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

October 18, 2017

1 Martian Day (Sol) = 24 hrs 40 min
1 Year = 687 days


Avg Temp $=-80^{\circ} \mathrm{F}$ Atm. Density ~ 1\% Earth Mars Gravity $=3.71 \mathrm{~m} / \mathrm{s}^{2}$ (38\% Earth)





## Robotic Missions to Mars


$\square$ Soviet Union United States Russia Japan Es ESA
$\square$ India
$\bigcirc$
Mission Success
(8) Mission Failure

- Future Destination





## 240,000 miles




Round Trip
Communication Time
22.5 months

7-45 minutes
Max Distance $=252$ million miles
Min Distance = 39 million miles

200-300 days Earth to Mars 350-500 days at Mars 200-300 days Mars to Earth


## Launch from Earth



## In-Space Transportation



## Living in Space



## Landing on Mars



## Launching from Mars



## Living and Working on Mars



QUESTIONS?

## Contact Information

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