



Intelligence Review

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The WIR in Brief

Portion identified as nonresponsive to the appeal

Space

SHORT ROUTE, SOVIET PRESS HINTS AT PROBE-

Portion identified as non-

responsive to the appeal

Either or both probes may launch smaller, nonrecoverable probe to Venus, to gather data on

VENUS ATTEMPT FAILS

Soviets name it Cosmos 96, admitting its: existence but refusing to admit its real purpose

Portion identified as nonresponsive to the appeal

COVER: Feathered preps on COOT/IL-18 transport (OFFICIAL/SUSE ONLY) (From OGONEK)

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significant intelligence on space developments and trends

Both Venus Probes Taking Short Route; Soviet Press Hints at Probe Missions

Last week's WIR, in reporting on launch of the Soviets 2.

latest Venus probes, said that Venera 2 was taking a short route to
its target but that Venera 3 was taking the long route. Trajectory.

computations by FTD indicate that Venera 3 is also taking a short route and that, if an appropriate inflight course correction is made, will pass within 12,200 kilometers (8800 n.m.) at about 1347Z, 28 February 1966. The planet Venus will then be 32; 8 million n.m. from the Earth. (The Soviets claimed in 1963 to have communicated successfully with their probe Mars 1 at a distance of 60 million n.m.) A course correction may have been executed sometime during the interval 1425/Z=1531:12Z, 16

November,

The time period in question would have been a good one for executing an inflight course correction.

(The WIR, though it previously referred to these vehicles by their translated names, "Venus 2" and "Venus 3," now refers to them by their Russian names, "Venera 2" and "Venera 3," in accordance with previously practice of using the Russian names for Soviet space vehicles, for example, Sputnik, Korabl, Vostok, Voskhod, Zond, Luna, Polyot, and Molniya. Other names, such as Gosmos, Mars, Electron, and Proton, are essentially the same in English and Russian.)

Missions. The Soviets still have not announced details of the missions of Venera 2 and Venera 3, only that they are to collect scientific data.

They have said, however, that the two probes do not have identical missions, and that the payload weights are, respectively, 963 and 960.

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Articles in recent issues of lzvestia and Red Star hint that the probes will try to collect data on the chemical composition, temperature, and barometric pressure of the atmosphere below the outer cloud layer of

X1 and 3, E.O.13526



Venus. The Izvestia article notes that optical and infrared instruments tell us something of the chemical composition and temperature of the outer layers of the atmosphere of Venus, but that nothing is known of the layers below, since Venus's cloud cover does not permit the passage of visible light and infrared radiation. It also notes that there is some mystery about radiowaves emitted by Venuse it is not known whether they are indicative of a very hot surface or of some ionospheric phenomenon. The article then concludes with the hope that Venera 2 (Venera 3 had not been launched yet) will help reveal some of the secrets of the planet. The Red Star article recounts some of the findings of radio and radar astronomy but notes that there is great disagreement about the barometric pressure of Venus's atmosphere; some scientists think it is 5 times that of the Farth's atmosphere, some think it may be equal to 200 Earth atmospheres. It then concludes with the hope that some unnamed space flights will solve this and other problems about the planet Venus.

It thus seems possible that one or both of the Soviet probes will, when it reaches the vicinity of Venus, launch a smaller, nonrecoverable probe toward the planet, to radio back data that it collects on the chemical composition of the atmosphere that it passes through, and barometric pressures and temperatures at various levels. This would be a very difficult feat.

(FTD; Soviet press; NORAD) -

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## 3d Venus Attempt Fails

The Soviets tried to launch a Venus probe, the 3d this month, from Tyuratam at about 0315Z, 23 November. Launch and the customary injection into parking orbit succeeded, but the attempt failed when the 4th stage, which was to inject the payload into transfer trajectory, exploded.

The Soviets, required by a UN Resolution to announce all orbiting vehicles, named the probe Cosmos 96 and said that it was conducting the usual Cosmos mission of space research. But the time of launch, the staging used, the use of an apparent parking orbit, and the apparent attempt — which aborted — to send the payload into another trajectory, make it almost certain that the payload was to be a Venus probe.

(NORAD Space Defense Center)

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