

Image: Composite cryotank loaded into test stand at NASA's Marshall Space Flight Center

June 4 2014



Credit: NASA/MSFC

Engineers at NASA's Marshall Space Flight Center in Huntsville, Alabama, recently began the first in a series of tests of one of the largest composite cryotanks ever built. The 18-foot-diameter (5.5-meter) cylinder-shaped tank was lowered into a structural test stand at the Marshall Center.

To check tank and test stand operations, the first tests are being conducted at [ambient temperature](#) with gaseous nitrogen. Future tests this summer will be with [liquid hydrogen](#) cooled to super cold, or cryogenic, temperatures. The orange ends of the tank are made of metal and attach to the test stand so that structural loads can be applied similarly to those the tank would experience during a rocket launch.

The composite cryotank is part of NASA's Game Changing Development Program and Space Technology Mission Directorate, which are innovating, developing, testing and flying hardware for use in NASA's future missions. NASA focused on this technology because composite tanks promise a 30-percent weight reduction and a 25-percent cost savings over the best metal tanks used today.

The tank was manufactured with new materials and processes at the Boeing Developmental Center in Tukwila, Washington.

Provided by NASA Image of the Day

Citation: Image: Composite cryotank loaded into test stand at NASA's Marshall Space Flight Center (2014, June 4) retrieved 26 April 2024 from <https://phys.org/news/2014-06-image-composite-cryotank-nasa-marshall.html>

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