

Mars: Exploring the Red Planet Tom Percy, Ph.D.

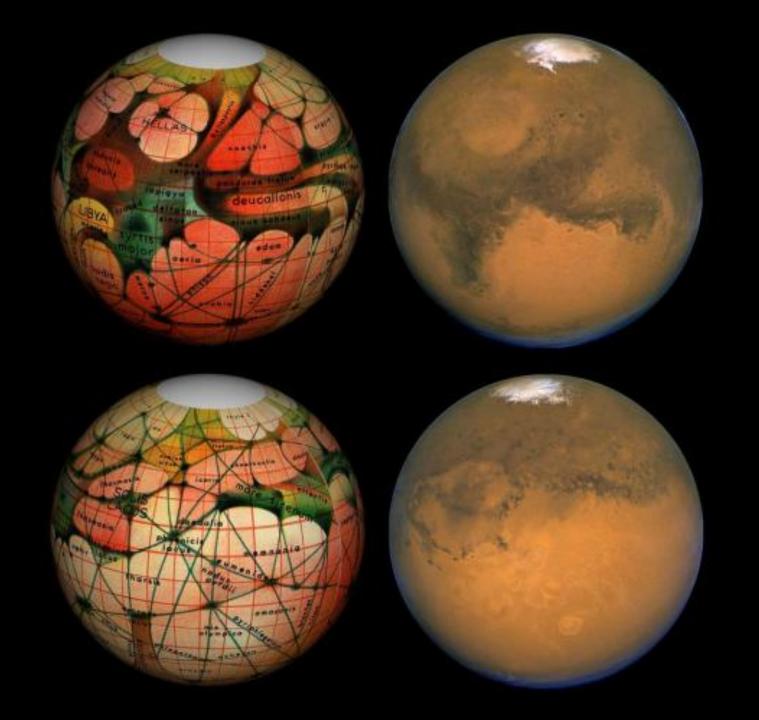
1 Martian Day (Sol) = 24 hrs 40 min

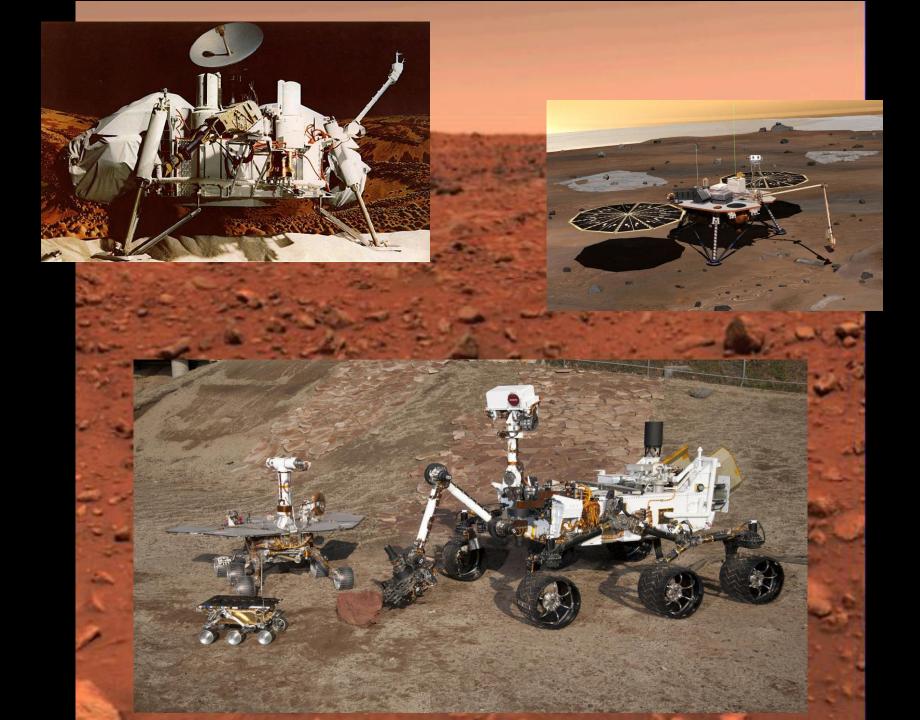
