

MAKING JCIDS WORK FOR THE WARFIGHTER

BY

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USAWC STRATEGY RESEARCH PROJECT

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ABSTRACT

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All military acquisition programs begin with an identified and validated requirement. The Joint Capabilities Integration and Development System (JCIDS) as described in CJCSI 3170.01G is the joint guidance used to manage the requirements process. Recognizing many deficiencies in the process as outlined in the 1 MAY 07 instruction, a complete re-write was undertaken and signed into implementation on 1 MAR 09. This revision streamlined the process but the current system, as implemented by the Joint Staff and the Army, in accordance with Army Regulation 71-9, is still too time-consuming to support the joint warfighters' needs in an environment that is technologically complex and rapidly changing. Furthermore, the current Army organization for requirements generation often results in requirements that are not producible at an affordable price or on a schedule that supports the warfighter. The Army must embrace greater service inter-dependence and institute a more disciplined and restrained requirements process by streamlining its own organization and procedures and by involving its most senior leaders more frequently and earlier in the process.

MAKING JCIDS WORK FOR THE WARFIGHTER

Does the current Acquisition system adequately support the joint warfighters' needs by providing material solutions to fill current and future capability gaps at an affordable price? Since the Department of Defense (DoD) was established in 1947 and particularly in the last 30 years, there have been many studies, panels, and reports commissioned by various Presidents, the Congress, and the military itself to try to make the Acquisition system more responsive to a rapidly changing world of technology and threats while eliminating waste and abuse. The results of these studies have changed the system around the edges and have arguably brought some much needed reform to the actual procurement process. However, these reforms have had limited success in improving DoD's ability to meet warfighters' requirements quickly and efficiently.

The real questions are whether or not changes to the DoD 5000 series have really benefited the joint warfighter? Have they positioned us to meet tomorrow's requirements? Is the Army's system for determining requirements meeting the joint warfighters' needs? Recent acquisition changes began with the signing of the first DoD Directive (DoDD) 5000.1 by then Deputy Secretary of Defense Packard in 1971. In the intervening 39 years, the 5000 series has changed fourteen times with countless smaller changes to the extensive collection of joint and service implementing instructions, directives, and regulations.

Acquisition reform certainly pre-dates the 1971 effort including the very successful Truman Commission during WWII. However, this paper will only examine those efforts that contribute to the efficiency of the modern joint Acquisition process. It could be argued that this began with the creation of the Department of Defense in 1947

but the implementation of the DoDD 5000 series was the first serious modern attempt at Department wide Acquisition reform. This study will: 1) begin with a review of the various changes to the joint Acquisition process with particular emphasis on changes to the requirements determination, documentation and approval process the services and joint staff use; 2) examine several key studies that have impacted the Acquisition and requirements processes; 3) discuss the technological challenges facing the Warfighter and the Acquisition community; and, 4) provide some recommendations for future reform.

Five of the fourteen changes to the DODD 5000 series had significant impact on the requirements portion of the Acquisition system. The original DoDD 5000 series published in 1971 (figure 1) was an eight-page document that required three DoD level decisions, or milestones. It also created the first of the Acquisition oversight panels, the Defense Systems Acquisition Review Council (DSARC).

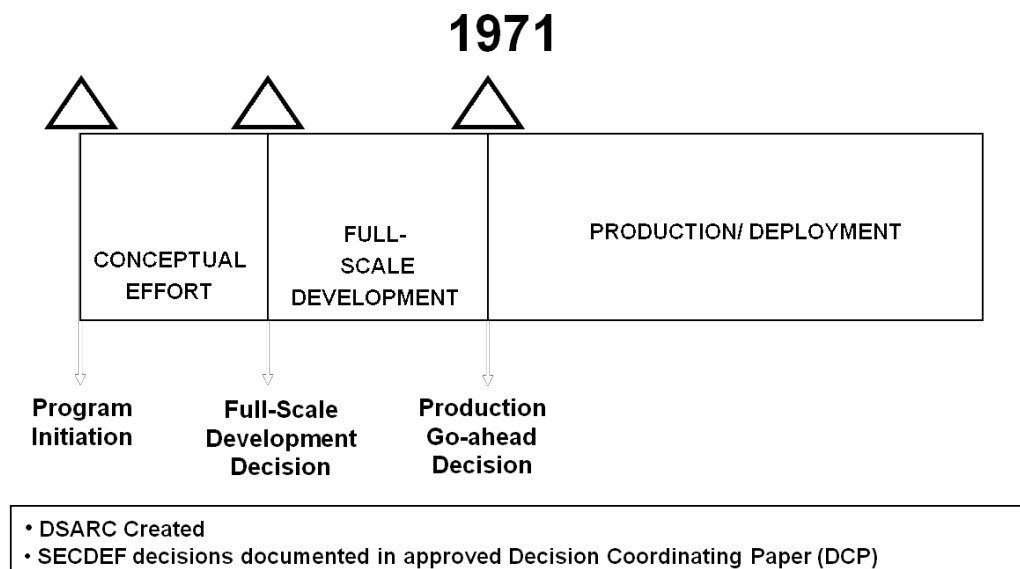


Figure 1: The original DODD 5000 series¹

The 1977 update (figure 2) created the first DoD level requirements document known as the Mission Element Needs Statement or MENS. The MENS was replaced by the Operational Requirements Document (ORD) in 1991 (figure 3).

