Matching Investment to Strategy:
Preparing the Department of Defense for the Future

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The original document contains color images.
The new Bush Administration promises watershed changes for the military establishment beginning with a new strategy for the 21st century international environment. Its ongoing strategic review has been billed as a close scrutiny of forces and capabilities which may lead to disposing Cold War weapons in favor of forces oriented towards future threats. Transformation is the theme today although the end-state, if there is one, is uncertain. It is "presumably… a change in the structure and composition of the armed forces to become something new and more effective."\(^1\)

The question that needs to be asked isn't just about how the military should change -- it's about reshaping the Department of Defense (DoD) so that it can change and to adapt to new doctrine and threats. After all, the Department has been touting "jointness" for over fifteen years and progress in that direction has been slow.\(^2\) Expecting transformation from an organization that has found it very difficult to solve even basic interoperability issues for existing systems is extremely optimistic at best. The challenge becomes doubly daunting in that (1) there is no outside threat or peer competitor to act as a forcing function for change and (2) the current configuration of forces has been pretty successful in recent outings. There are unknown risks in moving from a successful and robust posture to something different.

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\(^2\) Michael C. Vitale, "Jointness by Design, Not Accident," *Joint Force Quarterly* (Autumn 1995): 25. Although the article was written six years ago, the shortfalls in joint training, requirements, and readiness persist. The sentiment was echoed by General Wesley Clark's article, "The U.S. Needs More Flexible National Military Strategy," *Inside Defense, November 23, 2000*. His comment was that U.S. forces are not very good at joint warfare despite ten years of emphasis.
Two elements may lie near the heart of the defense community's seeming rigidity. First, the strategic planning system -- the Planning, Programming and Budgeting System (PPBS) -- is embedded with outdated structures. The system was introduced to DoD in the early 1960's by then-Secretary of Defense Robert McNamara. Since then, it has changed little although over time its implementation has deteriorated. Second, DoD has failed to invest in organizational counterweights to shift the bias from the status quo to a change-receptive stance. Power in the Pentagon is held largely by the services and their conservatism is well-known. Despite efforts to strengthen other centers, such as the Joint Chiefs of Staff and the Office of the Secretary of Defense, true exercise of guidance has been an occasional, ad hoc, and negotiated process.

This paper examines the situation today, some of the obstacles to change, and the current problems in the DoD organization and strategic planning process. Most attention is given to a series of recommendations that, if implemented, would better link strategy and investment choices and help keep investment in change activities visible. The recommendations come in two categories. First, at the systems level, a revitalization of the PPBS is needed. Second, at the organizational level, responsibilities for transformation need to be assigned and supported with resources.

3 The article by Andrew Krepinevich, "Why No Transformation?" *The National Interest* (February 4, 1999) and available at http://www.csbaonline.org/4publications/…format/A.19990204.Why_No_Transformation provided a list of factors impeding change in DoD. These ranges from the short tenure of leaders and poor analytic tools to the refusal of individual services to give up systems critical to their identities (e.g., the Army giving up heavy armor.) Admiral Owens identified "military parochialism …. as the most serious obstacle preventing meaning reform of the Navy and the other services so that our combined services could adapt to the new world around us." William Owens, *Lifting the Fog of War*, New York: Farrar, Straus and Giroux, 2000:151.

4 The PPBS is the corporate strategic planning system -- not be confused with the Joint Strategic Capabilities Planning System (JSCP) used by the Joint Staff for deliberate campaign planning.

Enabling Transformation

"Often the problem is not so much coming up with new ideas but doing something with them."\(^6\) To successfully effect change in the Department of Defense -- whether it's described as jointness or transformation -- at least three elements must be in place. First, there must be top-level long-term support and clear direction. Corporate management must be able to describe the vision or end-state to be achieved; that vision should be shared by leaders throughout the organization. Within the DoD, the end-state should be mutually reinforced by the Chairman of the Joint Chiefs of Staff vision documents (e.g., *Joint Vision 2020*) and the Defense Planning Guidance signed by the Secretary of Defense.

Second, advocates and innovators must keep new ideas alive and visible within the strategic planning process. Most good ideas start off on a fragile upward turn of a sine wave of enthusiasm and exploration. If not fostered and tested, the idea quickly moves down the other side of the wave and is smothered and lost. The advocate's role is to gather, evaluate and systematically insert new ideas and approaches into on-going programs and plans. Proponents for change are the institutional supports to counteract a natural organizational tendency to keep doing "business as usual." For DoD transformation, a combination of the OSD staff and Joint Staff supported by Joint Forces Command (JFCOM) will serve a primary advocates.

Finally, resources must be directed to the change agents (the organizations) and designated transformation programs. Without dedicated money and people nothing happens. Joint experimentation, simulation and modeling programs for requirements validations, and joint training are areas where increased funding over time could boost the transformation process. Establishing or building up the three factors -- top level direction, systemic advocacy, and

resources -- gives us the azimuth for the needed corrective action. But first, we need to understand why transformation is the new imperative.

**Stretching the Dollars -- Why Transformation Is Hard and Necessary**

The call for defense transformation has been growing since the Gulf War victory. The National Defense Panel report on the 1997 Quadrennial Defense Review, emphasized the "need to launch a transformation strategy now that will enable [the U.S.] to meet a range of security challenges in 2010 to 2020."7 A whole literature of articles, books, and speeches has emerged on the topic. Most writers emphasize the changing external threats, potential of emerging capabilities, growth of asymmetric challenges and dynamic world environment. Sometimes overlooked is that fact that change is urgently needed to sustain military effectiveness in the absence of increased defense spending. Both strategic interests and funding constraints drive the answers to where and how U.S. forces may intervene around the world. These factors define the internalities: how many forces; how they are organized; and what ways and means are available to policy makers.

The Clinton Administration's priority was to reduce budget deficits -- and to do that, they continued cuts in defense spending.8 It chose to support readiness and engagement and deferred procurement of new systems. The Reagan build-up had left a legacy of weapons and platforms that afforded the opportunity for a 'procurement holiday'. That legacy is now nearly exhausted and the incoming Bush Administration, whose first priority is tax cuts, is in a very different

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8 Defense spending started declining in the mid-1980's under Reagan and continued with President Bush's effort to find a peace dividend. President Clinton kept the DoD budget on a downward glide path until 1998.
starting spot. They are looking at a military establishment that is heavily engaged overseas and burdened with an aging inventory and insufficient equipment pipeline.

