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Mission

The Joint Advanced Warfighting School produces graduates that can create campaign-quality concepts, plan for the employment of all elements of national power, accelerate transformation, succeed as joint force operational / strategic planners and be creative, conceptual, adaptive and innovative.

A Note from the Joint Forces Staff College Commandant

Thank you to the many contributors to the Joint Advanced Warfighting School's (JAWS) *Campaigning* Journal. Your willingness to write for publication in this newly established but rapidly growing venue is very much appreciated. Thanks are also due to the many readers of the quarterly journal. The response from those in the joint planning community is exceeded only by the dialogue that was generated by the informative and thought provoking entries published during the journal's first year.

The Joint Forces Staff College (JFSC) is pleased to support the publication of *Campaigning*. As the College celebrates our 60th Anniversary this year, we are proud to again have a publication that enables us to distribute and benefit from the published works of our many supporters, our alumni and our students. *Campaigning*, as a publication of our newest school within the College, is yet another example of the many ways that JFSC is supporting Joint Professional Military Education and contributing to the intellectual growth of joint warfighters around the globe.

Over the past three years, JFSC has experienced many changes, growth and transformational progress. The College now offers four Joint and Combined Warfighting School (JCWS) JPME II courses each year and graduated record numbers of U.S. and multinational graduates in the last year. JCWS continues to offer a challenging and relevant curriculum to its JPME II students. The curriculum of the Advanced Joint Professional Military Education program (AJPME) is very similar to that of the JCWS, but is focused on delivering joint education to Reserve Component officers via a blended approach of distance and resident education. The Joint Command Control and Information Operations School (JC2IOS) remains fully engaged in delivery of focused education to a specialized group of joint information operations planners and of concepts and applications relevant to today's command, control and communications environment. Two five day courses, the Homeland Security Planners' Course and the Joint Interagency Multinational Planner's Course, are examples of the innovative educational programs developed to support a wide array of military and civilian planners.

As we mark the JFSC's 60th Anniversary with a series of ceremonies and events, it serves to remind us of the intent of the College's founders – General Eisenhower and Admiral Nimitz. They envisioned a college where officers would receive "instruction on operations at theater and joint task force level." JFSC continues to execute that mission and *Campaigning* assists in expanding our horizons as we pursue the requisite expertise to plan and conduct successful theater and joint task force operations.

Kenneth J. Quinlan
Major General, US Army
Commandant
Joint Forces Staff College

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"USTRANSCOM's Support to the Warfighter - A Joint Expeditionary Distribution Capability."

By
Gen. Norton A. Schwartz, U.S. Air Force
Commander, U.S. Transportation Command

Gen. Douglas MacArthur once stated the history of failure in war can be summed up in two words—"Too late." More than half a century later, this is still true and a driving force behind the United States Transportation Command's Joint Task Force - Port Opening (JTF-PO) Concept of Operations.

Joint forces are prepared to participate in the full spectrum of operations ranging from humanitarian missions to major combat operations. To support these forces properly in joint expeditionary operations, the United States Transportation Command (USTRANSCOM) requires a capability designed specifically to rapidly establish initial theater port of debarkation deployment and distribution operations. The joint and expeditionary nature of this requirement demands a jointly trained force structure, comprised of surface and air elements. The JTF-PO concept builds upon that requirement, emphasizing the JTF-PO significance to expeditionary operations and its support to the geographic combatant commanders/joint force commanders.

Recent United States military operations in U.S. Central Command (USCENTCOM) (Pakistani earthquake), U.S. Pacific Command (USPACOM) (Asian tsunami/Operation Unified Assistance) and U.S. Northern Command (USNORTHCOM) (Hurricane Katrina) underscored the need to enhance integration of strategic deployment and distribution processes of USTRANSCOM and other national providers to support geographic combatant commander theater operations. These recent humanitarian and disaster relief operations revealed shortfalls in our military's ability to respond to these events with a coherent, expeditionary joint port opening and distribution capability. These capability gaps included: ad hoc command and control, limited connectivity to geographic combatant commanders/joint force commanders command and control centers, minimal airfield and distribution network assessment, limited ability to rapidly clear ports, limited in-transit visibility and minimal movement control over distribution operations. The required JTF-PO capabilities listed below address the historical shortfalls and gaps identified with expeditionary initial port opening and distribution operations and are matched with the designed capabilities of JTF-PO. JTF-PO addresses these shortfalls by providing a ready, joint capability to rapidly open and operate a port and conduct initial distribution operations.

In the past, only the U.S. Air Force, through USTRANSCOM's Air Force component, Air Mobility Command, provided assigned forces to USTRANSCOM for rapid response to contingency operations. The Air Force's Contingency Response Group elements did an excellent job of rapidly deploying to handle arriving cargo and passengers at the aerial port of debarkation. However, after cargo receipt, the challenge then became moving the cargo from the airfield to its next distribution node. This challenge affected not only large, contingency, "go-to-war" operations, but also deployment and distribution support for humanitarian and natural

disaster activities.   These past operations demonstrated the requirement for the Department of Defense (DoD) to rapidly extend the national deployment and distribution network by establishing initial deployment and distribution nodes to rapidly clear cargo and ensure throughput to destination. Currently, USTRANSCOM does not have assigned forces to conduct the initial distribution operations.   Previously these forces were requested by the supported geographic combatant commander using the Request for Forces process. This process is limited in its ability to provide the required surface capability rapidly enough to arrive at the aerial point of debarkation simultaneously with Air Mobility Command's port operating capability or be in place before cargo and passengers began to arrive.   In short, USTRANSCOM needed an assigned surface capability that could rapidly deploy and compliment its already assigned airfield opening and operating forces.

JTF-PO Capabilities

In May 2005, the USTRANSCOM Deputy Commander directed the formation of a working group to develop a concept of operations for a JTF-PO capability that can rapidly assess, open, and operate an initial aerial point of debarkation and initial distribution network using jointly trained air and surface elements. The air capability would be provided from elements of Air Mobility Command's Contingency Response Wings. The envisioned surface element would be sourced from Army cargo transfer and movement control forces and assigned to USTRANSCOM's Army service component command, the Military Surface Deployment and Distribution Command.

The JTF-PO mission is to "Provide a joint expeditionary capability to rapidly establish and initially operate a port of debarkation and distribution node, facilitating port throughput in support of combatant commander's executed contingencies."   JTF-PO does not replace but facilitates joint reception, staging, onward movement and integration and theater distribution by providing an effective interface at the aerial point of debarkation and distribution node.   **(See Figure 1)**

Since 1990, approximately 75 percent of USTRANSCOM's support to combatant commander's contingencies has been for non-combat operations such as hurricane and earthquake humanitarian efforts. JTF-PO has the capability to respond to a full range of military operations including natural disasters, humanitarian relief, and contingency operations.

JTF-PO Deployment and Employment

JTF-PO forces will be postured to deploy within 12 hours of notification. The initial elements are from the Joint Assessment Team which deploys before the main body and consists of 12 personnel that are specialists in airfield and distribution infrastructure assessment.   The Joint Assessment Team mission is twofold.   First, the joint assessment gathers information to determine if the airfield and distribution capabilities/infrastructure are capable of supporting the stated mission. Second, the joint assessment validates JTF-PO resources to accomplish the JTF-PO defined tasks. A Joint Assessment Report provides recommendations based on their findings on the feasibility of the airfield and associated infrastructure to support the intended distribution

mission. The report also includes information to allow the JTF-PO commanders and element leaders to pare, tailor or augment the JTF-PO forces.

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Aerial Point of Debarkation Distribution Gap

- Ad Hoc Deployment/Distribution command and control
- Limited capability to establish distribution node & network
- Limited ability to rapidly clear cargo
- Limited initial port assessment
- Limited movement control
- Limited capability to coordinate cargo onward movement
- Limited in-transit visibility

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JTF-PO Capability

- Jointly trained & jointly led air and surface elements w/ habitual relationships
- Designed to assess and open a distribution node & network associated with aerial point of debarkation
- Organic or contract transportation to rapidly clear cargo to distribution node
- Joint Assessment Team to conduct focused aerial point of debarkation airfield and distribution assessment
- Dedicated surface element to conduct movement control operations
- Dedicated surface element to coordinate cargo onward movement
- Organic in-transit visibility (including radio frequency identification to provide visibility of forces/cargo at aerial point of debarkation and subsequent nodes.

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Figure 1: Historical Aerial Point of Debarkation (APOD) Gaps to JTF-PO Capabilities

Based on supported combatant commander requirements and the Joint Assessment Team assessment, the Commander, USTRANSCOM, after obtaining approval from the Secretary of Defense, makes the determination to deploy the JTF-PO main body. (Note: The Secretary of Defense approval process is similar to the required coordination for Commander, USTRANSCOM to activate the Civil Reserve Air Fleet, the Voluntary Intermodal Sealift Agreement, or the execution of Tanker Task Force Global Enroute Support operations.) JTF-PO is designed with light, medium and heavy capability packages that are deployed based on the assigned JTF-PO mission.
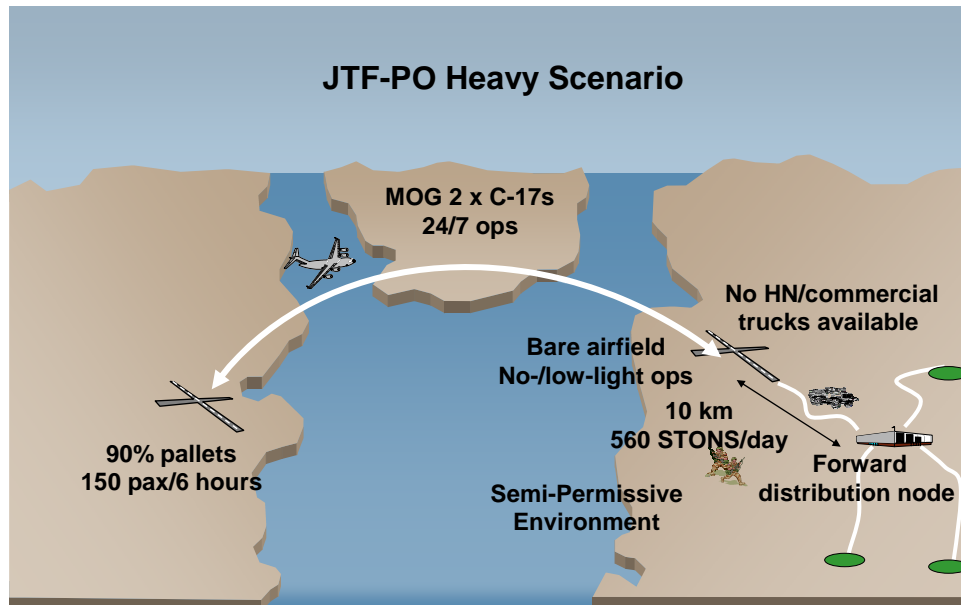
Figure 2: JTF-PO Heavy Scenario

In the most demanding scenario, the JTF-PO has the capability to support a working Maximum on Ground capability of two C-17 aircraft, simultaneously, operating 24-hour, seven-days-per-week operations in no-/low-light conditions. The JTF-PO can receive, temporarily stage and/or transload onto surface transport to one forward distribution node (within 10 km of the aerial point of debarkation) 560 short tons (combination of personnel, rolling stock, cargo) in a 24-hour period. **(See Figure 2)**

For certain contingencies such as humanitarian relief operations, a lighter capability might be required to meet the supported geographic combatant commander's requirements. The planning factors for a light scenario are a Maximum on Ground capability of one C-17, operating 12 hours, and seven days per week. The JTF-PO can receive, temporarily stage and/or transload onto locally procured or host nation provided surface transport to a distribution node located on the airfield, 140 short tons (combination of personnel, rolling stock, and cargo) in a 24-hour period. **(See Figure 3)**
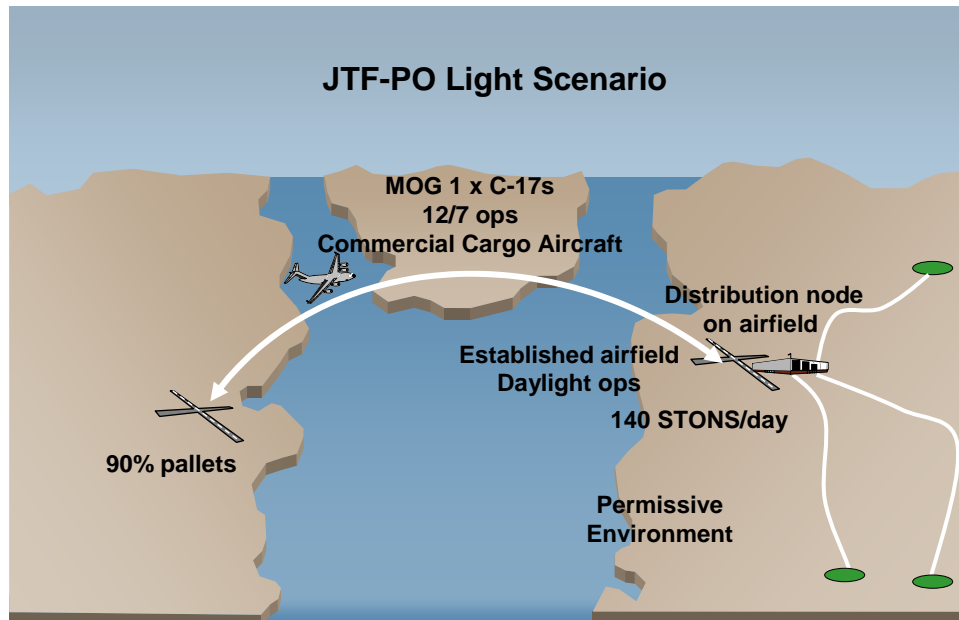
Figure 3: JTF-PO Light Scenario

All three planning factors assume that 90 percent of the initial cargo arrives as rolling stock or on single 463L pallets and remains on 463L pallets for onward movement to the follow-on theater distribution node or to destination. In addition, JTF-PO must be prepared to receive commercial aircraft that arrive with large numbers of passengers and that do not employ 463L pallets to deliver cargo. For these operations, JTF-PO cargo throughput capability may be reduced due to lack of compatible material handling equipment or insufficient personnel available to handle large numbers of arriving passengers.

Upon arrival at geographic combatant commander/joint force commander identified locations, JTF-PO actions to open and operate the aerial point of debarkation and distribution node include the establishment of command and control, internal and external communications, security, air traffic control, cargo and passenger handling and transfer operations and joint in-transit visibility and radio frequency identification networks. The JTF-PO has the capability to maintain 24-hour operations at the aerial point of debarkation, and, if needed, provide in-transit visibility/radio frequency identification networks, movement control and a marshalling capability at a forward distribution node within 10 km of the airfield

The forward distribution node will be selected by the geographic combatant commander/joint force commander to support the staging, marshalling or transload of cargo onto rail or motor conveyances for onward movement to the geographic combatant commander/joint force commander point of need. The JTF-PO can provide movement control of cargo and passengers

to the first onward movement point, as well as coordinate the onward movement of passengers and cargo to theater destinations. Surface movement control teams will establish immediate in-transit visibility at all aerial point of debarkation subsequent destinations which will feed the joint in-transit visibility/radio frequency identification network. This will provide 100 percent in-transit visibility of arriving passengers and cargo at the aerial point of debarkation and distribution node.

JTF-PO is intended to deploy and operate for 45-60 days. JTF-PO will redeploy when the mission is completed or when relieved by follow-on forces or a contracted capability for APOD and distribution network operations. Based on the intended duration of JTF-PO operations, or at any time it becomes apparent the APOD will require extended operations, USTRANSCOM will initiate coordination with the GCC/JFC for long-term support.   For sustained theater operations, JTF-PO forces may be replaced with similar Service capabilities or transition operations to interagency, non-governmental, host nation contract support, or other entities. Upon mission completion, JTF-PO (or specific subsets of JTF-PO) will be released for redeployment or may be tasked to perform follow-on JTF-PO missions at other theater locations.

A key aspect of developing and fielding the JTF-PO capability is its participation in the Joint Exercise Program in support of geographic combatant commanders. JTF-PO elements have already participated in USCENTCOM's BRIGHT STAR '05/'06 and USNORTHCOM's ARDENT SENTRY '06.

BRIGHT STAR '05/'06

Bright Star '05/'06 provided the opportunity to demonstrate and evaluate selected JTF-PO capabilities during a multinational USCENTCOM-sponsored Joint Exercise Program exercise held in the Arab Republic of Egypt. The capability demonstration began on August 21, 2005 with JTF-PO departure from the continental United States and ended on September 5, 2005 with the turnover of JTF-PO onward movement responsibilities to the 257th Transportation Battalion.

The general concept was to deploy a JTF-PO from continental United States locations to Bright Star '05/'06 exercise sites, perform selected JTF-PO tasks, gather exercise observations, and redeploy. To leverage suitable scenario activities, JTF-PO operations were accomplished at two locations during Bright Star '05/'06: Jiyanklis Air Base, Egypt (August 23 - September 5, 2005) and Cairo West Air Base, Egypt (August 28, 2005 and September 7, 2005). Jiyanklis Air Base was the exercise aerial point of debarkation for deploying and aerial port of embarkation for redeploying U.S. and coalition forces. Cairo West Air Base was used by U.S. forces to generate and sustain U. S. Air Force air missions.

The JTF-PO mission for Bright Star '05/'06 was "to demonstrate the ability of USTRANSCOM, in support of the joint force commander, to deploy a joint logistics force for rapidly opening and operating an aerial point of debarkation, to extend the national distribution network into the theater of operations by establishing the initial joint node."

Specific JTF-PO exercise objectives were:

- Conduct joint assessments of airfield capability to include assessment of the distribution networks.

- Accomplish transfer of an airfield from initial entry forces to JTF-PO.

- Open an airfield.

- Perform airfield passenger and cargo clearance.

- Coordinate for onward movement of arriving passengers and cargo.

- Establish in-transit visibility and a radio frequency identification network capability for arriving cargo and passengers.

- Establish nodal movement control operations.

JTF-PO participating forces included the 816th Contingency Response Group and other elements of the 621st Contingency Response Wing. Meanwhile, USTRANSCOM's Army service component, the Military Surface Deployment and Distribution Command, requested forces from the U.S. Army Forces Command to participate in the exercise. The 151st Movement Control Team from Fort Hood, Texas, and the 119th Cargo Transfer Company from Fort Eustis, Va., were provided as the surface element forces to perform airfield clearance and coordinate onward movement of passengers and cargo. Beginning August 25th and continuing through September 5, 2005, these Army and Air Force forces formed the JTF-PO and received and unloaded 50 U.S. and coalition aircraft, and clearing and coordinating onward movement for approximately 2,660 personnel and 800 short tons of cargo.

