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ON THE COVER: AMC Museum, Dover AFB, Delaware. The first strategic airlifter to operate at Dover, AFB, is represented by the single remaining C-54M, which was specially modified during the Berlin Airlift for hauling coal. The Skymaster's restoration was also quite extensive, and took several years. The inside shows examples of its World War II cargo and passenger configurations – and if parts become available will display how medical litters were carried in its Korean War role as a Medivac aircraft. During the restoration process, the museum was fortunate to find a photograph of this aircraft showing its military serial #44-9030 and the markings it carried in the Pacific Theater in World War II, which were still in place during her service in the Berlin Airlift and have been restored. Received into collection in November 1989.

WHITE PAPER

JCIDS: The New Language of Defense Planning, Programming and Acquisition

by Colonel Gregory P. Cook, USAF (Ret)

INTRODUCTION

The past decade has seen significant change in the way the Department of Defense and the Armed Services define and fund their operational requirements. While the traditional Planning, Programming and Budgeting System (PPBS) endures, the process by which operational requirements are determined and programmed is changing dramatically. Capability-based planning is moving to the fore, slowly but decidedly replacing the deliberate, scenario-based planning construct that dominated defense planning over the last several decades. Instead of the individual Services developing systems and capabilities based on their own priorities, the new process is driven by the needs of Combatant Commanders in a joint requirements context.

The post–Cold War security environment drives planners to favor capability rather than threat-based planning as part of a transformational strategy. However, the environment presents some significant obstacles. For example, current operations increase the stress on military institutions at the same time that DOD and Service leaders demand significant reform.

While certain aspects of the previous system remain, transformational efforts across DOD are beginning to bear fruit. The most significant change revolves around implementation of the Joint Capabilities Integration and Development System (JCIDS), which in effect increases the decision-making authority of the Joint Staff and the Joint Requirements Oversight Council (JROC) with regard to defense capabilities acquisition, albeit with wide representation and participation by the Services, the Office of the Secretary of Defense (OSD) and other key stakeholders throughout the federal government. Within the JCIDS construct, a new "language" in defense planning and programming has emerged. This article will describe the key components of the JCIDS process, elaborating on its new terms, major players, and the new bodies charged with carrying out its precepts.

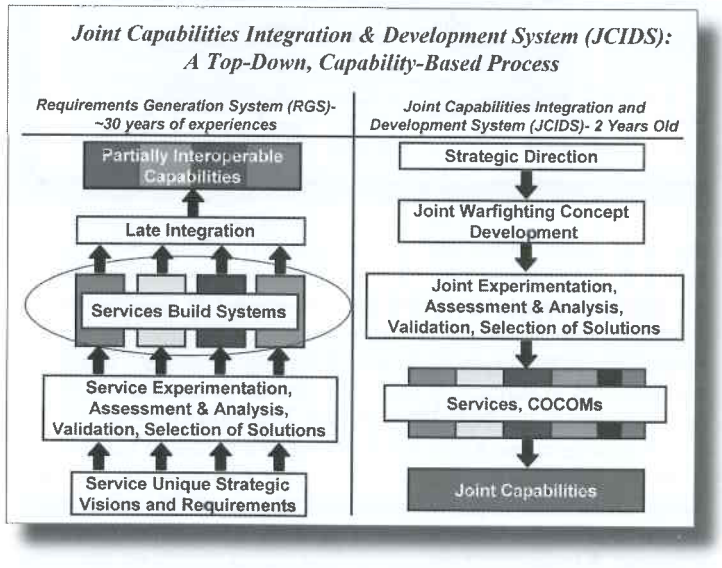
"Capability-based planning is moving to the fore, slowly but decidedly replacing the deliberate, scenario-based planning construct that dominated defense planning over the last several decades."

JCIDS replaces what was formerly known as the Requirements Generation System (RGS), and changes many of the terms associated with that system. It is based on the need for a joint, concepts-centric capabilities identification process that will enable joint forces to meet the full range of military challenges in the future. A key tenet for meeting these challenges requires that the U.S. military transforms itself into a fully integrated, expeditionary, networked, decentralized, adaptable and lethal joint force able to achieve what is known as "decision superiority."

To accomplish this transformation, DOD is implementing processes within JCIDS that assess existing and proposed capabilities in light of their contribution to future joint, allied and coalition operations. The process is expected to produce capability proposals that consider and integrate the full range of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) solutions in order to advance joint warfighting in both a unilateral and multinational context.

