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US PROPOSAL FOR NATO LONG-RANGE TNF MODERNIZATION  
(for consideration at HLG Meeting 10-11 September 1979)

I. Introduction

1. In its meeting at Homestead Air Force Base, Florida in late April 1979, the Nuclear Planning Group (NPG) endorsed as a basis for further work the April 1979 High Level Group (HLG) report on theater nuclear force (TNF) modernization. The April 1979 HLG Report recommended an "evolutionary upward adjustment" of NATO's long-range theater nuclear forces (LRTNF) of [redacted] additional warheads as necessary to preserve and enhance deterrence. Based upon the options discussed within the HLG, the US Government reached agreement on one program which the United States, as Chairman of the HLG, forwards for HLG consideration.

2. The US proposal for NATO's LRTNF modernization consists of deployment of (b) warheads for Pershing IIs and Ground-Launched Cruise Missiles (GLCMs). Table 1 provides an overview of this Proposed Program by system, country, number of warheads and launchers.

TABLE 1

Proposed Program

	Warheads	Launchers
(b)(1)	[redacted]	[redacted]
TOTAL Program	[redacted]	(b)(1)

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All Alliance members should demonstrate the broad Alliance consensus on LRTNF modernization through their public commitment to the program and their support of the financial costs of the program. While LRTNF systems may be deployed in additional countries in keeping with the objective of the broadest possible participation of Alliance members, the pattern of deployments envisioned here will satisfactorily demonstrate broad, concrete participation.

3. After reviewing the military rationale for the modernization of NATO's long-range theater nuclear forces, this paper will develop the structural basis of the US Proposed Program and then evaluate it for consistency with the criteria established by the previous work of the HLG --system range, force size, land-based, participation, and ballistic/cruise missile mix. Following this, the US proposal is defined in more detail with respect to cost, manning, participation, timing aspects, and effects on the overall NATO TNF stockpile.

11. Military Rationale

4. The April 1979 HLG Report reaffirmed the "comprehensive framework" presented in the April 1978 HLG Report: "the primary aim of deterrence; the importance for deterrence of a triad of forces and the coupling between them; and in the event deterrence fails, the need for a TNF capability

(b)(1) [Redacted]

Furthermore, while "priority should continue to be given to improvements in conventional forces," that "after considering overall

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- NATO strategy and the evolving Warsaw Pact capability," NATO's TNF "should continue to be modernized in order that they may continue their essential role in the NATO triad and continuum of deterrence."

In addition, while "there must be no implication of increased roles for NATO theater nuclear forces," there is a need for an "evolutionary upward adjustment" in NATO's LRTNF. The April 1979 HLG Report established the following rationale for LRTNF modernization:

-- A "strong linkage between theater and strategic nuclear forces" is required by the "agreed strategy of flexible response."

-- "Within this framework, changes in the strategic environment, specifically parity in intercontinental nuclear forces and Soviet TNF modernization efforts such as the deployment of the SS-20 and Backfire, lead decisively in the HLG view to the need for strengthening NATO's own forces."

-- The purpose of LRTNF modernization is "to minimize the risk that the Soviets might believe -- however incorrectly -- that they could use long-range forces to make or threaten limited strikes against Western Europe from a 'sanctuary' in the Soviet Union, in the misperception that without strong theater based systems of its own capable of reaching Soviet territory, and in an era of parity at the strategic nuclear level, NATO lacked credible and appropriate means of response."

-- "Augmentation of NATO LRTNF based in Europe would therefore close this gap in the escalation spectrum, provide increased

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options for restrained and controlled responses, thereby reducing the risk of Soviet misperception and strengthening deterrence."

-- LRTNF would also correct an emerging imbalance in NATO's theater nuclear force posture: "After UK Vulcans are phased out, UK Polaris SLBMs would be the only remaining non-US component of LRTNF available to SACEUR and US F-111s would be the only land-based component of the LRTNF force. Thus, the consequence of failure to modernize could be a perception that NATO was shifting its emphasis toward shorter range systems while emphasizing off-shore components to sustain the LRTNF."

-- "Spin-off effects" of LRTNF modernization include the following:

"increasing public confidence in the face of Soviet LRTNF modernization;" "providing a better prospect for meaningful arms control negotiations on LRTNF;" and "improving flexibility in the use" of dual capable aircraft (DCA), thus complicating Warsaw Pact planning.

