

**INTERNATIONAL HYDROGRAPHIC ORGANIZATION
CAPACITY BUILDING PROGRAMME**



**EAST ASIA HYDROGRAPHIC COMMISSION
TECHNICAL VISIT TO
BRUNEI DARUSSALAM**

DECEMBER 2014

**INTERNATIONAL HYDROGRAPHIC ORGANIZATION
CAPACITY BUILDING PROGRAMME**

SUMMARY SHEET

Title of Activity: EAHC Technical Visit to Brunei Darussalam

Host Country: Brunei Darussalam

Venue and Date: Brunei Darussalam Survey Department / 03 December 2014

Organized by: East Asia Hydrographic Commission and Survey Department, Brunei Darussalam

Funding source: International Hydrographic Organization CBSC Fund

Number of participants: five (5)

Participating countries: Philippines, Malaysia, HongKong-China and Singapore

1. Introduction

The International Hydrographic Organization (IHO) and the East Asia Hydrographic Commission (EAHC) have been working together in encouraging non-member States in the East Asia region to join the IHO. So far, two (2) countries have already submitted their application to become IHO Member States (MSs), Brunei Darussalam and Vietnam. Both countries have recently acquired the required 52 approvals from MSs.

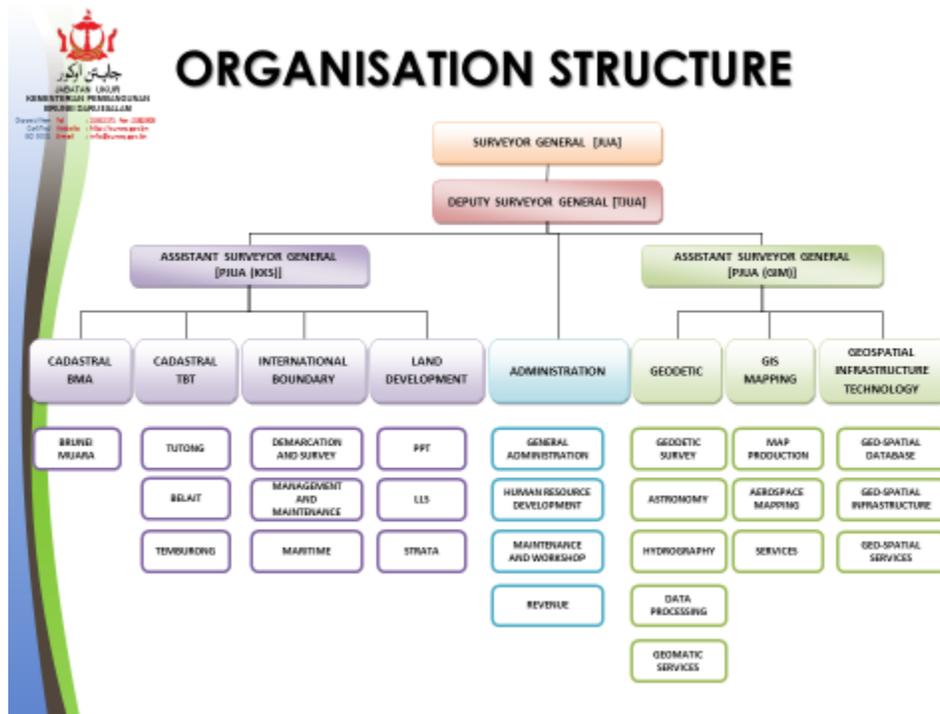
To further enhance the technical cooperation in the region and encourage non-MSs to become part of the Organization, the IHO has approved the Technical Visit to Brunei Darussalam as part of the 2014 Capacity Building Work Program (CBWP).

The Philippines, as the current EAHC Chairman, is the project leader for the Technical Visit. Commodore Jacinto M. Cablayan, EAHC Chairman, headed the technical visit team accompanied by EAHC Vice-Chairman represented by First Admiral Hanafiah bin Hassan, of the National Hydrographic Centre, Royal Malaysian Navy, Commander Rosalino delos Reyes of the EAHC Chairman's office, Mr. Kg Kwok Chu from HongKong, China, currently, the South China Sea ENC Coordinator and Mr. Jamie Chen from Singapore, the current Chair of the Training, Research and Development Center (TRDC).

