

14 February 1964

DRAFT FOR REPRESENTATIVES CONSIDERATION

SUBJECT: IAP-64: Intelligence Assumptions for Planning -- Soviet Military Forces Through mid-1970

THE PROBLEM

To provide quantitative estimates and assumptions on the entire Soviet military establishment, including size and composition of major force components, numbers and characteristics of principal weapons and equipment, and manpower and costs, at mid-years through 1970.

**CIA HISTORICAL REVIEW PROGRAM
RELEASE IN FULL**

FOREWORD

1. This document has been prepared to meet the specific needs of the DOD for quantitative intelligence projections on the Soviet armed forces, for use in long-term US military planning. It is not intended to serve as a substitute for the continuing series of National Intelligence Estimates on the various aspects of Soviet military programs and capabilities. Rather, it is designed solely to achieve the following objectives:
 - a. For convenience of reference, to make available in a single, comprehensive document all the data on Soviet military forces likely to be required for long-term DOD planning.
 - b. For consistency with DOD planning and programming cycles, to present data by mid-years, for a period extending six years into the future.
 - c. For comparability with corresponding US and Western forces, to present the data in mission-oriented categories, as similar as possible to those employed in DOD planning.
 - d. For an understanding of the varying degrees of uncertainty with which the many intelligence projections are made, to employ numerical ranges, alternatives, or other indications of uncertainty as appropriate.

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Organization

2. The document is organized along lines which the intelligence community has for some years found useful for describing the main capabilities of the Soviet military forces. This organization places in the same component all elements of the Soviet military establishment which would perform a given mission in the event of general war, and it de-emphasizes their administrative subordination. Thus, for example, strategic attack forces include units and weapons which would be employed primarily to deliver nuclear attacks against key land targets in North America and Eurasia, even though the pertinent missiles are subordinate to the Soviet Strategic Rocket Forces, the bombers to Long Range Aviation, and the missile submarines to the Soviet Navy. This method of treating Soviet forces is basically the same as that now being used by DOD in US military planning, though there are differences in detail.

3. The document is divided into a summary (not included in this moskup) and seven major sections as follows:

- I. Strategic Attack Forces
- II. Air and Missile Defense Forces
- III. General Purpose Forces
- IV. Command, General Support, and R&D
- V. Nuclear Weapons Allocation
- VI. Military Manpower
- VII. Military Expenditures

Each of the sections on principal force components (Sections I-III) is introduced by a description of the subcomponents included, together with an indication of comparability to corresponding sections of the DOD Five-Year Force Structure and Financial Program. In general, each component and subcomponent is considered in three aspects: (a) strength by mid-year; (b) operational and supporting unit structures, including such factors as basing, equipment holdings, and manning; (c) characteristics and performance of

weapons and equipment. Each major section also includes a discussion of the advanced weapons and equipment which might become available to operational units during the period to mid-1970.

Treatment of Uncertainty

4. Uncertainty is a matter of judgment, rarely measurable with precision. It is axiomatic that as we project into the future, our uncertainty tends to increase, but in some cases we are as uncertain as to past and present as we are with respect to the future. Uncertainty often arises from inadequacies in available information, but often -- especially for the more distant future -- it arises from awareness that the actual size of a force component or availability of a type of weapon will depend upon the interplay of many factors not wholly foreseeable.

5. Future Soviet military forces will be affected by such things as the technical capabilities of the USSR to develop and deploy new weapons, rates of attrition and obsolescence of older weapons, and ratios of cost vs. effectiveness. These considerations are in turn influenced by the continuing Soviet evaluation of strategic needs and by the priorities attached to the various military and non-military claimants on national resources. In the broadest sense, the controlling factors for the long term are basically political, having to do with the Soviet leaders' objectives and tactics within the USSR, in the Communist world, and in the world at large. Although there is considerable momentum in a large military establishment, and weapon system lead-times are a matter of years, the size and composition of the Soviet forces in 1970 will depend to a degree on decisions not yet made.

6. In this situation, we have found it necessary to place some arbitrary limits on the range of uncertainty in preparing these quantitative projections. First, in addition to the obvious assumption that there will be no general nuclear war between now and 1970, we have also assumed that no major limited war (such as the Korean War) or major East-West crisis of long duration will ensue to affect Soviet military priorities or to cause unusual drains on materiel. Second, and conversely, we assume that no

~~TOP SECRET~~

major arms control agreements will be reached, though we also assume that such limited measures as the atmospheric nuclear test ban and the ban on orbiting nuclear weapons will remain in effect. Third, we assume no Soviet technological breakthrough in any area which would suddenly and radically alter the strategic situation. Finally, we have assumed a continuation of recent broad trends in Soviet and Western political and military policies and programs. This means, for example, that we take for granted such things as a buildup of US strategic forces as now programmed and a gradual strengthening of NATO's conventional capabilities in Europe, that we anticipate prolonged Sino-Soviet bitterness but no final and irrevocable break, and that we look for continued Soviet efforts to make more resources available to nonmilitary programs.

7. In dealing with specifics, we have made no attempt in this document to quantify uncertainty uniformly throughout. Wherever feasible, we have presented figures on force strengths in terms of ranges within which we believe the actual quantity will probably fall. This is a subjective measure, but insofar as possible we mean by it that we have good confidence -- on the order of 75 percent -- that the actual number will be within the range shown. We do not mean our ranges to be so wide as to encompass figures within which we believe the actual quantity will almost certainly fall (i.e., have on the order of 90 percent confidence). Neither do we mean to imply that any number within the range is more likely than any other number. In cases where single values are presented, we have sought to keep the number of significant figures consistent with the degree of confidence which we attach to the estimate. In a few instances where clear options seem open to the Soviets, we have presented alternatives. The same general approach is employed for weapon system performance and for the dates of weapon availability.

-4-
~~TOP SECRET~~

8. Many of the figures included in this document have already appeared in National Intelligence Estimates.* Our criterion for including a figure in an NIE has generally been that it reflects reasonably substantial analysis of reasonably substantial evidence. Though the evidence itself may have been direct or indirect, we have felt justified in putting the result forward as an estimate. This criterion still applies. To meet the DOD's needs, however, we have included in this document a number of figures which in our judgment do not meet this test. These we have termed assumptions, by which we mean quantitative values which we recommend be taken for granted for planning purposes as the best we can provide at this time, in the absence of reasonably substantial evidence and analysis. In our review of existing NIE's in preparing this document, we have in fact downgraded some items to this category. Assumptions are identified as such in the document.**

9. There is a final uncertainty which we have been unable to treat in this document. It seems highly unlikely that all the high sides of the quantitative ranges here presented will in fact prove to be the case at any given time. The same is true of all the low sides. Depending on such factors as the emphasis on the several components, on weapons and other elements within components, and on the total resources the USSR allocates to military programs, one or another combination of high and low side is likely to be the case. At present, the state of our information and analysis does not in our judgment warrant an attempt to derive any most likely composition of the Soviet military forces within the ranges given. Exploration of the implications of alternative combinations of Soviet forces and weapons is a continuing function of the CIA/DIA Joint Analysis Group.

*Some of the figures in the IAP are different from those in the most recent published NIE's. Any such changes reflect information or analysis subsequent to completion of the NIE.

**Contributors please identify those items which you recommend be considered by means of brackets []

Relevant Estimative Conclusions

10. A series of National Intelligence Estimates is available on the several major components of the Soviet military establishment and their capabilities. These estimates describe the information available to intelligence and provide background as to the nature of recent trends. They elaborate our judgments as to future trends, the reasoning behind these judgments, and the degree of confidence with which they are held. Finally, taking account of the strategic context, they evaluate the broad capabilities of the Soviet military forces at present and in the future. The present document should be used only in conjunction with these estimates.

11. The most recent issues of this continuing series of NIE's are:

NIE 11-4-63: Soviet Military Capabilities and Policies, 1962-1967, 22 March 1963, TOP SECRET (Limited Distribution)

NIE 11-8-63: Soviet Capabilities for Strategic Attack, 18 October 1963, TOP SECRET (Limited Distribution)

Restricted Data
Memorandum to Holders of NIE 11-3-62:
Soviet Bloc Air and Missile Defense Capabilities Through mid-1967, 20 November 1963, TOP SECRET, (Limited Distribution)

NIE 11-14-63: Capabilities of the Soviet General Purpose Forces, 1963-1969, 8 January 1964, SECRET

NIE 11-1-62: The Soviet Space Program, 5 December 1962, SECRET

NIE 11-9-63: Soviet Capabilities and Intentions to Orbit Nuclear Weapons, 15 July 1963, SECRET, Restricted Data

NIE 11-2-63: The Soviet Atomic Energy Program, 2 July 1963, TOP SECRET Restricted Data (Limited Distribution)

NIE 11-10-63: Soviet Capabilities and Intentions with Respect to Chemical Warfare, 27 December 1963, SECRET

DRAFT IAP-64

I. STRATEGIC ATTACK FORCES

Definition

1. We define the strategic attack forces of the USSR as basically consisting of those elements of the Soviet military establishment which employ medium and long-range, nuclear delivery systems, including ground-launched missiles with ranges of 600 n.m. or more, submarine-launched ballistic missiles, heavy and medium bombers and their associated air-to-surface missiles, and advanced delivery and supporting systems. Thus, we consider these forces to be largely composed of the forces of the Strategic Rocket Troops, Long Range Aviation and the ballistic missile portion of the Soviet submarine force. However, we also list Soviet cruise missile submarines which could be employed for nuclear delivery against land targets in addition to their primary mission of anti-ship attack.

2. The Soviet strategic attack forces, therefore, roughly equate to the DOD concept of the US strategic retaliatory forces. Although cruise missile submarines are listed for completeness, their cost and manpower are charged to the general purpose forces because of their primary mission.

Note to Contributors

3. This major section is divided into force subcomponents as follows: ICBMs and MRBMs/IRBMs; submarine missile systems; and bombers and their associated air-to-surface missiles and bombs. Each force subcomponent is considered in three aspects, in the following order --

~~TOP SECRET~~

- a. Numerical projection of the strength of the subcomponent by mid-years from mid-1961 through mid-1970;
- b. Description of unit structures, including basing, equipment holdings, and manning through the same time period;
- c. Characteristics and performance of weapon systems, including operational factors such as reliability, accuracy, and non-combat attrition through the same time period.

In addition, a subsection is included for discussion of possible advanced weapons systems which might appear in each of the force subcomponents before mid-1970 but which have not been estimated explicitly in existing NIE's. This subsection will include also a discussion of possible Soviet offensive uses of space.

4. The subsections on each force subcomponent will be introduced with language as to general trends drawn from the appropriate NIE, together with a statement of the additional assumptions, if any, underlying the data presented. Contributions should contain paragraph references to existing NIE's and explicit statements of any additional assumptions made in arriving at data contributed. As necessary, individual tables may also be introduced with such explanatory language. In contributing to tables, please use brackets [] to identify those figures you recommend be considered assumptions rather than estimates, as per the FOREWORD.

1-2
~~TOP SECRET~~

IA 1a.

