

# Project Update

## National Security: Impediment to Space Sciences?

Recently announced plans for completing the International Space Station, launching a manned mission to Mars, and generally setting “a new course for America’s space program” will require extensive international cooperation. Yet such cooperation is now being significantly impeded by federal government regulation of the space sciences, according to Academy Fellow Eugene Skolnikoff.

Skolnikoff is Professor Emeritus of Political Science at MIT and an expert on science and public policy, with particular attention to the relationship between science and technology and international security. In a number of articles and addresses over the past few years, he has been warning of the grave dangers to space-related scientific research posed by a set of federal rules called the International Traffic in Arms Regulations (ITAR). Although intended to keep research and technology with potential military or terrorist uses out of the wrong hands, what the ITAR may end up doing instead, according to Skolnikoff, is handcuffing American science and industry and actually undermining U.S. national security.

Several worrisome restrictions on academic freedom and scientific openness and exchange have come to bear since the terrorist attacks on the United States, though problems with the ITAR actually pre-date 9/11. Skolnikoff traces the origins of the current threat back to 1999, when Congress transferred responsibility for licensing the export of U.S.-manufactured commercial satellites from the Commerce Department’s Bureau of Export Administration to the State Department, which administers



Eugene Skolnikoff

the ITAR. Another significant change made in 1999 was the addition of scientific satellites to the U.S. Munitions List of items requiring an export license under the ITAR.

An even more comprehensive problem became apparent as university researchers began to realize that routine exchanges of information between American scientists and some of their foreign colleagues and students – even if the information involved was unclassified or had long been in the public domain – now required a license, with the threat of criminal penalties for those who violated the rules.

According to Skolnikoff, the current ITAR regime has adversely affected the space sciences: There are delays in proposed projects; “virulent” complaints from foreign researchers, many of whom have decided not to collaborate with Americans; short-circuited discussions at international scientific meetings; questions about

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## New International Security Issues in the Post-Soviet Region

On November 22, 2003, Eduard Shevardnadze resigned as president of Georgia as thousands of anti-government protesters filled the streets, surrounding the presidential compound. The so-called Rose Revolution was another in a series of rapid and problematic transitions in the post-Soviet territories.

The regional and international reverberations of conflict in or over the borderlands of the former Soviet Union are a common focus of an Academy study on International Security in the Post-Soviet Space. A series of volumes will emerge from the project, sponsored by the Academy’s Committee on International Security Studies (CISS).

The most recent volume in the series is *Swords and Sustenance: The Economics of Security in Belarus and Ukraine*, edited by Robert Legvold (Columbia University) and Celeste Wallander (Center for Strategic and International Studies). The book examines the fashioning of security policy under conditions of market transition and dependence. Previously published was *Thinking Strategically: Kazakhstan, the Major Powers, and the Central Asian Nexus*, edited by Legvold, which illuminates the contrasting strategies of China, Japan, Russia, the E.U., and the United States toward Central Asia. Forthcoming in the series is a volume, edited by Legvold and Bruno Coppieters (Free University, Brussels), that will discuss the sometimes violent process of state building in Georgia, and the effort of Georgian and other leaders to fashion national and mutual security policies in the Caucasus region. Also forthcoming is a book, edited by Steven Miller (Harvard Univer-



sity) and Dmitri Trenin (Carnegie Moscow Center), that will focus on the politics and policy of Russian defense. It will offer an assessment of the Russian military that now exists and of the further reforms that could (and, many believe, should) shape the future of Russian military power.

The MIT Press is publishing the books as part of the American Academy Studies in Global Security series. To order copies, call The MIT Press at 800-405-1619 or visit <http://mitpress.mit.edu>.

