

**INTERNATIONAL HYDROGRAPHIC ORGANISATION**

**CAPACITY BUILDING COMMITTEE**



**IHO CAPACITY BUILDING PROGRAMME**

**Report of the Technical Visit  
To Cambodia**

**APRIL 2017**

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## **Executive Summary**

Cambodia has three main international ports namely Sihanoukville on the Gulf of Siam, Phnom Penh on the Mekong river and the province port of Koh Kong. Sihanoukville is the main deep sea port and shown on the BA 2103 'Sihanoukville and approaches' published by UKHO in 1999 and the latest edition is in 2016. Cambodia is producing 5 cells of ENC and 1 paper chart under Japan International Cooperation Agency (JICA) assistance which covers from Sihanoukville and Phnom Penh to Kratie. The production process is at a final stage and scheduled to be published in 2017. There is no recognised Maritime Safety Information (MSI) set up in Cambodia to promulgate navigational and meteorological warnings including notices to mariners and other charting information. All information are confine within local marine operators and pilot only.

Recent years Cambodia has started to enhance its hydrographic surveying capabilities. The Waterways Department, under the Ministry of Public Works and Transport is responsible in conducting hydrographic surveys and producing nautical charts for the country. Currently the waterways department has a Surveying Team equipped with Survey Boat and complete with survey system capable to carry out data processing for production of ENCs. The Phnom Penh Autonomous Port also has a Surveying Team and Survey Boat capable of conducting hydrographic survey with assistance from the Waterways Department

Cambodia, as a State Party to the SOLAS Convention, is responsible to ensure that appropriate and adequate paper charts and ENCs are available in accordance with Regulations 9 and 4 of Chapter V of the Convention. In this regard, Cambodia currently is working towards fulfilling its obligations to comply with the treaty.

## **1. BACKGROUND**

Being a recognised competent authority of the United Nations for hydrography and nautical charting, the International Hydrographic Organization (IHO) continues to play its role to ensure that all states with coastlines and maritime interests provide adequate and timely hydrographic data, products and services to enhance maritime safety and efficiency in support of the protection and sustainable use of the marine environment. Currently, IHO is comprising of 87 member states and continue to encourage more coastal states to join the organization.

In line with IHO inspiration to have more coastal states to join the organization, under the Capacity Building Work Program (CBWP), the East Asia Hydrographic Commission (EAHC) has been playing its role to encourage non-member states in the East Asia region to join IHO. In 2013, EAHC led by Philippines organized a first technical visit to Cambodia to establish a networking besides introducing IHO and EAHC to the Cambodian government. The team was welcomed by the Waterways Department, under the Ministry of Public Works and Transport which is responsible on hydrographic and charting matters in Cambodia. Both sides discussed and exchanged views on the development of Cambodia capabilities in Hydrographic surveying and charting. It also touched on the EAHC and IHO role and assistance that could be provided to Cambodia. It was a fruitful visit and the Cambodian side had indicated it would consider the EAHC proposal to join both organization and will notify government accordingly.

As a follow up a second visit to Cambodia was held on 2<sup>nd</sup> – 5<sup>th</sup> April 2017 and the delegation this time was led by Rear Admiral Dato' Fadzilah bin Mohd Salleh, the new EAHC Chairman. The member of delegation includes Japan Chief Hydrographer, Dr.Arata Sengoku and Japan Deputy Director of Charting Division, Mr. Kenichi Noguchi. Dr Perry Oei, the Chief Hydrographer of Singapore who initially supposed to join the visit had withdrawn due to last minute commitments. Hence, since all logistical arrangement has been made, the EAHC Chairman decided to replace Dr Perry with another officer from National Hydrographic Centre of Malaysia (NHC) to assist the delegation during the visit. Members from NHC were Lieutenant Commander Ahmad Rizuan, Head of Hydrography and a staff officer Lieutenant Fedzrin Iswandi.

## **2. TECHNICAL VISIT PROGRAM**

Prior to the meeting, Cambodian government was invited to attend the 4<sup>th</sup>EAHC Steering Committee meeting held in Tokyo, Japan on 24-25 February 2017 as an observer. Two (2) representatives from Ministry of Public Work and Transport attended the meeting to observe, familiarize and to have a better understanding regarding the commission. The Cambodian delegates informed the meeting that their Ministry is interested to join IHO and also to be a member of EAHC. However the finance ministry need to be convinced to obtain approval from the government. A short discussion was held between the EAHC Chairman and Cambodian delegates to plan the coming

technical visit to Phnom Penh. The Cambodian delegates expressed hope for EAHC assistance to convince their government to join IHO and EAHC.