-- "Finally, a collective Alliance decision on a coordinated program of action in this field would have a major value in demonstrating and reinforcing Alliance cohesion and resolve."

5. Thus, as the HLG concluded in its April 1979 Report, TNF modernization will strengthen deterrence by reducing the possibility of Soviet misperceptions about NATO's capabilities or its will to employ nuclear capabilities. In addition, should deterrence fail, LRTNF modernization would increase NATO's capability

(b)(1)

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III. Structural Basis for US Proposed Program

6. The Proposed Program includes ballistic and cruise missiles, totaling

(b)(1) warheads, and profits from the positive features in each system.

These systems visibly demonstrate Alliance resolve because they are land-based as opposed to being at sea. At the same time, they provide credible in-theater responses to Soviet aggression. Pershing II contributes to LRTNF modernization by a high assurance of penetrating Soviet defenses, the capability to strike time-urgent and hardened targets, high accuracy, the potential for controlling collateral damage, and ability to take advantage of the existing P1a infrastructure. GLCMs are cheaper than other dedicated systems and would not compete with conventional missions as would ALCMs on dual-capable aircraft or SLCMs on multimission ships. GLCMs also afford greater opportunities for widespread participation among the Allies. In summary, this force mix of Pershing IIs and GLCMs offers significant military advantages: it hedges against the failure of one type of system; it provides the flexibility to select the best weapon for each mission, and it greatly complicates enemy planning.

7. Both systems are expected to be highly reliable and will possess a range sufficient to reach the territory of the Soviet Union thereby denying the Soviet "sanctuary" to launch from their territory an attack on NATO with their LRTNF. Taken together, the performance characteristics of the Pershing II and GLCM (high accuracy, variable yield, good reliability, survivability, the ability to penetrate to the target, and

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broad target coverage) will enhance NATO's capability to execute the full range of NATO responses -- selective and general. The military effects associated with the modernization program are presented in APPENDIX A.

8. In addition to all member nations demonstrating public support through participation in an Alliance LRTNF modernization decision and through sharing the financial costs, the widespread basing of the new long-range theater nuclear weapons offers an important opportunity to underscore Alliance political cohesion and military effectiveness. While recognizing that basing is not possible or appropriate for all member states, and the same number and mixes of weapons is not suitable for all host countries, the Proposed Program pursues the objective of widespread participation through deployments of LRTNF (b)(1) (b)(1) as well as public support and burden-sharing from all Alliance members. The Proposed Program also takes into account the traditional contribution of Alliance members to NATO's TNF posture (b)(1)

to signal NATO's commitment to the full territorial integrity of the Alliance.

9. A number of considerations led to the recommended size of (b)(1) warheads, plus any replacement of NATO's current LRTNF (such as Vulcan) as they are retired. Without ascribing particular weight to individual considerations, in combination they justify a force structure size at

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the upper end of the HLG recommended range of [redacted] additional warheads. (b)(1)

These considerations include the need:

- to demonstrate that NATO intends to respond to Soviet TNF modernization with more than a token force;
- to ensure pre-launch survivability through sufficient deployments, thus enhancing the credibility of NATO's response options;
- to provide for efficient deployments that reduce as much as possible the ratio of overhead expenditures to operating costs;
- to modernize the US Pla's based in the FRG.
- to provide for broad participation in the deployment of new LRTNF;

(b)(1) 10. The Proposed Program of [redacted] warheads for LRTNF is developed in parallel to and is consistent with the arms control recommendations of the Special Group. By recommending a force structure size at the upper end of the HLG [redacted] range, this program will provide a strong incentive for the Soviet Union to pursue serious arms control negotiations for LRTNF.

(b)(1) 11. Comparison with Soviet LRTNF. An extensive examination of Soviet LRTNF is contained in the agreed NATO document "Warsaw Pact Strength and Capabilities" (MC 161/77 (Final), 1 Jun 77 (NS)) and was reviewed in the HLG Reports of April 1978 and 1979. By 1985, the Soviet Union is projected to have 297 SS-20's and 357 Backfires of which 198 SS-20's and 240

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Backfires are deployed in the Western and Central USSR so as to pose a direct threat to Western Europe. It is unclear to what extent SS-4s and SS-5s may be retired as SS-20 is deployed, therefore projections of Soviet LRTNF strengths are problematic. If all the SS-4s and SS-5s were retired, the number of Soviet deliverable warheads would still increase from approximately 2000 to about 2500 largely because of the SS-20's multiple warheads and improved refire capabilities (SS-20 refires comprise about 800 warheads of the 2500 total). With no SS-4 and SS-5 retirements, Soviet deliverable warheads will total over 3000 in the mid-1980s.