The strategic review now underway at the Pentagon is supposed to come up with a strategy, and presumably new spending priorities, adapted to future world conditions. It's not the first try. "Similar reviews in 1991, 1993 and 1997 all set out to restructure the military -- and all failed. They did result in smaller forces and reductions in major weapons purchases. Yet the forces and weapons themselves changed surprisingly little."\(^9\) Conservatism in military thinking should not be surprising. There is a real reluctance to give up successful weapons and forces. It is a risk-averse culture with strong constituency networks built around institutions and programs.\(^{10}\)

Looking back, the DoD has managed to avoid change by feeding the current organizations and programs albeit on a highly restricted diet. However, in practice the resource management system is stressed: funds programmed for one purpose are spent on others. "To resolve the program-funding mismatch, Defense Department leaders continually shifted funds programmed for modernization to support current operations. This almost certainly is subversive of efforts at Service transformation. When, for instance, in 1994 the Navy 'volunteered' to go below its authorized fleet size in order to free funds to develop future capabilities, senior defense officials took much of the anticipated savings to offset budgetary shortfalls."\(^{11}\) Engagement strains the readiness paradigm because training and maintenance funds end up paying for deployments. To stretch available dollars over the most programs possible (actually terminating a program is rare), many initiatives are left funded at uneconomical production rates. As

described by Admiral Owens, "..the four service branches have shaved their budgets wherever they can -- postponing new equipment upgrades, making do with old technology and suffering serious personnel shortages -- rather than deal with the fundamental change in military policy that is required of them...It was a short-term bureaucratic victory that has sown the seeds for disaster."\textsuperscript{12}

One solution lies with increasing the defense budget now that the federal spending has moved out of the red into surplus territory.\textsuperscript{13} But those projected budget surpluses quickly disappear after paying for some of the Administration's higher priority initiatives. The proposed tax cut, social security set-aside, education, and prescription drug benefits are all competing with possible defense increases. Besides, the magnitude of needed additional funding may be simply politically unacceptable.\textsuperscript{14} Despite a defense budget today over $300 billion, the Congressional Budget Office estimates that, "to keep U.S. military forces in their current Cold War configuration, future administrations will have to spend $51 \textit{billion more per year} on defense than the Clinton administration is spending in fiscal year 2000."\textsuperscript{15} The price tag rises an additional $90 billion annually if existing equipment is replaced. Increases of this magnitude are simply not on the horizon. There is no immediate and significant external threat compelling such

\textsuperscript{11} Krepinevich: 5.
\textsuperscript{12} Owens: 39.
\textsuperscript{13} Others argue that defense is more than amply funded for a low-threat environment. "The U.S. today spends more on defense than the NATO allies, Japan, and South Korea combined. Our nation's $281 billion defense budget in 1998 (compared with the NATO allies' total of $202 billion) represented 34 percent of all world military spending, up from 30 percent in the previous decade. The Pentagon budget dwarfed the military spending of Russia ($40 - $64 billion) and China ($37 billion)." Owens: 3-4.
\textsuperscript{14} Some advocates have argued that defense spending should be tagged to a GDP level, such as the 6 to 7% of GDP that defense employed during the Cold War. This approach is backwards in that budgets are built to meet strategic requirements not to absorb specified levels of tax revenues.
massive defense spending increases and forcing the decision to drop the higher priority domestic initiatives.\footnote{The Administration is however interested in a new and expensive national missile defense system that will require additional billions. Estimates range from $60 to $90 billion over currently planned levels, without adding in the usual cost overruns and schedule slips.}

The choice is either continual starvation of the current system -- a status quo degradation of a force potentially mismatched to future threats -- or transforming to something different. The new Administration appears ready to tackle the tougher transformation path.\footnote{Richard J. Newman, "The Best Defense Is…What? Bush takes a Hard Look at Defense," \textit{U.S. News \& World Report} (February 19, 2001): 24.} President Bush included in the FY 2002 budget "$2.6 billion as a down payment on the research and development effort that lies ahead to transform the United States military."\footnote{Thomas Duffy, "Bush will Earmark $2.6 Billion More for R\&D in FY-02 Budget," \textit{Inside Defense} (February 13, 2001).}

The absence of funding added to the defense topline (at least so far) suggests two things. First, the Administration wants to secure the tax cut package before opening the dialogue on defense.\footnote{Expect the strategic review in DoD to be ready sometime after the tax package passes congressional muster.} Second, the military community may be in for some traumatic shocks. The only way that transformation can, in the long run, fit within a slow growth defense budget is to reduce DoD's appetite for mass, large production runs, and force structure. The high cost of stealth and precision will make large inventories unaffordable. Redundant weapons and logistics systems, large stockpiles of munitions, and base and range capacity will be too expensive. With transformation, these reductions should be acceptable because jointness, precision, and information superiority will compensate for added risk by making the smaller force more effective and efficient. The idea of skipping a generation of weapons to focus on new technologies is just a way of saying that the procurement holiday goes on a while longer -- and the Services will have to adjust.
Beyond succumbing to political budget pressures, the new Administration may be heeding the warning presented by Carl Conetta. He suggested that "the last thing the U.S. military needs today is more money -- because it would be a disincentive to what is truly required: transformation. Rather than pressing for fundamental change, successive administrations and the Congress throughout the 1990s have merely salved the maladaptation of our armed forces with emergency budget increases and supplemental funding."20

The Transformation Vision

"The overall goal of transformation … is the creation of a force that is dominant across the full spectrum of military operations -- persuasive in peace, decisive in war, and preeminent in any form of conflict… The joint force, because of its flexibility and responsiveness will remain the key to operational success in the future."21 This broad goal from the Joint Staff's vision document sets, in part, the direction that the Services should be following in the planning, programming and budgeting system. One would expect priority to be placed on the enabling concepts: Information Superiority22 and Innovation.23 The vision goes on to articulate key capabilities for the future force: interoperability, information operations, joint command and control, dominant maneuver, precision engagement, focused logistics and full dimensional protection.24 The net effect of creating these capabilities is captured in a fundamental change on the battlefield.

