20th Meeting of the North Indian Ocean Hydrographic Commission

National Report by

PUSHIDROSAL-INDONESIA

Main achievements during the year

a. Hydrographic re-survey for ± 28,718 km²

b. Updated 250 numbers of Nautical Charts

c. Updated 473 cells of ENC

d. Published Notice to Mariners (weekly)

e. Published Navigational Warning

f. Maintains 11 Telemetry tidal station and connected with 159 station Geospatial And Information Agency

g. Maintains 3 Maritime Telemetry AWS and connected with 7 station Meteorology And Climatology Agency

h. Participateded on SAR and natural disaster relief and mitigation

- MV Yunicee ferry accident in Bali Strait (29 June 2021);
- Sriwijaya Air – SJ182 in Java Sea (9 January 2021)

Main challenges and/or obstructions

PUSHIDROSAL SURVEY ACTIVITY DURING 2010-2020

Progress on **surveys**, charting and MSI

- **Conducted 22 Hydrographic Surveys**
  - 7 survey by Survey vessels
  - 15 surveys Surveying unit

- **Prorities of Area Surveys.**
  - Channel.
  - Ports.
  - Archipelagic Sea Lanes (ASL).
  - Busiest Water.
  - Straits.

Progress on surveys, **charting** and MSI

- Updated 250 paper chart from 578 numbers of Indonesian paper charts.
- Updated 473 and made 85 new ENC cells.
- Updated cartography software.
  - CARIS HPD.
  - SevenCs ENC Tools.
  - CARIS GIS.
  - D'Kart Inspector.
- Migrating process from S-57 to S-100.

Progress on surveys, charting and MSI

- Supporting Directorate General of Sea Transportation in carrying out MSI responsibilities.
- Published new publications and updates such as Nautical Almanac, Tidal Stream Tables, Tide Tables, Sailing Direction Region II and III, List of Coastal Indonesian Radio Station.
- Published Notices to Mariners and Navigational Warnings.
- Conducted Capacity Building Program on MSI Course and MSI Data Base Workshop for EAHC and NAVAREA XI members.

Progress on MSDI

- Pushidrosal develop **Indonesian Marine Geospatial Information Centre (IMAGIC), it** connect to other maritime portal in Indonesia and can be accessed at http://imagic.pushidrosal.id/ Users can access survey area, interactive sailing chart, e-navigation and the newest information is **Indonesian Digital Elevation Model (DEM)**

- Indonesia government also develop national maritime portal **National Ocean data Center**, can be accessed at **http://nodc.id**

Capacity Building

Participated in International Education and Long Course

1. Attending Cat-A Hydrographic Course, India.
2. Attending Cat-A Hydrographic Course, ITB Indonesia.
3. Attending Cat-B Hydrographic Course, Japan.
4. Attending Cat-B Hydrographic Course, ROK.
5. Attending Cat-B Hydrographic Course, AHO.
6. Attending Cat-B Hydrographic Course, USA.
7. Attending Brevet Superieure Hydrographique, France.

Capacity Building

Participated in International Short Course, Seminar, Workshop, etc.

1. Attending **Alumni IHO-Nippon Seminar** in Singapore.
2. Attending **Training Workshop on Delimiting Maritime Boundaries** in France.
3. Attending and assisting **Risk Assessment for Hydrographic Surveys and Charting Management for the Safety Navigation** in Brunei Darussalam.
4. Attending **Training for Ocean Observation and Hydrographic Survey** in Republic of Korea.

