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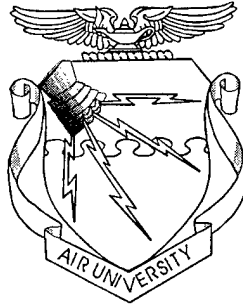
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## **Proposed Core Competencies for Acquisition**

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## ***Foreword***

It is my great pleasure to introduce readers to the *Wright Flyer Papers* series. In this series, Air Command and Staff College recognizes and publishes the "best of the best" student research projects from the prior academic year. The ACSC research program encourages our students to move beyond the school's core curriculum in their own professional development and in "advancing air and space power." The series title reflects our desire to perpetuate the pioneering spirit embodied in earlier generations of airmen. Projects selected for publication combine solid research, innovative thought, and lucid presentation in exploring war at the operational level. With this broad perspective, the *Wright Flyer Papers* engage an eclectic range of doctrinal, technological, organizational, and operational questions. Some of these studies provide new solutions to familiar problems. Others encourage us to leave the familiar behind in pursuing new possibilities. By making these research studies available in the *Wright Flyer Papers*, ACSC hopes to encourage critical examination of the findings and to stimulate further research in these areas.

Jerry M. Drennan, Brig Gen, USAF  
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## ***Preface***

Organizational change strategies for acquisition are essential due to the enormity of change required of the acquisition community. The Congress and the DOD have made many previous attempts at acquisition reform, but most have had little effect. To make sure our current reform efforts make positive, lasting changes, we must transform the acquisition culture. To date, little attention has been paid to cultural change aspects. To that end, this paper offers some ideas for organizations undergoing change for acquisition reform.

I would like to thank the following people for their help in this project. First I want to express my gratitude to Lt Col Mike White and Maj Heidi Beason from the Human Systems program office, Brooks Air Force Base, Texas. They served as test subjects for my interview guide development, and their comments were essential in its refinement. Also, I want to thank Mr. Terry Little, Mr. Oscar Soler, and the entire JDAM program office for taking the time to talk with me. Their information was freely given and very helpful in completing this paper. Any errors in interpreting their information are mine.

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## ***Abstract***

The post-cold-war environment and its reduced budgets have forced the military to implement acquisition reform. While the Department of Defense (DOD) has achieved some success, the pace of reform is still relatively slow and some concern exists about the reform's breadth and depth. This paper proposes core competencies for acquisition organizations undergoing change.

These core competencies are derived from a comparison of theory with actual practice. A discussion of possible change strategies shows various methods to achieve Kurt Lewin's framework of organizational change: unfreezing the system, movement towards a new orientation, and refreezing new behaviors and attitudes. These strategies are compared with the case study of successful acquisition reform implemented in the Joint Direct Attack Munitions (JDAM) program office.

Results show a selective and tailored use of the change strategies presented. The JDAM program office placed particular emphasis on creating a sense of urgency, communicating a vision, altering key management processes, and attempting to overcome defensive reasoning. This method of employment suggests strict adherence to a particular step-by-step set of strategies that may not work for other organizations. However, the results also suggest that there are overarching core competencies for successful organizational change: creating urgency, communicating a vision, setting and meeting high standards, rewarding teamwork, and encouraging constant innovation.

## **Proposed Core Competencies for Acquisition**

*The continuous improvement of the acquisition process that has been occurring with the DOD on an ongoing basis is no longer sufficient. We must now totally re-engineer the system.*

— Colleen Preston  
Deputy Undersecretary of  
Defense for Acquisition Reform

Post-cold-war national security requirements, downsizing, and budget reductions have drastically altered the acquisition environment. To adjust to this new situation, the Department of Defense (DOD) began making major changes to the acquisition process in 1994. There have been many successes, but the pace of reform is still relatively slow and some concern exists about the reform's breadth and depth. To that end, the research presented here proposes core competencies for organizations trying to implement positive and sustained acquisition reform.

Since some groundwork is necessary for a full understanding of this proposal, we will first present a brief synopsis of acquisition reform. We will then review some prominent change strategies. These strategies serve as the theory behind organizational change. This theory will then be compared to actual acquisition reform implementation in the Joint Direct Attack Munition (JDAM) program office. Based on this comparison, a set of core competencies for organizations undergoing drastic change will be proposed. Finally, areas requiring further research will be addressed.

### **Background**

Our success in the Gulf War combine with post-cold-war realities to leave the military in a somewhat dichotomous situation. The DOD remains committed to a lean, high-technology force but faces continued budget pressure. In fiscal year (FY) 1997, defense spending will be 40 percent lower than in FY 1985.<sup>1</sup> Moreover, the procurement budget will be 60 percent lower than in FY 1985.<sup>2</sup>

Obtaining high-technology equipment with such low budgets poses difficulties for the acquisition system. High-technology equipment is expensive, and the acquisition system incurs 30-to-40 percent overhead costs. (Compare this with 10 percent in private industry.)<sup>3</sup> The system also has long acquisition cycle times, typically taking eight-to-ten years to field a system while private industry takes only three-to-four years.<sup>4</sup> And the problems are exacerbated by an inability to obtain certain state-of-the-art technology because many companies, due to complex government rules and oversight procedures, will not do business with the DOD.<sup>5</sup>

A myriad of other problems exist, but the bottom line, as stated by Secretary of Defense William Perry, is this: "In today's environment the current process will not always be able to meet the Department's need. DOD will not be able to carry out this blueprint without dramatic changes in its acquisition processes."<sup>6</sup> Because the acquisition system is not functioning properly, the DOD has initiated acquisition reform.

The DOD intends to reengineer the acquisition system to meet the challenges the system faces now and will face in the future. To begin the process, DOD has created an overall structure for reform. (See appendix A.)

Basic DOD acquisition reform principles cover what we buy and how we buy it. New practices emphasize the use of commercial practices,<sup>7</sup> commercial specifications,<sup>8</sup> and commercial products.<sup>9</sup> New regulations also call for streamlining the acquisition process largely through government and industry teamwork, simplified oversight, and process control.<sup>10</sup> The use of integrated product teams should foster teamwork among personnel from different functional areas.<sup>11</sup> Furthermore, the DOD envisions a combination of regulation reduction and empowerment that will greatly assist the streamlining effort.<sup>12</sup>

### **Implications of Acquisition Reform**

These reform principles have a large impact on the acquisition community. Table 1 summarizes some key trends discussed above and in appendix A.

Further complicating matters, the above changes are taking place in an environment of reduced funding and downsizing (personnel cuts and base closures). In addition, the acquisition

**Table 1**  
**Acquisition Reform Changes**

Old Process and Practices	New Process and Practices
Functional, Stovepipe	Integrated Product Teams
Us (Government) versus Them (Industry)	Teamwork, More Reliance on Contractor
Military Specifications and Practices	Commercial Specifications and Practices
Long Cycle Times	Short Cycle Times
Detailed Regulation & Micromanagement	Empowerment

community carries the baggage of troubled programs (\$600 hammers and the C-17, for example).

All of this means big changes. As table 1 indicates, the acquisition culture must do some things that are foreign to its nature. The culture must build trust within and outside the government, become more efficient by working smarter, release some control by pushing work to the contractor, be more agile, and be more responsive to a rapidly changing environment.

### Status of Acquisition Reform

With such a large transformation at hand, what are the results thus far? As with many such endeavors, there is no clear-cut answer to this question.

