

Global Security Engagement for the next ten years and beyond

Remarks by Laura Holgate at

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- Thank you, Andy, and to the sponsors for the chance to join in this timely and intense discussion, among so many friends and colleagues, of the future of this concept of reducing WMD threats through cooperation. So much has been said over the last 2 days with which I agree and which I may say again here, but I'll do my best to draw some threads together from these wise observations that I hope will provide some additional insights.
- To shorthand the history that most of us have lived, in the early 1990s, the notion of reducing threats cooperatively with an existential foe was a real breakthrough, applied to a problem unique in time and scale and geography.
- Within a decade, however, it became clear that the fundamental notion of working together with other countries to eliminate, secure, and constrain nuclear, biological and chemical weapons, facilities and materials was applicable in circumstances beyond the specificities of the Soviet collapse. The globalization of the CTR concept has been a hallmark of five administrations and garnered the bipartisan support of Congress for almost three decades.
- Today, it's easy to take the progress made for granted, but we can each take some pride in thinking for a moment about the counterfactuals: What if we'd had to contend with four post-Soviet nuclear successors instead of just one? What if the trains shipping warheads back to Russia had been hijacked, like in the famous *Peacemaker* movie? What if Iran had purchased the plutonium-laden spent fuel from the BN-350 reactor in Kazakhstan? What if Libya had held on to their centrifuges? What if criminals had stolen biological strains from a veterinary clinic in Georgia? What if there were still 50 kg of HEU in Kharkiv, Ukraine today? What if we had failed to intervene in West Africa with combined military and

development contributions to halt the spread of Ebola? What if terrorists had stolen HEU from the research facility they appear to have targeted in Belgium? What if there were still 1300 tons of chemical weapons in Syria?

- These are just some of the more dramatic examples of how much more complex and dangerous the world would be had the principles of cooperative threat reduction not been available to be applied and adapted to evolving global security challenges. Perhaps, as Amb. Lehman suggested, the CTR community would do well to tell these “what-if” stories more intentionally as an illustration of the need for ongoing focus on these issues.
- Today, however, it seems like we have arrived at a turning point, and therefore a worthy moment to pause and reflect on the path forward. Many speakers have suggested some key differences between the next 10 years and the last 10 years:
 - Decline in US global leadership, and in the attractiveness of the US as a partner
 - Rise of US-Russian tensions to Cold-War levels, or worse
 - Widespread impatience with lack of progress toward nuclear disarmament
 - Achievement of most of the large elimination missions for missiles, excess nuclear infrastructure, chemical weapons, and dedicated bioweapons facilities
 - Downward pressure on threat reduction budgets across the USG and around the world
 - Broad access by individuals and small groups to information and technology relevant to deadly weapons
- It’s not really going out on a limb to say that the days of USG-funded, industrial-scale destruction of extant weapons and facilities are over, and are not likely to return. This is mostly a good thing. I will place two caveats on this statement, also noted by others:
 - We should all wish for, and I am told we are still taking steps to prepare for, an opportunity to apply CTR to North Korea. It’s hard to see any opportunity today, but – as with the Soviet collapse – I expect it will appear abruptly, and not exactly in the way we are

currently envisioning it. But the current planning will help us adapt more quickly to the needs as they manifest in the moment.

- The second caveat is even harder to imagine, but large-scale nuclear disarmament will likely require some of the classic CTR tool-kit, augmented in ways we are not yet able to grasp.
- These two needs – and others may materialize, as Will Tobey reminded us – suggest that we would be well served by keeping the “first-generation,” to use Phil Doliff’s terminology, CTR toolkit on “warm standby,” to quote Libby Turpen’s thoughtful opening remarks.
- The future WMD concerns will come from two sources:
 - Enduring issues such as large existing stockpiles of fissile materials, radioactive sources, and nuclear warheads that will likely persist for several decades, as well as the reality that WMD knowledge can never be eliminated.
 - Emerging issues that contain within themselves the potential for both benefit and harm, such as advanced nuclear energy, cyber, artificial intelligence and machine learning, autonomous systems, biotechnology and gene editing, advanced manufacturing and miniaturization, remote operations, and so on. It’s hard to even create specific divisions among these technologies because of the fluid combinations and relationships among them, as Steve Fetter and others noted.
- These old and new challenges will not be *solved* – they can only be managed in ways that limit their inherent risks without overly limiting their inherent upsides. And we can likely expect that the understanding of the relationship between risk and benefit will differ among domestic and international communities, and will change over time.
- I would argue, therefore, that we need a change in vocabulary and a change in mind-set.
 - A change from references to “threat,” because the source of our concern going forward will likely contain potential benefits alongside their potential for harm, plus as Amb Lehman noted, it’s hard to open a conversation with a potential partner when they suspect that we consider them to be a threat.

