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Report to the Chairman, National Security Subcommittee, Committee on Appropriation, House of Representatives

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ARMY MODERNIZATION

The Warfighting Rapid Acquisition Program Needs More Specific Guidance

GAO	**United States** **General Accounting Office** **Washington, D.C. 20548**

National Security and
International Affairs Division

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The Honorable C.W. Bill Young
Chairman, National Security Subcommittee
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

This report responds to your request that we evaluate the Army's
implementation of the Warfighting Rapid Acquisition Program (WRAP). You
had expressed some concern about the program's performance and
direction in its first 2 years. This report discusses the current status of the
program.

Background

During congressional testimony in early 1996, the Army Chief of Staff
requested funds from Congress to speed up the fielding of urgently needed
new technologies to the soldier. The Chief of Staff stressed that Congress
and the Army could accelerate the development of new technologies by
making funds available more quickly than is normally required in the
budget process for new programs. The Army proposed WRAP as a tool that
would help jump-start technologies that were still under development but
nearing the production phase.

These new technologies were being tested in Army experiments designed
to support a new warfighting concept called Force XXI. Force XXI
embodies the Army's vision of how military operations will be carried out
in the 21st century and relies heavily on the fielding in the year 2000 of the
4th Infantry Division, the Army's first digitized division. The Army selected
technologies slated for WRAP funding from those tested in the Task
Force XXI Advanced Warfighting Experiment (AWE),[1] completed in
March 1997 and carried out to support the first digitized division.

Congress added $50 million to the Army's fiscal year 1997 budget. The
money eventually funded the first 11 WRAP initiatives. However, the House

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[1]Report on the Plan for Fielding the First Digitized Division and First Digitized Corp, presented by the
Army to the Committee on Armed Services, U.S. Senate, May 1998. The Task Force XXI AWE was one
of a series of AWEs designed to lead to a digitized division and corps. The objectives of this large-scale
field experiment were to (1) provide information to support investment decisions on the most
promising among 72 technology candidates that participated; (2) refine digitized tactics, techniques,
and procedures for brigade operations; (3) use advanced technologies and concepts that leverage the
capabilities of information-age technologies; (4) assess the digitized brigade combat service support
concept; and (5) assess two new technologies, Applique and Tactical Internet (discussed elsewhere in
this report).

Committee on Appropriations, in its report on the fiscal year 1997 defense appropriations bill, expressed concern that WRAP funds might be used for limited fielding of unbudgeted items that had not competed for funds and would not be affordable in future budgets.[2] Therefore, it required notification to the defense committees prior to the obligation of WRAP funds and stipulated that these funds could not be used to field interim Land Warrior prototypes.[3]

When it established the program in early 1996, the Army planned to request $100 million per year from fiscal year 1998 to 2003. In its guidance for the program, the Army established the condition that these funds could not be used for technologies requiring "indefinite experimentation" and that WRAP candidates must be a compelling experimental success, urgently needed, ready for production within 2 years, and sufficiently funded in the out-years. Technologies requiring "continued experimentation" were to be allowed to receive WRAP funding. According to the Army, these differ from technologies needing indefinite experimentation in that they are not mature but are expected to start production within 2 years.

Selected initiatives are funded from the Force XXI Initiatives (WRAP) budget, which is a holding account created expressly for WRAP initiatives. In fiscal year 1998, Congress appropriated $99.9 million for WRAP: $61 million for the second year of the first 11 initiatives and $38.9 million for the first year of new 1998-99 initiatives. However, recent actions taken by the Department of Defense (DOD) and the congressional appropriations committees will affect funding for new initiatives. For example, DOD reduced fiscal year 1998 WRAP funding for 1998-99 initiatives to $8.6 million (see app. I), and the appropriations conference committee reduced fiscal year 1999 WRAP funding by $35 million to $64.5 million.

On July 16, 1998, the Army submitted 6 new candidates for funding in fiscal years 1998-99 and 4 new ones for funding in fiscal years 1999-2000 (detailed descriptions of the 21 initiatives and candidates are in app. I). On September 25, 1998, the appropriations conference committee denied funding for two of the four fiscal year 1999-2000 candidates. The Army plans to submit additional fiscal year 1999-2000 candidates by December 1998. The Army is also required by the Senate Armed Services Committee to submit quarterly reports on the status of obligated funds.

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[2]H.R. Rep. #104-617, pp. 158-159 (1996).

[3]Under the Land Warrior Program, the Army is developing a computer/radio, software, integrated headgear, a weapon subsystem, and protective clothing and equipment for the individual soldier. See Battlefield Automation: Army Land Warrior Program Acquisition Strategy May Be Too Ambitious (GAO/NSIAD-96-190, Sept. 11, 1996).

