

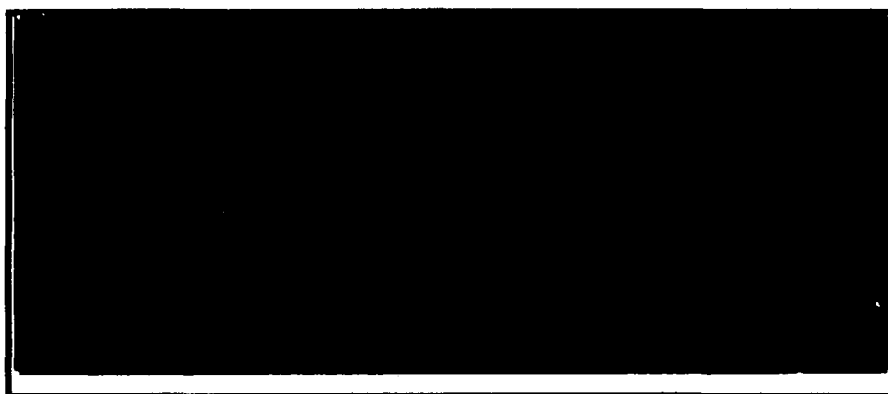
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**ARMY MOBILIZATION
INTEGRATION CELL (AMIC)**

OVERVIEW

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ARMY MOBILIZATION INTEGRATION CELL (AMIC)

OVERVIEW

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December 1990

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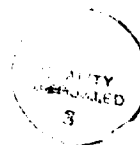
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CONTENTS

<u>Section</u>		<u>Page</u>
	DD FORM 1473	
	DISTRIBUTION	iii
	ACKNOWLEDGMENTS	v
	CONTENTS	vii
	EXECUTIVE SUMMARY	ix
I	INTRODUCTION	
	Purpose	1
	Background	1
	Scope	1
	Approach	3
II	FACILITATING INFORMATION SHARING	
	General	7
	Information Sharing Documents	7
	Information Sharing Tools	9
	Information Sharing Recommendations	10
III	INTEGRATION OF MOBILIZATION CONSIDERATIONS INTO "HOW THE ARMY RUNS"	
	General	11
	Study Integration	11
	Force Integration	11
	Systems Integration	13
	Mobilization Integration Recommendations	13
IV	FOCUS OF ANALYTICAL COMMUNITY ON KEY MOBILIZATION ISSUES FACING THE ARMY	
	General	15
	Mobilization Analytical Community	15
	Identification of Mobilization Issues	15
	Awareness of Mobilization Analysis	15
	Prioritization of Mobilization Studies	16
	Mobilization Needs	16
	The Army Study Process	17
	Focus of Mobilization Analysis--Recommendations	18
V	FINAL RECOMMENDATIONS	
	Command Emphasis	19
	Mobilization Development Plan	19
	Determination of Requirements and Capabilities	19
	Coordination of Mobilization and Analysis	19
	Update of Information Sharing Documents	19
	Integrative Cell Improved Process	20

<u>Figure</u>		<u>Page</u>
1	Establishment of AMIC -- Sequence of Events	2
2	Study Approach	3
3	Purpose of AMIC	6
4	AMIC's Focus Areas of Mobilization	8
5	Mobilization Integration Considerations -- "Shopping List"	12
6	Mobilization Analytical Community	16
7	The Road to Total Mobilization	17
	 ANNEX A: SURVEY OF SELECTED MOB PLANNERS	 A-1
	Appendix A-1: AMIC Questionnaire	A-1-1
	Appendix A-2: Data Repositories	A-2-1
	 ANNEX B: FUNCTIONAL AREA SEMINARS	 B-1
	Appendix B-1: Logistics	B-1-1
	Appendix B-2: Engineer	B-2-1
	Appendix B-3: Personnel	B-3-1
	Appendix B-4: Total Mobilization Planning and Force Development	 B-4-1
	 ANNEX C: LIST OF ABBREVIATIONS AND ACRONYMS	 C-1
	 STUDY GIST	

EXECUTIVE SUMMARY

This report provides an overview of the three-year Army Mobilization Integration Cell (AMIC) effort to improve the way in which mobilization issues are identified, analyzed and resolved. In 1985, the Army's Issue Assessment Process (IAP), sponsored by the Model Improvement and Study Management Agency (MISMA), identified mobilization as one of nine critical issues. This identification was predicated on the Army's need to establish a framework to manage and coordinate mobilization research efforts. In June 1986, MISMA conducted a workshop which revealed that mobilization issues were both expansive and fragmented. As an outcome of the workshop, MISMA developed a plan for a small integrative cell to undertake this task. The Deputy Under Secretary of the Army for Operations Research (DUSA-OR) approved this plan, and the AMIC was established at the Engineer Studies Center (ESC) in December 1987.

AMIC's objectives were to:

- Facilitate information sharing among mobilization planners.
- Integrate mobilization considerations into "How the Army Runs."
- Focus the analytical community on key mobilization issues.

AMIC accomplished these objectives by:

- Developing and publishing information sharing documents to improve coordination and awareness.
- Conducting functional area seminars to discuss key issues and exchange information
- Promoting the use of data repository systems to help eliminate duplication of mobilization study effort.
- Requiring mobilization considerations be factored into studies submitted for funding under AR 5-5.
- Emphasizing the need to develop Mobilization Network (MOBNET) and Mobilization Capabilities Evaluation Model (MOBCEM) to identify mobilization requirements and the capability to meet requirements.
- Determining how the mobilization community can improve their system for identifying mobilization analysis.
- Reviewing the Army Study Program for improvements to their system of identifying issues and prioritizing studies.

After reviewing and analyzing mobilization processes, AMIC recommends:

- Command emphasis to determine mobilization issues and the analysis to support these issues.
- Developing a mobilization plan that will identify major obstacles; performing analysis to resolve each obstacle; prioritizing each analysis; and tracking progress on issue resolution.
- Identifying critical mobilization issues by the General Officer Mobilization Review (GOMR) prior to the submission of studies to the Study Program Coordinating Committee (SPCC).
- Development and implementation of MOBNET and MOBCEM to determine mobilization requirements and capability.
- Expanding coordination between the mobilization and analytical communities.
- Updating information sharing documents that promote better coordination and awareness among mobilization planners.
- Using a small integrative cell such as AMIC to resolve other critical issues or areas.

ARMY MOBILIZATION INTEGRATION CELL (AMIC)

OVERVIEW

I. INTRODUCTION

1. **PURPOSE.** This report provides an overview of the three-year Army Mobilization Integration Cell (AMIC) effort. AMIC was established to improve the way in which mobilization issues are identified, analyzed, and resolved. This report examines these processes from an analytical and mobilization community perspective and recommends improvement.

2. BACKGROUND.

a. In 1985, the Army's IAP, sponsored by the Model Improvement and Study Management Agency (MISMA), identified mobilization as one of nine critical issues.

b. In June 1986, MISMA conducted a workshop to determine (within each critical issue area) what is being done, how it is being done, who is doing it, and what still needs to be done. This workshop revealed that mobilization issues were both expansive and fragmented. MISMA found that mobilization studies needed better direction, more prudent resource allocation, and expanded coordination within the Army community. In other words, Army mobilization research efforts needed a management and coordination framework.

c. To address these concerns, MISMA presented a concept plan for an AMIC to the Deputy Under Secretary of the Army for Operations Research (DUSA-OR), the Chief of Engineers (COE), and the Under Secretary of the Army. This plan was favorably received, and the Engineer Studies Center (ESC) was selected to undertake the AMIC task. This selection was based on ESC's experience in mobilization planning.

d. The DUSA-OR and the COE signed a Memorandum of Understanding, dated 9 December 1987, which formalized establishment of the AMIC at ESC. The AMIC was funded by the DUSA-OR and received technical guidance from the Mobilization and Readiness Division of the Office of the Deputy Chief of Staff for Operations--the Army's functional proponent for mobilization. This sequence of events is presented in **Figure 1**.

3. SCOPE.

a. AMIC was designed to improve the interaction between the Army Staff (ARSTAF) and Major Army Commands (MACOM) mobilization planning elements and the analytical community. This report focuses on how well the mobilization planning community uses the Army Study Program (AR 5-5) process to resolve important mobilization issues.

b. AMIC was a test case to determine if a small integrative cell could improve the Army's ability to identify and resolve the most critical analytical issues. Even though

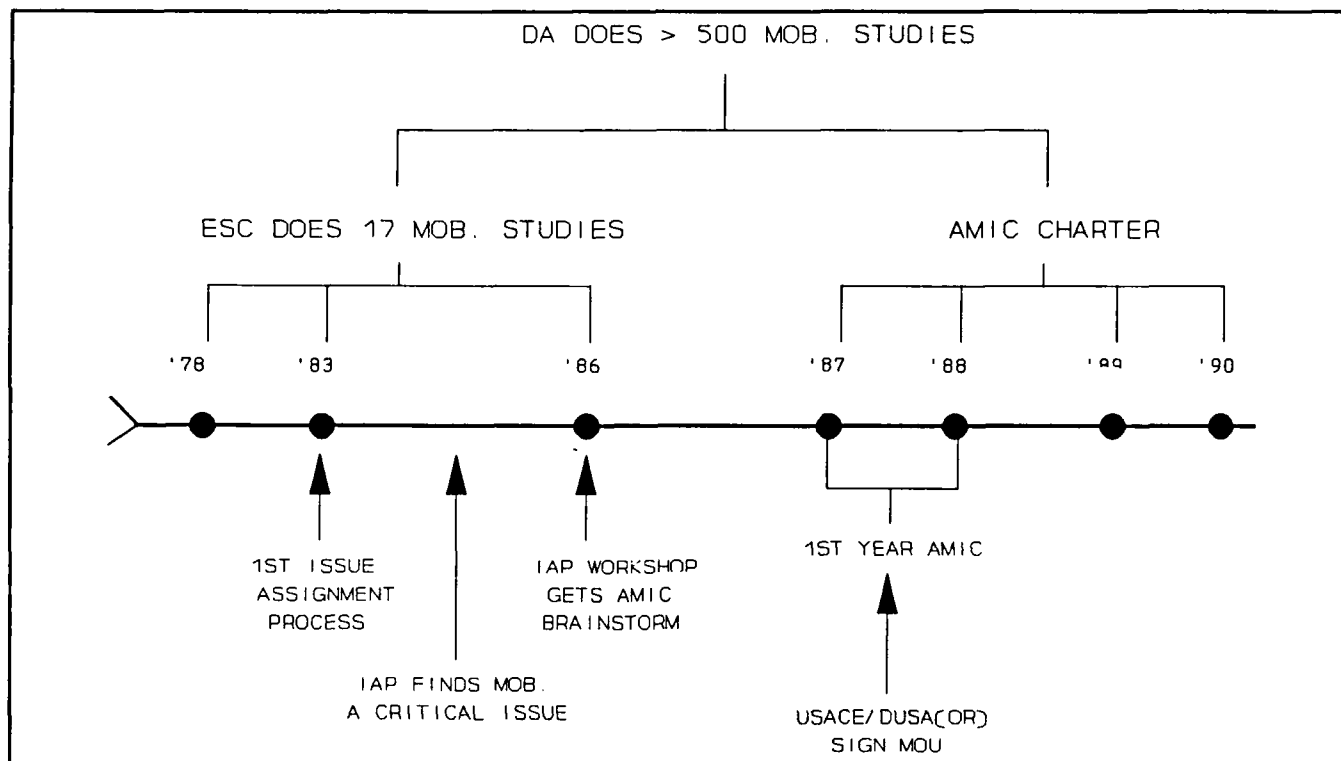


**Figure 1. ESTABLISHMENT OF AMIC --
SEQUENCE OF EVENTS**

mobilization was the specific issue selected to test this concept, many of the findings and recommendations are applicable to addressing any critical issue.

c. AMIC interviewed both general and specialized mobilization planning personnel from Army staff elements, MACOMs, Army agencies, federal agencies, other services, and analytical Field Operating Agencies. AMIC asked questions concerning mobilization problem areas, issues, studies, models, training (formal courses, seminars, conferences), and job-related information. AMIC also included questions about the Defense Technical Information Center (DTIC) and the Defense Logistics Studies Information Exchange (DLSIE).

d. AMIC considered all stages, force sizes, and functional areas of mobilization into the findings and recommendations.

e. AMIC researched existing mobilization planning resources to include the following: planning personnel, studies/models, training (to include seminars, conferences, exercises), and organizations.

f. ESC briefed AMIC and its effectiveness in identifying and helping to resolve problems within a critical issue area to the major players in mobilization and analysis. These major players included the Army Mobilization Review (AMR), General Officer Mobilization Review (GOMR), SPCC, Deputy Under Secretary of the Army for Operations Research (DUSA-OR), Commanding General, United States Army

Corps of Engineers (CG USACE), Army Operations Research Symposium (AORS), Military Operations Research Symposium (MORS), Army Study Program (AR 5-5) coordinators, and the Training and Doctrine Command (TRADOC). AMIC anticipated that these presentations would focus attention on identifying and studying mobilization problems, and would coalesce effort on solving these problems.

4. **APPROACH.** AMIC sought to improve the quality of Army mobilization analysis with the following primary objectives: assisting Army leadership in identifying mobilization problem areas; focusing the analytical community on overcoming deficiencies; and promoting coordination and information exchange to help preclude duplication of study effort. To meet these objectives, AMIC researched studies, issues, and processes, and then compared and evaluated the information collected to identify shortfalls. This process is graphically presented in Figure 2.

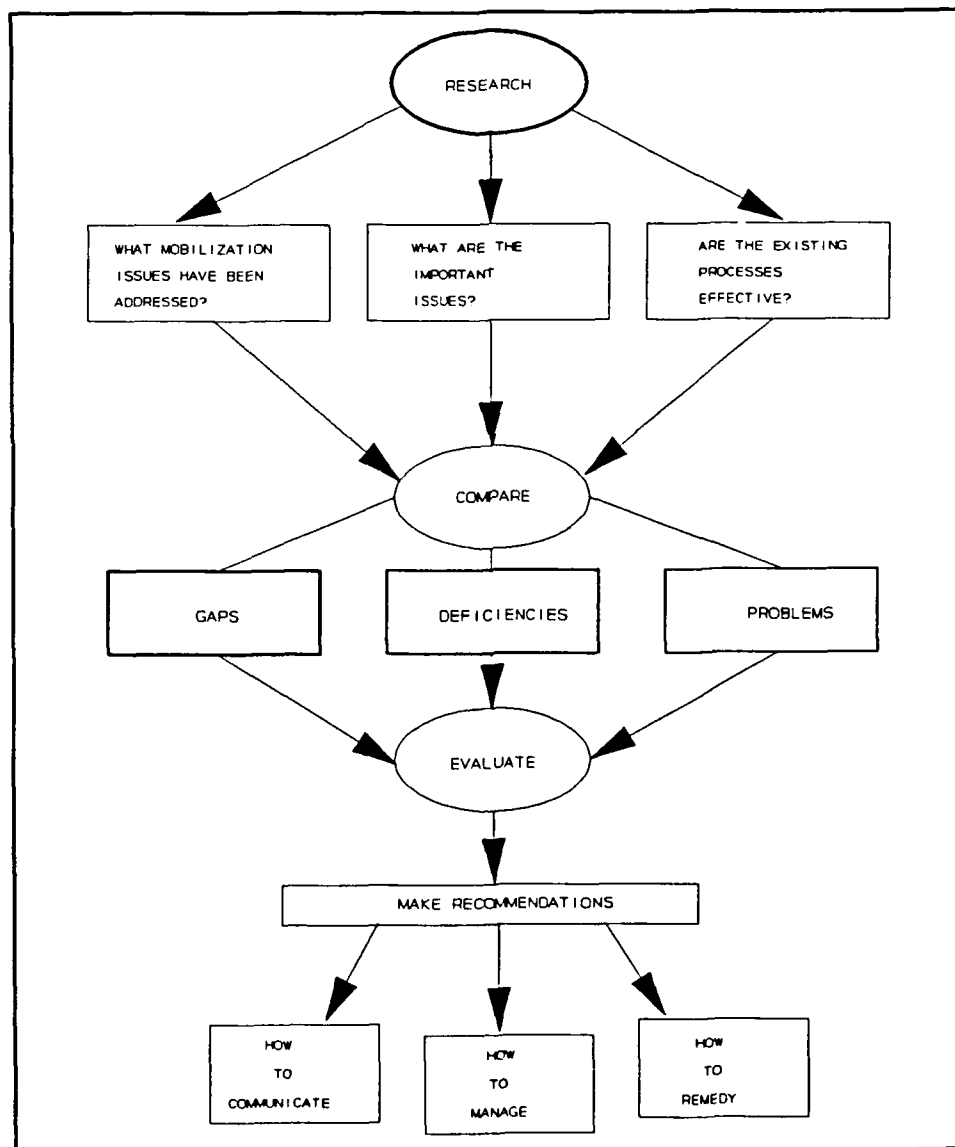


Figure 2. STUDY APPROACH

a. **Research.** During this stage, ESC identified which mobilization issues have been addressed, which mobilization issues are the most important, and how effective the existing processes are in identifying critical issues. This three-step procedure determined if the important issues are being analyzed.

(1) *What mobilization issues have been addressed?* ESC made every effort to identify all existing mobilization studies and determine which issues have been previously researched.

(a) *Data Search.* ESC requested an extensive search of the key Department of Defense (DOD) data repositories--DTIC and DLSIE--to identify completed and ongoing mobilization studies. Appendix A-2 provides detailed information on these data repositories. This search identified more than 500 mobilization-related studies that were completed over the last 10 years (1978-1988). ESC published this list in an AMIC information sharing document called the *Mobilization Studies List: 1978-1988*.¹

(b) *Interviews.* ESC conducted over 100 surveys/interviews of mobilization planners, Army study program coordinators, and individuals within the Army analytical community. AMIC asked questions about completed and ongoing mobilization studies/models and each respondent's awareness and use of data repositories. This information helped determine if the DTIC/DLSIE search provided an appropriate sample of the mobilization studies performed.

(2) *What are the important mobilization issues?* ESC used existing mobilization planning resources and ESC surveys and seminars to identify key mobilization issues facing the Army leadership.

(a) *Mobilization Planning Tools.* AMIC reviewed existing programs and reports that identify major problem areas and deficiencies in mobilization to discover important issues.

1) *Exercise after-action reports.* The Joint Chiefs of Staff (JCS), Army National Guard Bureau, and various federal agencies perform a variety of exercises that identify problems, deficiencies, or initiatives to improve mobilization preparedness. The AMIC publication entitled, *Mobilization Training and Networking Resources Inventory*, lists and describes these exercises.²

2) *Army Remedial Action Program (ARAP).* This is the Army's formal mechanism for monitoring and resolving issues, including mobilization issues. The mobilization issues are primarily identified through the Army's participation in biennial Joint Chiefs of Staff Mobilization Exercises.

¹*Mobilization Studies List: 1978-1988*, CEESC-R-89-5 (ESC, March 1989).

²*Mobilization Training and Networking Resources Inventory*, CEESC-R-90-5 (ESC, January 1990).

3) *Department of the Army Inspector General (DAIG) reports.* The inspector general's mission is to investigate possible problem areas within the Army. In the past, the DAIG has identified and investigated areas concerning mobilization.

4) *General Officer Mobilization Review (GOMR).* HQDA conducts annual mobilization reviews under the authority of AR 500-5, the Army Mobilization and Operations Planning System (AMOPS). The purpose of the GOMR is to maintain visibility of major Army mobilization issues and related topics throughout the ARSTAF, Army Commands, MACOMs, and other agencies responsible for mobilization. It also guides the development and improvement of AMOPS.

5) *Functional Area Assessment (FAA).* These periodic meetings of senior representatives from all functional areas support force integration by improving information flow and coordination. All functional areas are subject to scrutiny. FAAs serve to amplify interactive communication, management guidance and problem resolution.

6) *Mobilization study results.* Completed mobilization studies are a good source for identifying problem areas that warrant further analysis.

(b) *ESC-Developed Tools.*

1) *Surveys.* ESC surveyed 100 select mobilization planners. As a result, other important mobilization issues surfaced. Annex A presents the issues identified by this survey.

2) *Functional seminars.* ESC conducted seminars to better assess problems or issues within specific functional areas: Personnel, Logistics, Force Development, and Engineering. ESC selected Personnel, Logistics, and Force Development based on their key role in mobilization. Engineering was selected based on ESC's USACE support role. AMIC then conducted interviews with key individuals in each of the above functional areas. These interviews identified the most important issues within each area. The Appendices to Annex B present the issues identified for each functional area. The seminars offered a forum for mobilization planners within these functional areas to discuss the issues presented and share additional information. These seminars included mobilization planners from ARSTAF elements, Army Commands, Army agencies, MACOMs, federal agencies, and Army analytical agencies.

(3) *Are the existing processes effective?* AMIC reviewed two major processes: the Army's process that determines the critical mobilization issues, and the process that identifies the Army studies that will be funded annually.

(a) *Army Mobilization Reviews.* ESC attended the three connected mobilization workshops that are designed to identify major mobilization issues facing the Army leadership. This process begins at the action officer level with the Mobilization Action Officer Review (MAOR). The issues generated from the MAOR are then presented to the AMR, which includes players at the level of full colonel and above. The GOMR is the final step in identifying the most important mobilization issues. AMIC attended these forums primarily to determine their effectiveness in identifying mobilization issues requiring analysis.

(b) *The Army Study Program (AR 5-5)*. The MISMA is responsible for managing the Army Study Program (AR 5-5). MISMA initiated the IAP to identify the most critical issues facing the Army. These critical issues serve as guidance to focus the Army's analytical resources during the coming year. These issues are disseminated to the ARSTAF and the MACOMs as the Study Program Guidance (SPG). This process was reviewed and analyzed to determine how effectively the program operates, how critical issues are identified, and how studies are prioritized and approved for funding. ESC presents a detailed evaluation of this process in a separate report entitled, *Review of the Army Study Process*.³

b. **Comparison and Evaluation.** AMIC compared and evaluated all the above research information on mobilization studies, issues, and processes. This information provided a basis for identifying shortfalls in these areas.

(1) *What shortfalls exist?* Using the above approach, ESC recognized three mobilization areas that need improvement to operate more effectively (**Figure 3**). Developing these areas will ultimately improve the way mobilization issues are identified, analyzed, and resolved. The findings and recommendations for each area are provided in Sections II, III, and IV of this report, respectively.

