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19 May 1973

EXECUTIVE SUMMARY

NSSM 168 - PART I

US NATO POLICIES AND PROGRAMS

Purpose and Organization

This paper summarizes work done in response to NSSM 168-Part I on US NATO policies and programs. The paper:

- examines US and Allied strategy and forces for NATO with a view to identifying problems and issues in maintaining adequate NATO defenses and coherent defense concepts;
- delineates near and longer-term actions the US and Allies might take to meet these problems and issues in maintaining and improving NATO defenses.

The paper is organized as follows:

- Section I describes the larger political and economic context which bears on NATO strategy and forces.
- Section II delineates US and Allied strategy for defending NATO as it bears on planning and maintaining a coherent NATO conventional defense.
- Section III assesses NATO's ability to implement its strategy and defend against the Warsaw Pact threat.
- Section IV assesses US and Allied progress in correcting identified anomalies and deficiencies in NATO defenses.
- Section V delineates possible near and longer-term US and Allied actions for further improvement of NATO defenses.
- Section VI examines theater nuclear doctrine and forces for NATO.

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7/10/77
Declassified/Released on
under provisions of E.O. 12958
by R. Soubers, National Security Council

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I THE CONTEXT

In the US view, the advent of near parity in US and Soviet strategic forces makes strong NATO conventional defense more important than ever. This places a premium on identifying and remedying any anomalies or deficiencies in NATO's defense concepts and forces, particularly for conventional war, and on making more efficient use of NATO defense resources. At the same time, there are larger political and economic pressures that will bear heavily on US and Allied ability to improve NATO forces and to sustain an adequate defense over the long-haul.

Defense Costs

The cost of soldiers and weapons has increased substantially in the past decade. Sophistication in weapons technology and competition with growing demands of the civilian sector for people and production facilities are the principal contributing factors. Thus, the same force levels cost substantially more today than they did several years ago. Within the defense structure, heavy manpower costs impel increasingly hard choices between maintaining active force levels and the demands of modernizing equipment and enhancing readiness. This problem could be further aggravated if NATO governments reduce periods of conscription or eliminate it entirely and compete on the open market for manpower.

Defense Budgets and the Political Environment

Even as defense costs are rising, NATO governments are finding it more difficult to maintain defense expenditures in real terms, much less increase them. Two trends combine to create pressure on defense budgets:

- There is little sense of impending military attack or pressure; rather a basic sense of security prevails in NATO nations, buttressed by the array of East-West negotiations successfully concluded or initiated in recent years.
- Domestic demand for governmental goods and services is steadily rising as the economies of NATO nations expand.

These pressures on defense budgets can be expected to increase as further steps are taken to solve or control East-West differences. At bottom, the problem confronting NATO governments is a familiar one: how to sustain adequate defenses in peacetime.

MBFR

MBFR will pose particular demands upon maintaining an adequate NATO conventional defense. Both the negotiating process itself and an actual agreement could stimulate added parliamentary and public pressures against defense efforts and lead to a let-down in actions to further improve Allied forces. Beyond this, MBFR will itself provoke new questions concerning the shape and purposes of NATO conventional forces and the relative roles of the NATO nations in providing NATO capabilities. Thus, the question of how reductions are to be taken and the disposition of reduced or withdrawn forces will raise questions concerning the relationship between immediate combat capability and sustained support. Moreover, the US reductions postulated in some of the MBFR alternatives under review in NATO could call for readjustments in roles and missions and particularly the assumption by the Allies of some support functions related to US forces. In any case, MBFR and the modalities and specifics of any reduction agreement will have to be integrated with other actions taken by the US and Allies to maintain an adequate conventional defense and coherent defense concepts.

Burden-Sharing

Maintaining US forces in Europe in light of Congressional, balance-of-payment (BOP), and budgetary pressures will require an increased Allied effort to equitably share the burden of US forces in Europe. This is to be accomplished through a renewed offset agreement with the FRG, and some kind of multilateral arrangement which would give priority to offsetting the differential cost of maintaining US forces in Europe (\$350-400 million), toward the ultimate goal of offsetting all US BOP deficits on military account in Europe. The arrangements will put an added burden on Allied defense budgets, and may constrain the resources available for force improvements, unless increased purchases are made in the US.

There are also some longer-term issues as to whether the Allies should assume missions now assigned to US forces, or assume US logistic and base operating costs and functions.

II US AND ALLIED STRATEGY FOR NATO

US strategy for NATO is delineated in the annual Defense Policy and Planning Guidance (DPPG) which incorporates Presidential decisions and guidance provided in NSDMs 27, 95, and 133, and develops related force planning guidance. This document represents the United States' interpretation and implementation of the NATO strategic concept which the US and the Allies agreed to in 1967 in Military Committee Document 14/3 (MC 14/3). There are differences between US and Allied strategy and force planning concepts that bear on the coherence of NATO's defenses and on proposals and prospects for improving NATO's forces. (MC 14/3 represents a political compromise on some of these differences.)

The differences concern the central questions that any coherent conventional defense strategy and force planning concept must answer, e.g.:

- Should reliance be placed on conventional defenses or on the threat of escalation to nuclear war to deter Pact conventional attack?
- What level of conventional attack should NATO plan to defend against conventionally?
- How much time should NATO assume it will have to mobilize and prepare before an attack?
- How long should NATO plan the capability to fight conventionally -- how much sustaining capability should NATO maintain?
- Should NATO plan forces to stabilize the military situation without major loss of territory, or should it also plan the capability to regain lost ground if forward defenses fail?

(The Joint Staff states that in addition to the questions concerning a NATO war in Europe, the US must consider the war's global implications. Many of our NATO Allies are politically constrained from addressing the global character of a NATO WP war. Nonetheless, it is not credible to assume that considerable Soviet forces elsewhere in the world would remain quiescent. Indeed the DPPG assumes in the NATO "first" scenario that Soviet naval forces will commence hostilities in both the Atlantic and Pacific. The US must therefore structure forces to defend in Europe and protect its vital interests, some of which are coincident with those of NATO, particularly in such areas as the Middle East, the North African littoral and the Pacific.)

The US Initial Conventional Defense Strategy and Force Planning Concepts

US strategy for NATO is predicated on the view that given the US-Soviet strategic balance, NATO must have a credible posture to deter and, if necessary, defend against conventional attack (NSDM 95).

The key elements of US strategy for meeting a conventional attack against NATO, as defined in NSDMs 95 and 133, are:

- The size and structure of US ground, air, and naval forces maintained in support of NATO should be consistent with a strategy of initial conventional defense for a period of about 90 days against a full-scale Warsaw Pact attack assuming a period of warning and mobilization by both sides.
- US forces for NATO should be developed so as to enhance immediate capability in the first 30 days of combat to provide maximum assurance that conventional defense would be successful in the period of the greatest threat to NATO.

These concepts are further developed in the DPPG, which provides the following guidance for planning forces for NATO:

- Force and resource planning should ensure that the US will have the capability to support the strategy of initial conventional defense of NATO for a period of 90 days. This guidance applies to all aspects of force and resource planning.
- The warfighting objective is to stop a major Pact attack and stabilize the military situation within 90 days without major loss of NATO territory. Forces sized for this purpose, in conjunction with other selected available assets should provide the capability to maintain a stabilized military situation beyond D plus 90 days.
- Plan to retain, on a case-by-case basis, selected long lead time major procurement items, reserve forces, and training bases that will be needed to sustain a stabilized military situation in Europe and beyond D plus 90 days.
- It should be assumed for planning purposes that a Pact attack would be preceded by at least 30 days of mobilization and NATO mobilization will be a week behind the Pact.
- US and NATO Allied forces should be able to protect US naval forces at sea, military support shipping and an austere level of economic support shipping consistent with the initial defense strategy.
- In addition, US and NATO Allied forces should be able to indefinitely maintain a minimum necessary flow of supplies from the US to Europe against a maximum Soviet conventional interdiction effort.

Initial vs Sustaining Capability

In essence, the US strategy of initial conventional defense emphasizes a capability to halt and hold a major Pact attack without major loss of territory for 90 days. It emphasizes forces and capabilities that can enter the battle relatively early, as opposed to those that can be brought to bear in later phases, or might be required to sustain an extended conventional campaign.

However, the degree of emphasis to be placed on immediate combat capability in planning US forces is not precisely defined. The problem is most clearly posed in examining how much emphasis to be assigned to the initial 30 days (D + 30) of a conventional war (immediate capability) and how much to the period after D + 90 (sustaining capability) in allocating resources.

One view is to sacrifice sustaining capability for immediate combat capability as necessary to maximize assurance of success in the initial period of a war. The rationale for this follows these lines:

- Within a matter of weeks (i.e., within 90 days) after the initiation of a Pact conventional attack on Europe, a) a political settlement will be reached; or b) the Soviets will have reached the limit of their conventional offensive capability; or c) the war will have escalated to tactical nuclear conflict. In any case, neither the US nor the Allies is likely to engage in an indefinite conventional campaign as in World War II to regain territory lost in the early phase of a war.
- Resource limitations force choices between initial and sustaining capability. It is more important to provide confident initial defense capabilities and accept the risk of short-fall in sustaining capability if necessary, than to enhance sustaining capabilities at the expense of initial capabilities.
- In any case, forces sized and structured to stop a major Pact attack forward and stabilize the situation by D + 90 should provide the capability to maintain a stable situation beyond D + 90.

