

Canadian Foreign Intelligence History Project

DND DHH 112.009 (D150)

JIC Assessment

Soviet Capabilities and Probable Courses of Action Against  
North America in a Major War Commencing in Mid-1958

ACAI 31 54-02-18

TOP SECRET SECURITY INFORMATION

CANCELLED

CSC/JS

52

COPY NO. \_\_\_\_\_

FEB 22 9 39 AM '54

RECEIVED

FILE

CHIEF TO

*J/C*  
*7-26-19*

*Copies 52-100 incl  
received. jwr.*

TOP SECRET  
Stow in safe

*R.H.*

JUN 27 1980

USE THIS SIDE ALPHABETIC BOARD

FOLD ON THIS LINE

112.004 (D15) ACAI 31, d/18 Feb 54:  
Can/US estimate of Russian capabilities  
& probable courses of action against  
North America in Mid 1950

DECLASSIFIED  
AUTHORITY: DHD 3-12

BY *X* FOR DRIST NDHQ  
DATE: *7.2.94*

TOP SECRET  
CANCELLED

ACAI 31

18 February 1954

TOP SECRET  
ACAI 31

CANCELLED

TOP SECRET SECURITY INFORMATION

TOP SECRET

A.C.A.I. 318 May 1954CSC/JS 52  
COPY NO. 1  
MAY 12 1 52 PM '54  
J/C  
7-26-19CANADIAN-UNITED STATES INTELLIGENCE CONFERENCEA.C.A.I. 31

(Intelligence for Future Defense Analysis)

On 7 May 1954, the Canadian and the U. S. Joint Intelligence Committees agreed to the attached estimate as a revision of A.C.A.I. 24.

TOP SECRET  
ACAI 31

TOP SECRETA.C.A.I. 3118 February 1954CANADIAN-UNITED STATES INTELLIGENCE CONFERENCEA.C.A.I. 31INTELLIGENCE FOR FUTURE DEFENSE ANALYSIS

On 18 February 1954 the Canadian and the United States intelligence teams agreed to the attached intelligence estimate for concurrent submission to the Canadian and United States Joint Intelligence Committees.

TOP SECRET  
ACAI 31



TOP SECRET

SOVIET CAPABILITIES AND PROBABLE COURSES OF ACTION AGAINST  
NORTH AMERICA IN A MAJOR WAR COMMENCING IN MID-1958

Table of Contents

	<u>Page</u>
THE PROBLEM . . . . .	1
PERIOD OF WARNING . . . . .	1
GENERAL . . . . .	1 - 5
Political Factors . . . . .	<u>1 - 3</u>
Alignments . . . . .	1
Stability of the Soviet Bloc . . . . .	2
Soviet Union . . . . .	2
European Satellites . . . . .	2
Communist China . . . . .	2
Internal Threat to North America . . . . .	2 - 3
Economic Factors . . . . .	3 - 5
MILITARY FACTORS . . . . .	<u>5 - 49</u>
Development and Production of Weapons and Equipment . . . . .	<u>5 - 12</u>
Weapons of Mass Destruction . . . . .	<u>5 - 6</u>
Nuclear Weapons . . . . .	5 - 6
Radiological Weapons . . . . .	6
Biological Weapons . . . . .	6
Chemical Weapons . . . . .	6
Aircraft . . . . .	<u>6 - 8</u>
Medium and Heavy Bombers . . . . .	6 - 7
Light Bombers . . . . .	8
Transport Aircraft . . . . .	8
Performance . . . . .	8
Guided Missiles . . . . .	<u>9 - 10</u>
Air-to-Surface . . . . .	9
Surface-to-Surface . . . . .	9 - 10
Naval Vessels and Weapons . . . . .	10 - 11
Army Weapons . . . . .	11
Electronics . . . . .	<u>11 - 12</u>
Airborne Bombing and Navigational Radar . . . . .	11 - 12
Electronic Countermeasures . . . . .	12
Airborne Bomber Defense Radar . . . . .	12
Radio Navigation Systems . . . . .	12
Naval Communications . . . . .	12

TOP SECRET  
ACAI 31

TOP SECRET

Table of Contents (Continued)

	<u>Page</u>
<b>MILITARY FACTORS (Continued)</b>	
Ground Forces . . . . .	13 - 14
Strength . . . . .	13
Combat Effectiveness . . . . .	13
Amphibious Capabilities . . . . .	13 - 14
Airborne Capabilities . . . . .	14
Naval Forces . . . . .	15 - 19
Strength . . . . .	15
Combat Effectiveness . . . . .	16 - 17
Submarine Capabilities . . . . .	17 - 18
Amphibious Capabilities . . . . .	18
Naval Bases and Logistic Factors . . . . .	18 - 19
Air Forces . . . . .	20 - 29
Strength . . . . .	20
Combat Effectiveness . . . . .	20 - 21
Long Range Aviation . . . . .	21 - 23
Aviation of Airborne Troops . . . . .	24 - 25
Air Force of the Soviet Army . . . . .	25
Fighter Aviation of the Air Defense . . . . .	25 - 26
Naval Aviation . . . . .	26
Base Areas and the Logistic Problems of Air Operations . . . . .	27 - 29
 SUMMARY OF WORLD-WIDE STRATEGY . . . . .	 29 - 30
 POSSIBLE COURSES OF ACTION AGAINST NORTH AMERICA IN A MAJOR WAR COMMENCING IN MID-1958	 30 - 31
Air Operations . . . . .	30
Airborne Operations . . . . .	30
Naval Operations . . . . .	30 - 31
Amphibious Operations . . . . .	31
Internal Threat . . . . .	31
 ANALYSIS OF POSSIBLE COURSES OF ACTION AGAINST NORTH AMERICA IN A MAJOR WAR COMMENCING IN MID-1958	 32 - 44
Air Operations . . . . .	32 - 34
Airborne Operations . . . . .	34 - 36
Naval Operations . . . . .	36 - 39
Amphibious Operations . . . . .	40 - 41
Internal Threat . . . . .	42 - 44
 PROBABLE COURSES OF ACTION AGAINST NORTH AMERICA IN A MAJOR WAR COMMENCING IN MID-1958	 44 - 49
Air Operations . . . . .	44 - 46
Airborne Operations . . . . .	46 - 47
Naval Operations . . . . .	47 - 48
Amphibious Operations . . . . .	48
Internal Threat . . . . .	48 - 49



TOP SECRETSOVIET CAPABILITIES AND PROBABLE COURSES OF ACTION\* AGAINST  
NORTH AMERICA IN A MAJOR WAR COMMENCING IN MID-1958THE PROBLEM

1. To prepare for the Military Cooperation Committee an agreed United States-Canadian intelligence estimate of Soviet capabilities and probable courses of action against North America in a major war commencing in mid-1958.

PERIOD OF WARNING

2. Allied capabilities for early detection and correct assessment of Soviet preparations to initiate a major war, and specifically preparations for an attack on North America, will most probably remain inadequate throughout the period of this estimate to provide positive indications if the Soviet Union sought to gain the advantage of surprise by attacking without mobilization and without moving other ready forces into position. If Soviet armed forces appreciably larger than those now in position for initial employment were intended for early commitment, redeployment and build-up activities on a considerable scale would be necessary and would probably provide a period of warning. However, since we cannot exclude a Soviet decision to attack with forces already in position, it is necessary to assume that there would be little or no warning prior to the actual initiation of hostilities.

GENERALPOLITICAL FACTORSAlignments

3. It is believed that present power alignments will remain substantially unchanged during the period of this estimate.

\* The capabilities and courses of action in this estimate are on an unopposed basis.

TOP SECRET  
ACAI-31



TOP SECRETStability of the Soviet Bloc

4. Soviet Union. The Soviet regime is firmly established. Despite various internal problems, it is not likely that the control of the party and the government over the Soviet peoples will be undermined or that the military capabilities of the Soviet Union will be diminished. In time of war, potential opposition in the Soviet Union could reduce the war effort seriously only if the mechanisms of control were badly disrupted or if effective Allied support for disaffected groups were immediately at hand.

5. European Satellites. Although there is some evidence of hostility among the peoples of the Satellite countries to their Communist regimes, Soviet control over the European Satellites is well established and will almost certainly remain so during the period of this estimate. In time of war, the Soviet Union will be able to maintain such control over the Satellites that the latent hostility of their peoples to the governments will not be able to take the form of effective resistance to the Soviet war effort unless the Western Powers are able to provide assistance and direction from a nearby area.

6. Communist China. The Chinese Communist regime has firm control over mainland China and there is little likelihood of its control being weakened during the period of this estimate. In the event of a war not involving the Far East, Communist China might seek to avoid active military participation, but would probably continue to cooperate with the Soviet Bloc in pursuing Communist objectives in Asia. However, under a present treaty, the USSR and Communist China are bound to joint action if either is attacked by Japan or by a power allied with Japan.

Internal Threat to North America

7. The Soviet Union is now engaged in political warfare on a large scale. Through intensive propaganda, diplomatic action, economic pressures and inducements, infiltration of Communists or

TOP SECRET  
ACAI-31



TOP SECRET

their sympathizers into key government posts, and the activities of Communist parties and of Communist-controlled trade unions outside the Bloc, the Kremlin attempts to build up support for Communist policies and to undermine the strength and unity of the non-Communist world. It is expected that such political warfare activities will continue during the period under consideration, although the intensity and tactics of Soviet efforts will vary from time to time.

8. The Soviet Union is also engaged in espionage and subversion within the United States and Canada, but to date there is no confirmed evidence of the existence of Soviet-directed physical sabotage operations. While specific information on future activities is lacking, it is expected that the Soviet Union would use such methods whenever it is advantageous to do so.