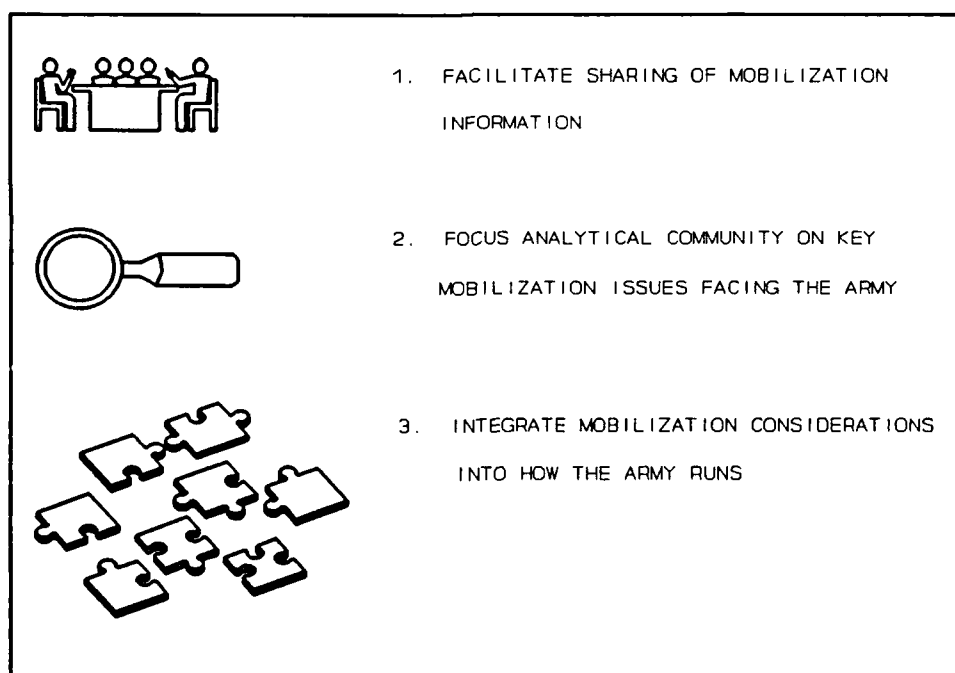


Figure 3. PURPOSE OF AMIC

³*Review of the Army Study Process*, CEESC-R-91-1 (ESC, October 1990).

II. FACILITATING INFORMATION SHARING

5. **GENERAL.** After collecting information from a variety of sources--surveys, data repositories, personal interviews, and seminars--ESC reviewed and analyzed all the available mobilization research information. AMIC planners identified three vital areas which needed emphasis: communication, coordination, and awareness among mobilization planners--within and across existing functional stovepipes. Toward that end, ESC published and promoted information sharing documents to improve information exchange within the mobilization community.⁴ These documents were also used to help preclude duplication of mobilization study effort.

6. **INFORMATION SHARING DOCUMENTS.** AMIC's survey found the biggest problem to be lack of coordination among mobilization planners. There is also a lack of coordination between headquarters functional components, headquarters and field elements, and federal and civil agencies. ESC developed the following documents based on needs identified in the AMIC surveys/interviews and through our mobilization research. These documents were developed to facilitate the information sharing process.

a. Mobilization Points-of-Contact (POC) List.⁵

(1) **Purpose.** ESC published two versions of the Mobilization POC list--December 1988 and May 1990. We developed this list to encourage networking of mobilization planners with other headquarters elements, DOD agencies, MACOMs, services, and federal agencies working similar issues.

(2) **Description.** This list is indexed alphabetically by name, organization, and mobilization focus area for versatility in locating individuals. Individual information includes the following: name, rank, organization, directorate/division, office symbol, commercial and AUTOVON (now referred to as DSN) telephone numbers, position description, general focus area, special focus area, and mailing address. Individuals from 23 organizations are grouped into 1 of 11 general focus areas (**Figure 4**). The mobilization focus areas are based on the functional areas presented in the AMOPS.

(3) **Distribution.** ESC distributed this document to over 200 offices represented on the list, and sent out over 100 additional requests. We received most of the additional requests after the onset of Operation Desert Shield. This list has proved useful in improving both peacetime and crisis-situation coordination.

(4) **Update.** ESC is still receiving names of mobilization planners to include in the next update; these names are being forwarded to the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS). ODCSOPS, Mobilization Directorate, will continue to

⁴Mobilization Training and Networking Resources Inventory, CEESC-R-90-5 (ESC, January 1990); Mobilization Points-of-Contact List, CEESC-R-90-11 (ESC, May 1990); and Mobilization Studies Update: January 1989 - September 1990, CEESC-R-90-16 (ESC, September 1990).

⁵Mobilization Points-of-Contact List, CEESC-R-90-11 (ESC, May 1990).

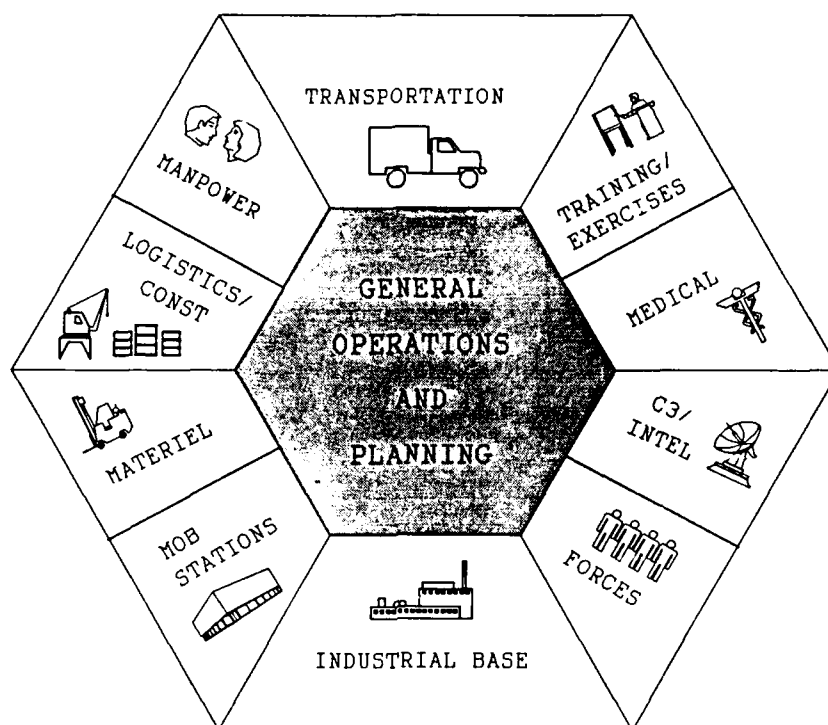


Figure 4. AMIC'S FOCUS AREAS OF MOBILIZATION

update the POC list biannually. ESC is in the process of developing a menu-driven system to simplify the process of updating the existing database.

(5) *Usefulness.* Agencies such as the Federal Emergency Management Agency (FEMA) recognized the usefulness of the *Mobilization Points-of-Contact List*, and requested ESC's permission to distribute copies to their field offices. We believe still greater benefit in mobilization coordination and awareness could be derived from MACOM/agency distribution of our report down to component/field office levels.

b. Mobilization Training and Networking Resources Inventory.⁶

(1) *Purpose.* ESC developed this publication to provide information on mobilization-related training opportunities. All individuals interviewed agreed that mobilization training increases understanding and awareness of mobilization issues and problems.

(2) *Networking Tools.* The mobilization community needs to coordinate and network in order for mobilization to work effectively. The conferences, seminars, and workshops identified can be used to inform mobilization planners worldwide of the developments being made in a variety of mobilization areas. This should help eliminate duplicated study effort and identify needed analysis.

⁶*Mobilization Training and Networking Resources Inventory*, CEESC-R-90-5 (ESC, January 1990).

(3) **Description.** This publication includes five training resource categories: formal courses, conferences/symposiums, seminars/workshops, exercises, and defense service school programs. A course description and POC are provided for all training identified. General statistics about mobilization training are provided in the "Observations" section of this report.

(4) **Survey.** ESC conducted 62 interviews with mobilization planners to identify the training provided in this document.

(5) **Usefulness.** FEMA structured a new pilot mobilization course based on existing training outlined in this publication. Information derived from this document helped them create a unique course that covers new ground in mobilization training.

c. Mobilization Studies List.⁷

(1) **Purpose.** ESC developed a 10-year list of mobilization-related studies entitled, *Mobilization Studies List: 1978-1988*,⁸ and recently published an updated list, *Mobilization Studies Update: January 1989 - September 1990*.⁹ These lists are designed to acquaint mobilization planners with the volume, span, and nature of existing mobilization-related studies, and to familiarize mobilization planners with data repositories that support the federal sector and the DOD planning community.

(2) **Data Repositories.** ESC developed the *Mobilization Studies List* using two major data repositories--DTIC and DLSIE. An overview of these systems is detailed in Annex A, Appendix A-2.

(3) **Description.** ESC's 10-year list identifies over 3,000 mobilization-related studies, and the update identifies over 200 directly related studies. Both lists include three indexes: study title, performing agency, and subject area, including a section devoted to abstracts.

(4) **Usefulness.** These lists will keep mobilization planners informed of existing mobilization analysis. Armed with this knowledge, mobilization planners should be less likely to duplicate one another's mobilization study efforts.

7. INFORMATION SHARING TOOLS.

a. **Functional Seminars.** AMIC conducted four separate mobilization seminars in Logistics, Personnel, Force Development, and Engineering. AMIC interviewed key people within each functional element to identify the important mobilization issues requiring analysis. A proponent for each issue briefed the seminar participants on ongoing actions and tasks required to resolve each issue. These seminars provided an excellent forum for presenting key

⁷*Mobilization Studies List: 1978-1988*, CEESC-R-89-5 (ESC, March 1989); *Mobilization Studies Update: January 1989 - September 1990*, CEESC-R-90-16 (ESC, September 1990).

⁸*Mobilization Studies List: 1978-1988*, CEESC-R-89-5 (ESC, March 1989).

⁹*Mobilization Studies Update: January 1989 - September 1990*, CEESC-R-90-16 (ESC, September 1990).

functional issues facing the mobilization planning community. Each seminar provided up-to-date information on new developments within the functional areas, such as automated systems design, existing databases, and new initiatives. These seminars proved to be effective communication vehicles, but were not beneficial in surfacing new study topics. Annex B provides a general overview of the functional seminars. The Appendices to Annex B provide specific information on each seminar.

b. **Promotional Initiatives on DTIC/DLSIE.** AMIC included promotional information on key data repositories in our briefings and reports. We realized the importance of using these databases to eliminate duplicated effort. The results of our initial surveys revealed that less than half (42 percent) of the respondents had used any of the central data repositories (e.g., DTIC, DLSIE), and many were not familiar with the repositories, requesting an explanation of each. After reviewing these statistics, we identified a need to promote these systems. This information will keep mobilization planners up-to-date on current mobilization research and other areas of interest. Additionally, monthly Current Awareness Bulletins (CAB) on specific subjects of interest are available from these data repositories at no charge.

8. INFORMATION SHARING RECOMMENDATIONS.

a. AMIC recommends the continued update of the *Mobilization POC List* because it has proven to be a useful tool. Because of the high turnover rate of mobilization planners, we recommend that it be updated biannually. (ESC identified over a 50 percent turnover rate of mobilization planners between publication of our first version [December 88] and our May 90 final version.)

b. AMIC recommends more training program integration in the federal and civil sectors. Mobilization needs combined participation to make it work effectively.

c. Because of the high turnover rate of officers in mobilization-related positions, AMIC recommends a mobilization skill identifier be developed for military officers. This identifier would catalog officers with a mobilization background to help eliminate retraining officers biannually.

d. AMIC recommends seminars be held annually within each mobilization functional area. This would provide mobilization planners a forum for information exchange, networking, problem solving, and identifying critical issues requiring analysis.

e. ESC recommends the *Mobilization Studies List* be updated annually to provide information on completed and ongoing analytical efforts. Keeping mobilization planners abreast of mobilization research should reduce duplication of study effort within the mobilization community.

f. A data repository can only share information contained in its system. We encourage all organizations that produce studies, reports, or articles to submit their documents to the appropriate data repositories. Your submission will allow others the benefit of your research.

g. To maintain awareness of the most current mobilization analytical efforts, mobilization planners should coordinate with their agency publications manager to ensure scheduled distribution of DTIC and DLSIE monthly CABs.

III. INTEGRATION OF MOBILIZATION CONSIDERATIONS INTO "HOW THE ARMY RUNS"

9. **GENERAL.** AMIC identified three aspects of mobilization issues which, if better managed, can preclude the requirement for extensive study activities: studies/analysis, force planning, and systems design. By folding mobilization considerations into "how the Army runs" in peacetime, DA planners and decision makers can better narrow the requirement for mobilization studies to encompass those addressing unique or especially critical issues.

10. **STUDY INTEGRATION.** AMIC recommends that all studies submitted for approval under AR 5-5 consider mobilization in the study design. ESC developed a "shopping list" of mobilization considerations (**Figure 5**) to review when developing every study effort. MISMA adopted this concept and now requires each study submitted for funding to include "mobilization implications" on the information sheet. Inclusion of mobilization ramifications in all studies would reduce the need for individual mobilization studies. Additionally, by combining mobilization considerations into each study, more time could be devoted to "back burner" studies, which typically would receive little or no consideration.

11. **FORCE INTEGRATION.**

a. Mobilization considerations need to be included in developing Army doctrine, training, and analysis. The current force development process must integrate war fighting, mobilization planning, force structuring and resources. The existing process has proven too lengthy, cumbersome, and of limited focus. Recent changes in the world situation and major cutbacks being made in the Army have heightened the importance of mobilization and force expansion. Appendix B-4, "Force Development," identifies two critical deficiencies which hinder the development of an effective, comprehensive mobilization planning process: the inability of the Army to determine credible mobilization requirements, and the Army's inability to meet mobilization requirements once they have been defined. These deficiencies impede several areas:

- Defining the limits of mobilization potential.
- Enhancing industrial preparedness planning.
- Developing executable capability-based plans for full mobilization and force expansion.
- Establishing a viable conventional deterrent.

b. AMIC's Force Development/Mobilization Integration Seminar identified specific deficiencies related to mobilization requirements and capabilities (Appendix B-4). These deficiencies prevent the Army from meeting total mobilization planning guidance objectives. Each deficiency is presented with a discussion of the problem, brief explanation of the cause, its impact on the mobilization planning process, and a summary of recent or planned activities designed to eliminate or mitigate the effects of the deficiency. The Mobilization Network (MOBNET) and Mobilization Capabilities Evaluation (MOBCEM) models will contribute to

1. PEACETIME EFFICIENCIES VERSUS WARTIME REQUIREMENTS. Will it work in wartime/during a mobilization or is it primarily designed for peacetime? If primarily the latter, what will do the job in wartime? (Are we designing for war and adapting for peace or the reverse?)

2. GRADUATED MOBILIZATION RESPONSE. Can this system, method, or policy be applied in a situation less than full mobilization? Does it lend to a capability for incremented military and/or industrial expansion and improving our preparedness posture in times of tension?

3. JOINT AND COMBINED IMPACTS. What are the other service/allied nations' impacts? Are joint or combined priorities considered? Who else uses it or will be affected by it? Who else do we depend upon and for what? Do we/would we provide it to others?

4. ADP INTEGRATION. Does it integrate with other supporting/related ADP systems in peacetime and in wartime? Is there already something out there that should be tied in to it? What about joint and combined requirements?

5. FOREIGN SOURCES. Where does it or its components come from? How dependable and vulnerable is the source? Are there alternative sources and/or items/materials? Impact of early loss of sources?

6. INDUSTRIAL BASE AND RAPID EXPANSION. How easy is it for the current and projected U.S. industrial base to produce it? How easy is it to rapidly expand production? What critical materials and plant capability are involved? Could more relaxed "wartime" specifications (e.g., a shorter service life requirement) speed production?

7. CRITICAL MILITARY AND CIVILIAN SKILLS. What special skills are required to produce it, use it, and maintain it? Will competing demands be created that affect other critical areas? What is the training time requirement versus training time realistically available?

8. DIFFERENT SCENARIOS. Where will it have to work? Europe-only scenario or several theaters at once? How does it fit in with more probable low-scale conflict (or short-of-conflict) involvement?

9. IMPACTS ON THE CONUS TDA SUPPORT BASE. How does it affect the TDA base in wartime/mobilization in addition to impacts on the TOE Army? Are TDA support aspects integrated vertically and horizontally in all systems?

NOTE: "It" may be a system, policy, procedure, item of equipment, or anything you are considering.

Figure 5. MOBILIZATION INTEGRATION CONSIDERATIONS -- "SHOPPING LIST"

eliminating many of the deficiencies identified and help improve mobilization planning and force development processes. The Army currently identifies requirements only for the program force. Once developed, MOBNET and MOBCEM will help identify requirements and capabilities for any size force (e.g., current, program, and planning).

12. SYSTEMS INTEGRATION. There are many mobilization planning systems throughout the Army and DOD, and they should be designed to work together. Mobilization considerations should be included in the design, development, and upgrading of existing and future automated systems. These systems need to function at all levels of mobilization (partial, full, or total). They also should interface with joint systems and databases. The "cold war" type data now generated by these systems would be replaced by new data to reflect recent changes in the world situation.

13. MOBILIZATION INTEGRATION RECOMMENDATIONS.

a. Include mobilization executability factors in force integration doctrine (FM 100-11), Force Integration Training, and Force Integration Analysis.

b. Revise Army information management and acquisition policy to ensure mobilization considerations and joint interface are included in the enhancement of current systems and the development of future systems.

c. Continue to require mobilization implications for each study submitted for approval under AR 5-5. This will emphasize the importance of mobilization and ensure that mobilization issues receive attention and analysis.

d. Design and implement MOBNET and MOBCEM and continue to develop automated systems that support mobilization planning. MOBNET and MOBCEM will help determine wartime requirements and industrial capability to provide needed materiel to support these requirements. A comparison of the data generated by these two systems will identify the shortfalls and deficiencies that require follow-on planning. Information such as this, will help decision makers and planners identify problem areas and focus study efforts or other appropriate remedial action.

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IV. FOCUS OF ANALYTICAL COMMUNITY ON KEY MOBILIZATION ISSUES FACING THE ARMY

14. **GENERAL.** AMIC determined who conducted mobilization analysis, what the current mobilization issues are, whether the current issues are being analyzed, and how mobilization studies are prioritized. These processes helped AMIC identify ways to improve upon the existing mobilization planning process to better focus the Army on the key mobilization issues. The following paragraphs discuss our findings in these areas.

15. **MOBILIZATION ANALYTICAL COMMUNITY.** Mobilization analysis is being performed by analytical staff throughout the Army, DOD, other services, federal agencies, private contractors and universities. Figure 6 identifies numerous organizations that have completed mobilization analyses since January 1989. The mobilization analytical community is large, widely distributed, and disjointed. This makes it difficult for them to remain up-to-date on one another's ongoing mobilization study efforts. Because the analytical community is a tremendous resource of mobilization knowledge, better coordination in the areas of current developments, systems, and problem areas would be of long-term benefit to mobilization planners. Additionally, an annual analytical forum for the mobilization planning community would help identify important mobilization issues requiring analysis. These issues could be incorporated into the AMR/GOMR process of identifying the major mobilization issues facing the Army.

16. **IDENTIFICATION OF MOBILIZATION ISSUES.** AMIC conducted functional area seminars to discuss key mobilization issues within each functional area. ESC also reviewed existing reports, programs, workshops (MAOR, AMR, GOMR), and studies that help identify mobilization problem areas. AMIC determined the functional area seminars were not successful in identifying any new mobilization issues, but they were an excellent forum for information exchange. On the other hand, the GOMR is effective in identifying mobilization issues facing the Army, but it is not correctly synchronized with the submission and approval of mobilization studies to the Army Study Program (AR 5-5). The GOMR needs to identify the issues prior to the study approval process and the SPCC.

17. **AWARENESS OF MOBILIZATION ANALYSIS.** ESC determined that a high percentage of mobilization studies showed similarities and possible duplication. These percentages are presented in ESC's *Review of the Army Study Process*¹⁰ and are based on our interpretation of the study abstracts. The similarities identified led AMIC to believe the data repository systems were not being used. Mobilization planners and study program coordinators need to remain up-to-date on current mobilization analyses. Current Awareness Bulletins (CAB) can be requested from DTIC and DLSIE specifically for mobilization. This monthly bulletin provides a list of current and ongoing mobilization studies, and helps the mobilization community remain informed on what is being done, precluding needless duplication of mobilization study effort.

¹⁰ *Review of the Army Study Process*, CEESC-R-91-1 (ESC, October 1990).

ARMY	AIR FORCE
Chemical Research Development and Engineering Center Army Missile Command Concepts Analysis Agency Engineer Studies Center Army Dugway Proving Ground Military Traffic Management Command TRADOC Research and Analysis Center Army Foreign Science and Technology Center Army Ballistic Research Lab Army War College Corps of Engineers Transportation Systems Center Logistics Management Institute Walter Reed Army Institute of Research Army Command and General Staff College Construction Engineering Research Lab Army Research Institute of Environmental Medicine Army Research Institute for the Behavioral and Social Sciences	Air Force Institute of Technology Department of the Air Force Headquarters
NAVY	MARINES
Naval Weapons Support Center Naval Ordnance Station Naval Technical Intelligence Center Center for Naval Analyses Naval War College Naval Ocean Systems Center Naval Postgraduate School Dept of Navy Headquarters Naval Medical Research Institute	Marine Corps Headquarters
	DOD
	Institute for Defense Analysis Industrial College of the Armed Forces Armed Forces Medical Intelligence Center Office of the Secretary of Defense Office of the Assistant Secretary of Defense
	NON-DOD
	Congressional Budget Office
	PRIVATE CONTRACTORS
	Ohio Research Institute Synergy Inc. Shape Technical Center, The Hague Wyvern Research Associates Maden Tech Consulting, Inc. Anser Pennington Biomedical Research Center Analytic Sciences Corp Rand Corp Massachusetts Institute of Technology Pittsburgh University Center for Social & Urban Research

Figure 6. MOBILIZATION ANALYTICAL COMMUNITY

18. PRIORITIZATION OF MOBILIZATION STUDIES. MISMA conducted working group sessions preceding the SPCC in order to prioritize all studies (including mobilization studies) that are submitted for funding through the Army study program. AMIC attended these working group sessions and determined that this process needed input from functional area experts. MISMA provided AMIC with a list of the mobilization studies that were submitted to the 1990 AR 5-5 study program for funding. The ODCSOPS Mobilization Directorate (DAMO-ODM), along with AMIC, reviewed and prioritized the list based on the mobilization issues identified at the GOMR. DAMO-ODM, with their expert knowledge on mobilization, played a key role in eliminating duplication of mobilization study effort and identifying additional areas that may require analysis. This prioritized list was returned to MISMA for SPCC review and was beneficial in expediting the prioritization process.

19. MOBILIZATION NEEDS. DA needs to emphasize developing and implementing MOBNET and MOBCEM. These two models, if designed to work together, can identify major mobilization obstacles facing the Army. The Army must be able to determine requirements and capabilities for any size force at different stages of mobilization to identify major obstacles. Without these models, the mobilization community is only guessing at what the true shortfalls

are during different mobilization stages. These models can be developed to identify problems with equipment, manpower, industrial base, training, deployment, and sustainment of any size force, at all levels and for any stage of mobilization. This idea is graphically presented in Figure 7. AMIC worked with Concepts Analysis Agency and ODCSOPS to incorporate this concept (Figure 7) into the development of MOBCEM.