A second view is to provide an initial defense capability, but not at the expense of sustaining capability. The rationale is as follows:

- There is little difference between "stabilizing the military situation" at D + 90 and "stopping a major Warsaw Pact attack" at D + 90. Achievement of both objectives depends upon the relative strengths and will of opposing forces at the time, including forces in the line, reinforcements, and logistics support.
- The length and intensity of any major hostilities cannot be predicated. Lack of factual data regarding the Warsaw Pact and NATO logistic and mobilization bases adds to this uncertainty.
- Failure to provide an adequate sustaining capability grants the enemy an option to capitalize on NATO weakness.
- Use of nuclear weapons against Warsaw Pact military forces will be meaningful only if there is a strong and sustained military capability to capitalize on the temporary advantage gained. Nuclear weapons must be used while a viable military force still exists, and not as a last ditch effort.

- The judgement of SACEUR and the JCS is that the Allies cannot provide the level of conventional forces required to assure success in any specified period. Therefore, given a lack of provision for support of a protracted war, the alternative is defeat.
- The President, in consulting with other NATO leaders, must have options supported by a military capability, and without limitation of any predetermined time period, for negotiating the terms of a settlement (and not a defeat); of continuing conventional hostilities; of escalation to tactical or strategic nuclear warfare through a variety of options, each of which is supported by the ability to sustain a reasonable level of control intensity, indefinitely.
- The clear alternatives to the US and its Allies revolve about the levels at which a balanced conventional military capability is to be sustained. A lower level means earlier resort to nuclear weapons; a higher level assures a greater range of Allied options.

The problem of initial vs. sustaining capability as it affects US forces for NATO is currently dealt with on a case by case basis within the regular DOD planning, programming, and budgeting process. The problem also bears heavily on the fit between US strategy and forces for NATO and our Allies'.

Warning and Mobilization Time

The DPPG defines the NSDM 95 concept of a period of warning and mobilization by both sides as a scenario where the Pact would mobilize for 30 days before they attacked with NATO mobilization lagging that of the Pact by seven days. Military planners would be expected to pursue a goal of maximum preparedness and continue to seek to be ready in the event of surprise under any assumption. In fact, the Joint Strategic Objectives Plan (JSOP) requires that military planning for NATO should account for the possibility of an attack by the forces immediately available to the Warsaw Pact with little or no strategic warning. Estimated requirements for forces available in Europe to oppose a surprise attack are somewhat higher than the level normally required in Europe if there is time available to deploy additional forces from the US. Bearing on this issue is the balance between an acceptable level of risk and a fair assumption for force planning purposes. (Some believe that present analyses indicate this may not be as serious a problem as previously believed.)

MC 14/3 and Allied Strategy and Force Planning Interpretations

Neither MC 14/3 nor Allied interpretations of it accord the weight to conventional defense that US strategy for NATO does and there are consequent differences between basic US and Allied conventional defense concepts and force planning.

- MC 14/3 calls for a conventional defense against limited rather than full-scale or major Pact conventional attack.

- The basic role of NATO conventional forces is to defeat a limited conventional attack and to drive the requirements for a successful Pact conventional attack to a scale where the threat of nuclear war is credible. (MC 14/3).
- Against a full-scale Pact conventional attack, Allies believe forces should be capable of a stiff initial resistance designed to establish NATO's will to resist and to allow time for the aggressor to reconsider and for NATO to consider the use of nuclear weapons to fulfill the strategic objective of maintaining or restoring territorial integrity.
- The Allies in the Central Region believe the conventional war will be short -- a matter of days -- which, combined with the risk of little or no warning, dictates emphasis on forces designed for a defensive strategy and available in or near peacetime battle positions; forces which cannot be used in the early period of hostilities have little warwaging value.
- Thus, 30 days of war reserve stocks are considered an ample hedge and allocating resources to M-day units is strongly emphasized. Although the Allies are committed to resupply and mobilization capability these, and their reserve units, have been largely neglected.

In essence, the basic Allied conception of conventional defense is that the ability to fight a short, intense war with the spectre of early escalation to nuclear weapons is the best deterrent to the outbreak of war in the first place, and they have sized and structured their forces and logistics to that end. In this concept, conventional sustaining capability appears not only inefficient but counter-productive: it degrades the nuclear deterrent by indicating willingness to keep a war conventional; it is less of a deterrent than ready forces with many weapons; and the large prepositioned stocks required may be viewed as representing an offensive posture and intent.

The roots of Allied interpretation of MC 14/3 are in:

- their overriding concern with the devastating consequences for them of either a long conventional war or a tactical nuclear war fought back and forth on the Continent; (although MC 14/3 calls for restoration of territorial integrity and the Allies could not accept a strategy which did not call for this);
- and their belief that NATO neither has nor can achieve a conventional forward defense against a full-scale Pact attack given the size of Pact forces and the money and forces it would require to defeat them.

Thus, the primary concept in Allied strategic thinking and force planning is an emphasis on deterrence as opposed to defense. And the central element in deterrence is the spectre of escalation of any conflict to nuclear war which might ultimately engage the US strategic nuclear deterrent. The role and structure they have accorded conventional forces is designed principally to support this and to avoid any implication that might, in their view, weaken it.

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(The Joint Staff states that many Allied military leaders do not support this and share the US view that deterrence requires a credible broad spectrum of warwaging capabilities.)

The Fit Between US and Allied Strategy

The US has not communicated to the Allies the strategy and force planning concepts based on NSDMs 95 and 133. The definition of a 90 day capability (let alone sustaining capability after 90 days) is well beyond their concept of the short war. The NSDM 133 requirement to meet a full scale Pact attack represents a step away from the more limited conventional mission that the US earlier appeared to subscribe to in MC 14/3 (The Joint Staff states that there is a fundamental dilemma in fitting US and Allied strategies. In essence, the US desires to maintain the nuclear threshold at as high a level as is feasible for as long as practical by developing a NATO capability to defend conventionally against a massive conventional WP aggression. The need for this capability has increased since the advent of parity. The Allies, on the other hand do not accord this weight to conventional defense.)

A central question is whether and to what extent we need to clarify and resolve differences in strategy and force planning concepts in order to make best use of NATO defense resources and to correct anomalies and deficiencies in NATO force posture. There are clear difficulties and risks in any such dialogue, conducted though it may be within the envelope of MC 14/3, given the strength of Allied views -- and their particular sensitivity at this juncture concerning the continued credibility of the US strategic nuclear commitment. (We are uncertain whether our Allies have fully considered the implication of nuclear parity on the inter-relationships between NATO's conventional defense capability and the nuclear threshold.) On the other hand, such a dialogue may be the necessary condition for progress in some areas (e.g., Allied logistics). The question must be weighed in the context, first, of an assessment of NATO's current ability to defend, second, in light of what needs to be done to improve NATO's capabilities, and third, the political problems attendant on any effort to define or modify agreed NATO strategy.

III. NATO'S ABILITY TO DEFEND CONVENTIONALLY

Assessments of NATO's current capability to defend conventionally bear on the determination of what needs to be done and on what can be done to maintain and improve NATO's forces. Moreover, these assessments also affect views on the feasibility and risks of the various strategy and force planning concepts sketched above.

Problems and Uncertainties in Assessing the Balance

A number of steps have been taken to improve our analyses of NATO force requirements and capabilities: chief among these is the application of ranges of estimates, assumptions, and methodologies. However, estimates of the balance in Europe is complicated by these factors:

- Data on both NATO and Pact forces is incomplete.
- Analytical methods for comparing capabilities and the interaction of opposing forces are at best approximations of extremely complex interactions.
- The final outcome of a conflict may be heavily shaped by many intangible and non-quantifiable factors.

Thus, there are substantially different views within the US and between the US and the Allies concerning NATO's ability to defend conventionally. Capsule versions of these views are presented in Table I. Important points are:

- The Allies' view is extremely negative.
- View #1 within the US holds that a credible conventional defense option is available to NATO; and
- View #2 within the US holds that there is serious risk of failure in mounting a conventional defense of NATO with programmed forces.

Problems and divergencies in assessing the balance relate primarily to uncertain in threat estimates, allied forces included, employment assumptions, and analytic approximations.