In Bright Star '05/'06, JTF-PO demonstrated, to both participants and exercise observers, that it could improve initial entry deployment and distribution capabilities that enhanced the joint force commander's joint reception, staging, onward movement, and integration performance. All exercise objectives were met and the capability demonstration highlighted the efficiencies and utility of the JTF-PO concept. Key among the many observations and strengths:

- USTRANSCOM assigned forces are critical to rapidly providing the joint force commander with a port opening and distribution capability in the initial stages of contingency operations. For the Bright Star '05/'06 capability demonstration, the temporary placing of Army cargo transfer and movement control forces under USTRANSCOM operational control allowed the command to marshal train and integrate Army and Air Force port opening capabilities prior to deployment. It enabled USTRANSCOM to deploy the force as an integrated capability. Once on the ground at Jiyanklis Air Base, the JTF-PO opened the airfield and established a capability for distribution operations within 24 hours.

- The demonstration highlighted the extraordinary potential for integrating the air and surface distribution modalities for aerial point of debarkation operations into one cohesive unit. Traditional gaps between the Army and Air Force for aerial point of debarkation operations were minimized, and a single joint commander controlled operations from the time the first aircraft arrived until the cargo and passengers were enroute to final destination—in short, unity of effort was realized at the aerial point of debarkation and at follow-on distribution nodes.
- The melding of the Contingency Response Group, the Cargo Transfer Company and the Movement Control Team into one organization provided economies for both personnel and equipment.
- The JTF-PO (Contingency Response Group element) communications package provided superb Secret Internet Protocol Router Network, the Non-Classified Internet Protocol Router Network, and voice communications between the JTF-PO and higher and lower commands involved in supporting Bright Star '05/'06. The capability was critical to enabling immediate asset and in-transit visibility as well as command and control.

The capability demonstration also identified JTF-PO areas for improvement and refinement. Some of the observations included:

- Identify JTF-PO Joint Mission Essential Tasks and Tactics, Techniques and Procedures that form the foundation for future JTF-PO training and operations.
- Determine and codify JTF-PO command and control arrangements with the joint force commander and functional components.
- Determine internal and external communications requirements and supporting equipment to enable full spectrum operations (e.g., exercises, humanitarian operations, or contingency operations).

Issues and observations gained from the exercise were used to further refine the JTF-PO Concept of Operations and served as critical input for developing the operational JTF-PO capability.

ARDENT SENTRY '06

Following completion of the successful Bright Star exercise, the most recent test of the JTF-PO capabilities was during Exercise Ardent Sentry '06, a North American Aerospace Defense Command and USNORTHCOM bilateral exercise which was conducted from May 8 – 18, 2006. It involved numerous federal, provincial, state and local agencies in Canada and the United States. The primary objective of the exercise was to enhance interagency training and responsiveness for future national crises.

The overall JTF-PO element participation objective was to employ, train and demonstrate selected JTF-PO element capabilities in support of a USNORTHCOM Defense Support to Civil Authorities scenario.

Ardent Sentry '06 provided the opportunity to deploy and employ JTF-PO capabilities that had not been adequately demonstrated or evaluated during USCENTCOM's Bright Star '05/'06 (August-September 2005). The aerial point of debarkation and distribution network assessment

functions were not evaluated in Bright Star '05/'06 exercise due to constraints that restricted access to the airfields and supporting distribution infrastructure. Additionally, the communications package supporting JTF-PO during Bright Star '05/'06 (Theater Deployable Communications) was not mature.

The general concept for JTF-PO in Ardent Sentry '06 was to deploy a Joint Assessment Team consisting of a Military Surface Deployment and Distribution Command-provided surface assessment team and an Air Mobility Command-provided air assessment team from a continental United States aerial point of embarkation to Selfridge Air National Guard Base, Michigan. Upon arrival at Selfridge Air National Guard Base, the Joint Assessment Team would perform an airfield and distribution network assessment, report their assessment findings to USTRANSCOM and other applicable commands, then redeploy to home locations. USTRANSCOM also deployed the proposed JTF-PO communications element from Scott Air Force Base, Illinois, to Selfridge Air National Guard Base concurrent with the Joint Assessment Team deployment. The JTF-PO communications element and Joint Assessment Team deployed on May 9 and 10, 2006, respectively, to Selfridge Air National Guard Base and redeployed on May 12 and 13, 2006.

Specific JTF-PO element exercise objectives that were evaluated and assessed during Ardent Sentry '06 included:

- Exercise USTRANSCOM command and control and coordination for deploying and employing JTF-PO element capabilities.
- Conduct joint assessment of airfield and distribution network.
- Establish and test JTF-PO communications capability and establish connectivity with USTRANSCOM Deployment and Distribution Operations Center and USNORTHCOM Deployment and Distribution Center.
- Establish and test radio frequency identification network capability.
- Capture observations and issues to further refine JTF-PO CONOPS.

The Joint Assessment Team consisted of an air assessment element drawn from the 615th Contingency Response Wing at Travis Air Force Base, California, and a surface element from Military Surface Deployment and Distribution Command's 834th Transportation Battalion, Concord, California. The communications element consisted of a USTRANSCOM J6 technical representative and two Air Mobility Command communications personnel from Scott Air Force Base.

During the USNORTHCOM Ardent Sentry '06 Facilitated After Action Review on May 18, 2006, Navy ADM. Timothy Keating, USNORTHCOM Commander, said the exercises were a success and that the staffs learned valuable lessons. Today, NORTHCOM and the DoD are better postured to support Defense Support to Civil Authorities mission particularly in preparation for the 2006 hurricane season.

The JTF-PO element participation in the exercise was also a success. A number of the JTF-PO Joint Mission Essential Tasks were performed in accordance with established metrics. JTF-PO strengths included validation of communications package capability and Joint Assessment Team deployment processes and joint assessment procedures. Areas identified for continued development and improvement were USTRANSCOM and USTRANSCOM component
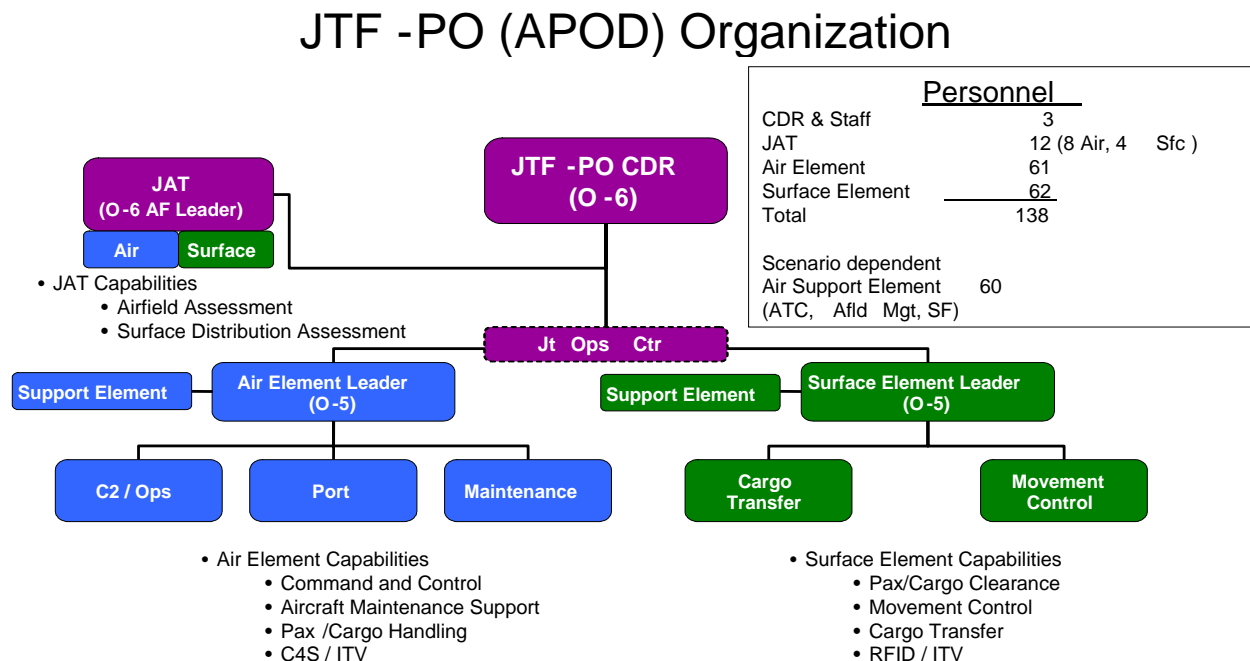
command's JTF-PO command and control processes, Joint Assessment Team reporting formats, and number and skill set of Joint Assessment Team personnel.

Where We Are and Where We Are Going

On May 19, 2006, USTRANSCOM approved the JTF-PO Concept of Operations that was coordinated across the DoD, and on May 26, the Secretary of Defense approved a JTF-PO Aerial Point of Debarkation standing Execution Order. The Secretary of Defense's approval also directs the change of operational control of 62 Army personnel to USTRANSCOM for a period of one year. These Army personnel will be attached to Military Surface Deployment and Distribution Command and constitute the Army's interim solution to meeting the JTF-PO capability requirement. This single 62-person surface element, based at Ft. Dix/McGuire Air Force Base, N.J., combined with elements of a contingency response wing provides USTRANSCOM with a single JTF-PO aerial point of debarkation capability. The long-term concept includes three 62-person surface elements assigned to USTRANSCOM in 2007. The JTF-PO Aerial Point of Debarkation organization is shown in Figure 4.

JTF -PO (APOD) Organization

Personnel	
CDR & Staff	3
JAT	12 (8 Air, 4 Sfc)
Air Element	61
Surface Element	62
Total	138
Scenario dependent	
Air Support Element	60
(ATC, Afld Mgt, SF)	

Figure 4 JTF-PO Aerial Point of Debarkation Organization

To integrate the air and surface elements, USTRANSCOM has developed a Joint Training Plan. The joint training plan focuses on five integration areas: Joint Assessment Team, Joint

Operations Center (command and control), command, control, communications, computers and surveillance/in-transit visibility, cargo and passenger operations and force protection.

The Army and Air Force are responsible for Service-specific functional missions and individual/collective military skill sets. At the conclusion of the joint training, an Expeditionary Mobility Task Force commander, assigned to AMC, will review the joint integration training and verify satisfactory completion based upon JTF-PO-designed capabilities and applicable joint mission essential tasks. Following verification, JTF-PO forces will participate in a fly-away certification exercise. The fly-away certification event is a culminating mission rehearsal exercise that will certify the JTF-PO mission readiness.

The Joint Training Plan will also focus on the education of JTF-PO leadership team, Joint Assessment Team members and other key JTF-PO officers and non-commissioned officers. USTRANSCOM will coordinate JTF-PO participation in annual major or Chairman, Joint Chiefs of Staff exercises to provide operational level joint training in a deployed environment. In addition, USTRANSCOM will conduct orientation training for combatant command and service personnel.

The initial deployment of the JTF-PO will be conducted under the authority of the commander, USTRANSCOM, with Secretary of Defense approval, in direct support of the supported geographic combatant commanders/joint force commanders. JTF-PO forces may change operational control to a geographic combatant commander/joint force commander at the deployed location or may operate in direct support of the geographic combatant commander/joint force commander as circumstances dictate.

The target date for an initial JTF-PO capability is August 15, 2006. USTRANSCOM, Air Mobility Command and Military Surface Deployment and Distribution Command are currently working JTF-PO training, stationing, equipment, exercise and readiness issues to meet this critical milestone.

JTF-PO complements the Joint Deployment and Distribution Operations Centers and the Director of Mobility Forces that USTRANSCOM deploys into theaters to extend the national deployment and distribution network. Collectively, these deployable command and control capabilities will provide geographic combatant commanders with the ability to synchronize the movement and delivery of forces and material around the world.

Gen. Norton A. Schwartz is Commander, U.S. Transportation Command, Scott Air Force Base, Ill. USTRANSCOM is the single manager for global air, land and sea transportation for the Department of Defense. He has served as Commander of the Special Operations Command-Pacific, as well as Alaskan Command, Alaskan North American Aerospace Defense Command Region, and the 11th Air Force. Prior to assuming his current position, General Schwartz was Director, the Joint Staff, Washington, D.C.

BRAVE NEW WORLD WAR
Part II – Ten for the Boss
By
Lincoln P. Bloomfield, Jr.

In Part I of this essay, entitled "Why Leavenworth's finest know they're not in Kansas anymore" (Spring 2006), the author questioned whether the configuration of the national effort to combat the threat of terrorism takes sufficient account of success or failure as perceived by the adversary. One implication for combatant commands is that policy and public diplomacy have become more significant factors in the modern "battlespace." Part II offers advice arising from these non-traditional issues that, more than ever before, can impact the warfight and thus the commander's prosecution of the operation.

Capable civilian and military public servants rising through the ranks find that their preparation for more senior responsibilities consists largely of learning how the vast national security apparatus works, from the President down through Washington agencies to field operations on the civilian side and through the President, Secretary of Defense and military chain of command on the uniformed side.

It takes years, and changes in assignment or portfolio, to come to understand the workings of U.S. foreign and defense policy, to say nothing of military operations. For those who achieve decision-making levels, knowing how things are supposed to work is an essential qualification.

But true success in managing the crises that inevitably arise demands more than the wisdom accumulated from previous challenges. The blueprint or contingency plan to which one turns at the outset of a crisis anticipates everything except the circumstances of the new situation, which may or may not resemble the past. To succeed, leaders need to consider changes in why and how conflicts are fought and the fast evolution in Washington's own national security thinking during this decade.

What follows is an attempt to offer combatant command planners and staff some insights from the recent past, with an overall theme that the line between traditional military concerns and civilian policy concerns is being blurred on today's battlefield. Hopefully the ten suggestions that follow will stimulate future warfighters to expand their appreciation of issues that could impact their operations for better or worse.

Lincoln Bloomfield's swearing in ceremony attending by the Secretary of State Collin Powell

I. <u>Inculcate the force with strategic as well as operational guidance</u> – *Every person engaged in an operation should know not only the commander's intent but also the national objectives, and why both matter on the ground.*

As a civilian I have often been struck by the way policymakers in Washington find artful language to tell the nation why force must be committed, and how military commanders then employ entirely different language to tell soldiers at all echelons what they are supposed to do.

There is a reasonable explanation for this linguistic difference. Each verbal formulation serves a purpose. The civilian policy prose acknowledges and attempts to fulfill a series of criteria that have evolved through our nation's history. While not formalized or codified in any enduring legal or policy reference, these criteria perennially emerge in national debate over the commitment of military forces, whether to secure congressional authorization, win public support, or simply explain the nation's actions to the world at large.

Presidents invariably want it understood that the use of force is necessary for the defense of U.S. interests, appropriate in scope[i] to the dangers faced, and otherwise lawful and legitimate. One often hears talk from policymakers about the strategic nature of the stakes at issue, the potential costs of failure to act decisively, and the reasonable expectation that the contemplated actions will succeed.

When the time comes for the combatant commander to instruct the force on his intent in an operation that has been authorized by the President, the 'why' and 'wherefore' give way to the 'what' and 'how' – what is to be done, with what military means, and toward what intended result. A highly refined warfighting dialect whose menu appears to consist only of "d" verbs provides the answers. Our forces may be tasked to 'deter,' 'dissuade,' 'deny,' 'disrupt,' or 'degrade' adversary activities and capabilities. Of greatest import is what the force will be directed to 'destroy.'

The distinction between the strategic rationale surrounding a national commitment of force and the operational concept of what the force will seek to accomplish is important. As a government official overseeing a substantial workforce, I learned the power of communicating clear intent throughout the ranks of an organization. If people know what you want them to do, they will apply energy to their task, and operate more in harmony.

But whether we are speaking of military units or policy offices in Washington, there is more to a successful operation than assuring that subordinates carry out assigned tasks. A force all of whose people know why the operation is important to the nation and how its proper execution will serve the national interest over time – the moral and legal context for those tasks – is a force more likely to make day-to-day decisions on the ground that will advance the national interest strategically as well as tactically.

II.   <u>Look for help; take it</u> – *Other friendly countries should be systematically encouraged to develop, and offer for contingencies, useful military capabilities; and U.S. forces should be ready to accept the help.*

Five years after 9/11, the U.S. Armed Forces as a whole are as capable as at any time in history due to the high worldwide ops tempo of recent years. Yet there is no avoiding the reality that our military has been paying a heavy and mounting price for its many global commitments and exertions, foremost in Iraq.

The costs are well known, measured in casualties, in personnel who, after multiple deployments, have chosen not to continue in the service, and in equipment prematurely worn out through continuous wartime use. Many believe that defense budget pressures are becoming acute as Congress is not keen to continue the pattern of very large wartime supplemental appropriations it has supported each year since 9/11.

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[i] Some – not all – would say "proportionate" in scope to the dangers faced, believing that disproportionate use of lethal force is by definition excessive, a characteristic that they would argue detracts from its legitimacy. There are arguments as well to justify overwhelming, hence decisive, use of force.

CENTCOM blazed a trail in the early 2000s by establishing a cell of multinational liaison officers in Tampa as a useful conduit to determine which foreign forces would participate in the Afghanistan and Iraq coalitions, and what assistance they might require from the U.S. It was a good mechanism.

However, looking ahead, it is necessary and appropriate to configure U.S. peacetime engagement and wartime planning more comprehensively, at the national and institutional level, to provide for the greatest possibility of capable, sustainable, interoperable help from the forces of willing partner countries in future contingencies even though there is always the possibility that other countries will say no to our requests for help, or seek to impose political and operational constraints that the U.S. cannot accept in a future crisis. We must always be prepared to defend American interests unilaterally.

The next time a combatant command is tasked to work up a major combat operation, chances are it will not be a NATO Article V contingency where a member state has been attacked and the rest of the alliance comes to its defense. Hopefully it will not be a North Korean attack south of the 38th Parallel. Either of those crises would trigger elaborately refined planning, response and alliance coordination actions with our NATO or South Korean allies, respectively.

The more likely model will be a coalition. But even in the case of another *sui generis*, one-off contingency, there will be no need and, frankly, no excuse to treat it as a pick-up game when it comes to enlisting willing allies in the fight – not after all we have learned in the last five years.

