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CENTRAL INTELLIGENCE AGENCY  
WASHINGTON, D.C. 20505

18 APR 1969

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MEMORANDUM FOR: The Honorable David Packard  
Chairman, NSSM-3 Steering Group

SUBJECT : Report of the Foreign Political  
and Military Reactions Study  
Group: Strategic Forces

DEF. SEC. INFO. CONT.

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STRATEGIC

1. On behalf of the Foreign Political and Military Reactions Study Group, I forward the strategic forces phase of its work for NSSM-3

2. As directed, the Study Group gave most attention to the reactive aspects of Soviet military policy and force structure in relation to different US strategies. The Group concentrated on how these factors would tend to influence Soviet force and weapons decisions that must be taken in the near term if they are to have an operative effect on Soviet forces by the mid-1970's. The Group recognizes that the Soviets are not limited to reacting to US initiatives and that there is room for initiative in Soviet political and military decision making in the selection of strategic objectives. This is particularly true in the longer term.

3. Because the report necessarily is concerned with the analysis of first-order political effects and with presently available or predictable technology, the particular combinations and levels of Soviet forces described, particularly in the latter part of the period, are at best illustrative. As the report points out (page 9):

"Although the body of intelligence analysis underlying the Soviet force packages is extensive, a cautionary note is required. The quantification of force levels and system capabilities may create an impression of precise information, especially about future forces and systems, which would be quite unjustifiable in the light of the extent of our information."

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4. Additional copies of the report are available if you require them.



Chairman  
Foreign Political and Military  
Reactions Study Group

Attachment: a/s

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INTERAGENCY WORKING GROUP FOR  
NATIONAL SECURITY STUDY MEMORANDUM 3

Study Group Report

FOREIGN POLITICAL AND MILITARY REACTIONS  
TO US STRATEGIES AND FORCES  
(STRATEGIC FORCES)

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Foreign Political and Military Reactions to  
US Strategies and Forces  
(NSSM-3: Strategic Forces)

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April 1969

Foreign Political and Military Reactions to  
US Strategies and Forces  
(NSSM-3: Strategic Forces)

Summary

We believe that there are both military and political objectives that determine Soviet strategic policy and forces. On the military side, the primary aim is to deter a nuclear attack on the USSR--whether by the US, Communist China, or any other country--and to minimize damage to the homeland in the event that deterrence fails. On the political side, the primary goal is to sustain, both in the Soviet mind and in world opinion, a generalized claim to equal power status in relation to the US.

The Soviet Union has increased its strategic power substantially during the past few years. Its leaders probably are confident that they are achieving a rough strategic equality with the US and a strong deterrent capability which is recognized by the US and by the rest of the world. We believe the Soviets recognize, however, that for the foreseeable future it is not feasible for them to achieve damage limiting capabilities which would permit them to launch a first strike against the US without receiving a very high level of damage in return.

A major concern of Soviet leaders at this time probably is how to maintain the capabilities of their strategic forces in the face of the significant improvements becoming available to the US--e.g., accurate MIRVs. The Soviet leaders probably believe

Note: This report was prepared by the Foreign Political and Military Reactions Group. This Group included representatives from the Department of State, the Joint Chiefs of Staff, the Office of the Secretary of Defense (Systems Analysis), the Office of the Secretary of Defense (International Security Affairs), the Arms Control and Disarmament Agency, the National Security Council Staff, and the Central Intelligence Agency.

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that they will have to undertake expensive new deployment programs if they are to retain the strategic position which they have recently achieved at great cost and effort. The USSR's decision last July to open talks with the US on the limitation of strategic systems is a reflection of their concern.

Although it is clear that Soviet leaders are sensitive to changes in the US force postures and strategies, the relative weight of this factor as opposed to other considerations bearing on new weapons development and deployment is difficult to determine. Hard intelligence on the particulars of Soviet defense decision making is generally lacking and Soviet literature on the subject is often contradictory. Consequently, the reactions described in this report--particularly the quantifications of force postures during the latter part of the decade--should be regarded as highly illustrative.

Soviet concern with the threat represented by US forces will not necessarily evoke an immediate and equal response to each US move. National outlook, internal bureaucratic structures and rivalries, economic and technological considerations, and other factors prevent the operation of perfectly symmetrical reactions based on military calculations. Moreover, against the background noise and distortion generated by political debate in the US, the Soviets will not necessarily perceive accurately all US policies and actions.

Soviet military planners, however, will be concerned with existing and potential US weapons and forces and they will allow for a margin of safety when assessing an uncertain future. US development programs for advanced systems such as AMSA, ULMs, AICBM, and ABM will tend to push Soviet planners toward worst-case contingency planning against the eventual deployment of these systems.

Faced with the declared strategy of US Force Category I--seeking full denial of Soviet retaliatory capabilities--the Soviet leadership might

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conclude that the US was preparing for a first strike against the Soviet Union. We believe that the USSR would respond with a very large-scale military effort, curtailing civil programs where necessary and converting to a near war economy.

The Soviet leaders would interpret any of the strategic postures included in US Force Category II as representing a US determination to threaten the strategic position of the USSR. We believe that the USSR would respond by taking a harder political line and by increasing defense efforts across a broad front.

We believe that the improvements being planned under US Force Category III together with the declared US strategy probably would lead the Soviets to conclude that their present policy of exploring the possibilities of arms control, coupled with a readiness to improve and expand their own forces, was their best course.

If the US adopted any of the alternatives in Force Category IV on a unilateral basis, the Soviets would be surprised. They would, upon reflection, recognize that the reduced US forces planned would still constitute a formidable deterrent against surprise attack or high-risk courses of action by the USSR. They probably would attribute the US action to difficulties in the US economy and society. Soviet military efforts might proceed at a subdued tempo as a result of the US action, but it is unlikely that force levels would be much lower than the NIPP-Lo projections.

US Force Category V presumes the existence of formal arms control agreements with the USSR. The Soviet response to this Force Category, therefore, would be constrained by the provisions of any such agreements.

Communist China's strategic force capabilities and objectives through the mid-1970s are unlikely to be affected by US programs. The Chinese probably consider that the small ICBM force they can acquire in this period will enable them to exert

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greater political pressure on their neighbors while inhibiting US actions. We doubt that their calculations would be much affected by higher US offensive force levels or by either the presence or absence of a US ABM system.

Attitudes and defense policies of NATO countries are less likely to be influenced by variations in the US strategic forces--at least within the middle of the range of options--than by the way the US structures and deploys its general purpose forces. Any major change in the US strategic posture, especially one which might cast doubt on US deterrent capability, however, would cause them great concern.

A decision by the US to substantially improve its strategic position in relation to the USSR would go against predominant European hopes and thinking, despite support for such moves by those who retain deep fears and suspicions about Communist intentions. A sharp reduction in US strategic forces probably would cause great concern to European governments and reduce their confidence in the US will and ability to provide a nuclear umbrella over NATO.

The middle range of US options would have little effect on other potential nuclear powers--Israel, India, Japan, and Sweden. Responses to US adoption of strategies at either extreme would vary depending mostly on whether or not the US action was accompanied by a similar Soviet action. For example, if the US made significant reductions in its strategic forces and the Soviets did not, the incentives to go ahead with the development of nuclear weapons in these countries would be increased appreciably.

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## Introduction

This paper provides an assessment of possible political and strategic force policy responses of selected major foreign nations to specified alternative US courses of action.

Parts I and II present brief discussions of the context of Soviet strategic policy decisions in order to provide some perspective on the likely Soviet responses in the complex process of strategic interactions. US actions and forces are only two among many considerations that affect Soviet military decisions. We identify, but do not discuss in detail, some of the other important factors where they are appropriate to the interaction situation being considered.

Part III focuses on future Soviet strategic forces. A range of alternative levels of effort that the USSR might reasonably adopt to achieve its strategic objectives and a representative force package for each level of effort are presented. These representative forces are presented in the detail necessary for costing and for performing strategic simulation calculations. They should not be considered as representing more than one of the many combinations of forces that would be possible at a given general level of effort.

The representative Soviet force packages are then related to the range of US strategies and forces developed by the Interagency Working Group for NSSM-3 and likely combinations of US forces and Soviet force levels are identified. We have considered only first-order effects in the analysis. No attempt has been made to work through all the possible iterations of the interaction process.

This paper does not discuss the relationship between Soviet strategic forces and Soviet general purpose forces, nor does it consider the possible impact of US general purpose force policy on Soviet strategic forces. These topics will be treated at a later stage in the NSSM-3 study.

Part IV discusses the probable impact of US strategic force policy on Communist China. The responses of major non-Communist countries are examined in Part V.

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Appendix A describes--in representative force structure terms--the likely range of Soviet effort during the 1970s in support of strategic programs. Appendix B presents a simulation of the view the Soviets might have of their deterrent posture under selected combinations of US and Soviet strategic force structures. Appendix C contains the expenditure implications of the representative Soviet strategic forces described in Appendix A.

Appendixes B and C are independent CIA submissions to the report. They were not considered in detail by the Interagency Working Group because of the specialized nature of the analysis.

### I. Objectives of Soviet Strategic Policy

We believe that there are both military and political objectives that determine Soviet strategic policy and forces. On the military side, the primary aim is to deter a nuclear attack on the USSR--whether by the US, Communist China, or any other country--and to minimize damage to the homeland in the event that deterrence fails. On the political side, the primary goal is to sustain, both in the Soviet mind and in world opinion, a generalized claim to equal power status in relation to the US.

The way the Soviets would actually structure their forces, given their assessment of their combined military and political objectives, is not clear and would depend in large measure on a broad array of variables--e.g., the nature of the strategic relationship with the US, Soviet economic and technological realities, and the political environment in the Soviet Union.

*The Department of State believes that this report does not give sufficient emphasis to the political aspects bearing on Soviet decision making in the field of advanced weapons; but understands that a separate and more detailed analysis on this subject has been prepared by CIA in connection with a related NSSM.*

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The exact weighting of military and political objectives would be influenced by the ways in which the US force decisions were made and justified, and by the size, pace, and qualitative characteristics of the US forces as they emerged from the decision. The Soviets probably believe that their present deployment programs would meet their military and political objectives if the US chose not to exercise its present options for deployment of new or improved weapon systems.

*The Joint Chiefs of Staff believe that "deterrence" and "parity" are only minimum Soviet objectives. Clearly the Soviet range of strategic options is broader than one-for-one reaction to US choices and decisions. The Soviets have resources to fashion strategic forces that fully exploit their advancing technology, support their world outlook and related ambitions, and take reasonable cognizance of US capabilities and force postures. On the record they are likely to do so. Accordingly, the Joint Chiefs of Staff wish to emphasize that the reactive Soviet strategies identified herein must be used with caution.*

## II. Soviet Views on the Strategic Balance

During most of the past ten years the US has maintained a commanding lead over the USSR in the number of weapons each could deliver against the other's homeland. Soviet intercontinental strike forces, however, have been built to levels sufficient to prevent the US from having confidence that it could launch a first strike against the USSR without receiving an unacceptably high level of damage in return. In addition, the medium range and intermediate range systems targeted against Europe provide further weight to the Soviet deterrent. The confidence of the Soviets in the credibility of their deterrent has certainly been strengthened by the increments made to their intercontinental forces since 1965, and they are aware that the US shares this assessment.

The Soviets also have exerted major efforts to deploy defensive systems. A highly redundant air defense system, a limited missile defense system,

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and recent high priority efforts to develop ASW systems testify to the degree of Soviet interest in strategic defense. The Soviets almost certainly recognize, however, that for the foreseeable future it is not feasible to achieve damage limiting capabilities which would permit them to launch a first strike against the US without receiving a very high level of damage in return.

Most Soviet leaders are probably satisfied that the forces they are building demonstrate to themselves and to the world that a rough strategic equality with the US is being achieved. In the Soviet view, the attainment of this objective provides not only military security, but also a basic psychological underpinning to their ability to influence world affairs. Soviet political dealings, which are often conducted in difficult circumstances with reluctant partners and suspicious neighbors, are facilitated to the degree that the USSR can represent itself credibly as an equal to the most powerful "imperialist" state.

*The Department of State believes that while this description of how the Soviets view their relative strategic position is fully consistent and logical in terms of how the US approaches this problem, it is not clear from evidence available that the Soviet leaders have the same perspective or goals, or that they can be regarded as constants.*

A major concern of Soviet leaders at this time probably is how to maintain the capabilities of their strategic forces in the face of the significant improvements becoming available to the US--e.g., accurate MIRVs. The Soviet leaders probably believe that they will have to undertake expensive new deployment programs if they are to retain the strategic position which they have recently achieved at great cost and effort. The USSR's decision last July to open talks with the US on the limitation of strategic systems is a reflection of their concern.

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III. Future Soviet Strategic Forces

A. The Range of Effort for Strategic Forces

Because of uncertainties in both nonmilitary and military factors, we cannot define Soviet responses to US actions with precision. We can, however, describe the general levels of effort that the Soviets will devote to strategic forces during the 1970s. Five illustrative strategic force packages have been designed to approximate reasonable limits to the range of Soviet effort and to place intermediate benchmark levels within the range. Although the body of intelligence analysis underlying these force packages is extensive, a cautionary note is required. The quantification of force levels and system capabilities may create an impression of precise information, especially about future forces and systems, which would be quite unjustifiable in the light of the extent of our information. The task of defining the range of Soviet effort was approached along the following lines:

1. The Soviet forces projected for the period 1969-78 in recent National Intelligence Estimates and Projections for Planning represent the range of most likely Soviet courses of action in view of their probable evaluations of US policies and programmed forces. It is with respect to this existing national intelligence, which constitutes the base case for the analysis in this study, that our evidence on Soviet objectives and weapons is clearest and where the body of intelligence analysis is most complete. Force Packages 2 and 3, which are shown in detail in the force structure tables, generally correspond to the NIPP-69 projections and describe the lower and upper limits of the base case projection used in this study.

2. We examined each of the alternative US Force Categories and judged whether it was likely to be perceived by the USSR as a significant departure from the former US strategy and programmed forces. For the appropriate cases, we assessed the extent to which the Soviet leaders would feel compelled to respond to their new perception of the changed strategic situation. This review provided the basis for establishing the range of likely Soviet effort, corresponding to the broadened range of possible US policies.

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3. We then designed representative sets of forces to set benchmark levels within this range of Soviet effort. The force packages are illustrative only, and should not be viewed as being the only reasonable mixes and levels of weapons that the Soviets could deploy for a given level of effort. They take into account such factors as the weapons options most likely to be open to the Soviets as well as technological and economic feasibility. Technological and economic constraints--including production capacity--probably would make it very difficult, but not impossible, for the Soviets to achieve all of the programs in the force packages specified for high levels of effort.

4. Brief descriptions of each force package and tables of forces over time are presented in Appendix A.

#### B. Options

The immediate options available to Soviet planners to respond to the planned improvements in the US strategic forces appear to be quite limited. In the strategic defensive field they appear to be some years away from development of an ABM system which would make an extensive national deployment program worthwhile. They still lack a comprehensive answer to the low-level aerodynamic threat. On the naval side, the present ballistic missile submarine construction program is already receiving priority emphasis. We also believe that strategic weapons R&D programs are already operating at high levels and could not be speeded up appreciably even with the addition of some new resources.

