



Human Exploration Development & Operations Office

Advancing Human Exploration & Discovery

Enabling the Next Giant Leap

Michael Frazier, HEDO Deputy Manager

September 11, 2026

CREWS

In Training



SpaceX Crew-13

On Orbit



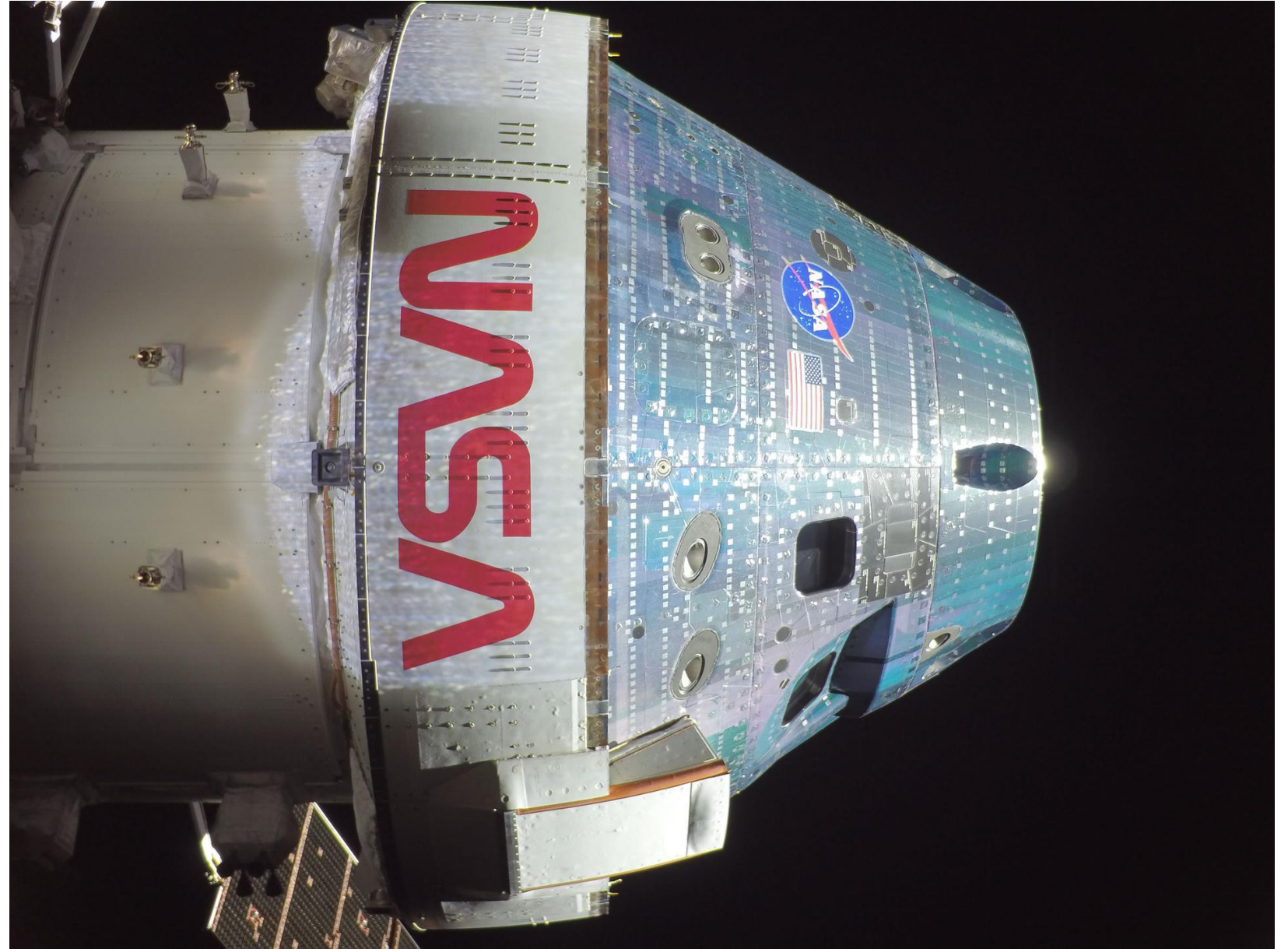
Expedition 74 Crew



SpaceX Crew-12



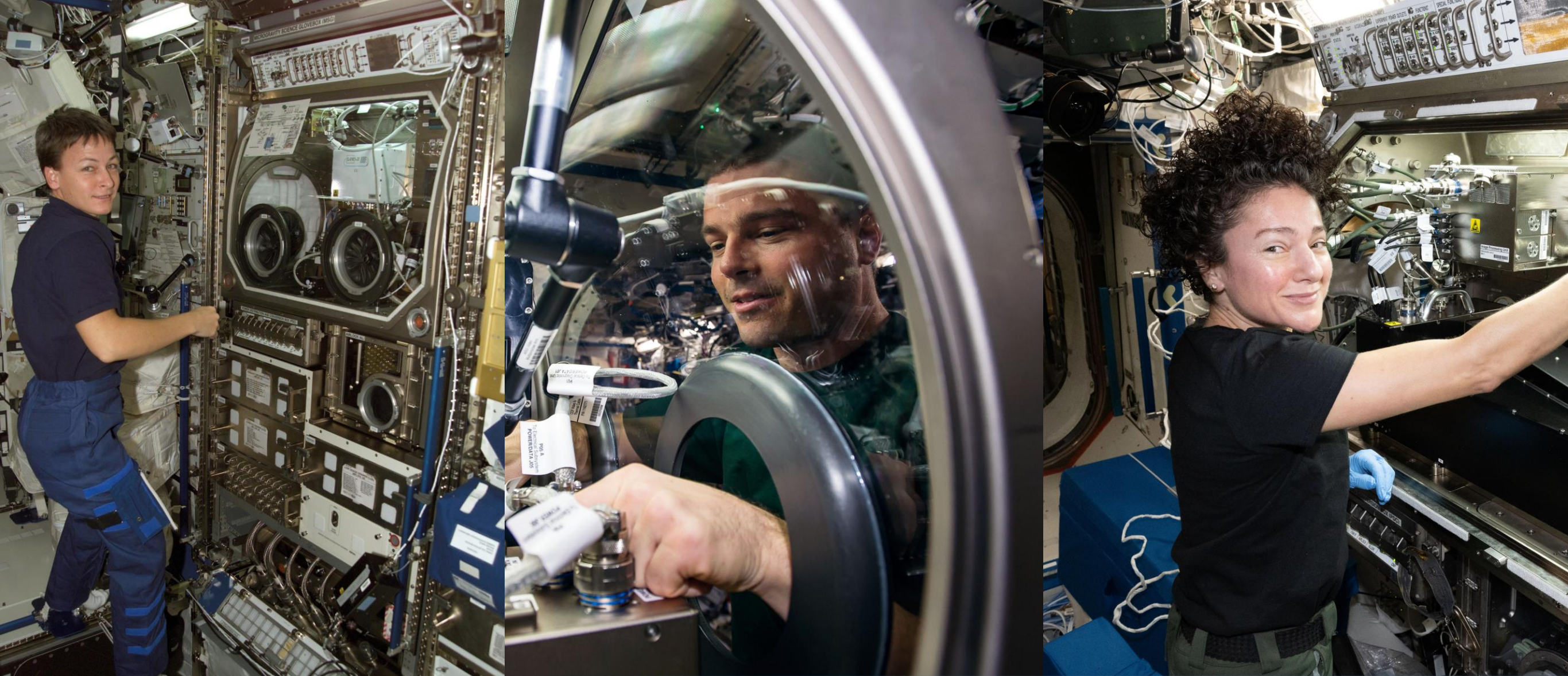
BACK TO THE MOON



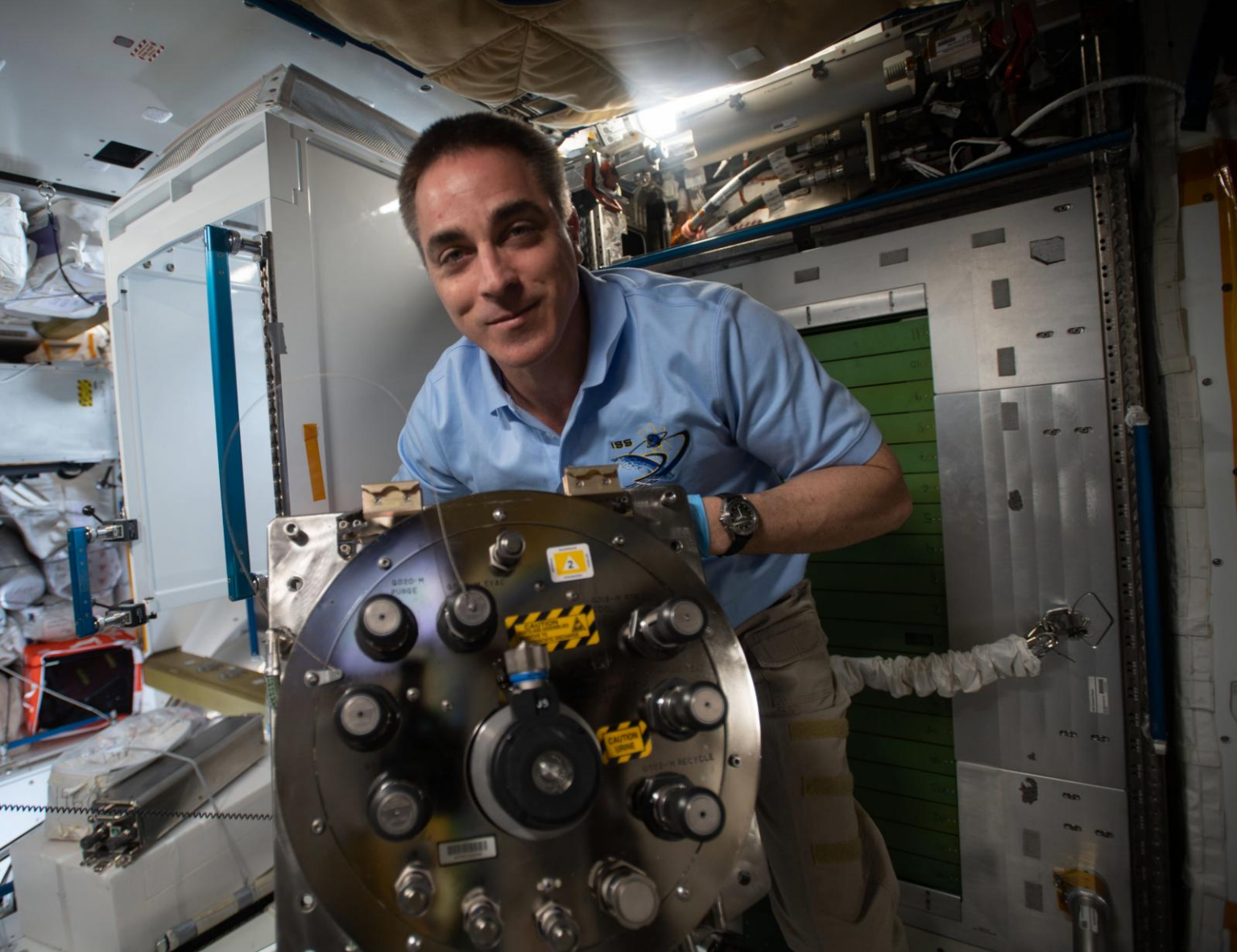


25 YEARS OF 24/7/365 OPERATIONS





MICROGRAVITY SCIENCE GLOVEBOX - 100K HOURS OF OPERATION



100,000 LBS OF WATER RECYCLED ON STATION



13 COMMERCIAL CREW LAUNCHES

MOON ROCKET

ORION SPACECRAFT

An uncrewed Orion spacecraft will venture thousands of miles beyond the Moon, paving the way for future flights with astronauts.

ORION STAGE ADAPTER

The adapter carries small satellites to deep space where they conduct world-class science for pennies on the dollar.

INTERIM CRYOGENIC PROPULSION STAGE (ICPS)

One RL10 engine provides 24,750 pounds of thrust to send Orion to the Moon.

LAUNCH VEHICLE STAGE ADAPTER

The adapter connects the 27.5-foot diameter core stage to the 16.5-foot diameter ICPS and partially encloses the ICPS in-space stage.

CORE STAGE

The 212-foot tall core stage holds 733,000 gallons of propellant to power four RS-25 engines for eight minutes, sending the rocket soaring to space at 17,000 miles per hour.

