Science-Based Security Dialogues to Inform U.S. Policy

Micah Lowenthal
Committee on International Security and Arms Control

NATIONAL ACADEMY OF SCIENCES
Outline

• The National Academies
• Science diplomacy
• Background on CISAC
• Nuclear, cyber, and bio discussions
“The academy shall, whenever called upon by any department of the government, investigate, examine... and report upon any subject of science or art,... but the Academy shall receive no compensation whatsoever for any services to the government of the United States”.

Now under this charter: National Academies of Sciences, Engineering, and Medicine (NAS, NAE, NAM)
The Academies Address Challenging Problems at the Intersection of Science and Policy

Domestically focused *advice* and Internationally focused *engagement*.

Convene world class experts. Provide advice on basic science, education, health, environmental sciences, transportation, defense and security (Army, Navy, Air Force, nuclear, chem, bio, space, cyber, intel).

Work across the United States and around the world with partners in Brazil, China, Egypt, Germany, India, Italy, Japan, Liberia, Malaysia, Nigeria, Pakistan, Russia, South Africa, South Korea, Uganda, UK, and many others.

Science and an evidence-based approach form a foundation for agreement and progress.
Science Diplomacy

Cooperation on Science can sometimes establish relationships and a foundation for cooperation on other, more politically sensitive topics.

Agreement between academies of sciences to promote exchanges on pure and applied sciences (Astronomy to Zoology).

1980 Agreement between the NAS and Soviet Academy to create security dialogue under the Committees on International Security and Arms Control (CISAC).

There are many security dialogues. CISAC is unique in its technical grounding and its access to Government.
CISAC

• First meeting in Moscow, June 1981
• Technically based discussions; policy implications
• Now Russia, China, India
• Topics: nuclear arms control, nonproliferation, and security; bioengagement (safety and security); cyber security; space security; counter terrorism; new technologies
• Scientists, retired military officers, policy experts
• Promote better mutual understanding, best practices, and cooperation where appropriate
Current Members

Raymond Jeanloz  (chair, NAS)  UCB
John Ahearne   (NAE) Sigma Xi (ret)
Kimberly Budil  Univ of California
Steven Fetter  Univ of Maryland
Richard Garwin  (NAS/NAE/NAM)
Margaret Hamburg  (NAM)  AAAS
Alastair Iain Johnston  Harvard
Richard Meserve  (NAE)  Carnegie
Peter Palese  (NAS/NAM)  Mount Sinai
John Hildebrand  (NAS)  ex officio  Univ of Arizona

Marvin Adams  Texas A&M Univ
AMB Linton Brooks  NNSA (ret)
Matthew Bunn  Harvard KSG
David Franz  USAMRIID (ret)
Diane Griffin  (NAS/NAM)  JHSPH
MGEN Robert Latiff  (USAF ret.)
James Le Duc  Galveston Nat Lab
ADM Richard Mies  STRATCOM (ret)
James Timbie  State Dept (ret)
Former members include

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Current and Future Activities

- Russia full-scope strategic stability dialogue (2017-18)
- U.S.-Russian study, ballistic missile defense (2017)
- China nuclear monitoring & verification (Dec 2015)
- China military cyber issues (Nov 2016, Nov 2017)
- China biosafety biosecurity (May 2017, Jan 2018)
- India nuclear, space, cyber (Oct 2016, spring 2018)
- India bio: Regional wkshp & topical enggmnt (2016, 2018)
- Reassess future of Cooperative Threat Reduction (2017)
- Developing international norms for bio labs and gene editing of pathogens (2017-18)
- International bio/health security engagement study
The China Dialogue

25th Anniversary China Dialogue Meeting
Washington, DC, April 2013
China Cybersecurity Dialogue
in collaboration with CSTB

R. Jeanloz, D. Clark, R. Garwin, A.I. Johnston, H. Lin, W. Press

First Cyber Security Dialogue Meeting
Beijing, October 2013

Third Cyber Security Dialogue Meeting
Beijing, November 2016

India Dialogue on Space Security, Cyber Security, and Nuclear Safety and Security

Engaging the right people for cyber security, personnel reliability, space debris avoidance and situational awareness, and more.
The Russia Dialogue

30th Anniversary Russia Dialogue Meeting
Moscow, October 2011
Russia Full Scope Strategic Stability

More than just strategic nuclear...

- Space security
- Cyber military weapons and policy
- Non-strategic nuclear weapons
- Conventional long-range precision weapons
- Ballistic missile defense
- Autonomous systems and artificial intelligence
We brief any and all parts of the U.S. Government about our activities, both before and after meetings.

Happy to do so for staff and members on the Hill.

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