Minutes of Meeting

The 21st Meeting of Malaysia – Thailand Joint Evaluation Team on Golok River Mouth Improvement Project

17 – 18 April 2012
Kota Kinabalu, Sabah, Malaysia

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AGENDA 1: OPENING ADDRESSES

Dato' Ir. Lim Chow Hock, the leader of Malaysian Delegation welcomed the Thai Delegation to the 21st Meeting of the Joint Evaluation Team (JET) on the Golok River Mouth Improvement Project on 17 – 18 April 2012 in Kota Kinabalu, Sabah, Malaysia. Mr. Somkiat Prajamwong, the leader of the Thai Delegation, expressed his appreciation for the warm welcome and arrangements for the meeting. Both sides introduced their delegates to the Meeting. The list of delegates is as shown in Appendix A.

AGENDA 2: MATTERS FOR CONSIDERATION

2.1 Report of Monitoring and Evaluation of Golok River Mouth

The pre- and post-monsoon survey for the 2011/2012 monsoon season was carried out by the Thailand side in October 2011 and March 2012 respectively. The survey plans are as shown in Appendix B. Based on the pre-monsoon survey, the Thailand side reported that there was less sedimentation and the river mouth was observed partially opened in comparison to the post-monsoon survey in June 2011 of which river mouth was fully blocked. However, based on the post-monsoon survey in March 2012, it was observed that more sediment bypasses the tip of Malaysian breakwater in comparison to the pre-monsoon survey in October 2011.

It was also observed that the major flow of the river has diverted towards Thailand side and an offshore sand bar was formed. Thailand side pointed out that there is only a narrow outlet (design depth -3m MSL). Thailand side reported that this hydraulic phenomenon is similar to hydraulic phenomenon before the implementation of river mouth project but occur in deeper seabed. Thailand side also reported that the riverbed of Thai side near Transit Point B started to erode and might affect the stability of the breakwater at Thai side and the structure of Transit Point B.

The Meeting agreed that:-

(i) The depth and direction of the navigation channel should be maintained as

designed.

(ii) The stability of breakwater at Thai side shall be monitored and the effectiveness of the breakwater at Malaysia side should be reviewed if the sediment bypass persists.

(iii) Further monitoring surveys shall be carried out by 0.2m contour interval, and the color legend used in the drawings for all the years should be consistent.

(iv) Future survey shall be operated in the same mode as before. The coming pre-monsoon (October 2012) and post-monsoon (March 2013) shall be carried out by Malaysian side associated with the river flow hydrograph and sedimentation calculation.

2.2 Proposed Maintenance Dredging of Golok River Mouth

The sediment was not flushed away as usual compared to previous monsoon seasons. This phenomenon of increased post-monsoon sedimentation at the river mouth has been observed since the pre-monsoon 2009 survey. Due to the dynamic hydraulic phenomenon at the river mouth, the needs for the maintenance dredging of Golok River Mouth shall be determined based on the monitoring survey of the pre-monsoon 2012 and post-monsoon 2013.

Maintenance dredging shall be proposed, if the navigation channel was found shallower than the designed depth in two continuous monsoon seasons.

2.3 Cableway Stations across Golok River

The Meeting agreed that both sides should refer to the same datum and benchmark in carrying out gauging works. It is also agreed that both sides should follow the table below in developing a mutual rating curve:

No.	Flow Type	Nos. of readings	Divination
1.	Low Flow (< 1 meter depth)	2 readings	0.2d and 0.8d
2.	Medium (Normal) and High Flow (> 1 meter depth)	4 readings	0.2d, 0.4d, 0.6d and 0.8d

The meeting agreed that mutual calibrations will be covered in a year with low, medium

(normal) and high flow. The Meeting also agreed that monthly mutual calibration should be carried out from May 2012 to May 2013. Before first mutual calibration in May 2012, same method of calculation should be agreed and revised in equipment of both sides. For each mutual calibration, there will be three plots; Malaysia, Thailand and average readings. Both sides should use the agreed rating curve for discharge. The schedule for mutual calibrations will be decided by hydrology teams of both sides. The progress of the mutual calibrations should be reported in the next JET meeting.