22 Information Superiority is defined as "the capability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same. Joint Vision 2020: 10.
23 Innovation is simply the "combination of new things with new ways to carry out tasks." Joint Vision 2020:13.
24 Joint Vision tiers these capabilities; for the purpose of this paper, a simpler presentation is adequate.
Joint Forces Command has proposed “Rapid Decisive Operations” as the framework for future campaigns. The U.S. will no longer engage in the predictable way of past conflicts: phased deployment, staging, taking the airfields and ports, moving progressively to key targets, and then about a week into the fight, taking an operational pause to regroup. Our adversaries are familiar with this approach and its inherent vulnerabilities. (For example, the U.S. military depends on access to port and airfields. Potential enemies know to deny that access, by chemical or biological means if necessary.) Instead, the new mode of engagement is rapid decisive operations characterized by immediate, simultaneous, unpredictable, and nonlinear attack. It attacks the coherence of an enemy's ability to fight by a synchronized application of the full range of capabilities across the width and depth of the battlefield. This mode of warfare requires clear communications across all elements, collaborative planning, and integrated -- not just deconflicted -- attack.

The U.S. military is years away from conducting this type of shock warfare at the joint level. A couple of anecdotes illustrate the vast gap between rhetoric and performance:

- In 1998, a prospective battle group (including the Hue City (CG 69) and the Vicksburg (CG 66)) was replaced because the assembled ships were not interoperable. The new Aegis cruiser, with the latest state-of-the-art systems, could not communicate reliably with the older systems due to poor configuration management and the failure to backfit. Here, the Navy unable to communicate with itself -- let alone with other Services or allies!

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26 The description provided is taken from the lecture given by General Kernan, Commander of U.S. Joint Forces Command, at the National War College, April 12, 2001.
27 This event was described in an interview with staff of the Joint Theater and Missile Defense Office working on interoperability issues, April 5, 2001.
• The Task Force Hawk deployment to Kosovo exposed a number of problems, including the large logistic footprint and delays in operational readiness. But fundamentally, the Army and Air Force could not work together in theater. "The story here is that joint doctrine is a colossal failure." The Army rejected adding their helicopters to the Air Force controlled "air tasking order." As related by Admiral Owens:

The Apaches were unable to integrate with support assets such as the E-8 JSTARS aircraft, the EC-130 Compass Call (radar) jamming aircraft and the F-16CJs equipped to defeat Serbian air defenses… Sixteen years after Grenada -- during which Army ground troops found themselves unable to communicate with Navy carrier aircraft providing critical close-air support on the battlefield -- the Army and Air Force assets rushed to Kosovo still could not communicate with one another… No one has ever serious envisioned including Army aviation into a theater strategic air campaign. Everybody trains, organizes, and equips to their service doctrine.. When the services come to a war, they come with their service doctrines, not a joint doctrine.

Fixing "joint" deficiencies is critical for transformation and full spectrum dominance. It means building joint doctrine, true system interoperability, collaborative planning tools, common views of the battlefield with netted sensors and communications, and joint training.

Transformation also will require breaking open some of the stovepipes that dominate the "organize, train, and equip" functions of the services. President Bush "sent a clear warning to the [services] by saying, 'When our comprehensive review is complete, I will expect the military's budget priorities to match our strategic vision -- not the particular visions of the services, but a joint vision for change.'" Planning, programming and budgeting should be done

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30. The concept of "full spectrum dominance" raises another set of issues. The challenge will be to find performance objectives for the Joint Vision 2020 elements. Without metrics that indicate success, "full spectrum dominance" could become a black hole for resources.
31. "Train, organize, and equip" are the legal Title X responsibilities given to the Services. This phrase has been used as a shield against unwanted direction, primarily OSD.
with joint capabilities and outcomes in mind. The illustration below captures the essential change in mind-set, responsibilities and planning that is required. Service core competencies will be assessed through the filter of what they bring to the joint fight.

Altering the defense community will be an uphill battle. Creating an adaptive, flexible, integrated and multi-dimensional fighting force out of an organization built on hierarchy, control, stability, career predictability, command and Service separatism will be tough. To succeed, the structures and processes underlying defense decision-making and resource allocation will need to adopt a bias towards joint action, change and innovation. Critical steps include revamping the resource structure so that investment choices are visible, capabilities are measured across Services, and a constituent network advocating innovation is developed and institutionalized. Altering the decision process is crucial; it is naïve to keep pulsing the same players and processes and expect different outcomes.

The challenge is to achieve the capabilities delineated in JV2020. Eliminate the stovepipe mentality and use a capabilities focus to achieve Joint Coherent Operations.

Our current institutional paradigms will not enable transformation.

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33 The illustration was created by Mr. E. Engle for a presentation done with the author, March 2001.
34 David Bond, "Change is a Hard Sell to Generals, Admirals," Aviation Week & Space Technology (March 12, 2001): 66-67
35 Perhaps the most important missing ingredient is trust. Commanders must 'trust' that supplies will, in fact, be delivered "just in time." Unit forces must 'trust' that other service elements in the integrated battlefield will be on-time and on-target. Without trust, people cannot let go of their stockpiles and service-unique systems. But that's a subject for another paper.
The Planning, Programming and Budgeting System

The PPBS is the corporate process that DoD uses to set goals, identify requirements and allocate resources to support the strategy. It was instituted forty years ago to:

- "Describe the strategic environment and define the military capabilities it requires,
- Allocate resources to meet identified missions according to established priorities,
- Integrate the military service programs,
- Formulate the annual defense budget." \(^{36}\)

Its success in meeting these goals has deteriorated. "The processes by which the Pentagon raises major issues and makes major decisions have become slow and ponderous." \(^{37}\) Today, PPBS does a poor job in most areas -- at best it does produce a budget each year. \(^{38}\) But that budget does not provide any insights into Departmental priorities or how the individual pieces of manpower, equipment and infrastructure work together to build capability and meet strategic demands. Failures in the process are, at least in part, responsible for the infamous strategy-resource mismatch of recent years. \(^{39}\)

To work effectively, the PPBS resource allocation process must identify imbalances and make choices visible for the decision-makers. The bridge between strategic priorities and applied resources must be clear. \(^{40}\) Only then can decision-makers evaluate trade-offs and assess the contributions that different systems or forces bring to the fight. At least part of the answer lies with opening up the traditional programming stovepipes and embedding "jointness" in the

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\(^{38}\) One other key characteristic of PPBS is that it generates requirements -- lots of requirements. Some on the OSD staff assert that the massive requirements list falling out of the PPBS process has been the most important factor protecting the magnitude of the defense budget in recent years. Without Service "wish lists" and unfunded needs, the Administration and Congress would have taken a firmer stance in seeking a "peace dividend."

front end of the process. Treating defense as an integrated enterprise rather than a collection of separate programs, could help move DoD past its status quo orientation.

