

E24F

MODERNIZATION AND ARMS CONTROL FOR LONG RANGE
THEATER NUCLEAR FORCES

NATO's basic strategy is one of flexible response. Its principal purpose is to deter acts of aggression which may range from all-out invasion to demonstrations of force. Flexible response is based on the premise that the most effective way of discouraging enemy action at any particular level of violence is to have an appropriate response to that action at that level of conflict, and having the (b)(1) ability to respond at greater levels of violence will demonstrate to the enemy the risks and costs of continuing the conflict.

(b)(1) NATO has this flexible response capability, then our deterrent (b)(1) credible -- that is, the Soviets will believe that no matter what military action they may take, it can be met by a response effective at that level of conflict and that there is a great risk of escalation to higher levels of violence which carry costs far outweighing any possible benefits they could expect from continuing their acts of aggression. Thus, NATO's strategy of flexible response necessitates a military force structure which clearly shows our potential adversaries that we have a wide range of options with which we can influence the course of events.

Recent developments in Soviet long range theater nuclear forces -- systems which can strike Western Europe from the Soviet Union -- represent a potential challenge to NATO's strategy. The introduction of the SS-20 missile and Backfire bomber significantly increase Soviet capabilities both qualitatively (greater accuracy, range and survivability) and quantitatively (more deliverable warheads) in this class of systems. NATO, on the other hand, since the early 1960's has chosen to deploy many fewer long range theater nuclear weapons than the Soviets and has not in recent times modernized their capabilities.

During the era of US strategic superiority, there was little concern in NATO about the Soviet advantages in these theater systems. Facing the vastly superior US intercontinental nuclear forces, the Soviets could expect that any action they took with long range theater nuclear forces in Europe would evoke a response from the US strategic forces.

Over the past few years, the Soviet Union has reached a state of parity with the United States in intercontinental nuclear forces. Nevertheless, this condition in no way diminishes the likelihood that US strategic forces would be used to defend Europe -- US vital interests are too engaged, our commitments are too strong, and our ties are too deep for it to be otherwise.

Despite this, strategic parity does pose a serious question -- could the Soviet Union, possessing intercontinental forces equivalent to those of the United States, somehow make the mistake of attacking Western Europe under the belief that the Soviet homeland was safe from nuclear retaliation? The Soviet Union might calculate that it could escape attack from US intercontinental forces because the US would be held in check by the balance in US-Soviet intercontinental forces and that long range nuclear forces in Europe capable of striking the Soviet Union did not constitute a significant threat. Consequently, NATO's strategy of flexible response -- at least, in the view of the Soviet Union -- could appear to be flawed. The Soviets could think that there was a scenario for military victory in Europe in which they could use, or threaten to use, their nuclear forces to optimize chances of success -- and for which NATO had no response. It is this sort of logic on the part of the Soviet Union that the NATO Alliance must dispell without question. Thus, the issue before us is how best to do it.

Our preference, of course, would have been that the Soviet Union had embarked upon its modernization program including the SS-20s and Backfire bombers. Unfortunately we are faced with the fact that the Soviets are continuing their program with no sign that they intend to stop. X

In the face of the Soviet deployments, it seems clear that the Alliance will have to undertake some level of modernization of its long range theater nuclear forces -- otherwise we run the risk of encouraging Soviet misperceptions about our capabilities, which could ultimately weaken deterrence and lead to war. At the same time, we want to persuade the Soviets of the futility of attempting to gain an overwhelming advantage in this category of systems.

To this end, the Alliance is following a dual approach, one that pursues both theater nuclear force modernization and arms control objectives. TNF modernization would signal the Soviet Union that the Alliance has the will and determination to respond to its challenge and that the Soviet LRTNF deployment programs have no prospect of securing for them military or political advantages. This demonstration of NATO's resolve will help convince the Soviet Union that its interests would be better served by restraint and the serious pursuit of arms control, not a unilateral build-up of military capabilities.

But in order to avoid a needless arms race, the Alliance will pursue, in parallel to the modernization program, the limitation of long range theater nuclear capabilities through

arms control negotiations. Both NATO and Warsaw Pact security could be enhanced through meaningful agreements. Realistically, it is unlikely that the Soviet Union would accept significant constraints on their systems in the absence of real programs on the part of NATO. Therefore, NATO must proceed with its modernization program but the size and scope of its ultimate program can be affected by the willingness of the Soviet Union to come to arms control agreements. In addition, since the Soviets have already modernized substantial parts of their long range theater nuclear forces, some NATO modernization will be necessary, even if arms control efforts were successful.

In summary, the Alliance intends to follow two parallel and complementary approaches -- the modernization of NATO's long range theater nuclear forces and the limitation of theater nuclear forces through arms control negotiations. These approaches are designed to ensure the security of NATO while at the same time providing the Soviet Union with incentives to constrain their programs and move toward a more stable political and military situation in Europe. Such an integrated approach of modernization and arms control is essential if the Alliance is to avert an arms race in the European theater caused by the Soviet build-up and yet preserve the viability of NATO's strategy of deterrence and defense.

TRENDS IN SOVIET AND NATO NUCLEAR FORCES

The Issue

The Soviets are modernizing their Long Range Theater Nuclear Forces (LRTNF) with the SS-20 missile and the Backfire bomber. The projected size and character of these deployments appear to exceed what we in the West perceive as purely defensive needs and raise the possibility that the Soviet Union is pursuing offensive capabilities. The theater nuclear systems they are now deploying are far more capable than previous Soviet theater systems. Furthermore, these systems are not at the present time constrained by SALT II or other arms control agreements, although the rate of Backfire production will be affected by SALT II. The Alliance must decide how to respond to ensure the capability and effectiveness of NATO's deterrent forces.

A NATO decision to modernize its LRTNF would not increase NATO's reliance on nuclear weapons in its overall strategy of deterrence and defense, nor alter the policy of relying on US intercontinental nuclear forces as the ultimate deterrent against Soviet aggression. The role of LRTNF will continue to be an important element of the spectrum of deterrence, and an essential component of the NATO strategy of flexible response.

Past Trends and Current Capabilities

As illustrated by Figure 1, US strategic forces increased in the mid-1960's and then levelled off. During this period of growth in intercontinental systems, however, the US reduced its Europe based nuclear systems capable of striking the Soviet Union (Fig. 2). NATO maintained its modest level of LRTNF, however, by deploying US F-111s and UK Vulcans.

(b)(1)

French systems (Mirage, IRBMs and SLBMs) are not assigned to NATO but unquestionably contribute to overall Alliance deterrence. But the British and French forces are not of sufficient size, individually or collectively, to shift the overall nuclear balance currently measured in thousands of deliverable warheads.

During the time that US and NATO nuclear force structures stabilized, the Soviet Union began increasing its strategic missile force capable of hitting targets both in the US and in Europe, and retained and then modernized its missile and bomber forces directed against Western Europe (Figures 3 and 4). As can be seen in Figure 4, significant improvements in the Soviet's LRTNF capability began as early as 1974 with the introduction of the Backfire bomber. In 1977, the Soviet Union began to modernize its theater missile capability with the deployment of the SS-20.

Projected Soviet Improvements

The LRTNF modernization undertaken by the Soviets will result in a quantitative and qualitative increase in the threat to NATO. As can be seen in Figure 5, the Soviet Union may not continue increasing the number of launchers as they did during the last half of the 1970's -- in fact their number may decrease slightly as they phase out older systems (assuming, which is not certain, that SS 4/5s will be retired at currently projected rates). Modernization, however, will result in a significant increase in the number of warheads which can be targeted on Western Europe (Figure 6). This increase stems largely from the improved systems characteristics of the SS-20: its three warheads and multiple refire capability (that is, launchers that can be reloaded once their initial missile is fired).

