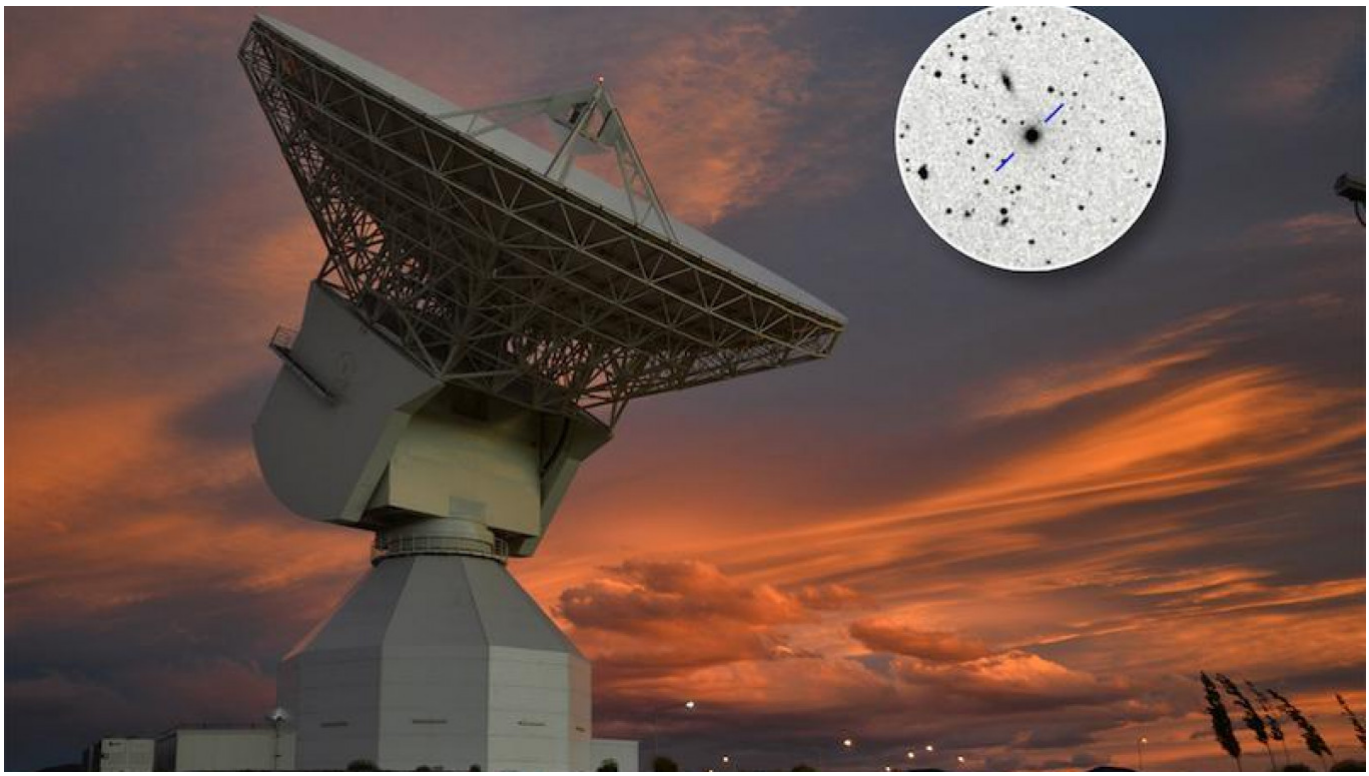
The Moscow Times
30 YEARS
INDEPENDENT NEWS FROM RUSSIA

Roscosmos Not Ready To Give Up on Missing Mars Probe

October 20, 2016



European Space Agency

Russia's space agency Roscosmos is not giving up hope that communication with a missing Mars probe can be established.

The probe, known as Schiaparelli, is part of a joint mission with the European Space Agency (ESA) to the Red Planet. Contact was lost yesterday just before landing.

"If Schiaparelli made a 'soft' landing on the surface, then, in accordance with its programming, the batteries should power the spacecraft for three to ten days, during which time it should be possible to communicate with the lander," Roscosmos was quoted as saying in a statement Thursday.

Both Roscosmos and the ESA have attempted to land probes on Mars in the past. However, beyond a successful Soviet mission in 1971, neither agency has conducted a successful landing. Schiaparelli was intended to demonstrate landing techniques for a larger, follow-on

mission slated for 2020

The probe is part of the 1.5 billion euro ($1.65 million) ExoMars project, a two-phase European program originally conceived in cooperation with the U.S. space agency NASA. In 2012, changes in U.S. space policy saw NASA withdraw from the project. Roscosmos stepped in to fill the void.

Schiaparelli hitched a ride to Mars aboard a spacecraft known as the Trace Gas Orbiter (TGO), which was considered the prime scientific instrument of this first phase of the ExoMars program. While Schiaparelli attempted landing Wednesday evening, TGO parked itself in Martian orbit.

Schiaparelli's descent to the Martian surface was always going to be dramatic. It hit the Martian atmosphere at 21,000 km/h and, using a mix of air breaking, parachutes, and powered thrusters, was supposed to slow to a hover 2 meters above the surface.

At the 2 meter point, Schiaparelli's engines should have shut off, allowing the lander to fall to the ground. A crushable frame below the lander was intended to absorb the impact. Mars' gravity is about 38% of Earth's, so the fall should have been survivable. Nonetheless, contact was lost.

At a press conference on Thursday morning, the ESA said that it had received data throughout the majority of the landing process. As a result, it called the test a partial success. The agency, however, stopped short of clarifying what happened to the lander in the final moments.

The ESA says it will take several days to analyze the data and determine the final fate of Schiaparelli.

Embed:

> Jan Wörner, @esa director general, says it is difficult to say whether #ExoMars lander is in one piece or not. "We just don't know." pic.twitter.com/Rr3VwttJ2Z
>
> — Jessie Wingard (@JessieWingard) October 20, 2016