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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.

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.



Mon, 25 Sept, 2017

(Online)

Industry conclave on food technologies results in 29 MOUs

About 27 MOUs between small unit owners and the Defence Research Development Organisation (DRDO) emerged from the two-day industry conclave on food technologies that ended on September 22.

The MOUs are accompanied by payment of technology transfer fee and it's signing means that scientists from DRDO will train local entrepreneurs on the technology, manufacturing process, sourcing of material, etc. The training will be provided at the DRDO food lab in Mysore.

Scientists from DRDO are also expected to do hand-holding to unit owners to ensure that the technology purchased is utilized and the project goes on stream. The conclave was organized by the Goa State Industries Association (GSIA) in partnership with the DRDO and the directorate of industries, Goa. Its purpose is to give a much needed technology boost to the local food processing industry that is largely small and nascent.

While the DRDO is known for its core competencies in various areas of military technology its life sciences department is involved with developing technology for the armed forces. The life sciences division develops specific food technology in the areas of convenience foods, ready-to-eat food, etc. The technology is also used by the Indian food processing industry as it is of significant commercial value.

Scientists from DRDO came down for the conclave to disseminate awareness on latest technology in food preservation and packaging. Day one was inaugurated by the Chief Minister while day two had Vijay Sardesai, agriculture minister as chief guest for the valedictory function. Dr Gurunath, director general, DRDO was the key speaker at the conclave.



Sun, 24 Sept, 2017

(Online)

Integrated Test Range Campaigns for Green and Clean India

Balasure: DRDO's Integrated Test Range (ITR) in Odisha's Balasure district has initiated a campaign for building a green and clean India.

In order to spread awareness on protecting the environment, the ITR employees and support staff undertook a silent march at Balasure town yesterday carrying placards with "Swachhata hi Seva" written on them. "Everyone knows we test missiles. Now, we want to show that we have concern for the environment. Though we are very busy in missile programme, we are able to find time for this noble cause," said B K Das, the director of ITR. He also hoped that ITR's initiative would inspire people to do their bit in keeping the environment clean and green.

Army changes tack, puts tanks at Akhnoor

Chammb-Jaurian sector saw pitched battles during '65, '71 Indo-Pak wars

By Ajay Banerjee

India has reorganised an Army division to hold tanks and armoured vehicles in its arsenal and located it to tackle threats from across the Line of Control (LoC) in the lower parts of Jammu and Kashmir. The division is tasked with countering the threat in the Chammb-Jaurian sector, west of Akhnoor.

The area is of immense strategic importance. During the 1965 and 1971 wars, Pakistan had tried to run its armoured columns through these fertile plains located smack on the LoC in an attempt to cut off India's access to Kashmir, resulting in pitched tank battles.

The existing 10th Infantry Division of the Indian Army based at Akhnoor has now been converted into "Rapids" or Reorganised Army Plains Infantry Divisions. It will hold two regiments of tanks (around 100) and another two regiments of mechanised armoured vehicles (100). The Army uses the Russian-built BMP as armoured vehicles.

This will be the first of the series under Army's Northern Command. The first ones came up at locations under the Western Command in the late 1980s. Former Army Chief General K Sundarji (ret'd) is credited with the creation of "Rapids".

Each of "Rapids" also consists of two infantry brigades, artillery elements, a reconnaissance and support battalion, an engineer regiment, a signals regiment and latest surveillance with target acquisition equipment.

On September 1, 1965, the Pakistan army had launched "Operation Grand Slam" to take control of the Akhnoor bridge in a bid to cut off the Nowshera-Rajouri-Poonch area from Jammu. In 1971, the tactic was repeated.



Surgical strikes were a message, says Army chief Gen. Rawat

We will strike again if the adversary does not behave, says Army chief Gen. Rawat

India had conducted surgical strikes last year as a message to Pakistan. They can continue in future too, said Army chief General Bipin Rawat on Monday. "The strikes were more of a messaging that we wanted to communicate and I think that they understand that... If required and if the adversary does not behave, then we have to continue these kind of activities. But there are also other ways of doing these things and they may not take the same form," he said.

