



Director of
Central
Intelligence

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Soviet Capabilities for Strategic Nuclear Conflict, 1981-91

National Intelligence Estimate
Volume I—Key Judgments

CIA HISTORICAL REVIEW PROGRAM
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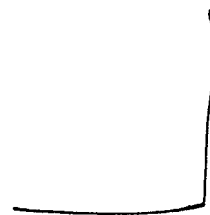
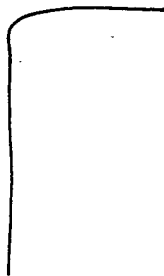
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NIE 11-3/8-81

SOVIET CAPABILITIES
FOR STRATEGIC NUCLEAR
CONFLICT, 1981-91

Volume I—KEY JUDGMENTS

Information available as of 31 December 1981 was
used in the preparation of this Estimate.

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THIS ESTIMATE IS ISSUED BY THE DIRECTOR OF CENTRAL INTELLIGENCE.

THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS, EXCEPT AS NOTED IN THE TEXT.

The following intelligence organizations participated in the preparation of the Estimate:

The Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, and the intelligence organization of the Department of State.

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

The Director of Intelligence, Headquarters, Marine Corps

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SCOPE NOTE

Like previous issuances in this series, this NIE 11-3/8 summarizes the latest developments and projects future trends in Soviet weapons and supporting systems for strategic nuclear conflict. Intercontinental attack force levels are projected with the assumption of an absence of arms control constraints. Unlike recent NIEs, it does not contain comparisons of present and future Soviet and US forces or measures of the destructive potential of the forces remaining to the two sides after a first strike. The war-fighting capabilities of Soviet strategic forces cannot be conveyed by simplified static and dynamic comparisons of Soviet and US intercontinental offensive forces. A joint assessment of Soviet and US capabilities for nuclear conflict is being prepared under the direction of the Secretary of Defense and the Director of Central Intelligence.

In this NIE we are focusing on the USSR's strategy, plans, operations, and capabilities for global nuclear conflict as probably perceived by Soviet leaders. We have emphasized Soviet views on the origin and nature of a US-Soviet nuclear conflict and how the Soviets would plan to operate and employ their forces during the various phases of such a war. There are, of course, major uncertainties about how well the USSR's present or future forces would be able to conduct a nuclear conflict according to Soviet strategy.

In evaluating their capabilities to accomplish strategic missions, the Soviets differ from us in terms of the operational factors they consider, the analytic techniques they use, and their criteria for success. They work toward achieving high probabilities of successfully accomplishing missions within specified periods of time, and thus on dominating events so as to control the course of conflict. In this Estimate we have assessed trends in Soviet capabilities in terms familiar to US policymakers and analysts, although these assessments do not necessarily correspond to those the Soviets would make. We do not know how the Soviets specifically would evaluate their capabilities, and have not determined how they measure their ability to accomplish strategic missions.

This Estimate is in three volumes:

- Volume I contains key judgments about Soviet programs and capabilities believed to be of greatest interest to policymakers and defense planners.

- Volume II contains:
 - Descriptions of Soviet programs for the development and deployment of strategic offensive and defensive forces and supporting systems.
 - Discussion of Soviet concepts and plans for the operations of strategic forces during the several phases of a global conflict.
 - Projections of future Soviet strategic forces.
 - Trends in the USSR's capabilities to carry out some missions of strategic forces envisioned by Soviet concepts and plans for nuclear conflict.
- Volume III contains annexes with detailed force projections and weapon characteristics.

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KEY JUDGMENTS

A. Recent Developments

1. The Soviets have achieved capabilities for intercontinental nuclear conflict that are widely recognized as at least equal to those of the United States. In 1981 the USSR further improved the striking power and survivability of its strategic intercontinental and intermediate-range nuclear offensive forces, made progress in overcoming some of the weaknesses of its strategic defenses, and improved its supporting command, control, and communications systems.

2. During the past year the most significant offensive force developments were:

- Continued deployment of accurate MIRVed ICBMs, MIRVed SLBMs, the mobile MIRVed SS-20 IRBM, and Backfire bombers.

[

]

- Preparations for flight-testing of small and medium-size solid-propellant ICBMs, and improved long-range liquid-propellant SLBMs.

- The beginning of sea trials for the first Typhoon SSBN.

- [] the flight test program of the MIRVed SS-NX-20 SLBM, including the first launch from the Typhoon submarine.

- Initial testing of a new long-range strategic bomber, similar in appearance to the US B-1.
- Tests of new small, long-range land-attack cruise missiles for sea and ground launch, with a range of at least 1,400 kilometers. The Soviets are also developing an air-launched long-range cruise missile.

3. In strategic defenses the most important developments were:

- Initial deployment of Modified Foxbat interceptors and continued deployment of SA-10 surface-

to-air missiles, with much better capabilities than older systems against low-altitude targets.

- Continued development of the IL-76 AWACS aircraft.

- Continued construction of silo launchers as part of a modernization program for Moscow's ballistic missile defenses.

4. Important developments in Soviet command, control, and communications included:

- Achievement of an operational launch detection satellite system providing nearly continuous coverage of US ICBM sites.

- Reorganization of the strategic bomber force, and of tactical and strategic air defense forces, facilitating their employment in theater operations.

[

]

B. Soviet Strategic Policies and Strategy

5. Soviet leaders view strategic arms policy in the context of a persistent, long-term struggle for expansion of Soviet influence and the Communist system. They recognize that military power is necessary to sustain the Communist regime and expand its influence in the world. It is the USSR's principal asset for competition in the global arena. The Soviets' ultimate objective is global political and military domination. They view the United States as the principal strategic threat, the greatest obstacle to their political-military activities and the achievement of their goals. US military power will continue to be the major external influence on Soviet weapons development and acquisition and on Soviet planning for strategic nuclear operations.

6. The Soviets believe that in the present US-Soviet strategic relationship each side possesses strategic nu-

clear capabilities that could devastate the other after absorbing an attack. Soviet leaders state that nuclear war with the United States would be a catastrophe that must be avoided if possible and that they do not regard such a conflict as inevitable. Nevertheless, they regard nuclear war as a continuing possibility and have not accepted mutual vulnerability as a desirable or permanent basis for the US-Soviet strategic relationship. They have been willing to negotiate restraints on force improvements and deployments, when it serves their interests. They prefer possession of superior capabilities to fight and win a nuclear war with the United States, and have been working to improve their chances of prevailing in such a conflict. A tenet in their strategic thinking appears to be that the better prepared the USSR is to fight in various contingencies, the more likely it is that potential enemies will be deterred from initiating attacks on the Soviet Union and its allies and will be hesitant to counter Soviet political and military actions.

7. Strategic nuclear forces support Soviet foreign policy aims by projecting an image of military strength sufficient to offset the strategic forces of potential opponents. Soviet leaders appreciate the political importance of world perceptions of military power and have long acknowledged the contribution of strategic forces to the USSR's superpower status. They view their current strategic position as supporting the conduct of an assertive foreign policy and the expansion of Soviet power and influence abroad.

C. Future Strategic Forces and Programs

8. Our projections of the Soviets' strategic offensive and defensive forces represent our estimates of the direction, scope, and pace of their development and deployment programs in the absence of arms control constraints. We have considered evidence on the Soviets' weapon system development process, R&D programs, and production capabilities. We have also considered various factors that influence the Soviets' future policies and force developments:

- Determination to improve all aspects of their strategic forces and supporting elements.
- Determination to prevent any erosion of the military gains they have made over the past decade.

- Efforts in any future arms control negotiations to protect the USSR's present and planned programs, probably along with concessions intended to circumscribe US and NATO force modernization options.

