

# NATIONAL INTELLIGENCE ESTIMATE

## Soviet Forces for Intercontinental Conflict Through the Mid-1980s

Volume 1  
Key Judgments and Summary

SECRET  
REF ID: A66574  
ICM 2136

Top Secret  
REF ID: A66574

21 December 1978

Doc. No. 293

REPRODUCED AT THE NATIONAL ARCHIVES

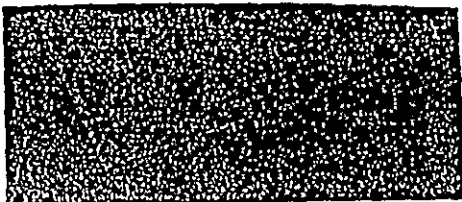
NIE 11-3/8-76

SOVIET FORCES FOR INTERCONTINENTAL  
CONFLICT THROUGH THE MID-1980s

This document has been  
approved for release by the  
CIA and the NSA in accordance with  
the provisions of Executive Order 11652

9/16/92

HRP-92-7



~~TOP SECRET~~



REPRODUCED AT THE NATIONAL ARCHIVES.

THIS ESTIMATE IS ISSUED BY THE DIRECTOR OF CENTRAL INTELLIGENCE.

THE UNITED STATES INTELLIGENCE BOARD CONCURS, EXCEPT AS NOTED IN THE TEXT, AS FOLLOWS:

*The following intelligence organizations participated in the preparation of the estimate:*

The Central Intelligence Agency, the intelligence organizations of the Departments of State and Defense, the National Security Agency and the Energy Research and Development Administration.

*Concurring:*

The Deputy Director of Central Intelligence representing the Central Intelligence Agency

The Director of Intelligence and Research representing the Department of State

The Director, Defense Intelligence Agency

The Director, National Security Agency

The Deputy Assistant Administrator for National Security, Energy Research and Development Administration

*Abstaining:*

The Special Assistant to the Secretary for National Security, Department of the Treasury

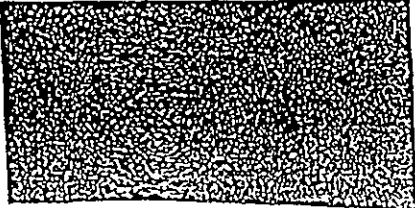
The Assistant Director, Federal Bureau of Investigation

*Also Participating:*



The Assistant Chief of Staff for Intelligence, Department of the Army

The Director of Naval Intelligence, Department of the Navy

The Assistant Chief of Staff, Intelligence, Department of the Air Force



Top Secret



[REDACTED]

## FOREWORD

This Estimate considers Soviet offensive and defensive forces for intercontinental nuclear conflict through the mid-1980s. It draws upon the findings of other recent Intelligence Community assessments which consider in greater detail some of the issues addressed herein, for example:

- NIO IIM 76-010J [REDACTED] Prospects for Improvement in Soviet Low-Altitude Air Defense, dated March 1976
- NIO IIM 76-012J [REDACTED] Soviet Approaches to Defense Against Ballistic Missile Submarines and Prospects for Success, dated March 1976
- WSSIC-TCS [REDACTED] Low Altitude Air Defense Capabilities of Soviet Nuclear-Equipped SAMs, dated August 1976
- JAEIC 1-7 [REDACTED] The Soviet Atomic Energy Program, dated October 1976
- STIC-76-002JX [REDACTED] Soviet R&D Related to Particle Beam Weapons, dated October 1976
- NIO IIM 76-041J [REDACTED] Soviet Civil Defense, dated November 1976
- WSSIC-TCS [REDACTED] Soviet ICBM Silo Hardness Estimates, dated November 1976
- NIO IIM [REDACTED] Prospects for Soviet Interference with US Space Systems in Crisis or Conflict (in preparation)

The Estimate does not consider all the systems which the Soviets regard as strategic. It does not cover in detail all the Soviet medium- and intermediate-range nuclear delivery systems, which are intended mainly for operations on the Eurasian periphery. Nor does the Estimate treat Soviet objectives and policies governing the use of all elements of national power toward the attainment of overall strategic goals. For

iii  
~~Top Secret~~



information on these subjects, the reader is referred to the following issuances of the Intelligence Community:

NIE 11-4-77, Soviet Strategic Objectives (in preparation)