SOVIET OPERATIONAL ICBM FORCES --
TOTAL STRENGTHS BY SYSTEM BY YEAR

	Mid-1961 (Lo/HI)	Mid-1962 (Lo/HI)	Mid-1963 (Lo/HI)	Mid-1964 (Lo/HI)	Mid-1965 (Lo/HI)	Mid-1966 (Lo/HI)	Mid-1967 (Lo/HI)	Mid-1968 (Lo/HI)	Mid-1969 (Lo/HI)	Mid-1970 (Lo/HI)
--	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------

ICBM Complexes

ICBM Systems

SS-6 Bns (Soft)

Launchers

Missiles 1/

Alm Points-

SS-7 Bns (Soft)

Launchers

Missiles

Alm Points

SS-7 Bns (Hard)

Launchers (silos)

Missiles

Alm Points

SS-7A Bns (Hard?) 2/

Launchers (silos?)

Missiles

Alm Points

SS-8 Bns (Soft)

Launchers

Missiles

Alm Points

~~T-O-P S-E-C-R-E-T~~

IA 1a. (contl.)

	Mid-1961 (Lo/H1)	Mid-1962 (Lo/H1)	Mid-1963 (Lo/H1)	Mid-1964 (Lo/H1)	Mid-1965 (Lo/H1)	Mid-1966 (Lo/H1)	Mid-1967 (Lo/H1)	Mid-1968 (Lo/H1)	Mid-1969 (Lo/H1)	Mid-1970 (Lo/H1)
--	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------

Total Numbers of
Units and Weapons

SS-8 Bns (Hard)
Launchers (silos)
Missiles
Aim Points

SS-VL Bns (Soft) ^{3/}
Launchers
Missiles
Aim Points

SS-Small Bns (Hard) ^{4/}
Launchers (silos)
Missiles
Aim Points

Deployed
Soft Launchers
Soft Aiming Points

Hard Launchers (silos)
Hard Aiming Points

Total Launchers
Total Aiming Points

Test Range

Soft Launchers
Hard Launchers
Aiming Points

GRAND TOTAL LAUNCHERS

IA 1a. (contl.)

Footnotes

- 1/ Indicate the criteria used to define an individual aiming point.
- 2/ Improved SS-7; see NIE 11-8-63.
- 3/ Very large ICBM; see NIE 11-8-63.
- 4/ Somewhat smaller ICBM; see NIE 11-8-63.

IA 1b

SOVIET ICBM INVENTORY BY YEAR 1/

- A. On-Launcher
- B. Refire
- C. Maintenance and pipeline

Type	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
SS-6																						
SS-6 (mod)																						
SS-7																						
SS-7A																						
SS-8																						
SS-VL																						
SS-Small																						

~~T-O-P S-E-C-R-E-T~~

~~T-O-P S-E-C-R-E-T~~

1/ In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate

IA 1c

SOVIET OPERATIONAL MRBM AND IRBM FORCES -- 1/
TOTAL STRENGTHS AND DEPLOYMENT BY SYSTEM BY YEAR 1/

	Mid- 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970
W										
S										
E										

- TOTAL NUMBERS OF UNITS AND WEAPONS
- MR/IRBM Corps/Armies
- MR/IRBM Divisions
- MR/IRBM Regiments
- SS-3 Battalions (soft)
 - Launchers 2
 - Missiles
 - Aim Points 3
- SS-4 Battalions (soft)
 - Launchers 2
 - Missiles
 - Aim Points
- SS-4 Battalions (hard)
 - Launchers (silos)
 - Missiles
 - Aim Points
- SS-5 Battalions (soft)
 - Launchers 2
 - Missiles
 - Aim Points
- SS-5 Battalions (hard)
 - Launchers (silos)
 - Missiles
 - Aim Points

SOVIET MRBM/IRBM MISSILE INVENTORY BY YEAR 1/

LA 1a

- A. On-Launcher
- B. Refire
- C. Maintenance, pipeline, training reserve

Type	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
	A B C	A B C	A B C	A B C	A B C	A B C	A B C	A B C	A B C	A B C
SS-3										
SS-4										
SS-5										
SS-Follow-on										
Total, all types										

1/ In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

IA 2a
SOVIET OPERATIONAL ICBM MRBM IRBM FORCES --
PERSONNEL AND MISSILES PER UNIT

ICBM/Units	Operational Personnel	Support Personnel	Total Personnel	Launchers	On-Launcher Missiles			Maintenance, Pipeline & Training Missiles	Total Missiles
					Refire Missiles	Refire Missiles	Refire Missiles		
SS-6 Bn (soft)									
SS-7 Bn (soft)									
SS-7A Bn (hard)									
SS-8 Bn (soft)									
SS-8 Bn (hard)									
SS-VL Bn (soft)									
SS-Small Bn (hard)									
ICBM Complex (not counted above)									
MRBM/IRBM Units									
SS-3 Bn (soft)									
SS-4 Bn (soft)									
SS-4 Bn (hard)									
SS-5 Bn (soft)									
SS-5 B (hard)									
SS-Follow-on Bn (hard)									
MRBM/IRBM Regiment (not counted above)									
MRBM/IRBM Division (not counted above)									

SOVIET ICBM/MRBM/IRBM SYSTEMS --
CHARACTERISTICS AND PERFORMANCE

IA 3a

MRBMS-IRBMS
SS-4 SS-5 SS-Follow-on SS-6 SS-7(s) SS-7(h) SS-7A SS-8(s) SS-9(h) SS-VL SS-8Small

ICBMS

IOC
Max. Range (NRE)

Guidance
CEP (n.m.) { Initial)
(Improved/year)

Nosecone Weight 1/
Nosecone Radar Cross Section 1/
Warhead Weight 1/
Cross Lift-Off Weight

Configuration

Propellant

Ready Missile Rate (Initial)
(Improved/year)

Reliability on Launcher (Initial)
(Improved/year)

Reliability in Flight (Initial)
(Improved/year)

Overall Reliability (Initial)
(Improved/year)

I-11

~~T-O-P S-E-C-R-E-T~~

IA 3e (contl.)

~~MREMS-IRBMS~~

~~SS-4 SS-5 SS-Follow-on SS-6 SS-7(s) SS-7(h) SS-7A SS-8(s) SS-8(h) SS-VL SS-Sna11~~

~~IOBMS~~

Percent of within 15 minutes
After Firing Time
Within 30 minutes
Within 60 minutes

Reaction time from Readiness
Condition 4.

- 3.
- 2.
- 1.

~~Hold time Condition 1~~

~~Refire time~~

~~Hardness of Hard Sites 1/~~

~~T-O-P~~

1/ Define terms and discuss margins of uncertainty.

SOVIET ICBM/MIRV/IRBM SYSTEMS: 1/7-3/
 ALTERNATIVE NUCLEAR WARHEADS 1/7-3/

WEAPON SYSTEM	Nosecone Weight 2/	Alternate 1 Desig. Yld. Date	Alternate 2 Desig. Yld. Date	Alternate 3 Design Yld. Date	Alternate 4 Desig. Yld. Date	Alternate 5 Desig. Yld. Date
ICBM's						
SS-6						
SS-7(s)						
SS-7(h)						
SS-7A						
SS-8(s)						
SS-8(h)						
SS-VL						
SS-Small						
<u>MIRV's and IRBM's</u>						
SS-4						
SS-5						
SS-Follow-on						

~~T-O-P S-E-C-R-E-T~~

- I 13 -
~~T-O-P S-E-C-R-E-T~~

- 1/ Missiles could be retrofitted with new warheads at the rate of ___% of the force per year beginning 1 July of year when warheads become available. New missiles entering inventory after new warheads become available would be fitted with the new warhead. For total numbers of warheads available through the period, see Section V.
- 2/ Decoys, jammers, other penetration aids and warhead shielding could be incorporated at any time at some sacrifice in nuclear warhead weight which could be carried within this total nosecone weight. Normal re-entry shielding is ordinarily about ___% of total nosecone weight.
- 3/ Contributors should select as many alternative warheads as necessary to give adequate treatment to each missile system

SOVIET OPERATIONAL BALLISTIC AND CRUISE MISSILE SUBMARINE FORCES --
STRENGTH AND DEPLOYMENT BY MODEL BY YEAR 1/

	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
	NF	PF	NF	PF	NF	PF	NF	PF	NF	PF
F GM Submarine Brigades										
H GM Subs-Ballistic 2/										
Z Conv. (diesel)										
G (diesel)										
TOTAL Diesel										
H (nuclear)										
SS-N-4 equipped										
SS-N-5 equipped										
Follow-on Nuclear										
TOTAL Nuclear										
GM Subs-Cruise 2/3/										
W Conv. (diesel)										
J (diesel)										
TOTAL Diesel										
TOTAL Nuclear --										
all E class										

(see footnotes on following page)

Footnotes

- 1/ There are submarine forces with all the Soviet fleets: Northern, Baltic, Black Sea, and Pacific. Except for one W-Conversion ship, however, all Soviet missile submarines are assigned to the Northern and Pacific Fleets; these are abbreviated NF and PF, respectively, in this table.
- 2/ The primary role of the Soviet cruise missile submarines is anti-shipping. However, they can be used for attack against land targets. These same submarines are listed also under Section III, Soviet General Purpose Forces (Naval) and are manned and costed in that section.
- 3/ If the Soviets establish a routine pattern of continuous patrolling of the coast of the continental US, a maximum of about % of the nuclear-power and % of the diesel-power missile submarines in the Pacific Fleet and about % of the nuclear-power and % of the diesel-power missile submarines in the Northern Fleet could be maintained on patrol stations within missile-launching range of CONUS targets. The submarines available for such patrols do not include W-Class ships which are limited in range to operations in the western Pacific and eastern Atlantic, respectively. See operational factors summarized in Table IB3a.
- 4/ In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

SOVIET NAVAL BALLISTIC MISSILE INVENTORY BY YEAR 1/ 2/

IB 1b

A. Aboard Ship;
B. Reserve.

Type	Mid-1961 A B	Mid-1962 A B	Mid-1963 A B	Mid-1964 A B	Mid-1965 A B	Mid-1966 A B	Mid-1967 A B	Mid-1968 A B	Mid-1969 A B	Mid-1970 A B
SS-N-4										
SS-N-5										
SS-N-Follow-on										

- 1/ For cruise missile inventories see table IIIC.1c.
- 2/ In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

SOVIET OPERATIONAL BALLISTIC AND CRUISE MISSILE SUBMARINE FORCES --
PERSONNEL AND GUIDED MISSILE INVENTORIES PER SHIP OR HIGHER COMMAND

IB2 a

	Personnel per		Guided Missiles per Ship or Unit				GM Subs. per Unit	Submarine Support Ships per Unit
	Ship or Unit Oper.	Sqpt. Total	SS-N-3	SS-N-4	SS-N-5	SS-N-X		
Z-Conv.			*	2	*	*	*	*
G			*	3		*	*	*
H			*	*		*	*	*
Follow-On W-Conv.			2 or 4	*	*	*	*	*
J			4	*	*	*	*	*
E			6	*	*	*	*	*
GM Sub. Brigade (personnel and GM not already counted) 1/								
Submarine Division (personnel and GM not already counted) 1/								
Fleet Sub. Force (personnel and GM not already counted) 1/								

1. Includes missiles aboard support ships or on shore that are intended for operational use.

IB 3. Soviet Ballistic and Cruise Missile Submarine Forces --
Characteristics and Performance

IB 3a. Nuclear and Diesel Missile Submarines

Basis: Pertinent portions of Table 6, Annex B,
NIE 11-14-63.