9. Support of Communist-directed activities in the United States and Canada is generally on the decline and no change in this trend is expected. However, there has not been a corresponding decline in effective Party strength since the present membership consists of those militants who can be relied on to follow Communist Party directions and to carry out the will of the Kremlin. The parties continue to be an organized force available to the Soviet Union for espionage, subversion, sabotage and psychological warfare. Accordingly, they will continue to present a security danger, particularly just prior to or during the initial stages of hostilities.

#### ECONOMIC FACTORS

10. The Soviet Union has resources of nearly all important raw materials within its boundaries, a large increasing population and well-developed basic industries for the manufacture of capital goods and military equipment. In the period 1954-1958, it is expected that industrial output in the Bloc will increase by about

TOP SECRET  
A-1-31



TOP SECRET

one-third, with the accent remaining on further expansion of basic and heavy industries. By 1958, Soviet industrial output in the aggregate will probably represent somewhat more than a third of that of North America and that of the Bloc will be somewhat more than one-third of that of the NATO countries.

11. Although the Soviet Bloc is self-sufficient in most strategic raw materials, it has some deficiencies. The more important are natural rubber, tin, copper, zinc, and wool. While denial of such materials by the West would have some adverse effect in the economy of the Soviet Bloc, it appears that stock-piles, synthetic production, and substitutes will prevent the shortage of any raw material from effectively limiting the strength of the Soviet Bloc economies in time of war.

12. The Soviet economy is centrally controlled and, since stress has been placed on those industries which can contribute most directly to its war potential, a change to a war footing can be effected more smoothly and quickly than in Western economies.

13. Although an assessment of Soviet economic policy since the death of Stalin indicates that the new regime has committed itself to a program of increasing the output of consumer goods from both the industrial and agricultural segments, it is not thought that this policy, which may take several years to bring into effect, will seriously alter the rate of growth of investment or the level of resources now allocated to defense. There are indications, however, that the defense effort, in terms of armament output, which has risen very sharply in recent years, has tended to level off. While expenditures on conventional weapons may well decline somewhat during the period of this estimate, it is to be expected that there will be increased expenditures on development and

TOP SECRET  
ACAT-31



TOP SECRET

roduction of new types of weapons, especially in the nuclear field. It is thought that, in the absence of a significant change in the international situation, real military expenditures in the period of 1954-1958 will not increase significantly.

MILITARY FACTORSDEVELOPMENT AND PRODUCTION OF WEAPONS AND EQUIPMENTWeapons of Mass Destruction

✓ 14. Nuclear Weapons. While the exact extent of the Soviet capability for quantity production of nuclear weapons remains uncertain in some of its aspects, the available evidence establishes the existence in the USSR of:

- a. A high-priority, extensive atomic energy program;
- b. A substantial stockpile of nuclear weapons; and
- c. The capability of producing explosions in a range from the equivalent of a few thousand to at least a million tons of TNT.

✓ 15. While there is no clear evidence which can serve as a guide to an estimate of the specific types and numbers of each type that the Soviets will actually stockpile, it is considered probable that for the immediate future the specific weapons stockpiled will have the general characteristics and explosive powers of models tested. However, as estimates are projected further into the future, uncertainty is increased by the possible advent of new principles of weapon design or the development of new methods for the production of fissionable or thermonuclear materials.

✓ 16. The table which follows is an example of one of the many alternatives which the USSR might pursue in the utilization of its stockpiles of fissionable materials. While the figures presented are considered to be the most probable for the examples

TOP SECRET  
ACAI-31

- 5 -

(Page Revised by Corrigendum - 27 September 1954)

TOP SECRET

ven, in view of the degree of precision applicable to the estimates of fissionable material production, the actual figures for this stockpile example (as well as for other choices the Soviets can make) may be as much as one-third lower or higher. The uncertainty increases as estimates are projected into the future, and the actual figures for mid-1957 may be as low as one-half or as high as twice the figures given in the table.

<u>Stockpile Example</u>	<u>End 1953</u>	<u>Mid- 1954</u>	<u>Mid- 1955</u>	<u>Mid- 1956</u>	<u>Mid- 1957</u>
Boosted uranium or plutonium weapons					
1000 KT	12	18	34	54	80
60 KT	60	85	125	175	235
5 KT	190	250	375	525	700
Total yield (million tons TNT)	16.5	24.3	43.4	65.6	97.5

✓ 17. There is no evidence available which indicates the course that the Soviet atomic energy program will take during the period 1957 through 1959, nor are there any specific parameters which can be considered as limiting on the growth of the program during this period. However, long range extrapolations which can be carried out on the basis of alternative assumptions of the growth pattern of the program indicate that the figures presented in the stockpile example for mid-1957 given in paragraph 16 above might range from approximately one-third higher to twice as high in 1959. The assumptions on which these 1959 extrapolations are based do not consider the possibility of rapid technological advances in the production of fissionable materials, nor do they reflect major advances in weapons development which must be anticipated. Developments in thermonuclear weapons with yields well in excess of one million tons of TNT, which could possibly be tested during 1954, could increase the total energy yield obtainable from the Soviet fissionable materials stockpile by a factor of five to twenty-five over that in the example.

TOP SECRET  
ACAI-31

- 6 -

(Page Revised by Corrigendum - 27 September 1954)



TOP SECRET

18. Radiological Weapons. The Soviet Union has small quantities of gross or separated fission products which might be employed on a limited basis as radiological material during the period of this estimate.

19. Biological Weapons. The Soviet Union is in possession of all the necessary basic knowledge for the production of most BW agents on any scale desired for use against man, animals or crops. If they chose to do so, they would be able to construct or operate plants for BW production and weapons for dissemination could be available in adequate numbers. However, there is no evidence at present that such weapons are being developed. Since it is not feasible to stockpile large quantities of most BW agents in prolonged storage, operational requirements would have to be supplied largely from current production.

20. Chemical Weapons. The Soviet Union is now capable of large-scale employment of standard CW agents. The available intelligence suggests that it could have been producing at least one of the nerve gases since 1949, and hence could be capable of employment of nerve gases before 1958.

#### Aircraft

21. Medium and Heavy Bombers. No medium or heavy bomber other than the TU-4 is believed to have been in production in the Soviet Union during 1952\*. There is, however, evidence that the Soviet Union has progressed beyond the TU-4, at least in design.

\* See third footnote to page 20. Tentative revisions to estimates of long-range bomber strength, resulting from recent evidence, point to a sharp increase in jet medium bomber strength and some increase in jet heavy bomber strength, probably resulting in the elimination of the turboprop bomber from the order of battle. These changes do not alter substantially the over-all scale of the air attack outlined in the succeeding paragraphs. However, the increased proportion of jet bombers which will be available will increase the complexity of the air defense problem.

TOP SECRET  
ACAI-31

- 6a -

(Page Added by Corrigendum - 27 September 1954)

TOP SECRET



TOP SECRET

22. At the Moscow Air Show in 1951 a single four piston-engined bomber considerably larger than the TU-4 was observed in flight and was designated by Allied intelligence as the Type-31. This and other information collected during 1953 suggest that a heavy bomber of the Type-31 class may be in production. The Soviet Union is known to have developed and static tested a turboprop engine suitable for this aircraft but the production status is unknown. It is estimated that, if production was begun on a Type-31 class bomber in 1953, the Soviet Union could have produced a sufficient number to have 500\* in operational units by mid-1958. The partial configuration of a single new large aircraft with a swept-back tail was observed at a Soviet experimental establishment in mid-1953 and designated by Allied intelligence as the Type-37. The aircraft appeared to be larger than the U. S. B-47 medium jet bomber and could fall within the heavy or near-heavy bomber category, from the standpoint of combat radius. Available information on the Soviet jet engine program is inadequate to support an estimate as to the date of availability of an engine suitable for use in this aircraft.. However, it is estimated that a jet heavy bomber might go into production in mid-1956, in which case about 100 would be available for operational units by mid-1958.

23. Based on known development work stemming from German projects in the medium jet bomber field, it is estimated that a Soviet bomber in this class will appear by mid-1955. There is no indication that it is at present in production. However, if production is begun by April 1954, it could be available in operational numbers by mid-1958.

\* The Canadian estimate is 240. The lower figure is due to the Canadian estimate that production of the heavy turboprop bomber (Type-31 class) is phased out in early 1956 in favor of the heavy jet bomber.

TOP SECRET  
ACAI-31



TOP SECRET

24. Light Bombers. An improved light bomber may come into operational use by mid-1955 and progressively replace the IL-28 and Type-35 production.

25. Transport Aircraft. It is possible that an improved version of the currently operational IL-12 twin-engined transport may appear. Prototypes of four-engined transports have existed for several years and it is possible that a four-engined transport will appear in operational units by 1958.

26. Performance. The performance of the types of aircraft mentioned below is estimated to be as follows:

Type	Combat Radius/Range/ Load (nmi/nmi/lbs)	Max Spd/Alt (kn/ft)	Combat Ceiling (feet)
TU-4	1700/3100/10,000	350/30,000	36,500
TU-4 (modified)*	2150/4000/10,000	360/30,000	37,500
(With one refueling)*	3000/5600/10,000		
Type 31 (with 5000 SHP turboprops)	3000/5600/10,000	360/30,000	38,000
With (one refueling)	4200 radius		
Jet Heavy Bomber	2500/4800/10,000	450/40,000	44,000
Jet Heavy Bomber (one refueling)	3500 radius		
Jet Medium Bomber	1500/2900/10,000	500/30,000	48,000
Jet Medium Bomber (one refueling)	2100 radius		
IL-28**	690/1370/4,400	440/30,000	37,000
Type-35**	765/1510/4,400	455/30,000	39,500
Imp. Jet Light Bomber	800/1500/4,400	500/35,000	48,000
IL-12	665/1335/7,500 or 18 paratroops		
LI-2	775/1500/4,900 or 18 paratroops		
TU-70	1320/2370/24,000 or 50 paratroops		

\* Although there is no evidence that the USSR has actually employed range extension techniques, these are estimated to be within Soviet technical capabilities.

\*\* Present operational types may be improved in performance by 1958.

