

An Arms Control Association and Partnership for Global Security Report



The Nuclear Security Summit: Assessment of Joint Statements

March 2014

Michelle Cann, Kelsey Davenport and Sarah Williams

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TABLE OF CONTENTS

1	Executive Summary
3	Introduction
5	Assessment of Joint Statements
	<ul style="list-style-type: none">• National Legislation Implementation Kit• Nuclear Information Security• Security of Radioactive Sources• Transport Security• Quadrilateral Cooperation on High-Density LEU Fuel Production• Activity and Cooperation to Counter Nuclear Smuggling• Nuclear Security Training and Support Centers• Minimization of HEU and the Reliable Supply of Medical Radioisotopes• 2012 Nuclear Security Summit Deliverable: Global Partnership Against the Spread of Weapons and Materials of Mass Destruction• Trilateral Cooperation at the Former Semipalatinsk Test Site• Nuclear Security Summit Outreach Efforts• Contributions of the Global Initiative to Combat Nuclear Terrorism to Enhancing Nuclear Security• Nuclear Terrorism
11	Updates Since July 2013 NSS Progress Report
25	Conclusion
27	Notes

“Nuclear security is a matter of global concern, and global action is required. Efforts by just a handful of major players will not be sufficient to keep the world safe. We cannot afford to have weak links in our chain of defense. All countries must play their part.”

*—Yukiya Amano, Director-General of the International Atomic Energy Agency,
June 28, 2013*

LIST OF ACRONYMS

ASEAN: Association of Southeast Asian Nations

CBRN: Chemical, biological, radiological, nuclear

CoE: Center of Excellence

CPPNM: Convention on the Physical Protection of Nuclear Material

GICNT: Global Initiative to Combat Nuclear Terrorism

Global Partnership: Global Partnership against the Spread of Weapons and Materials of Mass Destruction

HEU: Highly-enriched uranium

IAEA: International Atomic Energy Agency

IAG: Implementation and Assessment Group of the Global Initiative to Combat Nuclear Terrorism

ICSANT: International Convention for the Suppression of Acts of Nuclear Terrorism

INSA: International Nuclear Nonproliferation and Security Academy

IPPAS: International Physical Protection Advisory Service

KAERI: Korea Atomic Energy Research Institute

LEU: Low-enriched uranium

Mo-99: Molybdenum-99

NNSA: National Nuclear Security Administration

NSF: Nuclear Security Fund

NSOI: Nuclear Smuggling Outreach Initiative

NSSC: Nuclear Security Support Center

REMEX: Radiological Emergency Management Exercise

RTC: Radioactive Training Course

UN: United Nations

WINS: World Institute for Nuclear Security

WMD: Weapon of mass destruction

Executive Summary

The Nuclear Security Summit (NSS) process began with U.S. President Barack Obama's call for improved international collaboration on nuclear security in Prague in 2009. Since then, high-level summits have been held in Washington in 2010 and Seoul, Republic of Korea in 2012. Leaders from the 53 participant countries and four international organizations are meeting a third time in The Hague in March 2014.

At the 2010 NSS, countries presented a consensus communiqué and work plan, and in Seoul a second communiqué was released. Countries have also offered individual achievements and committed to efforts to improve nuclear security in their own countries and in concert with other participants through multilateral joint statements.

This report, the fourth in a series published by the Arms Control Association and the Partnership for Global Security, details the progress made on the 13 joint statements presented at the 2012 NSS. The joint statements are ad-hoc agreements by self-selected

groups of participant countries to make improvements in priority areas. Like the communiqués, these are voluntary political commitments. Forty-two of the 53 participant countries signed at least one of the joint statements, which cover a range of issues from collaboration on technical processes to improving national legislation and implementing best practices. These multilateral efforts reinforce broader summit goals of increased regional and international cooperation on key nuclear security issues, but many fall short of providing the kind of structure and accountability required to make durable improvements.



Attila Kisbenedek/AFP/Getty Images

The 2014 Nuclear Security Summit in The Hague is the third since U.S. President Barack Obama announced an initiative to secure nuclear material worldwide in April 2009 in Prague. A fourth summit will be hosted by the United States in 2016.

Notable Achievements of the 2012 Joint Statements

- A **NATIONAL LEGISLATION IMPLEMENTATION KIT** has been drafted in partnership with the nongovernmental organization VERTIC to facilitate the adoption of the international conventions and treaties related to nuclear security.
- The **NUCLEAR INFORMATION SECURITY** statement has been left open for additional signature to encourage broader participation and signatories took a survey of actions to document progress.
- Since 2010, 10 countries have set up or expanded national registries and databases to account for and track radioactive sources as recommended by the **SECURITY OF RADIOACTIVE SOURCES** statement.
- A meeting and exercise was held in support of the **TRANSPORT SECURITY** statement, the results of which are being fed into recommendations at the 2014 summit and a best practice guide.
- Low-enriched uranium (LEU) fuel powder has been developed for fuel fabrications and testing under the **QUADRILATERAL COOPERATION ON HIGH-DENSITY LEU FUEL PRODUCTION** statement to aid in the conversion of research reactors from highly-enriched uranium fuel.
- Steps have been taken to build national capacity, increase information sharing, and strengthen national legislation as described in the **ACTIVITY AND COOPERATION TO COUNTER NUCLEAR SMUGGLING** statement.
- The IAEA is coordinating a network of

NUCLEAR SECURITY TRAINING AND SUPPORT CENTERS that are in various stages of development.

- Efforts supporting the **MINIMIZATION OF HEU AND THE RELIABLE SUPPLY OF MEDICAL RADIOISOTOPES** continue, with the goal of converting all medical isotope production facilities in Europe by 2015.
- Five projects supporting summit goals are being implemented by the new nuclear and radiological material security sub-working group of the **GLOBAL PARTNERSHIP AGAINST THE SPREAD OF WEAPONS AND MATERIALS OF MASS DESTRUCTION**.
- The completion of more than a decade of work to secure weapons-usable material at a Soviet-era nuclear test site was highlighted in the statement on **TRILATERAL COOPERATION AT THE FORMER SEMIPALATINSK TEST SITE**.
- Targeted engagement with non-summit countries in Africa, Eastern Europe, South America, and Southeast Asia was conducted on nuclear security principles under the **NUCLEAR SECURITY SUMMIT OUTREACH EFFORTS** statement.
- Since the 2012 summit, the **GLOBAL INITIATIVE TO COMBAT NUCLEAR TERRORISM** has held four exercises, four workshops and seminars, an implementation and assessment meeting, and a plenary meeting.
- Several workshops have addressed the principles of the **NUCLEAR TERRORISM** statement.

Implementation of these joint statements is making a positive contribution to global security. While additional efforts are required to complete the objectives and principles that underpin these statements, the model has proven a useful vehicle for likeminded states to collaborate on specific projects and it should be carried forward into the 2014 and 2016 summits. To maximize their effectiveness, future joint statements should have at least one clear deliverable, incorporate time for follow-up by participants and reporting to the international community, and address gaps and weak links in the current global nuclear security system.

The joint statement model could be adapted to develop creative policy solutions that address weak links in the regime. Targeted multilateral efforts are critical for incremental progress; however, countries

also must cooperate on broad, international efforts to address the significant challenges that remain in global nuclear security. Countries must begin to put two-year projects like those described in these joint statements into the context of a long-term effort to improve the nuclear security system.

