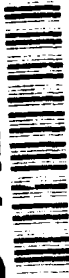


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RECONSTITUTION PLANNING FOR EUROPE

John Tillson

December 1991

Prepared for
Office of the Under Secretary of Defense for Policy

Approved for public release; distribution unlimited.

INSTITUTE FOR DEFENSE ANALYSES
1801 N. Beauregard Street, Alexandria, VA 22311-1772

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This annotated briefing presents the results of an analysis of the potential application of the new Reconstitution Strategy in NATO. It discusses the status of reconstitution planning within the Alliance. It identifies a number of problems in implementing reconstitution and suggests approaches for solving those problems. The areas of concentration include: incorporating reconstitution in the NATO planning system, manpower planning for reconstitution, equipment and industrial base aspects of reconstitution, and appropriate operational concepts in a reconstitution scenario. The briefing concludes that there are appropriate solutions to all of these problems and that reconstitution planning should be incorporated into the NATO planning system.

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INSTITUTE FOR DEFENSE ANALYSES

Contract MDA 903 89 C 0003
Task T-K6-929

PREFACE

The Institute for Defense Analyses has prepared this paper under Contract no. MDA 903 89 C 0003 Task order T-K6-929, *Reconstitution of NATO Forces in Response to a Renewal of the Soviet Threat*, for the Principal Deputy Under Secretary of Defense for Strategy and Resources in the Office of the Under Secretary of Defense for Policy.

The President has established reconstitution as one of the four basic elements of the nation's post-Cold War strategy. IDA has conducted this study as part of the process of considering the implications of the new strategy for the North Atlantic Treaty Organization (NATO).

This annotated briefing presents the results of an analysis of the potential application of the new Reconstitution Strategy in NATO. It discusses the status of reconstitution planning within the Alliance. It identifies a number of problems in implementing reconstitution and suggests approaches for solving those problems. The briefing concludes that there are appropriate solutions to all of these problems and that reconstitution planning should be incorporated into the NATO planning system. This paper was reviewed by Dr. Paul Richanbach of IDA and Mr. John Brinkerhoff, a consultant.

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Reconstitution Planning for Europe

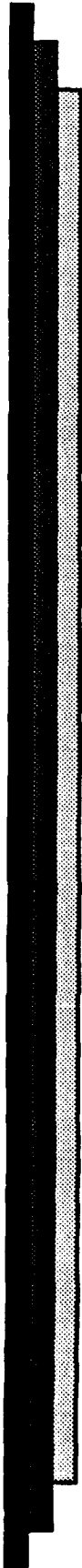
The national security strategy defines reconstitution as the ability to generate "wholly new forces should the need arise." The ability to reconstitute is defined as the ability that "allows us safely and selectively to scale back and restructure our forces in being."

The objective of this briefing is to discuss the concept of reconstitution as a major element of U.S. strategy and to discuss the application of reconstitution to both U.S. and NATO planning for the defense of Europe.

It is essential first to recognize that reconstitution has become a major element of U.S. strategy. It is listed as one of the four major elements of the President's National Security Strategy of August 1991. The other three are nuclear deterrence, forward presence, and crisis response.

While reconstitution is clearly designed to be applicable to threats anywhere in the world, Europe is one of the major areas of concern and the major area for which initial reconstitution planning is most important. In the rest of this briefing I will discuss the meaning of reconstitution planning for Europe, describe the current European approach to reconstitution, and identify some ways for integrating reconstitution planning into U.S. and NATO planning. I also will describe a reconstitution scenario, and discuss key problems and their potential solutions. I will provide four alternative operational concepts that could serve as the basis for designing forces for the defense of Europe against a reconstituted threat.

RECONSTITUTION PLANNING FOR EUROPE



- Reconstitution Planning in NATO
- Reconstitution Scenario
- Current European Approaches
- Integrating U.S. and European Planning
- Key Reconstitution Problems
- Alternative Solutions
 - Manpower/Units
 - Equipment
 - Operational Concepts

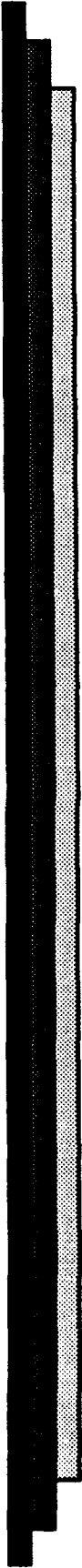
Reconstitution Planning for NATO

Reconstitution planning, for NATO or anywhere else, involves at least these major concepts. The first and perhaps most often misunderstood point is that reconstitution is primarily a pre-crisis, pre-mobilization response to a major increase in the threat. While reconstitution may begin at the same time as industrial mobilization, it will likely precede mobilization of large scale forces, which will usually be seen as one of the last steps in preparations for war. Reconstitution will be part of NATO's war prevention or deterrence efforts.

Reconstitution for NATO involves planning for NATO forces, not just U.S. forces. The challenge for NATO reconstitution planners is to find the most effective ways to build new NATO forces in the time allowed. This kind of joint planning in the absence of an unambiguous threat will require unprecedented political and military cooperation.

And, for the sake of efficiency, reconstitution planning must include plans for extensive use of European civilian assets. In addition, especially given the anticipated reductions in both U.S. and European military industrial bases, reconstitution planning must include plans for using both U.S. and European military and civilian industrial bases.

RECONSTITUTION PLANNING FOR NATO



- A pre-crisis, pre-mobilization response to a major increase in the threat to NATO
- NATO generates new forces in the time that it takes an enemy to build an attack capability
- A joint effort requiring unprecedented political/military cooperation
 - Extensive use of European civilian assets to support military forces
 - Must use U.S. and European industrial bases -- military and civilian

A Reconstitution Scenario

Although many people appear to believe that it is impossible for a new threat to NATO to arise that is serious enough to call for a reconstitution of NATO forces, history demonstrates that threats have often developed from unanticipated directions. The scenario developed for this analysis is designed to help us explore the basic concepts of reconstitution planning and to develop or indicate potential problems. Despite the hope that the threat from the former Soviet Union is gone forever, the scenario focuses on a threat in the turn of the century that arises from those troubled lands. Although this may not be the most dangerous or the most likely scenario for a major reconstitution threat to NATO--a threat to Turkey could lead to calls for the reconstitution of NATO forces, for example--it is not impossible and, because it is the type of threat that NATO planners are most used to dealing with, it is a useful first scenario to consider for reconstitution planning. The basic elements of the scenario are shown on this slide.

It is clear that all sides of the old cold war confrontation will be making major reductions in standing forces. NATO is likely to reduce significantly below the CFE limits, and the former Soviet Union--called the Confederation of Independent States or CIS in this briefing--is estimated to make reductions to CFE limits, if not below.

Other key elements of this scenario include the assumption that modernization of both equipment and doctrine continues and that the CIS develops ways to avoid a violation of the CFE accords that would provide unambiguous warning to NATO--we dare not count on a CFE violation to spur action.

Given only ambiguous warning, NATO would likely be slow to respond to increases in potential enemy capability until some political event focuses the attention of decision makers. At this point, intelligence assessment being an uncertain art, the estimates of potential capability would vary significantly but concern for a renewed offensive capability within a period of several years would call for a reaction from NATO.

Given the political event and the intelligence assessments, the NATO goal, consistent with NATO's new Strategic Concept, would be to reduce tensions and prevent war.