TOP SECRET  
ACAI-31



TOP SECRETGuided Missiles

27. While no Soviet guided missiles are known to be available for operational use at the present time, the Soviet Union did acquire several operational types of missile from Germany at the end of World War II. It is estimated that the Soviet Union could have several more advanced types available by mid-1958. This estimate is based on Allied progress in the guided missile field, no knowledge of German developments during World War II and subsequently in the Soviet Union, and on an assessment of over-all Soviet technological capabilities. Some Soviet organizations for conducting research related to guided missiles have been identified, but the nature of their work and rate of progress is largely unknown. However, missile characteristics in each of the major fields are expected to be generally as outlined in the following paragraphs.

a. Air-to-Surface. There is some evidence of Soviet interest in the German air-to-surface missiles--the HS-293, a rocket-powered, radio-controlled glide bomb guided from an aircraft, and the Fritz X (FS-1400), a radio-controlled high angle bomb guided visually from an aircraft, which were used by the Germans during the last war. It is considered that the recent advances made by the Soviet Union in radar technology and Soviet interest in infrared indicate that homing heads of one or both types could be under development. It is believed that by 1958 a high subsonic rocket-powered glide bomb guided by radio command with terminal homing to a range of 30 nautical miles could become available. Such a missile could alternatively be equipped with a radio command and television relay guidance system.

b. Surface-to-Surface. There is evidence of experimentation with the assembly and launching of missiles of the V-1 and V-2 types which could lead to some increase in range and

TOP SECRET  
ACAI-31



~~TOP SECRET~~

pay load over German models. However, it is considered that the Soviet Union will not have available by mid-1958 a guided missile which could endanger the vital areas of North America if launched from Soviet-controlled territory. There is no positive evidence of Soviet experimentation in the field of submarine-launched guided missiles; however, it is estimated that the Soviet Union could equip submarines for the launching of V-1 type missiles. It is probable that such missiles carrying war heads up to 3,000 pounds could be given some guidance up to a range of about 200 nautical miles, although accuracy limitations would probably preclude general use against other than area targets. In addition, although there is no evidence that the Soviet Union has developed a turbojet-powered guided missile, it is a logical trend. Well before 1958, they could develop this type, and it could be launched from a submarine to a range of 400-500 nautical miles at near sonic speed. Both missile types would be capable of carrying a nuclear war head.

c. Other. It is apparent that air-to-air and surface-to-air missiles would constitute a valuable addition to Soviet defensive capabilities, but there is little intelligence concerning Soviet activities in these fields.

#### Naval Vessels and Weapons

28. There are indications that some ocean-going merchant ships or large fleet auxiliaries may be built in place of cruisers. Other types of combat vessels will probably continue to be built at about the same rate as in the past five years.

29. The Soviet Union is reported to have tested a Walther-type engine and could produce by 1958 a number of operational boats equipped therewith. However, if the Soviet Union should develop nuclear-powered submarines, the Walther-type would be of less importance.

~~TOP SECRET~~  
ACAI 31



TOP SECRET

30. It is thought that future developments in mines will be mainly concerned with actuating devices. The Soviet Union is capable of manufacturing highly sensitive influence-actuating devices, including magnetic, acoustic and pressure devices or combinations thereof, and is likely to produce mines which will not be easily swept.

31. The main developments in torpedoes will probably be the construction of better sea-water batteries, enabling torpedoes to attain higher speeds and increased ranges. Various improved homing devices may appear, including wire guidance. Good long range pattern-running torpedoes will also be available.

32. Snorkel installations are beginning to appear on Soviet-built ocean-patrol submarines. Submarines will probably use some form of antiradar coating on periscopes and snorkel and antisonar coating on hulls.

#### Army Weapons

33. It is considered that airborne troops of the Soviet Army could be equipped with a new semiautomatic rifle, a new machine carbine and possibly a new light machine gun, all lighter in weight than existing models. In addition, a portable infantry antitank weapon employing the hollow charge principle will probably be available to airborne troops during the period of this estimate. Although the existence of a new medium tank has not yet been confirmed, one is believed to be in production at the present time. By 1955 it is probable that some Soviet units will be equipped with this armored fighting vehicle.

#### Electronics

34. Airborne Bombing and Navigational Radar. By 1955, Soviet bombing and navigational radar should be capable of operating at all bomber operational altitudes. These radars will be capable of

TOP SECRET  
ACAI-31



~~TOP SECRET~~

navigational ranges of up to 100 miles and will provide bombing accuracy adequate for the employment of nuclear weapons.

35. Electronic Countermeasures. Airborne countermeasures are likely to be available for use against defensive radars and ground/air fighter control communications in use at the present time for the defense of North America. The effectiveness of the future countermeasures will depend on the degree of success obtained from Soviet analysis of signal radiations and from other means of obtaining technical data on the defense radars that will then be in use.

36. Airborne Bomber Defense Radar. It is most likely that bombers will carry some form of radar to give warning of the approach of defense fighters.

37. Radio Navigation Systems. Navigation within 1,000 miles of Soviet territory would probably be available by the Soviet low frequency hyperbolic navigation system now apparently in the development stage. Picket ships or submarines could be used to provide advance beacons for radio direction finding.

#### Naval Communications

38. Soviet shore radio communications are adequate for controlling ships and submarines at sea throughout the world. Two extremely high powered very low frequency transmitters have already been tested and would improve the reliability of these communications and, in addition, permit submerged reception by submarines. Submarines are known to be equipped with medium frequency direction finding as well as high frequency direction finding equipment, powerful radio transmitters, sensitive receivers and good quality hydrophones. Between submerged submarines and other naval vessels, tactical very low frequency radio communication is theoretically possible up to 50 miles. As an alternative, underwater sonic telephony, already proved practical by the United States up to a range of 10 miles, may be used.

TOP SECRET  
ACAI-31

TOP SECRETGROUND FORCES

39. Strength. It is estimated that the Soviet Army contains about 2,500,000 men and is organized into some 175 line divisions of which 105 are rifle, 40 are mechanized, 25 are tank, and 5 are cavalry. In addition, there are 45 artillery and antiaircraft artillery divisions. The strength of the internal security forces is estimated at 400,000 men. There is no evidence pointing towards a change in organization or an increase in these figures during the period of this estimate, although greater attention to the reserve training program can be anticipated. It is estimated that by M / 30 days the Soviet Union could mobilize in 1958 300 divisions made up of 7,500,000 men.\*

40. Combat Effectiveness. The Soviet Army has steadily maintained a comprehensive and vigorous training program since 1945, and constitutes today the most powerful and effective ground force in the world. Postwar reorganization has stressed mechanization, mobility and improved organic logistic support. This is particularly noticeable in the new rifle division, which is estimated to contain four times as much mechanized transport as the old type division. Mobilization and replacement stocks of excellent artillery and armored vehicles will be available in ample quantity. Furthermore, it must be expected that the continued training of command and staff personnel, and the availability of adequate quantities of communications equipment and transport will result by 1958 in greater flexibility and efficiency than at present.

41. Amphibious Capabilities. There is evidence that the Soviet Army is improving its techniques in river crossing and amphibious operations. So far amphibious training is believed to have been limited to training for raids by lightly armed

\* The Canadian view is 345 divisions made up of 8,000,000 men.



TOP SECRET

troops. It is estimated that the critical factors limiting Soviet amphibious capabilities against North America during the period of this estimate will continue to be the shortage of sea-lift and lack of experience. The possibility exists that the Soviet Union could significantly increase its numbers of specialized amphibious craft by 1958, but there is no evidence of its intention to do this; nor is there evidence of training in amphibious operations on a large scale, although this too could be undertaken at any time. On the basis of present capabilities, it is estimated that the Soviet Union could in 1958, under optimum conditions, lift an amphibious force of 8,000 to 12,000 men in the assault phase of operations against the Aleutians and the coast of Alaska north of Bristol Bay. Available Soviet merchant shipping could transport a follow-up of about 30,000 to 40,000 troops.

42. Airborne Capabilities. The Soviet Union has an estimated 100,000 qualified paratroopers now in service. It also has a number of rifle divisions which have received some air transportability training. There is no evidence to indicate that the Soviet Army is planning to increase the number of troops trained for airborne operations. It is assumed rather that emphasis will be on increasing the effectiveness of existing airborne forces. The Soviet Army is believed to rely primarily on the employment of mixed units for offensive airborne operations. It is believed that Soviet airborne forces are organized as divisions of 7,000 to 9,000 men. The division is believed to include an artillery battalion, an antitank company, a large number of antitank hand weapons and machine guns, and very few vehicles. It is estimated that the Soviet Union has 6-10 airborne divisions and there is no evidence from which an increase can be anticipated.

TOP SECRET  
ACAI-31



TOP SECRETVAL FORCES

43. Strength. It is estimated that by 1 July 1958 the strength and disposition of Soviet units which could possibly be brought to bear against North America will be as follows:

<u>Type</u>	<u>Baltic and North</u>	<u>Black Sea*</u>	<u>Pacific</u>	<u>Total</u>
Modern Cruisers	20	6	2	28
Destroyers**	98-115	33-45	49-60	180-220
<u>Submarines</u>				
Improved Ocean Patrol	149	25	75	249
Ocean Patrol	50	13	20	83
Medium	28	8	37	73
Coastal***	-	-	49	49

This order of battle is tentative as the future pattern of Soviet warship construction is not clear. Present intelligence leads to a belief that the major Soviet projects will be destroyer types, submarines and large subchasers. There are few indications whether or not the cruiser building program will be continued. The estimate of future disposition of naval units between the fleets is also tentative and may be substantially altered if the situation demands it.

\* Some units of the Black Sea Fleet might be transferred to other areas before hostilities. Destroyers and submarines could be moved over the inland waterway system after hostilities start.

\*\* Difference in numbers of destroyers results from the U.S. view that about 40-45 new vessels will be Coastal Destroyers rather than Fleet Destroyers.