2.4 Progress on Real Time Monitoring System in the Golok River Basin and the Joint Website

The Meeting agreed to use the existing URL http://h2o.water.gov.my/golok/main.html as the permanent URL for joint website. The Joint website should be linked to main page of the Departments of both countries. The website should be host by Water Resources Management and Hydrology Division, DID Malaysia. The contact person for the joint website are as follows:

	Contact Person	Division
Malaysia	Ms. Carine Wong Koh Yin	River Basin and Coastal Zone Management Division, DID Malaysia
Thailand	Mr. Somchai Imyoo	Hydrology and Water Management Center for Southern Region, RID Thailand
	Ms.Chawee Wongprasittiporn	Office of Project Management, RID Thailand

To improve the website, the Meeting agreed that a Golok River Basin map with the location of rainfall, water level and stream flow stations of both sides should be published in the joint website.

2.5 Rehabilitation of Transit Point B

The Malaysian side informed that the contractor to carry out the rehabilitation works of Transit Point B has been appointed and the physical work on site will start once received the acknowledgement letter from Thai side.

The Thai side reported that a meeting with Thai related agencies regarding rehabilitation works of Transit Point B was arranged on 12 April 2012. The meeting agreed the rehabilitation works by Malaysian side is a minor repair and the Ministry of Foreign Affair, Thailand will issue the acknowledgement letter to Malaysian side. The rehabilitation works will include Thai authority (Hydrographic Department, Royal Navy, Thailand) throughout the implementation of the rehabilitation works. The Malaysian side will submit scope of work, detailed work plan and monthly progress report to the Thai side to related authority.

2.6 Joint Hydraulic Modeling Studies

The Meeting agreed that the proposed scope of the survey works by both sides shall be as in Appendix C. The survey works by both sides should refer to the same datum and benchmark, and the cross section of bathymetric survey (river/offshore survey) should connect with the topographic survey (inland survey) at each interval. The Meeting agreed that these survey data will be shared by both sides.

The Meeting agreed that the proposed schedule for survey works of both side shall be as follows:

- Early June 2012 : Proposed scope of survey works to be endorsed by JTWG
- June ~ Sept 2012 : Perform survey works

The Meeting agreed that the survey works required at each country boundary shall be surveyed by each side. However, soil grab sample at area 2M and 2T shall be carried out by Malaysian side as works carried out separately will involved higher cost (such as double costing for mobilization and demobilization).

2.7 Proposed flood forecasting and warning system of the Golok River Basin

The Malaysian side proposed to use Tank Model as the configuration of flood forecasting system. The Malaysian side will prepare a paper by May 2012 regarding the objectives and benefits, data required, concept of the modeling and a working plan so that both sides can use the same model. This will be further discussed in the next JET meeting.

2.8 Matters to be referred to the JTWG Meeting

Matters for Information

(a) Report of monitoring and evaluation of Golok River Mouth

(b) Proposed maintenance dredging of Golok River Mouth

(c) Cableway station across the Golok River

(d) Progress of real time monitoring system in the Golok River Basin and the joint website

(e) Rehabilitation program of Transit Point B

Matters for Consideration

(a) Joint Hydraulic Modeling Studies

  (i) Joint study on Coastal Flooding at Golok River Mouth

  (ii) Joint Hydraulic Model on the Assessment of the Golok River Mouth Improvement along Coastal Areas.

AGENDA 3: OTHER MATTERS

3.1 Proposed date and venue for the 22nd JET meeting

The meeting proposed the date and venue for the next JET meeting as follows:

Date: 26 – 29 November 2012

Venue: Chiang Rai, Thailand

3.2 Proposed new agenda; Integrated River Basin Management (IRBM) plan for the Golok River

The meeting agreed to propose an Integrated River Basin Management (IRBM) plan for the Golok River as a new agenda. Both sides will prepare the paper on the objectives, expected actions and a working plan and this will be further discussed in the next JET meeting.

AGENDA 4: ADOPTION OF MINUTES OF THE MEETING

The meeting agreed to adopt the minutes of meeting of the Twenty First Meeting of Malaysia – Thailand Joint Evaluation Team on the Golok River Mouth Improvement Project.

