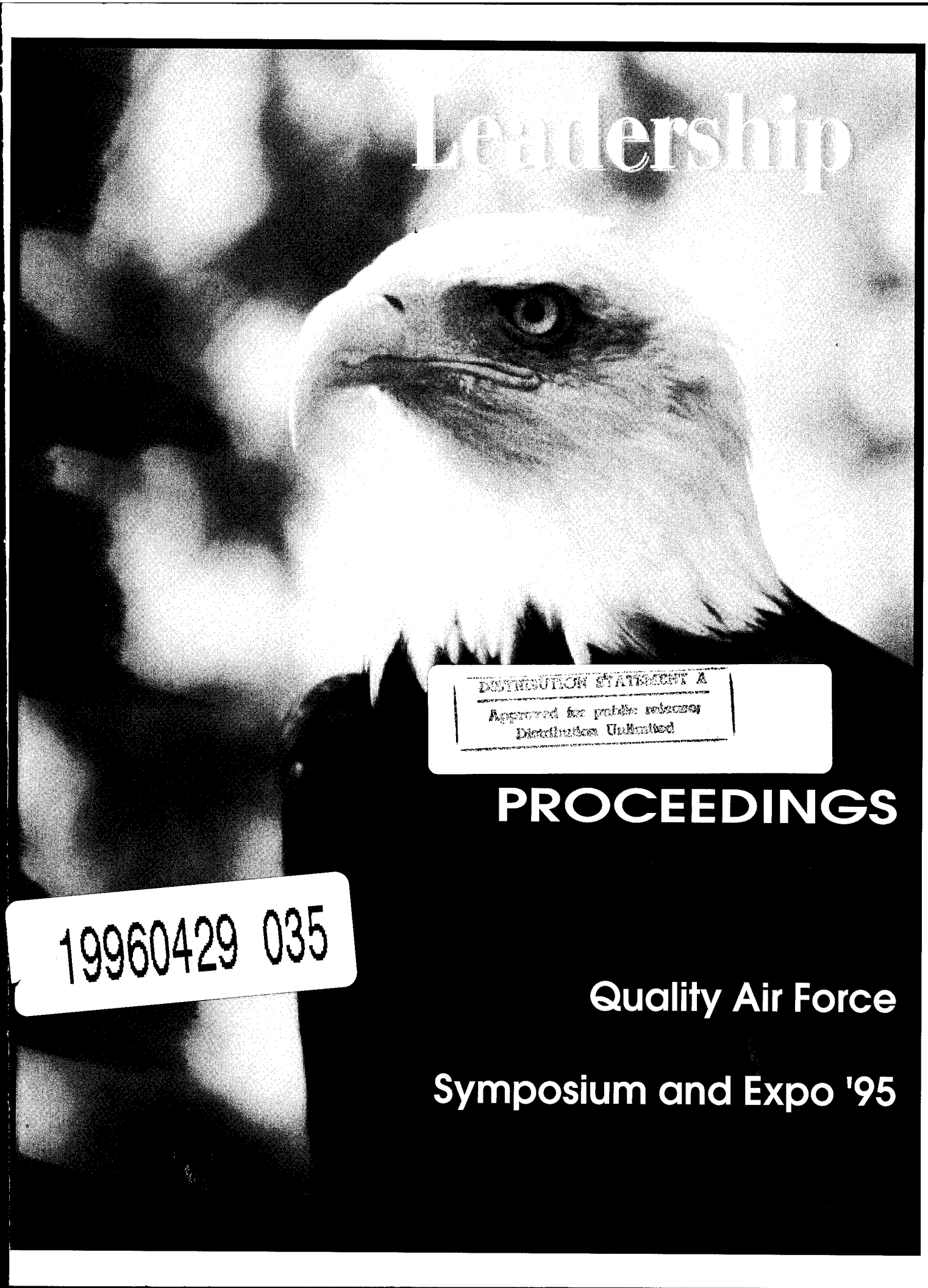

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Symposium and Expo '95

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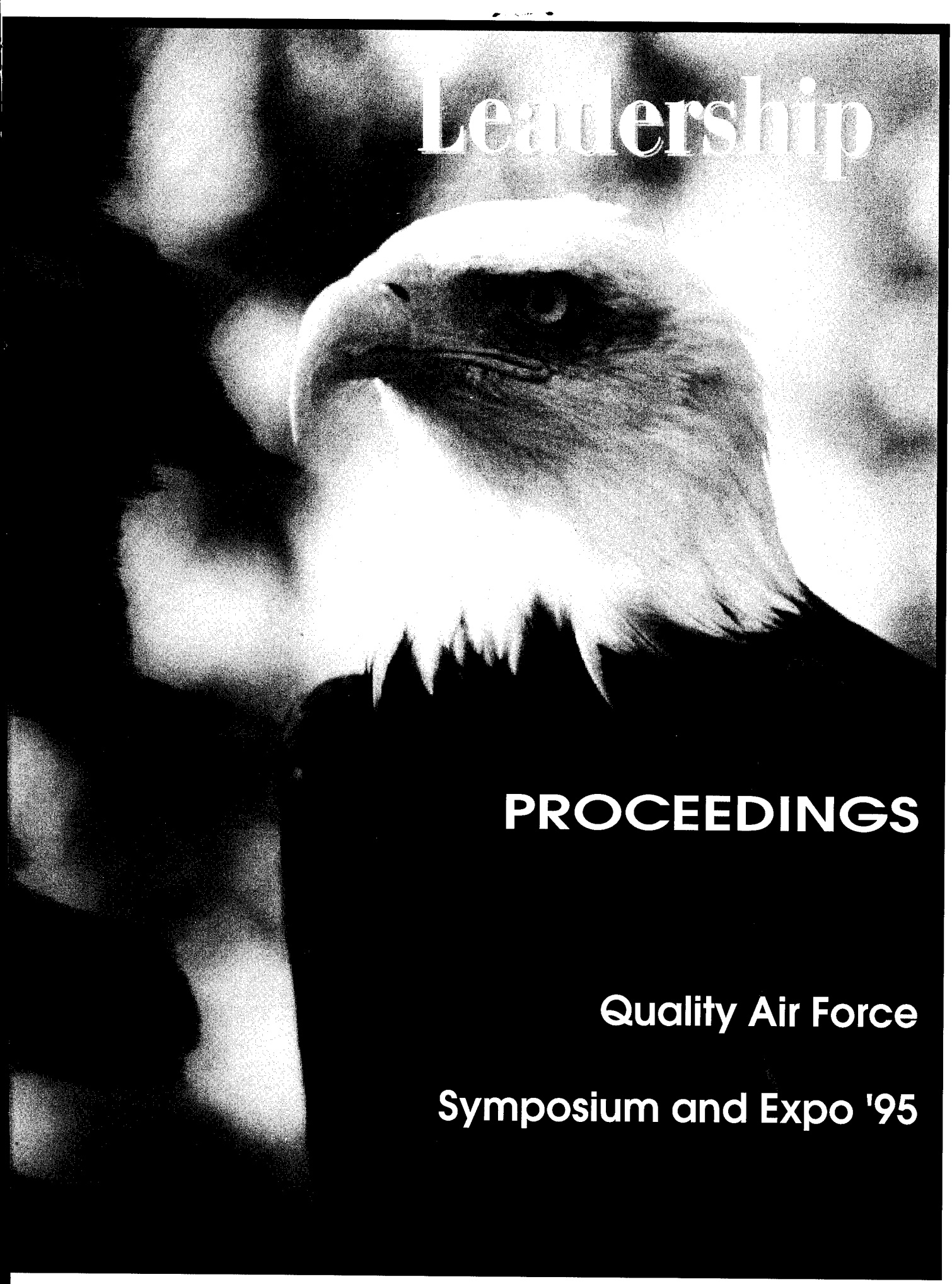

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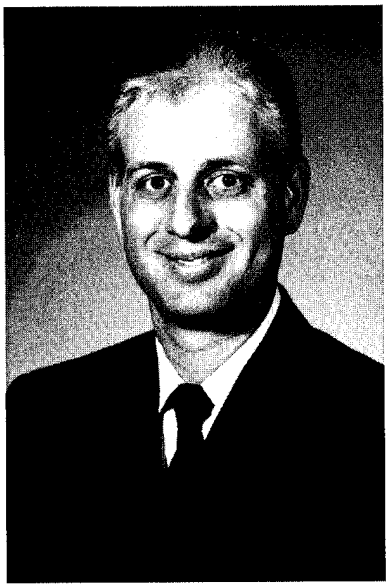
Effective Leadership: Maximizing Your Strategic Potential Using The Five Rings Model



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Effective Leadership: Maximizing Your Strategic Potential Using The Five Rings Model

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ACSC
&
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Abstract

Effectively communicating your strategic Quality plan is as important to your organization's success as developing the plan itself. As a leader, one of your most challenging tasks is insuring your followers understand and support your vision, mission, and goals. This paper explains how to integrate foundational military thinking with a Quality approach in order to increase organizational unity and potential. The Five Rings Model is presented here as a tool for analyzing an organization for critical areas of organization-wide impact referred to as centers of gravity. These centers of gravity become the focal point for leaders communication efforts. This model, currently taught at Air Command and Staff College for country (organization) analysis, provides a clear and comprehensive approach to achieving an objective such as communicating a strategic plan. Our premise is that the Five Rings Model for understanding the enemy as a system is a valid and useful vehicle for understanding an organization in order to maximize your ability to effectively communicate vision, mission, and goals to achieve quality results.

Our discussion of The Five Rings Model begins with an overview of the relationship between effective communication and implementation of your strategic Quality plan. Background information on the model sets the stage for an overview of each ring as it corresponds to your Quality organization, and later for a hypothetical case example using a military organization. Our emphasis is on treating your organization as a system and discerning areas of strength and coverage.

Introduction

Are you out there thinking, "I'm a military leader, not a quality guru. How can I relay my vision for a Quality organization to my people? Do they even understand our mission? Do they know in which direction we're moving? How can I plan for strategic understanding among all of my people?" Do not despair! We will address these types of questions by showing what you, the leader of a complex organization, can do to accelerate the dissemination of your vision, mission, goals, and objectives. We will do this through the use of the Five Rings Model taught at Air Command and Staff College (ACSC) for country (organization) analysis. We will provide you with background information and an overview of the model, followed by applying it to an actual unit. But, before we delve into the model, lets review the importance of effective communication to the leader.

First let's define what we mean by *effective* communication. It is "communication [that] clarifies the vision of participative ownership as a way of building relationships within...the corporation." (DePree 102) These relationships create the understanding and trust that increase your people's ability to support your plan. Leadership experts have attested that good communication can convey and preserve a common vision that binds an organization's culture and the commitment of its people by sharpening, embodying, and helping to enact that vision (DePree 107; Covey 155). This sounds like a goal of every leader! But can you really envision this organization? Try, if you will, to...

- *Imagine an organization where the [Commander] sets the two or three most important goals for the year, every manager knows these goals, and the two or three most important tasks to help achieve these goals, and each manager has measurable milestones for these activities which he personally audits monthly, documents and sends up through the organization to enable diagnosis and improvement.* (King 1-9)
- *Imagine an organization where all information smoothly and concisely flows daily to the people who need it.* (King 1-10)
- *Imagine an organization that has a high level of buy-in to your vision and they are striving to bring it to fruition!*

Maybe you already have everything in place to be that organization! How do you know if everyone has all the information they need and understand it? If you know your communication systems are already effective, how can you maximize their potential? The Five Rings Model can help you be more successful. Using this model can help you analyze your organization for areas that if approached correctly can provide maximum pay back to the entire organization. The results of this analysis can then become your guideline for disseminating the information necessary to achieve support and buy-in of your plan. So, in addition to just trying to communicate your strategic Quality plan to as many people as possible, this model can help you determine areas of your population that are most critical or integral to achieving your vision and goals so you can be sure these areas have a clear understanding of the plan and their importance in its success. Staff-wide ownership of and commitment to your strategic Quality plan will not only enable your plan's success but it also can enhance the satisfaction and motivation of your people. Educators in strategic planning learned long ago that...

> *Motivation and communication systems are...critical to the success of strategy. Principally, strategists use vision, compensation, and other forms of influence to motivate subordinates. To spread this influence, communications systems today include a variety of media from video newsletters to group meetings to computer networks. Management uses such systems to inform and elicit commitment to strategic intent* (Higgins & Vincze. 331).

Our underlying message here is that effectively communicating your Quality vision, mission, goals and objectives creates a ripple-effect that results in the achievement of your strategic Quality plan. This ripple-effect, caused by understanding and being part of your plan, includes coworker ownership and self-esteem, which usually increase satisfaction and productivity. Our intention then is to use The Five Rings Model to determine vehicles for spreading this influence. We will discuss communication systems in the section on the application of the model. Now let's look at some background information on the Five Rings Model before we go into its application and benefits.

Background

There are different models for analyzing an organization that a leader may choose from. The Five Rings Model is a relatively new model developed by Colonel Warden, the ACSC Commandant. This model is a clear and effective tool that combines established military thinking with a Quality approach. The Five Rings Model, shown in Figure 1, is an integrative approach to analyzing any type of organization. At ACSC, the Five Rings Model is primarily being taught to analyze countries. Each ring of the country is studied and then related to the country as a whole system. The model is a comprehensive way to gather information about your organization, analyze it, and then use this information to increase your effectiveness . It has been used in numerous military exercises to plan for war; our emphasis here is on using this model as a leadership tool for communicating strategic Quality plans. Our premise is that the Five Rings Model for understanding the enemy as a system is a valid and useful vehicle for understanding an organization in order to maximize your ability to effectively communicate vision, mission, and goals to achieve quality results. The model is best used when there is a clear objective. In this case, we will perform our analysis using the objective of effectively communicating your strategic Quality plan, as previously mentioned.

The Five Rings Model is multi-layered. In other words, the planner accomplishes a first layer of analysis by identifying the leadership, the system essentials needed to operate the country, the infrastructure of the country, etc. Once this is complete, the planner then moves to the next layer by analyzing the leadership of the leadership, the system essentials of the leadership, etc. until the planner reaches the level of detail required to make determinations of the centers of gravity required to reach the objectives. Carl von Clausewitz originally defined these **centers of gravity (COGs)** as: "The hub of all power and movement, on which everything depends. That is the point at which all our energies should be directed" (von Clausewitz 595-596). Mendel and Tooke further defined Clausewitz's concept by stating that, "A center of gravity is critical to the functioning of the organization and serves as the link between your Quality vision and your organization's employment of the means to achieve it" (105). A center of gravity then is a source of organizational strength, an area that has the greatest impact on the total organization.

Each of the five rings in the model has potential centers of gravity that require a leader's special attention. The Five Rings Model is a starting point that assists leaders in identifying potential centers of gravity and determining the most critical or the true center of gravity to approach. We'll talk more on centers of gravity in our "case" example in a later section. Let's now look at how the Five Rings Model relates to your organization. We will then give you a better understanding of the model's application using a hypothetical example based on an actual military organization. In looking at this organization, we'll review the model again, focusing on potential centers of gravity in each of the five rings. These centers of gravity are the vehicles that can increase your effectiveness in communicating your strategic Quality plan.

Model Overview

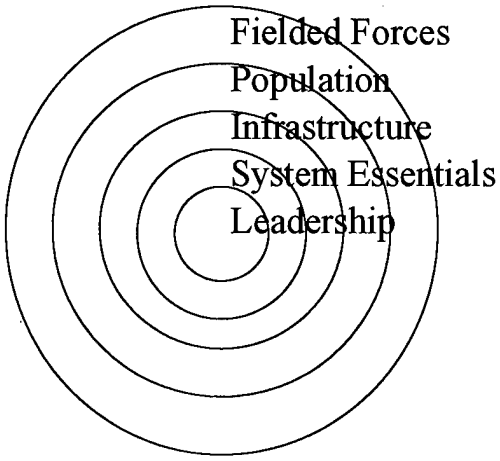

Figure 1. The Five Rings Model

As you know, strategic Quality planning begins and ends with a vision, a mission, and with goals, and objectives. An effective organization fully understands this plan and the impact their actions have on the plan. This understanding and ownership drives the plan to fruition. So how does a leader communicate this strategic Quality plan? We'll answer this question by looking at each ring in The Five Rings Model and at how they correspond to your organization's communication process. It is important to remember that communicating your vision should invite subordinates to join you in an endeavor that will be rewarding to everyone. Sharing strategic information with each other is a key action. This sounds basic enough but people who study organizations find that this is not standard practice. Many organizations are found to be impressive fortresses...

> *The language of defense permeates them: in CYA memo-madness; in closely guarded personnel files; in activities defined as 'campaigns,' 'skirmishes,' 'wars,' turf battles,' and the ubiquitous phrases of sports that describe everything in terms of offense and defense. Some organizations defend themselves superbly even against their employees with regulations, guidelines, time clocks, and policies and procedures for every eventuality."* (Wheatley 16.)

Our goal is to break down these internal communication defenses and realign your work force with your organization's Quality vision. The Five Rings Model will help you achieve this goal by guiding the analysis of your organization from the standpoint of communication.

We'll begin with the most critical ring, the center ring of **Leadership**. The leadership ring is the heart of the organization. "Leadership is the foundation for the Quality Air Force system. Leaders set the vision, policies, priorities, and strategies. Their responsibility: foster an environment that inspires trust, teamwork, and pride."(USAF I-2) Leadership provides the guidance and sets the tone for the rest of the organization. It is at the center of all decisions, either directly or indirectly and will determine whether the organization succeeds or fails. The Air

Force advocates that, "Today's leaders must clearly define and communicate our purpose and what we want to be--our mission and vision." (USAF II-1)

The Leadership Ring is comprised of the commander and subordinate commanders. Leadership establishes the organizational attitude and behavior which will be modeled by the people. This is also the locus of decisions that will be made to keep the organization on course and where the degree of employee involvement is initiated. This ring is made up of the areas a leader directly interacts with. You, as a leader, can make your initial (a lasting) impact in these areas:

- "Leadership is keeping others focused on the vision, and this means that we have to get comfortable talking about it. We can talk about the vision statement in ways that help command others' interest." (Block 121)
- "Leaders focus on the future, listen to feedback from the work force, and address individual and group needs. Listening to the work force is critical for assigning the deployment of the organization's mission, values, and goals." (USAF II-7) It is in this ring that, "Changes in the management processes, the organizational structure, and management style all must support the changes in the pattern of values and behavior that a new vision implies." (Bennis & Nanus 144)

The next ring, **System Essentials**, can be viewed as the areas that are essential to you as a leader and to your quality system. Your system essentials are the entities you depend on to have and to maintain a Quality organization; they are vital to the operation of your organization. Some examples of system essentials might be: your executive staff, your quality council, the public affairs office, and your vehicles for directly impacting your people--commanders calls, staff meetings, quality meetings, etc..

Following System Essentials is the **Infrastructure** ring comprised of those things which tie your wing together. The telephone system, base paper, base television, E-mail, bulletin boards, stationary, and publications are examples of a wing's infrastructure.

Population is the ring where "the rubber meets the road." We're referring to the mass population, the people who need the information most-- "Air Force people--who we really are: talented, well trained, hardworking, and deservedly proud. We are the key to fulfilling the Air Force vision."(USAF II-2) It is in this ring that, "A general drive toward excellence and a shared commitment to the organization's missions must be rewarded. New values and organizational arrangements should be encouraged to facilitate the sharing of knowledge and the identification of lower-level purposes with overall organizational missions" (Bennis & Nanus 206-7). The population is not just the active duty personnel stationed on base, however, but also the DOD civilians, retirees, reservists, spouses, families, and visitors. These people have a vested interest in how your organization is run and impact your success.

In the outer most ring we have the **Fielded Forces.** These people are your emissaries. The Quality office, your quality people (designated or personal champions), and successful teams are some examples of your fielded forces. These people are representing the organization for long term results. They are the leaders' champions.

Now that you have a basic understanding of each ring, let's look at a hypothetical case to see how a Wing Commander can use these five rings to communicate his or her Quality vision, mission, goals and objectives.

"Case" Example & COGs

We will use the hypothetical case of communicating the 89th Airlift Wing Commander's strategic plan to illustrate how a leader can use The Five Rings Model. As we study this organization, refer to Figure 2 for a linear display of the model. As we review each ring of the model, our "Commander" will analyze the organization for centers of gravity.

Leadership	**Systems Essentials**	**Infrastructure**	**Population**	**Fielded Forces**
Commander	CC Call	Base Paper	Military Personnel	Quality Office
Vice-Commander	Public Affairs	Base Television	DOD Civilians	Quality Champions
Director of Staff	Staff meetings/ Standup	E-Mail	Retirees	Successful Teams
Group Commanders	Quality Meetings	Bulletin Boards	Reservists	
		Stationary	Spouses/Families	
		Training Seminars	Visitors	
		Posters		

Figure 2. First Order Analysis Using the Five Rings Model

Having created the vision our "Commander's" task is to walk the tightrope between being a strong advocate for these beliefs and not terminally alienating others in the process (Block 130). So how does a Commander go about walking this tightrope? The **Leadership Ring** is a good place to start. As a leader, our "Commander" thought, "who among my customers, bosses, subordinates, and bystanders do I need for the successful implementation of my strategy (Block 131)? Who, within my own ring, must I insure understands and supports this plan before I can begin to disseminate it?"

Our "89th Wing Commander" had involved the entire leadership in the planning process and had obtained their buy-in during the plan's development. With leadership support, what avenues of communication are available for our "Commander" to disseminate the Quality vision, mission, goals and objectives to the rest of the organization? Let's see...

The "Wing Commander" understands that leaders are strategists, and as such must demystify the organization to all of those involved in insuring organizational success. The "Commander" also realizes that, "The organization must be mobilized to accept and support the new vision--to make it happen....At the least, the vision has to be articulated clearly and frequently in a variety of ways... (Bennis & Nanus 143). Since the "Wing Commander" had already involved his

organization in the information gathering stage of the planning process and they should, therefore, be more than casually aware of the plan. "But this awareness," the 'Commander' mused, "is not enough to insure the plan's success. I need to present the vision, mission, goals and objectives with in a manner that everyone will learn how important this strategy is to our Wing! But what are the most critical groups I must reach to be effective? What are the **centers of gravity (COGs)** that will answer the question: If I communicate our Quality vision, mission, goals and objectives to this group, that action will create a cascading strengthening effect on morale, cohesion and will to achieve these goals (Mendel & Tooke 106)?" *Figure 3. refers to the "Commander's" process for determining potential centers of gravity in the following rings of our model.*

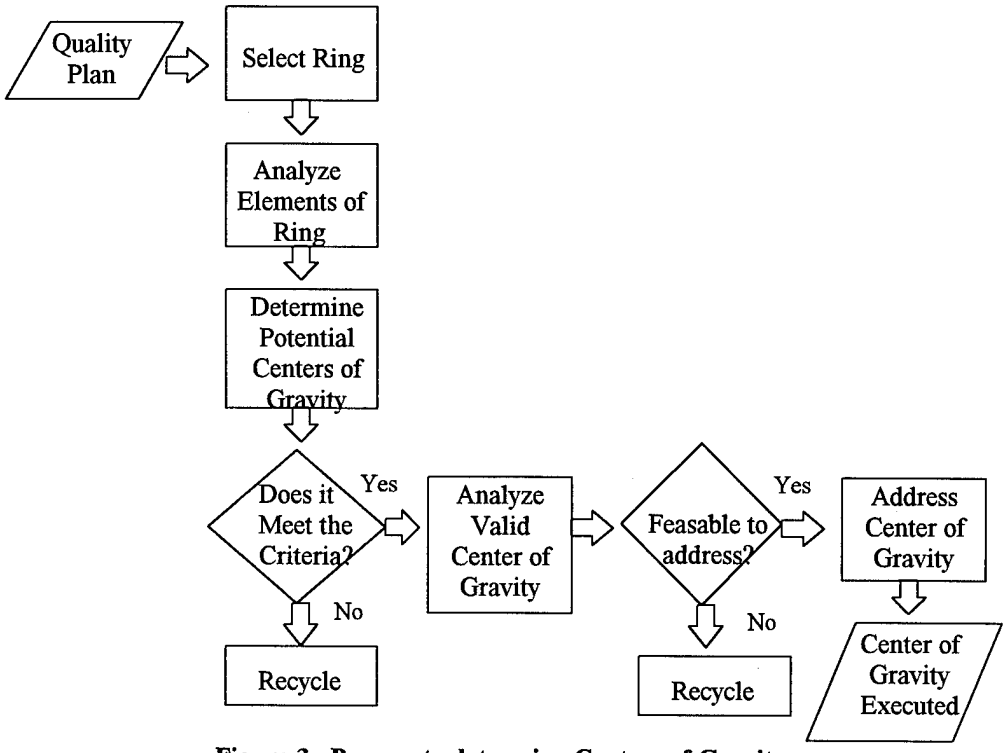

Figure 3. Process to determine Centers of Gravity.

The commander studies the Leadership Ring again. The centers of gravity here have been effectively approached during the planning process. The individuals in the Leadership Ring have been on-board throughout the development of the wing strategic Quality plan. As members of the planning team they already understand and support the plan. So the commander continues his analysis with the System Essentials Ring.

"The **System Essentials Ring** contains the Quality Council" the 'Commander' thought. "The council was part of my planning team and is a strong supporter of the plan. The Quality Council was enlisted to support my efforts by emphasizing the Quality vision, mission, goals and objectives in all of their activities. Public Affairs is a valuable resource but does not impact the majority of the people who can carry out our Quality plan. Staff meetings are great ways to reach the leadership but since they helped build this plan these meetings are not critical. The Quality meetings are also arenas to clarify and reinforce the plan but don't have a large enough area of impact to be the focal point of my communication. Commanders calls is a strong potential center

of gravity. They provide direct contact with many individuals in the wing and allow them to ask me questions concerning the plan.

"The **Infrastructure Ring** is my biggest communication resource. Personal articles in the base paper reaches spouses, reservists, retirees, and guests, in addition to the active duty personnel. Video taped addresses, base television presentations, staff meetings, training seminars, posters and E-mail messages offered superb conduits for me to introduce, explain, and continuously reinforce the Quality vision, mission, goals and objectives (Goodstein, Nolan, & Pfeiffer 339). I see potential centers of gravity in each of these areas.

'The **Population Ring** is the recipient of the communications the infrastructure makes possible. The largest impact, however, can probably be achieved through the cascading effects of the infrastructure. Aspects of population itself are not centers of gravity. I can't create a large enough impact by speaking to everyone individually.

"The **Fielded Forces Ring** is comprised of my Quality champions. These people support my plan without question. It is especially important that these people understand the plan in great detail since they are responsible for answering their unit's or squadron's questions and maintaining the population's buy-in. The quality officers are a potential center of gravity and should receive special briefings and maintain an open channel with me to insure that all questions are answered and to share feedback for continuous improvement.

Let's turn our focus now to the centers of gravity the "Commander" located in the five rings. These centers of gravity are based upon the overall objective, which in this case is to effectively communication the Quality vision, mission, goals, and objectives. Let's continue to look at our hypothetical 89th Wing example to learn how to use the Five Rings Model to validate and prioritize centers of gravity for communicating your strategic Quality plan.

The **criteria** for determining the centers of gravity in each of the five rings is based upon the "Commander's" understanding the organization. Potential centers of gravity were located in the System Essentials, Infrastructure, and the Fielded Forces Rings. From the potential list of centers of gravity, the commander weighs each one against his criteria for acceptance and then selects those areas which will have the greatest impact on the organization. The criteria for judgment is a personal choice based upon constraints by the individual commander. Examples of these constraints might include time to implement, scheduling, cost, ability for individuals to ask questions, etc. In this case, the commander has chosen ability for maximum coverage of the base-wide population, ability for individuals to ask questions, and time to implement.

The "Commander" in this case weighed all the aforementioned potential centers of gravity and decided upon commander's calls and the base paper as the valid centers of gravity. This means that although many avenues of communication may eventually be used, the "Commander" will put a priority on these two approaches as keys to the Quality plan's effective implementation. These two avenues will be quick to implement and will cover the largest number of people. The commander will have to schedule many commander's calls but this forum will allow individuals to ask questions and receive immediate answers. Leaders who take time out of their schedules to explain the plan will illustrate the importance of and his or her commitment to the vision, mission, goals and objectives. The base paper loses some of the impact of direct contact and makes it harder to ask questions but it will provide information to those people identified in our population ring who will not be covered by commander's calls. The articles in the base paper will contain a phone number for asking questions to foster clear understanding and support.

Let's review how you, as a leader, can maximize your strategic potential and increase the effectiveness of your leadership using the Five Rings Model.

Summary

Effectively communicating your vision, mission and goals will enable everyone to achieve your high aims and reap the benefits of a Quality Air Force. We're referring to an Air Force where everyone understands where the organization is going and how each of them can get us there. Using the Five Rings Model can enable leaders to more effectively communicate their Quality strategies and foster a Quality Air Force (QAF) which allows us to better use our resources and improve our productivity through the ingenuity and collective strength of all Air Force members (USAF I-1). Through the overview and case study of The Five Rings Model, you have seen how this model can help you analyze your organization for areas that will give you the greatest return on your investment of time and resources. In our case, the investment is communicating your Quality vision, mission, goals, and objectives. The outcome of this analysis, your centers of gravity, then serve as your guideline for actually communicating your strategic Quality plan so you reach the largest number of your people.

What we have shown you is just one way to use The Five Rings Model in a quality setting. There are other ways in which you can use this model that are only limited by your imagination. The bottom-line is that it does not matter what model you use as long as you have a means for approaching your wing or squadron as a interrelated organization, reaching the maximum number of people in your planning efforts. This coverage will give you the chance to significantly increase your people's buy-in and therefore the success of your Quality plan. Leadership experts maintain that...

> *When the organization has a clear sense of its purpose, direction, and desired future state and when this image is widely shared, individuals are able to find their own roles both in the organization and in the larger society of which they are a part. This empowers individuals and confers status upon them because they can see themselves as part of a worthwhile enterprise. They gain a sense of importance, as they are transformed from robots blindly following instructions to human beings engaged in a creative and purposeful venture. When individuals feel that they can make a difference and that they can improve the society in which they are living through their participation in an organization, then it is much more likely that they will bring vigor and enthusiasm to their tasks and that the results of their work will be mutually reinforcing. Under these conditions, the human energies of the organization are aligned toward a common end, and a major precondition for success has been satisfied (Bennis & Nanus 90-91).*

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Creating Tomorrow's Quality Leaders .....Today!

Biography

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Creating Tomorrow's Quality Leaders .....Today!

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ABSTRACT

In the haste of day-to-day mission performance the cultivation of your organization's next generation of quality leaders can often be overshadowed by deadlines, near term priorities or perceived lack of time. Fortunately, investing in your quality future is becoming easier and many mechanisms are already available to the astute leader or supervisor. Five of these techniques are offered as a management tutorial for "warp speeding" your organization into a quality future: stacking the deck, recognizing quality performance, keeping the "golden goose" alive, training "outside the box", and waterfalls in Quality Air Force Assessment (QAFA) crossfeed.

INTRODUCTION

Most leaders have little problem thinking of training as an investment in their organizational future. Its pretty easy for most managers to accept that the failure to teach needed skills to new teammembers will eventually destroy the continuity required for an organization to keep producing at current levels, let alone see improvement. Similarly, it's also pretty simple for most to accept that technical skill is not the only ingredient needed to create a working team; it also takes integrity, courage and attitude. Specifically, the integrity to do what's right; the courage to act in the face of unpopularity; and an attitude that is open to new ideas and perspectives. Oddly however, many managers do find it difficult to remember the linkage between both of these factors when they attempt to foster the quality culture needed to survive in today's environment. Hours of training will be fruitless unless combined with a reinforcing atmosphere. Likewise, a well intentioned and honestly receptive workplace will be unable to nurture meaningful process improvement without the insight and direction provided through quality education. Fortunately, many of the essential mechanisms needed to foster process improvement have been introduced into the Air Force organization structure over the past couple years by enlightened leadership. Once a manager or supervisor tunes-in to some of these mechanisms; they too will be able to start creating the quality leaders of tomorrow today.

ADOPTING THE QUALITY PERSPECTIVE

First and foremost, none of the mechanisms that follow are self-sustaining guarantees of quality success if not applied with a consistent *quality perspective*. Though quality does have a grassroots appeal, by design it demands the unqualified commitment of the leadership. As you review the offered methods it should become obvious that the motivations of leadership for employing them cannot be short term gains, superficially shallow agendas, or only token short term empowerment. Each method is a double-edged sword which will expose the uncommitted implementor as quickly as it will reap the benefits of creating tomorrow's leaders.

Stacking the Deck

The first technique we'll call *stacking the deck*. To put it simply, managers need to start insisting on "quality credentials" during the recruiting of new personnel whenever appropriate or possible. Even in the assignment driven environment of a military organization, a significant number of key positions are still filled by name or internal transfer via an interview or word of mouth. Historically those positions are handled in that manner because they are so critical to the health of an organization. Once a quality perspective has been adopted it becomes clear that it is just as important that these positions be filled by "quality" qualified individuals as by technically skilled individuals. Informal surveys show that many organizations continue to receive significant numbers of new arrivals to fill key staff positions that have received no advanced or in some cases, even basic quality awareness training. Recognizing that both forms of training have been virtually mandated USAF-wide for a number of years one can only ask "where were these individuals?" Though certainly seeking technically skilled accessions, the hiring organization obviously did not attempt to enhance its quality program by the selection of dual qualified personnel -- technical experts who were also quality aware. In effect, the hiring organization did not *stack the deck* in its favor. Both of the Air Force assignment bulletin boards (officer and enlisted) introduced in recent years have afforded gaining units significant leverage in the acceptance of applicants based on qualification. In fact, a "service above self" assignment system only reinforces that the needs of the gaining unit are paramount. The search for dual qualification in the process of hiring civilian employees is somewhat easier once the ground work has been laid. Ensuring that position descriptions specify that employees will be required to participate or lead quality focused teams/activities will introduce a criteria for quality credentials. Managers who choose to seek out technical experts who can also demonstrate quality credentials are clearly enhancing their ability to implement a quality environment.

Recognizing Quality Performance

Recognizing and reinforcing quality performance is not limited to awards programs or periodic recognition ceremonies. Many supervisors have simply failed to incorporate a recognition of quality traits into feedback sessions, performance reports and proficiency training.

The recurring feedback programs designed into the supervisory process afford an excellent opportunity to guide subordinates towards quality involvement. At least one category on the AF Form 931 for junior enlisted; two categories on the AF Form 932 for NCOs; and, three categories on the AF Form 724 for officers are well suited to this purpose.

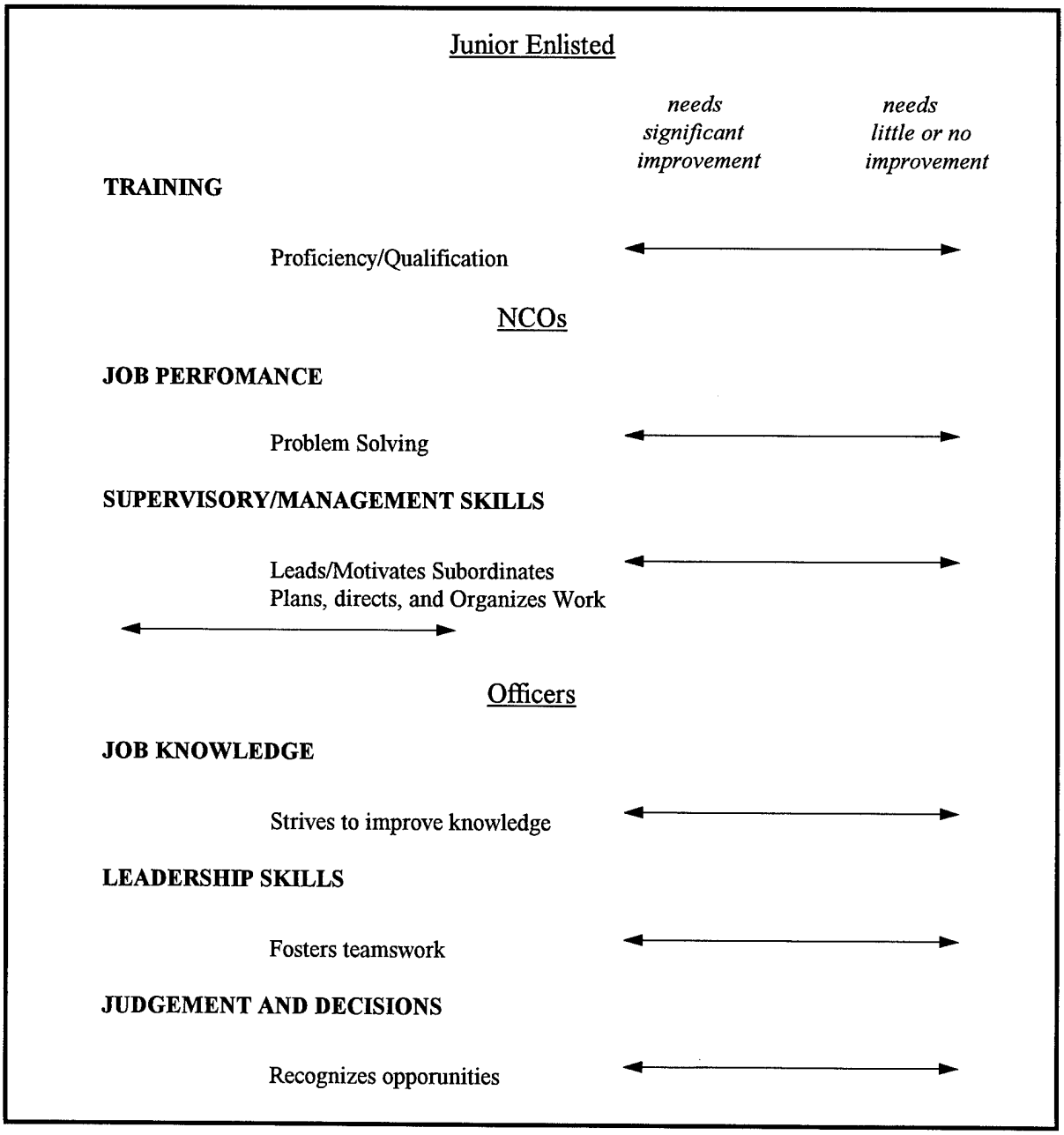

Figure 1
Examples of areas that can effectively incorporate quality encouragement into the existing performance feedback criteria.

As established, the feedback programs have intentionally provided the supervisor with the flexibility to tailor the sessions to benefit both the individual and the organization. By expanding each of the above areas into the quality arena during the interview the supervisor can explain the value of the *quality perspective.* The "whole person" concept that has proven so popular and successful in recent generations must simply be expanded to include the quality persona that future leaders will require.

Providing feedback to civilian employees is less formal, though no less important, particularly during the "probation" periods immediately following the hiring process. For example, employees falling under the Veterans Readjustment Training Program can be conveniently afforded feedback as they complete each prerequisite training identified during their first two years. Managers who have taken the time to incorporate quality elements into that training plan (based on the quality elements previously built into the position description and used during the hiring process) will inherently steer the employee towards the quality culture.

By the same token, managers and supervisors need to ensure that performance appraisals also include comments and recommendations that will reinforce the quality culture. By recognizing efforts like process improvement, successful completion of quality training, and attitudes that clearly embrace the quality culture, a continuity between the feedback process and documented appraisals will have been created.

Don't Kill the Golden Goose

At one time, the vast majority of quality training being performed in Air Force organizations was being done "out of hide" utilizing local resources and a "train the trainer" philosophy. But over the past several years significant inroads have been made towards incorporating the *quality perspective* orientation directly into the fabric of formal training efforts. Unfortunately, many supervisors and managers are not aware of this transition and continue to apply outdated indoctrination concepts that fail to capitalize on the quality training accomplished. In far too many instances the age old retort of "glad to have you back from PME, now forget everything they taught you and get back to work" is still being heard. But the difference is that our newest generation of first termers and first line supervisors have now been equipped with the skills to recognize this mentality for what it is -- counterproductive, non-quality oriented, dinosaur "think" that fails to capitalize on their willingness and ability to contribute to process improvement. In short, we continue to kill the "golden goose" of our future by the senseless demoralization of our most precious commodity. A forward thinking manager or supervisor needs to reacquaint themselves with the quality training being provided through the formal training process and determine ways to better incorporate that training into their organization. In effect, the training process is attempting to "stack the deck" for them, they just need to follow through by recognizing the good hand they have been dealt. Figure 2 gives a brief description of the quality training currently being provided.

Program	Quality Training Provided
Reserve Officer Training Corps	24 hours of classroom training
Officer Training School	25 hours of classroom training
Basic Military Training	2 hours of classroom training
Airman Leadership School	20 hours of classroom training
Noncommissioned Officer Academy	30 hours of classroom training during in residence
Senior Noncommissioned Officer Academy	35 hours of classroom training during in residence
Squadron Officer School	40 hours of classroom training

Figure 2
List of quality orientation training already being conducted in formal training curriculums.

Training Outside the Box

One of the first answers most managers will automatically come up with for launching future leaders into the quality culture is training. However, often that very correct answer is artificially constrained by a perspective on training that is focused on opportunities that are too standard, or thinking that is restricted "inside the box." Not too far beyond that focus lies a unique variety of training opportunities. These opportunities are called "outside the box" because they require the manager or supervisor to look beyond the known, standard framework.

Associations

There are many professional, civilian and military associations open for membership to Air Force members world-wide. Periodic interface opportunities and meetings frequently lead to the "cross-fertilization" of private and public sector ideas and processes. A particularly common format is the luncheon or dinner meeting featuring a guest speaker. It is interesting how many of today's speakers are talking in quality terms, about quality issues, with real world examples of process improvement in action. For example, the National Defense Transportation Association (NDTA) is a world-wide organization dedicated to the understanding and improvement of the defense transportation system. Recent revolutions in the transportation industry include deregulation, intermodal movement of freight and cargo, and the changing relationships between military and commercial organizations in an era of force drawdowns. For years transportation leaders have encouraged junior transporters to participate in the association to increase their understanding of the industry as a whole. But, as quality issues rise to the top of more and more agendas, exposure to associations as a method of learning about quality is become increasingly reasonable. Just as transporters have discovered new

"training" opportunities through their NDTA membership, so can other associations offer new "training" opportunities to their respective members. Managers and leaders who support this relationship with appropriate associations have discovered a new training opportunity.

Interagency

The search for quality training should not be a lonely effort. Particularly within the government, extensive training programs have been established to meet particular needs. Fortunately, because core quality training is cross-functional, many opportunities for interagency sharing of the training is possible. One of the most aggressive agencies in providing these opportunities is the General Services Administration (GSA) Interagency Training Center. The GSA Interagency Training Catalog for January - September 1995 lists no less than a dozen Total Quality Management training courses (Figure 3) being conducted in locations across the country. Some courses will be conducted in as many as 15 cities over the nine months. Rates for the training run from a low of $150 for a one day course, to $475 for a five day session. This combination of core topics, wide access and reasonable rates create superb opportunities for many organizations to procure training "outside the box" as opposed to in-house, wing or high-cost contract instruction.

GSA Interagency Training Catalog Opportunities, Jan - Sep 95
Creating a Customer-Focused Organization
The Hidden Customer: Internal Customer Service
Diversity Awareness
TQM Awareness Briefing
Focusing on Results: Developing and Implementing Performance Measurement Systems
TQM: An Overview - Reinventing Through Quality Management
TQM: Building Facilitation Skills
Making It Happen: Leadership Roles for Getting Started
TQM: Building Quality Teams
TQM: Using the Tools to Get Started
Strategic Quality Planning

NOTE: For example, the TQM: Building Quality Teams course will be conducted in Anchorage AK, Atlanta GA, Boston MA, Denver CO, Jacksonville FL, Minneapolis MN, New Orleans LA, New York NY, Phoenix AZ, Portland OR, San Antonio TX, San Francisco CA, Seattle WA and Washington DC at various dates over the 9 month peiod.

Figure 3

Waterfalls in QAFA Crossfeed

The fifth concept is simply a variation on a key element of any good self-assessment program -- taking advantage of the Quality Air Force Assessment (QAFA) crossfeed information being made available by your higher headquarters. The twist is to look beyond the comparison opportunities, and focus on the truly unusual things that some assessed organizations are doing. Specifically, what makes their processes different

and how does that success affect junior members. This focus approaches micro-benchmarking, but is actually more of an effort to turn someone else's success into a living laboratory for your observation. In general, "consciously" successful quality organizations will be more than happy to share the secrets of their success. Through direct contact with the successful organization you can dissect the elements of their process improvement which are not necessarily spelled out in the assessment. In doing so, pay particular attention to their *quality perspective*, their techniques for ensuring buy-in, and the resulting enthusiasm of their crop of "tomorrow's leaders." Can you see a waterfall effect (Figure 4)? If so, something is happening within that organization that bears closer examination and may offer new insights into how a successful organization is also cultivating new leaders at no extra expense. Frequently this leadership dividend is not function specific and can easily be applied to other organizations.

Leadership's Quality Perspective

Buy-in by the Subordinates

Cultivation of New Quality Leaders

Figure 4
Waterfall effect than can be isolated out of many QAFA Crossfeed strength items.

CONCLUSION

Just as the old adage that all service members are "ambassadors in blue" was used to demonstrate that all members are a representative of their service, so must all supervisors and managers consider themselves "ambassadors for quality." As ambassadors, the responsibility lies with the incumbent leadership to foster the development, growth and experience of the next generation of quality leaders. Fortunately, the forward thinking manager and supervisor can draw from an ever expanding toolbox of options to accomplish that objective. Stacking the deck, recognizing quality performance, keeping the "golden goose" alive, training "outside the box", and waterfalls in QAFA crossfeed are but a few of those choices.

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1 FW Satellite Clinic: A Road to Quality Patient Focused Care

Lt Col Barry I. MacDonald received his BS degree in Biology from the University of Calif. at Riverside (1974) and his DDS degree (1980) and specialty certification in pediatric dentistry (1986) from the University of Southern California. He joined the Air Force in 1980 as a general dentist and was stationed at Sembach AB, Germany. In 1982, he was nominated for AFIT sponsorship for specialty training in pediatric dentistry. After specialization, he became Chief of Pediatric Dentistry at Kadena AFB, Okinawa, Japan (1986). In 1992, he left to become Chief of Pediatric Dentistry at Langley AFB, Virginia. While on station and 8 months later, he assumed the additional duty as Chief of the 1 FW Satellite Clinic.

Major Deborah R. Jones received her BS degree in Nursing from North Carolina Central University (1977) and her MS degree in Nursing Administration from the University of North Carolina (1983). She entered the Air Force in 1986 and went to Carswell AFB. In 1990, she went to Incirlik AB, Turkey as a Flight Nurse. Finally, in 1992, she came to Langley AFB, Virginia as Nurse Manager of the 1 FW Satellite Clinic. During her career she has been recognized on numerous occasions for her expertise; as USAFE Outstanding Company Grade Nurse of the Year in 1991 and as the 1st Medical Group Company Grade Nurse of the Year in 1993 to name a few.

1 FW Satellite Clinic: A Road to Quality Patient Focused Care

ABSTRACT

Frank Zappa once said, " Without deviation, progress is not possible." Our Hospital Commander had a vision that was truly a deviation from the norm. He took a remote satellite clinic, severed its ties from the hospital family practice clinic, and placed a diversified group of people under local, non-traditional supervision. With empowerment, the group unified, cross-trained for efficiency, devised patient quality programs and doubled patient access to care. This is a success story and a model for others to follow.

INTRODUCTION

The purpose of this paper is to present a story about a group of Air Force individuals that was given an opportunity to join forces and contribute to the success of the 1 FW Medical Group. Problems existed under the old methods and changes were necessary. The members of the 1 FW Satellite clinic came together as a team. As the staff enlisted the support of one another, a pool of creative thoughts developed. From that pool came the foundation for growth. As our story unfolds, keep in mind that we were a group of diversified individuals from different corps and deficient in significant quality training.

BACKGROUND

The 1 FW Satellite Clinic is located in the Bethel Manor housing area approximately 5 miles from Langley Air Force Base, Virginia. It was developed to provide medical care to approximately 5000 people living in an off base military housing area. It's doors opened for patient care on 4 March 1987. The clinic was administratively controlled by the family practice clinic in the hospital. Staffing and services changed over the years, but as of March 1993, the services included family practice, pediatrics, and dentistry, and laboratory and pharmacy support groups. Each section was allocated manning from their respective corps. Family practice provided one full-time family practice physician assistant and one part-time family practice physician, pediatrics loaned one part-time pediatrician, and the dental group stationed one full-time general dentist. The family practice clinic provided the medical support staff and the dental support staff was provided by the dental corps. In addition, the nursing corps provided one nurse to act as Nurse Manager for the clinic.

As a remote clinic isolated from the hospital, there were problems that effected daily operations. Communication with the hospital and decision making processes were slow. Members of the clinic worked for many different corps, and all providers received their supervision from their respective corps in the hospital. Furthermore, there was no on-sight supervision or consolidating source to unify the group. The situation became one of staff fragmentation and group frustration.

REORGANIZATION

RESTRUCTURING

To rectify the situation Col. Anthony Policastro, Commander of the 1st Medical Group, made a dramatic decision: consolidate all assigned personnel under one individual permanently assigned to the clinic. That individual would be empowered with complete administrative control of both clinic functions and personnel regardless of corps; a definite shift from normal command structure within the medical corps (one year before the Objective Medical Group concept). Fourteen personnel representing four different officer corps, nine AFSC's and four hospital flights were unified under a single OIC dental officer. The change was mandated and commenced on 1 July 1993.

TEAM ORGANIZATION

On that 1st day of July 1993, the 1 FW Satellite clinic became a separating operating site with local supervision and full-time staffing. Staffing included two family practice providers (one family practice physician assistant and one family practice physician), a pediatrician, a pediatric dentist, and one nurse. They were supported by one NCOIC and six technicians (two medical technicians, three dental technicians, and one administrative technician). Additional services included a laboratory and pharmacy staffed by one laboratory and one pharmacy technician, respectively. Local supervision became the responsibility of the pediatric dentist based upon rank and not corps.

Now there was a definite command structure, but roles within the group had to be redefined. The staff worked exclusively within their own respective AFSCs and duty sections. Personnel worked under the same roof, did their job, but failed to help other duty sections. This was no fault of their own. Under the new organizational format, we had the chance to consolidate and utilize each individual to the full extent of their AFSC job description and expand everyone's level of responsibility.

At the onset, each individual was given a survey asking them to comment on the new change, list duties that could be shared amongst one another, and list ideas for change. The staff's response was overwhelming and became the basis for growth. Everyone was in favor of the change. Ideas abounded on ways to utilize the work areas more efficiently (i.e. storage areas) and duties were isolated that could be shared (reception, records administration, appointment clerk, etc.).

With this wealth of new knowledge, we embarked on an intense cross-training program to provide the staff with additional training. Our objective was to eliminate the specialization of each given component. With many able to perform a given task, there would be more flexibility in the work environment and the processes would be more efficient. The staff would also benefit from the availability of more personal freedom

within the workplace. The staff responded to the challenge. In one case, a dental technician received formal training and was certified as an EMT which allowed him to be utilized in both medical and dental tasks. This is but one example of many where the individuals came together, recognized a need, and took action. Quality training courses were also sought for all staff members.

The concerted effort to organize individuals into a cooperative team effort came about with amazing speed. The everyday processes became more efficient. The staff were extremely satisfied; and within 6 months, clinic productivity nearly doubled that of the same time period in the previous year. More productivity equated to greater patient access to care and, as you might guess, patient satisfaction reached new heights.

IMPROVEMENTS IN HEALTH CARE DELIVERY

The internal reorganization had a tremendous effect on the clinic's ability to provide health care. This became quite evident with the sudden rise in productivity. For example, under the old system, 828 patients were seen by 2.5 FTEs (full time equivalents) in January 1993 while 1,670 patients were seen by 3.0 FTEs in January 1994 and 1,530 patients were seen by 3.0 FTEs in January 1995. As for the individual providers, they were all more productive than their counterparts in the hospital.

Our expediency of care was also enhanced by the workings of the group. In a time study, we compared our time of care with the hospital's family practice clinic. We found that 43% of our patients were screened and treated (including prescriptions) within 15 minutes compared to 26% (without prescriptions) at the main facility. A remarkable 76% of all visits within our clinic were completed in less than 30 minutes from arrival. These results were quite convincing and a testament to the team.

As productivity soared, we instituted improvement programs that would provide better care to our patient population. One program, a telephone consult program , was started for those patients who could not get a same day appointment. We wanted to provide 100% access. When appointments filled for the day, the appointment clerk took a telephone consult and gave it to a physician. Upon consult receipt, the physician called the patient and decided on the best course of treatment. If medical evaluation was required, the patient would be fit into an already busy schedule. It was a difficult process but a remarkable feat. The program was well received by our patient population as the number of consults steadily increased from 5 to 10 per day to up into the 30's and 40's.

Another great concern were those patients that were seen outside our clinic, either in the Emergency Room or those that were referred to a specialist. To keep track of those patients, we developed tracking programs to prevent them from becoming lost in the system. First, when a patient was referred from our clinic to a specialist, we logged all the patient information on the day of the referral. After seven days, we contacted the patient to see if he or she had been seen or whether or not arrangements had been made for their referral appointment. If not, we took it upon ourselves to follow-up for the patient. As for

the patients seen in the Emergency Room, we started an Emergency Room tracking system that provided us with daily information with the names of our patients that used the Emergency Room on the previous day. This data gave us the ability to track those patients that required follow-up appointments and track their whereabouts.

Another area that required attention was the delinquency of on-time pediatric immunizations. This problem was an issue within the hospital and programs were developed. A tracking program was developed and computerized by one of our physicians. As a result, we achieved an 80% compliance rate as compared to a national compliance rate of only 60%. Furthermore, the remaining 20% were identified which makes our goal for 100% compliance a reality.

As productivity soared with improved patient access, patient satisfaction became a concern. We knew our patients were satisfied with access but were they satisfied with the process? To answer these questions, we developed a patient questionnaire that asked about each phase of the treatment process from their efforts to get an appointment to rating each staff member. Written comments were also sought. Although negative comments were rare (98% rated the clinic as good to excellent), they were looked at quite closely and considered even if the comment wasn't considered statistically significant. For those patients that listed their names, we went so far as to call each patient and discuss their problems.

To provide better communication, a quarterly newsletter was developed and mailed to the household of each one of our patients. It provided a forum to discuss policies, respond to questions or problems as noted on the patient questionnaires, provide news about upcoming events and provide information on a selected medical condition (a question on the patient questionnaire asks for a medical condition that they wish to learn more about).

SATISFACTION

Efforts to maximize patient care and provide 100% access takes a great deal of willingness and cooperation of all staff members. To continually provide patient oriented programs, staff must be satisfied and appreciated for their efforts. At the onset, this component was considered the most important element and the foundation of our organized efforts. As the team organized, each individual was given freedom in their quest to satisfy personal and work demands. Furthermore, the staff as a group was included in most decision-making processes and if not, they knew they would be heard if they had a suggestion or comment. Numerous group sessions were organized as well as formalized monthly meetings to work issues and improve the processes. We became a group of one with a common quest for excellence while achieving group unity and individual satisfaction. This became even more evident when staff members were given an opportunity to make their feelings known on biannual internal surveys. Some wonderful comments were given, but most importantly job satisfaction was rated high.

FUTURE IMPROVEMENTS

Improvement will continue to be the focus of our efforts. We will continue to monitor our ongoing programs and work to add more to serve the needs of our patients. Currently, a pilot study using the "Take Care of Yourself" program involves 25% of our population with plans to make the program available to the entire population by March or April 1995. The intent of this program is to reduce the number of unnecessary appointments. We are also in the process of computerizing our entire clinic that will network all work areas. The computer will also be used to provide a "bulletin board" to our population to further enhance communication. Patients will have the opportunity to correspond directly with a medical provider by computer. We also hope to see patients actually make their own appointments through the computer system (i.e. Well-baby checks). And furthermore, one of our providers is creating a computer program that will track all the items within the DoD's "report card". This program will allow constant (monthly) monitoring of all patients that require a particular test or appointment (i.e. Pap smears, mammograms, cholesterol screenings, etc.) Patients will be able to count on us for reminders and the tracking of their total health care.

CONCLUSION

Our road to quality started with an idea from our Hospital Commander when he made the decision for reorganization. With local supervision and empowerment, we came together as a unified team and worked extremely hard to be the best. Our efforts did not go unnoticed. In September 1994, the 1 FW selected the clinic as the Quality Team of the Month. During the month of December 1994, we received national recognition as an "Honorable Mention" award winner of the Marriott Service Excellence Award, and more recently, February 1995, we were identified as an Air Force "Best Practice" by the Secretary of Air Force Examiners. We have accomplished a lot but our journey towards continued improvement won't stop. We will continue to strive for even bigger and better outcomes in the future.

Admiral Horatio, Lord Nelson
GLOBAL REACH, GLOBAL POWER
Two Centuries Ago

Lt Col Gary C. Morgan

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Admiral Horatio, Lord Nelson
GLOBAL REACH, GLOBAL POWER
Two Centuries Ago

LTC GaryMorgan

Abstract. Two hundred years ago the principles of Total Quality Management were practiced by Lord Admiral Horatio Nelson. His leadership style employed empowerment, teambuilding, and innovation complemented by the traditional traits of integrity, courage and discipline. Brilliance characterized by aggressive seizure of the initiative was Nelson's basic approach to eighteenth century diplomacy. This paper covers the environment of the period, and Nelson's innovations that changed naval strategy forever.

NELSON'S WORLD

Introduction. Horatio Nelson lived during an exciting period in world history. The end of the eighteenth century and beginning of the nineteenth century marked a monumental transition for many nations. America had just won independence from Britain and the French Revolution paved the way for Napoleon's new empire which swept through Europe. The American example of a representative democratic republic government and the French concepts of Liberty, Equality, Fraternity were shaking the long enduring European monarchy nations to their very core. Napoleon's ambitious campaigns throughout Europe revolutionized strategic warfare. Rather than maintaining a small professional (and typically mercenary) army to resolve feudal disputes with other kings, Napoleon generated vast campaigning armies through conscription. The concept of "total war" was defined in the early 1800s, characterized by campaigns on a scale only envisioned by Alexander the Great, Julius Caesar, and Genghis Khan. While Napoleon could routinely dominate on land, Britain could only seriously challenge him at sea.

Maritime Trade. Maritime trade was the quintessential lifeblood of England and was important to the coastal countries of Europe. Rich merchantmen were terrorized by pirates and privateers throughout the Caribbean, and Britain's Honourable East India Company exerted its considerable political and economic influence to have its ships protected by Royal Navy escorts. As the fate of nations rested on economic growth and development, so maritime trade became a strategic center of gravity and navies a key instrument of national power. From 1600-1800 Britain, Holland, Spain, and France had explored and colonized territories beyond the European, Asian, and North African land masses, primarily in the Americas and in the rich islands of the Caribbean.

Napoleon. Napoleon's first campaign was the conquest of Italy. He was opposed primarily by Austria as he worked his way down the Italian boot from Marengo southward toward Naples. The Royal Navy provided seapower support for the Austrian army and Nelson played a key role in these activities in the Mediterranean. Napoleon next turned East with an eye toward targeting the British trade with India. He realized that he needed to first land and secure Egypt in order to proceed further into Asia. This was Napoleon's first (and last) reliance on strategic

sealift to move an army for a campaign. Nelson foiled Napoleon by attacking and destroying most of the French fleet at the Battle of the Nile.

Napoleon's later forays into Prussia, Russia, and Austria were too far inland for the Royal Navy to exert a significant influence--however it finally swept French and Spanish seapower from Europe by 1805. The Royal Navy landed and supported Wellington's forces in Portugal and Spain through the peninsular campaign. British strategy against Napoleon relied heavily on seapower, primarily to blockade potential French invasion fleets in Toulon and Brest, and also to protect English colonial interests in the Caribbean.

Seapower. English fleets were on nearly constant blockade duty in the Channel outside Brest and in the Mediterranean outside Toulon. They monitored numbers, types, and status of anchored French ships. Occasionally, when foul weather blew the blockading fleets away from the ports, French ships tried to slip out, particularly the fast frigates trying to gather intelligence on Royal Navy fleet dispositions. Royal Navy squadrons escorted British merchant trade convoys across the Atlantic, and a large fleet was stationed in the Caribbean to protect Jamaica, Antigua, and other British possessions. The Caribbean fleet also monitored American naval and merchant activity, which attempted to derive commercial benefit from trading with the isolated French. Global power projection was accomplished from the sea. Invading armies were lifted and supplied by sea when land invasion routes weren't available. Naval forces could also blockade trade and attack strategic coastal cities.

Threat of Invasion. Napoleon ultimately decided that England must be invaded and subjugated if the French were to have any hope of monopolizing the European mainland, particularly after the Egyptian fiasco. Conquest of England would also result in neutralization of the Royal Navy, which was limiting his operations along every coastline. A large invasion fleet of several thousand Channel water craft and several corps of the French Army was assembled at Brest in preparation for the attack on England. The primary mass of invaders would cross on ships, which required French naval superiority. The Royal Navy had to be defeated if the invasion were to have any hope of success. England's sovereignty rested in the hands of the Royal Navy, as it had before, during the time of the Spanish Armada.

ROYAL NAVY

Introduction. Island nations have always relied on maritime commerce for growth and survival. Until the advent of the airplane, island nations have faced invasion from the sea as the fundamental threat to their sovereignty. Navies must always first fight the sea, their most dangerous enemy, and the Royal Navy evolved from a mariner culture, used to the sea. Like air forces who don't fly frequently, navies who don't spend time at sea are at a disadvantage when fighting those who do. This factor was a key reason why the Royal Navy was a consistent winner. Their constant blockade of the French and Spanish fleets exercised the Royal Navy and kept enemy sailors and officers idle, unproficient, and untrained.

Weapons Systems. British-produced warships suffered from lack of advanced technology in their design and corruption in the dockyards where they were made. In addition, the Royal Navy typically did not have a numerical superiority in ships and typically did not have a numerical superiority in guns over its adversaries. It dominated because of the quality of its crews--a direct result of the crews actively sailing which provided the environment for training and practice. French and Spanish crews typically were landlocked due to blockaded ports so they did not have the same experience level, training, and leadership as their Royal Navy opponents.

Tradition. The Royal Navy had a long tradition of naval service (beginning in the mid-1500s) and a heritage of victory. It faced its first serious defeats from the French at Ushant in 1778 and Chesapeake Bay in 1781 during the American Revolution - showing the limitations of its outdated line-ahead battle tactics. During the Napoleonic Wars from 1793-1805, the Royal Navy had fought and won 9 major sea actions against the French, Dutch, Spanish, and Danish fleets.

Fleets. The Royal Navy was divided into main fleets, each of which had a geographical area of responsibility. Each main fleet was commanded by a commander-in-chief (CinC), a senior admiral who frequently had one or two subordinate flag officers under his direction. Squadrons were usually task-organized, based on war missions.

The Channel fleet, the keystone of British defense, was always kept very strong, and its commander was one of the most important figures in the navy. The Channel fleet blockaded the French ports of Brest, Rochefort, L'Orient, Cherbourg, and Le Havre, the Spanish port of Ferrol, and provided for the strategic defense of the English coast.

The Mediterranean fleet was the next most important fleet after the Channel fleet and was also headed by a senior and highly-capable admiral. It was a grueling command, and this fleet fought six of the major sea battles of the Napoleonic era. Its area of responsibility included the French port of Toulon and the Spanish port of Cadiz. Sometimes it departed its station, as it did when chasing Villeneuve across the Atlantic to the West Indies and back.

The North Sea fleet assisted the Channel fleet in defending England's Channel approaches from invasion, and a Baltic fleet was formed when the strategic situation with Denmark and Sweden dictated its presence.

SHIP OF THE LINE

Introduction. The term "Ship of the Line" refers to warships which fought in the line of battle (described in another section). It was designed to carry many dozens of heavy cannon anywhere on earth covered by water. It was a large ship, to provide shelter and storage for the crews who manned the guns and their necessary supplies and, consequently required excellent handling and seamanship. Ship-rigged vessels had three masts, carrying a variety of sails. Most measured 175 to 200 ft long and displaced 1500 to 2000 tons. Both sides of the gundecks were crammed with guns every few feet. The lowest gundeck had the heaviest guns. Ships of the line had 32 pounders on their lowest deck and 18 or 24 pounders on the next deck. Three deckers had 12 pounders on the upper decks.

Frigates had one gun deck with one type of gun--9, 12, 18, or 24 pounders, and brigs had only 6 pounders. The larger ships required thicker timbers to support the heavier guns and this thick wood made penetration by enemy shot more difficult. The lowest gundeck on a ship of the line was usually very close to the waterline, which limited combat in heavy seas.

Seamanship. Ship handling was as important to sea combat as aircraft handling is to air combat. Energy maneuverability uses the available energy to place the ship within its ordnance firing parameters, or to avoid being within the lethal zone of enemy ordnance. Sailing ship combat in two-dimensions compares somewhat to the three-dimensions of air combat. The impact of the wind drove the fight into a specific compass hemisphere and the energy advantage and initiative went to the upwind ship(s).
As with aircraft handling, ship handling required knowledge and currency to maintain proficiency. Crews who sailed frequently were typically dominant in combat, since they would routinely practice sail handling until it became second nature. Good captains drilled their gun crews frequently and emphasized the importance of firing accuracy and reloading time.

Safety was as important 200 years ago as it is today. The sea, especially in dangerous weather and near rocky shores, is very unforgiving to the slightest inattention or errors in judgment. Inexperienced officers and crew could find themselves dismasted or unable to claw away from a lee shore with a resulting loss of a valuable combat platform. Most ships had a very experienced "sailing master" warrant officer who supervised navigation of the ship and all seamanship details.

SAILING COMBAT

Introduction. Ships of the line existed to employ their artillery. The artillery power of a ship of the line should be examined in comparison to that of a contemporary army. Napoleon's artillery park at Waterloo consisted of 366 guns of 6 to 12 pounder size, served by 9,000 gunners with 5,000 horses for the limbers and supply trains (carrying horse fodder at 20 lb per horse per day). Nelson's Trafalgar fleet mounted 2,232 guns of 12 to 68 pounder size, served by 14,000 gunner/sailors, and 11 lb. of supplies per day per man, all transported by ship. Nelson's fleet could project six times the firepower across two-thirds of the earth's surface, moving at five times the speed of a land force, at one-fifth the logistic overhead. Sound like airpower?

Ships were rarely sunk in naval battles unless they caught fire. Solid shot caused horrendous casualties among crews as it cascaded through thick oaken walls and mutilated crewmen in the tightly packed gundecks. Although the shot itself was extremely deadly, the splinters created from the penetrated wooden sides and decks flew through the air, severely wounding and killing enemy gun crews. The casualty ratio between opposing fleets gives a good measure of effectiveness of the tactics, leadership, and crew quality of the combatants in a naval battle. The Royal Navy typically inflicted casualty ratios of 10:1 against its opponents.

The Wind Gage. The sea does not offer an elevation or terrain advantage to either combatant in a sea battle, but it does offer advantages and disadvantages through the elements. Wind, tide, and current significantly affect movement, and of these, wind has the most impact on sailing ships.

One minor reason for being upwind was to have the smoke from cannon blow toward an enemy and reduce his visibility. Square-rigged ships can only sail in a 225 degree arc before the wind, which essentially limits them to a hemispherical cone of movement. Thus, the more compelling reason to be upwind was to gain and maintain the maneuvering initiative--an upwind force can attack at the time and target of their choosing but may have difficulty disengaging from battle, while a downwind force can only either remain in place (with some defensive advantage) or flee--attacking was not an option.

The wind gage did not always guarantee victory but it was usually a prerequisite. Depending on wind velocity, an upwind force might find its action-side lower gundecks awash and if the ship is heeled over the upwind crews may have difficulty aiming at high-elevation targets (enemy rigging). Conversely, the downwind force may have all of its action side decks well above the water so the downwind crews may have difficulty aiming at low- elevation targets (enemy hulls).

Naval Gunnery. Most of the ship's men were employed in serving the guns during combat. Warships carried approximately five times the crew per ton as merchant ships, who only needed their crew for sailing.

Factors which determined success in naval gunnery included: number of guns fired, weight of shot, accuracy of hits, and reload rate. Some of these factors offset each other--larger caliber guns can't be reloaded as quickly as smaller ones. Weaponeering against the target also included several factors: type of shot, impact point, penetration (shot weight vs wall thickness), and hit sequence (broadside salvo vs single shots). Most cannon fired solid ball shot which simply penetrated by kinetic force, splintered ship walls, and mutilated crewmen. Many ships were dismasted from mast hits down in the lower gundecks, such was the penetration power of the larger shot (24 and 32 pounders). Specialized shot was sometimes used for specific effects. Chain or Yard shot consisted of two heavy components linked together and was used to knock down rigging. Grape or Canister shot was used for a wide field of fire to clear open decks of potential boarders at close range. Carronades firing 68 lb canister shot at short range were especially deadly.

Line of Battle. Sailing ship battles originated as disorganized melees between ships carrying large numbers of infantrymen (the genesis of "marines") who boarded enemy ships and fought in hand-to-hand combat. As artillery became the predominant weapon and ships mounted rows of tightly-packed broadside guns, navies developed "line ahead" formations for combat. Maneuvering and controlling these lines of battle required some type of signaling and coordination. Typically an admiral would have a leading ship trace the avenue of attack, and the successive ships would tack in its wake. Ideally a fleet would maneuver to have each ship in a line of battle positioned alongside its enemy counterpart, typically fighting to a stalemate.

These were the "Fighting Instructions" that stagnated naval tactics for several hundred years and resulted in indecisive outcomes and partial victories. It was not until Rodney at the Saintes in 1782, Howe at the Glorious First of June in 1794, Duncan at Camperdown in 1797, and Nelson at the Nile in 1798 and Trafalgar in 1805, that innovative admirals perceived ways of achieving local

superiority in battle. Two methods were "doubling" as Nelson did at the Nile, and "breaking the line" by a perpendicular crossing as Nelson did at Trafalgar.

NELSON IN ACTION

Introduction. Nelson was undoubtedly one of the most visionary and courageous naval leaders in the history of sea combat. First and foremost, he was an innovative tactician who felt no qualms about deviating from the rigid Fighting Instructions that had handicapped the Royal Navy for decades. He was also a master strategist who planned brilliant campaigns against enemy fleets. Additionally, as an on-scene commander, he was able to negotiate strategic level agreements with other nations' military leaders and heads of state. He always included his captains in his campaign and battle planning so they could use their initiative when an opportunity presented itself in battle.

One continual foundation in Nelson's planning was the significant advantage in crew quality the Royal Navy enjoyed over her opponents. Nelson never doubted the superiority of his ship captains, their officers, and their sailors. Innovative planning of the sea campaigns and masterful execution of the ensuing battle(s), plus the fighting spirit, the seamanship and gunnery proficiency of the English 'Jack Tars' produced Nelson's victories.

Cape Saint Vincent. The action at Cape St. Vincent was an early and conspicuous demonstration of Nelson's brilliance and characterized his bold aggressive seizure of the initiative, and his innovative execution. Nelson was not in command at this engagement but understood Jervis' attack plan. Jervis commanded a squadron of 15 ships near Spain when they intercepted a fleet of 27 Spanish ships, divided into a van of 9 and a main body of 18. Outnumbered 2:1, Jervis immediately ordered a crossing attack which broke through the gap between the two Spanish elements, and delivered crippling broadsides. Jervis attempted to reverse direction and reengage the main force, but instead of each of his ships turning simultaneously, his ships stayed in "line formation" and traced the leader's path, which took an excessive amount of time. The Spanish saw the delay, tried to regroup and head for the rear of Jervis's squadron. Nelson, in HMS Captain, third from the rear, saw the problem, broke out of line and headed directly for the main Spanish force to cut them off. Jervis, thrilled with Nelson's insubordinate move, ordered two more ships to support. Nelson led boarding parties that took the 80-gun Spanish ship San Nicolas and used it to board and capture the 112-gun San Josef. Nelson was promoted and decorated.

Battle of the Nile. Acting without the eyes of his frigates, Nelson asked his captains where they guessed Brueys' Toulon fleet might have gone. They suggested Egypt, which would endanger British trade to India and actually the two opposing fleets passed each other close in the Mediterranean fog. Nelson had feared that the Toulon fleet had doubled back toward England and initially headed that way, but eventually turned back and found them anchored in Aboukir Bay outside Alexandria, near Napoleon's expeditionary force in Egypt.

The French ships were anchored in a line off a very shallow sandbank and ready to defend to seaward if attacked and confident that the English weren't reckless enough to venture into such dangerous shoals. Nelson couldn't wait to attack and destroy the French fleet. Both sides had 13 ships of the line, the French fleet had more guns but were confident that the English wouldn't

attack. The English fleet had been exercising constantly across the Mediterranean and had the advantage of surprise and seized the initiative. Nelson and his captains devised a plan to place two British ships to each French ship--a tactic called "doubling". It would take careful navigation and expert shiphandling in the shallow water but would produce spectacular results.

Naples Evacuation. When armed forces aren't actively engaging in hostilities they may be called upon to perform various noncombatant or humanitarian missions to preserve their nation's vital interests. One of these missions is a Noncombatant Evacuation Operation or NEO.

As Napoleon's campaigns swept across Europe, Britain's diplomats, who were trying to coordinate alliances and attempting to discern Napoleon's intentions and deployments, found themselves threatened along with the governments who were being displaced. One such diplomat was Ambassador to Naples Sir William Hamilton and his lovely young wife Emma, who had extensive influence with the King of Naples but even more with influence with her good friend the Queen. On numerous occasions Emma secured troops and resources to support the British Mediterranean campaign..

When Nelson received news that French forces were threatening Naples he abandoned his stormy patrol station to evacuate the Hamiltons and the royal family. Thanks to brilliant work by both Nelson and Emma, the Hamiltons and Neapolitan monarchy were successfully rescued.

Battle of Copenhagen. Nelson was recalled in 1801 to assist Admiral Sir Hyde Parker on an armed diplomacy mission to the Baltic. Napoleon was eyeing the Scandinavian countries, who were key suppliers of rope and mast timber for Britain's ships. The targets were the Russian and Danish fleets. The Baltic fleet was stationed in the icy North Sea and Parker sent England's ultimatum by frigate, when Nelson wanted to negotiate with the fleet in full view for the Danes. The Danes refused to negotiate so Parker and Nelson headed for treacherous Copenhagen harbor, where 25 ships and floating batteries defended the city.

Copenhagen had a large sandbar to the east called the Middle Ground with very little sailing room around it. Large forts defended to the north but the narrow and shallow southern approach was relatively undefended. Nelson took 12 of the shallowest draft ships which carefully threaded their way east of the Middle Ground to the south approach and attacked the next morning with a favorable wind. Three ships ran aground and the action was tense. Parker signaled Nelson to disengage--which Nelson ignored. During the battle, Nelson offered surrender terms, which the Danish prince accepted.

Trafalgar. The battle of Trafalgar was Nelson's supreme achievement and most glorious victory. It was also the last action he would ever see; he died just as he got the word that the Royal Navy had won a decisive victory. Trafalgar ushered in a century of naval dominance for England.

Trafalgar was decisive due to the masterful attack planning by Nelson and his captains, and also due to the effective execution in combat by the British crews. As in most campaigns and battles in the Napoleonic era, the outcome was all but decided before the first shot was fired. Villeneuve, the French Admiral commanding the Combined Franco-Spanish fleet, felt extremely depressed

and pessimistic about the outcome--he knew his inexperienced crews would be facing the finest navy in the world, led by a legendary admiral.

Villeneuve even guessed the way Nelson would attack--in parallel columns which would approach and cut his line, engage the main and rear divisions to achieve local superiority, leaving his downwind van out of the fight until it could wear and beat back to relieve him. It worked just as Villeneuve feared.

THE NELSON TOUCH

Introduction. He was the smallest and youngest admiral in the Royal Navy, measuring only 5'4" and weighing no more than 130 pounds. He was blinded in one eye in Corsica, and his right arm was shattered by a musket ball in Tenerife and was immediately amputated when he returned to his ship. But this half-blind, one-armed frail admiral was transformed by battle and left one of the greatest legacies in history as a premier combat leader and a master architect of seapower employment.

He was THE most beloved naval officer in the Royal Navy, a service which experienced mutinies, and whose crews suffered from the strict discipline of their officers. Nelson was a consummate tactician and strategist--whether leading boarding parties onto enemy warships, devising a surprise night attack on an anchored enemy fleet, or negotiating surrenders with enemy Princes or affairs of state with allied monarchs. He figured out what was important and the right way to do it, and 200 years ago he courageously introduced a vice with a long history of tradition and formality to the 21st century concepts of "Quality". He was centuries ahead of his time and serves as a stunning leadership example for future military leaders to study.

Strategic Vision. Nelson's strategic vision evolved from his consummate tactical expertise and his unbounded confidence that his team could overcome any obstacles and subsequently triumph. Nelson realized that the enemy's seapower must be swept from the seas, and that nothing less would be satisfactory. His superb analytical ability made him a master of offense or "strategic attack", in sharp contrast to his landbound contemporary Wellington, a master of defense. Nelson was one of the first admirals with the strategic insight to attack an enemy fleet at anchor, destroy it, and maroon a large enemy campaign force to destruction. Unlike most contemporary admirals who kept their plans to themselves (if they had plans), Nelson shared his mission tasking and thoughts with his captains, and benefited from their diverse experience and intellect. He empowered his captains by sharing his campaign and battle plans with them--this enabled them to take immediate advantage of opportunities without signaling for permission to act. Nelson also never viewed any situation through normal paradigms--courageous innovation, fresh ideas, and creative solutions to problems were his trademark.

Courage. The Napoleonic era was filled with examples of courageous leadership. This was one of the last periods in history when combat leaders "led from the front" and set the example to inspire their men (and many died in doing so). In spite of hundreds of superb examples of military leadership, Nelson still stands out as a paragon of courage--his life is filled with testimonials to his bravery.

Nelson's personal courage was evident in his early years as a midshipman when he slipped off the ship and unsuccessfully tried to kill a large polar bear. He later exemplified the essence of bravery when he ordered his ship out of line to intercept a large Spanish fleet, then he personally led the boarding party from one captured ship to capture yet another. In some ways displaying the courage to challenge orders is even tougher for military officers. Nelson discarded the sacrosanct "Fighting Instructions" and innovated new tactics which ended a history of stalemates and resulted in glorious victories. He also intentionally disregarded Admiral Parker's signal to disengage at Copenhagen, which ensured the battle continued to victory.

Leadership Style. Nelson was always concerned for his men's welfare in a day when many ship's captains paid little attention to the plight of their sailors. Nelson's men noticed his interest and as a result, they were fiercely loyal to him and always gave him at least 100%. He also visited his people at their duty stations and frequently talked to them and encouraged them--his enthusiasm and unbridled confidence were infectious.

Nelson's style was a direct contrast to most Royal Navy sea officers, particularly the reclusive admirals. Most were extremely autocratic and seldom tolerated anything but total obedience and silence. Nelson was one of the first to actively solicit feedback and ideas from his subordinates and was genuinely concerned about them. Nelson typically invited his midshipmen to jovial breakfasts, and went out of his way to secure the best food and clothing he could for his ship--an effort enthusiastically appreciated by his men. Sickness and ill health were noticeably absent in Nelson's commands. His total commitment to his men was demonstrated more than once. After learning that one sailor's letter had missed getting aboard a departing mail ship, Nelson ordered the ship to turn around so the letter could be sent.

Decision Making. Nelson was never indecisive and never lacked the courage to carry out a tough decision, even if it meant taking great risks and disobeying orders. Nelson took advantage of the talents and ideas of his superb captains, so any decision always met and passed the scrutiny of several excellent minds. Nelson also possessed a superb analytical mind, capable of calculating multiple outcomes and weighing the probabilities of success and failure for each. Nelson was one of the first to see the significance of human factors and crew quality--combat was not decided by "bean counting" the ratio of guns and ships. Nelson could also instantly see necessary courses of action which might not fit the typical paradigms of Napoleonic sea combat. He envisioned bold and innovative solutions which did not fit the normal tactics of the day and required extensive amounts of commitment and courage to pursue.

As a decision-maker, Nelson was unparalleled. He combined the best of the analytical and creative spheres of cognitive thinking and supported his decisions with instant execution and ferocious audacity. Study of Nelson's decisions in combat documents the excellent legacy of this decisive military leader.

Officership. Nelson's growth as a "Below-the-Zone" calibre officer can be traced back to his early career as a lieutenant and junior captain. After passing the exam for lieutenant at 18, and

exceptional service aboard several ships in the West Indies, Nelson at age 20 was given his first command in 1779, a sloop-of-war. He was the youngest captain in the history of the Royal Navy. One year later as the captain of a frigate, Nelson commanded an amphibious operation against the Spanish in Nicaragua where he led his force in a successful capture of Fort San Juan and later successfully defended against an attacking force several times the size of his. His leadership and ability were conspicuous even at that young age. As captain of the Boreas and senior captain in the area, he confronted the governor of Antigua to enforce the unpopular Navigation Acts and expel American traders.

He displayed tactical ingenuity and initiative as a 36-year-old captain of the 64 gun Agamemnon in the Mediterranean. Two opposing fleets found each other but did not engage due to calm winds. Nelson brilliantly maneuvered his ship to repeatedly stern-rake and subsequently capture the errant 80 gun ship Ca Ira while the rest of the enemy fleet watched from nearby.

Discipline. The Royal Navy in Nelson's day is popularly known for the severity of its discipline, which on occasion was so excessive as to cause mutinies. Essentially a captain had the authority to have a man flogged or put into irons for almost any type of minor offense, and these punishments were common. There was also a form of law enforcement in the lower decks--stealing was not tolerated and the men dealt with thieves quickly and brutally. Warrant officers carried knotted short ropes called "starters" or canes to rouse men out of bed or hit the slowest man going aloft. Nelson's charisma and caring created an atmosphere where discipline was typically not a problem, but Nelson did enforce discipline when necessary. Nelson's reputation for fair treatment and concern for his men spread to other ships.

Commandership. Nelson's reputation from victories in the various ranks of admiral overshadows even his brilliance as a ship captain. He had been well-prepared to command and had repeatedly demonstrated his insight and courage for effectively employing seapower.

As an extremely junior 39 year-old commander of the Mediterranean squadron, Rear Admiral Nelson pursued the Toulon fleet (which secretly slipped out of port and evaded Nelson to land troops in Egypt) and subsequently destroyed the French fleet at Aboukir Bay. Nelson was picked simultaneously (the same day) to command that fleet by both Admiral John Jervis, Commander of the Channel Fleet off Cadiz, and Earl Spencer, the First Lord of the Admiralty back home.

As second-in-command of the Baltic fleet under the cautious Sir Hyde Parker, Nelson repeatedly demonstrated exceptional finesse for command during the Battle of Copenhagen. He sought to negotiate with the Danes with English warships in plain view. He devised a brilliant but risky attack plan to destroy the Danish fleet at anchor. He disregarded Parker's "Discontinue" signal when it was apparent that victory was within his grasp. When victory looked promising but not certain, Nelson instigated diplomatic truce negotiations as a bluff with the Danish prince.

Teambuilder. Nelson was one of the principal teambuilders and he essentially originated the concept as it regards combat leadership. He handpicked his captains in the Mediterranean fleet, officers he had served with in the past. He got to know each one personally by frequent entertaining, until both admiral and captain intuitively knew each other's thoughts and styles. He

called his captains a "Band of Brothers", and they referred to themselves as the "Chosen Band", considering their positions most fortunate in warship commands under the greatest leader in the Royal Navy.

Nelson seldom made decisions alone and tried to share his orders and plans with his captains. He actively solicited their feedback and ideas and group brainstorming with these captains in his cabin was a common occurrence. Each captain knew Nelson's ultimate plan so each could intuitively do what was necessary with their ship to actively contribute to the overall action. Nelson empowered his captains to take advantage of unforseen opportunities and exploit them to the fullest. He had the ultimate confidence in his captains, their officers, and their men to triumph. He knew he had an excellent team under his command--he only needed to get them into position to fight.

Innovation. Nelson was the master innovator of the Royal Navy in the late 1700s and early 1800s. He was able to see creative solutions that other admirals could never imagine. He never felt constrained to old paradigms and the rigid doctrine that had hampered the Royal Navy for over 200 years, and was courageous enough to immediately exploit his innovative ideas.

Integrity and Ethics. Nelson was an incredibly dedicated sea officer who was deeply religious (his father was a rector). Early in Nelson's career he doubted whether he was in the right line of work, but one night had a dream that led him to believe that he would achieve greatness for his King and his God while serving in the navy. After that dream he never doubted himself and renewed his dedication. He valued duty above promotion and wealth.

As captain of the 28-gun frigate Boreas, Nelson found himself senior captain in Antigua. American ships were trading in the Leeward Islands, in direct violation of the Navigation Acts. The governor, Sir Richard Hughes, feigned ignorance and Nelson produced the statutes. Not to be intimidated, Nelson convinced Hughes that his warship would enforce the unpopular laws.

Follower Loyalty. The most beloved officer in the Royal Navy would naturally have dedicated, loyal followers. It was his demonstrated caring for his men and his ability to confide in his officers and empower them into his plans that generated such fierce discipleship within his command. Nelson typically was cheered by the men anytime he appeared on the lower gundecks.

One example which clearly demonstrated the lengths to which his men would go for him was at the beginning of the chase of the Toulon fleet which later resulted in the Battle of the Nile. Nelson's Vanguard, Saumarez's Orion and Captain Alexander Ball's Alexander were east of Gibraltar when a gale suddenly blew in and dismasted Nelson's ship. For two days, Nelson jury-rigged a sail to give them steerage and avoid the rocky shore and later Ball brought Alexander alongside and took Vanguard in tow. As they neared Sardinia, heavy swells threatened to wash both ships on the rocks, and Nelson ordered Ball to cut loose and save himself. Ball, risking a court-martial and in direct violation of Nelson's order, refused telling Nelson "I feel confident that I can bring her in safe. I therefore must not, and by the help of Almighty God I will not, leave you." They reached Sardinia.

Vita

Major John S. Clark, Jr. received his commission in the United States Air Force through OTS in 1984. He earned his Bachelor of Arts degree in English from Stetson University, and his Master of Science degree in Human Resource Management from Chapman College. Major Clark is an instructor weapon systems officer with over 1700 hours in the F-4E/G and F-15E aircraft, and he is a distinguished graduate of UNT, SOS, and ACSC. Major Clark currently attends the School of Advanced Airpower Studies at Air University.

Abstract

Quality and Warfighting: The Leadership Imperative

by

Major John S. Clark, Jr.

The leader's primary responsibility consists of setting a vision for the people he leads. Therefore, the leader who feigns enthusiasm for Quality is doomed to fail and miss an opportunity to embrace a vehicle for organizational improvement. In implementing Quality concepts in an organization, three essential truths emerge. These truths are innovation, strong leadership, and honest measurement. When these three elements are applied properly, the unit's warfighting potential can increase dramatically. In summary, Quality is relevant to the warfighter, and can contribute positively to the squadron's operational capability.

QUALITY AND WAR FIGHTING: THE LEADERSHIP IMPERATIVE

BY

MAJOR JOHN S. CLARK, JR.

Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.

Gen George S. Patton, Jr.

General Patton realized that leadership endures as the key to success in a military organization, and the primary responsibility of the leader consists of setting the vision for the people he leads. If the leader does not believe in Quality or feigns enthusiasm, then the unit will fail to grasp the concepts and miss an opportunity to embrace a vehicle for organizational improvement. In a fighter squadron one hears the reasons why the unit shouldn't embrace Quality. For example, "Quality is fine for the hospital or finance, but what does it have to do with bombs on target?" or "we're already a quality squadron, we don't need the extra work." These misconceptions exist because the squadron leadership has failed to convince their subordinates that Quality is relevant to the war fighting mission and can contribute to the squadron's war fighting capability.

THREE BASIC TRUTHS

When one considers Quality in general, three basic truths emerge. First, people who possess a stake in the unit's mission will undoubtedly generate ideas and methods for improving the squadron. Second, the quality of leadership will determine if an environment exists for the successful application of these innovations. Finally, the squadron leadership must implement a system for measuring the level of success in order to maximize the benefits to the unit.

INNOVATION AND LEADERSHIP: THE BATTLE OF THE CRATER

History contains numerous instances of these truths being embraced or disregarded. For example, The Battle of the Crater during the Civil War, as related by Richard Wheeler in Fields of Fury, highlights both innovation and poor leadership. The battle occurred outside of Petersburg, Virginia in the Summer of 1864. The Union campaign had settled into siege warfare with each side entrenched in forts and bulwarks. One of the Union regiments, the 48th Pennsylvania Volunteers, commanded by Colonel Henry Pleasant, hailed from coal mining country, and a few privates proposed digging a 510 foot long tunnel to undermine the Confederate fort and blow a hole in the defensive line. General Grant approved the operation if only to keep the men busy.

The Chief Engineer of Grant's army remarked that it was a senseless and foolish idea. A military mine that long had never been dug, nor could it be done. The engineers denied Pleasant surveying equipment, mining picks, lumber, and wheelbarrows. Undaunted, the 400 men of the 48th improvised at every turn and completed the mine in 28 days.

Well, the impossible project was now complete, and Grant selected Burnside's 9th Corp to exploit the breach. The 4 tons of gunpowder sent the confederates and their works high into the air, creating a crater 30 feet deep, 70 feet wide, and 250 feet long. The road to Petersburg lay open, but incredibly, the 3 divisions took an hour to attack, and then charged into the crater rather then around it. The Union forces became mired in the crater, and lacking ladders, couldn't climb out the other side. The Confederates seized this opportunity, regrouped, and closed the breach in their lines capturing many Union Forces in the process. Thus, poor, unimaginative leadership betrayed the impressive innovation and persistence of the troops, and a great opportunity to shorten the war was squandered.

INNOVATION AND LEADERSHIP: THE BUNKER BUSTER

One doesn't need to venture far into the past to discover an example where both innovation, teamwork and leadership combined to create a war fighting success story. During the Gulf War, a need for a precision guided munitions that could penetrate deep bunkers arose. Air Force Systems Command (AFSC) responded with the GBU 28. Incredibly, this 4700 LB bunker buster was designed, built and delivered in 17 days. A dedicated C-141 flight rushed the bombs to Saudi Arabia, and within two hours, ground crews loaded the still warm munitions on F-111 aircraft. This success story speaks volumes about the innovative skills and leadership abilities of the AFSC people involved.

THE ROLE OF MEASUREMENT

If squadron members are encouraged to innovate, and strong leadership encourages an environment where innovation can flourish, then a third principle, measurement, emerges as important for sustained excellence. A simple rule that superb leaders employ is the axiom, "what gets measured, gets done." Importantly, successful leaders determine what areas make or break a squadron and then measure these areas against acceptable goals. A case study of a Department of Defense depot exemplifies this principle. A problem existed in that special orders were taking an inordinate amount of time to complete and backorders were building up to an alarming point. Some customers had orders pending for three years. A new manager took over the organization and initiated a simple program to rectify the problem. At a weekly staff meeting, each division manager presented a slide documenting his ten oldest job orders

and their status. This emphasis sparked the divisions to attend to old orders. Some of the aircraft awaiting an order currently resided in the USAF bone yard and no longer required a job order. Others had turned to contingency resources due to the depots unresponsiveness. Finally, the divisions started setting priorities and made headway on the job orders. The key was to establish a goal, build a plan to meet the goal, and then measure the progress along the way.

Measurement exists as the catalyst that transforms simple problem solving into a Quality team approach. When a problem arises, the natural tendency is to charge someone with finding a solution to the problem. Unfortunately, the problem may be just a symptom of a systemic problem. A simple example illustrates the point. In a fighter squadron responsible for training new aircrew, a valuable training tool is the video tape recorder. It allows the instructor to see what the student is doing correctly, and where he is making mistakes. The student learns as much from this debrief tool as from the actual flight. Unfortunately, this squadron went through a period where perhaps one in four tapes wouldn't playback properly. This frustrating situation led to the operations officer charging the weapons officer to fix the problem. Before he charged off to fix the problem, an assistant operations officer suggested that we form a quality team and see if we couldn't improve the process. Rather than a short term fix, this team made several changes that included maintenance conducting more frequent preventative maintenance, the tapes being tracked for the number of uses, and playback equipment was periodically checked for required maintenance. This effort resulted in a dramatic decrease in the percentage of tape failures. Certainly, this is an example of a small improvement, but when you consider that a flight of four fighters may use $12,000 worth of fuel on a training mission, it's imperative that aircrew learn the most from each sortie.

CONCLUSION

Undoubtedly, Quality concepts can increase the war fighting potential of units at the tip of the spear. Furthermore, the individuals in the squadrons certainly possess the creative abilities and the initiative to affect improvements. The burden rests with the leadership. It is imperative that leaders create an environment that embraces quality principles and encourages subordinates to challenge the processes that they operate under. Finally, the make or break areas of the squadron must be measured, baselines established, and progress monitored. With these three basic principles in place, the unit should observe that their ability to meet the objectives of their assigned missions has been improved and that everyone in the squadron has gained.

QUALITY CRITERIA - CAN THEY WORK FOR YOU?

(The Impact of the Baldrige Assessment Process)

By: R. Rowdy Yates
78th Medical Group
Robins AFB GA

BIOGRAPHY

UNITED STATES AIR FORCE
MR RICHARD A. YATES

Mr Yates is Director, Quality Team, 78th Medical Group, Robins Air Force Base, Georgia. Prior to this assignment, he was a medical planner with Headquarters, United States Air Force Reserves.

Mr Yates was born in White Plains, New York, and graduated from Alexander Hamilton High School, Elmsford NY in 1964. He received his BBA from Nichols College in Dudley MA in 1968 and his MBA from the University of Alaska, Anchorage AK in 1976.

He entered the Air Force in November of 1968 and subsequently received a direct commission as a Medical Service Corps officer. Assignments include three in enlisted status as NCOIC and instructor for Base Management courses at Charleston AFB SC; Elmendorf AFB AK; and Myrtle Beach AFB SC. After commissioning, he was assigned to Hanscom AFB MA as a Medical Recruiter. In succeeding assignments at Moody AFB GA and Chanute AFB IL he served in many medical administrative and readiness positions. In 1983, he was assigned to the School of Health Care Sciences, Sheppard AFB TX as an instructor. He completed active duty at Robins AFB GA where he again served in numerous medical administration positions including Hospital Administrator.

He attended or completed by correspondence many Air Force schools to include: Squadron Officers School, Air Command and Staff College, Technical Training Instructor Course, Contingency Wartime Planning Course, and Combat Casuality Care Course. His civilian training programs attended are numerous and include such courses as the Hospital Corporation of America's Course in Quality for CEO's and Administrators, Deming and Crosby Training courses, and a wide assortment of other ASQC or JCAHO programs in Continuous Quality Improvement. He has also completed training in Theory of Constraints and Integrated Product Development.

He is a certified Teambuilder, Master Instructor, and Facilitator. Mr Yates has held numerous college and university instructor positions throughout the country, in the field of organizational behavior and management. He has served as a consultant to several Air Force Medical Facilities and is an examiner for the Secretary of the Air Force Unit Quality Award. In addition, he is a Senior Consultant for CIT Group, Inc., a private quality consulting firm.

Mr Yates' military awards and decorations include the Meritorious Service Medal, AF Commendation Medal, AF Achievement Medal, AF Outstanding Unit Award with valor device, Republic of Vietnam Gallantry Cross with device, and others.

Civilian affiliations include: American Society for Quality Control, Reserve Officers Association, Veterans of Foreign Wars, American Hospital Association, and Georgia Society for Hospital Engineers.

Mr Yates is married to the former Sharon Fabian of Tarrytown NY. They have three children: Helena, Richard Jr., and Deanna.

(Current as of Jan 95)

QUALITY CRITERIA - CAN THEY WORK FOR YOU?
(The Impact of the Baldrige Assessment Process)

By: R. Rowdy Yates
78th Medical Group
Robins AFB GA

INTRODUCTION / ABSTRACT:

You have heard of "Quality Assessments" such as the Deming Assessment, the Malcom Baldrige Assessment, the President's Quality Award Assessment, etc., and of their associated awards programs. All have a common theme. They look at the very souls of organizations to identify, through comprehensive evaluation, positive attributes and potential areas for improvement. Their key element is finding successful, existing processes rather than focusing on individual performance. Their intent is to determine what processes exist that support functional integrity and how well those processes are deployed throughout the organization. In addition, these assessments should consider current and potential results for each process. As organizations focus on customer satisfaction and understand and implement this assessment approach, they will realize the positive growth and customer support they envision.

BODY:

When AT&T decided to enter the credit card arena they were keenly aware that they were attempting to penetrate a highly competitive, service-oriented environment. They knew that success was not automatic and that they needed an action plan if they were to succeed. They made a conscious decision, up front, that they would use the Malcolm Baldrige criteria as their blueprint for success. They meticulously followed the Baldrige guidance and implemented processes to attain the objectives listed in all seven categories. Through patience and a sound planning process, they were extremely successful and quickly reached the pinnacle of a ***quality*** organization, being selected as a recipient of the Malcolm Baldrige Award for Quality.

The hospital at Robins AFB saw this as a wonderful success story, but what would it have to do with our small Air Force Medical Group located in Middle Georgia? As a federal agency we are not eligible for the Baldrige Award. We had been in business for over 40 years, and Quality Assurance had been a long-standing facet of our medical care. Our approach to business and our future had always been assured and stable, but that environment was rapidly changing. Faced with ever-shrinking resources and the possibility of downsizing or even closing, we became suddenly aware that business as usual was not the optimal plan for the future. We recognized the need for a reengineering approach, using proactive thinking and TQM tools. The Air Force was, also, moving rapidly into the Quality Arena and Quality Air Force was no longer just a concept for the future. It was here.

The Air Force had adopted the concepts of the Baldrige criteria and, with minimal changes, developed a similar assessment program. The Air Force instituted a mirror image program of its own, The Secretary of the Air Force Unit Quality Award. Individual Commands simultaneously developed a staff assistance visit approach known as a Total Quality Review (TQR), units were then asked to perform a new type of internal review called a Unit Self Assessment (USA), and the Air Force Inspection Agency used the same criteria to develop a

new "inspection" format. All of these innovations were based on the Baldrige criteria as "blued" for the Air Force organization. The transformation continues, and in keeping with the numerous changes in the Air Force and the various Commands over the past several years our small Air Force Medical Group has become a far different organization than it was for its first 40 years. We have become a customer-driven organization determined to be *"world class."*

Customer focus has become the prime direction of all Air Force business practices. Within the Air Force Materiel Command, a perfect example is the way in which funding has evolved for aircraft maintenance. It wasn't that long ago that the Air Logistic Centers (ALCs) received their funding directly from Headquarters Air Force in the form of a yearly budget. Now they receive reimbursement from the using organizations for work performed, i.e. Fee For Service. These organizations are free to choose a vendor of choice based on the ability of the vendor to meet the requirements of the using organization. No longer is there a guaranteed work load for the ALCs, they are now competing with the work force at large for each contract and their very existence. In the medical arena, we have begun to develop such things as Managed Care and TRICARE. This involves both civilian and tri-service agencies. We no longer operate in a closed loop environment. In a rapidly changing world of high technology and new focus how does an organization keep pace?

We believe the only way is through the full acceptance and incorporation of the ***"quality philosophy"*** into the framework of the organization. This includes using the various TQM tools, such as Integrated Product Development, Theory of Constraints, Continuous Quality Improvement, Team Building, etc. The best quality item that an organization can use to move ahead in quantum leaps is a proven assessment package. The Baldrige Assessment Criteria give us this opportunity to leapfrog to world class leadership.

The criteria are divided into seven major categories:

1. Leadership
2. Information and Analysis
3. Strategic Quality Planning
4. Human Resources Development and Management
5. Management of Process Quality
6. Quality and Operational Results
7. Customer Focus and Satisfaction

These categories can then be grouped into three distinct but related sub-categories: Driver, System, and Goal (Fig 1). The process is driven by senior leadership's development of values and goals which sustain and nurture the organization in

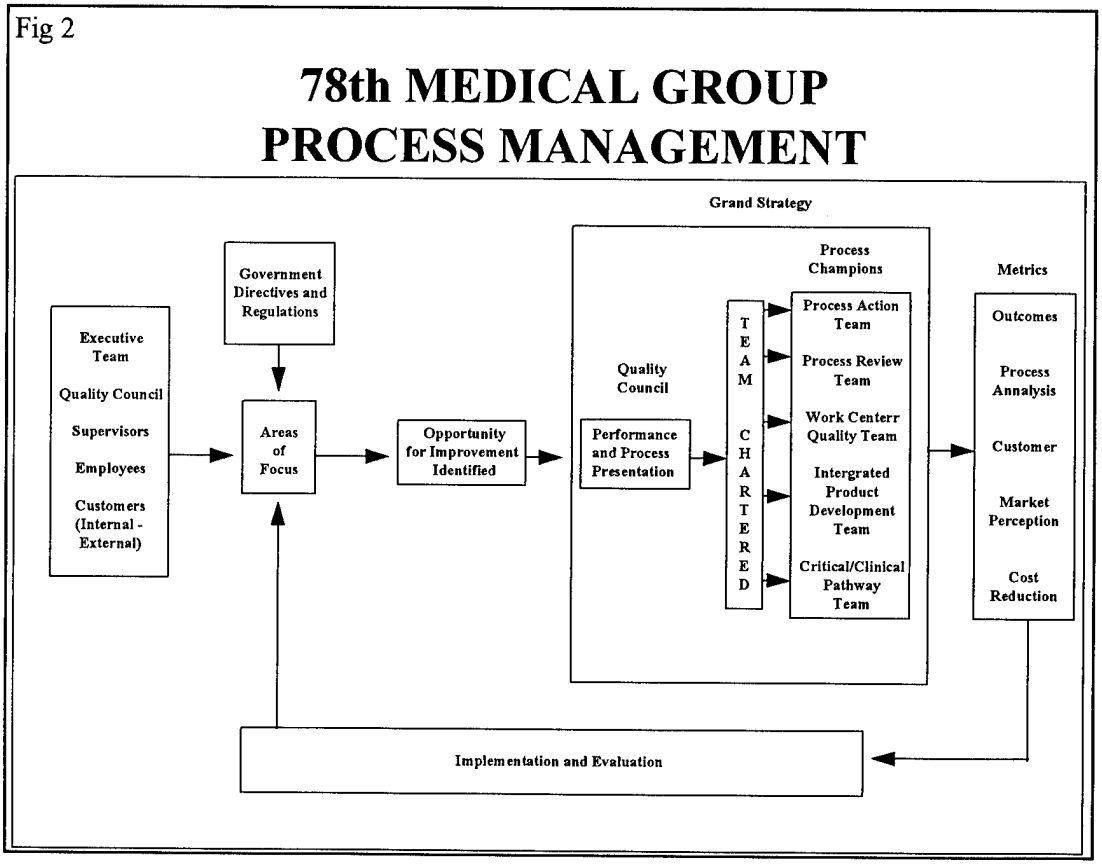
Fig 1

INTERRELATIONSHIP OF CATEGORIES

DRIVER	SYSTEM CATEGORIES		GOAL
1	5	7	*CUSTOMER SATISFACTION*
	4	6	*CUSTOMER RETENTION*
	3		
	2		MEASUREMENT OF
PROGRESS			
			METRICS

pursuit of continuous improvement. Figure 2 (Fig 2) illustrates the process through which the hospital at Robins strives to meet customer (internal and external) requirements. The metric results will show how well we deliver ever-improving service to our customers and their value judgment of our efforts.

Fig 2

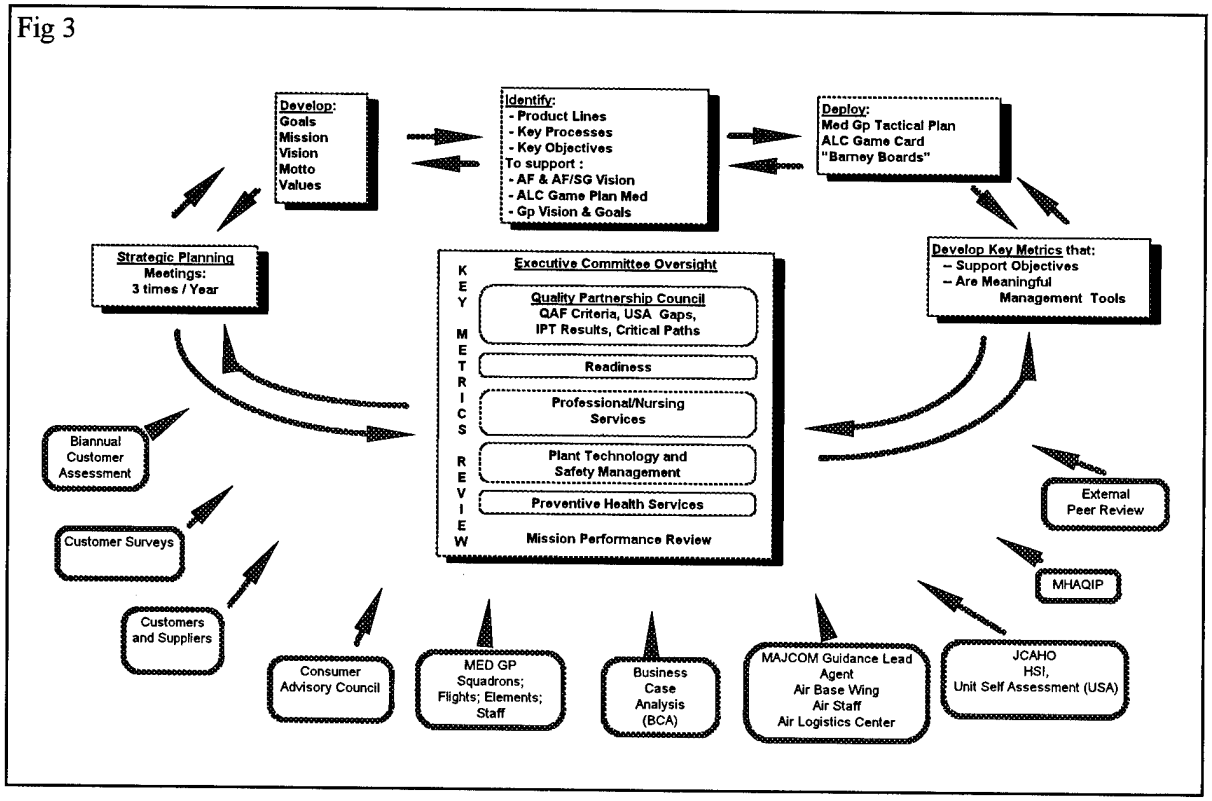


Activation of this process is not as simple as one, two, three... you need to start with a true commitment by senior leadership to "walk the talk," and they must focus on what their customers want and define as quality. This requires starting at the last category or that of Customer Focus and Satisfaction and looking for three key items:

1. Identification of <u>all</u> customers
2. Determination of their needs and wants
3. Ensuring the presence of a *process* which sustains continuous improvement

This process should look familiar to those of you acquainted with the principles of Integrated Product Development. The customer is involved throughout the life of the process in combination with a multidisiplined product team.

Fig 3



As you assimilate this data into your system you will begin to develop your planning framework and a defined process, such as the one developed by our MTF (Fig 3). This type of data should be used to construct both your Strategic and Tactical Plans. The Strategic Plan should show where you expect to be in the out years (3 to 5 years) based on targets projected to meet customer demands. Your Tactical Plan will define how you will operate to sequentially accomplish your Strategic Plan. Along with your tactical plan you want to establish a method to define your 'key' processes and, in turn, your 'key' metrics. These become your measuring device for your journey toward your strategic goals. Ours was created around the ten objectives of our Centers "Game Plan." (Fig 4). Keep in mind that these should be dynamic documents and change should be continuous as you move forward.

Category five addresses measurements for result oriented, continuous improvement. The actual metric data appears in category six. In these two categories you look at your work units, suppliers and competitors to evaluate your competitive standing. These tie in very closely with categories two and three. From this data you can choose processes for initiating and/or conducting corporate comparisons and benchmarking endeavors.

Fig 4

Category two deals with the systems and processes that facilitate information flow throughout an organization. Fast, accurate data transfer can be critical to success. With the rapid expansion in computer technology we can acquired marvelous systems hardware and software. Exercise care in systems design and selection to assure hardware compatibility and flawless data transfer.

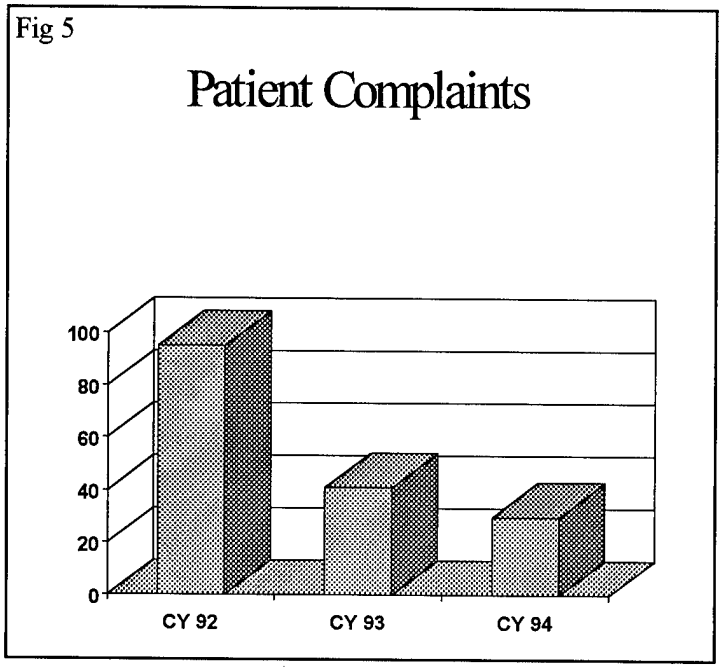
The Human Resources side of an operation is evaluated in category four and gives you a fairly accurate picture of how the organization is supporting its people. This ranges from training to the health and well-being of the work force. You may succeed in many of the other categories, but if you do not pay attention to this area you stand a very good chance of having a dissatisfied work force. Negative indicators are high absenteeism and turnover, either of which can be extremely destructive to the organization.

This is not 'magic' nor is it a 'quick fix' for an organization. To truly recognize the value of an assessment the organization must have complete buy-in from the top down. All management levels must be willing to devote the manpower and time to fully and accurately complete the assessment. There must be an atmosphere of trust and respect with no fear of retaliation. Deficiencies, or areas for improvement, can then be freely identified for future emphasis. Without this transformation Theory X management styles may prevail and no opportunities for improvement will be identified. The organization must develop both trust and empowerment within the work force. This was the goal of AT&T from the outset and has been our driving force since 1993.

SUMMATION:

The Medical Group at Robins AFB began implementing the TQM philosophy in 1988 and has made continuous improvement to date. In 1993, we did our first USA, requesting that the Command IG provide us with a TQR. We reviewed the results and established a plan to work on improvement areas, or GAPs. In conjunction with the Air Logistics Center in 1993 and 1994 we assessed our programs and provided unit specific data in support of Team Robins. In 1994, the ALC Commander selected us as his nominee for the Federal Quality Institute's (FQI) President's Quality Award using the Baldrige criteria. Through that effort we were recognized by the Commander of AFMC as the recipients of the AFMC Commander's Unit Quality Award. In addition, the Medical Group was subsequently nominated to Air Force, DOD, and finally to FQI as one of the final 16 competitors. We certainly welcome such recognition, but the positive results from our customer service surveys are what really drive home the benefits of our quality processes. Additionally, our reduction in patient complaints signifies a markedly positive trend in customer satisfaction (Fig 5). Meeting our customers' expectations is what really makes us winners. We have not only met but have exceeded both our internal and external customers' desires.

Fig 5



Assessments pay off, no matter what your field of endeavor. As a service organization we are continually discovering new, innovative ways to measure and respond to consumer needs. Customers are our top priority at the 78th Medical Group, in keeping with our motto: **"Always improving for those we serve!"**

How Stephen R. Covey's Book, The Seven Habits of Highly Effective People, Relates to the United States Air Force

Captain Jay F. Graser

Capt Jay F. Graser is Chief of the Quality Standards and Instructional System Development Branch as well as the quality advisor for the Air Mobility Warfare Center. He earned his Bachelor's of Science in Occupational Education from Southern Illinois University and his Master's of Science in Management from Troy State University. As a QAF Master Instructor, he has developed and instructed courses ranging from basic quality concepts to facilitation. He has directed the quality training of over 3,000 students and has facilitated more than 18 strategic plans.

How Stephen R. Covey's Book, The Seven Habits of Highly Effective People, Relates to the United States Air Force

Capt Jay F. Graser
Air Mobility Warfare Center

Abstract

Air Force members are sometimes reluctant to apply civilian developed management concepts in a military setting. However, Stephen Covey provides seven habits that apply equally well within both civilian and military paradigms. These habits employ the principles on which America was founded and encourage leaders and followers alike to take a systemic approach to their personal and professional lives. Dr. Covey asks us to reach deep inside ourselves to find the principles we feel are universal and build on them. These habits become the foundation for executing both personal and organizational strategic plans. They include "being proactive" which, when linked with "having an end in mind," provides a sense of direction and prioritization. These first habits provide the security required to create "win/win" situations through better understanding and synergy. Dr. Covey's concepts provide tools for Air Force members to maintain a balance between service before self and personal renewal in order to better serve, especially considering a high operations tempo. His recommendations are essential for creating the Air Force of the twenty-first century.

I. INTRODUCTION

In 1986, President Ronald Reagan signed Executive Order 12637 which directed the government to implement some form of Total Quality Management (TQM).[1] The quality philosophy has American roots as far back as the eighteenth century, but was revived in the United States in 1980 by W. Edwards Deming.[2] Dr. Deming is credited with helping the Japanese to rebuild after W.W. II and assisting them in becoming the formidable economic power they are today.[3] Certainly, Deming is not the only expert on TQM, in fact he dislikes using such buzzwords as TQM and prefers you come up with your own feelings on quality.[4] He can be

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[1] David K. Carr and Ian Littman. Excellence in Government (Arlington, Virginia: Coopers and Lybrand, 1991), p. 256.

[2] D. R. Cox, "Quality and Reliability: Some Recent Developments and a Historical Perspective," Journal of the Operational Research Society, 41, no. 2 (February 1990), p. 95.

[3] Ibid., p. 22.

[4] W. Edwards Deming, "Quality, Productivity, and Competitive Position," Deming Downlink, (Quality Enhancement Satellite Seminars, May 11-14, 1993).

rather evasive in an attempt to make people find within themselves the answers to their quality dilemmas. In contrast to Deming's style, Philip B. Crosby built the most prosperous quality consulting firm in the nation by using buzzwords and acronyms to communicate the quality philosophy.[5] His concept of Zero Defects drives a constant push for the very best. Disciples of Crosby find anything less than "Zero Defects" to be unacceptable.[6]

Unfortunately, the military does not fit neatly into the philosophy of either Deming, Crosby, or any other quality guru. One difference between military and civilian organizations is that TQM is based upon a management vs. labor approach, which does not apply well in the military setting. The responsibilities of people in a military organization cannot always be neatly categorized as either labor or management. However experts in the military, such as those at the United States Air Force Quality Institute in Montgomery, Alabama, point out that the military functions more on a philosophy of leadership than management. Leaders are expected to create an example to follow and create a motivational atmosphere. Members of the Air Force are seen in a more humanistic light, rather than as mere objects to be managed. There is also somewhat less of a demarcation between management roles and labor roles. Enlisted or commissioned members can take on leadership roles. In fact, there are times when even if an individual supervises no one, he or she can take the lead by setting the example for others to follow. This concept of leadership, involving from the top to the bottom of the organization, makes the USAF unique from many civilian organizations that are attempting to install a form of TQM. It is for this reason that Stephen Covey's book, The Seven Habits of Highly Effective People, provides a useful avenue for applying a quality initiative in the USAF.

II. SUCCESS

Stephen Covey writes from the experience of more than 25 years of working with people in business, university, and marriage settings. Many of those people were considered extremely successful in some areas while abysmal failures in other areas. They are people who have sacrificed for what they thought were all the right reasons, yet found success to be a hollow victory when their private lives were turned into a disaster. These individuals went to the same management seminars as all the other successful managers, made all the right moves, got to know all the right people, and climbed the organizational ladder. The Air Force breeds the same type of "sacrifice it all for the organization" attitude as do the civilian companies. For example, one second lieutenant insisted upon going on a business trip when his wife was close to giving birth to their first child. The lieutenant worked directly for the wing commander and felt he must make this sacrifice in order to do his duty. When the wing commander heard of the lieutenant's intentions, he had to give him a direct order to dissuade him from going on the trip. As further evidence, it is not uncommon to go to an organization late in the evening and find people, especially those in supervisory roles, working late into the night, regardless of the impact on their family life.

This type of behavior is not isolated to officers and enlisted supervisors. There were two crew chiefs who were dedicated to keeping their aircraft flying. These men were responsible for coordinating every aspect of maintenance for their C-141 cargo aircraft. They assumed if they

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[5]John A. Byrne, "High Priests and Hucksters," Businessweek, Special Bonus Issue (1991), pp. 52-57.

[6]Phillip B. Crosby, Quality Without Tears (New York: McGraw-Hill, 1984), pp. 75-77.

worked hard enough they would eventually get recognized by their supervisors and rise in the ranks. One crew chief had his marriage fail. He could not understand why his wife would complain about his constant lack of time for her. The two crew chiefs moved in together and their routine consisted of rousing themselves each morning for work, toiling like madmen all day, and then coming home each evening completely devoid of energy or motivation. They rationalized that, in fairness, if they worked hard and made the necessary sacrifices, they would be justly rewarded. This is not to say that they were motivated only extrinsically. They also took a great deal of pride in their work. However, as the years passed, their positions never improved, their personal lives were mere shells, and they became disenchanted with their careers. This scenario, and similar ones, have turned many motivated, young individuals into sour, grumbling men and women, old before their time.

III. CHARACTER ETHIC VS. PERSONALITY ETHIC

What is wrong with this picture? After all, these people were exhibiting a strong work ethic. This work ethic is essential to the military, for it would be virtually impossible to field an effective fighting force without applying such a spirit of service before self. Why did these people end up feeling at a loss even though they presented the proper image? Part of this problem can be explained by what Covey calls the difference between a Character Ethic and a Personality Ethic. The basis for the Character Ethic is made up of many of the same principles on which our country was founded: integrity, humility, fidelity, temperance, courage, justice, patience, industry, simplicity, modesty, and the Golden Rule.

However, shortly after World War I, reality and image began to separate. The Personality Ethic was born of all those outward behaviors that make human interaction flow smoothly. It did not matter how you really felt on a subject, simply how others perceived your position. It was too time-consuming to defend a position based upon the old principles. It was much more expedient to outwardly agree with others while quietly harboring one's actual sentiments. No matter how noble your actions, image was all-important. Those who did not project the proper personality were ostracized. When Brigadier General Billy Mitchell over-stepped the bounds of propriety in vehemently defending the importance of air power, he was court martialed and eventually died penniless. In an effort to avoid such ridicule, the members of President John F. Kennedy's cabinet agreed to the plan that lead to the Bay of Pigs incident. After the debacle, several members reluctantly expressed their prior doubts about the plan. However, in order to maintain the proper image, they applied the Personality Ethic. The message was clear that in order to progress, image was more important than even the most noble of actions.

Does this mean that people who apply the Personality Ethic are wrong or in some way flawed? Certainly not. It is simply a learned response to a quick-fix, band-aid solution society. We have rewarded those people who have created the fastest solution. Leaders have been encouraged by a Personality Ethic to drive their people into the ground in order to increase productivity, create a good image, and get the next promotion. Unknowingly, these leaders have been doing immeasurable, long-term harm to the organization and its members. Functioning on a Personality Ethic drives us to smile, be cordial, and seek the path of least resistance in order to appear to have the right solution, because that is the behavior that has been rewarded in the past.

IV. PARADIGMS AS FOUNDATIONS

This is not to say that the skills necessitated by the Personality Ethic are not valuable. Abilities such as communication skills, influence strategies, and positive thinking are powerful tools in the quest for success. Yet, they must be tools used for a higher purpose than to fit someone else's ideal image. Depending on who is providing the model image at the time, your foundation for applying these tools will shift constantly. In the case of those who have been dutifully applying their Personality Ethic in service to their unit commander, their entire foundation shifts when a new commander arrives and installs his or her slant on things. This slant has come to be known as a paradigm.

The commander's paradigm is not necessarily right or wrong, it just happens to belong to the man or woman in charge. This is a difficult concept for many people to grasp. We are often taught to view the world in a dichotomous manner. Things are either right or wrong. In actuality, there may be several correct viewpoints. They simply vary depending upon the background that makes up each person's paradigm. To cite an example, some psychological tests require the subject to interpret what is depicted by ink blots. Three different people may describe three different images from the same ink blot. Since the ink blots are not meant to represent anything in particular, there are no right or wrong answers. However, if you were to put those three people in one room to discuss their interpretations, you may very well get some agitated discussion over what the ink blot *really* represented.

What if the interpretation of the ink blot belonged to your commander? Would the average person try to get the commander to see the ink blot in their own manner? Especially if your interpretation might impact on your next performance report, you would probably be more likely to agree with the commander's interpretation in public, while harboring doubts privately. Neither one of you is right or wrong, but because presenting your view of the ink blot may insinuate that the commander is wrong, you reserve your comments.

Differences in paradigms can be exacerbated by the chain of command. What may have started out as an innocent comment by the commander becomes a direct order by the time it gets to the working level. As the message is passed down through the chain it is filtered through each person's paradigm of what they think the commander has in mind. This means that not only do the working level personnel have to abide by a paradigm distorted from the commander's original statement, but they have almost no chance of selling their own paradigm to the commander.

The distance created by the chain of command makes it difficult to create a paradigm shift at the top. A paradigm shift is when you suddenly see the ink blot the way someone else does. According to Covey, our country is the product of a paradigm shift. The monarchy had been the traditional form of government for centuries. No longer willing to see the world through the monarchy's paradigm, the colonists created a constitutional democracy which encouraged innovation and individuality. According to Covey, instead of being based on an antiquated paradigm, the country was founded upon principles such as fairness, integrity, honesty, human dignity, service, excellence, potential, growth, patience, nurturance, and encouragement. You may read these and be taken aback, because you may feel you apply these pretty regularly and therefore need read no further. However, probe deeply within yourself. Do you make your every decision based upon these principles or are you allowing yourself to be swayed by the latest paradigm. Are you willing to convince the commander that his or her pet project, unbeknownst to him or her, would have a negative impact on the Air Force? You may find it more expedient to let it go because, after all, they must know every angle, otherwise he or she would not be the

commander. While we are duty bound to abide by the decisions of our superiors, is it not also our duty to help them make an informed decision?

Consider the example of the colonel who was in charge of a large weapon system. He was told by his superior to implement a new way of tracking defective electronics. As was normal, the colonel passed the project to one of his lieutenants for implementation. While complying with his superiors request, the lieutenant discovered irrefutable data indicating that the new system would not work, and in turn, would waste a great deal of the taxpayers' money. When the lieutenant presented his conclusions, the colonel was openly annoyed at the suggestion that his superior could be incorrect. The colonel's paradigm was that his superior was naturally correct. It finally required a great deal of quantifiable data, and some convincing by a close friend of the colonel, to get him to endorse a letter informing his superior of the negative impact. Contrary to expectations, the letter was well received by the general and the plan was abandoned, but only after a month of frustration was experienced by the colonel's staff. Did the colonel intend to act in a way not in the best interests of the Air Force? No, he was simply applying a Personality Ethic based on what he perceived to be the general's paradigm.

V. HABIT ONE: BE PROACTIVE

Covey's Seven Habits, the first of which is to "be proactive," are founded on applying a Character Ethic. This first habit can be considered the opposite of being reactive. A reactive manager or leader simply allows things to happen to him or her and blames the consequences on outside forces. As Air Force personnel have faced the drawdown, it may have been extremely easy to blame their troubles on the drawdown itself. They may have watched as their jobs were cut and even whole units disappeared. In a few cases, unit leaders may have found that they had taken cuts in the wrong places. As a result, they were forced by their customers' requirements to reconstitute corporate knowledge that took years to build.

In being proactive, Dr. Covey advocates taking charge of your life and circumstances. Instead of allowing cuts to be made in the wrong places, just to later say, "I told you so," show how valuable that section is to the Air Force. This does not mean making other units look bad in order to make yours look better by contrast. That type of approach only serves to hurt the entire organization. However, the worth of that section must be presented with conviction and quantifiable data. If the section cannot be preserved, despite all efforts, then preserve the most valuable components for use by other sections. As personnel depart, their corporate knowledge can be collected via surveys and interviews. This way, instead of completely losing valuable experience, it can be redistributed through our Air Force learning institutions.

VI. HABIT TWO: BEGIN WITH THE END IN MIND

Covey's second habit is, "Begin with the end in mind." He points out how all things are created twice. First they are conceived in the mind, then they are created in reality. This habit fits neatly with the first habit of being proactive. Simply put, how could you act without having an end result in mind. Dr. Covey relates this to one's own life. What kinds of things would people from each aspect of your life, such as family, work, and church, say about your character when you pass on? Are you functioning today with that ***end in mind***? If you do not have an end in mind, you are probably only reacting to the present environment, based on your past. Without some sense of an end in mind you are only responding to the people and situations around you based on the paradigms with which you were raised as a child. Have you ever met someone who

toils industriously for years and never grows or progresses? This could be likened to an old Air Force story.

> *The navigator calls the pilot and says, "I have good news and bad news."*
> *The pilot asks, "What's the bad news?"*
> *The navigator responds, "We're lost."*
> *To this the pilot queries, "Then what's the good news?"*
> *The navigator retorts, "We're making great time!"*

All the momentum in the world is worthless without direction. This is why Stephen Covey suggests the use of a "personal mission statement." This statement describes the end you have in mind and can become part of your own strategic plan.

VII. HABIT THREE: PUT FIRST THINGS FIRST

This brings us to habit number three, "put first things first." Simply put, this habit is based on accurate prioritization. Contrary to what some people appear to believe, one cannot accomplish everything at once. This prioritization is not based on what project makes the most noise or is associated with the highest rank. It is based on the afore mentioned principles, not the latest paradigm. If everyone in the hierarchical chain is prioritizing based upon the unshifting foundation of principles integrated into an organization's strategic plan, there should not be the drastic shift associated with following the paradigms of the latest commander. The organization will remain on a steady course, while the new commander can facilitate continuous improvement of the organization through his or her unique leadership skills. To help better plan and prioritize activities, Dr. Covey provides the following.

Quadrant One: Important and Urgent
Activities:
Crises
Pressing Problems
Deadline-Driven Projects

Quadrant Two: Important and Not Urgent
Activities:
Prevention
Enhancing Production Capability
Relationship Building
Recognizing New Opportunities
Planning and Recreation

Quadrant Three: Not Important and Urgent
Activities:
Interruptions, Some Calls
Some Mail, Some Reports
Some Meetings
Proximate, Pressing Matters
Popular Activities

Quadrant Four: Not Important and Not Urgent
Activities:
Trivia, Busy Work
Some Mail
Some Phone Calls
Time Wasters
Pleasant Activities

In this matrix, Quadrant Two is where we want to spend most of our time. This is where the first creation, the planning, takes place. By spending more time in this quadrant, doing things such as strategic and tactical planning, you will spend less time in the other quadrants. You experience fewer crises and when they do occur, you will be more able to cope with them.

Unfortunately, most military organizations spend a great deal of time in Quadrant One. For example, when one communications technician was asked why he complained that his new coworkers were not adequately trained, he replied that the few experienced workers were too busy correcting work the new people had done wrong. They could not stop long enough to train their people and become more effective. This may seem ludicrous, but think of the times you have accelerated a project only to be forced to waste time correcting steps that, in your haste, you botched. You may have heard the words, "Just get it done, we'll fix it later." This philosophy creates a "three steps forward, two steps back," approach. In the long run, time can be saved by spending more time prioritizing Quadrant Two, planning activities. Otherwise you are simply reacting to the problem with no end in mind. A reactive supervisor commented that he showed concern for his people by checking with them at 1700 each day to find out why they had not gone home for the day. In response to this comment, a proactive supervisor asked why we could not check with people at 0800 to find out what their plan was to complete their day's work by 1630. A plan, such as your organization's strategic plan or your personal strategic plan, allows you to take control of the situation and be proactive.

VIII. THE PRIVATE VICTORY

Applying the first three steps creates what Covey refers to as a private victory. You will gain mastery over your destiny and transcend into a form of independence. You are functioning based on principles totally independent of the paradigms that surround you. With this as a foundation, you can now move on to the next three habits to develop interdependence. This is not codependency, where two individuals must live off one another's personalities to cope. Interdependence creates synergy, which I will cover in section XI.

IX. HABIT FOUR: THINK WIN/WIN

The fourth of Covey's Seven Habits is, "Think Win/Win." In our society there are several outcomes for each interaction: Win/Win; Win/Lose; Lose/Win; Lose/Lose; Win; and Win/Win or No Deal. In *Win/Win*, both sides get something they wanted. It creates a mutually agreeable situation. It is not a compromise but a situation where both parties get what they wanted. This is in contrast to *Win/Lose*, in which the winner imposes his or her will on the loser. *Lose/Win* is simply where the loser acquiesces to the winner in order to keep the peace or his or her job. *Lose/Lose* can be illustrated by an Air Force example. Bitter from an untimely departure from the Air Force, a member erases all the computer stored data related to his project. The *Win* scenario is somewhat like, "Every man for himself." People applying this are not necessarily competing with anyone. So long as they get what they want, it does not matter whether others win or lose. These are the people who appear to operate in a vacuum, oblivious to the fact that what benefits them may have various impacts on others. *Win/Win or No Deal* is a variation on Win/Win, except it has a safety valve. In short, it means if the parties involved cannot agree on a Win/Win solution, then they will not make a decision at that time. This can be likened to agreeing to disagree.

Typically in the Air Force, we think within a Win/Lose paradigm. After all, it is the military, so there must be the victors and the vanquished. The constant war readiness training, in order to "beat the other guys," generates a Win/Lose competitive atmosphere. While this is essential in battle, it does not translate well to operations within the organization. An appropriate example is intramural sports. Competitiveness is expected in sports, however, it often spills over

into the work environment. Organizations that should be cooperating by freely exchanging information and other resources, instead find themselves competing to the detriment of the next level up the organizational wiring diagram. While competitive comparisons are important for discovering the best practices, there is a huge difference between comparisons and win/lose competitions. Dr. Deming would comment that competition belongs on the playing field, not in the workplace.[7]

X. HABIT FIVE: SEEK FIRST TO UNDERSTAND ...THEN TO BE UNDERSTOOD

The next habit is, "Seek first to understand, then to be understood." In essence, you are to first find out the other person's paradigm. This requires empathetic listening, not simply active listening. In most active listening techniques the listener paraphrases what the speaker says, somewhat like a Rogerian therapist. Often, this leads to the listener superimposing his or her autobiography on the message of the speaker. The listener tries to locate an experience vaguely similar to that of the speaker and reply with a rendition of their similar experience. The problem is that the listener's scenario may not fit what the sender is trying to convey. Most people listen in order to form a reply in reference to their own autobiography. To empathetically listen, you must get into the frame of reference of the speaker. Try to see the world from their unique paradigm.

Once you understand the other person's paradigm, you can then work toward getting your message across. You must put your message in a form to which your receiver can relate. If the other person sees that you are sensitive to their position, then they will be more receptive to your position. Covey refers to the respect for each other that this sensitivity builds as an emotional bank account. Once you have shown empathy and understanding of the opposing position you will have capital on which to draw when making your point. Dr. Covey points out a good practice when making a controversial presentation. Before presenting your position, clearly present the opposing view, thus showing understanding and empathy. Facilitators of process action teams can benefit from this by working to build trust with their team before intervening. Often, teams become annoyed with facilitators who have overdrawn from their emotional bank account by frivolous interventions.

XI. HABIT SIX: SYNERGIZE

The sixth habit is, "Synergize." Synergy is the outgrowth of interdependence. With it, the product of the group is greater than the sum of its parts. There are several exercises that can be used to demonstrate synergy. To illustrate, one such exercise involves prioritizing items needed to survive on the dark side of the moon. Since it is unlikely that any of the participants will have gone to the moon, they equally lack experience. Initially, the participants prioritize the equipment one through fifteen, with one being the most important. This first prioritization is done without any discussion amongst the members. For example, the participants almost always pick oxygen as their first priority. After the individuals make their choices they are formed into small teams of from six to eight. They then prioritize the fifteen items via group consensus. The prioritizations are subsequently scored against what NASA engineers would have prioritized. The closer the participants prioritization is to that of NASA the better the score. Almost always, the group earns a better score together than the average individual score. They demonstrate synergy on a subject for which they possess little or no knowledge. It is this type of synergy that is achieved through interdependence.