1 Year = 687 days

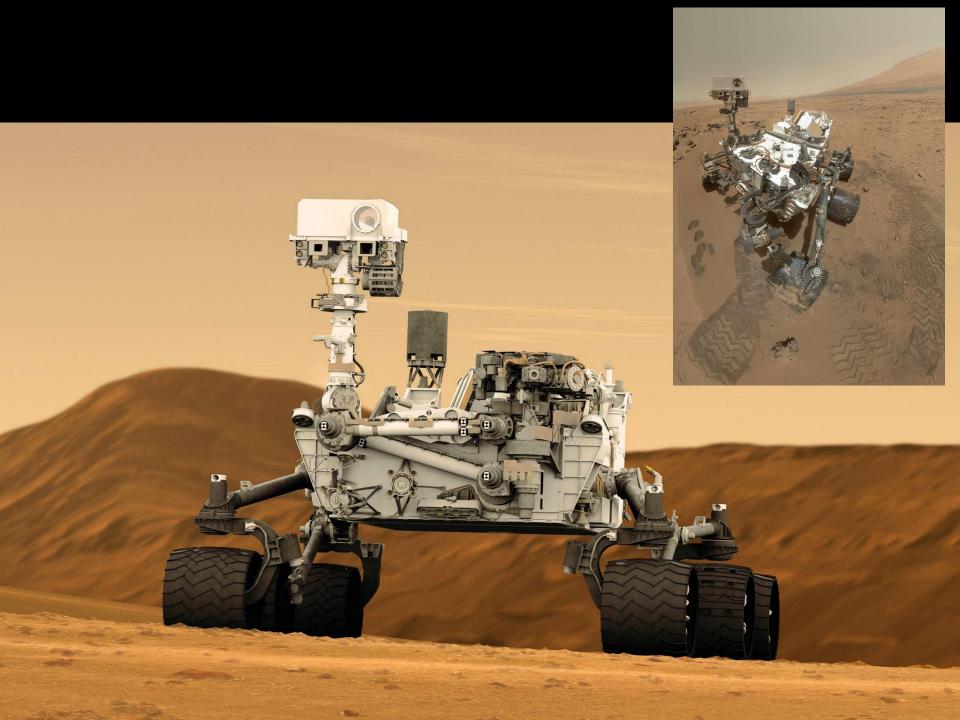


Avg Temp = -80 °F Atm. Density ~ 1% Earth Mars Gravity = 3.71 m/s² (38% Earth)









