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Operational Leadership: Operational Art
and General H. H. "Hap" Arnold

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

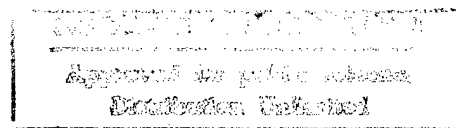
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Abstract

An operational artist is a leader who is able to skillfully use the tools of operational art to successfully plan and execute a major operation or campaign. There is a difference between an operational practitioner (one who knows the fundamentals of operational art) and an operational artist (one who uses the tools of operational art to create a military masterpiece). Those who are considered operational artists possess certain character traits that enable them to become truly great leaders. Those characteristics are courage, energy, and foresight.

Courage, both physical and moral, means the leader knows what is right (integrity) and pursues the right course despite personal danger or ridicule. Energy, both physical and mental, provides the leader the strength to persevere through the stressful and physically demanding time of conflict with a positive, "can-do" attitude that subordinates will emulate. Foresight enables the leader to not only look to the future, but also to look beyond the operational niche to see the grand plan. Foresight is key to planning and making midcourse corrections once the conflict has begun.

Through the use of "tools" associated with operational design and methods of combat employment, the operational artist plans and executes military operations. In each phase of operational design, from laying out guidance; through determining desired end-state, objectives and enemy critical factors; to completion of the operational scheme, the artist's personal characteristics enable the leader to plan for and then execute large-scale operations.

General Arnold was one of history's great operational artists, displaying throughout his career the characteristics that allowed him to make major contributions to Allied success in World War II as well as help found today's United States Air Force.

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Leadership is a subject almost everyone is interested in to one degree or another. Maybe it's because we each fancy ourselves a closet leader, or maybe we just would like to know how leaders do it. How does a successful leader make it look so effortless? Like watching a duck swimming on a fast moving river, it may look serene on top, but underneath he is paddling to beat the band.

Leadership is an art form dealing with many intangibles. Though there are numerous definitions for leadership, most have several elements in common: a leader, followers, and a purpose. For clarity and common understanding, leadership is defined as the ability of the leader to get the followers to willingly accomplish certain tasks to achieve a purpose. The willingness may come from belief in the purpose or it may come from belief in the leader. Nevertheless, willingness is the key to leadership, otherwise it would simply be command.

There are many skills a leader must master such as effective communication and organization, but these are simply skills that can be acquired by just about anyone. What sets the leader apart from a skilled commander? That is the subject at hand. There are certain characteristics common to all great leaders. Though their behavior--the way in which they manifest these characteristics--may be different, every great leader possesses courage, energy, and foresight.

These three characteristics allow the leader to manipulate the tools of the trade to achieve great success. In the case of the military leader at the operational level, these characteristics enable the leader to use the elements of operational design and combat force employment to orchestrate successful major operations and campaigns.

In the next few pages, we will look at the leadership characteristics, then how those characteristics apply to military operational art. Finally, we will look at General H. H. "Hap"

Arnold as an example of an operational artist--one whose personal characteristics allowed him to become a great operational leader during World War II.

CHARACTERISTICS OF A LEADER

The actual study of leadership is a fairly recent invention. In fact, most leadership “studies” were only completed since the mid-1930’s. Prior to that time, military historians--like Sun-Tzu and Clausewitz--simply shared their thoughts on leadership traits. Not surprisingly, the impressions of leadership formed by those early writers do not differ significantly with the data gathered by scientific study of the subject. Many texts list between 5 and 20 traits or characteristics that could be considered necessary for a leader to possess. These characteristics range from being articulate to having faith, and even include being lucky. Many of the traits listed are really skills that can be learned and perfected with practice. The actual list of innate characteristics could be narrowed to three: courage, energy, and foresight. These three characteristics must be an integral part of a leader if that person is to be a successful operational artist. We will now look at each of the characteristics more closely to determine what each entails.

Courage

When we hear the word courage, most of us conjure up an image of someone bravely facing a physical threat, like a hail of bullets or a ferocious, wild animal. That is certainly part of courage, and one that must not be overlooked. Most operational leaders are not required to personally face a physical threat. Nevertheless, it is important for troops to know that their

leader would bravely face the threat with them, if given the chance. Another form of courage more often needed by the operational leader is moral courage, or the courage of one's convictions. Some readers might have wondered why integrity was not included among the three characteristics. It was. It is imbedded in the idea of moral courage. A person without integrity would have no convictions by which to stand. Therefore a leader who is morally courageous also possesses integrity.

