

National Hydrographic Office

Annual Report 2025-26

National Hydrographic Office



CHARTING FOR FUTURE

HYDROGRAPHY

FOR NAVIGATION SAFETY, MARITIME SECURITY AND NATIONAL GROWTH

भारत सरकार के
मुख्य जलसर्वेक्षक की वार्षिक रिपोर्ट

Annual Report of
The Chief Hydrographer to
The Government of India

(01 JULY 2025 to 31 JULY 2026)

यह रिपोर्ट राष्ट्रीय जल सर्वेक्षण कार्यालय, नौसेना सर्वेक्षण पोतों, राष्ट्रीय जल सर्वेक्षण संस्थान तथा अन्य सर्वेक्षण इकाइयों की गतिविधियों जैसे अंर्तराष्ट्रीय जल सर्वेक्षण सहयोग में योगदान, सामुद्रिक नक्शों का उत्पादन व प्रकाशन, मानव संसाधान विकास और भारतीय नौसेना जल सर्वेक्षण विभाग का आधुनिकरण तथा अन्य उपलब्धियों का वर्णन है।

This report gives an account of the activities and achievements of the National Hydrographic Office, Indian Naval Surveying Ships, National Institute of Hydrographic Survey Units and Naval Chart Depots with special emphasis on hydrographic survey operations, contribution towards foreign hydrographic co-operation, production of Nautical Charts and Publications, Human Resource Development and modernisation of the Indian Naval Hydrographic Department.



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Rear Admiral Peush Pawsey
भारत सरकार के मुख्य जल सर्वेक्षक
Chief Hydrographer to the Government of India
31 जुलाई 2026
31 July 2026

From Chief Hydrographer's Desk

I have the honour to present the Annual Report of the Indian Naval Hydrographic Department (INHD), which encapsulates the significant achievements and initiatives undertaken during the year. Entrusted with the vital responsibility of ensuring safety of navigation and provision of accurate and reliable hydrographic information, INHD continues to play a pivotal role in supporting India's maritime interests. In an era of rapidly expanding maritime infrastructure, increasing ocean-based activities and evolving security imperatives, the importance of accurate, timely and accessible hydrographic information has assumed even greater significance.

The department has also made significant progress in developing innovative and contemporary hydrographic products and applications. The production of customised navigation products for special maritime operation and focused training aids, reflects the collective endeavour to address emerging operational and training requirements. Trials and field testing of customised hydrographic systems on afloat platforms have also been successfully completed, further demonstrating the ability to adapt hydrographic capabilities to specialised operational environments.

A major milestone during the year was the launch of 'Sindhunidhi', a Marine Spatial Planning (MSP) tool, by the Chief of the Naval Staff at the National Hydrographic Office on 28 Apr 26. The initiative represents an important step towards leveraging hydrographic information for wider maritime planning, de-conflicting and decision-making. Hydrobharat, our web portal has emerged as an important and preferred platform for accessing hydrographic information, with the portal recording millions of visitors each year. Marine



geospatial data representation is soon transitioning from S-57 to a more flexible S-100 standard, enabling ECDIS to integrate real-time, high-density bathymetry and dynamic water-level data, thereby enhancing maritime safety. To facilitate this transition, an inter-ministerial 'National Coordination Committee for S100 Implementation' has been constituted involving all stakeholders.

The department has also maintained a strong focus on international hydrographic cooperation and capacity building in the region. India continues to engage with the International Hydrographic Organisation (IHO) and participate in working groups and committees, thereby contributing to navigational safety, and formulation of global

hydrographic standards. The successful ratification of CAT 'A' and CAT 'B' hydrographic flagship courses by the International Board on Standards of Competence (IBSC) is another significant achievement, reinforcing India's standing in the field of hydrographic education and professional competence. During the year, training was imparted to 23 foreign nations from friendly countries, further strengthening India's contribution towards hydrographic capacity building among maritime partner nations.

Indigenisation and self-reliance have remained important focus areas during the year. Indigenisation Workshops have been conducted with the objective of encouraging manufacturing of hydrographic equipment and promoting greater participation of Indian industry in the hydrographic domain. Another landmark achievement during the year was the commissioning of Survey Vessel Large (SVL), INS Sanshodhak, by the Hon'ble Prime Minister Shri Narendra Modi on 21 Jun 26, coinciding with World Hydrography Day. The induction of INS Sanshodhak marks another significant milestone in strengthening the Indian Navy's hydrographic survey capability.

The contribution to the maritime economy has also continued to remain significant. During the period 01 Jul 25 to 01 Jul 26, sales and distribution of nautical products generated revenue of ₹118 crore, representing a growth of 42.6% over the previous period. This growth reflects the increasing demand due to reliability on Indian hydrographic products and services and underscores the department's sustained efforts towards improving the availability, quality, accuracy and reach of its nautical products.

These achievements would not have been possible without the unwavering commitment and dedication of our professional team of hydrographers, cartographers and technical specialists, as well as the support of our industry partners and stakeholders. As India progresses the journey towards becoming a leading maritime nation, hydrography will remain an essential enabler for safe navigation, maritime security, sustainable ocean development and the Blue Economy. We remain committed to providing accurate and timely hydrographic information, strengthening our engagement with maritime partners and contributing towards safe waters of global commons in keeping with India's vision of MAHASAGAR.

Sam No Varuna

Jai Hind



रियर एडमिरल पियूष पौसी
Rear Admiral Peush Pawsey
भारत सरकार के मुख्य जल सर्वेक्षक
Chief Hydrographer to the Government of India

Contents

THE SIX STRATEGIC PILLARS 9

ROLES AND RESPONSIBILITIES 11

EXECUTIVE SUMMARY 15

MILESTONE 17

ANNUAL PERFORMANCE OVERVIEW 2025-26 21

NATIONAL INSTITUTE OF HYDROGRAPHY, GOA 26

INTERNATIONAL COOPERATION 33

VISION 2026-2047 : CHARTING INDIA'S MARITIME FUTURE 39

PAPER CHARTS AND ELECTRONIC NAVIGATIONAL CHART 47

AWARDS & RECOGNITION 53

ORGANISATIONAL STRUCTURE 56

NHO DIARY 59

SHIPS & UNITS 67

HYDROGRAPHERS 85

SAILORS HYDRO 87

ADIEU OFFICERS & SAILORS 91

GLIMPSES 92



The National Hydrographic Office (NHO)

has emerged as the premier hydrographic organisation in the Indian Ocean Region.

The Six Strategic Pillars

Pillar 1: Safety of Navigation

Deliver accurate, timely and authoritative hydrographic products and services.

Pillar 2: Securing Maritime Interests

Provide hydrographic services as an operational enabler for naval operations, maritime safety and security.

Pillar 3: Nation Building

Leverage hydrography as a strategic national asset for economic growth, maritime infrastructure development and Blue Economy initiatives.

Pillar 4: Atmanirbhar Bharat

Build indigenous capability across hydrographic technology, systems, human capital and innovation.

Pillar 5: International Cooperation (SAGAR & MAHASAGAR)

Strengthen India's leadership in regional and global hydrography through partnerships and capacity building.

Pillar 6: Towards Viksit Bharat 2047

Transform NHO into a globally recognised, technology-driven centre of excellence supporting India's vision of a developed maritime nation.

National Hydrographic Office (NHO)
Indian Naval Hydrographic Department (INHD)
Vision, Mission and Core Values

Vision

To be a globally recognised centre of excellence in hydrography and marine geo-spatial information, delivering operational support, maritime safety services, nation development, international maritime cooperation to contribute decisively to India's vision of Viksit Bharat 2047.

Mission

To provide accurate and timely hydrographic and marine geospatial information that support the operational and combat readiness of the Indian Navy, enhance maritime navigation safety in the region, contribute to nation development and strengthen India's leadership in hydrospatial domain across the globe.

Core Values - PROCESS

Professional Excellence
Delivering the highest standards of hydrographic expertise, precision and professionalism in every task.

Renovation and Innovation
Renovate and innovate the hydrographic data collection and processing procedures by embracing digital transformation, AI enabled chart production and autonomous technology.

Operational Readiness
Maintaining constant preparedness to support naval operations and unforeseen contingencies.

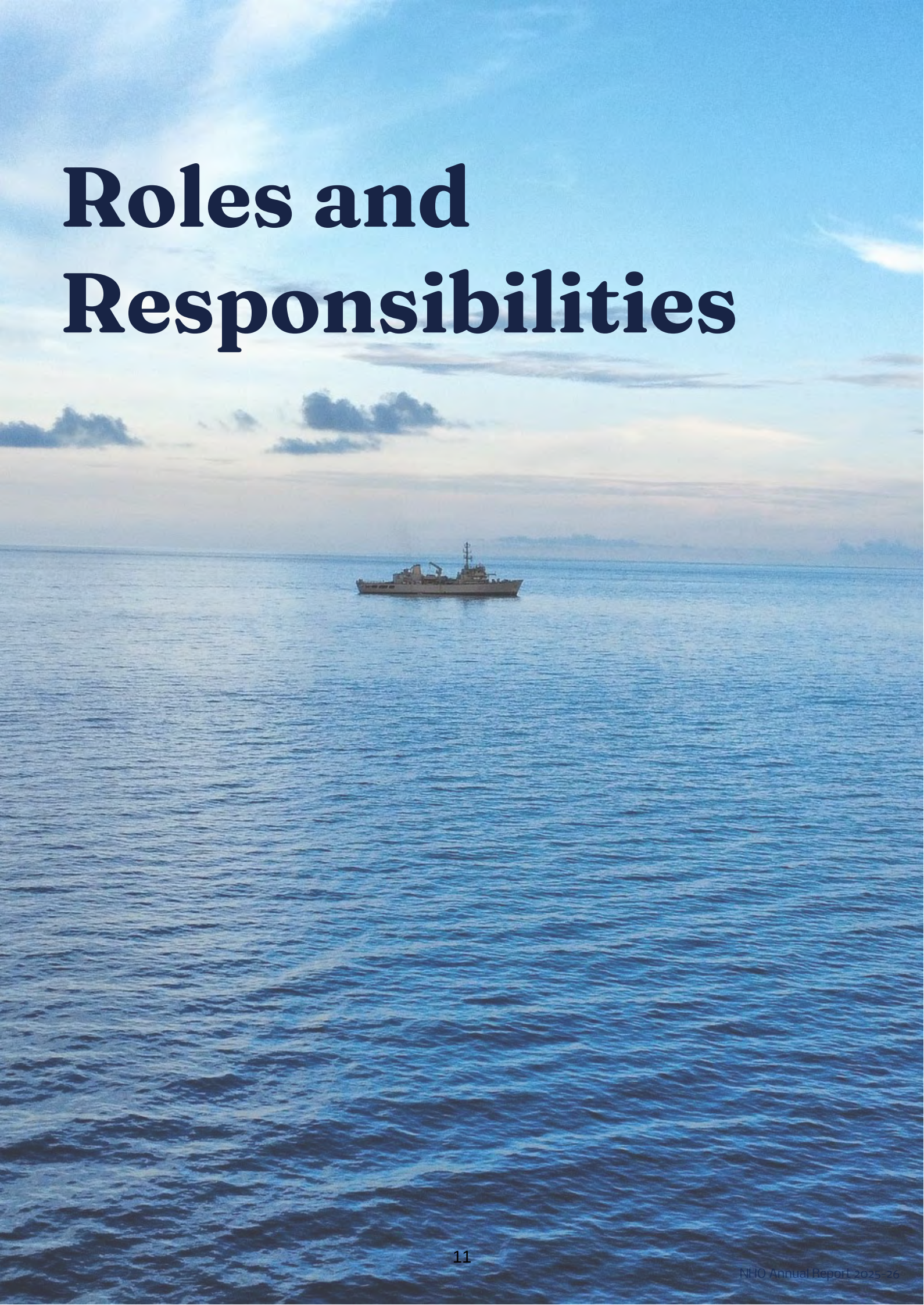
Collaboration
Fostering collaboration with national and international stakeholders to enhance maritime safety and hydrographic capability.

Ethical Integrity
Upholding the highest standards of scientific rigour, professional ethics and data authenticity.

Service Before Self
Har Kaam Desh Ke Naam
Placing nation and maritime community needs foremost in line with the finest tradition of the Indian Navy.

Sustainable Ocean
Promoting responsible ocean stewardship through accurate marine geospatial data supporting blue economy and environment protection.

Roles and Responsibilities



Institutional Mandate

NHO stands as a responsible organization for maritime safety, steered by the **Chief Hydrographer to the Government of India**. Operating in strict consonance with the vision of the Government of India and the Indian Navy, INHD has transitioned from a traditional mapping agency into a strategic powerhouse of marine geospatial information, ensuring that India's sovereign waters are mapped to the highest international standards.

National Security

Accurate and up-to-date specialised navigation products and maritime safety services in support of naval operations.

Nation Building

Specialized services to public and private sectors, facilitating safe and seamless movement of trade across the oceans empowering the national economy.

Regional Leadership

Hydrographic assistance to friendly foreign nations, reinforcing India's role as reliable hydrographic partner in the IOR and beyond.

Capacity Building

Committed to developing hydrographic expertise across the region through structured training programme and knowledge transfer initiatives through the National Institute of Hydrography (NIH)

Core Hydrographic Output

At the heart of the INHD's mandate is the systematic execution of high-density seabed mapping and bathymetric surveys, which form the primary data source for the production of Electronic Navigational Charts (ENCs) and paper nautical charts, as well as for all associated hydrographic publications. This continuous ping-to-chart workflow conducted to the IHO standards, ensures that the naval assets, mariners and port authorities have access to accurate, authoritative and up-to-date navigational products covering India's coastal waters, ports, approach channels and the broader Indian Ocean Region.

High-Density Seabed Mapping

Systematic bathymetric surveys providing precise bathymetric data across coastal waters, ports and the EEZ.

ENC and Chart Production

Conversion of survey data into IHO-compliant Electronic Navigational Charts (ENCs) and paper nautical charts for safe navigation.

Hydrographic Publications

Production of Sailing Directions, Tide Tables, List of Lights and other official publications in support of maritime operations.

Global Authority and Coordination

The INHD holds four critical internationally designated roles:-

NAVAREA VIII Coordinator

IHO designated and IMO approved coordinator managing maritime safety services across the North Indian Ocean.

INT Chart Coordinator — Area 'J'

Coordinates and oversees standardized nautical charting for the nations of the Northern Indian Ocean region of Area 'J' as established by IHO, establishing India as the technical arbiter of regional Charts and ENCs produced.

National NAVTEX Coordinator

Ensures seamless dissemination of coastal safety information, protecting vessels within India's territorial waters.

S-100 Coordinator for NIOHC Region

Coordinate the adoption, implementation and transition to next generation digital hydrographic standard of the IHO S-100 universal hydrographic data model across the member states of the North Indian Ocean Hydrographic Commission (NIOHC).



Hydrography
The Geospatial Bedrock of Maritime Infrastructure

High-resolution marine geospatial data is a non-negotiable prerequisite for maritime development. NHO fulfills a critical **"Nation Building"** role by providing the bathymetric and topographic data necessary for the lifecycle management of maritime assets.

Port and Harbour Development

The INHD provides the geospatial framework for the planning and maintenance of India's maritime gateways, allowing for the optimization of existing assets and construction of new infrastructure. In alignment with the **PM Gati Shakti National Master Plan**, NHO contributes critical bathymetric and hydrographic data that underpins the integrated development of port infrastructure, approach channels and coastal connectivity.

EEZ and Surveys for Nation Development

NHO is committed towards expansion of high-resolution surveys within India's Exclusive Economic Zone (EEZ) and around island territories. NHO unlocks latent economic potential, enabling sustainable resource exploration and the development of remote island infrastructure – ensuring India's maritime expansion is grounded in **technical expertise.**

Legal Advisory

Hydrography serves as a dual-spectrum tool: a "soft power" instrument for diplomacy and a "hard power" instrument for establishing legal boundaries and technical sovereignty.

