Workshop Report on
MTCC-Asia Cambodia Office Launch Event,
MTCC-Asia First Sub-regional Workshop, and Train The Trainer
Course in Phnom Penh, Cambodia, 18-22 December 2017

This document was produced by the MTCC-Asia for review by the IMO. It was prepared by MTCC-Asia as the contractor to the IMO for CAPACITY BUILDING for climate change mitigation in the maritime industry project.
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1 Executive Summary

With enormous support from IMO and EU, MTCC-Asia Cambodia Office Launch Event, MTCC-Asia First Sub-regional Workshop, and Train The Trainer Course were participated by relevant stakeholders from both government and public sectors of major Asian maritime countries, for the purpose of exchanging information and experience on GHG control and energy efficiency promotion.

The Cambodia branch office, launched on December 18 2017, is weaving out a finer pattern of GMN map (Global MTCCs Network), adding more members onto the nodes of the network in the sub-region of Asia as MTCC-Asia continues its effort to take a leading role in promoting the GHG emission control and green shipping awareness. This is the latest effort of MTCC-Asia, launched on May 15 2017 under the IMO-EU project, making itself as the first regional maritime center that branches out to Cambodia.

The main objective of the workshop is to share the knowledge and experience in the context of the relevant IMO regulations regarding energy efficiency and management. The workshop is also expected to serve to establish strong links between MTCC-Asia and the wider region. The workshop consists of presentations, case studies, and seminars.

Through a week-long workshop and Train The Trainer Course, most of the participants, by means of seminar, lecture, discussions and country reports, were refreshed up with latest movements and approaches for implementing the trim optimization and ship fuel consumption data collection. Consensuses were reached on the necessity of green shipping initiated by IMO and on the meaningful work carried out by MTCC-Asia.

28 participants from China, Cambodia, Malaysia, Myanmar, Thailand and India attended the workshop and Train The Trainer Course. A country report on the current situation of energy efficiency and fuel data collection was made, which would help achieve the long-term goal of the workshop to raise the awareness of energy efficiency policies and technologies in the maritime industries hence implement IMO instruments and methodologies on Energy Efficiency to mitigate climate change. Train The Trainer Course

2 Date and Venue

The workshop and Train The Trainer Course took place during 18th to 22nd December 2017 in Phnom Penh, Cambodia.
3 The speakers

Mr. H.E Sun Chanthol, Senior Minister of Ministry of Public Works and Transportation, Cambodia;
Dr. Jin Yongxing, Director of MTCC-Asia, Chairman of Council of Shanghai Maritime University;
Mr. Zhang Kunkun, Officer of Strategy Research and Development Center of China MSA;
Capt. Wang Deling, Technical Officer, MTCC-Asia;
Mr. Wang Xian, Administration Officer, MTCC-Asia.

4 Agenda

A brief agenda is shown as follows (attached as Annex 1):

Day 1:
- Opening Ceremony
- GMN & MTCC-Asia
- IMO Conventions, practices and trends for GHG control and Energy Efficiency
- Key technologies for GHG control and EE—outlines, comparisons and outlook

Day 2:
- Case Study in MTCC-Asia: Utilization of trimming optimization technologies / Technologies applied for fuel consumption data collection
- Seminar: Country report and needs analysis

Day 3:
- China’s efforts on GHG control and energy efficiency
- Modern Maritime Safety Administration
- Seminar: Challenges and solutions for GHG control and EE

Day 4:
- Train The Trainer Course

Day 5:
- Train The Trainer Course
- Closing ceremony
5 Participants

5.1 Participants list

28 participants from China, Cambodia, Malaysia, Myanmar, Thailand, and India attended the workshop and Train The Trainer Course. A signature list for all participants is as below. The list of participants is attached as Annex 2.

5.2 Participants travel

In addition to the working staff of the Center, the workshop invited 5 China MSA officers and 6 MSA officials from the neighboring countries of Cambodia (name list attached). The costs and expenditures of the traveling of those participants are sponsored by the IMO (please see the attachments for details). For the boarding passes and other documentation please see the travel supporting package.
6 The workshop

6.1 Opening Ceremony

This effort of MTCC-Asia was highly recognized by H.E Sun Chanthol, Senior Minister of the Ministry of Public Works and Transportation. In his address to the launch event, he pointed out that maritime technology was the key to curb GHG emission and promote the ship energy efficiency. Climate change which has a severe havoc on environment should be seriously addressed as there are more and more draughts, hurricanes, sea level rise and etc. It is crucial for Cambodia government to act now to make its contribution to the international world. The establishment of Cambodia branch office, a significant step in the history of Cambodia shipping industry, provides a rare opportunity for Cambodia to be in the same pace with the world in ship GHG mitigation and energy efficiency.