Results in Brief

In evaluating the program's implementation to date, we noted the following:

- The Army's criteria for selecting WRAP candidates are open-ended and allow room for different interpretations. As a result, although the Army initially justified WRAP funding on the basis of the need to urgently field technologies associated with the first digitized division, not all WRAP initiatives support the first digitized division. Furthermore, some initiatives do not meet all the Army's criteria for WRAP funding.
- The Army is reducing the testing of new technologies through large-scale warfighting experiments. As a result, the Army may need to change the criteria used to evaluate and rate WRAP candidates. This may affect the quality of future candidates.
- To date, the Army has not been able to finalize its selection of WRAP candidates early enough to ensure timely approval by Congress. As a result, the final approval of funds and the subsequent start-up of initiatives have been delayed. Delays also occurred because the Army did not obtain the timely release of WRAP funds from DOD and because DOD reduced funding for WRAP. In spite of these delays, we believe that WRAP funds may still help speed the fielding of some new technologies, though not as much as originally estimated.
- After initial congressional approval of the first 11 WRAP initiatives, the Army made substantial changes to some of them. These changes affected program implementation. Congress was not informed of the changes because current reporting requirements do not require the Army to report such changes.

WRAP Implementation to Date

WRAP has experienced growing pains in its first 2 years. While evolving, the program has lacked focus in the selection of initiatives. The assumptions and expectations that drove WRAP at its inception have not been clearly stated. As a result, we were unable to determine whether the results are consistent with congressional intent. However, we found that (1) some initiatives do not support the first digitized division, although the Army initially justified WRAP funding on the basis of the need to urgently field technologies associated with the first digitized division; (2) funds have been used both for production items and development work; and (3) future initiatives may not have sufficient test data for proper evaluation. Furthermore, the Army is still trying to refine its selection process so as to avoid the delays that so far have hindered the program's implementation. Meanwhile, Congress is not being informed of the program's progress or of changes in some ongoing initiatives.

A Wide Range of Initiatives Were Funded

WRAP criteria for selection of initiatives allow considerable room for interpretation. Therefore, the WRAP initiatives funded so far are quite different from each other. Some initiatives did not meet all the Army's criteria for WRAP funding, and others will not be fielded with the first digitized division in 2000. They were approved, however, because they fit the general description of urgently needed new technologies that the Army is trying to field as quickly as possible. WRAP funds were also used to purchase production items rather than to develop new technologies.

WRAP's Link to the Digitized Division Is Unclear

Neither congressional restrictions nor the Army's criteria specify whether WRAP funds should be used only to support the Army's first digitized division. However, the Army initially justified WRAP funding on the basis of the urgent need to field technologies associated with the first digitized division, and appropriation of that funding occurred in a strategic environment dominated by development of the first digitized division. For example,

- the Task Force XXI AWE was carried out to support the digitized division,
- the first 11 WRAP initiatives were tested in the Task Force XXI AWE,
- the Army's Training and Doctrine Command (TRADOC) cited support for the first digitized division as the top priority when selecting WRAP candidates,[4]
- about two thirds of fiscal year 1997 funding was for initiatives that support the first digitized division, and
- the Army initially placed WRAP funds under the digitization budget before establishing a separate Force XXI initiatives budget.

There is disagreement within the Army about whether WRAP should be directly linked to the first digitized division. An Operational Test and Evaluation Command (OPTEC) official believes that WRAP is directly related to digitization, while the Director of the Acquisition Reform Reinvention Lab, Office of the Assistant Secretary of the Army for Research, Development, and Acquisition, believes that WRAP is an acquisition streamlining tool that may or may not support digitization. He views WRAP as part of the Army's efforts to field needed technologies more rapidly, regardless of their relationship to the digitized division.

We found that 3 of the first 11 initiatives, accounting for about one third of all WRAP funds, will not be part of the first digitized division. These initiatives, the Mortar Fire Control System, the Gun Laying and Positioning System, and the Avenger Slew-to-Cue, together received $14.3 million in

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[4]See appendix II for an explanation of TRADOC's role in the selection process.

WRAP funds in fiscal year 1997 and are slated to receive $22.5 million in fiscal year 1998. However, all six of the WRAP candidates submitted for fiscal years 1998-99 funding are considered critical for the first digitized division.

Not All Initiatives Met Production Criterion

Two initiatives, Applique and Tactical Internet, did not meet the Army's criterion that WRAP candidates be ready for production within 2 years, but as the backbone of the Army's first digitized division, they were justified on the basis of urgent need. [5] Both were approved as continued experimentation initiatives and are not expected to begin production until fiscal year 2004.[6] An OPTEC official told us that other initiatives were clearly closer to fielding but that the Army approved Applique and Tactical Internet because it believed they were worth the expense of additional development work. They received $12.3 million (about 26 percent) of the $47.7 million of fiscal year 1997 WRAP funds and will receive $8.6 million (about 14 percent) of the $61 million of fiscal year 1998 WRAP funds.

