



BepiColombo MMO status update

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BepiColombo is a ESA-JAXA joint mission to Mercury with the aim to understand the process of planetary formation and evolution as well as to understand similarities and differences between the magnetospheres of Mercury and Earth.

The baseline mission consists of two spacecraft, i.e. the Mercury Planetary Orbiter (MPO) and the Mercury Magnetospheric Orbiter (MMO). The two orbiters will be launched in 2015 by an Ariane-5 and arrive at Mercury in 2022. JAXA is responsible for the development and operation of MMO, while ESA is responsible for the development and operation of MPO as well as the launch, transport, and the insertion of two spacecraft into their dedicated orbits. The main objectives of MMO are to study Mercury's magnetic field and plasma environment around Mercury.

MMO is designed as a spin-stabilized spacecraft to be placed in a 400 km x 12,000 km polar orbit. The spacecraft will accommodate instruments mostly dedicated to the study of the magnetic field, waves, and particles near Mercury.

MMO Mechanical Test Model (MMO-MTM) was transported to ESA/ESTEC and stack level (MCS: Mercury Cruise System) mechanical environmental test was finished last September. MMO EM electrical model was transported to Astrium Friedrichshafen and electrical interface test was performed on October. MMO stand alone Flight Model (FM) AIV was started from last October and continues until early next year. After standalone AIV, MMO will be transported to ESA/ESTEC to attend stack level final AIV.

10th BepiColombo science working team (SWT) meeting, which discusses BepiColombo science related matters, will be held on Sep. 2013 at Lapland. In this paper, we will report the latest information of MMO project status.