The Academy is deeply indebted to the Carnegie Corporation of New York for its support of these studies. ■

the participation of foreign graduate students in research projects in American institutions; delay or cancellation of projects involving collaboration between universities and foreign or multinational corporations; and “compromised” relations between certain universities and NASA. These kinds of obstacles to free and open scientific exchange pose a threat to what Skolnikoff calls the “fundamental values” of America’s research institutions. “It is imperative that the nation’s research institutions continue to defend the openness and the freedom to exchange information which are so important to maintaining our scientific and technological leadership.”

Nor is it just America’s scientific community that is in jeopardy. As Skolnikoff and other Fellows involved with the Academy’s Rules of Space project learned at a recent workshop in Houston (see accompanying story), the American commercial space industry has already been seriously harmed by the restrictions imposed by the ITAR.

Far from downplaying the threats that the ITAR is intended to counter, Skolnikoff agrees that the dangers are real. Yet the irony behind the current rules, he points out, is that they may end up weakening U.S. national security by undermining American technological capacity and international leadership. Hence the importance of the Academy’s Rules of Space project, which is examining the politics and potential of greater international cooperation in the development of space. “I don’t know yet what an ideal international regime in space would look like,” Skolnikoff concludes. “That’s why I’m taking part in this project – to find out.” ■

## Reconsidering the Rules of Space

In the effort to return to the moon, “The most important ‘how’ question,” according to Academy Fellow Neal Lane (Rice University), “is the extent to which this will be an international effort.” Testifying before the Senate Committee on Commerce, Science, and Transportation in January 2004, Lane observed that “there is also reason for other nations to question U.S. policy on the future use of space, given statements made by high-level U.S. government leaders and in military strategy documents about the need to prepare for increased military activities in space.”

To promote discussion of alternative policies, the Academy’s Committee on International Security Studies (CISS) has been engaged in a multi-year project on “Reconsidering the Rules of Space.”

“The participants in our study believe that the American public needs to be more engaged in determining what our balance of in-



David Wright and Laura Grego (both, Union for Concerned Scientists) discuss their paper at a meeting held at the House of the Academy.

terests should be, and what kinds of international rules should be negotiated to protect the full range of our interests, both military and non-military,” says project leader and CISS cochair John Steinbruner (University of Maryland). He notes that stated U.S. plans to deploy space-based weapons are inherently objectionable to most other countries and exceedingly unlikely to command international consent. By bringing together various constituencies (commercial, scientific, and governmental) with a direct interest in U.S. space policy,

the Committee on International Security Studies hopes to get the necessary dialogue under way.

The project convened two workshops in fall 2003. The first, held at Rice University with the help of Neal Lane and George Abbey (former director of the Johnson Space Center), focused on the implications of U.S. space and defense policies for the commercial space industry. The second, held at the House of the Academy, reviewed technical aspects of securing space assets. Publications from these workshops are planned for the spring and summer of 2004. In addition, the project has commissioned papers on Chinese perspectives on U.S. space plans and on Russian space policy. It is also organizing a working group to study rules of international cooperation in space.

In his testimony, Lane urged members of Congress and the administration to consider the Academy’s forthcoming work on space policy as they go forward with plans for refocusing NASA’s future mission.

The Academy’s Committee on International Security Studies plans and sponsors research on current and emerging challenges to global peace and security. For more background on “Reconsidering the Rules of Space,” see “Progress Reports on Academy Projects” in the Winter 2003 issue of the *Bulletin*.

The Carnegie Corporation of New York has generously provided support for this project. ■



Some of the participants at the workshop held at Rice University: top row, left to right: Magued Iskander (MD Robotics), Karl Doetsch (International Space University), Martin Malin (American Academy), Roald Sagdeev (University of Maryland), Randy Brinkley (J. F. Lehman and Company), Eugene Skolnikoff (MIT), Neal Lane (Rice University), Darlene Freeman (SES Global Sourcing), George Abbey (Rice University); bottom row: Nancy Gallagher (University of Maryland), John Steinbruner (University of Maryland), Richard Garwin (Council on Foreign Relations), Patricia McFate (Science Applications International Corporation)