SOLID ROCKET BOOSTERS

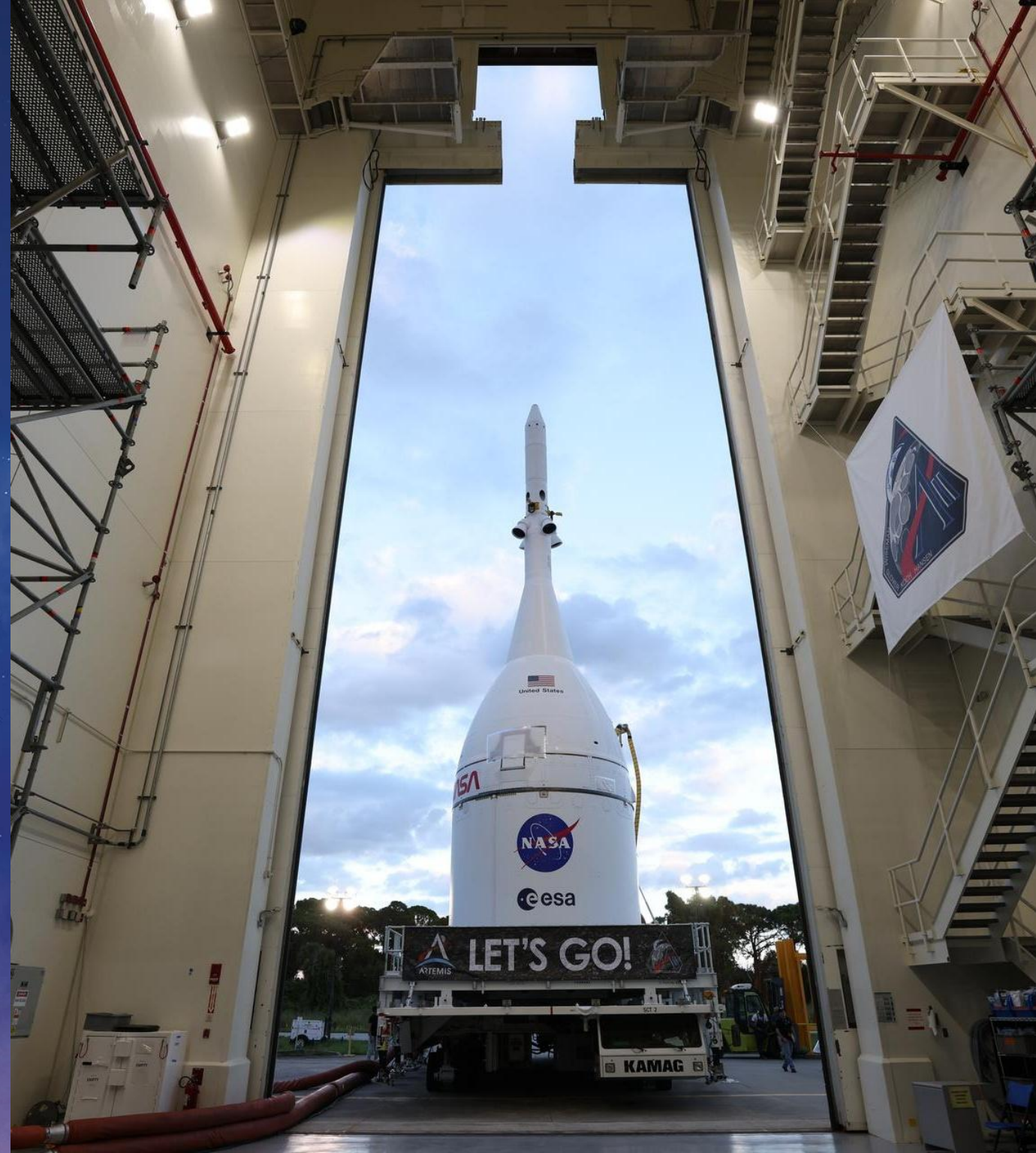
Each 17-story-tall booster generates 3.6 million pounds of thrust, providing 75 percent of total thrust during the SLS rocket's first two minutes of flight.

FOUR RS-25 ENGINES

As the most efficient engines ever built, the engines provide a total of two million pounds of thrust for launch and ascent to space.

NASA'S SPACE LAUNCH SYSTEM (SLS) is the only rocket built to send more than 59,525 pounds to deep space.