"Within the JCIDS construct, a new "language" in defense planning and programming has emerged."

JCIDS is designed to ensure that the joint force has the capabilities necessary to perform across the range of military operations and challenges. Recent operations have emphasized the necessity of integrated and interoperable joint warfighting capabilities. This process will establish the linkage between joint concepts, the analysis needed to identify capabilities required to execute the concepts, and the systems delivering those capabilities. JCIDS implements an integrated, collaborative process to guide development of new capabilities through changes in DOTMLPF and policy. Change



recommendations are developed, evaluated and prioritized based on their contribution to future joint operations.

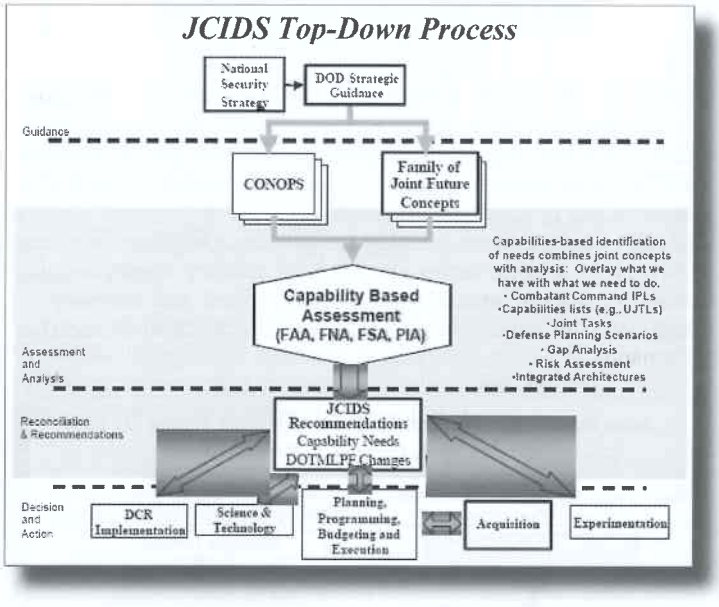
To achieve substantive improvements in joint warfighting and interoperability in the battlespace of the future, coordination among Department of Defense (DOD) Components is essential from the start of the JCIDS process. JCIDS should also improve coordination with other U.S. government departmental or agency staffs, and expands the potential for DOD capabilities to satisfy the needs of other government agencies and vice versa. JCIDS will provide a common coordination and integration process for DOD components working with other agencies and departments.

The procedures established in the JCIDS support the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Requirements Oversight Council (JROC) in identifying, assessing and prioritizing joint military capability needs. Validated and approved JCIDS documents provide this advice and assessment.

THE BIRTH OF JCIDS

JCIDS, the Defense Acquisition System, and the Planning, Programming, and Budgeting System (PPBS) form the principal DOD decision support processes for adapting and transforming the military forces to support the national military strategy and the defense strategy in accordance with DOD's vision of the future.

While PPBS has generally served DOD well, it has been criticized for becoming too bureaucratized over the years to adequately perform its intended purposes. PPBS was expected to forecast and describe



the most likely future strategic environment, define the military capabilities it requires, allocate resources to meet identified missions according to established priorities, i ntegrate the military service programs and formulate the annual defense budget. JCIDS may help DOD better define its near and long-term military capability requirements in support of the PPBS process. In addition, JCIDS is closely linked to the DOD 5000 series of acquisition directives

The drive to create JCIDS was born out of a memo in March 2002 from the Secretary of Defense to the Vice Chairman of the Joint Chiefs of Staff that requested a study on alternative ways to evaluate requirements. The Chairman of the Joint Chiefs of Staff (CJCS) approved the new JCIDS process on June 24, 2003 with the release of CJCS Instruction 3170.01C, which provides a top-level description of JCIDS and outlines the organizational responsibilities of key players and deliberative bodies involved in the process. Subsequent versions of the document continue to refine and evolve the JCIDS process.

As a new tool to jointly identify needed future concepts for the armed services, JCIDS replaces what was formerly known as the Requirements Generation System (RGS), and changes many of the terms associated with that system. Mission Need Statements (MNS), Operational Requirements Documents (ORDs), and Combat

"JCIDS may help DOD better define its near and long-term military capability requirements in support of the PPBS process."