The Air Force does have some positive statistics, however. Within Air Force Materiel Command (the Air Force's acquisition arm), request for proposal (RFP) page counts have dropped by 70 percent and contract data equipment lists are 77 percent smaller.<sup>13</sup> Also, the Air Force has canceled 68 percent of all acquisition policies with a corresponding 63 percent drop in acquisition policy page count. Under reform, the C-17 program appears to have overcome its troubled past—estimates now include a cost avoidance of \$17 billion and a faster aircraft delivery schedule.<sup>14</sup>

Yet, some concern exists as to the breadth, depth, and pace of change. Also, there is a general consensus that there is a long way to go. Dr. Paul G. Kaminski, undersecretary of defense (acquisition and technology), commented that "There is commitment at the top, and the bottom has embraced the need for reform—but the middle is not yet convinced."<sup>15</sup> Recognizing the

need to increase the pace of reform, he designated 31 May 1996 as a stand-down day for the entire acquisition work force—an unprecedented step. “That day will be dedicated to increasing our awareness of the acquisition reform initiatives and planning to accelerate their implementation.”<sup>16</sup>

Industry leaders have also spoken out in favor of accelerating the reform. During an American Institute for Aeronautics and Astronautics (AIAA)-sponsored chief executive officer (CEO) panel on acquisition reform, CEOs indicated the reform movement still needed work. The CEOs said they observed some improvement in the government oversight process, but that the change was “evolutionary rather than revolutionary.”<sup>17</sup> They also do not see any change in the effort to build trust between government and industry, and they thought there was still too much paperwork in the RFP process.<sup>18</sup> Dr. J. R. Sculley, former assistant secretary of the Army for research, development, and acquisition, and current CEO of Allied Research Corporation, best captures the industry mood with this comment: “Acquisition reform has been the subject of discussion for too long. Now we need action. But effective and efficient acquisition will happen only when there is greater personal responsibility on the part of all involved. That would be the most important contribution to reform. . . . Perhaps that’s why many reformers see a need for cultural change in defense.”<sup>19</sup>

### **Organizational Change Strategies**

*Most managers manage for yesterday's conditions because yesterday is where they got their experiences and had their successes.*

— Theodore Levitt

Organizational change strategies offer a means to help organizations prepare for the future, so that leaders do not fall into the trap mentioned by Professor Levitt. Change in this context means altering the organization's basic assumptions. These are the beliefs, thoughts, and feelings that the organization has taken for granted; they occur at the unconscious level.<sup>20</sup> These assumptions form the basic building blocks of culture. It is the ultimate aim of most change strategies to affect basic assumptions for meaningful, long-lasting change.

To facilitate discussion, we will use the framework laid out by Kurt Lewin: unfreezing the system, movement towards a new orientation, and refreezing new behaviors and attitudes.<sup>21</sup> Many types of change strategies exist, each with its own unique characteristics. However, in a general sense, most of them fall into Lewin's pattern. Their differences occur mainly within the methods various strategists employ at each of Lewin's stages. Common change methods that stand out in each stage will be examined. Where applicable, key differences will also be discussed. The strategies presented here take the perspective of the leader; what can the leader do to facilitate organizational change?

## **Unfreezing**

The first step in the change process is unfreezing. It involves the creation of disequilibrium in the system.<sup>22</sup> Essentially, anyone trying to change an organization must do something to overcome the organization's tendency to maintain the status quo. The key elements in this stage include crisis/urgency, vision, and overcoming initial resistance.

### **Crisis/Urgency**

Many experts say an organization must first recognize that it has a significant problem.<sup>23</sup> The process usually starts with the senior leadership. But to unfreeze the system, everyone needs to feel a sense of urgency. Initiating change is easier if some type of emergency (either internal or external to the organization) exists.<sup>24</sup> If change is important but a crisis does not exist, the leader may want to consider establishing one to push along the change process.<sup>25</sup> The important concept is to make sure the entire organization has a sense of urgency.

### **Vision**

Research shows that establishing a vision is critical in resolving the crisis.<sup>26</sup> An appropriate vision describes the future and why people should try to create that future. In addition, it establishes direction for change and provides motivation.<sup>27</sup> Establishing a vision provides another benefit—psychological safety.<sup>28</sup> A solid vision mitigates the threat people often feel

when undergoing change. The vision shows a path by which workers can restore their sense of equilibrium. The vision is also the link to the next step—overcoming initial resistance.

### **Overcoming Initial Resistance**

Since the organization and its people will tend to resist change, the leader must link the crisis or urgency to goals and ideals that are important to the workers. Group members must develop some sense of ownership of the problem and of potential solutions.<sup>29</sup> Leaders facilitate this ownership process through communicating the vision and mobilizing the workers' commitment.

**Communicating Vision.** Leaders must consistently and continually communicate the organization's vision.<sup>30</sup> They should use many types of forums, and they should ensure that the message does not take on new meaning as it moves through the organization. John P. Kotter points out that the leader must communicate the vision well.<sup>31</sup> Some tips to follow include making the vision simple, using examples and metaphors, and repeating key ideas. Perhaps most important, the leader should explain any inconsistencies between the vision and organizational policies.<sup>32</sup> Mixed signals confuse employees and send the message that management has no real commitment to change. However, some inconsistencies may exist for good reason, like laws or resource limitations. If so, senior leadership must explain why the inconsistencies exist.

**Mobilizing Commitment.** To overcome initial resistance, the leader must get workers to begin to take some responsibility for the organization's direction. Communicating the vision is a big step, but there are also other ways to mobilize commitment. First, the leader should manage the transformation personally, not delegate it to lower-level managers.<sup>33</sup> This personal commitment will show the importance of the transition. In addition, however, the leader needs to establish a dedicated group within the organization to provide the energy necessary for the change.<sup>34</sup> Members of this group must hold positions of power, have expertise, and hold credibility throughout the organization.<sup>35</sup> In the process of managing the transition, the leader also needs to align power and resources in a manner consistent with the change.<sup>36</sup> Finally, making other adjustments, such as

changing work team composition and altering relevant management processes, should be considered.<sup>37</sup>

## **Movement**

Movement involves taking the organization from its present level to the new, desired level.<sup>38</sup> Edgar H. Schein speaks of redefining the organization's core concepts and basic assumptions in the movement stage.<sup>39</sup> Human resource methods, education, scope of change, empowerment, and defensive reasoning are critical elements of the movement process. There is a fair amount of agreement on the use of various human resource methods and education. On the other hand, change strategists offer some unique perspectives on empowerment, scope of change, and defensive reasoning. Strategists differ, however, on whether to focus first on attitude change or behavior change.

### **Human Resource Methods**

Many strategies recommend using the promotion system, the selection process, the reward system, and the appraisal system to instill change.<sup>40</sup> The basic idea is to promote and reward things that produce the necessary change. Promotions, rewards, and appraisals are powerful mechanisms. They can help the leader to put the right people in the right positions, doing the right thing. A leader should use human resource methods throughout the organization. In particular, Noel M. Tichy points out, the appraisal system is key for middle management.<sup>41</sup>

### **Education**

As part of the change process, workers may need to develop new skills, new methods, new concepts, and new thought processes. It is not reasonable to expect people to change if they are not provided the necessary tools. Education and training can be critical tools in the change process.<sup>42</sup> However, one should not expect 20 years of habits to change with a five-day training class.<sup>43</sup> Follow-up training and assistance are necessary. Kotter feels that attitude training, in addition to skill and cognitive training, is important.<sup>44</sup> Such training can help people improve their support for change.

**Scope of Change**

In attempting to change an organization, one might ask whether to try massive change across-the-board, or to generate change little by little. There is certainly a continuum between these two endpoints. However, Kotter asserts that short-term wins are critical to success.<sup>45</sup> They provide reinforcement of change concepts.<sup>46</sup> Additionally, they help sustain and build support.<sup>47</sup> Chris Argyris also advocates starting out on small, but important, problems.<sup>48</sup> Starting out too large can drown the change process. Initiatives will lose steam, and the maintainers of the status quo will have a chance to regroup. One should observe a cautionary note here, however. The leader should identify targets and use short-term wins to shape the environment for the long-term goals.<sup>49</sup>

**Empowerment**

Some of the more recent change strategies advocate empowerment.<sup>50</sup> In this context, empowerment means removing obstacles, aligning systems with the organization's vision, encouraging risk taking, and giving people the responsibility and authority to take action on their ideas.<sup>51</sup> One would not automatically think empowerment an absolute necessity in the change process. Its use would probably depend on the basic assumptions of the organization and the desired cultural end state.