Threat Uncertainty

- While much data on the threat is available and agreed to within the intelligence community, some important areas of difference and uncertainty remain. These are:

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TABLE 1

(Summary Views on NATO's Ability to Defend Conventionally)

ASSESSMENT BY MAJOR MISSIONS

	OVERALL ASSESSMENT	LAND FORCES	TACTICAL AIR FORCES	NAVAL FORCES	MOBILITY PARTIES
U.S.	Programmed NATO forces provide a credible defense option throughout much of the range of estimating uncertainty, and are sufficient to make a quick Pact victory unlikely for the rest of the range.	Uncertainty exists in inputs and assumptions, therefore, a range of estimates is necessary. Programmed land forces fall within the estimated range of requirements. At the low end of the range NATO land forces afford a credible defense option. At the high end, Pact has a clear advantage but probably not enough to ensure a quick victory.	Programmed NATO tactical air forces provide approximate numerical parity with Pact. Qualitative advantage accrues to NATO. NATO should be able to achieve air superiority over battle area and deliver twice as much ordnance in support of ground forces as the Pact. The NATO edge in Tac Air should offset a Pact edge in land forces.	Programmed forces are sufficient to provide the protection necessary for the Atlantic SLOCs during a NATO/Pact war. However, some risk would have to be accepted in the Mediterranean due to the possible loss of carrier based air defense aircraft. The feasibility of providing land based coverage could offset this.	Programmed mobility forces are sufficient to transport programmed U.S. tactical air and land force reinforcements.
U.S.	Programmed NATO forces considered to be a serious risk. To provide a credible conventional defense option at prudent level of risk requires major increase in size of NATO forces. Pact likely to achieve quick victory unless tactical nuclear weapons are employed.	Programmed land forces fail to provide sufficient combat power to stop a Warsaw Pact attack without major loss of NATO territory. Both U.S. and Allied Forces would have to increase substantially (about 25% in US forces and 15% in Allied forces) to ensure a credible conventional defense option at a level of prudent risk.	Programmed tactical air forces do not provide enough tactical fighter wings for the successful defense of NATO. NATO is outnumbered by about 2 to 1 by the Pact. Total resources would have to be committed to the European theater, leaving no forces for the Pacific, strategic reserve or other missions. Programmed carrier wings are not adequate to meet NATO and other requirements.	Programmed naval forces are adequate to protect the Atlantic SLOC, but could not at the same time support amphibious operations on the flanks, secure a Mediterranean LOC, and discharge the NAVY's role in the Pacific. Unless ASW operations achieve significant results early in a war, NATO security will be in jeopardy.	Programmed mobility forces are inadequate to move programmed land and air forces with associated supplies. Programmed mobility forces at other level of risk would be believed to be insufficient.
U.S.	NATO is grossly inferior to the Warsaw Pact forces in all respects and the gap is widening. The Pact is capable of a quick, decisive victory unless tactical nuclear weapons are employed.	NATO land forces are smaller than the Pact's by 50% or more. Pact could reach the Rhine in 5 - 7 days.	The Pact has a tactical air superiority of over 2 to 1.	NATO naval forces are heavily outnumbered in the Baltic and North Sea.	U.S. reinforcing mobility forces and DTC conventional forces is not considered sufficient. Therefore, mobility analysis of mobility forces.

- The combat effectiveness of Pact units requiring extensive roundout during mobilization;
- The impact of logistics support capability on the size, intensity, and duration of a Pact attack; and
- The employment of Pact naval and air forces in support of a Pact ground attack.

In the context of analyses of the balance, the following aspects of the threat have been found to be especially important.

- The number of Pact divisions employed against NATO Center varies depending upon assumptions made about the state of Sino-Soviet relations, Soviet intentions on NATO's flanks, the stability of the satellite countries, and the reserve withheld within the interior of Russia. Estimates range from a low of about 60 divisions to a high of nearly 130 divisions. Recent analyses have focused on the "designated" threat of around 86 divisions believed by the intelligence community to be earmarked against NATO Center and on an "augmented" threat of around 126 divisions which results when some Pact divisions believed to be arrayed against NATO's flanks and the PRC and some internal divisions are used to augment the "designated" threat.
- The readiness and equipment holdings of Pact units are important factors about which there is disagreement within the intelligence community. This leads to uncertainty about combat effectiveness of units depending on mobilization. In general, CIA's data reflect lower levels of readiness and equipment holdings than DIA's.
- The Pact's ability and system to replace combat losses of men and equipment is uncertain. This relates both to whether the Pact has the supplies and men to replace lost equipment and troops and to Pact doctrine on where and how replacements are made: on-line on an individual basis or in the rear by discrete units. (CASD/I states that the Intelligence Review Committee for MBFR has developed a more precise interpretation of intelligence than previously available, resulting in a statement of Pact replacement policy that, if properly used in force balance analysis, should greatly reduce the sensitivity to this issue. CIA states that available evidence shows that the Pact continues to plan on replacement by units.)
- The level of predeployment of Soviet submarines assumed prior to hostilities affects the estimated Allied military and economic shipping losses, as do assumptions concerning Pact capability for out-of-area maintenance and resupply.
- The assignment and utilization of total Pact air assets in support of the ground campaign is subject to interpretation and significantly influences assessments of the air balance, as do assumptions of wartime sortie rates. For example, it is possible to change an

inventory comparison which indicates approximate numerical parity to one that substantially favors the Pact by: including Pact reconnaissance aircraft and excluding NATO's; including national air defense units and Soviet homeland air defense aircraft; and excluding forces not formally committed to NATO. It is also possible to establish an inventory comparison that favors NATO by assuming the Pact would not commit combat aircraft in training units and homeland air defense aircraft to the European theater even though the air battles were going badly for them.

Treatment of Allied Forces

- While there is less uncertainty in the size and quality of Allied forces, certain important differences exist in the treatment of those forces. These are
 - When and to what extent to include French forces and forces under National Command not officially committed to NATO (equivalent to about 15 divisions);
 - The assignment and utilization of total NATO air assets; and
 - The number of NATO flagships assumed to be available to assist US reinforcing and resupply efforts.

Analytic Uncertainties

- A number of important analytic approximations have been identified which lead to uncertainty in balance assessments. These are:
 - The relative worth of weapons in opposing forces can be represented by scores which favor the Pact or NATO;
 - The advantage that a defending force has over an attacker is a critical input in dynamic and static analyses of the ground campaign and is based on limited and poorly documented historical experience;
 - The rate of advance of an attacking force is a key element in dynamic analyses of the land battle and is also extremely uncertain;
 - The number of divisions that can be effectively placed on-line at any given time is currently a matter of judgment;
 - The effectiveness buildup of units that require mobilization roundout is based on applied judgment;
 - The range-payload and sortie rate capabilities of threat and friendly aircraft; and
 - Inventory analysis assumes that no attrition occur on either side so that the final force ratios determine relative capability, not the force ratios over time.
 - The effect of the Soviet anti-shipping campaign varies with in-theater consumption rates and the attrition of war reserve stocks and equipment.

- The probabilities of engaging and killing a target vary according to tactics and may not be representative of a combat environment.
- No acceptable system exists for assessing the interaction of the air and land battle or for considering the results of war at sea.

US Analyses and Assessments of the Balance

Different approaches to the uncertainties, issues and problems identified above leads to different views of the balance.

The Land Force Balance

One approach (View #1 in Table 1) to analyzing the land balance in NATO is to consider a range of the uncertainties previously discussed in and attempt to bound the range of estimated force requirements and capabilities. An analysis is now underway within DOD to accomplish this. Two levels of threat have been considered to date: the "designated" threat and the "augmented" threat mentioned earlier. Dynamic wargames and static analyses have been used to evaluate the requirements for, and capabilities of NATO land forces in the FY 72 timeframe. A broad range of inputs and assumptions (Pact replacement policy, weapon scores, etc.) has been explicitly evaluated.

- Preliminary results indicate that programmed NATO land forces fall within the range of NATO favorable and Pact favorable estimates developed after careful consideration of the various uncertainties.
- At the NATO favorable end of the range, the preliminary results indicate that NATO has enough land forces to stop a major Warsaw Pact attack without major loss of territory (consistent with current strategy) against the designated threat.
- At the Pact favorable end of the range, preliminary results indicate that NATO land forces do not have this capability, but can slow the Pact attack.

The preliminary results referred to in these paragraphs should be regarded with caution, for the following reasons:

- Analysis of the "NATO favorable" end of the range of uncertainties was driven by the cumulative effects of a series of assumptions which some consider optimistic, e.g., the designated threat is not augmented by WP Forces in Hungary, the NATO flanks, or outside the three western Soviet districts; WP adheres to a highly disadvantageous unit replacement policy (and is not able to reconstitute withdrawn divisions for 25 days); Allies adhere to the relatively more advantageous individual replacement policy; WP category II and III units were not considered fully effective until M+49 and M+84; objective readiness used for deploying US Army divisions, and D-Day occurs at Pact M+30, NATO M+23.
- (OSD/Defense Planning, Analysis, and Evaluation states that the above assumptions, and others underlying analyses, the results of which are considered favorable to NATO, are in accord with the best intelligence estimates available and on military judgments as to capabilities. All appropriate intelligence authorities are consulted and participate

in the selection of assumptions for such analyses. The assumptions are selected on this basis rather than in a search for particular "NATO favorable" or "Pact favorable" assumptions.)

- Conversely, a range of pessimistic assumptions could be developed which would have the cumulative impact of a most dire prediction for the defeat of NATO in a conventional war.
- The need for caution in use of analyses based on either extreme of optimistic or pessimistic assumptions is further reinforced by uncertainties not taken into consideration by most analyses. Included are such pertinent matters as: WP interdiction of sea LOC's, logistics effectiveness of both sides; interaction of sea, land and air forces; maneuver of forces from the flanks; the availability of French forces and LOC's; the sanctity of Austrian territory; possible Soviet use of Pact and neutral territory on the flanks; necessity for commitment of NATO resources outside the NATO area, including Middle East, North Africa, and Asia, and extended war.

Another approach to assessing the land balance is to develop a single objective estimate based upon a combination of analysis and military judgment. This presumed "best estimate" of force requirements is then used as a benchmark to measure the capability of programmed forces. This technique is the basis for View #2. Compared to the parametric approach, this approach considers the designated threat (86 divisions) and is based on assumptions that use DIA readiness and equipment estimates, assume on-line, individual replacement capability for both sides, and consider divisions on both sides requiring extensive mobilization to be 100% combat effective whenever committed.