Jin Yongxing, the Chairman of Shanghai Maritime University Council and Director of MTCC-Asia, said that he envisions a closer tie on the long established friendship with Cambodia government as the branch office is set up as a response to the B&R Initiative of China in the field of ship GHG emission control. Without the wholehearted collaboration and support from the Cambodia government, there would be no existence of this branch office. He believed that this branch office, as the 1st sub-regional branch office set up by the MTCCs, will reach out the maritime needs for green shipping in a more direct way.
A congratulatory video from Jose Matheickal, Deputy Director of Marine Environment Division, IMO, was played on the launch event. He said that this was as “an important milestone in our efforts to address the climate change issues”, which was a productive outcome of the Shanghai Maritime University, the host of MTCC-Asia. He also called for joint efforts from neighboring countries to find answers to issues we are facing.
6.2 Workshop Session 1 (Day 1)

After the tea break, Dr. Jin Yongxing, from MTCC-Asia and Shanghai Maritime University gave a presentation briefing SMU, IMO MTCC-Asia and IMO GMN. He introduced the objectives, main functions, achievements and outcomes of MTCC-Asia and GMN.

The presentation covered the following aspects:

- Briefing SMU: a “cradle of international shipping specialists”
- IMO MTCC-Asia
- IMO GMN

The next speaker is Capt. Wang Deling and he gave a presentation on “IMO conventions, practices and trends for GHG control and Energy efficiency.”

The presentation covered following aspects:

- IMO regulatory framework for ship energy efficiency
- Chapter 4 of MARPOL Annex VI regulations
- Guidelines for calculation of Attained EEDI
- Guidelines for verification of Attained EEDI
- Guidelines for development of SEEMP
- Guidelines for calculation of EEOI

After the lunch break, Capt. Wang Deling gave a presentation on “Key technologies for GHG control and EE – outlines, comparisons and outlook”. He introduced various technologies, most importantly, made comparisons so that the participants can decide on the applicable types of technologies in their country in future.

In his presentation, the following methods of reducing fuel consumption were introduced respectively:

- IMO framework for GHG emissions control from ships
- Ship-board organisation, roles and responsibilities
- Trim optimisation, its impact and best practice
- Speed optimization, its impact and best practice
- Ballast water management
- Hull and propeller roughness and fouling
- Engines and machinery utilization management
6.3 Workshop Session 2 (DAY 2)

The morning session included two Case Studies: “The utilization of trimming optimization technologies” and “The technologies applied for fuel consumption data collection”, presented by Capt. Wang Deling. He introduced the latest information and practices in MTCC-Asia pilot projects to the participants, focusing on the technological development.

For the first case study “The utilization of trim optimization technologies (TOT)”, Capt. Wang Deling gave an introduction from the following aspects:

- Background
- Advantages of “TOT”
- “TOT” in Theory
- “TOT” in practices
- “TOT” Scheme of MTCC-Asia
The afternoon session was the Seminar on Country Report and Need Analysis chaired by Mr. Wang Xian from MTCC-Asia. It adopted a modern pedagogic way for information exchange, for the purpose of maximizing the efficiency of the training program in terms of recognizing the status quo and needs in different countries, as well as understanding the potential co-operations. Since preliminary invitation and outline were sent to the participants on 6th, December 2017, during the seminar, the country reports were prepared and presented respectively by participants from different countries within Asian region. The collection of all presentations by participants will be sent as attached.

6.4 Workshop Session 3 (Day 3)

In the morning session, Mr. Zhang Kunkun, from China MSA gave the presentations on “China’s efforts on GHG control and energy efficiency” and “Modern maritime safety administration”.

The presentation on “China’s efforts on GHG control and energy efficiency” covered the following aspects:
- Participator of global governance
- Forerunner of green development
- Facilitator of international cooperation

The presentation on “Modern maritime safety administration” covered the following topics:
- IMO framework for GHG emissions control from ships
- Ship-board organisation, roles and responsibilities
- Trim optimisation, its impact and best practice
- Speed optimization, its impact and best practice
- Ballast water management
- Hull and propeller roughness and fouling
During the afternoon session, representatives from China, India and Cambodia were invited to make introductory speeches. It aimed to deepen the knowledge and information on the practices, experiences and challenges for GHG controlling and EE promotion. Following the presentations, a Question and Answer session was arranged for further discussion.