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[7]Op. Cit., Deming

One barrier to synergy is that we spend years being socialized to an accepted norm. If we do not fit into the standard mold, we are seen as outcasts. Unfortunately, it is these differences that make synergy work. When we first encounter someone with a differing view we see them as wrong, because certainly we cannot be wrong. We rapidly become polarized and defensive. Yet, Tom Peters pointed out in his address at Training '95 that future innovation requires organizations seek out the people who are different from the norm. He cited the example of the Neon automobile built by Dodge. The car is globally competitive because it is different.[8]

However, if you approach others with a Win/Win attitude, seeking to understand before being understood, you can build trust. One way this has been applied in order to build trust and synergy, is for the leadership of a wing to conduct an off-site strategic planning session. This session requires the top ten leaders to spend approximately 72 hours together. They spend from 7:00 A.M. to 10:00 P.M. together each day doing anything from participating in exercises and training sessions based on mission planning, to attending entertainment events as a group in the evenings. This time together allows them to see each others point of view and build trust in one another. After the session, they typically have built such mutual respect for one another that if one leader disagrees with another, it causes them to look more closely at their own position, rather than defend it, right or wrong. Covey would describe the new attitude as, "If a person of your intelligence, competence, and commitment disagrees with me, then there must be something to your disagreement that I don't understand, and I need to look at it." The leaders become more synergistic and cooperative than competitive.

XII. HABIT SEVEN: SHARPEN THE SAW

The last of Dr. Covey's Seven Habits is, "Sharpen the saw." I can no better illustrate this than to use the story he did in the book.

You came upon someone in the woods working feverishly to saw down a tree.
"What are you doing?" you ask.
"Can't you see?" comes the impatient reply, "I'm sawing down this tree."
"You look exhausted!" you exclaim. "How long have you been at it?"
"Over five hours," he returns, "and I'm beat! This is hard work."
"Well, why don't you take a break for a few minutes and sharpen the saw?" you inquire. "I'm sure it would go a lot faster."
"I don't have time to sharpen the saw," the man says emphatically. "I'm too busy sawing!"

If we do not spend the time it takes to keep ourselves well-honed, we will be less able to accomplish our assigned tasks. Dr. Covey breaks this renewal into four dimensions: physical, which includes exercise, nutrition, and stress management; mental, which includes reading, visualizing, planning and writing; social/emotional, which includes service, empathy, synergy, and intrinsic security; and finally, there is the spiritual dimension, which includes value clarification and commitment, as well as study and meditation.

The Air Force has been making progress toward improving the physical dimension. They have instituted a more accurate measure of physical fitness and geared facilities to address the overall wellness of members. Some bases even offer classes in stress management. However,

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[8]Tom Peters, Training Conference '95; February 14, 1995, Atlanta, Ga.

there may be Air Force members who are cautious about showing interest in these classes as this might present the image that they are unable to cope with the stress of their jobs.

To expand the mental dimension, the Air Force provides strong support for continuing education. They offer to pay for 75% of tuition for members desiring a degree related to their field, if even remotely related. Some offices even set aside time each day to read material related to their career.

While the Air Force addresses the social/emotional aspect through encouraging community involvement, the spiritual dimension is a very personal thing which takes dedication from within. To apply the seven habits, it is best to have a personal mission statement, supported by principles and values. As paradigms of others are constantly changing around them, people must be willing to remain true to their foundation of principles such as those embodied in the Air Force values of integrity, service before self and excellence. This will be difficult at first. People who may not be principle-centered will apply pressure to get everyone to align to their paradigm rather than the organization's established strategic plan. This will be a time for inner strength that some may get from religious worship, while others from meditation.

XIII. CONCLUSION

As more people apply Dr. Covey's Seven Habits, the opportunities for synergy will become boundless. Not only will the Air Force benefit through effective execution of the strategic plan, but individual members will contribute more to the organization. Applied properly, these habits could be the key to "providing global power and reach for America."

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Caring Leadership

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ABSTRACT

Our greatest compliment came from several of our reservists employed by Eastman Chemical Company, a 1993 winner of the Malcolm Baldrige National Quality Award. Within a month of winning the award, they sought us out to say that although Eastman Chemical won the award, the quality of the 917th's quality process was superior to Eastman Chemical's. As our paper hopes to convey, leadership only starts with knowledge and training; experience and practice are its embodiment.

In the fall of 1990, the 917th Wing was tasked to implement a quality culture as one of two lead wings in the Air Force Reserve. Two of us, along with the Wing Commander, Brig Gen William D. Tracy, spent six months researching and setting up a process to be successful. This paper is the result of those six months. Now we look back and are amazed that we were smart enough to do so well. We went to several Dr. Deming conferences. The first half of this paper encapsulates his theory of profound knowledge. We've talked to people who have read his books and attended his seminars who still haven't put all the pieces of profound knowledge together. Well, here it is in a nutshell. And it's very powerful, even if you don't particularly care for Dr. Deming (an attitude prevalent in some senior Air Force leaders). Using his theory, and what we put together as the keys to success in implementing a 917th Wing quality culture, form the basis for this paper.

Caring Leadership

by Charlie Morgan

Leadership is the key ingredient in creating an environment that produces a quality Air Force. The feelings and actions, or caring, which spring from the breast of the commander directly influence their subordinates and affect the environment. His or her strategy should be to understand the theory, tools, and techniques that lead to continuous quality improvement, and then ***use*** them. Understanding the theory of Quality Management is absolutely fundamental to caring leadership in a quality Air Force. The purpose of this paper is to summarize this theory of management in Dr. Deming's four tenets of profound knowledge, and give the caring Air Force leader the five keys to success in implementing this theory.

The first tenet is **understanding the system**, or process. Everything that happens is part of a system. The five inputs to a system are people, material, method, equipment, and environment. There are then steps in the system that either add or subtract value to these inputs. The five outputs are people, material, method, equipment, and environment (a law of physics). Traditionally, as an Air Force we go no deeper than this in understanding systems. What Dr. Deming adds is the use of **feedback** from the five outputs of a system to redesign (or continuously improve) the system. This outlook is totally contrary to the old adage, "If it isn't broken, don't fix it!"

The second tenet is the **knowledge of variation**. Understanding variation is the greatest weakness of our current leaders. Every system has variation. With enough data, this variation can be calculated and presented through the use of statistical process control (SPC). SPC will show the leader what the system is capable of producing. Simply mandating inappropriate or arbitrary goals (which we're still doing under "Quality Air Force") and objectives <u>does not</u> make the system better. We'll meet those goals, however, because we'll lie and cheat in order to get promoted. Pity that fool who turns in a mission capable rate of 92.6 percent when the goal was 93 percent. I can tell you at the beginning of the year that it will be 93 percent or better for my unit, and I can even tell what it will be next year! Managing by results does not improve the system: it is merely tampering with the system and actually making it worse. That leaves the next commander starting over, picking up the pieces.

To fix problems in the system, the caring leader empowers people working in the system (the experts) to problem solve. To make the system better, the caring leader uses a systematic quality improvement process to reduce variation. Dr. Deming's definition of absolute quality is lack of variation. From this understanding of variation in the system comes the knowledge that 98 percent of the time substandard output is the fault of the system, not the people!! (The actual numbers aren't important; most often used are 85 percent system-15 percent people.) Understanding this single point is the greatest difference between those people who talk-the-talk, versus those who walk-the-talk of quality Air Force.

As a poignant example, a maintenance commander ran into my office one morning with the following story. He observed his very best crew chief servicing an aircraft with liquid oxygen without any protective equipment (very dangerous and very stupid!). Three years ago he would have gone out and ripped the crew chief's head off. Today, he went to the

crew chief's supervisor and told him to fix the system! "There must be some reason why my best people won't put on protective equipment," he said. "Is there too much paperwork to check it out? Is it old and worn?? Are we making people do things in too much of a hurry???" He ended by calmly telling the supervisor that the crew chief's actions were also a direct reflection on the supervisor. We'll have come a long way when we criticize the leaders and the system, not the people.

The third tenet of Dr. Deming's philosophy is **psychology**, or knowledge of people. He calls the United States a "third world nation" in terms of the way we treat people. When we're young we're pushed around in a stroller, when we're old we're pushed around in a wheelchair, and in between we're just.....pushed around.

Our current system of treating people comes from the turn of the century and Frederick Taylor, the "father of modern management". When Henry Ford wanted 10,000 workers to build cars, he had to get them off farms or out of inner cities. Fifty percent of the workers were immigrants, many of whom couldn't even speak English. The average education level was sixth grade or below. Frederick Taylor therefore designed a controlling system of management (or leadership).

Today we have a completely different society. Unfortunately, probably 85 percent of Master's of Business Administration courses in universities today still teach the four aspects of managing people; plan, organize, direct, and ***control.*** Quality Air Force leaders need to get out of the controlling business! We've been telling our people "don't think, just do!", when in fact they've been thinking all along. And the more we try to replace thinking with rules, the more we realize we need more rules.

Because we won World War II, only now are we paying attention to studies that show a German division was worth 1.2 American divisions, 1.6 British divisions, and 3 Russian divisions. With the same number of people they were working smarter. A quality Air Force leader needs to harness the collective genius of their organization, and instead of asking "Why?" to someone's idea, ask "Why not!?" We need to work with and develop our people instead of controlling them. To do this we must learn more about people and appreciate and harness the differences. Tools such as the Myers-Briggs Type Indicator are a start.

Dr. Deming's fourth tenet is **knowledge of the theory of knowledge**, or epistemology. Although it sounds intimidating, it's basically the difference between knowledge and information, and asking ourselves where the rules came from. We deal a lot with information, when it's really knowledge we're after. Something is knowledge if it is analytic or predictive. Metrics are a good start. A metric is a measurement over time that drives appropriate action. Unfortunately, many of our "new" metrics are simply measurements of historical information. We need to know the difference.

The second aspect of the theory of knowledge is seeing where the rules come from. Most people say America became great because of competition. In fact, we're great because of **cooperation!** In our current Air Force we talk of teamwork, but it seems we only practice it in wartime. In peacetime we appraise individually, reward individually, promote individually; we do everything individually, yet we call it teamwork. We only have a rudimentary understanding about how to manage teamwork.

As an example, a group of us pointed out to the Air Force IG that having outstanding performers identified in inspection reports isn't fostering teamwork.

Why should I help someone else, when they might be identified as an outstanding performer because of my efforts and I'm not. The IG picked right up on what the group said,.....and doubled the number of outstanding performers! (Making it twice as bad!) We need to critically review where the rules come from, and change them when necessary. Such change is often difficult to implement because at the crossroads of change stand 10,000 guardians of the past.

Once the philosophy of Quality Air Force is understood, the strategy for successfully leading organizational change involves five keys to success. The first key is **top management/leadership commitment**. A quality effort will fail without the leaders leading it. The best and most common example of commitment I've seen is where the leader gets his or her staff together and pronounces, "The Quality Air Force train is leaving the station. Everyone will have plenty of time to board. Once the train is up to full steam, if you're not on it, you'll find yourself outside this organization. You won't leave because we make you, you'll go because you can't stand it, and we can't tolerate you."

The second key to success is **customer focus**. No, the customer is not always right. Quality is meeting or exceeding mutually agreed upon customer requirements. And our boss is usually not our primary customer. We have a system, however, which promotes this. Officer Performance Reports are a controlling tool which do not foster customer focus. (Yes, Virginia, controlled 3's are promoteable!) Our internal customers must be happy if we expect to please our external ones. We have been making decisions for our customers for so long that we actually think we are good at it. The biggest part of customer focus is actually talking to our customers!!!

The third key is **performance measurement**. We need to identify key processes and monitor them through the use of metrics. As an example, a bush pilot landed at a mountain airstrip to pick up a hunter. The hunter has killed two moose and wanted to take them back. The pilot was hesitant because he feared there would be too much weight for the plane to clear the mountain at takeoff. The hunter insisted, saying, "But I shot two moose last year and the pilot put both of them on the plane, and it was smaller than this one." The pilot reluctantly agreed, so they loaded the moose and took off.

Well, they didn't make it. They crashed into the mountainside. Fortune prevailed, however, and neither person was killed.. As the dazed pilot stumbled from the wreckage he called out, "Where are we?" The hunter yelled back, "About a mile farther than we were last year."

The analogy from this little story is that we may "crash" a few times before we clear the mountain, but if we maintain our focus and sharpen our measurement skills through practice and application, what gets measured will get improved.

The fourth key is **participative management**. One of the articles in an Air War College reading said that participative management is not a part of quality in the military. Nothing could be further from the truth. Participatory management is not a dichotomy to military operations! Quality is meeting customer requirements. If the customer's requirement in a wartime situation is to obey unquestionably, then to do so would be quality. But we're not at war most of the time. Our greatest fear is being in the next war and fighting the last one. We need people to think! How can we harness the collective genius of our people if we do not let them participate?

How can we say we are not controlling them if we do not let them participate? How can we get the best ideas unless we get **all** the ideas? To those hung up on our caste system, let's change it to have four ranks; airmen, chiefs, lieutenants, and generals. Then we would have to work together!

The final key to a successful quality strategy is to **create an environment that fosters continuous improvement**. If we're not going to make things better, then the old system of crushing people works just fine. Leaders should tell their people to spend 80 percent of the time doing their jobs, and spend 20 percent looking at how to do it better.

Last, and most important - people are the key. People are not our greatest asset or resource. People are treasures. To have a lean, mean, fighting machine we need to cultivate and empower our people. This involves training them, giving them resources, and ***thanking*** them for a good job. Anything more and the leader is doing the job for them. No, empowerment is not giving the keys to the Corvette to the 16 year old. We must cultivate trustworthy people, and then trust them. We have to give our people appropriate skills (both technical and interpersonal), appropriate tools and technology, and good information. This information includes feedback on their performance (not a hammer, and not an annual rating), understanding of customer requirements (workers with CEO information make CEO decisions), and an understanding of how their work fits into the organization's strategy. We must also give our people authority to decide and act in service of their customers. This involves initiative and risk. I've never read a Medal of Honor citation that said this person took no risks or initiative, yet was lucky enough to have blinding success. And finally, we must encourage our people to work together.

CONCLUSION

Caring is the way you treat people. Leadership is taking people where they wouldn't go by themselves. It still amuses me when a new airman or lieutenant walks into their first assigned unit with shiny combat boots. For the first three days they get heckled. By the fourth day boot shine kits start popping up around the organization. That's leadership. It is by example, not rank or age. It is one person at a time. Caring leadership is setting the example and working with the system to make people successful. People are treasures. A caring leader harnesses the collective genius of the treasures in their organization and leads for the best of us.

Quality Leadership under Fire

(Or, How do we lead quality when all we really do is put out fires?)

Biography

Lieutenant Colonel Charles Court is the Chief of Electronic Combat, Headquarters Eighth Air Force, Barksdale AFB, Louisiana. A senior navigator and an Electronic Warfare Officer, Lt Col Court flew the F-105 and F-4G Wild Weasels. He is a former member of the Air Force Materiel Command Inspector General team where he led Process Effectiveness Reviews, Management Assistance Teams, and Total Quality Reviews. He has recently completed his Ph.D. in management with Walden University.

Quality Leadership under Fire
(Or, How do we lead quality when all we really do is put out fires?)

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Headquarters 8th Air Force

Abstract

Despite some clear success stories, many organizations fail to begin a credible path to quality. The threat imposed by the quality cultures of competitors fails to encourage change. People remain too busy solving crises. A successful beginning usually depends upon leaders at many levels. Managers may fail to appreciate how leadership itself is changing in light of rapid change in operating environments, new methods to communicate, and changes in organizational cultures. Today's quality cultures often compel changes in leadership and in organizational culture that managers do not originally anticipate. Alternative forms of organizational culture such as networks can emerge when leaders apply tools such TQM and reengineering to affect quality change. Successful quality organizations will re-form or reorganize themselves as situations change by encouraging new forms of leadership and by embracing flexibility.

Introduction

We learn the vocabulary and listen to the advantages of a quality culture, but nothing really changes. The crises keep coming. Under the day-to-day stresses, our organizations revert to the old ways to get things done. After frantic enthusiasm or tepid skepticism, most people in most organizations never put the quality ideas into practice.

This paper will first examine why quality never really begins in many organizations. It will then go on to examine how leadership must change and how cultures must change. The new quality vocabulary gives us tools and other mechanisms to affect change. This paper will conclude with a discussion of methods such as reinventing and reengineering that will let new leaders emerge in spite of cultures that do not want to change.

Meet the New Culture -- Same as the Old Culture

Yes, we all hear and speak the words. We attend quality classes, form quality committees, and organize quality meetings -- but our jobs never really change. We never change our processes. We neglect our internal customers. We never seek any customer feedback.

The old management practices divided labor into very small steps, instituted formalized operating procedures, and generally gave workers minimal latitude to do their jobs. These techniques worked extremely well for years in an industrial environment. Many now ask why they should change (Hammer and Champy, 17). This means that the real tasks in our new quality culture look just like the tasks from the Time of Before Quality (B.Q.). We still put out fires and jump from one crisis to the next. A common reaction becomes: "Plan ahead? We spend the time for planning to go to classes and to meetings ... and to do quality instead." Amid organizations

that have proclaimed glorious progress, there remains the rest of the world where nothing has changed.

This inability to change is really no one person's fault. All people have good or bad days, but we all want to think we do well. We all work hard to know our jobs. We like to think how our jobs are important. We attend to what the boss wants. We strive to deliver what the customers need. Unfortunately, we also slide down a slippery slope where we fail to ask questions like: "Is this job really that important? What does the boss really want? What do the customers really need? When is the last time we asked either of them?" We could also ask ourselves some real show-stoppers: "Just what are our products and processes? What are we doing to add value to our products through our processes?"

To be completely fair, perhaps these questions did come up at quality meetings and discussions. The problems still remain when all levels fail to change anything. How many times did the committee discount a suggestion because everyone already knew the boss' answer without asking? How many supervisors let a suggestion die in the in-basket because the phone was ringing and the secretary was away? How many of us told the lieutenant or the junior secretary or the new sergeant that their idea would never work because "We don't do things that way around here!"?

Reduced to stark terms, we must ask ourselves: How often do we apply critical thinking to attack any suggested change? Do we apply that same scrutiny to our day-to-day operations? Do we resist new ideas even when we know there is room for improvement? In terms of leadership the question becomes: How many times has leadership failed far below the level of the front office?

The real point here is that leadership must come from all levels in any quality success story. Indeed, a genuine transition to a quality culture calls for new definitions of leadership.

Leading when THE THREAT is not Enough

One common theme behind many quality success stories is how companies changed themselves to respond to an external threat. In *Reengineering the Corporation* Michael Hammer and James Champy discussed how Kodak changed their entire design process to meet a new product developed by Fuji (pp 44-46). Bill Creech told of how Xerox redesigned its entire "organizational architecture" to meet marketing demands forced by Japanese competition in *The Five Pillars of TQM* (pp 288-291).

Not every organization sees a threat as a motivation to change, however. Lacking competition, many federal agencies and local governments prove surprisingly resilient in their ability to resist change. Creech also cited General Motors' ability to avoid essential reorganization despite the success of Japanese competitors and successes with initiatives such as the Saturn (pp 63-73).

We must change because of inefficiencies in the traditional division of labor and because of the growth of layers of bureaucracy. Devotion to rigid functional divisions has also left companies with no one in charge of many processes (Hammer and Champy, 27-28). Simply stated, an external threat does not always motivate people to change their organizations. Creech called this reluctance "the *First Law of Wing Walking: Hold tightly on to what you have until you get a firm grip on something else*" (italics in original text, p 76). Please do not forget that leadership is not wing walking. All leaders must eventually counter that natural reluctance to change. Where can that leadership come from?

The simple answer is that the necessary leadership can come from everywhere. The great revelation is that organizations pay people to think and that sometimes those people think about how to improve processes. The trick then becomes finding ways to implement the best ideas and to then keep the ideas flowing.

There are plenty of buzzwords to describe how to keep people thinking and acting on their ideas. Total Quality, empowerment, and re-inventing immediately come to mind. Leadership itself deserves consideration before this paper examines any of these change mechanisms.

The Leadership Types of Max Weber

Max Weber was a German sociologist who developed a leadership framework based on three different types.

Legal systems depend on rational grounds when societies establish laws through a rational administrative process and administer them through an organized bureaucracy (Weber, 331-333).

Traditional systems depend on the sanctity of order and on powers of control handed down from the past. Traditional rules dictate who will hold authority. The administrative staff consists of personal retainers rather than a professional bureaucracy. Tradition and the chief's personal decisions legitimize commands.

Charismatic systems chose administrators based on their personal charisma, rather than through earned merit or personal position. Weber coined the term *charisma* to describe a quality that is like being endowed with supernatural, superhuman, or exceptional powers. Charismatic systems settle conflicts through some kind of contest where the winner is right and the loser must be guilty of some wrong (Weber, 358).

This framework becomes extremely important when we ask ourselves what sort of leadership we have in our organizations. If we want to believe our organization has a rational basis, what are the "rational grounds" at the very core? Those grounds form the processes enforced by the bureaucracy. Perhaps, instead, the chief surrounds himself or herself with personal retainers as in a traditional system. Although the media has overused the term *charisma*, do we still settle disputes through contests such as bureaucratic tricks and outright power struggles? Are the losers banished as if outcasts from a primitive group?

Understanding the local leadership style becomes important when we try to change things. We need to know who really makes the decisions, who can stop progress, and how other leaders may operate. Leadership can take many forms in many different situations. A more recent book discussed alternative leadership categories.

The Leadership Categories of Garry Wills

Beyond Weber's framework of charismatic and traditional leadership, Garry Wills outlined a total of sixteen different types of leaders in the book *Certain Trumpets: The Call of Leaders.* Wills' introduction described how a leader does not vaguely affect others, but takes others toward a goal (p 19). To do this, that leader must understand the mix of motives of the followers. Because this understanding is very time-consuming, Wills contended that great thinkers and artists rarely become great leaders. They do not have time to understand the motives of others (p 16).

Wills used categories such as military leaders, political leaders, business leaders, sports leaders, and church leaders. The point of these different categories was that leaders must understand many things. They must understand the people they lead. They must understand the

goal, such as developing a quality culture. They must understand the situation -- a military unit can be very different from a church or a business, for example. In any case, leaders and followers must unite if they are to achieve their shared goals (p 17).

Leaders must also understand the limits imposed by the very structure of their organization. At the very end of the book, Wills challenged the reader to invent more and different leadership categories based on different situations (p 273). New situations will emerge, and new forms of leadership will meet those situations.

How Leadership must Change

As goals and organizations change, new concepts of leadership can lead to new opportunities. Once, many of us were simply too busy to understand the goals or the motivations of others. Now, open communications and open minds can let many busy people contribute to forming new goals and to gaining their acceptance by others. Here is where many people, especially many busy people, can become leaders in a new sense of the word. We all act as leaders when we keep communications working and when we keep sharpening shared concepts of how we want our organizations to progress.

Shared goals also depend on many concepts, which include changing organizational cultures. These cultures prove extremely pervasive.

Culture, Culture Everywhere

In *Understanding Organizations* Charles Handy discussed how different sets of values, norms, and beliefs form into different organizational cultures. Different structures and systems reflect an organization's dominant culture. Important influences on culture include events of the past, the climate of the present, the technologies being managed, organizations' aims, and the kind of people who work in those organizations (p 180).

Managers make a common mistake when they assume that there is one ideal organizational culture. The *institutional approach* to management theory is different. This approach recognizes that cultures must match people to systems, tasks, and environments, and that cultures must recognize the interrelations between all four elements (p 181). In light of the institutional approach, Handy described four dominant cultural patterns.

The Power Culture

Small entrepreneurial organizations often form into a power culture. The culture depends on a central power source, with rays of power and influence spreading out from a central figure. It gets its effectiveness from trust and empathy. Telepathy and personal conversation provide adequate communication. The power culture structure is best pictured as a web:

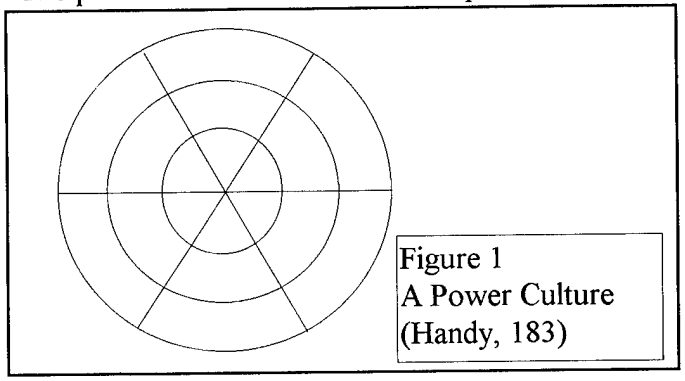

Figure 1
A Power Culture
(Handy, 183)

The Role Culture

Although role cultures can be stereotyped as bureaucracy, Handy objected to the negative tone of that term. Handy pictured the role culture as a Greek temple:

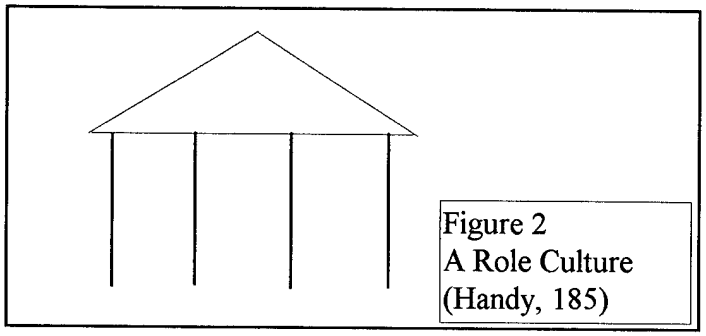

Figure 2
A Role Culture
(Handy, 185)

Role cultures work by logic and rationality. The pillars represent the strength in functions or specialties such as a finance department or a production facility. Set procedures and rules control the work and the interactions between the pillars (p 185).

The Task Culture

Handy characterized the task culture as a net:

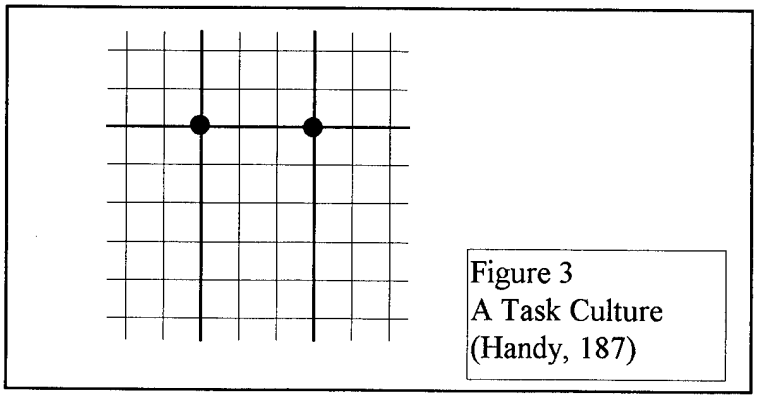

Figure 3
A Task Culture
(Handy, 187)

Some of the strands are stronger and thicker. Much of the power lies at certain intersections. This form of culture is extremely adaptable. Teams can form and be reformed, abandoned, or continued to fill a special purpose. Individuals in task cultures find they have a high degree of control over their work, and this results in flexibility and sensitivity to the market or the environment (p 188).

The Person Culture

This is the form of organizational culture where the individual is the central point. The ideal person culture exists only to serve the individuals within that organization. Families, communes, professional partnerships, and social groups follow this person orientation which can be drawn as a cluster or as a galaxy of individual stars:

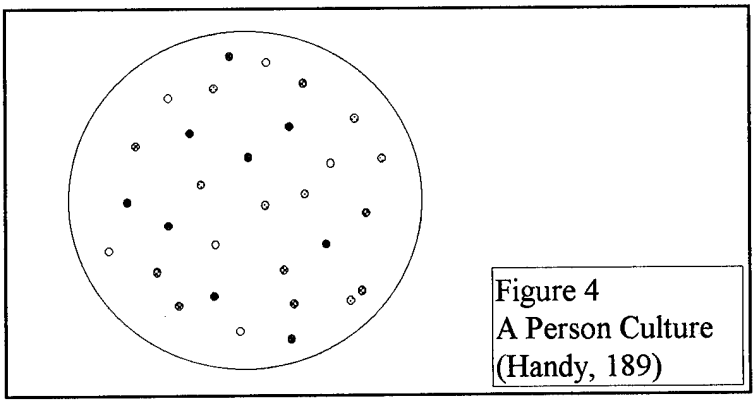

Figure 4
A Person Culture
(Handy, 189)

The Impact of Organizational Culture

Different organizational cultures prove better suited to different situations and to different tasks. For example, the stereotypical bureaucracy is a task culture because each task is divided into specializations with their characteristic training and procedures. Different groups within organizations may prefer alternative arrangements because of other forms of cultures within those organizations. As old line managers may prefer the rigid role culture, for example, quality cultures may already be developing task networks or sub-units based on power cultures. Several books have described methods leaders can use to change their organizations.

Developing the New Cultures

Three change strategies have received extensive interest: re-inventing, Total Quality, and reengineering. Each choice has its own level of extent; some are more extensive and traumatic than others. For example, re-inventing and Total Quality Management try to modify existing structures. Reengineering is much more extensive; it looks at the entire set of functions of an organization and either reorganizes those functions or discards them.

Each approach has its advocates, success stories, and problems.

Re-Invention

John Naisbitt and Patricia Aburdene discussed re-inventing in *Re-inventing the Corporation*. The first ingredient in re-invention is a powerful vision of a desired state of affairs. Then leaders at all levels must align their organization by attracting people who adopt the vision and share responsibility for achieving it (p 24). The final step is to select the right organizational structure.

Re-invented organizations usually turn to new structures to facilitate communication -- they form networks, hubs, lattices, circles, and wheels. This re-forming of hierarchy into something dynamic often transforms competitive energy into a creative, enterprising spirit (p 30).

In the end, the corporation is re-invented by both the leaders and the employees. The process of change can be traumatic because managers who were successful in the old hierarchy do not want to give up control. Nevertheless, demands for talented workers, new attitudes toward work, and changing personal needs leave many corporations and other organizations with little choice but to change.

This enterprise leads to a continuity of personal, professional, and corporate growth where each area of growth supports the others. As in the best person cultures, individual growth and

company growth become compatible and mutually nourishing. This also allows environments where everyone manages themselves and everyone can act as an entrepreneur (p 85).

Total Quality Management (TQM)

In a TQM program, all workers receive training in basic management which can include analytic tools such as statistics and statistical process control. Typically, managers and workers form teams to investigate the organization's processes and problems, and then either recommend or actually enact their solutions.

The overriding goal of a quality effort remains to meet the customers' needs. To meet -- or exceed -- those needs, TQM encourages companies to follow Deming's principles which include driving out fear, breaking down barriers, and eliminating management by numerical goals. By viewing their organization as a series of processes, TQM lets people apply their training to stabilize and improve company processes continuously through a succession of incremental efforts.

In light of business environment changes that are more than incremental, a much more extensive change strategy -- reengineering -- has subsequently emerged.

Reengineering

Michael Hammer and James Champy advanced the new reengineering movement in *Reengineering the Corporation*. Reengineering is a total redesign of corporate structure and processes. Organizations doing reengineering start from scratch by asking the question, "If I were re-creating this company today, given what I know and current technology, what would it look like?" Old systems are tossed aside. Managers go back to the beginning and invent better ways of doing work (p 31).

Understanding what reengineering is and how extensive it is has become a leadership challenge in itself. Reengineering is not restructuring, reorganizing, delayering, flattening, downsizing, or TQM, although many of these things can happen during a reengineering effort (pp 48-49). Reengineering is a much more encompassing response to the fundamental changes in the business environment.

The changes lead to a new kind of work culture. Work units change from functional departments to process teams. Executives stop being scorekeepers and become leaders. Jobs change from simple tasks to multi-dimensional work. As organizational structures become less hierarchical, people's roles change from controlled to empowered. Advancement rests upon ability, values change from protective to productive, and the focus of performance becomes results (Ch 4).

Combining Change Methods

Extensive, top-down directed reengineering may make employees feel threatened. Employees may also find themselves preferring the incremental, bottom-up changes encouraged by re-inventing or by TQM. Creative managers can take advantage of this desire for relative stability by combining the best features of re-inventing, reengineering, and TQM. After extensive changes from reengineering, TQM and re-inventing can still add quantum improvements through small, yet significant refinements and from leaders who contribute their strength from the bottom rather than the top of a hierarchy.

Consider this relationship between reengineering and TQM as an example of relative change. When an organization reengineers and then organizes into a more dynamic structure,

changes encouraged by Total Quality or re-inventing will seem extremely tame. This shows how new change strategies can affect organizations in many ways.

SO WHAT DO WE DO?

The first drastic change comes when we redefine leadership. Wills' examples showed that different types of leadership become appropriate at different times and in different situations. As situations change fast, different leaders with different skills and different styles will emerge, contribute, and then follow other leaders as situations change again. In other words, we each can be leaders -- just not all at once and not for all of the time. Switching back and forth between leading and following must become a respected part of a quality culture.

Next, we must realize how old forms of organization cannot keep up with rapid change. Successful quality organizations must re-form or reorganize themselves almost instantaneously as situations change. This need not be difficult or disorienting if the overall quality culture gives each individual the ability to relate to the organization in different ways.

For example, open communications and clear lines of authority let the temple of the role culture change into the flexible web of a power culture. As rigid authority moves to accountability and individual responsibility, the web becomes more of a net-like task culture. When motivated individuals are able to use all of the strengths of their organizations, the culture incorporates the best parts of a person culture. Each individual star helps everyone else to make the work situation better.

The tools of re-inventing, TQM, and reengineering should let all individual leaders use the best of each of the four types of culture. The solutions offered by change mechanisms pale when compared to shifting cultures and seeing those shifts improve peoples' own perceptions. As leaders emerge and when organizations become flexible and responsive, our new quality culture can meet the needs of people, leaders, and organizations so we can work together better and smarter.

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QUALITY BY ANY OTHER NAME IS RESPONSIBILITY

by
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Abstract: The foundation of any program, idea, theory or other tool that is designed to change or improve a person's or group's performance, is totally dependent on the concept of personal responsibility. Total Quality Management, Quality Circles, Zero Defects or any of a hundred other approaches will only work to the degree that the day-to-day practitioners believe in them. Many times an organization will hire a consultant to come in and make recommendations and changes to the way it operates, seeking that ever elusive total quality. Usually, as long as the consultant is there, and for a period of time after, things will be better. Then, slowly and insidiously, the old status quo will slowly return and the old adage, "The more things change, the more things remain the same" proves itself once more.

This paper and presentation will identify the key issues that need to be implemented to ensure not only performance and quality improvement, but also sustained long term change.

Through an integrated approach of experiential and cognitive activities, called initiatives, participants will be taken through a change process that produces a mindset that practically ensures increased performance levels. Each initiative is designed to move individuals and groups closer to the realization of 100% personal responsibility for each and every action. Participants are taught that in any group, each person is 100% responsible for the outcome of any action or lack of action. To accept this concept of responsibility, self-imposed limiting belief systems must be changed or eliminated.

QUALITY BY ANY OTHER NAME IS RESPONSIBILITY

Quality does not exist. It is not possible to reach out, touch, hold, pass, or manipulate in any way, the concept of quality. What does exist is the mindset within an individual, and the individuals within an organization, that believes a certain performance standard is not only necessary, but also worthwhile and achievable. A popular misconception is that organizations can practice "Total Quality Management." As mentioned in the opening statements, quality cannot be managed, what is managed is the training, reinforcement and empowerment of the individuals within a system to insure that a mutually agreed upon definition of "quality" is used as the basis for all decisions and behaviors.

In their quest for quality, many organizations will hire consultants, or send some of their staff to a training/workshop about quality. These people will then review some data, observe staff, make recommendations and then hopefully monitor the evolution of improved quality. For some organizations, this alone will increase the quality of the product/service and it may stay at a constant improved rate. For other organizations, after a period of time, quality in the product/service will decline back to its baseline levels, or quality will once again decline if changes are made or new personnel assume control.

There is a paradox in that quality products and service exists in a "culture of quality" but no "culture" actually exists. It is important to understand that a culture is comprised of the people within an organization, and it will be defined by their behaviors. To truly institute a culture of quality in any organization or group, any training or program must present, teach, role-model and accomplish the following: 1) Each person in the organization and especially the leaders in the organization, must first develop a mutually agreed upon definition of "quality." 2), Each person must agree that the goal of quality is worthwhile and achievable. 3), Each person must agree to achieve the goal of quality. 4), An effective mentoring program must be in place from the beginning. 5), The mentors must fully understand the concepts of shaping and reinforcement and be able to use them with their staff. 6), A program and identified responsible person must be in place to monitor, adapt, change, improve or do as necessary, whatever it takes to ensure the program continues and stays dynamic. Each of these six areas will be discussed in detail below.

1) Behavioral definition

Probably the most important aspect of instituting a move toward improving quality service or products is often left out, or is implicitly implied, but never fully developed. That aspect is one of developing a thorough definition of what is sought after to such an extent that everyone is sure not only of what it is, but also what it isn't. Within the field of Applied Behavior Analysis, that concept is defined as a behavioral definition. A behavioral definition is a statement that specifies exactly what behavior is to be observed.

As an example, the concept of "being on time for meetings" may be interpreted differently by every member of a committee. One member may believe that being on time requires her to be their at least 10 minutes prior to the time the meeting is suppose to start. Another member may believe that being on time means arriving at the meeting before new business is started, which doesn't occur until the minutes from the last meeting are reviewed. And still another member may believe that as long as he reviews the minutes from each meeting, his attendance is voluntary. Each person in the above example, if asked if they were "on time" for their meetings would be able to honestly answer yes, because they are operating from their own definition of what "on time" means to them.

To ensure that everyone understands a concept, a behavioral definition needs to be developed that leaves no doubt as to what exactly is being sought. In the above example, "on time for meetings" may be defined as "Arriving at the conference room at least 5 minutes before 8 am, seated in a chair, coats off, note paper and pencil or pen ready to go." This definition of on time would be easy to check by any observer. If, at 8:01 am, an observer notices Robert just sitting down, it would be easy to conclude that Robert was not on time. And, if Robert had be given the exact details of what "on time" had been defined as, then Robert would also know that he "had exceeded the temporal parameters as stated."

For a concept like quality, an exact definition is a must. If a manufacture defines quality production as "zero defects" and the actual output is one defect per 1,000,000 parts, has quality be achieved? According to the stated definition of zero defects, it has not. For a service organization to define quality service as "Great every customer with a smile, say hello and introduce yourself, and ask how may you help them today." Again, any observer could watch a staff member approach a customer and check off if the following occurred; smiled-yes, said

hello-yes, introduced themselve-yes, asked how they could be of help-yes. Was quality achieved? According to the definition it had.

2) Consensus

Once the definition has been developed, the next step is to is to achieve a consensus that the definition is realistic, worthwhile and achievable. This step may take a bit of facilitation as different sides may have strong feelings over the concepts of "worthwhile" and "achievable." The important point here is that this aspect be in line with the behavioral definition mentioned above. The consensus is usually a refinement of the behavioral definition, especially after a pilot program has been in place for a short period of time.

The main idea is to get everyone agreeing on the duration, number, or other qualifier to the definition. For example, is "being on time" as defined above possible for everyone, every single meeting, all year long? Of course the answer is yes, and no. Even taking into account weather and other variables, everyone can be on time. But, if strict policies are in place when someone is not on time, the stress to be on time 52 times a year may cost the company more in the long run than an occasional tardiness or absence might. Perhaps changing the definition to include a statement like "Each person is allowed to miss or be tardy 3 meetings per calendar year, if they call at least a half hour before the meeting is to begin and inform the secretary of their lateness/absence."

In realistic terms, there are certain manufacturing processes, customer services, or other performance behavior where "zero defects" is not only possible, but easily achievable. In other situations, it may not be possible. In these latter instances, it is important that the definition of quality be such that it guarantees the absolute best possible performance that can be achieved and maintained.

3) Commitment

Okay, a company has a brand spanking new behavioral definition that everyone agrees on printed up on fluorescent orange posters and places them all around the company. Not only can the employees see them, but they are also visible to the customers and it is intended to share with the world their desire to be the best. And yet, the quality assurance department still states that performance is far below the stated threshold. What needs to happen next?

Most organizations and individuals find that the following concept, while totally obvious once it is pointed out, is often overlooked or not even given any consideration. There is a total difference between the following two statements:

1) Total quality in every aspect of this organization is the number one priority.
2) Total quality in every aspect of this organization is the number one priority - for me.

This concept becomes clear when it is seen from the perspective of the difference between what people say, and what they do. For example, "Recycling is important." results in one set of behaviors, maybe just verbal, but "It is important for me to recycle" produces a completely different set of behaviors. The goal in any quality program, or any training, it to get people to the point of agreeing that what is being planned is important to them.

4) Mentoring

To often, programs and plans are put into place without a method of ensuring neither their compliance or their success. A mentor is someone who says to their staff "I know you can do this. The only way for me to be successful is for you to be successful. I will do whatever is necessary to ensure your success. I will be there with you along every step of the way."

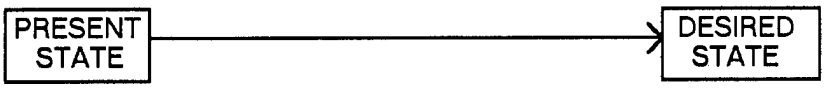
A mentor will use the "Performance Algorithm" in determining the next step in a person's or group's training/supervision program. The Performance Algorithm states: If a person's life depended on their performing an action, could she or he do it? 1) NO. Then it is simply a training situation - facilitate training. 2) YES. Then it is simply a motivation situation - facilitate motivation.

5) Positive process

One of the great crimes in our society right now is the emphasis on the negative. Psychology students in graduate school are taught that the average family delivers 16 negatives to one positive, but never mentions what should be done about it. Punishment does not teach appropriate behaviors - it might, by way of elimination teach what not to do, but by itself does not show what to do. Telling an employee "Don't get angry at a customer" does not tell the employee what to do instead. If the employee called a customer a jerk, but wasn't angry, he or she would have been complying with their supervisor.

An effective supervisor/mentor will understand and use the concept of shaping. Shaping is the process of reinforcing successive approximations toward a specific goal or behavior. The most important aspect of this concept is the reinforcement of the approximations toward the goal, not punishing staff when they are just starting, or waiting until everything is completed before praise and encouragement.

The following diagram illustrates the process of shaping from the beginning stage (present state) to the end stage (desired state).



Initial State **Goal State**

The present state is the initial condition that exists at the beginning of an intervention, training, consultant coming in, etc., e.g., "10 customer complaints per month." The desired state is the sought after goal or conditions e.g., "1 customer complaint per year." The desired state is usually described in the behavioral definition discussed in item one above. For most groups, defining the present state and even the goal or desired state can be easy and pretty much straight forward. The art in this process is to define and then implement the steps necessary to get from the present state to the goal state. What are the steps necessary to move an employee culture that creates 10 customer complaints per month to one that at most has 1 complaint per year? There will be as many answers and variations as there are people and organizations.

6) Cycle of success

The identification of the goal, reinforcement of the steps necessary to get there, and final completion of that goal is only the first part of a cycle of success. Each goal will be part of a larger goal - each desired state will result in the movement toward a greater desired state. The desired state can be one that includes a 20 year plan. Reaching a goal of quality in a product or service is really just the beginning. An airline that achieves a successful quality control of no lost engines for 4 years, and then has three planes crash in a two month period will negate the previous good record. As conditions and time change, so will the goals and performance needed to retain absolute quality.

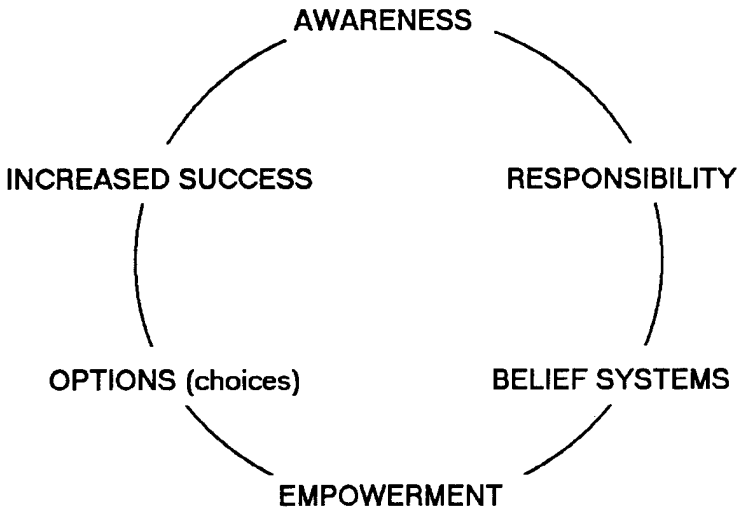
The mentor of the program will understand that success is a moment by moment accomplishment, not an all at once phenomenon that occurs at the end of a process. The attainment of that goal then becomes the antecedent for the next one, which leads to the 3rd goal, which leads to the 4th and so on.

TRAINING

Learned Enterprises International is a leader in quality training development. We have developed a highly regarded training program for the development of empowerment oriented facilitators. These facilitators are then able to take their skills and attributes into a business or organization and facilitate others through a process of growth and empowerment.

The foundation of the training is found in the philosophical ideologies of the Empowerment Circle, which is illustrated below.

EMPOWERMENT CIRCLE

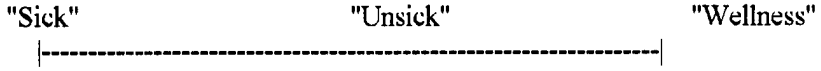


The Empowerment Circle defines the exact process a person, or a group of people in an organization, needs to go through to actually create and maintain long-term change.

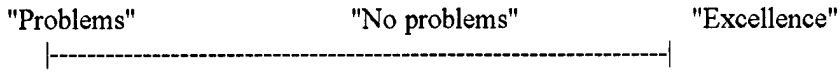
AWARENESS

The Cycle begins with an awareness on the part of an individual or group about some aspect of a situation or behavior. The awareness can come from many different sources. A program manager may become aware that her department has the highest turnover rate in the whole company. A sales person may become aware that their sales has slowly diminished in the past two years. A CEO may become aware that 20% of the budget is going to fix constant machine breakdowns at one plant. And an individual may become aware that a job they one time loved to go to has now become, in their mind, boring and tedious.

It needs to be pointed out that not all change starts with an awareness of something "wrong" or "bad." A manager can become aware that while their department is doing rather well, it could be better. A person may be in good shape, but also be aware that they could be fitter. On a continuum, many programs and individuals will move themselves from the extreme end on the left, to a place in the middle, never seeking the high level performance that each one is capable of. An example would be a person who has a sore back. They visit the doctor who recommends bed rest and pain pills. After a week or so, the person's back no longer hurts, but they are not taking care of themselves by doing sit ups, loosing weight, or whatever else is necessary to attain a high level of health.



The same situation can exist within an company. The company may be aware that there are "problems" with a certain situation, and take the appropriate measures to alleviate the problem. And that might be fine for awhile, but there could still be a higher level of performance that is possible.



The power of experiential training is that it not only allows individuals and groups to identify "problems," it also will allow them to experience the "excellence" that they are capable of.

RESPONSIBILITY

The most powerful aspect of the training at Learned Enterprises is the experiential presentation of the concept of 100% responsibility. Responsibility is defined as "The willingness of a person or group to take ownership for all their beliefs, thoughts, behaviors and choices they have made or are making, the consequences of these, and ultimately, their present and future level(s) of success." From this definition, individuals and groups realize that they are responsible not only for their actions and what happens to them, but also any outcome from any group they are part of. For example, 4 people working on a project together are each 100% responsible for the outcome of that project. They are not each 25% responsible as some would like to believe. This concept of 100% responsibility does not allow statements like "That is not my problem," "I was not here

when that happened," "I can't...," "I won't..," etc. to have any validity. The training teaches that even if the situation falls outside of the boundaries of a person's department or involvement, being responsible would require them to contact the person who needs to be contacted and they will not stop until they absolutely are assured that the situation will be taken care of.

BELIEF SYSTEMS

Once the concept of responsibility is experientially understood, individuals must examine, identify, change and/or eliminate the self-imposed, limiting belief systems each person has. Beliefs basically accomplish two different results with a person/group - 1) they increase a person's success or 2), they limit a person's ability to be successful. For example, a belief like "Two workman's comp claims a year is tolerable." does not help a company's quality program. On the other hand, a shared belief like "The only acceptable safety policy is one that tolerates zero accidents and enforces measures that ensures zero accidents."

Each person and group has numerous beliefs that they may or may not be aware of. In any group, there will be the formal rules, based on certain beliefs, that are usually written in the policy and procedure section of a company's manual. "Person A must report to Person B," "All reports must be double spaced," "When an accident occurs, these three steps must be followed," etc. are all examples of the "written" and "formal" rules that may exist. Much more important, and usually more powerful, are the unwritten, and also usually unspoken, are the informal rules that exist in any group or workplace. "When you really need something done, go see Fred," "It is okay to leave 20 minutes early, but not 30," "25 mistakes per batch are okay," "No one listens to employees anyway, why try?" "Customers wearing suits are more important than those wearing jeans and T-shirts," are examples of some informal rules that may exist. It is important to understand that both informal and formal rules are developed and maintained by a shared set of beliefs about what is "right," "wrong," "good," "bad," "effective," etc. And like all beliefs, they may or may not be reflected in reality - "You must believe it before you will see it."

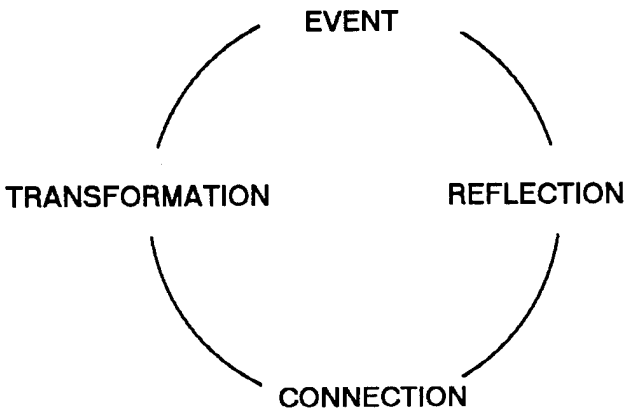
The experiential exercises that comprises the foundation of Learned Enterprises training are specifically designed to identify, and encourage the elimination of self-imposed limiting beliefs in an individual or group, and the development and adoption of empowering beliefs.

EMPOWERMENT

Upon the elimination or change of limiting beliefs, a person's or group's level of empowerment will increase. Empowerment is defined as "An increase in the ability and/or willingness of a person (or group) to perform at or near their potential. It may mean going beyond present conditions and perceived limiting factors, making a transformation that will enhance your life experience, and will increase the capacity to perform at higher levels." The two important points to this definition are 1) going beyond perceived limiting factors (beliefs) and 2), making a transformation. As an example, looking at a person who has a belief that they can not learn how to use a computer, will only be capable of a certain level of performance. Through training and encouragement, the person will have an opportunity to change that belief to one where they believe they can not only learn how to use a computer, but also be highly effective with it. Unless that person's belief about computers changes, no amount of training will allow them to become as effective as they can be.

The second part of this, transformation, must take place and usually happens as the old, self-imposed, limiting beliefs are eliminated or changed. This change, and the need for transformation are detailed in the Experiential Insight and Growth Cycle.

EXPERIENTIAL INSIGHT AND GROWTH CYCLE



This process usually begins with an event, as an example; a person gets hurt on the job. There will need to be some reflection on what happened; "The person slipped on oil that leaked out of a barrel." Along with the reflection, a connection needs to be made between what happened, and what actions, or non-action that lead to it. "Several people knew the oil was leaking, had spotted it, and even turned in Form 12457X as stated in the manual." But knowledge without action, is usually not very helpful. The transformation needs to take place within the staff, and the whole organization before real change can take place. Many people know that smoking is hazardous to their health, and yet they still smoke. Unless they change some aspect of their smoking behavior, all the reflection and connection in the world can take place, but they will still probably get some illness and suffer. The same is true with any company that reflects and connects with concepts like quality, but without a change in policy/behaviors/beliefs, things will go on much like before.

OPTIONS (choice)

There is a major difference between an option and a choice. At anyone time, most people and companies will have hundreds or thousands of choices they could make. But if they don't believe it is a valid, doable choice for them, they will not really perceive it as an option. Using the example with the person and computer above, that person always had a choice to apply for an upper-level management position, but because the job required extensive use of a computer, and they had a belief that they could never learn how to use a computer, they never saw that job as a real option for them.

As a person assumes more responsibility for themselves, changes or eliminates their limiting belief systems, increases their level of empowerment, more and more options will become available to them. This same process occurs with teams, groups, small companies and large

organizations. The greater the empowerment, the greater the options that they perceive are available to them.

INCREASED SUCCESS

Each person, each group and organization are already perceived by Learned Enterprises to be successful to some degree. Our training emphasizes the change as an increase in a person's or group's level of success. It is not perceived to be appropriate to say "You will be successful when..." Rather, each person/group are seen as already having achieved a level of success, and through training, mentoring, support, etc., they increase their current level of success.

Our presentation will role model, define, and teach the necessary steps a leader, group, organization or other person must take to facilitate empowerment with their client(s). Through structured experiential activities, participants will experience and understand the process of change and improvement.

PROUD FALCON II
PREVENTIVE MAINTENANCE INSPECTION PROGRAM

PRESENTERS' BIOGRAPHIES

Captain David P. Leonhardt

Captain Leonhardt is an Aircraft/Munitions Maintenance Officer stationed at Nellis AFB, Nevada. He is a graduate of the University of Utah, where he earned a Bachelor of Science degree in Mining Engineering. Following graduation, Captain Leonhardt was accepted into Officer Training School and was commissioned a Second Lieutenant in January, 1986. He is a distinguished graduate of Squadron Officer School and has earned Masters Degrees from Troy State University and the Air Force Institute of Technology.

Technical Sergeant Randy Brawner

Technical Sergeant Brawner is an Aircraft Armament Systems Specialist stationed at Nellis AFB, Nevada. He graduated from Mt. Pleasant High School in Mt. Pleasant, Tennessee in May, 1977. Shortly after graduation, he enlisted in the Air Force and went through basic training at Lackland Air Force Base, Texas. He has worked primarily on F-16 aircraft throughout his career. Sergeant Brawner has been stationed at Homestead AFB, Florida; Osan Air Base, Republic of Korea; Semour-Johnson AFB, North Carolina; Misawa Air Base, Japan; and Nellis AFB, Nevada.

PROUD FALCON II
PREVENTIVE MAINTENANCE INSPECTION PROGRAM

Captain David P. Leonhardt
57th Wing, Nellis AFB, Nevada

Proud Falcon II is a quality success story that began with a few people noticing a problem that needed attention and has grown into a program that is being considered for adoption Air Force-wide. It is a preventive maintenance inspection designed to increase the reliability of the F-16 aircraft and is the second generation of this type of inspection. Proud Falcon was first performed at Misawa Air Base, Japan in 1989-1990 where 34 aircraft were inspected. A large part of the inspection centered around the aircraft multiplex bus system. Under Proud Falcon II, the inspection has been expanded to include other aircraft systems not originally included in the program. Areas such as the weapons release system, stores standby power, line-replaceable unit electrical bonding, missile slaving, missile tone, ident grounds, and video systems are all tested. A physical inspection and cleaning is also accomplished on all wiring and connectors in all the areas mentioned above. Significant improvements in aircraft reliability have been attained at both the 57th Wing and the Montana Air National Guard. The program saved the 57th Wing an estimated $1 million in the first year alone (1993) with projected savings comparable to that in each successive year. The Montana Air National Guard F-16s are now showing a weapons release rate of around 100 percent, a rate unheard of before implementation of this inspection.

INTRODUCTION

F-16 fighter aircraft are a complicated amalgamation of wires, tubes, boxes, instruments, and metal put together in such a manner to create one of the most formidable weapons delivery platforms in the United States military inventory. If any aspect of the many complicated systems found in the aircraft malfunctions, the aircraft, in most cases, is not able to accomplish the mission it was designed to perform. The focus of this paper will be the electrical portions of the aircraft that run the many systems designed to perform the aircraft's mission. In most cases, these electrical systems are only checked when there is reason to believe that some sort of malfunction is occurring that can be attributed to the electrical system. Preventive maintenance with respect to the electrical systems has not been part of the standard maintenance procedures utilized by maintenance technicians. This paper will describe a preventive maintenance process that was instituted to enhance the reliability of the F-16 aircraft overall.

THE PROBLEM

As F-16 aircraft age, it was noticed that certain recurring maintenance problems were beginning to appear. Among these problems were the following:

- Intermittent malfunctions of the weapons system such as "ghost" maintenance fault listing (MFL) pilot-reported discrepancies (PRD). Many of these PRDs began to crop up indicating electrical bus failures to the weapons stations on the wings, enhanced central interface unit (ECIU) failures or missile slaving failures. Many of these PRDs could not be duplicated on the ground but many parts were changed out anyway due to the critical nature of the faults. Once a part like an ECIU was removed and replaced, the in-flight PRD would go away for a few flights but then reappear and the cycle would repeat itself.

- Avionics malfunctions. Often, the jets would come back after flight with an MFL indicating a Digital Flight Control Computer (DFLCC) malfunction and intermittent avionics bus failures to the avionics

components. As above, many times the malfunctions could not be duplicated on the ground but due to the critical nature of the DFLCC, the DFLCC would be changed out with the same results as above.

Maintenance technicians at Misawa Air Base in Japan began investigating these problems by using fluke meters and general oscilloscopes with a function generator to shoot the wires in the systems. Using this procedure, they primarily found shorts to ground that were inhibiting the electrical current between the power source and the systems where the faults had been occurring. A further result of this procedure revealed that there was a tendency for transformers made by a certain manufacturers to fail more often than other transformers made by other manufacturers. No formal study or action was taken at that time because of the lack of substantiating data on the transformers.

THE PROUD FALCON II PROGRAM

In 1992, TSgt Randy Brawner, a member of the Misawa Air Base maintenance force stationed then at Nellis Air Force Base, Nevada, changed a wiring harness using a prototype Multiplex Bus Fault Isolator (MBFI) and noticed the same deterioration in the Nellis F-16s as he had seen in the Misawa jets. With the Aircraft Maintenance Unit supervision's sanction, TSgt Brawner, along with assistance from Air Force Engineering Technical Service (AFETS) representatives, put together a team to begin investigating the malfunctions that were appearing. The MBFI tester was developed by Lockheed engineers for Ogden Air Logistic Center (ALC) to be used as a troubleshooting aid when known problems exist with the multiplex bus. The multiplex bus (Mux Bus) is a communication line between the different computer systems in the aircraft, much like a telephone line. When a problem with the Mux Bus occurs, the different systems of the aircraft are not able to communicate with each other, thus diminishing the mission capabilities of the aircraft. The tester itself was a box with two circuit cards and a power supply connected to the aircraft by means of 24 adapter cables. The box, in turn, was also connected to a laptop computer containing diagnostic software designed to isolate faults within the Mux Bus.

It soon became apparent to the team members that there were problems with the original software and once these problems were corrected, the scope of the MBFI could be expanded. With that in mind, they suggested several modifications to the hardware and the software which were enthusiastically accepted by engineers at the ALC. Originally designed for the Block 15 series F-16, the software was expanded to include later-series blocks of aircraft with Nellis Air Force Base being selected as the field test site for the block 40 and block 50 aircraft because of the expertise of the Proud Falcon II team in developing the modifications to the tester and software.

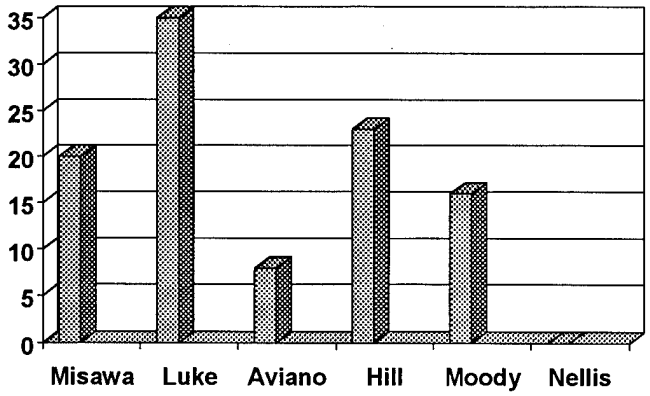
By developing their own test cables for the tester, the team expanded the concept of the MBFI and began testing the missile slaving and missile tone systems, the electronic warfare mux, and any other aircraft system with any electrical components or wiring. In one case, a fault in an electrical wiring spider harness was found in an USAF Air Demonstration Squadron "Thunderbirds" engine system in 5 to 10 minutes that had eluded engine technicians for 3 weeks. The successes of the expanded capability convinced the team that the program should be taken even a step further. By developing a database that allows the team to isolate potential problems, the team developed a preventive maintenance inspection to get to the problems before the system degrades to a point of developing a hard failure.

This program is set up to take an aircraft for a week and run through most of the aircraft systems. To begin, the team uses the tester to get an overall snapshot of the aircraft. Having done this, they narrow the focus to inspect hard failures found during this initial inspection. The next step in the procedure is to remove all mux matrices and test each individual matrix for other than ideal readings. Any problems with the matrix (transformer or wiring) is then corrected. The matrices are then cleaned and inspected visually and the transformers are sealed with Humiseal, a sealant designed to inhibit moisture and other pollutants from getting into the transformer itself. The mux is then reinstalled into the aircraft and all muxes are then retested to ensure that all the failures and marginal readings no longer exist. During the mux inspection, the team is also actively testing all other systems with electrical wiring or components such as missile slaving, missile tone, electrical bonding, master arming release power, stores standby power, radar power, video, and Low Altitude Navigation and Targeting Infared for Night systems. All connectors for these systems are then cleaned and inspected.

RESULTS

Transformers. Using the extensive testing procedures developed by the Proud Falcon II team, the team found that transformers used in the different electrical buses were showing different readings than the manufacturers' acceptance test procedures. There are currently three manufacturers providing transformers for the F-16 aircraft. The team found that transformers provided by one of these manufacturers were not meeting the requirements of the MBFI right out of the box. This finding has since been the catalyst for effecting a change on the testing criteria for transformers. The transformers developed by the other two manufacturers are also suspect under certain weather or environmental conditions that should not adversely affect them. These transformer failures were causing the unnecessary removal of aircraft components based on "ghost" MFLs. These removals were wasting numerous man-hours and costing tens of thousands of dollars. In the year prior to starting the Proud Falcon II program, maintenance technicians replaced 73 defective ECIUs. During the next 16 months after Proud Falcon II, maintenance technicians replaced only 26 ECIUs. Over the last 9 months, not one ECIU has been replaced. Figure 1 shows a base by base comparison of ECIU PRDs from Nov 94 through Apr 95 highlighting the impact that the Proud Falcon II program has had in reducing ECIU PRDs. In almost every case, the maintenance action taken by the bases with ECIU PRDs was to replace the ECIU. Each ECIU costs $196,000 new out of the box and the exchange cost to the wing every time an ECIU is shipped off base for repair is $14,000. Subsequent testing of the transformers resulted in 114 out of a sample of 118 transformers failing to meet required specifications. Corrective action reports have been sent to all three transformer manufacturers in an attempt to correct these deficiencies.

ECIU PILOT REPORTED DISCREPANCIES
1 NOV TO 30 APR



Note: Misawa data is for an ACIU
Hill AFB data is from the 388th Fighter Squadron

Figure 1

Reliability. Weapons reliability has increased tremendously. In semiannual trips to Tyndall Air Force Base to participate in live-fire missile shoots as part of the Weapons System Evaluation Program, Nellis Air Force Base F-16 aircraft have not experienced any misfires commonly found in other units that have not put their jets through a program like Proud Falcon II. Video problems associated with the aircraft have been reduced to practically nothing over the past two years. This is very important during the two-month semiannual bomb phase of the USAF Weapons School syllabus. Ghost MFLs and missile slaving malfunctions due to aircraft problems are, for all intents and purposes, nonexistent since the implementation of preventive maintenance procedures. This has increased the availability of aircraft for day-to-day sortie production and decreased the man-hours required to produce individual sorties.

The mean time between failure (MTBF) of the ECIUs has increased dramatically since the implementation of the Proud Falcon II program at Nellis AFB. MTBF tracks the average time that the ECIU is in the aircraft until it fails and needs to be replaced. Figure 2 shows a graphical representation of this dramatic MTBF increase based on documented hard failures of the ECIU. During the third quarter of 1994, a Tape 4 (PO7H) modification was made to the ECIUs which caused numerous failures until the bugs in the modification were worked out. These failures were not related to the failures seen previously in the ECIUs before the Proud Falcon II program.

In addition to the reliability of the aircraft, the bench checked serviceability (BCS) rates of the ECIUs sent to the ALC for testing have dropped dramatically. When an ECIU is removed for a suspected failure, the unit is sent to the ALC for repair. The first thing the ALC does is to run the unit across a test bench to see if they can duplicate the problem. If the problem cannot be duplicated and the ECIU checks out as serviceable, it is returned to the supply system for distribution back to F-16 bases. Before the Proud Falcon II program, the troubleshooting procedures of the many recurring ghost MFLs were pointing to the change-out of the ECIU to clear the MFL. In most cases, the MFL cleared only to recur a few months down the road, necessitating another ECIU change. Figure 3 shows the BCS rates of Nellis Air Force Base compared to the rest of the Air Force over a 2-year period. As seen in the figure, the BCS rates from ECIUs sent to the ALC have dropped to zero. The one anomaly is found during the third quarter of 1994, and as mentioned with the MTBF data above, can be attributed to the Tape 4 modification.

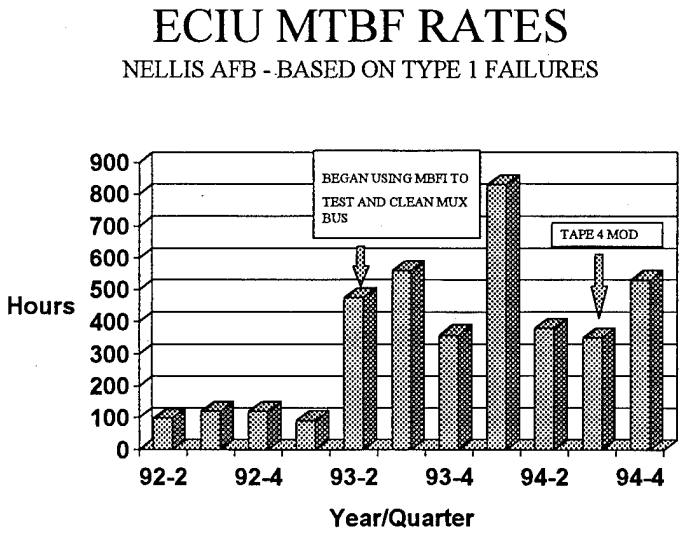


Figure 2

ECIU BCS RATE

NELLIS AFB vs USAF

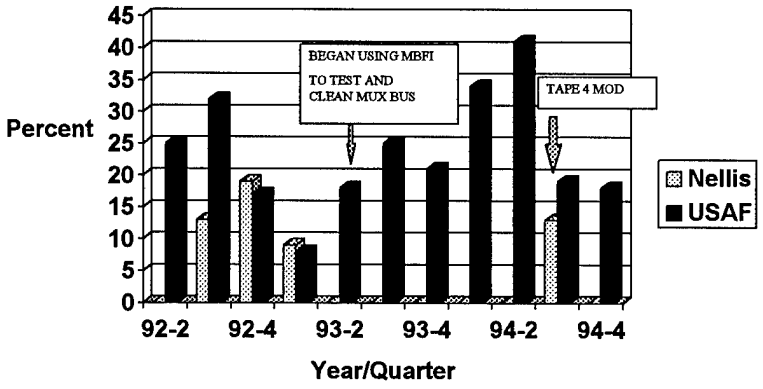


Figure 3

Cost Savings. The real tangible cost savings of the Proud Falcon II program are found in the decreased failure of the ECIU. In the first year of the Proud Falcon II program, Nellis Air Force Base saved over $1 million. Given the projected ECIU problems in subsequent years using data prior to the implementation of the program, the wing has saved at least that much in subsequent years in the repair costs as estimated by the Ogden ALC. The intangible cost savings are in the numerous man-hours that are no longer expended in removing and replacing ECIUs, troubleshooting ghost MFLs and missile tone and slaving problems, and the time consuming job of troubleshooting aircraft video problems.

INDEPENDENT VERIFICATION

The Montana Air National Guard visited Nellis Air Force Base after hearing about the successes of the Proud Falcon II program with the intent of establishing a similar program. The Guard had several concerns that led them to adopting this program. Each of these concern areas had also been evident at Nellis Air Force Base before implementation of the Proud Falcon II preventive maintenance program.

Concerns

- Failure to successfully perform live-fire missions as a part of "Quick Draw" exercises and Weapons System Evaluation Program (WSEP) deployments. Missile tone and slave problems were the big drivers in not being able to successfully fire missiles.

- Continual swapping of captive missiles and/or missile launchers. This was the common form of troubleshooting a bad missile and/or Stores Management System (SMS) MFL.

- Recurring SMS MFLs. The Avionics Branch tracks all aircraft MFLs daily. They found numerous SMS/Avionics MFLs with or without degradation to the system that normally go unreported by the aircrews.

- Pilots made numerous comments through aircrew debriefings of weak missile tones and jittery missile diamonds on head-up displays.

Findings

Each of the following findings and improvements were validations of findings and improvements occurring at Nellis Air Force Base as a result of the implementation of the Proud Falcon II program.

- Approximately 20-50 of the over 90 separate transformers found in the aircraft were internally shorted to ground. This causes signal leakage to ground, which degrades optimum system operation.

- Certain transformer direct current (DC) readings change during environmental conditions due to cold, moisture, and/or grease. These voltage fluctuations represent deviations from voltage values designed into the system to achieve optimum performance.

- During alternating current (AC) voltage checks with the MBFI, cold solder joints were found on the transformer connections wafer plugs.

- During the process of rebuilding the matrices, several installed transformers were found to be the wrong part number transformer. This causes an improperly tuned Mux Bus.

- Through use of the MBFI test set, intermittent readings were found caused by wire chaffing or open wires.

- Several matrices are located under the leading edge flap seals. These flap actuators are routinely greased and it was found that excess grease spills into the matrices, causing environmental failures of the transformers.

- Manufacturing specifications for the transformers need to be re-evaluated to correct environmental, and AC/DC voltage concerns. Nellis Air Force Base technicians and AFETS representatives are currently working with ALC and Lockheed engineers to try to determine the correct criteria that needs to be applied to the manufacturers' acceptance inspections.

Results

Each of the following results were validations of improvements found at Nellis Air Force Base after implementation of the Proud Falcon II preventive maintenance program.

- Weapons reliability increased significantly. During the Montana Air National Guard's recent deployment to Tyndall Air Force Base for WSEP, eight of the aircraft that had gone through the preventive maintenance program fired 16 for 16 weapons on the first attempt, a first for the Montana Guard. WSEP personnel commented that this type of result is basically unheard of. It has, however, been common for the last few Nellis semiannual deployments to WSEP with a 12 for 12 first attempt weapons release rate being the standard.

- Throughout the Stores Management System MFL tracking program, the SMS MFLs have been reduced by 90 percent.

- BCS rates have practically dropped to zero. The amount of turn-in for repair to Avionics Intermediate Shop (AIS) has been dramatically reduced, saving valuable AIS time and energy.

- The MBFI has successfully found problems with other systems, such as engine and flight control systems.

- The MBFI is much quicker when troubleshooting faults. The current fault isolation procedure for repairing the Multiplex buses utilizes a multimeter and oscilloscope. This is a very time consuming method compared to utilizing the MBFI.

F-16 JOB FAIR

During the February 1995 F-16 Job Fair, a presentation on the Proud Falcon II Weapons Reliability Program was given by Senior Master Sergeant Jan Hangen in front of representatives of F-16 units from all over the world, both U.S. and foreign. The briefing generated a tremendous amount of interest among the group and Colonel James T. Bowen, F-16 Systems Support Manager, equated the Proud Falcon II program with increased combat capability. He also requested that the briefing be given in the Logistics Group/Operations Group commanders' conference held later that month. At the writing of this paper, there are people recommending that the Proud Falcon II program be implemented Air Force-wide.

SUMMARY

Using common sense maintenance techniques and innovative procedures, a team from the 57th Wing at Nellis Air Force base developed a preventive maintenance program using the Multiplex Bus Fault Isolator. This team developed cables to be used in conjunction with the tester and expanded the scope of the intended purpose to include a preventive maintenance program. This program has solved many problems with respect to the reliability of transformers and the electrical portions of the many systems found on the F-16, especially the weapons system. The program has saved over $1 million the first year and at least that much per year since then (based on projected ECIU failure history before the program was implemented) in the acquisition of replacement aircraft components, specifically enhanced central interface units. The program has also saved numerous man-hours previously used to troubleshoot the numerous "ghost" maintenance fault listings reported by the pilots during debriefing procedures. The value of this program has been independently verified by the Montana Air National Guard and there is currently a push to establish the program Air Force-wide. It all began by someone noticing a problem within a process and taking the initiative to put a team together to improve this process to the point that the benefits above have been achieved.

Souces of Information

1. Technical Sergeant Randy Brawner, F-16 Weapons Systems Technician
   57th Wing, Nellis Air Force Base, Nevada

2. Ray Du Bois, F-16 Avionics Air Force Engineering Techincal Services Representative
   57th Wing, Nellis Air Force Base, Nevada

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"Customerless Quality"
or
Mission Driven Vs Customer Driven Focus

United States Air Force

BIOGRAPHY

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Lieutenant Colonel Douglas R. Pederson is the Quality Officer for the 934th Airlift Group, Air Force Reserve, located at Minneapolis-St Paul International Airport Air Reserve Station, Minn. He is responsible for the 934th's comprehensive Quality program, including planning, training and budget considerations.

Colonel Pederson was born on March 1, 1948, in Alexandria, Minn. He earned his bachelor of arts degree in international relations from the University of Minnesota, Duluth, in 1970. He has also been certified in numerous management capacities, including strategic planning, facilitation and Myer-Briggs (MBT I). He has completed Air Command and Staff College and Air War College.

He was commissioned as a second lieutenant in 1970 and was a Distinguished Graduate from Air Force ROTC. He completed C-130 navigator training at Mather AFB, Calif., in 1971 and was assigned to Forbes AFB, Kansas. In 1973, he became an AC-130 gunship navigator at Ubon, Thailand. In 1974, he was assigned as a C-130 navigator at Little Rock AFB, Ark., and he left active duty in 1975.

He joined the Air Force Reserve in June 1975 with the 96th Airlift Squadron. Over the next 17 years, he served as an instructor navigator, evaluator navigator, chief navigator and plans officer. He became commander of the 934th Operations Support Flight in July 1992 and assumed his present position in October 1993.

A master navigator with over 7,000 flying hours, Colonel Pederson's military awards and decorations include the Meritorious Service Medal, Air Force Achievement Medal, the Air Force Outstanding Unit Award with one oak leaf cluster, Combat Readiness Medal with six oak leaf clusters, National Defense Service Medal with one oak leaf cluster, Armed Forces Expeditionary Medal, Air Force Overseas Short Tour Ribbon, Air Force Longevity Service Award Ribbon with five oak leaf clusters, Armed Forces Reserve Medal with one oak leaf cluster, Small Arms Expert Marksmanship Ribbon and Air Force Training Ribbon.

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Colonel Pederson and his wife, Kathleen, live in Golden Valley, Minn., and have two children, Eric and Missy.

(Current as of June 1995)

Customerless Quality

All organizations do not embrace the quality culture change in the same way or with the same amount of enthusiasm. Except for the normal resistance to change there are, I believe, other valid reasons for the difficulty encountered by quality concepts. The primary reason that I wish to consider is the lack driving motivation for accepting change that is provided by customer satisfaction. I also wish to offer a alternative or complementary means of driving change through an organization that is focused primarily on mission.

Not all organizations can recognize or embrace customer satisfaction as a rationale for change. In organizations structured primarily around providing services, and especially in government, it is important to analyze the customer relationship to and within an organization. We find that when "customers" are viewed from the perspective of wants versus needs we begin to understand that the term customer can, in fact, become meaningless. If "change" is then "sold" to an organization's people on a concept that they simply do not and cannot grasp it is doomed to difficulty if not failure.

If customer satisfaction is not the "driving rationale" for change to a Quality environment then how can we get the organization to move forward? With or without customers, the answer is the same. An organization must achieve a strong mission driven rationale for change. When an organization is "customerless," however, this simple concept is much more difficult to achieve. It is here that we return, as always, to the issue of leadership.

In mission driven organizations it is just as important that leadership skills be cascaded down through an organization as the skills to understand the problem solving process or continuous improvement - perhaps more so. It is, however, among the least understood and most poorly communicated of all the things we do in the Quality Initiative, as it's called in the Air Force Reserve. In fact, without this leadership process, which I call Manageship, not only is a quality environment at risk, but the very existence of the organization is threatened.

"Customerless Quality"
or
Mission Driven Vs Customer Driven Focus

Perhaps it's my Myers-Briggs type (ENTP) that causes me to needlessly overcomplicate things. Possibly it's because of the challenge of trying to be a "Quality officer" in a military unit (Can you say oxymoron?). God help me, perhaps I'm turning into a Quality "wonk!" Nonetheless, I have recently found myself examining many basic orthodoxy's of my field as I try to clarify for my students and myself some of the more "simple to say but difficult to understand" ideas that support the reason for undertaking the Quality Initiative.

It has probably occurred to most Quality adherents that some organizations or divisions "take to" Quality better than others. As a Quality "disciple" I understand that there are no good reasons for <u>not</u> "buying in" to "Total Quality Management," "Quality Air Force," or just plain Quality. I think it's safe to say that most of us consider Quality both a means and an end. That is, it's the right thing to do both philosophically and practically. That said, I simply couldn't understand why our efforts are resisted by so many good people in our organization. It probably won't surprise anyone who knows me that I have a theory. I think that it all boils down to selling. What is the organization's leadership selling to our people as the reason for going the Quality route. In that regard, it is my theory that they're expected to "buy" customer satisfaction. If true, this leads to another fundamental concept. If an organization can't be "pulled" by customers then it is even more important that it be "pushed" by leadership toward Quality goals. (1:80) First, however, we need understand why I customer satisfaction might be a relatively ineffective "selling point" to many organizations and then decide what, if any, alternatives are available. It all starts with the concept of change.

Who's the Customer?

Under any conditions, change is difficult and typically meets resistance. It goes against human nature to embrace change especially that which requires great individual thought and effort. Now consider the change required to transform an organization to a Quality culture. It's huge! From the top down people ask themselves "why should I do this?" Now, people aren't stupid. If they understand how a new initiative can benefit their organization, and by extension, themselves, they'll make the change to support it.

At this point, we need to examine the foundation of Quality. By definition, Quality Initiatives, in general, are predicated on the assumption that every organization is driven by customer satisfaction; that it is, in fact, what I call the primary "driving rationale" of Quality. (By driving rationale I mean the thing that gives it its uniqueness, the why, in this case, of Quality; the Raison d'etre! Returning to my sales analogy, isn't it a primary "selling point?")

This appears to be true whether it's the "spoken" driver as depicted in Taking the Mystery Out of TQM (5:1) or the implied driver in the Deming sense. Now what if there were no natural "what's in it for me" (or WIIFM) to satisfy customers to an organization's workforce? If you take away the clear and understandable connection between customer satisfaction, on which most Quality initiatives depend, and the interests of the workers, then isn't Quality just another management theory? Incidentally, I define customer satisfaction in the sense of meeting or exceeding what the customer wants or needs. (5:37) As Dr. Deming also said, workers have often been the victims of management and are entitled to skepticism. Perhaps they are right about Quality, too. If Quality is about customers, then what about the members of the organization? In a sense, aren't they are a customer too? Perhaps no one is responding to their customer requirements, a clear "what's in it for me." Aren't they, in fact, being sold a "product" in which they see little value?

How, you may ask, is it possible that an organization NOT be interested in a simple but important concept like customer satisfaction? Try courageously to hang on to your view of the forest as we trudge through the trees.

We must assume that customer satisfaction is the desired result from a customer-supplier relationship. When we explore customer-supplier relationships, however, I think we find that these relationships are more complex than that used in the "everyday" Quality definition. Further, we will find that this relationship is profoundly affected by the organization's mission or goals. For now, perhaps a good starting point would be to simply define the terms "customer" and "supplier."

Webster's Dictionary defines customer as "one who purchases goods from another; a buyer; a patron." Supply (or supplier) is to: "fill sufficiently; satisfy." In general, these definitions appear to fit the Quality usage, especially in the context of the following statement: "Total Quality Management refers to a management process and set of disciplines that are coordinated to ensure that the organization consistently meets and exceeds *customer requirements.*" (5:1) As we will see later, there is another definition of customer that might be more applicable under certain circumstances. For now, it is important to note that the customer requirements of internal customers are considered to be equal to those of the external customers. That said, the customer requirement issue that I want to address is that of *wants Vs needs*. The difference between these two "requirement motivators" is crucial because of their impact on the customer-supplier relationship.

Inverse Customer Relationship - Huh?

In general, a customer requirement derived from a want could be described as discretionary. It may be frivolous or important but in general the customer can determine when and where they want to fill the requirement. Conversely, a requirement derived

from a need could be said to be less discretionary. The customer's ability to delay or to *choose* a supplier of a need might be greatly reduced. It should be obvious that a supplier of a need might have a great deal more power than that of a want. In fact, the supplier of the need, in a sense, could be considered the customer . . . by the customer! (Atch 1)

It seems apparent that this subtle but important reversal of roles, which I call the inverse customer relationship (ICR), can affect the impact or power of customer satisfaction as a driving rationale. In addition, this inverse customer relationship, caused by wants Vs needs, is further complicated by the organization-types in which it might occur.

Now, let's think about the impact of organizational goals on customer satisfaction as driving rationale. Quality management, like most management theories, was born in the industrial sector of the business world. In regards to these organizations, the intent of any of these theories, simply stated, is to assure the best management of its processes toward attaining its goal. In a free market system that goal, either tacit or spoken, is to guarantee or increase *profitability*. (Profit = the driving rationale of the *organization*.)

Profitability is predicated on satisfying customers who make *choices* in a free marketplace that is marked by *competition.* It is this competition for customers that makes customer satisfaction a powerful driving rationale for *process management.* In other words, competition for customers effectively equates customer satisfaction (and Quality/quality) with the organization's driving rationale, profit. Lack of competition, on the other hand, can obviously negate customer satisfaction (and quality) as a driving rationale toward the ultimate goal of profitability. History offers many examples of what happens without competition! Conversely, introducing competition to a previously monopolistic system can have the effect of raising of both quality (customer satisfaction) and profitability. The American auto industry of the last thirty years is a classic proof of both sides of the coin! Summing up then, an inverse customer relationship could exist whenever an organization effectively operates as a *monopoly* and, therefore, wouldn't necessarily be driven by customer satisfaction.

However the inverse customer relationship is created, when it exists, there are other attributes (benefits?) of the supplier that seem apparent. For example, their process focus can stay on effectiveness versus efficiency, i.e. cost or efficiency of product delivery is not as important as amount or speed. Therefore, an organization's processes are driven by supplier specifications more than customer requirements. This type organization in turn can, and often is, well supported by a hierarchical,"Tayloresque" management style. In a sense, since profit (and by extension, its existence) are assured the driving rationale for the organization simply becomes *supporting* that existence. In addition, we often find this type organization has a difficulty determining or articulating its mission or vision as we have come to define them. (The mission is "live through another day," the vision is "more of the same." - geez, how exciting.)

This might be a result of the inverse customer relationship and/or it might be a cause but, if true, this too can have important implications, as we will see later.

If you grant that inverse customer relationships can be created from many different combinations of the wants, needs and competition, then the concept of "customer" may lose its separate identity from any other aspect of the processes and, of course, customer satisfaction its "special" status as a driving rationale.

The Value Added Corollary

Before I return to the original question of how do we "sell" Quality, there is one other associated issue to mention. While I need more data, I believe there is a corollary to the inverse customer rule. It is the idea of "added value." Regardless of the customer relationship, in an effective (as in *planned*, not to be confused with *efficient,*) process each step should add some value to the product until it is delivered to the external customer. Adding value is another distinct way of clearly delineating the customer and the supplier. In general, adding value is a fairly simple process to observe in the manufacturing process. You can see it being added all along the line up to and including delivering it to the external customer. In service industries and, by extension, any organization that deals with highly subjective or ambiguous service-type products, it is much more difficult (although not impossible) to observe this "value adding" process. Therefore, it can also be difficult to identify customers and understand the importance of satisfying customer requirements. The result, I believe, is that in service-type organizations, even many in private industry, we can find an *equivalent* of the inverse customer relationship and also many of the difficulties implementing Quality principles attendant to that relationship.

Continuing, it is my hypothesis that if the inverse customer relationship or its equivalent exists for any reason, then customer satisfaction may lose its credibility as the driving rationale for attaining corporate goals. Further, this will probably be reflected through all levels of that organization's processes including or especially those dealing with *internal* customers. I have created a matrix to track this interrelationship (Atch One).

It is important to note that this inverse customer relationship is not necessarily "evil." It might be a natural, unavoidable state in the complex world of customers and, in a sense, it's the "natural" state in many internal customer relationships. It can be found in many organizations including governmental and educational bodies. In fact, these organizations make clear the real world difficulty caused by ICR; no clear connection between customers and paycheck. Put another way, there's not much incentive to embrace the change to Quality!

Of course much of this may be intuitively obvious to many of you and you could have explained this in one paragraph but, as I mentioned, we ENTPs love to develop theories whether we need to or not! Nonetheless, you may ask what all this means for those of us who are involved with Quality? Well, I'm glad you asked! I grant you that my inverse customer theory is just that, but we are still faced with the fact that Quality can be a "hard sell." With that neat segue, we can return to the REAL purpose of this paper - "selling" Quality. In a sense, what I have been talking about is the unique aspect about Quality that seems to imbue it the ability to be both the reason for change (total customer satisfaction) and the means (tools and practices). I am suggesting that while you may get away with this interpretation in some organizations, you cannot in others. In fact, even in those organizations that are perceived to have made the transition to a Quality culture, other key factors were at work.

I'm Getting to the Point!

In a military organization, we are used to being told not only what to do but <u>how</u> to do it. We have manuals and checklists for virtually everything we do. In other words, if "they" want us to have a vision and mission, they'll issue one - and, by gosh, they often do! In a sense, maybe we are "ordered" to *do* quality. The point is you can't do quality, you have to *be* quality. Nonetheless, without that clear, customer focus, it isn't always easy to see or state either a mission or the vision. Let me give you an example.

I am a Quality Officer in a military unit, a C-130 Airlift Wing. As with most military units, we have all the attributes of any other type organization with the additional traits of being both government and the ultimate top down management structure! I feel that the inverse customer relationship concept is obviously in action. That is, while we understand <u>in theory</u> the concept of external customer (in our case anyone who needs to fly on our C-130 aircraft), we are sole provider (monopoly), therefore, free to deliver our product in the way that suits our needs (supplier/regulation driven). As you might guess, the internal customer relationships are even hazier - do the base civil engineers REALLY care about getting our airplanes in the air, do the aircrew really care what anybody else does?! I'm not sure what, if anything, can be done to change these relationships but therein lies the problem. "Selling" Quality on the premise that it will improve customer satisfaction has proven to be a hard sell. And why shouldn't it be? Who can blame them? They know that we don't operate for a profit. We don't have "real" customers. Sure, there are budget cuts coming but they're more like an act of God, not a motivation to change. Besides, are we not the best Air Force in the world? And if not, who's better (I mean that matters)? Customer satisfaction becomes a very difficult "sell" under these conditions, especially when weighed against the standard military axiom of "if ain't broke, don't fix it."

If the goals of our organization are not easily communicated in the usual sense of customer satisfaction and profit and losses, then it seems apparent that we need some

other context on which to organize or focus our activities. Perhaps our intentions should be communicated in terms of those with whom we work. This brings me to another definition of customer: "someone with whom one must deal." There is a subtle difference. If we can't change those relationships which exist, perhaps we need to change our *perspective* on those relationships. (6:51)

As I stated at the beginning, it all starts with change. In essence, we return to the fundamental understanding that we're not implementing Quality but we are bringing about change. A Quality culture is not like a jacket or sweater that an organization puts on made up of people on process teams or using words like"pardigms" and "empowerment." It is more like Einstein's view of the universe, a systematic "fabric" where everything is interrelated and connected. There are only so many ways of introducing this type of change to an organization. The leadership of some have just said, "Do it!" While necessary in certain situations, which I will discuss later, it's important to keep in mind one of my original assumptions: people are smart. They are willing to be led but it's awfully hard to make them want to do something they don't understand or trust. Here I return to yet another point mentioned before, the concept of selling. It's easy to sell a drowning man a life preserver, i.e., if your company is going out of business it's a lot easier to get consensus for change, any change! There must be a motivator for change and it must be convincing, compelling and communicated. Quality, itself, is not that motivator, in my opinion, at least not for the military and government in general. We need to sell *what* we do, not for whom we do it.

The Vision Thing

In our unit, we speak often of our missions. We have airlift missions, airdrop missions and medical evacuation missions. We also have administrative duties, civil engineering deployments and command and control functions. They are all important but there is little to bind all the activities to a mission or vision, let alone an easy-to-grasp rationale for seeking continuous improvement. We are driven by more than the sum of our missions or customers. We are driven by *a* Mission. I think we must be a mission-driven organization and also that the mission can be the driving rationale for continuous improvement in the same way that customer satisfaction does. To be a mission driven organization, however, requires vision and, more importantly, visionary leadership.

The concept of "visionary leadership" is certainly not new nor is the activity of creating vision and mission statements but the terms have perhaps been abused just as long. The concept of leadership itself is central to what we do in the military, e.g. the Air Combat Command definition of Quality is rooted in leadership. In my experience, visions, missions and leadership may be easy to grasp in the abstract but applying it in my own organization has certainly not been. Yet it should be so easy!

At the 1994 symposium,Dr. Margaret Wheatley told of her introduction to the military mind. It was illustrated by an extremely perceptive Army general. She was instructed to read a passage from a letter from Major General Sherman to General Grant during Sherman's "March to the Sea" in 1864. Paraphrasing, "I know that if I needed you and were you alive you will come to me." This one passage says more about who we are and what we do than all the manuals, regulations and Quality concepts combined. I would call this a perfect example of creating a Mission Driven organization. Without denigrating "mere" customer satisfaction, leaders of some organizations may have no option but to reach past customer focus to find the rationalization for the kind of change required in tomorrow's world. For the military, it should be and is easy. Few organizations have the distinction of having so clear a mission or focus as we in the military - yet even we aren't always able to communicate it clearly. At all levels, most of us resist the many but relatively simple changes of TQM. Imagine selling the enormous changes required to become "learning organizations." (1:4) Now, imagine the difficulty in a school or county government or an insurance company's office! No matter what type of or level in an organization, you must be able to find those key links that bind us together, that give us the motivation to strive to improve as individuals and as an organization. The Army general who worked with Dr. Wheatley gives us an outstanding example of the skill required for this. Not to be confused with a manager (6:17), the leader has to be the one to focus an organization on its vision and mission. At least in the military (but almost certainly in any organization), they must be able to almost intuitively sense the larger purpose of their organization and communicate it. The Chief of Staff of the Air Force, the shop chief, and the individual airman must be able to see, equate with and communicate a common purpose.

It is true that leaders are not made but are born. However, throughout our history we have been able to find one when we needed them. I truly feel that a key part of our success in the future will lie in our ability to make leaders out of all our people. We can only do this sharing that which is the biggest and best things that we do. More importantly, this will require the ability of "seeing" and communicating a vision throughout our organizations - to become Mission Driven. This will require new skills.

Organizational Leadership - "Manageship"

In order to highlight these skills, we need to look at our management culture today. In Quality we discuss something called the 85/15 Rule. In a liberal application of this rule to an organization's ability to change, we would find that 85% of the <u>difficulty</u> people have with change is caused by 15% of the people. Further, 85% of <u>those</u> people are probably in "management." In fact, data we collected seems to imply that as one moves farther away from "top management" supervisory people are *perceived* as providing less support for changes being instituted. (Atch 2) It's important to remind ourselves that organizations are not one huge organism with one brain and a central nervous system that directs everything. Rather, it is more like a train that is headed in one direction but made up of many individual cars with different functions.

Every level of an organization is a microcosm of the whole - with the same opportunities or problems. This is why the data above is so disturbing. It's safe to assume that the vast bulk (85%?) of these managers are smart, decent people who simply do not see any reason to change. How can this be? If the mission and vision of the organization have been developed and communicated in a manner that builds commitment versus compliance, what is the problem? (1:219) In most cases, there are two probable answers. One, no clear reason for the changes (strategic planning and vision) has been developed or communicated throughout the organization, especially from leadership level to leadership level. Two, the vision was developed but commitment was not gained. As pointed out by Senge, commitment is a far cry from compliance. Ironically, this commitment is demonstrated over and over during wartime but tends to disappear in peacetime. Nonetheless, it is a key element in accomplishing anything of true greatness.

How do we "get" commitment? Simply parroting "the company line" will not do. Much like the army general in Dr. Wheatley's case, managers must learn how to develop and communicate the unit's vision and mission in a manner that is appropriate and effective to their level. (2:144) A tremendous amount of effort must be made, cross-organizationally, to communicate where you are going and each individual's role in that journey; (3:143) Only by each management level "mentoring" the next, not only in those goals and vision but in the role of leadership itself. Obviously, this goes beyond being a "manager." None of this is new yet most of us seem unequipped to handle these duties, this group of skills that I call *Manageship.* I use this phrase for both the skills themselves and the manner in which they are transferred. Manageship requires skills in visionary thinking, empowering activities and communication skills which are relatively easy to learn in the classroom setting but are of little value if not practically applied. Manageship also requires that we develop our everyday skills of budgeting, time management and the like in this leadership framework. Most importantly, all the duties must be carried out in an atmosphere of "expected excellence." Manageship takes place on many levels simultaneously. The phrase "walking the talk" implies this multi-dimensional aspect. It has to be lived, not just learned but shared. With manageship an organization looks more like a holograph than a photograph. Like all things, this commitment to change has to start somewhere and, as with everything else, it must begin at the top.

Individuals in leadership, as in those responsible for each level or work unit, must redefine the goals and expectations of anyone in leadership positions in the next level "down." (3:3) Ultimately, of course, it requires manageship skills commensurate with the job of *everyone* in the organization. A key aspect of this new "manageship culture" is the environment of "expected excellence." In short, it means accountability to the purpose of the organization. It is wrapped around every action taken and therefore must be considered in everything you do (and will be noticed if missing! Remember, people are smart). Expected excellence, like the word empowerment, is a double edge sword, however, especially for senior leaders. It often takes off like a blazing forest fire and is almost unstoppable.

However, it also usually comes with unintended consequences, raising issues that senior leaders did not address in their strategic planning nor did they wish to.
Let me give you an example. The truth is that many are not suited for these new skills or change itself, either by disposition or ability. This raises one of the most visible "unintended consequences" and points out the need for another skill. If the senior leadership wishes to reap the benefits of that change they must expect commitment, even if they can't demand it from everyone. This is especially true of individuals in managerial or leadership positions. (3:3) It may require something I mentioned earlier as a means of implementing change: as a leader you may have to simply say *just do it*! If an individual still is unwilling or unable, then he or she must be **replaced**. As James Autry, in his video Leadership for Love and Profit puts it ". . . not terminated or transferred - fired!" This is a very difficult task and often goes against an unwritten, "good old boy" code, a code that was not intended to be challenged or changed in the original plan! However, in order for true culture change to take place the organization must have both the ability and the courage to do what is necessary for its survival - even embrace these unintended consequences. One of the key differences between the public and private sector is the seeming inability or unwillingness of the public sector to replace people, especially those in "management" positions who cannot commit to organizational goals. (3:144) It is important to note that is often these very issues and decisions that decide the fate of the change initiative. Whether in the public or private arena, this perceived hypocrisy is the key cause of organizational friction. It has, in fact, defeated many initiatives. The only sure way of avoiding this trap is for senior leaders to clearly understand the culture that they are pursuing, plan for it and accept change in that will be required of *themselves.*

Conclusion

By definition, an organization exists to serve a particular purpose or function. In some way this will include someone or group who can and must be construed as a customer. Ultimately, therefore, we must return to the concept of customer satisfaction. It makes an excellent barometer for measuring how functional our organization is. However, there's a lot more to Quality than problem solving, teams, continuous improvement and customer satisfaction. Not every organization has the same concept of their customer. They all *have* customers but in many they are less the focus than their *mission*. This is especially true in the military. In turn, an organization that is mission driven requires, more than others, a strong vision communicated honestly and effectively by strong leadership. It is these higher concepts and skills that must become a primary "product" that we sell our REAL customers, all our people.

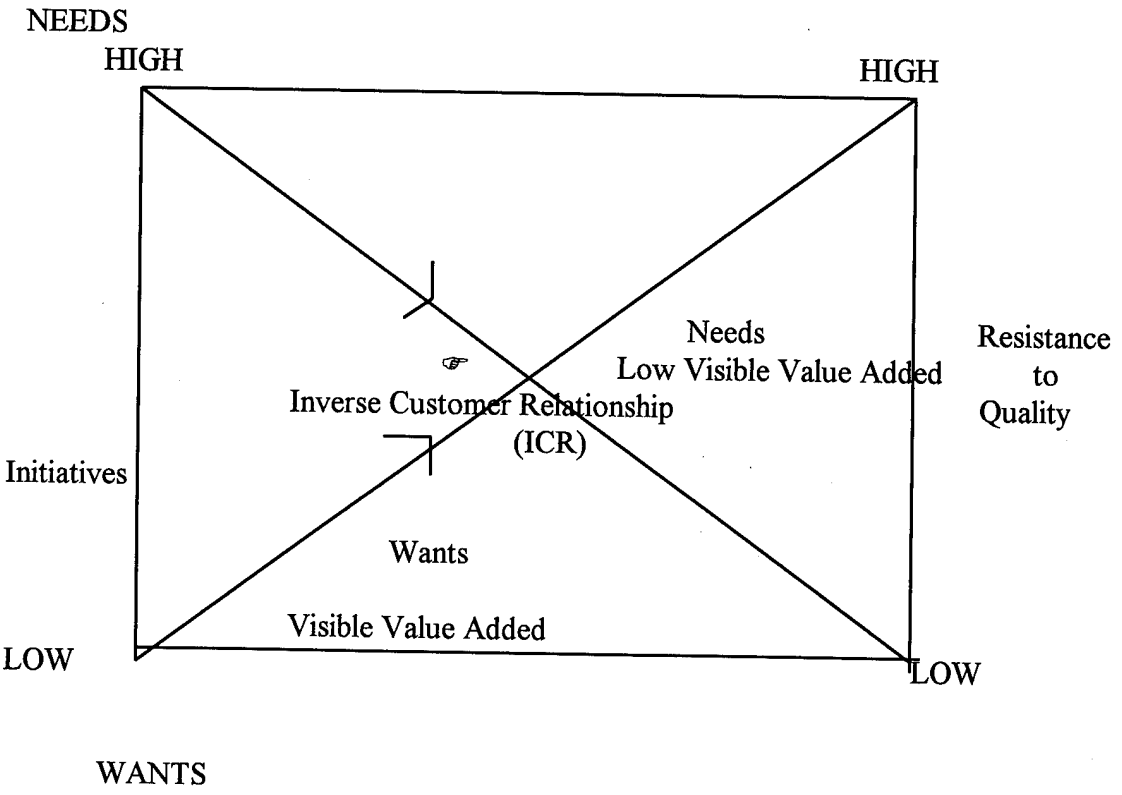
I mentioned earlier that many people feel that leaders are born not made but that we need to do our best to "create" leaders, that we need to move toward manageship. I do not pretend to have the skills or the "moral authority" to offer all the tools and techniques

required in creating an "Manageship class" (although I am working on the outline of such a curricula for government organizations). I do, however, feel that such training is absolutely necessary to move forward. I know this: we have plenty of training for managing weight programs, budgets and Uniform Code of Military Justice. I also know that we don't have nearly enough training in the intuitive, big picture skills that it takes to get past day to day, crisis management and concentrate on building a mission driven organization that everyone can understand and be a part of. If Alvin Toffler is right in his book The Third Wave, those that can manage *knowledge* will survive and prosper. Only people have knowledge, not computers or systems, so the one key skill required, and one that natural born leaders have in common, is something we can teach and learn - "people skills." The essence of Quality and teamwork is people working together and in Myers-Briggs parlance it boils down to "F" skills!

It's might be a struggle but hopefully we "N's" can help all those military, ESTJ types who excel at checklists to understand that not all the most important things in leadership are necessarily on them. Of course, Lord knows, they don't trust us (but who can blame them!).

In a Tom Clancy editorial a few years ago, he opined that the military is not a jobs program, it's a place for warriors. It is hard to argue with that. Taking that further, if one finds themselves with the honor of leading these warriors, whether Army Rangers or the finance division, it is mandatory that they are worthy of that honor; worthy not just in their paygrade or management level but in the strength of their vision and commitment to helping everyone attain the group's mission.

Attachment One



Moving from low want to high need has the effect of moving the organization toward the Inverse Customer Relationship. This, in turn, can move the organization toward a higher resistance to change in regard to implementing Quality. The same can said about high visible/low visible value adding (low visible = difficulty identifying customer.)

Attachment Two

Pre-training Survey of 450 934th Airlift Wing personnel undergoing Air Force Reserve Cascade training 1 Sep 93 - 1 Jan 95. This group included 22 classes and proceeded through supervisory and line personnel below the squadron commander level

Question: On a scale of 1-5 with 1 not at all and 5 a great deal. "Do you feel your commander/supervisor supports Total Quality." We considered "3" neutral.

Average class rating declined from 3.78/class to 2.81/class.

(The same question was asked after each AFRES 32 hour training class. Average ratings increased by .20 over that same period but the *differential* remained the same. i.e. 3.97 to 3.01)

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On The Horizon
Business Process Re-engineering and Quality In Leadership

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On The Horizon
Business Process Re-engineering and Quality In Leadership

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ABSTRACT

Quality Air Force has been fostering incremental continuous improvement for several years. Organizations are taking hold of improvement efforts and beginning to see the results of their efforts. What goes beyond continuous improvement efforts? Business Process Re-Engineering is the next step. By radically redesigning our business processes, we can see improvement results increase dramatically. Leadership commitment is the common thread between implementing Quality Air Force and implementing Business Process Re-Engineering. However, the role of the leader changes when the focus shifts from incremental improvement to redesign of functions and team structures. This paper discusses where we've been, what to expect, and how important it is for leaders to come on-board and commit to Business Process Re-Engineering to achieve success.

Business Process Re-engineering (BPR) is defined as "The radical redesign of business processes for dramatic improvement."[1] Quality Air Force (QAF) "is a leadership commitment and operating style that inspires trust, teamwork and continuous improvement everywhere in the Air Force."[2] The road to quality is a cultural change that has been a major construction project. The Air Force has spent the last several years rethinking, educating, and implementing quality initiatives designed at alleviating archaic management systems and establishing empowered team structures. Quality improvement is aimed to allow the lowest decision making level to make improvements for the betterment of a whole. If the natural work group or team is improving their own processes, then the organization as a whole will benefit from incremental process improvement. In BPR we will be asking management teams to go outside the quality team structure and *RE-ENGINEER* how they do business. Unlike quality process improvement, BPR is inherently cross-functional and involves major dramatic change throughout an organizational structure and therefore must be top-down directed.

Quality espouses incremental process improvement where a process is defined as activities within team ownership. BPR, on the other hand, is a radical redesign of team structures with a focus on cross-functional process improvement. BPR is a manifestation of a leadership commitment from both ends of the spectrum. Due to it's nature of being

[1]Hammer, Michael Dr., Understanding Re-engineering, 1994 Hammer Videos

[2]Holmes, Susan and Judy Ballance, The Quality Approach, Second Edition, Air Force Quality Institute, Air University, Maxwell Air Force Base, AL, September 1994.

top-down directed, BPR offers a way to alleviate the hierarchical stovepipe structures that tend to hinder improvement. Since the emphasis is on cross-functional areas, the stovepipes can be reduced to speed bumps as the radical process improvements redesign the process. There was a time when the process needed checks and balances; times have changed and we now need to remove those barriers which keep us from functioning efficiently.

In quality, leadership commitment requires setting the direction and empowering teams so they can improve their processes. Leadership teams have been meeting to clarify mission statements, accomplish strategic plans, and set goals. What we have failed to do, however, is to saturate our culture with the mission statement, with the goals, and with the strategic plan. What has not been ingrained in every individual is leadership commitment to quality. At the lowest levels, quality improvements are taking place. Those closest to the process are continuing to improve their processes. However, if you asked anyone at the lowest levels about the relationship of their improvements to the organization's strategic plan or goals, you'd be hard pressed to make a connection. In addition, even if employees are operating at peak efficiency levels, what we provide to our customer may still be less than optimal. This is when the process needs to be redesigned. The stovepipe structure becomes the hindrance, not the efficiency of the employees or the process. The new challenge becomes getting management to believe in radical re-design of the team structures and leadership commitment to a BPR process.

Because BPR is cross-functional and will be changing the face of an organization this process must be top-down directed. Only senior management has the authority and long-range vision for an organization to implement this radical redesign. Therefore, the first and perhaps the most difficult step in some organizations is to get the management team to agree on a vision statement. Second, the entire management team must agree which processes in the organization are right for re-engineering; they must develop a strategic plan to point the organization in the direction they wish to proceed. One way to facilitate this is to have the entire management team work on a vision statement and strategic plan at either a three-day off-site meeting with a BPR facilitator trained in activity modeling; or, three, one-day sessions over a couple of months. Again, it is essential that this meeting occurs off-site to avoid interruptions. Most management teams can achieve a working vision statement, a strategic plan and produce a preliminary model of an organization's processes in that amount of time. Once those actions are accomplished, the next step is to get the management team and the organization as a whole to commit to the process. One answer to this dilemma may be that even while the management teams are working on the strategic plan, agents of BPR can flood the organization with information on the CIM initiative and BPR. When we suggest you flood the organization with information we do not mean, nor do we recommend, as the BPR expert in your organization you try to "force feed" the implementation of BPR. We all naturally resist change so forcing anything on a organization will only impede any progress towards a natural cultural shift in the established structure. What you want is a strong knowledge base to support a well directed, informed implementation of the process. Information is indeed power and the more information disseminated about BPR the more powerful it becomes. Every individual in an organization needs to know about BPR. A major cause of failure is the fact that many processes begin without the

knowledge and or involvement of everyone who will later be part of the ramifications of the decisions made based on the new goals. Management teams must also "leap into" BPR wholeheartedly with no "strings" attached to the implementation. This will probably be the hardest part of BPR, the commitment issue. Unfortunately there is no one way to accomplish this cultural change and there will always be constant believers in the Missouri Mule principle . . . "show me." However, more and more the cultural change is occurring and leadership commitment is becoming evident when practicing quality. Thus, the cultural seed has been planted for business re-engineering to work.

There are several examples of the successful use of BPR in the private sector, along with examples of government organizations beginning to use BPR. The Corporate Information Management (CIM) office at 1-800-TELL-CIM can give you continually updated reports on organizations within DoD that are involved with BPR. Business examples include AT&T and Taco Bell. AT&T Global Business Communication Systems which installs PBX systems for corporations was in danger of being shut down. By reengineering its provisioning process the group turned a money losing organization into a winner, with increased revenues in the hundreds of millions of dollars. Similarly, Taco Bell radically altered its concept of business, from fast-food restaurant concerned with preparing food to a food provider focused on serving customers. The shift to a customer focus brought about radical change resulting in the redesign of the Taco Bell restaurant. The restaurant changed from a 30 percent square footage customer dining area to a 70 percent square footage customer dining area. This radical change was possible because Taco Bell shifted to what they call their "K-minus" or kitchenless restaurant. Due to the redesign and a shift in thinking, the company has been able to increase its sales sixfold. They are also broadening their market distribution, selling products in malls, airports, and anywhere there is a "stomach share" in the market. A government example of using BPR is the Army Civilian Personnel System. They are currently in the process of realigning the civilian personnel function at the Department of Army level. They are using BPR to clarify the roles and responsibilities within the headquarters civilian personnel function; improve the system customers use to elevate issues to the headquarters and to realize operating efficiencies and savings through delayering the current structure and process improvements. The Department of Labor (DOL) has also been involved with using BPR to reengineer some of their many organizations. In one case OSHA employees and managers got together and suggested a total rewrite of the agency's 400-page field manual and, because of DOLs leadership commitment to BPR principles, they got the immediate go-ahead to do it. The new manual, at less than 100 pages, was the result of their efforts. This will allow people within the agency to spend less time on the manual and more time doing what they are hired to do. All around, this is a radical improvement in doing business for both the agency field personnel and upper management. What DOL is giving its employees, in Secretary Robert B. Reich's words is, "the permission to think about change."[3]

Many leaders are wary of redefining their roles both through quality and business re-engineering. Leaders pull away from BPR because of a misguided belief that they will

[3]Harvard Business Review, Sowing the Seeds of Change at the Department of Labor, May-June 1994.

be perceived as implementing management dominance. But as mentioned earlier, who else within the organization has the entire "picture" and long range goals of the organization? Only our senior leaders have that foresight. As seen in quality teams many leaders are skeptical of giving away their role because they believe employees have not proven trustworthy at all levels. In BPR, leaders will be redefining and in most cases increasing the responsibilities of those same employees. This could be a vicious cycle because if employees make decisions that are not in alignment with the vision and strategic plan, leaders tend to default to an old style of management where empowerment and business re-engineering do not exist.

Leadership commitment has been a difficult barrier to break through. In many ways it is the age old dilemma of the chicken and the pig. In a plate of ham and eggs the chicken is "*involved*" with the process however, the pig gives his or her all and is truly "*committed*" to the endeavor. Remember committed management teams in BPR are critical but they are not the cure-all to process improvement. A solid, well-defined strategic plan, organizational buy-in, and constant involvement in BPR are necessary to prevent failure. Those of you assigned to working the CIM initiative and introducing BPR to your organizations at this time, go to the local blacksmith and get a complete body suit. The "sacred" turf battle is about to begin. You will be asking leaders to look at the overall business outcome they produce and redefine the team structures they have created to produce that outcome. We can all believe in our organization's vision; working together to improve how we accomplish our jobs will give us the ability and desire to fulfill that vision.

BIOGRAPHY

CMSGT David W. Popp, is originally from Fruitland, Missouri. The Chief joined the Air Force in July of 1979. He currently serves as the Aircraft Maintenance Superintendent, the Inspector General's Office, HQ. Air Mobility Command, Scott AFB, ILL. where he conducts both QAFAs and ORIs. Chief Popp holds an Associates Degree in Aerospace Ground Equipment Technology from the Community College of the Air Force, a BS in Management from Park College, and a Masters in Public Administration from Troy State University . His experience includes assignments as an Aerospace Ground Equipment repairman through the superintendent level serving proudly in the Tactical Air Command, Pacific Air Forces, Strategic Air Command, Military Airlift Command and the Air Mobility Command.

VICTORY THROUGH LEADERSHIP

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Ah, leadership. Hard to imagine how a subject so at home in our quality culture, could stir up so much controversy. Two of the most popular words in today's military organizations are leadership and victory. The purpose of this paper is to provide today's senior leaders what I believe are the key ingredients required to achieve "Victory through Leadership". Specifically, this paper will define what I believe are the Seven key ingredients required to facilitate the victory.

To Achieve Victory Through Leadership an organization requires a defined ***Vision***, ***Involvement*** of everyone assigned, a ***Continuous improvement*** methodology, ***Training*** that is an organization's priority, ***Opportunities*** to excel, a ***Recognition*** system, and lastly, a ***Year in review*** process to ensure the organization is on track.

Vision. The BIBLE says, "Where there is no vision, the people shall perish". Without a clear vision it would appear the organization is doomed to fail. What is a vision? The New Merriam-Webster Dictionary defines vision as "unusual wisdom in foreseeing what is going to happen". To achieve Victory through Leadership, an organization must have a clearly defined vision from their senior leader. All too often, vague orders are given and people are left wondering what to do, hoping to accomplish the task the way the leader wanted it done.

So if vision is the ability to imagine, anticipate, and prepare for the future, what specific techniques are required to develop and implement this vision? First, we need to define the organization's vision in the form of a statement. The vision should identify what our mission is, establish tasks and priorities required to take us from our current state to where the leader wants to go in the future. Next, an action plan must be developed. Within this plan, key

milestones with specific achievement dates and accountable points of contact must be set. Third, develop a follow-up matrix listing the milestones to regularly check your progress.

To encourage commitment, support, and enthusiasm within the organization the vision statement must be broadcast to all members assigned. Why? Because it keeps everyone focused on the same prize, instead of some pieces of the organization doing their own thing in isolation. Remember, the more your people know, the more they understand. The more they understand, the more they get involved and assist in the successful completion of the organization's vision. Joel Barker said it best about visions, "Vision without action is merely a dream. Action without vision just passes time. Vision with action can change the world."(2) Additionally, I believe it is worth saying, a dream without an action plan is a nightmare!

Once we have our vision broadcast to the organization, it is now time to get the people involved.

Involvement

According to The Merriam-Webster dictionary, involvement is defined as, "to draw in as a participant." To achieve Victory through Leadership, leaders can begin the involvement process by establishing open lines of communication between the different layers in the organization. General of the Army, George C. Marshall once said, "A decent regard for the rights and feelings of others is essential for leadership." (1:12-3) To draw the organization's people in, leadership should begin eliminating what I call the "communication confusion." This is simply done by letting your people know in clear terms what is expected, when it is due, and then stepping out of the way and letting them just do it! This reminds me of a story I once heard down in Southeast Missouri's Bootheel. It was a story about a man's perfectly shaped pumpkin he had won a blue ribbon for at the County Fair. His pumpkin was shaped exactly like a two gallon pickle bucket of all things. The man was asked how he got that "Prize

winnin' pumpkin to grow to a perfect design?" He said, "Shoot, it was easy, I grew this here sucker inside this here two gallon McDonnell's pickle bucket." After hearing this story I have often wondered to myself, if the man would have put that pumpkin seed inside a 55 gallon pickle drum, could he have possibly won the largest pumpkin in his county, and maybe the largest pumpkin in the world? The point is, people in leadership positions shouldn't limit the involvement or the talents of their people by the size of the pickle bucket they put them in.

Leaders, look for those key opportunities to involve your people and then stand back and watch them perform. Expect and allow them to make mistakes, but ensure that they learn from them. But, please keep one guiding principle in mind, "Ensure that your penalty for failure is not the same one used for those who do nothing at all."

Give people responsibility and make them feel relied upon and you'll be shocked with what they produce. General Larry D. Welch, when questioned about getting the troops involved in the mission was quoted as saying, "Give our people reasonable goals they can understand, support, the wherewithal to do the job, trust, and the authority to do it, then get out of the way and they'll do it."(1:12-3)

Once the leader has developed an organizational vision and gotten the people involved in carrying it out, it is time to turn the focus toward improving the organization's key processes.

Continuous Improvement

The Merriam-Webster dictionary defines continuous and improvement as; Continuous: Going on or extending without interruption or break; and improvement as, an increase in value or in excellence of quality or condition.

So a good working definition could be, Continuous Improvement; without interruption, increasing a processes' value.
All organizations in the Air Force today have heard this buzz word continuous improvement. Our people have been taught some skills in this area such as, dig into problems deeper than the symptoms in order to define the root causes. When leadership asks their people to examine processes to determine what could be improved, this does nothing to get to the root of the problem. What leaders really want to know is why the errors were being made in the first place? To answer this question, leadership should begin by asking five basic questions. How does the process work? What is our measure of success for this process, "How do we know we are doing a good job?" What conditions in the process do we think caused the problems? Where do these variations occur in relationship to the sequence of events in the process? And lastly, which of the identified variations has the highest impact on the process and our key customers?

Once these key questions have been answered about the process, they must be returned for analysis and possible correction by the teams or the process owner who is directly responsible for them. This will achieve two key points; first, recurring problems will be highlighted, so they can be addressed at the process level and then prevented in the future. Second, ownership now begins to take effect. Since teams don't like to see their work returned for correction, special care will be provided the first time a project is returned for rework. Not so quick, leaders, if the process variations occurred because of external factors these must be studied in a different way. Bottom line, for true continuous process improvement to take place the process owners must not have their errors corrected for them, but have the opportunity to examine and learn from the process variations themselves.

Training

It has been said, the only thing more expensive than education and training is ignorance. What is training? The Merriam-Webster says, it is to form by instruction, the knowledge or experience gained by one who trains.

I believe training and education, are the two commodities of which there will never be a surplus. General of the Army, Douglas Mac Arthur observed, "In no other profession are the penalties for employing untrained personnel so appalling or so irrevocable as in the military."(1:12-3)

Wouldn't it be marvelous if all our new recruits performed as well as our very best workers? That could become reality if leadership took the role of assigning their best workers to the job of training the organization's new recruits. Bottom line, Victory through Leadership can be achieved if training and education of the troops becomes a priority. Leadership must pair new recruits with the organization's first-rate mentors if you want them to produce first-rate results.

Opportunity

As Albert Einstein once said, In the middle of every difficulty lies an opportunity."(8:227) To achieve Victory through Leadership, leaders must provide their people the opportunities to reach their full potential. The Merriam-Webster dictionary backs this up with their definition of opportunity as, a chance for advancement or progress. Every successful leader can look back on their career and credit some of their accomplishments to someone who provided them the chance to excel. Leaders it is payback time, time to give others the opportunity to excel.

Mr. or Mrs. Leader, does your organization have outdated rules and regulations? If your organization has substituted rules for reasons, your organization has lost the value of allowing people to think on their own. To illustrate the difference, I'll provide a simple

example about a young puppy in training named Sam. Sam was a playful puppy who's owner was constantly concerned, that someday Sam would be hit by a car. Sam's owner trained him to always stop whenever he came to a curb. Obediently, when Sam came running up to a curb, he would screech to a halt and wait panting for his owner to catch up. This system worked perfectly, until Sam and his owner moved to their new neighborhood. The new neighborhood didn't have any curbs along the streets. Now, when Sam ran along the roadside, the grass thins, the gravel increases, and soon he finds himself out in the middle of the road, wondering why his owner is screaming at him. The issue, as I'm sure you have already figured out, is whether you teach just the rules or bother to teach the reasons why they are needed as well. If you respect peoples' innate intelligence and ability, you will take the extra time to also teach them the reasons why something is necessary. If not, and you deal only with the rules, someday you'll find your best people standing obediently in the middle of a busy intersection, looking to you for their next instruction and wondering why you're so upset.(5)

Recognition

It has been said, what gets recognized gets done, so be careful what you recognize. Turning again to my Merriam-Webster dictionary, recognition is defined as something given in return for good or evil done or received.

People work hard for various reasons: for personnel satisfaction, to become the leader someday, or to make money for their families. If you start recognizing your people for a job well done, others will quickly copy the behavior to also receive recognition. The key to recognition is it must be from the leader's heart. Sound hard? Recognition need not be elaborate. It can be as simple as a handwritten note saying, "I'm proud of you. The bottom line is, recognize and give all the credit to your people for those mission successes.

Year in Review

As they say on the farms down in Southeast Missouri, "the cows never stay milked and the weeds never stay mowed." Just when we get things the way we want them, it's time to start over again. Get the point? Leadership is a endless, 24 hour, seven day a week process, not a one shot program.(4) This brings me to my last point, to achieve Victory through Leadership, leaders must conduct a Year in Review. The Merriam-Webster dictionary defines review as a critical evaluation. When is the last time you conducted a critical evaluation of the services you provide?

Most organizations inquire about external customer satisfaction and seek to improve upon problem areas identified. Few people in leadership positions, however, are as careful to measure and tend to the needs of their internal customers. After we have admonished our people to improve their processes, isn't it time leadership practiced what they preach? How? By conducting a Year in Review survey to find out how well they are performing. So leaders, where do you start? First, you must list the customers you directly serve. Second, develop an "Internal Customer Survey" form, asking the internal customers to rate the leader's service, using a five point scale, ranging from 1(strongly disagree) to 5 (strongly) agree.(6) The survey should cover areas such as work environment and the activities for which the leader is personally responsible. Some possible survey questions are:

When answering the questions please answer using the 1 (strongly disagree) through 5 (strongly agree) scale.

1. Is your work environment one in which you feel you can be successful?
   1 2 3 4 5
2. Is our communication with each other as often and free as you would like? 1 2 3 4 5
3. Is our organization structured as it should be? 1 2 3 4 5

4. Is quality being promoted in our area? 1 2 3 4 5
5. Are your questions answered promptly and to your satisfaction? 1 2 3 4 5
6. Is advice given as you desire? 1 2 3 4 5
7. Is attention given to your training and development? 1 2 3 4 5
8. Are performance feedback's conducted as you desire? 1 2 3 4 5
9. Is my leadership as it should be? 1 2 3 4 5
10. When you submit something for my approval, do I properly consider it? 1 2 3 4 5
11. If you were in my position, as this organization's key leader, what would you: Keep the same..... Change.....
12. Lastly, add additional space for comments for the above eleven questions.

Bottom line, survey your people as if they were your most important key customers, (that's right, they should be if they aren't already) analyze the results, discuss the survey responses with them, asking them for help in determining the type of improvements you or the organization require to improve the low results. Then establish an action plan to improve upon your leadership style. Repeat the survey about six months latter to ensure your improvements actually took hold.

In my 16 years of Air Force service, I've noted the fundamental difference between a satisfactory organization and one that is outstanding lies in its' leadership. I believe tomorrow's leaders will face challenges that can only be concurred by a clear vision statement, leaders involving their people, continuous process improvement, training programs that are considered a priority, providing people the opportunities to excel, a recognition of ideas, and then putting it all together in a year in review survey. And this, ladies and gentlemen, will provide you Victory through Leadership.

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TECH CONNECT PROCESS IMPROVEMENT

Improving an "Already Good" Program, and Learning Some Important Lessons Along the Way

BIOGRAPHY

Andrea Wright is the Chief of the Air Force Materiel Command's Technology Connections Team (TECH CONNECT), a position she has held since the inception of the TECH CONNECT program two years ago. TECH CONNECT is a highly successful Air Force technology information hotline with a strong customer focus. Ms Wright attributes the hotline's success to a competent, motivated team, and emphasis on continual process improvement and measurement.

TECH CONNECT PROCESS IMPROVEMENT

Improving an "Already Good" Program, and Learning Some Important Lessons Along the Way

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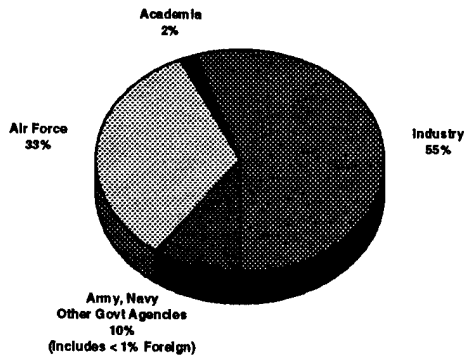
ABSTRACT: This is a true story about how one small team pulled together to significantly improve their program and how one manager learned some very important lessons in teamwork and responsibility while applying basic quality concepts. Before reading any further, recognize that there are no new concepts here. Those who have had their share of quality courses and read the endless stream of quality books, have seen these concepts before. Most astute managers probably think they already know how to apply them...but on the other hand, they might be like this manager. What follows is how one team actually applied textbook concepts and how a very "quality trained" manager learned some grassroots rules that must be kept in mind.

The Technology Connections Team (TECH CONNECT) was started in June 1993 to serve as a gateway for providing Air Force technology information to DOD, academia, and industry. With emphasis on connecting customers with an Air Force expert, the hotline service helps government, industry, and academia learn about Air Force and federal technologies. The toll free telephone number (800-203-6451) makes it easy for industry and small business to call. The broad customer base includes large industry and small business (including independent inventors), Air Force, Army, Navy, various Department of Defense and government agencies, academia, national associations/organizations, and foreign customers. TECH CONNECT has the following customer demographic split:

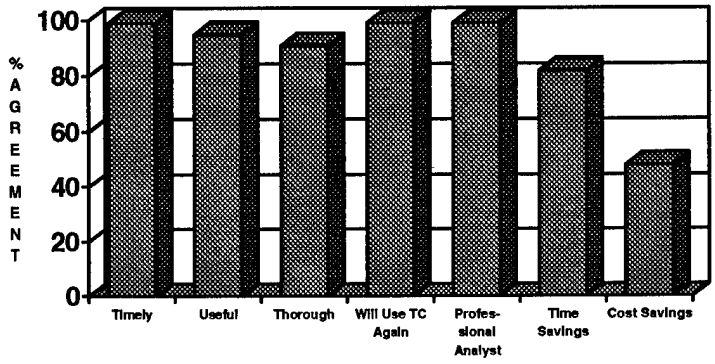
FIGURE 1. CUSTOMER DEMOGRAPHICS



In retrospect, many things were done correctly from the inception of the program--some by accident and some by design. One of the most important things the team did from the very beginning was to collect data they thought they would need for quality assessment in the future. The data included the time of day the customer request came in, where the customers heard about TECH CONNECT, customer demographics, monthly usage, time spent working each customer request, elapsed time to respond to customers, customer satisfaction, and more. All this information was captured in a customer database. Each incoming request was entered into the database by the administrative staff and the research analysts added technical information and estimated their average time spent researching the request when the request was officially closed.

By September 1994, after sixteen months of operation, the TECH CONNECT team had built a very successful program. Customer satisfaction was high and upper management lauded the program. Customer satisfaction questionnaires were coming back at better than a 40% return rate along with numerous unsolicited letters of appreciation.

FIGURE 2. CUSTOMER SATISFACTION



By October 1994, due to Air Force downsizing, TECH CONNECT had taken a 25% personnel cut (from four analysts to only three), a common occurrence in today's environment. With the personnel reduction and the fact that October was the busiest month to date as far as volume of customer requests, the team soon realized that they were in a predicament. Constant suspenses and ever-ringing phones kept the whole team working furiously only to find themselves further behind with each passing day. Something had to change!

In a bold move that certainly seemed right at the time, the manager decided to shorten the assigned suspense on every incoming request. Customers had always been told that the standard turnaround time for requests was two weeks (elapsed time) unless they needed the information sooner. This part of the process worked well--most customers accepted the two week time frame, and those who needed the information sooner were assigned a shorter suspense. The manager reasoned that certainly the team could work to a shorter suspense date on all incoming requests. As a result, the manager unilaterally assigned a one week suspense to all requests. The analysts would now work faster to keep from missing suspenses, more work would be accomplished and the backlog would disappear. The manager had fixed the problem. Things would be good. The manager sat back and waited for the results.....but nothing improved! Even

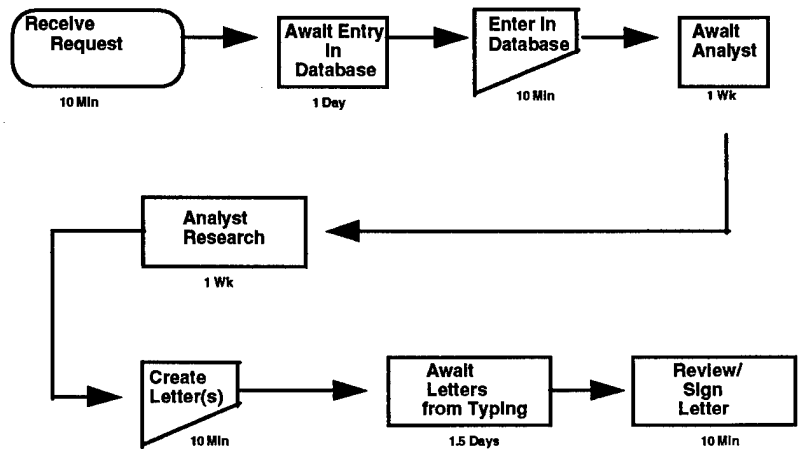
though the suspense date was one week, the analysts knew the customers had agreed to two weeks for their answer. The analysts knew they had a full two weeks to work requests, they knew they were already working as hard as they could, and they continued to work hard. But the requests kept pouring in.....

Examining what went wrong, the manager sifted through a few quality books and quickly found the answers. First, the team had not been allowed to participate in the process improvement. Although management must take responsibility for providing the tools and methods to get the job done right, it can't be done single-handedly. Second, there was no process analysis done to determine where the problems or opportunities really were. But foremost, the message the manager sent to the team was, "You are not working hard enough." Certainly a devastating message to send to a team that was already working as hard as they could.

Before any more damage was done, the manager brought the team together. At this point the group realized that while the answer wasn't obvious, one thing was certain--they simply couldn't work any HARDER. The team recognized that the only way out was to work SMARTER. Meanwhile, the backlog continued to grow....

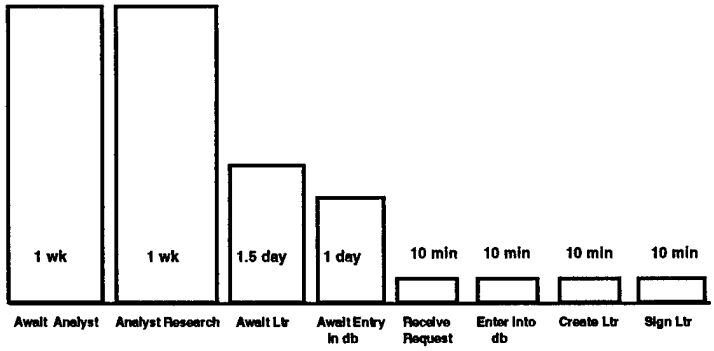
By early November the small team had a backlog of about thirty requests in work and an equal number that weren't. The situation was so bad that requests weren't even being put into work until the two week suspense had already elapsed. Recognizing a desperate need to examine the process before being eaten alive, the team decided to hold a group meeting to see what they could accomplish. They kept reviewing all the data they had collected and finally settled on measurement of the elapsed time. If there were a way to shorten the elapsed time from the point a request came in the door until it was closed, then certainly the team could work more requests each month. Within sixty minutes they had developed a flow chart of the process and identified estimated times in each step.

FIGURE 3. PROCESS FLOW CHART



To get a better view of the problem areas, the team put that information into a Pareto Chart to help identify critical areas on which to focus.

FIGURE 4. PARETO CHART



The two drivers in the process were the one week it took to await an analyst, and the one week it took to research the request. The choice was obvious to the team. At least during the research time, there was real work going on and progress being made. However, the one week it took to await an analyst was pure, absolute, "dead time"--nothing productive was happening. Considering the goal of a two week (fourteen day) turnaround time, all of a sudden it wasn't surprising to the team that they were having trouble getting the requests turned around in time, given the fact that the request sat idle for a week! The next step was to identify the process involved in the "await" time. There was nothing complicated here either. The request was put in a box and it sat until an analyst picked it up. Analysts were free to choose the requests they wanted to work or had experience with--there was no priority system. Everyone liked it that way. Everyone was empowered. But now they recognized it as a problem....

.....so the problem was "the box"!! They had identified A BIG PROBLEM for the focus of their efforts!! With the huge workload waiting for them back at their desks, the team didn't waste any time devising a plan to correct the problem. They quickly decided to try a category system and have the supervisor assign incoming requests similar to the triage system used in hospitals.

FIGURE 5. CATEGORY SYSTEM

Category 1 - General Information, 1 day turnaround

Category 2 - Quick Turn (limited research), 5 day turnaround

Category 3 - Extensive Research, 14 day turnaround

The team's theory behind the category system was relatively simple: 1) requests would get assigned and into work as soon as they came in, 2) the quick turnaround requests would be identified up front and would be completed right away rather than making customers wait over a

week for readily available information, and 3) the new system would allow the manager to make better use of clerical and administrative staff on the Category 1s and 2s, leaving the analysts free to work Category 3s.

Two hours from the beginning of the on-site the team was back at work with a new lease on life. With a little reshuffling of requests, the manager immediately assigned categories and emptied "the box." For a while the analysts were busier than ever. As soon as a new request came in, the manager emptied "the box." Requests were now idle for less than one hour before being put into work. Within a week or so the new system settled down. The analysts each carried no more than ten open requests and new requests were put into work as soon as they arrived. The only time there were any requests in the box was when each analyst already had ten open requests. The team liked the new system and it seemed to work.