\*\*\* It is considered that Coastal Submarines pose a threat to North America only in the Aleutian Island area and the Bering Sea.

TOP SECRET  
ACAI-31

- 15 -

(Page Revised by Corrigendum - 27 September 1954)



TOP SECRET44. Combat Effectiveness

a. Modern Soviet naval units compare favorably in design and fire power with those of Western nations. The postwar increase in long-range cruisers and destroyers has considerably improved Soviet surface fleet capabilities although it is not thought that surface ships, except possibly for an occasional raider, will venture into North American waters because of lack of air cover. By mid-1958 Soviet Naval Aviation will be re-equipped with modern fighters and light bombers and will have the capability of providing air cover for surface ships within the radius of these aircraft, providing some reconnaissance for submarines, and assisting in the Navy's coast defense and air defense tasks. The offensive capabilities of the large Soviet submarine force will have been increased by the construction of additional "Improved Ocean Patrol" submarines estimated to incorporate some desirable features of German design with perhaps native improvements. The types of fire control, communication, navigation and ASW equipment being introduced appear to conform to the Soviet practice of combining simplicity with ruggedness and are probably adequate for their needs. By mid-1958, refinements will probably have increased the effectiveness of this equipment. Soviet amphibious equipment appears to be intended for short-haul movement of lightly armed troops. It is not anticipated that there will be any significant change in Soviet amphibious concept by mid-1958.

b. Morale in the Soviet Navy is good, particularly in the submarine service, for which personnel are especially selected. The quality of officers will continue to improve as those who commenced their training at an early age in Soviet naval academies replace their predecessors of the early post-revolutionary era. Many of them will acquire deep sea experience in merchant ships and fishing vessels, even though naval vessels normally operate only in home waters. The general



TOP SECRET

educational level of the seamen will continue to rise, facilitating their training in technical subjects. Type and fleet exercises are being focused upon improving tactical proficiency and coordination between air, surface and sub-surface units.

c. It is now thought that units in commission have attained a state of efficiency sufficiently high to carry out operations considered in this paper. However, it is considered that naval operations on a large scale will be controlled more rigidly than in Western navies and that senior officers afloat will not be free to use their own initiative to any great extent.

#### 45. Submarine Capabilities

a. Submarines, Equipment and Weapons. In addition to defensive capabilities in waters contiguous to the Soviet Union, the Soviet submarine force is capable of extended offensive operations against Allied LOC's and terminal ports. The long range types have the capability of operating in North American coastal waters from present bases. By mid-1958 the construction of additional "Improved Ocean Patrol" submarines will materially increase the threat of this force in North American waters.\* Some modernized medium class submarines may have sufficient endurance to operate in North American waters although for a shorter period. The Soviet Navy is capable of equipping its submarines with snorkel, and such installations are beginning to appear on Soviet-built ocean-patrol submarines. The possible employment of submarine tankers must be considered. Straight-run, pattern running and homing torpedoes will probably be used, and ample stocks of modern mines will be available. It is possible that by mid-1958 submarines may be employed to launch guided missiles. Most Soviet ocean patrol submarines will probably continue to mount close range antiaircraft weapons and one or two 3.9-inch guns which are believed to have an elementary form of fire control employing radar ranging. Soviet shore radio communications are adequate for controlling their

\* For analysis of scale of submarine operations in North American waters see paragraphs 66-67.



~~TOP SECRET~~

submarines at sea. "Squash" transmissions may be employed to minimize the effectiveness of direction finding.

b. Submarine Tactics and Techniques. It is probable that the operations of submarines in coordinated groups will be attempted, although operations by single submarines will also be fairly frequent. It is considered that submarines could be used to provide navigational aid to bombers, rescue facilities for bomber crews after one-way missions and for reconnaissance. As both mines and torpedoes have advantages, the employment of both must be expected. Mines might be laid in some offshore traffic lanes as well as in coastal waters. Attacks on small merchant ships or even small escort vessels with gunfire, in order to conserve torpedoes, are possible. Soviet submarines are being trained to cooperate with aircraft, and by mid-1958 the Soviet Navy may have long range air reconnaissance capabilities. Submarines may be employed to transport agents, saboteurs or small commando units. Radio discipline will be excellent and secure codes will be used.

46. Amphibious Capabilities. For the type of amphibious operations the Soviet Navy is likely to undertake, it would probably employ merchant type vessels, fishing boats and miscellaneous small craft for the transportation of lightly armed troops. The landing of heavy supporting arms would require the seizure of ports. It is likely that a self-propelled tank lighter and an amphibious truck similar to the United States DUKW will be available by mid-1958. Both of these would be ideally suited for short-haul operations in sheltered waters.

47. Naval Bases and Logistic Factors

a. The four main Soviet fleet concentrations, i.e., Northern, Baltic, Black and Pacific, are geographically widely separated, necessitating a decentralized system of logistic support and maintenance. For this reason, it appears to be Soviet naval policy to build up the fleet in each particular area to a point



TOP SECRET

where it can discharge its mission in that strategic area without reinforcement from other fleets. This is particularly true of the Black Sea and Far Eastern Fleets. By mid-1958 the program of improving Northern Fleet bases may result in a significant increase in the area's capability to support additional forces. By building up base facilities and improvements in the systems of inland canals and waterways, the Soviet Navy will have increased the flexibility of its fleets. With the aid of pontoons, destroyers and large submarines can be moved during the six months ice-free season between the Baltic and the Arctic seas via the Stalin canal and craft including submarines up to 10 feet in draft can be moved with the aid of transporters between the Black, Caspian and Baltic seas. By mid-1958 a canal reconstruction program will probably make possible the transfer of large submarines between all these seas. During the Arctic navigation season\*, transfers are possible between the North and Pacific Fleets via the Northern Sea Route. Should the need arise, transfers are possible between the Pacific and Atlantic through North American arctic waters. Submarines might operate in the Northwest Passage on reconnaissance missions or as navigation aids for long range bombers. Should the Soviet Union gain control of the Turkish Straits, Black Sea Fleet submarines could operate in the Mediterranean and Atlantic.

b. The Northern Fleet is faced with certain logistic problems. It is almost entirely dependent upon southern areas for military supplies. A single track railway and the Stalin White sea canal, both of which are vulnerable to attack, serve the area. The Pacific Fleet is dependent upon Western USSR for much of its supplies. The area is served by the Trans-Siberian railroad, which must supply ground and air forces in addition to the Navy. Northeast Siberian bases are dependent upon vulnerable sealoift.

\* See footnote on page 28.



TOP SECRET

TOP SECRET

AIR FORCES

48. Strength. The major components of the Soviet Air Forces will probably continue to be the Air Force of the Soviet Army, Long Range Aviation, Fighter Aviation of Air Defense, Naval Aviation, and Aviation of Airborne Troops. It is estimated that the total establishment (TO&E) of the Soviet Air Forces for aircraft in operational units during the period under review will remain at about 20,300 aircraft. It is considered that the aircraft and associated industries of the Soviet Union will provide the Soviet Air Forces with a steady supply of new and modern aircraft and equipment.

Estimated Establishment (TO&E) Soviet  
Air Order of Battle - 1 July 1958

	Fighter (Jet)	Ground Attack (Jet)	Light Bmr (Jet)	Med Bmr P&J	Heavy Bomber J	TP	Trans	Recon (Jet)	Total
Tactical	4500	2400	2700				900	700	11,200
Lon. Range***				650	100	500*	150		1,400
Naval	1900	150	950				150	350	3,500
PVO	3500						100		3,600
Airborne	—	—	—	—	—	—	600	—	600
TOTAL	9900	2550	3650	650 1250	600		1900	1050	20,300**

It is estimated that the personnel strength of the Soviet Air Forces will remain at the present figure of about 800,000. By mobilization of the reserve, this could be increased to 1,250,000 by M / 180 days.

49. Combat Effectiveness. The over-all combat effectiveness of the Soviet Air Forces is being steadily improved through the jet re-equipment program. It is estimated that the conversion

\* Based on assumption of production beginning the first half of 1953. The Canadian figure is 240 turboprop heavy bombers and results from their estimate that production of turboprop heavy bomber aircraft will be phased out during early 1956 in favor of the jet heavy bomber.

\*\* The U. S. estimate is slightly higher.

\*\*\* The sighting in flight at the Moscow Air Show on May Day 1954 of one four-engine swept-wing jet bomber and nine twin-engine jet bombers has confirmed earlier estimates for the appearance of a Soviet jet heavy bomber and has advanced by one year the anticipated appearance of a jet medium bomber. Preliminary evaluation of this and additional related evidence points to a sharp increase in jet medium bomber strength and some increase in jet heavy bomber strength, by mid-1958, probably resulting in the elimination of the turboprop bomber from the order of battle.

TOP SECRET

ACAI-31

- 20 -

(Page Revised by Corrigendum - 27 September 1954)

TOP SECRET



TOP SECRET

to jets will have been completed in 1958 with the exception of transport, medium and heavy bomber units. There is no indication of Soviet interest in jet transports, but the medium and heavy bomber units will probably be in the process of converting to jet aircraft. It is estimated that not more than 50 percent of assigned piston aircraft and 60 to 65 percent of jet aircraft could be kept operational in sustained combat. Air crew proficiency will improve during the period and should be adequate for all estimated missions.

