National Aeronautics and Space Administration

Building on a Foundation of Proven Technologies

Launch Vehicle Comparisons



Space Shuttle

Height: 184.2 ft
Gross liftoff mass: 4.5M lb
55k lbm to LEO

Ares I

Height: 321 ft
Gross liftoff mass: 2.0M lb
48k lbm to LEO

Ares V

Height: 358 ft
Gross liftoff mass: 7.3M lb
117k lbm to TLI
144k lbm to TLI in dual launch mode with Ares I
290k lbm to LEO

Saturn V

Height: 364 ft
Gross liftoff mass: 6.5M lb
99k lbm to TLI
262k lbm to LEO

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