The 2 days technical visit to Cambodia by EAHC delegation was occupied with meetings, site visit and courtesy call planned as follows:

- a. Meeting with Director General of Waterway Department, Ministry of Public Works and Transport,
- b. Meeting with Phnom Penh Autonomous Port management and site visits to wharf area.
- c. Courtesy Call on His Excellency Mr. Touch Chankosal, Secretary of State, Ministry of Transport, Kingdom of Cambodia.

List of Cambodian delegation is as reflected in Annex A and the summary of events is in Annex B.

### **3. GENERAL ASSESSMENT**

The meeting between EAHC delegates and a team from the Waterway Department, Ministry of Public Works and Transport was conducted in a very friendly environment and chaired by its Director General Mr. Chan Dara. EAHC delegation was given a briefing regarding the department covering its organizational structure, responsibility, role and function including status of hydrographic survey and charting capabilities. Mr. Dara informed the meeting that the Ministry of Public Works and Transport is in a midst of major restructuring. He expects there will a lot of changes in the organizational structure, role and function of a new set up. As of previous role, for time being the department is still responsible in conducting hydrographic surveys and producing nautical charts for both Cambodian inland waterways and sea. The new responsibilities, roles and functions of the Department are still in progress and will be published in the Ministry website soon once finalized. However, the current roles and responsibilities of the department areas following:

- a. To study and carried out all works concerning navigation along waterways.
- b. To produce charts/maps along rivers and navigable channels
- c. Installation and maintenance of aids to navigation
- d. To ensure no obstacles in navigation and water currents
- e. To disseminate information on new obstacles to mariners/ skippers
- f. To ensure all waterways transport and floating houses are in order
- g. To manage all constructions in the rivers
- h. Riverbank protection
- i. Rivers and channels dredging for navigation
- j. Domestic ports construction

- k. To manage land reserved for waterways expansion
- l. To manage water usage
- m. To prepare taxes for all waterways transport means
- n. To compile water level statistics

During the discussion EAHC Chairman reiterated the benefit and advantages of joining IHO and EAHC. He emphasized that technical assistance such as advisory opinion, courses, training and financial assistance under IHO could only be extended to member countries. As such Cambodian was urged to join IHO and be part of EAHC for its benefit and interest. Mr. Chan Dara acknowledged the proposal and will pursued the matter to higher authority

EAHC delegates also visited and had a meeting with the Phnom Penh Autonomous Port (PPAP), one of the two international ports in Cambodia located in Phnom Penh. The port is under the Ministry of Public Works and Transport and financially under the Ministry of Economy and Finance. It is located approximately 332km from the entrance of South China Sea and about 100km from Cambodia-Vietnam border. The port started operation in 2002 and the container throughput continue to increase and forecast to 161,000TEUs in 2017. In the meeting the Port Management welcomed and looking forward the proposal for Cambodia to join IHO and EAHC.

The Technical visit to Cambodia ended with a courtesy call on His Excellency Mr. Touch Chankosal, Secretary of State, Ministry of Transport. In the discussion His Excellency was briefed on outcome of the meeting with the Waterway Department and the PPAP management. The chairman continued to persuade His Excellency to consider seriously for Cambodia to join IHO and looking forward to be part of the Commission. His Excellency welcomed the proposal and stated that he need to convince the finance ministry since it will involve some financial implication to the government. He requested EAHC to assist the Ministry in justifying to the government the important and benefit gained of joining IHO.

#### **4. MARITIME ACTIVITIES**

The Ministry of Public Works and Transport are responsible on all matters in maritime affairs, trade and maritime traffic and safety of navigation for Cambodia. The hydrographic set up of the Ministry has a very limited capabilities with minimum asset, resources and technical expertise. Hydrographic survey along the waterway was done by international funding and assistance with the latest from Japan International Cooperation Agency (JICA).

## **5. AWARENESS ON NATIONAL HYDROGRAPHIC**

The Government of Cambodia is aware of the current situation where it's lacking in hydrographic services and nautical charting has an impact on the safety of navigation and protection of a marine environment of the country. The Waterways Department and the Phnom Penh Autonomous Port management appeared to fully concern the importance of hydrography and nautical charting services for the Country. They really appreciated an effort by EAHC to encourage the government to join IHO and the commission. They hope the Ministry of Public Works and Transport will pursue and convince the Ministry of Finance to agree with the proposal as a way forward to enhance the hydrography and charting capability of the country.

Copies of IHO Publication M-2: *The Need for National Hydrographic Services* were distributed during the visit to provide further information and reference.