# Robotic Missions to Mars

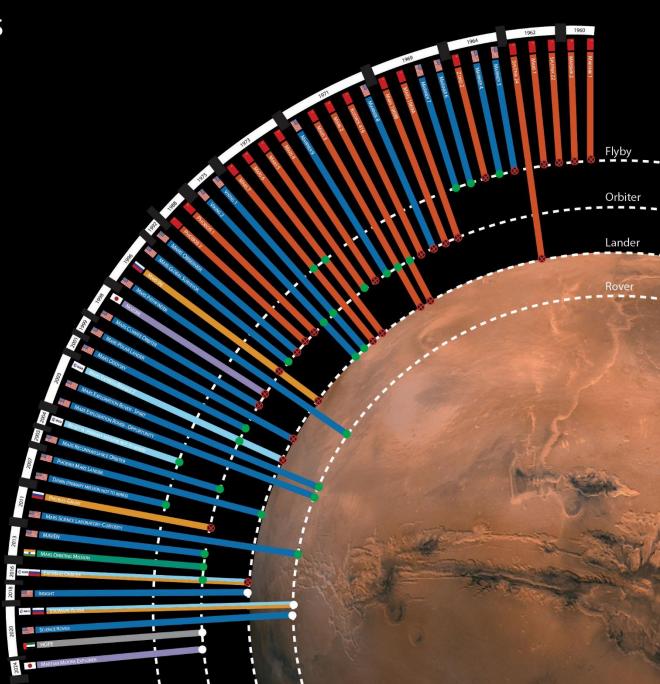


Japan

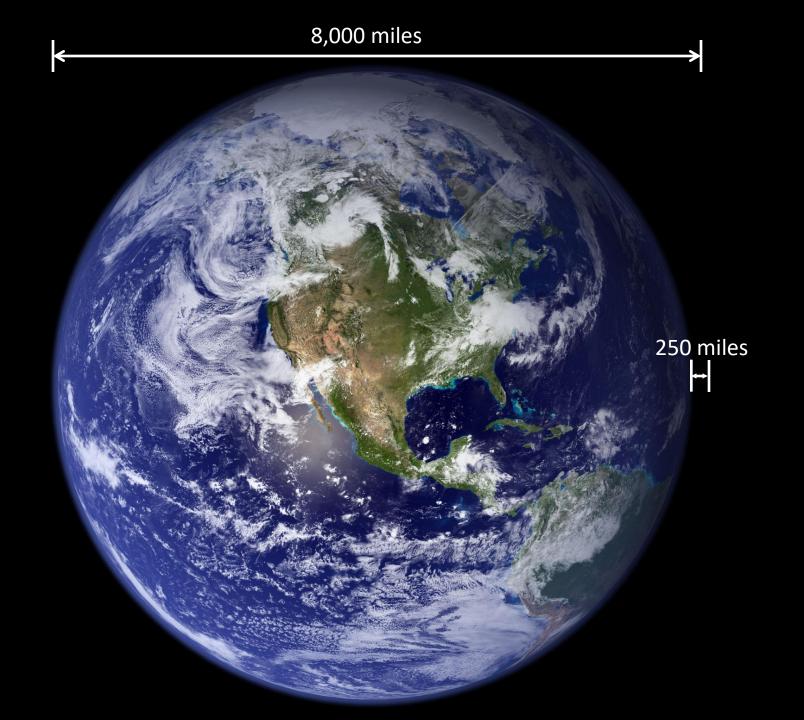
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India
United Arab Emirates