12. Currently, NATO LRTNF consist of 156 US F-111s (b)(1) and 48 UK Vulcans (b)(1) stationed in Britain; in addition, (b)(1) are allocated to SACEUR targets. The recommended upward adjustment of (b)(1) LRTNF will (b)(1) contribute more than a third of NATO's LRTNF in the 1980s.

13. NATO has never sought to match Soviet LRTNF deployments missile-for-missile, warhead-for-warhead. The recommended upward adjustment of (b)(1) P11s and GLCMs will enhance NATO's long range theater nuclear capabilities in a manner that exceeds their purely numerical contribution, though that is not insignificant. The addition of highly survivable, accurate, land-based systems with the range to reach the territory of the Soviet Union will help redress the adverse trend in NATO's overall TNF.

IV. Consistency with HLG Criteria (April 1979)

14. Range: The HLG discussion indicated that LRTNF should have the range to reach the territory of the Soviet Union since a "principal

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reason for augmenting NATO LRTNF is to strengthen deterrence by avoiding a Soviet perception of sanctuary, while maintaining the coupling of NATO TNF to US strategic forces." All systems in the Proposed Program meet this criteria. The HLG also concluded that sufficient range to reach Moscow, while not a prerequisite, should not disqualify a system.

15. Size: The HLG proposed an addition of (b)(1) warheads for long range theater nuclear weapons which would be matched by corresponding reductions in the existing TNF stockpile. A modernization of this size is not intended "to match the Soviet build-up system-by-system or in aggregate numbers, but rather to do what is necessary to preserve and enhance deterrence." The Proposed Program falls within the HLG's recommendation of (b)(1) additional warheads.

16. Land-Based: While not ruling out additional sea-based systems, the HLG suggested that an "emphasis should be given to land-based systems, since current LRTNF are so heavily oriented to undersea capability. This ... would strengthen deterrence and contribute to military flexibility and effectiveness." By recommending highly survivable, land-based systems in Western Europe capable of striking the Soviet Union, the Proposed Program will strengthen deterrence through its visible demonstration of Alliance resolve.

17. Participation: The HLG recommended the broadest possible Alliance consensus and participation in the deployment of new LRTNF systems. As discussed above, the Proposed Program emphasizes broad participation while recognizing that each Ally views the manner of participation against a backdrop of factors unique to it.

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18. A Mixed Force of Cruise and Ballistic Missiles: In order to maximize the pre-launch survivability and penetrativity of NATO's LRTNF, the HLG recommended a mix of new systems comprising both ballistic and cruise missiles. A mixed force would "capture as many of the positive aspects of the individual systems as possible" by, among other things, allowing more chances for participation, hedging against future defensive developments, complicating enemy planning, providing flexibility in employment and allowing time-phasing. The Proposed Program is directly responsive to these objectives.

V. Details of the Proposed Program

19. The specific numbers of warheads, launchers, and units to be deployed for the Proposed Program are presented in Table 2.

TABLE 2

Proposed Program for LRTNF Systems Deployments

(b)(1)



1/ Not reflected in Table 2 are LRTNF systems which might replace on a one-for-one basis existing LRTNF such as the UK Vulcans.

2/ (b)(1)

3/ A Pershing Battalion consists of 4 Batteries; 9 launchers per Battery; A GLCM flight contains 4 launchers with 4 missiles per launcher.

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20. (b)(1) in Table 2 are (b)(1) where LRTNF would be based. The US envisions that these deployments would be either

(b)(1)

[Redacted] The US will be guided by (b)(1) pre-

ferences:

21. Costs. Present estimates of the life cycle costs of the proposed LRTNF systems are summarized in Table 3 below.

TABLE 3 <sup>1/</sup>

Estimated Total Force Costs

<u>CATEGORY</u>	<u>Pershing II</u> <u>\$M (FY 79)</u>	<u>GLCM</u> <u>\$M (FY 79)</u>
Uncommitted R&D	458	70
New Construction		
NATO Infrastructure	0	164.4
Other	0	19.6
Procurement	616	1072
10 Year Operating and Support	<u>1280</u>	<u>1170</u>
Life Cycle Cost (Total)	2354 <sup>2/</sup>	2496

<sup>1/</sup> All costs are in constant FY 79 US dollars and assume that costs for a NATO LRTNF are the same as if the US procured and manned all LRTNF systems.

