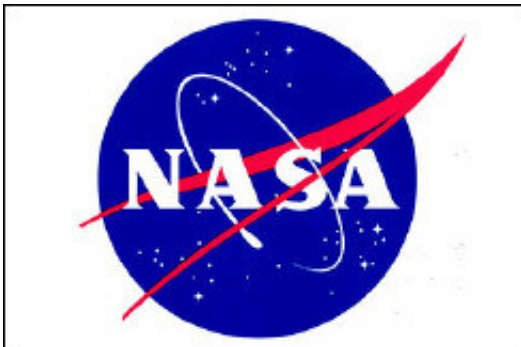


# Mars redux: NASA to launch Curiosity-like rover (Update)

December 4 2012, by Alicia Chang

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If you thought NASA's latest Mars landing was a nail-biter, get ready for a sequel.

The space agency on Tuesday announced plans to launch another mega-rover to the red planet in 2020 that will be modeled after the wildly popular Curiosity.

To keep costs down, engineers will borrow Curiosity's blueprints, recycle spare parts where possible and use proven technology including the novel landing gear that delivered the car-size rover inside an ancient crater in August.

The announcement comes as NASA reboots its Mars exploration

program during tough fiscal times.

"The action right now is on the surface, and that's where we want to be," said NASA sciences chief John Grunsfeld.

Like Curiosity, the mission will be led by the NASA Jet Propulsion Laboratory. But many other details still need to be worked out, including where the rover will land and the types of tools it will carry to the surface.

While the science goals remain fuzzy, Grunsfeld said the rover at the very least should kickstart a campaign to return Martian soil and rocks to Earth—a goal trumpeted by many scientists as key to searching for evidence of past life. Curiosity doesn't have that capability.

In the coming months, a team of experts will debate whether the new rover should have the ability to drill into rocks and store pieces for a future pickup—either by another spacecraft or humans.

NASA is under orders by the White House to send astronauts to circle Mars in the 2030s followed by a landing.

Despite Curiosity's daring touchdown, its road to the launch pad was bumpy. At \$2.5 billion, the project ran over schedule and over budget.

Jim Green, head of NASA's planetary science division, said the engineering hurdles have been fixed and he expected the new rover to cost less than Curiosity. One independent estimate put the mission at \$1.5 billion, though NASA is working on its own figure.

"It's hard not to feel a little Mars-envy," Mike Brown, an astronomer at the California Institute of Technology who focuses on the outer solar system, said in an email.

Brown added that he understood NASA's decision given the pressure to fly humans to Earth's neighbor.

A Curiosity redux makes sense, said American University space policy expert Howard McCurdy.

"Let's hope that it can take advantage of economies of scale, in which case it would cost less than the Curiosity mission," he said. "That sort of approach would extend our exploration capability while freeing funds for other expeditions."

Mars is bracing for a flurry of activity over the next several years. Next year, NASA plans to launch an orbiter to study the atmosphere.

After NASA pulled out of a partnership with the Europeans in 2016 and 2018, it announced plans to fly a relatively low-cost robotic lander in 2016 to probe the interior. The space agency has since said it will contribute to the European missions, but in a minor role.

Rep. Adam Schiff, who has been critical of NASA budget cuts in the past, praised the latest news to land a Curiosity-like rover. Still, the California Democrat said he preferred an earlier launch date.

Grunsfeld said a 2020 launch is already an "aggressive schedule."

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