



Insieme di conoscenze ordinate e coerenti, ottenute tramite un'attività di ricerca rigorosa, basata sull'osservazione, l'esperimento e il metodo scientifico

Fornire una descrizione verosimile, oggettiva e predittiva della realtà e delle leggi che regolano i fenomeni naturali

Risolvere i problemi pratici della vita quotidiana e migliorare il benessere collettivo



Mobilità



Ragusa

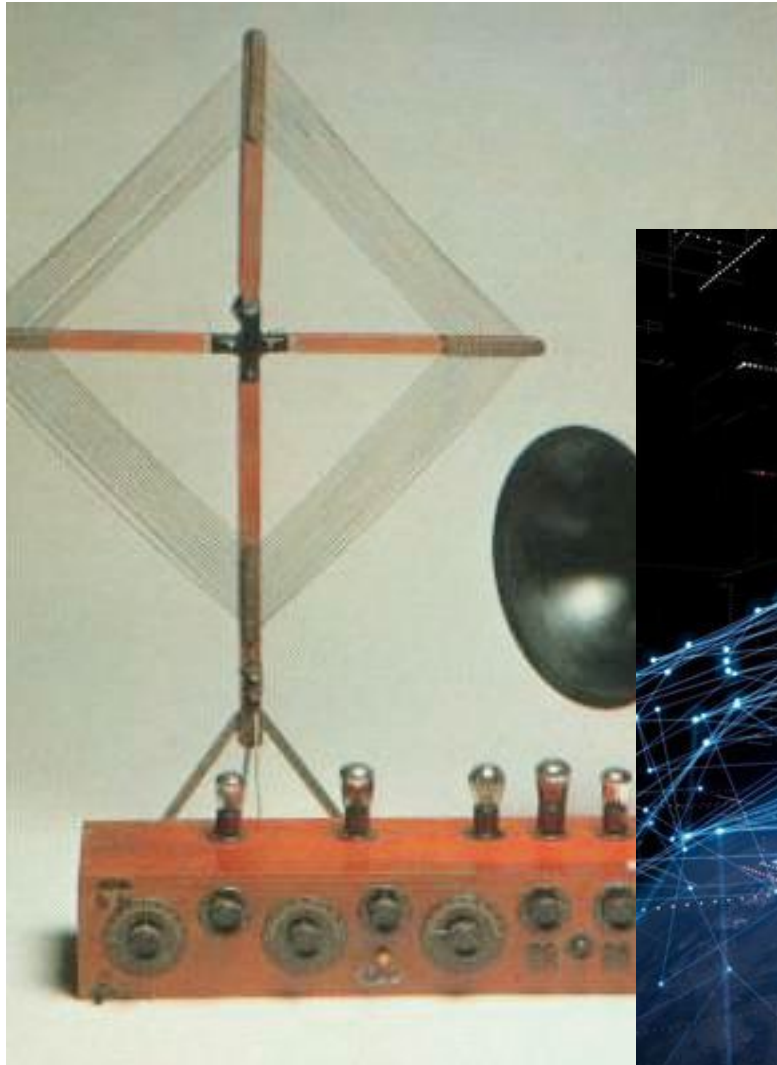
Ragusa – 1896
65 km/h



Shanghai – 2002
501 km/h



Guglielmo Marconi - 1896



Elon Musk - 2019



Roggia Boniforte . 1940

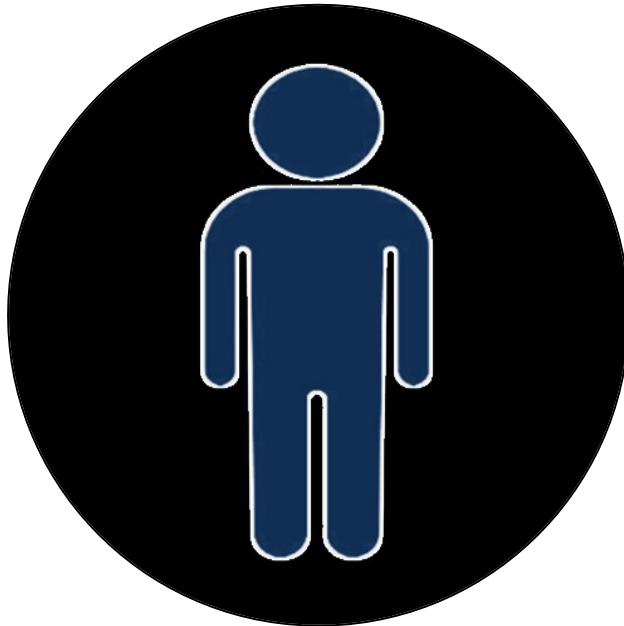
Candy Bimatic - 1950



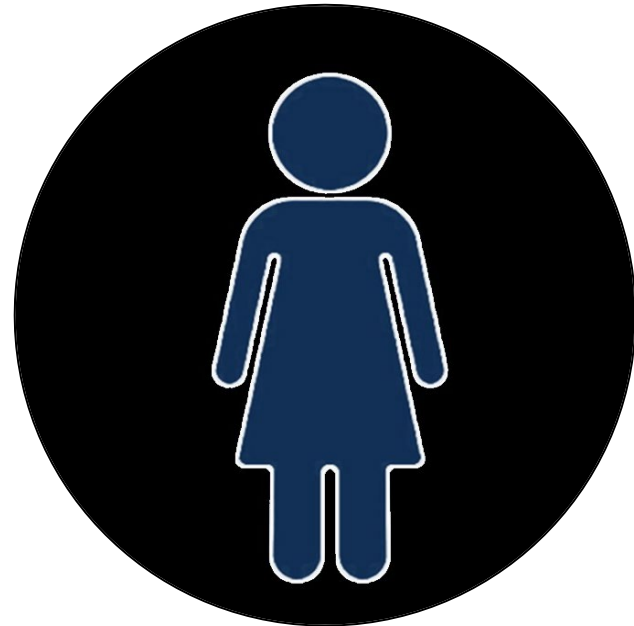


NO Talent, NO Temper, NO Time

Pensiero & Sensazione



Sentimento & Intuizione





HARVARD IMPLICIT ASSOCIATION TEST

6

GENERE e STEM



7/10 considerano
le scienze
e le tecnologie
prerogativa maschile

Implicit Association Test



GENERE e LAVORO



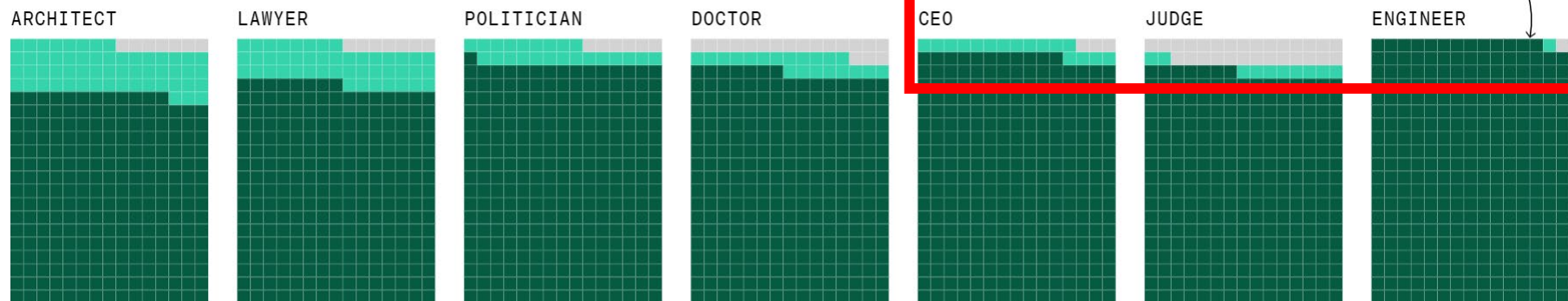
7,5/10 considerano
la carriera
prerogativa maschile

