Russia May Be Testing the Re-Entry of Weapons From Space

By EVERT CLARK
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WASHINGTON, Aug. 19—An unusual sequence of space launchings by the Soviet Union has led some American officials to conclude that the Russians are testing techniques for re-entering warheads from space.

This could mean that the Russians are developing weapons to be stationed in orbit. Weapon re-entry techniques can be tested with or without the use of weapons, and the same re-entry techniques can be used for either nuclear or conventional weapons.

The flights began last September in what was unusual secrecy even for the Russians. The most recent flight in the series of seven was made 11 days ago.

U.N. Resolution Recalled

Since before the space age began, military analysts have discussed the possibility of stationing weapons in orbit. The ideas proposed have included bombs, missiles that could intercept other missiles launched from earth and manned bombers and inspection-interceptor vehicles.

A United Nations resolution, adopted by the General Assembly in 1963 with Soviet support, calls upon all states to refrain from placing weapons of mass destruction in orbit.

But the question of whether this prohbits the development of such weapons as never been resolved. Soviet military leaders boasted in November, 1965, of an "orbital missile" that could deliver nuclear warheads "on the first or any other orbit around the earth."

Not until last September, however, did the Russians conduct a launching that appeared to be a test of such a weapon.

That flight, on Sept. 17, 1966, was made from Tyuratam in Kazakhstan. Its angle of inclination to the equator was different from that of any previous Soviet shot.

Soon after launching, the vehicle was observed by Western tracking stations to break into at least 80 pieces. On Nov. 2, 1966, a similar shot was made.

Russia did not report the launching of either vehicle, although it has long used its so-called "scientific" cosmos satellite series to disguise military flights, according to American officials.

In December, 1966, American officials disclosed their concern over these two flights, finally listing them in an official catalogue even though Russi announced them. Ev that, some milit rivately that they suspec Moscow had finally begun tests of the re-entry of warheads from orbit.

On Jan. 25 of this year, Russia again launched a vehicle from Tyuratam at a 49-degree angle. This one apparently did not break into a great number of pieces as the two earlier ones had. But it remained in flight for a very short time.

This time, Russia announced the flight as Cosmos 139, presumably deciding that Western detection and discussion of the two earlier flights made it useless to pretend such flights did not exist.

But Soviet announcements did not report a period for Cosmos 139—the length of time that the satellite would take to complete each revolution in space.

The unusual, short-lived flights at 49 degrees from the Tyuratam base have been repeated at least four more times since. Each was given a Cosmos number.

Both the United States and Russia are developing maneuverable warheads for missiles—warheads that can alter their paths late in the flight in order to confuse interceptor missiles.

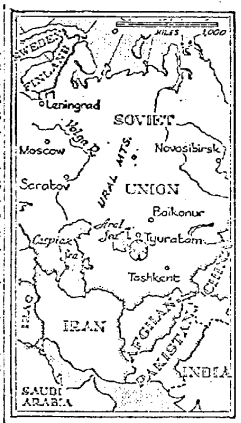
But the United States is not believed to have experimented extensively with the precise control of re-entry vehicles from orbital trajectories, even with its secret military flights.

Many of the techniques have been explored to some degree in the Gemini civilian manned flihgts and in military satellite reconnaissance flights, however.

In the past, objections to the stationing of bombs or interceptor missiles in orbit have been many and varied. Completely aside from the political considerations, critics have argued that orbiting systems are vulnerable and less efficient and some are costly and less secretive than earth-based missiles.

But Dr. Charles M. Herzfeld, then a Pentagon scientist, reminded Congressmen late last March that studies of a space-based anti-missile system were abandoned three years ago because the work was "much too costly."

"We think the time is getting ripe again," he said, "to look at the whole question because the costs of putting things in orbit have gone down dramatically, so that the over-all cost of the system ought to come down significantly."



Launching site is at cross.