

Committed To Defence And Security Worldwide

DEFENCE & SECURITY ALERT

DECEMBER 2019 | VOLUME 11 | ISSUE 03 | ₹150

The First and Only ISO 9001:2015 Certified Defence and Security Magazine in India
The Only Magazine Available On The Intranet Of Indian Air Force

www.dsalert.org
info@dsalert.org

NAVY SPECIAL

Manpower and Technology for Futuristic Oceanic Navy: India's Expanding Role in the Seas



Admiral Karambir Singh
PVSM, AVSM, ADC
Chief of the Naval Staff



THE FIRST CHOICE IN THE DOMAINS OF
DEFENCE, SECURITY AND WORLD AFFAIRS
WORLDWIDE

10 YEARS OF
EXCELLENCE





An ISO 9001:2015 Certified Magazine



IMPECCABLE NAVAL FORCE

TEAM DSA

INDIAN NAVY WELCOMES FIRST WOMAN PILOT SUB-LIEUTENANT SHIVANGI SWAROOP

TEAM DSA

ISRO MILESTONE: 300 SATELLITES FROM 33 NATIONS PUT IN SPACE IN 20 YEARS

TEAM DSA

A NATIONAL SECURITY IMPERATIVE

COMMODORE ANIL JAI SINGH, IN (RETD)

HORIZON FROM IOR TO INDO-PACIFIC

CMDE (RETD) RANJIT B RAI

EMERGING TECHNOLOGIES – ON-BOARD USE

DR PANKAJ JHA

PAKISTAN'S JIHADI PROXIES

CECIL VICTOR

NO SMOOTH SAILING

SALONI SALIL

STRATEGIC OUTREACH

ANU SHARMA

FOCUS ON INDO-PACIFIC

ABHINAV DUTTA

EVOLVING WEAPONS AND TACTICS

ATUL KUMAR

INTRUSION PREVENTION

UMMED MEEL

04

09

10

12

18

22

26

30

35

40

43

48

IMPECCABLE NAVAL FORCE

The establishment of Defence Space Agency (DSA) was approved by the government on 30 October 2018. DSA has been established as the triservices nodal agency that would perform all important functions of coordination of all defence related space activities. The DSA is the first step towards implementation of space programme for the Indian Armed Forces.



Four Gray Battle ships in the sea, INS Viraat (R22), INS Jalashwa (L41), INS Karmuk (P64) and INS Jyoti (A58).



Admiral Karambir Singh, PVSM, AVSM, ADC, Chief of the Naval Staff

Defence and Security Alert:

What challenges do you perceive in the maritime domain that you will have to deal with during your tenure?

Chief of the Naval Staff The challenges to maritime security in our region are numerous and unique in their origin, intensity and complexity. From a strategic perspective, the ongoing great power competition and its associated interplay across multiple domains have the potential to impact the security calculus of our region. Further, the continuing State-sponsored terror by our Western neighbour poses a constant threat to the peace and stability of the oceans around us. In addition to traditional security threats, a worrying trend has been the proliferation of violent non-State actors and networks at sea, which poses numerous challenges and demands a recalibrated outlook to collective maritime security. Maritime piracy and maritime terrorism would be used by non-State actors to threaten the security of the maritime domain. The increasing risk of arms proliferation and technology transfer to non-State actors as a tool of statecraft is a clear and present danger. Therefore, under the current security environment, I foresee a complex mix of security threats posed by State as well as non-State actors.

Recognising this complex nature of maritime security challenges in the Indian Ocean Region and the critical need for developing cooperative maritime partnerships, the Indian Navy has accorded a high degree of priority to maritime engagement with friendly maritime forces in the region. I firmly believe that solutions to all regional security challenges reside within the region and through these engagements, we aim to enhance interoperability, as well as develop a common understanding of the

region's security challenges.

The Indian Navy remains mission deployed and combat ready, fully prepared to meet the wide spectrum of security challenges impacting our maritime interests. We are watching the developments in the region very closely and are fully prepared to respond to them in a befitting manner.

DSA: You have mentioned that the Pakistan-based Jaish-e-Mohammad has created a new cadre of underwater terrorists. They could threaten Indian offshore oil rigs, ships, harbour installations and even try to execute the threat of demolition of dams in Jammu and Kashmir held out when India won its case in the International Court of Arbitration under the Indus Water Treaty. Are counter-measures possible?

CNS: The 2008 attacks at Mumbai are an example of the potential danger of sea-borne terror. The Indian Navy is cognizant of these dangers, towards which our harbour infrastructure and defence of critical offshore installations has been progressively strengthened. The mechanisms for coastal security have also evolved significantly in the past decade. Several initiatives are being progressed to address these threats on an ongoing basis, in coordination with all stakeholders. While you would be aware of these initiatives, few recent initiatives include Ex SEA VIGIL, which was a coastal security exercise conducted earlier this year on a pan-India basis for the first time, from which we have drawn some important lessons. Additionally, Proof-of-Concept trials of a transponder system for sub-20m boats have been successfully completed, and the system will be rolled-out in a phased manner soon. We are also steering a National Maritime Domain Awareness (NMDA) Project, which aims at integrating all maritime stakeholders and associated databases.

In terms of conventional threats, development of a balanced multi-dimensional force is aimed at enabling capability of undertaking a broad range of missions. Our ships and aircraft are mission-deployed and combat-ready to undertake operations across the entire spectrum of warfare at short notice.

The coastal communities have been integrated into the coastal security construct as the 'eyes and ears' of security agencies and maritime security agencies continue to engage with the community through interactive programmes. However, there is a need to further consolidate these efforts so that any anomaly detected by the community, such as in our fishing harbours and fish landing centres, is reported to security agencies without delay.

