# Proposal for a POPA/CSIS Workshop on: "Non-Strategic Nuclear Weapons – Challenging Assumptions, Proposing a Future"

September 29, 2011

## OVERVIEW

The United States, both by treaty and by policy, is committed to the pursuit of the long-term goal of a world without nuclear weapons. The New START treaty, ratified by the Senate on December 22nd, 2010, was a step in this direction. As the Obama administration's vision and policy move forward, the Department of Energy (DOE), the Department of Defense (DoD) and the State Department will be required to identify and propose how to address the technical and policy challenges associated with reducing the non-strategic nuclear weapons (NSWs) currently deployed in Europe and Russia, commonly referred to as "tactical nuclear weapons."[1]

The National Security Subcommittee (NSS) of POPA and the Center for Strategic and International Studies (CSIS) proposes to hold a workshop that would analyze NSW reductions both at the technical and policy level. The workshop would have two goals: 1) a report identifying the unique policy challenges associated with the issue of NSWs reductions; and, 2) an identification of technical issues endorsed by the Presidents of APS and counterpart societies in Europe, UK and Russia that their respective governments should *jointly* pursue.

## BACKGROUND

In January 2007, Henry Kissinger, William Perry, Sam Nunn, and George Shultz published the "Four Statesmen op-ed" in which they called for building "a solid consensus for reversing reliance on nuclear weapons globally as a vital contribution to preventing their proliferation into potentially dangerous hands, and ultimately ending them as a threat to the world."[2] Their call sparked a serious policy debate about the desirability and feasibility of global nuclear disarmament. President Barack Obama promoted this vision when, on April 5, 2009, he declared "America's commitment to seek the peace and security of a world without nuclear weapons."[3] Since that historical speech, the administration has changed the U.S. policy with respect to missile defense (by adopting a "phased, adaptive approach" to deployment) and released the Nuclear Posture Review (NPR) that committed the U.S. to reducing the role of nuclear weapons in U.S. national security strategy, even as it maintained a safe, secure, and effective nuclear arsenal as long as nuclear weapons exist. In addition, President Obama convened the Nuclear Security Summit in Washington, DC, during which forty-seven foreign leaders explored how

[1] To a great extent, the distinction between "strategic" and "tactical" nuclear weapons is an artifact of the Cold War, because most in the policy community, both official and non-offical, agree that any use of a nuclear weapon would have strategic impacts on the conflict. The term "tactical" is used in this proposed study because (1) it is commonly used and (2) no U.S..-Russian arms reduction treay has ever addressed the issue of forward-deployed U.S. and Russian tactical nuclear weapons.

[2] http://www.nti.org/c_press/A-World-Free-of-Nuclear-Weapons.pdf

[3] http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered

they could cooperate to secure global inventories of special nuclear materials.[4] Finally, and significantly, the Administration successfully negotiated an agreement with Russia on "New START," the follow-on strategic arms reduction treaty with Russia after the expiration of START I.[5]

The New START treaty concluded with a commitment from both Russia and the United States to begin exploring the next round of nuclear arms reductions. The U.S. Senate's ratification of New START ensured that the issue of NSWs had to be addressed in these negotiations. While details are classified, it is estimated that Russia has approximately 2,000 – 4,000 NSWs and that the US has approximately 200 NSWs deployed in several countries likely including Turkey, Belgium, Italy, Germany, and the Netherlands.

The Department of State has already begun to identify the associated technical challenges that will be present in NSW reductions. While there are numerous issues to be resolved, future reductions will require a shift from the generic counting rules for weapons on delivery systems to a more detailed inventory assessments of nuclear weapons themselves. This is a significant technical challenge and State, DOE and nuclear facilities will need to adapt to the new mission and develop new capabilities. To be successful, the new capabilities must be acceptable to Europe and Russia. Therefore, technical solutions will ultimately have the greatest likelihood for success if they are jointly pursued by these countries.

The POPA/CSIS Workshop would analyze the technical and policy challenges associated with reducing NSWs in Europe and Russia. It would build on the previous POPA study in this area: *Technical Steps to Support Nuclear Arsenal Downsizing*, issued in February of 2010.[6]

The Workshop would also build on a previous successful collaboration with CSIS. The POPA/CSIS report *Nuclear Weapons in 21st Century U.S. National Security*, issued in November of 2008.[7] The report was the first to identify and detail the "spectrum of options" for maintaining the nuclear stockpile. That proposal was a key part of the Obama Administration's Nuclear Posture Review.

**WORKPLAN**

The NSS and CSIS propose that the workshop involve: current and former officials and technical experts from the US, Russia and Europe, as well as members of leadership in APS counterpart organizations in Europe, the UK, and Russia. The group will explore NSW reductions along two tracks: a policy track and a technical track. We envision a two day workshop which opens with a framing of a potential near term goal: a tactical nuclear-weapons free zone stretching from the eastern border of France to the Urals. This goal will focus the community on the wide range of needs and challenges all the various countries face. The workshop will explore the substantial policy challenges to achieving that goal and then transition into an identification of the key

[4] http://www.state.gov/nuclearsummit
[5] http://www.state.gov/documents/organization/140035.pdf
[6] http://www.aps.org/policy/reports/popa-reports/upload/nucleardownsizing.PDF
[7] http://www.aps.org/policy/reports/popa-reports/upload/nuclear-weapons.PDF

technical challenges that must be pursued jointly by US, Europe and Russia in order for progress to be made toward the goal.

