

India's 1st floating test range ready, ballistic missile defence trials on cards

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By Shishor Gupta

India is set to test its ballistic missile defence (BMD) Phase II interceptor missiles and other futuristic weapons next year with its first floating test range (FTR) in place to allow trials at different ranges without a land mass limitation or threat to the population. Only a select group of nations has FTR capability.

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While the missile establishment is tight-lipped about the FTR, Hindustan Times has learnt that the ship will be able to launch conventional missiles upto a range of 1,500 kilometres from a distance of 400 to 500 nautical miles in the sea without fear of the weapons threatening any populated area on India's east coast.

The FTR will not be used for testing the Agni series of ballistic missiles as it is not designed to handle the thrust of a long-range weapon. "The FTR has all the capabilities of Interim Test Range (ITR) with the capability to test missiles in deep sea with minimum safety precautions as the latter allows only a cone of two to three degrees to launch a missile. It is for testing all missiles including BMD," said a senior official who didn't want to be named.

According to authoritative sources, the idea behind FTR is to test missiles from a range of 100 kilometres to 1,500 kilometres without any land mass or sea lanes limitations. This means that the FTR will be used for the BMD Phase II system, which is designed to destroy enemy missiles mid-air at different altitudes and different ranges with a long-range DRDO missile.

Phase II of BMD envisaged intercepting and destroying enemy missile with a range of 2,000 kilometre. The FTR will be also used to test tactical missiles like Prahar and other futuristic missiles.

With the FTR allowing live tests, not simulations, to interdict long-range missiles fired from the APJ Abdul Kalam Island off the Odisha coast, the Indian BMD system will become more efficient with improved single -hot kill probability (SSKP) ratio, a term used for surface-to-air weapons.

"The FTR will speed up missile projects as it provides a ready-made safety corridor without getting caught into the advances notices to ships and aircraft flying in the area as well as the fear of hitting populated areas while testing BMD system. With this we can use interceptor missile to interdict enemy missiles both endo and exo-atmosphere," said a second senior official.

<https://www.hindustantimes.com/india-news/new-age-weapons-set-to-add-to-india-s-arsenal/story-SUCRAjtwyZRej8Fq0SHSJJ.html>

New-age weapons set to add to India's arsenal

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<http://defencenews.in/article/New-age-weapons-set-to-add-to-India%E2%80%99s-arsenal-737670>

Indian Army will get US-made Sig Sauer rifles by year-end, says General Bipin Rawat; postal stamp on 'Siachen Warriors' released

- *General Bipin Rawat said that the Indian Army is treading on that path to empower soldiers to ensure they are well-equipped and well provided with operational capabilities*
- *He said that the best rifle available in the world, Sig Sauer from the US will be made available to the infantry by the end of this year*
- *The DRDO is also moving forward on indigenously developed Man Portable Anti-tank Guided Missiles (MPATGM), the Army Chief said*
- *General Rawat also said that a manufacturing unit for AK-203 rifles, an India-Russia joint venture, will start production and first set of rifles are expected to be available by the end of this year.*

New Delhi: The Indian Army is working to empower its infantry forces, and one of the world's best rifles, manufactured by firearm major Sig Sauer, will be made available to them by the end of this year, Army Chief General Bipin Rawat said on Friday.

In his closing remarks at the Field Marshal KM Cariappa memorial lecture in New Delhi, General Rawat said a manufacturing unit for AK-203 rifles, an India-Russia joint venture, will start production and first set of rifles are expected to be available by the end of this year.

"To ensure there is no slippage in production, for the first time, the ordnance factory in Amethi is being headed by a serving Major General of the Army, who will be its CEO. We are confident the first set of rifles coming in a dismantled state and assembled here will be available by the end of the year," General Rawat said.

"The infantry soldiers are ever-ready to go into battle on short notice, and the army wants to empower them. And the empowerment happens by giving the soldier the right kind of war-waging material necessary for a soldier to accomplish its mission," Rawat said.

He said the army is treading on that path to empower them to ensure they are well-equipped and well provided with operational capabilities.

"And, let me assure you, the best rifle available in the world, Sig Sauer from the US will be made available to the infantry by the end of this year," he said.

The DRDO is also moving forward on indigenously developed Man Portable Anti-tank Guided Missiles (MPATGM), the Army Chief said.

A hundred soldiers, mainly from the infantry division will be sent to Young Soldiers Training Wing, established at the Officers Training Academy (OTA), Chennai and trained for six months. "We hope a large number of them would then join us as young officers," he said.

General Rawat said, as part of a new initiative, information regarding India's borders and boundaries with neighbouring countries would "soon be put in the public domain".

"So, that soldier and other people get the right perspective and know the history behind these borders. A soldier standing at the frontline should know exactly why he is guarding it," he added.

At the event, the Army Chief also released a postal stamp on 'Siachen Warriors'.

<https://www.firstpost.com/india/indian-army-will-get-us-made-sig-sauer-rifles-by-year-end-says-army-chief-bipin-rawat-postal-stamp-on-siachen-warriors-released-7557191.html>

Indian defence sector opens up to start-ups

By Pratyush Deep Kotoky

New Delhi: As India opens up its defence sector for private sector industries, it is going to witness a massive boom in the domain of defence technology. The defence sector, which was earlier mostly dominated by mega companies and the Defence Research and Development Organisation (DRDO), is currently experiencing a technological boom provided by these start-ups.

In the recently held “Indian Defence and Aerospace Summit 2019” organised by NewsX and The Sunday Guardian (iTV Network), Dr Ajay Kumar, Defence Secretary, praised the start-ups for their technological innovation in the defence sector. He said: “We have seen more and more start-ups entering the defence sector and what is very heartening to see is the quality of work that has been taken up by these start-ups. While some big international companies are joining with start-ups, even our forces are showing great interest in the work of these start-ups. Several government agencies, the forces and the DRDO are working with these start-ups. It is amazing to see how small start-ups come out with such astonishing technological solutions.” He also added that since the forces are now more willing to try out the Make-in-India technologies, the amazing innovations by start-ups must be integrated into specific platforms as per the needs of the forces. According to Kumar, Indian defence exports have been increasing in the last three years. It went from Rs 1,500 crore, which was three years back, to Rs 10,500 crore in 2018-19 and is expected to cross Rs 15,000 crore in 2019-20.

The Narendra Modi government has been focusing on developing indigenous defence technology for strategic independence and autonomy since it came to power in 2014. The government has also allowed start-ups to bid for contracts valued less than Rs 150 crore without the burden of providing financial credentials. Balbir Singh, retired Lt. Col. of Defence Industry Consultancy Services, said: “Our defence imports are very high. We import nearly 70% equipment for defence and only 30% are produced domestically. As the government wants to reduce imports, it is focusing on indigenisation of our defence products and defence acquisition. Unfortunately, our domestic industry is still unaware about this new avenue despite the government’s efforts.” Start-ups developing indigenous defence technology in India include Tonbo Imaging, CRON Systems, Aadyah Aerospace etc. An official of CRON Systems said: “The forces are open to incorporating new technology and there is no issue whether the technology is being developed by a private company or a public sector enterprise. As long as your technology is good and functional, the army is willing to give you an opportunity.”

<https://www.sundayguardianlive.com/news/indian-defence-sector-opens-start-ups>