Purchases of Production Items

WRAP funds have also been used to purchase substantial quantities of production items (finished products ready for fielding). The Army allocated $17.6 million of $61 million (about 29 percent) of WRAP funds in fiscal year 1998 to procure production items. For example, the Army will use 1998 WRAP funds to procure 432 Movement Tracking Systems, enough to fully equip 2 Army divisions.

WRAP was created to help jump-start new technologies that require developmental work and that must be fielded quickly. But production items by definition do not require further testing or development. Army criteria allow the use of WRAP funds for operational prototypes but do not specify what distinguishes a prototype from a finished production item.

In our opinion, using WRAP funds to purchase large quantities of finished products (more than are needed for operational prototypes) is not consistent with the WRAP goal of developing new technologies until they are ready for production. In response to our questions about this issue, the

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[5]Applique and Tactical Internet together make up the system officially known as the Force XXI Battle Command, Brigade and Below, which basically consists of a laptop computer, software, a Global Positioning System Receiver, and communications connectors.

[6]See Battlefield Automation: Acquisition Issues Facing the Army Battle Command, Brigade and Below Program (GAO/NSIAD-98-140, June 30, 1998).

Director of the Acquisition Reform Reinvention Lab told us that the Army now acknowledges that the practice should be discontinued.

Reduced Testing and Experimentation for Future Candidates

The Army has not scheduled any AWEs through 1999 to test new technologies. Consequently, it may be forced to rely increasingly on candidates that have not proven themselves through prior testing, require long-term experimentation, or may not be ready to begin production within 2 years. Officials have expressed concern that this approach may eventually lead to candidates that are less developed and take longer to field. Some approved initiatives have not been proven in testing and are less developed. While only 2 of 11 WRAP initiatives in fiscal years 1997-98 were defined as requiring continued experimentation, 3 of 10 candidates in fiscal years 1998-99 fell into this category.

OPTEC was the lead evaluator for the Task Force XXI AWE. It evaluated the 72 participating initiatives and prepared ratings for 13 WRAP candidates.[7] However, two of the three new continued experimentation WRAP candidates (Close Combat Tactical Trainer XXI and Global Combat Service Support System-Army) have not provided enough test and experimentation data to allow OPTEC to carry out a thorough evaluation and rating. They were still unrated as of July 1998. On September 25, 1998, the appropriations conference committee denied funding for both candidates.

OPTEC may decline to issue a rating if it does not have enough data to conclude that the candidate is a compelling experimental success as required by Army criteria. An OPTEC official said that the Army will find it increasingly difficult to demonstrate such success because it has not scheduled any AWEs or similar large-scale exercises through fiscal year 1999. Without AWEs, he added, it will be difficult to find new candidates at the same level of development and experimental testing as the first group of candidates. He said that evaluation criteria may need to be changed to introduce other ways of qualifying candidates. In our opinion, this could result in more candidates that need continued experimentation.

Meanwhile, the Army is trying to fill the gap created by the absence of AWEs. The Director of the Army Acquisition Reform Reinvention Lab said the Army is seeking alternatives to AWEs to expand its pool of WRAP

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[7]OPTEC is rating systems on a numerical scale ranging from 1 to 5, with 1 indicating low risk and high potential effectiveness and 5 indicating high risk and low potential effectiveness.

candidates. The alternatives could include advanced technology and advanced concept technology demonstrations, concept experimentation programs, and battle lab warfighting experiments. Such candidate technologies could then use WRAP funds to move more quickly through development and into production. However, in our opinion, these demonstrations may involve technologies that require lengthy testing and experimentation.

Program Delays Have Affected the Goal of Early Fielding

The key to securing timely congressional approval of WRAP candidates is the Army's ability to finalize its selection early enough in the budget cycle. To date, this has not happened. In requesting the release of fiscal year 1997 funds from DOD, the Army did not initially justify the need for or indicate the ultimate destination of the funds, delaying the start-up and implementation of programs. As a result, approval of WRAP funds was delayed until very late in the fiscal year (see app. II for a description of the Army's process for WRAP candidate selection). Additionally, funding reductions have also affected implementation. In the end, for most initiatives, WRAP probably will not speed up fielding as much as initially hoped.

The 1997 WRAP selection and approval process lasted most of fiscal year 1997. The Army narrowed its list of candidates from 300 to 15 and made its final selection after reviewing the results of a March 1997 Task Force XXI AWE evaluation. The Army did not present the final 11 candidates to Congress until May 30, 1997. But even after the candidates were selected, DOD withheld $47.7 million for several months in fiscal year 1997 because the Army had not clearly stated which programs would receive the funds and how the funds would be used. DOD released $17.5 million of the funds in August 1997 and the remainder in late September 1997. In fiscal year 1998, DOD again withheld funds, saying it wanted to be certain they were needed. As of October 8, 1998, $36.9 million of fiscal year 1998 funds still had not been released.

