



5...4...3...2...1...

SPACE LAUNCH SYSTEM AT A GLANCE

The Biggest, Most Capable Rocket Ever Built for Entirely New Human Exploration Missions Beyond Earth's Orbit

- **Designed to be flexible and evolvable for crew or cargo missions**
- **Safe, affordable and sustainable to advance America's exploration of space**

SLS Initial Lift Capability

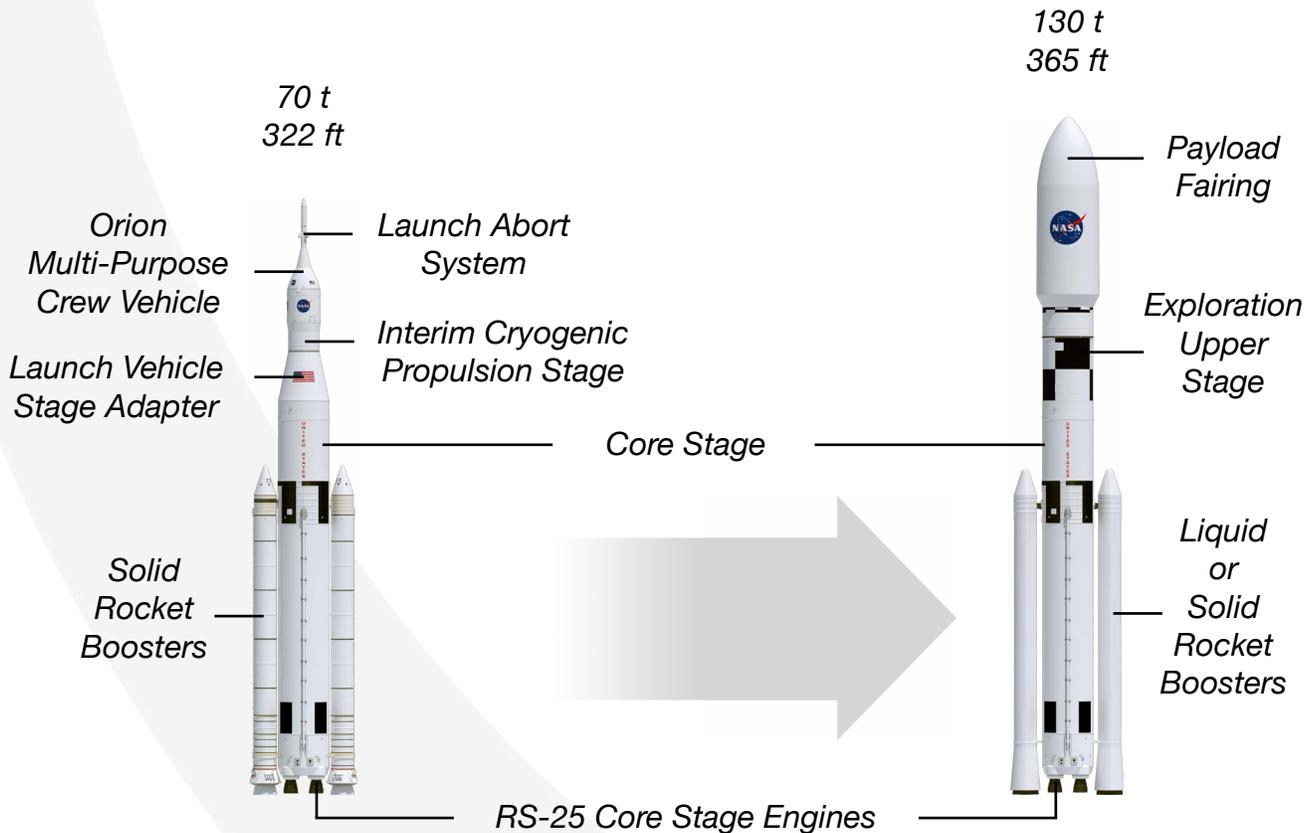
70 metric tons (t) = 77 tons

More than double any operational vehicle today (Crew configuration shown)

SLS Evolved Lift Capability

130 metric (t) tons = 143 tons

More than any past, present or planned vehicle (Cargo configuration shown)



SLS 70t

Liftoff weight: 5.75 million pounds

- Comparable to 8 fully-loaded 747 jets

Height: 322 feet

- Taller than the Statue of Liberty

Cargo Volume:

- 9,000 - 22,000 ft³



Payload

70 t (154,000 pounds) to orbit

- 77 one-ton pickup trucks' worth of cargo
- Equivalent of 12 fully grown elephants

Thrust/Power

At liftoff, the 70 t configuration has 8.4 million pounds of thrust, more than 31 times the total thrust of a 747 jet.

Produces horsepower equivalent to:

- 160,000 Corvette engines
- 13,400 locomotive engines

10 percent more thrust than the Saturn V at liftoff

SLS 130t

Liftoff weight: 7 - 7.5 million pounds

- Comparable to 10 fully-loaded 747 jets

Height: 365 feet

- As tall as a 30-story building

Cargo Volume:

- 58,000 ft³



130 t (286,000 pounds) to orbit

- 143 one-ton pickup trucks' worth of cargo
- Equivalent of 22 fully grown elephants

At liftoff, the 130 t configuration has 9.2 million pounds of thrust, more than 34 times the total thrust of a 747 jet.

Produces horsepower equivalent to:

- 208,000 Corvette engines
- 17,400 locomotive engines

20 percent more thrust than the Saturn V at liftoff

Propulsion

Solid Rocket Boosters (SRBs)

- If their heat energy could be converted to electric power, the two SRBs firing for 2 minutes would produce 2.3 million kilowatt hours of power, enough to supply power to over 92,000 homes for a full day.
- Each burns 5 tons of propellant per second.

RS-25 Core Stage Engines

- The power generated by 4 RS-25 engines is equivalent to the output of 16 Hoover Dams.
- If 4 RS-25 engines pumped water, rather than fuel, they would drain a family-sized swimming pool in 20 seconds.
- 4 RS-25 engines generate power equivalent to 3,386,364 miles of residential street lights. That's a street long enough to go to the moon and back 7 times, then circle the earth 1½ times.

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www.nasa.gov/sls

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