NIE 11-14-75, Warsaw Pact Forces Opposite NATO, dated 4 September 1975

NIE 11-10-76, Soviet Military Policy in the Third World, dated 21 October 1976

NIE 11-15-74, Soviet Naval Policy and Programs, dated 23 December 1974

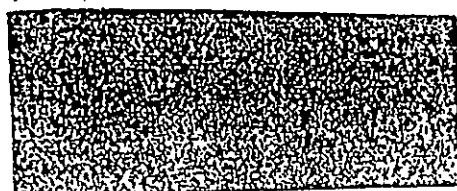
NIO IIM [REDACTED] Soviet Strategic Forces for Peripheral Attack (in preparation)

NIO IIM 76-039J [REDACTED] Trends in Soviet Military Programs, dated October 1976

In estimating Soviet objectives, policies, and programs, we have assumed that future United States forces will be as described in the Department of Defense, Five-Year Defense Program (FYDP), October 1976, which includes US programs for such strategic systems as the Trident ballistic missile submarine, the B-1 bomber, the improved Minuteman III missile, the M-X ICBM, and advanced cruise missiles. We have made this assumption in the belief that US programed forces probably comprise the minimum future US inventory of forces for intercontinental conflict against which the Soviets plan and evaluate their own programs. Our forecast of the strategic environment does not attempt to weigh the implications of increases or decreases in programed levels of US effort or of alternative US decisions about specific weapon systems.

In order to judge the future overall effectiveness of all Soviet forces for intercontinental conflict—defensive as well as offensive—a detailed net assessment is required which pays particular attention to operational factors and to the way in which the full range of US and Soviet forces and capabilities might interact. We have not made such a net assessment.

The findings of this NIE are contained in three volumes. Volume I presents the key judgments and the summary of the Estimate. The full Estimate is in Volume II. Supplementary annexes and tables of future force projections are contained in Volume III.

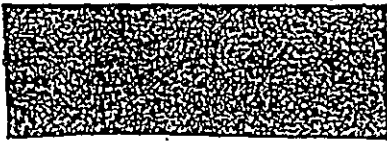


iv  
Top Secret



CONTENTS

	<i>Page</i>
FOREWORD .....	iii
KEY JUDGMENTS .....	1
SUMMARY ESTIMATE .....	16
I. SOVIET POLICY FOR INTERCONTINENTAL FORCES .....	16
A. Factors Influencing Soviet Forces for Intercontinental Conflict .	16
The Utility of Forces .....	16
Perceptions of the US .....	18
Attitudes Toward Detente and SALT .....	18
Economic Considerations .....	19
Commitment to Research and Development .....	21
B. Present Objectives for Intercontinental Forces .....	21
II. SOVIET FORCES FOR INTERCONTINENTAL ATTACK .....	24
A. Intercontinental Ballistic Missile Forces .....	24
Deployed Forces .....	24
The New Missiles .....	24
Land-Mobile Missiles .....	28
Missions and Capabilities .....	28
Future ICBMs .....	30
B. Submarine-Launched Ballistic Missile Forces .....	30
Present Forces .....	30
Patrol Posture .....	33
Future SLBMs .....	33
C. Intercontinental Bomber Forces .....	35
Deployed Forces .....	35
LRA Operations Against the Contiguous US .....	35
The Backfire Bomber .....	35
Future Systems .....	40
D. Long-Range Cruise Missiles .....	40



~~Top Secret~~

	Page
III. SOVIET STRATEGIC DEFENSES .....	40
A. Defense Against Ballistic Missiles .....	40
Warning Systems .....	40
Antiballistic Missile Defense .....	43
SAMs in an ABM Role .....	44
B. Antisatellite Systems .....	44
C. Strategic Air Defense .....	44
Air Surveillance and Control .....	45
Interceptors .....	47
Surface-to-Air Missiles .....	47
Electronic Warfare .....	51
Tactical Forces for Strategic Air Defense .....	52
Future Air Defense Capabilities .....	52
D. Advanced Technologies for Air, Missile, and Space Defense ...	52
E. Defense Against Ballistic Missile Submarines .....	53
Research and Development in ASW Systems .....	53
Prospects for Improvement of Anti-SSBN Capabilities .....	55
F. Civil Defense .....	55
IV. OTHER FACTORS AFFECTING SOVIET CAPABILITIES FOR INTERCONTINENTAL CONFLICT .....	56
A. Command, Control, and Communications .....	57
B. Intelligence and Warning .....	59
C. Strategic Targeting and Operations .....	59
D. Concealment and Deception .....	59
E. Interference with US Space Systems .....	59
V. FUTURE FORCES AND THEIR IMPLICATIONS .....	60
A. Future Force Projections .....	60
Alternative Force Projections .....	60
Static Measures of Offensive Forces .....	62
B. Threat to ICBM Silos .....	65
Soviet Countersilo Capabilities .....	65
Soviet Silo Survivability .....	68
Efforts of Uncertainty .....	68
C. Threat to Bombers and SSBNs .....	68
D. Residual Offensive Forces After a Surprise Counterforce Attack	68
E. Other Factors Affecting the Strategic Environment .....	71
Impact of Uncertainties .....	71
Effects of a SALT TWO Agreement .....	73
Prospects for Technological Advance .....	73

vi  
Top Secret

## KEY JUDGMENTS

## CURRENT DEVELOPMENTS IN SOVIET PROGRAMS

In offensive forces for intercontinental conflict, the Soviets are continuing their long-term effort to acquire more powerful, flexible, and survivable weapon systems.

