



**भारतीय नौसेना
जलसर्वेक्षण विभाग**

Indian Naval
Hydrographic Department

**वार्षिक विवरण २०२४-२५
Annual Report 2024-25**



भारत सरकार के मुख्य जलसर्वेक्षक की वार्षिक रिपोर्ट

REPORT OF THE CHIEF HYDROGRAPHER TO THE GOVERNMENT OF INDIA

(01 JULY 2024 to 01 JULY 2025)

यह रिपोर्ट राष्ट्रीय जल सर्वेक्षण कार्यालय, नौसेना सर्वेक्षण पोतों, राष्ट्रीय जल सर्वेक्षण संस्थान तथा अन्य सर्वेक्षण इकाइयों की गतिविधियों जैसे अंतरराष्ट्रीय जल सर्वेक्षण सहयोग में योगदान, सामुद्रिक नक्शों का उत्पादन व प्रकाशन, मानव संसाधन 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 Hydrography and Survey Units with special emphasis on hydrographic survey operations, contribution towards foreign co-operation, production of Nautical Charts and Publications, Human Resource Development and modernisation of the Indian Naval Hydrographic Department.



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वाइस एडमिरल लोचन सिंह पठानिया

Vice Admiral Lochan Singh Pathania

भारत सरकार के मुख्य जल सर्वेक्षक

Chief Hydrographer to the Government of India

01 जुलाई 25

01 July 25

मुख्य जल सर्वेक्षक की कलम से FROM CHIEF HYDROGRAPHER'S DESK

I have the honour to present to you this annual report, which serves as a testament to the exemplary accomplishments of the Indian Naval Hydrographic Department. As an organization entrusted with the responsibility of ensuring the safety of navigation at sea, in accordance with the provisions of the International Convention for the Safety of Life at Sea (SOLAS), INHD's role assumes paramount importance in the context of the unprecedented expansion of India's maritime infrastructure, pursuant to the 'MAHASAGAR' initiative and the Government of India's strategic vision for harnessing the potential of the Blue Economy.

Over the years the field of hydrography has witnessed tremendous amount of advancement in technology, which in turn has revolutionised the way we conduct hydrographic surveys and analyse data. In 2025, the department has continued to embrace these technological advancements and implement cutting edge methods to enhance our capabilities and deliver reliable products and services.

It gives me immense pleasure to share the departments' concentrated efforts towards comprehensive survey and charting of Indian and Foreign waters and ports. In the year gone by, the zeal and proficiency of the surveyors in the field ensured completion of 73 surveys, which includes 28 Navigation, 25 Defence, 10 Tidal, 03 Foreign Co-operation and 01 survey in Antarctica. The data received has been effectively utilised to update the database at the National Hydrographic Office, Dehradun after being subjected to stringent QA/QC procedures. This period also saw the department release 11 new Paper Charts and 13 new Electronic Navigation Charts (ENC) in addition to publishing 36 new ENC editions and 10 new editions of paper charts.

We have also taken significant strides in enhancing our data management and dissemination system wherein collaboration with various stakeholders, we have developed user friendly platforms that provides easy access to hydrographic data, ensuring its availability to a wider audience. Towards this, the organisation's initiative to design and develop India-WINS as one stop solution for the Mariner world over to



access digital Geographical Information System (GIS) based catalogue of charts and navigation warnings in IOR covering an area of nearly 26 million sq. Km is worth mentioning. Additionally, the new NUD web page of NHO being hosted in Indian Navy Unified domain has also been a key milestone. These initiatives have not only facilitated effective planning and decision making but have also fostered collaboration and knowledge sharing among the maritime community.

Furthermore, the department has also been actively participating in International Hydrographic endeavours, fostering partnership and exchanging best practices with other nations. Few noteworthy achievements which I would like to highlight are

Hydrographic assistance in the form of joint surveys undertaken by our units in Mauritius and Myanmar waters, conduct professional training and award of Internationally recognized CAT A and CAT B certificates to 47 International trainees. Being an active member of the International Hydrographic Organisation (IHO), in as many as 15 working level committees the department continues to play and maintain a significant presence.

The department generated total revenue of 82 Cr for the year 2023-24 through royalty and sales of nautical products. The revenue from sales of paper charts, ENCs and publications has seen a growth of 6.37% from last year's sales during the period of 2023-24.

Second Survey Vessel Large (SVL), INS Nirdeshak was commissioned on 18 Dec 24 at Visakhapatnam in presence of Hon'ble Raksha Rajya Mantri, Shri Sanjay Seth. This marked a significant step in advancing the potential of Indian Navy in the field of Hydrographic and Oceanographic operations. The ship is indigenously built in India and equipped with advance hydrographic suite that includes Autonomous Underwater Vehicle (AUV), Remotely Operated Vehicle (ROV), Multibeam Echosounder etc. This has significantly enhanced our capabilities in the field of hydrographic survey and maritime research.

The department also conducted 2nd edition Maritime Workshop at NHO, Dehradun on 20 Jun 2025 with participants from over 35 ports and harbours, during the workshop maiden edition of Hydro magazine "Hydronaught" was also inaugurated, the magazine is a compilation of articles and memoirs from the hydrographic fraternity. The workshop was well appreciated by the entire maritime fraternity. The 32nd Hydrographic Survey Committee (HSC) meeting chaired by JS Ports was also conducted at NHO coinciding with the World Hydrography Day – 25 on 19 Jun 25.

These accomplishments would not have been possible without the unwavering commitment and dedication of our team of hydrographers, surveyors, cartographers and supporting staff including our industry partners. Their tireless efforts, expertise and professionalism have been instrumental in achieving our goals and keeping us at the forefront.

We acknowledge the dynamic nature of the maritime sector, characterized by

evolving challenges and opportunities. The converging factors of rapid coastal development, climate change, and emerging technologies necessitate our continuous adaptation and innovation. We reaffirm our dedication to maintain a leadership position, leveraging cutting-edge technology and fostering collaborative relationships with our national and international counterparts to effectively address these complex challenges.

I am confident that the department possesses the necessary capabilities and resources to effectively address and overcome any challenges that may arise in the future. We shall continue to strive towards charting the waters and navigate towards ensuring safer waters, keeping pace with the increasing demand of rapidly transforming hydrographic environment and strive ahead to provide accurate bathymetry information and associated products to the mariners. We shall continue our efforts in reaching out to our maritime neighbours in keeping with the 'MAHASAGAR' policy.

Sam No Varuna

Jai Hind



वाइस एडमिरल लोचन सिंह पठानिया
Vice Admiral Lochan Singh Pathania
भारत सरकार के मुख्य जल सर्वेक्षक
Chief Hydrographer to the Government of India

अनुक्रमणिका

CONTENTS

MILESTONES 5

IN SURVEY SHIPS

DARSHAK 6
 JAMUNA 7
 MAKAR 8
 NIRDESHAK 9
 SANDHAYAK 10
 SARVEKSHAK 11
 SUTLEJ 12

IN SURVEY UNITS

NATIONAL INSTITUTE OF HYDROGRAPHY, GOA 13
 HYDROGRAPHIC SURVEY UNIT (KARWAR) 15



HYDROGRAPHIC SURVEY UNIT, KOCHI 16
 HYDROGRAPHIC SURVEY UNIT, MUMBAI 17
 HYDROGRAPHIC SURVEY UNIT, SRI VIJAYA PURAM 18
 HYDROGRAPHIC SURVEY UNIT, VISAKHAPATNAM 19
 NAVAL CHART DEPOT, MUMBAI 20
 NAVAL CHART DEPOT, VISAKHAPATNAM 21

NATIONAL HYDROGRAPHIC OFFICE

ORGANISATIONAL CHARTS 22
 CHART BRANCH 25
 HYDROGRAPHIC DATA MANAGEMENT 26
 INTERNATIONAL AFFAIRS 27
 MATERIEL 28
 MARITIME SAFETY INFORMATION SERVICES 29



PUBLICATIONS 29
 OPERATIONS 30
 OPERATIONS – SURVEY TASKS 31
 PERSONNEL AND TRAINING 32
 SALES & DISTRIBUTION / PRESS 33
 NHO DIARY 34
 HONOURS AND AWARDS 39
 BEST OPERATIONAL AND INNOVATION SHIPS 40
 BEST SURVEY SHIP FOR SEASON 2023-24 41
 PAPER CHART 42
 ELECTRONIC NAVIGATIONAL CHART 43
 HYDROGRAPHERS 44
 SAILORS (HYDRO) 46
 ADIEU OFFICERS & SAILORS 50
 GLIMPSES 51



महत्त्वपूर्ण उपलब्धियाँ MILESTONES

Foreign Cooperation. In continuation of cooperation being extended in the field of hydrography, IN survey ships were deployed to Mauritius, Myanmar and Vietnam during survey season 2024-25 in addition to maiden deployment of Sandhayak to South East Asian countries towards showcasing India's hydrographic capabilities. Two hydrographic surveys were undertaken by the ships during deployment.

Workshop on Maritime Safety. On the occasion of International Hydrographic Day, the 2nd edition of Workshop on Maritime Safety was conducted on 20 Jun 25 at National Hydrographic Office, Dehradun with participants from Maritime Boards, ports and others maritime agencies. Theme for the workshop was "Our Ocean, Our Obligation, and Our Opportunity".

Hydrographic Survey Committee. The 32nd Hydrographic Survey Committee (HSC) Meeting was held on 19 Jun 25 at National Hydrographic Office, Dehradun under the Chairmanship of Joint Secretary (Ports), Ministry of Ports, Shipping and Waterways.

Commissioning of INS Nirdeshak. INS Nirdeshak, the second Survey Vessel Large (SVLs) was commissioned on 18 Dec 24 at Visakhapatnam in the presence of Hon'ble Raksha Rajya Mantri Shri Sanjay Seth. Capt Ajay Chauhan is the commissioning Commanding Officer.

Meetings. Following meetings were attended by representatives from INHD:-

- (a) Chief Hydrographer attended meeting of IHO Council at IHO Secretariat, Monaco.
- (b) Chief Hydrographer attended NIOHC meeting at Bangkok, Thailand.
- (c) Joint Chief Hydrographer attended SAIHC meeting at Kisumu, Kenya.
- (d) Cmde (H) – CB-I attended HSWG meeting at Frascati, Italy.
- (e) ACCHO –I attended NIPWG meeting at Gdynia, Poland.
- (f) CCHO attended WEND Working Group meeting at Wollongong, Australia.
- (g) Cmde (H)-DOH attended IBSC meeting at St. Jones, Canada.
- (h) Chief Hydrographer attended 3rd JCM at Yangon, Myanmar.
- (i) Chief Hydrographer and Capt(H)- Ops/IA/DOH attended bilateral meeting at

Brest, France.

- (j) Joint Chief Hydrographer and Cdr(H)- Admin attended bilateral meeting with Russia at St. Petersburg.
- (k) Cmde(H)-CB/Press and Capt(H)-IA/NHO attended bilateral meeting with Seychelles at Port Victoria, Seychelles.

Visits. Following delegations visited NHO for bilateral meetings:-

- (a) Three member Mauritian delegation led by Senior Chief Executive, (Ministry of Housing and Lands) visited NHO for 14th Joint Committee Meeting on hydrographic cooperation.
- (b) Three member Egyptian hydrographic delegation led by Deputy National Hydrographer of Egyptian Navy visited NHO for the maiden Indo-Egypt bilateral meeting.
- (c) 2nd Joint committee Meeting on Hydrography between India- Sychelles was held from 10-14 Jun 2025 at National Hydrographic Office, Dehradun.





भा.नौ.पो. दर्शक INS DARSHAK

J-21

THE GUIDE

2001



CAPT PRAVEEN THOMAS
Commanding Officer



Introduction. The ship was in short refit at Naval Dockyard, Visakhapatnam. Ship prior getting operational underwent safety audit work up. During survey season 2024-25. She completed 13 Hydrographic Instructions including one foreign deployment to Vietnam.

Human Resource Development. Six Hydro Officers from Vietnam embarked ship for one week hydro afloat attachment. Practical training on survey equipment/ software was imparted to all the participants.

Awards.

- (a) Afloat runner up of ENC innovation awards 2024.

Contribution towards Community Development.

- (a) Ship was part of various command activities being undertaken towards community development including 'Swachhta hi Seva' Campaign 2024.
- (b) 300 students from various schools visited ship on the occasions of Navy Day.
- (c) 100 NCC cadets visited ship on the occasion of Sea vigil.

Visits.

- (a) Vice Admiral LS Pathania, AVSM, Chief Hydrographer to the Government of India.
- (b) Rear Admiral R K Dhingra, VSM, Flag Officer TN&P.
- (c) Rear Admiral K Srinivas, ASD, Naval Dockyard (V).
- (d) Rear Admiral Peush Pawsey, Joint Chief Hydrographer.
- (e) Rear Admiral Ajit Gopinath, CMO, Eastern Naval Command.



CAPT CYRIL I SPEECHLY
Commanding Officer



भा.नौ.पो. जमुना

INS JAMUNA

PIONEERS IN SEA SURVEYING
J-16 1991



Introduction. The ship was operational during the survey season 2024-25 and has completed all 12 Hydrographic Instructions. During the survey season, the ship undertook surveys at East coast, West coast, Andaman & Nicobar Islands and Lakshadweep Islands.

Human Resource development. Ship contributed towards followings as part of human resource development: -

- (a) Practical exposure to 'Basic H' qualified officers along with international trainee officers to plan and execute hydrographic surveys.
- (b) Training of all hydro officers and sailors on theoretical and practical aspects of hydrography to meet the evolving needs of the field, encompassing skills in data planning, acquisition, analysis and processing.
- (c) Encouraging mobility of personnel to work in different geographical locations, which helps them gain diverse exposure and to work in all weather conditions.
- (d) Training and involvement of hydro sailors in seamanship evolution.

Contribution towards Community Development. Following initiative taken by ship:

- (a) Clean ship drive as part of Swachh Bharat Mission.
- (b) Ship hosted 300 civilian and service personnel along with families during family day at sea.

Visits.

- (a) Vice Admiral Lochan Singh Pathania, AVSM, Chief Hydrographer to the Government of India.
- (b) Major General Sandeep Singh, VSM, Chief Instructor (Army).
- (c) Rear Admiral Peush Pawsey, Joint Chief Hydrographer.
- (d) Visit of DSSC Officers onboard for sea familiarization.
- (e) Familiarisation for IAS trainee Officers onboard Ship.





भा.नौ.पो. मकर

INS MAKAR

THE TRAIL BLAZER
J-31 2012



CDR MR MARADANA
Commanding Officer

Introduction. The ship was operational during the survey season till 14 Mar 25. The ship has completed all seven hydrographic surveys of 2024-25 including two major navigational surveys during the survey season.

