

NASA 'game-changing' space propellant tank to stay grounded for now

March 21 2014, by Elizabeth Howell



As of 2014, NASA and Boeing are developing a propellant tank made of composite materials to hold cryogenic (low-temperature) gases in space. Initially slated for a 2018 test flight, NASA's 2015 budget will keep these tanks on the ground for the foreseeable future. Credit: NASA/MSFC/Emmett Given

A lighter and stronger "game-changing" tank that could have flown in space in a few years will be tested on the ground only, at least for now, according to the NASA budget and a few reports.

Last year, the agency conducted ground tests on a composite propellant tank intended to be better than its heavier counterparts, saving on launch costs. At the time, NASA said it was aiming to test this on a demonstration flight in 2018, but the new [budget request](#) says testing will stay grounded.

"Cryogenic Propellant Storage and Transfer will reformulate from a flight demonstration mission into a series of large-scale ground demonstrations supportive of future exploration propulsion needs and upgraded versions of SLS," the agency stated, which could leave the door open for future tests in [space](#).

The information is mentioned on Page 336 of the 713-page budget request document NASA released earlier this month. The budget is not finalized and is subject to approval from Congress. More high-profile cuts include the SOFIA airborne telescope and the Opportunity Mars rover mission.

The cryogenic change was mentioned in a few news reports, and then highlighted in a press release today (Thursday) from an advocacy group called the Space Development Steering Committee, who says these tanks would have been good for space-based refueling stations.

"Instead of trying out technologies designed for space where they count—in space—space gas station technologies are now going to be tested down here on Earth, where we already know how to make them function," SDSC's press release read. "Down here where we do not face the challenges of weightlessness and vacuum. Down here where it's useless."

The SDSC includes the heads of the National Space Society, the Space Frontier Foundation, and the Mars Society, plus past astronauts and former NASA employees (among others). In November, the committee released an unfunded gas-tanks-in-space proposal to fuel missions to Mars.

More information: www.nasa.gov/topics/technology...atures/cryotank.html

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