LAVORI DA UOMO O LAVORI DA DONNA

7

Perceived Gender: ■ Man ■ Woman ■ Ambiguous

High-paying occupations



Low-paying occupations





Luna

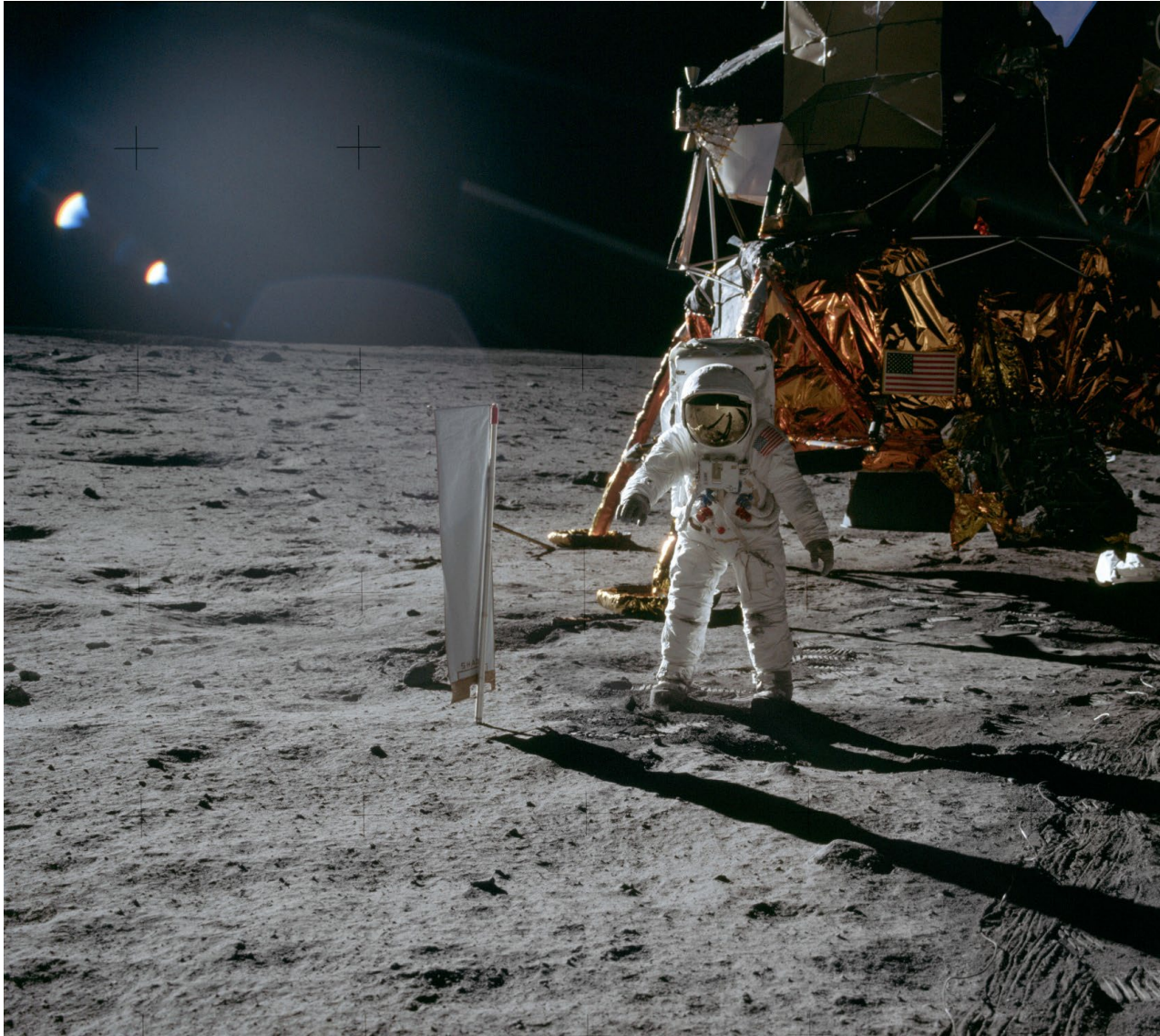
8



Stabilità asse di rotazione
