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MASTER OF MILITARY STUDIES

TITLE

**Institutionalizing the Marine Corps' Rapid Acquisition Capability: Equipping, Training
and Sustaining the Nation's Expeditionary Force to Win**

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

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Executive Summary

Title: The Marine Corps' Rapid Acquisition Capability: Equipping, Training and Sustaining the Nations' Expeditionary Force to Win

Author: Julie Ann Mattocks, YA-3, Civilian

Thesis: An assessment of the Marine Corps' Urgent Needs Process (UNP) reveals that through the constant, integrated pursuit of process improvement, the requirements, budgeting, and acquisition communities have developed a rapid acquisition capability that works within the confines of the Defense Acquisition System (DAS) while at the same time successfully meeting the needs of the war-fighter.

Discussion: The effects of the terrorist attacks on the United States on September 11, 2001 not only changed the strategic security environment but also changed the enemy. Day-to-day operations on the modern-day battlefield differ dramatically from previous conflicts. We are no longer fighting a conventional war on a traditional battlefield; we are fighting non-state actors with highly effective irregular warfare tactics. The dynamic nature of the enemy and tactical conditions that exist in Iraq and Afghanistan have uncovered significant and unique gaps in our mission-critical operational capability and has heightened the need for a rapid response to new threats.¹ The need exists for the requirements, budgeting, and acquisition communities to synchronize their efforts and adapt their processes in order to provide a rapid acquisition capability to the operational commander. This thesis provides a historical assessment of the evolving acquisition process of the Marine Corps and how through the constant, integrated pursuit of process improvement, this process evolved to meet the challenges the Marine Operational Forces (MARFORs) were facing on the modern day battlefield. In short, as the operational environment and the enemy evolved, so did the business processes of the requirements, resource allocation, and acquisition communities, thereby demonstrating a direct correlation between the changing operational environment and the Marine Corps' ability to evolve its business practices to more efficiently and effectively respond to those needs.

Conclusion: The Marine Corps has made great strides over the past decade in establishing lean and successful business practices to support our Marines in harm's way. By tailoring the acquisition requirements to meet the unique specifications of an urgent requirement, the acquisition community has managed to stay relevant and within the statutory and regulatory guidelines set forth by Congress and the Department of Defense while at the same time remaining responsive to the expeditionary fighting force. Through the constant pursuit of process improvement, the Marine Corps' acquisition community has kept pace with an evolving operational environment and developed a repeatable process that rapidly responds to the immediate needs of today's war-fighter, as well as, the needs of future war-fighters. To capitalize on the Marine Corps' current process and institutionalize its rapid acquisition capability, the Marine Corps will need to further improve upon its ability to obtain feedback from the operational user and train the Marines on the use of the tools and processes of the UNP.

¹ Memorandum to the Chairman, Defense Science Board. The accelerated pace of change in the tactics, techniques, and procedures used by adversaries of the United States has heightened the need for a rapid response to new threats.

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Preface

I am not a member of the Acquisition Workforce, but I have the privilege of working for Marine Corps Systems Command (MCSC). As the Deputy Operations Manager, my primary role is to serve as the conduit between the Operating Forces and the MCSC workforce and close the communication gap between the deployed forces and the acquisition team. Briefing various organizations on the mission of Marine Corps Systems Command is one of my favorite “additional duties as assigned”. Acquisition is complex, so I often use my “Froot Loop” analogy to put what we do within the acquisition community into context.

The Froot Loop Analogy

How often have you gone to the commissary and your son or daughter begs you for the box of “Froot Loops” not because he or she likes the cereal, but because he wants the toy submarine inside? Similarly, how often have you gone to one of the trade shows or picked up a copy of the latest technology magazine and said, “We need that piece of equipment in the Marine Corps inventory.” How often have you seen new technology and wondered, ‘what does Systems Command do? We never get this cool gear. It takes them forever to field us anything.’

I tell my son the same thing I will tell you. Just as sure as that toy submarine will fail in the bathtub and, instead of hovering in the middle, will sink to the bottom, so will that ‘cool piece of gear’ fail you in combat if you do not allow the acquisition community to do its job; and sometimes doing the right thing, right, takes time.

I wanted to write this MMS paper to highlight the hard work and perseverance of the acquisition professionals. Often seen as road blocks, these individuals, through their tireless dedication to our deployed forces have saved countless lives.

Institutionalizing the Marine Corps' Rapid Acquisition Capability – Equipping, Training and Sustaining the Nation's Expeditionary Force

“We provide Marines with capabilities that will increase their war-fighting skills. We are a force multiplier throughout the acquisition process from research and development to life cycle management.”

“Never say ‘No’ to the war-fighter: There are two types of people in the world, ‘Yes, but’ and ‘No, because’. We will be ‘Yes, but’ in that we will attempt to say ‘yes, but’ may have to do certain things to make it occur. We will never compromise on legal or moral issues.”

- Colonel Michael A. Micucci, USMC, Retiredⁱ

Section I - Introduction

Every generation has a defining moment, a moment when time stands still and every American can recall, with vivid accuracy, where they were, what they were doing and who they were with. For our generation this moment occurred on a crisp September morning in 2001 when a group of ideologically motivated terrorists waged an unprecedented attack against the United States. The world would never be the same again.

Understanding the Strategic Environment - When the 1st Marine Division crossed over the line of departure on the Iraqi border in spring of 2003, they had no way of knowing that the United States would still be engaged in combat operations nearly a decade later. The effects of the terrorist attacks on the United States on September 11, 2001 not only changed the strategic security environment but also changed the enemy. Day-to-day operations on the modern-day battlefield differ dramatically from previous conflicts. We are no longer fighting a conventional war on a traditional battlefield; we are fighting non-state actors with highly effective irregular warfare tactics. The dynamic nature of the enemy and tactical conditions that exist in Iraq and Afghanistan have uncovered significant and unique gaps in our mission-critical operational capability and has heightened the need for a rapid response to new threatsⁱⁱ. The need exists for

the requirements, budgeting, and acquisition communities to synchronize their efforts and adapt their processes in order to provide a rapid acquisition capability to the operational commander. The Marine Corps' approach to fulfilling urgent operational needs is a success story. This paper advances the argument that an assessment of the Marine Corps' Urgent Needs Process (UNP) reveals that through the constant, integrated pursuit of process improvement, the requirements, planning and programming and acquisition communities have developed a rapid acquisition capability that works within the confines of the Defense Acquisition System (DAS) while at the same time meeting the needs of the war-fighter.

Terms and Definitions – Key doctrinal terms and definitions used throughout this paper are as follows:

Defense Acquisition System (DAS) - the management process that guides all Department of Defense (DoD) acquisition programs. The Defense Acquisition Management Framework provides an event-based process where acquisition programs advance through a series of milestones associated with significant program phases.

Institutionalize - the process of establishing a practice as a norm, making a process or concept embedded within an organization.

Rapid Acquisition – the act of accelerating and synchronizing the requirements, planning and programming, and acquisition activities within the statutory and regulatory guidelines of the Defense Acquisition Management Framework (DAMF).

Urgent Needs Process (UNP) – the process the Marine Corps uses to fulfill urgent operational requirements identified by a component commander. The UNP synchronizes abbreviated requirements, resourcing, and acquisition processes in order to distribute mission-critical war-fighting capabilities more rapidly than the deliberate processes permit.

Urgent Universal Needs Statement (UUNS) – “an exceptional request from a Marine Corps component commander for an additional war-fighting capability critically needed by operating forces conducting combat or contingency operations. Failure to deliver the capability requested is likely to result in the inability of units to accomplish their missions or increases the probability of casualties and loss of life.”ⁱⁱⁱ

Purpose and Scope - U.S. Forces went to war ill-equipped to sustain ongoing stability and counter-insurgency operations, which has led to the identification of mission-critical capability gaps and the need for an accelerated acquisition capability.^{iv} The purpose of this thesis is to provide a historical assessment of the evolving acquisition process of the Marine Corps and how through the constant, integrated pursuit of process improvement, this process evolved to meet the challenges the Marine Operational Forces (MARFORs) were facing on the modern day battlefield. In short, as the operational environment and the enemy evolved, so did the business processes of the requirements, budgeting, and acquisition communities, thereby demonstrating a direct correlation between the changing operational environment and the Marine Corps’ ability to evolve its business practices to more efficiently and effectively respond to those needs.