Mission Needs Statements (C-MNS) are terms of the past. Several new documents satisfy similar requirements in the new process. An Initial Capabilities Document (ICD) replaces the MNS, a Capability Development Document (CDD) replaces the Milestone B ORD, a Capability Production Document (CPD) replaces the Milestone C ORD, and the Combat Capability Document (CCD) replaces the Combat Mission Needs Statement (C-MNS). CJCS Manual 3170.01 further defines performance attributes, key performance parameters, validation and approval processes, and associated documents.

In its methodology, JCIDS implements a capabilities-based approach that better leverages the expertise of all government agencies to identify improvements to existing capabilities and to develop new warfighting capabilities. This approach depends upon a collaborative process that utilizes joint concepts and integrated architectures to identify prioritized capability gaps and integrated joint DOTMLPF and policy approaches, both materiel and non-materiel, to resolve those gaps. The JCIDS approach aims to foster efficiency, flexibility, creativity and innovation in the acquisition process, and develops new capabilities for the Services by employing expertise from the government, the defense industry and academia in addition to traditional military contributions.

JCIDS increases the power of the Joint Staff and the JROC to decide which new weapons and technology capabilities will reach the hands of Soldiers, Sailors, Airmen and Marines. The JROC will provide influential guidance on materiel needs to ensure their jointness from inception, instead of acting as a reviewing body for Service submitted requirements. From the Service perspective, there could be concerns that reversing the system from bottom-up to top-down means losing control of what systems their Services have at their disposal. However, the dedication of the new process to joint experimentation, repeated and periodic proposal evaluations, and the diverse membership of the boards involved in bringing future capabilities to the total force should ensure that the Services receive the right systems to allow them to work and fight jointly.

This process aims to ensure that future capabilities are "born" joint, meaning that systems will enable and enhance joint operations from their inception, whereas the old requirements generation system was Service-centric with joint interoperability as an afterthought. JCIDS operates top-down, with functionally-focused teams centered on

"JCIDS replaces what was formerly known as the Requirements Generation System (RGS), and changes many of the terms associated with that system."

future capabilities and effects for the Joint Force. The process was designed to better identify gaps in capabilities and achieve joint solutions to fill those gaps. Regional and functional combatant commanders give feedback early in the development process to see that their requirements are met. Integration with the acquisition process and information sharing with departments and agencies outside the Department of Defense (DOD) and the Science and Technology (S&T) community will improve under the new system.

JCIDS POLICY GUIDANCE, JOINT CONCEPTS AND JOINT FORCE CAPABILITIES

The JCIDS process begins with strategic policy guidance obtained from the National Security Strategy, the Defense Strategy, DOD's Strategic Planning Guidance, and Joint Programming Guidance which also incorporate the department's transformation initiatives and vision for the future. Defense Planning Scenarios contained in the Strategic Planning Guidance provide the warfighting commanders a starting point from which a Family of Joint Future Concepts is derived.

The Family of Joint Future Concepts incorporates strategic guidance and enduring national interests through a series of concept documents. The Joint Operations Concept is written in order to provide overarching guidance to the joint concept community of how the future joint force should operate. This guides the selection, writing and development of joint operating concepts, joint functional concepts and joint integrating concepts. These concepts together constitute the Family of Joint Future Concepts. Developed from top-level strategic guidance, Joint Future Concepts provide a top-down baseline for identifying future capabilities. The Family of Joint Future Concepts is used to underpin investment decisions leading to the development of new capabilities beyond the scope of the PPBS. New capability requirements, materiel or non-materiel, must relate directly to capabilities identified through the Family of Joint Future Concepts, whose hierarchical nature and deliberate process require close examination of needed capabilities through an iterative process of assessment. Therefore, joint future concepts are not intended to provide immediate solutions but proposed solutions that can afford careful examination over a more extended period of time.

A Joint Operations Concept (JOpsC) is an overarching concept that guides the development of future Joint Force Capabilities (JFCs). It broadly describes how the joint force is expected to operate 10 to 20 years in the future across the range of military operations and in all domains. It emphasizes operations within a multilateral environment in collaboration with interagency and multinational

"The JCIDS process begins with strategic policy guidance."

partners. The JOpsC describes the proposed end states derived from strategy as military problems and the key characteristics of the future joint force. It provides the operational context for the transformation of the Armed Forces of the United States by linking strategic guidance with the integrated application of JFCs.