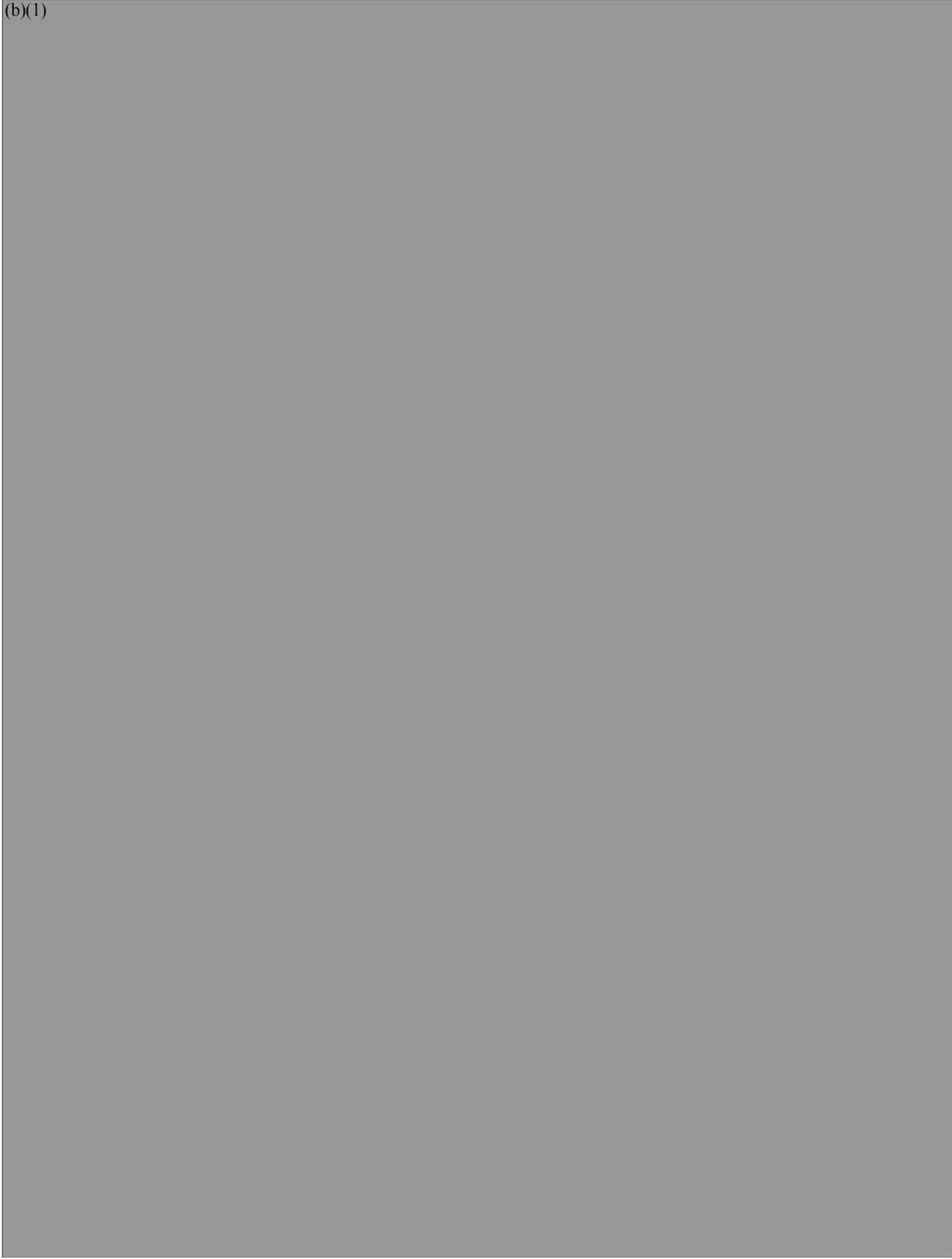
In addition to the quantitative increase in deliverable warheads, Soviet LRTNF have improved qualitatively as well. As can be seen in Figure 7, the SS-20 represents a considerable advance over the older SS-4s and 5s: In addition to its increased range, the SS-20 is three times more accurate than the SS-5, and six times more accurate than the SS-4. Similarly, the SS-20 carries three warheads while the older systems carry only one. And the SS-20 is the only mobile missile of the three, thus increasing significantly its survivability. The Backfire has a greater range than either the Badger or the

Blinder, and its ability to fly at high subsonic speeds at low altitudes increases its survivability and its ability to penetrate under combat conditions.

And the F-111A are not a purely dual-capable nuclear systems but more an important contributor to the combination of all capabilities.

NATO's Future Plans

Since the deployment of US F-111s to the UK in 1970, NATO has not introduced any new long-range theater nuclear systems (though the number of F-111s was increased in 1977). Essentially, NATO's long-range TNF in the 1980's would look like our current force unless NATO modernizes. Soviet deployments of SS-20s and Backfires, however, will reduce the survivability of NATO's LRTNF. Warsaw Pact offensive improvements will also affect the ability of NATO's LRTNF to penetrate into Soviet territory. Failure to respond to Soviet deployments increases 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 for 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 intercontinental nuclear level, NATO lacked credible and appropriate means of response.