- New intercontinental ballistic missiles (ICBMs) are being deployed at a moderate pace. About 200 now are operational, most of them with multiple independently targetable reentry vehicles (MIRVs), and there will probably be more than 900 in 1980. These missiles have better accuracy, greater throw weight, and more survivable silos than their predecessors. Deployment of a land-mobile ICBM is apparently still deferred.
- Several units of a new version of the Soviets' latest class of nuclear-powered ballistic missile submarine (SSBN) have been launched. They will probably carry the first Soviet submarine-launched ballistic missile (SLBM) to be equipped with MIRVs. A new, large ballistic missile submarine may be under construction. If so, it could be operational by about 1980.
- Improvements in ICBMs and SLBMs will not stop with the current missiles. The Soviets are developing a number of new and modified ICBMs and SLBMs, [REDACTED]. These systems will incorporate qualitative improvements, probably including still better accuracy.
- The Backfire bomber continues to be deployed. There are uncertainties and differences of view within the Intelligence Community about the extent of the Backfire's capability for intercontinental operations and about Soviet intentions to employ it in this role. We have additional evidence this year pointing to Soviet development of a new long-range bomber and a new aerial tanker.

~~Top Secret~~



The Soviets are also pressing ahead with efforts to improve their strategic defenses.

- Large new radars under construction in the northwestern USSR will improve and extend Soviet ballistic missile early warning capabilities when they become operational in about 1979. There are uncertainties and differences of view in the Intelligence Community about whether these radars will also be given capabilities to direct and manage antiballistic missile (ABM) defenses. The Soviets continue their research and development on ABM systems.
- A number of programs are aimed at remedying the critical deficiencies in Soviet defenses against low-altitude air attack. The Soviets have been deploying data-handling systems and are introducing an improved fighter into strategic air defense forces. New air defense radars; a new low-altitude surface-to-air missile (SAM) system, and a new fighter with better low-altitude intercept capabilities are under development and could be operational by about 1980.
- Soviet forces for antisubmarine warfare (ASW) are improving but are not now an effective counter to US SSBNs. The Soviets continue to investigate both acoustic and nonacoustic techniques in an effort to solve their fundamental problem of detecting and tracking SSBNs at sea.
- The Soviets have this year demonstrated a capability to attack satellites at low to medium altitudes in a more timely manner.
- Soviet civil defense preparations are steadily improving. This program is more extensive and better developed than we had previously understood. The Soviets also continue to harden facilities associated with strategic forces.
- The Soviets are conducting research and development which could lead to directed-energy weapons having important applications in strategic defense. *The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes that this effort includes a large and well-funded program to develop a charged-particle-beam weapon.*

#### SOVIET OBJECTIVES AND EXPECTATIONS

The growth of Soviet capabilities for intercontinental conflict over the past decade has provided the USSR with a powerful deterrent and

2  
~~Top Secret~~

has contributed to its recognition as a superpower equal to the US. An assessment of the perceptions and objectives underlying present Soviet programs is a matter of interpretation and considerable uncertainty. Much that we observe can be attributed to a combination of defensive prudence, superpower competitiveness, worst-case assumptions about US capabilities, a military doctrine which stresses war-fighting capabilities, and a variety of internal political and institutional factors. But the continuing persistence and vigor of Soviet programs give rise to the question of whether the Soviet leaders now hold as an operative, practical objective the achievement of clear strategic superiority over the US during the period of this Estimate.

The Soviets' belief in the eventual supremacy of their system is strong. They see their forces for intercontinental conflict as contributing to their ultimate goal of achieving a dominant position over the West, particularly the United States, in terms of political, economic, social, and military strength. Having come this far in strategic arms competition with the US, the Soviets may be optimistic about their long-term prospects in this competition. But they cannot be certain about future US behavior or about their own future strategic capabilities relative to those of the US. They have seen US technology and industry mobilized to great effect in the past and are concerned about current US force modernization programs. Thus, they probably cannot today set practical policy objectives in terms of some specific relationship between their intercontinental capabilities and those of the US, to be achieved in a specific period of time.

