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# Nuclear Security Engagement in South Asia

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# Two Projects Covered Today...

## Transparent Missile Dismantlement in South Asia

- Funded by NNSA

**Ongoing!**

## Cooperative Indo-US Research on Preventing/Mitigating Incidents of Nuclear Terrorism

- Funded by the Department of State's Partnership on Nuclear Security

**Upcoming!**

# Background



## South Asia has:

- Two **nuclear-armed nations** (India and Pakistan) who have **fought four wars** (1947, 1965, 1971, and 1999) with each other
- Frequent **terrorist attacks**—in both India and Pakistan—that include attacks with **mass casualties**
- Expanding reliance on **nuclear energy**
- **A new U.S.-India deal on civil nuclear cooperation**

# Confidence Building Measures: Transparent Missile Dismantlement

Goal: Create a bilateral (India and Pakistan) process that would familiarize both sides with arms control measures and processes

India's Prithvi I



Nuclear capable, range = ~150 km  
First Flight Test = 1988

Pakistan's Hatf-I



Nuclear capable, range = ~70 km  
First Flight Test = 1989

# Engagement process:

Track 1.5:



⋮

Colombo,  
April 2011  
(Pakistan)

Track 2:

Sofia Bulgaria,  
June 2011

Colombo,  
Sept. 2010

Wilton Park,  
April 2010



Sandia ran several “arms control exercises” that involved negotiating and implementing on-site monitoring and data exchanges.

# Bearing Fruit...

Regional Participants are advocating both within their governments and to the public:

**The Colombo Group Initiative:**  
Enhancing Strategic Stability in South Asia through the Transparent Elimination of Obsolete Ballistic Missiles

**The Issue**

Enhancing strategic stability is a common goal for India and Pakistan, as affirmed in the Lahore Memorandum of Understanding (MoU) and other statements. Many concepts exist on how this could be achieved. The Colombo Group seeks to identify small but substantive steps that can contribute toward strategic stability. Such steps should be practical and mutually acceptable.

One possibility for incrementally furthering this goal is afforded by the fact that it is only a matter of time before some of the ballistic missiles held in the inventory of both sides will become obsolete. Reasons for this obsolescence include safety concerns, cost of maintenance, and significantly decreased reliability.

This project outlines practical steps toward the transparent and irreversible elimination of some ballistic missiles. Pakistan's HATF-1 and India's Prithvi-1 are two missiles that are approaching obsolescence, and are candidates for dismantlement. Such elimination could occur on a bilateral, bilateral, or cooperative basis. Pursuit of a bilateral approach would build confidence and act as a catalyst for discussion of strategic futures.

**Progress**

The Colombo Group has studied the modalities of mutual, transparent reductions of ageing missiles. While reviewing the history of missile retirements worldwide, the group examined ways in which a mutually acceptable process of retiring missiles can contribute to strategic stability. We identified the approaching obsolescence of HATF-1 and Prithvi-1 as an opportunity to advance confidence building measures. The group then developed a comprehensive understanding of the practical and technical feasibility of verification and transparency.

The National Military Museum in Sofia, Bulgaria provided an ideal venue for conducting practical transparency exercises on full-scale solid and liquid-fueled missiles. The group gained insight from Bulgaria's experience in the transparent elimination of missiles. For the first time ever, participants from India and Pakistan undertook unique, rigorous, two-sided missile dismantlement exercises. The first exercise demonstrated transparency by exchanging photographs of the missiles before commencement of a dismantlement process. The second exercise demonstrated the concept of reciprocal on-site visits to designated missile locations. The participants negotiated the use of techniques, technological tools, and procedures for managed access to gain an appreciation of the perils and opportunities inherent in sharing missile dismantlement information, while also protecting one's own sensitive data. The Group concluded that such techniques and procedures could be appropriate for demonstrating transparency in the retirement of HATF-1 and Prithvi-1.

The Colombo Group is a collection of primarily South Asian security experts who in their private capacity, and in collaboration with selected international experts, develop pragmatic options to enhance regional stability.

**Next Steps**

Against the backdrop of the renewed India-Pakistan Composite Dialogue (Peace and Security), the Colombo Group envisions a number of follow-on activities in the coming months. These include:

- Convene workshops in Islamabad and New Delhi to:
  - Engage the broader strategic community in each capital.
  - Elaborate the confidence building potential of the initiative.
- Conduct a Joint Transparency Exercise in the region with stakeholders from India and Pakistan.
- Publish op-eds and scholarly articles to promote understanding of the relevant concepts.

It is the considered view of this Group that the transparent elimination of obsolete missiles would not diminish Pakistan or Indian security and will in due course enhance mutual confidence and promote strategic stability.

