

RADIO FREE EUROPE *Research*

COMMUNIST AREA

● USSR: Military
8 November 1965

ORBITAL ROCKETS FIRST SHOWN IN MAY, 1965

Some stir has been caused in the Western press by the second appearance in Moscow, on November 7th, of orbital missiles which can, in the words of Marshal Mikhail Katukov:

"unexpectedly for the aggressor, inflict a blow during the first or any other revolution round the earth."¹

These 35.2 metre rockets, two of which were demonstrated on VE Day six months ago, are certainly impressive in sheer bulk. To what extent they are strictly necessary is another matter. Their thrust has been estimated at 1,400,000 lbs, and their propellant system was used to put Leonov and Belyaev (the first space-walking team) into orbit as long ago as March 1965.

Appropriately nicknamed "The Beast" in the West, their warhead is estimated to be of about 50-megatons in striking power -- a size which some may well think is a perfect example of "overkill" capacity.

Their main strategic advantage is that they can probably outflank the northern radar chain, i.e. the Ballistic Missile Early Warning System based on Canada and Greenland, by approaching from the South Pole. Their main disadvantage is that they are cumbersome, liquid-fuelled (i.e. slower in preparing for firing and more difficult to transport) and extraordinarily expensive.

1) Radio Moscow, 7 November 1965.

The usual Western reaction to the Beast is "to point out that numbers, dispersal" and speed of firing are perhaps more important to-day than sheer bulk and the ability to evade one particular radar chain.

The U.S. now has about 1,200 strategic missiles of various types, whereas the USSR probably has no more than 300 operational. (The Soviet strategic rocket strength was estimated at 200 in November 1964 by the Institute for Strategic Studies, and at 100 in November 1963). Added to this the Soviet Union could field about 700 IRBMs and MRBMs, but these are mostly targeted against Western Europe, and therefore do not all affect the present Soviet numerical inferiority as compared with the US-based weaponry.

However, it should be noted that some of the Soviet MRBMs and IRBMs are located on the Pacific Coast and in Siberia, although no responsible Western source has ever estimated to what percentage this applies. It must be assumed that the MRBMs and IRBMs located in the East of the USSR are trained on the USA primarily (with perhaps a few covering China's nuclear-weapons manufacturing facilities?).

In addition to the land-based IRBMs and MRBMs, Moscow probably has at least 75 submarines capable of firing ballistic missiles,¹ carrying an average of three missiles each. If all these were to be targeted against the continental U.S. and all were at sea simultaneously, it would be reasonable to assume that the total number of missiles which the USSR could bring to bear against the US might be in the area of 300 ICBMs, 225 submarine-borne missiles and, at a rough guess, perhaps 100 of the IRBMs and MRBMs, making a total of 625 rockets.

By comparison with the 1200 of the US, this is not an adequate figure for anything other than a retaliatory (second-strike) strategy, with or without the Beast.

A more important weapon than Beast, in purely military terms, is probably the mobile solid-fuelled ICBM which was shown on November 7th and also on May 9th. This is highly manoeuvrable, much cheaper than liquid-fuel types (at least to judge by the relative costs of Minuteman and Titan for example), and easier to produce in large quantity. It bids fair to give Minuteman some vigorous competition in the last few years of the sixties.

Khrushchev was talking about the Beast as early as March 16th 1962, when he said that the USSR possessed a "global rocket" which could

1) See New York Times, 15 May 1965.

"fly round the world and deliver a blow on any target anywhere."

Since then, the USSR, by a General Assembly resolution of October 17th 1963, has reached agreement with the US not to place weapons in outer space. So the Beast's paws are tied to the ground for the foreseeable future. If he ever becomes airborne, it may still be true to say that just as a bomb dropped from a piston-engined aircraft is likely to be much more accurate than one dropped from a jet, a warhead fired from the ground in (let us say) Murmansk is more likely to hit its target than one from a "global orbit" in outer space.

Brezhnev and Kosygin seem unlikely to buy Beast in large numbers, because they would soon send their strategic weapons budget up towards the 10 billion ruble a year level. It is much more probable that they will decide to produce the solid-fuelled ICBM in quantity, and that it is the weapon which the West should watch most closely.

In addition to the land-based IRBMs and MRBMs, Moscow probably has a g.r.g. 75 submarines capable of firing ballistic missiles, carrying an average of three missiles each. If all these were to be targeted against the continental U.S. and all were to be simultaneously, it would be reasonable to assume that the total number of missiles which the USSR could bring to bear against the US might be in the area of 300 ICBMs, 250 submarine-borne missiles and, at a rough guess, perhaps 100 of the IRBMs and MRBMs, making a total of 650 rockets.

By comparison with the 1200 of the US, this is not an adequate figure for anything other than a retaliatory (second-strike) strategy. With or without the Beast.

A more important weapon than Beast, in purely military terms, is probably the mobile solid-fuelled ICBM which was shown on November 7th and also on May 8th. This is highly manoeuvrable, much cheaper than liquid-fuel types (at least to judge by the relative costs of Minuteman and Titan for example), and easier to produce in large quantities. It bids fair to give Minuteman some vigorous competition in the last few years of the sixties.

Khrushchev was talking about the Beast as early as March 1959, when he said that the USSR possessed a "global rocket" which could