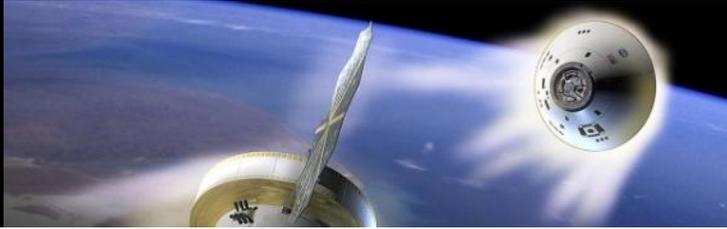


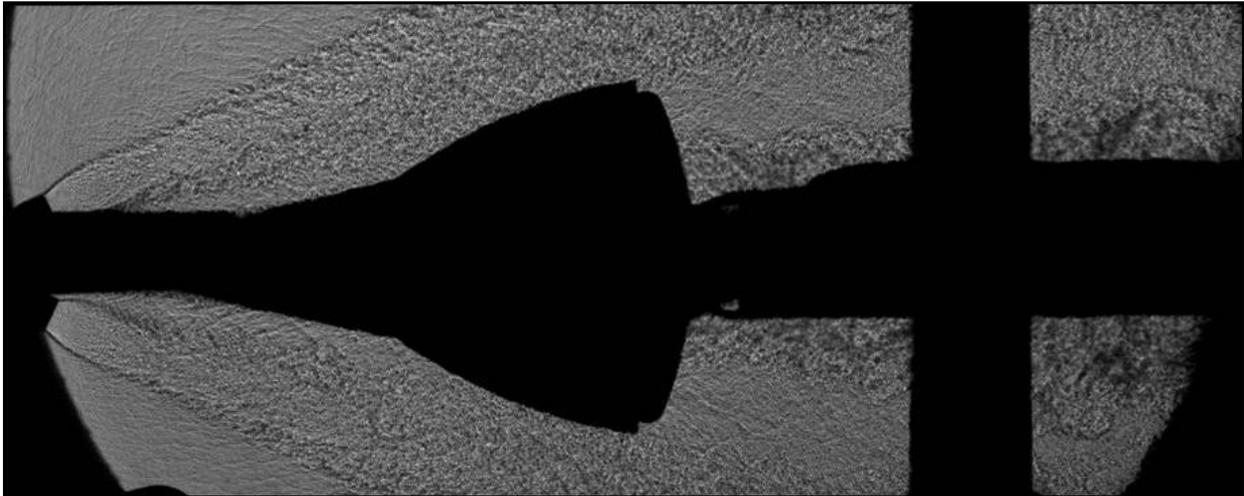
ORION

CREW EXPLORATION VEHICLE

WEEKLY ACCOMPLISHMENTS



09.10.10



The 80-AS high temperature helium wind tunnel testing in the Ames Research Center Unitary Plan Wind Tunnel continues.

The second phase of the test to verify the helium system's ability to reach helium test requirements 700F and 600 psi was successfully completed. The wind tunnel team is now testing the Orion Launch Abort System (LAS) model to collect data on the acoustic environment during an abort event. The tests (shown above) demonstrate high fidelity flowfield interactions with the high pressure/high temperature plumes simulating the effects of the LAS abort motor during an abort.



Progress on the fabrication of the ground test article heat shield continues at the Lockheed Martin facility in Denver, Colorado.

The Heatshield carrier structure (shown right) is a composite honeycomb sandwich design that will be used for near-term vibro-acoustic testing. A second composite heat shield test article, based on the baselined flight design for a crew exploration



vehicle, will be fabricated in 2011 for inclusion in future crew module ground testing, such as water impact and static influence coefficient testing in support of Orion analytical model correlation.



 Following the successful structural proof pressure test at the Michoud Assembly Facility in New Orleans, Louisiana, the Orion crew module ground test article was moved back to building 103. The first data from the test shows good correlation with the pre-test models. Data will continue to be analyzed while the non-destructive evaluation testing continues. Once testing is complete, the Orion ground test article will undergo reconfiguration before shipment to Lockheed Martin in Denver, Colorado at the end of the year.