A RECONSTITUTION SCENARIO



- All sides make major reductions in standing forces -- NATO and former Soviet states to CFE limits or below
- Modernization of equipment and doctrine continues -- CIS develops CFE work-arounds and continues force modernization
- NATO unmoved by CIS actions -- No perception of a threat
- Political events lead to renewal of tensions and fear of aggression
- Intelligence reports large scale buildup but no treaty violations -- offensive capability in several years
- NATO seeks to reduce tensions and prevent war while reconstituting its ability to defend its territory against attack

European Views of Reconstitution

If reconstitution planning is to be incorporated into the NATO planning system, the U.S. must first recognize that Europeans do not view reconstitution planning with enthusiasm. In fact, most European planners at NATO have never heard of reconstitution. Although the word is mentioned in the Alliance's new strategic concept, it is mentioned in the context of mobilization and reinforcement and in such a way that it appears to mean one or the other but certainly nothing different from either. Moreover, discussions at both NATO headquarters and at SHAPE reveal that very few people have spent any time on the subject or have any understanding of the U.S. view of reconstitution.

Another reason for the lack of attention paid to reconstitution is that the fear of a large scale threat to NATO has largely disappeared. Some member nations argue that the threat is gone forever. In any case, the current attention is on dealing with short term risks, which will provide the basis for designing the rapid reaction force.

Another sign of the lack of attention paid to reconstitution is that most nations appear to have no plans to retain any reconstitution capabilities that may be made available as forces are reduced. For example, the Dutch are reducing their tank force by 50 percent and have no current plans to retain those older tanks in any kind of reconstitution status. In France and Germany, there are even discussions of eliminating conscription in favor of a small professional army. Given the reserve concepts in use in these two countries, the elimination of conscription could mean the elimination of virtually all pretrained manpower resources available for reconstitution and the beginning of a demand for a volunteer reserve system.

As a result of the changes in the perception of the threat, the focus throughout NATO headquarters and in SHAPE is on the rapid reaction force, which is to be a highly mobile active force able to deploy throughout Allied Command Europe in response to short term crises that can end quickly.

Given the focus on the rapid reaction force, the size and readiness of all other forces appears to be rapidly declining. Despite the existence of the NATO planning process, many nations are coming to NATO and announcing unilateral decisions about force reductions and other changes in their military capability.

At the present time, there does not appear to be any interest anywhere in NATO in spending resources on planning for reconstitution.

EUROPEAN VIEWS OF RECONSTITUTION



- Never heard of it
 - One word in the new Alliance Strategic Concept
 - Neither NATO Hq. nor SHAPE understands it
- No concern for a reconstituted threat
 - Many nations argue that a large scale threat to NATO is gone forever
- No plans to retain reconstitution capabilities
 - No plans to store equipment
 - Elimination of conscription a possibility
- Current focus is on the Rapid Reaction Force
 - Highly mobile, active forces able to deploy throughout ACE
 - Size and readiness of all other forces is rapidly declining
 - No interest in spending resources on reconstitution

Building a Reconstitution Capability in NATO

The justification for reconstitution planning stated in the President's National Security Strategy is unlikely to be persuasive to many of our NATO allies. Many do not believe the need for new forces is likely to arise. Some believe that even if the need for new forces arises, there will be time to respond or that someone else should respond. There are, however, ways that a reconstitution capability might contribute to other aspects of NATO strategy while also meeting NATO's reconstitution needs.

For example, should the rapid reaction force end up being a force with little sustainability, provisions and plans made for reconstitution might help enhance the sustainability of the rapid reaction force.

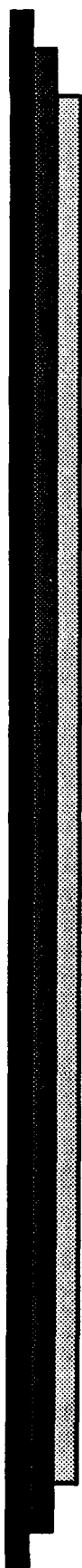
Second, the new NATO strategic concept places great emphasis on war prevention and crisis management. To the extent that reconstitution is seen as an important tool for war prevention and crisis management, it will be more likely to be incorporated into standard NATO planning.

Third, reconstitution may be seen as an alternative or useful precursor to military mobilization. One of the most difficult decisions that any NATO political or military leader may face in the future is the decision to mobilize NATO reserve forces. To the extent that reconstitution planning, and the ability to create wholly new units or perhaps to augment existing units, will reduce the need for making a mobilization decision, then reconstitution planning will be seen as more useful.

Fourth, as the size of current forces declines and the resources devoted to procurement of modern equipment are reduced, the need to preserve a reconstitution capability may help in the identification of key parts of NATO's industrial base that need to be maintained.

Finally, since the conduct of multi-national planning is a major NATC function, planning for reconstitution will provide a basis for continuing NATO.

BUILDING A RECONSTITUTION CAPABILITY IN NATO



- A reconstitution capability can:
 - help assure the sustainability of the RRF
 - help in war prevention and crisis management
 - provide an alternative to mobilization
 - help assure the preservation of the industrial base
- Reconstitution planning as a raison d'être for NATO

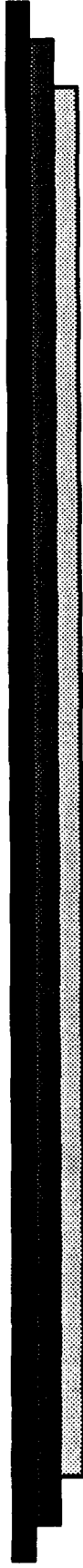
What must the U.S. do now?

Specific steps that the U.S. can take at this point are simple. First, the U.S. must take the lead at all levels in raising reconstitution issues. It is not sufficient to have one word in the new strategic concept. At both the political and the military level, U.S. personnel must point out the importance of building a reconstitution capability.

Second, although the U.S. may want to preserve an independent reconstitution capability, the U.S. should redefine reconstitution to include NATO because the most credible scenario for reconstitution involves NATO and, even in a non-NATO reconstitution crisis, the U.S. will very likely want its NATO partners to participate in a coalition. The President's strategy now has no mention of NATO or the Europeans in the discussion of reconstitution. This oversight can be corrected by the Department of Defense in any number of public or private communications to our NATO allies.

Finally, the U.S. must work to incorporate reconstitution into the NATO planning process.

WHAT MUST THE U.S. DO NOW?



- U.S. must take the lead
- Redefine reconstitution to include NATO
- Incorporate reconstitution into the NATO planning process

Integrating Reconstitution into NATO planning

This slide lays out some of the initiatives the U.S. might take to integrate reconstitution into NATO planning. These steps can all be done within the formal NATO system and should not result in a major public political issue.

First, reconstitution must be made part of both military and civilian planning. Reconstitution must become a major item in the defense planning questionnaire and it must be integrated into the full range of plans, including war prevention, crisis management, and defense plans. The Military Committee and the Senior Civil Emergency Planning Committee (SCEPC) should both be involved.

It is, however, not enough simply to integrate reconstitution into contingency planning at headquarters levels; we must build a real reconstitution capability. To that end we must develop and test alternative military operational concepts and forces that are designed around reconstitution. If we do not have the time we need to recreate armor forces, or tactical air wings, or navy ships, we must devise alternative forces and operational concepts that can meet reconstitution needs. Having developed these concepts, we also must test the associated concepts and the forces.

The same holds true for new weapons systems and procedures. If we are to have the ability to reconstitute forces rapidly, we will need to have designed weapons systems in advance that can be produced in adequate numbers by the military and civilian industrial bases, that can be rapidly integrated into new military units, and in whose operation these units can be rapidly trained.