The Army has been trying to speed up its selection process in order to receive WRAP funds earlier in the fiscal year, but with little success. The fiscal year 1998 selection process took even longer than it had the previous year and the Army did not present its list of candidates to Congress until July 1998. This time the process was reportedly delayed by continuing debate within the Army over candidates, insufficient test data, and indecision about whether to submit candidates all at once or in batches, as they were selected. The Army has acknowledged the need to

start candidate selection earlier. For fiscal year 1999, it plans to convene the next Army Systems Acquisition Review Council in November 1998, 2 months earlier than the previous year, and submit the last batch of 1999 candidates to Congress no later than December 1998.

Funding cuts by DOD also affected the program. DOD reprogrammed WRAP funds to other operations, such as the Small Business Innovation Research Program.[8] In fiscal years 1997 and 1998, DOD reprogrammed $2.3 million and $5 million, respectively, from WRAP to other programs. In addition, a June 1998 omnibus reprogramming action further reduced fiscal year 1998 WRAP funds for new initiatives by $27.8 million, leaving funding for new initiatives at $8.6 million. Army Airborne Command and Control System officials estimated that the loss of about $0.6 million of an $11 million WRAP allocation in fiscal year 1998 could delay the program by about 3 months. In another program, officials agreed that even losses as small as $0.2 million can have a negative effect on program plans.

Although there have been delays, we believe that many WRAP-funded technologies may be fielded sooner because of the program. The Army initially estimated that 9 of the first 11 WRAP initiatives would accelerate the fielding of new technologies by an average of about 20 months. In its justification to Congress, the Army did not provide accelerated fielding estimates for two initiatives. Most estimates were made by the Army before the initiatives were approved and had to be revised because the selection and approval process took too long and funds were not released when planned. According to the latest fielding projections by program officials, six of the nine programs may not save as much time as originally claimed, two may accelerate fielding as originally estimated, and one may actually be ahead of the original fielding estimate (see table 1). Fielding could be postponed further if there are more delays or funding shortfalls.

[8]Congress established the Small Business Innovation Research Program in 1982 to stimulate technological innovations, use small businesses to meet federal research and development needs, foster and encourage minority and disadvantaged persons' participation in technological innovations, and increase the private sector's commercialization of innovations derived from federal research and development. The program was reauthorized and expanded in 1992 by the Small Business Research and Development Enhancement Act.

Table 1: Initial Estimates and Latest Projections of Time Saved by WRAP Funds in Fielding New Technologies

Initiative	Initial Army estimate of months saved (July 1997)	Initial Army estimate of fielding date (July 1997)	Latest fielding date estimates (August 1998)	Latest estimate of months saved
Army Airborne Command and Control System	21	August 2000	August 2000	21
Avenger Slew-to-Cue	20	August 1998	January 2000	3
Combat Synthetic Training Assessment Range	18	June 1998	March 1999	9
Gun Laying and Positioning System	20	August 1998	July 1999	9
Lightweight Laser Designator Rangefinder	18	October 1999	January 2000	15
Mortar Fire Control System	36	October 1999	July 2001	15
Palletized Load System - Enhanced	18	March 1999	September 1998	24
Radio Frequency Tags	18	September 1998	January 2000	2
Striker	15	September 1999	September 1999	15

Note: The Army did not calculate accelerated fielding estimates for Applique and Tactical Internet.

Congress Not Notified of Program Changes

The Army made substantial changes to some WRAP initiatives. These changes prolonged implementation. The Army concluded, for example, that the design of Avenger Slew-to-Cue was deficient and that the technology would become obsolete before it would be fielded. In fiscal year 1997, the Army thus made major changes in the design and acquisition strategy of the program; this led to additional development work and testing. Because of these changes, DOD has been withholding 1998 WRAP funding for the initiative. The Gun Laying and Positioning System also experienced a schedule slippage that will delay fielding. According to the program manager, the slippage will make it necessary to alter funding (for example, by shifting funds from the out-years to underfunded or unfunded years) in order to accelerate fielding. The congressional defense committees were not informed of these developments.

The Army is not required to issue progress reports or to notify Congress of changes in ongoing programs. The only formal feedback mechanism is a congressional requirement that the Army submit quarterly funding reports to the Senate Armed Services Committee on the obligation of funds for WRAP initiatives. The Army is also required to provide more frequent

reports if WRAP has significant successes or failures. To date, the Army has not submitted any of the required reports.

