

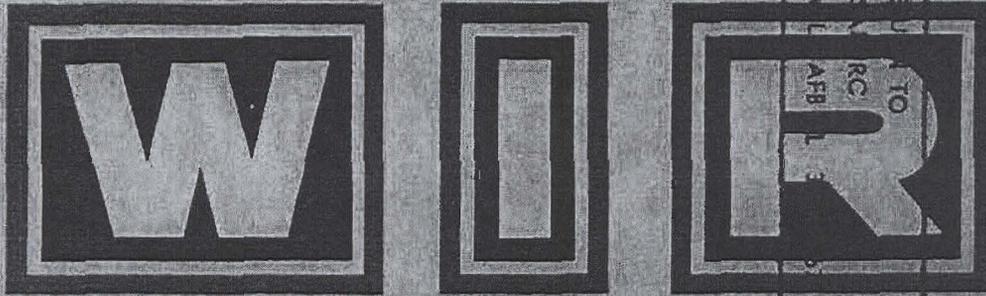
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NORTH AMERICAN AIR DEFENSE COMMAND



WEEKLY INTELLIGENCE REVIEW (U)

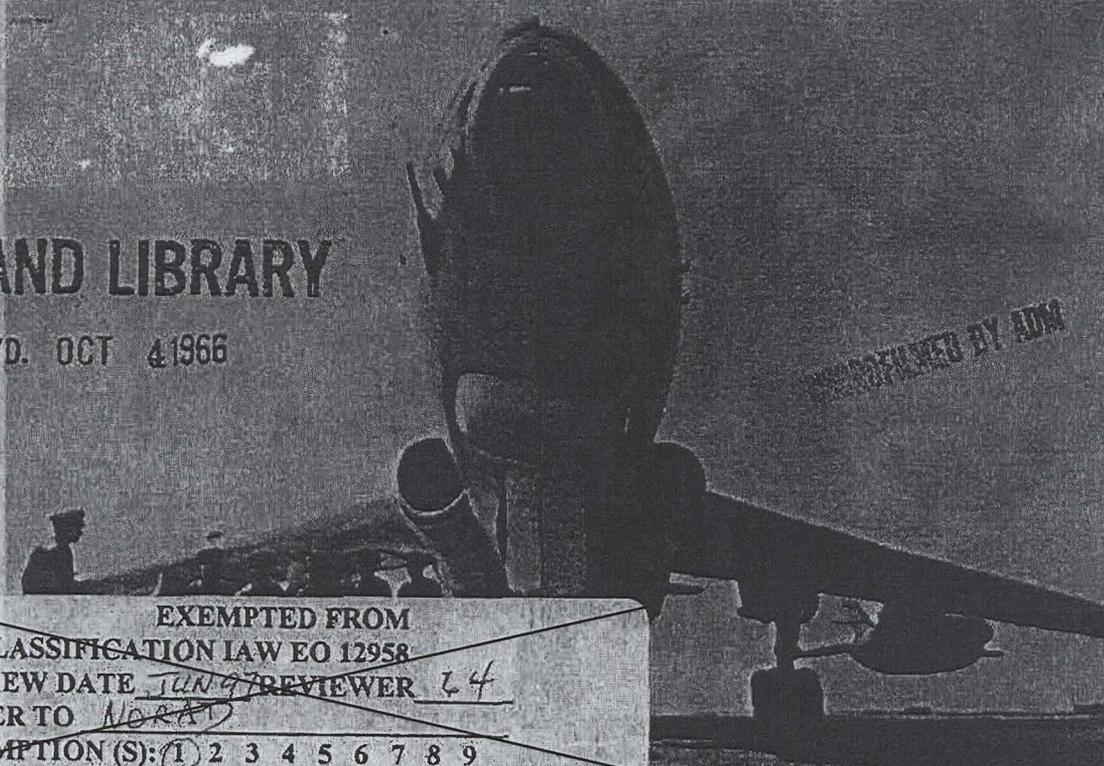
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Issue No. 39/66, 30 September 1966

Weekly  
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## The WIR in Brief

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Portion identified as non-responsive to the appeal

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### Space

UNNAMED ORBITER BREAKS UP; MAY HAVE TESTED ORBITAL BOMBARDMENT SYSTEM 13  
Vehicle used for possible FOBS tests again used.

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Portion identified as non-responsive to the appeal

COVER: BADGER with ASM (from Soviet Soldier) (OFFICIAL USE ONLY)

NOTE: Pages 30, 31, 34, 35, 38, 39, 42, and 43 of this issue are blank.

