SPACE EXPLORATION SYMPOSIUM (A3)

Moon Exploration – Part 1 (2A)

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FEASIBILITY STUDY AND DEVELOPMENT PLAN FOR THE WHITE LABEL SPACE GLXP $$\operatorname{MISSION}$$

Abstract

This paper presents a lunar surface mission concept developed by the White Label Space team, an official competitor in the Google Lunar X PRIZE. The paper also presents a development roadmap for realizing the mission in a cost-effective and timely manner, as well as a long-term vision of the White Label Space team beyond the PRIZE.

This work builds upon an earlier mission concept published by White Label Space members in December 2009, and provides the results of a quantitative study conducted during 2010. The quantitative study demonstrated the technical feasibility of the mission and the resulting system engineering budgets for the main driving parameters are reported. To maximize the appeal to potential sponsors and investors, the mission architecture and roadmap were designed to retire the key risks with minimum initial investments during the early stages of the mission's development. The team's long-term vision was developed to be synergistic with the latest international plans for planetary science and exploration, both public and private, thus providing an inspiration platform for potential sponsors.