Having developed these weapons systems, we will also need to develop procurement and industrial base plans to support their rapid production.

Finally, we must recognize that building a reconstitution capability, at least in the near term, is not likely to seem to be of sufficient importance relative to more tangible threats that compete for scarce resources to justify the commitment of significant resources or significant political clout. In other words, if we are to be successful in integrating reconstitution into the NATO planning process, it must be done with low peacetime investments that will provide high return when reconstitution is implemented.

INTEGRATING RECONSTITUTION INTO NATO PLANNING



- Reconstitution must be a part of the NATO planning process
 - Military and civilian plans
 - A major item in the DPQ
 - Integrate into war prevention, crisis management and defense plans
 - Provide and test alternate military operational concepts and forces
 - Prototype new systems and procedures
 - Develop procurement and industrial base plans
- Accomplish at low cost

Key Reconstitution Problems

Once NATO decides to incorporate reconstitution planning into its basic planning system, there are three major problems that must be solved before we can provide the wholly new units that are capable of meeting NATO's defense needs. These three major problems exist any time new military units are created. In the reconstitution context, these problems are made more significant because of the speed with which the units are to be created and the number of units that need to be created simultaneously.

For example, in an emergency the United States has the ability to reinstitute conscription and call up large numbers of untrained people into the military. The continental powers have the same authority. The problem is training large numbers of people and units simultaneously. With a limited, peacetime training base it is impossible to train the numbers of new recruits that are needed by a large number of new units. Alternatives have to be devised. It takes even longer to create the cadre of trained officers and noncommissioned officers that must lead these new units. Since this amount of time is, by definition, not likely to be available in a reconstitution scenario, other sources must be found to provide these leaders.

Similar problems exist in providing equipment for the new units. In traditional force expansion concepts, units are created as the equipment becomes available. Unfortunately, modern equipment, tanks, aircraft, and ships take an increasingly long period of time to produce and, because of their specialized nature, cannot rapidly be produced by the civilian industrial base. As a result, if NATO is to provide equipment for new units rapidly, it must find ways for the industrial base to produce large amounts of equipment rapidly.

Finally, there is the question of how reconstitution units will fight. If they are called upon to fight in the same way that active and reserve units fight, there is great potential for failure; this is because the missions associated with the operational concepts employed by existing units -- such as AirLand Operations -- are extremely demanding of both leaders and followers and of their equipment. Achieving these levels of performance takes long periods of unit training. Wholly new units will not likely have time to reach these levels of proficiency and we must search for other, less demanding missions or operational concepts for these units.

The slides that follow will discuss each of these problems and suggest potential solutions.

KEY RECONSTITUTION PROBLEMS



- Manpower/Units -- How to provide trained manpower and units rapidly
 - Can divisions and corps be created rapidly?
 - Where do the trained leaders come from?
- Equipment -- How to provide the equipment the units need
 - Can we produce large numbers of tanks and aircraft?
 - Will the industrial base retain a reconstitution capability?
- Operational Concept -- How do reconstitution units fight?
 - Must they fight the same way as active and reserve units?
 - Can they be given other, less demanding roles?

Alternative Manpower Solutions

The most immediate solution to the manpower problem is to retain access to pretrained units or individuals. This can be done in three primary ways. First, in a system employed by the continental forces, active military personnel, fully trained for combat jobs, are assigned in peacetime to noncombat jobs with the understanding that they will return to specific combat units in an emergency. In this way, for example, officers who were at an R&D headquarters could be returned to a combat unit that could meet the criteria of a wholly new unit but would be led by trained active component officers.

A second alternative is to retain individuals in a reserve status that does not require routine peacetime training. These individuals might be organized as units, or as cadres for units, or maintained simply as individuals. In any case, even though they do not train, they remain pretrained and in the time available for reconstitution would be able to recover their skills or be retrained in new skills.

The final category of pretrained individuals is retirees. In the United States many retirees are in their late 30s or early 40s and can contribute to combat units for some period of time following their retirement. Other retirees could be recalled to active duty and used in the training base or for other jobs where their skills allow them to contribute and they can release younger individuals for duty with new combat units.

Civilians can be used in three primary ways to meet reconstitution needs. First, existing civilian organizations can be switched in their entirety to support military operations. Among the civilian organizations that would work most easily are medical, communications, transportation, maintenance, and construction organizations that could provide direct support to military operations. Individual civilians could be given lateral entry directly into a military organization. A draft of skilled doctors or truck drivers, for example, could be used to meet immediate and primarily support positions.

Finally, the traditional draft can be used to meet manpower needs. One point that might be usefully made here is that the draft in the United States covers all men from the ages of 18 to 26. While the traditional focus has been on drafting men for combat units, a full range of skilled individuals can be found in this group of people, including doctors and medical personnel. These people could be drafted on the basis of their skills and sent directly to appropriate support units where they could be used quickly.

ALTERNATIVE MANPOWER SOLUTIONS



- Retain access to pretrained units or individuals
 - Active -- Fully trained, not in units
 - Reserve -- Organize as units, cadres, individuals but do not train
 - Retiree -- Return to units or to training base
- Use Civilians
 - Civilian organizations switch to support of military -- medical, communications, transportation, maintenance, and construction
 - Lateral entry of qualified civilians into military organizations -- a skill draft
 - Traditional draft
- Training
 - As individuals
 - As units

Alternative Manpower Solutions (cont.)

If large scale creation of "wholly new units" takes place prior to a national commitment to expanding the military, the use of mobilization or a draft to provide personnel is problematic.

The final major manpower issue is the question of training new entrants into the military. Current plans call for training to be done on an individual basis in basic training. This concept has served to meter the flow of individuals to units because of the limits on the number of people who could be trained at any one time. An alternative to the basic training of individuals in a reconstitution context might be the training of units. In this case, for example, large numbers of units could be created quickly. They could be led by a cadre of pretrained active, reserve, and retired personnel, filled out by individual draftees or other recruits, and then trained as units. While individual training might not be as efficient as in traditional basic training, the units themselves, in the process of training their new individuals, would begin to build the full range of collective as well as individual skills that are important for their performance as units.

More importantly, perhaps, the rapid creation of new units in this way has the potential of being useful in signaling that the United States and its NATO allies have the capability and the will to create large numbers of new units rapidly.

ALTERNATIVE MANPOWER SOLUTIONS

- Retain access to pretrained units or individuals
 - Active -- Fully trained, not in units
 - Reserve -- Organized as units, cadres, individuals but do not train
 - Retiree -- Return to units or to training base
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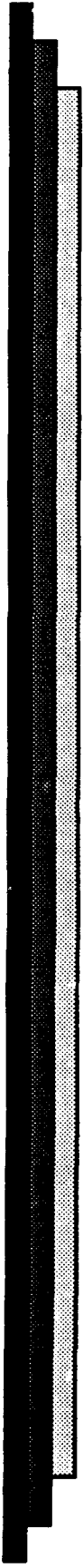
Alternative Equipment Solutions

There are a number of alternative equipment solutions that can be employed to provide equipment for new combat and support units. The first and most sensible and inexpensive solution is to store equipment that becomes excess as the size of the active and reserve forces decline. The example of this solution is the 400 tanks that are being released by the Dutch Army. If these tanks are stored, they become available for use in a reconstitution scenario. The primary difference between the storage policies that would be employed for reconstitution and those that have been employed in NATO to date is the level of readiness at which the equipment must be maintained. Current storage practices call for equipment to be retained at a high state of readiness. Reconstitution storage would allow for a significantly reduced state of readiness. Given the time that is available to create new units, this equipment could be left in a state of readiness adequate to provide the equipment to units in a year or so.

