



# Map of Constellation Content Across NASA



## Ames

- Lead Thermal Protection System Advanced Development Program
- Ares Abort simulations and mission operations simulation capabilities
- Software & Guidance, Navigation & Control support
- Support lunar in-situ resource utilization systems
- Support lunar surface mobility
- Subsystem lead for lunar lander and lunar surface systems integrated health management



## Marshall

- Home for Ares Project
- Ares I and V development and integration lead
- Support LAS and Service Module, Ares V EDS development, test and oversight
- Core stage development, test and oversight
- Element lead for lunar lander descent stage
- Subsystem lead for lunar lander ascent stage propulsion, propulsion testing, avionics, life support, and structures

## Glenn

- Lead Service Module and Spacecraft Adapter integration
- Flight Test Article "Pathfinder" fabrication
- Ares I-X upper stage simulator lead
- Lead Ares V power, thrust vector control and payload shroud development
- Lead EDS orbital environments testing at Plum Brook
- Lead lunar lander ascent stage propulsion, ascent and descent stage power generation
- Passive thermal systems and surface element communications
- J-2X altitude/in-space testing

## Goddard

- Lead program requirements for unpressurized cargo carriers
- Subsystem lead for lunar lander avionics
- Lunar surface and esurface elenet communications
- EVA tools and equipment

## Langley

- Lead Launch Abort System integration
- Ares I-X vehicle integration
- Ares aerodynamics lead
- Lead Ares V aerodynamics
- Subsystem lead for lunar lander structures and mechanisms including ascent and descent stages
- Lunar lander and lunar surface radiation protection

## Kennedy

- Home for Ground Ops Project
- Ground processing
- Launch operations
- Recovery operations
- Final assembly, ground processing for human lunar lander
- Lead for lunar surface in-situ resource utilization systems



## Stennis

- Rocket propulsion testing
- Lead Ares V liquid rocket systems and stage testing at sea level and altitude
- Lead altitude development and certification testing for upper stage engine

## Michoud Assembly Facility

- Manufacturing of Ares I Upperstage, Ares V Stages and Orion Primary Structure

## Johnson Space Center

- Home for Program and Projects: Orion, MOP, EVA, Altair, Lunar Surface
- Element lead for lunar lander crew module/ascent stage
- Lead lunar surface crew habitation, environmental control /life support systems, human mobility
- GFE projects management
- Flight Test Program

## White Sands Test Facility

- Orion Abort Test Booster test site

## Pratt and Whitney Rocketdyne

## Dryden

- Lead Abort Flight Test Integration/Operations
- Abort Test Booster procurement
- Flight Test Article
- Support mission operations simulation capabilities
- Support ground and flight test operations for lunar projects

## Jet Propulsion Laboratory

- Thermal protection system support
- Lunar lander support including spacecraft design; guidance, navigation and control; life support systems, and avionics
- Lead specific robotic surface mobility
- Environmental monitoring and control and surface system local element communications