Recommended changes to PPBS are:

(1) **Update the Major Force Program (MFP) list.** With the exception of adding "Special Operations" (as directed by the Congress), the Future Year Defense Program (FYDP) categories have not changed since 1961. MFPs provide a valuable look, across the services and agencies, at all the resources dedicated to broad mission areas. For example, "Strategic Programs" (MFP 1) collects all the manpower and fiscal resources dedicated to nuclear programs within DoD.

The list should be updated to give leaders more insight into the how resources are allocated across the spectrum of activities and whether resources are going to priority areas. In the Cold War, it may have made sense to divide military forces into "strategic" and "general purpose." Today, a better delineation would show major theater war forces (e.g., heavy armor) apart from lighter intervention and presence forces. Guard and Reserve Forces could be allocated to mission areas as part of the total force concept. The recent Space Commission (chaired by now-Secretary of Defense Rumsfeld) recommended establishing an MFP for space to help "make the Department's space program more visible and in providing accountability for space funding decisions." More visibility for support programs, the 60% to 70% of defense resources that support the warfighter, could improve analysis and lead to streamlining infrastructure. A proposed structure, more representative of current strategic concerns, is:

**Comparison of Present and Proposed Major Force Programs (MFP)**

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41 Defining where forces are counted becomes critical and should be adjudicated by the Joint Staff.
<table>
<thead>
<tr>
<th>Current List of MFPs</th>
<th>MFPs for the Future</th>
</tr>
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<tbody>
<tr>
<td>1 Strategic Forces</td>
<td>1 Strategic Forces</td>
</tr>
<tr>
<td>2 General Purpose Forces</td>
<td>2 Major Theater War Forces and Equipment</td>
</tr>
<tr>
<td>3 Command, Control, Communications and Space</td>
<td>3 Intervention and Presence Forces and Equipment</td>
</tr>
<tr>
<td>4 Airlift and Sealift</td>
<td>4 Special Operations Forces/Equipment</td>
</tr>
<tr>
<td>5 Guard and Reserve Forces</td>
<td>5 Strategic Mobility Forces/Equipment</td>
</tr>
<tr>
<td>6 Research and Development</td>
<td>6 Intelligence and C4I Programs (minus space)</td>
</tr>
<tr>
<td>7 Central Supply and Maintenance</td>
<td>7 Space Programs</td>
</tr>
<tr>
<td>8 Training, Medical, and Other General</td>
<td>8 Science and Technology Programs</td>
</tr>
<tr>
<td>Personnel Activities</td>
<td>9 Medical Programs</td>
</tr>
<tr>
<td>9 Administration and Associated Activities</td>
<td>10 Central Supply, Maintenance, and Sustainment Programs</td>
</tr>
<tr>
<td>10 Support of Other Nations</td>
<td>11 Personnel, Training, and Development Programs</td>
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<tr>
<td>11 Special Operations</td>
<td>12 International Activities</td>
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<td>12 International Activities</td>
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MFPs 1 through 5 represent the warfighting programs; 6 through 12 are largely infrastructure and support, the "tail" of the defense program. With secondary designators, this scheme could clearly depict how the resources align with the strategic initiatives of Shape, Respond, and Prepare. For example, shaping programs would consist of forward deployed forces (a subset of MFP 3) plus international activities. All warfighter programs could be attributed to response. In the future, MFPs could be expanded to capture emerging mission areas such as "homeland defense."

Within the MFPs, programs could be identified to specific mission areas such as "strike" or "ground maneuver." That information would help enable programming based on capabilities rather than platforms. With these database constructs, the leaders could quickly compare the magnitude of resources across capabilities and help allocate risk. For example, the true cost of the hedge force for Major Theater War could be measured against deficiencies in the Intervention and C4ISR arenas. Transformation programs could be identified separately within
the MFPs -- or collected in a new MFP 13 designed expressly to capture the resources spent on the enabling capabilities of Joint Vision 2020 (e.g., focused logistics and information operations).44

(2) Revitalize the Defense Planning Guidance (DPG). The DPG is the Secretary's guidance to the Services on what capabilities should be funded, developed and built in the near future to meet strategic needs. As a planning document, it should provide the top-level support needed for transformation initiatives -- and provide the benchmarks for grading the Services on their support for transformation. Instead, "The DPG provides insufficient detail to articulate a central vision and direction, identify the intermediate steps necessary to reach a desired goal, and define priorities either within or among the services."45 From personal experience in drafting DPG language, the process is painfully encumbered by efforts to either retain current verbiage or insert that one phrase that supports a new pet program. The result is vague guidance that directs more than is affordable and gives the Services the freedom to pick and choose which guidance to follow. Finally, the DPG is sometimes published after the Services have already substantially completed their annual programs, rendering it useless.

Three steps are necessary to make the DPG truly useful:

- Eliminate the working groups that draft the DPG. The participants have all mastered the bureaucratic slow-roll which produces a bland and nondirective consensus document. Establish a small OSD-level group that writes the DPG based on the National Security Strategy, National Military Strategy, and the Chairman's Program Recommendations.46 The latter document has

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44 Setting up a Major Force Program specifically for Jointness or Transformation may be counterproductive. Services would identify pet projects as "joint" to ensure high priority for funding. Over time, most programs would be in that category -- rendering the distinction useless.
46 The small staff injunction is invoked for 2 reasons: (1) simplify the writing process and (2) help break the bureaucratic mind-set that DPG is another target of opportunity for manipulating future budgets.
recently been formatted along the lines of the Joint Vision initiatives so it is easier to identify
critical transformation programs. Limit service participation to an advisory memorandum from
the individual Service Secretaries to the Secretary of Defense. With these parameters, the
Chairman's Program Recommendations would gain significance and could become a strong
advocacy document for Joint Vision initiatives.