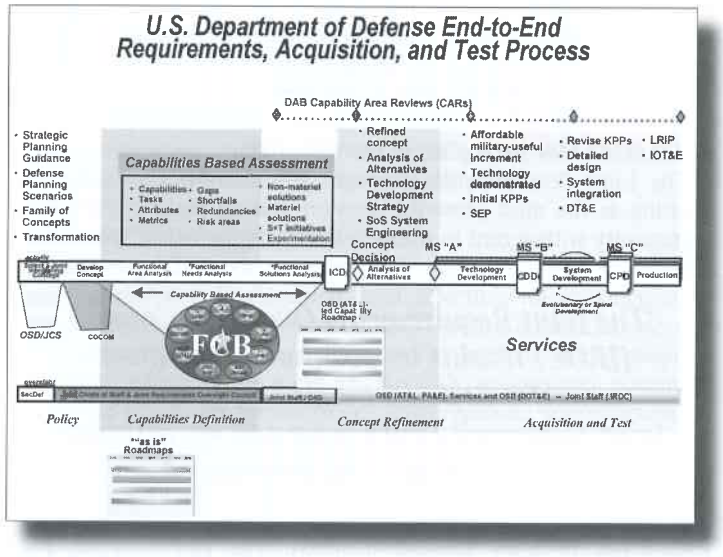
A Joint Operating Concept (JOC) is an articulation of how a future joint force commander will plan, prepare, deploy, employ, and sustain a joint force against potential adversaries' capabilities or crisis situations specified within the range of military operations. JOCs guide the development and integration of JFCs to provide joint capabilities. They articulate the measurable detail needed to conduct experimentation and allow decision makers to compare alternatives.

The Commander of US Joint Forces Command (USJFCOM) is functionally responsible to CJCS for leading joint concept development and experimentation by integrating joint experimentation into the development of all joint concepts. As the DOD Executive Agent for joint warfighting experimentation, USJCOM develops combined operational warfighting concepts and integrates multinational and interagency warfighting transformation efforts in coordination with other combatant commands. USJFCOM also coordinates the efforts of the Services, combatant commands and Defense agencies to support joint interoperability and future joint warfighting capabilities.

Concepts of Operations (CONOPSs) and joint tasks are focused on capabilities required in the near-term (now to 7 years in the future). CONOPSs and joint tasks allow the joint community to adjust or divest current capabilities by providing the operational context needed to substantiate current programs.

Joint commanders will integrate a set of related military tasks to attain capabilities required across the range of military operations. Although broadly described within the Joint Operations Concepts, they derive specific context from the joint operating concepts and promote common attributes in sufficient detail to conduct experimentation and measure effectiveness.

The JCIDS analysis process that follows identifies capability gaps,



capability redundancies, assesses the risk and priority of the gaps, and identifies an approach or combination of approaches to address the gaps. This is a collaborative analysis process that should leverage the abilities and knowledge of all DOD components and other resources, and contribute appropriately to the joint force commander's ability to most effectively deliver the desired effects.

A Joint Capabilities Document (JCD) identifies a set of capabilities that support a defined mission area as identified or specified in the Family of Joint Future Concepts, a CONOPS or in combatant command-assigned missions. Capabilities are identified by analyzing what is required across all functional areas to accomplish the mission, with gaps or redundancies ascertained by comparing the capability needs to the capabilities provided by existing or planned systems. The JCD will be used as a baseline for one or more functional solution analyses that will result in Initial Capabilities Documents or joint DOTMLPF change recommendations. It cannot, however, be used for the development of CDD or CPD documents. The JCD will be updated as changes are made to the supported Family of Joint Future Concepts, CONOPS or assigned missions.

"Joint Future Concepts provide a top-down baseline for identifying future capabilities."

Joint DOTMLPF Change Recommendations (Joint DCRs) are generated by combatant commands, Services or agencies when it is necessary to change joint DOTMLPF resources to meet a capability gap. The joint DCR focuses primarily on joint transformation efforts in the areas of doctrine, organization, training, materiel, leadership and education, personnel and facilities as well as policy. The joint DCR process focuses on changes that are primarily non-materiel in nature, although there may be some associated materiel changes

required. While it is recognized that DOTMLPF and policy changes are an integral part of any major acquisition program, those changes are addressed within the scope of the CDDs and CPDs and not through the joint DCR process. Joint DCRs are normally referred to as "non-materiel" solutions, while acquisition programs are referred to as "materiel" solutions. As innovation, new technologies, joint experimentation, joint testing, capability reviews, combatant commanders' integrated priority lists, warfighting lessons learned, and other processes spawn potential enhancements to operational capabilities, the JROC will review specific change recommendations for joint warfighting utility and programmatic implications. Based on the findings, the JROC will provide recommendations for CJCS review and action. The goal for implementing Joint DCRs is less than 18 months from submittal to the Joint Staff.