Other Activities

- **Participation in IHO Working Groups**

NO.	MEETING	MEMBER/ASOCIATE	REMARKS
1.	Hydrographic Service and Standards Committee (HSSC)	M	
2.	Nautical Cartography Working Group (NCWG)	M	
3.	Data Quality Working Group (DQWG)	M	
4.	Marine Spatial Data Infrastructures Working Group (MSDIWG)	M	
5.	S-100 Working Group (S100WG)	M	
6.	Nautical Information Provision Working Group (NIPWG)	M	
7.	Tides, Water Level And Currents Working Group (TWCWG)	M	
8.	ENC Standards Maintenance Working Group (ENCWG)	M	
9.	Hydrographic Dictionary Working Group (HDWG)	M	
10.	East Asia Hydrographic Commission (EAHC)	M	Vice Chair
11.	North Indian Ocean Hydrographic Commission (NIOHC)	M	
12.	South West Pacific Hydrographic Commission (SWPHC)	A	
13.	FIG/IHO/ICA – International Board on Standards of Competence for Hydrographic Surveyor and Nautical Cartographers		
14.	GEBCO Sub Committee on Undersea Feature Names (SCUFN)		
15.	IHO Council	M	
16.	Malacca and Singapore Straits (MSS) ENC	M	Coordinator

Plans that affect the region

IHO Category B Training Program

- Since 1993 Indonesia Naval Hydrographic and Ocenographic Centre, Conducted *"Nautical Charting Hydrography* and *Coastal Zone Management"* Course
- Recognize as IHO Cat B Program by IHO, FIG and ICA
- Reacreditation on (1993, 1994, 2006, 2013 and 2020 (on Progress))
- Since 2012 education followed by Naval Foreign Officer

From IHO Member State:

1. Malaysia : 8 Officers
2. Vietnam : 4 Officers
3. Thailand : 3 Officers
4. China : 2 Officers
5. South Korea : 1 Officers
6. Philippines : 1 Officers
7. Sri Lanka : 1 Officers
8. Pakistan : 2 Officers

N° 141

FIG/IHO/ICA International Board on
Standards of Competence for Hydrographic Surveyors
and Nautical Cartographers -IBSC

CERTIFICATE OF RECOGNITION

The FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers, having reviewed the programme **"Category B Hydrographic Surveyor Education Program"** submitted by the NAVAL HYDRO-OCEANOGRAPHIC SCHOOL (INDONESIA) against the "Standards of Competence for Hydrographic Surveyors S-5" (11th edition), and being satisfied that it meets the requirements prescribed for a category B programme with **Option 1 "Nautical Charting Hydrography" and Option 2 "Hydrography to support Port Management and Coastal Engineering"**, hereby awards this certificate of recognition for a period of six (6) years.

Signed at Monaco

Prof. Dr. Lysandros Tsoulos
Chairman of the Board
This day the 25 of April 2013

Lessons learned and Success Stories to share

- **ENC Recent Positive Result in 2019.**
- **S-32 IHO Indonesia Hydrographic Dictionary.**
- **Hosted Multi Regional Capacity Building Program on MSI Course and MSI Data Base Workshop.**
- **Used SDB For Updating Charts and Maritime Delimitation**
- **Used of UW Technology for SAR Mission**
- **Proposed TSS at Sunda and Lombok Straits on NCSR 6 (2019), Approved on IMO MSC-101 (2019) and Fully Implemented on June 2020**

Lessons learned to share

ENC RECENT POSITIVE RESULT IN 2019

Visiting of Sun Princess Cruise ship for the first time at Gilimas port, Lombok in November 5, 2019 (1988 travelers and 862 crews).

Visiting of Carnival Splendor Cruise ship at Benoa port, Bali in November 29, 2019 (2200 travelers and 1150 crews).

Lessons learned to share

S -32 IHO Indonesia Hydrographic Dictionary

S-32 IHO Hydrographic Dictionary

Login

Introduction
The International Hydrographic Dictionary(S-32) is a multi-language dictionary that is the authoritative reference for hydrographic related terms and definitions used in IHO standards, specifications and other informative publications.

This online dictionary database includes harmonised terms and definitions for the following languages; English; French; Spanish; Chinese and Indonesian. The dictionary is maintained by the Hydrographic Dictionary Working Group (HDWG), which is a subsidiary body of the Hydrographic Services and Standards Committee (HSSC) of the IHO. Any proposals for the additions, amendments or correction to the dictionary should be forwarded to the IHO Secretariat at (info@iho.int).