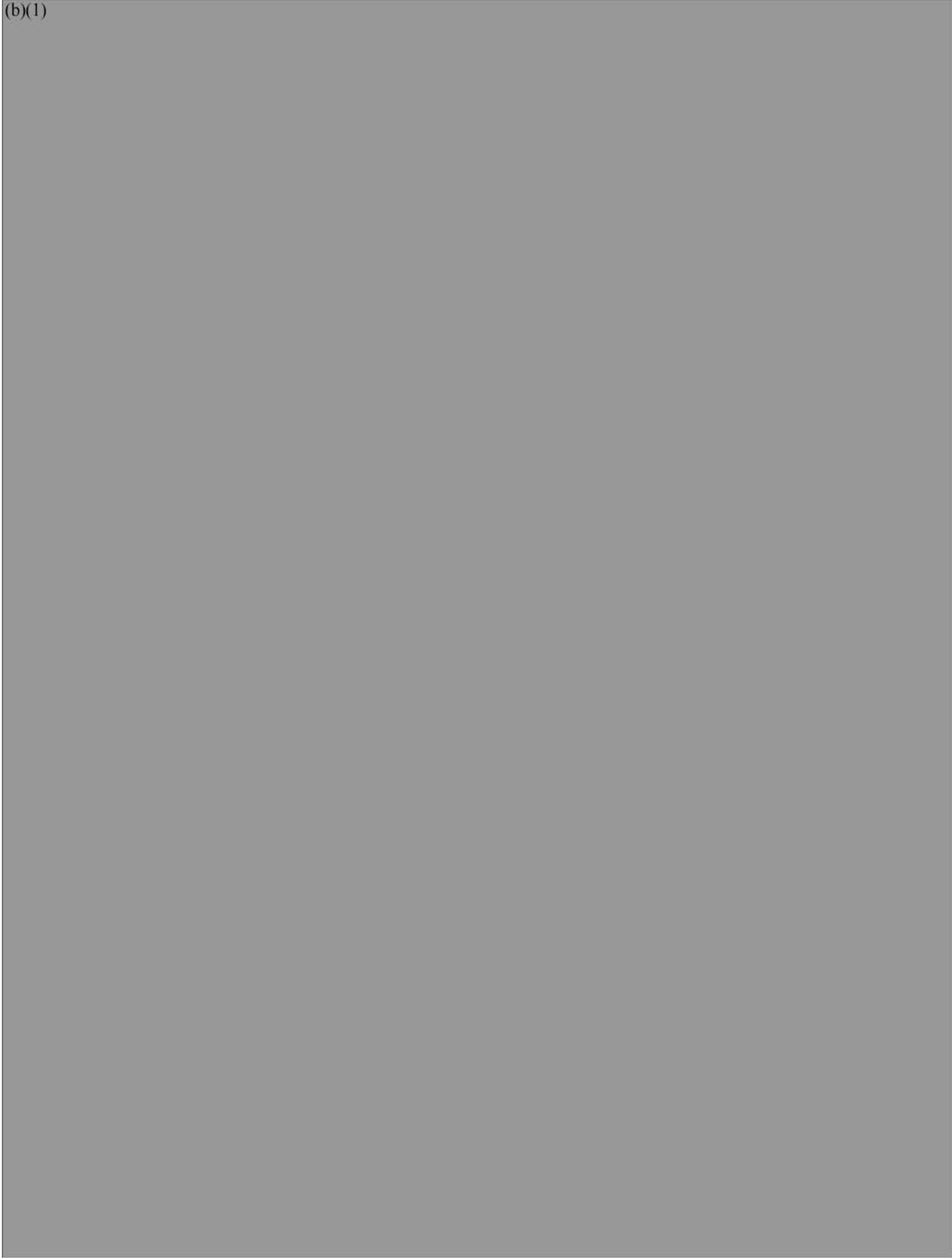
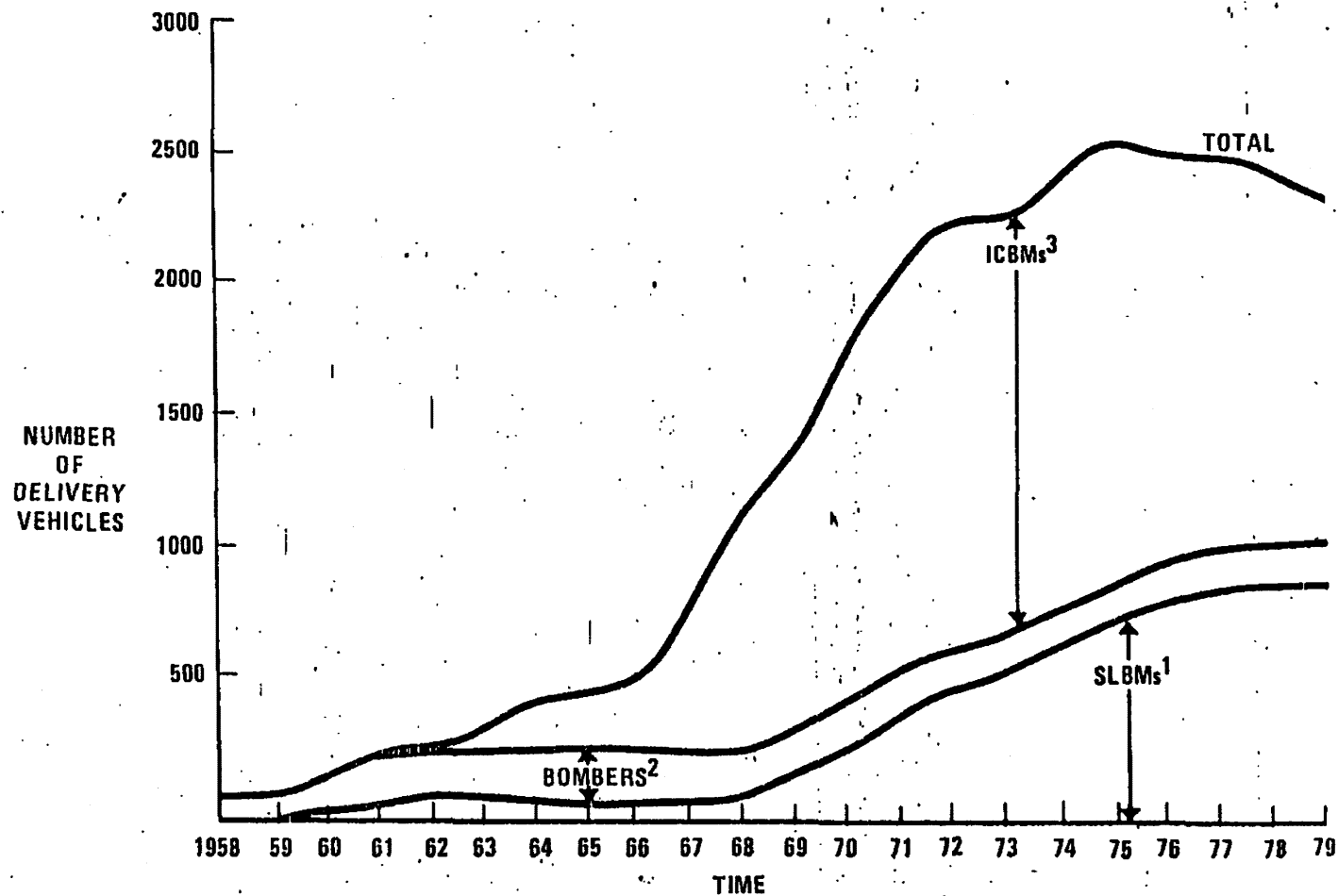
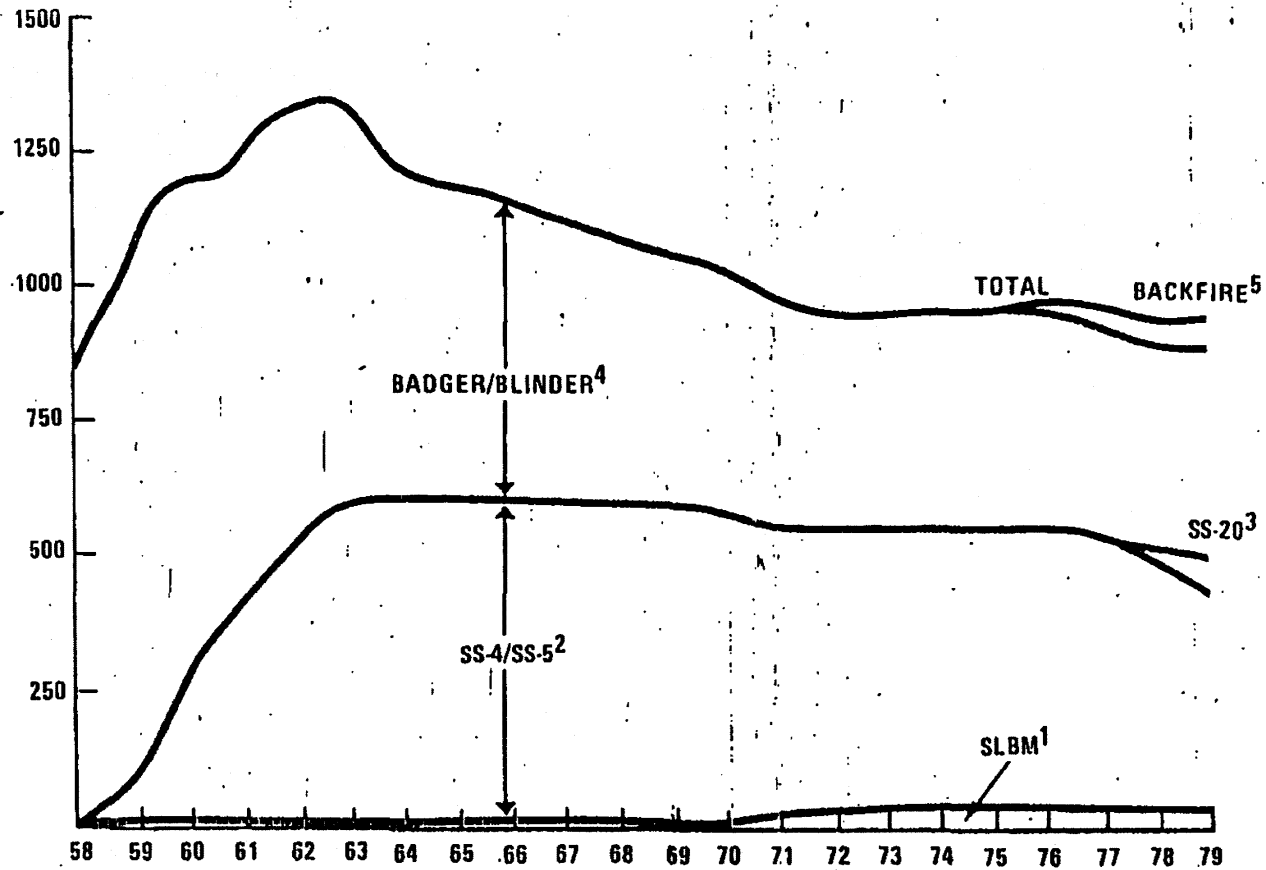


FIGURE 3
SOVIET STRATEGIC FORCE



- 1/ TOTAL SLBM TUBES ON ACTIVE SUBMARINES
- 2/ TOTAL NUMBER OF BEAR AND BISON BOMBERS
- 3/ CUMULATIVE TOTALS OF SS-7, 8, 9, 11, 13, 17, 18 AND 19

FIGURE 4
SOVIET LONG-RANGE THEATER SYSTEMS



- 1/ NUMBER OF SLBM TUBES DIRECTED AGAINST NATO
- 2/ NUMBER OF SS-4 AND SS-5 LAUNCHERS OPPOSITE NATO
- 3/ NUMBER OF SS-20 LAUNCHERS OPPOSITE NATO
- 4/ NUMBER OF BADGER AND BLINDER AIRCRAFT OPPOSITE NATO
 (NOT INCLUDING NAVAL VERSIONS)
- 5/ NUMBER OF BACKFIRE BOMBERS OPPOSITE NATO
 (NOT INCLUDING NAVAL VERSIONS)