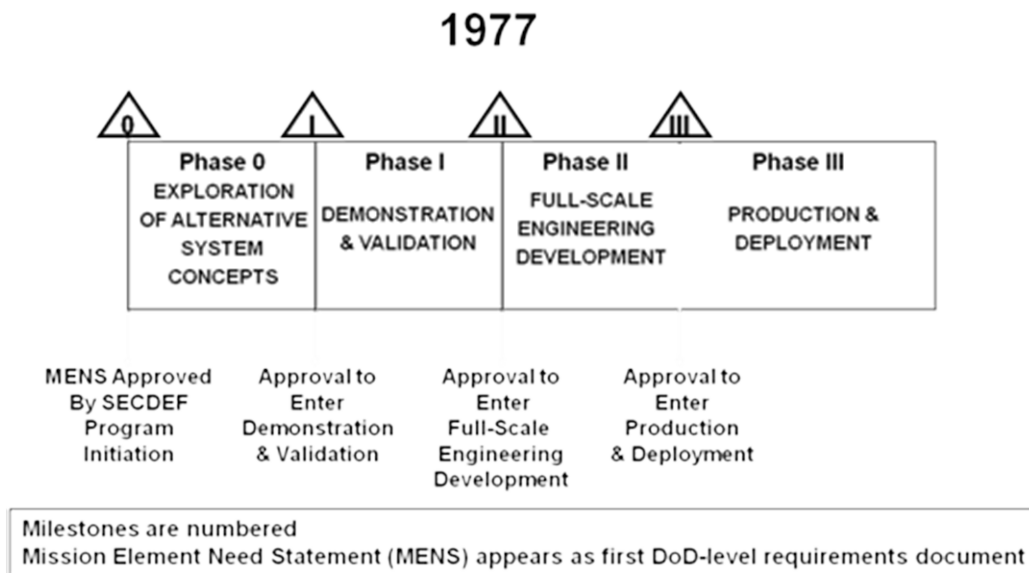


Figure 2: The 1977 version adds the first DoD wide Requirements document known as the Mission Element Need Statement²

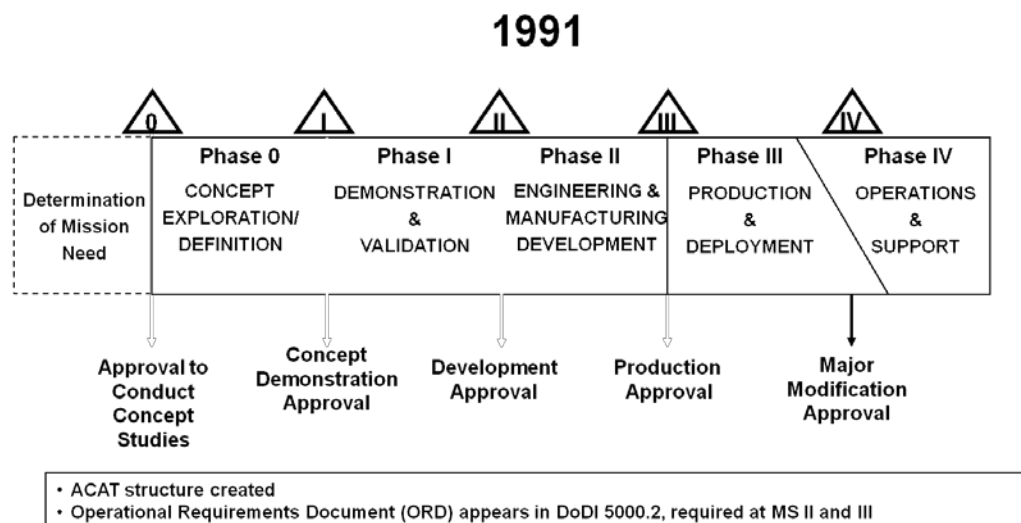


Figure 3: The 1991 version introduced the Operational Requirements Document³

Though there were major changes in 1980, 1982 and 1985 when the Joint Requirements Oversight Council (JROC) was formed, the replacement of the MENS with the ORD was a significant change to the documentation of requirements. In 2002, all DoDD 5000 series documents were canceled, interim guidance was issued and in 2003, an entire revision was issued along with the introduction of the Joint Capabilities Integration and Development System (JCIDS) (figure 4).

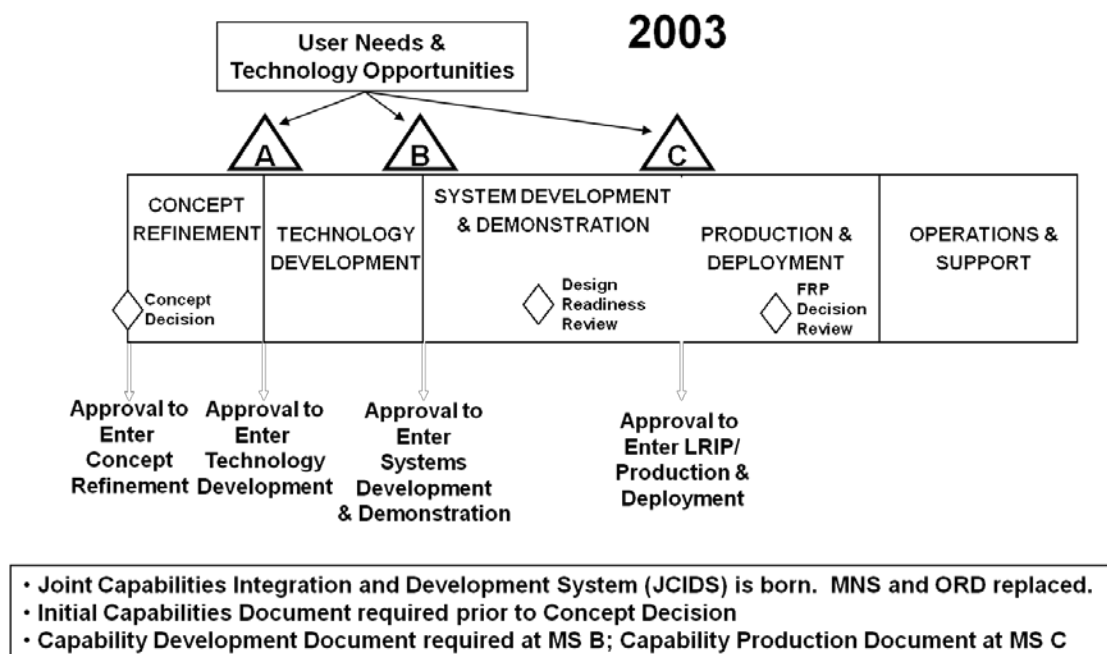


Figure 4: The 2003 version constituted a complete re-write and introduced JCIDS⁴

JCIDS replaced the ORD with three new requirements documents - the Initial Capabilities Document (ICD), the Capability Development Document (CDD) and the Capability Production Document (CPD). The current DoDD 5000 series (see figure 5) is over ten times the length of the original at ninety pages, down from a high of over 800 pages in the early 90s. It directs five phases and now requires seven DoD level reviews of over fifty requirements.

