

# MEETINGS

## University Satellites and Space Science Education

**UNIVERSAT-2006: University Satellites and Space Science Education, Lomonosov Moscow State University, Moscow, 26–30 June 2006**

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Global society increasingly is dependent on reliable space satellite systems that are resistant to hazards present in the space environment. Therefore, it is essential that the present young generation, as well as future ones, be educated in satellite technology as well as in the space sciences. These multidisciplinary subjects cover a wide range of topics in science, engineering, medicine, environment, finance, and so forth. In regard to teaching activities, these subjects offer many unique opportunities, such as teaching students the different 'languages' of the various subjects so that later in their careers they are better communicators.

With increasing developments in space technology a better understanding of the link between protection of spacecraft and the space environment is needed. Thus, it is essential to improve the quality of traditional space-related educational material, taking into consideration the skills required for modern space industry and science. This first international symposium on space education informed university and space-industry communities on new initiatives in space science education including student satellite construction and development.

The symposium provided an international platform for attendees to discuss past and present space educational activities, and to brainstorm new national and international initiatives. Topics covered in oral and poster presentations included space research in university education covering near-Earth space environment and geophysics; heliobiology, ecology, atmospheric sciences, and remote sensing; space technology education; design, development, and management of university satellites; basic space sciences in high school; and cooperation in space education projects.

Symposium highlights included a visit to the Skobel'syn Institute of Nuclear Physics (SINP) Space Physics Practice Laboratory, at Moscow State University (MSU), and a visit to the SINP Mission Control Center where the receiving and processing of information from the MSU-built satellite 'Universitetskiy' occurs. Universitetskiy was launched in January 2005 within the framework of the MSU space education program. On board the satellite is the 'Tatyana' scientific equipment developed by SINP, which is intended mainly for studying the radiation conditions in near-Earth space and Earth's atmosphere in the ultraviolet spectrum.

In 1957, the International Geophysical Year (IGY), a program of international research, was organized to study global phenomena of the Earth and geospace. It was proposed to organize in 2007 an international program of scientific collaboration to commemorate the fiftieth anniversary of IGY, to be called the International Heliophysical Year (IHY). As with the IGY and two previous International Polar Years (in 1882–1883 and 1932–1933), the scientific objective of the IHY is to study phenomena on the largest possible scale, with simultaneous observations from a broad array of instruments. With the current array of satellites available, the IHY provides a unique opportunity to study the coupled Sun-Earth system. Also during 2007 is the fiftieth session of the United Nations Committee on the Peaceful Uses of Outer Space and, of particular importance for Russia, the fiftieth anniversary of the launch of Sputnik 1, which heralded the start of space exploration.

Given the need for satellite technology and space science technology education, and several space anniversaries, the international community has many opportunities, such as the IHY, to participate in the promotion of space sciences and student satellites at all educational levels. UNIVERSAT-2006 is a reminder that learning activities should include young people as well as those already working in the space arena.

The full text of this meeting report is reproduced in the supplement to this *Eos* edition.

—NORMA B. CROSBY, Belgian Institute for Space Aeronomy, Brussels; E-mail: norma.crosby@oma.be; SERGE KRASOTKIN, Skobel'syn Institute of Nuclear Physics, Moscow State University, Moscow; and HANS J. HAUBOLD, United Nations Office for Outer Space Affairs, Vienna.

## ABOUT AGU

### Outstanding Student Paper Awards

The following members received Outstanding Student Paper Awards at the 2006 AGU Fall Meeting, in San Francisco, Calif. Winners in other sections and focus groups will be announced in subsequent issues of *Eos*.

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*Earth and Space Science Informatics Focus Group*

**Tom Fedenczuk**, School of Ocean and Earth Science and Technology/Hawaii Institute of Geo-

physics and Planetology, University of Hawaii, Honolulu, *Quantitative characterization of topographical features in digital elevation models (DEM) and bathymetry data.*

**Allison Jacobs**, Scripps Institution of Oceanography, University of California, San Diego, *Visual integration of multidisciplinary datasets for the geophysical analysis of tectonic processes.*

**Paul Jensen**, University of Minnesota, Minneapolis, *Automatic generation of remote visualization tools with WATT.*

**Daniel Ragona**, University of California, San Diego, *Automated classification and correlation of drill cores using high-resolution hyperspectral images and supervised pattern classification algorithms: Applications to paleoseismology.*

*Geomagnetism and Paleomagnetism Section*

**Dario Bilardello**, Lehigh University, Bethlehem, Pennsylvania, *An anisotropy based inclination shallowing correction of the Shepody Formation of New Brunswick and Nova Scotia and the Deer Lake Group of Newfoundland, Canada.*

**Thomas Labrat**, Institut de Physique du Globe de Paris, *One-dimensional modeling of the geodynamo.*