A future characterized by military responses to crisis that amounted to a more-than-90 percent organic U.S. solution decorated with multinational frosting would create two liabilities for the United States. First, we would rob our forces of their transformational potential, stretching precious assets and diverting soldiers from more advanced roles to cover lesser tasks in the operational food chain for lack of any other boots on the ground.

Second, and arguably more costly for U.S. interests, we would encourage a pattern in international political relations where there was less solidarity between America and its friends on security matters. Americans, in such a world, would be universally seen as the only credible responders to serious security crises, and most other friendly countries would invest in defense capabilities only to the extent sufficient for local security concerns or for show-the-flag participation in UN, EU or other such missions.

At the dawn of this century, some self-described "neoconservatives" welcomed the specter of a unipolar world, where America could revel in a near-monopoly of military power. They embraced the view that unrivalled U.S. armed strength would naturally translate into a position of international political preeminence. They were wrong.

If anything, the military disparity made friend and foe alike more inclined to be jealous of their policy prerogatives in relation to U.S. interests. By 2003, the vaunted neoconservative "moment" had produced, in effect, a two-front war, as the Administration launched military hostilities in southwest Asia while at least some in Washington engaged in policy "hostilities"

with traditional allies, pressing their critiques on an array of differences with a demeanor previously reserved for adversaries and rogue states. International opinion surveys today document the deleterious effect on U.S. influence of this rough patch in our foreign policy.

As part of President Bush's second term effort to chart a strategically more lucrative course, U.S. Government national security and defense policy pronouncements in 2006 have taken pains to reassert a fundamental interest in resolving security problems working through friends and allies if possible. It is a message that will require some effort on our part to be taken as more than a rhetorical smoke signal to political and opinion leaders abroad. Part of the proof that this doctrinal course adjustment is genuine will depend on how well the military harvests OEF/OIF coalition lessons-learned and creates a robust, effective planning and coordination architecture for coalition warfighting.

A world where we encourage other peoples, their governments and their armies to believe that we face common dangers and are pursuing a common destiny of security, prosperity and human fulfillment is a world where U.S. forces will be more likely to enjoy sizeable and competent allied help on the battlefield from day one, and where American leadership will again flourish, measured by the one indicator that marks a true leader: followers.

III.   <u>Train with AOR partners, but be ready to lead a global force</u> – *There is much benefit to a geographic combatant command building trust and cooperation with militaries in the region. But be prepared for wartime mil-to-mil arrangements that never appeared in a Theater Engagement command briefing.*

Looking back on the planning for Operations Enduring Freedom and Iraqi Freedom, one wonders if the headquarters staff at CENTCOM ever imagined that they would mount major operations supported by coalitions made up of partner forces from EUCOM, PACOM, and SOUTHCOM – every regional command except their own.

Leaving aside the issue this raises about the relevance of hard geographic divisions in the Unified Command Plan, the larger point is that countries as distant as Mongolia, New Zealand, Georgia and El Salvador have all identified strategic national interests in committing their forces to operations other than U.N. peacekeeping far from home, braving real dangers while working in close cooperation with U.S. forces.

Even NATO, its decades-long mission of deterring and if necessary repelling a Soviet bloc invasion of western Europe finally accomplished, today regards an out-of-area role – the stabilization of newly-democratic Afghanistan – as its highest operational priority.

It is no stretch of the imagination to envision future operations where large units and interoperable assets cross borders, continents, even hemispheres to join a U.S.-led effort. Command staffs are agile by nature, and showed their talents in effecting liaison and coordination as the coalitions for Afghanistan and Iraq came together. Now it falls to the U.S. military to design mechanisms that will manage a future global coalition most effectively.

If one imagines the view from a foreign capital, it will be clear that our security partner's leadership, legislature, press and public will all be extraordinarily interested to know key facts about a proposed entry to war, to wit: Where are the troops going to operate? How many? With what equipment? Under what command structure? With what mission and ROE? According to what legal basis? For how long? At what budgetary cost? Et cetera.

Consider now that these and other questions could well become a continuous basis for televised commentary and political debate in foreign countries – just as they are today in the United States. Combatant commands will be expected to support high-level, robust interface with all force contributing partners, including a near-real-time flow of releasable information from the battlefield – classified for official use, unclassified for public use. That is how democratic societies will rally to our side and stay with us. It will be worth the investment of effort to get the machinery right; and only the warfighting command can make it work best.

IV.   Learn to manage forces with different ROE – *Coalition and host-country forces can play a vital role even if they cannot obtain political consent from their governments to use force as readily as U.S. forces can.*

In the spring of 2004, tensions escalated suddenly in southern Iraq between U.S. forces and the Mahdi militia of the firebrand Shia cleric Muqtada al Sadr. The Americans acquitted themselves very successfully, dealing the Mahdi serious blows in lopsided encounters. Yet various coalition forces who later claimed to have been caught unaware of the spike in hostilities hunkered down to ride out the firefights rather than engage.

The Joint Staff recognized that several of the coalition force contingents would not be effective in the face of an increased local threat unless they adopted a more aggressive, pro-active posture, and soon. JCS drafted a letter, cleared it internally, and sent it to the Chiefs of Defense of several force contributing countries, somberly advising the CHODs that their contingents required more flexible, offensive ROE, and urging corrective action.

The reaction of some capitals was immediate. One Central American government sent a Cabinet Minister to Washington to explain, more in sorrow than in anger, that a hot war was more than the people had bargained for, and rather than authorize more aggressive ROE, the government would withdraw its forces in an orderly manner. Within 2-3 days, all four Latin American contributors – Honduras, the Dominican Republic, Nicaragua and El Salvador – had informed Washington of decisions to bring their forces home from Iraq. In each case, the increased ROE represented an adjustment they could not make. U.S. forces had to find other ways to assure a stabilizing presence in those areas. Reviewing this episode, one could say that such forces ought not to have been in the coalition in the first place – that notwithstanding their political value in support of OIF, the military value did not justify the effort, and risk, of supporting them in the field.

Calculations of military utility are better left to experts, but it is worth challenging the notion that all members of a coalition must operate from a uniform set of ROE. The ideal of partnering with fully capable, fully interoperable forces with the political authority to fulfill any foreseeable

mission requirement are indeed to be wished for. Energetic peacetime mil-to-mil engagement with friendly countries will improve the prospect of such a wish becoming a reality in a contingency. U.S. forces will be better served, however, if they plan for circumstances where different tiers of ROE are in effect. I offer four examples.

First, in 2002, when U.S. and some advanced coalition forces were engaged in intensive operations against al Qaeda and Taliban on Afghanistan's border with Pakistan, there was an immediate need for stabilization troops in the liberated capital of Kabul. A U.N. resolution authorized an International Security Assistance Force (ISAF), with far more constrained ROE than the U.S.-led combat force in-country. Command arrangements assured deconfliction, and ISAF performed an extremely valuable mission, operating essentially independently of the U.S. military. Nothing to regret in that example.

Second, in Iraq, as the new Iraqi military is formed and trained with multinational assistance, some units will aspire to a level of operational proficiency where they can conduct aggressive raids and strike targets suspected of housing dangerous elements. Other units, however, will be better left for defensive duties. Success in mentoring a competent Iraqi security sector will include limiting those Iraqi armed forces units with the most aggressive ROE.

Third, if and as Iraq becomes more stable, one can envision localities within the country where conditions are deemed to be secure, even as others remain plagued with extremist violence. In such a setting, it may make sense to dial down the ROE for coalition forces in parts of a country adjudged to have been stabilized, and maintaining crisis-level ROE where needed elsewhere in the country.

Such a geographically tailored de-escalation in U.S./coalition ROE could be a source of political negotiating leverage, as the U.S. and others supporting the political process come to terms with a new sovereign government looking to reclaim management of its security affairs, if only locality by locality.

A fourth example would bring us back to a coalition force where some countries have modest warfighting capability such as the Western Hemisphere states noted above. If they are nevertheless able to assist in, for example, maintaining a security presence at key facilities, why would the U.S. not want that help, knowing that American troops would have to pull that duty otherwise?

V.   Embrace the No-Strike List – *Every entry on the list is a location that will hurt our cause if we hit it. Inconvenient, yes; but this tool is aimed at protecting our reputation and minimizing opposition to our use of force.*

How inconvenient it must be for military planners to generate and prioritize target sets and force packages, only to be handed an exhaustive pile of data pinpointing locations they must avoid. How much easier it would be if the adversary's home turf held no such restraints; our forces could focus entirely on disrupting, disabling and if necessary destroying the adversary's ability to threaten us and our interests.

And yet, one dimension of the planning effort for Operation Iraqi Freedom that made the undersigned particularly proud of the United States was the level of effort that went into locating diplomatic, religious, humanitarian, medical, cultural and historical sites throughout Iraq with the intention that they not be harmed. It is hard to imagine that any other country has ever undertaken as advanced and precise a preventive effort as this.

The air operations mounted by the U.S. Air Force and Navy during OIF reflected no less a feat of technological precision. Compared to any previous employment of air power, this was surely the most accurate and controlled in history.

If there is an aspect of the no strike list's role in a combined arms operation that still bears examination after the Iraq experience, it is the level of application of this restraint by U.S. ground forces. After all, with a meticulous, technology-enabled effort taken by pilots, their crews and those directing their air strikes to avoid a large number of precise coordinates, it is reasonable to wonder whether some of the same sites are nevertheless vulnerable to U.S. munitions employed on the ground.

The author can only surmise that Army and Marine forces, while exceptionally professional in their operational art, do not receive the kind of real-time targeting support delivered from ops centers on which air forces routinely rely. What, if any, mechanism exists to help ensure that ground forces do not strike some of the very sites the U.S. has taken such pains not to hit from the air?

Part of the answer may be that these units do concern themselves with the location of mosques, hospitals, and cultural or historic sites. However, ground forces have to react instantaneously to the local threat environment, and simply do not have the kind of data flow that guides aircraft toward the right coordinates and away from the wrong ones. Should they?

If one views the no-strike list as a hindrance in the pursuit of decisive results by ground forces against the enemy, the answer is that these forces ought not be further encumbered with potentially distracting restraints. And if locations, despite being on the no-strike, list have proven to be vulnerable to fire from ground forces, it bears asking what is the point of such elaborate preventive efforts from the air?

The real answer derives from the purpose of this target-avoidance exercise. At one level, it is to save the lives of innocent, neutral, and foreign persons located within the war zone, and to preserve irreplaceable historic and artistic heritage. But a deeper level, the reason this preventive exercise matters to U.S. forces is that failure to take such precautions can lead to criticism as well as loss of local and international support for the U.S. mission.

At a time when popular sentiment is key to achieving military objectives, demonstrable U.S. respect for local culture and heritage matters. For that reason, we will benefit by continuing to improve our military's ability to differentiate the targets we need to destroy from the sites we need to preserve.

VI.   <u>All Munitions are Not Equal: American Bombs are Better</u> – *The U.S. is leading the way in cleaning up dangerous live ordnance around the world from wars fought by other armies. When it comes to our own operations, we are setting an example others should follow.*

During the 1990s, at the multilateral arms control talks in Geneva concerning the Convention on Conventional Weapons (CCW), the United States made a promise to the international community. In case of combat operations conducted by U.S. forces, once the hostilities ended, the United States pledged to provide international humanitarian agencies the locations where we had dropped ordnance that could pose lingering hazards to innocents.

Cluster munitions are a prime focus of this arrangement, as many of the bomblets can scatter unexploded. In Afghanistan starting in late 2001, a concern arose over cluster bomblets that allegedly bore similar coloring to humanitarian food packages that had also been delivered by air. This represented a potential danger to children in particular.

The U.S. has lived up to its commitment and provided locations of its cluster bomb strikes to the U.N. and other humanitarian entities clearing post-conflict areas of landmines and other munitions hazards. However, here again, there is a difference between air and ground operations.

After-action reports from OIF in particular show that there is not a uniform appreciation of the post-conflict hazards or related obligations from cluster munitions use across the force. Air operations lend themselves to precise records and data on locations of delivered ordnance. U.S. Marine Corps units moving up the Tigris River to Baghdad in 2003 used cluster munitions sparingly, leaving little if any clean-up concerns. The same cannot, unfortunately, be said for some units of the U.S. Army moving north up the Euphrates River.

The U.S. is the world's most generous source of funds to clear former conflict zones of humanitarian hazards, having spent over $1 Billion in the last decade for demining alone. As a consequence, there is a practical as well as reputation-related national interest in minimizing the burden of post-conflict clean-up. By far the best way to accommodate this interest is for the command to ensure that the entire force understands the post-war risks and obligations that accompany use of cluster munitions.

With cluster bombs as with the even more internationally controversial munition, the landmine, it is appropriate for U.S. forces at all levels of command to weigh factors in addition to the tactical utility of the weapon's unique effects. Their considered judgment may well be to employ the munition. But the national interest will best be served by actions that reflect America's commitments and leadership in helping societies recover from war.

VII.   <u>One more headache: tracking VIPs in the fog of war</u> – *Correspondents, politicians and other non-military persons of note can enter a war zone outside the protection of U.S. forces; but when they get in trouble, they cannot be ignored.*

As if our troops did not have enough to worry about while fighting their way to Baghdad to depose the Saddam Hussein regime in 2003, or thereafter while on patrol under constant threat of ambush or explosive detonation underfoot, Iraq showed that the modern war zone is open to more than foreign insurgents.

Any civilian who is caught in the crossfire is a concern to our forces in the field as well as to the U.S. Government. Among Iraqi as well as foreign civilians, there have been local workers, foreign contractors, drivers or just visitors captured, brutalized, killed or wounded. Truthfully, some of these civilians, particularly foreign visitor, can be a greater concern – if for example they are famous, well-connected, or both.

The disappearance of one foreign correspondent during the combat phase of Operation Iraqi Freedom was a transitory news item – one of thousands – during a very busy phase of operations. In the outside civilian world, however, the visibility of this episode grew, as the family of the correspondent enjoyed the sympathetic help of important news organizations. Questions about the precise time, location and circumstances of the incident were raised at high-level press conferences as senior U.S. officials conducted diplomacy in allied capitals.

When a correspondent unattached to U.S. forces goes missing on the battlefield, it is a near-certainty that reasonably well-connected and well-informed persons independent of official channels will collect information and piece together any leads that may help resolve the fate of the victim. They may build public and international pressure for the U.S. Government to produce any information to which it may have access.

During Iraqi Freedom, this meant that Washington officials were asked by foreign counterparts to query specific small units of the U.S. military still engaged in the operation about exactly what they saw and what they knew. The requests were passed on informally from Washington down to command representatives in theater. All recognized, however, that there is no established process for contacting soldiers on the battlefield in the midst of complex operations about matters of diplomatic and humanitarian interest but not warfighting, intelligence or criminal investigative import.

Such a request would be anything but easy to accommodate. To try and probe for information from deployed forces about events days or weeks earlier that may not have directly involved them, is not the kind of burden one would wish on our troops.

And yet, kidnappings and unexplained disappearances will happen. VIPs will get into adverse situations. One hates to contemplate a Member of Congress falling into enemy hands, but the fact is that many Members travel to war zones against the advice of the executive branch by affiliating with non-governmental organizations and characterizing their travel as private rather than official.

The lesson for future contingencies is that all troops need to recognize this element of modern warfare where the global media environment impacts our national interests. Soldiers should be ready to report their observations when they see civilian cars or hotels coming under enemy fire.

Collateral damage will happen when forces fight in built up areas and on well-traveled roads; but unfortunately they may not always be able to put it out of mind and move on.

VIII. <u>Money: don't leave home without it</u> – *Military forces helping to stabilize a war zone need cash and the authority to use it in assisting and winning over the local population. It is an essential tool on today's battlefield, and it needs to be managed better.*

There is a long and unhappy history surrounding the issue of whether people working overseas on behalf of the U.S. Government should be trusted with carrying and disbursing cash funds, particularly at their own discretion. The U.S. Agency for International Development, whose effectiveness depends in part on the perception by host country people that it can truly improve their lives, has long struggled to gain as much discretion as possible in the field with usable assistance funds.

It has been mostly an uphill battle, as a few bad eggs over the years have purloined funds for their personal use, causing the agency leadership and Congress to impose tight reins on expenditure of appropriated funds. Today, U.S. Ambassadors posted around the world have modest discretionary spending authority to respond to a clear emergency in the host nation. Few others serving within our embassies can expend funds without formal Washington approval.

OEF and OIF were textbook examples of liberated countries many of whose people had critical needs after the fall of the regimes that had repressed them. In both cases, U.S. soldiers were the first American faces the locals encountered, and both soldier and local citizen alike shared a recognition that basic human needs had to be addressed if possible. There are, by now, countless stories of U.S. troops doing all they can to help Afghan and Iraqi people in desperate need.

The Iraq campaign in particular broke through the old taboos regarding discretion to disburse funds. U.S. forces had the benefit of Iraqi cash recovered from Saddam loyalists trying to flee the country, as well as some Iraqi oil revenues supplied by the interim Iraqi authorities prior to the election of a fully constitutional government in early 2006. These funds undoubtedly facilitated the military mission in countless ways, and reinforced a local perception that the Americans were there to help – a crucial factor in the counter-insurgency effort.

However, the Iraq stabilization immediately effort following the fall of Saddam, in which soldiers could use their own judgment and dispense cash without prior senior-level approval, represented such a departure from the strict and process-bound bureaucratic norm that Washington is highly unlikely to be so permissive in a future operation.

Under the Coalition Provisional Authority's leadership, U.S. Government representatives dispensed some $12 billion in Iraqi funds for which, an investigation subsequently showed, there was no accounting. Congress and the President's Office of Management and Budget, while certainly understanding the exigencies of operating in a dangerous environment, need more than a "sorry, war is hell" excuse if military forces are to be handling and disbursing funds in the future.

There are, accordingly, two take-aways from OIF in this area. One, money really must be a tool for U.S. forces operating in any kind of future operation other than a kinetic head-to-head contest with an enemy force in a remote, unpopulated battlespace. The second is that DoD and the services will need to develop some kind of accounting process for funds disbursed in the field.

This latter requirement should not require much effort by combat units preoccupied with a dangerous mission. But in the future, the force should be equipped with a small, ruggedized piece of information technology into which a unit can make simple entries for sums of money disbursed each day, with the ability later to transmit or download the data to a headquarters database, all in a common format approved by OMB. DoD should anticipate this requirement and present OMB and congressional oversight committees a comprehensive solution.