While the team implemented the new process, the manager tried to identify a way to measure their progress. Remembering some statistical process control (SPC) training from undergraduate classes, and some recent post-graduate classes in statistics, the manager located some government owned software (SPC EXpert) and chose to run an X Bar and R control chart on sample data (sample size 5) of elapsed time to close requests each week. The X Bar chart would show average (mean) elapsed time per week and the R Chart would show the range between the highest and lowest elapsed time per week, allowing an analysis of the variability of the process. Gathering the data for the X Bar and R charts was not a problem because it already existed in the database. With the creation of a new view and the use of SPC EXpert, formulating the SPC charts only took a few hours.

The overall average for the first 62 weeks of TECH CONNECT's operation (the period prior to the recent Category system change) was 7.98 days. With a standing goal for a fourteen day turnaround time for all requests, the process really didn't look too bad on the surface. However, the SPC software showed that over 20% of the requests were being answered above specification (more than fourteen days) (Figure 6).

The range chart for the first 62 weeks showed continual spikes with as much as 60 days difference between the sample highs and lows for each week, representing an unacceptable variation in the process (Figure 7).

The team continued to collect elapsed time data using the new category system and the manager plotted the new points on the SPC chart, this time plotting two data points for each week by using two separate samples of five for each week. The results were amazing! By the seventeenth week, the average elapsed time was down to 6.3 days, an improvement of over a day and a half, or 21% (Figure 8).

Even more important than the improvement in elapsed time was the fact that now only 12.4% of requests were above specification (more than 14 days), a reduction of over one third. The Range chart also showed a significant improvement and less variation in the process (Figure 9).

The dramatic change in the process can better be seen by viewing the "before and after" SPC charts at Figure 10.

The new process was a success! The momentum gained from it led to other team process improvement efforts, such as a 100% callback of all October 1994 customers to get first hand feedback, a planned customer focus group to put the team in closer contact with the customer's needs, and a further examination of the process each category of request goes through to pinpoint other opportunities for improvement.

Months after the process improvement, the TECH CONNECT team enjoys working in a highly successful program. Customer satisfaction remains high. The volume of requests continues to increase each month as the program grows. But more importantly, the team is confident, knowing they have the power to constantly and continually improve their own process.

The team has learned that teamwork is essential to improving any process, that process improvement is more than a buzzword (it actually makes life easier), and that just because your customers love you doesn't mean you don't have room for improvement.

The manager feels the key to any successful process is measurement. The use of commercial software or groupware (such as Lotus Notes, which is used by TECH CONNECT) can be used to record incoming and completed work, turning virtually any "white collar" office work into a "production" operation which will lend itself to analysis through process control charts. Once all work is viewed as a "job" with a specific customer and a specific start/stop date, collection of the related data takes only a few moments of time. In addition to being an official record of work accomplished and an excellent reference file with search capability, the database records the data that is critical to process improvement efforts.

The manager now knows that management shouldn't unilaterally force process changes without team involvement, that the first step in process improvement is examining the existing process, and that respecting the team means you don't send messages that indicate the team isn't working hard enough. The manager has also recognized that it isn't time consuming and it doesn't take a master's degree in statistics to pull together enough meaningful data to improve a process.

As the manager examined what went wrong and what went right, one thought kept recurring--the Deming philosophy that 90% of all problems are management related. The manager believes it now.

ATTACHMENT 1
STATISTICAL PROCESS CONTROL (SPC) CHARTS

FIGURE 6. X BAR CHART - FIRST 62 WEEKS

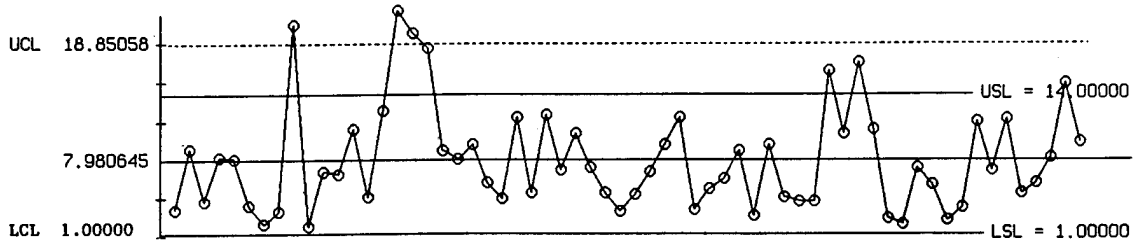


FIGURE 7. R CHART - FIRST 62 WEEKS

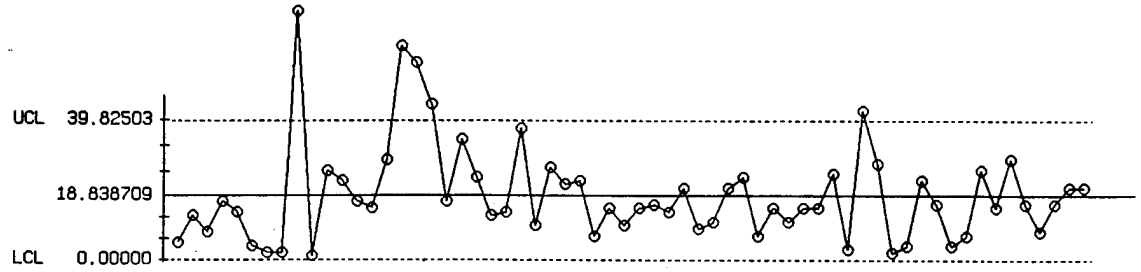


FIGURE 8. X BAR CHART - AFTER THE PROCESS CHANGE

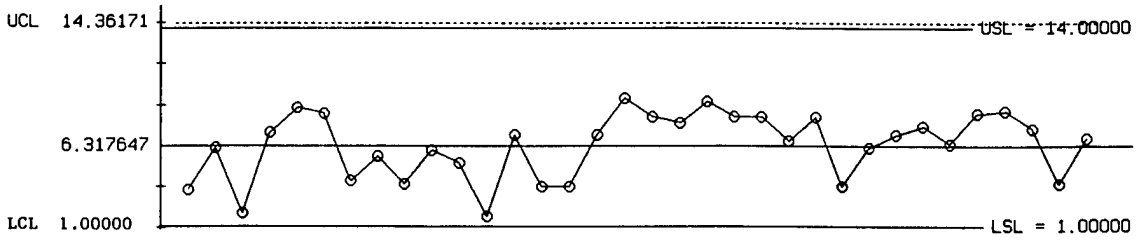


FIGURE 9. R CHART - AFTER THE PROCESS CHANGE

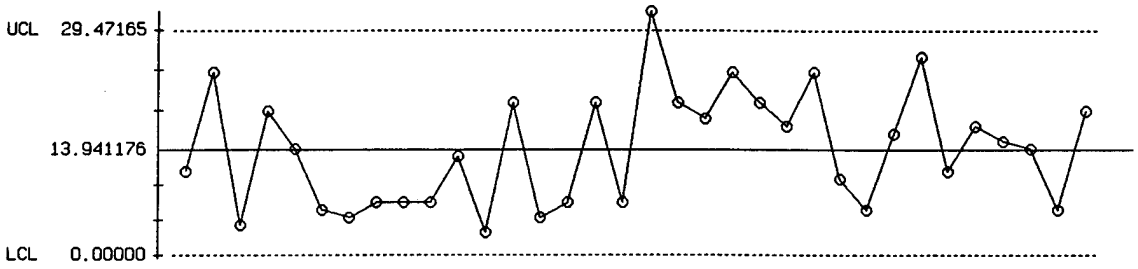
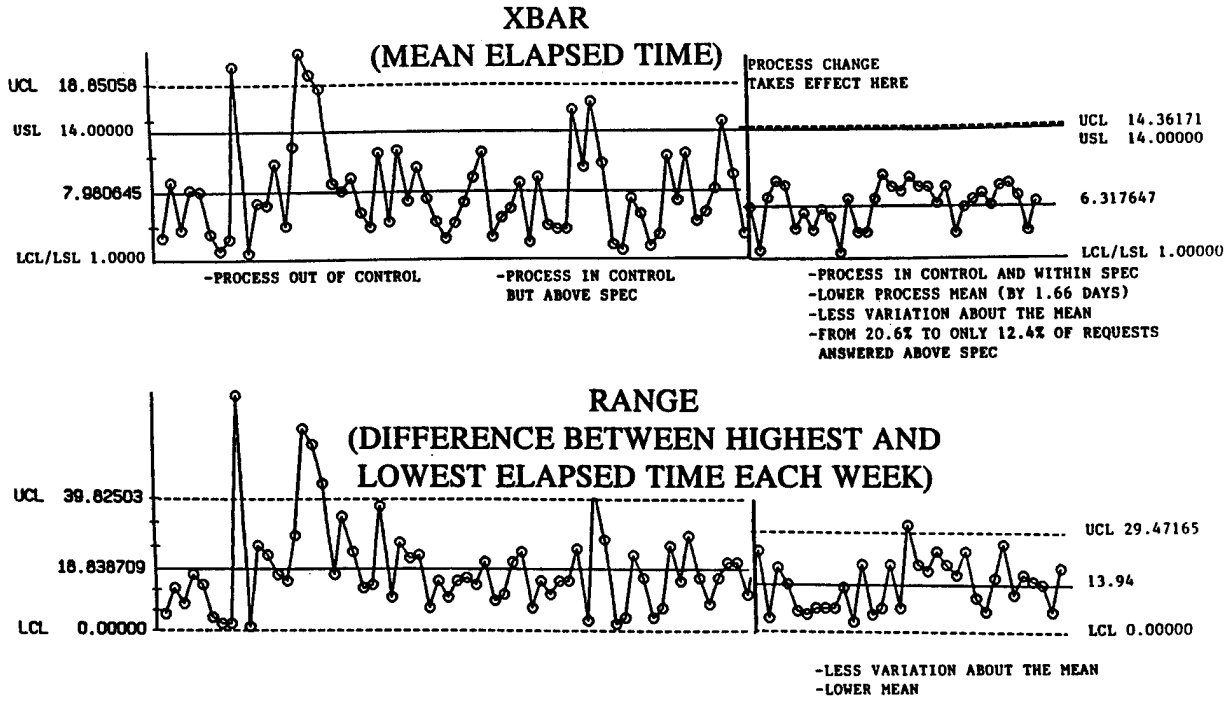


FIGURE 10. X BAR AND R CHART - BEFORE AND AFTER



Chief Master Sergeant Timothy R. L. Cagle is the Superintendent of the 77th Fighter Squadron at Shaw Air Force Base, South Carolina. He holds a Masters Degree in Human Resources Management from Troy State University, 1992. His experiences include: Chief Inspector and Superintendent of Quality Assurance, Logistic Group Quality Advisor, Quality Air Force Assessment Evaluator, as well as teaching various quality courses. He is a member of the American Society for Quality Control and actively participates in the Columbia SC Chapter. He is married to the former Deborah A. Tumblin and they have three children: A1C William Cagle, Rebecca Cagle and Jessica Cagle.

VISIONARY LEADERSHIP

by
Timothy R. L. Cagle, CMSgt, USAF
1 March 1995

ABSTRACT

This article is about a paradigm shift that breaks away from Frederick Taylor's control philosophy and creates an aligned leadership within an organization. The Natural Evolution of Quality Leadership (NEQL) method is a paradigm shift that expands the existing ACC Strategic Quality Pyramid and breaks away from the traditional organizational way of thinking. It will capitalize on the Air Force's quality journey progress and take it to a new level of commitment with a better understanding and application of quality.

BODY

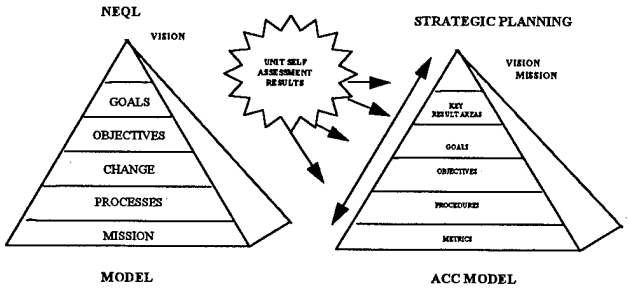
Ponder this question; at what level in your organization does leadership begin? Leadership begins early in life and is first noticeable in children playing games. Later in life cliques are formed, peer pressure influences behavior, and our leadership conditioning is reinforced to a greater degree. When our young people enter the military, we teach them to follow the appointed leader in order for the team to succeed. After basic training we need to cultivate leadership and team dynamic skills within each teammate even more. We need to teach our appointed leaders at all levels how to use team dynamics effectively and strive for continuous improvement instead of day to day activities. Quality is the lesson plan that will teach and cultivate leadership.

Ponder this question; is your squadron commander's vision the same as a shop chief's vision . . . should it be? The visions in the above question will be different because of experience, education, and responsibilities. The commander's vision will be broad and less specific than a shop chief's vision because their environment is different. But for an organization to improve, the commander's vision must set the tone, provide guidance, and give a sense of direction while it takes shop chiefs and shops acting on the commander's vision to produce the improvements. Commanders are process owners and not process performers. Each shop must evaluate the commander's vision and create their own vision, specific to their environment and then strive to reach their vision. As each shop improves, so does the organization. Visions at each level stimulate creativity and provide the fuel for continuous improvement.

So how do we do it? While there's no cook book recipe for improvement there is a method. The method is outlined in six sequential phases titled, "The Natural Evolution of Quality Leadership" (NEQL).

Natural Evolution of Quality Leadership

1. Define your mission statement.
2. Define your critical processes.
3. Develop a vision statement.
4. Develop goals from the vision.
5. Create measurable objectives from the goals.
6. Plan a process change to achieve the objectives.



Each phase is a building block approach for the next. The six phases are repeated at EACH level of the organization and by each shop. This creates a natural working infrastructure for quality and continuous improvement that's in alignment within each organization. Each of the phases become more specific as they are reinterpreted at lower levels. The commander can now review each shop's strategic quality improvement plan (SQIP) at each level and judge if his/her vision will become reality. Also as improvements begin to take form, resources will be needed and it will be up to commanders to prioritize these resources for a synergistic effect. The NEQL method will be a road map for success where everyone

in the organization can see how his/her improvements combine with others to catapult the organization's improvement plan.

Consider this example; if a wing commander has a goal "to improve combat capability" he/she should develop an objective. If the wing, during the past year, averaged a satisfactory rating on all aircraft generation exercises and the wing commander wants to improve the wing's performance, he/she must now set an objective..."to average an excellent rating for aircraft generation exercises during the next year." That goal and objective is now passed down through the chain of command until it reaches the lowest level. Each level brainstorms improvements at their functional level and creates a SQIP at each level that is then reviewed, compiled, and funneled back up to the wing commander so he/she can judge if the objective will be met. The wing commander can now see what milestones, checkpoint metrics, and resources will be needed to achieve this goal. It is each commander's job to provide the resources for subordinates to improve and develop their full potential. The NEQL creates an infrastructure for continuous improvement both up and down the chain of command.

We must teach our teammates how to apply the NEQL phases. For example, most mission statements are mottoes and/or slogans...not mission statements that are unique to a specific group of teammates and developed by those teammates. Our teammates don't know how to develop a mission statement or understand the characteristics of an effective mission statement. In phase 2 we must teach what a critical process is, how it applies to the mission, how to flow chart processes, how to measure them and their impact to customers, and that variation in supplier quality may impede quality efforts. A tool many of us use today is the COPIS (customer, output, process, input, supplier) worksheet. This phase also teaches how to use metrics and key result areas. Do our teammates know how to create goals from a vision? Can they then develop objectives from the goals and implement a plan to change the processes in order to reach the goals? How will teammates know if a benchmark is right for their organizational climate and culture? Do we really know how and what must change for empowerment to flourish? The average time to implement a working quality structure takes five to seven years. If we don't create a working big picture approach with examples that gives a method from which we can all tailor to our organization; our present rate of education, training , implementation and progress will take longer than the average time.

Applying the NEQL methodology at each level of the organization will help teammates understand all the quality information and see how the information applies. The Quality AF Criteria and all the quality tools fit neatly into the NEQL. The NEQL directly supports the ACC Strategic Quality Pyramid. Key result areas (KRA) shown in the ACC Strategic Quality Pyramid are being misinterpreted by many organizations...some additional education is needed. KRA are important metrics because they measure the effect change has on a process. Some organizations are not using KRA as a measurement tool. The NEQL takes the ACC Strategic Quality Pyramid to a new level of performance by allowing each level and shop in the organization to create a SQIP that's in organizational alignment. A focused quality improvement commitment will result. Quality commitment and direction must start at the top of an organization but the actual improvement begins at the bottom. Commanders are process owners not process performers. That's why it's critical to have a working quality improvement infrastructure and to show everyone how they contribute to the Air Force Quality Culture.

SUMMARY

Every commander wants an organization that makes good decisions at the lowest level and supports continuous improvement of the organization. Using the NEQL method will facilitate good decisions by educating everyone and aligning their focused efforts. This coupled with empowerment will allow everyone, to include the organization, reach their full potential. Empowerment can be achieved by; teaching teammates quality concepts, converting supervisors into coaches, implementing an idea generation program, supporting quality improvement teams, and allowing teammates who perform processes to have a say in its outcome. Our deepest desire as human beings is the desire to be understood. The empowerment techniques above will show our teammates that we listen, care, and understand their needs. Teammates don't care how much their supervisor knows until they know how much the supervisor cares. Quality will create leaders from managers.

QUALITY AIR FORCE PRINCIPLES AND THEIR SUPPORT OF THE TENETS OF AEROSPACE POWER

Biography

Major Bob Johnson is Chief, Non-Vol, Air Warfare Center, and Weapons and Tactics Center Assignments on the Air Combat Command staff at Langley AFB VA. He is a senior pilot with over 2500 flying hours including missions in Operation Just Cause and Operation Southern Watch. He has served as an instructor pilot in the T-38, an instructor pilot and flight commander in the F-4 and OA-37, and an assistant operations officer in the F-15.

QUALITY AIR FORCE PRINCIPLES AND THEIR SUPPORT OF THE TENETS OF AEROSPACE POWER

ROBERT E. JOHNSON
HQ/ACC DPAO

Abstract

This paper summarizes the results of a graduate research study. This study evaluated how well the Quality Air Force principles support the tenets of aerospace power. It compared the guiding concepts behind each of the six principles of the Air Force's Quality leadership initiative to the seven tenets of aerospace power outlined in Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force. The study evaluated each of the six principles as fully supporting, partially supporting, not supporting, or not related to each of the seven tenets.

The study's hypothesis was that the Quality principles would not fully support the tenets of aerospace power. However, once completed, it determined that most of the Quality principles did support the wartime tenets if they were applied as intended. The study also found that two of the principles required some modification or clarification to meet the requirements of a combat organization.

Introduction

The United States Air Force is a large and widely diversified organization. Leading and managing in an organization of over 425,000 personnel spread over 214 facilities[1] presents a monumental challenge. To better meet this challenge the Air Force has adopted the Quality Air Force that is described as an "operating style that inspires trust, teamwork, and continuous improvement."[2]

However, the USAF is not just another of our nation's corporations with management challenges. Its role is not to make a better widget. Rather, it is the primary supplier of U.S. combat airpower. Therefore, if an organization so critical to the nation is to adopt a new operating style, that style should support the primary mission of the organization. For the Air Force, that mission is the "conduct of prompt and sustained combat operations in the air."[3]

According to the Air Force Quality Center's publication, The Quality Approach, six principles guide the Quality Air Force. These principles are 1) leadership involvement, 2) dedication to mission, 3) respect for the individual, 4) decentralized organizations, 5) empowerment at the point of contact and 6) management by fact. When conducting wartime operations, the Air Force considers the principles of war, but adapts and expands upon these to develop the tenets of aerospace power. According to AFM 1-1 Vol II, these tenets are 1) centralized control and decentralized execution, 2) flexibility and versatility, 3) priority, 4) synergy, 5) balance, 6) concentration, and 7) persistence. These tenets define how the Air Force will conduct combat operations.

The question is, how well do the principles of the Quality Air Force support the tenets of aerospace power. The answer to this question lies in answering 42 subquestions. These 42

subquestions are formed by considering each of the six principles of the Quality Air Force individually against each of the seven tenets of aerospace power.

This paper maintains a limited scope. It does not evaluate whether the Air Force has fought or will fight according to its published tenets of aerospace power. Neither does it evaluate whether Quality Air Force principles are being adhered to in practice or whether this leadership style has proven effective in the peacetime Air Force. Instead, the study assumes all the published principles are followed. It goes from there to evaluate how well the first set of ideal conditions (Quality Air Force principles) supports the second set (tenets of aerospace power).

The first step is to briefly list and explain the tenets of aerospace power and the principles of the Quality Air Force. The next step is to analyze 42 subproblems. In each of these subproblems one of the principles of the Quality Air Force will be evaluated against a single tenet of aerospace power. When all six principles have been evaluated against a tenet, the process will be repeated on the next tenet until all seven have been considered.

The decision tree in Figure 1 will be used to determine whether a principle fully supports, partially supports, does not support, or is unrelated to each tenet.

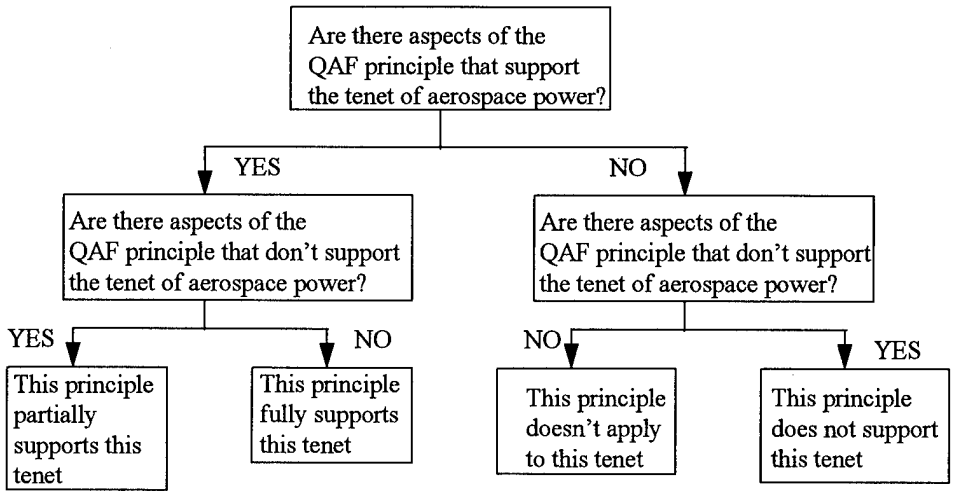


Figure 1. Data Analysis Decision Tree

As the decision tree shows, the first question will be, "Does the principle have some aspects that support the tenet?" i.e., "Would applying the principle help in the application of the tenet?" If it does, the next question will be, "Does it have aspects that do not support the tenet?" If it does not, then the principle fully supports the tenet. If it turns out that a principle has aspects that do support a tenet and aspects that do not, it will be classified as partially supporting that tenet.

If the answer to the first question, "Does the principle have some aspects that support the tenet?" is no, the second question is, "Does the principle have aspects that do not support the tenet?" If it does, then the principle does not support the tenet. If a principle doesn't have aspects either supporting or not supporting a tenet, it will be unrelated to that tenet.

Tenets of Aerospace Power

The tenets of aerospace power are considered the fundamental truths of war above the surface. While they are not held inviolate or subject to blind obedience, "they can be ignored only at considerable risk."[4] The following data on the tenets of aerospace power is from Essay M of AFM 1-1 Vol II unless noted otherwise.

The first tenet of aerospace power is centralized control/decentralized execution. AFM 1-1 Vol II describes this as the master tenet without which none of the others can be accomplished. In July 1943 the concept of centralized control was formalized in Army Field Manual 100-20, Command and Employment of Air Power after airpower's dismal performance in North Africa. With aviation assets parceled out to the ground commanders, the Allied air forces were unable to control the air or to support the ground forces. It became obvious that it would require centralized control of air forces by an airman to ensure unity of purpose and establish priorities.

Decentralized execution became a formal tenet after Vietnam. Decentralized execution permits flexibility, effective span of control, and responsiveness. Centralized control can concentrate forces, but decentralized execution ensures that the details are attended to and allows quick exploitation of fleeting opportunities.

Flexibility/Versatility means using the unique characteristics of aerospace forces to their maximum. Only aerospace forces have the ability to concentrate force anywhere and attack any facet of the enemy's power. This capability gives aerospace power at least three potentially decisive uses. First, aerospace power is the only form that can always produce a direct and immediate effect. Second, aerospace power can affect the surface battle before the first shot is fired by the surface forces. Third, once the surface battle begins, aerospace power can decisively influence it.

There will almost always be more requests for aerospace forces than there are forces available. This dilemma leads to the third tenet, priority. Priority challenges the air commander to assess requests for aerospace power in light of their importance to the overall strategy.

The tenet of synergy has two aspects, internal and external. Internally, the individual missions must be blended to produce effects that they would not be able to accomplish on their own. For example, strategic missions can destroy the source of the enemy's supplies while interdiction missions destroy the supplies already in the pipeline. This internal synergy yields better results than either attack could obtain on its own. Externally, synergy means using aerospace forces in conjunction with ground and naval forces to achieve the best results. As an example, an enemy that finds itself under attack from airborne and surface forces faces a decision. If they maneuver to counter the surface forces, they expose themselves to attack from the air. If they remain under cover to avoid the aerial attack, they are unable to effectively face the surface threat.

Balance challenges the air commander to assess the opportunity, necessity, effectiveness, and efficiency of using aerospace forces against their contribution to the campaign and the risk to them. The capability of modern aerospace forces comes with an extremely high price tag. This tends to assure that these assets will not be available in great numbers and cannot be rapidly replaced. This is especially significant when one considers that, typically, as aerospace forces become more capable, so do the air defense systems that oppose them. Therefore, air commanders must carefully balance risk and opportunity while keeping in mind that the occasion may arise when the situation dictates action despite the risks involved.

Concentration means focusing the aerospace power's purpose instead of allowing it to be needlessly dispersed. However, concentration of aerospace forces can be challenging due to their ability to strike almost any target. Given a wide range of options, the tendency exists to divide forces into a great number of small packages to strike as many targets as possible. Such a course of action runs the risks of (1) failing to destroy the targets due to underestimating the force required, (2) increasing the attrition rate if reattacks are required, and (3) increasing the risk of defeat in detail if the enemy concentrates against the small packages.

Persistence allows that once an aerospace mission is accomplished, the enemy may be able to replace or repair the target. While one of the benefits of aerial attack is that it draws off manpower and material to repair the damage achieved, the aerospace commander cannot allow a target to be restored. Additional airstrikes may be required and their timing is important. If the added strikes are made too soon, they have destroyed nothing of consequence. If made too late, the enemy may already be getting use out of the target.

Quality Air Force Principals

Having looked at the tenets of aerospace power, the next step is to considered the principles of the Quality Air Force. The Quality Air Force identifies six core values and then establishes a set of basic principles as guidelines leading to achieving those values. These principles are key to meeting the objectives of the Quality Air Force. These principles are leadership involvement, dedication to mission, respect for the individual, decentralized organizations, empowerment at the point of contact, and management by fact. The following data on Quality Air Force Principles comes from The Quality Approach unless noted otherwise.

The principle of leadership involvement requires leaders to be actively involved in creating quality within the Air Force. The leader must support quality by creating an environment that supports trust, teamwork, risk taking, initiative, reward, and continuous improvement. This principle identifies the roles of leaders at all levels within the organization. These roles include setting the vision, policies, priorities, and strategies for the organization. Senior leaders develop and implement plans and allocate resources. Mid-level leaders' roles include coaching, mentoring, and teaching. Feedback from all levels is strongly emphasized. The leadership style for a Quality Air Force is team oriented and participative.

Dedication to mission is the second principle. It is reflected in all that the team does to achieve organizational success. Every member of the team is important. Each individual must know the strategic goals and critical processes as well as their contribution to them.

Respect for the individual recognizes individual skill and contribution. The front-line workers know what satisfies the customer. Feedback from them helps mid-level supervisors know what training and resources are required. It helps senior leaders continue to refine the strategic plan.

Decentralized organizations are aligned to support the critical processes thereby benefiting the customer (recipient of goods or service). Decision making authority is moved down the organization to the wings and squadrons. Quality organizations strive to eliminate unnecessary layers of bureaucracy.

Empowerment at the point of contact gives the people on the front-lines the opportunity, authority and resources to get the job done. The goal is to give properly trained subordinates the ability to improve the organization. This encourages innovation and risk taking. Responsibility, authority, and accountability are delegated to the lowest possible levels to accomplish the mission.

Management by fact means using data-driven decisions based on a quantitative measurement to make better decisions. The term for these quantitative measurements is metrics. A metric is a "measurement, taken over a period of time, that communicates vital information about a process or activity."[5]

Comparison of Principles and Tenets

The study upon which this paper is based compared each of the principles and tenets. Rather than consider all 42 comparisons, this paper will highlight some of the more significant ones. A summary of the results of all 42 comparisons is in Table 1 later in the text.

Dedication to Mission and Centralized Control/Decentralized Execution

Dedication to mission in the quality culture requires the individual to know the strategic plan and his role in it to be able to best support the plan. The tenet describes a plan that is formulated at a centralized location but must be executed at the various decentralized units. Conventional Air Force wisdom allows that for units and individuals to correctly execute their part of the plan they should possess some knowledge of the overall plan and their place in it. This is why several key theater leaders toured Air Force units involved in the Gulf War just prior to the initiation of hostilities. They briefed the crews involved on the overall airwar plan because they felt that the plan would best be executed if everyone knew their part and how it fit into the overall scheme.[6]

There may be times during wartime operations where lack of time and the need for security prohibit the individual from knowing any part of the plan other than the portion directly involving them. It can be argued that a member who is used to the peacetime norm of knowing the strategic plan may find it unnerving to be shown only a small portion of the big picture. Combined with the stress involved in a combat situation, this could decrease performance. However, this tendency to limit dissemination of information is not a tenet of airpower. It is merely a result of the environment in which this airpower may have to operate. The tenet of centralized control/decentralized execution encourages spreading information as widely as possible. Therefore, while it is a potential concern, it doesn't affect the relationship between this principle and the tenet. Therefore dedication to mission fully supports centralized control/decentralized execution.

Respect for the Individual and Centralized Control/Decentralized Execution

Individual skill and responsibility are requirements for decentralized execution to succeed. Without trained, competent personnel executing the plans, decentralized execution is bound to fail. Also feedback from the decentralized units can provide the central headquarters a better feel for the front-line situation.

It can be argued that, since respect for the individual acknowledges that the front-line personnel best understand the customer's needs, the individuals might be inclined to take a course of action that seems prudent to them but doesn't support, or even detracts from, the overall plan. This misunderstands this principle's point. It is acknowledged that the front-line organization knows the customer's needs but that knowledge doesn't allow free reign. Rather, that acknowledgment is why the feedback from the organizations and individuals is worth considering. A similar argument will be made when considering empowerment at the point of contact, but in

both cases, the principle if applied as defined in the Air Force's Quality literature will support the tenet. Respect for the individual fully supports centralized control/decentralized execution.

Empowerment at the Point of Contact and Centralized Control/Decentralized Execution

Gen. George Patton once said, "Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity."[7] Obviously, providing the decentralized units the authority and opportunity to accomplish the task is not an idea that originated with the Quality movement.

It could be argued that a conflict arises in the quality concept of delegating responsibility, authority, and accountability. It could be argued that it runs a risk of "overempowering" and allowing a unit to make an independent effort that may not support the overall scheme. However, the intent of the empowerment is clearly to give the front-line unit the means necessary to accomplish the mission assigned them. The tenet of decentralized execution also involves delegating authority and responsibility to the subordinate echelons. The principle and the tenet both declare that power to complete the mission belongs in the lower echelons. Empowerment at the point of contact fully supports the tenet of centralized control/decentralized execution.

Leadership Involvement and Flexibility/Versatility

The concept of the centralized leadership making plans and then allowing the decentralized units to execute the details of the plans is a central theme in both the quality principles and the aerospace tenets. Allowing flexibility within the lower echelons without dictating the details of how things will be done allows them a degree of flexibility and versatility.

However, there is a potential conflict. In the Quality concept the leadership approach is participative. Inputs from a variety of sources are weighed using "quality tools" such as brainstorming, normative group technique, and weighted voting. During wartime, the rapid pace of the planning and execution cycle may not give the leadership enough time to execute a participative type of planning and decision making. If leaders try to use this democratic style, they may find themselves not able to arrive at decisions fast enough to exploit airpower's flexibility. Therefore, since there are facets that both support and detract from flexibility, leadership involvement partially supports flexibility/versatility.

Management by Fact and Flexibility/Versatility

It's difficult to argue with the precept that making decisions based on fact is preferable to relying on intuition or feelings. However, management by fact can detract from flexibility. Requiring a quantifiable fact doesn't permit a rapid decision even if the solution is intuitively obvious. Reliance on charts and graphs learned in peacetime can paralyze a commander during wartime. Data requires analysis to become facts. This quality principle doesn't allow the commander to take action until the analysts are finished. This delay might allow the enemy to initiate their action thereby putting the commander in the unenviable situation of reacting to rather than dictating outcomes. To quote Patton once again, "A good plan violently executed now is better than a perfect plan next week."[8] Management by fact partially supports the tenet of flexibility/versatility.

Empowerment at the Point of Contact and Priority

Empowerment at the point of contact allows the lower echelons the authority and flexibility to execute the priority. This principle fully supports this tenet, however, there is a caveat.

If the front-line units are to be given the responsibility, authority, and accountability to conduct their missions, it is very important that the senior leadership accurately and fully communicate its priorities. The units need to know, without doubt, what it is they should be doing and what they should not be doing. A single empowered officer has the ability to completely change a mission's priority. An example from the war in Vietnam illustrates this. A strike force was enroute to a target in the Route Pack Six, the most heavily defended part of North Vietnam. Enroute an F-105 was shot down. The airborne leader terminated the mission and diverted all the aircraft to the search and rescue (SAR) effort to recover the downed crewman.[9] Was this a proper decision? One cannot say without knowing what the priorities were. If the priorities were to destroy the target at any cost, then it was a bad decision. If the leadership's priority was to do whatever was required to conduct a successful SAR effort, it was a good decision. In either case, it is an example of the need to ensure that the empowered lower echelon leaders know the priorities, because these leaders will certainly have the power to change them.

Management by Fact and Priority

Obviously the senior commanders can use facts to set the proper priority. However, the requirement for quantitative measurements makes gathering the quantitative data itself a priority. This may be justified if it provides data that will allow setting better priorities.

The danger is that any time processes are measured, there may arise a tendency to make changes that will improve the numbers vice improving the process. This may make improving that quantitative data a priority at the expense of the actual priority. An example from combat training may illustrate this activity. ACC measures, tracks, and establishes a standard for the percentage of targets hit by their fighters conducting bombing practice. If a unit was not meeting its standard of hits, the Quality solution might be to create a team to investigate how to improve the process. However, in the highly competitive realm of the military, no one wants to fail to meet standards. In the short term there may be temptation to react immediately and improve the situation. In designing these practice attacks, they can be built to approximate an actual release of a sequence of live munitions from appropriate altitudes or they can be built to drop a single practice bomb at the minimum altitude allowable. What's the easy solution? Decrease the altitude of the attacks. Obviously, lowering the altitude should increase accuracy. The result could be that the unit meets the standard but does so by decreasing the level of realism in its training and its capabilities in wartime. To be fair, the Quality literature recognizes this potential and warns that using metrics to assign blame might result in manipulation of the data to present a favorable picture. However, as the example shows, the data doesn't need to be manipulated or falsified, the process can simply be altered to produce fully accurate and more favorable data while still detracting from the unit's overall goal. This principle partially supports this tenet.

Respect for the Individual and Balance

There is a strong inclination to judge that respect for the individual would not support balance. The argument is that a commander who has respect for and values the individuals in his command would be inclined to not send them into harm's way. This would sway the balance

decision disproportionately toward survival at the expense of mission accomplishment. The dilemma is familiar to anyone who has seen the movie Twelve O'Clock High and watched the bomb group commander struggle with the choice of sending his bombers on easy missions that would contribute little to the war effort or striking the heavily defended targets that would certainly entail large losses but could contribute to ending the war.

Certainly this is a valid concern, but it is more a function of human nature than the Quality principle. Respect for the individual deals with recognition of individual skill and its contribution to the mission. Also, it values the feedback from the front-line that can help the senior leaders make a better balance decision. In this light, respect for the individual must be considered to fully support balance.

Respect for the Individual and Concentration

Respect for the individual can support concentration by providing leadership with ideas on where the concentration should be. Leadership exercising this principle would heed these suggestions. An example of this occurred in the 1991 Gulf War. Suppressing and destroying enemy air defenses was a priority. However, an F-15E squadron commander was concerned about a high concentration of anti-aircraft defenses causing losses in a particular area. He felt a concentrated effort was required to destroy those enemy air defenses around the town. In a direct phone call to Lt. Gen. Horner, the theater air component commander, he convinced the General of the need for this effort. The next day's air tasking order included a concentrated effort to destroy these defenses.[10] Respect for the individual fully supports concentration.

Management by Fact and Concentration

Management by fact can be detrimental to concentration by its emphasis on quantitative data. AFM 1-1 Vol II cautions against over reliance on mathematical models to calculate the amount of concentration required to destroy a target. It contends that these models are incapable of dealing with the non-quantifiable aspects of fog, friction, and chance. It forwards a rule of thumb; "prudent air commanders err on the side of too much rather than too little power...send a man to do what appears to be a boy's job."[11] Given its reliance on measurable data, management by fact only partially supports concentration.

Management by Fact and Persistence

Management by fact, with its requirement for numerical data can degrade persistence. An industrious and innovative enemy can repair damaged targets far more rapidly than might be predicted. In aerial warfare, there are "innumerable illustrations of target destruction followed by surprisingly rapid repair and rebuilding."[12] Management by fact partially supports persistence.

Table 1 summarizes the results of the 42 comparisons performed in the original study. It shows that the principle of management by fact was always judged to only partially support the tenets of aerospace power. With only one exception, every other principle fully supported every tenet.

Table 1
Summary of Principle/Tenet Comparison

			Quality Air Force Principles			
Tenets of Aerospace Power	Leadership Involvement	Dedication to Mission	Respect for the Individual	Decentralized Organizations	Empowerment at the Point of Contact	Management by Fact
Centralized Control/ Decentralized Execution	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Partially Supports
Flexibility and Versatility	Partially Supports	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Partially Supports
Priority	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Partially Supports
Synergy	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Partially Supports
Balance	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Partially Supports
Concentration	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Fully Supports	Partially Supports

Source. This table summarizes the author's evaluations in this study.

Summary

When comparing the Quality Air Force principles to the tenets of aerospace power, several themes are recurring. This should come as no particular surprise since examination reveals that several are interrelated. Leadership involvement emphasizes a participative leadership style that functions best if you also follow the principles of respect for the individual and empowerment at the point of contact.

Likewise, with the tenets of aerospace power, centralized control allows for the establishment of balance, planning for synergy, and concentration. Decentralized execution permits flexibility and versatility.

This intertwining resulted in similar observations throughout the comparison of the principles with the tenets. These are:

1) Leadership involvement

As a whole, leadership involvement reflects the aerospace tenet of centralized control/decentralized execution. However, a concern with leadership involvement is its full reliability on a participative style of leadership. In wartime this style may operate too slowly and prevent flexibility. More likely, the leadership will understand that the tempo of operations does not permit a fully participative style and will change to a more authoritative style. What will the leader, trained in a democratic, participative style, do when the press of time forces him to change that style to one more autocratic? How will the people in the organization who proudly claim "we train like we're going to fight" function when it turns out that the leadership style so prevalent during training has been rejected as a result of the time pressures of war? If there are occasions where this style won't work, such as in wartime, Quality Air Force education needs to admit it so that when the style has to change, people are prepared for the change.

2) Management by fact

This was the principle that seemed to least support the tenets of aerospace power. Stating that an organization's leaders should manage by fact should certainly earn some support. Leader's should consider as much data as is available whenever making a decision. However, dependence on measurable, quantitative data has drawbacks. The significant one is that the most important

data in war may not be measurable. Although he was describing the Vietnam war, Martin van Creveld may have been talking about the Quality concept of management by fact when he said:

> Since intuition was to be replaced by calculation, and since the latter was to be carried out with the aid of computers, it was necessary that all the phenomena of war be reduced to quantitative form. Consequently everything that could be quantified was, while everything that could not tended to be thrown onto the garbage heap. Among the things that were discarded in this way were precisely those factors that make war what it is.[13]

Is the intent of the Quality Air Force to eliminate intuition and reduce everything to quantitative form? Air Combat Command says "things that don't get measured won't get improved" and that "action based on fact leads to effective change. Action based on intuition alone may, but often does not...use empirical information, observation and statistical data."[14] The Quality Approach says "Decisions cannot rest on mere guesswork."[15]. Clearly the Quality principle puts the emphasis on quantifiable data. It does not go so far as to dismiss intuition or experience, but it certainly makes them second rate decision making tools.

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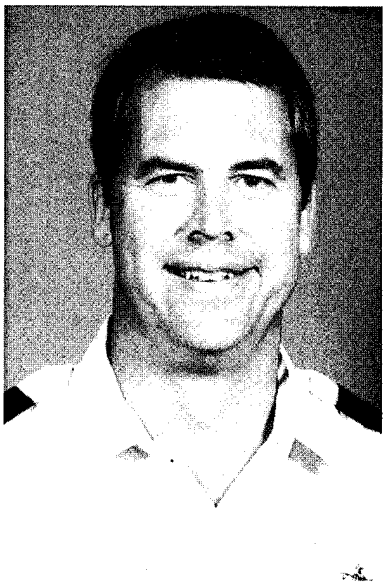
LEADERSHIP IN THE QUALITY CULTURE: UNLEASHING THE POWER OF THE "ORIGINAL PARADIGM"



DOUGLAS W. CARROLL

Doug is a Major in the United States Air Force currently stationed at the Pentagon. The vast majority of his military career has been spent in the Management Engineering area. His primary responsibility has been determining the right mix of manpower to accomplish a required workload. Since emphasis is always placed on getting the most work for the least cost, he has been both a student and practitioner of several leadership and managerial techniques through the years.

His functional area of expertise is a natural complement to the rising quality culture. Both are ultimately concerned with increased productivity, quality of life, and cost effectiveness. He was given the chance to integrate his management engineering expertise with his growing interest in quality in 1991, when he was selected to be the Deputy Chief of Quality at Langley AFB VA. This assignment entailed developing and instructing a training program designed to move the organization toward a quality cultural. He co-authored several key courses and taught them to thousands of government and non-government personnel. The courses covered quality awareness, empowerment, team training, group dynamics, facilitation skills, statistical tools and techniques, and professional development. He was instrumental in leading the organization to the forefront of the Air Force with respect to quality. The progress made was recognized by a visit from Vice President Gore in July 1993. The wing went on to win the highest quality award in the Air Force in 1994, the Secretary of the Air Force Quality Award. His current duties include developing a strategic plan and performance measurement system for the entire manpower career field throughout the Air Force.

Doug considers himself a "still learning" student of quality and has attended several courses, including courses from Florida Power & Light, the Air Force Quality Institute, Virginia Peninsula Total Quality Institute, Air Combat Command, the International Quality and Productivity Center, the US Army, and the Stephen Covey Leadership Center. He is a certified facilitator of Covey's *Seven Habits of Highly Effective People*.

Doug received his undergraduate B.S. in Industrial Technology from East Carolina University and an M.S. in Systems Management from the University of Southern California. He is also a distinguished graduate of Squadron Officer School, a correspondence graduate of Air Command and Staff College, and an in-resident graduate of the Army's Command and General Staff College.

Outside interest include being a DJ, woodworking, and public speaking. He works hard at combining his knowledge and enthusiasm to make his presentations entertaining as well as educational.

THE 1995 QUALITY AIR FORCE SYMPOSIUM

LEADERSHIP IN THE QUALITY CULTURE: UNLEASHING THE POWER OF THE "ORIGINAL PARADIGM"

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Abstract

The author presents an innovative theory know as the "Original Paradigm" and explains how it is key to effective leadership within a quality culture. The Original Paradigm is presented as a "natural" motivator of people and the key to an effective leadership style. It is the author's contention that the power of the Original Paradigm, if recognized and facilitated, can lead to monumental breakthroughs in organizational performance, productivity, and higher morale. The key is for leadership to recognize the natural forces of the Original Paradigm and encourage their use.

Although the Original Paradigm theory is complex and intangible, the presentation style is designed to be an "easy read" by using analogies to which everyone can relate. The presentation develops the Original Paradigm theory by citing real-life experiences and providing referenced sources as backup.

LEADERSHIP IN THE QUALITY CULTURE: UNLEASHING THE POWER OF THE "ORIGINAL PARADIGM"

Charles C. Manz and Henry P. Sims, Jr. in their book, *Super-Leadership*, state there are "three elements of naturally enjoyable work that motivate employees to higher performance. These elements are a sense of competence, self-control, and purpose."

It is my hypothesis that we all come by these elements naturally. We are born with the desire to be competent, in self-control, and to have a sense of purpose.

Since we all come into the world with these three elements present, I refer to them collectively, as the "Original Paradigm". The original paradigm is the frame of reference we all start with, it is our gift from God.

In developing the original paradigm theory, my research and experience reveled three main points: First, a definition of the original paradigm; secondly, how the socialization process within our culture can lead to the death of the original paradigm; and lastly, how leadership can create an environment, if it so chooses, that will facilitate the rebirth of the original paradigm resulting in organizational excellence.

I believe the key to leadership in a quality culture is for the leader to facilitate the rebirth and unleashing of the original paradigm.

THE ORIGINAL PARADIGM DEFINED

After my father retired from the military, the remainder of my youth was spent on a farm. Our primary revenue generator was the sale of beef cattle. One day I was unconsciously comparing newborn calves to newborn humans. I was amazed at the almost immediate self-sufficiency of the newborn calf compared to the total dependency of humans at birth. A newborn calf is on its feet within minutes after birth, seeking food and is relatively self-sufficient within days. Humans, on the other hand, require years of feeding, clothing, supporting, educating, training, and otherwise nurturing. By comparison, the calf enters the world much more empowered than the human.

While the calf starts out ahead, it is my belief that humans, being driven by the original paradigm, quickly surpass the calf. The difference emerges because the human has a stronger need to be competent, in self-control, and to have a sense of purpose. Unlike the calf, who appears content to be relatively docile; eating, sleeping, and standing around all day, we go about empowering ourselves as soon as we are able to contribute to whatever is going on.

I learned this from the greatest teacher I've ever had --my son! Like all other babies, he started out totally dependent. But by 18 months of age, I noticed he was attempting to be a contributing member of the family. Maybe he was simply imitating mom and dad but he wanted to help wash the glass patio doors, set and clear the table before and after dinner, and wash the car. He wasn't good at any of it, but his efforts to empower himself were undeniable. He was demonstrating the original paradigm and all three of its elements --a sense of competence, self-control, and purpose.

The original paradigm drives each and every one of us to make a difference, to contribute to a worthy cause, and satisfy our need to feel important. Taken as a whole, the original paradigm is one of the things that separates the human animal from the rest of the animal kingdom. Leadership's recognition of this basic difference is the first step to unleashing the original paradigm.

SOCIALIZATION AND THE DEATH OF THE ORIGINAL PARADIGM

As my son was "helping" out around the house, apparently self-motivated by the original paradigm, I remember thinking to myself: "I'll bet he is not going to be that eager to clear the table or wash the car when he is fourteen." Then I began to wonder: "Why not?"

That was the seed question that started my investigation into what happens to the original paradigm between the age of two and adulthood. After all, trying to get a teenager to accomplish assigned household chores can sometimes be a chore in and of itself.

I did not understand how we are all born with an original self-empowering paradigm which automatically drives us to be a player in the game of life, yet I see so many adults simply watching the game. Adults acting like cows, simply going through the motions of the day. Certainly not exhibiting the drive of the original paradigm or naturally enjoying their work.

We come into the world helpless, we strive to empower ourselves as soon as we are capable; then something happens in the interim years that causes us to enter the work force feeling unempowered, unworthy, and ill equipped to face the challenges of the day. What happens to us? I believe the answer can be found by examining our past.

Undeniably, we are all victims of our past. Our adult behavior is a result of the paradigms we learned along the way to adulthood. Much of this socialization process has a negative impact on the natural original paradigm. We become scripted by our experiences. Unfortunately, many childhood experiences contribute to the suffocation of the original paradigm. Although I doubt many adults set out to intentionally deprive their children of their feelings of competence, self-control, and purpose; in some cases this is exactly what happens.

Safety is a good example. As children, we are taught to obey the person in authority. Safety required that we unquestioningly follow orders such as "Don't run into the street" and "Don't take candy from strangers." The pattern of obeying the person in authority continues through school and into adult life. We learn early and it's reinforced often. Parents are responsible for their children's behavior. Teachers are responsible for their student's learning. This carries over into adulthood as an attitude that the boss is responsible for a subordinate's performance. Although there is no ill intent, authority figures nurture dependency and lack of responsibility. The result is waiting to be told what the leader expects instead of standing up and "washing the patio window" on your own. A leader, faced with subordinates that were raised to be dependent on the authority figure for direction, is going to find it difficult to develop them into self-starters.

During the early school years, children express their budding competence, self-control, and purpose through creativity. Unfortunately, creativity is something else we stifle in our young. The formal education system in the United States tends to suppress creativity. In an effort to organize the curriculum and the children, the system has evolved until orderliness is prized over creativity, and finding the single correct answer is the goal of most classroom education. The end result, once we are ready to enter the work force we are far less creative than we could be. Instead of being driven by the original paradigm to automatically step forward to "wash the patio windows," we spend our careers holding back, attempting to learn all the rules before we feel comfortable risking creativity. Applicants for employment have completed years of formal education, enough to stamp out their creativity. In fact, the more successful employees were in school, the *less* creative they are likely to be. The result, employers want their employees to be innovative, creative, and to take prudent risk; but our school system has all but killed these "natural" tendencies.

Another thing we do to our young that limits their potential monumental breakthroughs is to teach them to think incrementally. Thinking incrementally sets artificial limits on our purpose and sense of competence. James A. Belasco and Ralph C. Stayer, in their national best seller *Flight of the Buffalo* explain how incremental thinking is developed. "Thinking incrementally is an American disease. We learned it early in life. Our parents were always admonishing us, "Try a little harder. You're almost there. Just a little more." The mentality was reinforced in the classroom: "Eighty-eight percent is almost an A. Study just a little bit more and I'm certain that you can get it." Our bosses taught us: "Next year we need to reduce another 5 percent in costs." "Our goal is to gain 2 percent in market share this year." "We'd be in great shape if we could improve quality just 1 percent; that would get us past the competition." Incremental thinking is not bad in all cases, but it tends to limit what could be achievable by looking at problems and asking for a small improvement. We are blinded to what could be by our old assumptions, current paradigms, and prejudices. Thus, our vision of the future is clouded and we ask for "just a little more" rather than proactively looking for the big leap.

We also unwittingly train our children to avoid responsibility by making choices for them. As a result, children learn to be world class work avoiders. For example, you want your child to help with household chores and do her homework. The child learns quickly to cast the choice to the authority figure in order to avoid doing both. "Can't mow the grass now, I've got homework to do." From a parents point of view we make the decision to allow the child to skip mowing the grass and do homework. The questions are: Why are the two tasks mutually exclusive? Aren't both possible? Why are we as parents responsible for deciding which one to do? Shouldn't the child be responsible for figuring out how to do both? If we can't teach our children how to accomplish two unrelated tasks during childhood, how can we expect them to be able to work on tough choices as adults, such as, "Do you want better service or lower cost?"

All these socialization examples illustrate how we hinder the development of the original paradigm. The result is many people, upon reaching adulthood, feel unempowered. It is easy to tell if subordinates feel unempowered, simply listen to their language. "What difference does it make what I do? I don't matter." This from a grown adult, who at two was eager to wash the patio windows because he felt it did matter.

To summarize, we are born with desires driven by the original paradigm which result in efforts to self-empower. This desire is the natural state for human beings. Socialization through the years destroys our self-empowerment and replaces it with obeisance to authority, skills at avoiding responsibility, and a creative capability next to nil.

The antidote is the creation of an environment that will revitalize the power of the original paradigm. Somehow leadership through the years, has failed to see the positive forces of the original paradigm and developed the traditional management control methods that have been used for years and yet seem so out of touch today. The original paradigm, held within the human spirit, is in constant conflict with traditional control leadership methods.

THE EVOLUTION OF THE ORIGINAL PARADIGM

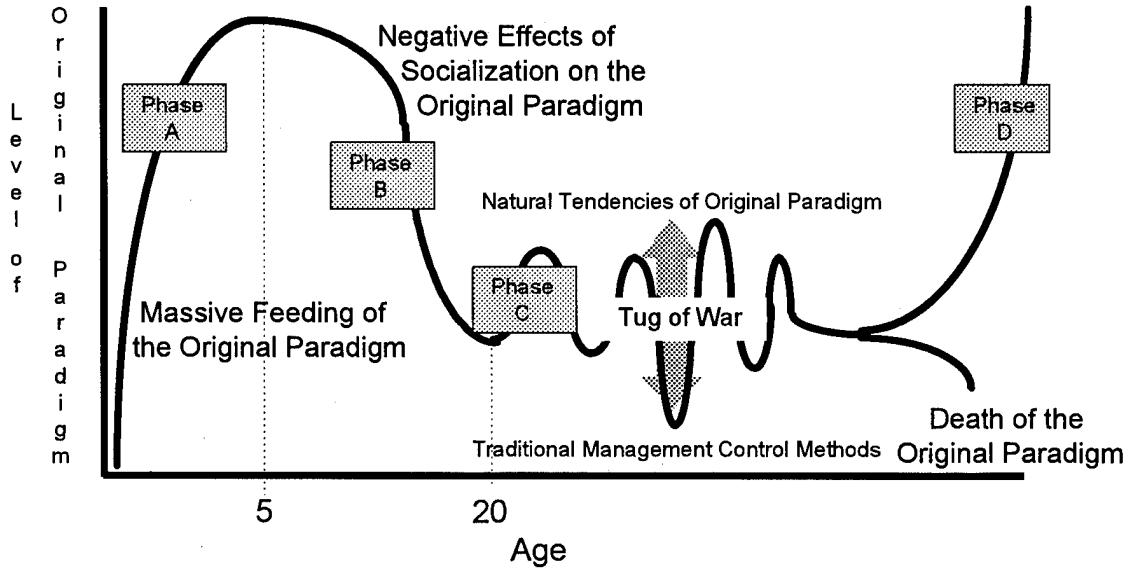

Figure 1

Figure one above illustrates the theoretical evolution of the original paradigm for any given individual. The paradigm flourishes early in life due to it's natural force and support and encouragement the child receives from parents (Phase A). During this period the paradigm is shown increasing, but at a decreasing rate. This decreasing rate is a result of learning important, yet detrimental lessons such as safety. The paradigm takes a nose dive starting around age five and continues to decline during the structured formal education years (Phase B). At about age 20, the individual decides they will no longer suffer the negative effect of a declining original paradigm. This "level" of paradigm is

unique to the individual and varies from one person to the next. The individual, from age 20 on, finds himself in a tug of war between the internal drive of the original paradigm and the traditional management control methods of the work place (Phase C). When the environment allows the paradigm to flourish, it increases; when the environment inhibits the paradigm; it decreases. Phase D illustrates the unleashing of the original paradigm. Phase D is the effect when leadership creates an environment that allows the original paradigm to soar. Theoretically, the paradigm takes off and increases at an increasing rate. The impact on the individual is to be reborn, driven once again by the original paradigm.

UNLEASHING THE ORIGINAL PARADIGM

We are all victims of our past. As a result of two decades of negative scripting, the new job applicant brings to a job interview the opposite of what the organization is looking for. Employers want innovation, initiative, creativity, and self starters; the fruits of the original paradigm. However, our child rearing and educational system experiences tend to develop subservient followers, waiting to be told what to do. What a mess we are in. How can we, as leaders, attempt to rescript the last twenty years of anyone's life? What can we do to reenergize subordinates with the power of the original paradigm and be "born again"?

If any leader of any organization truly wants creativity, innovation, and prudent risk taking from their employees, rescripting the old paradigms we have been saddled with over the years is an absolute necessity. But how do we go about it? How can we recreate the original paradigm in ourselves, as well as our subordinates?

Leaders must recognize the first people who must be rescripted are themselves. The first person that must change is at the very top of the organization. The CEO is the root change agent because subordinates have been taught all their lives to bow to the person in the position of authority. ("Don't run into the street.") The CEO of the organization is now that person in the position of authority.. Authority figures made subordinates the way they are and authority figures are the only people who can change them. In Tom Peters landmark book on leadership, *In Search of Excellence*, he points out the impact of the authority figure. He states: "...the importance of productivity through people, decentralizing authority to allow autonomy and entrepreneurship." He goes on to pin point where the capabilities to set up and execute such an organization exist. He states, "It was obvious from our research that executive leadership was a powerful factor in developing corporate cultures that possessed these characteristics."

Unlearning old paradigms that have been reinforced for decades is hard work. Perhaps the hardest part to come to grips with is the fact that you have been successful and rewarded for operating under the old paradigms. That is, the old paradigms built around the traditional methods of control and micro management. You have an extreme comfort level with them. Giving them up will be risky and uncomfortable.

Stephen R. Covey, in his national best seller, *The Seven Habits of Highly Effective People*, credits a friend and associate with coining the term "transition person." A transition person is one who can rise above the negative scripting that has been passed on

to them and reprogram themselves to act, behave, and lead their lives in a new fashion. Covey labels this process "rescripting" and illustrates the process by imagining your life as a computer program, and you have the ability to "rewrite" the program. It is not easy. Leadership must believe the end result for themselves, the organization, and the people in it is worth the required metamorphosis.

The change process described below is extremely difficult for anyone to go through. It is difficult because you, the leader, must unlearn all your old paradigms and learn new ones.

The first step to becoming an effective change agent is that leaders must recognize their current leadership style is not giving them what they want. What they are getting is a direct result of their own behavior. Thus, behavior is what must be changed. In order to make lasting changes to your behavior, you must understand what initiates behavior. Behavior grows from your thoughts and your thoughts are rooted in old paradigms. The solution to the problem is rescripting old paradigms.

Reprogramming your thoughts and paradigms is the only way to truly change your behavior.

Anwar Sadat describes it perfectly when he stated that "...he who cannot change the very fabric of his thoughts will never be able to change reality, and will never, therefore, make any progress."

What, specifically needs rescripting? Your values. Simply put, your values are the basis of your thoughts, your thoughts create your attitudes, your attitude drives your behavior, and your behavior creates your organizational culture.

For the purposes of my theory, the definition of a "value" is something you will have an emotional reaction to if it is violated. For example, if you go out to eat and the waitress brings you a cold steak, wouldn't you send it back? Of course you would, because you have a "value" about how the steak should be cooked. The value that must be rescripted in order to bring about the rebirth of the original paradigm is how you, the leader, "view" your subordinates.

If you view them negatively, that is, they are lazy, bear watching, and require almost constant supervision to get anything done; then your attitudes and behavior will bear out your value. The resulting leadership behavior of this view is in direct conflict with the forces of the original paradigm.

The critical link the leader must recognize is that he is now the person capable of continuing to contribute to the death of the original paradigm or can chose to be a transition person and ignite its rebirth (Figure 1, Phase D). If the leader chooses to become a transition person, the following steps must be taken:

1. Recognition that the traditional management control methods are outdated and have limited effectiveness.
2. Recognition that they are the first person that must change, and as a result, be the role model acting as the primary change agent.
3. Recognize the linkage between personal values, paradigms, attitudes, and behavior.
4. Demonstrate new behaviors.

The leader in a quality culture who has a value of innovation, initiative, and prudent risk taking will demonstrate his support of these values through actions. Subordinates take their clues from actions, not verbal overtones.

Once again, from *Super Leadership*, "Individuals need to be provided with the chance to develop and exercise the capabilities that they truly possess. If denied this opportunity, they are robbed of their most valuable treasures--their human dignity and the right to live a life that is meaningful, that counts for something. When a person loses these treasures, the world loses too. And, of course, organizations lose a great deal when employee talent is wasted."

I believe that the original paradigm, even after years of being beaten up and overwhelmed by negative influences, still dwells within each and everyone of us.

The late Sam Walton, in his book *Made In America*, provides an excellent example of the benefits of rebirthing the original paradigm. Wal-Mart, a thriving company in recent years, attributes much of its success to an emphasis on employee initiative and autonomy rather than close supervision. Sam Walton explains his management philosophy is to "simply get the right people in the right places and to encourage them to use their own inventiveness to accomplish the task at hand." The original paradigm is what provides your "own inventiveness". Sam knew the power of the original paradigm and unleashed it.

In closing, I have a wish on behalf of my son. My son will grow to adulthood and maybe come to work for you someday. Over the next twenty years, as he grows to adulthood, I will try to fan the flames of the original paradigm within him. I know I will falter and be guilty of infecting some negative scripting on his life. My pledge to you is that I will try and keep it to a minimum. In exchange, my request of the leaders of tomorrow, is that you recognize the power of the original paradigm within him and unleash it. I believe that is the challenge for leadership in a quality culture. The end result will be a win-win for everyone.

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LEADERSHIP AND EMPOWERMENT: POWER TO THE PEOPLE!

Biography - Major John Micalizzi

At the time of this writing, I served as Deputy Director for Quality Improvement, Air Force Space Command Headquarters while on a two-year sabbatical from the Department of Behavioral Sciences and Leadership, USAF Academy. I have worked extensively with senior Air Force leaders on strategic planning and unit self assessment orientation. I hold an M..A. degree in Experimental Psychology from the University of Illinois and a Ph.D in Industrial Engineering from Penn State University.

ABSTRACT

Empowerment has become a confusing topic for many leaders. Traditionally, our leaders have been trained and reinforced to pursue power as the basic driver for affecting change in organizations. However, the new leadership paradigm associated with Quality Air Force (QAF) encourages leaders to transfer power to subordinates who now responsible for improving the organization's key processes. Leaders, struggling to reconcile these two competing viewpoints, need a new frame of reference for understanding the nature and practice of empowerment in today's workplace. First, the very concept of power must be challenged and redefined as a flexible, ever-expanding resource whose impact increases dramatically the further downward it is directed to workers. Empowering leaders also experience increased levels of personal power flowing back up from workers as teachers and mentors of new leaders. Leaders can tailor their strategy by viewing empowerment from the perspectives of the leader, follower and situation. Each viewpoint gives the leader valuable information about empowering followers to take control of their work. In addition to being multidimensional, empowerment is also a process that is guided by the leader's shared vision, supported by a culture of trust and respect, and assessed through follower ownership and commitment to the organization's future. Empowerment recognizes that the power for change must go to the people working on the process - they are in the best position to advance the goals and objectives of the organization.

LEADERSHIP AND EMPOWERMENT: POWER TO THE PEOPLE!

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Air Force Space Command Headquarters
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ABSTRACT

Empowerment has become a confusing topic for many leaders. Traditionally, our leaders have been trained and reinforced to pursue power as the basic driver for affecting change in organizations. However, the new leadership paradigm associated with Quality Air Force (QAF) encourages leaders to transfer power to subordinates who are now responsible for improving the organization's key processes. Leaders, struggling to reconcile these two competing viewpoints, need a new frame of reference for understanding the nature and practice of empowerment in today's workplace. First, the very concept of power must be challenged and redefined as a flexible, ever-expanding resource whose impact on organizational improvement increases dramatically the further downward it is directed to workers. Empowering leaders also experience an up-flow of personal power in their new roles as teachers and mentors of new leaders. Leaders can tailor their strategy by viewing empowerment from the perspectives of the leader, follower and situation. Each viewpoint gives the leader valuable information about empowering followers to take control of their work. In addition to being multidimensional, empowerment is also a process that is guided by the leader's shared vision, supported by a culture of trust and respect, and assessed through follower ownership and commitment to the organization's future. Empowerment recognizes that the power for change must go to the people working on the process - they are in the best position to advance the goals and objectives of the organization.

BACKGROUND

If you've ever taught a basic Quality Air Force (QAF) course, you're familiar with the kind of reaction the word "empowerment" usually gets in the classroom. You've seen the eye rolls and smirks, and you've heard the comments about the unlikelihood of this occurring in your children's lifetime. More discouraging, though, are the comments from some senior leaders who generally regard empowerment as the new jargon of the times, an impractical attempt to show the softer side of traditional management. Although you find the term mentioned in virtually every text on quality published in the last five years, few have provided leaders with an overall framework, a map if you will, for implementing a meaningful empowerment program. Without a relevant context for deployment, empowerment can be reduced to the latest management fad, totally isolated from any overall strategy for improving organizational performance. Given these circumstances, the potential for misunderstanding and misusing empowerment is alarmingly high.

Despite this pessimistic view, the basic ideas of empowerment and employee participation have been widely touted in the literature as critical elements of any quality program. In "Out of the Crisis", Dr. W. Edwards Deming spoke eloquently of removing barriers to pride of workmanship, "He that feels important to a job will make every effort to be on the job. He will feel important to

the job if he takes pride in his work and may have a part in improvement of the system" (Deming, p. 83). Being given the power and responsibility to make improvements is also the central theme in Dr. Joseph M. Juran's concept of *artisans* who represent highly skilled, self-sufficient workers, tailoring designs to customer requirements, executing their own plans, and performing self-inspections (Juran, p. 264). Other writers have devoted entire books to the benefits of empowering people on the job (e.g. Zapp!, Flight of the Buffalo). The vision of empowered workers taking personal responsibility for improving their work processes must be taken off the pages of our textbooks and put to work in the hallways of our organizations.

UNDERSTANDING EMPOWERMENT

To begin transforming this vision into reality, it's important to first establish a common basis for understanding empowerment. The QAF Glossary defines empowerment as the, "Act of placing accountability, authority, and responsibility for processes and products at the lowest possible level. The extent to which a worker is empowered is dependent on their capabilities and the seriousness of the consequences (Kaset International)" (QAF Glossary, p. 88). Other sources have described empowerment in terms of inputs, such as trust and responsibility (Byham, p. 56), outputs, including followers' sense of meaning for their job (Benis & Nanus, p. 218), or as a leadership function, which transfers ownership down to the people executing the work (Belasco & Stayer, p. 56). To empower effectively, leaders should reflect on how each of these viewpoints brings a fresh perspective to understanding empowerment. Before jumping on the empowerment bandwagon, however, consider your answers to several fundamental questions: Is empowerment a privilege granted by leaders to certain deserving workers or a process used to develop all followers? What are the leader's responsibilities in empowering his/her people? What is the role of subordinates as potential recipients of empowerment? What organizational factors influence its successful application? And finally, how might these factors combine to affect the outcome of a leader's empowerment efforts?

Obviously, leaders armed with only definitions and good intentions will find it difficult to meet the challenges of empowering their organizations. It's one thing to *say* that leaders should empower the right people, at the right time, for the right things; however, it's quite another to actually *formulate* and *implement* a meaningful empowerment program for the entire organization.

The purpose of this paper is to provide leaders with an approach for viewing empowerment from several different perspectives to help them "triangulate" on the most promising strategies for their situation. The outcome will not be a prescriptive list of tasks to perform. Instead, a framework will be proposed for analyzing information from a number of sources and using the results to adapt an empowerment strategy to the realities of the organization. One common theme that will weave its way through this paper is the belief that empowerment is a process that must be initiated by leaders, embraced by followers, and embedded in the culture of the organization.

There are many obstacles that may stand in the way of a fully empowered organization. One obstacle is the inaccurate perceptions of empowerment that some leaders and followers have and use to disparage any serious implementation efforts. Let's start cutting through some of this confusion by addressing, up front, several common misconceptions of empowerment that may be paralyzing improvement efforts in many organizations.

Misconception #1 - Empowerment means leaders give up power

One of the most potentially damaging assumptions of empowerment is that leaders will lose power and, therefore, lose their capability to fulfill the responsibilities of leadership. In their

defense, leaders have traditionally been groomed throughout their development to pursue more authority, more responsibility, and, ultimately, more power. The power inherent in one's position can become inextricably entwined with his/her perceived capability to be a leader. In fact, the pursuit of power for its own sake can become the singular objective of some leaders who are obsessed with the accompanying trappings of control and manipulation. After all, without power, what is the purpose of leadership?

All leaders must answer this question for themselves. The new paradigm of leadership dictates that power should not be the defining characteristic of leadership nor should leaders pursue power as their final goal. Power should be viewed as a tool which becomes more effective when it is provided to the people doing the work. With the right tool, followers can respond by satisfying customers, improving the organization, and taking ownership of their work. As described here, empowerment can result in a "power exchange" where followers, entrusted to make decisions in their job area, respond likewise to empowering leaders with trust, appreciation and loyalty. Power released results in power gained for leaders who can successfully tap into this vast storehouse of human potential. A more detailed discussion of the relationship between power and empowerment will be presented in the next section.

Misconception #2 - Empowerment is delegation by another name

Many well-intentioned leaders believe that they already have fully empowered followers in their organizations when, what they probably have, is an efficient system for delegating tasks. In the military, especially, delegation has been taught religiously as *the* method leaders use to free themselves from time consuming tasks by passing them down to subordinates. When leaders typically delegate, subordinates are assigned tasks, held accountable for meeting time and performance requirements, and then given the appropriate consequences based on results. These tasks, however, are seldom linked to larger processes or to the basic goals of the organization.

Delegation and empowerment both involve the transfer of responsibility to lower levels of the organization. In the case of delegation, the responsibility transferred is usually for a single task or activity assigned to a subordinate for completion. On the other hand, empowerment deploys a new paradigm, an overall mind set, leaders use to transfer control and responsibility to followers for planning, executing, measuring, and improving their work processes. While leaders occupy a more passive role in delegation as inspectors and evaluators of performance, empowerment requires active, committed, leaders who provide the organizational direction and the day-to-day mentoring to help guide and develop subordinates as future leaders.

Misconception #3 - Empowerment means less responsibilities for leaders

On the contrary, empowerment will require more commitment, more time, more thought, more creativity, more involvement, more communication and more patience from leaders than any other activity they are currently involved in. Leaders may initially feel uncomfortable giving up their fire-fighting, problem solving practices which have made him/her successful in the past. The new goal will be to make heroes out of your followers and prepare them for future leadership responsibilities. This will require a different set of skills and a new paradigm for judging successful leadership. Leader expectations must also be altered from "do it right the first time", to "do the right thing all the time." In this paradigm, follower autonomy and individual initiative are nurtured by leaders who encourage reasonable risk taking and foster continuous learning.

Now that we've talked about what empowerment is not, let's discuss some ideas of what empowerment is, starting with the crucial role of power.

THE ROLE OF POWER

It's reasonable to assume that the philosophy that chose to use the term, em"power"ment, would naturally assign an important role for considering power in its implementation. Surprisingly, a frank discussion of power and its implications for leading a quality improvement effort is conspicuously absent in the quality literature. Benis and Nanus first commented on this omission in their book, "Leaders - The Strategies For Taking Charge" where power, defined as "the basic energy to initiate and sustain action translating intention into reality", was reported to be largely ignored: "Without any qualification, we can bluntly state that all of the current paradigms of organizational life. . . have failed to consider power" (Benis & Nanus, p. 15).

Discussions of power can actually be a source of embarrassment for many leaders. When talking about power, leaders are effectively acknowledging their ability and, to some extent, their desire to control and manipulate people and events. Power brings to mind centuries-old images of fear, intimidation and abuse. This negative view of power has probably contributed significantly to its virtual ouster from the mainstream of organizational thought.

Fortunately, it doesn't have to be this way. The importance of understanding power and its implications for effectively empowering an organization cannot be overestimated. Since power involves influencing people and events to achieve the leader's desired outcome, it is as natural and commonplace in our organization as the air we breathe. And this is the ultimate paradox: power is ". . . at once the most necessary and most distrusted element exigent to human progress" (Benis & Nanus, p. 16).

One way to reduce the threat of resurrecting power in our discussions of leadership, is to view power as something more than just the control and influence one individual exerts over another. Instead, power should be thought of as an ever-expanding, flexible resource that can be allocated and directed as needed to advance the goals and objectives of the organization. As power is deployed downward to followers working at lower levels, power also flows back up to the empowering leader. This reciprocal relationship between the giver and receiver of power can account for the dynamic, synergistic interactions between leaders and followers observed in truly excellent organizations. Empowered followers are given the control and responsibility to perform and improve the jobs they are qualified to do. Empowering leaders become sought-after teachers and mentors who are valued for their ability to develop and support new leaders. Both now become the driving force for improving quality in our organizations.

Sources of Power

The role of power in the empowerment process can be more readily analyzed by considering the sources of power by which people can potentially influence one another, as originally conceived by French and Raven (1959) and discussed in "Leadership: Enhancing the Lessons of Experience" by Hughes, Ginnett, and Curphy. These authors make the compelling case that, by describing power in terms of its origins, a greater understanding of the interactions between leaders and followers can be obtained. Under this conception, empowerment does not necessarily result in a gain or loss of power. Power, however, can be transferred between leaders and followers based on it source (from Hughes, et al, pp. 114-122) :

1. ***Expert*** - power derived from an individual's relative knowledge and expertise.
2. ***Referent*** - power derived from the positive relationships that exist between people
3. ***Legitimate*** - power derived from one's formal authority and relative position in the organization
4. ***Reward*** - power derived from one's control over desired resources
5. ***Coercive*** - power derived one's ability to administer negative sanctions or remove positive ones

The above taxonomy suggests that power can exist naturally in many forms and with many different people in the organization. Sometimes it may appear inactive, an untapped energy source waiting to be released. Or it may be amassed at various levels by leaders waiting to use the accumulated power to exercise their will. In its most useful form, power should move fluidly between levels as it energizes people to take control and responsibility for their work. Leaders are charged with the responsibility to recognize this potential and put the power needed in the hands of the people improving the organization.

A leader's overall power can be drawn from any or all of the above five sources, however, the legitimate power a leader holds is the one most likely to be deployed downward in the organization to empower followers. Legitimate power generally gives the leader the authority to assign tasks, make policy, specify directions, control resources, establish standards, and hold people accountable for their actions, among other activities. When power is highly centralized, these responsibilities are usually retained by leaders.

Empowering followers involves reallocating power in the organizational hierarchy by bringing as many of these responsibilities under their control as they can handle, and then guiding and enabling them to be able to accept even higher levels. As empowering leaders voluntarily release power to their followers, the trust and confidence shown to followers is returned to leaders as increased referent power. This power exists within the positive relationships between individuals enhancing the leader's status as teacher and mentor and increasing his/her influence over followers in the future. So power given away in one form, comes back in a more potent form to leaders.

The bottom line to this discussion of power and leadership is this: the power to influence people and events is present in different forms and different amounts everywhere in the organization. Stripped of emotional content, power is neutral, natural, unavoidable, and essential. The issue is not whether power is good or bad, but rather how can we use this "currency" of influence to further the organization's vision?

Just as financial resources are only as valuable as the goods and services purchased, the full value of power can only be realized by transferring it to the lower levels where subordinates are involved in managing key processes. Leaders are, in a sense, purchasing followers' trust, commitment, and ownership of the organization's goals and objectives through empowerment. As discussed previously, power deployed downward also flows back up to empowering leaders through the trusting, caring relationships they have cultivated among followers. On the other hand, when power is collected and hoarded by leaders, the organization is derailed from its original purpose and begins to sink under the weight of bloated "power"crats.

A FRAMEWORK FOR ANALYZING EMPOWERMENT

Purposely hoarding power is unforgivable; however, ineffective use of power may simply signal the lack of a plan. It is clear that empowerment will not spontaneously occur on its own,

even among willing leaders and followers. Empowerment, like any other organized effort, must be planned, executed, reviewed and improved. To help plan, leaders would benefit from having a conceptual framework to help guide their empowerment efforts. This framework should capture the essential elements for analyzing the empowerment process from several different perspectives.

A particularly useful framework was developed by Hughes, Ginnett, and Curphy (1993) to analyze the leadership process by focusing on three elements: The leader, the follower, and the situation. Similarly, the empowerment process can be best understood by analyzing how leaders and followers interact in a dynamic situation. By using any one perspective alone, leaders may create ineffective empowerment strategies since they are not using all the information available. For example, if leaders only focus on a task or situation when empowering followers, they will miss vital information about the readiness and willingness of followers to be empowered, as well as their own ability to articulate the direction of the organization and provide support to followers. Leaders who only consider the follower perspective when empowering subordinates, may fail to consider critical characteristics of the situation which may affect the type or amount of empowerment granted. When leaders indiscriminately hand out tasks to the first available action officer, they are not using all the available "lenses" to view empowerment. As leaders begin to craft their own empowerment strategy, taking into account the perspectives of the leader, follower, and the situation, they will increase the chance that their empowerment program will be effective and meaningful to everyone in the organization.

The following discussion could not possibly take into account all the potential variables of the leader, follower, and situation that could impact the empowerment process. Hughes, Ginnett, and Curphy (1993) provide a thorough discussion of many of these variables as they impact the leadership process. The purpose here is to choose several from each perspective that are particularly relevant to empowerment to illustrate how the framework can be used to develop an effective strategy for empowering organizations.

The Leader Perspective

There are many variables associated with the leader that can impact empowerment. Personality, intelligence, attitudes, skills, etc., are just some of the possibilities. For the purposes of our discussion on empowerment, I will focus on three: *Vision, Communication,* and *Mentoring.*

Leaders are the drivers of the empowerment process, although it cannot happen by a simple decree. Empowerment must be planned, communicated, executed, supported, and reviewed. Leaders establish the direction of the organization and define the roles of everyone in it. This vision inspires people to work for the good of the whole, as part of the team furthering the goals of the organization. The vision is linked up to key systems and processes. Leaders deploy their power to lower levels where process experts are given the authority and responsibility to improve their processes. The vision acts as a road map for followers to navigate through their work, setting priorities and plotting the course for improvement.

But simply having a vision is not enough; it must be shared and accepted as their own by everyone in the organization. Before empowerment can occur, followers must understand their mission and commit themselves to achieving its future. Leaders must be able to clearly communicate the meaning and relevance of the vision to all followers. They communicate their message visibly and constantly. They must articulate how each individual's job fits into the grand scheme of things. Benis and Nanus refer to this as the "management of meaning" through the

organization's "social architecture" (Benis & Nanus, p. 111). Basically, leaders contribute to the culture of organization through the content and communication of their vision for the future.

Leaders must also listen to the "hum" of the organization. Collectively, followers are constantly providing important feedback on how things are going on the job. Individually, followers interact with leaders to communicate their dreams, thoughts, feelings, and needs. William C. Byham in his book, "The Lightening of Empowerment", suggests that leaders, in their new role as mentors and coaches, maintain followers' self-esteem, listen to problems with empathy and provide clarifying information to followers as they try to understand their role in the organization's vision (Byham, p. 170). They establish a personal, mentoring relationship with followers, offering help without taking responsibility. Limits of authority and access to resources, information, and people are negotiated and agreed to. Leaders tailor their empowerment strategy to the individual and set him/her on a path for greater empowerment and self-leadership.

The Follower Perspective

Viewing empowerment from the leader's perspective undoubtedly provides a variety of ideas, suggestions and general principles for creating and supporting an empowered work force. If followers were all alike, these inputs might be enough to develop a reasonably sound empowerment program for an organization. The fact is, however, that followers come in all shapes and sizes. This variety will necessitate similarly diverse strategies for empowering individuals. Of the many follower characteristics that might be considered, two have particular relevance to empowerment: *Competence* and *Job Maturity.*

Follower competence (knowledge and experience) on the job naturally has an important effect on the amount of empowerment granted by the leader for a particular process at hand. After collecting enough information to judge the competence of followers, leaders must tailor their strategy to each individual. Empowering workers on jobs they are not qualified to perform would obviously frustrate both leaders and followers. Followers low on job competence could be provided additional opportunities for education and training. Even with the right knowledge and skills, followers may need time to adapt to new processes or methods. Matching followers with the right knowledge and skills and empowering them to manage their processes is undoubtedly one of the most critical responsibilities of leaders.

If competence comprises the "skill" portion of empowerment, then job maturity focuses on the "will" part. No simple, quick-fix training course or job indoctrination program will offer much help to deal with this issue. Commitment and motivation for the job, as well as the overall organization, must be planted like a seed through effective leader communication of the vision and values, encouraged through honest feedback, and nurtured through the support and guidance offered by empathetic leaders. It's also important for leaders to realize that commitment tends to grow where commitment already flourishes. If leaders themselves are committed and continually, visibly show their commitment, it can become contagious. Leaders who personify the vision are reminding followers of the depth of their commitment. These leaders are always seeking to clarify the vision by providing creative and interesting ways of representing ideas and making it relevant to everyone in the organization.

The Situation Perspective

Two situational factors that can strongly affect empowerment are *Process Characteristics* and the *Culture* of the organization. Both must be considered before empowering followers.

A process is composed of related tasks or activities that together produce an identifiable output. Processes vary on the basis of such things as, complexity, structure, feedback, priority, and significance of consequences, among others. Leaders must have a clear understanding of these key characteristics and use this information to match a process (or part of a process) to the capabilities of the individuals being empowered. Many of these process characteristics will interact with the competence and maturity of followers. For example, followers low on competence or maturity would probably need to obtain pre-approval before doing anything beyond the original instructions, regardless of the situation. Furthermore, even highly competent and mature followers would still not be fully empowered if the potential consequences of the process were catastrophic. In such cases, some amount of control retained by the leader would still be prudent. On the other hand, these followers should be fully empowered in every other conceivable situation. Others should be counseled, guided, and enabled by their leaders to accept greater empowerment in the future.

The culture of the organization also has a significant impact on the effectiveness of any empowerment strategy. The culture includes those fundamental beliefs, values and attitudes that drive the collective behavior of the organization. If the culture is not based on respect for individuals and trust between leaders and followers, then empowerment, no matter how well meaning, will never take root. Empowerment can only prosper when people respect one another at all levels, regardless of their perceived capabilities. Respectful feelings and interactions open up leaders and followers to begin trusting and then cooperating. Trustworthiness demonstrated through integrity and competence create a culture where trust is expected, communications are honest, and leaders and followers share responsibility to improve the organization.

The Leader-Follower-Situation framework, just like any tool, will not guarantee a successful empowerment program. It simply cannot completely account for all the richness and variety of leader-follower interactions. However, the framework can provide an approach for extracting relevant information, using it to develop a meaningful empowerment strategy, and continually improving the approach along the way.

BEGINNING THE JOURNEY

Sounds great, why don't we just do it? Unfortunately, there's no one way to empower people in your organizations. Rather, the question should be, "Where do we begin?" We've already started our journey by thinking about power in a different way - as a renewable resource that leaders need to direct downward to give followers control over their work and responsibility for improving their processes. We've also provided leaders with a tool for developing their empowerment strategy by collecting and analyzing relevant information from the leader, follower, and situation perspectives. Leaders are now in a position to begin implementing their strategies. Without trying to create a recipe for empowerment, we can at least begin to organize our thoughts on its implementation around four broad phases: *Preparation*, *Exchange*, *Support*, and *Follow-Up*.

The Preparation

It all starts with leaders taking personal responsibility for understanding empowerment and committing themselves to making it work for their people and customers. Leaders advance a shared vision of the organization's future and communicate it downward to everyone, everywhere. Feedback is solicited, questions are answered, issues are clarified, and the details discussed, until everyone clearly understands their role in the larger scheme of the organization. Jobs are redefined in terms of key processes that deliver products/services to customers. Instances of initiative and reasonable risk-taking are expected and reinforced. The level of trust in the organization is assessed and strategies designed to enhance both trust and trustworthiness are developed and implemented. Leaders review their own capabilities and those of their followers to determine the readiness of both to undertake their individual responsibilities for empowerment. Process characteristics are also evaluated and all relevant information is brought to bear during the Exchange phase where the specific empowerment strategy is formulated.

The Exchange

Leaders sit down face-to-face with followers to share the information collected and *listen* to their feedback concerning priorities, expectations, feelings, goals, etc., to craft the specific empowerment strategy for that individual. Boundaries and rules of engagement are discussed and agreed to, standards of performance are established, and limits of responsibility and authority are set. Plans for further enabling followers (and leaders) to participate in the empowerment process more effectively are considered. Access to resources, people and information needed to manage the process is provided. A positive, caring rapport between the leader and follower is initiated and forms the basis for a long term relationship. Feedback and guidance are welcomed and expected. Goals for follower development are discussed and expected outcomes specified.

The Support

The ground rules of the relationship are now put into practice. Leaders must honor the agreement reached with followers without trying to circumvent the strategy by "grabbing the stick" at the first sign of trouble. Through empowerment, followers have been granted the right to engage in a certain amount of risk-taking behavior commensurate with the amount of power granted. They are expected to be innovative and creative to improve the processes they control. Leaders also provide constant support and reinforcement to all followers, regardless of the amount of empowerment. For those in the early stages of empowerment, leaders should adopt a strong coaching, mentoring style that will maintain follower self-esteem, focus on listening and responding with empathy, and provide help without taking responsibility. The organizational culture established should allow followers to learn from their mistakes without suffering severe consequences. Followers who are fully empowered will be looking for increased challenges to exercise self-leadership and initiative. Leaders of empowered followers are visible, supportive, positive, and caring creators of future leaders in their own image.

The Follow-Up

Leaders must continually assess the results of their empowerment program. They solicit feedback from followers concerning the impact of the empowerment strategy on their own personal and professional development, review measurement data on process effectiveness and efficiency, and provide feedback on follower performance. Expected outcomes and follower

goals are reviewed and the results used to revise and improve the strategy for empowering followers in the future.

SUMMARY

1. To effectively empower followers, leaders must understand the roots of organizational power
2. Empowerment is a process that requires planning, executing, reviewing, and improving
3. True empowerment can only take place in a culture of trust and individual respect
4. Leaders should develop a sound strategy based on understanding empowerment from the leader, follower, and situation perspectives
5. To begin the journey, leaders should prepare, exchange, support and follow-up on their empowerment strategies
6. Empowerment requires clear, honest, and constant communication between leaders and followers
7. Empowerment should result in follower ownership of a process, not just responsibility for completing a specific task
8. Empowering followers can increase the referent power of leaders as advisors and teachers of future leaders
9. Leaders are responsible for enabling followers to accept higher levels of empowerment
10. Give people the responsibility and power to improve their own processes - they are in the best position to advance the goals and objectives of the organization

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"Today's Air Force Requires Big L's that support and encourage little l's"

BIOGRAPHY - Major Bryan Zak

Major Bryan Zak, United States Air Force, a former B-1 and B-52 Electronic Warfare Officer currently serves as project officer for the Quality Council of the Air Force and is stationed at the Pentagon. Major Zak was the first general chairman of the Air Forces "Quest For Quality" Symposiums. He holds a BA (Youth Agency Administration) from Pepperdine University, 1979; an MA (Counseling) from Eastern Washington University, 1989; and is currently a candidate for a Doctorate in Educational Leadership from Texas Tech University.

"Today's Air Force Requires Big L's that support and encourage little l's"

by
Major Bryan Zak
Headquarters Air Force, Directorate of Programs, Evaluation, and Quality Division

This paper presents the viewpoint of the author that the world has progressed to a stage that in order to keep pace with the rapid pace of change we must believe that leaders are developed. Additionally, the author explains that in order to develop the multitude of leaders to fill the worlds needs, that individuals must share in an abundance mentality.

Big L Leadership

A line from an fictional Oscar-winning movie of 1995 states, "My mama always told me, "Forrest, life is like a box of chocolates; you never know what you're going to get until you bite one." His mother never told him, "Forrest you're dumb", "Forrest you've got a problem", or "Forrest you can't do that." His mother believed in him. When life presented those special situations that required leadership, Forrest knew what to do without thinking. He became a leader who was founded through a process that molded and instilled in him core values and principles.

Note: The Air Force Core Values, Basic Principles, and Operating Style define the working environment commanders will create (AFPD 90-5).

Air Force Core Values--

-Integrity first

-Service before self

-Excellence in all we do

Air Force Basic Principles--Includes leadership involvement, dedication to mission, respect for the individual, decentralized organization, empowerment at the point of contact, management by fact.

Air Force Operating Style--Create a working climate that inspires trust, teamwork, and pride; delegate responsibility and authority--accept accountability for results; set goals, measure progress, reward performance; give everyone a stake in the outcome; strive for continuous improvement.

Forrest Gump, in addition to playing football, graduated from the University of Alabama and accomplished many great things in life. Amazingly, though he had never purposely sought to lead, by being in the right place at the right time, or some might say the wrong place at the wrong time, the need for leadership found him.

Because his mother's belief in him fostered a strong principle-centered belief he was successful. He received the Medal of Honor, became a millionaire, and married the girl of his dreams. His mother had what it takes to develop leaders. Successful leaders more often than not are nurtured and encouraged by someone who believes in and supports them.

Forrest Gump's mother is a great model of big L leadership. With big L leadership we do not ask ourselves what do I need to do to become a leader. Instead we ask ourselves what we can do to help someone else become a leader. The key to big L leadership is helping someone else. As we help others become leaders, we find ourselves in a natural "small l" leadership role, which potentially leads, through networking, and experience, to the opportunity to serve in a big L leadership role - or what Stephen Covey would call the "harvest" after living the "law of the farm".

To varying degrees we all serve as leaders. Our involvement in the Air Force requires that we return some of the knowledge about our system through leadership roles and responsibilities. The more we help each other through encouragement and ourselves by taking risks and attempting greater and greater challenges the more we will all grow toward big L leadership.

In the movie, when Forrest saves the lives of his platoon members ambushed in Vietnam and is transformed for the moment into a big L leadership situation. A situational leader relies on prior conditioning to ensure the right responses. Without prior encouragement and education a situational leader cannot exist.

A more scientific view of how Mama Gump developed Forrest is to understand what is taught at the Air Force Academic Instructor School (AIS): We learn by absorbing bits of information through both the cognitive and affective domains. Once we progress through the stages of analysis, synthesise, and evaluation, we will have mastered the material, which allows us to apply what we have learned to different situations. Our ability to think in certain situations can allow us to fill gaps in information that is only partially complete.

While we all learn through a similar cognitive process we place this information on different frames. Our individual frames are made by our genetic makeup and life experiences. Even though we are taught in the same classroom, how we apply what we learn may vary greatly. This is why we are taught at Squadron Officers School (SOS) that in leadership many combinations work.

Big L leadership like the instructors at SOS, encourages others to lead from their experiences to achieve the desired goals and objectives of the group. The end result is the proliferation and increased strength of the group - which is what Big L leadership is all about. The bottom line is that leaders lead people - they lead them in different directions.

Even the different directions may eventually lead to the same destination. Leaders often recognize and find shortcuts or help when the road is difficult or hard to find. Certain kinds of leadership is better in some circumstances or situations. The Air Force has studied leadership for a long time. The more we know about leadership; how to build leaders and share leadership, how to support leaders, and how to be led, the better we will all be. This is especially important when we are faced with the ever accelerated change that technology brings.

Even if we could slow the pace of change, Air Force leaders would still have to demonstrate Big L leadership. However, we are raised in the worlds most competitive culture (Kahn, 1992), we often overlook the opportunity to lead from

a Big L operating style. To become Big L leaders we must continually strive to overcome the systems counter productive disablers such as to much competitiveness. Here is a little story which I like to think about as I try to continually strive toward Big L leadership thinking and action. My good friend Dr. Richard Lester from Air University explains, "Bryan, Hell is just like Heaven except for one thing. In Hell there is a beautiful banquet, presented on all the finest china, with all the best food and drink. The only problem is that everyone sitting around the table is starving to death. You see, they all have four-foot forks and they're trying to feed themselves. However, with their arms being only 2 to 2 ½ feet long, they are unable to reach their mouths with the four-foot forks. Heaven on the other hand is the same, the one exception is that the individuals are healthy. These individuals are demonstrating the abundance mentality. They have figured out that the key to survival is using the four-foot forks to feed each other."

The Air Force needs Big L Leaders

Big L leadership requires the ability to both lead and follow. Leaders cannot lead without having been good followers, nor can they develop leaders without empowering others to lead. Followership, as does leadership, requires organizational stewardship.

To be good organizational stewards we must challenge ourselves daily. Author Stephen Covey in Principle Centered Leadership, explains this process better than anyone else in terms which are easily understood. Simply stated, stewardship begins within the individual permeates outward into the organization.

This outward permeation of organizational stewardship requires leaders to continually communicate a clear vision, mission, and values to their followers. The stronger a leaders foundation is in core values the better chances organizational members will choose to follow and support them. The Air Force recognizes this and in addition to stringent pre-service testing, the Air Forces core values and corporate knowledge are nourished and maintained through a career long educational architecture, beginning with Basic Military Training (BMT), or Officer Candidacy School (OCS).

Followers have a reciprocal duty to be good organizational stewards. As followers grow within the system they need to apply their ability to continually improve the system from within. Air Force leaders have enhanced the ability for followers to be good organizational stewards through the inculcation of what has

become known as Quality Air Force (QAF). The Quality Approach defines QAF as a leadership commitment and operating style that inspires trust, teamwork, and continuous improvement everywhere in the Air Force.

QAF will not just happen. Daily practice by ourselves and encouragement of others is required. Organizational stewardship requires a daily commitment from both leaders and followers which in turn sustains the organization. As is said about life - organizational excellence is a journey not a destination, what matters is how you get there. Author James Balasco in "Flight of the Buffalo", defines how leaders should act during the "journey". The "journey" requires leaders perform as geese that share in the leading, rather than as head buffalo which do not build and share leadership. Therefore, leadership also requires an abundance mentality, trust and respect for our fellow man. Without it leaders will not sustain the long haul.

Geese when they head south for the winter do so with a passion. Driving this passion is a vision of the onslaught of winter. Similarly, the Air Force has developed a vision - a long term conception of where we are going. The QAF Approach defines the Air Force vision as: Air Force people building the worlds most respected air and space force--global power and reach for America.

Our Air Force vision is supported by a system through which leaders emulate the vision through their guided energy and communication skills. Others then multiply the effect of a leader which then begins to move a culture.

When our Air Force professional schools study the history of past civilizations we often find that they prospered for many years and accomplished many achievements. Unfortunately, all civilizations from the beginning of time have dwindled and failed. The cause of the distruction or failure of a civilization or organization is never one leader. Leaders cannot destroy whole cultures or organizations. However, with the growth of technology there may be some new data to collect, i.e. the bankruptcy of the Bank of England earlier this year by one corporate executive. Normally, a combination of poor leaders, failure of checks and balances over time erodes a culture the same way waves erode beaches.

Leadership in the Air Force is critical. It is not the efforts of single individuals. "Big L leadership is being in the right place, long enough, and at the right time to have the God-given opportunity to lead. If you want to see Big L leadership in action look to the enlisted ranks. The Master Sergeants, Sergeants, and Airmen work closely together on a daily basis. They also are walking the talk,

when it comes to helping each other. A specific example in the enlisted ranks of Big L leadership is CMSAF Chief Campanale. I had the fortunate opportunity to meet him. I was impressed at the time of his commitment to and belief in the spiritual guidance associated with leadership.

The Chiefs' example drove me to do some further research. I found that in the book of Daniel Chapter 5 Vs 18 - 21, says that leaders are chosen by God to lead. Only God can put us in the situations that will require leadership. When we lead we are actually returning the gifts of the body, 1 Corinthians Chapter 12. Leadership can have pitfalls. If we become arrogant and forget why we lead, God will soon put us in our place. So much of leadership is dependent on so many factors that the key to good leadership today is being a good steward. We must prepare ourselves for the moment when circumstances put us in the opportunity to lead.

Our Complex and Ever-Changing Environment

In today's Air Force, there are many new tools which a true leader must become skilled. These tools are developing at faster and faster rates and include technology, human factors, and organizational applications.

To be a true leader toady's Air Force may actually in some ways be much more demanding than it was in the time of Abraham Lincoln or George Washington. Although, in their time they were up against many sobering moments, as they saw the immediate effects of a country in conflict. Technology, has forever removed leaders from being in a situation where they wage war for extended periods of time - war and therefore leadership has changed.

Today a leader must learn to overcome the many distracters. These distracters are outcomes of a market economy which focuses on the masses without specific concern for the individual and include, alcohol, tobacco, TV, gambling, etc.. The bottom line for <u>most</u> of today's leaders is moderation.

Today's "Quality" focus has brought elements of leadership to a much better focus. The basic tools of TQM and the advanced planning tools have greatly enhanced a leaders abilities. Our advanced technology requires that we not just lead by the seat of our pants, but that we manage information and master many resources that are available to us. In <u>Reengineering Management: A Mandate for</u>

New Leadership, James Champy thoroughly explains the changing global environment and the "right to left" type of thinking that leadership must now use.

The faculty of the Air Command and Staff College (ACSC) is a leading edge example of an Air Force organization which has reengineered their core processes. Through the use of multi-media education ACSC is mastering information and enhancing the development of future Air Force leaders.

James Champy also states that organizations need to do both Reengineering and continuous improvement. These practices must be shared within the organization through a culture which believes in Big L leadership. Below are a few examples I've found which support this premise.

On 15 Nov 1994, at 0615am, I listened to the following information on a Christian radio station regarding "Change":

- Until the 1870's we only traveled at 20 MPH - the speed of a horse.
- The train took us to 100 MPH - and people said this would cause us to lose our minds.
- Then in the 1900's airplanes achieved speeds of 300 + MPH.
- Today the Concord can travel at over 1,000 MPH
- When you watch the modern rocket launches you are seeing travel at 16,000 MPH
- It took until 1875 for the world population to reach 1 Billion
- It took until 1945 to reach 2 Billion
- In 1964 we reached 3 Billion
- Now the world population increases by 1 Billion every three years
- In the average community 30 - 40 % of the population moves each year
- Families in order to avoid the pain of saying "good-bye", never say "hello"

The population of China is one/fifth of the worlds population and growing. Technology and communication although occurring faster is becoming more complex. We must be very careful what we say and do and always consider the message we are sending. Leadership in today's Air Force demands that we all

become skilled at using four foot forks. We must help and encourage each other to develop our God-given talents.

Statistics like these validate the tremendous need for Big L leadership in toady's world. The often debated question of whether leaders are born or developed has through necessity been answered. The crystal clear answer is that leaders must be developed. We no longer have the luxury of depending on just the right circumstances, whether they be DNA molecules or sequences of events, or both, to occur randomly and haphazardly.

In order to gain the right perspective we must think of leadership using the economic law of supply and demand. Our worlds demand for leaders has outpaced natural occurrence. In fact, our need for leadership now demands that every human being become responsible for developing and nurturing leadership skills both within themselves and others.

In this paper, I have mentioned what each of us must do to build the leaders required by the Air Force of tomorrow. We as Mama Gump must believe not only in ourselves but those around us. We must be principle centered and believe in the abundance mentality. We have to realize that the world is changing so rapidly that many different leaders are going to be required. We have to remain flexible to adapt and find those situations that require leadership.

We must realize that by letting go and empowering others that we become stronger leaders. The Big L leaders are those that are great at developing other individuals to lead.

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LEADERSHIP:
SETTING THE VISION

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ABSTRACT

LEADERSHIP: SETTING THE VISION

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The most important leadership function in today's Air Force is setting the new QAF vision and being committed to it. The vision articulates a view of a realistic, attractive future for the organization.

The first purpose of a vision is to create a shared mindset among the members that holds the organization together. The second purpose is a tool that allows leaders to empower their people by giving a sense of what they should attempt to achieve.

People join an organization to satisfy certain psychosocial needs, just as organizations derive rewards from the larger society. When the organization has a vision, all individuals can identify their roles within the organization and within the larger society. This identity is a great motivating force.

Once the vision is set, the leader then must show commitment to it by adopting a "symbolic leadership" style, exemplifying the new vision is all their actions. If the leader does not truly believe the values and beliefs embedded in the new vision, their motives will soon be discovered.

To develop a vision, a leader must be able to look to the past to draw analogies that might pertain to the present situation, to the present to see the resources available to affect the change, and to the future, to determine where the organization is heading.

Even though a vision is so important, many organizations still don't have one. Yet in these turbulent times, it is the key to organization success and longevity.

"Quality Air Force - a leadership commitment and operating style that inspires trust, teamwork, and continuous improvement everywhere in the Air Force." As this definition implies, Quality Air Force (QAF) is not just a new way of doing business, nor merely additional tasks and duties above and beyond those which we already perform. QAF is much more than this. It is a shift in perspective, a new paradigm. It involves adopting new sets of organizational values and beliefs, and charting a new direction, or vision, for our units. I believe that setting this new QAF vision and being committed to it are critical to leadership success in any organization, and crucial to QAF's success. To prove my point, I will first identify what a vision is and what roles it plays. I will then elaborate on why it is so important for leaders to establish a vision and show commitment to it. Once the reader has been given an understanding of vision's importance, I will describe how a leader can develop a vision, and conclude with various reasons why many organizations still lack vision.

First of all, what is a vision? An organization's vision is, "a mental image of a possible and desirable future state of the organization. This image may be as vague as a dream or a precise as a goal or mission statement. The critical point is that a vision articulates a view of a realistic, credible, attractive future for the organization, a condition that is better in some important ways then what now exists."[1]

An organization's vision serves two primary purposes. First, it creates a shared mindset among all members. "A shared mindset represents strong cultural values concerning the organization's purpose and reason for being. A shared mindset provides the harmony and unity of mind that helps an organization achieve a competitive advantage"[2], and it is critical for organizational success. It is the force that holds the different parts of the organization together as one and keeps everyone moving in the same direction. Without this binding force, different parts of the organization tend to sub-optimize. The parts will begin to act in their own self-interest rather than the organization's. Success is achieved locally at the expense of organization-wide success.

The second role a vision plays, which ties in with the shared mindset concept, is as a tool that allows leaders and supervisors to empower their people. Empowerment in this sense means delegating authority and accountability united with a shared vision of the organization's direction. This enables members to creatively develop problem solutions on their own. The vision gives members a sense of what is good and what is bad, and what they should attempt to achieve. When all unit members share this common vision of the organization's desired future state, the decision making process is greatly simplified. When faced with a problem or conflict, people do not have to resort to higher levels of the organization for a decision. If everyone shares a common vision, people at the lower levels know what decision the higher level would make. Therefore, they can make the decision themselves, and higher level supervisors and managers can feel secure knowing that the decision will be in the organization's best interest. "Thus, individual behavior can be shaped, directed, and coordinated by a shared and empowering vision of the future."[3]

To understand why setting a vision is such a critical leadership function, we must look at why people join organizations in the first place. Organizations are "social entities that are goal-directed, deliberately structured activity systems."[4] Put more simply, it is a group of people working for a common purpose. People generally join an organization to satisfy higher-level

psychosocial needs such as self-esteem, a sense of accomplishment, or a meaningful existence.[5] "Just as an individual derives rewards from his or her participation in the organization, so too does the organization derive psychosocial rewards from the larger society, such a prestige, power, or recognition."[6] So when an organization has a clear vision of its future that is shared among all members, each individual can clearly identify their roles both within the organization and within the larger society that the organization is a part of. As stated by authors Warren Bennis and Burt Nanus:

> "This empowers individuals and confers status upon them because they can see themselves as part of a worthwhile enterprise. When individuals feel that they can make a difference and improve the organization as well as society, then it is much more likely that they will bring vigor and enthusiasm to their tasks and that the end results of their work will be mutually reinforcing. Under these conditions, the human energies of the organization are aligned toward a common end, and a major precondition for success has been satisfied."[7]

Thus we see the great motivating power of vision. It is the force that drives all members to a common future, empowers them to make decisions and exercise creativity, and ensures the organization's future success. Without it, the organization will founder aimlessly, wither, and die. This is why I say that the most important role of leadership is setting the organization's vision. "While the task may be shared and developed with other key members of the organization, it remains leadership's core responsibility and cannot be delegated."[8]

The leader who fails to set a vision for his or her organizations has also failed to take advantage of the organization's most prized asset: the creative thinking of its members. The leader capable of setting a vision is the leader who deeply believes that all people want to, and given the opportunity will, work to improve the organization. The leader truly values and respects all people. As the Ernst & Young Quality Improvement Consulting Group identified:

> "He or she ensures that there is an ongoing commitment to developing people as individuals and as a team to accomplish the corporate vision. This leader feels that developing leaders who work at creating an environment where all people can be utilized as problem solvers and solution implementers is the crucial foundation for making the cultural transformation happen. Nothing less than a leader who believes this intellectually and feels this emotionally will get the job done."[9]

Developing a vision is only half the picture, however. To make it work, to mobilize the troops behind it, requires the leader to exemplify it in his or her every action. The most effective way to demonstrate commitment to the new vision is by adopting a "symbolic leadership" style. A new vision cuts to the core values and culture an organization has developed over many years. This inner core may be very fragile and cannot be managed in the traditional way. Merely issuing edicts such as, "This is our new direction!" will rarely, if ever, have any significant impact on the organization. This method has been tried numerous times in various types of organizations, always with disastrous results. As author Richard L. Daft states:

> To demonstrate commitment, leaders must learn to communicate and signal actions in ways that will be accepted by employees. A symbolic leader defines and uses signals and symbols to influence corporate values. Symbolic leaders influence cultural and ethical values by

> articulating a vision for organizational values that employees can believe and by engaging in day-to-day activities that reinforce these values. Most important, actions speak louder than words, so symbolic leaders "walk the talk". Employees learn about values, beliefs, and goals from watching managers, just as students learn which topics are important for an exam, what professors like, and how to get a good grade from watching professors. In the world of business and government the ceremonial and symbolic activities of executives are used to signal cultural and ethical values to large numbers of employees."[10]

The symbolic leader, then, is the one who leads by example. Leading by example shows people what is important, and what is considered important is also what is accomplished. This is why simply issuing edicts will not work. Any leader can certainly tell the organization what he or she feels is important. But if deep down within his or her character the leader does not truly cherish the new vision and associated values and beliefs, then the leader's motives will soon be seen as duplicitous by the followers. By his or her own actions, the leader will reveal that what they said was important is not important after all. Even more disastrous, if the leader's action signal that what used to be important is still important, no change will occur, no movement will be made in the direction of some future state, no matter how many banners are strung around the workplace. "Perhaps this is why so many corporate leaders have sought to appear in their firms' commercials, where some, like Lee Iococca, do an outstanding job of communicating a new spirit."[11] Authors Bennis and Nanus relate an insightful story:

> "There is a story about Sun Tzu, the great Chinese general who lived two and a half thousand years ago. The king ordered Sun Tzu to train his army, and the general, after drilling and disciplining them to his satisfaction, asked the king to inspect his troops. But the king replied that he didn't want to, whereupon Sun Tzu said calmly, "The king is only fond of words and cannot translate them into deeds.""[12]

The effective leader who can formulate and communicate a vision, show the future potential of the organization, and mobilize its members to move in that direction, is not born. These leaders, "emerge when organizations face new problems and complexities that cannot be solved by unguided evolution. They assume responsibilities for reshaping organization practices to adapt to environmental changes. They direct organizational changes that build confidence and empower their employees to seek new ways of doing things. They overcome resistance to change be creating visions of the future that evoke confidence in and mastery of new organizational practices."[13]

Such are the tasks for today's Air Force leaders. The Air Force, as well as the entire Department of Defense, has seen many environmental changes over the past several years. In the external environment, the collapse of the Warsaw Pact has changed the way we view warfare. In the internal environment, budget cuts, force reductions, and restructuring have thrown most people into turmoil. The effective leaders will be the ones who can visualize where this is all headed, chart the course, and mobilize troops to follow that path.

It can be easily argued that Quality Air Force (QAF) was a vision born from these tumultuous times. Environmental changes have caused the Air Force's leadership to chart a new vision, a QAF vision, to help build a capacity for change into its organizational units. "The capacity for change means organizations learn to do things in new ways. Organization leaders enable the realignment of structure, technology, and culture to meet environment needs."[14]

Once again we see the importance of leadership's role in setting the vision. Without the vision of our desired future state, the troops do not know where we are going and cannot be expected to act in the best interest of the organization. So it is imperative that today's Air Force leaders develop the vision of a QAF culture and exemplify it in all their daily activities. The best way to do this is to lead by example. "When a leader is committed sufficiently, the values and principles of quality improvement are totally internalized so that his or her behavior reflects these values. He or she is actively involved in cultural changes that must be made. Such a leader has invested considerable time and energy becoming educated about these philosophies and techniques, and leads the process by which the organization's thinking is transformed."[15]

Now that we have a sense of why developing a vision and being committed to it are such important leadership activities, lets look in general at how a leader can go about creating an effective, motivating vision. To perform this task, the leader must look to the past, present, and future, then assimilate all this into a clear picture of what the organization can accomplish.

By looking to the past, the leader attempts to draw analogies that might pertain to the present situation. He or she must learn the organization's history to find out where it came from and how it reached its present status. The leader can also discover what qualities the organization posses that made it successful in the past.

"The present provides a first approximation of the human, organizational, and material resources out of which the future will be formed. By studying these resources, it is possible to develop an understand of the constraints and opportunities for their use and the conditions under which they may grow, decline, interact, or self-destruct."[16]

Since a vision is a picture of some desired future state, the leader must be capable of forecasting future trends. Luckily, he or she has much information at their disposal. All types of studies are routinely published, such as economic projections, industry forecasts, or demographic analyses. "You could explore some of the intellectual ideas that may shape the future: philosophical works, science fiction novels, political scientists and futurists"[17]

While the task of compiling this information may be easy, the real art is interpreting the data, and using that interpretation to create a viable, believable, vision of the future. As Bennis and Nanus state,:

> "The task of synthesizing an appropriate direction for the organization is complicated by the many dimensions of vision that may be required. Leaders require *foresight*, so that they can judge how the vision fits into the way the environment of the organization may evolve; *hindsight*, so that the vision does not violate the traditions and culture of the organizations; a *world view*, within which to interpret the impact of possible new developments and trends; *depth perception*, so that the whole picture can be seen in appropriate detail and perspective; *peripheral vision*, so that the possible responses of competitors and other stakeholders to the new direction can be comprehended; and a process of *revision*, so that all visions previously synthesized are constantly reviewed as the environment changes."[18]

If a clear, concise vision shared by all is so important to an organization's success, why are so many organizations still "out-of-focus" with no coherence? Bennis and Nanus provide several revealing answers[19].

- Within the past several decades, important new interpretations have been given to the role of the family, the quality of life, the work ethic, the social responsibility of business, the rights of minorities, and many other values and institutions that were once thought to be enduring and permanent.

- Telecommunications and rapid transportation have helped make the world increasingly interdependent for products, ideas, jobs, and resources.

- The quickening pace of innovation has lead to the specialization of experts and massive problems of coordinating technical workers.

- The general willingness to experiment with new social forms and norms has fractured society into a diversity of life styles, each with its own product preferences.

- Workers are seeking and receiving a much greater voice in decisions that were once the exclusive territory of management.

All these trends, and many others, have conspired to create a complex and uncertain world. This uncertainty makes it very difficult to accomplish the long term planning required for effective vision development. Factors in the external and internal environment are constantly changing, and the rate of change itself is increasing. It is very difficult for a leader to formulate a vision of the future under these circumstances.

Oddly enough, it is this same uncertainty that makes effective leadership, and in particular effective vision development, so critical today. With so much change happening all around us, leadership must identify and communicate the organization's vision, its unchanging inner core. The vision acts as a "port" in the "storm" of environment change. In fact, "if there is a spark of genius in leadership, is must lie in this transcending ability, a kind of magic, to assemble - out of all the variety of images, signals, forecasts and alternatives - a clearly articulated vision of the future that is at once simple, easily understood, clearly desirable, and energizing."[20] The future may be uncertain, but the leader who establishes an appropriate vision is influential in shaping that future itself.[21] Without the vision, the forces of change will surely rip any organization apart.

FOOTNOTES

[1.] Warren Bennis and Burt Nanus, *Leaders: The Strategies for Taking Charge* (New York: Charge, Harper & Row Publishing, 1985) Pg. 141

[2.] Richard L. Daft, *Organization Theory and Design* (St. Paul: West Publishing Company, 1992) Pg. 466

[3.] op. cit., Bennis and Nanus, Pg. 92

[4.] op. cit., Daft, Pg. 7

[5.] Andrew Szilagyi and Marc Wallace, *Organizational Behavior and Performance*, 5th ed. (Glenview: Scott, Foresman/Little, Brown Higher Education, 1990) Pg. 97

[6.] op. cit., Bennis and Nanus, Pg. 90

[7.] ibid., Pg. 91

[8.] ibid., Pg. 141

[9.] The Ernst & Young Quality Consulting Group, *Total Quality: An Executive's Guide for the 1990's* (Homewood: Business One Irwin, 1990) Pg. 29

[10.] op. cit., Daft, Pg. 330

[11.] op.cit., Bennis and Nanus, Pg. 108

[12.] idib., Pg. 144

[13.] ibid., Pg. 17-18

[14.] op.cit., Daft, Pg. 466

[15.] op. cit., Ernst & Young, Pg. 28

[16.] op. cit., Bennis and Nanus, Pg. 98

[17.] ibid., Pg. 100

[18.] ibid., Pg. 102

[19.] ibid., Pg. 93-94

[20.] ibid., Pg. 103

[21.] ibid., Pg. 101

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Healthcare Information Systems for the Future: The Leadership Challenge

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Healthcare Information Systems for the Future: The Leadership Challenge

John Latham

Abstract

Inspired by the strategic planning efforts of Tripler Army Medical Center, Honolulu, Hawaii, this paper conceptualizes the design of a patient focused information system. Starting with the needs of the organization and senior leadership involvement, the discussion includes: the role of management's philosophy, the mission/vision, and strategic planning. Building on existing work relevant to healthcare organizations, it briefly explores three information system models: Malcolm Baldrige National Quality Award, Joint Commission for the Accreditation of Healthcare Organizations, and the patient focused/delivery of healthcare process model. Finally, the three models are synthesized into a new conceptual model of the ultimate information system and concludes with a leadership challenge.

Introduction

The hospital of the future will be an ever improving patient focused experience. After making an appointment with the central appointment desk, the patient will enter the facility with a bar coded identification card which, when scanned, will automatically in-process the patient into the hospital and set up an account for direct billing to the preprogrammed insurance provider. To prevent fraud, the patient will sign one time on a computer screen to verify the authorized use of the scanned identification card. After scanning in, he or she will be directed to the location where the scheduled appointment will begin. After arriving at the location, the patient will be seen by an appropriate healthcare provider who will call up on the computer terminal monitor the entire patient history both text (physician inputs, test results, etc.) and images (CRT, MRI, X-ray, etc.). After examining both patient and records, the physician will access the expert knowledge data base and review the most recent on-line findings and "text book" diagnostics for the malady at hand. After collecting all the information, the physician then provides a diagnosis.

The healthcare relationship has evolved into a collaborative effort between patient and doctor and so the patient considers the doctor's recommendation along with the on-line patient education data base and then discusses with the physician the plan of attack. The doctor will record the results of the discussion in the computer and the computer will automatically schedule any support services needed by the patient such as physical therapy, pharmaceuticals, surgery, etc.

When the patient arrives for surgery their ID card is scanned once more checking them in the hospital along with CRT display directions to the appropriate location. The computer signals the nurse that the patient has checked in and is on the way. The orderly or housekeeping personnel have prepared the pre/post operation room anticipating the patient's preferences such as additional foam pillows which the computer learned last time the patient was in the hospital. No more lengthy bedside interviews, the information system anticipated the patient's needs. At most they may ask for confirmation of the needs listed in their computer via the bedside terminal where the nurse enters the history of stay and orders the services needed during the stay such as medicines, physical therapy, meals, etc.

At the end of the stay the patient rates the services provided by answering an on-line customer satisfaction survey. All follow-up appointments will be automatically scheduled and

confirmed prior to departure. When the patient leaves the facility their identification card is scanned again checking them out of the facility. After reviewing a printout of the services provided and the charges, a copy is given to the patient. Upon leaving, the patient simply signs out, automatically authorizing the bill to the insurance provider. The End.

Information Technology (IT) has made significant impacts on the healthcare industry and its ability to provide "quality" care. IT is not new, many organizations have separate high technology information projects and systems designed to serve specific functional areas. What is often missing is an integrated system of information that connects these functional fiefdoms together to facilitate and improve the delivery of service or care. "Because we have not understood that wholes are more than the sum of their parts, we have assembled our information into islands, an archipelago of disconnected data" (Ferguson, 1980, p. 187).

This is not simply a technical problem, it is a leadership challenge. The information technicians have provided most organizations an ocean of data, but few have succeeded in tying it together to provide relevant information to improve management decisions, planning, or quality. Relevant information can only be defined by the user. Developing a connected information system that will facilitate the healthcare experience by providing individuals, teams, upper management, and patients the necessary information to not only provide healthcare but improve performance, requires senior management leadership and vision. "In the past, managers simply delegated technology decisions like this to the in-house computer wizards and attended to other matters. But managers can no longer easily avoid the process of making decisions about information technology. IT affects the entire business from organizational structure to product market strategies. Delegating such important decisions doesn't ensure that IT investments will further the company's business strategy. In fact, it practically guarantees that they won't. The technical experts just don't have a deep enough understanding of where the overall business is going" (Davenport, 1989, p. 130).

The Organization's Needs

As a customer of the information system, the organization's needs should naturally drive the information system design. Beginning with the organization's needs or uses of information, develop requirements or system characteristics such as content, timeliness, access, etc.; design an information system with those characteristics; then identify the input or sources of data required to supply the system. The task of identifying the "big picture" information needs falls on the shoulders of senior leadership. The starting point for these requirements is the management philosophy.

Management Philosophy

Regardless of the information system design, how it is used will determine its success. If the prevailing management philosophy is McGregor's Theory X where management considers all workers to be unmotivated then the information system will help them control and coerce more efficiently than ever. If management's prevailing philosophy is that of Theory Y where employees are naturally motivated to perform, given the opportunity and knowledge, then the information system can enable and empower the workforce to provide increasing levels of service to the customer or patient. The management philosophy and organizational culture will determine the

use of IT. Even naturally motivated people make mistakes. In addition to empowerment IT can also provide the appropriate controls to ensure "quality of care."

Mission/Vision

The primary drivers of the organization are the customer focused mission/purpose and vision. "None of the potentially beneficial enabling aspects of IT can take place without clarity of business purpose and a vision of what the organization should become" (Morton, 1991, p. 20). The purpose of the organization is why they are in business and what they provide the customer. A vision is a vivid picture of the ultimate organization. High tech hospitals such as Tripler Army Medical Center (TAMC), Honolulu, Hawaii (rated one of America's 10 Most Computer Advanced Healthcare Facilities by Healthcare Infomatics) has implemented several advanced IT projects such as: telemedicine (providing healthcare to geographically isolated areas); PROMED (wireless Newtons) providing physicians information on their belt, and the Composite Healthcare System (CHCS). Their mission is: ***"To ensure readiness through the delivery of quality health care."*** Their vision is: ***"To be the premier health care system in the Pacific Basin." Working Together We Will: Integrate the best in modern Technology; Seek innovative ways to Adapt to the future; Achieve the best in Medical Education; and Provide responsive, Caring health services, wherever, and whenever needed.*** The vision and mission are the compass for the organization and set the direction, but the plan connects them with action!

Strategic Planning

Hugh MacDonald defines strategy as the "mixture of knowledge and assumptions about the organization, goals, objectives, actions, milestones, budgets, and plans, all based on a foundation of knowledge about customers, suppliers, the general environment (political, social, economic, etc.), the actions of competitors, and a number of internal organization factors" (Morton, 1991, p.160). IT both supports and is a product of strategic planning.

IT supports planning by providing leadership with the necessary information to develop a comprehensive strategy. To develop a sound strategy requires an information system that provides the planners with knowledge of the: customer requirements, expectations and satisfaction levels and trends; competitive environment and risks; organization capabilities (technological, people, research, processes, etc.); and supplier capabilities. (Baldrige, 1995, p. 25). IT can also facilitate the process of planning by electronically connecting all the planners throughout the organization from top to bottom. It is vital that the information strategy align with, and support the overall organizational strategy.

In addition to providing input to the planning process, IT should also be a product of strategic planning in the form of IT goals, objectives and action plans. Experts agree, high tech improvements which have increased the quality of healthcare are disconnected. To align their IT endeavors with the organization's overall strategy, Tripler included an IT break out group during their July 1994 two-day strategic planning off-site. This breakout group composed the IT goals and objectives for the organization. These goals serve as principles to guide the IT efforts. "Principles are simple, direct statements of an organization's basic beliefs about how the company wants to use IT over the long term. By translating the main aspects of a company's business strategy into the language of technology managers, these principles bridge the communication gap

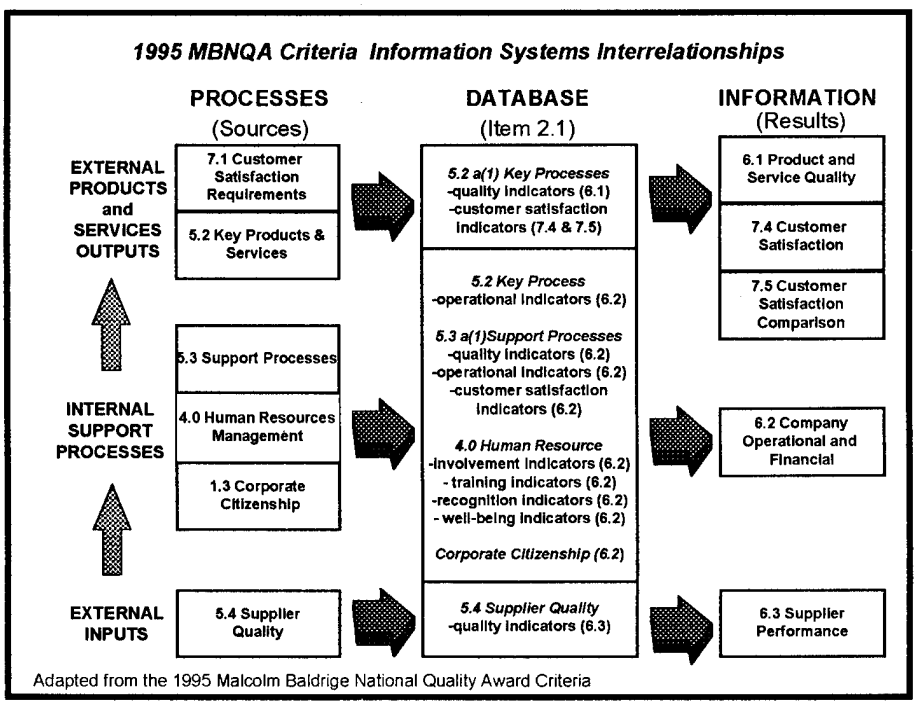
between top managers and technical experts. This way, business strategy drives technical strategy, as conventional wisdom says it should" (Davenport, 1989, p. 131).

Information System Models

There are numerous conceptual information system models to choose from, all are incomplete in some respect. Two comprehensive information management models are the Malcolm Baldrige National Quality Award and the Joint Commission on Accreditation of Healthcare Organizations. Both models allow the organization the latitude to develop their own custom tailored information system based on the organization's unique needs.

Malcolm Baldrige

Although "non-prescriptive" in nature the Baldrige criteria asks the key questions to consider when conceptualizing an information system. The criteria address information in two ways. First, Category 2.0 of the criteria asks what type of data the organization collects and how it compares, analyzes, and uses the data to create information to support management and improvement efforts. Second, the criteria ask for actual organizational results, both levels and trends, for many of the systematic approaches and their deployment described throughout the assessment report including customer satisfaction.

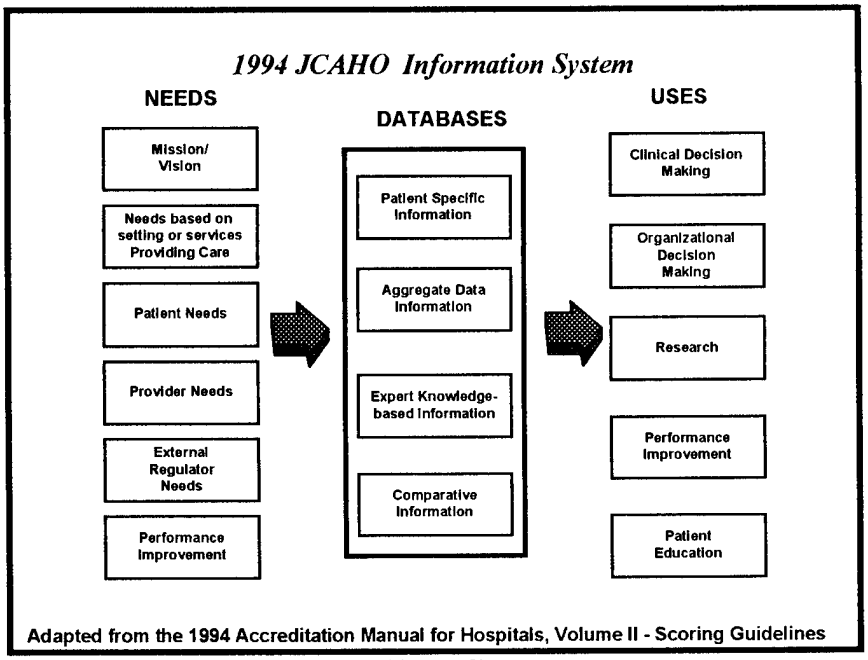


(figure 1)

The organizational activities that determine the data base can be sub-divided into three major process components: the output, the internal processes, and the input. The output is the customer required key products and services provided by the organization. The internal processes are the organization's internal activities that enable the key products and services, and the inputs are the external supplies required by the organization.

Joint Commission for the Accreditation of Healthcare Organizations (JCAHO)

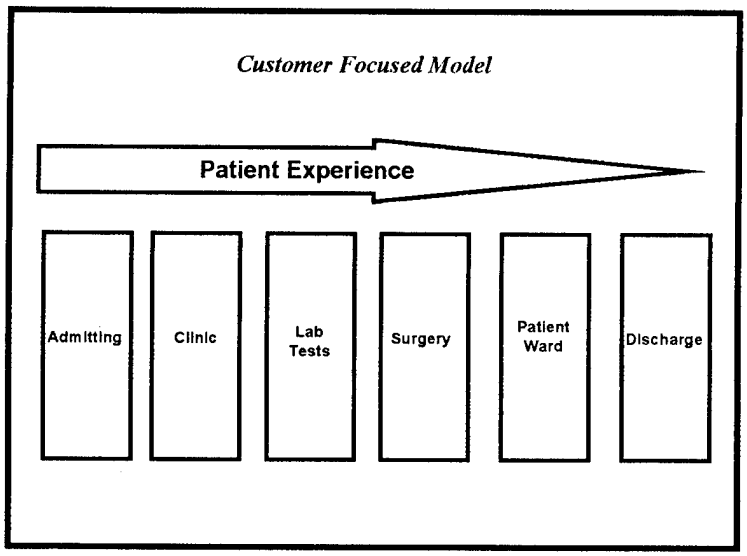
The JCAHO criteria also provide a model of an information system geared toward the specific needs of a healthcare organization. Driven by the mission and vision, the JCAHO model starts with a needs assessment. This needs assessment consists of the needs of: the patient, provider, regulator; performance improvement and needs based on setting or services providing healthcare. These needs are met by four sources of information: patient specific information, aggregate data information, expert knowledge based information, and comparative information. The primary uses of these data in the model are: clinical decision making, organizational decision making, research, performance improvement and patient education. "The organization assesses its needs for information management based on its mission, goals, services, personnel, mode(s) of service delivery (for example, hospital, home care, ambulatory), resources, and access to affordable technology" (JCAHO, 1994, Section 2 p. 5).



(figure 2)

Customer Focused (Process vs. Function)

Although both the Baldrige and JCAHO models are customer focused they do not emphasize the customer's experience. Often in the service industry the consumption and delivery of the service occur simultaneously. This is certainly the case in healthcare. While we can define the needs of the patient in both the Baldrige and JCAHO models they do not emphasize the importance of the "healthcare experience." Improving quality of healthcare requires a patient's perspective. While many organizations develop extremely effective information systems for the various functions, few have effectively tied them together to improve the quality of care as seen and defined by the customer, the patient. The patient doesn't see the various functions within a hospital as separate entities. The patient experiences the healthcare process.



(figure 3)

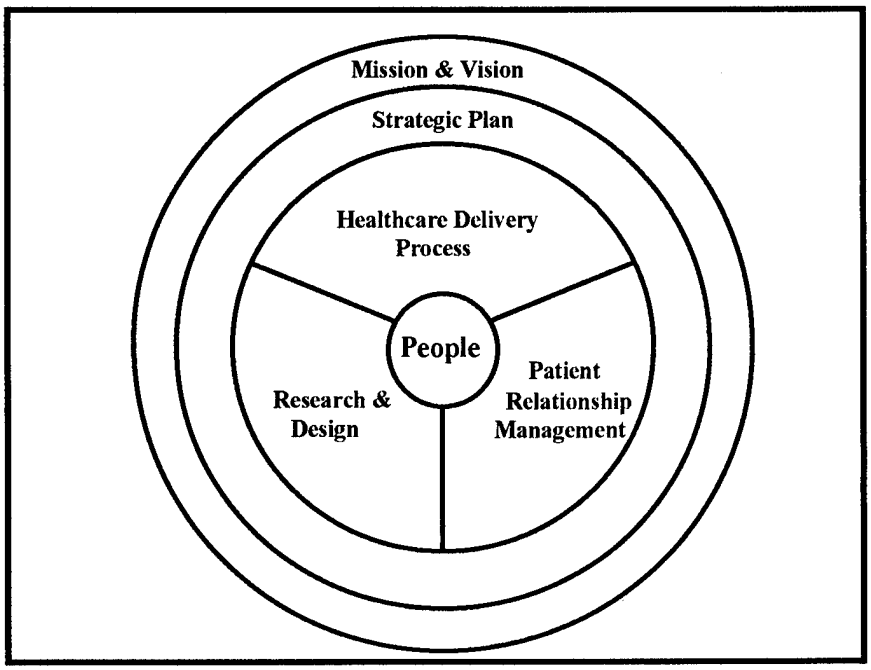
To be effective in improving quality as seen by the patient the information system must be designed to enhance the "process" of providing healthcare. The patient experiences a typical hospital starting with the administration department by scheduling an appointment and ends when the patient no longer needs aftercare. Regardless of how good the actual surgery goes, the patient remembers waiting an hour on the surly x-ray technician who couldn't read the illegible x-ray request. "We have found that successful 'between-function' integration collapses the multistage value-added chain into three major segments: producing new products, delivering products to customers, and managing customer relationships" (Morton, 1991, p. 207).

Synthesis

Creating an information system which represents the best of all three models (Baldrige, JCAHO, and Customer Focused) provides the organization a system which will help the healthcare facility improve the overall organizational performance using Baldrige self-assessments; meet accreditation requirements of JCAHO; and ultimately serve the patient better, reduce the risk of litigation, increase satisfaction, market share and in turn profitability. This new model is completely surrounded by the Mission and Vision which are connected to the organization by the Strategic Plan. The core of the system includes Patient Relationship Management; Healthcare Delivery Process; Research and Design with a nucleus of people.

Mission and Vision

The mission and vision provide the foundation and direction for the entire organization. A complete vision includes the "vision trilogy" of the ultimate product/service, people, and culture. "There are at least two ways in which leaders communicate their interests to an organization. First, by the way they spend their time and, second, through their direct communications with employees" (Boone, 1991, p. 207). IT such as e-mail provides the senior leaders the ability to effectively and continuously articulate the organization's vision, mission, patient focus, and strategy. Improving the organization does not happen by accident, it is the result of a purposeful plan.



(figure 4)

Strategic Plan

The strategic plan connects the mission and vision with the *real* organization. To create goals and objectives which provide the connection, the strategic planning process requires information input to enable senior leaders to analyze the organization's capabilities and environment. IT also facilitates the development, communication, implementation, and feedback of subordinate plans throughout the organization. And finally, the strategic plan includes goals and guiding principles for IT itself. The three major segments of any organization are design, delivery, and customer relationship (Morton, 1991, p. 207). These three segments form the core of the healthcare information model.

Patient Relationship Management

As the focus of the hospital, the patient's needs drive the organization and its processes. Patient relationship management requires information for three basic functions: determine patient requirements; assess patient satisfaction; and provide patient education.

