

IHO Capacity Building Programme

HIGH-LEVEL AND TECHNICAL VISIT REPORT

The Status of Hydrography and Nautical Charting in the Kingdom of Cambodia

Ministry of Public Works and Transport
Kingdom of Cambodia



[Date: 20-22 August 2019]

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ABBREVIATIONS

EAHC	East Asia Hydrographic Commission
CB	Capacity Building
EA RECC	East Asia Regional Electronic Navigational Chart Coordinating Centre
ENC	Electronic Navigational Chart
IHO	International Hydrographic Organization
JICA	Japan International Cooperation Agency
MPWT	Ministry of Public Works and Transport
PAS	Sihanoukville Autonomous Port

EXECUTIVE SUMMARY

A High-Level and Technical Visit to Cambodia from the IHO was carried out in summer 2019.

In recent years, supported by the steady economic growth, the volume of cargo handled through marine transport has been on the rise, and there is a strong need to urge Cambodia to join the IHO to ensure the navigational safety of vessels.

During the Visit, Delegation comprised of Japan as the chair of East Asia Hydrographic Commission (EAHC), Indonesia as the vice-chair of the EAHC, Hong Kong (China) as the administrator of the EA-RECC and representatives from the United Kingdom and private sectors held meetings with the high-level government officials of Cambodia and conducted a field survey to the Sihanoukville Port. There are two major international ports in Cambodia, one being the Sihanoukville Port which faces the Gulf of Thailand, and the other being the Phnom Penh Port which faces the Mekong River in Phnom Penh, the capital city of Cambodia. The Sihanoukville Port is the sole deep water port in Cambodia.

The result of the Visit is remarkable. The Delegation presented the importance of hydrography and the significance of IHO accession to the high-level government officials of Cambodia, in particular the Advisor to Prime Minister, and other important stakeholders in the field of hydrography in Cambodia such as the CEO of the Sihanoukville Port.

REPORT OF TECHNICAL VISIT TO CAMBODIA

[Date: 20-22 August 2019]

1. Background

This High-level and Technical visit was funded by the International Hydrographic Organization (IHO) as a Capacity Building Activity to encourage non-IHO Member States to join the IHO and the exchange of views on hydrography with each other. In East Asia, the Kingdom of Cambodia is the only littoral country that has yet to join the IHO.

For Cambodia, a Technical Visit was conducted in 2017 by a Delegation consisting of Malaysia and Japan. The Delegation held a meeting with the government officials of Cambodia and conducted a field survey to the Phnom Penh. As consolidation of the first technical visit to Cambodia, the East Asia Hydrographic Commission (EAHC) decided to conduct the High-Level and Technical visit to Cambodia under the IHO Capacity Building program in 2019 with the financial support from the IHO.

2. Composition of the Team

The High-Level and Technical Visit Team is comprised of:

Japan (Chair of EAHC)

Dr. KATO Yukihiro (Head of Delegation)
Chair of EAHC
Chief Hydrographer
Hydrographic and Oceanographic Department
Japan Coast Guard

Mr. NAKABAYASHI Shigeru
Director of International Affairs Office
Hydrographic and Oceanographic Department
Japan Coast Guard

Mr. SUZUKI Shinya
Senior Technology Planning and International Affairs Officer
Hydrographic and Oceanographic Department
Japan Coast Guard

Indonesia (Vice Chair of EAHC)

Capt. Yanuar Handwiono
Head of Security, Cooperation and Maritime Boundary
Hydrography and Oceanography Centre
Indonesia Navy

East Asia Regional Electronic Navigational Chart Coordinating Centre (EA-RECC)

Mr. Michael CM CHAU
Hydrographer
Hydrographic Office

Hong Kong SAR Government, China

Mr. Stephen WONG
Deputy Hydrographer
Hydrographic Office
Hong Kong SAR Government, China

United Kingdom

Mr. Jamie McMichael-Phillips
Head of Partnering and Engagement (Asia Pacific)
United Kingdom Hydrographic Office

Technical Advisor (Private Company)

