

Eclipse plan: ISRO to realign Mangalyaan's trajectory

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Ahmedabad: Indian Space Research Organisation (ISRO)



will undertake a correction in the trajectory of its ambitious Mars Orbiter Mission, Mangalyaan, in January next year to reduce the impact of an eclipse on its power supply, ISRO chairman **A S Kiran Kumar** said on Wednesday, while addressing students at Indian Institute of Technology.

The course correction is required to keep the Mangalyaan functional during a long-duration eclipse, when Mars will cast its shadow on the satellite for a stretch of about 7-8 hours, affecting power supply on the

satellite. "The long-duration eclipse period (in January next year) could cripple the satellite if no corrections are done, because the battery on the satellite cannot support long-duration eclipse," Kumar said while delivering a lecture on the contribution of space technology on India's development, as part of the institute's Roddam Narasimha Distinguished Lecture series.

"We are going to change the trajectory of the satellite so that the eclipse duration passes on, and once it is done, the satellite can last for many years and we can study multiple season activities on Mars," he said.

Kumar said that correction on the trajectory of Mangalyaan will reduce the duration of the eclipse on the satellite.

The ISRO chief said that

launching of its second lunar mission spacecraft, Chandrayaan-II is under way and it will be more evolved than its previous version.

"Unlike Chandrayaan-I, we have planned a controlled descent of Chandrayaan-II, which we intend to put into orbit by the end of next year or early 2018. For this, we have already completed development of Rover and Lander. Rover engineering version is undergoing test at a simulation lab in Bengaluru," Speaking about disaster management support by ISRO, Kumar said, "Today we have the capability to tell whether a super cyclone will have a landfall within 20 kilometres error in position and within half an hour in time. This information can be provided within 48 to 96 hours in advance."

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