NHO provides expert advisory services in matters related to hydrography to the **Ministry of External Affairs (MEA)**, **Ministry of Earth Science (MoES)**, **Ministry of Ports, Shipping and Waterways (MoPSW)** and **National Security Council Secretariat (NSCS).** These roles are vital for defining and defending India's maritime claims on the world stage.

Maritime Boundary Delineation

Providing the technical proof-points and evidence required for internationally accepted maritime boundary definitions.

UNCLOS Compliance

Ensuring all maritime claims and activities meet the requirements of the United Nations Convention on the Law of the Sea and Technical Aspects of law of the Sea.

Continental Shelf Delimitation

Provide supporting technical data and evidence for establishing the legal claims for the delineation of India's maritime territory.



Strategic Synthesis: The Roadmap

The Indian Naval Hydrographic Department (INHD) under the aegis of the Indian Navy is the Marine Geospatial Information Hub for the navy and nation. By synthesizing technical precision with digital innovation and diplomatic outreach, INHD endeavors that India's transition to Blue Economy is built on a foundation of **technical expertise and self-reliance.**

Technical Precision

World-class hydrographic surveys and IHO-standard charting underpinning every maritime decision.

Digital Innovation

S-100 migration and indigenous platform development securing India's hydrographic alignment with international policy updates.

Diplomatic Outreach

Capacity building, regional hydrographic survey cooperation, chart and ENC production coordination and legal advisory roles, cementing India's partnership in IOR and beyond.

Blue Economy

All pillars converge to deliver the foundational framework for India's maritime economic vision.



Launch of SindhuNidhi Portal by the Chief of the Naval Staff - April 26

Executive Summary

📋 Numbers at a Glance

Key statistics and performance metrics of INHD for 2025-26

🎯 Milestones

Major achievements and key highlights of the survey season 2025-26

Note: The Executive Summary provides a concise overview. Detailed elaboration follows in subsequent chapters.

Numbers at a Glance

364
Electronic Navigation Charts

334
Paper Nautical Charts

27
Navigation Safety at Ports Committee Inspections Conducted in 2025-26

105
Tidal Predictions for Non Major Ports

1008
Friendly Foreign Countries (FFC) Personnel Trained

8
Ocean-going Hydrographic Survey Vessels

Key Highlights of 2025–26

Force Level
INS Ikshak (3rd SVL) Commissioned - 06 Nov 25

INS Sanshodhak (4th SVL) Commissioned - 21 Jun 26

International Deployments
IN Survey ships deployed to Mauritius, Myanmar and South East Asian nations undertook hydrographic surveys and also showcased India's indigenous ship building capabilities.

Antarctica
NHO team was deputed as part of 45th Indian Scientific Expedition to Antarctica (ISEA) for conduct of scientific studies off Indian stations Maitri and Bharati.

Digital Transformation
NHO accelerated its digital transformation journey through the transition to the internationally recognised S-100 next-generation hydrographic data standard, the launch of the *SindhuNidhi* Marine Spatial Planning portal, adoption of AI-enabled chart production workflows and embracing autonomous technology .

Surveys Undertaken
Extensive hydrographic surveys conducted across India's area of interest including coastal, offshore, Island territories and friendly foreign countries.

IBSC Accreditation
National Institute of Hydrography (NIH), Goa re-accredited by the International Board for Standards of Competence (IBSC) for Cat 'A' and Cat 'B' Hydrographic courses.

Milestones

Key Achievements
Survey Season - 2025–26



Hon'ble PM Narendra Modi and Prime Minister of New Zealand, Rt Hon Christopher Luxon, at the signing of the Implementation Arrangement on Hydrography and Nautical Cartography, July 2026.

Major Milestones & Key Achievements 2025 - 26

The **Indian Naval Hydrographic Department** has firmly established itself as a leading hydrographic organisation in the Indian Ocean Region (IOR). This is reflected in its expanding bilateral and multilateral engagements with national and international partners, increasing participations in regional and global hydrographic initiatives, internationally accredited training programmers, technological innovations and enhanced operational capabilities. The milestones presented below highlight the departments significant achievements during the survey season in support of India's hydrographic initiatives.

Annual Hydrographic Tasks

During the 2025-26 survey season, the INHD successfully undertook survey tasks across Indian waters and overseas, demonstrating exemplary operational efficiency and professional excellence. The fleet of survey vessels and Hydrographic Survey Units collectively collected significant survey data that has directly contributed to updating of nautical charts. The hydrographic data gathered during this season supports safe navigation in critical sea lanes, aids in the development of maritime infrastructure including port approaches and anchorages and strengthens India's broader strategic interests in the Indian Ocean Region. This sustained survey effort reflects the department's unwavering commitment to its core mandate and its growing capacity to meet both national requirements and international obligations.

Force Level Accretion

INS Ikshak, the 3rd Survey Vessel Large (SVL) was commissioned on 06 Nov 25 at Kochi by the Chief of the Naval Staff Admiral Dinesh Kumar Tripathi PVSM, AVSM, NM. The 4th SVL, INS Sanshodhak was commissioned by the Honorable Prime Minister Shri Narendra Modi on 21 Jun 26 at GRSE, Kolkata.

International Fleet Review - 26, Visakhapatnam

A ceremonial chart signed by the Hon'ble President of India was published by NHO to commemorate the event. Seven hydrographic ships of Indian Navy namely Ikshak, Sandhayak, Nirdeshak, Darshak, Sarvekshak, Jamuna and Makar participated in IFR-26 at Visakhapatnam.

Overseas Operational Hydrographic Survey Deployment

In continuation of cooperation being extended in the field of hydrography by INHD to countries in IOR, IN survey ships were deployed for joint coordination surveys to Mauritius and Myanmar. INS Sandhayak was deployed to South East Asian Nation towards showcasing India's hydrographic and shipbuilding capability.

Antarctica Expedition

An INHD team comprising Lt Cdr Kumar Shaswat and Yogender Yadav PO (Hy) were deputed as part of 45th Indian Scientific Expedition to Antarctica, spearheaded by National Center for Polar and Ocean Research (NCPOR). The team collected valuable data to support safe navigation to India's permanent research stations Bharati and Maitri.

Undersea Feature Naming

The world's ocean floors are home to thousands of unnamed geographic features. Naming these features is a globally coordinated scientific endeavour governed by the IHO Sub-Committee on Undersea Feature Names (SCUFN). Countries submit proposed names rooted in their national history, culture and heritage. Names of eight underwater features, submitted by INHD duly recommended by National Committee of Naming of Undersea Feature (NCNUF) were approved during the 38th session of (SCUFN) meeting held at Denpasar, Bali. These names will be reflected in Digital Gazetteer of IHO-General Bathymetric Charts of the Ocean (GEBCO).

Hydrographic Survey Committee (HSC) — 33rd Meeting

The 33rd HSC Meeting was held at NHO, Dehradun on 03 Jun 26 under the Chairmanship of Joint Secretary (Ports). The meeting saw active participation from representatives of various Ports, Maritime Boards and DG Shipping. The meeting deliberated on hydrographic priorities and coordination for the forthcoming survey season.

Maritime Safety Workshop — 3rd Edition

The 3rd edition of the Workshop on Maritime Safety was organised on 04 Jun 26 at NHO, Dehradun. Representatives from MoES, ICG, DG Shipping, NCPOR and NIOT participated to deliberate maritime safety issues and strengthen inter-agency collaboration to enhance navigational safety effectiveness.

Indigenisation Workshop

In alignment with the Government of India's 'Aatmanirbhar Bharat' initiative and the Indian Navy's indigenisation roadmap, the INHD organised a dedicated Indigenisation Workshop at NHO, Dehradun on 08 Aug 25. The workshop brought together representatives from DRDO, domestic defence industry and academic institutions to identify opportunities for indigenous development of hydrographic survey equipment and data processing software.

NIH Accreditation

The Long and Basic 'Hydrographic' courses conducted by NIH were accredited Cat 'A' and 'B' certification respectively by the International Board on Standard of Competence (IBSC) of the IHO. This certification has been extended for a further period of six and five years respectively from May 2026.

International Training

As part of Annual Defence Cooperation Plan (ADCP), a Hydrographic Training Team (one officer and one cartographer) from INHD was deputed in three phases to train Kazakhstan Naval personnel from KHSS in hydrography and nautical cartography.

SindhuNidhi Portal

The Marine Spatial Planning portal 'Sindhunidhi', developed by NHO facilitates data access for analysis, planning and de-conflicting the management of ocean and coastal areas, signals *IN* commitment to sustainable maritime growth. Portal will assist integrated ocean management and utilisation of marine resources in line with GoI's Blue Economy initiatives complementing SAGARMALA programme.

Foreign Delegation Visits

NHO/INHD hosted several foreign hydrographic delegations during 2025-26, reflecting India's growing stature as a regional hydrographic hub. These high-level visits facilitated the exchange of best practices and fostered exploration of bilateral cooperation across hydrographic surveys, nautical charting, and capacity building. The engagements have significantly strengthened India's hydrographic diplomacy, deepening ties with partner nations and reinforcing INHD's role as a key contributor to regional maritime safety and standards.

Regional Hydrographic Commission

The primary role of NIOHC is to coordinate regional hydrographic activities and enhance safety and navigation between the nations of the North Indian Ocean. During the 25th meeting of the NIOHC, India has been elected as Vice Chair of the commission for the period 2026-27. The department is also an associate member of the Southern African Islands Hydrographic Commission (SAIHC) and accordingly participates in the meetings of SAIHC.

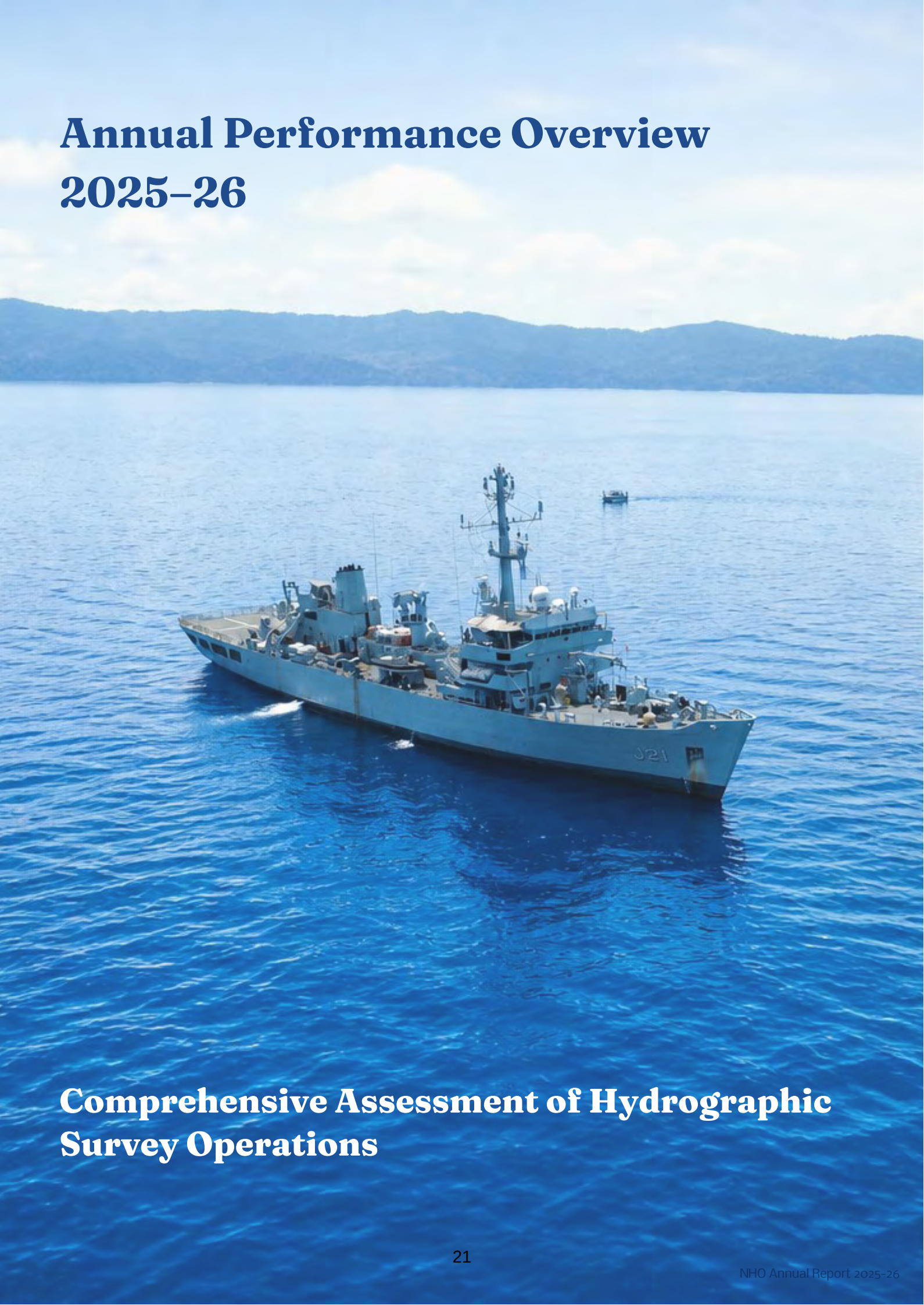
Contribution at IHO Forum

India actively participated in the International Hydrographic Organization (IHO) Assembly, contributing to deliberations on global hydrographic standards, ENC governance and maritime data infrastructure. Concurrently, the INHD continued its representation on the International Board on Standards of Competence (**IBSC**). NHO also engages actively across a range of IHO bodies: the **HSSC** (Hydrographic Services and Standards Committee), where NHO participates in deliberations on hydrographic standards and services; the **IRCC** (Inter-Regional Coordination Committee), where NHO coordinates inter-regional hydrographic activities; and **SCUFN** (Sub-Committee on Undersea Feature Names), through which NHO submits and secures approval for Indian undersea feature names.

Public Outreach

A movie showcasing work undertaken by INHD was released on 04 Dec 25 (Navy Day) by Hon'ble Governor of Uttarakhand Lt Gen Gurmit Singh PVSM, UYSM, AVSM, VSM (Retd).

Annual Performance Overview 2025–26



Comprehensive Assessment of Hydrographic Survey Operations

Key Operational Highlights & Performance Overview 2025–26

The 2025-26 survey season represented a defining year for the Indian Naval Hydrographic Department, characterised by sustained operational momentum across field survey execution, fleet modernisation, digital product development and international hydrographic cooperation initiatives. Operating within the survey availability envelope, the department fulfilled critical international obligations and advanced its long-term modernisation agenda with measurable outcomes.

Hydrographic Survey operation — 49 Survey Tasks Completed

Navigation — 16

Hydrographic Surveys for production of navigational chart for Ports and Harbours.

Tidal Surveys — 11

Port infrastructure development data and tidal prediction.

Multifarious — 11

Search and salvage assistance, wreck investigation and other ancillary hydrographic tasks.

Defence & Strategic

The department undertook numerous defence surveys for Indian Navy.

Foreign Cooperation — 6

Bilateral hydrographic commitments fulfilled in the IOR. Mauritius (INS Sutlej) and Myanmar (INS Sandhayak).

