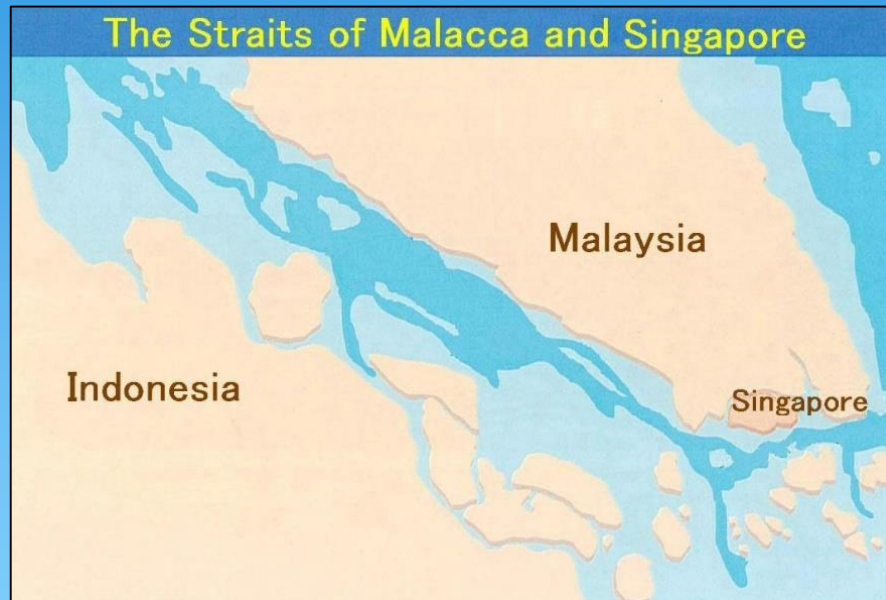


MSC's Co-operation to Enhance Safety of Navigation in the SOMS and updates on the Joint Hydrographic Survey



**The 11th Cooperation Forum
24th -25th September 2018
Singapore
Mr. Eiichi Kato
Executive Director
Malacca Strait Council of Japan**

Content of Presentation

- 1. About Malacca Strait Council of Japan (MSC)**
- 2. Main Activities of MSC in the Past**
- 3. Main Activities of MSC from 2008 to the Present**
- 4. Auditor for Aids to Navigation Maintenance Work**
- 5. Studies for improvement of Safety of Navigation in the SOMS**
- 6. Joint Hydrographic Survey in the SOMS**