Add: additional footnote: "About ____%
of the Soviet missile submarine force is (estimated)
(assumed) to be operationally available (i.e., at sea or
in port for routine repairs and ready for deployment in
less than ____ days) at any time." Delete data on non-GM
subs. Add assumptions on J class and "H class successor."

Please contribute following new material, either as
additions to the table or as very brief text: probable
current and future reliability of Soviet nuclear submarines;
current noise levels of submerged Soviet submarines and
improvement versus time.

IB 3b. Cruise and Ballistic Missiles

Basis: Pertinent portions of Table 2, Annex B,
NIE 11-14-63 (cruise missile) and Table 2, NIE 11-8-63
(ballistic missiles). Add data on likely improvements in
characteristics and performance through mid-1970, including
reliability and accuracy. Add assumed data for SS-N-5.
Delete data on non-submarine GM's.

SOVIET NAVAL MISSILES -- ALTERNATIVE NUCLEAR WARHEADS 3/

IB 3 2

System	Alternate 1		Alternate 2		Alternate 3		Alternate 4		Alternate 5	
	Weight	Whd Yld Date	Whd Yld Date	Whd Yld Date	Whd Yld Date	Whd Yld Date	Whd Yld Date	Whd Yld Date		
SS-N-3										
SS-N-4										
SS-N-5										

- 1/ Existing missiles could be retrofitted with new warheads at the rate of _____% of the force per year beginning 1 July of year when warheads become available. We believe, however, that because of its primary anti-shiping role, the SS-N-3 is probably equipped with warheads in the low-kiloton range.
- 2/ Decoys, jammers, other penetration aids and warhead shielding could be incorporated at any time at some sacrifice in nuclear warhead within this total nosecone weight. For ballistic missiles, normal re-entry shielding is ordinarily about _____% of total nosecone weight.
- 3/ For total warheads available to these systems through the period, see Section V.
- 4/ Use JAEIC designations.

~~TOP SECRET~~

I-19
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IC 1a

SOVIET OPERATIONAL STRATEGIC BOMBER FORCES^{1/}
STRENGTHS BY TYPE BY YEAR

	Mid-1961 Lo/HI	Mid-1964 Lo/HI	Mid-1967 Lo/HI	Mid-1970 Lo/HI
--	-------------------	-------------------	-------------------	-------------------

Long Range Air Armies

LRA Divisions

Heavy Bomber Regmts

BEAR Regiments

AS-3 carrier

Bomb carrier

(Probe-equipped)

Total BEAR's

BISON Regiments

Bombers

Tankers

Total BISON's

Total HB Regmts

Total Heavy Bombers

Total over US^{2/}

Medium Bomber Regiments

BADGER Regiments

Bombers

Tankers

Total BADGER's

BLINDER Regiments

AS-4 carriers

Bomb carriers

(Probe-equipped)

Total BLINDER's

Total MB Regiments

Total Medium Bombers

Total over North America^{2/}

1/ (A footnote on employment of LRA aircraft for reconnaissance missions, trends in importance in this mission, likelihood of retaining weapons delivery capability, percentages by mission).

2/ See Tables of Performance and Characteristics and pertinent paragraphs in NIE 11-8-63.

SOVIET OPERATIONAL STRATEGIC BOMBER FORCES DEPLOYMENT BY TYPE BY YEAR 1/ 2/

NW	Mid-1964				NW	Mid-1967				NW	Mid-1970			
	Lo/H1	SW	FE	TO		Lo/H1	SW	FE	TO		Lo/H1	SW	FE	TO

- Long Range Air Armies
- LRA Divisions
- Heavy Bomber Regmts
- BEAR Regiments
- AS-3 carrier
- Bomb carrier
- (Probe-equipped)
- Total BEAR's
- BISON Regiments
- Bombers
- Tankers
- Total BISON's
- Total HB Regmts
- Total Heavy Bombers
- Total over US 3/
- Medium Bomber Regiments
- BADGER Regiments
- Bombers
- Tankers
- Total BADGER's
- ELINDER Regiments
- AS-4 carriers
- Bomb carriers
- (Probe-equipped)
- Total BLINDER's
- Total MB Regiments
- Total Medium Bombers
- Total over North America 3/

1/ (A footnote on employment of LRA aircraft for reconnaissance missions, trends in importance in this mission, likelihood of retaining weapons delivery capability, percentages by mission).

2/ The three LRA arm es are located one in north-west USSR, one south-west USSR, and the third east of the Urals. They are designated NW, SW, and FE in this table.

3/ See Tables of Performance Characteristics and pertinent paragraphs in NIE 11-8-63.

ELINDER
BOMBER
REGIMENT

IC 2a

SOVIET STRATEGIC BOMBER FORCES --
PERSONNEL AND EQUIPMENT PER UNIT

UNIT	Operational Personnel	Support Personnel	Total Personnel	Heavy Bombers	Medium Bombers	Support Aircraft	AS-3 Missiles	AS-4 Missiles
BEAR REGIMENT								
BISON REGIMENT								
BADGER REGIMENT								
BLINDER REGIMENT								
LRA DIVISION (Personnel aircraft, and missiles in addition to above)								
LRA ARMY (Personnel aircraft, and missiles in addition to above)								

1/ Consider the question of whether an aircraft reserve is being maintained, or will be in the future.

~~T-O-P S-E-C-R-E-T~~

~~T-O-P S-E-C-R-E-T~~

IC 3. Soviet strategic Bomber Forces -- Characteristics
and Performance

IC 3a. Heavy and Medium Bomber Weapon Systems

Basis: Table 5, NIE 11-8-63

- Add data for:
 - Gross Take-off Weight
 - Empty Weight
- Reconsider BADGER Performance
- Contribute data to indicate probable changes
(vs date) in performance, including:
 - System Reliability
 - Operational Attrition Rates

IC 3b. Air-to-Surface Missile Systems

Basis: Table 4, NIE 11-8-63

- Contribute data to indicate probable changes
(vs date) in performance, including:
 - Reliability on Launcher
 - Reliability in Flight
- Delete AS-1 and AS-2 data.

ID. Soviet Strategic Offensive Forces -- Possible Advanced Systems

This subsection will present a discussion of possible advanced weapons systems which might appear before mid-1970 in each of the force subcomponents -- ballistic missiles, submarine-missile systems, and bombers. Specific provision has been made in preceding sections for force numbers and characteristics of advanced systems explicitly estimated in existing NIE's; these will not be discussed here. This subsection will also include a discussion of possible Soviet offensive uses of space. Contributions should be as explicit as possible and should include quantitative assumptions as appropriate.

II. SOVIET AIR AND MISSILE DEFENSE FORCES

Definition

1. We define the air and missile defense forces of the USSR as basically consisting of those elements of the Soviet military establishment directly concerned with providing a defense of the homeland against long-range air and ballistic missile attacks. Thus, we consider these forces to be largely composed of the forces of PVO Strany (Anti-Air Defense of the Country) and such forces of PRO Strany (Anti-Rocket Defense of the Country) as may exist. However, we also list Soviet tactical aircraft, surface-to-air missile and AAA units which could be employed to assist the PVO in defending against air attack. We do not include those Soviet naval and air attack. We do not include those Soviet naval and air units which may be charged with attacking US aircraft carriers or ballistic missile submarines at sea, nor do we include Soviet naval coastal defense missile units and shipboard surface-to-air missile strengths.

2. The Soviet air and missile defense forces, therefore, roughly equate to the DOD concept of the US continental air and missile defense forces. Although tactical units which could assist in defense of the homeland are listed for completeness, their costs and manpower are charged to the general purpose forces to which they are organizationally subordinated.

Note to Contributors

3. This major section is divided into force subcomponents as follows: early-warning and ground-controlled-intercept radar; air defense control systems; interceptor aircraft and associated equipment; surface-to-air missiles; anti-aircraft artillery, and anti-missile defenses. Each force subcomponent is considered in three aspects, in the following order --

- a. Numerical projection of the strength of the subcomponent by mid-years from mid-1961 through mid-1970;
- b. Description of unit structures, including basing, equipment holdings, and manning through the same time period; and
- c. Characteristics and performances of weapon systems, including operational factors such as reliability, accuracy, and non-combat attrition through the same time period.

As a convenience, however, the inventories of all missiles and all nuclear warhead aspects of Soviet air and missile defenses have been combined in subsections following those on force subcomponents. Finally, a sub-section is included for discussion of possible advanced weapons systems which might appear in each of the force subcomponents before mid-1970 but which have not been estimated explicitly in existing NIE's.

4. The subsections on each force subcomponent will be introduced with language as to general trends drawn from the appropriate NIE, together with a statement of the additional assumptions, if any, underlying the data presented. Contributions should contain paragraph references to existing NIE's and explicit statements of any additional assumptions made in arriving at the data contributed. As necessary, individual tables may be introduced with such explanatory language. In contributing to tables, please use brackets [] to identify those figures you recommend be considered assumptions rather than estimates, as per the FOREWORD.

SOVIET
IIA. / Early Warning/Ground Controlled Intercept Radars

Notes to Contributors:

IIA1. Introductory Statement of Basic Trends and Assumptions

NIE References: NIE 11-3-62, paras. 45-51.

IIA2. Strength Projections

See Tables IIA2a and IIA2b, attached.

IIA3. Unit Structure and Manning

Provide a TO/E description of the basic unit concerned with the EW/GCI mission. Include data with regard to basing, equipment holdings, and number of personnel.

IIA4. Equipment Performance and Characteristics

Contributors are requested to review Table 5 of the Memorandum to Holders of NIE 11-3-62 for scope and content.

II A2a

SOVIET PRIMARY EARLY WARNING/GROUND CONTROLLED INTERCEPT RADARS --
NUMBERS BY TYPE BY YEAR

TYPE	Mid-1/ 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970
KNIFE REST A										
KNIFE REST B, C										
TOKEN										
BIG MESH/BIG BAR										
STRIKE OUT with ROCK CAKE										
BAR LOCK/CROSS OUT with STONE CAKE										
with SPONGE CAKE										
SPOON REST A										
PLAT FACE										
TAIL KING with SIDE NET										
OTHER (specify)										
TOTAL										

1. Use ranges or other indicators of uncertainty for each mid-year, as required.

II A2 b

SOVIET EARLY WARNING/GROUND CONTROLLED INTERCEPT RADARS --
DEPLOYMENT BY SITES BY AIR DEFENSE DISTRICTS

	Mid-3/ 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970

~~E-E-R-C-F-S~~
HEADQUARTERS UNITS

Air Defense Districts

Air Defense Zones

Air Defense Sectors

~~E-E-R-C-F-S~~
AIR DEFENSE DISTRICTS

Northern

Primary Sites 1/

Secondary Sites 2/

Leningrad

Primary Sites

Secondary Sites

Western

Primary Sites

Secondary Sites

MOSCOW

Primary Sites

Secondary Sites

Southwestern

Primary Sites

Secondary Sites

Baku

Primary Sites

Secondary Sites

II A 2 b (cont.)

	Mid- 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970
Sverdlovsk Primary Sites Secondary Sites										
Tashkent Primary Sites Secondary Sites										
Trans-Siberian Primary Sites Secondary Sites										
Far East Primary Sites Secondary Sites										
Soviet Forces, E. Eur. Primary Sites Secondary Sites										
TOTALS										

1. (Define a primary site).
2. (Define a secondary site).
3. Use ranges or other indicators of uncertainty for each mid-year, as appropriate.