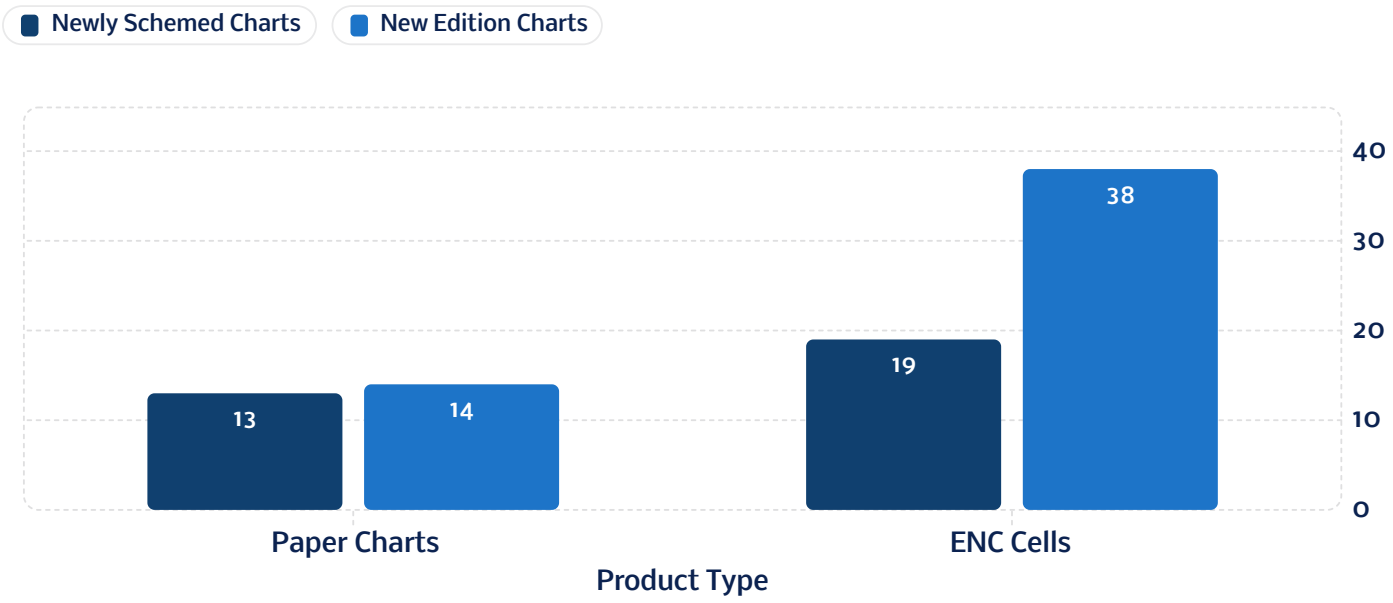
Navigational Safety at Ports Committee (NSPC) Inspections — 27

During 2025-26, a total of 27 NSPC inspections were completed, reinforcing the Department's statutory role in safeguarding maritime navigational infrastructure.

> The Navigational Safety at Ports Committee (NSPC), constituted by the Ministry of Surface Transport vide Order dated 12 February 1997, accords mandatory technical clearance to new and existing minor ports, captive ports, private jetties and terminals before kiskstarting the shipping services. A tripartite body comprising the Nautical Adviser to the Government of India (Member Convener), the Chief Hydrographer to the Government of India and the Director General of Lighthouses and Lightships, the NSPC physically inspects port sites against SOLAS Chapter V, ISPS Code, MARPOL, VTMS, TSS, Aids to Navigation adequecy, pilotage and emergency preparedness, issuing a Certificate of Compliance valid for up to five years. The Chief Hydrographer's role is substantive, in which NHO validates hydrographic surveys of approach channels, berths and anchorages to verify water depths, chart navigational hazards and confirm compliance with IHO S-44 standards, providing the indispensable hydrographic backbone to every clearance decision.

Charts, ENCs & Navigational Products

NHO sustained high-tempo navigational product development in 2025-26, advancing both its paper chart programme and expanding ENC portfolio in parallel.



ENC production outpaced paper charts, reflecting the shift to digital navigation

334

Paper Charts

Cumulative portfolio in market

364

ENC Cells

Cumulative digital chart cells available

113

NtoM Issued

Notices to Mariners for navigational safety this season

1176

NAVAREA VIII

Safety warnings broadcast

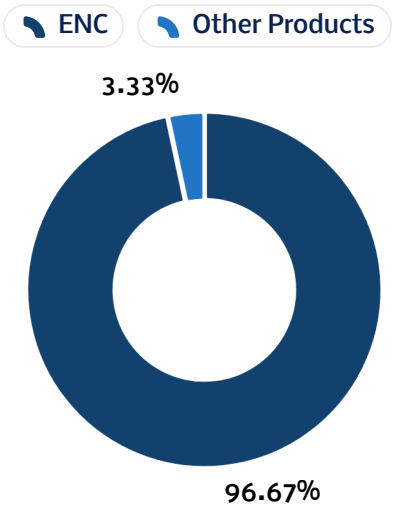
960

NAVTEX

Messages broadcast

Value of Products

The departments contribution towards Blue Economy Initiatives by production of ENCs, Paper Nautical Charts and Navigational Publications for the Survey Season 2025-26 is around **₹12000 lakh**. Majority of the contribution being received from ENCs representing a decisive shift in NHO's portfolio towards digital hydrographic data products.



₹ 11600 Lakh — ENC Portfolio

97% of total revenue.

₹ 400 Lakh — Other Products

Paper charts, publications, Indian Tide Tables and other legacy navigational products.

₹ 12000 Lakh — Total

Contribution Towards Blue Economy Initiatives

- **S-100 Product Suite:** The transition to the IHO S-100 Universal Hydrographic Data Model including S-101 ENCs, S-102 bathymetric data and S-111 surface current products will unlock the departments contribution towards enhancing the Blue Economy Vision of GoI.
- **Growing International Demand:** INHD's rapidly expanding ENC portfolio, backed by strengthening global distribution partnerships – positions the department as a premier provider of high-quality digital navigational products to the international maritime community. As demand for accurate, standards-compliant hydrographic data continues to rise, INHD is uniquely placed to assert India's partnership as a trusted hydrographic data provider across the Indian Ocean Region and beyond.

Naval Chart Depots (NCDs)

The Naval Chart Depots (NCDs) at Mumbai and Visakhapatnam serve as the critical last-mile delivery nodes of NHO's navigational products – ensuring that every Indian Navy and Coast Guard vessel has access to accurate, updated charts, ENCs and publications at all times. Operating under the oversight of the Chief Hydrographer, NCD Mumbai serves as the primary transmission hub for NAVAREA VIII maritime safety warnings, NAVTEX messages.

NCD Mumbai

NCD Mumbai successfully catered to the demands of ENCs, Charts and Publications for IN ships and Chart Agents, while ensuring accurate drafting and transmission of all Maritime Safety Information for NAVAREA VIII on INMARSAT, IRIDIUM, SANCHAR and NAVTEX as per SOLAS requirements.

📦 Chart & Publication Issues

Sl	Issue/ Sale	Charts	Publications
1	Naval Units	1962	177
2	Chart Agents	1694	66

📡 Navigational Warning Messages

1201

NAVAREA Warnings

Promulgated via INMARSAT & Iridium Safety Cast

🏆 Key Highlights

- **SAFETY NET Migration**

  Smooth migration of NAVAREA VIII warnings from SAFETY NET I to SAFETY NET II since Jan 26.

NCD Visakhapatnam

NCD Visakhapatnam supplies the entire series of 365 Indian Navigation Charts and publications to IN and Coast Guard units on the East Coast, Andaman & Nicobar Islands.

📦 Chart & Publication Issues

Sl	Charts and Publications	Quantity
1	Indian Navigational Charts	2628
2	Indian Navigational Publications	368

🏆 Key Highlights

- **Newly Commissioned Ships**

  Initial issue of complete navigational chart and publication folios to all newly commissioned IN ships.

- **IFR 2026 Ceremonial Charts**

  Distribution of IFR 26 ceremonial charts to Indian and international ships and delegations participating in the event



National Institute of Hydrography, Goa

Training
Human Capital & Capacity Enhancement

India's Only IHO-Recognised Hydrographic Training Centre

Capacity Building NIH Goa

The **National Institute of Hydrography (NIH)** in Goa is the region's premier training hub, providing IHO-recognized Category 'A' and 'B' courses that build long-term diplomatic ties and ensure collective maritime safety across the Indian Ocean Region.

1008

Friendly Foreign Nationals Trained

Professionals from across the IOR have completed NIH programmes, cementing India's role as the region's hydrographic knowledge centre.

2

IHO Certified Course

Category 'A' and 'B' internationally recognized hydrographic training programmes offered at NIH Goa.

13

Total Courses Conducted 2025-26

In addition to the IHO recognised courses, NIH offers training to Officers, Sailors and various civil agencies.

279

Indian Naval and Civilian Personnel Trained

Jul 25 - Feb 26



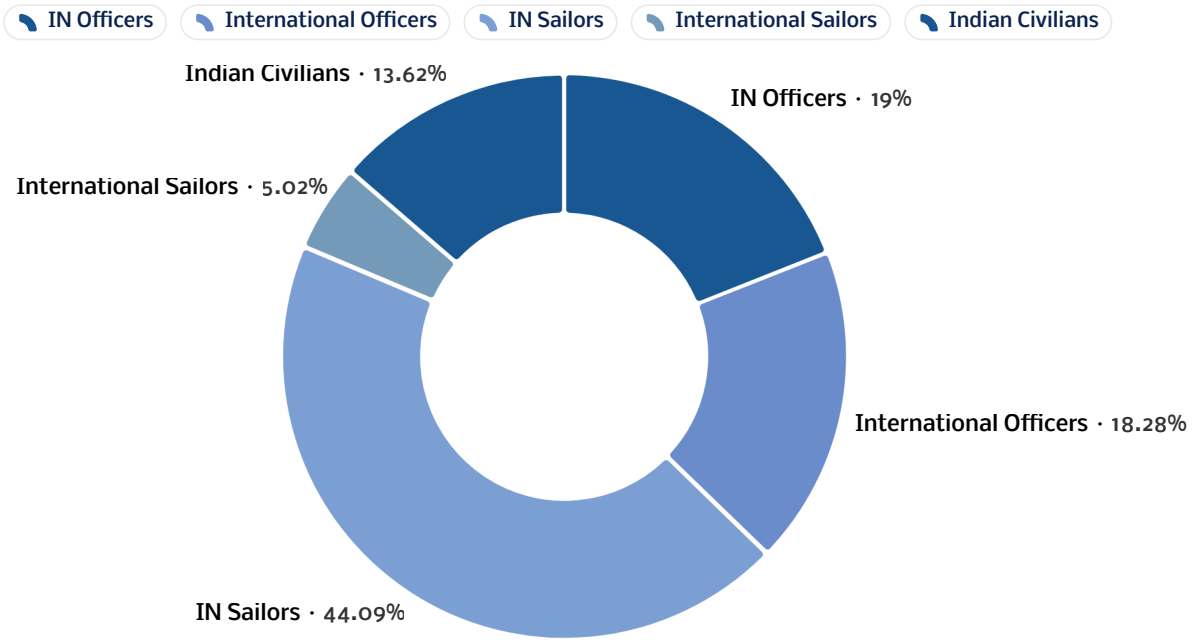
National Institute of Hydrography, Goa

The National Institute of Hydrography (NIH), Goa – India's only IHO-recognised hydrographic training Institute, successfully executed all scheduled courses under the *IN* Block Training Programme (BTP) 2025-26, training a combined strength of **279 personnel** from Jul 25 to Feb 26, completing 13 courses while advancing major accreditation, academic and digital transformation milestones.

24%

International Share

65 of 279 from Friendly Foreign Countries



Trainees by Category

IN Sailors form the largest cohort at 123 personnel, while International Officers represent a near-equal share (51) to IN Officers (53) – underscoring NIH's strong global draw and strategic role as the IOR's premier hydrographic training hub

Reporting Period Highlights

International Reach

51 International Officers + 14 International Sailors from Friendly Foreign Countries (FFCs)

IHO Accreditation

Cat 'A' (Long 'H') and Cat 'B' (Basic 'H') certifications extended

Academic Affiliation

Goa University affiliation for PG Diploma and MSc (Hydrography) extended till 2030-31

Operational Commitment

Executed Hydrographic and geodetic survey commitments for meeting operational requirements

Courses Conducted: Officers', Sailors' & Civilian Programme

NIH conducted **6 Officers' courses** during the reporting period, including IHO-recognised Cat 'A' and Cat 'B' programmes, advanced specialisation courses, capsule course on Hydrography for National and International trainees of Long Navigation and Direction.

Officers' Courses

NIH conducted 6 Officers' courses during the reporting period, including IHO-recognised Cat 'A' and Cat 'B' programmes, advanced specialisation courses, and capsule courses for National and International trainees.

1	**Long 'H' — Cat 'A'** 19 Jan - 08 Nov 25 | IHO Category 'A' programme
2	**Basic 'H' — Cat 'B'** 14 Jul - 27 Dec 25| IHO Category 'B' programme
3	**Advance 'H'** 18 Aug - 25 Oct 25 | Advanced Hydrographic Specialisation
4	**Long ND(I)** 22 - 27 Sep 25 | Navigation and Direction Hydrographic Capsule Course
5	**Long N(F)** 06 - 11 Oct 25 | Navigation and Direction Hydrographic Capsule Course
6	**Advanced Oceanography Course** 26 - 31 Dec 25
7	**Long 'H'** In progress 19 Jan 26 - 07 Nov 26

Sailors' & Civilian Courses

NIH trained 137 Sailors (123 IN + 14 Intl.) and 38 Civilians across multiple qualification levels – from entry-level Agniveer induction to the Petty Officer 'Q' HY course – plus a maiden Capsule Course for NDRF personnel.

1	**Agniveer (HY)** 12 May - 02 Aug 25
2	**Electronic Survey Equipment Orientation Course (ESEOC)** 07 Jul - 09 Aug 25
3	**LS 'Q' HY** 14 Jul - 27 Sep 25
4	**Agniveer (HY)** 13 Oct 25 - 03 Jan 26
5	**PO 'Q' HY** 22 Sep 25 - 07 Feb 26
6	**Advanced Civilian Hydrography Course** 12 Jan - 07 Feb 26
7	**Capsule Course on Side Scan Sonar for NDRF** 24 - 29 Nov 25 – first ever course



Initiatives & Achievements:

Accreditation & Curriculum

NIH undertook a sweeping modernisation of its academic framework during the reporting period – strengthening international accreditation, expanding university affiliations and introducing new skill certification pathways in alignment with national and international standards.

Academic Affiliations & Certification Status

Programme	Awarding Body	Status
Long 'H' (Cat 'A')	IHO / IBSC	Recognised
Basic 'H' (Cat 'B')	IHO / IBSC	Recognised
MSc Hydrography	Goa University	Extended
PG Diploma Hydrography	Goa University	Extended
Diploma Hydrographic Survey	CUSAT	Newly Approved

Curriculum & Syllabus Developments

IHO Recertification

Long 'H' and Basic 'H' syllabi approved by IHO for Cat 'A' and Cat 'B' certification as per IBSC guidelines

CUSAT Credit Recognition

PO 'Q' (HY) course approved by CUSAT Academic Council for credit-based Diploma in Hydrographic Survey

NDRF SSS Training

Foundation course for National Disaster Response Force (NDRF) personnel on Side Scan Sonar

Safety Syllabus

Standardised safety syllabus implemented across all courses

Task Book for AVR Sea (HY)

Enables 15 Skill Credits for IGNOU Graduation; uploaded on NIH website

Self-Guide Re-Examination

Guided question paper solving introduced for trainees prior to re-examination

Initiatives & Achievements:
Digital Transformation - Digital India Initiatives

NIH executed a comprehensive digital upgrade programme, modernising its academic infrastructure, data management systems and trainee-facing resources to align with the INHD's broader objective toward a fully digital hydrographic future. Four major infrastructure upgrades were completed simultaneously in 2025-26.

DigiLocker Integration

End-to-end digital integration of academic records from Jan 1999 to Jan 2026 – **27 years** of credentials now available for seamless verification and long-term archival.