Another direct solution to the equipment problem is to build new equipment and store it in anticipation of a reconstitution decision. This solution is unlikely to be selected because it is expensive and, once the equipment is produced and stored, it will become increasingly obsolete unless additional resources are devoted to modifying the equipment to keep it up to date. Given the likely unwillingness of NATO nations to spend significant resources on reconstitution, this solution holds little hope for implementation.

A more likely solution is to attempt to build new equipment in a crisis when a decision for reconstitution has been made. There are two possible approaches. The first is to build traditional equipment on a surge basis so as to equip new units with the most modern equipment. The problem with this approach is that traditional equipment is generally too complex and cannot be built quickly in large numbers even if there is an industrial base. Large numbers of tanks and airplanes cannot be produced quickly with the current industrial base. Given the expectations of reductions in that industrial base, the surge capability also will be reduced. For example, current estimates that look only at M-1 tank production indicate that a surge of M-1 tanks from a low production rate to a rate of 120 tanks per month could take 2-4 years before the final surge rate could be reached. If the M-1 facilities were placed in total layaway, it could take even longer. While better planning and relaxation of peacetime constraints could reduce these times for M-1 tanks, we do not yet have an understanding of the impact of a production surge of multiple weapons by all four Services. Nor can we be confident that a reconstitution scenario will be sufficiently threatening to justify the relaxation of

ALTERNATIVE EQUIPMENT SOLUTIONS



- Store excess equipment as forces decline
 - Increasingly obsolete
- Build new equipment and store it
 - Expensive
 - Increasingly obsolete
- Build new equipment in a crisis
 - Traditional equipment is too complex
 - Reconstitution equipment must be specially designed
- Use civilian equipment
 - Civilian support equipment
 - Minor modifications to create combat capable equipment
- Use existing equipment more effectively
 - Improve readiness and sustainability
 - Increase sortie rates
 - Improve effectiveness with new munitions

Alternative Equipment Solutions (cont.)

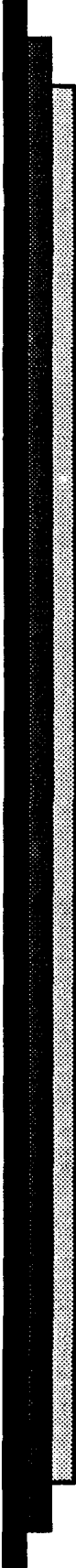
environmental and other constraints. Finally, this kind of equipment cannot be incorporated rapidly into reconstitution units because of the long periods of training that are needed at both the individual and the unit level.

One alternative is to build reconstitution equipment that has been specially designed for rapid production by the civilian industrial base and rapid incorporation into reconstitution units. The challenge to designers of reconstitution equipment would be to find ways to use civilian production facilities to build appropriate military equipment. On the other hand, in many cases the civilian industrial base may be able to provide better and more up to date equipment than would be provided by the military industrial base. This is true today with many types of communications, command, and control equipment. With careful design, it may also be true in other areas. One key aspect of preparing reconstitution equipment is that it must be designed, prototyped, and tested in advance of a reconstitution decision. For example, an armored vehicle that is to be produced on an automotive production line should be designed, produced as a prototype, and tested by the type of soldiers who would be using it.

Another option is simply to use civilian equipment as it currently exists. This is certainly an option for a full range of combat support and combat service support units that could be equipped with existing civilian equipment either taken out of the civilian economy or produced by the civilian industrial base. In some cases, it will be necessary to modify the civilian equipment. In general, these modifications ought to be identified in advance and plans made prior to a reconstitution decision.

In some cases it will not be possible to create wholly new units and we will be forced to find ways to use existing equipment more effectively in a reconstitution context. This may be particularly true for units that employ extremely sophisticated equipment, such as tactical air forces. In this case, reconstitution options include using equipment to improve readiness and sustainability, for example, producing more spare parts or test sets to increase the potential output of existing aircraft. Other steps might be taken to increase aircraft sortie rates or to improve the effectiveness of individual sorties by producing new munitions.

ALTERNATIVE EQUIPMENT SOLUTIONS



- Store excess equipment as forces decline
 - Increasingly obsolete
- Build new equipment and store it
 - Expensive
 - Increasingly obsolete
- Build new equipment in a crisis
 - Traditional equipment is too complex
 - Reconstitution equipment must be specially designed
- Use civilian equipment
 - Civilian support equipment
 - Minor modifications to create combat capable equipment
- Use existing equipment more effectively
 - Improve readiness and sustainability
 - Increase sortie rates
 - Improve effectiveness with new munitions

Alternative Operational Concepts

Reconstitution planners also must decide the operational concept that reconstitution units should employ or the missions they should be assigned in the defense of NATO. In discussions of reconstitution, one often heard remark is that reconstitution units would not be able to learn the appropriate operational concepts in the time available. Another way of addressing this issue is to suggest that we must design variations of existing operational concepts or new operational concepts that reconstitution units will be able to learn.

Here we propose four operational concepts that might be considered by reconstitution planners. The first two have been employed or are currently being employed by NATO. Positional defense is, in essence, the NATO forward defense strategy that was the basic NATO strategy for most of its existence. Maneuver defense is the strategy that NATO currently employs. It may be called AirLand Operations by the United States or counterconcentration by others but, in whatever guise, it is conceptually maneuver defense.

Defensive defense concepts are espoused increasingly in Europe as ways of providing an effective and inexpensive defense of NATO without bearing the burden of the offensive image that many NATO forces have had in the past.

Finally, close terrain defense is a new operational concept based upon the manpower and equipment solution issues that were just described, and on approaches using new weapon systems. Close terrain defense also incorporates major elements of the first three concepts. Each of these will be discussed in turn. For each operational concept, I will describe its basic characteristics, the force structure implications, and the implications for reconstitution.

ALTERNATIVE OPERATIONAL CONCEPTS

Positional Defense

Maneuver Defense

Defensive Defense

Close Terrain Defense

Characteristics of Positional Defense

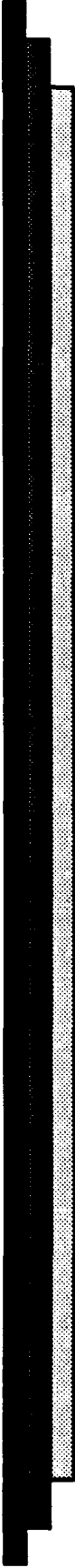
Positional or forward defense in NATO can be characterized in these ways. First, the reconnaissance, surveillance, and target acquisition function, known as RSTA, is characterized by the use of direct or line of sight (LOS) systems. By direct or line of sight we mean that a straight line can be drawn between the observer and the observed. The importance of LOS is that LOS observation and fire work both ways. If you can see the enemy or fire on the enemy, then he typically can see or fire on you. When you are limited to LOS systems, you are limited in the range and the terrain in which you can operate.