The scope of this thesis is limited to assessing the rapid acquisition capability at the service level within the confines of the DAS and does not address or assess recommendations for acquisition reform at the DoD level. It is important to note that the Marine Corps’ process works without the need for major acquisition reform to occur at the DoD level.

Methodology and Organization – This thesis is a historical review and uses DoD Acquisition Regulations, Marine Corps Orders and Policies, the Virtual Urgent Universal Needs Statement data management system, periodical articles, and interviews of key Marine officers

and civilian Marines as the basis for the review. Using data derived from these sources, this assessment will provide evidence of efficiencies gained through continuous process improvement by comparing the supporting establishment's response to the events occurring on the battlefield.

This thesis contains four sections. Section 1 establishes the strategic environment and the need for change, the purpose and scope, and the methodology and organization of the paper. Section 2 provides an overview of both the traditional-deliberate acquisition process, as well as, the rapid process at the DoD level, then narrows the scope by providing an introduction of key acquisition organizations at the service-level. Section 3 provides a historical overview of the Marine Corps' UNP and identifies key process improvements made to enhance the Marine Corps' ability to rapidly respond to emerging requirements to an ever changing, adaptable enemy. Section 4 concludes with a summary of the thesis and recommendations for further action.

Section II – The Fundamentals of Deliberate Acquisition and Rapid Acquisition

Acquisition is a complex business, to truly appreciate the value of the efficiencies gained through the use of any rapid acquisition capability, “one must understand what *is* “business as usual” in the Acquisition Community.”^v

Acquisition – Deliberate Approach - Traditional defense acquisition is comprised of three principle decision-making systems (as depicted in Figure 2-1)^{vi}. First, the Joint

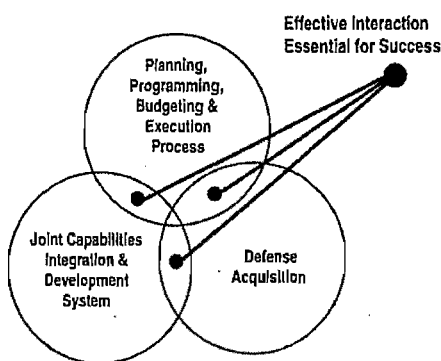


Figure 2-1. Three Major Decision-Support Systems

Capabilities Integration and Development System (JCIDS) assesses gaps in war-fighting capabilities and develops requirements to resolve those gaps. Second, the DAS manages the development and procurement of weapon systems and other equipment. Third, the Planning,

Programming, Budgeting, and Execution (PPBE) system allocates resources and provides a framework so that the department can

articulate its strategy; identify force size, structure, and needed equipment; set program priorities; allocate resources to individual programs; and assess program performance.^{vii} “These systems can incur lengthy time frames. For example, the requirements system can take an average of 10 months to validate a need. The acquisition system involves large budgets and generally meets materiel war-fighter needs in two or more years, with some systems taking decades to develop and procure. The budgeting process is calendar driven, taking nearly two years from

It can take over a decade to field a new materiel solution – making the traditional acquisition approach unresponsive to the urgent needs of the war-fighter.

planning to the beginning of budget execution.”^{viii} It can take a decade to research, develop, procure and field a weapon system using the traditional acquisition approach, but “with billions

of taxpayer dollars^{xix} and the lives of American service members at stake, the lengthy, bureaucratic process of checks and balances, is a necessary evil. Appendix A provides a detailed roadmap of the Defense Acquisition System and the Defense Acquisition Management Framework.

Acquisition - Rapid Approach - Rapid Acquisition addresses the assessment, validation, sourcing, resourcing, and fielding of operationally driven urgent, execution-year combatant commander needs. These needs are life- or combat-mission-threatening needs, based on unforeseen military requirements that must be resolved in days, weeks, or months.^x Two

*It is ALL
about the
war-fighter!*

National Defense Authorization Acts (NDAAs) serve as the basis for providing the Secretary of Defense (SecDef) the authority and resources to implement a rapid acquisition capability within the DoD. First, the Bob Stump NDAA for Fiscal Year 2003 directs the SecDef to implement a process for meeting the immediate war-fighting needs (IWNs) of the operational forces. In 2004, the Congress and DoD created the Joint Rapid Acquisition Cell (JRAC) to facilitate the urgent procurement of equipment identified by the combatant commanders.^{xi} Second, the Ronald W. Reagan NDAA for Fiscal Year 2005 expanded prior legislation and authorizes the SecDef to waive any law, regulation, directive, or policy, so long as doing so does not violate a civil law or commit a criminal act. Additionally, the legislation authorizes the SecDef to fund any rapid acquisition using all budget resources available as long as the procurement effort does not exceed \$100 million in any one year.^{xii}

Key Players – Department of the Navy (DoN) - The Assistant Secretary of the Navy for Research, Development and Acquisition (ASN (RD&A)) serves as the Naval Acquisition Executive. The Assistant Secretary has authority, responsibility and accountability for all

acquisition functions and programs, and for enforcement of Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) procedures. The Assistant Secretary represents the Department of the Navy to USD (AT&L) and to Congress on all matters relating to acquisition policy and programs. The Assistant Secretary establishes policies and procedures and manages the Navy's Research, Development and Acquisition activities in accordance with DoD 5000 Series Directives.^{xiii}

Key Players – Marine Corps - Within the Marine Corps, there are three organizations responsible for executing the business processes of the acquisition system making up the Marine Corps' acquisition community^{xiv}. First, as the Marine Corps requirements validation authority, the Marine Corps Deputy Commandant for Combat Development and Integration (DC CD&I) is responsible for developing fully integrated Marine Corps warfighting capabilities; including doctrine, organization, training and education, materiel, leadership, personnel, and facilities, to enable the Marine Corps to field combat-ready forces. Second, Marine Corps Systems Command (MCSC) serves as the acquisition lead and is responsible for providing research, development, and acquisition of equipment, information systems, training systems, and weapon systems to satisfy all approved material requirements of the Marine Corps. Third is Programs and Resources, serving as the principal staff agency responsible to the Commandant of the Marine Corps for developing and defending the Marine Corps financial requirements, policies, and programs. The Deputy Commandant for Programs and Resources (DC P&R) owns the Marine Corps resource allocation process and serves as the principal adviser to the Commandant on all financial matters.

Section III – The Evolution of the Marine Corps Urgent Needs Process (UNP)

The Marine operating forces are generally organized, trained, and equipped as multi-purpose forces via the Expeditionary Force Deployment System (EFDS). The EFDS is a deliberate planning process that requires extensive analysis in order to be efficient and effective. Marine Corps Order 3900.15B establishes Marine Corps policy and procedures to conduct capability-based planning in order to develop fully integrated future war-fighting capabilities, along with their associated support and infrastructure.^{xv} Forces conducting combat or contingency operations in unique areas of operation are likely to identify specific gaps in mission-critical operational capability outside of the EFDS planning process, thereby requiring the need for a separate, but complimentary process for meeting these unique requirements.

This section provides a historical review of the Marine Corps' rapid acquisition process and identifies key process improvements made to enhance the Marine Corps' ability to rapidly respond to the emerging requirements brought about by an adaptable, flexible and ever changing enemy.

