National Aeronautics and Space Administration

Space Launch System

The Future of Exploration

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Space Launch System
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#SLSInspires

SLS Future Frontier Video

Goes Here!

A Deeper Purpose, **A Bolder Mission**

"To reach for new heights…

and reveal the unknown so that what we do and learn will benefit all humankind."

The Next **Great Ship**

Ships of exploration opened the paths **that became today's trade routes.**

NASA's Space Launch System

Orion:
Carrying astronauts into deep space

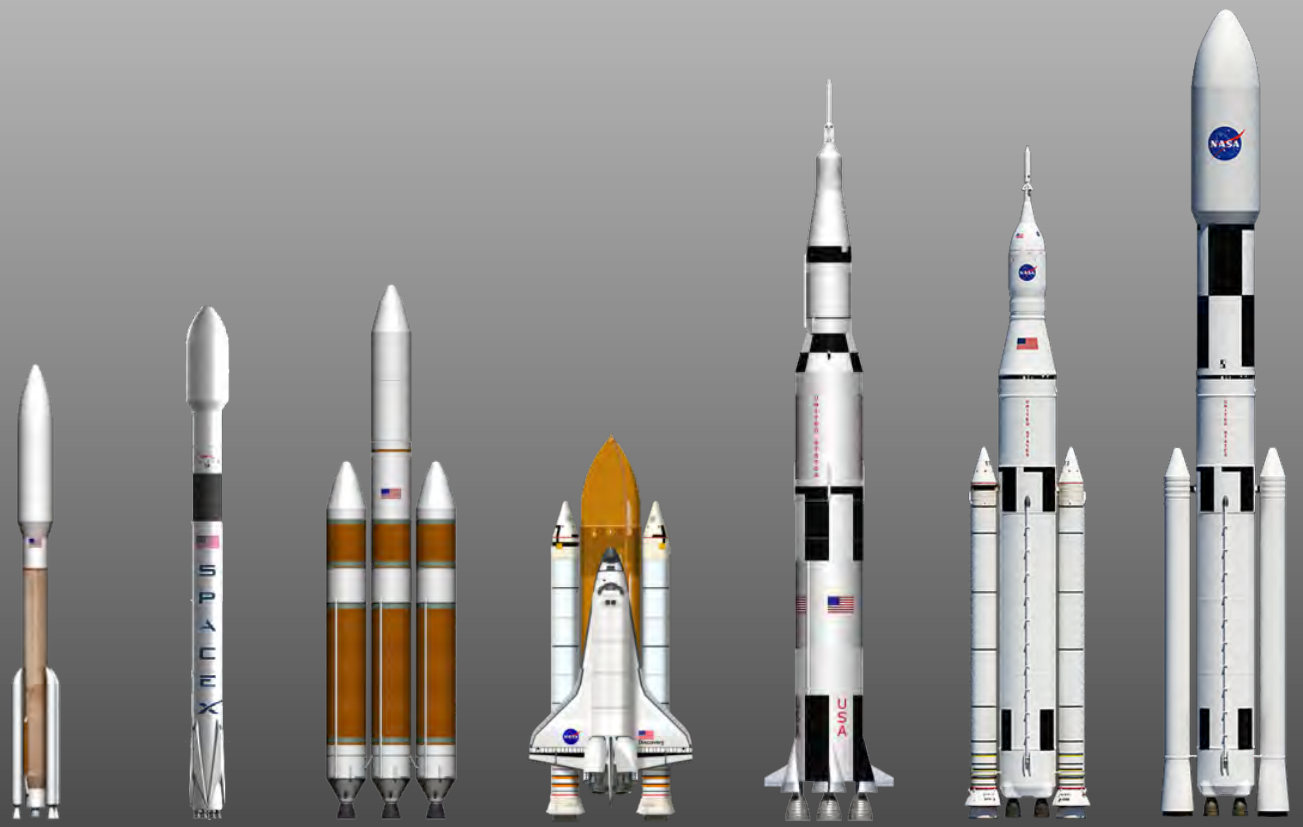
Interim Cryogenic Propulsion Stage:
Based on the Delta IV Heavy upper stage; the power to leave Earth

Core Stage:
Newly developed for SLS, the Core Stage towers more than 200 feet tall

Solid Rocket Boosters:
Built on Space Shuttle hardware; more powerful for a new era of exploration

