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## Launch Vehicles: Current & Future Use

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# SPACE LAUNCH SYSTEM

Launch Vehicles – Current & Future Use

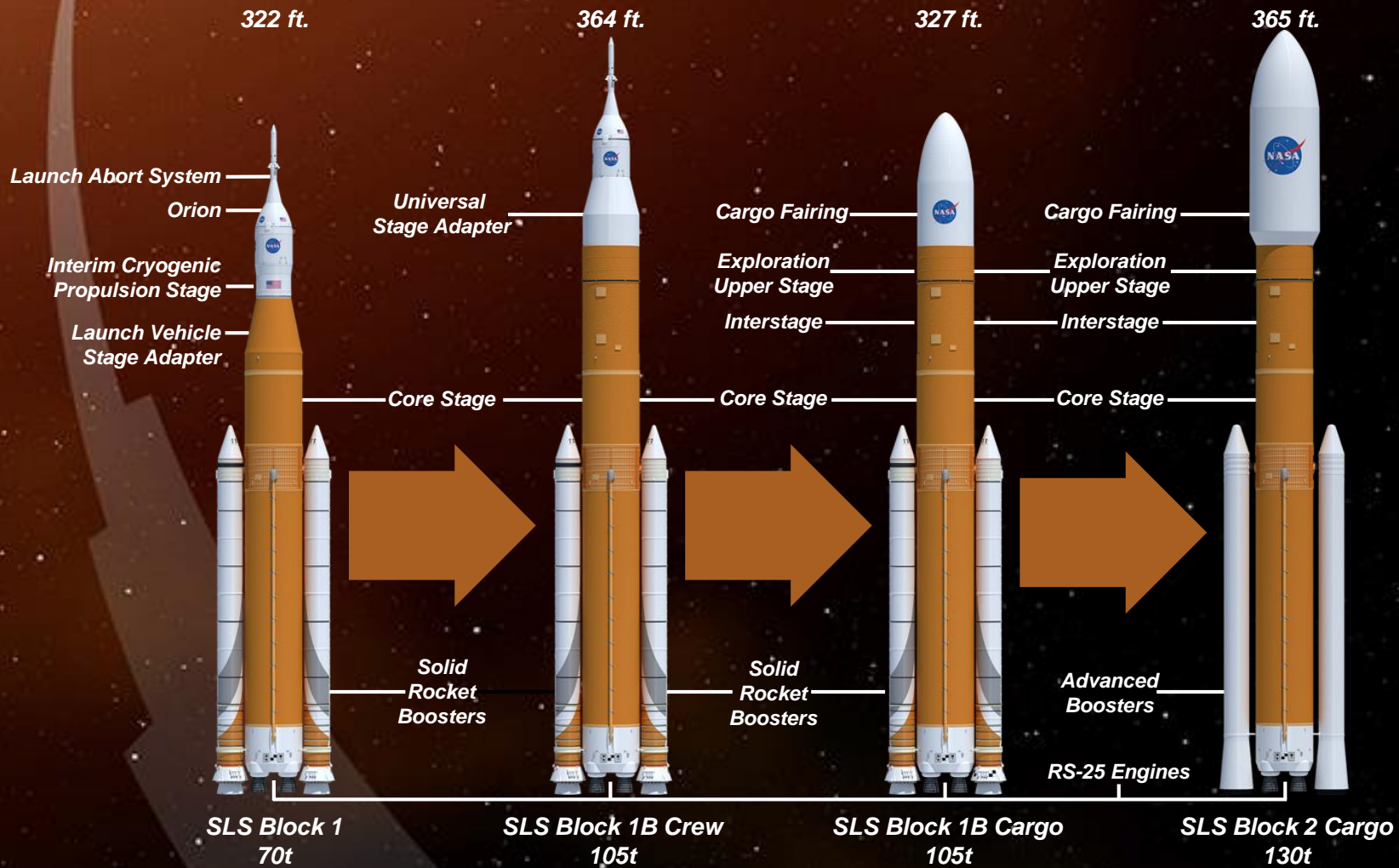
**Tracy Johnson**

**SLS Assistant Program Manager**

May 24, 2016



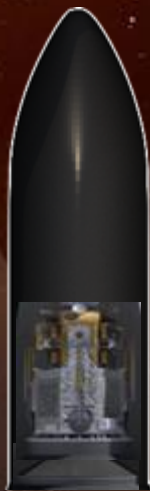
# EVOLVING THE SLS VEHICLE



# SLS Payload Accommodations

## • 3 KEY GAME CHANGERS

- *VOLUME*