The Soviets' options for stepping up their strategic weapons effort appear to fall mainly in the areas of strategic offensive missiles. Specific near-term options probably include the following:

1. Deployment of the SS-X-6 as a DICBM beginning later this year, or as a FOBS/DICBM after modification and further testing in 1970. These could be deployed in existing SS-9 silos as fast as production, installation, and checkout would permit, or in new

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silos after a construction period of 18 to 21 months. Deployment would probably be limited to, say, 25 to 75 missiles, given the accuracy and payload limitations of the SS-X-6 as a general attack weapon.

2. Deployment of a solid-propellant ICBM in a mobile mode beginning in mid-1970, with a first-year activation rate of perhaps 20 launchers and a total eventual deployment of perhaps 50 to 150 launchers.

3. Deployment of the solid-propellant SS-13 at additional complexes--so far it is at only one complex--beginning at any time with launcher start rates averaging under 10 a month during the first year and possibly reaching a level of about 20 a month in the peak year. This would permit a fairly rapid buildup in numbers of ICBMs, with IOC initially coming about 24 months after the start of construction.

4. Maintenance of present rates of SS-9 or SS-11 deployment, as an easy way to build up numbers of ICBM launchers with proven weapons. The SS-11 has already gone through an extended deployment program and would appear ready to be superseded by a newer weapon. It would, however, provide a quicker and cheaper increase in numbers than the SS-9. On the other hand, the SS-9 would provide greater flexibility in that it can be used as a vehicle for special weapons like the SS-X-6 or multiple warheads and has a hard target capability.

5. A limited number of SS-9s with MRV capability could become available during the last half of 1969. This would increase the effectiveness of the Soviet force by permitting large soft targets to be covered more evenly but would not be comparable to the enhanced capabilities associated with an independently targetable MIRV. A primitive MIRV would probably not be available before 1970; an accurate MIRV usable against hard targets not before 1972.

C. Soviet Responses to US Strategies and Forces

During the past three years the Soviets have improved their position from what they probably saw as an adequate, but not entirely satisfactory, deterrent to one which more closely matches that of the

US. They undoubtedly believe that their security has improved, but they must now see, in US programs under consideration, a chance that they will have to meet an even higher pace than in the past if they are to maintain their relative position--however they measure it.

Soviet concern with the threat represented by US strategic forces will not, however, necessarily evoke an immediate and equal response to each US move. National outlook, internal bureaucratic structures, personal rivalries, economic and technological considerations, and other factors prevent the operation of a neat system of perfectly symmetrical reactions based on military calculations.

The Soviets do not necessarily make strict numerical balances of strategic forces an overriding priority at each point in time. They did not fully exploit their capacity to produce long-range bombers and did not even approach economic limits for production of first-generation ICBMs. While keeping a close eye on the existing balance, they have at times postponed redressing imbalances. Time lags in the process of defining policy and force goals and bringing the forces into being, as well as imperfect perceptions of the strategic relationship, make the system one of complexity and interaction rather than one of discrete actions and reactions.

1. Soviet Perception of Changes in the Strategic Balance

This study assumes that no deliberate attempt will be made to conceal US objectives, strategies, and force structures from the Soviet Union. Against the background noise and distortion generated by political debate in the US, however, the Soviets probably will not clearly perceive all US policies and actions. Although the Soviets may not totally discount announced US intentions, uncertainties about US objectives and the long lead times required by modern weapons will require Soviet planners to focus on an uncertain future.

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In any event, the Soviets are likely to feel they have more accurate information on existing US weapons and forces than on US strategies and it is primarily to the weapons and forces that they will gear their response. At the same time, the Soviets will allow for a margin of error in calculating the future. Soviet awareness of US development programs for advanced systems such as AMSA, ULM, AICBM, and ABM, which are included in most contemplated US Force Categories, would raise concerns for the future and tend to push them toward worst-case contingency planning against the eventual deployment of these systems.

In the nature of things, action and change are more quickly seen by the observer than inaction and stability. Sustained US efforts leading to higher strategic force levels probably will be accurately perceived by the Soviets, and will generate immediate concern. Within technological and economic feasibility, such US efforts will tend to stimulate Soviet reactions. On the other hand, US decisions for restraint and moderately paced changes in force levels probably will be more difficult for the Soviets to perceive and evaluate, and are much less likely to cause them to amend their previously planned programs.

If the US initiates new military programs or expands and accelerates existing programs, the Soviets will probably look on this as indicative of more aggressive policies and as a potential threat to their own security requiring effective counteraction. They will be less sensitive to US actions involving the curtailment or delay of programs. Rather than considering such decisions as reflecting more limited US objectives, the Soviets will tend to find explanations that lie outside defense policy objectives, such as economic or political constraints or technological difficulties.

The Soviet leaders have in the past made a distinction between strategic offensive and defensive weapons systems. Consequently, they may be less sensitive, at least publicly, to US actions involving a limited ABM system--e.g., Safeguard--than to improvements in US offensive weapons.

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2. Arms Control

The primary Soviet political response to the previously planned improvements in US strategic capabilities has been an increased interest in initiating strategic arms limitation talks with the US. One of the objectives of the Soviets appears to be to maintain the relative strategic position they have achieved without having to escalate their defense spending again to keep up with the US. An agreement that permitted each side to have forces sufficient to retaliate effectively and which could be presented credibly to Soviet citizens and the world generally as "equal" to the US in some measure would probably be acceptable to the Soviets as a way of achieving this position.

The costs of responding effectively to US MIRV and ABM programs probably are a frustrating prospect to the Soviets, considering the large ICBM programs they have been supporting since 1963 to narrow the gap in strategic capabilities. In the absence of an arms control agreement, however, the Soviets almost certainly are prepared to react to the impact of new US programs by increasing their own strategic capabilities, both in numbers and in quality. Extensive test programs for special trajectory offensive weapons and multiple warheads are under way, and further development of an ABM system is continuing.

To some extent higher levels of effort by the US might increase the Soviet incentives to reach an arms control agreement. There is undoubtedly a point, however, beyond which the Soviets would judge that a political response offered no real prospects for achievement of their objectives, and they would abandon the idea of an arms agreement as a means of maintaining stability in the strategic balance.

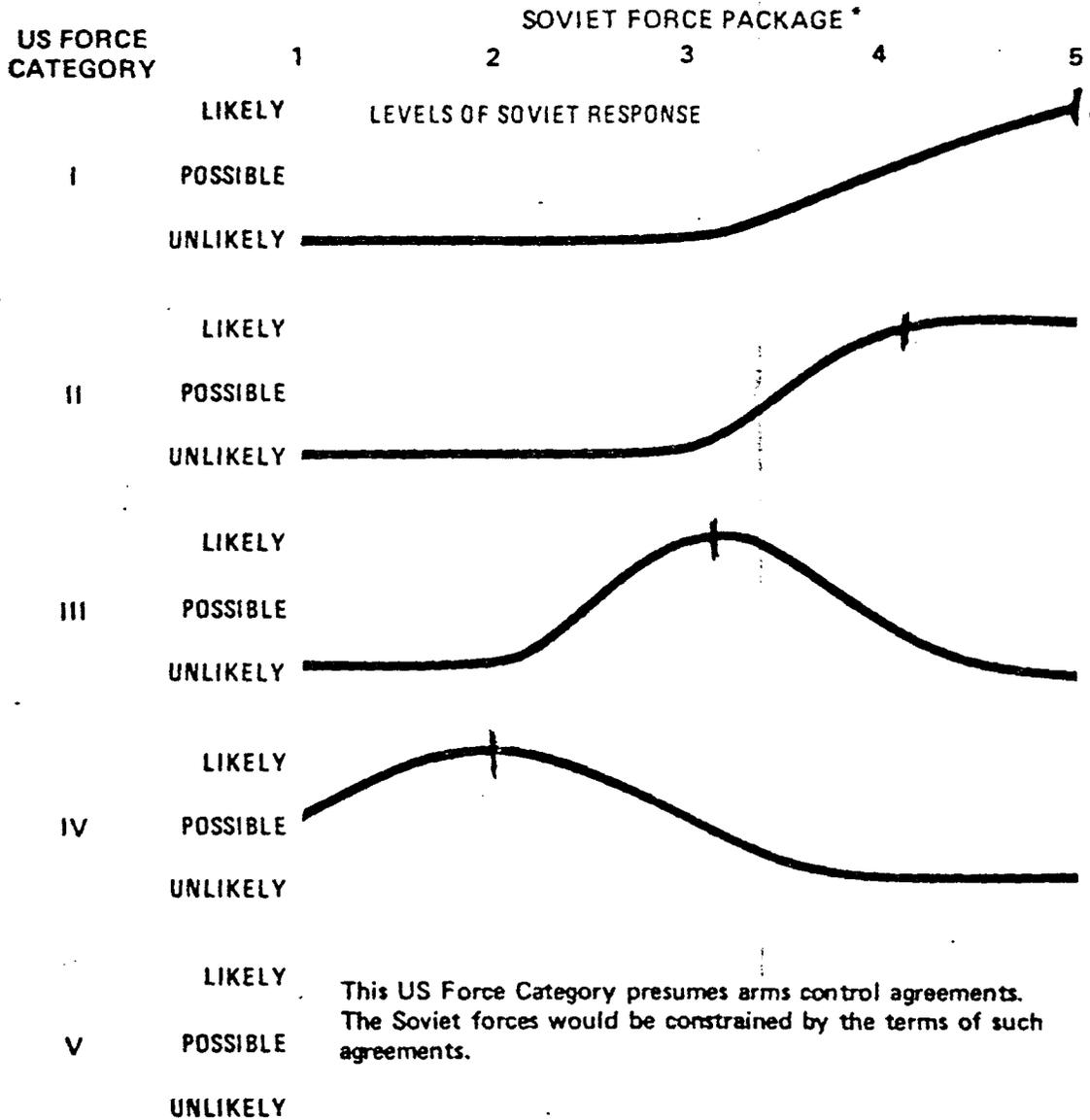
3. Likely Combinations of US and Soviet Strategic Forces\*

Variations in the force structures described for each of the US force categories might be

\* See the chart (Figure 1) on page 15 for a graphic presentation of the likely combinations of US and Soviet forces.

Figure 1

# Probability Assessment: Soviet Responses to US Strategic Forces



\*Descriptions of each force package and tables of forces over time are presented in Appendix A.

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perceived by the Soviets as requiring somewhat different levels of forces or, more likely, they might affect the timing of individual Soviet programs. For example, those force alternatives which place heavier emphasis on sea-based strategic systems than on land-based or airborne systems probably would require somewhat different structuring of Soviet strategic forces. The land-based systems in these force alternatives, however, are not phased down until the mid-1970s and the accurate sea-based MIRV systems probably still would be viewed by the Soviets as a threat to their retaliatory capability. It is unlikely, therefore, that these force alternatives would generate basically different levels of Soviet effort.

There probably is a general tendency in the USSR--as in other nations--to carry out deployment programs for new weapon systems even when there is a substantial change in the original requirement. Past heavy investments and the vested interests of powerful special groups make it very difficult to reverse a major program once it is under way.

a. US Force Category I - Strategy A

Strategy A calls for deployment of strategic nuclear forces to minimize the likelihood of a nuclear attack on the US, to provide a strong retaliatory capability, to limit damage, and to provide a relative advantage to the US even in the event of a Soviet first strike. This strategy implies: (1) an assured destruction capability; (2) considerable US defenses; and (3) some US counterforce capability.

Faced with a declared US strategy of seeking full denial of Soviet retaliatory capabilities, the Soviet leadership might conclude that the US was preparing for a first strike against the Soviet Union. This in itself would be as important to the nature of the Soviet response as the forces the US set out to build.

We think it unlikely that the Soviet leaders would conclude that, to forestall this strategy,

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they should enter into arms control talks and make the necessary concessions to gain early agreement. Instead, feeling themselves deeply challenged, they would greatly increase their military efforts, making whatever cuts in civil programs they deemed necessary, and would begin to convert to an almost complete war economy.

The hard line expressed in these moves would probably also be reflected in Soviet politics, leading to more repressive domestic policies and a new balance in the Politburo around a more dogmatic and anti-Western set of attitudes. Communication between the US and Soviet governments would shrink, but there would probably be conciliatory changes in Soviet foreign policy toward Western Europe in order to capitalize on the reactions among NATO members.

*The State Department believes that the Soviet reaction to US Force Category I probably would be more comprehensive than indicated in the preceding paragraphs. It is believed that the Soviet reaction would encompass a wider gambit of political warfare, including possible initiatives in the arms control area in order to exacerbate adverse reactions in Europe or Japan.*

In their strategic forces, the Soviets would probably seek numbers substantially higher than those in the NIPP-Hi force and a mix that would, initially at least, be heavily oriented toward retaliation based on large additional deployments of present systems. (See Soviet Force Package 5 for an illustrative force structure.) The Soviets would be extremely sensitive to the timing of US programs and would attempt to keep up with developments in US forces in time as well as in weapons.

At the same time, R&D programs would be stepped up for multiple warheads, penetration tactics and aids, and ABM systems. The Soviets would probably also seek an early dramatic psychological impact by conducting more tests of new weapons, perhaps showing some deployment of mobile ICBMs, and starting several new ICBM groups.

Given such a reaction, Soviet forces considerably in excess of those in the NIPP-Hi force

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structure could result, but only by virtually stopping economic growth and greatly depressing consumer welfare.

b. US Force Category II - Strategy B

Strategy B calls for strategic nuclear forces which will minimize the likelihood of a nuclear attack on the US, will provide a strong retaliatory capability, and, for the case of a US first strike, will limit damage and provide a relative advantage to the US. This strategy implies: (1) an assured destruction capability; (2) a mix of US counterforce and defense to achieve outcomes to the overall advantage to the US for a US first strike.

The Soviet leaders would interpret any of the forces in this category as representing a US determination to threaten the strategic position of the USSR. Regardless of the pronouncements made by the US, the Soviets would be struck by our intention to deploy a new generation of systems across the board--manned aircraft, land-based ICBMs, SLBMs, and ABMs. The prevailing Soviet reaction would be that the US had embarked on a course to attain a degree of superiority which it could then use to threaten or humiliate the USSR.

This prospect would lead some Soviet political and military leaders to argue that the US was preparing for war and to urge responses approaching those noted under US Force Category I. Others would probably believe that prospective US strength, and the strains of trying to match it, underlined the urgency of reaching agreements on arms control. They would be met with the counterargument that US policy was insincere and on a course which made acceptable agreements unattainable. If the USSR nevertheless entered into negotiations, its position would include a demand that the US either forgo deployment of these new-generation systems or consent to parallel Soviet advances. The US strategy that this Force Category reflects would almost certainly increase the difficulties of reaching agreements.

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Politically, the Soviet line toward the US would harden. This would not go so far, however, as to preclude all dealings on matters of common interest or even a tacit collaboration to contain potentially dangerous situations in other areas. In Western Europe, Soviet diplomacy would become active in an effort to take advantage of the opportunities for divisiveness opened by the new circumstances.

The Soviets would conclude that they had to increase their defense efforts and their military spending across a broad front. We would expect them to develop and deploy forces that would exceed the present NIPP-Hi forces. (See Soviet Forces Packages 4 and 5.) Some degree of economic mobilization for a greater defense effort would result. The extent would be determined by their choices with regard to sacrifices in economic growth, consumption, or military strength in general purpose forces.

c. US Force Category III - Between Strategy B and Strategy C

Strategy B implies: (1) an assured destruction capability; and (2) a mix of US counterforce and defense to achieve outcomes to the overall advantage of the US for a US first strike. Strategy C calls for forces which will provide a strong retaliatory capability and concurrently minimize the likelihood of nuclear attack on the US. This strategy implies: (1) an assured destruction capability; (2) US defenses and counterforce capabilities primarily for use against Nth countries and/or small attacks.

