

Canadian Foreign Intelligence History Project

DND DHH 2002/17 Box 91 File 11

JIC Assessment

Comparison of Soviet Military Capabilities

JIC 264/1 (58) 58-01-14

Note: This paper compares US and Canadian assessments of the Soviet bomber and missile threat. It refers to the following Canadian and US assessments:

- US NIE 11-4-57 57-11-17
- US SNIE 11-10-57 57-12-17
- JIC 256/5 (57) 58-01-03 The Threat to North America

JIC 264/1(58)
dated 14 Jan 58COMPARISON OF SOVIET MILITARY CAPABILITIESObject

1. To compare statements on certain Soviet military capabilities contained in the following documents:

- a. JIC 256/5(57)/JPC 101/5(57) dated 3 Jan 58 - The Threat to North America 1958-67.
- b. US NIE 11-4-57 dated 12 Nov 57 - Main Trends in Soviet Capabilities and Policies, 1957-62.
- c. US SNIE 11-10-57 dated 17 Dec 57 - The Soviet ICBM Programme.

Aircraft

2. The aircraft strengths in the above documents are summarized in the following tables. It will be noted that the US NIE extends only to 1962.

IRAF - Estimated Strength in Operational Units3. Heavy Bombers and Tankers

	<u>Mid-1958</u>	<u>Mid-1959</u>	<u>Mid-1960</u>	<u>Mid-1961</u>	<u>Mid-1962</u>
a. <u>Canadian</u>	100	150	195	195	180
b. <u>U.S.</u>					
(1) NIE	150-250	250-450	400-600	400-600	400-600

(2) According to the footnotes on page 33 of the US NIE the Joint Staff and the Army consider that: "Even the lower figures of the table would require an increase of heavy bomber production which is not yet evident nor indicated by trends."

(3) The USAF considers "that the strengths estimated above (NIE) would all be bomber aircraft and that additional aircraft will be in operational units as tankers as follows:

	<u>Mid-1958</u>	<u>Mid-1959</u>	<u>Mid-1960</u>	<u>Mid-1961</u>	<u>Mid-1962</u>
Tankers	50-100	150-200	300-350	300-500	300-500

(4) The US Navy states: "While the Soviets will certainly maintain a substantial heavy bomber force during the period of build-up of new intercontinental delivery systems, the heavy bombers/tankers available in operational units through mid-1958 will almost certainly

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approximate the lower range estimated in the above table (NIE).

- c. Despite the fact that the figures shown in the table (NIE) are clearly a compromise there is no substantial agreement amongst the intelligence agencies on heavy bomber and tanker strength.

4. Medium Jet Bombers and Tankers

		Mid-1958	Mid-1959	Mid-1960	Mid-1961	Mid-1962
<u>Canadian</u>		1100	1050	1000	950	900
<u>U.S.</u>	NIE	1000-1050	1000-1100	1000-1100	950-1100	900-1000

5. The above tables show agreement on the following major points:

- a. Medium Jet Bombers and Tankers - There are no appreciable differences in estimates, and both stop production of present types in 1958.
- b. Heavy Bombers and Tankers - The Canadian estimate of present production agrees with the estimate in para 135 of NIE, which states:

"While evidence is inadequate to establish precisely the total size of the Soviet heavy bomber force, we have unusually good evidence on the one plant known to be producing BISON jet heavy bombers, which indicates a cumulative BISON production of 65 by mid-1957. Evidence on BEAR turbo prop heavy bomber production is less extensive but indicates about 50 produced."

- c. In mid-1960 the strength of heavy bombers and tankers reaches a peak in both cases although the various US strength figures are substantially higher than ours. This approximates to the start of series production of Soviet long-range ballistic missiles.

6. The major difference between the strength figures of the two estimates is in the anticipated rate of production of heavy bombers and tankers between now and mid-1960.

7. Although no future estimate can be proved conclusively we believe that our estimate is the more likely to be true for the reasons which follow:

- a. Firstly, we believe that continuation of past and present heavy aircraft production trends is more likely during the next two years than a sudden change from a very low rate to a very high rate of production. All agencies agree that the production of heavy bombers and tankers has continued over the past three years at a very low rate. The explanation of this low rate may be that the Soviet strength requirement has always been far lower than the US estimates. If, on the other hand, US estimates are right, the Soviets would have been

more likely to have produced heavy aircraft at a more uniformly higher rate over a longer period, than to have planned to continue at a low rate and then increase it considerably towards the end of the production programme. Even if production had been held down for technical reasons which have only now been overcome, we still believe that at this late date in the programme they would be unlikely to accelerate production to the point where it would require the introduction of heavy aircraft production into additional factories for a period of only one or two years. The Canadian estimate of air order of battle for BISON and BEAR as of 1 Jan 58 is 70. In order to reach even the lowest US figure in the NIE for mid-1958, a total of 80 heavy aircraft would have to be added to the air order of battle which would require the production of some 120 aircraft in six months. This would require an immediate jump to four times the present rate of production.