**Participants**

Brigadier General (retired) Gurmeet Kanwal  
Brigadier General (retired) Feroz Khan  
Major General (retired) Qasim Qureshi  
Brigadier General (retired) Naam Salk  
Dr. W. P. Sidi  
Dr. Mangreet Sethi  
Dr. Monika Chansoria  
Mr. Mansoor Ahmed

[International representation at Colombo Group meetings has included participants from the following countries:](#)

Bulgaria, France, Russia, Singapore, Sri Lanka, Sweden, United Kingdom, United States



**Want true CBM? Banish short range missiles in South Asia**

The security dynamics between India and Pakistan perennially keep the subcontinent on a simmer, with the equation becoming far more complex since 1998, when both nations tested and formally declared themselves as states possessing nuclear weapons capability. The nuclear dimension has added to the volatility of the security equation in South Asia given the debates surrounding India and Pakistan's respective deterrence doctrines and force postures. The apprehension of a conventional or sub-conventional conflict triggering a chain reaction that could lead to a potential nuclear crisis haunts South Asia's strategic peace and security scenario.



**Building trust in Asia through cooperative retirement of obsolete missiles**

As obsolete missiles are removed from the nuclear arsenal, our two countries can build trust and understanding.



**Let's stop being MAD, move to CBMs**

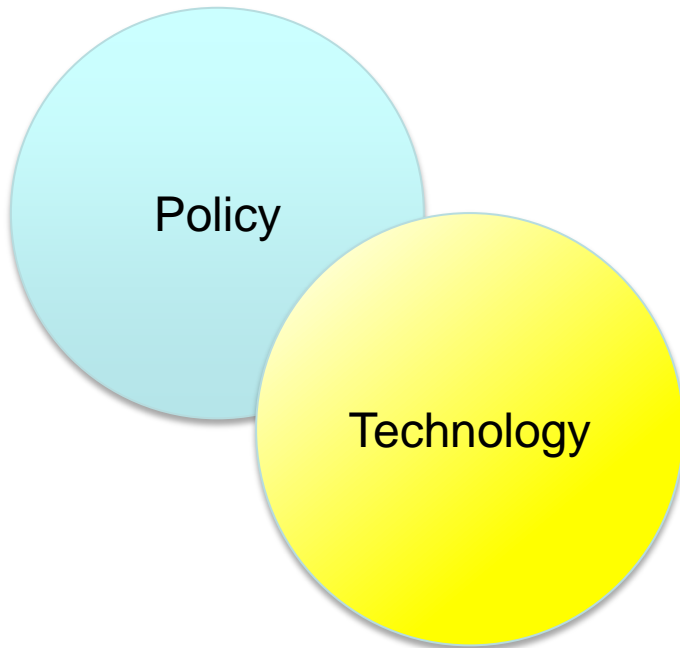
Feroz Khan & Gurmeet Kanwal | Sep 21, 2011, 02:00am IST

**Tags:** short-range ballistic missiles | Mad | CBMs

In 1998, India went nuclear. Within weeks, Pakistan followed suit with multiple nuclear tests. Having included nuclear weapons in their ever-growing arsenal, both India and Pakistan now have incorporated nuclear capabilities into their defence planning. Though we now have the MAD (mutually assured destruction) doctrine as the guiding philosophy of minimum credible deterrence, it is a fact that asymmetries exist in the forces of the two countries. As the neighbours look at their threats, strategy and tactics in different ways, it's quite natural that these differences will continue. But, we believe, India and Pakistan have both reached a point where they should move from being MAD to following CBMs (confidence building measures).

The time is right for India and Pakistan to share information about their respective deterrence postures with each other. Such understanding could be critical in a tense situation. Both the countries have mutually resolved to enhance strategic stability in our region, as affirmed in the Lahore Memorandum of Understanding (MoU) in February 1999. One possibility for furthering this goal is to consider retiring their oldest, first-generation, nuclear-capable short-range ballistic missiles (SRBMs), which are at the end of their natural lifespan. Pakistan's HATF-1 & 2, and India's Prithvi-1 & 2 have served their purpose and will be eventually retired unilaterally according to each nation's normal decommissioning process. We propose a plan of mutual transparency

# Visiting Scholars: Joint Research with India on Preventing/Mitigating Nuclear Terror:



India and the US share an interest in combatting nuclear terrorism.

India has stated it urgently needs work in:

- Threat Perception Analysis
- Establishing guidelines for acceptable food radiation levels
- Survey of current status and possible lines for research for mobile radiation monitoring
- ...



# Thank you for your attention!



## Any Questions?