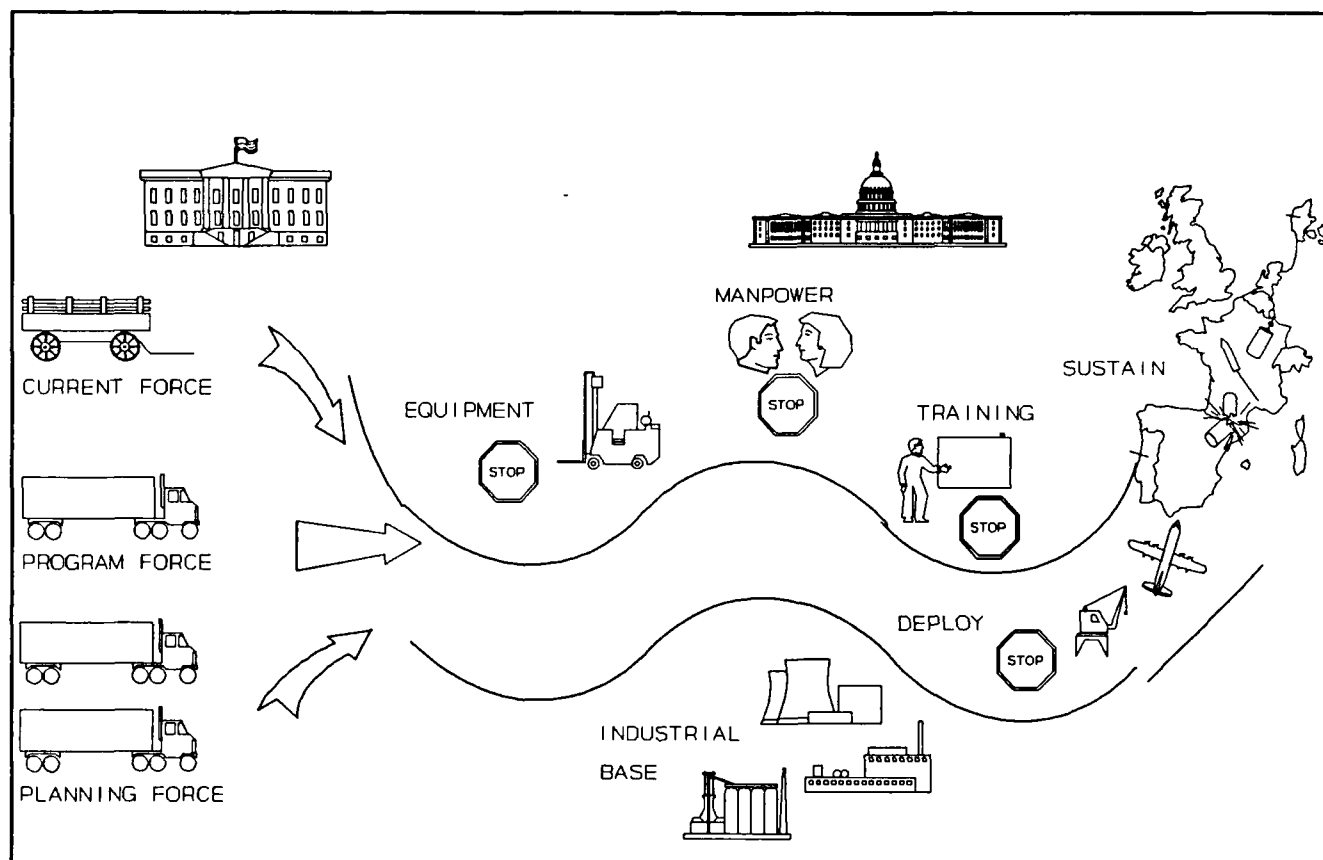


Figure 7. THE ROAD TO TOTAL MOBILIZATION

20. THE ARMY STUDY PROCESS. AMIC reviewed and analyzed the major parts of the Analysis process--the IAP, SPG, SPCC, DTIC, and the Analytical community. AMIC's evaluation of these areas is provided in the ESC publication, *Review of the Army Study Process*.¹¹ This analysis led MISMA and the DUSA-OR to support an additional study devoted to reviewing the Army Study Process. ESC is currently assigned to this task.

¹¹Ibid.

21. FOCUS OF MOBILIZATION ANALYSIS--RECOMMENDATIONS.

a. Continue development and implementation of MOBNET and MOBCEM. These models will assess requirement's shortfalls and help determine the major obstacles during all levels of mobilization. This information would be beneficial in helping the GOMR identify the major mobilization issues requiring analysis.

b. The GOMR and the study approval process need to work together. The GOMR needs to identify the major mobilization issues prior to the submission of studies for approval to the AR 5-5 Study Program. If these two events (GOMR and SPCC working group sessions) occur too close together or in reverse order, it is very likely that poor or low priority mobilization studies will be submitted for SPCC approval.

V. FINAL RECOMMENDATIONS.

22. COMMAND EMPHASIS. Army leaders must play an active role in mobilization. It is important that the Army's major decision makers participate in the process of determining the critical mobilization issues, and supporting analyses to resolve these issues. Without command emphasis, the Army will continue to fund individual "pet rocks"--not the most critical issues that will improve overall mobilization preparedness.

23. MOBILIZATION DEVELOPMENT PLAN. The Army needs a comprehensive plan for identifying major mobilization issues, improving the prioritization of issues, and better focusing mobilization planners and analysts. This plan must incorporate several key areas:

- Identification and consolidation of major obstacles facing the Army during all levels of mobilization.
- Identification of essential elements of analysis for resolving each obstacle.
- Prioritization of required decisions, actions, and analytical efforts for resolving issues.
- Tracking progress on resolving issues.

24. DETERMINATION OF REQUIREMENTS AND CAPABILITIES. It is imperative that the Army effectively identify mobilization requirements and the capability to support requirements. The development and implementation of MOBNET and MOBCEM will provide the Army the mobilization requirements and capability to support any size force, at any level and stage of mobilization. Despite the changing world geo-political situation and the resultant downsizing of the Army, current events (particularly in the Middle East) would indicate mobilization and force expansion are and should remain major concerns. The data generated by the MOBNET and MOBCEM models will help the Army improve and support the mobilization planning process by identifying the major problem areas requiring analysis.

25. COORDINATION OF MOBILIZATION AND ANALYSIS. A closer relationship needs to exist between the identification of mobilization issues and the submission of mobilization studies for funding. At the present time, the GOMR identifies the major mobilization issues for the Army, but does so after the mobilization studies have been submitted for AR 5-5 funding. This system needs to work together so that mobilization analysis reflects the current issues. The AMR/GOMR needs to be held prior to the identification and submission of studies and the SPCC.

26. UPDATE OF INFORMATION SHARING DOCUMENTS. AMIC's three information sharing publications have proven their usefulness in the areas of information exchange, coordination, and elimination of duplication in mobilization study efforts. These documents should be biannually updated and reviewed to ensure continued coordination among mobilization planners.

27. INTEGRATIVE CELL IMPROVED PROCESS. The use of a small integrative cell to correct and improve deficiencies within a critical issue area proved successful. This concept should be applied to improving other critical issue areas, and can ultimately be the catalyst to motivate change.

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ANNEX A

SURVEY OF SELECTED MOBILIZATION PLANNERS

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ANNEX A

SURVEY OF SELECTED MOBILIZATION PLANNERS

<u>Paragraph</u>		<u>Page</u>
1	Purpose	A-1
2	Scope	A-1
3	Methodology	A-1
4	Findings	A-3
5	Conclusions	A-6
<u>Figure</u>		
A-1	Distribution of Recommended Mobilization Study Areas/Concerns (187 Issues)	A-4
A-2	Potential Mobilization Study Subjects	A-5
A-3	Awareness of Ongoing or Recently Completed Studies	A-6
	 APPENDIX A-1: Survey Questionnaire	 A-1-1
	APPENDIX A-2: Data Repositories	A-2-1

1. **PURPOSE.** This annex presents the results of a survey of selected mobilization planners. It explains the survey's purpose, describes survey conduct, and interprets the survey results. Appendix A-1 is the survey's purpose, questionnaire annotated, where appropriate, to show consolidated responses. Appendix A-2 provides information concerning the central data repositories.

2. **SCOPE.** This annex analyzes aggregated responses of 114 survey respondents. It does not address individual responses to the survey questions. Survey limitations, findings, and conclusions are also presented.

3. **METHODOLOGY.**

a. **Purpose of Survey.** The main objective of the survey was to obtain mobilization planner (action officer level) views concerning major Army mobilization issues that need further study and analysis. Ideally, these views and concerns would identify potential gaps and deficiencies in the Army mobilization studies and analysis effort. A secondary purpose was to acquire more detailed point of contact (POC) information (position description, title, mailing address, etc.) in order to develop a comprehensive mobilization planner POC list which would be distributed to the mobilization planning community.¹ Another purpose was to determine the

¹Mobilization Points of Contact List, CEESC-R-90-11 (Engineer Studies Center [ESC], May 1990).

extent of knowledge and use of on-hand mobilization studies available through the central data repositories; e.g., Defense Technical Information Center (DTIC), Defense Logistics Studies Information Exchange (DLSIE), and National Technical Information Service (NTIS).

b. **Questionnaire.** The questionnaire was designed to meet the purposes of the survey described above and to acquire other related and valuable information. (See Appendix A-1, Survey Questionnaire.)

c. **Survey Audience.** The survey target group was drawn from a mobilization planner POC list aggregated at the Engineer Studies Center (ESC) through the conduct of other mobilization studies, attendance rosters of mobilization-related seminars, conferences, and working groups, and through other contacts. The surveyed population was intentionally limited to primarily Army mobilization planners, although a small number of other service and Federal agency representatives were included (6 of 114). Distribution of the 114 survey participants is shown in the following breakdown:

- Headquarters, Department of the Army (HQDA): 55
- Army Materiel Command (AMC): 14
- Forces Command (FORSCOM): 23
- Training and Doctrine Command (TRADOC): 12
- Joint Chiefs of Staff, Office of the Secretary of Defense (JCS-OSD): 3
- U.S. Army Corps of Engineers (USACE): 3
- Other Federal Agencies: 4

d. **Conduct of the Survey.** ESC conducted a telephone survey in order to develop personal interface, facilitate the development of study topic proposals, and avoid the time loss and non-response rate associated with mail-back questionnaire surveys. The interviewer filled in a blank questionnaire form during the course of the interview. Conversation time varied between 10 and 30 minutes, depending on the respondent's expertise, interest, and time available. Participation was generally good, with high interest and willingness to contribute.

e. **Method Limitations.**

(1) *Size and Strata of Sample (Population).* The 114 survey participants were in Headquarters or agencies at or above the MACOM level. ESC did not solicit views and inputs of mobilization planners below the MACOM level.

(2) *Composition of Survey Audience.* Use of an aggregated POC list (see survey audience description above) may have resulted in overrepresentation of some offices/agencies,

while it is probable that some offices/agencies with mobilization planning functions were not represented. An influencing factor was the nature of the mobilization conferences and functions from which the POC lists were derived. Office/agency involvement was related to the intended focus of these functions. (The ESC study team made a concerted effort to obtain names of mobilization planners to expand the sample.)

4. FINDINGS.

a. Respondents' Views on Army Mobilization Issues Requiring Further Study and Analysis:

(1) *General.* The 114 survey participants identified a total of 187 issues. Respondents usually had one or more issues to offer, although 23 respondents had none. Some respondents indicated that no new studies were needed; completed studies should be read and their recommendations implemented. Others (the balance) qualified their issues as concerns, indicating that the issue(s) are probably well studied already, but the associated problems are still unresolved. The study team believed the latter response was somewhat influenced by the preceding questions and interview discussion pertaining to awareness and use of the central data repositories. After learning that many mobilization-related studies were available in the data repositories, some respondents may have been reluctant to indicate new studies were needed.

(2) *Methodology.* The 187 topics were each unique and required grouping for analysis. The study team grouped the issues based on the "title" offered by the respondent while drawing from survey discussion notes to provide context. Each issue was assigned to 1 of 9 functional areas (Personnel, Transportation /Logistics, Materiel, Medical Support, Forces, Industrial Base, Command/Control/Communications, Mobilization Stations, Training Base) of the Army Mobilization Integration Cell (AMIC) taxonomy which were also used for grouping of existing studies. The issues were then further grouped by topics under each major functional area (e.g., an issue grouped in Personnel was further assigned to 1 of 4 topic areas [Acquisition, Civilian, Military, Retirees] under Personnel).

(3) Distribution of Mobilization Issues.

(a) *Functional Area Taxonomy.* Figure A-1 shows the functional area distribution of mobilization issues (recommended study areas or concerns) derived from the survey. There was predictable (logical) correlation between the nature of the issue identified and the functional area in which the respondent worked. The major exception to this rule was the relatively high number of issues categorized under command/control/communications (C³)--a functional area which had only minimal representation (3 percent) among the survey participants. The C³ functional area was, however, broadly categorized. It included, for example, many issues and concerns related to the following areas: automatic data processing (ADP) interface and integration; standardization of systems and plans; national strategy deficiencies; multitude of issue management systems; coordination of mobilization-related projects and actions; and coordination of planning at all levels. These were only some of the issues and concerns assigned to this functional area.

FUNCTIONAL AREA	NUMBER	PERCENT (Total)
PERSONNEL	15	4
Acquisition	1	
Civilian	6	
Military	7	
Retirees	1	
TRANSPORTATION/LOGISTICS	23	7
Distribution/Status	2	
Facilities/Maintenance	2	
Mode/Means	10	
Supply/War Reserve	9	
MATERIEL	14	4
Disposition	3	
Distribution	4	
Research/Development/Acquisition	2	
Status	5	
MEDICAL SUPPORT	5	1
Facilities/Equipment	1	
Manpower	1	
Rehabilitation/Evacuation	3	
Treatment	0	
FORCES	13	4
Active Component Units	3	
Composition 4 Units	0	
New Units	3	
Reserve Component Units	7	
INDUSTRIAL BASE	43	13
Construction	1	
Materials	3	
Plant	14	
Priorities	10	
Production	15	
COMMAND/CONTROL	46	13
Automatic Data Processing Support	8	
Coordination	11	
Interface	8	
Planning/Implementation	19	
MOBILIZATION STATIONS	12	4
Command/Control/Communications	3	
Construction (non-industrial)	1	
Facilities	5	
Manpower	3	
TRAINING BASE	16	5
Field Training/Command Post Exercises	0	
Individual Preparation	7	
Training Facilities	0	
Unit Preparation/Validation	9	
TOTAL ISSUES	187	

**Figure A-1. DISTRIBUTION OF RECOMMENDED
MOBILIZATION STUDY AREAS/CONCERNS (187 ISSUES)**

(b) *Potential Study Topics.* Figure A-2 lists the potential mobilization study topics derived from detailed analysis, grouping, and synthesizing of the issues identified by the respondents.

PERSONNEL

- Investigate the impact on the agency mission of military mobilization of "key" civilian personnel members of reserve components.
- DOD and Federal agency civilian workforce expansion requirements in mobilization.

TRANSPORTATION/LOGISTICS

- Allocation and management of transportation assets during mobilization.
- Logistics support requirements to expand the force.

MATERIEL

- Redistribution/cross-leveling of equipment uncovered by deploying units.
- Need to identify the logistical linkage/interrelationship/dependency of spares and repair parts for weapons and primary support systems.

MEDICAL SUPPORT

- The casualty estimating, reporting, and treatment processes in conjunction with replacement operations for the AirLand Battle Environment.

FORCES

- Need for correlation of CAPSTONE alignment and mobilization station assignment for reserve component forces.

INDUSTRIAL BASE

- Can we satisfy wartime production and surge manufacturing requirements by using flexible manufacturing techniques in conjunction with revised materiel standards/specifications?
- Assessment of previous study and analysis efforts which identify mobilization industrial base expansion requirement shortfalls, for the purpose of development and implementation of action plans.

COMMAND/CONTROL

- An assessment of interoperability of ADP systems used within DOD, the U.S. Federal and Allied Governments to determine interface deficiencies that may degrade coordination of mobilization activities.
- Determine and assess the extent of contemporary coordination/interface problems within the Army (with DOD and Federal Agencies) which impede the mobilization planning process.

MOBILIZATION STATIONS

- A realistic assessment of mobilization station facility capacity to accept and process scheduled units for training, and the validation of unit readiness for deployment.

TRAINING BASE

- Determine the required training to validate units for deployment, and review the process followed to satisfy the established individual and unit proficiency standards.

Figure A-2. POTENTIAL MOBILIZATION STUDY SUBJECTS

b. Respondents' Awareness of Mobilization Studies Underway or Recently Completed. Overall awareness was fair, but was primarily limited to major studies underway or recently completed by the respondents' own agency or MACOM. **Figure A-3** reflects the awareness of ongoing or recently completed (new) studies by MACOM. The awareness factor was influenced by the number, scope, and visibility of mobilization-related studies within MACOMs and agencies; the awareness range among MACOMs/agencies is not considered significant.

MACOM/AGENCY	NUMBER POLLED	AWARE OF ONGOING/NEW STUDIES
HQDA	55	62%
FORSCOM	23	57%
AMC	14	71%
TRADOC	12	83%
OTHER	10	60%

Figure A-3. AWARENESS OF ONGOING OR RECENTLY COMPLETED STUDIES

c. Extent of Knowledge and Use of On-hand Mobilization Studies Available through the Central Data Repositories (Questions 23 and 24).

(1) Question 23, which asked if the respondent used the central data repositories, presumed a certain awareness of the repositories; many respondents were not familiar with the repositories, and required an explanation and description of each. The study team considered the generally low level of apparent awareness and use of the central data repositories a significant finding. Because awareness is a prerequisite of use, respondents were not accessing a large number of completed mobilization studies and were unaware of ongoing and recently completed studies. (A description of the central data repositories and their products and services is provided in Appendix A-2.)

(2) Notwithstanding awareness, actual use of the repositories in search of mobilization information was quite low (Question 24). Less than half (42 percent) of the respondents claimed any use of the central data repositories and of these, only 10 percent indicated "often" usage (greater than once a year). The survey showed that the mobilization planning community is making relatively little use of the central data repositories to determine if a problem area has already been studied or, if so, acquire and evaluate the information already available. None of the respondents indicated they were using any of the central data repositories' "current awareness" type services to monitor completion and availability of new studies in their areas of interest.

5. CONCLUSIONS.

a. ESC accomplished the main purpose of the survey--to obtain mobilization planner views concerning major Army mobilization issues requiring further study and analysis. Respondents generally identified study needs within their specific areas of expertise--thus some topics were extremely narrow in focus. Few, identified cross-functional needs. Those topics which did cross functional needs were probably grouped in the command/control category--explaining why this was the largest category of study needs. However, the resulting topic list must be used with care due to the limited size of the survey sample and the subjective and interpretive nature of the issue identification and condensation process.

b. Findings concerning data repository use suggest that issues identified for further study (or as concerns) were generally provided without the respondents' awareness of related completed studies. (Respondents were, however, more aware of ongoing studies, particularly if within their own agencies.)

c. Mobilization planners (those surveyed and others) are probably nominating study topics for the Army Study Program without appropriate preliminary query of the central data repositories to determine the existence and adequacy of on-hand information. In some cases, existing studies may only need an update or supplemental study--not comprehensive, "start from scratch" efforts. Significant duplication of study effort is probably occurring.

d. The mobilization planning community will benefit from better utilization of the central data repositories to locate and acquire useful mobilization-related information, avoid duplication of effort, and to ensure awareness of new studies as they are completed and added to the data repositories.

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APPENDIX A-1 TO ANNEX A
AMIC QUESTIONNAIRE

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APPENDIX A-1 TO ANNEX A

AMIC QUESTIONNAIRE

SECTION 1

ESC COMMENT: The purpose of this section of the questionnaire was to gather point of contact (POC) information, to include the mobilization role and primary focus of the mobilization respondent. Responses for items 1-10 are not aggregated; otherwise, responses are aggregated, where appropriate.

1. LAST NAME: _____ FIRST: _____ MI: _____
2. RANK: _____ 3. MACOM/AGENCY: _____
4. DIVISION: _____ 5. BRANCH: _____
6. OFFICE SYMBOL: _____ 7. PHONE (AUTOVON): _____
8. PHONE (COMMERCIAL): _____
9. POSITION DESCRIPTION/TITLE: _____
10. MAILING ADDRESS: _____
11. MOBILIZATION ROLE:
 - A. PLANNER: 76
 - B. EXERCISES: 4
 - C. SUPPORT TO PLANS AND EXERCISES: 34

ESC COMMENT: This question was intended mainly to establish the respondent's role and perspectives early in the interview process. It attempted to distinguish between the person who had an actual mobilization planning responsibility (i.e., produced mobilization plans) versus those who primarily played in mobilization exercises or otherwise input to/supported the mobilization planning process. Interview discussions revealed that these categories were somewhat interpretive; accordingly, the distinction is of questionable usefulness.

12. PRIMARY MOBILIZATION FOCUS IS:
 - A. PERSONNEL: 13

- B. TRANSPORT/LOGISTICS: 14
- C. MATERIEL: 9
- D. MEDICAL SUPPORT: 1
- E. FORCES: 15
- F. INDUSTRIAL BASE: 16
- G. COMMAND/CONTROL/COMMUNICATIONS: 3
- H. MOBILIZATION STATIONS: 4
- I. TRAINING BASE: 10
- J. OTHER: 29

ESC COMMENT: A number of the respondents identified several areas of focus. Many, particularly those at the higher staff levels, indicated a focus that spanned all of the above functional areas. The latter responses are reflected in "OTHER".

SECTION 2

ESC COMMENT: The purpose of this section of the questionnaire was to identify the mobilization planning documents which seemed to be the process mainstays, and hence the most valuable to the respondents in their varying mobilization functions (acknowledging the respondents' MACOM/agency was an influencing factor). Another purpose was to learn of other mobilization documents considered key by planners to their specific focus areas. The frequency of reference is shown below (Questions 13-16).

13-16. MOBILIZATION DOCUMENTS PRIMARILY USED (4 MAXIMUM):

- A. ARMY MOBILIZATION AND OPERATIONS PLANNING SYSTEM (AMOPS): 79
- B. AR 500-5 (ARMY MOBILIZATION & OPERATIONS PLANNING SYSTEM): 10
- C. FORSCOM MOBILIZATION & DEPLOYMENT PLANNING SYSTEM (FORMDEPS): 45
- D. DOD DIRECTIVES: 21
- E. EXECUTIVE ORDERS: 10
- F. JOINT STRATEGIC PLANNING DOCUMENT (JSPD): 16

G. JOINT INDUSTRIAL MOBILIZATION PLANNING PROCESS
(JIMPP): 10

H. OTHER: 71

17. OTHER MOBILIZATION DOCUMENTS USED NOT LISTED ABOVE:

ESC COMMENT: Of the 71 "OTHER" mobilization documents identified, many were specific Army Regulations, DA Pamphlets, or Chief of Staff Regulations dealing with the respondent's individual focus area. With the exception of the TRADOC Mobilization and Operations Planning System (TMOPS), which was almost universally cited by TRADOC respondents, the frequency of mention of any one document or item was relatively low. The key documents/items which were mentioned two to three times are shown below:

Defense Guidance
The DOD Master Mobilization Plan
The Army Plan
Concepts Analysis Agency OMNIBUS
Training Base Expansion Plan
Force Mobilization Troop Basis (FMTB)
Mobilization Requirements Model (MOBREM)
Time Phased Force Deployment Data (TPFDD)
Total Army Equipment Distribution Plan (TAEDP)

SECTION 3

ESC COMMENT: The purpose of this portion of the questionnaire was to sample respondent awareness of other ongoing (or recently completed) mobilization studies and record any studies identified for further tracking. Another purpose was to learn the extent of knowledge and use of on-hand mobilization studies available through the central data repositories (DTIC, DLSIE, NTIS). (See discussion in Paras 4b and 4c, Annex A.)

