

INTERNATIONAL COURT OF JUSTICE

**REQUEST FOR INTERPRETATION OF THE JUDGMENT OF 23 MAY 2008 IN THE CASE  
CONCERNING *SOVEREIGNTY OVER PEDRA BRANCA/PULAU BATU PUTEH, MIDDLE  
ROCKS AND SOUTH LEDGE (MALAYSIA/SINGAPORE)* (MALAYSIA V. SINGAPORE)**

**WRITTEN OBSERVATIONS OF  
THE REPUBLIC OF SINGAPORE**

**VOLUME 4**

**( Annexes 53 to 58 )**

30 OCTOBER 2017

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## **Annex 53**

*Seventh Sub-Committee Meeting on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge, Kuala Lumpur, Malaysia, 13-14 May 2010, Record of Discussion*

(Appendices G, H and I have been omitted due to their length)



**CONFIDENTIAL**

**SEVENTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA**

**13 - 14 MAY 2010**

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**RECORD OF DISCUSSION**

**INTRODUCTION**

1. The Seventh Sub-Committee Meeting on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge between Malaysia and the Republic of Singapore was held in Kuala Lumpur, Malaysia on 13 - 14 May 2010.
2. The Malaysian delegation was led by Dato' Prof. Dr. Abdul Kadir bin Taib, Director General, Department of Survey and Mapping Malaysia.
3. The Singapore delegation was led by Mr. Lionel Yee, Director-General, International Affairs Division, Attorney-General's Chambers, Singapore.
4. The lists of the Malaysian and Singapore delegations are appended as **Appendix A** and **Appendix B** respectively.

**AGENDA ITEM 1: OPENING REMARKS**

5. The Head of the Malaysian Delegation's opening remarks are attached as **Appendix C**. The Head of the Singapore Delegation's opening remarks are attached as **Appendix D**.

**AGENDA ITEM 2: ADOPTION OF THE AGENDA**

6. The Agenda for the Meeting, which was adopted by both Delegations, is appended as Appendix E.

**AGENDA ITEM 3: DISCUSSION ON THE MEMORANDUM OF UNDERSTANDING BETWEEN THE GOVERNMENT OF MALAYSIA AND THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE WITH REGARD TO THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

7. The Meeting was informed that Malaysia's counter proposal to Singapore's draft Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks (MoU) was forwarded to the Singapore side through diplomatic channels on 31 March 2010 and was also delivered to the Singapore side during the 6th Sub-Committee Meeting in Johor Bahru, Malaysia on 1 April 2010.

8. The Malaysian side received Singapore's counter proposal to Malaysia's aforesaid counter proposal on 12 May 2010 as appended as Appendix F. The Singapore side orally presented its said counter proposal providing some explanation to the Meeting on its proposed amendments and had also requested for some clarifications from the Malaysian side.

9. The Malaysian side made some clarifications on its aforesaid counter proposal and informed the Meeting that Malaysia's response to Singapore's counter proposal will be forwarded through diplomatic channels. Both sides agreed to work towards finalisation of the MoU at the next meeting of the Sub-Committee.

**AGENDA ITEM 4: OTHER MATTERS**

10. Pursuant to the decision at the 6th Sub-Committee Meeting, three potential independent service providers namely S.O Survey Consultants, Geometra International (Private) Limited and Fugro Survey Pte. Ltd. were invited to present on their capabilities, methodology, technique and time taken to conduct the hydrographic survey in and around Pedra Branca and Middle Rocks. The presentations of S.O Survey Consultants, Geometra and Fugro are appended as **Appendix G**, **Appendix H** and **Appendix I** respectively.

11. The Malaysian side insisted to exclude Atlas and Reson echo sounder for the Joint Hydrographic Survey, which are currently being used by the respective competent authorities of Malaysia and Singapore. Malaysia proposed that the said exclusion be spelt out in the technical specifications as a condition to be complied by the potential independent service provider. Singapore was of the view that it was premature to select the echo sounder to be used. Singapore suggested that both sides should obtain more information from the potential independent service providers on the cost of deploying the different types of echo sounders.

12. The preliminary draft technical specifications for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks are appended as **Appendix J**. The preliminary draft technical specifications will be reviewed by both sides in the light of the information obtained from the presentations. The reviewed documents are to be exchanged through diplomatic channels prior to the next meeting and will be discussed during the said meeting.

13. Singapore indicated that it would endeavour to provide drafts of the complete contract documents for consideration at the next meeting, drawing from the modalities used for the appointment of the consultants in the *Land Reclamation* case.

14. The Meeting agreed that the next meeting will be held in Singapore tentatively on 15 and 16 July 2010. The exact date and venue will be communicated through diplomatic channels.

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**AGENDA ITEM 5: CLOSING REMARKS**

15. The Head of the Singapore Delegation expressed his gratitude to all members of the Sub-Committee and thanked the Malaysian delegation for hosting this Meeting and their kind hospitality and believes that this close working relationship and sincerity will continue.

16. The Head of the Malaysian Delegation also extended his appreciation to all the members of the Sub-Committee for the kind cooperation, support and understanding throughout the Meeting.

