NASA picks another Mars flight to explore its core

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WASHINGTON (AP) -- After driving all around Mars with four rovers, NASA wants to look deep into the guts of the red planet.

The space agency decided Monday to launch a relatively low-cost robotic lander in 2016 to check out what makes the Martian core so different from Earth's.

NASA's Discovery program picked a project called Insight over missions to a Saturn moon and a comet, drawing complaints from scientists who study other places in our solar system that NASA is too focused on Mars.

All three proposed missions were good, but the Mars one showed the best chance of making it within budget and on schedule, said NASA sciences chief John Grunsfeld. The missions cost no more than $425 million.

The Insight mission includes two instruments, one French and one German, that would examine the geology of Mars in depth. It would explore the core's size, composition, temperature and wobble.

The interior of Mars is a mystery. It has no magnetic field, and scientists aren't sure if the core is solid or liquid or even has frequent quakes like Earth.

"What kind of Mars quakes are there? How big is the core of Mars? Does it have remnants of a molten core like the Earth does?" asked Discovery program chief Lindley Johnson.

Geologists have been asking for this type of crucial information for decades, said H. Jay Melosh of Purdue University, who said it was about time a project like this was approved.

The mission will be run by NASA's Jet Propulsion Lab. The California lab is basking in the success of the $2.5 billion Mars Curiosity rover, which is starting to explore the planet's surface after a daring landing this month. Earlier this year, NASA pulled out of two Mars missions with the European Space Agency because it didn't have the $1.4 billion for the proposed 2016 and 2018 mission.

NASA is still working on another possible Mars mission to replace the canceled ones with a decision later this month.

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