SPACE EXPLORATION SYMPOSIUM (A3)
Space Exploration Overview (1)

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ODYSSEY MOON "M-1" LUNAR MISSION OF OPPORTUNITY – ENABLING SCIENCE, EXPLORATION AND COMMERCE

Abstract

Introduction: Odyssey Moon is a commercial lunar transportation company supplying payload delivery services to the Moon in support of science, exploration and commerce. Odyssey Moon is creating a sustainable lunar transportation service to meet near term and long term global market needs for low cost, reliable and frequent lunar access currently unaddressed by large government space programs. By creating alternative commercial lunar delivery products and services that provide rapid mission schedules and standardized systems, our goal is to provide value added commercial lunar missions for our government, academic and commercial customers. World-class technologies are being utilized and developed into standardized, scalable turn-key solutions that will supply unprecedented value to diverse international customers seeking reliable and cost effective products and services for lunar activities. Odyssey Moon has established launch agreements with scientific, educational and commercial organizations worldwide and is recognized by NASA as a po-tential supplier of Commercial Missions of Opportunity for fundable payload delivery services to the Moon. Odyssey Moon has been contracted by the Canadian Space Agency to investigate a Canadian lunar science mission utilizing commercial lander systems with its prime contractor MDA. The company has also entered into discussions with other national space agencies worldwide for the provision of hardware and services on a commercial procurement basis.

The Mission: "MoonOne" (M-1) is a commercially enabled robotic lander mission to the near side equatorial region of the Moon in support of science, explo-ration and commerce. The mission is planned for launch in early 2013 utilizing the Odyssey Lunar Lander, developed from NASA's Common Spacecraft Bus (CSB) platform. This "Commercial Mission of Opportunity" has a payload manifest comprised of scientific, educational and commercial payloads with approximately 15 kg of payload capacity still available to the international lunar communities for scientific or technology demonstration payloads. Individual payload expenses have minimized through a "condominium" approach to cost sharing of spacecraft resources and common spacecraft elements. The first official entry in the $30M Google Lunar X PRIZE competition, M-1 is the first of a series of mission opportunities designed to enable low cost, rapid, and frequent access to the Moon for government, academic and commercial customers. The M-1 mission spacecraft processing and launch will occur in the United States with an experienced launch partner and an insured minimized risk approach.

This paper addresses the Payload Flight Opportunities provided by M-1 along with updates on company and mission status, plans and financing.