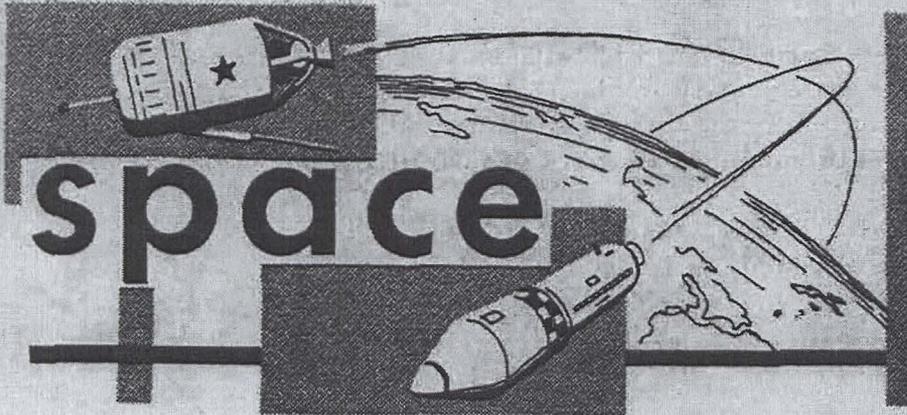
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significant  
intelligence  
on space  
developments  
and trends

UNNAMED ORBITER BREAKS UP; MAY HAVE  
TESTED ORBITAL BOMBARDMENT SYSTEM

A space vehicle which the Soviets launched from Tyuratam at about 2235Z, 17 September, may have been a follow-on to a series of 3 tests which began last December and which may have tested a fractional-orbit bombardment system (FOBS). Orbital parameters of the launch were approximately as follows:

Inclination	49.4 degrees
Period	97 minutes
Apogee	1300 kilometers (700 n.m.)
Perigee	150 kilometers (80 n.m.)

50X1 and 3, E.O.13526

[redacted] the vehicle was launched by a TT-4, an intelligence designation for a 3-stage vehicle in which the SS-9 ICBM is used as the booster and second stage. The third stage was injected into an orbit of 49.4 degrees but it apparently broke up while passing over the Mediterranean or shortly thereafter, on Revolution 1. Diyarbakir (Turkey) radar detected about 25 uncorrelated objects in the orbital path at 0015Z on Revolution 1, while later reports from the US Navy's Spasur fence and Moorestown (N.J.) radar indicated detection of an increasing number of objects. At one time a maximum of about 160 pieces was detected by Diyarbakir. About half of these objects have now decayed, the remainder should do so in about 60 days.

The Soviets have made no announcement about this event.

Several factors suggest that the launch involved test of an orbital bombardment system:

- The TT-4 has been used previously only in a series of launches (16 Dec 65, 5 Feb 66, 19 May 66) which have been

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evaluated as possible suborbital testing of a FOBS. (In all 3 tests the booster impacted in the Pacific, but the Soviets evidently were not interested in the closed area, for none of their range instrumentation ships were sent there to monitor the impact. In the first test the re-entry vehicle exploded when the third stage ignited; in the second and third tests the re-entry vehicle was de-orbited onto the Kamchatka Peninsula; and on the third test [redacted]

indicative of warhead arming and fuzing [redacted], indicating that these tests were weapon-system associated.

- The 49-degree inclination could be compatible with a re-entry attempt, since the vehicle, after its first ascending pass over the Equator, was on a trajectory that would have permitted de-orbit into the same area into which the Soviets de-orbit their Cosmos-series military reconnaissance satellites. The facilities which monitor de-orbit of the recce satellites would also have been available for monitoring de-orbit of the payload launched 17 September. Moreover, a re-entry on Rev 1, if one had been attempted, would have occurred in darkness, just before sunrise, similar in timing to the possible FOBS tests mentioned above. Darkness would have facilitated optical tracking during re-entry.
- The breakup suggests a re-entry attempt or -- a less likely possibility -- an attempt to inject a payload into another trajectory. Most Soviet space vehicles which have exploded or broken up in flight have done so during attempted inflight ignition.
- The Soviet decision not to announce the event suggests either a failure or a classified mission or both.

Other circumstances which also mark this space event as an unusual one:

- This was the first SS-9 ICBM utilized to orbit a space vehicle.
- This was the first Tyuratam launch of a space vehicle on an inclination of 49 degrees.

Retrospect and Prospect.

- The use of the TT-4 launch system, which was used previously for suborbital tests of a fractional orbital bombardment system, suggests that the 17 September launch involved the first test of this weapon system to orbital range.





- Instability in the second stage and breakup of the vehicle may indicate that the test was a failure. The lack of a TASS announcement may also point to this conclusion.
- The TT-4 launch system, if used in the role of orbital bombardment, could orbit a 10,000-pound vehicle with a 5,000-pound warhead, assuming that about 50% of the weight is required for the retrofire package and propellants. Such a system, when operational, should have re-entry angles compatible with an impact accuracy of about 2 n. m. CEP.
- More testing of this same nature can be expected.

(NORAD)

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