The Road to War – Operation Enduring Freedom (OEF) & Operation Iraqi Freedom (OIF) I - (2001 – 2003) – In December 2001, the United States was head-to-head with the insurgents in Afghanistan, to date, the equipment in the conventional tool kit was sufficient, and the acquisition system saw few, if any, requests to support urgent operational requirements. However, in the summer of 2002, the political environment began to change and rumors of a War with Iraq were circulating. “As planning for the war in Iraq proceeded through the end of August 2002, Major General James N. Mattis, Commanding General (CG), 1st Marine Division, approved a prioritized list of “new technologies” that he believed would contribute significantly to the successful execution of the developing operational plan (OPlan). The list contained 15

items and was aimed at increasing the effectiveness of his division.”^{xvi} As the likelihood of war increased, so did the list. The list continued to grow and eventually became more than just valued opinions of an operational commander, but rather immediate requirements of the Marines about to go in harm’s way and the acquisition community soon realized that “business as usual” would not meet the needs of the MARFOR.^{xvii}

The acquisition community recognized that they would play a key role in supporting the operational forces and quickly implemented key initiatives to meet the emerging requirements. First, Marine Corps Systems Command pushed liaison officers to I Marine Expeditionary Force (MEF), II MEF and to Marine Forces Pacific (MARFORPAC) to assist the planners in identifying and translating operational gaps into requirements. A round-the-clock Crisis Response Cell (CRC) served as the single point of contact between the operational forces and the acquisition workforce. The mission of the CRC was to answer any questions relative to the status of equipment, delivery timelines and logistical support. Parallel to standing up the CRC, the Marine Corps Tactical Systems Support Activity (MCTSSA), a section of MCSC, stood up a command, control, communications, computers and intelligence help desk “forward” in Kuwait to support the MCTSSA Marines forward deployed with Marine units. The second and most significant action was the release of Marine Administrative Message 550/02 (MARADMIN 550/02). Written by the Deputy Commandant for Combat Development and Integration (CD&I), this MARADMIN provided guidance and direction to the MARFORs for identifying and submitting operational capability gaps via an universal needs statement (UNS) signed by a Flag-level Officer. This direction ensured that requirements identified were being properly vetted at the MEF level and that once received by CD&I would be prioritized and

*Expeditionary
Acquisition:
Not Business
as Usual*

rapidly processed through the requirements validation process. In conjunction with the MARADMIN, MCSC published Acquisition Policy Letter No. 2-03. This policy provided guidance and direction to the acquisition workforce in the areas of processing requirements based on “unusual and compelling urgency”, specifically it described a streamlined contracting approach that could be used to meet the urgent needs of the war-fighter while at the same time operating within the statutory and regulatory guidelines of the DAS.^{xviii} Lastly, MCSC recognized that additional funding would be needed and identified innovative ways to streamline the contracting and funding processes to facilitate procuring the equipment identified by the MEF. Using below threshold reprogramming (BTR) authority^{xix} the acquisition community procured over 36,000 items requested from the MARFORs during this time frame.^{xx}

One of the most noteworthy accomplishments of the acquisition community was the procurement of the Mabey & Johnson bridging. In December 2002, the MEF staff identified the need for 1,110 meters of panel bridging to keep gaps open and passable. Using BTR authority and limited contract competition, MCSC awarded a contract to the Mabey & Johnson Company in the United Kingdom. “Once the bridging was on contract, the more difficult task of delivery was at hand. It took 4 ships and over 250 containers to move the 145 tons of assets, but the panel bridging made it into Kuwait in time for the assault toward Baghdad in the spring of 2003. Mabey & Johnson bridging was used over both the Tigris and Euphrates Rivers, and it performed above expectations.^{xxi} The Marines completed their mission and by October 2003 had withdrawn from Iraq. Albeit somewhat “ad-hoc” the acquisition community had efficiently, but more importantly effectively equipped the expeditionary force to successfully accomplish its mission.

Security and Stability Operations – OIF II (2004 – 2006) – The Marine Corps, capitalizing on its successful execution of a rapid acquisition capability in support of the first deployment, codified its process in November 2003. MARADMIN 533/03 established the Urgent Universal Needs Statement process and “directed the Operating Forces to identify their urgent needs in a prescribed format and to submit their requests to the Commanding General, I MEF – the supported commander. Requests approved by the I MEF Commander would then be submitted to MARFORPAC for final adjudication and approval. Once an UUNS was approved by MARFORPAC it would be forwarded to CD&I for immediate action. Upon validation, CD&I would forward the request to the Marine Requirements Oversight Council (MROC)^{xxii}, chaired by the Assistant Commandant. UUNS favorably endorsed by the MROC would be submitted to the Commandant for final approval. The timely release of MARADMIN 533/02 cannot be over-emphasized. Containing all the positive elements of the process initiated in 2002, it provided timely guidance in a format readily understood by all the stakeholders, thereby expediting the validation and approval process and facilitating the efficient allocation of Marine Corps resources.^{xxiii} Figure 3-1 provides a flow diagram of the UUNS Process outlined in MARADMIN 533/02.

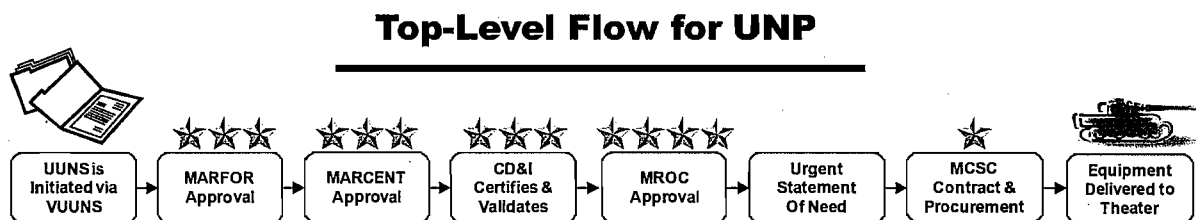


Figure 3-1. Top-Level Flow for processing Urgent Universal Needs Statements (UUNS)

In December of 2003, the expeditionary force began preparing to re-deploy in the spring of 2004 to support security and stability operations in support of nation building in Iraq. However, this deployment introduced a unique threat; the battlefield was changing and the

enemy that emerged was flexible, adaptable and highly proficient in the use of irregular warfare tactics and techniques. The use of improvised explosive devices (IEDs) became the weapon of choice against our military forces. “The most prominent example of a force protection capability urgently needed by Marines”^{xxiv} operating in Iraq was vehicle hardening. Providing vehicle armor that would facilitate the force’s expeditionary nature would prove to be challenging for the acquisition community. From the very beginning of the planning process, defining and meeting the requirement for hardened vehicles proved to be a complex issue due to the number of variables in the equation.^{xxv} For example, the operational planning team had to determine which vehicles to harden and how much additional protection would be required for each vehicle variant to ensure the Marines inside the vehicle would be shielded from the blast effects of an IED. Unlike the Mabey & Johnson bridging, no known materiel solution existed; instead of responding to urgent requirements through the procurement of commercial-off-the-shelf (COTS)^{xxvi} items, as was the case with the bridging materials, the UUNS process was now being used to identify and procure items that would require research, development and testing prior to being fielded to the deploying forces. Recognizing that the dynamics of the operating environment were changing, the acquisition community evolved its business processes to ensure materiel solutions could be procured and delivered in the required time frame.

Collectively the acquisition team implemented a number of improvements to the existing UUNS process. One of the most significant accomplishments during this evolution was the ability to secure funding to support the rapid acquisition of materiel desperately needed by the Marines. “As the amount of dollars available under MCSC’s below threshold reprogramming authority decreased, the support of the skilled professionals within the Programs and Resources (P&R) Department at Headquarters Marine Corps was necessary to help secure additional funds

required to meet the remaining needs of the Marines heading to Iraq.”^{xxvii} Using Above Threshold Reprogramming (ATR)^{xxviii} authority, P&R successfully engaged Congress to realign funds from other Marine Corps programs to fulfill the emerging needs of the Marines in Iraq. Expanding the urgent needs process to encompass a capability to reallocate funding outside of the service-level thresholds, further refined the urgent needs process and successfully met the needs of the war-fighter.

Other improvements included MCSC expanding the role of its CRC to support the MEF by deploying liaison officers (LNOs) in country. The LNOs were embedded with the MEFs to assist with the receipt and dissemination of UUNS equipment in theater. The LNOs also served as a conduit between the MEF and the CRC, providing valuable user feedback on the effectiveness of the equipment provided. Many materiel solutions introduced new equipment into the Marine Corps’ inventory which resulted in training and sustainment gaps. To bridge the gaps MCSC deployed New Equipment Training Teams (NETTs) to Iraq to train the Marines. Lastly, MCSC ensured contract actions included the flexibility to provide contractor logistic support (CLS) for UUNS equipment that could not be supported via the organic logistics system.