If the final NSS is held in 2016, new commitments to address weak links can play an important role in ensuring the political momentum for improving nuclear security is maintained beyond the summit process. Joint statements at the 2014 and 2016 summits are one way to identify groups of core countries willing to spearhead efforts in priority areas. The global nature of the threat posed by nuclear terrorism demands broad international action of which multilateral joint statements can, and should, be a key part.

Introduction

At the 2012 Seoul Nuclear Security Summit (NSS) in the Republic of Korea, countries voluntarily committed to work together to advance common nuclear security goals through multilateral actions. These actions are laid out in 13 joint statements which are sometimes referred to as “gift baskets” by NSS participants. The joint statement commitments target priority areas of nuclear security including collaboration on technical processes, such as developing low-enriched uranium fuel for research reactors, and cooperation on improvements to national legislation in areas like nuclear information security and transport security.

Ahead of the 2014 summit, it is important to assess the contributions that these joint statements have made to strengthen nuclear security and the benefits of multilateral cooperation in priority areas. This assessment of progress will help policymakers consider the utility of additional joint statements and other multilateral models as countries begin developing a work plan and objectives for the 2016 NSS.

While prior versions of this report evaluated each individual participating state’s progress implementing commitments since the summit process began in 2010, this edition focuses more narrowly on collaborative efforts under the 13 joint statements. Similar to the national commitments, there was no single format for issuing joint statements and no standardized mechanism for reporting on progress. However, at the 2014 summit in The Hague, countries likely will provide updates on their efforts and potentially announce new initiatives that build on and expand the scope of the 2012 joint statements.

The ad hoc nature of the joint statements allowed states flexibility to craft work plans specifically tailored to particular challenges in nuclear security, but the lack of structure also made some joint statements fall victim to the same pitfalls as the summit consensus communiqués; namely, caveats allowed for states to avoid specific commitments or did not clearly outline actions that each signatory was

obligated to take.

To assess the progress made on these statements since 2012, this report draws primarily on open source material. When possible, the information was confirmed or clarified through outreach to the Washington, D.C., embassies of participating summit countries. On occasion, embassy officials facilitated contact to other relevant government officials who provided further information on the implementation of particular joint statements. For the purposes of confidentiality, these communications are not directly referenced or quoted in the report. There also is no significance attached to the order in which the joint statements are presented.

Similar to the past reports in this series, this edition does not attempt to assess the extent to which states have undertaken all of the recommended actions from the summit communiqués. However, when read together with the 2013 iteration of this report, we believe this series will paint a more complete picture of the progress made to strengthen nuclear security throughout the summit process. To further that goal, a centerfold in this report provides an update of actions that individual countries have taken since the prior version of this report was released in July 2013. This list is not meant to be exhaustive, but merely highlights recent action in key areas, such as HEU removals and treaty ratifications.

Looking toward 2016, states choosing to



Joint statements were a new feature at the 2012 Seoul Nuclear Security Summit. In the 13 joint statements, participating countries voluntarily committed to advance nuclear security goals.

sponsor joint statements should ensure that a clear deliverable or outcome is identified; follow-up among participants and reporting to the international community is included; and gaps in the nuclear governance system are targeted. Joint statements from the 2012 summit that included specific action items made greater progress than those that contained only vague commitments or did not provide milestones or reporting expectations. Committing to a deliverable, such as the production of a best practice guide, holding a meeting, or requiring each participating country to report on progress in a particular area, will help ensure accountability and provide the political impetus to complete the outlined tasks before the next summit.

If 2016 is the final summit, new commitments to address weak links in the global nuclear governance

system can play an important role in ensuring the political momentum for improving nuclear security is maintained after the summits end. Joint statements at the 2014 and 2016 summits are one way to identify groups of core countries willing to spearhead efforts in priority areas. These groups also can serve as a mechanism for disseminating information to less-involved countries. However, while this model generates action by countries within the areas to which they attach particular importance, this voluntary, self-selecting method risks allowing less-motivated countries to fall through the cracks. Given the global nature of the threat posed by nuclear terrorism, more thought must be given to regime cohesion ahead of the 2016 summit. If properly harnessed, joint statements can serve as a mechanism to facilitate this goal.

Assessment of Joint Statements

NATIONAL LEGISLATION IMPLEMENTATION KIT

The joint statement on the National Legislation Implementation Kit highlights the signers' support for the Indonesian government's efforts to develop a mechanism to facilitate the adoption of existing nuclear security conventions and treaties.

SIGNATORIES

Australia, Canada, Finland, Hungary, Japan, Kazakhstan, Malaysia, Netherlands, New Zealand, Norway, Philippines, Poland, Republic of Korea, Spain, Turkey, United Kingdom, United States, Vietnam (18)

The National Legislation Implementation Kit is an Indonesian-led initiative to consolidate existing guidance on nuclear security legislation and simplify the process to improve domestic nuclear security regulations. The Indonesian government, in concert with the nonprofit organization VERTIC, drafted a first version of the legislation kit in 2013. VERTIC's mission is to support the development, implementation, and effectiveness of international agreements, with a focus on legislation.

The draft kit was submitted to signing countries and relevant international organizations for comment in August 2013. VERTIC also identified 18 countries that are likely to find the greatest value in the kit and

be open to its implementation. In November 2013, signatory countries met to discuss the comments on the kit and share updates and representatives from the IAEA gave comments to the drafters. The comment period on the kit closed at the end of 2013, and VERTIC plans to update and revise the draft kit prior to the 2014 NSS.

The kit, in its final form, will serve as a guide for countries that want to implement IAEA recommendations on domestic legislation and other guidance to strengthen nuclear security within their borders. Since 2010, NSS participants have acknowledged the need to enhance domestic legal frameworks to support broad global nuclear security goals. Given that the responsibility for nuclear security rests on the individual state, coordinating the proper level and kind of assistance for making these improvements has been ad-hoc to date. The kit is intended to simplify and streamline this process by presenting information on all international treaties, agreements, ad-hoc instruments, and technical guidance together in a single package. This reasoning and the need for the kit were outlined in a non-paper that accompanied the joint statement in 2012.

NUCLEAR INFORMATION SECURITY

The joint statement on Nuclear Information Security prioritizes the development of international guidance and best practices on information security in the nuclear arena and encourages countries to cooperate on instituting and refining improved information security.

SIGNATORIES

Algeria, Australia, Canada, Chile, Czech Republic, Finland, France, Georgia, Germany, Hungary, Indonesia, Italy, Japan, Kazakhstan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Philippines, Poland, Republic of Korea, Spain, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, United Kingdom, United States, Vietnam (31)

The priorities of the joint statement on Nuclear Information Security are the development and dissemination of international guidance and best practices. The United Kingdom, in its role as leader of the joint statement, undertook a survey asking signing countries to report on the actions they have taken in support of the statement. The statement has remained open for additional signatures since it was introduced, giving summit participants the opportunity to commit to additional work in this area.

In 2013, Israel joined the statement, and at the January 2014 Sherpa meeting in Bangkok, Belgium and Romania announced their intentions to sign the joint statement. This brings the total number of states involved to 34. At that meeting, signing states also defined how they will report on their activities under the statement at the 2014 NSS in The Hague.