The second major characteristic of positional defense is that the weapons employed by the positional defense force employ both LOS and NLOS fires. LOS fires are provided primarily by tanks and antitank guided missiles, NLOS fires are provided by artillery. LOS constraints limit the ranges at which defenders can engage the enemy and determine the locations at which they can deploy. This also leads to the orientation of positional defense forces to specific pieces of terrain. In NATO this orientation has meant linear defenses along the inner German border and also has led to the layer cake system in which the battles were to be conducted primarily at the corps level by separate national forces. Because of their orientation on terrain, the ratio of forces to the space in which they were deployed became critical. This was so because, once the enemy massed enough force in a particular piece of terrain to allow him to penetrate the NATO defenses, he had the opportunity to achieve a rapid victory. Concern about force-to-space ratios also reduced the number of forces available to serve as operational reserves. Small operational reserves meant that enemy forces, having penetrated the initial defenses, were more likely to be successful.

Linear orientation and the organization into national sectors meant that the logistic support was nationally oriented and, because of the focus on large scale heavy forces, the combat service support demands also were large.

Finally, the principal goal of positional defense was attrition, i.e., to kill such a large number of enemy forces that they would be unable to continue their attack.

CHARACTERISTICS OF POSITIONAL DEFENSE



- RSTA -- Line of sight (LOS)
- Fires -- LOS and NLOS tank and antitank fires dominate
- Orientation
 - Terrain
 - Linear defenses along the border
 - National corps battles
- Force-to-space ratios -- Critical
- Operational Reserves -- Small
- CSS -- Large, stovepipe national logistics
- Goal -- Attrition

Force Structure Implications of Positional Defense

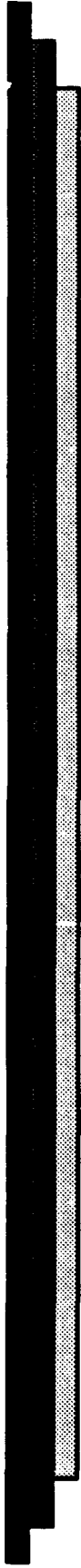
Positional defense had three major impacts on the NATO forces.

Linear deployment along the inner German border meant that NATO required homogeneous heavy forces. This was so because NATO was no stronger than the weakest link and a penetration anywhere along NATO's defenses could mean rapid defeat.

Because of the call for heavy forces, there was a corresponding need for a large, technologically demanding support structure.

The NATO layer cake and the national responsibility for logistics meant that the potential contribution of both territorial forces and the civilian infrastructure was reduced.

FORCE STRUCTURE IMPLICATIONS OF POSITIONAL DEFENSE



- Homogeneous heavy forces -- No stronger than the weakest link
- Large, technologically demanding support structure
- National logistics reduces the contribution of territorial forces and the civilian infrastructure

Implications for Reconstitution of Positional Defense Forces

The focus on heavy forces to conduct a positional defense may be one reason why reconstitution has not received much attention in NATO; this is because these heavy forces and their support take a long time to build and they require large numbers of skilled personnel who also take many years to train.

Another issue for NATO, particularly given its new strategic concept, is that building heavy forces in a reconstitution scenario may appear to the other side to reflect NATO's development of an offensive capability and contradict NATO's efforts at preventing war.

It is important to note, however, that an alternative approach to a positional defense exists in the reconstitution context; that approach is to build forces that are specifically oriented to the terrain they will defend. For example, rather than building heavy forces whose mobility allows them to conduct positional defense operations on virtually any terrain, it is possible to build light infantry or motorized infantry forces and position them on the terrain they are intended to defend. Active and reserve units could serve as the operational reserve or counterattack force. They also can be used to stiffen the positional defense in key areas. Civilian construction assets will have the time they need to prepare the terrain by building prepared defensive positions and obstacles so that the infantry forces can fight more effectively.

This approach essentially turns positional defense into defensive defense, which will be discussed in a moment.

IMPLICATIONS FOR RECONSTITUTION OF POSITIONAL DEFENSE FORCES

- Linear defense requires heavy forces that take a long time to build
 - Heavy equipment and complicated logistic support takes many years to build and deploy
 - Heavy units and large logistic tails require large numbers of skilled personnel who take years to train
- Building heavy forces may "look" offensive and has potential to raise the security dilemma
- Alternative approach to positional defense exists
 - Reconstitute motorized infantry forces
 - Use civilian construction assets to build prepared defensive positions and obstacles

Characteristics of Maneuver Defense

Maneuver defense is similar to positional defense in its first two major characteristics. It is dependent upon LOS reconnaissance, surveillance, and target acquisition. Tank and antitank fires dominate.

In maneuver defense, the orientation is on the opposing force, rather than on terrain. Deployment is nonlinear rather than linear. Battles involving large scale maneuver, as the name implies, are based at the theater rather than corps level. The orientation of maneuver defense is on a covering force battle followed by large scale counterattacks.

In the maneuver defense, force-to-space ratios are less important because the defending force maneuvers its elements to counter the main thrust of the enemy. In order to do this, the maneuver defense force maintains a large operational reserve.

The size of the combat service support force for a maneuver defense generally should be smaller than the force required for a positional defense since, unlike a linear defense, not all forces need to be capable of the same level or intensity of fighting and, therefore, not all forces need to be provided with the same level of combat service support. In other words, while the relatively smaller number of units that bear the brunt of the counterattack may need more support, the force overall should need less. In addition, in order to free the combat forces from the maneuver inhibiting need to carry the long logistic tail that is implicit with national logistics, the maneuver defense forces could increasingly be supported by territorial support forces above the division level.

Finally, the goal of maneuver defense, unlike positional defense, is primarily to disrupt the operational integrity of the enemy and destroy his ability to continue the attack.

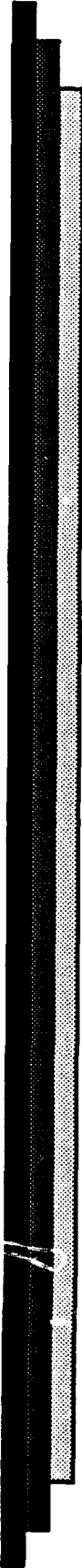
CHARACTERISTICS OF MANEUVER DEFENSE

- RSTA -- LOS
- Fires -- LOS and NLOS, Tank and antitank fires dominate
- Orientation
 - On the opposing force
 - Non-linear
 - Theater level battles
 - Covering force defense & operational counterattacks
- Force-to-space ratios -- Less important
- Operational reserve -- Large
- CSS -- Less than positional defense, territorial based
- Goal -- Operational disruption

Force Structure Implications of Maneuver Defense

Although it is difficult to find a difference between the forces that NATO has argued are appropriate for a maneuver defense and those that NATO procured originally for a positional defense, in theory a maneuver defense should allow for the use of several different kinds of forces. Since the maneuver defense is not dependent on all forces having a roughly equal capability, forces can be differentiated. The best forces can be given the toughest jobs, and the less capable forces given less demanding jobs. This means that the maneuver defense force can be a combined arms force with both light and heavy elements, as long as all have operational mobility. The maneuver defense also allows for high teeth-to-tail ratios because of the ability to structure logistic support to meet the needs of the element of the force that is engaged in the main battle rather than to provide equal amounts of support to the entire force. In addition, maneuver defense allows for more effective use of territorial forces -- for both combat and support forces.