www.nasa.gov/sls





Lunar Utilization Control Area



Lander Engineering Support Area

LUCA & LESA



*A Virtual Astronaut Tissue
Analog Response*



*Artemis Research for Crew
Health & Readiness*

AVATAR & ARCHER



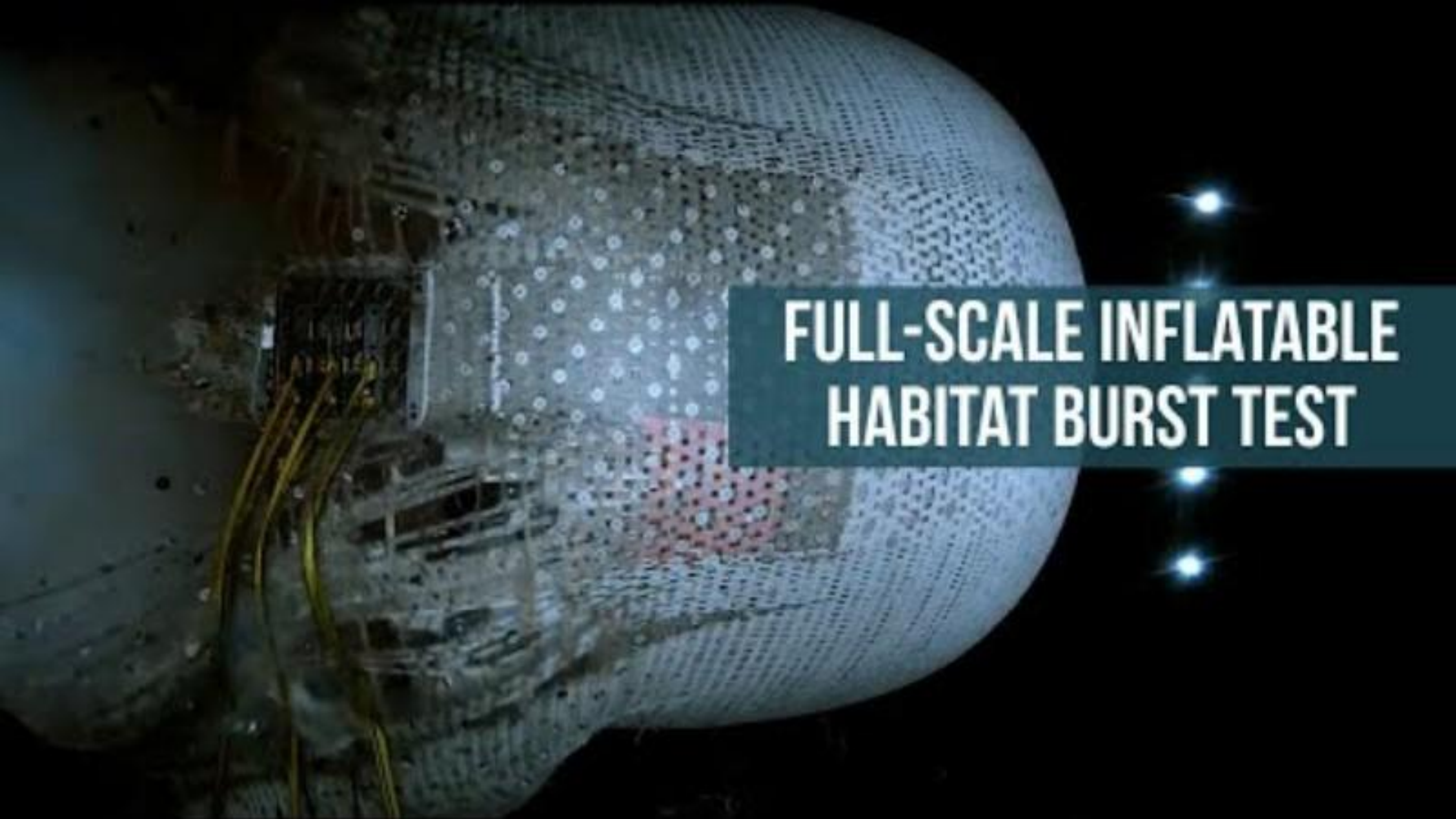
Handheld Universal Lunar Camera

HULC



LUNAR HABITATION





FULL-SCALE INFLATABLE HABITAT BURST TEST

ENVIRONMENT CONTROL & LIFE SUPPORT SYSTEMS

ACHIEVING THE VISION MOON BASE



SYSTEMS



TRANSPORTATION



AUTONOMY &
ROBOTICS



LOGISTICS



COMMUNICATIONS
& POSITIONING,
NAVIGATION, AND
TIMING



HABITATION



POWER



MOBILITY



PHASE
01



PHASE
02



PHASE
03

PROGRESSION



LAUNCHES

● 25

● 27

● 29



LANDINGS

● 21

● 24

● 28



CARGO TO SURFACE

● ~4,000 KG

● ~60,000 KG

● ~150,000 KG

NOW - 2029

SECURE RELIABLE ACCESS TO
LUNAR SURFACE AND EXPERIMENT

2029 - 2032

ESTABLISH INITIAL MOON BASE
OPERATING CAPABILITY

2032 - BEYOND

ACHIEVE SEMI-PERMANENT
CREW PRESENCE

BUILDING AN ENDURING LUNAR PRESENCE



ACHIEVING THE NATIONAL SPACE POLICY



ARTEMIS III

MISSION OVERVIEW