18. ARE YOU AWARE OF MOBILIZATION STUDIES UNDERWAY OR
RECENTLY COMPLETED?

YES: 73 NO: 41

(IF NO, SKIP QUESTIONS 19-21)

19. TITLE: _____

20. SOURCE (MACOM/AGENCY): _____

ESC COMMENT: Respondents identified 41 different studies. When studies were identified, they were primarily major study efforts within the respondent's own MACOM or agency. Knowledge of the completion date (Question 21, below) was generally good.

21. DATE COMPLETED OR ESTIMATED COMPLETION DATE:

22. WHAT PERCENT OF YOUR TIME IS SPENT ON MOBILIZATION ISSUES?

0-15 Percent:	31
16-50 Percent:	15
51-75 Percent:	8
76-100 Percent:	60
TOTAL:	<u>114</u>

ESC COMMENT: The distribution of responses to Question 22 relates to the respondent's perception of his/her mobilization role addressed in Question 11, i.e., those who considered themselves mobilization planners (as opposed to supporters) tended to be more involved. The high number (60) in the highest bracket tends to validate the survey audience, showing that it was, in fact, primarily composed of those heavily involved in the mobilization planning business.

23. DO YOU USE THE CENTRAL DATA REPOSITORIES (DEFENSE TECHNICAL INFORMATION CENTER (DTIC), DEFENSE LOGISTICS STUDY INFORMATION EXCHANGE (DLSIE), NATIONAL TECHNICAL INFORMATION SERVICE (NTIS)?

YES: 48 NO: 66

(IF NO, SKIP QUESTION 24).

ESC COMMENT: The "yes" response of 48 is probably inflated. In some cases, replies from military respondents indicating use of these repositories seemed (in context) to be linked to earlier service school use for research paper purposes, as opposed to use while in their present jobs.

24. HOW OFTEN?

A. RARELY: 21

B. OCCASIONALLY: 15

C. OFTEN: 12

(OFTEN IS DEFINED AS GREATER THAN ONCE A YEAR.)

ESC COMMENT: The figures reported in "RARELY" and "OCCASIONALLY" should be considered in cognizance of the rather generous definition (above) provided the respondent for "OFTEN". (See summarizing discussion of Questions 23 and 24 in Para 4c, Annex A.)

SECTION 4

ESC COMMENT: This section of the questionnaire focuses on the main objective of the survey - to obtain mobilization planner (action officer level) views concerning major Army mobilization issues requiring study and analysis. (See discussion of issue proposals in Para 4a, Annex A.)

25. WHAT ARE THE ARMY'S MAJOR MOBILIZATION ISSUES REQUIRING FURTHER STUDY AND ANALYSIS?

STUDY SUBJECT 1 _____

STUDY SUBJECT 2 _____

STUDY SUBJECT 3 _____

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APPENDIX A-2 TO ANNEX A
DATA REPOSITORIES

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APPENDIX A-2 TO ANNEX A

DATA REPOSITORIES

<u>Paragraph</u>		<u>Page</u>
1	General	A-2-1
2	Products and Services	A-2-1
3	Data Repository Descriptions	A-2-2

1. **GENERAL.** There are three data repositories which can be of considerable help to the mobilization planner or action officer. Each data repository has a different "charter" and provides different (but often somewhat overlapping) services and products.

- The Defense Technical Information Center (DTIC).
- The National Technical Information Service (NTIS).
- The Defense Logistics Studies Information Exchange (DLSIE).

a. **Document Collection.** All three repositories collect documents (studies, reports, journal articles, etc.), and enter them into a computer data bank. Each repository agency uses its own system of cataloging, sorting, and otherwise describing each study or document in its data base for retrieval purposes.

b. **Descriptors.** Documents are assigned to specific fields within the data bases and are further assigned various "descriptors" which enable sorting and recovery. These "descriptors" play a key role in enabling the staff officer to focus a study search effort based on a specific topic or a more general subject area.

2. PRODUCTS AND SERVICES.

a. **Customer Service/Marketing.** The data repositories exist to provide products and services, not to simply store data. Each has its own "customer service" and "marketing" offices from which considerable help can be obtained. In this connection, each repository offers a customer information packet, available for the asking, which describes its products and services, and how to obtain them.

b. **Searches/Bibliographies.** Generally, each repository produces periodic bibliographies or listings of what studies have been acquired (during a specified period) to include information pertaining to ongoing studies. The repositories also offer "custom" searches and bibliographies based on a specific user request. These can be based on a general subject area (e.g., "mobilization planning") or more focused (e.g., "industrial base; ammunition production"). Desired time parameters can (and should) be specified; e.g., "since 1978" or "1986-1988."

c. **"Current Awareness" Service.** In addition to one-time demand products, each data repository has some form of a "current awareness" service. Based on a specified topic area, a customer will automatically be provided (every two weeks or monthly, depending upon which repository is being used) a bibliographic listing, which includes an abstract description of newly received and initiated studies in the field of interest. This type of service can be arranged for any number of action officer responsibility or focus areas, and can be arranged with several data repositories at the same time.

3. DATA REPOSITORY DESCRIPTIONS.

a. The Defense Technical Information Center (DTIC).

(1) **Charter.** DTIC is the Department of Defense (DOD) central point for acquiring and disseminating scientific and technical information to support the management and conduct of DOD research, development, engineering and studies programs. Sources of studies and documents include DOD agencies, DOD contractors, and grantees, other U.S. Government agencies, educational institutions, and foreign agencies and institutions, including North Atlantic Treaty Organization.

(2) **Eligible Users.** All government agencies, contractors, grantees, and potential contractors. All users must register for service from DTIC (usually through a local supporting library) to establish eligibility to use DTIC services and, if applicable, to receive classified material from DTIC.

(3) **Costs.** Most DTIC services are free to DTIC registered users although there are charges for paper copy and microfiche documents; e.g., a bibliographic listing (which includes an abstract) of studies addressing a particular topic is free, but there is a charge for copies requested from the listing. Charges are \$5.00 for 1-100 pages and 7¢ for each additional page over 100; microfiche charges may vary between 35¢ and 95¢ per document. There are also some costs incurred in using some of DTIC's on-line data services. (Detailed cost information is contained in DTIC's promotional literature.)

(4) *Products and Services.*

(a) **Technical Reports Awareness Circular (TRAC).** This is an unclassified monthly listing of all studies, research and development documents, and test and evaluation documents acquired by DTIC during the preceding month. It is distributed to authorized DTIC users without charge.

(b) **Selective Dissemination of Information (SDI) Services.** These are DTIC's Current Awareness Bibliography (CAB) and Automatic Document Distribution (ADD) programs. The CAB program features automatic biweekly mailings of bibliographies (which include abstracts) of newly received studies/reports that fit a user-tailored criteria. The ADD program is similar, except that a microfiche copy instead of a bibliography of the newly received study/report is automatically mailed.

(c) **Subject Bibliographies.** DTIC provides "demand" bibliographies on request in response to specific area-of-interest user requirements.

b. The National Technical Information Service (NTIS).

(1) *Charter.* NTIS is an agency of the U.S. Department of Commerce. It is the central source for the public sale of U.S. Government-sponsored research, development, and engineering reports, and for sales of foreign technical reports and other analyses prepared by national and local government agencies and their contractors or grantees.

(2) *Eligible Users.* NTIS services are available to the public as well as DOD and other Federal agencies.

(3) *Costs.* NTIS is a unique Federal agency supported by its customers. Fees are charged for all services and products except for some catalogs and general information material.

(4) *Products and Services.*

(a) *Published Searches.* Published searches are bibliographies resulting from online computer searches of leading U.S. and international scientific and technical databases. These searches are single-subject oriented and address specific time periods. Listings of all current published searches are published in an annual Published Search Catalog.

(b) *Government Reports Announcements and Index Journal.* A journal issued twice monthly covering all of the research and development and engineering results as they are received, cataloged, and announced by NTIS.

(c) *Online Computer Search.* Online computer searching for the NTIS database (demand bibliographies) for on-hand studies and reports as well as access to Federal research in progress.

(d) *Selected Research in Microfiche (SRIM).* This service automatically provides the user selected technical reports as they are issued. Customers design or select their own subscription parameters.

c. The Defense Logistics Studies Information Exchange (DLSIE).

(1) *Charter.* DLSIE has DOD-wide responsibilities which require it to collect, organize, store, and disseminate information relating to logistics studies, models, management information and related documentation which may be of benefit to the DOD logistics management and research community. The DLSIE charter and the implementing regulations place specific reporting requirements on DOD components. Each is responsible for identifying and submitting to DLSIE information concerning logistics studies and logistics models (planned, in-process, and completed), and other documentation which they sponsor.

(2) *Eligible Users.* DLSIE is authorized to provide its services to all DOD activities and other U.S. Government agencies as well as DOD contractors and grantees.

(3) *Costs.* DLSIE services are free of charge, although certain limitations concerning substantial requests by non-DOD agencies may be imposed.

(4) *Products and Services.*

(a) *Custom Bibliographies/Catalogs.* These entail a focused search of the studies data base to meet a customer's specific needs. Computer printouts are generated based upon the specified information search parameters.

(b) *Selective Dissemination of Information (SDI).* An SDI is simply an advance automatic bibliographic/catalog service. The user selects information categories that meet their specific and unique research or management needs, thus establishing an "information profile." The screening of newly accessioned logistics efforts (planned, in-process, and completed) to match the information profile results in an SDI information packet automatically provided to the user on a monthly basis over a limited period of time.

(c) *Annual DOD Bibliography of Logistics Studies and Related Documents.* This is a comprehensive document distributed in January of each year. It features a number of useful indexes and provides a complete bibliography, to include abstracts, of logistics (the term is broadly applied) study efforts that are planned and in-process, and those that have been completed in the past two years.

ANNEX B

FUNCTIONAL AREA SEMINARS

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ANNEX B

FUNCTIONAL AREA SEMINARS

<u>Paragraph</u>		<u>Page</u>
1	Purpose	B-1
2	Scope	B-1
3	Methodology	B-1
4	Findings	B-2
5	Observations	B-4

1. **PURPOSE.** This annex documents the results of the functional area mobilization seminars conducted by the Engineer Studies Center's (ESC) Army Mobilization Integration Cell (AMIC).

2. **SCOPE.** ESC's AMIC chose four functional areas for investigation: Logistics, Engineer, Personnel, and Force Development. Three functional areas--Personnel, Logistics, and Force Development--were investigated because they are the major players in the mobilization arena. The Engineer area was investigated to support mobilization efforts within the U.S. Army Corps of Engineers. The seminars were structured to --

- Examine functional area mobilization issues to highlight the most critical issues.
- Identify study efforts required to resolve the key mobilization issues identified.
- Improve coordination among mobilization planners and provide a forum for information sharing and networking.

3. METHODOLOGY.

a. **Identification of Issues.** Prior to conducting the seminars, AMIC identified deficiencies/issues in mobilization planning within each functional area. This served as a starting point for seminar discussions. AMIC then identified the initial key issues within each functional area using published studies, research reports, surveys, and personal interviews. The majority of the information collected resulted from the surveys and follow-up interviews. AMIC used the information gathered from the surveys and interviews to identify the issues presented for discussion at the functional area seminars.

(1) **Surveys.** ESC's AMIC sent surveys to key mobilization planners within each functional area. The surveys were designed to identify --

- The scope of planners' mobilization duties.
- How the Army currently conducts mobilization planning.
- Major problem areas that prevent mobilization plan completion and reduce the effectiveness or ability to execute mobilization.

(2) *Interviews.* After evaluating the survey information, ESC's AMIC conducted personal interviews with key mobilization planners to further define and narrow the focus of issues within each functional area.

b. **Functional Area Seminars.** AMIC designed the seminars so that participants could further narrow the focus of key issues, assess the cause and impact of each issue upon the mobilization community, and provide a possible solution for each issue. AMIC structured the seminars so that a mobilization planner presented each issue. After presentation, seminar participants discussed the issues from their perspectives. The seminars proved only partially successful in obtaining a consensus of issue criticality and identifying responsible parties to resolve key issues.

4. FINDINGS.

a. **Overview.** The results of the Logistics, Engineer, Personnel, and Force Development seminars are presented in Appendices B-1 through B-4, respectively. These seminars succeeded in --

- Narrowing the focus of key issues presented for discussion.
- Identifying study effort required to resolve key mobilization issues.
- Improving coordination among mobilization planners and providing a forum for information sharing and networking.

b. **Key Mobilization Issues.** The seminars uncovered four issues common to each functional area that either prevented or reduced the effectiveness of mobilization plan execution.

- Lack of command emphasis.
- Need for automation and systems integration.
- Documentation of requirements.
- Integration of mobilization considerations into daily operations.

The issues outlined above are not new. Various staffs and commands have previously discussed them, developed solutions, and begun work to implement their solutions. However, these issues still face the mobilization planner. Some issues persist due to systemic reasons; others because

of mobilization planners' inability to control or apply scarce resources to implement required solutions. The following paragraphs provide a more in-depth discussion of the issues.

c. Command Emphasis

(1) Mobilization requires command emphasis from the secretariat level down. There should be an entity at the Vice Chief of Staff of the Army level whose chief duty is Army mobilization preparedness, including the inter-service and industrial support necessary to equip, field, and sustain the Army.

(2) The perception in the field is that interest in mobilization is falling. This perception is caused by shrinking budgets for mobilization planning, the consistent prioritization of programs that benefit mobilization below those for current operations, and a lowering of general officer representation on the General Officer Mobilization Review.

(3) Many pressures lower mobilization's priority. Command emphasis is focused on obtaining the largest combat power for a given budget. This is measured in terms of current force capability. This command emphasis is reflected at lower command levels where commanders maintain the highest state of readiness possible through soldier training and equipment maintenance goals. Resources budgeted for mobilization planning do not contribute to these goals. Additionally, commanders realize mobilization may never occur during their watch. Therefore, they see little payback for expending resources on mobilization planning when daily operational demands--time, manpower, equipment, and money--consume all available resources. Since performance is measured in terms of current accomplishments, without command emphasis, mobilization will continue to be considered a future event receiving little attention.

d. Automation/System Integration. This issue has three problem areas: the absence of an automated system to perform a specific function; the lack of integration of separate systems into a network where information can be freely exchanged; and the low priority of funding automated systems that support mobilization planning and execution.

(1) *System Development.* This issue refers to creating an automated system where none exists or to adding new capabilities to existing systems. While there are plenty of ideas on how to enhance mobilization planners' abilities, it is much more difficult to arrange funding of those solutions. It is also difficult to fix the responsibility for system development when the desired system goes beyond the bounds of a given installation, command, or service.

(2) *System Integration.* This issue is more complex. There is a constant and growing desire for information that is more accurate, current, detailed, and readily available. Many of the current systems were designed to perform specific functions or groups of functions. However, the systems were not designed to operate as part of a larger system where common data could flow throughout. This causes duplication of effort, for example data input, both horizontally and vertically throughout the Army. Planners also desire systems that can be

queried on line with "what if" type questions. Because of the vast quantities of data involved in mobilization problems, this has yet to be accomplished. Therefore, planners work with hard copy output which quickly becomes dated and is difficult to recreate. These problems are not unique to automated systems used in mobilization planning. Because future shrinking budgets will intensify the need to plan more efficiently, system integration and the need for current on-line information becomes paramount.

(3) *Funding.* The last point on automation is budget priority for improvements that benefit mobilization. When there are insufficient funds to accomplish all desired improvements or acquire new systems, priority is shifted to maintaining existing systems or developing enhancements that benefit current operations. The most frequently suggested answer to this dilemma is that mobilization must fight for scarce funds along with all other needs. Unfortunately, commanders who see mobilization as a low priority issue because it lacks immediacy are unlikely to fund systems and enhancements that are mobilization-oriented.

e. Requirements and Documentation.

(1) *Mission Requirements.* The ability to quantify requirements is an obstacle to planners. Planners connected with facilities, both troop training and industrial facilities, want hard numbers to plan facility capacity. Planners who work in operations require current facility capabilities and the resources needed to exceed those capabilities. These requirements are time sensitive. Because threat assessments and scenarios are continually changing, the requirement to support anticipated operations becomes a moving target. Additionally, the total mobilization force has yet to be determined, leaving planners to concentrate on the more solvable problem of partial or full mobilization.

(2) *Force Documentation.* This problem is twofold. The first component is the inaccuracy of some data for partial and full mobilization. As data are transferred from one system to the next, inaccuracies are carried forward and compounded. Also, because of the size and complexity, there is no one time when all data are current. Therefore, some data are already dated at any point in time. The second problem emerges because the total mobilization requirement has never been set. For this reason, mobilization planners have been unable to complete the force documentation to support the total MOB force. Therefore, some data simply do not exist. The fallout of this problem is that mobilization planning created in the absence of accurate data is highly suspect.

f. Daily Integration. This concept is to integrate mobilization considerations into daily activities wherever possible. There is a duality in the systems that make the Army run. We do business one way during peace, but another planned way for mobilization. As previously mentioned, peacetime operations get the attention and funding, and the viability of mobilization is questionable. Unless a person is primarily a mobilization planner, mobilization is merely an exercise that interrupts normal work. If the systems and procedures we use to conduct daily operations were designed around mobilization requirements, transition to mobilization would merely be a change in the tempo and quantity of actions processed--not a shift to a new system. While this method is not as expedient in peacetime, it increases our capability to transition to war.

5. OBSERVATIONS.

a. **Information Sharing.** The seminar process revealed a need for an increase in the amount of communication that flows between mobilization planners. Planners were knowledgeable within their own area, but many had little appreciation of work others were doing, even when it closely paralleled their own. The seminars provided a good vehicle to accomplish this networking on a one-time basis. Recurring working forums, concentrating on specific issues or common tasks, would promote networking and reduce duplication of effort.

b. **Personnel Job Series.** Another issue that was not explored deeply, but worth noting, is the fact that there is no civilian job series nor military occupational specialty for mobilization planners. AMIC determined from seminar discussions and production of the *Mobilization POC List*,¹ that the percentage of turnover in the mobilization field was high; for most new personnel, it was their first such position. This translates into a constant loss of expertise as personnel move on to other fields.

c. **Future Mobilization Planning.** The drastic changes that have occurred in the world political climate along with domestic budget pressures are dictating an entire review of our defense posture. It is time to review the philosophies and strategic aims of mobilization. The problem of total mobilization, including force and industrial expansion, has been worked for years. The debate whether mobilization should be requirements- or capabilities-driven continues because we have not been able to create a plan that conclusively shows that capabilities will meet requirements. New guidance, based on realistic goals of force expansion and political will, should be implemented. This is the best opportunity to set parameters on which conventional battles this country is willing to fight, and which it should avoid. Future mobilization plans based on achievable goals will prove far more valuable to mobilization planners than plans structured to achieve mobilization preparedness against any threat throughout the world.

¹*Mobilization Points-of-Contact List*, CEFSC-R-90-11 (ESC, May 1990).

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LAST PAGE OF ANNEX B

APPENDIX B-1 TO ANNEX B
LOGISTICS

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APPENDIX B-1 TO ANNEX B

LOGISTICS

<u>Paragraph</u>		<u>Page</u>
1	Purpose	B-1-1
2	Scope	B-1-1
3	Findings	B-1-1
4	Conclusions	B-1-10

Figure

B-1-1	Logistics Mobilization Seminar Attendees	B-1-2
B-1-2	Logistics Mobilization Seminar Issues	B-1-3
B-1-3	Mobilization Planning Documents/Systems	B-1-4

1. **PURPOSE.** This appendix identifies key mobilization issues that confront the Army logistics community. Additionally, it identifies, as appropriate, study efforts which would resolve these issues.

2. **SCOPE.**

a. This appendix summarizes the results of the Logistics/Mobilization Integration Seminar conducted at the Humphrey's Engineer Center, 11 January 1988. Seminar participants (**Figure B-1-1**) discussed the findings and conclusions of an Army Mobilization Integration Cell (AMIC) analysis of real and perceived deficiencies. The deficiencies pinpointed were those in the Army's industrial preparedness planning, Logistics Decision Support System (LOG DSS), material requirements documentation, and sustainability areas which impact Logistics mobilization planning. The objective of the seminar was to reach consensus on mobilization deficiencies which warrant more structured analysis. Seminar participants also discussed how the Army might better focus its analytical effort to enhance mobilization planning in the context of current and future Department of Defense (DOD) policy and national security strategy and objectives.

b. The remaining portions of this appendix describe the major deficiencies which seminar attendees targeted for elimination to meet mobilization planning objectives, especially those concerning Total Mobilization. Each deficiency is discussed separately. This discussion includes a brief explanation of the cause, its impact on the mobilization planning process, and a summary of recent or planned activity designed to eliminate or mitigate the effects of the deficiency.

3. **FINDINGS.** **Figure B-1-2** lists the eight issues developed by AMIC for discussion at the Logistics Seminar. Seminar participants narrowed these eight issues to three major ones: inaccurate Mobilization Table of Distribution and Allowances (MOBTDA) documentation, Army Acquisition Objective, and Logistics Automation Information Management. The following paragraphs contain a discussion of the major issues and identify the required actions to resolve each one.

OFFICE/AGENCY REPRESENTED	ABBREVIATION/ OFFICE SYMBOL
Deputy Under Secretary of the Army for Operations Research Study Program Management Agency	(DUSA-OR) (SPMA)
Assistant Secretary of the Army for Research, Development and Acquisition Office of the Director, Plans and Programs Office of the Director, Policy Division	(AS-RDA) (SARD-RPI) (SARD-RPP)
Assistant Secretary of the Army for Installations and Logistics Office of the Deputy AS for Logistics	(AS-I&L) (SAIL-LOG)
Office of the Deputy Chief of Staff for Logistics Logistics Assessment Center Information Management Office Operations and Plans Division Equipment Readiness and Distribution Division Supply and Maintenance Policy Division	(ODCSLOG) (DALO-PLA) (DALO-PLI) (DALO-PLO) (DALO-SMD) (DALO-SMP)
Office of the Deputy Chief of Staff for Operations Mobilization Division, Operations, Readiness and Mobilization Directorate	(ODCSOPS) (DAMO-ODM)
U.S. Army Force Development Support Agency (USAFDSA) TOE, BOIP and TAADS Division*	(MOFD-Z) (MOFD-DOC)
U.S. Army Concepts Analysis Agency (USACAA) Strategy, Plans and Mobilization	(CSCA) (CSCA-SPM)
U.S. Army Decision Systems Management Agency (DSMA)	(CSDS-ZA)
U.S. Army Materiel Command Office of the Deputy Chief of Staff for Industrial Preparedness	(AMC) (AMCPD-IM)
U.S. Army Industrial Engineering Activity	(IEA)
Defense Technical Information System	(DTIC)
U.S. Army Engineer Studies Center	(CEESC)
*TOE (Table of Organization and Equipment) BOIP (Basis of Issue Plan) TAADS (The Army Authorization Documentation System)	

Figure B-1-1. LOGISTICS MOBILIZATION SEMINAR ATTENDEES

- **Issue 1:** MOBTDA documentation.
- **Issue 2:** Industrial Preparedness Planning (IPP) automation integration.
- **Issue 3:** Logistics decision support systems connectivity.
 - Research Development and Acquisition Decision Support System (RDA DSS).
 - Department of the Army (DA) Logistics Decision Support System (LOG DSS).
 - Industrial Base Decision Support System (IBDSS).
 - Maximum Army Expansion (MAX).
 - Joint Industrial Mobilization Planning Process (JIMPP).
- **Issue 4:** Logistics sustainability.
- **Issue 5:** Army Acquisition Objective (AAO).
- **Issue 6:** Industrial Mobilization Analytical Process (IMAP).
- **Issue 7:** Mobilization Equipment Redistribution System (MOBERS).
- **Issue 8:** Industrial Base Production Planning Schedule (PPS) process.

