



The Ares First Stage Development Motor-2 (DM-2) Static Test Motor was successfully fired at 9:27 a.m. MDT on August 31 at Alliant Techsystems' (ATK's) test facility in Promontory, Utah. The static test covered 53 objectives with 764 instruments collecting the needed data. The DM-2 was a cold conditioned motor test with a propellant main bulk temperature of 43 degrees at the time of the test. Quick reviews of the data results indicate that the motor performance correlated well with pretest predictions. The data collected will be closely analyzed over the next few months.



Upper Stage (US)

Stage Operations, Manufacturing and Assembly (M&A) Subsystem: The Acoustic Development article (AD01), representative of a 1/8" arc segment of the Ares I upper stage (US) instrument unit, was delivered to Marshall Space Flight Center (MSFC) Building 4765 for thermal protection system



(TPS) processing on August 17, 2010. The AD01 article, which required both primer and spray-on foam insulation materials prior to being acoustically tested, was attached to the test panel fixture along with four 2' x 2' witness panels.

After the article and witness panels underwent a primer cure cycle, thickness inspections, and wet tape tests, the US candidate S83A cryoinsulation material was applied via the Building 4765 robotic system and insulated witness panels were removed for testing. Cryoinsulation thickness measurements (on the witness panels and AD01) and plug pull and density specimens (taken from the witness panels only) were all shown to meet requirements. The completed AD01 article and end item data package were delivered to the US Manufacturing and Assembly Integrated Product Team, clearing the way for continued pretest preparation of the article.



AD01 article being mounted to the test panel fixture.



Primer application.



AD01 article and witness panels with S83A cryoinsulation applied and masking removed.



The MSFC Building 4765 TPS Development Facility was designed to help NASA develop TPS material and processes by providing both cryoinsulation and primer processing, increased environmental control capability, and increased hardware size capability. The facility project began in June 2006 with a 10-month study and design phase, followed by a 9-month construction/modification phase and a 9-month spray booth/hardware installation phase. Facility startup was approved after completion of a Safety Review Team inspection in July of 2010.

****** Have a safe and happy Labor Day! ******

The Ares Projects look forward to the launch of STS-133, Space Shuttle Discovery, in the fall.