Rapporto $D/H = 1,5 \cdot 10^{-4}$



Sulla Luna





Space Launch System - ORION



Block1 98,1m - Block2 – 111,25 m

Modulo equipaggio NASA

Modulo servizio ESA

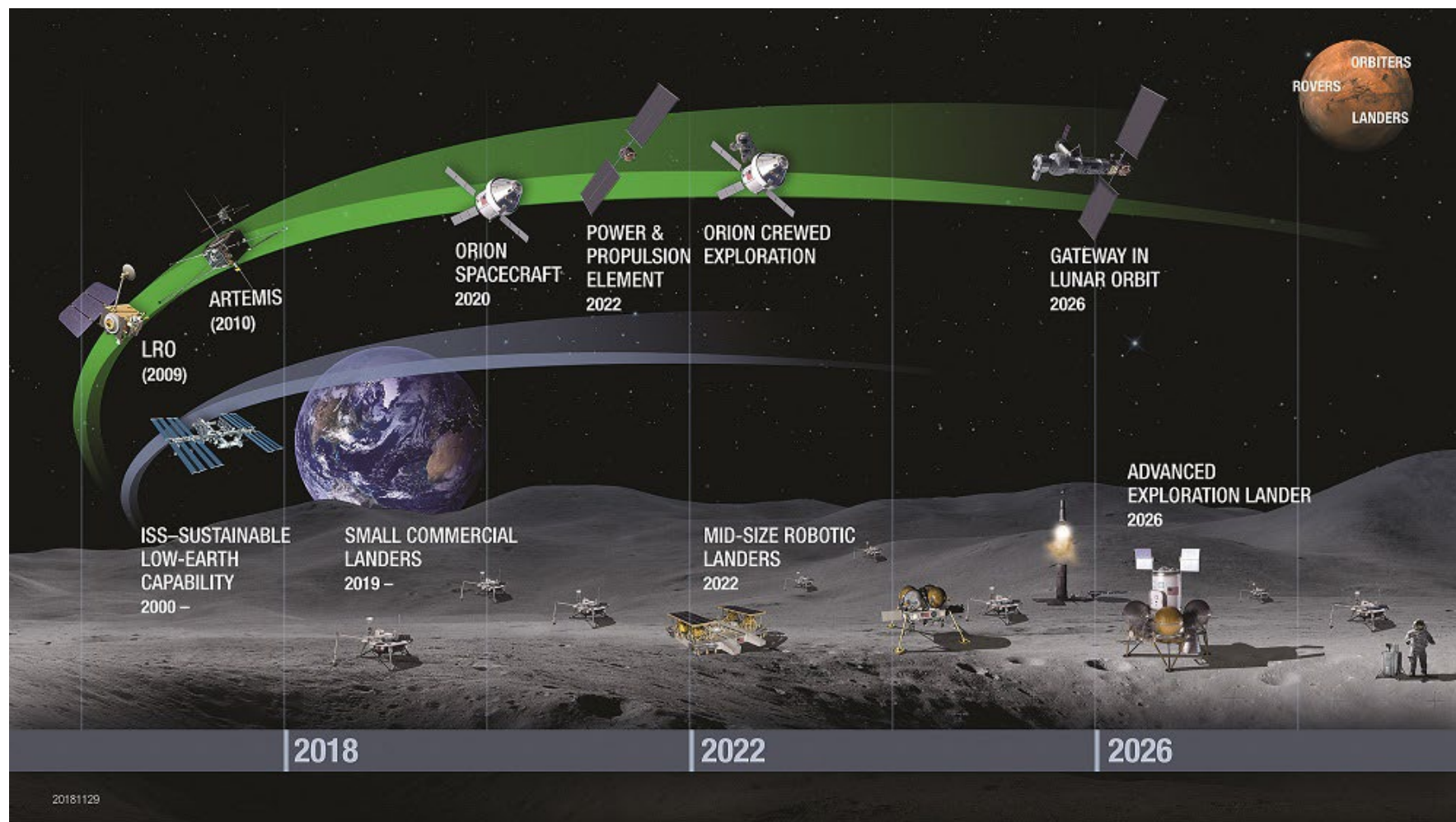