#### 50. Long Range Aviation

a. Organization. Soviet Long Range Aviation is presently composed of three air armies and one corps of undetermined subordination. The First and Second Long Range Air Armies located in the northwestern and the southwestern parts of the Soviet Union, respectively, are believed to be composed of two corps comprising two divisions of three regiments each. The Third Long Range Air Army located in the Far East is believed to be composed of only one corps. The unidentified corps, which is thought to be somewhat larger than normal, is located in the western part of the Soviet Union. It is possible this corps may evolve into a fourth air army. In addition to these operational units, a transport regiment is attached to each air army headquarters, primarily for communication duties.

b. Role. Available evidence indicates that Long Range Aviation will have the primary function of conducting long range bombing operations. Subsidiary roles are likely to be long range reconnaissance, possible aerial mining and on occasion possible support of ground forces.

c. Maintenance and Serviceability. Maintenance of Soviet aircraft, although below U.S. and Canadian standards, has improved since World War II and is considered adequate. By 1955 the Soviets should be capable of achieving in the forward staging areas a serviceability rate of 80 percent for an initial, deliberately prepared surprise attack against



TOP SECRET

North America. The sustained serviceability rate for bombers is estimated at about 40 percent for normal operations. It is estimated that the normal rate of operations against North America would be of the order of three to five sorties per aircraft per month. Cold weather operations might cause some reduction in the foregoing figures. In addition, we estimate that up to 20 to 25 percent of the aircraft taking off would fail to reach target areas for reasons other than our air defense activity.

d. Combat Effectiveness. Soviet Long Range Aviation has available through open sources virtually complete target and navigation data on North America and approach routes. It is even probable that in the event of a surprise attack, certain Western electronic navigational aids would be available, at least during part of the flight. Similarly, meteorological reports, including profile data at all altitudes, are regularly broadcast in the United States and Canada in simple cipher. The Soviet Union has had access to U. S. radar bombing and navigational equipment of World War II design. It is reasonable to anticipate that equipment of at least equal or better performance will be available to Soviet air crews by 1958. The current Soviet training program points to continuing improvement in air crew proficiency. In view of these factors and Soviet ability to select a time of attack with respect to favorable route and target weather conditions, there can be little doubt that Soviet air crews would have the ability to navigate with sufficient accuracy to reach the major population and industrial centers of the United States and Canada and to achieve bombing accuracy, by either visual or radar means, well within the effective radius of the weapons available, although the effectiveness of attack delivered by radar alone might be reduced by defensive electronic countermeasures.

TOP SECRET  
ACAI-31



TOP SECRET

e. Tactics and Techniques. No intelligence is available as to tactics or techniques which might be used by Long Range Aviation in approaching North America or in pressing home an attack there. The possibilities can be outlined briefly as follows:

(1) In a large scale surprise attack against North America, the Soviet commanders might attempt to have vanguards of their bomber streams cross the early warning lines simultaneously. In order to reduce the risk of detection and interception, the Soviet crews may be expected to take advantage of terrain features and approaches from open sea areas. They would also probably avoid much travelled air lanes. Low altitude penetrations of early warning areas coupled with climbs to bombing altitudes before reaching initial points should be expected.

(2) It is believed that the Soviet commanders would attempt to time their penetrations to coincide with the hours of darkness. In addition, they might desire to use adverse weather conditions as a possible means of concealment both along the route and in the general area of the target.

(3) Use of ECM, use of USAF and SAC aircraft markings, and the use of English-speaking pilots for making Air Defense Identification Zone (ADIZ) and civil airways reports should be expected.

(4) It is believed that the operations of Soviet Long Range Aviation will include night and bad weather missions employing pathfinder methods and blind bombing techniques.

(5) In-flight refueling techniques for extending the combat radius of some aircraft may be utilized, and thus allow the launching of aircraft from interior bases possessing improved logistic support.

TOP SECRET  
ACAT 31



TOP SECRET51. Aviation of Airborne Troops

a. Organization. The Airborne Forces is a separate organization with its own headquarters in Moscow subordinate to the Minister of War. The Aviation of Airborne Troops is subordinate to the Airborne Forces, and air transport divisions are subordinate to their respective airborne corps commanders. It is estimated this organization will continue during the period.

b. Order of Battle and Disposition. The Airborne Forces are equipped with obsolescent LI-2 and IL-12 twin-engined transports. Most of these aircraft will probably be deployed in the west, with one division (approximately 100 aircraft) in the Far East. Although little evidence is currently available concerning Soviet interest in four-engine transports, operational numbers may be available in 1958. For operations in the Far East, including those against Alaska, the maximum number of transport aircraft which could be made available by augmentation from the Civil Air Fleet and/or other organizations is estimated to be in the order of 800.

c. Role. The role of Aviation of Airborne Troops is the transportation of airborne troops during peacetime training. It also provides the nucleus of an air fleet for the transportation of airborne forces on large-scale wartime operations.

d. Maintenance and Serviceability. There are no indications that the Aviation of Airborne Troops would not be able to maintain the same standard of serviceability as our own troop carrier units.

e. Tactics and Techniques. The glider is still being used as a means of transporting men and light equipment and there is no evidence that these tactics will be changed. Aviation of Airborne Troops will be able to carry out both

TOP SECRET  
ACAT 31



TOP SECRET

day and night operations, but equipment carried by troops will be restricted in size because of the lack of large transport and assault-type aircraft.

52. Air Force of the Soviet Army. This force is at present composed of 14 tactical air armies and various air units assigned to Military Districts. Each air army is composed of fighter, ground attack, light bomber and other units of a specialized role. It is anticipated that there will be little change in the present proportion of aircraft in these roles during the period. By that time all of the fighters, ground attack and light bomber aircraft will be jets. The transport component of this force is expected to remain equipped with its present piston-engined aircraft although some four-engine transports may be available. The main tasks of this force will probably continue to be the gaining of air superiority, interdiction of the battle area, close support of the land forces and air defense. Many of its units could also be made available to supplement the other air forces in their particular role as required. Tactical Air armies are disposed in military districts around the periphery of the Soviet Union facing or defending areas of strategic importance. The strongest concentration of tactical aircraft is based in Europe, with lesser numbers facing Scandinavia, and the Middle East. There are three tactical air armies in the Far East, containing almost as many operational aircraft as face Western Europe. These dispositions will probably continue during the period.

53. Fighter Aviation of Air Defense. This force is the air arm of the Anti-Air Defense Force (PVO) which also controls ground antiaircraft units and early warning systems. Its assigned mission is the air defense of the Soviet homeland, concentrating on the defense of vital areas. It is considered that by 1954 this force will be completely equipped with jet-engined fighters.

TOP SECRET  
ACAI 31



TOP SECRET

The Soviets will continue to develop their early warning and GCI systems which are now being equipped with radars estimated to be of excellent quality. All fighter elements of the Air Force of the Soviet Army and of Naval Aviation have a secondary mission of air defense and in certain areas are primarily responsible for the air defense role. By mid-1958 it is considered that the Soviet fighter defense system could include operational quantities of all-weather fighters.

#### 54. Naval Aviation

a. Naval Aviation is subordinate to the Commander in Chief of the Soviet Navy. Each fleet air force is operationally subordinate to its fleet Commander, but is subordinate to Commander in Chief, Naval Air Force, for administration. It is estimated that this organization will continue during the period.

b. The role of Naval Aviation will be primarily defensive in the period of this estimate. Its main task will be the defense of the fleet and coastal installations, but, in addition, it will be capable of attacks on enemy ports and naval and merchant units within range, mine-laying, escort of coastal convoys, fleet reconnaissance, support of ground forces in coastal areas, support of short-range landing operations and defense against enemy landings.

c. The equipment held in Naval Aviation is generally effective for its role but there is a lack of long-range reconnaissance aircraft suitable for supporting submarine operations. All the fighter and light bomber aircraft will be jet types by mid-1958. This re-equipment and the continued emphasis on training in maritime operations will materially increase the combat effectiveness of Naval Aviation.

TOP SECRET  
ACAI-31



TOP SECRET55. Base Areas and the Logistic Problems of Air Operations.

The main logistic problem that is relevant to air attacks on North America concerns the location and supply of bases for air operations. The two areas in the Soviet Union that are closest to North America are the Chukotski and the Kola areas. The extension of bomber ranges by 1958 will not be great enough to allow the enemy to dispense with these areas if important targets in the whole of the United States are to be reached on other than one-way missions. It is therefore reasonable to suppose that at least until the end of the period of this estimate any large scale attacks would involve the use of these areas. Bases in the Leningrad area and in the territory of the North European Satellites are capable of supporting operations on almost any desired scale, but suffer from the disadvantage that the great-circle air routes from these bases to North America pass over neutral or Allied territory. The following is a summary of airfield capacities pertinent to these several areas:

a. The Kola Area. Although there are no known airfields capable of supporting sustained medium bomber operations, there are two airfields estimated to be capable of supporting medium and heavy bomber operations for at least a limited period from this area. In addition, there are seven airfields of 4,000 feet or more in length, some of which could be improved and extended to support long range bomber operations.

b. The Leningrad and Other Areas. The Leningrad area contains at least four airfields which are presently suitable for long range operations. Improvements of other airfields in the area could provide additional facilities during the period. Operations by strike aircraft from the Leningrad area or a number of other bases within the USSR, refueled by tankers based farther north, would offer advantages of launching an operation from a temperate climate with good logistical support.

TOP SECRET  
ACAI 31



TOP SECRET

c. The North European Satellite Base Area. This area, which includes Poland and the Soviet Zone of East Germany, has at least forty airfields suitable for long range bomber operations. This base complex is adequately served by transportation.

d. The Chukotski Area. Although there are no known airfields which could be used for sustained operation from the Chukotski area, it is estimated that this area contains a few airfields capable of supporting limited medium bomber staging operations. There are additional airfields which could be improved to support long range bomber operations. It is also possible that frozen surfaces might be employed during the Arctic winter to provide staging air strips or assembly parking areas.

e. The Kamchatka Area. Four or five potential long range staging bases presently exist in this area.

f. Logistic Support of Northern Base Areas. Since there is a railway to Murmansk, there would be no serious problem in supplying the Kola area. Northeastern Siberia on the other hand is mainly dependent on shipping for its bulk supplies. The coastal shipping routes (to the Chukotski base area) are handicapped by the seasonal ice problem but are capable of carrying all the required tonnage if other uses were restricted and, particularly, if stockpiling were carried out during the ice-free months.\* Port facilities are thought to be adequate for the relatively small supply tonnages required. The east coast shipping routes to the Chukotski Peninsula are extremely vulnerable.