(Dato' Ir. Lim Chow Hock)
Co-Chairman
Joint Evaluation Team, Malaysia

(Mr. Somkiat Prajamwong)
Co-chairman
Joint Evaluation Team, Thailand

Attendance List
21st Meeting of Thailand – Malaysia Joint Evaluation Team on the Golok River Mouth Improvement Project

17 – 18 April 2012
Kota Kinabalu, Malaysia

MALAYSIAN DELEGATES

1.	Dato' Ir. Lim Chow Hock	Director River Basin and Coastal Zone Management Department of Irrigation and Drainage Malaysia
2.	Mr. Mat Rahim bin Ismail	Director Department of Irrigation and Drainage Kelantan
3.	Mr. Mohd Sor Othman	Senior Engineer River Basin and Coastal Zone Management Department of Irrigation and Drainage Malaysia
4.	Ir. Hapida binti Ghazali	Senior Engineer Water Resources Management and Hydrology Department of Irrigation and Drainage Malaysia
5.	Mrs. Norasimah Mat Nor	Engineer Department of Irrigation and Drainage Malaysia
6.	Ms. Carine Wong Koh Yin	Engineer River Basin and Coastal Zone Management Department of Irrigation and Drainage Malaysia
7.	Ms. Aisyah Sakina Ahmad	Engineer River Basin and Coastal Zone Management Department of Irrigation and Drainage Malaysia
8.	Ms. Khairul Fadzilah binti Mohd Omar	Engineer Water Resources Management and Hydrology Department of Irrigation and Drainage Malaysia

SECRETARIAT TEAM

1.	Mr. Ahmad Ikhwan bin Abdul Wahid	Engineer River Basin and Coastal Zone Management Department of Irrigation and Drainage Malaysia
2.	Mr. Mohd Eizam bin Yusof	Engineer River Basin and Coastal Zone Management Department of Irrigation and Drainage Malaysia

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17 – 18 April 2012
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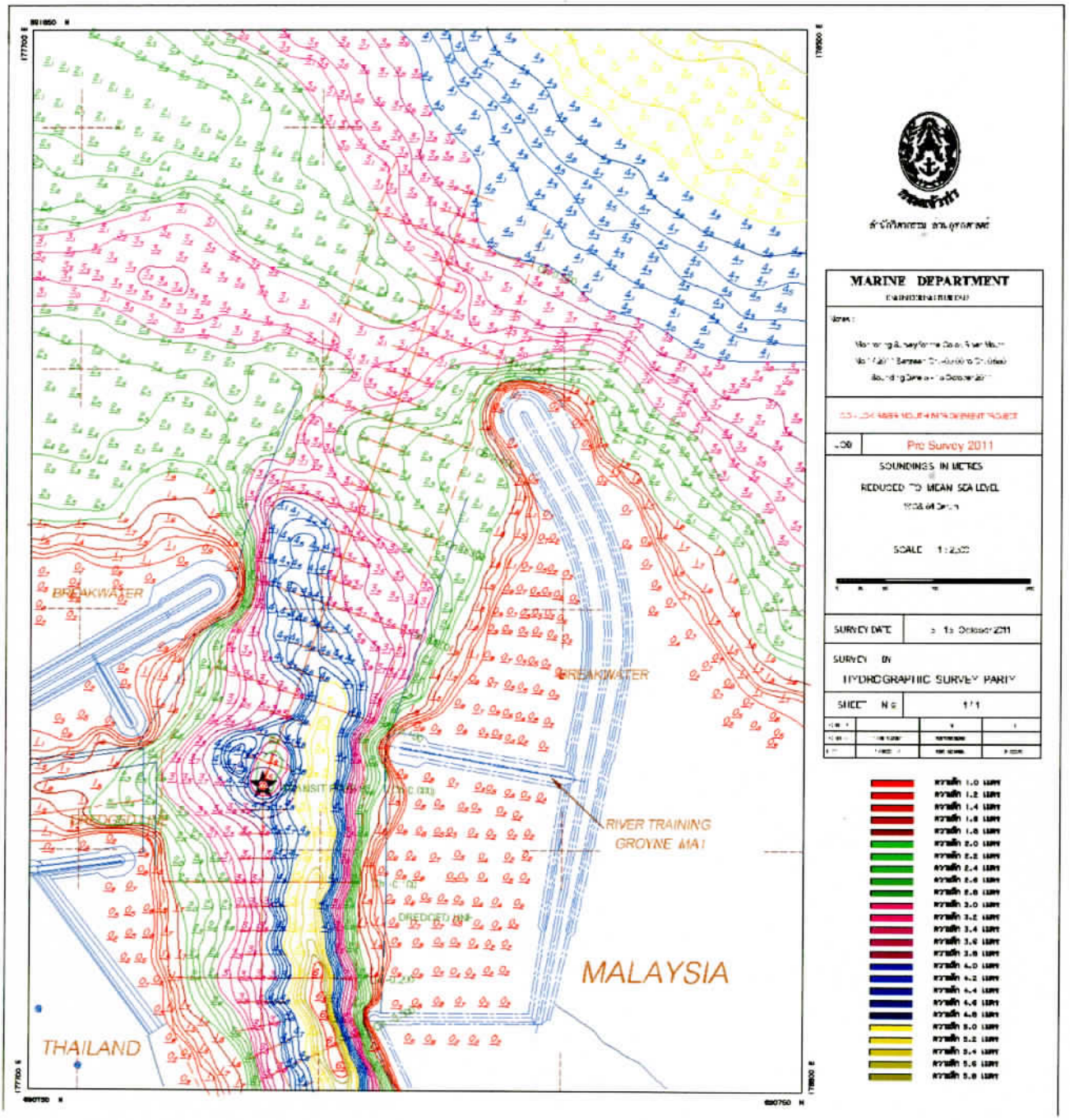
THAI DELEGATES