As early as 500 BC we find that moral courage was a desirable trait. Sun-Tzu wrote, "Hence a commander who advances without any thought of winning personal fame and withdraws in spite of certain punishment, whose only concern is to protect his people and promote the interests of his ruler, is the nation's treasure."¹ A little closer to our time, but no less prescriptive is Clausewitz' discussion of the military genius. Clausewitz states that courage is the soldier's first requirement. "Courage is of two kinds: courage in the face of personal danger, and courage to accept responsibility, either before the tribunal of some outside power or before the court of one's own conscience."²

Another noted military writer, Major General J.F.C. Fuller, wrote in his treatise Generalship--Its Diseases and Their Cure, "...heroism is the soul of leadership, whether a man is leading himself by placing his convictions before his interests, or whether he is risking his life to save the lives of his comrades, or to help win the cause his country is fighting for."³

Nearly universal is the idea that a military leader must be courageous, both physically and morally. A less often mentioned, but no less important, characteristic is energy.

Energy

Energy is both physical and mental--the combination of which translates into a "can-

do” attitude. In Leaders and Leadership, the author makes the point, “Energy means push, drive, activity. It utilizes opportunity that comes within reach and turns it into leadership.”⁴ Many of us have worked for leaders at the operational level and thought, “Does this guy ever sleep?” Often it seems the leader runs from meeting to meeting, and when not running, the leader pours over endless stacks of paperwork, or talks with individuals who think that commander is the only one that can handle their concern. In order to keep up such a frantic pace, an operational leader must possess a great deal of energy.

Clausewitz also discusses energy. The military genius requires strength of body and soul because war is the “realm of physical exertion and suffering.”⁵ This energy might be displayed in different ways by the operational leader. Often it appears as enthusiasm. Other times it may appear to subordinates as being driven--both the leader is driven and the leader drives the subordinates. The result is a “can-do” attitude and atmosphere, for this attitude is contagious. The operational artist always looks for a way to accomplish the mission, rather than first enumerating all the reasons it cannot be done. This positive outlook will be picked up by the subordinates and will lead to more successful results.

In order to channel this energy in a constructive way--it should never be said that an operational artist is “all mach, no vector”--the leader must know what is going on at the time on a grand scale, as well as have a vision of the future. This leads to the final characteristic, foresight.

Foresight

Foresight is the ability to look beyond the here and now--to look to the future, as well as beyond the narrow focus of one’s immediate surroundings. Some would call this seeing the

“big picture.” But foresight is more than that, it combines several characteristics into one.

At the heart of foresight is intelligence. Many of the great operational leaders have been individuals of great intellect, with a broad range of interests--Alexander the Great, Julius Caesar, and Robert E. Lee, to name a few. The intelligent leader will not only apply lessons from history, but has the ability to think through situations and to apply innovative solutions to a unique circumstance. That brings us to the next facet of foresight, imagination.

J.F.C. Fuller explained why imagination is so very important: “One of the most important talents of a general we would call that of a creative mind.”⁶ He went on to say, “If we wish to think clearly, we must cease imitating; if we wish to cease imitating, we must make use of our imagination. We must train ourselves for the unexpected in place of training others for the cut and dried.”⁷

Finally foresight means the operational leader has a clear sense of purpose, a direction in which the leader expects the effort or mission to proceed. Foresight is essential for the leader to practice the operational art. We will now examine the “tools” with which the operational leader works, and discuss how each of the characteristics--courage, energy, and foresight--impacts the use of the “tools.”

OPERATIONAL ART AND THE CHARACTERISTICS OF LEADERSHIP

For a point of reference, we will consider operational art that “component of military art concerned with the planning, preparing, conducting, and sustaining one’s own and friendly forces to accomplish operational or strategic objectives in a given theater through the conduct of major operations and campaigns.”⁸ Throughout the planning and execution process, the

operational commander works with the components of operational art. If the commander is an operational artist, the components will be used in the optimum way to ensure the best chance for success. The two components of operational art to be discussed are the operational design and methods of combat force employment, which equate to planning and execution. Inherent in these two components is consideration of the other components of operational art--operational factors, operational functions, and the elements of operational warfare.

Operational Design

The operational design is the process by which a major operation or campaign is planned. The key components of operational design are guidance, desired end-state, objectives, identification of enemy critical factors, and direction or axis of the operation, which when combined form the operational idea or scheme.⁹ In order for operational design (planning) to be successful, the commander should know not only what these components are, but also how to skillfully manipulate them. The characteristics of courage, energy, and foresight enable the operational artist to do this. Let's look at each of the components to see how the leader's characteristics affect their use in developing an overall operational scheme.