Dr. SENGOKU Arata
Executive Technical Advisor
AERO ASAHI Cooperation

Mr. KITO Takeshi
Chief Operating Officer
KAIYO ENGINEERING CO., LTD

Mr. SHIMIZU Morgan
Advisor
KAIYO ENGINEERING CO., LTD

PART A - OVERALL ASSESSMENT OF THE SITUATION IN REGION

3. Effectiveness of the Technical Visit

The main purpose of the Visit to Cambodia was to strongly encourage the high-level government officials who have influence over the Cambodian government to join the IHO. To achieve this purpose, a meeting was held with the high-level officials from the Ministry of Public Works and Transport (MPWT) and the Sihanoukville Autonomous Port (PAS). During the visit, the importance of the IHO and the benefits as its membership were effectively delivered. In addition, the Delegation also visited the Sihanoukville Port, Cambodia's largest international sea port, and reviewed the current status of hydrographic service in Cambodia.

As a result, the Cambodian Government responded positively to joining the IHO. The head of the Cambodian Delegation, H. E. Dr. Ros Vanna, Advisor to Prime Minister of Kingdom Cambodia requested the Delegation to deliver the detailed procedures of IHO accession.

The following items were discussed and consolidated based on the meeting and field survey to the Sihanoukville port:

- a) Current situation of the Sihanoukville Port
- b) ENC coverage around the Sihanoukville Port
- c) Distribution of ENC
- d) Paper chart coverage around the Sihanoukville Port
- e) Hydrographic survey around the Sihanoukville Port
- f) Human resource development in Cambodia

PART B –CAMBODIA ASSESSMENT

4. Current situation of the Sihanoukville Port

The Sihanoukville Port is the sole deep sea port in Cambodia that has opened a maritime route since 1960. The port, with a total operational area of 125 hectares, is located in the Preah Sihanouk province in the southwestern Cambodia. The port is protected from strong wind and waves by the surrounding islands and does not require frequent channel dredging.

The Sihanoukville Port has handled 541,228 TEUs of containers in 2018 and this figure is projected to exceed 1 million TEUs in the next 4 years. The operation of a berth of 350 meters in length with a depth of 14.5 meters is scheduled to start in 2023 to cope with the increasing in container throughput thereafter.

