



Deceleration Subsystem (DSS) Ares I-X Pilot Parachute: Fabrication of the 11.5-ft diameter Ares I-X pilot parachute has been completed and is being prepared for packing later this week. The A-IX pilot parachute, an Ares development parachute, was fabricated by United Space Alliance (USA) at the Parachute Refurbishment Facility at Kennedy Space Center (KSC). All of the Ares pilot parachute basic performance drop tests have been completed and the pilot design is now well characterized. In addition to the pilot drop tests, the pilot parachute has also been used as a programmer and deployment parachute in the two drogue parachute drop tests. Fabrication of the A-IX drogue parachute is very close to being complete and packing will start in the next couple of weeks.



Test Stand 4550 – Facility Modifications: The materials for the primary lateral bridge to be installed in the test stand have been delivered and are currently being stored at the site. Work has begun in fabricating the lateral bridge in the metal shed behind the test stand. Upon completion of the fabrication, the lateral bridge will be installed in the test stand at approximately the seventh floor.



Sections of Primary Lateral Bridge Being Laid Out for Assembly



Recent activities specific to the Elements include:

First Stage (FS)

- ***Conduct Review of Solid Rocket Booster (SRB) Property for Excess and Transfer to Ares FS:*** The Ares First Stage (FS) Element and the Reusable Solid Rocket Booster (RSRB) Project Office will jointly review a briefing presented by the prime contract, USA, for the SRB property that should be transferred at the end of the Shuttle Program to FS for use by Ares I and Ares V. Concurrence will be provided by RSRB and FS for the excess and transfer of property. The Reusable Solid Rocket Motor (RSRM) review was completed and concurrence provided in February.

Flight and Integrated Test Office (FITO) and Ares I-X

- **Ares I-X Roll Control System (RoCS) Element:** Activities specific to the RoCS Element include:
 - The Incremental Acceptance Review #1 was conducted on March 10. Three short-term constraints to propellant loading were assigned and should be closed by March 17. No constraints to pressurant loading were identified. All remaining RoCS Critical Design Review (CDR) Review Item Discrepancies (RIDs) were closed prior to the Incremental Acceptance Review. Thirty-four of the 43 Verification Requirements Data Sheets (VRDSs) have been signed off. The remaining VRDSs are awaiting vibration and cold flow test results.
 - Final engineering design drawings for the fairing modification have been passed to Ground Operations (GO) for pre-planning the transferred work. A Change Request (CR) for formal transfer of the actual installation of stiffeners and new interface fasteners to GO is in Ares I-X Control Board (XCB) review.
 - The Mat Frame (drop protection hardware) mod kit was shipped to KSC, as was the spare assembly pedestal to facilitate the desired three-point lift configuration at the Hypergolic Maintenance Facility (HMF) during propellant loading.
 - Vibration testing is underway, check valves are complete, and data is being reviewed. All vibration and cold flow testing should be completed by the end of March, and, with appropriate data review and data drop intervals, RoCS is planning for a Final Acceptance Review no later than April 30.
 - Incremental Acceptance Review Action Items identified as constraints to propellant loading were closed, and propellant loading is proceeding. Finalization of waiver write-up (AIX-0170, No Vibration Qual Test for Propellant Storage Assemblies) is proceeding now that the engineering rationale for the waiver has been accepted as closure to a constraint to propellant loading.
 - Peacekeeper (PK) Booster Cartridge ordnance disassembly is complete, with all nine required cartridges disassembled and propellant delivered to the Marshall Space Flight Center (MSFC) Chemical Laboratory. This work provides propellant to conduct a chemical assay, in support of the PK ordnance waiver.



- The KSC Work Authorization Document (WAD) review has been re-established after KSC's interface problem with the domain name change was fixed. The fill valve cap welding WAD review is complete, and post-installation instrumentation cable hook-up and check-out WAD reviews are in process.

Project Integration (PI)

- ***Ares Quarterly Progress Report Video #11:*** The Ares Projects outreach team released the Ares Quarterly Progress Report (QPR) Video #11 to NASA.gov, iTunes, and YouTube on March 4-6. The success of this outreach activity continues to build. Online 'hits' in February alone totaled nearly 929,000, an order of magnitude over the January hits. Possible reasons include: the release of the 3-year progress video, making Adobe Media Player's "top 5 recommended videos," iTunes' relatively easier search function, and media coverage of NASA's inclusion in federal "stimulus" funding.
- ***Education Outreach:*** The Ares Projects outreach team presented the Ares and exploration stories and discussed various NASA careers with approximately 263 students at four Huntsville area schools: Athens Middle School in Athens on March 9, Chaffee Elementary School in Huntsville on March 10, Challenger Elementary School in Huntsville on March 11, and Legacy Elementary School in Madison on March 13. Students participated in a straw rocket activity.

The Ares Projects looks forward to the FS Cluster Drop Test in May.

...and as of this Ares Projects Weekly Summary, there are only 106 days until the first Ares I test flight, Ares I-X!!!