The Soviets would recognize in the US planning for the advanced offensive and defensive systems included in this Force Category that future US strategic capabilities could be considerably greater than implied by the concept of "stable deterrence." They probably would view the US strategy as an attempt to maintain superiority or dominance.

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The Soviets would tend to discount the US explanation about improvements designed to increase offensive capabilities for restrained nuclear war and would conclude that the changes would improve US capabilities to fight any kind of war. They also would almost certainly believe that a decision to set in motion an ABM program would not stop at a defense so thin as to be irrelevant in a general nuclear exchange. Instead, they would expect that the momentum of the program would lead to US efforts to thicken the defenses against the Soviet threat.

This overall view of the potential US threat would impact on Soviet arms control policy in a complicated way. The Soviet decision to agree to arms talks was difficult to reach, and it is clear that sufficient opposition remains to keep the issue contentious and to restrict the Soviet negotiators in any discussions which may occur.

Some Soviet leaders would feel that the US strategy reflected by the forces in this Force Category strengthened the argument for an arms agreement that could prevent the US programs from materializing. Others probably would argue that relatively small additional expenditures on Soviet strategic forces would negate the US effort. This group probably would also assert that the US actions showed a lack of good faith at a time when both sides were trying to get talks going. The Soviets might judge that their negotiating position had been weakened and this might cool their desire for talks. They would, however, believe--despite the stated US objective--that this Force Category implies a vigorous US effort to improve its present strategic position relative to the USSR.

On balance, we believe that the US force improvements being planned under this Force Category together with the declared strategy, probably would lead the Soviets to conclude that their present policy of exploring the possibilities of arms control, coupled with a readiness to improve and expand their own forces, was their best course.

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In the absence of an arms limiting agreement, we believe the Soviet response to US Force Category III would tend to drive the USSR to a deployment level along the lines of the present NIPP-Hi forces. The pace of US programs, however, would be important to the Soviet reaction, and the USSR might delay some deployment decisions pending successful RDT&E of multiple warheads, penetration aids, and an improved ABM system.

d. US Force Category IV - Strategy C

Strategy C calls for forces which will provide a strong retaliatory capability and concurrently minimize the likelihood of nuclear attack on the US. This strategy implies: (1) an assured destruction capability; (2) US defenses and counterforce capabilities primarily for use against Nth countries and/or small attacks.

If the US adopted any of the alternatives in this Force Category on a unilateral basis, the Soviets would be surprised. They would, upon reflection, recognize that the reduced US forces planned would still constitute a formidable deterrent against surprise attack or high-risk courses of action by the USSR. It would be difficult for them to understand why the US was willing, without an arms agreement, not only to forgo deployment of new systems, but also in forces IV-A and IV-C to allow its existing strategic forces to run down. In the end, they probably would attribute this decision to difficulties in the US economy and society. They might, in addition, recognize in the US action a desire to elicit reciprocal reduction on their part. At the same time they would be prone to believe that the US decisions would not stick and would soon be reversed.

In considering their military responses, we believe that some Soviet leaders would want to take the opportunity to improve the Soviet strategic position, but they probably would be concerned about doing this so fast as to make it likely that the US would reverse its policy. Balanced against this view, other

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leaders would want to seize the opportunity to limit spending on strategic forces in order to allocate more resources to civilian programs or possibly to obtain more general purpose force improvements.

Thus we believe that unless this US strategy were the result of an arms agreement, the USSR would adjust its programs so as not to arouse US fears that the USSR was seeking to significantly undercut the US assured destruction capability. The resulting Soviet strategic posture probably would not be much lower than the NIPP-Lo threat.

If the forces posited in US Force Category IV-B constituted a US negotiating position rather than a unilaterally announced posture, the chances of reaching an arms limitation agreement which confined US and Soviet forces at these or--more likely-- at somewhat higher levels, probably would be good. It is unlikely that the USSR would accept either IV-A or IV-C as a first stage in strategic arms control-- especially given the inclusion of MIRVs in IV-C.

e. US Force Category V - Strategy D

Strategy D undertakes through arms limitation and reduction agreements to limit strategic forces. If enforceable limits on offensive forces are attainable, it might be possible to achieve war outcomes with low levels of fatalities and damage to both sides. This strategy implies: (1) no assured destruction capability for either major power relative to the other; (2) a good US damage limiting capability primarily through defensive forces; (3) a capability to deter Soviet nuclear attack on the US by denying any advantage to the USSR from such an attack; (4) a capability to deter or to prevent significant damage by attacks from any Nth countries.

The strategic force postures included in this Force Category presume the existence of formal arms control agreements with the USSR. The Soviet

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forces, therefore, would be constrained by the provisions of such agreements.

Alternative V-A permits retention of sizable offensive forces, but in the face of the extensive missile defenses also permitted, the Soviets probably would believe that their deterrent was no longer credible. Alternative V-B is even more extreme and deletes all but a few offensive forces by the end of the period. We see virtually no chance that the Soviet Union is prepared now to contemplate the drastic reordering of its strategic posture that would be necessary to reach agreement on mutual forces at this level.

Suspensions of the US, confidence in the USSR's present deterrent posture, and the influence of Soviet military and military-industrial interest groups work against Soviet agreement to a radical reduction in offensive capabilities. Furthermore, the Soviet leaders probably would believe that these arrangements would degrade their status as a superpower. They not only derive great satisfaction from this status, but they see it as their major political asset and security guarantee against the capabilities of second-rank nuclear powers.

Likely Soviet responses to a variety of strategic force limitations and reductions under arms control agreements are considered in detail in NSSM-28.

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IV. Communist Chinese Reactions: Strategic Forces

Communist China's capabilities and objectives in strategic weapons through the mid-1970s are unlikely to be affected by US programs. The Chinese would see progress toward arms limitation or reduction as conclusive evidence that the US and USSR were in collusion and they would not see any lessening of the threat. Even if faced with higher force levels the leaders probably could do little to increase the basic pace of Chinese advanced weapons programs. At most, the US decision to deploy an ABM system might make deployment of an early unsophisticated ICBM less attractive than greater numbers of MRBMs, but even this is doubtful.

The Chinese will recognize--under any of the options under consideration--that for a long time to come both the US and USSR will be able to visit enormous destruction upon them. This, rather than the particular size or characteristics of the forces planned for the 1970s, is what will influence Chinese behavior. They do believe, however, that each milestone in their advance in strategic weapons strengthens their claim to great power status and forces other states to treat them with greater caution.

In this context the Chinese will probably consider that the minimum ICBM force which we estimate they will acquire in the mid-1970s will enable them to exert greater political pressure on their neighbors and give them somewhat greater freedom of action by increasing the inhibitions to US actions. We doubt that higher US force levels, including ABM deployment, would cause them to change this calculation.

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V. Major Non-Communist Reactions: Strategic Forces

NATO

NATO attitudes and defense policies are less likely to be influenced by variations in the US strategic posture--at least within the middle range of the postulated US options--than by the way the US structures and deploys its general purpose forces. Our NATO allies believe that their security depends ultimately on the deterrent strength of US strategic forces. They value our conventional forces in Europe as an indication of the importance we attach to our commitments there and as a pledge toward the activation of our strategic forces when and if needed. Any major change in the US strategic posture which might cast doubt on its deterrent capability would cause them great concern. If the US does adopt strategic goals which appear to the Europeans to be risky or otherwise undesirable, they are likely to react in the first instance by seeking to influence a change of course on the part of the US, rather than by altering immediately their own attitudes and policies.

European reaction to the Safeguard proposal has been mixed, but generally mild. There is a general feeling, however, that a thick ABM deployment by the US would tend to intensify the arms race, add little to the credibility of the US deterrent, and underline the defenselessness of Western Europe. These concerns would generate a certain amount of criticism and demands for increased consultation within NATO but probably not any more serious reaction.

A US decision to strengthen its strategic position vis-a-vis the USSR would go against predominant European hopes and thinking, despite the likelihood that moves in this direction would be welcomed by those who retain deep fear and suspicion about Communist intentions. In the case of US Force Category II--and perhaps even Force Category III--hopes for detente and for an eventual overcoming of the division of Europe would be set back, and the US would get the blame.

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In the case of Force Category I--and perhaps even Force Category II--the Europeans would probably conclude that the US was deliberately forcing the pace of the arms race. Although their ultimate assessment of the situation would depend on how the Soviets reacted, the NATO governments would probably fear that they were heading into a period of heightened tensions--probably marked by brinkmanship over Berlin and other pressure points--and that the possibility of nuclear war was increasing.

On a technological level, an accelerated arms race would compound the difficulties faced by France and Britain in keeping their deterrent forces credible. At this point, we believe that various NATO governments would begin to give serious consideration to other approaches to East-West relations and national security. De Gaulle's arguments that the US was re-creating the cold war and that new escalation was increasing the chances of hot war would find considerable resonance.

There would be serious explorations of European defense cooperation outside NATO, of an independent European nuclear force, or of unilateral accommodations with the USSR. These explorations would face formidable obstacles in the form of intra-European rivalries and continuing major differences with Moscow, and they might well come to nothing. But they would, at a minimum, leave deep divisions within NATO.

The European governments probably would be more concerned in the event of a sharp reduction in projected US strategic forces, bringing with it reduced confidence in US will and ability to provide a nuclear umbrella over NATO. The reaction would be strongest should the US appear to be adopting US Force IV-A goals. It probably would create a mood of helplessness and resignation to learn that the US now contemplated the deactivation of half the Minuteman force, the run-down of the B-52 force to less than half the present level, and the forgoing of all the new generation of offensive systems except Poseidon.

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This mood would produce a period of anxious questioning about the credibility of past US analyses and the wisdom of the new US course. No matter what Washington said in announcing these decisions, its allies would initially believe that the US had chosen to bank on Soviet reciprocity or, failing that, perhaps to look exclusively to its own security. The Germans and others would be deeply concerned that the nuclear deterrent was being dangerously weakened. Such options as independent accommodations with the USSR and a European nuclear force would receive renewed attention.

In the end, however, the eventual NATO reaction would depend upon the Soviet response to the US course and the resulting strategic relationship. If our NATO allies did consider the relative strategic posture of the West considerably weakened, the obstacles to their following the options mentioned above, plus reassurances by the US of its continued intention and capability to defend Western Europe, might still bring about a resigned acceptance of the US decision and an attempt to maintain the Alliance more or less intact. Doubts concerning the US will and capability to respond to threats to European security, however, undoubtedly would remain.

Many Europeans would probably also be suspicious about the ultimate implications of the US Force V-B arms control package, with its provisions for the eventual phaseout of all aircraft and land-based missiles in favor of a limited Poseidon deployment and extensive ABM city defenses. They would be doubtful both about the USSR's willingness to keep its side of the bargain and about US willingness, even with ABMs deployed, to risk a nuclear exchange with the USSR, and would probably seek increased assurance against the threat posed by the nearly 700 MR/IRBMs targeted against Western Europe and by Soviet conventional forces.

#### Potential Nuclear Powers

A change in US strategic posture would itself probably have a negligible effect on the military policies and force goals of Israel, which is already

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committed to assuring its own defense against the Arabs (probably including the achievement of a nuclear capability) and looks to the US more to provide a source of military hardware and a buffer against conventional Soviet intervention in support of the Arabs than to provide a nuclear umbrella against the Soviets. A unilateral reduction in the scale of the US strategic effort might raise some Israeli fears of becoming more vulnerable to Soviet nuclear blackmail but the net effect would probably only be to confirm the Israelis in their present military policies.

India's feelings regarding US strategic forces are mixed. On the one hand, it has a long record of opposition to a buildup of the arms race and has been an active participant in international arms control discussions. On the other hand, it has been interested in obtaining nuclear guarantees from the US (and the USSR) as a means of responding to the Chinese nuclear program and its potential for blackmail of India without the necessity of proceeding with a nuclear program of its own. On the whole, the Indians would probably applaud any move toward a reduction in strategic weapons expenditures, especially any reduction attained through mutual agreement between the US and the USSR. Should US strategic force reductions be such as to bring into question US will and ability to protect India against Chinese nuclear threats, however, Indian incentives to go ahead with a nuclear program would increase.

Japan's military policy is predicated on the assumption that under the US-Japanese treaty of 1960 the US will bear the principal burden of deterring or if necessary repelling aggression against Japan and that Japan's own self-defense forces would play only a supplementary role in any major conflict. Although there have been strong legal, emotional, and political inhibitions against a major buildup of Japanese military strength especially in the nuclear field, these may be diminishing. Japan obviously has the skills and resources to build nuclear weapons and missiles and may be reluctant to foreclose the option to do so.

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As with NATO, the continued viability of present Japanese policies will depend primarily on how the US maintains and deploys its conventional forces barring drastic changes in the US strategic posture. A marked unilateral reduction in the US strategic effort would raise questions about the extent to which the Japanese were still being protected by the US nuclear umbrella, and would be most likely to cause a re-evaluation of Japanese strategic policy and possibly a decision to develop nuclear weapons. A mutual reduction of US and Soviet strategic force levels, on the other hand, would possibly encourage the Japanese to continue along the present path, assuming no sharp decrease of the US conventional military presence in Northeast Asia and the Pacific. An acceleration of US (and Soviet) strategic programs would probably not of itself greatly affect Japanese military policy.

Sweden's primary military concern is with counterbalancing the potential Soviet air, missile, and ground threat without stirring up the Soviets or otherwise jeopardizing Sweden's traditional role as a neutral. Hence, Swedish military policy is likely to be less affected by what the US may do than by changes in the Soviet posture. A sharp unilateral reduction in the US strategic effort might stimulate Swedish interest in developing nuclear weapons of its own if it appeared to presage a general weakening of the US stance. A mutual reduction of US and Soviet strategic forces would probably tend to lessen Swedish interest in nuclear weapons.

On the whole, it appears most unlikely that West Germany would seek to develop an independent nuclear capability in the light of the sustained legal, political and military pressures it would confront before its nuclear capability could materialize.

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APPENDIX A

Representative Soviet Strategic  
Reaction Threats

Soviet Strategic Force Package 1

This set of forces represents what we believe would be the minimum level of effort that the Soviets would be likely to devote to their strategic capabilities in the 1970s. It would allow the USSR to attain two basic strategic objectives--"deterrence" and "equality"--only under the condition that the US did not markedly improve its present force levels.

Maintenance of stability in the US-USSR strategic relationship would be an essential condition if the USSR were to follow this course of action. The Soviets would not attempt to make major improvements in their damage limiting capabilities, because they would realize that any such improvements would simultaneously cut into the US assured destruction capability and probably stimulate an offsetting response. They would rely on their existing defensive capabilities, reinforced by the intangible benefits that would accrue from greater strategic stability.

The Soviets would have to be confident that they possessed accurate knowledge of the future US strategic threat to maintain confidence in the credibility of their deterrent. The required degree of confidence probably could be achieved only by arms limitation agreements. Formal negotiations and agreement also would be used by the Soviets to achieve the objective of demonstrating equal power status with the US.

