CONTRACT NO. MDA 903-87-C-0756

Expiration Date: 1 March 1988
(30 April 1988 - Revised)
Value: $154,883.00

ISSUE ASSESSMENT PROCESS

NEW PERSPECTIVES CORPORATION

Project Director: H. S. Becker
(203) 633-4802

Government Sponsor: Department Of The Army

The views, opinions, and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.
**Title:** ISSUE ASSESSMENT PROCESS - RECOMMENDATIONS FOR FUTURE ARMY ANALYSIS

**Authors:** Harold S. Becker, W. D. Goodrich

**Abstract:**
This is a study designed to identify the key critical issues currently facing the Army that need analysis/study in order to resolve them and better prepare the Army for the future. Issues were identified by Army leadership and developed by action officers, through workshops, to define those elements of analysis needed to better understand the issues. The elements of analysis were then presented to the leadership for evaluation/prioritization for future analysis efforts. The highest evaluated elements will be incorporated into the Army's study/analysis programs.
The Contractor, NEW PERSPECTIVES CORPORATION, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. MDA 903-87-C-0756 is complete, accurate, and complies with all requirements of the contract.

17 April 1988

Date

Name and Title of Certifying Officer
RECOMMENDATIONS FOR FUTURE ARMY ANALYSIS EFFORTS


Volume I

RESULTS OF WORKSHOPS WITH SENIOR ARMY LEADERSHIP AND MANAGERS

Prepared for the U.S. Army Study Program Management Agency under Contract MDA 903-87-C-0756

by
H.S. Becker, President
W.D. Goodrich, Consultant

April 14, 1988

New Perspectives Corporation
78 Eastern Boulevard
Glastonbury, CT 06033
(203)633-4802

NP88-4
ACKNOWLEDGEMENTS

We wish to express our appreciation to the Department of the Army for sponsoring the research reported in this document and inviting us to perform it. It represents additional progress in developing and implementing a process to engage the Army's senior leadership in spotlighting policy issues warranting current attention and analysis efforts to address those issues. As individuals, we have participated in these activities, known as the Issue Assessment Process (IAP), since its inception in 1983. We are gratified to have been part of an activity that already has helped shape the Army's study and analysis program.

We also wish to express our appreciation to those with whom we worked closely on these activities from the outset, Joann Langston and Eugene Visco, Directors of the Study Program Management Agency (SPMA). We are especially appreciative of the substantive and administrative inputs and support by the COR, LTC Gary Cochard. We found his participation to be extremely knowledgeable, competent and helpful; much more so than most of the CORs with whom we have worked for so many years.

New Perspectives
CONTENTS

Acknowledgements............................................... ii

I Introduction.................................................... 1

A. Background................................................... 1
B. Development of the Recommendations......................... 1
C. Observations on the Process................................ 4

II Recommended Elements of Analysis.............................. 8

A. Grouped by Analysis Topic................................... 8
B. Grouped by Status of Analysis................................ 17

This volume is one of four, the subtitles of the other volumes are:

II Priorities and Key Questions for Critical Policy Issues and Recommendations for Future Analysis Efforts on Conventional Capability and Interoperability

III Key Questions and Recommendations for Future Analysis Efforts on Sustainability

IV Key Questions and Recommendations for Future Analysis Efforts on Explaining the Army and Supporting the Soldier
I INTRODUCTION

A. Background

During Jan. and Feb. 1988, a series of five workshops was conducted with action officers from the Staff and senior managers from the Secretariat and the analytical community of the U.S. Army. Each workshop prepared recommendations for future analysis efforts directed at one of five priority policy issues. The issues were developed during 1987 with inputs from several sources including the Chief of Staff, the CINCs and the Commanders' Conference. In other words, they request views of the Army's top leadership. The elements of analysis recommended for each issue by the participants were intended to help the Army improve its understanding of the issue and establish appropriate actions and policies, either in response to the issue or in anticipation of it.

The five priority issues, listed in Table I, were developed as part of the Army's Issue Assessment Process (IAP), as were the above five workshops. The intent of the activity was to obtain inputs from the Army's top leadership on issues currently warranting attention by the Army and recommendations for future analysis efforts to resolve these issues that could be used by the leadership in establishing guidelines for activities of the Army's analytical community for FY1989 and subsequent years.

The material presented in this volume summarizes the recommendations from the workshops for future analysis efforts directed at the five issues. The details of the activities and results of the workshops on each issue are described in Volumes 2-4 of this report.