This approach:

- Estimates that the US land forces required to implement the strategy at prudent risk are 16 active and 8 reserve Army divisions with support in NATO Center by D + 90.
- Estimates that 3 additional FRG divisions are required to hedge against uncertainties concerning the capabilities of Allies to protect US flanks.
- Concludes that since programmed NATO forces do not meet objective force, there is a risk in implementing the strategy.

The Tactical Air Balance

View #1 concludes from static analyses and inventory comparisons that NATO has a slight numerical advantage and a significant capability advantage over the Pact. The analyses do not attempt to determine how much tactical air power NATO should have to implement any specific strategy in conjunction with ground and naval forces. Rather, they focus on a quantitative description of the air balance through a consistent accounting of inventories and aircraft capabilities. These comparisons indicate that NATO should be able to maintain air superiority

over the area of the ground battle and deliver many more tons of ordnance than the Pact in support of ground forces. Factors such as pilot and aircraft munitions effectiveness are judged to favor NATO.

View 2 concludes that programmed NATO tactical air forces are insufficient to meet European theater requirements, unless total US Air Force resources are committed to that theater, leaving no assets for other missions and theaters. The requirement for tactical air wings is based upon dynamic war game results and military judgment.

The Naval Force Balance

Despite differences in assumptions, and in estimates of effectiveness, strategies and force levels, nearly all studies arrive at the same conclusions.

- Soviet submarines are a serious threat to NATO's sea routes.
- Losses of military reinforcement and resupply shipping will probably be high (25 to 50%) during the first month of a NATO war.
- A very high fraction of the Soviet submarines in the Atlantic will be sunk in a 90 day war, ranging from 50 to 90 per cent.
- Long-term NATO ship losses will be much lower (4 to 18%) than initial losses; in large part due to attrition of Soviet submarines.
- There is considerable risk in NATO's ability to defend essential Mediterranean shipping due to the redeployment of carriers to protect Atlantic sea lanes and, in the absence of land based tactical air, losses of carriers which may occur in a NATO war.

Analyses of SLOC attrition on military reinforcement by proponents of View #1 indicate that even high estimates of Atlantic SLOC attrition losses may not be serious particularly because of the early combat capabilities either prepositioned or air lifted. Additionally, analyses show that protective air coverage is achievable over almost all of the Mediterranean from existing US and Allied land bases which; may reduce the need for carrier operations in the Mediterranean early in the war; and suggests a possible strategy of a shipping stand-down in the Mediterranean until the Soviet threat can be reduced.

View #2 concludes that the disruption of the Atlantic SLOC could threaten the economic survival of Western Europe and restrict vital US resupply and reinforcement of the continent. Proponents of the view note: the heavy draw-down of naval forces from the Pacific to protect the Atlantic sea lines of communication, the likelihood that control of the sea along NATO's Southern Flank would be lost, and the probability that the Soviet Northern Fleet would have virtual naval supremacy in the Norwegian Sea at the outbreak of hostilities. Air defense in NATO's Southern Region is provided for under MC 54/1, SACEUR's Plan for the Integrated Air Defense of Europe, and USCINCEUR general defense

plans. Land-based tactical aircraft could not be used for sea-control operations in a full scale NATO war without degrading their already marginal capability to meet other requirements.

Mobility Forces

Both views agree that programmed mobility forces can move programmed land and air forces in the desired time. Included within that programmed force are 198 NATO ships assumed to be made available by NATO Allies. The principal difference in conclusions is that proponents of View #2 emphasize the failure of programmed mobility forces to meet the requirement to move the objective forces they believe are necessary to defend Europe at a prudent level of risk.

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Allied Views of the Balance

The Allies' assessment of the balance is more negative than the range of US analyses show.

Thus NATO's conventional forces are considered to be grossly inferior to Warsaw Pact forces in all respects, and the gap is seen as widening. The Pact is capable of a quick, decisive victory unless nuclear weapons are employed. A conventional defense against a major Pact attack is not possible at this time, nor is it considered to be within reach.

The general assessment of our NATO allies is that NATO's programmed land forces have about 50% (or less) as much combat potential as opposing Warsaw Pact forces. NATO forces are believed to be particularly inferior in armor/anti-armor and artillery capability. Pact land forces are considered to be capable of reaching the Rhine in 5-7 days.

Warsaw Pact tactical air forces are believed to outnumber NATO's by over two to one, thus giving the Pact a capability to establish theater-wide air superiority within one or two days. Significant NATO deficiencies are believed to exist in air defense capability, sheltering of aircraft, command and control techniques, and integrated operating doctrine.

NATO's naval forces are heavily outnumbered in the Baltic and North Seas. Coastal defense is considered to be a serious problem, and many of the Allies designate most of their naval forces for this purpose. NATO's ASW and surveillance capability are also considered to be deficient.

Implications of US-Allied Differences on the Balance

The Allies' perception of the balance has resulted in a number of inconsistent assumptions that impact on force planning. Of primary importance is the view that the conventional phase of the war will last only several days because Pact forces are greatly superior to NATO's in all mission areas. This has led our NATO Allies to focus on the nuclear deterrent, and to plan support for conventional forces in a much shorter war than the US considers. Another area in which this problem becomes apparent is in the planning emphasis placed on reinforcement capability. The US is continually attempting to improve the readiness and capability of its reinforcing forces. Emphasis is also placed on providing adequate mobility forces and lines of communication to ensure that these forces can be deployed in a timely fashion. The NATO Allies, on the other hand, never account for this US capability (not even air), and probably view these forces to be of little value because the conventional phase of the war would be so short.

Furthermore, member countries generally place emphasis on different aspects of force improvement, and tend to perceive the worth of various improvements differently.

These assessments are influenced by Allied political views. The Allies would not wish to suggest that the military balance is sufficiently favorable to permit US troop withdrawals from Europe, that conventional defense is sufficiently feasible to call into question the necessity of strong nuclear coupling, or that (particularly in the case of Germany) the balance is so equal that a long war on European territory is possible.

Finally, divergent views on the balance will affect NATO's ability to arrive at common MBFR positions and to hold to them over the course of the negotiations.

Against this background, there could be important advantages to a dialogue with the Allies with a view to achieving a more realistic and accurate view of the balance. Without this, they could lack incentive to make improvements that could have high returns for NATO's ability to defend conventionally.

However, much of the detailed data used in US analyses has been provided by Allied nations on a bilateral basis. In order to discuss fully the data used in developing our perceptions of the balance with the Allies, we would have to discuss the matter bilaterally with individual Allies, with discretion, and waive some provisions of our disclosure policy. We would also have to consider release of some US force and planning information not given to NATO. Further, there is a risk that US intelligence systems could be compromised. In addition to releasing data, assumptions, and results of analyses, full consultation could lead to joint efforts between us and our Allies at further analysis.

Finally, the possible political difficulties of such a dialogue must be considered, and careful examination of the objective to be sought, means to be employed, and possible consequences of the consultation effort would be necessary.

IV PROGRESS IN IMPROVING NATO'S ABILITY TO DEFEND

Over the past four years the US and the Allies have made substantial efforts to identify and correct critical deficiencies and anomalies in NATO defenses. These efforts have moved forward on separate tracks in NSDM 95 and NSDM 133 studies and the defense planning cycle in the US, and in the framework of the Alliance Defense for the 1970's (AD-70) review within the Alliance. However, both the US and the Allied efforts have focused on roughly the same set of priority areas for force improvements. At the same time, the approach and specific steps taken have reflected the differences between the US and the Allies concerning the mission of conventional forces and the feasibility of more than a very short conventional defense.

In what follows, we review the deficiencies identified and steps taken to correct them. It is important to note at the outset that the US, within program force constraints, has for the most part already completed and in some cases exceeded the improvement programs specified in NSDM 95 studies. And the Allies have carried out their planned programs and commitments with slight exception: their modernization and replacement programs are generally beyond schedule, with some differences from AD-70 recommendations.

Defense Against Armor

Countering the large Soviet tank threat is generally regarded as a key determinant of NATO's ability to defend. The Allies have tended to stress the need for a general increase in NATO tank strength to meet the threat, while US analyses have suggested tank increases on a more selective basis. Both the US and the Allies have placed considerable emphasis on the utility of new generations of anti-tank weapons.

Specific improvements in this area include the following:

- The US has increased programmed TOW and DRAGON on the order of 40% and the TOW-Cobra anti-armor helicopter program has been doubled.
A tank battalion has been added to each European based mechanized infantry division, and the number of Sheridan tanks in Europe is doubling.
- All Allies are introducing modern anti-tank weapons (900 in the period 1971-73 -- 8300 through 1976). The FRG and the Netherlands are increasing the number of tanks in units by over 500.

The Air Situation

Sheltering and dispersal of aircraft to reduce vulnerability to Pact air attack on NATO bases is generally recognized within the Alliance

as a key measure. Modern conventional munitions and improved electronic warfare capability have also been identified as important means of enhancing NATO's air capability.

Specific steps taken in this area include the following:

- By December 1973 all US fighter/reconnaissance in Europe or dual-based (but not in UK) will be sheltered. Significant improvements have been made in the offensive and active air defense capabilities of US aircraft through modernization and introduction of new equipment.
- Allied air capability is being enhanced with continuing introduction of new aircraft. Aircraft are being equipped with self-protective electronic measures in the period 1973-1974. 30 day munition stocks should be achieved by 1975. Short range air defense for each wartime air base is being achieved with 20 and 40mm weapons and all-weather weapons (e.g., Rapier 35mm, Roland) will be added at the end of the program period. The sheltering program provides that 70% of NATO committed aircraft will be protected by 1975.

