

## CALL FOR PRESENTATIONS 2016-2017 ANNUAL SERIES

PONI is now accepting proposals for presentations for its 2016-2017 annual conference series. The conferences typically last two days, with panel discussions, keynote speeches by nuclear experts, smaller working groups, an evening reception, and, in some cases, a facility tour. The conference presentations will focus on, but will not be limited to, the topics listed in the research agenda below. Selected presenters will have the opportunity to work with a PONI mentor before sharing their research at a conference. PONI also uses these presentations to select members of the Next Generation Speakers Bureau, a collection of some of the best and brightest young and emerging nuclear experts. Below are the dates for the upcoming conferences:

1. Sandia National Laboratories, Albuquerque, NM, October 18-19, 2016
2. Center for Strategic and International Studies, Washington, DC, December 6-7, 2016
3. U.S. Strategic Command (STRATCOM), Offutt AFB, NE, March 16, 2017

Your presentation proposal should be no more than 1 page (single-spaced) and should include the following:

1. Your name, organization/school affiliation, and title of presentation;
2. Summary of thesis or argument;
3. Brief description of how your presentation contributes to new thinking on the topic;
4. Your preferred presentation dates, if any;
5. Please also include a resume in a separate file to your proposal.

**Presentation proposals will be accepted and reviewed on a rolling basis. Please submit your proposal to Will Pittinos at [wpittinos@csis.org](mailto:wpittinos@csis.org).**

Travel support is available for presenters lacking university or organizational backing. Please contact PONI Program Coordinator Will Pittinos at 202-735-3132 or [wpittinos@csis.org](mailto:wpittinos@csis.org) with questions about the conference.

## PONI Conference Series 2016-2017 Research Agenda

### Regional Deterrence Dynamics and Escalation Management

The international community faces a nuclear landscape of greater risk, complexity, and challenge than at any time since the collapse of the former Soviet Union. A multi-polar nuclear security environment comprised of nine nuclear-armed states increasingly oriented toward regional, rather than global, competition and stability is challenging traditional concepts of escalation and de-escalation in profound ways. For example in South Asia, India and Pakistan have both taken a stronger posture, and continue to escalate tension with the expectation that the United States would intervene to prevent a nuclear war. Presentations may cover issues such as: cross-domain escalation, regional dynamics, nuclear terrorism and how it relates to escalation calculus, technologies for identifying attackers, etc.

### The Next Nuclear Posture Review

The next administration will face the daunting task of drafting the next Nuclear Posture Review as the United States faces important questions about whether and how to modernize its arsenal in the face of more North Korean nuclear tests, Russian demonstration of increased capabilities, Chinese advancement across the Pacific, the threat of nuclear terrorism, South Asian challenges, and more. What should the priorities be in the next NPR? Can we afford not to

modernize the triad? What weapons should comprise the U.S. nuclear stockpile? How many does the U.S. need to effectively maintain extended deterrence?

### **The Evolving Nuclear Security Environment**

Events in Belgium, especially as details emerge about potential plots and activities of that terrorist cell, provide a stark reminder that the world must remain vigilant regarding nuclear terrorism. Western intelligence, law enforcement, and military services know remarkably little about the intentions of terrorist groups to pursue nuclear and radiological threats, the financial and procurement networks they use to support their efforts, or the means by which such pursuits could be deterred or dissuaded. By looking at the demand-side of this equation, how can the international community more effectively deter nuclear terrorists? How can the non-proliferation regime improve its efforts in dealing with these areas?

### **Future of Arms Control**

In the current security environment of heightened power competition between the United States, Russia, China, and other states, the prospects for future arms-control agreements appear bleak. Given this climate, could nations come together to shore up the Nuclear Proliferation Treaty framework? Can the humanitarian movement gain traction in this complex world? How can challenges of verification be overcome, particularly with improved capabilities making it more difficult to determine the origin of an attack? How can both nuclear weapons states and non-nuclear weapons states better collaborate on verification and technical approaches to nonproliferation?

### **Cyber and Space Challenges Facing the Nuclear Enterprise**

During the latest Nuclear Security Summit, President Obama discussed the importance of securing nuclear materials worldwide. One piece of that mission will be securing the enterprise from cyber-attacks. As a corollary, some suggest that space may present the next frontier for cyber and nuclear confrontations. Presentations may cover issues such as: cyber security at U.S. nuclear facilities, potential adversaries' capabilities; future role of cyber in nuclear strategy; the nexus of space and cyber as it relates to nuclear competition; possibilities for cooperation among states; etc.

### **Impact of modernization in China and Russia**

Both Russia and China continue to develop new technologies that complicate the global nuclear landscape. Some believe Russia might seek to restart testing of nuclear bombs, directly contradicting the CTBT, while the Chinese have made significant advancements in several areas of its triad and they are pursuing alternatives to counteract U.S. superiority. What capabilities are both countries pursuing? How should those impact U.S. decisions about how to position its arsenal? Are new international treaties needed to prevent a new arms race, or is that the reality as we move ahead in the 21<sup>st</sup> century?

### **Health and Budget of the U.S. Nuclear Enterprise**

The budget "bow wave" may have a serious impact on the future of modernization plans and the overall maintenance and health of the enterprise. What impact will budgetary implications have on the United States' ability to upgrade its nuclear arsenals? How should the United States invest to ensure that operators and scientists are engaged and trained adequately to keep pace with technological advancements? What effects of aging materials and other challenges are associated with stockpile stewardship? What impact will the role and recruitment of the next generation have on the future of the force? Is there any room in the modernization plan to reduce costs, curtail programs, or extend lifespans that would create an opportunity to flatten the bow wave? If so what are they?