Kotter and Leon W. Hall contend that major changes will not happen without the help of many people. According to Kotter, the best way to obtain this help is to empower the workers. The leader empowers by removing structural barriers, providing training, and ensuring that workers have the right information. The leader should also confront supervisors who undercut change.<sup>52</sup> These actions will create an environment in which employees committed to the new vision can help make it happen.

**Defensive Reasoning**

One can use all of the above elements and still have the problem of defensive reasoning. Argyris contends that this problem must be solved for successful change. He defines defensive reasoning as the "thoughts and actions used to protect individuals', groups', and organizations' usual ways of dealing

with reality."<sup>53</sup> Argyris characterizes it as soft data—private inferences that are not publicly testable.<sup>54</sup> He further states that defensive reasoning is ingrained in our thought processes. This makes it very difficult to overcome because when one party confronts another party's defensive reasoning, both parties tend to engage in bypass routines.<sup>55</sup> On the other hand, more subtle approaches to dealing with defensive reasoning could fail to address the problem or be perceived as being manipulative.

To overcome defensive reasoning, Argyris advocates the use of productive reasoning. He characterizes productive reasoning as the use of hard data, explicit premises and inferences, and publicly testable conclusions.<sup>56</sup> In short, one displays productive reasoning by sticking to the facts, allowing the inquiry of their assumptions and beliefs, and holding out their conclusions for everyone to check.

### **Behavior versus Attitude**

Most change strategists agree on ultimately altering the basic attitudes and assumptions of culture; however, some disagreement exists on whether energy should be focused on developing new attitudes or on developing new behaviors during the change journey. For purposes of discussion, behavior is defined as an individual's conscious thoughts and outward actions. Attitudes, on the other hand, reflect things we take for granted or are only dimly aware of. In other words, attitudes reside at the basic assumption level.

Should the organization leader attempt to change attitudes or behaviors? Schein argues that changing behavior is necessary but not sufficient.<sup>57</sup> He contends that "some cognitive redefinition of some of the core concepts in the assumption set" needs to take place.<sup>58</sup> By prescribing attitude training, Kotter recognizes the importance of addressing attitude changes. How does one achieve attitude change? It is achieved primarily through the methods already discussed. The key point is, one should not focus solely on behavior, forgetting that the bottom line is to alter attitudes.

Having said this, however, we must point out that most strategies emphasize behavioral change. Michael Ward says efforts to change attitude first (before behavior is changed) will fail.<sup>59</sup> He believes that behavior comes first for two reasons: people will find it less threatening and, when results are linked

to new behavior, new attitudes will follow.<sup>60</sup> Thus, the new behavior and its associated results are locked in.<sup>61</sup>

### **Refreezing**

The final step in the change process is refreezing, which institutionalizes the change. The goal is to ground new behavior and assumptions in the organization's culture. In order for such transformation to settle in, people must see the link between new behaviors and the organization's success. Critical elements of this stage include grafting the new culture to the old, maintaining the new culture, and evaluating progress towards the desired state. Elements of the previous stage continue to apply.

### **Grafting**

One common theme among experts is that of linking the old culture to the new—grafting. Some of the desired changes will probably not be compatible with the old culture, but not everything in the old culture will be obsolete.<sup>62</sup> Therefore, the leader should "graft the new practices onto the old roots while killing off the inconsistent pieces."<sup>63</sup>

The leader can carry out grafting through several techniques, one of which is to publicly mourn the old culture. This will let the workers know that the old way of doing business served them well, but it is now time to put it to rest.<sup>64</sup> A leader should also publicly celebrate new models and behaviors that support the vision.<sup>65</sup> Workers will receive confirmation of their efforts and see how improved performance is due to new practices. Finally, the leader should use the job selection process. Hiring and promoting people that fit the new mold will solidify change. Of course, the other side of this coin is deselection of people through early retirements and firing.<sup>66</sup> Schein also mentions promoting subcultures within the organization that are in tune with the desired change.<sup>67</sup> Here, promote means elevating their status by giving them special tasks to accomplish.

### **Maintenance and Evaluation**

To ensure that desired change takes root with desired results, the leader must evaluate its progress. And since mainte-

nance is particularly important, the leader must continually reinforce the new culture.

In addition to normal maintenance and evaluation practices, management should pay special attention to information technologies and informal organization networks. New information technologies can provide tremendous assistance in controlling the change process. The operative word here is control. Ward says developing a good management *control* system (versus a management *information* system) will help the leader keep things on track.<sup>68</sup> Gathering information from the organization's informal networks will also help leadership to evaluate the process.<sup>69</sup> A leader can often use these networks to send and receive information faster than in the normal system. Also, the leader can selectively promote these networks to help with the grafting of the new culture.

#### **Maintaining Previous Elements and Methods**

In the refreezing stage, the leader should also continue to use the methods discussed in stage two: human resources, education, empowerment, and defensive reasoning. If change is introduced incrementally, the scope should cover the entire organization by the end of stage three. A good evaluation system will help the leader in determining how to continue employing the above methods. As a final point, Hall also mentions that the vision needs periodic reassessment.<sup>70</sup> Therefore, leadership should step back and see if the vision needs refinement. Feedback from previous evaluations will be helpful.

### **JDAM Case Study**

*I ask you to join me in that quest to break down the costly barriers in our system and create a new acquisition system to provide the finest equipment for our forces at a cost the nation can afford.*

— William Perry

The JDAM system program office (SPO) embraced acquisition reform, breaking down some of the barriers Secretary Perry mentions. Consequently, the change strategies pursued by JDAM served as a practical comparison to the theory presented previously. To develop maximum benefit from this comparison, a basic methodology of in-depth interviewing was used. The

specific results of these interviews form the basis for the case study discussion presented later.

## Methodology

Time limitations forced the selection of a single case study. JDAM was selected because of its success in implementing acquisition reform. JDAM, one of four Air Force pilot programs participating in a congressionally mandated acquisition reform test program, was awarded the Air Force Acquisition Lightning Bolt Award in December 1995.

### Background

The JDAM program office was formed in 1994. It develops affordable and accurate adverse weather guidance kits for 1,000- and 2,000-pound bombs carried on a variety of Air Force and Navy aircraft.<sup>71</sup>

**Acquisition Reform Results.** JDAM's results with acquisition reform thus far have been outstanding. Use of military specifications was reduced from 87 to none, product development time was cut from 64 months to 48 months, and JDAM achieved a total program savings of \$2.9 billion.<sup>72</sup>

**Unique Organization Characteristics.** Two things make the JDAM SPO different from other SPOs. First, as a pilot program, it had no opportunity to obtain relief from acquisition rules and regulations. JDAM did submit some requests for statutory and regulatory relief, but received nothing to give them any distinct advantage over other Air Force SPOs.<sup>73</sup> The second unique characteristic is that the program holds interest at the senior level within DOD. Being part of the pilot program offered visibility at the highest Air Force and DOD acquisition levels. Normally, only the largest SPOs have this kind of visibility. Finally, JDAM is relatively small, consisting of 56 people. The Air Force has other small SPOs, but JDAM doesn't compare with most program offices whose personnel number from the low to middle hundreds.

