

Nuclear Security: The Obama Summit and what Comes Next

Keynote Address by Professor Gareth Evans, to Fissile Material Working Group NGO Summit, Next Generation Nuclear Security: Meeting the Global Challenge, Washington, 12 April 2010

I

The context in which I come to nuclear security issues is not as a specialist on any one of the myriad of technical issues relevant here - where I could hardly offer any competition to the outstanding cast of experts in this audience (as I suspect will become rapidly evident if I am cross-examined in question time!) -- but as someone with a long background in international security policymaking generally, who for the last year and a half has been roving the world as co-chair (with my Japanese colleague Yoriko Kawaguchi) of the International Commission on Nuclear Non-Proliferation and Disarmament, whose report mapping the path to a nuclear weapon free world was published last December.

Our report sees nuclear security - the protection of nuclear weapons and fissile material from theft or diversion -- as a crucial foundation stone for all three of the interdependent pillars with which our report is concerned and we must all be concerned if we want a safer and saner world - disarmament, non-proliferation and effective management of peaceful uses; as a commitment which needs to be maintained for the long haul -- not just the next four years -- if we are beat the threats of nuclear terrorism and proliferation diversion once and for all; but also as one of those issues on which we need to get some runs on the board right now if we are to maintain the momentum for disarmament which was generated by President Obama last year, after a decade of international sleepwalking on this issue.

In this context it is important to recognize that *2010 is a watershed year*, and to see this week's Nuclear Security Summit as one of seven key benchmark events or issues, success or failure in relation to a majority of which will, I think, determine whether we end this year with real momentum for major ongoing movement toward a nuclear weapon free world, or find ourselves sliding backward into almost total immobility. The seven events or issues I am referring to involve:

- three building blocks for both disarmament and non-proliferation: nuclear security (being addressed at this week's summit), CTBT ratification (not now looking at all likely in the US this year in the current political environment), and FMCT negotiation (now again stuck in the Geneva Conference on Disarmament as a result of Pakistan denying consensus)

- two disarmament issues: ratification of US-Russia START follow-on treaty (now subject to at least a question mark in the US Senate, in the present political environment) and publication of NPR revising US nuclear doctrine (now out - and a significant step forward, but not going as far as many, including the ICNND, had hoped)

- two big non-proliferation issues: the NPT Review Conference in May (for which hopes of substantive agreement this year have been high, but considerable uncertainty remains whether this will be achievable given the sensitivity of several key issues) and Iran (on which real uncertainty continues as to whether an acceptable agreement can be negotiated, or Tehran is hell-bent on acquiring nuclear weapons).

So with the ledger for the year containing at the moment just one qualified tick (NPR), two crosses (CTBT and FMCT) , and jury still out on three other situations (START, RevCon and Iran) - a lot is hanging, in the larger context of overall disarmament dynamics, on success of this week's summit.

II

I think we have every reason to believe that the Obama Summit *will* be seen as a substantial success. The preparatory process has been strong, consultations extensive, and my understanding - to the extent that I am able to share this with you -- is that the already negotiated communiqué and associated work plan between them are quite comprehensive and substantive.

I think we can reasonably expect to find the following elements in these final documents.

(1) Strong articulation of the risk of nuclear terrorism, and the need to deal with it with a sense of urgency.

This sense of urgency is unquestionably justified by the risk of nuclear terrorism. My own Commission report echoes in this respect the points made by Bob Galluci in his keynote this morning. Too many people seem to think that while terrorist *intent* probably can't be overstated, concerns about nuclear terrorism are alarmist – that terrorists could never make a functioning nuclear weapon. But terrorist groups have demonstrated the ability to plan and execute complex international operations; they have access to substantial funds and other resources; and they are able to recruit scientists and other specialists. We should not think here just in terms of a sophisticated nuclear weapon. A crude improvised nuclear device would be sufficient for terrorist purposes, and is within their capabilities - - and of course a dirty radiological bomb would be very much more so. We can't quantify the risks here, but they are anything but negligible.

(2) A lot of attention to specific national commitments

I expect a particular, and welcome, focus of the Obama Summit will be to achieve sufficient ratifications of the 2005 Amendment of the Convention on the Physical Protection of Nuclear Material to bring this into force. Five years after the text of the Amendment was concluded, there are still only 34 ratifications, well short of the 96 needed. This is an indictment of the lack of seriousness with which the majority of the world's governments are viewing nuclear security, and it is manifestly essential to activate the 2005 Amendment without further delay.

