US & Russian Academies Forge Ties for Nuclear Security

by Christopher A. Eldridge

In response to the growing threats of nuclear terrorism and proliferation, the US National Academies (NA) and the Russian Academy of Sciences (RAS) initiated a series of joint projects in early 2002 that bring their concerted expertise to bear on the challenges of cooperation between their two countries on nuclear non-proliferation. The IAEA has lent its talent and support to this inter-academy collaboration by hosting workshops that were jointly organized by the NA and RAS with financial support from the US-based Nuclear Threat Initiative.

The two workshops, held at IAEA headquarters in September 2003, shed valuable light on both the obstacles and opportunities being faced. The first workshop explored ways of overcoming impediments to cooperation between the US and Russia on nuclear non-proliferation. Participants included current and former US and Russian government officials with responsibility for cooperative programs as well as experts from non-governmental organizations in the two countries. The second workshop convened a multinational group of experts on nuclear materials protection, control, and accounting (MPC&A) to discuss practices and procedures in light of the evolving threats of nuclear proliferation and terrorism.

Overcoming Impediments

Participants in the first workshop explored ways of strengthening the cooperative programs of the US and Russia that are central to the non-proliferation and counter-terrorism goals of the international community. The goals of these programs, which began soon after the fall of the Soviet Union in 1991, are to secure, consolidate, and eliminate nuclear weapons and materials that are the legacy of the Soviet Union's enormous nuclear complex. As the IAEA's Tariq Rauf pointed out in his opening remarks, US and Russia have been exemplary in their cooperation with the IAEA in support of its non-proliferation programs, but the two countries have a number challenges to work through in their own cooperation. In light of the fact that these two nations retain what are by far the world's largest nuclear arsenals, Rauf also argued that achieving significant progress toward nuclear disarmament is necessary if non-proliferation efforts are ultimately to be successful.

The first major theme to emerge from discussion was that the many successes of cooperative nuclear non-proliferation should be recognized as such and held up as positive examples. These include the Highly-Enriched Uranium (HEU) Purchase Agreement, dismantlement of decommissioned Russian nuclear submarines that carried nuclear weapons, and the International Science and Technology Center. Programs such as these epitomize the great potential of international cooperation for building peace and stability.

Despite these successes, however, a number of impediments to cooperation on nuclear non-proliferation between the US and Russia remain. Political hurdles are among the most intractable of these. They include the linking of continued funding for cooperative programs to broader political agendas in the US, refusal of access for US government officials to Russian facilities where US-funded work is underway, and the difficulties faced by Russian non-proliferation experts attempting to obtain visas to enter the US for scientific discussions or even official government business.

Another impediment to cooperation is the issue of liability protection for US contractors working on projects in Russian nuclear facilities. Based on the liability provisions initially negotiated with the Russians when cooperation began, the US government contends that US contractors should have blanket liability protection against any accident. The Russian government, however, argues that this level of protection is unreasonable and exceeds international standards. Political challenges like these reflect not only the differing political systems of the two nations but also the vestiges of mistrust built up over decades of Cold War hostility. Bureaucratic and organizational issues, such as communication gaps and disagreements over areas of responsibility, also create formidable impediments.

Agreeing that there is no single solution to these problems, workshop participants discussed a wide array of tools that officials from both governments might use to address the challenges of cooperative nuclear non-proliferation. Formal and informal interactions at multiple levels of responsibility, both inside and outside of government, for example, are valuable fora for providing decisive leadership, overcoming bureaucratic hurdles, identifying problems and solutions, and building trust through personal relationships. Additional scientific and technical cooperation, especially on the development of proliferation-resistant nuclear energy technologies, would also increase the opportunities for overcoming impediments to cooperation.

Because some of the existing regulatory and legal structures in both countries occasionally create barriers to cooperation, and because needed regulations have not been enacted in other cases, participants also encouraged both governments to update relevant laws and regulations to facilitate cooperation. Finally, some emphasized the need to create mechanisms for disseminating the benefits of experience through training programs so that lessons that are learned in one program do not have to be learned again in another.

Sharing Best Practices

Because they are responsible for the protection, management, and accounting of the materials and components used in a State's nuclear energy or weapons program, the scientists, engineers, and technicians who oversee and operate MPC&A programs around the world are on the front lines of the struggle against nuclear proliferation and terrorism. The workshop on MPC&A therefore convened to broaden the body of professional knowledge upon which these experts can draw in carrying out their duties by exposing them to different approaches and ideas. Participants learned about current MPC&A practice in several countries and explored the role of MPC&A in supporting the international nuclear non-proliferation regime that is based on the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

This workshop benefited from an especially high level of participation by representatives of the IAEA and its Member States. Presentations highlighted not only the differing perspectives of the represented nations but also their common goals of minimizing the risks of nuclear proliferation and nuclear terrorism. IAEA Deputy Director General for Nuclear Safety and Security, Mr. Tomihiro Taniguchi, outlined the IAEA's plan of action for addressing the threats of nuclear terrorism. Mr. Pierre Goldschmidt, Deputy Director General for Safeguards, discussed the challenges facing the international nuclear non-proliferation regime.

The workshop agenda featured three main components: overarching issues, national MPC&A systems, and international safeguards against nuclear proliferation. Presentations on overarching issues covered a variety of challenges and perspectives, but the need for collective action against the threats of nuclear terrorism and proliferation was a strong theme throughout. During the sessions on national MPC&A systems, participants gave presentations on practices in several specific countries as well as on broader challenges that all such national systems face. It was evident that each nation was striving to create an effective MPC&A system within its own political, economic, and cultural context. Discussions of challenges that all national systems face explored not only the technical but also the human and organizational factors involved in managing nuclear facilities underscoring the need to develop a more complex understanding of the role such non-technical processes play.

The session on international safeguards depicted the global landscape of nuclear non-proliferation efforts and the IAEA's role in them. Papers on technical advances described trends in IAEA inspection and verification technology as well as in MPC&A systems. Presentations on political challenges in Russia, the USA and Japan summarized the non-proliferation programs and treaties supported by each government, offering three different perspectives on the problems and priorities of the international non-proliferation regime.

Working Toward Common Goals

Several important themes emerged during the workshops. First, they underscored the high value of international dialogue among experts who are working toward common goals. Discussions enabled participants to identify problems, consider possible solutions, and strengthen their collaborative efforts by sharing their knowledge. Second, participants benefited from learning about each other's differences. Certainly this was an important factor during discussions of the US-Russian cooperative relationship, but it was also extremely valuable in the MPC&A workshop. During those discussions, it became clear that the US and Russia can learn as much from other nations that are taking a fresh look at the challenges of MPC&A as those nations can benefit from the long and vast nuclear experience of the two former rivals. Third, discussions highlighted the increasingly international nature of nuclear non-proliferation challenges, and put new emphasis on the need to address global problems through global solutions. Finally, the workshops demonstrated that scientific and technical decisions with implications for domestic and international policy are best understood not only as rational choices among scientific options, but also within the political, economic, and cultural contexts in which they are taken.

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