Server Migration

All **19 Survey System Training Centre (SSTC) nodes** migrated with updated academic server version software.

QR Codes for e-Books

QR codes for professional books, research papers, and CNS reading lists (Officers and Sailors) generated and made available to all trainees.

S-100 Curriculum Alignment

Training content being updated to reflect the department's transition to the **S-100 Universal Hydrographic Data Model.**

Equipment & Specialist Training

Photography Training

Two-day attachment of PO 'Q' HY course at INS Hansa for professional survey photography skills

OEM Equipment Training

Hands-on training on newly inducted survey equipment conducted for all hydrographic ashore and afloat units

OEM Lectures

Original Equipment Manufacturer lectures conducted for NIH staff, trainees and outstation survey units



International Trainee at NIH, Goa during Practical Training Phase



Beyond the Classroom: Holistic Development at NIH

The National Institute of Hydrography, Goa recognises that **true professional excellence** is forged not only in lecture halls and survey grounds, but equally through **shared experiences, cultural immersion and human connection**. NIH's holistic training philosophy ensures that both national and international trainees leave not just as **skilled hydrographers**, but as **lifelong ambassadors of India's maritime goodwill**.

Academic & Professional Development



In-House Technical Seminars

Regular knowledge-sharing sessions on hydrographic data processing, chart production, S-100 standards and emerging survey technologies – supplemented by specialist OEM lectures and hands-on equipment training by Original Equipment Manufacturers, keeping trainees at the cutting edge of technology

Cultural Exchange & Community Bonding

National Days of Friendly Foreign Nations

National days of all Foreign Friendly Country (FFC) trainee nations are celebrated with events pertaining to the respective country, building lasting bonds of international goodwill and cultural respect.



"This integrated approach – combining rigorous academic instruction with cultural sensitivity and community engagement – is what distinguishes NIH as not merely a training institute, but a **centre of excellence that shapes hydrographers and strengthens India's maritime partnerships** across the Indian Ocean Region."

International Cooperation



Structured International Engagements

MoUs & Implementation Arrangements

The INHD has established structured cooperation through signed MoUs and IAs with a wide spectrum of partner nations across regional, African and global theatre.

Regional Nations & African Littorals

Signed MoU with Mauritius and Seychelles.

Bilateral Arrangement

Bilateral cooperation with France (SHOM) and United Kingdom (UKHO).

Implementing Arrangements (IA)

Specific IAs on hydrographic cooperation with Australia, Myanmar, Vietnam and New Zealand

Active Bilateral Engagements (JCMs and JWGs)

The department maintains a consistent schedule of high-level structured meetings to coordinate operational tasks and capacity building.

Myanmar

4th JCM held in Dehradun; 5th JCM attended by the Chief Hydrographer at Yangon

Viet Nam

2nd JWG meeting on hydrographic cooperation held at NHO, Dehradun (June 2026)

Mauritius

14th JCM held in Apr 25; long-standing MoU renewed till 2030

Russia

Bilateral discussions on hydrography and nautical cartography (Mar 26)

New Zealand

Elevation to Strategic Partnership (July 2026); signing of IA on Hydrography & Nautical Cartography in July 26.

France (SHOM)

Bilateral meeting with Service Hydrographique et Oceanographique de La Marine (SHOM) in May 26.

Seychelles

2nd JCM held at NHO, Dehradun (Jun 25); reinforcing maritime cooperation with Indian Ocean island nations.

United Kingdom

Bilateral arrangement for data sharing with UKHO.

IHO and Joint Committee Meetings

The IHO Assembly and its principal working groups – HSSC, ENCWG, NIPWG, IBSC, NIOHC and GEBCO are the foremost international forums where global hydrographic standards, ENC specifications, nautical data frameworks and maritime safety policies are deliberated and adopted. Decisions taken therein directly govern how India's charts, ENCs and publications are produced and recognised internationally. INHD brings formidable technical credentials to these tables, holding designated roles as NAVAREA VIII Coordinator, INT Chart Coordinator for Area J, S-100 Coordinator for NIOHC and Vice Chair of NIOHC. Active, senior-level participation is not a diplomatic courtesy but a strategic imperative, ensuring India's technical positions are heard, its interests protected and its hydrographic partnership in the Indian Ocean Region reinforced. The 2025-26 season saw commendable engagement across multiple forums and this momentum must be sustained and deepened.

Joint Committee Meeting (JCM) at Myanmar

VAdm Lochan Singh Pathania, AVSM

Chief Hydrographer

Nautical Information Provision Working Group (NIPWG) at Aalborg, Denmark

Dr R A Prasad, ACCHO-I

South African and Island Hydrographic Commission (SAIHC) at La-Reunion Island, France

RAdm Peush Pawsey,

Joint Chief Hydrographer.

Electronic Navigation Chart Working Group (ENCWG) at Busan, South Korea

Sh Vijay Deep Singh PCHO

GEBCO SCUFN 38th meeting at Bali, Indonesia

Captain Sameer Gokhale, Capt(H)-P&T

Worldwide ENC Database Working Group (WENDWG) at Hong Kong, China

Sh Rajesh Kumar, CCHO

IHO Assembly at Monaco

VAdm Lochan Singh Pathania, AVSM

Chief Hydrographer

25th NIOHC meeting at Chattogram, Bangladesh

VAdm Lochan Singh Pathania, AVSM

Chief Hydrographer

India was elected as Vice Chair of NIOHC for 2026-27.

49th IBSC meeting at Kuala Lumpur, Malaysia

Commodore J Gurumani, Cmde(H)

18th HSSC meeting at Gdansk, Poland

Commodore Vishal Sharma Cmde(H)-CB/P

Training Team- Kazakhstan

As part of mobile hydrographic training team Cdr Joash Lopez , Sh PC Purohit, PCHO I, Lt Cdr Tarun Katiyar and Vaibhav Kumar, PO(HY) were deputed to train Kazakhstan naval personnel on hydrography and cartography.

Joint Hydrographic Surveys

Joint foreign hydrographic cooperation surveys represent the most tangible expression of India's maritime engagement with friendly foreign nation – providing critical navigational data to nations that lack independent hydrographic capabilities. NHO formally designates these missions as a **"benign tool,"** underscoring their dual function as both capacity building initiative and mutual partnership.

2025–26 Survey Season

Five foreign cooperation surveys completed in Mauritius and Myanmar

Five-Year Record (2020–2025)

33 surveys conducted for friendly foreign countries, including the Maldives, Mauritius, Vietnam and Myanmar – representing a consistent international engagement

Chart Production

45 nautical charts of foreign waters published as a direct outcome of these surveys – enhancing maritime safety and navigational accuracy across the IOR.

Strategic Value

Survey missions build long-term hydrographic cooperation and goodwill, create data-sharing frameworks, and position India as the region's indispensable maritime knowledge partner.



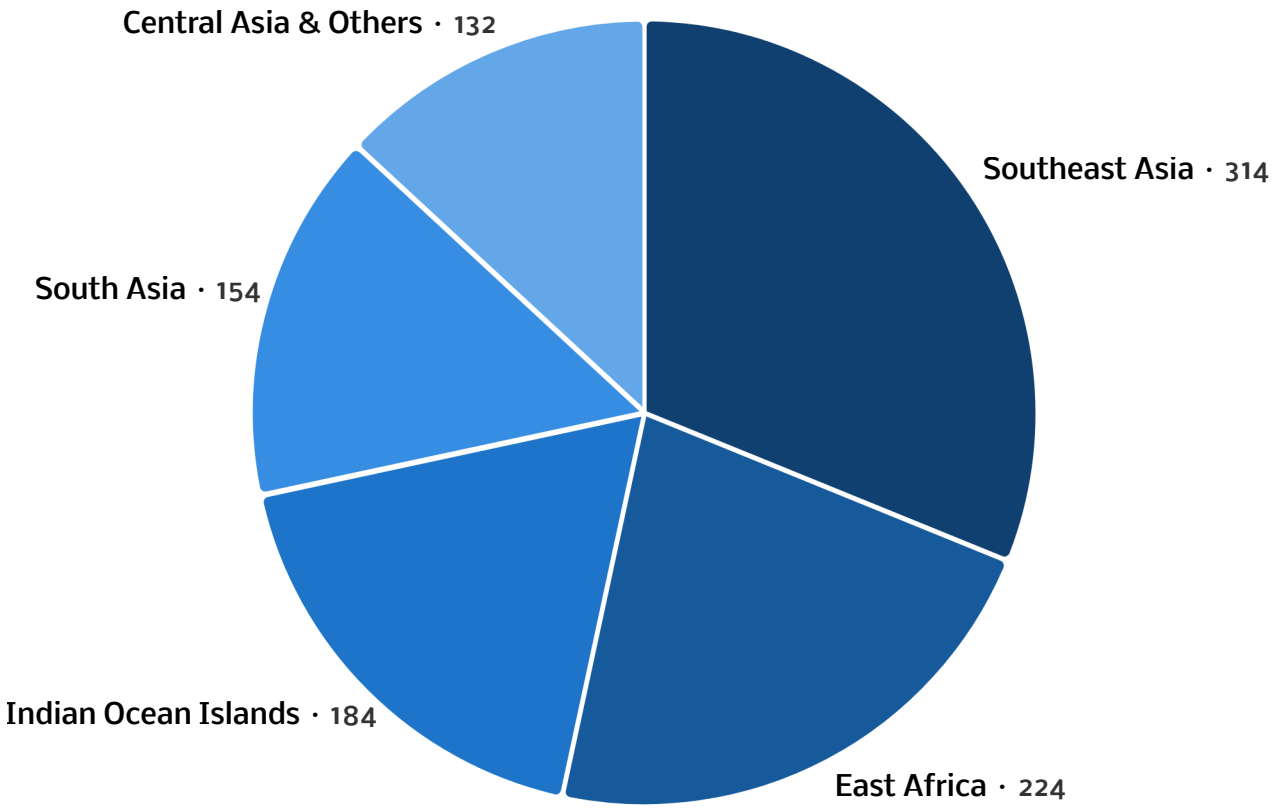
Foreign cooperation surveys conducted and nautical charts published for foreign waters, 2020-2025

CAPACITY BUILDING

National Institute of Hydrography, Goa

The IOR's Hydrographic Academy

The National Institute of Hydrography (NIH), Goa, has been institutionally positioned as the preferred hydrographic training centre for the entire Indian Ocean Region – a role that reinforces India's soft power and builds long-term human capital linkages with partner nations. Training alumni embedded in partner navies create enduring institutional connections, ensuring India's hydrographic standards and methodologies become the regional benchmark.



Regional Breakdown of 1008 International Nationals Trained at NIH Goa.

Figures are estimated from total training data.

IHO and Regional Hydrographic Commission

India's indulgence in global hydrographic governance is exercised through active roles in the International Hydrographic Organization (IHO) and its regional commissions – translating operational expertise and cooperation into authoritative standards, data-sharing protocols and maritime safety broadcast services.

Key Participation and Positions

IHO — Global

Founding Member. Active participation in the IHO Assembly, Council, SCUFN (Sub-Committee on Undersea Feature Names, IBSC (International Board on Standards of Competence for Hydrographic Surveyoys and Nautical Cartographers), IHO-HCA (Hydrographic Committee on Antarctica) and various other Multiple Working Groups.

NIOHC — Vice Chair 2026–27

Founding member of the North Indian Ocean Hydrographic Commission. Elected Vice Chair – directly shaping regional standards, data-sharing protocols and survey priorities.

SAIHC — Associate Member

Southern African and Island Hydrographic Commission – extending India's hydrographic partnership into the Southern Indian Ocean and East African maritime domain.

NAVAREA VIII Coordinator

Chief Hydrographer designated as coordinator for NAVAREA VIII – responsible for maritime safety broadcast services across the Northern Indian Ocean shipping lanes.

INT Chart Coordinator — Area 'J'

India serves as International Chart Coordinator for Area 'J' – overseeing standardisation and publication of international nautical charts for the region.

S-100 Coordinator — NIOHC Region

Designated as the S-100 Coordinator for the North Indian Ocean Hydrographic Commission (NIOHC) region – partnering the transition from legacy S-57 ENCs to next-generation IHO S-100 Universal Hydrographic Data Model standards across member states.

Body	India's Role	Scope
IHO	Founding Member – Assembly, Council, SCUFN, HCA	Global
NIOHC	Founding Member; Vice Chair (2026-27)	Northern Indian Ocean
SAIHC	Associate Member	Southern Indian Ocean & East Africa
NAVAREA VIII	Designated Coordinator	Northern Indian Ocean Safety Broadcasts
INT Chart Area 'J'	International Chart Coordinator	Regional Chart Standardisation
S-100 / NIOHC	Regional S-100 Coordinator	NIOHC Region Digital Standards

India's layered governance presence – spanning global (IHO), sub-regional (NIOHC, SAIHC) and functional (NAVAREA, INT Chart) mandates – ensures that its national hydrographic standards progressively become the regional norm across the IOR.



Hon'ble Prime Minister Shri Narendra Modi commissioning INS Sanshodhak (4th SVL), at Syama Prasad Mookerjee Port, Kolkata

21 June 2026

Vision 2026 – 2047

Charting India's Maritime Future

Marine Geospatial Information · Maritime Domain Authority · Blue Economy · Viksit Bharat 2047

NHO - The Catalyst for National Marine Development Initiatives

> National hydrographic Office stands as the architect of India's maritime future – asserting authoritative data for Indian Navy, national jurisdiction across the Indian Ocean Region through marine geospatial information, enabling ocean-based economic growth through the Blue Economy Vision 2030, and positioning India as the preeminent maritime domain partner in the Indo-Pacific. As India rises toward Viksit Bharat 2047, the INHD charts not merely waters, but the strategic course of a nation.

Marine Geospatial Information

Authoritative hydrographic data for maritime development and national security operations.

Maritime EEZ and UNCLOS

Hydrographic support to establish UNCLOS-compliant legal jurisdiction over India's maritime domain.

Blue Economy 2030

Professional input driving sustainable ocean-based growth.

Viksit Bharat 2047

Long-range roadmap to national and global hydrographic capability and partnership.



Indian Navy sailors of hydrographic department training handling of mooring lines during practice of RAS operations

Maritime Jurisdiction:

Establishing India's Legal Architecture at Sea

The transition to a modern geodetic framework is not a technical update – it is the **legal prerequisite for internationally defensible maritime boundaries under UNCLOS**. The NHO's work in this domain directly translates bathymetric data into national jurisdictional interests.

WGS-84 Datum Promulgation

02 April 2025

India's legal geodetic foundation for measuring the Territorial Sea, Contiguous Zone, EEZ and Continental Shelf – aligned with global navigational standards.

National Benchmarks Established

In collaboration with ISRO and Survey of India:

- Coastline of India reverified and extended to **11,099 km**
- Offshore Islands ascertained to **1,389**

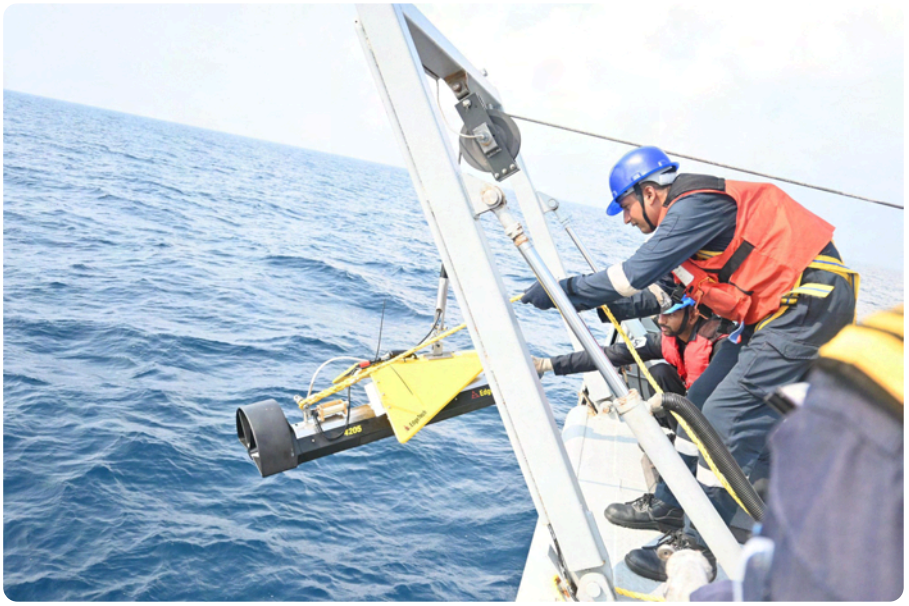
The maritime jurisdiction architecture demonstrates how NHO's technical work directly translates into nationally defensible legal positions under international law – from foundational datum establishment through scientific data generation to active validation of national jurisdictional claims before international bodies.