- Mission Success
- Mission Failure
- Future Destination



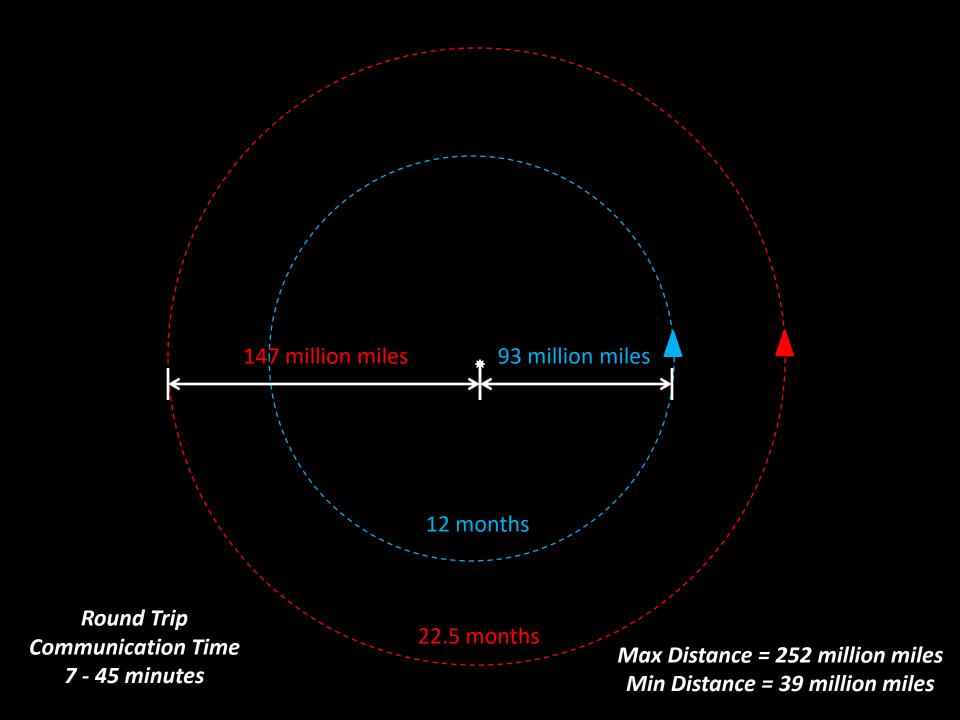


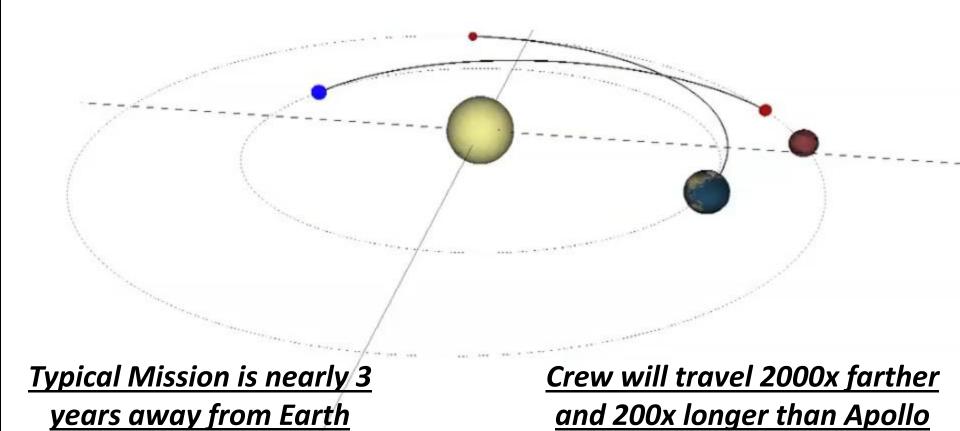


#### 240,000 miles





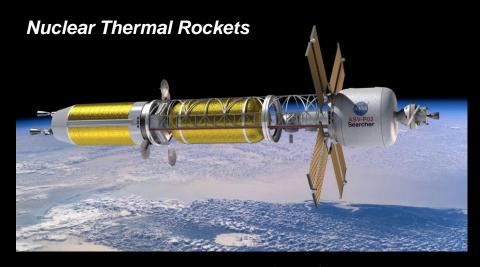


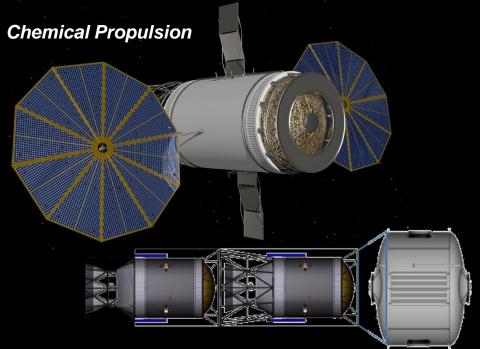


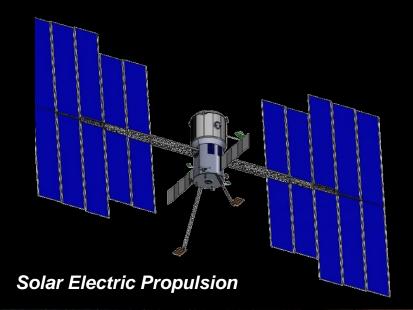
## Launch from Earth

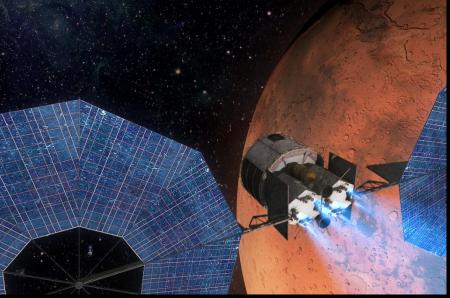