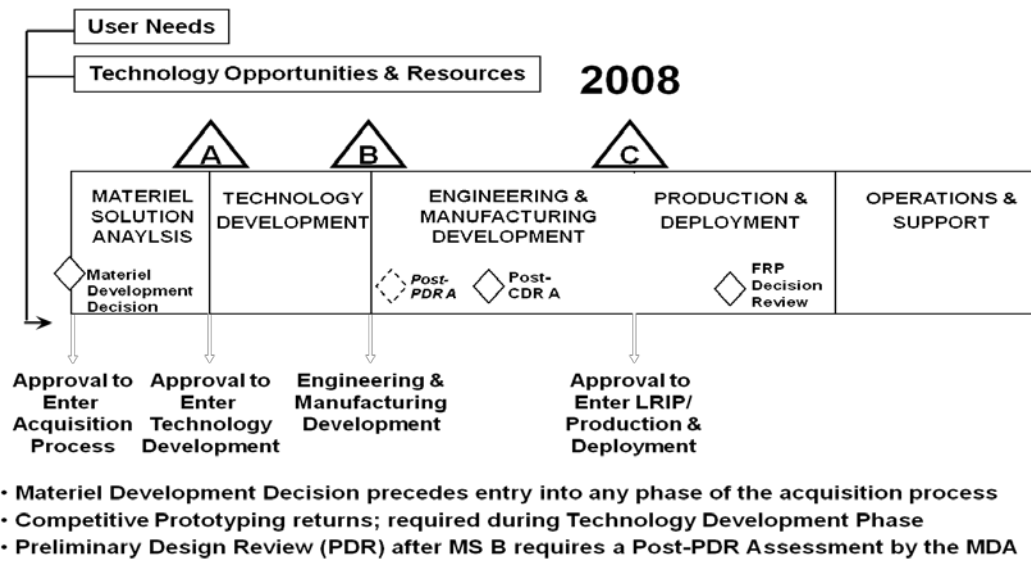


Figure 5: The current requirements system as introduced in 2008⁵

Figure 6, from the working draft of *the Reno Report*, illustrates the linkage between JCIDS and the Acquisition process.

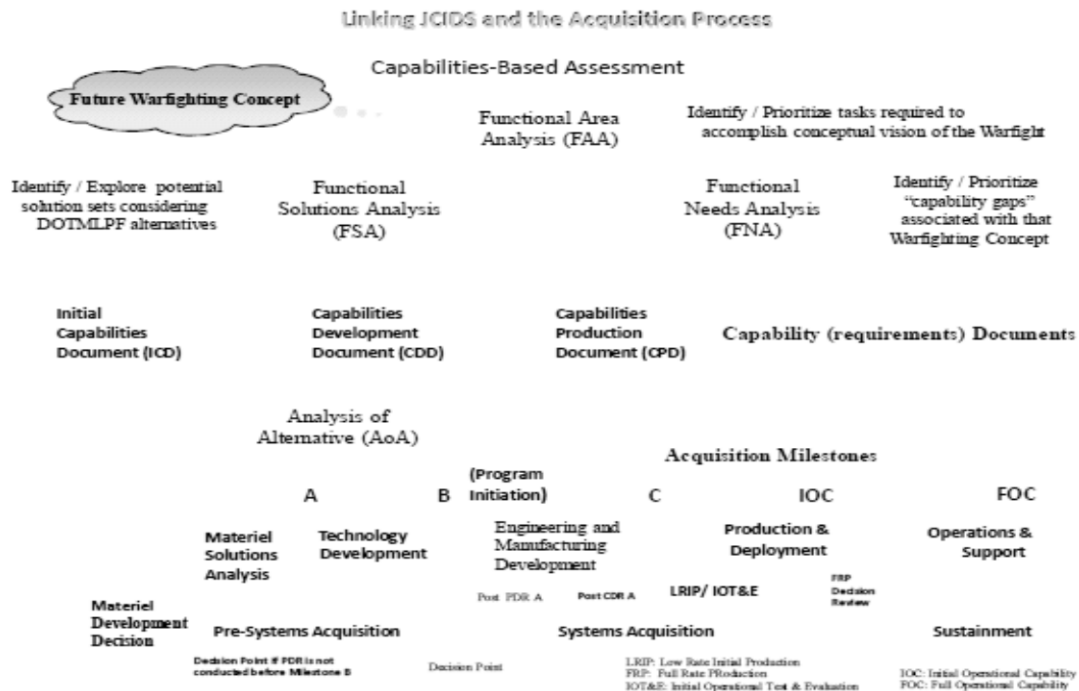


Figure 6: Link between JCIDS and the Acquisition process⁶

The changes to the Acquisition process described above were in response to several internal and external (to DoD) studies and commissions. The primary reports effecting Acquisition reform include: *A Quest for Excellence* also known as The Packard Commission, in 1986; the Acquisition Reform – *President's National Performance Goals 2000*; *the Joint Defense Capabilities Study*, also known as the Aldridge Report, in 2004; and most recently for the Army, *the Reno Report* that was completed in the summer of 2009, the effects of which are as yet unknown. Many of the same shortcomings are identified in each of the studies. The following paragraphs will summarize the relevant deficiencies identified in these studies.