On the side of Brunei Darussalam, the EAHC delegation was met by the Acting Surveyor General Haji Ali Bakar bin Haji Kassim, and representatives from International Boundary, Cadastral, GIS, Cartography, Mapping and Hydrography Survey Units. Representatives from the Royal Brunei Navy, the Ports Department and Marine Department were also present.

2. GENERAL ASSESSMENT

During the technical visit, the EAHC delegation visited the Hydrographic Unit manned by eight staff, one of the key Units at the Survey Department which was established in 1998. The Survey Department is under the Ministry of Development and headed by a Surveyor General. The objectives and tasks of the Unit are: the conduct of hydrographic surveys utilizing both singlebeam and multibeam, operation and maintenance of tide gauges, replacement of the existing British Admiralty charts and conduct of new surveys of internal waters. The Hydrographic Unit together with Geodetic Survey, Astronomy, Data Processing and Geomatic Services are all under the Geodetic Section.



Survey Department's organizational structure
(Source: Hydrographic Unit presentation)

2.1 STATUS OF HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING AT BRUNEI DARUSSALAM

The Hydrographic Unit, Survey Department was established in 1998. After its formation, it became active in the affairs of the EAHC by attending several conferences in the early part of the year 2000. IHB representatives Capt. Hugo Gorziglia and Capt. Federico Bermejo also visited the survey Department in the early and middle part of year 2000. In October 2005, the design and construction the first survey boat for the Survey Department had started. In June 2007, the survey boat Sejahtera measuring 12 meters by 4 meters and gross tonnage of 15.24 was delivered to the Survey Department. The instruments installed aboard are the following; Navcom Starfire 3050 Positioning System, SV Plus V2 sound velocity profiler, Reson 7125 multibeam echo sounder, Reson 215 singlebeam echo sounder, Applanix motion sensor, DMS-H heave sensor, POSMV MRU, and PDS 2000 software for data acquisition.


SURVEY DEPARTMENT'S BOAT INVOLVED



Survey boat - BSD Ukur 4 and 5




SURVEY DEPARTMENT'S BOAT INVOLVED

BOAT NAME : SEJAHTERA
DURATION: LAUNCH in 2007
SIZE : 12M x 4M
TONNAGE: 15.24

The instruments installed onboard :-
 Navcom Starfire 3050 Positioning System for positioning
 SV PLUS V2 Sound Velocity Profiler
 Reson 7125 for multibeam
 Reson 215 Singlebeam Echo Sounder
 Applanix Motion Sensor
 DMS-H Heave Sensor
 POSMV MRU
 PDS2000 for data acquisition