### Data Gathering Method

Since little information was available on how acquisition reform was implemented in JDAM, interviews with SPO members

were conducted using purposive, stratified samples. Certain people played key roles in the change process, necessitating interviews of them. But their impact varied according to management level, hence the requirement to stratify the sample. The purpose of the interviews was to find out, from a leadership perspective, what the SPO did to change itself. This meant talking with key leaders in the organization. However, it was also important not to underrepresent any level in the organization since each level might have different perspectives on the changes taking place. Therefore, the sample was stratified to ensure inclusion of selected groups: (1) senior leaders (program and deputy program directors), (2) integrated product team (IPT) leaders, (3) group leaders, and (4) line workers. See appendix B for the JDAM organization chart and the people selected for interviews. Twenty-four percent of JDAM SPO personnel were selected.<sup>74</sup> Table 2 summarizes the results. Small sample sizes were offset by the use of ethnographic techniques and in-depth interviews. The heads of business and product development IPTs were interviewed due to their critical positions. Subjects in the lower two tiers were chosen at random within their stratified groups.

**Table 2**  
**Sample Selections**

Organization Level	Total Members	Interviewed
Program/Deputy Program Director	4	3
IPT/Deputy IPT	5	2
Group Leaders	9	3
Line Workers	41	6
<b>Total</b>	<b>59</b>	<b>14</b>

**Interview Technique.** A semistructured interview method was used. This method employs an interview guide for questions and topics. The semistructured approach keeps the questioning focused, yet provides the freewheeling quality of an unstructured interview.<sup>75</sup> Since there was only one chance to meet with each person (due to time and funding constraints), this method assured consistency and fostered open-ended responses at the same time. The interview guide (appendix C) was

administered without alteration. It was tested by using trial subjects at the division, branch chief, and line worker levels at the Human Systems program office, Brooks AFB, Texas. For the actual study, a combination of telephone and personal interviews were conducted.

## Results

Results of the case study are discussed within Lewin's framework. See appendix D for a presentation of the data.

### Unfreezing

JDAM leaders used many of the unfreezing elements discussed earlier. They placed considerable emphasis on urgency and vision. They also employed several methods to overcome initial resistance.

The organization's sense of urgency appeared strong. All respondents felt a high sense of urgency. Seven out of 10 saw the SPO director as being the generator of this situation. However, the program director did not discount outside influences. He noted that the deputy undersecretary of defense for acquisition reform pushed JDAM as a pilot program.

To help create this perceived crisis and chart a path for the future, the SPO leaders developed a clear, simple vision. They saw their primary aim as success in an acquisition reform program, with underlying principles of streamlining, best value for the dollar, and collaboration with the contractor. The leader developed this vision in concert with all SPO members, and it served as a key method to overcome initial resistance. All respondents knew the purpose of the organization and its vision. Virtually the same description of the vision was given by all 14 people. SPO leaders achieved this high knowledge rate by communicating the vision through several methods: leadership emphasis at meetings, one-on-one contact, and public postings.

In addition to communicating the vision, the leaders employed several other methods to overcome initial resistance. The program director personally led the transformation. He removed traditional, but nonvalue-added, acquisition practices in a public manner. This demonstrated the seriousness of the mission. Several workers mentioned the leader as the "driving force" behind changing the organization. The director also deliberately

placed change agents in various work groups, an action that was not obvious to the workers; none of them mentioned the intentional placement of change agents in the SPO. Furthermore, the program director implemented a radical reorganization in which government personnel teamed directly with competing contractors. Eleven people specifically mentioned the effect of this reorganization. It appeared to change the perception of government from obtrusive overseer to helpful facilitator.

However, altering the management process was probably the largest contributor to overcoming initial resistance. Everyone interviewed commented on three practices applied in JDAM that they did not see applied (at least to the same degree) in other organizations: removing fear in the organization, setting and meeting high goals, and questioning their practices as well as those of others. The program director set out to remove the fear of making mistakes, and his efforts seemed to work. A typical interview comment was: "If you're not making mistakes, you're not trying hard enough." Also, the program director challenged people by setting "stretch goals." Stretch goals were standards out of reach with normal effort, but attainable with determination, initiative, and creativity. Those interviewed felt a keen desire to meet these standards. Finally, because of the enormous amount of ingrained procedures and practices involved in acquisition, the director instilled a questioning attitude across the organization. Some people stated such things as, "Why do we have to do it this way?" or "Why can't we do it another way?" Asking "why?" has become a mantra within JDAM.

### **Movement**

Of the various ideas presented for moving an organization down the path of change, most applicable to JDAM were the personnel selection process, overcoming defensive reasoning, and empowerment. Other methods, like training and the appraisal system, were relevant but less useful. Moreover, there was disagreement regarding the scope of change and whether to focus first on attitude or behavior.

Overcoming defensive reasoning seemed to be very important. It is difficult to gauge the degree of defensive reasoning in an organization without prolonged observation. Nevertheless, JDAM members seemed to apply Argyris's productive reasoning. Ten people commented that they willingly challenged each

other's assumptions and logic. Also, 10 subjects noted that management always explained the rationale behind sensitive decisions. Only one person said management did not explain decision rationale.

The program director also used the personnel selection process. He interviewed people seeking positions in the SPO. His purpose was to select workers who would fit with his vision. The leader also released four or five people because he thought they would promote disruptive actions.

Empowerment seemed to have a positive effect, though agreement among those interviewed was not as strong as in the case of urgency and vision mentioned earlier. Eleven out of 14 people said empowerment was very important, and the senior leadership in particular felt that people needed a sense of "ownership" in the task they were accomplishing. However, the implementation of empowerment was not consistent throughout the organization. Eight people felt completely empowered, four said the empowerment practiced in the SPO was good but could be improved. One person declined to comment.

These minor discrepancies in measuring empowerment appear related more to definition than results. The most satisfied people defined empowerment as a "volume" (or set of boundaries) where one was free to make decisions within the parameters set by management.<sup>76</sup> Those not completely satisfied had a different definition (like freedom from review) or did not have a clear idea of the boundaries of their empowerment volume. Despite these differences, the SPO's success seems to suggest that, while empowerment itself is necessary, it is not necessary to have complete agreement throughout an organization on the amount applied.

The training and appraisal systems appeared to be less useful than the above methods. Fifty percent of the respondents judged the SPO training very important. To them, the informal team-building training accomplished earlier in the program contained the most benefits. Whereas training was of some help, four people stated that the appraisal system had a somewhat negative effect on the change process. Because the SPO did not control appraisals directly, functional organizations (such as engineering and contracting) outside the SPO conducted final review and approval.

Results concerning the scope of change and whether to focus initial efforts on changing attitude or behavior split along senior

management lines (program director) and lower level management lines (IPT leaders and below). Workers saw the need to change everything all at once and to focus on attitudes first. Senior leadership, on the other hand, saw change concepts being implemented immediately but results flowing incrementally. These results would in turn build upon one another and propel the SPO along the path of change. The senior leaders also saw their job as changing behavior first; they did not see how one could directly affect attitude. Still, attitude change was their long-term goal.

### **Refreeze**

The SPO still appears to be in the movement stage; the change process has been working for only three years. Consequently, its leaders have not placed great emphasis on overtly anchoring change. Still, the SPO employed two methods from the change strategy discussion: spreading success stories and measuring organization progress. The senior leadership also used two methods from the unfreezing segment: creating a sense of urgency and altering management processes.

The organization has made some effort to spread the word on success stories and to measure progress towards acquisition reform. Thirteen people mentioned that continual reinforcement of success helped people to stay on track. "Success breeds success," was a common statement. Also, the SPO practiced a qualitative and quantitative measurement process. Nine people noted the use of metrics to assess progress towards organizational goals. Senior leaders also mentioned qualitative assessments like management off-sites and managers spending time in work areas. The director visited different parts of the SPO and talked with people to obtain a sense of the organization's climate. He even actively solicited "report cards" from workers on his and the SPO's performance.

The most common methods used by JDAM to anchor change came from the unfreezing segment. First, the leaders continued their sense of urgency. When the new program director came in, he deliberately tried to reenergize the organization. To do this, he identified a common enemy—another SPO that competes indirectly with JDAM on the same type of munition. The program director told the SPO they must do better than the enemy to remain in business.