Figure B-1-2. LOGISTICS MOBILIZATION SEMINAR ISSUES

a. MOBTDA Documentation.

(1) *Description.* The Continental United States (CONUS) Base MOBTDA is the document that prescribes the personnel slots and equipment for units that activate within CONUS under Full or Total Mobilization. These units would support and sustain the Modified Table of Organization and Equipment (MTOE) theater war forces. The problem lies with the documentation of these units which is inaccurate for Full Mobilization, and incomplete for Total Mobilization. Logistics data flows through several automated systems as depicted in **Figure B-1-3**. Logistics Network (LOGNET), the LOG DSS, is an end user of this data. Therefore, mobilization planning decisions based on these inaccurate, incomplete data bases, are subject to error. **Figure B-1-3** also shows two parallel systems for distribution of equipment--Peacetime and Mobilization. While serving essentially the same function, the peacetime system is not a subsystem of the larger mobilization system.

USE	PEACETIME	MOBILIZATION
Planning Documents for: Unit Structure*	MTOE/TOE/TDA	MOBTDA
Document Authorization Systems for:		
Equipment Lists	TAADS	MOBTAADS
Personnel Lists	TAADS	MOBTAADS
Material Lists	TAADS	MOBTAADS
Logistics Information Systems for:		
Equipment Lists	LOGSACS**	MOBLOGSACS
Decision Support Systems:		
	TAEDP	LOGNET*** MOBERS
* Unit Structure data, developed in the Table of Organization and Equipment/Table of Distribution and Allowances (TOE/TDA) documentation process, is used by TAADS to develop the authorizations for personnel and equipment. ** The quantities of materiel and equipment input to Logistics Structure and Composition System/Mobilization Logistics Structure and Composition System (LOGSACS/MOBLOGSACS). These are data bases of all required and available quantities of materiel and equipment. *** LOGNET is a decision support system. Its subsystem, MOBERS (Mobilization Equipment Redistribution System), compares all claimants for equipment to available equipment and distributes based on the claimant's priority.		

Figure B-1-3. MOBILIZATION PLANNING DOCUMENTS/SYSTEMS

(2) Impact.

(a) *Upon Full Mobilization Planning.* Army logistics planning for Full Mobilization of the current force is based on inaccurate MOBTDA, MOBTAADS, and MOBLOGSACS data. This, in turn, means IPP to support the Full Mobilization of the TDA Army is based on inaccurate data.

(b) *Upon Total Mobilization Planning.* No prudent, requirements-based IPP for Total Mobilization can take place because the MOBTDA expansion force structure requirements have been neither identified nor placed in MOBTAADS or MOBLOGSACS.

(c) *Upon Mobilization Execution.* The capability of the Army logistics and industrial base communities to execute the material requirements for war is questionable for Full Mobilization, and unknown for Total Mobilization.

(3) *Cause.* The documentation process for CONUS TDA units is the responsibility of various commands. This generates inconsistencies and untimely delays in updating existing data. Uncertainty exists regarding the exact size and number of units necessary for the force expansion that occurs upon Total Mobilization. This, in turn, causes a reluctance to tackle the documentation of these units.

(4) *Status.* Document Modernization (DOCMOD) and the Centralized Documentation System resulted in the development of TAADS-Revised (TAADS-R) which will replace TAADS and MOBTDA. Its design will provide accurate, real-time unit status in a single data base managed at DA-level.¹ Because requirements for force expansion and TDA units are yet to be identified, it will take some time to integrate the current and program forces into this system. Budget constraints further delay the implementation of DOCMOD initiatives. Funding priority goes first to TOE theater Army; MOBTDA receives a low priority.

(5) *Discussion.* Force Documentation (Appendix B-4) is a complete discussion of MOBTDA documentation. A few pertinent points are extracted here.

(a) In the early 1980s, the Army recognized its major documentation problems. The Vice Chief of Staff of the Army (VCSA) directed a DOCMOD initiative to resolve these problems. One major initiative was to move from a decentralized to a centralized system. The initial thrust was in the MTOE arena with TDAs to follow. The intent of the restructuring and automated systems enhancement was to give Headquarters, Department of the Army the capability to conduct accurate and timely documentation.

(b) The Army spent millions of dollars in developing an analytical model to help determine MOBTDA force structure. To date, there is no workable model.

(c) Force expansion documentation is still not addressed. Even with the correction of data base information inaccuracies, without the identification of the expansion force structure, mobilization planners cannot develop requirements for the industrial base to build upon.

(d) Because of known documentation problems, MOBLOGSACS has not been downloaded in over 12 years; the system is in place, but remains unused.

¹Briefed by LTC Jim Sowell, USAFDSA, Logistics Seminar, 11 January 1989.

(6) *Resolution.* Increase the budget priority for the implementation of the DOCMOD initiatives for both TOE and MOBTDA forces. Renew efforts to build a model that will determine MOBTDA force structure.

b. Army Acquisition Objective.

(1) *Description.* The Army Acquisition Objective (AAO) is the quantity of equipment or ammunition required to equip and sustain the U.S. Army with the following parameters: the current force of 28 divisions and specified allies for the period starting on M-day, with a length of time specified by the Office of the Secretary of Defense, *Defense Guidance*. The AAO is used to justify budgets and programs. The problem is that the procurement requirements for Full Mobilization are not credible. This is due to a lack of credible analysis of the combat loss and consumption rates, and the exclusion of many of the CONUS TDA units that sustain the current force. By design, the AAO does not support Total Mobilization because its time frame expires before force expansion will occur. However, this ignores requirements of the transition period which will not be available if not included in the AAO.

(2) *Impact.*

(a) *Upon Congress and Industrial Preparedness Planning.* Without correcting the AAO process, the Army has no valid basis to justify its mobilization procurement requirements (equipment or ammunition) to either Congress or the industrial base. This is true for any level of mobilization. Without a credible, analytically supported AAO, the Army cannot convince itself or Congress of the priority, quantity, or composition of what it needs to buy.

(b) *Upon Defense Guidance.* The deficient AAO process continues to hinder the Army's ability to follow the Graduated Mobilization Response (GMR) guidance contained in the most recent *DG*. Because the Army has not justified the entire quantity of materiel that scenarios dictate, it has not met the guidance to operate in those scenarios.

(c) *Upon the Department of the Army Critical Items List (DA-CIL).* The DA-CIL is a statement of the Army's materiel requirements starting the seventh month after M-day. The AAO defines materiel requirements to support mobilization from M-day until the DA-CIL requirements are produced. If the AAO that covers the first 6 months contains inaccuracies and credibility problems, how valid is the DA-CIL for the follow-on period? The DA-CIL, like the AAO, is not designed to include Total Mobilization force expansion. This flaw is only beginning to be addressed.

(d) *Upon Joint Apportionment and Allocation Planning.* The AAO/DA-CIL problem must be resolved if the industrial base is ever to have a credible requirements list on which to base wartime production. However, the problem is not unique to the Army; it extends to the Joint services, DOD, and non-DOD Federal agencies. Each has wartime requirements that the industrial base must meet or apportion.² This problem extends far beyond the AMIC

²"Joint Material Apportionment and Allocation," TR-87-284-003, Final Report (Systems Research and Applications Corporation, July 1988), p. 2-15.

scope. It points out the need to look at the entire mobilization process in its broadest context to determine how best to resolve these issues at a national level.

(3) *Cause.* Accounting for AAO-based requirements is incomplete. Quantities of materiel consumed in the CONUS base are significant, but are not included in AAO-based requirements. Credible attrition and consumption rates, which are necessary for calculation of sustainment requirements for the current or expanded force, have not been validated in warfight analysis.

(4) *Status.* While the Army is aware of this problem and is pressing for consumption and attrition rates that are credible in both the Army and Congress, the problem has not been resolved. The U.S. Army Concepts Analysis Agency (CAA) effort to develop a Mobilization Capabilities Evaluation Model (MOBCEM) will greatly benefit the requirements accounting process for the CONUS base. CAA has completed the functional description of MOBCEM, and it is being reviewed by ODCSOPS.

(5) *Discussion.*

(a) The 1985 Mobilization Functional Area Assessment (MOB FAA) identified the AAO problem. At that time, the Vice Chief of Staff of the Army (VCSA) was briefed on a proposed solution for the portion of the AAO that addresses institutional training requirements under Full Mobilization. To date, even this aspect has not been resolved.

(b) The AAO problem for Total Mobilization is complex. Portions have been analytically addressed in an ODCSOPS-sponsored study entitled, *Determining Materiel Requirements for Force Expansion*.³ This report acknowledges that the AAO process can and should be corrected to support Full Mobilization planning. Currently, Congress perceives that the Army has not identified how much to buy, and caps the AAO ceiling accordingly. The Army must then decide how to spend available dollars which are short of the amount required by warfight analysis.

(c) The requirements for the CONUS training and sustaining base during Full Mobilization are not entered into LOGSACS nor are they included in the AAO by design. Reasons for their exclusion include the following:

- Low wartime materiel distribution priority.⁴
- Theater Force peacetime purchase requirements too massive for Congress to accept, much less the addition of CONUS Base purchase requirements.
- In a budget-constrained environment, mobilization materiel requirements which cannot compete with peacetime equipment shortfalls for the current force.

³*Determining Materiel Requirements for Force Expansion*, CEESC-R-90-1 (U.S. Army Engineer Studies Center, October 1989).

⁴*Army Mobilization & Deployment Planning Guidance*, Vol. III (DA ODCSOPS, 15 April 1988), pp. 3-3 to 3-4.

- The misconception that CONUS Base requirements are insignificant compared to the total AAO.
- A short-war mentality that discounts the need for using the CONUS Base.

(d) Presently, Congress is not funding the entire AAO. The AAO is broken down into force packages for funding; only force packages though M+60 are funded.

(e) MOBTDA documentation problems and standardization/validation problems with the Mobilization Plan of Instruction prevent the development of a credible MOBTDA for the CONUS Base. These problems are inherent to either Full or Total Mobilization. This, in turn, causes input of inaccurate or untimely data in LOGSACS/MOBLOGSACS. Because a major portion of the data used in developing the AAO is taken from LOGSACS and the Functional Accounting System (FAS), inaccuracies are perpetuated.

(f) Total Mobilization requirements for either institutional or forces training have not been identified. Systems exist which calculate mobilization requirements for Full Mobilization, but not for Total Mobilization.

(6) *Resolution.* Analytically develop credible attrition and consumption rates for inclusion in the warfight modeling process.

c. Logistics Automation Information Management.

(1) *Description.* During mobilization, the data base accuracy and integration problems in the Army's automated systems will delay or prevent credible automated management of the logistics process within the CONUS sustaining base.

(2) *Impact.* If not corrected prior to mobilization, the automated systems problem will prevent DCSLOG from effectively equipping the force. The Total Army Equipment Distribution Plan (TAEDP) is a logistics program that compares force requirements and priorities with on-hand assets and projected deliveries. From this comparison emerges an equipment distribution list. TAEDP draws its source data from TAADS, FAS, and LOGSACS. The Mobilization Equipment Redistribution System (MOBERS) is the mobilization equivalent to the TAEDP, drawing its source data from MOBTADS, FAS, and MOBLOGSACS. Weaknesses and data errors in these systems are perpetuated into the distribution list.

(3) *Cause.* Various agencies developed automated systems to fill specific needs without regard to their intercommunications compatibility. This resulted in stand alone systems that cannot communicate with other systems. Many of the systems are external to DCSLOG--preventing direct access. Finally, the data within these systems are not accurate.

(4) *Status.* Although Logistics Information Systems Architecture (LISA) Plan was written in 1988, current budget constraints curtailed the implementation of this plan.

(5) *Discussion.*

(a) *Background.*

1) In 1986, the first DA ODCSLOG Information Systems Plan was written. Its purpose was to capture, arrange, and ensure accessibility to all available information sources for decision making. One result of this effort was the discovery that much of the necessary information existed in "islands of automation." Many of these data bases were external to ODCSLOG and the Pentagon.

2) In 1988, ODCSLOG developed a comprehensive LISA Plan. The plan uses a 3-tiered hardware architecture: tier 1 is mainframe computers; tier 2 is minicomputers; and tier 3 is intelligent work stations (IWS). It incorporates the following features: user friendliness (plain English queries, touch screen technology, and voice as well as keyboard entry); total connectivity (allowing communication between end users and data repositories worldwide); cooperative processing (using distributed data bases); and decision support (using artificial intelligence) into LISA's strategic direction.⁵

3) ODCSLOG's automatic data processing (ADP) is incorporating an open architecture that features software compatible with any computer in the system, without modification. IWSs will use applications called "System Applications Architecture" that will be the heart of future enhancements and involve users in software development.⁶

4) The LISA Plan outlines the future; however, the need exists now for a commitment from ODCSLOG to attain its long-term goals. When implemented, LISA will enhance the Total Army (Active and Reserve Components) readiness by providing accurate, timely, standardized, integrated information to decision makers. This is precisely where problems exist in ODCSLOG and Army ADP systems today.

(b) *Management.* Documentation, acquisition, and distribution problems have delayed the enhancement of ODCSLOG's Information Management Plan. From a mobilization perspective, this delay has been nearly total. However, because of budget constraints and lack of doctrinal support of mobilization in "how the Army runs," most of the logistics community's efforts for automation improvement are driven by motives other than mobilization.

(c) *Acquisition.* The current budget constraints have reduced the use of Operations and Management, Army (OMA) monies for new equipment and systems enhancement. Priority is being given to sustainment of existing systems. This has seriously curtailed the integration of mobilization information requirements into the automated systems.

(d) *Functional.* The AMIC study found that mobilization functional requirements are not being integrated into either the *Army Life Cycle Management (LCM) for Information Systems*, AR 25-3,⁷ or FM 100-11, *Force Integration*, which is the Army LCM doctrine.

⁵Extracted from LISA Plan, HQDA ODCSLOG, 1988.

⁶Ibid, p. 12.

⁷Systems integration meeting at HQDA with the DSMA, DAIM, and DISC, 3 May 1989.

(6) *Resolution.* Increase budget priority for new equipment and system enhancement. Change the acquisition policy that gives priority to sustaining existing systems, leaving little, if any money left for new systems.

5. CONCLUSIONS.

a. The MOBTDA documentation of the CONUS Base force structure for Full Mobilization is not accurate. The MOBTDA Total Mobilization force expansion requirements for the CONUS Base do not exist.

b. The requirements of the expanded CONUS Base MOBTDA force are contingent on the expanded organization, equipping, and sustainment requirements of the MTOE theater forces. They must be constrained by the industrial base's capability to surge or expand the production of materiel. Currently, no analytical model considers the industrial base's capability to produce the materiel, and integrates the MTOE Theater Force requirements with the CONUS Base MOBTDA requirements. AMC's Maximum Army Expansion (MAX) model is a significant step towards accomplishing this. However, until the CONUS Base MOBTDA requirements are identified for force expansion using timely and accurate data from the DOCMOD initiative, the output cannot be credible. Without a model to determine theater and CONUS Base requirements, the Army leadership has no effective, real-time management tool on which to make its CONUS Base MOBTDA force expansion decisions.

c. CONUS Base MOBTDA requirements are significant in size but are excluded from the AAO. *Illustration:* The 1985 MOB FAA revealed a shortfall of 488 tanks for initial entry and institutional training of tank crewmen at Fort Hood starting at M+23 weeks. The numbers for other military occupational skill training were equally large. To dismiss or ignore MOBTDA requirements because the "AAO and DA-CIL acquisition boxes" are too big (even for planning) is myopic. It makes militarily-astute House and Senate Armed Service and Acquisition Committee members cringe at the credibility of Army mobilization requirements. It also raises the risk factor in the overall national defense strategy.

d. The AAO requirements are not credible in the eyes of either the Army or Congress. Composition 4 (required but unfunded) TOE unit requirements are not part of the AAO, nor are they placed into LOGSACS in peacetime. This is because the requirements are too large and Congress does not want to see them.⁸ MOBLOGSACS data has not been provided to the AAO developers within the last 12 years.⁹

e. The credibility of requirements for the TOE side of the mobilized Army is also questionable. The TOE peacetime AAO Acquisition planning requirements should link with the DA CIL wartime sustainment and force expansion requirements under Total Mobilization. These requirements cannot link with one another because they are not identified. The question

⁸Telephone interview with Mr. Dick Shorten, USAFDSA, 14 April 1989.

⁹Telephone interview with Mr. John Phoenix, of Director, Plans and Programs Office, ASARDA, 14 April 1989.

of how the capability of an industrial base GMR can be measured and credibly planned for in peacetime remains. It is unanswered because the wartime force expansion requirements are unknown.

f. The implementation of ODCSLOG's information management plan has not progressed to the point of managing the total Army's data/information needs. Few logistics systems have integrated wartime mobilization requirements into the existing Army architecture for either data or DSS systems.

g. Current Army information management and acquisition policies do not require the integration of mobilization function requirements into the enhancement of existing or development of new automated systems.

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APPENDIX B-2 TO ANNEX B
ENGINEER

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APPENDIX B-2 TO ANNEX B

ENGINEER

<u>Paragraph</u>		<u>Page</u>
1	Purpose	B-2-1
2	Scope	B-2-1
3	Findings	B-2-2
4	Requirements	B-2-5
5	Regulatory Relief	B-2-6
6	Command Emphasis	B-2-8
7	Conclusions	B-2-8

Figure

B-2-1	Engineer Mobilization Seminar Attendees	B-2-2
B-2-2	Engineer Mobilization Seminar Issues	B-2-3
B-2-3	Programs for Expanding Facilities During Mobilization	B-2-4

1. **PURPOSE.** This appendix identifies key mobilization issues that confront the Army engineer community. Additionally, it identifies, as appropriate, study efforts which would resolve these issues.

2. **SCOPE.**

a. This appendix summarizes the results of an Engineer/Mobilization Integration Seminar conducted at the Humphrey's Engineer Center, 16 January 1990. Seminar participants (**Figure B-2-1**) discussed the findings and conclusions of an Army Mobilization Integration Cell (AMIC) analysis of real and perceived deficiencies. The deficiencies pinpointed were those in the Army's facilities planning and expansion, engineering personnel, resources, and regulatory areas which impact Corps of Engineer mobilization planning. The objective of the seminar was to reach consensus on which deficiencies warrant more structured analysis. Seminar participants also discussed how the Army might better focus its analytical effort to enhance mobilization planning in the context of current and future Department of Defense (DOD) policy and national security strategy and objectives.

b. The remaining portions of this appendix describe the major deficiencies which seminar attendees targeted for elimination to meet mobilization planning objectives, especially those concerning Total Mobilization. Each deficiency is discussed separately. This discussion

OFFICE/AGENCY REPRESENTED	ABBREVIATION/ OFFICE SYMBOL
Mr. William Berg	HEALTH FACILITY PLANNING AGENCY
Mr. Rick Kendrick	HQ HSC, FT SAM HOUSTON
Mr. Michael Shama	HQDA, DAEN-ZCM PENTAGON
Mr. William E. Johnston	FORSCOM, FCEN-CDP
Mr. John Sheehy	USACE, CEEC-P
Mr. William Crambo	USACE, CEEC-P
Mr. Paul Barany	HQ AMC, AMCRE-PM
Mr. Robert L. King	HQ AMC, AMCEN-PM
Mr. Harry D. Painton	HQDA, DAEN-ZCM, PENTAGON
Mr. Charles Flatchbarth	USACE, CECC-J
LTC James G. Clapp	HQDA, DAMO-ODM
Mr. Warren Fee	USACE, CEMP-EA
Mr. George Gilmore	USACE, CECW-OE
Mr. Frank Graziano	HQ AMC, AMCEN-F
Mr. Gerald J. Stadler	USACE, CENC-ED
Mr. Alderic Sturtevant	USACE, CERE-RA
Mr. David Weber	USACE, CEMP-EA
Mr. Herb Payne	HQ FORSCOM, FCJ5
LTC Kenneth Ledford	SURGEON GENERAL, SGPS-HCR
LTC Dick Smith	HQDA, DAEN-ZCI
CPT Robertson	USACE, CECW-OE-0
Mr. Robert King	HQ AMC, AMCEN-F
Ms. Jill Davis	USACE, CEESC
Mr. Donald Spigelmyer	USACE, CEESC
Ms. Linda Smith	USACE, CEESC
MAJ Gary Schiefelbein	USACE, CEESC

Figure B-2-1. ENGINEER MOBILIZATION SEMINAR ATTENDEES

includes a brief explanation of the cause, its impact on the mobilization planning process, and a summary of recent or planned activity designed to eliminate or mitigate the effects of the deficiency.

3. FINDINGS. Figure B-2-2 lists the eight issues developed by AMIC for discussion at the Engineer Seminar. Seminar participants narrowed these eight issues to four major ones: automation, requirements, regulatory relief, and command emphasis. The following paragraphs contain a discussion of each major issue and identify the required actions to resolve each.

a. Automation. Current automated systems for mobilization construction or expansion of facilities are not meeting planners' needs. No single system exists that is capable of presenting facility planners with the full range of construction and basing options for facility expansion. Automated systems for facility expansion are either fragmented or nonexistent. Examples of these facilities are Rapid Erectable Light Mobilization Structures (RELMS), Non-Industrial Facilities (NIF), and Mobilization drawings (M-drawings). Integration of this information would allow the planner to select the best expansion facility to meet mission requirements.

- **Issue 1:** Shortfalls of automated facility planning systems.
- **Issue 2:** Communication of facilities requirements to engineers.
- **Issue 3:** Setting the priorities of resources at the national level.
- **Issue 4:** Lack of continued command emphasis on mobilization.
- **Issue 5:** Regulatory relief during mobilization.
- **Issue 6:** Mobilization facilities expansion.
- **Issue 7:** Engineer personnel issues.
- **Issue 8:** Force reduction and demobilization.