SOVIET
II B. / Air Defense Control Systems

Notes to Contributors:

II B1. Introductory Statement of Basic Trends and Assumptions

NIE References: NIE 11-3-62, paras. 54-57.

II B2. Strength Projections

See Table II B2a, attached.

II B3. Unit Structure and Manning

Provide a TO/E description of the basic unit involved in the air defense control system. Include data with regard to basing, equipment holdings and number of personnel.

II B4. Equipment Performance and Characteristics

Contributors are requested to provide data in tabular form on the performance and characteristics of the key elements of the air defense control system as listed in Table II B2a, above. Consider such items as mode of transmission, speed of operation, target handling capability, effective operational coverage, etc.

II B2a.

SOVIET AIR DEFENSE CONTROL SYSTEMS--
DEPLOYMENT BY TYPE BY AIR DEFENSE DISTRICTS

	Mid-1/ 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970
<u>HEADQUARTERS UNITS</u>										
Air Defense Districts										
Air Defense Zones										
Air Defense Sectors										
<u>AIR DEFENSE DISTRICTS</u>										
SECRET										
Northern										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Leningrad										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Western										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Moscow										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Southwestern										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										

II B2a. (cont1.)

	Mid-1/ 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970
Baku										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Sverdlovsk										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Tashkent										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Trans-Siberian										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Far East										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
Soviet Forces, E. Eur										
Air Warn Cntrs										
Filter Centers										
Semi-auto Cntrl Gps										
TOTALS										

1. Use ranges or other indicators of uncertainty for each mid-year as appropriate.

~~T-O-P S-E-C-R-E-T~~

SOVIET
II C. / Interceptor Aircraft and Associated Equipment

Notes to Contributors:

II C1. Introductory Statement of Basic Trends and Assumptions

NIE References: NIE 11-3-62, paras. 36-43; Memorandum to Holders of NIE 11-3-62, paras. 12 and 13; and NIE 11-14-63, paras. 11, 12, 31, 32, 45, 46, 48, 82, 89 and 112.

II C2. Strength Projections

See Tables II C2a, II C2b, and II C2c, attached.

II C3. Unit Structure and Manning

Provide a TO/E description of the air defense and tactical air force regiments. Include data with regard to basing, equipment holdings and number of personnel. Pay particular attention to the number of interceptor aircraft per regiment. Consider the question of whether an aircraft reserve is being maintained, or will be in the future.

II C4. Equipment Performance and Characteristics

Contributors are requested to review Tables 2, 3 and 4 of the Memorandum to Holders of NIE 11-3-62 for scope and content.

Note that nuclear aspects are covered in Section II G.

II C2a.

SOVIET INTERCEPTOR AIRCRAFT -- STRENGTHS BY MODEL BY YEAR ^{1/}

MODEL	Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970		
	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	
<u>All-Weather</u>																					
<u>Newer</u>																					
FISHPOT B																					
FISHBED D																					
FLIPPER																					
FIDDLER																					
FIREBAR B																					
<u>Older</u>																					
FRESCO D, E																					
FARMER B, E																					
FLASHLIGHT A																					
<u>Clear-Air-Mass</u>																					
<u>Newer</u>																					
FISHBED C																					
FITTER																					
<u>Older</u>																					
PAGOT																					
FRESCO C																					
FARMER A,C,D																					
<u>TOTAL ALL ACFT.</u>																					

1. Please note that this table includes all Soviet Interceptor aircraft, some of which are assigned to air defense forces and the others to tactical aviation. For numbers assigned to each force, see subsequent tables.

II C2b.

SOVIET INTERCEPTOR AIRCRAFT ASSIGNED TO AIR DEFENSE OF THE HOMETLAND (PVO) --
DEPLOYMENT BY TYPE BY AIR DEFENSE DISTRICT BY YEAR

AIR DEFENSE UNITS

Regiments

AIR DEFENSE DISTRICTS

- 1- Northern
- 2- All-Weather Interceptors 1/1
- 3- Clear-Air-Mass Interceptors 1/1
- 4- Leningrad
- 5- All-Weather Interceptors 1/1
- 6- Clear-Air-Mass Interceptors 1/1
- 7- Western
- 8- All-Weather Interceptors 1/1
- 9- Clear-Air-Mass Interceptors 1/1
- 10- Moscow
- 11- All-Weather Interceptors 1/1
- 12- Clear-Air-Mass Interceptors 1/1
- 13- Southwestern
- 14- All-Weather Interceptors 1/1
- 15- Clear-Air-Mass Interceptors 1/1
- 16- Baku
- 17- All-Weather Interceptors 1/1
- 18- Clear-Air-Mass Interceptors 1/1

Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi				
Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970	

(See footnote on following page)

II 02b. (cont1)

	Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970		
	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	
Sverdlovsk																					
All-Weather Inteceptors ^{1/}																					
Clear-Air-Mass Inteceptors ^{1/}																					
Tashkent																					
All-Weather Inteceptors ^{1/}																					
Clear-Air-Mass Inteceptors ^{1/}																					
Trans-Siberian																					
All-Weather Inteceptors ^{1/}																					
Clear-Air-Mass Inteceptors ^{1/}																					
Far East																					
All-Weather Inteceptors ^{1/}																					
Clear-Air-Mass Inteceptors ^{1/}																					
TOTAL AIRCRAFT																					

Note: Contributors should specify which models are included in these categories

~~SECRET~~

~~SECRET~~

II C2c, cont.

North Caucasus
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Trans-Caucasus
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Volga
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Ural
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Turkestan
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Siberian
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Trans-Balkal
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Far East
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 Soviet Forces in E. Eur 1/
 All-Weather Inteceptors 1/
 Clear-Air-Mass Inteceptors 1/
 TOTAL AIRCRAFT

	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970

T-O-P S-E-C-R-E-T

1/
 Note: Contributors should specify which models are included in these categories.

SOVIET
II D. / Surface-to-Air Missiles

Notes to Contributors:

II D1. Introductory Statement of Basic Trends and Assumptions

NIE References: NIE 11-3-62, paras. 8-21; Memorandum to Holders of NIE 11-3-62, paras. 14-18; and NIE 11-14-63, paras. 48 and 112.

II D2. Strength Projections

See Table II D2a, attached

II D3. Unit Structure and Manning

Provide a TO/E description of a SAM regiment. Include data with regard to basing, equipment holdings and number of personnel. When describing the components of a SAM regiment, provide information as to the number of launchers, missiles, etc. per site.

II D4. Equipment Performance and Characteristics

Contributors are requested to review Table 1 of the Memorandum to Holders of NIE 11-3-62 for scope and content. Assumed characteristics and performance data should be provided for the SA-3 missile.

Note that nuclear aspects are covered in Section II G.

II D2a.

SOVIET SURFACE-TO-AIR MISSILE SITES --
DEPLOYMENT BY SYSTEM BY AIR DEFENSE DISTRICT BY YEAR

	Mid-2/ 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970

SAM UNITS

Regiments

AIR DEFENSE DISTRICTS

~~T
O
P
S
E
C
R
E
T~~

Northern
SA-2 Sites 1/
SA-3 Sites 1/
Leningrad 1/
SA-2 Sites 1/
SA-3 Sites 1/
Western
SA-2 Sites 1/
SA-3 Sites 1/
Moscow
SA-2 Sites 1/
SA-3 Sites 1/
SA-1 Sites
Southwestern
SA-2 Sites 1/
SA-3 Sites 1/
Baku
SA-2 Sites 1/
SA-3 Sites 1/

(See footnotes on following page)

II D2a. (cont'd.)

	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
Sverdlovsk 1/ SA-2 Sites 1/ SA-3 Sites 1/										
Tashkent SA-2 Sites 1/ SA-3 Sites 1/										
Trans-Siberian SA-2 Sites 1/ SA-3 Sites 1/										
Far East SA-2 Sites 1/ SA-3 Sites 1/										
Soviet Forces in E. Eur. SA-2 Sites 1/ SA-3 Sites 1/										
TOTALS										

- 1/ Contributors should indicate what percentage of the SAM sites is subordinate to the ground forces, rather than the air defense forces, and as such are costed under the general purpose forces.
- 2/ Use range or other indicators of uncertainty for each mid-year as appropriate.

SOVIET
II E. / Anti-Aircraft Artillery

Notes to Contributors:

II E1. Introductory Statement of Basic Trends and Assumptions

NIE References: NIE 11-3-62, para. 44.

II E2. Strength Projections

See Table II E2a, attached.

II E3. Unit Structure and Manning

Provide a TC/E description of an AAA regiment. Include data with regard to basing, equipment holdings and number of personnel.

II E4. Equipment Performance and Characteristics

Contributors are requested to review Table 6 of NIE 11-3-62 for scope and content.

II E2a.

SOVIET ANTI-AIRCRAFT ARTILLERY --
DEPLOYMENT BY TYPE BY AIR DEFENSE DISTRICT BY YEAR^{1/}

	Mid-2/ 1961	Mid- 1962	Mid- 1963	Mid- 1964	Mid- 1965	Mid- 1966	Mid- 1967	Mid- 1968	Mid- 1969	Mid- 1970

AAA UNITS
Brigade
Regiments

AIR DEFENSE DISTRICTS

- ~~H-14~~ Northern Heavy/Medium AAA Guns
- ~~H-14~~ Light AAA Guns
- ~~H-14~~ Leningrad Heavy/Medium AAA Guns
- ~~H-14~~ Light AAA Guns
- ~~H-14~~ Western Heavy/Medium AAA Guns
- ~~H-14~~ Light AAA Guns
- ~~H-14~~ Moscow Heavy/Medium AAA Guns
- ~~H-14~~ Light AAA Guns
- ~~H-14~~ Southwestern Heavy/Medium AAA Guns
- ~~H-14~~ Light AAA Guns
- ~~H-14~~ Baku Heavy/Medium AAA Guns
- ~~H-14~~ Light AAA Guns

(See footnote on following page)

II E2a. (contl.)

	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
Sverdlovsk Heavy/Medium AAA Guns Light AAA Guns										
Tashkent Heavy/Medium AAA Guns Light AAA Guns										
Trans-Siberian Heavy/Medium AAA Guns Light AAA Guns										
Far East Heavy/Medium AAA Guns Light AAA Guns										
Soviet Forces in E. Eur. Heavy/Medium AAA Guns Light AAA Guns										
TOTAL AAA GUNS										

~~T-O-P S-E-C-R-E-T~~

- 1/ Contributors should indicate what percentage of the AAA is subordinate to the ground forces, rather than air defense forces, and as such are coded under the general purpose forces.
- 2/ Use ranges or other indicators of uncertainty for each mid-year as appropriate.

SOVIET
II F. /Anti-Missile Defenses

Notes to Contributors:

II F1. Introductory Statement of Basic Trends and Assumptions

NIE References: NIE 11-3-62, paras. 22-32
and the Memorandum to Holders of NIE 11-3-62, paras. 1-10.

II F2. Strength Projections

See Table II F2a, attached.

