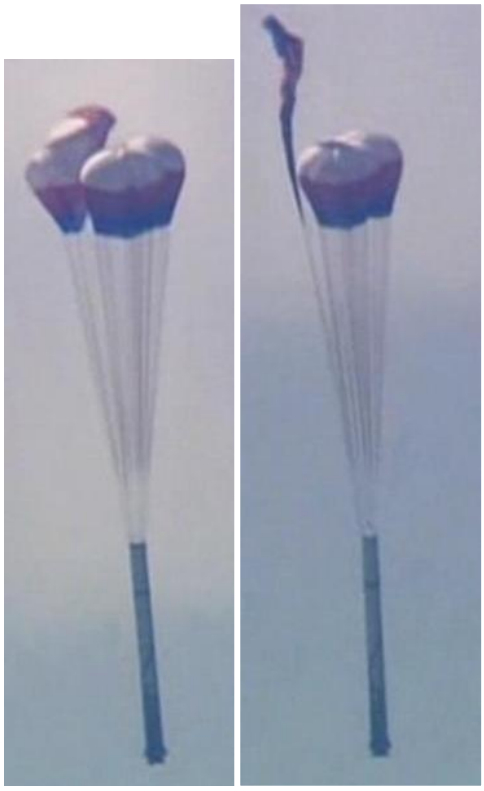
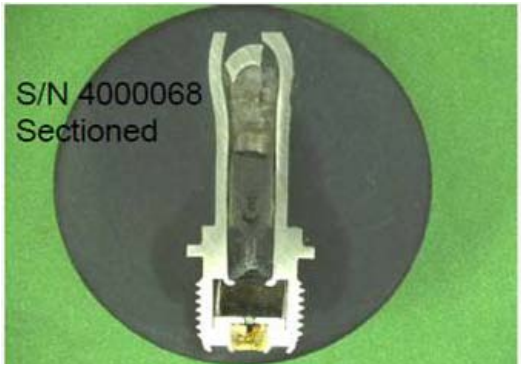
Recent activities specific to the Elements include:



First Stage (FS)

Deceleration Subsystem (DSS) Ares I-X Main Parachute Investigation Status: The investigation of the Ares I-X collapsed main parachute canopy is well underway. Determinations to date are that the reefing line for the first reefed stage was prematurely cut before main parachute deployment. This allowed the failed parachute to initially inflate to its second reefed position producing a load path overload on the parachute with a subsequent structural failure of an inline Sea Water Activated Release (SWAR) link. Three SWARs from the same lot will be pull-tested to failure later this week to confirm the failure mode and quantify their ultimate strength. There is no evidence of a SWAR defect or malfunction at this time. The prematurely activated reefing line cutter has been dissected and tested by Material and Processing (M&P) with no evidence of hardware or pyro delay cartridge malfunction or defects. Parachute loads and reentry trajectory reconstructions are being performed from onboard data to better understand the failure environment. The most feasible remaining failure mode being actively investigated is parachute pack dynamics during flight that could have snagged the activation pin lanyard and prematurely pulled the reefing line cutter pin. Potential reefing line cutter packing modifications are also in work as mitigations to this failure mode.



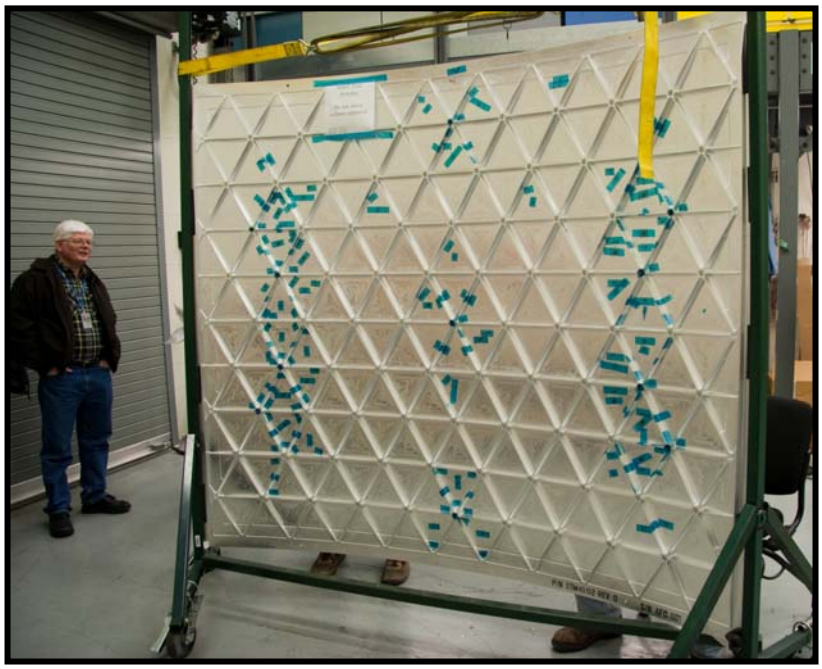
Delay Cartridge of Nominal Fired Reefing Line Cutter

Delay Cartridge of Premature Fired Reefing Line Cutter

FS Avionics Team Visits Cincinnati Electronics: The FS Avionics team visited Cincinnati Electronics to assess progress on the manufacturing and initial box testing of several avionics boxes and associated test sets. All board designs have been complete and manufactured. Flight-like chassis are also complete. Testing of all cards continues as box-level testing has begun on three of the six box designs. These boxes are communicating data and commands across the internal 1553 data bus via manual commands. Initial system testing is scheduled to begin at ATK in April.

Upper Stage (US)

US Structures & Thermal (S&T) Subsystems: An isogrid stiffened panel was recently tested by ET30 personnel in the Gilmore Tensile Test Machine in Marshall Space Flight Center (MSFC) Building 4619. This panel was designed and tested to failure in order to characterize panel stability and behavior in compression, and to validate analytical models. This panel is a 91-inch arc length by 77-inch tall isogrid acreage panel similar to the liquid oxygen tank flight design. The predicted failure load was 700,000 pounds of force and the panel failed at 708,500 pounds of force, a difference of approximately 1 percent.



Isogrid Stiffened Panel

The Ares Projects look forward to the launch of STS-130, Space Shuttle Endeavour, planned for February 7.