\* The entire Northern Sea Route is open for about six weeks a year, although portions at either end are open for longer periods. With icebreakers, the East Coast shipping season can be extended to 6 months except in the extreme Northeast, where it is limited to about 3 months.

TOP SECRETACAI 3<sup>1</sup>



TOP SECRET

(1) There are further logistic difficulties in transporting supplies inland to bases located away from the coast. There are no good routes into the interior of the Chukotski base area at present, although these could be constructed with great difficulty if the need arose. The Anadyr River could be used while ice-free as a supply route to airfields such as Markovo for  $2\frac{1}{2}$  months/year.

(2) The seasonal aspect of the logistic problem is emphasized. The difficulties (except for very large-scale bases) are not insuperable, but long-range planning would certainly be required, even for staging bases with fuel storage tanks and minimum servicing facilities.

g. Vulnerability of Bases. The bases in the Kola area are remote from North America, and other Allied bases, but could be subjected to air attack. Bases in Northeast Siberia, and especially those in the Chukotski area, are relatively close to Alaskan bases and would be exposed to attack.

#### SUMMARY OF WORLD-WIDE STRATEGY

56. The military and industrial power of the United States and Canada constitutes the greatest obstacle to Soviet victory in a general war. If the Soviet Union could damage seriously and isolate the military and industrial strengths of the United States and Canada without itself sustaining disastrous damage, victory in Eurasia, the United Kingdom, the Island Chain of the East and against lines of communications throughout the world be greatly facilitated.

TOP SECRET  
ACAI 31



TOP SECRET

These considerations would probably induce the Soviet leaders to make the maximum use within their capabilities of their long-range aircraft in delivering attacks with nuclear weapons against the industrial and military strengths of the United States and Canada as an essential element of their world-wide strategy. Thus, it is estimated that Soviet military objectives in a general war during the period of this estimate would be:

a. To secure the Soviet Union against attack, both by defensive measures and by offensive operations against any forces capable of significantly threatening its security.

b. To reduce to the maximum possible extent the warmaking potential of the United States and Canada.

c. To establish Soviet control over the Eurasian land mass and to control or neutralize the United Kingdom and the island chain of the Far East.

d. To disrupt Allied lines of communication throughout the world and in particular to isolate the United States and Canada from their overseas Allies.

POSSIBLE COURSES OF ACTION AGAINST NORTH AMERICA IN A  
MAJOR WAR COMMENCING IN MID-1958

Air Operations

57. The Soviet Union will be capable of conducting air operations against North America during the period of this estimate. It is considered that the following courses of action could be adopted:

a. Air attacks against Canada and the United States employing nuclear, HE, BW or CW weapons.

b. Air attacks against Alaska and the Aleutians employing nuclear, HE, BW or CW weapons.

c. Air attacks against the North Atlantic island areas employing nuclear or other weapons.

TOP SECRET  
ACAI 31

- 30 -

TOP SECRETAirborne Operations

58. The Soviet Union will be capable of conducting against North America airborne operations to seize or neutralize airfields or other important installations in certain areas.

Naval Operations

59. The Soviet Union will be capable of conducting a sea offensive against North America during the period of this estimate. It is considered that the following courses of action could be adopted:

- a. Submarine operations against naval vessels and shipping in coastal waters and ports.
- b. Submarine-launched guided missile attacks against ports and coastal areas.
- c. Surface raider operations.

Amphibious Operations

60. The Soviet Union will be capable of amphibious operations against certain coastal installations in North America.

Internal Threat

61. The Soviet Union will be capable of:

- a. Introducing nuclear, BW or CW weapons into North America by clandestine means.
- b. Employing agents or indigenous Communists and fellow travelers to perform acts of sabotage, subversion and espionage. They could also introduce elements of other navigational aids in preparation for an attack on North America.

TOP SECRET  
ACAI 31



~~TOP SECRET~~ANALYSIS OF POSSIBLE COURSES OF ACTION AGAINST NORTH  
AMERICA IN A MAJOR WAR COMMENCING IN MID-1958Air Operations

62. Air attacks against Canada and the United States  
employing nuclear, HE, BW or CW weapons:

a. Objectives. The objectives of a Soviet air attack on North America would be to reduce to the maximum possible extent the warmaking potential of the United States and Canada, to demoralize the the people and government, to cause retention of disproportionate defensive forces in North America, and in particular, to reduce the allied nuclear delivery capability.

b. Capabilities. The Soviet long-range force will be capable of missions over all of Canada and all of the United States except for Florida provided that range extension techniques are used. A more detailed description and basis for the above estimates of Long Range Aviation is presented in paragraph 50. It is estimated that during the period of this estimate the Soviet Union will have the capability of using its stocks of fissionable material in a much more flexible manner than heretofore, with a large range of choices between the production of large numbers of small bombs and smaller numbers of large bombs, up to bombs of megaton size. The Soviet Union will also have a capability to employ both biological and chemical warfare weapons. (Paragraphs 14 through 20) The Soviet Union will not have the means for carrying out air attacks against the United States and Canada employing HE bombs in sufficient strength to be an effective deterrent to our war effort.

c. Advantages. Long-range bombing attacks are the principal means by which large-scale strikes could be made against the industrial and military power of Canada and

TOP SECRET

ACAI 31

- 32 -



TOP SECRET

the United States. In addition to the reduction of this strength, such attacks could reduce the Allied capability for delivering nuclear attacks on the Soviet Union, and subject the North American peoples to the physical and psychological impact of heavy population casualties.

d. Disadvantages. The disadvantages to the Soviet Union of adopting this course of action would be the inherent difficulties of operating at extreme ranges over hostile territory.

e. Conclusion. In view of the fact that long range aerial bombing employing nuclear and possibly BW and CW weapons would be the principal means available for attacking Canada and the United States, this course of action would be adopted.

63. Air attacks against Alaska and the Aleutians employing nuclear, HE, BW or CW weapons:

a. Objectives. Air attacks in this area would be employed to reduce or eliminate the threat to the Soviet Union from U. S. air attacks originating in or staging through this area, to weaken the air defenses and to weaken defense forces in preparation for amphibious or airborne operations.

b. Capabilities. Jet light bombers and medium bombers could be used for attacks on the U. S. military installations in Alaska and the Aleutians.

c. Advantages. The advantages of such air attacks would be to reduce or eliminate the threat to the Soviet Union from U. S. air attacks originating in or staging through this area, to improve Soviet long range striking capabilities by neutralizing portions of the North American air defense system and to prepare the area for amphibious or airborne operations.

TOP SECRET  
ACAT 31



TOP SECRET

d. Disadvantages. Air operations against Alaska would increase the strain on the limited Soviet base and logistic facilities in Northeast Siberia.

e. Conclusions. Air operations against Alaska employing high explosive, nuclear, and possibly BW and CW weapons delivered by both light and medium bombers would be probable.

64. Air attacks against the North Atlantic island areas employing nuclear or other weapons:

a. Objectives. The objective of air attacks against the North Atlantic island areas would be to reduce or eliminate the threat of U. S. air attacks staging from bases in the area and to weaken Allied air defenses in the approach to North America.

b. Capabilities. The Soviets could reach targets in these areas on two-way missions with medium or heavy bombers.

c. Advantages. The reduction or elimination of the threat of U. S. air attack from bases in these areas would be most advantageous to the Soviets since U. S. operations from these bases would constitute a serious threat to the Soviet Union. The neutralization of early warning stations would improve Soviet capabilities for air attack against North America.

d. Disadvantages. None apparent other than operational difficulties.

e. Conclusions. Air attacks against these areas employing nuclear or other weapons would be probable.

#### Airborne Operations

65. Airborne operations to seize or neutralize airfields or other important installations in certain areas:

a. Objectives. The objectives of Soviet airborne operations would be of a limited and temporary nature such as to seize or neutralize air bases or other important

TOP SECRET  
ACAI 31



TOP SECRET

1 military installations in North America and the North Atlantic island area in order to reduce Allied air attack capabilities against the Soviet Union, eliminate a portion of the air defense system, or possibly to use temporarily the captured bases for their own operations and to cause maldeployment of defense forces.

b. Capabilities. The Soviet Union could carry out airborne operations against Alaska to seize lightly-held airfields or to destroy military installations. By 1958 the Soviet Union could have an estimated 800 aircraft (of the LI-2 type or equivalent) that could be made available for maximum effort airborne operations in the Far East. Taking into account the concurrent use of airfields in Northeast Siberia for fighter and bomber operations, it is estimated that a maximum of 200 transport aircraft (carrying 3,000-4,000 men and their equipment) could be launched from these airfields during the period of this estimate. Considering the heavy Soviet wartime airlift requirements in the Far East, the logistic limitations of Northeast Siberia, the overriding importance of the area as a long-range bomber base, and the relative cost and suitability of all the means available to the Soviet Union, it is probable that any operation would be on a smaller scale. The existence by 1958 of long-range four-engined transport aircraft would probably permit Soviet forces to undertake operations against targets up to a radius of about 1,300 nm. Such an aircraft would serve primarily to increase the feasibility of operations now possible. It would probably not substantially increase the scale of operations nor extend the airborne threat into additional important areas.

TOP SECRET  
ACAI-31

- 35 -

(Page Revised by Corrigendum - 27 September 1954)



TOP SECRET

Small scale operations could be undertaken against Greenland, Iceland and possibly selected areas of North America if TU-4 aircraft (converted for troop carrying) were used.

c. Advantages. Successful airborne operations in Alaska, the Aleutians and the North Atlantic island area could eliminate, at least temporarily, U. S. operations against the Soviet Union from the area and permit it to attempt operations from these bases. The effectiveness of the early warning system in these areas could be seriously reduced. Such attacks would create public alarm and possibly result in demands for defensive measures which might cause maldeployment of forces.

d. Disadvantages. Practically all troop carrier aircraft estimated to be available to the Soviets are limited in range. Weather conditions over Alaska and the Aleutians are difficult. In addition, the Soviets would have difficulty providing adequate base facilities in the Chukotski Base Area for a large or sustained effort. Airborne operations against Greenland and Iceland would be difficult because of the distance involved.

e. Conclusions. Airborne operations on a limited scale would be a probable course of action against Alaska and the Aleutians. Airborne operations against Greenland and Iceland and parts of Canada would be a remote possibility.