<sup>2/</sup> If Pershing 1a were retained in the force structure instead of being replaced on a one-for-one basis by Pershing II, its ten year life cycle cost would be \$1.65 B for 200 operational missiles. Consequently, the costs for PII and GLCM represent a new commitment of about \$3B.

22. The construction of new facilities could be funded through the NATO Infrastructure Program. Construction costs would involve \$ 164 M in infrastructure funds. Initially this funding could be handled within the US programs proposed for the Slice 32 CY 1981 Program, and within the current five year infrastructure ceiling. Later, during the mid-term review of the five year ceiling in 1982-83, the size of this ceiling could be increased to account for the additional requirements stemming from LRTNF modernization. The funding for other construction costs outside those covered by the Infrastructure Program (e.g., troop billets, family housing) would be funded either by the country whose troops man the equipment or by the host country.

23. Procurement costs in general would be incurred by the US, unless a nation elected a dual-key operation. In that case, the US would assume warhead costs (except in the case of a wholly UK system), but equipment and support costs would be funded by the host nation.

25. Manning. Table 4 below provides manpower data for the Proposed Program.

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TABLE 4

Manpower Requirements

(b)(1)

NOTES:

1. Numbers in parenthesis represent that portion of the total security force which could be host country personnel to augment the US custodial portion.

2. These manpower figures are based on the assumption that a Main Operating Base (MOB) would be located in the [redacted]. The (b)(1) personnel for the fourth MOB planned under the Proposed Program would either be centrally located at a common MOB that would support GLCM flights [redacted] (b)(1) [redacted] or the personnel would be divided [redacted] (b)(1) [redacted] to provide MOB functions at two separate locations. The manpower figures for the [redacted] assume that MOB personnel would be divided between [redacted].

3. These figures do not include GLCM Central Repair Facility manning which is estimated at 50-150 personnel.

25. As Table 4 notes, there are significant numbers of security personnel that would be provided by the host country in those cases where the US owns and mans LRTNF units. Such host country manning would afford an opportunity for burden-sharing and give evidence of widespread participation in LRTNF.

(b)(1)  
(b)(1)

26. Forms of Participation. The Proposed Program would be an Alliance program which affords a number of options for widespread participation. At a minimum, all NATO governments should express public support for the proposed LRTNF modernization effort and participate in funding through the Infrastructure Program. In addition, the program affords opportunities for participation raised earlier such as permanent basing, manning and ownership through (b)(1) and burden-sharing through security manning.

27. Timing Aspects: Deployment Rates and IOC's. Program decisions on the Pershing II-GLCM force mix, if taken by the end of 1979, will permit these systems to begin deploying near the end of 1983. There are a wide range of options for phasing deployments among the various countries concerned. As a general principle, however, the commencement of this program should occur nearly simultaneously in all host countries to demonstrate the widespread participation. Planned rates of Pershing II and GLCM deployments are shown in Appendix B.

28. Infrastructure Planning. Planning infrastructure funding would also be keyed to a late 1983 IOC for Pershing II and GLCM. So that the LRTNF program would not adversely affect other NATO force improvements, it would be desirable to have a political commitment to Infrastructure Program increases at the mid-term review (1982-83) accompanying the Alliance consensus in December on the LRTNF program.

29. Effect on NATO TNF Stockpile. As discussed above, the April 1979 HLG criteria stress that there be no increased role for TNF in NATO's strategy, and no increase in NATO's stockpile of nuclear warheads. The proposed augmentation of NATO LRTNF will do neither but rather will disabuse the Soviets from any perception of a gap in the escalation spectrum at a time of strategic parity, an aging NATO LRTNF, and increasing

Soviet LRTNF deployments. As new long range theater nuclear systems are deployed, there will be a one-for-one reduction in the existing inventory (e.g., Pershing II replaces PLA warheads). The composition of such reductions should be a matter for future deliberations within the Alliance.

#### VI. Conclusions/Recommendations

30. The US recommends that the HLG conclude that:

(1) The Proposed Program meets both the military rationale and the criteria established as conclusions in earlier HLG reports;

(2) The Nuclear Planning Group Ministers consider favorably the proposed LRTNF program and forward it to the Defense Planning Committee and North Atlantic Council;

(3) As part of the Alliance consensus on LRTNF modernization, all members of the Alliance support publicly the decision and agree to appropriate funding through NATO's Infrastructure Program.