Mobilization, Reinforcement, and Reception

Given the Allies' strategic concepts and belief that more than a short conventional defense is infeasible and unlikely, they have emphasized high manning levels for active units as opposed to building additional reserve capability. US views dictate emphasis on improvements in reserve capability. With this said, there is general agreement that greater use must be made of Allied reserve manpower, and the procedures for mobilization, equipping, and training reserves must be streamlined in order to improve M day capability and to make reserve units available and effective for employment before M + 15.

The situation in this area is as follows:

- Major improvements in US mobilization, reinforcement, and reception have not been realized; however, studies and tests are underway to determine concepts that will improve reserve readiness and shorten training time. Six light reserve component brigades are being converted to a heavy configuration and earmarked for early deployment. US European forces have priority for personnel, and turbulence has been decreased.
- Allied mobilization programs are proceeding as planned, but budgets devoted to reserves are low. There has been a significant increase in last two years, however, of Allied reservists available before M plus 15 days.

War Reserve Stocks and Logistics Support

Both US and NATO studies identified deficiencies in logistic support and war reserve stock levels.

There is a sharp divergence between US and Allied war reserve stock level objectives caused by: differing national views of strategy and the proper force-support balance; and the use by each country of its own consumption rate guides for procurement planning. Because the Allies plan on a short, intense war, their war reserve stockage objectives are designed to support 30 days of intense combat at high consumption rates. The US, on the other hand, computes war reserve stockage objectives designed to support combat in NATO through D + 90 days, and is programming funds to meet those objectives by end 1976. The problem of bringing consistency to Alliance war reserve planning is greatly magnified by the fact that each country establishes its own by-item consumption rates for planning. Although we do not have complete and current information on these detailed national planning factors, the data we do have strongly suggests there are wide variations among countries. Within the Alliance, there is general agreement for early funding and filling out of the 30-day stock objectives. There has been agreement on the need to improve compatibility and interoperability in equipment and logistic procedures.

- For the US current programs provide for filling out deficiencies between current munitions, stocks and objective levels. The US currently has critical shortages in some air munitions categories, principally in improved conventional munitions. US stock level objectives are for 90 days at US intense combat usage rates - part of these are prepositioned overseas, part kept in CONUS stocks.
- Coordination, interoperability and commonality of logistics procedures remain problems in the Alliance and little has been done to improve them. The Allies have not completed filling out their 30 day stock level objectives. Their current programs should enable them to do so in the near future, but the achievement by individual nations of their own stock level objectives will not necessarily mean consistent levels throughout NATO due to the different rates of consumption used for planning. This uncertainty on the adequacy of NATO war reserve stocks will continue until either one planning rate is used by all NATO countries or a reliable method of relating the different rates is found.

Integration and Coordination of NATO Forces

Deficiencies in this area were originally identified by NATO with regard to situation reporting, consultation, and control of crisis management -- all important for use of nuclear weapons. The US stressed improvement of the NATO Integrated Communication System (NICS) and more recently deficiencies in tactical communications as well as command arrangements and organization have been generally identified. The US has also stressed the need for improved integration and coordination of Allied air forces in the Center Region.

- NICS is progressing well.
- The Allies are addressing the problem of an improved fit between Allied air forces in Europe; however, specific steps have yet to be taken.

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Naval Forces

NATO has stressed a need for qualitative weapons and systems improvement, modernization and replacement of older ships and patrol aircraft, ASW and surveillance, self defense, EW, and some quantitative increases.

- Currently approved US naval construction programs are projected to deliver new ships to the fleet during the 1970's resulting in overall fleet modernization. Overall numbers of ships will decrease, but these programs should provide qualitative improvements in our maritime capabilities. (The Joint Staff states that the introduction of sea control ships and patrol frigates will offset, to some extent, the reductions which have occurred in ASW forces. However, a reduction has been proposed in our 1973 NATO Navy commitment in the amount of 36 additional ships because of fiscal decisions. This trade off between force levels and force readiness could have an adverse effect on our maritime capabilities in the Atlantic and to a lesser degree in the Mediterranean.)
- Progress in SONAR, EW, and communications has enhanced Allied maritime capability as part of overall fleet modernization programs. Much current European ship construction is oriented on improving close-in coastal defense, with emphasis on forces that can be utilized to control the Baltic approaches and Turkish Straits. On the other hand, the UK and Belgium are building ocean escorts.

It should be noted that a "maldeployment" problem was identified by the US in 1970 and recognized by the Allies in 1971 as establishing a need for improving the peacetime location of screening and covering forces as well as need to increase main forces in forward areas. Major shifts in forces seem impractical from a cost standpoint and indications are that this may be less of a deficiency than earlier believed.

Results of Force Improvements

Since 1970, when the Alliance and the United States took the necessary decisions, there has been a substantial but unquantifiable increase in the conventional combat capability of NATO. We are better equipped to deal with a conventional threat today than we were 3 or 4 years ago. Progress in all areas has not been consistent, but there has been improvement in every identified deficiency category. The highest payoff in combat capability appears to be in the area of defense against armor and improvement in the air situation. Probably because the Allies believe that logistic support and mobilization/reinforcement improvements do not offer much payoff in capabilities that maximize deterrence, we have made the least progress in these areas. Similarly, the flanks and maritime improvements have not received the same degree of attention as the Central Region of NATO.

In assessing the Allied effort, it is clear that:

- The Allies have maintained stable or increasing military budgets in real terms.
- The Allies have maintained personnel levels and force structure.
- The Allies have made real progress in equipment modernization and related programs.
- The Allies continue to improve their cooperative efforts through the EUROGROUP, particularly in the areas of weapons systems procurement and training.

(State believes that Allied force structures and levels as well as budget as percent of GNP have not been increasing or stable.)

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V. FURTHER IMPROVEMENT OF NATO CONVENTIONAL DEFENSES

The assessments of NATO's ability to defend conventionally presented in Section III reflect current forces, with the exception of the Naval situation, and do not incorporate the planned and programmed improvements to NATO's ground and tactical air forces set out in Section IV. These improvements are substantial, and therefore, could conceivably alter the assessments presented, depending on how much the Warsaw Pact forces improve during the same period. Initial steps have been taken within the DOD to perform an analysis of outyear (FY 76-78) NATO land force capabilities.

The differing assessments of NATO's current ability to defend described in Section III can lead to different statements of what may be required in the way of further force improvements to provide an effective NATO conventional defense.

- If the view is taken that NATO now has a credible defense option, then the logic and purpose of further force improvements would be to enhance confidence in that capability and to make more efficient use of NATO's combined resources.
- If the view is taken that NATO now has only a marginal conventional defense option at best, then the approach would be oriented toward major increases in units and weapons: divisions, tanks, aircraft.
- If the view is taken that NATO now has only a minimal conventional defense option, then massive increases in US and Allied forces would be dictated.

Moreover, the differences between US and Allied strategy and force planning concepts delineated in Section II will also bear on judgments on what further might be done to improve NATO defenses. Thus, substantial increases in conventional forces and logistics, whatever the view of the balance, may conflict with the constrained strategic role that the Allies assign to the conventional forces.

Constraints

Strategy and the balance aside, the pressures on defense costs and budgets discussed earlier place constraints on what is achievable in further Allied force improvements. The Allies will be constrained as to resources of manpower and funds -- manpower, because it consumes such high proportions of budgets and because military service seems unattractive in economies in which unemployment is 1% or less -- funds in that the increase in funds now being made is barely sufficient to cover inflation, pay increases, and equipment replacement costs. Moreover, the parliamentary and public pressures described earlier make it unlikely that larger proportions of national budgets will be devoted to defense, and some funds may have to be made available for US burden-sharing requirements.

Guidelines

In light of the above, the following guidelines for improving NATO forces would focus action on the more critical problems and deficiencies, within the bounds of constrained resources:

- Ensure that defense budgets increase in real terms.
- Direct further modernization of equipment efforts into high priority, high payoff areas in defense against armor and the air situation: e.g., higher densities of anti-tank weapons in maneuver units, electronic warfare equipment, additional aircraft shelters, improvements to low-level air defenses, and purchase of improved munitions.
- Increase the numbers of reserve combat units, well-equipped and trained at a level which will permit their rapid mobilization as an effective augmentation to active forces.
- Clarify and improve logistic and maintenance posture of the Alliance, so that levels of support are consistent, facilities and supplies are interchangeable, and so that costly duplication may be eliminated.
- Ensure the practical integration and coordination of NATO forces through improved tactical communications, including better planning and coordination of close air support by tactical air forces.

Force Improvement Steps

This section delineates specific steps that might be taken to enhance NATO capabilities, consistent with the preceding guidelines and constraints.

(CIA states that two aspects of Warsaw Pact plans for war with NATO are important in consideration of prioritizing NATO force improvements. First, the recently identified additions to Pact tank forces shows continued reliance by the Pact on the high shock effect of tank heavy attacking forces. If NATO is to successfully stop Pact forces the tanks must be dealt with as early in the war as possible. In the air, the Pact plans to engage in high intensity conventional attacks on NATO airfields immediately after war breaks out in order to win air superiority. If NATO is to survive this attack, rapid reaction time and optimum air control along with defense of airfields and aircraft on the ground is of top priority. Force improvements in other areas would buy little if the attacks by Pact tank and air forces could not be blunted significantly in the earliest period of combat.)