The first factor is **guidance**, given by the operational commander to clearly define the objectives, resources available, restraints and constraints, as well as methods and types of weapons to be used. At the operational level, this should include political as well as military objectives.¹⁰ The purpose of the guidance is to ensure the forces are all working "off the same sheet of music," toward the same goals. The characteristics of energy and foresight are

crucial to the commander when determining and communicating guidance.

First, foresight and its inherent intelligence allow the commander to determine the operational objective that will meet the strategic goal. With foresight, the commander will also be better able to anticipate the restraints placed on the operation by outside agencies, and determine the necessary constraints.

Energy is absolutely critical when communicating the guidance. The operational artist will imbue staff and subordinate commanders alike with a positive attitude about the operation at hand. This sets the tone for planning and execution of the entire operation.

Desired end-state determination and attainment is a little more complicated than just saying, "our desired end-state is to win." Desired end-state is a clear statement of what the region of conflict will look like in the post-hostilities phase. It should specify the political, military, economic and social conditions at the end of the conflict.¹¹

As with guidance, the operational leader must have foresight. Foresight allows the commander to clearly determine a feasible end-state once operational and strategic objectives are met.

This is an area where it is important for the operational commander to have courage. The operational leader is in the best position to say what end-state is likely to result from military action. If the civilian leadership is expecting an outcome that use of military force cannot bring about, the military commander must ensure the civilians know of this discrepancy. This does not go against the "can-do attitude"; it simply ensures realistic expectations. The dose of reality may not sit well with the civilian leadership, but it is imperative the military leader clearly articulate what the use of military force can and cannot

do. Once the end-state is understood, the operational commander must select military objectives to reach the stated goal.

Objectives selected by the commander must be clear and militarily attainable.¹² They must also contribute toward reaching the desired end-state. The objectives of the operational commander range from operational-strategic to the more tactical end of the scale. The commander must keep in mind, military action should not be undertaken just for the sake of using military force, but rather in support of a political objective. Operational objectives may also incorporate the use of military force to achieve an economic or social objective. Finally, objectives may be just a small step toward realizing the desired end-state, or they may be the final objective that will finish the conflict. Whatever the scope, arena, or phase the objective belongs to, the operational leader must have the foresight and intelligence to determine objectives that will move the conflict toward the desired end-state. When determining objectives, the operational leader must identify enemy critical factors.

Enemy critical factors include the enemy's principle strengths and weaknesses.¹³ The most important of the principle strengths is the enemy center of gravity. Clausewitz defined the center of gravity as "the hub of all power and movement, on which everything depends."¹⁴ Identification of enemy critical factors, to include the center of gravity, is important to ensure the effort exerted by the military force is meaningful. By focusing on the enemy's critical factors, the operational leader does not waste time on action that will not force the enemy to capitulate.

Foresight again plays an important role because the commander must accurately select the critical factors amid a large number of competing factors. These other factors may be enticing for many reasons, such as ease with which friendly forces might overcome that factor,

or mirror-imaging--“that factor would be critical for us if we were in their shoes.”

Courage of one's conviction is also important because once a critical factor is determined, senior leadership, including civilians, may differ with the commander's estimate of the critical factors. It is imperative the commander ensure the main effort is brought to bear on the critical factors, not frittered away on less important objectives.

Direction or axis of movement is another consideration in operational design.¹⁵ It refers in the general sense to how spatially the operational forces will get from the point of origin to the final objective area. The operational commander must have foresight to determine the optimum axis that will lead to success. Once each of these components of operational design is illuminated, the operational artist then puts it all together to form an operational idea--the plan.

The **operational idea** expresses the “broad vision of *what* the operational commander intends to do and *how* he intends to do it.”¹⁶ This is where the rubber meets the road in the planning sense. The operational idea will generally list the sequence of major events and what action each force element will take. The operational commander must have foresight and intelligence to paint the broad picture clearly for all to follow. The commander must also display energy--the “can-do” attitude--to fire-up the troops toward achieving the desired end-state. The leader must also have courage, for this is the point at which serious thought goes into how the troops will be put in harm's way. The commander must have the courage to make the tough calls, as well as defend the plan at higher echelons.

Once planning is well under way, the execution phase begins. At the operational level combat force employment is described in terms of major operations or campaigns.

