A "Topping Off" ceremony was held on July 27 at the Michoud Assembly Facility (MAF) in New Orleans, LA, celebrating the completion of steel erection for the Vertical Assembly Building (VAB). The steel erection consisted of 55 steel sequences and over 1,500 tons of material. The building, which will contain a Vertical Assembly Tool (VAT), Vertical Weld Tool (VWT), and stacking cell for Upper Stage (US) manufacturing, is scheduled to be "weather-tight" by September 1.

Last beam being lifted into place during VAB "Topping Off" ceremony

Ares team members from MSFC and MAF are pictured in front of the VAB during "Topping Off" ceremony

Upper Stage (US)

Stage Operations, Manufacturing and Assembly (M&A) Subsystem: The US Common Bulkhead Manufacturing Demonstration Article (CBMDA) aft and forward domes with welded y-rings are now located in MSFC Building 4708 for CBMDA manufacturing. The aft dome was cleaned and primed at the United Launch Alliance (ULA) facility in Decatur, AL, and honeycomb was subsequently installed and bonded at MSFC. The forward dome was also cleaned and primed at ULA. Both domes are on the assembly jigs in the Building 4708 clean room. The forward dome will be scanned for the

inside surface and, using that scan data, the aft dome honeycomb will be machined before Verifilm check and second bond.

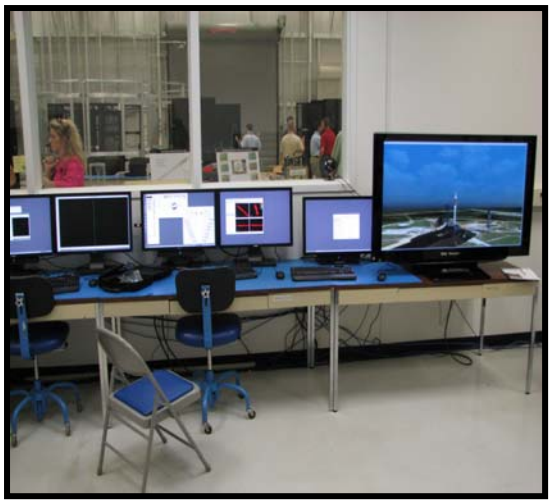
CBMDA Domes in MSFC Building 4708 Clean Room

Vehicle Integration (VI)

System Integration and Test Facility (SITF) Build-up: The VI Avionics System Simulation, Integration, and Support Team (ASSIST, aka SIL Team) has initiated the build-up of the first US SITF line in MSFC Building 4205, Room 109. The SITF will be used to support the integration and test of the US avionics and software system. Based on the successful testing of the First Stage (FS) avionics engineering hardware conducted last month at the ATK facility in Clearfield, Utah, a set of FS avionics engineering hardware has now been successfully installed in Room 109 and integrated with the Ares Real-Time Environment for Modeling, Integration, and Simulation (ARTEMIS) system developed by ASSIST. The team is working closely with the US and FS avionics and software teams to establish an end-to-end core integration, test, and demonstration capability through the integration of the US SITF and the FS avionics engineering hardware, as well as the actuator test lab located in

Room 110. The goal for the team is to establish the capability to perform closed-loop simulated flight demonstration by the end of September, with initial US flight software running on prototype flight computers that interface with the FS avionics driving a prototype FS Thrust Vector Control (TVC) actuator.

SITF Build-Up and First Stage Avionics Hardware



Lab Data Displays

Actuator Test Lab Load Stands

The Ares Projects look forward to the test firing of DM-2 on August 31, and the launch of STS-133, Space Shuttle Discovery, in the fall.