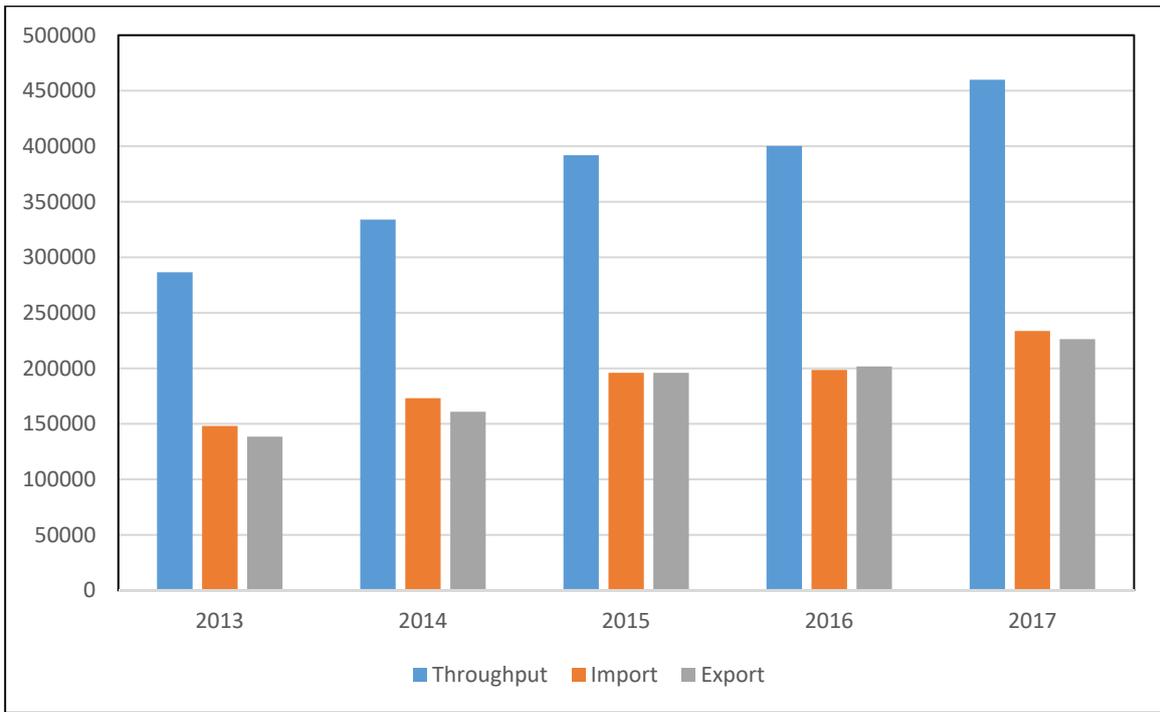


Figure 1: Container Throughput (TEUs) of the Sihanoukville Port

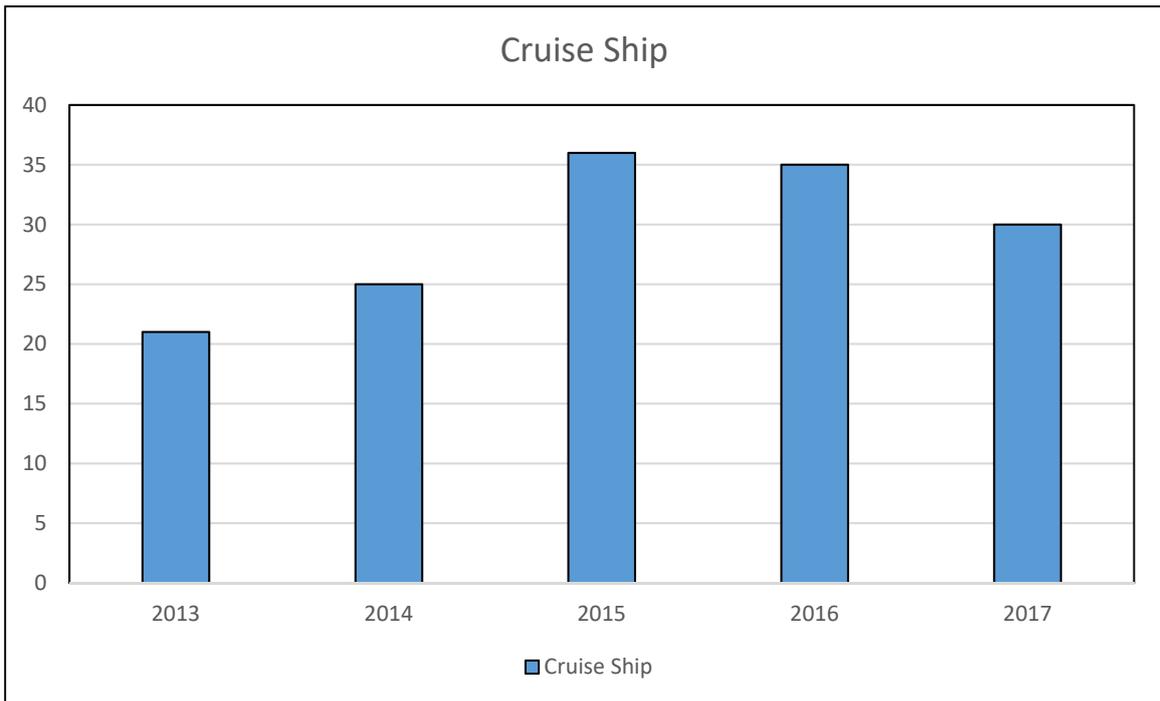


Figure 2: Number of Cruise Ship (Unit) Visited the Sihanoukville Port

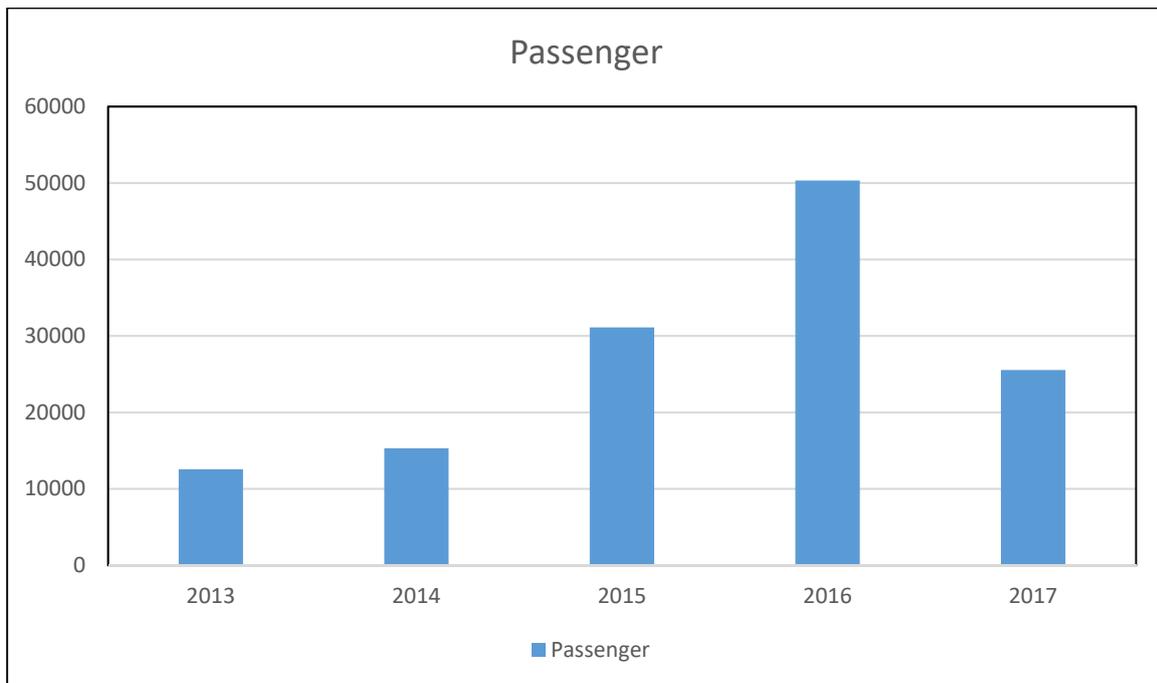


Figure 3: Number of Passenger Journey through the Sihanoukville Port

Detail Information of the Sihanoukville Port:

Old Port (Phase I)

- Built in 1956 and was in operation since 1960
- Length 290m × 2
- Depth of water -8m and -9m
- Allow 4 small vessels to berth
- 2 warehouses, total 12,000m²
- Storage capacity 12,000 tons

New Port (Phase II)

- Built in 1967 and was in operation since 1970
- Length 350m
- Depth of water -10.5m
- Allow 2 medium size vessels to berth
- 3 warehouse, total 24,000m²
- Storage capacity 48,000 tons

Multi-purpose Terminal (Phase VI)

- Built in 2015 and was in operation since 2018
- (Berth for general and bulk cargo)
- Length 330m
- Depth of water -13.5m
- Storage area for loose cargo 28,000m²
- Storage area for steamed coal 13,000m²
- Storage area for general cargo 14,000m²
- (Berth for logistics oil supply bases)
- Length 200m
- Depth of water -7.5m
- Storage capacity 27,000m²
- Allow 2 small vessels to berth

Container Port (Phase III and IV)

- Built in 2002 and was in operation since 2007
- Length 400m
- Depth of water -11m
- Storage capacity up to 8,400 TEUs
- Storage capacity 10.3 hectares

Development Plan

A new container terminal is scheduled to be completed in 2023.



Figure 4: Difference Phases of Development in the Sihanoukville Port
* Phase V is Special Economic Zones

5. ENC coverage around the Sihanoukville Port

As a technical cooperation between Japan and Cambodia, a project was implemented with the assistance of Japan International Cooperation Agency (JICA) from July 2013 to January 2017. The objective of the project was to improve the capability of Hydrographic Survey and ENC coverage in Cambodia through ENC production around the Sihanoukville Port. Human resources development and ENC production were completed in this project.

Subsequently, MPWT has conducted hydrographic survey in the area around the Sihanoukville Port using the survey equipment provided by Japan and produced additional five ENC cells.

