

Upper Stage Engine (USE)

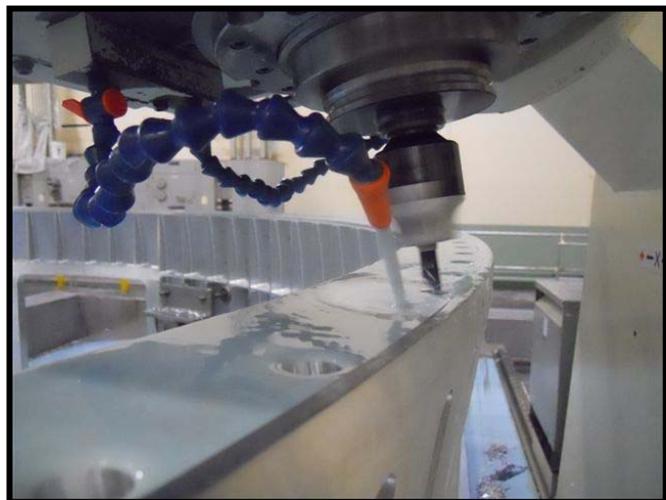
Thrust Frame Adapter (TFA) Successfully Installed on A-1: The TFA was successfully installed to the Thrust Measurement System (TMS) on Test Stand A-1 at NASA Stennis Space Center (SSC). The TFA is the interface between the J-2X and the test stand, simulating the gimbal cone interface of the vehicle. The TFA will transmit the 215,000 lbf of thrust the J-2X engine will produce in the Regen-only configuration to the TMS. The liquid oxygen and liquid hydrogen runlines will be attached to the TFA through the brackets shown on both sides of the adapter.



J-2X TFA being installed in the A-1 Test Stand at SSC

First Stage (FS)

Ares I First Stage Orthogrid Machining Pathfinder: Votaw has completed final Computer Numerical Control (CNC) machining on the major features of the Ares I Major Structures Orthogrid Machining Pathfinder. This is the largest single piece forging of its kind for these articles. The forging and machining pathfinder process was used to prove the feasibility of the large orthogrid barrels for the first stage forward skirt extension and the forward skirt. Initial inspection results indicate that the part is within drawing specifications.



Orthogrid Machining Pathfinder Machining RadAx Features



Flight and Integrated Test Office (FITO)



Hydrodynamic Support (HDS) Refurbishment and Testing: All four HDS units have been assembled in Building 4619 at Marshall Space Flight Center (MSFC).

Testing in progress of one HDS unit.



The shaker testing for the initial HDS unit is underway.

The Ares Projects look forward to the test firing of DM-2 on September 2, and the launch of STS-133, Space Shuttle Discovery, in the fall.