- **Specify reportable goals and outcomes for each MFP.** The DPG is the first line of
defense against the strategy-resource mismatch; complying with its guidance must be affordable.
Do the front-end analysis establishing priorities for weapons and programs before the DPG is
published so that it is written with specific guidance for each MFP and sub-programs. Specify
outcomes and outputs for the program period for each MFP, and as possible, for each distinct
capability or mission area within the MFP. For example, set benchmarks for strike, ground
maneuver, and air superiority. Indicate the priority for the capability and the supporting systems
so that it is clear which programs should be fully funded versus those funded at higher level of
risk. Programs identified as essential for transformation could be designated as the highest
priority for funding.

Increased specificity elevates the DPG from a benign advisory document to true direction
and would, in effect, centralize key decisions that had in the past been left to the Services. There
are two other positive consequences: (1) it shift the time and place for articulating requirements
out of programming into the front end analysis phase and (2) by narrowing the guidance to
affordable priorities the DPG informs both the White House and the Congress of capability
limitations. It raises the strategy-resource mismatch issue out of the Service-level forum to a
more appropriate level.
• Issue the DPG on an as-needed basis, not as an annual event. Planning guidance, as a reflection of National Military Strategy, should be relatively stable expressing the priorities of capabilities needed. Modify it only if new technologies and new competitors emerge significantly changing priorities described in the DPG. Dropping the rote "time to do it again" schedule would (1) break the perception that the process runs the decision-making and (1) enable more time for analysis and preparation of meaningful guidance.47

(3) Allocate Fiscal Guidance based on Analysis. Fiscal guidance is the "top line," representing the total projected budget authority for DoD. This prospective funding level is set by the Office of Management of Budget for planning purposes after negotiation with DoD leadership.48 Traditionally, fiscal guidance is provided separately to each service and agency by memorandum. These memos tell the recipients how much money they should plan on spending over the program period (typically six years). Service allocations are very close to the level held in the current program.

For years the notion of budget share has damaged DoD's credibility that funds are actually placed against the highest priority requirements. The New York Times noted:

Neither the first Bush administration nor the Clinton administration dared break with the tradition of slicing the defense budget into unchanging shares for each of the military departments. From the end of the Vietnam War until the fall of the Berlin Wall, the Army claimed 29 percent of spending, the Department of the Navy 37 percent, and the Air Force 34 percent. Those shares remain essentially unchanged today; at most, 1 percent of the defense budget has migrated from one service to another since 1990. Indeed, much of what passed for military strategy in the reviews of the last decade look more like a rationale, invented after the fact, for equal defense reductions across the services -- reductions that failed to reshape the forces in any fundamental way.49

47 Henry Mintzberg, *The Rise and Fall of Strategic Planning*. New York: The Free Press, 1994: 62-65. Mintzberg describes lockstep nature of strategic planning at General Electric (in the early 1980s). He states that the "planning model specifies a logical sequence of steps that should be carried out in order to make the process come alive within a corporation" and then notes that "one is led to wonder how much of corporate life it killed instead."
48 Fiscal guidance is a political judgment balancing defense needs with domestic spending, tax policy and fiscal policy (deficit or surplus spending).
The supposed sanctity of the service budget share drove the shape of the Base Force concept proposed after the end of the Cold War. As noted by Admiral Owens,

Even [General] Powell could not challenge the long-entrenched separatism of the four armed services, which paralyzed the decision-making process. He knew that the Pentagon had no formal decision-making process through which he could even undertake a discussion of changes that would hit one service harder than the others. There would be a real fight if the Pentagon leadership were to cut the services disproportionately -- even it was the right thing to do. His position hardened into insisting on the imposition of equal cuts across the board as the only way to reach a compromise.50

In theory at least, the basic rule of resource allocation is to fund the highest requirements first. Dividing the total budget to protect a notional share of the resource pie, regardless of need abrogates that rule. It diverts money and manpower from high priority requirements to supports and protects lower priority programs. This tradition-bound concept that undermines strategic planning by looking backwards, not ahead.51

Two different approaches could alter the budget-share mind-set. First, "tiered programming" that illuminates priorities could be a near-term approach. For the long-term though, allocating funds by capability may be the best approach to reinforce jointness. Each approach is described below.

- **Tiered Programming.** With this approach, the services and agencies would be asked to submit their spending programs at 90%, 100%, and 110% of their projected fiscal guidance.52 By starting at a baseline level roughly equal to 90% of the current budget and then adding programs to reach the 110% level, the internal programming priorities would be more visible to the leadership. At a very rough level, the leadership would be able to compare what capability the Army would add for $2 billion versus shifting that funding elsewhere. It sidesteps a "bottom

50 Owens: 33-35.  
51 Budget shares would, most likely, change slowly given the magnitude and diversity of Service structure and functions. Dropping just one weapon system would not affect the total share significantly.
up" review by looking at marginal opportunity costs and benefits. The danger of course is that
gamesmanship takes over but firm guidance from the leadership may be able to dampen the
excesses.53 Tiered programming illuminates trade-offs in the short term allowing time to
develop the analytical frameworks needed for capability based programming.