1.	Mr. Somkiat Prajamwong	Director Office of Project Management Royal Irrigation Department
2.	Mr. Prinya Kamolsin	Expert on Irrigation (Hydraulic Engineering) Royal Irrigation Department
3.	Mr. Chalermchai Treenarin	Director Golok River Basin Operation and Maintenance Project Regional Irrigation Office 17 Royal Irrigation Department
4.	Mr. Somchai Imyoo	Director Hydrology and Water Management Center for Southern Region Office of Hydrology and Water Management Royal Irrigation Department
5.	Mr. Attaporn Wonglimaswat	Senior Surveyor Survey and Engineering Bureau Marine Department
6.	Ms. Chawee Wongprasittiporn	Civil Engineer, Professional Level Office of Project Management Royal Irrigation Department
7.	Mr. Attapan Diloksopon	Civil Engineer, Professional Level Office of Project Management Royal Irrigation Department
8.	Mrs. Jittra Boonrod	Foreign Relations Officer, Professional Level Office of Project Management Royal Irrigation Department

PRE-MONSOON SURVEY (OCTOBER 2011) & POST-MONSOON SURVEY (MARCH 2012)



MARINE DEPARTMENT

Pre Survey 2011

SOUNDINGS IN METRES

REDUCED TO MEAN SEA LEVEL

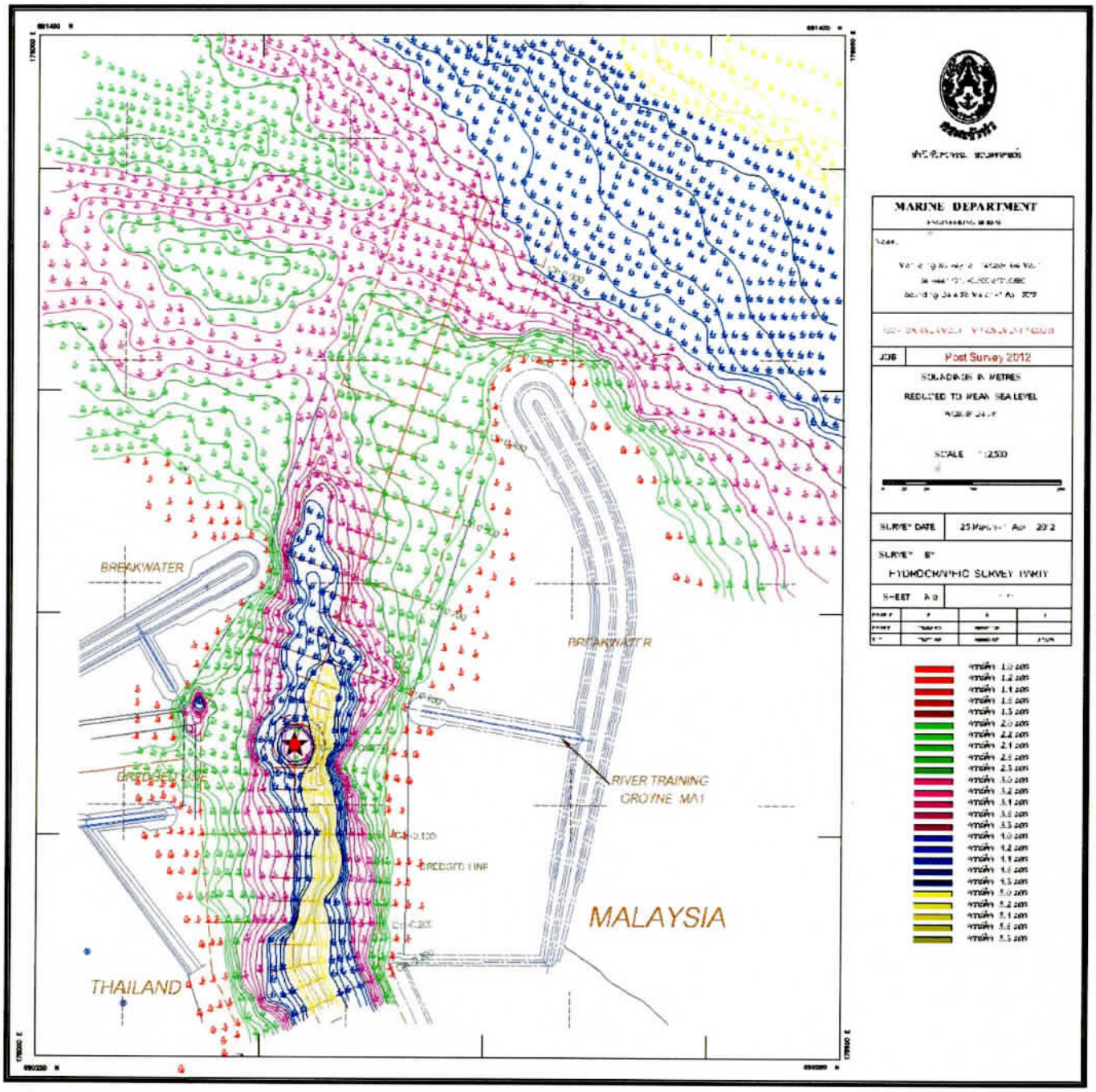
SCALE 1:2,000

SURVEY DATE : 13 October 2011