In 1986, the first study released, by the Packard Commission, found that there was insufficient linkage between requirements, warfighters' needs, and national strategy. It also stated that the Acquisition system was overly burdened with oversight and bureaucracy. The commission argued that there were significant budgetary pressures from Congress and DoD to determine how much a solution would cost before answering the more critical questions of what it was for, why it was needed, and how well it should perform. The report identified that the requirements determination and development system overstated requirements and understated costs. This process led to material solutions that were inherently over-budget, behind schedule, and as a result, often obsolete by the time they were fielded.

The commission made six recommendations, the first five of which were directly relevant to the requirements determination process of Acquisition; the sixth dealt with materiel development. The report's first recommendation was to establish a clear responsibility for the program resting with a program manager who enjoys a "short,

unambiguous chain of command to... decision maker.” Secondly, the report recommended that programs require stability. There should be an early contract to set cost, performance, and schedule - then the program must be supported to attain those goals. Third, DoD should minimize as much as possible, the reporting requirements so long as the program is proceeding on plan. Fourth, there should be a greater emphasis on smaller, high-quality staffs. The study authors suggest that this could be achieved by giving program managers more flexibility in hiring and following the other three recommendations above. Fifth, there must be greater direct communication and cooperation with the customer – the warfighter – throughout the process. Finally, the sixth recommendation called for greater use of prototyping and testing to ensure the technology will be available before it is incorporated into the design.⁷

In 2000, the next major Acquisition reform report was issued in conjunction with DoD’s Defense Reform Initiative entitled the President’s National Performance Goals 2000. As part of this initiative, the Department identified twelve goals, three of which (goals one, five, and ten) were directly related to requirements development. The first goal was to reduce the cycle time to deliver new weapons by twenty-five percent. Cycle time is the time it takes a project to go from initial concept to fielding. A twenty-five percent reduction would mean going from an average of 132 months (over eleven years) to less than ninety-nine months (eight-plus years) for projects initiated after 1992. Goal five directed increased modernization without increasing top-line spending. Goal ten dictated for the first time, that total-ownership cost be considered up front in the requirements process. This is a direct antecedent to the inclusion of cost as an independent variable as a key performance parameters (KPP) in the JCIDS system.⁸

In 2004, the next major Acquisition reform report was *The Joint Defense Capabilities Study*. This report is also referred to as the Aldridge Report for the former Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(ATL)), the Honorable Pete Aldridge. It was based partially on the findings of the 2001 Quadrennial Defense Review (QDR). The most significant requirements outcome from the QDR was the directive for DoD to switch from its traditional threat-based approach to a capabilities based approach.⁹ The report identified that the Acquisition system failed to meet joint warfighter needs efficiently for two primary reasons. The first was that while needs are joint, solutions are almost always service specific because each service develops new material solutions based on its own modernization requirements. This results in inefficiencies at best and outright failure to deliver solutions at worse as we have seen with Crusader, Comanche and most recently Future Combat System. Secondly, the report claimed that the focus on the resourcing function involved senior leaders too late in the process. Earlier involvement would allow leaders to provide strategic direction instead of programmatic course corrections. Senior leaders focused on solving the problems instead of preventing them – and the associated delays and cost over-runs. The report charged that this focus on resource input rather than capability output also hamstrung decision-makers by failing to provide them with the information they needed to support the warfighter.¹⁰

In December 2008, the Center for Strategic and International Studies (CSIS) published their report, *Transitioning Defense Organizational Initiatives*. The assessment was key not only for what it said, but also for who the authors were. Three of the main contributors to the study became influential members of DoD's policy formulation team.

The Project Director was Ms. Kathleen Hicks who, in 2009, was later appointed the Deputy Under Secretary of Defense for Strategy, Plans, and Forces. Ms. Christine Wormuth also worked on this project and has since been appointed Principal Deputy Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs. Ms. Michele Flournoy, who, in 2009, was appointed the Under Secretary of Defense for Policy, was also cited as having provided valuable input to the study.

The (CSIS) report dedicated an entire section to the joint requirements process and borrowed from an earlier report by Murdock and Flournoy, entitled *Beyond Goldwater-Nichols, Phase 2 Report*. It argued that while the 1986 Goldwater-Nichols legislation had significant, albeit slow, impact on the joint operational community it failed in its endeavor to make the requirements determination process joint.¹¹

Put plainly, only the Combatant Commanders have operational requirements; joint capability requirements, both near- and far-term, must drive DoD resource allocation and acquisitions policies and decisions. The U.S. military fights as a joint team. The decisions over what to buy for that joint team must be made from a joint perspective, even though the Military Services remain the primary means for actually "acquiring" the ready, trained, and equipped people that comprise these capabilities.¹²

The introduction of JCIDS was a DoD attempt to make the requirements process more joint. Earlier efforts to legislate jointness have generally failed. Though the 2006 QDR made some recommendations that have been implemented by the Office, Secretary of Defense (OSD) and the Joint Staff (JS) that if pursued could have some long term benefits. According to the study, JCIDS, which was approved in 2003 in response to a then Secretary of Defense (SECDEF) Rumsfeld memo - known in the Pentagon as a "snowflake" - had become a far too complicated and time-consuming process than originally conceived. The intent of JCIDS was to increase jointness and better address the needs of the warfighters. However, it failed to do so in any

meaningful way. The CSIS report stated, “Although JCIDS ‘socialized’ all participants into thinking jointly about capability needs, the process did not define precisely joint capability gaps or prioritize between them.”¹³ The CSIS study goes on to point out that based on recommendations from the Aldridge study, Combatant Commands’ Integrated Priority Lists (IPLs) have been used to focus service requirements but have had less than a five percent cost impact on total procurement.¹⁴