- Perceptions of the capabilities of other countries' nuclear forces and key weapon system programs.

9. So far the Soviets have continued to constrain their strategic force programs in accordance with the ABM Treaty, the SALT I Interim Agreement, and key provisions of the unratified SALT II Treaty, as they assess US intentions with regard to these agreements and the resumption of negotiations on limiting intercontinental-range systems. They maintain a vigorous military R&D and production base and continue to develop weapon systems of virtually every type, giving them an expanded number of options for deploying new and modified strategic offensive and defensive systems later in the 1980s. We currently are aware of some 30 new strategic systems—summarized in figure 1—that are in various stages of development.

Strategic Offensive Forces

10. Figure 2 illustrates the trends in Soviet intercontinental offensive nuclear forces that we project for the next 10 years in the absence of any arms limitation agreement. For the purpose of our force projections, we assume that the Soviets would begin to deviate from the SALT I Interim Agreement and key provisions of the unratified SALT II Treaty after mid-1982, first by retiring fewer older systems and later by increasing deployments of, and the number of reentry vehicles on, MIRVed ICBMs. The deviations would be relatively small until the mid-1980s. These assumptions are for the purpose of force projections only. Both the United States and the USSR have indicated a continuing commitment to the arms control process. The actual Soviet deployments could vary as a result of adherence to SALT limits beyond 1982, or to future arms control agreements.¹ Force 1 is consistent with the Soviets' ongoing efforts to modernize and augment their strategic forces; Force 2 is based on somewhat higher production and deployment levels, and a some-

¹ For a description of likely Soviet actions if the deployments stay within SALT limits, see volume II, chapter III, paragraph 36.

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Figure 1
Selected New and Modernized Soviet Strategic Systems
in Development and Testing*

(Not all systems will necessarily reach deployment.)

ICBMs, MR/IRBMs

New medium-size solid ICBM

Improved small solid ICBM

Improved SS-18

Improved SS-19

Strategic solid []

Strategic solid []

IRBM version of improved small solid ICBM

Experimental MaRV technology

SLBMs

SS-NX-20

Improved long-range liquid

Improved SS-NX-20

Second improved long-range liquid

Aerodynamic Systems

Long-range cruise missile-GLCM

Long-range cruise missile-SLCM (SS-NX-21)

Long-range cruise missile-ALCM

New strategic bomber []

Ballistic Missile Defense

SH-8

Flat Twin

Modified Galosh

Pushkino radar

Ground-based high-energy laser

Air Defense

SA-X-12 system

SU-27 interceptor []

MIG-29 interceptor []

Airborne warning and control aircraft-IL-76

Ground-based mobile short-range laser

Ground-based strategic laser

Space Systems

Launch detection satellites: Improved []

ASAT developmental orbital interceptor []

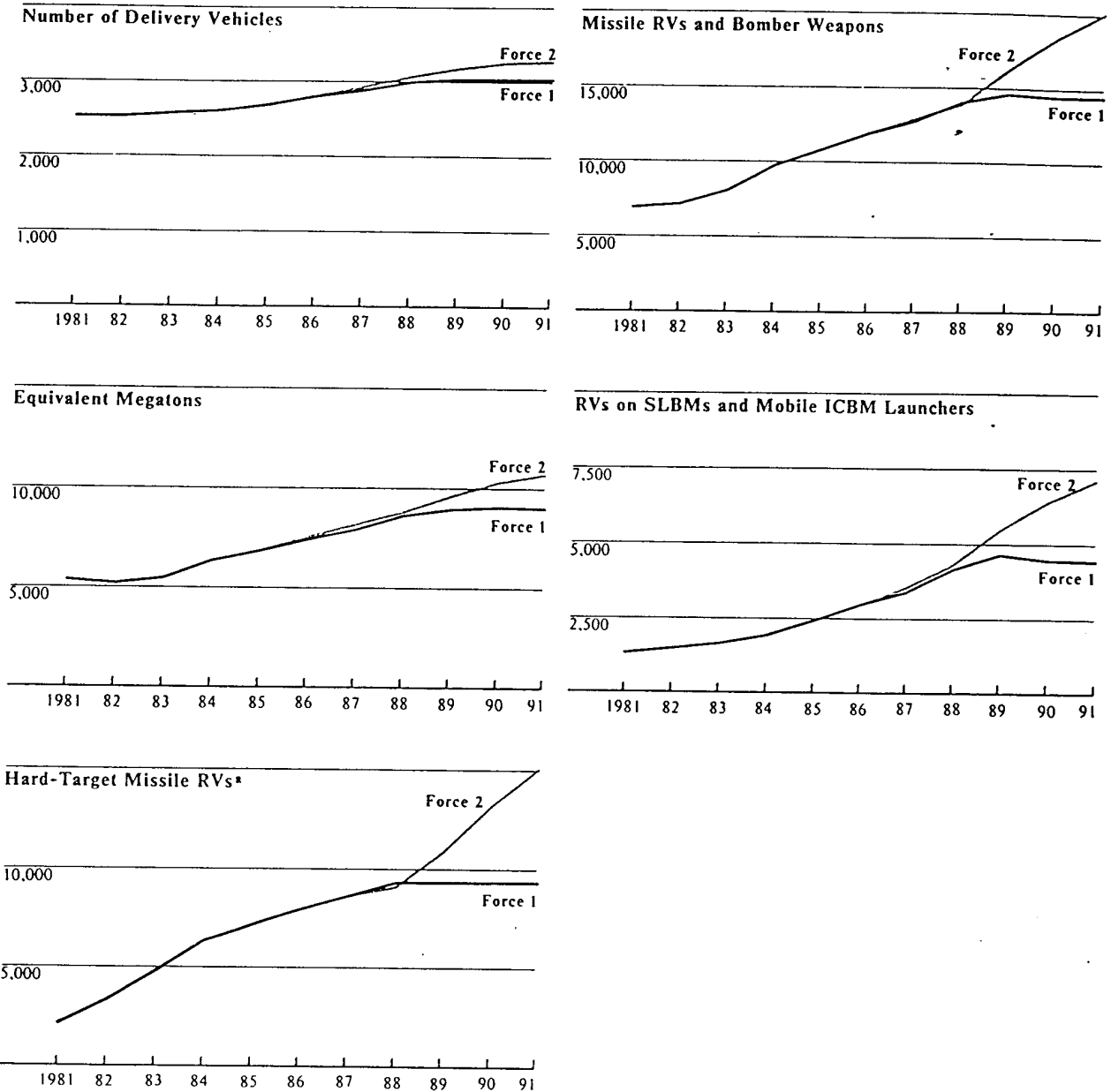
Space vehicle armed with short-range missiles^b

Space-based high-energy laser

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Figure 2

Projected Soviet Forces for Intercontinental Attack



^aFor the purpose of this Estimate, hard-target missile RVs are defined as those that have a 50-percent or greater probability of destroying a target hardened to 14 megapascals (2,000 pounds per square inch).

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what greater technological effort. The difference reflects our uncertainties about technological choices and deployment levels for some new systems, and our uncertainties about the Soviets' evaluations of their potential offensive force requirements. Force 2 is not a maximum effort, and is not the upper bound for either technological or production potential. Both projections should be regarded as plausible and achievable representations of future Soviet force postures. Under these projections for the 10-year period, as shown in figure 2:

- Strategic nuclear delivery vehicles increase by 20 percent under Force 1, and by 30 percent under Force 2.
- Missile RVs and bomber weapons increase by a factor of two to three.
- Equivalent megatons increase somewhat.
- Hard-target missile RVs, with a potentially high probability of destroying ICBM silos, increase substantially.
- Warheads on survivable SLBMs and mobile ICBMs increase by a factor of about three to five.

