National Aeronautics and Space Administration

NASA's Space Launch System:

Positioning Assets for Tele-Robotic Operations

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Space Launch System

One Ship, Many Destinations

Source: Tony Horwitz, Blue Latitudes: Boldly Going Where Captain Cook Has Gone Before.

The Next Great Ship

“The New Ocean”

Islands in Our Ocean

Earth-Sun Libration Points
Large Diameter Telescopes

Asteroids
Human missions
Robotic missions with sample return

Mars, Phobos, Deimos
Human missions
Single-launch robotic sample return

Deep Space/Planetary
Robotic sample return missions
Reduced flight time (years)

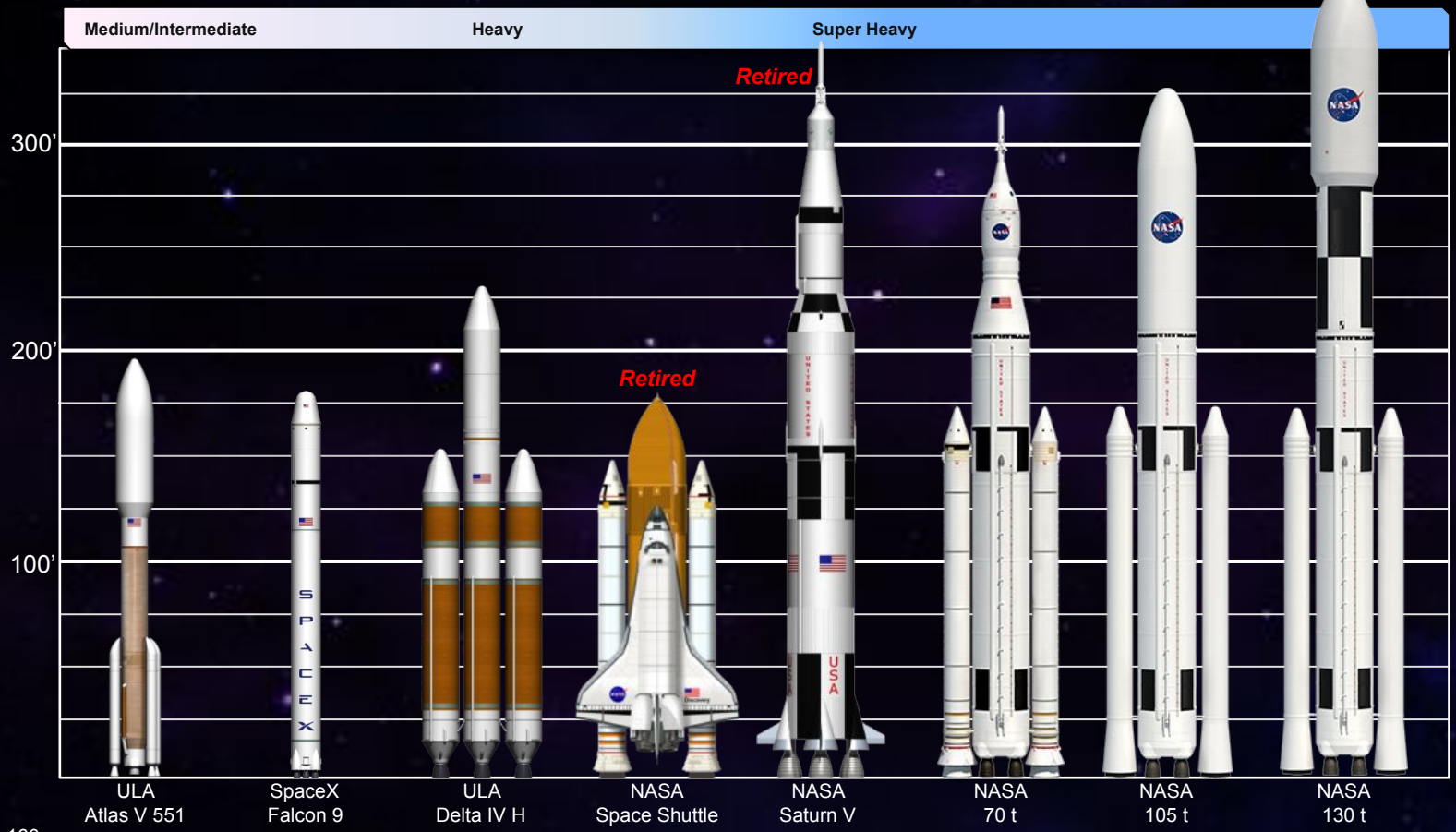
Earth-Moon Libration Points
Way station

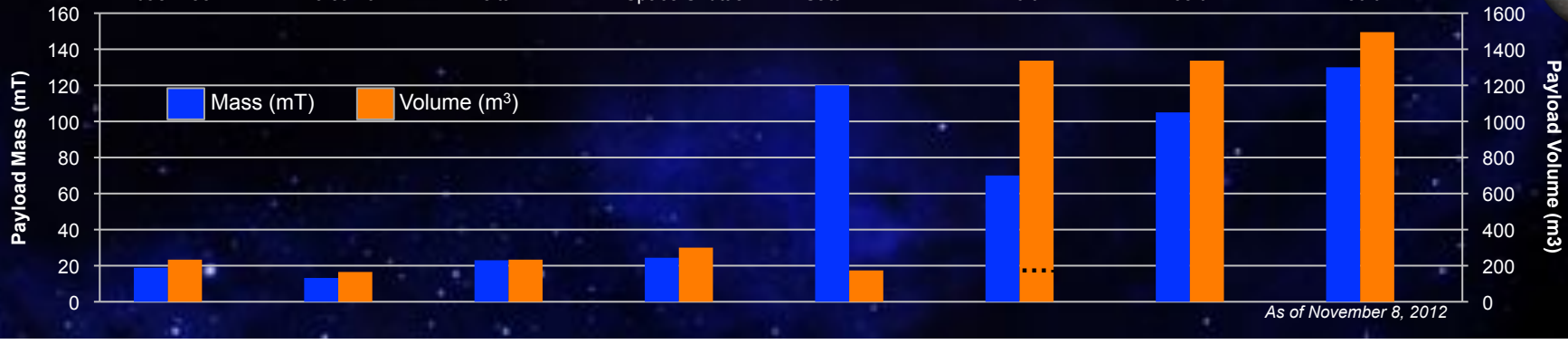
Moon
Large-scale robotic precursor missions
Human settlement with resource utilization

Commercial Space Stations
Large diameter
Single launch

Enabling Real-Time Tele-Operations

Most Capable U.S. Launch Vehicle





SLS: Taking Shape Today

Systems Engineering and Integration SLS model undergoes wind tunnel testing at Langley Research Center Nov 2012

J-2X power pack assembly hot fire test at Stennis Space Center Nov 2012

Multi-Purpose Crew Vehicle Stage Adapter Pathfinder Hardware at Marshall Space Flight Center June 2012

Kennedy Space Center Launch Complex 39B (artist's concept)

RS-25 Engines at Stennis Space Center Oct 2012, shown with future RS-25 Test Stand A1

F-1 engine gas generator hot fire test at Marshall Space Flight Center, Jan 2013 – technology development for an optional Advanced Booster concept

Qualification Motor 1 casting at ATK Oct 2012

SLS Maiden Voyage 2017

For More Information

www.nasa.gov/sls

www.twitter.com/nasa_sls

www.facebook.com/nasasls