Sandia’s Cooperative Monitoring Center (CMC):
A Model for Enhancing Global Security through Cooperative Technical Engagement

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Sandia’s engagement in global security began more than 50 years ago.

**The Cold War**
- Limited Test Ban Treaty
- NPT
- INFCIRC/225
- Open Skies Treaty
- INF Treaty
- CPPNM
- Biological Weapons Convention

**Post-Cold War**
- START I/II
- CTR
- CTBT
- International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT)
- Chemical Weapons Convention

**Post-9/11**
- New START
- Proliferation Security Initiative
- UNSCR 1540
- CPPNM Amendment
An early example of cooperative technical engagement...

...working with the Former Soviet Union on weapon safety and security.
Over time, our cooperative technical engagement has expanded to address Chemical and Biological Threats.
Our systems approach enables Science & Technology to both inform and implement policy.
In 1994, Sandia’s Cooperative Monitoring Center (CMC) was conceived.

- At that time, the “idea” of international technical cooperation on security issues was still new.
  
  *If experts in other countries understood more about available monitoring technology, they would be less distrustful of potential agreements with their neighbors or with the United States.*

- The CMC was established to provide a forum for technical and political experts from around the world to come together to explore how unclassified, shareable technology could help implement confidence building measures, treaties, or other agreements.

  *Important to the concept was to provide a venue where participants could get “hands-on” experience with technology, systems, and analytical tools.*
An early success of the CMC...

...addressing border security issues in the Middle East through a cooperative technical solution.
The CMC's Visiting Scholars Program complements the development of cooperative technical solutions...

Some Works by Visiting Research Scholars:

“Pakistan’s Strategic Thinking and the Role of Nuclear Weapons”
- Major General Mahmud Durrani (Pakistan)

“Confidence Building Measures at Sea: Opportunities for India and Pakistan”
- Rear Admiral Ravi Vohra (India) and Rear Admiral Hasan Ansari (Pakistan)

“North Korea’s Nuclear Weapons Program: Verification Priorities and New Challenges”
- Consul Duk Ho Moon (ROK)

“Dismantlement and Radioactive Waste Management of North Korean Nuclear Facilities”
- Dr. Joo-Ho Whang (ROK)

CMC publications are available at: cmc.sandia.gov
...and continues to provide a mechanism for building relationships and sharing technology.

**Example: India-Pakistan Scholars**

- In residence from September 17 – December 11, 2013.
- Conducted joint study on cooperative measures to support the 2007 Agreement between India and Pakistan on Nuclear Accidents.
- Results enumerated unilateral, bilateral, and trilateral activities which would enhance cooperation in South Asia.

- Results briefed to officials from the Departments of Defense and State – including Rose Gottemoeller, Under Secretary for Arms Control and International Security, and a large NGO audience at the Stimson Center. (broadcast on CSPAN)

*Dr. Sitakanta Mishra*, India’s Center for Air Power Studies and *Dr. Mansoor Ahmed*, Quaid-i-Azam University in Pakistan
The CMC also provides hands-on collaborative environments in which to explore technical solutions.

Example: International Biological Threat Reduction Training Lab
Based on early success in the Middle East, a CMC was established in Amman, Jordan...

The Cooperative Monitoring Center, Amman, Jordan was an institute established by Sandia in Amman, Jordan in 2002 on the campus of the Royal Scientific Society (RSS).

*The Jordan Times – October, 2003*
... and in 2010, the CMC Amman became the Middle East Scientific Institute for Security (MESIS).

- MESIS continues to focus its efforts on the technical aspects of regional security cooperation in the Middle East.
- MESIS currently emphasizes promoting ENERGY, ENVIRONMENTAL, and BORDER security using science and technology.
As we strengthen our partnerships, our cooperative technical engagement in the Middle East grows.

- Middle East Scientific Institute for Security (MESIS)
- Gulf Nuclear Energy Infrastructure Institute (GNEII)
- Other Technical Collaborations
  - Middle East Disease Surveillance
  - Radiological Source Security
  - Natural Resources Studies
  - Water Security
  - Border Cooperation
  - Energy Security and the Role of Nuclear Energy
  - Radiation Measurements Standards (e.g., RMCC)
Other nations are now establishing Centers of Excellence that enable greater regional and global technical engagement...

China-U.S. Center of Excellence

Japan Center for Nuclear Nonproliferation and Nuclear Security (ISCN)
... and the idea of cooperative technical engagement continues to thrive elsewhere.

**Missile Transparency in South Asia:**

- A series of workshops involving participants from India and Pakistan were held to explore transparency and verification issues associated with the dismantling of obsolete missiles such as the Prithvi I (India) and Hatf I (Pakistan)

- A YouTube video was developed ([http://youtu.be/9onjR1_d2pA](http://youtu.be/9onjR1_d2pA)) and is now hosted on a regional think-tank website (Regional Centre on Strategic Studies, (RCSS) in Colombo, Sri Lanka.)
Missile Transparency in South Asia (video)
... and as we look to the future ... and the prospects for cooperative technical engagement ...

- The need for stronger partnerships, and to understand and develop cooperative monitoring regimes is more acute than ever.
- How can we build on the CMC idea to address these needs?