ARES FLIGHT AND INTEGRATED TEST OFFICE (FITO)

Ares I Scale Model Acoustics Test (ASMAT): The first vertical configuration of the ASMAT test series was successfully fired at Marshall Space Flight Center (MSFC) on Friday, November 5, 2010. Quick look test results show that good data was obtained. Analysis will continue over the weekend. Pending post-test assessments the next test could occur next week. The ASMAT is a development test of a 5% scale model of the Ares I vehicle that will be used to validate the Ares I liftoff acoustic and ignition overpressure environments.

Figure 1 – ASMAT with Launch Tower at MSFC Test Stand 116.

The test data will also be used to characterize the suppression attenuation of the water system provided by the mobile launcher and to validate the ground acoustics environment of the launch complex. Seventeen tests are planned with three focused on ignition overpressure, five occurring at various elevations, seven addressing sound suppression, and two more elevation series to determine the maximum launch tower acoustics environment.

Figure 2 – ASMAT Launch Tower at Test Stand 116.

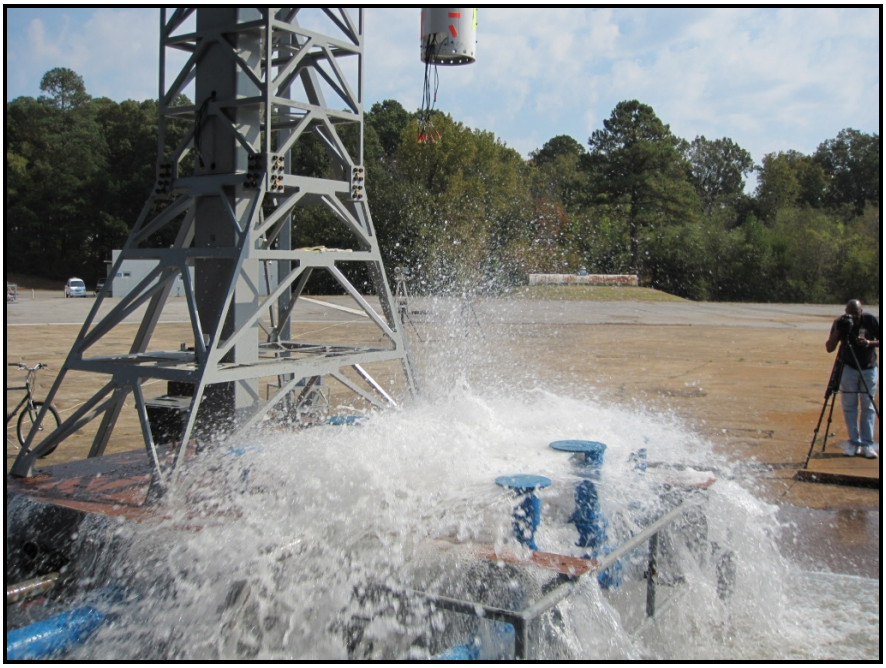

Figure 3 – ASMAT Mobile Launcher Water Suppression Flow Test.

ARES I-X

Ares I-X Roll Control System (RoCS) Element: The Ares I-X Roll Control System Engineering Development Unit, also known as the Cold Flow Unit, was transferred to the Davidson Center for the von Braun Exploration Forum and has been put on permanent display in the *New Beginnings* area. This unit was used for assembly and hardware fit check verifications at Teledyne Brown. After buildup, it was used for pressurization and water flow tests. A fairing with a viewport was added to show the internal engines and plumbing.

Figure 4 – The RoCS Engineering Development Unit on Display at the Davidson Center.

Teledyne and NASA are still defining the plan for sampling the two remaining excess propellant tanks. Once the pending bids are received, decisions will be made as to how to ship and store the two wetted tanks.

The Ares Projects look forward to the launch of STS-133, Space Shuttle Discovery, on November 30.