FORCE STRUCTURE IMPLICATIONS OF MANEUVER DEFENSE



- Differentiated forces -- Best forces get the toughest jobs, less capable forces get less demanding jobs
- Combined arms -- Light and heavy forces, all with operational mobility
- High teeth-to-tail ratios -- Pooled logistics provided by territorial forces

Implications for Reconstitution of Maneuver Defense Forces

Given the previously described difficulty of reconstituting heavy forces, it is important to recognize that the ability to employ differentiated forces in a maneuver defense means there should be no need to reconstitute heavy forces. This will only be true, however, if there are enough active and reserve component forces retained to perform the most difficult missions. If this is true, then it should be possible to design reconstitution forces to conduct defensive and secondary missions with equipment and support that is rapidly producible. For example, motorized infantry equipped with vehicles that can be produced in large numbers by a commercial industrial base could be used for a large number of missions that require mobility but do not require the heavy LOS fire and armor capability that is implicit in the key maneuver defense missions that would be given to active and reserve forces. As in the prepared defense concept, regular infantry forces could man prepared defenses that would allow for economy-of-force moves in noncritical areas. Finally, the ability to differentiate forces also allows for maximum use of territorial army forces and civilian sector resources in support.

IMPLICATIONS FOR RECONSTITUTION OF MANEUVER DEFENSE FORCES



- No need to reconstitute heavy forces
 - Active and Reserve component forces perform most difficult missions
- Design reconstitution forces for defensive and secondary missions with equipment and support that is rapidly producible
 - Motorized infantry holds terrain, fills gaps, performs rear area security, etc.
 - Regular infantry mans prepared defenses
- Maximum use of territorial army and civilian sector resources in support

Characteristics of Defensive Defense

The concepts of defensive defense have not been adopted by NATO but have received considerable attention throughout Europe, especially in Germany, Eastern Europe, and parts of the USSR. As with the first two concepts, defensive defense is dependent upon LOS reconnaissance, surveillance, and target acquisition, as well as LOS fires. The principal difference between defensive defense and the earlier two concepts is that defensive defense features reduced dependence upon the LOS fires associated with heavy tank forces. In defensive defense, infantry antitank fires dominate, while tank fires provide support in a tactical level counterattack role.

The defense is oriented on terrain much like that of positional defense. Defensive defense would include a "defense belt" in depth along the border that would be manned by infantry and artillery forces. One practitioner has called this belt the spider web that absorbs the enemy attack. If the defensive belt is thought of as a spider web, then tactical level brigade, or battalion-sized counterattacks would be seen as the spider that operates within the web to conduct counterattacks. Larger forces might conduct operational level counterattacks to the rear of the defensive belt against enemy forces that penetrate the defensive belt.

Because of its orientation on terrain, the force-to-space ratio in defensive defense is critical. In this case, however, defensive defense differs from positional defense because it is dependent upon large numbers of relatively inexpensive infantry forces operating from prepared positions rather than on large scale armor forces.

The operational reserves in defensive defense are intentionally small because the goal is to have a force that is unambiguously defensive in the eyes of a potential adversary.

Given this defensive goal, combat service support also is designed to be small and territorial- or civilian-based so that it meets the needs of the forces in their defensive positions but does not give them the ability to move out of those defensive positions and into the potential adversary's territory.

Finally, the goal of defensive defense is to demonstrate to the enemy that he cannot succeed and thereby convince him not to attack. This goal will be accomplished by demonstrating to him the certainty of large scale attrition losses should he attack.

CHARACTERISTICS OF DEFENSIVE DEFENSE



- RSTA -- LOS
- Fires -- LOS and NLOS, infantry antitank fires dominate
- Orientation
 - Terrain
 - Defensive belt in depth along the border -- the spider web absorbs the enemy attack
 - Counterattack at a tactical level within the web and an operational level on the friendly side of the web
- Force-to-space ratios -- Critical
- Operational Reserves -- Small
- CSS -- Small, territorial/civilian based
- Goal -- Attrition

Force Structure Implications of Defensive Defense

Defensive defense has been conceived of primarily by Germans as a German defense. There has been little effort made to incorporate NATO forces into German defensive defense concepts. If NATO were to adopt defensive defense as a strategy, the forces would be essentially the same as those developed for an all-German defense, except that they would be made up of different nationalities.

The main defensive defense forces (the forces in the defensive belt) would be infantry, artillery, and engineers. They would conduct the main defense, and would consist of a high proportion of reserves.

Given the reliance on the defensive belt, there would be a relatively small number of heavy forces to conduct counterattacks. These might be primarily active forces, or both active and reserve forces.

Because of the terrain orientation and the nature of the forces, defensive defense would have minimal demands for combat service support except for the counterattack armor forces and the long range artillery.

Once again, the dependence on territorial support is explicitly designed to limit the offensive capability of these forces.

Finally, the defensive defense force would be designed for rapid mobilization, with reserve component forces trained in peacetime on the relatively simpler tasks that are involved with defending terrain within the defensive belt as compared to the relatively more difficult job of conducting counterattacks and meeting engagements.

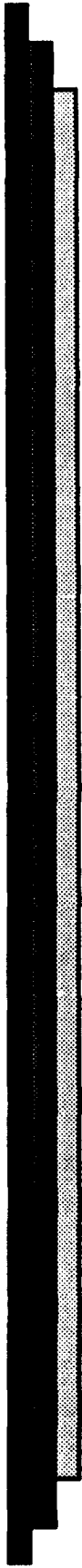
FORCE STRUCTURE IMPLICATIONS OF DEFENSIVE DEFENSE

- Conceived of primarily as a German defense
- Infantry, artillery, and engineer belt or "web" conducts the main defense -- high proportion of reserves
- Relatively small numbers of heavy forces for counterattack only -- active and reserve forces
- Minimal demands for combat service support -- primarily for armor and long range artillery
- Dependence on territorial support limits offensive capability
- Designed for rapid mobilization

Implications for Reconstitution of Defensive Defense

As in the maneuver defense concepts, as long as a minimal number of heavy forces are retained in the active or reserve component, there should be no need to reconstitute heavy forces. Instead, it would be sufficient to reconstitute infantry, artillery, and engineer forces that would be specifically designed for rapid mobilization or for rapid reconstitution. In this case, it would be appropriate to use the large numbers of semi-trained reservists that are provided by the continental conscription systems. Once again, prepared defenses and obstacles created by civilian engineering resources would significantly enhance the reconstitution capabilities provided by a defensive defense concept.

IMPLICATIONS FOR RECONSTITUTION OF DEFENSIVE DEFENSE



- No need to reconstitute heavy forces
- Infantry, artillery and engineers are designed for rapid reconstitution
- Continental system assures availability of large numbers of pretrained reservists
- Prepared defenses and obstacles enhance defensive defense

Characteristics of Close Terrain Defense

The fourth operational concept represents a significantly different approach to the defense of Europe. The close terrain defense operational concept is designed to provide a high confidence defense of NATO territory while minimizing the "offensive" aspect of the forces involved by reducing the size of NATO's mobile, heavy armor force and the number of NATO's deep attack aircraft. Reconstitution, or the ability to mobilize forces rapidly, is key to this concept. This concept is specifically designed for a European defense near the end of the 20th century, when the size of NATO's active and reserve component forces will likely have been significantly reduced and the military industrial base may also have been reduced.

The close terrain defense concept is intended to be more in line with NATO's new strategic concept, which places greater emphasis on war prevention and crisis management than NATO has in previous strategic concepts. It is designed specifically to take advantage of new technology that allows military forces to reduce their dependence on the LOS battle.

The most important characteristic of close terrain defense is the use of NLOS RSTA and NLOS fires. By moving away from the LOS battle to an NLOS battle, NATO forces are able to make even greater use of the natural advantages of the defense. Close terrain defense is also designed to make use of some of the most important aspects of maneuver defense in allowing an orientation on the opposing force rather than being tied to a linear, terrain-oriented defense. The maneuver element of the defense also leads to a non-linear orientation. Perhaps the most important element of the close terrain defense is the ability of defending forces to move from open terrain or predictable defense positions where they are vulnerable to attack to positions in close terrain where they are far less vulnerable.