FIGURE 5

TOTAL LRTNF DELIVERY VEHICLES, SOVIET VS NATO



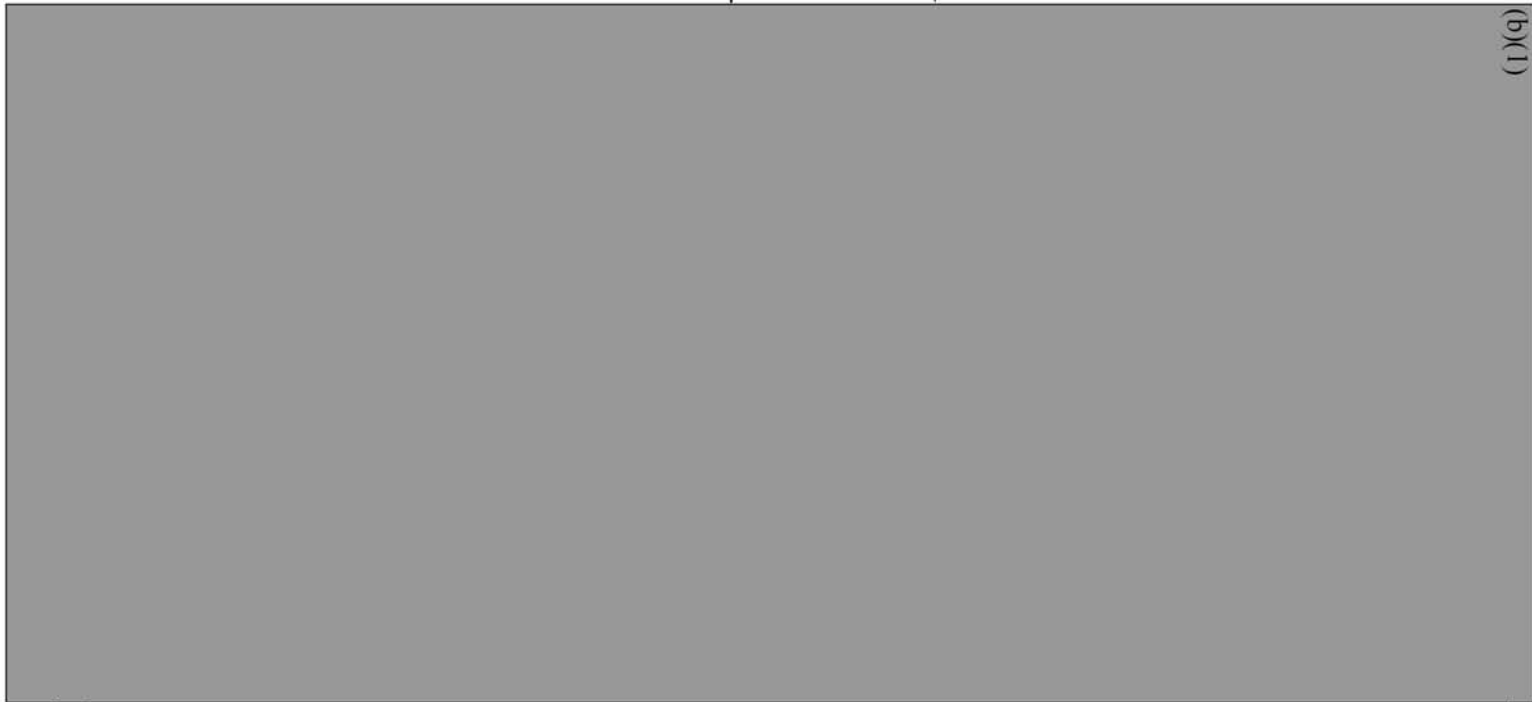
OLDER SOVIET
SYSTEMS



NEWER SOVIET
SYSTEMS²



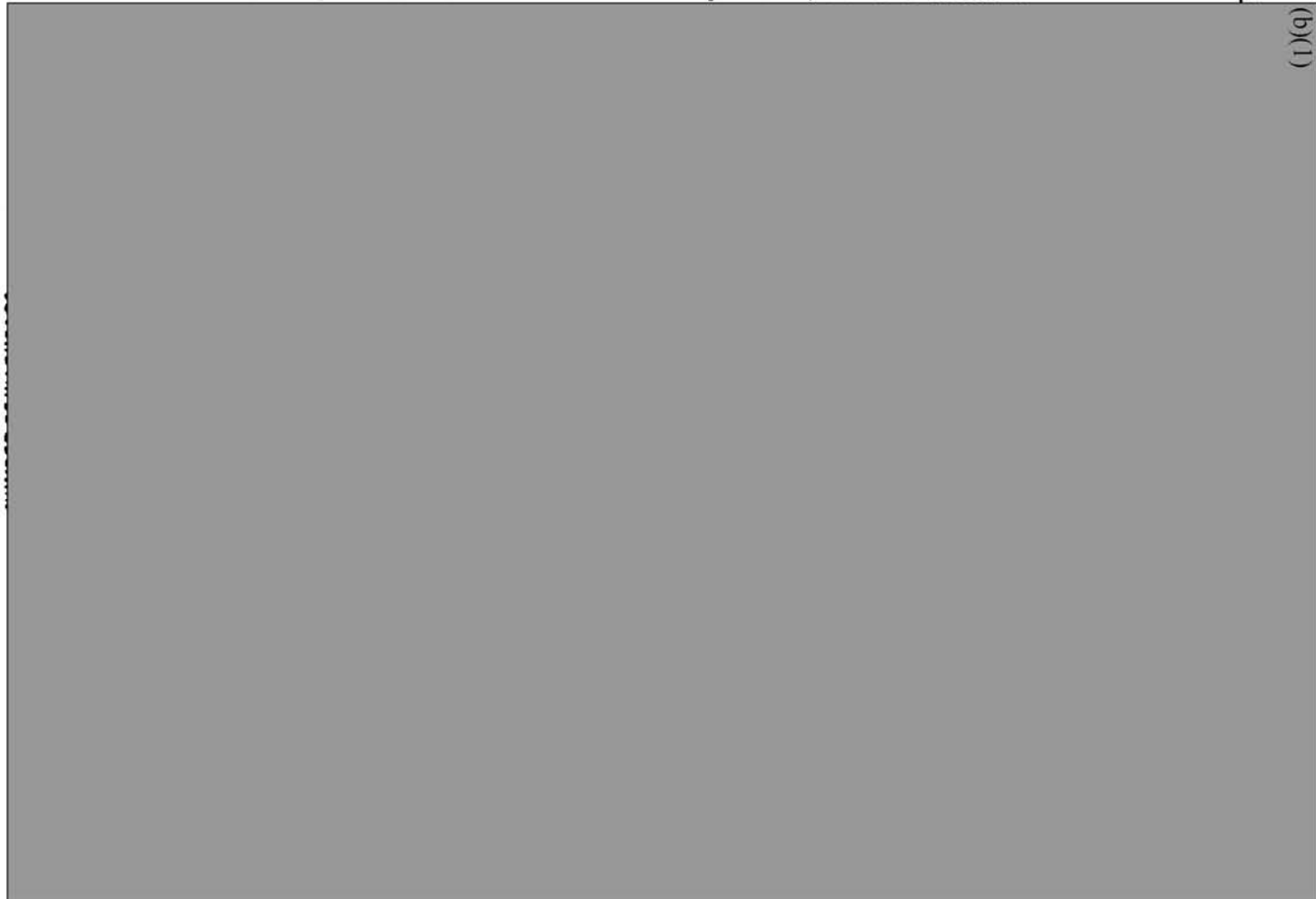
NATO
SYSTEMS



- 1/ SLBM (TUBES DIRECTED AGAINST NATO), SS-4/5 (LAUNCHERS OPPOSITE NATO), BADGER/BLINDER (AIRCRAFT AGAINST NATO) — ASSUMES CURRENT RATES OF RETIREMENT
- 2/ SS-20 (LAUNCHERS OPPOSITE NATO), BACKFIRE (BOMBERS OPPOSITE NATO)

FIGURE 6

TOTAL LRTNF WARHEADS, SOVIET VS NATO



(b)(1)

1/ INCLUDES THE FOLLOWING: SLBM (1 WARHEAD PER TUBE); SS-4/5 (1 WARHEAD PER MISSILE, REFIRE CAPABILITY FOR ABOVE GROUND SITES, FUTURE RETIREMENT AT APPROXIMATELY CURRENT RATES); BAGGER/BLINDER; BACKFIRE; AND SS-20 (3 WARHEADS PER MISSILE, REFIRE CAPABILITY).

FIGURE 7
SOVIET QUALITATIVE IMPROVEMENTS

	<u>SS-4</u>	<u>SS-5</u>	<u>SS-20</u>
<u>MIRVing</u>	1 RV EACH	1 RV EACH	3 RVs EACH
<u>VULNERABILITY</u>	FIXED SITES	FIXED SITES	MOBILE, HIGHLY SURVIVABLE
<u>RATIO OF ACCURACY</u> ^{1/}	6	3	1
<u>REFIRE CAPABILITY</u>	YES ^{2/}	YES ^{2/}	YES
<u>RANGE</u>	1900 KM	4100 KM	4400 KM

^{1/} THE SS-20 IS THREE TIMES AS ACCURATE AS THE SS-5 AND SIX TIMES AS ACCURATE AS THE SS-4.

^{2/} THOSE SS-4's AND SS-5's THAT ARE DEPLOYED IN HARDENED SILOS DO NOT HAVE A REFIRE CAPABILITY; THOSE DEPLOYED IN "SOFT" SITES DO.

