## PM's Make-in-India becomes a reality as Kavaratti is launched

Manogya Loiwal Kolkata, May 19, 2015 | UPDATED 23:40 IST



Launch of Indian Navy's new anti-submarine stealth corvette 'Karavatti' at the Kolkata dock. The ambitious Make-in-India project led by Prime Minister Narendra Modi took an admirable step on Tuesday as the Indian Navy formally launched its fourth and last anti-submarine warfare corvette in the Kolkata dock in the state of West Bengal. The modern warship that was named 'Kavaratti' is seen as a major boost to the country's defence preparedness, as it consists of some of the advanced stealth features, making it a potent weapon against the submarine threats that the Navy regularly face.

Built by the Garden Reach Shipbuilders and Engineers Limited (GRSE), the oldest defence shipyard in the country, 'Kavaratti' was launched by chief guest Mrs. Manita Singh, wife of Rao Inderjit Singh, the Minister of State in the Ministry of Defence. The latest anti-submarine stealth corvette comes as an addition to the three warships of the same class that were built by the same company, INS Kamorta, Kadmatt and Kiltan and is considered to be 90% indigenous. Interestingly all have been named after islands in Andaman and Nicobar Islands located in Bay of Bengal. The modern warship has the capacity to combat in nuclear, chemical and biological warfare conditions.

"It is a matter of great pride for the country. The project 28 of which INS Kavaratti is to be launched, have been made by Indian steel. Also, we feel proud to say that this ship has been designed by the Indian naval designers. As you know the Indian navy's quest for ship designing goes back to 50 years when we had set up our own small design and over the last 50 year our naval designers have designed some of the finest warship for the Indian navy," says Admiral A. K. Dhowan, Chief of Naval Staff.

Designed by the Directorate of Naval Design, with the aid of technology imported from Sweden, the modern warship's superstructures have been built with carbon fibre composite material instead of steel. Moreover, the steel that has been used in the manufacture of all the corvettes was made in India and developed by the Steel Authority of India Limited. The well-equipped ship is expected to give a lift to the Indian Navy with its extreme high quality and infrastructure to face all forms of threats.

"Kavaratti is an Anti-Submarine Warfare Corvette and it is a very potent weapon against the submarine threats that the navy faces. The special feature of Kavaratti is that it is the most indigenous ship ever built by our country. It has achieved the level indenisation of 90%. It has also got all the stealth features because of which it can be safe guarded against the submarines. This vessel, the last of the four, is going to give the punch to the Indian navy," says Rear Admiral (Retd) A.K. Verma, Chairman and Managing Director, Garden Reach Ship Builders and Engineers Limited, Kolkata.

The latest machinery was constructed using steel that was built in India and the weapons and the sensors which are fitted in the anti-submarine are specially tuned for detecting and attacking submarines.

"The construction of the ASW Corvettes has demonstrated the capability to build ultra modern warship for the Indian navy; because of these developments, the Indian navy has now placed an order for the advanced stealth fillet which is project 70 Alpha. In that project there are 7 ships going to be built. 4 of them will be built in dock and in GRSE. This will lead us to taking another step forward to becoming a truly a world class ship yard," he adds.

The anti-submarine boasts of a strong infrastructure. The weapons built in the P28 ship include a gun system, having a calibre of 76mm. It has the capacity to fire 120 rounds per minute with a range of 8000 metres and 12000 metres against air and surface targets respectively. The surface to air missile system

further consists of a Point Defence Missile System made for installation of 12 nos. Vertical Launch Units. The Chaff system includes the Chaff System Kavach Mod-II containing short, medium and long range chaff rockets. The under-water weapons are capable for single shot/salvo firing of Depth-Charge rockets at submarines and torpedoes running towards the ship. The system also has the ability to cater to operations from local and remote from its fire control system and emergency mode from Launcher itself.

"As far as the ship building challenges are concerned, our main challenge is to develop the out-sourcing agencies which will be doing the out-fitting work on the ships. And the next challenge is the integration of the most advanced weapons and senses on these types of ships," says Verma.

INS Kamorta was the first ship of the P 28 Project and was commissioned last year. The ship is now an integral part of the Eastern Fleet of the Indian Navy.

These modern warships have low Radar Cross Section and extremely low radiated underwater noise. With a maximum speed of 25 knots and with an endurance of over 3400 NM at 18 knots speed, ASW Corvette has been designed to accommodate 17 officers and 106 sailors. A special high strength steel Type DMR 249 Indigenously developed for warship application has been used for shipbuilding for the first time in the country on these ships.

Moreover, Rail-less Helo Traversing System manufactured by the Engineering Division of GRSE has been installed on these ships. GRSE is now supplying this equipment to other shipyards as well.

Delivering a total of 94 warships to the country, the Garden Reach
Shipbuilders and Engineers Limited delivered the first ever indigenous
warship built in India, INS Ajay to the Indian Navy in 1961. Since then, the
Indian Navy, Indian Coast Guard and Mauritius Coast Guard became its
regular customers and it built the highest number of warships built by any
shipyard in the country. The company had also built 777 vessels and crafts for
different customers.

"The GRSE is extremely proud because in the last 10 years, we have been working on this project and we have been able to achieve a very high level of indigenous ship. It is also a new generation of class of a ship which was built and the launch of the fourth and the last ship is a truly remarkable achievement and the whole team of GRSE feels proud and satisfied with that," Verma adds.

The development of the ship and progress in the defence sector is not only a major step towards achieving self-reliance in state of the art warship design and construction but also comes to prove that the country is capable of becoming a global manufacturing hub and home to several manufacturing facilities. The commendable Make-In-India initiative continues to help the country show its true commercial global potential as its rapidly growing economy gradually becomes the epicentre of innovation and Kavaratti surely is a feather in the cap...