The Long-War^{xxix} - (2006 to present) – By 2006 the Marines have been engaged in combat operations in Afghanistan and Iraq for six years. The IED threat continues to evolve and as a result, the Marines continue to identify critical capability gaps in the areas of detection, mitigation, and neutralization, as well as in the areas of surveillance, communication and intelligence. During this time frame, the operational forces inundated the UUNS process with over 300^{xxx} urgent and compelling needs rendering the process that worked so well in 2002 and 2004 unresponsive. The average cycle time for an UUNS to move through the process in 2003 was approximately 180 days; the average cycle time for an UUNS to move through the process

in 2005 was 529 days.^{xxx} Additionally, there was growing concern among the Marine Corps community that the need to counter the IED threat was not going away and currently there was no mechanism to transition an UUNS to an acquisition program^{xxxii} via the EFDS. Submitting an UUNS via the EFDS would ensure that the capability gap identified is entered into the deliberate planning process. In 2006, realizing a need to further define and refine the Marine Corps' ability to rapidly respond to critical requirements, CD&I, in conjunction with MCSC and P&R began a series of process improvement initiatives using the Lean Six Sigma (LSS), Rapid Improvement Event (RIE) methodology.

LSS is a quality improvement methodology resulting from the combination of the individual Lean and Six Sigma methodologies. *Lean* focuses on eliminating waste from processes and increasing process speed by focusing on what customers actually consider quality, and working back from that. *Six Sigma* aims to eliminate process variation and make process improvements based on the customer definition of quality, and by measuring process performance and process change effects. The RIE has its roots in the Japanese work "Kaizen" which means "improvement" or "change for the better". A RIE refers to a philosophy or practices that focus upon continuous improvement of processes in manufacturing, engineering, supporting business processes, and management.^{xxxiii}

Using a problem-solving method known as DMAIC, which stands for Define-Measure-Analyze-Improve-Control, the team was able to effectively evaluate the UUNS process and find solutions that would increase the overall efficiency, thereby improving the support to the MARFORs. The team evaluated the process beginning with the CD&I receiving the UUNS and ending with the war-fighter receiving the materiel solution. The team discovered several contributing factors leading to delays in processing, such as, the MARFORs submitting unclear requirements, the technology readiness level (TRL)^{xxxiv} of the equipment being requested did not support a rapid procurement, creating multiple approval packages for each decision point was duplicative, and funding strategies were not being identified in a timely or consistent manner. Additional information relative to TRL is located in Appendix B.

The team proposed and subsequently implemented a number of solutions targeted at increasing the efficiency of the process. The implementation of three initiatives in particular assist in institutionalizing the Marine Corps' UNP. The first improvement was in August 2007 when the Marine Corps' Virtual Universal Urgent Needs Statement data management system for processing urgent needs became operational.^{xxxv} The second improvement came to fruition on March 10, 2008, when the Assistant Commandant of the Marine Corps signed Marine Corps Order (MCO) 3900.15B, codifying the urgent needs process via the Marine Corps Expeditionary Force Development System (EFDS). The third initiative established the Marine Corp's policy for the UNP and the UUNS via Marine Corps Order 3900.17 signed October 17, 2008 by the DC CD&I.

To fully grasp the significance of these improvements one must review each initiative individually; we will begin with the creation and implementation of the web-based management information system. The Virtual Urgent Universal Needs Statement (vUUNS) data management system provides a dynamic environment, by which organizations can submit, collect, contribute, manage, maintain and view a multitude of documents and actions relative to the UNP. Additionally, the vUUNS provides concurrent end-to-end visibility, decreases the cycle time for UUNS review and approval, enables cross-functional collaboration, facilitates senior-leader oversight and intervention, and provides a mechanism for the operating forces (OPFORs) to provide operational feedback on the materiel solutions fielded.

Next, we will review the importance of updating Marine Corps Order 3900.15B to address UUNS. As previously discussed, the Marine Corps uses the EFDS to develop future warfighting capabilities to meet national security objectives. A deliberate Universal Needs Statement (UNS) is used to initiate the EFDS process, unlike an urgent-UNS; a deliberate UNS

takes full advantage of time in order to consider comprehensive development and relative prioritization with respect to other capabilities and available resources.^{xxxvi} To ensure an effective transition of a known capability gap, MCO 3900.15B ensures that every urgent-UNS will be converted to a deliberate UNS after completion of the UNP. This ensures that the detailed and integrated development of the most effective and efficient capability solutions occurs. By establishing business processes that link the urgent process, the UNP, with the deliberate process, the EFDS, the Marine Corps ensures that capability gaps identified via the urgent-UNS are deliberately considered for integrated development and sustainment. Additionally, MCO 3900.15B establishes the Capabilities Development and Integration Board (CDIB). The CDIB refines the capability gap with the MARFOR and, in conjunction with representatives from MCSC, assesses the TRL levels of possible materiel solutions, then develops recommended courses of action, to include funding strategies, to the DC CD&I for final approval. By including the Systems Command in the CDIB, the team gained an advantage by performing cost analysis and identifying funding strategies earlier in the planning process to support the MROC decision process versus later, which was causing a lag time in the approval process.

Lastly, the significance of MCO 3900.17 is paramount as it defines the Marine Corps' Urgent Needs Process (UNP) and refines previous guidance for the submission and processing of an UUNS. It provides clear guidance on the purpose, method and end-state by which the Marine Corps will approach rapid acquisition and outlines the concept of operations for the UNP across the Marine Corps enterprise. Through the implementation and execution of the vUUNS data management system, MCO 3900.15B and MCO 3900.17 the Marine Corps reduced the average cycle time for an UUNS to proceed through the UNP from 529 days to 330 days.^{xxxvii} Figure 3-2

depicts a macro-level view of the UNP. A more detailed illustration of the UNP process flow and functional synchronization activities are located in Appendix C and D respectively.

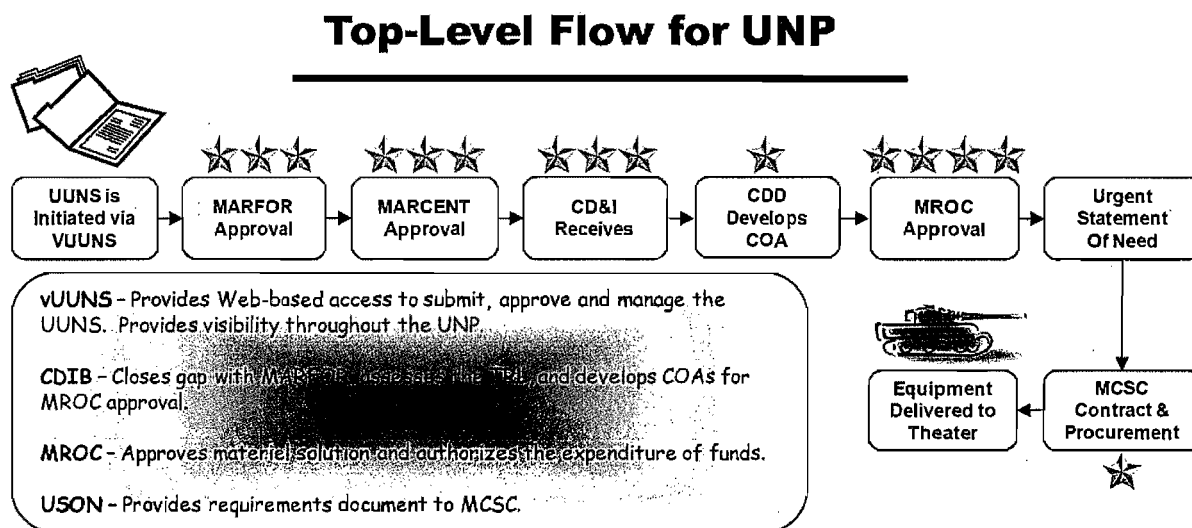


Figure 3-2. Marine Corps Urgent Needs Process (UNP) – Post Process Improvements

Parallel to DC CD&I's RIE efforts, the Commander for MCSC initiated an LSS effort to map the current MCSC process for managing UUNS and identify areas for improvement. The team discovered that although the MCSC workforce was working hard to ensure rapid delivery of urgent requirements, the command lacked a standardized process that would provide a clear status of each UUNS. In October 2007, the team finalized its findings and recommendations and published Acquisition Policy Letter 8-07. Some of the significant contributions of this effort include: assigning a lead Product Group Director for each UUNS upon receipt of the Urgent Universal Statement of Need (USON), developing a Plan of Action and Milestones (POA&M) outlining key activities, documents and decision points, and lastly releasing an Acquisition Decision Memorandum (ADM) within five business days of receiving an UUNS. The guidelines outlined in Policy Letter 8-07 provide a level of rigor within the UNP that mirrors the traditional

acquisition management framework, but does so in an abbreviated manner, thereby establishing an operating norm and further institutionalizing the rapid acquisition process for the Marine Corps.