Change of Command. Cdr MR Maradana has assumed command of the ship on 14 May 25.

Awards.

- (a) **Best Ship – Innovation** for year 2024 by NHO
- (b) **Appreciation Letter by the Chief Hydrographer.** The ship received Letter of Appreciation from Chief Hydrographer, District Magistrate, Controller of Personnel Services, Joint Chief Hydrographer, Flag Officer Defense Advisory Group (FODAG) and for various operational tasks.

Papers published.

- (a) **Indian Naval Despatch.** An essay on “Charting to Diplomacy – Hydrography as a tool” by Lt Cdr Kumar Shaswat has been published in the “Indian Naval Despatch” magazine of the INDEF.
- (b) **National Maritime Foundation (NMF).** A paper titled “Leveraging Artificial

Intelligence for India’s Maritime Strategy” written by Cdr Kishore Aer has been published in the “Maritime Affairs” Journal of the National Maritime Foundation.

Innovations in Survey Operations. The ship undertook following innovation: -

- (a) The ship developed an in-house Water Level Meter (WLM), which is an electronic tide gauge. Aligning with Indian Navy’s initiative for indigenisation, the development of a Water Level Meter by the ship is a positive step towards “Aatmanirbharta”. The WLM module is low cost solution for logging tide data for prolonged duration.
- (b) Auto floatation device prototype was developed for Side Scan Sonar to avoid loss of towfish at sea.

Miscellaneous. The following events were hosted by the ship towards community development:-

- (a) A Presentation ‘Hydrography-In the Era of the globalization’ was delivered on World Hydrographic Day.
- (b) The ship conducted visit of No. 8 Kar Naval Unit NCC cadet onboard.
- (c) The ship conducted visit of specially abled school children.
- (d) The ship conducted visit of veteran onboard.





CAPT AJAY CHAUHAN
Commanding Officer



भा.नौ.पो. निर्देशक

INS NIRDESHAK

COMMITTED TO EXCELLENCE

J-19 2024



Introduction. INS Nirdehak, the second ship of Survey Vessel Large (SVL) project, was commissioned in Indian Navy at Visakhapatnam in the presence of Hon'ble Raksha Rajya Mantri Shri Sanjay Seth. The journey of Nirdehak began with its keel laying on 01 Dec 20, marking the start of its construction. Following the milestone, the ship was launched on 26 May 22 and was delivered to Indian Navy on 08 Oct 24. Prior commissioning the ship underwent vigorous trial at sea and harbour which included Contractor Sea Trials and Machinery Trials. Ship is constructed with more than 80% indigenous content. This advance vessel is equipped with cutting-edge technology and state of art hydrographic and oceanographic equipment like Multi Beam Echo Sounder, Single Beam Echo Sounder, Autonomous Underwater Vehicle (AUV), Remotely Operated Vehicle (ROV), Deep Sea Side Scan Sonar, GNSS system, Data Acquisition and Processing System etc. Ship is also equipped with 04 state of art Survey Motor Boats, which are capable of undertaking survey operations in shallow waters. Ship has provision of carrying one Advanced Light Helicopter (ALH).

Command Task. Post commissioning, ship participated in Operational Demonstration off Visakhapatnam as part of Navy day celebrations. Hon'ble Chief Minister of Andhra Pradesh Shri N Chandrababu Naidu graced the event as chief guest.

Visits.

- (a) Vice Admiral LS Pathania, AVSM, Chief Hydrographer to the Govt. of India and Rear Admiral RK Dhingra, VSM, Flag Officer Commanding Tamilnadu & Puducherry Naval Area during the commissioning ceremony.
- (b) Rear Admiral Peush Pawsey, Joint Chief Hydrographer.





भा.नौ.पो. संधायक

INS SANDHAYAK

VICTORY THROUGH EXCELLENCE

J-18 2024



CAPT N DHEERAJ
Commanding Officer



Introduction. The ship was operational during the period. A total of five Hydrographic Instructions (HIs) were undertaken during survey season 2024-25. The ship also undertook photography/ videography for INHD movie.

Survey Commitments (Command Tasks). The ship undertook survey off Puri for Op Demo 2024.

GRDD. Ship upon completion of operational cycle underwent Guarantee Defect at M/s GRSE, Kolkata.

Work up. Ship underwent maiden work up by Local Workup Team in the month of Jul 25

Change of Command. Capt N Dheeraj assumed command from Capt RM Thomas on 16 May 25.

Visits.

- (a) Chief Hydrographer VAdm Lochan Singh Pathania, AVSM.
- (b) RAdm Peush Pawsey, Joint Chief Hydrographer.

Miscellaneous. Ship has been regularly undertaking get-togethers and conducting various troop games as part of HR initiative.





CDR KISHORE AER
Commanding Officer



भा.नौ.पो. सर्वेक्षक

INS SARVEKSHAK

PATHFINDER TO THE SEAFARER

J-22 2002



Introduction. The ship was fully operational and completed eight Hydrographic Instructions including one foreign co-operation survey at Mauritius. Additionally, ship also undertook survey of Nainital Lake and four months tidal data collection at Kollam. The ship was awarded “Best Operational Ship 2023-24” and Admiral Jal Cursetji Trophy for “Best Survey Ship 2023-24”.

Command Task.

- (a) The ship participated in sea training for officers of Long ‘H’ and Agniveer ‘Q’ (HY) sailors at Goa.
- (b) The ship took part in Op Demo at Kochi for Navy Day.

Change of Command. Commander Kishore Aer assumed the command from Captain Tribhuvan Singh on 27 May 25.

Awards.

- (a) Best Aviation Ship, Most Spirited Ship and Best Engineering Ship of Southern Naval Command 2024.
- (b) Best Operational Ship 2024 by NHO
- (c) Best Survey Ship for survey season 2023-24

Contribution towards Community Development. The following events were organized towards community development during the period:-

- (a) On the occasion of SAFLAN, the ship was awarded ‘Best Aviation Ship’, ‘Most spirited ship’ and ‘Best Engineering Ship’ by FOC-in-C (South).
- (b) Mini-marathon was organized for ship’s company.
- 5.3 Trekking for ship’s company was organized at Signal Mountain, Port Louis, Mauritius.
- (c) A joint Yoga session was organized between National Coast Guard Mauritius and INS Sarvekshak at Port Louis harbour.

Visits. RAdm Peush Pawsey, Joint Chief Hydrographer.





भा.नौ.पो. सतलज

INS SUTLEJ

EXCELLENCE IS TRADITION

J-17 1993



CDR PK SHAHRAWAT
Commanding Officer



Introduction. The ship was fully operational and completed 14 hydrographic instructions including 01 Foreign cooperation survey at Myanmar.

Change of Command. Commander PK Shahrawat assumed command from Captain Mathew G Abraham on 2nd Jul 24.

Awards.

(a) The ship was awarded Best Ship 2024-25, Best NBCD Ship 2024-25 trophies by the Flag Officer Commanding in Chief, Southern Naval Command.

Visits.

(a) Rear Admiral Peush Pawsey the Joint Chief Hydrographer.

(b) Various Dignitaries including Indian Diaspora visited ship at Myanmar.

Innovations in Survey Operations. Following Innovations were practiced onboard ship: -

- (a) Remote control Operation for lowering and hoisting operations of RHIB and Gemini.
- (b) Biometric attendance during sailing for precise manpower accountability.
- (c) The ship progressed with real-time data transfer from SMBs to ship within a range of 10 NM for a defined coverage of 3600 .

Miscellaneous. Ship has been regularly undertaking get-togethers and various troop games as part of HR initiative.





COMMODORE SK NAIR
Officer-in-Charge

राष्ट्रीय जल सर्वेक्षण संस्थान, गोवा NATIONAL INSTITUTE OF HYDROGRAPHY, GOA

Introduction. The Institute successfully conducted all scheduled courses as per Biennial Training Programme 2024-26. 96 Officers, 142 Sailors and 03 Civilians from India as well as from Friendly Foreign Countries (FFCs) have been successfully trained from 01 Jul 24 to 30 Jun 25.

Courses Conducted as per BTP 2024-26. The Institute has conducted 14 scheduled courses from 01 Jul 24 to 30 Jun 25 as per Basic Training Programme 2024-26. Details of the same are tabulated below: -

(a) **Courses Conducted.**

| Ser. | Name of Course | From | To |
|------|---------------------------|-----------|-----------|
| 1 | Long 'H' (83:046) | 22-01-24 | 08-02-25 |
| 2 | Basic 'H' (83:249) | 15-07-24 | 28-12-24 |
| 3 | Advance 'H' (83:113) | 19-08-24 | 26-10-24 |
| 4 | Long ND (I) (83:062) | 23-09-24 | 28-09-24 |
| 5 | Long N (F) (83:066) | 07-10-24 | 12-10-24 |
| 6 | AVR HY (83:634) | 13-05-24 | 03-08-24 |
| 7 | LS 'Q' HY (83:636) | 15-07-24 | 28-09-24 |
| 8 | PO 'Q' HY (83:637) | 02-09-24 | 18-01-25 |
| 9 | AVR HY (83:638) | 14-10-24 | 04-01-25 |
| 10 | LS 'Q' HY (83:639) | 06 Jan 25 | 22 Mar 25 |
| 11 | PO 'Q' HY (83:641) | 10 Feb 25 | 28 Jun 25 |
| 12 | Basic 'Q' (HY) (83:642A) | 17 Mar 25 | 31 May 25 |
| 13 | Basic Civilian (83:640) | 13 Jan 25 | 22 Feb 25 |
| 14 | Advance Civilian (83:032) | 24 Feb 25 | 22 Mar 25 |

(b) **Courses in Progress.**

| Ser. | Name of Course | From | To |
|------|------------------------|-----------|-----------|
| 1 | Long 'H' (83:047) | 20 Jan 25 | 31 Jan 26 |
| 2 | Agniveer (HY) (83:642) | 12 May 25 | 02 Aug 25 |

Survey Undertaken. The following courses (Officers and Sailors) have successfully completed practical survey as a part of their course curriculum towards the culmination of training at the Institute: -

| Ser | Course | Duration (weeks) | From | To | Remarks |
|-----|---------------------------|------------------|-----------|-----------|-----------------|
| 1 | Agniveer HY (83:634) | 2.5 | 15 Jul 24 | 31 Jul 25 | Training Survey |
| 2 | LS 'Q' HY (83:636) | 02 | 16 Sep 24 | 28 Sep 24 | Training Survey |
| 3 | Long 'H' (83:046) | 04 | 14 Oct 24 | 09 Nov 24 | CMFP |
| 4 | Basic 'H' (83:249) | 04 | 02 Dec 23 | 28 Dec 24 | Training Survey |
| 5 | Agniveer HY (83:638) | 2.5 | 16 Dec 24 | 01 Jan 25 | Training Survey |
| 6 | PO 'Q' HY (83:637) | 03 | 30 Dec 24 | 18 Jan 25 | Training Survey |
| 7 | Basic Civilian (83:040) | 01 | 13 Feb 25 | 19 Feb 25 | Training Survey |
| 8 | LS 'Q' HY (83:639) | 02 | 07 Mar 25 | 22 Mar 25 | Training Survey |
| 9 | Advance Civilian (83:032) | 0.3 | 18 Mar 25 | 21 Mar 25 | Training Survey |
| 10 | PO 'Q' HY (83:641) | 02 | 28 Apr 25 | 04 May 25 | Training Survey |
| | | | 16 Jun 25 | 21 Jun 25 | |
| 11 | Basic 'Q' HY (83:642A) | 02 | 05 May 25 | 17 May 25 | Training Survey |





Initiative/ Achievements in Training.

- (a) **Simulator.** The unit had taken up a case with NHO for Deso 5 Echo sounder simulator to conduct training for officer and sailor courses. The simulator was received in Dec 24.
- (b) **Deso 5 Trials.** Newly inducted Deso 5 Echo Sounder was received for trials and extensive trials were conducted in real time and same is being utilised for training of all courses.
- (c) **Equipment Training.** OEM Lectures conducted for Staff and trainees on WLM (CT Tide), SBG Motion Sensor and R2 Sonic.
- (d) **Guest Lecture.** Guest Lectures conducted for Staff and trainees on Ice Navigation and Hydrographic data rendering and S-57 attributes.
- (e) **R2 Sonic 2022.** Newly inducted R2 Sonic Multibeam echo sounder was received for commissioning and trials were conducted in real time and same is being utilised for training of all courses.
- (f) **SBG Motion Sensor.** Newly inducted SBG motion sensor was received for commissioning and trials were conducted in real time and same is being utilised for training of all courses.

Contribution Towards Community Development.

- (a) **National Days Celebrations.** The National days of countries viz. (Sri Lanka 04 Feb, Ghana 07 Mar, Namibia 21 Mar, Bangladesh 26 Mar, Australia 25 Apr Cameroon 20 May, Mozambique 25 Jun) whose trainees were undergoing training at NIH were celebrated. On the occasion, a brief



presentation by the student trainees about their country was delivered followed by high tea and interaction with Officer in-Charge and other staff officers.

(b) **World Hydrography Day.** World Hydrography Day was celebrated on 21 Jun 25 based on theme Seabed Mapping Enabling Ocean Action. The school children from Kendriya Vidyalaya No.1 and Navy Children School, Goa visited the Institute and were exposed to basics of Hydrography and role of hydrography in ensuring safe navigation in Ocean.

(c) **Yoga Day.** 11th International Day of Yoga (IDY) - 2025 was celebrated on 21 Jun 25. Yoga session was conducted for all staff, trainees and families in hybrid mod.

(d) **World Environment Day.** World Environment day was observed on 05 Jun 25.

(e) **Hydronaut Magazine.** The institute actively contributed to the editorial team for the successful launch of the first issue of Hydronaut Magazine. The magazine of INHD would be a significant milestone in promoting knowledge and professional sharing. The inaugural issue was released on 21 Jun 25 at NHO.