	<u>BADGER</u>	<u>BLINDER</u>	<u>BACKFIRE</u>
<u>RADIUS</u> ^{1/}	2800 KM	3100 KM	4200 KM
<u>SPEED</u>	SUBSONIC	SUPERSONIC AT HIGH ALTITUDES; SUBSONIC AT LOW ALTITUDES.	SUPERSONIC AT HIGH ALTITUDES; HIGH SUBSONIC AT LOW ALTITUDES.

^{1/} FOR BADGER AND BLINDER, THE RADIUS USED IS UNDER A SUBSONIC HIGH-HIGH-HIGH MISSION PROFILE. FOR BACKFIRE, THE PROFILE IS A SUBSONIC HIGH-LOW-LOW-HIGH.

FACT SHEETS FOR SELECTED LONG RANGE THEATER NUCLEAR SYSTEMS -- MISSILES

THE SOVIET UNION'S SS-20 IS A TWO-STAGE, SOLID-PROPELLANT INTERMEDIATE RANGE BALLISTIC MISSILE. THE MISSILE IS COMPRISED OF THE LOWER TWO STAGES OF THE SS-16 ICBM, A POST-BOOST VEHICLE (PBV) AND MIRVS.

THE US SOLID-PROPELLANT PERSHING II, WHICH IS CURRENTLY IN DEVELOPMENT, IS A FOLLOW-ON TO THE PERSHING 1a WHICH WAS FIRST DEPLOYED IN 1969. THE P1a's LAUNCHERS WOULD BE MODIFIED TO ACCEPT THE PII MISSILE WHICH WOULD HAVE LONGER RANGE, HIGHER ACCURACY AND BETTER SURVIVABILITY.

THE GROUND LAUNCHED CRUISE MISSILE (GLCM) SYSTEM IS THE TOMAHAWK CRUISE MISSILE ADAPTED FOR A GROUND LAUNCH. IT IS A LIGHTWEIGHT, WINGED, SELF-NAVIGATING VEHICLE POWERED BY A SMALL TURBOFAN ENGINE.

	<u>I.O.C.</u>	<u>RANGE (KM)</u>	<u>TIME OF FLIGHT</u> ^{1/}	<u>RATIO OF ACCURACY</u> ^{3/}	<u>WEAPONS LOAD</u>	<u>MOBILE</u>	<u>RELOAD</u>
SS-20	1977	4400	20 MIN. APPROX	10-11	3 MIRV's, VARIABLE YIELD	YES	YES



(b)(1)

^{1/} NOMINAL TIME FROM LAUNCH TO IMPACT AT MAXIMUM RANGE.



(b)(1)

FACT SHEET FOR SELECTED LONG RANGE THEATER NUCLEAR WEAPONS -- AIRCRAFT

THE SOVIET UNION'S BACKFIRE B (BACKFIRE A IS A PROTOTYPE, FIRST OBSERVED IN 1970) IS A VARIABLE WING, TWIN-JET BOMBER. BACKFIRE IS DESIGNED FOR SUBSONIC CRUISE WITH UNSWEPT WINGS, THEN SEA-LEVEL PENETRATION WITH WINGS SWEPT FOR SURVIVABILITY.

THE UNITED STATES' F-111 IS A SUPERSONIC, VARIABLE-WING, ALL WEATHER FIGHTER/BOMBER CAPABLE OF DELIVERING WEAPONS WITH HIGH SURVIVABILITY.

	<u>I.O.C.</u>	<u>COMBAT RADIUS (KM)</u>	<u>MAX SPEED SEA LEVEL (MACH)</u>	<u>MAX SPEED OPTIMUM ALT (MACH)</u>	<u>WEAPONS LOAD</u> ^{2/}
BACKFIRE B	1974	4200	UNDER MACH. 1	OVER MACH. 2	4, VARIABLE YIELD
F-111	1969	1800	OVER MACH. 1	OVER MACH. 2	(b)(1)

^{1/} ESTIMATES OF THE EFFECTIVE COMBAT RADIUS OF AN AIRCRAFT ARE HIGHLY DEPENDENT UPON THE ASSUMPTION MADE ABOUT THE FLIGHT PROFILE FOR A PARTICULAR MISSION. FOR THE SOVIET AIRCRAFT, A HIGH-LOW-HIGH PROFILE FOR A NUCLEAR MISSION IS ASSUMED. FOR THE F-111, A HIGH-LOW-LOW-HIGH IS ASSUMED. ALL AIRCRAFT ARE ASSUMED TO RETURN TO HOME BASE; A MORE LIKELY PROFILE FOR A NUCLEAR MISSION FOR BOTH UK- AND SOVIET- BASED AIRCRAFT MIGHT BE TO LEAVE HOME BASE WITH AUXILLIARY FUEL TANKS, DELIVER WEAPONS AND RETURN TO NEAREST FRIENDLY AIR BASE. THIS COMBAT RANGE WOULD ENHANCE SIGNIFICANTLY THE NUMBER OF ENEMY TARGETS WITHIN RANGE.

^{2/} THE NUMBER OF WARHEADS IS BASED UPON A CONFIGURATION THAT ASSUMES THAT NUCLEAR WARHEADS WILL BE CARRIED ONLY WITH SPECIAL HANDLING EQUIPMENT. A PRE-ARMED NUCLEAR BOMB CAN BE CARRIED ANYWHERE THAT A CONVENTIONAL ONE CAN BE BUT ONLY SPECIAL HANDLING EQUIPMENT ALLOWS THE PILOT TO WAIT AND ACTIVATE THE BOMB OVER ENEMY TERRITORY.

PACKAGE OF Q'S AND A'S CONCERNING TNF
MODERNIZATION/ARMS CONTROL

- A. Mission and Rationale for TNF Modernization
Questions 1 - 7
- B. Analysis of Trends in Soviet and NATO LRTNF
Questions 8 - 14
- C. Arms Race and Arms Control Implications of TNF Modernization
Questions 15 - 28
- D. On the Impact of LRTNF Modernization upon the "Coupling" of
US Strategic Deterrence to Western European Defense
Questions 28 -- 32
- E. On European Acceptance of TNF, both Public and Governmental
Questions 32 - 38
- F. Justification for Actual Package -- Those Who Argue Not
Enough or Too Much
Questions 39 - 45.

A. Mission and Rationale for TNF Modernization

1. Q. Is LRTNF modernization necessary just because the Soviets are doing it, or is there some doctrinal reason for LRTNF modernization?

A. NATO's basic strategy is one of flexible response. That means that NATO requires a wide variety of options, conventional, theater nuclear, and strategic -- all linked to pose the threat of unacceptable costs to, and therefore deterring, our potential enemies. LRTNF is and has been a critical part of that strategy. To deter aggression, NATO must have the capability both to respond appropriately at whatever level of violence the aggressor chooses and have the perceived ability to respond at greater levels of violence -- thus demonstrating to the enemy the risks and costs of continuing the conflict. The potential challenge to NATO's strategy posed by Soviet LRTNF deployments has caused NATO to consider an evolutionary program of LRTNF modernization.

2. Q. Doesn't this modernization, in fact, create a new role -- one previously reserved to US strategic forces -- for NATO TNF to strike the Soviet Union?

A. No. NATO has long maintained forces capable of conducting nuclear strikes against the territory of the Soviet Union. Rather, TNF modernization would contribute to deterrence by deploying LRTNF having greater survivability and capability and by demonstrating the Alliance's will to meet the challenge of Soviet deployments.

3. Q. What exactly is the mission of LRTNF and how do the capabilities of cruise missiles and PIIs contribute to this mission?

A. The mission of LRTNF in NATO's strategy of flexible response is to promote deterrence by providing a wide range of options -- the capacity to respond appropriately to any kind of potential Soviet/Warsaw Pact attack. ^AThe proposed mix of cruise missiles and ballistic missiles would confront the Warsaw Pact planner with a number of problems. Ballistic missiles have greater assurance of penetrating Soviet territory. Cruise missiles will be highly mobile, thereby ensuring greater pre-launch survivability. The systems could be employed either selectively or massively against the enemy.

4. Q. If deterrence were to fail, how would LRTNF help to defend Europe and prevent the aggressor from achieving its goals?

A. While we procure for the maintenance of deterrence, your question and our planning recognize that deterrence is not an abstraction and that our forces must demonstrate real military capability both to reinforce deterrence and, should deterrence fail, to prevent the aggressor from realizing the goals of his aggression. In the case of NATO long-range TNF, we believe that the improved capability and survivability of these new systems will require the Warsaw Pact forces, to the full depth of the theater, to operate in less than optimum configurations. In addition, selective strikes by our modernized LRTNF against key logistics and transportation nodes, as

well as other military targets, can deprive the Warsaw Pact forces of the momentum which their doctrine seems to require.