If the Soviets were confident that future US strategic capabilities would not increase significantly, then existing levels of Soviet hard site ICBM deployment might be considered adequate, and SS-7 and

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SS-8 launchers might even be phased out. The Y-class submarine program might be concluded well short of equality with the US Polaris force. Some programs to improve the survivability of the Soviet strike forces could be expected, but expensive qualitative improvements such as MIRVs and mobile missiles could be foregone.

#### Soviet Strategic Force Packages 2 and 3

These packages generally correspond to the low and high projections of Soviet strategic forces contained in existing national intelligence. They define a range of Soviet effort considered to be likely if the US force posture previously planned for the 1970s were carried out. On the basis of that US force posture, an overall Soviet effort toward the high end of the range would reflect conservative judgments on the part of Soviet military planners--e.g., "worst-case" planning--and a relatively heavy weighting of the "equality" objective.

For Package 2, the mix of the offensive strike force is improved over Package 1 by programing a Y-class submarine deployment which approaches the size of the US Polaris program. Qualitative improvements to existing forces such as MIRVs and a small ABM program are added to provide some additional damage limiting capability. The Soviets would retain the option to deploy mobile missiles to replace the second-generation ICBM systems.

For Package 3, both enlarged and qualitatively improved strategic forces are programed, a Y-class program a little larger than Polaris could be expected, and both land-based and sea-based missiles would probably be upgraded by a MIRV capability. More stress would be placed on defensive systems, with the deployment of a sizable ABM force of about 1,000 launchers by 1976 and about 1,600 by 1978. Mobile missiles would probably be deployed. In the event that the Soviets chose not to deploy MIRVs, deployment of current ICBM systems would be extended to accomplish the same end.

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Soviet Strategic Force Packages 4 and 5

Force Packages 4 and 5 both represent greater levels of effort than required for the high force levels projected in existing national intelligence.

Package 5 represents what we believe is the maximum effort that the USSR would devote to strategic capabilities in the 1970s. Package 4 represents an intermediate level of effort, with special attention being paid to qualitative improvements in the future.

As used here, maximum effort approaches, but does not include, the case of mobilizing the entire nation and completely converting the economy to a wartime basis. It is highly unlikely that the USSR would take such drastic action unless it became convinced that the US was preparing for a full-scale nuclear war with the USSR. Technological and economic constraints--including production capacity--probably would make it very difficult, but not impossible, for the Soviets to achieve all of the programs in these force packages.

Force Packages 4 and 5 both imply little concern on the part of the Soviets for the stability of the strategic relationship. Force structure decisions would be based almost exclusively on enhancing the size and quality of the forces. For Force Package 5 especially, every feasible measure would be taken to improve strategic capabilities and the principal constraint placed on development and deployment of weapons systems would be technological. Maximum effort would be devoted to R&D programs.

Defensive systems would be stressed and a very large national ABM deployment would probably be undertaken. Both the Y-class submarine program and current ICBM programs would be extended and upgraded through major qualitative improvements--e.g., superhardening. MIRVs would be deployed wherever practicable and the Soviets might also deploy a new manned strategic aircraft.

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Table A-1  
Soviet Strategic Force Package 1: Offensive Forces a/

|                          | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Intercontinental Bombers |      |      |      |      |      |      |      |      |      |      |
| Bear                     | 40   | 30   | 20   | 10   | 0    | 0    | 0    | 0    | 0    | 0    |
| Bear with ASMs           | 70   | 65   | 50   | 40   | 30   | 0    | 0    | 0    | 0    | 0    |
| Bison Bombers            | 35   | 25   | 15   | 5    | 0    | 0    | 0    | 0    | 0    | 0    |
| New Strategic Aircraft   |      |      |      |      |      |      |      |      |      |      |
| Total Bombers            | 145  | 120  | 85   | 55   | 30   | 0    | 0    | 0    | 0    | 0    |
| ICBMs                    |      |      |      |      |      |      |      |      |      |      |
| SS-7/8 Hard and Soft     | 220  | 90   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| SS-9                     | 198  | 228  | 234  | 234  | 234  | 234  | 234  | 234  | 234  | 234  |
| SS-9 MRV                 |      |      |      |      |      |      |      |      |      |      |
| SS-Z-3 MIRV              | 620  | 680  | 710  | 710  | 710  | 710  | 710  | 710  | 710  | 710  |
| SS-11                    |      |      |      |      |      |      |      |      |      |      |
| SS-Z-9                   | 0    | 30   | 50   | 50   | 50   | 50   | 50   | 50   | 50   | 50   |
| SS-13                    |      |      |      |      |      |      |      |      |      |      |
| SS-Z-10                  |      |      |      |      |      |      |      |      |      |      |
| SS-13 Mobile             |      |      |      |      |      |      |      |      |      |      |
| SS-Z-10 Mobile           |      |      |      |      |      |      |      |      |      |      |
| Total ICBMs              | 1038 | 1028 | 994  | 994  | 994  | 994  | 994  | 994  | 994  | 994  |
| SSBN Submarines          | 4    | 8    | 12   | 16   | 18   | 18   | 18   | 18   | 18   | 18   |
| SLBM Launchers           | 64   | 128  | 192  | 256  | 288  | 288  | 288  | 288  | 288  | 288  |
| SS-N-6                   |      |      |      |      |      |      |      |      |      |      |
| SS-N-6 MIRV              |      |      |      |      |      |      |      |      |      |      |
| SS-NZ-1 MIRV             |      |      |      |      |      |      |      |      |      |      |
| Total SLBM Launchers     | 64   | 128  | 192  | 256  | 288  | 288  | 288  | 288  | 288  | 288  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69.

Table A-2  
Soviet Strategic Force Package 1: Defensive Forces <sup>a/</sup>

|                          | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Interceptors             |      |      |      |      |      |      |      |      |      |      |
| Fresco/Farmer/Flashlight | 1700 | 1450 | 1100 | 775  | 500  | 250  | 50   | 0    | 0    | 0    |
| Fitter/Fishpot/Firebar   | 1100 | 1025 | 975  | 925  | 850  | 775  | 675  | 300  | 150  | 0    |
| Fiddler/Flagon           | 300  | 425  | 550  | 650  | 750  | 775  | 775  | 775  | 775  | 775  |
| Foxbat                   | 0    | 0    | 25   | 75   | 125  | 175  | 225  | 250  | 275  | 275  |
| Advanced Interceptor     |      |      |      |      |      |      |      |      |      |      |
| Total Interceptors       | 3100 | 2900 | 2650 | 2425 | 2225 | 1975 | 1725 | 1325 | 1200 | 1050 |
| AWACS                    |      |      |      |      |      |      |      |      |      |      |
| MOSS                     | 5    | 10   | 15   | 20   | 20   | 20   | 20   | 20   | 20   | 20   |
| Overland                 |      |      |      |      |      |      |      |      |      |      |
| Total AWACS              | 5    | 10   | 15   | 20   | 20   | 20   | 20   | 20   | 20   | 20   |
| SAM Launchers            |      |      |      |      |      |      |      |      |      |      |
| SA-1                     | 670  | 500  | 300  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| SA-2                     | 4800 | 4500 | 4200 | 3900 | 3900 | 3900 | 3900 | 3900 | 3900 | 3900 |
| SA-3                     | 560  | 600  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  |
| SA-5                     | 780  | 1080 | 1320 | 1620 | 1620 | 1620 | 1620 | 1620 | 1620 | 1620 |
| SA-Z-1                   |      |      |      |      |      |      |      |      |      |      |
| SA-Z-4                   |      |      |      |      |      |      |      |      |      |      |
| Total SAM Launchers      | 6810 | 6680 | 6460 | 6160 | 6160 | 6160 | 6160 | 6160 | 6160 | 6160 |
| ABM Launchers            |      |      |      |      |      |      |      |      |      |      |
| ABM-1                    | 40   | 56   | 64   | 64   | 64   | 64   | 64   | 64   | 64   | 64   |
| ABM-Z-2                  |      |      |      |      |      |      |      |      |      |      |
| ABM-Z-1                  | 40   | 56   | 64   | 64   | 64   | 64   | 64   | 64   | 64   | 64   |
| Total ABM Launchers      | 80   | 112  | 128  | 128  | 128  | 128  | 128  | 128  | 128  | 128  |

a. The characteristics and parameters of the systems described on this table are as set forth in NIPP-69.

Table A-3  
Soviet Strategic Force Package 2: Offensive Forces a/

|                          | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Intercontinental Bombers |      |      |      |      |      |      |      |      |      |      |
| Bear                     | 40   | 35   | 30   | 25   | 20   | 10   | 0    | 0    | 0    | 0    |
| Bear with ASMs           | 70   | 70   | 70   | 70   | 70   | 70   | 65   | 50   | 40   | 30   |
| Bison Bombers            | 35   | 30   | 25   | 20   | 15   | 15   | 10   | 5    | 0    | 0    |
| New Strategic Aircraft   |      |      |      |      |      |      |      |      |      |      |
| Total Bombers            | 145  | 135  | 125  | 115  | 105  | 95   | 75   | 55   | 40   | 30   |
| ICBMs                    |      |      |      |      |      |      |      |      |      |      |
| SS-7/8 Hard and Soft     | 220  | 220  | 197  | 129  | 30   | 0    | 0    | 0    | 0    | 0    |
| SS-9                     | 198  | 228  | 234  | 234  | 234  | 204  | 164  | 134  | 134  | 134  |
| SS-9 MRV                 |      |      |      |      |      |      |      |      |      |      |
| SS-Z-3 MIRV b/ c/        |      |      |      |      |      |      |      |      |      |      |
| SS-11 d/                 | 620  | 680  | 750  | 750  | 750  | 750  | 750  | 750  | 750  | 750  |
| SS-Z-9                   |      |      |      |      |      |      |      |      |      |      |
| SS-13                    |      | 30   | 50   | 50   | 50   | 50   | 50   | 50   | 50   | 50   |
| SS-Z-10 Mobile           |      |      |      |      |      |      |      |      |      |      |
| SS-13 Mobile             |      |      |      |      |      |      |      |      |      |      |
| SS-Z-10 Mobile           |      |      |      |      |      |      |      |      |      |      |
| Total ICBMs              | 1038 | 1158 | 1231 | 1183 | 1114 | 1084 | 1084 | 1084 | 1084 | 1084 |
| SSBN Submarines          |      |      |      |      |      |      |      |      |      |      |
| SLEM Launchers           | 4    | 8    | 12   | 16   | 20   | 24   | 28   | 32   | 35   | 35   |
| SS-N-6                   |      |      |      |      |      |      |      |      |      |      |
| SS-N-6 MIRV              | 64   | 128  | 192  | 256  | 320  | 384  | 448  | 512  | 560  | 560  |
| SS-NZ-1 MIRV             |      |      |      |      |      |      |      |      |      |      |
| Total SLEM Launchers     | 64   | 128  | 192  | 256  | 320  | 384  | 448  | 512  | 560  | 560  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69, except where otherwise noted.

c. Assumes that the SS-Z-3 are retrofitted into existing SS-9 silos. The total SS-9/SS-Z-3 force assumes no new construction of silos.

d. The NIPP-69 projection has been revised to be consistent with later evidence on the number of SS-11 silos.

Table A-4  
Soviet Strategic Force Package 2: Defensive Forces a/

|                          | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Interceptors             | 1700 | 1450 | 1100 | 775  | 500  | 250  | 50   | 0    | 0    | 0    |
| Fresco/Farmer/Flashlight | 1100 | 1100 | 1075 | 1050 | 1025 | 975  | 925  | 850  | 775  | 675  |
| Fitter/Fishpot/Firebar   | 300  | 425  | 550  | 650  | 750  | 775  | 775  | 775  | 775  | 775  |
| Fiddler/Flagon           | 0    | 0    | 25   | 75   | 125  | 175  | 225  | 250  | 275  | 275  |
| Foxbat                   |      |      |      |      |      |      |      |      |      |      |
| Advanced Interceptor     |      |      |      |      |      |      |      |      |      |      |
| Total Interceptors       | 3100 | 2975 | 2750 | 2550 | 2400 | 2175 | 1975 | 1875 | 1825 | 1725 |
| AWACS                    |      |      |      |      |      |      |      |      |      |      |
| MOSB                     | 5    | 10   | 15   | 20   | 20   | 20   | 20   | 20   | 20   | 20   |
| Overland                 |      |      |      |      |      |      |      |      |      |      |
| Total AWACS              | 5    | 10   | 15   | 20   | 20   | 20   | 20   | 20   | 20   | 20   |
| SAM Launchers            |      |      |      |      |      |      |      |      |      |      |
| SA-1                     | 670  | 670  | 500  | 300  | 0    | 0    | 0    | 0    | 0    | 0    |
| SA-2                     | 4800 | 4500 | 4200 | 3900 | 3900 | 3900 | 3900 | 3900 | 3900 | 3900 |
| SA-3                     | 560  | 600  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  |
| SA-5                     | 720  | 1080 | 1320 | 1620 | 1860 | 1860 | 1860 | 1860 | 1860 | 1860 |
| SA-Z-1                   |      |      |      |      |      |      |      |      |      |      |
| SA-Z-4                   |      |      |      |      |      |      |      |      |      |      |
| Total SAM Launchers      | 6750 | 6850 | 6660 | 6460 | 6400 | 6400 | 6400 | 6400 | 6400 | 6400 |
| ABM Launchers            |      |      |      |      |      |      |      |      |      |      |
| ABM-1                    | 40   | 56   | 64   | 64   | 64   | 64   | 64   | 64   | 64   | 64   |
| ABM-Z-2                  |      |      |      |      |      |      |      |      |      |      |
| ABM-Z-1                  |      |      |      |      |      |      |      |      |      |      |
| Total ABM Launchers      | 40   | 56   | 64   | 64   | 64   | 64   | 114  | 214  | 300  | 464  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69.

