

National Aeronautics and Space Administration



Human Landing System Program – Strategy and Status

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Space Policy Directive 1: To The Moon, Then Mars



“Lead an innovative and sustainable program of exploration with commercial and international partners to enable human expansion across the solar system and to bring back to Earth new knowledge and opportunities. Beginning with missions beyond low-Earth orbit, the United States will lead the return of humans to the Moon for long-term exploration and utilization, followed by human missions to Mars and other destinations...”

The NASA Charge to the Moon

In keeping with SPD-1, NASA is charged with **landing the first American woman and next American man at the South Pole of the Moon by 2024**, followed by a sustained presence on and around the Moon by 2028.

NASA will **“use all means necessary”** to ensure mission success in moving us forward to the Moon.



Vice President Mike Pence speaks about NASA's mandate to return American astronauts to the Moon and on to Mars at the U.S. Space & Rocket Center in Huntsville, Alabama.

Why go to The Moon?

Proves technologies and capabilities for sending humans to Mars

Establishes American leadership and strategic presence

Inspires a new generation and encourages careers in STEM

Leads civilization changing science and technology

Expands the U.S. global economic impact

Broadens U.S. industry and international partnerships
in deep space

The Artemis Program

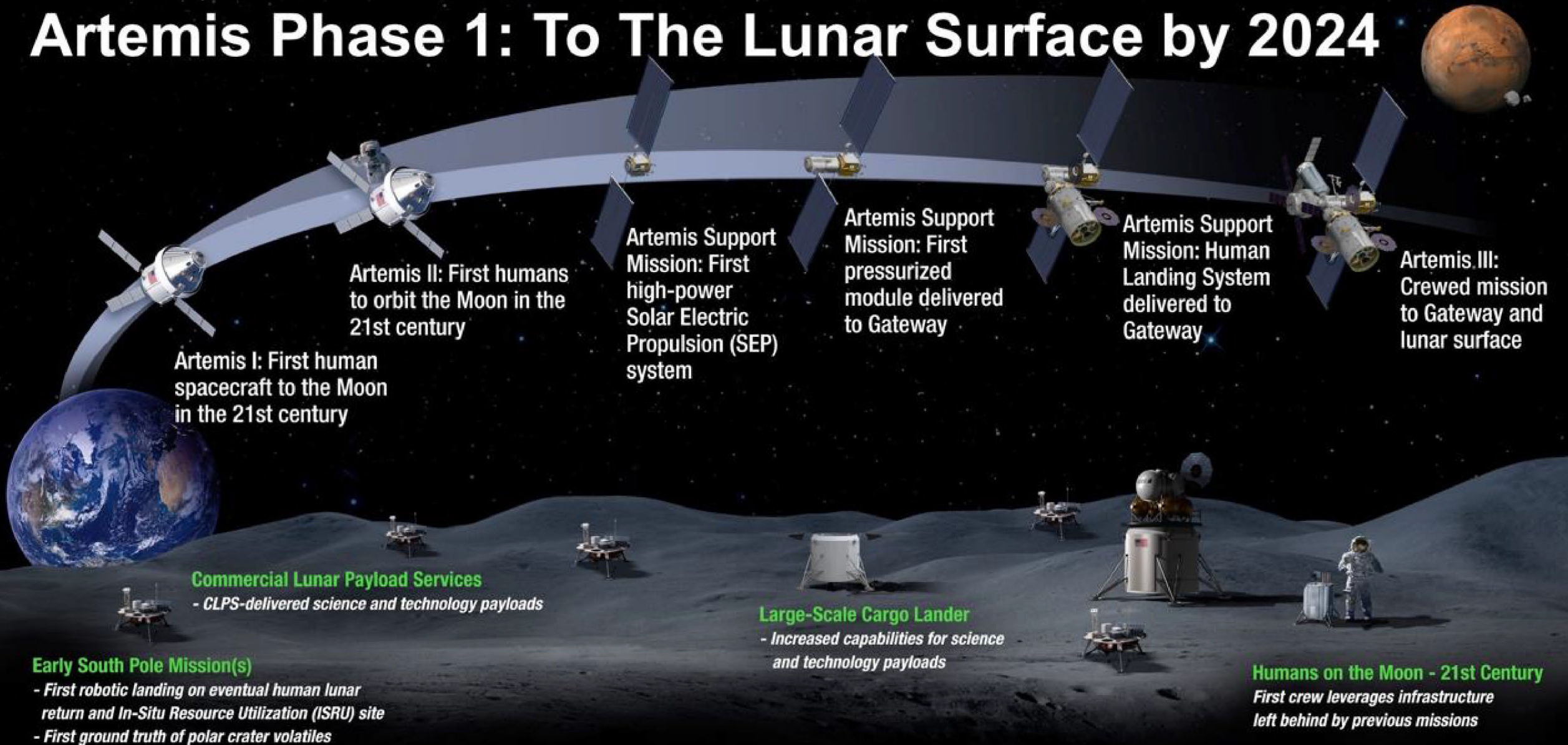
Artemis is the twin sister of Apollo and goddess of the Moon in Greek mythology. Now, she personifies our path to the Moon as the name of NASA's program to return astronauts to the lunar surface by 2024.