There are two types of patient requirements: generic and specific. The generic requirements are the needs, wants and desires common to most patients. Fortunately for the hospital the patients are a captive audience. The hospital can simply ask the patients how they define quality care. Some facilities use patient focus groups to determine common patient needs, wants, and desires. Regardless of the methods of collecting customer requirements, this information must get to the appropriate individuals to use in designing, executing, and improving the processes. The second type of requirement is the specific requirements peculiar to the individual patient. These could be special conditions or impairments that the hospital needs to know about in order to provide the proper care.

After the hospital designs in healthcare service characteristics to meet the patient requirements and performs the service it is time to validate the process. "In short, assessing process quality is assessing how well the ultimate product or service delivered to the customer meets the customer's needs, measured in the customer's terms" (Morton, 1991, p. 198). There are two ways in which to measure patient satisfaction: perception and behavior. To measure the patients' perception of quality simply ask the patient how happy they were with the experience. Although perceptions are informative, behavior is the key. The bottom-line is do they come back? The trend in our society toward self-determination includes the healthcare process. Most of us no longer blindly follow our doctor's orders. Instead we view healthcare decisions to be a collaborative process between ourselves and the physician.

> Alvin Toffler called it "the punctured power of the god-in-a-white-coat. Throughout the heyday of doctor-dominance in America, physicians kept a tight choke-hold on medical knowledge. Prescriptions were written in Latin, providing the profession with a semi-secret code, as it were, which kept most patients in ignorance. Medical journals and texts were restricted to professional readers. Medical conferences were closed to the laity. Doctors controlled medical-school curricula and enrollments. Contrast this with the situation today, when patients have astonishing access to medical knowledge. With a personal computer and a modem, anyone from home can access data bases like Index Medicus, and obtain scientific papers on everything from Addison's disease to zygomycosis, and, in fact, collect more information about a specific ailment or treatment than the ordinary doctor has time to read" (Toffler, 1990, p. 8).

This type of information support improves the quality of healthcare by increasing the participation of the patient in the service delivery and outcome.

Healthcare Delivery Process

The healthcare delivery process is different for each patient, each time they visit. With this kind of variation in requirements, how can the organization improve the process? IT can help the organization customize the process with unbelievable speed and accuracy. If the functional silos are connected and communicating then they can work as a team to anticipate the patient's arrival and needs at each step along the value-added chain of activities.

IT can enable the organization to control its processes to ensure critical requirements are met. Accurate and timely patient records are important to proper care. Pharmacy controls must ensure the patient receives the proper medicines. IT can help ensure the accuracy of results data from tests and limit the access to those with the need.

IT can enable the physician and the patient to make sound decisions based on all the relevant information. IT can provide the physician an entire patient medical history, both text and images, and on-line diagnostic help based on the latest medical knowledge. Medicine is progressing at a rapid pace. It is impossible for physicians to keep current on every little detail. IT can provide this information as needed but the clinical decisions and the operational controls are only as good as the inputs.

IT contributes to supplier quality improvement in two ways. First, IT can collect, analyze and display the supplier quality results providing an essential input to the planning process. Second, IT can facilitate the communications between the hospital and its suppliers. One example would be using bar coding; the information systems of organizations can continuously communicate inventory levels and automatically execute orders when the inventory drops to a predetermined level.

The competitive marketplace and insatiable customer desires, demand continuous improvement. Improving both individual and process performance requires knowledge of both the requirements and the current performance.

Comparisons and benchmarks help in understanding the significance of the results. A comparison provides a reference to better understand your current performance level. Benchmarks provide a valuable reference to study and adapt to the organization's processes. The information system should automatically collect and incorporate this information on the performance charts. Another method to improve the process is research and design.

Research

Designing and redesigning services requires information to build in the customer, process, supplier, and human resource requirements. Research is not limited to new surgical techniques and cures for disease. Research also includes designing new services such as telemedicine or a bar coded pharmacy. Industrial research or benchmarking is also a very useful advanced tool to improve the organization's processes. Improving the organization's processes is crucial ; however, the organization still requires well trained, involved, motivated, healthy workers to make it run.

Human Resource Development Effectiveness

People are the nucleus of any organization. The hospital is a very knowledge intensive environment requiring highly trained people. Consequently, the people development programs are crucial to a quality healthcare process. Measurement of the systematic approaches to involve, train/educate, motivate, and provide for employee health and well-being is essential to validate and improve their performance.

How effective are the employee involvement programs such as suggestion systems, process action or improvement teams, natural working groups, etc.? How many people are involved and what are their results? The goal is to continually improve the involvement mechanisms to fully engage everyone in improving the organization.

What gets measured gets done, what gets rewarded gets repeated. How effective is your recognition and compensation system at encouraging and promoting the role model behavior aligned with and supporting the strategic plans goals and objectives?

How effective and extensive are your training and education programs for professional, managerial, and quality improvement skills? Does this training support the goals and objectives in the strategic plan?

Are the employees happy and healthy? Overwhelming research shows a strong positive correlation between customer satisfaction and employee satisfaction. Simply put, happy care givers make happy patients!

Conclusion

The typical approach to designing a complex system is to break it down into small components, design the individual components, then put them together again to work as a system. The problem with this approach is very often the optimized individual components don't work very well together. The leadership challenge is to conceptualize a connected system to accomplish the organization's purpose and make the organization's vision a reality. It is a leadership responsibility too important to be left to the technicians!

Planning Questions for Senior Leaders:

1. What is our management philosophy (control, empower, or both)?
2. What is the organization's mission or purpose?
3. What is our vision?
4. How are we going to achieve this vision (what are our goals and objectives)?
5. What information is needed to make these objectives, goals, and vision a reality?
6. Who needs what information when?
7. What does the information *system* look like that gets the right information, to the right people, at the right time?

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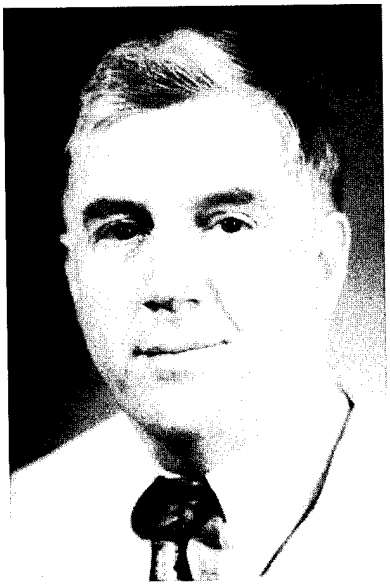

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LEADERSHIP, COMMUNITY, AND VIRTUE

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Abstract: "Leadership, Community, and Virtue" contends that leadership is "the ability to inspire appropriate action beyond the expectable." To be genuine, however, leadership must be virtuous, cultivating good people, not merely good things. The venerable "Duty, Honor, Country," phrase is necessarily vague. This article seeks to complement it with the expression, "Principle, Purpose, People." The order is paramount: principle (honor) precedes purpose (mission), which, in turn, precedes people (country[men]). To mistake the proper order of *Principle, Purpose, People* is to court potential military problems. Leaders are effective, therefore, only if they are people of integrity. Integrity is difficult to define, but military officers can understand the concept and reality of integrity by immersing themselves in their service's traditions, history, and culture. The sense of wholeness--of integrity--that results offers leaders ethical landmarks from which they can chart the course of inspiring *appropriate*, i.e., *honorable*, conduct.

What Leadership Does

In 1978, James MacGregor Burns, a political scientist of national renown, asserted that "Leadership over human beings is exercised when persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers."[1] There is no question that Professor Burns richly deserves his eminent scholarly reputation. Still, his proposition about leadership, while hardly erroneous, seems somehow incomplete, colorless, and sterile.

If Burns's understanding of leadership seems inadequate, one can search through dozens, scores, even hundreds of articles, pamphlets, monographs, field manuals, and books in a futile search to find a definition of leadership that will prove wholly satisfying. St. Augustine (354-430) once said of *time* that everyone knows what it is until asked to define it. It may be true of the noun *leadership* that it resists definition in much the same way that *time* does.

Those things which mean the most to us--love, faith, honor, justice--invariably withstand simple (or even complex) definition. Is it likely, however, that anyone can really comprehend something unless he or she can define it? I offer this short, succinct definition of leadership: "*the ability to inspire appropriate action beyond the expectable.*"[2] Although that definition is very unlikely to find its way into the ageless literature of the social sciences or humanities, it may provide an elementary launching point for the study of leadership.

If some action or conduct is routine, ordinary, and predictable--expectable in every way--leadership is very likely to be unnecessary. It is in the nature of leadership to offer something *beyond the expectable*. If a group of people may be expected, for instance, to achieve a certain desirable outcome regardless of leadership, we might fairly presume that, with effective

leadership, the same group might be capable of achieving even greater ends. Thus, leadership contributes to success *at the margins*; that is, leadership is "value added." We might think of leadership as the yeast which has, one hopes, a positive catalytic effect.

At Fort Benning, Georgia, for example, the motto of the Infantry School is "Follow Me!" It is a good, effective credo for the infantryman, and it captures in two words the essence of leadership: the infantry leader, by exerting the power of his will and influence, enables a squad or platoon of soldiers to do things which, in the absence of the direction provided by the leader, they would be unlikely to do. But all of this is pretty self evident. If leaders are effective, they get results not otherwise calculated in and from people.

Most definitions of leadership offer a series of synonyms to explain the term. One thesaurus offers these: direction, guidance, instruction, administration, authority, command, control, domination, superiority, supremacy--all very useful. But nouns dodge a critical adjectival question: How do we separate *good* leadership from *bad* leadership? If we return to Burns's analysis of leadership, we find that his dissection of the subject (at least in the short quotation above) is value neutral. My own definition suggests that leadership inspires. "To inspire" suggests a positive, productive influence.[3] Although I must concede that one can talk of Hitler as having "inspired" the Germans from 1933-1945, and as having been a "charismatic"[4] leader, the use of those words in a Nazi context is simply wrong. Bennis and Nanus have it accurately in their statement that "*Managers are people who do things right and leaders are people who do the right thing.*"[5] The adjective *right* is of paramount importance.

In my own definition, I stress that leaders inspire *appropriate*--correct, fitting, suitable, rightful--conduct. "Leadership" which promotes inappropriate--incorrect or wrongful--conduct may be tyranny or despotism or dictatorship, but it is not genuine leadership, which I take to be a positive influence. It is unnecessary to spend more time on parts of speech and synonyms because the point can be made with merely one more reference. One dictionary suggests that to lead means "to go before or with to show the way."[6] One must, again, acknowledge that "the way" can be harmful--for example, when a gang leader incites his followers to violence and crime--but a fair reading of "the way" seems to indicate something constructive and hopeful. Leadership, therefore, inspires *appropriate* conduct *beyond the expectable*. That is, I contend, what leadership does. But if that is *what* leadership does, *how* does it do it?

How Leadership Works

Over the course of many decades, military professionals have insisted--and for very good reason--that leaders inspire appropriate conduct beyond the expectable by insisting upon duty, honor, and country--and by refusing to lie, to cheat, and to steal. I certainly intend no disrespect to these venerable concepts which have encouraged hundreds, even thousands, of leaders to do what they ought to, even in times of great peril and grave crisis. But they are vague. Strong adjurations to virtue and powerful admonitions against vice are, necessarily, indistinct. The ancient Greek philosophers told us that exceptions to broad rules might sometimes have to be granted. *Equity* means fairness. Aristotle taught that equity could mean the rectification--the correction--of the law when law was deficient by reason of its universality. That is, when rules

and regulations apply to everyone, a law might well be wrong when it applies to someone in a certain set of circumstances. It is wrong to steal. Is it just as wrong to steal a loaf of bread to feed a starving family? Can there be mitigating or extenuating circumstances in some cases? Can the injunctions of duty, honor, and country always teach what we would have them teach? If a soldier, sailor, airman, or Marine inscribes *duty, honor, country* on his or her heart, will he or she lead appropriately on the basis of that inscription?

We know how critical the notion of duty must be to the soldier. Soldiers exist--leaders lead--in order to accomplish the mission. Soldiers go into harm's way--they risk life and limb--in order to get the job done. Soldiers are, entirely properly, taught to say, "Yes, sir" or "Yes, ma'am" when given an order--and then to execute that order promptly and efficiently. At the United States Military Academy, cadets are taught early on to say, "No excuse, sir [or ma'am]" when confronted with their own shortcomings. Results matter, and complaints are impermissible about why the orders received or about how the magnitude of the job precluded success in the assignment. "Duty," Robert E. Lee is supposed once to have said, "is the sublimest word in the English language."

But we also know, since the post-World War II war crimes tribunals, that devotion to duty is not enough. Orders can--and occasionally must--be questioned. The old notion that the superior officer responds to any questions of propriety is gone, as it should be. Every soldier is responsible for the orders he or she issues and for the orders that he or she follows. Blind obedience is wrong. There may well be a duty not to be dutiful. Duty is not the highest good of the soldier.

Honor sometimes seems so rare in modern society that I shrink from writing that honor itself is not enough, for what is regarded as honor can be terribly mistaken. In the recent movie *A Few Good Men*, for example, a young Marine NCO regards "unit, Corps, God, and country"--presumably in that order--as his source of honor. The movie serves up two twisted and grotesque officers, a lieutenant and a colonel, as leaders with a sense of "honor" which is warped beyond the recognition of real officers and real gentlemen. A twisted sense of honor is worse, perhaps, than no honor at all. At the Naval Academy, midshipmen recently cheated on an exam and subsequently covered up for one another, contending that loyalty to buddies was higher than loyalty to the Academy's honor concept.[7] That notion may hold sway in street gangs, but it cannot be allowed to take root and grow in an educational institution which is supposed to produce commissioned officers. Honor of this sort is not the highest good of the soldier.

Country--a short term for patriotism--is, in the judgment of most Americans, a desirable quality. We react with sorrow and with great anger in the face of CIA traitors who sell out their homeland for reasons of greed and personal debauchery. We expect our military forces to represent our country well. Every day soldiers don the uniform of the United States, and it is not too much to expect that they will understand that the wearing of the national uniform is a privilege and a responsibility. But we know that patriotism can be carried to the extreme, and history is replete with examples of those whose first loyalty to their homeland resulted in evil. Religious people, for example, cannot value loyalty to country ahead of faithfulness to God. Patriotism is a valuable sentiment and a worthy conviction, but it is not the highest good of the soldier.

But if the watchwords and the creed of "Duty, Honor, Country" are not enough to tell us how to be a leader--and which values to exalt--where do we go and whom do we consult? My

goal is not to offer West Point a new formula, but to suggest, for purposes of instruction, a new ordering of "Duty, Honor, Country."

Understood properly, the highest virtue of the soldier--hence, of the soldier's leader--is honor--authentic, not warped. Anything done in the line of duty which violates a proper understanding of honor tarnishes the shield and disgraces the uniform. Genuine honor is founded upon integrity. As U.S. Air Force Chief of Staff General John D. Ryan put it in 1972: "Any order to compromise integrity is not a lawful order. Integrity is the most important responsibility of command."[8] *Legal* orders, we know, are to be obeyed. Leaders inspire *appropriate* conduct.

We try in so many ways to soften the language, but the soldier's job is to kill, and to prepare to kill, to die, and to prepare to die. The Code of Conduct is very clear about the ultimate obligation of the soldier, whose very life can--and, in some circumstances, must--be put in danger occasionally to accomplish the mission. Never are officers to hazard the lives of their soldiers for light reason; but never must officers shrink from the terrible responsibility of accepting danger, even mortal danger, for their troops and for themselves when circumstances require. The military may well be involved in operations other than warfare, but the first responsibility of the United States armed forces is to win our country's wars. When reasonable choice must be made between the safety of the troops and the accomplishment of the mission, the duty of the soldier must be mission first. The infantry lieutenant forever has the responsibility of pointing at one soldier and saying, "Smith, point man!"

None but the cavalier, however, would say such things carelessly. There must be no question that deep, abiding, genuine concern for the welfare of one's soldiers (or patients or pupils or clients or customers) is a key to leadership. What the leader gives to his followers he or she is very likely to receive in return. But for the military leader, concern for troops cannot replace devotion to duty; and devotion to duty cannot replace fidelity to a high sense of honor. The trinity of **Principle, Purpose, People** thus complements the idea of Honor, Duty, Country(men).[9] The soldier's highest obligation must be to honor and then to duty and then to countrymen. If any leader mistakes the proper order--if, say, he puts people ahead of principle and thus implicitly condones cheating at the Naval Academy--he or she cannot inspire appropriate conduct. The leadership then offered will be defective and dangerous on precisely that account.

But we have already said that it is possible to misconstrue ideas of Principle; honor can be misunderstood. How can leaders be educated so that they will understand the proper order of Principle (Honor), Purpose (Duty), and People (Countrymen)? Since the ancient Greeks, educators have sought to inculcate wisdom and virtue into their students, frequently without substantial success. Indeed, in many, if not most, of the universities and colleges in the United States today, even discussion of trying to teach "wisdom and virtue" will terrify professors and, particularly, administrators. "You shall know the truth, and the truth shall make you free" has been transmuted into "You shall know the truth, and the truth shall make you flee." *Whose* version of "wisdom" shall we teach? *Whose* notions of "virtue" shall we inculcate? In a multicultural society, does any public university (e.g., The University of Alabama, the University of Michigan, Arizona State University) have the right to teach "wisdom and virtue"? Particular questions of campus politics can be left to the faculty and staff at Tuscaloosa, Ann Arbor, and Tempe--until the graduates of those institutions pin on the gold bars of second lieutenants or ensigns. Once they are commissioned, those young leaders *must* know how to

order Principle, Purpose, and People, for there is the fountain of their leadership. Their personal background, even their educational experience, may be at odds with the views, values, and verities which have sustained the United States armed forces for more than two hundred years. How are these young officers to learn, fast and firmly, the time-tested truths of military leadership? How are they to learn what "principle" or "honor" is all about? How are they to discover what "purpose" or "duty" really means? How are they to ascertain what taking care of people truly requires? Experience in the workplace or in the streets is hardly enough. A college education--at Alabama, at William & Mary, at Holy Cross, even at Annapolis, it seems--is not enough. This is certainly not intended to impugn certain institutions; nor is it anti-intellectual, intended to denigrate higher education. Rather, the point is that leaders in today's services require a "socialization," a "maturation," a "seasoning" beyond the academic education represented by their degrees. That socialization process is the responsibility of their parent service.

The Source of Integrity

In order to lead wisely and well--in order to inspire appropriate action beyond the expectable--the leader must have wisdom and virtue, the customary products of long experience and worthwhile education. As obvious as it is, we seem sometimes to forget that the colonels of the future are the lieutenants of today. If we school our lieutenants poorly as they progress in rank, we must expect misfits and malcontents among the colonels a generation hence. Leaders educated by the federal service academies, by ROTC, and by OCS/OTS are likely to have the raw intelligence to **become**--I do not say to be--good, effective leaders. But they will require the seasoning, the experience, the conditioning, the mentoring of their profession in order to mature into the kinds of leaders our country wants and so very much needs.

In a single word, armed forces leaders will learn virtue (and thus be able to inspire appropriate conduct) by becoming truly *responsable*. I have not misspelled the word *responsible*; I mean "responsable"--being able to respond. Leaders must know what to respond to. If leaders respond, first, to their own opportunities for success and advancement, they will be careerists, but not professionals. If leaders misunderstand the order of Principle, Purpose, People, they will make the kinds of mistakes referred to earlier in this article. Leaders must be able to respond to *the chief challenge of leadership: being technically and tactically and ethically proficient.*

It is entirely obvious that good leaders must know their profession. Competence in soldierly skill is fundamental. But competence without character is an invitation only to masterful despotism. And character consists in "responsability"--that is, being able to respond to challenge and crisis in a manner based upon integrity. Here we have at last come to the chief difficulty in almost all writing about the ethics of leadership. It requires little study, after all, to say that good leaders are men and women of integrity. But what is "integrity"? I offer here the simple definition that integrity is "responsability." Those with integrity are able to respond to crisis and challenge as their profession would urge them to. In moments of indecision, leaders of integrity respond to the silent promptings and the unspoken guidance of those who have gone before; in moments of moral and military emergency, leaders find unvoiced counsel in the history of their services and in the biographies of the champions of yesteryear.

Leaders never walk alone. They walk in the shadow of the great lieutenants of the past. The military services offer rites and rituals, trappings and traditions, customs and conventions, heroes and holidays that whisper volumes about what is done and what must be done, what is not done and what must never be done. Military leaders enter--and soon perpetuate--a community of service. Those who have gone before--those who served nobly and well--anchor and admonish, instruct and counsel, the young leaders prudent enough to listen. The murals on the walls; the statues and aircraft on the posts and bases; the customs observed; the uniforms worn; the observance of reveille and taps--all these things, and so many more, faithfully teach the new leader that he or she has joined a particular profession. In making the decisions leaders must make, that officer is responding, not just to the circumstances of the present, but to the standards set in the past, and to the aspirations and opportunities of the future. In being a professional, the leader professes faith in those who are comrades of the present, of the past, and of the future. He or she is "responsable"--that is, able to respond--to those comrades.

Probably the foremost moral philosopher in the United States today is Alasdair MacIntyre of the University of Notre Dame. Professor MacIntyre observes that ". . . I inherit from the past of my family, my city, my tribe, my nation, a variety of debts, inheritances, rightful expectations and obligations. These constitute the given of my life, my moral starting point. This is in part what gives my life its own moral particularity."[10] It is this inheritance, this sense of community, from which we derive our sense of purpose and our ethical orientation; it is to this feeling of oneness, this bonding, this confraternity, that we are "responsable." This sense of brotherhood[11] is found in ancient scripture (Paul to the Romans: ". . . what I wish is that we may be mutually encouraged by our common faith" [1:11].) The same feeling of bonding was described by noted political analyst Walter Lippmann, who wrote that there is a sense of community which, "though so insubstantial to our senses binds, in [Edmund] Burke's words, a man to his country with 'ties which though light as air, are as strong as links of iron.' That is why young men die in battle for their country's sake and why old men plant trees they will never sit under."[12] In his farewell address at West Point, General MacArthur made much the same point: "The long, gray line has never failed us. Were you to do so, a million ghosts in olive drab, in brown khaki, in blue and gray would rise from their white crosses . . . ."[13]

Building Integrity

A plain dictionary definition of *integrity* tells us that it means "the quality or state of being complete; unbroken condition; wholeness; entirety."[14] In the sense that an integer is a whole number and not a fraction, integrity suggests community. Young leaders who absorb the sense of wholeness and of tradition and of common faith which writers from St. Paul to Walter Lippmann to Douglas MacArthur have believed and taught thus begin their education in virtue; they begin to know how to order *appropriate* conduct and how to conduct themselves wisely.

As vital as honor is, another concept of compelling importance is *shame*, the feeling that by inappropriate words and actions, one has disappointed the best of his community. Shame is the belief that, by failure of moral or physical courage, one has proved unworthy of the tradition he or she is expected to uphold and to exalt. The shamed person is thus unable to look his or her professional colleagues squarely in the eye and implicitly say, "I took this action because, in my

best judgment, it was right." Actions and words which produce shame are ordinarily wrong; they destroy the wholeness (past, present, and future) of the profession; they devastate the bonding, the community, the sense of unity, of those whose deeds built the integrity of that profession.

Integrity, then, is about wholeness and community; it is about having sufficient piety and decency to know when one ought to be ashamed of betraying that wholeness and that community. Every leadership decision, except the most mundane, involves ethical judgment. Therefore, every significant leadership decision is potentially "transforming," defined by Professor Burns as leadership which occurs when one or more persons "engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality."15 A good leader does not simply want a follower to do something; a good leader wants a follower to be somebody. The repetition of appropriate action develops the kinds of habits which help us act as we should. In doing the right thing, leaders set examples; they build purposeful organizations; they create and enhance community; they inculcate virtue because they are wise, and they are wise because they are virtuous. "Good leaders," Air Force Brigadier General Malham Wakin has often observed, "are good teachers."16 Teachers do more than convey information; they practice a kind of transforming leadership, educating students, soldiers, and patients; good leaders show their subordinates "the way."

Admiral James Stockdale, who spent eight years as a POW in Vietnam, contends that good leaders "need to be moralists--not just poseurs who . . . exhort men to be good, but thinkers who elucidate what the good is. This requires first and foremost a clear idea of right and wrong and the integrity to stand behind your assessment of any situation."[17] Good ethics is *taught* by good leaders; and good ethics is *caught* from good leaders who inspire appropriate conduct beyond the expectable. Leaders learn from the past; they are responsible in the present; and they plan for the future. They know their principles and their purposes and their people; and their sense of community and pride of profession endow their actions and orders with mature judgment. In such mature, settled judgment can be found the union of leadership and virtue, of effective command and of wise conscience.

ENDNOTES

[1]James MacGregor Burns, *Leadership* (New York: Harper Colophon, 1978), p. 18; original in italics. His exact definition of leadership was this: ". . . leaders inducing followers to act for certain goals that represent the values and the motivations--the wants and needs, the aspirations and expectations--*of both leaders and followers*" (p. 19).

[2]See James H. Toner, *The Sword and the Cross* (New York: Praeger, 1992), p. 49; and *The American Military Ethic* (New York: Praeger, 1992), p. 54.

[3]Once again, my *Random House Dictionary* offers as one definition of the verb *inspire*: "to guide or control by divine influence." I cite this just to indicate that the infinitive "to inspire" is intended almost exclusively as affirmative and beneficial.

[4]*Charisma* originally referred to a spiritual or divine gift.

[5]Warren Bennis and Burt Nanus, *Leaders: The Strategies for Taking Charge* (New York: Harper & Row, 1985), p. 21. Emphasis in original. Unfortunately, their next sentence misses the point they should have been making: "The difference may be summarized as activities of vision and judgment--*effectiveness* versus activities of mastering routines--*efficiency*." Their chance to make an elegant ethical point was lost.

[6]This particular definition may be found in *The Random House Dictionary*.

[7] In the movie *Scent of a Woman*, an Army lieutenant colonel makes the point to a smug prep school audience that loyalty to friends counts more than respect for school honor standards. The movie, of course, is dead wrong on that point.

[8] John D. Ryan, quoted in *War, Morality, and the Military Profession*, 2d ed., ed. Malham Wakin (Boulder: Westview Press, 1986), p. 180.

[9]See my book *True Faith and Allegiance: The Burden of Military Ethics* (Lexington: The University Press of Kentucky, 1995), Ch. 4 for more detail.

[10]Alasdair MacIntyre, *After Virtue*, 2d ed. (Notre Dame, IN: University of Notre Dame Press, 1982), p. 220.

[11]Allow me to use "brotherhood" in a general sense.

[12]Walter Lippmann, *Essays in the Public Philosophy* (Boston: Little, Brown, 1955), p. 36. Edmund Burke (1729-1797) was an Irish-born British statesman, orator, and political philosopher, regarded by many as the father of modern conservatism.

[13]"Duty, Honor and Country," *Vital Speeches of the Day*, 28 (15 June 1962): 520. The brilliance and power of MacArthur's valedictory are not to be denied. But "Duty, Honor, Country"--valuable and venerable as that phrase truly is--is no amulet guaranteeing good leadership.

[14]Definition found in *Webster's New World Dictionary*, 3rd ed.

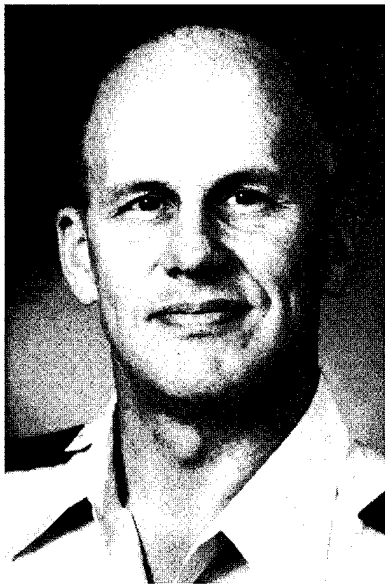
[15]Burns, *Leadership*, p. 20. His other type of leadership is "transactional," by which he means "one person tak[ing] the initiative in making contact with others for the purpose of an exchange of

valued things" (p. 19).

[16]Malham W. Wakin, "Foreword," in *Military Leadership: In Pursuit of Excellence*, ed. R. L. Taylor and W. E. Rosenbach (Boulder: Westview Press, 1984), p. xiv.

[17]James Bond Stockdale, "Educating Leaders," in *Military Leadership: In Pursuit of Excellence*, ed. R. L. Taylor and W. E. Rosenbach (Boulder: Westview Press, 1984), p. 67. See also Roger H. Nye, *The Challenge of Command* (Wayne, NJ: Avery, 1986) for suggestions about readings.

THE PROCESS OF CUSTOMER IDENTIFICATION AND SEGMENTATION FOR PUBLIC SERVICE ORGANIZATIONS



BIOGRAPHY

Master Sergeant Jerrold Strong has been married to the former Linda Lobdell of San Francisco for 25 years, and has two exceptional children. He has served as a Quality Advisor to the Commander, 60th Air Mobility Wing, Travis AFB, California since May 1992. As Superintendent of Wing Quality Training, he leads course development and deployment throughout the Air Force's largest Airlift Wing. He is a primary instructor in California's Partnership for Quality Government, and has been a guest speaker at county and state conferences.

THE PROCESS OF CUSTOMER IDENTIFICATION AND SEGMENTATION FOR PUBLIC SERVICE ORGANIZATIONS

by
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ABSTRACT

Leadership must identify their key organizational customers, segmented by the services they receive to determine specific customer requirements. This is an essential foundational element in organizational planning. It is critical if the leaders are sincere about having a customer driven organization. The principles of customer identification are universal. I will be discussing the three primary steps in customer identification and segmentation: identifying key outputs, identifying the receivers of the outputs, and determining who is the primary beneficiary of the organization's process outputs. This paper will facilitate this critical element of organizational planning.

THE PROCESS IS THE PROCESS, NOT THE ORGANIZATIONAL CHART!

This writer could not find any work that provided a comprehensive discussion of how to identify and segment customers for any business much less public service. It is my conclusion that the lack of this information has added to the frustration of those who have begun, or are beginning, a quality approach in organizations. This problem exists in the private and public sector, in profit, non-profit, and not-for-profit activities. Public Service (or government service, which some say is an *oxymoron*) seems more complex and therefore more challenging in identifying and segmenting customers.

Early in the quality journey we learn that when it comes to service, the boss is not the most important customer. In fact, the front line people are more apt to interface with those who are really important, the external organizational customers. So, in order to provide good customer service we must invert the organizational chart(Albrecht 107). This puts the customer at the top of the chart, followed by the front line worker, who probably contacts external customers more often than anyone else. Supervision is next in the chain, then management, followed by senior leadership with the senior executive at the bottom. The job description for supervision and management changes to coach, mentor, and facilitator. Philip Crosby appears to support this change by saying that one of the three jobs of management is to spend all its time encouraging and helping the employees while they meet customer requirements. (Crosby 59). Still, the idea that the front line worker contacts the organization's customers can be misleading and somewhat simplistic for strategic and business planning. The organizational chart does not really help in identifying specific customer groups. Part of the problem is that the organizational chart does not reflect what the organization does, it is an illustration of organizational control.

When managers and leaders try to identify customers based on the functional divisions of the organization, confusion over business outputs and customer identification exists. The primary business activities of organizations flow across functional boundaries. Business processes flow horizontally, not vertically. Customers are determined based on the processes of the organization.

Peter Scholtes deals with this subject briefly in *The Team Handbook.* "The concepts of customers and suppliers follow readily once you understand the idea of a process: the people or organizations who precede the series of tasks you identify as a process are 'suppliers,' and those who follow, who use the product or service, are 'customers.'" (Scholtes 2-5) He mentions on the same page that if there is "difficulty in defining the customer, it usually means they (the organization) failed to define precisely the process they are studying." This is where most of the organizations that this writer has investigated are weak. Has the organization clearly identified their processes and flowcharted them at the macro level? Are the processes understood in terms of the services or output they provide? Are customers identified and segmented based on the specific process outputs?

IDENTIFYING OUTPUTS

Identifying outputs is the first step to getting a handle on organizational processes and the customers they serve. In its simplest form, once the output, the product or service an individual or organization produces, is identified we ask the question, "Who is the person to whom I will pass this output?" If no individual can be identified, then, obviously, scrap is being produced and an immediate decision can be made to stop! . . . If however, we can identify the person to whom we pass the output of our work, then we can secure from that person a list of needs, expectations, and requirements that we as the supplier must meet (Tenner 53). Organizations at any level provide many outputs. They may include the primary organizational services which determines the very reason for their existence or the more incidental outputs that are important to management and control of the organization's processes. A distinction must be made separating the outputs basic to the mission of the organization and those that merely support its ability to do its mission.

Identifying key processes is an integral part of understanding the mission of an organization. If an organization has worked at developing a mission statement, the products and/or services provided usually have been acknowledged. This is important because it helps answer one of the fundamental questions that a mission statement should answer -- the how of what the organization does. The key processes provide the outputs essential for the organization's existence. These outputs are different from those that are a part of process management. An Airlift Wing's reason for existence is rooted in its ability to deliver people and cargo by air, key process outputs. Providing information to higher headquarters about mission capability are process management outputs that support the ability to do the mission. A fighter squadron's ability to provide air superiority and interdiction would be key process outputs, different from all the process management information and data that flows through commander staff meetings and up the chain of

command. Environmentally sound hazardous waste disposal may also be a key process output but the reporting and auditings of that process are process management outputs. It is easy to be confused about who the customers are if the key outputs are not differentiated from process management outputs. If higher headquarters are on the organization's key external customer list this differentiation probably has not been done. Organizations must take the key process outputs they have listed and use what they know of their processes and identify and segment the receivers of the output into natural affinities based on the type of service provided. The organization uses this information to contact and determine the customer's requirements and plan for meeting the requirements of the customers served for each kind of output in some specific detail.

So how are organizational product and service output types differentiated? The following chart (figure 1) illustrates how to identify specific services in key processes. I have used an Air Mobility Wing as an example. The primary key processes that appear to serve external customers are mission launch and recovery, mobility, healthcare, and environmental management. I have broken down a mission launch and recovery process by type of mission flown, identifying some specific types of services provided. The basic macro process, that of recovery, repair and inspection, tasking, preparation, generation, launch, and delivery, is the same for any airlift mission. The type of output or service determines the different kinds of small tasks necessary at the micro level within the macro process. Process management outputs are not included.

Key Processes Outputs		
Air Operations Processes: Mission Launch and Recovery and Mobility Mission Task (Service Provided)	Healthcare Process Mission Task (Service Provided)	Environmental Management Process Mission Task (Service Provided)
Contingency	Medical Care	Installation Restoration/ Pollution Prevention and Hazardous Material/Waste
SAAM		
Channel - Aeromedical Evac		
JCS Exercises (includes JA/ATT, Airdrop, Special Ops, A/R)		
Pacific Enroute Structure Support		
Enroute Mission Support		
Equipment/Personnel Mobility		

Fig. 1

Each service has peculiar customer requirements that would not necessarily be represented by the other services provided.

IDENTIFYING THE RECEIVER OF THE OUTPUT

Once a thorough study has been completed and the key process services or products are listed, then the key customers can be documented. Identifying the customers served is a result of asking an aforementioned question, "Who is the person to whom I will pass this output?" Using the same illustration as before, focusing on the Mission Launch and Recovery Process, we can list the receivers of the services. Figure 2 illustrates this.

External Customers (Air Mobility Wing Illustration)
Air Operations Process
Mission Launch and Recovery

Mission Task (Service Provided)	Customer(s)
Contingency	AMOG Affiliates Warfighting Commander(s) User of A/R support/Recipient
SAAM	Purchaser/Recipient
Channel	Purchaser/Recipient
- Aeromedical Evac	DOD beneficiaries
JCS Exercises (includes JA/ATT, Airdrop, Special Ops, A/R)	AMOG Affiliates Requesters/Receiver(s) Supported Commander
Pacific Enroute Structure Support	Support/Material Requesters/Recipient
Enroute Mission Support	Transient Mission Crews/Passengers

Fig. 2

The key customers are listed in the context of the reason for the organization's existence, it's mission. There are other people that benefit from some of the services provided that are not listed in the figure. They are not listed due to neglect, but are omitted at this point to focus on the critical customers whom the organization lives and dies by.

Some strategic and business planning models used by organizational leadership, such as the Air Force Quality Institute's, have identifying customers before identifying the key processes at the macro level, as a step in analyzing the organization's mission. So what I am suggesting in identifying customers in the context of the organization's process outputs may appear confusing and circuitous. I suggest that much of that model, and others like it, are not linear. They cannot be done in sequential steps. Extensive research by the organizational leadership into the bowels of the organization is necessary to fully understand what the organization does, how it does it, and for whom. The issues that define the business of the organization are highly interdependent. That's why the work in this area of planning is so important.

WHO IS THE PRIMARY BENEFICIARY?

Before finalizing the key customer list, a few more issues need to be understood, and if necessary, accommodated in the customer list. A significant issue is one of attitude. Ganiterock, a 1992 Malcolm Baldrige National Quality Award winner, delivers concrete, among other things. A contractor subcontracts Graniterock to deliver concrete to a work site. Graniterock knows that some customer will live for many years with whatever their concrete is building, a sidewalk for a homeowner, or a bridge for a city. Their commitment to quality is such that if the contractor cannot guarantee a quality job with their concrete, that contractor will not be able to get Graniterock's services. Obviously, most government agencies do not have that kind of option, but the willingness to commit to a standard and live by it must be noted. There is another lesson to be learned from this company. This lesson has a direct bearing on many government services and it is a major stumbling block in defining and segmenting customers. There are three parties involved in Graniterock's process: a customer, a contractor, a subcontractor (Graniterock). Figure 3 illustrates the relationships.

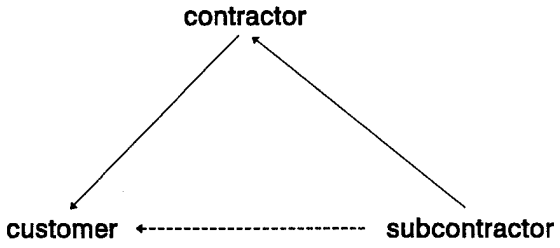

Fig 3

A customer purchases a service from a contractor. The contractor is the supplier to the customer. The contractor purchases a service from a subcontractor. The subcontractor is a supplier to the contractor. Who is the customer of the subcontractor -- the contractor or the initial customer? Some would say, reactively, the contractor is the customer of the subcontractor. After all, the customer/supplier relationship is defined by, and we are continually reminded of, the standard customer/supplier relationship model shown in figure 4. Although, the model is excellent for manufacturing, it does not depict the

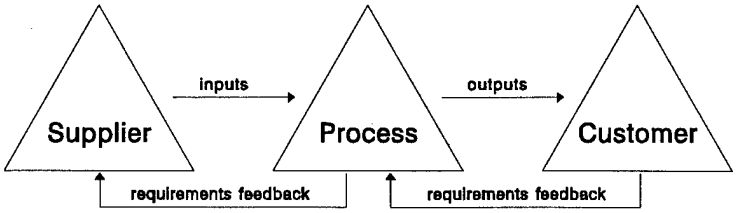

Fig. 4

customer/supplier dynamic in terms of many services. A service is obviously different from a physical product. A service product -- any incident of *doing* for others -- can be distinguished from a commodity by one or more, and usually several characteristics. A

service is produced at the instant of delivery, it can't be centrally produced, inspected, stockpiled, or warehoused. If improperly performed, a service can't be "recalled." If it can't be repeated, then reparations or apologies are the only means of recourse for customer satisfaction. Quality assurance must happen before production and delivery, rather than after. Because the delivery of service usually requires human interaction to some degree, the more people the customer must encounter during the delivery of the service, the less likely it is that they will be satisfied with the service (Albrecht and Zemke 36-37). With this in mind and the kind of relationships that are represented in the Graniterock illustration, it's not surprising to find that Graniterock took what I would characterize as a proactive attitude by identifying the initial customer as their critical customer. They are the actual beneficiary of the service. That customer will have that driveway for as long as they live there. The contractor is merely an intermediary of the service, from Graniterock's perspective. In other words, the purchaser of the service (the contractor) may not be the recipient of the service (the customer). The critical customer is the one who primarily benefits from the service provided.

The problem of customer identification is exacerbated even more in some public sector services. For instance, in the Air Force, an airlift mission tasking may be generated by a theater commander, or a foreign government in our NATO alliance, or the UN. The Tanker Airlift Control Center (TACC), the contractor, tasks a wing, a subcontractor, to support the request. Who is the wing's customer? TACC? No, TACC is not a key customer. Is the customer the requesting agency? Who primarily benefits from the service provided? The beneficiary may or may not be the requester or purchaser alone. Consider the Post Office. A customer takes in a package to be mailed. Buying postage purchases the delivery service. The package is delivered to a recipient, not by the service counter representative that sold the postage and accepted the package, but by a whole chain of people in the process. Who is the mail delivery process key customer -- the post office clerk who accepted the package and sold the postage? Or, are the key customers the one who purchased the service, and the recipient of the package? From the Post Offices perspective, both purchaser and the recipient are critical. The type of service provided is different for each customer. The requirements and expectations of the purchaser and the recipient are likely to be very different. Figure 5 illustrates what I propose is a more accurate model of the customer/supplier relationship for services.

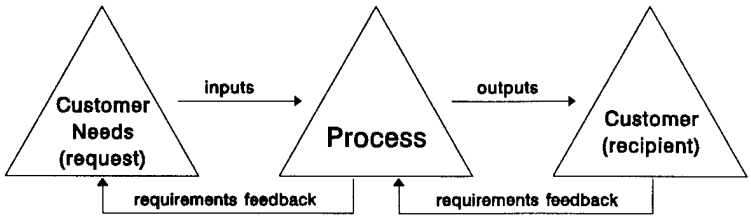

Fig. 5

So who is the customer of a wing's airlift operations -- the agency purchasing the airlift, or needing contingency support? Or, is the customer the actual receiver of the goods or service? Or, is the customer the tasking agency? The typical reactive answer for wings

has been that TACC is a key customer, or at least that is the expected answer by higher headquarters. No, TACC's benefit is incidental to the service being provided by airlift wings. They receive process management information, not key process outputs from the wings. Both the requesting agency and the recipient are key. This is why both appear in figure 2. Information about their specific requirements must be determined. TACC acts as a customer liaison and has a responsibility to communicate customer requirements to the wings, as well as provide feedback from the customer to the wings on the service rendered. Combined with what actual customer contact wing members may have in the airlift mission flown, key customer requirements can be quantified, process capability assessed, and improved.

Some public services have more difficulty identifying and segmenting customers. There is a debate in educational systems between the view that the students are the key customers, and students being the output (product) of the business with society and industry as the customers. Prison systems have the same challenge. Are the short term inmates the customer or is society who must assimilate them, the inmate being the output (a product) of the system? The answer to these questions lay in the fundamental reason for the service. What's the business of public education? What's the business of prison systems? If the question of "why does this service exist?" isn't answered clearly, the ability to identify and segment customers, and define requirements, based on the primary business activities (read processes) remains unfocused. Graniterock's lesson may be relevant here. The need to identify the primary beneficiaries of the key process customer/supplier interactions and outputs is basic to being a customer driven organization. This is true whether the organization is a school, the Post Office, the Air Force, a major command, a wing, or any other service activity.

SUMMARY

Going back to attitude, the public service arena ultimately serves whom? At the federal level -- national policy governing public services are ultimately for the benefit of citizens. This principle is true at state and local levels as well. We are all customers of every public service that tax dollars support. Customers do not buy products or services, they buy benefits (Carr 62). Are you being served? Are you seeing the value? What organizational goals and objectives are driven by these higher concerns? What can you do to help your organization to better satisfy all of us? We all need to do a better job of becoming customer driven organizations. It starts with effective customer identification and segmentation of our organization's key process outputs. This is fundamental if we, the Air Force, want to be Air Force people building the worlds most respected Air and Space Force . . . Global Power and Reach for America!

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The Analytic Hierarchy Process: A Quality Leadership Tool

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Abstract

In an organization as complex as the Air Force, leaders face correspondingly complex decisions. A Quality Air Force requires leaders who make good decisions. This paper introduces a decision-making methodology, the Analytic Hierarchy Process (AHP), and its associated computer software, Expert Choice, as an aid to good decision-making. The paper briefly sketches the philosophy and history of the AHP and then describes the methodology's three main steps: hierarchy construction, judgment making and synthesis. The steps are illustrated with a simple example. Finally, the paper concludes with a discussion of some practical concerns when using the AHP in large organizations.

Introduction

During their junior year of college, Air Force ROTC cadets receive instruction in the concept of leadership. Much of the study material consists of readings, many penned by great leaders of the past, centering on traits such as integrity, courage, expertise and the other characteristics now grouped under the banner of Air Force Core Values. These traits, however, are not ends in themselves. They are instead a means to an end; that end being the ability to make consistently good decisions. Put simply, Quality Air Force leaders from the highest to the lowest organizational levels must make good decisions.

Air Force commanders and supervisors must also make particularly difficult decisions. Indeed some are literally matters of life and death. Even in peacetime, these decisions can determine the fates of thousands of careers or dictate the expenditure of millions of dollars. In addition to their potential impact, these decisions are complex, involving multiple quantitative and qualitative criteria, several alternative courses of action, and involvement of many, sometimes competing, subordinate organizations. To help deal with complexity, leaders can turn to analysts, such as those in the Air Force Studies and Analyses Agency. These mathematicians, engineers, physicists and operations researchers have a variety of analytical and computerized tools to simplify the most vexing quantitative issues of a particular problem. For example, a mathematical program can easily optimize airlift routes for a particular scenario based on the single criterion of million ton miles per day. Unfortunately the traditional tools of analysis do not address a problem's qualitative aspects such as the effect of the optimized routes on safety or their effect on aircrew morale. Additionally, the traditional analytical tools cannot easily combine results from single criterion models to determine a solution to a multi-criteria problem. How would a Major Command commander determine a funding profile for two different aircraft types competing for the same budget? Traditional analysis can assist in a study of funding for a single aircraft, but how does the commander determine, assuming a limited budget, an optimal balance of funds between a variety of aircraft? In many cases the commander must use intuition, insight and

experience to make these tradeoffs between multiple quantitative criteria and between quantitative and qualitative criteria.

Although history has proven commander's intuition, insight and experience to be adequate under most circumstances, all commanders would benefit from a decision tool that aided the intuitive process in five ways: 1) by providing an organized problem framework which graphically depicts relationships between both quantitative and qualitative criteria; 2) by translating a commander's subjective judgments into numerical weights; 3) by allowing comparison of the effectiveness of alternative solutions; 4) by keeping a record of the decision process so that results can be reviewed and explained to higher authorities; and, 5) by organizing information in such a way as to allow easy repetition of the process once new information becomes available. In the early 1970s, Dr. Thomas Saaty, a mathematician then working at the University of Pennsylvania, developed a methodology which explicitly depicts the decision-making process of the human mind. This method, known as the Analytic Hierarchy Process (AHP) has since become a standard decision aid in numerous corporations and government agencies. IBM Rochester won the 1990 Baldrige Award in part by using the AHP [1:86-88]. The AHP is now encoded in Expert Choice, a commercial software package produced by Expert Choice, Inc. of Pittsburgh. This paper will describe the AHP and its potential use by Air Force leaders as a Quality tool.

A Description of the AHP

The AHP had its beginnings in arms control research conducted at the Arms Control and Disarmament Agency in the late 1960s. Saaty, struggling with the problem of using mathematics as a tool for arms negotiators, began experimenting with the idea of expressing human judgments with numerical scales. He would argue in 1973 that "mathematicians become excellent problem solvers but are generally not as strong at seeing the unstructured problems of the real world [5:2]." His search for a "drastically new and relevant mathematics" which could be applied to the arenas of human behavior and decision-making led him to develop the AHP, which he first applied to an energy allocation problem for the National Science Foundation in 1972 and then to a transportation study for the Sudanese government in 1973 [4:ix]. The theory has matured in the past two decades, and Saaty has published numerous books and articles, each of which has expanded the AHP into new fields.

AHP: Basic Philosophy

Many important decisions involve multiple criteria. When we purchase a car we do not use a single criterion, such as cost, to discriminate between the choices. If we did, everyone would purchase used Yugos. Most car buyers try to weigh their choices against a variety of criteria. These may include style, performance, resale value, sticker price, reputation for reliability, and dealer service. These criteria may consist of sub-criteria. For example, style could be subdivided into exterior and interior considerations, and these in turn could be distilled to sub-sub-criteria such as color, craftsmanship and shape. Although we may not realize it at the time, we are in effect creating a hierarchy which we will use to judge the relative merits of each car. We then make relative comparisons between the cars for each criteria. Finally, we attempt in some way to synthesize all the judgments into a final decision. The AHP mimics this very natural, human decision making process. It has three steps: 1) organize criteria/objectives into a hierarchy; 2) rate each alternative against each criterion/objective; and, 3) synthesize the

judgments into a final rating. The following sections use a common military problem to more fully illustrate the methodology.

Step One: Building a Hierarchy

Wing commanders reward superior performance in many ways, but one of the most visible is the selection of the company grade officer, non-commissioned officer and airman of the quarter. In this example, the commander will be choosing one of three airmen based on service records and performance in an interview. Figure 1 shows the commander's decision hierarchy. In reality the hierarchy may be more complex than the one used in this example. The AHP will allow many levels of criteria, but only seven sub-criteria under any criterion. To illustrate, the criterion Record can have at most seven sub-criteria. This is not a problem here since Record has only three sub-criteria. The justification for this seven item limit will become clear in the next section. Finally, the decision-maker must clearly understand the meaning of each criterion and should keep the definitions constant. This is especially important in group decision-making environments. With a hierarchy in place, the commander can now begin assigning numerical values to the criteria and to the three airmen.

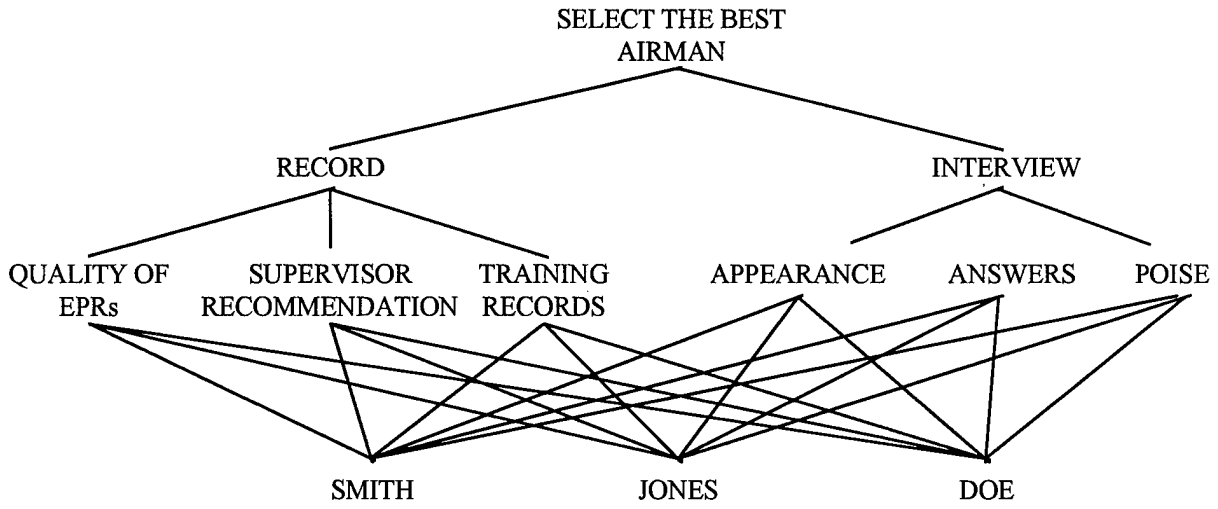


Figure 1: Commander's Hierarchy

Step Two: Making the Judgments

The AHP objective is to provide a final ranking of the three airmen and their associated numerical priorities. These priorities are relative, i.e. they sum to unity. The final answer, for example, might be:

Smith: 0.60
Jones: 0.30
Doe: 0.10
1.00

The result indicates the commander prefers Smith by a 2-to-1 margin over Jones and over Doe by a 6-to-1 margin. In this way, the AHP not only tells the commander which airman is preferred,

but by how much as well. How does the commander reach such a result? This method of assigning values to alternatives and criteria demonstrates the true power and uniqueness of the AHP.

At the lowest level of the hierarchy, the commander will make pairwise comparisons of each airman against the criteria in the level above. He will use subjective judgments which the AHP translates into numbers. First Smith and Jones are compared based on the quality of their EPRs. Then the commander compares Smith and Doe, followed by Jones and Doe The commander uses the judgments listed in Table 1 when making his comparisons [3:78]. Upon selection of a judgment, Expert Choice loads the appropriate numerical value into a matrix.

Judgment Definition	Interpretation	Numerical Weight
Equal Preference	Two airmen are equally preferred	1
Moderate Preference	One airman is moderately preferred over another	3
Strong Preference	One airman is strongly preferred over another.	5
Very Strong Preference	One airman is very strongly preferred over another.	7
Extreme Preference	One airman is extremely preferred over another.	9
Compromises Between Above Values	Interpolations between judgments	2,4,6,8

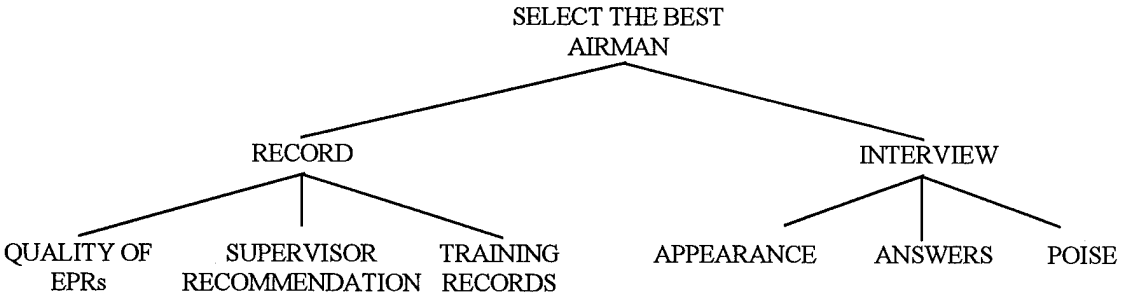
Table 1: Judgments, Meaning and Values

For the judgments relating Smith, Jones and Doe to the quality of their EPRs the matrix would be similar to the one in Figure 2. The matrix indicates Smith is just moderately preferred to Jones and slightly preferred to Doe. Doe is slightly preferred to Jones. Notice the reciprocals in the matrix. It is only common sense that if Smith has a 3/1 ratio to Jones then Jones would have a 1/3 ratio to Smith. Also the matrix diagonals always have values of one.

	Smith	Jones	Doe
Smith	1	3	2
Jones	1/3	1	1/2
Doe	1	2	1

Figure 2: Comparison Matrix of Airmen in Respect to Quality of EPRs

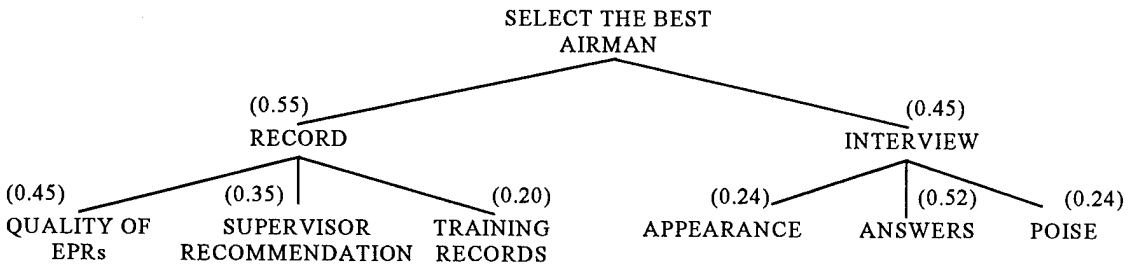
Expert Choice must now determine the relative priorities of the three airmen with respect to their EPR quality by calculating a single priority vector. This is easily accomplished by taking the eigenvector with the largest eigenvalue and normalizing the result. In this case the values are: Smith 0.50, Jones 0.15 and Doe 0.35. The commander repeats this process, rating the three airmen against the other five sub-criteria. The results appear in Figure 3. These values show that no single airman dominates all the sub-criteria. Smith appears to have the best performance in terms of record and Jones received the highest marks in the interview. The AHP, however, is well suited to determining the top performer when the highest ranking alternative is not immediately apparent.



SMITH	0.50	0.25	0.40	0.30	0.17	0.20
JONES	0.15	0.33	0.25	0.35	0.52	0.42
DOE	0.35	0.42	0.35	0.35	0.31	0.38

Figure 3: Hierarchy with Lowest Level Rankings

The commander now must move up to the next level of the hierarchy where he will rate the relative importance of the sub-criteria to the criterion above. Therefore, Quality of EPRs, Supervisor Recommendation and Training Records will receive relative priorities in terms of their importance to the criterion Record. Likewise, the sub-criteria Appearance, Answers and Poise will be rated in terms of their importance to the Interview criterion. The process is exactly the same as that used in the previous rankings, and the result appears in Figure 4. The commander clearly believes the Quality of EPRs and the interview Answers to be the most important sub-criteria in respect to their respective criteria. Now the commander must move to the next level and determine the relative importance of the Records and the Interview to the overall objective of Selecting the Best Airman. The process is a little different since there are only two criteria to rate. In this case, Expert Choice will ask the commander to shade the area of a given circle proportional to the importance of one of the two criteria. The commander shaded slightly more of the circle in favor of the Record criterion, believing past performance should carry a little more weight that a single interview performance. This result is also shown in Figure 4.



SMITH	0.50	0.25	0.40	0.30	0.17	0.20
JONES	0.15	0.33	0.25	0.35	0.43	0.45
DOE	0.35	0.42	0.35	0.35	0.40	0.35

Figure 4: Final Hierarchy with All Judgments

Before moving to the final step of synthesizing the commander's judgments, there is one more feature of the AHP worth discussing. The AHP does not restrict the decision-maker to consistent judgments. If x is 5 times more important than y and y is 2 times more important than z, then consistency would demand x be 10 times more important than z. The AHP does not force this constraint on the decision-maker. Rather it recognizes that subjective judgments sometimes are inconsistent [2:244]. Upon calculation of each set of values, Expert Choice will also calculate a consistency index. If this number is greater than 0.10, the program will warn the decision-maker of an unusually large inconsistency and provide information on which judgments are responsible. The AHP does not require the decision-maker to change these judgments, but does suggest they be reviewed for possible error. It is this desire to keep inconsistency values low, that creates the seven sub-criteria limit for any one criterion. Psychological studies have shown the human mind has difficulty maintaining consistency when making pairwise comparisons of 7 plus or minus 2 entities [2:245].

Step 3: Synthesizing the Judgments

The final step in the AHP consists of combining the judgments into the final ranking of the three airmen. This is a very straightforward process. The calculations for Smith appear below.

Smith's rank = (score on EPR x priority of EPR x priority of Record) = 0.50 x 0.45 x 0.55= .124
+ (score on Sup Rcmd x priority of Sup Rcmd x priority of Record) = 0.25 x 0.35 x 0.55 = .048
+ (score on Training x priority of Training x priority of Record) = 0.40 x 0.25 x 0.55 = .044
+ (score on Appear x priority of Appear x priority of Interview) = 0.30 x 0.24 x 0.45 = .032
+ (score on Answers x priority of Answers x priority of Interview) = 0.17 x 0.52 x 0.45 = .040
+ (score on Poise x priority of Poise x priority of Interview) = 0.20 x 0.24 x 0.45 = .022
= 0.310

Using the same process, the scores for Jones and Doe are **0.315** and **0.375** respectively. Therefore Airman Doe should win the quarterly award by a very slim margin. The recorded results allow the commander to see exactly why Doe was the overall winner. A cursory look shows that Smith ranked well on the Record side of the hierarchy but poorly on the Interview side. In Jones' case, the opposite held true. He did well in the Interview but suffered on the Record side. Doe on the other hand, performed reasonably well on both sides of the hierarchy. This record keeping characteristic is a valuable tool for decision review. The ability to recalculate a decision is another important feature. Suppose the commander discovers a previously missing, and very favorable EPR for Jones. The AHP would allow a quick recalculation. Finally, Expert Choice is equipped with a variety of sensitivity graphics which would show the commander which criteria were crucial to the final ranking. The commander could easily tell if a small perturbation in a criteria priority (increasing the importance of the Quality of EPRs for example) would change the final result in favor of Smith.

Using AHP: Three Common Difficulties in Large Organizations

Although the AHP is a very natural process which is easy to understand, its application to complex problems of the real world is not so simple. The following discussion concerning the difficulties of using the AHP in large organizations is based on the author's experiences while

working on the Air Staff in Washington. The following sections cover three of the more common problems: 1) lack of time to construct a proper hierarchy; 2) competition among various agencies; and, 3) distrust of decision aids at many organizational levels.

Lack of Time

Construction of the hierarchy is the most crucial step of the AHP. A poor hierarchy reflects a poor understanding of the problem and will result in a poor solution. Since most real world problems involve far more objectives, criteria and alternatives than shown in the example above, hierarchy formulation can be time consuming. The decision-maker and his staff of experts must take great care in ensuring the hierarchy contains "all the relevant information" to adequately describe the problem. Unfortunately, many large organizations refuse to make adequate time for such exercises. Often decision-makers are so busy "putting out fires" that they rarely have time to determine the criteria, come to an agreement on their definitions and place them in the proper hierarchical slot. For this reason, Quality Directors must schedule adequate time for the AHP. All participants should understand before the first meeting that proper use of this tool will require two to three hours per day for approximately three days depending on the problem at hand. The AHP can never flourish in an environment that is not proactive, and the lack of proactive thinking in some "crisis a minute" organizations is one of the biggest impediments to Quality Air Force concepts.

Competition Among Agencies

Large organizations generally have large numbers of directorates, divisions and branches. A leader, faced with a complex decision, can rarely turn to a single directorate for help as most decisions cut across organizational lines. For example, the problem of funding aircraft modifications requires inputs from all the Major Commands, the Air Staff operations and logistics directorates and the Secretariat's acquisition directorate. The number of participants makes the use of AHP difficult for a couple of reasons. First, the practical problem of obtaining agreement on a hierarchy from so many agencies would preclude a single meeting. More importantly, however, these agencies sometimes compete. One Major Command may be reluctant to participate, fearing the process may favor another Major Command's interests. An Air Staff agency, such as the logistics directorate, may fear a loss of power to the acquisition directorate. In these situations, an enterprising staff officer cannot expect to convince all players or "stakeholders" to willingly take part in the AHP exercise. The use of the AHP for cross-cutting issues requires, like the implementation of many Quality principles, support from the organizational level above the stakeholders. An analyst, hoping to use the AHP for complex decisions in a large organization, should first get approval at the appropriate level [3:232].

Decision-Maker Distrust

Occasionally, some decision-makers resist the use of decision aids. Some view decision aids as creations of mathematicians from the "tree full of owls" approach to leadership. In the past, some of this concern has been justified as some analysts have attempted to use computer and math programs to make the decision rather than to assist in the decision. The aspiring AHP analyst cannot view the AHP as a decision-maker. In fact, of all the math based tools available,

the AHP is one totally dependent on the decision-maker. The AHP is simply a methodology designed to help a leader structure decision variables and to assign explicit values to judgments already existing in the leader's mind. In the attempt to make difficult decisions, the AHP is on the leader's side.

Conclusion

To command a Quality Air Force, leaders must make good decisions. The AHP is an excellent tool for assisting leaders in making the complex and important decisions inherent to the military. The AHP is not meant to replace the leader's intuition, insight and experience. Rather it is designed to enhance those leadership capacities by providing a means to explicitly structure and solve a problem. The process of constructing a hierarchy allows a leader to more clearly discern the interrelationships between all elements of the problem. The process of quantifying judgments allows the leader to better understand the priorities of each decision variable. It also provides the means to consider both qualitative and quantitative criteria together using the same numerical scale of measurement. The process of synthesizing judgments provides a clear record of why a particular decision has been made and allows easy testing of alternative solutions and changes in criteria weights. The AHP is particularly well suited for use in solving intra-agency problems where all the stakeholders work together. For inter-agency problems, the AHP user must take the necessary steps to ensure all appropriate agencies willingly participate. In time, as Quality Air Force principles gain increasing acceptance, the difficulties of using AHP for large cross-cutting problems should dissipate. And as Quality Air Force gains more credibility among those in command, decision aids such as the AHP should gain acceptance as well. Leaders who take a sincere interest in Quality, will naturally make better decisions. Leaders who use the AHP will also know how they make decisions.

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Team Development within Integrated Product Teams

Biography of Author

Mr Wissman is the Deputy Director of the Quality Improvement office at the Aeronautical Systems Center, Wright Patterson AFB OH. In this position he provides overall management guidance and technical direction to a team of seven organizational quality consultants. He is the lead consultant for executive level activities conducted for higher level Air Force and industry representatives. In this capacity Mr Wissman develops and facilitates executive strategic planning workshops to create organizational vision, mission, goals and objectives. He develops and leads integrated product team workshops, conflict resolution seminars, and Baldrige Quality assessments both within the Air Force and for the local community.

Mr Wissman has undergraduate and graduate degrees in psychology and organizational psychology respectively. He lives joyously with his wife and three children in Beavercreek OH.

Team Development within Integrated Product Teams

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ABSTRACT

The Aeronautical Systems Center has embarked on an effort to improve customer service and product delivery by organizing into Integrated Product Teams. These IPTs are cross functional, multidisciplined teams focusing on a particular customer or on a particular product. IPTs have been developed within many diverse areas such as civilian personnel, accounting and finance, and systems program offices. IPTs represent a significant change in the way people interact and work together. As such, the potential for conflict, frustration and inefficiency is great. This paper describes aspects of team development that must be considered when forming into a team management structure.

The Air Force has long identified its success based on the work of teams in various levels and in various situations. Ground crews who maintain aircraft, flight crews that run sorties in bombers and cargo planes, the accounting technicians who run the payroll office all operate in a team environment. The idea behind effective teams is to get the right expertise together on a mission to deliver the precise service to satisfy the identified need at the right time. This is true if you are talking about maintaining aircraft, operating systems, or improving processes.

Unfortunately this ability to deliver a service to meet a mission need does not always lead to the most efficient organizational structure. Cross functional teams are generally harder to organize, train, and equip. Most organizations are structured along functional lines so that workers can be supervised, trained and mentored by senior leaders in their own career field. This is especially true in large complex organizations. People normally organize within their own functional disciplines and, by doing so, set up organizational barriers between themselves and the people they need to deliver a complete service.

Concept of IPT/IWSM

The dilemma then is how do organizations support and sustain their people in functional disciplines, while still organizing into cross functional teams to provide complete service to the customers. The answer within AFMC has been the creation of Integrated Product Teams or IPTs. An IPT is a cross functional team with a mission of

delivering a specific product or service to a specialized customer base. Generally IPTs exist within larger, more complex organizations that have a similar mission within a larger customer population. For example, a large personnel section could have the mission of providing staffing, classification, and records management for a specific base. Functionally these areas would be separate and would interact only through the chain of command or through sending taskings back and forth. Any problem with the delivery of a product or service automatically becomes the other department's fault. "If that department would get its act together, we could be more effective", becomes the familiar cry. Within an IPT structure, members of staffing, classification, and records are all on a single IPT supporting a single Wing or subordinate organization. The members are united, focusing on the delivery of the civilian personnel function to that particular customer. The customer sees a complete service delivered rather than a piecemeal series of contacts. The team members get to know each other, the needs of others in the process of delivering the service to the customer, and they get to know the customer better because they are focusing on that customer's total need.

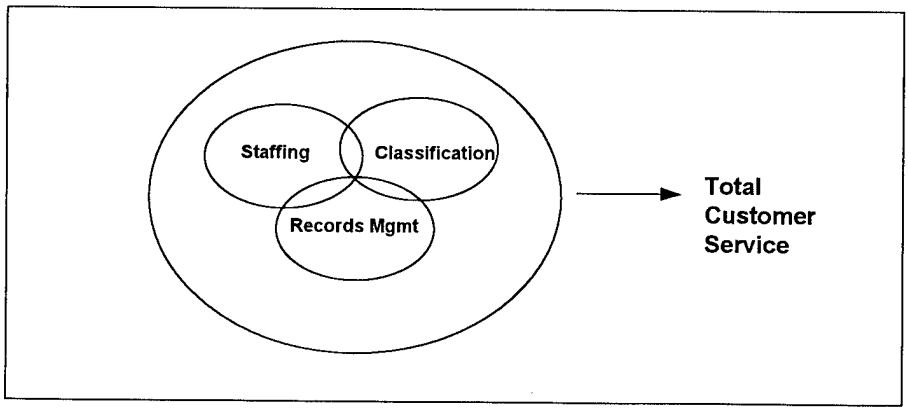

Figure 1
Integrated Product Team
within Civilian Personnel

Perhaps the broadest application of IPTs is in the weapon system acquisition process. At ASC and other AFMC Centers a primary mission is the acquisition, development and sustainment of Air Force weapon systems. System Program Offices identify warfighter's needs for new or modified systems, and acquire the weapon systems to meet these needs. The primary functional disciplines of program management, contracting, financial management, engineering and logistics as well as other specialties come together to acquire the weapon system. Traditionally these organizations have been functionally organized within a matrix management concept. It can be argued that the

matrix is in itself a integrated team at a higher level, but with 100-400 people in a Program Office, many of the benefits of the team concept are difficult to realize. In a Program Office, IPTs are created based on the major customers or the major subsystems of a weapon system. Each of the IPTs ideally represents all of the functional disciplines necessary to develop that unique aspect of the product or service. As in the previous example the customer sees a single team responding to his unique needs. Team members learn to appreciate the contributions each makes to the delivery of a final product.

Sounds great so far doesn't it?

Definition of Situation

All is not necessarily bliss. Teaming as a way of operating is a major cultural change for most organizations. It represents a transition to a different set of behaviors and new patterns of interaction. All of a sudden workers aren't surrounded by others doing the same thing that they are doing. If a financial manager has a question about a cost estimate she can no longer go to the team lead for help. The team lead may be an engineer or a program manager who knows little of the financial management processes. Different functional disciplines that have long been at odds with each other over "who's to blame" are now on the same team, often causing disruption and unrest. The contract manager, often the watchdog overseeing legal procedures is now on the team with the program manager who is focusing on meeting schedule at all costs. The team is often pulled apart by different roles, different goals, and an overall lack of communication and teamwork.

With all the internal struggles possible on integrated teams, the potential trauma outside of the team may in fact be greater. If a team does coalesce, it often becomes very internally directed. The team members perceive their immediate mission and their direct customer as the only priority to be considered. This leads to competition between teams fighting for resources and suboptimizing their collective strength. The "Integrated" Product Team becomes an "Independent" Product Team leading to a lessening of the total system to function. Team leaders become feudal lords fighting for turf, rather than interdependent managers working together to achieve a common purpose. In a program office, as in any complex organization, the team members must identify themselves as part of a larger system. The success or failure of their team is defined only in terms of the success or failure of the larger system. A football team's offensive line can't win unless the backfield also wins. The offense doesn't win unless the defense wins.

Traditional functional management is often described as managing within silos, each standing rigidly beside the other, never interacting, seldom communicating. One danger in focusing only on the IPT is simply turning the functional silo on its side. Each IPT then stands alone with little input from others until the final product, when problems with integration become evident.

Team Development

In order for teams to work together effectively, certain conditions must be present. Effective teams are ones that possess the following characteristics;

Each member is committed to the team and its objectives.
Everyone understands what he or she is assigned to do.
Team members have the right skills to do the job.
Each member of the team listens and respects other team members.
Everyone participates in discussions and decision making.
Conflict is confronted and resolved, not ignored.
Team is proactive in seeking information and feedback from its environment.

Many a coach, manager or team leader has been frustrated by the lack of one or more of these fundamental characteristics of an effective team. Casey Stengal once said. "Its one thing to get the right players, the hard part is getting them to play together". Several aspects are critical in getting team members to play together. First obviously they need the knowledge, skill, and ability to play the game and to play their position. They need to know the rules of the game. In a work situation that translates to functional job related training. Next the team members need to develop as a team. Many teams develop effectively over time by trial and error, in other cases an enlightened or inspirational leader can pull the team to great achievements. We all remember Ronald Reagan's impassioned plea as the dying George Gipp of, "Win one for the Gipper". A slightly more systematic approach that has been used to some effect is the structured team development or team building. Ten main goals of team building have been identified (Reilly and Jones, 1974).

1. A better understanding of each team member's role in the group
2. A better understanding of the team's purpose and role in the organization
3. Increased communication among team members
4. Greater support among team members
5. A clearer understanding of group process
6. More effective ways of working through problems
7. Ability to use conflict in a positive rather than a destructive way
8. Greater collaboration among team members and reduction in competition
9. Increased ability to work with other work groups in the organization
10. A sense of interdependence among group members

Goal Clarification The first aspect of team development is to clarify the overall objectives of the team. Are we trying to score more points than the other team? Are we trying to defend our goal? Again in a business sense this translates to what is the overall mission or objective of the IPT. Is it regulatory compliance, customer satisfaction, on time delivery, or a combination of many things. Many IPTs develop a team charter that specifies exactly what the team is expected to do. Charters are developed in concert with

the team and its sponsoring organization. This could be the larger organization they work for, or a higher headquarters activity, or a set of customers. The charter should contain a statement of the mission of the team, key customers and suppliers, products, services, or outcomes of the team, expectations of management, resources available to the team, and a definition of the level of empowerment of the team. The level of empowerment refers to what authority do team members collectively have for making decisions independent of any formal review or coordination outside of the team. Many IPTs have cost, schedule, and performance thresholds defined by which they can independently act. Any action that might go beyond these thresholds, would requrie the team to raise the issue to a higher level for resolution. For example, if an action would cause a schedule slip of ten days and that slip would not adversely impact other teams, the IPT would need no higher level authority to approve the change. The key is of course for the IPT members to be aware of other teams and the impact of a schedule slippage.

Understanding Self and Others For teams to function effectively, team members need to know and understand themselves and others. Much of this knowledge comes from everyday interactions. People respond to our personalities and our mannerisms. We respond to theirs. Sometimes we hit it off, sometimes we don't. Often our impressions of others is based on superficial interactions at meetings, quick chats in the hallways, or aggressive dialogs about differing views of the world. Many times our perceptions are framed by misconceptions about "What I thought she said," or "I wonder what he meant by that". These misunderstandings can color a relationship for years, and if not cleared up can lead to hostilities that will cripple an otherwise effective team. Many avenues are available for understanding personalities and their interactions. Probably the most utilized in the Air Force communities is the Meyers-Briggs Personality Inventory. Regardless of the tool used to communicate, team members need to openly discuss and understand how they deal with one another and how they prefer others to deal with them.

Roles and Responsibilities The team needs to know the positions of the other players. Will the lineman block his man to the left or to the right, will the running back cut out or cut in. How many steps will the kicker take before he strikes the ball. In a purely functional organization, understanding individual roles of other activities is not critical, but in an IPT structure, the team lives and dies based on the interaction of the team members. Hand-offs and team work are essential to effective functioning. In an IPT, we interpret this need as a role clarification. Each team member, including potentially customers and suppliers, describes his or her role, and what is needed from each of the other team members including the team leader. Team members then negotiate to what extent they can supply what is needed. A contracts manager for instance may need a weeks notice of any proposed changes to the contract. The financial manager needs notice of pending contract changes. The secretary needs to review copies of formal correspondence to track actions and commitments. The engineer and project manager need to clarify who authorizes changes to a specification. When these roles are openly discussed and clarified, each team member knows what to expect and knows why a particular team member is reacting in a particular manner.

Stages of Team Development Teams, like humans, go through predictable stages of development. Teams operate on two basic levels, the task level and the interpersonal level. Each of the stages of development need to be managed on each of these levels. Teams need to identify the stage in which they are currently operating and identify what behaviors on the task and interpersonal levels they need to master to move to the next level. Many teams operate for years at a very low level of functioning and a very low level of effectiveness simply because they are unwilling to take on the difficult behaviors required to move to the next stage. For example a team at the Forming stage can be very polite and harmonious and accomplish very little. Yet members continue to attend. The key for organizational teams is not just getting along, but accomplishing the task. These Forming stage teams need to force each other to get more aggressive and step out of their comfort zone to move to the next stage in development. At times this growth is uncomfortable or downright nasty; as in all growth there is pain. Figure 2. shows the stages of team development and a focus on the key aspect of each level at that stage in development. (Aeronautical Systems Center, 1991).

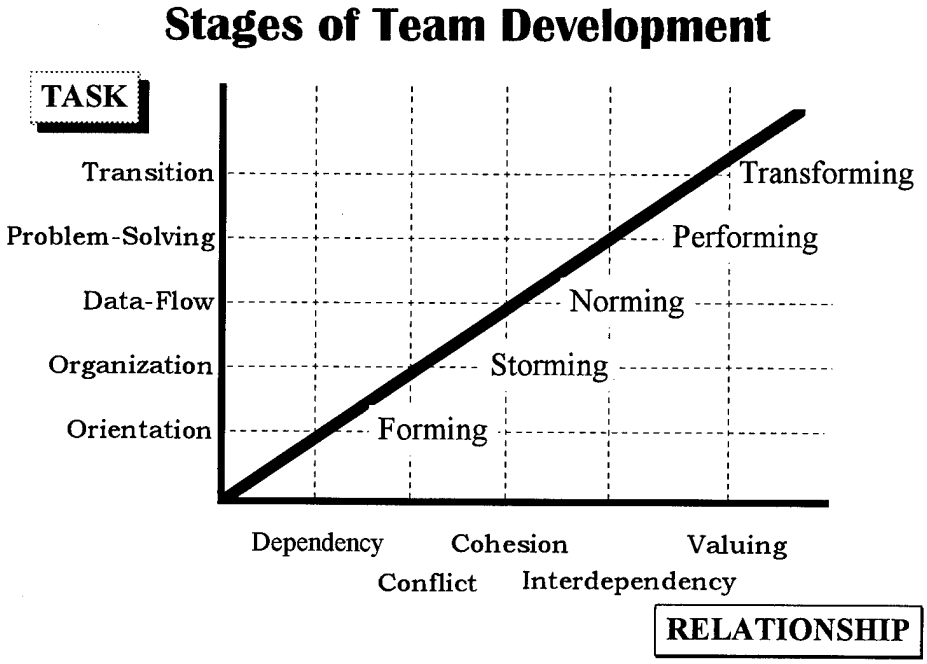

Figure 2
Stages of Team Development

Open Communications In order for teams to move to higher levels of functioning they need to be able to communicate clearly and openly with one another. In many surveys of team effectiveness conducted across a wide spectrum of teams and organizations, the

largest single cause for lack of effective teamwork is poor communications. At times this becomes a catch all category to lump together all the ills of an ineffective team, but at its root, direct and open communication is a skill that must be mastered by all team members if the team is to be effective. All teams form norms of operation, whether spoken or unspoken, that dictate how they will conduct business. Some teams have the norm that "no news is good news" so information is not shared openly. Others have the norm that "If you can't say something nice, don't say anything at all", so negative feedback is not given. Effective teams develop norms of openness and receptivity to all forms of feedback, and establish boundaries for how this feedback is given. Some versions of team building conduct "straight talk" sessions (PDS, 1990) in which individuals give each other feedback on how their behaviors affect others. These sessions can be very rewarding, or very explosive depending on how they are handled and controlled. The experience of a good facilitator is encouraged as a team is getting used to this kind of interaction.

Team Leadership The role of a leader in an IPT is very different from the traditional role of a military manager. Since the IPT is a cross functional team consisting of experts from diverse professional areas, the team leader can not possibly have knowledge and experience in all team areas. The leader's role shifts from one of technical expert and mentor to one of team facilitator. Guidance of individual functional specialties defers to functional mentors or "graybeards" that have indepth, cross product experience in the functional discipline. The team leader needs to focus on integration of the functional specialties, and managing the continued growth and development of the team. The leader should help the team achieve balanced, integrated decisions without dominating the process. The focus of the team leader is balanced between maintaining the health of the team, an active partnership with other teams to ensure the satisfaction of the customers requirements.

Summary

ASC has aggressively pursued the formation of Integrated Product Teams to manage weapon system development, furnish base services and conduct a range of business processes. Results thus far are encouraging, though still faced with numerous obstacles. IPTs are more resource intensive than traditional functional management. In a downsizing environment these resources are difficult to attain and maintain. Many teams are turning to sharing resources and team members. This distorts many of the concepts of effective teams and leads to confusion and conflict. Chains of authority and responsibility are not always clear and consistent. Pooling engineers, contract managers and program managers into one rating group confuses the system. One team leader usually is not capable of evaluation the performance of diverse professions. In a team environment there is no provision for the training, development and mentoring of younger functional specialists. A strong functional support system is still critical to maintain the integrity of the system. These issues as well as others are still on the table. For many, the resolution will be worked over and over in individual organizations with unique characteristics.

Continued follow-up of teams and their functioning is critical to the successful evaluation of the IPT structure. The only measure of merit that really counts when evaluating team effectiveness is their ablity to deliver the needed service to their customers now and in the future.

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Senior Leader's Role

in "Driving" Strategic Planning

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Senior Leader's Role in "Driving" Strategic Planning

Capt. Michael R. Brown

85th Wing

ABSTRACT

The purpose of this paper is to discuss the relationship and roles required of leadership to effectively develop a strategic plan that can and more importantly, will, be used by the organization. Outlined are specific actions required by the senior leader to ensure the strategic planning effort is a success. At times, the senior leader may have to "drive" actions. At other times, they need to let strategic planning team members take the lead.

DISCLAIMER

The opinions and conclusions expressed in this document are those of the author. They do not reflect the official position of the U.S. Government, Department of Defense, The United States Air Force, or the 85th Wing.

INTRODUCTION

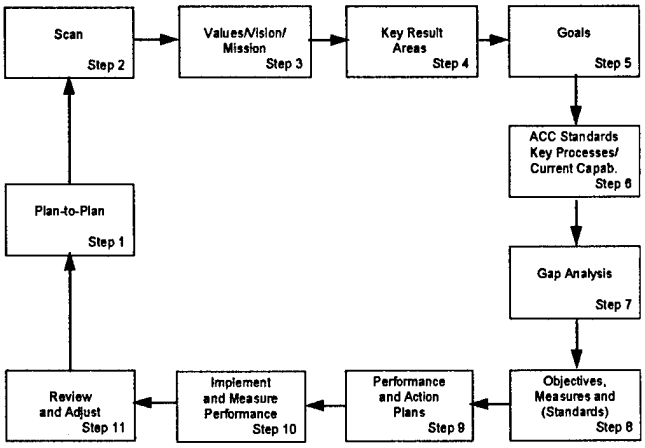
Strategic Planning--The process by which an organization envisions it's future and develops special quality strategies and plans to achieve that future.[1]

The concept of developing and implementing a strategic plan to guide the organization into the future can be a scary thought--something many military organizations are not used to doing. Our culture has not historically used strategic planning at the wing-and squadron-level, thus we resist. In ACC, 85% of the people are at squadron level or below.[2] With these numbers, changing the culture can be a slow and intensive process.

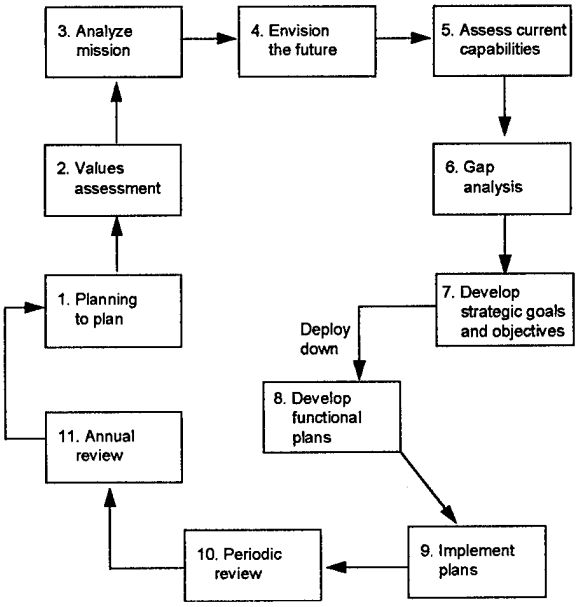
How many organizations are accomplishing strategic planning, only to place the document on the shelf and never use it. What a waste! Just think of all those hours spent in developing and distributing the plan. This is compounded when you also include the hours expended in developing plans below the wing (or equivalent) level. This waste doesn't have to occur--the key is the senior leader's role and approach to the strategic planning process. A very simple statement, but what does it really mean? It means the senior leader's involvement or lack thereof is crucial at the appropriate times. The key is to understand when the senior leader needs to be involved, and when not to be involved.

There are many strategic planning models used today throughout the Air Force. Two which come to mind are the ACC Strategic Planning for Process Improvement (SPPI) model and the Air Force Quality Institute's model, both of which are shown below. There are many similarities between these two models and I believe my recommended approach will work for both. The bottom line is, regardless of the model you follow, it is the concept that is important.

ACC SPPI Model



AFQI Model



Both of these models are very good; and like all models, if followed, will produce the desired outcome. Most publications tell you what to accomplish, not how to accomplish them. Having facilitated and seen the outcome of several strategic planning sessions at various organizational levels, I believe the "how" is just a important as the "what". I have often stated "follow the strategic planning process, it will take care of you". These are good words to help "unstick" a group and move them along the process. However, to ensure success you must also follow the "how".

How do you develop a strategic plan that the organization can use. The key is senior leadership involvement. Gen Loh is often quoted as saying "What gets measured gets done."[3] Looking at this a slightly differently way, what is emphasized by leadership will receive priority (especially in an already busy schedule).

The output of a successful strategic planning effort is a plan--one that can be used by the entire organization to achieve that future envisioned by the leadership of the organization and ultimately bought-into by the members of the organization.

My experience has been that the concept of strategic planning is not really understood. The mind-set is not to develop a living document that will help guide the organization through the future, but to focus on our organizational needs during "my" tenure. What is it that I, the new leader in

the organization, want to accomplish. This concept leads to a lack of long-term direction and ultimately, suboptimization and wasted resources.

LEADERSHIP AND STRATEGIC PLANNING

The senior leader's involvement is critical at several steps of the planning process and must be somewhat divorced at others. As I discuss the senior leader's role, I will be using the ACC model as a reference point.

As with most processes, if you correctly plan to accomplish the plan, the outcome will be as expected. This is not an exception in strategic planning. Steps one and two of the SPPI set the stage for the remainder of the process. With adequate preparation, the strategic planning team will be prepared to deduce future events and requirements (Scan step) and make the tough decisions based on data and facts (Gap Analysis step).

The first time the senior leader's involvement is crucial is at step one, Plan-to-Plan. Here is where the senior leader stresses the importance of how the strategic plan will be used, how to prepare for the session, and the role individuals play in developing (or updating) the plan. Included in this is the time line the organization will follow. My experience in several organizations in different commands is that the senior leader allows too much time to complete the entire strategic planning process. People sometimes become too wrapped-up in doing things the "quality" way. We bring everyone in the loop and talk about what we're going to do, and talk, and talk. They will continue to talk until it's not their problem anymore or they move on to another position in another organization. I'm not advocating to not effectively plan, but I do believe we need to plan when it's time to plan and act when it is time to act. Step one sets the tempo for the remainder of the process. Realistic time lines must be established. Experience has shown organizations typically develop a time line which spans too great a time period. Why is this bad? What does this cause? Other leaders in the organization believe that since the milestones are so far in the future, they will work other priorities first and may not give the strategic planning tasks the time they deserve. Because of our requirement to continually move or change jobs, there is not a real commitment to give the tasks at hand the required time and effort needed. In some cases there is no "buy in" since what the people are planning to do will not affect them. Maybe after we've accomplished several annual reviews this will not be a problem, but for now, given our current culture, this is a problem we often fall prey to. Once this is understood, the remedy is quite simple-- just shorten the time line for the overall process. I believe three months to be an appropriate time frame. This means from the start of the process to action plans. Just be sure you do not schedule this during periods of other high-interest items such as major exercises or a unit self assessment. I know one wing commander, who at this step, told his commanders the strategic plan would guide future decisions of the organization such as when it comes time to prioritize the end-of-year buys, "We can look at the strategic plan, that's what we said is important, that's where we can look to spend the money."[4] The statement sure raised eyebrows among the commanders, the same people who would be updating the current strategic plan and making adjustments. The senior leader must set the tone for the strategic planning session. This starts with the time line for the process.

Many organizations are still wrestling with using measurements to guide daily and future actions in their organizations. We collect so much information, we don't have time to properly analyze and review it in a trend format. How often have we attended the staff meeting when information is being reviewed and questions are asked. More often than not I have heard answers like, I'm not sure how it is determined, so I will have to get back to you. When these type of responses become the norm, many wonder if the information is in fact actually being used in more than a reactionary mode such as when someone higher in the chain asks a question. In some organizations, this is the norm in our cultural approach to analyzing information. So why would we expect this to be any different when we come together to develop or review the strategic plan. On numerous occasions I have had the opportunity to coach (facilitate) strategic planning sessions only to deduce that step two, Scan, is not properly accomplished. While base closings and MAJCOM realignments may be reviewed, items like last USA and QAFA, ORI, major exercises, and customer data are not normally used. This greatly affects the remainder of the strategic planning steps. Many of the decisions are then based solely on "gut feelings" without the use of any data. How do we overcome this barrier? The senior leader must address this issue and "emphasize" the use of data. Hold people accountable. Strategic planning is new to many in our profession, we must rewrite the rules of engagement if we are to succeed. Do we halt the strategic planning process until we overcome this barrier. No, we cannot afford to wait! The senior leader must "demand" that this type of information be gathered and analyzed.

"People don't resist change. They resist being changed."[5] Gaining buy in throughout the entire organization is crucial. If we are going to expect people to start using their strategic plan, maybe we should ask for their input. While the actual strategic plan is developed from the top down, it must be carried out from the bottom up. Everyone in the organization must agree with the concept of strategic planning, buy in with it's contents, and be committed to carrying it out. After step 8, the strategic planning team must take a break and flow the plan throughout the entire organization, asking for input. Moving the strategic plan back and fourth through the various levels of the organization and honestly asking for feedback (catchball) is a start at gaining this buy in. Here is where everyone in the organization has a chance for input into the plan-to say what they think is important, what will work and vice versa. Many organizations fail to achieve this buy in. This is crucial if you expect the plan to be deployed and carried out. In reality, what typically happens is that the plan is never really reviewed by the rest of the organization. A few key people may look at it and we call this an organizational review. In fact, most people in the organization never see it. I base this statement on direct questioning (sampling) of those I come in contact with after the strategic plan has been developed and deployed for implementation throughout the organization. When I ask questions about the strategic plan, no one knows what I am talking about. Another example is when the strategic planning team comes back together and some team members have no input for changes or their people have no concerns. All too often senior leadership may not be fully committed to the strategic planning process. The senior leader may need to ask the hard questions to gauge this commitment and do whatever is needed to achieve it. Again, accountability comes into play. There are many reasons why catchball is not successfully accomplished and buy in obtained, but the most important point here is for the senior leadership to acknowledge this is occurring in their organizations and ensure their people have the opportunity (as a minimum) to have input into the strategic plan. Accomplishing buy in at this step will help ensure successful implementation at the action plan and implementation steps.

An excellent strategic plan that sits on the shelf does not help the organization at all. At step 9, action plans must be developed. Now it's time to put the plan to work. Mid level leadership, working groups, process owners, and workers develop the action plans for the areas of improvement. I have seen where this step, because of its complexity, never really gets accomplished. While some of the action plans are developed, others are deemed to complicated or more time consuming. Unfortunately this occurs far too often. Realistically, there may be those one or two instances that, in fact, warrant more time, but typically too many are allowed to go uncompleted. The reasons for this are many, but the bottom line is that this cannot be allowed to occur. The more time that elapses before the completion of this step, the more chance the strategic planning effort will fail. This is not the fault of the people in the organization. Our personnel system requires frequent movement. Remember, 85% of the problems are caused by the processes within the organization and not by the individuals.[6] Since changing the rules on personnel mobility is not possible, we must look at the next largest opportunity for improvement-get the action plans completed. Help stabilize the organization and minimize the need for new leadership to "improve" processes. So how does an organization overcome this and get the action plans developed and implemented? One method is for the strategic planning team to develop a time line, with aggressive milestones, showing the dates the action plans will be developed. The time line must then be reviewed on a systematic basis. One technique is to make it a standing agenda item on the monthly Quality Council meeting. Again accountability enters the picture. This timeline is actually an action plan that aids in empowerment. It facilitates accountability--one of the components of empowerment.[7]

Now that I've discussed several instances when the senior leader must get involved, there are times when they should not get involved. Pragmatically speaking, military people will give opinions to their superiors at the appropriate time and when politically correct. Theses times are not easily defined, and for ease of understanding the inverse may be more appropriate to discuss. If a team is talking about a course of action and the senior leader is the first to reply, some members of the team may not offer other courses of action. What is first said by the senior leader definitely carries weight and others may be hesitant to give input and participate. This is a by-product of our military culture. We must overcome this. In an organizational chart of a "quality" organization, the senior leader is typically depicted at the bottom, showing a support role. If a senior leader wants input, all they need to do is ask by allowing their people to offer up ideas first. I'm not trying to redefine the overall responsibilities of the senior leader, I'm only recommending ways to achieve dialogue and discussion.

CONCLUSION

The steps I have outlined may not be perfect; unfortunately we do not function in a perfect world. The benefits of developing and implementing a strategic plan are well known; unfortunately accomplishing and following it requires a cultural change that may not have occurred in many of our organizations. Although some may view many of the strategies I have outlined as "not quality," they were introduced to help us overcome some of the road blocks inhibiting many quality journeys. In the Quality Air Force Criteria, Senior Executive Leadership guides the sustained pursuit of customer value and improvement of organizational performance.[8] The way senior leadership applies the points I've outlined has a definite affect on their success. The

bottom line is that you can't always wait for all the right conditions to exists in an organization, you must sometimes "drive" the conditions. ATT Universal Card services won a Baldrige award in 1992 after only a few years of existence. Although I have not researched how this was accomplished, in dialogue with some of my colleagues, this topic surfaced with a consensus that quality was built-in from the start. The organization was born with "quality culture" genes. Unfortunately, we do not have that luxury. In most of our quality journeys we must overcome hundreds of years of culture that dates back to the time of the American revolution and maybe earlier. With the help of senior leadership, the strategies I have outlined will greatly enhance the speed at which we travel down the quality path.

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Leadership Trends for the Next Decade

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ABSTRACT

This paper present various aspects of quality improvement oversight a primary function of 57th Wing senior leadership at Nellis AFB, Nevada. It begins with a view on how wing leadership assisted in the formation of a quality improvement council and their subsequent objectives, membership, and structure. Quality successes are then discussed into include a sampling of several quality improvement team summaries. The paper ends with a summary detailing the Wing Commander's perspective and assessment of quality improvement efforts shortly before his departure to a new assignment.

Leadership Trends for the Next Decade

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The dynamic change in the world around us is exciting, bewildering, and frightening. In the past decades we have seen a productivity emphasis in the '70s, a quality emphasis in the '80s, a reengineering emphasis in the '90s. What will be the major thrusts for the next decade? If we look at the thrusts of the last three decades, we are looking at emphasis primarily on improving cost effectiveness. Elements of these three major thrusts have resulted in restructuring, delayering, and downsizing. We need to continue our efforts on cost effectiveness forever in order to become more productive, but we also need to work on areas to create a bigger demand for our services so that we can provide more jobs and have a resultant upsizing. This paper will focus on a process developed to discover unarticulated users' needs and develop solutions that create demand from users and potential users. To survive and prosper in the nest decade it will be necessary to work continually on cost effectiveness. Traditional quality and reengineering methods are useful to this end, but they can result in a loss of jobs and downward spiral for the organization. Parallel efforts need to be made to achieve a unique advantage by creating pull for our services and upsizing the organization. Attractive quality creation methods can lead to breakthroughs in new and better services and result in survival and prosperity for the year 2000 and beyond.

In the short history of this country, we have been through the industrial revolution and are now in the middle of the digital revolution. Our children will probably see some other kind of revolution. And, by the way, we are also in the middle of a management or leadership revolution. The rapidly changing environment in the work place today threatens organizations and industry segments whether they be in education, government or business. The dynamic change in the world around us is at the same time exciting, bewildering and frightening. This is, without a doubt, the most exciting period in all of the history of mankind in which to live. If we can learn how to be the masters of our own destiny through proactive efforts on our part, we can be the benefactors of the change instead of the debris.

Recent efforts to cut expenses to make organizations more competitive have resulted in downsizing, delayering and restructuring. What is required is a process model that will result in upsizing, growing the organization, and providing more and better jobs with opportunities for advancement. This paper will describe such a process.

Let us first go back and look at recent changes and predictions for the future to see what we can learn. Arnie Weimerskirch, the corporate Vice President of Quality for Honeywell, has stated that half of today's Fortune 500 companies will no longer be in existence in the year 2015. At least, not by the current name. Others have said 20% of the current Fortune 500 companies will no longer be in existence by the year 2000. No longer do most youths have the expectation they will spend their entire career with the company where they start their employment career.

Business people are not the only ones that need to be concerned. Some educators believe the educational industry of the '90s is where the railroad industry was in the '40s. For example, a global learning center in Zurich, Switzerland has been funded from private sources with over $250,000,000 to put a university curriculum on-line, accessible anywhere in the world. The state

of Maine has created an electronic university with no staff and no buildings. This could put learning in the hands of many more people and greatly impact education as we know it today.

We also need to be concerned with the change going on in government. What percentage of today's Air Force bases do you think will still be in existence in the year 2015? What will be the criteria by which those decisions will be made? Will it be determined by Washington politics or are there other factors which are within the control of the Leadership of the bases?

Peter Drucker said the only things that evolve by themselves in an organization are disorder, friction, and malperformance. Transformation seldom comes from within. In the past, those within an industry had little incentive to change because they were secure in the status quo.

Going back to the statement about the railroad industry of the '40s, it is interesting to reflect on how many industries have been completely transformed and where the transformation came from. Certainly, the railroads of the '40s had a dominant position in the transportation market in both freight and passengers. After World War II, massive highway construction projects were started throughout the country which made trucking much more feasible and the airlines grew rapidly to handle people movement. The railroads were left basically with the least profitable kind of business that the trucks and airlines did not want.

Steel, with US Steel leading the way, dominated the steel industry in this market going into the '50s, but the advent of the mini-mills, the recycling of steel and the entry into the market by the Japanese and Koreans made a serious impact on them. They are coming back today, but they certainly underwent a difficult period of change.

The United States Postal System dominated the mail in the United States going into the '60s. Faxes had been around for some time, but slowly changed as technology improved to impact rush mail, as well as Federal Express, United Parcel Services and now E-mail. Again the postal service is left with the undesirable part of the business, that of handling circulars, advertisements, and bills. Have you noticed the coming of the mailman is not as exciting today as it was in our youth because we are getting our more important mail over the phones, faxes, or E-mail?

Going into the '80s the three major networks dominated television throughout the country, but with the advent of cable, big dish satellite, direct TV, and now fiber optics telephone lines the networks are now just one of hundreds of channels available to us.

Reviewing these changes stimulates us into thinking about what we have to do to be successful in this changing new world. We must understand how to anticipate these changes and how to be in the forefront. A successful strategy of many organizations in the past was to be the second into the market with new products and services. They could wait until the competition developed new concepts and then hope to do it better and still capture a big share of the market. But with the market changing so quickly today, there may not be the reaction time necessary to do this.

A professor emeritus from the University of Minnesota in economics, Dr. Tor Dahl, has said that there are only two things that really matter in business - cost effectiveness and a monopolistic advantage. I believe that we would all agree with cost effectiveness; there is no question that we have been working hard on this in the past and we need to continue to work hard on it. We also probably agree that we need to identify our niche in the market place and dominate that niche. Somehow that does not make the point quite as strongly as saying that we need to have a monopolistic advantage. Business and government operations have some similarities here; the division between the two is becoming more blurred. Government operations need to understand what they can do better than anyone else and then capitalize on these capabilities. Hamel and Prahalad in their book, *Competing for the Future,* define core competencies as a bundle of skills and technologies that enables an organization to provide a particular benefit to customers. Note it

is a bundle of skills and technologies rather than a single capability. Thus it represents a sum of learning across individual skills and organization units. There is a trend today to invest in core competencies and contract out for other services. This allows us to focus on what is important, our monopolistic advantage.

Most of our efforts in the last few decades have been focused on reducing expenses so that we can become more competitive and take business away from our competition and therefore survive. This is a win-lose proposition. Reengineering, process improvement, and other activities have been focusing on reducing cycle time and cost and improving the processes. This has resulted in restructuring, delayering and downsizing. There are some benefits to gaining work from these activities but the major focus has been on reducing expenses. It is time that we focus additional effort on the numerator of this revenue/expense ratio that will help to identify unarticulated market needs and delight our customers and users. This will result in a win-win situation by creating markets and jobs for our people. By using the term markets, I am referring to possible new work to be assigned to our facilities. We need to continue our efforts on cost effectiveness forever in order to become more productive. But we also need to work on areas to create a bigger demand for our services so that we can provide more jobs and have a resultant upsizing.

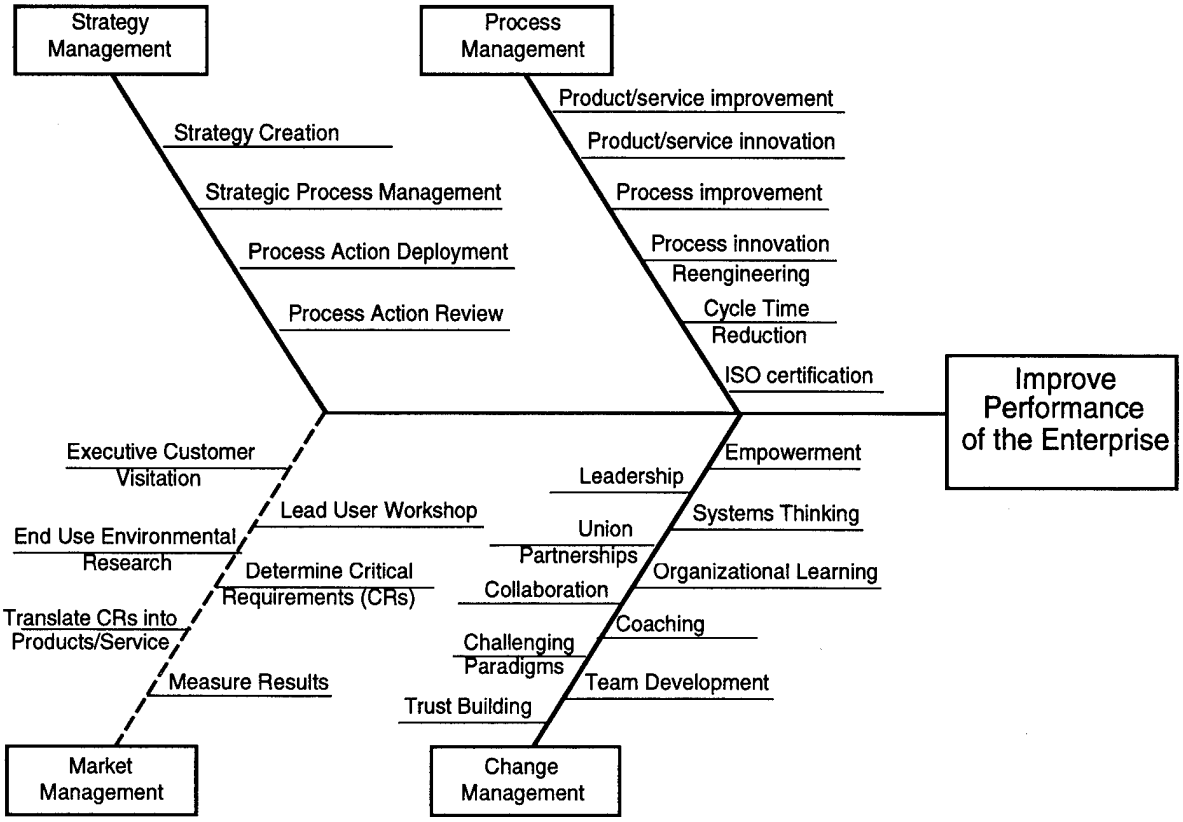
An example of new market creation was original equipment passenger tires back around 1970. Steel-belted radial tires were unsuccessfully introduced in the 60s. The tires were not compatible with the suspension systems provided on cars manufactured in the United States.

In 1970 Ford Motor Company surprised the industry by redesigning the suspension on the Continental Mark II to run smoothly with steel-belted radials. This caught not only the auto industry, but the tire industry, by complete surprise. Ford's primary supplier, Firestone, did not produce steel-belted radials in the United States so Ford turned to Michelin. The Michelin people worked closely with Ford and as a result, for the first time in history, tires were actually advertised by the auto manufacturers in their advertisements when Ford advertised Michelin as a part of their ads for the new Continentals. The other car manufacturers quickly redesigned their suspension systems to operate smoothly with radial tires but the US tire manufacturers were caught off guard and simply could not react to this new demand for radial tires. Three years later, in 1973, steel-belted radials rose to almost 30% of the market. By 1980, ten years after the introduction, over one-third of the United States tire producing capacity had to be shut down. The US firms could simply not respond quickly with quality steel-belted radials of their own.

Another example is Dr. Noriaki Kano's work with Konica Camera. About fifteen years ago most of us had very nice manual 35mm cameras that took great pictures if we had everything set right. The problem was that most of us were not professional photographers and would occasionally err in properly setting all the adjustments on the camera. The camera designers were busy refining to the nth degree the perfection of their cameras when Dr. Kano convinced Konica to get the development people out and to collect data at the photo shops where the film was being processed. Their Pareto Charts showed high reoccurrences of out of focus, underdevelopment, and a surprising one, blank film. It appeared that many people thought they were loading their film correctly and went out and took what they thought were a bunch of pictures, sent the film in for processing and found out that there was nothing on the film. From all of this data the automatic camera was born and most of us put our old manual 35mm cameras on the shelf and bought one of the small automatic cameras. Perhaps the photos were not quite as sharp as they were with the old cameras, but at least we could rely on getting pictures. Konica did not put Canon and Minolta out of business, but instead created a new market that could be shared by others. They did this by using a process to collect data on what the unmet needs and even the unarticulated needs of their customers were.

It is obvious that we will need to continue our efforts to increase cost effectiveness forever, but equal efforts need to be made to increase volume for our operation which would result in upsizing.

Elements of Quality



Whether we be in business, education or government, our objectives are not quality or better strategy or reengineering. The objective that we must strive for is to improve performance of the enterprise. Using a cause/effect diagram, we can identify many causes that will lead us to the effect of improved performance. This chart separates those causes into four major categories. The first one is process management. Dr. Deming talked about the need to improve and innovate products, services and processes. Cycle time reduction and ISO activities are also part of managing our processes. Dr. Deming talked about the chain reaction of improving our processes, leading to reduced waste and, therefore, lower cost. With lower cost and higher quality we will capture more of the market and provide more jobs.

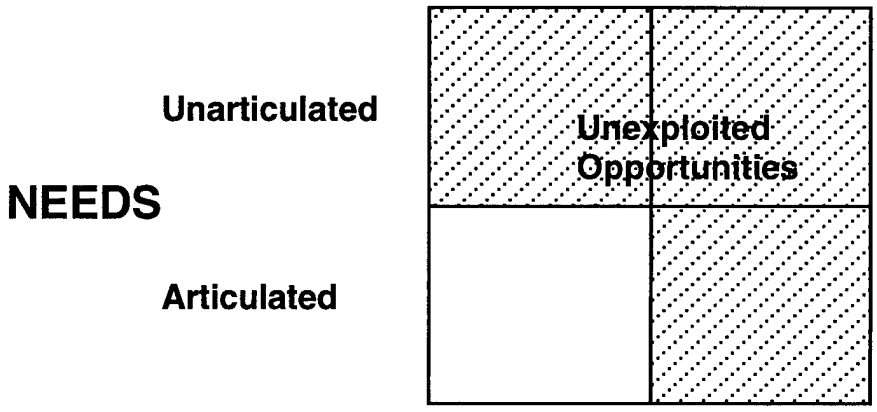
Going hand-in-hand with process management is the need to change the culture of the organization, which we call change management in this chart. Our operations are so complex today that no one is smart enough to sit in the management offices and make all the decisions. In order to react in real time and make the best possible decisions, we must utilize the brain-power of each and every one of the employees in the organization. This will not happen without the proper culture that will allow and reward the risk taking required to do so. Dr. Myron Tribus published a paper in 1993 in which he likened many of the activities such as reengineering, quality function deployment, and just-in-time as application programs that would do wondrous things for the organization provided that an operating system was available that would allow them to work. The

operating system he alluded to was the cultural transformation of the organization, best described by Dr. W. Edwards Deming on profound knowledge, in his book *The New Economics*.

Strategic planning and implementation can no longer be separated from activities through the performance of the enterprise. The United States has typically been very strong in the strategic planning activities field as shown by the research done on a continuing basis at Harvard and other prominent universities. The Japanese perhaps are not as strong in strategic planning but they are very, very good at implementing what strategy they have. In this country we have had a habit of completing our massive strategic planning effort on an annual basis, wiping our brow, and putting it on the bookshelf feeling good that it was completed for another year. The integration of that plan into daily work activities requires a process to deploy the strategic initiatives throughout the organization to get each and every employee working together and going in the same direction to accomplish the plan.

The fourth category on this chart, Market Management, is shown with a dashed line meaning it is still under development. It is that area that works on the numerator of the income/expense ratio to provide market creation, which I call market management. This section of the cause/effect chart deserves further explanation.

Beyond "Customer-LED"

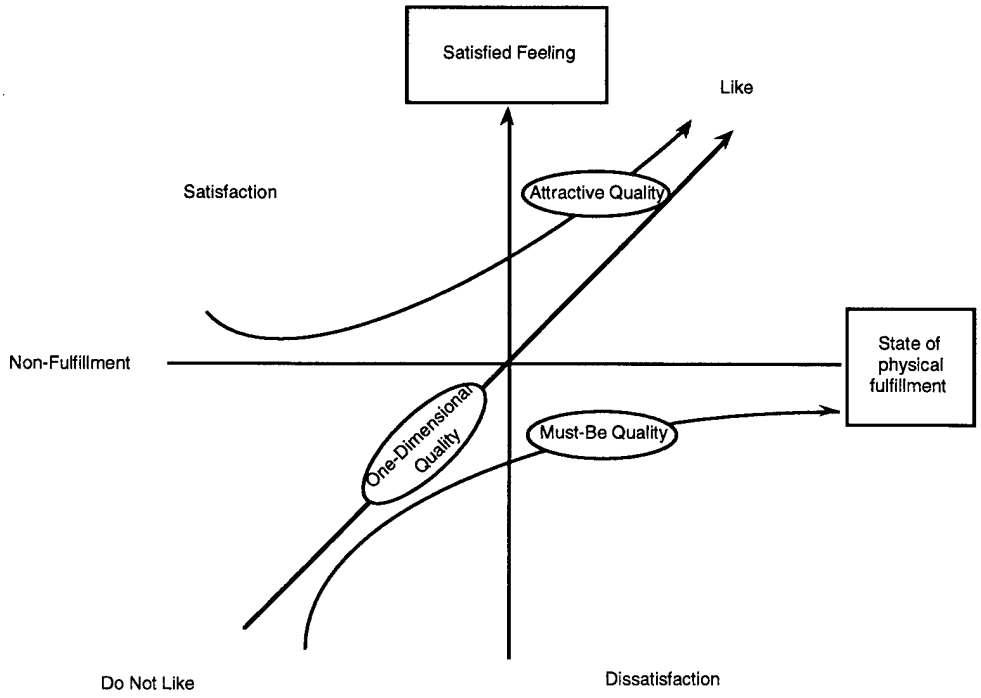


Competing For The Future, page 103
Gary Hamel, C.K. Prahalad
Harvard Business School Press, 1994

Hamel and Prahalad's *Competing For The Future,* presents a very interesting and useful matrix. If we take a closer look at the users of our services, there are two types--those we serve and those we do not serve but we possibly could if we provided more or different services. Next, looking at the needs of the users of our services--there are those needs that they articulate to us but there may be other deeper needs that they have which they may not even be aware of at this point in time, or

maybe because they think we can't provide it, they do not articulate those needs to us. If we compare these two needs types to the two user types, we have a grid with four quadrants. If we only listen to the voice of the customer, we are probably doing some very useful things that help us stay in the race, but we will never win the race only working on one-fourth of the total sector. Obviously we need to pay attention to the voice of the customer and continue working on that quadrant, but activities in the other three quadrants need to be developed. This provokes some very interesting questions. Why aren't we serving the other customers? What are some needs that both the customers we are serving and those we are not serving have that they are not telling us about? Perhaps they think that we cannot supply product or services in these areas so they don't bother to tell us about them. Perhaps they don't even understand what they are themselves or cannot find a way to explain to their suppliers what their needs are. Processes are required to identify these unarticulated needs and the articulated needs of our unserved customers.

Two-Dimensional Recognition Method

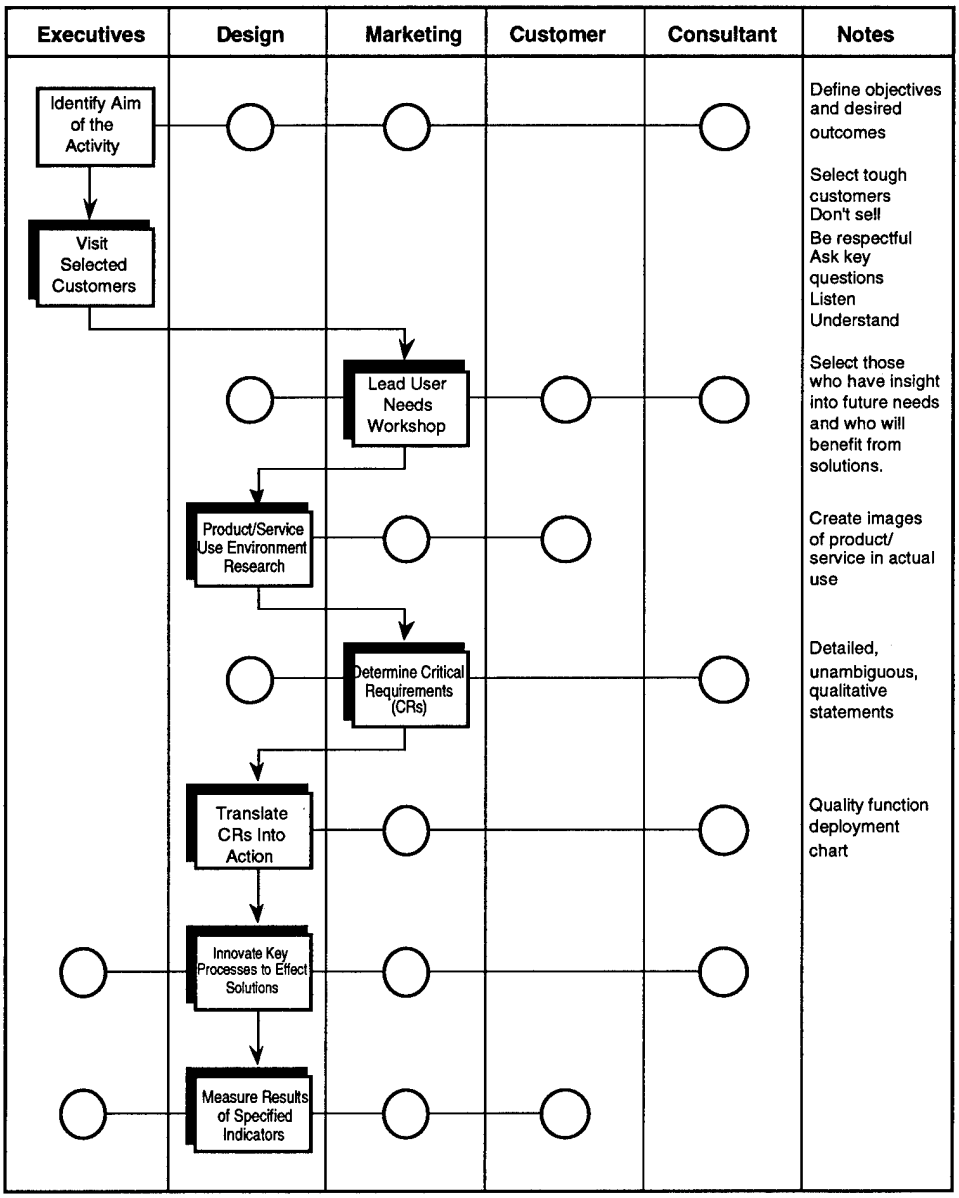


Attractive Quality and Must-Be Quality
Kano, Seraku, Takehasni, and Tsuji
January 18, 1984

Dr. Noriaki Kano has done much research in the Market Management area. He has stated that there are three types of quality. It is useful in looking at this chart to look at the bottom of the chart as being dissatisfaction on the part of our customers, the center horizontal line representing a state of satisfaction of the customer and the upper part of the chart, a state of delight or euphoria by the customer. One type of quality that Dr. Kano talks about is "must be quality." The customer is expecting it and if it is not present, he or she will be dissatisfied. If it is present it can only take them to the satisfied level. Dr. Deming has said that satisfying our customers is not enough, that satisfied customers will switch. Perhaps they will be satisfied with us until a competitor comes out with something better in which case they will change. What is required are customers that are enthusiastic and bragging about us and who will work with us to change. We obviously need to

find ways to take them above the satisfied level into the state of euphoria with us. Kano said the second type of quality is one dimensional quality or sometimes called "more is better." If the customer finds an absence of this, they will be dissatisfied. A certain amount of this will satisfy them but exceeding their expectations with this type of quality can lead them into the customer delight area. Perhaps price may be one area like this where, if our products and services are considered to be of low value, they will be dissatisfied. If it is about what they are expecting, they will be satisfied, or if they feel they are getting tremendous value from our products and services, they will be delighted. The third type of quality that Dr. Kano talks about was the attractive quality or quality delight which the customer was not expecting, so if it is absent, he or she will not be dissatisfied. However, if he/she finds it and it exceeds his or her expectations, it will take them up into the customer delight area. We need to find the process to help identify this type of quality.

Market Creation Model



This integrated flow chart is a high level model of the market creation process. The first step in this endeavor is to define the aim of the activity. Several people meet and go through either a brainstorming or Crawford slip process to accumulate a list of all of the possible objectives they think they would like to see in this process. A facilitator then leads the group into an affinity diagram analysis of all of these objectives followed by an interrelationship diagraph exercise to find the drivers of the objectives. These are then analyzed to define the principal objectives for the process. The same process is followed to identify the desired outcomes or targets of the endeavor.

Between 10 and 20 customers, potential customers, and lost customers are visited by top executives on an annual basis. These are not simply superficial "feel-good" visits. Two to three days planning with the top executives who will make the visits is required in preparation and a similar two to three days in analysis of the results is required after each visit. The planning phase as described previously is comprised of brainstorming, affinity diagram, interrelationship diagraph, and Pareto analysis to identify the objectives and desired output so you will be able to set targets for the activity. These same processes are used to develop the open-ended questions that will be asked of the customers by the visiting executives. It is important to involve marketing research development and other key people in this process to develop these questions. Sample questions are: What is the most effective way to improve our visibility? What will be your needs in 3-5 years? What must we do to be a strategic supplier? Who should we benchmark against? What benchmarks should we use? How do our products/services weaknesses affect you? What problems can we help you solve? During this activity, lead users, or what Dr. Kano calls maniac users, are identified. These are the people that are five to ten years ahead of their contemporaries in their thinking and use of the services and products of the organization.

The next step is to bring those lead users into a meeting together and spend several days with finely tuned processes to probe their minds for needs they foresee in the future. Again, detailed processes are required to make this activity beneficial for both the lead users and, of course, the organization.

The next step is to create the visual image of how your product or services actually are being used by the users. This may or may not be in your customer's facility. Teams of people from your organization must physically go out, and again with proper preparation, view how the products and services are actually being used to paint the mental image of that use.

The following process is to combine the outputs from the lead user workshop and the images of the products and services actually used and develop critical requirements. These are detailed, ambiguous, qualitative statements.

The customer requirements are then translated into substitute characteristics through quality function deployment activities into actions for the development of new products and services to solve the needs.

Key processes in the organization are innovated so that solutions for these now articulated market needs can be offered. It is also very important to measure the results we are offering so that improvements/innovations can continue to be made.

The last step in the planning phase of the PDCA process for the executive's customer visits is to actually train the executives in how to make these visits. There should be no outward selling. The executives should be respectful and sit on the edge of the chair hanging on the customer's words. They need to listen so that they can understand what the customer is trying to tell them. The matrix chart describes the cross section of customers that will be included in the visits. More than 20 visits are usually not required and the minimum of 10 are necessary to get good data.

Moving into the "do" section, the actual visits to the customer is made and, if at all possible, the environment is witnessed in how the products and services are being used. In some cases you will be calling on distributors or customers who in turn sell the product so the actual usage environment will have to be witnessed in another visit. The visits are typically made in pairs with the senior executive asking the questions and the accompanying executive taking notes. Notes are taken as close to verbatim as possible. This is very important. During this time an effort by both visitors will be made to identify the lead users.

The next step is performed upon return to your organization. The notes are transcribed onto post-it notes or affinity diagram labels; one to a label. Again with a group of people, an affinity analysis is made to group the comments into related activities followed by an interrelationship diagraph to find the causes or drivers as opposed to the effects. Then a Pareto analysis from other activity is used to identify the critical few needs articulated by the customers.

The "act" phase consists of institutionalizing the customer visitation activities and assigning teams to develop solutions to the critical few items identified in the check step. Data is collected to show improvement and benchmarking is completed to look for other areas of improvement.

This simple matrix insures input from every possible source such as existing customers and potential customers, new, delighted, satisfied, unhappy, and lost customers. Also to be considered is whether they are a lead user, mainstream user or a trailing user, different sizes, different markets, so on and so forth. This chart needs to be tailored for each organization, but to get the most information, the biggest cross section of inputs is required.

In conclusion, to survive and prosper in the next decade, it is necessary to continue our efforts on cost effectiveness. Traditional quality and reengineering methods are useful to this end.

Parallel efforts need to be made in market management to achieve a monopolistic advantage by creating markets and upsizing the organization. The processes being developed in the market management area hold great promise for an exciting future for each of our organizations by being out in front and by being the beneficiary of change.

It would seem the future will see fewer of us doing more things. In order to avoid being a victim of the future, we must be involved in shaping the future. How well we are positioned to do this may be ascertained by answering a few questions.

1. Have we defined the core competencies of our operation? Remember, to qualify as a core competency a capability must be competitively unique. How do we stand out from the crowd?
2. Have we proven and made visible to the decision makers our core competencies?
3. Do we have a clear understanding about how the future will be different?
4. Are we leading the change or are we satisfied with the status quo?
5. Are we building new core competencies consistent with needs of the future? What other characteristics must we master?
6. Do we have a process to discover future needs of possible users of our services?
7. What are the economic trends which are likely to have the most impact on our operation over the next ten years?
8. How can your customer's (user's) expectations be exceeded?
9. What are the four most essential requirements for successful performance for any organization in our business?
10. How well do we perform on these four essential requirements?
11. How do we know?
12. Are we exercising a disproportionately large influence over evolution in our field?
13. Do we have a sufficient number of pilot activities to ensure we are learning faster than our rivals about future opportunities?

14. Do we have mutual trust and respect throughout our organization?

Have fun with these questions and have fun in the next decade.

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MOTIVATIONAL LEADERSHIP

BIO

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SrA Rodger Adair is assigned to the 305th Transportation Squadron, McGuire AFB, New Jersey where he serves as the Quality/Training Manager. He has been teaching QAF for over three years. He began his journey in 1991, attending several courses at both Mather and McClellen AFBs. He completed both FTD AETC instructor's course and Air Force Academic Instructor's School. Also, he presented a paper on empowerment at last year's Quality Air Force Symposium. Currently, he's finishing his last requirements for a Baccalaureate in Education.

MOTIVATIONAL LEADERSHIP

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ABSTRACT

How can employers stimulate self motivation in employees? Proactive leaders know how to help employees meet mission requirements. This paper explains how supervisors should continually encourage consistent performance at peak efficiency. We will discuss four motivational perceptions, how affective communication and feedback improves motivation; and five steps to help employees enjoy empowerment, and willingly accept accountability.

As Lisa slipped into bed for a long awaited rest, her phone rang. The message sounded serious, though unusual. She pondered how it would affect her already stressful life and her low paying, over burdening job.

With plenty of skepticism she accepted the strange challenge. By six o'clock the next morning she had to make a decision that would forever change her life: Accept one million dollars in cash, or accept the secret to true happiness.

What motivates people? As leaders, how can we effectively motivate employees to perform consistently to their peak and enjoy life while doing it? When it comes to making those huge decisions which propel our lives in uncharted directions, what motivates us? Well, six a.m. has arrived. Which would you choose?

When we think "Motivational" we visualize or imagine energetic speakers dancing about a stage, shouting feel good messages at us. We do feel good because we crave that positive energy thrown our way. Motivational speakers teach methods to happiness and habits of success, but most don't teach us how to keep that feeling going when the magic's gone.

Facilitators, too, fall into the motivational leadership role. These people sneak upon us, slip subtle messages of encouragement past our conscious minds and straight into the subconscious. We sit up, smile and pick up our pace. Now, we feel important. We hear from these people through TQM channels and in team meetings, but never enough to consistently charge our spirits with lasting value.

Too often, we assume happiness (generated from motivational speakers or facilitators) lasts forever. We resist the first few attempts from the pit of reality; then it happens. We get up eight hours later mad at the world, dreading the onset of another miserable day.

To most people, work merely provides the material necessities of existence. In time, workers become alienated, separated from the service or product which they provide. They separate themselves when they lose site of the purpose of accomplishing daily, repetitious tasks.

This alienation could eventually burrow into the employee's psyche, affecting both job and home. As leaders, we need to help employees find and keep a purpose, to motivate them to exceed their status quo.

Motivation comes in two flavors, external or competitive, and intrinsic or personal. Intrinsic motivation satisfies needs based on values, lasting longer and providing self-esteem; while external motivation comes across as high charged and spirited. Most people believe that to stir motivation we must create competition. This type of motivation is external, generated by sports coaches, motivational speakers. This type is temporary.

Intrinsic motivation lasts long after the stimulus has gone. This type is goal driven. Most employees have expectations. Unfortunately, these expectations tend to be basic according to Maslow's heirchy. These can be expressed as, "Work hard for an honest paycheck." "Be a good producer to get time off."

Leaders need to not only recognize this, they need to encourage subordinates to pursue their higher (esteem) needs. Simple phrases such as, "Good work. You're a sharp troop. I'm glad you're on my team." build employees intrinsically, motivating them to further satisfy their own esteem needs. Some may not even be your top performers. So, what do we do about these people, lie to them, tell them how great they are when we know deep down that they aren't?

Goethe once wrote, "If you treat a man as he is, he will remain as he is, but if you treat him as if he were what he ought to be, and could be, he will become what he ought to be, and should be."

Each person has different motivational needs. The following story demonstrates one example: As Todd drove home one evening, he reflected on what had happened at work. Nothing dramatic, just disheartening.

Phil, the grocery store manager, noticed that a broken bag of flour had spilled in the middle of an isle. Phil went to Tracy, his day supervisor, demanding the mess be cleaned. Tracy told her assistant to clean the isle. So, the assistant asked Todd if he

would clean the mess (which wasn't in his department). Todd didn't mind helping. Half an hour later, Phil poked his head into Tracy's office. He thanked her for getting the isle clean so quickly.

"No problem, Phil." Tracy answered, smiling. Then, she returned to reprimanding Todd for leaving his department. Reflecting on the day, Todd wondered why even try doing a good job? Todd based his resolution, to give less, on leadership's role in the situation.

Intrinsic motivation comes from inside each of us. Leadership can never push motivation on people, only pull it from within. To do this we, as leaders, need to jump out in front leading the charge as one of the most motivated of the bunch. Create an atmosphere of excitement and trust; grow smiles on the hearts of others and watch everyone rushes eagerly to work with a refreshed sense of accomplishment each day.

This gets into job satisfaction. But, what is job satisfaction? One definition states that "... the result of their job tasks, the characteristics of the organization in which they work, and individual differences in needs and values." Heck, I thought it meant enjoying the work! Well, it does. There just happens to be more to it.

To understand this we also need to understand the difference between "succeeding" and "success". Succeeding is a series of individual triumphs and failures lumped together. It's finite, step by step. Success is an attitude which encompasses it all. We need to motivate success. Let each employee worry about succeeding. Motivation simply directs our energies toward those successes, those positive experiences.

Most people are like crabs. Seriously! Put two crabs in a shallow bowl then set the bowl in the center of a living room and go to bed. The first fear we have is where the crabs will end up by morning. The second is whether house slippers are sufficient to protect against angry crab claws. Yet, by the next day, both crabs are still in their shallow bowl.

The crabs knew they could leave, in fact they'd tried half the night till too exhausted to crawl out of that dish. So, why couldn't they get out? What most people don't know is that crabs are very stubborn. When one crab moves away from the center of the dish, the other crawls on top trying to beat the first crab out of the bowl. This pulls both back down to the center where one of the two tries again, only to get pulled back by the other.

Supervisors and managers tend to pull subordinates back, preventing them from overextending themselves, going too far, or getting off track. Supervisors, like crabs, believe that's the way to help employees excel. These leaders tend to pull subordinates into unproductive, unrewarding directions because that's the way it's done. Instead of pulling employees back to the center, we need to help them crawl out, pushing (guiding) them to excel.

Leaders need to facilitate this process by doing five important things. First: We need to clearly communicate our expectations. This tells employees what we want, how we want it, when and where we plan to go with it.

Second: Make work achievable. Assign tasks to an employee's abilities. Don't force anyone to walk faster than they can run. Think of work load, how many projects can we juggle? How many do they juggle? Overloading employees with over complicated tasks set the whole process up for failure, destroying motivation. So, how do we prevent

setting subordinates (even ourselves) up for failure? Give realistic assignments, monitor progress regularly, and negotiate workload problems as they occur, not after someone has already buried themselves.

Third: Make work worth accomplishing. Explain how each task relates to the company mission. Explain how important each job is, illustrate contributions and how they affect the organization.

The fourth step: Give regular, positive feedback. How can we maintain those high standards we expect without letting people know our expectations? Give feedback quickly. This avoids confusion, rumors and anxiety. Stick to descriptions of the activity, insights of both negative and positive aspects. Set goals to improve the negative, but praise the positive as the accomplishments they are. Never label anyone!

Step five: Give appropriate rewards as necessary. More lasting and meaningful rewards include sincere praise, of which most leaders give either too little or too late to have any positive impact. Imagine if praise was money. How would you spend it? Save it? How would you invest that praise to get the results you want?