Visits. Following visited the Institute during the period of report: -

- (a) VAdmLochan Singh Pathania, AVSM, Chief Hydrographer to Gol
- (b) Tanzania and Gol Delegation
- (c) RAdm B S Sodhi, from CSO (TRG), HQSNCR
- (d) 50 cadets from NDA and 17 cadets of 1st training squadron.
- (e) School children from KV-1 & NCS Goa on occasion of World Hydrography Day



CAPT S SENAPATI
Officer-in-Charge

जल सर्वेक्षक इकाई, कारवार HYDROGRAPHIC SURVEY UNIT (KARWAR)

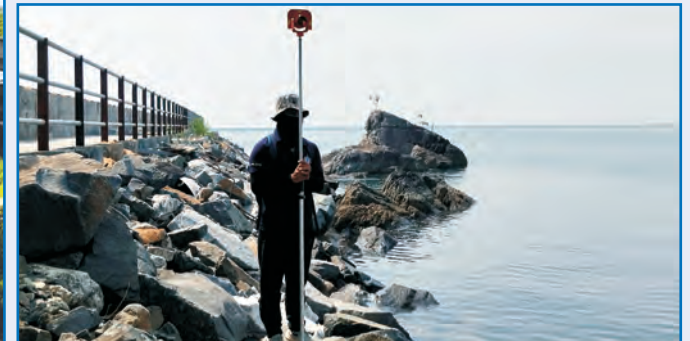
Introduction. The Hydrographic Survey Unit (Karwar) has fulfilled all the survey requirements as projected by HQKNA and as directed by National Hydrographic Office, Dehradun. The unit completed the check survey of Karwar Naval Harbour. Janesh TB, PO (HY), was deputed to Kazakhstan as part of three member training team deputed for imparting training in hydrography to Kazakhstan Hydrographic Support Services.

Survey Undertaken. As part of operational tasking unit was involved in collation and updation of port information of four ports, unit also undertook command tasks which include check survey, fixing transit marks, height clearance survey, current measurement at Shirur.

Change of Officer-in-Charge. Capt S Senapati has assumed the duties of Officer-in-Charge on 27 Jun 25

Innovation in Survey Operations. Sounding operation of sheltered Piers at Karwar Naval Harbour using Total Station for positioning of SMB and digital Echosounder for depth.

Visit. V AdmLochan Singh Pathania, AVSM, Chief Hydrographer to the Government of India



राष्ट्रीय जल सर्वेक्षण इकाई, कोची

HYDROGRAPHIC SURVEY UNIT, KOCHI



CAPT SK SAJAN
Officer-in-Charge



Introduction. The Hydrographic Survey Unit Kochi has successfully undertaken all the survey requirements projected by NHO/SNC. The unit has successfully completed 04 Hydrographic Instructions during the survey season. Recce of Bansagar reservoir was carried out to assess the feasibility of undertaking Hydrographic survey. The major tasks carried out during the season including Pre/Post dredging Surveys of Naval channel and check survey of Kochi Naval Channel. In addition, Navigational surveys of Naval area and topographical surveys for flight safety were also undertaken.

Survey Commitments (Command Tasks). As part of operational tasking, unit also undertook various survey tasking which primarily include bathymetric survey, height survey, land survey and check survey.

Visits.

- (a) Vice Admiral Lochan Singh Pathania, AVSM, Chief Hydrographer to the Government of India
- (b) RAdm Peush Pawsey, Joint Chief Hydrographer





CDR RATHEESH R
Officer-in-Charge

राष्ट्रीय जल सर्वेक्षण इकाई, मुंबई HYDROGRAPHIC SURVEY UNIT, MUMBAI

Introduction. Hydrographic Survey Unit (Mumbai) has provided all Hydrographic support to command and has fulfilled all command commitment. The unit has completed one hydrographic survey of Middle Ground and Oyster Rock and collection of port information. The unit has provided professional advice to DGNP for calculation of dredge volume for capital dredging. The unit is continuously endeavoring to improve the infrastructure whilst keeping up with emerging technologies through training.

Survey Commitments (Command Tasks). The unit has completed various command tasks including monthly hydrographic survey of Tidal Basin and Dredging Surveys.

Change of Oic. Cdr Ratheesh R assumed the duties of Officer-in-Charge on 11 Jun 25.

Miscellaneous. Unit has been regularly undertaking get-togethers, training and various troop games as part of HR initiative.

Visit. Vice Admiral Lochan Singh Pathania, AVSM, Chief Hydrographer to the Government of India.



जल सर्वेक्षक इकाई, श्री विजयपुरम् HYDROGRAPHIC SURVEY UNIT, SRI VIJAYA PURAM



CDR PK GURUNG
Officer-in-Charge



Introduction. Hydrographic Survey Unit (SVP) is responsible for conduct of all field Hydrographic tasks in and around Sri Vijaya Puram and other islands of Andaman & Nicobar Islands. The unit advises Command on Hydrographic aspects of Naval Operations and also establish a network of Geodetic Stations.

Survey Undertaken. The unit completed two hydrographic instructions during the survey season.

Survey Commitments (Command Tasks). The unit has undertaken various hydrographic surveys for Navigational safety and operational deployment like bathymetric survey, geodetic survey, visibility land mark survey. Further, the unit has also aided air operations by providing NOC for civil constructions, renewable energy projects and position fixing requirements of various defence establishments.

Miscellaneous. Unit has been regularly undertaking get-together and various troop games as part of HR initiative.

Visit. Vice Admiral Lochan Singh Pathania, AVSM, Chief Hydrographer.





CMDE A MURALIDHAR
Officer-in-Charge

जल सर्वेक्षक इकाई, विशाखापत्तनम HYDROGRAPHIC SURVEY UNIT, VISAKHAPATNAM

Introduction. The unit remains committed to fulfil its role by providing hydrographic survey support as sought by command and the chief Hydrographer. The unit has undertaken afloat and ashore surveys allocated by HQENC within the Vizag Harbour. Further, Hydrographic surveys for Navy Day Op Demo 24 at Puri (Odisha) and SAR operation at Chandil Dam (Jharkhand) has been successfully undertaken. The unit has completed 05 Hydrographic Instructions during this period. The unit also carried out NSPC inspection of various port and Naval Security Inspection of Merchant vessel as nominated by NHO and ODAG. The unit also functions as office of Command Hydrographic Officer and has been instrumental in providing strategic inputs for timely and correct decision making with respect to Survey Ships and survey capabilities. The unit is continuously improving its infrastructure whilst keeping up with emerging technologies through training.

Survey Commitments (Command Task). The unit undertook various command tasks like site elevation survey, land survey and check survey for newly constructed jetties.

Visits.

- (a) VAdm LS Pathania, AVSM, Chief Hydrographer.

- (b) RAdm Peush Pawsey, Joint Chief Hydrographer.
(c) Cmde HA Hardas, Cmde(H)-Ops visited.
(d) The unit assisted Jharkhand Govt in locating and recovery of sunken Cessna-152 aircraft.

Innovation in Survey Operations.

- (a) Maiden transportation of SMB onboard SCI Saraswati by innovative means for conduct of survey at Puri for Op Demo-24 under trying conditions.
(b) AI enabled stand-alone query software for Survey 'DHARA' has been made and version 1 is distributed to ships and units for trails and comments.
(c) Conversion of small craft of opportunity to weather proof boat for Side scanning and Sounding operation in inclement weather at Chandil Dam, Jharkhand.
(d) Undertook sounding in GPS shadow zone environment based upon grid method in Vertical Loading of Missile shed.

Miscellaneous. Regular organized sports and get-togethers are conducted as part of HR development.



नौसेना नक्शा आगार, मुम्बई

NAVAL CHART DEPOT, MUMBAI



CAPT ANAND NARAYANAN
Officer-in-Charge

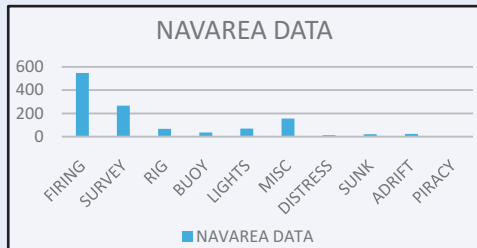
Introduction. Naval Chart Depot handled all the demands of ENC's, Charts and Publications for Naval Ships and Chart vendors during the period of review. The Maritime Safety Information section ensured transmission of all safety information pertaining to NAVAREA VIII region on all modes of transmission as per SOLAS.

Indian Chart Section. The following IN charts and publications were issued to various authorized units and chart agents.

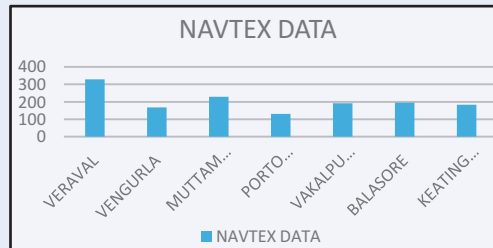
| Issue/Sale | Number of Charts | Number of Publications |
|--------------|------------------|------------------------|
| Naval Units | 3909 | 414 |
| Chart Agents | 1398 | 56 |

Navigational Warning Messages. A total of 1191 Navigational Warnings and 1109 NAVTEX messages were promulgated on INMARSAT, IRIDIUM, Safety Net and COMNETCEN (MB) for naval vessels. The breakdown of warnings issued is shown in the graph below:-

**NAVAREA VIII MSGs ISSUED FROM
01 JUL 24 TO 30 JUN 25**



**NAVTEX MSGs ISSUED FROM
01 JUL 24 TO 30 JUN 25**



Inspections.

(a) 15SNIT inspections were carried out by unit staff.

Change of OiC. Captain Anand Narayanan assumed the duties of Officer-in-Charge on 23 May 25.

Visit. Vice Admiral Lochan Singh Pathania, AVSM, Chief Hydrographer.





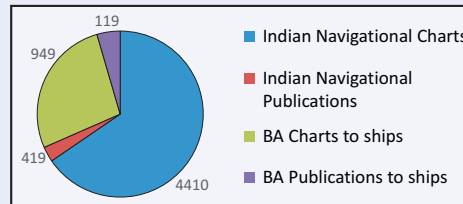
CAPT M SOMASEKHAR
Officer-in-Charge

नौसेना नक्शा आगार, विशाखापत्तनम NAVAL CHART DEPOT, VISAKHAPATNAM

Introduction. Naval Chart Depot, Visakhapatnam, is handling an independent BA Section and a Print on Demand Section in addition to IN section. NCD (V) strives to be a center of excellence with respect to issuance of charts, Publications and ENC's to the units of Eastern Naval Command nominated Chart agents by National Hydrographic Office, playing a key role in meeting the urgent operational demands of Charts and Publication at ENC. The endeavor of the organisation will be to facilitate and provide up to date charts, Publications and ENC's to all concern under NCD (V) and achieve 100% compliance with respect to meeting user demand, being a service provider. It ensures timely issue of products like Navigational Charts, Publications and ENC's to ships and units of Eastern Naval Command, Andaman & Nicobar Command and to the chart agents. The present deployment pattern of ships in and around South East Asian countries to safe guard the area of responsibilities (AOR) has seen a surge in requirements of BA charts and publication which is being handled very effectively by NCD(V).

Issue of Charts and Publications. Quantity of Navigational Charts and Publications issued to ships and establishments is as follows:

| Sl. No | Chart and Publication | Issues for 2023-24 | Issues for 2024-25 |
|--------|----------------------------------|--------------------|--------------------|
| (1) | Indian Navigational Charts | 1852 | 4410 |
| (2) | Indian Navigational Publications | 84 | 419 |
| (3) | BA Charts to ships | 765 | 949 |
| (4) | BA Publications to ships | 128 | 119 |



Sale of Indian Charts and Publications.

(a) **To Chart Agents.** During the period of report this depot has registered sale of Indian charts and publications to the chart agents worth Rs. 27,56,610.00 (Rupees Twenty-Seven Lakh Fifty-Six Thousand Six Hundred Ten Only).

Visit. VAdm Lochan Singh Pathania, AVSM, Chief Hydrographer to the Govt. of India.

Involvement of NCD(V) in other activity.

- (a) NSPC Inspection of Various port in East coast.
- (b) Naval Security Clearance of various vessels in East coast.

मुख्य जल सर्वेक्षक की संगठनात्मक संरचना

ORGANISATIONAL STRUCTURE OF CHIEF HYDROGRAPHER





Cmde J Gurumani
Cmde (H) - DOH



Cmde RB Menon
Cmde (H) - II



Capt Rahul Bhatt
Capt (H) - IA/Ops



Cdr Rishabh Rawat
Cdr (H) - Mat



Cdr Arjun Malik



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



Lt Cdr Pratap P Singh
Lt Cdr (H) - MSIS

चार्ट शाखा की संगठनात्मक संरचना

ORGANISATIONAL STRUCTURE OF CHART BRANCH





CAPT KULDEEP SINGH
Capt (H) - CB

Role and Responsibilities. Hydrographic Production plays a vital role in chart production in accordance with stipulated international standards and procedures. The Department is continuously striving hard to meet the ever growing demands of charts and its allied products to the mariners. The induction of HPD has ensured simultaneous production of paper charts and ENC's and has resulted in release of 650+ products from HPD. The products generated from HPD are consistent and coherent in data across all verticals. The office is producing new charts and ENC's along with the maintaining existing products. The production timelines have been considerably reduced and able to meet the growing demand within short period. This office is the largest repository of Bathymetric data in India and is stakeholder in various National and International bodies. With the production of navigational products for mariners, this office is producing nautical products like HDENC, Additional Military Layer (AML) and Confidential Charts for Indian Armed forces/Indian Navy (IN) use only. This office promulgated Temporary and Preliminary Notices to Mariners for navigational significant information by ENC update to provide the ECDIS user with updated information. The department also deals with International Hydrographic Organisation (IHO) matters including coordination of INT Charts in Area 'J' under North Indian Ocean Hydrographic Commission (NIOHC). The office is providing professional inputs and making correspondence with IHO on charting matters and active member on various working group/ Committees/Regional Hydrographic Commissions like - HSSC, WENDWG, ABLOS, HSWG, NIPWG, NCWG, TWCWG, ENCWG, DQWG, HDWG, S-100WG, NIOHC & NICCWG.

Paper Charts. Production of paper charts has been the backbone of NHO. During the year, 07 New Charts and 08 New Edition Charts were produced. Regular updation of paper charts database has led to the production of 07 reprints during the last one year.

Electronic Navigation Charts (ENCs). The office is well poised to play a leading role as ENC producer in the region as per IHO specification. Till date 359 ENC cells have been released in the market and efforts are underway for improving the ENC coverage including 43 international cells. During last year, 10 new ENC cells and 36 new edition ENC cells were produced and released in the market. With IHO and IMO striving hard for noticeable requirement of ENC's worldwide, this office is well equipped with latest technologies to meet the future challenges.

International Charting Scheme. In its constant endeavor for regional cooperation, India has played a crucial role in this region for providing better coverage. Accordingly, international series charts on various scales were planned and till date INHD has produced 83 INT charts. Apart from Indian Chart there are 17 Indian produced Foreign INT charts. Additionally 13 INT charts are being maintained as Printer Nation.

Foreign Charts. As part of International Hydrographic Cooperation, NHO has bilateral arrangements with Myanmar, Mauritius, Maldives, Vietnam and Mozambique to produce INT Charts in their waters. A total of 41 Charts have been produced till date.

