



10th RSAHC MEETING

National Report

PAKISTAN



International Hydrographic Organization
Organisation Hydrographique Internationale

10th RSAHC Meeting –Jeddah KSA



SCHEME OF PRESENTATION

- Introduction
- Hydrographic Surveys
- Progress on Survey
- New Charts & Updates
- New Publications & Updates
- Maritime Safety Information (MSI)
- Capacity Building
- Oceanographic Activities
- Other Activities





NATIONAL HYDROGRAPHIC OFFICE-PAKISTAN



- Previously recognized as Pakistan Navy Hydrographic Department (PNHD) established in 1949
- Primary authority entrusted with conducting hydrographic surveys within Pakistan
- Publishes nautical charts, ENCs & relevant publications
- Represents Pakistan at all national & Int'l hydrographic related forums
- Support Govt. in delimitation of maritime boundaries
- Conducts hydrography related training in Pakistan





HYDROGRAPHIC SURVEYS

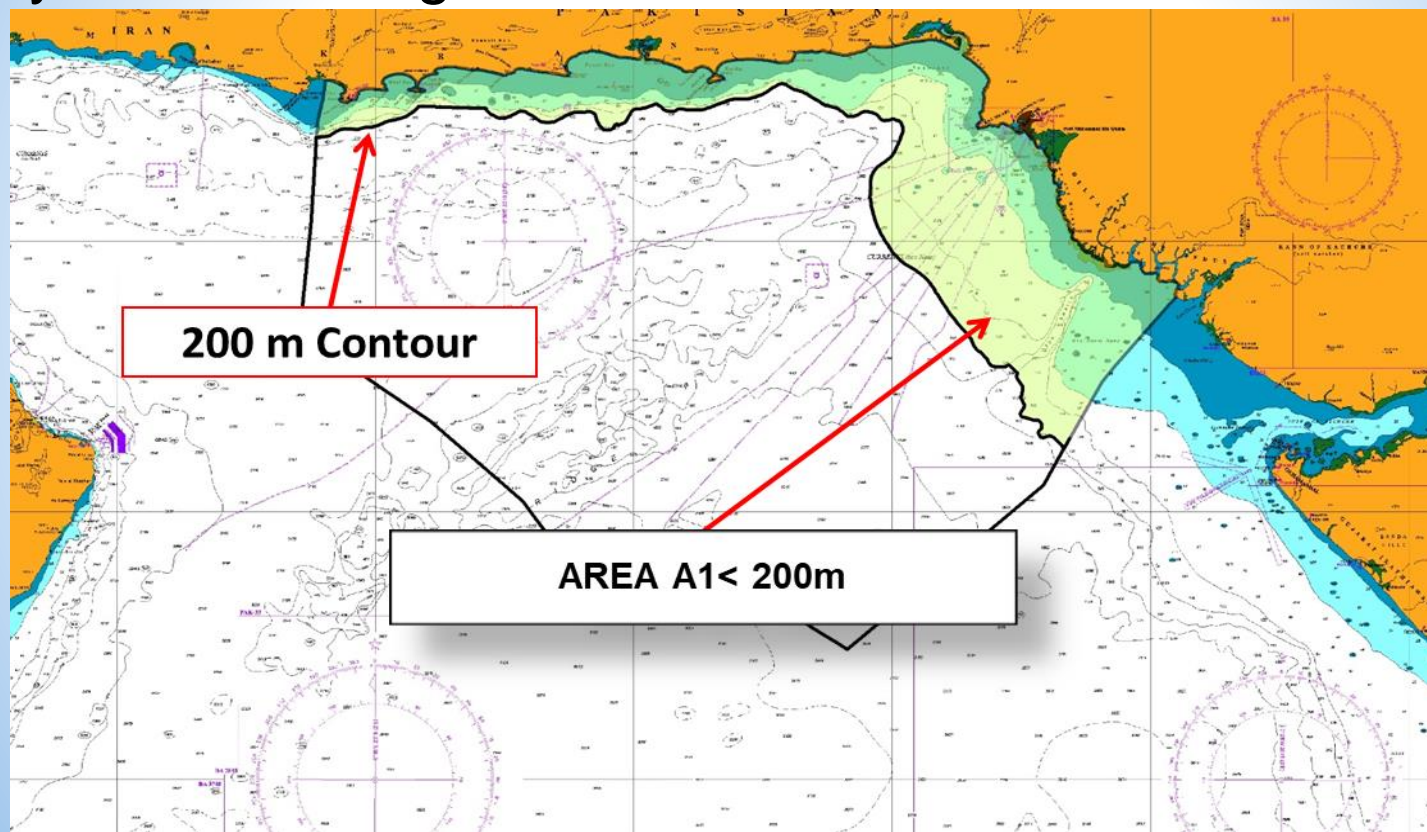
- Over 1000 Km long coast
- Divided into Makran coast & Indus Delta
- Indus Delta lies from east of Karachi till Sir Creek
- Makran Coast lies west of Karachi till Gwatar Bay
- Hydrographic cum oceanographic survey vessels BEHR PAIMA & BEHR MASAH conduct survey of coastal as well as deep waters
- A Field Survey Setup (FSS) for emergent nature of surveys in shallow water & creek areas





