STRATEGY RESEARCH PROJECT

INSTITUTIONALIZING THE WARFIGHTER RAPID ACQUISITION PROGRAM (WRAP)

BY

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ABSTRACT

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To maintain full spectrum dominance in the 21st Century, Army XXI and the Army After Next must be adaptive. Flexibility and speed in the acquisition of materiel systems is a key to an adaptive force. Catalyzed by Force XXI, the Army has begun an initiative called the Warfighter Rapid Acquisition Program (WRAP). The intention of this initiative is to place emerging warfighting technological concepts into the field more quickly through bridging the Program Objective Memorandum (POM) process and streamlining program execution.

The origin of this initiative enjoyed the personal involvement of the Army Chief of Staff, General Dennis Reimer. As the leadership of the Army transitions this summer, the new Chief of Staff will need to decide whether to maintain the WRAP initiative or return $50 to $100 million to the annual competitive budget. This paper identifies issues, and provides recommendations to ensure that WRAP can be institutionalized for the 21st Century.

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BACKGROUND

As the Army moves into the 21st Century, competition for resources will remain high. Concurrently while maintaining a high level of readiness, the Army must invest in the future, modernize, and ensure the best technologies are placed into the hands of soldiers quickly. Over the past several years, the Army has studied ways and methods to reform the acquisition process to help achieve these goals. Catalyzed by Force XXI, the Army has begun an initiative called the Warfighter Rapid Acquisition Program (WRAP). The intention of this initiative is to place emerging warfighting technological concepts into the field more quickly through bridging the Program Objective Memorandum (POM) process and streamlining program execution.

In 1996, the Army Chief of Staff, General Dennis Reimer, personally requested Congress to appropriate funds for the Warfighter Rapid Acquisition Program. His personal involvement demonstrated the importance of this initiative. He believed that the Army needed to have a degree of flexibility, as well as the ability to take advantage of new, fast evolving technologies, in meeting the operational requirements of the

future. In 1997, the congressional committees developed language that closely resembled the Army's proposed wording.

Congressional Committee Language[1]

- … allow the Army to conduct a timely evaluation of new equipment.
- … To field technologies demonstrated during Force XXI experiments.
- Get proven technologies to the soldier as quickly as possible, rather than delay fielding because of the lead time required in the budget process.
- The Army is expected to subject programs … to normal reviews and evaluations required by law, prior to transitioning into production any programs tested with these funds.
- Some technologies currently under experimentation are funded elsewhere … therefore, these initiatives funds should be reprogrammed ….

Figure 1. Wording used by congressional committees to outline WRAP objectives and requirements.

In order to provide a degree of oversight, Congress also established notification requirements.

Congressional Notification Requirements[2]

No funds may be obligated without prior notification to the congressional defense committees, Notification is to include:

- Technical maturity;
- Criticality and priority of warfighting requirements;
- Affordability;
- Effectiveness;
- Sustainability in future budget submissions.

Figure 2. Wording used by congressional committees to state areas of oversight interest.

Based on the congressional committees' language and concerns, the Army Acquisition Reform Reinvention Lab developed guidelines for the Warfighter Rapid Acquisition Program. According to these guidelines:

> There must be an urgent need for the initiative expressed by the user and it must have demonstrated a compelling experimental success;
>
> The ideal candidate is a new initiative that has not been previously funded;

> A good candidate is an initiative that may be funded because the Army needs it soon or needs additional quantities;
>
> Funds are not to be used to pay old bills or resource Land Warrior; and
>
> Funds are not to be used for indefinite experimentation; however, some continued experimentation on high leverage initiatives … is acceptable.[3]

In the spring of 1999, a new Chief of Staff will assume his responsibilities for leading the Army into the 21st Century. His predecessor has placed his thumbprint on WRAP. The question to answer is whether the new Chief of Staff will want to continue this initiative or return $50 to $100 million to the annual competitive budget. The purpose of this paper is to provide recommendations for the future of the WRAP initiative, identify what the Army really needs from WRAP, and identify potential issues.

The primary recommendation is to continue the WRAP initiative. It is a very valuable tool; however, there are many lessons learned from the first two years of execution, and improvements are necessary in order to realize WRAP's full potential. The Army has made continuous process improvement by incorporating those lessons learned, but there has been a failure to fully institutionalize WRAP across the Army. With the appropriate modifications, the Warfighter Rapid Acquisition Program can make a valuable contribution to the future Army.

METHOD OF RESEARCH

To support the contents and conclusions of this paper, both literary discovery (secondary research) and direct interviews (primary research) were performed. Literary searches provided background information on public law, regulations, current policy, and acquisition reform. Direct interviews provided the multiple perspectives of the diverse organizations involved in the WRAP initiative. Some conclusions and recommendations are based upon the collective sum of the interviews.