S-57 Cartography Course for Sailors. S-57 Cartography Course for sailors were conducted from 15 Jul – 26 Jul 24 at NHO. The sailors were imparted training on various hydrographic and cartographic aspect including standards promulgated by IHO and standard practices for creation and production of Navigational Charts and ENC's. A total of 13 sailors from survey ship/ units were trained in the workshop.

IALA Training at Kolkata by DGLL. International Association of Marine Aids to Navigation and Lighthouse Authorities conducted training for Aid to Navigational Safety at Kolkata. One officer was deputed to attend the training for hydrographic aspect for Aid to Navigational Safety.

Vizhinjam Harbour Chart. The office released Navigational Chart of Vizhinjam Harbour (Chart 2111) on 30 Nov 2013 on the scale of 1:7500. A chart of Vizhinjam Ports was released on 30 Sep 24 on the scale of 1:10000. Further, Chart 2050 (Approaches to Vizhinjam Port) based on Hydrographic survey of 2024 & compiled on scale 1:25000 was also released in Apr 2025.

Production of Customised Charts. The following customized charts were produced by this office:-

- (a) Green shoal charts of Vizag, Karwar and Sri Vijaya Puram harbor.
- (b) Op Demo-Off Puri on occasion of Navy Day 24.
- (c) Chilka Lake chart
- (d) Nainital lake chart
- (e) Updated Maritime Safety and Security Chart
- (f) Commemorative Chart "Navik Sagar Parikrama-II"
- (g) Larsemann Hill and India bay (Antarctica Charts)

जल सर्वेक्षण डाटा प्रबंधन HYDROGRAPHIC DATA MANAGEMENT



CMDE GA MATHEW
Cmde (H) – CB/ HDM

Introduction. The HDM section is responsible for review of the hydrographic data collected in the field by the IN surveying Ships/Units and stringent QA/QC checks are carried out prior to data acceptance for charting. The aim of the section is undertaking the review of the survey data immediately on receipt. The streamlined QA/QC procedures are in place.

Tidal Predictions (INP 12). Tidal Prediction for non-major ports Ports (INP 12) is compiled by HDM. The prediction started with 35 ports and progressively 5 to 6 ports were added each year as per data received from ports. Presently predictions for a total 95 secondary ports were published in 2025 out of which 71 are predicted at NHO using NHO data and 24 have been obtained from Survey of India. To enhance the accuracy of predictions a new window based tidal software AT Tide, has been procured and is being utilized for tidal prediction. The predictions are subjected to stringent QA/QC

procedures. The predictions are refined each year with fresh data from port authorities. The section aims to add at least five new ports each year for tidal predictions.

Near Disaster Recovery System. The Near Disaster Recovery System (NDRS) has been upgraded to meet futuristic requirement.

Hydrographic Note (102 A). An updated hydrographic note IH-102A with additional relevant information has been prepared for updating port information by utilizing data forwarded by ports from time to time.

Ancillary Database Management System (ADMS). Ancillary Database Management System (ADMS) software to use to store and retrieve ancillary data collected in field commissioned.





CAPT AMIT PANT
Capt (H) - IA

अंतराष्ट्रीय प्रसंग INTERNATIONAL AFFAIRS

The National Hydrographic Department over the years has established itself as the leading hydrographic office in the Indian Ocean Region (IOR). This is evident by the increased bilateral and multilateral engagement of INHD. The department has carried out a wide spectrum of activities under its foreign cooperation initiatives including signing of MoU's/IA's with Friendly Foreign Countries (FFCs), foreign cooperation surveys, conduct of customised training courses, participation at International Level meetings etc in order to strengthen our ties in the region and worldwide. The foreign cooperation initiative undertaken and contribution in IHO meetings are elucidated below:-

REPRESENTATION IN INTERNATIONAL FORA.

| Ser | IHO Meeting | Venue | Date | Participated by |
|-----|---|-------------------------|--------------------|--|
| (a) | South African and Islands Hydrographic Commission (SAIHC) | Kisumu, Kenya | 16-19 Sep 24 | RAdm Peush Pawsey, Joint Chief Hydrographer and Capt Kuldeep Singh, Capt (H)-CB-II |
| (b) | Nautical Information Provision Working Group (NIPWG) | Gdynia, Poland | 25-27 Sep 24 | Dr RA Prasad, ACCHO |
| (c) | Hydrographic Survey Working Group (HSWG) | Frascati, Italy | 30 Sep – 04 Oct 24 | Cmde GAMathew, Cmde (H) – CB |
| (d) | WEND Working Group | Wollongong, Australia | 19-20 Feb 25 | Mr Rajesh Kumar, CCHO |
| (e) | Meeting of IHO Council | IHO Secretariat, Monaco | 15-17 Oct 24 | VAdm LS Pathania, Chief Hydrographer, AVSM and Capt Rahul Hitesh Bhatt |
| (f) | International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) | St. Jones, Canada | 12-16 May 25 | Cmde J Gurumani Cmde (H)-DOH |
| (g) | North Indian Ocean Hydrographic Commission (NIOHC) | Bangkok, Thailand | 10-14 Feb 25. | VAdm LS Pathania, Chief Hydrographer, AVSM and Capt Kuldeep Singh Capt (H) - CB |
| (h) | Hydrographic Services and Standards Committee (HSSC) | Stavanger, Norway | 05-09 May 25 | RAdm Peush Pawsey, Joint Chief Hydrographer |
| (j) | Tides, Water Level and Currents Working Group (TWCWG) | VTC | 09-22 Nov 24 | Mr MP Gupta, ACCHO |
| (k) | ABLOS Meeting | VTC | 08-10 Oct 24. | Capt Kuldeep Singh, Capt (H) CB |
| (l) | S-100 Working Group Meeting | VTC | 04-08 Oct 24. | Mr PK Mahato, PCHO |

FOREIGN COOPERATION IN THE FIELD OF HYDROGRAPHY.

| Ser | Joint Cooperation Meeting | Venue | Date | Participated by |
|-----|---------------------------|--------------------------|--------------|--|
| (a) | India – Myanmar | Yangon, Myanmar | 23-25 Jul 24 | VAdm LS Pathania, Chief Hydrographer, AVSM |
| (b) | India – France | Brest, France | 18 Oct 24 | VAdm LS Pathania, Chief Hydrographer, AVSM and Capt Rahul Bhatt |
| (c) | India – Russia | Saint Petersburg, Russia | 16-20 Dec 24 | RAdm Peush Pawsey, Joint Chief Hydrographer and Cdr Deependra Sesodia |
| (d) | India-Seychelles | Seychelles | 28-29 Nov 24 | Cmde Vishal Sharma, Cmde(H)-CB/Press and Capt Amit Pant Capt (H)-IA |
| (e) | India-Mauritius | NHO, Dehradun | 22-24 Apr 25 | Mr Mahummad Shamad Ayoob SAAB, Senior Chief Executive, Ministry of Housing and Lands (Head of Delegation and Co-Chair). |
| (f) | India-Egypt | NHO, Dehradun | 20-24 May 25 | Commodore Haitham Abdel Salam Awad Salam, Deputy National Hydrographer of Egypt, Egyptian Navy |
| (g) | India-Seychelles | NHO, Dehradun | 10-14 Jun 25 | Mr David Bianchi, Principal Secretary of Ministry of Transport, Civil Aviation, Port and Marine, Major General Michael Rosette, Chief of Defence Forces, Seychelles Defence Forces (SDF) |



सामग्री MATERIEL



CAPT PRACHIT MANGRULKAR
Capt (H) - Mat

The material section endeavors to facilitate equipment support 24/7 for all the ships/ units by efficiently monitoring repairs and maintenance of all survey equipment. Foreign surveys, Antarctica expedition and all hydrographic surveys by ships were carried out successfully without any equipment downtime.

CAMC and Repair case concluded.

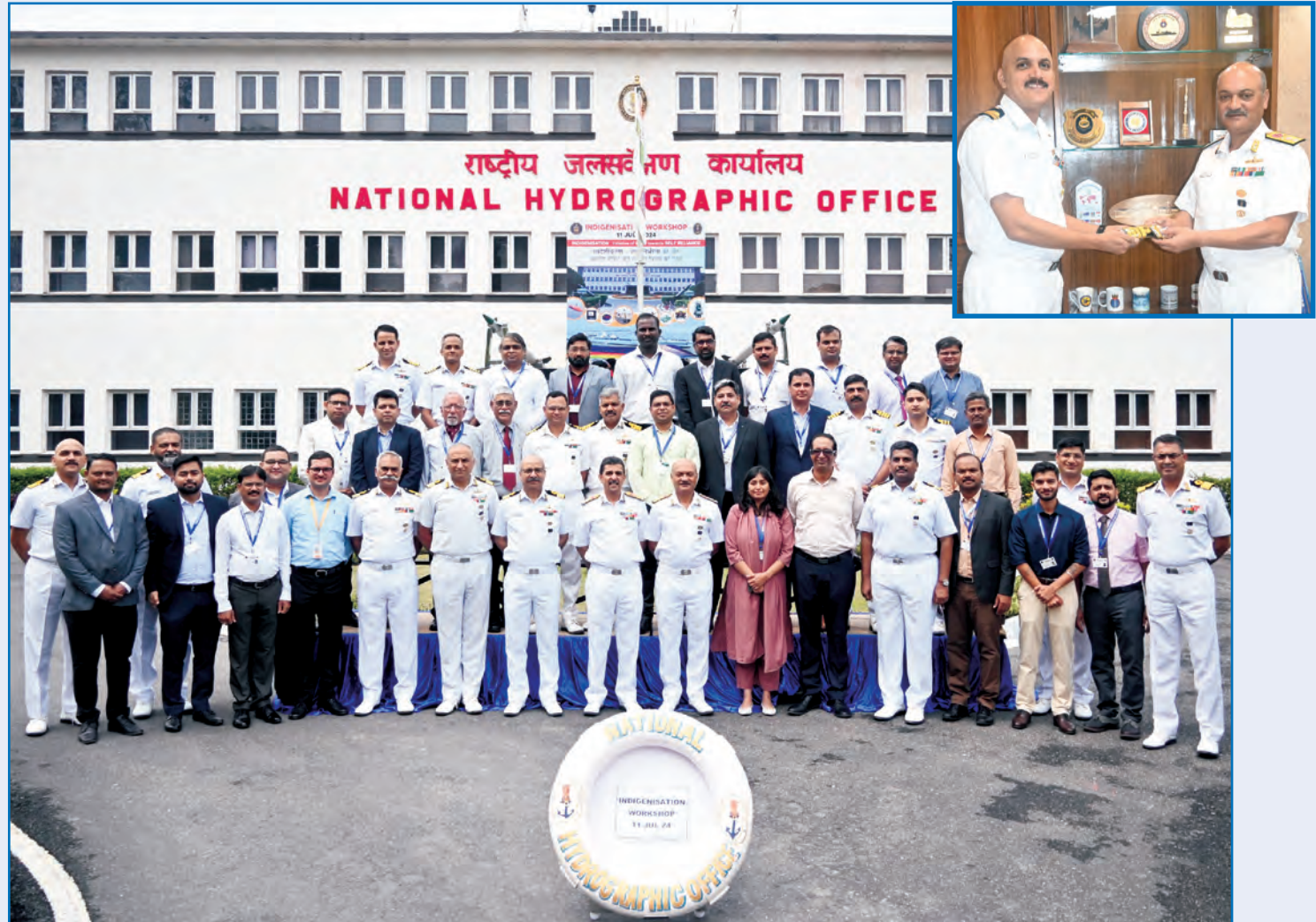
All major survey equipment namely Geodetic GPS sets, MBES, Motion Sensors, CTD System, ADLS, DAPS, Electronic Digital Level, ADCP and Side Scan Sonars are maintained through CAMC. Efforts are underway for timely renewal of CAMC so as to ensure availability of equipment.

Initiatives.

Indigenisation workshop. Materiel section successfully coordinated maiden indigenisation workshop on 11 Jul 24. Representatives from DOI, WESEE, TDAC, DOH, NHO and several industry partner engaged in manufacturing of hydrographic equipment participated in the workshop and shared information.

Achievements.

Upgradation of infrastructure of Materiel section and Digitisation of all records and files.



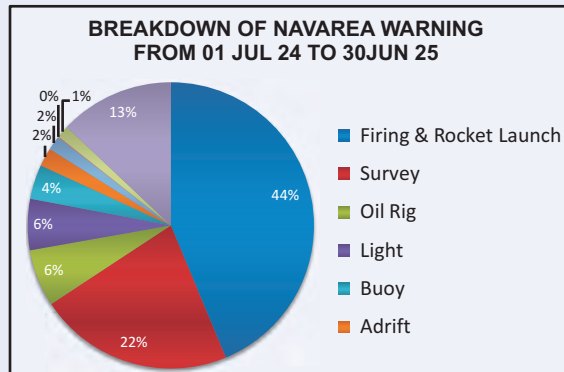


CDR PRATAP SINGH
Cdr (H) - MSIS

समुद्री सुरक्षा सूचना सेवाएँ MARITIME SAFETY INFORMATION SERVICES

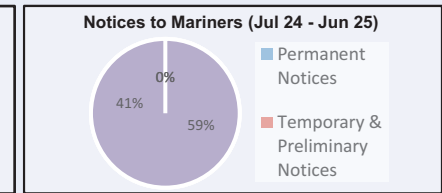
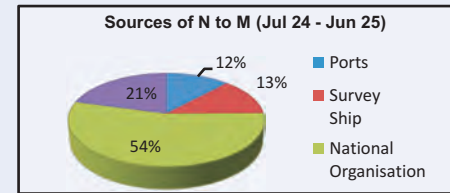
Maritime Safety Information Services (MSIS) section is responsible for promulgation of maritime safety information for safety of mariners through NAVAREA messages and maintaining nautical charts and publications through notices to mariners. During this period, 125 N to M have been promulgated in which 62 are permanent and 63 are temporary & preliminary notices and 1004 NAVAREA messages. Breakdown of NAVAREA messages from 01 Jul 24 to 30 Jun 25 is as follows: -

| Type of NAVAREA | Numbers |
|---------------------------|-------------|
| Firing & Rocket launching | 439 |
| Survey | 221 |
| Oil Rig | 65 |
| Light | 58 |
| Buoy | 39 |
| Adrift | 21 |
| Sunk | 16 |
| Piracy | 01 |
| Distress | 14 |
| Miscellaneous | 130 |
| Total | 1004 |



Hydrobharat Website. Hydrobharat website has been upgraded with additional editing tools, better GUI, multiple geospatial options with enhanced security features for better user experience.