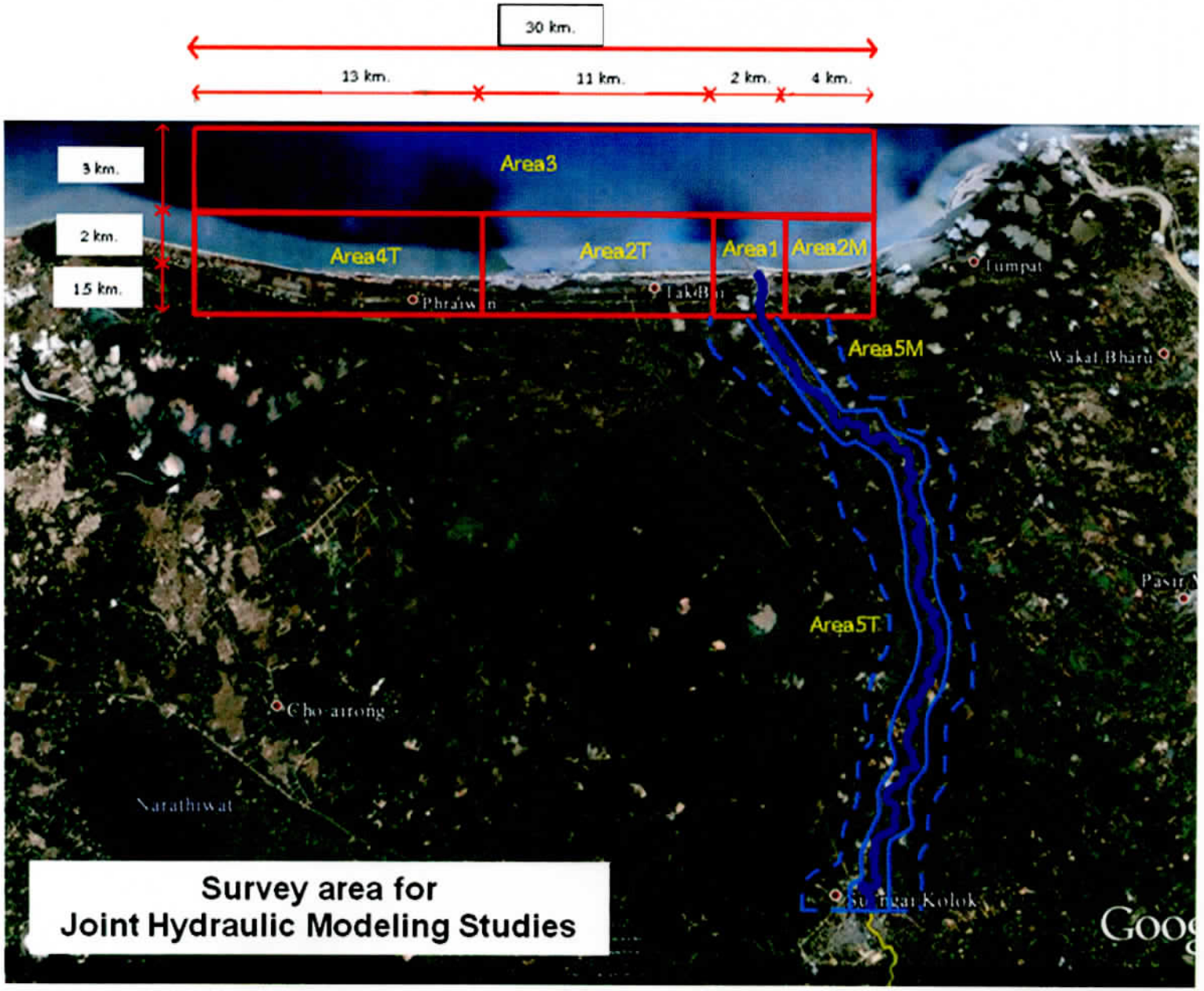
SURVEY BY

HYDROGRAPHIC SURVEY PARTY

SHEET No. 1/1


BREAKWATER
BREAKWATER
RIVER TRAINING
GROYNE MA1
DREDGED LINE
DREDGED LINE
MALAYSIA
THAILAND
MARINE DEPARTMENT
JOB
Post Survey 2012
SOUNDINGS IN METRES
REDUCED TO MEAN SEA LEVEL
SCALE
SURVEY DATE
SURVEY BY
HYDROGRAPHIC SURVEY UNIT
SHEET

PROPOSED SURVEY AREA FOR JOINT HYDRAULIC MODELING STUDIES


30 km.
13 km.
11 km.
2 km.
4 km.
3 km.
2 km.
1.5 km.
Area3
Area4T
Area2T
Area1
Area2M
Area5M
Area5T
Tumpat
Wakaf Bharu
Pasir
Phrawan
Cho-arong
Narathiwat
Survey area for
Joint Hydraulic Modeling Studies