(4) In the Infrastructure Program priority should be given to funding for the construction of facilities and shelters, including an initial contribution in Slice 32 and an upward adjustment in the current five-year infrastructure ceiling at the mid-term review in 1982-83.

(5) In the cases where the US owns and mans LRTNF, the host country provide the necessary manning to meet the security requirements.

(6) The commencement of deployments in the individual host nations should occur nearly simultaneously as a demonstration of widespread participation.

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(7) After an LRTNF decision is made, study should go forward with respect to both the requirements for short and medium-range systems as part of NATO's overall TNF posture and the effects of shifts in the composition of the nuclear stockpile upon overall TNF requirements.

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Military Effects of the Proposed LRTNF Program

Under the Proposed Program for LRTNF modernization, the Pershing II-GLCM force mix would notably enhance NATO's overall deterrent force posture primarily by providing a broad range of escalation options between battlefield use and US employment of its strategic nuclear weapons. Should deterrence fail, the major role of these new long-range systems would be to conduct selective nuclear strikes against military targets, especially against targets in the Western USSR. The purpose of such strikes would be primarily to send an unambiguous signal to the Soviet political leadership that NATO will not tolerate further aggression, that the theater nuclear response was not decoupled from a potential strategic response, and therefore, general nuclear war was imminent unless the Soviets ceased their aggression and withdrew.

In addition to the capability the Proposed Program provides to support the preceding rationale, the new long-range systems could also produce some positive "spin-off" effects. For example, the deployment of the Pershing II and GLCM systems will increase public confidence in NATO's deterrent and defense capabilities in the face of SS-20 and Backfire and is likely to provide incentives for the Soviets to undertake meaningful negotiations to limit or reduce "gray area" nuclear armaments.

(b)(1)



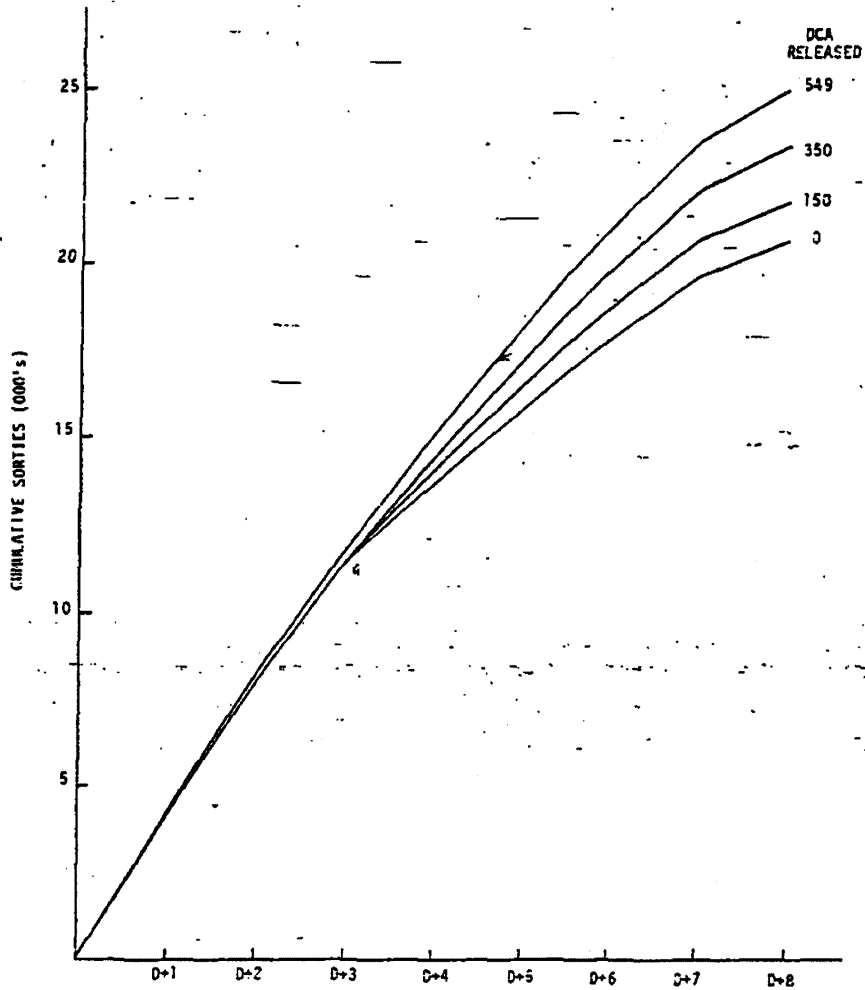
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FIGURE 1