Table A-5  
Soviet Strategic Force Package 3: Offensive Forces a/

|                          | 1969        | 1970        | 1971        | 1972        | 1973        | 1974        | 1975        | 1976        | 1977        | 1978        |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Intercontinental Bombers |             |             |             |             |             |             |             |             |             |             |
| Bear                     | 35          | 30          | 30          | 30          | 25          | 20          | 5           | 0           | 0           | 0           |
| Bear with ASMs           | 80          | 80          | 80          | 80          | 80          | 80          | 80          | 70          | 60          | 50          |
| Bison Bombers            | 35          | 30          | 30          | 25          | 20          | 20          | 15          | 10          | 0           | 0           |
| New Strategic Aircraft   |             |             |             |             |             |             |             |             |             |             |
| Total Bombers            | <u>150</u>  | <u>140</u>  | <u>140</u>  | <u>135</u>  | <u>125</u>  | <u>120</u>  | <u>100</u>  | <u>80</u>   | <u>60</u>   | <u>50</u>   |
| ICBMs                    |             |             |             |             |             |             |             |             |             |             |
| SS-7/8 Hard and Soft     | 220         | 197         | 129         | 30          | 0           | 0           | 0           | 0           | 0           | 0           |
| SS-9                     | 222         | 210         | 156         | 126         | 126         | 126         | 126         | 126         | 126         | 126         |
| SS-9 MRV b/              | 0           | 30          | 90          | 120         | 120         | 120         | 120         | 120         | 120         | 120         |
| SS-9 MIRV c/             | 0           | 0           | 25          | 50          | 100         | 150         | 150         | 150         | 150         | 150         |
| SS-Z-3                   | 650         | 720         | 750         | 650         | 450         | 250         | 50          | 0           | 0           | 0           |
| SS-11                    | 0           | 0           | 0           | 100         | 300         | 500         | 700         | 750         | 750         | 750         |
| SS-Z-9                   | 0           | 0           | 0           | 150         | 50          | 0           | 0           | 0           | 0           | 0           |
| SS-13 d/                 | 20          | 50          | 100         | 100         | 100         | 200         | 200         | 200         | 200         | 200         |
| SS-Z-10                  | 0           | 0           | 0           | 0           | 100         | 100         | 50          | 0           | 0           | 0           |
| SS-13 Mobile             | 0           | 0           | 20          | 50          | 100         | 100         | 100         | 150         | 150         | 150         |
| SS-Z-10 Mobile           | 0           | 0           | 0           | 0           | 0           | 50          | 100         | 150         | 150         | 150         |
| Total ICBMs              | <u>1112</u> | <u>1207</u> | <u>1265</u> | <u>1276</u> | <u>1346</u> | <u>1496</u> | <u>1496</u> | <u>1496</u> | <u>1496</u> | <u>1496</u> |
| SSBN Submarines          | 5           | 13          | 21          | 29          | 37          | 45          | 50          | 50          | 50          | 50          |
| SLEM Launchers           | 80          | 208         | 336         | 464         | 592         | 720         | 800         | 800         | 800         | 800         |
| SS-N-6                   |             |             |             |             |             |             |             |             |             |             |
| SS-N-6 MIRV              |             |             |             |             |             |             |             |             |             |             |
| SS-NZ-1 MIRV             |             |             |             |             |             |             |             |             |             |             |
| Total SLEM Launchers     | <u>80</u>   | <u>208</u>  | <u>336</u>  | <u>464</u>  | <u>592</u>  | <u>720</u>  | <u>800</u>  | <u>800</u>  | <u>800</u>  | <u>800</u>  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69 except where otherwise noted.

d. Reflects estimate that total SS-13/SS-Z-10 fixed and mobile force will not exceed 350.

Table A-6  
Soviet Strategic Force Package 3: Defensive Forces <sup>a/</sup>

|                          | 1969  | 1970  | 1971  | 1972 | 1973 | 1974  | 1975  | 1976  | 1977  | 1978  |
|--------------------------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|
| Interceptors             | 1825  | 1625  | 1325  | 1000 | 675  | 425   | 150   | 50    | 0     | 0     |
| Fresco/Farmer/Flashlight | 1225  | 1200  | 1175  | 1150 | 1125 | 1075  | 1050  | 1025  | 975   | 925   |
| Fitter/Fishpot/Firebar   | 350   | 500   | 650   | 800  | 925  | 950   | 975   | 975   | 975   | 975   |
| Fiddler/Flagon           | 0     | 25    | 50    | 100  | 175  | 250   | 325   | 350   | 400   | 400   |
| Foxbat                   |       |       |       |      |      |       |       |       |       |       |
| Advanced Interceptors    |       |       |       |      |      |       |       |       |       |       |
| Total Interceptors       | 3400  | 3350  | 3200  | 3050 | 2900 | 2700  | 2500  | 2400  | 2350  | 2300  |
| AWACS                    |       |       |       |      |      |       |       |       |       |       |
| MOSS                     | 10    | 20    | 30    | 35   | 35   | 35    | 40    | 45    | 50    | 55    |
| Overland                 | 10    | 20    | 30    | 35   | 35   | 35    | 40    | 45    | 50    | 55    |
| Total AWACS              |       |       |       |      |      |       |       |       |       |       |
| SAM Launchers            |       |       |       |      |      |       |       |       |       |       |
| SA-1                     | 3255  | 3255  | 2000  | 1000 | 500  | 500   | 500   | 500   | 500   | 500   |
| SA-2                     | 5340  | 5340  | 5340  | 5340 | 5340 | 5340  | 5340  | 5340  | 5340  | 5340  |
| SA-3                     | 720   | 820   | 920   | 920  | 920  | 920   | 920   | 920   | 920   | 920   |
| SA-5                     | 900   | 1320  | 1680  | 1980 | 2220 | 2400  | 2520  | 2580  | 2580  | 2580  |
| SA-Z-1                   | 0     | 0     | 60    | 150  | 450  | 900   | 1200  | 1350  | 1500  | 1500  |
| SA-Z-4                   | 0     | 0     | 0     | 0    | 0    | 0     | 0     | 0     | 60    | 300   |
| Total SAM Launchers      | 10215 | 10735 | 10000 | 9390 | 8510 | 10060 | 10480 | 10690 | 10900 | 11140 |
| ABM Launchers            |       |       |       |      |      |       |       |       |       |       |
| ABM-1                    | 56    | 64    | 64    | 64   | 64   | 64    | 64    | 64    | 64    | 64    |
| ABM-Z-2                  | 0     | 0     | 0     | 0    | 100  | 280   | 550   | 820   | 950   | 1000  |
| ABM-Z-1 b/               | 0     | 0     | 0     | 0    | 0    | 0     | 60    | 120   | 300   | 600   |
| Total ABM Launchers      | 56    | 64    | 64    | 64   | 164  | 344   | 674   | 1004  | 1314  | 1664  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69.  
 b. Assumed to be deployed in defense of hard missile sites.

Table A-7  
Soviet Strategic Force Package 4: Offensive Forces a/

|                          | 1969 | 1970 | 1971 | 1972 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Intercontinental Bombers |      |      |      |      |      |      |      |      |      |      |      |
| Bear                     | 35   | 30   | 30   | 30   | 25   | 80   | 20   | 5    | 0    | 0    | 0    |
| Bear with ASMs           | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 70   | 60   | 50   |
| Bison Bombers            | 35   | 30   | 30   | 25   | 20   | 20   | 20   | 15   | 10   | 0    | 0    |
| New Strategic Aircraft   |      |      |      |      |      |      |      |      |      |      |      |
| Total Bombers            | 150  | 140  | 140  | 135  | 125  | 120  | 120  | 100  | 80   | 60   | 50   |
| ICBMs                    |      |      |      |      |      |      |      |      |      |      |      |
| SS-7/8 Hard and Soft     | 220  | 197  | 129  | 30   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| SS-9                     | 222  | 240  | 240  | 240  | 240  | 240  | 192  | 126  | 126  | 126  | 126  |
| SS-9 MRV                 | 0    | 0    | 0    | 25   | 75   | 175  | 175  | 270  | 270  | 270  | 270  |
| SS-Z-3 MTRV b/           | 650  | 720  | 750  | 650  | 450  | 250  | 250  | 50   | 750  | 750  | 750  |
| SS-11                    |      |      |      | 100  | 300  | 500  | 500  | 700  | 750  | 750  | 750  |
| SS-Z-9                   | 20   | 50   | 100  | 250  | 200  | 100  | 100  | 300  | 300  | 300  | 300  |
| SS-13                    |      |      |      | 100  | 100  | 200  | 200  | 300  | 300  | 300  | 300  |
| SS-Z-10 Mobile           |      |      | 20   | 50   | 75   | 50   | 50   | 25   | 0    | 125  | 125  |
| SS-13 Mobile             |      |      | 20   | 50   | 75   | 50   | 50   | 100  | 125  | 125  | 125  |
| SS-Z-10 Mobile           |      |      |      |      |      |      |      | 100  | 125  | 125  | 125  |
| Total ICBMs              | 1112 | 1207 | 1239 | 1345 | 1440 | 1517 | 1517 | 1571 | 1571 | 1571 | 1571 |
| SSBN Submarines c/       | 5    | 13   | 21   | 29   | 37   | 45   | 45   | 50   | 50   | 50   | 50   |
| SLBM Launchers           | 80   | 208  | 336  | 400  | 416  | 416  | 416  | 368  | 336  | 240  | 112  |
| SS-N-6                   |      |      |      | 64   | 176  | 304  | 304  | 432  | 432  | 432  | 432  |
| SS-N-6 MIRV d/           |      |      |      |      |      |      |      |      |      |      |      |
| SS-NZ-1 MIRV d/          |      |      |      |      |      |      |      |      |      |      |      |
| Total SLBM Launchers     | 80   | 208  | 336  | 464  | 592  | 720  | 720  | 800  | 800  | 800  | 800  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69, except where otherwise noted.

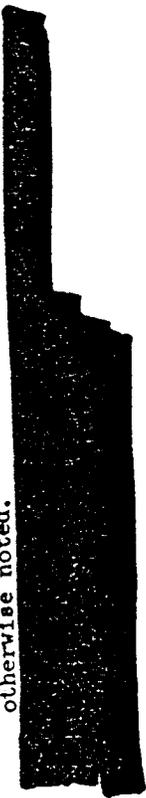


Table A-8  
Soviet Strategic Force Package 4: Defensive Forces <sup>a/</sup>

|                          | 1969  | 1970  | 1971 | 1972 | 1973 | 1974 | 1975  | 1976  | 1977  | 1978  |
|--------------------------|-------|-------|------|------|------|------|-------|-------|-------|-------|
| <b>Interceptors</b>      |       |       |      |      |      |      |       |       |       |       |
| Presco/Farmer/Flashlight | 1825  | 1625  | 1325 | 1000 | 675  | 425  | 150   | 50    | 0     | 0     |
| Fitter/Fishpot/Firebar   | 1225  | 1200  | 1175 | 1150 | 1125 | 1075 | 1050  | 1025  | 975   | 925   |
| Fiddler/Flagon           | 350   | 500   | 650  | 800  | 925  | 950  | 975   | 975   | 975   | 975   |
| Foxbat                   | 0     | 25    | 50   | 100  | 175  | 250  | 325   | 350   | 400   | 400   |
| Advanced Interceptor     |       |       |      |      |      |      |       |       |       |       |
| Total Interceptors       | 3400  | 3350  | 3200 | 3050 | 2900 | 2700 | 2500  | 2400  | 2350  | 2300  |
| <b>AWACS</b>             |       |       |      |      |      |      |       |       |       |       |
| MOSS                     | 10    | 25    | 35   | 40   | 40   | 40   | 40    | 40    | 40    | 40    |
| Overland                 | 10    | 25    | 35   | 110  | 0    | 5    | 10    | 15    | 20    | 25    |
| Total AWACS              | 10    | 25    | 35   | 110  | 40   | 45   | 50    | 55    | 60    | 65    |
| <b>SAM Launchers</b>     |       |       |      |      |      |      |       |       |       |       |
| SA-1                     | 3255  | 3255  | 2000 | 1000 | 500  | 500  | 500   | 500   | 500   | 500   |
| SA-2                     | 5340  | 5340  | 5340 | 5340 | 5340 | 5340 | 5340  | 5340  | 5340  | 5340  |
| SA-3                     | 680   | 800   | 800  | 800  | 600  | 500  | 500   | 500   | 500   | 500   |
| SA-5                     | 900   | 1320  | 1700 | 2000 | 2300 | 2600 | 2800  | 2800  | 2800  | 2800  |
| SA-Z-1                   | 0     | 0     | 60   | 150  | 450  | 900  | 1200  | 1350  | 1500  | 1500  |
| SA-Z-4                   |       |       |      |      |      |      |       |       | 60    | 300   |
| Total SAM Launchers      | 10175 | 10715 | 9900 | 9290 | 9190 | 9840 | 10340 | 10490 | 10700 | 10440 |
| <b>ABM Launchers</b>     |       |       |      |      |      |      |       |       |       |       |
| ABM-1                    | 56    | 64    | 64   | 64   | 64   | 64   | 64    | 64    | 64    | 64    |
| ABM-Z-2                  |       |       |      | 100  | 280  | 550  | 820   | 950   | 1000  | 1050  |
| ABM-Z-1 b/               |       |       |      | 164  | 344  | 674  | 120   | 300   | 600   | 1200  |
| Total ABM Launchers      | 56    | 64    | 64   | 164  | 344  | 674  | 1004  | 1314  | 1664  | 2314  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69.  
b. Assumed to be deployed in defense of hard missile sites.

Table A-9  
Soviet Strategic Force Package 5: Offensive Forces <sup>a/</sup>

|                                      | 1969        | 1970        | 1971        | 1972        | 1973        | 1974        | 1975        | 1976        | 1977        | 1978        |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Intercontinental Bombers</b>      |             |             |             |             |             |             |             |             |             |             |
| Bear                                 | 40          | 35          | 30          | 30          | 25          | 25          | 10          | 0           | 0           | 0           |
| Bear with ASMs                       | 85          | 85          | 85          | 85          | 85          | 85          | 85          | 75          | 65          | 55          |
| Bison Bombers                        | 35          | 30          | 30          | 30          | 25          | 20          | 20          | 15          | 0           | 0           |
| New Strategic Aircraft               |             |             |             |             | 10          | 30          | 50          | 75          | 100         | 120         |
| <b>Total Bombers</b>                 | <u>160</u>  | <u>150</u>  | <u>145</u>  | <u>145</u>  | <u>145</u>  | <u>160</u>  | <u>165</u>  | <u>165</u>  | <u>165</u>  | <u>175</u>  |
| <b>ICBMs</b>                         |             |             |             |             |             |             |             |             |             |             |
| SS-7/8 Hard and Soft                 | 220         | 220         | 197         | 129         | 30          | 0           | 0           | 0           | 0           | 0           |
| SS-9                                 | 230         | 245         | 200         | 150         | 100         | 0           | 0           | 0           | 0           | 0           |
| SS-9 MRV                             |             |             | 80          | 160         | 270         | 430         | 430         | 430         | 430         | 430         |
| SS-Z-3 MIRV <sup>b/</sup>            | 0           | 0           | 770         | 640         | 390         | 130         | 0           | 0           | 0           | 0           |
| SS-11                                | 650         | 720         | 770         | 130         | 380         | 640         | 770         | 770         | 770         | 770         |
| SS-Z-9 MIRV <sup>c/</sup>            |             |             | 115         | 75          | 50          | 0           | 0           | 0           | 0           | 0           |
| SS-13                                | 25          | 55          |             | 100         | 250         | 370         | 370         | 370         | 370         | 370         |
| SS-Z-10 MIRV <sup>d/</sup>           |             |             | 25          | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| SS-13 Mobile                         |             |             | 0           | 60          | 115         | 175         | 175         | 175         | 175         | 175         |
| SS-Z-10 Mobile MIRV <sup>e/</sup>    |             |             | 0           | 1444        | 1585        | 1745        | 1745        | 1745        | 1745        | 1745        |
| <b>Total ICBMs</b>                   | <u>1125</u> | <u>1240</u> | <u>1387</u> | <u>1444</u> | <u>1585</u> | <u>1745</u> | <u>1745</u> | <u>1745</u> | <u>1745</u> | <u>1745</u> |
| <b>SSBN Submarines <sup>f/</sup></b> | 5           | 13          | 21          | 29          | 37          | 45          | 53          | 60          | 60          | 60          |
| <b>SLEB Launchers</b>                |             |             |             |             |             |             |             |             |             |             |
| SS-N-6                               | 80          | 208         | 336         | 400         | 416         | 416         | 416         | 416         | 288         | 128         |
| SS-N-6 MIRV <sup>e/</sup>            |             |             |             | 64          | 176         | 304         | 432         | 480         | 480         | 480         |
| SS-NZ-1 MIRV <sup>e/</sup>           |             |             |             |             |             |             |             | 64          | 192         | 352         |
| <b>Total SLEB Launchers</b>          | <u>80</u>   | <u>208</u>  | <u>336</u>  | <u>464</u>  | <u>592</u>  | <u>720</u>  | <u>848</u>  | <u>960</u>  | <u>960</u>  | <u>960</u>  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69, except where otherwise noted.