KEY PLAYERS AND THEIR JCIDS RESPONSIBILITIES

The Joint Requirements Oversight Council (JROC) retains its position as the most powerful decision making body in the Joint community with regard to operational requirements and programs. Chaired by the VCJCS, the JROC oversees the JCIDS process and

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prepares the Chairman's Program Recommendation (CPR) and Chairman's Program Assessment (CPA). The CPR provides the Chairman's recommendations to OSD for inclusion in the Joint Planning Guidance, and the CPA is the Chairman's assessment of the Service's Program Objective Memorandums (POMs) in accordance with PPBS. With membership that includes all four service Vice Chiefs, the JROC reviews programs designated as "JROC interest," supports the acquisition review process, and may review JCIDS documents or any other issues that have joint interest. The JROC will also review programs at the request of key defense leaders with significant acquisition responsibilities, including the Secretary of Defense, Deputy Secretary of Defense and others. In addition, the JROC determines which Functional Capabilities Boards (FCBs) will be established, disbanded or combined, and which functional areas are assigned to each FCB. Finally, it identifies the lead organization responsible for chairing each FCB. Official JROC correspondence that is generally directed to an audience external to the JROC is called a Joint Requirements Oversight Council Memorandum (JROCM). JROCMs are usually decisional in nature.

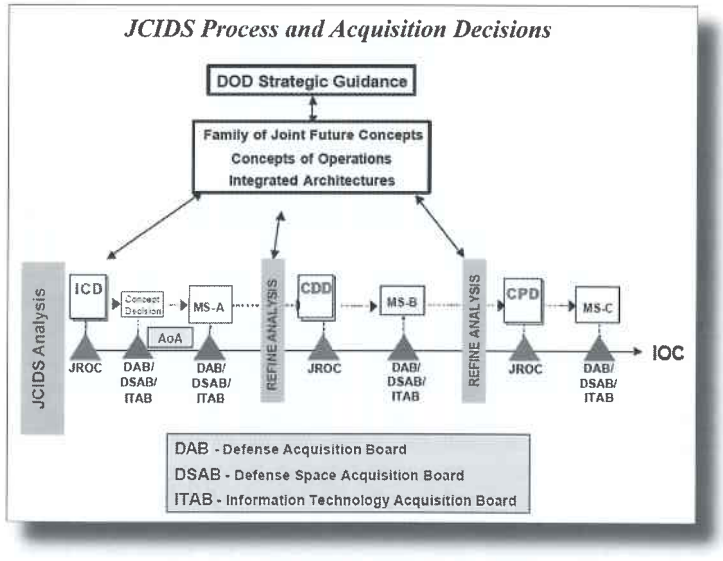
The Joint Capabilities Board (JCB) functions to assist the JROC in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all JCIDS-related and DOTMLPF proposals prior to their submission to the JROC. The JCB is chaired by the Director of the Joint Staff J-8 Directorate and is comprised of general and flag officer representatives of the Services.

The Gatekeeper is that individual who first reviews all JCIDS proposals and makes the initial Joint Potential Designation in accordance with JCIDS directives. The Gatekeeper also determines the lead and supporting FCBs who will have responsibility for capability proposals and any required supporting analysis. The Vice Director of the Joint Staff J-8 Directorate serves as the Gatekeeper, and is supported in these functions by U.S. Joint Forces Command (USJFCOM), other elements of the Joint Staff and the FCBs. The Gatekeeper assignment determines the body responsible for final validation and approval of a JCIDS document, any certifications that may be required, and the staffing distribution for the document. The gatekeeper periodically reevaluates the Joint Potential Designation throughout the process because changes in the proposed capability may require it to change as well.

