

**18th MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE
IHO-CBSC18
Online meeting, 2-3 June 2020**

Paper for the Consideration by CBSC18

USCHC Report

<i>Submitted by:</i>	USCHC CB Coordinator
<i>Executive Summary:</i>	This document provides a summary report of the CB activities at USCHC.
<i>Related Documents:</i>	
<i>Related Projects:</i>	

1. Introduction / Background

USCHC - Canada and United States of America are full members.

The United States and Canada are active participants in the IHO Capacity Building Sub-Committee (CBSC). The United States directly supports the IHO Maritime Safety Information (MSI) training course as well as provides support to nations through on site and remote guidance and advice as they grow their hydrographic capacity.

2. Assessment of Capacity Building Phase Stage of Coastal States

Both Canada and USA are considered to be at Phase 3.

3. Activities completed since CBSC17

NOAA Coast Survey hosted a three-day Chart Adequacy Workshop, followed by a Nautical Cartography Open House from 23-26JUL19. Both events provided an opportunity for U.S. and international colleagues in marine cartography to network and share ideas.

The Chart Adequacy Workshop trained professional cartographers from international offices on techniques for assessing nautical chart adequacy using publicly available information such as satellite images and maritime automatic identification system (AIS) data.

The 2019 participants hailed from over a dozen countries including: Angola, Denmark, France, Japan, Kenya, Malaysia, Mauritius, Mexico, Nigeria, St. Vincent and the Grenadines, Thailand, South Korea, and the United Kingdom. The individuals were nominated by their home hydrographic offices and travel was sponsored by the General Bathymetric Chart of the Oceans (GEBCO).

Following the Chart Adequacy Workshop NOAA welcomed over 250 attendees from the U.S. and abroad to the third annual Nautical Cartography Open House. Government agencies, industry and academic partners, and members of the public attended. The open house featured posters, presentations, tours, and exhibits centered around four themes: Bathymetric Databases, Custom Charting, Innovative Cartography, and Precision Navigation.

For further information, please contact Dr. Shachak Pe'eri at shachak.peeri@noaa.gov.
Note: There will not be a workshop in calendar year 2020.

4. Activities planned for 2020

Hydrographic Training opportunities are available at various institutions in the United States.

Two Category A certified hydrographic programs are available through:

- The University of Southern Mississippi (USM)

<https://www.usm.edu/marine/hydrographic-science>

- The University of New Hampshire (UNH)

<https://marine.unh.edu/program/center-coastal-and-ocean-mappingjoint-hydrographic-center>

NGA Category-B Competence Training for Nautical Cartography. NGA teamed up with IIC Technologies to provide training to analysts with a comprehensive 20-week instructor led course and a six-week final project. Each session will run for one to three weeks at a time over the course of two years.

In January 2020, NGA graduated 10 students.

NOAA Category-B Competence Training for Nautical Cartography

The first class started the end of August 2017 and has 11 NOAA cartographers as the first class. In 2018-19, the first international student joined this one-year competence-training program.

Capt. Andrew Armstrong, NOAA (ret.), NOAA co-director of the Joint Hydrographic Center at UNH, is a member of the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers. As a member of the board, Capt. Armstrong is available to advise institutions on establishing hydrographic training curricula and preparing submissions to the International Board for Category A or Category B recognition. (andy.armstrong@noaa.gov).

U.S. Navy offers a six-month, IBSC approved Category B International Hydrographic Management and Engineering Program (IHMEP), commencing annually in February, via Naval Meteorology and Oceanography Command and the Information Warfare Training Group in Gulfport, Mississippi.

U.S. Navy offers mobile hydrographic training via Naval Oceanographic Office.

University of Southern Mississippi/U.S. Navy's Category A, B programs, and mobile training all qualify for Security Cooperation assistance.

5. Challenges faced in the region

None Noted.

6. Achievements and lessons learned

None Noted.

7. Conclusions:

USCHC members continue to support various Capacity Building projects worldwide and are increasing opportunities for training aligned with IHO objectives and goals.

8. Actions required of CBSC:

Calvin Martin
USCHC CB Coordinator