## **6. MARITIME SAFETY INFORMATION**

There is no Maritime Safety Information (MSI) infrastructure available to coordinates its activities with the Worldwide Navigation Warning service (WWNWS) implemented globally by the IMO, IHO and WMO. Charts published by UKHO in Cambodian waters is lack of updating mechanism. There is no national MSI coordinator appointed to collate and promulgate new and important navigation information through the relevant regional and worldwide maritime communications channels.

## **7. HYDROGRAPHIC SURVEYING**

Cambodia has a very limited hydrographic surveying capabilities. The Waterways department has a small survey team and equipped with a survey boat complete with a multibeam echo sounder system. The equipment was acquired from the JICA assistance programme. The PPAP have a smaller surveying team and a survey boat equipped with single beam survey system.

Hydrographic surveyors was trained by attending Hydrographic Survey Category B Course and Chart Production Course in Japan. The trained and experience surveyor are shared and utilized by both the Department of Transport and PPAP in carrying out hydrographic survey works.

## **8. NAUTICAL CHARTING**

Nautical Chart BA 2103: Gulf of Thailand, Cambodia, Sihanoukville and Approaches is a standard paper nautical chart published by UKHO covering Cambodia waters with latest edition of 2016. Cambodia does not has a capacity to publish its own paper chart and ENCs. However in 2013 – 2017 under the Japan International Cooperation Assistance (JICA) programme there has been a hydrographic survey and a Project for

Productions of Integrated Digital Terrain Model and Electronic Navigation Chart in Cambodia. A paper chart and 6 ENC's in the production plan are as follows:

No	Location	Project	ENC Category	Remarks
1.	Sihanoukville Port	ENC	Harbour	KH5SHV01
2.	Sihanoukville Port and coastal area	ENC	Coastal	KH3SHV01
3.	Stueng Hav	ENC	Berthing	KH6STH01
4.	Keo Phos Port	ENC	Berthing	KH6KPH01
5.	Kampot	ENC	Harbour	KH5KP001
6.	Oknha Mong Port	ENC	Berthing	KH6OMP01
7.	Sihanoukville Port and coastal area	Paper Chart		Approaches to Sihanoukville Port

## 9. IHO PUBLICATION C-55 ANALYSIS

The current state of surveys in Cambodia as summarized in IHO Publication C55 'Status of Hydrographic Surveying and Nautical Charting Worldwide' dated 31 March 2017 is as shown below. The revised value was updated based on feedback and information gathered from the Ministry of Transport during the visit.

Area	Definition	C-55 (%)	Revised Value (%)
A1	Area adequately surveyed (<200m)	0	10
A2	Area adequately surveyed (>200m)	0	0
B1	Area requiring resurvey at larger scale or to modern standards (<200m)	34	35
B2	Area requiring resurvey at larger scale or to modern standards(>200m)	0	0
C1	Area which has never been systematically surveyed (<200m)	66	55
C2	Area which has never been systematically surveyed (>200m)	0	0

## **10. CONCLUSIONS**

Generally the technical visit to Cambodia was encouraging and fruitful. The EAHC delegation was well received and had a very frank discussion with parties involved. Based on meeting and information gathered during the visit, some observations are as follows:

- a. The Ministry of Public Works and Transport which is responsible in conducting hydrographic surveys and producing nautical charts for both Cambodian inland waterways and sea is in a restructuring process and it is believed that the hydrographic surveying and charting capabilities will be improved and more organised.
- b. The current state of nautical charting and the lack of coherent MSI services have a significant impact on the safety of navigation. It indirectly will affect Cambodia economy as well as putting the safety of life at sea and protection of the marine environment at risk.
- c. Cambodia is improving its capability in hydrographic surveying and charting with assistance from international programs and funding. The hydrographic survey and a Project for Production of Integrated Digital Terrain Model and Electronic Navigation Chart in Cambodia in 2013 – 2017 under the Japan International Cooperation Assistance (JICA) program is a major program to improve navigation safety and environmental protection.
- d. The Phnom Penh Autonomous Port was very supportive and hopeful for the government to be a member of IHO and EAHC. Besides gaining benefits and advantages from the organization, it will help to improve their survey personnel standard and capabilities.
- e. The EAHC technical visit has managed to convince the Ministry of Public Works and Transport the importance of IHO and the benefit to be a member. The Secretary of State of the ministry was fully convinced and will propose to the government for further consideration and approval.

## **11. RECOMMENDATIONS**

In order to provide an appropriate level of hydrographic surveying and nautical charting services in Cambodia, it is recommended the following actions:

- a. Form up a National Hydrographic Authority, to be responsible for coordination and ensuring the provision of appropriate nautical charting services for Cambodia in accordance with the requirements of the International Convention on the Safety of Life at Sea (SOLAS) and in accordance with the principles established by the IHO.

