National Aeronautics and Space Administration

Constellation

Ares I-X Test Flight

Significant Milestone for Ares I Crew Launch Vehicle

Ares I-X Specifications	
First Stage Thrust (Avg.)	2.6 Mlb
Max. Mach Number	4.76
Max. Altitude	150,000 ft
Separation Altitude	130,000 ft
Liftoff Weight	1.8 Mlb
Length	327.24 ft
Max. Acceleration	2.48 g

Orion Crew Module/ Launch Abort System Simulator

Upper Stage Simulator

Active Roll Control System

Active Separation System

First Stage Simulated 5th Segment - XL – Active Avionics

Active First Stage – Shuttle Reusable Solid Rocket Motor

Active Thrust Vector Control

Demonstrate and collect key data on:

- Roll and overall vehicle control
- Staging/separation
- Vehicle integration, assembly, and launch operations
- Aerodynamic, thermal, and vehicle loads
- First Stage reentry dynamics for recovery

Utilizes Apollo-type approach of multiple step test strategy to:

- Validate initial design models
- Enhance early learning about integration and hardware processing leading to America's next generation crew launch vehicle
- Drive lessons learned into requirements

1st flight launching 2009

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