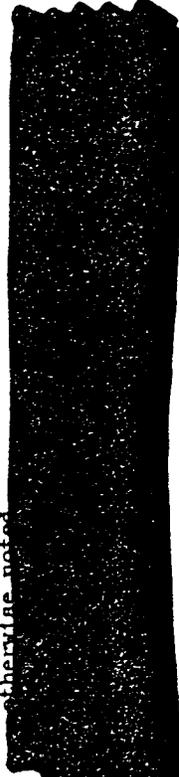


Table A-10  
Soviet Strategic Force Package 5: Defensive Forces <sup>a/</sup>

|                          | 1969  | 1970  | 1971  | 1972  | 1973  | 1974  | 1975  | 1976  | 1977  | 1978  |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Interceptors             |       |       |       |       |       |       |       |       |       |       |
| Fresco/Farmer/Flashlight | 1825  | 1625  | 1325  | 1000  | 675   | 425   | 150   | 50    | 0     | 0     |
| Fitter/Fishpot/Firebar   | 1275  | 1225  | 1200  | 1175  | 1150  | 1100  | 1100  | 1075  | 1025  | 1000  |
| Fiddler/Flagon           | 375   | 525   | 675   | 850   | 975   | 1000  | 1025  | 1025  | 1025  | 1025  |
| Foxbat                   | 0     | 30    | 55    | 105   | 190   | 270   | 350   | 375   | 435   | 435   |
| Advanced Interceptor     | 0     | 0     | 0     | 0     | 0     | 25    | 50    | 72    | 100   | 125   |
| Total Interceptors       | 3475  | 3405  | 3255  | 3130  | 2990  | 2820  | 2675  | 2600  | 2585  | 2585  |
| AWACS                    |       |       |       |       |       |       |       |       |       |       |
| MOSS                     | 10    | 25    | 35    | 40    | 40    | 40    | 40    | 40    | 40    | 40    |
| Overland                 | 0     | 0     | 5     | 15    | 25    | 32    | 40    | 40    | 40    | 40    |
| Total AWACS              | 10    | 25    | 40    | 55    | 65    | 75    | 80    | 80    | 80    | 80    |
| SAM Launchers            |       |       |       |       |       |       |       |       |       |       |
| SA-1                     | 3960  | 3960  | 3960  | 3780  | 3150  | 2510  | 1890  | 1260  | 630   | 630   |
| SA-2                     | 6700  | 6700  | 6700  | 6625  | 6625  | 6625  | 6625  | 6625  | 6625  | 6625  |
| SA-3                     | 485   | 485   | 485   | 485   | 485   | 485   | 485   | 485   | 485   | 485   |
| SA-5                     | 1200  | 1650  | 2240  | 2465  | 2845  | 3220  | 3600  | 3600  | 3600  | 3600  |
| SA-Z-1                   |       |       | 1135  | 2270  | 3400  | 3400  | 3400  | 3400  | 3400  | 3400  |
| SA-Z-4                   |       |       |       |       |       | 380   | 1135  | 1890  | 2645  | 3000  |
| Total SAM Launchers      | 12345 | 12795 | 14520 | 15625 | 16505 | 16620 | 17135 | 17260 | 17385 | 17740 |
| ABM Launchers            |       |       |       |       |       |       |       |       |       |       |
| ABM-1                    | 64    | 128   | 128   | 128   | 128   | 128   | 128   | 128   | 128   | 128   |
| ABM-Z-2                  | 0     | 0     | 0     | 125   | 350   | 680   | 1000  | 1125  | 1175  | 1225  |
| ABM-Z-1 b/               | 0     | 0     | 0     | 0     | 0     | 1000  | 2000  | 3000  | 4000  | 5000  |
| Total ABM Launchers      | 64    | 128   | 128   | 253   | 478   | 1808  | 3128  | 4253  | 5303  | 6353  |

a. The characteristics and parameters of the systems on this table are as set forth in NIPP-69.  
b. Assumed to be deployed in defense of hard missile sites.

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APPENDIX B

Simulation of the Soviets' View of Their  
Assured Destruction Capabilities

Introduction

As part of the overall US-USSR strategic interaction analysis we have examined likely Soviet views of trends in the assured destruction capabilities of alternative Soviet forces against specific US options. Simulation analysis was performed with the Arsenal Exchange Model.\* We used conservative assumptions which we believe the Soviet military planner would be likely to make in his calculations. The assumptions used are set forth in detail in the next section.

We cannot say conclusively that the Soviets conduct computer-assisted simulation studies, although references to such studies in the Soviet military press indicate that they probably do. We can say, on the basis of the Soviet literature and from the way they build their forces, that the factors which they consider important in calculating the balance of forces--however they actually perform the analysis--are very similar to those considered by US planners in their strategic interaction studies. These factors include the number of weapons available to each side, their characteristics--such as reliability, vulnerability, size, and accuracy--as well as target characteristics and the relationship of targeting strategy to the objectives sought.

If our intelligence on Soviet weapons and targets is reasonably accurate, we believe that Soviet planners

\* *Computer-assisted simulation of strategic interaction is a convenient way of examining a large number of alternative force structures and conducting sensitivity analysis with explicit variations in assumptions about weapons characteristics, targets, targeting strategies, and strategic objectives. As such, it is an aid to analysis, and not an estimating methodology.*

*Note: This Appendix is an independent CIA submission to the report. It was not considered in detail by the Interagency Working Group because of the specialized nature of the analysis.*

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would see the general trends in their assured destruction capabilities as moving in the same direction as presented in this Appendix, whether or not they were elaborately calculated on a computer. They almost certainly would not obtain numerical values identical to those we have derived, however, even if our intelligence is perfect. Some Soviet military analysts--using different assumptions and methods of analysis--probably would assess the threat to their retaliatory force as less than the levels we calculate. Others might assess it as greater.

We do not know what weight the Soviet decision makers would give to such studies, but we believe they would take them into consideration, particularly if they suggested a potential radical shift in the strategic relationship.

#### Assumptions

Soviet assured destruction capability was measured in terms of the number of fatalities that surviving Soviet strategic forces could inflict on US cities after a US first strike against Soviet strategic weapons.

The following assumptions were used in developing the initial attack phase of this scenario.

a. All US sea-based and land-based missile forces are launched in a surprise first strike against Soviet bomber bases and ICBM sites. (Medium- and intermediate-range ballistic missiles and medium bombers are excluded from the simulation.) US missiles are allocated to targets so as to reduce Soviet retaliatory capability to a minimum.

b. Soviet heavy bombers are deployed on ten bases at the time.

c. No Soviet missiles or bombers are launched before the US strike.

d. Soviet submarines are attacked by US ASW forces. Ninety percent of the USSR's new Polaris-type submarines that are on

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station survive. Because of advances in US ASW capabilities, over time a declining percentage of other on-station submarines are assumed to survive and launch their missiles.

e. All US weapons and penetration aids operate at design accuracy, reliability, and effectiveness.

For the simulated retaliatory strike by the Soviets, it was assumed that:

a. The Soviets allocate their surviving forces to inflict the greatest number of fatalities on US urban population centers.

b. Fifty percent of the reliable bombers that survive the US attack will penetrate NORAD and reach their bomb-release points.

c. Thirty percent of Soviet missile submarines are on station for Soviet Force Levels 1, 2, and 3. In Force Levels 4 and 5 sixty percent are assumed to be on station. (G and Z class submarines were not included in the simulation because they are assumed to have a different mission.)

#### Analysis of Force Interactions

Soviet Force Package 3 (NIPP-Hi) was first tested against US Force Categories I-A, I-B, II-A, II-B, III-A, III-B, IV-A, and V-A. Other selected combinations of Soviet and US forces were also run in cases where the Soviet retaliatory capability of Force Package 3 forces showed significant degradation. The results of these simulations are shown in Figure B-1, on page B-4.

The data for 1978 were then generalized into four broad ranges of US urban fatalities and plotted on the US/Soviet force matrix shown in Figure B-2, on page B-5.

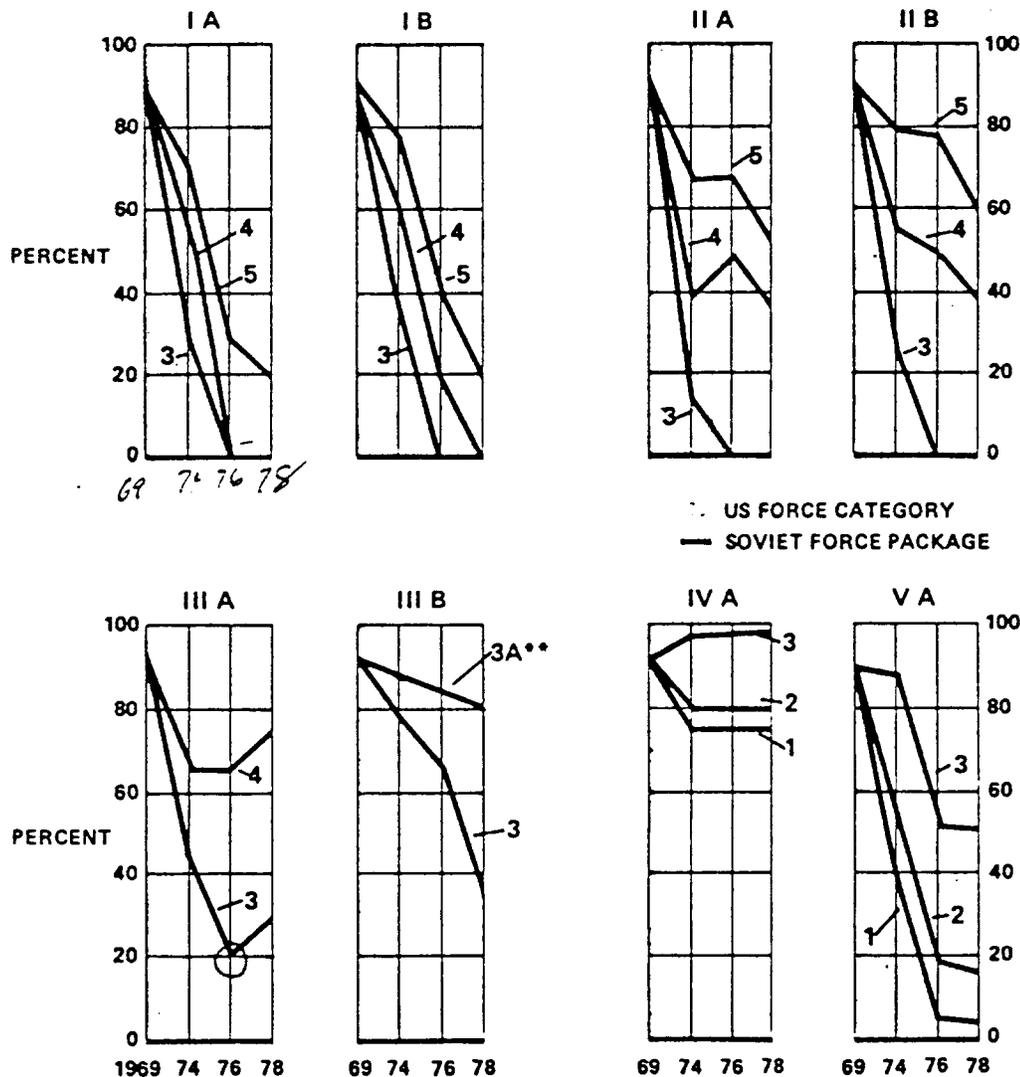
In our analysis we have assumed that surviving Soviet missiles could be optimally retargeted. This

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Figure B-1

### Trends in Soviet Assured Destruction Capability at Various Levels of Response to US Force Categories\*

(US FATALITIES IN PERCENT OF URBAN POPULATION)



\*Simulated Soviet view under assumption of an all counterforce missile strike by the US. US weapons were assumed to work at design accuracy and reliability. Soviet forces were assumed to be caught by surprise.

\*\*Variant Soviet force at approximately the same level of effort as Force 3 but optimized for assured destruction only. See discussion.

Figure B-2

# Soviet Assured Destruction Capability at Various Levels of Response to US Force Categories, 1978

(US FATALITIES IN PERCENT OF URBAN POPULATION)

| SOVIET FORCE PACKAGE | US FORCE CATEGORY |        |             |           |        |
|----------------------|-------------------|--------|-------------|-----------|--------|
|                      | IV A              | V A    | III A+III B | II A+II B | IA+IB  |
| 1                    | 40-80%            | [Dark] | [Dark]      | [Dark]    | [Dark] |
| 2                    | 40-80%            | 15-40% | [Dark]      | [Dark]    | [Dark] |
| 3                    | [Dark]            | 40-80% | 15-40%      | [Dark]    | [Dark] |
| 4                    | [Dark]            | [Dark] | 40-80%      | 15-40%    | [Dark] |
| 5                    | [Dark]            | [Dark] | [Dark]      | 40-80%    | 15-40% |

■ ASSURED DESTRUCTION CAPABILITY LESS THAN 15%  
■ ASSURED DESTRUCTION CAPABILITY GREATER THAN 80%

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imputes to the Soviets the ability to assess rapidly how many of their weapons survive, to calculate an optimal allocation of surviving warheads to US cities, and to retarget as necessary. If this ability is impaired--by communications failure or retargeting limitations in the Soviet missiles--the effectiveness of the Soviet retaliation might be seen by the Soviets as less than we calculate.

If, on the other hand, the Soviets believe their ICBM silos are harder than we estimate, if their SLBM on-station rate is planned to be greater, or if missile and bomber alert forces are planned, the Soviets might not view their deterrent force to be quite as vulnerable as that shown.

For these reasons we have examined broad ranges of US fatalities for the various years, rather than the single valued outputs of the model. Figure B-2 shows the results plotted for 1978, to illustrate the results of our interaction analysis on the terminal year of projected US and Soviet force levels.

The results shown here are greatly influenced by design criteria assumed for the Soviet forces. That is, the Soviets build forces not only to deter but to defend the USSR if deterrence fails, and in our construction of future options, this past practice is projected onto future Soviet forces.

In the extreme cases, however, where Soviet assured destruction is calculated to become less than 15 percent of the US urban population, the Soviet response threat could be restructured to minimize its vulnerability--at the same level of total strategic effort--if some of the projected defensive systems were not deployed.

We examined this computationally only in one case--Soviet Response Force 3 against US Force Category III-A. In this case we used the Arsenal Exchange Model routine for force optimizing under fixed budget constraints.

With the Soviet force at Force Level 3 optimized for retaliation against US Force Category III-A, Soviet assured destruction in 1978 improved markedly--from about 30 percent to over 70 percent of US urban population killed.

