

## **Image: Magnetospheric Multiscale Observatories processed for launch**

February 20 2015



Credit: NASA/Ben Smegelsky

NASA's Magnetospheric Multiscale (MMS) observatories are processed for launch in a clean room at the Astrotech Space Operations facility in Titusville, Florida. MMS is an unprecedented NASA mission to study the mystery of how magnetic fields around Earth connect and disconnect, explosively releasing energy via a process known as magnetic reconnection. MMS consists of four identical spacecraft that work



together to provide the first three-dimensional view of this fundamental process, which occurs throughout the universe.

The mission observes reconnection directly in Earth's protective magnetic space environment, the magnetosphere. By studying reconnection in this local, natural laboratory, MMS helps us understand reconnection elsewhere as well, such as in the atmosphere of the sun and other stars, in the vicinity of black holes and neutron stars, and at the boundary between our solar system's heliosphere and interstellar space.

MMS is a NASA mission led by the Goddard Space Flight Center. The instrument payload science team consists of researchers from a number of institutions and is led by the Southwest Research Institute. Launch of the four identical observatories aboard a United Launch Alliance Atlas V rocket from Space Launch Complex 41 on Cape Canaveral Air Force Station is managed by Kennedy Space Center's Launch Services Program. Liftoff is currently targeted for 10:44 p.m. EDT on March 12.

## Provided by NASA

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