Summitry and the Non-Proliferation Agenda Explored

The second in a two-part In Focus special

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Assessing the legacy of Barack Obama’s nuclear summit initiative and what needs to be done to preserve its original vision.

APLN Statement
A call to global and regional policy-makers to urgently re-energize the nuclear non-proliferation and disarmament agenda.
Assessing Obama’s Nuclear Security Summits

By John Carlson

In a speech in Prague in 2009, US President Barack Obama laid out a vision of a world free of nuclear weapons. In pursuit of that goal, the US convened a series of Nuclear Security Summits that involved many world leaders. Sadly, that process appears to be coming to an end as Obama’s presidency winds down. John Carlson assesses the legacy of Obama’s initiative and what needs to be done to preserve its original vision.

THE NUCLEAR Security Summits have been a key part of US President Barack Obama’s “Prague Agenda” — his vision of progress toward a world without nuclear weapons, as set out in his speech in Prague on April 5, 2009:

We must ensure that terrorists never acquire a nuclear weapon. This is the most immediate and extreme threat to global security. We know that there is unsecured nuclear material across the globe. To protect our people, we must act with a sense of purpose without delay. So today I am announcing a new international effort to secure all vulnerable nuclear material around the world within four years. We will set new standards, expand our co-operation with Russia, pursue new partnerships to lock down these sensitive materials. And we should start by having a Global Summit on Nuclear Security that the United States will host within the next year.

The first Nuclear Security Summit was held in Washington the following year, 2010. Further summits were held at two-year intervals — Seoul in 2012, The Hague in 2014 and back to Washington in April 2016. Participation was by invitation, and varied between 47 and 53 countries, almost all represented by heads of government. By the time of the concluding 2016 gathering, “summit fatigue” had become evident, but it was also the last summit possible in Obama’s final term. The 2016 summit decided to pass on its agenda through a series of action plans to be pursued through the International Atomic Energy Agency (IAEA), the United Nations and other relevant international institutions.

Now that the summits have ended, it is timely to assess the contribution they have made to strengthening global nuclear security. Before doing so, it is worth recalling the context for these summits — the nature of the terrorist threat, how this threat has been addressed to date and the weakness of international governance in this area.

THE CONTEXT FOR THE SUMMITS

The terrorist threat. Nuclear security is about the protection of nuclear materials and nuclear facilities, and also radioactive materials, against non-state actors, that is, terrorists and criminals. The nature of the various threats can be outlined as follows:

• The theft or seizure and detonation of a nuclear weapon;
• The theft or seizure of weapons-usable nuclear material — highly enriched uranium (HEU) or separated plutonium — and making and detonating an explosive device;
• The sabotage of a nuclear facility, causing radiation release;
• A “dirty bomb” — use of conventional explosives and radioactive material to spread radioactive contamination;
• A cyber-attack, as part of an operation to seize materials or sabotage a facility.

The first three might be considered low probability, but clearly they would be of very high consequence if carried out. For this reason, the risk must be taken very seriously and acted upon. A dirty bomb would have lower consequences, but is of higher probability, given that sources of radiation are widespread, and could have major economic and psychological impact, so this also presents a risk that needs to be taken seriously.

Addressing the threat. While acts of terrorism in recent years have given a sense of urgency to nuclear security, the need to protect nuclear materials and facilities has long been recognized. The IAEA issued its first nuclear security recommendations in 1972. The principal multilateral treaty on nuclear security, the Convention on the Physical Protection of Nuclear Material (CPPNM), entered into force in 1980. A major early action to address the terrorist threat was the Reduced Enrichment for Research and Test Reactors Program (RERTR), an international program initiated by the United States in 1978. RERTR seeks the elimination of highly enriched uranium from civilian programs by converting HEU-fueled research reactors to LEU (low-enriched uranium); substituting LEU for HEU targets used in radioisotope production; and reducing the number of holdings of HEU around the world, thereby removing opportunities for terrorists to acquire HEU. Russia initiated a similar program for Soviet-supplied research reactors.

International governance remains weak. Unfortunately, the greatest influence on the current state of the international nuclear security regime is the still-widespread mindset that nuclear security is almost exclusively a matter for national sovereignty. Sovereign rights, and the need for secrecy, are invoked to resist external scrutiny and accountability. This attitude is both complacent and dangerous — there is a real risk of security failures due to countries not applying any comparative process to assess their security performance.