#### Naval Operations

66. Submarine operations against naval vessels and shipping in coastal waters and ports:

a. Objectives. Primary Soviet objectives would be to prevent supply and reinforcement of Allied Forces in Europe and Asia from North America, to interdict seaborne movement of essential raw material and to reduce the preponderance of Allied surface naval strength.

TOP SECRET  
ACAI 31



TOP SECRET

b. Capabilities. The following table is indicative of the maximum possible effort which could be sustained over a long period against various segments of the Atlantic and Pacific coasts:\*

<u>Atlantic Coastal Waters</u>	<u>Avg. No. on Patrol in the Area - Mid-1958</u>
Halifax Northward	24
New York to Halifax	18
Charleston to New York	16
Florida Straits to Charleston (including Antilles)	14
Gulf of Mexico and Caribbean	(Primary Mining Capability)
<u>Pacific Coastal Waters</u>	
Gulf of Alaska	26
Prince Rupert to Seattle	20
Seattle to San Francisco	18
San Francisco to San Diego	9

The above figures represent the maximum capability in each area and not a capability in two or more areas at the same time.

c. By employing submarine tankers, the above concentrations could be approximately doubled, or the effective operating radius extended to more distant areas (e.g., to the Panama Canal on torpedo missions). Special effort for short periods, or the seizure of Western European ports could further increase the threat to North America.

d. Advantages. On both the Atlantic and Pacific coasts of North America areas of high shipping density exist which would provide the Soviet submarines with many worthwhile targets. Many areas on both coasts are suitable for mining. Interdiction of coastal shipping lanes would greatly impair the war effort of the United States and Canada and impose additional heavy demands on ground lines of communication. Submarine

\* Planning factors assumed:

1. Submarines operate from Murmansk and Petropavlovsk.
2. Base facilities in the Murmansk and Petropavlovsk areas are adequate.
3. 15 days allowed on station for torpedo patrols.
4. Speed of advance under war conditions 8.5 kts because considerable submerged operation necessary.
5. 40 percent nonavailability because of refit, replenishment and training requirements.
6. Submarines on mining missions would probably carry a few torpedoes.

TOP SECRET  
ACAI-31



TOP SECRET

activity in North American coastal waters would necessitate the employment of ASW and mine-sweeping vessels and require the employment of uneconomical convoys.

e. Disadvantages. With respect to trans-Atlantic and trans-Pacific shipping, operations near North American ports of departure would be less effective than operations near the overseas ports of arrival. Operations in coastal waters are within range of land-based aircraft and short range ASW surface forces.

f. Conclusions. Submarine activity would be probable in North American coastal waters from the outbreak of hostilities.

67. Submarine-launched guided missile attacks against ports and coastal areas:

a. Objectives. The objectives of such attacks would be to damage the industrial and military potential of the United States and Canada, to attain a significant psychological impact on public morale and to tie up large forces in a defensive effort.

b. Capabilities. There is no positive evidence of Soviet activity in the field of submarine-launched guided missiles nor is there evidence of Soviet capability in the guided missile field proper beyond the stage of the German V-1 and V-2 types. The United States, however, has made public announcements of the successful launching of the V-1 type missiles from a submarine, and the technical problems involved are not beyond estimated Soviet capabilities. It is, therefore, estimated to be within Soviet capabilities to equip long range submarines for such attacks against North America. It is estimated that a submarine-launched guided missile of the V-1 type could be given some guidance up to a range of about 200 nautical miles, although accuracy limitations would probably preclude general use against other than area targets. It is within Soviet capabilities to develop by mid-1958 a turbojet guided missile

TOP SECRET  
ACAI 31



TOP SECRET

which could be launched from a submarine to a range of 400-500 nautical miles at almost sonic speed. Either of these missiles could carry a nuclear war head.

c. Advantages. In view of the large concentrations of industry and population in coastal areas, such missiles if equipped with nuclear warheads and effectively guided could do great damage to the war-making potential of North America. Such attacks would have a significant psychological impact on public morale and could result in tying up large forces in a defensive effort. Such attacks would be extremely difficult to counter.

d. Disadvantages. The questionable accuracy of the guidance system would probably preclude attacks against other than area targets and might not justify the expenditure of nuclear materials.

e. Conclusions. If the Soviet Union should succeed in developing this mode of attack, it will in all probability be employed. The extent of employment will depend upon the accuracy of the guidance system and the availability of nuclear materials. There is no evidence, however, to support the existence of this capability beyond the known state of the art as demonstrated in U. S. experience.

#### 68. Surface Raider Operations

a. Objective. The objective of such employment of surface vessels would be the destruction of Allied shipping.

b. Capabilities. Any seagoing Soviet naval vessels or fast merchantmen could be employed for this purpose.

c. Advantages. Some Allied shipping could be destroyed, particularly in the early stages of war. Considerable Allied effort would be required to hunt down and destroy the raiders.

d. Disadvantages. Early destruction of the raiders in North American waters would be almost certain. Merchant vessels or cruisers so employed would be diverted from their normal roles.

e. Conclusions. The employment of Soviet surface raiders within the area of Canadian-U. S. defensive responsibility would not be probable.

TOP SECRET  
ACAI 31



TOP SECRETAmphibious Operations

69. Amphibious operations against certain coastal installations in North America:

a. Objectives. The objectives of amphibious operations would be of a limited and temporary nature, such as securing information, destroying radar sites and other installations, seizing air bases for temporary use, and causing maldeployment of Allied forces in defense against such operations.

b. Capabilities. Assuming sea and air control of the area could be achieved, it is estimated that the amphibious sealift available to the Soviet Union in the Far East in 1958 would be capable of transporting, under optimum conditions, 8,000 to 12,000 troops for the assault phases of amphibious operations against lightly held or undefended objectives on the Bering sea coast of Alaska or in the Aleutians. Available Soviet merchant shipping could transport a follow-up force of about 30,000 or 40,000 troops provided suitable unloading facilities could be established. However, certain limitations will be imposed on the size of amphibious operations in the area by:

(1) Lack of suitable ports and landing beaches in Alaska and the Aleutians;

(2) The fact that in the Aleutians logistic support of most airfield sites would be extremely difficult.

(3) The dependence of the bases from which such operations would be mounted on limited and vulnerable sea lines of communication.

TOP SECRET  
ACAI 31

- 40 -



TOP SECRET

The effect of these factors would probably be to limit the Soviet amphibious capability against Alaska and the Aleutians to the landing of an assault of 4,000-6,000 troops. Climatic factors would limit the amphibious operations to the period July to November.

c. Advantages. Some air bases in the Alaska-Aleutian area might be denied to U. S. operations. Such attacks would create public alarm and possibly result in demands for defensive measures which might cause maldeployment of forces. Important installations such as radar sites might be destroyed. Important information, including, for instance, Allied cryptographic materials, might be seized.

d. Disadvantages. A concentration of Soviet amphibious forces prior to the outbreak of war might provide warning of hostile intentions. Amphibious operations in the Arctic will be difficult to support logistically. Areas seized would be difficult to hold or support.

e. Conclusions. Amphibious operations employing a maximum of 4,000 to 6,000 troops in the assault phase would be possible in the Aleutians and on the coast of Alaska north of Bristol Bay. Such operations, however, would more probably be limited to actions of up to battalion size with limited support weapons. Amphibious operations against Canada and the continental United States would be in the nature of commando raids probably launched from submarines and would not constitute a significant threat.

TOP SECRET  
ACAI 31

- 41 -

TOP SECRETInternal Threat

70. Clandestine introduction and employment of nuclear, BW or CW weapons:

a. Objectives. The objectives of the clandestine introduction and employment of these weapons and agents would be to destroy key installations, disrupt production and communications, and to create panic and confusion.

b. Capabilities. The Soviet Union is capable of producing nuclear weapons and BW or CW agents which could be used in clandestine operations in North America. Many of the components of nuclear weapons (other than fissionable material), and possibly of BW or CW agents, could be obtained locally and the remainder imported by various means or smuggled by agents. Some technical supervision would be required for the procurement and assembly of these components. Assembled nuclear weapons could also be introduced under cover of diplomatic immunity, as "in-transit" commercial shipments, covertly by disguised aircraft, by smugglers, as bombs to be detonated in the hold of merchant ships, or as mines to be laid in key harbors by merchant ships.

c. Advantages

(1) A great deal of destruction, disruption and psychological effect could be obtained at relatively little cost.

(2) BW agents are easily adaptable to clandestine use and small amounts are difficult to detect or identify as to source.

(3) It would be possible to destroy or neutralize key targets which may not be easily attacked by other means.

d. Disadvantages

(1) Premature detection would alert security forces to the detriment of other Soviet operations. Post-D-day security measures would severely limit Soviet capabilities for this course of action.

TOP SECRET  
ACAI 31



TOP SECRET

(2) Pre-D-day introduction of nuclear weapons on a large scale would involve considerable risk of detection. The returns from small scale employment might not warrant incurring the risks of possible detection.

(3) CW agents are not easily adaptable to clandestine use and are readily identifiable by their immediate effects.

e. Conclusion. Small scale clandestine employment of BW agents and nuclear weapons might occur. The clandestine employment of CW agents is considered improbable.