Section IV – Conclusion and Recommendations

The previous section demonstrates that the collaborative and synchronized efforts of the requirements, budgeting, and acquisition systems has led to the development of a “deliberate”, yet “expedited” approach to fulfilling mission-critical capability gaps identified by the combatant commanders (COCOMs). This final section provides a summary of observations and offers recommendations for further action.

The Marine Corps has made great strides over the past decade in establishing lean and successful business practices to support our Marines in harm’s way. By tailoring the acquisition requirements to meet the unique specifications of an urgent requirement, the acquisition community has managed to stay relevant and within the statutory and regulatory guidelines set forth by Congress and the Department of Defense while at the same time remaining responsive to the expeditionary fighting force. Through the constant pursuit of process improvement, the Marine Corps’ acquisition community kept pace with an evolving operational environment and developed a repeatable process that rapidly responds to the immediate needs of today’s war-fighter, as well as, the needs of future war-fighters. With that said, to realize lasting success and reap the benefits of nearly a decade of lessons learned, the Marine Corps will need to institutionalize its rapid acquisition process. In order to do so, key elements must exist within the UNP management framework. Those elements are policy and procedures that clearly define roles and responsibilities, a comprehensive management information system that provides end-to-end visibility, a mechanism to obtain feedback from the operational user, and lastly, a training program that ensures individuals at all levels are properly educated on the tools and processes of the UNP.

The development of business processes that tailor the rapid acquisition approach within the existing acquisition framework allows the acquisition community to manage the acquisition of materiel solutions that address the urgent needs of the war-fighter in a more efficient manner. Institutionalizing these practices via Marine Administrative Messages, Marine Corps Orders and Acquisition Policies ensures they become part of the Marine Corps best business practices.

The creation and implementation of the Virtual Urgent Universal Needs Statement (vUNNS) data management system ensures the community collects and manages useful, reliable, and relevant information. This information can then be used to transition urgent capability gaps to the deliberate planning process, support sound decision making, and serve as a repository for future information.

Although the vUUNS includes a data field to collect feedback from the operational user, the majority of the data fields are unpopulated.^{xxxviii} Operational feedback is crucial in determining the effectiveness of the UNP. Without it, the acquisition community has no way of knowing whether the materiel solution fielded met the requirements. Moreover, operational feedback plays a pivotal role in ascertaining whether a capability gap still exists. The absence of this information will negatively impact the requirements process in determining future war-fighter capability needs. I recommend DC CD&I engage the Training and Education Command's (TECOM) Marine Corps Center for Lessons Learned (MCCLL) to determine what resources are available to collect user evaluations. Currently, MCCLL deploys survey teams to theater to obtain feedback from the MEF, identifying the deployment schedule for these survey teams in advance would allow the CD&I and MCSC representatives to develop questions for inclusion in the interview process, thereby closing the operational user feedback loop.

Although CD&I offers training on how to use the vUUNS, it is on an “as requested basis” and does not include specific training relative to how an UUNS should be crafted and generated at the grass-roots level. The absence of training in this area negatively impacts the MARFORs ability to properly characterize their requirements, thereby extending the processing time upon receipt by CD&I. In 2003, while serving as the Commander of Marine Corps Systems Command, Brigadier General William D. Catto, recommended that training in the area of executing key elements of the UUNS process be included as part of the Marine Air Ground Task Force (MAGTF) Staff Training Program (MSTP). He believed the final step to institutionalizing the urgent UNS process was to transition the process into an effective campaign planning tool. Incorporating a module that executes key elements of the urgent-UNS process during the mission analysis phase of the Marine Corps Planning Process (MCP), will ensure the staff becomes proficient at registering urgent needs.^{xxxix} During an interview with representatives of the MSTP^{xl}, this author discovered that currently MSTP does not devote time to the identification or development of an UUNS. I recommend the Marine Corps consider developing formal training in the area of executing key elements of the urgent UNS process. Offering an on-line training module geared towards developing and submitting UUNS via Marine On-Line (MOL) would allow Marines preparing to deploy or were already in the fight to obtain training via their computer workstation, thereby eliminating the need for a classroom and reducing the cost associated with implementation and execution.

The war on terrorism has taught us that “likely adversaries can be expected to pursue and adopt any methods and means that confer an advantage relative to U.S. military power – including methods that violate widely accepted laws and conventions of war. Rather than attempting to defeat U.S. forces in decisive battle, even militarily significant states are likely to

exploit increasingly inexpensive but lethal weapons in an erosion strategy aimed at weakening U.S. political resolve by inflicting mounting casualties over time.^{xli} Considering the aforementioned, the Marine Corps cannot revert to a pre-2001 acquisition approach to equipping, training and sustaining the Nation's Expeditionary Force of choice. It is incumbent upon senior leadership to take the necessary action to identify a mechanism for obtaining operational feedback and establish training in the existing curriculum to further codify the Marine Corps' rapid acquisition capability. Institutionalizing the UNP approach to meeting the needs of our war-fighters will ensure a ready-fighting force that is capable of winning this Nation's wars and minimize the tragic loss of life.

ⁱ This excerpt is from Colonel Michael Micucci's Philosophy and Guidance Memo that he provided to his team during his tenure as the Program Manager for Counter Improvised Explosive Devices (C-IED) at Marine Corps Systems Command in August 2005 through June 2006.

ⁱⁱ Memorandum to the Chairman, Defense Science Board. The accelerated pace of change in the tactics, techniques, and procedures used by adversaries of the United States has heightened the need for a rapid response to new threats.

ⁱⁱⁱ U.S. Marine Corps, Marine Corps Expeditionary Force Development System, Marine Corps Order 3900.15B, Enclosure 7: "Urgent Universal Need Statement Processing," March 10, 2008, Page 1.

^{iv} Prior to OIF I, MajGen Mattis generated a list of 44 Urgent Requirements. The ACMC, Gen William L. Nyland, retained the final authority to "pull the trigger" on the list, release the funds, and initiate the many contracting and procurement actions still necessary to get the equipment to the field. To date, over 574 requests to address mission-critical capability gaps have been submitted.

^v BGen William D. Catto. "Rapid Acquisition in Support of OIF II." *Marine Corps Gazette*, (May 2004): 48-50. At the time of this quote, Major General William Catto was a Brigadier General and the Commanding General, Marine Corps Systems Command (MCSC).

^{vi} Bradford Brown, Defense Acquisition University, Introduction to Defense Acquisition Management, 2010, Page 18.

^{vii} The entire process is described in detail, both graphically and in text, at the Defense Acquisition University website, available at <https://acc.dau.mil/IFC/index.htm>. Accessed January 2010.

^{viii} General Accounting Office (GAO), Report to the Committee on Armed Services, U.S. Senate, War-fighter Support, Improvements to DoD's Urgent Needs Processes Would Enhance Oversight and Expedite Efforts to Meet Critical War-fighter Needs.

^{ix} BGen William D. Catto. "Rapid Acquisition in Support of OIF II." *Marine Corps Gazette*, (May 2004): 48-50. At the time of this quote, Major General William Catto was a Brigadier General and the Commanding General, Marine Corps Systems Command (MCSC).

^x Defense Acquisition University, <https://acc.dau.mil/jra>.

^{xi} U.S. Congress, Bob Stump National Authorization Act for Fiscal Year 2003, 2 December 2002, Section 806, Pub. L. No. 107-314.

