Ares I Crew Launch Vehicle

- ~25-mT payload capacity
- 2-Mlb gross liftoff weight
- 309 ft in length

Upper Stage
- 280-klb Liquid Oxygen/Liquid Hydrogen (LOX/LH₂) Stage
- 5.5-m Diameter
- Aluminum-Lithium (Al-Li) Structures
- Instrument Unit and Interstage
- RCS / Roll Control for First Stage flight
- CLV Avionics System

First Stage
- Derived from Current Shuttle Reusable Solid Rocket Motor/Booster (RSRM/B)
- Five Segments/Polybutadiene Acrylonitrile (PBAN) Propellant
- Recoverable
- New Forward Adapter

Upper Stage Engine
- Saturn J-2 Derived Engine (J-2X)
- Expendable
Ares V Cargo Launch Vehicle

- Composite Shroud
  - Ascent Stage
  - Descent Stage

- Earth Departure Stage
  - LOx/LH2
  - One J2X+ Engine
  - Al-Li Tanks/Structures

- Interstage

- Upper Stage Engine
  - Saturn J-2 Derived Engine (J-2X)
  - Expendable

- Core Stage
  - LOx/LH2
  - Five RS68 Engines
  - Al-Li Tanks/Structures

- Five Segment RSRBs

♦ ~130-mT payload capacity
♦ 7.4-Mlb gross liftoff weight
♦ 358 ft in length

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7.4-Mlb gross liftoff weight
358 ft in length