### **In-Space Transportation**

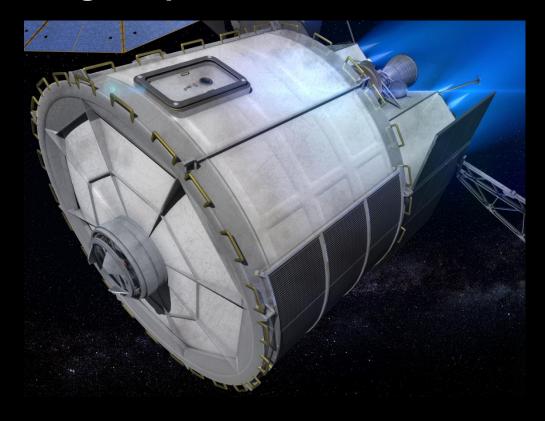


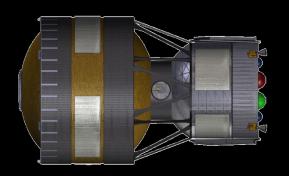


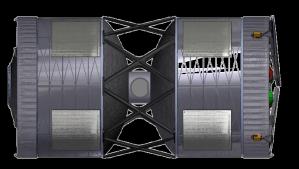


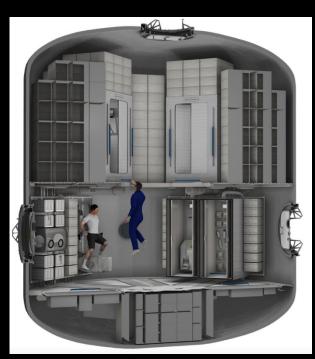


## **Living in Space**

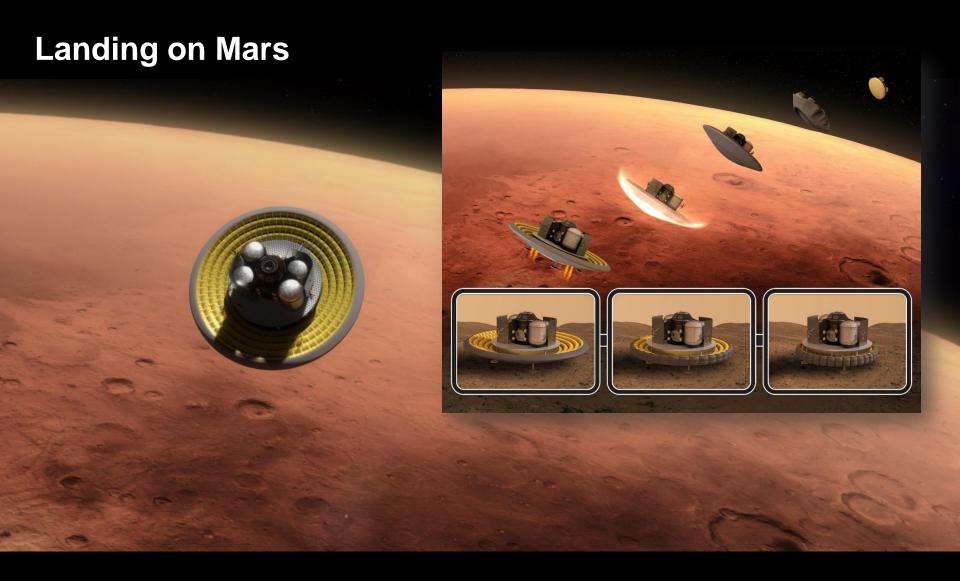












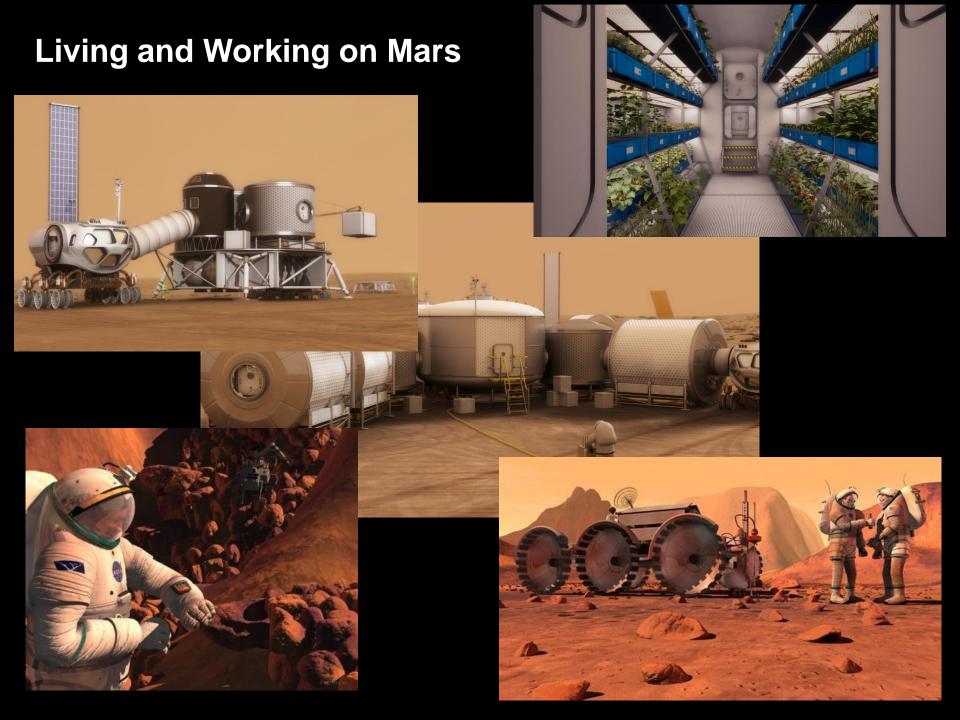
