



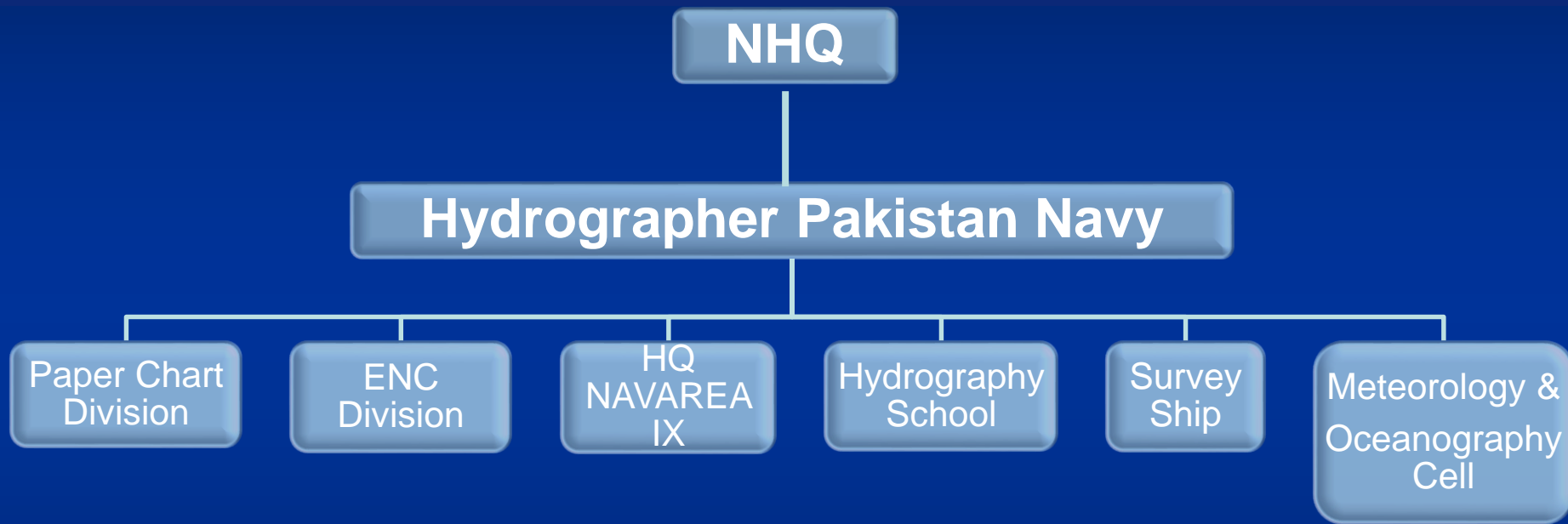
Pakistan National Report

NORTH INDIAN OCEAN HYDROGRAPHIC COMMISSION (NIOHC)

25 – 28 MARCH 2019, MUSCAT, OMAN



PRESENT ORGANIZATION





SURVEYS



Coverage of New Survey

- A1 category area coverage increased to 92% (Modern surveys)
- A2 category area coverage increased to 35% (Modern surveys)



SURVEYS



New Technologies / Equipment

SV BEHR PAIMA is well equipped to undertake all kind of hydrographic and physical oceanographic surveys

- MBES/ Deep sea E/S
- Multi Frequency SSS
- RTK & Satellite based DGPS
- SV Probe, CTD
- Current Meters, Tide Gauges





SURVEYS



New Technologies / Equipment

- Delivery of new survey vessel expected in August 2019
- Its induction will enhance capability and capacity towards hydrographic, oceanographic and geo-physical surveys





Hydrography	Oceanography	Geophysical
MBES (Hull Mounted) SeaBat 7160	Wave Meters (Nortek AS)	Gravity Corer
Compact MBES for Boats -Seabat T20-R	Rosette Water Sampler	Sub Bottom Profiler (ECHOES 3500)
Dual Frequency Side Scan Sonar – CM2	ADCPs-RDI	Magnetometer (Marine Magnetics)
Synthetic Aperture Sonar DT 6000 /ROV for multiple sensors	Tide gauges	Gravity Meter (SCINTREX Autograv CG-6)



NEW CHARTS AND UPDATES



ENCs

- ENCs of all major ports and approaches are available to mariners
- ENCs of Karachi Deep Water Port (large scale) and off Cape Monze (approach Nav band) will be available by Dec 19