Conclusions

After 2 years, there is growing uncertainty about which technologies should receive top priority for WRAP funding. The Army's criteria for WRAP candidates are open-ended and do not ensure that initiatives share a common set of characteristics. For example, there is disagreement within the Army over whether WRAP and the fielding of the first digitized division should be directly linked. In the absence of more precise selection criteria, disagreements over which candidates are most appropriate for WRAP funding will likely continue.

The Army may find it increasingly difficult to identify candidates that are sufficiently developed in the near future because it has reduced large-scale test and experimentation exercises and will thus have less data with which to assess new WRAP candidates.

The Army has not presented its slate of WRAP candidates for congressional approval early enough in the fiscal year to permit timely obligation of funds. This has led directly to delays in fielding because estimates were predicated on earlier availability of funds. Although some technologies may be fielded sooner because of WRAP, in most cases the program will not speed up fielding as much as originally expected.

The Army is required to report quarterly on the status of funding obligations to the Senate Armed Services Committee. To date, it has not met this requirement, and there is no other requirement for reporting on program performance or status. We believe that Congress is being asked to make funding decisions without all the information it needs. Information presently not provided on a consistent basis includes

- program cost, schedule, and performance;
- planned obligations;
- any significant changes to program acquisition strategy; and
- any scheduled changes in program digital battlefield participation.

Recommendation to the Secretary of Defense

We recommend that the Secretary of Defense direct the Secretary of the Army to issue WRAP guidance that calls for

- specific deadlines for candidate identification and selection to ensure timely submission of candidates to Congress and timely obligation of funds,
- minimum testing and experimentation requirements for WRAP candidates, and
- periodic reports to Congress on the status of ongoing WRAP initiatives.

Matter for Congressional Consideration

Given Congress' 2 years of experience in reviewing Army requests for WRAP funding of specific technologies and the disagreement within the Army about which technologies are most appropriate for WRAP funding, this may be an appropriate time for Congress to clarify its expectations of the program and to ensure that these expectations are embodied in more precise selection criteria for WRAP candidates.

Agency Comments

In written comments on a draft of this report, DOD partially concurred with our recommendation, but did not specify why its concurrence was not complete. In its response, DOD stated that the Army is continuing to examine potential improvements. DOD indicated that the Army will provide recommendations for improvements by December 1, 1998, to the Office of the Secretary of Defense Overarching Integrated Product Team leaders as part of the Force XXI WRAP program update. DOD also stated that the Army is continuing to examine potential improvements to the WRAP/Force XXI process, including the schedules for candidate identification and selection, the requirements for levels of testing and experimentation tailored to the specific initiative, and the appropriate detail and frequency of reporting.

Since WRAP is now in its third year of implementation, we believe it is time for specific remedies to address the issues that have been identified and believe our recommendation addresses these issues.

DOD's comments are reprinted in their entirety in appendix III.

Scope and Methodology

To assess the current status of the program, we reviewed the criteria used to identify, evaluate, and select WRAP candidates. We interviewed both DOD and Army officials responsible for the WRAP. We visited the Office of the Assistant Secretary of the Army for Research, Development, and

Acquisition, Washington, D.C.; TRADOC, Fort Monroe, Virginia; and OPTEC, Alexandria, Virginia. We reviewed congressional funding restrictions and selection criteria as well as the Army's WRAP policy guidelines, Army Systems Acquisition Review Council briefing packages, and resulting administrative decision memorandums. We discussed budget withholdings, assessments, and reprogramming with officials in the DOD Comptroller's Office and the Office of the Assistant Secretary of the Army for Research, Development, and Acquisition.

With Office of the Assistant Secretary of the Army for Research, Development, and Acquisition and TRADOC's assistance, we examined in detail the WRAP candidate identification, selection, and approval process. We examined how TRADOC identifies and screens candidates and reviewed Office of the Assistant Secretary of the Army for Research, Development, and Acquisition's congressional briefings and OPTEC's rating and evaluation process. We also reviewed WRAP-related documentation, including program management and budget documents, congressional hearings and briefings, and AWE assessments. We also attended the Division AWE at Fort Hood, Texas, and observed WRAP initiatives in the field.

We reviewed cost, schedule, and performance documentation at WRAP initiative program offices and reviewed program acquisition plans and schedules. We interviewed appropriate officials, received briefings, and reviewed relevant program documents during visits to the Short-Range Air Defense and Aviation Electronic Combat Project Offices, Redstone Arsenal, Huntsville, Alabama; the Simulation, Training, and Instrumentation Command, Orlando, Florida; and the Armament and Chemical Acquisition and Logistics Activity, Rock Island Arsenal, Rock Island, Illinois. We also met with OPTEC officials and reviewed relevant information papers and AWE assessments. We also discussed OPTEC's initiative rating process, particularly regarding test and experimentation data necessary to support an OPTEC rating. We also discussed how TRADOC and Office of the Assistant Secretary of the Army for Research, Development, and Acquisition officials incorporate ratings in the selection process.

