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NASA SELECTS EXPLORER PROJECTS TO PROBE EARTH'S UPPER ATMOSPHERE

WASHINGTON -- NASA has selected one new satellite mission and one new space-based instrument to begin development as part of the agency's Heliophysics Explorer Program. The projects will provide space observations to study Earth's ionosphere and thermosphere.

The Ionospheric Connection (ICON) mission, led by Thomas Immel of the University of California, Berkeley, will probe the extreme variability of Earth's ionosphere with in situ and remote-sensing instruments. Fluctuations in the ionosphere interfere with signals from communications and global positioning satellites, which can have an economic impact on the nation.

The Global-scale Observations of the Limb and Disk (GOLD) mission of opportunity, led by Richard Eastes of the University of Central Florida, Orlando, is an imaging instrument that will fly on a commercial communications satellite in geostationary orbit to image the Earth's thermosphere and ionosphere.

"One of the frontier areas of heliophysics is the study of the interface between outer space and the upper reaches of Earth's atmosphere," said John Grunsfeld, NASA associate administrator for science at NASA Headquarters, Washington. "These selected projects use innovative solutions to advance our knowledge of this relatively unexplored region. The two missions together will result in significantly more advances in our understanding of Earth's atmosphere and ionosphere than either would alone," he said.

These two Explorer projects were selected from proposals submitted in response to the NASA Explorer announcement of opportunity in 2010. The proposals were judged to offer the best science value and feasible development plans among the six concept studies submitted to NASA in September 2012.

Costs for NASA Explorer missions, such as ICON, are capped at \$200 million each (fiscal year 2011 dollars), excluding the launch vehicle. Explorer missions of opportunity, such as GOLD, are capped at \$55 million each. The new missions are expected to launch in 2017.

The Explorer program is the agency's oldest continuous program. It is designed to provide frequent, low-cost access to space for principal investigator-led space science investigations relevant to the heliophysics and astrophysics programs in NASA's Science Mission Directorate, Washington.

The Explorer program has launched over 90 missions since 1958, including Explorer 1 which discovered the Earth's radiation belts and the Nobel Prize-enabling mission Cosmic Background Explorer (COBE) mission. The program is managed by NASA's Goddard Space Flight Center for the Science Mission Directorate.

For more information about the Explorer program, visit:

<http://explorers.gsfc.nasa.gov>

For information about NASA and space science, visit:

<http://www.nasa.gov>

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