

**16th MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE
IHO-CBSC16
Goa, India, 30 May - 1 June 2018**

Paper for the Consideration by CBSC18

NIOHC report

Submitted by:	NIOHC CB Coordinator
Executive Summary:	This document provides a summary report of the CB activities at NIOHC.
Related Documents:	NIOHC CB Plan 2018-2020
Related Projects:	

1. Introduction / Background

A three-year plan for CB activity in the NIOHC region was approved by the membership in July 2017. This plan covers the period 2018-2020 and is reviewed annually (during NIOHC meetings) to ensure it meets regional requirements. The plan is based on assessing the phase of development of each of the coastal states within the NIOHC region (as determined by the IHO's three phases of CB) and arranging training activity to build the necessary capability to meet SOLAS treaty obligations. There is a great deal of 'SOLAS awareness' required in this region.

2. Assessment of Capacity Building Phase Stage of Coastal States

See accompanying Excel file

3. Activities completed since CBSC15

- High level Technical Visit to *Seychelles* (May 2017 by the IHO Secretariat)
- In conjunction with the SAIHC an MSI Training Course was delivered in Fish Hoek, South Africa, in September 2017 for the following coastal states: -

Bangladesh, Mauritius, Oman (2), Pakistan, Seychelles, Sri Lanka (2), Sudan and Thailand
Together with *Gambia* and *Nigeria* from the EAtHC and eight members of the SAIHC

- Advanced Chart Production training courses were delivered in *Bangladesh* and *Myanmar* (by CARIS & C-MAP respectively)

4. Activities planned for 2018

- Phase 1 Skills Course
- Survey Technician Training for Mauritius
- Senior Survey Technician Training for Mauritius

5. Challenges faced in the region

The Indian Ocean provides major sea routes connecting the Middle East, Africa, and East Asia

with Europe and the Americas. It carries a particularly heavy traffic of petroleum and petroleum products from the oilfields of the Persian Gulf and Indonesia. Every year some 100,000 cargo ships pass through the Indian Ocean, as well as 66% of the world's oil shipments. Large reserves of hydrocarbons are being tapped in the offshore areas of Saudi Arabia, Iran and India. An estimated 40% of the world's offshore oil production comes from the Indian Ocean. Beach sands rich in heavy minerals and offshore placer deposits are actively exploited by bordering countries, particularly India, Indonesia, Sri Lanka, and Thailand. For these reasons, it is crucial that SOLAS contracting Governments undertake hydrographic surveys as and when required, that they arrange for the compilation and publication of hydrographic data, the dissemination and keeping up to date of all nautical information necessary for safe navigation.

One of the most significant challenges the NIOHC faces is engaging with the Red Sea maritime states, some of whom remain very difficult to communicate with. Much work is required in building and developing sustainable Hydrographic services in these states. This also applies to the Maldives.

Very few of these Red Sea states are IHO members so don't qualify for the higher-level training opportunities which are only available to members.

6. Achievements and lessons learned

With the onus on the development of Phase 1 capability – the 2017 MSI course followed a similar course in late 2014 – Phase 1 skills are slowly being improved.

There is close coordination between the NIOHC CB Coordinator and his counterpart in the RSAHC. A good example of this can be found in early 2017 when several NIOHC members attended the RSAHC ENC QA Workshop in Thailand.

The NIOHC CB Coordinator performs a similar role in the adjoining SAIHC and joint activities e.g. last year's MSI training course in South Africa (where x2 EAtHC members also attended) delivered a dual benefit of using the IHO's financial resources prudently and widening the network of personnel in the MSI domain.

India has been very active over many years in developing hydrographic services in Mauritius. This also applies to several other IO nations.

During the 13th NIOHC meeting in Myanmar (Feb 2013) a survey of CB requirements indicated that x3 nations required advanced system (CARIS) training in the production of ENC and Paper charts and MBES processing. Over the course of the last five years these nations have received the requested training in a low cost collaboration between the IHO and CARIS: -

	Bangladesh	Myanmar	Sri Lanka
CARIS Paper Chart Composer	Completed in September 2017	Completed in August 2017	Completed in February 2013
CARIS S-57 ENC Composer	Completed May 2014	Completed March 2014	Completed April 2016
CARIS MBES Processing	Completed April 2015	Completed June 2016	Completed April 2015

For the first time Bangladesh, has invited international participation on its CAT B Hydrographich Survey course in Chittagong (2 places are available to international students). Thailand secured their third place on the IHO-NF CHART Project nautical cartography training course at the UKHO in 2017 while Sri Lanka joined the course for a second time.

Indonesia were invited to participate in the UKHO's CAT B nautical cartography training course in early 2018.

7. Conclusions:

In an attempt to generate greater engagement from the Red Sea maritime states the NIOHC will follow the example of the SWPHC and MACHC by organizing a hydrographic awareness seminar to precede the 2019 NIOHC meeting. Previous experience has proved that funding the attendance of Associate and Observer nations not only guarantees attendance but also showcases the importance of regional hydrography and how all coastal states have a part to play, irrespective of size.

The Indian and UK Government's contribution to regional capacity building has augmented the IHO's efforts and undoubtedly improved both the education and data gathering regionally.

8. Actions required of CBSC:

The CBSC is invited to:

- a. note the report
- b. take any action consider appropriate.

Jeff Bryant
NIOHC CB Coordinator

Annex: Assessment of Capacity Building Phase Stage of Coastal States (Excel file)