II F3. Unit Structure and Manning

Contributors should provide as a supplement to Table II F2a, a description of the assumed Soviet concept of ABM defense, including the organizational structure it would involve and the equipment it would require. Alternative assumptions as to the number of areas defended at any given time should be made on the basis of at least two possibilities consistent with NIE 11-3-62: (a) a limited deployment program to include a few cities, and (b) a large-scale deployment program involving the defense of some 20-25 key cities.

II F4. Equipment Performance and Characteristics

See Table II F4a, attached.

Note that nuclear aspects are covered in Section II G.

II F2a.

SOVIET STRATEGIC ANTI-BALLISTIC MISSILE DEFENSES --
DEPLOYMENT BY AREA BY YEAR
ALTERNATIVE

	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
DEFENDED AREAS										
Leningrad										
Moscow										
Other Cities										
Population Over 1,000,000 (specify)										
Population over 500,000 (specify)										
Other Critical Areas ^{1/} (specify)										
TOTAL DEFENDED AREAS										

^{1/} May include key industrial facilities not in or near major cities and key military installations, such as atomic energy facilities, ICBM complexes, etc.

SOVIET ABM SYSTEMS -- ASSUMED CHARACTERISTICS AND PERFORMANCE

II F4a.

ABM-1

ABM-2(?)

ABM-3(?)

Acquisition

Distance/Time vs.
Atlas-Titan
Minuteman
Polaris

Target Track Capability

No. of Objects

Discrimination Capability^{1/}

Against Decoys
Exoatmospheric
Atmospheric
Against Multiple Warheads

Capability vs. Penetration
Techniques^{1/}

Against Chaff
Against Jamming
Precursor Bursts

Accuracy

CEP

(See footnote on following page)

II F4a. (cont.)

ABM-1

ABM-2(?)

ABM-3(?)

Intercept Altitude

Maximum
Minimum

Acceleration

Burnout Velocity

Aerodynamic Control

No1 of G's

Warhead Weight

Missile Weight

Launchers Per Firing Unit

Missiles Per Launcher

Hardness of Sites

1/ Note to Contributors: Judgments on these characteristics may be expressed in words, such as, excellent, very good, good, fair, poor, very poor, and none.

SOVIET AIR AND MISSILE DEFENSE MISSILE INVENTORIES^{1/}

II G

- A. On Launcher;
- B. Reserve in firing units;
- C. Reserve at higher echelon, pipeline and training.

Type	Mid-1961 A B C	Mid-1962 A B C	Mid-1963 A B C	Mid-1964 A B C	Mid-1965 A B C	Mid-1966 A B C	Mid-1967 A B C	Mid-1968 A B C	Mid-1969 A B C	Mid-1970 A B C
SA-1										
SA-2										
SA-3										
AA-4										
AA-5										
ABM-1										
ABM-2										
ABM-3										

1. In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

II H

SOVIET AIR AND MISSILE DEFENSE WEAPON SYSTEMS -- ALTERNATE NUCLEAR WARHEADS

ALTERNATE WARHEAD TYPES 1/

System	Warhead Weight	Alternate 1 (type/yard/year)	Alternate 2 (type/yard/year)	Alternate 3 (type/yard/year)	Alternate 4 (type/yard/year)	Alternate 5 (type/yard/year)
--------	----------------	---------------------------------	---------------------------------	---------------------------------	---------------------------------	---------------------------------

SA-1

SA-2

SA-3

AA-4

AA-5

ABM-1

ABM-2 (?)

ABM-3 (?)

1/ New warhead types could be introduced at a maximum rate of about % per year after initial availability. For total warhead availability to air defense missions through the period, see Section V on Alternative Nuclear Weapon Allocations.

~~T-O-P S-E-C-R-E-T~~

II I. Soviet Air and Missile Defense Forces -- Possible
Advanced Systems

This subsection will contain a discussion of possible advanced air and missile defense weapons and support systems that may become operational prior to mid-1970.

Particular attention should be given to advances previously referred to in existing NIE's but not explicitly estimated. Contributions should include assumed performance characteristics and dates of entry into operational units. Consideration should be given to possible advances in the following fields:

- a.) EW radars, particularly EW systems for the detection of ballistic missile attacks.
- b.) Electronic counter-measures.
- c.) Interceptor aircraft, air-to-air missiles and airborne radars.
- d.) Surface-to-air missile systems.
- e.) Space surveillance, satellite inspection and satellite interceptor systems.

SOVIET
III. / GENERAL PURPOSE FORCES

Definition

1. We define the general purpose forces of the USSR as basically comprising the following:
 - a. Theater forces, which include ground combat and tactical air forces plus their associated command, support and service elements;
 - b. Naval forces, which include the Soviet naval surface fleet, the submarine fleet except ballistic missile submarine forces, and the naval air forces;
 - c. Military airlift and sealift.
2. Thus, we consider these forces to be largely composed of the forces subordinated to Soviet Military Districts, Groups of Forces, Tactical Air Armies, Naval Fleets and Separate Flotillas, and Military Transport Aviation.
3. The Soviet general purpose forces, therefore, roughly equate to a combination of several DOD force concepts: General Purpose Forces -- Army, Navy, and Air Forces; and Airlift and Sealift Forces. An additional DOD Concept, General Purpose Forces -- Marine Corps, does not exist in the USSR. The small sealift capability subordinate to the Soviet Fleets is lumped with the rest of the naval surface forces in this document. Although the Soviets could augment their military sealift and airlift capabilities by drawing upon their merchant fleet and Civil Aviation, civil sea and air transport capabilities are not included in this document because they are not part of the Soviet military establishment.
4. Certain portions of the Soviet general purpose forces are listed in other sections of this document as well as this section. Cruise missile submarines are listed in the strategic

III-1

Attack forces section. Interceptor aircraft, surface-to-air missiles, and anti-aircraft artillery subordinate to the theater forces are listed in the air and missile defense forces section. Their listing in these other sections reflects their capability to perform strategic attack and defense missions, but because their primary missions and subordination are with general purpose forces, their costs and personnel are charged to the general purpose account.

Note to Contributors

5. This major section is divided into subsections on general purpose ground, air, and naval subcomponents. Each subcomponent is considered in three aspects, in the following order --

- a. Numerical projection of the strength of the subcomponent by mid-years from mid-1961 through mid-1970;
- b. Description of unit structures, including basing, equipment holdings, and manning through the same time period;
- c. Characteristics and performance of weapon systems, including operational factors such as reliability, accuracy, and non-combat attrition through the same time period.

In addition, a subsection is included for discussion of possible advanced weapons systems which might appear in each of the force subcomponents before mid-1970.

6. The subsections on each force subcomponent will be introduced with language as to general trends drawn from the appropriate NIE, together with a statement of the additional assumptions, if any, underlying the data presented. Contributions should contain paragraph references to existing NIE's and explicit statements of any additional assumptions made in arriving at data contributed. As necessary, individual tables may be introduced with such explanatory language. In contributing to tables, please use brackets [] to identify those figures you recommend be considered assumptions rather than estimates, as per the FOREWORD.

III A1

SOVIET THEATER FORCES -- NUMBER OF GROUND UNITS BY TYPE BY YEAR

Alternative A: 140 divisions in Oct 1963; 120 in mid-1970

Alternative B: 110 divisions in Oct 1963; in mid-1970, a number of divisions one-million man theater ground force

Units	Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
<u>Divisions</u>																					
Motorized Rifle																					
Category I																					
Category II																					
Category III																					
Tank																					
Category I																					
Category II																					
Category III																					
Airborne (Category I)																					
<u>Corps</u>																					
<u>Armies</u>																					
Combined-Arms																					
Tank																					
<u>Potential Fronts</u>																					

1. That number of military district and other headquarters assumed to be Fronts in time of war.

THEATER GROUND FORCE MISSILE INVENTORIES BY YEAR 1/

- A. On Launcher;
- B. Reserve in firing units;
- C. Reserve at higher units, pipeline, training.

~~TOP SECRET~~

Type	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
	A B C	A B C	A B C	A B C	A B C	A B C	A B C	A B C	A B C	A B C
SS-1a										
SS-1b										
SS-1c										
SS-2										
SS-Follow-on Tac										
SSC-1										
SSC-2										
PROG-1										
PROG-2										
PROG-3										
PROG-4										
SA-2										
SA-3										
ABM-Field										
ATGM-SNAPPER										
ATGM-SWATTER										

1/ In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

SOVIET THEATER FOR CE GROUND UNITS -- NUMBERS OF PERSONNEL AND EQUIPMENT PER UNIT

~~T-O-P S-E-C-R-E-T~~
 † III

Unit	Personnel Per Unit			Equipment Per Unit								
	Combat	Support	Service Support	Tanks	APC	Towed Arty	SP Arty	FROGS Missiles	Guided GM's	AT GM's	Total Track V.	Total Wheel V.
<u>Motorized Rifle Division</u>												
TOE Strength												
Actual, Category I												
Actual, Category II												
Actual, Category III												
<u>Tank Division</u>												
TOE Strength												
Actual, Category I												
Actual, Category II												
Actual, Category III												
<u>Airborne Division</u>												
TOE Strength												
Actual, Category I												
<u>Corps (Non-Divisional)</u>												
Typical Wartime												
Average Peacetime												
<u>Combined Arms Army (Non-Divisional)</u>												
Typical Wartime												
Average Peacetime												
<u>Tank Army (Non-Divisional)</u>												
Typical Wartime												
Average Peacetime												
<u>Front (Non-Divisional, Non-Army)</u>												
Typical Wartime												
Average Peacetime												

1
2
3
4
5
6
7
8
9
10
11
12

IIIA3. SOVIET TACTICAL MISSILES, TECHNICAL CHARACTERISTICS
AND PERFORMANCE

Basis: Table 1, Annex B, NIE 11-14-63

- Add data on anti-tank guided missiles and on any assumed improved missiles
- For all missiles, indicate likely improvements vs. time, particularly accuracy and reliability

III A4

SOVIET TACTICAL MISSILES -- ALTERNATIVE NUCLEAR AND CW WARHEADS^{1/}

	Alternate 1		Alternate 2		Alternate 3		Alternate 4	
	Type	Yield Date	Type	Yield Date	Type	Yield Date	Type	Yield Date
FROG 1								
FROG 2								
FROG 3								
FROG 4								
SS-1								
SS-1a, b								
SS-2								
SS-C-1								
SS-C-2								

1. For total availability of nuclear warheads for ground force missions through the period, see Section V.

~~TOP SECRET~~

IIIA5. SOVIET GROUND FORCE WEAPONS -- POSSIBLE ADVANCES TYPES

Note to contributors:

Discuss any possible new ground force weapons systems which might enter operational inventory by mid-1970, giving assumed characteristics, possible date of entry, and factors affecting rate of entry into operational units.

III-7

~~TOP SECRET~~

III B1

SOVIET GENERAL PURPOSE AVIATION -- NUMBERS OF COMBAT UNITS
AND AIRCRAFT BY MODEL BY YEAR

Alternative A: Lowside of Force, Table 7, Annex A, NIE 11-14-62
Alternative B: Highside of Force, Table 7, Annex A, NIE 11-14-62

	Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Tactical Air Armies																					
Fighter Corps																					
Fighter Divisions																					
Fighter Regiments																					
FAGOT																					
FRESCO																					
FARMER																					
FISHEED																					
FITTER																					
TF-1967																					
Fighter Recon Rgts																					
FAGOT																					
FLASHLIGHT																					
Light Bomber Division																					
Lt Bomber Rgts																					
BEAGLE																					
FIREBAR																					
Lt Embr Recon Rgts																					
BEAGLE																					
Division Avia. Sections																					
Lt. Helicopters 2/																					
Corps and Army																					
Aviation Sections																					
Lt. Helicopters 2/																					
FW LT Acft. 2/																					

1. Tactical Aviation transport units are included in Table III B1a. Consider the question of whether an aircraft reserve is being maintained, or will be in the future.

