Proposed UNESCO Satellite Generates More Heat than Light

A proposed United Nations Educational, Scientific and Cultural Organization space project, intended to promote tolerance, has instead provoked controversy before getting off the ground. The "Star of Tolerance" satellite, to consist of two inflatable, light-reflecting balloons connected by a cable, is designed to be highly visible from Earth in the dusk and dawn twilights each day. Fearing something like previous suggestions of a glaring billboard in space, US and European astronomers have protested the project, which is scheduled for launch sometime next year. The American Astronomical Society's executive director, Robert Milkey, sent a letter expressing concern to Federico Mayor, the director general of UNESCO.

Patrick Crane, the chair of the AAS committee on light pollution, radio interference and space debris, told PHYSICS TODAY that UNESCO has since provided the height of the orbit (about 1200 km) and estimates of the brightnesses of the two balloons. Assuming homogeneous reflection, the balloon with a radius of 30 meters would have an apparent astronomical magnitude of about –0.5 and the 50-meter balloon's would be about –1.6, approximately that of Sirius, the brightest star in Earth's sky.

Although such average brightness alone may not be a problem, Crane said that other issues have to be considered. For example, will the balloons' surfaces permit glancing reflections that will produce occasional bright bursts of light? Can the orbit be predicted accurately enough throughout the satellite's lifetime so that the Hubble Space Telescope can avoid looking at it?

Crane said that the whole affair shows the need for greater coordination and consultation on issues such as this one, and he pointed to the example of radioastronomers. Tomas Gergely, the electromagnetic spectrum manager at the National Science Foundation, said coordination of radio communication has been viewed as an international concern since the *Titanic* disaster in 1912. National and international agencies to regulate and allocate use of the radio spectrum have been in place since shortly after that time.

In fact, in addition to making its presence known through the satellite's visual appearance in the sky, UNESCO plans to have the satellite send radio messages to countries over which it will pass. With demands on the radio spectrum increasing, UNESCO may face an uphill battle obtaining permission for these transmissions from all the countries involved.

DENIS F. CIOFFI

Thomas Elected to Lead AAPM in 1997

On 1 January Stephen R. Thomas will become president-elect of the American Association of Physicists in Medicine. He will succeed to the presidency in 1997, following Guy H. Simmons.

Thomas earned a BS in physics from Williams College in 1963 and then spent three years as a US Peace Corps volunteer in Ghana. He did his doctoral work at Purdue University, earning a PhD in solid-state physics in 1973. Thomas has been a faculty member at the University of Cincinnati since 1975; currently he is professor of radiology and director of the medical physics division. His research has centered on the biomedical applications of fluorine-19 nuclear magnetic resonance and on radiopharmaceutical dosimetry.

In addition to selecting Thomas, the AAPM membership reelected Charles W. Coffey II of Vanderbilt University Medical Center as secretary. James M. Galvin of the New York University Medical Center, Wendell R. Lutz of the University of Arizona, Jatinder R. Palta of the University of Florida, Gainesville, and Joe P. Windham of Henry Ford Hospital in Detroit were elected board members at large.

New Sandia Director and Deputy Director

On 15 August C. Paul Robinson became director of Sandia National Laboratories. He succeeded Albert Narath, who is now president of the newly created energy and environment sector of Lockheed Martin Corp, which operates Sandia for the Department of Energy.

Prior to his appointment Robinson had been vice president for laboratory development at Sandia, leading the labs' programs in industrial partnerships and technology transfer and initiating alliances between Sandia and US industry.

Robinson earned a BS in physics from Christian Brothers College in 1963 and a PhD in physics from Florida State University in 1967. He then joined Los Alamos National Laboratory, where he headed the lab's defense-related programs from 1980 to 1985. Robinson left Los Alamos in 1985 to become senior vice president and principal scientist of Ebasco Services, a New York–based engineering and construction firm that specializes in nuclear power and other energy systems. In February 1988 President Reagan appointed Robinson the chief negotiator and head of the US delegation to the talks on nuclear testing held in Geneva, Switzerland, where the US and the USSR eventually agreed to protocols for the Threshold Test Ban Treaty and the Peaceful Nuclear Explosions Treaty.

Sandia also has a new deputy director, John Crawford, previously the labs' vice president and manager of its California operations. Crawford has been with Sandia since 1962, serving as director of weapon development from 1984 to 1987. He holds a BA in mathematics and physics from Phillips University and an MS and PhD in physics from Kansas State University. Last November Crawford became chairman of the Clean Car Coordinating Committee, which coordinates DOE's work in the Partnership for a New Generation of Vehicles (see PHYSICS TODAY, April, page 73).

Bjorklund is OSA Vice President for 1996

Members of the Optical Society of America recently elected Gary C. Bjorklund to be the OSA vice president for 1996. He succeeds Janet S. Fender, who will become president-elect. The 1996 president of OSA is Duncan T. Moore.

Bjorklund is director of advanced development at Optivision Inc, a high-tech start-up company in Palo Alto, California. After earning a bachelor's degree in physics from MIT in 1968, he went on to graduate work in applied physics at Stanford University, receiving an MS in 1969 and a PhD in 1974. He then joined AT&T Bell Laboratories in Holmdel, New Jersey. In 1979 he moved to the IBM Corp's research division in San Jose, California, where he held various research management positions and did work on basic laser science, optical storage, laser materials interactions and polymeric nonlinear optical materials and devices. In 1994 he joined Optivision, where he works on guided-wave photonics and photonic processing and interconnects.

In other results of the OSA election, Alastair Glass of AT&T Bell Laboratories, Erich Ippen of MIT and David R. Williams of the University of Rochester were elected to three-year terms as directors at large. ■