

Nasa probe on track, reaches Moon orbit

Grail, 110th Mission To Earth's Satellite, Will Help Understand Lunar Enigma Better

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Pasadena, California: As planet Earth rang in the new year, a different kind of countdown was happening at the moon. After a 3½-month journey, a Nasa spacecraft flew over the Moon's south pole, fired its engine and dropped into orbit on Saturday in the first of two back-to-back arrivals over the New Year's weekend.

Mission control at the Nasa Jet Propulsion Laboratory erupted in cheers and applause after receiving confirmation that the probe was healthy and circling the moon. An engineer was seen on closed-circuit television blowing a noisemaker to

herald the New Year's Eve arrival. "Everything went just as we hoped. The burn was spot-on," chief scientist Maria Zuber of the MIT said in a post-mission interview. The team toasted sparkling cider, but the celebration was brief. Despite the successful maneuver, the work was not over. Its twin still had to enter lunar orbit on New Year's Day.

The Grail probes — short for Gravity Recovery and Interior Laboratory — have been cruising independently toward their destination since launching in September aboard the same rocket on a mission to measure

lunar gravity. Hours before revelers in Times Square celebrated the New Year, Grail-A approached the moon and fired its engine for about 40 minutes to get captured into orbit. Deep space antennas in the California desert and Madrid tracked every move and fed real-time updates to ground controllers.

About 270 family members and friends of the mission team descended on the Nasa campus to watch the drama unfold on a live feed. "This is great, a big relief," deputy project scientist Sami Asmar told the jubilant crowd.

Grail is the 110th mission to

target the moon since the dawn of the Space Age including the six Apollo moon landings that put 12 astronauts on the surface. Despite the attention the moon has received, scientists don't know everything about Earth's nearest neighbour.

Grail is expected to help researchers better understand why Moon is asymmetrical and how it formed by mapping the uneven lunar gravity field that will indicate what's below the surface. Previous missions have attempted to study gravity with mixed results. Grail is the first mission devoted to this goal. AP