The CSIS study recognized the efforts of the Joint Staff to improve joint requirements determination. In May 2005, the Joint Staff J-8 developed twenty-one Joint Capability Areas (JCA). JCAs are collections of like DOD capabilities functionally grouped to support capability analysis, strategy development, investment decision making, capability portfolio management and capabilities-based force development, and operational planning.¹⁵ However, because the JCAs combine functional, mission and domain areas, and overlap across the JCAs, they have been of minimal utility. ADM Giambastiani also recognized the lack of responsiveness to the warfighters’ joint capability needs by the Acquisition system. As the Vice-Chairman, Joint Chief of Staff (VCJCS) and Chairman of the JROC, he by-passed JCIDS and Integrated Priority Lists (IPL) by asking Combatant Commanders to provide a Most Pressing Military Issues (MPMI) list. He also invited the Combatant Commands to begin attending JROCs via Video Teleconference (VTC).¹⁶

The CSIS report also highlighted several OSD actions done in response to the 2006 QDR to attempt to reform the requirements process of the Acquisition system. The 2006 QDR directed four important initiatives to refocus the requirements process on joint warfighter needs. The key to this refocus on joint requirements and resource

allocation was the creation of the QDR Roadmap for Defense Institutional Reform and Guidance (DIRG). That same year saw the return of the Senior Warfighter Forum and the beginning of “hub trips” to the combatant commands by the VCJCS to increase the combatant commanders’ involvement in and input to the Program, Planning, Budgeting and Execution System (PPBES). In early 2008, the SECDEF permanently established the four experimental Capability Portfolio Managers (CPM) (Battlefield Awareness, C2, Net-Centric Operations and Logistics) and established five additional pilot program CPMs (Force Application, Force Support, Force Protection, Building Partnerships, and Corporate Partnership and Support). The CPMs were established to provide oversight and management for a given capability area to optimize development based on budgetary and time constraints.¹⁷ In 2008, Secretary England, the Deputy Secretary of Defense (DEPSECDEF) issued a directive establishing the nine CPMs aligned with the nine JCAs. At the same time the joint staff began the “second comprehensive joint assessment” to be institutionalized in a new CJCS directive on the Joint Strategic Planning System.¹⁸

The CSIS study identified that The Honorable John Young, then the USD(AT&L), did not agree with the QDR recommendations. Young made it clear that the answer is not more, but less bureaucracy and a simpler process that has greater leader involvement up front which provides a small team of professionals the authority and responsibility to meet the warfighters needs. He stated, “I am worried that (CPM) is another layer (of bureaucracy) and the last thing we need is another layer.”¹⁹ His statement would have fit neatly into the Packard Commission report described above and written twenty years earlier. Young has consistently expressed concern about

“requirements creep” stating, “I would add that the goal of this process should be fewer requirements and dramatically shorter requirements documents and correspondingly greater design flexibility.”²⁰

The CSIS study parallels the Aldrich Report in noting that while warfighting requirements are generally joint, each individual service has the legal responsibility under Title X, U.S. Code to equip its force. Even though there is nearly complete buy-in of the concept of jointness and “born joint”, the how seems to remain elusive.²¹ Though the CPM process is coming along, it may be derailed by alternative processes such as (Young’s) Configuration Steering Boards and the Joint Staff’s comprehensive joint assessments.²² The process is further derailed by the PPBES itself, which leaves the bulk of resourcing, over 75 percent of it, to the individual services as opposed to OSD, the joint staff or the joint warfighters – the Combatant Commanders.²³ As a result it is important that the services, and for this study, specifically the Army, examine its role in the requirements and Acquisition process.

In the summer of 2009, *the Reno Report*, named for the project lead, LTG(R) Bill Reno, was released and is currently being assessed for implementation by the Army Staff (ARSTAF). Recognizing potential shortfalls in the Army’s PPBES, the Chief of Staff directed this study be conducted to analyze the Army’s Requirements and Resourcing Systems. Although it was beyond the scope of the report to recommend changes to the OSD or JS systems, it did make several recommendations to streamline the Army’s subsystems as they related to the Acquisition System and the requirements determination and developments processes. First, the study recommended the Army eliminate the stovepipe organizations within the Deputy Chief of Staff (DCS), G-3/5/7;

specifically Aviation (DAMO-AV), Biometric Task Force (BTF), Army Asymmetric Warfare Office (AAWO), Electronic Warfare (EW), and LANDWARNET/Battle Command (LB). The report argued that eliminating these stovepipes and integrating their functions into the Army Staff will "... ensure integrated strategies, capabilities, and priorities are developed; to synchronize current and future requirements...and priorities."²⁴ *The Reno Report* further recommended the establishment of a Center of Excellence (CoE) and a Capabilities, Development and Integration Directorate (CDID) at the Combined Arms Center (CAC) to perform the functions of the current LANDWARNET and EW sections of the G-3/5/7. Any required ARSTAF functions currently being performed by the disbanded stovepipe organizations should migrate to DAMO-CI and DAMO-SS as appropriate.²⁵ Furthermore, DAMO-CI, the DCS G-3/5/7 lead for requirements, should be headed by a Major General with a Brigadier General or SES equivalent deputy. Upgrading DAMO-CI with a Major General Director would give the directorate grade parity with the other G-3/5/7 directorates and be commensurate with responsibility inherent in being the Army's Chief of Requirements. DAMO-CI should further re-organize to better align requisite functional area expertise to support the Army's battlefield operating systems with Colonel - or equivalent civilian - level division chiefs. Each of these divisions should have a sufficient number of personnel with appropriate backgrounds and training to focus on the current and future needs of the Army.²⁶ While these recommendations appear sound, it is important to note that there is no mention here of the joint warfighters' needs.