***Technology Issues***

The recent APS report *Technical Steps to Support Nuclear Arsenal Downsizing* can help frame the key technical issues.[8] The report would be circulated ahead of the workshop to initiate preliminary conversations with the following APS counterparts: the Institute of Physics (UK), the European Physical Society, and the UPS-RF (Russia). Country specific counterparts to the APS, such as the German Physical Society, could also be included.

The goal of the technical discussions at the Workshop would be to converge on a list of key technical steps that should be jointly undertaken by the respective governments in order to enable NSW downsizing. The APS "Downsizing" report identifies two general needs:

- Baselines: The US, NATO and Russia would need to identify the total number and status (e.g. deployed, non-deployed, awaiting dismantlement) of NSWs. Particular questions would need to be considered: How do treaty parties define and count-nuclear weapons? How and with what do they train and practice to do so? Could NSWs be declared and counted according to the rules established in other treaties?
- Verification Technology: The US, NATO, and Russia would need to agree on the use of technology that can validate that a package houses a nuclear weapon without revealing any design information. Particular questions would need to be considered: Could more intrusive detector systems be used in a nuclear-free zone or outside declared storage sites? Can intrusive detector systems be used against advanced conventional weapons and platforms without loss of protected non-nuclear information? Is it possible to separately identify and count weapons packaged in RVs and those packaged for use in bombs and cruise missiles?

***Policy Issues***

The policy challenges are daunting and the Workshop will simply elucidate those challenges with current perspectives of experts on some of the key countries: Russia, Turkey, Germany, US, UK. The following questions are illustrative of a few of the issues that need to be addressed at the Workshop:

- Are NSWs necessary for NATO cohesion and US commitment? Are NSWs, as one NATO official has stated, "the ultimate measure of NATO credibility"?
- Are NSWs, as a regional expert has stated, "a final, and irreplaceable assurance against nuclear attack"? Are NSWs a necessary defense against potential or perceived regional threats, such as the development of nuclear weapons by Iran?
- Do NSWs have any military value? Is there any realistic circumstance under which they would be used?

[8] http://www.aps.org/policy/reports/popa-reports/upload/nucleardownsizing.PDF

- How are the nuclear umbrella and extended deterrence maintained regionally if there is a significant NSW reduction?
- What are the varying impacts of the US/Russia conventional force imbalance and the impacts of the US/Russia tactical nuclear weapons force imbalance?
- What is the coupling between missile defense and NSW reduction limits?

***Format***

Adhering to the same format as the previous POPA/CSIS workshop, outside experts would be commissioned to contribute briefings and written papers at the workshop. This will ensure that topical and compelling perspectives are presented and discussed. The final deliverables would be: 1) a summary (20-25 pages plus annexes) tying together the insights captured in the discussions and expert papers which together would present the most up to date set of perspectives on the challenges and value of NSW reductions; and 2) a list of technical steps to enable NSW reductions that is endorsed by the Presidents of participating physics societies. The summary would be unclassified, as would all the presentations.

In general, the agenda 2-day workshop could be as follows:

Day 1

1. Contextual overview: the challenges & value of a European Nuclear Weapons Free Zone.
2. Introduction: identification of work done in the past, putting things in historical and contemporary context, and outlining the technical and policy issues for the next two days
3. Presentation of US, Russian, and NATO NSW forces and doctrine
4. Perspectives of individual countries (such as US, Russia, Germany, Turkey) on the value and risks of NSW reductions

Day 2

1. Overview: technical steps necessary for NSW reductions
2. Minimum necessary baseline information
3. Technology requirements for verification technology
4. Executive Session breakouts:
    a. Technical Track formulation of list of technical steps to enable NSW reductions
    b. Policy Track formulation of summary

***Workshop Participants***

The following people would lead the project: Dr. Jay Davis, Chair of the POPA National Security Subcommittee; Dr. Jim Trebes, member of the POPA NSS; Dr. Francis Slakey, Associate Director of the APS Washington Office; Dr. Amy Flatten, Director of International Affairs; Dr. John Hamre, President of CSIS; and Dr. Clark Murdock, senior adviser at CSIS.

POPA members would be encouraged to provide suggestions for Workshop participants. The following members and rappoteurs have already been suggested:
General Larry Welch
General Cartwright
Michael Nacht

Frank Miller
Brad Roberts
Rose Gottemoeller
Robin Pittman
Carolyn Pura
John Browne
Amy Wolff

*Proposed Duration of Effort*
The project would require 12 months for implementation.

*Collaboration and Budget*
POPA would contribute the standard $25K from its studies account. CSIS operates through outside grants and would seek, in collaboration with the POPA National Security Subcommittee, $80K to support its participation in conducting the workshop and preparing the workshop report.