B. Development of the Recommendations

A total of 233 recommended elements of analysis (34 for Conventional Capability, 36 for Interoperability, 106 for Sustainability, 27 for Explaining the Army, and 30 for Supporting the Soldier) were developed by the participants at the workshops. These recommendations were prepared on the basis of key questions for each issue. Some of the questions were provided by top management of the Secretariat and Staff during a management session in January 1988 prior to the first workshops. Additional questions were submitted by those people in response to requests from the Study Program Management Agency (SPMA), the proponent for the IAP. Also, some of the workshop groups developed their own questions when they believed they were necessary to properly address the issue being treated.
TABLE I

PRIORITY ISSUES

**Conventional Capability:** enhancing conventional force structure in light of INF and/or conventional arms control, including doctrine for balancing the requirements of low intensity conflict with other needs.

**Interoperability:** providing effective deterrence and warfighting capability in operations that include the other services and forces of our allies in various theaters.

**Sustainability:** measuring the ability to sustain combat forces in various theaters and levels of conflict and advising commanders of the implications of alternative operations.

**Explaining the Army:** explaining the Army's contribution to National Defense to a variety of audiences.

**Supporting the Soldier:** providing appropriate facilities, support services and financial compensation to the soldier and his/her family to address their physical, mental and economic needs and, thus, maintain a loyal, motivated force.
The difference in the number of recommended elements of analysis submitted for each issue should not be interpreted as an indication of the relative importance or degree of uncertainty associated with the issues. The difference simply stems from the fact that a different number of questions were submitted for each issue due to the time allowed for the submissions. Also, some questions were consolidated after submission but before they were provided to the participants in the last workshops as time was available to do that and, thus, improve the efficiency of those workshops.

Since there were many questions submitted for each issue (in some cases, more than twenty), the questions were divided among two or three groups for each issue. Each group was composed of five to nine people assigned from among the action officers on the Staff and the analytic agencies (i.e., the participants listed in Volumes 2-4). Each group developed recommendations based on the questions assigned to it. Each group was asked to recommend, for each question, elements of analysis/topical areas, date results needed, performer(s) and sponsor(s).

Many of the recommended elements of analysis were similar or largely the same, i.e., they focused on highly interrelated topics. This similarity occurred because many of the original questions for a given issue were essentially the same since they came from different persons. We (New Perspectives Corp.), in conjunction with SPMA, consolidated the list of recommendations resulting from the workshops into fifty-five (55) items.

The wording of each recommendation (as we interpreted it) from the workshop for each issue is presented in Volumes 2-4 of this report. That material provided the basis for consolidation. The consolidated list of recommendations (i.e., the fifty-five (55) items) were divided into twelve categories. We believe the twelve categories represent natural groupings of the recommendations, i.e., they represent the topics or subjects that would be addressed by the recommended analysis efforts. The twelve categories are:

- Roles and Missions
- Strategy and Doctrine
- Planning, Budgeting and Contracting Processes
- Organization of the Army
- Mobilization and Deployment
- Readiness
- Sustainability
- Weapons Systems Capability/Effectiveness
- Personnel
- Public Affairs/Public Relations/Congressional Liaison
- Relations with Allies and Friends
- Analysis Capability
In addition to removing redundancies, the consolidation and grouping in the above categories are intended to assist top management in subsequent steps it takes to prioritize these items and set the guidelines for future analysis efforts.

Another grouping of the consolidated recommendations also was prepared as a vehicle to assist top management in its deliberations. Concern about the number of items to be prioritized led SPMA to group the consolidated recommendations under four categories: 1) appropriate to prioritize (22 items), 2) currently being adequately addressed (9 items), 3) exceptionally broad in scope and that should be addressed through a task force composed of several agencies (4 items), and 4) appropriate for assignment directly to an analytical or functional agency (20 items). Section II presents the recommendations under both of these ways to group the recommendations.

C. Observations on the Process

It seems appropriate to step back and view the process by which study topics were generated to comment on some of the dialogue at the workshops and offer some overall observations about the IAP and some of the substantive topics addressed. This engenders a risk due to our objectivity (or lack of it) because we not only helped design the process but were essentially and integral part of it.

1 - One strength of the process resides in the diversity of responsibilities, skills, and backgrounds of the individuals involved. They responded well to the challenge of recommending future analysis efforts placed before them by the Army top management. They seemed comfortable with the workshop artifacts and methods of problem desegregation. They did not founder for lack of articulate spokesmen. And their productivity led to a substantial foundation of potential study topics for subsequent review and endorsement.

2 - A weakness of the process may ultimately be attributable to its committee approach. One must guard against the possibility of generating a plethora of study topics without champions or sponsors. Careful coordination will be necessary to see that truly important and meaningful analysis are performed and that their results lead to actions.