We performed our review from September 1997 to October 1998 in accordance with generally accepted government auditing standards.

We are sending copies of this report to other appropriate congressional committees; the Secretaries of Defense and the Army; and the Director,

Office of Management and Budget. Copies will also be made available to others upon request.

Please contact me at (202) 512-4841 if you or your staff have any questions concerning this report. The major contributors to this report are listed in appendix IV.
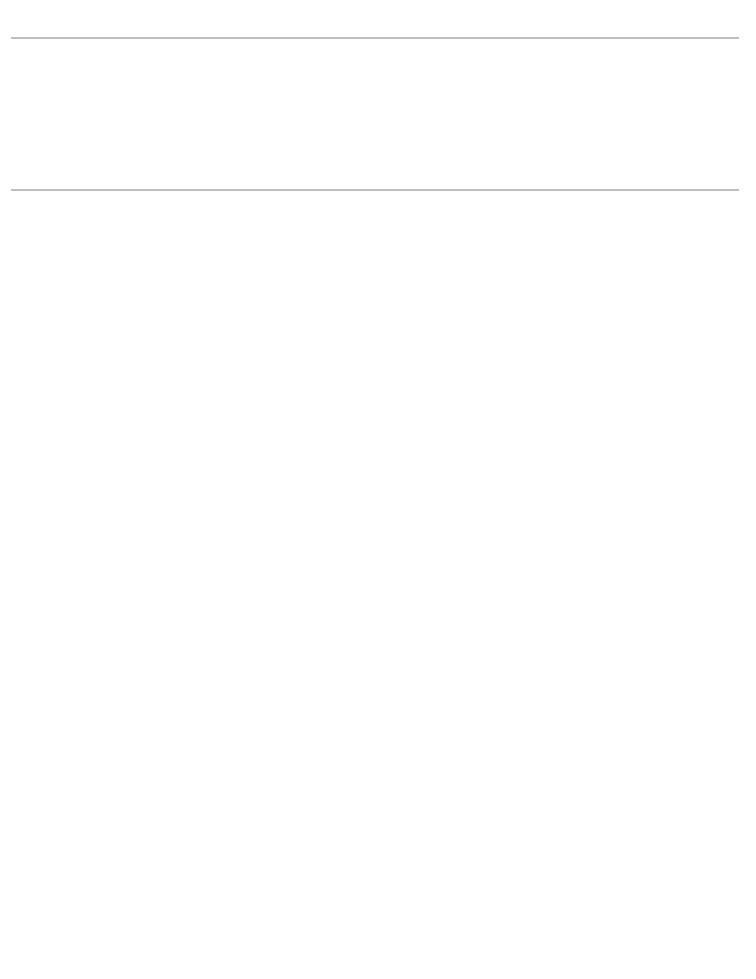
Sincerely yours,

Allen Li
Associate Director,
Defense Acquisitions Issues

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Abbreviations

ASARC	Army Systems Acquisition Review Council
AWE	Advanced Warfighting Experiment
DOD	Department of Defense
OPTEC	Operational Test and Evaluation Command
TRADOC	Training and Doctrine Command
WRAP	Warfighting Rapid Acquisition Program

Details of 21 WRAP Initiatives and Candidates

Tables I.1 through I.4 show funding for two groups of Warfighting Rapid Acquisition Program (WRAP) initiatives (fiscal years 1997-98 and fiscal years 1998-99) and briefly describe the programs in each group.

Table I.1: Funding for Fiscal Years 1997-98 Initiatives

Dollars in millions

	Fiscal year	
Initiative	**1997**	**1998**
Applique	$4.3	$2.6
Army Airborne Command and Control System	3.4	11.0
Avenger Slew-to-Cue	5.8	7.4
Combat Synthetic Training Assessment Range	1.1	5.4
Gun Laying and Positioning System	3.5	6.0
Lightweight Laser Designator Rangefinder	5.0	2.8
Mortar Fire Control System	5.0	10.0
Palletized Load System-Enhanced	3.0	3.0
Radio Frequency Tags	2.9	2.9
Striker (Scout Common Vehicle)	5.6	3.9
Tactical Internet	8.0	6.0
Total	**$47.7[a]**	**$61.0**

[a]Total does not add due to rounding.