English

English
Hydrography - Hydrography is the branch of applied sciences which deals with the measurement and description of the physical features of oceans, seas, coastal areas, lakes and rivers, as well as with the prediction of their change over time, for the primary purpose of safety of navigation and in support of all other marine activities, including economic development, security and defence, scientific research, and environmental protection.

Español

Español
Hidrografía - La hidrografía es la rama de la ciencia aplicada que trata sobre la medición y la descripción de las características físicas de los océanos, los mares, las zonas costeras, los lagos y los ríos, y también sobre la predicción de sus cambios en el tiempo, teniendo como objetivo principal la seguridad de la navegación y en apoyo de todas las otras actividades marítimas, incluyendo el desarrollo económico, la seguridad y la defensa, la investigación científica y la protección ambiental.

Español - Inglés

Francais

Français
Hydrographie - L'hydrographie est la branche des sciences appliquées traitant du mesurage et de la description des éléments physiques des océans, des mers, des zones côtières, des lacs et des fleuves, ainsi que de la prédiction de leur changement dans le temps, essentiellement dans l'intérêt de la sécurité de la navigation et à l'appui de toutes les autres activités maritimes, incluant le développement économique, la sécurité et la défense, la recherche scientifique et la protection de l'environnement.

Français - Anglais

Chinese

Chinese 中文
海道测量学 - 海道测量学是应用科学的分支，是测量和描述海洋、海域、沿岸区域、湖泊和河流的物理特征，以及预测它们随时间变化的学科，其主要目的是保障安全航行，支持所有其它的海上活动，包括经济发展、安全和防卫、科学研究和环境保护。

英语 -中文

Español

Español
Hidrografía - La hidrografía es la rama de la ciencia aplicada que trata sobre la medición y la descripción de las características físicas de los océanos, los mares, las zonas costeras, los lagos y los ríos, y también sobre la predicción de sus cambios en el tiempo, teniendo como objetivo principal la seguridad de la navegación y en apoyo de todas las otras actividades marítimas, incluyendo el desarrollo económico, la seguridad y la defensa, la investigación científica y la protección ambiental.

Español - Inglés

Indonesian

bahasa Indonesia
Hidrologi - Cabang sains terapan yang mengatur pengukuran dan penjelasan fitur fisik bagian permukaan BUMI yang bisa dinavigasi dan wilayah pantai, dengan referensi khusus untuk tujuan NAVIGASI

bahasa Indonesia-Inggris

Lessons learned to share

Hosted MSI Course and MSI Data Base Worksop

- Conducted on September 9-13, 2019, at Ancol, North Jakarta, Indonesia.
- Attended 21 participants from 12 countries and multi IHO regions (EAHC, NAVAREA XI, Palau and Marshal Island).
- Instructors from NGA, JHOD and Pushidrosal.
- Supported by IHO CBP and self funded.
- MSI Course and MSI Data Base Workshop proved to IHO that multi regional capacity building programs can be conducted successfully.

Success stories to share

Use of SDB for Updating Charts and Maritime Delimitation

Reference :
Chart no 317 scale 1: 200.000
Satellite Sentinel 20 November 2019

Lessons learned to share

- Use of Hydrographic technology for SAR mission

  Pushidrosal join SAR mission on Airplane Crash (SJ-182) on 2021

Success stories to share

- **Approval of TSS proposal on Sunda Straits and Lombok Straits**
  - Approved by IMO on 101st MSC IMO (June 2019)
  - Full Implemented on June 2020

Success stories to share

- B-350.4, navigable rivers, lakes and canals should be shown as completely as possible on the larger scales.
- B-353, land drainage, rivers, lakes, glaciers.
- Safety navigation purposes provide inland waterways charts in **Toba Lake** (903 meter from MSL).
- 9 local ports.
- Completed in 2019.

THANK YOU