3 - From a methodological point of view, our sense of the dialogue leads us to conclude that Army studies may be applying deterministic analysis to a stochastic world. Even expected value modeling masks upside/downside risks that bedevil decision makers. Models should be developed that internally account for change rather than attempting to include the impact of change
simply by varying the value of the input variables. Clearly, meaningful sensitivity analyses are critical to building confidence in and ultimately using study results. Furthermore, means should be developed to allow the decision maker to introduce his/her judgement into the analysis, especially when he/she is presented with results that are counterintuitive.

4 - From what we heard during the sessions, Army analysis seems to be focused almost exclusively on heavy, high-intensity conflict with the Soviets in Europe. Productive insights may be gained, even for that arena, if additional geographic diversification could be introduced into Army analyses. And other locales and types of conflict should be explored in their own right. Indeed, it has been over four decades since the end of World War II and the U.S. has been almost continuously involved in armed conflict of various places around the world with others than directly with the Soviets. And the advent of shifting or new Soviet doctrine should be an important consideration in all such analyses.

5 - Long lead times appear to persist between spotting trouble and affecting a solution. One facet of the problem may be the Army’s inability to identify constituencies and to communicate its needs, especially without resorting to jargon. Another facet may involve the Army’s ability to acquire and retain people qualified to perform and integrate such complex work. Whatever the type and number of facets, this extensive time-constant should be investigated and attacked directly by the analysis community and top management working together. Clearly, spotting a challenge and finding a solution via analysis accomplishes little or nothing if actions only can be realized long after the insights are obtained. Our world and its threats are such that gaps in preparedness invite disaster.

6 - The Army (as do the other services) uses jargon extensively. Use of insider terminology is symptomatic of communication techniques we all apply. But it may be particularly troublesome with certain important constituencies, especially under the omen of future budget constraints.

7 - Off-hand remarks often reflect real internal attitudes that, in turn, ultimately influence policies and actions, especially in reference to difficult or seemingly intractable problems. As an example, it was observed that difficulties associated with the Sustainability issue can be solved by "conducting a quick war". The actions necessary to conduct a quick war, depending on the circumstances, may be highly unacceptable for political, economic, social and other reasons. Ways to mobilize, deploy and keep the pipe line adequately supplied may appear insurmountable in military terms. But the DOD may have no other real choices.
Host nation-support was a frequent and important subject among the workshop participants. The actuality and realism of such support warrants close scrutiny, especially in light of the often major disparity in social, political and economic values between the U.S. and governments and people of host nations.

Gaps in insights, e.g., about issues, solutions, important constituencies, could be created easily by the organization and structure of the Army. The ways in which organizations choose to structure themselves, and the communication patterns established in light of those ways, directly influence those we hear from and talk to, both internally and externally -- and how we talk with them. Barriers can easily be created, often unknowingly, that can and do cause major problems in understanding others and in their being able to understand us. The importance of Explaining the Army (to itself and others) was highlighted in the workshops and relates directly to these relationships.

A frustration among the officers appears to exist -- and to be tarnishing motivation, creativity, etc. -- from their perceived lack of a strategy, overall paradigm or recognized role for the Army in national defense policy. The approaches by and images of the Navy and Air Force in National Defense were spoken of frequently with envy and as examples which the Army should emulate. And yet, inputs and discussions about the Army’s role, including the recommendations offered in the process, seemed to stem almost entirely from what is good for the Army, rather than what is good for the nation.

Periodically convening senior action officers, persons from the Secretariat and those from the analytical community to review and discuss broad aspects of the analysis program can only provide benefits to the Army. On several occasions participants observed that they were helped by learning about the works of and meeting others. Enhancing the networking and communications among functional and analytical agencies, a goal of the IAP, clearly appeared to have been a result of the process.

We believe that a management and project information system and data base can -- and should -- be prepared with the material developed during the earlier and these efforts of the IAP. The data base could include a listing of current policy issues, key questions, status of and proposed analytical activities, resulting actions, key personnel and agencies involved, etc. The information could be provided on line to various levels of management and could be easily updated via the IAP process. Such a system would enhance communication and coordination among various interests and be of benefit to management and analysts alike.
The Army's analysis program is exceptionally wide ranging and includes persons widely dispersed. Insuring that analysis efforts are properly focused and that results are used, i.e., that they create actions, should be of major significance to the Army. But, there does not appear to be a project office -- a "head shed" -- for catalyzing communications, coordinating efforts, assisting leadership in setting guidelines, monitoring and sharing progress, etc. We believe the establishment of a recognized function with appropriate authorities and accountabilities would be of great value to the Army (to management, functional agencies and the analytical community). Such a step seems particularly worthy of consideration in light of likely future funding constraints and the new mission challenges with which the Army will be faced.
II RECOMMENDED ELEMENTS OF ANALYSIS