Extended Continental Shelf (ECS) Claim

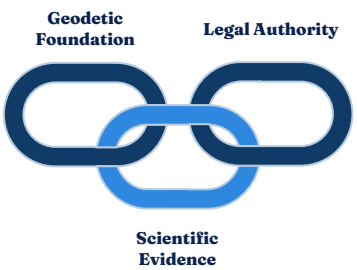
Western Offshore Region

03 April 2025

India submitted a fresh ECS claim for the Western Offshore Region to the UN Commission on the Limits of the Continental Shelf (CLCS) under UNCLOS Article 76. This submission relies on high-resolution hydrographic data surveyed by NHO, including the 2,500m isobath and foot-of-slope geomorphological parameters, ensuring India's claim remains scientifically unassailable.



Indian Naval Hydrographic Survey Team – Launching of Side Scan Sonar Towfish during offshore survey operations.



NATIONAL GROWTH FUNCTIONS

Enabling National Growth:

NAVAREA VIII Maritime Safety Coordination

As IHO-designated and IMO-approved NAVAREA VIII Coordinator, the INHD manages maritime safety services across the North Indian Ocean. Operational metrics demonstrate a sustained and high-tempo safety posture:

1,176
NAVAREA Warnings
Issued in 2025

171
Notices to Mariners
Promulgated in 2025

771
Warnings in 2026
Issued to date (2026)

113
NtoMs in 2026
Promulgated to date (2026)

Key Departmental Functions

Major Ports Surveyed

Port
Goplapur Ports Ltd.
Sanghi Jetty
Krishnapatnam Port
Azikal Port
Beyport Port
Sikka Port & Terminal Ltd.
Karikal Port
Mundra Port & SEZ Ltd.

Major Ports Surveyed

Port
Gangavaram Port
Jaigarh Port
Adani Petronet Dahej Port
RIL Hazira Port
Udangudi
Muldwarka
Hazira Port
Essar Bulk
Dhamra Port

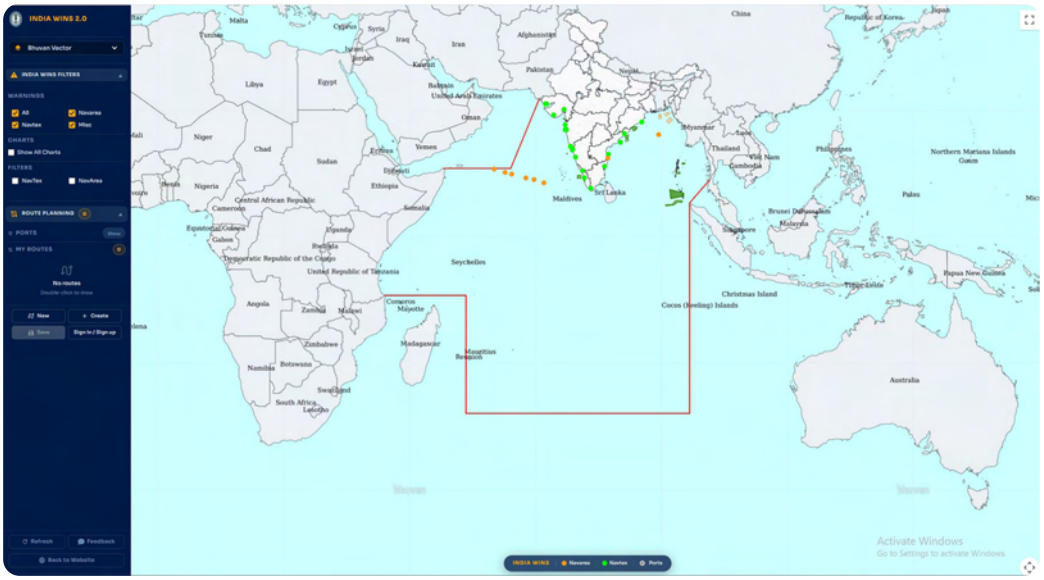
Sagarmala — Geospatial Backbone of Port-Led Development

The NHO acts as the geospatial backbone of the Sagarmala initiative. Precise hydrographic information is mission-critical for the effective planning, development, and operation of ports, harbours, jetties, and navigational channels.

Seabed Science & Global Recognition

Annual Antarctic expedition survey under ISEA (Indian Scientific Expedition to Antartica) spearheaded by NCPOR to Maitri and Bharati Indian station.

India-WINS: An in-house digital module providing real-time visualisation of all active NAVAREA warnings, enhancing mariner decision-making across the Northern Indian Ocean. This indigenous system represents a significant advance in national maritime domain awareness.



India-WINS (Web-based Indian Naval Safety Information System)



Indian Naval Hydrographic Survey Vessel – Boat Operations during offshore hydrographic survey.

MARINE SPATIAL PLANNING

Sindhunidhi: Marine Spatial Planning for the Blue Economy

Launched **28 April 2026**, the Sindhunidhi portal is NHO's GIS-based Marine Spatial Planning (MSP) platform – implementing evidence-based "ocean zoning" in alignment with the Viksit Bharat vision for 2047. By de-conflicting offshore energy installations, fishing grounds and undersea cable corridors, Sindhunidhi transforms reactive ocean management into proactive and structured governance – positioning India as a responsible maritime partner.

Zone	Primary Purpose
Shipping	Safe maritime trade corridors for domestic and international maritime trade; optimising vessel routing and reducing transit risk
Fishing	Protected zones safeguarding traditional and commercial livelihoods from industrial encroachment; preserving food security and coastal economies
Energy	Strategic sites designated for offshore installations, mineral exploration, and renewable energy development – enabling India's green transition
Conservation	Ecologically sensitive zones with enforceable environmental protection; balancing development imperatives with ecological responsibility
Defence	Reserved ocean space for naval exercises, security operations, and national defence – ensuring military operational freedom

Blue Economy Vision 2030: NHO as Marine Geospatial Information Catalyst

The INHD is the designated **Marine Geospatial Information Hub** for India's Blue Economy Vision 2030 – providing the technical authority on which sustainable ocean-based growth depends. Five strategic priorities define this mandate.

S-100 Migration —

Full transition to the IHO S-100 universal hydrographic data model – moving beyond traditional charts to a multi-dimensional, interoperable digital ecosystem supporting real-time maritime decision-making. The NHO is the nodal coordinating agency for all NIOHC member states. A national coordination committee for S-100 implementation, comprising **14 Indian organisations and ministries** has been constituted by GoI to integrate wide-ranging maritime data into future S-100 products. Target: **full transition by 2030**.

EEZ High-Resolution Mapping Expansion

Comprehensive high-resolution surveys of India's entire Exclusive Economic Zone and critical island terminals – unlocking latent economic potential for deep-sea mining, resource exploration and remote island infrastructure development. Mapping "unknown waters" is the foundational precondition for any sustainable offshore economy.

Support to Defence & National Development Requirements

The NHO provides specialised hydrographic and geospatial support to defence establishments and other government agencies on a case-to-case basis, enabling informed planning for coastal infrastructure, port development, and national security operations.

National Geospatial Policy (NGP) — Depth Theme

The NHO is one of the custodians of the "Depth" theme within India's National Fundamental Geospatial data framework. This designation makes NHO the geospatial backbone for the Sagarmala programme and all major coastal and offshore infrastructure projects under the NGP architecture.

Viksit Bharat 2047: The Long-Range Vision

Digital Transformation and Technological Superiority

India's hydrographic roadmap to 2047 is built on five transformative pillars – converging indigenous technology, digital innovation, autonomous systems, and regional leadership into a unified national maritime strategy. To maintain advance maritime hydrographic perspective, the NHO remains at the global forefront of hydrographic technology.



Lowering of Sound Velocity Profiler (SVP) – Survey Operations onboard an IN Survey Ship



AUV Demonstration to Long Hydrography Course participants at NIH Goa.

The S-100 Migration

IHO Standards Adherence

Ensuring strict adherence to the latest International Hydrographic Organization (IHO) standards.

Global Seabed Mapping Leadership

Positioning India as a leader in Global Seabed Mapping and regional interoperability.

DIGITAL TRANSFORMATION

AI and Automation

NHO is actively developing and deploying Artificial Intelligence and automation tools to enhance hydrographic data processing, ENC usage analysis, and operational efficiency across the department.

Multibeam Echosounder Data (MB) Processing

A proposal to develop indigenous MBES data processing software has been forwarded to INICAI. The software will process MB data by integrating multisource data, filtering noise to classify shoal and wreck data . This will improve data quality, consistency, adaptability and save operational cost, scalability & adaptability.

ENC Usage and Sales Analysis

Information using AI tools and open source AIS data to identify vessel i.e. number, type, frequency, nationality, tonnage, in a given period utilising particular ENC has been proposed. This will allow NHO to estimate ENC usage by vessels, sales prediction and periodicity of resurvey of any area.

NAARAD

NAARAD is a customized AI based chatbot which aims to provide efficient and professional solutions for hydrographic queries. The chatbot will reduce burden by handling routine inquiries for general tasks, facilitate knowledge sharing, provide a platform for easy access to technical information and enhance user experience by offering a 24/7 readily accessible information resource.

Side Scan Sonar (SSS) Data Processing

A project for SSS data processing is proposed to reduce noise, automatic slant range correlation, feature/ object detection and thereafter storing information/ attributes in a standardised data structure is in progress.

Hydrographic Data Analytical Tool (Software for Time Series Analysis)

The requirement to extract digital data from old manuscripts and documents, utilising contemporary technology for analysis were specified to WESEE. The project is at nascent stage and will allow the user to make a time series analysis of the hydrographic data.

Digital Nautical Publications

NHO has made significant strides in transitioning from traditional paper-based nautical publications to fully digital formats. This initiative aligns with global maritime digitisation trends and ensures Indian nautical publications remain current, accessible and interoperable with modern Electronic Chart Display and Information Systems (ECDIS).

Indian WINS Phase II — Route Planning Feature

The Indian Web-based Integrated Navigation System (Indian WINS) has been upgraded to Phase II, incorporating an advanced Route Planning feature. This enhancement enables mariners and naval operators to plan, optimise and validate voyage routes digitally using integrated hydrographic data, ENC overlays and real-time navigational advisories. Phase II significantly expands the platform's operational utility, transforming Indian WINS from a navigational information portal into a comprehensive voyage planning tool for the maritime community.

PAPER CHARTS AND ELECTRONIC NAVIGATIONAL CHART

Navigating India's Maritime Future



Boat Sounding Operations



ITRF Geodetic Survey



SMB lowering during Field Survey

NEW CHARTS PRINTED
(01 JUL 25 – 30 JUN 26)

Sl No	Chart No	Chart Title
1	228	North Thiladhunmathee to South Thiladhunmathee
2	309	Outer Approaches to Kakinada
3	2060	Approaches to Salaya and Pathfinder Inlet
4	2062	Approaches to Vizhinjam
5	2503	App. to Cargados Carajos Shoals (Saint Brandon)
6	2508	Agalega Jetty
7	2594	Ihavandhippolhu Atoll
8	2595	Thiladhumathee Uthuruburi Atoll
9	2691	Appr. to Mkoani Hr Mkoani Hr.
10	4120	App. to Macpherson Strait (East)
11	4702	Approaches to Thandwe
12	4801	Sittwe Harbour
13	4802	NGA Yok Kaung AW
14	4901	Haing Gyi Harbour
15	4903	Iron Passage and Approaches
16	4905	Thander Island
17	4906	Myeik Harbou

NEW EDITION CHARTS PRINTED
(01 JUL 25 – 30 JUN 26)

Sl No	Chart No	Chart Title
1	211	Satpati to Dighi Harbour
2	308	Outer Approaches to Visakhapatnam
3	403	Stewart Sound to Elphinstone Hr.
4	2016	Inner Approaches to Mumbai
5	2045	Port of Kochi
6	2051	Salaya Harbour
7	2076	Jawaharlal Nehru Port and Trombay
8	2529	Northern Islets of Mauritius
9	3012	Visakhapatnam Harbour
10	4001	Elphinstone Harbour and Rangat Bay
11	4184	Trinkat Chanplong Bay
12	4201	Landfall Island, Anchorage and Approach
13	4207	St. Georges Channel
14	4906	Myeik Harbour

REPRINT OF CHARTS
(01 JUL 25 – 30 JUN 26)

Sl No	Chart No	Chart Title
1	214	Vengurla to Betul
2	216	Belekeri to Kundapura
3	218	Kasaragod to Tellicherry
4	221	Alleppey to Quilon
5	252	Okha to Veraval
6	257	Malvan to Kundapura
7	272	Cora Divh to Elikalpeni Bank
8	313	Mamallapuram to Point Pudi
9	353	Kalingapatnam to Gopalpur
10	354	Sacramento Shoal to Kalingapatnam
11	354	Sacramento Shoal to Kalingapatnam
12	2003	Badagara Anchorage Kasaragod Anchorage
13	2004	Kochi Harbour
14	2006	Minicoy Island Minicoy Jetty
15	2017	Navlakhi and Approaches
16	2034	Hazira Port
17	2040	Porbandar Anchorage, Porbandar Port
18	2068	Gulf of Kachchh Deep Water Route
19	2074	Pawas Bay-Ranpar Port; Appr. to Pawas Bay
20	2077	Harnai Anchorage Revdanda Port
21	2110	Dahej Harbour
22	2354	Approaches to Tadri
23	2355	Approaches to Honavar
24	3012	Visakhapatnam Harbour
25	3017	Approaches to Dhamra River
26	3043	Gopalpur Port Gopalpur Anchorage
27	4013	Approaches to Lacam Harbour Neill Island Pier; Lacam Harbour; Fusilier Channel (Nancowry Strait)
28	4134	Steward Sound
29	4151	Hut Bay; App to Hut Bay
30	4177	Tillanchang Island
31	4186	Barren Island, Narcondum Island
32	4255	Approaches to Steward Sound

NEW ENC

(01 JUL 25 – 30 JUN 26)

Sl No	ENC No	Chart Title
1	IN42691A	APPROACHES TO MKOANI HARBOUR
2	IN52691A	MKOANI HARBOUR
3	IN3309AA	OUTER APPROACHES TO KAKINADA
4	IN62013A	PORT OF OKHA
5	IN62061A	PATHFINDER INLET
6	IN52557C	COETIVY ISLAND
7	IN44206B	APPROACHES TO PULO MILLOW
8	IN52557A	COETIVY ISLAND
9	IN52062A	APPROACHES TO VIZHINJAM
10	IN54120A	APPROACHES TO MACPHERSON STRAIT (EAST)
11	IN64906A	MYEIK HARBOUR
12	IN42016A	INNER APPROACHES TO MUMBAI
13	IN44702A	APPROACHES TO THANDWE
14	IN3403AA	STEWART SOUND TO ELPHINSTONE HARBOUR
15	IN52060A	APPROACHES TO PATHFINDER AND SALAYA INLET
16	IN52079B	APPROACHES TO MUNDRA PORT
17	IN54802A	NGA YOK KAUNG AW