Also, the program director continued to challenge the organization by setting high standards, a management process used

initially to start the change process. The standards were significant and well above what most organizations would consider reasonably attainable. For instance, the SPO developed a goal to cut 15 months off their schedule for obtaining a decision for low rate initial production (LRIP). Many program offices would consider merely meeting their schedule for LRIP a tough goal.

Results thus far indicate that the change strategies are working well, but there is a small caveat. The organization has gone from estimates of over 50 percent resistance to change initially to estimates of less than 25 percent now. Also, the SPO has been successful in terms of the cost and schedule savings mentioned earlier. Still, room for improvement exists. Two people mentioned that the organization reverts back to old business practices on occasion and one individual said the SPO had "fallen down on institutionalizing change." Furthermore, the resistance to change is not negligible. Although seven individuals said there was virtually no resistance to change, four put resistance at around 10 or 20 percent and one person said it was over 50 percent. Clearly the organization does not speak with the same unanimity here that it did on other issues.

### **Recommendations**

*Americans will always do the right thing after having first exhausted all other alternatives.*

— Winston Churchill

A major objective of change strategies is to avoid nonviable alternatives in pursuing organizational change. The goal is to use the correct approach from the start. Proper application of these strategies requires two sets of recommendations. The first set provides suggestions for organizations undergoing change for acquisition reform; the second offers research proposals to fill gaps in the current study.

### **Organizational Change Core Competencies**

Delineating a list of recommended change strategies would misinterpret the results of the case study. JDAM leaders applied some strategies but did not use others. In addition, strategies were tailored to fit the JDAM situation. For instance, they

used urgency to foster *and* maintain change. The methods and concepts previously discussed will serve as a means to achieve larger goals in most situations, but experience tells us that what works in one situation may not work in another.

Nevertheless, in comparing JDAM practices with other possible change strategies, several necessary organizational capabilities stand out: urgency, vision, high standards, teamwork, and innovation. You will not see a one-to-one correspondence of these capabilities with each change strategy discussed. Furthermore, they do not fall discretely into a particular element of Lewin's model; they overlap among the three elements. Nor should a leader apply these capabilities in some specified order; they complement each other in a synergistic fashion. Rather, the leader should employ change strategies as appropriate to achieve these five capabilities. An organization must do all of them well, all of the time. In short, they are core competencies for organizations undergoing acquisition reform change.

### **Creating Urgency**

Organizations must develop and maintain a razor-sharp edge. Research points to urgency as the technique that is most likely to kick-start the change process. JDAM took it a step further and used an organizational sense of urgency to maintain its focus. Creating an outside competitor and promulgating success stories helped keep JDAM working at its limits.

### **Communicating Vision**

Vision is another critical item in change strategy, and JDAM used it well. JDAM leaders developed a clear vision and communicated it well. Everyone interviewed had virtually the same vision description, a situation that helped create a sense of purpose. In talking with the workers, one got the sense of dealing with an elite acquisition team.

### **Setting and Meeting High Standards**

JDAM senior leadership deliberately set high standards as part of the management process. While the research does not specifically address high standards, this technique had a powerful effect on the SPO. The leadership not only set high goals, but expected the workers to meet them. And the expectation

was mutual; workers expected to meet the standards. One might consider that empowerment is related to high standards in that it enables people to meet them. However, empowerment by itself is not a core competency. While JDAM people agreed that empowerment worked well, they did not agree on how well. The leader must practice empowerment to whatever level is needed to meet organizational goals, but this does not necessarily mean that everyone should feel completely empowered.

### **Teamwork**

JDAM used a type of teamwork in which everyone worked together for a common goal, but strongly and professionally debated the means to achieve the goal. They operated in a family atmosphere that embraced differences of opinion. JDAM personnel were willing to challenge one another on thoughts and ideas and to use peer pressure to push people forward. This inevitably led to disagreements but, like families, the individuals involved pulled together when needed. Managing the personnel selection process and providing training in team building were the only means used to achieve this competency; they are probably not the only methods that will work. JDAM's teamwork method provides an interesting contrast to teams that outwardly work towards a common goal, yet sometimes avoid underlying differences to get the job done.

### **Constant Innovation**

Innovation is one of the means used to achieve high standards and develop the level of teamwork mentioned above. Its inclusion as a core competency may be a reflection of new thinking, which is required for acquisition reform. However, it appears to have been critical to JDAM success. The organizational penchant for questioning everything served as a prelude for innovative ideas. During the interviews, the senior leadership emphasized the necessity of "thinking outside the box." One example is JDAM's application of the reorganization. The type of reorganization used by JDAM may or may not work for other SPOs. In fact, reorganization as a change strategy may not even be a good idea in many cases. The important consideration is that the leader of JDAM analyzed his circumstances and made a bold but appropriate move to change the SPO structure.

## Recommendations for Further Research

The main contention of this study is that no fundamental checklist of strategies exists, but that there are a certain set of core competencies that an organization must possess to achieve effective organizational change. However, this conclusion is based on a comparison of one organization with the literature on organizational change. To determine the validity of this assertion, additional research would need to: (1) study more organizations, (2) thoroughly evaluate proposed competencies, and (3) determine how to achieve the necessary competencies.

Further research should include using statistically sound practices to investigate more organizations. This would include random sampling and selecting SPOs of different sizes and stages of organizational maturity. Such methods would put a more definitive stamp on any research findings.

Also, the investigation should test whether the core competencies suggested here hold true among various SPOs. The framework may not prove sound: changes, additions, or deletions may be necessary. If the framework is not valid, new studies should provide another model. The acquisition community needs guidance for its leaders, who are struggling with reform.

Finally, whether new research uses the proposed model or advocates a new one, it should provide more examples of execution. Again, an inflexible step-by-step approach is probably a bad idea. However, the current study mentions little on how to promote innovation or create a highly functional team. Leaders need ideas to help them implement aspects of any proposed organizational change model.

## Conclusion

*Better for most of us to start learning now how to cope with change, to develop whatever leadership potential we have, and to help our organizations in the transformation process.*

— John P. Kotter  
*Leading Change*

This paper has recommended some core competencies for organizations undergoing acquisition reform change. While the DOD has achieved some success in reform, the breadth, depth,

and pace of change have not been consistent. Acquisition reform principles require big changes in the way organizations do business. Initiating and fostering such large change is difficult at the organizational level. The suggested core competencies, drawn from a comparison of several possible change strategies with successful acquisition reform in the JDAM program office, should help leaders in their change efforts.

Change strategies were discussed in terms of Lewin's framework of organizational change: unfreezing the system, moving towards a new orientation, and refreezing new behaviors and attitudes. To unfreeze organizations, leaders create a sense of urgency, communicate a new vision, and use various organizational and management tools to overcome initial resistance. Once they start the process, the leader causes movement through a variety of means. Human resource methods like promotions and appraisals reward behavior that promotes change. Training and education provide necessary skills. Some strategies also call for empowerment and the use of productive reasoning to involve people in the process and rid them of their personal biases. Finally, organizations institutionalize change by employing techniques grouped under three major categories: grafting the new culture to the old, maintaining and evaluating the process, and continuing to use the methods discussed here in the movement stage.

JDAM leaders applied some of the strategies presented, adapting them to fit their situation. Key features of the JDAM application included creating a sense of urgency, communicating a vision, altering key management processes, and overcoming defensive reasoning. JDAM leaders used these methods in a synergistic fashion, cutting across all three stages of Lewin's model and tailoring them in ways not addressed by the literature. To a lesser degree, they also applied empowerment, selective personnel decisions, training, and reorganization. In addition, they measured their progress towards their change goals. However, these methods appeared to play supporting roles to the key features mentioned above.