India-Wins. India-Wins is a web based application for displaying maritime safety information is one stop solution for mariners world over to access the navigational warning in IOR covering an area of nearly 26 million sq. Km digitally on Geographic Information System (GIS) background. With launch of India-Wins module, the usage of website www.hydrobharat.gov.in by the users has increased manifold. The visitor count has crossed over 4.6 Million as on 10 Jun 2025. The 2nd phase of this module is in the pipeline to include additional services to the mariner thus ensuring safety in the NAVAREA VIII region.



प्रकाशन PUBLICATIONS

The primary role of this section is to publish nautical Publication, revised editions and periodically updation of all the Indian nautical publications. Data for these publications are collected from various sources like port authorities, Report of Surveys and Hydrographic Notes and interaction with other Hydrographic Offices. All INHD Publication (updated) are available for Indian Naval Ships through NUD.



संचालन OPERATIONS



CAPT PP CHAKRABORTY
Capt (H) - Operations

The Operations Section is the nodal section which plans and allocates survey tasks to the ships and units. The section monitors the progress of surveys and professional guidance is rendered to ships and units as required. In addition, the Section plays a key role in coordinating and interacting with various national agencies. Further the section is providing professional advice to NHQ on hydrographic aspects and manages the corporate affairs.

Important Activities.

(a) **International Hydrographic Co-operation.** In furtherance to International Hydrographic Co-operation with littoral nations in the Indian Ocean Region, the Department has undertaken Seven International cooperation hydrographic surveys in Mauritius and Myanmar during the period of report. Additionally, survey ship was also deployed to Vietnam towards capability demonstration and one ship was deployed to South East Asian nations for showcasing departments hydrographic capability.

(b) **Antarctica Survey Programme.** India is a member of International

Hydrographic Organisation - Hydrographic Committee on Antarctica (IHO-HCA). Lt Cdr Yerra Rohit Goud and Lokendra Singh Rathore, PO (HY), from the Department participated in the XLIVth Antarctica Expedition from. Charts of the area around Indian stations are being planned based on collected data.

(c) **Annual Hydrographic Conference (AHC).** Annual Hydrographic Conference-24 was held at NHO Dehradun on 21 – 23 Aug 24 for reviewing survey season 2023-24. Discussions were held on professional issues pertaining to the conduct of hydrographic surveys and training related issues. The hydrographic surveys for the forthcoming survey season 2024-25 were also discussed.

(d) **32nd Hydrographic Survey Committee (HSC).** 32nd Hydrographic Survey Committee meeting was held at NHO, Dehradun on 19 June 25 under the chairmanship of JS (Ports), Ministry of Ports, Shipping and Waterways. Representatives from Maritime Boards, Ports, DG Shipping, DGLL participated in the same. During the meeting, hydrographic requirements of ports and other agencies were discussed, deliberated.

(e) **2nd Maritime Workshop.** Department this year conducted 2nd Edition of Maritime Workshop at NHO on 20 June 25. Theme of the workshop was “Our Ocean: Our Obligation, Our Opportunity”, which is also the theme promulgated by IMO for World Maritime Day 2025. The representatives of Ministry of Ports, Shipping and Waterways, DG Shipping, DGLL, Indian Coast Guard, NCPOR, NIOT, NIO and IFC-IOR along with representatives from all Maritime Boards, Major Ports participated in this one-day workshop.

(f) Chief Hydrographer is a member of the Navigational Safety of Ports Committee (NSPC) for undertaking inspection of the all new ports on navigational safety aspects. Operation section facilitated and ensured smooth conduct of 28 NSPC inspection of various ports across nation and also revised NSPC Form 1 has been promulgated in collaboration with DG Shipping.

(g) **Promulgation of Maritime parameters.** Revised Maritime Parameters viz Coastline, Number of Islands and baseline has been promulgated vide Gol Gazette notification.





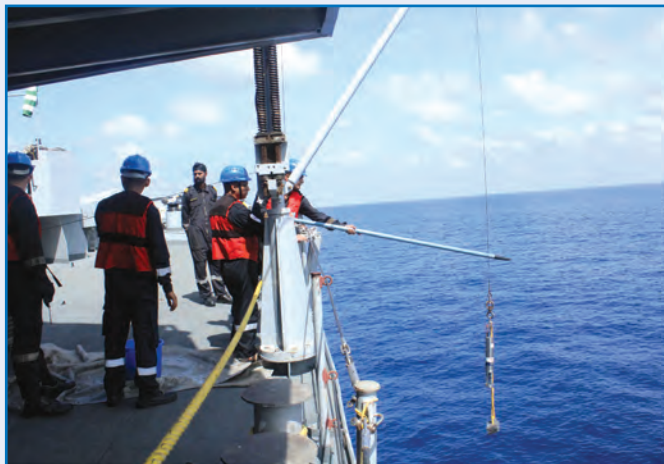
CDR URVISH KUKREJA
Cdr (H) – Operations & Coord

संचालन - सर्वेक्षण कार्य OPERATIONS – SURVEY TASKS

Hydrographic Surveys. During the year 2024-25, the Department has completed 72 Hydrographic Surveys, which include Navigational, defence, tidal and 03 International co-operation surveys. The breakdown of various survey are as follows:-

| Ser | Type of surveys | Remarks |
|-----|---------------------|-------------------|
| 1. | Navigation | Twenty Eight (28) |
| 2. | Defence | Twenty Five (25) |
| 3. | Tidal | Nine (09) |
| 4. | Foreign Cooperation | Three (03) |
| 5. | Antarctica | One (01) |
| 6. | Miscellaneous | Six (06) |

Miscellaneous Tasking. The section, in addition, also planned and coordinated hydrographic survey tasking of Nainital lake and Nangal Dam survey.



कार्मिक और प्रशिक्षण

PERSONNEL AND TRAINING



CAPT SAMEER GHOKLE
Capt (H) - P&T

HR Initiative. The following broad objectives were pursued by the Personnel and Training section to enhance Human Resource Development :-

- Ensure optimal management and redistribution of hydrographic personnel in view of the induction of the new Survey Vessel Large (SVL) and pending decommissioning of legacy survey to achieve efficient and effective manning of all survey ships and units.
- Develop and sustain a future-ready Hydrographic Cadre by aligning training with emerging technologies, including hands-on exposure to latest survey equipment and softwares through collaborative initiatives with OEM and the National Institute of Hydrography, Goa
- Maintain alignment with international standards by ensuring IBSC subscription and sustaining the recognition of NIH courses under FIG/IHO/ICA category 'A' and Category 'B' certifications, reinforcing India as the Regional Authority for hydrographic training in the North Indian Ocean Region.
- Provide timely advice to HQSNC on updating the hydrographic training syllabus to ensure alignment with evolving IHO standards, industry best practices and technological advancements, in accordance with the IHO/FIG/ICA standards of competence.

The 14th Hydro Cadre Management Board was held on 10 Mar 25.

ENC and Chart Production Workshop. The National Hydrographic Office conducted ENC and Chart Production Workshop from 15 Apr 24 to 11 May 24, with participation of two Officers each from Myanmar and Mauritius.

Advance 'H'/Long 'H' – NHO attachment. The attachment of Advance H and Long H course were conducted at National Hydrographic Office, Dehradun from 14 Oct 24 to 26 Oct 24 and from 02 Sep 24 to 14 Sep 24 respectively. Visits to various institutes in Dehradun viz. – Survey of India, Indian Institute of Remote Sensing and Wadia Institute of Himalayan Geology were conducted for the Officers during the attachment.

Survey Vessel (Large). The cell for the third Survey Vessel (Large), Ikshak (Yard 2027) was established on 15 Oct 24. Similarly, the cell for the fourth vessel, Sanshodhak (Yard 2028) was established on 15 Mar 25. Crew has been positioned for

the Ikshak cell, while positioning of crew for Sanshodhak is currently in progress.

Career Mobility- Merchant Marine sector. In alignment with the MoU signed between Indian Navy and DG Shipping (2022) for seamless transition to Merchant Navy for naval personnel. The Personnel and Training section achieved parity for Long Hydro-qualified officers with DG Shipping allowing career mobility within merchant marine sector.

Ice Navigation Course. Lt Cdr Kumar Shashwat, successfully completed the Ice Navigation course from Marine Sciences School and National School of Nautical, Buenos Aires, Argentina and subsequent practical training phase onboard Argentinean Navy Ship A.R. A Ice Breaker Almarante Irizer.

Antarctica Expedition. Lt Cdr Rohit Gouda Yerra and Lokendra Singh Rathore, PO (HY) participated in the 44th Indian Scientific Expedition to Antarctica from 09 Dec 24 to 12 Mar.



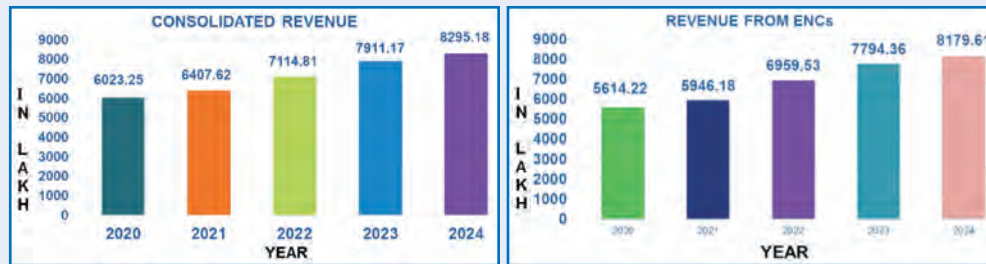


CDR MRIDUL SHARMA
Cdr (H)-S&D/PRESS

विक्रय एवं वितरण SALES & DISTRIBUTION / PRESS

The revenue from sales of charts, ENC's and publications has seen a 4.8% growth during the period of 2024-25. It has been the endeavor of S&D to make the various products of the department widely available through the network of Naval Chart Depots, Charts agents and as well as Value Added Resellers. S&D has taken suitable measures to ensure proactive and prompt response to meet national requirements. The modern approaches has also resulted in better co-ordination between NHO, NCD and chart agents to improve the sales.

Sale of Charts, Publications & ENC's. The section has been providing uninterrupted & updated supply of ENC's to IN ships & ICG besides Merchant Mariners through its Value Added Resellers (VARs). The comparative year wise breakdown of sales of charts, publications and ENC's for the last five years are as follows:-

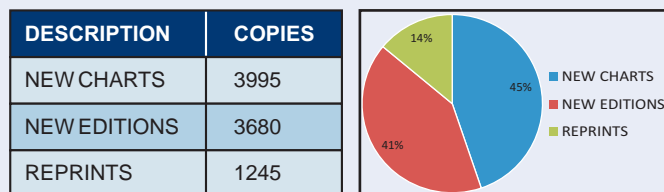


Achievements during the Year.

- (a) Maiden revision of ENC sales price from 17\$ to 27\$.
- (b) Availability of regular ENC updates for all ships on NHO Portal.
- (c) Regular ENC updates for all Coast Guard Ships on secure FTP.
- (d) Set up a dedicated ENC's Encryption cell for Encryption of S57 data to S63 for sale and distribution of IN ENC's.
- (e) Printing of ILRS Vol- 1 & 2.

मुद्रणालय PRINTING PRESS

Charts and Publications. The details of charts printed during the year 01 Jul 24 to 31 May 24 is as shown below:-



एन.एच.ओ. डायरी

NHO DIARY

Educational Visits. Following educational visits were conducted at National Hydrographic Office, Dehradun.

(a) **IRS and RIMC Students.** Trainees from Indian Institute of Remote Sensing visited NHO, Dehradun as part of the course on 'Geospatial Applications for Atmospheric & Oceanic Hazards' on 12 Sept 24. The trainees were apprised on the operations of Indian Navy, INHD. A walk around was conducted of various sections demonstrating the process involved in nautical chart production. Cadets from RIMC, including 09 girl cadets visited NHO, Dehradun as part of educational & motivational tour on 01 Feb 25.

(b) **ICFAI Students.** Students from ICFAI visited NHO, Dehradun on 20 Sept 24. The visit followed by engaging discussions provided them with an understanding of Indian Navy & vital role of hydrography towards ensuring Maritime safety.

(c) **Long 'H' Officers.** Officers undergoing Long Hydrography specialisation (IHO Cat A) attended a two week attachment at NHO, Dehradun from 13 Sep 24. The course comprising of 06 IN officers & 10 officers from FFC were provided extensive training on management of Hydrographic Data. The officers were briefed about processes involving compilation & production of nautical charts, overview of the international standards of charting & various working groups of IHO hydro.

(d) **IMA Cadets.** Gentleman cadets of the IMA, visited NHO, Dehradun from 26-29 Nov 24 as part of Navy Week 24 activities.



(e) **NCC Cadets.** Students & NCC cadets from SGSVMIC visited NHO, Dehradun as part of Navy Week-24 activities on 02 Dec 24. A motivational talk on ops & avenues in Armed Forces was also delivered to inspire them. The students were provided insights into Naval & Hydrographic operations by conducting them at various sections of the office. The visit inspired them to explore our rich Maritime heritage & crucial role that hydrography plays in nation building. Students also interacted with members of NWWA, Dehradun.

Visit of NDA Commandant.

VAdm Gurcharan Singh, AVSM, NM, Commandant NDA visited NHO, Dehradun on 11 Oct 24. The Flag Officer was apprised on the activities undertaken by INHD including survey operations, foreign cooperation, production of nautical charts & publications.





Visit of ACOP (AC)

He also visited the Marine Data Production Centre to get firsthand insight into review and production processes. During visit he interacted with service and civilian officers and appreciated the efforts of NHO, Dehradun towards chart production and maritime safety in the region.

Visit of ACOP (AC).

RAAdm Aditya Hara, ACOP (AC) visited NHO, Dehradun on 22 Jan 25. The Flag Officer was apprised on various activities of INHD including the activities & initiatives undertaken as part of Year of Naval Civilians.

The Flag Officer during his visit interacted with service & civilian staff and appreciated their camaraderie including activities undertaken by the office

Aabhar Ceremony.

The 'Aabhar Ceremony' were conducted periodically for the retiring sailors to honour their dedication and contributions to the Indian Navy periodically. Mementos and service memoirs were presented as a sign of recognition of their commitment to the country.



