

火星任務 The Martian

(2 hr 45 min, with English subtitle)

Friday 16 March 7:30pm

Cinema ⓘ (Room 1018)

Limit to 20 persons

Mars $g = 3.711 \text{ m/s}^2$

Mars Day ("Sol") = 24 hr 37 min

Atmosphere: carbon dioxide

Temperature: -70 C to 20 C

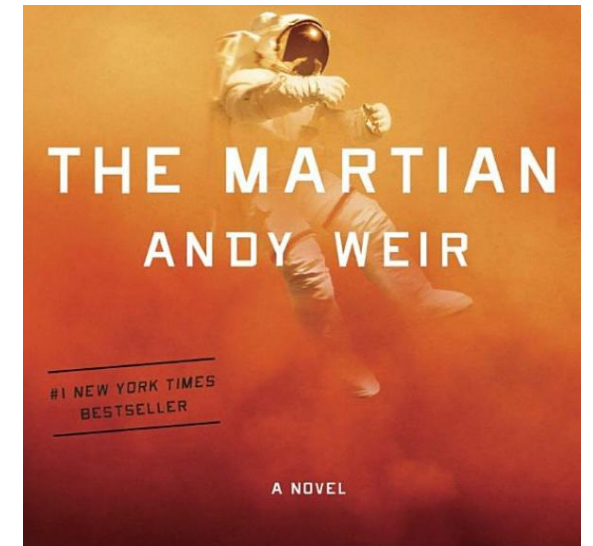
Moons: 2

Movie scene: Wadi Rum in Jordan

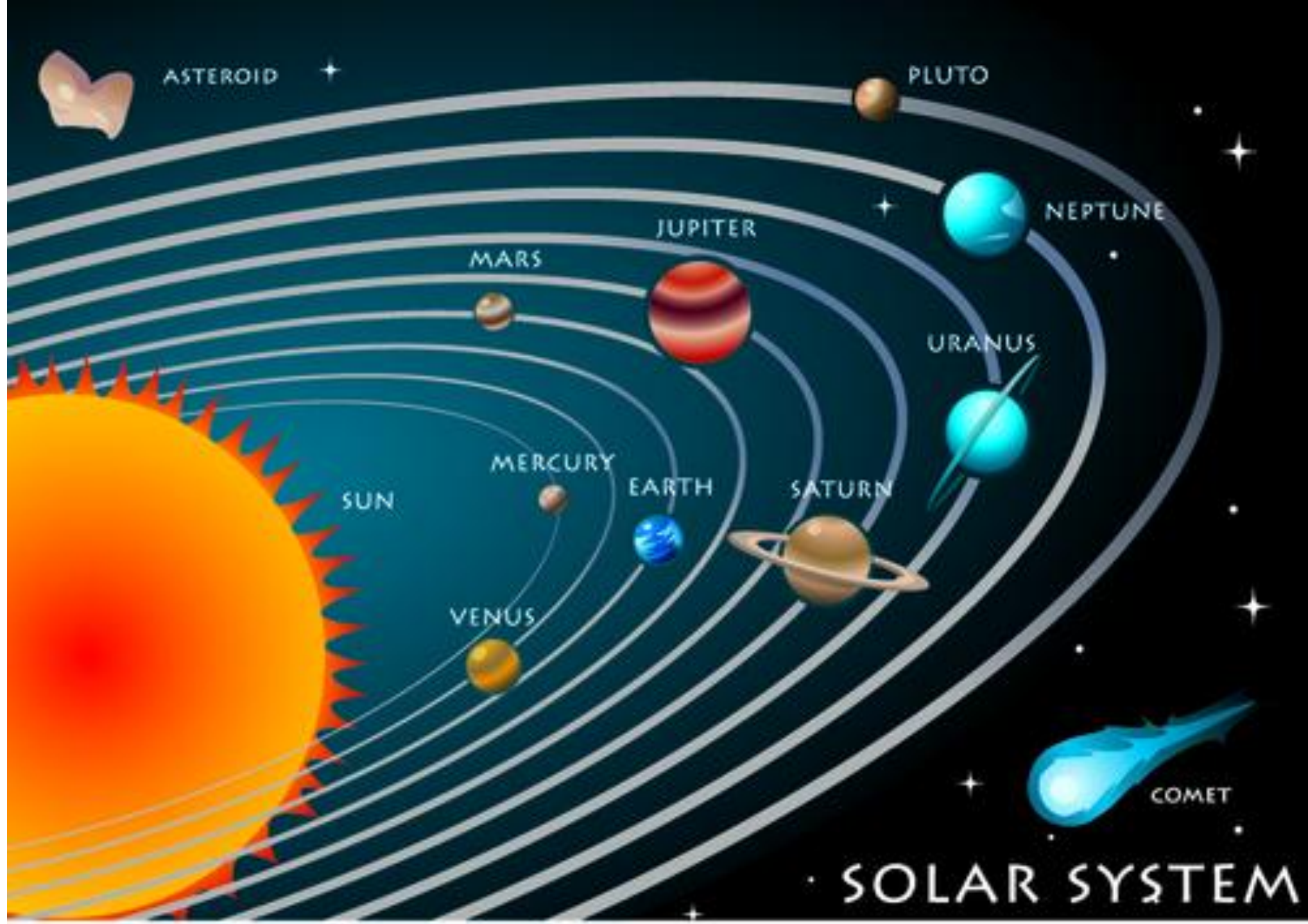


Basic Information

- **Awards:** 2016 Golden Globes