Functional Capabilities Boards (FCBs). When the gatekeeper has completed the initial review, he or she assigns the analysis to a Functional Capabilities Board (FCB), a permanently established body that is responsible for the organization, analysis, and prioritization of joint warfighting capabilities within an assigned functional area. FCBs are responsible for ensuring that new capabilities are developed within a joint warfighting context, that proposals are consistent with the Joint Force as described in the Joint Operating Concepts, and are charged with validating Joint Impact proposals. They are also responsible for organizing, analyzing and prioritizing capabilities proposals, supervising development and updating of functional concepts, and ensuring that integrated architectures are reflective of their functional area. FCB chairs are usually at the brigadier general or equivalent level, while membership of an FCB includes the Services as well as representatives of the combatant commanders, key OSD staff, and the space and intelligence communities. This expanded membership gives the FCB chair the tools to make better and more broadly informed recommendations on the capability proposals to the JROC and involves the acquisition community earlier in the process than before.

The FCB will ensure that supporting analyses adequately leverage the expertise of the DOD Components, in particular, the Services, combatant commands, agencies, DOD laboratories, science and technology community initiatives, experimentation initiatives, non-DOD agencies and industry to identify promising materiel and non-materiel approaches.

FCB Working Groups provide analytical support for the FCBs. They perform the review and assessment of JCIDS documents, work with the sponsors to resolve issues and make recommendations to the FCB. In support of the JCIDS process, each FCB working group coordinates with and assists the sponsor during JCIDS document development to ensure cross-component synchronization of proposals, and that joint warfighting capability gaps are being



adequately addressed.

Within the JCIDS process, a Sponsor is expected to lead the JCIDS analyses required when developing an Initial Capabilities Document (ICD) in coordination and collaboration with appropriate organizations. They evaluate the affordability of proposals and approaches and coordinate with non-DoD departments and agencies on interagency capability matters. The sponsor should work closely with the appropriate FCBs during the analysis process to ensure the analysis is truly joint, and provide support to combatant commands and FCBs in developing Joint Capabilities Documents (JCDs). After developing JCIDS documentation, they present it for review by

decision making bodies, and resolve issues that arise during the staffing, certification and validation processes. A DOD Service component (or other organization that oversees the JCIDS analyses) usually acts in this capacity.

The Services also coordinate on JROC Interest documents and may review documents developed by other sponsors to identify opportunities for cross-component utilization and harmonization of capabilities. The Services retain responsibility for developing Service-specific operational concepts and experimenting within core competencies, supporting joint concept development with Service experimentation, providing feedback from the field, supporting joint experimentation, and providing joint testing and overseeing integration of validated joint DCRs.

Combatant Commanders. The combatant commands have been assigned specific mission responsibilities in the Unified Command Plan (UCP). They will comment on all JCIDS capabilities documents that fall within their assigned missions and act as an advocate or advisor to the JROC as required. The combatant commands are provided the opportunity to review and comment on all documents designated as JROC Interest before they are validated and approved. Combatant commands may also conduct JCIDS functional area and functional needs analyses and submit a JCD that identifies capabilities needed and gaps or redundancies that exist. The combatant command leverages the expertise of its components and may coordinate and receive assistance from a sponsor in this effort. In many circumstances, it may be appropriate for the combatant commander to identify initiatives to the responsible component, who may then coordinate appropriate analysis and documentation activities. Additionally, combatant commanders may independently conduct JCIDS analysis and submit capabilities documents. Combatant commanders have the opportunity to participate in all FCB deliberations, although it remains the responsibility of the combatant commander to exercise and coordinate their participation.

ANALYSIS - THE KEY TO JCIDS

The key to understanding JCIDS is its four levels of analysis and how proposals are steered through the process to support acquisition and programming decisions. Within the context of the top-level strategic guidance and the derived Family of Joint Concepts, functional areas are defined and assigned to the Functional Capabilities Boards. As JCIDS proposals are introduced by their sponsors, they are directed by the Gatekeeper to the appropriate FCBs and subjected to review and recommendation for further analysis. The JCB and JROC decide which issues will undergo full-scale analysis, and which may ultimately result in significant or major acquisition programs. Acquisition Categories (ACATs) determine the level of review, decision authority and applicable procedures that will be followed, and were established to facilitate decentralized decision-making and execution and to comply with statutorily imposed requirements. The largest acquisition programs fall into the ACAT 1 category.