STRATEGIC VIEW

World uncertainty will continue as the United States moves into the 21st Century. For the nation to remain a leader in the world community, the United States requires a well equipped, modern military (to include the army), as an instrument of national policy. The military must be able to adapt to the changing environment and threats in order to remain an effective means to implement that national policy. The current defense strategy states, that as we move into the future, the military must maintain the capability to shape the strategic environment, respond to the full spectrum of threats, and prepare now for the threats of tomorrow and beyond.[4]

The military missions of Army XXI and the Army After Next (AAN) will range from major theater warfare to homeland defense, peacekeeping, counter narcotics, counter terrorism, and additional operations-other-than-war (OOTW). Although the future is uncertain, the military must be able to maintain that full spectrum dominance. "Adaptiveness [of forces] helps bridge the gap between the expected and the actual future."[5] Adaptiveness also applies to how the military prepares for the future threats.

The ability to leverage both the commercial and Department of Defense research, development, and acquisition (RDA) activities can greatly enhance the ability to field an adaptive force. "Unexpected opportunities (e.g., new technologies) can arise that an adaptive military will want to incorporate rapidly."[6] Furthermore, "the ability to field new equipment rapidly in response to contingencies is another attribute of adaptiveness."[7] The Army's acquisition process must be flexible and responsive to meet the operational requirements. The Warfighter Rapid Acquisition Program is a potential way to take advantage of emerging technologies in building a well-equipped force that is prepared to respond to the uncertain future contingencies.

STANDARD SYSTEMS AND METHODS

The acquisition management system, along with the requirements generation [or determination] system and the Planning, Programming, and Budgeting System, form the Department of Defense's three principle decision support systems.[8] In order to fully illustrate the impacts of the Warfighter Rapid Acquisition Program, these standard systems, procedures, and policy must first be reviewed. The purpose of this section is not to explain each of these systems in detail, but to provide background information on the relationship between the systems and to provide a baseline for a WRAP comparison.

THE ACQUISITION CYCLE

The acquisition cycle is partitioned into phases. An acquisition phase consists of "all the tasks and activities needed to bring a program to the next major milestone."[9] ("A milestone is the decision point that separates the phases of an acquisition program.")[10] The acquisition cycle consists of four major phases: Phase 0 - Concept Exploration (CE), Phase I - Program Definition and Risk Reduction (PDRR), Phase II - Engineering and Manufacturing Development (EMD), and Phase III - Production, Fielding /Deployment, and Operational Support.

Historically, a program requires twelve or more years to move through the phases of acquisition. "The focus of [Concept

Exploration] efforts is to define and evaluate the feasibility of alternative concepts and to provide a basis for assessing the relative merits…."[11] The PDRR phase is the period where a program becomes defined as one or more concepts. Assessments of these concepts, prototyping, demonstrations (technical and operational), and risk reduction activities are performed.

During EMD, the system's design is completed, the system is tested, manufacturing and production processes are validated, and system supportability is determined. Low Rate Initial Production (LRIP) takes place during this phase. EMD historically has required four to six years to complete.

Finally a program moves into the production, fielding and support portion of the acquisition cycle. During this phase, systems are produced and fielded to achieve operational capability. Operational support is conducted to meet the sustainment requirements of the system. Recent trends indicate that system production and fielding periods are being "stretched" due to fiscal constraints.

THE REQUIREMENTS PROCESS

Prior to entering into the acquisition management system, a materiel solution originates from the requirements generation/ determination system. This system has also undergone some major reforms which "enable Army leaders to make better and faster

decisions."[12] By using a multidisciplinary Integrated Concept Team (ICT) approach, TRADOC leads a streamlined process to determine requirements oriented on capabilities (not deficiencies).

This process is linked to the acquisition system. Materiel solutions normally enter into the acquisition system at the Concept Exploration phase. With early ICT studies and/or technical mature systems, they can enter at the PDRR or EMD phases. Materiel solutions require formal documentation in the form of Mission Need Statements (MNS) which state broad requirements and Operational Requirements Documents (ORD) which translate broad concept terminology into system performance requirements.

PLANNING, PROGRAMMING, BUDGET, AND EXECUTION SYSTEM

Materiel systems must be programmed as part of the Planning, Programming, Budget, and Execution System (PPBES) and Program Objective Memorandum (POM) processes. "[During the programming portion of the process, the] programmer endeavors to translate the goals and objectives of the planner (i.e., requirements) into finite action with resources."[13] This process may be described as "systemic chaos" at best. Programs must compete for resources within and external to their Program Element Group (PEG). The Office of the Deputy Chief of Staff of

the Army for Operations (ODCSOPS) prioritizes programs and allocates the resources. The compiled document is called the POM.

Although all of portions of the PPBES are working in parallel at any point in time, a singular program moves through the system in a serial process. An approved program competes for resources in the programming phase in "year one" - the program year. After receipt of the major command POMs in December, the Army staff begins POM development in January. Generally, the Army POM is "locked" in the June time frame and submitted to the Office of the Secretary of Defense (OSD).