2. See Section III B3 for indication of models included in light aircraft categories.

III B1a

SOVIET GENERAL PURPOSE AVIATION -- NUMBERS OF AIRLIFT UNITS AND AIRCRAFT BY YEAR
(MILITARY TRANSPORT AVIATION)

Units	Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970		
	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	
Airborne Aviation Divs. ^{1/}																					
Airborne Aviation Regts.																					
TAC Avn. Trans. Division																					
Regts (Fixed-wing)																					
Regts (Helicopter)																					
Naval Avn. Trans. Regts.																					
LRAF Avn. Trans. Regts.																					
FVO Avn. Trans. Regts.																					
Special Mission Units																					
<u>Aircraft</u> ^{2/}																					
Total Light Transports																					
Total Med. Transports																					
Total Med. Helicopters																					
Total Heavy Helicopters																					

1. (Footnote indicating capability of this component in terms of airborne units which could be airlifted).
 2. See Sectj on III B3 for indication of aircraft models included in light, medium, and heavy categories.

III B2

SOVIET GENERAL PURPOSE AVIATION -- NUMBERS OF PERSONNEL AND EQUIPMENT PER UNIT

	Person Per Unit		Equipment Per Unit							
	Oper.	Sppt. Total	Light Bombers	Fighters	Cruise Missiles	Trainers	Transports Med. Lt.	Transports Lt. Hvy.	Helicopters Med. Lt.	Lt. FW Acft
Tactical Air Army ^{1/}										
Fighter Corps ^{1/}										
Division										
Ftr. Regt.										
Recon. Regt										
Light Bomber Division ^{1/}										
Embr. Regt										
Recon. Regt										
Transport Division ^{1/}										
Trans Regt.										
Helic. Regt.										
Div. Avn. Sec.										
Corps/Army Avn. Sec.										

1. Personnel and equipment listed for this unit are exclusive of those in subordinate echelons.

IIIB3. SOVIET GENERAL PURPOSE AVIATION CHARACTERISTICS AND PERFORMANCE OF AIRCRAFT

IIIB3a. Tactical Aircraft --

Basis: Table 3, Annex B, NIE 11-14-63

Review and indicate any likely improvements in performance and date thereof. Add data for TF-1967.

IIIB3b. Transport Aircraft --

Basis: Table 4, Annex B, NIE 11-14-63'

Review and indicate any likely improvements in performance and date thereof. Add data for fixed-wing light transports. Indicate light, medium, and heavy transports by name.

IIIB3c. Helicopters --

Basis: Table 5, Annex B, NIE 11-14-63

Review and indicate any likely improvements in performance and date thereof. Indicate light, medium, and heavy helicopters by name.

III B3c

SOVIET TACTICAL AIRCRAFT/ -- ALTERNATE NUCLEAR AND CW LOADINGS

Aircraft	Alternate 1			Alternate 2			Alternate 3			Alternate 4			Alternate 5		
	Wpns.	Yield	Total	Wpns.	Yield	Total	Wpns.	Yield	Total	Wpns.	Yield	Total	Wpns.	Yield	Total
FAGOT															
FRESCO															
FARMER															
FLASHLIGHT															
FISHBED															
FITTER															
FIREBAR															
BEAGLE															
TF-1967															

1. For total weapons availability in Tactical Aviation through the period, see Section V.
2. Give number of weapons per aircraft type. Identify nuclear weapons by type using JAEC designations.

~~T-O-P S-E-C-R-E-T~~

IIB4. SOVIET GENERAL PURPOSE AVIATION -- POSSIBLE
ADVANCED EQUIPMENT

(Note: Discuss any possible new tactical air weapons systems or aircraft (except TF-1967) which might become operational before mid-1970. Include transports and helicopters and other possible new non-combat aircraft. Give assumed characteristics, operational date, and/rate of entry into operational units). ^{factors affecting}

III-13

~~T-O-P S-E-C-R-E-T~~

III A2/III B2

SOVIET THEATER FORCES GEOGRAPHIC DISTRIBUTION
MID-1964, MID-1967, MID-1970

Notes:

1. This set of three tables is designed to take the totals of ground and air units and aircraft developed elsewhere in Section III and indicate their geographic distribution in mid-1964, mid-1967, and mid-1970. The alternates, A and B, are the same as those used in Tables III A1 and III B1.
2. The break-down of aircraft into old, current, and future models should be the same as in the footnotes to Table 7, Annex A, NIE 11-14-65.
3. The geographic areas are defined as follows:

Western USSR

Baltic MD
Belorussian MD
Carpathian MD
Moscow MD

Southwestern

Kiev MD
Odessa MD

Northwestern

Leningrad

Southern

North Caucasus MD
TransCaucasus MD
Turkestan MD

Central

Siberian MD
Ural MD
Volga MD

Far Eastern

Far East MD
Trans-Baikal MD

III A2/III B2

SOVIET THEATER FORCES -- GEOGRAPHIC DISTRIBUTION --

Aug-1964

Alternate A: 140 Ground Divisions; 3,300 Tactical Aircraft.
Alternate B: 110 Ground Divisions; 3,000 Tactical Aircraft

Ground and Air Units	GSF Germany		SGF Hungary		NGF Poland		West USSR		SW USSR		IM USSR		South USSR		Central USSR		FE USSR		Grand Total		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Divisions																					
Motorized Rifle																					
Category I																					
Category II																					
Category III																					
Tank																					
Category I																					
Category II																					
Category III																					
Airborne (Category I)																					
Corps																					
Armies																					
Combined Arms																					
Tank																					
Potential Front																					
Tactical Air Armies																					
Old Model Fighters																					
Old Model Lt. Bombrs.																					
Current Model Ftr.																					
Current Model Lt. Bombers																					
TF-1967																					

III A2/III B2

SOVIET THEATER FORCES -- GEOGRAPHIC DISTRIBUTION --
Mid-1970

Alternate A: 120 Ground Divisions; _____ Tactical Aircraft.
Alternate B: _____ Ground Divisions; _____ Tactical Aircraft.

Ground and Air Units	GSF Germany		SGF Hungary		MGF Poland		West USSR		SV USSR		NW USSR		South USSR		Central USSR		FE USSR		Grand Total		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
<u>Divisions</u>																					
Motorized Rifle																					
Category I																					
Category II																					
Category III																					
Tank																					
Category I																					
Category II																					
Category III																					
Airborne (Category I)																					
<u>Corps</u>																					
<u>Armies</u>																					
<u>Combined Arms</u>																					
Tank																					
<u>Potential Front</u>																					
<u>Tactical Air Armies</u>																					
<u>Old Model Fighters</u>																					
Old Model Lt. Embrs.																					
Current Model Ftrs.																					
TF-1967																					

III Clg.	TOTAL		BY TYPE BY YEAR									
	SHIPS --/STRENGTHS/ (EXCLUDING BALLISTIC MISSILE SUBMARINES)		Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
Units and Ships												
<u>Fleets</u>												
<u>Flotillas</u>												
Submarine Forces												
Divisions												
Brigades												
Nuclear-Propelled Ships												
Cruise Missile - E												
Torpedo Attack												
Old Model - N												
Future Model - ?												
Diesel-Propelled, First Line												
Cruise Missile												
Old Model - W-Conv.												
Current Model - J												
Long Range, Torpedo-Z, F												
Long Range, Torpedo-W, R												
Medium Range, Torp. - Q												
Short Range, Torp. - M												
Support Ships												
Second Line Subs (Diesel)												
Surface Forces												
Divisions												
Brigades												
Cruisers, First Line												
Missile Destroyers, First Line												
Other Destroyers, First Line												
Destroyer Escorts, First Line												
Guided Missile Patrol Craft												
Other Patrol Craft												
Support Ships												
Second Line Ships (all types)												
Amphibious Forces												
Landing Ships												
Landing Craft												

1/ In presenting mid-year figures, use ranges or other indicators

III Clb

TOTAL
SOVIET GENERAL PURPOSE NAVAL FORCES, AIR AND COASTAL DEFENSE ELEMENTS --/STRENGTHS BY TYPE BY YEAR

Units and Equipment	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
Naval Air Forces ^{4/}	5/									
<u>Naval Air Regiments</u>										
BADGER										
BADGER with AS-1										
BADGER with AS-2										
BLINDER										
BLINDER with AS-4										
<u>Other Air Elements</u>										
<u>Light Bomber Units</u>										
BRAGLE										
Patrol Units ^{1/}										
MADGE										
MALLOW										
MAIL										
Helicopter Units ^{1/}										
Medium Helicopters ^{2/}										
Light Helicopters ^{3/}										
<u>Coastal Defense Forces</u>										
<u>(Brigades)</u>										
Missile Sites										
Launchers										

1. Note: Differentiate between ASM and other aircraft, if possible, ² names, ³ names, categories.
2. See Section III B3 for indication of aircraft models included in light and medium categories.
3. Same as ^{2/}
4. Consider the question of whether an aircraft reserve is being maintained, or will be in the future.
5. In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

III C1c

SOVIET GENERAL PURPOSE NAVAL FORCES -- MISSILE INVENTORIES
(Excluding Ballistic Missiles)

A: Missiles aboard ship, in unit, or with aircraft.
B: Missiles in reserve.

Type	Mid-1961		Mid-1962		Mid-1963		Mid-1964		Mid-1965		Mid-1966		Mid-1967		Mid-1968		Mid-1969		Mid-1970		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
<u>Surface Ship Missiles</u>																					
SS-N-1																					
SS-N-2																					
SS-N-3																					
SA-N-1																					
<u>Submarine Missiles</u>																					
SS-N-6																					
<u>Coastal Defense Missiles</u>																					
SS-CD-1																					
<u>Air-To-Surface Missiles</u>																					
AS-1																					
AS-2																					
AS-4																					

I In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate.

SOVIET GENERAL PURPOSE NAVAL FORCES, SHIPS -- DEPLOYMENT/ (EXCLUDING BALLISTIC MISSILE SUBMARINES) 1/
BY TYPE BY YEAR

	Northern Fleet		Baltic Fleet		Black Sea Fleet		Pacific Fleet	
	Mid-1964	Mid-1970	Mid-1964	Mid-1967	Mid-1964	Mid-1967	Mid-1964	Mid-1970
Units and Ships								
<u>Fleets</u>								
<u>Flotillas</u>								
Submarine Forces								
Divisions								
Brigades								
Nuclear-Propelled Ships								
Cruise Missile - E								
Torpedo Attack								
Old Model - N								
Future Model - ?								
Diesel-Propelled, First Line								
C Cruise Missile								
q Old Model - W-Conv.								
Current Model - J								
Long Range, Torpedo-Z, F								
Long Range, Torpedo-W, R								
Medium Range, Torp. - Q								
Short Range, Torp. - M								
Support Ships								
Second Line Subs (Diesel)								
<u>Surface Forces</u>								
Divisions								
Brigades								
Cruisers, First Line								
Missile Destroyers, First Line								
Other Destroyers, First Line								
Destroyer Escorts, First Line								
Guided Missile Patrol Craft								
Other Patrol Craft								
Support Ships								
Second Line Ships (all types)								
<u>Amphibious Forces</u>								
Landing Ships								
Landing Craft								

1/In presenting mid-year figures, use ranges or other indicators of uncertainty as appropriate

III C2b.

