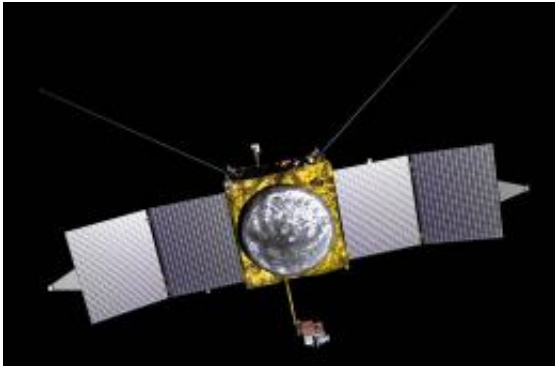


MAVEN: Next Mars mission enters final phase before launch

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Artist's Concept of MAVEN. Credit: NASA

NASA's Mars Atmosphere And Volatile EvolutionN (MAVEN) mission has passed a critical milestone, Key Decision Point-D or KDP-D. The project is officially authorized to transition into the next phase of the mission, which is system delivery, integration and test, and launch.

"The spacecraft and instruments are all coming together at this point," said Bruce Jakosky from University of Colorado, the MAVEN principal investigator. "Although we're focused on getting everything ready for launch right now, we aren't losing sight of our ultimate objective – getting to Mars and making the science measurements."

MAVEN will be the first mission devoted to understanding the Martian upper atmosphere. The goal of MAVEN is to determine the role that loss

of [atmospheric gas](#) to space played in changing the Martian climate through time.

The key decision meeting was held at NASA Headquarters in Washington on Sept. 10 and chaired by NASA's Science Mission Directorate.

"I'm incredibly proud of how this team continues to meet every major milestone on schedule on its [journey to Mars](#)," said David Mitchell, MAVEN project manager at NASA's Goddard Space Flight Center in Greenbelt, Md. "Being ready for the start of system level integration and test is critically important to ultimately being ready for launch on November 18, 2013."

KDP-D occurs after the project has completed a series of independent reviews which cover not only technical health of the project but also programmatic health (schedule and cost). KDP-D represents the official transition from Phase C (development stage) to Phase D in the mission life cycle. During Phase D, the [spacecraft bus](#) is completed, the science instruments are integrated into the spacecraft, spacecraft testing occurs, everything ships to [Kennedy Space Center](#) for integration into the Atlas-V rocket, and the MAVEN mission launches (late next year).

The next major review for the MAVEN team is the Mission Operations Review in November 2012. This review assesses the project's operational readiness and its progress towards launch. The project will continue to work with its partners to deliver all instruments in the next four months.

The MAVEN spacecraft will carry three instrument suites. The Particles and Fields Package, built by the University of California at Berkeley with some instrument elements from CU/LASP and NASA Goddard, contains six instruments that will characterize the solar wind and the

ionosphere of the planet. The Remote Sensing Package, built by CU/LASP, will determine global characteristics of the upper atmosphere and ionosphere. The Neutral Gas and Ion Mass Spectrometer, provided by NASA Goddard, will measure the composition and isotopes of neutrals and ions.

MAVEN will launch during a 20-day period from November to December, 2013. It will go into orbit around Mars in September 2014, and, after a one-month check-out period, will make measurements from orbit for one Earth year.

MAVEN's principal investigator is based at the University of Colorado at Boulder's Laboratory for Atmospheric and Space Physics. The university will provide science operations, build instruments, and lead Education/Public Outreach. NASA's Goddard Space Flight Center in Greenbelt, Maryland, manages the project and is building two of the [science instruments](#) for the mission. Lockheed Martin of Littleton, Colo., will build the spacecraft and perform mission operations. The University of California-Berkeley Space Sciences Laboratory is building instruments for the [mission](#). NASA's Jet Propulsion Laboratory, Pasadena, Calif., provides Program management via the Mars Program Office, as well as navigation support, the Deep Space Network, and the Electra telecommunications relay hardware and operations.

More information: www.nasa.gov/maven

Provided by NASA's Goddard Space Flight Center

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