

Proposal for an International Lunar Decade

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The Moon is about to become an active place.

China, India, and Japan are all now developing lunar missions. China has described a 3-step lunar program, *Chang'E*, with the first step coming in 2007 – a polar orbiter. Later missions include a lander and automated sample return. India has also said it will follow up its planned *Chandrayaan-1* polar orbiter mission, also scheduled for launch in 2007, with a lander mission.

Japan is scheduled to launch *Selene*, their large lunar polar orbiter, also in 2007. *Selene* includes two sub-satellites in addition to the main orbiter spacecraft. Japan has also discussed a lunar lander in about the 2015 time frame. Recently Italy has said it will conduct a series of “National Autonomous Projects” for lunar exploration. This program includes an orbiter, with a launch in 2010-11, and eventually a rover.

The U.S. is planning lunar robotic missions as precursors to its human flight. Work has begun on a *Robotic Lunar Exploration Program*, with the first launch, an orbiter, in 2008. Landers are planned to follow with extensive surface operations objectives. The European Space Agency (ESA) has a mission at the moon right now. SMART-1 is now in lunar orbit imaging the surface making other scientific measurements. No follow-on mission is yet planned by ESA, although lunar missions in the Aurora program (the European Space Agency’s long-range plan for robotic and human exploration of the solar system) are being considered in support of its goal of sending humans to Mars.

With so many missions from so many nations, and a goal of return to the Moon for humans, international cooperation and coordination seems logical. However, thus far, the national missions are being planned independently. Public and political interest for sustained and longer-range goals will, we believe, be enhanced by international cooperation. As a possible framework and focus for such cooperation we propose an International Lunar Decade. Precedents and mechanisms for its implementation are discussed and potential missions and activities for the Decade are described.