In nuclear safety the need for international collaboration and accountability has been learned the hard way. The Chernobyl and Fukushima disasters have underscored the international interest in ensuring that national nuclear programs are conducted at a high standard. The saying that “a nuclear accident anywhere is an accident everywhere” is equally true for nuclear security — a failure in the security of weapons-usable nuclear material in any country has the potential to impact every country, either as a direct consequence of a terrorist attack, or indirectly through the global economic and political repercussions that would follow such an attack.

Readers familiar with the IAEA safeguards-inspection system, and perhaps aware of the extensive use of peer reviews in nuclear safety,
perhaps the greatest challenge is to maintain momentum in the absence of a leaders-level process. the continuing weakness in international governance suggests that despite the summits, many governments are not yet persuaded of the urgency in this area.

people think military security itself must be sufficient. however, the great majority of military materials — some 70 percent — are not in the form of warheads or naval fuel, but are mostly bulk materials in storage (including stocks in excess of military requirements), or materials for processing, research and other uses. many of these materials are not in military custody. regardless, the country concerned needs to know that its security standards are high enough, and other countries also need this assurance.

the nuclear security summits

it is in this context that obama initiated the series of nuclear security summits. because of the general resistance to legally binding commitments, it was decided at the outset not to press for new international obligations, but rather to encourage voluntary actions. this approach contributed to the success of the summits by ensuring that all countries invited were willing to participate (except russia, which stayed away from the last summit), and by ensuring consensus outcomes. this voluntary approach, however, has also been a weakness — the lack of any obligation has meant that much-needed commitments have not been made.

the summit outcomes have taken two broad forms: consensus documents such as summit communiqués and action plans; and individual pledges announced by a single country (known as “house gifts”) or by a group of countries (known as “gift baskets”). gift baskets became a mechanism by which countries could commit to more than the lowest common denominator reflected in consensus documents.

the communiqués set out broad statements of principle and intent — for example, the 2016 communiqué proposed to maintain what has now become the nuclear security contact group, the international group of officials and experts who have supported the summit process (the “sherpas”) — to meet annually to review progress.

in the communiqués, the participants also resolved to implement the various action plans. the 2016 action plans set out a series of intentions with respect to the iaea, the un, igr, the global initiative to combat nuclear terrorism (giect) and the g8 global partnership against the spread of weapons and materials of mass destruction.

the gift baskets covered a range of actions, including repatriating holdings of heu and plutonium; strengthening national laws and institutions; sharing best practices; inviting iaea peer reviews; dealing with insider threats; consolidating reporting on nuclear security implementation; strengthening transport security; and addressing cyber security of nuclear facilities.

particularly important gift baskets included action to ratify the 2005 cppnm amendment — during the 2016 summit, ratifications reached the number required to bring the amended cppnm into force — and the joint statement on strengthening nuclear security implementation, initiated by the three summit hosts (the us, south korea and the netherlands), which has now become iaea document infcirc/869. countries subscribing to infcirc/869 — 36 nations have signed on as of this writing, and china and india have announced they will join — commit to take specific steps including implementing key iaea nuclear security guidance, hosting periodic peer reviews and ensuring that nuclear security personnel are demonstrably competent. infcirc/869 is open for all countries to join.

what have the summits achieved?

it has been a remarkable achievement to engage the attention of world leaders on such a specialized subject over six years. the summits have played an important role in sensitizing leaders and will be surprised to learn that it has not been possible to reach international agreement for anything like this in nuclear security. in nuclear security there are:

- no binding international standards: those promoted by the iaea are only recommendations;
- no international inspections;
- no international reporting and accountability mechanisms.

the principal nuclear security treaty, the cppnm, applies primarily to nuclear material in international transport, not to nuclear material in domestic use. while the cppnm has a large number of parties, at 152, it is well short of being universal. a number of countries with significant nuclear activities, including egypt, iran, malaysia, thailand and venezuela, have not joined. in 2005, an amendment to strengthen the cppnm by applying it domestically and extending it to cover protection of nuclear facilities against sabotage was opened for signature, but it has taken 11 years for the amendment to attract sufficient ratifications for entry into force. the current number of parties to the amended cppnm, at 102, is hardly satisfactory, and many countries remain outside — in addition to those mentioned above, these include bangladesh, belarus, brazil, the philippines and south africa.

readers will also be surprised to learn that agreement has not been possible among iaea member states to fund the iaea’s nuclear security program at anything like its costs. only around 20 percent of the funding for this program comes from the iaea’s regular budget; the remaining 80 percent depends on voluntary contributions.