The USSR maintains additional ICBMs that could be used for refire operations in time of war, but we

do not include them in our intercontinental attack projections.*

11. Figure 3 illustrates the projected trends in Soviet peripheral attack forces—primarily SS-20s, bombers, and cruise missiles. The number of warheads increases significantly because of refire missiles for the SS-20.

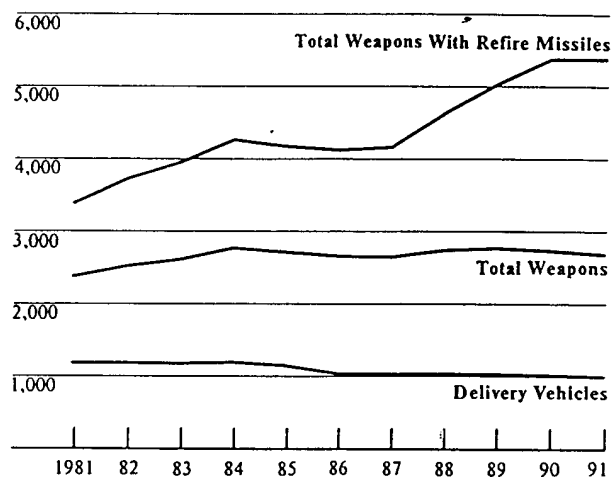
12. The most significant projected deployments in intercontinental and peripheral offensive forces, with their dates of initial operational capability shown in parentheses, include:

- A small mobile ICBM (1985).
- ICBMs with better accuracy and improved reliability (in both 1985 and 1989).
- A medium-size solid-propellant ICBM, for silo basing (1984) and perhaps for rail-mobile basing (1989).

* See paragraph 41 for an alternative view held by the Director, Bureau of Intelligence and Research, Department of State, on whether the Soviets maintain reserve ICBMs.

Figure 3

Projected Soviet Peripheral Attack Forces*



* Does not include Fencer aircraft recently resubordinated to strategic aviation or aircraft in Soviet Naval Aviation.

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- Improved SLBMs for deployment on D-class and Typhoon submarines (in both 1984 and 1988).
- A new long-range bomber (1986).
- New long-range cruise missiles for deployment on submarines, aircraft, and ground-based launchers (1984-85).

Strategic Defensive Forces

13. Projected defensive developments include:

- Extensive deployments of new low-altitude-capable fighters and SA-10 SAMs.
- Deployment of AWACS aircraft beginning in 1983.
- Upgrading and expansion of the ballistic missile defenses at Moscow, with potential for subsequent widespread, nationwide deployment.
- Advances in antisubmarine warfare technology.
- Continued progress in civil defense programs.
- Improved antisatellite capabilities.

- Advances in technologies applicable to ground, air, and space-based directed-energy weapons.

14. We expect the Soviets to improve the Moscow ABM system within the limits of the ABM Treaty by the mid-1980s by deploying a two-layer defense using silo-based long-range and short-range interceptors that have been undergoing testing. The Soviets apparently value the ABM Treaty for both political and military reasons; they are probably concerned about a major US commitment to ballistic missile defense. We do not foresee the Soviets' initiating the revision or abrogation of the ABM Treaty within at least the next several years. There are considerable uncertainties about what situation will prevail beyond the mid-1980s.

15. The Soviets for the past 10 years have been developing systems—target tracking and missile guidance radars, aboveground ABM launchers, and missiles suitable for intercepts within and outside the atmosphere—that would provide them the option for potentially rapid and widespread ABM deployment beyond the limits of the ABM Treaty. When fully developed, a system composed of these elements, using data provided by large battle management radars, would have the potential for one-on-one intercepts within the atmosphere of essentially all current types of US ICBM and SLBM reentry vehicles.

16. The available evidence does not indicate that the Soviets have already made the decision to deploy a nationwide ABM system. It does indicate that through their development and deployment efforts the Soviets are steadily improving their position to exercise options for potentially effective widespread ballistic missile defenses. Now, unlike 10 years ago when the ABM Treaty was signed, the Soviets have a much better capability for ABM deployments beyond the limits of the ABM Treaty. There is an alternative view that the Soviets always have had the motivation and now, because of developments during the past 10 years, have the technology to support deployment of more sophisticated ballistic missile defenses, both at Moscow and nationwide. The Soviet ABM activities seen to date could represent the first steps in such a nationwide deployment option.³

³ The holders of this view are the Director, Defense Intelligence Agency, and the Assistant Chief of Staff for Intelligence, Department of the Army.

17. We have considered three representative options for expanding ballistic missile defenses beyond the limits of the ABM Treaty:

- Option 1: An improved Moscow defense with some 500 launchers at 25 to 30 sites by the late 1980s or early 1990s.
- Option 2: A nationwide defense system of some 2,000 launchers at about 275 sites by the early-to-middle 1990s to protect key military (including some ICBM silos), command and control, government, and industrial targets.
- Option 3: A more dense defense of some 3,500 launchers at more than 500 sites by the mid-1990s.

18. There are different assessments of the Soviets' capability to deploy a nationwide ballistic missile defense. One major issue underlying the differences concerns whether they would deploy a widespread defense that would rely for battle management on the five large peripheral phased-array radars (one probably operational and four in various stages of construction), as the holders of one view believe⁴ or instead would require more suitable radars,⁵

as the holders of another view believe.⁶ The second major issue concerns Soviet manufacturing capabilities to produce ABM components for a nationwide deployment. One view holds that the Soviets could produce sufficient ABM components to build a maximum of about 50 ABM firing sites per year beginning in the mid-1980s. The holder of this view notes, however, that such a deployment program would require the construction of additional suitable radars, which would require about 12 years to complete and would be likely to interfere with other Soviet military programs that depend on advanced electronics components.⁶ Another view holds that deployment of 50 to 65 sites per year is feasible.⁷ A third

⁴ The holders of this view are the Director, Defense Intelligence Agency, and the Assistant Chief of Staff for Intelligence, Department of the Army.

⁵ The holders of this view are the Deputy Director for Intelligence, Central Intelligence Agency, and the Director, Bureau of Intelligence and Research, Department of State.

⁶ The holder of this view is the Deputy Director for Intelligence, Central Intelligence Agency.

⁷ The holder of this view is the Director, Defense Intelligence Agency.

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view holds that the Soviets can manufacture enough ABM components to support deployment of 100 sites per year.⁸

19. Should the Soviets decide to abrogate the ABM Treaty any time in the next 10 years, we believe that their decision would be based on the intention to initiate deployment of a nationwide system on the scale of Option 2. We do not foresee their doing so within at least the next several years. We are unable to judge the likelihood that the Soviets will choose to abrogate the ABM Treaty during the remainder of the period of this Estimate, in part because of differences in agency assessments of the capabilities of the ABM system the Soviets could deploy:

— One assessment is that the large peripheral phased-array radars being constructed and ABM components under development would be suitable for deployment of a nationwide ballistic missile defense system initiated during the 1980s.⁹

— Another assessment is that there are few incentives for the Soviets to abrogate the ABM Treaty. The holder of this view believes, however, that if the Treaty were abrogated by either side the Soviets' expansion of their ABM network would initially concentrate on improving the ballistic missile defenses around Moscow, where a large radar infrastructure exists. They might also deploy ABMs at selected ICBM fields and hardened command and control centers outside Moscow. The holder of this view believes that the Soviets would not deploy at great expense a nationwide ballistic missile defense along the lines of Options 2 or 3, which depends upon indefensible, peripheral radars and weapons design technology from the 1960s. Rather, the holder of this view believes that the deployment of an effective nationwide defense would require the construction in many areas of large new radars similar to the one under construction at Pushkino as well as a

⁸ The holder of this view is the Assistant Chief of Staff for Intelligence, Department of the Army.