PROGRESS ON SURVEYS

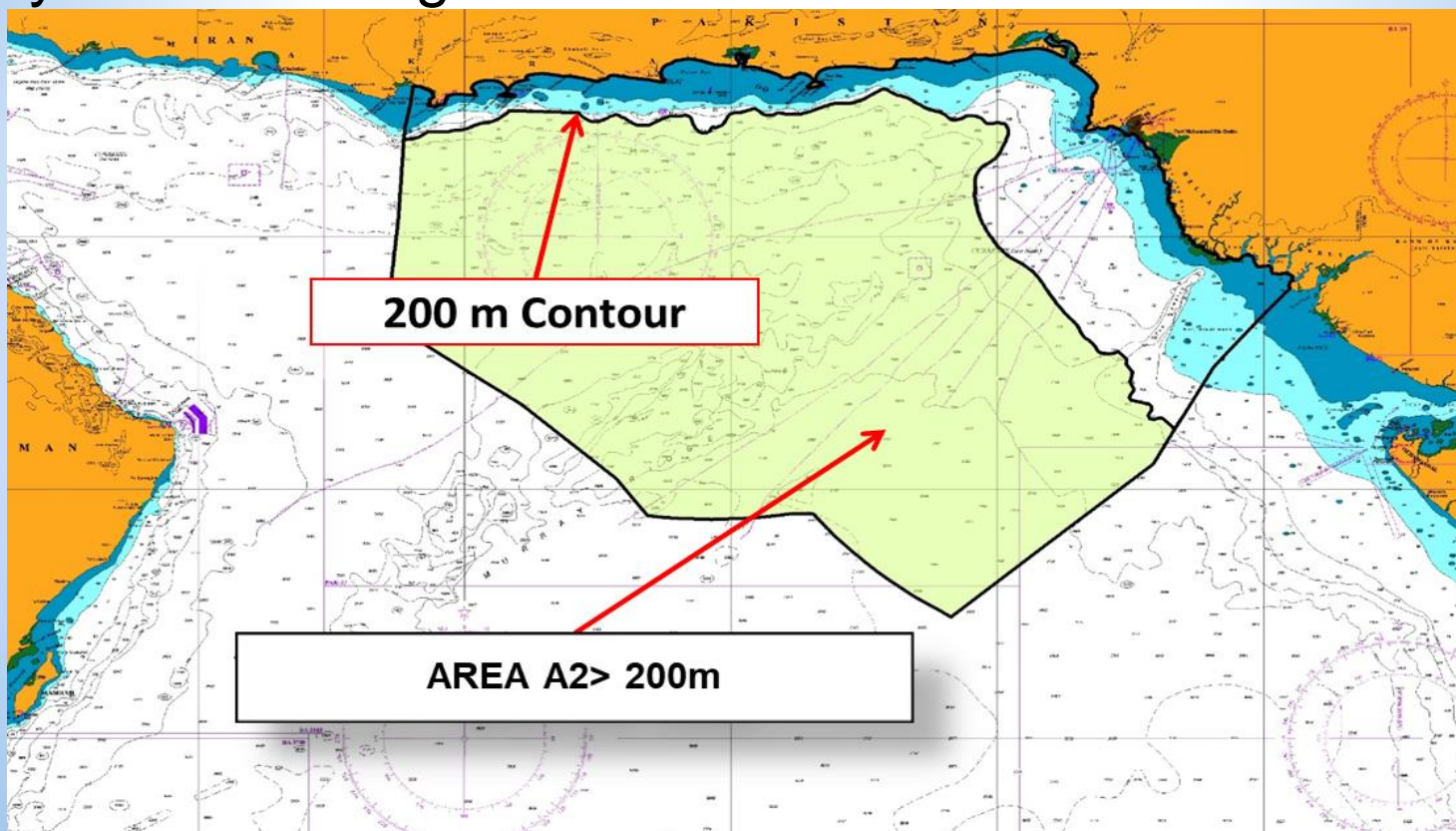
- A1 category area coverage increased to 99%