Aabhar Ceremony



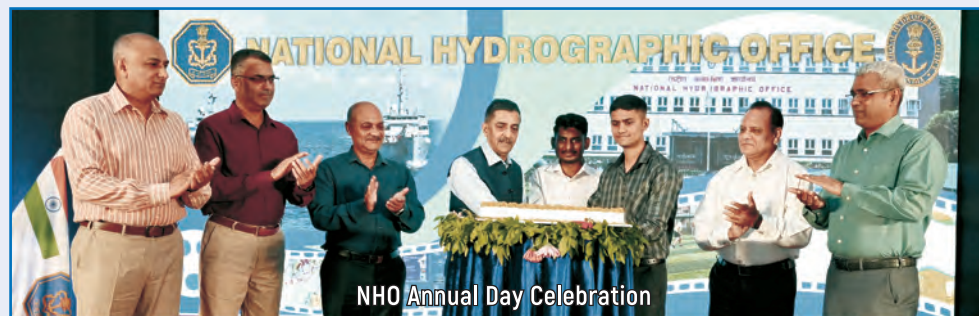
Independence Day



Republic Day

Independence and Republic Day. Every year this office organizes Independence Day and Republic day celebration. Families of NHO staff are invited for the event. On the occasion of Republic day, the Joint Chief Hydrographer reviewed the ceremonial guard, paid tribute to the fallen sea warriors by laying wreath at the Smriti Sthal before unfurling the national flag. The Flag Officer addressed the gathering, awarded proficiency certificates, cash prize to service personnel and defence civilians followed by interaction over high tea.

NHO Annual Day Celebration. National Hydrographic Office was established at Birpur, Dehradun on 01 Jun 1954 under Chief Hydrographer of the Indian Navy. To commemorate 71st anniversary, NHO Day was celebrated on 05 Jun 25 at NHO Dehradun. The event included energetic cultural program and performance by all-women music band and was enthusiastically participated by office staff along with families. Chief Hydrographer presented trophies to the winner and runners-up of various sporting events conducted as a run up to the event. It was followed up by lively interaction over dinner.



NHO Annual Day Celebration



Free Eye Check-up Camp



Vizhinjam Port Chart

Free Eye Check-up Camp.

An eye checkup camp was held at NHO, Dehradun on 12 Sep 24 in association with ASG Eye Hospital for the benefit of all Defence Civilians as part of Year of Naval Civilians of Indian Navy.

90 Days Fitness Programme.

As part of the '90 Days Fitness Programme' of the Indian Navy, a special yoga session was conducted on 06 Sep 24 by Dr Amrit Raj, an Ayurvedic doctor & yoga teacher from Arogyadham, Rishikesh. The NHO family immensely benefited through yoga practice.

Vizhinjam Port Chart. "Boosting maritime safety & India's maritime growth"

RAdm Peush Pawsey, Joint Chief Hydrographer, presented a navigational chart of Vizhinjam International Seaport to the port representatives at NHO, Dehradun on 25 Sept 24. The maiden survey of the newly developed International port was undertaken by INS Sutlej.



Swacchata Hi Seva

Swacchata Hi Seva.

As part of the nationwide "Swacchatahi Seva 2024 campaign" NHO, Dehradun conducted cleanliness drive in Dehradun from 19 Sep - 02 Oct 24 comprising of diverse activities and enthusiastic participation. The campaign aimed to spread awareness about the importance of cleanliness and sanitation and promoting a healthier environment for the community.

The events included Swacchata Drive at civilian areas and office spaces, Painting competition to spread awareness, lectures, Mass Shramdaan along with felicitation of sanitation workers.

Dehradun Navy Half Marathon 2024. The highly anticipated second edition of Dehradun Navy Half Marathon DNHM was successfully conducted on 10 Nov 24. The event saw an enthusiastic participation of over 1200 runners who enjoyed running in the scenic and challenging slopes through Kimadi in Dehradun. The 21 km category was flagged off by VAdm LS Pathania, AVSM, Chief Hydrographer to the Government of India followed by 10km category flagged off by Maj Gen Prem Raj, SM, VSM, GOC UK Sub Area and the 5km fun run category was flagged off by RAdm Peush Pawsey, Joint Chief Hydrographer. Promo Run for the same was held on 14 Oct 24. The 5K run through the scenic Rajpur Road was flagged off by Joint Chief Hydrographer and witnessed an enthusiastic participation of over 50 runners.



Dehradun Navy Half Marathon 2024



Diwali Mela. Diwali Mela for NHO staff and their families was organised at NHO Centre Ground on 25 Oct 24.

Rashtriya Ekta Diwas. In order to honour Sardar Vallabh bhai Patel's vision of unity & integrity, Rashtriya Ekta Diwas was celebrated at NHO, Dehradun on 31 Oct 24 by undertaking the Integrity Pledge to reinforce the importance of national unity and integration.



Rashtriya Ekta Diwas



Veterans Mela. A Naval Veterans' Mela was organised at NHO, Dehradun for the benefit of naval veterans in Dehradun area on 09 Nov 24. Interaction & resolution of issues pertaining to pension & Sparsh guidance was made available.

Veteran Interaction. An 'At Home' function for the veteran sailors & retired Defence Civilians was conducted as part of Navy Week-24 activities on 03 Dec 24. Retired service & civilian personnel from Uttarakhand area participated in the event and interacted over high tea.



Veteran Interaction



Wreath Laying

Chief Hydrographer to the Govt of India addressed the gathering and apprised them on the latest developments of the *IN*. The event also included performance from the Band of Indian Army and screening of latest Navy Day 2024 video.

Wreath Laying. Nau Sena Diwas 2024 celebrations commenced with solemn tribute to fallen sea warriors who made the supreme sacrifice in service of the nation. Chief Hydrographer & Joint Chief Hydrographer laid wreaths at the newly constructed 'Smrithi Sthal' at NHO, Dehradun on 04 Dec 24.

Blood Donation. A blood donation camp was organised at NHO, Dehradun on 27 Nov 24 in association with Military Hospital, Dehradun as part of Navy Week 24 activities. Large number of service personnel & Defence Civilians donated blood reinforcing spirit of service to the nation.

Navy Day at Home Function. An "AT HOME" function was conducted at NHO, Dehradun on 04 Dec 24 to commemorate victory of Indian Navy in the 1971 war. Lt Gen Gurmit Singh, PVSM, UYSM, AVSM, VSM (Retd), Hon'ble Governor of UK was the Chief Guest for the event. Sh Pushkar Singh Dhama, Chief Minister of UK also graced the occasion. The Governor released the new Nainital Lake Chart & ILRS Vol I & II. The Hon'ble Governor & CM addressed the gathering followed by the screening of latest NavyDay2024 video clip & performance by Indian Army band.



Navy Day at Home Function



Blood Donation



Blood Donation

सम्मान एवं पुरस्कार HONOURS AND AWARDS

(a) The following Officers were commended by President as follows:-

| SI | Name, Rank, P.No | Awarded with | Occasion |
|-----|----------------------------|--------------|-----------|
| (a) | VADM Lochan Singh Pathania | AVSM | 26 Jan 25 |

(b) The following Officers were commended by CNS as follows:-

| SI | Name, Rank, P.No | Occasion |
|-----|----------------------------------|--------------------|
| (a) | Cdr Varun Gupta | On Spot, 27 Dec 24 |
| (b) | Cdr Ashish Kumar | 19 May 25 |
| (c) | Rizwanullah Ansari, MCPO II | 19 May 25 |
| (b) | Manjit, PO(HY) | 15 Aug 24 |
| (c) | Rohit, LS(HY) | On Spot, 27 Dec 24 |
| (d) | Sunil Dutt, PCHO | On Spot, 24 Apr 24 |
| (e) | Hemant Kumar, Senior Draughtsman | On Spot, 24 Apr 24 |

(c) The following were commended by CNC/VCNS on occasion of independence day 2024 as follows: -

| SI | Name | Rank |
|-----|--------------------|------------|
| (a) | Sumit Narayan | LS (HY) |
| (b) | Ankush Kumar Verma | PO(HY) |
| (c) | Ramesh Das | PO(HY) |
| (d) | Pratyushman Rout | PO(HY) |
| (e) | Ananta Pradhan | PO(HY) |
| (f) | Sumit Kumar | Sea II(HY) |
| (g) | Jada Krishna Raja | LS(HY) |



सर्वश्रेष्ठ प्रचालन एवं नवीनीकरण पोत

BEST OPERATIONAL AND INNOVATION SHIPS

BEST OPERATIONAL SHIP



INS SARVEKSHAK

During the survey season 2023-24, the ship was allotted fourteen Hydrographic Instructions including Foreign cooperation surveys. The ship was operational for the maximum duration and recorded maximum number of days at survey ground. The ship has achieved projected survey and operational availability. ship has completed all assigned task in additional to command commitments. The quality of the data rendered was of very high standard. The ship is commanded by Capt Tribhuvan Singh during the period.



BEST INNOVATION SHIP



INS MAKAR

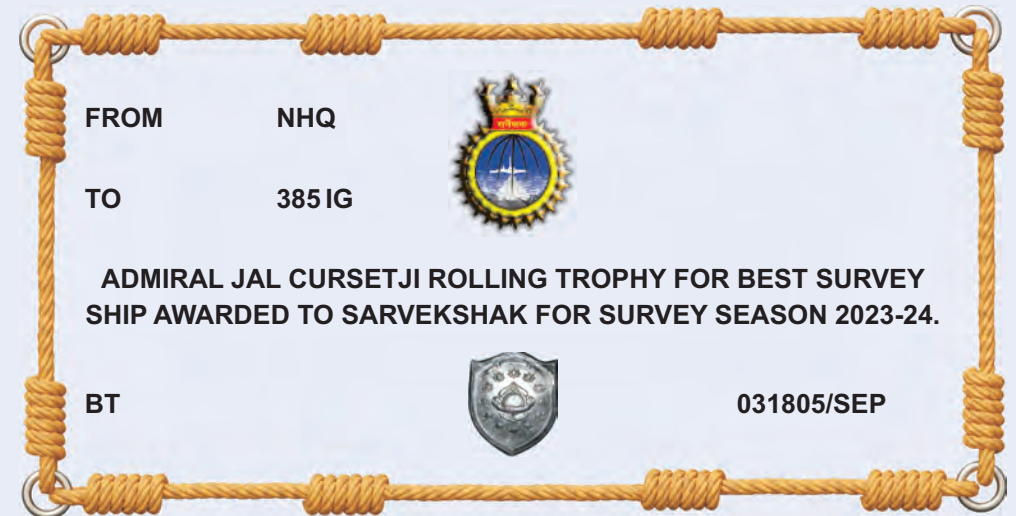
During the survey season 2023-24, the ship has put on creative efforts to enhance the productivity by means of undertaking tweaking, alteration and modification of existing equipment/system/procedure. The ship staff showed innovation in the field of side scan sonar operation like counter mechanism sea path heading, control of side scan sonar from bridge. The ship is commanded by Cdr Kishore Aer during the period.



२०२३-२४ अवधि के लिए सर्वश्रेष्ठ जल सर्वेक्षण पोत BEST SURVEY SHIP FOR SEASON 2023-24

'Admiral Jal Cursetji' - Best Survey Ship Rolling Trophy

A Rolling Trophy has been instituted in the memory of Admiral Jal Cursetji, PVSM, ADC (Retd), former CNS, to be awarded annually to the best Survey ship of the season. The aim of the trophy is to encourage professionalism in optimisation of surveying resources, effective execution of survey tasks for meeting the specified standards and for achieving excellence in the quality of survey data rendered, whilst at the same time kindling the competitive spirit amongst the surveying ships. The trophy is presented by the Flag Officer Commanding-in-Chief in whose Command the survey ship is based, in the presence of the Chief Hydrographer.



INS SARVEKSHAK

During the survey season 2023-24, the ship was allotted thirteen Hydrographic Instructions. The ship in addition to the allotted Hydrographic Instructions also contributed to various requirements projected by the command. The ship undertook arduous surveys and collected data with precision. The quality of the data rendered was of very high standard. The ship's company has shown exemplary professionalism, dedication and application in completing all the tasks allotted to the ship. The ship was commanded by Capt Tribhuvan Singh during the period.

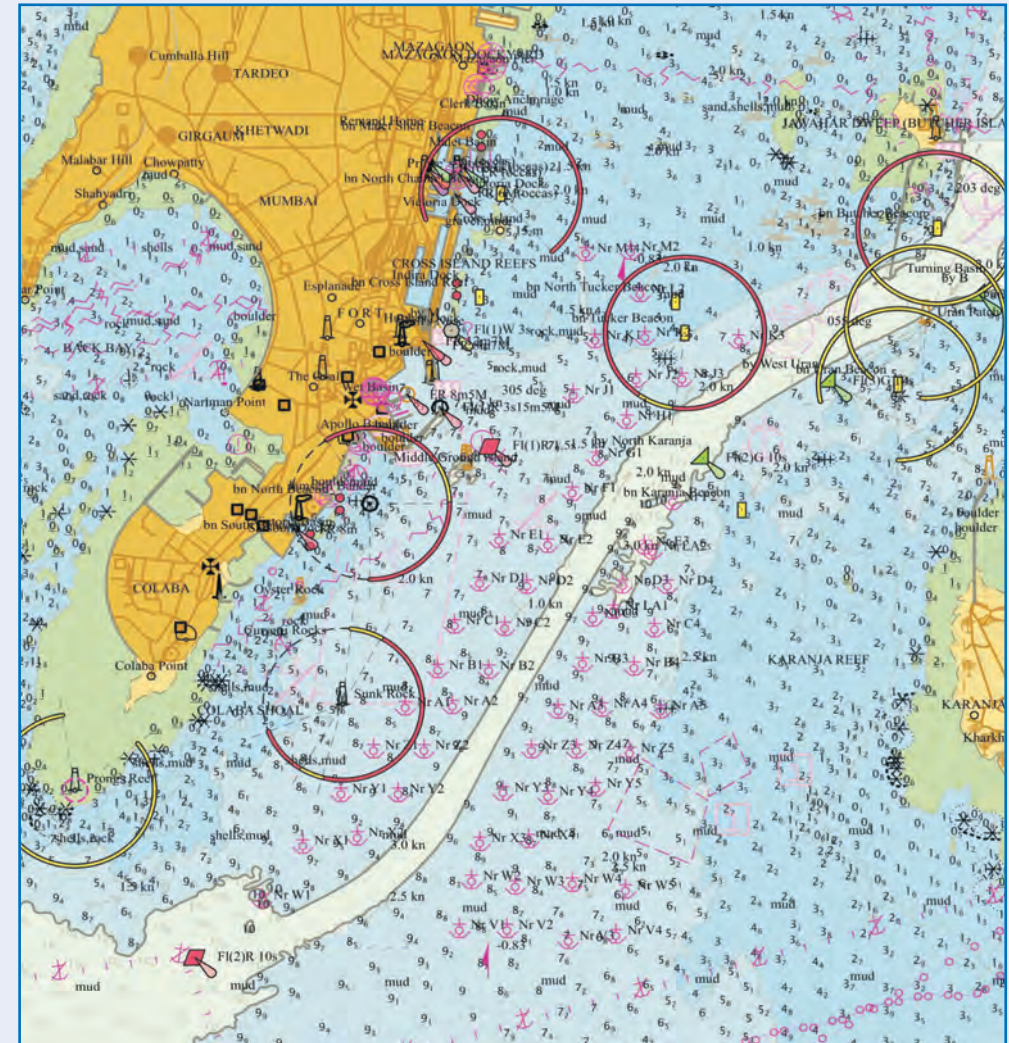


कागजीय मानचित्र PAPER CHART

List of New Charts and New Edition Charts published during the period are as follows:

| NEW CHART PRINTED (01 JUL 24 – 31 MAY 25) | | |
|---|-----------|--|
| Ser | Chart No. | Chart Title |
| 1. | 404 | Elphinstone Hr. To Port Blair |
| 2. | 2111 | Vizhinjam Ports |
| 3. | 4187 | Pulo Millow Anchorage; Meroe Island |
| 4. | 2049 | Devgarh Harbour |
| 5. | 2553 | Praslin Island |
| 6. | 2502 | Cargados Carajos (Saint Brandon) Anchorage |
| 7. | 2050 | Vizhinjam Anchorage |
| 8. | 5023 | OP Demo Puri |
| 9. | 6013 | Port Blair – Green Shoal |
| 10. | 6014 | Visakhapatnam Harbor Green Shoal |
| 11. | 6015 | App. To Karwar Green Shoal |

| NEW EDITION | | |
|-------------|-----------|---|
| Ser | Chart No. | Chart Title |
| 1. | 357 | Point Calimere to Chennai |
| 2. | 358 | Approaches to Palk Bay |
| 3. | 31 | Bay of Bengal-Northern Portion (Krishnapatnam to Bassein River) |
| 4. | 33 | Bay of Bengal-Southern Portion |
| 5. | 2123 | Ulwa Channel; Ambuja Ulwa Jetty |
| 6. | 2001 | Mumbai Docks |
| 7. | 2054 | Madhwad Bay |
| 8. | 2031 | Okha Harbour |
| 9. | 5010 | Indian Maritime Safety and Security |
| 10. | 2599-A | Male Atoll |



