



*Advancing  
Astronomy and  
Geophysics*

# ROYAL ASTRONOMICAL SOCIETY

Burlington House, Piccadilly  
London W1J 0BQ, UK

T: 020 7734 4582/ 3307

F: 020 7494 0166

de@ras.org.uk

www.ras.org.uk

Registered Charity 226545

## Future of Planetary Science: The Royal Astronomical Society ('Society') Statement on 'Aurora'

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The Society strongly supports UK participation in Aurora. The scientific case that has been drawn up for PPARC science

([http://www.aurora.rl.ac.uk/Task\\_Group\\_Reports/Science\\_Case.pdf](http://www.aurora.rl.ac.uk/Task_Group_Reports/Science_Case.pdf)),

and the growing support within the NERC, BBSRC and MRC communities provides compelling evidence for a strong and leading involvement in Aurora science by UK researchers. The science to be obtained by the missions currently in the Aurora roadmap will undoubtedly provide science of the highest impact and importance, and it is recognised that the Aurora science themes coincide with many of the UK's strongest areas of expertise.

The Society believes that the UK should take a leading role in the scientific and technological development of the programme; in order to do this the UK must sign up to Aurora at a significant level.

Upon entering the programme, the Aurora funding agency in the UK must ensure adequate resources are available to fund the operations and support aspects of UK involvement, and to ensure we are able to maximise the scientific exploitation of the results to come from the missions. It is recognised that significant participation in Aurora will dramatically increase funding in planetary science in the UK and it is important to ensure that there are enough qualified and trained staff to maximise our role.

The Society believes that Aurora, as one of the programmes proposed for funding by the research councils, is of the highest possible priority, but it is a large scale programme and cannot be funded properly simply by altering priorities within existing science themes. Much of the funding for Aurora must come from new funding sources.

The Society recognises that the UK has a tremendous hardware contribution to make to the programme and it would be difficult to take the UK role in Aurora seriously if we did not capitalise on the technological knowledge gained from the Beagle 2 experience. In order to compete with other agencies, we must be in a position to take the technological, as well as scientific, lead on major aspects of the programme.

Given the historic record of the Mars landers, the Aurora programme must include technology demonstration missions to prove its concept of descent and landing technology.

The Society applauds the significant attempts made by PPARC to disseminate information through a UK Aurora web site and through support of, and attendance at, community meetings. The Society encourages further work to provide the general scientific community with coordinated information on the Aurora programme and its current rapid evolution. The scientific community

would benefit from more rapid dissemination of information via the PPARC-funded web site, including information for/from other research council remits. This will help the community to make informed decisions and provide accurate and considered advice to their respective research councils when requested to do so. A dedicated staff member of one of the research councils should be identified as having scientific responsibility for Aurora and liaison with the wider cross-disciplinary community

It is recognised that Aurora provides an unprecedented opportunity to engage the public and younger generation in science. This opportunity should not be underestimated, and the Society believes that the UK should make the most of this exciting programme to inspire the current and future generations of scientists and engineers.