^{xii} U.S. Congress, Ronald W. Reagan National Defense Act for Fiscal Year 2005, 28 October 2004, Section 811, Pub. L. No. 108-375.

^{xiii} Information derived from the office website of the Department of the Navy. For Research, Development and Acquisition. <https://acquisition.navy.mil/rda/home/organizations>

^{xiv} The term "acquisition community" in the context of this paper refers to the three principle players within the Marine Corps, Marine Corps Combat Development Command, Marine Corps Systems Command, and Deputy Commandant for Plans and Resources (P&R).

^{xv} The Expeditionary Force Deployment System (EFDS) is explained in more detail in Department of the Navy, Marine Corps Order 3900.15B, Marine Corps Expeditionary Force Deployment System (EFDS) (March 10, 2008).

^{xvi} BG Catto was the Commanding General of Marine Corps Systems Command during OIF I. The prioritized list that was developed by MG Mattis became the first list of UUNS developed and submitted by the MARFORs.

^{xvii} BG William D. Catto. "Expeditionary Acquisition: Not Business as Usual." *Marine Corps Gazette*, (June 2004): 27.

^{xviii} United States Marine Corps, Acquisition Policy Letter No. 2-03. Processing Requirements Based on "Unusual and Compelling Urgency", 23 April 2003.

^{xix} Below-threshold reprogramming actions "provide DOD Components with the discretionary flexibility to realign, within prescribed limits, congressionally approved funding to satisfy unforeseen, higher priority requirements" (see DOD FMR, vol. 3, ch. 6, para. 060801). Additionally, such reprogramming actions are minor actions that do not require congressional approval. When the DOD Components accomplish these reprogramming actions, they measure these actions "cumulatively" over the course of the appropriation's period of obligation. [https://acquisition.navy.mil/rda/home/acquisition one source/program assistance and tools/question of the day/q a march 2008](https://acquisition.navy.mil/rda/home/acquisition%20one%20source/program%20assistance%20and%20tools/question%20of%20the%20day/q%20a%20march%202008)

^{xx} BG William D. Catto. "Expeditionary Acquisition: Not Business as Usual." *Marine Corps Gazette*, (June 2004): 27-28.

^{xxi} BG William D. Catto. "Expeditionary Acquisition: Not Business as Usual." *Marine Corps Gazette*, (June 2004): 28.

^{xxii} The Marine Requirements Oversight Council (MROC) serves as a senior Marine Corps leadership forum to advise and support the Commandant of the Marine Corps in the execution of his Title 10 USC responsibilities. The MROC advises the Commandant on a wide range of corporate functions and issues, to include: policy and management; operational matters; force structure; resource allocation; warfighting capabilities; future operational concepts; and other critical issues. The MROC views issues from an institutional perspective, rendering decisions based on the best interests of the Marine Corps and the Marine Air Ground Task Force (MAGTF).

<http://hqinet001.hqmc.usmc.mil/dmcs/Routine%20Reports%20&%20Meetings/MROC.htm>

^{xxiii} BGen William D. Catto. "Rapid Acquisition in Support of OIF II." *Marine Corps Gazette*, (May 2004): 48-49.

^{xxiv} BGen William D. Catto. "Rapid Acquisition in Support of OIF II." *Marine Corps Gazette*, (May 2004): 49.

^{xxv} BG Catto, "a look at the headlines over the last year is instant proof that the tactical wheeled vehicle fleets were not designed for a post-OIF Iraq where the threat is omnipresent and armed with improvised explosive devices (IEDs) that the enemy is willing to detonate anytime and any place.

^{xxvi} In the context of this paper commercial off the shelf (COTS) refers to those items that are readily available for the federal government to purchase and do not require extensive modification to be used by the operating forces.

^{xxvii} BGen William D. Catto. "Rapid Acquisition in Support of OIF II." *Marine Corps Gazette*, (May 2004): 49.

^{xxviii} Above Threshold Reprogramming (ATR) allows Service Components to reallocate funds from one appropriate to another. ATRs require Congressional approval.

^{xxix} For the purpose of this paper, the "Long War" refers to the Global War on Terrorism (GWOT) and the time frame in which we invaded Afghanistan in December 2001 to present day, 2011.

^{xxx} Data derived from the Virtual Urgent Universal Needs Statement (VUUNS) database <https://ehqmc.usmc.mil/org/mccdc/VNS/UUNS/CDI/default.aspx#CurrentWindow=Site%20Pages/Tab1.aspx=CD&I%20Home>

^{xxxi} Data derived from the Virtual Urgent Universal Needs Statement (VUUNS) database <https://ehqmc.usmc.mil/org/mccdc/VNS/UUNS/CDI/default.aspx#CurrentWindow=Site%20Pages/Tab1.aspx=CD&I%20Home> and is based on a data set of 48 UUNS submitted in 2005.

^{xxxii} Defense Acquisition Guidebook (DAG) defines a program of record as a program that has survived the POM and Budget process and is listed in the FYDP.

^{xxxiii} Terms and definitions were derived from information reviewed on-line via e-How at http://www.ehow.com/facts_5007027_definition-lean-six-sigma.html.

^{xxxiv} Technology Readiness Levels (TRLs) are a systematic metric/measurement system that supports assessments of the maturity of a particular technology and the consistent comparison of maturity between different types of technology.

^{xxxv} General Accounting Office (GAO), Report to the Committee on Armed Services, U.S. Senate, War-fighter Support, Improvements to DoD's Urgent Needs Processes Would Enhance Oversight and Expedite Efforts to Meet Critical War-fighter Needs. Page 10.

^{xxxvi} U.S. Marine Corps, Marine Corps Expeditionary Force Development System, Marine Corps Order 3900.15B. (March 10, 2008): Page 8.

^{xxxvii} Data derived from the Virtual Urgent Universal Needs Statement (VUUNS) database <https://ehqmc.usmc.mil/org/mccdc/VNS/UUNS/CDI/default.aspx#CurrentWindow=Site%20Pages/Tab1.aspx=CD&I%20Home> and is based on a data set of 39 UUNS submitted during 2007 and 2008.

^{xxxviii} Data derived from the Virtual Urgent Universal Needs Statement (VUUNS) database <https://ehqmc.usmc.mil/org/mccdc/VNS/UUNS/CDI/default.aspx#CurrentWindow=Site%20Pages/Tab1.aspx=CD&I%20Home>.

^{xxxix} Brigadier General William D. Catto. "Expeditionary Acquisition: Not Business as Usual." *Marine Corps Gazette*, (June 2004): 29.

^{xl} Colonel Glenn Starnes, USMC, email correspondence with author, January 6, 2011.

^{xli} *Capstone Concept for Joint Operations*, v3.0, Chairman of the Joint Chiefs of Staff, January 15, 2009. Available at http://www.dtic.mil/futurejointwarfare/concpets/approved_ccjov3.pdf.

Appendix A

The Defense Acquisition Management System (DAS) and the Defense Acquisition Management Framework (DAMF)

“The Defense Acquisition Systems exists to manage the nation’s investments in technologies, programs, and product support necessary to achieve the National Security Strategy and support the United States Armed Forces.

The primary objective of Defense acquisition is to acquire quality products that satisfy user needs with measurable improvements to mission capability and operational support, in a timely manner, and at a fair and reasonable price.”¹ Figure A-1 is an illustration of the detailed Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management Framework which supports the research, development, production, fielding

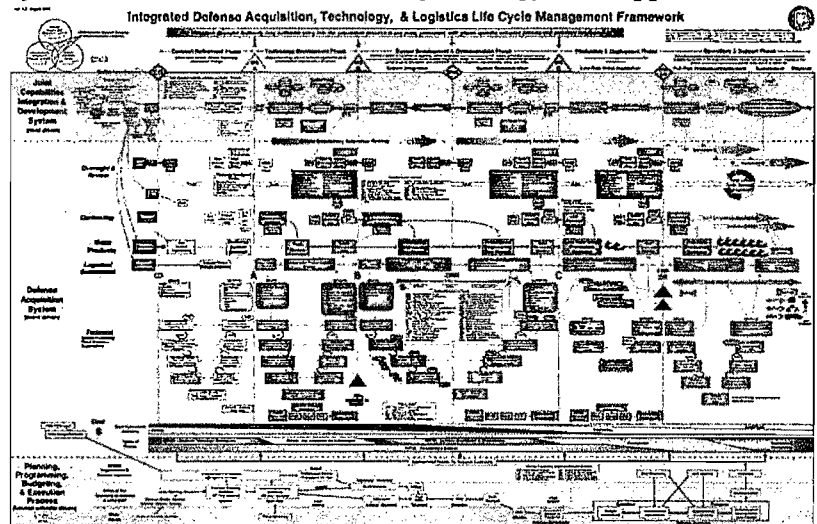


Figure A-1. Defense Acquisition System (DAS)

and sustaining of capabilities to our armed forces. Figure A-2 depicts a macro-level overview of the traditional event-driven process.