इलेक्ट्रॉनिक नौसंचालन मानचित्र ELECTRONIC NAVIGATIONAL CHART

New Edition Electronic Navigational Charts released during the period are as follows:

| NEW ENC | | |
|---------|----------|----------------------------------|
| Ser | ENC No. | Chart Title |
| 1. | IN2358AA | Approaches To Palk Bay |
| 2. | IN62111A | Vizhinjam Ports |
| 3. | IN233AAA | Bay of Bengal-southern Portion |
| 4. | IN3404AA | Elphinstone Harour To Port Blair |
| 5. | IN62111B | Vizhinjam Ports |
| 6. | IN63004A | Chennai Harbour |
| 7. | IN233AAB | Bay of Bengal-southern Portion |
| 8. | IN52049A | Devgarh Harbour |
| 9. | IN52553A | Praslin Island |
| 10. | IN54187B | Pulo Millow Anchorage |
| 11. | IN52054C | Madhwad Bay |
| 12. | IN52502A | Saint Brandon Anchorage |
| 13. | IN52050A | Vizhinjam Anchorage |

| NEW EDITION ENC | | |
|-----------------|----------|----------------------------------|
| Ser | ENC No. | Chart Title |
| 1. | IN54001H | Elphiston Harbour And Rangat Bay |
| 2. | IN3305GO | Approaches To Gopalpur |
| 3. | IN53043A | Gopalpur Anchorage |
| 4. | IN52054B | Madhwad Bay |
| 5. | IN2255AB | Approaches To Mumbai |
| 6. | IN63004C | Chennai Harbour |
| 7. | IN54181S | South Bay And Approaches |
| 8. | IN43034B | Approaches To Krishnapatnam |
| 9. | IN63034A | Krishnapatnam Port |

| | | |
|-----|----------|---|
| 10. | IN42100D | Approaches To Port Pipavav |
| 11. | IN62100B | Port of Pipavav |
| 12. | IN231BBN | Bay of Bengal-northern Portion |
| 13. | IN17705B | Arabian Sea |
| 14. | IN3205NR | Navibandar To Veraval |
| 15. | IN2357AA | Point Calimere To Chennai |
| 16. | IN2351AA | Paradip To Pusser River |
| 17. | IN44207A | St. Georges Channel |
| 18. | IN53007B | Nagapattinam Anchorage |
| 19. | IN53033B | Karaikal Anchorage |
| 20. | IN63033R | Karaikal Port |
| 21. | IN52514A | Approaches To Port Louis |
| 22. | IN2293AB | Mumbai To Karwar |
| 23. | IN2292AB | Dwarka To Mumbai |
| 24. | IN62123U | Ulwa Channel |
| 25. | IN62001U | Mumbai Docks |
| 26. | IN43026N | Approaches To Vadrevu And Nizampatnam Bay |
| 27. | IN53008I | Nizampatnam Anchorage |
| 28. | IN42029O | Approaches To Kochi |
| 29. | IN17706C | Bay of Bengal |
| 30. | IN52004C | Kochi Harbour |
| 31. | IN62045R | Port of Kochi |
| 32. | IN62106P | Mundra Port |
| 33. | IN52031H | Okha Harbour |
| 34. | IN52079M | Approaches To Mundra Port |
| 35. | IN43002P | Approaches To Vishakhapatnam |
| 36. | IN63012P | Visakhapatnam Harbour |

जल सर्वेक्षक HYDROGRAPHERS



| SI | Name | Rank |
|----|-----------------------|------|
| 1 | Lochan Singh Pathania | VAdm |
| 2 | Peush Pawsey | RAdm |
| 3 | Rajesh Bargoti | Cmde |
| 4 | Sajeev K Nair | Cmde |

| SI | Name | Rank |
|----|-----------------------------|------|
| 5 | Harshawardhan Arvind Hardas | Cmde |
| 6 | Satish Shivaji Bhosle | Cmde |
| 7 | Janakiraman Gurumani | Cmde |
| 8 | A Muralidhar | Cmde |

| SI | Name | Rank |
|----|--------------------------------|------|
| 9 | Renny Markose Thomas | Cmde |
| 10 | Vishal Sharma | Cmde |
| 11 | Ramkumar Bhaskaran Menon | Cmde |
| 12 | Yellepeddy Venkata Ramakrishna | Cmde |

| SI | Name | Rank |
|----|--------------------------------|----------|
| 13 | Mathew G Abraham | Capt |
| 14 | Tribhuvan Singh | Capt |
| 15 | Ajay Chauhan | Capt |
| 16 | Nattuva Dheeraj | Capt |
| 17 | Kuldeep Singh | Capt |
| 18 | Samir Shrikant Gokhale | Capt |
| 19 | Pradeep Singh | Capt |
| 20 | Rahul Bhatt | Capt |
| 21 | Chiriyankandath Praveen Thomas | Capt |
| 22 | Cyril Ignatius Speechly | Capt |
| 23 | BK Prasanna | Capt(TS) |
| 24 | Manamparambil Somasekhar | Capt(TS) |
| 25 | Anand Narayanan | Capt(TS) |
| 26 | Amit Pant | Capt(TS) |
| 27 | Prachit Mangrulkar | Capt(TS) |
| 28 | Satyabrata Senapati | Capt(TS) |
| 29 | SK Sajan | Capt(TS) |
| 30 | Partha P Chakraborty | Capt(TS) |
| 31 | Shakeel Ahmed | Cdr |
| 32 | Kamal Ashraf | Cdr |
| 33 | Kunduparambil Victor Paul | Cdr |
| 34 | Ratheesh Ramachandran | Cdr |
| 35 | Parikshit Kumar Shahrawat | Cdr |
| 36 | Aer Kishore Padam Singh | Cdr |
| 37 | Deependra Sesodia | Cdr |
| 38 | Varun Gupta | Cdr |
| 39 | Amit Kumar Padha | Cdr |
| 40 | Madhusudana Rao Maradana | Cdr |
| 41 | Ankush Sachdeva | Cdr |

| SI | Name | Rank |
|----|-------------------------|--------|
| 42 | Devender Singh | Cdr |
| 43 | Harshvardhan Savarna | Cdr |
| 44 | Urvish Kukreja | Cdr |
| 45 | Praben Kumar Gurung | Cdr |
| 46 | Linga Karteek Reddy | Cdr |
| 47 | P Kartik Muthukumar | Cdr |
| 48 | Ashish Kumar | Cdr |
| 49 | Pukhrambam Pratap Singh | Cdr |
| 50 | Mridul Kishore Sharma | Cdr |
| 51 | Yash Bhardwaj | Cdr |
| 52 | Arjun Malik | Cdr |
| 53 | Joash Lopez | Cdr |
| 54 | Rishabh Rawat | Cdr |
| 55 | Shaik Rafi | Lt Cdr |
| 56 | Denish Ganesan | Lt Cdr |
| 57 | Shreekant S | Lt Cdr |
| 58 | Varun Jai | Lt Cdr |
| 59 | Kumar Shaswat | Lt Cdr |
| 60 | Bipin Bhatt | Lt Cdr |
| 61 | Tarun Katiyar | Lt Cdr |
| 62 | Yerra Rohit Goud | Lt Cdr |
| 63 | Avishekh Yadav | Lt Cdr |
| 64 | Loghanathan Vedhachalam | Lt Cdr |
| 65 | Deepak Bisht | Lt Cdr |
| 66 | Shreyas Rana | Lt Cdr |
| 67 | Rohin Sodhi | Lt Cdr |
| 68 | Abhishek Chatak | Lt Cdr |
| 69 | Vinay Sharma | Lt Cdr |
| 70 | Umair Naeem Siddiqui | Lt Cdr |

| SI | Name | Rank |
|----|-----------------------------|--------|
| 71 | Bhaskar Chakraborty | Lt Cdr |
| 72 | Shibin Babu | Lt Cdr |
| 73 | Abhishake Sharma | Lt Cdr |
| 74 | Manjot Singh Gill | Lt Cdr |
| 75 | Shivang Raina | Lt Cdr |
| 76 | Franklin Anto Jose | Lt Cdr |
| 77 | Manreep Singh Oberoi | Lt Cdr |
| 78 | Sourabh Thakur | Lt Cdr |
| 79 | Anand Sangayya Charantimath | Lt Cdr |
| 80 | Vyas Chaudhari | Lt Cdr |
| 81 | Vishrut Singh Rawal | Lt Cdr |
| 82 | S Aditya | Lt Cdr |
| 83 | Rakesh Samal | Lt Cdr |
| 84 | Aalampreet Singh Mamik | Lt Cdr |
| 85 | Nitin Yadav | Lt Cdr |
| 86 | Shubham Vishnu Harné | Lt Cdr |
| 87 | Yogesh Bhatt | Lt Cdr |
| 88 | Devesh Avural Devrani | Lt Cdr |
| 89 | Vikrant Singh Thakur | Lt Cdr |
| 90 | Shaswat Nayak | Lt Cdr |
| 91 | Kaustubh S Jadoun | Lt Cdr |
| 92 | Ashish Kumar Yadav | Lt Cdr |
| 93 | C Pradeep | Lt Cdr |
| 94 | Victor Manjila | Lt |
| 95 | Satyam Tiwari | Lt Cdr |
| 96 | Aman Sharma | Lt |
| 97 | Dipak V Patil | Lt |
| 98 | Shubham Singh | Lt |
| 99 | Sanpreet Singh | Lt |

नाविक (हाइड्रो) SAILORS (HYDRO)

| Sl | Name |
|-----------------------------------|----------------------|
| Master Chief Petty Officer | |
| 1 | Rajeev K Singh |
| 2 | Rizwanullah Ansari |
| 3 | Sanjit Kumar |
| 4 | Rakesh Kumar Yadav |
| 5 | Subodh Kumar Gupta |
| 6 | Pramod Yadav |
| Chief Petty Officer | |
| 7 | PV Rao |
| Petty Officer & Below | |
| 8 | Monu |
| 9 | Praveen Kumar |
| 10 | Vishal Sharma |
| 11 | G Ramakrishna |
| 12 | Ranjit Behera |
| 13 | Bikash Chandra Samal |
| 14 | Subrat Kumar Biswal |
| 15 | Nihar Ranjan Panda |
| 16 | Ranjit Singh |
| 17 | Nikhil Yesudas |
| 18 | Krishna Kumar N |
| 19 | Kamlesh K Singh |
| 20 | Harish |
| 21 | Chittaranjan Sahu |
| 22 | Rajesh Kumar |
| 23 | Soumya Ranjan Sasmal |
| 24 | Janesh TB |
| 25 | Vinay K Mahato |
| 26 | Vikash Kumar |
| 27 | Niranjan Kumar |
| 28 | Ranjan Kumar |
| 29 | Krishan K Sharma |

| Sl | Name |
|----|---------------------------|
| 30 | Arun Kumar |
| 31 | Satyanarayan Swamy |
| 32 | Asim Abdullah |
| 33 | Anil Kumar |
| 34 | Suraj Kumar |
| 35 | Deepak Kumar |
| 36 | Amit Kumar Mishra |
| 37 | Jerripothula Eswara Rao |
| 38 | Alok Singh |
| 39 | Vivek Kumar |
| 40 | Parikshit Tripathi |
| 41 | Aanand Tewari |
| 42 | Manish Kumar Yadav |
| 43 | Vikash Kumar |
| 44 | Pawan Kumar |
| 45 | Ravinder |
| 46 | Pardeep Kumar |
| 47 | Pramod Kumawat |
| 48 | Sunil Lakshakar |
| 49 | Ramesh Das |
| 50 | Satvir |
| 51 | Vikas Kumar Shukla |
| 52 | Krishan Gopal |
| 53 | Gaurav Tiwari |
| 54 | Bharat Kumar Singh Rajput |
| 55 | Lalhmingliana Hmar |
| 56 | Vanlalchhanchhuaha |
| 57 | Kaushal Pratap |
| 58 | Rishikesh Porte |
| 59 | Jawarkar Govinda Jaganna |
| 60 | Laxmikanta Sahoo |
| 61 | Pratyushman Rout |