The U.K. government also has taken additional steps to demonstrate its leadership in this area. It presented work on a Nuclear Information Security Code of Conduct at a October 2013 Global Partnership Working Group meeting on responsible science, hosted an NSS dialogue event on information security in cooperation with the Royal United Services Institute at Kings College London in November 2013, and plans to deliver a Learning Library Module on Information Security to the GICNT in the spring of 2014.

The 2012 consensus communiqué acknowledged the responsibility that states have to prevent non-state actors from obtaining sensitive nuclear information. The joint statement on Nuclear Information Security laid out four areas where the signers would do further work: strengthening national measures, enhancing related national security culture, engaging with stakeholders to raise awareness and develop best practices, and engaging key international organizations. The joint statement signers also specified 13 possible actions that governments might take to support the statement's goals, including conducting a national assurance exercise, implementing the IAEA's guidance on Computer Security at Nuclear Facilities, exchanging best practices with industry, and taking advantage of increased training opportunities provided by the growing network of Nuclear Security Support Centers to further security culture.

SECURITY OF RADIOACTIVE SOURCES

The joint statement on the Security of Radioactive Sources highlights the unique dangers associated with radioactive sources, lays out actions that the signing states will take, and encourages all states to improve the security of radioactive sources to minimize the risk of terrorists gaining access to such material for use in an attack.

SIGNATORIES

Australia, Canada, Czech Republic, Denmark, Finland, Germany, Hungary, Indonesia, Italy, Japan, Kazakhstan, Malaysia, Morocco, New Zealand, Norway, Philippines, Poland, Republic of Korea, Singapore, Spain, Sweden, Switzerland, Thailand, United Arab Emirates (UAE) (24)

The German-led joint statement addresses the need for countries to secure high-activity radioactive sources commonly used in medical and industrial applications. It encourages universalization of the International Convention on the Suppression of Acts of Nuclear Terrorism (ICSANT), the establishment of national registers of high-activity radioactive sources, and the international cooperation to repatriate orphan sources and recover lost ones. Further, it calls for greater institutionalization of existing international regulations and guidance on radioactive source security.

Throughout the summit process, 13 participant countries have ratified ICSANT, including joint statement signers Australia, Canada, Morocco, and Poland. Four NSS countries have taken action

to implement the IAEA's Code of Conduct on the Safety and Security of Radioactive Sources, including Norway and New Zealand. Since 2010, 10 countries have set up or expanded national registries or databases to account for and track radioactive sources, including joint statement signers Australia, Denmark, Germany, Hungary, and Morocco.¹

The IAEA conducts Regional Training Courses (RTC) to educate local officials on best practices. Since 2012, Ukraine, Vietnam, Jamaica, Morocco, China, and Russia have hosted RTCs on the Security of Radioactive Sources and Associated Facilities, and Germany hosted a RTC on the Security in Transport of Radioactive Material. In October 2013, the UAE hosted the IAEA's Conference on the Safety and Security of Radioactive Sources: Maintaining the Continuous Global Control of Sources throughout Their Life Cycle, which was attended by more than 900 participants from nearly 90 countries.²

In 2014, the IAEA plans to hold RTCs on radioactive source security in Russia, Japan, Pakistan, and Spain. Australia will host a technical meeting to follow up on the 2013 meeting in the UAE, and the IAEA is planning a workshop on the Code of Conduct on the Safety and Security of Radioactive Sources.³ The United States is expected to advance the radioactive source security agenda at the third NSS in The Hague in March 2014.

TRANSPORT SECURITY

The joint statement on Transport Security establishes a working group of countries focused on improving security of nuclear and radioactive materials in domestic and international transit.

SIGNATORIES

France, Japan, Republic of Korea, United Kingdom, United States (5)

The five signing states, led by Japan, committed to form a working group and hold meetings focused on enhancing the security of nuclear and radioactive materials in transport. Participants will present the results of these meetings and a proposal for strengthening transport security at the March 2014 NSS in The Hague.

The working group held its first meeting in Tokyo in June 2013. They reconvened in Tokyo in November 2013 for table-top exercises during which each country presented how it would respond to specific marine- and land-based scenarios. Security-related officials from the International Maritime Organization, International Civil Aviation Organization, and the IAEA were invited to take part in November's activities. Additionally, WINS is collaborating with the working group to develop a new transport security best practice guide.

Working group discussions have focused on encouraging effective implementation of the IAEA's recommendations on the physical protection of nuclear and radiological material, building relationships between government agencies and nuclear security CoEs on transport issues, and understanding the state of research and development of transport security equipment by industry, government agencies, and CoEs. Participants have sought to develop practical operational recommendations to ensure that special physical protections are in place during transport. To improve procedures of physical protection applied, they considered the roles and kinds of escort guards, the equipment used, communication channels in place, and method of operations in an emergency. They also considered improving the hardware of road, rail, air, and sea vehicles and accessories by looking at hull design structures, locks, structural criteria for containers, escort vessels, and monitoring options.

Information security was another area reviewed by the working group, including maintaining the confidentiality of information related to transport operations including through the use of legal penalties for leaking classified transport information.



Sandor Tozser/IAEA

Nuclear and radiological materials in transport, like this shipment of HEU being transferred from Hungary to Russia in November 2013, pose a security risk. The five countries working on the Transport Security joint statement focused on enhancing the security of these materials in transit.

QUADRILATERAL COOPERATION ON HIGH-DENSITY LEU FUEL PRODUCTION

The joint statement on Quadrilateral Cooperation on High-Density LEU Fuel Production outlines a plan for cooperatively creating high-density LEU fuel powder to aid in the conversion of research reactors from HEU to LEU fuel.

SIGNATORIES

Belgium, France, Republic of Korea (ROK), United States (4)

The joint statement describes a four-step framework for collaboratively creating high-density LEU fuel to replace the HEU fuel currently used in Europe as part of broader international efforts to minimize the civil use of HEU. As a first step, the United States provided the ROK with approximately 110 kg of LEU that was used to manufacture 100 kg of atomized uranium molybdenum (U-Mo) powder using centrifugal atomizing technology developed by the Korea Atomic Energy Research Institute (KAERI). Second, the ROK provided the new U-Mo powder to fuel fabricator AREVA-CERCA who will use this material to manufacture high-density U-Mo fuel. Third, the fuel will be qualified and France and Belgium will load it into their high-performance research reactors for

testing. Finally, experts will assess the performance of the fuel, and if successful, the four countries will share information with other countries to assist in converting their HEU reactors to use LEU fuel.

At the September 2013 IAEA General Conference, the United States and the ROK signed an agreement to further their cooperation on the new high-density LEU fuel to enable the conversion of high-performance civilian research reactors in Europe.⁴ At that time, the ROK had succeeded in developing LEU powder for the new fuel and provided 100 kg to its partners for testing. Under the new September agreement, the ROK agreed to supply any additional material needed to continue the development of high-density LEU fuel at no cost. In the ROK's national statement to the July 2013 IAEA International Conference on Nuclear Security, the country reported that KAERI's LEU fuel powder production technology could be used to help replace the HEU fuel used in high performance research reactors as early as 2016.⁵ Additional updates on this work will be reported at the 2014 Hague summit.



A delivery of LEU fuel is bound for Mexico after the Veracruz research reactor was converted from HEU fuel. There is a need to develop high-density LEU fuel alternatives to convert some reactors still using HEU fuels.