RNCs

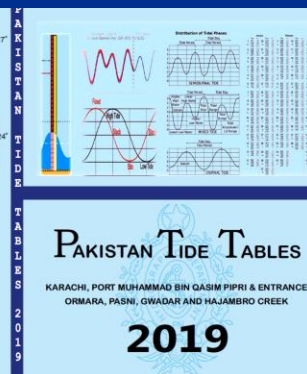
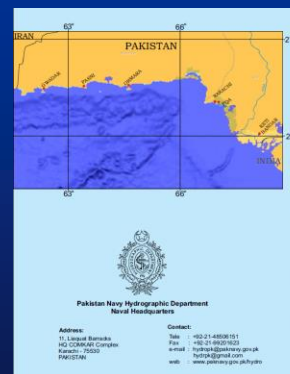
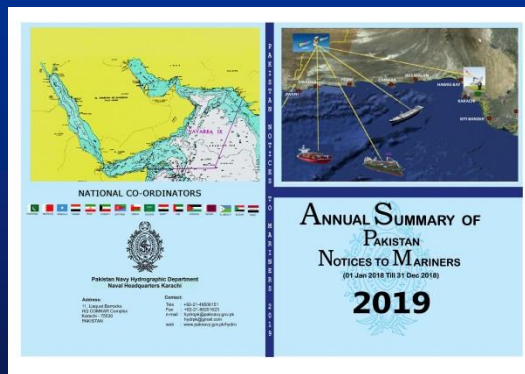
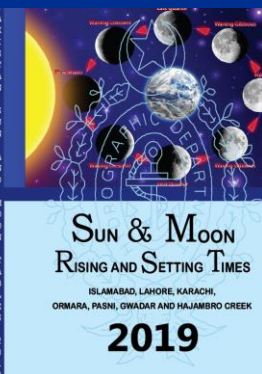
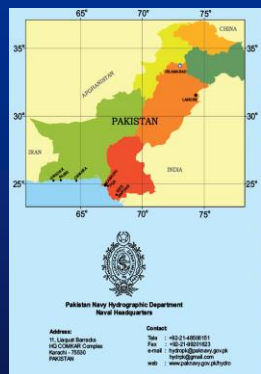
- PNHD is neither producing nor has plans to produce RNCs



PUBLICATIONS AND UPDATES



- Following publications are printed by PN Hydrographic Department on weekly and annual basis:
 - Weekly Notices to Mariners (NTMs)
 - Annual Summary of NTMs
 - Annual Pakistan Tide Table
 - Annual Sun & Moon Rise / Set Table





MARITIME SAFETY INFORMATION



- Pakistan being NAVAREA-IX Coordinator transmit following types of MSI:
 - NAVAREA IX warnings through International Safety Net
 - Coastal warnings
- NAVAREA IX broadcast is passed daily at 0300 and 1500 UTC through INMARSAT using LES Burum



STATUS OF HYDROGRAPHIC SURVEYING (C-55)



Depth	A	B	C
<200m	92	8	0
>200m	35	65	0



CAPACITY BUILDING



- PNHD conducts Cat B (Hydro) at Hydrography School. 01 officer from Azerbaijan alongwith 04 PN officers attended Cat B course in 2018
- In 2018, PNHD officers undergone Cat B Hydrography from Australia and Cat B Cartography from UK
- At present, 01 officer is undergoing Cat A Hydro at UK



OCEANOGRAPHIC ACTIVITIES



General

- Oceanographic activities in Pakistan are carried-out by PNHD in collaboration with Pakistan National Institute of Oceanography (NIO)
- Oceanographic cruises are arranged in which scientists from both the organizations participate actively for various oceanographic observations and data collection
- The processing of data is carried out at NIO



OCEANOGRAPHIC ACTIVITIES



Tide Gauge Network

- Four in number IOC provided automated tide gauges i.e. at Karachi, Ormara, Gwadar and Ketu Bandar are installed

Equipment under procurement

- Wave meter, ADCP and Rosette Water Sampler are being procured with new survey vessel



OTHER ACTIVITIES



- PNHD actively participates in following hydrographic related activities:
 - Participation in IHO Working Groups
 - Conduct of Inland water surveys on rivers and dams upon requirement
 - Supports various maritime and research activities in national waters
 - Maintenance of National Hydrographic Data Bank (NHDB)



THANK YOU