A. Grouped by Analysis Topic

The following material presents the consolidated elements of analysis developed from the recommendations of each workshop group. They are grouped under categories representative of the topic or subject area that would be addressed by the recommended analysis efforts. The issue(s) from which each recommended analysis element was developed is shown with an asterisk. As noted earlier, the recommendations were developed by each workshop group on the basis of questions viewed as key to understanding the issue in question and forming appropriate policies and actions.

As one would hope, certain recommendations can provide insights related to more than one issue because they would treat similar questions assigned to the various issues.

ROLES AND MISSIONS

<table>
<thead>
<tr>
<th>EXP. THE</th>
<th>SUPP. THE ARMY SOLDIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONV.</td>
<td>INTER.</td>
</tr>
</tbody>
</table>

-Identification of the Army's mission, requirements and structure (i.e., resolution of the "Army's Identity Crisis"), including its warfighting, deterrence and nonmilitary/social roles

-The impact on, and the role of, the Army in joint and combined activities and ways to improve existing agreements and interface arrangements, especially in light of the INF treaty and other changing conditions

STRATEGY AND DOCTRINE

<table>
<thead>
<tr>
<th>EXP. THE</th>
<th>SUPP. THE ARMY SOLDIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONV.</td>
<td>INTER.</td>
</tr>
</tbody>
</table>

-Doctrine to accommodate the influence of politics on ability to support low intensity conflict, and to cover interoperability in various theaters in light of the influence of long
STRATEGY AND DOCTRINE
(CONTINUED)

- Lines of communication on small, light organizations and differences in equipment and doctrine among the U.S. and its Allies and Friends

- Improving intra-theater tactical mobility and dealing with multiple-mission units in a given theater

- War reserve policy and resulting needs, including potential of putting spares in units, pulling them on request, or using a mixed strategy

- Incorporating the impact of new technology (e.g., SDI) and the INF treaty into the Army's strategy and its force structure

PLANNING, BUDGETING AND CONTRACTING PROCESSES

- Adequacy with which the requirements process, source selection, contractual documentation, and component and operational testing (NDT & DT) account for the abilities of soldiers and organizations to sustain systems, and implications for deterrence and warfighting capabilities

- Incorporating inputs from, and providing feedback to, all appropriate field levels using a common methodology regarding requirements, budgeting and long range planning

- Impact of the budget process on the stability of recruiting, retaining and supporting the soldier
PLANNING, BUDGETING AND CONTRACTING PROCESSES
(CONTINUED)

CONV. INTER. SUST.
EXP. THE SUPP. THE ARMY SOLDIER

- Incorporating necessary considerations in short- and long-range plans (e.g., sustainability without host nation support in OPLANS, mission analysis in the LRRDAP

ORGANIZATION OF THE ARMY

CONV. INTER. SUST.
EXP. THE SUPP. THE ARMY SOLDIER

- Optimal corporate structure for the Army (including impacts of technology on shaping organization and doctrine, maximizing the use of good ideas, and consolidating functions analyzed and managed by the Army)

- Clearly describing and assigning authority and accountability for various functions (e.g., manning the force, improving models/analytical techniques, sustainability)

MOBILIZATION AND DEPLOYMENT

CONV. INTER. SUST.
EXP. THE SUPP. THE ARMY SOLDIER

- Ability of the private sector to mobilize, including transportation resources (e.g., existing plans, planning processes, likely shortfalls)

- Ability of reserve units to meet deployment dates, including their appropriate structure in light of mobilization and resupply requirements and casualty estimates
<table>
<thead>
<tr>
<th>MOBILIZATION AND DEPLOYMENT (CONTINUED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP. THE SUPP. THE CONV. INTER. SUST. ARMY SOLDIER</td>
</tr>
</tbody>
</table>

- Costs of alternative approaches for strategic mobility and deployment of heavy forces and prepositioning for low intensity conflict, including effects of not prepositioning, ability to use in-country assets, and ways to improve transportation assets of the Air Force and Navy

- Nature/content of current deployment testing (e.g., REFORGER)

---

<table>
<thead>
<tr>
<th>READINESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP. THE SUPP. THE CONV. INTER. SUST. ARMY SOLDIER</td>
</tr>
</tbody>
</table>

- Impact of budget cuts on Active and Reserve training (e.g., CAPSTONE) and force modernization

- Impact on requirements for and availability of items at various command levels versus operational tempo, including the impact of low intensity conflict on readiness for heavy, conventional capability

- Shortfalls in manpower (by SRC) and spares in light of combat usage and damage

- The full impacts (costs and others) of failed interoperability

- Ways to reconstitute limited war reserves in an environment of restrictive resources
SUSTAINABILITY EXP.
The Supp. The Army Soldier

Conv. Inter. Sust.