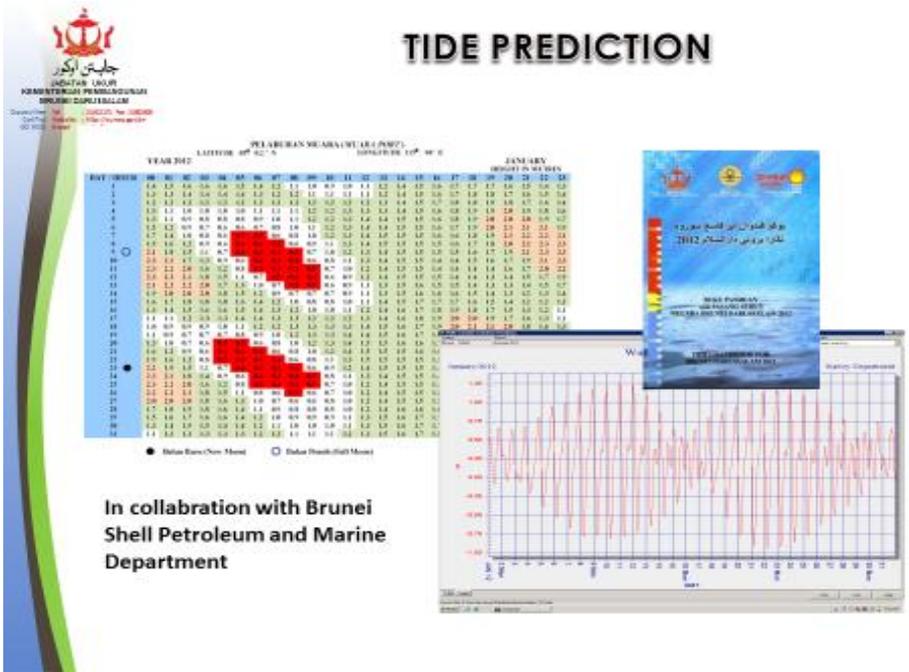




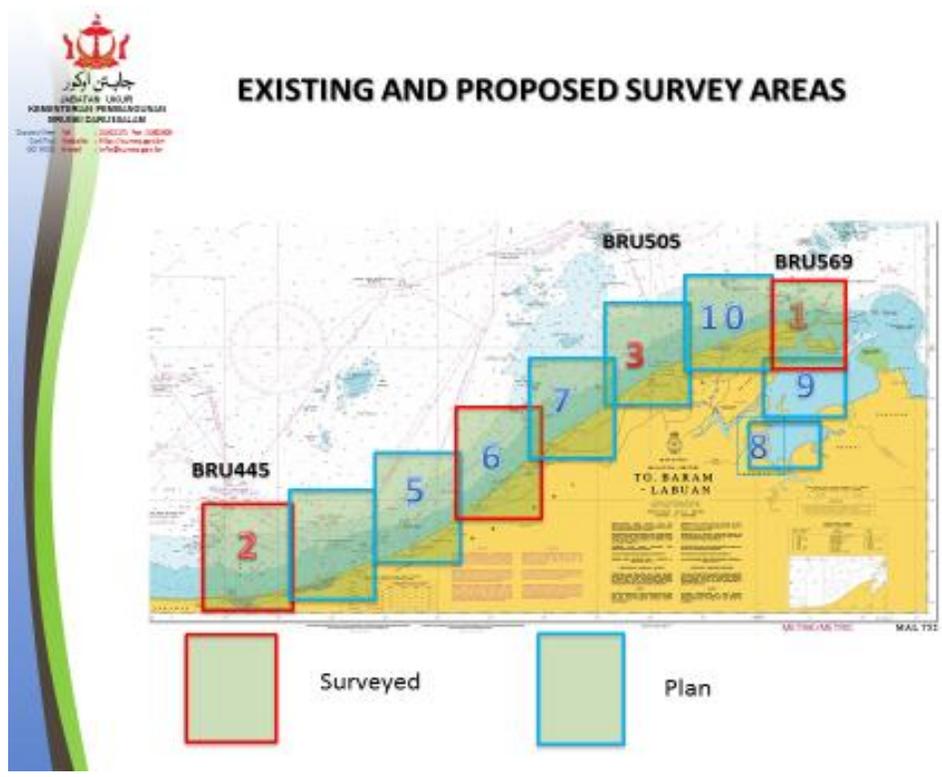
Survey platform and equipment used in hydrographic survey
 (Source: Hydrographic Unit presentation)

2.2 STATUS OF NAUTICAL CHARTING

The Hydrographic Unit has already published three nautical charts and three electronic navigational charts (ENCs) covering the Port of Muara and its Approaches and the areas of Jerudong and Belait waters. These were produced following the IHO standards.



In collaboration with Brunei Shell Petroleum and Marine Department



Paper chart coverage of existing and proposed survey areas (Source: Hydrographic Unit presentation)

2.3 CAPACITY BUILDING

Capacity building for personnel of the Hydrographic Unit started during their attendance to the two-week long Hydrographic Data Processing and Marine Cartography Course conducted by experts from the United Kingdom Hydrographic Office (UKHO). It was followed by several trainings for the different CARIS Modules. To further strengthen and deepen their understanding of the hydrographic and nautical charting processes, a technical visit to Singapore, Maritime and Port Authority was also conducted. From then on, personnel of the Hydrographic Unit and Survey Department were sent to various courses related to hydrography like the FIG/IHO CAT B hydrographic survey training, the Workshop on Maritime Delineation among others.

