



The Role of the Moon in ESA Reference Scenario for Space Exploration

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The European Space Agency is currently undertaking a dialogue with various stakeholder groups in order to help define a European Reference Scenario for Exploration. The Agency has been working towards this aim for a number of years already, leading to the announcement of the Aurora Programme in 2001. The dialogue has continued since this time and during the last two years in particular, and building upon the foundation of Aurora, broad stakeholder consultations have taken place with the four identified major stakeholder groups coming from the scientific, political, industrial and general public respectively.

As part of the development of the science driven scenarios a number of potential solar system 'targets' - using robotic and eventually human means - were looked at including the Mars, Near Earth Objects and the Moon, and this paper will focus on the scientific objectives being developed for the latter – the Moon.

The science objectives are divided into three major themes; the search for life, lunar geology and what may be termed 'opportunistic' science – i.e. the science that is facilitated through the presence of humans. An example of the latter would be the establishment of a low-frequency radio telescope on the dark side of the Moon. The current status of the developing lunar scenarios will be presented and discussed in detail together with their specific role in the overall framework of the European Reference Scenario for Exploration. In addition, the preliminary results of an investigation of synergies between these lunar scenario science objectives and those objectives arising from the other stakeholder group areas will be presented.