- **Capability programming.** Traditional service lanes may no longer be the best
organizing principle for planning capabilities across an integrated enterprise. Instead, apportion
fiscal guidance based on Major Force Program requirements. Initial allocations would reflect the
services current funding share of each MFP. The baseline would be adjusted to reflect the
benchmarks and priorities in the published guidance. Two examples are offered:

  -- Align resources within a mission area to give priority to weapons and systems that
make the most contribution to success. The Joint Warfighting Capability Assessment (JWCA),
serving as staff to the Joint Requirements Oversight Council (JROC), undertakes mission area
studies to identify deficiencies and recommend improvements.54,55 Such analyses would be
useful for programming if the cross-service trade-offs, strategic priorities, and risks were
explicitly examined. These elements become more likely to emerge as budget pressures and
transformation strategies continue. The Joint Staff's "Deep Attack Weapons Mix Study"
(DAWMS) is a useful prototype.56 Fiscal guidance, held relatively constant at the MFP level,

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52 The concept of a tiered POM was suggested by Mr. Chuck Spinney, a member of the OSD staff, during a phone
interview in March 2001.
53 Most likely, critical joint programs and other "must have" programs would find themselves in the upper tiers
while lower priority programs, with strong Service constituencies, would remain safely within the 90% base.
Deliberations could then diverted from critical capability comparisons to a less fact-based negotiation looking for
political consensus and minimum compliance with DPG.
54 Hicks and Associates, Inc. study, "Joint Requirements and Resources Processes, Phase I Report." This study was
sponsored by the Director, J-8 (Force Structure, Resources and Assessment) the Joint Staff. (November 1999): 20.
55 JWCA mission areas are being reviewed and the proposed team structure (as of January 2001) is: Dominant
Maneuver; Precision Engagement; Information Superiority; Focused Logistics; Full Dimensional Protection;
Communications and Computer Environment; Intelligence, Surveillance and Reconnaissance; and Strategic
Deterrence.
56 DAWMS was an attempt to figure out which weapons were most valuable for the Deep Attack. It was not used
for programming resources because (1) the Services could not agree on the assumptions underlying the study and (2)
could transfer resources to the more productive, and therefore higher priority, systems. The advantage is that this perspective looks at DoD as an integrated effort, rather than a collection of unrelated programs.

-- At a higher level, resources would shift between MFPs in response to strategic considerations. For example, funding would move to the service(s) or agencies most likely to require additional resources to reduce deficiencies or take advantage of technological changes in that MFP. Funding would come out of a mission area with less associated risk.

Apportioning fiscal guidance based on MFPs links resources to the strategy because it ties funding to requirements articulated in the DPG. The deliberations shift to validating the requirements in a cross-service, mission area analysis. Aligning fiscal guidance to MFP needs should help identify the critical strategy-resource mismatches at the mission area level. This perspective informs the Department, the White House and the Congress as to the risks of shortfalls -- and holds the services and agencies responsible for performance within those fiscal limits. To successfully allocate fiscal guidance by MFP the leadership must have clear priorities and understand what systems and forces are most critical within each mission area. DoD needs to work on building the analytic resources for capability based programming. It can be done, but because it will expose interservice trade-offs and priorities, it will be contentious.

(4) Grade the Service and Agency Programs on Jointness. Putting reportable goals for jointness in the DPG won't make a difference unless the consequences of noncompliance are in place. Program review teams should frame issues around support for joint initiatives and evaluating cross-Service capabilities within mission areas.\footnote{During the FY 2002 Summer Review, funding shortfalls in the congressionally directed Millenium Challenge 02 Joint Field Experiment were studied. The Program Decision Memorandum added $30 million for Joint Field Experiments.}\footnote{During the FY 2002 Summer Review, funding shortfalls in the congressionally directed Millenium Challenge 02 Joint Field Experiment were studied. The Program Decision Memorandum added $30 million for Joint Field Experiments.} In recent years, Service balance
issues have looked at fund migration internal to each Service. A more useful optic would be to evaluate use of resources against specified objectives. For example, a "deep attack" review could assess whether those cross-Service capabilities are balanced and needed changes are addressed.

PPBS can be revitalized by realigning the FYDP to strategy, providing specific guidance, allocating fiscal guidance based on requirements and actually holding the services accountable for meeting objectives. These changes would reinstate PPBS system as a true strategic planning system -- not just a bureaucratic paper mill building an annual budget. In that light, a stronger PPBS process with clear direction would help improve the responsiveness of the Department to strategic and resources changes. It is a basic step in creating a more adaptable and accountable organization for the future.

Assigning Responsibilities for Transformation

Chain of command and unity of effort are basic military tenets -- but wholly absent from the transformation quest. The vacancy appears to be by design and is consistent with the slowly evolving role of JFCOM. The fact remains that because no one is fully responsible or accountable for making transformation work, transformation becomes a service or agency choice not an imperative. JFCOM has the lead for operationalizing the capabilities envisioned in Joint Vision 2020. But there is no enforcement mechanism to ensure the services follow. What's the

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Experimentation -- a step in the right direction but not fully funding the requirement. The problem was that the Congress accelerated an experiment planned for FY 2004. The budget requirements were still being worked developed during the program review. Rather than basing funding on poor estimates, the PDM kicked the issue to the budget cycle in hopes that better information would be available then.

58 In 1993, the Unified Command Plan assigned JFCOM's predecessor (USACOM) responsibility for joint training; in 1995, integration and interoperability were added; in 1999, JFCOM gained joint experimentation. Today JFCOM is a hybrid organization: charged with futures work but also the provider of trained and integrated joint forces.

59 The description provided is taken from the lecture given by General Kernan, Commander of U.S. Joint Forces Command, at the National War College, April 12, 2001.
problem? Three factors are readily apparent. First, the services object to intrusions into their Title X territory of "organize, train, and equip." Second, the services and CINCs may oppose establishing JFCOM as a "superCINC" with primary responsibility for determining future forces. The unstated collaborative approach is much less threatening to missions and systems. Finally, the Joint Staff is also responsible for future initiatives, experimentation and interoperability. Overlaps in responsibilities make it difficult to assign specific roles. Nonetheless, the task must be tackled. If no one is put in charge of pulling transformation together, it won't happen.

Recommended changes for strengthening responsibility and accountability are:

1. **Put Joint Discipline in the Requirements Process.** Validating requirements (materiel and other) determines the nature and size of future forces. It is the long-term key to jointness and interoperability. The Joint Requirements Oversight Council (JROC), assisted by the Joint Warfighting Capabilities Assessment (JWCA) teams have struggled with their responsibility to identify, validate and prioritize joint needs. Problems include:

   - Requirements are pushed, from the bottom up, by the Services rather than responding to mission area deficiencies identified at the joint level.\(^{60}\)
   - Requirements are reviewed sequentially rather than as part of a family of systems operating in a mission area.
   - The Joint Staff does not have a criteria for validating requirements. Scenarios vary, the services methodologies are inconsistent and analytic tools are weak.\(^{61}\)
   - Interoperability has been an afterthought rather an a critical performance parameter.\(^{62}\)

To remedy these weaknesses, the JROC staff must have the tools and operational architecture for modeling the capabilities of all service systems together in likely scenarios.