-Affects on sustainability of operational tempo, cost constraints, D- to P-day gap on long lead-time critical items and the impacts on deterrence and warfare capabilities in various scenarios, including minimum acceptable sustainability and how well the TPFDL provides adequate and continuous support.

-CS/CSS and resupply requirements in various theaters/conflicts including those under successful and unsuccessful interoperability, based on realistic vulnerabilities/survivability of domestic and strategic lift, CS/CSS and POMCUS war reserves and likely modes and methods of attack.

-Ways to satisfy MTOE shortages, including implications of using war reserves (i.e., potential reallocation strategies to improve sustainability).

-Food and water for soldiers' needs and water for all other uses, and the resulting force structure requirements, including ways to convince soldiers to drink sufficient water to meet physiological requirements.

WEAPON SYSTEM CAPABILITY/EFFECTIVENESS EXP. THE SUPP. THE ARMY SOLDIER

Conv. Inter. Sust.

-The appropriate mix among evolutionary and revolutionary changes (including product improvement) in technology and the related impact on time to field equipment, standardization requirements, spares requirements, and the ability to insure interoperability and offset risks from the INF treaty, enhance the ability to do trade-offs, improve
WEAPON SYSTEM CAPABILITY/EFFECTIVENESS
(CONTINUED)

EXP. THE SUPP. THE
CONV. INTER. SUST. ARMY SOLDIER

casualty estimates and provide more realistic force structuring (e.g., with AI, robotics)

-Effectiveness of command and control systems (e.g., C3I), especially in joint and combined operations

-The impact of second-order items on warfighting capability and their incorporation in the readiness reporting process

-Implications for transportation and support of expendable vs maintainable equipment (e.g., low density, high technology IEW equipment)

-Applications of advanced technology for moving heavy forces and for packaging and distributing food stuffs and water

-Ability of advanced technology (e.g., AI, robotics) and enhanced and coordinated systems to provide more realistic force structuring and reduce risks from the INF treaty

PERSONNEL

EXP. THE SUPP. THE
CONV. INTER. SUST. ARMY SOLDIER

-Impact on readiness of various personnel policies (e.g., incentives which foster getting married vs staying single)
- **Skills** that will be required of military and civilian personnel, including the desirability of primary and secondary MOS for Active and Reserve forces, and those skills that will exist to the year 2000, (i.e., critical skills likely to be unavailable in the military and civilian workforce).

- Personnel levels and training requirements under successful and unsuccessful interoperability (for various theaters; for low density, high technology IEW equipment, in light of system expenditures/attrition, etc.)

- Quality-of-life needs and desires, of the best and brightest, and programs to satisfy those desires and the impact of the soldiers' quality-of-life and his/her leadership on readiness and retention.

- Impact of non "quality-of-life" benefits/policies (e.g., bonuses, education, up-or-out, computerized information systems) on recruiting and retention, including potential counterproductive impacts of various perks (e.g., education as a chore/drudgery vs reward).

- Adequacy of PX products and the club system to satisfy needs of all soldiers and their families in peace and wartime.

- Ways of mobilizing critical civilians and impacts on their families.

- Appropriate type and level of health care (including well and sick child care), considering peace and wartime needs and the overhead costs created for peacetime.
PERSONNEL
(CONTINUED)

- Impact on morale (e.g., potential for spouse employment, benefits) of having civilian owned and operated firms provide functions at Army installations, and guidelines/specifications for those activities

- Including in the OER/EER process, the performance of leadership in addressing family support problems

PUBLIC AFFAIRS/PUBLIC RELATIONS/CONGRESSIONAL LIAISON

- The identity of various constituent groups and their perception of the Army's role and the threats it is addressing, and ways to effectively communicate with various constituents (inside and outside the Army) about the Army's role in a peacetime economy, addressing the threat, justifying its budget requests, etc. in light of marketing, public/legislative affairs of the other services and the private sector (i.e., integrating political realities and changes in the nation's socioeconomic posture into those activities and planning efforts)

- Components/elements of the Army's image that significantly affect constituents' perception of it, factors that shape those components and ways the Army can influence them, e.g., via advertising