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The following insights were obtained:

a. The SS-Z-3 MIRV system was indicated not to be effective in the assured destruction scenario since it concentrates the Soviet RVs for the US counterforce attack. If this system were to be effective for second strike scenarios, high confidence alert rates, superhardening, or heavy terminal defenses, etc., would have to be adopted to ensure survivability against heavy attacks.

b. The SS-Z-10/SS-13 appear to be cost-effective assured destruction weapons since they can be deployed in large numbers relatively cheaply. Large deployment would present the US counterforce attack with a much larger target system than the High NIPP, thus improving Soviet force survivability by sheer numbers.

c. In the cost-effective optimization mode, the model selected terminal defense of fixed ICBMs as a good assured destruction strategy. Deployment of area ABMs--in numbers sufficient to counter the large US pen-aid programs--were too costly to be efficient.

APPENDIX C

Expenditure Implications of Representative  
Soviet Strategic Reaction Threats

Summary

A comparison of expenditure levels for the five projected Soviet Force Packages for the 1969-78 period illustrates the range of economies or increased outlays implied by various strategic postures.

Depending upon the extent of the quantitative and qualitative improvements pursued, the strategic forces require average outlays as low as 5 billion dollars or as high as 19 billion dollars annually during 1969-78. These levels of expenditure compare with average spending for the 1969-77 period of 8 billion dollars annually for a Base Case derived from present national intelligence projections of Soviet military forces at a level intermediate between NIPP-Hi and NIPP-Lo.

Costs of Alternative Soviet Strategic Forces,  
Average Annual Data for 1969-78 a/

Billion 1966 Dollars

|                     | <u>Total</u> | <u>Attack</u> | <u>Defense</u> | <u>Other</u> |
|---------------------|--------------|---------------|----------------|--------------|
| Base Case <u>b/</u> | 8.5          | 3.3           | 5.0            | 0.2          |
| Package 1           | 4.8          | 1.4           | 3.3            | 0.1          |
| Package 2           | 6.3          | 2.1           | 4.0            | 0.1          |
| Package 3           | 11.0         | 3.8           | 7.1            | 0.1          |
| Package 4           | 12.0         | 4.3           | 7.5            | 0.1          |
| Package 5           | 19.0         | 5.7           | 13.1           | 0.2          |

a. Components may not add to totals shown because of rounding.

b. Average annual cost for 1969-77.

*Note: This Appendix is an independent CIA submission to the report. It was not considered in detail by the Interagency Working Group because of the specialized nature of the analysis.*

If the Soviets chose to limit the number of their future programs and reduce the size of their current deployment, as in Package 1, the result would be an expenditure reduction of about 3.6 billion dollars annually.

As the force options move toward increased deployment as well as more technical improvements (MIRVs, MRVs, etc.) for both new and old systems, hard choices must be made by Soviet leaders. A point eventually may be reached where any increment in strategic security can be gained only at considerable expense to the nation's economic viability.

The most extreme case, as presented in Package 5, implies an increase in average annual expenditures of about 10 billion dollars over the Base Case. This amount, in ruble terms, is roughly equal to the recent annual increments to total investment in the Soviet economy.

It should be noted, however, that this 10 billion dollars represents only the costs of hardware and related operation and maintenance. An additional substantial amount would be necessary to fund the increased R&D effort which the advanced weapons systems of Package 5 would require, but which cannot be costed.

Other force options fall somewhere between the above extremes depending upon the level of qualitative and quantitative improvements which are projected.

#### Comparability Considerations

In costing the alternative Soviet Force Packages postulated for NSSM-3, an attempt was made to provide data as comparable as possible to that available on the alternative US forces. To achieve this comparability, outlays for nuclear weapons expenditures for the NSSM-3 forces have been excluded from the data discussed in this Appendix. (The nuclear weapons costs are, however, shown in the tables at the end of the Appendix.) Support costs were accounted for as far as possible, but a breakout of all support costs from command and general support was not possible.

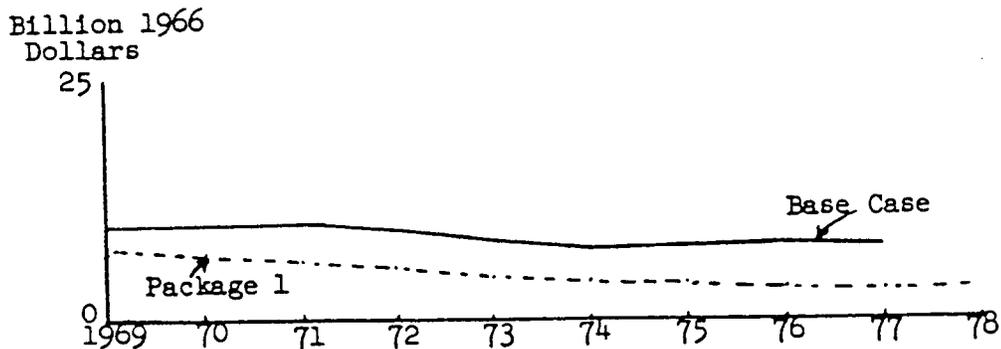
The expenditure data for the Base Case are derived from the series of military NIEs and the underlying contributions to the NIEs. For costing purposes, a single-valued representative statement of the forces was chosen from the NIE range of forces.

Detailed tabular information of the six force options is provided at the end of this Appendix. Included in the detailed tables are expenditures for nuclear weapons outlays associated with the NSSM-3 forces, and for the Soviet strategic peripheral forces. Because R&D expenditures for the Soviet forces cannot currently be allocated to weapon system or mission, they are not shown in the table.

All the tabular data are expressed in billions of dollars to two decimal places. While a level of detail of this nature makes it possible to gain some perception of small movements in the underlying physical data, the uncertainties are such that the implications of data rest only on general magnitude and trends.

Soviet Force Package 1

Large and sustained decreases in total expenditures could be anticipated if the Soviets adapted their forces to achieve relative comparability with the US "defense emphasis" posture. The forces as postulated in Soviet Package 1 imply significant defense economies, amounting to an annual average of some 3.6 billion dollars less than Base Case expenditures. While expenditures for this set of forces are 85 percent of the Base Case figures in 1969, they would represent only 40 percent of the comparable level of outlays for the Base Case in 1977.



The table below shows the economies that would be realized if the Soviets adopted such a limited level of effort.

|                        | <u>Average Annual Expenditures</u><br>(Billion 1966 Dollars) |               |                |              |
|------------------------|--|---------------|----------------|--------------|
|                        | <u>Total</u>   | <u>Attack</u> | <u>Defense</u> | <u>Other</u> |
| NSSM-3 Strategic Force |  |               |                |              |
| Package 1              | 4.82   | 1.38          | 3.29           | 0.14         |
| Base Case              | 8.46   | 3.26          | 5.02           | 0.18         |
| Difference             | <u>-3.64</u>   | <u>-1.88</u>  | <u>-1.73</u>   | <u>-0.04</u> |

As expenditures for strategic forces decrease under this Soviet option, an increasing proportion of total outlays is for the strategic defense mission. By 1974, more than 75 percent of the strategic force outlays would be for the operation and maintenance of strategic defensive systems; by 1976 more than 50 percent would be for SAMs alone. This option also implies that outlays for attack forces decline both in absolute terms and as a percentage of total strategic forces.

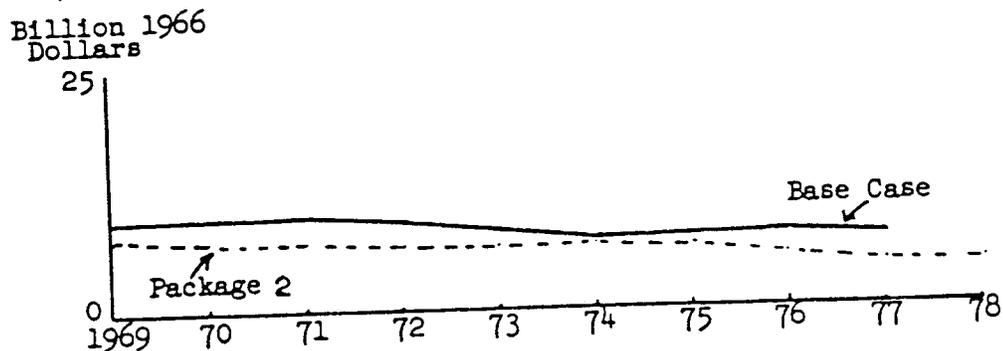
#### Soviet Force Package 2

The forces which make up Package 2 would cost the USSR about 2.2 billion dollars a year less over the next ten years than would the forces which are currently projected for the Soviets in the Base Case. The reduction should be almost evenly divided between strategic attack and strategic defense with a one billion dollar reduction in average annual costs in each mission as shown below.

Average Annual Expenditures  
(Billion 1966 Dollars)

|                         | <u>Total</u> | <u>Attack</u> | <u>Defense</u> | <u>Other</u> |
|-------------------------|--------------|---------------|----------------|--------------|
| NSSM-3 Strategic Forces |              |               |                |              |
| Package 2               | 6.26         | 2.13          | 3.98           | 0.14         |
| Base Case               | 8.46         | 3.26          | 5.02           | 0.18         |
| Difference              | <u>-2.20</u> | <u>-1.13</u>  | <u>-1.04</u>   | <u>-0.04</u> |

Peak military expenditures for the Package 2 forces would occur in 1969, as opposed to 1971 for the Base Case. As compared with Package 1, the estimated expenditures in Package 2 average about 1.5



billion dollars more per year. Expenditures for SAM systems would constitute the largest single expenditure element in both the offensive and defensive forces, because of the large number of SAMs deployed and the resulting high operating costs.

Soviet Force Package 3

Average annual expenditures implied in Package 3 amount to 2.6 billion dollars above the Base Case.

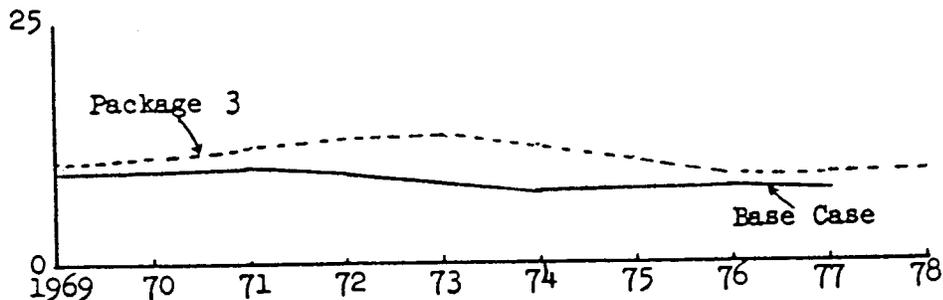
Average Annual Expenditures  
(Billion 1966 Dollars)

|                         | <u>Total</u> | <u>Attack</u> | <u>Defense</u> | <u>Other</u> |
|-------------------------|--------------|---------------|----------------|--------------|
| NSSM-3 Strategic Forces |              |               |                |              |
| Package 3               | 11.03        | 3.76          | 7.14           | 0.12         |
| Base Case               | 8.46         | 3.26          | 5.02           | 0.18         |
| Difference              | <u>+2.57</u> | <u>+0.50</u>  | <u>+2.12</u>   | <u>-0.06</u> |

The difference in expenditures in the two cases would be due principally to the larger expenditures allocated for strategic defense in Package 3.

The impact of spending for ABMs and SAMs would occur in the mid-1970s. Estimated expenditures for Package 3 peak in 1973 at 13.4 billion dollars as compared with those of the Base Case, which peak in 1971 at 9.8 billion dollars.

Billion 1966  
Dollars



The major reason for the difference would be greater yearly spending for SAMs and ABMs in Package 3 compared with that of the Base Case. Anticipated SAM expenditures increase about 30 percent and ABM spending doubles over the Base Case estimates.

Average expenditures for strategic attack would be about equal to those for the Base Case.

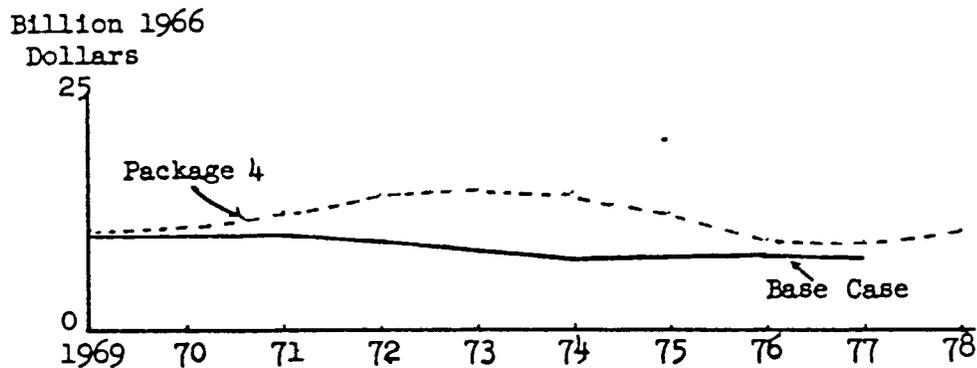
Soviet Force Package 4

Soviet Force Package 4 would require outlays averaging some 3.5 billion dollars per year above those of the Base Case. This increased level of expenditures is the result of higher outlays both for ICBMs in the strategic attack forces, and for SAMs and ABMs in the strategic defense forces.

Average Annual Expenditures  
(Billion 1966 Dollars)

|                         | <u>Total</u> | <u>Attack</u> | <u>Defense</u> | <u>Other</u> |
|-------------------------|--------------|---------------|----------------|--------------|
| NSSM-3 Strategic Forces |              |               |                |              |
| Package 4               | 11.97        | 4.31          | 7.53           | 0.12         |
| Base Case               | 8.46         | 3.26          | 5.02           | 0.18         |
| Difference              | <u>+3.51</u> | <u>+1.05</u>  | <u>+2.51</u>   | <u>-0.06</u> |

Expenditures for Package 4 reach a peak in 1973 amounting to 14.8 billion dollars as compared to the Base Case where a peak of 9.8 billion dollars is reached in 1971.

Soviet Force Package 5

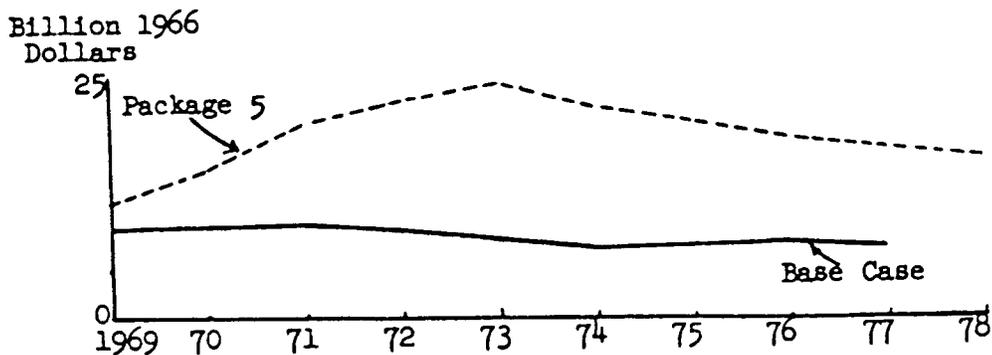
Only if Soviet leaders became convinced that the US was preparing for a full-scale nuclear war with the USSR would they be likely to make the sacrifices

required to produce and deploy the forces postulated in Package 5. Such a configuration of Soviet forces would require enormous expenditures as well as a redirection of the Soviet economy to a near wartime system of priorities.