3. DISCUSSIONS

A presentation on the activities of the EAHC and other related matters concerning the IHO were presented by Cdr Rosalino delos Reyes. The presentation focused mainly on the plans and programs of the Commission and the benefits that can be derived by being a member State of the IHO and the EAHC.

During the discussion, Brunei Darussalam's representatives in the meeting were properly guided by the EAHC delegation on the next steps to take and the other requirements that they have to submit to the IHO through proper diplomatic channels to become a full member State of the IHO.

On capacity building program of the EAHC, the member of the EAHC delegation extended their invitation to Brunei Darussalam to send their representatives to various trainings and seminars being handled by the Commission and the IHO. They were informed by the Chair of the TRDC, Mr. Jamie Chen that their participation in the 2015 capacity building program of the Commission would be most welcome. It was also explained that one of the programs of the Commission was the development of the Training for Trainers in cartography with the objective of building up the capacity within the EAHC. In addition, the EAHC delegation also informed that a common course syllabus for Basic Cartography and Hydrography was developed and to be conducted by the trainers. Representatives from Brunei Darussalam showed interests in attending the capacity building programs of the Commission and the IHO.

Staff assignment to other hydrographic offices were also discussed. First Admiral Hanafiah bin Hassan, of the National Hydrographic Centre, Royal Malaysian Navy and Mr. Ng Kwok Chu from HongKong, China shared that their organizations have overseas staff attachment programs. Mr. Ng shared that they are sending their experienced staff to the United Kingdom Hydrographic Office as part of their training and to gain wider exposure.

3.1 ON CERTIFICATION OF SURVEY DATA

There was a discussion on the quality assurance and control of survey data and whether a Category A or B certified staff could do so as mentioned by the Survey Department. The EAHC delegation is one in saying that due diligence have to be demonstrated, adequate competencies have to be proven, training and retraining are important and considerable amount of resources are necessary in building up the capacity of staff in hydrography and charting. First Admiral Hanafiah bin Hassan shared that Malaysia is setting up a Hydrographic Board that will manage the competencies of their surveyors. Survey Department's Acting Surveyor General mentioned that they have a Land Surveyors Board. Mr. NG shared that HongKong hydrographic office as part of the Marine Department was responsible for port state and flag state control including marine licensing, hence, the provision of their hydrographic data had to be certified.

3.2 FUTURE PLANS

Brunei Darussalam's Survey Department will consult with Ministry of Development and the Ministry of Foreign Affairs to expedite the submission of the other requirements for their IHO membership. They envisioned to become the focal point in providing hydrographic services for their country with focus on safety of navigation, engineering purpose surveys, and providing support for the safety of the marine environment. The setting up and full operation of the Marine Spatial Data Infrastructure are also in the list of their priorities. Active participation in IHO and EAHC activities will be included in their calendar.

4. CONCLUSION

The technical visit of the EAHC delegation was met with enthusiasm and warm reception by the officials of the Survey Department led by the Acting Surveyor General together with representatives from other government offices. They were doubly excited when they heard the good news from the EAHC Chair during his opening message that their country has already received the required number of votes of 53 to become the newest member of the IHO.

5. RECOMMENDATIONS

The EAHC recommends that:

- a) Brunei Darussalam be invited in future EAHC and IHO meetings in order for them to be aware and updated of the activities of these organization and prepare in getting involved in the affairs of these two international bodies.

- b) That they be invited in all capacity building programs to strengthen their capacities in the fields of hydrographic surveying, nautical charting, marine cartography and other relevant training programs.**
- c) Continue providing assistance and guidance in the preparation of the requirements of becoming a full member State of the IHO and EAHC.**

Focal person for Survey Department, Brunei Darussalam

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**EAST ASIA HYDROGRAPHIC COMMISSION (EAHC) TECHNICAL VISIT TO
SURVEY DEPARTMENT, MINISTRY OF DEVELOPMENT, BRUNEI DARUSSALAM
03 DECEMBER 2014**



At the Survey Department conference room



Acting Surveyor General Haji Ali Bakar bin Haji Kassim presiding during the meeting





EAHC delegation
visit to the cartography room