

EUROPEAN SPACE AGENCY

ASTRONOMY WORKING GROUP

Recommendation on the WSO/UV request for support

At its 124th meeting held on 12-13 January 2006 at ESA Headquarters, Paris, the Astronomy Working Group (AWG) was presented the proposal “World Space Observatory Ultraviolet, WSO/UV”, in the framework of the ESA annual Call for Support to Nationally Led Projects.

The AWG recognizes that a follow-up to present/past UV missions is desirable, in particular to study plasmas over a large temperature range and to study the most abundant molecules. The science case of WSO/UV focuses on aspects of the re-ionization of the universe, early evolution of sun-like stars and atmospheres of extra solar planets. The AWG finds the science case, as presented, not sufficiently compelling:

- The topics are limited and do not represent substantial advances with respect to current knowledge.
- The science case is not supported by quantitative assessment of requirements versus mission performance.
- Although the main instrument (HIRDES) appears to be in an advanced state, the AWG is concerned about the overall maturity of the scientific payload.

The proposal, although referring to ongoing activities especially in Russia, does not provide a clear overview of the project and, more importantly, does not contain an explicit demonstration of its overall feasibility. The European contribution to WSO/UV is comparatively small with no firm commitments of the involved ESA member states beyond Phase A/B. This is a particularly critical point in view of the tight schedule implied by the proposed 2010 launch date.

Given the small fraction (anticipated 4% as presented to the AWG) of the observing time available to the ESA community and the lack of a firm plan of a public data archive, the return to the ESA member state scientists is limited. Moreover, the proposal lacked a well developed science management plan approved by all participating agencies.

In general, it is unclear to the AWG if these shortcomings simply reflect an immature proposal in response to the Call for Nationally Led Projects.

On the basis of the above considerations, the AWG does not recommend an involvement of ESA in the WSO/UV project.