

SPACE EXPLORATION SYMPOSIUM (A3)

Space Exploration Overview (1)

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30 YEARS OF FRENCH INVOLVEMENT IN SPACE EXPLORATION: LESSONS LEARNT AND PERSPECTIVES

Abstract

Today, France is present in robotic exploration through the European Space Agency's space science program and the ExoMars program. In addition it is also involved in projects of non-European countries through bilateral co-operations resulting in the provision of scientific instruments, mainly with the USA and notably for Mars exploration. In the field of human exploration, after an initial period in the 80's and 90's that saw the flight of French cosmonauts and astronauts first on the Russian Salyout and Mir stations and on the US space Shuttle, France is active through ESA's program of ISS utilization.

Two big projects where France had a major role failed to be implemented: the Hermes mini shuttle program proposed within the ESA framework in the mid 90's and an ambitious robotic Mars Sample Return program in bilateral cooperation with the USA at the turn of the century. We come back on the reasons of the doom of those projects.

The French space agency CNES now participates in the activities of the International Space Exploration Coordination Group (ISECG), a club of 14 space agencies working for the elaboration of a global exploration roadmap, including a set of various robotic and human missions as elements of a common venture.

Indeed a global exploration strategy is actually made of many individual projects. The participating countries to each of those projects may not be the same, according to their own priorities and competences. We have thus to invent a new kind of governance since the ISS, a single project, limited in time, cannot be the model. A global high level strategy shall be endorsed at the global political level, whereas each single project will have its own MoU between the participating countries. The forum initiated at Lucca in November 2011 can be the nucleus of that global strategy, which could rely upon the ISECG's Global Exploration Roadmap. UE, as a political entity, shall support that process.

Now, Europe cannot be present everywhere. In the field of robotic exploration it has the capabilities to implement first class projects where it is the major partner; Mars Sample Return could be one of them. In the field of human exploration, Europe needs to join a co-operation where it has to accept to be a minor partner while its contributions should benefit from the legacy of the previous European achievements.