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\(^{60}\) The Services tend to see their systems in isolation and in perpetuity -- that is, old things in the inventory should, de facto, be upgraded regularly. Individual communities, e.g., armor and missiles, frequently push requirements so that that there is always some upgrade in the pipeline. Industry to feeds and accommodates this practice. The weakest element is playing all the upgrades together in scenario modeling to see how they fit, complement, or overlap with one another.

\(^{61}\) Problems in the requirements generation process are discussed at length in the study that Hicks & Associates, Inc. prepared for the Joint Staff, "Joint Requirements and Resources Processes," November 1999.
Such tools would enable comparative assessments and help avoid optimizing capability at the wrong level. Having the "state-of-the-art" system may be great by itself -- but it may not work well or be necessary in an integrated environment. At a minimum, every system should be evaluated in the *integrated, joint context for that mission area* before requirements are accepted.

The Joint Simulation and Modeling System (JSIMS), now in development, will be a distributed joint synthetic battlefield supporting training at the strategic-theater and operational levels of war for CINC and Joint Task Force staffs. It will integrate the models developed by the services and three intelligence agencies. Why not develop a version, under Joint Staff management, for modeling *proposed* systems?\(^{63}\) Each service and intelligence agency would upgrade their modules to reflect proposed capabilities -- and then let the Joint Staff play it out to see what difference it makes on the battlefield. This recommendation takes advantage of the Service investment in modeling by integrating their work in a common architecture. It is an essential capability for the JROC to understand and approve joint requirements.\(^{64}\)

(2) **Make Interoperability Failure an Acquisition Show-Stopper.** Interoperability is a "must have" performance parameter -- and it is surprising how often that requirement is waived or ignored. The solution is simple: failure to meet interoperability standards stops a program from moving to the next acquisition milestone.\(^{65}\) The JROC, in its role of supporting the Defense Acquisition Board (DAB), could enforce interoperability needs. Three characteristics should be evaluated. First, all new and upgrade software versions must fully comply with the

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\(^{63}\) The Joint Staff and JFCOM are sorting out tasks and responsibilities in requirements review. Establishing and maintaining a distributed synthetic modeling capability may be appropriate for JFCOM as an operational level, vice policy level, organization.

\(^{64}\) As long as the Services monopolize the modeling and simulation side, the Joint Staff/JFCOM won't be able to evaluate requirements in a joint context and set priorities.

\(^{65}\) In 1998, the ASD(C3I) recommended that DoD stop funding noncertified systems. That action got the attention of several program managers, who immediate sought waivers.
standard architectures being developed in concert with the Joint Staff. An 80 percent solution for interface requirements is not adequate. Second, upgrades must have a backfit capability for interoperability with older systems. DoD has to stop chasing its tail by creating new interoperability issues with each emerging software release. Third, DoD guidance already requires certification to ensure that C4I systems (across the services) are capable of exchanging information and operating effectively together prior to production and fielding. The GAO found that services and agencies are not complying with the guidance. The Defense Information Systems Agency (responsible for certification testing) estimates that many new systems are not submitted for testing and most upgrades are not certified.\textsuperscript{66} The J-6 is already assigned primary responsibility for ensuring compliance with the certification requirement. It's time for the JROC, and the DAB, to enforce it.

(2) Strengthen Joint Advocacy on the JROC. Within the JROC, only the Vice Chairman of the Joint Chiefs (VJCS) brings a joint perspective to the table. The other members, the vice chiefs of each service, provide only the perspective of their services. Despite its title, the JROC "is weighted towards Service rather than joint influence… and, more often than not, JROC principals seek to maintain the status quo."\textsuperscript{67} The quid pro quo is that service vice chiefs "routinely concur on the other's program recommendations … and often act as a brake on joint initiatives."\textsuperscript{68} Given that the JROC is hampered, if not crippled, in promoting jointness -- some organizational counterweights should be devised. Two solutions are proposed:

- Give the Commander, JFCOM a permanent seat on the JROC. Already tasked with leading the charge for transformation, the CINC (or the more likely attendee, the Deputy CINC) would provide another voice for jointness. JFCOM is developing unique expertise in joint

\textsuperscript{66} GAO Report NSIAD-98-73: 3.
requirements, interoperability issues, and experimentation. CINC JFCOM representation adds a new joint perspective to the table. Equally important, he brings the concepts of the long-term future battlefield into which systems will have to fit. The CINC JFCOM may speak freely in supporting joint programs, where the VCJS may for political reasons opt to not engage.

- **Add the CINCs as advisors to the JROC on issues related to their functional or regional areas.** Although distance renders it impossible for the other CINCs to routinely attend JROC meetings, their designated spokesmen could participate on relevant issues. The advantage is that the CINCs' representative is concerned about near-term joint capabilities and less concerned about supporting Service prerogatives.

  (3) **Add a Jointness Advocate to the OSD staff.** Some might argue that the last thing the Department needs is another narrowly focused Assistant Secretary of Defense (ASD). Nonetheless, an ASD for Joint Requirements, Integration and Training could be a valuable focal point on the civilian policy level working for visibility and resources. Placed on the Defense Acquisition Board and the Program Review Group, the ASD would be the Secretary's voice for transformation in critical acquisition and resource forums.

  (4) **Assign CINC JFCOM responsibility and resources for experimentation.** The joint experimentation program is the engine pulling transformation. It is the test bed for trying out future joint concepts and developing. Its mission is "to develop and implement an aggressive program of experimentation that fosters innovation and rapid fielding of new concepts and capabilities .. enabling U.S. armed forces to achieve and maintain Full Spectrum Dominance."  