5. Q. Won't LRTNF modernization -- and its application to the battlefield -- simply lower the nuclear threshold and increase the likelihood of nuclear war in Europe?

A. No. In the first place, the predominant function of LRTNF is to strengthen deterrence by providing additional TNF options to complement conventional forces, short-range TNF and strategic capabilities. Such a LRTNF capability will most likely raise the nuclear threshold because it will lessen the possibility that the Soviets might miscalculate that they could win the war by using their theater nuclear weapons against Europe, without putting Soviet territory at risk. Such a Soviet act would be a serious miscalculation because the US's strategic deterrent is inextricably linked to Western European defense; nevertheless, the existence and survivability of a long-range theater nuclear capability based in Europe would remove any possible room for such an erroneous belief. A credible NATO LRTNF capability will raise the nuclear threshold by increasing the risks and costs associated with any use of nuclear weapons by a potential aggressor.

6. Q. Does the LRTNF modernization program mean that NATO is increasing its reliance on nuclear as opposed to conventional forces.

A. No, it does not. NATO has always included nuclear options -- both short-range and battlefield, as well as long-

range --as part of its flexible response strategy. Until the Soviet Union undertook to modernize its LRTNF, the balance at this level was stable and appeared to satisfy both NATO's and the Warsaw Pact's defensive purposes. Soviet modernization plus the aging of NATO systems has led the alliance to consider modernizing its own LRTNF capabilities. We plan only to maintain our deterrent capability in the face of a changing situation, not increase our reliance on any particular type of capability. NATO's policy places the highest priority on continuing to improve its conventional forces; this commitment will not be affected by any LRTNF modernization program.

7. Q. Assuming the validity of your rationale for TNF modernization, doesn't NATO's flexible response strategy and the role of the TNF within it --in the context of Warsaw Pact conventional superiority -- necessitate that the West initiate the use of nuclear weapons?

A. The principal function of NATO's military capabilities is to deter acts of aggression at all levels and, furthermore, if deterrence fails at any level, to prevent the continuation of aggression by posing unacceptable risks to the enemy. The Warsaw Pact must understand that NATO conventional and nuclear forces are linked, that any act of aggression risks the use of all NATO weapons, including US intercontinental forces.

B. Analysis of Trends in Soviet and NATO LRTNF

8. Q. Why is your analysis of NATO and Soviet Long-Range Theater Nuclear Force balances limited only to IRBMs

and aircraft such as the Backfire and F-111? Aren't there a number of other Soviet systems which are capable of delivering nuclear weapons against targets in Western Europe?

A. Any discussion of comparative theater nuclear balances runs into definitional problems because the line differentiating long-range from short-range nuclear systems can sometimes be quite blurry. Customarily we say a system is long-range if it has a range or combat radius of over 1000 kms. It is certainly true that there are a number of weapons systems not included in this analysis that can perform nuclear missions. A principal example would be the Soviet Fencer aircraft, a dual-capable aircraft with a combat range of about 1000 kms. The Soviet Union has deployed somewhat over two hundred of these aircraft in the Soviet Union against NATO Europe and, under certain combat conditions, these aircraft can reach considerable distances into Western Europe. Any prudent analyst must consider these systems as well. In much the same fashion, however, NATO has aircraft which could conceivably carry out nuclear missions against the Soviet Union even though that is not their principal mission. For the sake of clarity, however, we have not included these systems in our analysis. Nevertheless, their impact should not be neglected.

9. Q. What has been past NATO policy on TNF modernization?

A. NATO's policy on TNF modernization has been that of evolutionary modernization NATO never has advocated radical

increases in our theater nuclear capabilities. Rather, the policy has been to replace and update as necessary to ensure that NATO's TNF can maintain its role as one facet of the spectrum of deterrence.

10. Q. What is it about recent developments in Soviet deployments that is cause for such great alarm?

A. The Soviets are deploying an increasing number of modernized systems opposite Western Europe which are far more effective than the older systems they replace or supplement. These newer systems, specifically the SS-20 missile and the Backfire bomber, have greater range, accuracy and mobility, thus allowing them to strike into Western Europe with a higher probability of mission success. Further, these systems can carry a substantially greater number of nuclear warheads.

11. Q. Why aren't NATO's current LRTNF capabilities sufficient to counter the Soviet deployments of SS-20s and Backfires?

A. Current LRTNF capabilities consist of sea-based missiles (UK Polaris and US Poseidon) and land-based aircraft (UK Vulcan and US F-111s). While the sea-based systems are highly survivable (as is the mobile SS-20), they are not as accurate as land-based missile systems and thus not as capable of performing selective strikes against military targets. NATO's land-based systems are aging (the Vulcan is soon to be retired) and increasingly vulnerable, particularly with the

deployments of the SS-20 which is considerably more accurate than the SS-4 or SS-5. A LRTNF modernization program by NATO involving land-based missile systems, would diversify NATO's LRTNF capabilities, thus enhancing the credibility of LRTNF response options. Current capabilities are sufficient to meet current threats; we are concerned about the risks associated with meeting future threats with current capabilities, only more aged.

12. Q. Why are the Soviets deploying the SS-20 and Backfire bomber?

A. Of course, we really can't answer that question.

The balance of TNF between the Soviet Union and NATO appeared to be reasonably stable until the recent Soviet modernization program and that balance seemed to satisfy both sides' defensive needs. Their present LRTNF deployment, however, changes the level of the previous balance upward and provides, through its increased mobility, accuracy, and number of weapons, an enhanced Warsaw Pact offensive capability. It is this recent development that is cause for concern.

13. Q. How reliable are your estimates of Soviet LRTNF capabilities? How do we really know that they are in fact increasing the numbers and capabilities of their LRTNF systems?

A. Our information about deployed systems is accepted as being reasonably reliable. Based upon our intelligence about current production rates, weapons production lead times, our understanding of Warsaw Pact strategy and doctrines, and

so forth, we can project the general nature of future Soviet capabilities.

14. Q. Why has NATO allowed the Soviet Union to gain a lead in LRTNF?

A. NATO has never had a policy of matching the Soviet Union LRTNF system-for-system or warhead-for-warhead, so the question of a simple numerical "lead" is not the critical issue. What is important is that NATO continue, as it has in the past, to provide forces -- LRTNF and the rest of the range of conventional and nuclear capabilities -- to ensure that deterrence is preserved and that the Soviets cannot use the threat of military force as an effective instrument of policy in Europe. It is in this context that LRTNF modernization is being considered.

C. Arms Race and Arms Control Implications of TNF Modernization

15. Q. Why should NATO, after the US and the Soviet Union reached a new SALT agreement, seek to move into an entirely new arms race with the Soviet Union?

A. If the result of NATO's modernization of its Long-Range Theater Nuclear Forces were to be an arms race, it would indeed be unfortunate and completely uncalled for on the part of the Soviet Union. Until recently both NATO and the Soviet Union maintained relatively stable LRTNF and it is the recent Soviet modernization and deployment program that is causing

concern. NATO believes it must, for its own security, respond to these developments. In doing so we wish only to correct an emerging asymmetry in the two force structures. We see no need to match the projected Soviet deployments but we must retain credible options to respond to them, as well as other possible actions. If the Soviet Union is willing to assist us in correcting this asymmetry in forces through arms control we are ready to do so.

16. Q. What will NATO do if the Soviet response to its LRTNF modernization is simply to increase the number of SS-20s it deploys or not retire SS-4s and SS-5s at the current rate? Or even deploy some forward based systems of their own -- for example, SS-20s in Cuba?

A. NATO is responding to a Soviet deployment program -- one which they cannot deny -- that is occurring in the face of a static NATO force posture with respect to LRTNF. While it will ensure the credibility of our TNF options, any likely NATO LRTNF modernization program would not approach the scope of the Soviet programs. The Soviets could respond by keeping their older systems or expanding their LRTNF deployments. If they do, NATO would have to reconsider the scope of its own modernization program. In parallel, however, the Alliance will be supporting arms control negotiations on LRTNF to constrain potential Soviet deployments, thus contributing to future stability in Europe. As for the possibility that the Soviets might station SS-20s in Cuba, such an action would be

'politically reckless given the history of US-Soviet agreements on nuclear offensive systems deployed in Cuba.

17. Q. Didn't the US withdraw Thor and Jupiter missiles from Europe as a result of a US-USSR agreement in connection with the Cuban Missile Crisis? How will this affect any new US deployments at this time?

A. The US has no agreement with the Soviet Union concerning deployment of US LRTNF in Europe in connection with the Cuban Missile Crisis. US withdrawal of medium-range missiles from Europe in 1963 was carried out as a result of normal force modernization decisions -- more vulnerable and less accurate systems were replaced with more capable intercontinental systems. The US is not constrained with respect to any future LRTNF deployments.