Methods Of Combat Force Employment

A major operation is a series of related tactical operations, conducted to achieve operational or strategic results.¹⁷ The tactical operations may be sequential or concurrent, and may involve one or more branches of service. The common bond is that all of the tactical actions are directed by a single plan, usually under the control of a single commander.

Geographically the major operation will occur in a contiguous, often very large, area. Major operations may be conducted by a single service referred to as "independent." An operation involving more than one service of one country would be a "joint" operation. Operations involving forces from more than one country are called "combined" operations.¹⁸ The campaign is the next echelon higher--a series of interrelated major operations. Campaigns are waged for strategic objectives.

Given the scope and complexity of major operations and campaigns, the commander at the operational level must possess the characteristics of courage, energy, and foresight in order to successfully lead the force through the conflict.

Though the leader may not face direct physical harm, the fact that the leader is sending thousands of troops to face physical threat requires the leader to have courage in knowing the course selected is right, and the risks of the operation are in proportion to the desired outcome. The leader must have the courage to call a halt to the operation, if during the course of the conflict objectives directed from above change or the plan is proven to be unsuccessful. Finally, the operational leader must also have the courage to accept responsibility if the action directed does not achieve desired results.

Energy is especially important during the execution phase. In the dynamic environment of an on-going major operation or campaign, even the best-laid plans will need

alteration. At this point the leader needs to reaffirm the "can-do" attitude among the subordinates. Whether it's because the operation is going better than planned and the effort needs to be speeded up to keep pace with the success, or the operation has faltered due to some unforeseen circumstance and alternative action needs to be taken, the operational leader has to maintain a positive attitude that nothing is impossible.

In addition to mental energy, physical energy is also required during a major operation. Action will take place at all hours of the day and night and the commander will be called on to provide leadership throughout. The demands of worldwide engagement also mean that those with whom the leader coordinates are not all in the same time zone. An operational leader half a world away from senior civilian and military leadership may need to accommodate the "workday schedule" of those senior leaders--even if it is the middle of the night in the theater of operations. The leader may also face a rigorous travel schedule around the theater, as well as to meet with senior leadership outside the theater. The long and strange hours, full schedule, and stress endured by the operational leader require that leader to be mentally and physically energetic.

Finally foresight, so very important in the planning phase, is no less important during force employment. As mentioned earlier, operations never go exactly as planned. Therefore, even during the execution phase, planning continues, whether that planning is to modify a current operation or to prepare for the next operation. The ability of the leader to see the overall operation and how it meshes with concurrent operations, sometimes in other theaters, and with follow-on operations is crucial to overall success.

Each of the characteristics--courage, energy, and foresight--is found in true operational artists. Those are the leaders who are able to take the tools of operational design

and combat force employment and create a "masterpiece." There are many leaders throughout history who have created military masterpieces--Napoleon, Grant, and Eisenhower are just a few examples. Another operational artist, who was responsible for leading the Army Air Forces through World War II, was General H. H. "Hap" Arnold. He was also largely responsible for the creation of the United States Air Force. What follows are a few stories that illustrate how General Arnold's courage, energy, and foresight helped shape the use of air power to contribute significantly to the Allies' success during World War II.

OPERATIONAL ARTISTRY OF GENERAL H. H. ARNOLD

Throughout his life General Arnold displayed the characteristics of an operational artist. His courage came to the fore as a young West Point cadet when he joined and eventually led the Black Hand society, a cadet group infamous for after-taps pranks. Cadet Arnold's and his fellow society members' courage to conduct the midnight excursions (an example of which was to dismantle the reveille cannon, and then reassemble it on the roof of the barracks¹⁹) improved cadet corps esprit. As the bearer of Army pilot's license #4, Arnold displayed not only courage--for in those early days flying was a very dangerous undertaking--but also the energy, to take on the rigorous training. As Arnold and the early flyers began to feel more comfortable with basic flight, they also had the foresight to use the airplane as something more than a reconnaissance platform (which was all the Army was interested in at the time). They began practicing shooting a gun from the cockpit and dropping objects, the precursor to aerial bombardment.²⁰

Courage

General Arnold was not afraid to break regulations or go against the grain of conventional thought. On several occasions General Arnold faced severe punishment, banishment, and even the threat of court martial to stand up for what he believed was right. The first such incident occurred when he was stationed at North Island in San Diego as a supply officer. A plane, being used for a joy ride by a colonel and his pilot, disappeared. The commanding officer of the post, presumably because he did not want word to get out about the questionable nature of the flight, refused to authorize a search for the downed aircraft and crew. After 6 days of arguing that a search must be conducted, Arnold and a fellow flyer took it upon themselves to begin the search. On day 9 the two pilots were found alive in the Mexican desert. During the ensuing investigation, Arnold testified as to the sequence of events, which ensured his banishment. His commanding officer was not censured, and sent Arnold to Panama with a terrible efficiency report.²¹