RS-25 Engines:
16 Space Shuttle engines are already in inventory

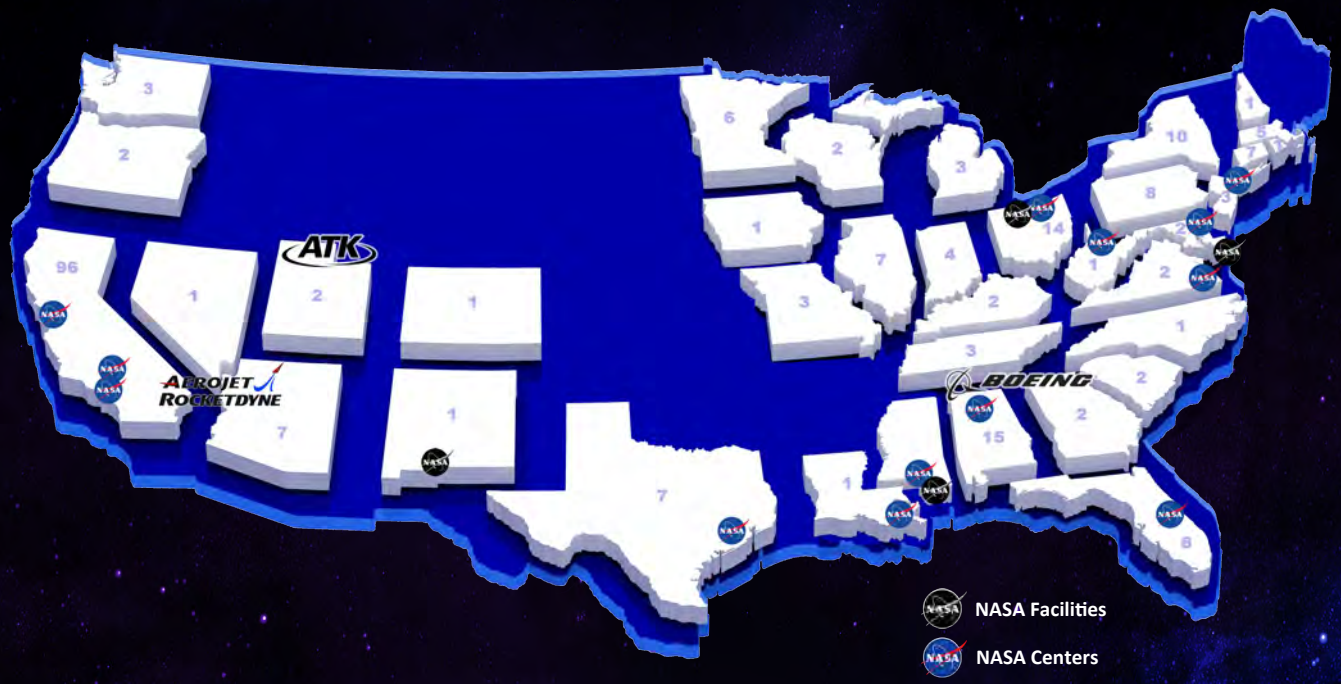
Bigger Rocket = **Unrivaled Mass, Unrivaled Volume**



Enables missions

no other rocket can perform.

A National **Effort**



224 Subcontracts in 30 States are **advancing technology and innovation.**

SLS Development Schedule

2011	2012	2013	2014	2015	2016	2017
MCR ✔	SRR/SDR ✔	PDR ✔	KDP-C	CDR	SIR	PLAR, FRR, Launch
Formulation			Implementation			
SLS Design Chosen	Engines Delivered to Inventory	Manufacturing Tooling Installed	Orion Flight Test	Core Stage Assembly	Core Stage Structure Testing	Vehicle Stacking at KSC
Booster Development Test		Production of First New Flight Hardware	ICPS Production Begins	Main Engine Test-Firing	Booster Assembly at KSC	First Flight
		Wind Tunnel Testing	Booster Test-Firings		Core Stage Test-Firing	
Concept Studies	Concept & Technology Development		Preliminary Design & Technology Completion	Final Design & Fabrication	System Assembly, Integration & Test, Launch & Checkout	

MCR: Mission Concept Review	CDR: Critical Design Review
SRR: System Requirements Review	SIR: System Integration Review
SDR: System Definition Review	FRR: Flight Readiness Review
PDR: Preliminary Design Review	PLAR: Post-Launch Asses. Review

Moving rapidly toward **the launch pad**

Space Launch System is currently **designing, tooling, building & testing.**

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SLS's first launch will send Orion **beyond the moon into deep space.**

First flight in **four years**

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SLS is the first step in the **journey to Mars**

Going to Mars will be difficult.
SLS provides the power that it takes.


NASA and America's future is built on
science, technology, engineering and mathematics.
Today's students **will create tomorrow**
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How Your Major/ Career Connects

University of Alabama in Huntsville
College of Engineering Degrees

- Aerospace Engineering
- Chemical Engineering
- Civil Engineering
- Computer Science
- Electrical Engineering
- Industrial and Systems Engineering
- Mechanical Engineering
- Optical Engineering

Sherryl Kittredge (Right) with NASA Administrator and MSFC Director

Van Strickland (Left)

Johnny Heflin

Monica Hammond

Kimberly Robinson (Left)

Why Wait?

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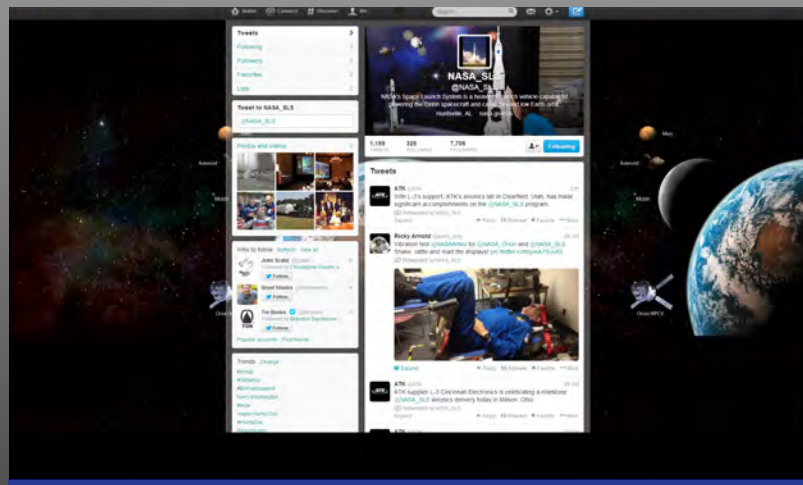

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"Man cannot discover
new oceans
unless he has the
courage to lose
sight of the shore."

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the journey

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Questions & Answers

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