SOVIET GENERAL PURPOSE NAVAL FORCES, AIR AND COASTAL DEFENSE ELEMENTS -- DEPLOYMENT BY TYPE BY YEAR 5/

Total Numbers of Units and Equipment	Northern Fleet		Baltic Fleet		Black Sea Fleet		Pacific Fleet	
	Mid-1964	Mid-1967	Mid-1964	Mid-1967	Mid-1964	Mid-1967	Mid-1964	Mid-1967
<u>Naval Air Forces 4/</u> <u>Naval Air Regiments</u> BADGER BADGER with AS-1 BADGER with AS-2 BLINDER BLINDER with AS-4 <u>Other Air Elements</u> <u>Light Bomber Units</u> BEAGLE Patrol Units 1/ MADGE MALLOV MAIL Helicopter Units 1/ 2/ Medium Helicopters 2/ Light Helicopters 3/								
<u>Coastal Defense Forces (Brigades)</u> Missile Sites Launchers								

1. Note: Differentiate between ASW and other aircraft, if possible.
2. See Section IIIB3 for indication of aircraft models included in light and medium categories.
3. Same as 2/
4. Consider the question of whether an aircraft reserve is being maintained, or will be in the future.
5. In presenting mid-year factors, use ranges or other indicators of uncertainty as appropriate.

IIIC3. SOVIET GENERAL PURPOSE NAVAL FORCES --
CHARACTERISTICS AND PERFORMANCE

IIIC3a. Submarines

Basis: Table 6, Annex B, NIE 11-14-63

Delete SSB data. Add assumed characteristics for J and N-Successor ships. Add characteristics for M. Review all characteristics and indicate possible improvements and date thereof. Add data on operating noise levels of submerged submarines and likely improvements vs time, and current and future reliability of Soviet nuclear submarines.

IIIC3b. Surface Ships

Basis: SIC Contribution to NIE 11-14-63

Review all characteristics and indicate possible improvements and dates thereof.

IIIC3c. Aircraft

Basis: Pertinent portions of following tables:

Table 5, NIE 11-8-63

Table 5, Annex B, NIE 11-14-63

Table 12, NIE 11-4-63

Delete non-naval aircraft types. Review all characteristics and indicate possible improvements and dates thereof, including non-combat attrition rates,

Review BADGER performance.

IIIC3d. Naval Missiles

Basis: Table 2, Annex B, NIE 11-14-63

Add data on naval ASM's from Table 4, NIE 11-8-63.

Review all characteristics and indicate possible

~~TOP SECRET~~

Improvements and dates thereof, including accuracy
and reliability.

IIIC3e. ASW

Review pertinent paragraphs of NIE 11-14-63. Please
contribute data or text on performance characteristics
of key ASW gear, ships, and weapons.

III-24

~~TOP SECRET~~

III C3f

SOVIET GENERAL PURPOSE NAVAL FORCES -- ALTERNATE NUCLEAR LOADINGS 1/

Weapon System	Alternate 1		Alternate 2		Alternate 3		Alternate 4		Alternate 5	
	Desig.	Yld Date	Desig.	Yld Date	Desig.	Yld Date	Desig.	Yld Date	Desig.	Yld Date
<u>Submarines</u>										
SS-N-33/ Nuclear Torpedo										
<u>Surface Ships</u>										
SS-N-1										
SS-N-2										
Mines										
Depth Charges										
Torpedoes										
<u>Aircraft</u>										
Bombs										
AS-1										
AS-2										
AS-4										
Mines										
<u>Coastal Defense</u>										
SS-CD-1										

1. For total weapons available for general purpose naval forces through the period, see Section V.
2. Use standard JAWC designators.
3. We believe that because of its primary anti-shiping role, SS-N-3 is probably equipped with warheads in the low kiloton range.

~~T-O-P S-E-C-R-E-T~~

IIIC4. SOVIET GENERAL PURPOSE NAVAL FORCES -- POSSIBLE
POSSIBLE ADVANCED WEAPONS
AND EQUIPMENT

(Note: Discuss any possible advanced weapons systems
which might become operational with the fleet by mid-1970
which have not been explicitly estimated in existing NIE's.
If possible, assume characteristics and performance,
factors affecting
operational date, and/rate of entry into operational units).

III-26

~~T-O-P S-E-C-R-E-T~~

IV. COMMAND, GENERAL SUPPORT, AND R&D

Definition

1. In addition to the strategic attack, air and missile defense, and general purpose forces, major portions of the Soviet military establishment perform other functions which we term military command, general support, and R&D. In general, the personnel and activities performing these functions comprise the following:

- a. Ministry of Defense staffs;
- b. Staffs and activities related to mobilization and induction, support of the reservist and retirement programs, and support of paramilitary and civil defense activities.
- c. Staffs of service schools and personnel in training at these schools, including those in preoperational flight training.
- d. Centrally - controlled supply, medical, transportation and signal troops.
- e. Military personnel and facilities engaged in research, development, test and evaluation.

2. Because no combat elements are involved, the IAP contains no detailed tables on Soviet military command, general support and R&D. However, the personnel and costs associated with these activities are listed separately in the sections on military manpower and military expenditures. The following DOD concepts are generally comparable: General Support, Retired Pay, Civil Defense, Reserve and National Guard Forces, and Research and Development.

3. In the IAP, the Soviet activities included in military R&D are much broader in scope than the US activities included in the comparable DOD concept, in that they include nuclear weapons development (the responsibility of the AEC in the US) and all space activities (many of which are NASA's responsibility in the US). The principal reason for this difference is that our information has thus far proved insufficient to provide any detailed breakdown of Soviet military military-related R&D programs, but there is in fact some evidence to suggest that in the USSR all these R&D activities are grouped together for budgeting purposes.

Note to Contributors

4. No contributions are necessary, but see tables calling for personnel figures in Section VI.

SOVIET
V. / NUCLEAR WEAPONS ALLOCATIONS

Note to Contributors

1. This major section will be divided into three major subsections. The first will present summary data on present and future Soviet fission and thermonuclear weapons through 1970, and will indicate which delivery systems they are likely to be associated with. Improvements in nuclear weapons should be limited to those which could be achieved without atmospheric testing (see the draft FOREWORD of the IAP).
2. The second subsection will summarize the quantities of fissionable materials available for weapons use in the USSR by mid-years through 1970. together with a statement of the margins of uncertainty in these quantitative projections.
3. The third subsection will comprise alternative allocations of nuclear weapons, among the major Soviet force components and subcomponents described in earlier sections of the IAP. We propose to consider three general alternatives as follows: (a) very heavy emphasis on nuclear weapons for strategic attack forces; (b) increased emphasis on nuclear weapons for air and missile defense forces, including requirements for an extensive ABM deployment program; (c) lesser emphasis on both the above forces and the consequent implications for general purpose forces.
4. JAEIC is requested to provide contributions to the first two subsections, and also to provide a contribution on the technical factors likely to influence the feasible rates of fabrication and stockpiling of nuclear weapons (e.g. times required to bring new weapons into stockpile, times required to achieve quantity production, problems associated with re-fabrication of nuclear materials from older weapons, etc.).
5. No contributions are required for the third subsection, which can be drafted by ONE on the basis of the JAEIC contribution and the contributions to earlier sections of the IAP. A sample

5. No contributions are required for the third subsection, which can be drafted by ONE on the basis of the JAEIC contribution and the contributions to earlier sections of the IAP. A sample of the proposed alternative allocations tables is included in the TR's.

VA 1. SOVIET NUCLEAR WEAPONS AND ASSOCIATE DELIVERY SYSTEMS

VA 1a. SOVIET FISSION WEAPONS

Basis: Table I. NIE 11-2-63. Review and up-date data.
Indicate possible changes through mid-1970
assuming continuance of current restrictions
on nuclear testing.

VA 1b. SOVIET THERMONUCLEAR WEAPONS

Basis: Table II NIE 11-2-63: Review and up-date data.
Indicate possible changes through mid-1970
assuming continuance of current restrictions
on nuclear testing.

VA 2a. NUCLEAR WARHEADS ASSOCIATED WITH SOVIET MISSILES

Basis: Table III, NIE 11-2-63. Review and up-date data.
Indicate possible changes through mid-1970.
Add data for "Follow-on ICBM's." "Follow-on
MRBM/IRBM's", SS-CD-1 (naval coastal defense),
SA-3, SA-N-1 (naval SAM), and ABM's.

VA 2b. NUCLEAR WARHEADS ASSOCIATED WITH
SELECTED SOVIET AIRCRAFT AND NAVAL DELIVERY SYSTEMS

Basis: A table with format similar to that of Table IV,
NIE 11-2-63, but summarizing all available weapons.
rather than merely those with maximum yields.
Indicate possible changes through mid-1970. Add
data for TF-1967, and for naval torpedoes, mines,
and depth-charges.

~~T-O-P S-E-C-R-E-T~~

V B SOVIET FISSIONABLE MATERIALS -- ESTIMATED CUMULATIVE
AVAILABILITY

Basis: Table VI, NIE 11-2-63. Review and up-date
estimated data. Extend through mid-1970.
Provide short text or data to indicate current
confidence in estimated production, margins of
error, etc. Spell-out any assumptions
fundamental to the projection.

- V 4 -

~~T-O-P S-E-C-R-E-T~~

V C1.

ALTERNATIVE ALLOCATION OF NUCLEAR MATERIALS TO SOVIET MILITARY FORCES --
ALTERNATIVE STOCKPILE _____ : EMPHASIS ON _____ FORCES

	Mid-1964		Mid-1967		Mid-1970	
FORCE SUBCOMPONENT	Range of Ylds.	No. Wpns.	Total Yield	Range of Ylds.	No. Wpns.	Total Yield

STRATEGIC OFFENSE

Rocket Forces
Very High Yield ICBM
Other ICBM
MRBM/IRBM
Bombers
Very High Yield Bombs
Other Bombs
ASMs
Submarine-Launched GM
Ballistic GM
Cruise GM
Sub-Total

STRATEGIC DEFENSE

SAM
AAM
ABM
Sub-Total

GENERAL PURPOSE FORCES

Ground Forces
GF Ballistic GM
GF Cruise GM
GF FROG's & Arty.
MRBM/IRBM

~~V 5~~
~~T-O-P S-E-C-R-E-T~~

V C1. (contl.)