General Arnold's courage of his convictions was demonstrated many times prior to and during World War II. One of the most impressive, due to the level at which he fought (for what he believed was right for the nation), was over the sale of newly manufactured American aircraft to the allies in early 1940. At that time, orders from Great Britain, France and the United States far exceeded the production capability of U.S. aircraft manufacturers. General Arnold firmly believed that a certain portion of the American-built planes were required by the U.S. military to fulfill the Congressionally mandated expansion to 5,500 planes and provide technologically superior aircraft in which to train American pilots. Unfortunately for General Arnold, President Roosevelt did not agree. That did not prevent General Arnold from arguing his case to the point that the President threatened to send Arnold to Guam.²²

The President and his advisers believed that sending the equipment requested by Britain and France would allow those countries to defeat Germany, thereby precluding U.S. entrance into the war. History has proven that General Arnold was correct in demanding adequate support for American forces to prepare for war. Though General Arnold was not banished to Guam and eventually returned to the good graces of the President, he was excluded from many White House meetings of which he should have been a part. General Arnold's courage, even in the face of high-level adversity, was enhanced by his energy.

Energy

It was said General Arnold could run subordinates and family members ragged with his frantic pace. Though his energy served him and the country well throughout his career, General Arnold paid the ultimate price. He had five severe heart attacks in the last 8 years of his life, the last of which killed him. A classic example of General Arnold's energy and "never tell me it can't be done" attitude occurred in early 1942. In February General Arnold realized he needed a training center for nonflying officers. In a meeting his staff told him it would take 3 months to secure a site, 3 months to build the facilities, and another 3 months to find the instructors. That timeline was wholly unacceptable to General Arnold so he picked up the phone and pretended to talk with his chief of staff who was in Shreveport, Louisiana, at the time. In this mock conversation (actually held with his secretary in the outer office), General Arnold arranged to have Louisiana State University provide the services in a matter of days. This inspired the staff to go to great lengths. Within a few days they actually secured 300 hotels in Miami Beach (the tourist business was suffering because of the war) and quickly set

up a school at a substantial savings over new school construction.²³

Foresight

General Arnold was always looking to the future. Though not an engineer himself, he used his imagination to look for new and inventive ways to use weapons. This resulted in his setting up an additional test center at Eglin Field, Florida. Though there was already a test facility in Dayton, Ohio, General Arnold was tired of the engineers there telling him why his ideas would not work. He wanted people to actually try the ideas to see if they would work.²⁴ General Arnold's foresight as to the tremendous impact of science on the future of warfare resulted in the establishment of Project RAND (Research and Development). The goal of this organization was to scientifically study air warfare.²⁵

General Arnold's foresight bore directly on the success of the war against the Japanese. He contended the best way to target the Japanese mainland directly was through long-range aerial bombardment. The air force inventory had no airplane, until the very end of the war, that could attack the Japanese mainland from the bases available. Therefore General Arnold fully backed the design and production of the B-29.²⁶ Despite calls from the Navy that other weapons should have priority, General Arnold stuck by advancing the B-29 with all due haste. Again as history has proven, the B-29 did indeed play a significant role in defeating the Japanese.

These are but a few of the many examples of General Arnold's tremendous talent as a leader. General Arnold, through his courage, energy, and foresight, was one of the founding fathers of aerial warfare and contributed greatly to Allied success in World War II.

CONCLUSION

A true operational artist is a leader whose personal characteristics of courage, energy, and foresight allow that person to create--using the tools of operational art--a military masterpiece. Courage, both physical and moral, means the leader knows what is right and pursues the right course despite personal danger or ridicule. Energy, both physical and mental, provides the leader the strength to persevere through the stressful and physically demanding time of conflict with a positive, "can-do" attitude that subordinates emulate. Foresight enables the leader to not only look to the future, but also to look beyond the operational niche to see the grand plan. Foresight is key to planning and making midcourse corrections once the conflict has begun.

Though many military officers study the fundamentals of operational art, very few ever achieve success of historical note. Certainly circumstance plays a part in whether the operational leader has the opportunity to direct forces in conflict--the surest way to achieve historical acclaim. More important are the characteristics that define the leader. Only a person of great courage, energy, and foresight will be remembered as an operational artist.

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