2022 flyby lunare –
2023-2033 Marte

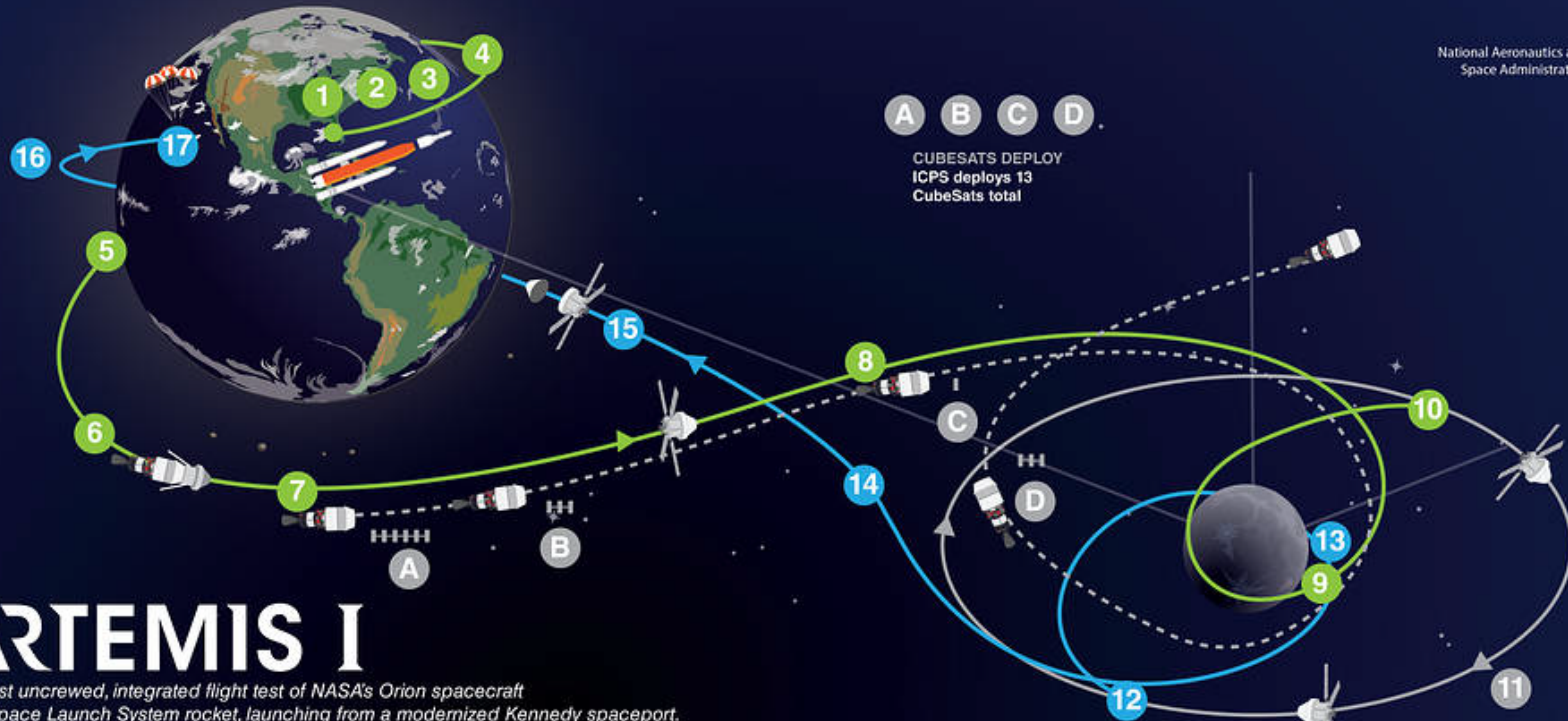




Programma Artemis

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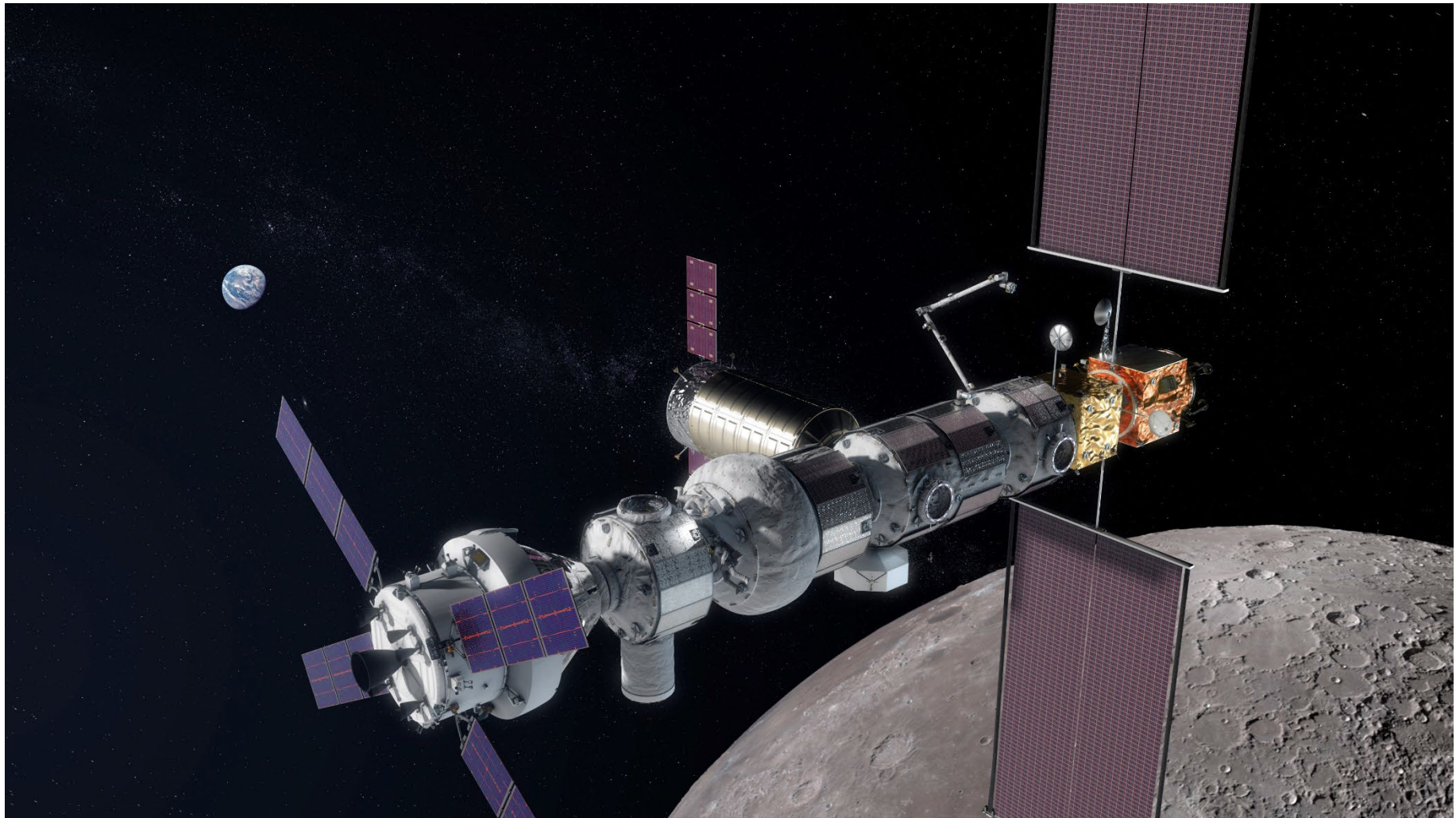