NEW EDITION ENC

(01 JUL 25 – 30 JUN 26)

Sl No	ENC No	Chart Title
1	IN44207A	ST. GEORGES CHANNEL
2	IN121MTB	MUSCAT TO MUMBAI
3	IN530101A	PARADIP ANCHORAGE
4	IN63010R	PARADIP PORT
5	IN43041P	APPROACHES TO PARADIP
6	IN3222KK	KOLLAM (QUILON) TO KOLACHAL
7	IN3223KD	MAMALLAPURAM TO POINT PUDI
8	IN52050A	VIZHINJAM ANCHORAGE
9	IN64012P	PORT BLAIR - INNER HARBOUR
10	IN3202KD	JAKHAU TO DWARKA
11	IN2273AA	KADMAT ISLAND TO IHAVANDIFFULU ATOLL
12	IN3405PA	SRI VIJAYA PURAM (PORT BLAIR) TO LITTLE ANDAMAN ISLAND
13	IN63028E	KAMARAJAR PORT
14	IN62508A	AGALEGA JETTY
15	IN52076N	JAWAHARLAL NEHRU PORT AND TROMBAY
16	IN63037D	DHAMARA PORT
17	IN32527M	MAURITIUS
18	IN53029I	APPROACHES TO TIRUKKADAIYUR PORT
19	IN44205R	REVELLO AND BERESFORD CHANNELS
20	IN3211SD	SATPATI TO DIGHI HARBOUR
21	IN52051A	SALAYA HARBOUR
22	IN2256AA	DIGHI (MURUD - JANJIRA) HARBOUR TO MALVAN
23	IN63012P	VISAKHAPATNAM HARBOUR
24	IN54001H	ELPHINSTONE HARBOUR AND RANGAT BAY
25	IN54184A	TRINKAT CHAMPLONG BAY
26	IN3308OV	OUTER APPROACHES TO VISAKHAPATNAM
27	IN122MBC	MUMBAI TO CAPE CAMORIN
28	IN42529N	NORTHERN ISLETS OF MAURITIUS
29	IN3224MA	MANAPPAD TO SETUKKARAI

Survey Season 2025 - 26

Awards & Recognitions



Survey Season 2024–25

⚓ Best Operational Ship

During the survey season INS Sutlej was assigned 16 Hydrographic Instructions including surveys in cooperation with friendly foreign countries. The ship completed all assigned tasks in addition to command commitments.



💡 Best in Innovation Ship

Awarded Best in Innovation for the survey season for enabling innovative real-time wireless data transfer of bathymetry and SSS data from SMB to ship.

🏆

Best Operational Ship
2024–25
INS Sutlej

🏆'

Best in Innovation Ship
2024–25
INS Sutlej

🏆

'Admiral Jal Cursetji Rolling Trophy'

Rolling Trophy instituted in the memory of Admiral Jal Cursetji, PVSM, ADC (Retd), former Chief of the Naval Staff, is awarded annually to the best survey ship of the season to encourage professionalism in optimisation of surveying resources, effective execution of survey tasks and for achieving excellence in the quality of survey data rendered.

🏆 'Admiral Jal Cursetji Rolling Trophy'
Best Survey Ship
2024–25
INS Sutlej

A

Commendations & Awards

Commended by CNS

Ser	Name & Rank	Occasion
1	Cdr Mridul Kishore Sharma	IFR-26
2	Cdr Kumar Shaswat	Navy Day
3	Sandeep Kumar Vishwakarma, PO(HY)	15 Aug 25
4	Devender Kumar Rawat, PO(HY)	Navy Day
5	Harish Chander, PO(HY)	15 Aug 25
6	Sh Rajesh Kumar CCHO	28 Apr 26
7	Sh Dinesh Kumar Giri, JE (B&R)	28 Apr 26

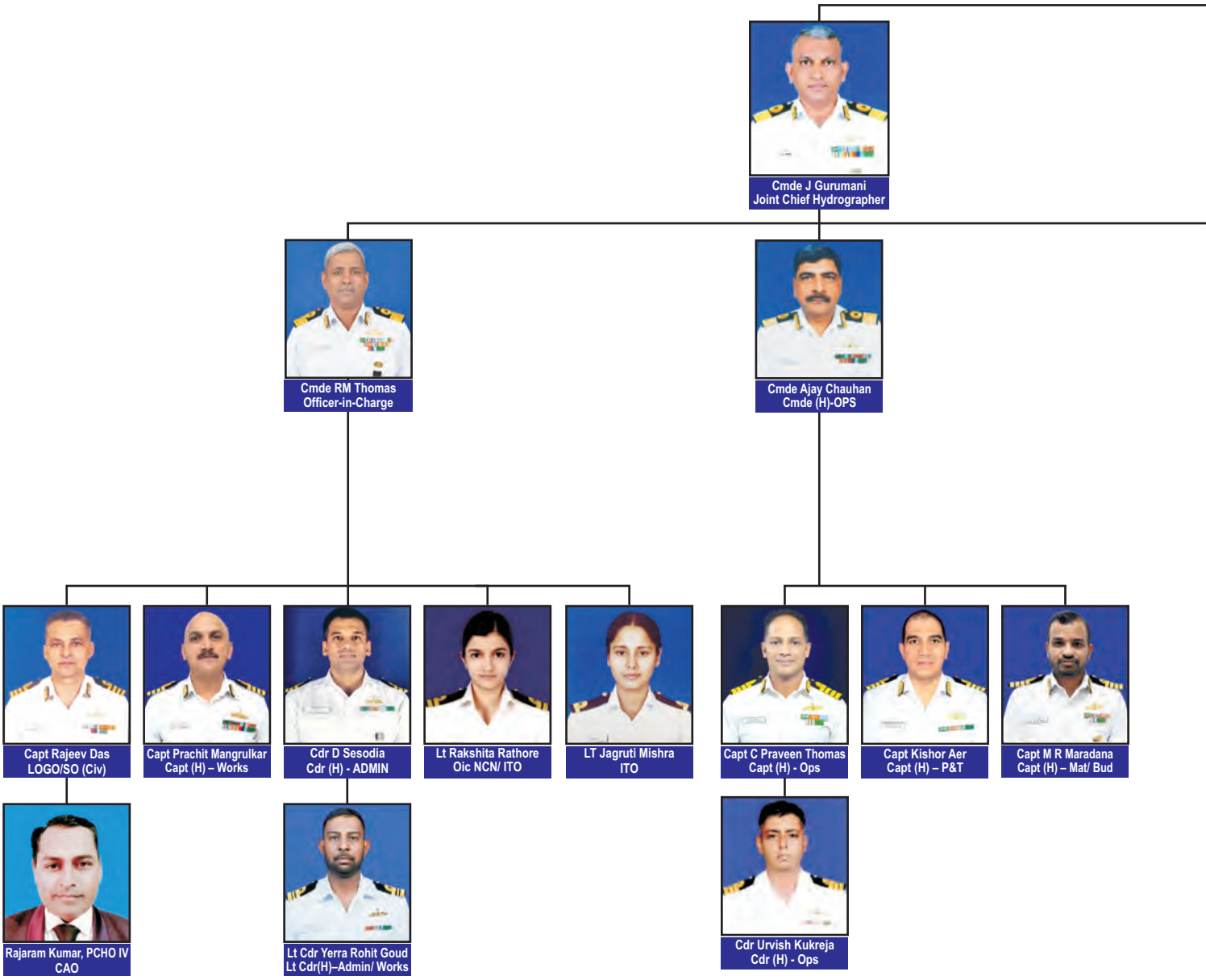
Commended by C-in-C

Ser	Name & Rank	Occasion
1	Sandeep Kumar, PO(HY)	15 Aug 25
2	Mukesh Kumar Tetarwal, PO(HY)	15 Aug 25
3	Satnam Singh, PO(HY)	Navy Day
4	Shailesh Kumar Dixit, PO(HY)	15 Aug 25
5	Suraj Kumar Bhuyan, PO(HY)	15 Aug 25
6	Jitendra Babu, LS(HY)	IFR-26
7	Ravinder Kumar Chausali, PO(HY)	2025–26

COAS Commendation

Ser	Name & Rank	Occasion
1	Ashwani Kumar, PO(HY)	—

Organisational Structure of



National Hydrographic Office



RAdm Peush Pawsey
Chief Hydrographer



Cmde RB Menon
Cmde (H) - DOH



Cmde Vishal Sharma
Cmde (H)-CB & Press-I



Capt PP Chakraborty
Capt (H) - PP



Capt Pradeep Singh
Capt (H) – Coord



Capt Cyril I Speechely
Capt (H) - MAT



Cdr Denish Ganesan
Cdr (H) - IA



Cdr Varun Jai
SO to CH Cdr(H)-TW



Cmde GA Mathew
Cmde (H)-CB & Press-II



Capt Amit Pant
Capt (H) - IA



Capt P K Shahrawat
Capt (H) - HDM

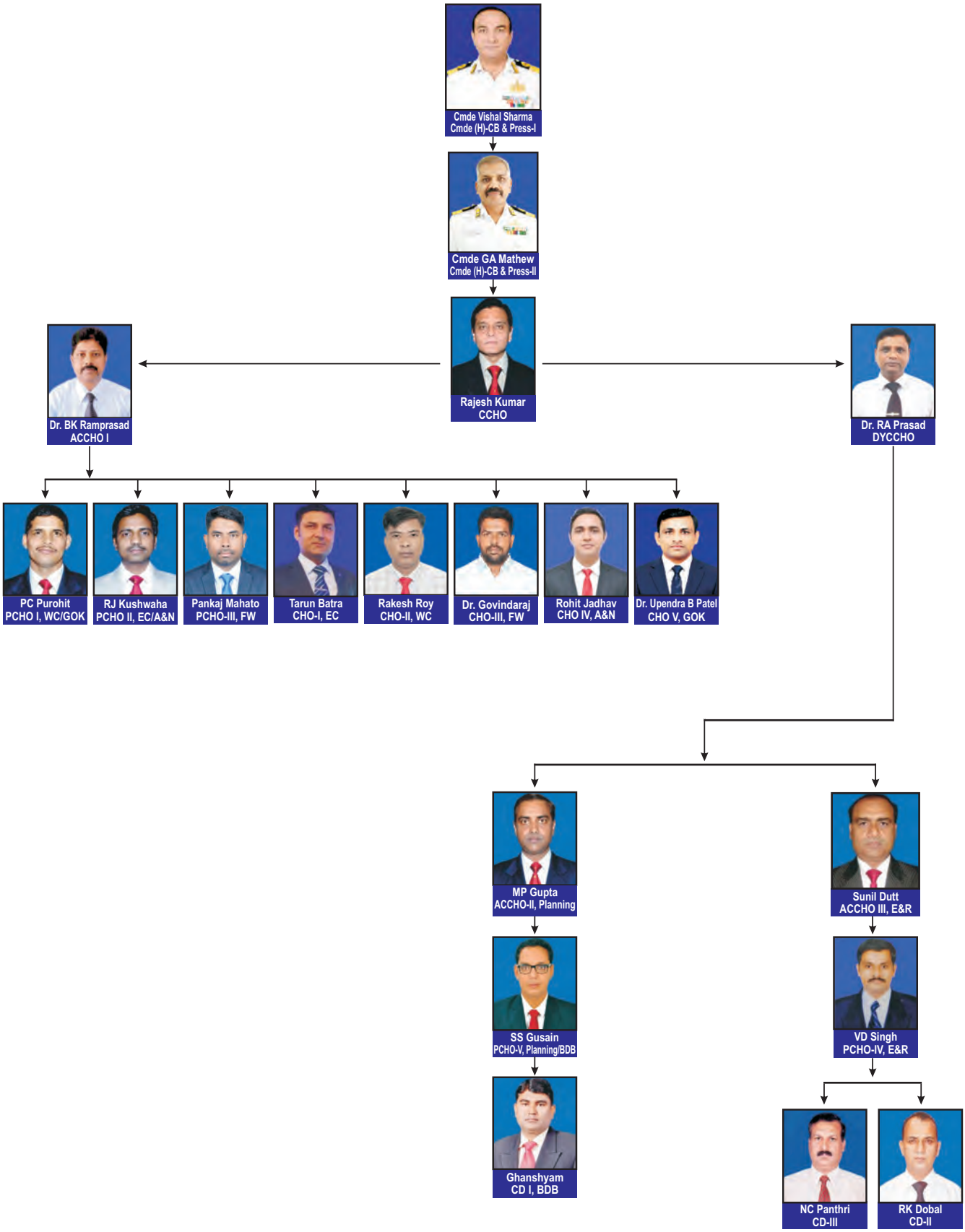


Capt Varun Gupta
Capt (H) - MSIS



Cdr Mridul Sharma
Cdr (H) – S&D/ Press

Organisational Structure of Chart Branch



NHO Diary



VISIT OF CNS ADMIRAL DINESH K TRIPATHI, PVSM, AVSM, NM TO NHO
FOR INAUGURATION OF SINDHUNIDHI PORTAL



GOVERNOR OF UTTARAKHAND LT GEN GURMIT SINGH, PVSM, UYSM, AVSM, VSM (RETD)
VISIT TO NHO ON NAVY DAY



3RD MARITIME SAFETY WORKSHOP



ANNUAL HYDROGRAPHIC CONFERENCE - 2025



33RD HYDROGRAPHIC SURVEY COMMITTEE MEETING



BILATERAL DISCUSSION - VIETNAM DELEGATES



BILATERAL DISCUSSION - RUSSIAN DELEGATES



INDIA - MYANMAR 4th JOINT COMMITTEE MEETING



INDIA-FRANCE BILATERAL MEETING



INDIA-NEW ZEALAND BILATERAL MEETING



MoU ON HYDROGRAPHIC COOPERATIONS BETWEEN INDIA AND MAURITIUS



21st SOUTH AND ISLAND HYDROGRAPHIC COMMISSION (SAIHC) MEETING



4th SESSION OF IHO ASSEMBLY



8th MEETING OF IHO COUNCIL



18th MEETING OF HYDROGRAPHIC SERVICE AND STANDARDA COMMITTEE



49th MEETING OF FIG/ ICA/ IHO INTERNATIONAL BOARD OF STANDARDS OF COMPETENCE



38th METTING OF GEBCO SUB-COMMITTEE ON UNDERSEA FEATURE NAMES (SCUFUN)



16th MEETING OF WORLDWIDE ENC DATABASE WORKING GROUP (WENDWG)