DSA: The Indian Navy has for long been in the forefront in the indigenisation game plan. Is the Naval Design Bureau looking at out-of-the-box solutions to deal with emerging threats?

CNS: Indian Naval Indigenisation Plan (INIP) 2015-2030 is focused on increasing indigenisation content in all three categories of ship's equipment (Float, Move & Fight). While 90% and 60% indigenisation has already been achieved in Float and Move categories respectively, Indigenisation in Fight category is at 50%. Challenges of low volumes need to be overcome to create economy of scale for the industry. Critical mass to enable the same is, therefore, expected to evolve only with time.

Indian Navy's Design Bureau has designed our new platforms to deal with emerging threats. These include, improved stealth signature and incorporation of advanced indigenous weapons systems with indigenous technical support. In addition, integrated construction through which major portion of

outfitting would be completed at Unit subassembly / assembly stage prior to integration of blocks, and setting up of Virtual Reality Lab to improve quality of designs has also been undertaken.

DSA: What steps need to be taken to make India a hub for defence ship-building, repair and maintenance?

CNS: Building warships is a labour-intensive enterprise. More than 400 km of wiring must be laid out inside, all of it marked and accessible to permit repair and maintenance. As an example, a modern frigate has 25 km of pipelines, built from 10,000 separate pieces of piping. Warships are also technology intensive platforms that require a wide spectrum of white collared workforce, apart from blue collared labour.

India has everything it takes to be a warship-building nation; the availability of design expertise; affordable and skilled labour; and experience in building successful warships. Gaps in terms of capacity are being actively addressed by the government through increased participation of private sector. This will significantly boost defence exports, and provide another avenue for enhancing linkages with friendly nations in the Indian Ocean Region.

India enjoys several advantages over other warship builders, in so far as labour availability and costs are concerned. These advantages are far less pronounced in merchant ship-building, where Korean and Chinese shipyards are leaders globally, enabled by a combination of inexpensive labour and government support.

Due to differences in the nature of activity, ship-building and ship-repair industry have not grown together. Ship-building is generally seen as more attractive and higher on the value chain and less labour intensive and, therefore, more preferred by developed nations. On the other hand, developing nations like India and China have found ship repairs not only attractive, but also useful for generation of jobs and regular revenues. Generally, it is easier for ship-building yards to take on ship repairs than vice versa.

Finally, naval ship-building projects contribute to strategic outcomes for the nation as well. We all know that multi-mission, state-of-the-art ships constructed by our industry, and operated by the Navy and the Coast Guard, are crucial to protecting India's maritime interests in the Indian Ocean



Chief of Naval Staff, Indian Navy, Admiral Karambir Singh, PVSM, AVSM, ADC with Pawan Agrawal, CEO & Publisher

Region and beyond. In addition, navy's diplomatic engagements and capacity-building efforts have also allowed several friendly countries to harness our ship-building prowess. We have already added to the capacities of friendly nations, such as Seychelles, Maldives and Sri Lanka to name a few, by exporting warships to enhance their overall maritime security.

There is immense potential to forge partnerships and convert India into a strategic hub for defence ship-building exports and repairs for friendly foreign countries. To enable such strategic outcomes, however, there is a need for us to achieve a certain 'critical mass' in indigenous ship-production and ship-repair capability. Whilst defence ship-building plays an important role, we need to harness the headroom available in associated sectors, such as mercantile marine, and inland and coastal shipping, to increase capacities and attain our true potential.

DSA: The recent acceptance of the post of Chief of Defence Staff (CDS) by the Prime Minister is

being made out to be a panacea for all security requirements. How will it help?

CNS: The decision for the institution of the post of the CDS is a historic and long-awaited higher defence reform, and the Indian Navy fully supports this step.

The CDS, assisted by an enabling framework, empowerment, organisation and the requisite mandate would be able to pay closer attention to the operational role of Strategic Forces, space-based operations, cyber security, intelligence gathering / analysis and continuous evaluation of joint capabilities. The CDS would also be able to coordinate activities of the armed forces to face emerging challenges and fighting future conflicts.

DSA: China's expansion into the Indo-Pacific region is fraught with dangerous consequences for India given that Beijing fully supports the use of terrorists by Pakistan to attain geo-strategic gains. How will India deal with this nexus?

CNS: We are closely watching developments in relation to China in

the region. The commissioning of the Chinese Military Base at Djibouti in 2017 has augmented its sustenance capability in the Indian Ocean. In 2018, an average of seven PLA (Navy) ships and submarines were deployed in the Indian Ocean Region every month. Chinese investments in various projects across IOR are also known.

The Indian Navy is aware of the security implications of the enhanced presence of Chinese ships and submarines in the Indian Ocean Region and maintains a constant and close watch on such developments. We are assessing our concept of operations and acquisition plans to cater to the challenges. The operational outcomes of developing strategic imperatives in the IOR are factored in our planning to ensure that the Indian Navy remains poised to meet all maritime contingencies.

DSA: The Indian Navy has a dedicated maritime satellite at its disposal. What are your views on an integrated Aerospace Command?

CNS: Indian Navy acquired its maiden communication satellite GSAT-7 in August 2013. For the past seven years, GSAT-7 has been seamlessly facilitating the Indian Navy's communication and networking needs to connect ships, submarines and aircraft towards achievement of maritime domain awareness. In order to provide redundancy to GSAT-7, the government has approved launch of GSAT-7R by 2022.

The establishment of Defence Space Agency (DSA) was approved by the government on 30 October 2018. DSA has been established as the tri-services nodal agency that would perform all important functions of coordination of all defence related space activities. The DSA is the first step towards implementation of space programme for the Indian Armed Forces. **DSA**