| Sl | Name |
|----|---------------------------|
| 62 | Biswajit Nayak |
| 63 | Dipti Ranjan Moharana |
| 64 | Bhukya Ranjith Kumar |
| 65 | Alok Kumar Barik |
| 66 | Shashikant |
| 67 | Vijender Kumar |
| 68 | Vikas Yadav |
| 69 | Ankit Kumar |
| 70 | Ravindra Kumar Chaunsali |
| 71 | Surjeet Singh |
| 72 | Jagadish Dehury |
| 73 | Sibananda Behra |
| 74 | Dharamvir Singh |
| 75 | Gunadhar Chowdhury |
| 76 | Vidyanand Mandal |
| 77 | Rana Subish Singh |
| 78 | Ananta Pradhan |
| 79 | Pankaj Rana |
| 80 | Rakesh Kumar Shaw |
| 81 | Vineet Kumar |
| 82 | Rakesh Kumar Lenka |
| 83 | Srinivasan V |
| 84 | Prashant Singh |
| 85 | Biltu Chel |
| 86 | Monu Kumar |
| 87 | Amit |
| 88 | Manjeet |
| 89 | Balraj Choudhary |
| 90 | Manjit Kumar |
| 91 | Dinesh Kumar Prajapat |
| 92 | Indrajeet Kumar Mehta |
| 93 | Shinde Premjit Ratnasinha |

| Sl | Name |
|-----|----------------------|
| 94 | Gurvinder Singh |
| 95 | Navjot Singh |
| 96 | Vikender |
| 97 | Suman Sedai |
| 98 | Harender |
| 99 | Sachin |
| 100 | Nitesh Sharma |
| 101 | Sonu Kumar |
| 102 | Sandeep |
| 103 | Dilip Kumar Gupta |
| 104 | Nilmadhab Pal |
| 105 | Bimal Kumar Panda |
| 106 | Avinash Kumar Bharti |
| 107 | Rajeev Ranjan Akela |
| 108 | Kapil Dev |
| 109 | Bhoop Singh |
| 110 | Sandeep Kumar |
| 111 | Gopal Dudi |
| 112 | Om Prakash |
| 113 | Trilok Yadav |
| 114 | Ashutosh Patel |
| 115 | Anada Ram |
| 116 | Sukh Veer Singh |
| 117 | Shivam Singh |
| 118 | Manendra Singh |
| 119 | Vikram Singh |
| 120 | Aditya Bhagat |
| 121 | Nitin Sharma |
| 122 | Sandeep Kumar |
| 123 | Ashwani Kumar |
| 124 | Brajesh Kumar |
| 125 | Nikhil Singh Rajput |

| SI | Name | SI | Name | SI | Name | SI | Name |
|-----|-------------------------|-----|---------------------------|-----|-------------------------|-----|------------------------|
| 126 | Mayank Sah | 164 | Mukesh Yadav | 202 | Sidhartha Sankar Jena | 240 | Rahul Singh |
| 127 | Vikas Tiwari | 165 | Sourav Kumar | 203 | Haresha Kumar Jeda | 241 | Rinku |
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| 130 | Leishemba Mangang | 168 | Ram Bilash | 206 | Himanshu Kumar Upadhyay | 244 | Hardeep Singh Jasrotia |
| 131 | Ankush Kumar Verma | 169 | Sandeep Kumar Vishwakarma | 207 | Vikas Awasthi | 245 | Vinod Bhandari |
| 132 | Niraj Kumar Pande | 170 | Zahid Husain | 208 | Shivam Kumar | 246 | Vivek Kumar |
| 133 | Shubham Awasthi | 171 | Navpreet Singh | 209 | Biswanath Nahak | 247 | Manjesh Kumar |
| 134 | Dharminder Singh | 172 | Manish Kumar Swami | 210 | Nem Singh | 248 | Satish Patil |
| 135 | Hemant Singh Papola | 173 | Manoj Kumar Giri | 211 | Ravi Prakash | 249 | Sagolsem Ramesh Meitei |
| 136 | Abhishek Kumar Sharma | 174 | Gaurav Mishra | 212 | Pramod Kumar | 250 | Harendra Singh |
| 137 | Raman Kumar | 175 | Sandesh N Waghmare | 213 | Tara Chand Saini | 251 | Shekhawat Nirmal |
| 138 | Shyam Saritendra | 176 | Janki Raman | 214 | Manepalli Manohar | 252 | Abhishek Kumar |
| 139 | Mukesh Kumar Tetarwal | 177 | Ajay Kumar | 215 | Vikram Saini | 253 | Pintu Kumar |
| 140 | Adeep Kumar | 178 | Ajay Kumar | 216 | Nalla Pradeep | 254 | Shiv Kumar |
| 141 | Nitendra Sherawat | 179 | Naresh Singh Chauhan | 217 | Prahlad Ram | 255 | Mohit Kumar |
| 142 | Lokendra Singh Rathore | 180 | Omprakash | 218 | Tanuj Kumar | 256 | Sunil Kumar |
| 143 | Shubham Singh | 181 | Vikash Kumar | 219 | Shailesh Kumar Dixit | 257 | Yashvant Kumar |
| 144 | Vaibhav Kumar Singh | 182 | Jitendra Saini | 220 | Mukesh Kumar Pathak | 258 | Mind Nikhil Hanmant |
| 145 | Mayur Joshi | 183 | Pawan Singh Shekhawat | 221 | Vijay Kumar R | 259 | Kottana Yernauidu |
| 146 | Suryakant Thapliyal | 184 | Pulari Jagadeesh | 222 | Anish Kumar | 260 | Polaki Harish |
| 147 | Sanjay Singh Gusain | 185 | Narendra Singh | 223 | Siddula Ravi | 261 | Dheeru |
| 148 | Suman Kumar | 186 | Rakesh Singh | 224 | Shukadev Jena | 262 | Vijay Singh |
| 149 | Amolak Singh | 187 | Diptiranjana Sahoo | 225 | Ravi Kumar Yadav | 263 | Amit Kumar |
| 150 | Sudipta Sahu | 188 | Satnam Singh | 226 | Devender Kumar Rawat | 264 | Arun Kumar |
| 151 | Kuldeep Singh | 189 | Dharampal | 227 | Sukhwinder Singh | 265 | Rabindra Nath Pradhan |
| 152 | Shamsher Singh | 190 | Mukesh Kumar | 228 | Vivek Puri | 266 | Amit |
| 153 | Deepak | 191 | Kc Lallianpuia | 229 | Kalicharan Kushwah | 267 | Suraj Kumar Bhuyan |
| 154 | Satyajit Sahoo | 192 | Gopal Tomar | 230 | Devender Pal | 268 | Sonu Kumar |
| 155 | Sameer Dattatray Kamble | 193 | Saurabh Gupta | 231 | Balwant | 269 | Santosh Kumar Sahu |
| 156 | Raju Karmakar | 194 | Mukul Kumar Sharma | 232 | Sombir | 270 | Jai Prakash Gupta |
| 157 | Manoj Kumar | 195 | Gurjeet Singh | 233 | Vikram Singh Parmar | 271 | Vikash Kumar |
| 158 | Vikash Kumar | 196 | Aman Kumar Verma | 234 | Pulaboina Sudhakar | 272 | Vishwajeet Tripathi |
| 159 | Balwan | 197 | Harprit Singh | 235 | Yogendra Singh Yadav | 273 | Manish Kumar Patel |
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| 162 | Aditya Pratap | 200 | Vikram Singh | 238 | Deepak Jangir | 276 | Kirti Vardhan |
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| SI | Name | SI | Name | SI | Name | SI | Name |
|-----|--------------------------|-----|-----------------------------|-----|--------------------------|-----|-----------------------|
| 278 | Kakuturi Sunil Kumar | 316 | Anikit Kumar Yadav | 354 | Rakesh Kumar | 392 | Hariram |
| 279 | Ungati Ramakrishna | 317 | Bhagirath Lukha | 355 | Vikas Chand | 393 | Sonu Jaglan |
| 280 | Vavilapalli Manmadha Rao | 318 | Om Singh | 356 | Rohit Soam | 394 | Devendra Singh |
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| 284 | Ravi Jangid | 322 | Sanjeev Kumar | 360 | Karthik Yadav | 398 | Parsuram Bhanwaria |
| 285 | Yogesh Kumar Yadav | 323 | Sonu | 361 | Ravinder Singh | 399 | Shreyam Sharma |
| 286 | Vinay Kumar | 324 | Yogesh Kumar | 362 | Bhaskar Mondal | 400 | Ashutosh Pratap Singh |
| 287 | Vikash | 325 | Vijayan A | 363 | Ankush Raj | 401 | Ashish Kaushik |
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| 293 | Prashant Shandilya | 331 | Varun Jyoti | 369 | Hemant Kumar | 407 | Naveen Kumar |
| 294 | Mohit | 332 | Sandeep Kumar | 370 | Nitesh Balyan | 408 | Devendra Kumar |
| 295 | Jada Krishna Raja | 333 | Rajkumar | 371 | Ankit | 409 | Pankaj |
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| 301 | Soumya Ranjan Rout | 339 | Tarunjeet Singh | 377 | Gajendra Singh Rathore | 415 | Anil Kumar |
| 302 | Inderjeet | 340 | Ganesh Chaudhry | 378 | Shokey | 416 | Amit Rana |
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| 313 | Abdul Wadood Umar | 351 | Vighnesh Kamalakar Bhandari | 389 | Parva Balakrishna Reddy | 427 | Mahesh Kumar |
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| 315 | Avinash Chaudhary | 353 | Nayakodi S Tukaram | 391 | Avinash Thakur | 429 | Ladu Ram Saini |

| SI | Name | SI | Name | SI | Name | SI | Name |
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| 430 | Daksh Mehta | 468 | Vivek Kumar | 506 | Harshit Chauhan | 544 | Palagani Kumar Raju |
| 431 | Sagar Mathur | 469 | Sangam | 507 | Ritik Yadav | 545 | Naiki Naveen |
| 432 | Mohit | 470 | Jeetendra Pathak | 508 | Sippy Singh | 546 | Maddila Mohan |
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| 434 | Sunil | 472 | Mukul Tomar | 510 | Bendi Dhilleswara Rao | 548 | Yogesh Kumar |
| 435 | Vijay Kumar | 473 | Varinder Singh | 511 | Bhupendra Dewangan | 549 | Maddila Ganeswara Rao |
| 436 | Sandeep Kumar | 474 | Rishabh Aharma | 512 | Praveen Muddada | 550 | Shivananad Shrimant Mudalagi |
| 437 | Sujit Kumar | 475 | Jitendra Prasad | 513 | Sheelam Pranay | 551 | Baman Amar Singh |
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| 440 | Jay Kadam | 478 | Prajwal Sanjay Duduskar | 516 | Niranjan Kumar | 554 | Ganesh A |
| 441 | Praveen Kumar | 479 | Gourav Sharma | 517 | Prashant Singh | 555 | Karri Manmadha Rao |
| 442 | Mahesh Jhinjha | 480 | Ritik Kalia | 518 | Ajay Balyan | 556 | Suvadra Pradhan |
| 443 | Mustak Ali | 481 | Hrithik Sharma | 519 | Vipul Jadaun | 557 | Km Radha Mishra |
| 444 | Manish Khoja | 482 | Aiman Bharaj | 520 | Suresh Ashok Avakkanavar | 558 | Ritu Bind |
| 445 | Sanket Lambore | 483 | Dara Singh | 521 | Chidananda H Bevinahalli | 559 | Nikki Pandey |
| 446 | Yogesh Kumar | 484 | Md Afzal Hussain | 522 | Basavakiran Vithal Pyati | 560 | Swarup Kumar Dash |
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| 448 | Aryan Kumar | 486 | Gaurav Kumar Dagur | 524 | Mahesh Nayamagoud | 562 | Aayush Kumar Singh |
| 449 | Atul Singh | 487 | Banka Ram | 525 | Aditya Salunke | 563 | Anjali Adhikrao Patil |
| 450 | Sudhir Kakasaheb Kolekar | 488 | Pranav Kumbhar | 526 | Vipul Patil | 564 | Abhishek Shivaji Jadhav |
| 451 | Shijil Benoy | 489 | Khedkar Deepak Mahadev | 527 | Yaku Moodu | 565 | Sayali Santosh Wangade |
| 452 | Tribhuwan Singh Dhami | 490 | Akash A | 528 | Sateesh Karaka | 566 | Abhishek Balasaheb Bhise |
| 453 | Yogesh Awasthi | 491 | Satyanarayana Landa | 529 | Attiliy Prem Kumar | 567 | Arjun Bijukumar |
| 454 | Pawan Kumar | 492 | Manash Pratim Das | 530 | Aakash P | 568 | Yuvraj Singh Gurjar |
| 455 | Vipin Kumar | 493 | Kunal Chaudhary | 531 | Manja Janardhan | 569 | Rahul Baburao Kadam |
| 456 | Azeem Ahmed | 494 | Rohit Gupta | 532 | Jayasurya M | 570 | Alok Kumar |
| 457 | Kanchu Balarangaiah | 495 | Parth Chavan | 533 | Chavan Harilal | 571 | Mo Junaid |
| 458 | Manjeet Kumar Monu | 496 | Ginna Dhamodar | 534 | Abinesh M | 572 | Priya Upadhyay |
| 459 | Killi Ram Dinesh | 497 | Parmeshwar | 535 | Neelappa Iholi | 573 | Rishi Sharma |
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| 461 | Tushar Kanti Das | 499 | Adapa Vevendra | 537 | Saibal Mandal | 575 | Anjali Singh |
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| 463 | Sarwagya Pandey | 501 | Abhishek | 539 | Vivek Kumar Sahu | 577 | Ritika Singh |
| 464 | Jayjeet Kumar Gupta | 502 | Balram Bunkar | 540 | Pogiri Jagadeesh | 578 | Pankaj Nilkanth Mandal |
| 465 | Abhishek Sujit Vibute | 503 | Sai Madhu Bukkuri | 541 | Yashodeep Yuvaraj Mane | 579 | Abhishek Rajput |
| 466 | Jay Kumar Sharma | 504 | Sudip Modal | 542 | Koduru Kumar Swamy | 580 | Srikanth L Meti |
| 467 | Amit Kumar | 505 | Dilip Kumar | 543 | Gajjala Arun Goud | 581 | Suresh Dagur |

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The following personnel of the department have retired after rendering meritorious and distinguished service to the Navy. This Department wishes them a highly successful and satisfying second innings and urges them to keep in touch with the hydrographic fraternity.



CAPT NIRAJ THAPLIYAL



CAPT DEEPAK SHARMA



CAPT A ANANDA KRISHAN



CDR CHITTARANJAN KUMAR SINGH



ARUN KN NAIR
MCPO II



MAHESH SINGH RANA
PO



SHIV KUMAR
PO



SHIVENDER SINGH
PO



DARSHAN KUMAR
PO



MANARAM BURIYA
PO



MAHIPAL YADAV
PO



GIRISH KUMAR VERMA
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PAVITTER SINGH
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HARPREET SINGH
PO



AMOLAK SINGH
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