



Taking the Long View in a Time of Great Uncertainty

International Collaborations Amid a 21st Century Test for Diplomacy

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At the Institute's 55th Annual Meeting in Atlanta in July 2014, we had an extraordinary second plenary session on Tuesday that included a presentation by Tero Varjoranta, International Atomic Energy Agency (IAEA) Deputy Director General and Head of the Department of Safeguards (Figure 1). Only two days after the IAEA had provided confirmation to the P5+1 (or E3+3, as it is called in some venues)¹ that Iran had implemented all of the voluntary measures it had agreed to under the Joint Plan of Action,² Tero spoke about the need to further optimize the productivity of the Agency as it faces an ever-increasing international workload, and new challenges with the advancement of technologies and increasingly complex diplomatic efforts to resolve issues in a world where more nuclear facilities and material is coming under IAEA safeguards. The interrelationship of diplomatic efforts to resolve the Iranian situation and the technical capabilities of the IAEA to provide verifiable information to support those efforts is an amazing success story of diplomacy in the 21st Century. Following



Figure 1



Figure 2

his plenary presentation, a special panel discussion titled "*How the Evolving Domestic, Regional and IAEA Safeguards Requirements and Practices are Influencing Safeguards Implementation and Culture*" was emceed by INMM International Safeguards Division (ISD) Chair, Mike Whitaker³ (Figure 2). The presentation and discussions were enlightening, and revealing, as the enormity of the work that the IAEA⁴ has been success-

fully doing internationally was described in the context of limited resources and funding available for the growth in their mission (one comparison made was to the equivalent budget of the Boston Police Department). The invited guests also described the diversity of technical challenges that are encountered as well as some of the international political environments in which they have to operate.

INMM's Long-Standing Relationship with the IAEA

INMM has had a close relationship with the IAEA over the decades, with many interchanges going on between the organizations in terms of people, processes, technologies and policies. Most recently, several INMM members, including members of the Executive Committee, attended the 2014 Symposium on Safeguards, organized in cooperation with the INMM and the European Safeguards Research and Development Association (ESARDA).⁵ With a theme of "Linking Strategy, Implementation and People," this Symposium provided an opportunity for the Institute to strengthen our international collaborations, with incoming President Larry Satkowiak sharing the podium with an array of internationally renowned experts in nuclear policy and technology. Mike Whitaker, Susan Pepper, and Kim Gilligan, who also attended the Symposium, worked with the Symposium organizers and the rapporteur, Karen Owen-Whitred, to summarize the themes

This column is intended to serve as a forum to present and discuss current strategic issues impacting the Institute of Nuclear Materials Management in the furtherance of its mission. The views expressed by the author are not necessarily endorsed by the Institute, but are intended to stimulate and encourage JNMM readers to actively participate in strategic discussions. Please provide your thoughts and ideas to the Institute's leadership on these and other issues of importance. With your feedback we hope to create an environment of open dialogue, addressing the critical uncertainties that lie ahead for the world, and identify the possible paths to the future based on those uncertainties that can be influenced by the Institute. Jack Jekowski can be contacted at jjekowski@aol.com.



that emerged from the Symposium's sessions. Owen-Whitred presented a summary during the Symposium's closing plenary and a digest of her remarks is presented below. While these technical and policy exchanges on nuclear verification were underway in Vienna, there were also extraordinary diplomatic discussions occurring in many global venues among the P5+1 to work toward a solution to the Iranian nuclear issue.

Linking Strategy, Implementation and People

The IAEA's Symposium on Safeguards was held October 20-24, 2014, at the Vienna International Centre in Vienna, Austria. The Symposium was organized around five concurrent sessions, covering more than 300 papers and presentations. These sessions were complemented by exhibits put on by vendors, universities, ESARDA, INMM, and member state support programs (MSSPs). There were also e-posters, where the authors invited the audience to visit a video display for a more personalized presentation, and technology demonstrations. Representatives of fifty-nine member states participated in the Symposium.

Owen-Whitred, director of the International Safeguards Division with the Canadian Nuclear Safety Commission, worked with a team of IAEA and member state representatives to pull together highlights of the Symposium, and, in her remarks, she provided her thoughts on some of the themes that she saw emerge over the course of the week.

The three official themes of the Symposium were strategy, implementation, and people. In her remarks, Owen-Whitred focused on the *intersections* among them.

She used the concept of linkages as a useful *lens* through which to highlight some specific *content* of the Symposium.

She framed the first connection, strategy and implementation, as the intersection between *ideas* and *action*. A session focused on the Safeguards Implementation Practice Guides, or SIP Guides, which have been developed through collaboration between the IAEA and professionals from several member states. The guides help states understand the legal text and requirements of safeguards, to help them move from concepts to good practices, and they include powerful examples to add clarity. The success of this project demonstrates the natural and *vital* connection between strategy and implementation.

The second linkage between implementation and people can be thought of in terms of "on the ground" activities and was addressed in many of the more technical sessions. It represents the practical, concrete techniques and tools being put in the hands of the people to perform work. The related sessions ranged from communication technology to measurement techniques to analytical methodology and stimulated very lively discussions, demonstrating both the knowledge level of the Symposium participants and their engagement with "practical safeguards." These sessions also highlighted the collaborative nature of much of the ongoing technical work. In addition to the more highly technical work, the link between *implementation* and *people* is also about getting *practical* experience. Finally, it was clear that the advanced technologies that are being developed still often require a skilled human to interpret the data.