The Reno Report was also critical of the Army Training and Doctrine Command's (TRADOC) ability to manage the requirements process as it is currently organized and

staffed. TRADOC plays the central role in determining Army requirements through its Army Capabilities Integration Center (ARCIC) currently located at Ft Monroe. ARCIC is responsible to integrate and validate Army requirements.²⁷ The report stated,

TRADOC lacks sufficient analytical resources to perform quantitative analysis to the degree needed to support analytically-based decisions. This environment leads to decisions based on narrow focus, incomplete analytical detail, and excess reliance on “professional military judgment”. Absent thorough integration of individual requirements into a holistic capability, leaders face difficult decisions in making resource-appraised and enterprise level choices. The addition of quantitative analytics and use of a blueprint or mosaic would allow leaders to visualize through multi-dimensional integration, the whole of the Army’s capabilities and the need for additional requirements, along with their cost and benefit.²⁸

The report is also critical of the Army’s staffing procedures, stating that the timelines were too long and that the process lacked sufficient executive level oversight. Both TRADOC and the Army Staff perform near identical staffing sequentially as opposed to concurrently adding significant time to the process.²⁹ In addition, the staffing of JCIDS documents lacks the requisite level of senior leader debate and input. This is particularly troubling given the potentially huge investment implications of new material solutions and the accompanying trade-offs that those decisions will have. The Army Requirements Oversight Council (AROC) rarely meets to consider JCIDS documents and instead defers to a paper staffing process that denies the AROC the opportunity to perform its intended function. According to *the Reno Report*, the AROC met only six times between December, 2006 and February, 2009 despite having had over 200 documents to review, of which forty-two were Acquisition Category I (ACATI) and forty-four had JROC interest – an indication that at a minimum these documents could lead to significant costs to the Army.³⁰

Over the past quarter century, these various reports and commissions discussed above have identified many problems such as inefficient staff organization, long lead times, insufficient warfighter input, and requirements documents that fail to properly define requirements. While there have been a significant number of changes to the regulatory requirements and the names of the processes, these reports suggest that the root problem still exists. The services, the Army included, still do a poor job of meeting the joint warfighters' needs in a timely manner at a reasonable cost. The current declining relative budgets and increased security threats, exacerbated by rapid technology advances, intensify this problem. From a requirements standpoint, it is important to keep all three in mind, however, this paper will focus on advancing technologies.

First, rapid advances in technology hamper effective acquisition reform. Future threats, smaller states, and non-state actors with relatively small military or fighting forces, benefit from advances in technology. As technology advances, weapons technology becomes less expensive for other nations to acquire. Further, they avoid research and development expenses that are born by the nation of origin. All of these factors contribute to the ubiquitous distribution of highly lethal weapons, previously the exclusive purview of the most militarily advanced nations.

Technological innovation is advancing rapidly. Most people familiar with the development of computers are familiar with Moore's Law describing the growth rate of technology. Moore's Law, developed 40 years ago, simply states that the number of transistors that can be placed on an integrated circuit will double every two years.³¹ Though written at the infancy of the computer age, this law seemed fairly sage because

it appeared to hold true not just for micro-chips but also most other technologies. It remains applicable as we become more dependent on the computer, the micro-chip, and emerging nano-technologies in everything from household devices and communications systems to advanced weapons systems. Many items that could only be imagined, when Gordon Moore proposed his law, have become a reality today.

This rapid change, as defined by Moore, has made the challenge of equipping a very large force with the latest adaptable technology increasingly difficult and cost prohibitive. But what if Moore was wrong? What if the rate of change is not linear as he prescribes, but exponential? What would that mean for the way we currently identify capability gaps, develop new requirements, and procure and field material solutions? If our current system is struggling to keep pace today, it will take more than tweaking around the edges to keep up with this sort of changing world. There are several examples of this at work today. Advanced command, control, communications, and computers is no longer the exclusive domain of large state actors. Cell phone and secure satellite communication for command and control, GPS for navigation and tracking, inexpensive laptops with wireless network capabilities for planning, coordinating, and attack are all now easily obtainable and useable for third world nations, insurgents, and criminal networks. Rapidly changing and adaptable technology is not limited to just the electronic spectrum; we see it in the kinetic realm as well. Our enemies in Iraq and Afghanistan were able to rapidly adapt and change their use of Improvised Explosive Devices (IED) rapidly and inexpensively, forcing us to counter these threats with very expensive solutions.

Raymond Kurzweil argues that the rate of technological change is not linear as Moore claimed but exponential. Kurzweil is a futurist and arguably the greatest single inventor of the modern age, with honors from three US Presidents. He holds nineteen honorary doctorate degrees, has been recognized by the Wall Street Journal, Forbes Inc, and PBS, as one of sixteen “revolutionaries who made America”.³² In 2001, he published an essay “The Law of Accelerating Returns” which said Moore’s Law understates the rate of growth by making the common mistake of seeing too short a segment on an exponential curve and mistaking that for linear growth.³³ Kurzweil further extends Moore’s Law to include many if not most technological and biological development. He has numerous examples to show that just when we think that we have hit a plateau, a new breakthrough is achieved that allows us to cross what we had thought was a technological barrier which forces a paradigm shift.