⁹ The holders of this view are the Director, Defense Intelligence Agency, and the Assistant Chief of Staff for Intelligence, Department of the Army.

vigorous ABM development and production program, little of which is likely to be completed during the period of this Estimate.¹⁰

— A third assessment concludes that it is unlikely during the period of this Estimate that conditions will arise that would provide sufficient motivation for Soviet abrogation of the ABM Treaty. The holder of this view believes that the conditions that led to Soviet acceptance of the Treaty still pertain, including the perception of the potential for US technological and manufacturing capabilities to outstrip those of the USSR, and would be a restraining influence. The holder of this view believes, moreover, that for the reasons cited in the preceding assessment the Soviets would not be expected to initiate deployment of a widespread ABM system during this period.¹¹

20. We are uncertain about ballistic missile defense deployments the Soviets would undertake if the United States were to abrogate the ABM Treaty. We believe that initially, in addition to increases in offensive force deployments, the Soviets would pursue expanded defenses of Moscow, but that their damage-limiting objectives would inevitably lead them to deploy a nationwide ABM system on the scale of Option 2, based initially on the large peripheral phased-array radars being constructed and ABM components under development. They might not immediately begin such a nationwide deployment after abrogation, but rather would expand the Moscow defenses while assessing US intentions and their own options.¹²

Potential Technology Breakthroughs

21. Soviet efforts in two technology areas—non-acoustic sensors for ASW, and directed-energy weapons—could, if the Soviets succeed in a major break-

¹⁰ The holder of this view is the Deputy Director for Intelligence, Central Intelligence Agency.

¹¹ The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.

¹² For alternative views held by the Deputy Director for Intelligence, Central Intelligence Agency, and the Director, Bureau of Intelligence and Research, Department of State, on the ballistic missile defense deployments the Soviets would undertake if the ABM Treaty were abrogated, see paragraph 19.

through, have profound consequences. We have no basis for believing the Soviets will achieve major breakthroughs during the next 10 years, but they are intensively investigating these technologies and would place high priority on deploying any capabilities that might result from their research efforts.

22. The Soviets' R&D effort in the field of remote nonacoustic submarine detection is apparently aimed at developing airborne and eventually spaceborne systems that could have high search rates. This effort has been in the experimental stage since the late 1960s. We do not believe that they have made much progress or are close to a technical breakthrough. Our limited knowledge of the program's precise nature [

] impossible to predict with confidence what success the Soviets might have in the coming decade. Even if a breakthrough occurred in the next several years, we do not believe the Soviets could deploy an operational spaceborne or airborne system during the next 10 years.

23. Directed-energy weapons potentially could be developed for antisatellite applications, air defense, battlefield use, and, in the longer term, ballistic missile defense. Of the three types of directed-energy technologies with potential weapon applications—high-energy laser, particle beam, and radiofrequency—evidence is strongest that the Soviets are pursuing development of high-energy lasers. We do not understand the full scope, concepts of operation, and status of these efforts:

- The Soviets now have a ground-based laser that may be capable of an antisatellite (ASAT) role.
- We believe that a future ground-based laser ABM weapon, if feasible, is probably more than 10 years away.
- There has been evidence that the Soviets are working on a space-based laser weapon. They could launch a high-power prototype for ASAT applications by the late 1980s. A future space-based laser ABM weapon could conceivably be developed, but a prototype probably could not be tested during the period of this Estimate. Testing of technology and components of laser systems could take place on manned space stations and these could conceivably become operational elements of future space stations.

— Soviet particle beam weapon research might eventually have some antisatellite and ballistic missile defense applications, but the achievement of a prototype system for such uses would be at least 10 to 15 years in the future.

— We believe the Soviets have investigated the feasibility of radiofrequency weapons. There is some evidence of interest in ASAT applications, but only a moderate likelihood of any capability through the mid-1980s.

D. Operations of Soviet Strategic Forces in a Conflict

24. In this year's Estimate we have emphasized Soviet views on the probable nature and origins of a US-Soviet nuclear conflict and how the Soviets plan to operate and employ their forces during the various phases of a global war. [

] 25. We believe that a fundamental Soviet objective in acquiring and operating strategic forces is to assure a high probability of prevailing in a nuclear conflict, even if many important aspects of the conflict turn out worse than expected. To this end, training of Soviet forces for a global nuclear conflict is increasingly broad in scope and complex in the operational factors taken into account. In their military writings, the Soviets note that wars usually do not proceed according to prior expectations and planning. They almost

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certainly anticipate wide variations in circumstances and events. They recognize that numerous complications and degradations would affect planned operations, particularly in the unprecedentedly difficult nuclear environment. [

The inherent uncertainties of warfare cannot be eliminated through such practice, but the Soviets believe that their ability to continue to operate effectively in adverse conflict situations would be enhanced as a result of the experience gained [

26. With respect to the first sentence of paragraph 25, there is an alternative view that the concept of prevailing in nuclear war is recognized by the Soviets as so ridden with uncertainties and so general as to render it unrealistic as a driving principle behind specific force acquisitions and operations. Rather, as suggested elsewhere in the text, the Soviets apparently are working incrementally within budgetary, bureaucratic, and technological constraints to do the best they can at any particular time. They would, of course, hope to prevail should their forces be put to the test, but they are fully aware of the great uncertainties and catastrophic losses that would be incurred by all parties in a nuclear war.¹³

27. The Soviets' perceptions of the growing complexity of warfare have led them to plan for more varied contingencies and greater realism in combat training. Their military planners have developed a launch-on-tactical-warning option for land-based missiles. They have developed and are refining plans for conducting theater and intercontinental nuclear operations over an extended period, and for reconstituting a portion of their forces after nuclear strikes, to prepare for the eventuality of a conflict becoming protracted.

28. The Soviets operate the majority of their newer SSBNs, with long-range SLBMs, in waters contiguous to the USSR, where they can be more effectively controlled and can be protected by ASW forces. The Soviets have demonstrated the capability to operate D-class SSBNs for prolonged periods in the Arctic near or under the Polar icecap. An SSBN could patrol in

¹³ The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.

deep polar regions where it could surface through the ice to launch missiles or, more likely (at least in the near term), patrol along the edge of the icecap so that it could use the ice as protective cover from ASW detection and emerge into open water to launch missiles.

29. In recent years, the Soviets have made a great effort to increase the probability of maintaining continuity of control in a nuclear conflict, by providing for the survivability of their command, control, and communications system. In addition to hardening and redundancy measures, they have emphasized mobile command posts and supporting communications units deployed on aircraft, trains, vans, ships, and submarines. [

30. We have structured a composite scenario in the Estimate, summarized briefly below [

] we believe this composite picture captures essential Soviet military views on the operation of Soviet strategic forces and on the nature of a major US-Soviet confrontation that proceeds through intercontinental warfare.

31. The flow of events in an actual conflict would be likely to vary considerably from that presented here. Our presentation, therefore, should not be regarded as a Soviet prescription for nuclear conflict. The presentation does not preclude efforts by the Soviets to achieve political solutions at any stage, or to vary their military actions in response to circumstances. On the contrary, the Soviets evidently intend to prepare the military establishment to meet the contingencies of a long global conflict, to increase the options available to the political leadership at any point in such a conflict, and thus to increase their chances of controlling events and securing favorable conflict outcomes.

Crisis Period

32. The Soviets see little likelihood that the United States would initiate a surprise attack from a normal peacetime posture. We believe it is unlikely that the

Soviets would mount such an attack themselves. Rather, they evidently believe that, if a general nuclear war occurred, it would most likely result from the expansion of a major theater conflict, preceded by a political crisis period that could last several weeks or longer. During this crisis period the Soviets would heighten their surveillance of enemy activity, shift from a peacetime to a wartime posture, and employ concealment, deception, and disinformation to attempt to mask their preparations.