- And a change from the concept of “reduction,” because that suggests a permanence or irreversibility that we are not likely to see, and may not even seek.
- For purposes of my remarks today, I’ll use the phrase “cooperative risk management” to reflect a kind of perpetuity combined with ambiguity in the WMD challenges of the future, but I would invite other suggestions for this new way of thinking and talking.
 - In deference to the title of the 2009 study and the remarks of Dave Franz and others about the value of engagement, with which I strongly agree, I feel I must specify that I consider the “engagement” imperative to be contained inside the use of the word “cooperative.”
- I would argue that cooperative risk management will have some of the following characteristics, some of which will look a lot like what we’ve been doing, and some of which will actually be harder to pull off.
 - With the decline of US leadership, we will need to look to multilateral institutions, forums, and legal and political instruments to generate political will and create incentives for nations to improve their own behaviors as well as generate “demand pull” for bilateral or broader cooperative projects. These could include the creation or extension of “clubs” that Vikram Singh mentioned, but I do not think that new treaties or export controls are likely to be effective in controlling these threats – we’ll need to make best use of what we already have.
 - These multilateral structures will need to incorporate governments, industry, academia, and civil society across multiple sectors. Corporate responsibility will need to be bolstered by the creation of incentives for good behavior – or what I have called in other settings “virtuous circles,” in which natural profit-seeking tendencies are aligned with positive national security outcomes. Cultures of individual responsibility will need to be inculcated through educational institutions, professional societies, and communities of practice – including the kind of engagement Jim LeDuc advocated yesterday.
 - Collective commitments will need to be accompanied by new levels of transparency – which may be happening even without anyone agreeing to it, as Steve Fetter mentioned – and accountability. The

GHSA's Joint External Evaluations represent a breakthrough in this realm: external review, published for all to see.

- New sources of funding, including from the private sector, will be required, but this will reinforce and be reinforced by the kind of public accountability just mentioned. And in a progression from the “paternalism” of early CTR, as Jim LeDuc mentioned, we need to see more South-South cooperation among peers and regional partners.
- So what would “cooperative risk management” look like for the enduring and emerging WMD threats I mentioned? I'll start with the enduring threats, or what Andy Weber called the “oldy, moldies.”
- First among these enduring challenges, as Will Tobey mentioned, we have large existing stockpiles of fissile materials, radioactive sources, and nuclear warheads. Even with the best of intentions – and we don't have those now – these will take decades to make meaningful reductions, and there are only a few remaining countries in which permanent removal is a realistic prospect. In the meantime, plutonium, highly enriched uranium, and radioactive sources need to be secured to the highest standards, and counter-nuclear-smuggling efforts need to be enhanced and maintained.
- Fully implementing the Nuclear Security Summit pledges, both national and collective, is critical to this goal. Organizations and initiatives like the International Atomic Energy Agency, INTERPOL, the World Institute for Nuclear Security, the Global Initiative to Combat Nuclear Terrorism, the Global Partnership and the United Nations all have roles to play both in enhancing their own capacities, and in serving as platforms for cooperation among nations. The Convention on Physical Protection – newly enhanced with the entry-into-force of the 2005 amendment – will have a review conference in 2021 and every five years thereafter that could provide a venue for transparency and accountability in its implementation by states party. The pledge by former Secretary of Energy Moniz last December to invite IAEA oversight of US elimination of excess weapons plutonium, even without Russian implementation, must be carried through and could provide some insights for other fissile material elimination efforts.
- The second enduring task, because WMD knowledge can never be eliminated, engagement programs, security awareness and acculturation,

and the transparency that comes from those efforts must be stepped up, even where WMD-specific materials and facilities have been eliminated.

- Turning to the emerging technology challenges that I mentioned, much has been said about them that I need not repeat, but they are all susceptible to multilateral, multi-sectoral, transparent and accountable solutions – in some cases, drawing on existing models, and in other cases, requiring innovative approaches tailored to unique situations. The GHSA is one such model for the evolving biotech space.
- I'd like to spend a little time on an emerging technology that has not been discussed here: advanced nuclear reactors. Like all of the emerging technologies we've discussed, they contain both promise and peril. Done well, they can contribute to economic development and climate mitigation through the provision of affordable, low-carbon, distributed, grid-appropriate, safe and secure energy, and may even help work off some of the global overhang of fissile material stocks. But this requires the incorporation of security-by-design, safeguards-by-design, and secure fuel cycles as design criteria, alongside safety and affordability.
- Making sure that the advent of advanced reactors does not add to our WMD problems will require integrated efforts by designers, investors, operators, governments, security and nonproliferation experts, educators, regulators, international organizations, insurers and others.
- Whether we are talking about enduring challenges or emerging issues, there will be some important differences from "first-" or even "second-generation" CTR.
 - Metrics will be much harder, as has been mentioned. They should reflect outcomes rather than inputs, but the absence of risk has historically be very difficult to quantify, much less take credit for.
 - Funding has always been a poor metric of political priority, but it will become even less useful as a measure of effectiveness – much of what is required for true risk management should be "baked in" to national budgets or operational expenditures. At the same time, short-sighted cuts in this year's President's budget for WMD risk management put us all at risk.
 - "Engagement" is also not a good metric, because it is mostly an input rather than an outcome, and it is too easy to forget Dave Franz's