1. About Malacca Strait Council of Japan (MSC)

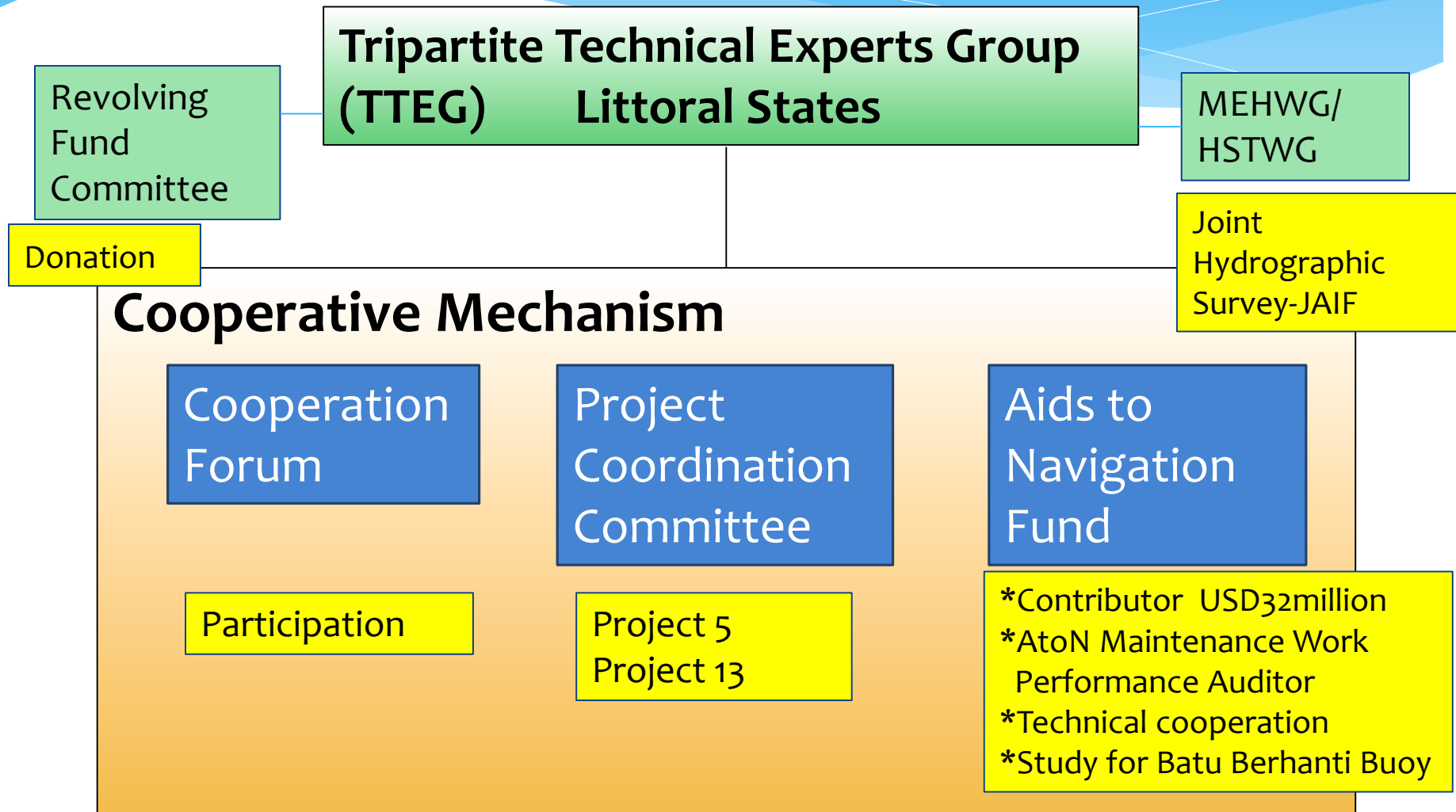
- * MSC is the public organization established in 1969 in Japan with funding support by the Nippon Foundation and related industries for the purpose of conducting the cooperation to the Littoral States for the enhancement of the safety of navigation in the SOMS.
- * MSC works closely with the Government of Japan.
- * MSC's council members are the stakeholders for the safe navigation in the SOMS.
- * MSC's activity at present is mainly supported by these stakeholders including Japanese Shipowners' Association, Petroleum Association of Japan, etc.
- * Joint Hydrographic Survey from 2017 to 2020 is to be implemented by the Littoral States and MSC with funding support from Japan-ASEAN integration Fund.

2. Main Activities of MSC in the Past

- * **Joint Hydrographic Survey in the SOMS**
1969~1975, 1978, 1996~1998 3.5 billion yen
- * **Removal of Shipwrecks**
1973~1978 1.4 billion yen
- * **Installation of Aids to Navigation (total 45 times in 30 sites)**
1969~2000 2.8 billion yen
- * **Cooperation in Maintenance of Aids to Navigation**
1969~2002 2.5 billion yen
- * **Donation of Oil Skimming Vessel to Singapore**
1973 50 million yen
- * **Donation of the Buoy Tender vessels to Malaysia and Indonesia**
1976, 2002 & 2003 2.1 billion yen
- * **Dredging works in the Strait of Singapore**
1979 1 billion yen
- * **Donation of Revolving Fund**
1981 400 million yen

3. Main Activities of MSC from 2008 to Present

*** Cooperative Mechanism was started in 2008**



4. Auditor for Aids to Navigation Maintenance Work

2017 1st round AtoN inspection and maintenance work
MSC as Work Performance Auditor