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68 Hicks and Associates, Inc. study, "Joint Requirements and Resources Processes,": 7-8.
69 Hicks and Associates: 12.
70 The ASD(C3I), in conjunction with J7, has proved to be effective in forwarding work on system interoperability. That issue is central to developing the new "Global Information Grid" architecture.
71 The draft Budget Item Justification Sheet (R-1) for Program Element 0603727N, Joint Experimentation (September 2000).
Joint Experimentation (run by J9 at JFCOM) is a less than two years old -- and may have received a boost when Congress directed the Department to carry out a joint field experiment in FY 2002 that "exemplifies the concepts for organization, equipment and doctrine .. for future forces under Joint Vision 2020 and the current vision statements of the Service"\(^{72}\). JFCOM has had to scramble to put together the forces and funding that support the Millenium Challenge 2002 experiment and meet congressional deadlines.

The problem is that JFCOM is not in charge of the effort but acts as a facilitator, providing an experimental framework for the services to "shape and showcase their core competencies."\(^{73}\) JFCOM has designated the Millenium Challenge 2002 as an assessment of Rapid Decisive Operations; but for the most part, the Services are being solicited to bring their ideas. The collaborative approach is diplomatic, encourages Service experimentation, and engenders support. But it may not forward the key integration pieces that are essential to get to Joint Coherent Operations. Without working the joint piece, it is just the services doing their usual things in better ways.

The solution may be to strengthen JFCOM's authority over the direction of the joint experimentation program. First, the Department must provide sufficient resources to meet experimentation requirements; the program is currently estimated to be underfunded by about $20 to $30 million through FY 2007.\(^{74}\) Second, the services should fully fund the costs of their participation in joint experimentation. JFCOM will have to be able to provide them with a comprehensive outyear plan so requirements can be estimated and funds included in the program -- not taken out of hide at the last minute. Third, JFCOM needs the ability to influence Service


\(^{73}\) Taken from the USJFCOM pamphlet, "Joint Experimentation," (January 2001).

\(^{74}\) Taken from JFCOM's (J8) draft issue paper for the FY 2003 Program Review; not published.
experimentation programs. The best venue is through the JROC. Just as JFCOM provides its campaign plan annually for JROC review, the services should provide their five-year plans. With CINC JFCOM as a member of that body, the service plans could be reviewed for synchronization, efficiencies, and relevance to the joint experimentation effort.

(5) Follow Through! Incorporate VCJS-approved DOTMLP changes in joint doctrine, requirements and the Defense Planning Guidance. Following experimentation, the JFCOM staff writes a recommendation paper that describes the changes to DOTMLPF (doctrine, organization, training, materiel, leadership, personnel, and facilities) that must be implemented to gain the capability improvements. This paper is transmitted to the JROC for review. So far, just one paper, recommending improvements to attack operations, has been done. And here's the gap: there is no path for moving new ideas from experimentation to service or joint doctrine, programs and operational plans. Good ideas could languish for lack of interest, cost, or the ubiquitous 'not invented here' syndrome. Again, solutions are at hand:

- **Require positive action by the JROC.** Institutionalize a review and coordination process for DOTMLPF recommendations. Allow a month for papers to be reviewed by the Services and Agencies, then schedule a JROC meeting (or Joint Requirements Board meeting for small items) to consider the recommendation. Two outcomes follow: (1) JFCOM would get feedback on their experimentation efforts and direction and (2) the recommendations would be discussed.

- **Provide 'fast track' seed money for selected initiatives.** Eliminate cost as a barrier to adopting capability improvements by setting up a funding line (perhaps $5 to $7 million to start) for fast track insertion. Controlled by the Joint Staff or JFCOM, these funds would be available to the CINCs for rapid deployment of new concepts and technologies. For example,

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75 Congress has usually taken a dim view nonspecific funding lines. However, the Senate Armed Services Committee, Emerging Threats Subcommittee is interested in transformation and may support fast track funding.
collaborative planning tools, training materials, and relatively low cost equipment could be funded immediately. The services would be responsible for programming and budgeting for broader or the long-term implementation and sustainment. This recommendation speeds transformation initiatives and encourages CINC attention to the program.

- Following VCJS approval, insert DOTMLPF recommendations in training, doctrine, and the Chairman's Program Recommendation (CPR). Don't let good ideas flounder. After JROC discussions, the VCJS should designate DOTMLPF recommendations as either "implement" or "back to the JFCOM drawing board." Any recommendations accepted for implementation should then be included in the relevant training materials and doctrine manuals. If appropriate, directions on the recommendation should be included in the CPR, the Chairman's advice to the Secretary on the Defense Planning Guidance.

This set of recommendations, addressing responsibility and accountability, work to establish clear roles and incentives for the transformation process. The paradox is that the strongest advocates, the Chairman of the Joint Chiefs and the Joint Staff, are most vulnerable to conservative pressures within the military community. The military leaders grew up with strong service loyalties. Members of the Joint Staff are on limited assignments to that body and will return to their parent services. It is very difficult to carry the water for jointness when the people writing your performance appraisals and making decisions on your career have different perspectives. The Chairman and Joint staff roles are a mix of championing transformation while treading carefully to avoid offending Service prerogatives and initiatives. Despite setting up organization schemata to offset the Service preponderance of influence, jointness and transformation will depend upon the personal interests of the military leaders.
Conclusion

Joint Cohesive Operations, the goal of jointness and transformation, is DoD's likely strategy for the early 21st century. It presents force integration, rather than separatism or centralization, as the path in a future "where the cost and operational complexity of systems will increase substantially" but without commensurate increases in spending. The imperative remains effectiveness on the battlefield. The challenge will be sustaining enough centralized direction so that the services and agencies proceed together towards a transformed force.

To enable transformation, the Department will have to change itself -- strengthening the centralized direction while encouraging innovation and experimentation. Tough choices, requiring substantive analysis on future needs, lie ahead. To a large degree, "managing change is what national security is all about." The recommendations provided in this paper are a first step to improving our insight and foresight in managing transformation. They revitalize the strategic planning system and strengthen the bias towards jointness within the key military forum for requirements, the JROC. Jointness will eventually become not just a layer inserted in the warfighting structure or a buzzword attached to the front of any program -- but an integral part of training, planning, and thinking about military operations.

77 Rokke: 21.


Bond, David, "Change is a Hard Sell to Generals, Admirals," *Aviation Week & Space Technology* (March 12, 2001): 66-67