At the same time, combatant commands should review other OEF-OIF budgetary lessons learned and seek to put in place funding authority mechanisms for the next time.

One example is the ability to finance pre-conflict infrastructure improvements in-theater in preparation for potential large-scale force deployments. These are not foreign assistance, strictly speaking, since the U.S. needs them more than the host country. Yet, they can be valuable for the host country military over the longer-term; the promise to finance such improvements can be an inducement to a host country to permit more robust overflight, landing and bed-down access relative to the crisis.

A second example is a host country of limited financial means whose military forces perform vital support roles as U.S. and coalition forces conduct their combat mission. It is understandable that the host country would ask for reimbursement, and that the combatant commander would very much want Washington to agree. This can add up to substantial sums, well in excess of what might be scraped away from other dedicated foreign military financing or peacekeeping operations assistance accounts.

Each of the preceding examples is taken from the recent experiences in Afghanistan and Iraq. None had the benefit of existing process, standing authorities, or dedicated budget support. All turned out to be significant headaches for senior sub-cabinet officials in Washington agencies as well as staff and Members in Congress, ever striving to account for the public's funds in full compliance with the law.

Unless commanders are prepared to face future crises without assurance that funds will be available to cover critical needs that arise in-theater, they would do well to engage their civilian colleagues and put new authorities in place.

IX.   Communications: not just a tactical concern anymore – *The relevance of communications to prosecuting a war against violent extremism is hard to overstate. It must be elevated in importance as an issue for planners and senior policy officials alike.*

A traditional approach to a military campaign would reflect a civilian-military division of labor in the realm of communications. The military would seek to import robust command and control to the battlespace while exploiting, disrupting and denying enemy communications. Elements of

the military effort might include leaflet drops, aerial broadcasts, and psychological operations to demoralize the adversary and win popular cooperation with our efforts.

Civilian leadership and agencies, meanwhile, would arrange assistance programs to rebuild telecommunications systems, establish local broadcast capabilities, facilitate expansion of telephone service, possibly create specialized programming to be broadcast into the country being contested, and – importantly – articulate most of the U.S. policy views regarding the crisis carried on local, regional and global media.

And yet, who would deny that when Saddam Hussein's statue fell in Baghdad, the U.S. owned the skies, and had a monopoly of political power as it (literally) ran the Iraqi state, and yet it manifestly did not own the airwaves? Two Arabic language television stations broadcasting into Iraq from Iranian soil, not to mention established regional satellite Arab media including Aljazeera, MBC and Al Arabiya, dominated the Iraqi TV airwaves for months on end before the U.S. could muster a serious presence on the Iraqi media.

A second example is telephony.   The Multinational Force in Iraq gains vital eyewitness intelligence on dangerous actors through the Iraqi National Tips Line. And yet, one hears that in many Sunni towns of Iraq's Al Anbar province, where extremists hide and prepare attacks against our forces and Iraqi citizens, many people lack telephones or at least working telephone service, hence are unable to phone in these tips quickly and anonymously from the vantage point of their homes.

Whether Pentagon or non-defense agencies have primary responsibility for reconstituting television broadcasting and telephone service in Iraq, would it not make sense for U.S. commanders to treat these elements of the host-country communications sector as vitally relevant to their ability to succeed?

One might not have thought so in the last century, when states more commonly fought over territorial issues. In a conflict where our strategic goal is to extinguish extremist incitement among many tens of millions of young men across several time zones, it has become necessary to seek a position of dominance not only with respect to contested territory, but also with respect to the media of communication that, largely uncontested, can give psychological succor to the enemy and can turn physical victories into perceived defeats.

This is not to argue that these sectors and tasks should be assigned to the military. It is to argue that all agencies concerned with communications should be in full coordination with military planners well before an operation commences, and thereafter. This is an area ripe for significant new thinking.

X.   <u>How much of this mission is military, anyway</u>? – *A war where our enemies are not, by 20th century standards, military forces, or for that matter, sovereign states, raises questions about the effectiveness of military capabilities in defending against and defeating them. There are areas of relevant expertise and competence outside of the defense establishment that must be pulled to the forefront of the national effort.*

Part I of this essay explored the psychological dimension of the war against al Qaeda sympathizers and Saddam loyalists, emphasizing that until such time as the other side believes it is losing, we may be frustrated that military and civil tasks accomplished by our hand do not lead to an end to the conflict and its ever-present dangers.

For decades the Department of Defense has sought to ensure that soldiers in the field have the support of all kinds of competencies to include intelligence, linguistic support, global diplomatic support, PSYOPS and information operations as well as regular public diplomacy by the department's leadership. All of these are resident within the Office of the Secretary of Defense or associated Defense agencies, if not the military itself.

As the nature of America's terrorist adversaries has shifted away from the traditional form of standing organizations with weapons systems to an entirely non-traditional form of dispersed, transnational, secretive operatives living as civilians, and rallying support through guerrilla propaganda aired in the mass media, the question arises as to whether DoD is still able to bring forward the necessary tools to defeat this threat on all levels.

Perhaps the best test case is the formal occupation phase in Iraq, from mid-2003 to mid-2004, when the Coalition Provisional Authority ran the country, reporting back to Washington solely through the Secretary of Defense. A fair history of that experience should probably record an overwhelmingly greater quotient of courageous, selfless acts by Americans seeking to help Iraq become viable post-Saddam than the problems and criticisms that inevitably gain the most attention.

However, few could dispute that there were gaps in the national effort, not all caused by the onerous security restrictions on foreign workers in the Green Zone. Early post-mortems of the Iraq stabilization effort focus on existing capabilities in the State Department and other non-defense agencies that could profitably have been brought to bear had the President made a different delegation of interagency responsibility.

Without trying to claim who could have done what differently or better, the point here is that the U.S. should be radically reassessing its tool kit across the interagency spectrum. Even though the State Department is developing a post-conflict and stabilization capability, it will amount only to a handful of senior planners with a mountain of well-organized data. We should consider building a civilian army of willing, deployable regional experts with associated transport, communications, protection, and funds to do some of the job that our forces have ended up doing.

As the intelligence community undergoes transformational reform under the recently-established Director of National Intelligence, its primary focus at that level appears to be inside-the-Beltway concerns – setting priorities amongst the component agencies, streamlining process, enhancing information-sharing, and assuring that the President is receiving the information he needs daily.

These are important and necessary. One hopes, however, that the reformist impulse will carry over to real-time operational activity in coordination with military operations worldwide. The

same can be said for law enforcement operations relating to extremist activities, and public affairs offices throughout the national security community. We need to 'up our game' at the national level.

The U.S. military has, for years, taken an increasingly urgent interest in better mutual coordination and support from non-defense agencies. Combatant commands, already advised at the top level by a State Department Political Advisor, or POLAD, most of Ambassadorial rank, now host representatives of several civilian agencies on their staffs. Each of these groups, known as a Joint Interagency Coordination Group (JIACG), adds knowledge, perspective, advice and contacts that can benefit the command's planning process.

A JIACG is not, however, a substitute for muscular, agile, well-resourced global capabilities that can synchronize each department's activities and public statements toward the singular goal of defeating – in spirit and perception as well as physically – the extremist challenge we now face.

A proper effort to achieve full-spectrum operational capability – civilian and military – at the national level means that Congress must be a full participant in the conversation with the Executive Branch. Only when both branches are prepared to put their organization and oversight patterns, resource levels, and allocation of authorities on the table can the U.S. hope to achieve a transformational national security reform worthy of the name.

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Auftragstaktik – a Philosophy of Command in the German Art of War
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Background

There are still many interesting questions about the German art of war in the interwar period that seek answers and many of them still puzzle scholars. Even though many features of it are known the interpretations of them differ. This is the case with *Auftragstaktik*, the German philosophy of command. One example is William S. Lind, regarded as one of the theorists behind the Maneuver Warfare School, who labeled it "Mission-type orders."[i] This term only covers a small part of Auftragstaktik and has caused some misunderstandings of what it really was all about, since it implies that Auftragstaktik is merely a *method*. In this article the aim is to describe the German concept of Auftragstaktik: *What did it really look like?*

Auftragstaktik

The Development

Even though the development of Auftragstaktik can be traced all the way back to the reforms that followed the Prussian losses at Jena and Auerstädt in 1806,[ii] it was the revival of doctrines under Hans von Seeckt after World War I (WW I) that finally formed the basis of the German Auftragstaktik as it was applied during World War II (WW II).

In 1919 Hans von Seeckt became the German Army Commander. He was a WW I veteran who had seen how well led and well-trained forces on the Eastern front had been able to defeat numerically superior Russian units. This convinced him that numbers and firepower no longer were the only factors leading to victory. Instead he predicted that movement would be an equally decisive factor leading to victory in the future. A small professional army would be much easier to lead than a mass army. It would be able to use maneuver and movement more efficiently, thus maneuver would be given more importance than gaining terrain in order to move the firepower forward. Maneuver would have to be a weapon of its own right. Von Seeckt foresaw the increasing importance of airpower and he did not restrict his concept to panzer or mechanized units. He was an outstanding general and the driving force behind the improvement of the German art of war. It is hard to imagine that a similar German recovery would ever have taken place in the interwar period without von Seeckt.

The basis for a new doctrine was a broad and deep analysis of the WW I experiences. The German "storm troop tactics" or "infiltration tactics" was born when the Germans tried to

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[i] William S. Lind, Maneuver Warfare Handbook, Boulder and London: Westview Press, 1985, 9-18.

[ii] See for instance Trevor N. Dupuy, A Genius for War. The German Army and General Staff, 1807-1945. Falls Church, Virginia: 1977/1997.

improve tactical mobility by dividing large units into smaller ones. Maneuverability was enhanced by putting their objectives behind the enemy's front line units and moving in columns rather in lines. The result of the analysis would form the core of the new doctrine. The conclusions contained clear messages about maneuver, command, and the power of leadership. The importance of officers' education, unit exercises and the need to operate in the dark was emphasized.[iii]

The study of domestic and foreign theorists was encouraged. German officers studied Fuller and Liddell Hart. Several of their central ideas were integrated into the German tradition of mobile warfare.[iv] Thus the German doctrinal development was based on these influences.

The results were published in the 1921 manual named *Führung und Gefecht der verbundene Waffen*, "das FuG" (*Command and Combat of the Combined Arms*). Part 2 followed in 1923. It was primarily a tactical document that emphasized the primacy of the offensive; encirclement of an adversary who was bound; and defense only as a temporary prelude to the offensive.[v] As the title states a central theme in the doctrine was the use of *Combined Arms*. It is important to understand the theory of Combined Arms since this theory was the principle on which the German divisions and corps were organized. In turn their organization gave commanders a high degree of *freedom of action*. The cooperation of all arms down to the smallest unit was the essence of von Seeckt's thoughts. Combined arms, not necessarily mechanization, became the concept for the German army.

The Building of Reichswehr

After WW I the German Army was dissolved. A new force was to take its place, but since only 100,000 men including only 4,000 officers, were allowed, von Seeckt wanted his army to be an army of leaders (Führerheer). Every officer, non-commissioned officer and private should be able to function at least on one level up. All NCOs were trained to serve as company commander if necessary.[vi] Since the Versailles treaty did not restrict the number of NCOs their number had in 1926 risen to 57.000.[vii] Needless to say, the role of the NCOs in the rearmament during the thirties was of great importance.

Von Seeckt made the training of the army his most important task. He published his experiences annually in "Bemerkungen des Chefs des Heeresleitung" (The Army Commander's Observations). Von Seeckt continuously emphasized the superiority of mobile battle. In order for *mobility* and speedy *maneuvers* to become prominent characteristics of the Reichswehr, *order terminology* needed to be adjusted and the content of the battle orders had to be shortened.

[iii] James S. Corum, The Roots of Blitzkrieg. Hans von Seeckt and the German Military Reform, Lawrence, Kansas: University Press of Kansas, 1992, 37.

[iv] German:"Bewegungskrieg".

[v] Bruce Condell & David T. Zabecki, eds., On the German Art of War. Truppenführung. Boulder, Colorado: Lynne Rienner Publishers, 2001, 3.

[vi] Corum, The Roots of Blitzkrieg, 69.

[vii] Ibid, 74.

Reichswehrs capability was built from the bottom. First companies were trained to form battalions. In 1923-1925 regiments were trained to cooperate on divisional level. Hans von Seeckt expressed his satisfaction with the results in 1925:

> The Field maneuvers show that finally the Army is succeeding in loosening the still binding chains of trench warfare. Mobility is a primary necessity of the army. These principles which have been set out in our regulations must be incorporated into our training goals.[viii]

The lack of modern equipment and armored units was overcome by a close cooperation with the Soviet Union, where an armored school was established at Kazan and a pilot training school at Lipetsk.[ix] The aim was to create a cadre of qualified armor officers. Both General Nehring, who became Guderian's Chief of Staff and General Reinhardt, who in May 1940 commanded the XLIst Panzer Corps, which crossed the River Meuse at Monthermé (north of Guderian), were former students at the Kazan school.

The Old Prussian military tradition never to resent blunt criticism, even when delivered by junior officers, was a factor in the development of operational and tactical concepts.[x] It created an atmosphere that encouraged honesty and it was also beneficial for Auftragstaktik.

By 1926, eight years after the defeat in WW I, Germany had reached its goals and produced a highly competent cadre of personnel that formed a stable foundation of a modern army, which in turn made the rearmament in the thirties possible. In the mid-twenties the worst equipped and smallest army in Europe had created the best concept for the conduct of decisive campaigns. It was an achievement that proved that the art of war had survived the defeat in WW I and the Treaty of Versailles. The rebirth of Germany as a military power rested not on the weaponry, but on her ability to combine the tradition of *Bewegungskrieg* (War of Maneuver) and the technology of the time. Germany developed new concepts – she had been disarmed, but her brains were still working.

Truppenführung,[xi] the famous army regulations from 1933, conveyed the same basic messages as "das FuG" of 1923, and integrated to it the emerging thoughts on mechanized warfare, aviation, motorized support units, and radio communication. Although many paragraphs in "das FuG" were copied into "Truppenführung" a highly philosophical introduction section was added. In this introduction much of the characteristics of Auftragstaktik can be traced.[xii]

[viii] Ibid, 76.

[ix] Ibid, 190.

[x] Translation of Taped Conversation with General Herman Balck 13 April 1979, Columbus, Ohio: Battelle, Columbus Laboratories, July 1979, 29, 41.

[xi] Truppenführung was primarily written by Generals Ludwig Beck, Werner von Fritz and Otto von Stulpnagel. It is translated and edited by Bruce Condell & David T. Zabecki who titled it: On the German Art of War. Truppenführung.

[xii] Truppenführung, 3.

What Was Auftragstaktik?

> *I always prized most highly those commanders that needed to be given the least orders – those you could discuss the matter with for five minutes and then not worry about them for the next eight days.*[xiii] (Hermann Balck)

There is no contemporary description or written theory expressing the German conception of command - *Auftragstaktik*. The word is not even mentioned in "Truppenführung" or in any other official document. The elements that form Auftragstaktik can be found in different paragraphs of "Truppenführung." Other sources that have data to what it was are veterans who experienced Auftragstaktik at the time. In the following the author's interpretation of the characteristics of Auftragstaktik will be described by using these sources.

Independent Decisions

Mounting uncertainty on the battlefield puts demands on leaders at all levels; the most important demand was the ability to make independent decisions. Already in the philosophical introduction of "Truppenführung" this issue is addressed:

- Combat situations are of unlimited variety. They change frequently and suddenly and can seldom be assessed in advance. Incalculable elements often have a decisive influence. One's own will is pitted against the independent will of the enemy. Friction (*Reibung*) and errors are daily occurrences.

- War subjects the individual to the most severe tests of his spiritual and physical endurance. For this reason character counts more in war than does intellect.

- The command of an army and its subordinate units requires leaders capable of judgement, with clear vision and foresight, and the ability to make independent and decisive decisions and carry them out unwaveringly and positively.[xiv]

These messages were transformed into concrete training during exercises in the twenties and thirties stressing mobile warfare. The judgment and actions of the leaders and subordinate leaders were in the focus of attention. The main purpose of the exercises was to create situations in which small-unit leaders had to make quick decisions in rapidly changing situations.[xv] The regulation also emphasized that it is the *mission* and the *situation* that form the decision.[xvi]

In interviews after the war, Generalmajor a. D. F. W. von Mellenthin stressed this issue. "What I try to express always and over again," he stated, was to "make the sub leaders independent leaders so that they can make their own decisions, the company leader, the battalion leader, and

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[xiii] Taped Conversation with General Hermann Balck, 26.

[xiv] Truppenführung, 17.

[xv] Robert M. Citino, The Path to Blitzkrieg. Doctrine and Training in the German Army, 1920-1939, Boulder, Colorado: Lynne Rienner Publishers, 1999, 123.

[xvi] Truppenführung, 23.

so on."[xvii] It was a principle to make the decisions as close to the situation as possible. This brings up the next element of Auftragstaktik.

Freedom of Action

Freedom of action was important for the independent decision-making. The aim was that the commanders at all levels in the organization should have as much freedom as possible in carrying out their tasks. The commander who gave a task only decided *what* should be done giving the sub-commander freedom to decide *how* to carry it out. To this end *decentralization* was important. Authority to decide had a clear connection to who owned the problem or who discovered a favorable opportunity.

> The commander must allow his subordinates freedom of action, so long as it does not adversely affect his overall intent (*Absicht*). He may not however, surrender to his subordinates decisions for which he alone is responsible.[xviii]

During the interviews with General von Mellenthin, William S. Lind, who was one of the interviewers, asked him if he agreed with General Hermann Balck who had said that it was a principle in the German army to make decisions at the lowest possible level of command. Von Mellenthin answered him that it certainly was, in order to save time.[xix]

Initiative

Initiative was something that not only was allowed; it was required by everyone. The most highly appreciated personal quality was willingness to accept responsibility.[xx] Through the use of initiative the full force of a unit could be brought to bear at the decisive point. The importance of initiative is very clearly stated in Truppenführung:

> The first criterion in war remains decisive action. Everyone, from the highest commander down to the youngest soldier, must constantly be aware that inaction and neglect incriminate him more severely than any error in the choice of means.[xxi]

This paragraph suggests that heads were more likely to roll if nothing was done than when someone had tried to do something and failed. The driving factors that make an individual wanting to take an initiative are readiness to act and willingness to assume *responsibility*. "The willingness to accept responsibility is the most important quality of a leader."[xxii] However, initiatives need direction and could not be allowed unless people had a common ground in tactics and operational art. A second condition was to know and understand the *commander's intent*.