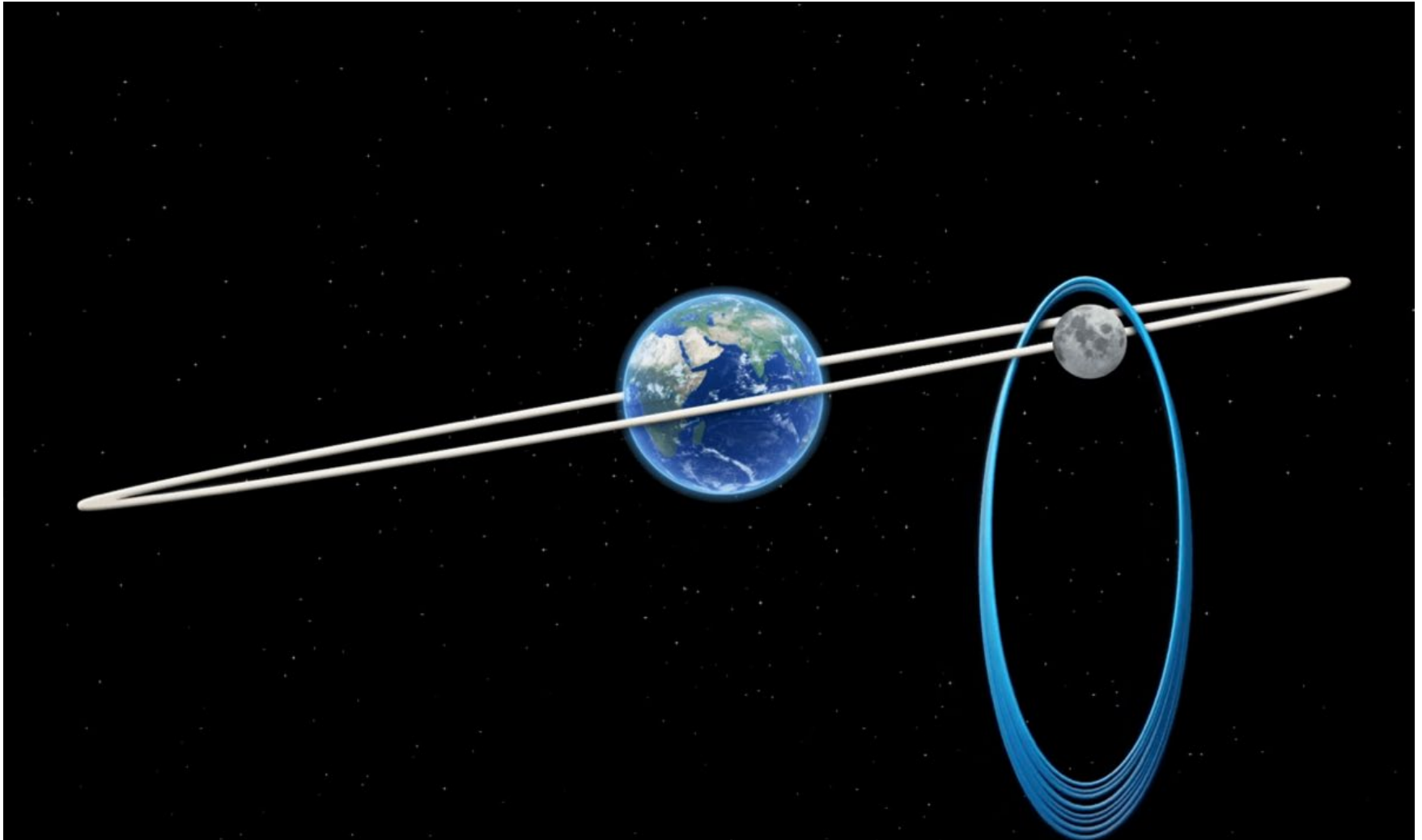
ARTEMIS I

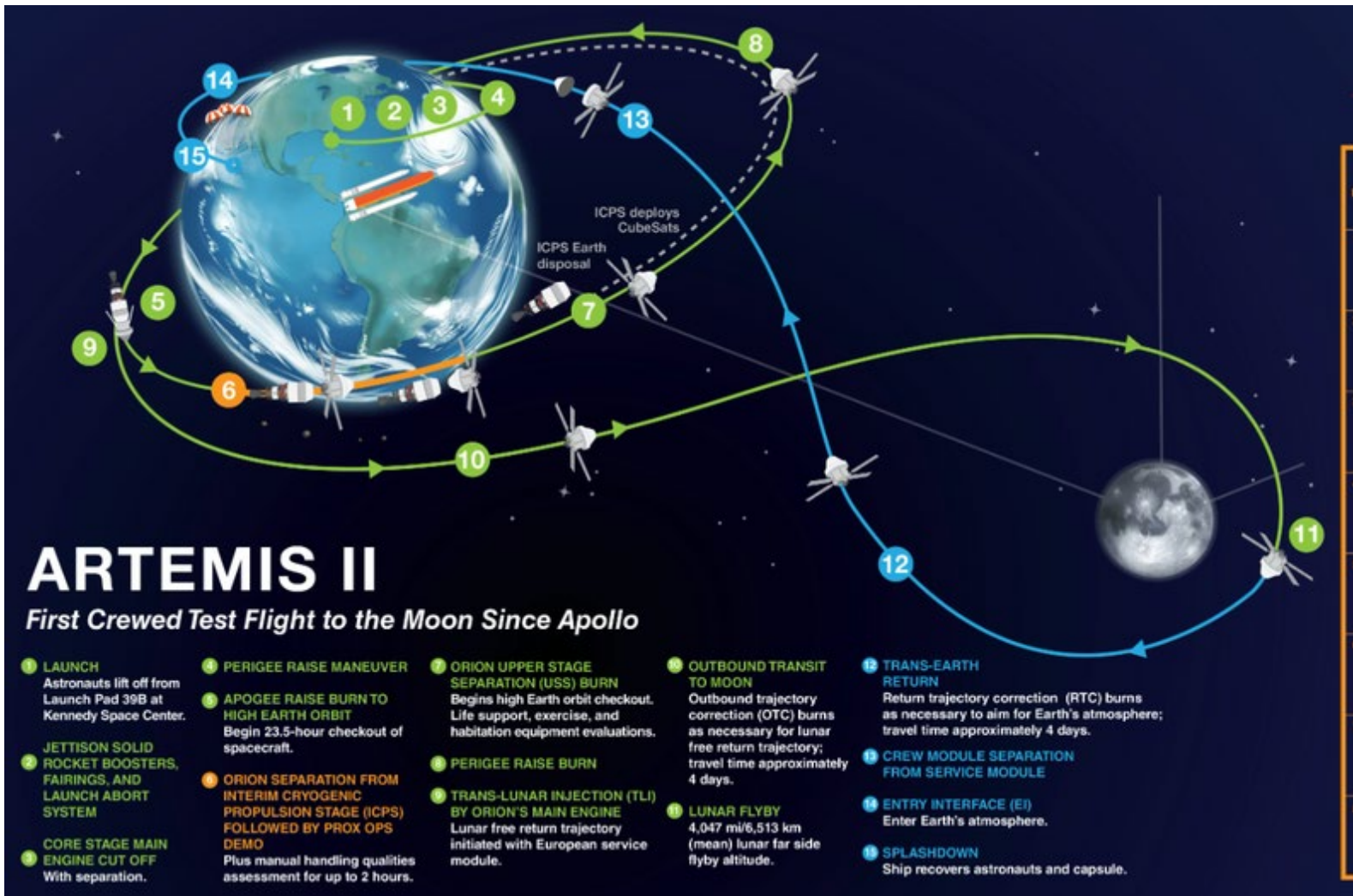
The first uncrewed, integrated flight test of NASA's Orion spacecraft and Space Launch System rocket, launching from a modernized Kennedy spaceport.

