

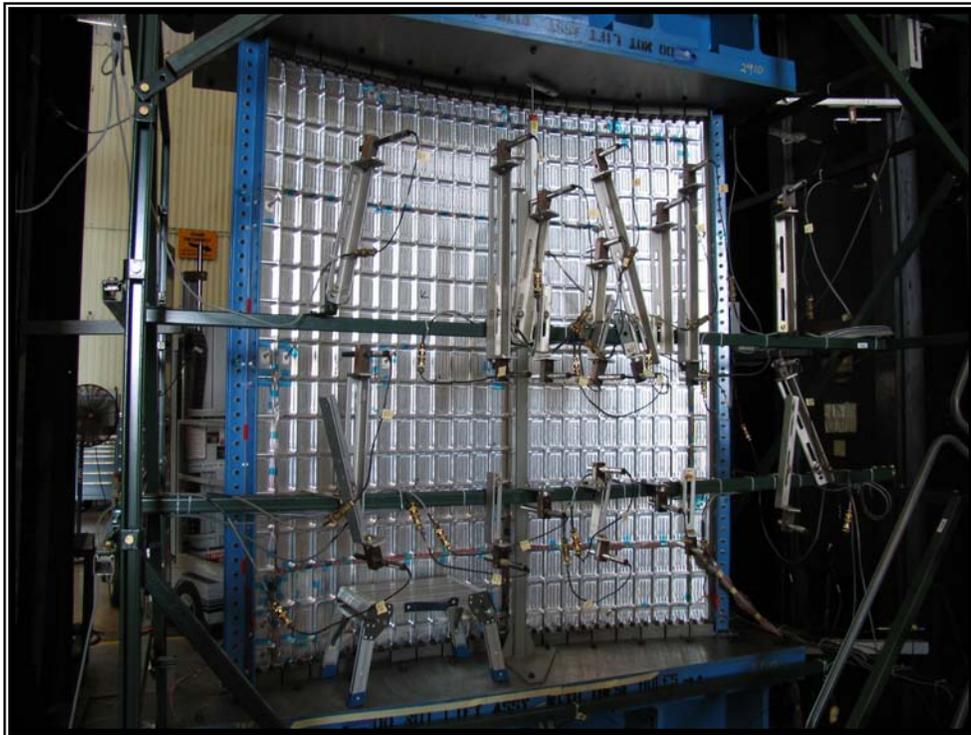


***Ares First Stage Development Motor 2 (DM-2) Static Test Preparations:*** The DM-2 static test configuration is the second full-scale, full-duration test of an Ares first stage five-segment reusable solid rocket motor (RSRMV) and is specifically conditioned to 40 °F propellant mean bulk temperature. Specific test objectives associated with the cold temperature include demonstration of low-temperature o-rings (no heaters), internal insulation/field joint j-leg performance, and overall ballistic performance of the RSRMV. The prime contractor, Alliant Techsystems, Inc. (ATK), has completed the DM-2 motor assembly and all the instrumentation checkouts necessary to be completed prior to motor conditioning. In addition, Aggreko, the provider of the motor conditioning system, has completed their checkouts and installation with conditioning that began on July 6. ATK completed their internal Test Readiness Review (TRR) to prepare for the final TRR at Marshall Space Flight Center (MSFC) on August 3. Preparations are on schedule for a September 2 test, at 9 a.m. MDT.



### Upper Stage (US)

**Stage Operations, Test Subsystem:** Ares I US Structural Development (SD) test activities are continuing for the large aluminum-lithium panel buckling tests in MSFC Building 4619. These activities (designated SD02) consist of a series of structural buckling tests of isogrid and orthogrid panels representing liquid hydrogen and liquid oxygen tank wall sections. The primary test objective is to characterize the compression behavior of various grid-stiffened candidate panel designs. An orthogrid acreage test panel was successfully tested on July 7. Buckling occurred at a load of 543,600 lb, which was just above the predicted load of 525,000 lb. Testing of an orthogrid panel with a welded area, the last test in the SD02 series, is currently scheduled for July 21.



*Orthogrid acreage test panel (pre-test)  
in the MSFC Building 4619 Gilmore test machine*

***The Ares Projects look forward to the test firing of DM-2 on September 2, and the launch of STS-133, Space Shuttle Discovery, in the fall.***