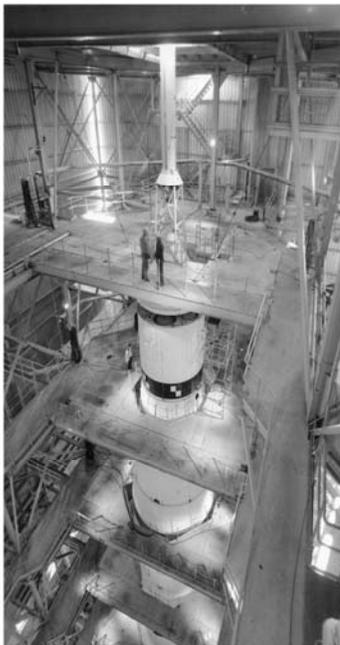




**Integrated Vehicle Ground Vibration Test (IVGVT) – Test Stand 4550 (TS4550) Construction Drawings and Documents Accepted by National Park Service (NPS)/Historic American Engineering Record (HAER):** The Marshall Space Flight Center’s (MSFC’s) Historic Preservation Officer notified the IVGVT team on August 21 that he had received the drawings and documents from the NPS/HAER and marks this as the closure for this reconstruction effort. The Preservation Officer mentioned that the actual inclusion of the drawings and photographs in the Library of Congress is an extended process and will occur at some time in the future.

### Test Stand 4550 – History of Ground Vibration Testing (GVT)



**Saturn V  
GVT**



**Shuttle  
IVGVT**



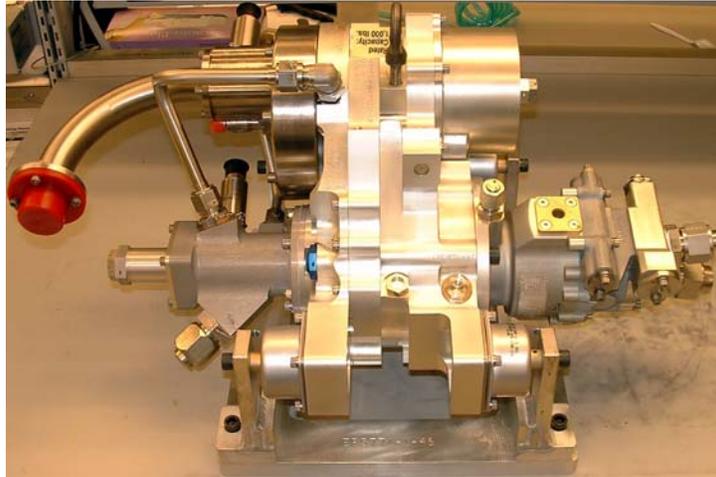
**Preparing for Ares I**

*Recent activities specific to the Elements include:*

- **Upper Stage (US)**
  - **US Thrust Vector Control (TVC) Subsystem:** The first Engineering Model Turbine Pump Assembly (TPA) for the TVC subsystem has completed assembly. This TPA is being built under an Advanced Development Contract with Hamilton Sundstrand. Acceptance testing of



the unit began during the week of August 18. The TPA uses hydrogen or helium gas as a propellant to spin a turbine that drives a hydraulic pump which provides hydraulic power for the TVC system.



*The first engineering TPA for TVC*

- **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:
    - Deviation Requests were submitted for Ares I-X Control Board (XCB) review: 0167 – No Vibro-Acoustics Acceptance Testing Planned for Flight Components or Assemblies, 0168 – Maximum Expected Operating Pressure (MEOP) Testing Levels on the Propellant Filter Assemblies, 0171 – No Vibro-Acoustics Quality Testing Planned for Pyro Valves and Ordnance.
    - Participated in the Schedule Summit, which was re-located to MSFC due to Tropical Storm Fay.
    - RoCS skin panels were match drilled at Glenn Research Center (GRC); shipment back to Teledyne is pending.
    - The inner and outer installation tables were assembled and painted. Installation tables are ground support equipment used to slide the Roll Control modules into the Interstage. Planning is proceeding for a proof-load and handling exercise with Kennedy Space Center (KSC) personnel using these tables.
    - Additional flight unit parts that required paint masking changes for bonding continuity were completed and sent to Part Mark, which is a manufacturing station where the part is stamped or etched with its part number.



- Teledyne received the MSFC-provided pyrotechnic initiator unit, which allowed planning to continue for the cold flow unit initiation test.
- The by-pass manifold blocks were assembled on the cold flow unit bi-prop valves.
  
- **The Avionics Integrated Product Team (IPT) Conducted Ares I-X FASTER (Software) Review (Part 1 of 2):** The first part of the FASTER data review was held August 19–21 at the Lockheed Martin facility in Denver, CO. The scope of the review was to show that the FASTER Test Plan meets the objectives of verifying requirements. Part one of the review includes the "generic" software testing. Part two will review the actual flight parameters (scheduled for February 2009). The review covered 31 tests outlined in the FASTER test plan. The tests were analyzed by three different NASA teams (Avionics IPT Engineering, Systems Engineering and Integration (SE&I), and Safety and Mission Assurance (S&MA)). Each team was supported by a Lockheed Martin (LM)/United Launch Alliance (ULA) Subject Matter Expert (SME) who also operated the data review tools. At the end of the second day, comments were collected from each team. A report summarizing this successful review will be submitted to the Avionics IPT by September 12.
  
- **Project Integration (PI)**
  - **SpaceTec Aerospace Technicians Appreciation Reception:** Ares Projects outreach team displayed the 1:50 Ares I and Ares V model set and supported a speech by the Ares Projects Manager on August 19 at a reception at the Davidson Center for Space Exploration. This speech detailed the future of exploration to aerospace technicians. More than 500 people attended the reception, sponsored by area industry partners.

The Ares Project looks forward to the kick-off of the Upper Stage Engine Critical Design Review (CDR) and the Ares I Preliminary Design Review (PDR) Pre-Board and Board in September.

***...and as of this Ares Projects Weekly Summary, there are only 229 days until the first Ares I test flight, Ares I-X!!!***