Anti-Tank Weapons

While our Allies plan large purchases of second generation anti-tank guided missiles, there is a good deal of confusion in NATO as to their value, their organization or even what constitutes an anti-tank weapon. Each of the Central Region countries seems to have a different concept for organizing anti-tank weapons, whether in recce units, mech battalions, or specialized tank-hunter units. SHAPE is still conducting studies of the best mix between tanks and anti-tank weapons, while the US simply plans greatly to increase the density of anti-tank weapons in infantry battalions.

- The first task would seem to be to clarify the numbers and organization of anti-tank weapons in each country's program. There are undoubtedly lessons to be shared.
- A second task would be to ensure that large quantities of the one-man (DRAGON) and two-man (MILAN) weapons enter the forces, whatever the status of the tank/anti-tank mix debate. This would ensure an improved defensive capability.
- A third task to ensure an optimum balance so that the smaller number of highly sophisticated carrier vehicles does not dominate the organization. Such vehicles include helicopters, the UK/Belgian Striker, or even Scorpion or Sheridan.
- Details for coordinated planning in NATO will need to be developed.

Shelters for Aircraft

Present shelter programs cover only part of the aircraft owned by NATO, and only a very small portion of the planned US reinforcements. Expansion of these programs would provide a significant increase in the capability to survive an initial Pact air attack. The program objective might be:

- Provide shelters for all Allied aircraft and all US aircraft scheduled to deploy by M+30. The shelters would be funded by the Allies. The Secretary of Defense has approved such a program in principle although the Allies have not been approached on the issue as yet.

Low-Level Air Defenses

This is an area where piecemeal improvements have been taking place, with a proliferation of systems, lagging improvements to ECCM capabilities. A cost-conscious, evolutionary, coordinated program is needed, based on a realistic estimate of the threat. Such a program, and the specific steps entailed should be developed jointly with the Allies.

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Munitions

Air munitions stockpiles, especially of modern munitions, are very low in NATO. While several countries (e.g., FRG, Belgium, Canada) report in DPQ-73 responses the initiation of programs for modern air munition buys, the extent of such purchases is not yet known and countries have not yet decided to pick up US weapons such as laser-guided bombs and MAVERICK. As in the NSDM-95 Follow-On Studies, a clear priority must still be placed on the purchase of modern air munitions, including MAVERICK and laser-guided bombs. Further, Improved Conventional Munitions (ICM) for artillery are hardly mentioned in NATO documents and DPQ replies and the extent of Allied purchases is not known. These are artillery, rocket or air-defense rounds which disperse multiple bomblets over an area. They have greatly increased effectiveness against both hard and area targets.

Improvement objectives might be:

- Increase Allied purchasing and stocking of improved air munitions (smart bombs). US capabilities in this area have been made known to the Allies. We should continue these discussions and encourage the purchase of at least 30 days worth of these weapons.
- Increase Allied purchasing and stocking of improved conventional munitions (ICMs). The US could exchange more information in this area and encourage Allied purchase of at least 30 days worth of these weapons.

Electronic Warfare

Almost all countries report the acquisition of radar homing and warning devices for aircraft as the first step in improvement of air ECCM capabilities.

- The emphasis in further ECCM purchases and programs should be on those which aid air defense and close air support, rather than on aids to offensive penetration.
- Priority Land and Naval ECCM programs remain to be defined at the political level, though the level of dialogue appears to be high at the various NATO commanders: no other activity in NATO is reported as frequently as electronic warfare conferences of all three Services.

(The Joint Staff would include the following on Surveillance and ASW: Most countries contribute regularly to the peacetime surveillance of Soviet combatants and, in times of war, would be counted upon to protect the essential sea lines of communication. By the late 1970s, however, several destroyer and escort types will be nearing the end of active service. This, a major improvement objective is the development of a new generation of surface combatants -- an objective which must be pursued in the early 1970s because of the long lead times in naval construction.

- The emphasis on ship construction should be on a country basis, taking into account the feasibility of extending the service life and capabilities of present generation ships. However, the momentum toward new construction should not be subordinate to these stop-gap measures.
- The rationalization and specialization of allied forces should be considered in terms of the necessary balance between coastal and open ocean capabilities required to counter the Soviet naval threat.)

Reserve Combat Units

The emphasis in this area is on land forces. There would appear to be little opportunity to organize the equivalent of US Air Force Reserve and Air National Guard units in Allied countries, since almost all aircraft are related to active units, and less capable aircraft being phased out of forces are truly obsolescent. A similar situation obtains in Allied naval forces.

Various studies have shown the utility of ready reserve forces in NATO defense. The requirements for any additional reserve units would seem to be that they be well-equipped and be trained and exercised at a level which will permit their rapid mobilization and early effectiveness. Full examination of the possibilities in this area and delineation of specific programs would require the full involvement of the Allies directly concerned. Immediate objectives that might be pursued include the following:

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- German plans to organize three second echelon armored brigades at corps levels, equipped with M-48 tanks phased out of M-day units, in a tank-hunting role should be encouraged.
- Belgium, Netherlands, including call-up exercises; rely on the Gendarmerie for internal security roles (indications are that they may so plan), in order to let all other units move forward; brigade their ten light infantry battalions by the organization of cadre brigade headquarters and improve the equipment of these units through the use of wheeled scout vehicles equipped with anti-tank weapons.
- The Netherlands' four infantry brigades in second echelon, under national command, with a total of 15 battalions could be given upgraded anti-tank capabilities and their 25 pounders could be retired and replaced with 105mm howitzers, any number of which are becoming surplus as other NATO countries move progressively to 155mm howitzers.

The Logistics Posture of the Alliance

NATO needs to clarify and improve its supply and maintenance posture so that levels of support are consistent, facilities and supplies are interchangeable, and so that costly duplication may be eliminated. This area has been greatly hampered by disagreements over the likely length of a conventional phase of war in Europe as described earlier. As noted, the allies maintain 30-day goals for conventional ammunition stocks (vs. US 90 days), keep most of their logistic organization in second echelon, and do their own logistic planning (that is, they attend to the peacetime half of MC-36/2, but not the wartime part which allows for some sharing once all forces fall under NATO command). There is a need to ensure consistent policies and cooperation to make best use of the combined resources of the Alliance and to ensure that NATO defenses do not fail for lack of adequate support. There are two dimensions to this problem:

- Comparing planning factors that bear on stock levels and reducing disparities in consumption rates and stock level objectives.
- Developing increased interchangeability in facilities and supplies (e.g., in cross-servicing for aircraft and land vehicles) and cooperative logistic planning so that duplication can be eliminated.

Specific steps can only be developed on the basis of joint US-Allied discussion and planning.

Integration and Coordination of NATO Forces

The priority task in this area is support of the efforts to coordinate 2ATAF and 4ATAF through combining them into a single AFCENT tactical air command. There are substantial and deeply rooted shortcomings in the posture and capabilities of air forces in the central region, as a result of which it is not presently possible to obtain anything like full value from the inherent flexibility of NATO's air weapons.

There is a considerable range of improvements, already identified, which should be put into effect regardless of the air organizational structure. These include:

- An improved tactical air control system capability for increased responsiveness throughout the central region.
- An improved capability for interoperability and mutual air support throughout the central region.
- An improved communications network throughout the region.
- Improved static and mobile headquarters for AFCENT, CENTAG, NORTHAG, 4ATAF and 2ATAF.
- Automatic data processing support for basic requirements of operational command (e.g., tactical intelligence, real time status of forces, base and logistics capabilities, etc.)
- Improved exchange of the full range of technical intelligence, reconnaissance data and reconnaissance technical support.

All of the above mentioned improvements, however, will be largely ineffective without accompanying organizational arrangements that will permit the welding of national air contributions in this region into a force characterized by unity and flexibility of employment. The issue of centralized control of air forces is primary and must be achieved if all of the other improvements are to have a positive impact.

Movement toward a complete reorganization must be deliberate, however a quantum jump in capability can be taken the near term by reorganizing to take advantage of existing NATO and National facilities, equipment, and combat capabilities; this can be achieved without requiring any nation to procure substantial amounts of new equipment or facilities, or to change its fundamental combat doctrine. Recommended steps follow:

- At a minimum establish an AIRCENT Hq using existing facilities at Ramstein/Kindsbach.
- Establish two headquarters with staffs at Army group level with the primary responsibility of servicing Army group air support requirements. Preferably this should be accomplished by dis-establishing 2 and 4 ATAF and in their place establishing two deputies AIRCENT.
- Establish 4 NATO tactical air operations control centers - 2 in the North and 2 in the South; integrate and interface the air support operations centers and direct air support center requests nets into a single AIRCENT Command and Control system, with the ability to provide tactical control of available air assets, including direct and close air support and air defense.