[xvii] Armored Warfare in World War II, Conference featuring F.W. von Mellenthin, General major a.D., German Army, May 10, 1979, Columbus, Ohio: Battelle Columbus Laboratories, May 1979, 43.

[xviii] Truppenführung, 24-25.

[xix] Armored Warfare in World War II, Conference featuring von Mellenthin, 11.

[xx] Truppenführung, 18.

[xxi] Ibid, 19. (The quotation was in italic, thus emphasized.)

[xxii] Ibid, 18.

Commander's Intent

There is surprisingly little written of this in Truppenführung and only one paragraph (77) really addresses this factor.

> In larger operations here should be no hesitation in giving a thorough analysis of the intent and detailed mission orders for the battle to ensure coordination in the common objective. When the battle starts, there should be no doubt in any commander regarding the intent of the senior commander. As far as the situation permits the commander will explain his intent verbally to his subordinate commanders.[xxiii]

Although this paragraph is clear enough, Auftragstaktik does not seem to emphasize commander's intent the way it is highlighted today. This is supported by the fact that, contrary to other elements in their command philosophy, only one single paragraph speaks of it. An explanation for this may be that the Germans always emphasized "the Fog of War" as the dominating starting point for the understanding of the nature of battle.[xxiv] In the duality between the adversaries, Germans seem to think it is of little use to look too far ahead. There is a Napoleonic proverb saying "s'engager, puis voir"[xxv] (engage the enemy and then we shall see), which covers it very well. Weaknesses of the enemy often appear during battle as a result of the duality. Another explanation may be that understanding the commander's intent might have been so obvious that it almost went without saying. Yet another is the importance of the general intent of the operation. Paragraph 76 speaks of larger operations and the importance of knowing "the general intent and the end to be achieved." "The general intent must be stated for the execution of impending operations, but the method of execution is left to the subordinate commanders."[xxvi] The text clearly relates to the overall operational intent and is probably written with corps and division commanders in mind.

Mutual Trust

The practice of Auftragstaktik requires mutual trust between the commander and his sub commanders as well as the rest of his personnel. Trust derives from a common view on operational art, tactics, command and a mutual respect for the other's skill. "Mutual trust is the surest basis of discipline in necessity and danger."[xxvii] Hermann Balck said in an interview, "The dominant factor is mutual confidence"[xxviii] One way to obtain trust is to frequently train together, which often results in mutual understanding of each other and a common language.

[xxiii] Ibid, 31.

[xxiv] Carl von Clausewitz, On War, Princeton, New Jersey: Princeton Press, 1976, 75-123.

[xxv] Heinz Guderian, Fritz Krämer, Fritz Ziegelmann, Feiherr von Lûttwitz, et al., Fighting in Normandy. The German Army from D-Day to Villers-Bocage. London: Greenhill Books, 2001, 214.

[xxvi] Truppenführung, 30.

[xxvii] Citino, The Path to Blitzkrieg, 224.

[xxviii] Translation of Taped Conversation with General Hermann Balck, 12 January 1979 and Brief Biographical Sketch. Columbus, Ohio: 1979, 52.

Forward Command

The Germans put great emphasis on leading from the front. There are several advantages with being close to the ones you command. Truppenführung states:

- Leaders must live with their troops and share in their dangers and deprivations their joys and sorrows.[xxix]
- Personal communications with his divisions is especially important for a commander of a cavalry corps.[xxx]

- During an advance, the division commander with his immediate staff should position themselves well forward.[xxxi]
- Personal observation is best upon contact with the enemy. The division commander therefore, must position himself on the battlefield at the decisive point and as early as possible.[xxxii]

- During pursuit operations, the commander must move with the forward elements. His presence in the front line will inspire his units.[xxxiii]

Forward command is emphasized over and over again in German documents. In his "1925 Observations," Hans von Seeckt underlined accuracy and first hand impression as the main advantages: "No report, no matter how good it is can replace personal observation."[xxxiv] Von Mellenthin stressed the time gain in carrying out an order as another advantage. When receiving an order, many commanders wanted to gather more intelligence before making decisions, thus losing time. In interviews in 1979 the recipe to overcome this delay was for a commander to lead from the front.

> You can't command tank units from the back. You have to command tank units from the front line, and, therefore, it was the rule that the commander of the division was at least with the commander of the tank battalion etc., so that he could see the things very close, and, therefore, he got the information very close and could act very quickly, being near to the front line.[xxxv]

The commander leading from the front is not always possible to reach in moments when important decisions have to be made. "When the commander temporarily leaves the command post the chief of staff acts as his deputy."[xxxvi] Many panzer commanders would be unreachable for hours at a time and, for this reason, relied heavily on the Chief of Staff. The Chief of Staff

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[xxix] Truppenführung, 18.

[xxx] Ibid, 37.

[xxxi] Ibid, 37.

[xxxii] Ibid, 37.

[xxxiii] Ibid, 38.

[xxxiv] Citino, The Path to Blitzkrieg, 58.

[xxxv] Armored Warfare in World War II, Conference featuring von Mellenthin, 12.

[xxxvi] Truppenführung, 38.

had a quite different roll than we are used to. He was the Deputy Commander, Chief of Staff (i.e. chief of the office work), and the Chief of Operations.[xxxvii]

Orders

Close control from above was neither possible nor desirable. The general view was that rapid movements could not be lead from far back and long orders that predict what will happen over time were practically useless. Therefore orders had to be short and clear and not packed with too many details. They should concentrate on stating a clear mission; carrying it out should be left to the subordinates.

This was one of von Seeckt's main points in training the new army. During the trench warfare on the Western Front orders had become long and detailed, trying to synchronize everything. He wanted orders to reflect the actual war conditions of *Bewegungskrieg*: orders should be clear, positive, and simple.[xxxviii] Orders from superiors should be kept to a minimum, which could work if personnel were tactically proficient and if individual initiative was encouraged.[xxxix] This is also reflected in Truppenführung:

> An order should contain all that a subordinate needs to know to be able to execute his mission and nothing more. Accordingly the order must be short, clear, specific and complete. Orders may only be valid as long as they relate to the situation and conditions. Nonetheless, it often is necessary to issue orders when the situation is obscure or uncertain.[xl]

Von Mellenthin explained in the 1979 interview that orders within the panzer divisions were exclusively verbal.[xli] Hermann Balck always gave oral orders, even when he commanded large units at the operational level. As a division commander Balck even forbade the use of written orders. Balck was also aware that staff organizations had a tendency to grow and issuing verbal orders was the most important measure to counter that tendency.[xlii] The German Chief of Army Command, Kurt von Hammerstein saw a number of advantages in the short oral order. In his Points for Training in 1932-1933 (Hinweise), he stressed that orders were still too often typed and too long. In too many cases troops at rest received this type of orders, which forced them to march suddenly and immediately. If a shorter order had been delivered hours earlier units could have made much better use of the time available.[xliii] Hammerstein's point is the time factor.

Orders were not to be followed to the letter. They should be followed only as long as they were relevant to the situation: "Out of the situation and the mission comes the decision."[xliv] This

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[xxxvii] Armored Warfare in World War II, Conference featuring von Mellenthin, 9.

[xxxviii] Citino, The Path to Blitzkrieg, 51.

[xxxix] Ibid, 100.

[xl] Truppenführung, 30.

[xli] Armored Warfare in World War II, Conference featuring von Mellenthin, 25, 26, 47.

[xlii] Translation of Taped Conversation with General Herman Balck 13 April 1979, Columbus, Ohio: Battelle, Columbus Laboratories, July 1979.

[xliii] Citino, The Path to Blitzkrieg, 216.

[xliv] Ibid, 224.

means that if an unforeseen development occurred that made the order irrelevant, it was the recipient's duty to question it and consider an initiative that was in accordance with the overall intent.

Orders, according to the German philosophy, were written as directives only if changes in the situation could be anticipated before they could be executed. The aim was to make orders short, clear and precise. In most cases they should be verbal to gain time and lessen the number of people involved in preparing them. The commander himself issued the orders; and if a personal meeting was not possible, they were often given by radio or telephone. The question of formulating orders was dealt with as a function of *Bewegungskrieg*.

A Common View on Operational Art and the Importance of Combined Arms

The philosophy of command would be counter-productive if the Germans had not had a common grounding in operational art and tactics. The tactical proficiency of all officers and many men included the ability to identify the decisive point (Schwerpunkt) and to make independent decisions regarding concentration of forces to achieve decisive action or avoid a crisis. The principals of war that were involved here are mainly mass and surprise. This, in combination with the individual enterprise and initiative, was the basis for their tactical success. The principles were about the same at the operational level. Dislocation was, however, an effect that at this level was important for the successful application of mass and surprise. How this was done would vary with the circumstances. There were to be no fixed patterns because two situations are never identical. Again, the famous phrase expresses it well: "Out of the situation and the mission comes the decision"[xlv] or as it is phrased in Truppenführung: "The mission (Auftrag) and the situation (Lage) lead to the decision of the course of action."[xlvi] Nowhere is a Schwerpunkt described or how it can be identified. Officers had to be aware of it though, or they would soon be having difficulties in the field, relying more or less on luck. Other paragraphs that highlight the operative and tactical insights needed are found in Chapter II, Command:

- One can never be too strong at the decisive point.

- The weaker force can become the stronger at the decisive point through speed, mobility, great march capacity, and the use of darkness, terrain, surprise, and deception.

- Every advantage over the enemy increases one's own freedom of action.

- Surprise is a decisive factor in success. Actions based on surprise are only successful if the enemy is given no time to take effective counter measures.[xlvii]

As mentioned earlier, the principle of *Combined Arms* played a crucial roll in the German art of war. The armored doctrine, developed and made known mainly by Guderian[xlviii] and expressed in


[xlv] Ibid, 224.
[xlvi] Truppenführung, 23.
[xlvii] Ibid, 22.

his book of 1937 *Achtung - Panzer!*, was firmly grounded in the context of combined arms warfare. Besides being something to strive for in each situation, combined arms was also the principle on which the units were organized. This is particularly true of panzer corps and panzer divisions.

At the outbreak of war in 1939 Hermann Balck served with the General Staff in Berlin and was responsible for overseeing the reorganization and refitting of the panzer divisions. All arms were incorporated into the panzer division. Units organized by this principle became very strong and flexible and they gave the commander freedom of action either to exploit enemy weakness or handle unforeseen development. The idea of separate assignments for tanks and infantry was a sin against the essence of tactics: the cooperative employment of all arms against a single point rather than using one arm here and another over there.[xlix]
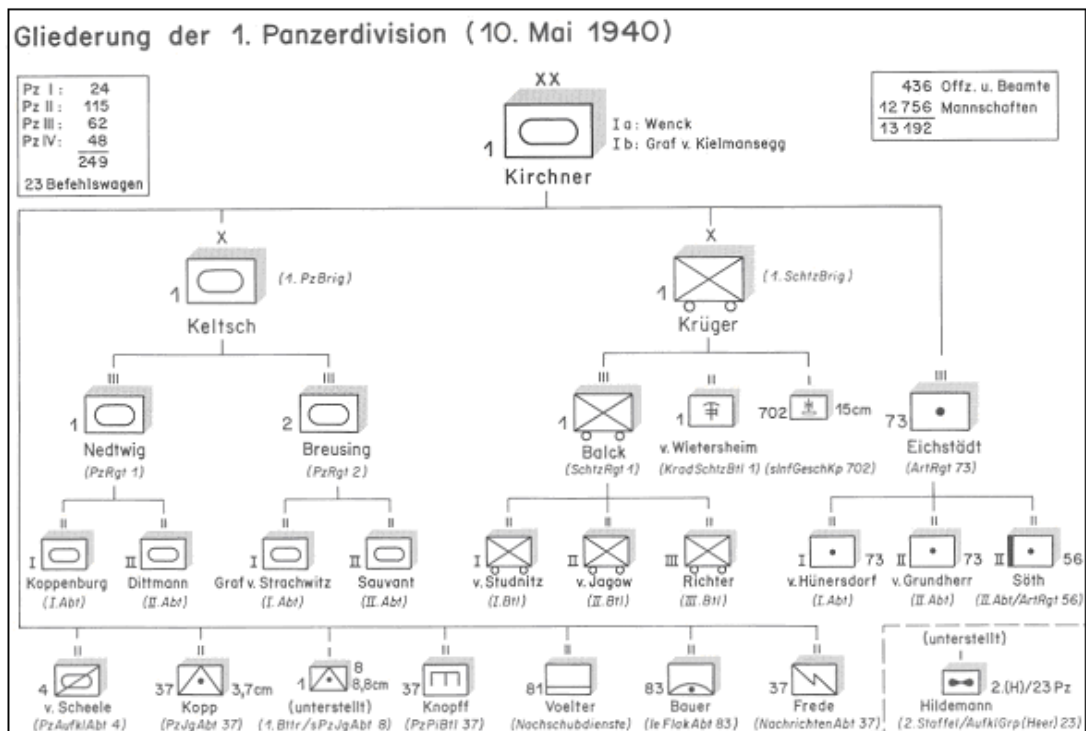
Figure 1. The Organization of 1ˢᵗ Panzer Division[l]

[xlviii] He is not to take the whole honor for the Armor Doctrine. His book was released in 1937, a point in time when the ideas of independent armor was well accepted by many in the German army. Other people did much of the pioneer work before Guderian took over. Ernst Volckheim published books in 1923 and 1924 on the thesis Tanks and Modern Warfare and he published two dozen articles in the journal Militär Wochenblatt. Another influential theorist was Col. Oswald Luts, inspector of Motor Transport Troops 1931-1938. He was the Commander and Guderian his Chief of Staff. During Lutz's time as inspector the decisive decisions were taken in forming the panzer divisions. See Citino, The Path to Blitzkrieg, 202 and Niklas Zetterling, Blitzkrieg, Stockholm: Försvarshögskolan, 2003, 77.

[xlix] Taped Conversation with General Hermann Balck, 13.

[l] Frieser, Karl-Heinz, Blitzkrieg-Legende. Der Westfeldzug 1940, (München: R. Oldenburg Verlag, 1996), 137.

The panzer division in particular was designed according to this principle and was very suitable for a massing maneuver at the decisive point. Guderian's famous, but almost untranslatable "Klotzen nicht kleckern" (Strike concentrated, not dispersed) mirrors the idea. However, everybody in the German Army did not accept this in 1940. Many officers were skeptical regarding the effects that panzer divisions could achieve. In the January interview with Hermann Balck he said that "Our whole General Staff didn't believe in armored warfare".[li] A common belief in the infantry ranks was that the best use of panzer divisions would be supporting infantry armies. This faction could not understand the physical and psychological effects of deep operations by mechanized units composed of combined arms and led by commanders from the front. The competition between these two schools would later influence the campaign in the West 1940.

Conclusions

The Germans developed a philosophy of command and leadership that would be suitable for a modern version of Bewegungskrieg. It was composed of a number of sound elements that were described in Reichswehr's Truppenführung. The study of this German doctrine and the interviews of veteran German generals have given an answer to the question of this article: What did the German concept of Auftragstaktik really look like? It seems to have been made up of these elements: Independent Decision-Making, Freedom of Action, Initiative, Operational (Commander's) Intent, Mutual Trust, Forward Command, and Order Techniques. Each element was to some degree dependent on the others. Most of these elements had been with the German army for a long period of time, but the people who developed it had not heard of the term Auftragstaktik and it was not until the birth of Maneuver Warfare in the 1980s that the term was established. A common understanding of certain basics in operational art and tactics and the application of combined arms seem to have been a necessity for the application of Auftragstaktik.

At the operational level the application of combined arms is called *jointness*. At the time the German application of jointness became mainly the combination of airpower and panzer forces so efficiently applied that the Western powers soon called it *Blitzkrieg*.

Auftragstaktik was both highly philosophical and closely connected to the nature of war, taking into account the dangers of predicting the battle in advance. Therefore the *operational intent* seems to have been as important as *commander's intent*. Operational success sometimes begins with small positive changes on the tactical level. One example is the German crossing of the River Meuse against relatively well-prepared French defenses. Individual bravery and personal initiatives played a very important part in carrying the German operation across. It was always important to have clear operational intent and operational objectives so that people on the tactical level could take the proper initiatives and risks. When this is the case, the individual soldier may, in certain situations, make a difference. The operational commander may then make good use of such tactical positive changes and pull the operation forward towards its objectives.

[li] Taped Conversation with General Hermann Balck, 12 January 1979, 32.

When Auftragstaktik is applied it can help achieving different operational and tactical effects, which can be seen, for instance, in the German Campaign in the West in May 1940.[lii] Such advantages are:

- *Time*. A gain in time may occur, thus a tempo superiority can be achieved.

- *Dominance*. Through tempo advantage, operational initiative can be gained. The bigger the difference in tempo between the opponents, the greater the dominance. After a while the adversary's counter-moves become irrelevant. When combined with a suitable application of operational art, Auftragstaktik can contribute to dominance on the battlefield.

- *Redundancy*. If individuals and units can act towards the operational end-state independently, the operation can proceed even when "the fog of war" is extremely thick.

- *Opportunities*. Friction and luck create opportunities, which can lead to success if exploited. Most of the time they can best be perceived at the point of contact with the enemy. When in line with the overall intent, quick initiatives on the scene can be decisive.

- *Man*. Auftragstaktik puts man in the center. Commitment is stimulated as initiatives are encouraged and expected. This also stimulates the individuals' ability to reason several levels up in the organization.

This article shows what Auftragstaktik was in its original meaning and argues that it is much more than "mission-type-orders". It is philosophical in its nature and takes human intangibles into account. The different methods of command used in the field may be similar to the ones applied in other command concepts, but the combination of them differ. Doing this right leads to advantages that can make the difference between victory and defeat. But a command concept like Auftragstaktik cannot be reduced to a question of choice of methods on the operational and tactical level – it has to be a philosophy implemented and developed in the armed forces over a considerable period of time.

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[lii] For further study see for instance Alistair Horne, To Lose a Battle. France 1940. London: Papermac, 1969/1990 and Karl-Heinz Frieser, The Blitzkrieg Legend. The 1940 Campaign in the West. Annapolis, Maryland: 2005.