When they land, Artemis astronauts will step foot where no human has ever been before: the Moon's South Pole.

With the horizon goal of sending humans to Mars, Artemis begins the next era of exploration.

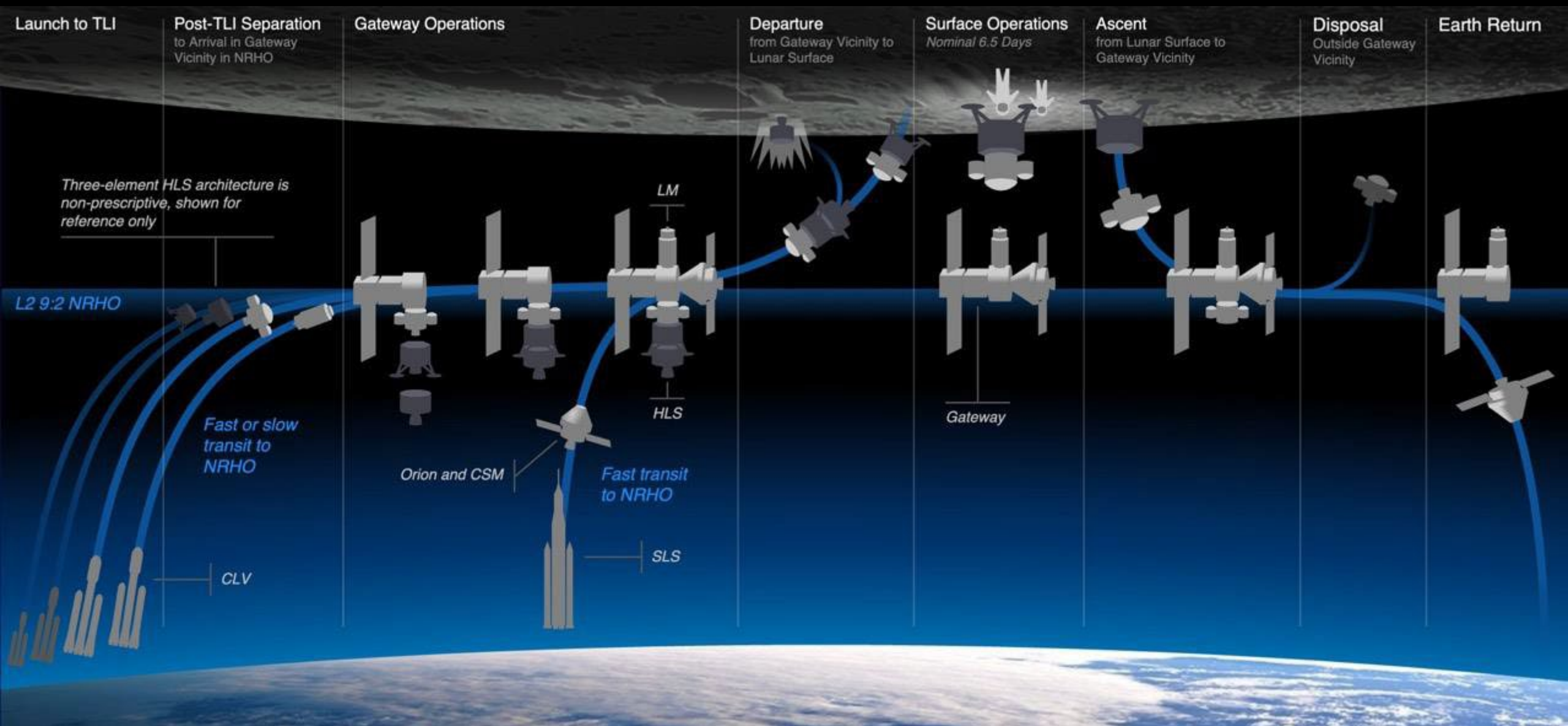


Artemis Phase 1: To The Lunar Surface by 2024



LUNAR SOUTH POLE TARGET SITE

Government Concept of Operations

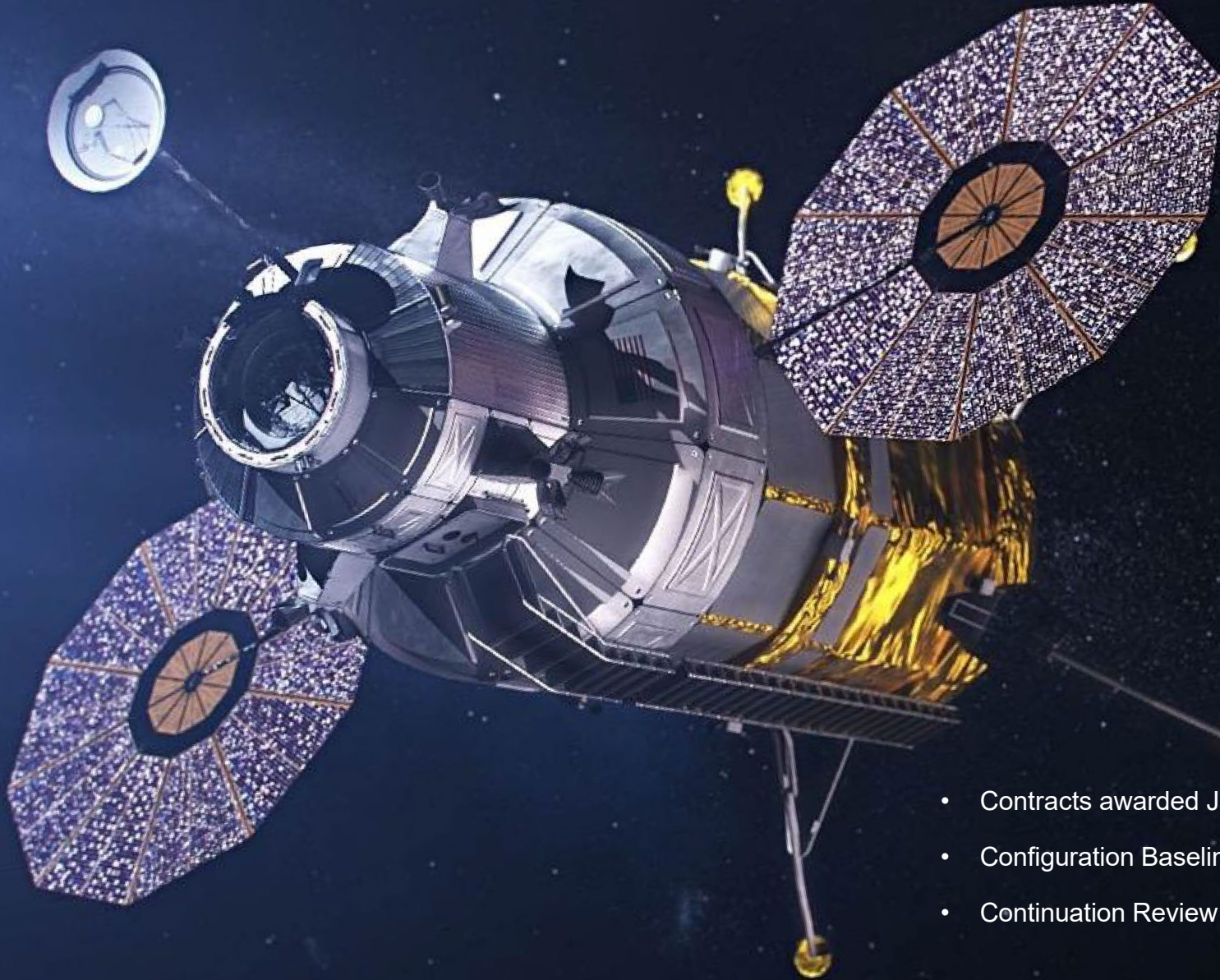


Acquisition through NextSTEP-2 Broad Agency Announcement - Appendix H



- Minimally prescriptive to provide maximum room for innovation
 - Reduced functional performance requirements from ~300 down to 26
 - Reduced required contract deliverables from 116 to 37
- Select at least three companies in January 2020
 - Firm fixed-price, milestone-based contracts
 - Evaluation criteria: Technical, Price, Management Approach
 - Goal of at least two passing a continuation review to take designs to flight
 - One to fly in 2024, other in 2025

Human Landing System Program – Upcoming Milestones



- Contracts awarded January 2020 providing Authority to Proceed (ATP)
- Configuration Baseline Review planned for ATP + 5 months
- Continuation Review scheduled for ATP + 9 months

Artemis Phase 2: Building Capabilities For Mars Missions



*Reusable human lander
elements refueled*

Artemis IV

Artemis V

Artemis VI

Artemis VII

Artemis Support Mission
*Lunar surface asset deployment
for longer surface expeditions*

CLPS opportunities

SUSTAINABLE LUNAR ORBIT STAGING CAPABILITY AND SURFACE EXPLORATION

MULTIPLE SCIENCE AND CARGO PAYLOADS

INTERNATIONAL PARTNERSHIP OPPORTUNITIES

TECHNOLOGY AND OPERATIONS DEMONSTRATIONS FOR MARS

2025

2029



Let's go.
The time is now.
We have the capability
We have the purpose
We have the charge
We have the responsibility

ARTEMIS

QUESTIONS?