#### 71. Sabotage, Subversion and Espionage

a. Objectives. The objectives in the use of these means would be to achieve physical destruction, undermine the confidence of the people, impede production, reduce efficiency, incite unrest, gain information and to assist in other operations.

b. Capabilities. While support for Communist-directed activities is decreasing, the Communist Parties in both Canada and the United States are not believed to have declined correspondingly in effective strength. In addition to avowed and anonymous Communists, some fellow travelers would probably be willing to co-operate in Communist-directed sabotage, subversion and espionage efforts. Soviet agents could be introduced with little difficulty. The physical means for sabotage with fire, explosives, or abrasives, as well as electronic devices for covertly operated radio stations, are or can be made readily available from local sources.

#### c. Advantages

(1) The actions of a very few militant party members or Communist sympathizers could cause considerable damage to industrial, governmental and military installations.

TOP SECRET

(2) Production in industries important for the Allied war effort could be disrupted by successful sabotage in a few key plants concentrating on specialized parts and components.

(3) Espionage could furnish timely and valuable information to the USSR.

(4) Covertly operated radio facilities could provide navigational aid for air attack and other military operations.

d. Disadvantages. Extensive sabotage prior to D-day would probably disclose Soviet intentions.

e. Conclusion. Espionage and subversion must be expected both before and after the initiation of open hostilities. Small scale sabotage operations might be undertaken at any time before D-day, but extensive sabotage would probably be timed with the start of war. Small scale introduction of radio aids is possible.

PROBABLE COURSES OF ACTION AGAINST NORTH AMERICA IN  
A MAJOR WAR COMMENCING IN MID-1958

Air Operations\*

72. Air attack against Canada and the United States will probably employ nuclear and possibly BW and CW weapons. It is estimated that the Soviet Union will have the capability of undertaking the following bombing operations over all of Canada and the United States:

a. One-way missions with medium bomber aircraft from bases in the Kola area, Baltic area and Chukotski area against any important target in the United States and/or Canada.

\* See third footnote to page 20. Tentative revisions to estimates of long-range bomber strength, resulting from recent evidence, point to a sharp increase in jet medium bomber strength and some increase in jet heavy bomber strength, probably resulting in the elimination of the turboprop bomber from the order of battle. These changes do not alter substantially the over-all scale of the air attack outlined in the succeeding paragraphs. However, the increased proportion of jet bombers which will be available will increase the complexity of the air defense problem.

TOP SECRET  
ACAI-31

- 44 -

(Page Revised by Corrigendum - 27 September 1954)

**TOP SECRET**



TOP SECRET

TOP SECRET

b. Two-way missions with heavy bomber aircraft from bases in the Chukotski area against that segment of North America north of an arc approximately through San Diego, Colorado Springs and Moosonee.

TOP SECRET  
ACAI-31

- 44 a -

(Page Revised by Corrigendum - 27 September 1954)

TOP SECRET

c. Two-way missions with heavy bomber aircraft from bases in the Chukotski area carrying out a single outbound refueling\* against all of Canada and the United States except a portion of Florida; and from the Kola area against that segment of North America north of an arc approximately through Charleston, Wichita and Salt Lake City.

73. The magnitude of the strike forces which the Soviet Union might launch would not only vary according to the types of missions undertaken but would depend upon such factors as base capacity, aircraft performance, crew proficiency, and operating conditions discussed under "Military Factors" earlier in this paper. Because intelligence on the above factors is limited, the following estimate provides only a general approximation of the scale of attack which might be expected.

74. If a combination of missions designed to achieve optimum weight of attack with recovery of a sizable part of the attacking force were employed, approximately 550\*\* aircraft could be mission aircraft with approximately 550 additional aircraft used as tankers. Roughly four-fifths of the mission aircraft could be two-way flights. (This is a maximum capability under the stated conditions. Its exercise would involve difficult operational and logistical problems, particularly those pertaining to the creation of a tanker fleet and the training of both tanker and mission aircrews.) It is estimated that as many as 450\*\* aircraft could reach target areas, not considering combat losses.

75. If the USSR should not decide to create a tanker fleet, but to commit the bulk of its forces to one-way unrefueled missions, it is estimated the magnitude of the attack could be as large as 750 aircraft reaching target areas not considering combat losses. Possibly a third of this number could be two-way missions.

\* See first footnote, page 8.

\*\* The Canadian AOB estimate would permit only about 330 mission aircraft to be so employed against North America. Only about 60 of these aircraft will be TU-4s and the remainder will be of higher performance. Only perhaps 250 tankers will be required for operations with these aircraft. The Canadian figure for aircraft reaching target areas is about 275.



TOP SECRET

76. All mission aircraft would probably not be bomb carriers as a number would be utilized for ECM, escort or diversionary duties.

77. Although the Soviet Union has the means to attempt to deliver large numbers of nuclear weapons against targets in North America, it is considered almost certain that some portion of the nuclear stockpile would be diverted to other objectives outside this area or retained against other contingencies.

78. Air Operations against Alaska and the Aleutians.

In view of the logistic difficulties involved in maintaining a combat force in the Chukotski area, plus the adverse weather conditions that exist, it is considered that any sustained air campaign against Alaska and the Aleutians would be relatively minor in scope. Anchorage and Fairbanks will be out of range of all but medium and heavy bombers and the longest range light bombers. As a practical maximum, it is estimated that 200-300 tactical aircraft might be employed against the Alaskan area.

Airborne Operations

79. Airborne operations on a limited scale are a probable course of action against Alaska and the Aleutians.\* Considering the heavy over-all Soviet wartime airlift requirements in the Far East, the logistic limitations of Northern Siberia, the overriding importance of that area as a long range bomber base, and the relative cost and suitability of other means available to the Soviet Union to attack Alaska, it is estimated that a maximum operation would employ about 50 transports lifting as far as the Fairbanks-Kodiak-Anchorage area an initial force of about 900 troops in a surprise assault or following a bombing attack, with a build-up to about 3,000 men within 5 days.

\* By 1958, transport aircraft available to the Soviet Union will bring parts of Canada within range of such operations.

TOP SECRET  
ACAI-31

TOP SECRET

Transport aircraft of the LI-2 type or equivalent would be employed. Logistic facilities in northeast Siberia would restrict the concurrent employment of transports, bombers and fighters. Facilities for staging airborne personnel through this area would also be heavily strained. Range limitations of present Soviet transports (IL-12 or LI-2) would prevent their participation in airborne operations with full loads against targets more distant than Fairbanks and Anchorage if return to Siberia were contemplated. Although supporting aircraft can operate all year around, the solution of the formidable logistic problems inherent in the above airborne operations would be difficult.

Naval Operations

80. Submarine operations against naval vessels and shipping in coastal waters and ports:

a. Submarine mining and torpedo activity must be expected in North American coastal waters from the beginning of hostilities.

b. On a sustained basis, by mid-1958, fourteen to twenty-four submarines could be kept on station in Atlantic coastal waters and nine to twenty-six in Pacific coastal waters. As there are profitable areas for the employment of these submarines nearer home bases, it is improbable that these concentrations would be continuously maintained in North American coastal waters. However, depending upon the progress of the war at sea, such concentrations might be expected there from time to time for considerable periods.

c. By employing submarine tankers the above concentrations could be approximately doubled, or the effective operating radii extended (e.g., to the

TOP SECRET  
ACAI-31

- 47 -

(Page Revised by Corrigendum - 27 September 1954)

CANCELLED  
TOP SECRET



TOP SECRET

Panama Canal, on torpedo patrols). Special effort for short periods could result in concentrations of as many as 118 submarines in Atlantic coastal waters and 79 in Pacific coastal waters.

d. It should be noted that the estimates in b and c are maximum capabilities based on the assumptions indicated on page 37. In addition, although estimated to be within Soviet technical capabilities, there is no intelligence to indicate that submarine refueling techniques and submarine tankers have been developed and are available for operational use.

81. Submarine operations against ports and coastal areas employing guided missiles. There is no evidence to support the existence of a capability to employ guided missiles launched from submarines beyond the known state of the art as demonstrated in United States experience. However, if the Soviet Navy should succeed in developing this mode of attack, it will in all probability be employed.

#### Amphibious Operations

82. Amphibious operations employing a maximum of 4,000 to 6,000 troops in assault phase are possible in the Aleutians and on the coast of Alaska north of Bristol Bay. It is more probable, however, that amphibious operations would be limited to actions of up to battalion size with limited support weapons. Amphibious operations against Canada and the continental United States would be limited to commando-type raids probably launched from submarines and would not constitute a significant threat. Submarines may be employed to transport agents or saboteurs.

TOP SECRET  
ACAI-31

- 48 -

(Page Revised by Corrigendum - 27 September 1954)

CANCELLED  
TOP SECRET



TOP SECRETInternal Threat

83. Clandestine Operations. Insofar as the Soviet Union seeks to realize the advantages of clandestine employment of BW agents and nuclear weapons, it might attempt to introduce into the United States or Canada a small number of such agents and weapons but would be more inclined to make such attempts after the war had commenced.

84. Sabotage. Communist Party members and adherents are capable of organizing saboteur units or teams of varying sizes equipped with small arms and other suitable material. Such units would be capable of striking at especially selected and widely separated targets simultaneously and without warning. Intensive sabotage efforts can be expected to be timed or coordinated with a surprise Soviet military attack, coming immediately before, coincidentally with, or immediately following the initiation of open hostilities.

85. Subversion and Espionage. The Communist Parties of the United States and Canada would seek, through their propaganda organs, to promote the idea that the Western Powers forced the war upon an unwilling Soviet Union. In addition, the Communists would, prior to the outbreak of war, use their highly integrated world-wide subversive apparatus in an attempt to:

- a. Conduct effective espionage;
- b. Undermine the confidence of the people of the Western World in their governments, their policies, institutions and leaders;
- c. Impede defense production and communication through strikes and slowdowns;
- d. Reduce the efficiency of the armed forces by adversely affecting morale and the will to fight; and
- e. Cause or exploit confusion among the civil population.

TOP SECRET  
ACAI 31