The President's Budget is submitted to Congress on or about 15 January of "year two" - the budget year. In the October time frame, Congress passes the Defense Appropriations Bill enabling the beginning of "year three" - the year of execution. OSD normally will release funds to the services by December; however, sometimes certain appropriations are withheld to later dates.

THREE PROCESSES (REQUIREMENTS, ACQUISITION, AND PPBES) COMBINED

Tracing a weapon system's life from the original identification of the desired operational capability through to the fielding of a system, results in a total process which requires years to complete. Portions of the requirements

determination process, POM process, acquisition process can be done in parallel; however, the majority of the total process is still performed in serial. Naturally every weapon system is different and the time required to generate requirements, prioritize in the POM, develop and field a system, will not be the same. However, in general, a timeline of twelve to fifteen years can be established to show the term required to complete the total process.

CURRENT WRAP POLICY

According to the 1996 Policy for Warfighting Rapid Acquisition Program, "The WRAP process is a bridge linking TRADOC experimentation and systems acquisition. [WRAP is] a mechanism to accelerate the acquisition of selected operational warfighting enhancements borne of successful warfighting experiments. The WRAP concept applies to Advanced Warfighting Experiment (AWE), Advanced Technology Demonstration (ATD), Advanced Concept Technology Demonstration (ACTD) or similar type demonstrations and evaluations."[14] The candidate programs should be relatively technologically mature, low risk for execution, and meet urgent need criteria.

TRADOC initiates the WRAP process by selecting candidates and submitting them to the WRAP Army Acquisition Review Council (ASARC). In accordance with the 1996 policy for WRAP, the ASARC

reviews the requirement and urgency, affordability, and experimentation results. In addition, the ASARC approves acquisition strategy, assigns management responsibility, assigns milestone entry point, and approves funding strategy. The policy also establishes the responsibilities for the major participating agencies and outlines the required documentation.

The current WRAP policy shortens a weapon systems cycle by specifically impacting the requirements determination system and the PPBES system. It allows the Army to take advantage of new technologies and get solutions for required operational capabilities into the hands of soldiers more quickly.

WRAP reduces the requirements generation process timeline through TRADOC's submission of an operationally evaluated concept directly to the ASARC. In effect, the program "jumps" from concept to EMD. WRAP policy requires that the candidate program fill an urgent need and show the tie to the Defense Planning Guidance (DPG).[15] Formal documentation is also reduced by streamlining documentation requirements. Instead of a detailed Mission Need Statement (MNS) and Operational Requirements Document (ORD), a Battle Lab Experimentation Plan (BLEP) with an Operational Requirements Statement are submitted.

WRAP also bridges the Program Objective Memorandum (POM) budget process in order to provide the means/resources to accelerate the development and procurement of the systems.

Congress facilitates the means to execute WRAP through the defense appropriations. Instead of Congress appropriating funds for a specific program during the budget process, it makes a general appropriation for programs that are not clearly specified at the time of the appropriation. (However, the Army must submit to Congress the list of initiatives for review prior to execution). The effect is to accelerate programs by two years, taking advantage of emerging technologies, by eliminating the budget process lead times. WRAP allows for the resourcing of "urgent need" initiatives without disrupting other programs' funding streams in the budget or execution years.[16]

WRAP funds are appropriated for Research, Development, Test and Evaluation (RDT&E) and only cover the period between the year of execution and the POM submission (normally two years). The Army must budget the balance of the WRAP program through the normal process. The program must compete within the appropriate Battlefield Operation System (BOS) for those funds. The Army learned a lesson from the Linebacker program to ensure that follow on production funding is identified at the time of initial WRAP approval. (This was not done in the case of Linebacker and the program was unfunded at the Milestone III decision.) The fact that a WRAP initiative must identify the follow-on resources in the POM, demonstrates that WRAP programs

do compete successfully and are on priority par with main stream Army programs.

Inherent in the WRAP process is a reduced acquisition cycle. Candidate programs must be a "compelling success" in experimentation; most programs will enter the acquisition system at Milestone II. The CE and PDRR phases are, in effect, replaced by the experimentation. Given, "approved programs will be funded as prototypes for two years",[17] dictates a two year EMD phase. However, current policy does not specifically address WRAP streamlining activities for a two-year EMD and accelerated fielding.

Combining the time-savings from all three systems (requirements, PPBES, and acquisition), WRAP can field capabilities in three to five years (versus the eleven to fifteen years for standard processes).

ANALYSIS OF CURRENT POLICY AND PROCESS

The basic premise for WRAP policy is sound. WRAP *does* and *will* provide a way for the future Army to be equipped more quickly with emerging technologies. The importance of this initiative can be illustrated by the example of information technology. In multiple mission areas (e.g. counter-narcotics, counter-terrorism, etc.) information dominance is an asset and mission enabler. In an era, where a new generation of computers

and electronics technology is born every eighteen months, it is imperative to shorten the acquisition cycle. Standard processes take two years just to get the program budgeted and appropriated, so the original technology is surpassed, outdated, and in some cases, obsolete from the onset of the Department of Defense (DOD) development. WRAP helps the Army get within the technology development cycle, ultimately allowing for the adaptive force to take advantage of the technology.

