

## **NASA suspends 2016 launch of Mars lander**

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**Washington:** The US space agency NASA said it has suspended the planned launch of a Mars lander called InSight in March 2016 due to unsuccessful attempts to repair a leak in a French-built seismological instrument.

"The bottom line is that we're not ready to launch in the 2016 window," Xinhua cited John Grunsfeld, associate administrator for NASA's Science Mission Directorate in Washington, as saying in on Tuesday.

Grunsfeld said a decision on a path forward for the interior exploration using seismic investigations geodesy and heat transport (InSight) mission will be made "in the coming months."

For InSight, the 2016 launch window existed from March 4 to March 30. Due to the relative positions of the Earth and Mars, a new launch window for the probe would not come for another 26 months.

The instrument involved is the Seismic Experiment for Interior Structure (SEIS), a seismometer provided by the French Space Agency (CNES) that will help answer questions about the interior structure and processes within the deep Martian interior.

Designed to measure ground movements as small as the diameter of an atom, the instrument requires a vacuum seal around its three main sensors to withstand the harsh conditions of the Martian environment.

According to the US space agency, a leak earlier this year that had prevented the seismometer from retaining vacuum conditions was repaired, but after the final sealing of the instrument, another leak was detected.

"The mission team was hopeful the most recent fix also would be successful. However, during testing on Monday in extreme cold temperature (-49 degrees Fahrenheit/-45 degrees Celsius) the instrument again failed to hold a vacuum," NASA said.

Marc Pircher, director of CNES's Toulouse Space Centre, said the recent anomaly requires further investigation.

"Our teams will find a solution to fix it, but it won't be solved in time for a launch in 2016," Pircher added.

The InSight spacecraft, built by Lockheed Martin, was delivered to Vandenberg Air Force Base in California, on December 16. With the 2016 launch cancelled, the spacecraft will be returned from Vandenberg to Lockheed's facility in Denver.

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