INDIA MYANMAR 5th JOINT COMMITTEE MEETING

Ships & Units



INS IKSHAK

J-23



Capt Tribhuvan Singh
Commanding Officer





INS NIRDESHAK

J-19

Capt Ajay Chauhan
Commanding Officer



INS SANDHAYAK

J-18



Capt Nattuva Dheeraj
Commanding Officer

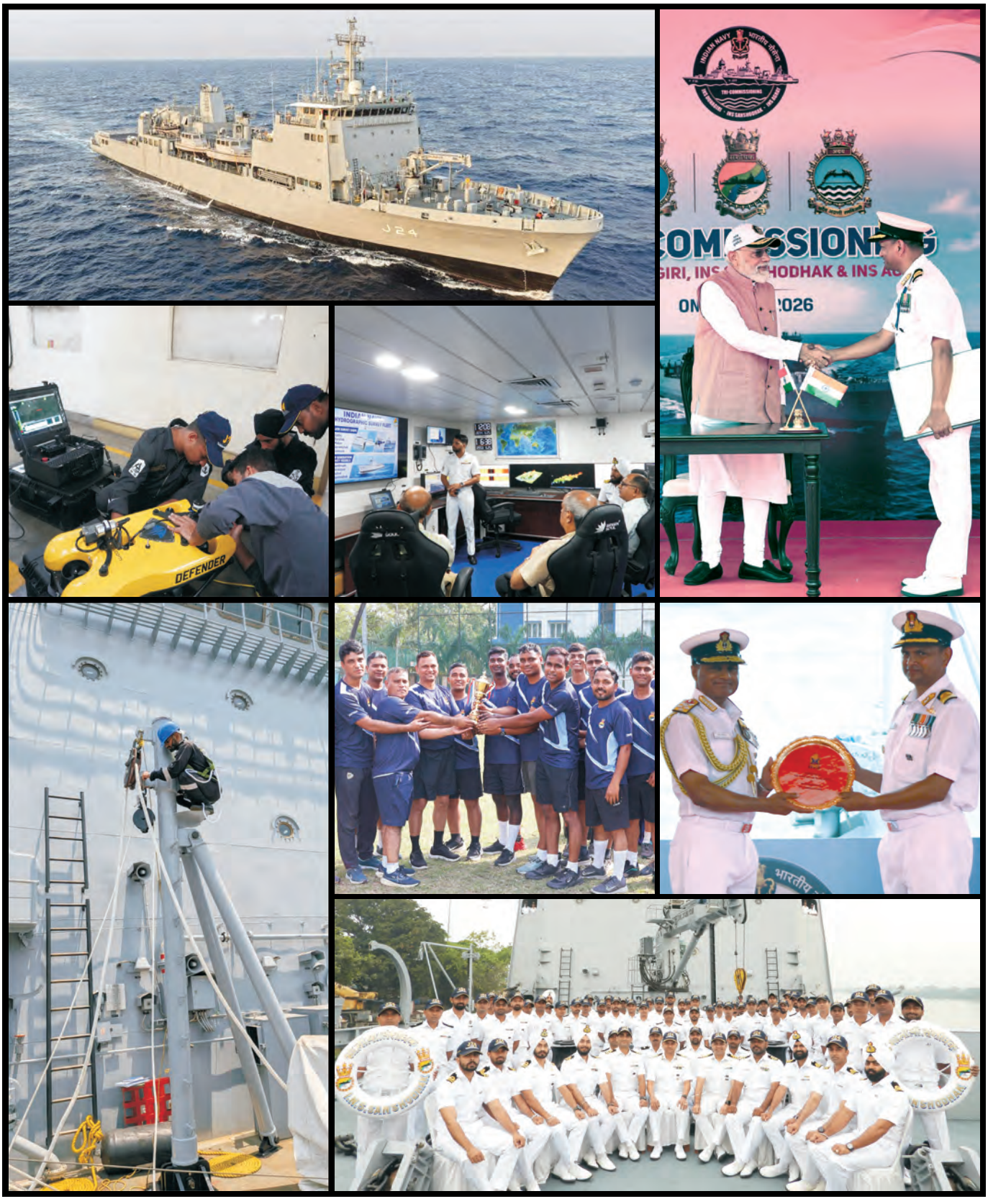




INS SANSHODHAK

J-24

Capt Kuldeep Singh
Commanding Officer



INS SARVEKSHAK

J-22



Capt Kishore Aer
Commanding Officer





INS DARSHAK

J-21

Capt Amit Kumar Padha
Commanding Officer



INS SUTLEJ

J-17



Capt Varun Gupta
Commanding Officer





INS MAKAR

J-31

Capt M R Maradana
Commanding Officer

















INS JAMUNA

J-16



Cdr Devender Singh
Commanding Officer





NATIONAL INSTITUTE OF HYDROGRAPHY, GOA

Cmde Sajeev K Nair
Officer-In-Charge



NCD VIZAG



Capt M Somasekhar
Officer-In-Charge





NCD MUMBAI

Capt Anand Narayanan
Officer-In-Charge



HSU VIZAG



Capt S K Sajan
Officer-In-Charge













HSU KOCHI

Capt Cyril Speechly
Officer-In-Charge











HSU MUMBAI



Cdr R Rateesh
Officer-In-Charge





HSU SRI VIJAYA PURAM

Lt Cdr Bhaskar Chakraborty
Officer-In-Charge











HSU KARWAR



Cdr Rishabh Rawat
Officer-In-Charge



Hydrographers



Ser.	Name	Rank
1	Peush Pawsey	RAdm
2	Sajeev K Nair	Cmde
3	Harshawardhan Arvind Hardas	Cmde
4	Satish Shivaji Bhosle	Cmde
5	Janakiraman Gurumani	Cmde
6	Renny Markose Thomas	Cmde
7	Vishal Sharma	Cmde
8	Ramkumar Bhaskaran Menon	Cmde
9	Yellepeddy Venkata Ramakrishna	Cmde
10	Mathew G Abraham	Cmde
11	Tribhuvan Singh	Cmde
12	Ajay Chauhan	Cmde

Ser.	Name	Rank
13	Nattuva Dheeraj	Cmde
14	Kuldeep Singh	Capt
15	Samir Shrikant Gokhale	Capt
16	Pradeep Singh	Capt
17	Rahul Bhatt	Capt
18	Chiriyankandath Praveen Thomas	Capt
19	Cyril Ignatius Speechly	Capt
20	Kishore Aer	Capt
21	Parikshit Kumar Shahrawat	Capt
22	Varun Gupta	Capt
23	Amit Kumar Padha	Capt
24	Madhusudana Rao Maradana	Capt

Ser.	Name	Rank
25	Bk Prasanna	Capt(TS)
26	Manamparambil Somasekhar	Capt(TS)
27	Anand Narayanan	Capt(TS)
28	Amit Pant	Capt(TS)
29	Prachit Mangrulkar	Capt(TS)
30	Satyabrata Senapati	Capt(TS)
31	Sk Sajan	Capt(TS)
32	Partha P Chakraborty	Capt(TS)
33	Shakeel Ahmed	Capt(TS)
34	Kamal Ashraf	Cdr
35	Kunduparambil Victor Paul	Cdr
36	Ratheesh Ramachandran	Cdr
37	Deependra Sesodia	Cdr
38	Ankush Sachdeva	Cdr
39	Harshvardhan Savarna	Cdr
40	Devender Singh	Cdr
41	Urvish Kukreja	Cdr
42	Praben Kumar Gurung	Cdr
43	Linga Karteek Reddy	Cdr
44	P Kartik Muthukumar	Cdr
45	Ashish Kumar	Cdr
46	Pukhrambam Pratap Singh	Cdr
47	Mridul Kishore Sharma	Cdr
48	Yash Bhardwaj	Cdr
49	Arjun Malik	Cdr
50	Rishabh Rawat	Cdr
51	Joash Lopez	Cdr
52	Shaik Rafi	Cdr
53	Denish Ganesan	Cdr
54	Shreekant S	Cdr
55	Varun Jai	Cdr
56	Kumar Shaswat	Cdr
57	Bipin Bhatt	Lt Cdr
58	Tarun Katiyar	Lt Cdr
59	Deepak Bisht	Lt Cdr
60	Yerra Rohit Goud	Lt Cdr

Ser.	Name	Rank
61	Avishekh Yadav	Lt Cdr
62	Loghanathan Vedhachalam	Lt Cdr
63	Aniket Upadhyay	Lt Cdr
64	Shreyas Rana	Lt Cdr
65	Rohin Sodhi	Lt Cdr
66	Abhishek Chatak	Lt Cdr
67	Vinay Sharma	Lt Cdr
68	Umair Naeem Siddiqui	Lt Cdr
69	Bhaskar Chakraborty	Lt Cdr
70	Shibin Babu	Lt Cdr
71	Abhishake Sharma	Lt Cdr
72	Shivang Raina	Lt Cdr
73	Manjot Singh Gill	Lt Cdr
74	Franklin Anto Jose	Lt Cdr
75	Manreep Singh Oberoi	Lt Cdr
76	Anand Sangayya Charantimath	Lt Cdr
77	Sourabh Thakur	Lt Cdr
78	Vyas Chaudhari	Lt Cdr
79	Vishrut Singh Rawal	Lt Cdr
80	S Aditya	Lt Cdr
81	Rakesh Samal	Lt Cdr
82	Nitin Yadav	Lt Cdr
83	Aalampreet Singh Mamik	Lt Cdr
84	Shubham Vishnu Harne	Lt Cdr
85	Yogesh Bhatt	Lt Cdr
86	Devesh Avural Devrani	Lt Cdr
87	C Pradeep	Lt Cdr
88	Vikrant Singh Thakur	Lt Cdr
89	Shaswat Nayak	Lt Cdr
90	Kaustubh S Jadoun	Lt Cdr
91	Yadav Ashish Kumar	Lt Cdr
92	Satyam Tiwari	Lt Cdr
93	Dipak Vinayak Patil	Lt Cr
94	Aman Sharma	Lt Cdr
95	Shubham Singh	Lt Cdr
96	Sanpreet Singh	Lt

Sailors Hydro

Ser.	Name
MASTER CHIEF PETTY OFFICERS	
1	Rajeev K Singh
2	Rizwanullah Ansari
3	Sanjit Kumar
4	Rakesh Kumar Yadav
5	Subodh Kumar Gupta
6	Pramod Yadav
CHIEF PETTY OFFICERS	
7	G Ramakrishna
8	Ravinder
9	Sunil Lakshakar
10	Bharat Kumar Singh Rajput
11	Ashwani Kumar
PETTY OFFICER AND BELOW	
12	Deepak
13	Shashikant
14	Vijender Kumar
15	Vikas Yadav
16	Ankit Kumar
17	Ravindra Kumar Chaunsali
18	Surjeet Singh
19	Satyajit Sahoo
20	Karan Sharma
21	Jagadish Dehury
22	Sibananda Behra
23	Dharamvir Singh
24	Surender Singh Rathore
25	Gunadhar Chowdhury
26	Vidyanand Mandal
27	Rana Subish Singh
28	Ananta Pradhan
29	Pankaj Rana
30	Rakesh Kumar Shaw
31	Vineet Kumar
32	Rakesh Kumar Lenka
33	Ithape Sujit Laxman
34	Srinivasan V
35	Sameer Dattatray Kamble
36	Prashant Singh

Ser.	Name
37	Monu Kumar
38	Biltu Chel
39	Raju Karmakar
40	Shubham Pandey
41	Balraj Choudhary
42	Manoj Kumar
43	Dinesh Kumar Prajapat
44	Indrajeet Kumar Mehta
45	Ashwini Kumar Tiwari
46	Sultan Singh
47	Shinde Premjit Ratnasinha
48	Manjit Kumar
49	Gurvinder Singh
50	Navjot Singh
51	Amit
52	Manjeet
53	Sachin
54	Nitesh Sharma
55	Vikash Kumar
56	Vijender Singh
57	Sonu Kumar
58	Suman Sedai
59	Sandeep
60	Harender
61	Balwan
62	Dilip Kumar Gupta
63	Nilmadhab Pal
64	Bimal Kumar Panda
65	Avinash Kumar Bharti
66	Avinash Thakur
67	Rajeev Ranjan Akela
68	Kapil Dev
69	Bhoop Singh
70	Hariram
71	Sandeep Kumar
72	Gopal Dudi
73	Ananda Ram
74	Hanuman Tholiya
75	Om Prakash

Ser.	Name
76	Trilok Yadav
77	Ashutosh Patel
78	Sumit Narayan
79	Sukh Veer Singh
80	Shivam Singh
81	Manendra Singh
82	Aditya Pratap
83	Aditya Bhagat
84	Manish Kumar
85	Vikram Singh
86	Sonu Jaglan
87	Nitin Sharma
88	Sandeep Kumar
89	Ashwani Kumar
90	Devendra Singh
91	Mukesh Yadav
92	Brajesh Kumar
93	Nikhil Singh Rajput
94	Mayank Sah
95	Sourav Kumar
96	Vikas Tiwari
97	Amit Kumar
98	Mukesh Saini
99	Pankaj Sharma
100	Sunil Kumar Sharma
101	Leishemba Mangang
102	Ankush Kumar Verma
103	Niraj Kumar Pandey
104	Ram Bilash
105	Shubham Awasthi
106	Sandeep Kumar Vishwakarma
107	Zahid Husain
108	Dharminder Singh
109	Abhishek Kumar Sharma
110	Hemant Singh Papola
111	Raman Kumar
112	Shyam Saritendra
113	Navpreet Singh
114	Ajay Kumar

Ser.	Name
115	Manish Kumar Swami
116	Mukesh Kumar Tetarwal
117	Praveen Shukla
118	Manoj Kumar Giri
119	Gaurav Mishra
120	Adeep Kumar
121	Sandesh N Waghmare
122	Saish Mohan Gaurav
123	Nitendra Sherawat
124	Bharat Baban Ghule
125	Janki Raman
126	Ajay Kumar
127	Yogesh Kumar
128	Naresh Singh Chauhan
129	Sumit Kumar
130	Parsuram Bhanwaria
131	Omprakash
132	Vikash Kumar
133	Jitendra Saini
134	Lokendra Singh Rathore
135	Pawan Singh Shekhawat
136	Pulari Jagadeesh
137	Narendra Singh
138	Haripal Singh
139	Shreyam Sharma
140	Sudheer Singh
141	Rakesh Singh
142	Yogesh Kumar
143	Diptiranjan Sahoo
144	Satnam Singh
145	Ashutosh Pratap Singh
146	Ashish Kaushik
147	Dharampal
148	Suryakant Thapliyal
149	Sanjay Singh Gusain
150	Mukesh Kumar
151	Shubham Singh
152	Kc Lallianpuia
153	Gopal Tomar
154	Vaibhav Kumar Singh
155	Saurabh Gupta
156	Mukul Kumar Sharma

Ser.	Name
157	Gurjeet Singh
158	Aman Kumar Verma
159	Harprit Singh
160	Suman Kumar
161	Manoj Gogoi
162	K Vanarajan
163	Kulvant Kumar
164	Anil Kumar Yadav
165	Vikram Singh
166	Naresh Kumar Yadav
167	Dalip Sharma
168	Gagan Behera
169	Sidhartha Sankar Jena
170	Haresha Kumar Jeda
171	Kuldeep Singh
172	Deepak Yadav
173	Govind Tiwari
174	Himanshu Kumar Upadhyay
175	Vikas Awasthi
176	Shivam Kumar
177	Biswanath Nahak
178	Arvind Kumar
179	Nem Singh
180	Ravi Prakash
181	Ram Bhajan Gurjar
182	Pramod Kumar
183	Tara Chand Saini
184	Kalu Ram
185	Manepalli Manohar
186	Vikram Saini
187	Himmat Singh
188	Nalla Pradeep
189	Prahlad Ram
190	Ashish Kumar Lamba
191	Tanuj Kumar
192	Shailesh Kumar Dixit
193	Mukesh Kumar Pathak
194	Vijay Kumar R
195	Anish Kumar
196	Siddula Ravi
197	Shukadev Jena
198	Ravi Kumar Yadav

Ser.	Name
199	Devender Kumar Rawat
200	Vivek Puri
201	Kalicharan Kushwah
202	Devender Pal
203	Sombir
204	Balwant
205	Vikram Singh Parmar
206	Rohit Nimbalkar
207	Pulaboina Sudhakar
208	Yogendra Singh Yadav
209	Mangi Lal
210	Om Prakash Pilania
211	Deepak Jangir
212	Shakti Singh Shekhawat
213	Ritesh Raghavan
214	Rahul Singh
215	Rinku
216	Devendra Kumar
217	Amit Jurel
218	Harish Chander
219	Pankaj
220	Shivam Jaryal
221	Hardeep Singh Jasrotia
222	Vinod Bhandari
223	Vivek Kumar
224	Himanshu Shekhar
225	Shivam Kumar Singh
226	Pintu Kumar
227	Vishal Sharma
228	Manjesh Kumar
229	Abhishek Kumar
230	Satish Patil
231	Sagolsem Ramesh Meitei
232	Pranab Baishya
233	Harendra Singh
234	Anish Jakhar
235	Shekhawat Nirmal
236	Anil Kumar
237	Shiv Kumar
238	Mohit Kumar
239	Yashvant Kumar
240	Sunil Kumar