- 1 LAUNCH**
SLS and Orion lift off from pad 39B at Kennedy Space Center.
- 2 JETTISON ROCKET BOOSTERS, FAIRINGS, AND LAUNCH ABOFT SYSTEM**
- 3 CORE STAGE MAIN ENGINE CUT OFF**
With separation.
- 4 PERIGEE RAISE MANEUVER**
- 5 EARTH ORBIT**
Systems check with solar panel adjustments.
- 6 TRANS LUNAR INJECTION (TLI) BURN**
Maneuver lasts for approximately 20 minutes.
- 7 INTERIM CRYOGENIC PROPULSION STAGE (ICPS) SEPARATION AND DISPOSAL**
The ICPS has committed Orion to TLI.
- 8 OUTBOUND TRAJECTORY CORRECTION (OTC) BURNS**
As necessary adjust trajectory for lunar flyby to Distant Retrograde Orbit (DRO).
- 9 OUTBOUND POWERED FLYBY (OPF)**
60 nmi from the Moon; targets DRO insertion.
- 10 LUNAR ORBIT INSERTION**
Enter Distant Retrograde Orbit for next 6-23 days.
- 11 DISTANT RETROGRADE ORBIT**
Perform half or one and a half revolutions in the 12 day orbit period 38,000 nmi from the surface of the Moon.
- 12 DRO DEPARTURE**
Leave DRO and start return to Earth.
- 13 RETURN POWER FLY-BY (RPF)**
RPF burn prep and return coast to Earth initiated.
- 14 RETURN TRANSIT**
Return Trajectory Correction (RTC) burns as necessary to aim for Earth's atmosphere; travel time 5-11 days.
- 15 CREW MODULE SEPARATION FROM SERVICE MODULE**
- 16 ENTRY INTERFACE (EI)**
Enter Earth's atmosphere.
- 17 SPLASHDOWN**
Pacific Ocean landing within view of the U.S. Navy recovery ship.