I also expect priority to be assigned to widening adherence to the 2005 International Convention for the Suppression of Acts of Nuclear Terrorism. While this Convention has been signed by 115 countries, to date it has been ratified by only 60.

It is also essential to secure a commitment by all countries with nuclear material holdings to apply the most up-to-date IAEA guidelines on nuclear security. The IAEA has circulated Revision 5 of its guidelines document INFCIRC/225, but while I understand there will be generally strong support for the IAEA's role, I am not sure the communiqué or work plan will be as strong as they could be in specifically urging the acceptance of this important Revision. .

On national commitments on specific technical issues, I do expect there to be strong focus on moving away from HEU to LEU in research and propulsion reactors and in radioisotope production, but I am not so sure that the summit documents will be as strong as they could be on plutonium issues, and on the question of proliferation resistant technology -- on which I'll say something more later. There is a longstanding international program to phase out the use of HEU for research reactors and in radioisotope production, but this program still has a way to go, and whether there will be a sufficient emphasis on timelines here remains to be seen. It is disturbing that after more than 30 years of the RERTR (Reduced Enrichment Research and Test Reactors) program, to convert or shut down HEU-fuelled reactors and recover HEU for downblending, there are still some 40 countries with holdings of HEU. Greater efforts are obviously needed to convert reactors still operating on HEU and to recover HEU holdings from around the world, and emphasis on this by the Summit will be very welcome.

(3) A great deal of attention to the need for enhanced international cooperation, both formal and less formal, and to strengthening the relevant institutions.

I expect we will find in the Summit documents many extensive references to the key treaties in this area, and Security Council Resolution of 1540, and the need for cooperative action in their implementation. I would similarly expect there to be substantial focus on "like-minded" initiatives like the G8-led Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, and on the need for strong international support -- bilaterally, regionally and more broadly multilaterally -- for capacity building in nuclear security.

I think we can also expect to find some clear and welcome language describing the IAEA's role in this area as central, notwithstanding its charter being inexplicit on nuclear security, and recognizing the need for it to be properly resourced. Whether there will be much precision, however, on the size of the Agency's resource needs and how they are to be met, remains to be seen.

III.

Even if this week's summit covers all the ground I have mentioned -- which I think *would* certainly justify it being characterized as a success in the context I mentioned earlier of this difficult 2010 watershed year, and will feed positively into the forthcoming May NPT Review Conference in particular -- I think we all anticipate that there will be a substantial amount of

unfinished business, which will need continued strong attention and advocacy from groups like this if it is to be attended to in the years ahead.

That will include, for example:

- Extension of the national commitments made by the 40+ countries attending this summit to cover all those countries that are not in Washington this week: it is one thing to talk, as the summit documents undoubtedly will, about promoting universalisation of standards and commitment to them, but something else to deliver this.
- Follow up arrangements to ensure that noses stay to the grindstone over the next four years: there has been some talk of regular Sherpa meetings -- at six monthly intervals or so -- and a possible further summit in 2012, but I am not sure that anything here has been formalized
- Substantial effort being made on the issue, deliberately avoided at this Summit, of reducing the availability of radioactive material capable of being used in dirty bombs, including through (as my Commission recommended) cooperative implementation of the Code of Conduct on the Safety and Security of Radioactive Sources

But there are three other broader issues of unfinished business I particularly want to emphasise here, recognizing that - at least for the first two of them (reducing the availability of plutonium, and technology innovation) -- the time frame for implementation is, realistically, longer than the four-year reference frame for the Obama Summit. For the third of these themes, however -- a new culture of international cooperation -- there is no reason not to start right now trying to achieve this, and I hope the positive atmospherics likely to be engendered by the Summit will translate through into more open and mutually supportive state behaviour.

