

A Geophysics Environmental Package for Mars: Proposed Design for the Exomars Mission

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Exomars is the first Mission in the ESA Aurora Program, and to be launched to Mars in 2011. The payload is currently foreseen to be distributed between a rover and a stationary, long-living Geophysics Environmental Package (GEP).

The GEP has been proposed with a core payload consisting of a seismometer a meteorological package, an atmospheric probe, a heat flow and physical properties package and a magnetometer. Additional payload elements are considered.

The proposed system design is based on radiothermal heaters and thermoelectric generators to allow long term (>6 years) operations on the surface of Mars. GEP is designed to be also considered as payload for further missions (e.g. ESA-Aurora 2016 or NASA Scout) allowing to build up a network of stations for global investigation of Mars.