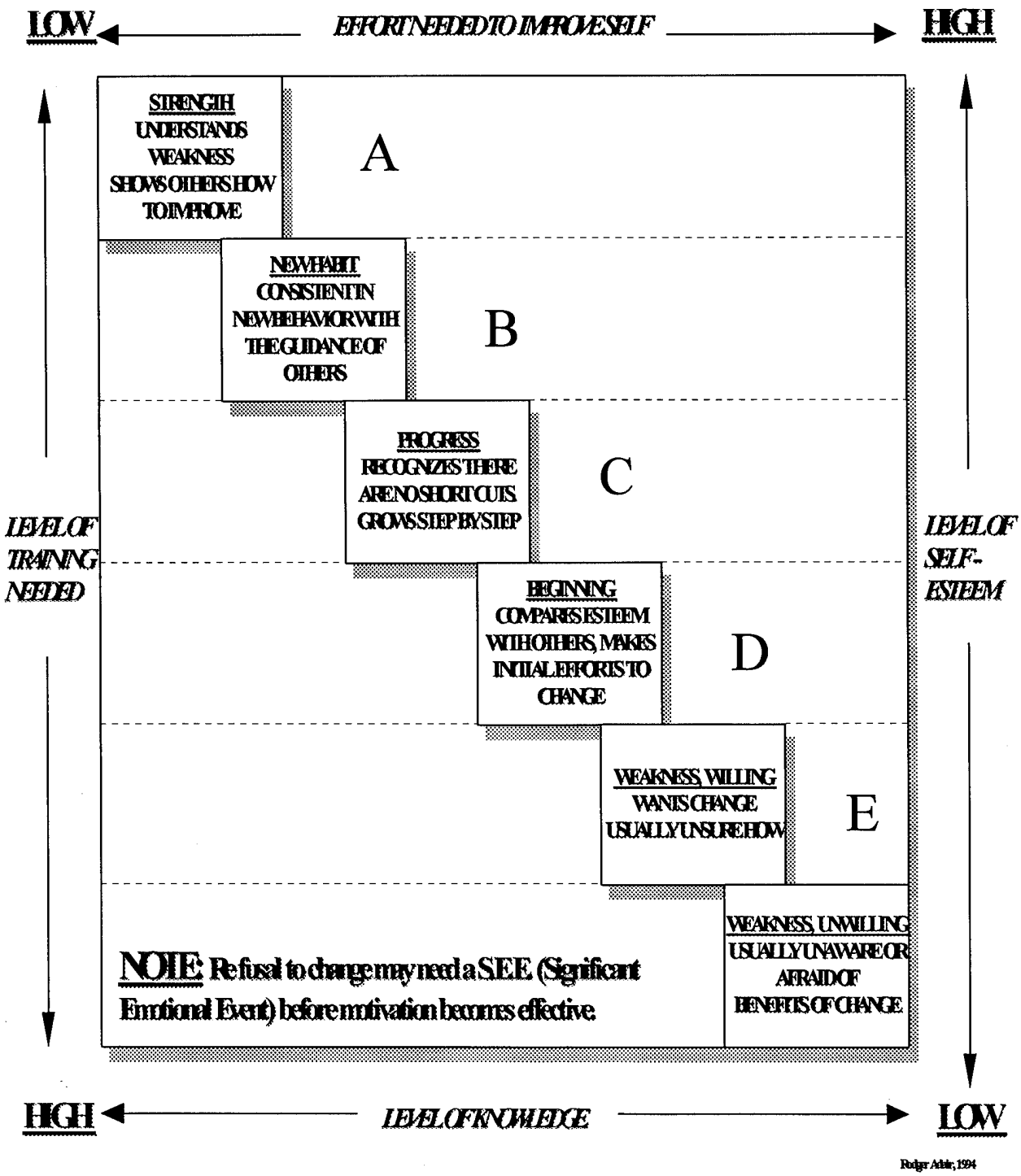
In our rapidly changing culture, volatile business climate, money is still the least economical motivator; yet the most widely used in industry. Money alone isn't an adequate motivator. Once given, like a drug, each dose must increase to get a consistent level of response over time. In order to succeed in business those with talent seek challenges, a sense of accomplishment and respect for quality service or products. Money simply becomes a by-product of that success, not a focal point.

Money satisfies basic, extrinsic needs, while most employees seek intrinsic satisfaction. As we look at this, which needs do we presently satisfy? Do we allow employees process ownership; do we empower them? Do we possess good followership skills ourselves? Remember Todd, the employee who swept up the flour. He didn't have to do that job. It lay outside his department. Intrinsically his motivation became suppressed the moment his day supervisor accepted praise for his work and reprimanded him for doing it at the same time. Or, what of Lisa and her strange challenge? One million dollars or true happiness? Which need do we as a society encourage? Which ones as individuals do we yearn for most?

It depends on where we are in our quest for personal improvement. If we sit back and wait for things to come to us, we're most probably seeking basic needs. If we go out and capture our goals we've set ourselves up for intrinsic satisfaction, thus motivating ourselves to excel at that activity again. We work to improve, to do things better, feeling better about who we are in the process.

Look at the table on the next page. It the six levels of personal improvement which leaders should understand when motivating employees.

PERSONAL MOTIVATION MODEL



Area "A" shows an employee strong in job knowledge and self esteem. Leaders will need to take very little effort to motivate this person on the job. Area "B" describes an employee well into the process of self improvement and may need some coaching from time to time. Area "C" tells of an employee in progress, admitting to short comings; though developing a plan to get ahead of the game. Area "D" describes an employee who has begun the process, but needs plenty of motivational support from the boss to keep trying. Area "E" shows the person most in need of strong motivational leadership. This person usually knows there are short comings, but not where, or even how to pull out of the mire to get up to area "A". Many times no plan exists, so as leaders we need to step in as facilitators and guide our employees through area E up to Area A, step by step.

The last area has no designator, because this employee is not only weak in many aspects of the job, but also unwilling to change. This person needs a significant emotional event to affect the current paradigm. A significant emotional event isn't as traumatic as it sounds. It doesn't have to be termination of employment or an official document to go into a permanent file. It needs to be strong enough to shake that employee's value system to see opportunities available through self improvement.

The Personal Motivation model shows that we as leaders can motivate employees toward intrinsic satisfaction. But, first we need to be near the top of that model in order to pull others toward "A". Leadership by example never means standing below our people and pushing them. It means be up there first, guiding them along the path we just traveled. As each employee rises to the top of the model, shower praise, rewards and gratitude upon them. This shows respect for our people, and ourselves as well.

Showing respect for and praising our people shows them we care for their intrinsic needs. In turn, their sense of self and job satisfaction will rise as they work harder and better to maintain that sense of belonging and accomplishment. Once employees feel intrinsically motivated, stroked and nurtured by effective leadership, something comes over them known as the attitude of success.

Is success a science? Can an attitude (and the finite steps of succeeding) be created? YES, as long as we know how to motivate each employee intrinsically and individually.

Four motivational categories illuminate our basic motivational points of view. Achievement, Power, Affiliation, Intimacy. Each person feels motivated by one of these four perceptions. As leaders, we need to discover how people get motivated, then develop a plan for each individual employee based upon their individual perceptions. In other words, ask how employees feel motivated, then act on that information.

Achievement minded people strive to excel on the job, to do it right, be productive, show off accomplishments and be the best at what ever task comes their way.

Power minded people need to have control, seeking authority and responsibility at every turn. These people are very comfortable as king of the hill, and don't feel they're reaching their goals unless they can take charge.

Affiliation minded people care and nurture others' needs, helping them to do well. In seeing a colleague attain success, this person sits back and revels over all the things he or she did to help that person along the way, then shares in that joy of success. This person's nature is also to achieve continual consensus.

Intimacy minded people look emotionally close and attached. These people feel successful when attention draws to their positive attributes. Never leave this sensitive person out of a conference, or behind on a business trip!

We need to understand the different motivational perceptions which people have of themselves and others. Everyone shares these traits. No one is purely power driven. At times we become motivated by achievement, affiliation or even intimacy. What matters in motivational leadership is which one dominates? From here we proceed to plan our course of motivation.

Be careful how we to empower employees. If we empower someone to take command of a project and that individual happens to work best through intimacy, we have created a paradox for that employee -- possibly setting up failure from the beginning.

Of the late Dr. W. Edwards Deming's fourteen points, numbers seven and twelve come to mind. Point seven states that leadership's goal is to help the workforce and their tools do a better job. Point twelve states that Supervisors must focus on quality by instilling pride in workmanship. What better way to achieve both of these points simultaneously than through motivational leadership?

Whether a circuit lecturer, motivational speaker, or supervisor, big motivatiors to achieving job satisfaction are affective communication and positive feedback. These give employees the impression that leadership sees them as important, leading to leadership becoming important to them, leading to intrinsic job satisfaction! This intrinsic satisfaction is paramount to motivation.

The length of time an employee has spent on the job also affects motivation. While new employees tend to act more enthusiastic; older, more established workers, seek autonomy and empowerment. While newer employees seek to improve things, older employees seek to own processes. Both are important to an organization. The new person may seem like a loose cannon at times, while the other appears as a dinosaur. When the two clash, job satisfaction may waver. Open communication needs to exist to prevent potential rivalries between the established blood and new blood.

Weaving motivation into leadership enhances productivity, morale and intrinsic job satisfaction. Both the government and civilian industries can use motivational leadership in day to day operations. For leadership to be most effective infuse motivational strategies with a proactive leadership style. The promise of being elevated to new heights of personal accomplishment is relevant for most peoples' aspirations. Making such improvement opportunities possible is one of many responsibilities we face as leaders. It's of prime importance in maintaining productivity, morale and employee satisfaction. By following these steps patient leaders should be able to take an unmotivated group and facilitate them into a synergistic and productive team.

Many people relate satisfaction to looking for a light at the end of a tunnel; at times running to it, other times crawling. But the tunnel has neither a light, nor an end. The light we seek is already with us, in our hands. We carry the lamp which has lit our way thus far. We tend to look outward to answer what lies inside, motivation. Now that we know where to find it, we must learn to use it productively.

Ultimately, we want our employees to become self motivating. Nothing states it better than an old Chinese proverb I recently came across: A bad leader is somebody from

whom the people turn away. A good leader is somebody whom the people praise. A great leader is someone of whom the people say, "We did it ourselves."

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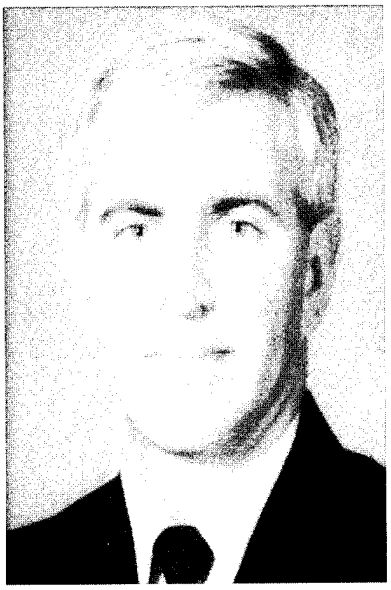
The Starlifter Commander:
A Profile in Leadership



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The Starlifter Commander: A Profile in Leadership

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Abstract

This paper provides information about the role of leadership and how effective leaders are developed for success in organizations. It examines the difference between management and leadership, common perspectives used to view leadership, and leadership models. This paper will closely examine the situational leadership model, an approach that can result in effective leadership and follower development. The application of management and leadership concepts to the experiences of the Starlifter commander will provide a practical profile of leadership. The success or failure of the leader will rest with a personal choice of leadership style.

Paper Text

The Starlifter is a military aircraft. Built by the Lockheed-Georgia Company, its official name is the C-141 Starlifter. At speeds of near 500 miles per hour and flying over six miles high, this airframe can carry up to 200 people or 35 tons of cargo to remote destinations throughout the world. The person who flies this aircraft and directs the activities of the crew is called the Starlifter commander. Together, the C-141 and Starlifter commander fulfill the vast spectrum of airlift requirements. They have the capability to airlift combat forces over long distances; inject those forces, their equipment and cargo either by airland or airdrop; resupply employed forces; and extract the sick and wounded from the hostile area to advanced medical facilities. They can also provide humanitarian aid in response to disasters anywhere in the world. The Starlifter's nickname is the "**work horse**" of the Air Mobility Command, and the Starlifter commander and crew are the **human resource**. The Starlifter commander and his leadership role steal the spotlight throughout this paper. The title "Starlifter commander" might sound like a futuristic hero who tosses stars throughout the galaxy, but he/she is simply an individual who directs the activities of an aircraft and a group of people called crew members. The unique environment of the C-141 aircraft and the interactions that occur between the Starlifter commander and crew form a "leadership laboratory." The purpose of this paper is to discuss the role of leadership and how effective leaders are developed to ensure success in organizations. It will first examine the role of leadership analyzing the difference between management and leadership, progress to a discussion of common perspectives used to view leadership, and end with a discussion of leadership models. The application of these management/leadership concepts to the experience of the Starlifter commander will provide an informative and entertaining study of leadership. This practical application of theory will create a profile of the Starlifter commander as a leader. The success or failure in this role rests on the behavior of the Starlifter commander and **his/her** ability to understand and implement situational leadership, an approach that results in effective leadership and follower development. (For the remainder of the paper, all "**he/his**" references to the Starlifter commander are actually meant to represent male and female commanders. "He/his" is

only used for ease of reading and the fact that the majority of Starlifter commanders are male. This use of the male gender in no way implies ineffectiveness of the female in the Starlifter commander role.)

The Starlifter commander and crew are a formal group. It is a unique social unit consisting of six interdependent, interactive individuals who are striving to attain common goals. More specifically, it is a project group formed from individuals who come from several different backgrounds and assemble to carry out a task commonly referred to as the mission. When the mission is complete, the group disbands and the crew returns to its home squadron and recycles to form another crew. A typical mission lasts for a duration of three to seven days.

Our project group, the Starlifter commander and crew, has certain roles or expected behavior. Each member of the crew has a job description and specific responsibilities. The Starlifter commander, commonly called the aircraft commander, is responsible for the overall safety of the aircraft, passengers, and crew. He flies the aircraft and directs all activities of the crew to ensure mission accomplishment. The copilot has limited flying and command abilities, and he is actually in a constant training role to build the experience necessary for upgrade to aircraft commander. The engineer is the pulse of the aircraft. He is the onboard expert for aircraft systems such as engines, electrics, hydraulics, environmentals, and fuels. He also computes all the analytical performance data for different phases of flight. The back-up engineer, called the scanner, is the "ears and eyes" of the pilot. During in-flight emergencies, he can move freely about the aircraft with a long communication cord and provide critical information directly to the Starlifter commander. When the aircraft breaks at remote locations, the scanner is the crew member who pulls out the tools and becomes the mechanic. The aircraft commander, copilot, engineer, and scanner sit in the front of the aircraft like a normal airline flight crew. In the back of the C-141 are two loadmasters. Their role is to safely load the aircraft cargo and/or passengers. The loadmasters load pallets of supplies and equipment securing them for flight operations. When people are transported, loadmasters provide food and drink service and assist passengers during emergency situations--much like the airline flight attendants.

Well--those are the actors, and the stage stretches across the world by the gift of flight. Will the play be successful? It depends largely on the **leading** actor's performance. The outcome depends on the Starlifter commander's ability to lead his crew and untap their full potential. According to the human resources model, the crew consists of ambitious individuals, possessing self-direction, self-control, and creativity. If the Starlifter commander is an effective leader, the crew's contributions can reach the full extent of its talents and the airlift mission will be successful.

Leadership and management are clearly two different concepts. According to Labovitz (1987), management is the process of organizing methods, materials, manpower, and other resources to achieve organizational goals. Leadership is more intangible than management; it's harder to define. If management is getting the job done (processing in organized fashion the work of the organization), then leadership has an extra dimension. Leaders get the job accomplished plus more. They have vision, set direction, enable people to extend their capabilities, inspire loyalty, and command respect. To fully understand this extra dimension that characterizes leadership, a foundation of management skills must be established.

Blanchard and Johnson (1982) address the concept and application of management with their theme "the one-minute manager." They use it as a figurative expression with practical applications that encourages readers to take time each workday to know the people they manage;

to understand they are the most important resource. For the Starlifter commander, this is especially important. For the most part, the C-141 airframe is a safety constant. Before it is allowed to fly, it must be worked on by maintenance personnel and must pass strict preflight inspections. If it is not air worthy, the mission is canceled or a back-up aircraft is used. Therefore, a safe aircraft becomes a constant on a normal day, and the biggest variable in the mission success equation becomes the people--the crew. The crew is the most important resource. The aircraft is just metal and wires; the people breathe life into the technology of the engines, electrical systems, and flight controls. The people make things happen, not the machine--that's why the aircraft commander must manage his crew properly.

Blanchard and Johnson define the one-minute manager as a person who directs activities and people with three fundamental requisites: one-minute goal setting, one-minute praisings, and one-minute reprimands. One-minute goal setting is the first step and starts the whole process. Managers and subordinates must establish and agree upon goals, objectives, and key milestones--they must have a clear understanding of accountability areas and job performance standards. Without clearly defined goals, there is no basis for one-minute praisings or one-minute reprimands. To establish one-minute goals, managers should (1) meet with subordinates to discuss job-related tasks and select five or six key areas needing attention; (2) write five of six established goals on a sheet of paper in 250 words or less; (3) read and reread goals to ensure clarity, understanding, and agreement; (4) take a minute during the day to compare performance against goals; (5) observe whether or not behavior matches goals--managers and subordinates meet to resolve any problems.

The second step is one-minute praisings. This will positively reinforce desired behavior and will keep subordinates motivated and achieving. The central intent of praising is to help people reach their full potential by catching them doing something right and rewarding achievement through recognition. This feedback is the number one motivator of people. When delivering one-minute praisings, the manager should (1) immediately recognize people's performance; (2) tell subordinates what they did right; (3) tell subordinates how good he/she feels about what they did; (4) stop for a moment and let the people grasp how good they feel about what they've done; (5) encourage subordinates to continue their good behavior.

The third aspect of one-minute management is the one-minute reprimands. This action separates the person from the behavior. Feelings are discussed so that behaviors can be analyzed and corrected. They are intended to illustrate that we are not just our behavior, but the person managing our behavior. When delivering one-minute reprimands, the manager should (1) reprimand immediately; (2) tell subordinates specifically what they did wrong; (3) clearly communicate to followers how he/she feels about their error; (4) allow subordinates to internalize how he/she feels about what they did; (5) impress upon people how he/she values them, but not the particular behavior; (6) shake hands--express warmth and concern that he/she is just trying to help them; (7) comprehend that when the reprimand is over, it's over--that there is no resentment toward the individual. This form of discipline leaves the reprimanded party concentrating on improving their performance and not dwelling on the way they were treated.

The Starlifter commander is clearly a manager. He mangers the activities of the crew--in the air and on the ground. In the air, he is responsible for proper crew coordination, running disciplined checklists, and maintaining flight safety. On the ground, his duties involve coordinating transportation, billeting, meals, and communicating with base representatives. He is a busy manager and the focus of the mission and crew. As the mission is tracked by the command

and control structure, the commander is ultimately responsible for the success or failure of the mission.

The Starlifter commander must grasp the simple principles of management that Blanchard et al. present because his crew is the key to success. Crews that are improperly managed become protective motivated which results in them becoming ineffective, inefficient, or unsafe. Blanchard's management concepts can be integrated into the formal group activities that exist during the course of a C-141 mission. A wise Starlifter commander uses them by clearly providing one-minute goals, praisings, and reprimands.

The Air Force, Air Mobility Command Headquarters, and Tanker Airlift Control Center set most of the broad goals for the Starlifter commander and crew. This information is very structured, represents years of experience, and carries an underlying theme of safe airlift operations. These directives come in the form of flying instructions, aircraft operating manuals, and technical orders. Upper levels of management coordinate and schedule the cargo, passenger requirements, and determine the aircraft arrival and departure times. This information is provided to the Starlifter commander prior to the crew departing home station. As a result, many of the broad goals are set subsequent to the mission and followed each time a mission is flown. They form the foundation of the mission, but there is much room for innovation and a tailoring of the mission. It is commonly referred to as technique and is different for each commander.

An aircraft commander's technique can result in greater efficiency in moving cargo, improved service for passengers, and expedite many general activities throughout the mission. This individual signature of each Starlifter commander surfaces first with the mission briefing just a few hours before the first takeoff. This is how the aircraft commander sets the tailored goals and communicates what he expects of the crew. Within the broad structure of regulations and the flying schedule, he sets detailed goals for the mission so there are no gray areas. If a crew member has a problem with his approach, it is addressed at that time. When the crew leaves the briefing room, there is no doubt in their minds as to what the Starlifter commander expects. In the middle of an in-flight emergency, there is no time to re-evaluate goals.

Praisings are important throughout the Starlifter mission. Only two crew members have commissioned officer status which means their base pay is generally higher than the other four crew members. This hits home in terms of a dollar comparison when a flight engineer and loadmaster's pay are compared to an airline pay structure for similar jobs. Therefore, many psychological offerings are necessary to help motivate the crew throughout the mission. The work day can also become quite long for the Starlifter crew. By regulation the basic crew duty day can be 16 hours long (only 12 hours for a commercial flight crew) and waiverable to 18 hours at the aircraft commander's discretion. Also, the overnight stops are rarely at the Hilton, Sheraton, or Ramada Inn like airline crews. Most often, the crew stays overnight in less extravagant base quarters or sometimes they sleep in "Tent City" during the course of a contingency operation like the Persian Gulf crisis. So, continuous praising can keep the crew motivated and keep the mission moving on time and safely. "Nice landing copilot", "great job fixing that hydraulic problem engineer", or "thanks loadmaster for speeding up the onload--we made our takeoff time" are phrases that go a long way toward mission success. Praisings can come at the conclusion of the mission also in the form of an optional trip report that the Starlifter commander can fill out on crew members for either extremely superior of extremely poor performance. This form of feedback is important because it documents the crew member's efforts, and is sent to the crew member's permanent supervisor after the project group is

disbanded. The official supervisor then has a tool available to write the member's official evaluation for the year. The mission trip report is also forwarded to the squadron commander who is kept in the information loop when members of his unit are performing extremely well.

Trip reports can also be written for extremely poor performance which brings up the subject of reprimands. If a crew member is performing below standards, the problem must be addressed--the lives of crew members and passengers can be at stake. Reprimands should be administered according to Blanchard and Johnson. Their approach allows for the action to take place, problem be corrected, and for the mission to continue. In the interest of privacy, reprimands can be administered in-flight by use of a private microphone system where only the Starlifter commander and just one selected crew member can communicate.

Leadership and management (Lester, 1986) are often considered the same activities, but the two concepts differ in the sense that leaders focus on people while managers deal with things. Lester believes that most Air Force people understand the management concept, but they have a problem in the study of leadership because conceptually it is more difficult to comprehend. In fact, leadership in both a practical and theoretical sense is one of the most discussed and least understood subjects today. He adds that military and civilian people alike tend to view leadership in much the same perspective as their health: "They understand it best when they do not have it and feel a need for it." That feeling comes most often in the C-141 aircraft when suddenly a voice is heard over the radio, "Aircraft commander, number four engine is on fire--what do you want to do?"; or "Sir, we're leaking fuel out of the main tanks. We have insufficient fuel to make our destination, where do we divert?" The Starlifter commander is suddenly a leader, and his effectiveness will be judged on the timeliness and soundness of his decisions. So, the Starlifter commander must be a skilled manager and also focus on effective leadership qualities.

Fisher and Ellis (1990) review common perspectives used to view leadership. They are the traits, styles, and situational approaches to leadership. The **traits approach** attempts to distinguish leaders from nonleaders and to identify those personality traits that characterize persons who rise to leadership status. This perspective represents the school of thought that holds leaders are **born, not made**. Many personality traits have been linked to leadership such as dependability, intelligence, self-confidence, enthusiasm, originality, responsibility, verbal facility, and creativity. A list of such traits appears consistent with common sense, but the traits approach to observing leadership has failed to achieve consistent results. Personality traits are difficult to measure and people often disagree when it comes to personalities. The traits approach cannot differentiate between a good leader and a bad one, and it fails to explain the difference between achieving leadership in a group and maintaining it. Also, the variations in leadership qualities and requirements are so great that any list of traits would surely exclude some successful leaders and include some unsuccessful ones. The styles approach to leadership was an attempt to solve some of these problems.

Fisher and Ellis explain the **styles approach** to leadership which proceeds from a different perspective. This approach seeks to determine which style of leadership is most effective in a group, by comparing one predetermined style with another. The early research using the styles perspective differentiated among three general styles of leadership. These three styles were generalized descriptions of the relationship between leader and followers based on the leader's pattern of behavior; they were termed democratic, autocratic, and laissez-faire (laissez-faire was later discarded). Numerous studies have compared the democratic and autocratic styles of group leadership. According to Johnson (1993), all leadership styles exist somewhere on a straight line

between these two concepts. In the true democratic theory, the leader is committed to goals established by the group. The group determines who the leader will be and how that leader will best serve it in the quest to meet the established goals, which are determined by the group. The group decides why certain courses of action are taken of if any action will be taken. In the autocratic-type theory, leaders are committed to goals and the reasons why, which are established outside the work group by people of higher authority. The group then helps the leader reach these goals. The leader might explain the reason why goals were established. The leader determines who will do what, where it will be done, when it will be accomplished, and to some degree--how it will be done.

The styles approach is not a fully satisfactory perspective from which to view leadership. It is intuitively obvious that no one style is most desirable or most effective for all groups and all situations. A well-known example of this approach describes the ideal leader as a team player employing equal measures of concern for people and productivity. But some situations clearly call for more concern for people than production and vice versa. For example, the Starlifter commander flying in a severe storm is an autocratic leader and undoubtedly should be. When the going is rough, he cannot stop and take a vote--he gives orders that must be followed without hesitation. Naturally, our Starlifter commander adopts a more democratic style in less trying situations. It is possible for leaders to use a characteristic style, but this style cannot be entirely divorced from the requirements of the situation that leaders and followers are involved in. So a style approach might be a typical tendency, but it is still relational because the leader responds to the qualities of followers and situation.

A model of typical tendency in leadership study involves the Managerial Grid. Blake and Mouton (1985) utilize the Grid to show various ways to use authority in exercising leadership. One dimension of the Grid is concern for production--results, bottom line, performance, profits, or mission. The other dimension is concern for people--subordinates and colleagues. "Concern for" indicates the character and strength of assumptions present behind any given leadership style. These two concerns are pictured visually on the Grid. They are shown as nine-point scales, where 1 represents low concern, 5 represents an average amount of concern, and 9 is high concern. The intermediate numbers denote intermediate degrees of concern. While there are numerous ways of uniting these two concerns, only a few are important for understanding the exercise of leadership. From the range of orientations, five display such significant differences in characteristic actions and outcomes--they are readily identified as benchmark styles (9,1/1,9/1,1/5,5/9,9).

There is no such thing as one ideal style for all situations. To increase managerial competence and productivity in people, a leader must know of alternate leadership styles and be prepared to select the soundest. It helps all crew members to understand the five basic grid styles of leadership. It especially helps the Starlifter commander as he may close the gap between his typical and desired leadership styles, and experience other leadership styles triggered by changing situations during a mission. Blake and Mouton note in their book that the Grid is being used to solve crises in the aircraft cockpit--military, commercial, and corporate. "Aircrews are now using it to learn skills of leadership and teamwork essential for effectively mobilizing human resources."

Because of the inability of the traits and styles approaches to provide robust explanations of group leadership, Fisher and Ellis (1990) state that many investigators of group behavior have turned to another perspective. This common perspective is the **situational approach** which is a popular focus in leadership study. This is the school of thought what maintains leaders are **made, not born**. When people rise to leadership positions and are assessed from this perspective, the

main consideration is given to what the leader does or needs to do for effective group functioning. The situational approach to leadership requires a thorough description of the group situation. Of the many situational variables that could be examined, perhaps the one most studied is the group members' particular combination of personality traits--their level of interest in the task and their motivation. A second variable which has some bearing on the particular kind of leader required is the nature of the group's task.

The situational approach to leadership, although highly popular and traditionally the most accepted approach to group leadership, can be challenged as it underscores the complexity of the group situation. The number of factors that can differentiate one group from another is extremely large. For certain though, the situational approach has drawn attention to how leaders are affected by the perceptions of their followers (as opposed to concentrating on the behaviors of individual leaders). Therefore, what began as a strong response to the traits and styles approaches has led to significant developments in understanding leader-follower relationships.

One popular model based on the leader-follower relationship is the life-cycle theory of leadership proposed by Hersey and Blanchard (1988). This life-cycle theory originated in response to the difficulties of defining "situation" and to the importance of leader relationships with group members. Arguing that neither autocratic nor democratic styles are right or wrong in themselves, they maintained the key variable in effective leadership is the situation of followers. A central principle of Hersey and Blanchard's theory is that leaders should communicate and interact with followers based on the level of maturity of the follower. The follower determines the leadership style, how task- or relationship-oriented a leader should be, depending on the maturity level of the followers. A leader is effective when his or her style is appropriate to the environment and the other members of the group or organization. According to Hersey and Blanchard, there are four distinct leadership styles that arise from different degrees of task and relationship behavior. The first is the **telling style**. This involves highly directive behavior, telling the individual what to do, how to do it, how many to do, when to do it, and who is to do what (group case). Typically, it is used with new workers, individuals beginning new tasks or in reprimand situations. The telling style involves little encouragement or coaching behavior. Next, the **selling/consulting style** is used in the process of individuals learning tasks and developing work-related skills and self-confidence. It provides some direction, encouragement for the person who is developing, and ample opportunity for the individual to clarify just why particular tasks are best accomplished in a certain way. The selling style involves positive reinforcement and coaching techniques along with direction. The third style is the **participative style**. It includes a great deal of involvement of employees in deciding on the best way in which tasks are to be accomplished. Encouraging input from group members with substantial work-related knowledge is the essence of participation. This style is used when the workers involved know the methods of achieving tasks well, but they are reluctant to do them entirely on their own. Participation involves the use of positive reinforcement with little direction. Finally, the **delegating style** involves very little direct supervision, and individuals to whom tasks are delegated are trusted to effectively and efficiently accomplish them on their own. Delegating is used with workers who are motivated to set and achieve their own goals, and whom are fully knowledgeable of the work tasks involved.

The situational leadership model proposed by Hersey and Blanchard uses these four leadership styles. It also clearly recognizes that there is no one best leadership style. Leadership behavior varies considerably in the extent to which a leader needs to provide direction and support, or, in the terminology used by Hersey and Blanchard, "the degree of task and

relationship behavior." For the Starlifter commander, there are two starting dimensions that affect his ability to lead--concern for task (mission) and concern for relationship (crew).

The Starlifter commander uses the life-cycle model as he leads his crew throughout the mission. The Starlifter commander as a leader must be prepared to make many difficult and complex decisions--usually on a daily basis. He will exercise leadership any time he changes or modifies the behavior of his crew. To develop solid working relationships, the aircraft commander must successfully fuse the organizational and crew needs in a way that permits his crew and the Air Force to reach peaks of mutual understanding. Thus, leaders get things done through people and make things work. Although the primary challenge is successful mission accomplishment, the aircraft commander must never overlook the welfare of his people, for his crew is his most important asset. Here then, are the three major leadership elements--the leader (Starlifter commander), the follower (crew), and the situation (different parts of the mission).

He adapts his leadership style based on the experience of the crew and type of task that needs to be completed. For example, he uses the **telling style** when reprimanding a crew member. He also would use a **telling style** during a critical in-flight emergency when there is no time for discussion among crew members and he is clearly the resident expert. He quickly directs checklists and directs the recovery procedures to each crew position. A participative style here could spell disaster. This style of leadership was based on a critical, time sensitive task where the maturity level of his crew was inferior to his. Not all tasks or goals are like that. During normal phases of flight with a very experienced crew, the Starlifter commander will use the **delegating style**. It's not unusual during a slow, overwater leg to Europe, for the aircraft commander to delegate control of the aircraft to an experienced copilot and rest for a while. Also, the aircraft commander may choose to place the old, seasoned engineer in charge of billeting accommodations or ground transportation. An example of the **participative style** can be seen during an unusual onloading situation on the ground. The loadmaster may be loading a new piece of cargo, say a well-drilling vehicle. The aircraft commander has never transported one of these, so he relies heavily on the loadmasters to answer his questions and load the vehicle properly. The same style of leadership could surface when the Starlifter commander is flying to a remote airfield in Africa for the first time. If the copilot has been there once before, the aircraft commander may elect to allow the copilot to fly that approach and landing because the copilot is familiar with the airfield. Finally, the **selling/consulting style** is seen during an interaction of the aircraft commander with a relatively young (inexperienced) C-141 crew. He needs to "walk, not run" them through the mission. Another example which occurs frequently is copilot training. The Starlifter commander finds periods of time to personally share knowledge on aircraft systems or flying techniques with the copilot, so that individual will continue to upgrade until he becomes an aircraft commander. It is clear, the Starlifter commander must adapt his style to meet the maturity of the follower and the environment.

The concepts of leadership and management are different, but there are definite relationships between one-minute management and situational leadership. This is most obvious in a book called *Leadership and the One Minute Manager*. Three secrets of one-minute management make situational leadership a dynamic model (Blanchard, Zigarmi, & Zigarmi, 1985). To begin with, goals start performance in the right direction and permit a manager to analyze a person's competence and commitment (development level) to perform well. Praisings then foster improvement in the developmental level of the individual and permit a manager to gradually change his/her leadership style. This change involves a shift of leadership style from **directing**

(high directive/low supportive behavior) to **coaching** (high directive/high supportive behavior) to **supporting** (high supportive/low directive behavior) to **delegating** (low directive/low supportive behavior). Finally, reprimands stop poor performance and may mean that a manager has to regress in his quest to develop follower potential. Blanchard et al. state, "Everyone is a potential high performer. Some people just need a little help along the way." That help comes in the form of this situational leadership model. The first goal as a situational leader should be to match the appropriate leadership style to the follower's development level in order to provide effective leadership. Over time, if the leadership style consistently matches the subordinate's development level, their competence and commitment will grow until eventually they become self-directed, self-motivated peak performers.

According to Johnson (1993), Hersey published his situational leadership theory with *The Situational Leader* in 1984. He named the four quadrants telling, selling, participating, and delegating. The Blanchard-Zigarmi team followed Hersey's work with their book, *Leadership and the One Minute Manager*, and named its elements directing, coaching, supporting, and delegating. Both efforts have found their way into many different leadership programs and provide the original thoughts for the situational leadership model. The concept of situational leadership provides an excellent understanding of practical leadership that works.

The Starlifter commander knows what he must do to be an effective leader. Using the skills of the one-minute manager and the situational leadership model, he has to start with clear goals either defined by a clear mission briefing or an update in flight. Then he must diagnose the competence and commitment of his crew to accomplish the mission goals. Based on these perceptions, the Starlifter commander chooses an appropriate leadership style. He uses this style until there is a behavior change by the crew members or the task he wishes to influence changes, which could necessitate a change in his leadership style. Hence, there is a phrase used in the discussion of this model: "Different strokes for different folks--based on the specific task." The Starlifter commander's leadership style may also change due to the environment such as a critical in-flight emergency or the outbreak of war. During Operation Desert Shield/Desert Storm (Persian Gulf crisis), many aircraft commanders who usually exhibited supportive behavior started using directive behavior. For example, Starlifter commanders who had never before asked for a crew duty day extension were requesting extensions up to 24 hours. Starlifter commanders who usually insisted upon comfortable quarters for their C-141 crew--they graciously accepted tents. Those who had fought for long crew rests for their crews now volunteered to fly with minimum crew rest. Those known as chronic complainers were suddenly silent. In time of war and threat to our national security and freedom, the Starlifter commander chose a different style of leadership.

This paper has focused on the Starlifter commander and the concept of leadership. He is in command of an aircraft, crew, and a mission that spans the globe transporting cargo and passengers. Former Secretary Rice testified before the House Armed Services Committee on the posture of the Air Force. From his prepared statement (1992), he commented that the Global Reach of the Air Mobility Command is essential to our nation's defense. "Since 1965, the backbone of our long range airlift fleet has been the C-141. For a quarter century it has enabled this nation to support a policy of forward presence and to respond to crises and disasters globally. One objective measure of our reliance on airlift diplomacy is that the C-141 fleet has flown more than twice the number of hours of any other military aircraft--averaging 33,000 hours per airframe." From a human resources perspective, those accomplishments can be associated largely

with the performance and mission success of the crew. And who managed and led the activities of that group? Yes, the Starlifter commander was the leader. Secretary Rice also commented on the record-breaking work done by the C-141 during the Gulf War. The crews of the C-141 Starlifter safely flew over 61,000 flights, logged more than 362,000 hours, and transported over 217,000 tons of cargo and 131,000 passengers. They accomplished this without one accident and not a single loss of life.

From the nature and responsibilities of his job, it should be obvious that the Starlifter commander is a manager and clearly extends himself into the extra dimension of leadership. Is he an effective leader? Has he completed his mission successfully while developing the potential of his crew? If he has command of the concepts presented in *Leadership and the One Minute Manager*, chances are good his leadership skills are excellent. His success in matching the appropriate leadership style to the follower's development level results in effective leadership and eventually transforms subordinates into self-motivated, peak performers. For the Starlifter commander, his most important resource is the crew around him. He is a unique profile in leadership, because he has a "flying" desk and his office address changes daily. But if history could testify, it might say, "most Starlifter commanders are effective leaders, and human resources development is alive and well in the skies above."

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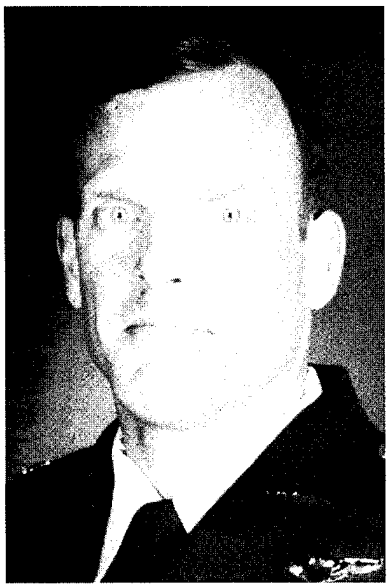
AN ANALYSIS OF BILL CREECH'S THE FIVE PILLARS OF TQM



MAJOR STEVEN B. KING

Major Steven B. King is a 1979 graduate of the US Air Force Academy. He attended Undergraduate Helicopter Training at Ft Rucker, Alabama and flew the HH-3E as a member of the 31st Aerospace Rescue and Recovery Squadron, Clarke Air Base, Republic of the Phillipines. In 1983, he joined the 6594th Test Group at Hickam Air Force Base, Hawaii, where he flew the HH-53E. After graduating from Squadron Officer School, he attended Fixed Wing Transition Training at Randolph Air Force Base, Texas. Moving to Little Rock Air Force Base, Arkansas in 1986, he joined the 61st Tactical Airlift Squadron, flying the C-130E. In 1990, he moved to Scott Air Force Base, Illinois, where he worked in Plans and Programming at Headquarters Air Mobility Command. In the summer of 1993, he attended Army Command and General Staff College in Ft Leavenworth, Kansas. He is presently the Director of Operations in the 93d Air Refueling Squadron, Fairchild Air Force Base, Washington.

ABSTRACT

This summary of The Five Pillars of TQM is an in depth review of the Quality Management philosophy of General Bill Creech, former commander of the US Air Force's Tactical Air Command. This 549 page work focuses on five key areas and the interrelationships that produce a quality team: Organization (the hub of the quality machine), Product, Process, Leadership, and Commitment. Long before the official Quality Air Force (QAF) approach appeared, General Creech laid the ground work for the quality initiatives we see today. Empowerment, continuous improvement, customer feedback, management by wandering around, and decentralization are all a part of this volume. By closely examining positive examples of TQM in action at Boeing, Honda, GE, Motorola, Florida Power and Light, and GM, Creech supports his thesis that an organization that "thinks big, yet is organized small" will significantly outpace its centralized, dehumanized counterpart. This summary provides a quick look at the key areas addressed by General Creech, as well as a critical analysis of his philosophy.

AN ANALYSIS OF BILL CREECH'S THE FIVE PILLARS OF TQM

MAJ STEVEN B. KING

93d AIR REFUELING SQUADRON

As a young military leader, I am constantly searching for new ideas to improve my leadership skills. One of the leadership tools that excites me the most is Total Quality Management (TQM). In February 1994, retired General Bill Creech published a TQM compendium titled The Five Pillars of TQM. This extensive work profiles the quality journey of a retired Air Force four-star general both in the public and private sectors. The sheer length of Creech's work may discourage some from studying this comprehensive TQM/management text. Consequently, the goal of this paper is to give the military leader the salient points from this extensive work in an abridged format.

This paper is organized in two sections: first, Part I provides the reader with a succinct, two page book review that briefly summarizes General Creech's, The Five Pillars of TQM. Part II further explores General Creech's views on five key areas of leadership and management: leadership per se; values, ethics, and command climate; vision and organizational planning; teambuilding and motivation; and assessing performance.

PART I: BOOK REVIEW

The Five Pillars of TQM by retired General Bill Creech is a summary of the evolution of the global quality journey. In a "scant" 549 pages, General Creech traces the roots of the quality movement and provides us direction on where he sees industrial America aimed. Relying on his more than 37 years of military service and 9 years in the corporate world, General Creech identifies the "enemy" early in his manifesto and sticks with it throughout: Centralism is the death knell of American industry. Diametrically opposed to centralism is the answer to the world's organizational problems: decentralism. The five pillars of TQM, product, process, organization, leadership, and commitment, are inextricably linked to produce an output that is efficient, yet humanized. Not only is the output significantly better than that produced under an impersonal, economy-of-scale type system, the decentralized system will inevitably yield a product that is truly subject to continuous improvement.

General Creech begins his book by identifying four groups found in the quality environment: first, there is always the disinterested and disbelieving crowd; second, there are those that are interested, but are basically unconvinced of TQM benefits; third, there is the group that adopted the TQM philosophy slogans, books, and wall plaques, but is afraid to venture

beyond a piecemeal approach to quality; lastly, he identifies that infinitesimally small group (about 2% of American industry) willing to take the complete quality plunge. Despite the successes of quality management-run companies chronicled in 1982 by Tom Peters', In Search of Excellence, American industry continues to drag its feet.

General Creech profiles a number of companies that are the models of the quality process: Florida Power and Light, Motorola, General Motors' Saturn Division, Boeing, Martin Marietta, and of course, his own triumphs while on active duty as the commander of the Air Force's Tactical Air Command. Throughout these successful efforts there is a continuing theme that General Creech voices: "Think big about what you can achieve; think small about how to achieve it."

All of the organizations General Creech cites have unique problems. However, he also sees commonality in all organizations, whether they produce high tech microchips or provide high quality rooms for the night. The management principles in the private sector are the same as the public sector according to General Creech. Total Quality Management is not a "leave them alone" philosophy, but rather a "work with them" outlook. Instead of managing a work place where control is paramount, General Creech religiously argues for teambuilding with leaders at all levels motivating, teaching, and integrating with employees.

General Creech clearly paints the picture of why American industry will not flourish in the next century without taking the complete "TQM plunge." However, he lessens the effectiveness of his argument by using former DOD procurement head, John Betti as one of the standard bearers of quality. Mr. Betti, previously an executive vice president at Ford, and most recently the Under Secretary of of Defense for Acquisition, resigned under pressure for unprecedented irregularities in the now-cancelled A-12 program. Furthermore, General Creech makes this reader uncomfortable with the manner in which he presents a number of his personal TQM successes. Full page letters of recognition from satisfied customers are best left at home.

Despite the distractions mentioned above, The Five Pillars of TQM is an exciting chronicle of the potential of the quality process. I will forever remember the Bill Creech mantra: think big, organize small.

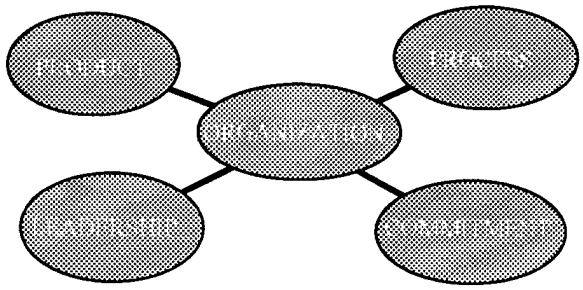
PART II

INTRODUCTION

General Bill Creech is clearly an optimist. He sees a nation that is rich in history and full of potential. He also sees a country that is long overdue for an overhaul in the way it conducts its business. Creech begins his book by candidly admitting that the "Quality World" is now flooded with so-called experts that provide guidance throughout the quality spectrum. Consequently, he freely admits that the "most important step of all in a successful TQM journey is to first sort out

who to believe."[1] Early on he provides us three to four pages of personal successes that establish his credentials as a bonafide expert in both the public and private sectors of management. His theme up front is clear and resonates throughout the book: decentralization and a "holistic" view toward leading and managing are the keys to future success. He expounds on this message via explanation of each of the five pillars: product, process, organization, leadership, and commitment. To begin the analysis of this work, I will first briefly explain what Creech means by each of these pillars. Next, I will review his philosophy in light of five key subject areas of leadership and management: Leadership per se; Values, Ethics and Command Climate; Vision and Organizational Planning; Teambuilding and Motivation; and Assessing Performance. Let's begin with a quick tutorial of Creech's five pillars.

THE FIVE PILLARS OF TQM



PRODUCT, PROCESS, ORGANIZATION, LEADERSHIP, COMMITMENT

The diagram shown above illustrates Creech's basic philosophy.[2] He summarizes the most cogent points of each balloon in his epilogue as follows:

> Product is the focal point for organization purpose and achievement. Quality in the product is impossible without quality in the process. Quality in the process is impossible without the right organization. The right organization is meaningless without the proper leadership. Strong, bottom-up commitment is the support pillar for all the rest.[3]

Of all the details provided about the pillars, the ones I found most valuable dealt with product and leadership. Creech calls the product the "focal point for quality and productivity."[4] While he deliberately avoids placing "product" at the center of his diagram, he acknowledges the

[1] Bill Creech, The Five Pillars of TQM, New York: Penguin Books USA Inc., 1994, p. 32.
[2] Ibid., p. 7.
[3] Ibid., p. 527.
[4] Ibid., p. 158.

importance of knowing and understanding who the customer is and what they want and expect (product).

The process also evolves from the customer. Identifying their wants and needs allows the producers (not processors) to determine the best and brightest ways to deliver the product. The process requires continuous monitoring and assessment, as opposed to what was previously provided by inspectors at the end of the process.

Organization is "the central pillar---it influences everything else."[5] A decentralized structure reinforces a philosophy that relies on teams to produce a "we and our" mindset instead of an "I and my" disposition.[6] Ownership is a key facet of organization, with the producers having both responsibility and authority. Bureaucracy is stripped of its layers and information is shared freely with those in need of this knowledge.

Commitment is a shared bond between employees of all parts of the organization. Tom Peters' testimony to Congress captured the essence of this concept: "Superb quality and ideas for increased efficiency cannot be 'ordered' in the Army or at Ford; they can only come from committed people given the wherewithal to do whatever it takes to get the job done."[7] Creech put it in this context , "Instill in all that commitment from all determines success for each."[8]

The last pillar is leadership. Leaders are important at all levels, within each team. Leaders must be teachers and motivators, trainers of future leaders. They instill commitment in others and focus on outputs, not inputs.[9]

Most importantly, Total Quality Management must be built on all five pillars. One of the biggest problems in American business today is that the TQM concept is only adopted piecemeal, and is left in limbo. Hence, Creech continually stresses the need for a "holistic" approach that captures more than just managers and employees. TQM according to Creech is not a philosophy for the faint of heart. It requires a dramatic change in attitude and behavior.

With a flavor of Creech's five pillars in hand, let's explore how his philosophy ties to the real world of leadership and management.

LEADERSHIP

Bill Creech's views on leadership are a blend of old and new. He sees America's emphasis on management and centralization as the cause for the malaise in leadership today. In

[5] Ibid., p. 528.
[6] Ibid.
[7] Ibid., p.152.
[8] Ibid., p. 530.
[9] Ibid., p. 529.

his view, leaders are made, not just born.[10] Centralization breeds and nurtures managership, while decentralization fosters leadership. And what is the role of the leader within the organization? Creech suggests, "To crack organizational success the boss must build a system . . . that provides widespread empowerment and noninterference from the top. However, the top boss must stay involved and informed . . . striking a balance between involvement and intrusion. . . NOSE IN, FINGER OUT."[11]

Rising through the ranks, General Creech adopted a philosophy that placed a great emphasis on listening, ". . .what goes on at the front is what determines organizational success - - - all the rest is background music." As he "progressed" to "the rear," he had to work harder at knowing what was happening in the front. However, he writes critically of the classic "open door policy" that is only used in case of emergency! Instead, he suggests an organizational system where teams are headed by leaders that are integral parts of the larger group. While the leaders are accessible and approachable, they are not doormats for any employee. Working hand in hand with other teammates, the leader is on the job, investing labor and love for a team focused output.[12] We will talk more about this command climate-like issue later.

Crucial to the success of this holistic approach is a total commitment to the TQM philosophy. Less than total commitment provides an organization with only short term gains and an inordinate amount of cynicism. Creech observes, "TQM can only be effective and successful if top management becomes deeply involved--and proactively leads the charge."[13] He praises Florida Power and Light (FPL), and its leader Mr Fred Hudiburg, for meeting his challenge. Hudiburg's vision and passion for improvement were important factors in FPL's success.

As the CEO of FPL, Hudiburg, studied the Japanese superstar of utilities, Kansa (Osaka Power Company). After seeing the tremendous success of Kansa's TQM program, Hudiburg hired Japanese advisors to help his company develop the holistic approach he felt necessary. Additionally, Hudiburg established an intense, costly training program while adhering to a philosophy kindled by the Japanese principles. Hudiburg later reflected, "We did not go for financial results. They were a byproduct that followed along."[14] Creech calls this type of attitude "Desire." Desire to lead for the right reasons is crucial. And what does he identify as the right reasons? To make life better for others, not for oneself. He adds that those who lead for the right reasons have the greatest empathy with those who work for them. While I don't think Creech is implying that the leader must be selfless, he is saying there is no room for selfishness.

The other leadership qualities most valued by Creech include: courage, confidence, savvy, maturity, and integrity.[15] These characteristics are building blocks for individual leaders and the organization itself. Intrinsic to leadership are core values, principles, and ethics that are blended

[10] Ibid., p. 366.
[11] Ibid., p. 281.
[12] Ibid., p.60.
[13] Ibid., p. 223.
[14] Ibid., p. 92.
[15] Ibid., p. 353.

with vision to develop an overall command climate. The next section explains the important role they play in TQM.

VALUES, ETHICS, AND COMMAND CLIMATE

Creech gives us insight about the importance of these factors by taking us on a "tour" of several companies around the US. He first speaks of values while recalling a visit to the Boeing Plant in Corinth, Texas. This subsidiary of Boeing Seattle operates with tremendous independence and autonomy in a "team-like" environment. Creech first received an inkling of the priority placed on values as he approached the plant in his car, accompanied by the general manager. At the general manager's insistence, Creech's initial view of the facility was at the back of the factory. The general manager explained why: "You don't reflect the quality mindset in some places and not in others. High standards in all things not only send a message to our customers, they send a message to ourselves."[16] Pride and respect for the individual are inherent in this philosophy. Creech recognizes Motorola for identifying this critical information early on.

From 1959 until 1990, Mr Bob Galvin served as the CEO of Motorola. In the early 1970's Galvin foresaw troubled times ahead for his then successful company if it did not make some serious changes immediately. As a departure point, Galvin established what he called the "character and culture" of Motorola. Galvin's cornerstone idea would embrace "respect for dignity of individual and uncompromising integrity in everything we do."[17] Galvin clearly established how he would retool his company from the bottom up. All future vision and organizational building flowed from these words.

Creech praises others for making values and ethics integral to their process. He reminds us that as a young car builder, the renowned racing magnate, Roger Penske, was at first harassed for polishing his car's wheels and waxing the garage floors. Creech also gives us examples from his days as the Tactical Air Command boss where he observed, "I've never seen a sharp organization that didn't look sharp."[18] All of these examples point out that attention to detail and ingrained values are not just skin deep. The values and ethics these organizations promote contribute to the overall command climate.

Creech's overview of the Honda plant in Marysville, Ohio is a great example of some of the components of a positive command climate. With a cornerstone philosophy similar to Motorola's, Honda's 5,500 non-union employees are "associates," not just workers. Each associate is multiskilled in a number of task areas and is guided by the principle that their mission is to build quality, not merely inspect it. Their environment provides continuous feedback from scoreboards throughout the work areas that let employees see how their "team" is progressing relative to the competition. Creech is quick to point out that this environment and command climate is not simply unique to Honda, or merely successful in non-union settings. Using a similar

[16] Ibid., p. 101.
[17] Ibid., p. 248.
[18] Ibid., p. 174.

approach, Toyota acquired a former GM plant and employee base and literally resurrected an industry that was once blighted in Fremont, California.

It seems clear that if employees are valued and nurtured in a command climate that recognizes their individual importance, the employees will enthusiastically work toward shared team goals. Let's now see how Creech envisions structuring an organization and how vision affects that development.

VISION AND ORGANIZATIONAL PLANNING

By now, you have probably memorized the mantra of Bill Creech's book: "Decentralization is the key to organizational success!" Yes, this mantra along with a vision for the organization will definitely aim your organization in the right direction. The importance of vision cannot be overstated. It gives the organization an overall direction and expectation for achievement. Oftentimes vision is recognized as the plan to reroute a company or organization entrenched in bureaucracy and centralization. Creech profiles a prominent company right out of this mold, the General Electric (GE) Corporation.

The chairman of GE, Mr Jack Welch, spent almost a decade revamping his organization. His vision for GE was "a $50 billion enterprise as lean, as agile and as light on its feet as a small company--a big company with the heart and hunger of a small one." [19] His vision, coupled with aggressive leadership practices, enabled GE to move from eleventh to second on the list of US manufacturing companies. Changing the company from an impersonal centralized conglomerate to a decentralized, humanistic-centered winner was not an easy task. A particularly significant hurdle was what Creech calls "black ink." A successful, black ink company like GE or IBM is often even more reluctant to change simply because of "positive inertia." Leaders like Jack Welch are not only guiding their companies day to day, but they are also mindful of future trends, competition, and challenges. However, vision is not just a tool used to turn around misguided organizations. Sometimes startup companies, like Federal Express, prosper with initial leadership vision. Nevertheless, even the best vision requires an organizational structure that blends discipline with the initiative and creativity of the human spirit.

Creech says that "organization is the framework on which the entire management system depends for efficient operation."[20] If the organization does not serve the human spirit, he suggests further realignment. Surprisingly, Creech does not wholly oppose consolidation. Instead he notes that the key is knowing when to stop. Moving to one centralized function of any kind is generally a bad idea. By removing comparison within the organization, you create what Creech calls the "Aeroflot Syndrome." Even Dale Carnegie could have a difficult time motivating employees of a company that had few goals and little sources of comparison. What then does Creech have to say about the areas of teambuilding and motivation?

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[19] Ibid., p. 107.
[20] Ibid., p. 11.

TEAMBUILDING AND MOTIVATION

Since the 1960's America has clung to the principles of centralized management. Organizing via function seemed logical as companies grew in size and scope. General Motors, the epitome of centralization, is the company that Creech uses to illustrate his point about the need for teambuilding and motivation. He says that in 1937, Alfred Sloan headed GM and built the divisions known today as Cadillac, Buick, Oldsmobile, Pontiac, and Chevrolet. These divisional teams had their own budgets, design teams, sales forces, and distribution systems. This system remained in place until the "financial leaders" at GM reached the top management. With "economies of scale" and "commonality" in vogue, GM reorganized from its divisional team approach to a functional, centralized approach, and departed on a downward spiral that has only recently been reversed. How did GM recover? Decentralization played a major part.

In 1984, Roger Smith attempted to decentralize GM, but with little success. Bureaucratic opposition and inertia prevented his ideas from taking root. (In other words, things were not desperate enough to warrant a major overhaul. Yet.) Later, during the 1980's, GM began what it called a "major management experiment" by forming the Saturn Corporation. Saturn's approach embodies the best of the TQM philosophies and its product today is revered in the auto industry. Despite Saturn's noteworthy successes, according to Creech, GM continues to cling to many of its 1960's centralist ideals. Creech clearly feels GM is dragging its feet and boldly asks, "When is GM going to Saturnize its entire operation?"[21]

Creech says that only 5% of America's employees are organized in teams.[22] While adhering to tradition and misunderstanding the realities of TQM, American industry subscribes to what Creech describes as the "First Law of Wing Walking: Hold tightly on to what you have until you get a firm grip on something else."[23] Consequently, the transition to this "new" management philosophy will likely continue its slow pace. Let us now conclude our analysis of The Five Pillars of TQM with a short look at performance assessment.

ASSESSING PERFORMANCE

Creech speaks of the need for performance assessment throughout his book. He takes note of the scoreboarding technique while visiting Boeing, Honda, FPL, and Motorola. He clearly likes this kind of direct feedback mechanism for teams and he states, "Nothing speaks louder than powerful, irrefutable indications that you are getting far better all the time."[24]

He also recognizes that through assessment, an organization can better answer the crucial questions "Why are we in this business?" and "Are we doing it right?"[25] Continuous assessment allows the organization to focus on the process and identify the customer. While Creech notes

[21] Ibid., p. 70.
[22] Ibid., p. 76.
[23] Ibid.
[24] Ibid.,p. 282.
[25] Ibid., p. 144.

that there are many tools available for us to use in assessment, he also recognizes that , "In most cases you don't need to go very far up the complexity scale in the tools you use . . .Start with simple measurement, analysis, and scoreboarding techniques . . . Most businesses don't use any [assessment tools]!"[26]

He also notes that TQM is often criticized for an over reliance on these tools and that it is in the piecemeal approach that managers try to "shoehorn their minimal changes into their old management practices." In concluding his discussion on assessment, Creech captures the essence of measurement by adding, "Measure the 'how manys,' not the 'hows.'" A measurement system must meet the needs of management and employees alike.

CONCLUSION

After reading and reflecting on Creech's ruminations I have developed my own hypothesis: The farther an organization is from the holistic, decentralized management process, the less likely one is to find a supporter of its benefits. Consequently, those organizations that could most benefit from the processes Creech describes are least likely to make the change. Risk is definitely involved.

[26] Ibid., p. 202.

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THE LEADERSHIP FOCUS

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THE LEADERSHIP FOCUS

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ABSTRACT: This paper addresses the issues of leadership focus and commitment; theories on success and failure; and implementation of a continuous improvement philosophy and policy. The intent is to start a creative dialogue at senior leadership levels. We can look at the opportunities missed and mistakes made, correct our course from the lessons learned, and bring about the transformation of a continuous improvement culture.

INTRODUCTION: Phil Crosby once said, "TQM, is three capitol letters and a lot of fairy dust." In 1991 U.S. News and World Report printed a special report entitled "History's Hidden Turning Points." One of those turning points was created by W. Edwards Deming. In the article it was said that, "W. Edwards Deming has seen the future and it works - at least for Japan. " also, "he combined new statistical techniques for pin pointing quality problems with fourteen of his own managerial principles, most of them at odds with the sacred canon of U.S. business."

Starting at ground zero in a command and control environment has been an experience of a lifetime. The biggest culture shock of my life came when I joined the military. During my "Welcome to the Army " speech, no one informed me that I had ten or twelve years to adjust to the culture change. Quality Air Force teaches: positive leadership actions. Why then, should a leadership driven process of removing non-value, and improving our systems take so long in the military environment?

Thomas Pyzdek says, "Stories are the mechanisms used to transmit the culture of a nation or of a company. " He goes on to ask, "What are your stories?"

The stories I hear go like this:
I am now being rated on my results and customer satisfaction;
The boss barks for results and the customer does the same;
This type of management method doesn't meet the needs of our future. Who wrote these criteria?

Ask yourself these two questions. Am I really listening? What exactly am I hearing?

We have patterned the Quality Air Force (QAF) criteria after the Malcolm Baldridge National Quality Award criteria (MBNQAC). Have you ever wondered where the MBNQAC came from? The truth is, none of the criteria will produce anything other than frustration. We've accomplished that by placing the greatest emphasis on (-6.0-) quality and operational results, and (-7.0-) customer focus and satisfaction. We have inadvertently created a new spin-off on management by objective. What ever happen to the importance of (-1.0-) leadership, and (-4.0-) human resources.

More and more leaders and managers are continuing to focus on "PASSING" their Q.A.F.A., no matter how many times they are reminded that this is not an inspection some managers continue to insist how important it is for all of us to be "LOOKING GOOD". If we spent more time developing an action plan, and less time trying to please seven criteria, would we be further ahead? Some folks, however, can spend their entire careers planning and forgetting to take the most important step, "ACTION." Without action there is no change.

What is the system? Does it work? Have you been taught Deming's principles of profound knowledge and then applied the fourteen points? We've been told that they wont work here, yet we never applied them to find out. We should learn from our history and be dealing with data and facts. The first step toward success is failure.

Our history is filled with heroes tirelessly taking on new challenges, risks, commitments, and leading the way to unbelievable achievements. These successes were not just another program or project. These heroes had vision. They knew there would be times filled with negative feedback. There was no reward system and lots of hard work would be necessary. These heroes persisted, simply because they had a vision, a vision of the future and they knew someone had to take the first step. Dr. Deming was one of those heroes.

I would remind people that continual improvement is a systems challenge. I would ask you, the reader, to consider the following pages. Learn and understand the Deming's principles and 14 points. I would ask that you take a long thoughtful look at our system and highlight the points you have not, or cannot accomplish.

PROFOUND KNOWLEDGE

Profound Knowledge is Dr. Deming's belief; that a process is a system (1); that will not operate without proper knowledge (2); and that things happen differently from day to day called variation (3) which if not controlled could disrupt the system; this variation is a management responsibility which requires an understanding of psychology (4).

1-Theory of the system

We must understand the theory of how our system is supposed to work. This would include our systems within the system.

2-Theory of knowledge

We must all understand that knowledge of facts changes with our awareness and will change as new theories are discovered.

3-Theory of variation
Variation happens everyday and for our purposes comes in two forms. "special cause" and "common cause". The biggest challenges to our improvement efforts are the common cause variation in our system. Dr. Deming has insisted that there is no need to be wasting time on special causes.

4-Psychology
All people are different and everyone has different needs at different times. The biggest need in our system is trust and pride of workmanship.

Some people may insist this is all common sense. I will agree that it is not rocket science, but if it were all common sense why haven't we been doing "it". Lets continue on and apply these principles to the fourteen points.

THE FOURTEEN POINTS

#1-Create a constancy of purpose for improvement.

Why are we here? What's our job? How are we going to get it done?
After these decisions are made remain consistent in deploying the information.

#2- Adopt a new philosophy.

We can no longer tolerate commonly accepted levels of mistakes. It is no longer acceptable to have people who don't know what their job is and are afraid to ask. We cannot have inadequate or ineffective supervision. We must upgrade the methods by which we train our leaders and managers.

#3-Cease dependence on mass inspection

Do we plan for defects or are we planning for improvement. Change the function of quality assurance from "pointing" at the problems to "finding" solutions to the problems.

#4-End the practice of awarding business on the basis of price tag alone.

Look at the past performances of vendors and depots and contract only those who can meet your needs. In order to do that, you must know what your future needs are and what the long term options can be. We must continue to think long term.

#5- Improve constantly and forever the system of products and services.

In order to meet this point, you must go back to point #1 and decide what it is you do and who you do it for (a reminder your number one customer is the taxpayer). Formulate a plan of attack

and then take action. The object in quality improvement is to find problems and correct them, find non-value and remove it, find better ways to do the job, giving our customer their moneys worth.

#6-Institute training.

Deming was not talking just about on the job training for the workforce. He was referring to the training of leadership. Managers must understand the principles of profound knowledge and the philosophy of the fourteen points. They must be able to agree on the meaning of each point and agree to use all fourteen. The leadership must understand the system and agree on how it should operate. Any challenges they should meet should be dealt with and acted upon. The leadership must lay the ground rules and set the stage. Then and only then should everyone else be trained.

#7-Adopt and institute leadership.

Leaders must know and understand the phrase, "If you wont take them, they wont go!" That is simply our culture. There is a difference in managing and leading. If we know that difference why do we spend so much time managing our mid-level leaders. We must remove barriers to, pride of workmanship, and remember that most problems are common cause which are caused by the system, not the people.

#8-Drive out fear.

Do the people that work for you feel secure in their job? Can they express ideas and ask questions? Are you afraid of the knowledge your subordinates have? Do you keep them out of the loop because you don't think they'll understand? Are work area decision based on factual information about any given problem? When decisions are made changing the work environment, how is everyone brought up to speed?

#9-Break down barriers between staff areas.

Everyone doing their best (suboptimizing) just doesn't work. What steps can we take to build teamwork into everything we do?

#10-Eliminate slogan, exhortations and targets for the work force.

Exhortations like: "Walk the talk." " Do right things right." "Getting better together. " are usually directed at the wrong people. According to Dr. Deming, these would be better off unsaid. Managers and leaders must know what the talk is and talk it, what the right things are and do them. People must feel we are in this process together. How many times are we going to "say" it starts at the top and cascades down.

#11a- Eliminate numerical quotas for the work force.
#11b- Eliminate numerical goals for the managers.

Dr. Deming reminds us wether the system is stable or unstable, that is to say, in control or out of control, you will still only get what the system will deliver. Maybe, we should set standards for the system and hold the system accountable.

#12-Eliminate barriers to pride of workmanship.

Remove the annual appraisal and merit rating system. It is impossible to fairly rate people. Rating them for last years work, cannot possibly tell you how they will perform next year. Give your people an opportunity to enjoy what they do. Take action on their suggestions. Other Deming suggestions include:

1. Institute education of leadership; obligations, principles, and methods.
2. Be more careful on the selection of the managers and leaders in the first place.
3. Better training and education after the selection.
4. Be a leader, a colleague instead of a judge, counseling and leading your people on a day to day basis. Learning from them and with them.
5. A leader will discover who, if any, of their people are
    a. Outside the system on the good side.
    b. Outside the system on the poor side.
    c. Belonging to the system.

(Appraisal systems that rank people that belong to the system is ruinous as a policy)

#13- Encourage education and self-improvement for everyone.

1. Institute in-house programs.
    a. Audio,Visual, Kinesthetic and Myers/Briggs testing (accomplished at the recruiting stage)
    b. Increasing Human Effectiveness, Edge Learning, Tacoma, WA (accomplished at Basic Military Training)
    c. The tools and techniques of continual improvement (first homestation training task)
    d. Seven Habits, Covey Leadership Center, Provo UT (accomplished prior to management level)
2. Encourage continuing education and personal improvement.
    a. Community College of the Air Force (2 year degree required for management positions)
    b. Local colleges (every member encourage by leadership to continue their education)

#14- Take action to accomplish the transformation.

All senior leadership (at the highest level) must study, understand and agree on the actions necessary to implement the fourteen points and begin the transformation. (If they cannot agree. The process should not begin. If there is no unity there is no process.) They must then teach this process, their vision, and the actions necessary to their managers, who will in turn set the example and lead the transformation.

Deming also wrote and spoke of his seven deadly diseases. The most crippling being the lack of a constancy of purpose (point#1). Which, I would suggest makes point #14 the most important of all. If leadership cannot agree on the what, where, why, when, and how, there is obviously no reason in beginning the journey. When there is agreement, however, action steps must be taken.

CONCLUSION: Some have said that the unity to accomplish this tremendous tasks will never come about. My challenge to the reader is that you have a responsibility to "make" that unity happen. The QAF has told us "We must find innovative ways to improve operations." and " as an institution we must be receptive to new ideas." and "Quality Air Force requires positive leadership actions and it can't be delegated." Lets start looking for those leaders and role models who are making things happen. A suggestion for consideration would be an annual Senior Leadership Award. Recognizing those who have open the pathways to success. These would be the leaders, sponsors, and role models of a truly Quality Air Force and It should be voted on by the entire membership. Another suggestion would be to change the point structure of the Q.A.F.A. and give the largest number of points to -1.0- leadership. This should be followed closely by 3.0 Strategic Planning and -4.0- human resource development. Maybe we could drop Baldridge all together or create an independent assessment board from each of the services and rename the Q.A.F.A.. We could call it the "Quality Armed Forces Assessment".

It has been fairly obvious that I would like to put the spotlight back on the senior leadership. After all, that is where it belongs. The point of this paper is that the warning signs are out there. We should be learning from the companies that have shown the ability to say "we've failed" and here is what we learned. Start Listening to the stories and stop trying to rationalize how "that can't be true". What happen to creativity and pro-activity some one has to take the first real step and show people it is possible that the system is wrong and can be changed. The first step to success is being able to say you failed. Then we-- re-plan, re-do, re-check and pro-act.

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57th Wing Quality Improvement Oversight

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57th Wing

QUALITY IMPROVEMENT OVERSIGHT

Quality improvement oversight was an important aspect of the overall Quality Improvement Program at the 57th Wing (57 WG), Nellis AFB, Nevada during 1994. Beyond analyzing the results of the annual Air Combat Command (ACC) leadership and culture survey and conducting unit self assessments, wing quality advisors also assisted the commander by placing quality improvement oversight mechanisms into action. These oversight mechanisms included establishment of a Quality Improvement Council (QIC), implementation of Quality Improvement Teams (QITs), and submission of validated quality improvements to ACC for inclusion in the ACC Best Awards Program.

The concerns or oversight requirements in an operation of this magnitude was best described by Brig Gen John L. Welde, Commander, 57 WG, when he said: "We have a pretty good story to tell here at Nellis, and there is a lot to what we do in the 57th Wing that is far more diverse than a normal operational wing. I know that because I've commanded a couple of them, and that job is pretty easy. I mean, you've got one role in life--you train. Each of the three flying squadrons trains exactly the same way, and you go to war exactly the same way. It's almost a no brainer. I'm overstating that fact, because you still have to stay focused. It is not like you have to worry about training weapons school students, and developing all of the tactics for fighter and bombers, and at the same time having transient personnel here going to Air Warrior and Red Flag exercises, and making sure they are getting the kind of training they deserve."[1]

Quality Improvement Council

Quality improvement efforts for the wing actually began to move forward in 1994 with the creation of the Quality Improvement Council (QIC). The council's charter established a vision for the QIC, to cultivate a customer-focused infrastructure that enhanced continuous process improvement and quality as a way of life for members of the 57th Wing. The goal for QIC centered on establishment of a customer-focused environment that fully exploited and empowered the expertise and talent of personnel in pursuing continuous improvement and mission success. On 25 February 1994, the QIC met for the first time. During the meeting, members focused on and reviewed the council's vision, goal, and objective statements. Additionally, they reviewed the latest round of quality activities within the wing by listening to

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[1] Intvw (U), SMSgt G.R. Akin, with Brig Gen John L. Welde, Commander, 57 WG, subj: Oral History Interview, 21 Dec 94.

several briefings from various QIT experts.[2] During the meeting, General Welde also stressed the importance of individual commander involvement in the unit self-assessment process. In terms of improving communication and oversight within the Wing, the QIC provided a much needed avenue to achieve these objectives. The council established a forum for communicating quality issues and concerns in a focused atmosphere of improvement and became a control mechanism for travel on the quality highway.

Figure 1

Quality Improvement Council Objectives

* Establish a dynamic leadership structure that makes "Quality" a top-to-bottom mindset that supports the organization's mission statement.

* Enhance mission effectiveness, safety, and quality of life by continuously identifying opportunities to improve and promote the employment of effective initiatives.

* Cultivate meaningful measurement to effectively track customer satisfaction.

* Deploy effective recognition programs to promote individual and team involvement in quality improvement.

* Establish a benchmark-caliber QI training program.

* Facilitate Quality Improvement Teams by providing guidance and assistance as necessary to remove barriers to progress.

* Monitor all wing Quality Improvement Team initiatives to ensure that efforts remain aligned with mission improvement.

SOURCE: Mins (U), 57 WG/CC, "57 WG Quality Improvement Council Meeting Minutes," w/4 atchs, 4 Apr 94.

Membership in the QIC included the Wing and Vice Commander, Quality Advisor, Chief Enlisted Manager, all Group Commanders, Commandants from the Weapons School and Combat Rescue School, and the USAF Aerial Demonstration Squadron Commander. After the charter meeting in February, the QIC again met

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[2] Memo (U), 57 WG/QI to CV and CC in turn, subj: Quality Improvement Council Agenda, w/atch slides, 23 Feb 94; Brfg (U), 57 WG/QI, "57th WG Quality Improvement Council," n.d., ca. 1994; Mins (U), 57 WG/CC to 57 LG/CC, et al, "57 WG Quality Improvement Council (QIC) Meeting Minutes," 7 Mar 94.

monthly through June. In March, the Council finished development of quality objectives and took focus on the unit self-assessment completed in April. During the June meeting, attention turned to reviewing quality events such as the USA, ACC Leadership and Culture Survey, and development of a comprehensive QIT listing. Also, the Council created several committees and appointed Chairmen for each committee aligned with critical quality mission areas. Five committees formed and included a strategic quality planning committee, education and training committee, performance and recognition committee, public responsibility and corporate citizenship committee, and information analysis committee. The council forum and format allowed wing leadership through the combined efforts of senior leaders and quality experts to focus energies and attention to critical quality issues.[3]

Quality Improvement Teams

Real improvements and quality achievement were a result of QITs. These teams worked to improve processes in identified areas throughout the wing. Team charters, issued by the Council, specified the team makeup, membership, scope, and the parameters of their efforts. Process improvement during 1994 centered on seven formal QITs. Some of the QITs participated with the USAF Weapons and Tactics Center (WTC) and worked with their involvement. Other formal QITs pertained only to wing units and operations and had no outside unit participation. Each of these QITs met with varying degrees of success.

Figure 2

57th Wing Quality Improvement Teams

* Logistics and Operations aircraft scheduling
* Buckets of Time
* Range Cost Containment
* Test Project Data Management
* Red Flag Augmentees
* Aviation, Petroleum, Oil, and Lubricants
* Chaff and Flare Quality Initiative
* Consolidated Aircraft Maintenance System
* Multi-Command Manual 3-1

SOURCE: Mins (U), 57 WG/CC, "57 WG Quality Improvement Council (QIC) Meeting Minutes," 5 Apr 94.

Quality Successes

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[3] Mins (U), 57 WG/CC, "57 WG Quality Improvement Council (QIC) Meeting Minutes," w/4 atchs, 5 Apr 94; Mins (U), 57 WG/CC, "57 WG Quality Improvement Council (QIC) Meeting Minutes," 8 Jul 94; Brfg (U), 57 WG/QI, "57th Wing Quality Improvement Council Agenda," 25 Mar 94.

Many quality improvements generated through both formal and informal channels were held under the rubric of "Success Stories." Of those notable successes some stood as classic examples of achievement in the quality field. According to Lt Col David M. McLaughlin, Director, Quality Improvement two examples were especially noteworthy and representative of the Wing quality effort, the Multi-Command Manual (MCM) 3-1, and the chaff and flare accountability initiatives. The MCM 3-1 initiative had a WTC charter, whereas chaff and flare accountability remained a Wing initiative.[4]

Multi-Command Manual Publishing

The MCM 3-1 represented state-of-the-art tactics, developed by 57th Wing personnel from lessons learned during, Red Flag, Green Flag, Air Warrior, and various other exercises conducted at Nellis AFB and throughout the Air Force. The data and lessons learned were then synthesized as new tactics and published by the 57th Test Group in MCM 3-1. Tactics contained in MCM 3-1 formed the basic tactics used in aerial warfare for the USAF. The opportunity for improvement centered on shortening the lead time for production of the MCM 3-1 from approximately two years to six months. According to Colonel McLaughlin, "By the time these tactics reached the field, they were stale, the people, the customers, the users, didn't put much stock in them because they were so outdated." Therefore, wing personnel began looking into ways to improve the writing, editing, coordination, publication, and dissemination processes. Many actions occurred simultaneously to shorten the overall process. However, one of the most important happened at HQ ACC with improvements to the coordination function. With the coordination improvement in-place, processing times improved to the range of six to seven months. Process improvements were measured throughout this phase and after improvement documentation, the QIT went into remission at the 57th Wing early in 1994. By March 1994, the Director of Operations, HQ ACC established another QIT to further review and refine the process. This QIT met on 31 March and 1 April 1994, and discussed draft production efforts, center responsibilities, volume format, printing problems, and related issues affecting timely production.[5]

Chaff and Flare Accountability

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[4] Intvw (U), SMSgt G.R. Akin, with Lt Col David McLaughlin, 57 WG/QI, subj: Quality Improvement Program, 11 Aug 94.

[5] Intvw (U), SMSgt G.R. Akin, with Lt Col David McLaughlin, 57 WG/QI, subj: Quality Improvement Program, 11 Aug 94; Msg (U), ACC/DO to PACAF/DO, et al; subj: MCM 3-1 Quality Improvement Team (QIT) Meeting, 151503Z Mar 94.

The other example of successful QITs pointed to by Colonel McLaughlin, was in the munitions functional area. Chaff and flare accountability presented an opportunity for improvement in the process that had caused poor use of flare and chaff resources. This team formed in November 1993, and began by flowcharting the chaff and flare accountability process. The seven member QIT then brainstormed a tentative solution, proposed a simple process through the standard base suggestion program, and worked with logisticians at ACC to adopt and implement the new accountability system.[6]

The QIT aimed to improve the process of tracking all chaff and flares used on aircraft for self-protection. These chaff and flares were bundles of metallic strips or flares that burned to either confuse enemy pilots and weapons systems or attracted missiles after launch. The chaff and flare bundles came in assembled lots from various manufacturers and were control by lot numbers. The problem with previous accountability came to light when one of the bundles malfunctioned. If the flare burned hot or problems existed with canisters then aircraft and aircrew safety became an issue. This safety concern and need to streamline the accountability system set in motion this QIT. The standard procedure for withdrawing lots from the system started with a malfunctioning bundle identified by lot number at ACC. An ACC generated message stating the lot number and disposition of assets would follow to field units. Munitions and maintenance personnel would then inventory and pull all bundles marked with the bad lot number. At the 57th Wing, the amount of work generated by this process was extremely taxing. Normally, 16 to 30 lots were in use at various locations throughout the base and on a hundred aircraft scattered all over the flightline and hangar areas. A color-coded system used to control lots at the local level ensured accountability although it required massive amounts of manpower and time to accomplish. What the QIT hoped to achieve was better lot accountability, a simplified color code system, a faster and more efficient inventory control, quicker identification of restricted or suspended munition lots and better overall management of these resources.[7]

Test and Range Data Management

Another QIT brought together 11 members of the 57th Test Group and the 554th Range Squadron to establish procedures to improve the operational test, tactics development, and project data management. Team members thought that the system in use was effective but not totally efficient and that it could be enhanced. A more efficient system would better meet the challenges posed by estimated 25 percent budget reduction and a doubling test workload. The QIT vision for improvement started with notification of the need to conduct a project and ended with distribution

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[6] Brfg (U), 57 EMS, "57 Munitions Flight, Chaff and Flare Quality Initiative," n.d., ca. 1994.

[7] Intvw (U), SMSgt G.R. Akin, with Lt Col David McLaughlin, 57 WG/QI, subj: Quality Improvement Program, 11 Aug 94; Brfg (U), 57 EMS, "57 Munitions Flight, Chaff and Flare Quality Initiative," n.d., ca. 1994.

of a final test project report. The team wanted to provide specified data needed for operational test, tactics development, and special evaluation projects in a more timely fashion with less cost. This QIT continued throughout the first six months of 1994, and represented a cross-functional approach to quality by bringing together experts from the Test Group and experienced Range Squadron personnel.[8]

During the problem identification phase, this QIT incorporated the quality methods of flowcharting, brainstorming, and used fishbone diagrams to identify various process parts. Members found the identification phase difficult because changes occurred frequently and project assignments from the operations and requirements communities remained in flux. In addition, team members recognized that different regulations governed Test Group and Range Squadron operations and that the Air Force Operational Test and Evaluation Center (AFOTEC) was also involved in the test and data management process. Also, contractor operations impacted any potential improvement generated by the QIT. The QIT also identified the various data management phases used in preparing test project reports. These phases included planning, preparing, collection, analysis, writing, and closure.[9]

One of the problems identified during this process related to late or delayed involvement with the Range Squadron, safety personnel, and other parties during the test plan writing phase. This late involvement necessitated numerous rewrites. By keying on this area, the QIT improved the process by involving all players in initial test plan working group meetings. This allowed Range Squadron participation starting much earlier in the process and continued throughout the data collection phase. This also helped the Test Group to achieve several beneficial results by having better control, communication, and efficiency. Solutions to process problems identified by the QIT came quickly. Examples of agreed upon solutions included a change to the test handbook and matching training to new ownership back to Test Group Operations (TGO). For implementing solutions, several steps occurred. Team identification and forming early communication improvements remained as a first step, followed by project management and test handbook fixes which focused on use of various test collection worksheets and continued with Test Group reorganization efforts aimed at improving accountability and responsibility for test handbook development and other test issues. Throughout 1994, QIT members continued to monitor these changes and implemented solutions.[10]

Summary

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[8] Brfg (U), 57 TG/QI, "Data Management QIT, 57 TG and 554 RANS, QIB/QIC Update," Mar 94; Brfg (U), 57 TG/QI, "QIB Update, Data Management QIT, 57 TG and 554 RANS," Jul 94.

[9] Brfg (U), 57 TG/QI, "QIB Update, Data Management QIT, 57 TG and 554 RANS," Jul 94.

[10] See Note Above.

Other key quality initiatives underway or in various stages of production and heading toward completion in 1994 or early 1995 included the Aviation, Petroleum, Oils, and Lubricants (AVPOL) QIT, the Due-In From Maintenance (DIFM) QIT dealing with reparable aircraft parts, and a quality initiative to improve the Nellis flight scheduling process. Various white paper reports and symposium papers also advertised 57th Wing quality initiatives and improvements to the Air Force and quality communities. With the arrival of General Welde, creation of a quality office staffed by full-time personnel, initiation of concentrated and meaningful strategic planning, the wing actually began the first real steps in creating a quality culture. By the end of 1994, the first completed QITs and results of these initial efforts reinforced that the transition to a quality culture had begun in the 57th Wing.[11]

In a final interview given just before Christmas 1994, General Welde summarized what the wing had achieved during the year nearing completion. He said: "There was an attitude at Nellis when I became the commander, my perception was that "We are just too busy to get better." Quality is too hard to do, and people didn't feel they had time to go to the initial fundamentals course to learn what it was all about. There was an attitude that we have been the showplace for a long time and we don't need to do better, we are as good as we can be. We were behind and I was pleased to see people get on board. We have come along way in 1994."[12]

General Welde explained that first of all, the wing needed to have some resources allocated to get started. "In early 1994, we established our own Quality Office, where in the past the USAF WTC Quality Office was undermanned, overworked, and just couldn't do it for 9,200 people working at Nellis AFB. We had some real smart people in our Quality Office. They came in with a clean sheet of paper and developed our own program which showed the improvement. Then most importantly, they established a common baseline of instructors to go out and train people on what the Quality Program is about. I'm very pleased with the way that has happened. We now have our own instructors. It is easier to understand Quality when someone that you know and respect tells you that, "Hey this is a good deal, let me show you how it can help you," especially when they can use real world examples of success stories."[13]

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[11] Brfg (U) 57 OSS/QI, "AVPOL QIT Update," 28 Jan 94; Brfg (U), 57 CRS, "DIFM QIT Briefing," 18 Feb 94; Ltr (U), 57 OSS/OSO to 57 OSS/CC, et al, "Opportunity for Quality Improvement," 11 Jan 94; Rpt (U), 57 OSS/OSO, "White Paper on the Nellis AFB Flight Scheduling Process," 8 Sep 93; Ltr (U), 57 WG/CC to AFQI/ED, "QAF Symposium Draft Paper Submission," n.d., ca. 1994; Rpt (U), Capt David P. Leonhardt, 57 CRS, "The Repair Cycle Process," n.d., ca. 1994.

[12] Intvw (U), SMSgt G.R. Akin, with Brig Gen John L. Welde, Commander, 57 WG, subj: Oral History Interview, 21 Dec 94.

[13] Ibid.

The 57th Wing and other Nellis AFB units participated in approximately 67 Quality Improvement Teams during 1994. Not all those QITs were just 57th Wing sponsored, by nature of their business many were cross-functional. However, the wing did start a new program, the IDEA Generation Program, known locally as "It Seems Like a Better Idea To Me." As the name implied, the program solicited good ideas from people assigned to the wing. Although just nine months old at the end of December 1994, the program generated 382 suggestions for improvement. More than half of those ideas for change were adopted. As General Welde related; "Where there used to be the attitude, "That thing I'm doing today doesn't have any value added, why am I doing it?" Our standard answer had been, "You're doing it because the book said you have to do it," or "You're doing it because we've always done it that way." We empowered workers who are the only ones who really know what had no value added, and are the only ones that really understood their job, who now could say, "Hey boss, I'm not sure this is very smart, why are we doing this?"[14]

During this same period, the wing also formalized the Quality Improvement Council. As General Welde said: "We've added a more disciplined approach to it through a sub-set of quality improvement committees." Another accomplishment in itself was the Unit Self-Assessment and the wing used that as a baseline to identify strengths and weaknesses. These identified shortcomings or weaknesses were prioritized into one of five areas and worked through one of several committees headed by one of the Group Commanders.[15]

Toward the end of 1994, wing leadership began to realize that recognition played an important part to Quality Improvement. Although he knew the importance from experience, General Welde wanted to improve recognition associated with quality improvement efforts. For example, he related the leadership efforts of one QIT which was characteristic of many ongoing QITs within the wing. "I just looked at the results of a QIT reported on 20 December 1994, in terms of the number of people who augment us in Red Flag. We have found that the QIT saved us $1.25 million dollars a year by eliminating some of the TDY people who we really didn't put to good use. The QIT did this by turning 200 people back to their wings where they would have previously had to augment us during six week exercises. There are 200 people, times six weeks, times 48 TDY man-hours per week who are back home doing what they need to do instead of being deployed. This result came from just the effort of one little QIT out of 67." General Welde also added, "Those efforts occur everyday with different teams looking at different problems. I would say, first of all, I'm not declaring victory. We are not there yet. But, I'm really pleased with the effort everyone has put in over the past year. We have come a long way. Quality is not a program that is here for two years and then will go away. It is the only way we will

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[14] Ibid.

[15] Ibid.

survive the drawdown." Finally, he said: "I think if we grow people with those fundamental quality principles in mind, and in the way we do business, we will see great success."[16]

[16] Ibid.

Leadership in the Empowered Air Force: How Do We Get There?

Master Sergeant Baker is NCOIC of the 375th Transportation Squadron Orderly Room and a Team Scott Certified Instructor. She spent 13 years in aircraft maintenance and has two years in personnel. Sgt Baker began her quality journey in 1990 as team member, and evolved into leader, facilitator, instructor and consultant. She holds an Associates Degree from CCAF in Avionics Technology. Sgt Baker is married to SMSgt Mike Baker of Scott AFB.

Leadership in the Empowered Air Force: How Do We Get There?

MSgt Susan B. Baker
375th Airlift Wing

Instructing QAF Courses provides me with huge amounts of feedback from people. Quite a few middle managers have told me that QAF is a great tool in peacetime, "but it's out the window when we go to war." This paper purports that QAF and empowerment are more apparent and readily seen during wartime and contingency actions than during peacetime operations. It is my hope these opinions will influence all Air Force members to treat every day as though we are at war.

An F-16 sits in the desert somewhere in the Middle East. It needs one part to make it mission capable. That part is at Shaw AFB, South Carolina, home station for the jet. The parts request is in and the ground crew waits, hoping it arrives in time for the next mission. It's an important one...all jets need to be mission-ready.

Shaw AFB receives a request for that one crucial part. It's in the repair cycle with a mechanic standing by to expedite packing and shipment. At 1615 hours, it's repaired and ready to go, but the last scheduled pick-up for the day was a half hour ago. The mechanic knows how badly the part is needed, so with part in hand, he gets into his car and drives to Charleston AFB. He gets there just in time to put the part on the last shuttle heading for Saudi.

The part arrives at an airstrip in the desert. A supply troop rushes the "Priority One" part to the crew chief of the F-16...the crew chief installs it and performs operational checks...his bird will fly!

FMC! Fully mission capable! The aircraft launches and the battle is won!

Why is it we are so effective in war and contingency actions and so ineffective and bureaucratic in our peacetime? What's the difference? Why can't we always do it?

For anyone who has ever participated in "Red Flag," you know what I'm talking about. At home station, the jets are always "broke." "Those flyers can't take a bird up without breaking it!" IFF inop, the INS is out of tolerance, static in the intercom system...it's always something. Then, you deploy for RED FLAG. You hit the ground running to get your jets set up for their first flight. Everyone works together. "Joe, you need any help? I've finished what I had to do and checked all the early birds. Yeah, I know I'm not an engine mechanic, but I can help with anything you want." When everyone has finished prepping the jets for flight, you all go to the hangar to catch a couple hours sleep before the fliers show up in the morning.

Empowerment happens because it has to. Flightline mechanics know their job and do whatever it takes to get their aircraft airborne. Supervisors ask if you need anything. If not, they leave you alone to do your job -- there are plenty of other things for them to check on; besides, "Airman Capable" knows his job and is trusted. The OIC knows her people are doing their best. If they need something and have a hard time getting it, she gets involved. Shes a seasoned maintenance officer, and Logistics is her forte. Fliers put their fate in the hands of "her" mechanics every day. Her crew chiefs meet and brief the aircrews before each flight with information and a review of the forms before and during preflight.

When we go into our "war fighting" stance, empowerment is the rule, not the exception. Everyone has a huge change of attitude that affects how they act and react.

An award is submitted on a deserving airman for "above and beyond" performance while in a combat zone. The submission isn't letter perfect, and it's not worded the way some people would like for it to be, but the airman deserves the award. Besides, his supervisor is responsible for generating sorties. Coordination is completed and the system credits Airman Jones for his decoration.

If it were peacetime, that same award would be written, edited, and re-routed three or more times, (depending on who wanted a staff summary sheet, and whether the flight chief, First Sergeant, or commander's secretary decided they didn't like something or the other on the second run-through).

Why can't we be the empowered employees and the empowering supervisors every day? ATTITUDES!!! From supervisors, officers, NCOs and junior enlisted, the difference is attitude.

Now, lets get to the hard part and ask two questions. First, how do we become empowered employees? Second, how do we become empowering supervisors?

THE EMPOWERED EMPLOYEE

Do you wait to be told to do something? I recognize what needs doing and do it. When was the last time you picked up a piece of trash on your way down the street or on the golf course near the tee box? A friend of mine calls me the trash lady. It's my base! Why shouldn't I? Why shouldn't you?

Empowered employees are pro-active, not reactive, and that means doing things before we are told to do them. A job order is one thing, but the boss shouldn't have to tell us to do *everything* (like clean the equipment, finish the paper work, straighten the office or shop). We must commit to do the very best we can, always. This is where it starts to get interesting for us *and* the boss.

Let's start with competence. That is competence in our jobs and more than just our jobs. We must enlarge our knowledge beyond our job descriptions. It is not enough to meet minimum requirements in today's Air Force. We have to be able to go above and beyond the status quo. We have to ask for the training that we want. Ask for computer training on the programs used

on the base, even if it is not currently a part of your job. Usually this training is free and will help you and the boss when you bring those skills into the office. Prove that you can and will make your skills pay off for your boss and you will be further enabled by the boss.

As an empowered employee we must also trust our leaders. This may be the hardest part of all. Trust is hard to get, because you have to give it first. Check out the relationship model later in this paper. It works for employees and supervisors alike.

Practice peer pressure. Yes, practice it, on a daily basis. If peer pressure can cause people to start smoking, drinking, and those other stupid things people sometimes do, then imagine it used in a positive light. Tell your coworkers when they need a haircut, or they're not acting right. Start by maintaining your own high standards. People will respect you more if you stick to your guns than if you cave into other peoples bad habits. More importantly, you will respect yourself more.

On top of all this we must take responsibility for our actions. There are two sides to this coin. One - if you mess up, stand up and accept the results. It doesn't hurt long. But when you are successful, you get side two, and the feeling and confidence you get from the "Atta Boy" is worth the risk you took to get there. Always do what is right and you have nothing huge to worry about. It is complacency that is the real danger. Don't let it happen.

All of these are proactive things we can do to improve ourselves, our coworkers, our units, and our Air Force. And this is just the tip of the iceberg. I could go on all day. Just suffice it to say opportunities are available out there. You just have to reach out and choose your opportunity. Never be content with the way things are now because things can be better.

THE EMPOWERED SUPERVISOR

To become empowering supervisors we must quit being bureaucrats and become entrepreneurs (Block: 1-6). We need to support our people. <u>It must begin with us!</u> I talked about trust as an employee, well it is even more important from this side of the fence. We must start the cycle of trust and expect employees to live up to the trust we place in them (that's the "holding people responsible for their actions" part). At the same time we must let people know what we expect from them (this is the "values in alignment" part).

If any of what I'm saying sounds strange, please sign-up for a QAF class. QAF Leaders is what I suggest, followed with Team Leader training.

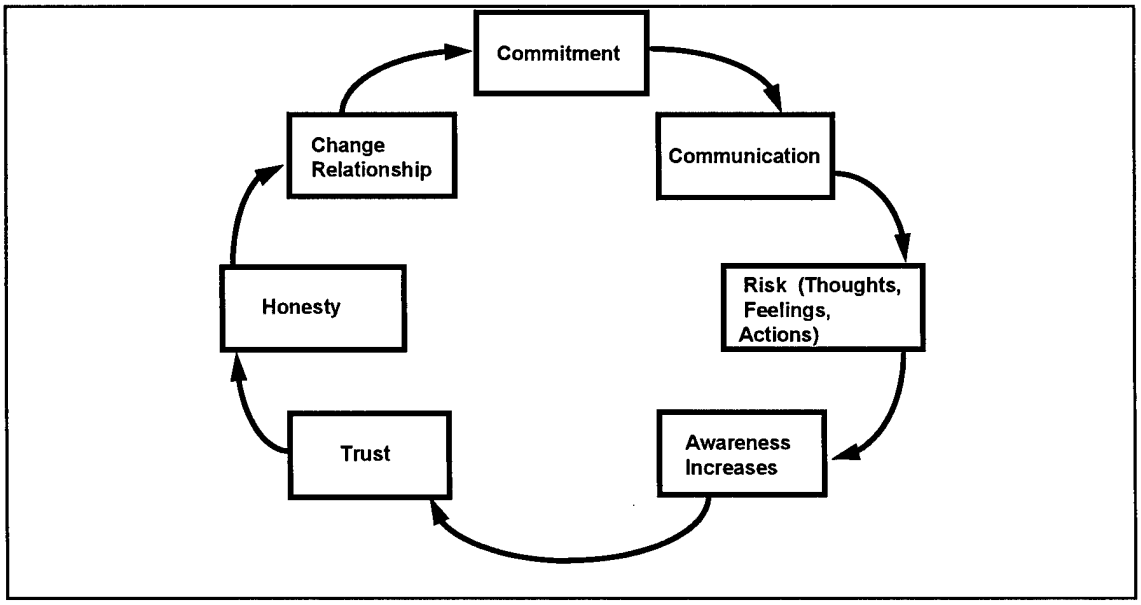
Start building trust from day one with our troops. As a supervisor we should sit down and really talk to people and communicate the need for customer-supplier alignment, internal customer-supplier alignment. Explain where this person fits in the organization, the organizations needs, and the future plans of the organization. Give them the big picture, people today are smarter than you think. Also talk about what coworkers need from them, and what they should expect of those coworkers. The only way you can do that is to know what your employees expect of each other and their supervisors. Do you know what your subordinates expect from you or each other. I am betting you don't know

because we are currently at normal operations (peace time operations). If the mission changes (we go to war) expectations change. Talk to people. Management by walking around is even more important in today's Air Force.

Teamwork should be promoted, cheered, and recognized at every opportunity by supervisors. "The person who figures out how to harness the collective genius of the people in his or her organization is going to blow the competition out of the water." predicts former Citibank CEO Walter Wriston (Senge: 1990). And there are geniuses among the people who work for you, if not individually, then collectively. And if you are one of those who say "What do you mean competition? I'm in the military, not IBM!", think of your competition as The Republican Guard, or the North Korean Military, or any of our other potential adversaries. Let's also remember that in these days of tight budgets, you could view the other services as competitors. The organizations that run the most cost efficient, effective programs may be the ones to get the budget and personnel to run consolidated service centers for things like, transportation management, procurement and distribution centers, personnel management, depot-level aircraft maintenance, or any needs common to other services. In February 1995, the Air Force presented itself as "a low cost alternative" to providing US "presence" overseas versus the Navy's carrier presence at a price tag of nearly $1 million a day (Ricks).

Supervisors should encourage all educational endeavors by our people. The more education, the more they have to share with their coworkers (team mates) and the smarter the team becomes. This leads to **becoming a learning organization** (Senge, 4). This is advancing your people and the organization.

A facilitator. That's what we need to be for today's young people. This includes the roles of coach, advisor, teacher, and champion (AFQI, Facilitator Course). We need to set down the rules of engagement for all to follow. Then we must follow through and hold everyone to the rules. "I know that when you have a tough coach who pushes you beyond what you think you can do, the rewards are much greater" states Wayne St Pierre, New Bedford, Massachusetts probation officer (Ryan). These people are intellectually smart, but some are not very mature. They don't realize this is the adult world and they are no longer in high school or college with Mom and/or Dad to look after them. This is their first trip from home and they really don't know that there is a difference between school and this military world they have entered. Everything they do now is for keeps and they need to know it NOW! Don't wait till there is big trouble.



AFOSI Relationship Model

The AFOSI Relationship Model (AFQI, Core Curriculum) shows how relationships build in a continuous cycle as long as trust is present. The first sign of a trust violation causes a "withdrawal" from the "emotional bank account" and may never be restored (Covey 188-202). This model can relate to an individual's relationship to an organization or another individual. Keep these items in mind with your employees and teams:

- Each relationship is unique, treat it that way.
- Foster a non-threatening supportive team environment.
- Keep communication open and free flowing.
- Confront issues to increase understanding.

Maybe I'm one of the lucky ones. I have always felt empowered by my supervisors. I don't mean that it starts immediately, but after my boss and I get to know each other, it just happens. I ask if I can do something new or different, or sometimes I just do what feels right and back brief my boss. I probably push the envelop, but I've had more successes than failures, and I acknowledge when I screw up and take the heat that comes with it. I had one boss tell me he liked my assertiveness and push to get the job done. He also told me I needed to be a little more diplomatic about it. I still miss CMSgt Jimmy West. He always set a positive example and provided support to those that worked for or with him. A true Chief.

Every day to me is a wartime scenario. I am at war against complacency. I think you should be too. It will be a better AF if you join me.

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Evolution of the Quality Air Force Education and Training Architecture

Lt Col Francis E. McIntire

Lt Col Francis E. McIntire is the Deputy Commander, Air Force Quality Institute, Maxwell Air Force Base, Alabama. In this position sponsors the Strategic Planning and Unit Self Assessment for the Quality Institute, maintains the Quality Air Force Education and Training Architecture, and directs education, training, and consulting for Quality Institute customers. He previously served as Consulting Team Chief, where he provided curriculum development and instruction to Quality Air Force facilitators and quality advisors worldwide, and Director of Plans and Operations, where he provided in-residence support for the educational and consulting roles of the Institute

Lt Col McIntire was born 20 December 1952 in Winchester, Massachusetts, and graduated from Doherty Memorial High School in Worcester, Massachusetts, Class of 1970. He earned a Bachelor of Science Degree in General Studies, USAF Academy Class of 1974, a Masters of Science Degree in Human Development Counseling from George Peabody College, Vanderbilt University in 1980, and is currently enrolled in a Masters of Business Administration with Chapman College. He is a graduate of Squadron Officer School, TAC Instructor Course (with distinction), Air Command and Staff College, and Air War College.

From August 1974 to September 1975, Lt Col McIntire attended undergraduate pilot training at Columbus Air Force Base, Mississippi and was selected to attend F-111A RTU at Nellis Air Force Base, Nevada for follow-on to the 20th Fighter Wing, RAF Upper Heyford, United Kingdom.

Between April 1977 and April 1980, Lt Col McIntire served with the 79th Fighter Squadron, a proud member of the NATO Tiger Squadron at RAF Upper Heyford. He participated in numerous joint and allied exercises in support of NATO, and served as a member of the Victor Alert Force with full Mission Ready qualifications.

In May 1980, Lt Col McIntire was reassigned to the 366 Fighter Wing, Mountain Home Air Force Base, Idaho where he served as a member of the Deputy Commander for Operations staff, and as an RTU instructor pilot. During his tenure at Mountain Home Air Force Base, he was a member of all three fighter squadrons and a frequent participant in Red Flag and higher headquarters exercises until November of 1984.

Between December 1984 and December 1988, Lt Col McIntire served as a faculty member with the Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado. During this time, he was the assistant course director for the junior level leadership courses, the course director for the marriage and family course, and instructor for the general psychology course. He was appointed the Assistant Director of Cadet Counseling, was certified by the National Board of Certified Counselors, and earned the academic rank of Assistant Professor. For the Office of the Commandant of Cadets, he served as summer academic squadron Air Officer Commanding, a member of the Basic Cadet Training staff, Counseling Center representative for first and fourth cadet groups, Cadet Leadership Enrichment Seminar staff, Professional Military Training Officer, Squadron

Training Officer to the Sixth Cadet Squadron, and T-41 instructor pilot.

In January 1989, Lt Col McIntire began recurrency training in the F-111 for reassignment to the 20 Fighter Wing (USAFE), RAF Upper Heyford, United Kingdom. Following his theatre checkout and area certification, Lt Col McIntire was appointed Assistant Operations Officer for the 77th Fighter Squadron. He coordinated the flying and ground training for the 60 assigned aircrew members, and developed weekly, monthly and quarterly operations and maintenance flying training schedules to achieve and maintain maximum combat readiness.

Selected by the wing commander, Lt Col McIntire organized the largest and most successful airshow in the history of the wing. He coordinated a 50 member committee over a year-long planning phase to bring together aerial and ground displays of air, sea, and ground forces representing the United States, Great Britain, and other NATO allies. In June 1990, Lt Col McIntire was selected to serve as Chief of the Quality Assurance Division, Deputy Commander for Maintenance. In this capacity, he supervised the 40 member Quality Assurance team of inspectors and administrators who oversaw the efforts of the 2200 person maintenance organization. During this time, he was again the commander's choice to coordinate the homecoming celebration for the 20th Fighter Wing forces returning from Southwest Asia at the conclusion of Operation Desert Storm. In June 1991, Lt Col McIntire was selected to serve as Operations Officer, 77th Fighter Squadron where he oversaw the training and combat capability of one of USAFE's premiere mission ready squadrons. Lt Col McIntire is a Command Pilot with more than 2000 hours of flying time; his decorations include the Meritorious Service Medal with two oak leaf clusters and the Air Force Commendation Medal.

Lt Col McIntire is married to the former Patricia L. Carter of Avondale, Arizona. They currently reside in Montgomery, Alabama with their children Aaron, Samuel, Allison, and Simon.

Evolution of the Quality Air Force Education and Training Architecture

Lt Col Frank McIntire
Air Force Quality Institute

Abstract

The impetus behind the Quality Air Force (QAF) Education and Training Architecture was the formulation of the core body of knowledge for QAF implementation. Before we could "do" quality we needed to define quality. During the initial development, 150 individual topics were selected for inclusion in the fourteen general subjects of quality. The fourteen subjects are Quality Principles, Quality Air Force, Customer Focus, Process Management, Basic Tools, Management Tools, Metrics/Measurement, Statistics, Team Dynamics, Interpersonal Skills, Quality Leadership, Strategic Planning, Assessment, and Special Tools and Techniques. As the Architecture was applied, certain subjects were noticeably more difficult to deliver than others: Customer Focus, Management Tools, Statistics, Strategic Planning, and Special Tools and Techniques. It should come as no surprise that some material is complex and new to the culture. The really good news is that a number of subjects evolved from a laundry list of related topics into a reasonably well integrated model or system. This paper will examine the good news of a QAF Education and Training Architecture which has evolved to meet the needs of a dynamic culture. This good news surrounds these subjects: Quality Air Force, Process Management, Strategic Planning, and Assessment.

Introduction

As Quality Air Force leaders implement the principles and methods of quality the QAF Education and Training Architecture provides the core body of knowledge. The Architecture has demonstrated its tremendous capacity to define the subject matter of quality for some time to come. Fourteen general subject groupings contain 150 individual topics which define what is included in the thing that we call Quality Air Force. Since its inception in 1992 many of the 150 individual topics have been covered in QAF courses taught at locations world wide. Some of the schools that have developed curricula around these topics are: enlisted and officer accession programs, enlisted and officer Professional Military Education, Air Force Quality Institute courses, and unit-level quality courses of various lengths. Although the expectation would normally include an ever expanding list of inclusive topics, the QAF Architecture was broad enough to sustain long-term use without becoming limited by narrowly-defined boundaries. The most interesting development regarding the QAF Architecture was the consolidation of four subjects from laundry lists of topics into reasonably well integrated models or systems.

Quality Air Force

The second of fourteen subjects is Quality Air Force. The original question was "Shouldn't the entire Architecture be called Quality Air Force, and not just one subject?" Other questions followed: "What is it about quality that requires separate coverage?" and "What is it about Quality Air Force that needs to be included beyond the other 13 subjects?" Topics that were offered and included were: the definition of Quality Air Force, vision, mission, strategic quality policy, goals and objectives, purpose of metrics, Air Force Quality Council, Air Force Quality Institute, Air Force and MAJCOM initiatives, success stories, and QAF Criteria. Within the first 12 months the quality systems model was developed in a desire to communicate the essence of Quality Air Force. As with all models it is incorrect but useful and offers the implementor a clear and recognizable answer to the question: "What is Quality Air Force?"

Figure 1; QAF Systems Model

The Quality Air Force Systems Model will adequately define what we need to know about QAF for the foreseeable future. Quality Air Force is an integrated system of three components built on and surrounded by leadership. Quality focus, the improvement process, and quality in daily operations are the elements of the system.

The answer to the question "What is Quality Air Force?" is provided in the Systems Model. Quality Air Force is an integrated system of three components built on leadership. Quality focus, the improvement process, and quality in daily operations are the system elements. It is also very likely that this Quality Air Force Systems model will adequately define what we need to know about QAF for the foreseeable future. Without a doubt, the QAF Systems model is "what we meant" when the QAF Architecture was drafted. The elements of the model in no way exclude the topics originally drafted under the subject of Quality Air Force.

QUALITY AIR FORCE

What and Why of QAF: Definition, Vision, Mission, Strategic Quality Policy, Goals and Objectives, Purpose of Metrics, AF Quality Council, AF Quality Institute, Air Force and MAJCOM Initiatives, Success Stories, Air Force Criteria.

The **QAF Systems Model** itself provides a conceptual definition of Quality Air Force. This model will provide the focus and structure needed for future implementation.

Quality Focus includes the senior leader activities of **Strategic Planning** which includes defining the mission, vision, policy, goals and objectives, and the use of metrics to measure results and reduce the gap between current capability and future state. Quality Focus also includes the broad Air Force level initiatives which include the forming of the **Quality Council**, chartering of the **Air Force Quality Institute**, development of **MAJCOM and Air Force Initiatives**, (includes the QAF Symposium, the Secretary of the Air Force Unit Quality Award, and the Chief of Staff Team Quality Award), and the promulgation of **QAF Success Stories.**

Improvement Process includes the structured use of teams and the disciplined process improvement methodology. This element of the model emphasizes the value of the individual and the importance of empowerment based on training, authority, and responsibility. Results are achieved through better products and services, stronger team and individual skills, open communication, and richer quality of life.

Quality in Daily Operations includes the application of principles and methods right where we live. Emphasis is placed on the use of team dynamics, tools, and **Metrics** to make continuous improvement part of our operating style.

The Quality Air Force Systems Model defines most adequately what we need to know about QAF. With the benefit of hindsight, the QAF Systems Model is "what we meant" when the QAF Architecture was drafted

Process Management

The fourth of fourteen subjects is Process Management. Most literature on quality includes process management (or a similar term) as one of the main elements in the definition of quality. Examples of replacement terms used are process improvement, continuous improvement, continuous process improvement, to name a few. The genesis for most process management methods is the four-step Shewhart Cycle which contains the Plan, Do, Study, and Act steps. The Air Force began with a six-step model which later became the seven-step model for process improvement, adding the new first step. Topics that are included in the subject category of Process Management are: System Analysis, Process Identification, Process Improvement Methodology, Problem Solving, Storyboarding, and Benchmarking.

PROCESS MANAGEMENT	System Analysis, Process Identification, Process Improvement Methodology, Problem Solving, Storyboarding, and Benchmarking.

The seven-step model for process improvement incorporates a strong **Process Improvement Methodology**. The principal method of documenting process improvement in the Air Force is **Storyboarding**, which is consistent with the seven-step

model, and addresses the topic of **Storyboarding** listed in the Architecture. The model includes **Process Identification** in Step 1; the step that was added to upgrade the model from six to seven steps. **Problem Solving** is a useful skill that is not solely relegated to process management, but is highly useful in process management and process improvement. **Problem Solving** is not specifically addressed in the model. **Benchmarking** is not a part of the model but unlike Problem Solving, has emerged as a methodology of its own, and is offered as a separate course developed by the Air Force Quality Institute. **System Analysis** is a very popular subject which stresses the importance of looking at processes from the larger perspective of an interrelated system in which processes do not operate in isolation. Although the seven-step Process Improvement Model does not include all of the topics, it does address the requirement of all quality initiatives: a method for improving processes which in turn improve results. System Analysis and Problem Solving are linked to strategy, leadership, and creativity and will not be lost if not included in the model. Benchmarking may very well earn its place as a separate subject within the Architecture, once the methodology is further defined.

Figure 2; Process Improvement Model

The seven-step Process Improvement Model provides a structured methodology for generating positive results.
Organizational processes are linked, some more visibly than others in a larger system. Individual skills such as problem solving and benchmarking are extremely valuable to the team members who are chartered to explore process improvement initiatives.

The seven-step Process Improvement Model is an outstanding representation of what the Air Force needs to incorporate under the QAF Architecture subject of Process Management.

Strategic Planning

The twelfth of fourteen subjects is Strategic Planning. Following its inclusion in the QAF Education and Training Architecture, Strategic Planning has developed into one of the "golden threads" of quality that has touched virtually every (wing-level or higher) organization in the Air Force. Additionally, the Government Performance and Results Act of 1993 mandates Strategic Planning for Federal Agencies by 1997. The Air Force has been very timely in its development of the eleven-step Strategic Planning Model and the publication of the Strategic Planning course for facilitators. Topics that are included in the subject category of Strategic Planning are: System Analysis, Process Identification, Process Improvement Methodology, Problem Solving, Storyboarding, and Benchmarking.

STRATEGIC PLANNING

Strategic Planning, Hoshin Planning, Policy Formulation and Deployment, Individual Goal Setting/Planning, Resource Allocation, System Perspective.

The eleven-step model for Strategic Planning has been widely deployed and tested. It starts with a **System Perspective,** requires organization-wide **Policy Formulation and Deployment**, and places the responsibility for **Resource Allocation** squarely on the shoulders of the senior leaders. The Strategic Planning course and the model itself emphasize council or group goal setting over **Individual Goal Setting/Planning**. Current Air Force methodology does not promote nor does it discourage the investigation or application of Japanese techniques such as **Hoshin Planning**.

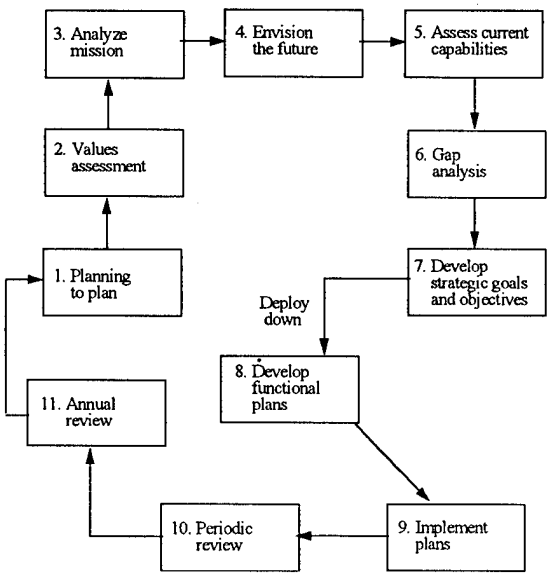

Figure 3; Strategic Planning Model

The eleven-step Strategic Planning Model provides a structured methodology for organizations to chart their course into the future.

The starting point includes who we are, where we are, and where do we want to go. The gap between here and there is identified, and plans are developed to bridge the gap. Plans are implemented and periodic feedback tells us how we are doing.

The cycle is repeated as we begin to move, corrections are made to stay on track.

The Strategic Planning Model represents one of the two "golden threads" that will guide all Air Force organizations into the future. The other "golden thread" is presented in the next section.

Assessment

The thirteenth of fourteen subjects is Assessment which has evolved into the more clearly defined Quality Air Force Assessment. This subject has become one of the two "golden threads" of quality that has touched virtually every (wing-level or higher) organization in the Air Force. (The other "golden thread" is Strategic Planning)

ASSESSMENT

Quality Air Force Criteria, ISO 9000, Self-assessment Tools and Techniques, Baseline, Quality Audits, Data Gathering, Data Analysis, Management Feedback, Action Planning.

The first anchor point for Assessment was established in 1992 with the Air Force Quality Council adoption of the Malcolm Baldrige National Quality Award criteria as the yardstick for measuring Air Force units. Once adopted it was referred to as the Quality Air Force Criteria. The Unit Self Assessment was the name given to a unit-wide assessment mandated by the local commander. Quality Air Force Assessment was the term given to an assessment mandated by Higher Headquarters. The Unit Self Assessment course was developed to train Air Force personnel to conduct assessments on their own or other units. The Examiner course was developed to train Air Force personnel to conduct third-party audits on other organizations. Finally, the Secretary of the Air Force Unit Quality Award was developed to reward unit-level excellence in adopting the culture of Quality Air Force as measured by the QAF Criteria.

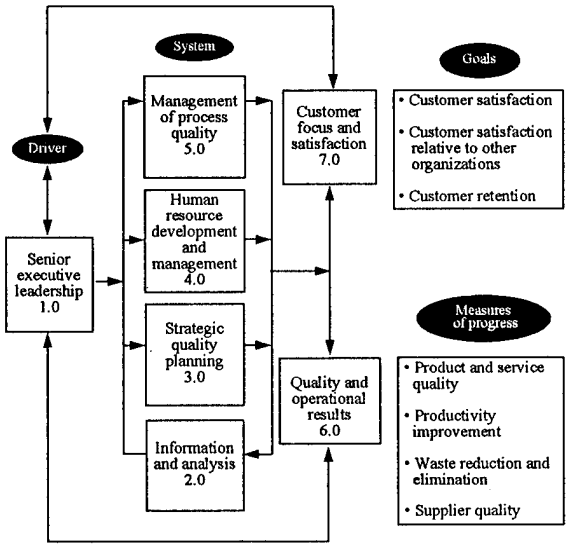

Figure 4; QAF Assessment Criteria

The Quality Air Force Criteria are based on the Malcolm Baldrige National Quality Award..
The criteria provide an excellent yardstick for determining the current state of the organization. Once the current state is determined, the organization is poised to move into the next cycle of Strategic Planning.

The Quality Air Force Assessment provides the basis for **Self-assessment Tools and Techniques** as it does for the accomplishment of third-party **Quality Audits**. The methodology for conducting the assessment includes **Data Gathering , Data Analysis, and Management Feedback**. The Architecture topic known as **Action Planning** occurs both before and after the QAF Assessment, planning the conduct of the Assessment, then planning the transition to Strategic Planning. The Assessment itself is the **Baseline** for the next iteration of Strategic Planning. Finally, although the QAF Assessment is subjective in nature, it will not preclude compliance-based inspections such as **ISO 9000.**

Conclusion

Air Force leaders have always been tasked with the requirement to achieve results. The Quality Air Force Architecture was developed to offer Air Force members a catalog of subjects and topics that define Quality Air Force. Now, four of the fourteen Architecture subjects have evolved into an integrated system for applying **Quality Air Force** principles and methods; and three well thought-out models for achieving results: the **Process Improvement Model,** the **Strategic Planning Model,** and the **QAF Assessment Model.** These four elements come well tested and highly recommended, and will serve leaders and their organizations well for years to come.

THE FOURTH ARMY WAR COLLEGE: A VISION FOR 2010

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Colonel Williams is one of eight Air Force Officers serving as faculty members at the U.S. Army War College. He teaches Responsible Command, one of three Core Courses, and authored/instructs a 30-hour Advanced Course on TQM Implementation. Colonel Williams is a 1972 graduate of the USAF Academy with a Masters Degree in Management from Webster University. He has completed the AFQI Facilitator Course and has attended numerous Quality Seminars and Workshops. Colonel Williams led the planning team for the USAWC Vision Project and recently served as Chairman of the U.S. Army War College Reengineering Task Force.

THE FOURTH ARMY WAR COLLEGE: A VISION FOR 2010

Col Mark A. Williams, USAF
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ABSTRACT

On 17 February 1995, Major General Richard A. Chilcoat unveiled a new vision for the U.S. Army War College:

> **"USAWC...the nation's preeminent center for strategic leadership and landpower...a learning institution... preparing today's leaders for tomorrow's challenges... pursuing mastery of the strategic art through education, research, and outreach."**

Fall 1994: the U.S. Army War College stood at the post-cold war crossroads, seeking a successful path into the 21st century. Wave after wave of change since the fall of the Berlin Wall in 1989 made it clear that a new direction was necessary. But remembering the Cheshire Cat's advice, "if you don't know where you're going, any road will do," the missing ingredient was a clear destination. The U.S. Army War College needed a new Vision to unite people, prioritize resources, and focus efforts. This paper chronicles the process which produced that vision, a journey complicated by a unique military/academic environment and a culture replete with heritage and tradition. The goal was successful synthesis of quality concepts about shared vision and military perspectives about leadership. The resulting processes for vision and strategic planning provide a signpost for others on the road to a challenging future.

INTRODUCTION

> "One of the difficulties in bringing about change in an organization is that you must do so through persons who have been most successful in that organization, no matter how faulty the system or organization is. To such persons, you see, it is the best of all possible organizations, because look who was selected by it and look who succeeded most within it. Yet these are the very people through whom we bring about improvements."
>
> George Washington

Visioning is perhaps the ultimate change for an organization. It is, after all, the deepest expression of what you want to become and, as George Washington reminds us, change is hard for people who have succeeded in the current organization. However, even a cursory study of the available literature reveals that while the process of lifting the corporate line of sight to a new horizon is not easy, it is vital

to long-range success. Shortly after General Chilcoat assumed command as Commandant of the U.S. Army War College, he conducted an assessment which revealed that the changing domestic and international environment had created a discontinuity in the USAWC time-stream. We stood at a crossroads. A review of our history showed three distinct Army War Colleges since our inception in 1902, each with a unique focus and purpose (Fig 1)

Certainly, the end of the Cold War and the advent of the Information Age presented a great catalyst for change, yet the Army War College (AWC) continued to look (and operate) the same. General Chilcoat became convinced that as the world moved away from the environment that had spawned the Third AWC, it was imperative to transform from a college for the industrial age to one prepared for the information age. In short, we needed a new vision; one that would help define what the Fourth AWC should become. General Chilcoat chartered a Vision Team to plan the effort; the planning phase of the project began in October 1994.

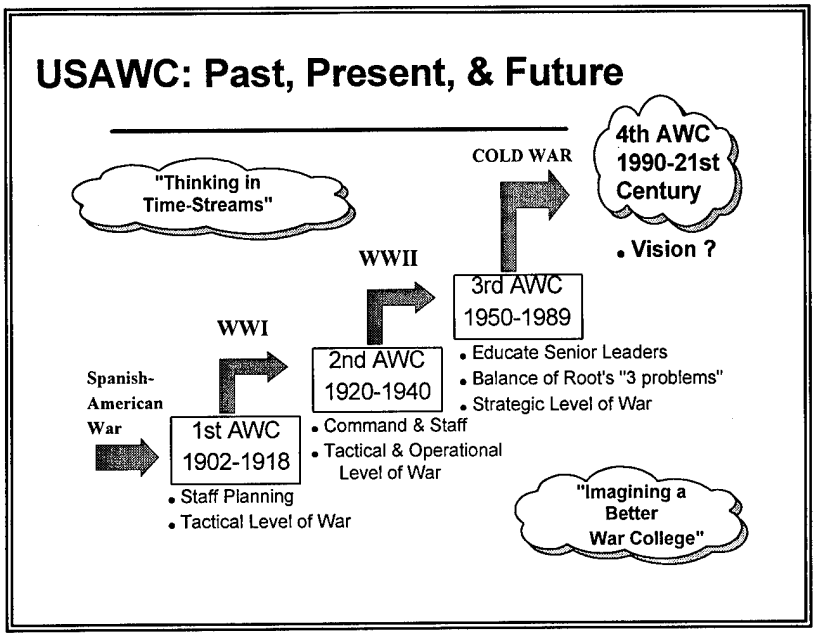


Figure 1

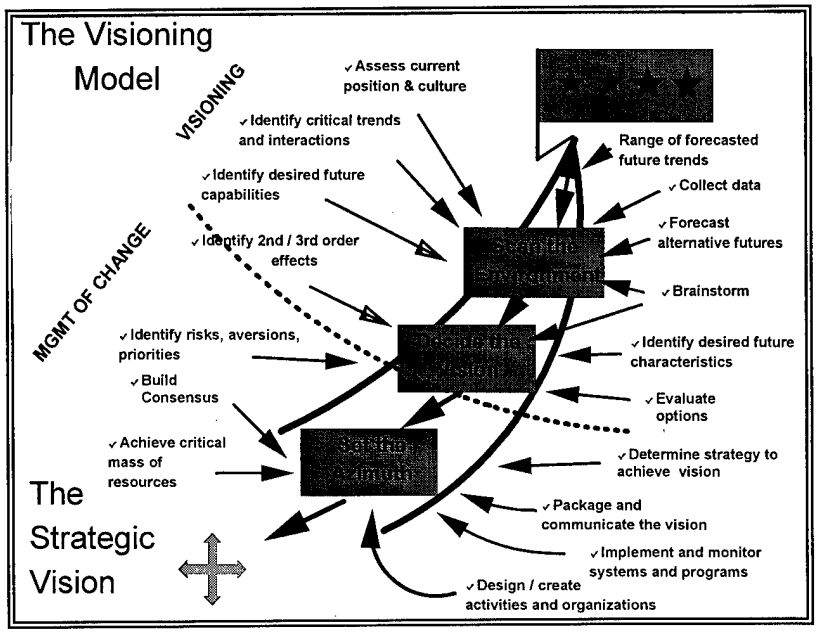


Figure 2

This article will begin by examining the planning, assessment, alignment and announcement phases of the U.S. Army War College Vision Project and conclude with an overview of our Strategic Plan

for implementation.

CREATING A VISION--START WITH A PLAN

The concept of visioning and the importance of this skill for strategic leaders were not new at the Army War College. Vision had long been recognized as one of the main responsibilities of strategic leaders. Each year, Army War College students study a Visioning Model (Fig 2) that includes both visioning and management of the resulting change. Our Visioning Model, however, did not tell us how to actually conduct a visioning project. Therefore, our Planning Phase began with a literature search of over 20 sources on visioning in addition to our own curriculum. We also consulted with the Commandant for his specific guidance and then laid out a process to follow (Fig 3). Our study produced an excellent reading list on the subject of visioning which was issued to the AWC leadership in preparation for the project. These sources offered many excellent approaches, but none had a "cookie cutter" entirely suitable for our task. Therefore, we developed a process specifically tailored to our culture, our goals, and our values.

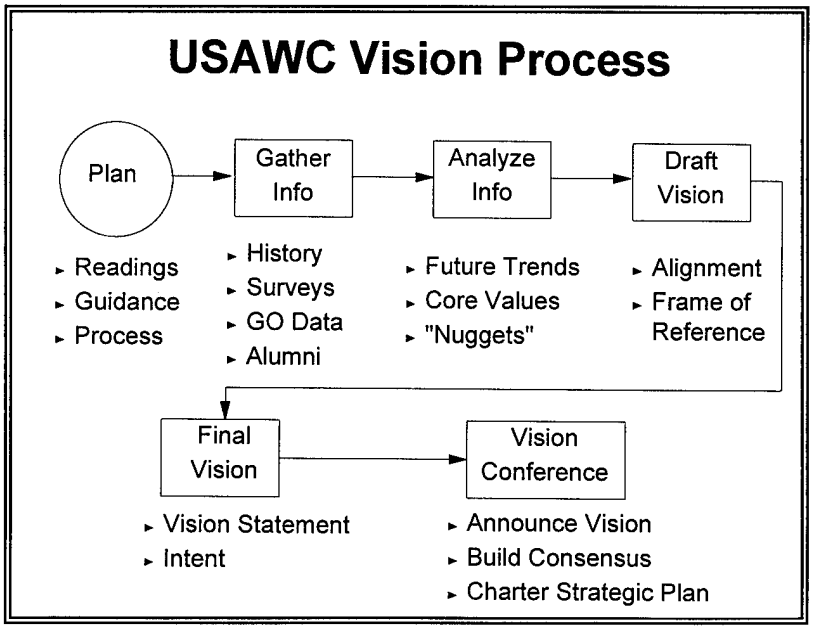


Figure 3

CHARACTERISTICS OF A VISION AND THE LEADER'S ROLE

In addition to a process for the project, the team prepared the following characteristics of a vision during the planning phase.

Characteristics of a Vision

- Leader Initiated
- Reinforces Values of the Leader/Organization
- A Mental Image
- A Desirable Future State
- Simple and Easily Understood
- Creates Energy and Commitment
- Positive and Inspiring
- Shared and Supported

Using this list of characteristics, we began an assessment phase, designed to provide input to the Commandant about our core values, purpose, and mission. The ultimate goal was to expand the Commandant's frame of reference, thereby preparing him to cast a vision consistent with our culture, yet one which would stretch us to a new level of performance. Admittedly, there is a wealth of literature extolling the value of a shared or "team" vision effort, but despite the collegiality of our academic environment, our decidedly military culture demanded a leader-initiated approach. The leader's role, listed below, is vital to the success of any visioning effort. If the people in an organization sense that the project is not led from the top, they will not contribute to its success. Our study of successful visions also convinced us that a Vision Statement written in the boss's words, rather than wordsmithed by the "writing guild," would be more credible and have more impact on the people in the organization. Further, the leader cannot delegate the responsibility for communicating the vision, building commitment and support through example and focusing organizational activities and resources. The last element of the leader's role acknowledges that visioning is not a single event, but requires constant monitoring.

Leader's Role

- Gather Input from People and Organization
- Write the Vision in His Own Words
- Forcefully Articulate the Vision
- Ask People to Share the Vision
- Build Commitment and Support
- Constantly Check Attitudes Toward the Vision

The Vision Team developed surveys for students, faculty, and staff to help the Commandant envision the future. Several times during the project, people asked what the boss wanted to hear on his "vision" survey; they were prepared to parrot back his desires. To his credit, General Chilcoat kept his own personal "vision" private until the survey, historical, and alumni data had been collected and analyzed. The Commandant also researched the history of the Army War College and used existing general officer survey summaries to capture insights about the future strategic environment. Alumni were also consulted to validate the impact of our current programs on our most recent "customers." When the Vision Team could not reach consensus about what to ask our faculty and staff, we developed the following questions for the Commandant in order to provide the information he needed most to cast the vision. His answers became excellent criteria for constructing our surveys--bottom line--know why you need the information before you ask for it.

Questions for the Commandant

- What are the most important elements of your vision?
- Who is the audience?

- What time frame should this vision address?
- What are your expectations for this project?
- What is the vision supposed to accomplish?
- How will you know if it is successful?
- What information do you need from the Staff & Faculty?
- Do you want to ask any specific questions?

Ultimately, we surveyed over 600 people with the following questions. Although analyzing the data was difficult, the process was effective and yielded two additional outcomes. It generated many good ideas ("Gold Nuggets") and also focused our people on the vision process. Participation in the vision process raised their expectations for the Commandant's announcement of the new vision in February 1995.

Faculty and Staff Survey Questions

- What will the Strategic Environment be like in 2010?
- What competencies will AWC graduates need to operate effectively?
- What institutional capabilities, facilities, faculty, curriculum, etc. will be needed in 2010?
- What should we preserve about our current way of doing business to ensure success?
- What needs to be changed about our current way of doing business to ensure success?
- What should our vision be?

DRAFTING AND ALIGNING THE VISION STATEMENT

After quantifying our core values, purpose, mission, and survey-generated vision statements, General Chilcoat prepared a draft vision statement; he admits that it was pretty rough at first. Then, he "aligned" his draft version by meeting one-on-one with key leaders of the institution. These were the people who would actually implement the new vision. At the Vision Conference in February, he shared that this alignment process "tempered" his initial draft and produced a statement that was much more consistent with the organization's culture. He also added, "It was hard to take feedback on such a personal effort, but the result was a Vision Statement which included other perspectives. It was our first step towards achieving a shared organizational vision."

THE CHARACTERISTICS OF A LEARNING INSTITUTION

One of the most interesting (and challenging) concepts that emerged during the Vision Project was the idea of cultivating the special values and culture of a "learning institution" in the Fourth Army War College. This idea is a construct of Peter M. Senge, author of The Fifth Discipline: The Art and Practice of the Learning Organization, Doubleday Publishing, 1990. He defines learning organizations as:

". . .organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together." (p. 3)

According to Senge, learning organizations focus on creative learning and basic disciplines including shared vision, team learning, and systems thinking. Organizational integration through systems thinking closely parallels the Army War College concept of strategic leadership. In a letter of support for the USAWC Vision Project, then Army Chief of Staff, General Gordon R. Sullivan noted:

"The War College must become the Army model of a learning organization. Your graduates will operate . . .in a far more complex world. . .We can ill afford to constrain their potential. Experimentation, exploration, and discovery will help the Army evolve from a culture rewarding control and hierarchy to one firmly grounded in innovation, creativity, and individual initiative."

Becoming a learning institution is central to our new vision. We must make the U.S. Army War College a place where future strategic leaders refine their skills and develop competencies that increase their capacity for "innovation, creativity and individual initiative."

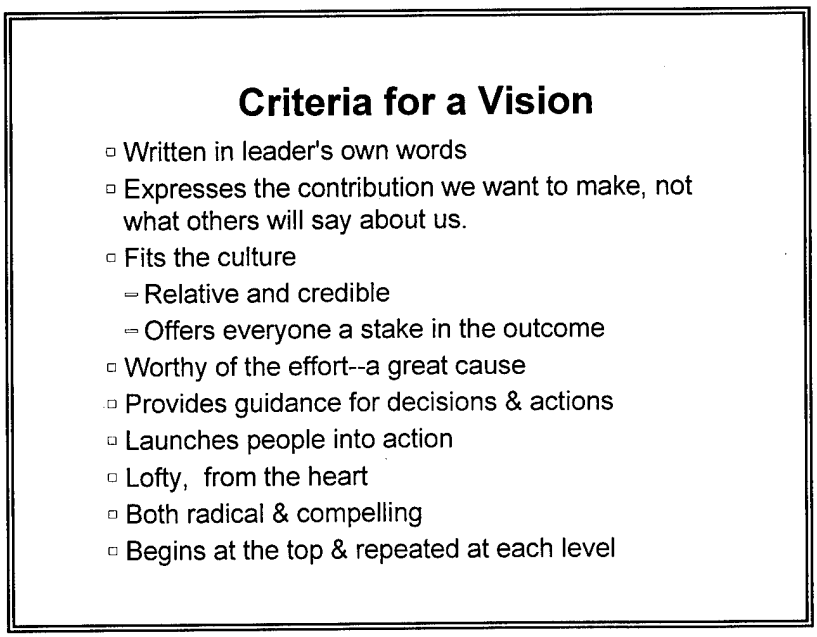


Figure 4

CHECK YOUR VISION WITH SOUND CRITERIA

After the Vision Statement was written, the Commandant used these criteria to "check" his work (Fig 4). They had been developed before the project began as a measure of success and as a way to ensure the most effective vision possible. Being accountable to a set of criteria kept us focused on the most

important aspects of the Vision. Successful visions exhibit these criteria. We were particularly concerned that our Vision Statement would express the contribution we wanted to make, not what others might say about us, and would actually provide guidance that our people could use to make decisions and take actions. Of course the ultimate measure of success for our new vision will be the quality of graduates we produce and their performance in key leadership positions in the next 15 years. General Chilcoat framed this metric by paraphrasing a statement by General Douglas McArthur during World War II (Fig 5).