Based on comparing possible change strategies with the JDAM experience, a simplistic application of change strategies misses the fundamental requirement for change. A particular strategy that works in one situation may not work in another. However, the results of the study suggest that there are over-

arching core competencies for successful organizational change. Developing and maintaining a sense of urgency, for example, helps organizations keep their edge. Communicating a vision provides the right focus for the energy that results from urgency; setting and meeting high standards ensures that the organization does not become complacent. Building teams in which people disagree but pull together when needed helps with urgency and meeting high standards. Finally, encouraging innovation is important for fostering creative teamwork and keeping the organization flexible intellectually. The leader must combine these competencies in a synergistic fashion and practice them constantly.

When asked about the challenge of implementing acquisition reform, Secretary of Defense Perry said, "Why can I presume that this time the call for reform will succeed? Well, the first answer, of course, is that we cannot be sure. It is a daunting task. To change in a fundamental way a system as large as this and a system which is so ingrained after four decades of development will be difficult."<sup>77</sup> Hopefully, the core competencies proposed here will provide a framework useful for accomplishing this imposing task.

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## **Appendix A**

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## Air Force Lightning Bolt Initiatives

The Air Force has implemented acquisition reform principles largely through its "lightning bolt" initiatives. Some pretty drastic goals have been set for streamlining: reducing acquisition cycle time by 50 percent, reducing program office manning (in some cases by 50 percent), and improving the request for proposal (RFP) process.<sup>1</sup> Reducing regulations, developing a single set of consistent policies, and using training and support teams are also important AF themes. They will help to ensure the use of best business practices.<sup>2</sup> The specific lightning bolts are listed below.

**1. Establish a centralized support team to streamline all contract solicitations valued at over \$10 million.**<sup>3</sup> The purpose of this team is to institutionalize acquisition reform. Similar teams will be established at each product and logistic center to scrub solicitations valued at between \$100 thousand and \$10 million.

**2. Create a standing acquisition strategy panel (ASP) composed of senior level acquisition personnel from the office of the Undersecretary of the Air Force for Acquisition (SAF/AQ), Air Force Materiel Command (AFMC), and users.** The goal of this lightning bolt is to promote consistency among acquisition strategies, tailored as needed to the specifics of the program under consideration.

**3. Develop a new program office manpower model that uses the tenets established in streamlining the management of classified programs.** This model is based on acquisition strategies that use the prime contractor as the system integrator and achieves a reduction in program office size of at least 50 percent, including contracted support personnel.

**4. Cancel all Air Force Materiel Command Center-level acquisition policies by 1 December 1995.** The secretariat, Air Staff, and Headquarters AFMC will be the only agencies authorized to issue acquisition policies, instructions, or guidelines, including supplements to the federal acquisition regulations.

**5. Reinvent the Air Force oversight and review process.** The goal is to have a paperless decision process, convening a formal review only if there is disagreement within the program's working-level integrated process team (IPT). SAF/AQ will lead the IPT with membership from the secretariat, Air Staff, and HQ AFMC.

**6. Enhance the role of past performance in source selections.** Headquarters AFMC led an IPT to revise its policy on the use of past performance in source selections so that it is co-equal with technical, management, and cost proposals.

**7. Replace acquisition documents with the single acquisition management plan (SAMP).** A SAMP will replace numerous other documents, including acquisition plans, program management plans, and acquisition strategy reports for milestone reviews.

**8. Revise the "program executive officer and designated acquisition commander portfolio review," adding a section that deals specifically with acquisition reform.** The program managers will develop metrics to track implementation of acquisition initiatives. Metrics will capture specific reform activities occurring in each program.

**9. Enhance the acquisition workforce with a comprehensive education and training program that integrates acquisition reform initiatives.** Headquarters AFMC is leading an IPT to develop a comprehensive formal education and training program for the acquisition workforce. This training program will ensure that individuals have the knowledge, skills, abilities, and experience needed to perform in an environment of reformed processes with a smaller workforce.

**10. Reduce acquisition cycle time by 50 percent.** Phase 1 seeks to reduce the time from a validated user requirement until a contract is awarded by 50 percent. Phase 2 will attempt to cut down on cycle time after contract award.

**11. Streamline science and technology contracting.** Improved business processes and lessons learned in weapon sys-

tems acquisition will be applied to our science and technology efforts. Common process will become the standard across all laboratories.

#### Notes

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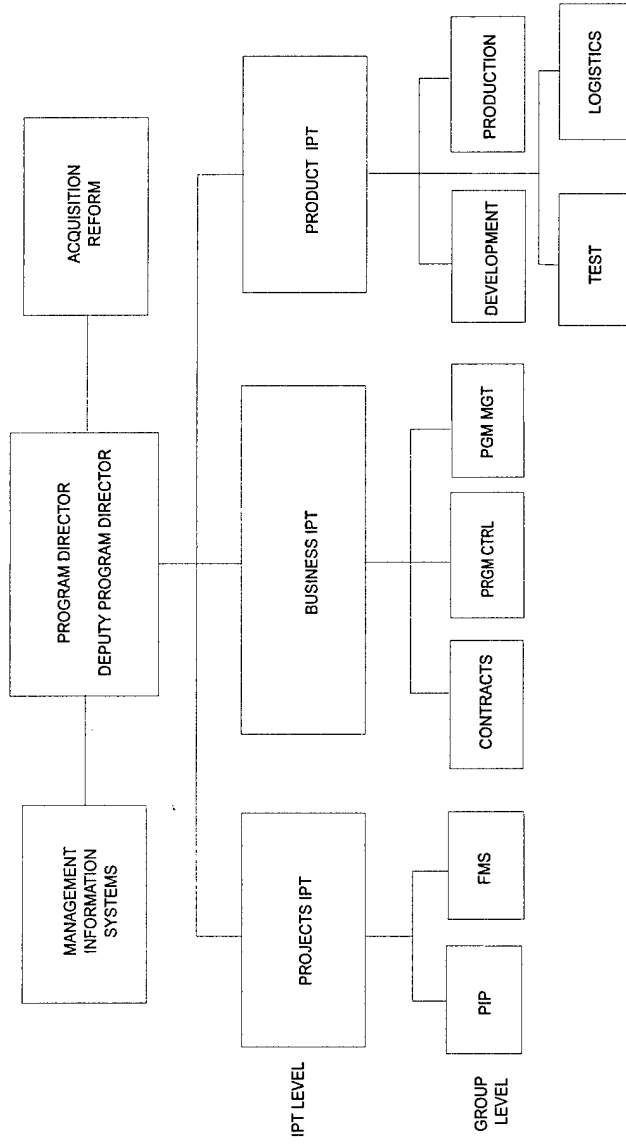
## **Appendix B**

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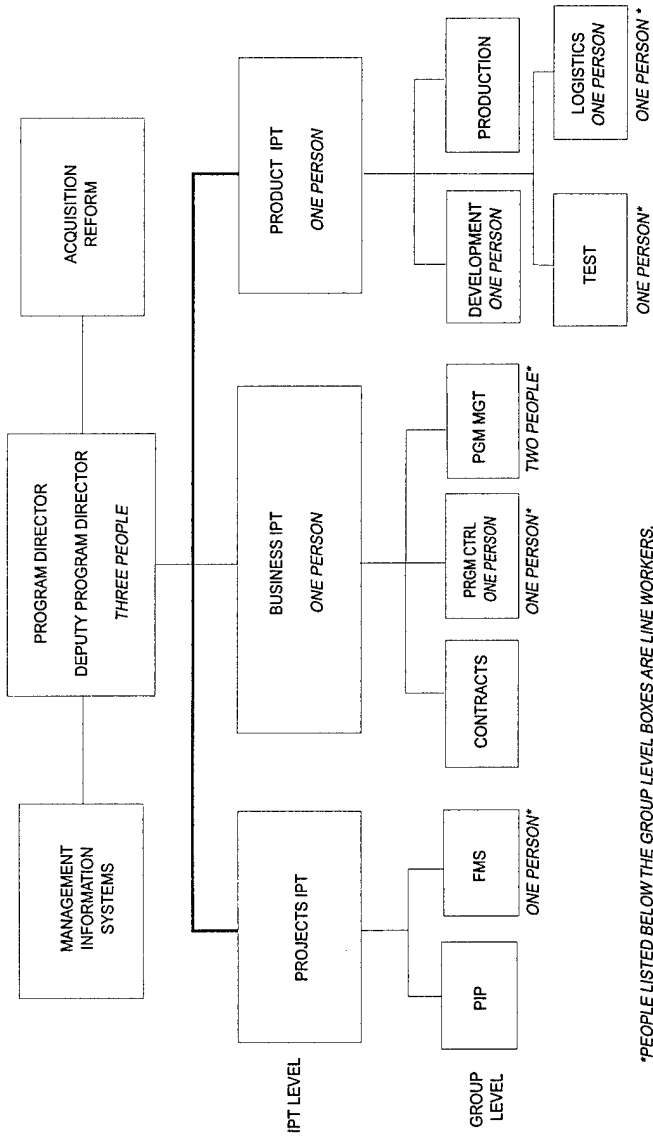
## **JDAM Organization**