Conventional Phase

33. The Soviets perceive the conventional phase of a NATO-Warsaw Pact conflict as lasting from a few days to as long as several weeks, during which the Warsaw Pact would contain a NATO attack and then launch a counteroffensive deep into Western Europe. A key objective would be to weaken the enemy's theater-based nuclear capability.

Theater Nuclear Phase

34. The Soviets would prefer to achieve their theater objectives without using nuclear weapons. They apparently believe that a theater nuclear war would arise either when NATO used, or was preempted from using, nuclear weapons to avoid losing the conventional war, or, less likely, when the Warsaw Pact had to use nuclear weapons to halt a NATO breakthrough. In this phase the Soviets would use, in addition to tactical nuclear weapons, hundreds of peripheral and some intercontinental-range missiles and aircraft against NATO's forward-based nuclear forces and, if the conflict had spread to the Far East, against China. Their naval and air forces, using both nuclear and conventional weapons, would continue strikes against enemy naval strike forces.

35. We believe that, overall, the Soviets' losses in a large-scale theater conflict would not significantly degrade their intercontinental attack or strategic defensive capabilities. They could, however, lose some SSBNs to Western ASW forces, and some bombers in peripheral and naval strikes, and suffer degradation of capabilities for command, control, and communications and for tactical warning.

Intercontinental Nuclear Phase

36. From the Soviets' perspective, escalation to intercontinental nuclear war would not be necessary if

they could achieve their theater objectives without it. However, they view theater nuclear war as only an uncertain step away from intercontinental nuclear war. During a theater conflict the Soviets would try to acquire strategic warning of a US intercontinental strike by such means as intercepting communications to and from US nuclear commands and NATO forces. As the likelihood of an intercontinental nuclear conflict increased, Soviet leaders would face the difficult decision of whether to seize the initiative, as would be consistent with their general military doctrine, or to wait in the hope of averting massive nuclear strikes:

— They would be more likely to seize the initiative by launching intercontinental nuclear strikes if the war had already reached the level of theater nuclear conflict, than if it were still at the conventional level. The Soviets probably would not expect to be able to prevent a US nuclear retaliatory strike, however, and would consider the possibility that the United States would launch its forces on warning.

— The Soviets' recognition of the consequences of intercontinental nuclear conflict could give them incentives to await strategic warning. If they acquired convincing evidence that a US intercontinental strike was imminent, they would try to preempt. We are unable to judge what information would be sufficiently convincing to cause Soviet leaders to order a preemptive attack. They would be more likely to act on the basis of ambiguous evidence if a theater nuclear conflict were under way than during a crisis or a conventional conflict.

— For reasons such as the lack of convincing evidence from their strategic warning systems or fear of unnecessarily or mistakenly initiating intercontinental nuclear war, the Soviets might not mount a preemptive strike. Their launch-on-tactical-warning option would permit a larger and more coordinated counterattack than retaliation, while reducing the risk of unwarranted escalation.

— We believe the Soviets recognize the possibility that they might fail to get reliable tactical warning of an enemy intercontinental nuclear strike. They prepare for the possibility that they would be unable to act quickly enough to successfully launch a large number of missiles before an

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enemy strike occurred, and could retaliate only after absorbing an attack. Although retaliation would not support Soviet counterforce damage-limiting aims nearly so well as other attack options, it would give them time to assess the nature of the US attack and to decide upon an appropriate response.

- We have no indication that the Soviets would respond to a limited US nuclear attack on their homeland with anything other than a massive nuclear attack, but under actual combat conditions they conceivably could respond differently.

37. The objectives of a Soviet intercontinental nuclear attack would be to neutralize and offset US military operations and warmaking capabilities by:

- Destroying US-based nuclear forces and disrupting and destroying the supporting infrastructure and control systems for these forces.
- Isolating the United States from the theater campaign by attacking its power projection capabilities.

Depending on the circumstances, they might also attempt to reduce US industrial capacity to support military operations. Limiting the initial strikes to command, control, and communications targets, or to a portion of US strategic forces such as ICBM silos, is not consistent with the evidence.

38. Soviet large-scale intercontinental nuclear attacks would involve primarily ICBMs and SLBMs. Massive strikes probably would be delivered against worldwide US and allied military targets, as well as perhaps a more comprehensive set of political and industrial-economic facilities. Peripheral attack forces could launch coordinated strikes against remaining theater targets. We believe that the Soviets would conduct repeated attacks in an attempt to destroy, degrade, and disrupt the US capability to employ nuclear forces, and the reconstitution capabilities of US nuclear forces and their command and control.

- The Soviets have considerable flexibility in their employment of ICBMs for intercontinental attack. We believe they would not launch their ICBMs in a single massive strike.

It is less clear how the Soviets intend to use their SSBNs during intercontinental nuclear conflict. Some forward-deployed Y-class SSBNs would probably be used in an initial strike against time-urgent US command, control, and communications targets and bomber bases. Other submarines also might be employed in an initial attack, against targets in the United States and Eurasia. Some SSBNs in protected areas near the Soviet homeland probably would be withheld for potentially protracted nuclear operations.

Some strategic bombers may have a role in initial intercontinental nuclear strike operations, within hours after the initial missile strike. We believe it is likely that bombers would be used later, for postattack reconnaissance and strikes against surviving targets in the continental United States. There is an alternative view that Soviet long-range strategic bombers would have a role in initial intercontinental nuclear strike operations, within hours after the initial missile strike.¹⁴

39. Soviet strategic defensive operations in the intercontinental nuclear phase of a conflict would include:

- Ballistic missile defense operations to protect key targets in the Moscow area, by engaging enemy missiles until essential elements in the ABM system were destroyed or all available interceptors had been expended.

- Air defense in depth, to impose successive barriers to enemy penetration. The Soviets probably would have relocated some surface-to-air missiles to thwart defense suppression and avoidance tactics. They evidently plan to use nuclear-armed SAMs against penetrators.

They plan for the rapid restoration of damaged SAM sites, airfields, and command, control, and communications facilities.

¹⁴ The holder of this view is the Assistant Chief of Staff, Intelligence, Department of the Air Force.

- ASW operations to attempt to destroy enemy SSBNs.
- Attempts to interfere with and destroy US satellites, at the latest just prior to this phase of conflict.
- Full implementation of civil defense plans, initiated earlier. Most of the Soviet leaders would be in protective facilities from which they would direct emergency rescue and recovery operations by civilian units and civil defense military troop units. With a few days for preparations, the essential workers either would be in shelters at their place of work or, if off duty, would be dispersed to zones outside the cities. We believe the Soviets would attempt to evacuate most of the urban population.

Later Phases of a Nuclear Conflict

40. We have only limited insights into the Soviets' views of the nature and duration of the later phases of a nuclear conflict. They seem to expect that intercontinental nuclear forces would play a much-diminished role. Soviet operations in the Eurasian theaters would be conducted primarily by remaining general purpose forces supported by small Soviet strategic nuclear strikes. The Soviets plan to reconstitute some surviving general purpose and strategic forces and to secure their theater objectives—[] the occupation of substantial areas of Western Europe.

41. The Soviets prepare for combat operations that could extend weeks beyond the intercontinental nuclear phase. They would clearly prefer to accomplish their objectives quickly, but recognize that the later phases could be protracted, given the difficulty and complexity of conducting operations following massive nuclear strikes. The duration would depend on such factors as the capabilities of remaining theater forces, the status of surviving political leaders, the viability of command and control, and the conditions in the US and Soviet homelands.

