



ARES 1-X Pre-Mission Summary

NWS Spaceflight Meteorology Group



The first test flight of NASA's new Ares 1-X rocket is scheduled to launch on Tuesday October 27, 2009 from Kennedy Space Center's launch complex 39B at 8am EDT which is at the beginning of a four hour launch window. After launch the rocket will travel for 6 minutes and 50 seconds and splash down about 147 statute miles east of KSC.



The Ares 1-X is the first flight test for NASA's next generation spacecraft. The un-manned test of flight characteristics, hardware, facility and ground operations will aid in the design of the actual Ares 1 rocket which will carry astronauts to the International Space Station after the Space Shuttle is retired. Primary test objectives for Ares 1-X are to demonstrate vehicle controllability, separation sequences, launch abort system, entry dynamics and recovery of the first stage element. See [NASA's web page](#) for more information about the details of the test.

A secondary objective is to characterize induced environments and loads on Ares 1-X during the ascent flight phases. The [Spaceflight Meteorology Group](#) is responsible for providing the loads engineers with an upper winds forecast from the surface to 80,000 ft for comparison to day-of-launch balloons and seasonal normals. See the [USAF 45th Weather Squadron page](#) for the Ares 1-X launch weather forecast. In the future, for the operational vehicle, SMG will also be providing abort landing site weather and end-of-mission splashdown weather.

Tim Garner is SMG's lead meteorologist for the test. Doris Hood is the lead Techniques Development Unit (TDU) meteorologist.

Submitted by: Doris Hood and Tim Garner

Updated: October 26, 2009