Kurzweil believes exponential growth curves become increasingly steep over time. As an example, Kurzweil explains that it took tens of thousands of years for early man to develop fire and the first primitive tools. Hence within a generation, little or no change would be noticed. By the first century AD however, paradigm shifts occurred every couple of centuries. The 19th century saw greater technological innovation than the preceding nine centuries. People were experiencing paradigm shifts in their own lifetime. The period 1900 to 1920 saw more technological advancement than in the 19 centuries leading up to it. Most adults had never seen a car as a child and by the end of those two decades people were flying. Hence, the time between paradigm shifts had decreased to only a few decades. Today paradigm shifts occur every few years. One needs to look no further than the worldwide web for evidence. Kurzweil argued,

An analysis of the history of technology shows that technological change is exponential, contrary to the common-sense 'intuitive linear' view. So we won't experience 100 years of progress in the 21st century—it will be more like 20,000 years of progress (at today's rate). The 'returns,' such as chip speed and cost-effectiveness, also increase exponentially. There's even exponential growth in the rate of exponential growth.³⁴

Kurzweil further believes we are very close to the point on the curve where a paradigm shifts will occur so rapidly that they will lead to “technological change so rapid and profound it represents a rupture in the fabric of human history.”³⁵

Kurzweil further argued that already, within the past sixty years, life in the industrialized world has changed almost beyond recognition except for living memories from the first half of the 20th century. This pattern will culminate in unimaginable technological progress in the 21st century. If Kurzweil is right, or even partially right, then a capabilities development system that takes years to validate and approve will be obsolete before it can be fielded. Similarly, modernization programs that take a decade or more to satisfy are equally suspect. Furthermore, if our costs to address emerging threats continue to rise at current rates, while the barriers to entry for potential enemies continues to decline, we will find ourselves continuously responding to threats and unable to keep pace with increasingly sophisticated competitors.

In order to meet the needs of the warfighters we must fundamentally change two things. First, we must do a better job of predicting future gaps and appropriate solutions. Second, we must more rapidly develop and field solutions to fill these gaps. While many of the reports discussed above have addressed these concerns and we have made some headway on the latter over the last several years, it has come at very high financial cost. Yet, there is little evidence that the requirements determination process has improved despite these numerous changes.

One notable exception to this problem is provided by the development, acquisition, and fielding of the Mine Resistant Ambush Protected (MRAP) vehicle. In October 2009, the U.S. Government Accountability Office (GAO) testified very favorably about the MRAP acquisition program before the House Armed Services Committee, Defense Acquisition Reform Panel. The GAO identified four factors that could be applied to other programs that led to the success of the MRAP program. They were: 1) the decisions to use only proven technologies, 2) minimized requirements, 3) increased competition in the contracting process, and 4) the government maintained responsibility for final integration.³⁶ The GAO report identified two other recommendations that should be implemented. First, “the acquisition process should not exceed six years from its beginning to initial operational capability of the acquired weapon system.”³⁷ Second, and perhaps most important in this era of rapid changes, the GAO recommended significantly more investment in the Science and Technology community³⁸.

The fielding of the MRAP provides hope that Acquisition reform can occur to better meet the needs of the joint warfighters. We must improve the process if we are to maintain our technological superiority in a rapidly changing, increasingly lethal, and complex world. Army senior leaders must have a greater appreciation for the rapidity with which technology is changing and have greater and earlier involvement in the requirements process. The Army must change the way it is organized for requirements determination and prepare requirements documents that provide greater flexibility to the materiel developers. The preponderance of new programs should be born-joint and be better aligned with warfighters’ needs. In order to meet these goals the following steps must be taken.

The first step is to reduce some of the bureaucratic hurdles in the requirements process. The Army can achieve this through a better understanding among senior leaders of the rapidity with which technology is advancing. Until recently the acquisition and employment of advanced weapons and weapons of mass destruction was the exclusive domain of the Nation State and more specifically only a handful of advanced nations. As technology has advanced and prices have dropped, developing countries and non-state actors now have access to more lethal weapons. Only a thorough appreciation of this acceleration will provide the impetus to knock down the bureaucratic barriers that we face when making the organizational and procedural changes necessary.

The next step is to increase the role of the joint warfighter in the requirements and acquisition prioritization process. This will be a difficult task as it will increase the role of the joint community in what the services have seen as their area of responsibility. Today as we have finally embraced jointness in the operational military, we must now make the difficult leap of incorporating jointness into our institutional military. This can best be accomplished by assigning a joint lead in the requirements determination process that assigns services the responsibility to develop, acquire, and field particular systems in a manner that reduces redundancies between the services and takes maximum advantage of inter-dependencies to support the joint warfighter. Joint Forces Command (USJFCOM), assisting the Joint Staff, is best suited to represent the various geographic and functional combatant commanders. When capability gaps are identified by the joint warfighter, USJFCOM should begin the process by either performing the needs analysis in-house or requesting the Joint Staff task one of the services to do so.

Based on the results of this analysis, if a material solution is justified, the Joint Staff should assign a lead service for the Acquisition program.

Internally, the Army should streamline its staff and process by implementing the organizational changes identified in *the Reno Report*. There are four items in particular that would make the Army more responsive to the warfighters' needs. First, specifically for requirements determination and development, the Army G-3/5/7 should eliminate DAMO-AV, BTF, AAWO, EW and LB and role their staff functions into DAMO-CI and DAMO-SS as appropriate.³⁹ Second, the Army could accelerate implementation of JCIDS by switching from sequential to concurrent staffing between TRADOC and the Army Staff. Third, senior leaders need to be more involved earlier in the process. This will help to ensure focus on meeting the joint warfighters' needs rather than on resourcing and solving problems. Fourth, a greater percentage of JCIDS documents should be reviewed by the full Army Requirements Oversight Council. At a minimum, all programs designated ACAT I, or expected to be ACAT I, along with all programs that are expected to have a joint potential designator from the Joint Requirements Oversight Council should be reviewed by the full AROC.

The requirements and requirements documents must be shortened and simplified with a goal of bringing Major Defense Acquisition Programs from concept development to fielding within six years. In order to accomplish this, the Services, JS, and OSD will have to implement several changes. The first, and perhaps most important is to stop technological over-reach in acquisition programs and only develop requirements for which mature technologies exist. This would require the Army to stop the habit of "gold-plating" the requirements in an attempt to reach a "perfect" solution at

the cost of very long cycle-times and incrementally high costs. In this era of rapidly changing technology, the Army and the joint warfighter would be better served by seeking “good-enough” solutions that are agile and upgradable that can be procured quickly and relatively inexpensively. This would free up more funds for investment in: science, technology, and rapid transition, to incrementally more sophisticated and capable material solutions.