ACTIVITY AND COOPERATION TO COUNTER NUCLEAR SMUGGLING

The joint statement on Activity and Cooperation to Counter Nuclear Smuggling describes actions related to building national capacities, increasing information sharing, and strengthening national legislation that countries have taken or intend to take ahead of the 2014 NSS to prevent and respond to nuclear smuggling attempts.

SIGNATORIES

Canada, Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, Japan, Jordan, Lithuania, Malaysia, Philippines, Republic of Korea (ROK), Sweden, Turkey, United Arab Emirates (UAE), United Kingdom, United States (19)

To prevent the illegal acquisition of nuclear and other radioactive materials, the Jordanian-led joint statement recognizes the importance of identifying would-be smugglers, recovering radioactive materials outside of regulatory control, and prosecuting those involved. Leaders from the 19 signing states acknowledged past efforts to prevent the illegal trafficking of nuclear and radioactive materials by building national capacities; sharing information; and passing new laws, regulations, and guidance. The joint statement separately lists signatory states that have taken steps in these three areas during the summit process and those that plan to take additional steps in each area prior to the 2014 NSS. Details on this work will be reported at the 2014 Hague summit.

National capacity building efforts to counter nuclear smuggling identified in the joint statement include: increasing law enforcement and intelligence community investigations into smuggling networks, employing radiation detection systems, enhancing nuclear forensic capacities, and improving training for prosecutors. All 19 states indicated that they had taken these types of actions since the 2010 NSS, and 16 of those states committed to taking additional steps ahead of the 2014 NSS. These states are: Canada, Czech Republic, Finland, Georgia, Hungary, Israel, Italy, Japan, Jordan, ROK, Lithuania, Philippines,

Sweden, UAE, United Kingdom, and United States.

Lithuania's efforts offer one example of how states are implementing this commitment area. In April 2013, Lithuania signed a Joint Action Plan with the United States on combatting illicit trafficking of nuclear and radioactive materials and related technology. The agreement is designed to bolster Lithuania's national capacity to control radioactive



J. Scott Applewhite/FP/Getty Images

Secretary of State Hillary Rodham Clinton prepares to sign a US-Slovak Joint Action Plan on Combating Illicit Trafficking of Nuclear and Radioactive Materials and Related Technology on December 7, 2011, in Brussels.

Updates Since July 2013 NSS Progress

Removals and Cleanouts

- **Vietnam:** HEU cleanout completed in July 2013
- **Hungary:** HEU cleanout completed in November 2013
- **US-Russia:** Final shipment in November 2013 of HEU from Russia for the Megatons to Megawatts program under which 500 metric tons of HEU (20,000 nuclear warheads) have been converted to reactor fuel



Sandor Tozser / IAEA

Vietnam announced it completed the removal of its HEU stockpile in July 2013.

Treaty Ratifications



Dean Calma / IAEA

In September 2013, Cuba deposited its ratification of the 2005 Amendment to the CPPNM at the IAEA.

- **Cuba and Malta:** CPPNM/2005 Amendment in September 2013
- **Kuwait and France:** ICSANT in September 2013
- **Canada:** ICSANT in November 2013
- **Jamaica:** ICSANT in December 2013

Notable Events



Jerry Lampen/AFP/Getty Images

Dutch officials hold a press conference.

Recent IPPAS Missions

Completed

- Australia
- United States
- ROK

Planned for 2014

- Armenia

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nce to discuss the 2014 NSS.

- **France:** Organized the first international seminar devoted to the lessons learned from IPPAS missions in December 2013
- **Hungary:** Presided over the International Conference on Nuclear Security: Enhancing Global Efforts in July 2013 and plans to host follow-up conference in 2014
- **Canada:** Hosted the NSS sherpa meeting in Ottawa in October 2013
- **IAEA:** Held the July 2013 International Conference on Nuclear Security and approved the 2014-2017 Nuclear Security Plan in September 2013
- **Thailand:** Hosted the NSS sherpa meeting in Bangkok in January 2014
- **UAE:** Hosted the International Conference on the Safety and Security of Radioactive Sources: Maintaining the Continuous Global Control of Sources throughout Their Life Cycle in Abu Dhabi in October 2013

NSF Contributors (2013)



Dean Calma / IAEA

The IAEA held its first ministerial-level meeting on nuclear security in July 2013.

- Belgium
- Denmark
- European Commission
- France
- Japan
- Republic of Korea
- The Netherlands
- Russia
- United Kingdom
- United States

materials, prevent and respond to nuclear smuggling incidents, and strengthen its penal code. Lithuania is the 11th country to sign such an accord through the U.S. Nuclear Smuggling Outreach Initiative.⁶ The two countries are also working together to build Lithuania's capacity through its newly established nuclear security center of excellence and Search and Secure training program.⁷

New laws, regulations, guidance, or policies related to counter nuclear smuggling were passed or instituted by 16 states, and 14 of those committed to undertake further legislative policy work before the March 2014 NSS. The states committed to additional action are: Canada, Czech Republic, Finland, Hungary, Israel, Italy, Jordan, ROK, Malaysia, Philippines, Sweden, UAE, United Kingdom, and United States.

Many states have taken steps to amend their national legislation to comply with international norms and ratify international treaties, including Canada, Czech Republic, Finland, Israel, ROK, Malaysia, and Philippines.⁸ In addition, the UAE issued Federal Law No. 4 of 2012 Concerning Civil Liability for Nuclear Damage to create a legal framework for its nuclear liability regime and has strengthened its import and export control laws.

The importance of information sharing and bilateral, multilateral, and international cooperation to deter and disrupt smuggling networks was

recognized by 18 state signatories. Eighteen state signatories also affirmed the value of INTERPOL as an effective mechanism for sharing information and identifying smuggling networks. From this pool of countries, 14 committed to provide resources and lessons-learned to states ahead of the 2014 NSS for counter nuclear smuggling capacity building projects: Canada, Finland, France, Georgia, Hungary, Israel, Japan, ROK, Lithuania, Malaysia, Sweden, UAE, United Kingdom, and United States.

States are sharing information with INTERPOL as part of Operation Fail Safe, a program initiated at the 2012 NSS that combines information shared by states with INTERPOL's system of notices to provide police around the world with new capabilities for tracking and apprehending individuals involved with trafficking radioactive materials.⁹ In addition to continuing its collaborative work with the IAEA and Global Initiative to Combat Nuclear Terrorism, INTERPOL held its second Radiological and Nuclear Trafficking and Terrorism Analysis Conference in Sweden; convened officers from nine Central and South American countries to coordinate regional approaches for preventing chemical, biological, radiological, and nuclear terrorism; and conducted table-top exercises with officials from Ukraine and Belarus to test their capacities to prevent nuclear and radiological terrorism.¹⁰



On April 23, 2013, in Brussels, U.S. Secretary of State John Kerry (center right) and Lithuanian Foreign Affairs Minister Linas Linkevicius sign an agreement to strengthen cooperation to combat nuclear and radiological smuggling.

NUCLEAR SECURITY TRAINING AND SUPPORT CENTERS

The joint statement on Nuclear Security Training and Support Centers describes plans to collaborate on the development and coordination of a network of nuclear security training and support centers to improve training, national capacity, and information sharing.

