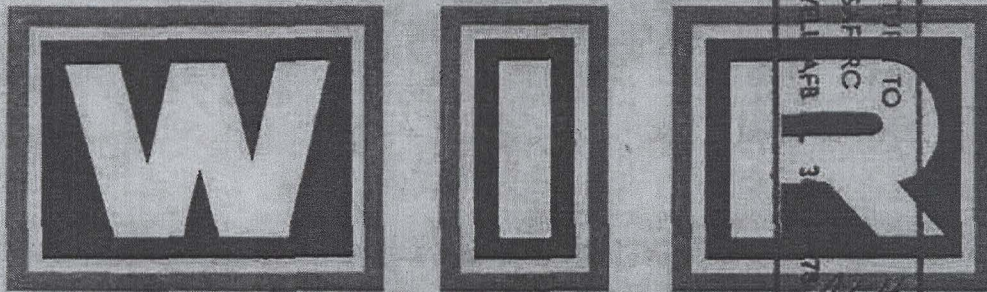




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ISCAP APPEAL NO. 2009-068, document no. 155
DECLASSIFICATION DATE: February 25, 2015

NORTH AMERICAN AIR DEFENSE COMMAND

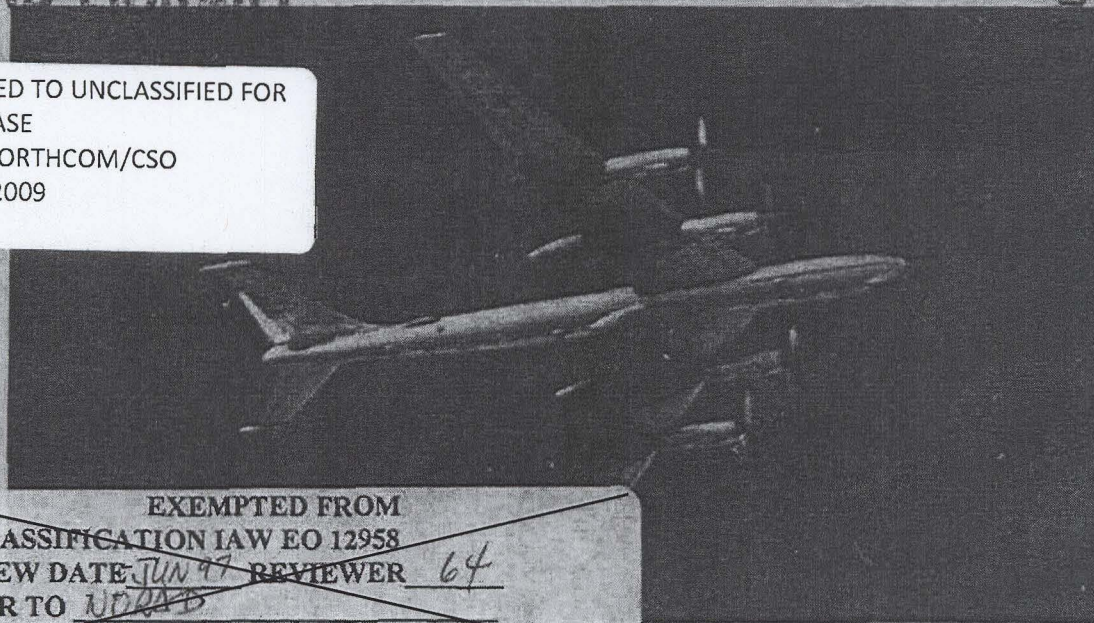


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Issue No. 48/66, 2 December 1966

Weekly
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The WIR in Brief

Portion identified as non-responsive to the appeal

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Space

COSMOS 133 PROBABLY TESTED PAYLOAD TO BE
USED IN MANNED FLIGHTS OF FUTURE
Probably for circumlunar flight.

Portion identified as non-responsive to the appeal

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significant
intelligence
on space
developments
and trends

Cosmos 133 Probably Tested Payload To Be Used in Manned Flights of Future

Cosmos 133, which the Soviets said was a scientific research vehicle, is believed to have involved test of a payload which will be used in manned spaceflights of the future.

The new vehicle was launched from the Tyuratam Missile Test Range at about 1101Z, 28 November, into a low, nearly circular orbit having the following parameters:

Inclination	52 degrees
Period	88.3 minutes
Apogee	172.71 km (93 n.m.)
Perigee	147.29 km (79 n.m.)

It was de-orbited 2 days later, during the early part of Revolution 33, probably impacting in the USSR at about 1150Z, 30 November.

The propulsion system cannot be identified positively, [REDACTED]

[REDACTED] The large 2-stage SL-9, which orbited the 12.2-metric-ton Proton payloads, probably launched Cosmos 133.

Radar signature analysis also indicates that the payload was large (about 20 feet long by about 8 feet in diameter) and of complex shape, similar to the Proton-type payload.

Mission. The Soviet claim that Cosmos 133 is a scientific research satellite is discounted, since its low orbit would have confined data collection to a region of very little scientific interest -- far below the Van Allen belts. The

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vehicle's short life also argues against this mission. Similarly, numerous other missions, such as communications-relay, navigational-aid, weather, geodesy, and reconnaissance, can be discounted -- again, because of the spacecraft's low orbit or short life, or both. De-orbit also automatically rules out the possibility that Cosmos 133 was a deep-space probe of any type.

Cosmos 133 is believed to have been the prototype or precursor of a new, large Soviet spacecraft which will be multimanned and will figure in the Soviet lunar program. The short orbital life of Cosmos 133 suggests a similarity to Cosmos 47, which was the precursor of Voskhod 2, the Soviets' first multimanned space vehicle.

Several features of Cosmos 133 suggest that the final design vehicle will be manned:

- The de-orbit of Cosmos 133.
- The large size of that vehicle.
- The apparent use of video similar to that used previously on Soviet manned vehicles and their precursors.

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A lunar association is suggested by:

- The orbital inclination of 52 degrees, which has been characteristic of the parking orbit of all Soviet lunar probes of the past year.
- The low apogee and perigee, which are suggestive of a parking orbit.
- The launch time coincides closely with the lunar launch windows of the next four months.

NORAD believes that the mission of Cosmos 133 was to test a new manned-type vehicle which is intended for future Soviet multimanned circum-lunar flights.

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It is not known whether there is a specific Soviet program designed to exploit this propulsion potential but it must always be considered a possibility.

(FTD)

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Upper-Stage Rocket Engine Which Uses Fluorine-Type Oxidizer May Be Under Test

A tower 300 feet high and 23 feet in diameter in the rocket-engine test area at Moscow/Khimki Plant No. 456 apparently was intended to vent toxic gases generated by liquid-propellant engines on a near-by test stand.

The height of the tower is consistent with a toxicity problem and its diameter correlates with the estimated thrust rating (100,000-200,000 lbs) of engines tested on near-by stands. Design features which indicate that testing at higher altitudes is simulated are also significant, since toxic propellants would be used only in upper staging which would be ignited at relatively high altitudes.

Propellants which could create a severe toxicity problem include fluorine-containing oxidizers and beryllium-containing fuels. Since it is more difficult to investigate beryllium, which has to be slurried in a carrying liquid, it is believed that the tests under review probably involve fluorine rather than beryllium.

It is estimated, therefore, that an upper rocket stage which uses a fluorine-type oxidizer and is designed to develop a thrust in the 100,000-200,000 pound range is under test at Khimki.

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