	Mid-1964		Mid-1967		Mid-1970	
	Range of Ylds.	No. Wpns.	Range of Ylds.	No. Wpns.	Range of Ylds.	No. Wpns.
FORCE SUBCOMPLEMENT		Total Yield		Total Yield		Total Yield

Tactical Air
 Bombs
 (others?)
 Naval
 ASM's
 Cruise GM
 Other
 Sub-total

GRAND TOTAL

VI. MILITARY MANPOWER

Note to Contributors

1. This section is divided into a summary table and detailed tables on selected components and subcomponents of the Soviet military establishment. The tables call for low and high manpower figures for each component and subcomponent -- these should reflect the ranges or alternatives submitted for the force projections in the earlier sections of the paper, as well as any uncertainties in manning levels

2. It is probable that for costing purposes, CIA/ORR will require manpower data in more detail than we call for in the IAP. This need has been met in the past by specific requests from CIA/ORR to individual contributors, and we propose that it be handled in the same way for the IAP costing.

3. Please note that for completeness we propose to include manpower figures on Soviet security forces, although we do not propose to add them into the total of military manpower.

VI A

PERSONNEL STRENGTH OF THE SOVIET MILITARY ESTABLISHMENT BY FORCE BY YEAR

	Mid-1961 Lo/H1	Mid-1962 Lo/H1	Mid-1963 Lo/H1	Mid-1964 Lo/H1	Mid-1965 Lo/H1	Mid-1966 Lo/H1	Mid-1967 Lo/H1	Mid-1968 Lo/H1	Mid-1969 Lo/H1	Mid-1970 Lo/H1
<u>STRATEGIC ATTACK FORCES</u>										
Ground-launched Missiles										
Ballistic Missile Subs										
Long-Range Aviation										
<u>AIR AND MISSILE DEFENSE FORCES</u>										
Anti-aircraft Missiles										
Anti-missile Missiles										
Anti-aircraft Artillery										
Fighter Aviation of Air Defense										
Control and Warning										
<u>GENERAL PURPOSE FORCES</u>										
Ground Forces										
Divisional Force										
Combat Support										
Service Support										
<u>Air Forces</u>										
Tactical Aviation										
Military Transport Aviation										
<u>Naval Forces</u>										
Surface Forces Afloat										
Sub Forces Afloat (excl. ball.)										
Ashore Support										
Coastal Defense										
Naval Aviation										

VI A. (contl.)

Mid- 1961 Lo/H1	Mid- 1962 Lo/H1	Mid- 1963 Lo/H1	Mid- 1964 Lo/H1	Mid- 1965 Lo/H1	Mid- 1966 Lo/H1	Mid- 1967 Lo/H1	Mid- 1968 Lo/H1	Mid- 1969 Lo/H1	Mid- 1970 Lo/H1

COMMAND AND GENERAL SUPPORT

RESEARCH AND DEVELOPMENT

TOTAL MILITARY MANPOWER

Militarized Security Forces

VI B.

PERSONNEL STRENGTH OF THE SOVIET STRATEGIC ATTACK FORCES BY TYPE BY YEAR

	Mid-1961 Lo/H1	Mid-1962 Lo/H1	Mid-1963 Lo/H1	Mid-1964 Lo/H1	Mid-1965 Lo/H1	Mid-1966 Lo/H1	Mid-1967 Lo/H1	Mid-1968 Lo/H1	Mid-1969 Lo/H1	Mid-1970 Lo/H1
<u>GROUND-LAUNCHED MISSILES</u>										
Existing ICBM Types 1/										
Follow-on ICBM Types 1/										
Existing MRBM/IRBM Types 1/										
Follow-on MRBM/IRBM Types 1/										
Strategic Rock. Forces Sup.										
Total Personnel										
<u>LONG RANGE AVIATION</u>										
Existing Heavy Bomber Types										
Existing Med. Bomber Types										
Follow-on Bomber Types 1/										
Long Range Aviation Support										
Total Personnel										
<u>BALLISTIC MISSILE SUBS</u>										
Existing Conventional Types										
Existing Nuclear Types										
Follow-on Types 1/										
Total Personnel										
<u>GRAND TOTAL PERSONNEL</u>										

1/ Contributors should identify the types they propose, if any, on the basis of their contributions to earlier sections.

VI C.

PERSONNEL STRENGTH OF THE SOVIET PVO AND PRO MISSILE FORCES BY TYPE BY YEAR

	Mid-1961 Lo/H1	Mid-1962 Lo/H1	Mid-1963 Lo/H1	Mid-1964 Lo/H1	Mid-1965 Lo/H1	Mid-1966 Lo/H1	Mid-1967 Lo/H1	Mid-1968 Lo/H1	Mid-1969 Lo/H1	Mid-1970 Lo/H1
<u>ANTI-AIRCRAFT MISSILES</u>										
SA-1										
SA-2										
SA-3										
Rollow-on Types ^{1/}										
Anti-Aircraft Missile Sup.										
Total										
<u>ANTI-MISSILE MISSILES^{2/}</u>										
ABM-1 ^{1/}										
ABM-2 ^{1/}										
Etc. 1 ^{1/}										
Anti-missile Missile Sup.										
Total										

- 1/ Contributors should identify types proposed, if any, on the basis of their contributions to earlier sections.
- 2/ Excludes systems for tactical use subordinated to Soviet general purpose forces.

VI D.

PERSONNEL STRENGTH OF THE SOVIET GENERAL PURPOSE GROUND FORCES BY TYPE BY YEAR

	Mid-1961	Mid-1962	Mid-1963	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
Divisional Force										
Cat. I Divs.										
Cat. II Divs.										
Cat. III Divs.										
Combat Support										
Service Support										
TOTAL										
<u>ALTERNATE A. 1/</u>										
Divisional Force										
Cat. I. Divs.										
Cat. II Divs.										
Cat. III Divs.										
Combat Support										
Service Support										
TOTAL										
<u>ALTERNATE B. 2/</u>										

- 1/ Based on assumption that total number of divisions is 140 at present and will be 120 in 1970.
- 2/ Based on assumption that total number of divisions is 110 at present and that Soviets will reduce total manpower in theater ground forces to about 1 million men by 1970.

VI E.

SOVIET MILITARY PERSONNEL PERFORMING COMMAND, GENERAL SUPPORT, AND R&D FUNCTIONS BY YEAR

	Mid-1961 Lo/H1	Mid-1962 Lo/H1	Mid-1963 Lo/H1	Mid-1964 Lo/H1	Mid-1965 Lo/H1	Mid-1966 Lo/H1	Mid-1967 Lo/H1	Mid-1968 Lo/H1	Mid-1969 Lo/H1	Mid-1970 Lo/H1
COMMAND AND GENERAL SUPPORT										
Ministry of Defense Staff										
Other Central Staffs <u>1/</u>										
Training Establishments <u>2/</u>										
Strategic Orgs. GM Schls.										
Strategic Def. GM Schls										
Aviation Schools										
Ground Force GM Schools										
Other Ground Force Schools										
Naval GM Schools										
Other Naval Schools										
Centrally-contr'd Supt Troops										
Supply										
Medical										
Signal										
Motor Transport										
Railroad Transport										
Other <u>3/</u>										
Centrally-contr'd Const Troops										
Total Personnel in C&GS										
RESEARCH AND DEVELOPMENT <u>4/</u>										

- 1/ Includes military personnel in mobilization and induction staffs, and those engaged in activities in support of the reservist and retirement programs, civil defense, and paramilitary programs such as DOSAAF.
- 2/ Limited to pre-operational school staffs and trainees.
- 3/ Provide other categories as required.
- 4/ Contributors are requested to suggest a meaningful breakdown of military personnel engaged in R&D (e.g. by function, subordination, or type of equipment under development). The figures for military personnel engaged in R&D should include those participating in the development of nuclear weapons and those participating in the space program.

VII. MILITARY EXPENDITURES

Note to Contributors

1. This section will comprise tables prepared by CIA/ORR after the other contributions have been received. During the time when the other contributions are in process, however, CIA/ORR is requested to prepare an introductory statement for this section, describing in general terms the methodology used to arrive at estimates of Soviet military costs, the adequacy of the evidence used to derive cost estimates, and the margins of uncertainty involved in the costing itself.

2. We propose to consider six aspects of Soviet military expenditures in the IAP, for mid-1961 through mid-1970, as follows:

- (a) Total expenditures by force component and by category, in rubles by year.
- (b) Total expenditures by force component and by category, in percentages by year, based on the ruble figures.
- (c) Total expenditures by force component and by category, in dollars by year.
- (d) Details of procurement expenditures by force subcomponent, in rubles by year.
- (e) Details of operating and maintenance expenditures by force subcomponent, in rubles by year.
- (f) Details of personnel expenditures by force subcomponent, in rubles by year.

3. Sample mockups of a total expenditures table and a detailed table are included in these TR's.

VII A/B/C

TOTAL SOVIET MILITARY EXPENDITURES, BY FORCE COMPONENT AND BY CATEGORY BY YEAR

	Mid- 1961 Lo/H1	Mid- 1962 Lo/H1	Mid- 1963 Lo/H1	Mid- 1964 Lo/H1	Mid- 1965 Lo/H1	Mid- 1966 Lo/H1	Mid- 1967 Lo/H1	Mid- 1968 Lo/H1	Mid- 1969 Lo/H1	Mid- 1970 Lo/H1
<u>BY COMPONENT</u>										
Strategic Attack Forces										
Air and Missile Defense Forces										
General Purpose Forces										
Ground										
Air										
Naval										
Command and Gen. Support										
Research and Development										
TOTAL										
Militarized Security Forces										
<u>BY CATEGORY</u>										
Procurement										
Land Armaments										
Ships										
Aircraft										
Ground Electronics										
Missile Systems										
Nuclear Weapons										
Other Equipment										
Operations and Maintenance										
Personnel										
Construction of Facilities										
Research and Development										
TOTAL										

VII D/E/F

SOVIET MILITARY PROCUREMENT EXPENDITURES BY FORCE SUBCOMPONENT BY YEAR

	Mid-1961 Lo/H1	Mid-1962 Lo/H1	Mid-1963 Lo/H1	Mid-1964 Lo/H1	Mid-1965 Lo/H1	Mid-1966 Lo/H1	Mid-1967 Lo/H1	Mid-1968 Lo/H1	Mid-1969 Lo/H1	Mid-1970 Lo/H1
STRATEGIC ATTACK FORCES										
Ground-launched Missiles										
Ballistic Missile Subs										
Long Range Aviation										
Nuclear Weapons										
AIR AND MISSILE DEFENSE FORCES										
Anti-aircraft Missiles										
Anti-missile Missiles										
Anti-aircraft Artillery										
Fighter Aviation of Air Defense										
Control and Warning										
Nuclear Weapons										
GENERAL PURPOSE FORCES										
Ground Forces										
Divisional Force										
Combat Support										
Service Support										
Air Forces										
Tactical Aviation										
Military Transport Aviation										
Naval Forces										
Strategic Forces Afloat										
Sub Forces Afloat(excl. ball)										
Ashore Support										
Naval Aviation										
Coastal Defense										
Nuclear Weapons										

VII D/E/F (contl.)

Mid- 1961 Lo/HI	Mid- 1962 Lo/HI	Mid- 1963 Lo/HI	Mid- 1964 Lo/HI	Mid- 1965 Lo/HI	Mid- 1966 Lo/HI	Mid- 1967 Lo/HI	MI- 1968 Lo/HI	Mid- 1969 Lo/HI	Mid- 1970 Lo/HI

COMMAND AND GENERAL SUPPORT
 RESEARCH AND DEVELOPMENT
 GRAND TOTAL PROCUREMENT EXPEND
 Amilitarized Security Forces