



MAVEN is expected to arrive at Mars on September 21, 2014, to explore how and why the planet has been losing its atmosphere. Learn more about MAVEN at:

<http://www.nasa.gov/maven>

#JOURNEYTOMARS

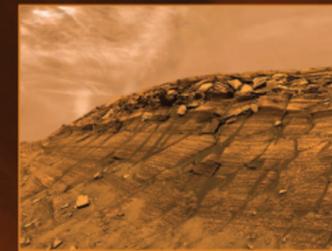
What is MAVEN?

- A NASA spacecraft designed to study Mars climate history.
- First spacecraft to make direct measurements of the martian upper atmosphere
- First Mars mission managed by Goddard Space Flight Center
- An orbital mission to Mars responsive to high-priority planetary science and heliophysics goals



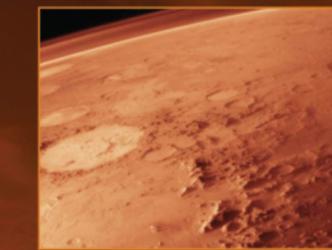
Why does MAVEN Matter?

NASA's MAVEN spacecraft will orbit Mars to explore how the sun may have stripped Mars of most of its atmosphere, turning a planet, that may have been habitable for microbial life, into a cold and barren desert world. Could the same event happen to Earth?



What Happened to Mars?

- MAVEN will provide information on how quickly atmospheric gases are being lost to space today and study how the martian atmosphere was lost to space.
- MAVEN will reveal clues about the impact of that change on martian climate, geology and geochemistry over time.



MAVEN Timeline

- MAVEN launched from Cape Canaveral, FL., on November 18, 2013, and has been travelling for 10 months.
- After orbit insertion, it will take 5 weeks for the spacecraft to get into its final science-mapping orbit, test the instruments, and test science-mapping sequences.
- MAVEN has a 365-day primary mission, during which time it will make key science measurements while orbiting Mars.

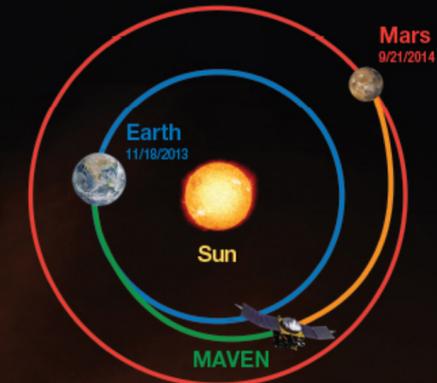
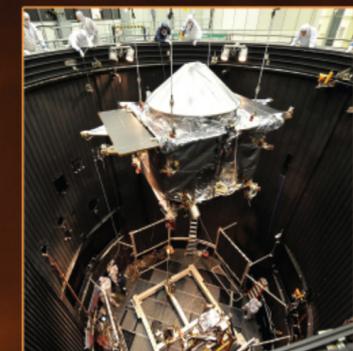


IMAGE: MAVEN follows a ballistic trajectory from Earth to Mars. Launch was timed so that MAVEN gets to Mars at the same time that Mars is there waiting for us.

The Payload

MAVEN carries three instrument suites:

- Particles and Fields Package (PFP) contains six instruments that characterize the solar wind and the ionosphere of the planet.
- Remote Sensing Package will determine global characteristics of the upper atmosphere and ionosphere.
- Neutral Gas and Ion Mass Spectrometer (NGIMS) will measure the composition and isotopes of neutral ions.
- MAVEN also carries an Electra relay radio payload to support communications with rovers and landers on the surface of Mars.



MAVEN

— Exploring MARS Climate History —

Mars Atmosphere and Volatile Evolution Mission