Despite the successes of WRAP in shortening the time it takes to field equipment, the Army is less than one hundred percent successful in the development and execution of WRAP policy. The shortcomings are manifested in primarily three major areas: the potential for poor selection of WRAP programs; lack of consensus in policy interpretation and program execution goals among all of the WRAP-impacted organizations; and the ability of WRAP as currently defined, to fulfill the true needs of the Army. Without adjustment to the process, WRAP will not be fully institutionalized, thereby impacting the long-term sustainment and success of the process in the 21st century.

THE ARMY'S NEED FOR WRAP

Does WRAP, as currently defined, meet the true need of the Army? Prior to the formulation of WRAP concept, the Chief of Staff of the Army's real desire was to have a degree of

flexibility in the acquisition process. If an emerging technology, proven concept, or other materiel system could meet a mission need of the Army, then flexibility in the requirements, PPBES and acquisition processes was desired.[18] The implementation of this desire is WRAP.

Although the current WRAP policy is a major step in the right direction, the Army has constrained itself so that the full potential of the process can not be realized. Congress basically used the wording submitted by the Army for the WRAP language in the Defense Appropriations Act. By original justification, WRAP is currently tied to technologies associated with the first digitized division.[19] Funding of WRAP programs covers development and prototype manufacturing. Advanced Warfighting Experiments (AWE) have provided the primary avenue for concept origination and evaluation.

In the strategic picture, why should WRAP programs be limited to the above listed constraints? If the Army's true goal is to provide a degree of flexibility in the requirements and acquisition processes for a relatively small portion of the modernization account, then that true need should be reflected in WRAP policy. If an adaptive, flexible, multi-mission force is a requirement to face an uncertain and diverse threat, then WRAP initiatives should be expanded past those associated with the digitized division. If the commercial sector has developed

a product that satisfies an urgent need, then why not take full advantage and use WRAP funds for immediate procurement.

This is not to say discipline should be eliminated from the process. With the Brigade and Division XXI AWEs completed, the Army must find other venues to prove and evaluate viable WRAP candidates. The only requirement to be placed on the evaluation event is that the test/demonstration should provide sufficient data for operational evaluation of the initiative (i.e. evaluate how the soldier will employ the system).[20] The Army should not stray from WRAP's intent to fund new or accelerated initiatives. Programs that have competed and "lost" in the POM process, or programs that require additional funding should continue to be excluded from viable WRAP initiatives.

Relations with Congress is key to ensure the Army can exploit the full potential of WRAP. Good communication of the Army's requirements is important in cementing those relations. As one congressional staffer said, the Army needs to figure out what the WRAP policy should be and establish better communication with Congress.[21] For Congress, the Warfighter Rapid Acquisition Process is not "business as usual". There is a "natural" differing view as to the value of WRAP. The efficiency and flexibility that WRAP affords the Army is not necessarily in the interest of Congress.

Congress has the responsibility to provide oversight on defense issues and the expenditures of public funds. From a DOD perspective, this oversight can cause inefficiencies in execution of programs. To a degree, WRAP detracts from this oversight ability and the power and authority of Congress. Congress' ability to monitor the Department of Defense through control of the purse strings is lessened by not identifying specific programs for appropriation.

Furthermore, the members' ability to influence programs advantageous to their constituents is reduced. In addition, there are groups in Congress that view WRAP as "nice-to-have" rather than a strong requirement.[22] The Army itself reinforced this view by submitting WRAP funds in 1998 for Omnibus reprogramming. Tough decisions were made and the funds were reprogrammed to meet shortfalls in current readiness. By reprogramming WRAP funds, which had the CSA's personal thumbprint, the Army highlighted the concern in the readiness issue. Unfortunately, the reprogramming also sent the message to Congress that WRAP was not as important as other Army programs.

WRAP PROGRAM SELECTION

The Army has had WRAP successes that have significantly reduced the total time in getting critical systems into

production and into the field. However, in several instances the Army has had a less than perfect record in being able to follow through its original commitments for WRAP. One reason for this is the specific programs selected for WRAP. The intent for WRAP is to identify new initiatives or initiatives that have an urgent need for acceleration. The intent is not to fund programs that have competed and lost in the normal POM process. Furthermore, initiatives should be relatively mature and represent a low risk for development and in some cases risk assessments were inaccurate.

Despite good intentions, there is the potential to select the "wrong" program for WRAP. In an era of constrained resources, WRAP represents a source of uncommitted money and there is a potential for abuse of the system. A natural tendency can develop for a person or agency to try to "fit" their idea into the criteria for a WRAP candidate. In some cases, these candidate programs are on the fringes of the intent for WRAP. In other cases the submitted ideas do not meet the criteria. Learning from the first two years, for 1999 the Army did a much better job screening the initiatives. For example, the System Survivability Enhancement Suite (SSES) program competed and was not funded in the POM process. It was then submitted as a WRAP candidate; however, the Army leadership disapproved the program because it did not meet WRAP's intent.