At present, the ENC cells for Cambodia are as follows:

ENC Cell No.	Title (Usage)	Scale	Year
2103 (SHV001)	SIHANOUKVILLE HARBOUR (BERTHING)	1:20,000	2015
2103 (STH001)	STEUNG HAV COASTAL AREA (BERTHING)	1:15,000	2015
2103 (CAM002)	KAMPONG SAOM BAY COASTAL (APPROACH)	1:150,000	2016
2103 (KHP001)	KEO PHOS COASTAL AREA (BERTHING)	1:20,000	2016
2103 (KH06MP01)	OKNHA MONG PORT (BERTHING)	1:35,000	2017
2103 (OTRESS001)	OTRESS COASTAL AREA (BERTHING)	1:20,000	2017
2103 (REAM001)	BAY OF REAM (BERTHING)	1:15,000	2018

6. Distribution of ENC

In spite of the completion of the ENC production, Cambodia does not have any overseas ENC distribution network hence the ENC could only be available locally within its own country.

To solve this shortcoming, Cambodia and UKHO are in the process of establishing a memorandum of understanding (MOU) to distribute Cambodia's ENC via UKHO worldwide distribution channel for the navigational safety of vessels bounding to/from Cambodia. During the meeting, the Delegation also presented the practice on ENC distribution in their respective organizations. Thanks to this Visit, the draft MOU between UKHO and Cambodia was advanced further in the meeting.

7. Paper Chart around the Sihanoukville Port

Regarding the availability of paper chart, UKHO published the Chart No. 2103 in 1997 with two 2 panels at the scale of 1/20,000 for Sihanoukville Port and 1/15,000 for its approaches. In 2018, MPWT carried out hydrographic survey for the Sihanoukville Port according to their own requirements and updated the charts accordingly.

During the discussion, the Delegation learnt that the charts prepared were not available for sale overseas at the moment and they were only available in Cambodia. The Delegations pointed out that it was important for foreign vessels to get access to the charts concerned for passage planning before departing for the ports in Cambodia. In this regard, the Delegation stressed the importance of establishing an overseas sales channel as soon as possible.

8. Hydrographic Survey around the Sihanoukville Port

During the discussion the Delegation realized that the equipment provided by Japan had been properly maintained and that survey work was being carried out accordingly. On the other hand, since MPWT does not have any hydrographic surveying vessels yet, they require support from other organizations by chartering vessels to conduct survey operations.

9. Human Resources Development

From 2017 to 2013, with support from Japan, human resources development in the hydrographic field was carried out for the MPWT officials in the field of Hydrographic Survey and ENC production. Since then, the UKHO and Japan have also paid several visits to Cambodia in this regard. In addition, in October 2018, Cambodia was invited to attend the IHO CB Training Program "Carto Production DB System Development Workshop" held in China (Shanghai) with funding support from China. The Delegation advised that Cambodia could attend trainings in various fields organized by the IHO and EAHC through the IHO CB project after joining the IHO.

10. Discussion on IHO Membership

During the visit, the Delegation had the opportunity to meet the Advisor to Prime Minister H.E. Dr. ROS VANNA to encourage Cambodia to join the IHO. H.E. Dr. ROS is the de facto high-level official of the Cambodian government in charge of the accession to the IHO. The Delegation also had the chance to meet another important stakeholder, H.E. Lou Kim Chhun who is the Delegate of the Royal Government of Cambodia in Charge as Chairman and CEO of the Sihanoukville Autonomous Port.

Meeting with H.E. Dr. ROS VANNA, Advisor to Prime Minister of Cambodia

During the meeting with H.E. Dr. ROS, the Chair of the EAHC presented the importance, benefits and procedures of joining the IHO. After further elaboration by the Delegation, H.E. Dr. ROS made the following inquiries:

- a) The list of East-Asian countries that has not joined the IHO yet;
- b) The benefits and obligations of being an IHO Member in details;
- c) The amount of IHO Member Contributions; and
- d) The accession procedures.

In response, the Delegation advised as follows:

- a) Cambodia is the only East-Asian country that has not joined the IHO yet;
- b) After joining the IHO, Cambodia as an IMO Member States could further strengthen her capacity and readily fulfil the obligations as a contracting government in hydrographic services. For Cambodia, it is considered that the benefits of accessing the IHO training opportunities would surpass her annual financial contribution.
- c) The financial contribution is calculated according to the registered flag tonnage of the State.
- d) Further detail information would be provided to Cambodia via correspondence.

