

Implementing the Vision 2nd Space Exploration Conference



Project Orion Overview

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Orion System Elements



Orion consists of four functional modules



Launch Abort System --
emergency escape during launch

Crew Module --
crew and cargo transport

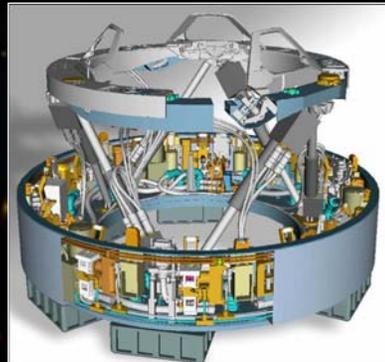
Service Module --
propulsion, electrical power, fluids storage

Spacecraft Adapter --
structural transition to launch vehicle

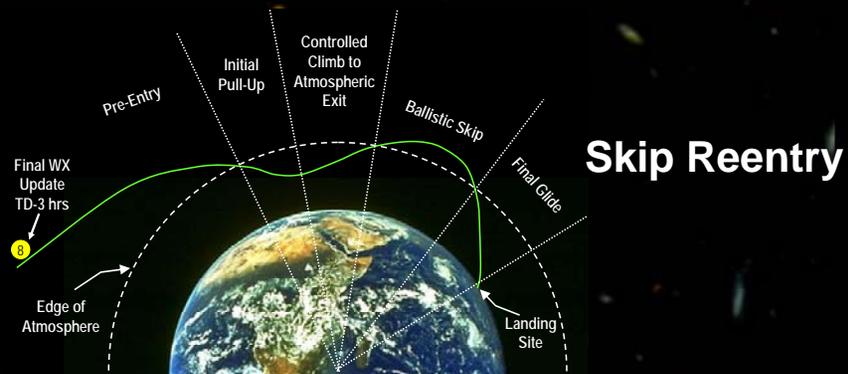
Major NASA Technology Applications to Meet the Mission



Automated Rendezvous & Docking



Docking Systems



TPS "Heat Shield"



Parachutes



Landing Impact Attenuation

Retrorockets



Airbags

Implementing the Vision

Orion Production Infrastructure is Coming On-Line!



- **KSC / Operations & Checkout Building**

- Highbay for all CEV final assembly
- Highbay cleanout underway
- Handover planned on 1 Jan 2007

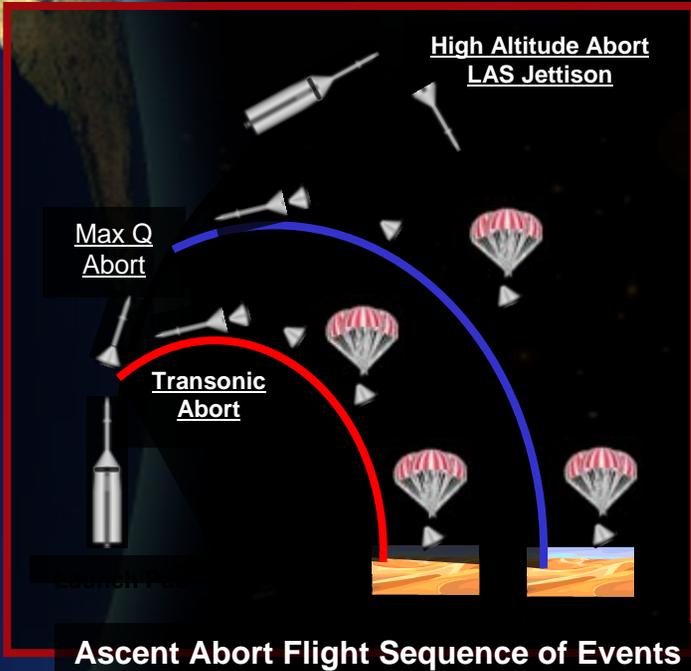


- **Michoud Assembly Facility**

- Primary structure manufacturing
- Composite and metal fabrication
- Initial outfitting to start 1 Jan 2007