SIGNATORIES

Algeria, Australia, Canada, Chile, Czech Republic, Germany, Hungary, Indonesia, Italy, Japan, Jordan, Kazakhstan, Lithuania, Malaysia, Mexico, Morocco, Netherlands, Pakistan, Philippines, Republic of Korea (ROK), Ukraine, United Arab Emirates, United Kingdom, United States (24)

The 24 signing states expressed their intent to collaborate and share information through the International Network for Nuclear Security Training and Support Centres (NSSC). The IAEA coordinates the network and convenes an annual meeting of participating states. The first annual meeting was held in 2012 in Vienna, Austria, and its most recent

meeting was held there in February 2014.

Over 40 institutions are part of the network, which has two main objectives related to NSS goals. First, it promotes the development of high-level, sustainable training programs at the national, regional, and international levels. Second, it facilitates cooperation and assistance amongst centers, including leveraging resources to meet specific needs. The network also helps the IAEA identify and prioritize needs and coordinate support to accelerate national nuclear regimes.

Since the 2012 summit, the network has made significant progress within its three working groups: Coordination and Collaboration, Best Practices, and Information Management and Other Emerging Issues.

All 24 states that signed this joint statement are pursuing an NSSC or a Nuclear Center of Excellence (CoE). The individual centers are in various stages of development. Several are already conducting courses,



Dean Calma/IAEA

The IAEA's Office of Nuclear Security, in cooperation with Malaysia's Atomic Energy Licensing Board, holds a training for Indonesian officials in October 2012 on radiation portal monitoring and nuclear security measures at borders and ports.

providing technological support, and assisting with planning for detection and response to nuclear events.

Malaysia, Morocco, and Pakistan are applying an IAEA concept paper to establish NSSCs. The paper includes human resources capacities assessments, technical support capabilities assessments, and cost assessments for services and materials. The IAEA also is able to provide further support in these areas.

Several centers in participating states also are providing regional services. In February 2014, the ROK formally launched the International Nuclear Nonproliferation and Security Academy (INSA), a CoE run by the Korean Institute of Nuclear Nonproliferation and Control. According to the INSA's objectives, the center will provide education and training courses for the international community and regional personnel as part of the Asian Regional Network for NSSCs. The courses offered include basic nuclear security, safeguards, export controls, and IAEA inspector trainings.

In its coordination role, the IAEA works to promote regional cooperation and collaboration amongst centers. For example, at a working level meeting of the NSSC network in October 2012, the IAEA initiated an informal discussion between Japan, the ROK, and China about the potential for regional NSSC cooperation. The IAEA suggested that to avoid duplication of services amongst the centers, the three NSSCs set up a regional working group. The discussion about creating the Asian Regional Network of the NSSC and CoEs continued at the February 2013 NSSC annual meeting. In July 2013, on the sidelines of the IAEA's International Conference on Nuclear Security, the Japan hosted an event entitled "Nuclear Security Centers of Excellence in Asia: Harmonization and Nexus" that featured presentations from the IAEA, Chinese, Korean, and Japanese representatives on their efforts to coordinate their CoEs.

International Network for Nuclear Security Training and Support Centers

Working Group A, Coordination and Collaboration

This group facilitates effective coordination and collaboration by identifying means to share information and improve effectiveness. It also identifies similarities and differences among the approaches favored by the centers, evaluates training programs, and identifies areas for support. Its 2013 tasks included mapping nuclear security training and support centers and providing information about their specializations and services.

Working Group B, Best Practices

This group identifies best practices in training, scientific support, and technical functions related to nuclear security. Its 2013 tasks included developing criteria for best practices in these areas using the IAEA guidance documents on nuclear security and other relevant materials. The working group is also tasked with identifying what practices should be provided to centers through the network.

Working Group C, Information Management and Other Emerging Issues

This group identifies the capabilities of nuclear security centers and the ability of each to communicate its resources and access information using the network. Its 2013 tasks included categorizing information and organizing it on the network's website.



Dean Calma / IAEA

A British driver trained to safely transport radioactive materials does a final safety and security check of the materials before transport in December 2011.

MINIMIZATION OF HEU AND THE RELIABLE SUPPLY OF MEDICAL RADIOISOTOPES

The joint statement on the Minimization of HEU and the Reliable Supply of Medical Radioisotopes describes a set of activities aimed at minimizing the use of HEU while ensuring a reliable supply of medical isotopes for patients worldwide.

SIGNATORIES

Belgium, France, Netherlands, United States (4)

The four signing states committed to minimize the civil use of HEU by supporting the conversion of medical isotope production industries in Europe to non-HEU-based processes by 2015. They also stressed the need for all facilities using HEU to have in place special protections that are at least in line with IAEA recommendations and international treaty commitments.

Progress will be reported at the 2014 Hague summit. While these efforts are underway, the United States will continue exporting sufficient stocks of HEU to support European medical isotope production, particularly Molybdenum-99 (Mo-99). In December 2013, the U.S. National Nuclear Security Administration sought to amend its export license from the Nuclear Regulatory Commission to ship 13.5 kilograms, rather than 6.2 kilograms, of HEU

to Europe in 2014 for medical isotope production.¹¹ Since President Obama's goal of securing all vulnerable nuclear materials in four years was announced in April 2009, 12 countries have cleaned out all of their HEU and new incentives have been developed to encourage production of Mo-99 without HEU.¹²

Maintaining a reliable supply of medical isotopes while conversion efforts occur is a critical element of this joint statement. The long-term goal is to completely eliminate HEU from medical isotope production and use in Belgium, France, the Netherlands, and the United States, but this transition will only occur after regulatory approvals and sustainable supplies are ensured. Therefore, the United States affirmed in the joint statement its willingness to supply Belgium, France, and the Netherlands with the necessary HEU target material for uninterrupted medical isotope production until the conversions are complete. The European isotope producers further committed to address the large amounts of scrap HEU produced from past activities by recycling or disposing of it.

2012 NUCLEAR SECURITY SUMMIT DELIVERABLE: GLOBAL PARTNERSHIP AGAINST THE SPREAD OF WEAPONS AND MATERIALS OF MASS DESTRUCTION

This joint statement from the Global Partnership against the Spread of Weapons and Materials of Mass Destruction highlights the group's work that aligns with the goals of the NSS process.

SIGNATORIES

Australia, Belgium, Canada, Czech Republic, Denmark, European Union, Finland, France, Germany, Ireland, Italy, Japan, Kazakhstan, Netherlands, New Zealand, Norway, Poland, Republic of Korea, Russia, Sweden, Switzerland, Ukraine, United Kingdom, United States (24)

The 24 member states of the Global Partnership against the Spread of Weapons and Material of Mass Destruction (Global Partnership) offered a statement in support of the summit's goal to secure nuclear and radioactive materials worldwide. Since the 2012 summit, three summit participants, Hungary, Mexico, and the Philippines, have joined the Global Partnership, bringing the total number of participating countries to 27.

After its mandate was extended in 2012, the



Luke Frazza/AFP/Getty Images

At the June 2002 Group of Eight Summit in Canada, leaders launch the Global Partnership against the Spread of Weapons and Materials of Mass Destruction. The Global Partnership has grown to 27 participating countries.



Ambassador Bonnie Jenkins, State Department Coordinator for Threat Reduction Programs, led the Global Partnership's push to establish new priorities, which include support for priority NSS goals, during the U.S. chairmanship of the Global Partnership in 2012.

