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Author: Dr. Michael Moloney
National Research Council, United States

Dr. David Smith
National Research Council, United States

U.S. SPACE STUDIES BOARD VIEWS ON INTERNATIONAL COLLABORATION IN SPACE
SCIENCE

Abstract

Collaboration among the world's space agencies has become an essential tool to achieving shared goals in the exploration of space. Nowhere is this more true than in the pursuit of space science where key international collaborations have formed the foundation of advances in our knowledge of our universe over the last few decades. In support of the U.S. space science and Earth science programs, NASA has engaged in well over 1,000 international activities with many nations. Indeed, international participation in NASA science missions has more often been the norm rather than the exception. Among notable recent examples are the Hubble Space Telescope (with ESA), the Cassini-Huygens Saturn mission (with ESA and Italy), and the James Webb Space Telescope (with ESA and Canada). However, the international character of a space science mission is no guarantee of its successful realization. International collaboration can be sidetracked owing to developments in national programs or budgets and the management challenges cannot be understated. As the 1998 U.S. National Research Council (NRC) / European Science Foundation report "U.S.-European Collaboration in Space Science" found, cooperative programs depend on a clear understanding of how the responsibilities of the mission are to be shared among the partners, a clear management scheme with a well defined interface between the parties, and efficient communication. In successful missions, each partner has had a clearly defined role and a real stake in the success of the mission. A further challenge is how to plan for national programs in an increasingly international context. The community-based space and Earth science decadal surveys—produced by the NRC's Space Studies Board (SSB)—in astronomy/astrophysics, planetary science, solar and space physics, and Earth science and applications from space, form the foundation for long-term strategic consensus planning by the U.S. research community, NASA, and other government agencies that support space and Earth Science. Each of the recent decadal surveys has discussed the need for improved international cooperative planning and collaboration. In addition, at a November 2012 SSB workshop focused on lessons learned from the most recent round of decadal surveys, the question was asked: how can we best integrate international cooperation globally into the decadal process to ensure the best science can be pursued? This paper will provide an overview of some SSB reports on international collaboration and draw out common themes and messages. The paper will also report on current SSB activities relevant to international collaboration.