Planning-to-Plan: The Mechanics of Complex Problem-solving in a Group Environment
By
Major David Edward Morgan Jones

Recent events indicate that U.S. military decision-makers will continue to challenge planners with problems that have no easy answers. Military problem-solving has traditionally focused on the use of decision-making models to engineer solutions to complex problems.   However, planners have recently discovered that methodical adherence to frameworks such as the Army's Military Decision Making Process (MDMP) does not necessarily lead to innovative solutions. Instead, the best decisions appear to emerge as a result of synthesis and learning that characterize a collaborative environment in which the individuals of a planning group refine ideas through dialogue and debate.

Effective planning occurs when the members of a planning group deliberate ideas to attain higher levels of understanding.   Consider Plato's dialectic which states that, "two people, by challenging and responding to each other, can come closer to the truth than either one could himself."[liii]   While decision-making sequences provide useful procedural awareness maps for problem-solving, planners must also consider how to create dynamic learning environments that yield more thoughtful decisions. *Planning-to-plan* addresses what a planner can do to bring people and assets together to optimize a planning group's decision-making performance. It is a process of meta-planning in which one specifically considers the underlying structure to planning that encourages a group to realize its true problem-solving potential.   The implications of *planning-to-plan* are positive and far reaching in terms of getting the most out of a decision-making iteration.

Neglecting to *plan-to-plan*, on the other hand, jeopardizes decision-making outcomes.   U.S. Army Lieutenant Colonel (LTC) Phil Baker witnessed, first hand, the turmoil that arose from an ineffective *plan-to-plan* when he joined Joint Task Force Haiti Assistance Group (JTF HAG) in August of 1993:

> Everything was in chaos. Planners from all services were thrown together trying to figure out what they were doing without much organization. Lots of people were just doing what they thought they needed to do; what they were comfortable with whether or not it had anything to do with the plan. Everybody at least looked busy. In the middle of this chaos was a Marine lieutenant colonel under a lot of

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[liii] Ervin Laszlo, The Systems View of the World: A Holistic Vision for our Time (Cresskill, New Jersey: Hampton Press, Inc., 1996), 26.

> pressure trying to produce an operations order. I remember that chairs
> were scarce; if you left yours for even a second, someone stole it. [liv]

The chaos that LTC Baker refers to is commonly attributed to a dysfunctional *plan-to-plan*. The fact that "everybody…looked busy" does not necessarily mean that group members were accomplishing anything of import. To the contrary, such disconnect indicates a meta-planning failure. In this case, the JTF HAG planning environment fragmented and became wrought with friction simply because no one devoted ample time to *planning-to-plan*. In fairness to the veterans of this operation, real-world situational mayhem habitually manifests itself onto the shoulders of a planning staff. However, an effective *plan-to-plan* may have provided at least a semblance of order to the shifty and unclear situation encountered by American military planners during the 1990s in Haiti.

A well orchestrated *plan-to-plan* connects individuals and resources so that more people and resources can positively contribute to the outcome of a problem-solving process. Logically, a planning group that functions as a learning organization during a decision-making process will plan better and will invariably support a commander with more appropriate decisions.

How Planning-to-Plan Works

Planning-to-plan brings to bear the *right* combination of planning resources at the *right* time to optimize decision-making. How a planner employs the resources of a planning group to satisfy the decision-making requirements of his command depends upon his architecture of planning. Designing a structure to a planning effort begins once a planning group has recognized a requirement to collectively solve a problem.[lv] A design guides the organization and employment of planning resources in order to balance decision-making requirements with the capabilities of a planning group. If designed, built, and marshaled appropriately, a *plan-to-plan* increases the likelihood that a group will learn and synthesize as it conducts planning.[lvi]

Designing a Planning Effort

A planner initiates planning-to-plan by determining what resources will enable innovation during the problem-solving process. A seasoned planner will habitually take a period of time to reflect on the best way to allocate and position resources to enable dialogue, learning, and synthesis to occur within a group of planners. Dr. Gordon Rudd of the Marine Corps' School of Advanced Warfare (SAW) refers to this period as "push-back." By taking some time to contemplate, a

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[liv] Walter E. Kretchick, Robert F. Baumann, and John T. Fishel, *Invasion, Intervention, "Intervasion:" A Concise History of the U.S. Army in Operation Uphold Democracy* (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1998), 35.

[lv] Most of the time, planning groups initiate their own requirements to plan. Army Major Keith Hood, a Stryker battalion operations officer, states that in over four months of combat in Iraq, his unit received mission directives from its Marine higher-headquarters only twice. Hood, Michael K., email message to author, 20 December 2005.

[lvi] Army Colonel Mark Solseth originally defined *planning-to-plan* as how a planner thinks about, organizes, and exercises planning in a group environment. Seventy-percent of the planners surveyed agreed with this definition.

planner gains perspective on the nature of a problem.[lvii] He can then formulate a design that better addresses its particular characteristics so that a group is more likely to synthesize and learn as it conducts planning.

Seasoned planners understand the importance of reflection. While novice planners often launch immediately into the steps of a formal decision-making framework, seasoned planners approach decision-making in a more pragmatic fashion by formulating a *plan-to-plan*. Rather than scurrying into a frenzy of mindless work, experienced planners take a step-back to think about methods that will enable learning and synthesis. When planners do not *plan-to-plan*, they risk haphazardly exhausting their planning resources on things that do not matter to the problem-solving effort. Planners who do not *plan-to-plan* risk wasting time and frustrating group members. They also increase the likelihood that a planning group will have to retrace preliminary decision-making steps at an inconvenient point later-on in a planning process. Planners who initially take time *plan-to-plan* habitually foster more efficient decision-making adhering to the adage that, "slow is smooth and smooth is fast."[lviii]

The design of a planning effort determines the approach a group uses to organize and employ its planning resources. Effective designs focus on creating open dialogue to promote learning. Learning occurs when planning group members engage each other to share and critique ideas.[lix] A collaborative environment improves the likelihood that a planning group will innovate as they solve complex problems.

A planner must also take time to consider the characteristics of the problem that confront the planning group. The nature of the problem often influences the means by which a planner organizes and employs his planning resources. Planning for a full-scale conventional force-on-force offensive, for example, differs from approach to planning used to solve the best way to feed starving people in a third-world nation. The commander will have different decision-support expectations based upon the context of the problem.[lx]

A planner designs a planning group according to time available for decision-making. Deadlines constrain the amount of time one can allocate particular resources to specific efforts within a planning process. Therefore, a planner synchronizes planning efforts to operational events through the use of a planning timeline. By constructing a planning timeline from the timeline of

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[lvii] Gordon Rudd, Ph.D. at the Marine Corps' School of Advanced Warfare (SAW), Quantico, Virginia, interview by author, 18 November 2005.

[lviii] Mark Solseth at the School of Advanced Military Studies, Fort Leavenworth, Kansas, interview by author, August 2005.

[lix] Shimon Naveh at the Headquarters of the 35th Infantry Division, Fort Leavenworth, Kansas, interview by author, 18 January 2006.

[lx] Commanders will more than likely have a concept for the way they intend to approach problem-solving. For example, MG Chiarelli, the commander of 1st Cavalry Division (1CD), focused his planners onto urban development projects rather than combat offensives to quell the 2004 unrest in Sadr City. 1CD succeeded in winning the peace by emplacing sewers and picking-up trash rather than kicking-in doors. Refer to Peter W. Chiarelli and Patrick R. Michaelis, "Winning the Peace: The Requirement for Full-Spectrum Operations," *Military Review* (Jul-Aug 2005).

operational events, a planner can anticipate periods of increased activity that will require a surge in the employment of planning resources. This creates a battle rhythm for planning group members which helps synthesize a planning group with respect to time. Effective planning time management includes rotational schedules that create a foundation of predictability and structure. Planning architecture considers time as one of its most important factors that contributes to the relevance and usefulness of a planning group. Ultimately, design guides a planner as he builds a planning group to solve problems.

Building a Planning Group

A planner turns the vision of a planning design into reality when he physically organizes a planning group. He strives to assemble the right combination of people and resources to maximize individual contributions and facilitate open dialogue, learning, and synthesis within his planning group. Obtaining the right people, delineating their roles and responsibilities, and establishing an appropriate location to plan are three significant factors that contribute to building a planning group.

The construction of a planning group must initially focus on obtaining the necessary skill-sets needed to enrich learning. Subject matter experts (SMEs) can greatly empower the productivity of a planning group by providing expertise in specific subjects. Examples of SMEs include: religion experts, cultural anthropologists, geographers, economists, political scientists, and non-governmental organization experience. SMEs function as an economy of force for a planning group because without them the members of a planning group have to consume their time doing research instead of planning. When SMEs are not available, planners assign the responsibility of researching to existing group members. This delegation of research responsibility is less desirable than using SMEs.

Delegating responsibility is an essential practice that impacts upon the effectiveness of a planning group. Planners usually have to organize groups, boards, and cells to address various aspects of the complex situation. These subordinate configurations may exist temporarily or for the duration of a planning effort. They vary in size based upon the particular characteristics of their focus and the ability of the lead planner to gainfully control their proceedings. Peter F. Drucker warns that decision makers should be sure to closely analyze the configurations of these groups so that they remain manageable.[lxi] By delegating roles and responsibilities to focus members, a planner empowers more people to contribute to a problem-solving process.

Ideally, a planner configures a planning group so that its members collaborate to elevate their collective awareness, understanding, and learning. Increased geographic separation of planners has required more collaboration to occur through virtual space. New technologies such as DARPA's Command Post of the Future (CPOF) enable planning groups to collaborate from different locations. But, assets like CPOF are currently in short supply and planners must closely manage their utilization.

[lxi] Peter F. Drucker, The Effective Executive (New York: Harper Collins Publishers Inc., 1967), 7.

Finally, the infrastructure used to conduct planning is another critical factor that a planner considers when building a planning group. The location, size, and capabilities of the infrastructure all impact upon the nature of the collaboration that emerges during planning. Determining the best location depends upon factors such as accessibility of the planning group to the operators they support, operations security measures (OPSEC), and safety from enemy attacks. The size of the group depends upon the dynamics of the problem. Large groups usually take longer to plan, but provide more depth, perspectives, and buy-in. Smaller groups tend to facilitate difficult decisions in a shorter amount of time, but risk missing the breadth and depth of knowledge that larger groups can provide. The characteristics of planning facilities may dictate the size of group that a planner can assemble. Ultimately, a planner may have to sequester the help of a command to obtain the *right* place to plan. Building a planning group that mirrors the vision of a planner's design requires authority, resources, a great deal of energy, and a *plan-to-plan*.[lxii] A well-designed and organized architecture establishes the foundation for effective problem-solving.

Marshalling the Conduct of Planning

In order to ensure that planning resources enable relevant and timely decision-making products, a planner has to closely marshal the conduct of a planning effort. "The trick is to make planning relevant to the problem" while determining a way to "cycle through planning fast enough to outrace the situation so that the answer addresses the problem as it exists when the turn of an actionable planning product is done."[lxiii] Five processes help improve group planning: orientation, employment, assessment, adaptation, and transition. A planner initiates group decision-making by orienting the members to the expectations, scope, and methodology of a planning effort. Once focused, the group employs its resources and negotiates the steps of a decision-making model such as the MDMP. A planner assesses and adapts the group's approach throughout the process to meet the dynamics of the planning environment. Once the decision-making requirements of the previous planning effort have either been met or are no longer necessary, the group transitions.

Orientation is a critical step towards achieving synthesis in a planning group.[lxiv] It starts when a planner assembles his group for the first time and focuses them onto the purpose of the planning effort. He outlines decision-making requirements and explains how he intends to pursue planning in a group environment. The planner essentially communicates his concept of a planning architecture. Since many of the members may be new to the planning group, orientation serves as a forum for introductions and delineations of duties and responsibilities. Orientation subsequently initiates the estimate process in which planning group members

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[lxii] Chris Rogers illustrates the important role *planning-to-plan* plays in Army units. "Organizing the planning effort and ensuring that the Operational Planning Group (OPG) is adequately focused on the right problem with the right mix of people" is essential to *planning-to-plan*. Extracted from the *Planning-to-Plan* (P2P) questionnaire, 11 November 2005.

[lxiii] M. Scott Weaver at the School of Advanced Military Studies, Fort Leavenworth, Kansas, interview by author, 15 February 2006.

[lxiv] NATO leaders understand the importance of orientation and have included it as the second of the NATO five-step decision-making process called the Operational Planning Process (OPP).

conduct research according to the objectives of the decision-making effort. Orientation brings a planning group together and focuses their energies onto common goals and objectives prior to problem-solving.

After planning group members arrive at a general understanding of the planning focus, they *employ* their planning assets and engage the steps of a decision-making framework. Frameworks like the MDMP guide the activities of the group as it works to solve a problem. After defining a problem and publishing planning tasks, purposes, and deadlines, a planner gives his planning group the time and space to work. His temperament, style of leadership, and relationship with group members ultimately define his approach to supervision, but the method in which a planner employs his planning group depends upon his planning architecture.

A planner should continually *assess* the conduct of planning to ensure his planning group is meeting the decision-making needs of the command. A planner's commander will usually provide verbal feedback regarding the group's decision-making contributions. He may, for example, articulate his displeasure at a group's lack of depth used to analyze certain factors presented in a mission analysis brief. In this case, a planning group must be ready to capture the commander's feedback, collectively internalize his comments, and adapt the planning architecture accordingly. Person-to-person interactions constitute another area that demands careful attention. Poor collaboration or no dialogue can stifle the learning and synthesis of a group and adversely affect the quality of their decision-making products. Because person-to-person relations are difficult to measure, a planner must rely on his judgment to qualify what level of success the group is achieving regarding learning and synthesis. Regular contact with group members and feedback from key leaders facilitate his assessment of the group's progress.

Assessment subsequently inspires *adaptation*. A planner must be prepared to modify his planning architecture based upon recognized shifts in the dynamics of the planning environment. In some cases, a planner can involve portions of a planning group to determine how to adapt planning operations to better meet the needs of the command. Periodic after action reviews (AAR) throughout the conduct of planning serve as a conduit for consensus regarding how to approach change. However, in time-sensitive or command directed circumstances, a planner may have to modify the planning design without consulting the group. In either case, a planner should anticipate that his planning orientation will undoubtedly change several times during a planning effort. At a minimum, it will definitely change as a group transitions onto a new planning focus.

A planning group *transitions* when its focus of planning is no longer relevant and decision-making support requirements beget a new set of planning objectives. A transition may occur when a group accomplishes the decision-making needs of the command or because a situation changes requiring a new planning focus. Regardless of the reason, a planner should bring closure to the previous effort and orient his planning group onto the new planning objectives. This may demand that the planner redesign a planning architecture and reconfigure his planning resources. Dramatic changes to the architecture of an operating planning group, however, can risk the loss of planning momentum, understanding, and synthesis. A transition plan can minimize this friction so that the group maintains momentum and synthesis.

Marshalling the progress of a planning effort requires that a planner maintain a keen sense of awareness to the dynamics of a planning environment. Change indicators are often elusive and hard to read. Therefore, a planner has to be sharp enough to know what to look for as a group conducts planning, but also flexible and humble enough to change his approach to planning when the current thrust fails to yield the necessary results.

A model emerges from this foundation that provides a visualization of planning as a system within a system. It shows the underlying structure to planning that enables a group to synthesize and learn as its members engage a decision-making framework (see Figure 1, The *Plan-to-Plan* Model).
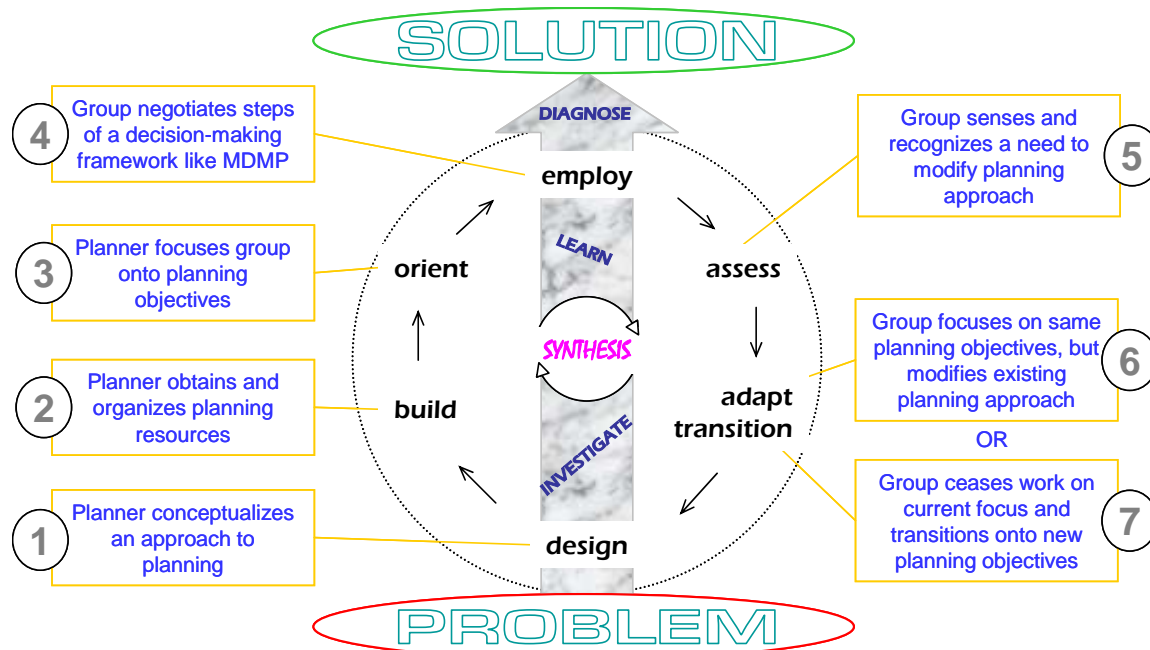
Figure 1 – The *Plan-to-Plan* Model

The underlying structure to planning creates a current of forward progress for a planning group during planning by balancing planning resources with the decision-making needs of a command. The mechanics of complex problem-solving can, therefore, be summed by the seven sub-processes of *planning-to-plan*: design, build, orient, employ, assess, adapt, and transition.