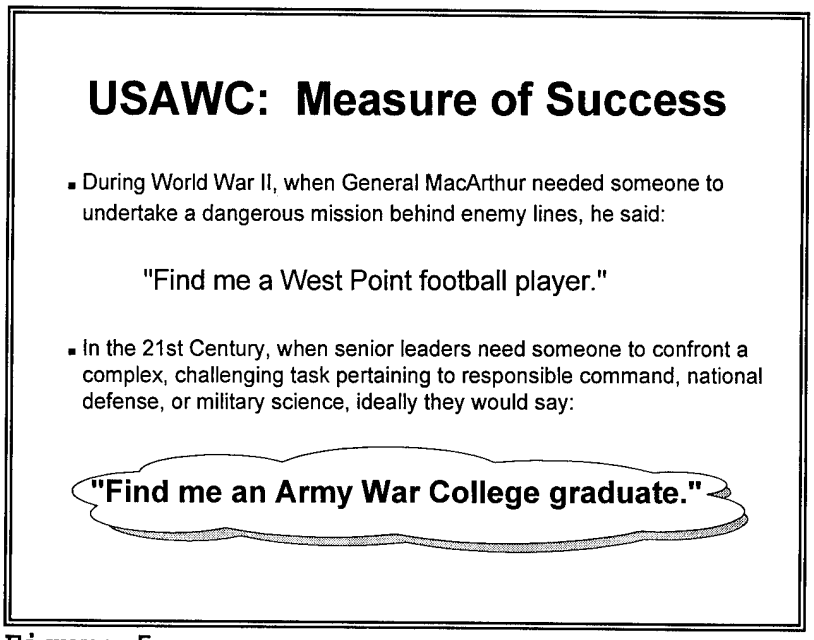


Figure 5

ANNOUNCING THE VISION STATEMENT: THE COMMANDANT'S INTENT

After the difficult and lengthy alignment phase, General Chilcoat finalized the Vision Statement and prepared for the formal announcement at our Vision Conference in February. It is important to note that the attendees also prepared for the event by participating in the assessment and alignment phases, and by completing an extensive reading program on visioning. The formal presentation was delivered by General Chilcoat in the Normandy Room of Collins Hall, a new

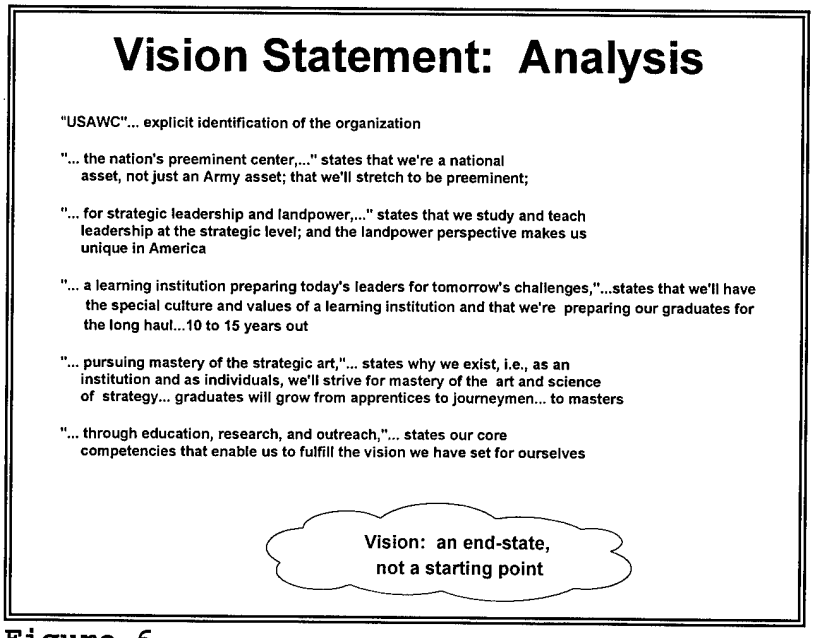


Figure 6

conference and computer facility recently commissioned as our Center for Strategic Leadership. This particular conference room is equipped with computer terminals for each attendee. Using Group System V software, (a real-time, interactive, networked data base), the audience typed comments and questions which could be viewed by all participants while the Commandant was speaking. The effect was unprecedented! Imagine that scene. A formal pronouncement of the Army War College Vision for 2010 delivered by the Commandant while 35 attendees furiously typed their comments on the briefing and also responded to one another. This event was noisy and chaotic, but as General Chilcoat later commented, "It was exactly the way a learning institution launches a new vision." This approach not only involved the audience in the event by soliciting their immediate input, but also built consensus and commitment while setting the stage for a follow-on session where the implementation plan was brainstormed.

Another important element of the announcement was a "Commander's Intent" section of the presentation. The Commandant developed a slide which analyzed the Vision Statement (Fig 6) and three others which

Intent

- The USAWC will prepare selected leaders to assume high-level operational and strategic responsibilities within defense and national security institutions. To accomplish its mission, the USAWC must achieve and sustain excellence in its core competencies...education, research, and outreach...and, to meet the challenges and opportunities found in a period of historic and unprecedented changes, the College must demonstrate the characteristics and attributes of a learning organization. Only a learning organization has the inherent capabilities to manage change of this scope and magnitude, and still evolve steadily and purposefully into the 21st Century. Strategic thinking, planning, and programming will be essential to synchronize and resource our education, research, and outreach programs. Our students must be able to think creatively, reason critically, and act decisively in ambiguous and uncertain conditions.

Figure 7

Intent (Cont'd)

They must possess a clear appreciation of the capabilities of U.S. Army land forces and the role that they play as part of a unified, joint, or multinational force; and, they must possess sufficient technical ability and insight to anticipate, welcome, and utilize ever-increasing technical advances related to military capabilities. Our staff and faculty must be forward-looking to determine the competencies required of future strategic leaders and adjust our curriculum appropriately. The "engine of change" for USAWC will be the academic curriculum and its related programs. A fully qualified and always developing faculty will conduct research in support of the curriculum, the Army, and the nation; and participate in an institution-wide program of outreach to related sectors of our society.

Figure 8

explained how the Army War College would operate in 2010. Explaining the Vision Statement in these clear terms helped everyone "see" the vision. Although the primary deliverable of our project was the Vision Statement, we had learned through the process that it is better to have a vision than a vision statement. The Commandant's "intent" slides brought his vision into clear focus (Fig 7, 8, 9).

STRATEGIC PLAN: TRANSLATING WORDS INTO DEEDS; IDEAS INTO ACTION

The second half of our vision conference was devoted to strategic planning. Our research concluded that the Strategic Plan must contain the following ingredients. It should thoroughly discuss predictions about the future environment, list assumptions about our graduates, and describe the way our institution will operate. It must clearly state our vision, mission, and objectives along with milestones for their accomplishment. Finally, it should match resources to requirements and provide necessary details for implementation. To facilitate this effort, a new position of Strategic Planner was created and a senior member of the staff assigned to the task. The charter for this position included

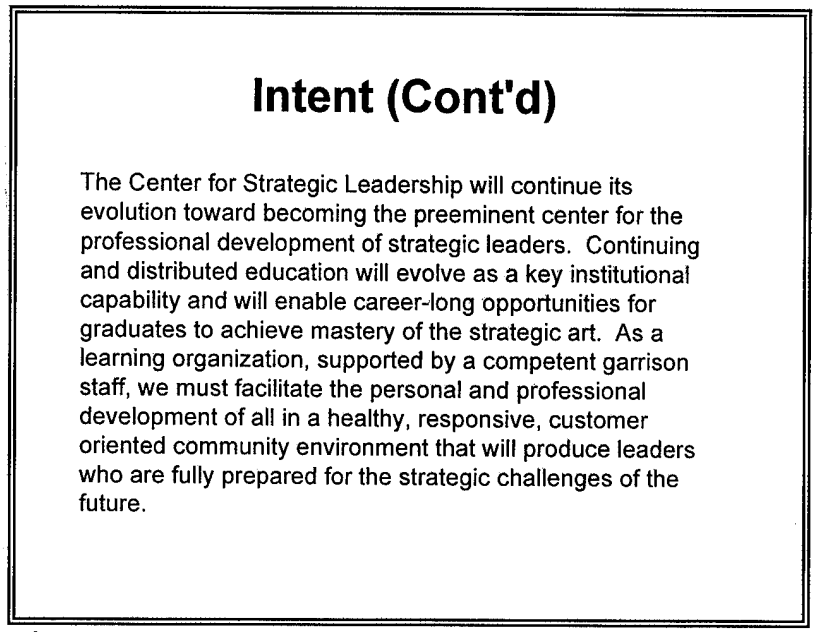


Figure 9

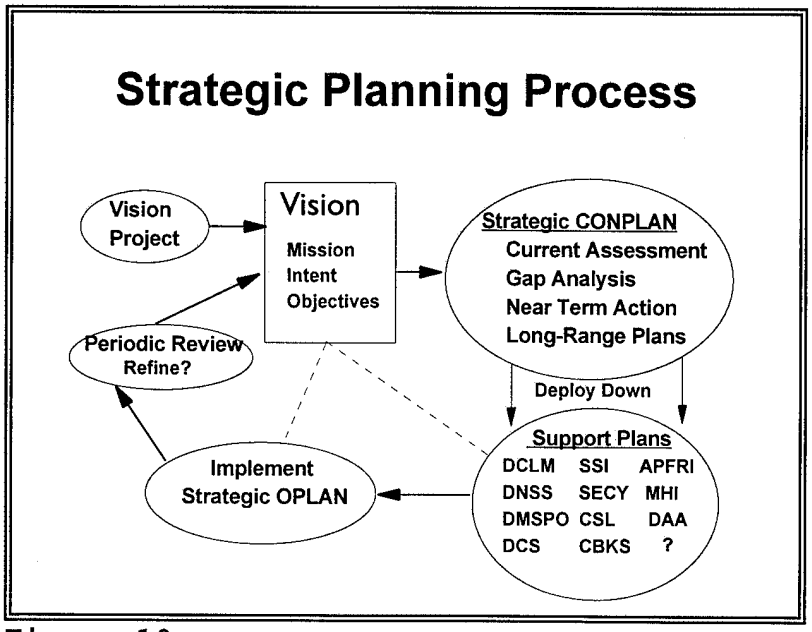


Figure 10

direct reporting to the Commandant with the responsibility for keeping the Strategic Plan on track and for holding everyone accountable for its completion. The charter made it clear that the words and ideas in our vision must soon become deeds and action. Finally, a strategic planning process (Fig 10) was developed to insure thorough coordination, clear linkage to the vision and mission, the development of supporting plans, and periodic review.

SUMMARY

The U.S. Army War College invested four months in the development of its Vision for 2010. The resulting Vision Statement and Strategic Plan have spawned a number of task forces that have begun our transformation into the Fourth Army War College. At the writing of this article, five months after the Vision Conference, it is clear that the institution is moving toward that new destination. However, we are learning that the toughest thing about a new vision is not writing the statement, but making it happen. A historical reference seems appropriate at this point. In November 1942, after the air victory over German bombers in the Battle of Britain, Winston Churchill was asked if the war was at an end. He replied, "This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning." Similarly, a compelling Vision Statement is only "the end of the beginning" of the visioning process. We are just beginning to launch our Strategic Plan and we face a host of challenges. Recently, General Chilcoat developed a slide which depicts our journey (Fig 11). Notice that the blocks which depict the future structure of the Fourth Army War College are still blank. Although we may not know what that structure will look like, we do know it will be better than today and we are firmly committed to one another to make that a reality. Working together, pooling the diverse talents and skills of the men and women at Carlisle Barracks, the U.S. Army War College will become...

"...the nation's preeminent center for strategic leadership and landpower...a learning institution...preparing today's leaders for tomorrow's challenges...pursuing mastery of the strategic art through education, research, and outreach."

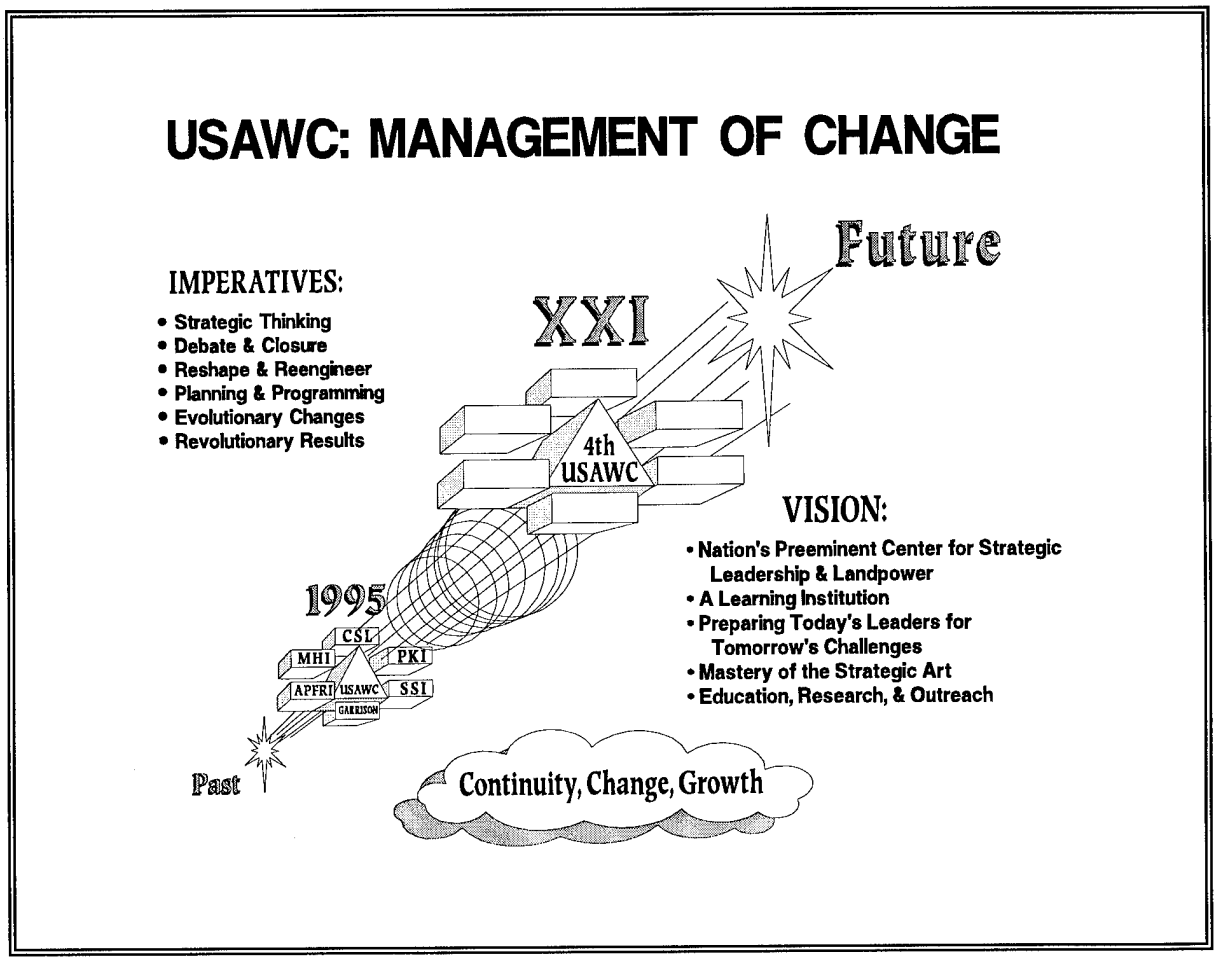
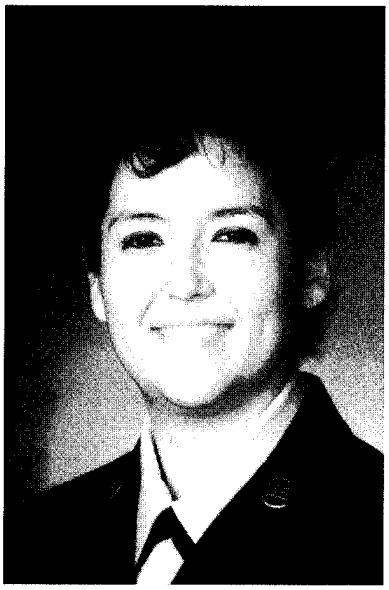

USAWC: MANAGEMENT OF CHANGE
IMPERATIVES:
• Strategic Thinking
• Debate & Closure
• Reshape & Reengineer
• Planning & Programming
• Evolutionary Changes
• Revolutionary Results
Future
XXI
4th USAWC
VISION:
• Nation's Preeminent Center for Strategic Leadership & Landpower
• A Learning Institution
• Preparing Today's Leaders for Tomorrow's Challenges
• Mastery of the Strategic Art
• Education, Research, & Outreach
1995
CSL
MHI
PKI
APFRI
USAWC
SSI
GARRISON
Past
Continuity, Change, Growth

Figure 11

Changing Organizational Structure To Put Fragmented Processes Back Together...The Key To Making Quality a Reality: A Supply Warehouse Team Tests The Concept



Presenter Biography

Captain Theriot spent two and one half years as the wing quality advisor at RAF Alconbury, UK from 1991 to 1994. He presented a paper at the fisrst QAF symposium in 1993 entitled "Is QAF Destined For Failure?" He is currently assigned to the 56th Supply Squadron at Luke AFB, AZ, and is the squadron quality advisor. He also served on the wing's first Unit Self-Assessment team earlier this year.

PRESENTER BIOGRAPHY

SrA Brenda R. Humes, originally from Albuquerque, New Mexico, currently stationed at Luke AFB, Arizona. Assigned to the 56th Supply Squadron, Materiel Management Flight, Stock Control Journeyman. Prior to Luke AFB, Torrejon AB, Spain was home for three years. Previously worked in Local Purchase Receiving, Receiving, Storage and Issue, Inspection, and the Prototype Team, involving pickup and delivery in the Materiel Storage and Distribution Flight.

ABSTRACT

The paper highlights the results of a project designed to test reorganization of certain areas of Air Force supply operations along process lines instead of by function. The reorganization takes a process which is "fragmented," that is, broken up between several functional elements, and re-assembles the process using a cross-functional team. The results included higher productivity, more efficient use of resources, and higher morale among the personnel. Authors propose that reorganizing based on small teams allows QAF to imbed into the AF system more naturally than the traditional functional structure. Authors draw upon the works of Juran, Crosby, Creech, Hammer and Champy to support the theories applied in this prototype.

Changing Organizational Structure To Put Fragmented Processes Back Together...The Key To Making Quality a Reality: A Supply Warehouse Team Tests The Concept

by

Captain Kenneth Theriot and Senior Airman Brenda Humes

Applying quality in the real world has proved much more difficult than teaching people about quality concepts. The Air Force quality effort has matured to the point where training is available at virtually every base; yet even now, people come back to the job and are confused as how to best put their new knowledge to work. Most of the activity in the name of quality does not result in long-term organizational change. As Colonel Joe Boyles stated in the Air Force Journal of Logistics, in many cases "TQ (total quality) does not imbed itself within the organization. At best it will overlay."[1] When a program "overlays" it is too fluid to stand the test of time, and will probably change with the next commander or supervisor. It rests with the organization's leaders to create a lasting, imbedded system. Lt Col Robert Hutto, the 56th Supply Squadron commander, laid the foundation for quality implementation throughout our unit. But we still wrestled with how to make quality stick, asking ourselves, "How do we ensure our efforts 'imbed' themselves?" Our project at Luke Air Force Base may provide an answer to this question. A small team of five supply specialists, each with expertise in a *different* supply discipline, tested a non-traditional organizational configuration and showed impressive increases in productivity and morale. As with any change in the status quo, there are potential drawbacks as well as potential gains involved in implementing their approach on a large scale, but we feel strongly that these potential drawbacks are minor when compared with the possible gains.

First, we'd like to provide some background information. Captain Theriot spent two and one-half years as the wing quality advisor at RAF Alconbury, England. In April, 1994, he became the flight commander for the Materiel Storage and Distribution Flight in the 56th Supply Squadron at Luke AFB. It was time to try to apply the theory he'd been teaching for the past few years. Senior Airman Humes is a Supply Technician with experience in the Receiving, Local Purchase, Storage and Issue, and Inspection areas of Air Force Supply. She was an enthusiastic volunteer for the project and became the informal leader and spokesperson for their results.

What Led to The Idea?

Capt Theriot's chief frustration for several months had been the disparity between theory and application. What sounded good in the classroom never seemed to quite hold up under the cold reality of every-day operations. Quality Air Force (QAF) implementation has lead to a great deal of activity base-to-base, but most of it fell into the category of "overlay" and not institutionalization. Quality actions were separate from daily operations, not integrated into them. Examples of overlay-type activities are: quality council meetings, Process Action Team (PAT) projects, awareness training, etc. Whereas these activities are beneficial, even necessary, they do not change the fabric of

the organization . They exist *in addition to* the traditional organizational structures, the traditional reward systems, and the same group culture as in years past. Quality systems which overlay the organization are sustained solely on the energy of the personalities currently in the unit. These efforts are almost certainly doomed to failure. In fact, according to J. Michael Crouch in his book, An Ounce of Application is Worth A Ton Of Abstraction, "the number of organizations who fail in their TQ efforts is estimated at fully 80%."[2]

In an attempt to decide how to make quality work in the flight, Capt Theriot started gathering the element supervisors and identifying the flight's key processes and customers. This is how all the experts usually say to begin, so it seemed safe and logical, but still no culture change. Then we flow-charted all the processes, listed each internal and external customer, and published the results. Still no change. We established metrics and talked of improving results and overall customer satisfaction. Still nothing. Frustration started to set in. We looked at the reward system. Quality is supposed to reward teamwork isn't it? So why did our system reward individuals, *exclusively*? We thought of stopping the practice of sending individuals up for "individual -of -the-quarter" awards, but since the entire structure above us is firmly based on these systems, it was not possible to just stop it at the flight level without hurting our people. We did **add** some team-effort, and quality improvement awards, but still nothing truly changed. So now what? It was time to look at the way we were structured, put together, to accomplish our mission. Everything was sequential, similar to the assembly-line idea of work flowing through the warehouse. Property comes into the squadron through our doors at the Receiving Element. Those people perform certain tasks and then pass the paperwork and property *over the organizational wall* to one of three other elements in sequence until the property ends up in one of two conditions, on the shelf, or in the customer's hands. Now we had something! It seemed like every book and expert in the quality arena addressed this sequential flow as key to perpetuating inefficiency and control-oriented management.

Dr. J.M. Juran talked of "process anatomy"[3] during *The Last Word: Lessons of a Lifetime in Managing For Quality.* Processes are not just a function of their tasks, but of their structure. He referred to most traditional processes being a "procession" of steps with many people involved, each doing monotonous work repeating simple tasks. Juran's specific example was of a telephone directory production company.

> Preparation of telephone directories had been a series of 21 clerical steps, each performed by a different person. The organization decided to take a different approach which went from a procession of steps to an "autonomous" process. Under the revised process, each person was to perform all 21 steps. Protesters said "it'll take too much training, and because of the high turn-over, you'll end up training the community." The protesters were wrong! The new process was superior because each person was their own customer 21 times! They were less likely to make mistakes, which would make more work for *themselves*. The results:[4]

	Before	**After**
Annual turnover	28	0
Error/1000 lines	3.8	1.1

In Reengineering The Corporation, Michael Hammer and James Champy cite the fragmentation of work as the reason for America's quality woes. "For two hundred years, people have founded and built companies around Adam Smith's brilliant discovery that industrial work should be broken down into its simplest and most basic tasks."[5] This

fragmentation of work required extra measures of control and levels of management to "stitch" the fragments together.

> This eventually led to the pyramidal organizational structure which was "well suited to a high-growth environment because it was scaleable. Just add workers at the bottom of the chart and fill in the management layers above. This kind of structure was also ideally suited for control and planning. By breaking work down into pieces, supervisors could ensure consistent and accurate worker performance, and the supervisor's supervisors could do the same....As the number of tasks grew, however, the overall processes of producing a product or delivering a service inevitably became increasingly complicated, and managing such a process became more difficult.[6]

Today's insurance companies, banks, airlines, etc. have organized around the same principles even when the assumptions which made the concept valid were not present. TQ seeks a flexible, decentralized, empowered organization which can deliver service at high speed with continuous improvement. Certainly growth is not part of the organizational equation with across-the-board down-sizing and stream-lining. So what are we left with? Organizations whose very core foundation is based on a set of principles which are now invalid!

> "If modern companies thin slice work into meaningless tasks, it is because that is how efficiency was once achieved. If they diffuse power and responsibility through massive bureaucracies, it is because that was the way they learned to control sprawling enterprises. If they resist suggestions that they change the way they operate, it is because these organizing principles and the structures to which they gave birth have worked so well for decades."[7]

In his book, The Five Pillars of TQM, General (Ret) Bill Creech bases his entire theory on departing from what he calls "centralism." This is his term for the underlying theory of pyramidal bureaucracies. He reasons that most quality efforts are aimed at process quality improvement, but that most organizations don't examine the organization which spawned and nurtures the process. "This is centralism's most grievous flaw. The structure it yields -- and depends on to support its precepts--is the antithesis of responsiveness and flexibility."[8] He further states that most of the changes that result from such *process improvement efforts* "involve mere patchwork on a system so fundamentally flawed that the patches are of little utility."[9] Creech goes on to quote from an article in the Harvard Business Review, by Harvard Professors, Michael Beer and Russell Eisenstat, and Northeastern Professor Bert Spector based on their four-year study:

> Most change programs don't work because they are guided by a theory of change that is fundamentally flawed. According to this model, change is like a conversion experience. Once people "get religion," changes in their behavior will surely follow...In fact, individual behavior is powerfully shaped by the organizational roles people play. The most effective way to change behavior, therefore, is to put people into a new organizational context, which imposes new roles, responsibilities and relationships on them...Task alignment is easiest in small units...where goals and tasks are clearly defined. Thus the chief problem for corporate change is how to promote task-aligned change across many diverse units...Without **strong leaders**, units cannot make the necessary organizational changes, yet the scarcest resource available for revitalizing corporations is leadership.[10]

It became quite clear after being presented time and time again with the same findings that changing the organization was the only way to make quality really happen. Both Juran and Creech believe that organizing around small teams instead of functional units, with coherent, intact, non-fragmented processes which give ownership to the teams

is the key to getting results from a quality implementation effort. Dr. Juran states that "Self-directed work teams are the natural successor to the Taylor management theory we now organize around."[11] This led to the idea of creating a prototype team within the Materiel Storage and Distribution Flight.

What Did We Do?

It was evident that the main job of moving property throughout the warehouse was very fragmented (*See figure 1.*). So based on what we had learned, re-assembling the fragments became our key goal.

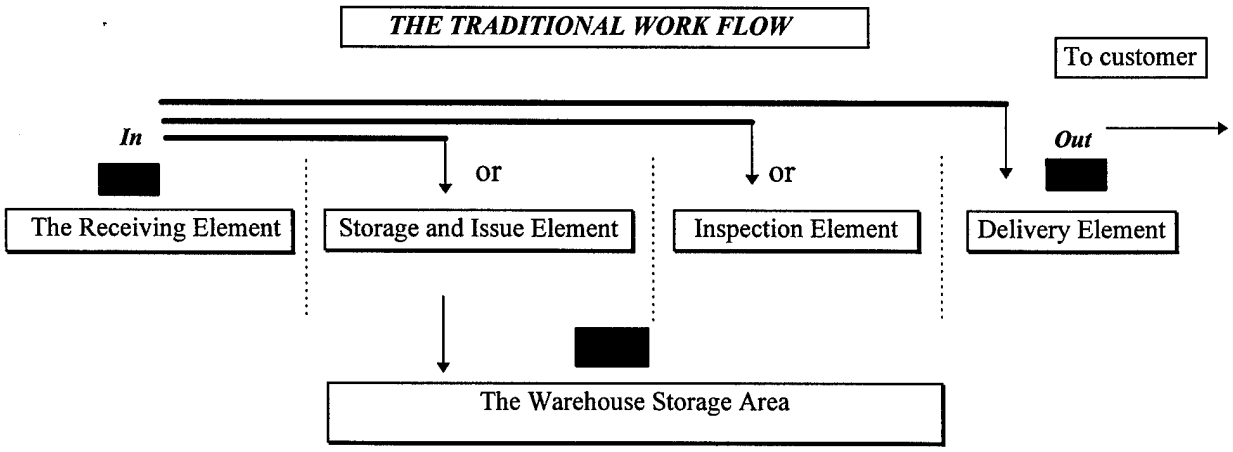


Figure 1.

Instead of Receiving personnel doing the first two or three steps, tossing it over the imaginary organizational wall (dotted lines in figure 1) to one of the other elements, and then each of the other elements doing the same, we thought that if one team did it all, they would be their own customer, and the jobs would get done more efficiently without the constant start-stop that the property experiences in the current method. We streamlined all the tasks by using a cross-functional team approach. The team was formed with one *volunteer* from each element, for all-around knowledge. The team off-loaded specific incoming trucks (those with priority codes 1 and 2). Then they in-checked the items, wrote up hand-receipts when needed, processed the receipt documents, outchecked the items, delivered the property (if the item had been back-ordered), and/or placed the property in storage (if it was stock replenishment). So far, we've eliminated two organizational boundaries because it used to take three elements to do what was just described. The last organizational barrier was eliminated when the team performed inspection jobs such as processing shelf-life and functional check items, identifying and inspecting for serviceability, and preparing reports of discrepancy (RODs) on non-conforming materiel. Because of the cross-functional nature of the team's tasks, we provided some comprehensive on-the-job training.

In the past, if an item came in to the Receiving Section which had been back-ordered, the Receiving personnel did some in-processing, and then sent the property and paperwork to the Delivery Element. The Delivery personnel would take the property to the customers. If customers ever had questions about their property, the delivery driver could only refer them back to Receiving to answer the question because they were only responsible for one *fragment* of the process. On the other hand, when somebody asked

Receiving what had become of an item they had in-checked, they could only say, "I don't know, I sent it to Delivery (or wherever the property had ended up). That's where their responsibility for the item ends. Phil Crosby refers to this phenomenon as the Mississippi River Theory. Someone throws an item into the river from upstream. It floats downstream until someone else fishes it out of the river and does something else to the item. This continues until it reaches its destination. Many people had partial responsibility for it, but **nobody** is responsible the entire process (unless you count the flight commander, who isn't involved in the handling of property)! Our concept would alleviate these troubles.

What Were the Results?

The team had continuous accountability of all property from the beginning of the process to the end. They saved time in doing the entire task because everything could be done without having to stop the flow of the process while waiting for another element to "fish it out of the Mississippi River." The members reported higher morale because they could design their own procedures and address problems real-time, plus they felt a stronger sense of cohesiveness with other members. Each member of the team became a better overall supply troop because they had a broader range of training and knowledge. The members also reported feeling more adaptable. They were organized in such a way as to be capable of responding to many different circumstances. Change was part of their every-day process. In terms of numerical evidence, the team completed twice the throughput per day , per person than in the traditional configuration. They processed an average of 90 receipts (items) per day and saw them to their destinations (I'm calling this "throughput"). The traditional methods use 27 people to handle an average of 250 receipts per day. This works out to 18 items of throughput per day, per person in the team, versus 9 items per day per person in the traditional configuration. That's a doubling of productivity. All this took place in a three-month period. Time will tell what kind of long-term results we will see, but we feel the initial results are very encouraging.

What Are The Implications of Full Implementation?

Most of the potential benefits have been touched upon. If we imagine these kinds of results across the board, we can basically spread the resource savings and morale increases Air Force wide. The benefits could be staggering! There are, however, some roadblocks we must overcome. The main potential problems include resistance to change, difficulties in manipulating manpower positions allocation, decentralized resource allocation, and confusion due to the loss of the Receiving Element as a "clearing house " for *all* incoming property. Similar drawbacks would be felt in other disciplines. These problems are mostly administrative in nature, however, and could be dealt with *by people with enough leadership authority.* We feel the potential benefits far outweigh the drawbacks. After all, if we truly want to see QAF work, if we want to see true empowerment, and hard resource savings, then we must look to the organizational structure we're using.

We firmly believe the answer lies in defragmenting our work processes by redesigning the organizational structure, using small teams to perform many tasks, rather than accomplishing complex processes by having workers perform a few repetitive steps over and over.

It takes more than council meetings, etc. to create lasting quality systems which will do the things TQ theory says they're supposed to. But as stated earlier, it cannot happen unless leadership guides the changing of the heart-of-the-matter assumptions about how work gets done in the organization.

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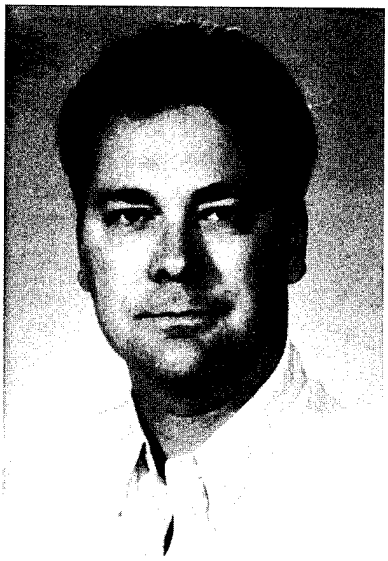
NOTES

[1] Boyles, p.2.
[2] Crouch, p. xii.
[3] Juran, p. 14 (lecture notes)
[4] Ibid
[5] Champy/Hammer, p. 2
[6] Ibid., p.16
[7] Ibid., p.17
[8] Creech, p. 12
[9] Ibid.
[10] Ibid.,p.13
[11] Juran, p. 43

Leadership Tomorrow:
Choosing the Path Never Taken



BIOGRAPHY

SMSgt Jim Rusch is Maintenance Superintendent for the F-16 Special Projects Branch at Edwards AFB. He enlisted in 1977 as an Aircraft Armament Systems and in 1988, retrained as an F-16 Avionics Specialist. He received the John Levitow Honor Graduate Award from both NCO Leadership School and the NCO Academy. He holds two Bachelor's degrees, and a Master of Science degree in Systems Management from USC, earning all college credits while on active duty

Leadership Tomorrow:
Choosing the Path Never Taken

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Abstract:

This paper presents views on what new challenges may be on the horizon for mid-level military leaders—especially Senior Non-Commissioned Officers (NCOs), and how these leaders can best choose a path for themselves and their organizations to prepare for the future. Written by an Air Force Senior NCO, it addresses: the impact external influences will have on the United States' military; changes in organizational structure and in the workforce; how leadership roles may evolve; and what new skills and abilities may be needed by tomorrow's mid-level military leaders. This paper is intended to stimulate thought and discussion about what deliberate actions the leader can take today to *choose* the path toward better leadership tomorrow.

Leadership Tomorrow: Choosing the Path Never Taken

Today's mid-level military leaders, especially the Senior Non-commissioned Officers (NCOs), will directly affect the future of the United States' armed forces—but what can we expect that future to be and how can we best prepare ourselves and our organizations for what lies ahead? We have witnessed sweeping social, political and economic changes throughout the world, which have had tremendous impact on our military roles, responsibilities, resources and missions. Fundamental changes in leadership philosophies have redefined our roles as leaders and how we view and structure our organizations. Although the rate of change may seem overwhelming to some, for those who choose to accept the challenge and take advantage of the opportunities ahead, the future may hold great promise.

This paper will address: the impact of external influences on our military organizations; how our leadership roles have developed and will continue to evolve; and what new skills and abilities may be needed by tomorrow's leader. The purpose of this paper is to stimulate thought and discussion about what paths may lie ahead and what deliberate actions we can take today to best prepare ourselves and our organizations for a journey never taken before.

External Influences

Perhaps the greatest factor affecting our military organizations is the environment in which we operate, specifically: the world political scene; our national political and economic concerns, and those of the Department of Defense (DoD). Although we have virtually no control over these influences, they each can have a tremendous impact on everything we do.

The world political scene has probably changed more in the past ten years than anything else affecting our military organizations. The Soviet Union is no longer our enemy and may someday become our NATO ally. Germany has reunited and the Berlin wall is now mere souvenirs for tourists. These events have forever affected the roles and responsibilities of our armed forces, but the uncertainty that lies beyond the horizon may prove even more significant. Who will our allies be tomorrow and who will be our enemies? Where will the next threat emerge? Will it be conventional, nuclear, biological or chemical? What will happen in North Korea and China in the next five years? Will Iraq and Iran become major concerns again or perhaps Cuba? Also consider the other world influences affecting our military: United Nations efforts, foreign civil wars, terrorist activities, the proliferation of weapons of mass destruction. Will our roles as warfighters for the United States shift to that of international police, peacekeepers and relief workers? These are but a few of the many international uncertainties that will directly affect us and our military organizations.

Another tremendous influence on the military community is the economic and political climate of the United States itself. We should expect federal defense budgets to decline in an effort to bring the deficit under control and more DoD expenditures will face intense scrutiny and possible elimination. Efforts may be underway to significantly reduce expenditures for overseas manning levels—specifically the permanent party members and the cost of housing and schooling their dependents. It is possible that overseas locations may become mere temporary duty locations for stateside units. Perhaps a skeleton crew of active duty personnel will be permanently assigned at these locations and the other personnel rotated through every 90 days. And what happen to the "active duty" components of our military organizations here and abroad?

Will we see a dramatic shift in the roles and responsibilities of our active duty forces? Will more tasks be assigned to the National Guard and Reserve units? Will military members be used solely for warfighting roles and all other support functions filled with civil servants or sub-contracted out? And what about our role as the nation's warfighters? In addition to political concerns, many social factors may affect our roles and responsibilities. We have seen increased involvement of the military in drug interdiction missions, domestic disturbances, natural disasters, etc. Will we guard the nation's borders and airports from illegal immigration? Will we increase our roles in domestic social matters? Will we become the testing grounds for social engineering experiments?

Within the DoD, we may see significant structural and operational changes as well. Many branches of the military may be reduced, merged or eliminated altogether. Duplicate and obsolete capabilities may be deemed unnecessary and subsequently terminated. Perhaps the "purple suit" military isn't too far off, where one military organization will perform all related operations to

meet the defense requirements of the United States (e.g. one organization for land battles, one for sea combat and one for air warfare). Joint operations and shared missions with other service branches and foreign militaries may become the norm for daily activities and during times of war. These and similar possibilities seem to indicate that our organizations may look and perform quite differently from those we are familiar with today.

At the unit level, we can probably expect substantial changes as well. As our organizational structures flatten out, fewer levels of supervision and management will be needed. Our workers will assume new roles, moving from specialists to generalists, with much broader skills and abilities. We will supervise larger numbers of more diverse workers, accomplishing many varied missions. As the workforce continues to shrink, we will need to recruit and retain people with increased capabilities to learn many different skills and perform in multiple roles. How will we keep our best and brightest people and plan for successful progression for their entire careers?

If we continue to flatten our organizations and reduce manning levels, there may not be enough "promotable" positions to ensure continued career success (as we know it today) for everyone, especially at management levels. Several possibilities may solve this problem: (1) Increase competition for the few "choice" positions available, (2) Tighten criteria to limit who is allowed to remain in the service, (3) Ease avenues for discharge of those who want early release or are considered inappropriate for military service, or (4) Permit (and encourage) some specialists to remain in technical positions for their entire careers, without mandatory ascension into leadership positions (e.g. pilots that just want to fly and not be commanders, technicians that just want to work on aircraft and not supervise others, etc.).

Fortunately, if assignment rotations do slow, we may remain in positions of leadership long enough to thoroughly learn our people, processes and systems. Rob Gray has verbalized the pitfalls of what he calls the "Bungee-jumping boss"[1] syndrome—where bosses drop in for 1-2 years and *whoosh*, they're gone, only to be replaced with another for 1-2 years. Under these conditions, improvement efforts are usually targeted at short-term, high visibility projects, sometimes forsaking the strategic planning and investment necessary for the long-term health of the organization. If assignments become 4-6 years or longer, leaders will need to view their roles and responsibilities quite differently, with a perspective of long-term commitment.

The relationship between supervisor and subordinate may change significantly as well. In the future, teamwork will prove more important than individual efforts and accomplishments. Can we expect the current performance feedback tools, reports and promotion criteria to remain the same? Almost certainly the feedback mechanisms will change, probably very soon. Several civilian corporations now use a "360°" performance evaluation system. In search of a more "quality" approach, military personnel and especially the leaders, may receive performance evaluation inputs from supervisors, subordinates, peers, customers and suppliers. How differently will we behave if we know our subordinates and customers have a direct effect on our own career progression?

[1] Robert S. Gray, Air Force Flight Test Center-Quality Improvement Office

In addition to performance evaluation mechanisms, the military will probably continue toward operating many of its functions more like the civilian business community. Our unique requirements and specifications will probably blend more with industry standards and general management practices. Efforts to partner military operations and defense industries, to compliment each others activities, will continue—to the benefit of both. With our down-sizing and move away from specialization, civilian corporations may provide many of our needed capabilities, resources and leadership practices. We may learn vital improvement lessons from corporations such as Lockheed-Martin, McDonnell Douglas, Motorola or Disney.

Our military roles, responsibilities, resources and missions will never again be what they were, or even what they are now. The threats we face and the allies we depend on may not be there tomorrow. We need to accept the fact that we are all headed down an unfamiliar path—one never taken before. It may be of some comfort to realize that all of us, each and every airman and general alike, are facing the same uncertainty—something new and never before attempted.

Leadership Roles: Past, Present, Future

Before we can anticipate what our new leadership roles may be, we need to appreciate what we actually ***know*** about leadership and how we learned it. For many, our leadership foundation is a mixture of ideas, values, beliefs and theories which we have acquired over time, by experience, experiment and personal observation. Many of us forged our leadership styles from what we learned from our supervisors (assuming we considered their approaches to be successful) and from what we learned elsewhere.

Many NCO leaders follow somewhat similar career progression steps. First, early in our careers, we become *specialists*, very proficient at our primary jobs. Then we may be recognized for our technical skills and abilities and become treated as *problem solvers*. As our judgment and expertise develops, we are often asked to provide advice and guidance, hence we become *decision makers.* As the scope of these decisions widens and starts to impact others, the makings of the *leader* emerge.

Air Force NCOs attend Professional Military Education (PME) courses at key junctures in their careers. It is at these PME schools that leadership issues are presented, studied, compared and evaluated. We then venture back into the "real world" to see for ourselves which of these concepts work and which just don't seem to apply. The leadership curriculum at PME usually covers: the *authoritarian* style of "Just do what I told you, now", which has always been popular, mainly because it is effective and easy to learn and apply. We also learn of the *laissez faire* approach, affectionately known as the "country-clubber"—not always effective, but very easy for the leader. We were encouraged to avoid these approaches when possible and strive to be a *democratic/participative* leader. Soon, even that philosophy evolved into new concepts, such as; MBO (management by objectives), MBWA (management by wandering around), and then TQL/TQM/QAF (Total Quality Leadership/Management, Quality Air Force).

Those leadership techniques that we liked and seemed to work for us, were kept in the top drawer of our tool boxes, to be used when needed. For many, this drawer contained but a few

tools, tried and true. Usually the technique that seemed appropriate or felt most comfortable was used in any given situation. It was assumed that what worked in the past would work in the future. It was also assumed that good leadership skills transferred well over time (e.g. the popular book by Wess Roberts titled: *The Leadership Secrets of Attila the Hun*[2], et al). These basic assumptions and habits may not only prove wrong, we may discover they in fact hinder our leadership ability in the future.

To understand the evolution of our leadership thinking, consider how we have progressed in recent years. In his book, *Fourth Generation Management,*[3] Brian Joiner identifies several approaches we typically use to get work done:

- **1st Generation:** Management by doing. This is the first, simplest, most primitive approach; just do it yourself. We still use it. "I'll take care of that, Frank." It's an effective way to get something done, but its capacity is limited.

- **2nd Generation:** Management by directing. People found they could expand their capacity by telling others exactly what to do and how to do it: a master craftsman giving detailed directions to apprentices. This approach allows an expert to leverage his or her time by getting others to do some of the work, and still maintain strict compliance with the expert's standards.

- **3rd Generation:** Management by results. People get sick and tired of you telling them every detail of how to do their jobs and say, "Just tell me what you want, by when and leave it up to me to figure out how to do it." So you say, "OK. [Achieve 98% fully-mission capable rate for the entire fleet of assigned aircraft]. I'll reward you or punish you based on how well you do. Good luck."

Although third generation management sounds logical to many and is still widely taught today, it still has largely unrecognized flaws and inefficiencies that we can no longer afford. A real danger exists if rewards, recognition and promotions are dependent (actually or perceived to be) on achieving the outcome. According to Joiner, in our efforts to "get the right numbers," we historically take three approaches:

> **1) Improve the system.** Make fundamental changes that improve quality, prevent errors, and reduce waste. Definitely the most difficult of the three approaches [and practiced the least?].
>
> **2) Distort the system.** Get the demanded results at the expense of other results. ["You want better aircraft mission capable rates? No problem!" Aircraft are kept fully-mission capable by not flying them or at the expense of preventive maintenance and inspections.]

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[2] Wess Roberts, Ph.D., *Leadership Secrets of Attila the Hun,* (Nightingale-Conant, Inc.,1989).
[3] Brian L. Joiner, *Fourth Generation Management,* (New York: McGraw-Hill, Inc., 1994) 9-10.

3) Distort the figures. Use creative data collection and analysis. ["Oh we don't report that aircraft as non-mission capable. If we had to, we could have the engine back in by the end of the shift."]

Personal observation, experience and your own activities may substantiate the fact that these approaches are still used frequently in the military. Joiner proposes new ways to get work done, as we evolve our techniques into the *4th Generation of Management*:

- **Quality**—Understanding that quality is defined by the customer; developing an obsession for delighting customers—not being satisfied with merely getting rid of what annoys them but going beyond to understand their current and future needs deeply, to surprise them with products and services they didn't even know were possible.

- **Scientific Approach**—Learning to manage the organization as a system, developing process thinking, basing decisions on data (not opinion or presumed knowledge), and understanding variation.

- **All One Team**—believing in people; treating everyone in the organization with dignity, trust, and respect; working toward win-win instead of win-lose for all stake holders (customers, employees, suppliers and the communities in which we live).[4]

The concept of *all one team* needs even deeper consideration and understanding for those of us in the military. We are very accustomed to "friendly" competition between teams from the same parent organizations and believe these contests are good for the organization. Typical examples include: weapons load crews, cargo load teams, civil engineering teams, security police flights, even work shifts. This "friendly" competition is often promoted as an effective way to achieve many positive team results: strong team identity and loyalty, personal sacrifice for the team, cooperation, initiative and ingenuity, focus, and higher levels of performance. Despite the good intentions, "friendly" competition often results in many undesirable behaviors and attitudes—which can seriously jeopardize an organization's warfighting abilities—especially if the perceived or actual rewards are considered very desirable. "Rewards such as promotion and privilege go to those who are 'gamesmen'—those who excel in playing the political game of the organization."[5]

Despite the expectations of "friendly" competition, too often the teams treat each other as winners and losers—resulting in distrust, friction, resentment, rivalries and grudges. Too frequently, these competitions encourage, or at least result in: the hoarding of resources, distortion of performance measurements, fudging of status reports, and the liberal interpretation of rules and regulations. Taken to the extreme, false information may be intentionally

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[4] Brian L. Joiner, *Fourth Generation Management,* (New York: McGraw-Hill, Inc., 1994) 9-10.
[5] Lyman D. Ketchum and Eric Trist, *All Teams Are Not Created Equal,* (London: Sage publications, 1992) 41.

disseminated and covert sabotage of competing teams may occur. The attitudes and behaviors that sometimes develop are certainly not conducive to those needed for effective warfighting.

Although these "friendly" competitions may seriously jeopardize an organization's warfighting abilities, we have promoted them for years. Because of the bad practices, attitudes and behaviors that might develop over time, teams may have some difficulty transitioning quickly to the "global" thinking, team effort needed during war. Being able to work as one team requires: seeing the "big picture" issues; openly admitting shortfalls, weaknesses and vulnerabilities; sacrificing one's own unit and sharing needed resources and capabilities; cooperating and collaborating honestly, and trusting all others to do the same. If "friendly" competition isn't honing our warfighting skills, and despite good intentions may actually be jeopardizing those skills, perhaps we should rethink our real reason for promoting these competitions in the first place.

New Leadership Skills and Roles:

Perhaps the greatest challenge we face is how we as leaders see and treat our organizations, and how we see ourselves in the role as leader. Unfortunately, we really can't rely much on our past experience—our leadership history is just that, history. The future may challenge our fundamental beliefs in what our organizations should look like and where we should fit in.

New Thinking Needed Here: We have succeeded in organizations that were designed by "functions"—by learning these functions very well and subsequently becoming functional experts. Unfortunately, these functional groupings will not serve us well in the future, and in fact our functional experiences may lead to parochial leadership and a narrow focus of concern. To lead and improve tomorrow's organization, we need to view it entirely differently, as a whole entity—from a ***system-wide*** perspective. In her book *Leadership and the New Science*, Margaret Wheatley notes:

> The layers of complexity, the sense or things beyond are control and out of control, are but signals of our failure to understand a deeper reality of organizational life.... We have lived and worked in organizations that were separated into individual (and seemingly autonomous) parts.... A world based on machine images is a world filled with boundaries. In a machine, every piece knows its place.... We manage by separating things into parts, we believe that influence occurs as a direct result of force exerted from one person to another, [one function to another].... We keep planning for a world that we expect to be divisible, understandable and predictable. We sense frustration when our observations of what really is happening differs substantially from our "educated" predictions.... We have believed that by separating the whole and understanding the workings of each part, we can better understand the whole, and by improving each of the separate parts, we will obviously improve the whole.... Should we really expect to

> understand our organizations using the machine imagery of the seventeenth century, separating everything into parts?[6]

How many times have we tried to make our own units successful at any cost, without considering or even acknowledging the impact our actions may have upon upstream and/or downstream units, or the entire organization? Without seeing the entire "system", improvements in one area may prove ineffective or may in fact hurt the entire organization.

Margaret Wheatley continues:

> [We need to move] toward holism, understanding the system as a system and giving primary value to the relationships that exist among seemingly discreet parts.... When we view systems from this perspective, we enter an entirely new landscape of connections, of phenomena that cannot be reduced to simple cause and effect, and of the constant flux of dynamic processes.[7]

Manager of Systems: Instead of being functional shop chiefs, we can expect to lead integrated organizations of multi-functional groups, with diverse expertise and capabilities. It is through inter-relationships and flexibility that an organization's capabilities and limitations will be determined—not the optimization of any single function. A thorough understanding will be needed of these inter-relationships and the vital connections between people and processes. It must be understood that no action taken is isolated, and even a small, seemingly insignificant change in one area may have profound and completely undesirable effects elsewhere. This wide-angled view will require new methods of: information collection and dissemination, decision making, leading and managing. Only by keeping a system-wide perspective, will the leader be able to comprehend the subtle repercussions that a single (albeit well intentioned) action may produce.

Historically, we strive to optimize the organizations that we, ourselves, are in charge of. Usually performance appraisals and rewards have been tied to our unit's success, so we make every effort to show-off our improvement efforts. In his book *The Goal,*[8] Dr. Eliyahu M. Goldratt clearly demonstrates the hidden danger of this sub-optimization—working to optimize a component of a system without understanding the real goal of that system. In our efforts to "maximize productivity" in our units, we want to: keep people busy, show lots of action and work in progress and the full utilization of our tools and equipment. We seek these activities and conditions for their own sake—regardless of the consequences to other parts of the whole organization (e.g. workload surges in other areas, deviations from published plans, inventory fluctuations, availability of skilled workers). Do we really believe that we are improving the organization's overall productivity and helping with goal accomplishment? How do we know?

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[6] Margaret Wheatley, *Leadership and the New Science,* (San Francisco: Berrett-Koehler Publishers, Inc., 1992), 1-49

[7] Margaret Wheatley, *Leadership and the New Science,* (San Francisco: Berrett-Koehler Publishers, Inc., 1992), 9

[8] Dr. Eliyahu M. Goldratt and Jeff Cox, *The Goal,* (Great Barrington, Mass: North River Press, Inc., 1992).

Constraint Manager: In order to realistically determine what our process capabilities are, we will have to accurately determine what constraints are actually restricting our efforts and equipment. This assumes that we understand what our real goal is and we can distinguish those activities that help us reach our goal, from those that do not. Only by identifying and keeping focused on the real constraints, can significant improvements ever be made to any process within a system. Skills for the leader in this area come from many sources, especially from Dr. Goldratt's *Theory of Constraints* program[9] .

Team Leader/Facilitator: Another significant shift in roles will see the single-seater hero type leader replaced by the "team" leader—more like the orchestra conductor or coach. In the past, we relied on one person to have the knowledge, authority and responsibility to make decisions and set policy. Tomorrow's leader will need to encourage the "team" concepts of the new organizations—shared responsibilities, authority and decision making. In addition to being team leaders, we will also be members of many other teams as well. With the increased roles these teams will play in problem solving and improvement efforts, facilitation skills will be even more essential. Knowing how to encourage participation from all team members, generate and evaluate ideas, conduct effective meetings, and resolve conflicts will be invaluable for any organization leader.

Statistician: As we move towards continuous quality improvement, management decisions will be increasingly based on factual, quantifiable data—not intuition, instinct and gut feelings. As we strive to measure every process for improvement, the data will become vital tot he process. Mid-level managers will play a critical role in collecting, compiling and analyzing the data from our key processes. Process flow charts, control charts and other graphical tools will become far more common in every workcenter, with all employees actively participating. We will need to understand and be able to explain our processes and procedures in these quantifiable terms.

Choosing a Path

With so much uncertainty on the horizon, what can we do now to better prepare ourselves and our organizations for the future? First and foremost, we need to acknowledge that things will be very different from the present. As in all major changes in life, acceptance is the first step toward dealing with it effectively. Think about what may lie ahead and try to imagine what our roles may be—team leader, coach, facilitator, systems and constraint manager, statistician. We can then roughly estimate the skills and knowledge that will probably prove useful. We should also be able to identify current practices and attitudes that may prove useless or harmful

Perhaps we can start by jettisoning the excess baggage we carry—challenging some of the basic assumptions that may hinder our progress and effectiveness tomorrow. Do we really expect the leadership skills and techniques we know now to work well in the future—a future with a different political and economic environment, new military missions and organizational structures and an entirely new workforce? Can we assume that what we have learned and used in the past

[9] Dr. Eliyahu M. Goldratt, *Theory of Constraints,* (Great Barrington, Mass: North River Press, Inc., 1990).

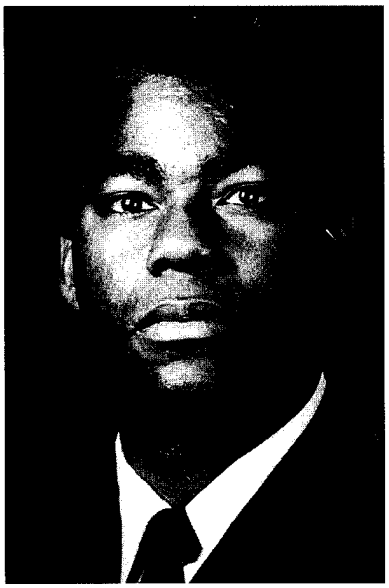
will work in this future, and that our leadership skills will transfer well over time? If we doubt any of these assumptions, then we are entering an unknown arena with little experience and security.

We are rapidly moving away from what we "know" about our world, our organizations, our workers and ourselves. The real goal of the organization needs to be determined, understood by all, and targeted—every activity and operation should move the organization toward its goal accomplishment or be eliminated. Contrary to our experience as functional shop chiefs, we need to learn how to cooperate and collaborate for the good of the entire organization, treating it as an entire system, not mere machine parts. We will need to stop managing tasks and steps, and start facilitating the system's processes. No longer can we accept the sub-optimization of any one unit at the possible (and probable?) expense of another. No longer should we encourage or even tolerate "friendly" competition between our own forces. We will need to build relationships and learn better communication skills—especially listening. The era of the rugged individual, the single-seater hero, has evolved into that of the team player. Even our reward and recognition systems will need to change to recognize our team efforts and accomplishments. Now is the time to begin getting this team experience.

Our challenge then is to prepare ourselves and our organizations to successfully meet the many uncertainties that lie ahead, somewhere beyond the horizon. We will have to seek out new opportunities to learn these new roles and responsibilities. Through reading, research, study, and experimenting, we will acquire the new outlooks, new understandings and new skills needed for the changes ahead. It is only by intentionally choosing this new path that we will become the leaders of tomorrow—the leaders needed to provide for the defense of our nation.

> "In a time of drastic change, it is the learner who inherits the future. The learned find themselves equipped to live in a world that no longer exists."
>
> Eric Hoffer

A Leadership Crisis In The United States
Are We Building Robots or Artificial Intelligence?



BIOGRAPHY INFORMATION

Captain Harold Huguley III is the Assistant Chief, Quality Improvement Division for the USAF Weapons and Tactics Center located at Nellis AFB, NV. He is responsible for implementing quality improvement activities and advising commanders and supervisors on strategic planning, unit self assessment, and process improvement. As the Master Instructor for Nellis, he supervises the curriculum development and the classroom instruction of four quality courses. In addition he performs liaison duties for the formal quality improvement teams. Capt Huguley graduated from the USAF Academy with a B.S. degree in Operations Research. He also holds two other degrees, a M.S. degree in Industrial Engineering and a MBA, both from St. Mary's University.

Master Sergeant George A. Cormier is the Quality Advisor for the 558th Civil Engineer Squadron located at Nellis AFB, NV. He is responsible for implementing quality improvement activities and advising the squadron commander and flight chiefs on Quality Air Force criteria, strategic planning, unit self assessment, and process improvement. As the squadron Quality Advisor, he designs the quality training curriculum and the classroom instruction for all squadron quality courses. In addition, he is a guest instructor for many Weapons and Tactics Center quality courses. He is the primary coach for all CE quality improvement teams. Master Sergeant Cormier graduated from CCAF with an AAS in Construction Supervision. He has a B.S. degree in Work Force Education and Development from Southern Illinois University at Carbondale. He is currently finishing his Master of Arts in Organizational Management with the University of Phoenix. Master Sergeant Cormier is married to Technical Sergeant Cormier and they have four children. He has been in the United States Air Force since September 1974.

Abstract

The Air Force Chief of Staff, General Fogleman, states, "A leader is someone who makes things happen.". The manager syndrome vice leadership is causing a crisis within many organizations in the United States. The major cause of this crisis can be associated to America's leadership. Does the U.S. have leadership? Is it working? What can the U.S. do? We need to understand leadership is not a function of just job titles; but rather, it is a function of relationships. Leadership must be known and fostered throughout the entire organization. An organization rich in leadership is characterized by a high regard for people. Instead of searching for leaders, many organizations seek "management-charged" individuals. This alone will not necessarily breed success. Leaders and managers differ in their perception of authority. Managers tend to use formal authority when making decisions and implementing tasks. Leaders, on the other hand naturally exhibit both formal and informal authority. Perry Smith has identified twenty characteristics often displayed by leaders. In addition, the Xerox corporation has developed four primary categories worth tying into performance reviews. These are all valid attributes however, we must not forget a primary role exhibited by leaders is of a servant. It is supporting his people, running interference for them, coming out with an atmosphere of understanding and trust. Leadership compares to management as artificial intelligence compares to robots. The United States, if it intends on climbing out of this leadership crisis, needs to quit fixing its robots and start developing artificial intelligence.

A Leadership Crisis In The United States
Are We Building Robots or Artificial Intelligence?

In the words of our current Chief of Staff, General Ronald R. Fogleman, "A leader is someone who makes things happen." Tom Peters in the book A Passion for Excellence stated "A leader will create a vision, not kick someone in the backside!" He was referring to the difference between a true leader and a mere manager. The manager vice leadership syndrome is spreading fast, and is causing a leadership crisis within many organizations in the United States. This is evident today in our current economic, political, and social posture in the world. A statement in the article "A Decade of Drastic Change" reads, "In 1980, Japan's real stock market capitalization, as a percentage of gross national product, ranked fourth behind the U.S., Canada, and the United Kingdom. By 1989 the United Kingdom had superseded the U. S in capitalization and Japan had leaped into the new place height! In 1986 Japan produced approximately 10 percent of the world's gross national product-at the very time the United States had become the world's largest debtor nation."

The United States was once thought of as a perennial power in virtually all avenues; but now it may be fair to say that the United States has converted to something less. There are many arguments as to the cause of this situation, but all lead to the monument of leadership. The major cause of the U.S. degradation can be attributed to America's leadership. Does the U.S. have leadership? Is it working? What can the U.S. do to improve its leadership? The bottom line, is American organizations are facing a leadership crisis because they really do not have leadership; they have management, super management, or "new and improved management."

The simple fact in how our organizations view leadership has in itself lead to the leadership decline. "Leadership is not a function of job titles; it is a function of relationships. Leadership is an association with individuals. Leadership can best be described as the ability to influence the thinking, feeling, and actions of others they willing choose to follow. Management on the other hand is virtually the same as leadership except it's willingness to follow; is replaced by "forced followership." This forced followership may be direct or indirect; regardless, management does not facilitate personal willingness. What's the problem? The problem is many U.S. organizations tend to rely heavily on management as opposed to leadership. It is the "forced followership" that is causing U.S. organizations to fall behind the profits of foreign firms.

Knowing the difference between leadership and management will not, in itself reverse our downward trend. According to Warren Bennis in his book, Why Leaders Can't Lead, "Leaders are people who do the right thing; managers are people who do things right." Both roles are crucial, however they differ profoundly. Leadership must be known and then fostered throughout the entire organization. An organization rich in leadership is characterized by a high regard for its people; it will be people-centered. Are U.S. firms people-centered ... where's the leadership? Instead of searching for leaders, many U.S. firms seek "management-charged" individuals. In doing so, they're building their own

death bed. A management-charged individual will perhaps understand the value of participative management, and an organization of this era would do great by hiring such a person. But, there are other essential qualities that organizations should look for in individuals. Rosbeth Kanter stated in her article, "Power Failure in Management Circuits" that, "All too often top executives design 'beneficial' new employee programs or declare a new humanitarian policy (e.g., participative management is now our style or we need to institute empowerment) only to find the policy is ignored or mistrusted because it is perceived as coming from an uncaring boss."
This policy is ignored and mistrusted not because of an uncaring boss, but rather because of an "unleadership" boss." Hiring a person energized with participative management ideology will not necessarily bring success to an organization. Organizations need to hire leaders. True leaders will exhibit concern for people, plus a whole lot more in all of their actions.

Leaders and managers also differ in their perception of authority. When U.S. firms hire management-centered employees they are hiring individuals who tend to search for "formal" authority. Management-centered people tend to use formal authority when making decisions and implementing tasks pertinent to an organization's mission. Authority associated with leadership on the other hand doesn't have to be formal; it is naturally exhibited in both formal and informal settings. In the article "The Leader as Servant" Karl Albrecht states, "There are two kinds of authority to accomplish things through people. The first is formal authority; it is associated with your formal rank within an organization. What you are "legally" entitled to do. Examples include the ability to make decisions, allocate resources, hire, fire, promote, demote, reward, discipline, and provide direction. The second is earned authority; it is the power you as an individual have in the eyes, heart, and mind of people who look to you for leadership. This earned authority only comes through the personal relationships you can build with them. These relationships helps them see you as someone who can help them achieve what they want in their lives. Someone with earned authority holds a greater influence over others than a person with high formal authority but little or no earned authority."

The role of a leader is the servant role. It is supporting his people, running interference for them, coming out with an atmosphere of understanding and trust. In fact, in leadership organization you really don't need authority! In the words of Tom Peters, " Commitment - not authority builds an organization." Individuals are committed to follow if they sense strong leadership. Where there is leadership, there is followership. Where there is no followership, there most certainly is no leadership. The true test of leadership thus relies not in authority but rather in followership. Followership is voluntary. People will engage or disengage based on their interpretation of relationship experiences. People can be "made" to comply, but can not be compelled to follow.

QUALITIES EXHIBITED BY LEADERS

Perry Smith
Taking Charge

1. Trust	11. Run Good Meetings
2. Teachership	12. Good Decision Making
3. Problem Solver	13. Visible and Approachable
4. Communicator	14. Sense of Humor
5. Effective Time Management	15. Decisive, but Patient
6. Good use of Intuition	16. Introspective
7. Willing to Remove People for Cause	17. Reliable
8. Taking Care of Their People	18. Open-minded
9. Provide Vision	19. Maintain High Standards
10. Subordinate their Egos	20. Exude Integrity

In most predominately management-centered organizations, there will be individuals who seek authority. This authority will usually be based on the desire to obtain power. An alarming characteristic of today's top managers is the desire for power; they strive to become the vice president because of the power associated with the position. Those who interpret power as the ability to punish or reward and seek top level leadership positions only for this reason will fail miserably as leaders. The position may bring abstract power to the individual and the power may get compliance but it doesn't assure organizational leadership.

LEADER ATTRIBUTES WORTH TYING INTO PERFORMANCE REVIEWS

Xerox Corporation

Strategic Leadership	Organizational Leadership	Managing Self and Others	Knowledge Base
Strategic Thinking	Operational Performance	Openness to Change	Environmental
Implementation	High Performance	Empathy/Influence	Industrial
Customer-Driven	Developing Talent	Personal Drive	Business
Shared Vision	Delegation/Empowerment	Strength and Maturity	Financial
Decision Making	Managing Teamwork	Personal Consistency	Technical
Quick Study	Cross-Functional Teams		
	Leading Innovation		
	Business Results		
	Leadership by Quality		

Leadership is not based on a management position. It is all to often in U.S. organizations that we associate leadership with a position or job title. Just because a person is the "manager" doesn't make him a leader, and by the same token just because a person does a great job of managing a small department doesn't mean he has the aptitude to run the division. U.S. organizations tend to thrive off the notion, "He's doing such a

great job of building widgets, let's put him in charge of widgets and wodgets. He'll make a great leader." Although he has performed well managing widgets, there is no guarantee that he will possess the leadership qualities to move the whole plant, division, or company. The U.S. is in a leadership crisis because it has continually viewed leadership as a position; a position that can be filled by any manager who has exhibited prior excellence in job performance. If it is not job performance, than it's experience; if it is not experience, than it's inheritance; and if it is not inheritance, than it's politics. It is all too shocking when we examine the number of U.S. firms who have made chief executive officer, president, or even vice president promotions solely on the basis of 1) **I**nheritance 2) **J**ob Performance 3) **E**xperience 4) **P**olitics. The injection of this IJEP promotion system is infecting the health of U.S. leadership. In fact the use of this "management promotion" (to put managers in positions that require leadership) system may best be viewed as: **I JEP** my firm out of long term success! or **I J**ust **E**rased **P**rofits!

Managers are people who do things right. Leaders are people who do things right ; in addition they do the right things! Organizations often seek individuals who have excelled in doing their job right or in doing the right job! But who cares whether or not they built the fastest, most efficient widget! Especially if there wasn't a market for the widget in the first place. U.S. organizations need top level executives who are leaders; leaders who do things right as well as do the right thing.

MANAGER	LEADER
Cop	Coach
Referee	Facilitator
Pronouncer	Cheerleader
Naysayer	Nurturer of Champions
MANAGEMENT	**LEADERSHIP**
Arranges	Growth
Tells	Enhances

There is a leadership crisis in the United States. The crisis is prevalent not only in profit seeking corporations, but also in non-profit organizations and government agencies. How long the crisis will last will invariably depend on our transition from management to leadership. There exist some good and bad management philosophies; however there is **ONLY** good leadership. Either an organization has leadership or it doesn't--there is no dependent variable! If an organization possesses leadership, its people will have all the qualities of leadership suggested by Perry Smith. Leadership is concrete; however it depends! It doesn't depend whether it's present in the organization, but how it is used. Management is usually predefined and inflexible; they have set ways of accomplishing tasks via people, things, or situations. The key to leadership rests with the individual not with the principle. The leader knows his actions will invariably depend on the situation. At times he'll have to make tough decisions on his own, but there will be many occasions where he'll have to rely on group decisions. At times he'll have to be "hard" with his

employees and at times he'll have to be "soft." This doesn't mean leaders are wishy-washy, but rather intelligent beings. Leadership compares to management as artificial intelligence compares to robots. The United States, if it intends on climbing out of this leadership crisis, it needs to quit fixing its robots and start developing artificial intelligence.

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CHARLES T. BARCO

Major Barco is a Director of Inspections at the Defense Intelligence Agency (DIA) in Washington, DC.

He is graduate of Huntingdon College where in 1980 he obtained a Bachelor of Arts Degree in Biology with minors in Chemistry and Psychology. In 1990 he graduated from the University of Alabama with a Master of Arts Degree in Military History.

In 1983, Major Barco graduated from the Air Force's military intelligence school as a distinguished graduate. Following graduation, he started his career as Chief, Soviet Mobile Missile Systems with the 544th Intelligence Wing at Offutt Air Base. From there he became Chief, World-wide Contingency Exploitation Division and eventually was assigned to the Strategic Air Command Headquarters Staff as a CINCSAC Command Briefer and briefer to the Joint Strategic Target Planning Staff. In 1987, he was selected to the faculty of Squadron Officer School where he served as a Master Instructor. In 1989, he was hand-picked to join the prestigious cadre of instructors at Air University's College of Professional Development (CPD), serving on the Academic Instructor School faculty. By 1991, he returned to intelligence as Chief, Executive Support for the 6th Tactical Intelligence Group Commander at Osan Air Base, Korea. After a year in Korea, Major Barco returned to Air University as Chief, Research and Presentations for the College of Aerospace Research and Education (CADRE). He stayed there only a short time before being assigned to the newly created Air Force Quality Institute, where he served as Chief, Curriculum Development until his reassignment to DIA in May 95.

Major Barco has written/spoken on quality and leadership; having spoken at the 1993 Quest for Quality Symposium, published in the Fall 1994 edition of the Air Power Journal, and presented at the 1995 National Society for Performance and Instruction's National Convention.

Major Barco was awarded the Meritorious Service Medal (3 OLC), Commendation Medal, and an Achievement Medal.

Leadership: A Search for Linkage

By Chas T. Barco

Abstract: *This paper provides a picture by which one can judge the efficacy of leadership, describes a process which leads to better leadership practices and suggests a visual template which effectively integrates leadership, education, and quality.*

The profession of arms once relegated to nobles and mercenaries has grown to reflect the complexities of the age by which we are defined. Our Air Force today is better educated than any fighting force this world has ever known. Our mission has expanded from one of a cold war nuclear sentinel, to one which reflects the global reach and global power needed in an increasingly complex, yet, fragile world. The complexity of this mission is only matched by the dynamic education and training programs we have developed over the last 47 years to sustain our growth. Thirty years ago, Curtis Lemay said it best when he stated "education is knowledge, knowledge is power, power is peace, and peace is our profession." He clearly understood education was our most important resource, our link to the past and our springboard into a quality future. Since then, generations of leaders and teachers have unselfishly passed along their wisdom to the men and women who traditionally inhabit our wings, squadrons, flights, and classrooms. But what do these terms education, quality and leadership really mean?

Education is from a Latin word which loosely translated means assist at the birth of. In the USAF, we devote huge sums of money to educate or "assist at the birth of " our new recruits and revitalize our mid-senior level officers and NCOs. Lately, we have introduced a new term into our educational vocabulary--quality. Dr Juran suggests quality has two definitions:[1]

1) Income Oriented Quality: Those features of the product which produce customer satisfaction are competitive and create income.

2) Customer Oriented Quality: Means freedom from dissatisfaction, defects, failures and rework.

Dr Deming combines elements of the two previous concepts to define quality education as "the continuous improvement of systems to enable the optimum state of personal, social, physical, and intellectual development of each individual which will result in

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[1] Joseph Juran, The Last Word Seminar, Juran Institute, Atlanta, GA. 1993.

society and colleague loyalty now and in the future."[2] Another scholar, Dr Wakin, introduces the term leadership by suggesting that "good teachers are good leaders and good leaders are good teachers." This linkage is critical in understanding the relationship between education, leadership and quality. Dr Wakin further describes effective leaders as transformational leaders[3] (characterized by moral-based leadership "stressing the role of education, persuasion, and cooperation in mission accomplishment)." It is only natural then we begin to appreciation the linkage between education, leadership and quality in the USAF.

Leadership is the foundation to a quality Air Force. Yet, few can describe a process by which leadership is nurtured and even fewer can concisely describe what the final leadership product looks like. Most of our professional military education schools, where leadership is reinforced, argue the Clausewitzian approach to leadership. That being, successful leadership is exemplified by the attainment of coup de oeil[4] or loosely defined as the ability to read situations and people and then act in an appropriate and timely fashion. But, can leadership be taught, or do we simply measure ones leadership potential against a defined read/act standard? Further, do supervisors in our emerging quality Air Force teach leadership, or do they again simply pretend to measure ones leadership potential against a descriptive criteria spelled out in EPR and OPR dogma? This brief paper provides a picture by which one can judge the efficacy of leadership, describes a process which leads to better leadership practices, and suggests a visual template which effectively integrates leadership, education, and quality.

I believe from an educational perspective that good leadership *practices* can be taught. But to do so, one must first define what good leadership is, and then build an educational process by which this *practice/product* can be reliably pursued. Our Quality Approach describes at length the actions, principles and values consistent with leadership such as:[5]

- Create an environment of trust, teamwork and pride
- Delegate responsibility and authority
- Set goals, measure progress, and reward performance
- Give everyone a stake in the outcome
- Strive for continuous improvement

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2 Edwards W. Deming, Seminar for Educators, Quality Enhancement Seminar, Newport Bch CA. 1991.

3 Maltham M. Walkin, "*The Ethics of Leadership II*," in AU-24, 55.

4 Carl Von Clausewitz, *On War*, ed and Translated by Michael Howrad and Peter Paret (Princeton, New Jersey: Princeton University Pres, 1976), pg 102.

5 *Quality Approach*, Edited by MSgt Susan Holmes, (Montgomery, AL: AU Press, 1993) pgII-3.

But the Quality Approach fails to truly define this, our most sacred term. Unfortunately, the Quality Approach is not alone in describing the actions of leadership versus the definition of good leadership. Clausewitz suggests leaders must have:[6]

- First, an intellect that even in the darkest hour retains some glimmering of the inner light which leads to the truth

- Second, the courage to follow this faint light wherever it may lead.

In reviewing the literature, I found an old professional military education (PME) definition most appropriate. In 1986, Squadron Officer School defined leadership as the ability to *read* situations and people and then *act* appropriately and in a timely fashion using the proper methods and resources.[7] Considered as a concept, this definition works well to define the characteristics of the end product: good leadership. If one is a good leader she/he will have the following four attributes which *must always* be present:

Good Leaders:

1. *Consistently read people* - ability to rapidly assess ourselves as well as the personal strengths and weaknesses of our *customers, stakeholders, suppliers, subordinates, peers, superiors, teams, organizations* in addition to competitors and their *organizations*.

2. *Consistently read situations* - ability to *foresee the future* while rapidly *assessing and reorienting on current situations* which develop in the workplace which potentially *impact our system* and its ability to accomplish the mission.

3. *Consistently act using methods* - ability to *meet or exceed* future requirements by *using metrics, self assessments and other diagnostics as valid indicators* to monitor and continuously improve our current systems, processes, and personnel challenges.

4. *Consistently act using resources* - ability to *select the appropriate resource* to effectively and efficiently meet present and future requirements.

Unfortunately, few supervisors possess the read and act skills needed to consistently nurture leadership *practices/products* without variation (ie. a leader lacking one of the above referenced attributes). Dr Gus Economos, former instructor at SOS, suggests three possible variations of leadership exist:[8]

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6 Clausewitz, 102.

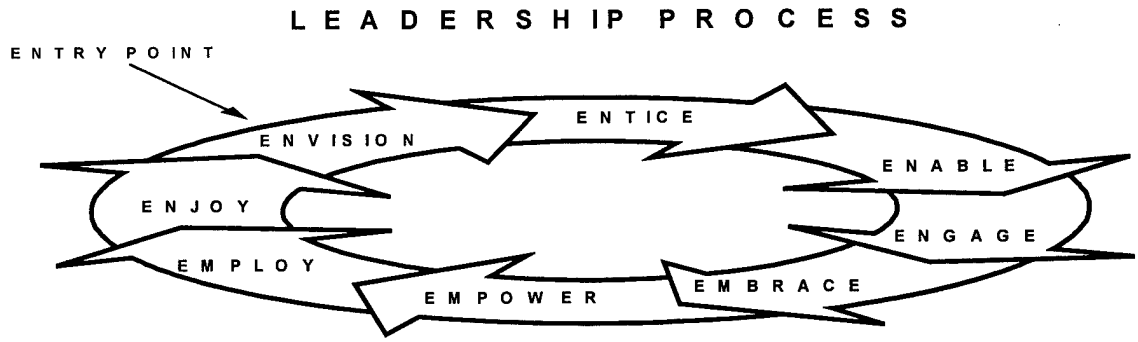
7 Squadron Officer School Curriculum (Maxwell AFB, AL: Air University, 1987) 3130 R-1 thru R-2 and 3160 R-1 through R-2)

8 Dr Economos is a former SOS instructor and now a consultant in Montgomery, AL

Standard: Leader reads and acts appropriately

Variations:
- Leader reads, but fails to act
- Leader acts, but fails to read
- Leader fails to read and fails to act

With the four attributes of leadership identified and the different variations listed, let's consider the process by which a leader is developed. I argue that this process begins with a vision and ends with the celebration of a well-executed action. I further argue this process closely parallels the greek process known as Arete (loosely translated as duty to oneself[9] evidenced by turning a philosophical vision into action through personal leadership). A visual representation of this action process is shown below:[10]



1. *Envision tomorrow* through observing, questioning, and reorienting[11]
2. *Entice* others to become interested in your vision
3. *Enable* and educate participants
4. *Engage* participants in theorizing, envisioning goals, creating partnerships, testing hypotheses, creating processes and valid metrics
5. *Embrace* the mission as a natural team
6. *Empower* the team to action
7. *Employ* the team in action
8. *Enjoy* the rewards and reflect on potential improvement opportunities
9. *Envision* new and unique challenges related to your mission

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9 Ronnie Lessem, *Total Quality Learning: Building a Learning Organization* (Cambridge MA: Basil Blackwell Ltd., 1991), pg 6-7.

10 Charles T. Barco, *Valuing Leadership in an Era of Prophets, Pugilest and Politicians*, Winter Edition of Air Power Journal (Maxwell AFB, Al: Air University Press, 1994) Pg 12. and original draft presented at the 1993 Quest for Quality Symposium Proceedings, *In Search of Profound Knowledge* (Maxwell AFB, AL: Air University Press, 1993) Pg 729.

11 Edward Mann, *Desert Storm, The First Information War?* Spring Edition of Air Power Journal (Maxwell AFB, AL, Air University Press, 1995) pg 6. Also see John R. Boyd's "Discourse on Winning and Losing" (Research Paper. AWC. Aug 87) pg 128 for a discussion on the OODA Loop {observe, orient, decide and act}. *Valid quick-term loops, such as Myer's/Boyd's, are critical to decision-making in peace or war and serve to augment the leadership process..*

Does one loop around the path create leadership--certainly not! The path is simply a practice track one can exercise on under the supervision of an experienced leader/coach. The coach should ensure an *adequate support system* exists to facilitate the exercising of the mind and body which will occur throughout the journey.

Such a support system is one characterized by the following attributes:

1. Appreciation for systems thinking[12]

2. Appreciation for continuous improvement

3. Appreciation for metrics to measure critical processes[13]

4. Understanding the psychology of people in the workplace[14]

5. Application of predictive-based thought in the workplace[15]

Loosely translated most of these attribute fit nicely into our current QAF System Model.[16] But, such a fit requires some forethought and understanding of the terms and linkages involved. Such critical thought is the byproduct of quality and *ideally* forces supervisors/commanders into a leadership process (by whatever name) while establishing the quality-based systems needed for it to thrive. Arguably, a quality culture breeds a valid leadership process and ensures reliable *practices/products*--simply defined as good leadership.

But how does this apply to quality education? Leadership is the foundation of a quality Air Force. With that foundation established, a systems-wide architecture is needed to ensure our educational goals and objectives are met. The USAF Instructional Systems Development (ISD) architecture admirably defines our major process, but falls short in visually portraying the complete system. I believe that *integrated system* is best represented on the following page.[17]

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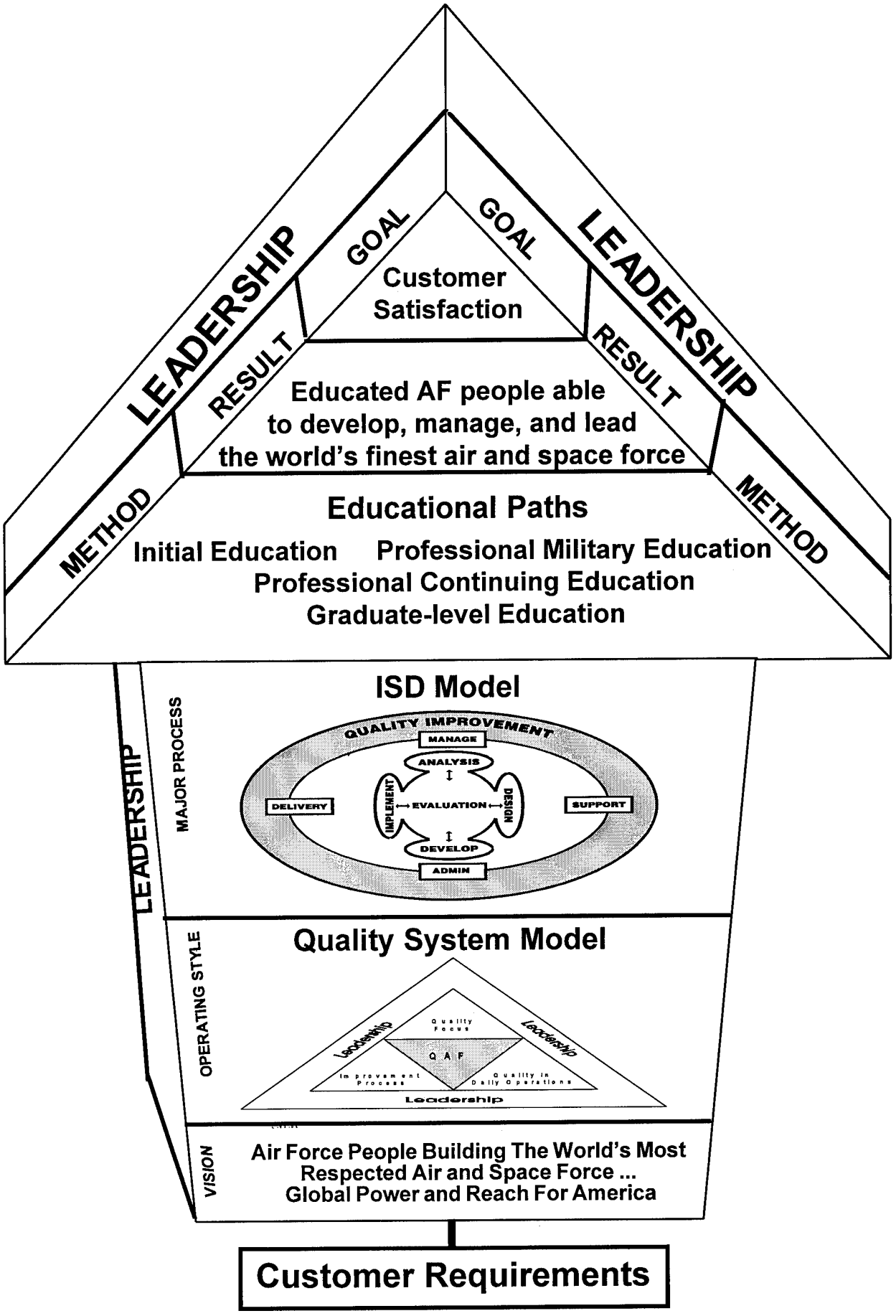
12 W Edwards Deming, *The New Economics fro Industry, Government and Education,* (Cambridge, MA: MIT Press, 1993) pg 18.
13 Ibid., pg 18.
14 Ibid., pg 18.
15 Ibid., pg 18.
16 Quality Approach. pg I-2.
17 Barco, Myers, and Zak, *Linking Leadership, Education and Quality,* Presented to the National Society for Performance and Instruction, (Atlanta, GA; 1995)


LEADERSHIP
GOAL
GOAL
LEADERSHIP
Customer Satisfaction
RESULT
RESULT
Educated AF people able to develop, manage, and lead the world's finest air and space force
METHOD
METHOD
Educational Paths
Initial Education
Professional Military Education
Professional Continuing Education
Graduate-level Education
LEADERSHIP
MAJOR PROCESS
ISD Model
QUALITY IMPROVEMENT
MANAGE
ANALYSIS
DELIVERY
IMPLEMENT
EVALUATION
DESIGN
SUPPORT
DEVELOP
ADMIN
OPERATING STYLE
Quality System Model
Leadership
Quality Focus
Leadership
Q A F
Improvement Process
Quality in Daily Operations
Leadership
VISION
Air Force People Building The World's Most Respected Air and Space Force ...
Global Power and Reach For America
Customer Requirements

Looking at the previous chart from the bottom up offers some unique perspectives.

1. *Leadership*: The foundation of the system. It drives all actions towards accomplishment of the goal.

2. *Customer Requirement*: Our reason for being. Our close linkage to the customer ensures we provide services/products which consistently meet or exceed all expectations.

3. *Vision*: Refers to an ideal state we are striving to achieve sometime in the future based on the customer requirements of today.

4. *Operating Style*: The quality-based means we use to achieve the mission and vision.

5. *Major process*: Describes the underlying process which contributes the most to mission accomplishment and customer satisfaction

6. *Method*: Reflects the organizational paths by which our major processes are executed in an effort to achieve customer satisfaction and mission accomplishment.

7. *Mission/Result*: Equates to the purpose of the school/organization.

8. *Goal*: Customer satisfaction, the successful accomplishment of our mission.

Will this template work for all organizations--sure. Simply substitute your goal, result, method, and process in the chart and you have a visual display of the relationship between leadership, quality, and education.

Most everyone in the USAF would like to believe they are a leader of someone or a manager of something. Can quality-based thinking help us become better leaders and educators, I hope so.

This paper has argued that good leadership is a commander/supervisory product. As such, the supervisor must understand what the attributes of the product are, and the system/major process one can use to nurture the development of the *practice/product* in the workplace. If leadership is the foundation to a Quality Air Force and inturn our major services, such as global power and global reach, then our understanding of this and the critical thinking skills associated with it are the true catalysts to our success in both peace and war. And if peacetime operations are to be a predictor of wartime success, then we must demand that our systems reflect a quality-based architecture focused on the goal of customer satisfaction, driven by leadership and committed to nurturing those around us through education and training.

NOTE: Views expressed in this paper are those of the author and do not necessarily represent the views of the USAF or any government agency.

SM-ALC
Partnership Council
A Facilitator's Perspective

BIOGRAPHY

Debra Schwartz has worked for the Air Force since 1981. She has been a truck driver, team facilitator, and a TQM specialist. She currently is assigned to the Organizational Health Center as an Organizational Development Specialist.

SM-ALC
Partnership Council
A Facilitator's Perspective

Debra Schwartz, USAF
McCLELLAN AFB

Abstract

The traditional roles and methodologies of the past are constantly being tested and improved at Sacramento Air Logistics Center (SM-ALC), McClellan AFB, CA. One of the processes targeted for improvement is the relationship between labor unions and management. A partnership council was formed in March 1994, with members from five unions and managers from the major organizations. The first year of partnership has been spent forming the council and creating a procedure for using partnership instead of confrontation to resolve issues.

Decisions for quality and customer service have traditionally been the responsibility of those managers who head up a company or organization. Their decisions were made based on information passed up the ranks, polished, and passed further until it reached them, usually without any direct contact with anyone in the ranks. The decisions were implemented without question by employees who were seen as tools to move the product. Any unresolvable complaints or problems were handled through organized labor grievance procedures.

At Sacramento Air Logistics Center (SM-ALC), McClellan AFB, within the Air Force Materiel Command (AFMC), the traditional roles and methodologies of the past are constantly being tested and improved as the ALC prepares to move into the 21st Century. The first step on this journey was to create a vision of an organization which would respond to the needs of the customer. The vision was an organization so customer-oriented it would look for flaws in its own systems and identify potential problems which could affect customer service. The next step was to achieve a high performance team-based operation which valued the ideas of every employee and erased the barriers between management and labor.

The focus on improving the working relationship between managers and organized labor union representatives was demonstrated by the success SM-ALC achieved in the Pacer Share Demonstration Project (Federal Register, vol.52, no. 224, Friday, November 20, 1987) which tested a flexible human resource management system from 1988-1993. A union representative from the American Federation of Government Employees (AFGE) served as a full-time representative to the project and a labor-management board was

formed to review all project plans before submission for final approval. Activity grievances and unfair labor practices dropped from six per year to zero during the project. This success served as the inspiration for the Center to create a larger partnership, including all five unions, to deal with conditions affecting employment, organizational operations, and customer service. A labor and management partnership council was formed in March 1994, to facilitate the new team-based philosophy.

MECHANICS

The council is composed of three representatives from each labor union and a management representative from the major organizations.

The labor unions represented are:

- Technical Skills Association (TSA)
- International Federation of Professional & Technical Employees (IFPTE)
- International Association of Fire Fighters
- IFPTE-Engineers and Scientists (IFPTE-ESA)
- American Federation of Government Employees (AFGE)

The management representatives:

- Deputy Director, Aircraft Management (LA)
- Deputy Director, Space and C3 Management (LH)
- Deputy Director, Commodities (LI)
- Deputy Base Commander (77th Air Base Wing)
- Director, Technology & Industrial Support (TI)
- Chief of Commander's Action Group (CCX)

Technical advisors and guests are invited to attend meetings based on the subject matter scheduled for discussion. A representative from the Civilian Personnel Directorate's labor relations section serves as an advisor at each meeting. Full-time facilitation is provided by two organizational development consultants from the Organizational Health Center.

The council meets twice each month for two hours. Chairmanship and council recorder roles are on a volunteer basis and are rotated every three months The first task the council accomplished was the creation of vision and goals. These were written into a Partnership Charter which was signed by Major General John F. Phillips, SM-ALC Commander, and all five presidents of the labor unions. In addition to being members of the council, labor representatives are invited guests at governing boards, councils, and staff meetings where decisions impacting operations are made. The intent is to include labor representatives in potential problems and management operations before final decisions are made.

STARTING

The first four months of council meetings were spent creating the charter and concept of operations, and determining what partnership really meant. Executive Order 12871 on Labor Management Partnerships was reviewed along with documentation from successful companies and agencies already working in partnership. Two objectives were developed for the SM-ALC Council:

- To involve management and union representatives as equal partners in the identification of problems and the development and implementation of solutions in order to accomplish the mission of the Air Force and ensure the well being of the work force.

- To openly share information at the earliest pre-decisional stage for union and management involvement.

This early period provided the council members with the opportunity to explore new ways of interacting and communicating ideas. Interaction had traditionally taken place after a problem developed, across a bargaining table, where each side had an agenda and desire to "win" the issue. Now, they need to share their ideas on how to make things better through partnership using consensus instead of confrontation.

This paradigm shift to a new way of thinking is complicated by having five separate unions on the council. When they began, these unions did not have the same interests or priorities, and were not accustomed to working issues together. Trust and communication problems surfaced during this first stage of partnership development and have been a continuous focus for improvement.

DYNAMICS

The council set a high priority on educating the work force about the new partnership and dedicated its second four months to this agenda item. A briefing about partnership, expectations, and benefits will be given to all employees by a team of union and management representatives, along with an invitation to join the partnership and get involved in the operation of the business. A system has been designed to give every person access to partnership through Impact Teams, or open forums where questions can be asked and answered. The focus of the teams and forums is to eliminate barriers throughout the organization and improve day to day business processes. This will be a new avenue to address employee/management concerns and create a positive work environment.

Training for the council was also important during of the forming stage of development. Classes were designed to teach new skills and improve relationships. The council has received five days of training. The first session focused on team development using the Meyers-Briggs Personality Type Indicator to understand why individuals act the way they

do and why other people act differently. The group looked at individual personality types and at the overall team personality and discussed the strengths and challenges that lay ahead of them. Training also included consensus decision making, brainstorming, communication styles, and the stages of group development: forming, storming, norming, and performing. Additional training focused on trust issues through role playing, exploring personal levels of trust, and discussing trust between council members.

Training on Interest Based Bargaining (IBB) was provided by the Federal Labor Relations Authority in San Francisco and further built upon the team concept of problem-solving. The training was expanded to include the workforce by bringing in union stewards and labor relations specialists. This was the first time everyone in the grievance process had come together to learn a new tool. Real issues were addressed and methods to determine interests instead of positions were learned. The basic principles of the IBB training was to focus on the issue and attack the problem not the person by looking for ways to meet everyone's interests and use consensus to reach acceptable solutions.

Methodologies were developed by the council to assist in effective use of meeting time. A process was established for raising items to the council, discussing issues, and taking action. The process is simple:

1. The council will address only three issues each meeting
2. New items will be placed on the agenda as new business
   - Information about the issue will be sent to all members before next meeting
3. New items are introduced (10 minute limit)
4. Discussion of item (30 minute limit)
5. Decision will be made
   - Extend discussion time
   - Table issue for next meeting
   - Form a sub-committee for further review
6. Sub-committee proposal on item; or further discussion
7. One meeting layover before implementation
8. Implement action/set measurement
9. Follow-up and measure success

The council moved through these forming actions fairly easily and slowly crept into the next stage of group development - STORMING. This stage is characterized by impatience with lack of progress, defensiveness, disunity and increased tension. There has been a fluctuation in attitudes about the partnership from enthusiasm to despair, often expressed within a single session. Meetings have varied from very productive to blaming and arguing even when there is agreement on the objective. This is probably the most difficult stage for any team, and has been for the council. As the first anniversary as a partnership has been reached, they know each other better, and have started to set group norms, boundaries, and guidelines.

PROJECTS

During their first year the council has taken on several projects. Some of the issues were easily resolved, others required investigation and research, some were handed to other groups to work, and still others were dropped and not addressed further by the council. Each project was targeted to promote quality of work life, employee empowerment, and organizational performance. Issues addressed are as follows:

- EMERGENCY MEDICAL SERVICE
  - Action team formed to coordinate emergency services
  - Emergency procedures publicized
  - 911 emergency system to be implemented

- EDUCATING WORK FORCE ON PARTNERSHIP
  - Briefing designed to be given by Partnership members
  - Directorate councils, workforce involvement, and Impact Teams formed
  - All employees to be briefed

- REDUCTION-IN-FORCE (RIF) ACTIONS
  - Council briefed on RIF process
  - Updates received as needed

- UNION STEWARD PERFORMANCE PLAN & APPRAISALS
  - Subcommittee formed
  - Temporary hold for more research

- ACCESS TO BUILDINGS AFTER HOURS
  - Procedure publicized

- VAN POOLING/CAR POOLING
  - Information briefing
  - Council support given

- FUTURE WORKLOADS
  - Information briefing

- SOCIAL ACTIONS PROPOSED CHANGES
  - Information briefing
  - Concerns addressed
  - Council will be kept in information loop

- GOVERNMENT RESPONSE IN PEER SUPPORT (GRIPS)
  - Information briefing; an avenue for peer support
  - Union stewards will be trained to be Civilian "First Sergeants"
  - Council accepted sponsorship of program

- WORKPLACE VIOLENCE PREVENTION
  - Council representative assigned to action group
  - Council accepted sponsorship of program

- EMPLOYEE ASSISTANCE PROGRAM
  - Information briefing; confidential treatment by self referral
  - Council accepted sponsorship of program

- EFFECTIVE USE OF ELECTRONIC MAIL
  - Discussion of proper usage
  - Article published in base paper

LESSONS LEARNED

IT TAKES TIME - Partnership doesn't happen right away. This is a new way of thinking about interactions between management and labor. It takes practice. People will think as individuals instead of team members until their comfort and trust levels stabilize and the group completes all the stages of team development - forming, storming, norming, performing. The council has spent its first year in the first two stages.

IT TAKES TRUST - The council members came into the partnership with old baggage of past hurt and anger. The traditional method of bargaining was comfortable and well known; the new partnership concept was mysterious. It was easier at times to lapse into the old, well-trodden path than to trust each other to act as partners. Trust issues were dealt with from the start and are stated as one of the goals in the council's charter.

IT TAKES COMMITMENT - Change must happen internally. The members of the council embraced the idea of partnership and created their own vehicle for change. Success stories from other companies and agencies were read; still, a clear picture of what partnership really is remained unclear. The council decided not to wait for someone to tell them how it should be done, but to get the partnership going and figure it out along the way. This is not something that can be mandated from outside. It must be desired from inside.

IT TAKES FACILITATION - A neutral party representing neither management nor union, committed to the process of partnership, is important during the early stages of development. The council members need to focus on their own issues of trust, commitment, and getting to know each other, rather than focusing on the process during

the forming stage. They need someone to intervene and keep things moving during the storming stage. The council begins to take ownership of the process as it enters the norming stage and should need less facilitation during the final performing stage.

IT TAKES PATIENCE - It can be easy to get discouraged and focus on how far the journey and difficult the change. Partnership will not happen easily, ideas will be argued, and everyone will not always get along . The important thing is to keep coming back and keep moving forward.

IT TAKES EVERYONE - None of us is as smart as all of us. The process needs to include every union, manager, and employee.

CONCLUSION

Change has already taken place within the organizations. It slipped in gradually, taking most people unaware. Change is expected as a flash, instead it's been a steady plod and gradual awareness that something is different. It is difficult to pinpoint exactly what has changed, but I can hear it in the language, instead of "I want...I need", I hear "What do we need?" Employees are already participating in employee forums and councils. Problems are being resolved before they become grievances. It is too early to tell how successful the partnership will be and there are issues yet to be resolved, but the council is grounded and on its way to success. Expectations are high. The new system works, and works well.

A Systematic Approach to the Unit Self-Assessment: 24 Steps to a "Connected" Report

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A Systematic Approach to the Unit Self-Assessment: 24 Steps to a "Connected" Report

John Latham

Abstract

This paper presents a systematic approach to addressing the Unit Self-Assessment Report and the Quality Air Force (QAF) criteria. After a brief review of the self-assessment process this paper presents a 24-step approach to conducting the assessment "Item-by-Item." The foundation for the approach is the organization's "value-added chain" of events to accomplish the mission. This chain consists of the organization's outputs, processes, and external inputs. Supporting this chain is an infrastructure of people, plans, leadership, and information. Finally, it addresses the focus of the infrastructure and value-added chain--the mission.

Introduction

Conducting a Unit Self-Assessment is a complex task for an Air Force wing. When you assess an Air Force wing you apply the QAF criteria to an organization with all the functions and processes of a small city, an airport, and an aircraft operator. When starting the project the most common questions are: where do I start? and in what order do I address the Items? Although the Items are scored separately they do not stand alone, they are an interrelated management system. Reports that are not consciously built with these interrelationships in mind are somewhat schizophrenic and disjointed. Preparing an assessment that speaks with one personality and voice requires forethought and planning. Although there are not any cookbooks nor any one perfect approach, there is a logical flow.

Self-Assessment Process

The method used to apply the QAF management system is the self-assessment process. A typical assessment cycle is based on Shewhart's (later Deming's) Plan, Do, Study, Act cycle. Each phase produces a document which is the basis for the next phase. (figure 1)

Plan

The planning phase consists of selecting the team, determining the extent (breadth and depth) of the assessment, training the team, and developing the assessment instruments which include the criteria based questions. The product is a comprehensive plan for conducting the assessment.

Do

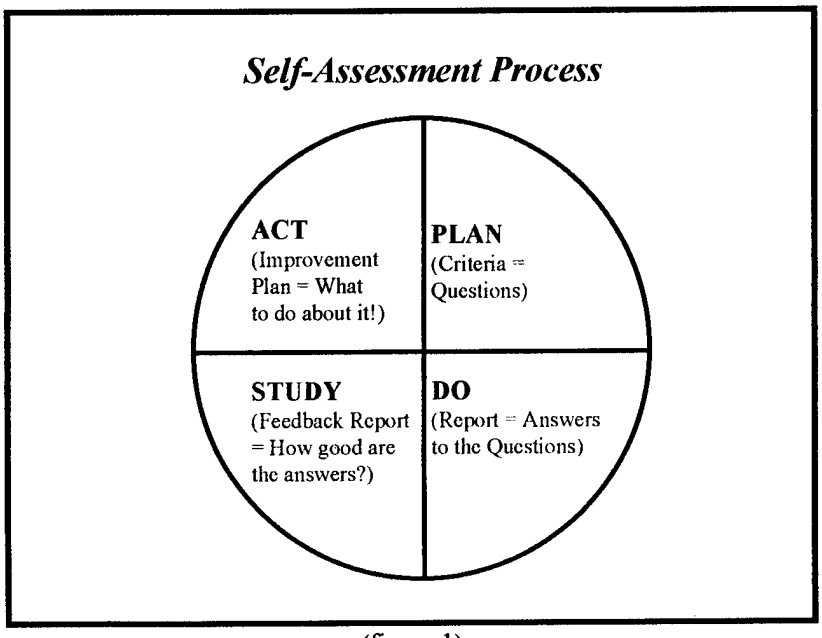
The **Do** or conducting phase generates the report by answering the criteria questions identified in the plan. This phase consists of collecting the data, organizing it into information, analyzing the information, and writing a synthesis narrative report that answers the criteria.

Study

The study or analysis phase consists of determining how well the answers in the report stack up to the criteria. The product of this phase is a feedback document identifying the organization's strengths and areas for improvement.

Act

The action phase consists of prioritizing the areas for improvement, planning the actions required to improve, implementing the actions, and tracking the progress. All this should be integrated with the organization's strategic planning process.



(figure 1)

The Report

The **primary** purpose of the unit self-assessment is to improve organizational performance which, for most Air Force organizations, equates to increased combat capability. The four stages of the assessment process are interdependent. The action plan is only as good as the analysis which is only as good as the report which is only as good as the plan. Focusing on the mission as the customer (Holmes, 1994, p. 25-27) provides the necessary foundation to begin building the assessment. While the criteria are grouped into seven categories it is really a criteria of 24 Items. The 24 Items can be grouped into three main bodies: the value-added chain, the infrastructure, and the mission. Beginning with customer or mission requirements, address the criteria from a process stand point first, then address the infrastructure as it relates to the processes and finally, the goal--mission accomplishment/customer satisfaction. (figure 2)

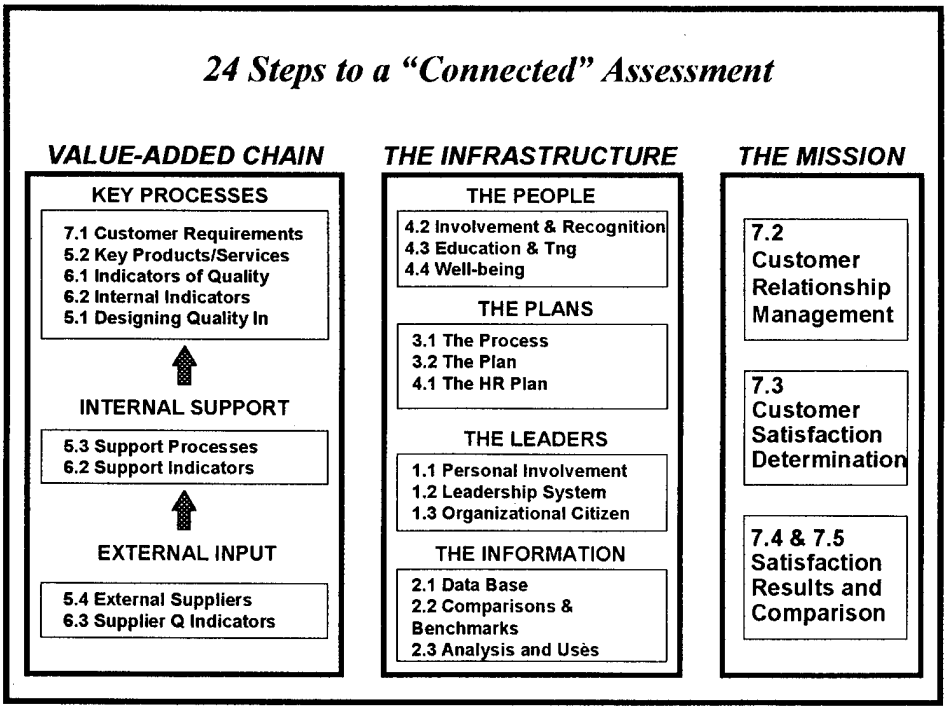
The QAF Value-added Chain

The value-added chain described in Porter's *Competitive Advantage* is the sequence of events that adds value to the inputs by transforming them into a product or service. The QAF value-added chain is composed of 3 elements: key processes, internal support, and external input.

Key Processes

The key processes component includes: identifying the customer's requirements; the key products and services which fulfill or satisfy those requirements; the processes which produce those products or services; the quality indicators the organization measures; the internal process measures; and how the organization designs quality into the products and services it provides.

Step 1, Who are the organization's primary customers? How does the organization identify their requirements? (Item 7.1) While customer may be a new word for the Air Force the concept is not. During peacetime the Air Force has traditionally used the war planning process, OPLANs, and Design Operational Capability (DOC) statements as primary methods for articulating the customer's requirements. During the execution of conflict the customers' requirements are articulated via special instructions (SPINS), air tasking orders (ATOs), etc. These requirements drive the key products and services the organization provides. To address this item begin by analyzing the mission as described in *The Quality Approach*, 2nd ed., p. 25-27. For example, a customer requirement may be "timely destruction of enemy positions to facilitate the land battle."



(figure 2)

Step 2, Identify the organization's key products and services and their requirements. (Item 5.2) What are the processes which produce the products and services that satisfy the (external) customer or mission requirements identified by Item 7.1? How does the wing control these processes to ensure mission performance? How does the wing systematically improve these processes? A macro flow chart is a concise way to articulate the key processes including the customers and suppliers. To satisfy the example customer requirement of "timely destruction of enemy positions to facilitate the land battle" a wing's service might be Air-to-Ground Support. The product and service characteristics which facilitates the land battle might be: overhead when needed and destroy the target. The key process to provide this service might be the combat "air-to-mud" sortie process. To "control" this process the Air Force has a formal command and control system to ensure the mission progresses as planned.

Step 3, Identify the indicators of quality for the key products and services. (Item 6.1) Since it is usually impracticable to have the customer stand over your shoulder while you accomplish the mission, the organization needs indicators they can track which are "proxies" for or predict the customer's satisfaction. Customer satisfaction is the goal but you simply cannot manage to that. The organization needs measures they can monitor and manage to. Considering the requirements in Step 1 what are the product and service characteristics that if you do well, will result in a happy customer? For the air-to-mud example the indicators which should correlate with customer satisfaction are: time-over-target (TOT) and bombs-on-target. These would be reported in Item 6.1 Other "proxies" for customer satisfaction might include the indicators currently reported in SORTs. If an organization is not C-1 then the "potential customers" of the "air power potential" are probably not very happy.

Step 4, Identify the internal indicators used to control and improve the key product and service processes. (Item 6.2) These are the internal efficiency and process performance type indicators that are important to the organization but the customer couldn't care less about. To build on our example, this might be the take-off time. The customer doesn't care if you take-off on time only that you are overhead on time. The organization knows however, that the probability of being over the target on time is dramatically increased by taking off on time. So on time take-off would be an in process measure that a wing might use to ensure you meet the end of process measures (6.1) that are important to the customer. In this example, on-time take-off is the independent variable and TOT is the dependent variable. Logically there is a causal relationship between these variables, consequently an on-time take-off should to a limited degree predict an on-time arrival.

Step 5, Determine how the organization designs or plans customer defined quality into its products and services. (Item 5.1) Although many designs are given to the typical AF wing there are some the wing designs for itself. For instance, the plans to launch a mission are often developed at the wing and used by command and control to monitor and control the efficient, timely launch of a mission. Starting with the customer's requirement to be there at a specific time the plan backs up and specifies each step in the launch sequence such as: take-off time, taxi time, engine start time, crew show time, aircraft crew ready time, load time, etc. This is all based on the customer's requirement to be there at a specific time. Now that you have identified: what the customers want; the key products, services, processes, indicators; and the design process, the next

question is what are the necessary internal support products, services, and processes needed to enable the key processes.

Internal Support

Step 6, Identify the key support and business processes that make the key products and services possible. (Item 5.3) These are the essential (internal) processes that supply the key processes. Building on our example this might be the POL process which acquires, stores, transports, and delivers fuel to the aircraft during the sortie generation process. Other support and business processes might include back shop repair of the hydraulic struts; the travel voucher process; the pre-mission weather briefing; or the snow removal processes so the aircraft can taxi and take-off, etc.

Step 7, Identify the key support process indicators. (Item 6.2) This item includes all the measurements for support processes such as: quality indicators as identified by internal customer requirements (timeliness, cycle-time, etc.); internal process measures such as efficiency, effectiveness, timeliness, etc.; and internal customer satisfaction measures. The identification of these indicators is the same method as used in Steps 1-4 for the externally focused key products and services. The wing's processes (key, support, and business) all require external inputs or supplies.

External Input

We started with the output (key products and services to satisfy mission requirements) as the focus, then examined the processes themselves both key and support, now the focus is on the input side of the equation. Since the value-added chain increases the quality of the input it is in the organization's best interest to help the external suppliers provide quality products and services--as computer programmers say "garbage in--garbage out."

Step 8, Identify the external suppliers to the organization. (Item 5.4) In a wing there are two key functional organizations that are responsible for the majority of this Item, Contracting and Supply. Although they are a great source of information they are not the only source. Most wings have many external suppliers including other Air Force or DoD components such as the Air Education and Training Command, etc. In our example the POL function of supply contracts for JP-5 in quantities sufficient to conduct daily operations, generate for mobilization, and support enroute operations, etc.

Step 9, Identify the wing's indicators of quality for its supplies. These are "proxies" for the wing's satisfaction with its suppliers' products and services. (Item 6.3) The Army ground forces defined quality as on-time and on-target, how does the organization define quality to their suppliers? This is the suppliers Item 6.1. They need the same information from the wing, that the wing needed from its customers when they were addressing their Item 6.1 (Step 3).

The Infrastructure

The QAF value-added chain is supported and enabled by an infrastructure composed of four major elements: the people, the plans, the leaders, and the information.

The People

Now that the organization has identified their processes, someone has to do the work. How does the organization systematically: involve the people in improving the organization and recognize their efforts; train and educate them to perform the mission, lead the troops, and improve their work; and ensure their health and well being? Although this category is addressing people, it is the systems and methods that enable the people that are being assessed.

Step 10, What methods does the wing use to involve the people in performance improvement efforts? (Item 4.2) Although suggestion programs provide the opportunity to get involved and is an appropriate answer for this item they do little to proactively promote involvement of all the workers. Other methods include process action teams and natural working groups. What are the indicators (levels and trends) of the effectiveness and extent of the involvement systems you have just described? (report those results in Item 6.2) How many people and what have they accomplished (dollar or personnel savings, improved mission performance, etc.)? Trend charts and graphs are appropriate tools to display this data.

Now that they are involved team members, how does the organization ensure the people repeat the "role model" behavior. What gets measured gets done--what gets rewarded gets repeated! Does the reward and recognition system reinforce behavior that helps accomplish the organization's goals and objectives, i.e., does your quarterly award criteria contain elements of organizational improvement or goals? After you identify the reward systems how many have you recognized and how effective are they at promoting the role model behavior? Again trend charts and graphs of the levels and trends are appropriate and reported in Item 6.2. In order for involvement to be beneficial, the individuals must have the knowledge and skills to contribute.

Step 11, How does the organization systematically educate and train the people to do their jobs, lead the organization, and improve their products, services, and processes? (Item 4.3) This item includes but is not limited to: the OJT program, the NCO PME Schools, the quality education and training efforts, flying upgrade and mission qualification training, etc. How effective are the training programs and how many people are involved in each type of training? How many did you train? How much did they learn? What were the students' perceptions at the end of training? Trend charts and graphs of the levels and trends in these indicators are appropriate and reported in Item 6.2

Step 12, Now that you have determined how you systematically involve, motivate and train for superior performance, how does the organization make sure organizational member's health and well-being needs are taken care of? (Item 4.4) What services and facilities does the organization provide to ensure their members and families are taken care of so they can take care of the mission? How do you know that their needs are being taken care of? This answer should

be extensive for wings that operate a base/small city. Trend charts and graphs reported in Item 6.2 are appropriate to indicate the level and trends in their health and well-being.

The Plans

A strategic plan provides the organization with a roadmap to help navigate the dynamic environment in which they operate. We know that a wing can't plan the future in detail. However, it can purposefully work toward improving the organization and continuously review their progress and direction. When aircrews mission plan they have an objective and a planned flight path. Even though they know they may have to deviate from the planned course due to weather or a threat, the plan enables them to track their progress and modify their course to reach the objective regardless of the deviations. A strategic plan is a tool to help a wing focus its limited resources on the things that influence organizational success the most.

Step 13, Identify the wing's strategic planning process. (Item 3.1) What steps does the organization take to develop and deploy their strategic plan? The planning process should take several things into consideration such as: customer requirements, customer satisfaction, organization capabilities, supplier capabilities, human resources, and the environment and risks (threats, budget, regulatory, societal, etc.) How does the wing deploy the actual planning process? This is not asking for implementing the plan but the deployment of the planning process itself. For example, if the method for planning includes goals and objectives handed to lower levels to develop action plans, how does the organization accomplish this? How do they connect their vision of the future with improvements on the front-line? Finally how does the organization evaluate and improve the planning process just described?

Step 14, Identify the wing's plan, their goals and objectives for the near- and long-term. (Item 3.2)

Step 15, A strategic plan without resources is a dream. Identify the organizations human resource (HR) plan that will make the strategic plan a reality. (Item 4.1) The human resource plan should focus the human resource development efforts to support the organization's improvement goals identified in Item 3.2. HR plans that are not aligned with the organization's direction are at best less than optimum.

The Leaders

All of this must be led. The single greatest factor in organizational change and performance improvement is senior leadership. Organizations move in the direction the people perceive is important to the leader.

Step 16, What does the organization's senior leader and direct reports personally do to create and maintain an environment for improving quality/mission performance and customer focus? (Item 1.1) Include planned activities such as: speaking before NCO PME graduations,

Quality classes, Officer's calls; personally presenting recognition; personally attending training, personally meeting with customers/users; leading improvement teams; etc.

Step 17, What leadership system does the organization use to implement the mission/customer focused improvement efforts? (Item 1.2) What review methods are used to ensure the plans are being accomplished? The Air Force has an in-place structure (hierarchy) to implement quality from the top to the bottom. Some organizations use inter-linked senior leader groups to communicate and implement their improvement efforts.

How does the leadership system know that the value-added chain and infrastructure are working together to accomplish the mission? Identify the methods the wing uses to assess its performance to ensure the mission/customer is satisfied. These include but are not limited to: financial audits, exercises, unit self-assessments, self inspections, etc.

Step 18, How does the organization as an entity lead in the community? How does it address its community responsibilities in its policies, improvement plans, and practices? (Item 1.3) In addition to accomplishing the wing's mission, and systematically involving, training, motivating, caring for the health and well-being of the people, how does the organization systematically fulfill their responsibilities as a citizen in the community? This includes activities such as cleaning up and improving the environment. What does the wing measure to track its performance in this area? Actual results should be reported in Item 6.2.

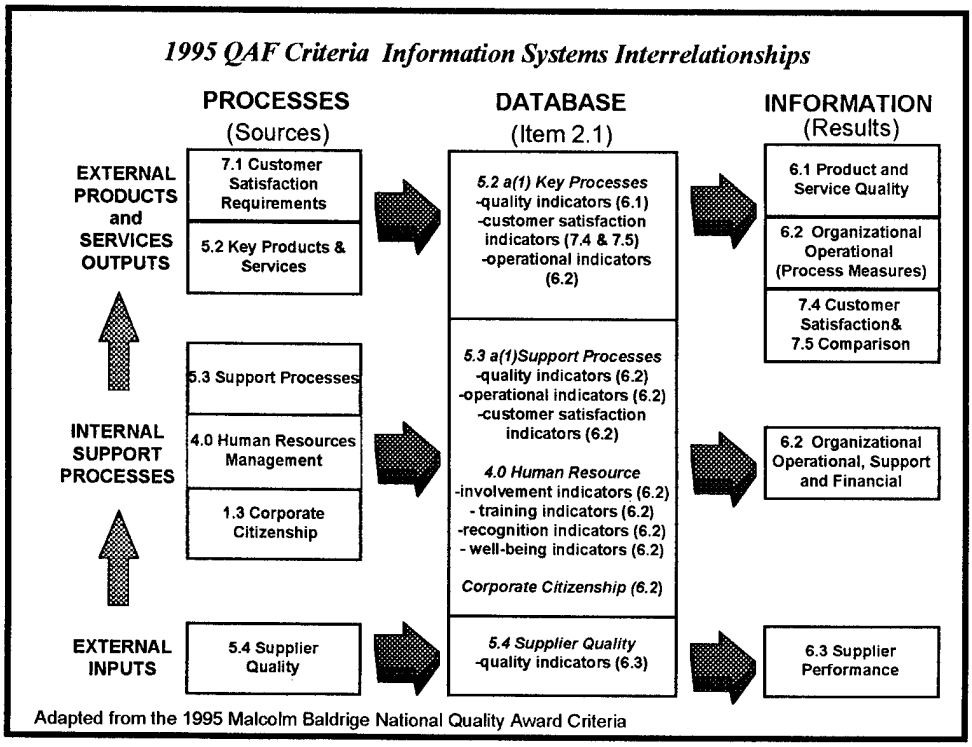
The Information

How do you know? All the methods and processes needed to run the organization require some sort of information to monitor, control, evaluate, analyze, and improve. The information component is dedicated to identifying the system, scope and management of quality and performance data; comparison and benchmarking; and analysis and uses of organizational-level data. This is the neural network that connects the organization's process and systematic approaches and feedback results.

Step 19, Identify the management information system contents. (Item 2.1) What does the organization measure--key types and roles of data? How do they ensure reliability, validity, etc.? How does the organization evaluate and improve the system just described? This item connects the systematic approaches and their deployment with the results. (See figure 3) For example, the key products, services, and processes identified in item 5.2 should correspond to the indicators in part of the database in item 2.1 which should correspond to the results graphs depicted in Items: 6.1, 6.2, 7.4, and 7.5.

Step 20, Identify the wing's benchmarking process and its sources and scope of information. (Item 2.2) The purpose behind comparison is two fold. First, when analyzing the level of organizational performance, it provides a level to compare with to better understand the meaning of the organization's performance. Second, for important processes in need of significant improvement, the information enables the organization to select someone to benchmark with who is world-class (really good) in that specific process. Identify the comparisons and

benchmarks for customer satisfaction in Item 7.5 and add the process comparisons and benchmarks to the graphs in Items: 6.1, 6.2, and 6.3.



(figure 3)

Step 21, Now that the organization has a data base of valid, relevant, and accurate data, including comparison and benchmarking data, how do they convert the data to information that can be used to manage and improve the wing's performance. Include the inferential statistical tools used to analyze the wing's performance. (Item 2.3)

The Mission

This 24-step system begins and ends with the purpose and driving force behind the organization--the mission. Although the organization plans, executes, and improves the mission based on the customer's requirements that may not be enough!

Step 22, Now that the organization has all this information about what the customer desires and what the organization is capable of, how do they manage their relationship with the customers? (Item 7.2) Does the organization systematically respond to customer complaints or does it depend on who answers the phone? Although the focus is on the prevention of poor quality, until the organization's processes are perfect, there are going to be foul ups. How does the organization make it right when things go wrong? Does the organization have specific people specially trained to deal with the customer? What about the mission commanders when the unit is deployed? What is the organization's commitment to accomplishing the mission? Although, this

is usually very high it may not be formalized. This is more essential to the military than for civilian industry. When a military organization fails to provide the timely accurate support needed by other forces the consequences can be grave. The organization with well-designed processes, a comprehensive information system, and people to lead them, can provide fact based guarantees of their performance to the customer. What is the organization capable of guaranteeing the customer?

Step 23, What methods does the organization use to measure mission or customer satisfaction? (Item 7.3) How often are they used? There are two ways to measure customer satisfaction: perception and behavior. Perceptions are measured by simply asking how happy the customer is after the service is performed. Behavior is measured by repeat business--did the customer come back? Since many wing customers are a "captive audience," repeat business as an indicator of customer satisfaction may be of limited use. However, when appropriate repeat business is superior to measuring customer perceptions alone. This item is dedicated to validating the strategies, methods, and results presented in the first 22 steps. The customer's satisfaction should correlate to the trends and levels of organization performance in Category 6.0. Since the organization relies on the indicators in Category 6.0 to control and improve their processes it is important that they equate to the ultimate goal of customer satisfaction.

Step 24, Identify and chart the key indicators of customer satisfaction from step 23. (Item 7.4) How does this organization compare with organizations with like operations? (Item 7.5) (refer to Step 20)

Conclusion

Improving the organization's combat capability requires a prioritized action plan. An action plan requires identified areas for improvement which depends on accurate analysis. Analysis of the organization requires an accurate report of the organization's current approaches to the elements of the QAF Criteria. Writing a coherent interrelated report requires a well thought-out framework or model. The late Dr. Deming used to say, "all models are wrong but some are useful." The criteria is much more complex than this paper describes it. A linear model is always limited in its ability to describe a non-linear comprehensive assessment of a complex organization. Although this model is wrong, I hope you find it useful.

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Leadership--The Rubber Meets The Road

Biography of Lt Christina Noel Priest--

- Squadron Section Commander, 374th Civil Engineer Squadron
  Yokota Air Base, Japan
- 1994 Graduate of the United States Air Force Academy
  Bachelor of Science in Human Behavior and Leadership
  -- Research work in the Skills Training Program, highlighting Mentor Based Education through an eight-week intensive program with Chain of Command input/Counselor accountability. Focusing on feedback and action plans.
  -- Presented results at Colorado College's Annual Psychology Symposium

- Rocky Mountain High Two-time Alumni
  -- Outdoor Wilderness Program Focusing on Leadership applied practically to situational problem solving and accomplishment; emphasizing small, self-directed teams
- Hometown: Houston, Texas
- Hobbies: Mountain Biking, Hiking, Photography, Choir, Aviation, Hanako the Japanese dog, Tupperware the lizard, and interesting People

Leadership--The Rubber Meets The Road

Christina Noel Priest
374th Civil Engineer Squadron

One key leadership responsibility is to set the tone for the development of quality programs and services for the people in an organization, not just for the customers and the suppliers. Just as examining the process is a basic element to improve quality, so is reading the group dynamics of your organization. Developing a strategy to meet the social and structural needs of your staff is critical. The acid-test of success for quality programs is the level of employee buy-in and their integration into daily work processes. Literally, where the rubber meets the road.

The leadership role is critical in developing an effective quality program. To be successful, that program must keep alive enthusiasm, innovation, creativity, and dedication to group accomplishment. The academic ideas that sound so good on paper are tested in the fog-and-friction of everyday Air Force operations and the results have shown what works and what is fantasy. In this case study, the challenges include work stresses, leadership's adjustment to Quality, communication and cultural difficulties, and varying leadership styles. This paper discusses the characteristics of a quality Leader, and provides tools to assess environmental parameters within which a quality program can work.

"Progress always involves risks. You can't steal second base and keep your foot on first."
Frederick B. Wilcox

Effective leadership starts with an awareness of what actually happens in the organization. By reading group dynamics accurately, and with a little effort, a good leader can successfully implement a strategy that meets the social and structural needs of a squadron. As more people are empowered, the process gains momentum with the inspired energies of the team-- far surpassing what one individual could ever accomplish. The leader chooses the mission and the people orientation of the squadron by their actions.

"Man for man one division is as good as another. They vary only in the skill and leadership of their commanders."
General Omar N. Bradley

Empowerment and data driven processes are critical to the health of an organization graded by the Unit Self Assessment. Empowerment gives all organizational levels the power to influence their own work centers and data driven processes quantifiably measure success through metrics. The Unit Self Assessment requires leadership to have an active role in encouraging quality operations. Today, a successful leader focuses on coaching, motivating, and empowering

their followers instead of focusing completely on more hierarchical styles seen in traditional organizations.

A "Quality" leader strives to keep enthusiasm and energy in the team by inspiring creativity and innovation. If the team puts its heart into a project, then the leader has succeeded. Additionally, the team gradually begins to develop their own ideas from the job experience and seeing what works. As momentum builds, teams combine their ideas and the net result is synergistic. With the firm understanding that people have varied talents due to their backgrounds, education, experiences, and beliefs, a leader can use their talents to build a well-rounded team that can prepare for any emergency.

The goal of this discussion is to prepare the reader to think about what a quality leader is and make them more skillful at assessing their own environment. The examination is the case study of a Civil Engineer Squadron that came from an Anti-Quality perspective, experienced the change of Wing and Squadron leadership, implemented quality-oriented programs, and then shifted into gear, driving toward continuous improvement.

"The commander's success will be measured more by his ability to lead than by his adherence to fixed notions."
General Dwight D. Eisenhower

The quality program began at Base X with a training initiative deployment across the command in 1991. The emphasis was on training the masses with an introduction to the terms and concepts of Quality as well as the beginning tools. Groups and Squadrons were challenged to get everyone trained.

Base X jumped into the training effort with energy. Volunteers from various ranks across the base were trained in Train-the-Trainer courses by the Air Force and the MAJCOM Quality Institute. The trainers were excited about the potential they saw for the use of the Quality Management Style in the Air Force. They inspired their students to read and apply the basics. As small gains were achieved, enthusiasm mounted. Synergy within the training team was instrumental in gaining buy-in at various levels scattered across the base.

People were told to write Strategic Plans before they were educated about the process of strategic planning. Rather than focusing on strategic planning for the accomplishment of the mission, many people developed plans for the implementation of Quality Air Force. "Copy cat" plans to "fill the square" were often the only result achieved. The roadmap for implementation of QAF remained blurred.

In 1993, the first Unit Self Assessment (USA) was written at Base X. In theory, this effort provided documentation for the baseline of mission accomplishment using Quality Air Force tools and techniques. Senior Leadership was still grasping the concepts of change in the Air

Force culture. Group Commanders sponsored Process Action Teams for the sake of having the teams, but improvements resulted inspite of the motivation for the formation of the teams. Squadron Commanders, already shorthanded as a result of the drawdown, were frustrated by the new Quality tasking. Some people were still confused about the purpose of the USA and its application to the operation of the Air Force. Frustration mounted between front line leaders who attempted to sincerely apply the principles of Quality Air Force and mid level managers who were often unwilling to change.

Top down, task driven implementation of Quality from MAJCOM created confusion and frustration because the taskings arrived before people at the base level were trained. Short notice taskings for responses to unclear questions not even thoroughly understood at the Wing level generated stumbling blocks for front line leaders. People at the base level were so busy giving inputs to headquarters QAF that real gains in process improvement were derailed.

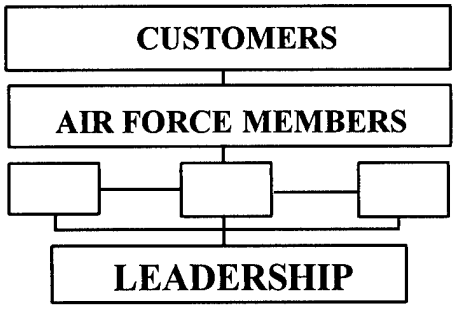
Quality Advisors, who were depended on to be the process experts, more often than not, lacked the expertise required to support their commanders. Commanders selected individuals to function as Quality Advisors not for their expertise, but because the "body" was available. However, some individuals who took on the role of Quality Advisor pushed to implement QAF in spite of leadership's view. In other cases, they completely stalled the implementation of QAF while their commanders only talked about the QAF principles.

Commanders at all levels had limited training. Headquarters said "We're going to do quality" so the commanders saluted smartly and did as ordered. In many instances, commanders complied with required suspenses without a clear understanding of the reason for the tasking. The general understanding of the masses was that quality was a program, separate and apart from the mission of the organization. Individuals across the command at all levels saw Quality as just another task to be performed.

In 1994, top level local leadership changed. New senior leaders were well versed in QAF and had a thorough understanding that QAF is a method for maximizing mission accomplishment. "Lip service" gave way to full support, even challenge to the team, to get QAF implementation in place. Group and Squadron commanders who had been filling requirements were given the opportunity to complete QAF training and implementation actions.

The trend continued at the Unit level. The Civil Engineer Squadron Commander summarized his views on Quality as: "We are already "doing it right" by getting the job done with quality. Now, we simply have to document the effort and make sure that word gets out from the flight chief's level." The deputy commander supported his line of thought with his comment, "We need to understand the important items: expectations of customers and how we do the work. 'Gotta find ways to measure that... Focus on issues and not on pointing fingers.'" 10 Feb 95--Quality CES Notes

"Everyone must row with the oars he has."
English proverb



The support and input from leadership to the lower levels must be consistent and clearly stated for goals to be achieved. As leadership has a broader perspective, the commander's job is to get the front line leaders the tools they need to work. He then removes the roadblocks for job completion. If there is adequate top-level support, most people work hard with what they have and make the necessary innovations. This is the philosophy in the new Civil Engineer squadron leadership seeking to develop the best organization possible with the available resources.

With a new, and different style of leadership, squadron members had to overcome their perceptions of the Base Civil Engineer office. The Commander's "Open Door Policy" led to increased interaction with the troops and their increased willingness for risk taking. Overcoming the common perception of a Civil Engineer squadron as a group of garbage collectors and street sweepers, the Commander demonstrated his belief that all of his team members were professionals and treated them as such. He believed that the job his squadron accomplished for the base not only kept it going, but was as critical to successful Air Force operations as the flying mission itself.

The Commander counseled with supervisors and flight chiefs to understand the squadron's needs. He looked at the base's overall track record and the lack of past progress within his inherited unit. He also observed many members in the squadron searching to improve their individual areas but saw little integration between the different areas. Misunderstanding caused duplication of effort and even protectionism from other flights. He understood that the critical elements of commander support included a willingness to trust people, enforce deadlines, take risks, consistently commit resources, make quick decisions after listening to all facts, and support people involved from above.

The Squadron Commander's commitment to continuous improvement was reinforced the Wing Commander's repeated emphasis on Quality and led to the development of a strategic plan. He devoted the time to understand the planning process and fully to use these resources to implement "quality in reality".

"Do what you can, with what you have, where you are." Theodore Roosevelt

The Civil Engineer squadron promptly utilized Strategic Planning training funded by the General. They quickly established an off-site date and accomplished the initial draft of a Strategic Plan. The challenge was now to apply lessons learned in last year's Unit Self Assessment this year. These lessons included the knowledge that a few people could not accomplish the USA and produce a viable report. The tasks required individuals to gather data, interpret results, collect and integrate varied opinions, write the report, edit and give critical reviews, revise the draft, make presentations to the Commander for review, make corrections, and finalize a draft for turn-in to Support Group.

The three day Strategic planning session included members from the 7 cross-functional areas of the Civil Engineer squadron: Environmental, Resources, Housing, Disaster Preparedness, the Fire Department, Operations, and the Orderly Room/Squadron Section. Along with varied job descriptions there were language and cultural challenges to overcome. Despite differences, strong leadership centered efforts on accomplishing the project.

The Strategic Plan draft increased member understanding of the CES accomplishments at Yokota. The plan identified flight strengths and the need for increased integration of quality efforts, and greatly increased team building among squadron members with diverse functions. The cross functional team followed the Strategic Plan draft up by immediately setting out on a two day off-site to accomplish the Unit Self Assessment.

The team first reviewed the USA Orientation for Commanders by McCorcodale to initially rate the squadron's performance. A data collection phase gave the team time to accomplish taskings. The Commander's leadership at this point consisted of trusting his fully qualified and dedicated team to accomplish their task. The trust strengthened because the group leader had a clear idea of how to accomplish the assessment and aggressively pursued it. Half-way during the break, the team gathered to check progress. The team leader led the examination of what each person had accomplished from the taskings. The progress check ensured accountability of all areas and ensured completion.

The group came together as a whole and looked at every part of the 1995 Malcolm Baldridge criteria. After reviewing an initial draft, the group divided the assessment into sections to review, synthesize, and assess information gathered. Each team then discussed its area and prepared a document for group review. Throughout the entire process, the group leader was pivotal. He provided guidance and direction for the team. He kept the team clearly focused on its goal of presenting a product to the squadron commander. With a completed draft, the team leader assembled everyone in the Commander's office for a briefing.

The impact was that all team members heard the presentation and experienced the satisfaction of seeing the goal achieved. The Commander listened to the major points of the Assessment, and asked the team to individually share lessons learned from the process. The results were largely positive and criticism came only as suggestions to improve assessment methods.

Leadership was critical to the success of the USA team at every level involved in the process-- from the commander to the airmen involved. It began by forming a team with members from every area of the squadron so that there was enough expertise for varied opinions. Every member was a leader because they returned and imparted the lessons learned as well as found data needed for the assessment.

The Commander set the tone for the team to freely move by limiting his interaction with team members during this period. He consistently supported team even on priority taskings and worked with alternate representatives while the primary flight leadership accomplished the assessment. He viewed his responsibility as a roadblock remover and trusted his people to do their jobs with accountability.

The leadership tone of trust and empowerment from Wing, Group, and Squadron leadership is the critical building block for achieving Quality Air Force initiatives. Base X Civil Engineer Squadron came from a position of Anti-Quality to the implementation of quality-oriented programs, and then shifted into high gear, driving toward continuous improvement and internalization of the Quality Air Force culture fully supported by the senior leadership.

"Without the pillar of creative leadership, there can be no serious quality achievements."
Richard I. Lester, PhD. Creative Leadership for Total Quality.