 - Best Motion Picture
 - Best Actor - Matt Damon
- **Director: Ridley Scott**
 - Exodus: Gods and Kings
 - Gladiator
 - Blade Runner
 - Alien
- **Novel by Andy Weir**



Movie Now!



新修訂後的太陽系行星

國際天文學聯合會昨天表決通過行星的新定義，確定太陽系只有八大行星。

★ 被歸類為矮行星的星體

太陽

金星

火星

小行星帶

圍繞太陽運轉

水星

地球

★ 穀神星

木星

土星

天王星

海王星

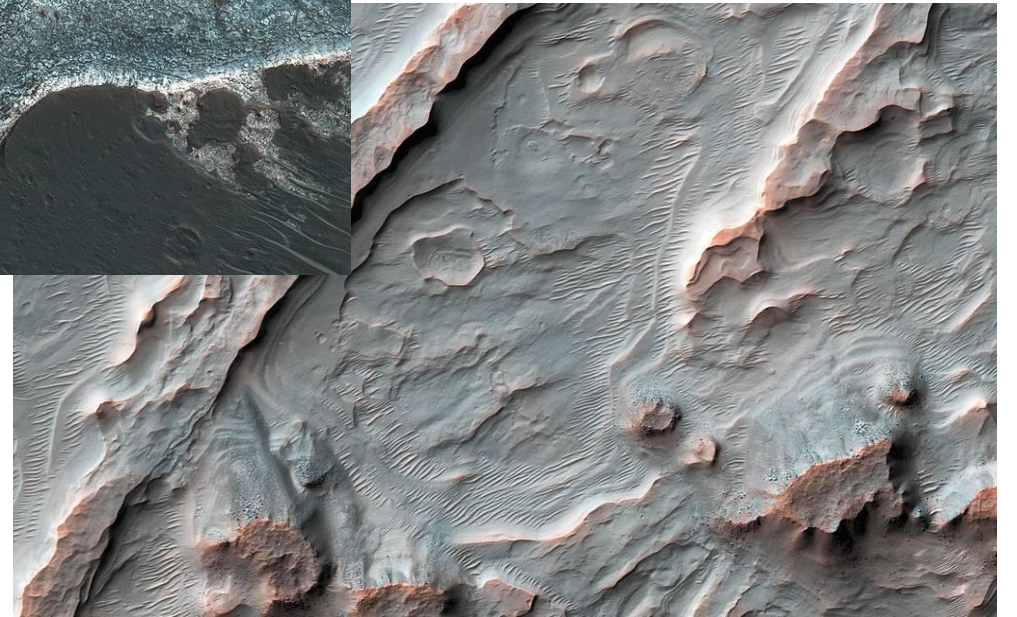
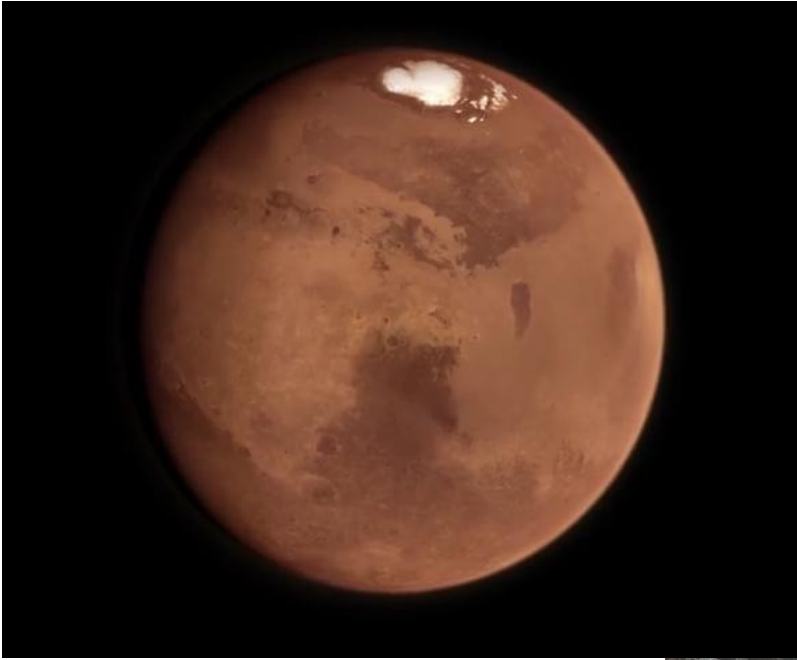
★ 冥王星和卡戎