The achievement of the outlined posture would necessitate more than a doubling of the average annual expenditures (see below) for the strategic forces in the next ten years when compared with those of the Base Case.

|                         | <u>Average Annual Expenditures</u><br>(Billion 1966 Dollars) |               |                |              |
|-------------------------|--|---------------|----------------|--------------|
|                         | <u>Total</u>   | <u>Attack</u> | <u>Defense</u> | <u>Other</u> |
| NSSM-3 Strategic Forces |  |               |                |              |
| Package 5               | 18.98  | 5.74          | 13.06          | 0.18         |
| Base Case               | 8.46   | 3.26          | 5.02           | 0.18         |
| Difference              | <u>+10.52</u>  | <u>+2.48</u>  | <u>+8.04</u>   | <u>0</u>     |

As can be seen in the following graph the greatest single annual difference would occur in 1973, when expenditures would reach 24 billion dollars, or approximately three times those presently projected in the Base Case for that year. Most of this difference is accounted for by the increases which would come about in Soviet defensive forces, but offensive forces would also require a substantial increase in funding.



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In addition to the costs imposed by the procurement of hardware and the expansion of the military services, an unknown--but undoubtedly significant--cost would be incurred for research and development of the advanced systems which Package 5 envisions. Historically, R&D costs have risen rapidly as more sophisticated weapons systems have come into the Soviet military inventory.

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Table C-1

Soviet Strategic Forces  
Base Case a/

|                                | Billion 1966 Dollars |              |              |              |              |             |             |             |             |              | Average<br>Annual<br>1969-77 |
|--------------------------------|----------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|--------------|------------------------------|
|                                | Calendar Years       |              |              |              |              |             |             |             |             |              |                              |
|                                | 1969                 | 1970         | 1971         | 1972         | 1973         | 1974        | 1975        | 1976        | 1977        |              |                              |
| NSSM-3 Strategic Attack        | 4.29                 | 4.16         | 4.38         | 4.12         | 2.36         | 2.80        | 2.27        | 2.07        | 1.86        | 2.26         |                              |
| Bombers (Inte'l)               | 0.31                 | 0.28         | 0.26         | 0.25         | 0.22         | 0.20        | 0.18        | 0.15        | 0.11        |              |                              |
| ICBMs                          | 3.24                 | 3.04         | 3.23         | 2.93         | 2.16         | 1.58        | 1.24        | 1.24        | 1.24        |              |                              |
| SSBN Submarines                | 0.74                 | 0.84         | 0.89         | 0.94         | 0.98         | 1.02        | 0.85        | 0.68        | 0.51        |              |                              |
| NSSM-3 Strategic Defense       | 4.83                 | 4.97         | 5.15         | 4.81         | 4.49         | 4.36        | 5.27        | 5.62        | 5.67        | 5.02         |                              |
| AEWs                           | 0.21                 | 0.26         | 0.24         | 0.32         | 0.55         | 0.84        | 1.40        | 1.53        | 1.32        |              |                              |
| Interceptors                   | 1.74                 | 1.93         | 2.05         | 1.79         | 1.50         | 1.23        | 1.18        | 0.77        | 0.74        |              |                              |
| SAMs                           | 2.77                 | 2.67         | 2.74         | 2.66         | 2.42         | 2.27        | 2.67        | 3.30        | 3.59        |              |                              |
| AWACS b/                       | 0.11                 | 0.11         | 0.12         | 0.04         | 0.02         | 0.02        | 0.02        | 0.02        | 0.02        |              |                              |
| Other Support c/               | 0.26                 | 0.29         | 0.21         | 0.20         | 0.17         | 0.14        | 0.14        | 0.07        | 0.06        | 0.18         |                              |
| <u>NSSM-3 Strategic Forces</u> | <u>9.38</u>          | <u>9.42</u>  | <u>9.84</u>  | <u>9.13</u>  | <u>8.02</u>  | <u>7.30</u> | <u>7.68</u> | <u>7.76</u> | <u>7.59</u> | <u>8.46</u>  |                              |
| Nuclear Weapons d/             | 0.41                 | 0.41         | 0.41         | 0.27         | 0.13         | 0.11        | 0.12        | 0.15        | 0.16        | 0.24         |                              |
| Other Strategic Systems e/     | 2.97                 | 2.65         | 2.60         | 2.80         | 2.23         | 2.00        | 1.95        | 1.94        | 1.87        | 2.56         |                              |
| Total Strategic Forces.        | <u>12.78</u>         | <u>13.49</u> | <u>13.85</u> | <u>12.19</u> | <u>10.38</u> | <u>9.42</u> | <u>9.75</u> | <u>9.86</u> | <u>9.62</u> | <u>11.26</u> |                              |

a. Expenditure estimate based on the Soviet military NIEs for 1968.

b. Includes only expenditures for airborne control and warning systems postulated in NSSM-3.

c. Includes all non-unit related expenditures associated with the NSSM-3 strategic forces. Excludes any command and general support functions, such as base operating support, that cannot be separated.

d. Only expenditures for those nuclear weapons associated with NSSM-3 forces.

e. Includes expenditures for peripheral systems (bombers and missiles) and their nuclear weapons, control and warning systems less AWACS, and antisatellite forces.

Table C-2  
Soviet Strategic Forces:  
Package 1

Billion 1966 Dollars

|  | Calendar Years |       |      |      |      |      |      |      |      |      | Average Annual 1969-78 |      |
|--|----------------|-------|------|------|------|------|------|------|------|------|------------------------|------|
|  | 1969           | 1970  | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |                        |      |
| NSSM-3 Strategic Attack Bombers (Intc'l) | 3.40           | 2.49  | 1.69 | 1.20 | 0.93 | 0.83 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82                   | 1.38 |
| ICBMs                                    | 0.23           | 0.19  | 0.16 | 0.11 | 0.05 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71                   | 0.71 |
| SSEN Submarines                          | 2.61           | 1.79  | 1.13 | 0.87 | 0.74 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11                   | 0.11 |
|  | 0.56           | 0.51  | 0.40 | 0.22 | 0.14 | 0.12 | 0.12 | 0.12 | 0.01 | 0.01 | 0.01                   | 0.01 |
| NSSM-3 Strategic Defense ABMs            | 4.20           | 4.26  | 4.28 | 4.04 | 2.28 | 3.02 | 2.96 | 2.26 | 2.23 | 2.38 | 2.38                   | 2.29 |
| Interceptors                             | 0.14           | 0.19  | 0.19 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16                   | 0.16 |
| SAMs                                     | 1.39           | 1.64  | 1.81 | 1.71 | 1.45 | 1.19 | 1.13 | 0.43 | 0.40 | 0.55 | 0.55                   | 0.55 |
| AWACS a/                                 | 2.59           | 2.35  | 2.20 | 2.14 | 1.66 | 1.66 | 1.66 | 1.66 | 1.66 | 1.66 | 1.66                   | 1.66 |
| Other Support b/                         | 0.08           | 0.08  | 0.08 | 0.03 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01                   | 0.01 |
|  | 0.20           | 0.23  | 0.25 | 0.18 | 0.15 | 0.12 | 0.12 | 0.06 | 0.06 | 0.06 | 0.06                   | 0.14 |
| NSSM-3 Strategic Forces                  | 7.80           | 6.98  | 6.22 | 5.42 | 4.36 | 3.97 | 3.91 | 3.15 | 3.11 | 3.26 | 3.26                   | 4.82 |
| Nuclear Weapons c/                       | 0.58           | 0.48  | 0.38 | 0.28 | 0.13 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10                   | 0.24 |
| Other Strategic Systems d/               | 2.48           | 2.98  | 3.00 | 2.60 | 2.12 | 1.79 | 1.72 | 1.58 | 1.49 | 1.46 | 1.46                   | 2.12 |
| Total Strategic Forces                   | 10.86          | 10.44 | 9.60 | 8.30 | 6.61 | 5.86 | 5.74 | 4.83 | 4.70 | 4.82 | 4.82                   | 7.17 |

a. Includes only expenditures for airborne control and warning systems postulated in NSSM-3.  
b. Includes all non-unit related expenditures associated with the NSSM-3 strategic forces. Excludes any command and general support functions, such as base operating support, that cannot be separated.  
c. Only expenditures for those nuclear weapons associated with NSSM-3 forces.  
d. Includes expenditures for peripheral systems (bombers and missiles) and their nuclear weapons, control and warning systems less AWACS, and antisatellite forces.

Table C-3

Soviet Strategic Forces:  
Package 2

|   | Billion 1966 Dollars |             |             |             |             |             |             |             |             |             | Average Annual 1969-78 |
|---|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
|   | 1969                 | 1970        | 1971        | 1972        | 1973        | 1974        | 1975        | 1976        | 1977        | 1978        |                        |
| NSSM-3 Strategic Attack Bombers (Intc'l)  | 2.42                 | 2.88        | 2.41        | 2.11        | 2.18        | 2.32        | 2.08        | 1.57        | 1.20        | 1.12        | 2.12                   |
| ICBM <sup>a</sup>                         | 0.23                 | 0.21        | 0.20        | 0.18        | 0.17        | 0.15        | 0.12        | 0.09        | 0.07        | 0.05        |                        |
| SSEN Submarines                           | 2.66                 | 2.09        | 1.61        | 1.31        | 1.36        | 1.53        | 1.43        | 1.06        | 0.82        | 0.82        |                        |
|   | 0.53                 | 0.58        | 0.60        | 0.62        | 0.65        | 0.64        | 0.53        | 0.42        | 0.31        | 0.25        |                        |
| NSSM-3 Strategic Defense ABM <sup>b</sup> | 4.12                 | 4.33        | 4.40        | 4.36        | 4.06        | 4.02        | 4.10        | 2.55        | 2.43        | 2.46        | 3.98                   |
| Interceptors                              | 0.14                 | 0.20        | 0.22        | 0.38        | 0.61        | 1.02        | 1.15        | 1.21        | 1.10        | 1.16        |                        |
| SAM <sup>b</sup>                          | 1.39                 | 1.66        | 1.84        | 1.74        | 1.50        | 1.25        | 1.20        | 0.59        | 0.58        | 0.55        |                        |
| AWACS <sup>a/</sup>                       | 2.51                 | 2.39        | 2.26        | 2.21        | 1.94        | 1.74        | 1.74        | 1.74        | 1.74        | 1.74        |                        |
|   | 0.08                 | 0.08        | 0.08        | 0.03        | 0.01        | 0.01        | 0.01        | 0.01        | 0.01        | 0.01        |                        |
| Other Support b/                          | 0.20                 | 0.23        | 0.25        | 0.18        | 0.15        | 0.12        | 0.12        | 0.06        | 0.06        | 0.06        | 0.14                   |
| <u>NSSM-3 Strategic Forces</u>            | <u>7.74</u>          | <u>7.44</u> | <u>7.06</u> | <u>6.65</u> | <u>6.32</u> | <u>6.46</u> | <u>6.30</u> | <u>5.18</u> | <u>4.69</u> | <u>4.64</u> | <u>6.26</u>            |
| Nuclear Weapons c/                        | 0.52                 | 0.42        | 0.41        | 0.39        | 0.27        | 0.25        | 0.26        | 0.21        | 0.17        | 0.17        | 0.32                   |
| Other Strategic Systems d/                | 2.48                 | 2.98        | 3.00        | 2.60        | 2.12        | 1.79        | 1.73        | 1.58        | 1.42        | 1.46        | 2.12                   |
| Total Strategic Forces                    | 10.77                | 10.91       | 10.47       | 9.64        | 8.78        | 8.50        | 8.29        | 6.97        | 6.35        | 6.27        | 8.70                   |

- a. Includes only expenditures for airborne control and warning systems postulated in NSSM-3.
- b. Includes all non-unit related expenditures associated with the NSSM-3 strategic forces. Excludes any command and general support functions, such as base operating support, that cannot be separated.
- c. Only expenditures for those nuclear weapons associated with NSSM-3 forces.
- d. Includes expenditures for peripheral systems (bombers and missiles) and their nuclear weapons, control and warning systems less AWACS, and antisatellite forces.

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Table C-4  
Soviet Strategic Forces:  
Package 2

|  | Billion 1966 Dollars |       |       |       |       |       |       |       |       |       | Average Annual 1969-78 |
|--|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|
|  | 1969                 | 1970  | 1971  | 1972  | 1972  | 1973  | 1974  | 1975  | 1976  | 1977  |                        |
| NSSM-3 Strategic Attack Bombers (Intc'l) | 4.65                 | 4.46  | 4.65  | 5.29  | 5.37  | 4.15  | 2.91  | 2.24  | 1.97  | 1.94  | 2.76                   |
| ICBM a                                   | 0.29                 | 0.26  | 0.26  | 0.26  | 0.24  | 0.23  | 0.19  | 0.16  | 0.12  | 0.10  |                        |
| SSEW Submarines                          | 3.36                 | 3.12  | 3.25  | 3.94  | 4.27  | 3.29  | 2.25  | 1.61  | 1.38  | 1.38  |                        |
|  | 1.00                 | 1.08  | 1.14  | 1.09  | 0.86  | 0.63  | 0.47  | 0.47  | 0.47  | 0.46  |                        |
| NSSM-3 Strategic Defense                 | 5.80                 | 6.52  | 6.97  | 7.29  | 7.88  | 7.96  | 7.71  | 6.81  | 7.04  | 7.20  | 7.14                   |
| ABMs                                     | 0.28                 | 0.54  | 0.81  | 1.51  | 2.14  | 2.47  | 2.40  | 2.31  | 2.37  | 2.50  |                        |
| Interceptors                             | 1.87                 | 2.20  | 2.50  | 2.39  | 2.10  | 1.81  | 1.76  | 0.93  | 0.93  | 0.91  |                        |
| SAMs                                     | 3.45                 | 3.58  | 3.46  | 3.43  | 3.61  | 3.65  | 3.52  | 3.53  | 3.70  | 3.84  |                        |
| AWACS g/                                 | 0.20                 | 0.20  | 0.20  | 0.06  | 0.03  | 0.03  | 0.03  | 0.04  | 0.04  | 0.05  |                        |
| Other Support b/                         | 0.22                 | 0.21  | 0.21  | 0.12  | 0.10  | 0.07  | 0.08  | 0.08  | 0.08  | 0.08  | 0.12                   |
| NSSM-3 Strategic Forces                  | 10.67                | 11.19 | 11.83 | 12.80 | 13.35 | 12.18 | 10.70 | 9.13  | 9.09  | 9.32  | 11.03                  |
| Nuclear Weapons c/                       | 0.72                 | 0.65  | 0.70  | 0.74  | 0.78  | 0.62  | 0.43  | 0.32  | 0.29  | 0.29  | 0.55                   |
| Other Strategic Systems d/               | 2.94                 | 4.31  | 4.03  | 2.30  | 2.86  | 2.67  | 2.42  | 2.38  | 2.38  | 2.37  | 3.07                   |
| Total Strategic Forces                   | 15.33                | 16.15 | 16.56 | 16.84 | 16.99 | 15.47 | 13.62 | 11.83 | 11.76 | 11.98 | 14.65                  |

- a. Includes only expenditures for airborne control and warning systems postulated in NSSM-3.
- b. Includes all non-unit related expenditures associated with the NSSM-3 strategic forces. Excludes any command and general support functions, such as base operating support, that cannot be separated.
- c. Only expenditures for those nuclear weapons associated with NSSM-3 forces.
- d. Includes expenditures for peripheral systems (bombers and missiles) and their nuclear weapons, control and warning systems less AWACS, and anti-satellite forces.

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