#### **Launching from Mars**



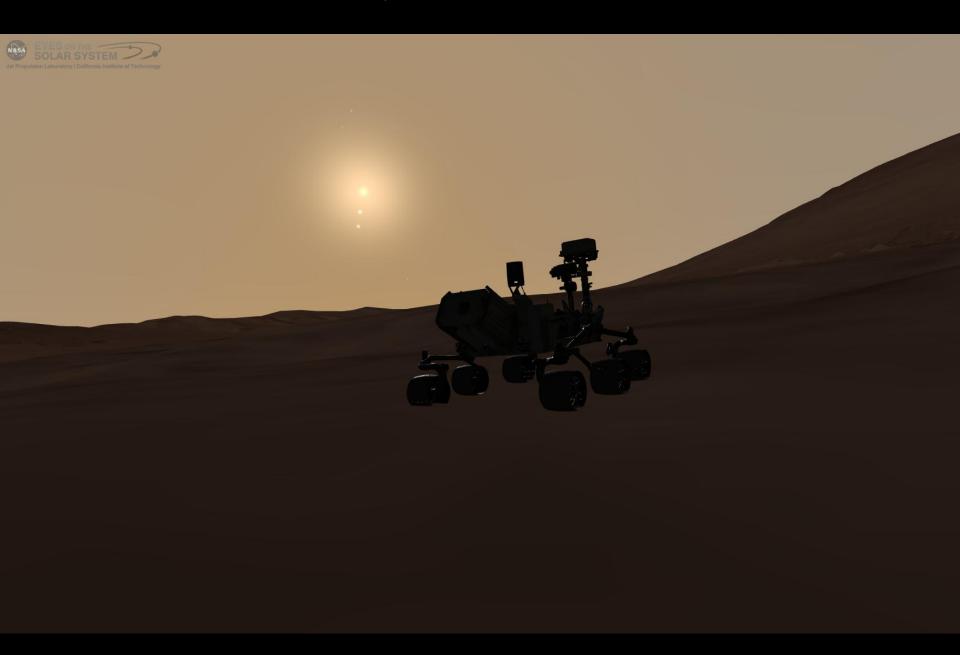


Mars Ascent Vehicle (MAV) is a launch vehicle landed on Mars to put crew back into orbit.

- Largest Indivisible Cargo Element
- Highest Gear Ratio Item in Architecture



# **QUESTIONS?**



#### **Contact Information**



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