18. Q. If NATO proceeds with its LRTNF modernization plan, doesn't that obviate any possible need for the neutron bomb?

A. As you know, the US is continuing development of enhanced radiation weapons -- the neutron bomb as it is called -- but has deferred decisions about production and deployment of these systems. As President Carter stated, these decisions will be influenced by the degree of Soviet restraint in its weapons programs and force deployments which affect NATO security. The intended role for enhanced radiation weapons is short-range tactical use. Decisions about whether to procure such weapons will be taken separately from those involving

long-range theater nuclear weapons. As of this time, however, no final decisions about enhanced radiation weapons have been made within the US or the Alliance.

19. Q. Would it be better to see if arms control for LRTNF could succeed before beginning LRTNF modernization?

A. As you know, the Statement of Principles included in the SALT II agreement opens the way for US and Soviet negotiations on nuclear systems not constrained by SALT II provisions. The United States has stated its position that any future limitations on US systems principally designed for theater missions should be accompanied by appropriate limitations on Soviet theater systems. In terms of the Alliance LRTNF modernization decisions, we need to go ahead. We will then have ample opportunity to see if meaningful arms agreements will be possible since the first new systems wouldn't be deployed immediately. Realistically, it is unlikely that the Soviet Union would accept meaningful constraints on their systems in the absence of real programs and the demonstrated public and political resolve on the part of NATO to respond to the Soviet modernization program. Otherwise, they would have no incentive to engage in serious negotiations. In addition, since the Soviets have already modernized substantial portions of their long range TNF, some NATO modernization will probably be necessary, even if arms control efforts are successful.

20. Q. If TNF modernization is "required," how can arms control lessen the need for some modernization?

A. NATO's LRTNF is aging. For example, the British Vulcan bombers will soon be retired. Even if the Soviets had not modernized their LRTNF we would be considering the modernization of our own LRTNF. At the same time, however, the Soviet Union has changed the balance of forces at the LRTNF level with the introduction of the SS-20 missile and Backfire bomber. The size and scope of NATO's modernization will be affected, of course, by the level of Soviet LRTNF deployments and by the willingness of the Soviet Union to engage in meaningful arms control negotiations. We intend to pursue this subject seriously. Realistically, we do not expect the outcome of arms control negotiations to eliminate the need for some NATO TNF modernization.

21. Q. Are the plans for the introduction of PIIs and GLCMs simply "bargaining chips" for future arms limitation talks?

A. PIIs and GLCMs are two promising candidates for NATO's TNF modernization program, the size and characteristics of which have not yet been determined and which could be affected by the course of arms limitation talks. But they are not to be viewed as "bargaining chips" in any sense of the term because they will constitute the modernization program that NATO will have to pursue.

22. Q. How will the provisions of SALT II, assuming that it is ratified by the US Senate with no changes, affect NATO's program for LRTNF modernization/arms control?

A. SALT II puts no limitations on options of current interest for LRTNF modernization, for example, ground-and sea-launched cruise missiles and Pershing II ballistic missiles. The Protocol to SALT II (which bans deployment, but not testing, of long-range cruise missiles) expires on a fixed date, Dec. 31, 1981, which would be before any LRTNF deployments could occur.

23. Q. Given the magnitude of current and projected SS-20 and Backfire deployments, wouldn't any feasible arms control agreement simply freeze NATO into a position of inferiority with respect to LRTNFs?

A. In order to strengthen the NATO deterrent, it is necessary that NATO have sufficient LRTNF to provide credible options of defense and deterrence to respond to Soviet LRTNF capabilities. For this purpose, we do not need to match Soviet deployments. At the same time, however, we will not agree to any limitation of NATO's LRTNFs that is not equitable and that would leave us with capabilities that are not sufficient to meet our legitimate defensive needs. Realistically, we are not optimistic that the Soviet Union would accept such restrictions on its capabilities as would obviate our need to modernize.

24. Q. If NATO has indeed committed itself to the pursuit of arms control agreements covering LRTNFs, will it be through SALT III talks or MBFR talks? If through SALT, how will NATO allies participate in the negotiations?

A. As you know, the question of NATO's LRTNF arose in MBFR when the West presented Option III for consideration -- essentially Option III proposed a reduction of a combination of NATO's TNFs and conventional forces in return for a substantially larger reduction of Warsaw Pact conventional forces. The United States undertakes the closest possible consultations with its NATO Allies on all questions concerning TNF modernization/arms control. Through what forum, and the precise form that Alliance consultation will take, has not yet been decided and is itself a matter for Alliance choice.

25. Q. How can we increase LRTNF with Option III on the table in MBFR? Does this spell the end of the West's MBFR negotiating position?

A. The fact that we have made the Option III offer can be taken as in no way constraining the West until such time as both sides reach an MBFR agreement on the substance of that offer. Option III proposed a reduction of nuclear capable F-4s, 36 Pershing ballistic missiles and 1000 US nuclear warheads (and limitation to residual levels) in return for a Warsaw Pact reduction to common collective manpower ceiling based upon agreed manpower data as well as a reduction of 1700 tanks (and limitation to residual levels). NATO is in the process of deciding the substance of its entire LRTNF modernization and related arms control recommendations, and will consider Option III in that context.

26. Q. After signing the SALT II agreement in Vienna, President Carter told Congress that if SALT II were not ratified, NATO defense would be hurt by a diversion of US resources from strengthening NATO capabilities to an unrestrained strategic arms race with the Soviet Union. Is this true?

A. As you know, our NATO Allies have strongly endorsed SALT II as serving the interests of the NATO Alliance. Rejection of SALT II by the Senate will serve neither US nor NATO interests. We do not expect, however, that it will be rejected and, in any case, the United States' commitment to European defense will remain firm and we will continue to maintain strong US intercontinental nuclear forces which are the ultimate bulwark in NATO's deterrent posture.

27. Q. The Soviet Union has no nuclear weapons, unconstrained by SALT, which are capable of attacking the US. Why does the US seek to circumvent the intent of SALT by deploying new strategic systems into the European continent?

A. The terms of SALT II are quite explicit as to which systems are constrained and which are not. The US (and NATO) has absolutely no intent or interest in circumventing the terms of the treaty. The Soviet Union has deployed in the Soviet Union sizeable numbers of ballistic missiles (SS-20s, SS-4s, and SS-5s) and bombers (Backfire, Badger and Blinder) against Western Europe. These forces, unconstrained by any agreement (except for production limits on Backfire) cannot be ignored. If the Alliance decides to modernize its LRTNF, it

will be to reinforce NATO strategy and to respond to Soviet LRTNF modernization, and not to circumvent the limits in SALT II.

28. Q. France has indicated forcefully that she will not participate in any talks concerning LRTNF limitation and it appears that she is about to embark on a significant modernization program of her nuclear capabilities. Doesn't this seriously undermine any prospect of reaching an agreement with the Soviet Union?

A. Obviously French nuclear capabilities complicate the negotiating process over LRTNFs because these forces figure in any Soviet calculations. However, the French program has not precluded serious arms control negotiations regarding intercontinental nuclear systems. The French program -- or the Chinese or British program for that matter -- should preclude serious negotiations over LRTNF.

D. On the Impact of LRTNF Modernization upon the "Coupling" of US Strategic Deterrence to West European Defense

29. Q. Is it meaningful to talk about the "Euro-Strategic balance?"

A. Any discussion of the balance of nuclear forces in the European Theater must consider US and Soviet intercontinental capabilities. Parts of both the US and the Soviet Union's strategic forces are committed to the European theater and a basic component of the NATO deterrent is its inextricable link to US intercontinental forces. To consider LRTNF balances

without including the US/USSR intercontinental balance to neglect an essential element in this theater.

30. Q. Doesn't the existence of strategic parity -- together with the increasing vulnerability of US land-based strategic forces -- reduce the likelihood that the US will respond to major Warsaw Pact provocations in Western Europe -- a likelihood that would be further reduced if NATO provides itself with a minimal assured destruction capability through LRTNF modernization?

A. NATO's LRTNF modernization program does not in any sense represent an attempt to procure a European-based minimal assured destruction capability. To do so might tempt a potential aggressor into the misperception that the United States might possibly remain uninvolved in a general European nuclear war. This would be a grave miscalculation since the cornerstone of US policy is our commitment to European defense. NATO's LRTNF modernization program has as one of its principal purposes the continuing provision of credible LRTNF options so as to prevent any possible miscalculation by the Soviets about whether a European-based conflict could be contained without risk of escalating to general nuclear war -- a purpose central to NATO's continuum of deterrence.

