Media Alert:

First-of-a-Kind Long-Distance Demonstration of Solar-Powered Wireless Power Transmission Technology, A Key Step to Space-Based Solar Power

What: Space solar power could be a clean, renewable solution to America's long-term energy needs. John C. Mankins, former manager of NASA's Exploration Systems Research and Technology Program, and one of the foremost experts on space solar power, will announce a milestone demonstration of the critical technology enabling SSP: long-distance, solar-powered wireless power transmission.

The secret project, funded by Discovery Communications over the past year, demonstrated wireless power transmission between two Hawaiian islands 148 kilometers apart, more than the distance from the surface of Earth to the boundary of space. The project will be featured in an hour-long special that evening on Discovery Channel as part of 'Project Earth', an eight-part series on the most ambitious geo-engineering ideas to tackle global climate change and the need for new and sustainable energy sources.

Space-based solar power, in which large satellites would collect plentiful solar energy in orbit and beam it safely down to Earth, could one day reduce our carbon emissions to virtually zero. It is the only energy technology that is clean, renewable, constant and capable of providing power to virtually any location on Earth. Mankins will describe the demonstration project and show a realistic plan forward to develop this promising technology.

When: Friday, September 12, 2008 at 9:30am

Where: National Press Club, Lisagor Room

Who:

John C. Mankins, COO of Managed Energy Technologies LLC
Paul Gasek, Executive Producer for Discovery Channel
Mark Hopkins, Senior Vice President, National Space Society

Hosted by:

National Space Society

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Key Steps to Space-Based Solar Power:
First-of-a-Kind Long-Distance Demonstration of Solar-Powered Wireless Power Transmission (WPT) Technology

During the week of May 5-9, 2008, a key step on the path to Space-Based Solar Power was achieved: a "first-of-a-kind" long-range demonstration of solar-powered wireless power transmission using a solid-state phased array transmitter located on the U.S. island of Maui (on Haleakala) and receivers located on the island of Hawai'i (Mauna Loa) and airborne. The demonstration, achieved by Managed Energy Technologies LLC of the U.S. and sponsored by Discovery Communications, Inc., involved the transmission of RF energy over a distance of up to 148 kilometers (about 90 miles): almost 100-times further than a major 1970s power transmission performed by NASA in the Mohave Desert in California. The 2008 project (which lasted only 5 months and cost less than $1M) proved that real progress toward Space Solar Power can be made quickly, affordably and internationally, including key participants from the U.S. and Japan.

First-of-a-Kind Solar-Powered Wireless Power Transmission Experiment – May 2008

A number of key technologies were integrated and tested together for the first time in this project, including solar power modules, solid-state FET amplifiers, and a novel "retrodirective" phase control system. In addition, the project developed the first ever "field-deployable" system—developing new information regarding the prospective economics of space solar power / wireless power transmission systems. The project was sponsored by Discovery Communications as part of its Project Earth series, and produced by Impossible Pictures Ltd. of the U.K. The television program resulting from the project will first air on the Discovery Channel in the U.S. on 12 September 2008 at 10:00 pm, as part of the Project Earth series.

The project's leader was former NASA executive and physicist John C. Mankins (Chief Operating Officer of Managed Energy Technologies LLC, and President of the Space Power Association). Key participants included Professor Nobuyuki Kaya of Kobe University in Japan and Frank Little of Texas A&M University in the U.S. (both world leaders in WPT technology), and Dr. Neville I Marzwell of the California Institute of Technology. Students at the two universities were largely responsible for fabrication of the hardware for this first-of-a-kind experiment.

For additional information, please contact: Mr. John C. Mankins (jmankins@managedenergytech.com)