Major functional areas, as defined in the Family of Joint Concepts, will undergo what is known as a Capabilities-Based Assessment (CBA) which consists of a Functional Area Analysis (FAA), a Functional Needs Analysis (FNA) a Functional Solutions Analysis (FSA) and Post-Independent Analysis. The results of the CBA are used to develop either a Joint Capabilities Document or an Initial Capabilities Document.

The Functional Area Analysis identifies operational tasks, conditions and standards needed to accomplish military objectives. It results in lists of tasks that must be accomplished and the types of capabilities needed to do them. The Functional Needs Analysis assesses the ability of current and programmed capabilities to accomplish the tasks identified in the Functional Area Analysis, under a variety of conditions and to designated standards. It results in a list of capability gaps that define what shortfalls exist across the joint force. The Functional Solutions Analysis then evaluates the range of possible solutions from an operational perspective, taking both materiel and non-materiel solutions into account. This level of analysis produces a list of potential need-based solutions. Finally,

"The key to understanding JCIDS is its four levels of analysis and how proposals are steered through the process to support acquisition and programming decisions."

Post-Independent Analysis by the various players in the JCIDS process results in the development of a JCD or ICD.

JCIDS ROLE IN THE ACQUISITION SYSTEM

Three new documents assist in defining needed capabilities, guiding materiel development, and directing the production of capabilities within the phases of the Defense acquisition system. The sponsor develops each document as analysis and subsequent acquisition decisions progress, and the JROC reviews each document before an acquisition milestone decision is reached. Some documents that were approved under the Requirements Generation System still remain valid, subject to certain exclusions.

The Initial Capabilities Document (ICD) documents the need to resolve a specific capability gap, or set of capability gaps, as identified through the JCIDS analysis process, usually a CBA. It replaces what was formerly known as a Mission Needs Statement (MNS). An ICD defines the capability gap(s) in terms of the functional area, the relevant range of military operations, the desired effects, the time required, and DOTMLPF and policy implications and constraints. The ICD summarizes the results of the DOTMLPF and policy analysis and the DOTMLPF approaches, both material and non-material, that may deliver the required capability. It is based on an analysis of the Family of Joint Future Concepts and CONOPS, or on the results of the analysis used to develop a relevant JCD. The outcome of an ICD could be one or more Joint DCRs or Capability Development Documents.

The ICD supports the concept decision, an Analysis of Alternatives (AoA), a technology development strategy, further refinement and/or development of integrated architectures, and subsequent technology development phase activities. ICDs should be non-system specific and non-Service, agency or activity specific to ensure capabilities are being developed in consideration of the joint context. The ICD corresponds to the initial phases of the acquisition system, known as the Concept Refinement and Technology Development phases, which result in concept refinement and Milestone A acquisition decisions.

After the approval of the ICD, integrated architectures and capability roadmaps must be developed and/or updated. If the solution is likely to result in an ACAT I acquisition program or if directed, the sponsor must conduct an Analysis of Alternatives (AoA). The AoA evaluates the performance, operational effectiveness, operational suitability and estimated costs of alternative systems to meet a mission capability. It assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables. The AoA provides key inputs for defining the system capabilities and identifies materiel approaches that should be recommended for further development at Milestone A.

AoA results are reviewed by the lead FCB to ensure that the refined concept or approach continues to meet the warfighter's capability needs and that appropriate attributes are designated as

Key Performance Parameters (KPPs). KPPs are those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the key characteristics as defined in the Joint Operations Concepts. In the absence of an AoA, the sponsor must be able to provide adequate analysis to justify the adequacy of the approach and to support the determination of the appropriate KPPs. All of this is included in the Technology Development phase of the acquisition process.

Upon completion of the Technology Development phase, which follows the Milestone A decision, the sponsor writes a Capability Development Document (CDD), which replaces the Milestone B Operational Requirements Document (ORD) in the old system. The CDD provides more detail on materiel solutions to fill the identified capability gaps, and defines the thresholds and objectives against which the capability will be measured. Guided by the ICD, the AoA, associated integrated architectures, capability roadmaps, concept refinement and technology development activities, the CDD captures the information necessary to develop a proposed program (or programs), normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of capability, an increment being a militarily useful and supportable operational capability that can be effectively developed, produced or acquired, deployed and sustained. Each increment of capability will have its own set of KPPs, with thresholds and objectives established by the sponsor with input from the user. The validated and approved CDD supports the development of related documents and the Milestone B acquisition decision.