By definition WRAP program technologies are mature and are identified to be low risk. Some WRAP initiatives have been approved in which the program risk was not adequately assessed. A rigorous risk assessment must be completed prior to the approval of a WRAP candidate or there will be a high possibility that the program can not complete development in the prescribed time. This can also occur when the system that receives approval, or finally goes into development, is modified from that which was evaluated in the operational demonstration.

There is a tendency for "requirements creep" between the demonstration and program execution. This is not necessarily "bad". Demonstration systems are often fabricated just to prove an operational concept or technology. As the system transitions into development and production, it must be robust and supportable.

Requirements may "grow" to ensure the Army is getting the best value. As long as this risk is identified, managed, funded, and reflected in the acquisition strategy appropriately, the initiative should remain a viable for WRAP. For example, the Striker concept that was tested in the AWE was primarily fabricated from existing fire support equipment in the inventory. Much of this equipment is obsolete and expensive to repair. The program approved by the WRAP ASARC included incorporating fire support equipment that was in parallel

development for the Bradley Fire Support Vehicle (BFIST). By incorporating this new equipment, some risk was added to the Striker program, but the fielded system will be easier to maintain, more supportable, compatible for training, and have reduced life cycle costs. The risk was managed and mitigated through leveraging the BFIST development activities allowing for the Striker system to be completed development within the original schedule.

CONSENSUS FOR INSTITUTIONALIZATION

Through the interview process it was readily apparent that agencies and individuals interpret the WRAP process differently. Although there seems to be common understanding of WRAP at the General Officer level, consensus is absent at the lower echelons. The General Officers are in basic agreement on WRAP's intent, definition, total scope and methods of execution. WRAP is a robust concept that aids in streamlining the requirements determination, budgeting/POM, and acquisition systems.

Currently, the institutional agencies have different perspectives. It is normal for the different stakeholders to have different perspectives; however, to institutionalize WRAP, the holistic definition, intent and objectives of WRAP must be understood across the Army.

For example, there are inconsistent concepts for the definition of WRAP and the start/end point of the process. Headquarters, TRADOC looks at WRAP as only a funding scheme that acts as a "resource bridge".[23] A TRADOC proponent school representative believes WRAP commences with the experiment itself. Others believe the WRAP process ends when then the ASARC approves the program.

From the program manager point of view, this is only the halfway point. As one WRAP Program Manager put it, "WRAP is a great concept until you are the person responsible for executing it. The systems in place do not support WRAP execution."[24] The Engineering and Manufacturing Development (EMD) phase of the acquisition system is normally at least four years in duration. Streamlining in all organizations must take place in order to meet WRAP's no-more-than two-year EMD goal and to field the system quickly.

Agency consensus on interpretation of WRAP policy is also key in ensuring that the intent of WRAP is met. For example, ODCSOPS (Force Development) is in the difficult position of allocating limited resources over a large set of requirements. They are responsible for ensuring that the procurement "tail" is funded for WRAP programs in the POM. This normally means that a bill payer program will be identified. ODCSOPS must balance these competing requirements. The result can stretch

procurement over ten years, thus diminishing the goal of getting WRAP equipment into the hands of soldiers quickly.

Another example is in the test and evaluation (T&E) agencies. Although improvements have been achieved, there is a tendency to scrutinize WRAP programs at the same level as standard programs, thereby again extending the timelines and minimizing the impact of fielding equipment quickly. Part of the cause rests in the culture of the T&E community to want to test to eliminate the majority of risk from the system. Furthermore, Congressional language mandates that WRAP programs be subjected to all evaluations prescribed by law.

By definition, WRAP programs meet an "urgent need"; therefore all test requirements should be developed with that in mind. All programs are unique and a "cookie cutter" solution for test requirements can not be applied; however, all WRAP programs have common characteristics. WRAP programs, by design, are suppose to be low risk initiatives, thereby mitigating some of the inherent dangers of streamlined testing. In order to meet the intent to complete EMD within two years, technical testing needs to be tailored.

Operationally, the concepts were proven in demonstrations and exercises prior to program approval, thereby reducing the risk for non-suitability. In turn, operational testing should be able to be reduced. (Safety testing of the system to be

fielded must still be rigorously performed). Institutionally, the test and evaluation community is not set up to handle WRAP programs. For example, the Test Schedule and Review Committee (TSARC) resourcing process to allocate soldiers for testing is an eighteen-month process. This does not support the WRAP development cycle. Although, out of cycle requests can be submitted, several programs have had to resort to the "ol' boy" network to obtain soldiers for testing and remain on schedule.

In addition, the standard test documentation requirements timeline does not support WRAP development schedules. Based on standard lead times, "some documentation would be due when the development contract is initially awarded."[25] To date, the T&E community leadership has supported WRAP and streamline initiatives; however, compressed timelines for WRAP seem to be achieved by applying more resources, - not by institutionalizing streamlined processes.