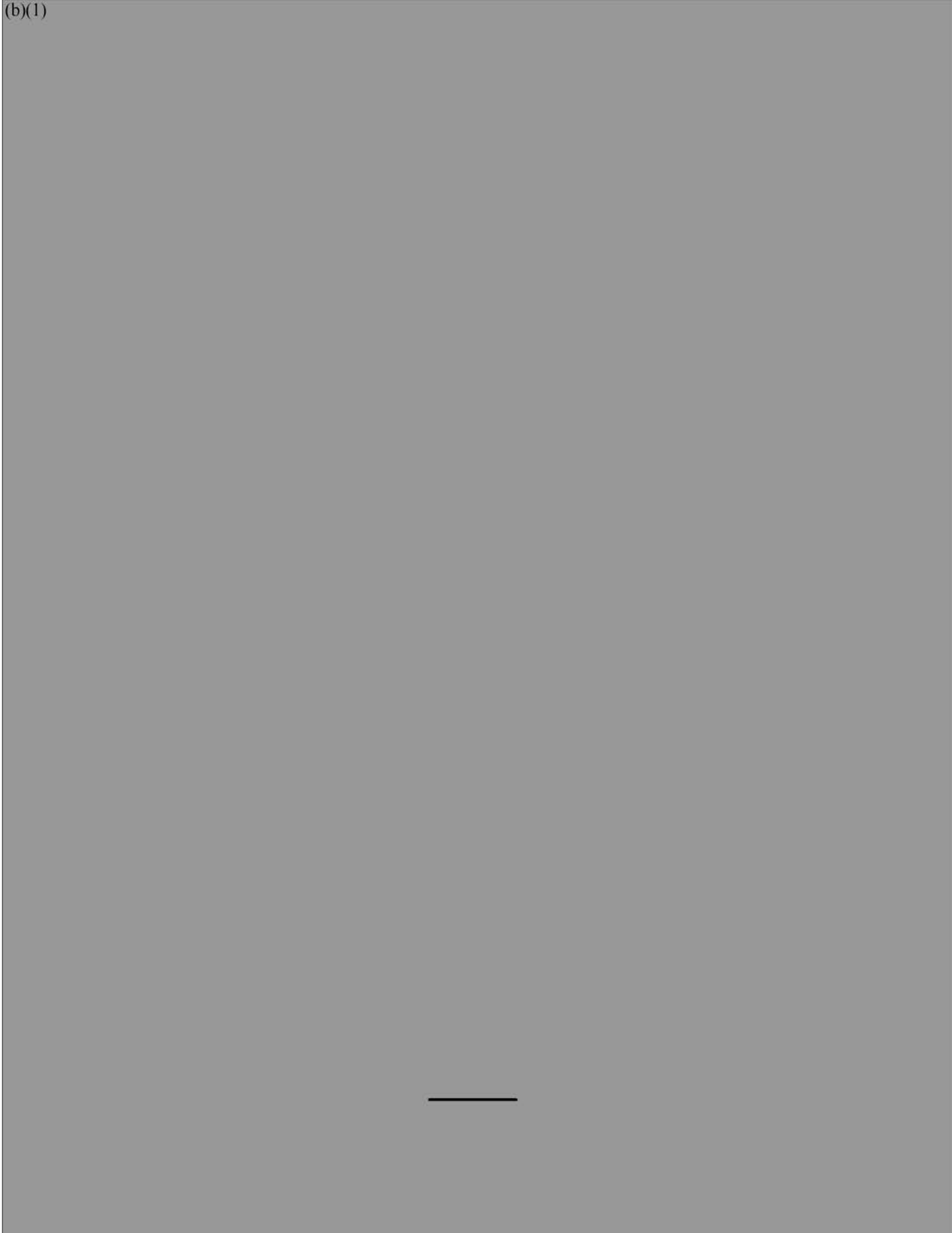
Additional Conventional Sorties Obtained as DCA are Released



NOTE: Baseline capability is cumulative number of conventional support sorties that NATO could generate with forces currently projected for 1984.

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