Global Partnership broadened its geographic scope and its areas of focus. It now coordinates member state contributions to a variety of WMD threat reduction initiatives. Two new sub-working groups have been established in support of summit goals; one on nuclear and radiological material security and one on CoEs. The nuclear and radiological security sub-working group was approved in October 2012 and provides technical and funding assistance for projects related to nuclear and radiological security.¹³

In 2013, the United Kingdom took over the chairmanship of the Global Partnership and further prioritized the group's role on projects related to securing nuclear and radiological sources. At the first working group meeting in February 2013, two priorities were identified: combatting illicit nuclear trafficking and prioritizing the conversion of nuclear materials. Over 100 project proposals were submitted to the nuclear and radiological sub-working group for collaboration assistance in 2013. These proposals covered a wide-range of issues in support of the nuclear security summit goals both inside and outside NSS participating states, including removing HEU from research reactors, border monitoring assistance to prevent illicit trafficking, support for building nuclear security culture and legislation, site protection, and retrieval of orphan radioactive sources.¹⁴ The sub-working group served as a coordinating mechanism to connect resources with project proposals. By the October meeting, approximately 15 percent of the projects were being discussed, of which five were close to being implemented.¹⁵ The October meeting also facilitated further matchmaking discussions to connect proposals with resources.

The Global Partnership against the Spread of Weapons and Materials of Mass Destruction

A voluntary, multilateral initiative formed in 2002 by the Group of Eight (G-8) industrialized countries, the mission of the Global Partnership is to reduce the risk of weapons of mass destruction (WMD) terrorism through cooperative capacity building on specific projects that dismantle existing capabilities or strengthen counter-proliferation measures. During the first 10 years of its mandate, the Global Partnership's primary focus was on securing and dismantling WMD systems and facilities in the former Soviet Union including the dismantlement of nuclear powered submarines, the shut-down of plutonium production facilities, and the disposal of highly-enriched uranium. Its mandate was extended indefinitely in 2012.

At a June 2013 meeting, the group on CoEs agreed to create a matrix detailing funding and expertise available at each center that can be used for counter proliferation projects worldwide. The joint statement also calls attention to the \$55 million that Global Partnership member countries have donated to the IAEA's NSF and welcomes the "continuation of this crucial support." In 2013, nine Global Partnership countries, plus the European Union, made additional contributions to the NSF.

TRILATERAL COOPERATION AT THE FORMER SEMIPALATINSK TEST SITE

The joint statement on Trilateral Cooperation at the Former Semipalatinsk Test Site highlights the successful cooperation among three states to secure and neutralize the former nuclear testing site.

SIGNATORIES

Kazakhstan, Russia, United States (3)

Kazakhstan, Russia and the United States collaborated on a project to secure residual nuclear materials at Semipalatinsk, a former Soviet nuclear test site. Now part of Kazakhstan, Semipalatinsk contained unguarded nuclear material in tunnels that had been used for 340 underground nuclear tests between 1949-1990. Of particular concern was residual plutonium that was not vaporized during explosions, leaving high-quality nuclear material that could be recovered for weapons. While the origins of this project pre-dated the summit process, the high-level political attention brought to nuclear security through the summit process spurred completion of the work.

At the 2010 NSS, President Obama, Russian President Medvedev and Kazakh President Nazarbayev agreed to complete the project by the 2012 summit. At the 2012 summit, the three leaders announced that the nuclear material at the site was secured. Work at the site, however, continued until October 2012.¹⁶ Currently, the site is under constant surveillance and a response force is available in the event of a security breach. Much of the work on securing the test site was driven by direct scientist engagement and took place without formal negotiated agreements.

Joint cooperation on sealing the Semipalatinsk site began in 1993, when the United States funded a program to seal the testing tunnels and shafts at the site. It was completed in 1997. Russian officials, however, did not fully disclose the plans of the tunnels at that time, and U.S. officials were granted only limited access to the site. In 1995, Kazakh scientists disclosed to U.S. officials at Los Alamos National Laboratory that weapons-usable plutonium remained at the site, which was not secured or monitored. In 1999, the United States, Kazakhstan, and Russia signed an agreement to ascertain the scope of the risk posed by the nuclear materials remaining at Semipalatinsk. Between 2000-2012, multiple operations were carried out to seal bore holes, explosive chambers, and testing tunnels, all of which contained residual plutonium from nuclear testing. An elaborate security system also was installed, allowing the Kazakhs to continually monitor the site.¹⁷

The Semipalatinsk project highlights the need to evaluate other test sites of concern and the importance of investing in sustainable solutions that reduce the risk posed by weapons-usable nuclear material. The tri-lateral cooperation on this project could be a model for future international collaboration on threat reduction. The technical cooperation between the three countries in this case also demonstrates that this type of collaborative work can be undertaken without threatening national security or requiring countries to disclose sensitive information.

NUCLEAR SECURITY SUMMIT OUTREACH EFFORTS

The joint statement on Nuclear Security Summit Outreach Efforts describes efforts taken ahead of the 2012 NSS to engage countries outside of the summit process on nuclear security principles and responsibilities.

SIGNATORIES

Chile, Morocco, Nigeria, Poland, Republic of Korea (ROK), Thailand, United States (7)

Participation in the summit process was limited to facilitate consensus on key nuclear security recommendations. However, given the global nature posed by the threat of nuclear terrorism, U.S. Ambassador Bonnie Jenkins referred to regional outreach as one of the “unwritten goals” of the summit process.¹⁸ To support this goal, several states conducted outreach to non-summit participating states to share recommendations and key outcomes from the NSS process.

Five outreach meetings were held on three continents and at the IAEA, reaching more than 60 non-NSS participant countries. While much of this work took place prior to the 2012 summit in Seoul, outreach efforts are expected to continue beyond the 2014 NSS in The Hague in preparation for the final summit in 2016. Technical meetings, workshops, and trainings also serve as outreach to non-NSS participants.

- **POLAND** hosted the first summit outreach meeting in August 2010 as part of a conference in Warsaw. Fourteen European countries, the United States, and representatives from the IAEA participated in the conference. Four (the United States, Czech Republic, Germany, and Poland) were summit participants in 2010 and three (Hungary, Lithuania, and Romania) joined the process in 2012. The remaining participants were Austria, Belarus, Bulgaria, Croatia, Estonia, Latvia, Slovakia, and Slovenia. The meeting included an overview by the United States on the outcomes of the 2010 summit and presentations from the Polish government regarding its activities related

to the summit’s goals.¹⁹

- **NIGERIA** hosted two summit outreach events for the Economic Community of West African States, of which Nigeria is the only NSS participant. The first was held in Abuja in April 2011 and the second on the sidelines of the IAEA General Conference in September 2011. The meetings focused on sharing information on threats from non-state actors and developing a regional approach to reduce the vulnerability of nuclear materials. Experts discussed collaborating on border control, trainings, and information-sharing practices among security agencies in the region.

- **CHILE** hosted the South America Nuclear Security Summit Regional Seminar in Santiago in June 2011. Nineteen South and Latin American countries participated in the seminar, along with the United States, Canada, and the ROK. Transport security for nuclear materials and regional cooperation to combat illicit trafficking were key



US President Barack Obama meets with Nigeria’s acting President Goodluck Jonathan on the sidelines of the 2010 summit. Nigeria hosted two NSS outreach events for West African countries in 2011.

