



Aiming Beyond the BMD

Subject to clearance of the Cabinet Committee on Security (CCS), India's Ballistic Missile Defence (BMD) system is reportedly "ready to be in place at short notice." Technologically this may denote India's growing military technology prowess, but strategically this is likely to generate more questions than answers. For instance, will it destabilise the regional nuclear balance in vogue? What is the military objective of India's BMD – will it help effective implementation of the Cold Start Doctrine? Or, will it beget a regional arms race? Will it address all missile contingencies that India is likely to confront?

While BMD advocates validate India's move as an imperative to ensure survivability of its nuclear assets for a second-strike capability, they overlook the fact that ballistic missile threat is not the only form of missile contingency India is confronting today. A cursory look at the missile inventory and capability of neighbouring countries would suggest that both China and Pakistan have prioritised cruise missile development in their defence modernisation programmes.

According to Taiwan Defence Ministry sources, "over 100 cruise missiles are presently deployed" by China. During 2004-2009, Beijing has tested various cruise missiles some 30 times, including the second-generation DH-10 (LACM) series. According to *Bulletin of Atomic Scientists* (2011), the DH-10 which has a range of more than 1500 km, numbers somewhere between 200 and 500 with some 40 and 55 launchers. This has further developed into the CJ-10 cruise missile family.

Pakistan, on the other hand, fears that India, by deploying BMD, may neutralise its current ballistic missile-based nuclear deterrent. Islamabad's strategy now is to strengthen its cruise missile inventory. The nuclear-capable *Babur* (*Hatf-7*) is based on the BGM-109 Tomahawk and has been test-launched eight times by June 2012. The turbojet-powered *Ra'ad* (*Hatf-8*) is nuclear capable and has been test-launched for the fourth time.

Bangladesh is also reportedly taking interest in missiles and has commenced some interaction with China in regard to missile technology development. On 11 May 2008, the Bangladesh Navy successfully test-fired the C-802 missile in the Bay of Bengal, following an upgrade to the missile system with the assistance of China. Dhaka is also acquiring the European Otomat Mk-II SAM that are proclaimed as "defensive" in nature and function. Still, their range of less

than 200 km makes them a defence only against India. Anybody's guess which way the Bangladeshi missile programme would proceed a few decades down the line. Strategists view the missile programme that Bangladesh has begun with Chinese help is part of Beijing's considered strategy to encircle India.

Ballistic missile threats from the neighbourhood do indeed remain a great concern for India, but do they have any credible defence against the sophisticated cruise missiles pilling up in its vicinity? Suffice it to say that even for the United States, intercepting lower-altitude, slower-flying cruise missiles remains a pressing challenge. During 2003 *Operation Iraqi Freedom*, Patriot missiles successfully intercepted all nine ballistic missiles fired by the Iraqi forces but they failed to detect any of the five 'primitive' cruise missiles Iraq employed.

Starting from *Operation Crossbow* (1944) till *Operation Iraqi Freedom* (2003), the use of cruise missiles in the world has exceeded that of ballistic missiles by over 3 to 1 (19,465 against 5875). Currently around 130 types of cruise missiles are deployed by 75 countries. In Asia, around 11 countries have active cruise missile programmes.

The evolution trend of cruise missile technology shows that they are becoming more 'intelligent' and lethal owing to the sophisticated enabling technologies like GPS, TERCOM, composite materials, computers, and satellites. They are more cost-effective than fixed-wing fighters or bombers; therefore, both horizontal and vertical proliferation of cruise missiles can be expected as they can be equally lucrative for terrorists in their nefarious designs.

However, a coherent conception of the threat of cruise missile proliferation and credible defence against them is still unavailable and India must view the cruise missile programmes of its

neighbours with alacrity. By exploiting India's long coastline, terrorists can even hide cruise missiles in commercial cargo, stay close to India's territorial waters, and then launch cruise missiles. In recent years, increasing numbers of commercial container ships are entering Indian ports, but only the Jawaharlal Nehru Port in Mumbai is Container Security Initiative (CSI) compliant.

Thus, India while preparing for BMD, should strategise for defence beyond the ballistic missile threat. A national debate over the imminent cruise missile threat and existing capabilities to defend against them is imperative. The pros and cons of India joining the Missile Control Regime (MTCR) may be considered. Staying outside the regime, India's voice against the Sino-Pak clandestine nuclear-missile nexus will not attract much attention. In the long-run, an active cruise missile defence (CMD) in line with the US two-layer CMD model may be considered. This would certainly put enormous burden on the national exchequer, but does India have the luxury to overlook this or any alternative to meet the emerging threat?

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