In order to field a system, the system must be supportable. Key to ensuring that WRAP systems can be fielded more quickly is the ability to streamline the logistics process. "All program logistics issues are magnified for a WRAP program."[26] For example, a provisioning system that allows twenty-nine months from the time of a provisioning conference for replacement parts to be available, does not support the WRAP process. In addition, WRAP programs are held to the same materiel release

process as standard systems. Rather than institute the intent of materiel release (i.e. ensure a system is safe and supportable by some means at the time of fielding), WRAP programs must adhere to a materiel release process that assumes a system has had years to mature the support base.[27]

The same basic issue rests in the training element of logistics. In concert with the TRADOC training developers, the logistics community dictates standard training requirements for the WRAP programs. For example, training devices are required at the time of fielding and "heel to toe" training documentation requirements must be completed. Without streamlining, concurrent documentation development, and decisions to accept acceptable initial risk to field quickly (e.g. trade initial training device fielding for an earlier system fielding), WRAP will not fulfill its goals.

The Linebacker program can exemplify the potential result. This system was developed, tested, and produced within a schedule that supports the WRAP's intent; however, its fielding was delayed. The delay was due to the system being considered not initially supportable. Although Linebacker by most accounts is a very successful WRAP program, all the elements of the Army were not synchronized to meet the ultimate goal of getting the system to the field as quickly as possible.

Industry is also a key partner in any WRAP program. Industry can identify and bring to the government new technologies to meet requirements. They can serve as technical experts and identify potential obsolescence issues within the community. WRAP adds some risk to a program from industry's perspective. Industry may make significant up front investment in order to ensure that a candidate WRAP initiative meets low risk criteria and is included in AWE evaluations. Compressed schedules add risk as well. To execute a development program within two years requires a firm commitment and understanding of WRAP by industry.

Although, by definition, WRAP programs are considered "urgent need", industry does not necessarily internally resource WRAP programs appropriately. Especially in large corporations, WRAP programs are relatively "low dollar" contracts. The programs can receive lower priority for corporate resources, are sometimes staffed with less experienced personnel, and can be a victim of high personnel turnover. These resource issues can inhibit a WRAP program from meeting its goals. Strong up front corporate commitment and understanding of WRAP's intent, combined with a strong government-industry team relationship, can help mitigate schedule risk.

RECOMMENDATIONS

The Army has already made significant improvements to WRAP. Production "tails" are now required to be funded prior to program approval. In addition, planned changes to the approval schedule will permit alignment with the PPBES cycle, thereby facilitating contract execution. For FY99, a greater degree of discipline was exercised by the Army leadership to select programs that best met WRAP's intent. The following general/top-level recommendations and specific action recommendations are made to further improve WRAP.

GENERAL RECOMMENDATIONS

Recommendation #1: The Army should continue the Warfighting Rapid Acquisition Process and continue to annually budget $50 to $100M for WRAP programs.

Rationale #1: WRAP provides a way to respond to a changing threat and emerging technologies. Any program that allows for flexibility, adaptiveness, and shortened decision cycles for equipping the force, needs to be maintained. The multi-spectrum threat and mission responsibilities require a way to prepare an adaptive force in the face of future uncertainty.

Recommendation #2: WRAP initiatives should take full advantage of other reforms on the acquisition system to accelerate

fielding. Emphasis should be placed by all involved agencies and organizations on accelerating and streamlining the execution of program activities. Each agency and organization should develop specific guidelines for their execution of WRAP programs.

Rationale #2: Meeting WRAP's intent and two-year development goal is dependent upon all involved agencies to not conduct business as usual. WRAP is but one piece of acquisition reform initiatives. Combining all facets of acquisition reform help foster the intent of WRAP. In 1996, the Army Chief of Staff (CSA) said, "Once an item has passed proof of principle in the Advanced Warfighting Experiment and we have decided to make it a part of Army XXI, we should then make it part of the Reinvention Lab for Acquisition Reform [WRAP] and use all the reforms we think make sense…."[28]

Recommendation #3: The Army Acquisition Reform Reinvention Lab should draft an update for WRAP policy. The policy letter should address a robust definition of WRAP for program eligibility and execution. Program eligibility should be clearly defined to curtail abuses and specifically preclude programs that lost in one venue to compete for WRAP funds. Competition should be expanded to include systems ready for production (e.g. Commercial Off the Shelf - COTS) and programs

evaluated in any valid venue (i.e. Do not limit initiative evaluations to AWEs or ACTDs, etc.). Expand the policy's definition to include guidance for program execution requirements.

Rationale #3: In order to institutionalize WRAP, a clear policy statement is needed which defines what the Army desires to achieve from WRAP, and expresses the intent and guidelines for each piece of the WRAP process (program selection, resourcing, and execution). Each player must have a common understanding of WRAP's intent, objectives, and process in order to form agreement across the Army. Decisions made at all levels and in all organizations will have a great impact upon the success or failure of WRAP programs. In turn, these decisions will impact perception of WRAP's value and longevity.