We do not believe that the Soviet leaders presently count on a combination of actions by the USSR and lack of action by the US which would give them, in the next 10 years, a capability for intercontinental conflict so effective that the USSR could devastate the US while preventing the US from devastating the USSR. Soviet expectations, however, clearly reach well beyond a capability that merely continues to be sufficient to deter an all-out attack.

In our view, the Soviets are striving to achieve war-fighting and war-survival capabilities which would leave the USSR in a better position than the US if war occurred. The Soviets also aim for intercontinental forces which have visible and therefore politically useful advantages over the US. They hope that their capabilities for intercontinental conflict will give them more latitude than they have had in the past for the vigorous pursuit of foreign policy objectives, and that these capabilities will discourage the US and others from using force or the threat of force to influence Soviet actions.

3

~~Top Secret~~

*The Director, Bureau of Intelligence and Research, Department of State, agrees with the statement above on the ultimate Soviet goal but believes the Soviet leader have more modest expectations for their strategic programs. He would emphasize that the Soviet leaders*

- know that the US need not concede the USSR any meaningful strategic advantage and do not expect the US to do so, whatever their assessment of present US resolve might be; and*
- do not entertain, as a practical objective in the foreseeable future, the achievement of what could reasonably be characterized as a "war-winning" or "war-survival" posture.*

*Rather, in his view, Soviet strategic weapon programs are pragmatic in nature and are guided by more proximate foreign policy goals. He sees the Soviets undertaking vigorous strategic force improvements with a view to achieving incremental advantages where possible but, above all, to avoid falling behind the US in a strategic environment increasingly characterized by qualitative competition—and thus losing the position of rough equivalence with the US which they have achieved in recent years through great effort. Moreover, he believes it unlikely that the Soviet leaders anticipate any improvement in the USSR's strategic situation vis-a-vis the US over the next 10 years which would substantially influence their behavior—especially their inclination for risk taking—during periods of crisis or confrontation with the West.*

*The Defense Intelligence Agency, the Energy Research and Development Administration, the Assistant Chief of Staff for Intelligence, Department of the Army, the Director of Naval Intelligence, Department of the Navy, and the Assistant Chief of Staff, Intelligence, Department of the Air Force, believe that the Soviets do, in fact, see as attainable their objective of achieving the capability to wage an intercontinental nuclear war, should such a war occur, and survive it with resources sufficient to dominate the postwar period. Further, these agencies believe that this objective serves as a practical guideline for Soviet strategic force development even though the Soviets have not necessarily set a specific date for its achievement. In their view:*

- Soviet programs for improving forces for intercontinental conflict (including those for strategic hardening and civil defense), their extensive research on advanced weapons technology, and their resource allocation priorities are in keeping with this objective and illustrate its practical effect.*

~~Top Secret~~

- In combination with other elements, the buildup of intercontinental nuclear capabilities is integral to a programmed Soviet effort to achieve the ultimate goal of a dominant position in the world.
- While it cannot be said with confidence when the Soviets believe they will achieve this goal, they expect to move closer to it over the next 10 years and, as a result, to be able increasingly to deter US initiatives and to inhibit US opposition to Soviet initiatives.

The Assistant Chief of Staff, Intelligence, Department of the Air Force, further believes that this Estimate understates, as have previous NIEs, the Soviet drive for strategic superiority. The lines of Soviet strategic policy, objectives, and doctrines enunciated in a large body of authoritative literature are viewed within the context of differing US perceptions and aspirations rather than in the larger context of Soviet history, ideology, and military investment.

The Soviets have made great strides toward achieving general military superiority over all perceived constellations of enemies and for attaining a war-winning capability at all levels of conflict. War survival and civil defense efforts to date have already placed the US in a position of serious strategic disadvantage by neutralizing much of its capability to destroy or damage effectively those elements of the Soviet leadership, command, military, and urban-industrial structure required for maintaining a credible deterrent balance. A realistic calculation of nuclear fatality exchange ratios in a war today would probably show the USSR emerging with considerably more than a twenty-to-one advantage.