— []

withhold [] We believe the Soviets would [] of their initial ICBM

force, and a small portion of the peripheral attack forces, for protracted operations, and would reconstitute additional missile forces using reserves. We believe these forces would be used against residual enemy conventional and nuclear forces and command and control, and perhaps key surviving elements of the economy supporting military operations. An alternative view holds that the evidence available is insufficient to support the judgment that the USSR maintains reserve missiles for its ICBM force beyond the numbers required for maintenance and training. This view further holds that, while the Soviets may be working toward a capability to reconstitute some silo-based ICBMs, the evidence is insufficient to support the view that the Soviets have contingency plans for using such weapons.¹⁴

- We have few details of Soviet planning for SSBN operations in a protracted conflict. We believe some submarines would be withheld, under naval force protection, for a reserve force role.
- We have little recent evidence on how the Soviets would employ their strategic bomber force. We believe bombers would conduct reconnaissance and strike operations against key surviving targets.
- Soviet air defense units plan to restore airfields for defensive operations. Fighters and SAM units would operate from alternate sites if necessary. Civil defense units would continue rescue and recovery operations and aid with the distribution of reserve supplies to the civilian population. The Soviets evidently expect that some economic restoration would be possible—even after absorbing multiple nuclear strikes.

42. The Soviets have plans to reconstitute strategic forces, but we are highly uncertain about their actual capabilities. Overall, we believe the Soviets could maintain the combat effectiveness of many of the surviving withheld weapons and would be able to reconstitute strategic forces to at least some extent with surviving reserve weapons and materiel, although damage to the logistic system and requirements for decontamination would stretch out the time required for reconstitution.

¹⁴ The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.

E. Trends in Soviet Capabilities To Perform Strategic Missions

43. During the next 10 years the primary wartime missions of Soviet strategic offensive and defensive forces will continue to be to:

- Destroy enemy nuclear delivery means.
- Neutralize enemy command, control, communications, warning, and other support systems.
- Destroy other military and nonmilitary targets.
- Assure the survivability of sufficient offensive forces and command and control capabilities to perform the missions envisioned by Soviet strategy.
- Defend the Soviet homeland against attacks by ballistic missiles, bombers, and cruise missiles.
- Protect the Soviet population and economy through civil defense.

Destroying Enemy Nuclear Delivery Means

44. *ICBMs.* The latest types of Soviet ICBMs have the potential to achieve a high probability of destroying a US ICBM silo. The Soviets have enough hard-target-capable ICBM RVs today to attack all US missile silos and launch control centers in a well-executed first strike. We project that, over the next 10 years, the USSR will have substantially larger numbers of hard-target-capable RVs and that the effectiveness of individual Soviet ICBMs against hardened targets will increase substantially. As shown in figure 4, in a well-executed strike Soviet ICBMs would have the potential—using two RVs against a Minuteman silo—to achieve a damage expectancy of about 75 to 80 percent today, and about 90 percent by the mid-1980s, although these percentages could vary substantially, as shown, because of our uncertainties about Soviet ICBM characteristics. (With one RV, the damage expectancy would be 50 to 60 percent today, and about 75 percent by the mid-1980s.) Improvements in the accuracy of Soviet ICBMs projected for the mid-to-late 1980s will give them a high probability of damaging silos hardened

Although the Soviets' hard-target capabilities will increase substantially, we believe that they will still be concerned that at least a portion of the US ICBM force could be launched while

Figure 4
Trends in Potential Effectiveness of Soviet MIRVed ICBMs Against a Minuteman Silo^a

under attack. Also, the Soviets could not optimize the timing of a coordinated attack by ICBMs against US missile silos and by forward-deployed SLBMs against US bomber bases and other time-urgent targets because of the difference in flight times of these Soviet weapons.

45. By the late 1980s the Soviets could develop the capability to use saturation tactics, penetration aids, or maneuvering reentry vehicles in an attempt to overcome a ballistic missile defense of US silos. The specific measures the Soviets would select, and their effectiveness, would depend on the type and characteristics of the US ABM system. Regardless of which Soviet measures were pursued, such a defense would compound the Soviets' difficulties in planning a counterforce attack and would increase their uncertainty about its success.

46. *Strategic Aircraft.* The Soviets would almost certainly try to attack US strategic aircraft on the

ground, but it is unlikely that they would be able to destroy most of the alert aircraft. We do not believe the Soviets will be able to develop the capability during the next 10 years to target and destroy, with strategic offensive weapons, US aircraft in flight.

47. *SSBNs.* The Soviets do not now have the capability to detect US SSBNs operating in open ocean areas except by chance, or to maintain contact with or trail them if a chance detection occurs. Overt trail by modern Soviet nuclear-powered attack submarines (SSNs) using active sonar is technically feasible if they establish contact, but would require greater numbers of modern SSNs than the Soviets have, and could be overcome by US countermeasures. Projected improvements in Soviet passive acoustic sensors, plus deployment of more ASW platforms, probably will enhance the Soviets' capabilities to detect and destroy US submarines operating in confined areas or close to the USSR but will not give them an effective broad-ocean detection capability or improve significantly their capability to trail US SSBNs. We do not believe the Soviets have made much progress or are close to a technological breakthrough in nonacoustic detection. The increased patrol areas of SSBNs carrying Trident SLBMs will more than offset Soviet ASW improvements. Thus, over the next decade the overall effectiveness of Soviet ASW against the US SSBN force probably will decline.

48. *Nuclear Forces in Eurasia.* We believe current and projected Soviet strategic forces for peripheral and intercontinental attack would be more than adequate in numbers and capabilities to attack nuclear forces in Europe and Asia in hardened and soft fixed facilities. We are not able to assess the Soviets' capability to locate and strike mobile missiles that have departed their fixed bases. Their targeting problems would be compounded severely by planned Western deployments of additional mobile systems—GLCM, Pershing II, and SLCM on SSNs—particularly those deployed beyond the range of Soviet tactical reconnaissance systems.

Neutralizing Enemy Command, Control, and Communications and Warning Capabilities and Other Support Systems

49. Throughout the next 10 years, the Soviets will have weapons of sufficient numbers and capabilities to give them high confidence, under any circumstances,

in their ability to destroy most fixed, land-based US nuclear support facilities, such as depots, nuclear storage sites, maintenance bases, airfields, and ports. They have the capability to destroy or interfere with most major elements of the US tactical warning and attack assessment system, shortly before or during a large-scale nuclear strike. Although the Soviets probably could substantially degrade US tactical warning systems, we do not believe they would be confident that such interference alone would prevent the launch of substantial numbers of US weapons.

50. We cannot assess the likely effects of a Soviet attack on the US command, control, and communications system. However, the Soviets' doctrine, and targeting strategy, and preoccupation with the survivability of their own command, control, and communications systems lead us to believe that they would devote substantial efforts to:

- Disconnecting and destroying the US National Command Authority, some operating alternates, and critical intermediate military control points.
- Delaying or preventing transmission of launch orders by disrupting the various communications paths with direct attacks, jamming, and electromagnetic interference, and by a well-coordinated, minimum warning attack on many control points and communications facilities.
- Preventing reconstitution of residual command, control, and communications capabilities through repeated attacks.

51. There are a number of factors that could reduce the Soviets' chances of severely degrading critical US command and control of nuclear forces:

- The Soviets' inability to use ballistic missiles to destroy US airborne command posts and other supporting aircraft in flight.
- The reduced vulnerability of US strategic command and control in a period of crisis or theater conflict, as a result of increased readiness and dispersal.
- Improvements to US command, control, and communications systems programed for this decade.
- Major uncertainties about the effects of electromagnetic pulse on electronic equipment.

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- Uncertainties about whether they have identified all the important fixed or mobile command, control, and communications facilities.