- *MASS*
- *ENERGY*



5m fairing w/ science payload



Science Missions



Orion with short-duration hab module



8m fairing with large aperture telescope



10m fairing w/notional Mars payload

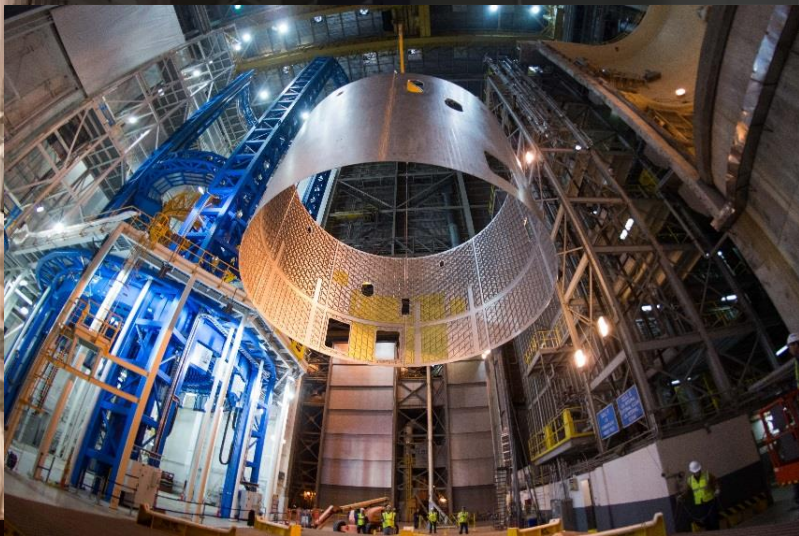
total mission volume = ~	250m3	400m3	400m3	1200m3	1800m3
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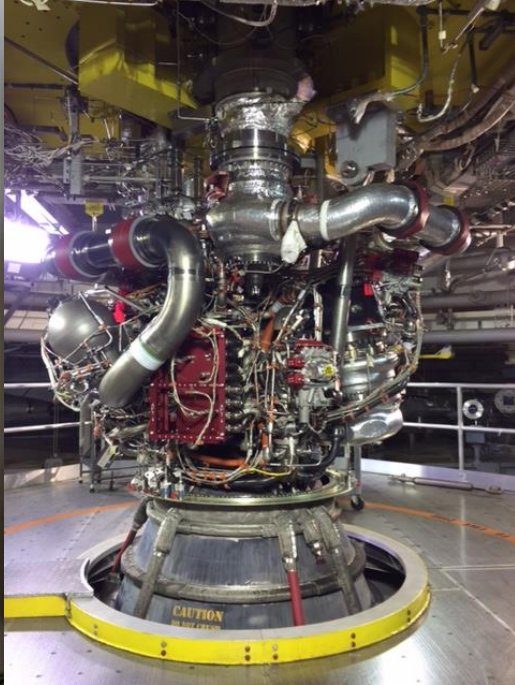
# CORE STAGE TESTING



