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Results of America's Planetary Science Decadal Survey

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Once every ten years, the U.S. National Research Council carries out a "decadal survey" in planetary science. The objective is to recommend a decade-long national strategy for solar system exploration for NASA and the NSF. The most recent planetary decadal survey has placed particular emphasis on formulating a strategy that can realistically be implemented with the funds expected to be available for NASA and the NSF in the decade from 2013 to 2022. Inputs to the decadal survey were provided at a number of "town hall" meetings at professional conferences, and via 199 white papers written and submitted by more than 1600 members of the scientific community. These inputs led to definition of a set of high priority science questions, which in turn prompted study of 28 different mission candidates. Some of these mission candidates were studied in detail by the Applied Physics Laboratory, Goddard Space Flight Center, the Jet Propulsion Laboratory, and Marshall Space Flight Center. Missions studied in detail were also subjected to a cost and technical evaluation conducted by Aerospace Corporation. A recommended set of missions for the decade was then assembled, taking into account science priorities, cost and technical risk, and available resources. The plan also includes recommendations regarding funding for research and analysis, technology development, ground-based and orbital telescope facilities, and other topics. Consideration of possible international collaboration in planetary exploration was an important part of the decadal process. The report will be released in the first part of 2011, and the recommendations from the report will be described in this presentation.

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