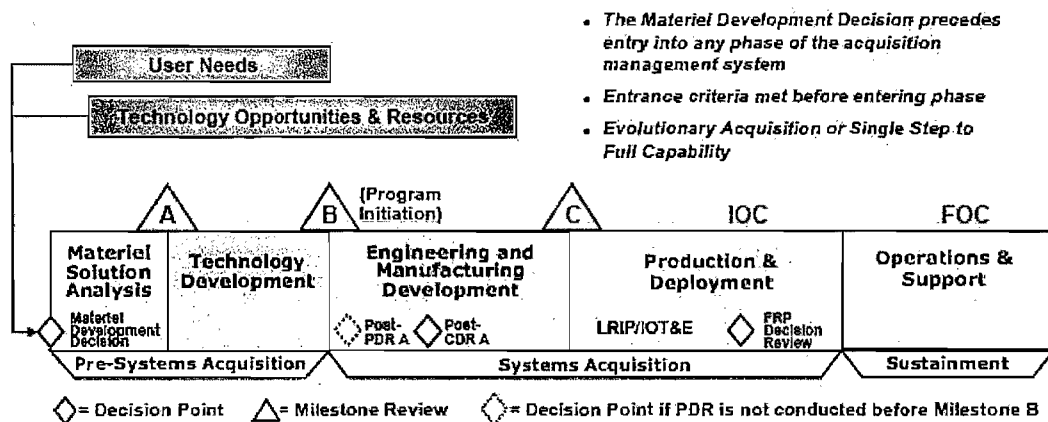


Figure A-2. Defense Acquisition Management System (DAMS)

¹ Brown, Bradford. *Introduction to Defense Acquisition Management*. Defense Acquisition University (DAU) Press, Fort Belvoir, VA. August 2010.

Appendix B

Technology Readiness Levels

Technology maturity is a measure of the degree to which proposed critical technologies meet program objectives; and, is a principal element of program risk. A technology readiness assessment examines program concepts, technology requirements, and demonstrated technology capabilities in order to determine technological maturity.

The use of TRLs enables consistent, uniform, discussions of technical maturity across different types of technologies. Decision authorities will consider the recommended TRLs when assessing program risk. TRLs are a measure of technical maturity. They do not discuss the probability of occurrence (i.e., the likelihood of attaining required maturity) or the impact of not achieving technology maturity.ⁱ

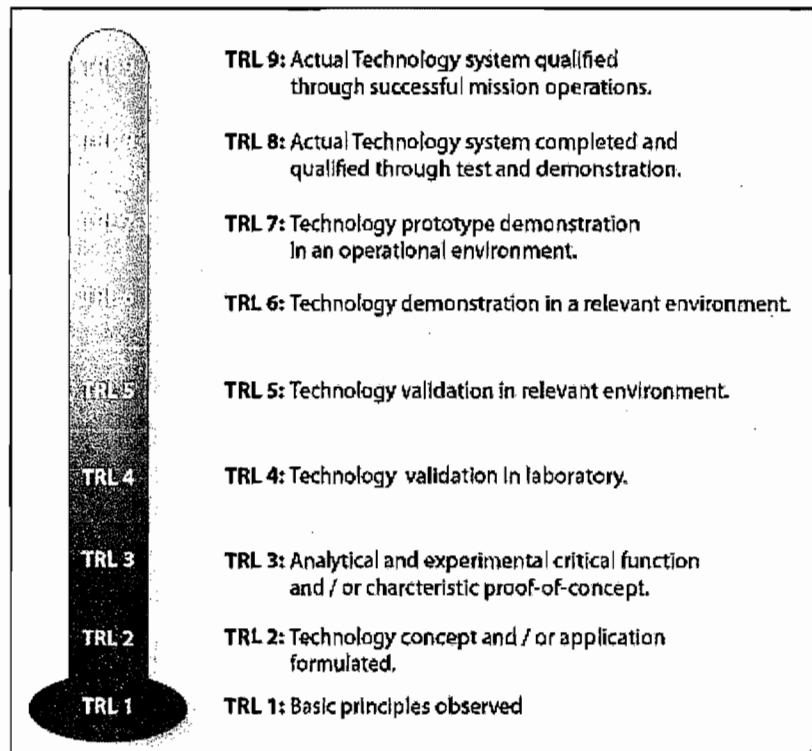


Figure B-1. Technology Readiness Levels

ⁱ U.S. Department of Defense Directive 5000.1, *The Defense Acquisition System*, Washington, D.C.: USD (AT&L), 12 May 2003, 4.1.

Appendix C

United States Marine Corps Urgent Needs Process (UNP) Macro-Level View

The UNP has five phases and enables overlap and parallel work to expedite solutions. Figure C-1 provides a graphic representation of the five phases: Urgent Need Identification and Certification, Solution Development, Solution Execution, Operations and Support (O&S) and Disposal.¹

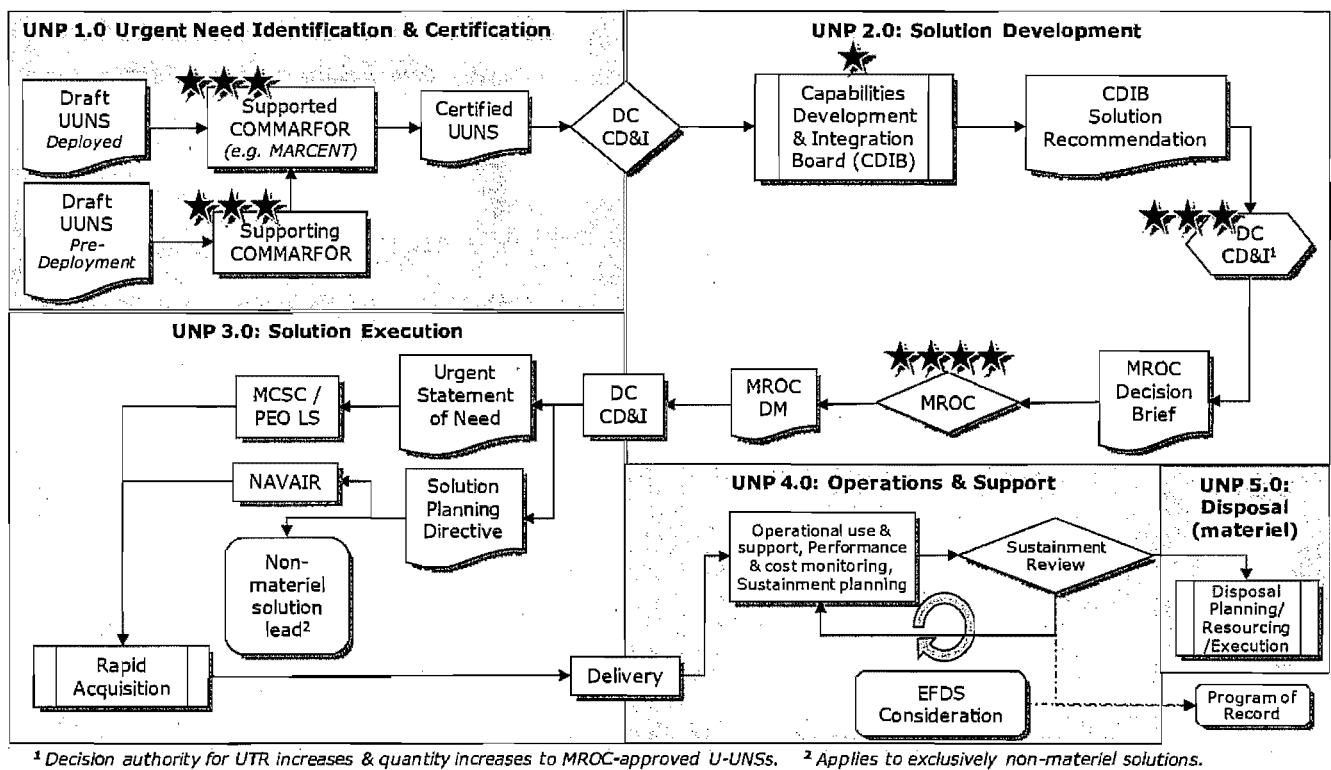


Figure C-1. USMC Urgent Needs Process Macro-Level View

¹ Department of the Navy, Commandant of the Marine Corps. *The Marine Corps Urgent Needs Process (UNP) and the Urgent Universal Need Statement (Urgent UNS)*. MCO 3900.17, October 17, 2008.