(1) Reducing the availability of plutonium

I suspect that the Summit outcome documents will refer to plutonium, but with a much lighter and less extensive touch than is the case with HEU, and I reflect the views of my Commission -- if not, I expect, everyone here today -- when I say that this is an area which requires an equally sharp focus. At the same time as the use of HEU is diminishing -- albeit not quickly enough -- plutonium, in the form of MOX (mixed oxides), is coming into more widespread use. Today there are at least 14 countries processing or using MOX fuel, or planning to do so. Compared with HEU, it would be more difficult for terrorists to make a successful nuclear explosive device from plutonium, but we cannot afford to disregard the possibility. If terrorists succeeded in seizing sufficient MOX -- say 100-150 kilograms -- to provide plutonium for a weapon, governments would have every reason to fear the worst. Pending the development of more proliferation-resistant technologies for closing the fuel cycle, governments need to exercise great care in the use of MOX, keeping quantities, facilities and transportation to the minimum necessary, and ensuring the most robust security measures at every point in the supply chain.

Close attention also needs to be given to the use of plutonium in research laboratories. Although in many cases the quantities may be small, security might not be as robust as with larger holdings – and small quantities will be attractive to terrorists if they are easier to get hold of. There is no reason to suppose terrorists will not have the patience to accumulate the material they need through seizure or theft of small quantities from a number of locations over time.

(2) Technology innovation

I suspect we will find in the summit outcome documentation rather less attention than there perhaps would have been in a longer time-frame exercise, to phasing out the use of separated plutonium. My Commission's view in this respect, which I hope will be more widely shared, is that, in particular, the Generation IV International Forum should be supported in its aim to develop reactors and associated fuel cycle technologies that are proliferation-resistant, avoiding the production of weapons grade plutonium and the separation of plutonium in purified form. Of course we have to acknowledge here that "proliferation resistant" does not mean "proliferation proof": resistance is a matter of degree – the greater the barriers to diversion, the more warning time there will be for the international community, and the greater the deterrent value.

Proliferation-resistant approaches, both technical and institutional, will make a major contribution to reducing the risks of nuclear terrorism. If plutonium is always "self-protecting", by virtue of not being separated from highly radioactive materials, this will make it inaccessible to terrorists. And security will be enhanced by limiting the number of sites handling plutonium, and by minimizing plutonium transportation.

(3) A new culture of international cooperation

One of the most important pieces of unfinished business -- which should be looked at through a short rather than long-term lens, but I am not suggesting will be at all easy to implement in any time frame -- is to overcome the reluctance of most countries to have any outside review of their nuclear security performance.

Lack of willing transparency means that it is difficult to find which countries have significant holdings of HEU (high enriched uranium), the material of greatest terrorist concern, and to draw conclusions on the effectiveness of nuclear security measures in the countries concerned.

We have international standards set by treaties, in particular the Convention on the Physical Protection of Nuclear Material, and by IAEA guidelines, but no international inspectorate to say how well countries are applying these standards. Because nuclear security is seen as a *national* responsibility, there is resistance to outside scrutiny. But without an external perspective, there is no way for the international community to have confidence about security standards in individual countries, and no way for national authorities to know how their security measures compare internationally.

Traditionally governments are reluctant to allow outside scrutiny of their security arrangements in case the arrangements are compromised. While multilateral inspections are accepted for safeguards purposes, they are considered inappropriate for nuclear security. However, there are

some external mechanisms in use today, namely, bilateral reviews and IAEA advisory missions. And it is long-standing practice by some nuclear suppliers, notably the United States, to periodically review security arrangements for material and facilities that they supply. This practice is mutually beneficial, providing the supplier with assurance and at the same time giving the recipient expert advice and assistance in ensuring a high standard of security performance.

The IAEA provides its International Physical Protection Advisory Service (IPPAS) to any member state on request. It is for the state to determine the scope of an IPPAS mission, so it can ensure that sensitive security information is properly protected. IPPAS missions typically comprise experts from a number of countries, so the recipient benefits from practical peer review and advice from a number of perspectives.

A recent initiative is the establishment of WINS, the World Institute for Nuclear Security, adopting the highly successful WANO (World Association of Nuclear Operators) model in relation to nuclear safety. A major activity of WANO is promotion of peer review amongst facility operators, through review mechanisms and also through “twinning” of facilities. WINS is intended to provide facility operators and others with mechanisms for experience-sharing, training, professional development and the like. This initiative is to be applauded, governments should encourage their industries to make the most of what WINS can offer.

In short, and let this be my last word, nuclear security is too important to be left to each country to implement unaided. We know that unauthorized diversion of fissile material in any country could lead to global consequences – every country has a stake in the effectiveness of security measures everywhere else.

In eliminating nuclear threats, as elsewhere, if we don’t learn from the errors of history, we may be condemned to repeat them.