Once again, as in maneuver warfare the force-to-space ratios are less important. In contrast to maneuver warfare, operational reserves need not be so large because of the ability to counterattack by fire provided by the close terrain defense concept.

Another important advantage of close terrain defense is the reduction in the amount of combat service support. Since the number of heavy forces is reduced, combat service support is reduced and can be oriented more toward territorial forces and civilian resources. The goal of the close terrain defense is to succeed through operational disruption of the attacking enemy forces.

CHARACTERISTICS OF CLOSE TERRAIN DEFENSE



- RSTA -- NLOS, UAV reconnaissance
- Fires -- NLOS, Precision-guided NLOS fires dominate
- Orientation
 - On the opposing force
 - Non-linear
 - Occupy close terrain
- Force-to-space ratios -- Less important
- Operational Reserves -- Small, counterattack by fire
- CSS -- Small, territorial/civilian based
- Goal -- Operational disruption

Why NLOS RSTA and Fires?

What do we mean by NLOS RSTA and fires? Let me compare the close terrain concept with the current direct fire or LOS concepts. Present anti-tank defense is based on the use of long range LOS fire by tanks and antitank guided missiles. The use of LOS systems limits the employment of these weapons to open terrain or to edges of close terrain. This is so because these systems need to be able to see the enemy target and have the ability to direct LOS fires against the attacking enemy. The problem with the use of LOS systems is that they become vulnerable to both enemy LOS and NLOS fires. They are vulnerable to LOS fires simply on the physics of line of sight. They are vulnerable to NLOS fires because, by the nature of their systems, they are forced to deploy in open areas where they can be detected and in the edges of close terrain where, even if they cannot be detected, their presence can be predicted because the enemy is aware of their dependence on the line of sight.

The dependence on the LOS battle has led to continuing armor/antiarmor contest that is characterized by ever bigger and faster guns and missiles and ever thicker armor. This contest leads to better armor on the one hand and better penetration on the other. The contest also is accompanied by an ongoing debate on who is on top at any particular moment.

The real problem is quite different. Line-of-sight systems such as tanks and anti-tank guided missiles are limited by their environment no matter how good their weapons or how thick their armor. In most circumstances they have reached the limit of LOS capabilities. In Europe for example, the typical LOS possibilities are in the range of a kilometer or two. This means that increasing the ranges at which systems can engage on a line of sight basis does not provide much improvement. Moreover, as systems increase in size, their mobility is reduced, and their cost and support requirements increase. This means that the forces' overall maneuver capability is reduced and that NATO can afford fewer and fewer systems.

The close terrain defense concept is based upon the use of new technology that will allow NATO forces to attack targets beyond the limits of line of sight and to attack these targets from relatively secure positions inside close terrain. Unmanned aerial sensors will let us see targets far beyond the limits of LOS RSTA. NLOS precision-guided systems will let us overcome terrain and destroy advancing enemy vehicles without

WHY NLOS RSTA AND FIRES?

- Current Operational Concepts depend on LOS fire by tanks and ATGMs
 - Limits employment to open terrain and the edges of close terrain where they are vulnerable to enemy LOS and NLOS fires
 - Leads to Armor/AntiArmor contest -- ever bigger guns and missiles and thicker armor
 - Tanks and ATGMs are limited by their environment -- LOS visibility, bridge and road capacities, etc.
- Technology will allow us to attack targets beyond LOS limits
 - UAVs and other sensors will let us see targets
 - Indirect fire, precision-guided, top attack systems will kill tanks and other armored vehicles from beyond their LOS ranges with the same effectiveness as tanks
 - Close terrain provides protection from enemy LOS and NLOS fires

Why NLOS RSTA and Fires? (cont.)

being threatened by their supporting artillery. Enemy tanks and artillery cannot hit or suppress NLOS fire platforms that are concealed and sheltered by close terrain. Because they are protected from the LOS fires of enemy tanks and ATGMs, these new systems can use light armor and may even be able to use the added mobility that is provided by wheeled vehicles.

The major difference between the close terrain defense use of NLOS fires and the use of NLOS fires envisioned in NATO's earlier FOFA concept is that the close terrain defense focus is on attacking enemy forces that are relatively much closer to friendly forces than was the FOFA focus, which looked at targets deep in enemy territory. Current maneuver warfare concepts such as the US Army AirLand Operations continues to envision the use of very deep fires.

WHY NLOS RSTA AND FIRES?



- Current Operational Concepts depend on LOS fire by tanks and ATGMs
 - Limits employment to open terrain and the edges of close terrain where they are vulnerable to enemy LOS and NLOS fires
 - Leads to Armor/AntiArmor contest -- ever bigger guns and missiles and thicker armor
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 - Close terrain provides protection from enemy LOS and NLOS fires

Employment of Forces - The Frontline Battle

The key to the close terrain defense is the way forces are employed in the frontline battle. The enemy, in a search for rapid success, moves through the open terrain or along avenues of approach that allow for mobility. Friendly forces dominate this open terrain or the avenues of approach while operating from inside close terrain. They do this by using their NLOS RSTA and fire systems, which allow them to engage the attackers in the open terrain. In essence, the vulnerable direct fire strip that now characterizes present defenses is replaced by an in-depth defense characterized by mutually supporting NLOS fire from many close terrain locations. The forces in these close terrain positions will fire guided warheads onto the tops of enemy vehicles. Such defenses provide for asymmetrically high exchange ratios between the defender and the attacker. Open terrain becomes a fire trap for the attacker while movement through close terrain is foreclosed by the defender's light forces. Friendly forces avoid close combat with LOS systems. While some LOS systems must be maintained for tactical defense or counterattack purposes, the major goal of the defending forces is to engage operational level enemy attackers with NLOS systems.

The ability to operate inside close terrain provides numerous advantages to the defender. Most important, of course, is the reduced vulnerability to enemy RSTA and fires. Close terrain provides cover and concealment against both LOS and NLOS fires. In addition, attacking enemy forces, to the extent that they are heavy and designed for rapid movement, face severe limitations in close terrain. If the enemy desires to defeat the friendly defenders occupying close terrain, he must commit significant forces and must be prepared to accept the penalties and casualties that are implicit in fighting in close terrain. Defenders organized for fighting in close terrain will have additional advantages in defending against enemy forces whose LOS systems will be increasingly ineffective.

Another important issue for the close battle is that air forces providing close support and battlefield air interdiction can work best against enemy forces in the open terrain when they know that friendly forces will be fighting from close terrain.

