

**EUROPEAN SPACE AGENCY**

**SOLAR SYSTEM WORKING GROUP**

**Recommendation on the VENUS EXPRESS and MARS EXPRESS extensions**

At the 123<sup>rd</sup> meeting of the Solar System Working Group (SSWG) held in ESTEC, Noordwijk (NL) on 11-12 January 2007, extensions for the Venus Express and Mars Express missions were discussed.

While the SSWG was disappointed with the imposed financial boundary conditions, it was agreed to assess and advise on the options for these extensions provided by the Executive.

***VENUS EXPRESS:***

Despite the loss of PFS, the SSWG was impressed with the scientific return already arising from VEX data. The IDSs have only recently been incorporated into the teams and hence a further increase in scientific return is to be expected. The SSWG considered the case for an extension to be strong. The SSWG was informed of a desire by JAXA to extend the mission through to the end of 2010 to overlap with a proposed Japanese mission.

***MARS EXPRESS:***

The continuing excellence of the data being returned by the MEX payload was again evident in the presentation to the SSWG. The complementary nature of MEX data with respect to that now being acquired by NASA's Mars Reconnaissance Orbiter was emphasized. The SSWG also considered the case for an extension to be strong. The SSWG was informed of the status of the contributions to the Planetary Science Archive and of the desire of some experimenters to complete global coverage of the planet.

**Four options were presented to the SSWG:**

- Option 1: MEX and VEX to continue through May 2009
- Option 2: MEX to continue alone through July 2010
- Option 3: VEX to continue alone through January 2011
- Option 4: MEX and VEX to continue through to at least the end of 2009 with reduced activities (with various options each impacting science return).

1. In order to extend VEX through to January 2011 (as desired by, for example, JAXA), MEX could not be extended. This was not considered acceptable. Option 3 was therefore excluded.
2. It was also considered that option 2 (not extending VEX) would be completely inappropriate considering the relatively recent addition of the IDSs to the VEX programme and the collaborative activity only now starting in earnest.
3. Option 4 (which included several sub-options) provides the longest lifetime of both spacecraft at the cost of significant scientific return. It was noted that even with the longest lifetime available with this approach, full global coverage by HRSC (for example) could not be guaranteed within the revised mission duration. This option was not viewed favourably by the SSWG.

**Hence, the SSWG supports the option (also favoured by the Executive) of extending MEX and VEX in full for a period through to May 2009. Furthermore, the SSWG recommends that the status be reviewed in mid-2008 to establish the technical and financial viability of a further extension.**