Table I.2: Army Description of Fiscal Years 1997-98 WRAP Initiatives

Applique	Digital battle command information system that provides on-the-move, almost real-time situation awareness to tactical combat, combat support, and combat service support leaders at individual fighting platforms.
Army Airborne Command and Control System	An on-the-move node that provides corps, division, and brigade commanders mobility and communications interoperability while maintaining sensor-to-shooter connectivity.
Avenger Slew-to-Cue	Provides a digitized sensor-to-shooter link, enabling the squad leader or gunner to designate a target for engagement.
Combat Synthetic Training Assessment Range	Battle command training system that provides collective training for brigade-sized organizations at Fort Irwin, California, and Fort Hood, Texas. In testing, the system provided realistic signal intelligence, unmanned aerial vehicle intelligence/imagery, and joint surveillance target attack radar system intelligence/imagery to the brigade combat team.
Gun Laying and Positioning System	A tripod-mounted positioning and orienting device consisting of a nondevelopmental item gyroscope, electronic theodolite, position location ground receiver, and a short-range eye-safe laser rangefinder.
Lightweight Laser Designator Rangefinder	A man-portable laser designator and target locator with eye-safe range finding, azimuth determination, self-location, and data/image export capability. It can locate targets in day or night with all-weather capability.
Mortar Fire Control System	Integrates mortars into the fire support architecture and provides full field artillery tactical data system compatibility. Consists of a high-mobility multiwheeled vehicle configured as a fire direction center and three subsystems: position navigation, fire control, and situational awareness.
Palletized Load System-Enhanced (Movement Tracking System)	This platform is capable of loading and unloading itself and a companion trailer in 5 minutes to allow flexible mission assignment and operation under adverse conditions. It consists of the Palletized Load System platform and the Movement Tracking System (MTS). MTS can identify position, track progress, and communicate with the operators of tactical wheel vehicles. It has global positioning capability, can send base-to-mobile and mobile-to-base messages, and can locate/track an asset's position using personal computer-based software.
Radio Frequency Tags	Provides asset visibility/in-transit capability to units and managers. The tags are an assemblage of commercial off-the-shelf equipment that store embedded data of container contents, shipments, and vehicle identification. The tags are fixed to containers to track material through the distribution system.
Striker (Scout Common Vehicle)	High-mobility, multiwheeled, vehicle used by combat observation lasing teams. The system can self-locate; determine range, azimuth, and vertical angle to a target; designate targets; and enhance day/night observation. It will contain the same Fire Support Team computer mission equipment as the Bradley vehicle.
Tactical Internet	A software enhancement to improve voice-data contention and unit tasking order. Voice-data contention is the ability of the Single Channel Ground and Airborne Radio System radios to synchronize voice and data transmission over the same radio path. Unit tasking order can dynamically task-organize units within the Tactical Internet.

Table I.3: Funding Requested for WRAP Candidates in Fiscal Year 1998 (as of August 1998)

Dollars in millions

Candidate	Fiscal year 1998
Air and Missile Defense Planning and Control System	$0.9
Analysis and Control Team-Enclave	0.7
Digital Topographic Support System-Light	0.9
Grenadier BRAT	2.5
High Speed Multiplexer Card	2.1
Near-Term Digital Radio	1.5
Close Combat Tactical Trainer XXI[a]	0
Global Combat Service Support System-Army[a]	0
Forward Repair System-Heavy	0
Tactical Simulation Interface Unit	0
Total	**$8.6**

[a]Funding denied by congressional conference committee on September 25, 1998.

Table I.4: Army Description of Fiscal Year 1998-99 Candidates for WRAP Funding

Air and Missile Defense Planning and Control System	Uses a network of computers and communication equipment to provide a joint integrated air picture to battalion, brigade, division, corps, and theater commanders, providing real-time air situational awareness and enhancing air defense-force protection.
Analysis and Control Team-Enclave	High-mobility, multiwheeled, vehicle-mounted shelter with digital communication that allows the brigade combat team to integrate, process, and interpret real-time sensor and broadcast reports from remote intelligence data bases via a common ground station and to merge the information with the brigade's organic reconnaissance.
Close Combat Tactical Trainer XXI	Provides combined arms training for the digitized division's close combat heavy battalion and units below. Supports the training of mission training plan tasks by the digitized force using all Force XXI C4 I systems.
Digital Topographic Support System-Light	Receives, updates, and disseminates digital terrain data to provide both digital and analog tactical decision aids in support of the commanders' battlefield visualization process.
Forward Repair System-Heavy	Heavy contact maintenance vehicle that provides forward area battlefield maintenance to mechanized forces.
Grenadier BRAT	Automated, worldwide, beyond line-of-sight tracking and messaging system used to inject unit location and limited messaging for nondigitized elements into existing and planned automated C2 systems. Links digitized and nondigitized forces.
High Speed Multiplexer Card	Provides essential video and high-speed data access through mobile subscriber equipment. Allows users to move voice, video, and data over the existing communication network.
Global Combat Service Support System-Army (battalion maintenance and management modules)	These modules merge data from the Unit Level Logistics Ground System, the Unit Level Logistics System, and the Standard Installation/Division Personnel System into a relational data warehouse based on a client-server system.
Near-Term Digital Radio	Provides high data rate communications between tactical operation centers at brigade level and below.
Tactical Simulation Interface Unit	Provides digitized training for two-way exchange between tactical command and control system work stations and distributed interactive simulations.