- Measures and the actual effectiveness of the Army's communications with various constituencies, including "pork barrel" politics
- Designation of those (top to bottom, military and civilian) who shall speak for the Army, including the value in "Speaking With One Voice" and the accountability for training in telling the Army story

- Development of a clear, simple, stable message about the Army's role(s) and multifaceted missions (combat and noncombat)

- The type and amount of information that can be provided about the Army due to security considerations and legislative constraints

RELATIONS WITH ALLIES AND FRIENDS

- Appropriate restructuring of NATO forces in light of the INF Treaty

- Ways to insure effective interoperability with Allies, host nations and appropriate third world countries (e.g., participation in theater exercises, establishing effective STANAGs) in light of political constraints and foreign policy considerations

- Ways to build alliances using non-combat forces (e.g., medical, civil engineering)

- Ways to preclude or minimize risks from depending on host nation support and/or inadequate in-country capability (e.g., subsidizing off-shore production, using host nation civil logistics systems, direct contracting to enhance sustainability by theater)
ANALYSIS CAPABILITIES

- Models to adequately simulate modern combat at various levels and locales, involving differing CS/CSS, weapons systems designs, force structure, etc., and based on valid estimates of consumption rates, combat attrition (men and materiel) and wear out, including the Air/Land battle and the integrated battlefield (i.e., integrated analyses under realistic and consistent assumptions)

- Means to estimate and validate requirements for, and the impact of (at various levels of command), shortfalls in CS/CSS, strategic lift, D-P day gap and off-shore procurement for variations in the industrial base, high to low intensity conflict and interoperability in various theaters

- Ways to improve knowledge of threats and development of scenarios for use as inputs to model simulations (e.g., integrating IEW, AVN, etc. information)

- Reporting requirements and measures of effectiveness (i.e., criteria/standards for success and failure) of sustainability and interoperability for various theaters covering high to low intensity conflict, including the integrated battlefield

B. Grouped by Status of Analysis

The following material presents the consolidated elements of analysis grouped by SPMA under categories it prepared. The four categories are indicative of the next steps it believed are appropriate to take with the consolidated recommendations.
ITEMS APPROPRIATE TO PRIORITIZE

<table>
<thead>
<tr>
<th>EXP. THE SUPP. THE</th>
<th>CONV.</th>
<th>INTER.</th>
<th>SUST.</th>
</tr>
</thead>
</table>

- Ways to insure effective interoperability with Allies, host nations and appropriate third world countries (e.g., participation in theater exercises, establishing effective STANAGs) in light of political constraints and foreign policy considerations
  
  **ANALYTICAL**: CAA, SSI  
  **FUNCTIONAL**: ODCSOPS

- Reporting requirements and measures of effectiveness (i.e., criteria/standards for success and failure) of sustainability and interoperability for various theaters covering high to low intensity conflict, including the integrated battlefield
  
  **ANALYTICAL**: ESC  
  **FUNCTIONAL**: ODCSLOG

- Ability of the private sector to mobilize, including transportation resources (e.g., existing plans, planning processes, likely shortfalls)
  
  **ANALYTICAL**: ESC  
  **FUNCTIONAL**: ODCSOPS

- Ways to build alliances using non-combat forces (e.g., medical, civil engineering)
  
  **ANALYTICAL**: ARROYO, SSI  
  **FUNCTIONAL**:

- Ways to preclude or minimize risks from depending on host nation support and/or inadequate in-country capability (e.g., subsidizing off-shore production, using host nation civil logistics systems, direct contracting to enhance sustainability by theater)
  
  **ANALYTICAL**: LOGCEN  
  **FUNCTIONAL**: ODCSLOG
- Costs of alternative approaches for strategic mobility and deployment of heavy forces and prepositioning for low intensity conflict, including effects of not prepositioning, ability to use in-country assets, and ways to improve transportation assets of the Air Force and Navy.  
  ANALYTICAL: CAA, SSI  
  FUNCTIONAL: ODCSLOG

- Doctrine to accommodate the influence of politics on ability to support low intensity conflict, and to cover interoperability in various theaters in light of the influence of long lines of communication on small, light organizations and differences in equipment and doctrine among the U.S. and its Allies and Friends.  
  ANALYTICAL: SSI, CAA, ARROYO  
  FUNCTIONAL: ODCSOPS

- War reserve policy and resulting needs, including potential of putting spares in units, pulling them on request, or using a mixed strategy.  
  ANALYTICAL: LOGCEN  
  FUNCTIONAL: ODCSLOG