There now is a substantial basis for judging that the Soviets' negotiations at SALT and their detente, economic, and arms-control diplomacy have thus far been exploited by them for strategic advantage: by slowing down US defense investment and by permitting easy access to high US technology. The net effect of improved Soviet and East European access to loans, goods, and services from many Western countries is that inefficient sectors of the Soviet economy are in effect being subsidized, thus encouraging uninterrupted investment in strategic forces. A degree of hostage control is being acquired over elements of the West European banking structure by Moscow and its East European allies—in the form of extensive loans (now approaching allowable limits for many banks)—which has serious economic warfare implications. Additionally, the extraordinary advances being made by the Soviets in ASW and high-energy particle-beam technology could

5  
Top Secret

*place the Free World's offensive ballistic missile capability at serious risk well before the terminal date of this Estimate.*

*While the present NIE is much improved over some of its predecessor documents, it falls far short of grasping the essential realities of Soviet conflict purpose and evolving capability, the latter clearly constituting the most extensive peacetime war preparations in recorded history—a situation not unlike that of the mid-1930s, when the entire Free World failed to appreciate the true nature of Nazi Germany's readily discernible preparations for war and conflict. The dissenting judgments of the past five years regarding Soviet defense expenditures, Soviet strategic objectives and policy, ICBM refire capability, predictions in 1973 that some 10 to 15 major new or modified offensive ballistic missile systems were under development, Soviet war-survival and civil-defense measures, Backfire bomber capability, and directed-energy weapons development have often served as the principal means of alerting the national leadership to trends which now are clearly evidenced. Failure now to anticipate the implications of such trends will impact adversely on lead times essential for the alteration of policy and redirection of technology programs.*

*Such lead-time impacts are illustrated dramatically in judgments of the late 1960s and 1970 which implied that Soviet goals entailed no more than strategic parity and did not involve commitment to a major civil defense program. The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes that the former was the basis for US arms control policy in 1969, while the latter influenced the ABM Treaty of 1972. He is concerned that the present perceptions of Soviet goals and evolving capability provide an inadequate basis for the pursuit of further negotiations at SALT or the reformulation of national defense and foreign security policy. At issue is whether present intelligence perceptions provide an adequate basis for averting global conflict in the decades ahead.*

#### TRENDS IN FORCES AND CAPABILITIES

Varying degrees of uncertainty characterize our estimates of Soviet strategic programs and of the quantity and quality of Soviet forces. Forecasts for the next few years can be made with relatively high confidence on the basis of direct evidence. For the period of primary concern—five to 10 years hence—estimates of system characteristics and force composition must be based on very limited evidence and indirect considerations. In this connection, it should be noted that uncertainties about the quality of strategic weapons and forces—at

present and particularly for the future—are in some areas large enough to affect judgments about important aspects of the strategic balance.

Our forecast for the next 10 years assumes that the ABM Treaty remains in effect and that US forces will evolve as currently programed. We employ commonly used measures of force capability but cannot take full account of operational factors which would affect the actual outcome of an intercontinental conflict. Examples of such factors are the efficiency and vulnerability of US and Soviet command and control systems, and the effectiveness of US air attacks and Soviet air defenses in an electronic warfare environment.

#### Offensive Capabilities

The bulk of Soviet intercontinental striking power will remain in ICBM forces. The striking power and survivability of SLBM forces will continue to grow. A relatively small intercontinental bomber force will be retained to complement the ballistic missile forces.

- In the early 1980s, the number of Soviet missile reentry vehicles (RVs) will probably approximate and possibly exceed that of the US. The large Soviet advantage in missile throw weight will be much greater than it is today, and the Soviet advantage in total equivalent megatonnage (EMT) will be somewhat greater. Soviet ICBMs will pose an increased threat to US missile silos; this threat could become a major one in the next year or so if Soviet ICBM capabilities are at the more threatening but highly unlikely extremes of our range of uncertainty. Soviet silo-based ICBMs, however, will not be very much more vulnerable than at present. Despite the probability that the US will continue to have more varied offensive forces with a larger total number of weapons, increasing Soviet missile throw weight and numbers of RVs, and the increased threat to US silo-based ICBMs, will add to perceptions of Soviet strategic power.
- After the early 1980s, the raw power of Soviet offensive forces will continue to increase. Soviet ICBMs will pose a major threat to US missile silos, although the Soviets themselves would remain uncertain about the results of countersilo attacks. If US forces develop as now programed and Soviet forces continue to develop along present lines, some of the earlier Soviet gains in relative offensive capabilities will be eroded. With the deployment of new US systems, Soviet forces would be likely to fall behind in numbers of missile RVs and farther behind in total weapons. In any event, the chances that the Soviets could

7  
Top Secret

achieve a large lead in missile RVs would be reduced. Their advantage in total EMT would be likely to drop back to about today's level, but their advantage in missile throw weight would remain very large. The Soviets could judge that their own silo-based missile forces had become very vulnerable.