The following figures illustrate the JDAM organization. Figure 1 shows the basic organizational structure. Figure 2 indicates the location in the organization for each interview respondent.



Source: JDAM office headquarters

Figure 1. JDAM Organization Chart



\*PEOPLE LISTED BELOW THE GROUP LEVEL BOXES ARE LINE WORKERS.

Source: JDAM office headquarters

Figure 2. JDAM Interview Selections

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## **Appendix C**

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## Interview Guide

1. How did the change process start? Emphasize: As applies to acquisition reform.
  - a. Was the change necessary or required? Why? (crisis/urgency)
    - When did it start?
    - Was resistance encountered?
    - If resistance was encountered, what percent was encountered by the SPO?
  - b. Vision (to include goals and objectives)
    - Do you have a vision statement (for the SPO)?
      - What is it? When was it accomplished?
      - If not, does the SPO use any other methods to convey the organization's purpose and goals?
      - What methods have been used to communicate the vision?
      - What has been the reaction of the SPO to the vision?
      - Have there been any inconsistencies between the vision and SPO actions or policies?
        - If so why? What has been done to explain or resolve the inconsistencies?
  - c. Has the SPO done any of the following to mobilize commitment (give examples)?
    - Continuously communicate vision
    - Building coalitions and networks (altered work team compositions)
    - Establishing dedicated group(s) to move out on change (who participates?)
    - Distributing resources for alignment with new way of doing business
    - Reorganization
    - Altering or establishing key management processes
2. What are the methods you've used to implement and energize organizational change? What has worked well? What hasn't worked well?
  - a. Has the SPO used any of the following HR methods: promotion, selection, rewards, appraisal system?

- b. Has the SPO done any education and training? What types?
    - How often does training take place?
    - Does follow up training (to include on-the-job) occur?
      - Under what circumstances?
  - c. How do you feel about the concept of empowerment?
    - Has SPO use empowerment to help change process?
      - How?
      - How do you think empowerment is working out?
  - d. Consider a continuum of making incremental changes versus a lot of change all at once. Where does the SPO fit on this continuum?
  - e. Defensive reasoning
    - What process is used to make decisions (at your level of decision making)?
    - When implementing difficult changes or decisions, did any one complain, show reluctance, or exhibit negative feelings?
      - How was this handled?
    - When decisions are made, does management explain them?
    - Does management ever give orders or taskings without telling why?
  - f. In a change process like the SPO's undergone, what comes first, changing attitude or changing behavior? Behavior is the outward actions or thoughts of an individual. Attitude represents an individual's inner most basic assumptions, primarily existing at unconscious level.
    - What path has the SPO taken?
3. Has the SPO institutionalized organizational change? (Practices, processes, attitudes firmly ingrained, taken for granted)
- a. Grafting: Has SPO done any of the following?
    - Celebrations
    - Eulogizing past culture
  - b. Maintenance and evaluation: Has the SPO done any of the following?
    - Articulated the connections between new behaviors and organizational success
    - Spread the word on success stories (oral, written, electronic)

- Held meetings to assess progress of change
  - Made examples, either positive or negative, of certain practices or procedures
  - Give rewards, promotions, high appraisals based on contributions to organizational change
    - How often is this done?
    - Under what circumstances?
  - Has vision been refined since process started?
    - If not, any plans to?
  - Does the SPO try to measure change?
    - What and how?
- c. Does SPO make use of the informal organization (networks) to facilitate change?
- Describe use
  - How often is this used?
- d. Rating change
- Rate the SPO's cultural change on a percentage basis (100% is complete transformation)

## **Appendix D**

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## **Interview Results Matrices**

The data on the following pages show the results of the interviews conducted at the Joint Direct Attack Munitions (JDAM) program office. The data are presented in terms of organizational change methods and concepts versus management level. Showing the data in matrix format helps indicate patterns in change strategies used by JDAM as people at various levels in the organization viewed them.

The matrices display the data from two levels: organizational change and management. Each matrix reflects a different stage of organizational change: unfreezing, movement, and refreezing. Within each matrix, the columns indicate various change methods and concepts. They include items from the interview guide as well as other ideas that came out during the interviews. Some of these methods and comments have levels of degree, and some are yes or no responses. The rows show the management levels in JDAM (see appendix B).

Data include table entries and their associated notes. Each "X" represents a response or comment from a subject about a particular category. Some entries have notes that provide further amplification. The number of entries in a category may not add up to the total number of people interviewed; not everyone responded to all areas.



- Deliberately identified common enemy (example: Guided Attack Munition program) in competition with SPO. Kept sense of urgency in organization.
- SPO director advocated using JDAM as pilot program. Also, some urgency at OSD level: The deputy undersecretary of defense for acquisition reform pushed idea of JDAM as pilot program.
- Tremendous resistance encountered (initially and currently) from OSD and other staffs, though senior leadership provided "top cover" for JDAM reform initiatives.
- Those rating organization change 50 percent or less joined the organization at least several months after it started its reform efforts in earnest.
- Broad vision was simple: success as acquisition reform effort and transformation entire buying process. However, set short term goals (two years max) for people to chart progress. Some common principles came out in interviews:
  - Streamline and value-added work and processes.
  - Best value for dollar.
  - Collaboration with contractor—a true team.
  - No inconsistencies on important matters—have to pick fights.
- SPO director deliberately picked change agents (zealots) and matched them to certain teams within organization.
- SPO director used radical reorganization that closely tied government personnel with two contractors competing for JDAM; job of government personnel was to help their contractor win. One respondent said SPO was "organized for success."
- At major point in program (downselect to one contractor), SPO again reorganized to reflect new thinking. For instance, instead of being independent as usual, contracting was put in the business IPT to make them a better part of the SPO team.
- SPO director created new environment that significantly changed overall management philosophy and practices. Virtually every person interviewed commented on the following aspects:
  - Challenged people by setting "stretch" goals; these goals viewed (by both sides) as higher standard. People talked of being challenged directly by SPO Director to "think outside the box."
  - No fear of making mistakes ("if you're not making mistakes, you're not trying hard enough"). Note: SPO director received support and empowerment from his leadership and highest office of secretary of defense (OSD) levels.
  - SPO director set example of leading edge thinking and setting high standards. For example, he backed and achieved the deletion of all military specifications. This sent a message to the SPO that the reform initiative was serious.
  - Mantra of SPO was to challenge the status quo by *always* asking why or what. Why do we need to do it this way? What is the value added? *Everything* is challenged.