NATO Cooperation in Standardization and R&D and Procurement

Coordination of R&D was addressed in AD-70 and has been an objective for many years. To date no substantial results have been achieved. U.S. ministerial initiatives should be developed in this area to spur allied participation in a program for coordination in R&D and procurement. An example of an area where lack of coordination has resulted in costly duplication is that of anti-ship missiles where there are presently some twenty-four different missiles being developed or procured in NATO. Specific areas which should be addressed are:

- Offer to provide higher level of weapon system technology to allies.
- Simplify licensed production/co-production procedures to attract such choices and to negate undesirable economic impact.
- Provide practical means for technology transfer.
- Adopt a European system to satisfy one of US military operational needs.
- Conduct ministerial review of Council of National Armaments Directors (CNADs) efforts to resolve NATO Military Command requirements for interoperability/compatibility/interchangeability of weapons/systems objectives.
- Encourage more face-to-face discussion between CNAD and top NATO military commanders.
- Support proposed studies by CNAD for new systems:
 - Rifle for NATO-FRG
 - Close Range Defense against Anti-Ship Missiles - Canada
 - ECM for Aircraft - US
 - Antiartillery Systems - Denmark
 - Airborne Early Warning - UK

(State believes the following guidelines should be observed: cooperation must be a two-way street; cooperation must be on a program rather than an ad hoc project basis; cooperation must be organized on a multi-annual rather than an annual basis.)

Alternatives

Most of the improvement proposals presented in the previous section are defensible and presentable to NATO on a straightforward basis, without settling the different Allied and US views of strategy and the balance. The proposals are designed to increase confidence in NATO's conventional defense capabilities and make better use of NATO resources -- notwithstanding MBFR negotiations, resource constraints, and offsets to US costs -- by treating NATO as an integrated force more than ever before, and by enhancing defensive capabilities.

However, it is likely that the NATO dialogues on utilization of reserve combat forces, logistics, and standardization will not proceed very far without coming up against the basic differences on strategy and the balance. Thus, any far-reaching steps in these areas would presumably require (a) greater agreement on the necessity of initial conventional defense capabilities, and (b) conviction on the part of the Allies that such capabilities are within reach.

Moreover, the existing national structure of logistics in NATO, the structure of Allied and especially US forces (particularly numbers and organization of units and the balance between combat and support), and the distribution of roles and missions between US and Allied forces could all be reexamined with a view to a general reshaping of NATO defense that might:

- integrate US and all NATO forces far more than they now are into a single fighting force,
- more systematically structure for initial conventional defense. (The Joint Staff states that it is important to the US interest that the nuclear threshold be maintained as high as possible for as long as possible. To that end, a sustaining capability is the essential aftermath of a successful initial conventional defense.)

Related measures that have received attention in one context or another include the following:

Addition of Sizeable Numbers of Reserve Units, Beyond Those Discussed in the Previous Section.

The controlling factors are the availability of cadres, and the availability of equipment, though reserve units need not be as heavily equipped as active units. Some expansion of this sort might be achieved through the placing in reserve status of some less important combat units, such as air defense units, and the civilianizing of those support elements which are now performed by active units. Such measures would apply mostly to Belgium, Netherlands, and Germany (as well as France, which has the framework for a greatly expanded structure).

A Changed Mix of Mobile, Armored Units and Territorial Forces.

The former would be responsible for counterattack missions, and the latter for defense of space. Territorial forces would require much less mechanization and support structure thus permitting the greater part to be in cadre. There would be less emphasis on a rigid forward defense concept, and less expectation that a surprise attack would be of considerable size or that preparations for it would go unnoticed. The German MOD counterproposals to the recent Force Structure Commissions proposals may be along these lines.

More Efficient Distribution of Roles and Missions Among Alliance Members, to Permit Countries to Specialize More and Avoid the Costs of Purchasing and Maintaining Small Numbers of Many Weapons Systems.

The Allies call this "rationalization" of the force structure. The Netherlands is particularly interested in the concept, which would allow them to either limit the capabilities of the follow-on aircraft to the F104G, or even eliminate the air force. The US could emphasize its superior tactical air contribution following reduction of land forces. By the same token, remaining US land forces could be assigned a counterattack mission, having been relieved of front-line assignments. The US could leave recce functions to the Bundesgrundshuetz, the Canadians, or other mobile forces. US and UK could maintain a deep interdiction capability, while other nations could concentrate on close air support and defense of NATO airspace. These concepts need to be further developed, and their advantages and disadvantages identified.

Common Logistic and Other Support Organizations.

The Euro Group is already discussing the pooling of logistic systems, training facilities (another example where specialization could be sought), common equipment procurement programs, and common stockpiles, presumably of such things as ammunition, spare parts, and possibly even reserve equipment. The US should study the implications of joining in any such arrangements and should consider an active role.

Burden-Sharing Logistics Arrangements Between the US and Its Allies.

These could be expanded to include (a) LOC/PORT operations, (b) line haul of military cargo by road, rail, or barge, (c) O&M of facilities and equipment (d) maintenance of prepositioned equipment, (e) construction, (f) O&M of national POL distribution systems. Rear area security and rear area engineer tasks could be turned over entirely to German civilians in peacetime, and to the German Territorial Army in wartime. The pros and cons of such steps need study, but advantages might include permitting even more of US capabilities to be concentrated in immediate combat capabilities, and making any MBER reductions with as little loss as possible in these capabilities.

Far-reaching measures of such significance need to be carefully studied within the US Government to identify specific steps and to evaluate their advantages and disadvantages.

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VI. THEATER NUCLEAR DOCTRINE AND FORCES FOR NATO

US and NATO policy for use of theater nuclear weapons is in accord with MC 14/3 strategy. Policy guidance has been formulated by the Nuclear Planning Group (NPG) in NATO and is reflected in the following key documents:

- 1967: MC 14/3
- 1969: Provisional Political Guidelines for the Initial Defensive Tactical Use of Nuclear Weapons by ACE.
- 1969: General Guidelines for Consultation Procedures on the Use of Nuclear Weapons.
- 1970: Concept for the Role of Theater Nuclear Strike Forces in ACE (revised 1972 to take account of the introduction of POSEIDON).
- 1970: Special Political Guidelines for the Possible Use of Atomic Demolition Munitions (ADM).

The current DPPG objective for Theater Nuclear Force for Deterrence states that: "The desired objective of our theater nuclear forces is deterrence. If deterrence is to be credible, these forces must provide realistic and effective employment options. Theater nuclear forces are designed to deter nuclear warfare, and they help to deter conventional aggression because of the uncertainty which surrounds the circumstances under which theater nuclear weapons might be employed." The JCS are currently reviewing this guidance in terms of ensuring that the credibility of the deterrence is assured by maintaining a warfighting capability against the enemy threat.

These NATO guidelines cover a full range of theater nuclear options, including possible use extended beyond the battlefield. Despite some Allied interest in restrictive consultative arrangements, NATO agreed to avoid inflexible or elaborate procedures which might endanger the credibility of the deterrent or limit the freedom of action of the President. The Allies acquired a real sense of participation in the development of each of these concepts. With the ADM paper a useful doctrine was agreed to which skirted the issue of preconditioned release authority.

Currently the US is participating with the NPG Allies in comprehensive studies of the "follow-on" use of tactical nuclear weapons, that is, after initial use by either NATO or the Warsaw Pact. These studies are likely to be completed in 1974, and will probably result in the formulation of further policy guidance.

Our NATO Allies believe that deterrence rests on an obvious capability to exercise nuclear options in war. They view the presence of US nuclear weapons in Europe as tangible evidence of the bridge between NATO's conventional capabilities and US strategic forces. Through the NPG we have involved both nuclear and non-nuclear nations in joint-examination of difficult nuclear questions -- in effect keeping the perennial NATO nuclear dilemma under reasonably good control. NPG has also reserved for the FRG a special place alongside the participating nuclear powers, and provided an alternative to other possible "nuclear sharing" arrangements. The US nuclear commitment to European deterrence and defense is explicit in its

existence and has been woven into the fabric of the NATO Alliance. The current strategy arrangements reflected by MC 14/3 were adopted as a compromise between the need to provide alternatives to massive nuclear response and the need to maintain the deterrent effect of the ultimate US guarantee. Any proposed changes to the strategy, unless carefully presented in light of this compromise, could be perceived as a shift in the commitment of the US to European defense and could result in complex political problems detrimental to NATO security interests.

Today, however, policy with regard to theater nuclear weapons -- both the philosophy of their use and the numbers of warheads and delivery systems -- should assume a new significance to Europeans. They have long been concerned that the US would not make any nuclear response to a Soviet conventional attack that does not immediately threaten the security interests of the United States, or, even worse, that a mutual sense of survival would lead the superpowers to confine the nuclear battle to the soil of Western Europe.

Thus, any course we follow seeking to improve the capabilities or credibility of the theater nuclear deterrent must be presented in such a way as to avoid suggesting a decoupling of our theater systems from our central systems. The changes to US policy for employment of nuclear weapons (especially the concepts for control of escalation) proposed in the NSSM-169 study could raise a number of Allied concerns, if they are not carefully presented. The NSSM-169 study discusses these possible concerns in detail and proposes an approach to our NATO Allies. Further concerns include:

- If we resolved too many ambiguities and uncertainties in order to refine our objectives for theater nuclear forces, Western Europe fears of "decoupling" might be enhanced rather than allayed.
- Several actions are planned to modernize the current weapons stockpile which is largely obsolescent in terms of limiting collateral damage and improve target acquisition capability as well as weapons accuracy. This is expected to make these weapons more effective militarily and hopefully more acceptable politically. However, if not presented carefully, these efforts might be seen by some allies as evidence of decoupling.
- If we sought to alter the number or mix of nuclear weapons and delivery vehicles in Europe to reduce vulnerability or to improve force efficiency, Allied reaction would focus on whether or not such actions (1) appeared to strengthen or weaken deterrence, (2) implied decoupling, (3) diminished the opportunity for visible participation in NATO's nuclear strike programs, or (4) was coupled with an agreement for reductions of Pact Forces which the Allies felt to be worthwhile compensation.