EMPLOYMENT OF FORCES -- THE FRONTLINE BATTLE

- Friendly forces dominate open terrain while operating from inside close terrain
 - NLOS RSTA and fire systems engage attackers in the open terrain
 - Infantry, light and motorized, and engineers defend the close terrain from within the close terrain in order to avoid enemy LOS and NLOS fires
 - Friendly forces seek to avoid close combat -- LOS fire capability is used only if unavoidable or in a deliberate counterattack
- Friendly forces, operating from inside close terrain, will be less vulnerable to enemy RSTA and fires
 - Close terrain provides cover and concealment
 - Heavy forces do not operate effectively in close terrain
 - LOS ranges are very limited in close terrain
- CAS and BAI work best against enemy forces in the open terrain

Force Structure Implications of Close Terrain Defense

The close terrain defense concept could lead to significant changes in NATO forces. Since most forces will be designed to operate from close terrain, it will be possible to reduce the use of heavy armored vehicles designed for combat in open terrain. The key operational systems, the UAVs and the precision-guided NLOS missiles, can be carried by lightly armored or unarmored vehicles that will use close terrain rather than heavy armor for their protection. These vehicles also may be used to carry infantry, engineers, and other elements of the force. Since the defenders are operating from close terrain, they will need infantry and engineers to provide the basis of their tactical defense. These infantry and engineer forces may be able to use different weapons to implement that defense. For example, rather than long range antitank guided missiles, the infantry is more likely to need short range antitank weapons that will allow them to kill tanks and armored vehicles that penetrate into the close terrain. Engineers will use unmanned defensive devices and other systems to protect the perimeter of the close terrain and will create other obstacles within the close terrain.

Given the importance of knowing exactly where the enemy is, it will be important for commanders at all levels, perhaps as low as company, to have their own unmanned aerial vehicles.

Nevertheless there will remain a need for an operational counterattack capability. Counterattack capability may continue to be provided by mobile heavy armor. If the enemy devises similar NLOS capabilities, NATO's counterattack force will become vulnerable as it moves through open terrain. One possibility in this case may be to devise armored forces that are more capable than existing forces of movement through close terrain.

With the majority of the defensive forces oriented around light armored vehicles and NLOS systems, the need for combat service support should be reduced and the possibilities for territorial forces to provide that support should be enhanced. The dependence on territorial and civilian support also helps to meet the NATO goal of having forces that are more demonstratively defensive.

The use of close terrain for cover and concealment also will reduce the need for extensive stealth features for tanks and other ground combat systems.

FORCE STRUCTURE IMPLICATIONS OF CLOSE TERRAIN DEFENSE

- Most forces are designed to operate from close terrain
 - Lightly armored vehicles carry NLOS missiles, precision-guided mortars, infantry, and engineers
 - Infantry and engineers defend the close terrain from within the close terrain
 - Infantry needs short range antitank weapons -- Long range, LOS fire ATGMs are less important
 - Unmanned defensive devices protect the perimeter of the close terrain
- UAVs proliferate
- Tanks for counterattack evolve a capability for movement through close terrain
- Reduced demands for combat service support
- Dependence on territorial/civilian support limits offensive capability

Implications for Reconstitution of Close Terrain Defense Forces

As in defensive defense, the reduced demand for counterattack capability means that remaining active component forces and reserve component forces will likely be sufficient to meet heavy forces needs. This is particularly true for close terrain defense, which has an increased capability to conduct counterattacks by fire. Unlike the defensive defense concept that has been designed to use existing equipment, the close terrain defense concept requires new kinds of equipment, but this new equipment is generally less sophisticated or easier to produce. The use of wheeled armored vehicles, for instance, places much smaller demands on the industrial base than does the use of tanks. In general, the systems that would have to be provided in a reconstitution context for the close terrain defense concept are less sophisticated, with the potential exception of the need for large numbers of NLOS munitions. In this case, however, the use of an NLOS munition substitutes for the use significant numbers of heavy tanks.

The forces that would be provided in a reconstitution scenario for the close terrain defense concept would be specialized NLOS units, light and motorized infantry, and engineer forces. These forces would be easier to reconstitute than typical heavy forces and should require less training since they are not designed to engage in the most difficult aspect of combat.

Of course, given the assumption about warning time in a reconstitution scenario, prepared defenses and obstacles created by the civilian industrial base also could be used to enhance the defense.

IMPLICATIONS FOR RECONSTITUTION OF CLOSE TERRAIN DEFENSE FORCES



- Reduced demand for and no need to reconstitute heavy forces
- Specialized NLOS units, light and motorized infantry, and engineer forces are reconstituted
- Demands on industrial base are for less sophisticated equipment and large numbers of NLOS munitions
- Prepared defenses and obstacles enhance the defense

Reconstitution Planning for Air Forces

Although the focus of this effort has been on ground forces, it is possible to say some things about planning for air forces that may allow for enhancing the capability of air forces in a reconstitution crisis without meeting the reconstitution goal of creating "wholly new forces." Perhaps the most important point is that we cannot build meaningful numbers of ATF-like aircraft quickly. Since we cannot build wholly new units that are equipped with the most sophisticated aircraft, we need to find ways to enhance the capability of existing units or to build new units with reduced capability. There appear to be a number of possibilities.

We could increase the sortie capability of existing units and aircraft by providing additional maintenance personnel and spare parts.

A second possibility is to procure the most effective new munitions for existing aircraft. In a year or two, significant amounts of new munitions can be produced.

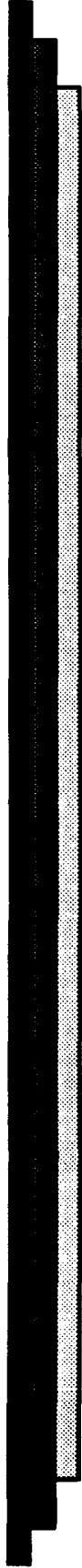
A third possibility is to procure aircraft alternatives, such as SAMs and surface-to-surface missiles.

A fourth is to procure decoys and other systems that will improve the survivability of existing aircraft.

A fifth option is to store older aircraft and plan on assigning them less demanding missions. For example, older F-4 or F-16's could be used to carry large numbers of mines or other counter-mobility systems that could be delivered in front of attacking enemy forces without subjecting these aircraft to the intense air defenses of the enemy.

The final option is to procure large numbers of unsophisticated aircraft. If we cannot produce ATF-type aircraft, perhaps there are unsophisticated aircraft that could be produced for specialized missions, defensive counter-air, or close air support.

RECONSTITUTION PLANNING FOR AIR FORCES



- Cannot build meaningful numbers of ATF-like aircraft quickly
- Alternative reconstitution approaches
 - Increase sortie capability of existing units/aircraft
 - Procure most effective new munitions for existing aircraft
 - Procure aircraft alternatives, such as SAMs and SSMs
 - Procure decoys
 - Store old aircraft and plan less demanding missions
 - Procure large numbers of unsophisticated aircraft

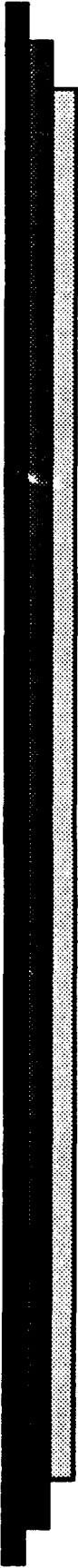
Conclusions

If we believe that reconstitution planning is truly an important element of U.S. strategy, we need to find ways to include our NATO allies in the strategy.

Since NATO specializes in planning and has a planning system that can incorporate reconstitution, we need to take care to describe reconstitution in ways that will fit the needs of our NATO allies and will fit into the NATO planning system.

The end of the cold war has created a new world, particularly for NATO, that calls for new approaches to traditional problems. I believe this briefing has demonstrated that it is possible to identify potential solutions to the problems that reconstitution planning poses for the United States and its NATO allies.

CONCLUSIONS



- If the United States is to make a serious effort to develop a reconstitution capability, NATO and our European allies must be included
- Reconstitution planning will fit into the NATO planning system and can be designed to meet the needs of NATO members
- Effective reconstitution planning requires new approaches to resolution of issues affecting manpower, equipment, and operational concepts

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