6.5 Train The Trainer Course (Day 4)

Professor Wang Xian organized the session of “Train The Trainer Course” based on IMO Model Course 6.09 combining the contents of energy efficiency in shipping field.

In the morning session, Professor Wang’s course covered the content as follows:

- Learn the latest training theory
- Learn the classroom equipment and floor layout
- Learn the constructivism and active learning

And in the afternoon session, the course covered:

- Learn the teaching approach to motivate students
- Learn the assessment of your education
- Learn how to design a course
In the Train The Trainer Course, all participants were separated into 6 groups. Discussion, debating and experience sharing were carried out by each group in the class.

Before closing of the course for that day, assignments were given to all the trainees to produce a teaching plan by each group, and the teaching plan would be shared and discussed in the following day.

6.6 Train The Trainer Course (Day 5)

An open-up course was conducted under the supervision of Professor Wang Xian, teaching plans made by each group were shared, discussed and amended as appropriate in the class.

6.7 Closing ceremony

H.E Leng Thunyuthea, Undersecretary of State, Ministry of Public Works and Transport, Cambodia, on behalf of the local organizer, gave the closing remarks on the closing ceremony of the First Sub-Regional Workshop and Train The Trainer Course of MTCC-Asia. After that, the participants received their participation certificates and gifts from MTCC-Asia during the closing session.

7 Decoration and installations of the office

With the strong support from the Ministry of Public Works and Transportation Cambodia, MTCC-Asia Cambodia Office was provided its own dedicated working place.
MTCC-Asia Cambodia Office has two spacious rooms for its own use, one room used as the office for its staff and the other as a separate meeting room used for meetings, seminars in the future. The rooms are furnished in a quite good condition with plenty of desks, chairs, filing cabinets, a meeting table, and equipped with all necessary facilities like computers, a projector, printers, telephones and internet connections for office’s daily operation.

8 Visibility activities

The workshop was organized as per the Communication and Visibility Plan as agreed. The PPT template was provided by MTCC-Asia as approved before. Approved letter template was also used to publish agenda, notices, etc. Some additional materials please find the attachments as below.
Maritime Technology Cooperation Centre-Asia
1550 Haigang Avenue, Shanghai, P.R. China, 201306
Tel: 86 21 3828 4320 Fax: 86 21 3828 4329 Website: www.mtccasia.org

Agenda
30th December 2017
Phnom Penh, Cambodia
10:00 - 10:15 Opening Remarks
10:15 - 10:30 Welcome Address by the Chairperson of the Conference
10:30 - 10:45 Keynote Speech by a Senior Official of the Government and Maritime Industry
10:45 - 11:00 Session 1: Challenges and Opportunities in Maritime Technology
11:00 - 11:15 Tea Break
11:15 - 11:30 Session 2: Emerging Technologies and their Applications
11:30 - 11:45 Panel Discussion on Future Trends in Maritime Technology
11:45 - 12:00 Closing Remarks
12:00 - 12:15 Lunch Break
12:15 - 12:30 Session 3: Case Studies and Best Practices in Maritime Technology
12:30 - 12:45 Panel Discussion on Lessons Learned from Successful Projects
12:45 - 13:00 Closing Remarks
13:00 - 14:00 Lunch
After the event, MTCC-Asia released news on the GMN website, the MTCC-Asia website and SMU website, the MTCC-Asia WeChat official account, etc. Please see the pictures and links below, and the videos have been sent to PCU by other means.

Link 2: http://gmn.imo.org/event/mtcc-asia-first-sub-regional-workshop-cambodia/

Link: http://www.mtccasia.org/index.php/cambodia-branch-office/
Maritime Technology Cooperation Centre-Asia
1550 Haigang Avenue, Shanghai, P.R. China, 201306
Tel: 86 21 3828 4320  Fax: 86 21 3828 4329  Website:  www.mtccasia.org

MTCC-Asia Cambodia Branch Office Officially Established

On November 26, the MTCC-Asia Cambodia branch office was formally established in Phnom Penh, the capital of Cambodia. It became the first offshore branch office of MTCC-Asia, the world’s largest maritime technology cooperation platform. The official establishment of the Cambodia branch office is of great significance, as it is the first offshore branch office of MTCC-Asia. The establishment was attended by over 200 representatives from government officials, enterprises, universities, research institutions, and other organizations in Cambodia, China, and other countries. Before the event, H.E. Mr. Phnom Penh, Minister of Commerce of Cambodia, and Mr. Liu Weishi, President of the MTCC-Asia, jointly unveiled the plaque for the Cambodia branch office.

