

Indigenous artillery gun ATAGS to undergo winter trials in Sikkim

By Rahul Singh

The 155mm 52-calibre ATAGS set a record during trials in Rajasthan's Pokhran in September, firing shells to a range of 48 km.

A locally made gun is set to undergo crucial trials in January at a time when the army has sharpened its focus on its long-delayed artillery modernisation programme.

The indigenous 155mm 52-calibre Advanced Towed Artillery Gun System (ATAGS), jointly developed by the Defence Research and Development Organisation (DRDO) and the private sector, will kick off winter trials in the Sikkim sector, a senior army officer said.

The ATAGS set a record during trials in Rajasthan's Pokhran in September, firing shells to a range of 48 km, against army's requirement of 40 km.

The defence ministry sanctioned the ATAGS project in September 2012 and the DRDO has partnered with Bharat Forge and Tata Power (Strategic Engineering Division) SED to develop two prototypes of the towed artillery guns.

The two prototypes underwent their maiden structural stability trials in December 2016 at Proof & Experimental Establishment, a government test facility at Balasore in Odisha.

A letter of intent has been given to the DRDO for 150 ATAGS, an army source said.

The value of DRDO-developed/upgraded systems inducted into the armed forces during the last three years stands at Rs 1.1 lakh crore, the government told Lok Sabha on Wednesday. These systems do not include strategic weapons.

The army's field artillery rationalisation plan (FARP), cleared in 1999, lays down the roadmap for inducting new 155mm weaponry, including tracked self-propelled guns, truck-mounted gun systems, towed artillery pieces and wheeled self-propelled guns.

The Rs 50,000-crore FARP seeks to equip 169 artillery regiments with a mix of nearly 3,000 guns over the next decade.

The army is looking to induct another indigenously developed 155mm 45-calibre towed artillery gun called Dhanush. But the programme has been delayed as the gun was involved in mishaps during trials. (Here, 155 mm denotes the diameter of the shell and calibre relates to barrel length.)

The force is awaiting a report on an accident involving its new M777 ultra-light howitzer. The BAE Systems-manufactured gun was partly damaged when a 155mm artillery round misfired and exploded in its barrel during a drill at the Pokhran firing ranges in September.

The M777 order is the first contract for artillery guns in almost 30 years after the Bofors scandal unfolded in the late 1980s. India signed the Rs 5,000-crore deal with the US in November 2016 for 145 howitzers.

From ISRO's 104 satellites to INS Viraat's retirement: 2017 in India's space and defence

By Monishita Roy

The year 2017 witnessed many break-throughs in the field of Space and Defence. Here are some of the most important events which happened this year.

The year 2017 proved to be quite eventful for India in the field of Space and Defence. From ISRO launching 104 satellites to the decommissioning of INS Viraat, here's a list of all the major events that happened this year.

Agni IV missile test

The year started off with the successful testing of the India's long range, ballistic missile called the Agni IV. It was launched from a road mobile launcher in Odisha's Abdul Kalam Island.

Agni IV is a two stage, surface to surface missile. It has the capacity to travel 4,000 km and has a range of more than 5,000 km. It weighs 17 tons and can carry one ton of nuclear warhead.

The 20 metres long missile was developed by the Defence Research and Development Organisation (DRDO) . It was earlier launched in 2011, 2012, 2014 (twice) and 2015. All the missions were successful.

PSLV C37 launched by ISRO

PSLV, the third generation launch vehicle in India, has many success stories in its bag. This time, it broke records.

The PSLV C37 carried a total of 104 satellites from seven countries and was successful in its mission. It was launched on February 15, 2017 from Sriharikota, Andhra Pradesh.

The maximum number of satellite- 37 launched before this was by Russia's Dnepr in 2014.

The launch mission took 29 minutes in all. With its success, it bagged the world record for launching the largest number of satellites.

INS Viraat decommissioned

Referred as 'mother' in the West, INS Viraat was the world's oldest aircraft carrier. It holds the Guinness world record for the same.

In March 2017, Indian Navy decommissioned it at the Naval Dockyard, Mumbai. The centaur-class carrier served in the navy for 30 years. The motto of INS Viraat is "Jalamev Yasya Balmev Tasya" (one who controls the sea is all powerful).

Before being officially decommissioned in March this year, it sailed for the last time from Mumbai to Kochi in the year 2016.

After the launch of PSLV C37, PSLV C38 followed. It was the 40th mission of the Polar Satellite Launch Vehicle and deployed 31 satellites in space. It carried India's mapping satellite Cartosat 2E.30 other satellites were also included in the same mission.

These satellites were not only from India but also from Japan, Germany, France, United Kingdom, Austria, Italy, etc. Among all the foreign satellites, there was one Indian satellite called NIUSAT that was produced by 200 students from the Noorul Islam University.

DRDO developed 250 KW high power batteries

India's Defence Research and Development Organisation developed 250 KWs silver oxide zinc batteries for the heavy weight torpedo Varunsatra.

Varunsatra is the first indigenous heavy weight electric torpedo. The batteries required to support the same needed to be upgraded from the standard 100KW to 250 KW.

To meet the requirements, DRDO developed its own primary and secondary batteries with large amount of silver.

Mangalyan completes 4 years

Initially designed for only six months, Mangalyan went on to complete its fourth year in space this year. Mars Orbiter Mission (MOM) was launched by ISRO in November 2013 from Sriharikota, Andhra Pradesh.

Although it costed almost a tenth of NASA's Mars mission Maven, it surpassed its expectations. Mangalyan remains as one of the most prestigious achievements of all time, as India became the first country in the world to have successfully reached Mars in a single attempt.

In June 2017, Mangalyan successfully completed 388 orbits around the red planet.

Mi-8 helicopters faded out

MI-8 helicopters, commissioned in the Indian Air Force in 1972, were considered the backbone of the helicopter operations. In December 2017, the helicopter fleet was phased out and the ceremony was held at Bengaluru's Air Force Station at Yelahanka.

The MI-8 helicopters were a part of missions like Operation Meghdoot in Siachen Glacier and Operation Pawan in Sri Lanka.

The fleet had advanced capabilities in its time. It had the capabilities to function in climatic conditions ranging from -50C to 50C. For its special characteristics, it was also used for politician and other VIPs to travel places.

India got its first conventional submarine

In December 2017, Prime Minister Narendra Modi commissioned INS Kalvari, India's 1st modern conventional submarine. The Scorpene submarine is designed by French naval defence and energy company-DCNS. One of the biggest advantages of having it is that it can undertake multiple missions. From anti-surface warfare to intelligence gathering, mine laying and area surveillance- it can do it all.

The latest technology is also reported to have acoustic silencing techniques, low noise levels and can attack while being either underwater or on the surface.

'Kalvari' got its name after the feared tiger shark, a sea predator found in the Indian Ocean.

News

*Fri, 22 Dec, 2017
(Online)*

Indian media: Armenia interested in purchasing India-made radars

India plans to intensify exports of weapons and ammunition with certain countries. Indian defense ministry is tying up with Saudi Arabia, Jordan, the United Arab Emirates (UAE), Myanmar and Armenia for supply of radars, helicopters and missiles, and tank upgradation by 2018, Hindustan Times reported quoting a government source.

South Block sources confirmed deepening of military ties with these countries with high-level delegations interacting with defence ministry and Defence Research and Development Organisation (DRDO) units in Bengaluru this month, the newspaper said.

According to the reports, Armenia is interested in purchasing DRDO- manufactured radars for battle-field theatre and long-distance artillery ammunition from India.