MALAYSIAN TEAM



INDONESIAN TEAM

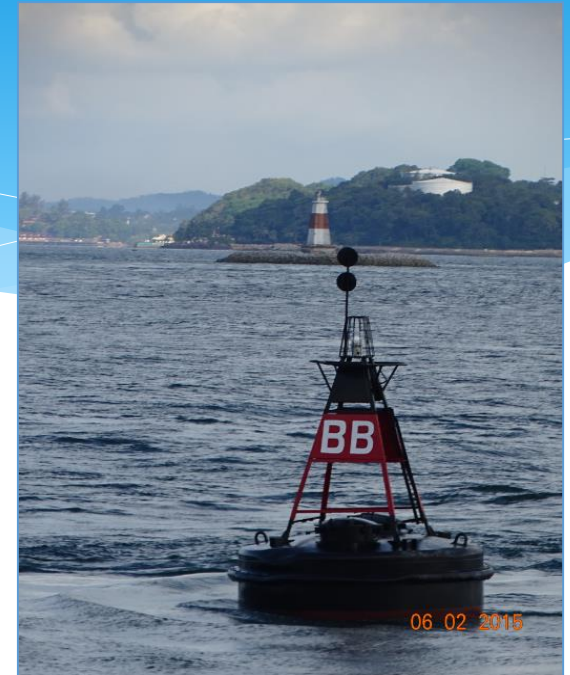


SINGAPOREAN TEAM



5. Studies for Improvement of Safety of Navigation in the SOMS

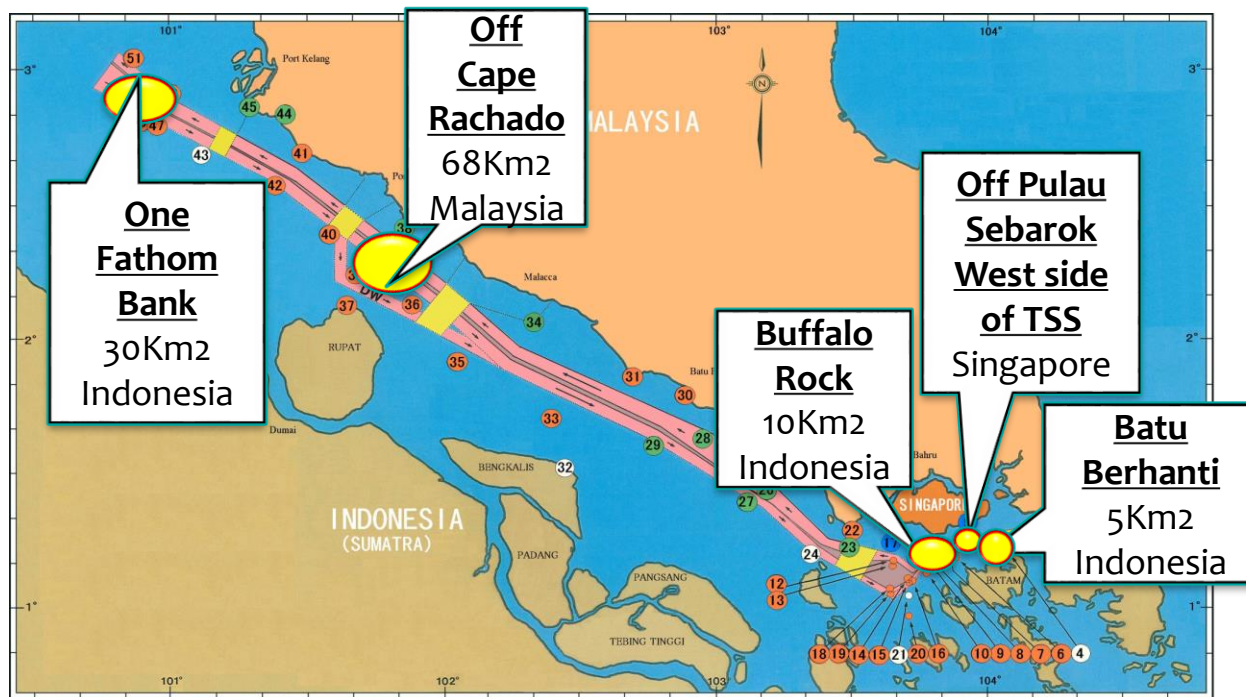
- Study requested under ANF Committee
Study for preventive measures against Collision of Batu Berhanti Light Buoy → Analyzing the cause of collision and proposing several alternative measures to be further considered by Indonesia and other Littoral States
- Study as the Strait Project (Project 13, Singapore as co-leader)
Study for consideration of new measures for the safety of navigation in the SOMS-



6-1. Joint Hydrographic Survey - Phase 1

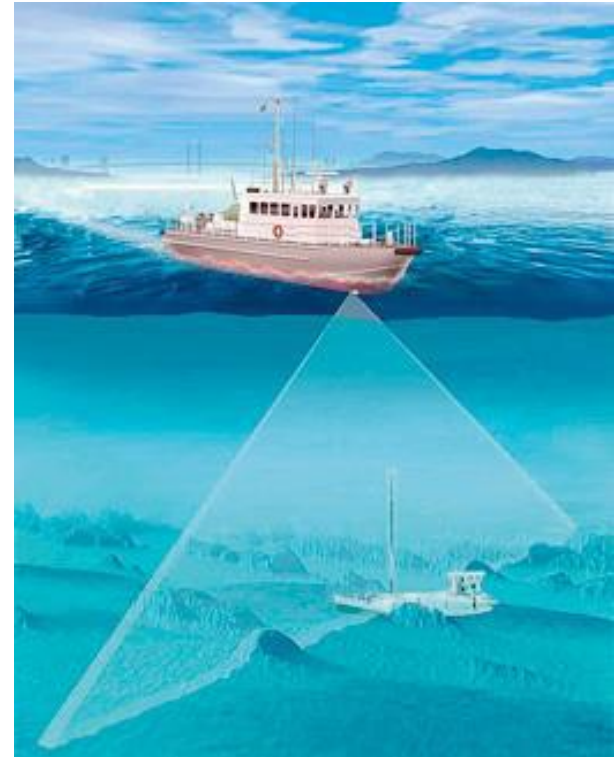
- MSC in cooperation with the Japanese Shipowners' Association (JSA) and Japan Hydrographic Association (JHA) participated in the Joint Hydrographic Survey of 5 critical areas in SOMS that was successfully implemented from 2015-2016.
- This Joint Hydrographic Survey project is implemented under Marine Electronic Highway Working Group of TTEG.
- The new updated ENC reflecting the result of Phase 1 Survey was produced and issued in November 2016.