The CDD provides the operational performance attributes necessary for the acquisition community to design the proposed system, and permit the test and evaluation community to evaluate the proposed system in anticipated operational environments. The CDD includes KPPs and other parameters that will guide the development, demonstration and testing of the current increment. The KPPs will be linked through the capabilities defined in the ICD to the key characteristics from the JOpsC. The AoA should be reviewed for its relevance for each program increment requiring a Milestone B decision and, if necessary, the AoA should be updated or a new one initiated.

In addition to describing the current increment, the CDD will outline the overall strategy to develop the full or complete capability. For evolutionary acquisition programs, the CDD will outline the increments delivered to date, the current increment, and future increments of the acquisition program to deliver the full operational capability as required. Once approved, the CDD guides the System Development and Demonstration Phase of the acquisition process.

During this phase, the sponsor develops a final document, the Capability Production Document (CPD), which addresses the production attributes and quantities specific to a single increment of an acquisition program. A CPD replaces what was known as the Milestone C ORD in the old system. The sponsor finalizes a CPD after design readiness review, when projected capabilities of the increment in development have been specified with sufficient accuracy to begin production. The validated and approved CPD supports the development of the required dependent documents and supports the Milestone C decision review before the program enters low-rate production and operational test and evaluation. The CPD narrows the generalized performance and cost parameters from the CDD into more precise performance estimates for the production system. The CPD must be validated and approved before Milestone C. The CPD provides refined operational performance, schedule, supportability and affordability attributes to ensure the increment adequately addresses the warfighter capability needs and the cost is commensurate with the additional capability.

Finally, because some analyses are based on future concepts not yet in the force, the JCIDS process still employs the Capstone Requirements Document (CRD) from the Requirements Generation System to describe standards that apply to classes of systems. The CRD contains capabilities-based requirements that facilitate the development of CDDs and CPDs by providing a common framework and operational concept to guide their development. As concepts develop, the JROC will retire existing CRDs, with new CRDs developed only when the JROC finds existing documents insufficient.

CONCLUSION: THE PROMISE OF JCIDS

The JCIDS process represents nothing less than the transformation of DOD's requirements generation process even as it continues to evolve. If its goals are realized, JCIDS will provide an enhanced methodology guided by national priorities and joint concepts to identify joint force capabilities required to meet and defeat current or projected threats to U.S. national security. It will identify and describe existing or future shortcomings, prioritize capability gaps, eliminate redundancies in warfighting capabilities, and identify the most effective approaches to resolving those shortcomings. It will provide better linkage to the acquisition system by engaging the acquisition community earlier in the capabilities development process, and it will improve coordination with other U.S. government departments or national agencies.

"The JCIDS process represents nothing less than the transformation of DOD's requirements generation process."

Implementing JCIDS requires increased effort at the onset, but if it operates as envisioned, Soldiers, Sailors, Airmen and Marines will reap benefits in the form of well-tooled, joint solutions designed with their needs in mind. Needed capabilities can be identified and solutions created within a joint context that capitalizes on each Service's strengths to create the best capability needed for joint warfighting commanders. Systems will be born joint, from the top down, instead of requiring retooling after the fact to provide sub-optimal solutions.

Based on the need for a joint, concepts-centric capabilities identification process, JCIDS will enable joint forces to meet the full range of military challenges in the future. As it meets these challenges, the U.S. military will necessarily transform itself into a fully integrated, expeditionary, networked, decentralized, adaptable and lethal joint force capable of defeating any enemy it faces.

Gregory P. Cook is a retired Air Force Colonel now engaged as an independent analyst, writer and consultant. His 25-year military career culminated with his assignment as Chief of the Studies, Analysis and Gaming Division in the Joint Staff at the Pentagon, where he led in-depth studies, analyses and exercises for the nation's defense leaders. Colonel Cook is a command pilot with over 3700 flying hours in strategic airlift, air refueling, operational support and training aircraft. He is a veteran of Operations JUST CAUSE, DESERT STORM, NORTHERN WATCH and IRAQI FREEDOM, as well as numerous humanitarian and disaster relief operations across the globe. During his military career, he commanded two Air Force operations squadrons and an Air Mobility Operations Group. He also completed three headquarters assignments at Air Mobility Command and the Air Staff in the areas of long-range strategy, plans and programs. A life member of the Airlift/Tanker Association, Cook serves as its Public Affairs Coordinator.