Mandel Ngan/AFP/Getty Images



Dean Calma / IAEA

Members of the ASEAN countries meet with IAEA Director General Yukiya Amano in Vienna in June 2011 during a conference on nuclear safety.

themes of the seminar.²⁰ The regional summit participants at the meeting, Brazil, Mexico, and Argentina, gave presentations highlighting the progress made on their national commitments and work carried out in accordance with the 2010 summit work plan.

- **THAILAND** hosted a regional conference in September 2011, titled Security, Safety and Safeguards in Nuclear Energy, to establish a regional network of national nuclear regulatory bodies and relevant authorities. The ten ASEAN states, including non-summit participants Brunei, Cambodia, Laos, and Myanmar attended. The meeting also served as a forum to exchange information and harmonize nuclear safety and security practices in the region.

- **MOROCCO** hosted an outreach meeting in November 2011 in Rabat for 28 African countries. The United States, the IAEA, and the UN also attended. The event focused on the NSS and GINCT, highlighting the linkages between the two processes and the importance of preventing terrorists from acquiring nuclear materials.

As summit hosts, the United States and the ROK committed to convening informational outreach meetings at the IAEA and the UN. Following the 2012 Seoul summit, South Korea requested that the IAEA circulate the communiqué and key facts from the summit to all member states. In September 2012, the ROK co-chaired a UN High-Level Meeting on Countering Nuclear Terrorism, which specifically targeted strengthening legal frameworks to counter nuclear terrorism. The meeting also referenced the consensus recommendations for nuclear security agreed to at the NSS and was used as input to the July 2013 International Conference on Nuclear Security hosted by the IAEA.²¹

At the July 2013 International Conference on Nuclear Security, the IAEA hosted 125 member states for the first ever ministerial level meeting on nuclear security. Hungary presided over the forum, which served as a mechanism to inform the 2014-2017 IAEA Nuclear Security Plan. The meeting also included discussions on the role that the NSS process plays in enhancing nuclear security by the United States, the ROK, and other parties.

CONTRIBUTIONS OF THE GLOBAL INITIATIVE TO COMBAT NUCLEAR TERRORISM TO ENHANCING NUCLEAR SECURITY

The joint statement from the Global Initiative to Combat Nuclear Terrorism outlines the efforts of that group to support the summits' goals.

SIGNATORIES

Australia, Morocco, Netherlands, Russia, Spain, United States (6)

The joint statement highlights the contributions of the GICNT to enhance nuclear security and combat nuclear terrorism. Signing states also express their intent to remain committed to pursuing efforts through GICNT activities that complement the goals of the NSS process.

Since the 2012 summit, the GICNT has held four exercises, four workshops and seminars, an implementation and assessment meeting, and a plenary meeting. The exercises and workshops focused on supporting particular principles within the larger scope of the GICNT's activities. The statement asserts that the work done by the GICNT working groups in the priority areas advances critical elements of the NSS's goals.

The United States and Russia are the co-chairs of the GICNT, which is a multilateral initiative open to any country that endorses the group's statement of principles and actively participates in the mission of the GICNT. Currently, there are 85 member states and four international organizations that participate as observers. Spain coordinates the GICNT's Implementation and Assessment Group (IAG) and there are three working groups, led by Australia, Morocco, and the Netherlands, that address different priorities.

Response and Mitigation Working Group

Formed in February 2012 and chaired by Morocco, the Response and Mitigation Working Group focuses

on building national capacity to respond to a nuclear or radiological incident as well as fostering collaboration on best practices. The working group began drafting a comprehensive guide on building response and mitigation capacity at an October 2012 meeting in Italy.

In April 2013, the group held a joint exercise, called the Radiological Emergency Management Exercise (REMEX), in which Morocco, Spain, and the IAEA participated. The two-day exercise was designed to improve information sharing, cooperation, and participating states' capacity for response, mitigation, and investigation of a nuclear or radiological incident. The exercise also allowed states to assess their national capabilities, review their procedures, and identify areas for improvement. As chair,



U.S. Under Secretary of State John Rood speaks at a press conference at the 4th meeting of the Global Initiative To Combat Nuclear Terrorism in Madrid on June 17, 2008.

Morocco will use the REMEX experience to inform the creation of a consistent series of exercises with the same purpose for GICNT member states.

Nuclear Detection Working Group

The Nuclear Detection Working Group, chaired by the Netherlands, publishes documents on how states can improve their nuclear detection architecture. The first two documents, published before the 2012 summit, were a framework document on development and implementation of national-level detection architecture, and guidelines for training and exercises to develop and maintain national capabilities. The third document, "Guidelines for Planning and Organization" was further reviewed and developed at a November 2012 meeting in Ukraine. Work on a fourth document, "Detection within a States' Interior," which focuses on internal efforts to detect illicit trafficking of nuclear and radiological materials, was refined during an October 2013 meeting in Greece. At the October 2013 meeting, the working group also began developing a toolkit for staging exercises to supplement the document series.

Nuclear Forensics Working Group

Australia chairs the Nuclear Forensics Working Group which develops mechanisms to help states build core national nuclear forensics capabilities. The group also fosters collaboration between states, including information and technology sharing, the promotion of best practices, and joint exercises. In February 2012, Australia published "Nuclear Forensics Fundamentals for Policymakers and Decision Makers," which provides information on the role of nuclear forensics in nuclear security and a guide for a national capabilities assessment. The document informed a May 2012 exercise, Iron Koala, on information sharing during nuclear smuggling events. This exercise produced a self-assessment tool and a framework for sharing nuclear forensics information. Australia also identified several areas for further consideration, including integrating nuclear forensics into existing emergency response plans and sustaining nuclear forensics capabilities. An October 2012 meeting in Italy also focused on facilitating information sharing on nuclear forensics between states.



Valerie Kuyperis/AFP/Getty Images

The Global Initiative to Combat Nuclear Terrorism was launched by the U.S. and Russian presidents in 2006 in The Hague. Currently, over 80 countries and four international organizations participate in the initiative.

NUCLEAR TERRORISM

The joint statement on Nuclear Terrorism reaffirms the Nuclear Security Summit's goals and commitment to the prevention of nuclear terrorism.

SIGNATORIES

France, United Kingdom, United States (3)

The three signing countries have established themselves as leaders in the effort to maintain high-level focus on the importance of international cooperation to prevent nuclear terrorism and secure nuclear material around the globe. All three states have attended workshops focused on enhancing international cooperation on nuclear security, including the 2012 experts meeting on Enhancing Transparency and Communication Effectiveness in the Event of a Nuclear or Radiological Emergency held in Vienna in June 2012 and the IAEA's Conference on Nuclear Security: Enhancing Global Efforts, held in Vienna in

July 2013.²²

In February 2014, the Institute of Nuclear Materials Management hosted a Risk Informed Security Workshop in Georgia, U.S.²³ The workshop is a part of the signing governments' efforts to fulfill the statement's objectives and for further interaction between officials, industry, and other stakeholders. Results and outcomes from the workshop are expected to be reported back at the 2014 NSS in The Hague.

The joint statement on nuclear terrorism is a restatement of the signers' understanding of the threat of nuclear terrorism and their recognition of their collective responsibility to lead efforts to strengthen nuclear material security measures and develop emergency response measures. The goals of the statement remain a focus for all three signers, and their continued leadership in these areas has been an important force in the summit process.