a major gap in the current regime is that nuclear materials in military programs — comprising some 83 percent of the world’s heu and separated plutonium — are excluded. this might seem understandable, because details of nuclear warheads and naval fuel are secret, and because
to the importance of strengthening nuclear security. While the voluntary approach meant that no major new multilateral commitments came directly from the summits, there have been important achievements through the gift-baskel process:

• Reductions in holdings of weapons-usable materials: over the course of the summits, countries with these materials have been reduced from 32 to 22, and more than 3.8 tons of HEU and plutonium have been removed or secured;
• Gathering sufficient ratifications to bring the amended CPPNM into force;
• Establishment of national nuclear security centers of excellence in a number of countries including China, India, Japan, Kazakhstan, South Korea, Malaysia and Pakistan in Asia.

Looking at the goals articulated by Obama in his Prague speech, the record is mixed:

WHERE NEXT?

Perhaps the greatest challenge is to maintain momentum in the absence of a leaders-level process. The continuing weakness in international governance suggests that despite the summits, many governments are not yet persuaded of the urgency in this area. This is also demonstrated by the time taken — 11 years — to achieve the necessary ratifications to bring the amended CPPNM into force. Further, the current number of states parties, 102, is barely half the number required for universality. The 2016 Summit action plan for the IAEA sets out two key mechanisms to focus high-level attention: regular ministerial meetings on nuclear security to be convened by the IAEA; and regular review meetings under the CPPNM.

On the first of these actions, the IAEA is convening a Nuclear Security Conference for Dec. 5–6, 2016, and is calling for ministerial participation. The last such conference, in 2013, was intended to be ministerial-level, but just over a quarter of the participating countries were represented by a minister. Hopefully, these conferences will be taken more seriously now that the summits have ended.

The proposal for regular CPPNM review meetings has great potential. It is to be hoped that CPPNM parties will agree not only to regular review conferences, but to the inclusion of a peer review process for national implementation, along the lines of the Convention on Nuclear Safety.

The main problem is time. A review conference is required in 2021 — that is, five years after the amended CPPNM enters into force. However, subsequent conferences require the agreement of a majority of States Parties, and the CPPNM specifies a minimum interval of five years between conferences, which is rather a long period (by comparison, review conferences under the Convention on Nuclear Safety occur every three years). So support must be built not only for a standing arrangement for ongoing review conferences (it cannot be considered satisfactory to rely on these being agreed conference-by-conference), but also for a preparatory committee process between review conferences.

The INFCIRC/869 initiative is an important mechanism for building coalitions of the willing on a range of security-strengthening measures. The Nuclear Security Contact Group will also have a major role in promoting co-ordination and building support for the nuclear security agenda.

THE REGIONAL DIMENSION

Asia is the world’s main growth area for nuclear energy. Regrettably, Asia is also a growth area for nuclear weapons programs, with all this implies in terms of the need to secure weapons and weapon-grade materials. At the same time, parts of the region have significant terrorist activity. Thus, strengthening nuclear security is especially important in this region. Against this background, and considering what is shaping up to be a rather diverse and fluid international environment for strengthening nuclear security, countries in Asia should consider how they can work together.

One obvious area is to improve participation in the CPPNM. As noted above, there are countries in Asia with significant nuclear activities that have yet to join the amended CPPNM, and some that have not even joined the original CPPNM (now that the CPPNM amendment has taken effect, new parties will join the convention in its updated form). In addition, there are many other countries without significant nuclear activities that remain outside the Convention. It is important for them to join to achieve universality but also because nuclear materials may be transported through their jurisdiction. Asian countries that are parties to the Convention should do what they can to encourage and assist others to join. Countries in the region could also collaborate on developing the proposed review conference process.

Participation in INFCIRC/869 provides another area for regional collaboration. It has a menu of actions and countries in this region could collaborate on a common set of actions. A further area for collaboration is through activities linked to the nuclear security centers of excellence. In this regard, the Chinese, Japanese and South Korean centers of excellence have already joined in establishing an Asian Regional Network on nuclear security.

In addition to practical steps such as those that have been discussed here, it is especially important in the absence of the summits to maintain high-level political engagement on nuclear security. In the short term, this could include ministerial participation in the IAEA Nuclear Security Conferences. In the future, this could be a key area to pursue through an Asia-Pacific Nuclear Energy Community.

In the absence of the summits, it is essential for all those engaged in nuclear security to work together to maintain momentum in strengthening national implementation and international governance. It is always open in the future for leaders to convene another summit to review progress. We must all ensure a further summit is not prompted by a catastrophe resulting from a major security failure.