The Army must do a better job at filling capability gaps and meeting the needs of the joint warfighter with material solutions. Cycle times must be reduced from decades to years to prevent the fielding of very costly, obsolete systems. It can accomplish this by embracing greater service inter-dependence and instituting a more disciplined and restrained requirements process. Streamlining its own organization and procedures and involving its most senior leaders more frequently and earlier in the process can have the greatest immediate impact. With the exception of increasing the role of USJFCOM, all of the recommendations outlined above are within the Army’s ability to execute to better support the joint warfighter.

Endnotes

¹ Charles B. Cochrane, “Mgmt Sys 1971 to 2008 Star Wars Ver 3 “[Powerpoint], January 1, 2009, linked from *The Defense Acquisition University Home Page* at “Acquisition Community Connection,” <https://acc.dau.mil/CommunityBrowser.aspx?id=312492> (accessed February 10, 2010).

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ U.S. Department of the Army, *Reforming the Requirements and Resourcing Process in Support of Army Institutional Adaptation [The Reno Report]*, (Washington, DC, 2009 [Working Draft]), xii.

⁷ President's Blue Ribbon Commission on Defense Management, *A Quest for Excellence [Packard Commission]*, (Washington DC, President's Blue Ribbon Commission on Defense Management, June 1986), 50.

⁸ William S. Cohen, "Annual Report to the President and the Congress," 1999, linked from *Department of Defense Executive Secretary Home Page* at "Annual Reports," <http://www.dod.mil/execsec/adr1999/chap15.html>; (accessed October 31, 2009).

⁹ U.S. Department of Defense, *Quadrennial Defense Review Report*, (Washington, DC: US Department of Defense, September 30, 2001), 13.

¹⁰ Joint Defense Capabilities Study Team, *Improving DoD Strategic Planning, Resourcing and Execution to Satisfy Joint Capabilities* (Washington DC: Department of Defense, 2004), 2-5.

¹¹ Center for Strategic & International Studies, *Transitioning Defense Organizational Initiatives: An Assessment of Key 2001-2008 Defense Reforms* (Washington, DC: The CSIS Press, 2008), 57.

¹² Ibid.

¹³ Ibid., 59.

¹⁴ Ibid.

¹⁵ Joint Chiefs of Staff, *Chairman of the Joint Chiefs of Staff Instruction 3170.01G: Joint Capabilities Integration and Development System*, (Washington, DC: Joint Chiefs of Staff, March 1, 2009), GL-5.

¹⁶ Center for Strategic & International Studies, *Transitioning Defense Organizational Initiatives*, 59.

¹⁷ Ibid., 61.

¹⁸ Ibid.

¹⁹ Christopher J. Castelli, "Young: Make Requirements Documents Shorter And More Flexible", *Inside the Pentagon* (September 11, 2008). Available from: InsideDefense.com; (accessed November 5, 2009).

²⁰ Christopher J. Castelli, "Young: Make Requirements Documents Shorter And More Flexible", *Inside the Pentagon* (September 11, 2008), Available from: InsideDefense.com (accessed November 5, 2009).

²¹ Born-joint refers to a program that begins as a joint requirement as opposed to a service requirement. Most joint programs begin as a service program that at some point are identified by another service or the JROC as having utility to other services.

²² Center for Strategic & International Studies, *Transitioning Defense Organizational Initiatives*, 63.

²³ Ibid., 62.

²⁴ U.S. Department of the Army, *Reforming the Requirements*, xviii.

²⁵ DAMO-SS is the Army G-3/5/7's Strategic Plans and Policy Directorate. DAMO-CI is the Army G-3/5/7's Capabilities Integration, Prioritization and Analysis Directorate. Ibid.

²⁶ Ibid.

²⁷ Ibid., 21.

²⁸ Ibid., 22.

²⁹ Ibid., 82.

³⁰ For background on Acquisition Categories, see US Department of Defense, *DODI 5000.02: Operation of the Defense Acquisition System*, (Washington DC: US Department of Defense, December 8, 2008), 33; See also U.S. Department of the Army, *Reforming the Requirements*, 74.

³¹ Gordon Moore, "Excerpts from A Conversation with Gordon Moore: Moore's Law," Interview by Intel Corporation, *Intel Corporation Website*, ftp://download.intel.com/museum/Moores_Law/Video-Transcripts/Excepts_A_Conversation_with_Gordon_Moore.pdf (accessed December 9, 2009).

³² *Kurzweil Technologies Home Page*. Available from: <http://www.kurzweiltech.com/aboutray.html>; (accessed December 7, 2009).

³³ Ray Kurzweil, "The Law of Accelerating Returns", March 7, 2001. Available from; <http://www.kurzweilai.net/articles/art0134.html?printable=1>; (accessed December 7, 2009).

³⁴ Ibid.

³⁵ Ibid.

³⁶ U.S. Government Accountability Office, *Defense Acquisitions: Rapid Acquisition of MRAP Vehicles Testimony Before the House Armed Services Committee, Defense Acquisition Reform Panel* (Washington, DC: US Government Accountability Office, October 2009), 8.

³⁷ Ibid., 10.

³⁸ Ibid.

³⁹ DAMO-SS is the Army G-3/5/7's Strategic Plans and Policy Directorate. DAMO-CI is the Army G-3/5/7's Capabilities Integration, Prioritization and Analysis Directorate. Other acronyms explained previously on page 13 of this study. U.S. Department of the Army, *Reforming the Requirements*, xviii.

