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Pinaka rockets can plug nukes and play

By Ajit K Dubey

While Pakistani Prime Minister Shahid Khaqan Abbasi has again flaunted his country's tactical nuclear weapons, NDA government sources said India has the option of developing the Pinaka guided rockets to match the mini-nukes of its western neighbour in the battlefield. Abbasi said in the US this week that his country possesses tactical or battlefield nuclear weapons, which can be used to check the advance of Indian tank regiments as part of New Delhi's "cold-start war doctrine".

"The Pakistanis have been flaunting their tactical nukes which they have developed with the help of the Chinese. At present, we don't have these weapons in our arsenal but if asked by the government, we have the option of developing the Pinaka guided rockets for delivering nuclear warheads at small ranges," government sources told Mail Today. Tactical nuclear weapons include short-range missiles, artillery shells and torpedoes which are equipped with nuclear warheads. Sources said the Indian government has not yet asked the agencies concerned to develop the Pinaka guided missile to be used as a nuclear delivery weapon system. The Pinaka rockets have been developed by the DRDO as battlefield multi-barrel rocket launcher to take down enemy tanks and other moving targets at the strike ranges of 70 to 80km.

A group of scientists from America has also said in its report that the Pakistanis have stored their tactical nukes at nine different locations across the country and mostly near the bases which have the capability to launch big nuclear missiles. The scientists also feel that since these battlefield nukes would be distributed much in advance and in large numbers to the field fighting formations, the chances of accidents or their being transferred to other elements is also very high. The guided Pinaka has been developed by Pune-based Armament Research and Development Establishment (ARDE) and Defence Research and Development Laboratory. Pinaka Rocket Mark-II, which has evolved from Pinaka Mark-I, is equipped with navigation, guidance and control kit, and is converted to a guided Pinaka.

This conversion has led to enhancement of its strike range and considerably improved its accuracy. The rocket was fired from a multi-barrel rocket launcher (MBRL). The rocket launcher can fire 12 rockets with 1.2 tonne of high explosives within 44 seconds and destroy a target area of four sq km at a time. The quick reaction time and high rate of fire of the system gives an edge to the Army during a low-intensity conflict situation. The weapon's capability to incorporate several types of warheads makes it deadly for the enemy as it can even destroy their solid structures and bunkers.

The performance of the previous version of Pinaka was lauded during the Kargil War, where it was successful in neutralising enemy positions on mountain tops. After both India and Pakistan came out openly with their capability to produce and use nuclear weapons in 1998, New Delhi has adopted a responsible stance by declaring a 'no-first use' policy while Islamabad used its weapons to blackmail the western countries while continuing its support for international terror groups.

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Army orders surface to air missile, making it the first tri-service weapon

Army today signed a contract in Hyderabad that requires DRDO to develop an army version of the medium range surface to air missile

By Ajai Shukla

A year ago, the army was planning "surgical strikes" across the India-Pakistan Line of Control (LoC) to avenge the killing of 19 Indian soldiers near Uri, on September 18. But Pakistani retaliation was anticipated and a key Indian Air Force (IAF) base, protected only by aging Soviet-era missiles, was vulnerable to Pakistani air strikes.

There was only one option. In Hyderabad, Bharat Dynamics Ltd (BDL) was putting the finishing touches on a potent new missile – the eponymous Medium Range Surface to Air Missile, or MR-SAM – which the Defence R&D Organisation (DRDO) has just developed.

The die was cast. Without fanfare, the IAF's first MR-SAM squadron was airlifted to the vulnerable base – a vote of confidence based on recent firing trials. When Indian commandos crossed on LoC on the night of September 28, 2016, the brand new missile was ready for operational use.

On Monday, the army signalled its confidence in the MR-SAM, signing a contract in Hyderabad that requires the DRDO to develop an army version of the MR-SAM and BDL to build and supply it. A defence ministry release stated, "The contract was signed for production, deliveries and product support of MR-SAM system for the Indian Army."

The MR-SAM and its naval version, called the LR-SAM (Long-Range Surface to Air Missile), were developed by the DRDO in partnership with Israel Aerospace Industries (IAI). DRDO developed about 30 per cent of these missile platforms, while IAI developed the bulk of it.

This makes these missile platforms the first tri-service weapon in service with India's military. There are only minor differences: the naval LR-SAM is fired from sealed canisters below warship decks that protect the missile from the corrosive marine environment. The LR-SAM primarily targets sea-skimming, anti-ship missiles. The IAF version of the MR-SAM is mounted on trailers, and is fired from the open at enemy fighters screaming in to attack air bases. The army version, which provides protection against enemy ground attack aircraft, will be mounted on high-mobility vehicles that can keep up with tank columns moving cross-country.

The missiles are the same for all versions, except for the software that controls their "self-destruct" function. The LR-SAM, which is a sea-skimming missile, self-destructs simply by pitching its nose down and plunging into the sea. The MR-SAM, which would be mainly used over land, is required to "pitch up" before it self-destructs, so that the debris are scattered.

DRDO sources claim the cost of Rs 6 crore per missile is cheap, given that it shoots down sophisticated fighters costing hundreds of crore; and protects warships that cost thousands of crore.

All three versions of the missile have a sophisticated central radar – called the Multi-function and Search and Track Alert Radar (MF-STAR). This detects incoming enemy aircraft and missiles that are well over a hundred kilometres away, and then guides the missile to the target, intercepting it at ranges out to 70 kilometres. The MR-SAM contract was signed in 2009, but complex technological challenges have caused delays. In May 2016, Parliament's Standing Committee on Defence said in a report that the MR-SAM project has been delayed by 4 years.

In another report dated March 2017, the Standing Committee stated the MR-SAM project cost a total of Rs 10,076 crore. Of this, the DRDO's share, which constituted the development cost, added up to Rs 1,680 crore. The remaining amount, which amounted to Rs 8,396 crore, was committed by the IAF towards the guaranteed purchase of missiles and other systems.