

An overview of the Innovative Lunar Demonstration Data (ILDD) program: NASA's next steps to extending public/private partnerships beyond Earth orbit C.I. Holmer, University of North Dakota Department of Space Studies, Grand Forks, ND, 58202 curt.holmer@my.und.edu

The Innovative Lunar Demonstration Data (ILDD) program is a unique way for NASA to reap benefits from the knowledge that is gained from commercial attempts to return to the moon. Given the programs unique nature and the fact that it could be used as a model for future funding; an understanding the structure, capabilities, and limits of this type of programmatic vehicle is necessary. This paper will review the ILDD program and its specific goals, objectives, and benefits to the participants. In addition, the specific participants in the program and the program's effect on the commercial space industry will be examined briefly. The overall scientific objectives of the participants regardless of their intention to submit data to the program will also be briefly examined.

The ILDD program is a way for NASA to capture the lessons learned and develop best practices from those commercial companies attempting to return to the moon. This is the first time that NASA has asked to purchase data from non-NASA entities as it relates to space craft operations. The ILDD will award a number of small firm fixed-price, indefinite delivery/indefinite-quantity (IDIQ) contracts over several years for access to design, test and operational data generated by commercial companies' attempts to reach the moon. The total amount of money awarded with this contract is over \$30.1 million USD, smallest contract award worth \$10,000 USD. The most any one company can be awarded is \$10.01 million USD. The type of data that NASA will obtain through this program has never been available without sponsoring a dedicated program; NASA has the unique opportunity to purchase this data at a fraction of the cost of developing it on its own. The data will come from the design, hardware demonstrations; ground based testing and lunar operations of the participants.

NASA announced the Base Contract Line Item Number (CLIN) awardees in October 2010. Not surprisingly these companies are also participants in the Google Lunar X Prize (GLXP). Rather than seeing this as competing effort, the Google Lunar X Prize views this as a natural complement to the GLXP program. The X Prize Foundation has stated this is a signal that NASA is a "ready and willing customer" of what the participant teams are developing. Overall this program has given a boost to the commercial space industry and bolstered investor confidence in the participants of the GLXP. Now the investment

community has that proof, and it's already starting to have the effect of reassuring investors."

The potential boost to the commercial industry and the calming of investor fears cannot be overstated. Both NASA and the nation as a whole face some tough decisions in the near future involving capital expenditures. During the most recent budget battles on Capitol Hill the ILDD program has been left untouched, or at least not called out at that level, leaving its fate up to NASA.

Despite their obviously commercial focus, most of the participating teams intend to do hard lunar science. These range from simple technology demonstrations to more broad reaching objectives such as high fidelity mapping of mineral and water resources at the poles. While these projects seem simple and mundane, the fact that commercial funding can be combined to do hard science and return viable and useful data may be the key to future funding of projects.