Roles and Capabilities of NATO Nuclear Forces

NATO nuclear forces are those nuclear forces which are committed to SACEUR for NATO defense. These forces are comprised of delivery systems for a range of nuclear options covering strikes against enemy forces as well as against his means to support his operations. Included in these forces are those weapons/systems which could be classified as strategic, such as SLBMs located in the theater or assigned to SACEUR for NATO defense.

- The credibility of forces for deterrence must be measured in terms of perceptible warfighting capabilities. Only a military strategy which is based on the ability to conduct effectively all forms of warfighting, nonnuclear and nuclear, can support the national strategy. This ability depends on the complementary relationship among adequate in-being dual-capable conventional forces supported, as necessary, by theater nuclear weapons and strategic nuclear forces. Each force capability has a vital and unique role to play in deterring, controlling and terminating conflict.
- A credible theater nuclear warfighting capability is a necessary element of this strategy since it is a direct deterrent, which in conjunction with a credible conventional warfighting capability makes both nonnuclear mass attack and theater nuclear attack unattractive options for a potential aggressor. Beyond direct deterrence, a theater nuclear capability provides potentially favorable options between conventional conflict and and surrender or a general nuclear response.
- Given the prospect that the nature and circumstances of future conflict are left largely to the enemy to determine, US strategy must emphasize a capability to defend initially at whatever level the enemy chooses to fight and, at the same time, confront him with a wide range of possible response options from withheld forces.
- Once hostilities have reached a level which requires the use of theater nuclear forces/weapons, the ability to conduct highly effective but discrete attacks of selected target systems probably affords the best opportunity for controlling escalation and reestablishing deterrence on terms acceptable to the United States.

Military/Defense

With nuclear weapons and delivery systems deployed in support of NATO ranging from ADM to POSEIDON, and plans and concepts for their use having been agreed, NATO's theater nuclear forces could offer a serious response to Pact nuclear or overwhelming conventional attacks. We believe there is a rough parity between NATO and the Warsaw Pact in nuclear capabilities. There is a potential for significant improvement of our theater nuclear capabilities in the areas of survivability, command and control, target acquisition, warhead modernization, and weapons accuracy. The Pact appears to plan a single role for nuclear weapons, namely, massive attack; however, our orientation covers a much wider spectrum required by MC 14/3 strategy. Possible roles, complementary to those of US and Allied conventional forces, include:

- To demonstrate resolve and encourage WP to negotiate or withdraw.
- To provide options for defending vital US and Allied interests while seeking to control escalation.
- To halt WP offensive without major loss of NATO territory.

- To limit damage that could be caused by certain WP capabilities with pre-emptive strikes against those capabilities.
- To create situation exploitable by conventional and nuclear forces through significant reduction in WP military capabilities, giving NATO an important military advantage and opportunity to retake lost NATO territory.
- To help prevent seizure of Western Europe in the event of all-out nuclear war with the Soviet Union.
- The feasibility of each of these roles remains to be tested, including "damage limiting" and the risks associated with first use of theater nuclear forces must be weighed. The problem of Pact response is not to be underestimated since the Soviet military doctrine provides for large preemptive nuclear strikes throughout Europe upon indication that NATO is about to use nuclear weapons.

Theater Nuclear Options

Options for the employment of theater nuclear forces are under review in order to provide a range of capabilities to respond to any level of aggression. In general they are:

- Demonstration. The use of one or several weapons to indicate a willingness to escalate if necessary. This option has little or no military use but is included in NATO guidelines.
- Limited Defensive Use. A showing of resolve to defend against continued aggression and to achieve a more meaningful military effect than is possible by a "demonstration." This action would be confined to Allied territory or international waters.
- Restricted Battle Area Use. The use of nuclear weapons sufficient to convey the message of high resolve and the ability to deny the enemy his objective. Objective is to halt enemy and permit diplomatic processes to work.
- Extended Battle Area Use. The use of nuclear weapons in an enlarged geographical area beyond the immediate battle area. Objective is to stop the attack and to redress an unfavorable balance of opposing force capabilities while signaling restraint.
- Theater-wide Nuclear Use. The objective is to neutralize the enemy threat in the theater and seize the initiative to force conflict termination.

Coupling of US Strategic Forces.

The development of limited attack options utilizing strategic forces could offer promise of improving the credibility of a US strategic response in the event of an attack on NATO. This is addressed in NSSM 169.

Potential Changes in NATO's Nuclear Posture

Specific elements where changes could be usefully considered are:

- Theater nuclear stockpile.
- Command and control system/procedures.
- Employment concepts.
- Theater nuclear force survivability improvements.

For the near term little can be done to alter the stockpile which is not already planned or programmed. However, available technology might improve the effectiveness of current weapons while reducing collateral damage and providing carefully controlled effects through

- Increasing delivery and fusing accuracy.
- Dial-a-yield options including very low yields.
- Clean or tailored radiation options.

Command and control problems in NATO have been the subject of intensive study and in September 1972 USCINCEUR made known through JCS channels his Required Operational Capability for Selective Release communications improvements as part of the World Wide Military Command and Control System (WWMCCS).

Possible changes in employment concepts may be possible through a detailed introspective examination of doctrine, operational plans, and employment procedures. The Services currently are conducting these examinations.

By exploiting improvement in capabilities with reliance on efficiency and precision, a wider range of options or force application alternatives may be made available.

The Theater Nuclear Issues

What, if any, measures should be taken to increase the survivability of our theater nuclear forces in Europe to nuclear attack.

Some believe that our theater nuclear delivery vehicles and warheads in Europe are highly vulnerable to Soviet surprise nuclear attack. With strategic warning, our ground force systems can be made survivable through dispersal and mobility. But, even with the strategic warning, our land-based and carrier-based tactical aircraft and their nuclear warheads remain highly vulnerable to nuclear attack. * They hold that this vulnerability weakens the theater nuclear deterrent, reduces the military viability of theater nuclear conflict options, and would be destabilizing in a crisis. They also hold that survivability of the tactical air systems must be improved, or these systems should be withdrawn and replaced

* The Joint Staff believes this statement to be highly conjectural.

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with conventional-only tactical air capabilities. They also believe that, if withdrawal is to be the solution, major concessions in SALT or MBFR should be extracted from the Soviets in return.

Others believe that this view of the vulnerability of our theater nuclear forces is much overdrawn and not critical in the context of overall US and NATO force capabilities. They hold that the threat of major strategic nuclear conflict is sufficient to deter Soviet attacks on our theater nuclear forces and that withdrawal of theater nuclear forces from Europe would raise basic Allied concern about the decoupling of our strategic deterrent from NATO's defense.

What, if any changes are appropriate to our doctrine and concepts for theater nuclear weapons, and what measures should be sought for systems improvement and modernization? Virtually all the weapons in our current stockpile are based on the technology of the 1950s. Some believe the deterrent value of the stockpile suffers in credibility because of the levels of collateral damage which would accompany most uses of these weapons. They believe that modernization would make tactical nuclear weapons more efficient militarily and feasible politically. They would concurrently pursue rectification of command and control problems. Others believe that it is essential to try to resolve other problem-areas concerning the nuclear defense of NATO, e.g., command and control, target acquisition and theater nuclear doctrine, before costly changes are made in the theater nuclear stockpile. They believe that modernization of the stockpile should be carried out on a case-by-case basis and not as a general policy which makes it seem that excessive collateral damage is the single major deficiency in current theater nuclear forces.

Should we provide enhancement of the supplementary deterrent represented by the British and French nuclear forces? We might consider a more active role in providing technical, equipment and related assistance to UK and French nuclear force improvement and modernization. Our interest would be limited to political encouragement and persuasion but without much direct assistance. Due to a variety of inhibitions, the creation of a European working group to discuss future European nuclear force possibilities is unlikely. However, NATO Allies desire a continuing, possibly increasing voice in NATO's nuclear defense planning.

What future role and function should we seek from the Nuclear Planning Group NPG? There appears to be no reason why the NPG cannot continue to be a most effective vehicle for the exercise of strong US leadership within the Alliance. As new issues come to the forefront, it can be used to sustain Allied confidence that NATO's nuclear deterrent is in responsible hands and serves the Allies' interests as well as our own. The central challenge will be, as it has been in the past, to give the Allies a sense of real participation in nuclear policy making while at the same time maintaining essential US control and flexibility. Traditionally the NPG has had on its agenda (1) strategic force balance briefings, (2) questions regarding the use of tactical nuclear weapons, (3) consultation procedures, (4) atomic demolition munitions, and (5) illustrative studies. Possible new roles and functions could include (1) NPG role in changes in concepts, doctrine, deployment and mix of nuclear forces, (2) implications of new technology, (3) European nuclear force, (4) coordination of Alliance nuclear capabilities, (5) SALT, (6) nuclear aspects of MBFR, (7) impact of possible MBFR outcome on NATO nuclear policy, (8) forward based systems, and (9) Soviet nuclear capabilities and doctrine.