The final linkage between *people* and *strategy* is about mobilizing people

in pursuit of an organization's strategic goals. A key message coming out of the session on Performance Management was the importance of clearly and transparently reporting results. This applies to all safeguards stakeholders in their respective organizations; operators, regulators, and the Agency all need to be confident that the safeguards community is fulfilling its goals. We are all striving to do a good job, but we can't forget the importance of *demonstrating* that we're doing a good job.

Owen-Whitred then spoke about the overarching themes that emerged during the Symposium. The need to develop the next generation of safeguards experts emerged during the opening plenary and was repeated often. The twin realities of a large group of experienced staff nearing retirement and the need for highly skilled and motivated newer staff highlight the importance of knowledge retention, knowledge transfer, and training. All of us in our respective organizations must put in the sincere effort to find them, train them, and strive to *motivate* and *inspire* them so that they will have both the *abilities* and the *desire* to contribute to the field of safeguards.

Some presentations and posters touched on innovation in technology and methodology. Speakers noted the importance of being able to use emerging technologies from non-safeguards disciplines and the value of MSSPs in advancing R&D. There were a number of projects or technologies presented that are still in the early, or even conceptual, stages of development; others pointed to challenges that require more work, such as spent fuel verification, UF₆ cylinder tracking, and the digitization of site maps and State declarations in general.

There were three separate sessions



dedicated to IAEA-state cooperation, and the concepts of partnership, joint endeavors, and collaboration ran through many of the technical and policy sessions. The importance of close cooperation within the safeguards community was discussed in sessions as diverse as advanced communication technology, instrumentation data analysis, and evolving safeguards implementation. This theme goes hand in hand with one of open and clear communication—this links to the importance of clearly defining the roles and responsibilities of all parties involved in implementing safeguards, and the value of proactive communication in managing day-to-day safeguards issues. There were many examples of safeguards cooperation around the world.

In closing, Owen-Whitred told the audience there is an opportunity for further discussion on the role of the operator, a stakeholder who is usually underrepresented at safeguards meetings. In the lead up to the next Symposium, we should all consider how we can seek to more meaningfully engage operators in safeguards discussions. She closed her remarks with an acknowledgment that the collaboration and communication facilitated by the Symposium was not meant to end. The links that were made during the Symposium should be kept alive.

The 21st Century Test for Diplomacy and the Critical Role for the IAEA and INMM

Without the “technical backup” provided by organizations like the IAEA, INMM, WINS, and others, the diplomatic efforts we are witnessing in real time to address the Iranian nuclear issue would be much more difficult, if not impossible. Verification of agreements using the technical

knowledge, expertise, and equipment that is the basis of the nuclear materials management discipline is a critical element to the successful accomplishment of negotiated settlements in this complex environment. In previous columns¹, I have spoken of the “sea change” that has occurred in the U.S. National Security Strategy (NSS) during the Obama Administration, elevating diplomatic efforts to the same level of importance as military response. So important has this aspect of the reshaping of the U.S. NSS been in the context of the current situation with Iran and the role of the IAEA and partner institutions such as the INMM, that, whether planned or not, Iran has become the litmus test for this policy. The entire world is watching. It is up to all of us to do what we can in our spheres of expertise to provide the “backup” that is needed for the diplomats to accomplish their mission. It is through the international dialogues and collaborations that we have witnessed this past year, including the IAEA Safeguards Symposium and the INMM Annual Meeting, that we might hope to see a turnaround toward a safer and saner world.

Endnotes

1. The P5+1 is a moniker given in 2006 to the five permanent members of the U.N. Security Council, the United States, Russia, the United Kingdom, France, and China, who are also recognized as the Nuclear Weapons States (NWS) under the Nuclear Nonproliferation Treaty (NPT), and Germany, as they joined efforts to work toward a diplomatic solution with Iran to resolve concerns over the intentions of its nuclear program. The United Kingdom, France, and Germany had previously been known as the

EU3 or, simply, E3, leading to the alternate moniker for the P5+1 of E3+3.

2. The Joint Plan of Action was an agreement signed by the P5+1 and Iran on November 24, 2013, and then extended on July 20, 2014, and once again extended on November 24, 2014. For an extensive timeline of actions planned and accomplished, see <http://www.armscontrol.org/Implementation-of-the-Joint-Plan-of-Action-At-A-Glance>
3. Participants included Piotr Szymanski, director of Nuclear Safeguards, European Commission; Sonia Fernandez-Moreno, Brazil-Argentina Agency for Accounting and Control of Nuclear Materials (ABACC); Steve Adams, deputy director of the U.S. Department of State's Office of Multilateral Nuclear and Security Affairs; Olli Heinonen, former IAEA inspector and now senior fellow at the Harvard Belfer Center; Larua Rockwood, senior research fellow, Harvard Belfer Center. Also see <http://www.inmm.org/Opening-Plenary-Speaker.htm>
4. See <http://www.iaea.org/>
5. See <http://www.iaea.org/safeguards/symposium/2014/home/index.html> for more information about the conference held October 20-24, 2014, and <https://esarda.jrc.ec.europa.eu/> for more information on ESARDA.
6. Jekowski, J. 2013. “Taking the Long View in a Time of Great Uncertainty: As the World Turns... Toward a More Dangerous Place.” *Journal of Nuclear Materials Management*, Volume 40, No. 4, 111-113.