Figure B-2-2. ENGINEER MOBILIZATION SEMINAR ISSUES

b. **Impact.** Current systems do not respond quickly enough to changing requirements. Therefore, mobilization plans are either not completed in a timely fashion or are not updated as the mission changes. This decreases the level of accuracy of overall mobilization planning.

c. **Cause.** Limited funding resources and fragmental development of automatic data processing systems account for the major shortfalls. Fragmented development was caused by trying to solve individual problems or processes rather than pursuing an integrated approach to automating mobilization planning.

d. **Status.** There is still no umbrella system provided to mobilization planners that ties all facility expansion resources together for decision making. The planner must still interact with information and data that reside in multiple automated and manual systems. There are several different programs for expanding facilities during mobilization. These are described in **Figure B-2-3**. Each has specific capabilities and costs. Used in isolation, no one program can meet all planners' requirements; however, when all the programs are used in concert, the system is quite flexible and capable. The problem is that each was developed as a stand-alone program. There is no system that integrates all available resources and presents them to engineer planners.

e. **Discussion.**

(1) Several specific desired capabilities of the system are as follows:

(a) An automated means of tying the Mobilization Table of Distribution and Allowances (MOBTDA) to the construction program would allow rapid mobilization plans

SYSTEM	DESCRIPTION	ADVANTAGES	DISADVANTAGES
NIF	Rental of existing commercial facilities.	Can be prenegotiated; available immediately.	Limited to available existing facilities; costly for long term.
RELMS	Pre-fab steel buildings.	Fast erection	Limited to supplier's stock on hand.
M-drawings	Common plans for wooden buildings.	Availability of building materials.	Needs a long lead time to build.
Permanent Structures	Permanent construction.	In-place structures are available immediately.	High cost; has very long construction lead time.

Figure B-2-3. PROGRAMS FOR EXPANDING FACILITIES DURING MOBILIZATION

to be quickly updated as the MOBTDA force structure changes. This capability also creates a "what if" decision tool to quickly determine the impact of contemplated force changes on facility requirements.

(b) An automated feature of the system that enables facility expansion and execution under a variety of funding programs at the installation level would enable effective mobilization planning. These programs include the Military Construction Account (MCA), mobilization drawings (M-drawings), Rapidly Erectable Light Mobilization Structures (RELMS), and Non-Industrial Facilities (NIF). This system feature would have the information on, and be able to plan for, facility expansion under any one of these programs or systems. It would also operate during mobilization, with the ability to process requests generated by facility expansion.

(c) The integrated system should compare input of mission requirements (facilities load) and installation inventory of facilities to determine shortages. The data in the systems described below would then be used to find the most efficient solution.

(2) Two of the existing systems that could provide the basis for or be integrated into an umbrella system are as follows:

(a) MOBilization PROgraming (MOBPRO) is a new automated system for mobilization construction planning. It is essentially a DA-1391 (construction request) processor that is loaded with the prioritized facilities requests from each installation. The requests are then further prioritized at each level of command. The result is a centralized, prioritized construction list for facility expansion during mobilization. Its main weaknesses are that it is aimed only at MOB stations instead of all installations, and it addresses only MCA-type construction. It does not include RELMS, NIF, M-drawings, or procurement account facilities.

The system is new, and as it matures may be able to add more planning capabilities. However, it was not planned as an umbrella system.

(b) There is a new computerized catalogue of the RELMS that was demonstrated at the Engineer Mobilization Issues Seminar in January 1990, but as yet it is not in the hands of mobilization facilities planners. It functions well, giving information size, type, and source of building available, by geographic location, but once again, is not integrated into an umbrella system.

f. **Resolution.** Develop an automated system for the mobilization facilities planners that integrates all facility resources into one system. Its primary purpose is to compare prioritized mission requirements to current facility inventories and, based on time available, present planners the most appropriate facility expansion solution. It would also operate during mobilization and allow execution of the plan within the same system.

4. REQUIREMENTS.

a. **Description.** Operations planners are not effectively communicating facility requirements to facility planners. This problem is found at the MOB stations and in the industrial facilities.

b. **Impact.** Mobilization facility expansion plans are based on inaccurate or incomplete requirements data. For MOB stations this data includes quantities, types, and sizes of troop units to be housed, trained, and transported. For the industrial facilities, data requirements relate to the amount of specific items to be manufactured. Lack of validation of manufacturing requirements data makes it impossible to verify the accuracy of mobilization facility expansion plans. Shortfalls in the data quality diminish the credibility of those plans.

c. **Cause.** MOBTDA inaccuracies and the inability to identify and clearly articulate installation missions during mobilization are the primary barriers in identifying accurate facility requirements for MOB stations. Lack of sufficient modeling to validate consumption and sustainment rates of materiel such as ammunition, are the main impediments to industrial facilities planning.

d. **Status.** With active participation of MOB station base operations planners and facility planners, there is improvement in realistic facility support plans. The problem won't be solved until MOBTDA documentation is corrected and facilities requirements are better defined. While there is continuing work in developing individual sustainment rates, there are no new initiatives to model those rates into consumption data that can validate the facilities expansion plans.

e. **Discussion.**

(1) The engineers are caught in the middle of the requirements versus capabilities struggle. They are given requirements that are by nature dynamic and unspecific. They must plan facilities within the limits of budget restraints and the construction resources to

build these facilities. The dilemma is the engineers' need for precise requirements and the base operations planners inability to provide those figures.

(2) Wargame exercises concentrate on either a short war or the beginning of a long-term war. Mobilization and deployment of the initial forces receive most of the attention. This covers the most critical period and, if not executed properly, there is no need for continued effort. However, as the scenario matures and starts producing consumption rates that could validate facility expansion plans, the exercises end. This leaves the facility planners at Army Materiel Command without a clear picture on legitimacy of their plans.

f. Resolution.

(1) Develop facility support plans on an incremental basis. A base line case should be established with the most probable mission. Above this base line, incremented packages account for expansion of the mission. These packages contain the facilities planning for a set size of expansion over the base line. Costs for each increment are also computed. This will be valuable information for decision makers in determining the feasibility of a contemplated expansion. Once the system is established, as the mission changes the incremented packages would be added or dropped. The size of the base case is kept stable to facilitate planning. This gives the facilities planners a tool that is responsive to base operations planners needs rather than merely reacting to specific requirements.

(2) Conduct additional modeling specifically aimed at validating long-term consumption of materiel to establish the effectiveness of MMPs.

5. REGULATORY RELIEF.

a. **Description.** Peacetime-oriented regulations that limit the amount or use of funding are obstacles in the development of mobilization plans. Environmental regulations that limit air and water quality or land use also impede the mobilization planning process. Relief from those regulations is permitted during periods of mobilization and war. However, guidance on what relief to expect is unclear to mobilization planners.

b. **Impact.** Based on either a lack of or unclear guidance, planners may assume what regulatory relief to expect during mobilization. In many cases, these assumptions are either too conservative or too liberal. This causes mobilization planners to either exclude available resources or include items that cannot be accomplished. In either case, the result is a reduction in the effectiveness of the mobilization facility expansion plan.

c. **Cause.** The cause is twofold. First, the complexity of the law makes it difficult for laymen to understand. Second, the political disfavor of supporting, waiving, or modifying environmental regulations dissuades most politicians and lawmakers from addressing the issue.

d. **Status.** The Army Mobilization and Operations Planning System (AMOPS), Volume IV, Annex Q, provides guidance for obtaining relief from existing regulations. The difficulty with this guidance is that it fails to address many of the areas of relief planners are seeking and is difficult to interpret.

e. Discussion.

(1) Because the working guidance is not clear, a whole range of approaches on how to treat regulatory relief have developed. On one end of the scale is the pessimist who assumes there is no relief for either funding or environmental issues. At the other end is the assumption that during war, there will be relief from virtually all regulations. Either case results in biased, less effective plans.

(2) Communication seems to be a large part of the problem. Some planners are well informed while others are not. Many planners do not understand the entire range of a regulation. While, lawyers were able to explain how relief is obtained, not all planners have easy access to a lawyer. There was a concern outside the U.S. Army Corps of Engineers that the Corps did not have total control over implementing legal authorities during mobilization. Within the Corps, personnel studied and were knowledgeable of available authorities. They perceived no difficulty.

(3) Some types of funding concerns were as follows:

- Lack of knowledge in the method of handling deobligated funds.
- No relief from K-account (minor construction) administratively imposed limits.
- The ability or inability to use nonappropriated funds for military construction.
- Pre-mobilization funding authorities for projects with long lead times.

(4) The environmental area is especially complex and sensitive. There is relief available, although it is shrouded in the regulations. Pre-negotiated compliance agreements can be set up. They address the consequences of the damage, the mitigating steps that can be taken, and how much damage is done, for how long. The mechanism is in place to obtain waivers, but their approval is a political decision. An added layer of complexity is that each State has its own environmental regulations that must be followed or waived.

f. Resolution. The planners at the working level need clear and concise guidance. Either update AMOPS, Volume IV, Annex Q, to clarify the regulatory guidance, or write a users-level annex that is understandable by all planners. The present annex only lists existing regulatory limits and how to apply for relief. This needs expansion to include parameters on how much relief is reasonable to expect. As part of this effort, the Army should publish an official position on what it considers realistic environmental relief.

6. COMMAND EMPHASIS.

a. Description. As we address force reduction and disarmament, interest in mobilization and mobilization planning is decreasing.

b. **Impact.** Mobilization planning receives less emphasis and funding. This leads to plans that are dated and ineffective.

c. **Cause.** First, emphasis on mobilization has always been elusive. Day-to-day problems tend to take precedence. Mobilization is an issue that is easy to shelve. It is highly unlikely that mobilization will occur during present commanders' watch. Second, it is not politically expedient to support mobilization planning during an era when peace and disarmament talks are flourishing. However, during a mobilization situation, it is too late.

d. **Status.** Mobilization planning increased dramatically during the Reagan era. However, with current budget reductions, funding and resources are declining just as rapidly.

e. **Discussion.** The military's primary mission is to prepare for war. New technology, new scenarios, and the changing balance of power demands new plans. Mobilization will take on increased importance with reductions of the current force as the result of disarmament agreements. The strategic direction of the new force structure is rapid deployability and light forces. These forces have limited abilities to wage a long-term, large-scale war. They need the support of mobilization planning that would enable our nation to wage a conventional large-scale war. The national risk is too great not to maintain mobilization planning as a priority.

f. **Resolution.** Integrate mobilization into the regular daily activities of the Army. Mobilization should not continue to be the responsibility of only a few named planners in an organization. Nor should it be brought out for exercises only, and then put back on the shelf until next time. Peacetime planning systems must become a curtailment of the systems we would use in war. Current decision makers need to continually assess the impact their decisions have on mobilization.

7. CONCLUSIONS.

a. While there are problems in engineer mobilization planning, there are no critical shortfalls that prevent mission accomplishment. Some of the issues identified deal with perceptions and lack of knowledge rather than actual problems with a system. This weakness in communication occurs mainly with entities external to, rather than within the Corps.

b. Mobilization needs to be integrated into daily activities through the Army at all levels of command. Tighter budgets and the reduction of the Army's strength demand increasingly effective mobilization planning. But these are the very same situational pressures that cause Army leadership to concentrate on other issues. The only way to keep mobilization planning active is to integrate the concept "plan for war--modify for peace" into all aspects of the Army's operation.

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PERSONNEL

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APPENDIX B-3 TO ANNEX B

PERSONNEL

<u>Paragraph</u>		<u>Page</u>
1	Purpose	B-3-1
2	Scope	B-3-1
3	Findings	B-3-1
4	Systems Integration	B-3-6
5	Conclusions	B-3-9

Figure

B-3-1	Personnel Mobilization Seminar Attendees	B-3-2
B-3-2	Personnel Mobilization Seminar Issues	B-3-3
B-3-3	Personnel Mobilization "Think-Ex" Issues	B-3-7

1. **PURPOSE.** This appendix identifies key mobilization issues that confront the Army personnel community. Additionally, it identifies, as appropriate, study efforts which would resolve these issues.

2. **SCOPE.**

a. This appendix summarizes the results of a Personnel/Mobilization Integration Seminar conducted at the Humphrey's Engineer Center, 18 January 1989. Seminar participants (**Figure B-3-1**) discussed the findings and conclusions of an Army Mobilization Integration Cell (AMIC) analysis of real and perceived deficiencies. The deficiencies pinpointed were those in the Army's personnel requirements documentation and automation areas which impact personnel mobilization planning. The objective of the seminar was to reach consensus on which deficiencies warrant more structured analysis. Seminar participants also discussed how the Army might better focus its analytical effort to enhance mobilization planning in the context of current and future Department of Defense (DOD) policy and national security strategy and objectives.

b. The remaining portions of this appendix describe the major deficiencies which seminar attendees targeted for elimination to meet mobilization planning objectives, especially those concerning Total Mobilization. Each deficiency is discussed separately. This discussion includes a brief explanation of the cause, its impact on the mobilization planning process and a summary of recent or planned activity designed to eliminate or mitigate the effects of the deficiency.

3. **FINDINGS.** **Figure B-3-2** lists the five issues developed by AMIC for discussion at the Personnel Seminar. Seminar participants narrowed these five issues to two major ones: force documentation and systems integration. The following paragraphs contain a discussion of each major issue and identifies the required actions to resolve each one.

OFFICE/AGENCY REPRESENTED	ABBREVIATION/ OFFICE SYMBOL
Deputy Under Secretary of the Army for Operations Research Study Program Management Agency	(DUSA-OR) (SPMA)
Assistant Secretary of the Army for Manpower & Reserve Affairs Assistant Deputy for Reserve Forces and Mobilization	(ASAMRA) (SAMR-RFM-A)
Office of the Deputy Chief of Staff for Personnel Operations Office (Mobilization and Studies) Information Management Office Manning the Force Automation Architecture Forecast (Decision Support System)	(ODCSPER) (DAPE-ZXO) (DAPE-ZXI) (DAPE-ZXI-AA) (DAPE-ZXI-FC)
U.S. Army Personnel Command Mobilization and Operations Division Mobilization and Programs Analysis Division	(TAPC) (TAPC-MOB) (TAPC-MOP)
Personnel Information Systems Command Plans and Programs Directorate Civilian Personnel Office, Headquarters	(PERSINSCOM) (ASQNI-PP) (ASQNI-CPO-H)
U.S. Army Decision Systems Management Agency (DSMA)	(CSDS-ZA)
Office of the Deputy Chief of Staff for Operations Mobilization Division, Operations, Readiness and Mobilization Directorate U.S. Army Force Development Support Agency (USAFDSA) TOE, BOIP & TAADS Division*	(ODCSOPS) (DAMO-ODM) (MOFD-Z) (MOFD-DOC)
U. S. Army Concepts Analysis Agency (USACAA) Strategy, Plans, and Mobilization Division	(CSCA) (CSCA-SPM)
Defense Technical Information Center	(DTIC)
U.S. Army Engineer Studies Center	(CEESC)
*TOE (Table of Organization and Equipment) BOIP (Basis of Issue Plan) TAADS (The Army Authorization Documentation System)	

Figure B-3-1. PERSONNEL MOBILIZATION SEMINAR ATTENDEES

- **Issue 1:** The Army Documentation System for Mobilization (MOBTAADS) and Mobilization Personnel Structure Composition System (MOBPERSACS) are not accurate or timely.
- **Issue 2:** Functional requirements for mobilization automation support need to be identified for each activity in the DCSPER community.
- **Issue 3:** Major system changes must be accomplished within the framework of the Mobilization Automation Architecture.
- **Issue 4:** The Standard Installation/Division Personnel System (SIDPERS-3) will not satisfy personnel mobilization requirements for the Total Army if the Reserve Component Automation System (RCAS) is not in place to support mobilization.
- **Issue 5:** The impact on the Army of mobilizing key civilians who support both industry and the Department of Defense (DOD) has not been adequately addressed.

Figure B-3-2. PERSONNEL MOBILIZATION SEMINAR ISSUES

a. Force Documentation.

(1) *Description.* Force documentation is inaccurate for the current force structure and is not complete for force expansion. This results in flawed mobilization force structure data in Army automated systems. These systems include MOBTAADS, the Force Accounting System (FAS), and MOBPERSACS.

(2) *Impact.*

(a) *Upon Full Mobilization Planning.* Force documentation data placed into MOBTAADS and MOBPERSACS is inaccurate, especially Continental United States (CONUS) Base Mobilization Table of Distribution and Allowances (MOBTDA) data.¹ This results in MOBPERSACS generation of inaccurate mobilization requirements data for both Active Component and Reserve Component personnel. Because MOBPERSACS is the primary source of mobilization/wartime personnel requirements for Army planning, Army personnel mobilization planning based on these systems is inaccurate. If full mobilization were declared today, the Army could not accurately man the force by placing the right person, with the right skills, in the right unit, at the right time.

(b) *Upon Total Mobilization Planning.* Army personnel planning for force expansion is not credible because actual Table of Distribution and Allowances (TDA) and MOBTDA requirements for total mobilization are not in MOBTAADS or MOBPERSACS.

¹Telephone interview with LTC Greg Clapp, HQDA ODCSOPS (DAMO-ODM), 14 April 1989.

Only generic Table of Organization and Equipment (TOE) data for the Army's Theater Force portion of the Joint Chiefs of Staff (JCS) Planning Force is loaded into MOBPERSACS. The requirements do not exist for an expanded MOBTDA force to support the expanded theater force. Therefore, credible personnel planning for total mobilization does not exist.

(3) *Cause.* The inaccuracies in the full mobilization data are due to the decentralized development of the MOBTDA documentation. The total mobilization arena has the same problem plus the inability to accurately determine the size of the required force. The actual force structure has been neither determined nor fed into planning systems.

(4) *Status.* The Army Five-Year Defense Program Task Force General Officer Steering Committee (FYDP TF GOSC) is tasked to resolve key issues. They meet regularly to address short-term management and technical fixes for personnel documentation. The Vice Chief of Staff of the Army (VCSA) directed the conduct of a study by Rand Corporation to find long-term solutions.

b. Discussion.

(1) Background.

(a) In the early 1980's, the Army introduced Documentation Modernization (DOCMOD) initiatives which restructured the Army's force development and integration efforts. DOCMOD's purpose was to conduct accurate and timely centralized force documentation. Full implementation of the DOCMOD initiatives, for either the existing force or the expansion force, has yet to occur. Appendix B-4 contains a more detailed discussion of DOCMOD.

(b) Congress and the Office of the Secretary of Defense (OSD) challenged the Armed Services' manpower requirements. The Army "failed" OSD's review and was singled out by Congress for not aligning its force structure program execution with its program budget.² As an example, the Army could not validate 31 percent of the 3,500 officer space increase during FY 1980-86.³ The inability to document its authorizations at the programmatic level of detail was systemic for all categories of manpower. This included officer, warrant officer, enlisted and civilian. The Army was essentially maintaining a triple set of irreconcilable automated books.⁴ It could not synchronize its force structure and manpower accounting systems with OSD's planning, budget and execution systems.⁵ This resulted in Congress and OSD cutting the Army's officer end strength by over 2,500 spaces. The underlying causes were inaccurate force structure documentation and lack of automated systems integration for information or data management.⁶ None of the data bases had enough detail to meet either budget or structure approval requirements.⁷ Because the Army couldn't reconcile

²Army Five-Year Defense Program Task Force (FYDP TF) briefing, 12 May 1989.

³Ibid.

⁴Ibid.

⁵Army Chief of Staff (CSA) message to Major Army Command (MACOM) commanders, "Follow-on Actions to the FY 1988 Officer Requirements Report," 20 April 1988.

⁶Army Five-Year Defense Program Task Force (FYDP TF) briefing, 12 May 1989.

⁷Ibid.

its manpower accounting for the current force, wartime mobilization remained in the "too-hard-to-handle" box.

(c) In March 1988, the VCSA organized a GOSC to implement a short-term fix of the manpower management and force structure problem by September 1988. The GOSC resolved the following key issues: (1) establishment of a force structure deviation account; (2) establishment of an integrated manpower data base; (3) alignment of force structure and budget data in all systems; and (4) enforcement of rules for data base reconciliation.⁸ Actions of the GOSC continue to address problems in TAADS/FAS including integration of the reserve components.⁹ The development of TAADS-Revised (TAADS-R) is a major continuing effort by DA ODCSOPS. It will provide a single data base that is managed at DA level.

(d) The GOSC recognizes the need to integrate wartime mobilization force documentation requirements into the budget process. However, the resources to accomplish this task have not been determined or provided. The political urgencies of the peacetime, budget-constrained, arms control environment are simply too great to devote the necessary resources to resolving mobilization issues. Based on a Congressional mandate, the Secretary of Defense exacted new guidance. It directs that, for the short term, OSD's budget requirements will be the "driver" for resolving the force structure problem.¹⁰

(2) *Present.*

(a) The FYDP TF is grappling with the Army management problem of how to get HQDA, Commander in Chief (CINC), and MACOM commanders to follow two sets of guidance: the *Defense Guidance* (DG), Illustrated Planning Scenario (IPS), and the Secretary of Defense's guidance that the Army follow OSD's budget guidance as the "driver." A real tension exists between the Secretary of Defense's budget-driven requirements and the CINC's warfighting operational requirements. There is no analysis to support the mobilization viability of either side. Resourcing and implementing systems integration and enhancement, DOD-wide, will relieve this tension and allow "what if" decision support analysis for both the IPS and major CINC Operation Plans (OPLAN).

(b) The previous point takes on international implications with current force reductions and the Conventional Forces Europe negotiations between the North Atlantic Treaty Organization (NATO) and the Warsaw Pact. What will be the mobilization preparedness impact upon the United States and its NATO Allies? How will this affect the Army's warfighting analysis of the existing and expanding force structures? Will the Army's ability to mobilize quickly and efficiently be a contributing or inhibiting factor in the United States' flexible-response defense strategy? How much will negotiated arms control measures affect the current DG/IPS and CINC OPLAN requirements?

c. **Resolution.** The first barriers to address are the resourcing of systems integration and enhancement of the DOCMOD initiatives. Full implementation of DOCMOD initiatives is

⁸Ibid.

⁹Ibid.

¹⁰Ibid.

essential to resolve force documentation deficiencies. Without the development of generic TDAs for placement in MOBTAADS and MOBPERSACS, no credible mobilization planning for force expansion can occur. DOD mobilization scenarios must drive the size of the TDA force.¹¹ These scenarios identify the size and time line for expanding the TOE structure as well as the sustaining requirements of the existing Modified Table of Organization and Equipment force. When this process is accomplished through warfighting analysis, the Army can identify its TOE force structure manning requirements. The next step is to link them to the industrial base's capability to build the corresponding material systems. It must also include the requirements of the expanding CONUS Base TDA that support the sustainment of the existing TOE force. This procedure should address each level of mobilization and be tied to each major CINC OPLAN and the *Defense Guidance IPS*.

4. SYSTEMS INTEGRATION.

a. **Description.** The ODCSPER community has described its Baseline Architecture configuration (the present personnel information systems) as an inventory of "stovepipe," non-standard, single-function systems.¹² The automated systems neither communicate with each other nor share data/resources.

b. **Impact.** Without correction of the present system's deficiencies, the personnel community cannot effectively execute its mission to promptly man the force upon mobilization.

c. **Cause.** Current systems were developed as stand-alone systems to address one operational area or problem. An integrated approach to bring all systems into one common architecture was not part of the design process.

d. **Status.** ODCSPER published a draft "Total Army Personnel Systems Modernization Plan" (TAPSMP). It provides information and direction on the implementation of the personnel community's automation architecture and is consistent with the HQDA Information System Plan. TAPSMP also includes mobilization in its Objective Architecture.

e. **Discussion.**

(1) **Background.**

(a) In 1982, the Director, Information Systems for Command, Control, Communications, and Computers (DISC⁴) published a HQDA Information System Plan. Its purpose was to attack the problem of "stovepipe," non-standard automated systems, and to address enhancements for the total Army Information Architecture. This plan, revised in March 1987, defines the processes, information classes, and entities which make up the HQDA Information Plan. In November 1988, the Army published Army Regulation 25-1, "The Army Information Resources Management Program," setting HQDA policy and guidance for the Army's information management. In April 1988, the Army published Department of the Army Memorandum 25-1, "HQDA Information Model--Policy, Responsibilities and Procedures." This

¹¹Not only the Congressionally-driven budget IPS, but also by JCS/CINC-developed major OPLAN scenarios.