Design. The design serves as a blueprint for the underlying structure of planning in which a planner envisions how to best meet the decision-making needs of a command with resources available to plan. A planner forecasts requirements based upon anticipated events then determines the means necessary to achieve those requirements within the capabilities of a

planning group.[lxv] His goal is to create the conditions for a group to synthesize and learn so that they derive innovative solutions to the complex problems they face. Design requires a period of reflection so that a planner can gain perspective, establish planning objectives, and consider the factors of the situation that will affect the group as they conduct planning. While this design will most assuredly change once actual planning operations begin, it establishes a base-line precedence to coherently focus and connect the resources of a planning group.

Build. After a planner conceptualizes a design for a planning effort, he has to physically gather and organize planning resources. He strives to assemble the *right* combinations of people and resources to meet the decision-making needs of a command. He seeks to configure people in such a manner so that they engage each other in open dialogue and learn. He establishes roles, assigns responsibilities, and delegates tasks to group members so that each person contributes to the overall performance of the group. He considers the location in which the conduct of planning will take place. If the members of a planning group will be geographically dispersed, a planner mobilizes technological resources to enable collaboration. With the advent of virtual space technologies, a group can synthesize even when separated over long distances. The planner must also organize feedback mechanisms so that his group has the ability to sense when change is occurring in a given situation.

Orient. Once the members of a planning group have assembled, a planner orients them onto planning objectives and method by which the group will employ its resources to plan. He elaborates on the techniques that the group will employ and his concept of scoping which commits certain planning resources onto certain planning objectives. The orientation of a group establishes awareness to the requirements of decision-making such as what the command group expects the planning group to produce in terms of decision-making products, deadlines that impact the conduct of planning, and any other important pieces of information that affect the planning situation. By orienting a group to the *plan-to-plan*, each member of a group should understand what is going on and how he can contribute to the group's overall accomplishment of its planning mission.

Employ. After a planner has oriented planning group members, he employs them according to the steps of a decision-making model like the MDMP. The planner manages the effort according to a planning timeline to ensure that relevant decision-support products are available to the command group when they need them. The amount of supervision he exudes depends upon the dynamics of the planning environment and how well the group is synthesizing, learning, and collaborating. He specifically wants to foster an environment that caters to creativity, critical thinking, and constructive debate so that his planning group innovates as they solve problems. At times, a planner may have to inject more energy as a leader when a planning group reaches an

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[lxv] M. Scott Weaver, "How Many Feathers for Your War Bonnet? A Groundwork for Distributing the Planning Function in Objective Force Units of Employment," School of Advanced Military Studies Monograph (Fort Leavenworth, Kansas: United States Army Command and General Staff College, AY 01-02), 19. Lieutenant Colonel Weaver offers a contrasting view of the mechanics of planning and states that there are five interrelated elements that define the planning function: visualizing, anticipating, forecasting, sequencing, and adjusting.

impasse in the conduct of planning. In this case, he must possess the force of will to move the group beyond any challenges that obstruct their forward progress.

Assess. Periodic assessments help monitor the progress of a planning group. A planner can accomplish these either formally by conducting regular observations assessment meetings or informally by interfacing with the members of the planning group. Because assessments of planning are essentially subjective, a planner should seek a broad array of opinions regarding the approach the group is taking. Valid observations ought to compel a planner to rethink resource requirements, organizational structures, and management procedures as they relate to new demands of the decision-making effort. Perhaps the most important assessment originates from the commander for whom the planning group ultimately works. A planner must remain attuned to how his commander perceives the progress of planning. He may have to adapt his original planning design based upon the expectations of the commander as the planning situation unfolds.

Adapt. Situational changes inevitably require that a planner modify a planning architecture to produce relevant decision-making outputs. Adaptation depends upon a group's ability to learn. Learning relies upon the existence of feedback mechanisms that enable a group to sense and recognize when change has occurred so that they can then assess whether or not they need to modify their current direction of planning. Learning may require that planners solicit feedback from various levels within the operation-side of an organization. Planning groups must not isolate themselves from what is happening at the ground-level of execution. Rather, they must strive to achieve open dialogue and collaboration with people at various echelons of the organization to attain a holistic perspective on the evolving situation. Reliable feedback can then prompt a planner to make appropriate changes and adapt his planning group to better meet the needs of his command group. Adaptation requires that a planner consider how to modify his planning design to better augment the dynamics of a planning environment. When this occurs, the planning objectives usually remain the same while the approach of the group changes.

Transition. Transitions differ from adaptation in that a group stops working on its current planning orientation and refocus onto new objectives. This occurs because either current planning objectives have been met or the objectives are no longer relevant to the needs of decision makers. During transition, a planner brings closure to the old focus of planning and reorients his group onto a new problem. A planner develops a new planning architecture from the very first step of design.

Conclusion

The complexity of the contemporary operating environment has compelled commanders to rely more upon the problem-solving capabilities of their planning staffs. To handle the velocity of Information Age problem-solving demands, planners must be able to harness more from their planning resources. Planning-to-plan offers hope through its loosely bound construct that focuses on optimizing the decision-making capacity of a planning group. Planning-to-plan provides a method by which a planner can balance the needs of decision-makers with the capabilities and resources of a planning group. By building and marshalling a planning group according to the design of a plan-to-plan, planners can create the conditions for synthesis and learning to occur. These dynamics increase the likelihood that a group will solve problems with

greater ingenuity. The mechanics of planning-to-plan, however, are only the starting point for planners.   Part Two of this three part planning-to-plan series (in the Fall 2006 edition of *CAMPAIGNING*) focuses on the techniques used by seasoned planners to bring the mechanics of planning-to-plan to life as they facilitate decision-making in a group environment.

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The CoG Crutch and Other Concepts of a Transformational Scientism

By
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"Particular factors can often be decisive - details only known to those who were on the spot. There can also be moral factors which never come to light; while issues can be decided by chances and incidents so minute as to figure in histories simply as anecdotes. What the theorist has to say here is this: one must keep the dominant characteristics of both belligerents in mind. Out of these characteristics, a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."[i] *Carl von Clausewitz*

"Give me a place to stand and I will move the Earth."[ii] *Archimedes*

Introduction

Joint Publication (herein referred to as JP 5.0), **Operational Planning**, with its new, revised and transformational doctrine should be a welcome addition to the joint operational library. The document appears well written and very detailed, changing its relative emphasis from incorporating strategic planning to a much needed focus on operational planning. The publication appears to contain all relevant doctrinal matters necessary for operational planners to go about their business. However, a close reading and analysis of the publication reveals a disturbing tendency towards the use of misleading terms that camouflage themselves with alleged scientific meaning; in reality, the terms are masquerading as science, and are potentially dangerous for use by planners and commanders. This paper addresses four of these terms: **systems**, **effects**, **center of gravity**, and **information**. These terms can be argued to be at the heart of the changes to JP 5.0.

The claim of this paper is that these terms as used and referred to in JP 5.0 are scientism that is the attempt to attach scientific meaning to meaningless words. Scientism in joint doctrine is dangerous for planners for two reasons: (1) it requires planners to spend more time on the details of the alleged meaning of these terms; and (2) it requires planners to practice bad science in attempting to come up with relatively objective and valid alternative courses of action from which a recommended course, with associated planning details, is chosen by the commander.

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[i] Carl von Clausewitz, On War, edited and translated by Michael Howard and Peter Paret: Princeton, New Jersey, Princeton University Press; 1976. Pages 595-596.

[ii] Quote attributed to Archimedes by Pappus of Alexandria in his Collections or Synagoge, Book VIII, C.E. 340, edited and published by Hultsh: Berlin; 1878. Page 1060.

Time and Details

The time-and-detail issue restricts the freedom of commanders and planners to fully express their operational art; this restriction leads to the need for explicit coordination and calculation which takes time and resources. Time and resources slow decision cycles, thus providing a foe a potential and critical vulnerability that he can exploit.

By introducing the concepts of **effects** added into the planning **system**, JP 5.0 makes it necessary for planners to distinguish these terms from those currently in use like output, measures of effectiveness and/or performance, and process. What will the planners use to distinguish one from the other? Will they be forced to drop one set of terms, and how will they know the dropped set is the appropriate one to no longer consider? Questions like this pose two challenges for planners: (1) time to reach consensus on the best practical method for incorporating the new terms; and (2) data requirements to meet the needs for the new methods and terms.

The JP requires planners to know, that is to have and manipulate data on, not just the "dominant characteristics of both belligerents" but to know critical capabilities, requirements and vulnerabilities necessary to incorporate into calculations of several **centers of gravity**, not just the one envisioned by von Clausewitz.[iii] Incorporating these variables into some form of analytic framework is supposed to yield a variety of centers of gravity across the relevant operational environmental system, defined by a series of sub-systems composed of social, political, economic, infrastructure, informational and military aspects.[iv] How will operational leaders and planners identify which centers of gravity take priority? What methods will they use to weight the centers of gravity in such a prioritization? What factors or variables will they use in their weighting methods? From what theoretical or pragmatic framework do such factors or variables arise? Are such frameworks relevant to the operational environment for which the planners are planning? These are significant questions, the answers to which can and will take time. Time is one tool that operational leaders and planners often do not have; in fact, one of the driving forces for revising the JP is the need for a fast planning and operational tempo reflecting the new post-Cold War strategic and operational realities.

When organizations face increased requirements to do things, it invariably necessitates the processing of new **information** within the same or less amount of time than they had before the changes. In turn, organizations exhibit stress which, in turn, forces them to adapt or collapse under the stress.[v] Planning staff collapse is not an option in the modern operational environment,

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[iii] See Joint Publication 5-0, Joint Operational Planning Final Coordination Draft; Washington, D.C., Joint Chiefs of Staff: 11 April 2006, pages IV-14 thru IV-20.

[iv] These groups of sub-systems are virtually the same as the tried and true STEP-M environmental components of long-range planning methodologies first developed in the 1970s. They have been found to work well in defining the relevant organizational environments for long-range planning, but are extraordinarily complex to define, analyze, and explore in analytic frameworks. For example, see James Morrison, William L. Renfro and Wayne Boucher, editors. Applying Methods and Techniques of Futures Research. San Francisco: Jossey-Bass, 1983.

[v] Three works that address very well the issue of organizations under information stress or overload are: (1) James Grier Miller, Living Systems. Niwot, Colorado: University of Colorado Press, 1995, Chapter 5; (2) Edgar Schein, Organizational Psychology, 3rd edition. Upper Saddle River, New Jersey: 1994, Chapter 13; (3) Joseph Olmstead,

so they must adapt.[vi]   Staffs, being organizations, adapt to information stress or overload in eight possible ways: (1) omission; (2) error; (3) filtering; (4) Queuing; (5) abstracting; (6) multiple channeling; (7) chunking; or (8) escaping (cutting off information.)[vii] Organizations use some or all of these means, and all have common costs in time, energy and matter (manpower).   Some of these ways, by their very nature, are dysfunctional. For example, omitting information can skew staff analysis towards a poor choice of a course of action; perceiving erroneous information and incorporating it into planning can lead to development of wrong alternative courses of action. The key factors here are once again the joint operational planning cycle, process or system slows down, offering opponents opportunities for preemptive action and the joint forces commander and staff develop inefficient, inaccurate and ineffective courses of action.

Bad Science and Meaning

The second danger for planners using these new terms is that these terms reflect bad science. The new terms either devoid of theoretic bases, lack clear scientific and analytic meaning, or provide duplicative analytic constructs, thus violating simplicity and elegance guidance for scientific, analytic pursuits.

Consider what **effects** mean: "an effect is a physical and/or behavior state of a system that results from an action, a set of actions, or another effect."[viii]   JP 5.0 points out effects can be either desirable (a necessary condition towards achievement of some objective) or undesirable (an inhibition against progress towards achievement of some objective. Effects, in other words, are what happen when a system produces outputs; they are the product of action.[ix]   But the language

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Battle Staff Integration, a monograph. Alexandria, Virginia: Institute for Defense Analyses, February, 1992, II-5 thru II-10; and (4) D. Michael Malone, "X=H," Carlisle Barracks, Pennsylvania: Task Force Delta Concept Paper, 1980.

[vi] In previous wars, there have been several examples of planning and operational staff collapse. For example, consider what happened to Admiral Raymond Spruance's staff during the Battle of Midway in June, 1942. Spruance inherited Admiral William Halsey's staff when he replaced Halsey as Task Force 17 Commander. Spruance believed in what we would call today staff empowerment; he expected his staff to work and left them to do their jobs. Halsey, on the other hand, was a micromanager, and left his imprint on staff operations. Without the micromanagement of Halsey, Spruance's battle staff became dysfunctional at the height of the battle, providing poor logistics, intelligence and operational details to both Spruance and his air commanders. Spruance effectively relieved his Chief of Staff, CAPT Miles Browning, when confronted with an argument between the Chief and the air commanders. Unless one can access original documents, following the sorry tale of the TF 17 battle staff requires patience and much reading, as official histories and memoirs have blurred what happened on the bridge of the Enterprise in early June, 1942. Recent books on Midway have cleared much of the blur away. For example, read John Lundstrom, The First Team: Annapolis, Maryland, Naval Institute Press; 1984, Part III. Also read Jonathan B. Parshall and Anthony P. Tully, Shattered Sword: The Untold Story of the Battle of Midway: Washington, D.C., Potomac Books, 2005, especially Chapters 8-11. Finally, read Alvin Kernan, The Unknown Battle of Midway: The Destruction of the American Torpedo Squadrons: New Haven, Connecticut, Yale University Press; 2005.

[vii] Miller, Living Systems, page 123.

[viii] JP 5.0, III-12.

[ix] Standard definitions for systems and system components can be found in Russell Ackoff and Fred Emery, On Purposeful Systems. Chicago, Illinois: Aldine-Atherton, 1972, Chapter 1. JP 5.0 defines a system as a "functionally related group of elements forming a complex whole," pg. IV-8. This is very close to Ackoff and Emery's definition,

of systems theory already incorporates the concept of effects through use of the term product, and the relationship of output to outcome (that is, the relationship between what is actually produced and what is desired to be produced).[x] Current doctrine has planners assessing these differences through use of measures of (system or operation) performance and measures of (operation) effectiveness developed during the Commander's Estimate of the Situation phase of operational planning; this methodology is consistent with what is taught in the operations research and systems analysis discipline.[xi] The use of the term, **effects**, as a key element of systems analysis, planning being one form of systems analysis, seems to be constrained mainly and perhaps only to the military profession. Effect is a confusing term, unnecessary, and duplicative.

Equally important, the use of the term **"effects"** in JP 5.0's **systems** approach leads planners to believe they can prioritize actions (through identification of **centers of gravity**) to achieve desirable effects. However, this completely contradicts the technical and scientific concept of a system in that "no part (of a system) has an independent effect on the whole and each is affected by at least one other part."[xii] Structurally, a system may appear divisible into parts, but functionally, Ackoff reminds his readers, "it is an indivisible whole in the sense that some of its essential properties are lost when taken apart."[xiii] One cannot tie a system's product, output, or effect, to any given part or center of gravity within the system. To do so would be to violate one of the foundational principles of systems: that of complete interdependence of system components and subsystems.   The new JP 5.0 cannot have it both ways and claim a firm, analytic basis to the doctrine it contains. What exists in JP 5.0 is scientism.

Having discussed **effects and systems**, it is appropriate to move to **center of gravity or CoG**. As alluded to above, the JP 5.0 concept of CoG is "the set of characteristics, capabilities, and sources of power from which a system derives its moral or physical strength, freedom of action, and will to act. The CoG is always linked to the objective. If the objective changes, the center of gravity also changes."[xiv] According to JP 5.0, there is at least one CoG at each level of war for each belligerent. It is considered an analytical tool to assist staff and commander to identify priority enemy strengths; please note that the CoG as an analytical tool most certainly cannot

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"a set of interrelated elements, each of which is related directly or indirectly to every other element, and no subset of which is unrelated to any other subset," p. 18.

[x] Ackoff and Emery, pp. 19-24.

[xi] For example, see Naval War College publication, NWC 4111G, Commander's Estimate of the Situation, Newport, Rhode Island: Naval War College Instructional Workbook, August 2004. Measures of Effectiveness (MOEs) are how planners assess whether a course of action (COA) has worked (achieved the objective(s)). MOEs or measures of performance (MOPs) are standard fare for evaluating any system according to operations research and systems analysis disciplines. This is the basis for cost-effectiveness analysis. See Robert T. Clemen, Making Hard Decisions: An Introduction to Decision Analysis, 2nd edition. Belmont, California: Wadsworth Publishing Co., 1996. Chapters 15-16.

[xii] Russell Ackoff, Redesigning the Future. New York: John Wiley & Sons, 1974. Page 13.

[xiii] Ackoff, ibid, page 14.

[xiv] JP 5.0, IV-14-IV-15.

simultaneously be considered a piece of art. What is the theoretical basis for such a conceptualization? From what analytic or scientific discipline did this CoG concept arise? For it must be such a discipline for there to be such an analytical tool, just as addition, subtraction, multiplication and division are analytical tools of the mathematical discipline of arithmetic.

The answer is short: there is no discipline from which the JP CoG method is derived, nor is there any empirical evidence that such an approach, however, elegant, yields any better, more accurate, more valid or more reliable CoG(s). The approach seems to be merely one logical means for taking into consideration capabilities and requirements. But, for CoG to be a useful analytical tool, it must have two logic aspects: its components (capability, requirements, strengths, weaknesses) must be complete, and they must be mutually exclusive.[xv] Now one must ask: when does a capability become a requirement, and visa versa? Does the murkiness and ambiguity of the component exclusivity and completeness problem become apparent? It should.

The JP 5.0 CoG concept is certainly not based on any original or derivate of Clausewitz's invention. Clausewitz built his concept on the old Archimedean principle of leverage.[xvi] A seesaw is a good analogy for what Clausewitz is trying to communicate to his readers. He wants readers to consider the systemic whole of both belligerents weighed against each other; the balance point on the seesaw between the two riders of equal potential energy and mass, exerting no kinetic force, is the physical center of gravity. If even the smallest extra amount of force, matter, energy, or information is applied to one side of that balance point, the seesaw will irreversibly tip, unless compensating force, matter, energy or information is applied. That is why Clausewitz insisted there is only one CoG; when comparing, analyzing, and weighing the systemic wholes of the belligerents, there is only one net result. That result is what the belligerents should focus on, the one to enhance and the other to inhibit.