At the end of the discussion, H.E. Dr. ROS expressed his gratitude for the visit and he stated that Cambodia would join the IHO soon after finishing the internal procedures of the Cambodian government.

Meeting with Mr. H.E Lou, PAS CEO

It is understood that Mr. H.E. Lou, PAS CEO is a key person who is able to advise directly in person to the Minister of Public Works and Transport and Minister for Economic Policy. He is also very close to the Prime Minister.

During the meeting, the Delegation explained the importance of IHO and Hydrography to Mr. H.E. Lou and his officers. In response, Mr. H.E. Lou made the following remarks:

- a) He understands the importance of ENC's and nautical charts from the port administrator perspective;
- b) The support from the expertise of specialized agencies such as the IHO is important for the continuing development of the Sihanoukville Port in the future; and
- c) The continuing development of Sihanoukville Port requires the cooperation of various organizations.

The Delegations further added that:

- a) It is important not only to produce nautical charts and ENC's, their updating and distribution are equally important to navigational safety;
- b) It is expected that the volume of the cargo to be handled in the Sihanoukville Port will continue to grow significantly, the potential risks associated with the increasing in shipping activities could not be underestimated; and
- c) The IHO has established a document on the response to disasters which is available to all Member States.

Finally, H.E. Lou thanked the Delegations for the visit and the technical discussion. He promised he would report to the Minister of Public Works and Transport on the importance of the IHO.

CONCLUSIONS

After the detailed explanation from the Delegation about the participation of Cambodia in the IHO, H.E. Dr. ROS VANNA, advisor to Prime Minister, responded very positively about the IHO accession. However, it is important for the IHO to keep regular contact with the counterparts in the Cambodia to follow up the matter. It is expected that the development of the Sihanoukville Port will continue to expand, hence the volume of shipping activity and the associated risk of large-scale marine accidents will also be increased.

In the field of hydrography, the achievements of the Japan's technical cooperation projects have played an important role in the provision of equipment and human resources development of Cambodia. Although Cambodia is facing limited capacity in hydrographic surveys as well as paper charts and ENC compilation, it is worth noting that human resource development is also an important area to be looked after. In conclusion, the EAHC will continue to support Cambodia to become a member of the IHO and hopefully Cambodia would able to make full use of the capacity building opportunities of the IHO and the EAHC soon.

RECOMMENDATIONS

The High-Level and Technical Visit Delegation recommended that:

- a) The Chair of the EAHC to provide additional information to Cambodia regarding IHO Membership including financial procedure and approval process,
[Post Visiting Note: the Chair of EAHC sent additional information materials on IHO Membership to Cambodia on 19th September 2019]
- b) IHO and EAHC to continue to encourage Cambodia to join the IHO,
- c) Cambodia be invited to IHO and EAHC meeting as an observer where appropriate in order to establish a good rapport with the Member States, and
- d) Cambodia to seek arrangement to distribute its ENC worldwide.

DATE	1st October 2019
EAHC Technical Visit Team Leader	Dr. KATO YUKIHIRO Chief Hydrographer Hydrographic and Oceanographic Department Japan Coast Guard
SIGNATURE	

Annex List:

- A. TERMS OF REFERENCE OF THE EAHC TECHNICAL VISIT TEAM.
- B. SUMMARY OF EVENTS FOR THE VISIT TO CAMBODIA
- C. LIST OF CONTACTS

DISTRIBUTION: Chair of EAHC
INFORMATION: IHO Secretariat / Cambodia

TERMS OF REFERENCE OF THE EAHC TECHNICAL VISIT TEAM

1. The Technical Visit Team, comprising members of the staffs of the Hydrographers of Japan, Indonesia, EA-RECC, UKHO led by Dr. KATO Yukihiro, Chief Hydrographer of JHOD, are to carry out a visit to the countries which have indicated a willingness to discuss issues of mutual interest in the fields of the situation of Sihanoukville port and IHO membership .