Appendix D

Urgent Needs Process (UNP) Functional Synchronization

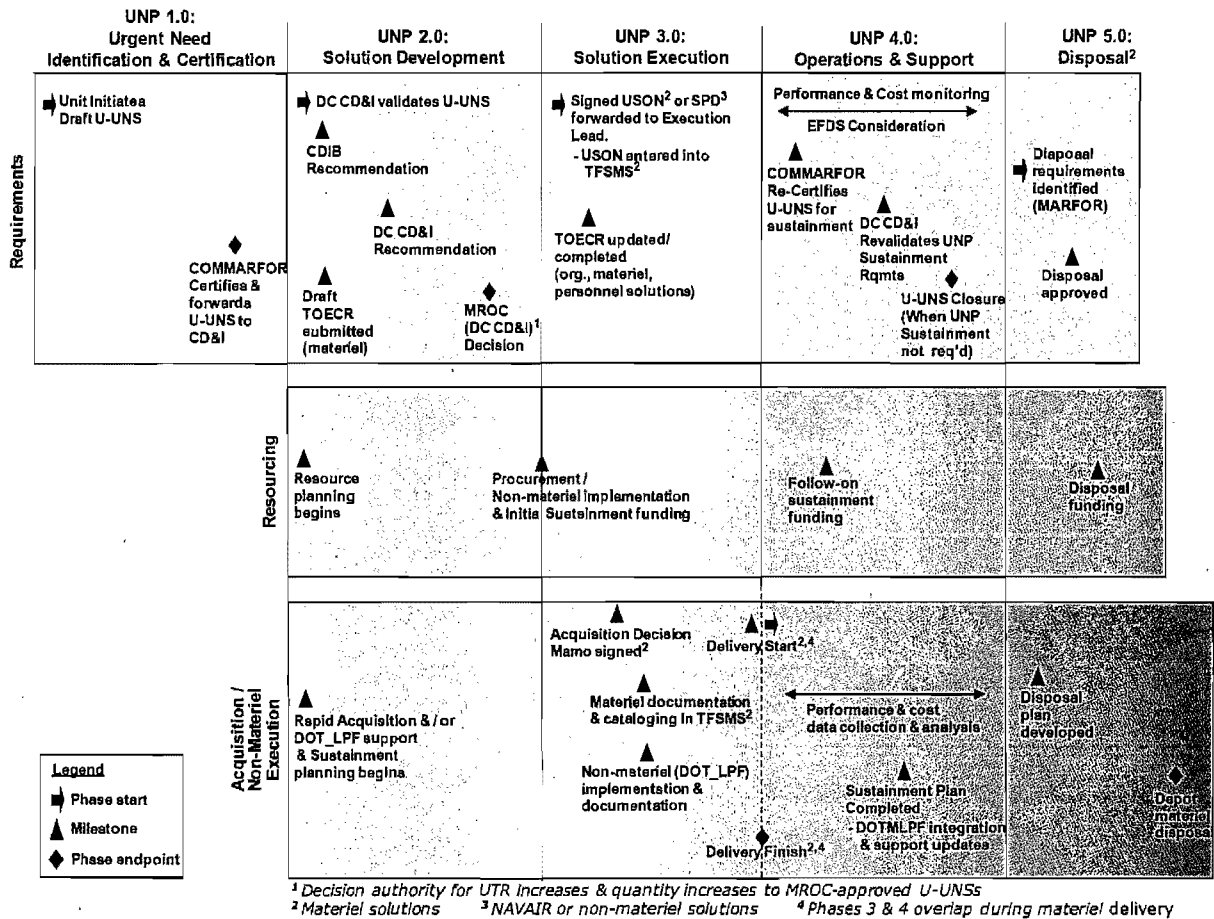


Figure D-1. Urgent Needs Process (UNP) Functional Synchronization

Using the five phases of the UNP the Marine Corps is able to rapidly provide the best available solutions to urgent, mission-critical war-fighting capability gaps in a timeframe acceptable to the operating force commander.¹

¹ Department of the Navy, Commandant of the Marine Corps. *The Marine Corps Urgent Needs Process (UNP) and the Urgent Universal Need Statement (Urgent UNS)*. MCO 3900.17, October 17, 2008.

Glossary of Acronyms

ACMC	Assistant Commandant of the Marine Corps
ADM	Acquisition Decision Memorandum
ATR	Above Threshold Reprogramming
ASN RD&A	Assistant Secretary of the Navy for Research, Development and Acquisition
BTR	Below Threshold Reprogramming
CDD	Capabilities Development Directorate
CD&I	Combat Development and Integration
CDIB	Capabilities Development and Integration Board
CG	Commanding General
CLS	Contractor Logistic Support
COCOM	Combatant Commander
COTS	Commercial-off-the Shelf
CIED	Counter Improvised Explosive Devices
CRC	Crisis Response Cell
DAG	Defense Acquisition Guidebook
DAS	Defense Acquisition System
DAMIC	Define-Measure-Analyze-Improve-Control
DAMF	Defense Acquisition Management Framework
DAU	Defense Acquisition University
DC CD&I	Deputy Commandant for Combat Development and Integration
DoD	Department of Defense
DoN	Department of the Navy
EFDS	Expeditionary Force Deployment System
GAO	General Accounting Office
IED	Improvised Explosive Devices
IWN	Immediate War-fighter Needs
JCIDS	Joint Capabilities Integration and Development System
JRAC	Joint Rapid Acquisition Cell
LNO	Liaison Officer
LSS	Lean Six Sigma
MARADMIN	Marine Administrative Message
MAGTF	Marine Air Ground Task Force
MCCLL	Marine Corps Center for Lessons Learned
MARFOR	Marine Forces
MARFORPAC	Marine Forces Pacific
MCCDC	Marine Corps Combat Development Command
MOL	Marine On-Line
MCO	Marine Corps Order
MCPP	Marine Corps Planning Process
MCSC	Marine Corps Systems Command
MCTSSA	Marine Corps Tactical System Support Activity
MEF	Marine Expeditionary Force
MROC	Marine Requirements Oversight Council
MSTP	MAGTAF Staff Training Program

NDAA	National Defense Authorization Acts
NETT	New Equipment Training Teams
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OPLAN	Operational Plan
OPFOR	Operational Forces
O&S	Operations and Support
POA&M	Plan of Actions and Milestones
PPBE	Planning, Programming, Budgeting, and Execution
P&R	Programs and Resources
RIE	Rapid Improvement Event
SecDef	Secretary of Defense
TECOM	Training and Education Command
TRL	Technology Readiness Level
USD AT&L	Under Secretary of Defense for Acquisition, Technology and Logistics
UNP	Urgent Needs Process
UNS	Universal Needs Statement
UUNS	Urgent Universal Needs Statement
vUUNS	Virtual Urgent Universal Needs Statement Data Management System

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United States Marine Corps, Acquisition Policy Letter No. 2-03. *Processing Requirements Based on "Unusual and Compelling Urgency"*, 23 April 2003.

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