# CORE STAGE MANUFACTURING



# RS-25 ENGINE





# SOLID ROCKET BOOSTER



# INTERIM CRYOGENIC PROPULSION STAGE



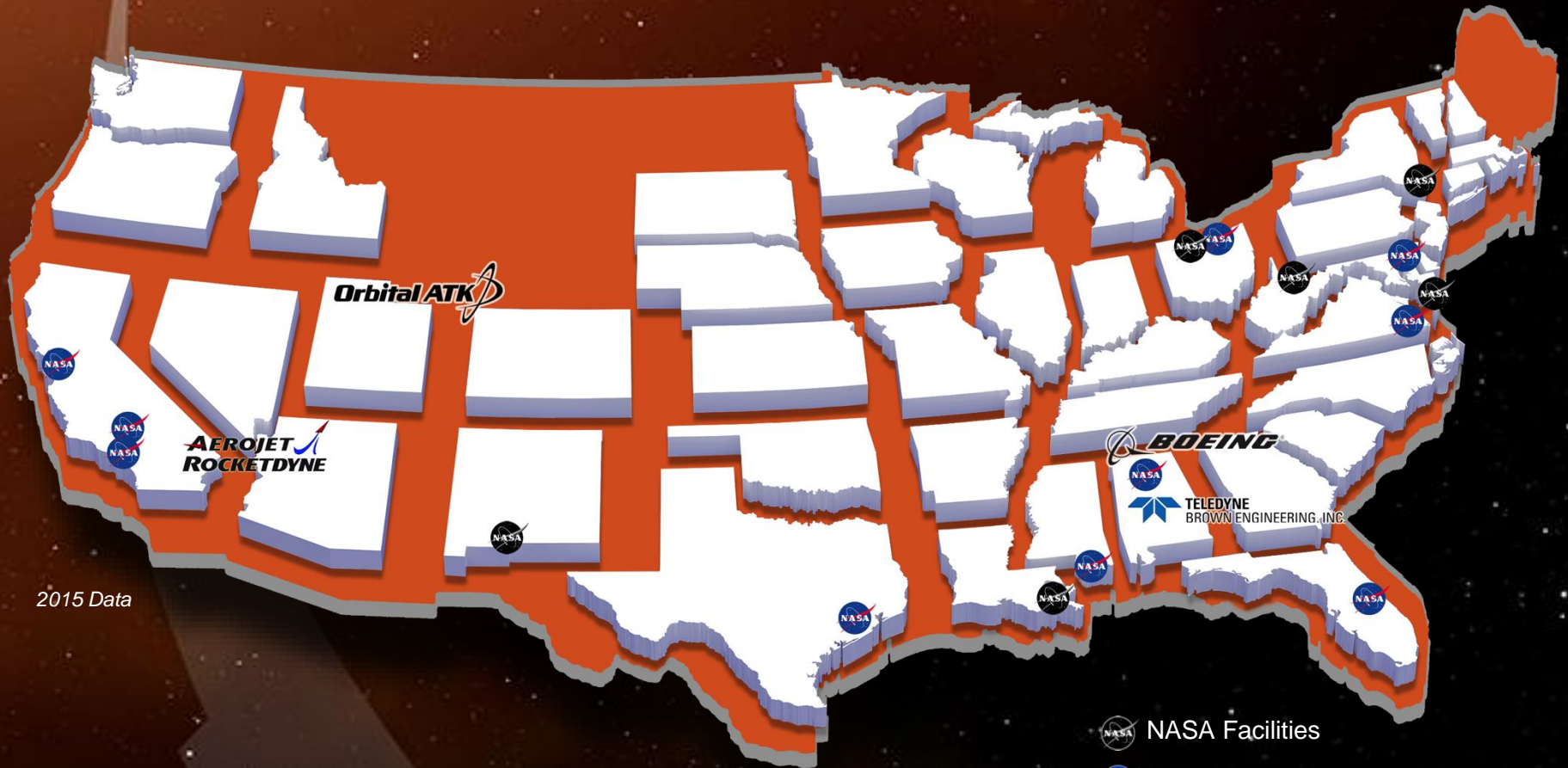
# STAGE ADAPTER WELDING



# EXPLORATION UPPER STAGE



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# COUNTDOWN TO THE FUTURE



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