Preparation

2. The members of the Team, under the guidance of the leader and with the assistance of the staffs of the Hydrographers of Japan, Indonesia, EA-RECC, UKHO, are to plan the Team visit having obtained access to material available from each Hydrographic Office, the IHO Secretariat and the information supplied by each country which is to be visited.

Work Objectives

3. The Team is to:
 - a. obtain access to decision making levels of government in each country visited and liaise with senior officials, emphasizing the importance of hydrography to coastal States and, hence, the need to include hydrographic and associated charting activities within National Plans;
 - b. assess the National capacities to plan and execute the collection and rendering of hydrographic data to enable the production of charts and publications both locally and through the supply of data to Hydrographic Offices with international chart folios;
 - c. consider and advise on measures which can be taken to improve the capacity of nations to carry out the above;
 - d. emphasize the basic importance of a national system for the collection of data, such as engineering drawings and local Notices to Mariners, which have an effect on the interests of mariners;
 - e. advise on the assistance to be gained from close liaison with the IHO Secretariat, IMO and funding agencies to enable viable and sustainable capability to be maintained.

Report

4. A Report on the activities and recommendations of the Team is to be submitted to the Chair of the EAHC

[18 August 2019].

SUMMARY OF EVENTS FOR THE VISIT TO CAMBODIA

<u>Date</u>	<u>Event</u>
[19/Aug/2019]	Team arrived at Cambodia
[20/Aug/2019]	Courtesy calls on EANG VENG SUN, Under Secretary of State, MPWT Meeting at MPWT Agenda: 1. Introduction of the IHO and the EAHC 2. Presentation on Hydrographic Awareness and Economic Benefit 3. MOU between MPWT and UKHO regarding ENC distribution 4. Free discussion Move to Sihanoukville (7 hours from Phnom Penh to Sihanoukville)
[21/Aug/2019]	Courtesy calls on H.E. Lou Kim Chhun, Delegate of the Royal Government in Charge as Chairman and CEO, PAS Meeting at PAS Agenda: 1. Introduction of PAS 2. Introduction of the IHO 3. Current situation of nautical chart and ENC in Sihanoukville 4. Free discussion Site Visit to Sihanoukville port Move to Phnom Penh (7 hours from Sihanoukville to Phnom Penh)
[22/Aug/2019]	Courtesy calls on H.E. Dr. ROS VANNA, Advisor to Prime Minister, Government of Cambodia Discussion on IHO Membership
[23/Aug/2019]	Team departed from Cambodia

LIST OF CONTACTS

Ministry of Public Works and Transport

Norodom Blvd, St.106, Phnom Penh, Kingdom of Cambodia

Participants list

Item	Name	Position	Remarks
1	H.E. Dr. ROS VANNA	Advisor to Samdech Moha Sena Padey Techo HUN SEN, Prime Minister of Kingdom Cambodia Secretary of State, MPWT	Rosvanna258@gmail.com Tel:(855)99 27 3333
2	EANG VENG SUN	Under Secretary of State, MPWT	Email:eang.vengsun@yahoo.com Tel:(855)12 87 13 99
3	Chan Dara	Under Secretary of State, MPWT	Email:chandara1704@gmail.com Tel:(855)12 271 327
4	MAK SIDETH, MSc	Director General, MPWT	maksideth@gmail.com Tel:(855)12 835 867
5	ROS SOPHORNNA	Director of Waterways Infrastructure and Port Construction Department, MPWT	Email:wmpwt@gmail.com Tel:(855)12 628 356
6	So Nanm	Director of Geography Department, MPWT	
7	Kraech Kim Than	Deputy Secretary General, National Committee for Maritime Security	
8	SEA MAO	Vice chairman of Council of Jurists	
9	LAO SOKSAMPHEA	Ministry of Foreign Affairs and International Cooperation	
10	Kong Chanveasna	Office of the Council of Ministers	