5 re-survey area of SOMS



6-2 . Joint Hydrographic Survey - Phase 2

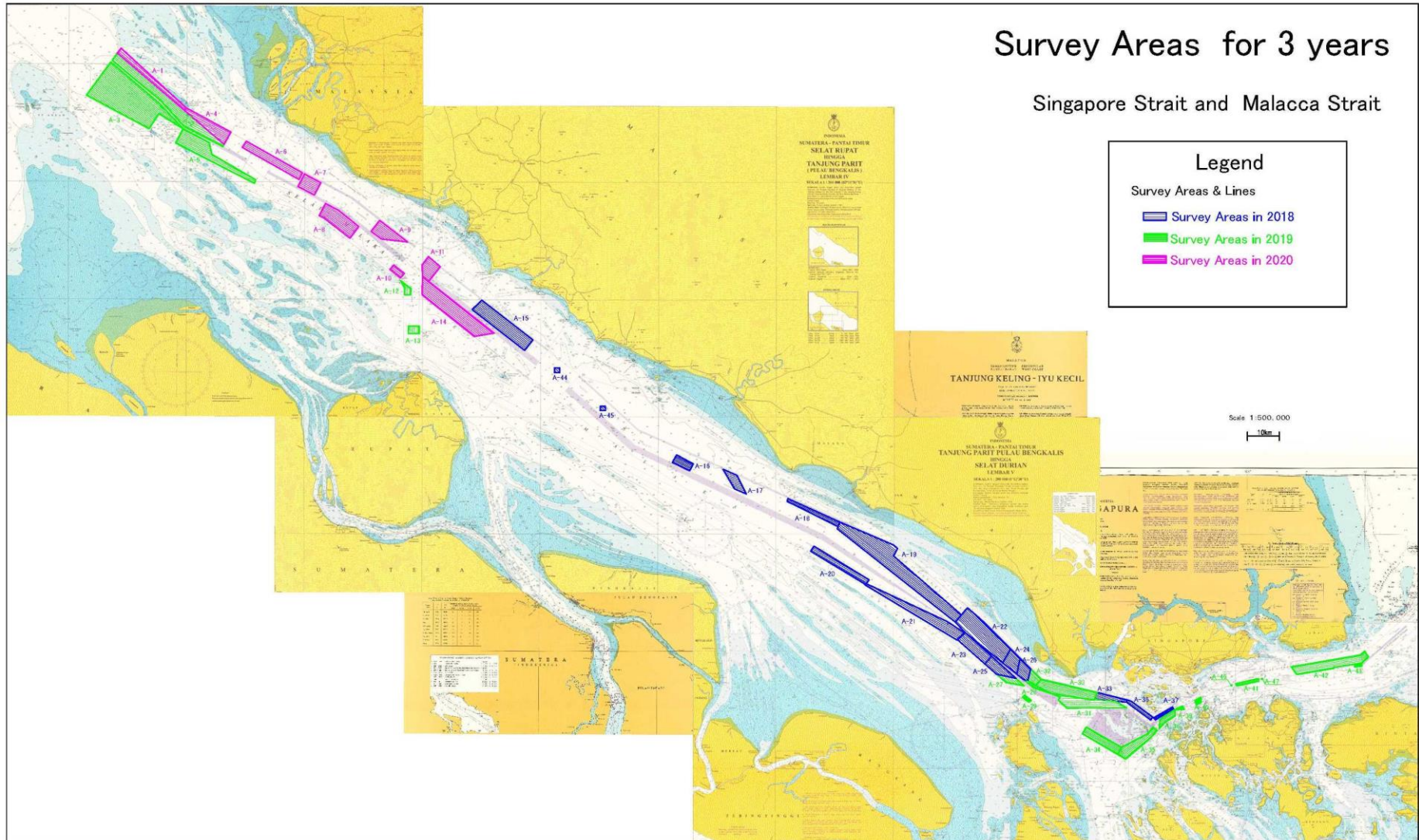
- Following the success of Phase 1 Joint Hydrographic Survey, the Littoral States and MSC is to start Phase 2 Joint Hydrographic Survey from 2017 to 2020 with financial support by Japan-ASEAN Integration Fund (JAIF).
- Actual survey work will be implemented by MSC and the Japanese survey company with the supervision by the Littoral States.
- Survey targeted sea area is the shallow area less than 30m depth covering about 1/3 of whole TSS.
- Survey will be implemented by using multi-beam eco-sounder device that can show 3D image of the seabed.