- Components/elements of the Army’s image that significantly affect constituents’ perception of it, factors that shape those components and ways the Army can influence them, e.g., via advertising.  
  ANALYTICAL: ARI  
  FUNCTIONAL: OCPA

- Measures and the actual effectiveness of the Army’s communications with various constituencies, including “pork barrel” politics.  
  ANALYTICAL:  
  FUNCTIONAL: OCPA
- Impact on requirements for and availability of items at various command levels versus operational tempo, including the impact of low intensity conflict on readiness for heavy, conventional capability
  
  ANALYTICAL: CAA
  FUNCTIONAL: ODCSLOG & ODCSOPS

- Shortfalls in manpower (by SRC) and spares in light of combat usage and damage
  
  ANALYTICAL: SSC & LOGCEN
  FUNCTIONAL: ODCSPER & ODCSLOG

- Affects on sustainability of operational tempo, cost constraints, D- to P-day gap on long lead-time critical items and the impacts on deterrence and warfighting capabilities in various scenarios, including minimum acceptable sustainability and how well the TPFDL provides adequate and continuous support
  
  ANALYTICAL: CAA
  FUNCTIONAL: ODCSLOG

- CS/CSS and resupply requirements in various theaters/conflicts including those under successful and unsuccessful interoperability, based on realistic vulnerabilities/survivability of domestic and strategic lift, CS/CSS and POMCUS war reserves and likely modes and methods of attack
  
  ANALYTICAL: LOGCEN
  FUNCTIONAL: ODCSLOG

- The impact of second-order items on warfighting capability and their incorporation in the readiness reporting process
  
  ANALYTICAL: LOGCEN
  FUNCTIONAL: ODCSLOG

- Implications for transportation and support of expendable vs maintainable equipment (e.g., low density, high technology IEW equipment)
  
  ANALYTICAL: LOGCEN
  FUNCTIONAL: ODCSLOG
Applications of advanced technology for moving heavy forces and for packaging and distributing food stuffs and water

Analytical: LOGCEN
Functional: ODCSLOG

- Ability of advanced technology (e.g., AI, robotics) and enhanced and coordinated systems to provide more realistic force structuring and reduce risks from the INF treaty

Analytical: ARROYO
Functional: ASA(RDA)

- Impact on readiness of various personnel policies (e.g., incentives which foster getting married vs staying single)

Analytical: ARI
Functional: ODCSPER

- Quality-of-life needs and desires, of the best and brightest, and programs to satisfy those desires and the impact of the soldiers' quality-of-life and his/her leadership on readiness and retention

Analytical: SSC, ARI
Functional: ODCSPER

- Impact of non "quality-of-life" benefits/policies (e.g., bonuses, education, up-or-out, computerized information systems) on recruiting and retention, including potential counterproductive impacts of various perks (e.g., education as a chore/drudgery vs reward)

Analytical: USAREC, ARI
Functional: ODCSPER

- Ways of mobilizing critical civilians and impacts on their families

Analytical: ESC
Functional: ODCSOPS

Items currently being adequately addressed

The following elements of analysis are believed to be receiving considerable attention in the analytical and functional communities and, therefore, are not included in the list of elements appropriate to be prioritized.
<table>
<thead>
<tr>
<th>EXP. THE SUPP. THE ARMY SOLDIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conv.</td>
</tr>
</tbody>
</table>

- Appropriate restructuring of NATO forces in light of the INF Treaty
- Ways to improve knowledge of threats and development of scenarios for use as inputs to model simulations (e.g., integrating IEW, AVN, etc. information)
- Improving intra-theater tactical mobility and dealing with multiple-mission units in a given theater
- The full impacts (costs and others) of failed interoperability
- Incorporating necessary considerations in short- and long-range plans (e.g., sustainability without host nation support in OPLANS, mission analysis in the LRRDAP)
- Food and water for soldiers' needs and water for all other uses, and the resulting force structure requirements, including ways to convince soldiers to drink sufficient water to meet physiological requirements
- Effectiveness of command and control systems (e.g., C3I), especially in joint and combined operations
- Skills that will be required of military and civilian personnel, including the desirability of primary and secondary MOS for Active and Reserve forces, and those skills that will exist to the year 2000 (i.e., critical skills likely to be unavailable in the military and civilian workforce)
- Personnel levels and training requirements under successful and unsuccessful interoperability (for various theaters; for low density, high technology IEW equipment, in light of system expenditures/attrition, etc.)

ITEMS BROAD IN SCOPE, REQUIRING TASK FORCE

The following recommended elements of analysis are judged to represent large, complex analytical efforts. It is possible that they would require a number of years to complete and involve a number of analytical and functional agencies.