In the next few years, SLBMs will become a larger percentage of the total Soviet ICBM and SLBM force; thus increasing the proportion of launchers which can achieve better survivability through mobility. Although the Soviets have evidently deferred deployment of a land-mobile ICBM, they will probably continue R&D on such systems and might deploy one to counter a perceived danger to their silo-based ICBMs. A land-mobile intermediate-range ballistic missile (IRBM) now about to be deployed will be difficult for US intelligence to distinguish from a similar land-mobile ICBM and might be convertible to an ICBM fairly rapidly.

The Soviets could at any time increase the threat to US bombers on alert by deploying SSBNs close to US coastlines to reduce the potential warning times available to bomber bases. In deciding whether to rely on SLBMs for this purpose, the Soviets would have to consider US ASW capabilities, US options to reduce the vulnerability of existing bombers, and the US B-1 program. We believe the Soviets would conclude that, throughout the next 10 years, most US alert bombers would survive a surprise SLBM attack.

We believe the Soviets have no compelling military reasons to deploy long-range cruise missile systems in the present strategic environment. They evidently believe the US has a technological advantage in such systems, but if they cannot prevent US deployment through SALT, they may follow suit. They could modify any one of several existing air- and sea-launched cruise missiles for long-range use or could develop large, new ones for deployment by the end of the 1970s. Small, long-range cruise missiles accurate enough to destroy hard targets probably could not be flight-tested before the early to mid-1980s.

Soviet intercontinental striking power would be increased if Backfire bombers were employed against the US. The Backfire is well suited to operations against land and sea targets on the Eurasian periphery using a variety of flight profiles, and it has some capability for operations against the US on high-altitude subsonic profiles. *The Defense Intelligence Agency, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Assistant Chief of Staff, Intelligence, Department of the Air Force, estimate that the Backfire has significant capabilities for operations against the US without air-to-*

8  
Top Secret

*air refueling. The Central Intelligence Agency and the Department of State estimate that it has marginal capabilities against the US under the same conditions. With air-to-air refueling, the Backfire would have considerably increased capability for intercontinental operations, even in the case of the lowest performance estimate. In addition, the Backfire could be modified in various ways to improve its range.*

*We believe it is likely that Backfires will continue to be assigned to theater and naval missions and—with the exception of DIA, ERDA, Army, and Air Force—we believe it is correspondingly unlikely that they will be assigned to intercontinental missions. If the Soviets decided to assign any substantial number of Backfires to missions against the US, they almost certainly would upgrade the performance of the aircraft or deploy a force of compatible new tankers for their support. The Defense Intelligence Agency, the Energy Research and Development Administration, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Assistant Chief of Staff, Intelligence, Department of the Air Force, believe the available evidence on Backfire employment indicates only that peripheral and naval attack are its current primary missions. Since the Soviets could use the Backfire's intercontinental capabilities at their initiative, these agencies believe that the Backfire clearly poses a threat to the US, even without the deployment of a compatible tanker force or the upgrading of the aircraft's performance. The Assistant Chief of Staff, Intelligence, Department of the Air Force, further believes that a portion of the Backfire force will have missions against the contiguous US.*

#### Defensive Capabilities

*The Soviets are continuing to improve their ballistic missile detection and tracking systems to close gaps in existing coverage, to make warning information more precise, and to provide additional warning time. We believe that two large phased-array radars now under construction in the northern USSR will be used for ballistic missile warning. Radars such as these, however, could also be given the capability for ABM battle management—that is, to provide tracking and prediction data to support ABM defenses. The Central Intelligence Agency and the Department of State, basing their judgment on analysis of the individual characteristics, locations, and orientation of these two radars and on the status of the Soviet ABM research and development program, believe that both radars are intended only for ballistic missile early warning. The Defense Intelligence Agency, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Assistant Chief of Staff, Intelligence, Department of the Air Force, however, believe*

9  
Top Secret



[REDACTED]

*the available evidence regarding these radars does not permit a confident judgment about whether they may also be intended for ABM battle management. Concern about the possible use of the large phased-array radars for ABM battle management would increase if the Soviets started to construct more such radars in locations appropriate for ABM support and if the Soviets pursued ABM research and development vigorously. The Department of State believes that the extent to which construction of additional such radars would be cause for concern would also depend on the assessment at the time of the likelihood of Soviet abrogation of the ABM Treaty. This assessment, in turn, would depend in large part on the extent to which the circumstances which led the Soviets to negotiate this treaty—and thus avoid an ABM competition with the US—had changed. The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes the two radars alone might be able to support significant deployment of ABM defenses in the western and central USSR.*

An ABM system which the Soviets have been developing since 1967 is more rapidly deployable than the current system at Moscow. The pace of flight testing has been slow over the past two years, but recently the interceptor missile was fired against a live target for the first time. With this interceptor, the system appears to have at best a limited capability. Recent construction at the test range suggests development of a high-acceleration interceptor, which could greatly enhance the system's capability. If development proceeds vigorously, the system could be ready for deployment in one to three years or so, depending on whether it includes the high-acceleration interceptor. This ABM research and development activity probably is a hedge against uncertainties about the future strategic situation. We believe it is highly unlikely that the Soviets now plan to deploy ABM defenses beyond Moscow.