¹²"Total Army Personnel Systems Modernization Plan (TAPSMP)," Draft (ODCSPER, 23 May 1989).

memorandum prescribes the responsibilities and procedures for the development and maintenance of information models within HQDA staff elements and Field Operating Activities.

(b) On 23 February 1989, the ODCSPER personally chaired a "THINK-EX" to assess how the current Personnel Mobilization Architecture would function in a wartime environment. Mobilization planners discussed the current system along with its accompanying problems. Then a proposed Objective Architecture was briefed to describe the technology and information requirements needed for optimal support of mobilization. In response to this briefing, participants discussed the four issues listed below. These issues (Figure B-3-3) relate closely to the ones discussed at the 18 January 1989 Personnel Seminar.

- **Issue 1:** MOBTAADS and MOBPERSACS are not accurate or timely.
- **Issue 2:** Functional requirements for automation support for mobilization need to be identified for each activity in the ODCSPER community.
- **Issue 3:** Major systems changes must be accomplished within the framework of the mobilization automation architecture.
- **Issue 4:** SIDPERS-3 will not satisfy personnel mobilization requirements for the Total Army if the RCAS is not in place to support Mobilization.

Figure B-3-3. PERSONNEL MOBILIZATION "THINK-EX" ISSUES

(c) As a result of the "THINK-EX," ODCSPER drafted its TAPSPM which incorporated the Objective Architecture. The Objective Architecture integrates the personnel systems into a network that shares data and draws from a single-source operation record. The ODCSPER Objective Architecture builds on the first phase of the Army's Force Integration Life Cycle Model, Force Documentation. It aids ODCSOPS in identifying the detailed personnel requirements for the force structure. The personnel system Objective Architecture is exactly the same as the Mobilization Architecture. Mobilization is an inherent part of the system using the concept "design for war; modify for peace."¹³ However as discussed in paragraph 4 of this appendix, force documentation problems inject inaccuracies into the data bases which are carried throughout all phases of the life cycle.

(d) ODCSPER's Mobilization Architecture is not a separate set of systems. It is a "continuation of a peacetime process only under the stress of rapid expansion and potential battlefield conditions."¹⁴ Its two critical components are the Total Army Personnel Data Base (TAPDB) and the SIDPERS-3. TAPDB is a logically integrated, physically distributed data base. When fully implemented "it will be composed of data

¹³Ibid, p. III-39.

¹⁴Ibid

pertaining to the Active Army, Army National Guard, Army Reserve, and Army Civilian Personnel." It "will be a shared resource which will be integrated both vertically and horizontally to serve information needs across organizational and functional boundaries."¹⁵

(c) While most of the systems address only the Sustaining Base, SIDPERS-3 will serve both the TDA Sustaining Base and the TOE Theater/Tactical forces. As a total system, "the architecture is supported by the Army's three-tiered hardware architecture and integrated communications network."¹⁶

(2) *Present Actions.*

(a) Working with ODCSOPS, the ODCSPER community is striving to correct the alignment of the force structure data in the FAS and MOBPERSACS files. The FYDP TF initiative is accelerating this action for the peacetime Army. Full and total mobilization initiatives require further action and resources to correct this problem.

(b) ODCSPER has developed an interim force structure data base for a Personnel Action Module (PAM). This module executes the peacetime distribution of Active Component personnel. The data base was developed because the PERSACS file has not been produced on a timely basis nor has ODCSPER had sufficient input before its production. The resulting inconsistencies prevented the personnel community from reconciling existing units in the force structure. ODCSPER therefore used PAM to produce its own Personnel Management Authorization Document (PMAD) output for Active Army peacetime. Next, ODCSPER tried to reconcile PMAD with data in PERSACS, FAS, and TAADS files. They have made progress, but a timely, coordinated development of the PERSACS file has yet to materialize.¹⁷

(c) System enhancement is time sensitive because knowledgeable personnel on design of the mobilization architecture are subject to rotation or retirement in the next few years. The Director, DSMA, expressed this reservation. If the funding decrement trend for systems enhancements is not reversed, within the next few years sufficient expertise may not remain in the Army to work the necessary mobilization enhancements.¹⁸ His recommendations at the 3 May meeting were twofold: First, to press for stronger emphasis from the Army's top leadership to support mobilization systems integration; secondly, to obtain Army top leadership's approval to revise systems design and acquisition policies. These policies would be revised to require the integration of mobilization into the peacetime enhancements of existing systems, and in the development of all new systems.

f. **Resolution.** The ODCSPER community should continue to pursue funding the integration of mobilization into its TAPSMP. The HQDA Information Manager (DAIM) should raise the funding priority of system enhancement.

¹⁵Ibid, p. IV-8.

¹⁶Ibid, p. III-1.

¹⁷Telephone interview with MAJ David Phillips, ODCSPER IMO, 26 May 1989.

¹⁸AMIC Systems Integration Meeting at HQDA, 3 May 1989.

5. CONCLUSIONS.

a. Timely and accurate documentation of the existing force structure in the TDA Army and for the total mobilization force structure does not exist today. The FYDP Task Force and DOCMOD initiatives are making progress in the data base alignment problem within peacetime and budget constraints. Their system fixes have not addressed the force structures for full and total mobilization. These areas cannot be addressed until requirements are analytically and credibly identified. The Army must solve the force documentation problem to provide the ODCSPER Objective Architecture with timely and accurate data.

b. There is real world tension between OSD program/budget-driven guidance and CII/C war planning requirements. The result is twofold. First, Army leadership gives little priority to personnel mobilization planning requirements and execution capabilities. Second, there is little connectivity between war planning and mobilization planning, especially for total mobilization.

c. Arms control initiatives demand that the Army develop and integrate a sound mobilization strategy into its force integration and warfighting planning strategies. This requires timely, accurate, and complete data base/information systems for use in making sound force structure decisions. Current systems have insufficient detail for either budget or structure approval.

d. The ODCSPER community fully recognizes the shortfalls of its current system integration. It is leading the way with its Objective Architecture to develop and implement a comprehensive system that will operate both in peacetime and in wartime.

e. The DAIM's constrained acquisition policy has virtually cut enhancement of personnel systems during FY89 and FY90. It is uncertain whether the Army's top leadership is fully aware of the ramifications of this action.

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APPENDIX B-4 TO ANNEX B
TOTAL MOBILIZATION PLANNING AND FORCE DEVELOPMENT

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APPENDIX B-4 TO ANNEX B

TOTAL MOBILIZATION PLANNING AND FORCE DEVELOPMENT

<u>Paragraph</u>		<u>Page</u>
1	Purpose	B-4-1
2	Scope	B-4-1
3	Findings	B-4-3
4	Mobilization Requirements	B-4-4
5	Mobilization Capability	B-4-10
6	Conclusions	B-4-12

Figure

B-4-1	Force Development/Mobilization Integration Seminar Attendees	B-4-2
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1. **PURPOSE.** The purpose of this appendix is twofold. First, it identifies specific deficiencies in the mobilization requirements and capabilities areas which preclude the Army from meeting specific Total Mobilization planning guidance objectives. Second, it describes what the Army is doing in an effort to eliminate these deficiencies.

2. **SCOPE.**

a. This appendix summarizes the results of a Force Development/Mobilization Integration Seminar conducted at the U.S. Army Concepts Analysis Agency (USACAA) on 3 March 1989. Seminar participants (**Figure B-4-1**) discussed the findings and conclusions of an Army Mobilization Integration Cell (AMIC) analysis of real and perceived deficiencies. The deficiencies pinpointed were those in the Army's force requirements and capabilities areas which impact mobilization planning and force development. The objective of the seminar was to reach consensus on which deficiencies warrant more structured analysis. Seminar participants also discussed how the Army might better focus its analytical effort to enhance mobilization planning in the context of current and future Department of Defense (DOD) policy and national security strategy and objectives.

b. The remaining portions of this appendix describe the major deficiencies which seminar attendees targeted for elimination to meet mobilization planning objectives, especially those concerning Total Mobilization. Each deficiency is discussed separately. This discussion includes a brief explanation of the cause, its impact on the mobilization planning process, and a summary of recent or planned activity designed to eliminate or mitigate the effects of the deficiency.

OFFICE/AGENCY REPRESENTED	ABBREVIATION/ OFFICE SYMBOL
Deputy Under Secretary of the Army for Operations Research Study Program Management Agency	(DUSA-OR) (SPMA)
Assistant Secretary of the Army for Research, Development and Acquisition Directorate of Plans and Programs	(ASARDA) (SARD-RPI)
Assistant Secretary of the Army for Installations and Logistics Office of the Deputy ASA for Logistics	(ASA I&L) (SAIL)
Office of the Deputy Chief of Staff for Operations	(OPCSOPS)
Office of the Technical Advisor, Studies and Analysis Division	(DAMO-ZDS)
War Plans Division	(DAMO-SSW)
War Reserve Team, Combat Support/Combat Service Support/Common Systems Division	(DAMO-FDL)
Mobilization Division, Operations, Readiness and Mobilization Directorate	(DAMO-ODM)
Force Readiness Division	(DAMO-ODR)
U.S. Army Force Development Support Agency	(USAFDSA)
TOE, BOIP and TAADS Division*	(MOFD-DOC)
U.S. Army Concepts Analysis Agency	(USACAA)
Strategy, Concepts and Plans Directorate	(CSCA-SP)
Force Concepts and Design Division	(CSCA-SPF)
Mobilization and Deployment Division	(CSCA-SPM)
Forces Directorate	(CSCA-FO)
Theater Force Analysis Division	(CSCA-FOF)
Support Analysis Forces Division	(CSCA-FOS)
Requirements Directorate	(CSCA-RQ)
Materiel Requirements Division	(CSCA-RQR)
U.S. Army Materiel Command	(AMC)
Industrial Mobilization, Plans Directorate	(AMCPD-IM)
U.S. Army Personnel Command	(PERSCOM)
Mobilization Plans and Analysis Division	(TAPC-MOP)
U.S. Army Logistics Evaluation Agency	(LEA)
U.S. Army Industrial Engineering Agency	(IEA)
U.S. Army Engineer Studies Center	(CEESC)
*TOE (Table of Organization and Equipment) BOIP (Basis of Issue Plan) TAADS (The Army Authorization Documentation System)	

**Figure B-4-1. FORCE DEVELOPMENT/MOBILIZATION
INTEGRATION SEMINAR ATTENDEES**

3. FINDINGS.

a. General.

(1) *Defining U.S. Conventional Mobilization Capability.* The current force development and integration process attempts to integrate warfighting, mobilization planning, force structuring and resource considerations. Since 1985, there has been a growing consensus within the mobilization planning community that this process is too long, has limited focus, and is unwieldy. Today, and in the years ahead, the U.S. faces unprecedented challenges in a complex, volatile, and unpredictable world--challenges that demand quick analysis of requirements and capability data. As the Army decreases in size, it will have to rely on its ability to mobilize and expand should circumstances require it. The ability to demonstrate conventional mobilization potential is, unquestionably, a major component of modern deterrence. As conventional deterrence takes on new meaning and added significance today and in the years to come, the process of defining U.S. conventional mobilization capability (using a requirements-versus-capability assessment process) will also take on greater importance.

(2) *Critical Deficiencies.* After discussion, seminar participants agreed that there are two primary critical deficiencies which impede the development of an effective, comprehensive mobilization planning process: the inability of the Army to determine mobilization requirements in a credible manner, and the inability of the Army to meet mobilization requirements once they have been defined. The major cause of these deficiencies is the fact that Total Mobilization planning has been on the mobilization community's back burner.

(3) *Mobilization Guidance Objectives.* It is important to understand that the inability to accurately forecast credible Total Mobilization requirements--and the capability to meet them--prevents the Army from complying with stated mobilization guidance objectives. These objectives include the following:

- Defining the limits of mobilization potential.
- Enhancing industrial preparedness planning.
- Developing executable capability-based plans for full mobilization and force expansion.
- Establishing a viable conventional deterrent.

The results of activities designed to meet these objectives must influence our mobilization planning and force development processes. For the most part, the inability of the Army to credibly determine both requirements and capability is the result of the deficiencies discussed during the seminar and presented below.

(4) *Mobilization Planning Systems.* Since the mid-1980s, many military and civil agencies have developed, or are in the process of developing, new systems to enhance mobilization planning--including Total Mobilization planning. The Joint Industrial Mobilization Planning Process (JIMPP), the Graduated Mobilization Response concept, the Maximum Army

Expansion (MAX) model, and various decision support systems (DSS) being developed by the Army major commands (MACOM) are just a few of these new and emerging systems. Other systems discussed in this appendix, such as Mobilization Network (MOBNET) and Mobilization Capabilities Evaluation Model (MOBCEM), are in varying stages of development and will, if implemented and institutionalized, contribute to the elimination of many of the deficiencies defined herein. Millions of dollars have been spent on the development of these systems. Their ultimate success depends, in no small manner, on the validity and accuracy of the baseline requirements and capability data slated to be exploited by each system. This fact, perhaps more than any other, underscores the need to improve the validity, accuracy, and standardization of data throughout the Army and DOD.

(5) *New Systems Architecture.* Seminar attendees agreed that new systems architecture (i.e., new models, data bases and analytical methodologies) need to be established, especially in areas where no such architecture exists for performing analytical support to mobilization planning. However, attendees also agreed that the 1990s would be the decade of data rather than systems. Many good systems already exist, but the "cold war" type data generated by these systems must be replaced by new data. Many of our models and planning systems need to be modified in light of changes occurring in the international security environment. Now is the time for planners to determine how to best reorient these systems for the next century.

4. **MOBILIZATION REQUIREMENTS.** With respect to determining requirements for ammunition and equipment, seminar participants agreed that the following deficiencies preclude the Army from meeting stated mobilization planning objectives:

a. **The Army has yet to institutionalize a credible process for accurately determining the materiel requirements to support the building, training, and sustainment of an expanded force.**

(1) *Discussion.*

(a) Simply stated, the Army has yet to fully commit itself to the development and institutionalization of a credible process for estimating the requirements to support force expansion beyond full mobilization. This void exists despite specific mobilization planning guidance which calls for the establishment of such a process. Most, if not all mobilization planning focuses on mobilizing the current force. Dozens of studies performed in recent years concluded that current requirements determination methods are incomplete and focused primarily on Full Mobilization. This situation precludes the Army from developing realistic, capability-based plans to meet national military objectives.

(b) Today, most statements of mobilization requirements for materiel (and personnel) are the result of manual, "stubby pencil" analysis of data of questionable accuracy and validity. The sources of a substantial portion of the training and sustainment requirements data necessary to support force expansion have not been identified, validated, standardized, or automated. The lack of automation within the mobilization planning process places a substantial staff burden on those asked to contribute data for analysis.

(2) *Cause.* For the most part, this planning void is the result of military doctrine and associated planning activities which, until the early 1980s, stressed nuclear planning and short-term conventional operations. For many years our policy reflected the conventional wisdom that any future war would be short, "hot," and very destructive. Therefore, mobilization planning focused only on Full Mobilization of the current force. During the mid-1980s, planners became increasingly concerned that global or regional conflict might well remain conventional, and that the Army was woefully unprepared to weather such a struggle.

(3) *Impact.*

(a) The lack of a credible methodology and source data for determining requirements to support force expansion has brought the Army face to face with a real problem. The Army cannot effectively determine the requirements to build, train, and sustain the Risk Evaluation Force (REF). The REF is the force considered necessary for providing reasonable assurance of success on the battlefield, according to the Joint Chiefs of Staff (JCS). Furthermore, since 1985, Army mobilization planning guidance has called for the development of executable capability-based plans to support wartime military strategy associated with particular global and regional scenarios. These plans must be based on a credible statement of requirements compared to equally credible statements of industrial base capability to meet these requirements. Only after such an analysis can the Army leadership feel reasonably confident of its mobilization potential.

(b) Much of the Army's planning effort over the years have gone into measuring the requirements to deploy and fight the current force. Little effort has been paid to expansion operations or sustaining forces beyond 6 months. Therefore, in the areas of force expansion and long-term conventional warfare, the Army based much of its planning on conjecture or generalizations of requirements. The Army certainly has legitimate concerns about the ability of the industrial base to support long-term conventional conflict. However, in response to Congressional requests for supporting data for the funding of improvements to the industrial base, the Army offers little more than supposition when stating its requirements.

(c) As with any system or process, the lack of automation increases the likelihood of mathematical errors and omissions when data are manipulated. The secondary advantage (access speed is the primary advantage) is an increased reliability of the data manipulation process.

(d) Today, more than ever, the Army needs a planning system that determines requirements for the full spectrum of potential claimants--a system capable of determining requirements to support any type of mobilization scenario, including Total Mobilization. This system must include the requirements of current Modified Table of Organization and Equipment and Mobilization Table of Distribution and Allowances (MOBTDA) units, new units under force expansion, and non-U.S. forces.

(4) *Status.*

(a) In 1987, the U.S. Army Engineer Studies Center (ESC) embarked on the largest and most comprehensive Army project to date involving mobilization resource

requirements planning. Sponsored by the Operations Readiness and Mobilization Directorate of the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS), this project, "Mobilization Requirements For Industrial Preparedness Planning," resulted in four major studies published in 1988 and 1989. These studies--*Assessment of the Methodologies for Determining Materiel Requirements for the Current Force*, *Army Materiel Requirements to Support the Continental United States Military Mobilization Base Structure*, *Determining the Materiel Requirements for Force Expansion*, and *Wartime Support to U.S. Friends and Allies: An Assessment of the Planning Environment*--were used to prepare a final report, *Army System for Mobilization Requirements Planning: Supply Classes V and VII (Ammunition and Equipment)*. This final report outlined a complex (but not complicated) planning system called MOBNET. MOBNET estimates, in a credible analytical fashion, the materiel requirements to support a mobilization of the U.S. Army. MOBNET was designed for any level of mobilization, ranging from a global confrontation between the super powers, to a more limited regional deployment.

(b) MOBNET was reviewed by the Army Staff (ARSTAF) and briefed to the DCSOPS in 1989. Subsequently, ESC was asked to prepare a MOBNET implementation plan (IMPLAN) that lists the fundamental steps which must be taken to establish and institutionalize MOBNET within the Army. The IMPLAN was completed in September 1990 and forwarded to ODCSOPS for ARSTAF review. With the development of the IMPLAN, the Army now has a unique opportunity to develop an effective mobilization requirements planning system that will eliminate many of the requirements planning deficiencies described in this appendix. Once developed, MOBNET will be a tremendous planning asset for the Army. Seminar attendees agreed that MOBNET capabilities need both horizontal and vertical visibility throughout the Army.

b. Current mobilization planning fails to properly consider crucial non-U.S. force requirements.

(1) Discussion.

(a) Seminar participants agreed that requirements to sustain a warfight should be the sum of what the U.S. and important allied forces need to meet military objectives. The success of any operation, contingency, or military plan with a coalition element depends on how well all partners in that coalition can sustain themselves. In order to assess whether a coalition risks collapse due to insufficient materiel supplies, planners would be wise to determine the upper limit of how the resupply system will be stressed under a full range of regional and global scenarios. Unfortunately, seminar participants were quick to point out that the Army lacks a credible process for estimating the "worst case" resupply demands of U.S. friends and allies--requirements which must be added to U.S. requirements. All participants felt that the changing national security environment forces planners to take a greater look at the requirements to support friends and allies. However, the Army does not now possess the analytical tools or methodologies required for determining such requirements. There still remains much information that must be made available to planners which currently does not exist.

(b) It was agreed that comparing combined U.S. and non-U.S. requirements to available resources of reserve stocks and industrial capability, would enable planners to evaluate the risk of either supporting or abandoning a coalition partner. Such risk analyses

must be done if Army industrial planners are to make the right decisions about what resources to create, expand, or remove from the existing Army-managed industrial base for Class V and VII.

(2) *Cause.* Failure to consider friends and allied requirements in the mobilization and industrial preparedness planning processes has not been caused by anything in particular. Yet it has become a new area of planning concern which demands further analysis. Wartime requirements are determined for only a few allies via Army modeling techniques. Currently, the Army does not have the required analytic data, models, or methodological approaches needed to adequately determine non-U.S. force materiel requirements.

(3) *Impact.* Certain allied nations and friendly foreign governments are critical to the strategic goals of the U.S. A decision to support such groups with U.S.-produced materiel could drain our nation's industrial base. Prudence dictates that planners include the materiel requirements of non-U.S. forces--the sooner the better. Foreign Military Sales and other types of military assistance are currently provided to friends and allies, but actual anticipated wartime resupply requirements have not been looked at from the standpoint of how such requirements would affect U.S. mobilization potential.

(4) *Status.* The ESC-produced MOBNET study addressed the issue of non-U.S. force requirements. The MOBNET IMPLAN outlined the actions needed within the Army or DOD to determine the potential demand for materiel for non-U.S. forces. Seminar participants agreed that this is a planning void that needs to be further assessed. They also realized that agencies other than the Army need to play a role in determining non-U.S. force requirements for resupply.

c. The Army has not yet developed a strategy for transitioning from a peacetime structure to Total Mobilization.

(1) *Discussion.* The Army needs to get serious about force expansion planning (i.e., Total Mobilization). Directives and guidance for DOD and the Army call for force expansion and a credible, executable transition strategy. Force structure planning over the years has resulted in planning guidance which requires the Army to define the requirements of a force (specifically, the REF) large enough to provide reasonable assurance of success on the modern battlefield. Because many doubt that the size of the current industrial base can provide the materiel support in time to equip, train, and sustain the current force in conventional conflict, extensive planning is needed to bring industrial capability, force capability, and operational planning into symmetry. Before any kind of transition strategy to total mobilization/expanded force structure can be institutionalized, the Army must generate requirements and compare them to the available industrial capability to meet them and the additional time and money required to expand. Only when the Army is aware of what percentage of requirements can and cannot be met, will policymakers and planners be in the position to take corrective action to meet identified shortfalls. Any credible transition strategy must be capability-based, which means that it must be the product of requirements-versus-capabilities analysis.

(2) *Cause.* No transition strategy exists at the present time because the planning community has based most of its planning activities on supporting Full Mobilization.

(3) *Impact.* Chapter 9, Volume III, of the *Army Mobilization and Operations Planning System (AMOPS) -- Total Mobilization*, calls for the development of a transition strategy from Full Mobilization to Total Mobilization requiring force expansion beyond the program force. The fact that such a strategy has not been adequately established will result in "seat of the pants" planning in our attempts to equip, train, and sustain U.S. forces in periods of crisis. There are serious questions about how new units will be mobilized, trained, equipped, and sustained. Unit training plans for new units generated under Total Mobilization conditions have not been prepared.

(4) *Status.* Building an executable, capability-based transition strategy must be the goal of mobilization planning. The means for achieving this goal have been defined in those ESC reports listed earlier. However, the deficiencies associated with requirements and capabilities planning continue to prevent the Army from establishing realistic plans.

d. Wartime replacement factors and ammunition consumption rates are widely perceived as inconsistent and improperly applied in determining sustainment requirements.