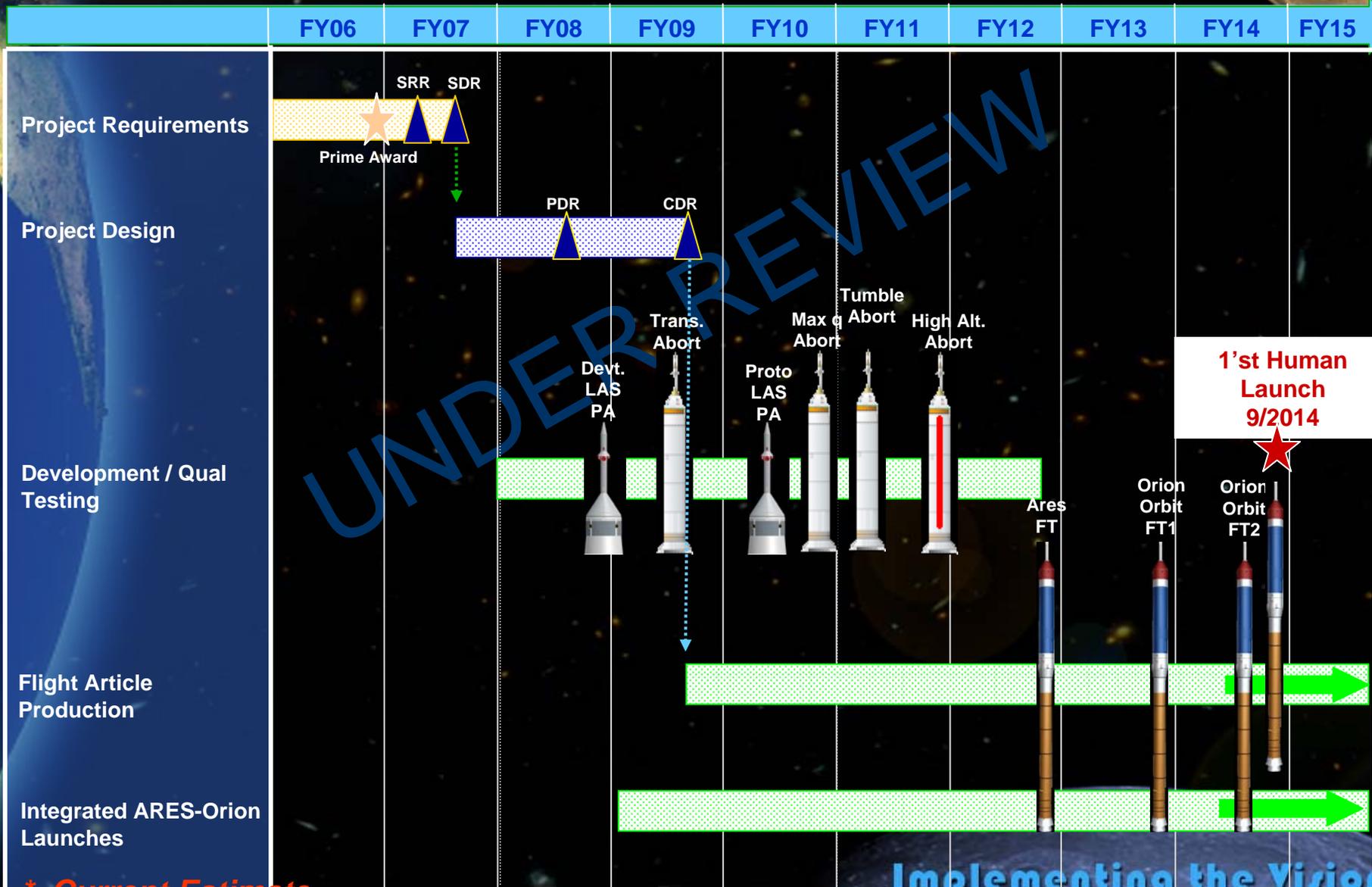
Flight Test Program -- Progress Toward First Flight



- **Completed agreement with USAF to develop the Abort Test Boosters (ATB)**
 - Released Request for Proposal (RFI) to industry for the ATBs
 - Expect Jan-Feb selection
- **Committed to first flight test in late 2008**
 - Developing flight test articles with NASA and LM
 - Selected WSMR as launch site and flight range



Orion Project Schedule Overview *



1'st Human Launch 9/2014

UNDER REVIEW

* Current Estimate



Implementing the Vision.