Clear program eligibility definition will establish a structure to curtail abuses that attempt to fund programs that do not meet WRAP's intent. Expanding the eligibility definition to include production-ready systems will provide additional flexibility to meet urgent need requirements. Expanding the policy process definition to include program execution, will provide guidance through to the ultimate goal of WRAP - accelerated fielding of equipment.

Recommendation #4: Improve communication with Congress for WRAP issues:[29] a) Clearly communicate policy updates from #3 above; b) Develop strategy to market WRAP successes and the plans to correct process shortcomings; c) Ensure required reports provide the desired information and are submitted to Congress in a timely manner; d) ODCSOPS fence WRAP funding in the POM years. Rationale #4: The means for WRAP is the "good faith" appropriation by Congress for research development, test, and evaluation. In order to ensure these means are continued into the 21st century, the Army must nurture its relationship with Congress and articulate the WRAP program more clearly. A) The Army needs to communicate any desire to modify the original definition of WRAP. For example, if the Army wishes to extend WRAP to include production-ready programs or programs not associated with the firs digitized division, then this must be communicated to Congress in order to receive the desired appropriation. B) Positive reinforcement of WRAP successes will breed success. At times, the Army does not do a good job of communicating successes. A "marketing" strategy will cause a focus on this shortfall. C) Notification of Congress prior to release of funds, systematic status reporting, and informal notification of successes and improvements should meet congressional oversight concerns. D) The fencing of WRAP funds

in the POM by ODCSOPS, will help ensure program stability and allow the Army to follow through on the congressional intent.

SPECIFIC RECOMMENDATIONS

Recommendation #5: Do not reprogram WRAP funds when a valid WRAP initiative exists. If there are no strong WRAP candidates in a particular year, clearly communicate that fact to Congress and OSD prior to any reprogramming action.

Rationale #5: Reprogramming WRAP funds sends the wrong message to Congress and OSD. It infers that WRAP is not important and it is a source of money for "bill payers". An analysis should occur prior to any WRAP reprogramming action that weighs the strategic long-term value of WRAP versus the short-term requirement. Similarly, funding the "wrong" programs can be detrimental to WRAP's long term feasibility. In the scenario where there is a lack of good WRAP candidates in a particular year, a mechanism / policy to reprogram funds should be established which clearly specifies the rational for the action.

Recommendation #6: Prior to program approval, an interim decision and recommendation by the Milestone Decision Authority (MDA) of a candidate program should be presented to the Army System Acquisition Review Council (ASARC).[30] An adequate risk

assessment should be completed and reviewed prior to program approval.

Rationale #6: WRAP is not appropriate for all development and procurement. WRAP needs to be limited to those systems that are a relative technical low risk, are truly an urgent need, and meet the intent of WRAP. Furthermore, a risk assessment is critical to determine if an initiative can actually develop to fruition in the specified schedule. (Appropriate risk is okay as long it is identified, resourced, and mitigated). The system by which WRAP candidates are approved must be enhanced. In a three-hour meeting, it is doubtful that an ASARC can adequately assess all of the key parameters for ten to fifteen different programs. A review by the MDA would provide for an in depth assessment. The MDA review would inherently strengthen the integration of combat and materiel developers, as well as other integrated product team (IPT) members, prior to program execution. The MDA can review the level of testing completed, suitability of the system, timeline for materiel release, etc. The ASARC would then become an approval for allocation of resources. Both the MDA and ASARC can review the proposed streamlining initiatives.

Recommendation #7: For any given year, identify WRAP candidates to the Army Chief of Staff and CG TRADOC earlier in decision process.[31]

Rationale #7: The CSA ultimately approves all WRAP candidates. They should receive a "sanity check" early in the decision process in order to ensure they meet the CSA's current requirements for the capabilities based Army.

Recommendation #8: Shorten the WRAP candidate approval schedule.

Rationale #8: The piece of the process between new concept evaluation and ASARC approval takes too much time and does not foster WRAP goals. Report submissions need to be more timely in order to determine candidate program priorities.

Recommendation #9: Upon program approval, send a letter, signed by the ASARC chairman, to all participating organizations. This letter, coinciding with the Acquisition Decision Memorandum (ADM), should outline expectations for program execution commensurate with WRAP's intent.

Rationale #9: A letter, as described above, would stress the importance that the Army leadership places on the streamlined execution of WRAP programs.

Recommendation #10: Articulate WRAP objectives to the Office of the Secretary of Defense (OSD). Gain consensus for OSD rapid release of WRAP funds.

Rationale #10: OSD must provide full support for WRAP in order to meet execution goals. In the past, OSD has withheld WRAP funds, thereby causing program delays and adversely impacting the WRAP initiative.

Recommendation #11: Identify additional venues for initial concept evaluation. Consider Joint Warfighting Experiments, ACTDs, modeling and simulation, contractor-sponsored evaluations, and leveraged evaluations from similar technologies/concepts. Bring OPTEC into the process early.