6-3. Survey Areas of Phase 2 Project

Survey Areas for 3 years

Singapore Strait and Malacca Strait



6-4 . Photos of the Hydrographic Survey (1)



Launching Ceremony in Singapore on 3rd March ↑

Survey Vessel ↓



Mother Vessel ↑

Launching Ceremony in Malaysia on 13th March ↓



6-5 . Photos of the Hydrographic Survey (2)



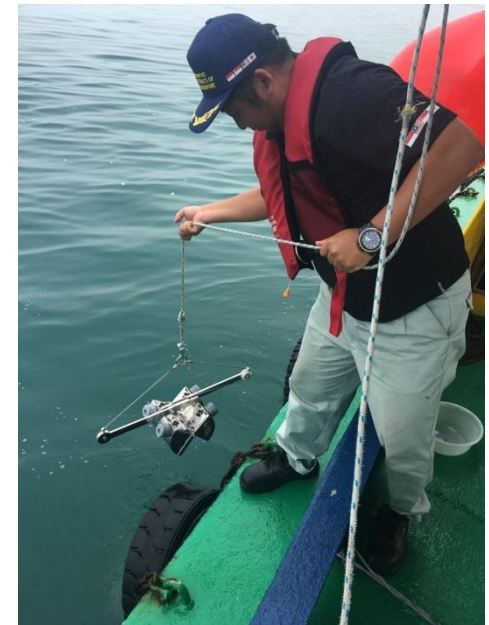
↑
Maneuvering Survey vessel
↓



↑
Date Processing in mother vessel



↑
Shore Leave



Bottom Sampling by Grab Sampler →

6-6. Result of the 2018 Survey

- Survey distance : 9,168km
- The survey period is from 5th March to 3rd September took 129 survey days in the SOMS.
- 2018 planned survey in Singapore areas and southern parts of Malaysia areas in the SOMS are accomplished.
- 38.01% of the planned survey areas for 3 years have been completed by 2018 survey.
- The sea bed sampling have been implemented in positions that were selected based on Back Scatter data.
- Survey was influenced by NE monsoon in March and SW Monsoon from April to July. The survey vessel had rolled heavily due to swelling sea condition

6-7. Analysis of acquired data in 2018

- Each Observer from Singapore and Malaysia boarded the survey vessel and observed the survey in each country areas.
- Tide Observation have been implemented by the agency of each country and the tidal data was provided from them.
- Data processing
 - At survey site :
Carry out coarse noise processing to perform everyday QC check and make sure for full seafloor search.
 - At Japan :
Backup surveyed data, Apply correction files, Carry out fine noise processing, Identify and classify significant features, Perform QC with data inspection IHO S-44 Order 1a, Sorting depth soundings fit to corresponding chart's scale and Create the deliverables.
- Quality Assurance and Quality Control Meeting will be held middle of November in Japan. Officers from each member state would witness the data processing to ensure the quality control and the data erasing from Japanese survey company.

MSC's appreciation to the Littoral States

- *MSC appreciates all the effort taken by the Littoral States to improve the safety of navigation and the protection of marine environment in the SOMS so that the Users are able to transit safely in this busy and shallow Straits.**
- *MSC recognizes the importance of the United Nations Convention on the Laws of the Sea, and the sovereignty of the Littoral States in carrying out its cooperation.**
- *Based upon the spirit of Article 43 of UNCLOS, MSC acknowledges that the User States and the Users are required to contribute in various way for the enhancement of the safety of navigation in the SOMS in voluntary base.**
- *MSC, having 49 years of cooperative relationship and joint work experience with the Littoral States, would continuously participate in the cooperative activities together with the Littoral States toward the future.**

Thank you for your kind attention

MSC will commemorate its 50 years anniversary in 2019 since its establishment in 1969