PROGRESS ON SURVEYS

- A2 category area coverage increased to 68%





NEW CHARTS AND UPDATES

- Published new edition of 01 x chart with corresponding ENC's
- New editions of three paper charts with ENC's in the final stages
- 04 x paper charts designated for national use by the Government
- Utilizing services of IC-ENC for data validation & distribution of ENC's
- Conducts necessary quality checks prior forwarding to IC-ENC for validation
- Published 41 Charts/ENC's of different scales
- Out of these, 8 charts presently form part of INT area "I & J" of S-11





NEW PUBLICATIONS & UPDATES

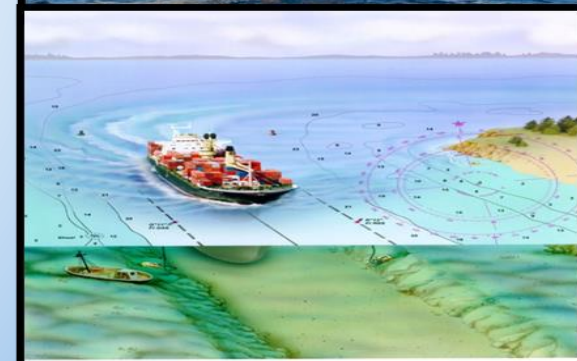
- NHO publications:
 - Weekly Notices to Mariners (NTMs)
 - Annual Summary of Notices to Mariners (NTMs)
 - Annual Pakistan Tide Table
 - Annual Sun & Moon Rise/ Set Table
- Publications available on NHO website (www.paknavy.gov.pk/hydro)





MARITIME SAFETY INFORMATION

- Being NAVAREA IX Coordinator responsible for MSIs
- Under GMDSS two types of MSIs
 - NAVAREA IX warnings through International Safety Net
 - Coastal warning through INMARSAT and IRIDIUM Satellites
- NAVAREA IX broadcast daily 0300 & 1500 UTC
- Coastal warnings as and when required
- Weather messages transmitted at 0800 & 1800 UTC daily
- All NAVAREA IX warnings made available on website





MARITIME SAFETY INFORMATION

MESSAGES TRANSMITTED – LAST 3 YEARS

NAVAREA IX WARNINGS	2021	2022	2023	Till 18 Nov 2024
	517	526	479	452





CAPACITY BUILDING

- National School of Hydrography (NSH) conducting Cat B since 2009
- 03 x Pakistani Officers completed Cat B course in 2024
- Officers undergo Cat B course from Australia, Indonesia & USA
- Cat A courses from UK
- Officers also trained cartography
- Sufficient training facilities to train survey recorders





CAPACITY BUILDING

- 2 x officers completed Basic Hydrographic Surveying Course from Australia
- 1 x officer completed MS leading to PhD in Physical Oceanography & Remote Sensing from University of Melbourne, Australia
- 1 x Officer nominated for Cat B course in Indonesia
- 1 x officer participated in S-57 to S-101 Conversion course at Oman
- NHO offers assistance to regional countries
 - Hydrographic surveys
 - Basic Survey Recorder / Technician Course
 - Cat B Hydrographic Course





OCEANOGRAPHIC ACTIVITIES

- Oceanographic activities in collaboration with National Institute of Oceanography (NIO) - Pakistan
- Oceanographic cruises for various oceanographic observations & data collection
- Data processing at NIO adequately equipped for the tasks





OCEANOGRAPHIC ACTIVITIES

- Tide Gauge Network installed with the assistance of IOC includes
 - Karachi, Ormara, Gwadar & Keti Bandar
- Tidal data used for sea level measurements & tidal predictions
- PNS BEHR MASAH equipped with
 - Wave meter, ADCP & Rosette Water Sampler
 - Significantly enhanced oceanographic capability





OTHER ACTIVITIES

- NHO actively participated in activities
 - Attended MSI training course in Oct 2023 in Masqat, Oman
 - Participated in S-57 to S-101 Conversion training in May 2024 in Masqat, Oman
 - Attended 23rd North Indian Ocean Hydrographic Commission (NIOHC) meeting at Chiang Mai, Thailand from 21 to 23 May 24
 - Attended virtually annual meetings of WWNWS in March & September 2024
 - Participated in MSI training course in Bahrain in Oct 24





CONCLUSION

- Carrying out surveys of waters under national jurisdiction
- Actively participating in all national, regional & international maritime activities & forums
- Completed surveys of entire coast of Pakistan & published relevant charts/ENCs
- At present, resurveys of critical areas & new surveys including deep sea
- NAVAREA IX responsibility for Nav warnings being effectively fulfilled
- ENC cells adequately covering shipping route of Arabian Sea made available to commercial shipping





RECOMMENDATIONS

- Courses/ trainings regarding ENC's conversion from S-57 to S-101 & implementation of S-100 standards may be regularly conducted
- Training/ courses regarding implementation of MSDI at national level may be conducted by member state that have already established MSDI setup & trained HR





THANK YOU



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