(2020) 2022 - 125 m³ - 7 moduli - Braccio robotico -3000/70000 km

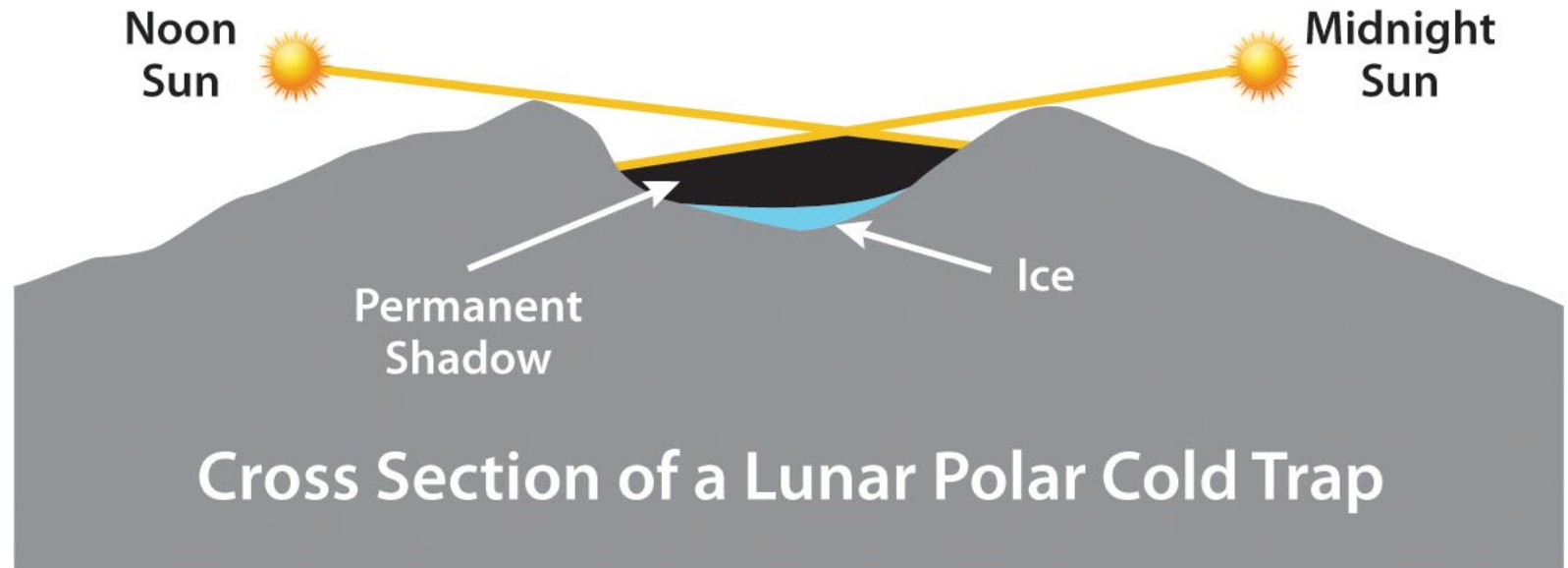








Vette della luce eterna



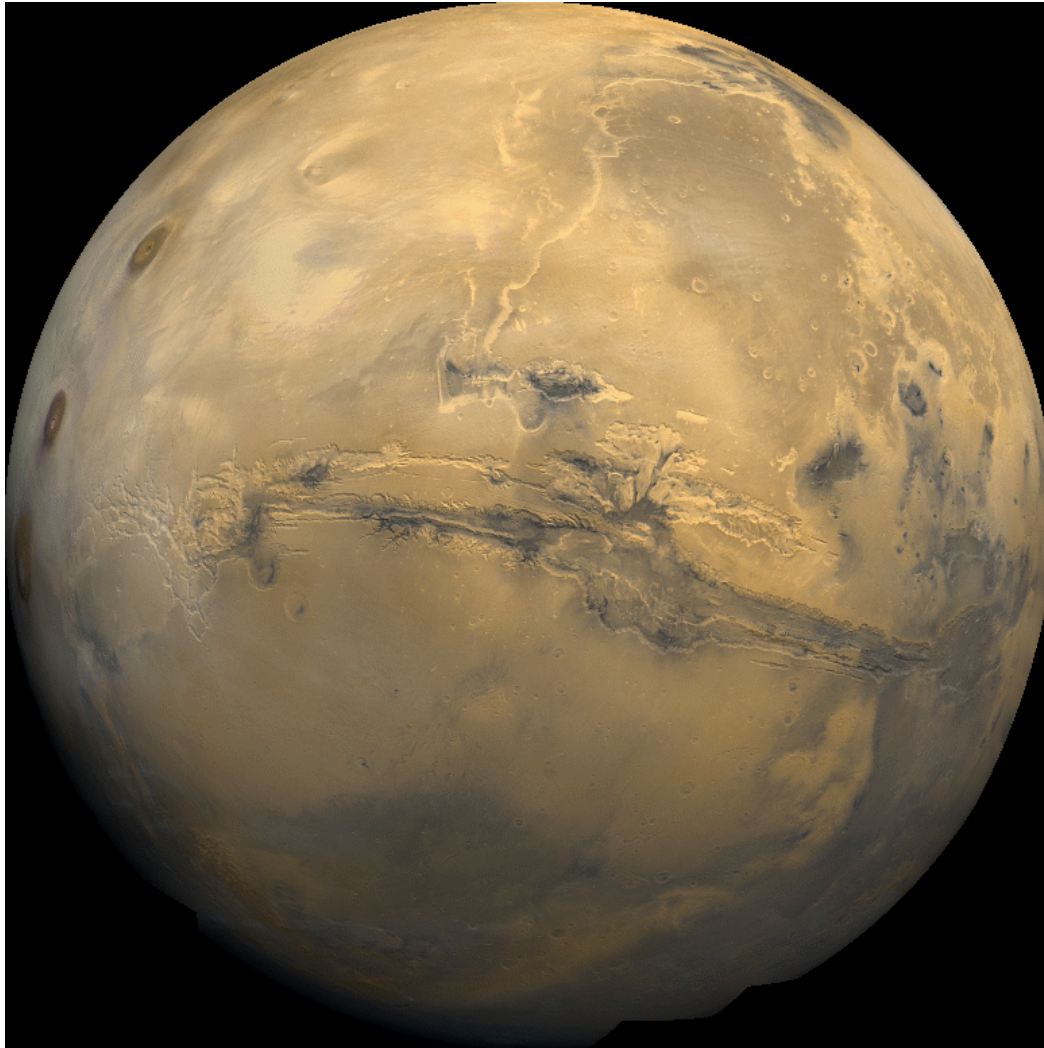
SPA – South Pole Aitken Basin - 2.500 km

Cratere Peary $88^{\circ}36'N$ $33^{\circ}00'E$





Marte

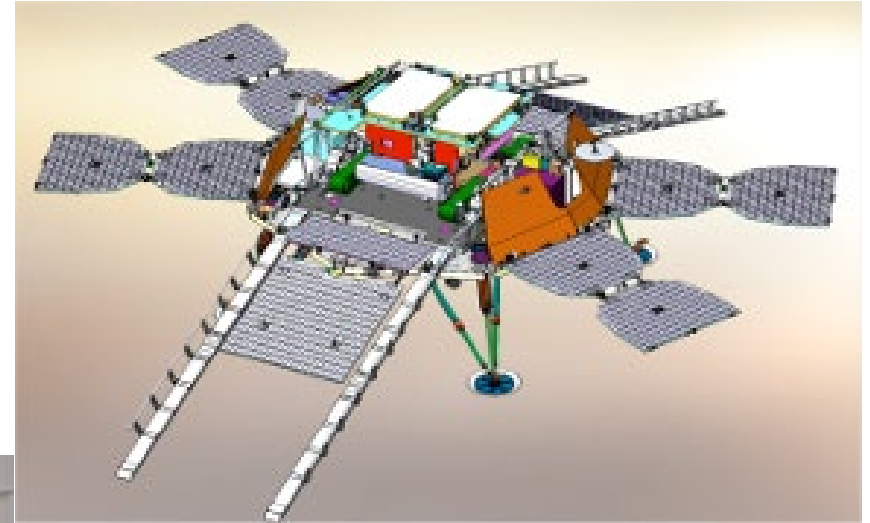


Massa 0.1 MT
Diametro 6.800 km
Acc. gravità 0,4 g
Temp. -140/+20°C

Inclinazione assiale 25,19°



Kazachok (piccolo cazaco)
Exomars Surface Platform
827Kg (45 kg strumenti)



Rover
Rosalind Franklin
310 kg



Ground test rover AMALIA

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