Process for WRAP Candidate Selection

The Army's process for identifying, evaluating, and selecting WRAP candidates involves several organizations and a number of steps that lead candidates from initial identification to final presentation by the Army Chief of Staff to Congress. Key to securing timely congressional approval of WRAP candidates is the Army's ability to finalize its selection early in the budget cycle. It is important that WRAP candidates be processed promptly, since the success of the program depends on the timely development of technologies determined to be urgently needed by the warfighter.

Proposals are initially submitted by the using commands to Training and Doctrine Command's (TRADOC) Battle Lab Board of Directors. Proposals must include (1) a battle lab experiment plan containing an urgency of need statement, test results, an acquisition strategy, and a budget estimate; (2) an operational requirements statement addressing defense planning guidance, threat, system requirements, and constraints; and (3) an information paper addressing technical merit and maturity, criticality, and priority of the warfighting effort, affordability, effectiveness, and budget sustainability.

After the Board reviews the proposals, it forwards them to the TRADOC Commanding General, who approves and prioritizes them and forwards them to the Assistant Secretary of the Army for Research, Development, and Acquisition. Further review is then carried out by the Army Systems Acquisition Review Council (ASARC), which is composed of 13 representatives from the Army's commands, the Office of the Chief of Staff, and the secretariats. The Council is convened by the head of the Acquisition Reform Reinvention Lab (Assistant Secretary of the Army for Research, Development, and Acquisition) on request from the TRADOC Commanding General.

In assessing proposals for WRAP funding, the TRADOC Battle Lab Board of Directors ensures that the candidates comply with WRAP criteria. For its part, ASARC examines proposals for urgency of need, requirements, affordability, and experimentation results. When assessing candidates, ASARC relies on information from a number of sources, including the Operational Test and Evaluation Command (OPTEC), which was the lead evaluator of the Task Force XXI Advanced Warfighting Experiment (AWE). OPTEC evaluates candidates and issues its own ratings for consideration by ASARC.

The Council reviews the proposals and can recommend approval by the Army Chief of Staff, require further resolution of outstanding issues, or

recommend funding from other sources. The Council also approves acquisition and funding strategies and assigns management responsibilities. ASARC forwards its recommendations to the Army Chief of Staff, who presents the final list of candidates for WRAP funding to Congress for approval.

Comments From the Department of Defense

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

ACQUISITION AND
TECHNOLOGY

0 9 OCT 1998

Mr. Allen Li
Associate Director
Defense Acquisitions Issues
National Security and International Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Li:

    This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "ARMY MODERNIZATION: The Warfighting Rapid Acquisition Program Needs More Specific Guidance," dated September 18, 1998 (GAO Code 707285/OSD Case 1690). DoD partially concurs with the GAO recommendation as stated in the enclosure.

                    Sincerely,

                    George R. Schneiter
                    Director
                    Strategic and Tactical Systems

Enclosure

General Accounting Office Draft Report
"ARMY MODERNIZATION: The Warfighting Rapid
Acquisition Program Needs More Specific Guidance"
(GAO Code 707285/OSD/ Case 1690):

DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATION

RECOMMENDATION : The GAO recommended that the Secretary of Defense direct
the Secretary of the Army issue guidance on:
- specific deadlines for candidate identification and selection to assure timely
submission of candidates to Congress and timely obligation of funds,
- minimum testing and experimentation requirements for the Warfighting Rapid
Acquisition Program (WRAP) candidates, and
- periodic reports to Congress on the status of on-going WRAP initiatives. (pp.
14-15/GAO Draft Report)

DOD RESPONSE: Partially concur. The Army is continuing to examine potential
improvements to the WRAP/Force XXI Initiatives processes, including the schedules for
candidate identification and selection, the requirements for levels of testing and
experimentation tailored to the specific initiative, and the appropriate detail and
frequency of reporting to OSD and the Congress. The Department believes that WRAP
offers significant—although not yet fully realized—benefits, including the reduction of
acquisition cycle time, for programs including those essential to digitizing the future
battlefield. The Army will provide recommendations for improvements as part of a Force
XXI Initiatives program update to the OSD Overarching Integrated Product Team leaders
by December 1, 1998.

Major Contributors to This Report

National Security and International Affairs Division, Washington, D.C.

Charles Rey, Assistant Director
Stefano Petrucci, Communications Analyst

Boston Field Office

Arthur Fine, Evaluator-in-Charge
Joseph Rizzo, Jr., Evaluator