The USSR will probably not have significantly better defenses against low-altitude air attack before 1980. For the period beyond that time, we estimate that:

- For defense against low-altitude bombers, improvements in Soviet air defenses will have the potential for overcoming many existing technical deficiencies by the mid-1980s. It might be possible for the Soviets to overcome these deficiencies somewhat earlier with a very high level of effort. If Soviet deployments are at the rates we think probable, bomber penetration of Soviet defenses would be considerably more difficult in the mid-1980s than it would be today.

- For defense against short-range attack missiles (SRAMs) in flight, one Soviet SAM system now under development might have some capability. While there are uncertainties about the characteristics of this system, we believe that, if it has any capability against SRAMs, engagements would be at short ranges with low reliability. We believe that the Soviets will not have an effective defense against the SRAM by the mid-1980s.
- For defense against low-altitude cruise missiles in flight, current Soviet low-altitude SAMs and future air defense systems would have some capabilities. Their effectiveness will depend on their specific characteristics, their numbers, and their deployment patterns. We are uncertain about the degree of protection that could be achieved against low-altitude cruise missiles in the mid-1980s, but we believe it would be low. *The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes, however, that the Soviet SAM system under development might have capabilities permitting deployment to provide some limited terminal defense against cruise missiles for approximately half the estimated target groupings in the USSR in the mid-1980s.*

The combination of US air attack forces will continue to be more difficult to defend against than any one of its elements alone. The air defense problems which the Soviets now face would be complicated even further by US deployment of advanced bombers and cruise missiles. US penetration tactics and the degradation of defenses by ballistic missile strikes would continue to weigh heavily against the overall effectiveness of Soviet air defenses. We cannot, however, assess the full effects of these and other operational factors.

Recent developments point to modest but steady improvement in Soviet ASW systems and continued growth in their numbers. The future effectiveness of Soviet defenses against SSBNs on patrol will depend in large part on how successful the Soviets are in detecting and tracking SSBNs at sea. Improved US SSBNs and greatly expanded SSBN operating areas will further compound the Soviet problem. From our understanding of the technologies involved and of the R&D programs in the US and the USSR, we believe that the Soviets have little potential for overcoming SSBN detection and tracking problems in broad ocean areas. This judgment must be qualified, however, because of gaps in our knowledge of some technical aspects of potential sensor developments. On the basis of evidence now available, we believe that Soviet capabilities against SSBNs in confined waters will improve during the period of this Estimate, but that Soviet ASW capabilities

11  
~~Top Secret~~

will fall short of being able to prevent most US SSBNs on station from launching their missiles.

Soviet civil defense preparations could have a significant impact on both Soviet and US assessments of the likely outcome of a nuclear conflict. The Soviets probably believe that civil defense measures contribute to giving the USSR a chance to survive as a national entity and to be in a better position than the US after a nuclear exchange. The priorities of the Soviet program evidently are: first, to assure the continuity of government by protecting the leadership; second, to provide for the continuity of important economic functions and the protection of essential workers; and, last, to protect the nonessential part of the population.

There are gaps in our knowledge of the civil defense program. Our tentative judgment is that, under optimum conditions which included an adequate period of warning and evacuation, Soviet civil defenses would assure survival of a large percentage of the leadership, reduce urban casualties to a small percentage, and give the Soviets a good chance of sustaining the population with essential supplies. With minimal warning, some key leaders would probably survive, but the urban population would suffer high casualties and the chances of adequately supplying survivors would be poor. The Soviets probably do not have a highly optimistic view about the effectiveness of their present civil defenses. Even under the most favorable conditions, they probably would expect a breakdown of the economy and, under the worst conditions, catastrophic human casualties as well.

Our evidence of Soviet civil defense preparation indicates a continuing, steady program rather than a crash effort. Because of the gaps in our knowledge, however, we cannot make a confident estimate of its pace and future effectiveness.

