

Mon, 20 Aug 2018

Guided bombs, anti-tank missile successfully test fired in Rajasthan

The indigenously-developed helicopter-launched Helina missile has been successfully flight tested from an army chopper in Pokhran firing ranges

Indigenously-developed guided bombs -- Smart Anti-Airfield Weapons -- and anti-tank guided missile Helina were successfully flight tested at separate firing ranges in Rajasthan, the defence ministry said on Sunday.

It said the Smart Anti-Airfield Weapon (SAAW) was successfully flight tested from an Indian Air Force (IAF) aircraft at Chandan range, while the Helina was test fired at Pokhran.

The ministry said SAAW was integrated with live warhead and it successfully hit the targets with high precision.

“The SAAW is capable of destroying a variety of ground targets using precision navigation. The tests were conducted between August 16 and 18,” it said in a statement.

The indigenously-developed helicopter-launched Helina missile has been successfully flight tested from an army chopper in Pokhran firing ranges today. “The weapon system has been tested for its full range. The Helina weapon system released smoothly from the launch platform has tracked the target all through its course and hit them with high precision,” the ministry said. The missile is one of the most advanced anti-tank weapons in the world.

The SAAW and Helina are being developed by Defence Research and Development Organisation (DRDO).

Defence Minister Nirmala Sitharaman congratulated the DRDO for successful flight tests of both the weapons, saying they will further boost the defence capabilities of the country.

While SAAW is being developed for the IAF, the Helina missile will be a part of the Army’s weaponry.



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Anti-runway and anti-tank missiles tested successfully: Defence Ministry

The ministry states, "The weapon system was integrated with live warhead and has destroyed the targets with high precision"

By Ajai Shukla

The defence ministry on Sunday announced the success of two major new weapon systems developed by the Defence R&D Organisation (DRDO). One is a precision-guided bomb, launched from fighter aircraft to incapacitate enemy air bases up to 100 km away. The second is an anti-tank missile, fired from helicopters to destroy enemy tanks as far as 7 km away.

The indigenously designed and developed guided bombs — named the Smart Anti-Airfield Weapon (SAAW) — was launched from Indian Air Force (IAF) fighters at Chandan range, in Rajasthan. The ministry stated, “The weapon system was integrated with live warhead and has destroyed the targets with high precision.”

The SAAW is an accurate bomb and is termed a precision-guided munition (PGM). After its release from an aircraft, a sophisticated “inertial navigation system” on the bomb guides it precisely to its target — typically an enemy airfield up to 100 km away.

Striking the airfield’s runway precisely with one bomb is more economical than using traditional free-fall bombs, which are less accurate and must therefore be released in large numbers to be assured of incapacitating the target airfield.

Another advantage of SAAW is that, after releasing it at a distance from the enemy airbase, the aircraft can return without exposing itself to anti-aircraft defences surrounding most air bases.

“Three tests with different release conditions were conducted from August 16-18 and all mission objectives have been achieved,” said the defence ministry.

These were the eighth round of developmental trials SAAW has undergone. It is now regarded as ready for induction into the IAF’s arsenal. Separately on Sunday afternoon, in “summer trials” in the blazing hot Pokhran Range, an indigenous Dhruv helicopter launched a HELINA anti-tank guided missile (ATGM) at a tank target seven kilometres away, successfully striking and destroying it.

HELINA is the acronym for “helicopter launched Nag” missile, a heavier and longer-range version of the vehicle mounted Nag missile with a 4-km range.

The missile is locked onto its target through a telescopic sight just before it is fired. After it is airborne and is flying towards its target at 200 metres per second, it is guided by an “infrared imaging seeker”, that homes in on the target’s heat signature.



Sat, 18 Aug 2018

DFRL, CFTRI provide ready-to-eat food

Mysuru-based premier food research laboratories — Defence Food Research Laboratory (DFRL) and Central Food Technological Research Institute (CFTRI) — are rushing ready-to-eat and ready-to-cook food items to the flood-ravaged regions of Kerala and to Kodagu in Karnataka.

The DFRL on Friday dispatched three tonnes of food items, including tomato rice and upma, besides water pouches to Thiruvananthapuram on an Air Force aircraft. The CFTRI will be ready with 5,000 meals by Saturday evening.



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India building new fighter jet

The Advanced Medium Combat Aircraft (AMCA), India’s next indigenous fighter, is expected to make its first flight by 2032. Development work on the jet is under way.

“The AMCA will feature geometric stealth and will initially fly with two GE-414 engines. Once we develop our own engine, it can be replaced with that. We expect the first flight in 2032,” a defence source said.

“There are two major ways of making a military platform stealthier. One is geometric stealth and other is material stealth. In geometric stealth, the shape of the aircraft is designed at such angles so as to deflect away maximum radar waves thereby minimising its radar cross section. In material stealth, radar-absorbing materials are used in making the aircraft which will absorb the radio waves thus reducing the radar footprint. The AMCA will initially be based on geometric stealth, we can look at material stealth at a later stage,” the source said.

The Indian Air Force has given land to the Defence Research and Development Organisation to set up facilities for the project.

The plan is to build on the capabilities and expertise developed during the development of the light combat aircraft (LCA) and produce a medium fifth generation fighter aircraft.

“Apart from the technologies developed from the LCA project, the new fighter programme is important as technologies coming in through that will flow into the AMCA project,” another official source said. The aircraft will be powered by the same GE-414 engine on the LCA Mk-2 variant which is in the design phase.

A GE-414 produces 98kN thrust compared to 84kN thrust of the GE-404 engine which is on the LCA Mk1.

At Aero India 2016, DRDO officials had stated that the basic design configuration has been frozen after wind tunnel testing and there are three critical technologies that need to be developed -- stealth, thrust vectoring and super cruise.

This is India’s only fifth generation aircraft programme following the decision not to go ahead with the fifth generation project with Russia.