SLS Supports NASA's Vision and Mission

To reach for new heights... and reveal the unknown so that what we do and learn will benefit all humankind
Exploring Space for America’s Future

Inspiration

Scientific Knowledge

National Security

Economic Prosperity

Global Partnerships

Technology Development
Initial Capability Stands on the Shoulders of Legacy Systems
## SLS Development Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Concept Studies</th>
<th>Concept &amp; Technology Development</th>
<th>Preliminary Design &amp; Technology Completion</th>
<th>Final Design &amp; Fabrication</th>
<th>System Assembly, Integration &amp; Test, Launch &amp; Checkout</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>SLS Design Chosen</td>
<td>Engines Delivered to Inventory</td>
<td>Manufacturing Tooling Installed</td>
<td>Production of First New Flight Hardware</td>
<td>ICPS Production Begins</td>
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<tr>
<td>2012</td>
<td>Booster Development Test</td>
<td>Main Engine Test-Firing</td>
<td>Orion Flight Test</td>
<td>Wind Tunnel Testing</td>
<td>Booster Test-Firings</td>
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<tr>
<td>2013</td>
<td></td>
<td>Core Stage Assembly</td>
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<td>Core Stage Assembly</td>
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<td>2014</td>
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<td>2015</td>
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<td>2017</td>
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### PROGRAM PROGRESS

- **MCR:** Mission Concept Review
- **CIR:** Critical Design Review
- **PDR:** Preliminary Design Review
- **SRR:** System Requirements Review
- **FRR:** Flight Readiness Review
- **SDR:** System Definition Review
- **PLAR:** Post-Launch Assessment Review
- **SRR/SDR:** System Requirements Review / System Definition Review

**Key Dates:**
- **Launch:** Vehicle Stacking at KSC
- **First Flight:**
Concept to Preliminary Design in 21 Months

Liquid Engines
Tested selective laser melted part on J-2X at Stennis Space Center (March 2013), and storing RS-25 Core Stage Engines at Stennis Space Center.

Boosters
Conducted Thrust Vector Flight Control Test at ATK in Promontory, UT (Jan 2013).

Core Stage
Completed welding on first confidence barrel section at Michoud Assembly Facility (July 2013).

Spacecraft & Payload Integration
Performed fit-check of Multi-Purpose Crew Vehicle Stage Adapter for 2014 Exploration Flight Test at the Marshall Space Flight Center (June 2013).

Advanced Development
Conducted F-1 engine gas generator hot-fire testing at Marshall (Jan 2013).

Systems Engineering & Integration
Tested buffet model in Langley Research Center's Transonic Dynamics Wind Tunnel (Nov 2012).

Low Technical Risk Due to Hardware Maturity
Engaging the U.S. Aerospace Industry
Strengthening Sectors such as Manufacturing
Advancing Technology and Innovation

224 Subcontracts in 30 States
SLS Contracts and Suppliers in AL, MS, LA, and FL

Contracts

Alabama
- Dynetics Technical Services

Florida
- Baker Hill Industries, Inc.
- Bernd Group, Inc.
- Channel Comp., LLC
- Concurrent Computer Corp.
- Honeywell International, Inc.
- Hydraulic House, Inc.
- International Bolting Technologies, Inc.
- United Technologies Corp.

Suppliers

Alabama
- Alabama A&M
- All Points Logistics, Inc.
- Amtec Corp.
- Analytix, LLC
- Avans Machine & Tool
- AZ Technology
- B&B Precision Machine, Inc.
- Barnhart Crane & Rigging Co.
- Concurrent Computer Corp.
- Dynetics, Inc.
- GE Intelligent Platforms, Inc.
- Medtherm Corp.
- Packaging Unlimited
- Watring Technologies, Inc.

Florida
- Baker Hill Industries, Inc.
- Bernd Group, Inc.
- Channel Comp., LLC
- Concurrent Computer Corp.
- Honeywell International, Inc.
- Hydraulic House, Inc.
- International Bolting Technologies, Inc.
- United Technologies Corp.

Louisiana
- Geocent, LLC

To be updated
America’s Rocket for Deep-Space Missions

- National platform for space leadership
- Opens frontiers for commerce and economic expansion
- Unrivaled capability for strategic missions
- On track for first flight in 2017
- Opportunities for large and small businesses

www.nasa.gov/sls