*The Department of State believes that the Soviet civil defense program is seen by the Soviet leadership primarily as a prudent hedge against the possibility of attack by a nuclear-armed adversary. The Department believes that these Soviet civil defense efforts will not materially increase Soviet willingness to risk a nuclear exchange and will not undermine the deterrent value of US strategic attack forces. It further believes that, at the present time, the scope of the civil defense program does not indicate Soviet strategic objectives beyond maintenance of rough equivalence with the US.*

*The Defense Intelligence Agency, the Energy Research and Development Administration, the Assistant Chief of Staff for Intelligence, Department of the Army, the Director of Naval Intelligence,*

12  
~~Top Secret~~

*[REDACTED]*  
Department of the Navy, and the Assistant Chief of Staff, Intelligence, Department of the Air Force, believe that the impact of Soviet war-survival efforts upon the US-USSR strategic balance is greater than can be inferred from the foregoing discussion of the Soviet civil defense program. In their view, the Soviets see their civil and passive defense program as an essential element in the achievement of the capability to wage intercontinental nuclear war, should one occur, and survive with resources sufficient to dominate the postwar period. These agencies believe that this program will have a definite and increasing impact on US-USSR strategic balance assessments in the years ahead. Further, they believe the Soviets will attempt to enhance their influence, particularly in the Third World and Europe, by capitalizing on real and perceived improvements in their war-waging capabilities. The Assistant Chief of Staff, Intelligence, Department of the Air Force, further believes that the strategic balance already has been altered in a major way by civil defense and other measures the Soviets have carried out thus far.

#### OTHER CONSIDERATIONS

Some of the Soviets' present programs reflect concerns that US programs would affect their own strategic position adversely. Examples are ICBM silo hardening and the deployment of long-range SLBMs. We are uncertain about the implications of others. The mobile IRBM and ICBM programs, for example, would enable the Soviets to place more of their missiles on launchers less vulnerable to attack. By their continuing efforts to improve ABM technology, the Soviets could put themselves in a position to deploy additional ABM defenses if the ABM Treaty were abrogated. Such programs probably represent Soviet hedges against future US threats as well as deterrents to US withdrawal from strategic arms limitation agreements. They could also represent efforts to give the Soviet leaders the future option to break out of such limitations if they concluded that the situation warranted.

A SALT TWO agreement based on the Vladivostok accord would confront the Soviets with difficult choices and trade-offs between new and existing systems within an aggregate ceiling on delivery vehicles. It would limit the more extreme possibilities for growth in Soviet missile throw weight and number of missile RVs. In the absence of a SALT TWO agreement, the Soviets would probably increase their intercontinental delivery forces moderately; it is possible that they would increase them considerably. They would not, however, expect quantitative competition alone to alter the strategic balance significantly. They have evidently come to recognize that the strategic environment in the

1980s will be most significantly affected by the quality of the forces deployed by the two sides. Their progress in this area will be largely independent of SALT TWO.

Soviet R&D programs are consistent with a desire both to avoid slipping behind the US and to gain the lead in the technology of strategic offensive and defensive forces, particularly if US programs falter. We continue to examine closely Soviet R&D programs and prospects for major advances that might seriously erode US deterrent capabilities. We give particular attention to R&D applicable to directed-energy weapons for use in air and missile defense and to the detection and tracking of US ballistic missile submarines. The Soviets are working actively in both fields, and there are gaps in our knowledge of this work. The available evidence, together with our appreciation of the physical, engineering, and operational hurdles which must be overcome, leads us to rate as small the chances that the Soviets can sharply alter the strategic balance through such technological advances in the next 10 years. But Soviet efforts in these fields merit very close watching.

*The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes that the Soviets are significantly ahead of the West in the technologies applicable to particle-beam-weapons research, and that the Soviets could be operating a prototype charged-particle-beam system by 1985.*

#### PROSPECTS FOR THE STRATEGIC ENVIRONMENT

The long time period of this Estimate and the gaps in our understanding and information about aspects of Soviet capabilities require that judgments about the future strategic environment be made with varying degrees of certainty. We conclude that:

- The strength of Soviet offensive forces for intercontinental attack will continue to increase. It may be at its greatest relative to US programed forces in the early 1980s. In subsequent years, some of the earlier Soviet gains will be eroded, assuming that US forces develop as now programed and Soviet forces continue to develop along present lines.
- Soviet ICBMs will pose an increasing threat to US missile silos, but Soviet forces will almost certainly remain unable to prevent most US alert bombers and SLBMs at sea from being launched. Soviet defenses will almost certainly remain penetrable by missile and bomber weapons.

14  
Top Secret

- Soviet forces will be able to inflict massive damage on the US in either initial or retaliatory attacks. It is extremely unlikely that Soviet forces will be able to prevent massive damage to the USSR from initial or retaliatory US attacks.
- There are critical uncertainties, however, about the degree to which the Soviets in the 1980s would be able to reduce human casualties and limit damage to those functions and facilities which the leadership would consider essential to the survival of their society.