The establishment of the MTCC-Asia Cambodia branch office has been welcomed by the Cambodian government and media. After the opening ceremony, Mr. Phnom Penh met with the local media representatives.

From November 26 to December 2, MTCC-Asia also organized its first four-day technical seminar and training conference on the topic of “Combating Oil Pollution” in Phnom Penh. The seminar was attended by over 200 representatives from government officials, enterprises, universities, research institutions, and other organizations in Cambodia and neighboring countries. It focuses on preventing and combating oil pollution. Through seminars, training sessions, and a technical exhibition, it aimed to promote the application and utilization of advanced marine technology and management.


Link:  http://mp.weixin.qq.com/s/SgPPgUTQaCfRQxgFUoo-hQ
Annex 1 Agenda

18th Dec 2017
0900-0930  Opening Ceremony
1000-1030  GMN & MTCC-Asia
1030-1200  IMO Conventions, practices and trends for GHG control and Energy Efficiency
1330-1700  Key technologies for GHG control and EE–outlines, comparisons and outlook

19th Dec 2017
0900-1200  Case Study in MTCC-Asia: Utilization of trimming optimization technologies / Technologies applied for fuel consumption data collection
1330-1700  Seminar: Country report and needs analysis (Cambodia, China, Malaysia, Myanmar, Thailand, etc.)

20th Dec 2017
0900-1000  China’s efforts on GHG control and energy efficiency
1030-1200  Modern Maritime Safety Administration
1330-1700  Seminar: Challenges and solutions for GHG control and EE

21st Dec 2017
0900-1200  Train The Trainer Course
1330-1700  Train The Trainer Course

22nd Dec 2017
0900-1100  Train The Trainer Course
1130-1200  Closing Ceremony
## Annex 2 Participants List

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Country</th>
<th>Department</th>
<th>Travel funded by</th>
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<tr>
<td>1</td>
<td>Huang Kaiwei</td>
<td>China</td>
<td>Hainan Maritime Safety Administration of P. R. China</td>
<td>IMO</td>
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<td>2</td>
<td>Lin Jian</td>
<td>Fujian</td>
<td>Fujian Maritime Safety Administration of P. R. China</td>
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<td>3</td>
<td>Wang Tian</td>
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<td>IMO</td>
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<td>4</td>
<td>Yan Songyin</td>
<td>China</td>
<td>Guangxi Maritime Safety Administration of P. R. China</td>
<td>IMO</td>
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<td>5</td>
<td>Zhang Kunkun</td>
<td>China</td>
<td>Zhejiang Maritime Safety Administration of P. R. China</td>
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<td>6</td>
<td>Tang Ming</td>
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<td>Jiangsu Maritime Institute of P. R. China</td>
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<td>7</td>
<td>Zhang Dousheng</td>
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<td>Jiangsu Maritime Institute of P. R. China</td>
<td>Self pay</td>
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<td>8</td>
<td>Senthil Kumar Jayaraman</td>
<td>India</td>
<td>Director General of Shipping, Ministry of Shipping, Government of India</td>
<td>IMO</td>
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<td>9</td>
<td>Mohd Nurrul Faiz Bin Mohd Taib</td>
<td>Malaysia</td>
<td>Marine Department Malaysia</td>
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<td>Khin Thandar Oo</td>
<td>Myanmar</td>
<td>Department of Marine Administration</td>
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<td>Thandar Zaw</td>
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<td>12</td>
<td>Buree Naveesumphan</td>
<td>Thailand</td>
<td>Marine Department, Ministry of Transport, Thailand</td>
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<td>13</td>
<td>Charuaporn Yaikaew</td>
<td></td>
<td>Marine Department, Ministry of Transport, Thailand</td>
<td>IMO</td>
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<td>Lim Senglm</td>
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<td>National Committee for Maritime Security</td>
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<td>Department of Techniques Science and Technology</td>
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<td>29</td>
<td>Zhu Sha</td>
<td>MTCC-Asia (SMU)</td>
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<td>Wang Deling</td>
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