AREA	SURVEY AREA	AGREED BY JET (*survey with witness of other side at common area)
AREA 1	Location: At The River Mouth. 1) Bathymetric Survey (2km width; 2km to the sea, including tak bai lagoon) with 50m interval to be carried out. 2) Topographic Survey To Be Extended At Least 1.5km Inland From Coastline. 3) Soil grab samples: 5 nos. in the sea and 4 nos. in the river to be taken along river centre line at 500m interval	(i) Bathymetric and topographic survey at Area 1 (except Tak Bai Lagoon and Thai inland) to be surveyed by M'SIAN SIDE. (ii) Bathymetric (Tak Bai Lagoon) and topographic survey at Thai side to be surveyed by THAI SIDE. (iii) Soil grab samples to be taken by M'SIAN SIDE.
AREA 2	Location: 4km width extended from the edge of Area 1 for both M'SIAN SIDE (Area 2M) and 11km width extended from the edge of Area 1 for THAI SIDE (Area 2T). 4) Bathymetric survey (4km width (Area 2M) and 11km width (Area 2T); 2km to the sea, including Tak Bai Lagoon) with 50m interval to be carried out. 5) Topograhic survey to be extended at least 1.5km inland from coastline. 6) Soil grab samples: 20 nos. in the sea and 2 nos. in the Tak Bai Lagoon	(i) Bathymetric and topographic survey at Area 2M to be surveyed by M'SIAN SIDE. (ii) Bathymetric and topographic survey at Area 2T to be surveyed by THAI SIDE. (iii) 20 nos. of soil grab samples in the sea (Area 2M & 2T) to be taken by M'SIAN SIDE**. (iv) 2 nos. of soil grab samples in Tak Bai Lagoon to be taken by M'SIAN SIDE**. **<u>Note:</u> 1. The Meeting agreed that survey at each country boundary to be surveyed by each side. 2. The Meeting agreed that soil grab samples shall be carried out by Malaysian side as works carried out separately will involved higher cost (such as double costing for mobilization and demobilization).
AREA 3	Location: 3km extended to the sea from edge of Area 1 & 2 (Area 3). Secondary data of Bathymetric chart (10km width; 5km extended to the sea from edge of Area 1 & 2).	Use available bathymetry chart MAL664 (Edition of 31 Oct 2006) and MAL673 (Edition of 1 Apr 2003) by M'SIAN SIDE. Note: Use latest bathymetry chart available as Thai side's available bathymetry chart is edition of Nov 2002.
AREA 4	Location: The length of shoreline area in Thai side will cover up to 5 km from the last groyne. (Area 4T)	Bathymetric and topographic survey at Area 4T to be surveyed by THAI SIDE.

	1) Bathymetric survey (at least 13 km width; 2km to the sea, including Tak Bai Lagoon) with 50m interval to be carried out. 2) Topograhic survey to be extended at least 1.5km inland from coastline with 0.5m contour line to be carried out.	
AREA 5	Location: Survey areas of the upstream boundary should cover from river mouth up to the cableway station of Rantau Panjang station or X119A station. 1) River cross section survey (up to 100m from river bank): - For first 0.7km of from the rivermouth, river cross section survey with 25m interval (spacing) shall be carried out. - For the next 3.5km, river cross section survey with 200m interval (spacing) shall be carried out. - For the remaining length, river cross section survey with 1km interval (spacing) shall be carried out. 2) Major tributaries of both sides along Golok river will be surveyed up to the length of 1 km from their confluences. 3) Soil grab samples: 4 nos. in the river to be taken along river centre line. Location: Flooded prone areas / retarding ponds of both sides along Golok river (extended from 100m of river banks as specified in Area 5) 4) Topographic survey (scale 1:10,000) with 1m contour line to be carried out extended from 100m from river banks to the flooded prone areas	(i) River cross section survey (Inland) to be surveyed by each side. (ii) River cross section survey for the first 5km to be surveyed by M'SIAN SIDE. (iii) River cross section survey for the remaining length to be surveyed by THAI SIDE. (iv) Major tributaries of both sides along Golok river will be surveyed upto the length of 1 km from their confluences by each side. (v) Soil grab samples to be taken by M'SIAN SIDE. (vi) Topographic survey at Area 5M to be surveyed by M'SIAN SIDE. (vii) Topographic survey at Area 5T to be surveyed by THAI SIDE.