



The Marshall Space Flight Center (MSFC) recently hosted a visit from NASA's Administrator, Charles Bolden. During his visit, Mr. Bolden toured Dynamic Test Stand 4550, which has been undergoing modifications and upgrades to support the upcoming Ares Integrated Vehicle Ground Vibration Test (IVGVT).



Charles Bolden tours Test Stand 4550

Recent activities specific to the Elements include:

Upper Stage (US)

- US Test Subsystem:** A joint Engineering Directorate and Safety & Mission Assurance team recently completed an extensive evaluation of the structural health of the MSFC Test Stand 4699 Shear Towers. The towers, built circa 1977 but not used since 1996, will be used during the most critical structural qualification test of the upper stage core (Test SQ02A) in 2013. Many analyses and hands-on inspections were performed in this effort over the past several months, including more than 1,600 welds that were subjected to Non-Destructive Evaluations and nearly 300 structural beams and columns that were inspected for corrosion, distortion, and any other anomalous conditions. The joint team concluded that the health of the towers is still adequate for the planned usage. Test Laboratory/ET30 provided overall leadership for this multi-disciplined and multi-faceted outstanding effort, which has potentially saved the Ares Projects \$4 million in construction costs for new shear towers.



*MSFC Test Stand 4699
West Test Area*



US systems tunnel lightning strike test article

- US Structures & Thermal (S&T) Subsystem:*** The Lightning Technologies, Inc. (LTI) facility in Pittsfield, MA, is conducting preliminary lightning strike testing on the Ares I US systems tunnel. These tests will expose the systems tunnel to Zone 2A and Zone 3 lightning strike effects. The data generated will assist in determining the effectiveness of electrical bonding techniques and avionics cable shielding, and will assess any damage to the composite structure. Design modifications, if required, and future lightning strike testing at LTI will ensure a design that meets Constellation Electromagnetic Environmental Effects requirements.

Project Integration

- Ares I-X Launch Support:*** Ares Projects outreach team members supported several internal and external activities surrounding the Ares I-X launch. The team supported a presentation to educators at Kennedy Space Center (KSC), displayed Ares exhibits at several KSC locations, provided launch-related content to various Ares social media venues, coordinated Ares guest arrangements, conducted oral history interviews at KSC, and staffed an information table at MSFC's Morris Auditorium.
- American Association of Retired Persons (AARP) National Convention:*** The Ares Projects outreach team attended and presented at the AARP National Convention in Las Vegas, NV, October 22–24. The team supplied the 1:100 Ares I and V model set, the 1:100 Ares I-X model, and the Ares I-X animation. More than 24,000 people attended the event and 3,300 people visited the NASA booth.
- Ares Presentation to Congressional Aide:*** The Ares Projects outreach team supported a presentation to Brian Greer, an aide to Rep. Parker Griffith on October 29. The presentation provided Mr. Greer with a status on the Ares Projects.

The Ares Projects looks forward to the November 16th launch of STS-129, Space Shuttle Atlantis.