

News from the SPAC – March 2011

Close on the heels of my first bulletin, the Science Programme Advisory Committee held an extraordinary meeting on 8th March 2011 to tackle the difficult issue of balancing the National Programme to the anticipated budget available for Space Science from the UK Space Agency allocation. With both limited funding and options available, the Committee agreed the following recommendation on 17th March 2011:

“SPAC has reviewed the outline financial plan of the UK Space Agency’s national space science programme in combination with the options put forward for future planned elements, both of ESA and other agencies. It is clear that current commitments of the on-going programme plus the planned aspirations for missions under study and/or consideration are not compatible with the available funding.

After careful consideration, SPAC identified certain projects as being the core of the programme and a commitment to the science community and international partners. These projects have all been extensively peer reviewed at the national and international level. The Committee strongly endorses the conclusions that these projects are already delivering or will deliver excellent return to the UK. In the case of the M1/M2 missions, the Committee recognises that a final selection has not yet been made. Nevertheless, the Committee believes that all the elements being considered are world-class scientific opportunities with potential for significant planned UK involvement. The UK Space Agency should therefore plan to implement these missions when selected.

Therefore all of the above should be maintained within the already agreed planned allocation. This set of projects is identified in the table below.

Programmes in development
JWST – MIRI (flight model)
GAIA Data Centre (flight development and operations)
Lisa Pathfinder payload Lisa Test Package (flight model)
M1 & M2 (2 missions out of Solar Orbiter, Euclid & Plato)
BepiColombo MIXS instrument (flight model)
Post launch support and operations (in operation or planned)
SWIFT (in operations)
Herschel/Spire (in operations)
Planck (in operations)
LTP (planned under MLA)
JWST (planned under MLA)
GAIA (planned under MLA)
SOHO (in operations)
ROSETTA (in operations)
HINODE (in operations)
Stereo (in operations)
Venus Express (in operations)
BepiColombo (planned under MLA)

The Committee then reviewed the set of candidate projects that are currently under consideration within the ESA and national programmes. This comprises;

- The 3 L class missions (from which 1 is expected to be selected for implementation in June 2011)
- The mission of opportunity SPICA (a possible collaborative mission between ESA and JAXA)
- The 4 candidate M class mission concepts for M3 recently selected for assessment for a launch opportunity about 2022

The Committee has extensively discussed the scientific opportunities that these missions represent but also their associated technical complexities and programmatic uncertainties. The Committee felt that currently, there was a high level of programmatic uncertainty with respect to the SPICA mission of opportunity compared with the other elements under consideration within ESA's Cosmic Vision programme. Accordingly it was judged that continued investment in SPICA by the UK Space Agency was not justified within the current financial constraints. However, the Committee urges the Agency to pursue with ESA the possibility of funding SPICA related detector technology developments.

The Committee felt that until the programmatic situation is better defined then 'keep alive' funding should be provided for the M3 and L class missions, all of which have potentially significant UK interest and involvement.

Within the current financial constraints, the Committee believes that going forward with these recommendations will allow the UK to have strong participation in the ESA space science programme and thus deliver important, high quality and exciting science and technology for the UK."

The next SPAC meeting will be in June when we will be concentrating on preparations for the ESA SPC. ESA have already said the decision on the down-selection of the first Large mission (EJSM/Laplace, LISA & IXO) will be postponed from the June meeting to February 2012. The June meeting will also consider the investment that should be made in UK participation in the M3 candidate missions, with a scientific view being provided by STFC's PPAN.

John Zarnecki, SPAC Chair