



EXCALIBUR • ALMAZ

THE ALMAZ RRV HISTORY

The Almaz Reuseable Return Vehicle (Almaz RRV) has a remarkable history and pedigree. Developed by Vladimir Chelomei and Chelomei Design Bureau in Soviet-era Russia, the Almaz RRV went through nine flight tests beginning in the mid 1970s. Two of the spacecrafts were flown to Low Earth Orbit multiple times, thus demonstrating the critical and unique feature of reusability as its title denotes.

Designed to carry a crew of up to three, or a combination of crew and cargo, the Almaz RRV was also constructed for ground or water landing. Tests on the spacecraft included open water exercises from 19 March 1980 – 7 July 1982. At one of the stages of sea testing, a crew of three commanded by USSR Cosmonaut Gennady Sarafanov, remained inside the Almaz RRV for 72 hours post-landing. They were successfully removed from the crew compartment in heavy seas.

Almaz capsules were also used for supplying and returning equipment and samples to and from the Almaz Space Station and Earth. Durations on orbit ranged from 50 days to 175 days. The capsules were “human rated” and were occupied on orbit while docked to the station to validate life support and habitability features but were never launched with humans on board.