- Means to estimate and validate requirements for, and the impact of (at various levels of command), shortfalls in CS/CSS, strategic lift, D-P day gap and off-shore procurement for variations in the industrial base, high to low intensity conflict and interoperability in various theaters

- Adequacy with which the requirements process, source selection, contractual documentation, and component and operational testing (NDT & DT) account for the abilities of soldiers and organizations to sustain systems, and implications for deterrence and warfighting capabilities

- The appropriate mix among evolutionary and revolutionary changes (including product improvement) in technology and the related impact on time to field equipment, standardization requirements, spares requirements, and the ability to insure interoperability and offset risks from the INF treaty, enhance the
ability to do trade-offs, improve casualty estimates and provide more realistic force structuring (e.g., with AI, robotics)

-Impact of the budget process on the stability of recruiting, retaining and supporting the soldier

ITEMS DIRECTLY ASSIGNABLE TO FUNCTIONAL OR ANALYTICAL AGENCY

The following recommended elements of analysis are judged to be relevant only to the analytical community or only to the functional area community. In the first case, it is the responsibility of the analytical agencies to wrestle with the topic -- as they normally do -- and reach resolution. In the second case, many of the elements are either regular, routinized actions or require policies or procedures. But, in each case, they do not appear to call for significant analytical efforts.

For Analytical Agencies

-Models to adequately simulate modern combat at various levels and locales, involving differing CS/CSS, weapons systems designs, force structure, etc., and based on valid estimates of consumption rates, combat attrition (men and materiel) and wear out, including the Air/Land battle and the integrated battlefield (i.e., integrated analyses under realistic and consistent assumptions)

For Functional Area Agencies

-Ability of reserve units to meet deployment dates, including their appropriate structure in light of mobilization and resupply requirements and casualty estimates

ARNG, OCAR
- Designation of those (top to bottom, military and civilian) who shall speak for the Army, including the value in "Speaking With One Voice" and the accountability for training in telling the Army story
  OCPA

- Development of a clear, simple, stable message about the Army's role(s) and multifaceted missions (combat and noncombat)
  OCPA

- The type and amount of information that can be provided about the Army due to security considerations and legislative constraints
  OCPA, ODCSINT

- Impact of budget cuts on Active and Reserve training (e.g., CAPSTONE) and force modernization
  ARNG, OCAR

- Ways to reconstitute limited war reserves in an environment of restrictive resources
  ODCSLOG

- Incorporating inputs from, and providing feedback to, all appropriate field levels using a common methodology regarding requirements, budgeting and long range planning
  PA&E

- Identification of the Army's mission, requirements and structure (i.e., resolution of the "Army's Identity Crisis"), including its warfighting, deterrence and nonmilitary/social roles
  CAIG, ODCSOPS
- The impact on, and the role of, the Army in joint and combined activities and ways to improve existing agreements and interface arrangements, especially in light of the INF treaty and other changing conditions
  ODCSOPS

- Ways to satisfy NTOE shortages, including implications of using war reserves (i.e., potential reallocation strategies to improve sustainability)
  ODCSOPS, ODCSLOG

- Adequacy of PX products and the club system to satisfy needs of all soldiers and their families in peace and wartime
  ODCSPER

- Appropriate type and level of health care (including well and sick child care), considering peace and wartime needs and the overhead costs created for peacetime
  OTSG, ODCSPER

- Impact on morale (e.g., potential for spouse employment, benefits) of having civilian owned and operated firms provide functions at Army installations, and guidelines/specifications for those activities
  ASA(I&L), ODCSPER

- Including in the OER/EER process, the performance of leadership in addressing family support problems
  ODCSPER

- Nature/content of current deployment testing (e.g., REFORGER)
  ODCSOPS
- Incorporating the impact of new technology (e.g., SDI) and the INF treaty into the Army's strategy and its force structure
  CAIG

- The identity of various constituent groups and their perception of the Army's role and the threats it is addressing, and ways to effectively communicate with various constituents (inside and outside the Army) about the Army's role in a peacetime economy, addressing the threat, justifying its budget requests, etc. in light of marketing, public/legislative affairs of the other services and the private sector (i.e., integrating political realities and changes in the nation's socioeconomic posture into those activities and planning efforts)
  CAIG

- Optimal corporate structure for the Army (including impacts of technology on shaping organization and doctrine, maximizing the use of good ideas, and consolidating functions analyzed and managed by the Army)
  MD, PA&E

- Clearly describing and assigning authority and accountability for various functions (e.g., manning the force, improving models/analytical techniques, sustainability)
  PA&E