Gen. Rawat made these comments after releasing the book, *India's most fearless: True stories of modern military heroes* authored by two defence journalists, Shiv Aroor and Rahul Singh. The book catalogues 14 personal accounts of soldiers and their courage in extreme situations under hostile conditions, including of officers who participated in the surgical strikes across the Line of Control (LoC) and the strikes on insurgent camps in Myanmar. Eight are of the Army and three each of the Navy and the Air Force.

Recording history - In September last year, the Army launched surgical strikes against terror launch pads across the Line of Control (LoC) after 19 soldiers were killed in a terror attack on an Army camp in Uri.

On the impact of the surgical strikes, Gen. Rawat said: “We are now more capable of taking decisions keeping our national interests in mind.”

Observing that the country was “poor in recording history”, he hoped that someday such personal accounts would find their way into school textbooks.

On increasing infiltrations along the LoC, Gen. Rawat said they would keep coming and we would keep receiving them and “burying them under the ground.”

Enhanced image

Former Army Chief Gen. Dalbir Singh, under whose tenure both the surgical strikes were conducted, echoed similar views on their impact. They had “struck well as deterrence and have enhanced India’s image abroad,” he said.

However he refused to delve into the details of the surgical strikes. “The methods and means of executing the surgical strikes cannot be made public,” Gen. Singh said. Stating that India’s Special Forces were the finest in the world, he stressed on the need to upgrade them from time to time.



Tue, 26 Sept, 2017

India, US to explore trilateral navy exercise expansion

By Shubhajt Roy

Sources said that the two sides will discuss the possibility of inducting new members in the exercise, and Australia and Singapore are likely contenders.

India and the US will explore the possibility of expanding the annual trilateral Malabar naval exercise when the visiting Defence Secretary James Mattis meets Defence Minister Nirmala Sitharaman on Tuesday. The idea of a quadrilateral arrangement between India, US, Japan and Australia has been around for a while but that is expected to get a push at the highest level now in the wake of an assertive China in the neighbourhood.

“The new US administration is keen to induct new members as part of the exercise... and the issue is on the table for tomorrow’s meeting,” a source told The Indian Express. Some preliminary discussions took place during Prime Minister Narendra Modi’s visit to the US in June when he met US President Donald Trump.

Sources told The Indian Express that the two sides will discuss the possibility of inducting new members in the exercise, and Australia and Singapore are likely contenders.

Mattis, who is the first cabinet-level member from the Trump administration to come to India is expected to articulate “common concerns and interests” in the region, especially those involving Afghanistan and Pakistan.

The visiting US secretary of defence will emphasise that the US views India as a valued and influential partner with broad mutual interests extending well beyond South Asia, a US government statement had said on Friday.

The Malabar naval exercises have evolved from a Indo-US naval exercise into a strong display of geopolitical force joining the Indo-Pacific’s three most powerful democracies.

After Japan joined as a permanent participant in 2015, the exercise has received attention — in the face of an assertive Chinese military deployment in Indo-Pacific region.

There has been regular discussion of Australia participating in Malabar with Delhi since at least 2015. Earlier this year, Australian defence minister Marisa Payne publicly reaffirmed that Canberra was “very interested” in a quadrilateral engagement with India, the US and Japan. Despite Canberra’s keenness, India has declined Australia’s request to join Malabar 2017.

In 2004, the navies of Australia, India, Japan, and the US collaborated during the December 2004 tsunami and the four countries had coordinated humanitarian relief efforts under the auspices of the ‘Regional Core Group.’



Tue, 26 Sept, 2017

War on Terror - India, US should go for pre-emptive strikes, destroy Pak N-assets: Pressler

By Vaibhav Purandare

Suggesting that both India and the US conduct pre-emptive strikes inside Pakistan to destroy its nuclear sites (where weapons have either already been stored or are being made), former US Senator Larry Pressler told TOI on Monday that Donald Trump may turn out to be the best American president yet for India as he had recently put Pakistan on notice for harbouring terrorists.

