

Support for Russian Science

Christopher Anderson's article "Russian science aid falls short" (News & Comment, 10 Sept., p. 1380) is critical of Western aid packages designed to support Russian scientists, but does not mention a highly successful Department of Energy (DOE) program that has overcome the barriers associated with "Western bureaucracy, FSU [former Soviet Union] politics, or the general chaos in the former communist lands."

The Office of Environmental Restoration and Waste Management (EM) established a cooperative program with Russia in 1990 to exchange knowledge, technologies, and information relating to environmental restoration and waste management activities. This program is conducted under the auspices of a Memorandum of Cooperation between DOE and the Ministry of Atomic Energy of the Russian Federation. Since the program's inception, EM has established 10 contracts totaling \$300,000 with six Russian institutes. The contracts leverage U.S. resources by a factor of 50 to 1 and address critical needs in the areas of chemical separations, contaminant transport, and vitrification. An additional \$300,000 has been spent subsidizing Russian scientists at U.S. national laboratories, universities, and international conferences.

This is not an assistance program. The DOE program effectively employs technical projects to identify and use key Russian technologies and scientists in support of DOE's cleanup mission. While assistance money is essential for the short-term survival of Russian scientists, it cannot sustain a market economy. The technical projects that make up this DOE program serve U.S. science and technology needs while providing Russian scientists with an opportunity for independent and sustained growth in the competitive world environmental market.

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Science readers may be interested in another effort to break through the Russian and Western bureaucratic and political thickets—an Entrepreneurial Training Workshop held in Moscow this past June for a group of scientists and managers from the Russian nuclear weapon design laboratories in the closed cities of Arzamas-16 and Chelyabinsk-70. Their livelihood is threatened by funding shortages and poor economic conditions, posing a considerable danger of nuclear proliferation and possibly compromising nuclear weapons safety in the former Soviet Union.

Sponsored by the U.S. Arms Control and Disarmament Agency (ACDA) and the U.S.

Department of Energy in conjunction with the laboratories' parent agency, the Russian Ministry of Atomic Energy (MINATOM), this workshop brought together a group of Boston University and Harvard professors, venture capital investors, legal experts, scientists from the American nuclear weapon laboratories (who are themselves interested in a similar process of conversion from defense work), and nearly two dozen scientists and mid-level executives from the Arzamas and Chelyabinsk laboratories. The workshop trained the Russian participants in the basics of market research, research and development capability assessment, product development, business plans, business organization, evaluation and protection of intellectual property rights, and funding plans. The participants developed several business plans (case studies) for possible defense conversion projects. If successfully implemented, they could be the basis for new business enterprises that could contribute to commercial economic development and job creation. Additional workshops have been requested by MINATOM.

These workshops are part of ACDA's contribution to U.S. efforts to promote conversion to civilian activity of the defense industry of the former Soviet Union. ACDA is exploring the possibility of further workshops in the former Soviet Union, along with other measures to help redirect nuclear weapon scientists and other defense industry personnel to economically viable civilian activities.

Thomas Graham Jr.

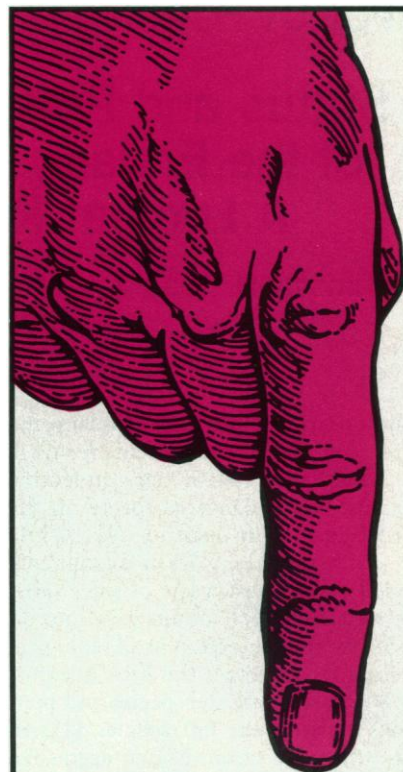
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Anderson's report on aid—or the lack of it—to Russian science deals principally with programs of governments and the Soros Foundation, but also mentions "the heroic—but tiny—initiatives of several scientific societies." I write just to say that the American Institute of Physics is among the supporters. We are sending several hundred free journal subscriptions to individual scientists in the former Soviet Union (and a few dozen to scientists in the former Eastern Bloc). We have also provided society memberships and computer equipment and copiers to editors of our partnership journals in Russia. The face value of our assistance to date is more than \$500,000.

Money that we send as a result of business arrangements is even greater. We are now paying more than \$1 million annually in royalties on journals that we translate from Russian and publish in English. Much of this money makes its way back to individual researchers.

Kenneth W. Ford

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