Destroying Other Military and Nonmilitary Targets

52. Today, following a Soviet attack on US-based strategic nuclear forces and supporting facilities, about 4,000 Soviet strategic intercontinental weapons would still be available for attacking other targets worldwide, if Soviet forces were fully generated and not degraded by enemy strikes. We believe that, with the force improvement programs under way, Soviet planners probably expect that the USSR will be able to maintain the capability to neutralize worldwide targets not associated with strategic nuclear forces, if the USSR were to initiate intercontinental strikes or launch on tactical warning. The increasing vulnerability of Soviet

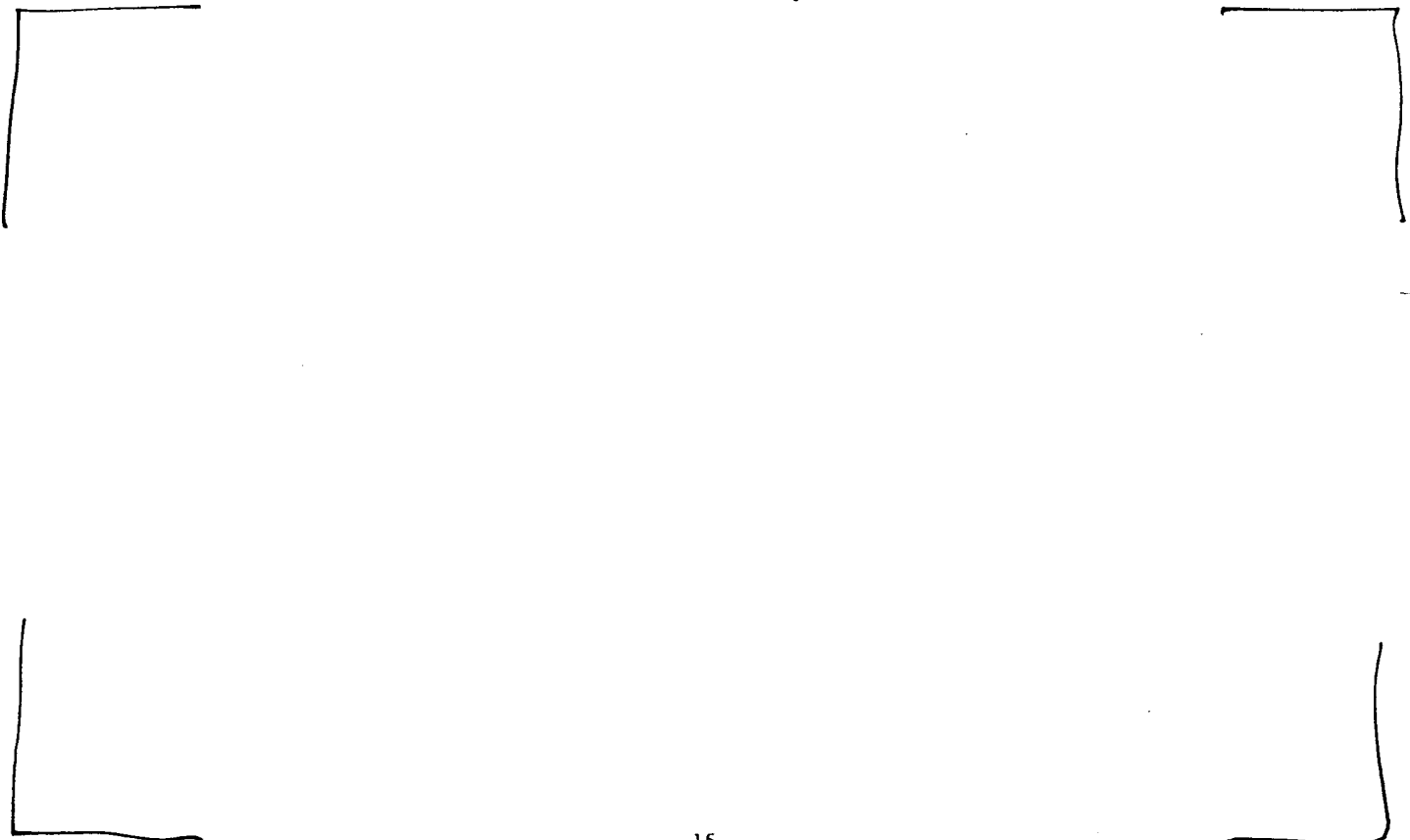
ICBM silos during the period of this Estimate, as the accuracy of US weapons improves, will present the Soviets with concerns for the adequacy of their capabilities in the event that they absorb a large-scale US strike. We believe the Soviets' efforts to expand the capabilities of their SLBM force and develop mobile ICBMs reflect their concerns.

Assuring the Survivability of Soviet Strategic Offensive Forces

53. *ICBMs.* We expect that silo-based ICBMs will continue to be the largest and most capable element of Soviet strategic offensive forces through the decade. As illustrated in figure 5, silos for the latest Soviet ICBMs, and their associated launch control facilities, would have a high probability of surviving an attack by current US offensive weapons, but US weapon systems in development would pose a considerably greater

Figure 5

Trends in Vulnerability of an SS-18 Silo to an Attack by US Missiles*



threat. Further silo hardening would result in only modest improvements to Soviet ICBM survivability. We expect the Soviets to:

- Continue to improve their capabilities to launch ICBMs on tactical warning. [

- Deploy a mobile MIRVed ICBM by the mid-1980s in a mode similar to that used with the SS-20 mobile IRBM, and perhaps a larger, more capable MIRVed ICBM in a rail-mobile mode by the late 1980s.
- Be capable of deploying a ballistic missile defense for selected ICBM complexes in the late 1980s.

54. *Bombers.* We cannot evaluate the survivability and operability of the USSR's strategic bomber force during the nuclear phases of a conflict. Important factors include the extent of bomber losses during the preceding phases of conflict, capabilities to disperse and maintain aircraft at untargeted locations, and capabilities for bomber force reconstitution.

55. *SSBNs.* [

[Soviet SSBNs at sea would be potentially vulnerable to ASW forces, primarily because of their relatively high noise levels. Typhoon-class submarines are expected to be quieter than the currently deployed SSBN classes, thereby increasing their ability to avoid detection by acoustic means. SSBNs with long-range SLBMs can remain in range of targets in the United States while operating in waters close to the USSR, exploiting ice cover and shallow ocean depths, and avoiding Western SOSUS arrays. The Soviets have committed a significant portion of their general purpose naval forces to protect their SSBNs in waters contiguous to the USSR. These practices increase the chances that Soviet SSBNs would survive a period of conventional conflict, be able to participate in an initial Soviet nuclear strike, and be available for use in protracted nuclear war.

Protecting the USSR With Strategic Defenses

56. The USSR deploys massive air defense forces, is improving its ballistic missile defenses at Moscow, and has an extensive civil defense program. Although we provide an assessment of the capabilities of these elements individually, we have not assessed the degree of overall protection, now or in the future, that would be afforded the USSR by the combination of its active and passive defenses.

57. *Ballistic Missile Defense.* The Moscow ABM system currently could effectively counter only an attack by a small number of RVs not accompanied by penetration aids. The projected upgrade of the Moscow defense system will improve the Soviets' ability to defend Moscow against a retaliatory attack by small numbers of current types of US RVs and against increasingly sophisticated third-country missile systems. In a large-scale attack, the projected 100 interceptors would quickly be exhausted, but they might be effective in preferentially defending selected targets in the Moscow area, such as national command and control facilities. The upgrade to the Moscow defenses is expected to provide the Soviets with a foundation for a more dense defense at Moscow beyond the limits of the ABM Treaty. With an expanded defense the Soviets could make targets around Moscow, especially command bunkers, less vulnerable to a substantial force of attacking RVs, with or without many types of penetration aids. The leakage likely in such an attack would cause severe damage to most of the above-ground, unhardened facilities in large areas around some of the targets, and some of the hardened target facilities as well.