**Table D-3  
Movement Data Matrix - Part A\***

Level/# people	HR Methods				Education & Training							
	Promotion	Types Used			Amount/Importance				Recurring			
		Selection	Rewards	Appraisals	Informal	Formal	High	Medium	Low	Initially	Currently	
Program Director/3		XXX <sup>b</sup>	X <sup>a</sup>	X <sup>a</sup>	XXX <sup>d</sup>	XX <sup>e</sup>	X	X		XX	X	
IPT Leaders/2	X <sup>a</sup>	XX	X <sup>c</sup>	XX			XX			X	X	
Group Leaders/3		XXX		XX	XX	XX			X	XX	XX <sup>f</sup>	
Line Workers/6		XXXX	X <sup>a</sup>	XXX XX	XXXX	XXXX	XXXX			XXXX XX	XXXX X <sup>f</sup>	

**Table D-4  
Movement Data Matrix - Part B\***

Level/# people	Empowerment				How Well Doing				Scope of Change				Defensive Reasoning				Attitude & Behavior	
	Importance		How Well Doing		Scope of Change				Defensive Reasoning				Attitude & Behavior					
	High	Med	Low	Excellent	Good	Average	Poor	Incre- mental	Middle	All at Once	High	Med	Low	Yes	No	Attitude	Behavior	
Program Director/3	XX <sup>c</sup>			X	X <sup>i</sup>			XX <sup>j</sup>	X	X							XXX	
IPT Leaders/2	XX			X	X <sup>i</sup>				X							XX	X	
Group Leaders/3	XXX			XX	X <sup>i</sup>				X							XX	X	
Line Workers/6	XXX X			XXXX <sup>h</sup>	X				XXXX XX	XXX X	XXX X	XXX X	XXX X	XXX X	X	XXXX		

\*Explanations follow below:

"Appraisal and promotion system seemed to work against SPO. SPO had input, but final decisions made by functional chain (engineering, contracting, etc.) outside of SPO. SPO director purposely "fired" four or five people who were disruptive influences. He also picked people for key positions and interviewed people for SPO job openings. Offered small organization rewards. Also attempted to obtain "pay for performance" where each employee receives certain percentage of cost savings. This idea did not come to fruition and it "let the wind out of the sails of some people." However:

- Organization still vigorously setting challenges and high standards.
- Most people (five of seven) seemed to think "pay for performance" no longer an issue—did not really expected in first place.

\*Used team building, offsites. Contractors were included.

\*Used formal courses like Motorola's "Six Sigma Training." Training is still conducted, but now it is at a decreased level. Also, informal training continues (like team building), but trend appears to be towards formal training in functional areas (like engineering, contracting, etc.).

\*SPO director said "must have empowerment." People must have "sense of ownership." SPO director felt empowered by his chain of command. Idea of "top cover" resurfaced.

"While some empowerment results were mixed, others felt completely empowered.

\*Some SPO surveys indicated mixed results on level of empowerment in organization. Senior leadership felt this was mostly a matter of perspective. In other words, one's definition of empowerment. Some subjects also commented on this issue.

- One subject declined to comment on empowerment and its implementation.

\*SPO director instituted change philosophy across-the-board initially. However, change was incremental from a personal and results level. As SPO experienced success, the process grew rapidly; more "passive" people got on board and positive results accelerated.

"Willingness to challenge each others assumptions and logic stood out in interviews. This agrees with the SPO's general practice of asking "why?".

Must work on attitude and behavior at the same time.

**Table D-5  
Refreezing Data Matrix - Part A\***

Level/# people	Grafting					Maintenance & Evaluation							
	Celebrations			Eulogy		Stories	Qualitative Measures	Quantitative Measures	HR Methods	Training	Vision/ Goals	Networks (People)	Other
	High	Med	Low	Yes	No								
Program Director/3	X					XX	XX <sup>b</sup>	X			X <sup>f</sup>		X <sup>f</sup> X <sup>g</sup> X <sup>h</sup>
IPT Leaders/2	X <sup>a</sup>					XX	XX <sup>c</sup>	XX <sup>d</sup>			X <sup>f</sup>		XX <sup>e</sup>
Group Leaders/3						XXX <sup>e</sup>		X				X <sup>f</sup>	XX <sup>e</sup>
Line Workers/6	X					XXXXXXXX		XXXXX					X <sup>f</sup> XXX XX <sup>e</sup>

**Table D-6  
Refreezing Data Matrix - Part B\***

Level/# people	Current Assessment			
	75-100	50-74	25-49	5-24
Program Director/3		X <sup>*</sup>		
IPT Leaders/2				X
Group Leaders/3				X
Line Workers/6				XX

\*Explanations follow below.

Workers take pride in accomplishments. Realize they are viewed by many outside organizations as special.

- Informal meetings also held to assess organization's progress.

'SPO director assesses organization through management by walking around. Also holds closed-door quarterly meetings where he asks individuals to provide a report card on him and the SPO.

'SPO holds offsites at various levels and times to assess organization's progress.

'SPO has conducted surveys on organizational concerns and climate. It also uses metrics to regularly check progress towards acquisition reform goals.

'A number of people commented on "success breeding success."

'Broad vision has not changed substantially, but subgoals have changed to keep pace with maturity of the program.

'SPO continually challenges itself at all levels (organization, small group, personal) by setting high goals. These high goals reinforce innovation and acquisition reform principles—they're needed to meet the goals. Evident in nearly every subject.

- Higher-level staffs (AFMC, OSD) continue to request that the SPO use old ways of doing business. IPT leaders view this as an impediment and waste of resources. Workers at the lower levels, though, seemed to take these road blocks as a challenge.

'Both former and current SPO directors talked about the need for continuity and consistency.

'Respondents thought organization had fallen down somewhat on institutionalizing change. When pressure mounts, some individuals tend to slip back to old ways. Said executing program versus acquisition reform has become primary goal.

- Most other people interviewed still saw being a leader in acquisition reform as a fundamental goal and were motivated by this goal.

'Peer pressure from key people.

'Felt resistance higher now because program is past some key hurdles and views itself now as in "execution mode."

Final Note: Most people did not see a deliberate attempt to anchor change. Several pointed out that the personnel selection process ensured change from the beginning and that the organization was "designed for success."

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## ***Acronyms***

AFMC	Air Force Materiel Command
AIAA	American Institute of Aeronautics and Astronautics
CEO	chief executive officer
DOD	Department of Defense
FMS	foreign military sales
HQ	headquarters
HR	human resources
IPT	integrated product team
JDAM	joint direct attack munition
LRIP	low rate initial production
PGM MGT	program management
PIP	product improvement program
PRGM CTRL	program control
RFP	request for proposal
SAF/AQ	undersecretary of the Air Force for acquisition
SPO	System Program Office

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## **Glossary**

**Designated acquisition commander (DAC).** Individual who performs the same functions as the program executive officer (PEO) on programs that are not assigned to a PEO, primarily the commanders of product centers. For acquisition program activities, DACs, like PEOs, are accountable to the Air Force acquisition executive.

**Low rate initial production.** Producing the minimum quantities necessary to provide production configured or representative articles for operational test, establish an initial production base for the system, and permit an orderly increase in the production rate for the system.

**Integrated product team.** Teams composed of representatives from all appropriate functional disciplines working together with a team leader to build successful and balanced programs, identify and resolve issues, and make sound and timely decisions. The purpose of IPT is to make team decisions based on timely input from the entire team, including customers and suppliers.

**Military specifications.** Documented requirements for materials, products, or services to be developed for the military.

**Program director.** Program manager vested with full authority, responsibility, and resources to execute an approved acquisition program on behalf of the Air Force. For acquisition related matters, the program director is accountable to the program executive officer or the designated acquisition commander. Also called system program director.

**Program executive officer.** Corporate operating official who supervises a portfolio of mission-related acquisition category I and selected programs. The PEO is accountable to the Air Force acquisition executive.

**Program office.** See system program office below.

**Request for proposal.** Formal vehicle by which the government describes requirements for goods or services and solicits proposals to fulfill requirements.

**System program office.** The integrated AFMC organization responsible for cradle-to-grave military system management.

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