31. Q. Does the stationing of cruise and ballistic missiles in Europe presage the decoupling of the US strategic arsenal from the defense of Europe?

A. On the contrary, NATO's LRTNF program in no way should be interpreted as contributing to any "decoupling" of US intercontinental forces from European defense. The security

of the United States is indivisible from the security of Western Europe and US strategic forces remain firmly linked to the defense of Europe. A principal reason for the proposed deployments of LRTNF is to make this linkage clear to the Soviet Union -- to correct any possible misperception on their part that they could initiate a war which would be confined to Europe, leaving US and Soviet territory as sanctuaries.

32.- Q. In listening to some of the US MX debate of recent months can one detect a more sinister reason for the American initiative to put new weapons into Europe? Wouldn't this new deployment have the effect of drawing Soviet nuclear weapons on Europe instead of the US in the event of a war between the super-powers?

A. The American people will continue to shoulder the responsibilities required for their own security -- a security which is indivisible from European security. The recent decision to proceed with the MX should make this clear. The American people also know there is no sanctuary in a nuclear war. The purpose of credible LRTNF options is not to provide a sanctuary for the United States but to gainsay perceptions of a Soviet sanctuary and thereby to deter aggression.

E. On European Acceptance of TNF, Both Public and Governmental

33. Q. If the European public, and consequently many governments, would not accept the neutron bomb, why should they accept Pershing IIs and GLCMs?

A. The mission of the neutron bomb -- enhanced radiation weapons -- and long-range theater nuclear weapons (which may or may not be a combination of PIIs and GLCMs -- this has not

*yet been determined) are very different and I expect that European publics will react very differently to them. First, the Soviets have been modernizing their LRTNF for the past five years, while NATO has not. NATO's decision will follow Soviet decisions and will not represent the introduction of a new TNF capability into the theater. Second, while the principal purpose of both types of capabilities is deterrence, ERW deter principally by providing credible options for battlefield use -- including on NATO territory -- while LRTNF deter principally by warning the aggressor of the risk of aggression because of the high costs associated with escalation -- that is, the cost of strikes against the home territory of the aggressor (with Europe-Based Systems).

34. Q. Won't the stationing of these new nuclear weapons simply make new targets out of European countries if a nuclear war occurs?

A. Any LRTNF modernization program will not increase the total number of nuclear weapons in Western Europe since there will be a reduction in the existing stockpile at least as large as the increase in new weapons. In any case, if a general nuclear war were to occur, it is uncertain whether those Western European countries which did not have any nuclear weapons at all would suffer significantly less damage than those that did.

35. Q. If the European allies say "no" to LRTNF deployments, what will the US do? Will this be a signal of the approaching end of the NATO Alliance?

A. We don't believe that the Allies will say "no" to NATO's LRTNF modernization program. Moreover, it is not productive to speculate on what the United States or any other nation might do in that unlikely event. In any event, the solidarity of the Alliance is strong and does not depend solely on this or any other single factor.

36. Q. Why should Europeans endorse additional deployments of nuclear weapons in Europe when all that will do is ensure higher levels of destruction for them if they are drawn into a superpower war?

A. Obviously we are all aware of the horrendous destruction which would result from any general nuclear war. Unfortunately it is one of the ironies of the nuclear era that in order to deter war and aggression -- the prime purpose of the NATO Alliance -- we must often increase the costs to the enemy (and us) associated with war if deterrence fails. Despite the existence of massive destructive power from nuclear weapons, this logic of deterrence remains compelling and continues to help preserve peace in Europe, as it has for the past 30 years.

37. Q. Are Norway and Denmark (or Greece or Turkey) being considered as host countries for LRTNF deployment?

A. As in the past, the type and degree of participation is up to the individual NATO member to decide. We are anticipating widespread support for and participation in LRTNF

modernization. Over and above this, it is not our policy to discuss specifics on which countries would have nuclear weapons stationed on their territories.

38. Q. Wouldn't the national security interest of all the smaller NATO nations be best served by their excluding new long-range theater nuclear weapons from their soil?

A. The foundation upon which NATO is built is the premise that the national security interests of members states is best served by addressing these interest as an Alliance. The cohesiveness and solidarity of the Alliance is predicated on the willingness of each of its member states to share appropriately in the risks and burdens associated with maintaining the security of the Alliance -- a security that all states enjoy, large or small.

F. Justification for Actual Package - Those Who Argue Not Enough or Too Much

39. Q. In its issue of 25 June, Newsweek reports that the United States will soon propose the deployment in Western Europe of between 200 and 600 nuclear warheads with increased capabilities (such as the PII) to counter the Soviets' SS-20 Backfire systems. Is this true?

A. A general consensus has been reached within NATO that Soviet LRTNF deployments -- which include SS-20 and Backfire -- necessitates an appropriate response from NATO in terms of LRTNF modernization. The precise size and characteristics of the modernization program has not yet been determined either within NATO or the United States.

40. Q. Assuming that the reported range of 200-600 deliverable warheads is correct, why aren't we deploying more LRTNF systems to meet the projected threat posed by SS-20 and Backfire deployments which by 1985 could increase by between 200 and 300 percent?

A. The nature of NATO's LRTNF modernization program has not yet been determined but I want to remind you that the intention of our modernization program is not to match the Soviet Union missile for missile, warhead for warhead. NATO's principal purpose in LRTNF modernization is to provide itself with credible response options. For NATO's defensive purposes, credible options at the LRTNF level will be provided by survivable, accurate systems at far fewer numbers than is currently projected for the Soviet deployment program.

41. Q. The French have long insisted that they needed a "minimum massive retaliation" capability to deter the Soviet Union. Yet the proposed mission for Pershing II stresses military targets and Moscow is beyond its range. How exactly will Pershing II strengthen deterrence given its relatively short range (in comparison to the SS-20) and counterforce mission?

A. The purpose of NATO's LRTNF modernization program is not to provide NATO with a European - based minimal massive retaliation capability. Such a capability might lead the Soviet Union to make the fundamental miscalculation that US strategic forces are not inextricably linked to European defense. The purpose of our LRTNF is to provide credible options linking conventional forces, theater nuclear weapons and strategic weapons into a single continuum of deterrence

•which will leave no room for the Soviets to miscalculate about the readiness of NATO to respond appropriately to any acts of aggression by strikes against various kinds of targets.

42. Q. Accepting for the moment that NATO needs additional LRTNF, we have only heard reports of systems that are based in Europe -- that is, PIIIs and GLCMs. Why wouldn't it be more appropriately sea-based -- thus providing greater survivability, reducing Soviet incentives to use nuclear weapons against Europe and avoiding the political difficulties of arranging national bases?

A. NATO has, and will continue to have, a significant portion of its LRTNF capability deployed at sea. New land-based Systems with good pre-launch survivability will greatly diversify NATO's LRTNF, thus enhancing the credibility of LRTNF response option. Land-basing in the different allied countries convincingly and visibly conveys the vitality, cohesiveness, and solidarity of the NATO Alliance.

43. Q. Why do we need TNF modernization at all when everyone knows that NATO forces have approximately twice as many nuclear warheads as Warsaw Pact forces (7,000 to 3,500)?

A. In the first place, we do not know that we have twice as many nuclear warheads as does the Warsaw Pact -- you may seriously underestimate the number of Soviet nuclear warheads. Secondly, NATO's nuclear warhead capability is heavily weighted towards short-range tactical weapons. Our LRTNF modernization program is aimed at redressing any short falls in long range theater nuclear capability that may endanger the credibility of NATO's deterrent. At the same

time we do not plan to increase the total number of nuclear warheads in NATO's inventory, or the role of TNF in NATO's strategy.

44. Q. I simply don't understand how proliferating still more nuclear weapons will improve the security of Western Europe. If the tens of thousands of existing nuclear weapons cannot deter the Soviets how can we expect a few hundred more in Europe to deter them?

A. Deterrence is not established or maintained by some simple counting of nuclear weapons. NATO strategic doctrine recognizes that deterrence depends on what types of actions are intended to be deterred and the credibility of actually employing the forces if deterrence fails. We believe that the proposed improvements to NATO's LRTNF will strengthen the deterrence of Soviet aggression well beyond their numerical contribution by their demonstration of NATO's will to respond.

45. Q. Is the Soviet build-up of SS-20s (which after all, may just be a replacement for obsolescent SS-4s and SS-5s) any more threatening than the general nuclear build-up in both theater and strategic systems?

A. Your question seems to imply that Alliance does not find the general nuclear build-up of the Soviet Union cause for considerable alarm. The fact is that we do. In the strategic arena, the U.S. is responding by pursuing a general modernization/arms control program. The most recent products, of course, have been the SALT II agreement and the MX missile decision. NATO is now considering how to respond in the area of LRTNF.