But for this to happen, Trump would have to get around the Pentagon, which always encouraged Pakistan, he said. Such encouragement emboldened Pakistan to attack India as “the mother of terrorism“ and “predator“ at the UN general assembly session on Sunday , he added. Trump's description of the Pentagon as “a swamp“ was a good sign, he noted, hoping the US president would drain it soon (as he'd promised).

A three-term Senator and twice a member of the House of Representatives, Pressler (75) authored the famous Pressler Amendment which in 1990 blocked US military aid to Pakistan when the then US President George H W Bush could not certify Pakistan was not developing nukes.

As the delivery of close to 30 F-16 aircraft to Islamabad was barred, Pressler, then a Republican and head of the Senate's arms control subcommittee, became something of a hero in India and, in his own words, “a devil in Pakistan.“ His new book, Neighbours in Arms, engagingly tells the story of the amendment and of the US foreign policy that enabled Pakistan to develop nuclear weapons and casts a severe spotlight on the culture of lobbying in Washington and the grip of the military-industrial state (“the Octopus“) inside the US.

Pressler has long distanced himself from the Republican Party -he contested Senate polls as an Independent in 2014 and backed Hillary Clinton in the 2016 Presidential polls -but despite differences with Trump, he feels the president is not doing half as badly as US media suggests.

Trump's warning to Pakistan on its sheltering and export of terror, linking of US aid to “action on terror“ and his request to India to “help us more with Afghanistan“ signalled a recasting of relations. The ex-Senator hopes Trump will act on the notice.

“US must declare Pakistan a terrorist state, cut off all aid and must not treat India and Pakistan as equals. India is a democracy, Pakistan isn't.And Pakistan and especially the ISI have lied to us for decades.“All praise for PM Modi, the Vietnam veteran said it was good the Modi government was tough with Pakistan. He called the denial of a US visa to Modi when the latter was Gujarat CM “a stain“ on the US. He was critical of India, however, for allegedly handing out millions to lobby ists in Washington. “Pakistan started this lobbying. India doesn't need to do it,“ he said.

He said Pakistan couldn't have developed nuclear weapons if US had stopped aid. Having worked closely with many US presidents, he felt Ronald Reagan had been very receptive to his ideas on nuclear non-proliferation and his views on Pakistan's duplicity but had been hemmed in by "Octopus" mandarins. And Bill Clinton had, on his 2001 trip to India (Pressler was part of that delegation), given the impression that he loved the country and its people but had, in reality, repealed the Pressler Amendment and encouraged military supplies to India's hostile neighbour.

Pressler was criticised when, in the 1990s, he had expressed concerns about an "Islamic bomb." He said he stood vindicated today and that the growth of ISIS and similar groups led him to fear that fundamentalist organisations and not individual states may create a "Caliphate."

THE ASIAN AGE

Tue, 26 Sept, 2017

Tehran trashes Trump claims of missile relations with N. Korea

Tehran, Sept. 25: Iran said on Monday that suggestions by US President Donald Trump that it was working with North Korea on missile development were "nonsense".

Foreign ministry spokesman Bahram Ghasemi was responding to a tweet by Mr Trump over the weekend in which the US President wrote: "Iran just test-fired a Ballistic Missile capable of reaching Israel. They are also working with North Korea."

Mr Ghasemi said that there were "no similarities nor resemblance" with the actions of North Korea, and that claims



they were working together on ballistic missile development amounted to a "clear lie".

"It is very clear that this is a nonsense and baseless claim," he told reporters.

Iran said on Saturday that it had tested its Khorramshahr missile

Since US criticism, speed of our missile development has increased several times

— **General Amir Ali Hadjizadeh,**
Iran military officer

with a range of 2,000 kilometres.

There has been speculation, particularly from hawks in Washington, that the Khorramshahr was based on North Korea's intermediate-range Musudan missile.

But there has been scant

evidence of direct cooperation between the two countries in recent years, with Iran seemingly keen to distance itself from the East Asian pariah state.

Instead, Iran has emphasised its home-grown missile programme, and denied that this breaches any international laws.

"All the materiel and pieces for our missiles are manufactured locally and do not come from abroad," he said.

In 2010, a diplomatic cable released by Wikileaks showed that US intelligence officers believed North Korea had shipped Musudan missiles to Iran.

— AFP