Ser.	Name
241	Mind Nikhil Hanmant
242	Kottana Yernaidu
243	Amit Rana
244	Polaki Harish
245	Ashish Kumar Yadav
246	Shivam Athiya
247	Dheeru
248	Vijay Singh
249	Amit Kumar
250	Arun Kumar
251	Rabindra Nath Pradhan
252	Amit
253	Suraj Kumar Bhuyan
254	Sonu Kumar
255	Jai Prakash Gupta
256	Santosh Kumar Sahu
257	Vikash Kumar
258	Vishwajeet Tripathi
259	Manish Kumar Patel
260	Vivek Kumar Baranwal
261	Balram Singh
262	Kenheia Lal
263	Sahil Saurabh
264	Kirti Vardhan
265	Mohit Sharma
266	Kakuturi Sunil Kumar
267	Angara Siva Karthik
268	Ungati Ramakrushna
269	Vavilapalli Manmadha Rao
270	Mitnala Venkata Chennaiah
271	Dileep Kumar
272	Devendra Singh
273	Satyam Pandey
274	Ravi Jangid
275	Yogesh Kumar Yadav
276	Vinay Kumar
277	Sunil Chaudhary
278	Vikash
279	Prashant Shandilya
280	Aneesh Katoch
281	Amit Bhatt
282	Maneesh Kumar

Ser.	Name
283	Saurabh Patel
284	Abhishek Singh Chandel
285	Mohit
286	Jada Krishna Raja
287	Inderjeet
288	Manish Kumar Sah
289	Nitin
290	Rohit
291	Vikram Singh
292	Akshay D Yadav
293	Shubam Virdia
294	Soumya Ranjan Rout
295	Diwakar Kumar
296	Ankit Kumar Yadav
297	Karan Prajapati
298	Anshul Rana
299	Kartik Sambyal
300	Pawan Kumar
301	Arun Kumar
302	Shubham Sharma
303	Naveen Kumar
304	Sumit Sharma
305	Ashish Singh Rawat
306	Abdul Wadood Umar
307	Saurav Kumar
308	Prashant Kumar
309	Avinash Chaudhary
310	Shubhash Chand Mahala
311	Anikit Kumar Yadav
312	Bhagirath Lukha
313	Om Singh
314	Ankit Kumar
315	Himanshu
316	Sukhdev Singh
317	Sanjeev Kumar
318	Sonu
319	Yogesh Kumar
320	Vijayan A
321	Arun Nath
322	Abhishek Maru
323	Indrajeet Singh Pal
324	Somanath Sahoo

Ser.	Name
325	Abhishek Bisht
326	Jitendra Babu
327	Varun Jyoti
328	Sandeep Kumar
329	Bhuvnesh Kumar
330	Vijay Kumar
331	Naveen Godara
332	Jadhav Rushikesh Arjun
333	Rajkumar
334	Vikas Kumar Yadav
335	Tarunjeet Singh
336	Ganesh Chaudhry
337	Ankit Yadav
338	Jaisingh
339	Sanjay Sharma
340	Viswajeet Shukla
341	Okesh Rawat
342	Vikash Pandey
343	Saurabh Kumar Singh
344	Rahul Jangir
345	Soumya Ranjan Singh
346	Shivasheesh Shukla
347	Vighnesh Kamalakar Bhandari
348	Avinash Avhad Dilip
349	Nayakodi S Tukaram
350	Amit
351	Rakesh Kumar
352	Vijay Singh
353	Vikas Chand
354	Rohit Soam
355	S.p Siddhartha Biswal
356	Srimanta Nahak
357	Ankit Nehra
358	Tarachand
359	Karthik Yadav
360	Ashutosh Dangi
361	Deepak Singh
362	Ravinder Singh
363	Bhaskar Mondal
364	Rahul
365	Ankush Raj
366	Ankit

Ser.	Name
367	Anirudh
368	Mahesh Kumar
369	Sagar
370	Ranjeet Kumar
371	Ravish Pandey
372	Ladu Ram Saini
373	Daksh Mehta
374	Gajendra Singh Rathore
375	Omprakash
376	Hemant Kumar
377	Sagar Mathur
378	Nitesh Balyan
379	Shivam
380	Ankit
381	Abhishekh Kumar Maurya
382	Abhishek Kumar
383	Shokey
384	Jasbir Singh
385	Byreddy Manoj Reddy
386	Sunil
387	Ashish
388	Sandeep Kumar
389	Sujit Kumar
390	Shani Sharma
391	Vijay Kumar
392	Hemant Kumar
393	Maneesh Kumar
394	Brijesh Gupta
395	Jay Kadam
396	Praveen Kumar
397	Manish Kumar
398	Manjit Kumar Mishra
399	Aman Shaw
400	Mustak Ali
401	Manish Khoja
402	Mahesh Jhinjha
403	Sudhir Kakasaheb Kolekar
404	Pawan Kumar
405	Satya Prakash
406	Yogesh Kumar
407	Sarwagya Pandey
408	Shijil Benoy

Ser.	Name
409	Gajendra Singh
410	Kanchu Balarangaiah
411	Killi Ram Dinesh
412	Puti Manikanta
413	Tushar Kanti Das
414	Aryan Kumar
415	Manjeet Kumar Monu
416	Jayjeet Kumar Gupta
417	Vipin Kumar
418	Yogesh Awasthi
419	Atul Singh
420	Ritik Kalia
421	Azeem Ahmed
422	Abhishek Sujit Vibute
423	Jay Kumar Sharma
424	Amit Kumar
425	Vivek Kumar
426	Jeetendra Pathak
427	Shivam Chauhan
428	Mukul Tomar
429	Varinder Singh
430	Rishabh Sharma
431	Jitendra Prasad
432	Jayant Kumar
433	Karubhuktha Sai Kiran
434	Prajwal Sanjay Duduskar
435	Gourav Sharma
436	Hrithik Sharma
437	Aiman Bharaj
438	Dara Singh
439	Md Afzal Hussain
440	Adarsha Kumar
441	Gaurav Kumar Dagur
442	Banka Ram
443	Pranav Kumbhar
444	Khedkar Deepak Mahadev
445	Akash A
446	Satyanarayana Landa
447	Manash Pratim Das
448	Kunal Chaudhary
449	Rohit Gupta
450	Parth Chavan

Ser.	Name
451	Ginna Dhamodar
452	Parmeshwar
453	Mahendra Singh
454	Adapa Vevendra
455	Sandeep Kumar Yadav
456	Pilla Ramesh
457	Anmol Soni
458	Abhishek
459	Balram Bunkar
460	Sai Madhu Bukkuri
461	Sudip Mondal
462	Dilip Kumar
463	Harshit Chauhan
464	Ritik Yadav
465	Bendi Dhilleswara Rao
466	Bhupendra Dewangan
467	Praveen Muddada
468	Sheelam Pranay
469	Vilasagaram Shashank
470	Abhay Dwivedi
471	Niranjan Kumar
472	Ajay Balyan
473	Vipul Jadaun
474	Suresh Ashok Avakkanavar
475	Chidananda H Bevinahalli
476	Basavakiran Vithal Pyati
477	Darshan Bisanakoppa
478	Pradeep Kumar
479	Mahesh Nayamagoud
480	Pogiri Jagadeesh
481	Yaku Moodu
482	Manja Janardhan
483	Koduru Kumar Swami
484	Gajjala Arun Goud
485	Maddila Mohan
486	Attiliy Prem Kumar
487	Akash P
488	Jayasurya M
489	Karri Manmadha Rao
490	Kurmapu Suneel
491	Chavan Harilal
492	Saibal Mandal

Adieu Officers & Sailors

List of Retired Officers



VAdm Lochan Singh Pathania, AVSM



Cmde Rajesh Bargoti



Cmde A Muralidhar, NM

List of Retired Sailors

Ser.	Name	Rank
	July 2010 Batch	
1	Chittaranjan Sahu	PO
2	Rajesh Kumar	PO
3	N R Panda	PO
4	Niranjan Kumar	PO
5	Krishna K Sharma	PO
6	Molli Santosh	LS
7	Kk Singh	PO
8	Anil Kumar	PO
9	Ranjan Kumar	PO
10	Vinay K Mahato	PO
11	Sudipta Sahu	LS
12	Deepak Kumar	PO
13	S H Reddy	LS
14	Soumya Ranjan Sasmal	PO
15	Bikash Chandra Samal	PO
16	Mara Shetti Pydiraju	LS
17	P V Rao	CPO
18	Praveen Kumar	PO
19	Vikash Kumar	PO
20	Janesh T B	PO
21	Ranjit Singh	PO
22	Ranajit Behera	PO
23	Krishna Kumar N	PO
24	A K Mishra	PO
25	Asim Abdullah	PO
26	Nikhil Yesudas	PO
27	Satyanarayan Swamy	PO
28	Harish	PO
29	Monu	PO
30	Vishal Sharma	PO
31	Suraj Kumar	PO
32	Subrat Kumar Biswal	PO
	January 2011 Batch	
1	Alok Singh	PO
2	Vivek Kumar	PO
3	Parikshit Tripathi	PO
4	Manish Kumar Yadav	PO
5	Vineet Tiwari	LS
6	Kuldeep Singh	LS
7	Vikash Kumar	PO
8	Pawan Kumar	PO
9	Pardeep Kumar	PO
10	Pramod Kumawat	PO
11	Vikas Kumar Shukla	PO
12	Krishan Gopal	PO
13	Satvir	PO
14	Ramesh Das	PO
15	Gaurav Tiwari	PO
16	Lalhmingliana Hamar	PO
17	Vanlalchhanchhuaha	PO
18	Kaushal Pratap	PO
19	Jerripothula E Rao	PO
20	Shamsher Singh	LS
21	Parva B Reddy	LS
22	Nagulapalli N Kumar	LS
23	Jawarkar G Jaganna	PO
24	Laxmikanta Sahoo	PO
25	Pratyushman Rout	PO
26	Biswajit Nayak	PO
27	Dipti Ranjan Moharana	PO
28	Bhukya Ranjith Kumar	PO
29	Aanand Tewari	PO
30	Naresh Kumar	LS



Glimpses

Visits



























Ships







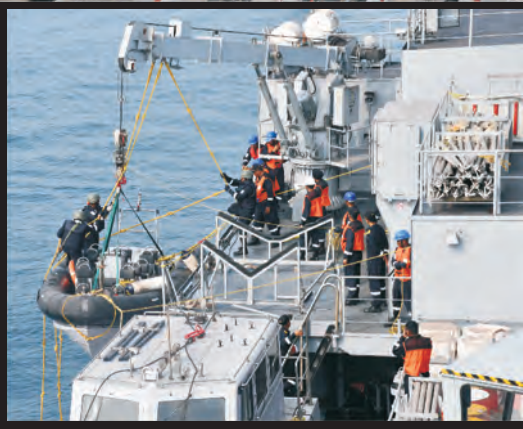










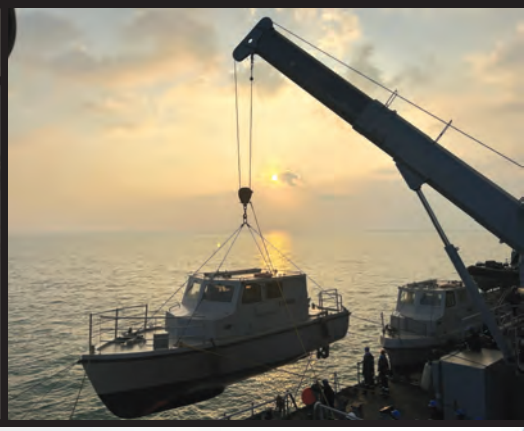


Activities































Foreign Cooperation









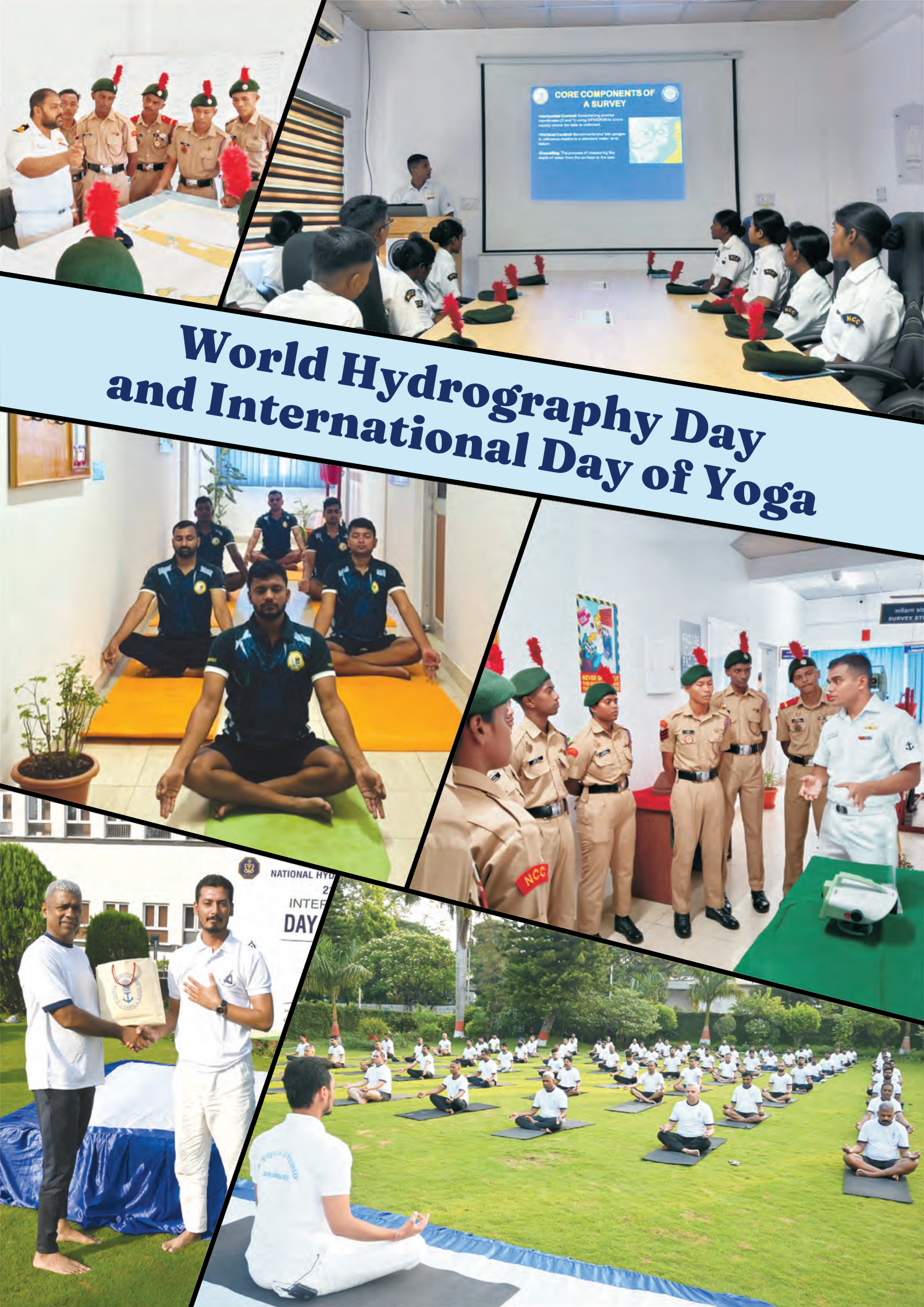







Foreign Cooperation



World Hydrography Day and International Day of Yoga


SCORPION



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