



Jet Propulsion Laboratory
California Institute of Technology

Mars Exploration Program

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California Institute of Technology

Mars Exploration Program Science Goals



Life



Climate



Geology & Geophysics



Prepare for Human Exploration

Mars Exploration Program Missions

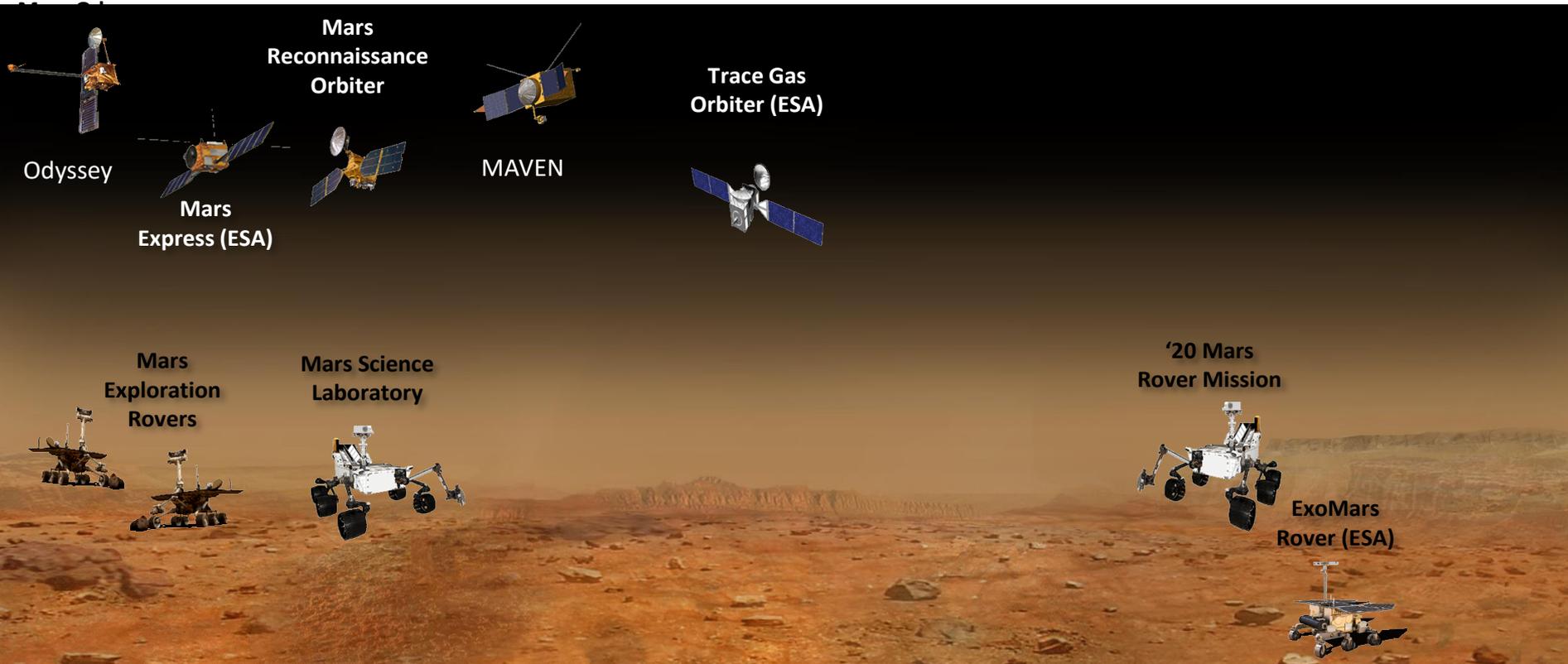
2001 - 2015

2016

2018

2020

Future Mars
Missions

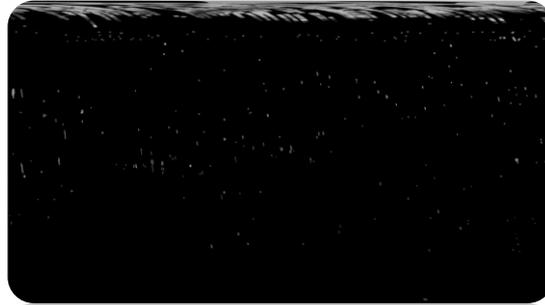


Mars Exploration Program Highlights

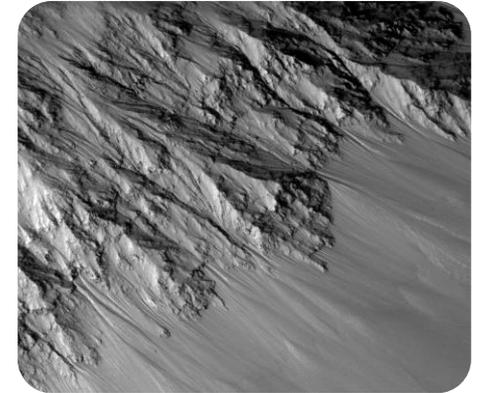
Opportunity: Journey to
Perseverance Valley



MRO: >50,000 orbits
Completed Global 6m
Resolution Imagery



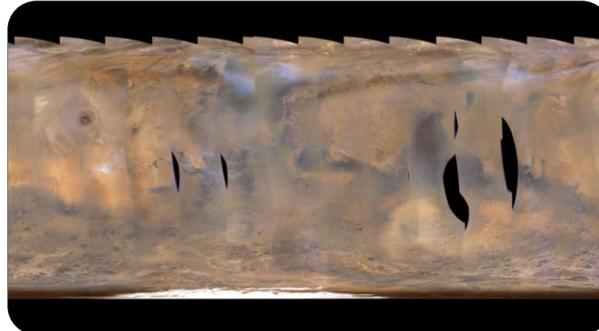
MRO: Continuing Observations
of Recurring Slope Lineae



Curiosity: >4.5 years
since landing



MAVEN Tracks Back-to-back
Regional Storms



Mars 2020 Landing Site
Finalists



Possible Mars Sample Return Scenarios

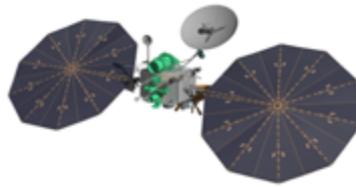
Mars 2020

- Select & Acquire Samples



Orbiter

- Rendezvous & Sample Containment
- Return to Earth
- Earth Entry Vehicle



Sample Retrieval/Launch into Mars orbit

- Small Fetch Rover to Retrieve Samples
- Small MAV on Fixed Platform
- Launch Samples from Mars Surface to ~500km Orbit