- b. Secondly, some evidence is available about the types of aircraft which will be produced in the factories most suitable for additional heavy bomber production. There is some evidence that two of those factories are preparing to produce new types of transport aircraft. We expect another factory to start in 1958 or early 1959 to prepare for the production of a supersonic medium bomber. We know of no suitable factory which is not producing aircraft at present and which might, therefore, be preparing to produce heavy aircraft. Thus, such evidence as we have regarding future activity at the factories which might be suitable for heavy aircraft production, argues against the extension of production to additional factories.
- c. Thirdly, since Soviet heavy bombers first appeared, estimates of their production by the US in NIEs and ACAIs, have been much higher than Canadian estimates. Even our estimates have been higher than Russian actual production, as agreed by all agencies. USAF estimates have been particularly high and they defend their present estimate in the NIE, in a footnote, on the grounds of what the Soviets would regard as essential requirements to attack North America. Since this line of argument has led them to high estimates in the past, when no alternative long-range delivery system was in immediate prospect, we believe that their application to the next few years is even more likely to lead to high estimates.

Fissile Material

8. The US NIE 11-4-57 (summary) at para 22a. suggests that the availability of fissile material will be a limiting factor on the size of many military as well as non-military nuclear programmes. Para 24 of the Canadian estimate states that it would be unwise to assume that availability of fissile material will be a limiting factor in Soviet production of warheads and bombs or that this development will not keep pace with evolution and production of weapons systems.

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Surface-to-Surface Ballistic Missiles

9. Long-Range Ballistic Missiles

a. Canadian View

- (1) There is an initial Soviet operational capability of 3500-5000mm ballistic missile by 1960. It is estimated that there will be 100 available by 1960 with 200 produced per year thereafter.

(2) Characteristics

	<u>1960</u>	<u>1965</u>
Range	3500-5000	6000-7000
Payload	1500	2000
CEP	5nm	3-5nm
Reliability	50%	80%

- (3) Operational capability is not defined in the Canadian paper, however, in ACAI 44 it is defined: ".....earliest possible year during which one or more missiles could have been produced and placed in the hands of an operational unit."

b. US Views

- (1) NIE 11-4-57: An operational capability (a few - (say 10) prototype missiles available for operational use) of max range 5500 mm missiles by 1959. The date of availability could be advanced by relaxing reliability and accuracy.
- (2) SNIE 11-10-57: First operational capability* with up to 10 prototype ICBM's some time during the period mid-1958 to mid-1959**. Operational capability with about 100 ICBM's about one year after its first operational capability date, and with 500 ICBM's about two or at most three years after first operational capability date.

* A "first operational" capability is defined as a total of 10 prototype ICBM's in the hands of trained units at completed launching sites; a "substantial operational capability" is arbitrarily defined as a total of 500 ICBM's in the hands of trained units at completed launching sites.

** The Army believes first operational capability will be with an ICBM of at least 3800-4500mm maximum range rather than the defined 5500mm missile and that this weapon will be developed into the longer range missile.

10. Intermediate Range Ballistic Missile

a. Canadian View

Ranges of 1200nm could be available to operational units in 1958. (This is in a modified 700nm vehicle).

b. US View

(1) A 1000nm range "first operational capability" in 1958.

(2) There are no current indications of development of ballistic missiles of ranges beyond 1000nm in the IRBM field.

(3) This weapon is a modified 700nm missile's with a lighter warhead.

c. Canadian views do not agree with US views at b.(2) above as there is some evidence which supports our view at 10a. above. The thinking in b.(3) above can also be applied to ranges up to 1200nm.

11. Submarine Launched Surface-to-Surface Missile

a. Canadian View

It is estimated that a 1000nm missile will be operational in 1960.

b. US View

It is estimated the USSR could now have supersonic cruise-type missiles capable of maximum ranges of about 500nm, and that in 1962 a supersonic cruise-type missile of up to 1000nm range could probably become available. To an extent varying with the missile guidance system employed, their accuracy would depend on the ability of the launching or guidance submarine to fix its own position.

Earth Satellites

12. Canadian View

A Canadian view is not included in the Canadian paper.

13. US View

A reconnaissance satellite previously estimated for 1963-65 may be available earlier.

Naval Strengths

14. There are minor differences in the papers covering naval strengths. It however should be noted that the ONI-DNI Admiralty Intelligence conference was held in Washington from 28 Oct to 1 Nov 57 and that the date of the US NIE is 12 Nov 57. Changes of Order of Battle agreed to at this Conference are not reflected in the Order of Battle is US NIE. It is therefore considered that the differences are no longer of any real significance.