Dean Calma / IAEA

The IAEA held its first ministerial-level conference on nuclear security in July 2013 at the agency's headquarters. Over 120 states participated. The conference emphasized that all states must work together to prevent nuclear terrorism.

Conclusion

Implementation of the joint statements issued at the 2012 Seoul Nuclear Security Summit (NSS) has made a positive contribution to global security. While additional efforts are required to complete the objectives and principles that underpin these statements, the model has proven a useful vehicle for likeminded states to collaborate on specific projects, and it should be carried forward into the 2014 and 2016 summits.

Notable examples of nuclear security progress made under the joint statements include:

- A **NATIONAL LEGISLATION IMPLEMENTATION KIT** has been drafted in partnership with the nongovernmental organization VERTIC to facilitate the adoption of the international conventions and treaties related to nuclear security.
- The **NUCLEAR INFORMATION SECURITY** statement has been left open for additional signature to encourage broader participation and signatories took a survey of actions to document progress.
- A meeting and exercise was held in support of the **TRANSPORT SECURITY** statement, the results of which are being fed into recommendations at the 2014 summit and a best practice guide.
- Low-enriched uranium (LEU) fuel powder has been developed for fuel fabrications and testing under the **QUADRILATERAL COOPERATION ON HIGH-DENSITY LEU FUEL PRODUCTION** statement to aid in the conversion of research reactors from highly-enriched uranium fuel.
- The completion of more than a decade of work to secure weapons-usable material at a Soviet-era nuclear test site was highlighted in the statement on **TRILATERAL COOPERATION AT THE FORMER SEMIPALATINSK TEST SITE**.
- Five projects supporting summit goals are being implemented by the new nuclear and

radiological material security sub-working group of the **GLOBAL PARTNERSHIP AGAINST THE SPREAD OF WEAPONS AND MATERIALS OF MASS DESTRUCTION**.

The introduction of joint statements at the 2012 summit built on the success of national commitment implementation from the 2010 summit. These joint statements better recognize the critical multilateral collaboration that was left unarticulated in the national commitments originally made at the Washington summit. Summit hosts have encouraged self-selected groups of countries to emerge with new deliverables under the summit's umbrella. This has enabled progress beyond what can normally be expected from large, international summits that are hostage to consensus-based results.

The joint statements presented in 2012 have helped rally political support behind technical cooperation and other areas ripe for multilateral collaboration to improve nuclear security. They have empowered proactive countries to work with likeminded states on specific projects and better coordinate the actions of existing international initiatives to avoid duplication. However, not every statement was equally effective.

With no universal structure or reporting requirements, each of the 13 joint statements was distinct. This flexible approach allowed countries to tailor the goals, work plans, and deliverables of their statements to the specific challenges they were seeking to address. Unfortunately, the lack of structure and reporting requirements also resulted in some statements without any specific work plans or



Jerry Lampen/AFP/Getty Images

In a January 2014 press conference, Dick Schoof, Netherlands' National Coordinator for Counterterrorism and Security, discusses the preparations for the Nuclear Security Summit, which will take place in The Hague, on March 24-25, 2014.

deliverables. The joint statements that clearly outline specific objectives and milestones are those that have shown the most tangible progress.

While the joint statements that had clearly defined goals made significant contributions to global nuclear security in priority areas, narrow and limited actions alone will not sufficiently strengthen the global nuclear security system. For this to occur, broad international cooperation is required to improve standards, implement best practices, and increase transparency.

The precedent of issuing new commitments and demonstrating progress ahead of the next summit should be carried forward into the 2014 and 2016 summits. Particularly if the summit process concludes in 2016, there will be a need for countries to exercise leadership and maintain political momentum for sustaining and building on nuclear security improvements. The lack of an institutional home for the NSS process has discouraged more ambitious

action that looks beyond the next summit. It is critical that participating countries recognize the importance of a political mechanism for continued improvement on the nuclear security agenda beyond 2016.

To maximize their effectiveness, future joint statements should have at least one clear deliverable, incorporate time for follow-up by participants and reporting to the international community, and address gaps and weak links in the current global nuclear security governance system. The joint statement model could be adapted to develop creative policy solutions that address weak links in the regime. Targeted multilateral efforts are critical for incremental progress; however, countries must cooperate on broad, international efforts to address the significant challenges that remain to strengthening global nuclear security. Countries must begin to put two-year projects like those described in these joint statements into the context of a long-term effort to improve the nuclear security system.

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The Arms Control Association (ACA), founded in 1971, is a national nonpartisan membership organization dedicated to promoting public understanding of and support for effective arms control policies. Through its public education and media programs and its magazine, *Arms Control Today (ACT)*, ACA provides policy-makers, the press and the interested public with authoritative information, analysis and commentary on arms control proposals, negotiations and agreements, and related national security issues. In addition to the regular press briefings ACA holds on major arms control developments, the Association's staff provides commentary and analysis on a broad spectrum of issues for journalists and scholars both in the United States and abroad.

The Partnership for Global Security (PGS) has nearly two decades of experience evaluating nuclear security policy needs, developing responses, and driving demonstrable results. Its focus on strategic thinking and deep understanding of how to shape, write, and package timely, authoritative, and actionable policy proposals for busy policymakers has led to new international security programs and millions in funding for nuclear security. PGS has a unique perspective on the nuclear security challenge and a track record of creating broad and integrated networks and public-private partnerships to address transnational issues. PGS is constantly evaluating how the convergence of security, technology, and economic issues is shaping the 21st century's global nuclear challenges.



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The Fissile Materials Working Group (FMWG) is a coalition of more than 70 nongovernmental organizations representing 32 countries. The FMWG supports improved fissile material security through the development of actionable policy proposals and advocacy for government adoption and implementation of improved policies.

For more information, visit www.fmwg.org.

The U.S.-Korea Institute (USKI) at the Johns Hopkins School of Advanced International Studies (SAIS) works to increase information and understanding of Korea and Korean affairs. USKI's efforts combine innovative research with a repertoire of outreach activities and events that encourage the broadest possible debate and dialogue among scholars, policymakers, students, NGO and business leaders, and all those with an interest in the Korean peninsula. USKI also sponsors the Korea Studies Program at SAIS, a growing Korea policy studies program preparing the next generation of leaders in the area of Korean affairs.

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This Arms Control Association and Partnership for Global Security report seeks to evaluate the progress made on the 13 joint statements that states voluntarily committed to at the 2012 Nuclear Security Summit (NSS). States that signed onto these statements committed to actions across a wide range of priority nuclear security areas.

The 2010 and 2012 summits brought high-level attention to the threat posed by fissile materials and spurred countries to take action to prevent nuclear terrorism and further enhance global nuclear security. At the 2014 summit in The Hague, it is important to evaluate the success of these joint statements and determine what further multilateral actions can be taken ahead of the 2016 NSS to strengthen nuclear security.

The findings of this report show that while the actions resulting from these joint statements enhanced global security, more work needs to be done. The current regime remains a nationally focused patchwork of laws, voluntary initiatives, and recommendations. Looking forward to the 2016 summit, NSS participants should push for a more cohesive, transparent, and effective nuclear security regime that includes more standardized reporting mechanisms and review measures to earn the confidence of the global community.

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