
Network of small satellites for the exploration of planetary Magnetosphere (NETSSEM)

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Résumé

Since March 2018, we have started a CNES study of small satellite concept for the exploration of planetary magnetosphere. The main objectives of this study are to obtain a realistic concept of mission with (a) small satellite(s) in association or not with a main satellite. The small satellite(s) should provide the crucially needed multi-points information for magnetosphere exploration. As an example, in the case of Mars magnetosphere, a second platform providing in situ measurement of the solar wind is highly requested to disentangle spatial from temporal variabilities when measurements are performed inside Mars' magnetosphere. CNES' study should provide a technical answer regarding:

- the best compromise between performances of the small satellite and available resources for the payload,

- the type of mission definition and measurements that can be achieved.

In this presentation, we will present the objectives of this study and the first set of results obtained so far.

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