Rationale #11: The original WRAP concept was tied to Force XXI and the Army AWE. Given that these particular exercises are completed, other venues need to be explored. Good ideas that meet the intent of WRAP can be evaluated in any venue that provides adequate data. In an era of limited resources, contractor sponsored events, leveraged tests, and modeling and simulation may provide adequate data for initial concept evaluation. In addition, as the United States Atlantic Command begins joint warfighting experiments, the WRAP initiative is the perfect method to bring resulting good concepts to fruition. "Let's place a "J" in front of WRAP and expand it to the joint

community. As concepts are proven, a system will be in place to execute the initiatives."[32]

Early introduction of OPTEC into the process provides a level of independence and discipline in the process. (In the spirit of WRAP, OPTEC must also be open to new T&E concepts in support of the process).

Recommendation #12: OPTEC develop for publication, guidelines that outline general data requirements for WRAP initiative evaluation. Develop a streamlined / condensed / concurrent test documentation requirement for WRAP programs. Given concept testing and evaluation prior to program approval, OEC develop streamlined T&E guidelines commensurate with program risk. Consider reducing Limited User Test (LUT) requirements for Low Rate Initial Production (LRIP) decision. Consider utilization of a user jury or continued utilization of the AWE or similar data to support this program decision.

Rationale #12: General data requirement guidelines for initial WRAP evaluations may help test sponsors insure they are planning and resourcing tests /experiments appropriately. Abbreviated test documentation schedules and requirements need to be developed which support WRAP timelines.

OPTEC has early input into all WRAP programs through the operational concept evaluation prior to initial WRAP approval.

This data should be leveraged during the development phase and in support of the LRIP decision. Although OPTEC should continue to monitor the program, a full up LUT should not be necessary to prove operational validity at this point.

Recommendation #13: Complete a full review of the logistics system in support of WRAP. Identify a WRAP initiative to serve as a pilot program to review each element and determine how logistics can be streamlined.[33]

Rationale #13: There are a multitude of areas that need to be streamlined in the logistics and materiel release systems, many of which are outside the scope of this paper. A concentrated pilot effort could identify those areas that have a high payoff for expediting new equipment fielding.

Recommendation #14: Utilize Interim Contractor Logistical Support (ICLS) for initial fielding. Purchase initial spares in sufficient quantity to support ICLS in conjunction with production contracts. Budget program offices appropriately to execute the above.

Rationale #14: The standard provisioning process does not currently support WRAP timelines. Utilizing ICLS and procuring sufficient quantities of initial spares early, will allow for systems to be fielded prior to standard logistical support

systems are ready (assuming the materiel release authority recognizes the validity of some non standard support arrangements). In addition, ICLS allows for the government to observe the true spares and support requirement before committing to organic support capability for that particular system.

Recommendation #15: Obtain contractor commitment prior to contract award and, when feasible, prior to program approval. MDA and ASARC review and weigh corporate commitment versus a battle lab "good idea".

Rationale #15: It is imperative for the government to select the "right" contractor and form a strong team relationship in order to help mitigate development and production risk. Success is dependent upon translating a good idea or concept to a fielded system. The contractor is the linchpin for making this happen. A contractor with a good understanding and commitment to WRAP should internally resource the program appropriately.

CONCLUSION

The Warfighter Rapid Acquisition Program is a worthwhile and beneficial initiative. The critical analysis and proposed recommendations should not be construed as being non-supportive of the program. Conversely, the presented recommendations

should help institutionalize WRAP as a viable process for the future.

In order to achieve a well equipped, adaptive force, the policies and processes that provide the ways to accomplish that end must be developed and executed now. The Warfighter Rapid Acquisition Program is a contributor to the ways of achieving an adaptive force. With continued support by Congress for this initiative, the Army should be able to field equipment and technologies more quickly -- one measure of an adaptive Army XXI and Army After Next.

WORD COUNT = 7053

ENDNOTES

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[16] Allan M. Resnick, Assistant Deputy Chief of Staff for Combat Developments, TRADOC, telephone interview by author, 14 January 1999.

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[24] WRAP Program Manager, telephone interview by author, 7 January 1999.

[25] Robert Ryan, Striker Program Manager, Systems and Electronics Inc., interview by author, 12 Oct 1998.

[26] John Phillips, Deputy Project Manager Bradley Fighting Vehicle Systems, telephone interview by author, 14 January 1999.

[27] Phillips.

[28] Gatanas and Mlinarchik, 10.

[29] Congressional Staffer.

[30] BG Joseph Yakovac, Assistant Deputy for Systems Management and Horizontal Technology Integration, interview by author, 16 September 1998, Arlington, VA.

[31] LTG Paul Kern, Military Assistant to the Assistant Secretary of the Army for Research Development and Acquisition, interview with author, 16 November 1998, Carlisle Barracks, PA.

[32] MG George F. Close, Jr., Director for Operational Plans and Interoperability, J7, the Joint Chiefs of Staff, conversation with author, 11 February 1999, Carlisle Barracks, PA.

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