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ASSESSING ACADEMY EFFECTIVENESS

Bio of Presenter

Since 1994, Lt Col Leber has served as the Chief of the Quality and Assessment Division in the United States Air Force Academy's Office of Quality and Assessment He graduated from USAFA in 1976, flew helicopters for 7 years, and holds MAs in Counseling, Human Relations, and Psychology and a PhD in Engineering Psychology. As an Associate Professor at the Air Force Academy he has been privileged to instruct many great officer candidates and work in a remarkable Quality shop.

ASSESSING ACADEMY EFFECTIVENESS

Lt Col Leray L. Leber
Lt Col Frederick W. Gibson
USAF Academy/QI

ABSTRACT

In 1994, the Academy Superintendent tasked USAFA's QI Assessment Branch to find out how the Academy was doing. The immediate supervisors of Academy Graduate lieutenants were targeted as the best source of information regarding organizational effectiveness. An instrument to facilitate performance assessment has recently been completed using Industrial/ Organizational Psychology principles. This paper reviews the instrument development process and explains each stages' purpose, procedures, and rational. More than 500 supervisors of lieutenants at more than 40 Air Force bases participated in this assessment effort. Ten critical junior officer characteristics were identified and behavioral examples ranging from poor to good performance were provided by and scaled within each category by supervisors. Feedback from first-line supervisors of Academy Graduate lieutenants using this instrument will provide the Academy with critical and timely performance indicators. This structured effectiveness assessment will allow the Academy to see how it's doing and better focus improvement efforts.

THE TASKING - How are we doing?

In January 1994, the Air Force Academy finalized its first Strategic Plan and Agenda. A major portion of the Strategic Agenda was delineation of the Characteristics of an Air Force Academy Graduate (Figure 1). On 21 March, 1994, the Superintendent of the Academy, Lt Gen Bradley Hosmer, directed Lt Col Leber, his Chief of Assessment in the Office of Quality and Assessment, to develop a Customer Feedback Report Card. He wanted to find out how the Academy was doing. Indicators presently used to evaluate performance of the Academy were discussed.

How does the Academy know if it's doing a poor job or a good job? In an attempt to answer this question, investigators have reviewed promotion records of Academy Graduates. Unfortunately, such promotion information is extremely delayed and confounded feedback. Hypothetically, if such an analysis reflected that USAFA graduates are promoted to Major below-the-zone at a rate 10% higher than the other commissioning sources, such information would be at least 10 years removed from their Academy experience and provide minimal focus for program assessment or development. Furthermore, there are likely numerous influences on the first 10 years of performance other than pre-commissioning Academy experiences. In addition, UCMJ actions have been referenced to see how Academy Graduates fare. These data tell us about some of the most glaring disappointments but certainly has little focus on the Academy's strengths. Finally, investigators have convened groups of senior officers, Academy assigned personnel as well as Corona attendees, and discussed the performance of Academy Graduates. Although these opinions are valuable, it is unlikely that such senior officials would have much, if any, personal experience with Academy Graduates during their first few years of commissioned service, while

serving the majority of their initial service commitment. The Superintendent and his assessment staff recognized that we needed a more valid measure of organizational effectiveness.

It was decided that the best source of information regarding Academy organizational effectiveness was timely, first-hand feedback regarding performance of recent graduates. We needed to find out from the immediate supervisors of Academy Graduates how they were doing. But this realization begged for clarification of what supervisors, Academy customers, think we *should* be doing - what are the customer's needs? Secondly, would the needs of a supervisor be different for an Academy Graduate than they are for a lieutenant commissioned by the Reserve Officer Training Corp, Officer Training School, or through a direct commissioning source? The Superintendent clarified that the Customer Feedback effort needed less institutional focus and more emphasis on the needs of supervisors - less focus on what "the Academy" thinks is important and more emphasis on what the first-line supervisor thinks is important.

Most fortunately, Lt Cols Lee Leber and Fred Gibson of the QI Office had accomplished a similar performance appraisal effort only two years previously for the Academy's Commandant of Cadets. They developed an instrument using Industrial/Organizational Psychology principles for use in assessing cadet military performance (Gibson & Leber, 1994). They decided to follow a similar regimen in accomplishing the Superintendent's tasking and chose to use behaviorally anchored rating scales (Smith & Kendall, 1963) as the developmental method.

STRATEGIC AGENDA

CHARACTERISTICS OF AN AIR FORCE ACADEMY GRADUATE

Officers with well-developed adaptive capacity.
Officers who are adept at using teamwork.
Officers of forthright integrity, who voluntarily decide the right thing to do and do it.
Officers who are selfless in service to their country, the Air Force and their subordinates.
Officers who respect the dignity of all human beings.
Officers who are decisive, and take full responsibility for their decisions.
Officers with the self-discipline, stamina and courage to do their duty well under the most extreme and prolonged conditions of national defense.
Officers who are proud of their profession, predisposed to a career of service to the Air Force and dedicated to a lifetime of service to the nation.
Officers who are devoted to lifelong personal and professional development.

CHARACTERISTICS OF A MODEL SUPPORT OPERATION

A safe, secure, healthy and pleasant living environment for the Academy community.
An environment of continuous improvement focused on satisfying customer needs and expectations. This environment will instill trust, teamwork, pride, and a sense of mission ownership through a skilled, motivated, and empowered work force.
Resources necessary to accomplish the Academy mission. Available resources allocated and used effectively and efficiently.
The Academy story and accomplishments serving vital national needs effectively communicated on a national level.
Full capability to meet ancillary missions and contingency requirements.
A physical plant and environment comparable to the best universities in the nation.

FIGURE 1. United States Air Force Academy Strategic Agenda.

INSTRUMENT DEVELOPMENT - Four Stages taking ten months

Stage 1 - Performance Category Generation

The Commandant of Cadets hosted an AF Academy Junior Officer of the 21st Century Symposium in June 1994 during which QI was able to initiate the first stage of the organizational assessment effort. At the symposium more than 60 senior enlisted and officer participants brainstormed what characteristics were needed of a junior officer. What dimensions of performance did junior officers need to be effective? Each individual listed characteristics and was encouraged to generate behavioral examples of outstanding, average, and poor performance reflecting those characteristics. They subsequently discussed their ideas in groups of 10 and collectively listed their characteristics.

After the symposium, those lists of characteristics were edited to eliminate overlap. Forty-one characteristics captured everything that appeared on the individual and group lists (Figure 2).

Stage 2 - Category Sorting and Generating Behavioral Example Pools

The purpose of this stage was to rank order characteristics, clarify their definitions through behavioral examples, and to begin to construct an item pool to be used to build an instrument allowing performance assessment of each dimension. Supervisors of lieutenants at nine Air Force bases in California, Colorado, Idaho, Texas, and Washington participated in 45-minute interviews. Fellow Quality Office personnel performed local base coordination duties and invited supervisors from a wide range of career fields to interview sessions. Those 133 participants collectively supervised nearly 600 lieutenants and ranged in rank from Colonel (4%)

Commitment / Dedication
Common Sense
Communication Skills
Consistent (fair, just)
Counseling Skills
Courage
Decisiveness (decision maker)
Dependable / Trustworthy
Disciplinary Skills
Emotional & Social Maturity
Handles Stress
Honesty
Human Development Skills (feedback, evaluation)
Initiative / Motivation
Innovative
Integrity / Ethics
Involvement (in & out of workplace)
Job Knowledge / Competence
Loyalty (both ways)
Motivational Skills
Open Minded / Flexible/ Adaptable
Organized / Systematic
Patience
Patriotic
Perseverance
Personable / Humorous
Persuasive / Influential
Positive Attitude / Enthusiasm
Pride
Professional Image / Military Bearing
Respect (earned and given)
Responsible for their actions
Risk Taker
Selflessness
Sensitivity / Empathy
Sincerity
Team Builder / Team Player
Trusting
Vision
Willingness to Learn / Humility
Wisdom

FIGURE 2. Forty-one focus-group generated characteristic dimensions of junior officers.

to 1st Lieutenant (2%) with the majority being Majors (40%). Other demographics of note were that 22% of the supervisors were Academy Graduates and 32% were rated. Of the lieutenants they supervised, 26% were Academy Graduates, 40% were rated, and 14% were female junior officers. The 41 characteristics were listed on separate note cards.

Each supervisor was asked to sort the cards into three piles, indicating those characteristics their lieutenants "must have," those they "should have," and those that "would be nice to have," respectively. They were also supplied blank cards and asked to add any characteristics they felt were missing and to likewise sort those into the three piles. There was no guidance as to how many cards were to be placed in each pile. Although introduced as visitors from the Academy, interviewers strongly reinforced that the sorting was to be based on a junior officer regardless of commissioning source - the characteristics needed of a junior officer not limited to those needed of just Academy Graduates.

Of 133 supervisor participants, 2 deemed only 3 of the 41 characteristics as "musts." At the opposite end of the continuum, 1 participant deemed 33 of the characteristics as "musts." The average supervisor had 11 characteristics in their "must have" pile. Only two supervisors wrote what they thought were "additional" characteristics on blank cards but they likely wrote those prior to completing the sorting as their inputs were duplicates of characteristics that already appeared among the 41 cards.

The interviewers chose 3 characteristics from each interviewee's "must" pile and asked that supervisor to write examples of outstanding, average, and below average behaviors displayed by junior officers reflective of those three "must" characteristics. These behaviors were combined with those generated in Stage 1 to create the item pool for later use.

The resultant sort data were analyzed in two ways. First, "musts" were assigned a score of 3, "shoulds" a 2, and "nice to have" a 1. Average ratings were then calculated for each characteristic. These average ratings allowed the rank ordering of characteristics as indicated in Figure 3. The ordering reflects the relative importance placed on these 41 characteristics by the raters. The top three characteristic averages, all very near 2.9 on the 3 point scale, were Integrity/Ethics, Commitment/Dedication, and Honesty.

As an alternate index of relative importance, the percentage of supervisors rating each characteristic as "must" was determined, and is reflected by a line from the characteristics to the right axis of Figure 4. There was perfect agreement as to the top four characteristics using either analysis technique. Only 10 characteristics were chosen for inclusion because more would result in an unwieldy instrument that would be too cognitively complex for the raters. The Academy Quality Council agreed. The top 9 characteristics were common among both scales and Willingness to Learn/Humility was included based on its high percent of "must" ratings.

Stage 3 - Retranslation: Linking of Behaviors with Performance Dimensions and Minimizing Confusion Concerning which Category each Behavior Exemplifies

The purpose of the retranslation was to help eliminate ambiguity of the behavioral examples and assure that the majority of supervisors agreed that each behavior was an example of the characteristic of interest (Smith & Kendall, 1963). More than 1000 behaviors generated by

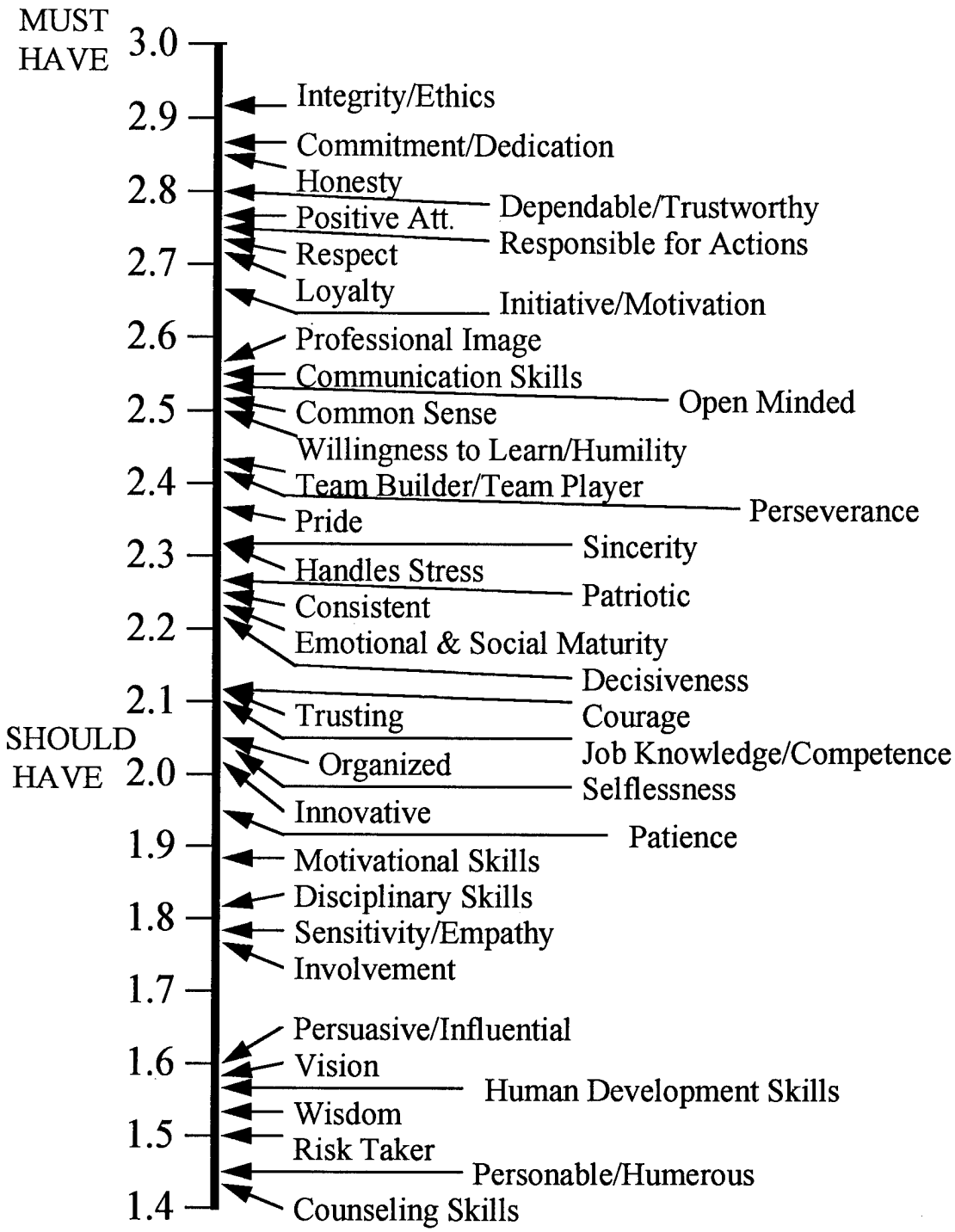

FIGURE 3. Average Characteristic Ratings.

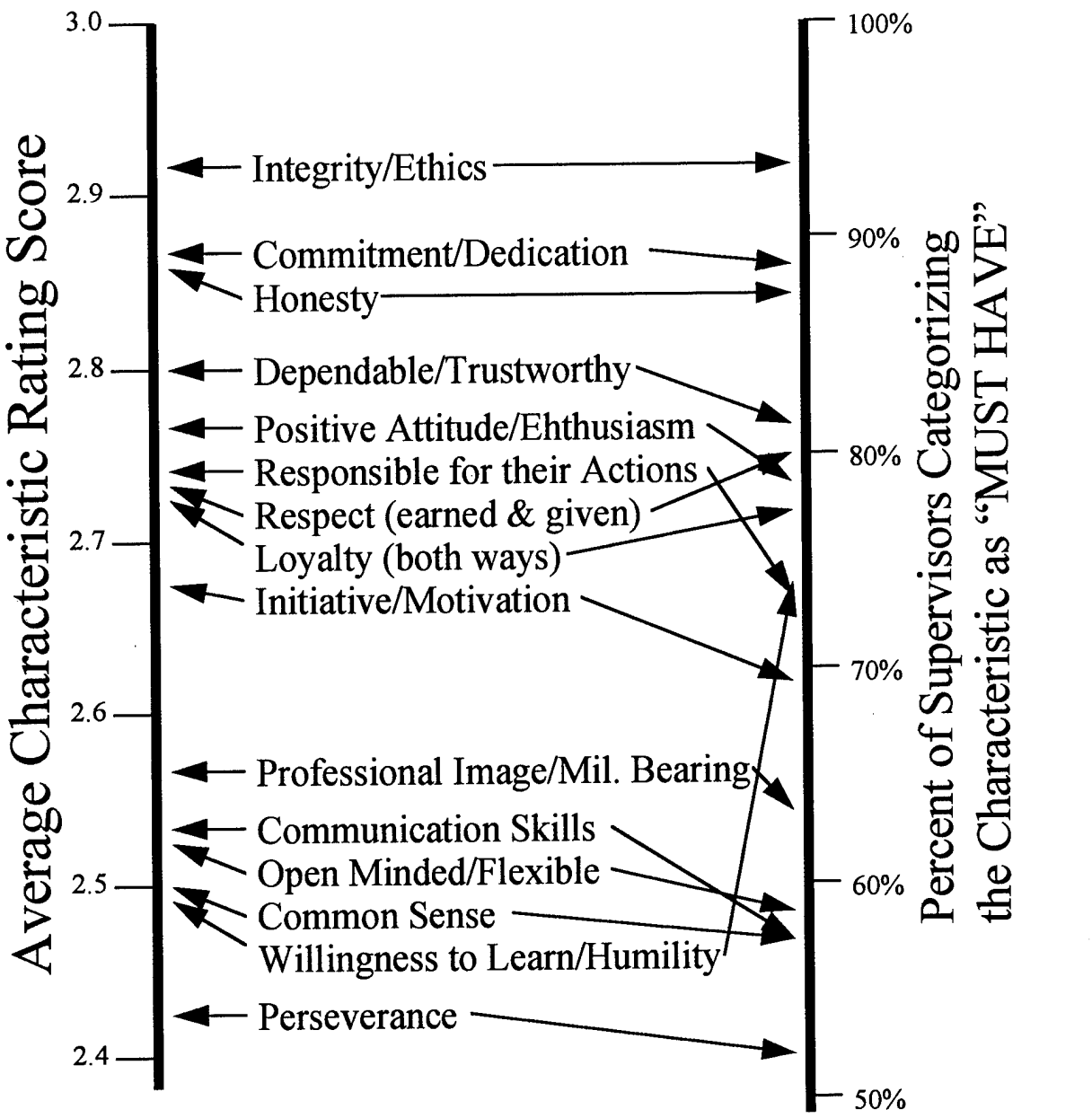

FIGURE 4. Top 15 Junior Officer Characteristic average scores and their corresponding percentage of 133 supervisors rating each as "MUST HAVE" of their junior officers.

supervisors were reviewed for inclusion in this retranslation effort. Editing was accomplished to assure each item was an observable behavior as opposed to a thought, attitude, or feeling. Some tenses were changed and some examples were shortened or eliminated to minimize repetition. More than 250 behaviors were incorporated into short surveys that required supervisors of junior officers to indicate by circling the characteristic each behavior exemplified (or the "none" option) regardless of whether the behavior reflected good, average, or poor performance (Figure 5). The retranslation served to define each dimension of performance by the behaviors used to map it out. In essence, each performance category was empirically defined by the supervisors as opposed to generated rationally only by the project officers.

Four survey versions (approved by HQ AFMPC/DPMYMS) were distributed to 280 supervisors of lieutenants at 14 bases and over 50% of the surveys were returned. Nearly 90% of the behaviors were classified by 60% or more of the supervisors as indicative of a single characteristic. A 60% cut-off was selected for retention of any behavior (a commonly accepted rule is that the cut-off should be between 50% and 80% (Muchinsky, 1990)). The resultant 245 behaviors were used in the final development effort.

Stage 4 - Scaling of Behaviors

One of two survey versions were distributed to 400 supervisors of lieutenants at 20 bases and over 40% of the surveys were returned. Each incorporated a subset of the 5 characteristics and an average of 24 behaviors per characteristic to minimize the length of the survey for any one respondent. Supervisors rated each behavior from 1 to 5 reflecting very poor to very good performance or N/A (does not reflect the characteristic). Figure 6 displays four such scalings for one of the survey characteristics. Both the arithmetic average rating or *mean* and that rating that fell in the middle of all ratings (higher than or equal to that made by 50% of the raters and lower than or equal to that made by 50% of the raters) or *median* for each behavior was calculated. Behaviors with representative means, consistent mean and median scores, and relatively low standard deviations served as anchors for the scale points on the final instrument.

The final instrument is six pages long, three front-back pieces of paper. Figure 7 shows one of the characteristics with its scaled behaviors. The 10 characteristics serve as major headings and respondent supervisors will be asked to mark an *X* on a 1 to 5 continuous line scale indicating the performance of their Academy Graduate lieutenant supervisee.

Junior Officer Characteristics Survey

Please circle the category opposite each behavior indicating which characteristic that behavior best belongs in (good or bad).

Commitment/Dedication
Dependable/Trustworthy
Initiative/Motivation
Positive Attitude/Enthusiasm
Responsible for Actions
None of these Characteristics

1-Takes steps to address difficulties as early as possible. {Com/Ded} {Dep/Tru} {Ini/Mot} {PosAt} {Resp} {None}
2-Does assigned tasks or jobs within assigned suspenses. {Com/Ded} {Dep/Tru} {Ini/Mot} {PosAt} {Resp} {None}
3-Launches activities to foster unit morale. {Com/Ded} {Dep/Tru} {Ini/Mot} {PosAt} {Resp} {None}

FIGURE 5. Three of 258 behaviors used in the retranslation surveys.

Commitment/Dedication

Please circle your response opposite each behavior indicating the degree to which it reflects very poor to very good performance in the particular category	Very poor Com/Ded	Somewhat poor Com/Ded	Neither poor nor good Com/Ded	Somewhat good Com/Ded	Very good Com/Ded	Does not reflect Com/Ded
1-Fills in for others and still does normal job well.	1	2	3	4	5	N/A
2-Looks out for personal career more than the mission.	1	2	3	4	5	N/A
3-Quits because he/she doubts the job can get done.	1	2	3	4	5	N/A
4-Stays with the job only as long as supported by leadership.	1	2	3	4	5	N/A

FIGURE 6. Four of 245 behaviors used in the scaling surveys.

USING THE INSTRUMENT TO ASSESS INSTITUTIONAL PERFORMANCE

The survey developers have recommended to the Academy Quality Council that they sponsor the effort to send this feedback instrument to 400 supervisors of Academy Graduates from the classes of '92, '93, and '94 (all 1st and 2nd Lieutenants). The forms will ask that the supervisor identify his/her commissioning source and indicate how long he/she has supervised the Academy Graduate lieutenant. Otherwise, all responses will be anonymous with no identification

Rate the **Integrity/Ethics** of your Academy Graduate lieutenant based on the scaled behavioral examples below. Make an "X" on the line reflective of the lieutenant's behaviors regarding **Integrity/Ethics**.

Very Good	Somewhat Good	Neither Poor Nor Good	Somewhat Poor	Very Poor
5	4	3	2	1

5 - Very Good Integrity/Ethics
Stands behind decisions. Shows by example what is right. Stands up for what is right. Documents incidents without cover-up or placing blame. Follows rules or policies when not being observed or monitored. Assures discipline and duty performance regardless of friendships. Risks personal admonishment to report mistakes. Sets example at all times, not just during duty hours. Makes decisions based on what's right, not what's most convenient or personally beneficial.

4 - Somewhat Good Integrity/Ethics
Confronts coworkers who have violated policies or rules. Reports problems/mistakes that might otherwise go undetected. Reports a supervisor even if the act is career threatening. Accountability for violations or performance of subordinates.

3 - Neither Poor Nor Good Integrity/Ethics
Does the right thing only because there is no way to avoid it.

2 - Somewhat Poor Integrity/Ethics
"Pencil whips" requirements. Doesn't stand behind decisions. Won't cause waves by pointing out waste and abuse. Holds subordinates to higher standards than themselves. Uses the confidence of others to his or her own advantage. Covers up for others who have violated policies, rules, etc. Reports only what will put them in the best light. Fails to admit involvement when he/she can avoid negative implications. Owns up to personal responsibility only after being confronted with evidence. Fails to correct misunderstandings or mistakes which work in their favor. Recognizes that someone is doing something incorrectly but chooses to avoid confrontation and not address the problem.

1 - Very Poor Integrity/Ethics
Takes credit for others' performance. Helps friends to violate normal procedures. Flaunts non-adherence to rules and regulations. Does the right thing only if personally beneficial. Uses power, position, or authority for personal benefit. Blames subordinates for mistakes to avoid personal fault. Pressures or encourages others to violate policies or rules. Admits accountability only after attempts to blame others are exhausted. Purposefully misinterprets orders or facts to suit their own purposes. Takes shortcuts around policies, rules, and procedures for personal benefit. Discriminates by acts or words against those who are different. Lets friendship influence decisions regarding discipline and duty performance.

FIGURE 7. Rating scale for 1 of the 10 Characteristics - Integrity/Ethics.

of the supervisor, lieutenant, command, nor base. The form will not become part of any permanent record.

To assess organizational performance, the average performance ratings will be computed across all Academy Graduate lieutenants for each characteristic. In addition to the absolute performance, this analysis will allow delineation of the Academy's relative strengths and weaknesses. For example, if Loyalty is rated substantially lower than Honesty for the average Academy Graduate, it will point to that area as a potential interest item for policy reviews and program modifications. More discussion of, training in, experience with, and exposure to role models regarding Loyalty would be suggested by such a finding.

THE MISSION

General Hosmer's initial tasking has been fully supported by the present Superintendent, Lt Gen Paul Stein. The assignment was to develop a Customer Feedback Report Card. The ten month process that followed their tasking could have been accomplished in days with a different methodology. A team of people at the Academy could have determined the critical lieutenant characteristics, could have written behaviors they believe were indicative of those characteristics, scaled those behaviors from poor to good, and had the instrument completed within a month or less. Although it might have been a Feedback Report Card it would have fallen short of being "Customer" Feedback as the customer or supervisor would not be rating what he or she thought was important or indicative of Academy effectiveness.

Research generally indicates that behaviorally anchored rating scales such as these are not better than other types of rating formats (Kingstrom & Bass, 1981). However, the highly participate nature of this technique encourages greater acceptance and understanding for the system by raters as well as ratees. In addition, the presence of the "word pictures" associated with each scale point makes it clear to everyone what sorts and levels of performance, in behavioral terms, warrant various ratings.

Administration of this instrument will allow the Academy to find out how the Air Force rates our effectiveness - how well our lieutenant graduates are performing within their first few years of commissioned service. Additionally, the critical areas and behavioral examples will serve as guideposts to lieutenants who want to know what they need to do to be top performers and help focus supervisory feedback to junior officers. But the developmental effort isn't over. Even this instrument, developed in every way by supervisors, will profit from periodic updating and modification. Needs will change and behavioral examples will need revision. The list of characteristics and scaled behavioral examples will help structure performance assessment to see how the Academy is doing, recognize its strengths, and focus improvement efforts. General Stein wants to know how our customer feels we're doing and help us refine our programs in accordance with our customers' needs. This instrument will play an important role in meeting this objective.

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Self-Assessment for Leaders of Change

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Self-Assessment for Leaders of Change

Mary-jo Hall, Ph.D.

Abstract

The process of leadership is changing to reflect the needs of organizations that are moving from a hierarchical structure with a vertical product focus, to flatter organizations with a focus on outcomes related to customer requirements that are met through horizontal process management. The capacity to lead in the new environment requires the ability to focus the enterprise, to direct in a strategic way, to guide in a manner that fosters intrinsic motivation, and to support everyone as they improve their services or products to benefit the overall system.

In order to gain, enhance, or master this capacity, certain skills, behaviors, and knowledge must be defined, assessed, learned, unlearned, improved and practiced. Assessing one's capacity to lead in this manner requires a personal evaluation, as well as feedback from others. This can be interpreted in terms of a Plan-Do-Check-Act cycle for personal leadership development.

This paper presents a theory for leadership in a changing environment, a tool to help assess the capacity to lead at the Defense Systems Management College, and suggestions for building a resource kit for future developmental activities.

Introduction

"No problem can be solved from the same consciousness that created it. We must learn to see the world anew".

—Albert Einstein

For the purposes of this research, leadership is defined as accomplishing the transformation of an enterprise. Therefore, a leader is someone who accomplishes change through others (Deming. p. 119). According to Deming, the leader needs a theory for understanding why the transformation would benefit the organization, a compelling need to make the transformation, and a plan for how the transformation would be accomplished. The leader also needs the ability to influence people through both personality and depth of knowledge (Schultz, p.174).

Research, reading, consultation, and experience indicate a need in my organization - the Defense Systems Management College (DSMC) — to simplify and operationalize this meaning. This can be achieved by explaining what the leader would be doing on a day-to-day basis if the leader epitomized Deming's model. In working with our change partners, Zenger-Miller, it was suggested that the REAL work of leadership is to provide focus, guidance, direction, and support (Farrell 1995). This approach recognizes differences in the leaders and managers. It is a pragmatic approach to pointing out that leadership addresses the strategic, the vital few, and the way of the vision. Conversely, management addresses the tactical, the plans, the processes, or the "compelling many" administrative tasks. Leadership to transform an organization requires a capacity to idealize the best for the entire enterprise (Ackoff, 1990) and the courage to focus and align all resources, actions, and people toward that end to optimize the system.

Further research into this model provided an opportunity to investigate the particular skills, competencies, and behaviors necessary to operationally define focus, direction, guidance, and support. This list is based on the works of a variety of authors: Barker; Clemmer; Davis; Langford; Cleary; Sayles; Schultz; Senge; Wiersema; and Wheatley. More importantly though, the list was developed for the particular culture at DSMC.

Focus

The area of focus emphasizes the strategic thrust needed by the leader of change. It implies a systems approach to change and leading. The leader must have a vision, and that vision must be clearly and consistently articulated to everyone in the organization (Davis; et al; Baker; Phillips). The organization must use a structured approach to determine the future state. This is the "ideal" state based on an environmental scan, anticipated requirement of present and future customers, and the organizational purpose (Ackoff, 1990).

Strategic goals must be developed and used to determine the overall direction. The organization analyzes the challenges and risks inherent in the goals and develops interim action plans to help get from the baseline of today, to the goals for 5 to 10 years out.

Focus helps everyone know and understand the purpose, aim, or mission of the organization and their role in its accomplishment. When people identify with the aim of the system, their motivation is greater (Langford, 1994). Moreover, high levels of motivation increase participation. Combine this with skill development, and the system automatically promotes pride and joy in work during the transformation.

Direction

The capacity to provide direction as a leader includes going the extra mile to foster common vision through mind maps (Senge, 1990). Zenger-Miller recommends that all leaders in the organization have a 3 to 5 minute "stump speech". This speech should be so ingrained that regardless of the circumstances, the leader can recite the purpose for and direction of the organizations transformation, always with vigor and enthusiasm, at a moment's notice. The "stump speech" then, helps provide the map for all to see the vision.

Providing direction instills the organizational values or principles in everyday activities. It clearly is "walking the talk" and models focusing on outcomes and results consistent with customer requirements, managing processes with data, and making improvements in a systematic manner.

Guidance

A leader creates an environment where everyone can maximize their potential as they contribute to the mission. This implies establishing high standards for performance. But it also recognizes that everyone is different, and may not use the same method accomplishing a task. The leader

understands that system barriers may keep willing workers from obtaining the highest level of performance.
Guidance uses the values of the organization to shop by actions that everyone is trusted to do their work in an excellent manner. A standard format for both continual process improvement and process innovation is used by the leader and cascaded throughout the organization. This includes the Plan-Do-Check-Act cycle advocated by Dr. Deming and a structured methodology for radically changing or designing new processes. The basic underpinnings of intrinsic motivation are known by the leader and practiced on a daily basis.

Many tools are associated with quality management such as brainstorming, control charts, pareto analysis, histograms, cause and effect diagram, deployment flow charts, scatter diagrams and run charts. If these tools are not used and requested by leaders, they will not be used by employees. These tools are necessary to transform decision making into a process based on data not on gut feeling and anecdotes.

Support

As Deming stated, in order to effectively change the systems in the organization, leaders must influence others. They must inspire others to be completely engaged in support of the mission and vision (Phillips). While it is the role of leadership to ensure that an infrastructure is in place once the roles and responsibilities are assigned and the strategic direction is determined, it is imperative that the leader support the people in their work efforts.

With the new paradigm of continual improvement as the cornerstone of the organization, employees must be re-skilled. Inwardly focused, hierarchical organizations that were characterized by command and control and power from positions did not need the same skills as the organizations that focus on customers and make decisions based on data. These organizations manage processes horizontally, and ad hoc teams are the norm. To operate in this environment, continual learning is imperative. Individual and group strengths must be assessed and development opportunities provided. Training in data collection techniques is needed to allow everyone in the organization the opportunity to independently use a structured process to improve their products or services. Training in interpersonal skills is necessary for team members to achieve results from meetings, manage conflict, and solve group problems in a way that will optimize the entire enterprise. The training and education philosophy that promotes learning for all employees reflects the value of investing in the people for the long-term good of the organization.

Supporting also means that a reward and recognition system is in place that is consistent with the desired change. The aim of rewarding people is to show appreciation. In a team-based organization, the team needs to be recognized as a unit. Because situations are different for different groups, reward methodologies and techniques can and should differ.

The Capacity Matrix

Identifying the competencies, the skills, and the behaviors to lead organizational change is only the first step. The individual's level in each of these areas must be assessed, a plan developed for personal improvement, and the commitment determined to act on the plan.
With David Langford as another partner in our organizational change effort, I appreciate the value of tools in improving processes. One tool he developed to assist students in assessing their capacity for learning is the "Capacity Matrix." I adapted this tool for the leaders at DSMC and for this theory of leadership.

Langford defines "Capacity" as:

> 1. a. The ability to receive, hold, or absorb. b. A measure of this ability; volume. 2. The maximum amount that can be contained. 3.a. Ability to perform or produce; capability. b. The maximum or optimum amount that can be produced. 4. The power to learn or retain knowledge; mental ability. 5. Innate potential for growth, development, or accomplishment; faculty.

According to Langford, the Capacity Matrix is an individual's self assessment tool. It gives responsibility for evaluation and learning to the individual. The horizontal axis depicts the skills, competencies, and behaviors identified in the research. The vertical axis shows the learning process broken down by a variation of Bloom's Learning Taxonomy, developed by David Langford and Myron Tribus. These categories are Knowledge, Know-how, and Wisdom.

As described by Langford, knowledge includes information and the ability to recall it, especially at the appropriate time. It is responding to questions about a topic, especially test questions. Knowledge can be demonstrated by:

-naming
-listing
-defining
-answering - Who, What, Where, How Many, and How Much.

According to the Langford/Tribus model, know-how is the ability to understand or comprehend knowledge, and apply the knowledge and the ability to do analysis. Comprehension can be demonstrated by:

-giving an example;
-telling what probably will happen;
-telling what caused an incident;
-comparing;
-contrasting;
-presenting an idea in your own words; and
-using terminology associated with the concept in a meaningful way.

Application is the ability to use ideas, concepts, methods, and principles in new situations. The process of applying a skill or competence is demonstrated by solving challenges, generalizing from one situation to another, and probing for answers.

Analysis is methodically examining ideas and concepts and separating them into parts or basic principles. Analysis requires knowledge, comprehension and application. Questions that demonstrate the ability to perform analysis follow:

1. What reason does one give for the conclusions?
2. What method is one using to convince you?
3. What does the author seem to believe?
4. What words indicate bias or emotion?
5. Does the evidence given support the conclusion?
6. Are the conclusions supported by facts or opinion?

In the Langford/Tribus model, wisdom includes judgment (discerning), synthesis (creating), and appreciation or evaluation. Judgment includes comparing, assessing, reflecting, observing, thinking, correlating, and focusing. Questions which demonstrate judgment include:

1. Can I recognize when I am in a situation requiring the application of knowledge?
2. Can I apply information and study the appropriateness of my decision?
3. Can I be pro-active in using my knowledge?

Synthesis is the ability to put together parts and elements into a unified whole, which requires original and creative thinking. It includes constructing a model, creating a plan, or arranging pieces together that probably were not previously joined.

Appreciation is the ability to appreciate or judge the value of ideas, procedures, and methods using appropriate criteria, such as usefulness or effectiveness. It is the ability to predict, measure, and select, and substantiating with facts, theories, and observations.

The Capacity Matrix, using these levels of learning, is a living document that is regularly updated by the learner. Each participant shades in their level of facility with the skill, competency, or behavior.

Figure I is a Capacity Matrix for leaders at DSMC, which combines the skills, behaviors, and competencies of the change leader with the levels of learning. It is divided into the four major components of focus, direction, guidance, and support. The competencies, skills, and abilities under each heading are based on the overall strategic direction and transformation work at DSMC, but are generic enough to fit any organization. The matrix is shown as a three-level tree diagram. As individuals learn, the levels can be expanded.

Capacity Matrix Documentation

Self assessment of one's individual capacity to lead change using this matrix is a start. But as Dr. Deming would ask, "How do you know" this is your capacity? In being a transformation leader, one of the most important attributes is the ability to learn (Clemmer, 1992). This implies that we must "learn how to learn." Learning can be through experience, modeling, and inputs such as lectures, videos, and texts (Langford, 1994 a-11). Part of the personal change process is an understanding of the effectiveness of the different ways to learn as an individual as well as an organization.

A measurement of the assessment would be a personal portfolio documenting your capacity. This portfolio could be a notebook with tabs for each of the skills, behaviors, and competencies. Documentation could include storyboards from projects, feedback from others, reports, videos of presentations, or personal documentation of the learning process, e.g., a learning journal. The Capacity Portfolio documents what you presently know with examples.

The portfolio should reflect documentation of what others think about your capacity level as well as what you think. One strategy for determining what others think is customer feedback. Mechanisms for receiving feedback include climate surveys such as the Campbell Organizational Survey and Multirater Assessment (360° Feedback). The importance of a "reality check" by soliciting data from a variety of sources cannot be over emphasized.

Planning for Learning

Once you assess your capacity to be a leader of change and document how you know, and what you know, the next step is to develop a plan for future learning. This is an action plan that facilitates developing specific capacities in the matrix. The plan can be a listing of activities or "ways of knowing" for each of the specific areas. For example, this could include people to contact, books to read, professional organizations to join, action learning teams, video tapes, training— both classroom and on the job— developmental assignments, seminars, and a variety of other ways to learn how to improve your capacity as a leader.

Improvement philosophies generally indicate that building on strengths is the most viable and productive method to increase capacity. Leveraging strengths can minimize weaknesses. Thorough analysis and reflection help determine these strengths and provide direction for improvement areas. Another consideration needs to be given to individual learning style. The action plan for learning takes all of this into consideration.

Commitment to Learn

The bottom line in assessing personal leadership effectiveness is improving your capacity to lead. This implies improving your skills, competencies, and behaviors. The assessment, documentation, and planning are for naught if the result is not improved leadership and organizational transformation.

Commitment to change and the "doing-it" are the most difficult parts, especially for senior executives who have a track record of successfully leading using a command and control style. Many organizations in the middle of change have little "accountability for change" built into the system. Job descriptions and official evaluation reports do not ask about these skills. Commitment to improve one's capacity to lead is generally based on intrinsic motivation. It is, however, the primary role of the leader of change. It is impossible for leaders to build a team or an organization into something different than themselves (Clemmer, 1995). For leaders to expect the organization to change, they must understand the change process. For leaders to expect the organization to improve, they must improve their processes. For leaders to expect everyone to contribute to the vision and mission, they must personally contribute to the mission and vision.

Summary

The greatest loss in any organization is the inability to tab into every members human potential. The role of leader in today's organizations places great emphasis on transforming the organization through others. Leaders need to engage one hundred percent of their members in producing outcomes which delight customers. To do this, leaders must have the capacity to focus, direct, guide and support everyone in the organization.

This paper presents a theory and tools for leaders to assess their capacity to lead in the new world of constant change where all products and services must be provided quicker, cheaper and better. It offers ways to build a resource kit to continually improve the capacity to lead an organization through the change process. However, the theory and tools are just window dressing if a leader is not committed to personal learning.

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Capacity Matrix for Leaders Involved in Change

Name: _____

Date: _____

VISION: To be the academy of distinction promoting systems management excellence.

PURPOSE: To assess skills, knowledge and abilities needed to serve as a leader in changing DSMC to a quality based management system.

				LEARNING PROCESS						
				KNOWLEDGE	KNOW-HOW			WISDOM		
OUTCOMES	**COMPETENCIES**	**BREAKDOWN**	**34**							
Leadership for change	**Focus**	Think systematically	1							
		Visioning	2							
		Create constancy of purpose	3							
		Actively participate in strategic planning	4							
		Understand DSMC's system and strategic direction	5							
		Develop Action Plans to Improve the System	6							
		Establish Strategic Goals and Objectives	7							
		Assess Resource Needs	8							
		Seek new knowledge	9							
		Promote Learning	10							
	Direction	Foster a common vision	1							
		Define priorities	2							
		Clarify roles	3							
		Clarify responsibilities	4							
		Communicate clearly the vision, mission and strategy	5							
		Use personal stump speech	6							
		Manage processes using metrics	7							
		Assist by developing common mind maps as frames of reference	8							
		Encourage risk taking	9							
		Live values	10							

Leadership for Change	**Guidance**	Establish high standards of performance	1							
		Convey trust in people's competence to do their	2							
		Inspire people to excel	3							
		Use basic principles of Intrinsic Motivation	4							
		Create an enjoyable work environment	5							
		Reward people for good performance	6							
		Convey enthusiasm about DSMC's vision and	7							
		Manage Diversity	8							
		allies	9							
		PDCA	10							
		Promote innovation	11							
		Use quality tools	12							
	Support	Coach employees	1							
		Train employees	2							
		Identify strengths and development needs IAW mission	3							
		Provide developmental challenges	4							
		Tap all sources of talent	5							
		Provide regular and timely feedback	6							
		Listen	7							
		Manage conflict	8							
		Promote collaboration	9							
		Reward efforts consistent with the desired change	10							

A FRAMEWORK FOR IMPROVEMENT

IN A VOLATILE WORLD

KAY L. CARLSON

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A FRAMEWORK FOR IMPROVEMENT

IN A VOLATILE WORLD

by

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ABSTRACT

The primary challenge to those who want to provide leadership is to create organizations that are prepared for the demands of a volatile world. This paper presents a conceptual framework based on four appreciations that lead to organizational adaptiveness, continual learning, and continuous improvement. The challenge is not what actions to take or organizational structure to design. The greatest challenge is for each person to question their assumptions and develop a better understanding of the true nature of organizations in a continually developing world.

Why is it so difficult for organizations in both the public and private sectors to address the increased rate of change of today's world? Is there knowledge that would form a conceptual framework to help individuals and any type of enterprise to become adaptive and be prepared to thrive, not just survive, in a volatile environment?

I believe there are four primary appreciations that are necessary if we want to develop organizations that will thrive in a world of rapid change. Creating an adaptive organization that provides products and services that remain relevant and valued by consumers requires:

- Appreciation for the power of interactions.
- Appreciation for learning.
- Appreciation for variation.
- Appreciation for a future beyond your time.

APPRECIATION FOR THE POWER OF INTERACTIONS

Reality - An Elusive Concept

Reality is an elusive concept because it is dependent on the current interactions that form relationships. Margaret J. Wheatley wrote in Leadership and the New Science, "*In the quantum world, relationships are not just interesting; to many physicists, they are all there is to reality.*" We need not be physicists to appreciate that interactions create reality. Consider when two hydrogen atoms and one oxygen atom interact with an air temperature above thirty-two degrees Fahrenheit, the *reality* is water. If the same atoms interact with air temperatures below thirty-two degrees Fahrenheit the reality is ice. If you do not believe these are two very different realities, try driving across a lake that isn't frozen! On a macro level we also see the power of interactions. Does the U.S. have trade agreements with West or East Germany? Obviously the question is moot because there is only one Germany. The reality prior to German reunification in October 1990 does not resemble today's reality. The interactions between entire countries has changed and created a different reality.

Interactions create the reality at all levels of creation, from subatomic to galactic. Interactions are key to how the universe functions. Why is this important for us to appreciate? When we envision reality as a fluid process rather than a specific state, we realize the importance of creating organizations that are flexible. We recognize the need for our organizations to have the ability to be a part of the changing world rather than reacting to one specific change. Organizational leaders that focus on a concrete reality, an ideal state of being, create rigid enterprises that will antiquate over time as the fluid process of reality flows on. Our conceptual view of reality plays a significant role in our personal and organizational lives. **Reality has not changed, reality is change.**

Appreciation for the elusiveness of reality also helps us to have regard for others' reality. To paraphrase an ancient Native American philosophy, "*Do not judge others until you have walked a mile in their moccasins.*" Appreciation for the power of interactions assists in our ability to comprehend the wide range of variation in human behavior. Interactions in others' lives creates their reality. Our ability to communicate and exchange thoughts is enhanced when we realize that the interactions in the lives of others are creating a different reality from our own. Insensitivity to others' reality can negatively influence the interpersonal

interaction between individuals. How often have you heard "Welcome to the real world"? I once heard a civilian federal employee at the Pentagon utter those words. So the real world is the Pentagon? What is the rest of the world? Toon Town? Then there was the surgery resident from a V.A. hospital that was visiting a university hospital. He turned to me and said, "This isn't the real world." My response was swift, "I'm certain the patients will be glad to know they can't really die here!" The fact is, life is different for everyone because reality is created by interactions. If you do not believe interactions create your world, imagine that you are frozen for 100 years. Only you, not your family or friends. Who are you and what is your reality when you continue to live without any of those relationships?

Systems Thinking

Without appreciation for the power of interactions one cannot be truly systems-oriented. I often hear people describe their systems approach in terms of "the bigger picture". However their actions demonstrate that they continue to rely on an additive approach; breaking down the system into components and working to improve the components.

Systems thinking requires appreciation for the interrelationships between all the components that comprise any system. Any organization is a system of human interactions. According to W. Edwards Deming, 94 percent or more of problems (failures) are due to the system. In other words, **root cause of failure is due to human interactions 94 percent or more of the time.**

Organizations discourage interactivity in several ways. The 'head and hand' syndrome where management 'thinks' and workers 'do' deters positive interactions. Interactive environments of continual learning cannot develop within environments of fear and mistrust. Unless people within the system have an intrinsic drive to be a part of the larger system they will not value the need to share ideas, concerns, thoughts, and visions. Restructuring the organization into a flatter physical structure does not address this philosophical issue. If the philosophy continues to be one of managing (controlling) people, interactions will be limited, guarded, and often negative. Quality is not an end result. Quality is everything that happens to create a result. The quality of products and services is dependent on the quality of the interactions of the people within the system, including the suppliers and customers. The philosophy will not transform without appreciation for the power of interactions.

Interactivity is also discouraged by perceptions of the need to compete, the need to be a hero, the need to be right, the need to avoid embarrassment, and the need to extrinsically motivate. Our organizations cannot become adaptive until people become adaptive by becoming true learners willing to self-examine. Reality is created by interactions, and currently the reality of many organizations is unhealthy cultures lacking trust, lacking a sense of common purpose, and having distrustful relationships with their suppliers and customers.

Our organizations are systems within larger systems. Every person in an organization is a complex system with personal aims, values, and theories about life. No enterprise is an isolated entity. It exists in a network of other systems. Peter Senge wrote of the need for organizations to develop "*a capacity to see and work with the flow of life as a system.*" Interactions within the enterprise and with systems outside of the enterprise should be

encouraged. Innovation and opportunities cannot be predicted, but are more likely to develop in highly interactive organizations. Closed systems cannot grow. Environments of control and conformity do not promote interactions, creativity, and learning. Control and conformity lead to a state of calcification; what I refer to as the 3C formula:
Control + Conformity = Calcification.

Living organisms evolve over time, yet have DNA that maintains the essence of what they are. An organization's aims, values, and guiding principles serve as organizational DNA, helping the enterprise to maintain a constant conceptual guide of what it is and why it exists while continually evolving and adapting. Defining the primary purpose or aim of any organization is required in order for it to thrive in a continually changing environment. In the words of Dr. Deming, "*A system must have an aim.*" The system includes the suppliers and customers of the enterprise. Unless everyone in the system is aware of the aim identifying the basic reason the organization exists, there will be loss because people will not know how to work together to optimize the system. Each person can be working extremely hard, but without envisioning and sharing a common aim their individual efforts will not connect (interact) in an optimal manner. Peter Senge shares this view, "*Until you have identified the purpose of the enterprise, you are not ready to create a culture of improvement, learning, or of total quality. The purpose has to be shared and adopted by others.*"

Knowledge of Human Interactions

As discussed above, organizations are systems of human interactions. Traditionally we have named the cause of failures (problems) to be the fault of an individual or technology. According to Peter Scholtes, author of The Team Handbook, "*We keep looking for things to do to our people that will never substitute for what is wrong with the system or process.*" Peter's words describe another additive approach, get everyone to do there best and hold them accountable and it will add up to a better company. If we sincerely want to improve our systems, we must learn to be much more aware of the interactions between individuals and groups. What interactivity will help to work towards the aim? What is the quality of the interactions and how can the quality of interactions be improved?

Knowledge of psychology and linguistics can help to improve the interactions between individuals and groups. As Alfie Kohn identified, there are three ways to work - alone, with others, or against others. When we grasp the importance of interactions we recognize the potential gains when people want to work with one another. Recognition of interdependence and the need to work together is not synonymous with constant agreement. The aim of the enterprise and optimization of the whole system should provide the guidance for decisions. Disagreements in methods to achieve the aim and optimization can lead to better analysis and predictions. Decision making needs to be an ongoing interactive process that utilizes analyzed data and questions policies and options. No one person has "the answer", and what serves as today's answer will not suffice in tomorrow's reality.

Knowledge of psychology also helps to differentiate between motivation and manipulation. Adaptive organizations will evolve when employees are intrinsically motivated rather than externally manipulated. Managing by manipulation leads to enterprises filled with employees at all levels that wait for external forces to dictate their actions. Reactive

orientation is tacitly encouraged within most organizations. When employees do not have methods to meaningfully participate in processes such as planning, decision making, and information exchange it leads to a reactive orientation. Behavioral outcomes of reactive orientation include defensive posturing, blaming others for undesired outcomes, lack of personal initiative, avoidance of responsibilities, and lack of trust. In his book The Trust Factor, John O. Whitney identifies costs of mistrust, "*Doubles direct costs, diverts attention from the customers, stifles innovation, and saps organizational and individual energy.*" There are no categories on the profit and loss statement for these costs, however, the expense of poor human interactions within any human system will be great. Dr. Deming tried to help people to understand the importance of these costs in his words, "*The most important numbers are unknown and unknowable.*" His words also apply to the benefits gained from intangibles. The good that is derived from loyal employees and loyal customers, the positive impact of an environment of trust and lack of fear, and the benefit of employee education, are all unknown numbers. These intangibles cannot be measured and listed on financial statements, yet they are the positive power of enterprises; the power that helps organizations to thrive, not just survive.

Process-Orientation

Effective management of processes requires appreciation for the power of interactions. Any service or product is the result of a flow of actions, a process. These related actions must be managed as interdependent components. Peter Drucker wrote about this concept in his book, Management Tasks, Responsibilities, Practices. *"Each member of the enterprise contributes something different, but all must contribute toward a common goal. Their efforts must all pull in the same direction, and their contributions must fit together to produce a whole - without gaps, without friction, without unnecessary duplication of effort."* Although this book was published in 1973, we continue to see organizations managed as though work efforts are additive. They are not additive, they are interdependent. Managing functional areas and tasks is the antithesis of process management. Adaptive organizations will develop only as people learn to stop managing the "boxes", the functional groups, divisions, and departments. Any organization is a system of multiple processes that require effective interactions. The process flows should be managed systemically.

Reengineering is a newly coined term for a concept that has been around for decades. It is the radical redesign of processes. Unfortunately some organizations have tried to use reengineering as a stand alone method to address the complex challenges that organizations face in a volatile world. The focus remains on finding a "fix" to the problems, rather than transforming our enterprises into adaptive, continually learning, open systems prepared to address new realities.

APPRECIATION FOR LEARNING

What is Learning?

Often people think of a classroom as a common model for learning. But that model represents a hierarchy and formal authority, both in terms of information flow and assessment. As Senge points out, if we are interested in lifelong learning, then self-assessment is more important than external assessment. This model also has a binary effect. There is a right and wrong answer. Since reality is change, Dr. Deming's words demonstrate the impracticability

of binary thinking, *"There is no true value of any characteristic, state, or condition that is defined in terms of measurement or observation."* We must gain appreciation for learning as a continual process for which humans are well suited. The desire to learn is inherent. It is not a factor of intelligence. People's ability to learn and grow is an infinite resource.

Theory of Knowledge

How do humans learn? John Dewey stated that learning is a continuous process of discover, invent, produce, and reflect or observe. Dr. Deming developed the theory of knowledge as a component in his system of profound knowledge. *"There is no knowledge, no theory, without prediction and explanation of past events."* Development of knowledge is the result of the learning process. People seek knowledge to make order from the chaos they perceive in life. Because of ever changing realities, what we know is not as important as what we can learn.

Theory can be thought of as the prediction or conjecture one judges will occur for any given action. Comparing the prediction with the actual outcome, then modifying or replacing the theory if the prediction was not accurate is the process of learning. An erroneous but common belief is that people learn from experience. Observing how something is done can help to develop a skill but is not enough to form knowledge. To develop knowledge we must question 'why'. Why is something done by the method observed? What is the theory, the prediction, behind the actions? If the prediction does not align with the actual outcome, the theory must be modified or abandoned for a new theory. Failure must be accepted as a factor in the learning process. If the organization's culture values looking good and being "right", then the theory of knowledge will not be valued and applied. We must learn to manage failures, using them as a means to a better result.

Barriers to Learning

Humans are examples of marvelous open systems that are capable of continual learning and growth. So why aren't we better at it? There are many personal and societal barriers to learning, much more than I can thoroughly address in this paper. There are some significant barriers that are important to consider.

What creates a person's mental view of the world? Our personal values and principles stem from subliminal theories that we believe are 'truths'. These personal theories about life act as a screen in one's learning process. The illusion of knowledge is the greatest barrier to learning. When we believe we know, we close ourselves to the learning process. In the fifteenth century people knew the world was flat. They did not question this 'knowledge'. This believed truth was a barrier to consideration of a theory that the world was a sphere. We may laugh now at those silly Europeans, but what knowledge is preventing us from advancing?

Individuals strive to have others conform to their mental view of the world. Often in our organizations we try to get others to believe that our thinking is correct, and we purposely avoid people whose thinking is contrary to our own. We want to be comfortable. Just as stretching seldom used muscles is uncomfortable, attempting to stretch our mental horizons is also uncomfortable. Certainly there is variation in people. Some people are more

comfortable with innovation, new ideas, and ambiguity. But continual learning is a challenge to everyone.

There are societal barriers to learning. Our society values conformism. We are tolerant of extreme variation in our processes, but not in people. Our society, and therefore our educational systems, discourages creativity and curiosity, natural strengths that help humans to adapt. Society values order and discourages the chaos that innovation and creativity temporarily create. The introduction of flight as a means of transportation created some chaos in society. The innovative idea that greater gains can be achieved from cooperation rather than from competition is currently creating some chaos. Innovations change established patterns. However, if we observe the larger picture over time the order inherent in chaotic systems would be revealed. Moments of chaos become a part of the order of life.

APPRECIATION FOR VARIATION

Working to Averages Will Increase Loss

We place inordinate importance on averages. We appear to not understand that 50 percent will always be above average, and 50 percent will always be below average. Why do we continue to aggregate and then find the average? It is not possible to move all the data points above the average. When the data changes, so will the average. The average is a value at a specific moment.

Walter Shewhart designed the first control charts in the late 1920's. He demonstrated that we will learn much more about any process if we look at data over time. Almost seventy years later we still rely on averages rather than using run charts and control charts. Hospitals in the U.S. are now finding the average number of days for health care issues such as the number of days patients remain in the hospital after a specific type of surgery. These averages are then used as a guide. Any time a physician releases a patient earlier or keeps the patient in the hospital longer, the physician must write an explanation. As mentioned above, every person is a complex system. The variation in people is great. The theory to work to an average totally disregards the variation in the complex system we call a human. Is the patient a smoker? Obese? Has other health problems? Had prior surgeries leaving scar tissues? All of the above? There are literally thousands of possibilities, yet the dictate ignores the existence of variation. When I learned of this potentially dangerous practice I asked when the clock started ticking, what designated the first post operative day? No matter when the surgery was performed, 7:00 A.M. after the surgery was the first day. Consider the difference in hours for a patient whose surgery ends at 10:00 A.M. and a patient whose surgery ends at 11:00 P.M., or 3:00 A.M. The first post operative day begins at 7:00 A.M. following the surgery. If the average release day is three days after surgery, the physician will have to write an explanation for keeping a patient another day, even though the actual time after surgery is several hours less than three complete days. A fine example of holding a person responsible for variation in a system. Why are the insurance companies demanding the pursuit of averages? Do we have a conflict in aims? The insurance companies pursue an aim of lowering financial costs of health care. But what is the aim of health care? And what are actual sources of costs? Data collection by insurance companies does not include when a patient is released prematurely and returns to the hospital with complications. We need to

look beyond some easy to calculate numbers and the numbers on a quarterly financial statement, no matter what the purpose of the organization.

Theory of Variation

Walter Shewhart provided a new way to think about uniformity and nonuniformity and the economic loss that occurs from human reactions to perceived variations. Without appreciation for variation and the sources of variation we cannot develop organizations that can withstand a rapidly changing world. If we do not understand the theory of variation, we will make mistakes that will increase costs to the system, both tangible and intangible costs. In his paper, "The Germ Theory of Management", Myron Tribus identifies a managerial myth: "*If you try to improve the performance of a system of people, machines and procedures by setting numerical goals for the improvement of individual parts of the system, the system will defeat you and you will pay a price where you least expect to.*"

Any process is either in statistical process control (stable) or it is not. There is always variation in a process, but when the variation is within statistical control limits the process is stable and reliable predictions can be made about outcomes of the process. Dr. Deming called this type of variation "common cause". If data points lie outside the control limits the process is not stable and reliable predictions cannot be made about outcomes of the process. Dr. Deming called this type of variation "special cause". Shewhart identified two mistakes that people make when they are not aware of the stability of the process. The first mistake is to react to an outcome as if it came from a special cause, when it is due to common cause variation in a stable process. This mistake results in tampering with the process. The distribution of variation will widen which causes greater loss and increased costs. When the process is stable decreasing variation can only come from improving the process itself. Variation cannot be completely eliminated from any process. However, decreasing the amount of variation will reduce loss within the process.

The second mistake identified by Shewhart is to react to an outcome as if it is due to common cause variation, when it is due to a special cause of variation. When there is a special cause of variation, the root cause of the incident should be discovered in order to end the occurrence, or in the case of a positive special cause, to learn the root cause in order to replicate it and modify the process. When a process is not stable, reliable predictions cannot be made about the outcomes of the process. Management can establish goals with promised rich rewards or stern punishments, if the process is not capable, achievement of the goal will only occur by distorting the data or the process. Distortion is costly for any system and will not help to please the customers of the enterprise. To develop better organizations, people need to understand variation, process capabilities, and the process of predicting.

Consider the example above. If hospitals created charts that recorded data over time, a pattern would develop identifying the range of time (perhaps hours would be a better measurement than days) that patients require for recovery. A control chart could be created with upper and lower control limits allowing identification of special data points should they occur. Physicians' time would not be spent making the first mistake described above, writing reasons for common causes of variation. The aim of health care to provide quality care to every patient would be better met.

APPRECIATION FOR A FUTURE BEYOND YOUR TIME

For the sake of our children we need to envision the world after our own lives have ended. For the sake of our organizations we need to envision their continuation beyond the time we will contribute. If we only live for immediate concerns and instant gains, attempts to create adaptive organizations will be hampered.

Researchers are beginning to discover the important influence that a positive vision of the future has on humans. When a person has a positive vision of the future there is increased activity of the cerebrum, the part of the brain responsible for cognitive thought. A person is more creative and innovative when s/he holds a positive vision of the future. We need to instill in our youth a positive vision of their future and an appreciation for time beyond their lives. Joel Barker, the man who made paradigms a universal business term, speaks of the need to reach out with our minds to discover the future and new possibilities. Sheila Sheinberg writes about organizations that will perish in a world that requires adaptability, *"Companies whose leadership stays fixed in the present, who are satisfied to fix-it rather than join the revolution and create the future, will be casualties."* One can imagine that organizations managed by people that are locked into the present, their present, will be ill prepared to address the continual changes of life. In his paper "TQM At The Grass Roots", Myron Tribus writes, *"We must not look to those who believe in, and owe their positions to, the old paradigms to lead us into the new."*

I do not mean to suggest that we only live for the future. We miss out on life if we delay living in the present only to pursue a predicted future outcome. Rather, it is beneficial to envision the present and the future as a continuum as opposed to a view that today belongs to us and tomorrow is someone else's problem. In his book A Sense of the Future, the extraordinary scientist Jacob Bronowski wrote, *"We want to cling to the doctrines and prejudices which we imagine, quite wrongly, made the world snug seventy years ago. We do not care about the future; we just want that world to last our time."* When we appreciate that there is a future beyond our own time and that our actions and decisions of today will impact the future, our thinking becomes more futuristic. When we envision the future with optimism our imagination is freed to consider possibilities that we may never experience. In the words of Bronowski, *"What other incentive can satisfy any of us but the sense of the future?"*

Conclusion

The four appreciations expressed in this paper provide a conceptual framework to help those who sincerely want to provide leadership in order that their organizations will thrive, not just survive, in a volatile world. Appreciation for the power of interactions, appreciation for learning, appreciation for variation, and appreciation for a future beyond your time are essential elements for any organization's 'survival kit'. Using this conceptual framework diminishes the fear of addressing continual change. Fear diminishes personal and organizational creativity, an attribute that is required in a volatile world.

"IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE."
Albert Einstein

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QUALITY CAFETERIA STYLE OR ALMOST TOTAL QUALITY

BIOGRAPHICAL SKETCH

Chaplain Gary L. Higgs has been in the ministry for thirty-one years. Following four years of training in the Air Force Reserve Training Corps, and ten years of civilian church staff experience, Chaplain Higgs was commissioned as a Captain in December 1973. He entered active duty in January 1974. He has served at every level of chaplaincy, as a minister, installation chaplain, headquarters staffer, and senior chaplain. He has served in five MAJCOMs, including three overseas assignments. He holds a Bachelor of Business Administration Degree, a Master of Divinity Degree and a Master of Religious Education Degree. He is a 1989 graduate of the Air War College, Associate Studies Program, Air University, Maxwell Air Force Base, Alabama and a 1995 graduate of the Air War College in residence.

ABSTRACT

TITLE: Quality Cafeteria Style or Almost Total Quality

AUTHOR: Gary L. Higgs, Chaplain, Colonel, USAF

Despite considerable initial progress, verbiage and hype the United States Air Force has not embraced total quality. The Air Force will never achieve the total quality culture it seeks until it throws off outdated leadership practices that are as old as the military itself. One such practice is the policy that requires the short assignment tenure of its leadership. This archaic paradigm not only flies in the face of total quality, but actually negates the progress that has been made.

QUALITY CAFETERIA STYLE OR ALMOST TOTAL QUALITY

INTRODUCTION

The world of national defense is a changing and challenging place. Those in the business of national defense find themselves being pulled in all directions at once. The proliferation of weapons, the rise of nationalism and ethnic conflicts all around the world, the decentralized control of nuclear weapons in the former Soviet Union, the rise of terrorism are but a few of the challenges that face military leaders. The task of being prepared to defend the United States and her allies is further complicated by downsizing of personnel and budgets. National defense is requiring more and more versatility from its defense forces. The nation's military is now required to be "all things to all people." Like a good boy scout, the military of today is being asked to be prepared for every eventuality.

To meet the challenges of national defense, the nation's military forces must find new, effective, and more efficient ways of operating. Thus, the tenets and culture of Total Quality Management (TQM) are inviting and alluring. The United States Air Force is in the process of adopting many of the quality principles. Some commands are proceeding faster than others. Those commands that are on the leading edge of TQM have shown amazing flexibility and courage to boldly change many of the antiquated paradigms of military management and leadership. Other skeptical organizations and leaders within the Air Force seem to be in a wait-and-see mode.

Among the converts, advancements in such areas as: commitment to continual improvement, empowerment, metrics and measurement, strategic planning, and customer satisfaction have truly been commendable. Years and layers of status quo leadership have been swept away by the rising tide of TQM. There remains, however, several ancient pillars of military management that have refused to yield to the new wave of TQM. These obstinate die-hards are the personnel evaluation system, the inspection system and the personnel policy of frequently moving military leaders. This cafeteria style of quality, or as I like to think of it, the "Almost Total Quality Management" (ATQM) style, reflects an arrogant spirit. It is a "pick and choose" mentality. ATQM chooses only those tenets of TQM that fit nicely into traditional military paradigms; it ignores those which would require more courage to change. Due to page limitation, this paper will address only the short tenure of Air Force leaders, and the resulting effect on quality performance. This archaic paradigm not only flies in the face of total quality, but actually negates the progress that has been made.

THE SHORT TENURE OF AIR FORCE LEADERS

There is no question but what tremendous progress has been made in creating a quality culture. The Air Force has adopted and adapted the Malcolm Baldrige Award Criteria as the standard for Air Force quality. A quality school house has been established at the Air Force's premiere Air University, located at Maxwell Air Force Base, Montgomery, Alabama. Major air commands are implementing quality principles throughout their commands. Local bases have developed strategic plans and quality councils to guide their units in the quality journey. Quality training is being conducted throughout the Air Force. Wings have submitted nomination packages for the Malcolm Baldrige Award. Words like "empowerment," "customer satisfaction" and "continuous improvement" have worked their way into daily conversations at all levels. The Air Force has come a long way and has gotten close; however, "close," as the saying goes, "only counts in horseshoes and hand grenades." Perhaps the largest impediment to completely implementing a total quality culture is the short assignment tenure of Air Force leaders.

Keep 'em Flying and Keep 'em Moving

A major roadblock in the quality journey is the personnel policy of the United States Air Force. The policy and the practice are to frequently move its military members from job to job, assignment to assignment. Commanders move even more quickly than other personnel. This practice not only blocks quality improvement, but also works against it.

A review of over twenty volumes on quality leadership did not reveal one reference that advocated moving personnel the way we do in the Air Force. On the contrary, most authors called for stability and consistency in leadership. Perhaps the most notable "guru" in the field of quality management is Dr. W. Edwards Deming. Dr. Deming believes that one of the "seven deadly diseases" that afflicts management today is the mobility of leadership. He states, those "Job-hopping managers never understand the companies that they work for and are never there to follow through on long-term changes that are necessary for quality and productivity." [1]

[1]Walton, Mary, The Deming Management Method, New York, New York, Perigee Books, 1986, p. 36.

Mary Walton, in her book entitled, The Deming Management Method, really captures what is going on in the Air Force:

> Business schools are dedicated to the idea that you can train a good manager in universally applicable techniques. But can managers be committed to long-term change when they are constantly building up their resumes? How can managers really know a company when they are there for only two or three years? In Japan, executives move through the ranks in a progression that takes decades to reach the top. Dr. Deming quotes J. Noguchi, managing director of the union of Japanese Scientists and Engineers, as saying, "America cannot make it because of mobility of American management." Says Dr. Deming, "Mobility from one company to another creates prima donnas for quick results. People require time to learn to work together." Mobility of labor in America, he adds, is almost as serious a problem.[2]

The Air Force operates on the premise that once we get every leader trained in quality, then it really does not matter where they serve or for how long. The thought is that we simply will be able to plug-in quality leaders anywhere, anytime. This blind commitment to mobility begs several questions: Can you really be committed to someone else's strategic plan?; Can you be committed to your own strategic plan when you know you are not going to be around to implement it?; Can you develop the necessary relationships for team building when you know and your constituents know that you are just "Christmas help?" How many times have we heard civilian employees comment about their leader, "I was here before she or he came, and I'll be here after she or he leaves."

"Parts Is Parts," Leaders Are People

In addition to overlooking these serious questions, this policy assumes that Air Force leaders are all alike. It assumes that somewhere there exists a giant personnel cookie cutter that makes us all interchangeable. James E. Gardner, in his book Stabilizing the Workforce, points out the fallacy of this fanciful thinking. "The effect of introducing newcomers into an experienced high-producing group can be especially devastating. The group must be reconstituted; replacing an experienced worker in such a unit can disrupt the finely meshed efficiency of the larger operation. To conceive of people in an effective production system as, in effect, interchangeable parts is highly naive."[3] The flaw in this premise is that leaders are people, not interchangeable parts. "Parts is parts;" leaders are people. The assignments in which they are placed are built upon (whether recognized or not by the personnel system) living, dynamic, human relationships.

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[2]Ibid., p. 92.

[3]Gardner, James E., Stabilizing The Workforce, Westport, Connecticut, Quorum Books, 1986, p. 9.

Max De Pree believes that leadership is all about relationships.

> "Effective influencing and understanding spring largely
> from healthy relationships among the members of the group.
> Leaders need to foster environments and work processes
> within which people can develop high-quality relationships
> --relationships with each other, relationships with the group
> with which we work, relationships with our clients and customers."[4]

No Time for Sergeants...or Anybody Else

An old friend of mine once characterized the difference between rural and city dwellers. He said, people in the cities do not know their neighbors and wish that they did. People in the country know all their neighbors and wish that they did not. Effective leaders know their people. Total Quality leadership speaks of new relations between leaders and constituents. Philip B. Crosby, a recognized authority in quality circles, emphasizes the importance of relationships in creating a quality culture. "The ecology of an organization is as delicate and vulnerable as that of a forest. Nothing happens without having an effect on something. The key to all these things within a company, as within a forest is relationships." [5] It is at this delicate point that the Air Force personnel system abruptly enters. It is often said in Air Force circles, "If you are having a problem in a work relationship, do not worry one of you will soon be leaving." This method is how we "solve" many relationship conflicts....move them. Relationship development and team building takes time. Although we do pretty well in the Air Force, in respecting the position of authority and leadership, credibility cannot be taken for granted. It is not a given.

> Credibility, like reputation, is something that is earned over time.
> It does not come automatically with the job or title. It begins
> early in our lives and careers. People tend to assume initially
> that someone who has risen to a certain status in life, acquired
> degrees, or achieved significant goals is deserving of their confidence.
> But complete trust is granted (or not) only after people have had
> the chance to get to know more about the person. [6]

Phil Quigley of Pacific Bell is quoted by James M. Kouzes and Barry Z. Posner as saying, "I don't think of leadership as a position. I don't think of leadership as a skill. I think of leadership as a relationship." [7] The Air Force can teach its leaders quality techniques and supply them with quality tool boxes, but until leaders are left in place

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[4]De Pree, Max, Leadership Is an Art, New York, New York, Dell Publishing, 1989, p.25.
[5]Bowles, Jerry, and Hammond, Joshua, Beyond Quality, New York, New York, G.P. Putnam's Sons, 1991, p. 202.
[6]Kouzes, James M., and Posner, Barry Z., Credibility, San Francisco, California, Jossey-Bass Publishers, 1993, p. 25.
[7]Ibid., p. 1.

long enough to establish effective relationships, continuous long-term improvement will not occur. Kouzes and Posner state it even more candidly:

> Leadership is a reciprocal relationship between those who choose to lead and those who decide to follow. Any discussion of leadership must attend to the dynamics of this relationship. Strategies, tactics, skills, and practices are empty unless we understand the fundamental human aspirations that connect leaders and their constituents. **If there is no underlying need for the relationship, then there is no need for leaders.** [8] (Emphasis added)

It follows then that if we do not have time for relationships, then we do not have time for leadership. If we do not have time for leadership, then why do we need leaders?

The military tries to compensate with esprit de corps, commitment to a cause, core values, unit identity, Air Force Specialty Code (AFSC) affiliation, i.e., fighter pilot, security police, special forces, etc.; however, there is no substitution for relationship.

My Strategic Plan? I Thought It Was Yours!

In the fast lane of below-the-zone promotions, where only below-the-zoners are given command billets, personal strategic planning often gets in the way of unit strategic planning. "People who need to look effective in the short term seldom develop the mentality of the apparatus for strategic planning." [9] Personnel assignments are not made on the basis of the strategic plan of the local base. Assignments are made in support of the personnel system rather than in support of the needs of the local mission. Dr. Deming, in his system of "profound knowledge", refers to making changes without a knowledge of special and common causes of variation, as losses due to tampering. [10] Losses due to personnel tampering are standard operating procedure in the United States Air Force. One of the first questions asked when an assignment is being considered is --"how long has he or she been there?" Tour length often appears to be the tail that wags the dog.

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[8]Ibid., p. 1.

[9]Smith, Perry M., "Creating a Strategic Vision", Air War College, Department of National Security Studies, Resident Study Readings: NS 621, AY 94-95, p. 68.

[10]Cocheu, Ted, Making Quality Happen, San Francisco, California, Josset-Bass Publishers, 1993, p. 176.

Obviously, the case is overstated, but if not blind tampering, the way the Air Force moves its leaders, certainly meets the definition of a sacred cow as described by Robert J. Kriegel and Louis Patler in their book entitled, If It Ain't Broke...Break It! :

> Sacred cows are those systems, strategies, policies, procedures, and routines that have become 'standard operating procedure' in many areas of business. They are sacred because we take it for granted that "that's the way it's always been done." The result is that we spend a great deal of time, energy, and money feeding our sacred cows, supporting the system rather than having the system support us.[11]

How much time, energy and money are fed to the sacred cow of personnel mobility? In a time of dwindling budgets, could these resources be better spent?

Commitment, Consistency and Persistence

If we are going to have quality, we must get a handle on personnel assignments. "The trend towards total, company-wide quality control has to include sound management of a company's greatest and most expensive resource, its people." [12] Sound management means that we must have consistency of purpose. "A company that is without constancy of purpose has no long range-plans for staying in business. Management is insecure, and so are employees." [13] When asked, "How long are you in for?", World War II military members would reply, "For the duration!". When you ask a military leader today about the length of his or her present assignment, he or she will paint a different picture. My experience is eleven assignments in twenty years; my case is by no means a record, but is rather typical. Warren Bennis and Burt Nanus asked corporate leaders about what it takes to run an organization. Their response is germane:

> When we asked our ninety leaders about the personal qualities they needed to run their organizations, they never mentioned charisma, or dressing for success, or time management, or any other glib formulas that pass for wisdom in the popular press. Instead, they talked about **persistence** and self-knowledge; about willingness to take risk and accept losses; about **commitment, consistency, and challenge.**[14] (Emphasis added)

How long does it take to step up to the task? The easy answer is, "Long enough to get the job done," but how long is enough? "Leaders of change...cannot get locked into arbitrary timetables. Time needs to be used to advantage during change.

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[11]Kriegel, Robert J., and Patler, Louis, If It Ain't Broke...Break It!, New York, New York, Warner Press, p. 9.

[12]Joiner, Charles W. Jr., Leadership for Change, Cambridge, Massachusetts, Ballinger Publishing Co., 1987, p. 173.

[13]Walton, p. 36.

[14]Bennis, Warren, and Nanus, Burt, Leaders, New York, New York, Harper and Row, 1985, p. 187.

The element of time has the greatest flexibility for working through anticipated problems or seizing unforeseen opportunities." [15] Calvin Coolidge would agree that it must be something more than eighteen months.

> Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with great talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence, determination alone are omnipotent. [16]

"The first step in achieving excellence in human resource management is to hire the right person for the right job, that is, matching the person's abilities, motivations, interest, and skills with the demands of the job and the 'personality' or climate of the work group and company." [17] This process is not easy; therefore, once we get it right, why are we determined to wreck it every eighteen months?

As stated earlier time requirements must be flexible. Hard and fast, arbitrary rules stifle quality improvement. Charles W. Joiner Jr. has pointed out that quality improvement takes much longer than the average length of an Air Force assignment.

> ...leaders can develop a complete plan for strategic organizational change. This plan must extend over at least five years. Changing the course of history for an organization cannot be done quickly. ...Real change comes from continuous effort applied over an extended period of time. The development of a competitive strategy will take about six months, and the communication of it will be an ongoing task for the organization's leaders. It will be at least a year before there is widespread understanding and two years before it is sufficient. The full development of the organization's strategic vision will take three to five years. [18]

Look Out! Here Comes the Bucket Committee

Every idea that runs counter to the paradigm has its own special bucket committee. Bucket committees are never very far away. They are always standing ready to throw cold water on new ideas. In his book, Discovering the Future: The Business of Paradigms, Joel Barker lists the worn-out mottoes of the bucket brigade:

> Why that's impossible! We don't do things that way! It's too radical a change. We tried something like that before, and it didn't work. We would be the laughing stock! I wish it were that easy. It's against accepted policy. I always thought you were a little weird. Who told you could change the rules? Let's get back to reality.

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[15]Joiner, p. 168.
[16]Bennis and Nanus, p. 45.
[17]Kern, Jill and Rilley, John J., and Jones, Louis N., Human Resource Management, New York, New York, ASQC Quality Press, 1987, p. 175.
[18]Joiner, pp. 173-175.

How dare you suggest that what we're doing is wrong. [19]

Then Barker adds "...the archetypical response: If you had been in the field as long as I have, you would know that what you are suggesting is absolutely absurd!" [20]

The logic behind our system is predicated upon the idea that we need new ideas. People become stagnated if you leave them in place too long. Who would argue against that logic? The Air Force does need new ideas, and people can get in a rut. However, just because you move someone does not mean they bring new ideas with them. Sometimes leaders, who have not had a new idea in twenty years just continue to use the same old ideas in twenty different locations. In the age of instant information dissemination, could there be a smarter way to share new ideas? The answer to stagnation is visionary leadership. The Air Force needs leaders who inspire people to get up out of ruts. The key is leaders who empower and challenge their followers to continuous improvement.

Another cold and wet argument says, "You must keep people moving because how else are you going to fill the hard to fill locations?" Excuse me? They are called "orders," are they not? In addition, what seems to be a bad location for some is an ideal location for others. What about overseas? The bucket committee steps forward and proclaims emphatically, "You could not keep people there for longer assignments." First of all, overseas assignments are growing fewer in number. Secondly, many military members seek to extend while serving overseas. Additionally, the Air Force has in times past involuntarily extended military members overseas. It is time to bury the all volunteer assignment system.

If the Air Force really believes that you must move people to keep them from getting into ruts, why then doesn't it move its civilian work force? If the Air Force really believes that you cannot get people to stay longer in "undesirable locations" how is it that Air Force civilian employees remain for years in places like Johnston Island or Minot, North Dakota?

Quality improvement does not happen quickly. The whole premise of quality is built upon teamwork, trust and people-to-people relationships. Leaders are people and those they seek to lead are people. An effective leader really takes the necessary time to know and care for people. Task oriented leaders are often effective in the short term. Maybe that is why we move our leaders so often? The leader who is in the race for the duration must be both people and task oriented. The wise leader seeks to meet the needs of his or her followers while at the same time leading them to accomplish the mission. Balance is not always easy; but the old adage is true, "Take care of the troops and they will take care of the mission."

Strategic planning takes time. The real proof of planning is execution. Strategic planning and execution cannot happen in the fast track of careerism. Commitment, consistency and persistence are what it takes to bring quality improvement to an organization.

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[19]Barker, Joel Arther, Discovering The Future: The Business of Paradigms, Lake Elmo, Minnesota, ILI Press, 1989, pp. 30-31.

[20]Ibid., p. 31.

CONCLUSION

Someone has wisely said that you can tell that you are getting older when you recognize your mistakes the second time around. The tragic Blackhawk shootdown and the crash of a B-52 at Fairchild have brought subjects like *command responsibility, accountability* and *discipline* to the forefront in the United States Air Force. Questions about a breakdown in leadership are being asked. One has to wonder if there isn't something else at play. Is it a breakdown in leadership or is leadership so transitory that it does not have time to know the situation and the people? Wasn't that a lesson we learned in Vietnam?

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COURSE IN METRICS - THE CHALLENGE & THE HEADACHES

Bio of Presenter

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COURSE IN METRICS - THE CHALLENGE & THE HEADACHES

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ABSTRACT

The Assessment Branch of the USAF Academy's Office of Quality and Assessment has been teaching a two-morning, eight-hour course on Metrics for seven months. More than 175 people have attended the course and both classroom interactions and end-of-course critiques have provided a wealth of information regarding the challenges and headaches many face in their quests to incorporate metrics. This paper summarizes some of the statements course attendees have made concerning their experiences in selecting metrics, barriers to incorporation of valuable assessment instruments, and common frustrations in trying to communicate critical, pertinent, information to decision makers.

THE METRICS COURSE

In November 1994, the USAF Academy's Office of Quality and Assessment began teaching a two-morning, eight-hour, course on Metrics. Since then, over the following four months, the course has been taught nine times to more than 175 people from dozens of different Academy organizations. The aims of the interactive training are to: Help Academy personnel develop meaningful organizational metrics; Facilitate the review of existing metrics and assessment efforts, and; Encourage the incorporation of metrics into improvement efforts. Some Metrics Handbooks, Supplements to those Handbooks, and Workshop Materials available through AFQI, AFDTC, and AFMC served as invaluable resources for course development. The value of metrics and assessment are communicated through both instruction by QI personnel as well as discussion among attendees regarding how metrics relate to their personal units. Many of the attendees impart their efforts to try to measure what is important, track trends over time, and empower their people to make fact-based, goal directed, improvements. Some of their experiences reveal consistent barriers to incorporation of metrics and statements attendees make during the class reinforce the role that leadership plays in the cultural change of metrics incorporation.

EXPECTATIONS OF COURSE ATTENDEES

The most common questions among course attendees are; "When should we use metrics? What should we be measuring? How should we be measuring it?" The best answer to these questions is imparted through Lewis Carrol's famous interaction between a cat and Alice:

Alice: Which way should I go?
Cat: That depends on where you are going.
Alice: I don't know where I'm going!
Cat: Then it doesn't matter which way you go!

That tale is translated into metrics terms accordingly:

Student: What should I be measuring?
Instructor: What is it that's important?
Student: I'm not sure what's important!
Instructor: Then it doesn't matter whether you use metrics or not, what you choose to measure, or how you elect to measure it.

These two interactions have knocked a few attendees back in their chairs as they didn't expect to have to answer questions or do a lot of thinking. They had hoped someone would end their search for what to measure and how to measure it. Unfortunately, some of these people and attending the course and asking for help regarding metrics selection and measurement methodologies when, in fact, their questions and attendance are aimed at satisfying a requirement to simply have a metric (preferably one that's easy to measure), not necessarily a metric of worth that might afford them assessment of an important process.

MEETING THE REQUIREMENT TO HAVE A METRIC

During one portion of the training, we discuss past measurement paradigms. Historically outsiders did assessments in our organizations, over our shoulders through threatening and stressful interactions with emphasis on productivity and compliance based performance. After a few minutes of such discussion, one attendee commented, "The things you call 'old paradigms' aren't old, they're currently in use." His organization had been tasked to establish metrics to meet the wing commander's directive but he interpreted the tasking as direction to establish an assessment instrument within the parameters of the old paradigm. Hopefully, most units aren't developing metrics that merely assure compliance and "business as usual."

The struggles of one organization were eloquently presented by an attendee. He and his coworkers had made an effort to measure what was important and communicate recommended improvements to their boss. They had metrics to support their position and a plan of action to make things better. Their thoughts and fact-based recommendations were relayed up the chain-of-command and the word relayed back to them was, "Just keep doing what you've always done." Neither the mission nor goals were clarified, nor were the metrics or recommendations refuted or to their knowledge even entertained. They were left with the feeling that they made a "mistake" and wasted time trying to make things better. A similar fear of disappointment was expressed by another attendee on the end-of-course critique, "The bosses (O-6's and above) should take this course first. Otherwise, we will not be given/have the time to develop meaningful metrics and this will become more a burden than a help, and a source of frustration."

It has been disappointing that some people are attending the metrics course only because they can't avoid metrics any longer. One even said, "I know this will eventually evolve into measuring everything." He went on to explain how we would all, eventually, have no time to do our jobs - only time enough to research, organize, and report metrics. This is, in fact, what will happen if we come to rely on activity measurements as a source of true effectiveness. There most likely isn't ONE metric waiting to be discovered that will communicate everything about our

organizations. We will need multiple measures to assess our key processes, customer satisfaction, and opportunities for improvement. But to fear that we'll never be able to do anything except measure is to expect the worst - the worst being a bunch of activity measures that suboptimize performance or encourage "game playing" to beef-up the numbers. For example, if you want a lot of customers, just do half of what's required for each one and they'll all have to be helped again later - double the customers, goal met!

SURVEYS - USEFUL BUT NOT A PANACEA

With the emphasis on customer satisfaction and the importance of communication with the customer, many of the course attendees have requested more guidance on how to write surveys to address both of these areas. We are organizing a course on survey development, administration, and interpretation to begin within the next few months at the Academy. Most people who attend the course will likely be surprised that immediately following some introductory remarks and a brief course overview, the first instructional block will address why they should NOT survey. In many instances, we're overlooking the value of watching interactions, convening focus groups, and gathering information through telephone follow-up. The survey course will address the strengths and weaknesses of surveys and more importantly emphasize the value of customer feedback gather through a means other than counting blackened ovals or X'ed spaces on survey pages.

CRITIQUE OF UNIT SPECIFIC METRICS

The second day of the metrics course requires attendees to present a metric they presently use in their organization or one in development. For 10-15 minutes, each individual explains to fellow attendees how the metric is or will be applied and how it addresses the unit mission. Other class members evaluate the metric based on the previous morning's teachings and discussions. The majority of course attendees find this second day exercise to be the most rewarding part of the eight-hour class. Many of the metrics have some shortcomings or could be improved. It is most gratifying to the QI instructors to hear the class members very thoughtfully evaluate their own and fellow classmate's metrics, suggesting sound modifications aimed at improving the worth of the assessments and focusing on improvement. Many important lessons are reinforced during this interactive metric evaluation and a typical course critique statement is, "Getting participants involved with their own metrics is particularly useful."

More than one course attendee has communicated their metric with the support of pretty, colorful charts that meet the unit display standards but, unfortunately, communicate nothing of importance. The degree of worth of the metrics is evaluated based on the mission, on unit goals, on trends, and how the assessment would let a process owner know that they're doing the best they could. Some of the eye-catching, "square filler" activity measures are fine data points but reveal little more than a "count" of actions. Some of our attendees are left scratching their heads after the course trying to justify that the metric they presented does support the mission - sometimes a mission that isn't in writing or easy for them to verbally communicate to the group. Attendees occasionally note that some of the measurements they thought were metrics completely miss the mark; they address an activity but not the mission. These types of interactions reinforce

the fact that they need to start with a clear mission, goal, or objective and then develop useful metrics.

FRUSTRATIONS FROM ABOVE

Routinely, someone asks, "What should I do when my boss demands a regular report of something the higher-ups consider to be a metric but obviously falls short of such an improvement instrument." My recommendation to them is to start by giving the boss what's requested but to include an additional metric or two that truly communicates information of importance. After they've done that a few times, I further advise them to start putting their metrics on the top of the report pile. Hopefully, the boss will grow more dependent on the valuable tools and eventually drop the requirement for the inferior measurements. The most frustrating statement delivered more than once in the class is when someone follows that recommendation with the statement, "I tried that and it didn't work." Statements on the end-of-course critique routinely reinforce the importance of both command support and courage in metrics development and use, "How do you unstick your supervisors," and "Excellent suggestions on how to improve our metrics but, more to the point, do I have the courage to use what I have learned?"

CONCLUSIONS

Our Academy Superintendent, Lt Gen Paul Stein, has said, "A lot of work is needed in metrics. We need to assure we're measuring what makes sense, what's important, things that display trends over time, things that tell us what needs to be done and done better." Each of our Academy organizations needs the information provided by metrics to make critical decisions regarding processes, activities, and resource allocations. What you choose to assess is critical and will provide a focus for actions. The "old" paradigms, lack of mission clarification, measuring only activity, and the fear of having to do too much will result in too many people, "Doing what they've always been doing." This level of "comfort" isn't what we need. The challenge of metrics and Quality is to communicate critical, pertinent, information to decision makers to allow them to know the status of processes and improvement efforts. It's not an easy transition and the interactions in our metrics course reveal some common questions and areas needing senior leadership reinforcement and support. The enthusiasm of the overwhelming majority of our metrics class attendees reinforces the dedication of our troops to devote the time and effort necessary to do important things even better.

TOTAL QUALITY MANAGEMENT--THE LEADERSHIP CRUTCH

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TOTAL QUALITY MANAGEMENT--THE LEADERSHIP CRUTCH

Total Quality Management (TQM) is an excellent tool for Air Force personnel to use to assist those who are not yet effective leaders. Many writings on the subject of *quality* right now state that *quality* is the 'first of its kind' and focus on it being the panacea for all that is wrong in the military. Oh, contraire! The leadership tenants of TQM were not developed in the 1980s as its proponents would like you to believe; rather, some of these tenants have been around since the 6th century. A premise both TQM and the author agree on is that many of the so-called problems facing the military today seem to stem from a lack of good leadership. TQM; however, should not be presented as the panacea to solve these problems, but a good start--a checklist of sorts for the novice leader to follow. TQM presented properly and used correctly can in fact be a crutch for the mediocre leader, making that person very effective.

TOTAL QUALITY MANAGEMENT--THE LEADERSHIP CRUTCH

Lt Colonel Sandra L.B. Frederick

Air War College Class of 1995

TOTAL QUALITY MANAGEMENT (TQM) DISCLAIMER

Before I begin on this research paper "quality journey," I want to make it clear up front that I don't disagree in principle with TQM and that I am actually a proponent, but in a different light than how most folks view it. TQM has been very successful in many corporations over the past several years from the Japanese firms who benefitted first from Dr Deming's teachings to Federal Express, Cadillac, Westinghouse, Xerox and Florida Power and Light to name a few (1).

The TQM advertisement [antagonisms] is where I disagree. When you hear people speak of TQM as the panacea to correct all that is wrong, I am brought to the point of considering throwing the whole concept of *quality* out the proverbial window. Some of the other antagonisms heard, professing TQM as gospel, follow: "This is the first of its kind, this quality thing", "Generals before weren't really good leaders because they didn't know about quality", "Before TQM, no one looked at the processes", and "Before TQM, no one ever listened to Airman Snuffy Smith working swings on the flightline" (2). To all that I say, let me try to show you differently.

INTRODUCTION
(Or, where is this paper really headed?)

One thesis of my paper (which will focus on the military and TQM) is to show that the basics of TQM have been around for many years--perhaps thousands if one wants to dig that far back. It's a remarkable, old-trait called *leadership.* Simple enough to identify when you see it; difficult to define. If someone is lucky enough to be a born leader, most problems are solved with ease. Others who are not born with that characteristic develop leadership through their life experiences and, fortunately, when they come into a position of command, can perform again with ease. It's those people who were neither born with nor cannot develop leadership that I believe TQM is the perfect companion; the second thesis of my paper. TQM is for the individual who finds him or herself now in a position of command and who doesn't have a clue as to how to run that living and dynamic organization. TQM voila, **can** be the crutch for the mediocre leader, making that person very effective.

"QUALITY, THE FIRST OF ITS KIND"
(I don't think so)

I began this part of my <u>research</u> by looking through leadership, management and biographical books that were <u>pre-Air Force TQM</u> discovery/implementation (calendar year

1990) for principles, rules, parts, tenants and/or phrases that are the same as touted by the TQM gurus. I wasn't surprised by the fact that just about all the information contained in the Air Force's TQM criteria has been published before, in one manner or the other, and even some references with almost all the criteria combined. Without attaching those sloganistic phrases to a body of principles that include 'quality-typical criteria', such as: Management by Objectives (MBO), situational leadership guides, hierarchy of needs or industrial psychology base improvements found in the 1920s Hawthorne studies, the major tenants of leadership that I found follow. I might add that all of the above leader/manager tools were very successful in their day and the "proven solution to the problem at hand." (3) Sound familiar? That's what we keep preaching about TQM.

TOTAL QUALITY MANAGEMENT - OR - MAJOR LEADERSHIP TENANTS? (Or, is it just Memorex?)

Rather than keeping the reader guessing which *tool* I'm referring to, I'll make it easy by labeling both sections as I go through TQM and the leadership tenants. I'll list the Quality Air Force (QAF) Criteria by its seven categories, give a short, paraphrased-definition of each (4), and then offset each category with an almost mirror-image definition, found in earlier references under guides for good leadership.

1.0 LEADERSHIP

TQM: The focus here is on personal leadership and involvement of the organization's senior leaders. Emphasis is on senior executive leadership participation, the leader must promote values and focus the organization on satisfying its customers, and the leader must recognize the organization's public responsibility of dealing with issues such as environmental protection, health, safety and ethical conduct.

Leadership: The excellent companies seemed to have developed cultures that have incorporated the values and practices of the great leaders and thus those shared values can be seen to survive for decades after the passing of the original guru. (5) A 1957 definition of the leader's involvement follows: "The institutional leader, then, is primarily an expert in the promotion and protection of values. To institutionalize is to infuse with value beyond the technical requirements of the task at hand. Whenever individuals become attached to an organization or a way of doing things as persons rather than as technicians, the result is a prizing of the device for its own sake. From the standpoint of the committed person, the organization is changed from an expendable tool into a valued source of personal satisfaction". (6) The military as a whole has been in the forefront of insuring it meets its public responsibilities. Two examples would be the committees of neighboring downtown folks and the commanders, some which have been around since the bases were first built, and a second example would be the constant vigil for the environmental cleanup at each base. Two other quotes on leadership and leaders:

> "A business short on capital can borrow money, but a business short on leadership has little chance of survival." (7)

" There is small risk a leader will be regarded with contempt by those he leads if, whatever he may have to preach, he shows himself best able to perform."

Xenophon (8)

2.0 INFORMATION AND ANALYSIS

TQM: The focus is on the effective management and use of data and information to drive quality excellence in organizations. This category is the "brain center" for the alignment and integration of a quality system. It looks at scope, validity and analysis of data used to improve operational performance. Uses the competitive comparisons and benchmarking to measure its process and performance levels relative to "best in class" organizations with others similar to it.

Leadership: All the components of this section were first developed and used extensively by Secretary of Defense (SECDEF) McNamara in the 1960s with his 'whiz kids' and their systems analysis of: inputs = suppliers and outputs = customers. (9)

3.0 STRATEGIC PLANNING

TQM: This category includes both the planning process and the long-term and short-term plans it produces. Mission performance and resource allocation requirements and quality improvement goals are all integrated into this organization's plan, i.e., the goals and plans should focus on enhancing the organization's performance in all key areas for short and long term.

Leadership: It was said that "those who implement the plan should make the plan." (10) Which is very relevant considering the example of planning I chose, and apropos for the second trimester of Air War College study--the 1960s introduction of Planning, Programming and Budgeting System (PPBS) under SECDEF McNamara. PPBS assisted in tying short-term National Security Strategy of the President, through the actual programming to meet the National Military Strategy to the pricing of these for between five and twenty years at a time. The information in the overall process can range from travel dollars in the next year budget for a specific weapons systems to the research and development of space systems in the outyears. An excellent example of previous essentiality of planning. (11)

4.0 HUMAN RESOURCE DEVELOPMENT AND MANAGEMENT

TQM: Focus is on the effective management and development of people. It is designed so that people plans are integrated into the organization's business plans. Focus is also on people empowerment, team problem-solving, education and training of personnel on the job, and member performance and recognition all designed at the member's well-being and satisfaction.

Leadership: Quoting a 6th Century poet Loa-tzu, sums up well the necessary direction and manner of leadership for today:

"A leader is best when people barely know that he exists, not so good when people obey and acclaim him, worst when they despise him. Fail to honour people, they fail to honour you; but of a good leader, who talks little, when his work is done, his aim fulfilled, they will all say, 'We did this ourselves'." (12)

Admiral Mountbatten in 1942 while serving in the South East Asian Command is quoted on his views of how the troops perceive leaders when he said,

> " If men realize that everyone above them and behind them is flat out to get the things required for them, they will do wonders, as my men did, with the meager resources they have instead of sitting down moaning for better." (13)

Gino Watkins in the 1930's was hailed as being successful because he could sum up positions quickly and act without hesitation, and he was a tactful and popular leader because he asked the opinions of the members of the party, who had each some special knowledge to impart. Everyone he came in contact with was gratified by his respectful interest in all they said and without realizing it, they did what he wanted them to do. (14). Lord Montgomery was another great leader in that he was always trying to teach his troops. In an account from Lt Gen Sir Brian Harrocks he speaks of a letter he received from Lord Montgomery, just after Lord Montgomery defeated the Desert Fox, telling him he should remember to act as a corps commander and not a divisional commander along with a few other observations to correct himself in future battles. General Harrocks says of Lord Montgomery:

> "Who else, on the day after his first major victory, which had altered the whole complexion of the war in the Middle East, would have taken the trouble to write a letter [like this] in his own hand to one of his subordinate commanders"? (15)

The importance of putting people first comes from the introductory page of each of the "One Minute Manager" series of books with the following digital clock readout: :01 . The symbol is to remind each of us to take a minute out of our day to look into the faces of the people we manage, and to realize that they are our most important resources. (16) As a final example for this category is the cover page for the same book, where it states, "Help people reach their full potential, catch them doing something right." Recognition goes a long way. A proponent in this series was General David C. Jones, then Chairman of the Joint Chiefs of Staff, who said the book "Is a better way to get quality results from people. I would like to see this method used throughout the armed forces-soon!" (17)

5.0 MANAGEMENT OF PROCESS QUALITY

TQM: Looks at how an organization designs and deploys new products and services to meet changes in its mission (operationally-driven) or business environment (budget-driven) to better satisfy the customer. Followed up by an assessment with how each organization is operating its processes.

Leadership: The following passage gives insight into this important criteria. "There is an underlying principle here, an important trait of the action orientation that we call chunking. That simply means breaking things up to facilitate organizational fluidity and to encourage action. The action-oriented bits and pieces come under many labels-champions, teams, task forces,

czars, project centers, skunk works, and quality circles-but they have one thing in common. They never show up on the formal organization chart and seldom in the corporate phone directory. They are nevertheless the most visible part of the adhocracy that keeps the company fluid. The essential building block of the organization is the section...The lowly section, within its sphere, does not await executive orders but, takes the initiatives..." (18) Another example for this criteria is the day-to-day workings of a contracting office. That office is designed primarily around the basics of the process management and has been in being for thirty some odd years. Purchase of the latest, state-of-the-art equipment, from the best competitive source, check it throughout the delivery phase and quality check the product upon receipt, keep or send back to begin the process over if necessary. (19)

6.0 QUALITY AND OPERATIONAL RESULTS

TQM: This category calls for reporting quality levels and improvements for key products and services--things that truly matter to the customer and the organization. Can it be measured and if so, how are you doing?

Leadership: Possibly the easiest for the military to deal with is in the area of operational results. If one likens it to bomb scores, it is much easier to see. If a bomb score isn't in the range where it ought to be, upon return to base, there are many avenues to check (within the process) to see what went askew--was it the aircraft itself with a need to call in maintenance, was it the pilot therefore a need for additional planning/training, did the bomb actually go off as intended or was it a dud, and so on. We [the Air Force] as well as the other services have been using this criteria for years, too. Equated simply to Dr Deming's PDCA initials for Plan-Do-Check-Act. (20)

7.0 CUSTOMER FOCUS AND SATISFACTION

TQM: This category covers the interface between the organization and those outside organizations or individuals it supports. Customers might be units or commanders the organization supports. Are the customers satisfied? Do we show a commitment to the customer? Do we look at the current and future for customer satisfaction?

Leadership: "The customer comes first, second and third. Doesn't everyone know that?" (21) "Probably the most important management fundamental that is being ignored today is staying close to the customer to satisfy his needs and anticipate his wants. In too many companies, the customer has become a bloody nuisance whose unpredictable behavior damages carefully made strategic plans, whose activities mess up computer operations, and who stubbornly insists that purchased products should work. .. All business success rests on something labeled a sale, which at least momentarily weds company and customer. A simple summary of what research uncovered on the customer attribute is this: the excellent companies really are close to their customers. That's it. Other companies talk about it; the excellent companies do it." (22)

OK, THE "SO WHAT" HAS TO COME INTO PLAY HERE

Basically, all the above topic section showed was that what we are learning in TQM is nothing new to leadership. But, what TQM has done for us is that it formally puts in one, succinct-booklet, all the tenants of good leadership. We have a quick reference guide to turn to;

a checklist of sorts. The gurus of TQM obviously did research of their own going back many years, and picked out the most important characteristics [those that worked], and formulated a recipe to follow to make a good quality organization.

WERE THERE ANY GOOD LEADERS PRIOR TO TQM? (YGTBSM!)

I cannot believe that there really are people around who fully accept this. Either these people have had the TQM brainwashing, or my judgement of great leaders is way off base (which I doubt).

Prior to TQM, some of the following individuals were great United States leaders: General Washington, General Grant, Colonel Teddy Roosevelt, General Pershing, General Eisenhower, General Bradley, General Ridegeway, General O'Malley, General Schwarzkopf and General Powell. The only leader that I am aware of who had his tenure during TQM was General McPeak. And, the court is still out on his effectiveness as a leader! From the names above the reader can readily see that this list is not an extensive one. The reason being that for every great leader, there are probably a hundred who are mediocre, or for that matter, poor leaders. Both the *quality and leadership* approach to this problem would be to educate and train those individuals (QAF Criteria number 4.3) to make them more effective leaders.

Therefore, my second thesis again is--can TQM be a crutch to bring the mediocre leader up to the level of effective, or better yet, great leader? I believe that to be the case. And, if one is a proponent of an organization (at any level) being a reflection of its leader (reference criteria section 1.0 above) then many such organizations have come from low, poor-performers to very effective, outstanding-performers from the outset of TQM to the present day (about two years worth of QAF implementation). (23)

Just for amusement sake, here's a listing of some mediocre "quality-wise" that is, leaders so I can attempt to illustrate how they would have done better under TQM and thus gaining the reputation as great leaders. I'm glad I'm not the quality instructor who would try to explain treating your people better and putting them first to Attila the Hun, Hitler or General Patton. Or, can you imagine telling Napoleon to review his encirclement process as his operations results are suspect and waning? Better yet, to tell Ho Chi Minh he needed to treat the South Vietnamese as customers and to fully satisfy them if he wanted a quick victory. And, then there's General Lee who needed better information analysis so he wouldn't have his soldiers charge unnecessarily up that 'bad news hill' at Gettysburg. The opportunities are there with current day, mediocre leaders. We all know plenty of them. I think it's just a matter of acquainting those folks with TQM.

TQM/QAF is working, but why? I think it's the approach the Air Force took with quality. The entire service adopted quality (some people at gun-point at the outset, but nevertheless convinced to try TQM), teaching people at all echelons what *quality* was all about, how quality can work, and how it should be used and how it could be attained. Organized classes, published literature, films, Commanders and Chiefs advocating quality, etc., brought QAF to everyone. And, instead of making quality a fad of the 90's, the Air Force is embracing it into our culture, making it a "way-of-life".

CONCLUSION--THE FINAL THESIS

The summary points of this paper follow: 1) It's true, not everyone can be born a great leader, nor can everyone learn on their own how to be a great leader. That doesn't mean we should give up on those who don't fit into these two categories. There is the possibility that people can develop into very effective leaders with some kind of assistance, a.k.a. *quality*. 2) Several excellent, leader/manager tools have been available over the years such as: management by objectives (MBO), situational leadership practices, attention to hierarchy of needs, and so forth. Their demise may have been in not being presented in an easily applied format for "the man on the street" to use. 3) Total Quality Management tenants were presented using the Quality Air Force Criteria with their mirror-image leadership examples found in earlier references, dating from the 6th century, again in 1957, 1982, etc.. 4) The characteristics of Total Quality Management is nothing new--many notable leaders were listed who were "making their mark" prior to TQM. 5) What TQM does do is present the tenants of good leadership in one, succinct-booklet as a an easy-to-follow checklist.

The last thesis: will TQM, as a leadership crutch, be the panacea for the mediocre leader? No. The reason being that there are some folks destined to always be quiet, unquestioning, almost robotic-followers and they thoroughly enjoy that position, and don't wish to, nor will they or anyone else, change them. Also, as can be attested to by the Air War College faculty, some folks just can't be taught anything!

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Operational Risk Management

Safety Vision for the Future

Biography

Mr. Jim Quick

Mr. Jim Quick retired from the Air Force in 1992, having completed a 26 year flying career in fighters. He flew with the Air Force, Air National Guard and Air Force Reserve, having served as the AFRES Director of Safety in his last active duty assignment. After retirement he went to work designing human factors risk management programs that span the three safety disciplines of flight, ground and explosives. He is presently working at the Air Force Safety Agency, Kirtland AFB, as the director of quality and risk management. He conducts workshops and seminars in risk management, and has written numerous articles and texts on military risk management. He holds an MA in Human Factors.

ABSTRACT

The Air Force Safety program and rates have achieved stability, which represents a lot of hard work and dedication by many people in all mission areas. There were 6000 injuries, 140 fatalities and 36 aircraft lost in FY 94 which conservatively represents a one-billion dollar loss in doing business and a significant degradation in combat capability.

The Air Force will continue to experience similar losses unless the management process changes. The only other option would be to continue doing the same safety things harder, which would only make small differences in the various rates that serve as indicators of safety status. AFSA is certain that a new approach is needed that would not be a safety program, but rather a mission enhancing management process that is effective at all levels of management, from bottom to top, that capitalizes on quality initiatives throughout the Air Force. Such a process would be non-reactive to mishaps, but rather, would be involved in mission execution without undue risk. It would eliminate the costly and elaborate practice of inspection and control presently in use.

Operational Risk Management (ORM) is a six step approach to successful mission accomplishment which is nearly identical to the QAF quality improvement cycle. It enables commanders and supervisors to make risk decisions so that opportunities can be maximized to remain fully mission capable while preserving assets and safeguarding lives.

Risk Management is typically a six step process that is ongoing throughout the lifecycle of the mission. Those steps are: (1) identify the hazard, (2) assess the risk, (3) analyze control options, (4) select controls, (5) implement controls and, (6) supervise.
The process allows managers and supervisors to empower their people to exercise a process in which they are able to work the first three steps, in concert with the safety staff, and present a slate of risk management tools (control measures) to management from which decisions can be made so that risk is acceptable.

The ORM process can be abbreviated, or lengthy, depending on time available and operational imperative. Risk is present in all that we do. Proactively looking at the roots of risk, then deciding on appropriate controls, and supervising the results, will dictate operational success as balanced against mission goals and force survival.

Traditional Air Force safety management needs to change. Safety people should be trained quality facilitators, and manage the process. They already posses the technical and interpersonal skills required to run the process. A "Train-the-trainer" approach at unit level can pass these skills and the process down to work centers where risk is experienced, which empowers worker buy-in.

Operational Risk Management

Safety Vision for the Future

I. Today's Safety Paradigm

a. **Safety** is the expression commonly used to describe the desired state or results of executing the Air Force mission with force survival. Safety is not restricted to the need and desire to save lives and conserve resources. It is an excellent channel through which to address and improve the effectiveness of the management system that determines the effectiveness and efficiency of the Air Force organization.

b. **Mishap Stability.** The same Air Force system that reliably produces combat readiness also reliably produces mishaps. This is easily seen with reference to flight, ground and explosives mishap rates over the last nine years. The small variation seen from year to year is ascribed to statistical variation, not changes in the system. The system produces an average number of mishaps, and unless influenced by a system change, or another process, the number of mishaps will remain stable.

c. **Management System.** While combat readiness remains at an acceptable level, mishaps prove the operational process is not in total control. Indeed, mishaps are an important source of information about operational defects. Organizations experiencing an unusually high mishap rate will not be maximally effective as an operational entity. Mishaps in these organizations are evidence of inadequate predictability, standards, procedures, and control, from the organization's operational management process.

d. **Reactive Mishap Response.** Traditionally, the Air Force safety program mirrors those seen throughout the government, and until recently, a large sector of US and world industry, wherein accidents give rise to reactions designed to prevent recurrence. While well intentioned, these actions guarantee the future occurrence of similar, if not identical incidents. This fact is well documented in Air Force mishap history over the last ten years, and is a constant in ground, flight and explosive safety disciplines. The reason that these reactions are not effective in the long-term is that they are not based on a true understanding of the causes. Oft quoted "human error" is not a useful finding. One must look beyond the "human error" to the more generic causes, usually based in the management paradigm at work during the mishap scenario.

e. **Oversight.** The reactive Air Force safety program also makes use of elaborate inspection systems that are intended to discover and eliminate defects in the system. Corrective discipline measures are commonly taken, yet the defects remain, but with the added costs of inspection and control (unnecessary restrictions, etc.) that not only fail to increase combat readiness, but in many cases significantly restrict it.

II. Quality Management and Air Force Safety.

a. **Management Process.** Effective management systems generate superior performance, in safety as well as operations. With a top notch management system, the people are doing the right thing in the right way, at the right time, with the least effort and the greatest impact. Basic quality management principles apply as never before in Air Force culture.

b. **Management Expectations.** People will usually do their best to do what they believe is expected of them. The job of leadership is to clearly communicate, with actions, words, and example, what is expected and to make certain people have the tools needed to do the job. Should discipline be in question, then leader expectations most probably are not being communicated. Particularly this is so if bending the rules (selective noncompliance) becomes part of unit culture. Here, leadership expectations are clearly at fault. We can assume that only psychopathic people want to get hurt; therefore, it is unnecessary for management to direct people to "be safe" or "don't get hurt or make a mistake."

c. **Management Paradigm.** Success in performing the Air Force mission, as well as mishaps and errors, needs to be viewed with its genesis in the total system: Man, Machine, and the Media reacting together within the Management system. This is the operational management process, and from within it are the root causes of defects. If it is time for the Air Force to improve this process, clearly the wrong solution is to continue the existing process more aggressively; we must do something different. One process improvement innovation was the introduction of Quality Air Force, which portends positive process improvement, but only if management also changes. See VIII.

d. **Management Leverage.** Mishaps are the output of a system, and are predictable as long as the system remains stable. If the system is understood fully, then patterns emerge that identify organizational dynamics. Based on this understanding, we can develop actions that will influence output towards management defined goals, but on the other hand, failure to understand the system will make things worse.

e. **Empowerement.** Open communication between management and workers (wingman and flight lead, etc.) enables organizational dynamics to be known. Inappropriate discipline or punishment, either personally or through a system of rules or restrictions, will guarantee a shutdown of communication. With no comm, the real problems cannot be identified and defined.

III. Operational Risk Management: **Decision Making Process**

a. **Mission Expectations.** Each of the 6000 injuries, 140 fatalities and 36 aircraft losses experienced by the Air Force last year represent poor decisions. These may have derived from a smaller number of system defects, i.e., inadequate training, poor communication, controls, procedures or standards, or no planning. Why are these system defects there? Probably because leadership had not clearly communicated that quality (hence safety) is important. These defects are also there because leadership is untrained or not sufficiently involved with the process to

ensure the operational task underway is the one leadership had intended. Systems defects may be present because people are not sufficiently involved in the process.

b. **Culture Change.** Management can quickly change policies, controls, procedures, and standards. Changing culture, however, is a different proposition. The organization grows a culture over time which constitutes the attitudes, beliefs, and expectations that drive employee behavior. Just because management or leadership announces a change does not mean that behavior will change, or that change will last. Leadership can change policies and procedures, but seldom will practices change in a short time span. This is particularly true if the changes are contrary to culture.

c. When the dynamics and culture of an organization are known and defined by management, then corrective actions can be employed that will work.

IV. Operational Risk Management: **The Why**

a. **Decision Making.** Daily, Air Force members make decisions affecting mission accomplishment. If the decision is good, the task is completed perfectly, with no injuries or losses. Conversely, if the decision is poor, then there is an elevated potential for failure and increased risk. Further, this decision may be simple, complex, or may even lack definition. What is certain is unless the decision is made through some sort of process, then there is a terrific chance the mission will fail.

b. **Risk Vs. Opportunity.** Risk management offers leaders and workers a decision making process directly affecting mission success while preserving assets and safeguarding lives. It utilizes existing quality tools that empower managers and workers to become proactive in the process of managing outcome, rather than reactive to unsuccessful processes. Risk management provides leaders with the insight to make decisions related to extending opportunities. This allows the exploration of realistic training boundaries while balancing the risk. It does so by providing a well defined awareness of the potential cost of risk vs. the cost of being risk aversive in an asset restricted political and economic environment.

c. **No Unnecessary Risk.** Risk management is a smart decision-making process that makes operations safer without compromising mission accomplishment. The key concept is not to accept unnecessary risk. Preventable risk is risk that can be reduced or eliminated through a process of hazard identification, risk assessment, and control. When exercised systematically and objectively at all levels (planning, procurement, operations) then no risk will be accepted that has not been minimized through the application of common sense control measures.

d. **Benefits.** The benefits of risk management are many: Empower responsible leaders, encourage prudent risk taking, minimize artificial restrictions, keep leaders in control, cross-check planning factors, eliminate and/or control risk, enforce decisions at appropriate level, and encourage initiative.

V. Operational Risk Management: **The Process**

a. **Six Step Process.** Risk Management is a six step process that relies on group synergism. The majority of risk is taken without knowing its dimension or definition. Management systems often rely on the supervisor or individual worker to make judgments regarding risk. This system generally lacks breadth and accuracy of knowledge. This personal, experiential approach is not conducive to thorough, in depth understanding of the risk dimension. When a group approach is used, such as a flight of four, a transport crew, shop workers, tactical planners, etc., with appropriate levels of expertise (safety specialist, supervisor, subject matter expert), then the benefits are obvious: clear accountability, group satisfaction with empowered buy-in, fully developed control measures that mitigate risk while enhancing effective training or mission completion, and a thorough rational path to informed decisions at the appropriate level.

b. Operational Risk Management (ORM) six step process is:

1. Identify the Hazard
2. Assess the Risk
3. Analyze Control Measures
4. Make Control Decisions
5. Implement Controls
6. Supervise

c. The remainder of this section will discuss each of the steps.

1. **Hazard Identification:** A *Hazard* is the dynamic condition that has potential for causing injury, damage, or mission degradation. *Risk* is the probability and severity of loss over time, linked to the *hazard.* Identifying the hazard is the critical first step in the process, and is used to define the operational task. Identification can come from numerous sources: safety data bases, inspections, mishap investigations, group interaction (brainstorming), and other quality management tools. The mission must be broken down into its smallest process component parts, and hazards identified in each. From the identification process is developed a hazard inventory, which is nothing more than a list of things that place the operator(s) in the line of fire (at risk). It is obvious that a group process will more completely define hazards than any individual is capable of doing.

(a) Hazard inventory is then developed into a sequential events list or flow chart in which a hierarchy is developed (high to low).

(b) Once hazardous events are identified, then causal factors are listed, and a list of probable effects is then developed.

2. **Risk Assessment:** After hazards are identified, they must be assessed to determine root causes. This allows assignment of a value defining mission impact in terms of probability, severity and exposure. Then the hazards are prioritized. It is in this phase of the risk management process that organizational origins of risk stand out, are defined, and give commanders and managers an opportunity to understand risks faced in any operation.

3. **Risk Control Measures:** All risk can be controlled, but seldom completely eliminated, especially when doing so would severely limit operational capability. For example, if all the airplanes were grounded, then airborne risk would be eliminated, but obviously no effective training or weapons employment would take place. Therefore, once risk is identified and assessed objectively, assets need to be expended in a controlled manner, utilizing risk alternatives and control options that will enable mission completion with minimum losses. Risk is multidimensional, and is dealt with as a probability. Therefore, there are both alternatives and control measures that are part of the management process. Here is a list of effective measures:

(a) Risk Alternatives:

(1) **Accept Risk.** The key to accepting risk correctly is to identify and assess it. Risk has to be accepted or nothing happens. Commonly, risk is accepted without being aware of its existence. Risk Acceptance is truly the critical aspect of risk management. It requires decisionmaking that follows this, and the first two steps.

(2) **Reduce Risk.** When risk is reduced to it's lowest level, then it can be accepted. Obviously, it cannot be reduced until some sort of control measure is applied.

(3) **Avoid Risk.** If an organization were to completely avoid risk, then it would be risk-aversive, which would result in a completely staid, static, and mired operation. The key to risk avoidance lies in first identifying it, then making a decision regarding alternatives to it.

(4) **Spread Risk.** Spread it out over time, a broader population base, or geographically. An example is the DoD munitions storage program that requires specific distances between explosive devices to mitigate the risk of sequential propagation. A poor example was seen in the aircraft parking plan at Hickam during Pearl Harbor.

(5) **Transfer Risk**. Commonly seen in civilian industry through insurance coverage. Financial accountability for monetary risk is assumed by insurance, as seen in real-property and health coverage's. An Air Force pilot when flying an instrument approach in weather transfers risk accountability to cockpit instrumentation. This risk is managed (or should be) with reference to a primary instrument aid, with as many back-up systems operating as can be humanly assimilated.

(b) Risk Controls

(1) Engineer or design to eliminate risk. This control measure is by far the most effective. Air Force mishap reports routinely recommend engineering fixes to causal findings, whether they take the form of TCTO's, checklist changes, or hardware fixes, and they are usually effective. This type of control measure exists throughout the lifecycle of the system. Aircraft Ground collision avoidance systems is a good example of an engineering fix that works well. Another may be the use of NVG's.

(2) Training/Education. Second to engineering remedies, training is often cited as causal in Air Force mishap investigations, and while effective in certain scenarios, lacks the punch an engineering fix usually has.

(3) Change procedures to limit exposure or correct a process. Changing the rules or regulations in the Air Force in reaction to a mishap is a common tool, but is seldom effective. The desired outcome may be attainable, but never changes the culture, and does not last for long. Using the low altitude scenario as a risk management example, it is obvious that there is risk easily **identified** in the low altitude regime (the ground/other aircraft), that has high risk (**assessment**) for catastrophic results when exposure is frequent, and that can be controlled (**avoid** when possible) by deciding upon basic risk mitigation control measures (GCAS, task loading, building block approach in training, etc.).

(4) Protective clothing/equipment. Chemical protective gear, eye guards, seat belts, RHAW gear, Wild Weasels, AWACs, engine hoists, etc. are all examples of hardware that are effective risk control tools.

(5) Eliminate restrictions. Unnecessary restrictions, either actual or perceived, elevate risk. Prudent organizations routinely review the operational process, and indeed the managerial process that levied restrictions, with the objective of eliminating barriers to successful mission accomplishment, or establishing a clear rational for existing limitations.

(6) Guard or control. Any type of barrier between the human and the hazard, beyond (4) above, can be termed a control measure. This can be seen in building construction, venting systems, climatological controls, etc. It can also be applied to the aerial threat via jamming tactics, top cover, etc. Intel can apply operational risk management to the mission via identification of the threat, assessment of its relevance to the planned mission, then in concert with the weapons and tactics folks, develop control measures.

4. **Risk Decision Making:** Decisions regarding risk need to be made at the appropriate level - as low as possible. Risk control requires that resources be allocated (facilities, equipment, time, personnel, and dollars) once measures have been decided upon. It is imperative that the decisionmaker(s) have control of the assets involved.

5. **Implement.** Once there is consensus on appropriate controls measures, then assets need to be expended to put them in place. Obviously, if assets are not available (money, time, et al), then either risk must be accepted with controls that are affordable, or eliminated by canceling the mission.

6. **Supervise**. The risk management process continues for the life of the system, and transfers from mission or task to similar missions and tasks. The process is repeated as often as necessary so that failures within the system can be rectified. Risk controls can fail, i.e., the control may not be appropriate for the problem, operators won't use it, it costs too much, it impedes the mission, it gets lost in the priority system, or is simply misunderstood.

VI. Operational Risk Management: **Mission Implementation**

1. The process of hazard ID, Assessment, Control, Implementation and Supervision are team endeavors that utilize quality management tools. *Decisions* are made by the accountable individual at the appropriate level of management. If this process fails to address risk where it is present, i.e., where the human is in the line of fire, then it is merely a futile drill that wastes time and money.

2. Risk management must become a normal, standard way of doing business. No task should be undertaken without using risk management. The process may only be a hasty look at risk, or it may be part of a large aircraft procurement decision. The bottom line, however, is that successful mission execution will benefit from a group assessment of those factors that may impede success (hazards).

3. Today's Quality Air Force now utilizes the tools that make operational risk management a simple task. For example, the "standard" reportable mishap in the Air Force today is the sprained back from improper lifting, and it happens with regularity in supply functions, almost two a day, year after year. Envision a risk management "flight" meeting in supply (three or four workers, a ground safety professional and a supervisor) to run a risk management process meeting. All are empowered to make decisions regarding risk control. This group represents the subject matter experts (workers), management, who controls the process and will make risk decisions appropriate to this scenario, and the safety professional who will facilitate the risk management process, as well as compile a hazard inventory, aid in assessment, and assist in developing a risk control strategy. Quality tools are used (brainstorming, fishbone, pareto analysis, etc.), consensus is reached, and a decision is made on control measures. The apparatus is then put into action, measurement conducted (supervision), and the entire process is revisited periodically to see if it's working.

4. The same scenario can be repeated for a flight of four fighters, about to launch for an air-to-air training scenario. The "workers" at risk are teamed up, the flight safety/weapons & tactics/first level of supervision are in the loop, a hazard inventory for the scenario is built via consensus of the players, and control measures determined that will mitigate known risk. These "variables" can be weather, loss of situational awareness, communication (mother of all air-to-air risk), training rules, or the myriad things that have the potential (risk) of impeding a successful mission.

5. In another scenario, a management decision to lengthen crew rest requirements for C-141 crews could be made with a "flight" of crewmembers, subject matter experts (flight surgeon's), and accountable management to delve into the matter of longer flying work days. The flight safety officer facilitates the meeting, in which a hazard analysis is conducted that delineates fatigue related incidents; an assessment is made as to the relevance (frequency of exposure) of the risk of a longer crew duty day, and control measures explored to mitigate risk. A decision is then made by management so that risk is managed to an acceptable level. There is automatic buy-in from crews that have been empowered to participate in the process, and even though the decision to lengthen the day may not be entirely in compliance with the group assessment and control, management's explanation of the decision rational, if properly done, will enable the crews to understand and cope. Management establishes the requirement to continue to evaluate the

decision, relying on a crew-developed feedback system that relates mission impact, and the process is then revisited.

VII. Air Force Risk Management Implementation

a. **Safety People.** Facilitator trained risk management discipline, able to cascade facilitator skills and the process into the worksite. Courses required: Facilitator Training, Tools and Techniques, and Metrics.

b. **MAJCOM/DRU.** Risk Management must be missionized and used at the lowest practical level - where the risk is present.

c. **Training.** Risk Management must be imbedded into all Air Force schooling: Tech to PME.

d. **Air Force Safety Agency.** Retains data base management, safety education and training, exports AMP program to unit level, performs oversight of MAJCOM programs to keep program vitalized, and works with Quality Institute to develop and refine additional quality training and metrics.

Using "Survey-Feedback-Action" to Accelerate Cultural Change

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This paper examines a fundamental tool used to accelerate cultural change and improve mission accomplishment in the Air Force's largest command. In addition, it serves as a "how to" for conducting surveys and provides leadership with practical advice on the all-too-often- neglected steps that should follow. Using cutting-edge technology, Air Combat Command (ACC) surveys thousands of personnel in annual climate assessments. In 1995 over 65,000 such "stakeholders" participated in the ACC Culture and Leadership Survey (ACLS), with results available in only 6 weeks. Sponsoring an annual survey "event" does not guarantee improved mission performance and cultural change. However, success in these areas can be greatly enhanced by using a "Survey-Feedback-Action" approach. The high-profile Culture and Leadership Survey demonstrates the command's commitment to positive change. Most significantly, it reinforces the Air Combat Command philosophy that everyone has a stake in the mission and its outcome.

INTRODUCTION

The role of Air Combat Command (ACC) is to organize, train, equip, and maintain combat-ready air forces for rapid deployment and employment while ensuring strategic air defense forces are ready to meet the challenges of peacetime air sovereignty and wartime air defense. To continue to meet future challenges in an increasingly dynamic environment, commanders must create a working climate where trust, teamwork, and continuous improvement are the norm. How can this climate be measured? Air Force commanders have typically used hot lines, suggestion boxes, grievances, inspector general complaints, productivity indicators, and personal interaction with the troops to assess employee satisfaction and well-being. One highly visible means now being used in Air Combat Command is the annual ACC Culture and Leadership Survey (ACLS) which gives all command personnel an opportunity to assess their organization's climate and provide anonymous feedback to their leaders.

This automated survey, nearly as easy to administer as it is to take, has served as a model for the Air Force. The challenge is knowing how to use the survey to its maximum advantage. While the survey is considered a major annual event, it does not stop at the end of the **Survey** phase--when the results are published. The follow-on steps of providing **Feedback** to the stakeholders and taking **Action** on what "the survey said" are essential to foster a climate of trust, teamwork, and continuous improvement.

THE "SURVEY-FEEDBACK-ACTION" APPROACH

"Survey-Feedback-Action" is not just a slogan, it's the process used in Air Combat Command to respond to and act on the survey data provided by the stakeholders. The Quality Improvement office at each wing or wing-equivalent unit serves as the commander's survey administrator and coordinates the distribution of the survey throughout the organization. Extensive planning, publicity, and follow-up are required throughout this phase. Leadership commitment and support are critical to ensure that all personnel have an opportunity to take the survey. The attitudes and perceptions of ACC's 133,000 military and civilian personnel are key to the combat capability of the command as a whole. It is important that all of them have the opportunity to participate in the survey. Using proper sampling techniques provides valid and reliable data. However, ACC's approach is to encourage 100-percent participation in the annual survey. Each member of the team has a personal stake in the mission. As stakeholders, they are the most reliable source of honest feedback on how their units are meeting their goals and objectives--providing an internal "reality check." Each person has a unique perspective-- based on his or her background, training, and experience--that is extremely valuable to help the unit identify and solve problems and improve processes. The first step for any leader to make the right decisions is to have access to all relevant information.

Phase 1: SURVEY

IN ORDER FOR A SURVEY TO BE EFFECTIVE IT MUST HAVE A CLEARLY DEFINED PURPOSE AND OBJECTIVES.

The **PURPOSE** of ACLS is to collect attitudinal data to assess the command's progress toward achieving one of its major goals: "Embrace a culture of ACC Quality in everything we do, creating a barrier-free working climate that inspires trust, teamwork, and continuous improvement.

The commander of ACC explained why the annual survey is so important:

> ACLS is a key indicator we use to assess the overall health of the command. ACC has hundreds of quality performance measures to evaluate mission capability, and our leaders make critical decisions based on those measures. Key output measures--such as sortie utilization rate, repair cycle time, and in-commission rate--provide commanders with plenty of hard, objective data--but they are not the only measures used to determine an organization's health. World-class organizations have mechanisms in place that involve their people in the assessment process. A highly visible mechanism used in ACC is the Culture and Leadership Survey.

Supporting **OBJECTIVES** of the survey are to...

1. Conduct annual unit climate assessments.

2. Provide a mechanism for obtaining unfiltered feedback from unit personnel.

3. Identify unit strengths and areas for improvement.

4. Provide attitudinal data to include in the more comprehensive unit self-assessment (based on the Malcolm Baldrige criteria).

5. Serve as a tool for increasing awareness of the command quality initiative.

6. Demonstrate leadership commitment to the areas covered in the survey.

A SURVEY PLAN MUST BE DEVELOPED.

ACC's plan for data collection, reduction, and analysis--all part of the Survey phase--is described below.

- **DATA COLLECTION** involves the following:

1. **Determine the Appropriate Demographic Groupings.** ACLS is designed to collect the following demographic information:

Squadron, group, wing, and wing-equivalent designations (the command headquarters, numbered air forces, centers, and air defense sectors are treated as wing-equivalent units for the purpose of the survey). Since HQ ACC and most of the wing-equivalent units are organized by functional area, they are coded as "Other"--and the functional areas (e.g., Plans & Programs as shown in Figure 1 below) are considered parallel to squadrons.

Wing or Wing Equivalent:	**1 Fighter Wing**	**HQ ACC**
Group Designation:	**Operations (OG)**	**Other**
Squadron Type Designation:	**Fighter Squadron**	**Plans & Programs**
Squadron Name:	**27FS**	**XP**

Figure 1

Status/rank. There are two breakouts for officers (O1-O3 and O4-Above), two for enlisted personnel (E1-E5 and E6-E9), and two for civilians (Nonsupervisor and Supervisor). These are broad demographic breakouts were selected for the sake of simplicity.

Time-in-service. There are four breakouts for the individual's total active military service or federal civil service: 1 to less than 4 years, 4 to less than 10 years, 10 to less than 15 years, and more than 15 years.

Hours of formal Quality training (within the last 12 months). There are five breakouts to help assess the level of training across the command for each status/rank designation: none, 1-8 hours, 9-16 hours, 17-40 hours, and more than 40 hours.

All of the demographic information requested is optional (except for the organizational descriptors entered by the survey administrator when creating each disk). Respondents concerned about anonymity can choose to skip the demographic questions.

2. **Develop the Survey to Align to the Purpose and Objectives.** The survey contains 50 declarative statements, on a 1-7 Likert scale (ranging from Strongly Disagree to Strongly Agree), which are divided into six categories:

WORK ENVIRONMENT (statements 1-15): To assess how the day-to-day working conditions, atmosphere, or climate of the work place is perceived.

JOB SATISFACTION (statements 16-23): To assess some of the factors that contribute to enhanced performance and a sense of accomplishment and personal fulfillment from the job.

MISSION (statements 24-29): To assess some of the factors that impact the unit's mission and goals as they relate to improving ACC's combat capability.

COMMUNICATION (statements 30-36): To assess the effectiveness of communications and feedback.

ACC QUALITY (statements 37-41): To assess the impact of the ACC Quality initiative.

LEADERSHIP (statements 42-50): To assess the level of confidence and trust in the leadership's ability to carry out their responsibilities.

In addition to scoring each statement on the 1-7 scale (or selecting "No Response" as appropriate), the individual has ample opportunity to enter narrative comments, if desired.

3. **Establish Guidelines to Reduce Confusion.** ACC's policy for administering the annual survey incorporates these guidelines:

- The survey is administered annually in the May-June time frame.

- The survey is completely automated using the command electronic bulletin board, local area networks, and computer diskettes.

- Maximum participation is encouraged; however, participation is not mandatory. ACC prefers a census-type approach to give everyone an opportunity to participate in the climate assessment and to reinforce the importance of each individual's input.

- ACC personnel (individual respondents) are assured that the survey is completely anonymous and the confidentiality of their responses will be protected. The guarantee of anonymity also applies to individual unit results. For example, commanders receive their own unit results, but individual squadron results are not published throughout the wing. Likewise, when

the command results are published, they include the individual scores from each wing but do not identify the units by name.

- Individual unit (wing, group, or squadron) commanders provide their people with feedback on the survey results and use the data to develop action plans to address areas needing improvement.

- **DATA REDUCTION** is designed to reduce the amount of handling required.

1. **Who Collects the Data.** The Quality Improvement (QI) office is responsible for administering the survey and serves as trusted agent of the survey data. The QI at each of ACC's major units (wings, numbered air forces, air defense sectors, or centers) has a single point of contact to administer the survey. Each has the option to decentralize and have subordinate administrators at any level. Survey administrators have the following responsibilities:

- Ensure data integrity by following established communications security guidelines.

- Protect confidentiality of individuals' survey responses by including them in carefully selected squadron or squadron-equivalent breakouts. The smaller the unit breakout, the more difficult it becomes to protect individual anonymity.

- To be discriminating but pragmatic when reviewing comments reports. For example, it is not inappropriate to edit or "sanitize" narrative comments to remove proper names or objectionable language. However, this can be a very labor-intensive process and is left to the discretion of the QI.

- Disclose survey results and distribute survey reports to the appropriate levels of the organization.

- Provide advice and assistance to the quality improvement council and individual commanders on how to interpret and use their survey results.

- Archive the organization's survey results (for wing, group, and squadron as appropriate) year by year for trending and other analysis as desired.

2. **Survey Administrator Training.** Training for survey administrators is one of the most crucial factors in successfully executing the electronic survey. In the past, confusion about how to use the software and lack of computer expertise by administrators often hampered the survey process. In 1995 efforts were stepped up to provide comprehensive training in how to use the software to create surveys on disk or local area networks (LANs) to collect and analyze the information. A training tutorial was developed along with a survey administrator's manual complete with detailed flowcharts. The tutorial provides an illustrated overview of the process, and the manual gives step-by-step instructions.