point about engagement *to what end* – we need ways to measure those ends. Capacity building is one excellent example of an end that comes out of targeted engagement, and that can actually be measured.

- While much has been said about “threat-driven” priorities, we really cannot lose track of opportunities to reduce risk where we can. Kharkiv is a case-in-point: think how much differently we would be looking at those 50 kg of HEU at that research facility in Eastern Ukraine if it had not been removed before the Russian invasion. But when we used the pressure of the Nuclear Security Summits to induce President Yanukovich to return that material to Russia, we were not inspired by an extant threat, but by the opportunity to permanently eliminate the potential for theft, diversion or misuse. Excessive reliance on threat calculations fails to recognize the speed and unpredictability with which threats can develop.
- Another big difference between CTR “classic” and the future applications of the concept is of course the demise of direct US-Russian cooperation. This lack of contact, unprecedented even during the Cold War, is dangerous and a missed opportunity. This is where the increasing multilateral character of managing WMD risks may help: the IAEA, the CTBTO, the Global Initiative and likely other fora all offer ways for US and Russian experts to continue to engage constructively on WMD topics of shared interest. Even as the high-level political tone deteriorates – and I believe that as Mr. Mueller pursues his investigation, there is nowhere to go but down – we should be looking for ways to allow these quiet engagements to continue or even increase, out of the limelight, in order to create the foundation for a future cooperative approach that informed by but not derivative of CTR “classic”.
- This likely downward turn in US-Russian relations is also the impetus for what I believe would be the most threatening disruptor of cooperative risk management globally. While I hope that NewSTART will be extended in 2021 as the treaty calls for, I do not see any hope for a return to the bilateral negotiating table on nuclear arms, which will also stall any serious progress on disarmament among the 9 countries possessing nuclear weapons.

- This reality, combined with the potentially dangerous “cri de coeur” from the majority of non-nuclear-weapons states in the form of the Nuclear Weapons Ban, puts the NPT at grave risk. I worry very much that the demise in negotiated arms reductions – or worse yet, the increase of nuclear capability – among those who have weapons will result in a second failed NPT review conference in 2020. I do agree with Will Tobey’s point about the continued validity of the three “deals” contained in the NPT, but it’s clear that the non-weapons states are not valuing the security they gain from the treaty in terms of preventing their neighbors and rivals from acquiring nuclear weapons.
- This impatience for progress on disarmament has already caused the fragile consensus of the Nuclear Security Summits to fray, and to hold efforts to strengthen the IAEA’s nuclear security work hostage to dialogues of the deaf on disarmament. Compare the final communiques from the 2013 IAEA Nuclear Security Ministerial and the 2016 meeting to see how much nuclear security substance was lost in the endless and divisive debates over inclusion of disarmament language. I also worry about the viability of the BWC and CWC in a post-NPT environment.
- The collapse of bilateral and potentially multilateral arms control will significantly limit the scope for cooperative management of WMD risks. Implementing arms control and other international agreements that limit nuclear, biological and chemical weapons and related capabilities has provided a rich “hunting ground” for CTR. Without that legal base, current and potential partners will be less motivated to cooperate, and even South-South partnerships may lose steam.
- This potential challenge to cooperation leads me to remind us of the fact, mentioned in passing by others, that not all WMD solutions are cooperative. CTR and its successors sit alongside non-cooperative tools such as deterrence, coercion, sanctions and interdiction, network analysis, pathway defeat, covert action, and kinetic solutions to WMD problems. As powerful as cooperative tools are, we should not overburden them with the entire responsibility for managing WMD challenges. It was reassuring to hear from Dirk Maurer yesterday that the Defense Department intends to coordinate tightly among its WMD toolkit, matching tools to the needs of specific problems.

- In conclusion, I see both opportunities to update and expand cooperative approaches to WMD, and very real risks to current cooperative efforts. It will take continued “courage and persistence,” as the DTRA official history of CTR is titled, by those in this room and so many others to fulfill the enormous promise of CTR. It has been my life’s work, quite literally, and it has been my honor and privilege to have served among this community of visionaries and doers to make this world a safer and more secure place. We have so much more work to do.