58. If the Soviets were to deploy a nationwide ABM network, involving as many as 2,000 to 3,500 launchers as noted earlier (see paragraph 17), the potential impact on the US strategic missile force could be substantial. Even a US first strike could be degraded, perhaps to a significant degree. A US retaliatory strike in the face of such a defense could be degraded even more. Its effectiveness would depend on the vulnerabilities of key elements of the network and the potential of an attacking force to exploit them. We are highly uncertain about the overall potential effectiveness of a nationwide ABM system—its ability to limit overall damage and to protect key military functions. It would be more effective against SLBMs than against ICBMs, but less effective if US countermeasures, such

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as decoys or maneuvering RVs, were successful. In any case, widespread Soviet deployment of an ABM system, even if it technically could be overcome by an attacking force, could greatly complicate US attack planning and create major uncertainties about the potential effectiveness of a US strike.

59. *Air Defense.* The present Soviet air defense system, undegraded by a large-scale ballistic missile attack or highly effective ECM, probably would perform well against aircraft at altitudes above about 500 meters, although it does not have the capability to conduct intercepts much beyond the Soviet borders. We are uncertain of the extent to which its performance would be degraded by defense suppression. The current Soviet air defense system would be relatively ineffective against a low-altitude attack. It could, however, have a higher probability of intercepting low-altitude aircraft in areas where radar coverage is dense and there is a high concentration of ground-based terminal defenses, unless the attacker used standoff missiles or effective countermeasures and tactics.

60. The Soviet air defense system from the mid-1980s on will be qualitatively different from the current system. The Soviets will have deployed a variety of new systems in large numbers that possess the technical capabilities to defend against at least some types of low-altitude targets. We cannot assess with confidence the overall capabilities of these defenses.

61. Any judgment about the overall effectiveness of the future Soviet air defense system against an attack by bombers and cruise missiles is thus subject to considerable uncertainty. Penetration of improved Soviet air defenses by currently deployed bombers will be more difficult. These defenses, however, would be considerably less effective against US cruise missiles. Our judgment is that against a combined attack of penetrating bombers, SRAMs, and cruise missiles, Soviet air defenses during the next 10 years probably will not be capable of inflicting sufficient losses to prevent large-scale damage to the USSR. We believe, however, that the Soviets will be able to provide an increasingly effective air defense for many key leadership, control, and military and industrial installations essential to wartime operations. There is an additional view that the relative improvements in effectiveness can be estimated only against currently deployed aerodynamic systems.

The relative effectiveness of future Soviet defenses against these systems is likely to be diminished by US improvements.¹⁷

62. There is an alternative view that this Estimate substantially understates the capability of the Soviet air defense system to defend key target areas against low-altitude penetrators. According to this view, defense effectiveness in these areas could be high today against bombers. The holder of this view believes that by 1985 the effectiveness in such areas would be significantly higher against a combined attack of penetrating bombers, SRAMs, and cruise missiles than the Estimate suggests.¹⁸

63. *Civil Defense.* We believe that, with as little as a few hours' warning, a large percentage of Soviet civilian leaders—party, government, and economic—would probably survive a large-scale US nuclear strike. A large-scale retaliatory nuclear attack directed against Soviet economic installations would cause se-

¹⁷ The holder of this view is the Assistant Chief of Staff, Intelligence, Department of the Air Force.

¹⁸ The holder of this view is the Assistant Chief of Staff for Intelligence, Department of the Army.

vere damage to the plant and equipment at the vast majority of these facilities. Timely implementation of sheltering and dispersal plans would provide effective protection for a large percentage of the essential work force at key facilities. Soviet population casualties would vary greatly, depending on the extent to which civil defense measures had been implemented. Improvements in Soviet civil defense preparations during the next 10 years would increase the likelihood that a large percentage of the leadership and essential work force would be able to survive a large-scale attack, but casualties among the general population would be at least comparable to those we would expect at present.

Survivability of Soviet Command and Control

64. We believe the Soviet command and control system for nuclear forces, even if directly attacked, can ensure transmission of launch instructions; however, retaliatory strikes could be delayed and not fully coordinated. Although US attacks could destroy many known fixed command, control, and communications facilities, elements of the political leadership and military commands probably would survive, and redundancy in Soviet strategic communications would prevent loss of any one channel from disabling the overall system.

65. The Soviets could experience difficulty, however, in maintaining the endurance and effectiveness of strategic command, control, and communications for weeks of continuing operations, particularly if subjected to US strikes. They would be relying on fewer—primarily mobile—command posts. The cumulative impact of residual nuclear effects could endanger command personnel and degrade communications systems. It is also unclear how effectively the Soviets could retarget and employ surviving or reconstituted weapons. We believe the Soviets might expect to lose most satellite reconnaissance and would thus rely primarily on long-range reconnaissance aircraft and signal intercept capabilities.

F. Concluding Observations

66. We do not know how the Soviets would assess their prospects for prevailing in a global nuclear conflict. Sizable forces on both sides would survive massive theater or intercontinental strikes:

- Soviet offensive forces will not be able to reliably target and destroy patrolling US SSBNs, alert

aircraft, aircraft in flight, or land-mobile missiles, particularly those beyond the range of tactical reconnaissance systems. We believe that, in a crisis or conflict, the Soviets would credit undegraded US warning and control systems with the ability to launch ICBMs on tactical warning.

- Soviet mobile missiles, perhaps dispersed aircraft, SSBNs patrolling in waters near the USSR, and, currently, most silo-based ICBMs, are highly survivable. We believe the Soviets can launch ICBMs on tactical warning, assuming their warning and control systems are undegraded.

Moreover, the Soviets are well aware of their inability to prevent massive damage to the USSR with their strategic defenses even with the improvements taking place in these forces. They also recognize that US strategic defenses, other than ASW, have very limited capabilities to prevent massive damage.

67. We believe that the Soviets' confidence in their capabilities for global conflict probably will be critically dependent on command and control considerations—the need for continuity in their own command and control capabilities, and their prospects for disrupting and destroying the ability of the United States and its allies to command and to operate their forces. The Soviets continue to make extensive efforts to improve all aspects of their command, control, and communications capabilities. We believe the Soviets would launch continuing attacks on US and allied strategic command, control, and communications to prevent or impair the coordination of retaliatory strikes, thereby easing the burden on Soviet strategic defenses, and impairing US and allied abilities to marshal military and civilian resources to reconstitute forces. We believe that planned US and NATO improvements in command, control, and communications will increase the Soviets' uncertainties about their capability to disrupt enemy force operations.

68. The Soviets are attempting to prepare their leaders and military forces for the possibility of having to fight a nuclear war, and are training to be able to maintain control over increasingly complex conflict situations. They are well aware that the course of a nuclear conflict will probably not go according to plans. But Soviet leaders have seriously addressed many of the problems of conducting military operations in nuclear war, improving their ability to deal with the many contingencies of such a conflict and

raising the probability of outcomes favorable to the USSR.

69. There is an alternative view that the final sentence of the concluding observations conflicts with the thrust of the other observations pertaining to Soviet increased uncertainties and vulnerabilities. However much the Soviets' serious addressing of operational problems may improve their military capabilities, the

uncertainties about the course of a conflict would preclude Soviet confidence as to its outcome. According to this view, it is apparent, moreover, that their recognition of the destructiveness of general nuclear war would lead Soviet leaders to conclude that there is no outcome that would be advantageous.¹⁹

¹⁹ The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.

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