3. **Survey Dissemination.** ACLS is completely electronic to align with the command's "paperless environment" initiative. The headquarters survey project officer transmits the ACLS administration programs to all wing and wing-equivalent units using the command electronic bulletin board system (BBS). Survey administrators from each command QI office download the programs from the BBS via modems and install them on their computer hard drives. The software includes everything the wing needs to create survey disks or place the survey on a LAN; merge data; analyze data; and generate preformatted reports for the wing, group, and squadron commanders. Wing and subordinate-level administrators distribute disks to the work centers and set up dedicated computers at central locations to make the survey accessible to all personnel. Individuals taking the survey on a disk can use any available computer. The survey when placed on the LAN can be taken by numerous people simultaneously. The survey software is DOS based and can run on the older x286 and newer x486 computers. The data is stored in a single file to prevent confusion. By allowing the respondents to enter their own data, errors are eliminated because no transfer from paper to computer is necessary. To ensure each respondent's anonymity and to protect the data from corruption, the information is encrypted and rendered unreadable by other software.

After the survey period, each command survey administrator collects all data files stored on diskettes and networks and merges them together into one master database. This master data file is then uploaded to the BBS for headquarters retrieval. At this point the Headquarters QI downloads all data files from the BBS. The headquarters survey project officer uses the same process to merge all wing data files together to obtain the composite results for the command.

- **DATA ANALYSIS** should address the original purpose and objectives of the survey:

1. **Composite Reports.** The Commander of Air Combat Command receives composite reports generated from all wing and wing-equivalent unit data files. The individual unit results **remain anonymous**. They are not identified, compared to other wings, or published *by organization name*. The individual mean scores for each participating wing are coded W-1, W-2, W-3, etc., and listed in a command participation report. Accordingly, ACC commanders' reports do not identify their individual units (groups and squadrons) by name. Rather, they receive reports that include composite scores and the range of all their participating units (with low and high unit means).

As explained earlier, the ACLS software provides the wing with everything they need to conduct the survey and obtain their own reports. They can generate their own wing-, group-, and squadron-level reports before the command results are available--consistent with ACC's philosophy of decentralization and empowerment. Wing, group, and squadron commanders, as well as headquarters and wing-equivalent commanders and functional area chiefs, receive the same basic reports.

2. **Not a Report Card.** ACLS results were never intended to be an indicator for assessing the performance of individual commanders or to be regarded as a "report card"--a way to rack and stack units--regardless of whether the unit is a wing, group, or squadron. The purpose of ACLS is to provide commanders with a realistic assessment of the organization's internal climate based on

the attitudes, opinions, and observations of unit personnel--quantifiable data for trending and measuring improvement.

3. **How to Interpret ACLS Results.** From the HQ ACC perspective, the ACC Culture and Leadership Survey is one of the key indicators used to assess the command's overall health. Again, it serves as an **indicator--**not a "be all" or "end all" tool used in isolation of other indicators at the commander's disposal. To determine the health of the organization, ACLS can be likened to taking the temperature (assessing the climate). However, the temperature reading alone does not provide the complete diagnosis of health or lack of health--more investigation is needed to identify the underlying issues that affect the organization's climate.

A. Frame of Reference. Commanders should consider these key points before they attempt to interpret ACLS results:

- The results are based on attitudinal data. The survey assesses how strongly the respondents disagree or agree with each of the 50 statements on a 1 (Strongly Disagree) to 7 (Strongly Agree) scale.

- Although the questions are divided into six key categories, most of the questions correlate to leadership either directly or indirectly. The questions and sections are interrelated and most are leadership driven. This reflects ACC's unwavering emphasis on leadership's responsibility to create a working climate that fosters trust, teamwork, and continuous improvement.

- The survey results can point leadership in a direction that warrants further exploration.

- The questions address common attributes of a culture that embraces a quality mindset. Reviewing the narrative comments can identify some "low-hanging fruit" which could be easy to fix in the short term. Comments can also provide commanders with more insight into systemic problems.

- In contrast, focusing on rolled-up data (by survey category, for example) is not as meaningful as focusing on the specific questions as they were answered by the survey respondents. Furthermore, while investigation of the detailed survey results may indeed reveal symptoms of underlying problems, the challenge is to identify the root causes.

B. THREE BASIC QUESTIONS. Commanders should ask themselves the following three questions to better interpret the information provided in the ACLS reports.

- **WHAT?** [What are the problem areas?]

To quickly identify the lowest rated areas of the survey, commanders can review the report "Mean of All Questions Sorted High to Low." Commanders typically focus on the lowest 5 to 10 statements. Comparing this report to prior year reports may also reveal any statements with mean scores that have dropped significantly.

Another report that reveals possible problem areas is called "Frequency of Responses." This report provides the actual count as well as the percentage of responses for each numeric value of the scale (1-7 scores), including the number of "No Response" answers given, for all 50 questions. USAF Academy behavioral science experts suggest that commanders should pay close attention to statements where 30 percent or more of the population respond in the Disagree columns (1--Strongly Disagree, 2--Disagree, 3--Slightly Disagree).

- **WHO?** [Who are the people affected?]

The "Question by Rank/Status" report shows the Rank/Status breakouts, such as E1-E5, O1-03, etc., for each question. Once the lowest rated questions have been identified (in the High-Low Questions report described above), this report provides more detailed information on how the various status breakout groups responded to the question. A "+" or a "-" next to the mean score indicates whether that status group score is significantly higher or lower than the others.

- **WHY?** [Why does the population perceive that there is a problem in this area?]

Having identified the lowest rated questions and the segment(s) of the population who gave the lowest scores, reviewing the Comments Report can offer the commander specific reasons why this area was scored low. Narrative comments correlate to the individual survey questions (1-50), and respondents were asked to categorize their comments in one of three ways: "Strength" (positive), "Improvement Opportunity" (negative), or "Other."

The comments provide a rich source of information to help commanders identify the barriers to a climate of trust and teamwork.

C. **More Investigation Required.** The survey may not reveal enough information to render a "complete diagnosis" of the climate. In that case, it may be necessary to conduct a follow-up survey on a particular issue, gather more data by conducting formal and informal interviews with unit personnel, conduct Focus groups, charter a Quality Improvement Team, or explore other means to obtain feedback.

D. **Comments Report**. The last comment block of the survey could prove to be a gold mine for identifying targets of opportunity (and possibly more "low-hanging fruit". Comments in this area respond to the question, "What one thing could your leadership do to help you do your job?" Taking action on these comments can immediately and significantly improve morale and accelerate the rate of cultural change.

Phase 2: FEEDBACK

Feedback is a two-way street! After the survey has been conducted and the data analyzed, then it is leadership's responsibility to give the stakeholders a report on what "the survey said." The ACC commander receives the composite results for the command and then briefs the commanders of the numbered air forces, wings, centers, and sectors and releases the results for commandwide publication. Feedback on the command results then begins to cascade down the chain of

command. The information is included as a key indicator in the annual ACC Stakeholders' Report and briefed at senior leadership training sessions conducted at the headquarters. Due to decentralized administration, all levels of the command can simultaneously obtain their own results. Commanders down to and including the squadron level receive their own survey results to be shared with their people and used to strengthen their organizations.

One commander briefed his survey data to all squadron personnel, including those assigned to geographically separated units. Using overhead slides to display some of their anonymous comments--both positive and negative ones--he found that providing them with this feedback in a straightforward way stimulated even more open dialogue and improved communication within the squadron. This is an excellent example of how one leader sought to create a "barrier-free working climate that promotes trust, teamwork, and continuous improvement."

Other leaders have used many of the various forums available to them:

- Commanders' Calls
- Town Hall Meetings
- Base Newspapers
- Newsletters
- Base Cable Network
- Memoranda/Letters
- E-mail/Electronic Bulletin Boards
- Quality Improvement Councils
- TEAM ACC Meetings
- Top-Three Enlisted Ranks Meetings
- ACC Quality Courses
- Base Orientation Classes

Using a variety of feedback methods will ensure the widest possible dissemination of the data, improves communication, and fosters a climate of trust within the organization. Proactive leaders also provide feedback on what their next steps will be. This leads into the third and most important phase of the Survey-Feedback-Action approach.

Phase 3: ACTION

Action is where the rubber meets the ramp! Commanders have an opportunity to demonstrate just how much they value the feedback they receive from their people by doing something with the data...by *acting* on it! The Culture and Leadership Survey has become an integral part of the annual unit self-assessment process. As units develop strategic plans to improve performance, they use information obtained from the survey to help them determine where to focus limited resources to get the best results. The steps in this phase include:

- Developing action plans
- Implementing the plans
- Publicizing specific actions taken

ACLS is an integral part of the annual unit self-assessment process. As units develop strategic plans to improve performance, they use information obtained from ACLS to help them determine where to focus limited resources to get the best possible results. This phase involves developing action plans, implementing the plans, and publicizing specific actions taken.

There are numerous examples of how ACC leaders take action. One organization's leadership made a "good-faith contract" with their people to do something positive with the survey data. They analyzed and communicated the survey comments and numerical data to all members of the organization. Branch chiefs conducted face-to-face interviews to explore problem areas revealed in the survey. They included the survey results in their unit self-assessments. The senior staff met to discuss how to improve their leadership style. Finally, They assigned milestones to survey action items to track their progress and included specific objectives derived from the survey in their strategic plan.

After analyzing their survey data, one wing identified "communication" as a key result area--one of their top priorities to improve overall mission capability. Subsequently, the commander established a regular wing staff meeting agenda item to discuss the weakest areas identified in the survey and the actions being taken to correct them. In the HQ ACC Communications-Computer Systems Directorate, "MVP" and "Together-Everyone-Achieves-More" awards were established in response to survey comments concerning a perceived lack of recognition of unit personnel. In addition, to improve communication and break down cross-functional barriers, they restructured their quality council to allow participation of all directorate personnel.

BENEFITS OF THE SURVEY

The ACC Culture and Leadership Survey is paying big dividends. It provides an opportunity for every member of the team to provide direct, unfiltered feedback to their commanders. The commanders gain additional insight from their people to enable them to make more informed decisions. All levels of the command can assess their organizational climate, compare their results to other units across the command, identify strengths and weaknesses, target areas for improvement, and track their progress from year to year. Information obtained from the survey is used, along with other key performance measures, to conduct a more comprehensive Malcolm Baldrige-based unit self-assessment that is later validated by a visiting team of command advisors. The survey can increase understanding of what is important to the organization, foster commitment, improve communication, and motivate and encourage everyone to become fully engaged in the quality process. Most important of all, it reinforces the idea that everyone's input is equally important. Properly followed up with feedback and action, it can be a powerful tool to accelerate cultural change.

HOW TO USE BENCHMARKING TO ACCELERATE PROCESS IMPROVEMENT

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Benchmarking is a tool used to accelerate process improvement that requires a planned and focused effort. When used in conjunction with the strategic planning, it can help close the gap between current capabilities and peak performance. Benchmarking requires a thorough understanding of an organization's key processes before any comparisons or adaptations are attempted. Identifying and flow charting those processes will help isolate areas ripe for organizational comparison and follow-on benchmarking efforts. As Richard A. Moran says in Beware Of Those Who Ask For Feedback, "Benchmarking is not a class trip at the organization's expense. It has a purpose and is a measurable activity." Air Combat Command (ACC) is providing a mechanism to disseminate best practices using computersinternet, and the World Wide Web. This cutting-edge technology has provided an easy way to search for or submit best practices on a national level. This paper will provide a layperson approach to most effectively implementing benchmarking in an organization.

Introduction

The benchmarking process is divided into four phases *Planning, Collecting, Analyzing,* and *Adopting*. The ACC process was adapted from the Air Force Quality Institute model and incorporates the best characteristics of Air Force Mobility Command, Air Force Reserve, Xerox, and several industrial models. The following paragraphs explain the individual steps involved in each of the main phases. Using this disciplined and structured process will ensure each study is thorough and complete.

Phase One - Plan

Planning is typically the longest phase of the benchmarking process, taking up to 50 percent of the study time. It includes three steps: strategic planning, identifying the process to benchmark, and gaining leadership approval. The key to this phase is the requirement to define, understand, and document your organization's processes. These steps are most effectively accomplished when incorporated into the organization's strategic planning process. Several mechanisms and tools such as the unit Customer-Output-Process-Input-Supplier (COPIS) model, the Baldrige related Unit Self-Assessment (USA), unit metics called Quality Performance Measures (QPMs), and flowcharting can be used to identify and prioritize benchmarking candidates. It is important to emphasize that organizations should concentrate their improvement efforts on the most critical processes first in order to achieve the maximum benefit. It is equally important to obtain leadership buy-in and commitment before embarking on any benchmarking study to ensure the necessary resources and time are made available to conduct a proper benchmarking effort.

Successful benchmarking must have clear linkages to the strategic planning process and be focused on improving mission performance and customer satisfaction. In ACC, we have designed a specific process for Strategic Planning for Performance Improvement (SPPI) that will help organizations develop the necessary procedures and operations to achieve future goals. It adheres to our style and culture, integrates our quality and performance tools and mechanisms, and aligns us with the strategy of the federal government and the Air Force. When used in conjunction with your strategic

planning process, it can serve as a catalyst to identify the need for change, determine what processes to change, and paint a clear picture of the desired outcome. Before starting the strategic planning process, units should accomplish a COPIS exercise and a thorough USA. A COPIS exercise is a useful tool to improve the probability of success of the planning process. It will help identify and confirm key customers, processes, suppliers, and how these critical relationships are married to each other. The list of priorities the COPIS establishes directly leads to goal development and targeting the correct processes for improvement. The USA will provide a rigorous analysis of the unit's capability by accurately and effectively assessing the organization's ability to meet ACC's standards and the AF criteria. A final element of the prework phase consists of an external scan to include a search for opportunities to conduct organizational comparisons in or outside ACC. Other organizations may have similar operational processes that may be used as a source to accelerate improvement within organizations.

The first opportunity to actually utilize benchmarking occurs during performance planning. This stage of the SPPI model requires units to review key processes as well as ACC and unit standards. These processes and standards should be aligned with the goals and focus areas identified by senior leadership. Once processes are reviewed, the unit measures the gap existing between current capabilities and peak performance envisioned through organizational goals. They then develop objectives based on the gaps identified. This is where benchmarking can best be integrated into operations to accelerate improvement.

The second step in the planning phase is to select a ***key*** process that needs ***significant*** improvement. This will show all the steps of the process and can be a useful tool for examining how they are related. By studying the flow chart, opportunities may be uncovered that are potential sources for benchmarking. A completed flow chart will include specific process measures to set a baseline for analysis. Examples of useful measures include reducing cycle time, saving money, reducing required manpower, gaining efficiency or removing frustration.

Identify the benchmarking opportunity to the appropriate level is the last step in the planning phase. Gaining leadership approval is an important step for two reasons. First, team expectations are set that will provide the necessary direction and parameters to conduct a successful study. Second, "gaining approval" will prevent duplicative studies. Duplicative studies waste time and money, as well as send partners the signal you are not organized enough to gain the full benefit of benchmarking. Present and future benchmarking success depends on the ability to effectively manage interaction with partner organizations. Although this may seem very bureaucratic, all levels must support your benchmarking teams. If senior leadership does not support or approve of a benchmarking effort as a legitimate approach to accelerating improvement (to include allocation of resources and time), there is no reason to further pursue this course of action.

Phase Two - Collect

For many people who are new to benchmarking, the actual information-collection stage is the focus of their attention. This is understandable because the idea of interacting and visiting with other organizations is what attracts many organizations to the benchmarking process in the first place. However, data collection is a much more integrated process than just taking trips to other organizations. Successful benchmarkers do not begin with a helter-skelter attitude on data collection. If the initial planning and preparation stages of the process have not been completed carefully, such as measuring your own processes, determining if they support the success of your strategic plan, and adequately researching benchmarking partners, the result can be disastrous. The data collection phase is comprised of researching and selecting benchmarking partners, developing a

benchmarking plan and, lastly, determining the data collection method and then collecting the data.

Effective benchmarking involves the identification of suitable benchmark partners. Researching potential partners is probably the easiest, yet most time-consuming activity. Benchmarking with a company like Federal Express because you have heard they are good is not the way to select a partner. It may be a good lead, but relying only on that information is a mistake. A good place to start a search is by querying an appropriate data base such as ACC, the National Performance Review's BenchNet, or an appropriate industrial sector data base system. Then go a step deeper by using information from trade journals and business magazines, as well as information from people who use the product or service.

This brings you to actually selecting a partner. Just because you find the company with the best process does not mean it will be willing to share information with you. To reduce the risk of this happening, ensure you focus on processes and development of accurate measures. This will assist your selection process and the data collection step. It is important to use measurements that are true indicators of performance. They are typically expressed in terms of a ratio such as percent of faultless budget requests, occupancy cost per square foot, defects per machine, or response times. If you cannot think of a way to measure the subject, do not conclude that it is not a good subject for a benchmarking study. While most of our activities are measurable, it is sometimes not possible to develop an appropriate numerical measurement. In those few instances, a case study can be used as a method of evaluating a subject in a manner that will allow you to draw lessons for application to your operation. For example, suppose you decide planning was an important success factor in your operation however, you are unable to develop a good measurement. You may want to determine what planning methods are used by successful companies and compare those practices to your own.

Next, contact the potential partner. This is important at this stage for two reasons. First, to determine their interest in helping you. It is true that most of the information you will gather is accessible without talking to your partner. However, the most valuable information can only come directly from the organization. Second, this is the best time to discuss expectations and limitations and their effects on the partnership. The key here is to be prepared to discuss your process and the assistance you are looking for.

At this point, it will be important to consider time constraints and financial considerations. The process may need a quick boost to survive, or you may have other tasks approaching that will demand your time. Whatever the reason, determining how much time you have is a necessity. It will affect the depth of your research. Moreover, it may eliminate some potential partners based on their availability. Additional financial considerations include whether can you afford a site visit, how many people should participate in any site visit, and, can you pay for information searches on electronic bulletin boards.

Once you have selected your partner, you will be ready to develop your benchmarking plan. Elements to be considered should include understanding who will use the data, documenting and understanding your own process(es), establishing a clear purpose and scope for your benchmarking efforts, and determining what results you hope to achieve. Start by defining who will use the data. Information gathering should meet a critical need within an organization. The individual or group needing this information will establish how long the investigation will last and any funding limits. Then determine what the data will be used for. Defining the need for benchmarking will focus your investigation, help reduce wasted efforts, and limit the scope. Benchmarkers who have not done their homework will have so much data they will lose focus of what they were supposed to measure

in the first place. Next develop measurable data on your own process. By understanding the process you want to benchmark, you will be better prepared to ask meaningful questions of benchmark partners you are researching and conduct a more thorough analysis of the data collected. Another important consideration is the determination of the results you want to achieve. Benchmarking should not be used to investigate routine matters. Without a plan on how the results will add value to your process(es), the gains on your investment could be minimal. Data needs to have meaning directed towards the accomplishment of the objectives in the strategic plan. Possibly the most important part of planning to collect data is to prepare yourself. The more information you gather about how to benchmark, the better the results will be. Read and seek out other sources of information on how to benchmark. Consult other organizations that have used benchmarking successfully to learn what major pitfalls can be avoided.

Determining your data collection method and collecting data completes the collect phase. This is accomplished by preparing a list of questions you can use to gather the data required. Make sure the questions are clear. Avoid Air Force acronyms or terms that might not be universally understood. Make sure each of the questions has a purpose and the information obtained is relative to the study. It is a good practice to pretend your partner has already provided an answer to your question. Possibly have others in your organization review your questions for clarity and relevance. If you find it difficult to determine what you will do with the data, you are better off not asking that question. Preparing the questions is the easy part. Effective data collection requires you to now provide the answers on your process for all of the questions on the list. If possible, have someone else answer the questions. You may discover it is not easy to obtain some of the data on your own process. If this occurs, modifying the questions or the measurements selected may be necessary. Answering the questions for your own process provides a validation of the questions and a base for initial analysis.

Before conducting the actual research, determine if information from previous studies is available. This could save both time and money. In addition, it eliminates legal issues associated with conducting your own research. There are four major sources of completed research: the internal ACC data base, the BenchNet data base, industrial sector data bases, and public domain. The ACC Best Practices Office can determine if internal data is already available. One of their jobs is to advise you of benchmarking studies in progress or complete. Take advantage of this internal network. The Federal government has also established a best practices data base called BenchNet. It offers a wealth of information from Federal agencies and other DOD organizations. There are also several private companies that have established best practice data bases that can be accessed for a fee. Lastly, public domain sources of information such as newspapers and magazines, trade publications/shows, professional organizations, user groups, university research papers, government documents, security analyst reports, want ads, and annual reports can be tapped.

At this point you have reviewed potential sources and have concluded that your subject has not already been researched, or the results of the existing research are not adequate. Alternative sources to obtain data include creating questionnaires/surveys, conducting personal/telephone interviews, or taking company tours. More detailed information on the pros and cons of each of these methods and a complete guideline for each is contained in ACCPAM 90-103. One word of caution, before you begin to conduct your research, be aware of legal and ethical considerations. Do not misrepresent yourself, obtain products illegally, provide proprietary data to other organizations without consulting the proper authority, entice suppliers to divulge information by promising business, or obtain data on proprietary products or processes.

As you collect data, it is a good idea to create a flowchart of your partner's process. Depending on your relationship with the partner, you might ask that person to give you a simple flowchart. Be prepared to respond in kind. Regardless, you should consider the following as you are collecting data: Cost and time, comparable measurements and metrics, how well the process performs over time at different locations, other processes that contribute to the process, whether their process is adaptable "as is" to ***your*** improvement effort, the complexity of the information you are gathering, the importance of the level of accuracy, and whether you are looking for a general trend or you need hard data.

Phase Three - Analyze

Data analysis is at the heart of the benchmarking process. Once the data has been collected, it must be reviewed to ensure it is complete and consistent with the questions asked during the data gathering process. After determining the data is reasonably accurate, tabulate and calculate it for the appropriate statistics. Depending on the amount of data, you may wish to develop graphs (histograms, pie charts, etc.). If the purpose of your study is to gather information only on business practices and methods, as opposed to quantitative data, synthesizing the raw data and capturing the key messages in a meaningful format will still be needed. Drawing conclusions based on the information collected is the final step in this phase.

In analyzing the results of the tabulation, identify those statistics that relate to the original purpose of the study. *Do not over-analyze the data!* It is easy to get caught up in the computational aspects of analysis and fall into the "cannot see the forest for the trees" trap. Blindly launching into the calculation of every possible ratio is likely to result in confusing, or even conflicting, findings. *Do not be overly precise!* Do not carry calculations to the third decimal level of precision. The data gathered may not be completely accurate in the first place. When analyzing the data, be aware of industrial, economic, cultural, and other environmental factors in which the subject firm or unit is operating. For example, if you were analyzing data and discovered that one company or unit was significantly higher than the others, probe to determine if some unusual condition or accounting change impacted the data. Try to estimate the relative value or effect of these unique factors. What is important is to recognize the factor and its significance. With analysis in hand, determine if there is improvement potential. Compare your own internal measurement data against the benchmark. Make sure there is consistency between internal data and data collected from outside sources. Understanding the numerical aspect is only part of the analysis. You also need to understand why the improvement potential exists. If the study was conducted properly, it will obtain information that will help determine any causes for the gap. If not, question the reliability of the results of the study. Your reasons do not have to be quantitative. If performance is superior to the benchmark, evaluate the possible cost of exceeding the benchmark. This might suggest the need for a cost and benefit analysis to determine if the practice should continue at the current level. From the information gathered, develop a list of factors that appear to be driving the benchmark performance such as process(es), standards and practices, environmental, and political.

The improvement potential is the difference between current performance and that of the best practice. Both industry and competitors continue to pursue improvements. Therefore, one must not only analyze the benchmark and gap as it exists at the time of measurement, but also project where the benchmark and gap are likely to be in the future. If data is available for more than one year, determine if there are any trends. If data is not available for more than one year, use your judgment to project the future. Estimate the benchmark performance level for the next three to five years. Based upon knowledge of the plans and goals for your own operation, project performance

over the same period as the benchmark. It may be useful to prepare a graph of your projection. Also, document any assumptions made in preparing your projection. Sophisticated techniques may not be needed to make your projection since few data points will be available. Your goal is to determine the size of the gap over the next several years. Projections will help show what improvements to expect and where to set goals.

It is now time to establish specific objectives and metrics. This stage of the process is the least complicated and the most straightforward since the primary purpose in benchmarking is to take action. Procedurally, the list of current goals is reexamined as a result of the benchmarking efforts. New objectives are aligned with current goals. The metrics and units of measure used in current objectives may be retained. In fact, incorporating benchmark findings into existing, commonly understood operating statistics will facilitate their acceptance in your organization. Examples of specific objectives include improving customer satisfaction by 15 percent, reducing discharge processing time by 50 percent, reducing rework by 40 percent, or reducing turnaround times by 10 percent.

Up to this time, you have been planning without the benefit of a benchmark. Now you must decide how to adjust plans in light of this new information by determining what changes in current objectives are required to achieve the benchmark. Your decision should be realistic relative to the benchmarking subject, focus on process improvement and consider the impact on the long range targets and annual objectives. The direction of the existing plan may be correct and all that is required is a change in emphasis or a relatively minor revision. However, you might discover that achieving the benchmark may require a much more extensive change. Assess the impact of the change in your objectives. The benchmark findings may confirm the direction of the change, but not accurately determine the magnitude of change that should be achieved. For example, you may decide the objective is to reduce cost by 20 percent, which will narrow the improvement potential to 5 percent. However, not meeting the benchmark will have minimal impact on customer service. On the other hand, achieving the benchmark could require a major investment in a new facility, which may not be justified.

Now that you have revised the objectives, update your projection. It is a good idea to retain the original projection and overlay your new projection. This will help others understand the impact of your revised objectives. Before developing detailed action plans, review the objectives with your organizational commander, chartering agency, and/or the Quality Improvement Council (QIC) to obtain their commitment. Much time could be wasted if you do not "check it out."

Phase Four - Adopt

The final phase of benchmarking focuses on implementing the improvements identified during phases two and three and reevaluating the subject and scope of the benchmarking subject. It involves obtaining buy-in, developing an implementation plan, accomplishing that plan/monitoring the results and, finally, reevaluating the benchmarking subject and scope.

Obtaining buy-in is an essential part of this phase. Without buy-in of the analysis you will not be able to proceed further in the process. This step can be particularly difficult if you have identified large gaps with the benchmark since your organization may dispute the reliability of the data. Before you prepare your communication, develop a list of all of the parties that need to accept the results of your analysis. As a minimum, include *leadership, suppliers, customers,* and *employees.* Organize your analysis to communicate the findings and ensure the probability of acceptance is

high. Do not force a detailed data review before presenting the results of the analysis. Provide key results and conclusions at the beginning. Make certain the analysis is based on data and not opinion. Maintain an objective point of view throughout the communication. Provide the details of the study as an attachment. Detailed data could be one of the most important items in obtaining acceptance for your findings. Do not assume that little negative feedback means acceptance has been obtained. Ask for buy-in and deal with objections in a straightforward, objective manner.

After obtaining buy-in, develop your implementation plan. This is a description of specific events that must take place in order to achieve/support specific objectives. In addition to description, each event requires time frame, responsibility, and resources required. Review the data gathered on business practices and work processes, and try to understand how your partner is achieving the benchmark. If this information is not available, go back to phase two and initiate a new data collection project. Use a "force field analysis" (or other applicable tool/technique) to help define the areas that influence the achievement of the objective. Determine the key drivers. Develop weighting factors to help decide the best set of actions. For example, how important is it to achieving your objective, how much time is required, how many resources are required, what is the probability of success, or how much control do you have. Prepare an action plan for each event, that includes the time frame and milestones when the action will be complete, responsible parties, resources required to complete the action, and the impact on the improvement potential. Events must be well defined, otherwise it may be difficult later to determine if they actually did occur to the degree required to achieve the goal. In developing your list of events, consider how to track implementation. If the event cannot be tracked, do not include it in the plan. After developing new functional objectives supported with action plans, review the plan with the organizational leadership to gain their approval.

After obtaining approval, make sure all parties involved understand the roles they must play in implementing the plan. Review the process versus milestones on a periodic basis. If you are not tracking the plan, determine the causes and either take corrective action or modify the plan. Let others know how you are doing. Keep your leadership advised on the status of the plan. At this point, it will be important to measure your process against criteria for consideration as a best practices (BP) candidate. Consult ACCPAM 90-103 for a list of BP criteria. Candidates that meet all or some of these criteria should be submitted into the ACC BP team.

The benchmarking process is not complete until you reevaluate the benchmarking subject and scope. Reevaluation is the process of recalibrating your benchmarks to determine if they are still valid. This is an important step because competition and best practices are constantly changing. There are no hard rules on how frequently this should be done. Once every five years is not often enough, and every month is too often. It is a common practice to try to reevaluate "critical" benchmarks every year. However, make the determination based on the characteristics of your business environment. Consider whether or not the need, resources, environment, partner, customer, supplier, etc., have changed. Finally, review each of the previous phases and steps and update each as required. Take each step in order and complete as many activities as you can on the assumption that each time you go through the process, you gain new insights.

Once you have completed the four-phase process, two actions remain: document the process and brief the results. Again, future successes depend on elimination of duplication and attainment of effective internal communication. Properly documenting your work and briefing the appropriate people will help do these.

Conclusion

Benchmarking is a powerful tool to improve your organization when properly understood. It is a process in itself, but is best used in conjunction with your organization's strategic planning process. The cost in manpower, time, and organizational change must be weighed against the magnitude of leadership's desire to improve an important aspect of your operation. When used properly and completely, the benchmarking process can truly make your organization "the best of the best."

Bibliography

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Biography

Lt Col Lee Colburn, Chief, Inspector General Plans and Programs Branch, Air Combat Command, Langley Air Force Base, Virginia. He Co-led the Headquarters Best Practices Integrated team in developing the Command's benchmarking process and policy. This team acted as the catalyst in driving the Command to adopt a standardized methodology/hardware for sharing information.

First Lieutenant Scott Hopkins is a computer systems project manager from the Air Combat Command Quality Center at Langley Air Force Base, Virginia. He manages the development, testing, maintenance, operations, and technical solutions for small computer applications. He has a Bachelor of Science in Computer Science from the University of Virginia and is pursuing a Masters degree in Business Administration. Lieutenant Hopkins is the 1994 ACC nominee for the Air Force Productivity and Enhancement Award.

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ABSTRACTS

152 Reconnaisance Group
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BILLETING
PROCESS
ACTION TEAM
July 1995

COMPENDIUM

The Nevada Air National Guard has always had the policy to provide some type of housing for members who live outside the commuting distance (50 miles or greater). The 152 RG/Commander felt since we recruit from outside Reno, NV., that an incentive for the out of town members would be a motel room for Unit Training Assemblies and annual training duties. This popular policy helped our recruiting and retention staff. As the active duty military downsized the Air National Guard units like ours became more popular and the unit has had a larger recruiting base to draw from. By 1992 the cost for billeting was exceeding $125,000.00 per year. With the military budget being reduced considerably the 152 RG Commander made the decision to stop using commercial contract quarters and utilize the Stead AAF billeting facility for members who live outside of the commuting distance.

Within a period of 1 year, our average motel room use of 125 members per month had dropped dramatically to 10 members using the Stead AAF billeting facility. The decision to stop using commercial billeting facilities saved the unit considerably, but a new problem arose. It was becoming evident that the morale of personnel using the stead billeting facility was reaching an all time low. Members considered quitting, others would schedule rooms at stead billeting and not show. Resulting in charges to the unit for unused rooms. Members voiced their concerns and complaints to commanders, supervisors, and first sergeants. These complaints and concerns were up channeled to the 152 RG Commander, bringing to his attention that this was becoming a retention and morale problem.

The 152 RG Commander saw an opportunity to utilize the Quality Approach to help him obtain a satisfactory solution for this problem. His response was to establish a charter for the Billeting Process Action Team in July 1994, with a completion date scheduled for September 1994. The team was chartered to gather the data and make recommendations concerning the continued use of the Stead Billeting Facility versus the use of commercial contract quarters. Providing adequate billeting facilities for Traditional Guard Members, enabled them to fulfill their Unit Training and Annual Training duties.

The team first met in July with the 152 RG Commander to discuss the charter and to assure team members understood the mission statement for the Process Action Team and agree to operate within the terms and guidelines established.

With the team formed, we quickly reviewed the billeting process. At this time the Billeting Process Action Team was informed that the Services Technician Position was vacant and would not be filled immediately. We were able to acquire the information needed concerning the billeting process by the Service Technician's supervisor.

We started with the basics by recording all of the complaints we had available concerning Stead Billeting, added costs, and then brainstormed ideas that might be contributing

factors to the problem. The team decided to develop a customer survey to assist us with establishing the baseline for evaluating the billeting problems.

The customer surveys were given to the First Sergeants for distribution to all eligible users of Stead Billeting for completion and return to the Process Action Team (PAT). While we waited for the return of the completed customer surveys individual team members were assigned research areas in their expertise; historical data concerning costs, security, transportation, recreation, customer necessities and the billeting process. Due to budgetary concerns the Stead Billeting Facility was chosen as being the most cost effective. The team also completed an in-depth physical inspection of the Stead Billeting Facility.

Through the use of customer surveys and the tour of Stead, the PAT was able to identify several opportunities for improvement. The areas identified were: registration process, transportation, living conditions, security and a personal feeling of safety. With the 152 Reconnaissance Group Commander's concurrence the team streamlined registration, improved transportation, built a security wall, re-keyed all female rooms, and updated and posted 24 hour emergency telephone numbers. The personnel office on base provided the team with address labels for all personnel eligible to use Stead Billeting and an updated Information Packet was mailed to each Guard member. The communication channels were being opened for all personnel concerned in the Billeting Process.

The PAT immediately started to upgrade facilities. All of the comments and survey results helped to direct us to the customers primary concerns. The following areas are in a continuous cycle for upgrades, rooms, recreation facilities, food, study area with computers. With the assistance and approval of the Army Billeting Officer carpet runners and rugs to help alleviate noise were installed, new mattresses, desks, alarm clocks, working telephones, cable TV, new TV/VCR combinations, covered BBQ patio, a bible study room and food vending machines to help all customers utilizing the Stead billeting. The combination of the different branches of the reserve and guard units in the area have greatly benefited from the upgrades. An article was published in the base newspaper to inform all users of the new billeting process and upgrades.

During the Quality Air Force Assessment the Billeting Process Action Team was recognized as a benchmark candidate by the 12th Air Force and received a certificate of recognition.

In October 1994 a letter was sent to the 152 RG/CC in which it was stated that he was dissatisfied with Stead billeting, and recommended an alternate billeting site. As a result of this letter the 152 RG/CC re-established the Process Action Team as a working group. We were requested to research this possible new billeting site and the team conducted a second Customer Survey and personally distributed the surveys and interviewed all potential users. Through extensive research and the results of our Customer Surveys and interviews, we found that the users were extremely satisfied with the new billeting

process and upgrades. The team also it found it was still cost effective to utilize the Stead Billeting Facility.

In May 1995 the 152 RG/CC and his staff were briefed by the Billeting Process Action Team with our findings and additional recommendations. With the 152 RG/CC concurrence a mandatory briefing concerning the new streamlined billeting process, and all future upgrades will be addressed to base Commanders, First Sergeants, Orderly Rooms, Recruiting & Retention Staff, and all potential users on 15 July 1995. The attendees will receive a New Information Packet and the opportunity to have questions and concerns answered. The base newspaper will publish an article concerning the updated procedures on billeting.

The PAT has also recommended to the 152 RG/CC a working group be established to meet quarterly to continue follow-ups on the billeting process and address any future problems. The working group has been approved by the 152 RG/CC and is scheduled to meet during the October 1995 Unit Training Assembly.

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Chemical Warfare Defense Equipment
Process Action Team

The mission statement of the 179th Airlift Group, Mansfield, Ohio is "To develop highly qualified operations, logistics, support and medical professionals who provide **THEATER AIRLIFT AND MISSION SUPPORT** to serve the community, state, and nation. A key component of theater airlift is the ability to deploy and survive in a Chemical High Threat Area.

The process that was established and used by the 179th Airlift Group to manage its Chemical Warfare Defense Equipment (CWDE) Assets was broken and produced unacceptable results. This statement of fact became the challenge for the group that became known as the ***Bag Boys***.

Before our team was chartered, the accepted way to fix a problem was to apply "more commander emphasis". This solution usually produced short term results. Our team was the first to use the Quality Improvement Story to solve a difficult and complex problem. Our goal was to fix the problem for good.

Our team is made up of a cross sectional representation from the base. The group members are:

Tsgt Dave Butler - Supply Equipment Manager
Msgt Phil Crossen - Logistics Plans Manager
SMSgt Daryl Culler - Disaster Preparedness Superintendent
Tsgt Ken Ensman - Civil Engineering CWDE Monitor
Tsgt Ralph Francis - Security Police CWDE Monitor
Msgt Tom Musille - Airlift Group CWDE Monitor
Capt Len Sipe - Mission Support Squadron Mobility Officer
Msgt Phil Wood - Base Special Assets Monitor

Our assignment was to look at the entire CWDE Issue, Storage, and Reporting process and to determine what was causing our inefficient results.

Our task began by identifying the macro or key parts of the CWDE process. We used ***brainstorming techniques*** and an ***affinity relational diagram*** to develop a survey. This survey established what our customers and suppliers thought about the process. We followed up that survey with specific data collection based on: accountability, serviceability, reportability, and availability.

Our suvey results and data collection led to the development of this problem statement: **"Only 5% of unit chemical warfare equipment records match supply records (CA/CRL), causing inaccurate reporting to higher headquarters resulting in incorrect items being forecasted/funded. Both situations adversely affect timely deployment of unit personnel and equipment."**

We used Cause and Effect Analysis to stratify the problem statement into its component parts and to identify potential root causes. We determined that all of the root causes had a significant effect on the problem and must be addressed. To do that we focused on the "pain" that the problem was causing. Our goal became to produce a process that would enable us to deploy "100% serviceable chemical defense assets at a justifiable cost". We used a ***Production Model Cause and Effect*** diagram to identify the necessary steps to produce that result.

Our final solution demanded that we establish a bulk storage system and a locally developed software program to manage the CWDE assets. The software program was the key to our success, but it was also one of our biggest concerns and limiting factors. A question that we continued to ask throughout the early stages of the project was: "do we have the computer skills to produce what we want?" We did. We produced a storage system and software program that was identified by the AMC Inspector General as a ***Benchmark Candidate***.

The results that the team produced have to be considered *outstanding*. We increased Inventory Accuracy by 36%. Serviceability Accuracy by 22%, and Sizing Accuracy by 34%. We produced these results *and* reduced labor requirements from 59.2 hours per month to six hours per month.

Our experience with the Desert Storm buildup taxed our unit's ability to deploy serviceable CWDE assets. That experience was not a good one. We can now issue CWDE assets to a mobility chalk of twenty-five people in approximately 17 minutes.

Our State Adjutant General Audit Team stated that this system should be adopted across the State of Ohio and also should be used to manage our General Purpose (A Bags) and Cold Weather (B Bags). We intend to implement their recommendation as a future action.

The success that the Bag Boys had with this project was a great boost to the quality progress at the 179th Airlift Group. We were the first team to be chartered, but not the last. Our team's success has been shared with many other base quality improvement teams. The various members of the Bag Boys went on to work with, at this count, seven other quality improvement teams.

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1995 CHIEF OF STAFF TEAM QUALITY AWARD ABSTRACT

Background: In early 1993 the Executive Steering Committee of the 315th Airlift Wing, Charleston Air Force Base, Charleston SC became aware that a problem existed in providing computer training to assigned personnel. A discussion group within the committee voiced a concern that an exorbitant amount of time and money was being spent on commercial computer training and that the results were not meeting the requirements of the organization. Further study by the group revealed that the organization was rapidly moving into the computer age. Many people already had computers on their desks but had not received the training necessary for effective use of the machines. It was decided that changes needed to be made that would allow the organization to ride the crest into the information age.

To move the problem out of the executive committee, and start action on a possible solution, a Small Computer Working Group was charted with the defined goal of exploring the computer training needs of the organization. The group was empowered to research solutions, make recommendations, implement changes and monitor progress. They were told to use quality tools and techniques to bring the process in-line to meet the training requirements outlined.

Efforts: In September 1993 a project charter was authorized and completed by the Executive Steering Committee to begin the quality process of problem identification, solution recommendations, and measurement.

In October 1993 the group attempted to define the problem and the processes needing improvement, as well as the process owners, customers and requirements.

Early efforts were disappointing and were hampered by the fact that there was a disparity among team members as to their level of quality training. Meetings were not productive. It was evident that it would be necessary for all members to enroll in quality training at the earliest possible date and group progress be slowed to allow for individual education into the methodology to be used.

At the completion of training, and with guidance from the wing quality office, meetings became more productive. Ideas were shared and individual opinions respected. Within several weeks, the Small Computer Working Group defined the key processes for improvement as: training and readiness.

In late 1993 and early 1994 the group used quality techniques and a Process Identification Worksheet to identify the process owners, stakeholders, requirements, customers, and suppliers. They then started research to find a solution that would fulfill their charter.

Building on success and a better understanding of the problem, the group formed an idea to build a Computer Learning Center within the wing.

Successes: The Wing Computer Learning Center opened in September 1994 with a ceremony that attracted wide attention on Charleston AFB. Commanders from both active and reserve organizations, as well as organization members, were welcomed and given the

opportunity to review the facility and operate the computer learning systems. They were presented with a schedule of available training as well as class schedules. This allowed the Computer Learning Center to be seen in a positive light and began the process to meet the objectives of the group.

Other successful events associated with the actions of the Small Computer Working Group were:

* The development of questionnaires and surveys that correctly identified the process needing improvement. Results from the questionnaires and surveys were used by the group to define their actions in implementing changes.

* Development of control charts and customer surveys to support quality improvement of the process.

* Collected data and presented information that resulted in securing $27,000 to purchase new equipment for the Computer Learning Center.

* Worked within the organization to secure a location for the Computer Learning Center. Arranged to have inadequate lighting replaced and the air conditioning system cleaned and upgraded to meet requirements defined by the group.

* Secured furniture suitable for initial operation of the Center. Worked with equipment custodians to plan and successfully purchase new commercial furniture with year end fall-out money.

* Coordinated class schedules, published workbooks, and secured instructors, from within the organization, to successfully run the Center. The center now provides training, seven days a week, on such programs as: Microsoft Disk Operating Systems, Windows 3.1, Word for Windows, and PowerPoint. Air Force programs such as Personnel Concepts III, UTA Pay System, Orders Program, and Banyan Vines are also taught.

The successes of the Small Computer Working Group have provided the entire organization with a blueprint for successful team effort. They have been asked to make presentations featuring their activities to several quality groups both on and off-base. The Small Computer Working Group is a benchmark for our quality effort.

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ABSTRACT

CHIEF OF STAFF, QUALITY TEAM AWARD

SUBMISSION PACKAGE

507 ARW
CONVERSION STEERING GROUP
TINKER AFB, OK

The Mission of the 507 Air Refueling Wing is to recruit, equip, train and retain personnel for world-wide deployment in support of DoD objectives.

The opportunity for improvement was the conversion of the 507th Fighter Group to the 507th Air Refueling Group (Wing after 1 October 1994). This conversion was announced on 12 November 1993 to begin on 1 April 1994 and was scheduled to be complete by 1 October 1995 (a normal conversion takes 3 to 4 years including the preplanning). The 507th saw the opportunity to build a unit capable of performing a new mission for tanker aircraft: a deployable, self-contained unit capable of plugging directly into TACC at a deployed location. Additional factors were that the conversion was neither planned nor funded by AFRES and that the day the conversion was announced it was 16 months behind the normal conversion timeline. It was immediately apparent that normal conversion processes and paradigms would not be useful in accomplishing the conversion with the given constraints.

A traditional conversion takes from three to four years. The unit is selected for conversion from one weapon system to another. The weapon system is scheduled to begin arriving at the unit from the manufacturer (or in the case of the Air Force Reserve) from active duty units. This statement if true from the standpoint of conversion to a different weapon system (A-10 to B-52) or to a similar weapon system (F-4 to F-16). Training for affected AFSC's is projected over a two to four year period.

In the case of the 507 Air Refueling Wing this planning and conversion timeline was not feasible. The wing was notified on 12 November 1993 that it would convert from F-16's (A & B models) to KC 135-R tankers as of 1 April 1994. This timeframe was necessary to accommodate the removal of the KC-135 aircraft from the active duty. In addition the 507 FG was not projected for any aircraft after 2/94. The IOC date as given by the conversion order was 1 October 1995.

In order to accomplish this conversion a Conversion Steering Group (CSG) was formed. The CSG consisted of the Wing CC (Col. Robert E. Lytle, Air Reserve Technician - "ART"), the Operations and Training ART (Maj. Pat Filburn), the senior Maintenance ART (Maj. Rodney Lane), the three maintenance branch Chiefs (CMS Jerry Elders, CMS Michael Riley, CMS Bruce Carlisle), the senior ART in the Mission Support Squadron (LTC Gary P. Mixon), the Military Personnel Chief (Maj Ted Covert), the wing Quality Officer (Capt Joel Clay), the commander of the Combat Logistics Support Squadron (LTC Kenneth Settle), an Ops Officer (Capt Mark Case), and the senior ART of the 72nd Aerial Port Squadron (Msgt Sammie Ware). These 12 individuals were selected due to their expertise in their area of the wing as well as their commitment to complete the conversion using a Quality methodology to achieve breakthrough improvement.

The charter (as established at the CSG meeting on 10 February 94) was: *We will steer the 507th conversion from the best F-16 (unit) to the best AFRES KC-135R unit safely and efficiently as possible while continuing to care for each 507th member. To perform this in a Quality manner, perform each step promptly and keep the 507th informed throughout the process while daring to be better.*

Sub-working groups were established. These included: 1) Aircraft (Iron on - Iron off); 2) Base Involvement; 3) Personnel; 4) Budget; 5) Admin; 6) Facilities; 7) Concept of Operations; 8) Training; 9)

Equipment and Supplies; 10) Associate Units; 11) Quality; 12) Vision and Dreams. Preliminary charters were developed for each sub-working group as to their scope of activity and membership.

Each sub-working group (used as synonymous with team) was chartered to take care of specific cross-functional areas within the conversion. The training working group, for example was responsible for all training, maintenance/aircrew/support personnel within the wing including setting up cross-training for displaced personnel.

The CSG allowed the senior and key leadership within the 507th to maintain a broad perspective on the conversion while the sub working groups did all of the detail "in the weeds" work. It also took the perspective that we must plan for the distant future, not just get through the conversion. This long range perspective was incredibly important. To do this they tapped into an outstanding talent pool of reservists. These are the key people who make the Air Force Reserves what it is today.

On 9 June 1995 the 507th began deploying a total of six aircraft to Istre, France. This deployment marked the culmination of our units attempt to convert. This mission was in support of Deny Flight, the ongoing mission in support of the United Nations Peace keeping forces in Bosnia. The last of the Crews from Deny Flight came home 14 June 1995.

RESULTS:

The 507 ARW was able to declare the unit IOC as of 15 July 1995. The 507 had accomplished its task of conversion. The unit had converted from F-16's to KC-135R's safely and efficiently. From 12 November 1993 to 15 July 1995. One year, eight months and three days was all it took. All personnel who desired to remain with the unit as an Air Refueling Wing were accommodated. This is believed to be the quickest conversion in the history of the Air Force. And all done with empowered high performance work teams (sub-working groups).

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F-15 Flight Control Process Action Team

Intermediate-Level Repair Enhancement Program

Kadena Air Base, Japan

ABSTRACT: PACAF has 64 F-15 fighter aircraft forward-based at the 18th Wing in Okinawa, Japan. Our Wing's mission is to "Defend United States and Allied Interests by Providing a Responsive Staging and Operational Airbase With Integrated, Deployable, Forward-Based Airpower." In order to maintain Air Superiority in the Pacific Theater, our maintenance complex must provide reliable aircraft systems for our pilots...especially critical flight control systems.

Imagine you're a race car driver traveling at 180 miles per hour. As you approach a "hair-pin" turn you steer the wheel to the left...but your car unexpectedly goes right! This can happen to our F-15 pilots if aircraft flight controls are not correctly adjusted. We call this situation a "Departure from Controlled Flight." Departures from controlled flight occur quickly, and pilots must react swiftly or risk loss of life. Such a situation is not conducive to good training or winning an aerial dogfight with the enemy.

When a pilot experiences a flight departure, he declares an In-Flight Emergency and reports it to Debrief as a Pilot Reported Discrepancy (PRD). The aircraft is then grounded until a flight control diagnostic team troubleshoots the flight control system from stick to stern. In late 1992, the number of flight control related PRDs, and departures from controlled flight, began to escalate in the 18th Wing. In October 1993, Wing leadership chartered our F-15 Flight Control Process Action Team (PAT) to improve system reliability.

The exact causes of our failing flight control systems were tough to pin down. Precise aircraft response is essential, and it is imperative that consistent and accurate maintenance practices be followed. But, the F-15 flight control system is composed of hundreds of manual, automatic, and hydro-mechanical components that are worn to the limit of their in-service tolerances. Inconsistent maintenance practices and worn parts exacerbate the situation. New processes had to be developed to deal with this progressive situation.

Using the Air Force 7-Step Process Improvement Model, we addressed flight control system reliability during three plan-do-study-act cycles of process improvement. We set up new procedures for all aircraft technicians to use when performing flight control maintenance, including the introduction of an innovative preventative maintenance process, or "Tune-Up Dock." We also standardized pilot training and discrepancy reporting procedures to further aid in the prevention of departures and the correction of flight control system malfunctions.

Our Tune-Up Dock, however, is where the real flight control preventative maintenance takes place. Dock technicians check the tolerances associated with key flight control components and put them through an extensive diagnostic check out. Our technicians correct problems, collect information about aircraft components, and validate our data collection work-sheets with a single focus in mind...problem prevention instead of correction, resulting in safe, reliable flight control systems for our pilots.

Since our team implemented the new process improvements, pilot reported discrepancies have been steadily decreasing, and departures from controlled flight were completely eliminated for ten consecutive months.

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ACTIVE DUTY SICK CALL PROCESS ACTION TEAM SUMMARY
LOCAL LEVEL CUSTOMER IMPROVEMENT OPERATION

354th Medical Group/Eielson AFB, Alaska

IMPROVEMENT OPPORTUNITY: The 354th Medical Group's mission is to ensure maximum mission-readiness for over 3,000 active duty military personnel. Active duty sick call (ADSC) is a fast action process designed to immediately identify illness, treat and return personnel to duty as quickly as possible. Typically, ADSC is for simple, basic, or recent onset illnesses. This summary describes our continuous improvement story.

Active duty sick call (Family Practice) was receiving numerous complaints from both internal and external customers (staff members and patients). A common complaint derived from surveys involved excess waiting times for patients reporting at 0715 and having a line of other people already there. Another concern dealt with poor utilization of appointments for providers, contributing to a decrease in provider staffing. An analysis of all complaints indicated a long-term problem with this process which proved detrimental to both the clinic and wing. The clinic's executive staff agreed that a PAT was the most effective way to study the problem and effect a solution.

Dr. Joan Thomas, Chief of Clinical Services, initiated the Sick Call PAT in March 1993 and selected Dr. Brian Reamy, a Family Practice Clinic provider to lead the team. She also invited technical experts and interested volunteers from the clinic and other squadrons through a letter from the clinic commander. External customers (patients) made up 55 percent of the team and internal customers (clinic staff) made up the other 45 percent. In July 1994, the team selected a new team leader and gained a new process owner due to PCS assignments.

PROCESS EVALUATION: Dr. Thomas, and Capt Reamy opened the first meeting by briefing the team on its mission: *To design the sick call process to meet customers' needs.* Roles of team membership, rules of engagement, team boundaries, and team goals were established. The four goals established by the team include: *design a sick call process that involves a minimum waiting time for patients, maximize provider utilization by avoiding unfilled appointments, provide high quality and compassionate medical care that helps maintain 354 FW readiness and quality of life, and design an effective method to implement and advertise appropriate use of sick call services.*

TSgt Rixie, 354 FW/QI, trained members on the QAF Continuous Improvement Model and then jointly worked with MSgt Brown as the team's facilitators. They provided additional training on team growth stages and flowcharting. The group estimated a team completion date of within six months. Team meetings initially were held bi-monthly. However, within two months, moved to a weekly forum to enhance continuity and meet their completion goal.

ANALYSIS: Input was solicited from customers by placing improvement/complaint questionnaires at multiple sites around the base (such as the dining facility, base exchange, and flying squadron). Team members then developed a remarkably comprehensive fishbone (cause and effect) diagram comprised of 5 major categories and 24 sub-categories with 97 subordinate categories (input diagram).

A ten question pilot survey was sent to recently treated customers to verify each of the five major categories identified in the cause and effect diagram--*wait (glitches), provider actions, screening process, facility design, and policy.* The data collected helped isolate those root causes with the greatest impact on the team charter.

TAKE ACTION: After carefully reviewing and validating the completed cause and effect diagram, the team used multiple voting to select those solvable causes having the most impact. The criteria used to determine this included: "Is it

changeable?" and "Does it impact satisfaction?" Once completed, the team rank ordered the top 10 action items. The team used nominal group voting to determine if items within the diagram needed to be considered and looked at and reviewed items in the "parking lot" to see if they needed to be included. Further team action was not required.

From the list of 10 action items, the team again brainstormed for possible solutions to correct problems. Once the list was compiled, a prioritization matrix was used to ensure the adequacy of action planning ideas was completed using the following four criteria: *which provided the most benefit, expense/feasibility, implementation time, and is the solution within Wing/MDG control.*

By September 1993, the team was ready to survey their customers. A telephone survey was conducted which reached approximately 60% of the weeks' active duty sick call patients. The survey consisted of questions relating to each of the top 10 action list items. The top four questions (concerns) ranked by patients coincided directly with the teams initial goals and were acted upon. Only one team goal, dealing with the amount of sign-in time allowed, was not aligned with popular patient opinion.

After a careful review of all the data collected, the team planned implementation solutions for root causes. An implementation date was set for 1 December 1993. After a three month trial phase the solutions were validated with a follow on survey and results presented to the executive committee for final approval. The committee approved all the teams immediate and long term plans and solutions!

IMMEDIATE:

1. **Issue:** The 0730, 0745, and 0800 slots were being wasted, impacting provider productivity and availability of open appointments. **Root Cause:** Personnel were reporting to work prior to coming to the clinic and ADSC sign-in was open from 0715-0830. **Solution:** Limit ADSC sign-in to 0715-0745.

2. **Issue:** Sick call system was being misused by patients and providers. **Root Cause:** Not enough follow-up appointments available to providers who subsequently had patients come in during ADSC where patients were present with more immediate or chronic problems. **Solution:** Define and advertise the criteria for who should report to ADSC. A campaign began with articles in every available media to inform personnel on ADCS policy and requirements. Handouts are provided for each active duty personnel.

"SHOULD YOU BE AT SICK CALL?"

-Are you too sick to go to work?
Is this a recent illness/injury you've had within the past 24 hours?
If you answered YES to either question you should be at sick call!

If you answered NO to these questions, PLEASE call Central Appointments for an Active Duty Same-day or Routine appointment
377-1847

"PLEASE USE YOUR TIME AND MEDICAL RESOURCES WISELY"

Sick Call sign in times: 0715-0745 Mon.-Fri.
New: Active Duty Priority Time
Acute Care Clinic
1300-1400 Mon.-Fri.

3. **Issue:** Shift workers had no recourse for being seen prior to reporting to duty. Those who felt progressively more ill during their work day either had to be seen in the Acute Care Clinic or wait until the next morning. **Root Cause:** No time other than early AM reporting identified. **Solution:** Established an active duty priority hour in the Acute Care Clinic (Mon - Fri 1300 - 1400). Members in uniform receive priority.

4. **Issue:** Inappropriate use of the sick call system. **Root Cause:** Lack of available appointments. **Solution:** Added more same-day, active duty appointments, providing the Family Practice Clinic staff the flexibility to still offer

near immediate appointments to those who really didn't fit established sick call criteria.

5. **Issue:** Inadequate distribution of ADSC patients._**Root Cause:** Flight Medicine was only seeing active duty flyers and their families, resulting in several unused appointment slots. Family Practice continued to provide full service, with limited availability to all others. **Solution:** Flight Medicine extended their services to include aircraft maintenance personnel (approximately 400 personnel). Eligible ADSC personnel were referred to Flight Medicine.

6. **Issue:** Patient and provider frequently expressed dissatisfaction with interpersonal communication through patient questionnaires and verbal provider input. **Root Cause:** Rank and knowledge of the process hindered effective communication. **Solution:** Improve provider and patient communication. Develop an "expectation" handout, designed to facilitate communication, for patients to complete before the provider enters the exam room.

LONG TERM:

1. **Issue:** Patients spent excessive time looking for ancillary services within the clinic, delaying their return to the provider with results. **Root Cause:** Poor directional signs in clinic. **Solution:** Improve clinic signs. Clinic updated signs, providing better direction for customers.

2. **Issue:** Patients frustrated with current ADSC and appointment systems dissatisfied with recommendation to either go to Acute Care, book an appointment, or return the next day. **Root Cause:** Lack of knowledge on ADSC resulting in a delay in care. **Solution:** Informational phone line installed to provide patients with current information on clinic services and hours of operation.

3. **Issue:** Patients unclear as to how to access clinic information and/or didn't feel like reading literature while ill. **Root Cause:** Inadequate communication devices and methods. **Solution:** Flashing message board in Family Practice Clinic waiting area installed to relay information to patients while they sit in the lobby area; improving value of patients waiting time and improving communication.

4. **Issue:** Patients didn't understand how to gain access to care for self or family. **Root Cause:** Inaccurate or unsuccessful of information transmission. **Solution:** Informational video taped by clinic personnel relaying how the sick call and appointment process work.

CHECK RESULTS: Sick call and staff members were given a post-implementation survey to complete three months after implementation date. Seven of ten questions (areas for improvement) showed positive progress (see input graphs). Evaluation of appointment utilization from 1 Jan 93 to 1 Mar 93 compared to 1 Jan 94 to 1 Mar 94 revealed sick call usage decreased by 35% and same-day, active duty usage increased by 33%. In summary, all of the ADSC team's immediate plans were met and 3 of 4 long-term goals (excluding #4) were achieved. Evaluation data collection and analysis confirmed these results.

STANDARDIZE SOLUTIONS: The patient handout to improve communication proved unsuccessful after a six month trial period(due to lack of patient input) and was deleted. Staff members maintain training on the system. Mass advertising through media channels and through squadron medical liaisons continues to be provided quarterly for newly arriving personnel and serves as a reminder for others on the purpose of ADSC. All new family practice personnel receive training on patient communication and interaction. Appointment utilization reviews are conducted by the Appointment Desk Working Group and surveys conducted annually. Though the team's system improvements worked well, patient surveys are currently being conducted and analyzed to reveal customer satisfaction levels with the current process.

PLAN FOR FUTURE: As more data is collected, the team is reconvened to thoroughly review and analyze it, then determine if the team needs to be reactivated to further address, evaluate,

and improve the process. **Coordinator**: Msgt Howard S. Rixie, Sr.; DSN: 377-4825 FAX: -2324

WOMEN'S HEALTH DAY PROCESS ACTION TEAM
12TH MEDICAL GROUP
RANDOLPH AFB TX

The mission of the 12th Medical Group is to serve the health needs of the Randolph community, to support the flying mission, and to meet worldwide operational commitments.

Our key processes are:
(1) Delivers Health Care
(2) Supports Flying Training
(3) Provides Qualified People for Operational Taskings

In early 1993, each MedicalTreatment Facility (MTF) was required to prepare a plan to meet the Department of Defense (DOD) guidance on Women's Health Issues. Specifically, the DOD guidance, effective 1 July 93, required "all female beneficiaries 18 years old and older or who are sexually active should receive an annual health maintenance examination which includes, but is not limited to, the following services: 1) Papanicolaou smear; 2) pelvic examination; 3) breast examination; and, 4) blood pressure measurement. Family planning and contraceptive counseling will be made available for all eligible women who desire this service consistent with applicable DoD and Service regulations. The results of the Papanicolaou smear shall be provided within 14 days..."

THE DOD GUIDANCE FOR MAMMOGRAMS:

At the age of 40, a baseline mammogram shall be required for all active duty women and shall be offered to all other women who receive health care within the Military Health Services System. In addition, mammography shall be provided for women at any age who have been identified by their health care provider as requiring additional screening as indicated by individual risk factors. For women over the age of 50, a screening mammography is recommended annually. All mammogram must have a referral to ensure test results are tracked. Appointment times shall be within 4 weeks for baseline or screening mammogram. Results shall be made available to the patient within 14 days.

If evaluation by a health care provider requires mammography for diagnosis, e.g., for a lump, the test shall be provided within five working days of when it is ordered. Test results shall be available to the patient within five days of the test.

THE DOD GUIDANCE FOR GYNECOLOGY SERVICES:

The patient makes a judgment whether gynecology care is an emergency, urgent, or routine. Emergencies will be seen in an emergency room available 24 hours a day, urgent problems seen within one working day, and routine care shall be seen within four weeks or the woman advised and provided the option of going outside the medical treatment facility for care.

RANDOLPH'S APPROACH

We started with a Tiger Team and evolved into a Process Action Team (PAT). At first glance the Executive Committee members felt we simply did not have the resources to meet the

DOD guidance in the short turn-around-time they provided. An analysis by our Tiger Team revealed six major areas that were barriers to providing quality and availability of health care to all beneficiaries. It discovered: 1) Pap smears sent to Wilford Hall Medical Center's (WHMC) cytology department consumed a large portion of our 14 day turn-around-time, 2) budgetary constraints precluded direct mailing or hiring more personnel, 3) we did not have a direct computer link to WHMC's cytology laboratory, 4) we did not have administrative support assigned to the OB/GYN Clinic, 5) our policy to have 25 slides in the transfer box prior to shipping significantly ate into our 14 day turn-around-time, and 6) transportation of specimens to WHMC were infrequent.

Solutions to these barriers were achieved by our PAT using QAF tools such as flowcharting, brainstorming, cause-and-effect diagrams, interviews with workers at all levels, internal and external customer surveys and questionnaires, and tapping into the experience and knowledge of our in-house medical experts, from technicians to doctors. The work of the team devised thirty five possible solutions and prioritized them. It continues to revisit possible solutions and implements them as equipment, resources, and money become available.

Our most innovative solution was the Women's Health Day. This event is held quarterly and targets women who traditionally have had limited access to women's health screening--retirees or their dependents. Many had not had Pap smears or mammograms for years. The WHD effectively leverages the efforts of our medical providers by extensively using volunteers. Since our first WHD, competition with active duty personnel for OB/GYN and mammogram appointments has been eliminated, relieving the "cut throat" frantic attempts to obtain appointments. Pleased with our success with the WHD, we decided to expand our access to men as well--voila our comprehensive health care wellness clinic for men, "Men's Health Day." Both of these events have been a big hit at Randolph AFB.

Starting with a Tiger Team and transitioning to a PAT, all team members gained invaluable insight and experience with QAF tools and teamwork. The expertise developed by this team enabled the 12th Medical Group (12 MDG) to meet the DOD guidance where other MTFs have not. As importantly, the successes of the team are broadcast throughout the 12 MDG and the Wing, inspiring other process owners to form PATs. In the 12 MDG alone, the Commander has commissioned more than five additional PATs and most recently a PAT to look at PPIP--Put Prevention Into Practice. The Wing Commander, pleased with the WHD PAT's success, arranged for them to brief all squadron commanders at the April 1995 Expanded Wing Quality Council. The WHD PAT success story far exceeds merely having solved its assigned charter, it effectively promotes the use of PATs throughout the 12th Medical Group and 12th Flying Training Wing.

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"AIRFRAME ANALYZERS" ABSTRACT

42 AIR BASE WING

PROCESS ACTION TEAM

The 42d Logistics Support Squadron's mission is to provide quality goods and services to all supported DoD and Federal agencies. A key element of the 42 LSS Supply Flight is timely issue and delivery of quality customer service and supplies. The flight's key processes are issue systems, inventory control, fuels systems, material storage, and customer services.

In July 1993, the organization realigned under Air Education and Training Command (AETC). One of AETC's key supply operations measurement areas is the issue effectiveness rate. This rate measures the percentage of parts/supplies available on stockroom shelves at the exact moment of a customers request in ratio to the total number of requests received. While reviewing monthly issue effectiveness rate statistics for Maxwell AFB, supply management personnel noted the 65 percent rate standard was met only once in the previous 8 months.

The Chief of Supply gathered functional managers from throughout the Supply Flight to examine the process and determine what areas were causing the low rates. The supply functional managers collected, categorized, and analyzed 7 months of data to determine factors contributing to the relatively high rate of parts non-availability. The group determined that the high number of unanticipated demand for items not normally stocked on warehouse shelves was the key factor linked to the low issue effectiveness rates. The group further deduced that 70 percent of all unanticipated demands originated from supported maintenance organizations.

Analysis results were upchanneled all the way to the AETC Commander. The AETC Commander was extremely concerned at the high percent of unanticipated demands experienced for C-130H aircraft parts requests.

The 42d Logistics Group Commander shared this concern and co-sponsored, along with the 908th Airlift Wing Commander, a Process Action Team to target areas for improvement. The sponsors named the 42d Logistics Support Squadron Commander as the process owner.

The 42 LSS commander chartered the PAT to improve/sustain the issue effectiveness rate between 70 and 75 percent. The sponsors and process owner deemed it critical to include on the team the functional experts from aircraft maintenance and supply elements directly involved in daily operations supporting the movement of parts and supplies between the two organizations.

The team convened its first meeting in December 1993. They held weekly 1-hour meetings during the first 2 months. Less frequent meetings were subsequently held during the 120-day test period from 24 Feb - 27 Jun 94.

The team defined their process by using the supply series manual and examined the process factors to determine their boundaries. The team determined they had almost complete control of each factor.

The team baselined the process by using data showing due-out cause code breakouts. The codes represented "unanticipated demands", the focus of the team's improvement efforts. They subsequently charted and tracked the percentages of unanticipated demands and issue effectiveness rates. The team also prioritized a list of resultant factors from a cause and effect diagram which determined root causes of:

- Lack of training/education
- Infrequent demands
- Improper use of demand codes

Pre-testing was accomplished successfully prior to full scale implementation of the action plan. Results were checked after a 120-test period. It was found that issue effectiveness rates increased to an average 74.1 percent and target rates were met in 7 of 8 months. Additionally, the percentage of unanticipated demands decreased from 70 to 37 percent.

The team succeeded in fulfilling their charter and was decommissioned in August 1994. Although decommissioned, the issue effectiveness rate is continuously monitored by a natural working group and remains above the AETC goal.

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21st Dental Squadron Quality Team
Summary

During February 1994, the 21st Medical Group's Dental Executive Committee discussed an opportunity for quality initiatives. One of these proposals was to improve service by providing annual examinations and prophylaxis (cleaning) during the same appointment. The current system required patients to complete the annual appointment and if cleaning was required, the individual had to be rescheduled for a second visit. This was common practice throughout the Air Force and could be traced back some 30 years. This was a result of leadership and management's concern with the internal customers (dental services personnel) of this process rather than external customer focus and satisfaction.

A Natural Working Group was chartered and tasked to investigate the entire concept and determine the pros and cons of combining the appointments. Their efforts were directly linked to the 21st Medical Group's Strategic Plan and specifically to the goal to **Provide Comprehensive, Cost Effective, Quality Healthcare** and three of its four objectives:, **Maximize Access to Care, Provide the Highest Quality Outcome at the Lowest Unit Cost,** and **Promote Customer Focus and Satisfaction**. The team developed their action plan and, after approval from the process owner and Group Quality Council, conducted a one-month test to see if expected improvements would occur. Only minor problems with the tested process were identified and corrected. Full implementation was approved.

Improvements were greater than expected. The new process reduced the number of steps in the process from 14 to 7, participation rates were increased by almost a third, patient treatment hours required were reduced by almost 50 percent, and logistical savings amounted to more than $27,500 in ten months. Further analysis revealed additional improvements not even addressed in the team's action plan. Administrative duties requiring the pulling and filing of patient records were reduced by 50 percent, patient times away from their duty sections was significantly reduced by the one-appointment system, internal customers indicated there was less stress resulting in less fatigue, and dental officers had more time to conduct quality checks of patients seen by technicians. Monthly review of participation rates reached an all-time high of 98 percent and patient questionnaires were overwhelmingly positive.

All these positive achievements were important. However, to put their accomplishments in proper context, the team increased dental readiness (their mission) while reducing the required numbers of hours lost to work centers by 4850 (during ten months) or from a business view, $130,950 in salaries. The bottom line, the dental clinic now provides quality care to more customers with the same manpower and at a lower operating cost.

However, the team isn't totally satisfied with its accomplishment. They are now monitoring a two-year effort to ensure the process continues to perform at expected levels and to identify any other targets. One has already been identified. Filling of broken appointments has been targeted for improvement. Although appointments can be filled with space-available patients, the number of openings sometimes exceeds the number of available patients. The team is currently collecting data to develop an action plan.

The team's success has been standardized and the story shared with other Air Force activities. Proper recognition was accomplished by senior leadership of the 21st Space Wing. The team's success has been a catalyst for improvement initiatives within and outside the 21st Space Wing.

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Abstract

45th Space Wing Badging Process Action Team

The 45th Space Wing (45 SW) mission is, ***"ENHANCE NATIONAL STRENGTH THROUGH ASSURED ACCESS TO SPACE."*** As the operational base for rocket launches for The Wing, and the busiest spaceport in America, Cape Canaveral Air Station (CCAS) is essential to the success of the mission. This mission is in direct support of the goals for space as identified by the Secretary of the Air Force:

- Make space support to warfighter routine
- Improve military cooperation with civilian space efforts
- Make space launch routine and affordable

In support of the 45 SW mission, two organizational goals/objectives are applied at every level of performance from the desk of the commander to laborers at construction sites.

1. Streamline operations - In today's austere environment all operations must be as efficient and cost effective as possible.
2. Improve customer satisfaction - The business of space launches is becoming highly competitive and the Air Force must be able to attract commercial enterprises in order to maintain its own access to space.

The focus by senior leaders at Cape Canaveral Air Station (CCAS) on quality and continuous improvement identified a key process which had potential to effect mission performance. Construction contractor personnel were having difficulty and delays in accessing restricted areas to perform their work, an essential to the continued success of space launches. The Cape Commander and the Quality council determined that because the process was complex and cut across traditional organizational boundaries, a process action teams (PAT) would be the best approach to resolving the issue. The team's goal was to define the most efficient and cost effective process for getting contractor employees into restricted areas.

1. Results of the team's findings and actions had immediate effects on reducing the cycle time for badging construction workers for access to restricted areas and a reduction in the use of expensive escorts for unbadged workers.

2. When the team's process is fully implemented the Air Force will realize savings in excess of $330,000. The use of escorts will be reduced from 16.6 man-years to 6 man-years.

The circumstances that led the Squadron Commanders to form the Badging PAT were numerous. First, the 45th Civil Engineer Squadron (45 CES) noted short-term construction contracts were plagued by rising costs, delays, and numerous contract modifications resulting in internal and external customers dissatisfaction, Second, the 45 Security Police Squadron (45 SPS) was

unsatisfied because construction projects required an excessive number of security escorts and extensive time for contractors to receive a restricted or controlled area badge. Finally, neither group wanted to accept sole ownership for the process. No one organization could afford the time and manning to take full ownership.

The Cape Commander's Office, the catalyst for the improvement action, coordinated the effort to identify the team's membership. After identifying the organizations most actively involved in the escort and badging processes, the squadron commanders and the Launch Base Support (LBS) contractor's general manager hand-picked team members. The Cape Commander selected a representative from 45 CONS to serve as the leader and honest broker for the team. The leader had been a Quality Assurance Specialists and was familiar with the tools of quality improvement. The facilitator was a current Quality Specialist for the contractor who was well versed and experienced in the most current PAT techniques. The PAT was chartered to:

1. Map each step (what is done and by whom) in the current process used from the point a contract is contemplated to the point contractor personnel are issued badges.
2. Find efficiencies in the process.
3. Identify required actions and a timeline for implementation.
4. Identify the appropriate process owner for the refined process.

The team charter stated the squadron commanders and general manager would implement the team's process changes as long as findings were not "illegal, immoral, or unethical and were executable within existing resources." This authority and support empowered the team to function with the knowledge that their efforts would not be merely another exercise in futility, but that they could actually "make a difference." The senior leaders also provided support and encouragement along the way. They made the team member's participation a priority assignment, often placing their normal duties on the back burner. The improved processes met the criteria outlined in the charter and were accepted by the senior leadership.

The meetings began with training form the facilitator on how to flowchart, brainstorming techniques and how to set and follow an agenda. The team's work began with a mapping of the current processes to identify the myriad of tasks needed to have an individual cleared and badged . Never before had so many well informed individuals from so many different agencies come together to discuss this problem. By coordinating agencies and efforts, many inefficiencies were identified which enabled the development of a streamlined processes.

The primary changes to the existing processes were:

1. "Front-end" loaded the process.
2. Performed parallel tasks instead of sequential task in the process. Many of the tasks were not dependent upon completion of another and could be accomplished concurrently.
3. Identified 45 CES as the badging process owner and 45 SPS as the escort process owner.

To facilitate implementation of the solution, the following actions occur.

1. Developed a handbook to provide information to contractors on badging requirements, policies and procedures.
2. Changed procedures so all forms needed by the contractor are provided at the beginning of the process.
3. Designated a central point of contact to interface with the customer instead of 2 or 3 different offices.

The team's implementation plan is being followed as recommended and the progress is being closely monitored by the Commander's Action Group (CAG). The process owners have assumed responsibility and the results have exceeded expectations. The participation of the CAG as monitor of the implementation plan has been pivotal to ensuring progress and compliance. The implementation plan itself was comprehensive enough that no additional actions or deviations have been required.

This team was a success because the members were people who actually performed the tasks in the badging and escort processes. The members were given full support by their management. Confidence and enthusiasm were instilled in the team members by the knowledge that the results of their efforts would actually be implemented -- that they could make a difference!

The 45th Space Wing ensured both the team and their contributions received proper recognition. The Cape Commander sent letters of appreciation to each team member's squadron commander and group commander. For the contractors involved, the letter went directly to the general manager of Johnson Controls World Services. The Missileer, the wing's base newspaper, ran a story on the badging PAT highlighting their contributions to the wing and identifying each team member by name. The wing quality office used this medium to advertise they were implementing a Team Award as part of the Wing Awards Program and this team would certainly meet the criteria for further recognition. In the months that followed, the team leader briefed the PAT success story to squadron commander's, group commanders, and the wing commander in various forums to include wing stand-up. The message was well received in the wing; teams can and do guide continuous process improvement throughout the 45th Space Wing.

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INCIRLIK AIR BASE "WAR ON CRIME" ABSTRACT

The crime rate at Incirlik AB, Turkey was one of the highest in the Air Force. With a current population of just over 8,000, personnel assigned here had a 1 in 10 chance of being a victim of some type of crime. The senior leadership and the Security Police decided that this could no longer be tolerated, and decided it was time to begin an all out "War on Crime." Knowing there are usually several causes for a high crime rate; we knew we had to determine the root causes. We put together a Process Action Team (PAT), using the Shewhart Cycle of Plan, Do, Study, and Act as our process focus approach. This model gave us a guide and kept us focused on the processes, instead of the end results.

Our PAT began analyzing the process by brainstorming all the possible causes of the high crime rate. After eliminating duplication and those items that didn't apply, we used the Cause and Effect Diagram to analyze. This tool brought us to our root causes. We listed our major categories as: People, Equipment, and Environment. With our installation's location (southern Turkey), most of the environmental factors were beyond our control. The Status of Forces Agreement and the Defense Economic Cooperation Agreement also limited what actions we could take. So, we decided to concentrate on the factors within our control, the people assigned to Incirlik Air Base, and our equipment.

The team realized that baselining of crime statistics for 1994 needed to be completed, and a crime trend analysis conducted on a monthly basis to measure our improvement efforts. A full time Crime Prevention NCO was appointed to track improvement and implement the action plan. Using check sheets and histograms, we baselined six crime categories which were identified by our senior leadership as major areas of concern.

Our Action Plan began with increasing awareness, and we started with our internal customers, the police on the streets. By compiling and sending out a monthly crime trend analysis, our forces are now better able to focus their crime prevention efforts. The posting of metrics in our lobby area, keeps both the internal and external customers abreast of our continuous improvement efforts, and where we stand in our "War Against Crime." We also use pin boards to show areas hit hardest by thefts, and have directed foot patrols to scout these areas at random times. A special task force of volunteers was also created from on and off-duty police personnel, community volunteers, and Turkish Air Force members as well. This Crime Task Force walks the housing areas during the hours of darkness looking for crime opportunity indicators such as inoperative lights, unsecured buildings, and unsecured property.

An all out education drive was implemented with 100% of the population. Beginning within the first week of arrival, all newcomers are briefed on the local crime threat and all the crime prevention programs that are available to them. Also, new Security Police personnel are given a separate up-to-date briefing on

internal information. Commanders at all levels are briefed on the goal to reduce crime, current crime statistics and trends, and how they, along with their people, fit into the big picture through objectives. Finally, special briefings on crime prevention awareness are given to any unit, organization, or group which requests them. To further enhance our education drive we implemented a unit crime prevention monitor program and started quarterly town meetings.

Our war has taken on every avenue of the media to inform customers of our services. Along with public information announcements and flyers, we have a local paper, two television channels, and a radio station to keep the public informed. These have given us another avenue to create an environment of prevention and awareness. Due to the location of the installation, we have the market on these public address systems and are taking full advantage to improve our processes.

Along with increasing awareness, we also have implemented several prevention programs. The first of these is our Residential Survey Program. The crime prevention NCO conducts on and off-base surveys on homes to show residents where the vulnerability points are and what measures they can take to either eliminate or reduce these vulnerabilities. Another avenue of approach is "Operation Identification." All items of value are engraved with the letters *AF*, followed by the owner's social security number. Not only does this deter the thief, but also it allows the owner to positively identify the property if it's recovered. We also instituted a bike registration program. Since bikes were among the highest theft items, we implemented a bike registration program. Using a base wide publicity campaign, we have been able to get 75% of all bicycles on base registered by their owners. Not only has this assisted us with locating owner's of recovered property, it has also led to a 50% decline in bike thefts since the first of the year. We have not overlooked our public's eyes and ears and have instituted the "Neighborhood Watch Program." After surveying over 2,700 people, we determined they wanted the program and we were quick to oblige. Once we identified area coordinators and block captains we began a house-to-house drive with the principals concerned in order to drum up interest in the program. Currently 98% of the base housing residents have signed up for the program.

Knowing our youth can be instrumental in our war against crime, they are also informed on the goal to reduce crime and how they fit into the objectives designed to achieve this goal. We do this through several programs, both national and locally developed ones, designed to fit their special needs., the first being "Quality Time." This program uses off-duty cops to volunteer to assist elementary school children with homework assignments during a daily study hall. This has helped change attitudes towards the police and has also been an information means to keep the police in touch with local trends with the youth. Another local program is the "Cops for Kids," a spin off from the Big Brother/ Big Sister Programs. We have volunteer cops, both male and female, who spend quality time with kids. We have collocated our efforts with the local American Youth Association by creating a monthly "Kids Night Out ." This gives the kids a break from the parents, along

with another opportunity for us to hit topics of interest with them. For example, a recent pizza and soda bash gave us the opportunity to cover teamwork, self-confidence, and ways to handle peer pressure. These tools enable our youth to fight crime with us. This time has sparked an interest with the kids and they are increasingly siding with the police. A national program that is in full swing here is the "Drug Abuse Resistance Education Program" (D.A.R.E.). We recently had 93 graduates from the program, and have had no drug or alcohol incidents in the local school system since the program was implemented. To further enhance the program, we have instituted an awareness program for all kindergarten through fifth grade students. Each specific age group is provided with lessons specifically designed for them. While the Neighborhood Watch Program is national, we feel that what sets ours apart from everyone else's is our local "Youth Crime Watch." In its infancy stage, the program is going to reward children for keeping their eyes and ears open and reporting crime information to the police.

A major emphasis has been placed on increased community activities in order to establish quality working relations with our customers. Examples of these activities are: *McGruff* the Crime Dog visits to the schools, the day care center, and teen center. K-9 demonstrations have been done for several youth organizations including the boy scouts and girl scouts. Kids fingerprinting and photo sessions have been done on a recurring basis at shopping centers, schools, and other public areas.

Finally, we looked at another major factor we felt we could control, and that was equipment. The equipment we had was outdated, and many times just not enough. The first place we took a look at was the facilities. The installation's plans for new facilities was too far out to wait, and we decided that an interim solution was necessary. So, we set our sights on the building custodians. End-of-day checks were emphasized to ensure the facilities were secured by the custodians. Resources Protection Surveys were conducted as needed to assist the custodians with identifying physical security weaknesses. Our crime task force follows up on this program by checking buildings during the evenings. Commanders are briefed monthly on these statistics and are becoming very proactive. Perimeter fencing was another equipment concern. There were holes in the fences, degrading the physical security of the installation. New fencing was ordered, and temporary fixes such as patching and use of concertina wire was used by the Civil Engineering Squadron as a temporary fix. Upgraded lighting systems were ordered to illuminate possible unlawful entries to the base or other illegal activities. The 911 Emergency Service System was a major challenge. This is a new concept to this country. This system was developed and fully operational by November 1994, taking us one step closer to our vision of 21st Century equipment to fight our war on crime. We also re-emphasized our Crime Stop Line- 116. Our alarm systems are also outdated. To ensure effectiveness, false alarms caused by human error and malfunctions are measured in our metrics. These measurements revealed that the age of the equipment was not as much of a factor as first believed. Lack of training was the major factor for the high level of false alarms. After identifying and correcting this problem through an aggressive

training program conducted by our Resource Protection NCO an immediate improvement was evident through a decline in our overall alarm rate.

As we began studying our results, we quickly confirmed our original actions were effective. Our overall crime rate has decreased, and we are pleased with the initial assessment, but we continue to strive for improvement. We continually reevaluate where we are at and make adjustments accordingly. In several areas our improvement efforts exceeded our initial expectations. Our customers have shown their support by feedback and active involvement and we feel that we are heading in the right direction. By documenting the processes through flow charts and updated operating instructions, we have ensured, that even with the high turnover rate we experience here, these programs will be maintained into the future. To develop an innovative environment, we celebrated our team's success by individual and group recognition. The groups achievements were story boarded and placed on display. This drew attention and inspired interest by others in the unit. Those areas at or above our baseline are areas we are concentrating on for future improvement. Although we are at the beginning stages of our Quality Journey, we believe our initiatives are of benchmark value in law enforcement. We've shown that through strong community relations and a proactive approach it is possible to win the "War on Crime."

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COMMUNITY RESOURCES ORIENTED POLICING PROCESS ACTION TEAM

Enhancing Security While Improving Internal and External Customer Satisfaction

Spangdahlem Air Base, Germany

COMMUNITY RESOURCES ORIENTED POLICING

The 52d Security Police Squadron committed itself to improving the security and service it provided Spangdahlem's four fighter squadrons through a radical restructuring of the Weapons System Security (WSS) branch. We took such a severe approach after indicators told us our present method of flightline security was "hard broke" not only here but throughout the Air Force. It was clear trying new versions of traditional fixes would again fail no matter how innovative, which led us to Community Resources Oriented Policing (CROP).

PROBLEM: Everybody involved in the flightline security process at Spangdahlem was unhappy with it. Our customers, fighter squadron personnel, viewed security personnel as outsiders who were often unprofessional, inconsistent, and as a necessary evil, rather than a positive impact on mission accomplishment. The process owner, the security police squadron commander was extremely displeased with the way entry control into the areas was being conducted. It varied widely from one shift to the next and each individual sentry appeared to have their own entry control procedures. His fears were confirmed during the October 1993 Nuclear Surety Inspection (NSI) when security was rated marginal and one of the problems identified was "inconsistent limited area entry control." A lot of these inconsistencies were the result of worker dissatisfaction with their jobs, work schedules, and a perceived lack of respect from wing leadership and the base populace. The Quality Council considered these security specialists as both our major internal customers and as stakeholders in this process. Whatever we did, we needed to address their concerns or we would fail. We also had to meet the security requirements of the other stakeholders, the wing commander and the group commanders. We began seriously working on the problem after our squadron off-site planning and self-assessment seminar in May 1994.

SOLUTION: The Squadron Commander, the Security Police Manager and the WSS Superintendent conducted extensive research on Community Oriented Policing (COP) principles and methods used by civilian police agencies. They realized these concepts could be applied to fighter aircraft security operations, and that, in actuality, the dispersed fighter aircraft area configuration was ideal for implementing COP practices. It was hoped that by bringing COP to the flightline, the animosity between the fighter squadron personnel and our security personnel would be dramatically reduced and that service would improve. The quandary we faced was how to structure our WSS to allow us to accomplish our goal. The only obvious thing we could think of to do at this point was to form a team, which we did in July 1994. The team did what it was told to do: it dramatically restructured our weapons system security operation in order to fully implement

Quality Air Force principles. We completely scrapped our existing four shift system and developed a two team organization aligned with the two fighter squadron areas and that permanently matched security policemen to a particular fighter squadron, their customers. This structure eliminated redundant supervisory levels and scheduled people to work only when they were needed instead of bringing in the same number of people every 8 hours whether they were needed or not. Four significant benefits resulted.

RESULTS: First the customers, our fighter squadrons, are pleased to have permanently attached cops. When questions concerning security arise, maintenance and operations leaders can now touch their own, personal security representative. They see the same security personnel every day which makes for a cooperative working relationship as opposed to the adversarial one that previously existed. Security forces are no longer ominous and anonymous, but are now members of the fighter squadron team. The second benefit is shorter working hours and better shifts for our security personnel. This is especially important to our people assigned to duty as entry controllers. Troops are no longer locked into a rotating swings and mids schedule. They now have numerous schedules to choose from which provide a flexible choice for them and have significantly improved morale. CROP allows for a more efficient use of our manpower. We now have the capability to delegate many daily tasks that were once done by the support staff to the flight line teams themselves. These tasks now get done faster while the support staff is free to concentrate their efforts on larger, long term projects to better prepare the squadron for the future. Finally, CROP has fixed our entry control inconsistency problems as evidenced by the 1995 NSI during which entry control was rated "Excellent" and was described as "flawless."

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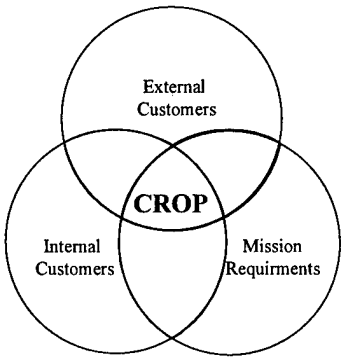

ABSTRACT OF NARRATIVE

DENTAL/FLIGHT PHYSICAL PROCESS ACTION TEAM

I. PROBLEM IDENTIFICATION

This Process Action Team (PAT) was chartered on 17 December 1993 to study the inefficiencies in procedures for scheduling flight physical examinations, dental examinations, and dental cleaning appointments. The current system involved an annual flight physical appointment, an annual dental examination appointment, and a dental cleaning appointment. The initial team meeting was on 27 January 1994. During the course of the first four weekly team meetings, the PAT used steps 1 and 2 of the CIP to define the problem and its ramifications.

II. PROBLEM DEFINITION

The team developed a list of problems caused by having three separate appointments:

1. Rated members make three trips away from duty rather than one.
2. Decreased availability of flyers for mission.
3. Dental appointments canceled for mission require extra phone time for schedulers and dental appointment desk people, including lost provider time.
4. No effective means of tracking and rescheduling canceled appointments keeps flyers out of dental health class 1 for prolonged time periods.
5. Time consumption for schedulers and dental reception people to schedule dental exam and cleaning appointments.
6. Current system often resulted in flyers having redundant dental exam (annually and with flight physical) - ineffective use of flyers' and dental officers' time.

Some PAT meeting time was used to familiarize schedulers with the dental terminology used on appointment slips. The schedulers felt that this information would be quite helpful to them in performing their scheduling duties. A glossary of these common abbreviations will be provided to schedulers as a reference and for training of future schedulers.

Through customer surveys, the PAT was made aware of the customer requirement to have examination and cleaning appointments combined (same day). It was clear that combining these two appointments into one appointment would greatly reduce the associated administrative time, reduce time flyers were away from duty, and satisfy a customer requirement. To get a measure of the current problem, the team determined the number of cleaning appointments canceled by the schedulers. This gave an indication of the amount of time devoted to scheduling and rescheduling dental cleaning appointments for flyers before making any proposed improvements. They also compared the percentage of flyers in dental health class 1 before and after changing the process.

III. POTENTIAL IMPROVEMENT

Annual flight physical, dental examination, and cleaning will be accomplished in one morning. First, rated members will be scheduled for their annual flight physical. Currently, three of these are

scheduled every Tuesday, Wednesday, and Friday. The dental appointment clerk will consult AQCESS or receive roster to determine the identity of those scheduled for flight physicals. On the morning of the exam, he/she will pull the dental health records of these patients and hold them at the dental clinic front desk. After completing their flight physical exam, the patients will go to the dental clinic for their annual dental exam which will include appropriate radiographs. The dental exam officer will not have other patients scheduled during the half hour that flyers are expected to arrive (0900-0930). After the dental exams are complete, the patients will return to the dental waiting room, and will then be seen for their cleaning appointment. One dental prophylaxis technician will have one appointment set aside and another will have two appointments so the three rated customers can have their cleanings accomplished with minimal waiting. Each of them will be done by 1100 hours. If additional appointments are needed for cleaning or for other dental services, they will have to be scheduled for another time.

This system completely eliminates the need for schedulers and dental personnel to spend time scheduling annual dental exams and routine cleanings for rated personnel. Also, most rated members will receive all services they need in a single morning, and they will be in dental health class 1 (require no further dental treatment) when they leave the dental clinic. If this solution works as anticipated, the team would like to extend it to include missileers and, ultimately, all active duty members assigned to Grand Forks AFB.

The team planned to test this solution in May, June, and July 1994. During this time, they will again look at the number of cleanings canceled by the schedulers. They will compare dental health class 1 statistics for rated personnel during those months with pre-change statistics.

IV. TEST SOLUTION

The team met on 2 June 1994 to evaluate the initial trial of the same day appointment plan. A number of problems were identified at that time. The team proposed and initiated improvements to the process which will be used for the remainder of the test period. The first problem related to the increased number of flying physicals accomplished during May. This was required by the need to complete physicals due through August on rated personnel who were deploying due to the runway closure. The dental clinic had to increase the number of cleaning appointments to meet this need.

The dental administrative element personnel have not been able to use the AQCESS computer appointment system to obtain the names of the patients scheduled for flight physicals. Because of this, they did not know who was scheduled for same day cleaning appointments and could not screen the dental record in advance. This caused appointment times to be reserved for rated customers who did not require a cleaning appointment and resulted in wasted appointment time which could have been utilized for other customers. The solution was to train the administrative element personnel in the use of the AQCESS system and to use the telephone as a backup system to obtain appointment rosters from the physical examination section.

The third problem was that patients arrived at the dental clinic unaware that they were scheduled to have their teeth cleaned. Several of these patients said that they had something else to do, and rescheduled their cleaning appointment rather than wait to have it completed that day. The dental appointment desk notifies the flight physical examination section when this happens, so that the

physical is held until the dental portion is complete. A PAT representative briefed the flying squadrons on the new program at their safety meetings when they returned from TDY.

Finally, patients arrived at the dental clinic after their flight physical at various times and were usually early for the cleaning appointment. This caused an inconvenience. Some would prefer to reschedule rather than wait. This problem is difficult to address since the exact amount of time needed for the flying physical varies, and the team did not want to cut the time too close, or some patients would be too late for their cleaning and need to be rescheduled. The consensus of the team was that patients would be more likely to accept the situation if they knew about it in advance, so the briefings to the squadrons helped alleviate this problem. An article was published in the base newspaper to publicize the program and educate customers of the new process.

The team met again on 30 June 1994 to report on the impact of the improvements made at the previous meeting, and to check on the statistics regarding the number of cleaning appointments canceled for flyers relative to the total number of cleaning appointments for flyers.

The number of flyers scheduled for flight physicals decreased due to rated personnel deployment as a result of the runway closure. The flyers who came in for appointments knew what to expect (i.e., three appointments that day instead of just one) since they were briefed by their schedulers, and appreciate the combined appointment system. There has been minimum waiting times for cleaning appointments since we have adjusted the times that customers report to the dental clinic.

The dental appointment clerks have been obtaining the physical exam appointment rosters one week in advance and checking them to determine if a dental cleaning has been accomplished recently. When it has, the appointment slot is given to another customer.

V. CHECK RESULTS

The number of cleaning appointments which were broken or cancelled during the test months (May, June, and July 1994) were greatly reduced--0% in May and June 1994 and 4.2% in July 1994. This program has had a dramatic effect in decreasing the amount of time spent by dental personnel and squadron schedulers in scheduling, canceling, and rescheduling dental cleaning appointments for flyers. Provider time is more efficiently used and rated personnel are classified as worldwide qualified more quickly.

The planned dental clinic renovation in November caused one half of the dental clinic to be closed off for several months. This, combined with the loss of several key dental technicians will strain the dental clinic's capability to provide same day cleanings in a timely manner to all rated personnel. Training was provided for new technicians, but clinic space was at a premium during the renovation. Every effort was made to continue to provide same day exam and cleaning appointments for rated personnel during this time.

During the construction period, dental personnel closely monitored this new process. The clinic was able to continue to use the new process and provide same day examination and cleaning appointments to rated personnel.

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ABSTRACT

TRAVIS AFB PRINTING MANAGEMENT MISSION

To ensure the right information is available at the right place and time in support of Travis.

Our Quality Journey

For eight months of the Fiscal Year 1994 Printing Management was manned at only 50 percent. During this period customer satisfaction remained paramount to all who worked there. Customer surveys showed a satisfaction rate of 95 percent and the average turnaround time for returning completed work requests back to the customers was 2.59 days. When Printing Management manning reached 100 percent in August 1994 we had the opportunity to look at improvements to in-house production capabilities by way of forming the Printing Management Quality Team. The first order of business was establishing a customer survey to gage our priorities for better service. The second paralleled the first by making it more enticing for customers to utilize in-house printing as opposed to more expensive cost per copy office copiers. Another concern was the unprecedented growth at Travis with the addition of several refueling squadrons and numerous tenant organizations. Could Printing Management handle the increase in production while trying to improve customer satisfaction? This and many other issues was raised during initial Quality Meetings.

PEOPLE

- Analyze feedback surveys for better customer service

- Install a buzzer for customers when personnel are in the production area (enclosed from front waiting room)

IMPROVEMENTS

- Eliminated a production control which helped lower turnaround time on completed work orders

- Reinstated "Quick Print" service and instituted its hours to 0800 - 1600 daily

- Utilized a second shift of personnel to lower turnaround time substantially from 2.59 to 0.52 days

- Continue meeting weekly with team members as an informal working group to discuss any new issues, concerns, and/or suggestions

PREPARATION

- Utilized current programs and developed our own to track trends with production controls

- Scheduled training for shop personnel to attend numerous quality training classes, including Quality Awareness Training, Quality Instructor Course, and Teams and Tools

- Surveyed Printing Management Offices throughout Air Combat and Air Mobility Commands for quality issues already put into practice and future trends

PARTICIPATION

- Ensured newly assigned personnel are properly trained on equipment to guarantee maximum productivity and understanding of Air Force and base policies

- Utilize base bulletin and other forms of communication to inform the base populace of changes to printing procedures and the high cost of office copier operation

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Coordinator in Applicant Organization

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Team Quality Award Nomination

Liquid Nitrogen Cart Maintenance

Process Improvement Team

TEAM:

Our Process Improvement Team was comprised of a natural working group from the Electro-Environmental Element. Because of the element's small size, only eight members, and the unique mixture of military and civilian personnel, it was perfect for our quality endeavor. Its composition provided the perfect blend of new ideas and benchmark observations from other bases with solid, stable expertise to maximize our improvement potential.

PROBLEM:

Liquid nitrogen cart reliability and maintainability had fallen to a dangerously low level. The cart's mean time between failure (MTBF) was decreasing, while unscheduled average repair time (UART) increased, resulting in lower nitrogen cart availability for our flight line customers. In fact, cart availability and reliability had fallen so low that on several occasions three of the four authorized liquid nitrogen carts were out of service, delaying flight line maintenance which endangered sortie generation. With test missions totaling $50,000 or more at stake, it was obvious something had to be done.

BACKGROUND:

The liquid nitrogen cart is absolutely essential to sortie generation because of its use in servicing a number of aircraft systems. Prior to aircraft launch, the nitrogen cart is used to service tires, struts, and precharge on pneudraulic accumulators, as well as perform operational checks such as the emergency power unit cold gas mode check on the F-16. The 46th Test Wing is authorized only four carts and three out of four are older than 10 years--ancient considering the wing's operational tempo. These factors, coupled with the nitrogen cart's low mean time between failure, resulted in a problem that could not be ignored.

Eight electro-environmental specialists, forming a natural working group within the element, attacked the problem. The team's purpose was to make the necessary process improvements to enhance nitrogen cart availability, reliability, maintainability, and condition. To identify key problems and improvement opportunities at the grass-roots level, the team used customer feedback, metrics, process flowcharting, and element brainstorming sessions.

Customer feedback was the earliest real-time indicator of the liquid nitrogen cart fleet's deteriorating condition. It wasn't uncommon for flight line customers to return a cart for maintenance and complain of the premature cart failure interrupting their daily operations of servicing aircraft. This not only proved highly frustrating for flight line customers, but also

Electro-Environmental Element personnel. The team wanted to provide the customer a quality product but felt captive to a commitment to meeting customer needs. They had little time to return a cart to service and satisfy the customers' time constraints in preparing aircraft for their next test mission. The team members felt they were locked into a closed loop with no relief, but realized improvement was necessary to break the gridlock between the customers' high demand and the products' declining condition. They formed a working group with their flight line customers, hoping this collective effort would lead to problem resolution. This forum provided the medium for team members to hear their customers' concerns, identifying opportunities for improvement.

Before we could properly address our improvement opportunities, we had to define our existing process. To do this, we flowcharted our existing process to highlight all activities within the nitrogen cart repair cycle. Through this and many brainstorming sessions, we determined time constraints drove our technicians to only fix the most serious discrepancies before returning a (marginally serviceable) cart to the customer. This scenario created a rapid downward spiral, resulting in marginally serviceable carts breaking down more often, thus increasing unscheduled maintenance actions and reducing nitrogen cart availability.

To completely understand the downward spiral, we started an extensive data collection effort to obtain accurate information for building effective metrics. Those metrics would help us identify root causes and evaluate the effectiveness of our corrective actions. Although several metrics were created, a series of Pareto charts and nested Paretos revealed awaiting parts as a leading contributor to long, unscheduled average repair times. A review of team members' training records, complemented with personal interviews with flight line customers, uncovered a myriad of deficiencies in individual qualifications. These deficiencies highlighted a lack of experience in cart use, maintenance, and troubleshooting, and a lack of formal training on liquid nitrogen cart maintenance. Another leading contributor was cart condition. This contributor was observed firsthand on a daily basis by team members as they struggled to meet the customers' needs. They realized degraded cart condition directly impacted MTBF, and further lengthened UART.

In order to improve the major weak links in our process, we used brainstorming techniques during the element's Do-It sessions to develop an effective action plan. Our plan addressed supervision, training, supply, maintenance discipline, and personnel with the intent to map out the best course of action to correct the nitrogen cart serviceability problems.

To implement our solution, we concurrently initiated improvement efforts in each area identified by the action plan. Firstly, since the team decided to implement the easiest tasks first, a functional area supervisor was immediately appointed to the cryogenics liquid nitrogen cart maintenance section. Secondly, we embarked on a dual-track training program to educate our customers on how to properly care for and operate the liquid nitrogen cart and enhance our knowledge of nitrogen cart maintenance techniques. Thirdly, we placed emphasis on timely ordering of parts and daily follow-up on status. We also corrected deficiencies with the process of ordering parts and created a work order residue bin to support our cart reconditioning efforts. Fourthly, although inherent in each of the other areas, maintenance discipline was necessary to

preserve team integrity throughout the process improvement initiative. Finally, we made a major paradigm shift by removing a cart from service and completely overhauling that cart before returning it to our customers. This was a significant change from our previous maintenance philosophy of only repairing the most prominent discrepancies and returning a marginal, yet technically serviceable, liquid nitrogen cart to the flight line.

We used two metrics to measure the team's progress through our continuous improvement efforts. These two metrics were MTBF and UART. Charts were updated monthly and posted conspicuously in the work center to highlight team efforts and success.

RESULTS:

Since the first month of our initiative, the results have been truly phenomenal. The MTBF for our liquid nitrogen carts increased from 6.2 days in December 1993 to 10.94 days by May 1995--an incredible 76 percent increase in reliability. This amazing MTBF increase was achieved while UART dropped from over 256 hours in December 1993 to a monthly average of 8 hours between October 1994 and May 1995. Furthermore, to quiet the critic who might question the absolute maintenance savings after our extensive nitrogen cart overhauls, we reviewed the man-hour cost expended. During the first 12 months (between December 1993 and November 1994), we spent an estimated $9,500 monthly on manpower to maintain nitrogen carts, compared to approximately $200 a month between December 1994 and May 1995--a total savings of $9,300 per month. The bottom line is we were able to enhance liquid nitrogen cart reliability and maintainability, thus increasing cart availability to our customers.

CONCLUSION:

With a synergistic team making several relatively small changes to our process and a quantum leap in maintenance philosophy, we were able to greatly improve our liquid nitrogen cart services. The nitrogen cart's MTBF increased from 6.2 days to 10.94, while UART dropped from 256 to only 8 hours per month, meaning our liquid nitrogen carts were available and in top condition to support our customers' demanding sortie generation needs. The best indicator of our success was the results of our follow-up customer survey taken in March 1995. Our customers rated our quality, personnel service, and attitude "outstanding"--a true testament to how far our quality endeavor had taken us.

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Chemotherapy Administration Process Action Team: Achieving Continuity for Pediatric Patients

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Lt Col Patricia L. Davis, USAF, NC *(leader)*
Maj Robert W. Ellis, USAF, MC
Maj Sherry A. Herrera, USAF, NC
MSgt Rebecca L. Davis, USAF *(facilitator)*
MSgt (sel) Debra D. Martin, USAF
SRA Nicholas J. Courtright, USAF
Barbara A. Pugh, R.N.

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PROBLEM: An ongoing, long-term situation existed that prohibited the large majority of pediatric patients requiring chemotherapy from receiving inpatient treatment at Wright-Patterson Medical Center, although outpatient treatment was available. The problem resulted in frustration among the pediatric physician staff, nursing staff, pediatric oncology patients and their families. Despite being a tertiary care facility with two pediatric hematology/oncology specialists (only one of four such centers in the Air Force), patients could not receive the entirety of their chemotherapy care within an established network of caregivers. We, as Air Force healthcare providers, could not offer them continuity of care but rather a fragmented approach that included care at both the local civilian children's hospital and our medical center. During the previous years, only a handful of children were able to receive some inpatient chemotherapy at Wright-Patterson Medical Center, and that was entirely dependent on the availability of the outpatient pediatric specialty clinic nurse manager, because only one-two nurses on the inpatient unit had any previous experience or training in chemotherapy administration. Despite her unending dedication to these children, it was impossible for her to provide 24-hour per day coverage, 7 days a week to ensure that appropriate care was given. As a result, care accessibility was intermittent and fragmented. Since treatment was not available within the medical center, the majority of care (82%) was rendered at the local civilian hospital, at a much higher cost to the government and to the parents.

BACKGROUND: Approximately two years prior to this team's start-up date, the pediatric flight had undergone departmental process analysis (DPA) and had identified several major processes within the flight where improvement was needed. Two of these processes, accessibility and continuity, were identified by patients and staff as needing improvement. Patient surveys, targeted at a patient population with a chronic condition requiring frequent contacts with a health delivery system, showed very clearly that patients with serious medical problems, such as asthma, wanted to see the same doctor every time they needed medical care. The traditional system within which most military outpatient clinics operate did not afford this; care was provided by the physician available at the time of need. This did not provide the continuity of care that patients really wanted.

At the same time that this data was being analyzed within the flight, an off-site for all staff within the flight was held in September 1993. During this off-site, the pediatric staff (physicians, nurses, technicians and clerical staff) were challenged by Col Jerry Foster, then pediatric flight chief, to study their own area-specific processes (that is, do their own specific departmental process analysis) with continuity in mind. *How could we improve continuity of care for patients that we see?* Col Broxson, then chief of the pediatric hematology/oncology clinic, and Lt Col Davis, then nurse manager of the inpatient pediatric unit, had previously discussed in theory the possibilities of broadening the scope of care on the inpatient unit to include inpatient chemotherapy administration.

With this invitation to look further into avenues to improve continuity, our opportunity became clear. We believed that embarking on this path was multi-benefited.

Our patients and their families had told us through the surveys and via many discussions during clinic visits and hospitalizations that continuity needed improvement. While personal cost to the families was not an overriding issue in our decision to undertake this process improvement, discussion of the additional cost burden incurred by our patients receiving care at the local civilian children's hospital was often verbalized to physicians, nurses and social services staff. The nursing and technician staff was enthusiastic and eager for new clinical challenges; the outpatient specialty clinic staff was anxious to eliminate the "unfriendly" system of fragmented care. The working relationship between the inpatient unit staff and outpatient clinic staff had been complementary, but little had been done to explore the common ground of caring for pediatric oncology patients. In many ways, the two units had many shared processes, but never had reason to investigate any collaborative benefits. The clinic staff's confidence in the inpatient nursing staff to provide high quality care for these "special kids" was wary; the few previous attempts to assist Mrs. Pugh were not well coordinated and caused anxiety and confusion among the staff.

The patients and families were adversely affected by the current process in many ways. Because of the frequent changes in providers (some care received at WPMC and some at the civilian facility) parents often received incomplete or conflicting information about their treatment and home care. While neither institution gave wrong information, there is often more than one way to do procedures correctly, and this confused our patients. Frequently patients did not receive complete information due to inconsistent, fragmented documentation and record-keeping.

In October 1993, a process action team was formed. It was decided the scope of care on the inpatient unit could be expanded, and the required training, administrative requirements and concomitant resources would be allocated to make that happen. The current process was flow charted and Ishikawa diagrams were studied. Several major roadblocks were found to be contributory to the broken process as it currently existed: nurses had insufficient or nonexistent training in safely administering potentially dangerous chemotherapeutic agents; standards of care had not been developed on the unit for oncology patients receiving chemotherapy; policies, procedures and guidelines did not exist for these procedures; important resources such as current literature, national protocols, nursing oncology texts and patient/parent information were not currently available on the unit. Some pediatric specialty services were not readily available at Wright-Patterson Medical Center, and the facility does not have a Pediatric Intensive Care Unit - services intermittently needed during the course of chemotherapy treatment for some children. A chemotherapy "spill kit" was not available (contains all the federally required items to prevent patient and staff contamination in the event of an inadvertent spillage of chemotherapy drug into the patient's environment) nor was the staff aware of the protocol for its use. Also, they were unfamiliar with the many invasive procedures and sophisticated intravenous devices commonly used with these patients, and needed training to work with them.

Beginning with the easiest roadblock to overcome, Lt Col Davis began scheduling the inpatient staff to attend chemotherapy training courses offered at the local children's medical center. These courses were low cost, and over 50% of the staff were trained within one month, and the remainder were scheduled to attend during the next six months. However, this didactic training only laid the foundation, and a process was developed by the team to provide clinical, "hands-on" training to ensure that nurses had all skills needed to safely care for these patients. Mrs. Pugh, the only

nationally certified pediatric oncology nurse in the medical center, devised a clinical training program, and all nurses completed this either on the unit or in the clinic with her. Additionally, Mrs. Pugh authored an annual refresher program, as required by state law, to ensure continued proficiency.

Providing the appropriate environment for our patients was the next hurdle for the team. Three patient rooms were identified that met the needs of both caregivers and families and would be available in the event of an oncology patient's admission. These rooms allowed the unit to provide family-centered care and afforded privacy to these patients who were highly susceptible to infection. Flight management supported staff in the rare instances when patient acuity (relative amount of nursing care needed) was high and available staff could only care for five or six very seriously ill children instead of the full census of eight. In those cases, adolescent patients were sometimes transferred to adult units where they could be cared for safely and still meet their developmental needs.

Obtaining necessary resources, texts, and patient information was the next step. Appropriate books and hand-outs were ordered, and Mrs. Pugh was instrumental in guiding staff toward ready information. Patient treatment protocols, nationally recognized "blueprints" for treating different types of cancer, were now included in the patient's charts, so inpatient staff had the "big picture" of the course of treatment for each individual patient, and could more fully participate in care-planning and discharge teaching. Staff also participated, with social services, in bi-weekly meetings. Again, this afforded the staff the ability to know these patients in more ways than just clinically; humanizing the treatment experience enriched not only the patients but the staff immensely.

RESULTS: Prior to the process change, very few patients requiring care related to their cancer were admitted to our hospital for inpatient care. After implementing our change, we were able to realize 225 additional bed days during the first year, including those admissions for both chemotherapy administration and other cancer-related admissions. Since the facility does not have a Pediatric Intensive Care Unit, there were still rare occasions that our patients were transferred to the civilian facility for care. During our initial year of implementation, this only occurred eleven times. A few other instances when consultation by a specialty service such as neurosurgery or gastroenterology were indicated necessitated care for our patients elsewhere. Prior to this modification, 82% of our patients requiring inpatient chemotherapy were transferred to the local children's medical center. We completely turned that around, and at the end of the first year, we were able to keep over 97% of children requiring inpatient chemotherapy at WPMC for the entirety of their inpatient care. An added benefit of cost-savings to the government was realized. In the first year alone, WPMC netted over $183,000 in the first year alone. We **saved** over **$800 per patient every day** our patients were in our hospital. The inpatient staff and outpatient specialty clinic staff have an improved, harmonious working relationship. The team realized the benefit of treating this as an entire system versus pieces of a system, thereby optimizing the outcome of the system. But the most important benefit is that the patients are getting what they told us they wanted — **continuity**.

CONCLUSION: During this year of work on our process change, many paradigm shifts occurred, including those of the patients and their families. The process was reengineered and metrics were established to track data, monitor improvement and hold the gain. Our ultimate customers, the patients, like the new change—many of our kids with recent diagnosis have never experienced the lack of continuity we once had—they've received their care here from the beginning, since initial

diagnosis. Our other customers, the nurses and the doctors, like the challenge of caring for these kids. Making these changes has empowered the staff immensely, and we're saving money!

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ABSTRACT

RUBBER & RIMS
1st Equipment Maintenance Squadron
Langley AFB VA

Early in 1994, the Wheel and Tire Shop at Langley AFB was struggling to meet mission requirements due to a shortage of wheel and tire assemblies. As part of the 1st Equipment Maintenance Squadron, the Wheel and Tire Shop provides nose landing gear and main landing gear wheels and tires for the F-15s assigned to the 1st Fighter Wing. The situation involved a problem with the forward supply point in the shop.

As a result of normal attrition rates, special instructions mandated by technical data changes, and 2 year inspection cycles, the shop's forward supply point had become severely depleted. The primary customer, the F-15 crew chief, was turning to the mission readiness spares package (MRSP) to get wheels. Instead of MRSP being used only for deployments, it became a spare supply point to pull wheels from when they were needed. When deployments occurred, wheels from the shop forward supply point were used to refill MRSP.

The Rubber & Rims Quality Improvement Team (QIT) was chartered to find a way to meet immediate customer requirements for wheel and tire assemblies in substantial quantities to meet mission requirements without using MRSP as a source. They also wanted to eliminate the recurring shortage of main wheels and find a solution for maintaining satisfactory assets on hand.

The team used benchmarking, surveys, and verbal feedback from customers to identify customer requirements. The gap between customer requirements and process capabilities was a starting point for potential improvements. The team used brainstorming and the nominal group technique to identify the following areas for improvement:

1. Provide wheels to crew chiefs in a timely manner without impacting MRSP.

2. Replenish forward supply point to maximum levels.

3. Correct breakdown of turnaround time process between local supply and depot.

4. Reduce return time for used wheel assemblies from crew chiefs and expediters.

The team concluded a communication problem with depot decreased computed demand levels for the supply point. Although Wheel and Tire Shop personnel were entering the turnaround times for main wheel assemblies into the core automated maintenance system computer, times were not being reported to depot. When depot computed demand levels, they lowered the

allocation to 15 main wheels. As wheels were taken out of service due to inspection and through normal attrition, the supply of wheels on hand decreased and limited mission capability.

The slow return of used wheel and tire assemblies from the flightline to the wheel and tire shop also contributed to the problem. Used wheels are supposed to be returned to the shop for rebuild within 2 hours of issuing a new wheel, but crew chiefs were taking much longer. This increased the turnaround time and decreased the number of wheels available to other crew chiefs.

Another potential cause was the scheduling of the 2 year inspection cycle. In the past, 10 to 15 wheels were put into service at the same time. These wheels came due for inspection at the same time, and they were all removed from stock at the same time to be sent to depot for overhaul. This caused cyclic shortages at the supply point.

Special inspections and a shortage of wheel tie bolt nuts Air Force wide compounded the problem. The item manager at Ogden ALC confirmed the shortage through messages concerning the shortage.

Finally, the team discovered through conversations with the process owner and the item manager at depot that less money was spent on spares the previous year. Additional real world deployments increased demand for serviceable wheels, and increased the strain on the supply system to maintain current supply levels Air Force wide.

The team used a solutions matrix to rank the possible solutions and determine which areas to improve. The short-term plan to increase allocations was implemented at the depot level by the item manager. When the allocations were increased, the number of wheels in the shop increased. The team also worked with the item manager to arrange to have wheels shipped without the tie bolt nuts. The Wheel and Tire Shop had a sufficient quantity in stock to provide them for the incoming wheels. The scattered inspection cycle was implemented by delaying the time wheels were put into service, so there would be an interval between their inspection due dates. The long-term plan to move the supply point is still in the testing phase. A QIT is being formed to determine the best methods and processes to meet customer requirements. Wheels will be hand-receipted to the fighter squadrons on a temporary basis until the QIT reaches a decision.

The team accomplished a number of things. They provided increased quantities of wheels to support the mission. The forward supply point levels on main wheels increased from 15 to 45. This brought about MRSP requirements being filled within a short period of time. A disbursed work load was created for wheel and tire maintainers allowing a greater pool of maintenance teams available for repair and reclamation dispatch. In addition, the new method of entering wheels into service allows for a manageable and flexible 2 year inspection cycle. The problem of turnaround time was corrected, resulting in accurate accounting of the data and demand levels becoming stabilized. Each MRSP withdrawal eliminated saves over 2 hours. This translates to a cost savings of $22,000 annually.

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CSAF Team Quality Award Abstract

B-1B Periodic Phase Inspection Action Workout

The Commander, Air Combat Command (COMACC), directed the ACC staff to reduce maintenance labor hours associated with supporting the B-1B aircraft. A Pareto analysis showed the Phase inspection is the single highest maintenance labor hour driver for the B-1B. The ACC Quality Directorate (ACC/QI) benchmarked a technique called Action Workout (AWO), used by General Electric to dramatically increase production and lower costs by eliminating waste. The Chief of ACC's Fighter Bomber Maintenance Branch (ACC/LGF) obtained the 7th LG commitment to host an AWO event. In addition, ACC/LGF gained the cooperation of Oklahoma City Air Logistics Center (OC-ALC). People from these three agencies conducted an AWO on B-1B Phase at Dyess AFB, TX between 10 April and 12 May 1995.

Almost simultaneously, senior maintenance managers from the 9th and 28th Bomb Squadrons (BS's) expressed concerns that aircraft would be grounded awaiting phase inspection because EMS could not inspect their aircraft fast enough to keep up with flying hours. Since the B-1B Phase Element was structured and manned to perform one inspection at a time, and it took eight duty days to complete a phase, it appeared that either aircraft would be grounded or the element would have to work some weekends to keep up with demand.

During an initial visit (10-14 Apr 95), the ACC facilitating team provided training to the 7th Wing leadership and process owners on AWO tools and techniques. Dyess team members learned about the seven kinds of waste, pull production, and barrier-free environments. The 7th Equipment Maintenance Squadron (EMS) B-1B Phase Element, the phase process owners, provided the B-1B phase process flowchart, and ACC/XPM provided a computer simulation model for the phase. From these tools, team members identified the high time drivers and maintenance labor hour consumers for phase. ACC staff members, 7th Wing leaders, and EMS process experts identified three core processes ripe for waste elimination: Depanel/Repanel, Lubrication and Servicing, and the Repair Cycle/Specialist Support. They also identified two key support areas to assist the core process teams during the AWO: Tools & Equipment and Facilities. EMS leaders identified team leaders for each core process and support team, and tasked these team leaders to select people from throughout the wing to be team members. ACC staff members trained these team leaders to collect data in preparation for the upcoming event. The HQ team members projected a return to Dyess in May to conduct the AWO after a period of data collection by the Dyess members.

The initial goal was to dramatically reduce the B-1 phase inspection labor hours and cycle time while providing the flying squadrons the same or better quality product. Furthermore, the 7 LG intended to keep the window of opportunity open to perform other maintenance during the Phase Maintenance schedule. Thereby, the process owners could effectively satisfy the COMACC mission and other customers' requirements.

The Dyess team members collected data on two consecutive aircraft undergoing phase before the AWO, scheduled for 8-12 May 95. They measured and baselined the existing process using stopwatches, pedometers, and video cameras to collect data. The Depanel/Repanel team evaluated the waste involved in removing and installing panels in Work Area Four. The Lubrication and Servicing team looked at reducing labor hours required to perform servicing on main landing gear struts, the flap/slat power drive unit, and the crew entry ladder. Additionally, this team targeted the Accessory Drive Gearbox/Integrated Drive Generator flush for removal from phase tasks. The Repair Cycle team looked at reducing the administrative workload involved with the processing of parts in the hangar and at the back shops. All teams gathered their data in preparation for a review with the HQ ACC team members scheduled for 3 May 95.

On 3 May, the team leaders gathered with the HQ ACC facilitators to review progress to date. The team reviewed the data collected, and team membership, and developed goals for the event. On 8 May, the HQ ACC AWO team briefed the senior staff, squadron commanders, other key personnel, and all AWO participants on the purpose of the visit, the AWO technique, and goals for the week. The AWO team established a three-and-a-half day goal for the phase cycle between depanel to repanel; it took five days before AWO. The 7th Wing Commander fully supported AWO and charged everyone to actively support the endeavor. In turn, group commanders and squadron commanders pledged their support and that of their units to create the barrier-free environment. Finally, the team leaders and members were encouraged to challenge conventional, traditional ways of thinking and doing to achieve dramatic increases in productivity and decreases in waste. AWO challenged teams to leave their comfort zone, to "get out of their box", and to avoid "pushing the peanut."

Upon hearing the goal, several stakeholders expressed misgivings about drastically reducing the phase cycle time. The process owners from 7 EMS expressed concerns about maintaining the previous high quality of aircraft inspection. Both B-1B flying squadron Senior Maintenance Officers expressed concerns about the opportunity to accomplish other scheduled and unscheduled maintenance during the phase down time. Specialists from around the 7th Wing expressed concerns with the ability of a traditional, priority-based maintenance concept to complete the inspection in the reduced window. Immediately, the AWO team established safety and quality as customer requirements.

Each process team had its own area in which to meet. Each day, the teams would meet to review data collected for waste elimination opportunities and open action items. The teams "trystormed" (brainstormed and tried out) innovations real time and then measured the results for comparison against the baseline. At the end of every AWO day, the team leaders briefed the team and wing leadership on the progress achieved that day, goals for the rest of the week, and any open action items. Finally, progress achieved each day was documented on the AWO "Newspaper." These newspaper clippings were posted in the phase dock for everyone to see the progress achieved and perhaps spark new ideas.

With the help of OC-ALC, the Depanel/Repanel team identified panels on the B-1B that do not need to be removed or opened every phase and had them deleted or deferred from the inspection

work cards. This eliminated non-value added motion. The Lubrication and Servicing team dramatically reduced wasted motion and wait time in this process. This team developed new landing gear strut servicing procedures by manufacturing a new tool to allow simultaneous servicing of both aircraft main landing gear struts. They found an alternative aerosol spray lubricant for use on the crew entry ladder instead of the original grease. The Accessory Drive Gearbox/Integrated Drive Generator flushing and servicing procedure was deleted from the phase requirement conserving labor hours, and reduced travel times and distances, eliminating wasted motion. The Repair Cycle team established a periodic pickup and delivery of parts going to and from the backshops and created a designated pickup point within Phase. This team procured a dedicated computer and Standard Base Supply System card to streamline local manufacturing administration. Both innovations eliminated wasted motion, travel times and distances. The Tools and Equipment Team procured several pneumatic reels and hoses and mounted them on the stands alleviating the need to travel to obtain these items from Tool Support. This team moved Consolidated Tool Kits and Bench Stock from the Support Section to the dock floor to cut down travel times and distances and eliminate non-value added wait times. The Facilities Team energized both 480v outlets in the phase dock to allow use of electrically driven hydraulic motors (mules). This eliminates the need to compete with flightline maintenance for diesel powered mules (waste in inventory). To combat the poor lighting under the aircraft, Facilities fabricated four portable light stands using existing, surplus explosion-proof lights, fixtures, and connections (targeted waste in rework, motion, travel times and distances). Facilities team also replaced and checked out twenty 110v electrical outlets, effectively quadrupling access to household electricity in the phase dock. Finally, on 12 May 95, the team presented the results of the B-1B Phase AWO to the wing leadership and population at the "Pitchout" or outbrief.

The overall goal was to decrease the labor hours expended in the B-1B phase process. The innovations implemented as a result of AWO produced incredible labor hour savings, and improved mission capabilities. External and internal customers are also satisfied. Flying squadron commanders routinely comment on the improved reliability and availability of aircraft since AWO. The first airplane to be inspected after AWO flew one training sortie after phase, then flew a record-breaking, around the world flight. Furthermore, the aircraft landed with very minor discrepancies. Another aircraft launched on its first sortie after phase to deploy to the Azores. The squadron commander said the aircraft flew flawlessly, and it earned the "Ironbird" nickname because it flew every day of a week long deployment. Not-Mission-Capable rates have decreased dramatically since AWO, since the whole process can now be done in five days, rather than the eight days before--the weekend is now no longer accumulated as NMC time due to phase. Other customer needs have also been met. Other scheduled and unscheduled maintenance is still being done--working smarter, not harder or longer. Discussions at daily, weekly, and monthly maintenance review meetings and customer feedback surveys support the conclusion that the quality of the phase since AWO has been outstanding. All customer requirements have been exceeded.

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ASSIGNMENT PROCESS REENGINEERING TEAM AIR FORCE MILITARY PERSONNEL CENTER RANDOLPH AIR FORCE BASE, TEXAS

ABSTRACT

PURPOSE

This abstract summarizes the activities accomplished in support of the Assignment Process Reengineering (APR) project. It summarizes the exercises conducted and products generated to define the Air Force Assignments "As Is," "Can Be," and "To Be" processes. Moreover, it summarizes implementation strategies for moving from the "As Is" to the "To Be" process over a 36-month period.

BACKGROUND

AFMPC is in the midst of a modernization program to improve its systems and services. As information technology advances and the needs of USAF personnel evolve, AFMPC works to identify sub-systems of the Personnel Data System (PDS) to be improved. In response to significant changes in the way the Air Force manages assignments, AFMPC began the APR effort.

MISSION

The overall mission of the APR project is to design, develop, and implement an integrated Assignment Management System (AMS) that consolidates and improves the selected portions of the several legacy assignment support systems. The objective is to provide a standardized, and integrated AMS for use by Air Force components in peacetime and during mobilization.

APPROACH

In order to develop an integrated AMS, it was necessary to develop a complete and detailed understanding of the current assignment process. This model was used to determine areas of the current system requiring modifications or improvements which, in turn, led to the design of the future assignment process. This task was accomplished by using a tailored version of the general Business Process Reengineering (BPR) methodology.

Integrated Computer Aided Manufacturing Definition Methodology ($IDEF_0$) modeling was used to document both the current and future assignments processes. These modeling techniques were used to ensure the completeness of the resulting models and to satisfy Corporate Information Management (CIM) requirements for reengineering efforts.

Workshops were held to tap the expertise of the assignment process functional area experts. Representatives from AFMPC, MAJCOMs, FOAs, DRUs, HQ USAF, DOD, and joint agencies participated in these workshops to ensure that all aspects of the assignment process were considered. The workshops were facilitated by experienced BPR experts to achieve the best results possible.

"AS IS" MODEL SUMMARY

The general methodology began by defining the current, or "As Is," process. The documentation of this process was done during an intensive 12-day period. The workshop participants began with a "clean sheet" of paper. The process they documented has four primary activities:

- Identify/Validate Requirements
- Advertise Requirements
- Identify Candidates
- Assign Members

"CAN BE" MODEL SUMMARY

The desired, or "Can Be," process was then defined by addressing the areas for improvement identified during the "As Is" workshop. The initial mandate was to develop the "Can Be" model under the general assumption that there were no constraints upon the process. However, the work group felt that there were certain assumptions/constraints (twelve) that should be considered during the "Can Be" process development. The result of the "Can Be" workshop was an ideal process with three major activities:

- Determine Needs
- Identify Members
- Select and Assign Members

This model improved on the "As Is" process by automating as many functions as possible, streamlining the process to three vice four major activities, reducing total activities from 29 to 15 and integrating the enlisted and officer systems as much as possible.

"TO BE" MODEL SUMMARY

Once the "Can Be" process was properly defined, real-world constraints (time, budget, technology, organizational culture, politics, and policy) were considered and impacts assessed. This resulted in a "To Be" model, representing an improved process for implementation. This "To Be" model was then segregated into four implementation phases. These phases outline the implementation goals and activities in a time-phased, stair-stepped progression. The successful implementation of each phase leads to the next, until the "Can Be" system is fully realized. The following are the four "To Be" implementation phases and their corresponding development and implementation time-frames:

- Phase 1--Integrated AMS--estimated completion time, 12 months
- Phase 2--Customer Interface--estimated completion time, 9 months
- Phase 3--MAJCOM AMS--estimated completion time, 18 months
- Phase 4--Field-Level AMS--estimated completion time, 24 months

Note: The start times of the phases are staggered. The approximate total time to complete this project (start of Phase 1 to end of Phase 4) is 36 months. Phase 1 and Phase 2 development began in December 1994 and January 1995, respectively.

PROJECT IMPLEMENTATION STRATEGIES

In addition to the time-phased implementation plan, strategies were developed to address specific issues regarding systems, change management, customer education, and support. These strategies give the project leader a specific plan of action for ensuring overall project success.

FINDINGS

As a result of the workshops held and the models developed, several findings were made:

- A concerted effort by AFMPC with headquarters support and field level cooperation is required to achieve the APR goals in the time frames established.

- The biggest hurdle to achieving the "Can Be" system is the availability of the proper computer hardware at base-level sites.

- The Air Force assignment system will never be totally automated; there will always be a need for human subjective judgment in the candidate selection process to handle the multitude of exceptional situations that inevitably arise.

- The desires of the members must be weighed against the needs of the Air Force; however, non-volunteer assignments will still be required to fill positions because the Air Force mission comes first.

- Certain career fields, such as OSI agents and chaplains, will remain outside mainstream assignments processing because of their special requirements.

- The officer and enlisted assignment processes have many similarities and would both benefit by being integrated into one system.

- The use of a DEROS or similar trigger is still required. This trigger predicts movement of members and ensures enough lead time to preclude manning gaps and overlaps.

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TALKING PAPER

ON

CADET DISCIPLINARY DISENROLLMENT PROCESS ACTION TEAM (PAT)

This talking paper prepared was originally used as an update for the U.S. Air Force Academy Superintendent and is submitted as the abstract for the Chief of Staff Team Quality Award nomination.

- **Background:** On 24 Jun 94 the USAFA Commandant of Cadets (34 TRW/CC) chartered a PAT to review internal USA administrative process for disenrolling cadets for discipline and aptitude.

-- Objective: streamline, ensure due process, and align with Air Force discharge procedures

-- Charter expanded to include Honor and Military Review Committee (MRC) disenrollments

- **Team Composition:** Included all agencies involved in cadet disciplinary disenrollments

-- Led by 34 TRW/CV, team included 34 TRG, 34 TRG/PE, HQ USAFA/JA, DFL, FP, R, 34 TRW/CWCH, and 34 TRW/CCTQ

- **Methodology:** The PAT used the following methodology to streamline the process:

-- Flow-charted the three disenrollment processes and identified excess steps for elimination

-- Analyzed and developed timelines for performing remaining tasks

-- Evaluated consistency with Air Force procedures

-- Identified and prioritized improvement opportunities to streamline process while maintaining required due process

- **USAFA PAT Recommendations:** 34 TRW/CC, HQ USAFA/CC, and the SECAF approved the following improvement opportunities:

-- Eliminate the Squadron Commander Review Board (SRCB) for Category D offenses

--- SCRB is a squadron-level panel consisting of cadet chain of command members advised by Air Officer Commanding (AOC). Est Savings: 7-10 workdays

-- Eliminate the Cadet Disciplinary Board (CDB) in favor of commander-directed inquiry

--- CDB is a fact finding board: Adequate fact finding is conducted by unit commander (AOC) and inquiry officer investigations, and by the MRC. Est Savings: 24 workdays

-- Replace the current Hearing Officer review for Category D offenses with an MRC

--- This assigns MRC both fact finding responsibility and whole person review of the case.

---- After JA legal review, the MRC then makes a retention recommendation to the HQ USAFA/CC through the 34 TRW/CC. Est Savings: 24 workdays

-- Discontinue internal USAFA coordination of disenrollment packages following Superintendent or Academy Board recommendations. Est Savings: 78 workdays

-- Redesign forms used in disenrollment processing to clearly show the commanders' recommendations and location of supporting documents

-- Develop detailed procedure guides for inquiry officers and for disciplinary and honor disenrollment processing to reduce variation by standardizing procedures

-- Establish a feedback system to collect data and evaluate process changes and processing timelines

- **Actions for SECAF Approval:** These recommendations were forwarded to SECAF for approval:

-- Delegate authority to the HQ USAFA/CC for third-and-fourth-class cadet disenrollments except for cadets with prior-enlisted service active duty service commitment (ADSC)

-- Delegate authority to the HQ USAFA/CC for all voluntary resignations

--- Includes approval of educational delays before active duty for first- and second-class cadets

--- Denial of educational delays or dispute of ADSC versus monetary payback will be forwarded to HQ USAF for resolution.

-- Delegate authority to the HQ USAFA/CC for all voluntary resignations in lieu of other actions for Honorable or General discharges.

-- Delegate authority to the HQ USAFA/CC for all disenrollments based on Academic or Physical Education Review Committee (ARC, PERC) recommendations.

--- Disputed payback will be forwarded to HQ USAF.

-- Resignations IN Lieu of Courts Martial and potential resignations Under Other Than Honorable Conditions will be forwarded to HQ USAF.

- Projected Results PAT Recommendations:

-- Streamline process: Eliminates **131 work days** for each case carried to disenrollment.

-- Ensure due process: All three processes ensure the cadet, along with counsel, has full availability of all records; opportunity to respond to all allegations; and cadet is afforded a fact finding and whole person review by an impartial authority -- the MRC.

-- Align with standard Air Force procedures where the chain-of-command is responsible for review and recommendation to the next higher level

--- The requirement for an MRC in disciplinary cases aligns with the procedures for USAF airmen and is similar to a Board of Officers review afforded active duty officers for involuntary separations.

- Implementation: Implementation of these recommendations began on 1 Jan 95

-- All cadets and staff were briefed in Arnold Hall by Col Richard W. Stokes, Jr., 34 TRW/CV

-- Disenrollment Procedures Guide was distributed to all 34 TRG commanders and personnel involved in the process

-- Complete Honor Disenrollment Procedures Guide is in draft form and has not been published

-- Started data collection on processing times using Disenrollment Suspense Tracking Worksheet

-- No cases involving a serious single disenrollable offense have occurred since implementation of the new process

-- Old cases utilized new process where applicable to expedite processing

-- DPY is working with AH and DF to integrate these recommendations into their disenrollment processes

-- All recommendations, the Procedures Guide, Fact Finding Worksheet, and letters to cadets will be reviewed at the end of 1995 Spring semester for necessary changes

- **ACTUAL RESULTS:** The team set a processing target of 45 work days for disciplinary disenrollment process. Actual processing time for cases using the new process showed an average processing time of 34 work days.

-- This exceeded the team's target by **24%**

-- Reduced total processing time by **79%**

-- Strengthened due process

--- Refined and developed detailed set of written procedures and process training

--- Enhanced cadets opportunity to present case

--- Provided legal review during disenrollment proceedings to ensure proper due process