If the JP 5.0 version of CoG is to have any prima facie validity, it must be that the authors consider Clausewitz's concept to be too constrained by dimensions and belligerents; indeed, it is a simple concept that is extraordinarily difficult and complex to put into action. JP 5.0 increases the dimensionality of CoGs (through interaction among political, social, military, informational, infrastructure, and economic networks). It clarifies the relationships for identifying CoGs (through use of capabilities, requirements, strengths, vulnerabilities). One might argue that the JP 5.0 concept of CoG produces a reliable, understandable identity (ies). However, it does so at the cost of undermining its validity. The JP 5.0 concept of CoG is extremely obtuse in concept, but relatively straightforward to put into action.

[xv] Analysis requires mathematics. These two aspects are necessary for any analysis to be operative. Read E.S. Quade, editor. Analysis for Military Decisions. Santa Monica, California: RAND Corporation, 1964. Chapter 8, "Methods and Procedures."

[xvi] No, Clausewitz did not expressly write that he was using Archimedian principles. However, his entire work has a foundation on the science of his time, that of the Newtonian cosmic clock and clockmaker, its dynamics and thermodynamics, its physics, its chemistry and its mathematics. Clausewitz's full description of a CoG is a very close verbal description of the Archimedian geometry of levers and balance. Read Hugh Smith, On Clausewitz: A Study of Military and Political Ideas. New York: Palgrave MacMillan, 2005, chapters 14 and 15.

Once again, this illustrates a case of bad science and analysis, albeit for a good cause. Human organizations seek to simplify their environments so as to simplify their need to adapt to the environment or to change the environment. This simplification can be understood as a pursuit of a reduction in uncertainty that enables the organization to continue surviving and succeeding. This drive for simplification leads to the last topic of this paper, **information**.[xvii]

Every one of the new concepts introduced by JP 5.0 calls for more information, processed and (correctly) analyzed quickly, to produce desired results (effects.)   As discussed earlier, organizations like staffs reach a point of information stress, called overload, which requires the organization to adapt or collapse. Joseph Olmstead, in his research for the United States Army across three decades, actually tested and measured organizational stress in battle staffs under simulated and real conditions; he found that the way a staff handles information in an overload situation explains and predicts organizational success (effectiveness) very well, using Edgar Schein's adaptive-coping model.[xviii]

Two problems confront organizations that attempt to use information as a means for coping with a given, relevant environment (like a battlespace): (1) the eventual information processing limit of the human brain, and (2) the ambiguity of meaning in information. Hardware and software technology improvements increase information bandwidth, defined as the number of channels across which information can be sent. Such improvements also increase the channel capacity of the bandwidth, defined as how much information can "fit" on each channel. Virtually all these improvements have focused on improving hearing and seeing senses. However, the human brain has evolved over the eons to incorporate and integrate perceptions of four regular senses (vision, hearing, smell, taste) and three somoesthetic senses (pain, touch/pressure, temperature.)[xix]

Information technology improvements overemphasize two human senses at the expense of the other five, and they over-stimulate, to the point of saturation, the two (vision and hearing) that are affected. Under these circumstances, human information processing degrades, tends to make more errors, filters or omits information, and generally takes more time to integrate its perceived information.[xx] The way that organizations like the military delay human information saturation is through information sharing, or collaboration. This is what staffs do. Nonetheless, there is a tradeoff for the "multiple channels" of staff collaboration: while more bandwidth and capacity can be accommodated, the time to process and integrate information increases because there are more humans with whom to develop and share a common understanding or meaning.[xxi] This is

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[xvii] We now approach the borders of modern scientific thought, where physics meets metaphysics. There is a growing literature on the convergence of information, physics, cosmology, mathematics, biology, sociology, and economics (to name only some.) Two excellent illustrative works are Richard J. Bird, Chaos and Life. New York: Columbia University Press, 2003, especially Chapter 9; and Hans Christian von Breyer, Information: The New Language of Science. Cambridge, Massachusetts: Harvard University Press, 2003.

[xviii] Olmstead, Battle Staff Integration.

[xix] Miller, Living Systems, pp. 377-389.

[xx] Ibid, pp. 453-462.

[xxi] Ibid. page 132.

why technological improvements to information systems often lead to less than predicted improvements in speed, effectiveness, or quality of actions.

An alternative to technological improvements in human information processing is possible: common training.[xxii] The challenge for effective use of training is found in the second problem with **information**: ambiguity in meaning. The Department of Defense Dictionary provides a straightforward, clear and consensual definition what information is: "(1) Facts, data or instructions in any medium or form. (2) The meaning that a human assigns to data by means of the known conventions used in their representation."[xxiii] This definition can be simplified to state that information is data plus meaning. Data is conducive to theoretical and empirical analysis. Claude Shannon and Warren Weaver have written the classic and still very relevant treatise on information as data, A Mathematical Theory of Communication.[xxiv] Their work has been the foundation of every modern application of information and communications technology. Shannon and Weaver first noted and mathematically defined the relationship of information (as data) and entropy (as disorder.) This finding in turn has led to modern theoretical work on information's relationship with energy, space-time, and mass.[xxv]

All this creative and experimental work, all this technology eventually flounders on the second part of the DOD Dictionary's definition of **information**: the meaning of information. Meaning is a very subjective concept, and science is all about objectivity. In the last decade, however, thinkers across several scientific disciplines have picked up on the very odd fact that humans live in what John Wheeler has called, "a participatory universe."[xxvi] What this means is that there is no objectivity possible: one's very existence influences the shape and content of reality in a dynamic fashion. The key to understanding how this relationship can be defined may be in the exploration of the meaning of information.[xxvii] This means re-conceiving what information means.

Some insightful thinkers have attributed system-like characteristics to information: information may be composed of message, material and means that can be prioritized, according to Arquilla and Ronsfeldt.[xxviii] Others have defined information in network-like terms that have led to the

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[xxii] Ibid. page 135. Also, Malone, "F=X," Mike McGee, "Battle Staff Integration," An Excel Net Concept Paper. Hampton Roads, Virginia: United States Army Training and Doctrine Command, 1985, and Olmstead, Battle Staff Integration, page II-9.

[xxiii] Department of Defense Dictionary, located at: http://www.dtic.mil/doctrine/jel/doddict/index.html. Accessed on 9 July 2006.

[xxiv] Urbana, Illinois: University of Illinois Press, 1949.

[xxv] For illustration, read Ilya Prigogine, The End of Certainty: Time, Chaos, and the New Laws of Nature. New York: The Free Press, 1996. Especially chapters 6 and 9. Also, Bird, Chaos and Life, Chapter 12.

[xxvi] Von Breyer, Information… pages x-xi.

[xxvii] Ibid., Chapter 23.

[xxviii] John Arquilla and David Ronsfeldt, editors, In Athena's Camp. Santa Monica, California: RAND Publishing, 1997, Chapter six, "Information, Power and Grand Strategy: In Athena's Camp - Section 1," pages 141-174.

development and maturation of network-centric warfare.[xxix]   While helpful, these lines of research either assume a common understanding of information, usually as a pyramid from data to wisdom with little or no definition of terms above the level of data, or they define information in terms of itself, that is using tautologies.

More recently, physicists have begun to consider information as a basic physical dimension of form, whose measurement scientists have only begun to explore. The measurements that are being studied are found in the deep mathematical caverns of quantum physics where knowledge is theorized as information, information theorized as quantum uncertainty, and that reality, therefore, is quantum-organized. If reality was not so, humans could not perceive or understand it.[xxx]   Some physicists and information scientists believe that information is the "place" where physics and consciousness converge.[xxxi]

The common threads in the spectrum of understanding the meaning of information are: (1) it is based on quantum physics, not Newtonian physics: thus, information is probabilistic, subject to uncertainty, likely subjective, highly and tightly interactive and interconnected with other basic dimensions and forces; (2) it is based on the perceiver who attempts to make sense of reality: reality in this case becomes neo-Platonic or neo-Aristotlean depending on one's preferences (there are forms that we cannot perceive clearly, and they are meaningful); (3) it is simple in concept, and until now, impossible to logically quantify.

All this arcane science and mathematics makes common training at best a difficult alternative and/or complement to technological improvement for processing information.   Difficulties abound, but they are not completely insurmountable as long as the consideration of information's meaning is left at a holistic, qualitative and macroscopic level. Military history has presented many cases where common training has succeeded in improving human and organizational information processing. One case of note is that of the Roman legion versus the Greek phalanx. The legionary formation was derived from the phalanx. However, the legion was a flexible, adaptive tactical formation in which all members were trained to commonly react to changes on the battlefield; the phalanx demanded little information sharing and training, and was an inflexible battlefield instrument.   The legions destroyed the phalanxes.[xxxii]
Similarly and more familiar to American military professionals, the Germans in World War I and World War II achieved great tactical and operational victories due in large part to the common training and education especially provided to their leaders. The use, or abuse, of the term

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[xxix] The Department of Defense C4ISR Cooperative Research Project (CCRP) has been a major source of research along these lines. Read, illustratively, David S. Alberts, John J. Garstka and Frederick P. Stein. Network Centric Warfare: Developing and Leveraging Information Superiority, 2nd Edition. Washington, D.C.: CCRP, 1999.

[xxx] Von Breyer, Information…, page 229.

[xxxi] Bruce Rosenblum and Fred Kuttner. Quantum Enigma: Physics Encounters Consciousness. Oxford: Oxford University Press, 2006.

[xxxii] Victor Davis Hanson, Carnage and Culture. New York: Doubleday, 2001. Pages 115-117.

"auftragstaktik" in the training of American ground forces is one illustration of this influence.[xxxiii] The success of American ground forces in close and complex combat in the very unfamiliar terrain of Iraq and Afghanistan can be at least partially attributed to the use of common training techniques.

Technology assists processing the data component of information; common training assists processing the meaning of information, or the higher levels of the information pyramid, for armed forces. The JP 5.0 version of information appears far more emphatic on technological solutions to increase the shared informational or so-called knowledge awareness among the relevant staffs and commands. This simply is not good enough for truly improved information processing, and dangerously attractive to senior leaders who are looking for panaceas and the quick fix to inherently complicated problems and situations that literally defy technological solutions.

Conclusions

This paper has addressed four contentious concepts in the new JP 5.0. These concepts, **effect**, **systems**, **center of gravity**, and **information**, have been discussed in terms of the details demanded of them and the meaning (or lack thereof) and bad science associated with them. The conclusion of this paper is that the joint community would be better off without the inclusion of these concepts and the necessary processes accompanying them.

The JP revision would be better served if the joint doctrinal authors would focus instead on two alternative concepts: (1) the ways and means to cultivate that Clausewitzian concept of "genius" through rigorous education and training of leaders at all echelons, thus focusing on cognitive and moral common training; and (2) the development of an operational and strategic science to accompany operational and strategic art in the spirit of J.F.C. Fuller and Clausewitz himself.[xxxiv] JP 5.0 spends an entire chapter on Operational Design, including Operational Art; there is no section on Operational Analysis or Science. Operational Art itself has been the subject of many articles, monographs, and books. One wonders whether the current generation of strategic thinkers and writers could take the time to recall a paraphrase from Fuller's work that: Art without Science is folly, and Science without Art is empty.

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[xxxiii] For example, read Bruce I. Gudmundsson's classic, Stormtroop Tactics: Innovation in the German Army, 1914-1918. Westport, Connecticut: Praeger, 1995. For the Germans in WWII, there is nothing to compare with Karl-Heinz Frieser's Blitzkrieg Legende: Der Westfeldzug 1940. Munich: R. Oldenbourg, 1995. Frieser's book has recently been translated and published as The Blitzkrieg Legend. Annapolis, Maryland: Naval Institute Press, 2005. The popularization of German operational terms like Auftragstaktik, Schwerpunkt, and Fingerspitzengefuhl with American forces originated with the Defense Reform Movement, headed by USAF Colonel John Boyd. Boyd's magnum opus, "A Discourse on Winning and Losing," was a briefing of several hundred slides that lasted several hours in its presentation. Its first part relied heavily on German operational thinking and associated terms. The latest version of Boyd's briefing can be found at http://www.d-n-i.net.

[xxxiv] J.F.C. Fuller. The Foundations of the Science of War. A Military Classic Reprint. Ft. Leavenworth, Kansas: United States Command and General Staff College Press, 1993.

Deans Corner
By
COL Fred Kienle

The Joint Advanced Warfighting School (JAWS) recently graduated its second class with a formal ceremony at the Joint Forces Staff College on June 16th, 2006. The graduation guest speaker, Admiral Sir Mark Stanhope, Deputy Supreme Allied Commander Transformation (NATO), presented a memorable address to the twenty-nine graduates, their families and the many guests in attendance. The twenty-nine Master of Science in Joint Campaign Planning and Strategy degrees were conferred by Dr. James Keagle, Provost and Vice President of Academic Affairs at the National Defense University. Over one half of the JAWS graduates are going directly to key Joint assignments where their newly enhanced planning competencies will be put to immediate use. See the names of the graduates on the following page. Congratulations to the JAWS Class of 2006!

JAWS recently received official Chairman of the Joint Chiefs of Staff (CJCS) certification to grant single-phase Joint Professional Military Education credit to JAWS program graduates. This certification, valid for two years, represents another significant milestone for JAWS. The certification comes as a result of a comprehensive accreditation process and a week-long on-site review by a CJCS-appointed Process for Accreditation of Joint Education (PAJE) Team. The PAJE Team found that the program meets all required standards and addresses all directed learning areas. The report provided to the CJCS noted that JAWS is a "JPME program that produces a cadre of military and civilian officers who have expertise in the joint planning processes and are capable of critical analysis in the application of all aspects of national power across the full range of military operations." The team further recognized the exceptional efforts of the JAWS faculty and JFSC supporting agencies in developing and delivering a high quality educational program within such a short span of time.

The upcoming JAWS class (2006-2007) will be seeing several firsts. The incoming class will be the first to have multinational students (from the U.K.), will be the first to extend through a full eleven month calendar and will be the first to expand to a third seminar. Construction will begin shortly on the new JAWS Learning Platform (classroom) to support the newly formed JAWS Seminar 3. To help accommodate (and educate) the additional seminar, Col Paul Melshen (USMC, Ret), PhD, will join the JAWS faculty team. Students are already reporting in and will begin class on July 24, 2006.

Finally, many thanks to our contributors and our many "subscribers." The JAWS Department of Operational Art and Campaigning *CAMPAIGNING* Journal is exceeding our expectations in terms of the quality of articles submitted for publication and the reach of readership in the Joint Planning Community. Our e-mail address group is growing exponentially and the dialogue generated as a result of *CAMPAIGNING* is informing and challenging our vital and unique community. This dialogue is important to our profession and, with your help, we can keep it going and growing.

JAWS Graduating Class of 2006

Mr. Chase H. Boardman, Department of State
LCDR Robert A. Casper, Jr, US Navy
LCDR Donald S. Cunningham, US Navy
CDR Francis W. Doris, US Navy
LtCol Jefferson L. DuBinok, US Marine Corps
COL Charles Flynn, US Army
COL Thomas K. Gainey, US Army
Maj Robin Gallant, US Air Force
Mr. Edward C. Garrant, National Security Agency
MAJ Gary R. Graves, US Army
Lt Col Darryle J. Grimes, US Air Force
MAJ Richard A. Hall, US Army
LTC Cheryl A. Harris, US Army
Mr. Dana P. Kabana, Defense Intelligence Agency
MAJ Scott W. Kelly, US Army
Maj Todd C. Kelly, US Air Force
LCDR Gregory R. Kercher, US Navy
Lt Col John A. Kimball, III, US Air Force
CDR Cary J. Krause, US Navy
LTC Charles S. Leith, US Army
LtCol Matthew A. Lopez, US Marine Corps
MAJ Jonathan C. Muenchow, US Army
LtCol John R. Parker, US Marine Corps
Maj John F. Price, Jr., US Air Force
Lt Col James R. Sears, Jr, US Air Force
Maj Daren S. Sorenson. US Air Force
Maj Robert P. Winkler, US Air Force
Mr. William J. Vancio, Department of State
CDR Peter G. Vasely, US Navy

JAWS Class 2005-2006 Award Winners

General Douglas MacArthur Foundation Thesis Award / Commandant's Writing Award - LtCol Jefferson L. Dubinok, USMC, *"Updating the National Strategy in Iraq: The Ideological Element "*

National Defense University Thesis Award / JAWS Dean's Writing Award - LCDR Gregory R. Kercher, USN, *"Peaceful Rise or Waking Dragon: China's Impact on United States Operations Following 9-11"*

OSD Office of Force Transformation Thesis Award - Lt Col James R. Sears, Jr., USAF, *"Incorporating Vision in Defense Transformation"*

Military Officers Association of America (MOAA) Excellence in Campaign Planning Award – Maj John F. Price, Jr., USAF

Congratulations to the Award Recipients and thank you to those who assist in recognizing our students' outstanding accomplishments.

Upcoming Events

24 July: First day of class for JAWS class of 2007

28-31 August: Gettysburg Campaign Staff Ride

13-17 November: Washington D.C. Field Research

28-30 November: SOCOM, CENTCOM, SOUTHCOM visits

20 December-2 January: Holiday Break

JAWS Operational Art and Campaigning Publications

The following campaign planning publications are available from the Joint Advanced Warfighting Schools, Department of Operational Art and Campaigning web site.

http://www.jfsc.ndu.edu/schools_programs/jaws/publications.asp

Case Studies

- Horatio Nelson and the 1798 Mediterranean Campaign

- The Mexican American War

War Plans

The following collection of war plans are from the Joint Forces Staff College Library. These are original World War II campaign plans that have been scanned electronically to enable easy accessibility by students of campaign planning. Each campaign plan consists of a back ground introduction (Word document) followed by the original plan in PDF format.

- Introduction Reno IV Outline Plan

    − RENO IV Outline Plan 6 March 1944

- Introduction Mindoro Operations Instruction NO. 74 MINDORO

    − Operations Instruction NO. 74 MINDORO 13 October 1944

- Introduction to Operation "ECLIPSE"

    − Operation "ECLIPSE" Appreciation and Outline Plan 24 November 1944

- Introduction Operation Plan 14-44

    − Operation Plan 14-44 Operation Iceberg 31 December 1944

- Introduction to Tarakan Island Operations Instruction NO. 99

    − Operations Instruction NO. 99 Tarakan Island 21 March 1945

Intent

The Joint Advanced Warfighting School (JAWS) is envisioned to populate the Joint Staff and combatant commands with a cadre of officers expert in the joint planning processes and capable of critical analysis in the application of all aspects of national power across the full range of military operations. Graduates will be capable of synergistically combining existing and emerging capabilities in time, space and purpose to accomplish a range of operational or strategic objectives.