- b. Set up a Maritime Safety Information (MSI) Coordinator position is established as soon as possible to fulfil Cambodia's treaty obligations under SOLAS V/4 - *navigational warnings*.
  
- c. Collaboration within government agencies, regional and international organisation and private sector to improve and strengthen hydrographic surveying and charting capabilities.

### LIST OF LOCAL CONTACTS

#### Ministry Public Work and Transport, Cambodia

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Item	Name	Position	Remarks
1.	Chan Dara	Director General	chan_dara@online.com.kh
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3.	Sou Phalley	Director of Port Administration	Port Administration Department
4.	Sich Phicheyritry	Director of Inland Waterway Transport	Inland Waterway Transport Department
5.	Svon Vansar	Director of Merchant Marine	Merchant Marine Department suonvansar@gmail.com
6.	Ros Sophornna	Director of Waterways Infrastructure and Port Construction Department	Waterways Infrastructure and Port Construction Department sophornna_r@yahoo.com.uk

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3.	Chieap Vyraya	Deputy Hydrography	
4.	Touch Sophek	Deputy Chief Security	
5.	Chui Vichet	Deputy Technique	
6.	Pech Bunny	Topo Hydro	

**SUMMARY OF EVENTS**

<b>Serial</b>	<b>Time</b>	<b>Activities</b>	<b>Location</b>
<b>3 Apr 17</b>			
1.	1510	Arrival of EAHC Technical Visit Delegation from Narita, Japan.	Phnom Penh International Airport
	1735	Arrival of EAHC Technical Visit Delegation from Kuala Lumpur, Malaysia.	
<b>4 Apr 17</b>			
2.	0830 - 1230	Meeting with H.E. Mr. Chan Dara, Director General of Inland Waterway-Maritime Transport and Port, Waterways Infrastructure and Port Construction Department, Merchant Marine Department & Inland Waterways Transport Department.	General Department Office
3.	1400 - 1600	Visit to Phnom Penh Autonomous Port (PPAP). Meeting with PPAP management.	PPAP
<b>5 Apr 17</b>			
4.	0830 - 1030	Courtesy call to Mr. Tauch Chankosal, Secretary of State of Ministry Public Work and Transport.	Ministry of Public Work and Transport
5.	1030 - 1230	General discussion on current and future hydrography issues from Cambodia, conclusion and closing remarks.	Phnom Penh
6.	1835	Departure of delegation to Kuala Lumpur, Malaysia.	Phnom Penh International Airport
	2250	Departure of delegation to Narita, Japan.	

**PHOTO DOCUMENTATION**



EAHC and Cambodian Delegation



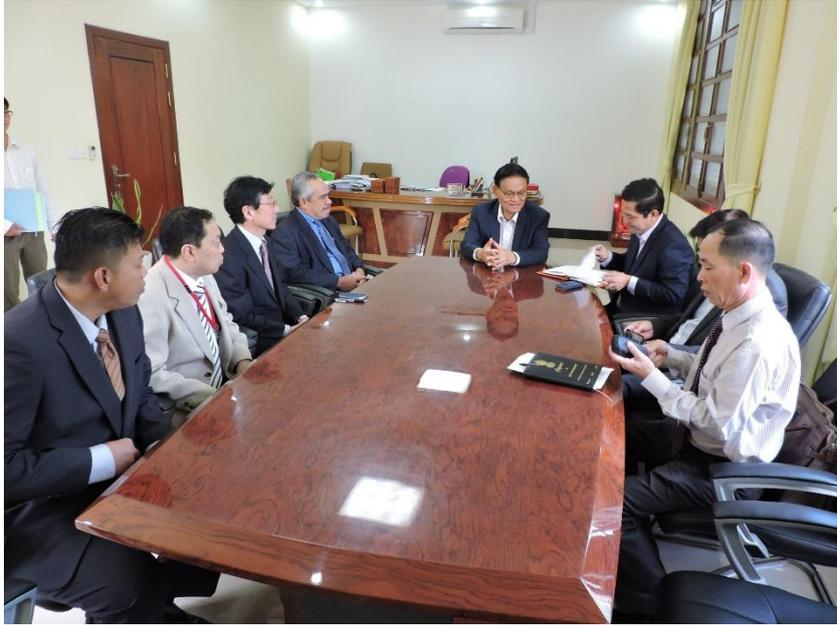
EAHC delegation with Phnom Penh Autonomous Port Management



Visit to PPAP wharf



In Front of Ministry of Works and Transport Building



Courtesy Call and Discussion with the Secretary of State