★ 這4個在八大行星最外圍的星體，被歸類為矮行星

柯伊伯帶

★ 齊娜

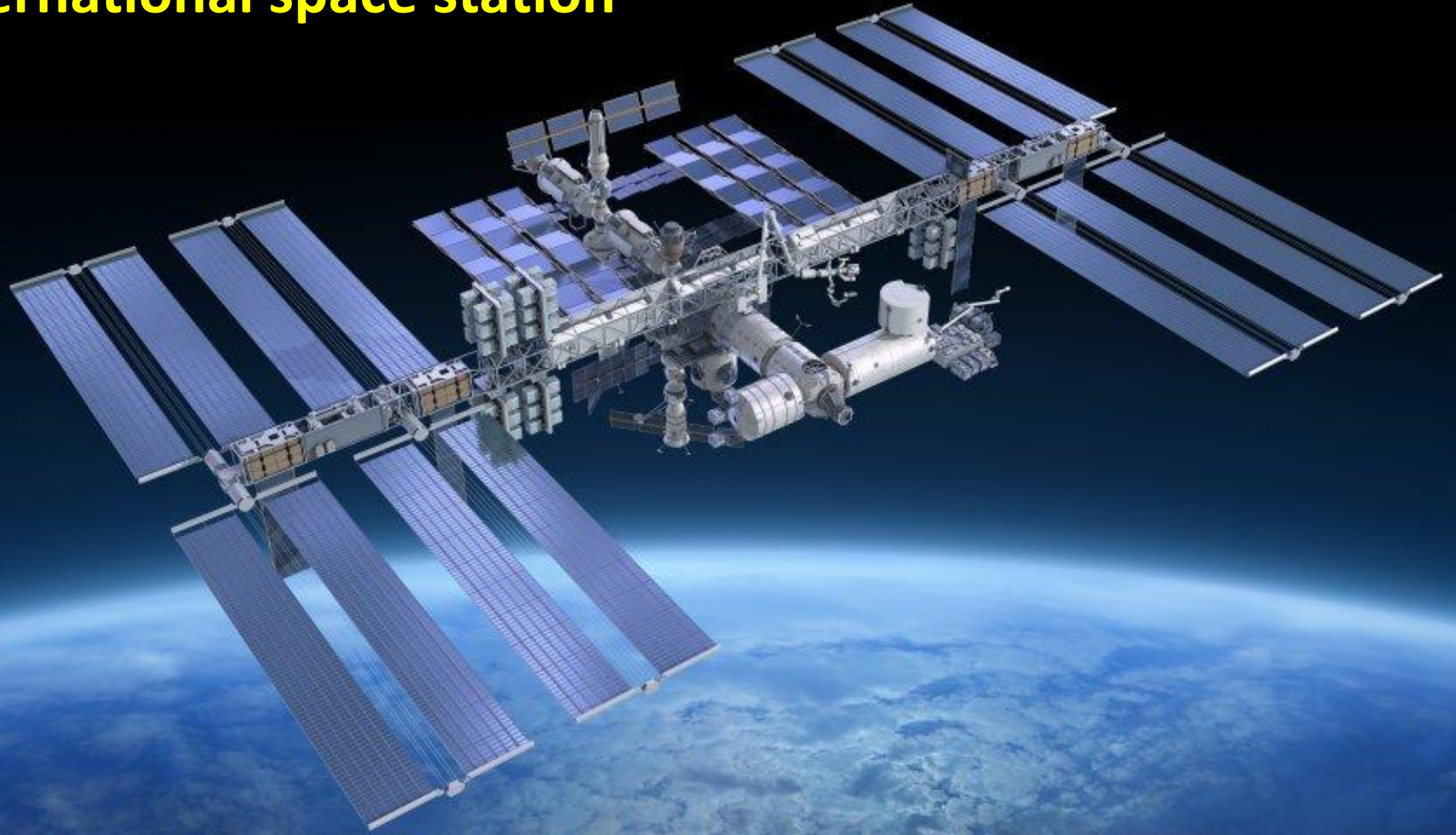
Three Steps to The **Red Planet**



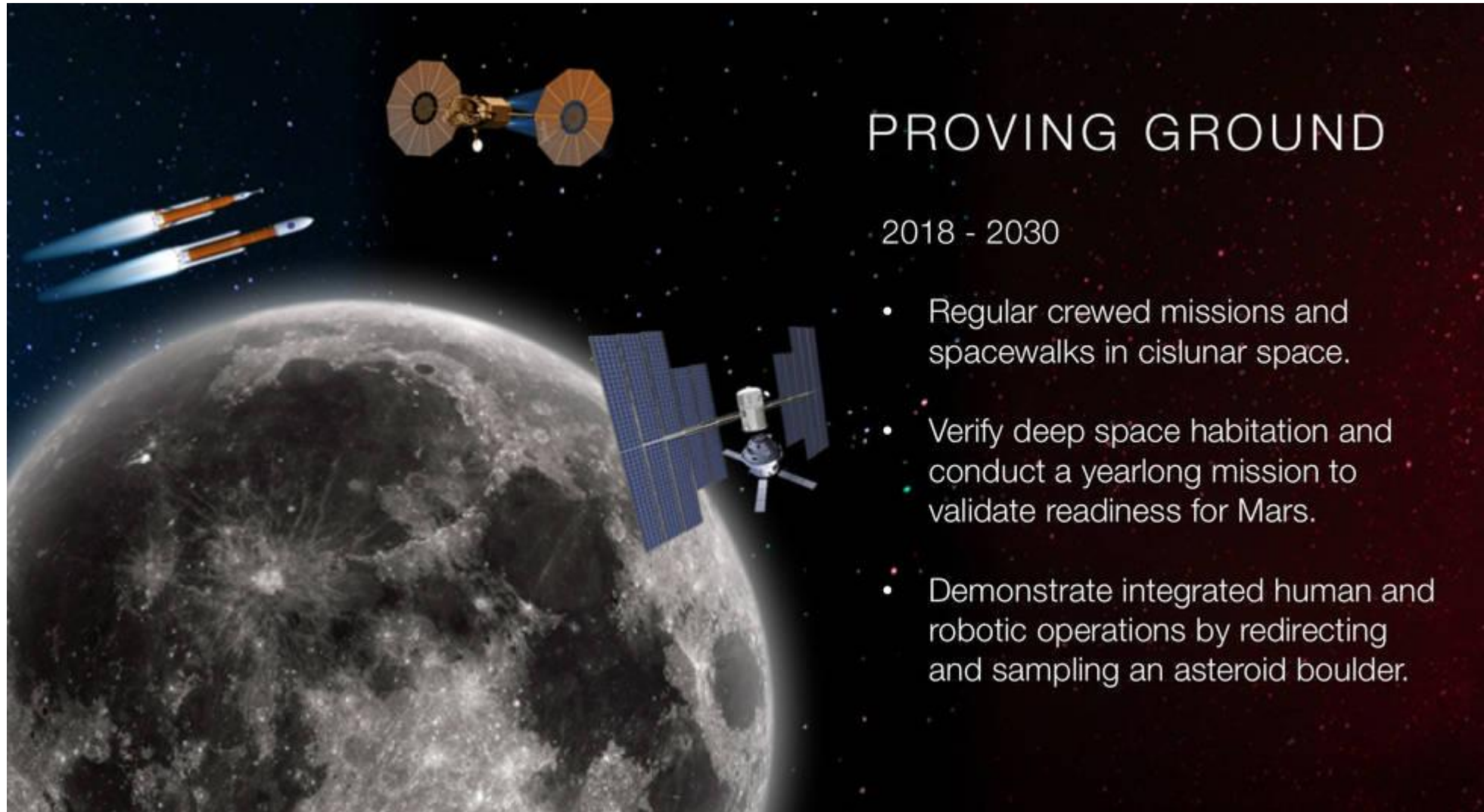
1. International Space Station (now-2020)



international space station



2. Long Journey to our Moon (2018-2030)



3. Robots, then Humans in 2030s



**EARTH
INDEPENDENT**
NOW - 2030s & Beyond

- Science missions pave the way to Mars.
- Demonstrate entry, descent, and landing and in-situ resource use.
- Conduct robotic round-trip demonstration with sample return in the late 2020s.
- Send humans to orbit Mars in the early 2030s.

NASA's Mars Exploration <https://youtu.be/JXZa8cmab1g>



Mission test lab
<https://youtu.be/ZSXnw-fJbGk>

Quiz

- Is there any oxygen on Mars?
 - What is “Sol”?
 - How long will it take to reach Mars from Earth?
 - How long Mark Watney spent on Mars?
- No
 - A day on Mars
 - About six to eight months
 - 1 year and 7 months