



During the reentry phase of the Ares I-X development flight test, the first stage booster splashed down on less than three full open main parachutes. The nose cap separation, pilot and drogue parachute deployment, forward skirt extension separation, and main parachute deployment events were all nominal. One of the main parachutes experienced a failure in one of its suspension line load paths upon reaching the first reef stage inflation. This event created an overload condition in the adjacent suspension lines causing the canopy to deflate and become a streamer. The remaining two main parachutes remained intact through the remainder of the first reef stage and through the second reef stage. A second main parachute was damaged and partially deflated upon reaching its full open reef position. The booster was recovered but impacted the water at a higher velocity than predicted due to this loss of main parachute drag area. The recovered parachutes have been defouled and are being reconstructed to aid the investigation teams. Additional information will be forthcoming as it is made available by the investigation teams.



*Ares I-X under main parachute just before water impact*

*Recent activities specific to the Elements include:*

### First Stage (FS)

- Initiator Firing Circuit (IFC) Revision 1 Design:** A technical interchange meeting was held at L-3 Communications / Cincinnati Electronics (L-3/CE) to baseline design modifications for the IFC Rev 1, which will be incorporated into the development and qualification program. The Rev 0 IFC design has been in test for several weeks with very positive results. A telecon was also held with the Johnson Space Center (JSC) and Marshall Space Flight Center (MSFC) Pyrotechnic communities to describe the IFC design features and begin defining IFC/NASA Standard Initiator (NSI) testing requirements. Discussions focused on the FS Element providing an IFC assembly to JSC, to support live NSI testing, as part of the overall certification program. The initial reception from the Pyrotechnics community has been very positive. The IFC design leverages heavily off of lessons learned from the Shuttle Program while incorporating enhanced built-in test (BIT) and firing capabilities over longer distances.

### Flight and Integrated Test Office (FITO)

- ***Test Stand 4550 – Facility Modifications and Upgrades:*** A “smooth floor” topping has been installed and completed at the Dynamic Test Stand 4550 on MSFC. This work will enable the Integrated Vehicle Ground Vibration Test (IVGVT) test articles to be easily moved to the various test positions relative to trajectory points.



*Completion of smooth floor at Test Stand 4550*

***The Ares Projects look forward to the November 16<sup>th</sup> launch of STS-129, Space Shuttle Atlantis.***