Sihanoukville Autonomous Port

Sangkat No.3, Sihanoukville City, Preah Sihanouk Province

Item	Name	Position	Remarks
1	H.E. Lou Kim Chhun	Delegate of the Royal Government in Charge as Chairman and CEO, PAS	pas@camintel.com Tel:(855) 12 831 784
2	Dr. Chhun Hong	Deputy Director General of Administration- Management, PAS	
3	Ms. Chey Sokunthea	Director of Marketing Department, PAS	
4	Pilot. Chan Sokha	Deputy Director of Harbor Department, PAS	
5	Mr. Souk Kol Chenda	Assistant to Chairman and CEO and Project Administrator of PMU, PAS	
6	Ms. Seng Bopha	Administration-Human Resource Department, PAS	
7	Mr. Katsuichi Yabunaka	JICA Expert, Advisor for Container Terminal O & M, PAS	

Photo Document



Courtesy calls on Mr. EANG VENG SUN and meeting with MPWT



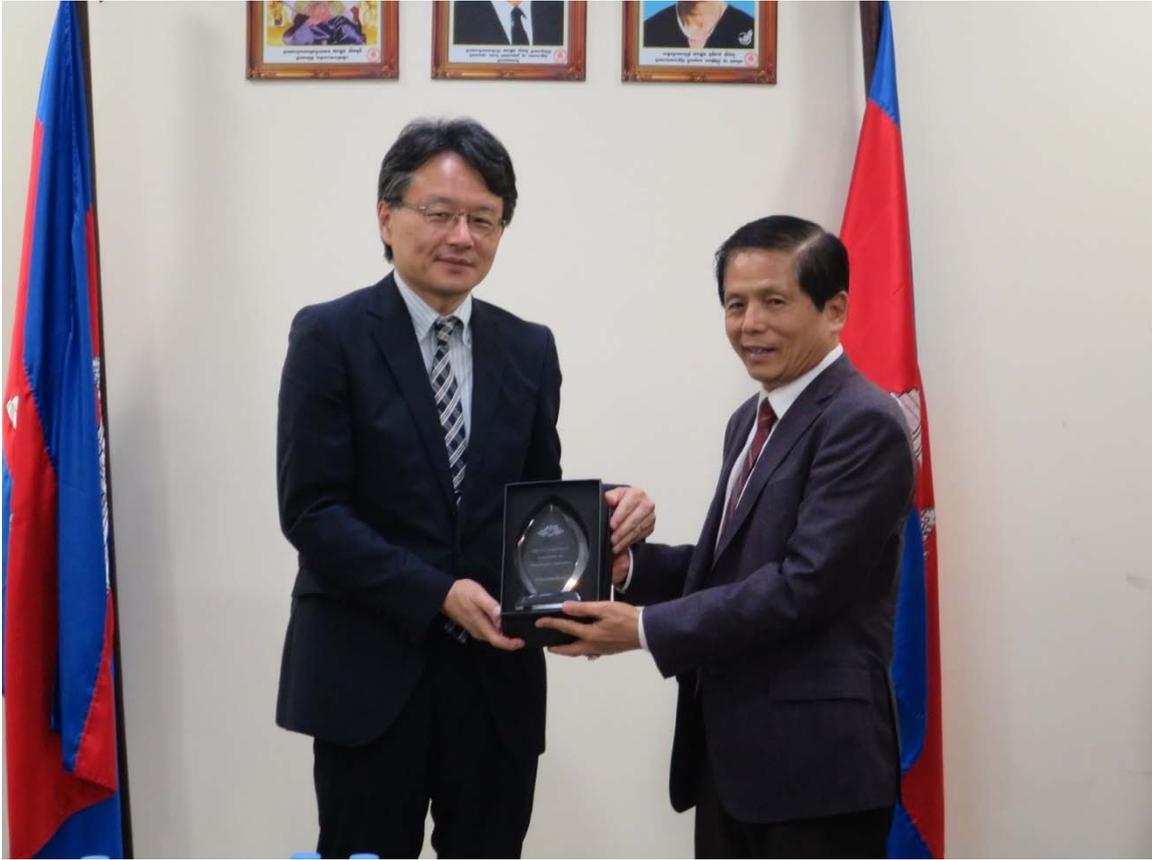
Group Photo of the Delegation in front of the MPWT building



Courtesy calls on Mr. H.E. Lou and meeting with PAS



Site visit to the Sihanoukville Port



Courtesy calls on H.E. Dr. ROS VANNA, Advisor to Prime Minister (right)