(1) *Discussion.* The inconsistency and misapplication of rates is a widely held perception. Seminar attendees were very concerned about the credibility of consumption and attrition rates and wartime replacement factors which are used to project sustainment and war reserves requirements. The attendees agree that current methodologies for determining war reserve requirements for ammunition and equipment have evolved into a complex, unresponsive, and misunderstood process. The war reserve rates that are produced by this system are designed primarily for programming purposes, but are also used as the basis for most of the Army's planning, force structuring, distribution and procurement decisions. A few seminar participants mentioned that many warfighting Commanders in Chief have expressed concern that the programming rates generated by the P-studies do not accurately reflect their anticipated warfighting needs. They are also concerned that theater reserves, based on those studies, do not support perceived near-term mobilization requirements for operations or campaign plans.

(2) *Cause.* This deficiency results from the lack of understanding and appreciation of how rates affect the development of mobilization requirements. It is also a result of not determining realistic, analytically-based factors which can be used to generate requirements 180 days and beyond.

(3) *Impact.* Because of the perception that the Army's process for determining rates is flawed, rates that are generated as the result of current processes are viewed with a measured level of skepticism. Current methodologies for determining rates do not provide planners with a credible audit trail of factors and assumptions which lead to approved programs. Additionally, sustainment requirements comprise a large percentage of mobilization requirements for ammunition and equipment. When rates are determined in a faulty manner, misapplied, or simply not available to planners for planning beyond operation plan (OPLAN) planning periods or the first 180 days of conflict, planning to support long-term conventional conflict suffers.

(4) *Status.* In 1988, the Chief of Staff of the Army tasked the DCSOPS to undertake an Ammunition Requirements Process Study anchored in AirLand battle doctrine that is understandable, credible, and traceable. The DCSOPS also mandated that a new and improved process for determining rates must be able to facilitate rapid execution when

exploring the impact of changes to assumptions, data, and constraints on key decisions. The Ammunition Requirements Process Study, still underway within ODCSOPS, has involved a complete review of the Army's combat modeling process. Most of the study has been completed. The remaining activities involve methodological issues currently under review.

e. The MOBTDA development process is suffering from problems in defining, qualifying, and documenting MOBTDA requirements and does not incorporate planning for force expansion.

(1) *Discussion.* The MOBTDA force structure is essentially composed of non-deploying, sustaining-base and training-base units that support deploying units. A concern surfaced at the seminar was that MOBTDA requirements have not been adequately designed to support Full Mobilization planning and Total Mobilization. All components of the CONUS-Base share common problems in defining, qualifying and documenting their MOBTDA requirements. Numerous reports in the past few years have found that installations fail to adequately identify mobilization support requirements and document them on their MOBTDA. No methods currently exist for validating MOBTDA against the requirements of current OPLANs on a regular basis. Some participants argued that the Army needs to analytically determine, rather than assume, that the current Table of Distribution and Allowances (TDA) Army can support force expansion beyond Full Mobilization. Furthermore, modeling support during the Total Army Analysis process excludes requirements and capabilities of the CONUS TDA Army in its role as the sustaining base. The current method is to simulate conflict under full mobilization for 60 to 90 days, then project the results to 180 days. There is no credible modeling output on TDA force expansion during Total Mobilization to use in mobilization planning.

(2) *Cause.* The basic cause of this deficiency, as with all of the deficiencies listed herein, is the fact that virtually all mobilization planning activities are focused on mobilization of the current force, despite national, DOD, and Army guidance which specifically directs the Army to conduct Total Mobilization planning. Furthermore, documentation of the existing force structure is not accurate. Force documentation of the expanding mobilization force structures is not complete. Accordingly, the force structure data placed in the various automated management systems is defective. These systems include The Army Authorization Documentation System for Mobilization, the Force Accounting System, and the Structure and Composition System.

(3) *Impact.* Credible force expansion planning requires defining requirements for the TDA as well as the TOE Army--anything less is a disservice to the planning process and leads to unrealistic assessments of mobilization requirements.

(4) *Status.* The MOBNET planning process addressed this issue and developed a conceptual framework for establishing credible MOBTDA requirements to support any type of mobilization including total. MOBNET has not been implemented to date. Aside from the MOBNET framework, individual MACOMs are trying to follow the recommendations of the reports alluded to above, especially the reports written by the Department of the Army Inspector General.

5. **MOBILIZATION CAPABILITY.** With respect to determining the capability to meet mobilization requirements, seminar participants agreed that the following two deficiencies preclude the Army from meeting stated mobilization planning objectives:

a. **The Army has no credible mechanism for determining the capability of the industrial base to meet materiel requirements needed to support force expansion under Total Mobilization conditions.**

(1) *Discussion.* As alluded to earlier in the requirements section, capability-based plans (mandated in AMOPS) must be the product of requirements-versus-capability analysis. Determining requirements without also determining the capability to meet those requirements is relatively fruitless. Seminar attendees agreed that the whole purpose of a requirements-versus-capability exercise is to determine the extent to which U.S. planning objectives can be realistically met. The results of this type of analysis enable planners to determine which requirements can and cannot be met. Planners must then draw some conclusions regarding the extent to which known capabilities provide the wherewithal for meeting stated objectives. In other words, planners must prepare a risk assessment based on the results of the requirements-versus-capability analysis. If the assessed risk is unacceptable to policy makers, strategists, and operations experts, then ways and means must be found for reducing requirements or expanding capability. Today, current capability assessments are narrow in scope. They are limited to U.S. and Canadian industrial capabilities and are only based on the requirements to support Full Mobilization. In many cases, they are based on outdated data which limit their usefulness in the planning business.

(2) *Cause.* The major cause for this deficiency has been a serious lack of interest in Total Mobilization planning. The capability planning that takes place in the Army today focuses on the Production Base Analysis (PBA) which describes the status of the Army's industrial readiness assuming a fixed day of mobilization. The PBA shows the base required for production and depot-level maintenance of critical items having long lead-time components, or components requiring special manufacturing skills or other production challenges which make detailed planning essential. Mobilization production requirements are then matched against the capability of the industrial base, and actions needed to improve industrial base readiness are identified. The PBA is full mobilization-oriented; it has never been expanded to examine the capability to produce requirements associated with Total Mobilization requiring force expansion. This is not to say that the PBA is faulty--it does what it is supposed to do fairly well. The problem is that the Army does not have a similar capability to assess Total Mobilization requirements. Additionally, seminar participants acknowledged that Total Mobilization requirements must be measured against the entire industrial base of the U.S., not simply the Army.

(3) *Impact.* This deficiency precludes planning that could address capability shortfalls. More to the point, without such a capability, shortfalls cannot be defined in a credible manner. If shortfalls are not identified, actions cannot be established for correcting them. Furthermore, this deficiency prevents planners from painting a picture of the "real" mobilization potential of the Army. The bottom line here is that leaders have a fairly good picture of how and when the current force could be mobilized; yet, if a crisis demanded Total Mobilization and force expansion, Army leaders would not be in a position to credibly assess the capability of the Army to reach expansion goals other than to say that it would be long and

difficult. If planning were accomplished to establish more credible estimates of mobilization potential and how long it would take to achieve such potential, Army leaders would be in a position not only for channeling the results of such assessments to the National Command Authorities, but for recommending alternative courses of action if conventional mobilization potential could not be achieved in the desired time frame.

(4) *Status.* The mobilization community recognizes the fact that getting a handle on the capability of the industrial base to meet mobilization requirements is not solely an Army responsibility. DOD, Federal Emergency Management Agency (FEMA), the Department of Commerce, and other agencies have a multitude of systems and programs which are capable of assessing particular capabilities of the industrial base. The JCS' JIMPP has been established as the primary DOD system designed to compare requirements with capability. Unfortunately, at the current time, there is no plan to integrate these systems. In fact, seminar attendees agreed that there is little capability data being shared across the government. There are "pockets of capability data" all over the government, but there has been no attempt to bring this data together for use in systems like JIMPP. FEMA, the Department of Commerce, the Department of the Army, DOD, and other smaller agencies have different systems for determining various capabilities of the U.S. industrial base. Now is the time to support a joint effort which will provide capability data to those who need it, such as those who run the JIMPP model.

b. The Army mobilization community lacks an automated tool to determine CONUS-Base mobilization capabilities, test potential procedures and policies, and determine their effect on the entire mobilization process.

(1) *Discussion.* The Army's primary tool for mobilization analysis has been the Mobilization Requirements Evaluation Model (MOBREM). This model is currently used by the U.S. Army Force Integration Support Agency to evaluate personnel requirements during Full Mobilization. However, MOBREM does not directly support the analysis of current and projected Army mobilization capabilities and performance of functional areas outside that of personnel. The USACAA has the mission to evaluate the Army's operational capability to mobilize and deploy forces and conduct unilateral, joint, and combined operations. A thorough search by CAA yielded no models which provide the needed mobilization analysis capabilities. Seminar participants agreed that the Army has long neglected the need to analyze mobilization capabilities.

(2) *Cause.* Planning and budget priorities have not provided the required resources needed to develop a Mobilization Capabilities Evaluation Model (MOBCEM).

(3) *Impact.* This deficiency has prevented the Army from identifying, in an analytical manner, resource shortfalls which impede mobilization, such as a lack of personnel of specific skills, shortages of training equipment, insufficient training areas at a mobilization station, or pacing item shortages which lead to readiness shortages. This situation has limited the Army's capability to identify situations where demand exceeds capacity during mobilization. Examples are when more units and equipment arrive or leave a mobilization station than its loading facilities can handle, or when a queue forms for medical and dental procedures because too many personnel require this processing at the same time.

(4) *Status.*

(a) CAA, with guidance from DCSOPS, ESC and AMIC, has developed a functional description of a MOBCEM that will model major capability functional areas of the mobilization system. These include installations, personnel flow, logistics system, transportation system, and the health services system. The product of this simulation will be the capacity of the mobilization system. It will also reveal choke points and excess capacity. It is a large and important step in tying mobilization plans to the capability to support them. The basic objectives of MOBCEM are to provide the following:

- A capability to simulate mobilization and deployment operations and to analyze theater and CONUS-Base capabilities and shortfalls in connection with major force structuring, capabilities and requirements studies.
- A tool complimentary to other mobilization analysis systems being developed or already developed such as MOBNET and the MAX model.
- The means for accurately modeling the processes which occur during Army mobilization.
- A capability for mobilization analysis independent of theater combat models.

(b) The MOBCEM Functional Description was published for review in June 1990. It is comprehensive in its scope and provides an excellent description of the analytical capability required to eliminate the Army's current deficiencies in the area of mobilization capability assessment. The functional description of MOBCEM is an outgrowth of the seminar. Once operating, MOBCEM will be of enormous benefit to the mobilization planning community.

6. CONCLUSIONS.

a. A debate has raged within the mobilization community over how best to plan for bringing the industrial might of the U.S. to a wartime footing. This debate continued at the seminar. Should planners concern themselves with measuring wartime requirements or industrial capability? In the final analysis, an effective mobilization planning system must compare the requirements to conduct war against the capability of industry to provide needed materiel. The results of this comparison are identified shortfalls and deficiencies that must become the basis for follow-on planning. Additionally, planners must be able to analytically determine capability shortfalls and problems which prevent the Army from effectively and efficiently mobilizing, even if the required materiel is available.

b. The ability to tie the vast demands of force expansion with the industrial bases capability to expand and meet those demands simply has not developed. The seminar provided an excellent opportunity for mobilization planners to discuss a number of real or perceived deficiencies which impact the Army's ability to establish plans, policies, and procedures for

meeting the explicit objectives defined in official mobilization planning guidance. If the mobilization planning community has accomplished anything in the last few years, it has been in the area of identifying planning voids and specific deficiencies. Now is the time to eliminate these deficiencies and planning voids, and concentrate on building the data, system architectures (e.g., MOBNET and MOBCEM), and usage standards for employing these tools. These efforts will establish a sound mobilization planning system capable of producing capability-based plans to support mobilization planning objectives. Now is the time to build MOBNET and MOBCEM and work with others in DOD and the civil agencies to get a handle on industrial base capabilities.

c. Mobilization guidance is very clear. Now is the time to establish the requisite capabilities to meet that guidance. The world is changing very quickly. Emergencies requiring the mobilization of U.S. forces may spring up with little warning (witness the recent Persian Gulf crisis), in which case it is vitally important for Army leaders and decision makers to have at their disposal a system capable of providing answers to key mobilization questions in a timely, effective, and accurate manner. Such a system does not currently exist. However, if the Army begins now to work toward the development of systems like MOBNET and MOBCEM, with purpose and resolve, it could have such a system "up and operating" by the end of the decade.

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LAST PAGE OF APPENDIX B-4 TO ANNEX B

ANNEX C

LIST OF ABBREVIATIONS AND ACRONYMS

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ANNEX C

LIST OF ABBREVIATIONS AND ACRONYMS

AAO	Army Acquisition Objective
AC	Active Component
ADD	Automatic Document Distribution
ADP	automatic data processing
AMC	Army Material Command
AMIC	Army Mobilization Integration Cell
AMOPS	Army Mobilization and Operations Planning System
AMR	Army Mobilization Review
AORS	Army Operations Research Symposium
ARAP	Army Remedial Action Program
ARSTAF	Army Staff
AS-I&L	Assistant Secretary of the Army for Installations and Logistics
AS-RDA	Assistant Secretary of the Army for Research, Development and Acquisition
AUTOVON	automatic voice network
BOIP	Basis of Issue Plan
CAB	Current Awareness Bulletin
CG, USACE	Commanding General, U.S. Army Corps of Engineers
CINC	Commander in Chief
COE	Chief of Engineers
CONUS	Continental United States
CSA	Chief of Staff of the Army
C ³	command, control and communications
DA	Department of the Army
DA-CIL	Department of the Army Critical Items List
DAIG	Department of the Army Inspector General
DAIM	HQDA Information Manager
DG	<i>Defense Guidance</i>
DG/IPS	Defense Guidance Illustrated Planning Scenario
DISC ⁴	Director, Information Systems for Command, Control, Communications, and Computers
DLISIE	Defense Logistics Studies Information Exchange
DOCMOD	Document Modernization
DOD	Department of Defense
DSMA	U.S. Army Decision Systems Management Agency
DSN	Defense Switched Network
DSS	Decision Support System
DTIC	Defense Technical Information Center
DUSA-OR	Deputy Under Secretary of the Army for Operations Research

ESC	Engineer Studies Center
FAA	Functional Area Assessment
FAS	Functional Accounting System
FEMA	Federal Emergency Management Agency
FIA	Force Integration Analysis
FIT	Force Integration Training
FMTB	Force Mobilization Troop Basis
FORSCOM	Forces Command
FYDP TF GOSC	Five-Year Defense Program Task Force General Officer Steering Committee
GMR	Graduated Mobilization Response
GOMR	General Officer Mobilization Review
GSOC	General Officer Steering Committee
HQDA	Headquarters, Department of the Army
IAP	Issue Assessment Process
IBDSS	Industrial Base Decision Support System
IEA	Industrial Engineering Agency
IMAP	Industrial Mobilization Analytical Process
IMP	Information Management Plan
IMPLAN	implementation plan
IPP	Industrial Preparedness Planning
IPS	Illustrative Planning Scenario
IWS	Intelligent Work Station
JCS	Joint Chiefs of Staff
JIMPP	Joint Industrial Mobilization Planning Process
LCM	Life Cycle Management
LEA	Logistics Evaluation Agency
LISA	Logistics Information Systems Architecture
LOG DSS	Logistics Decision Support System
LOGNET	Logistics Network
LOGSACS	Logistics Structure And Composition System
MACOM	major Army command
MAOR	Mobilization Action Officer Review
MAX	Maximum Army Expansion
MCA	Military Construction Account
MISMA	Model Improvement and Study management Agency
MMP	Mobilization Master Plans
MOB	mobilization
MOBCEM	Mobilization Capabilities Evaluation Model
MOB FAA	Mobilization Functional Area Assessment

MOBERS Mobilization Equipment Redistribution System
 MOBLOGSACS .. Mobilization Logistics Structure and Composition System
 MOBNET Mobilization Network
 MOBPERSACS ... Mobilization Personnel Structure Composition System
 MOBPRO MOBilization PROgramming
 MOBREM Mobilization Requirements Evaluation Model
 MOBTAADS Mobilization Army Authorization Documentation System
 MOBTDA Mobilization Table of Distribution and Allowances
 MORS Military Operations Research Symposium
 MTOE Modified Table of Organization and Equipment

 NATO North Atlantic Treaty Organization
 NIF Non-Industrial Facilities
 NTIS National Technical Information Service

 ODCSLOG Office of the Deputy Chief of Staff for Logistics
 ODCSOPS Office of the Deputy Chief of Staff for Operations
 ODCSPER Office of the Deputy Chief of Staff for Personnel
 OMA Operations and Management, Army
 OPLAN Operation Plan
 OSD Office of the Secretary of Defense

 PAM Personnel Action Module
 PBA Production Base Analysis
 PERSACS Personnel Structure and Composition System
 PERSCOM Personnel Command
 PMAD Personnel Management Authorization Document
 POC point of contact
 POM Program Objective Memorandum
 PPS Production Planning Schedule

 RC Reserve Component
 RCAS Reserve Component Automation System
 RDA DSS Research Development and Acquisition Decision Support System
 REF Risk Evaluation Force
 RELMS Rapid Erectable Light Mobilization Structures

 SDI Selective Dissemination of Information
 SIDPERS-3 Standard Installation Division Personnel System version 3
 SPCC Study Program Coordinating Committee
 SPG Study Program Group
 SPMA Study Program Management Agency
 SRIM Selected Research in Microfiche

TAADS The Army Authorization Documentation System
 TAADS-R The Army Authorization Documentation System - Revised
 TAEDP Total Army Equipment Distribution Plan
 TAMO Total Mobilization Acquisition Objective
 TAPC Total Army Personnel Command
 TAPDB Total Army Personnel Data Base
 TAPSMP Total Army Personnel Systems Modernization Plan
 TDA Table of Distribution and Allowances
 TMOPS TRADOC Mobilization and Operations Planning System
 TOE Table of Organization and Equipment
 TPFDD Time Phased Force Deployment Data
 TRAC Technical Reports Awareness Circular
 TRADOC Training and Doctrine Command

 U.S. United States
 USACAA U.S. Army Concepts Analysis Agency
 USACE U.S. Army Corps of Engineers
 USAFDSA U.S. Army Force Development Support Agency

 VCSA Vice Chief of Staff of the Army

 WWMCSS World Wide Military Command and Control System

LAST PAGE OF ANNEX C

Engineer Studies Center	ARMY MOBILIZATION INTEGRATION CELL (AMIC) OVERVIEW	STUDY GIST CEESC-R-91-3
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PRINCIPAL FINDINGS: AMIC reviewed the Army processes for identifying key mobilization issues and analysis. Our review revealed the following areas need further consideration:

- Army leaders must play an active role in the identification of mobilization issues and the analysis to support these issues.
- A closer relationship needs to exist between the identification of Mobilization issues at the General Officer Mobilization Review (GOMR) and the submission of Mobilization studies for AR5-5 funding.
- The Army needs to develop a plan to identify major obstacles, the analysis to resolve each obstacle, a system to prioritize needed analysis, and a way of tracking the progress on resolving issues.
- MOBNET and MOBCEM must continue to be developed and implemented so the Army can identify mobilization requirements and capability for any size force.
- More coordination needs to exist between the mobilization and analytical communities.
- Information sharing documents must continue to be updated and distributed to the mobilization community for coordination and awareness.
- The use of a small integrative cell to improve mobilization processes was effective, and the concept should be considered for improving other critical issue areas.

MAIN ASSUMPTIONS:

- Mobilization will continue to be a critical issue.
- The Army Study Program functions will continue to exist after the reorganization of the Army.

SCOPE OF THE STUDY: This report focuses on improving the way mobilization issues are identified, analyzed and resolved. It examines these processes from an analytical and mobilization community perspective and provides recommendations for improvement.

STUDY OBJECTIVE: AMIC seeks to improve the quality of Army mobilization analysis with the following primary objectives: assisting Army leadership in identifying mobilization problem areas; focusing the analytical community on overcoming deficiencies; and promoting coordination and information exchange to help preclude duplication of mobilization study effort.

BASIC APPROACH: The key elements of the study approach are described below:

- **Research.** ESC made every effort to identify all existing mobilization studies and the issues which they addressed. This was done by requesting extensive data searches from the Defense Technical Information Center (DTIC) and the Defense Logistics Studies Information Exchange (DLSIE). Additionally, over 100 surveys/interviews of mobilization planners were conducted to substantiate the DTIC/DLSIE information.
- **Seminars.** During the months of January and March, 1989, AMIC conducted four separate mobilization seminars in Logistics, Personnel, Force Development, and Engineering. These seminars provided a forum for presenting key functional issues facing the mobilization planning community. Each seminar provided up-to-date information on new developments within each functional area.
- **Information Sharing.**
 - **Publication of Mobilization Studies List: 1978-1988.** This report is a 10-year compilation of mobilization-related studies. It is designed to acquaint mobilization planners with the volume, span, and nature of existing mobilization-related studies, and to familiarize mobilization planners with data repositories that support the federal sector and the DOD planning community.

- **Publication of *Mobilization Training and Networking Resources Inventory*.** This report provides mobilization planners information on mobilization-related training opportunities. It includes five training resource categories: formal courses, conferences/symposiums, seminars/workshops, exercises, and defense service school programs. A course description and POC are provided for all training identified.
- **Publication of *Mobilization Points-of-Contact List*.** This report (published in two versions--December 1988 and May 1990) is an alphabetic index of mobilization planners by name, organization, and mobilization focus area.
- **Publication of *Mobilization Studies Update: January 1989 - September 1990*.** This report serves as an update to *Mobilization Studies List: 1978-1988*.
- **Review of the Army Study Process** (October 1990). This separately published monograph presents a detailed evaluation of the Army Study Program (AR 5-5), how effective the program operates, how critical issues are identified, and how studies are prioritized and approved for funding.

REASONS FOR PERFORMING THE STUDY: In 1985, the Model Improvement and Study Management Agency (MISMA) identified mobilization as one of nine critical issues. MISMA presented a concept plan for an AMIC to the Deputy Under Secretary of the Army for Operations Research, the Chief of Engineers, and the Under Secretary of the Army. ESC was selected to undertake the 3-year AMIC effort to improve the way in which mobilization issues are identified, analyzed, and resolved.

STUDY SPONSOR: The Deputy Under Secretary of the Army for Operations Research (DUSA-OR) sponsored the study.

PERFORMING ORGANIZATION AND PRINCIPAL AUTHORS: The Engineer Studies Center performed the study effort under the direction of Ms. Jill M. Davis, Senior Project Manager, Mr. Donald W. Spigelmyer and Mr. James F. Thompson, Project Manager. The principal author was Mrs. Linda W. Smith.

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COMMENTS AND SUGGESTIONS MAY BE SENT TO: Commander, U.S. Army Engineer Studies Center, Casey Building #2594, Ft Belvoir, VA 22060-5583.

START AND COMPLETION DATES OF STUDY: Starting Date: December 1987
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