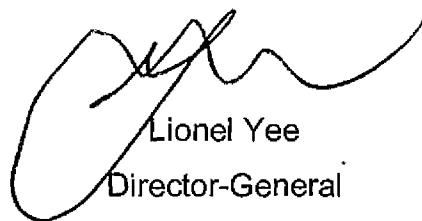
Done in duplicate in Kuala Lumpur, Malaysia on 14 May 2010.

Head of the Malaysian Delegation



Dato' Prof. Dr. Abdul Kadir bin Taib  
Director General  
Department of Survey and Mapping  
Malaysia

Head of the Singapore Delegation



Lionel Yee  
Director-General  
International Affairs Division  
Attorney-General's Chambers  
Singapore





**SEVENTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
13 - 14 MAY 2010**

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**MALAYSIAN DELEGATION**

1. Dato' Prof. Dr. Abdul Kadir bin Taib - Co-Chairman  
Director General  
Department of Survey and Mapping
2. Mr. Hasan bin Jamil  
Director of Survey (Mapping Division)  
Department of Survey and Mapping
3. Mr. Hasnan Zahedi bin Ahmad Zakaria  
Under Secretary  
National Security Council  
Prime Minister's Department
4. First Admiral Zaa'im bin Hasan  
Director General  
National Hydrographic Centre  
Royal Malaysian Navy
5. First Admiral Dato' Fadzilah bin Mohd Salleh  
Research Officer  
Attorney General's Chambers
6. Mr. Tan Ah Bah  
Director of Survey (Boundary Affairs)  
Department of Survey and Mapping
7. Dr. Azhari bin Mohamed  
Director of Survey (Geodesy)  
Department of Survey and Mapping
8. Mrs. Suraya binti Harun  
Senior Federal Counsel  
Attorney General's Chambers
9. Mrs. Wan Fatihat binti Mohamad Jafar  
Principal Assistant Secretary  
Land, Survey and Mapping Division  
Ministry of Natural Resources and Environment

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10. Mr. Shaharuddin bin Onn  
Principal Assistant Secretary  
Department of Research, Treaty and International Law  
Ministry of Foreign Affairs
11. Mrs. Suzilah binti Mohd. Sidek  
Principal Assistant Secretary  
Department of Research, Treaty and International Law  
Ministry of Foreign Affairs
12. Mr. Zulkifli bin Sidek  
Principal Assistant Director of Survey  
Boundary Affairs Section  
Department of Survey and Mapping
13. Mr. Mohd. Helmy bin Ahmad  
Principal Assistant Secretary  
National Security Council  
Prime Minister's Department
14. Cmdr. Ramli Johari  
Staff Officer I  
National Hydrographic Centre  
Royal Malaysian Navy
15. Ms. Nor'airin binti Abd. Rashid  
Assistant Secretary  
Department of Research, Treaty and International Law  
Ministry of Foreign Affairs
16. Mr. Rizal Lynam Mat Jeraie Sulong  
Assistant Secretary  
Department of Research, Treaty and International Law  
Ministry of Foreign Affairs
17. Mr. Mohd. Fariq bin Uzir  
Assistant Secretary  
National Security Council  
Prime Minister's Department
18. Mr. Zakaria bin Abdullah  
Assistant Director of Survey  
Boundary Affairs Section  
Department of Survey and Mapping





**SEVENTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
13 - 14 MAY 2010**

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**SINGAPORE DELEGATION**

1. Mr. Lionel Yee - Co-Chairman  
Director-General  
International Affairs Division  
Attorney-General's Chambers
2. Mr. Daren Tang  
Senior State Counsel  
Attorney-General's Chambers
3. Ms. Davinia Aziz  
Deputy Senior State Counsel  
Attorney-General's Chambers
4. Mr. David Low  
State Counsel  
Attorney-General's Chambers
5. Dr. Parry Oei  
Chief Hydrographer  
Maritime and Port Authority of Singapore
6. Mr. Jamie Chen  
Deputy Chief Hydrographer  
Maritime and Port Authority of Singapore
7. Mr. Soh Kheng Peng  
Chief Surveyor  
Singapore Land Authority
8. Mr. Lucien Hong  
Country Officer  
Southeast Asia Directorate  
Ministry of Foreign Affairs
9. Mr. Ian Mak  
First Secretary  
High Commission of the Republic of Singapore  
Kuala Lumpur







**SEVENTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
13 - 14 MAY 2010**

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**OPENING REMARKS BY  
THE HEAD OF THE MALAYSIAN DELEGATION**

**Y. BHG. DATO' PROF. DR. ABDUL KADIR BIN TAIB  
DIRECTOR GENERAL  
DEPARTMENT OF SURVEY AND MAPPING MALAYSIA**

**Your Excellency Mr. Lionel Yee, Director-General International Affairs Division,  
Attorney General's Chambers, Singapore, Head of Singapore delegation and  
distinguished members of Singapore and Malaysian delegations**

A very good morning to Your Excellency and members of Singapore and Malaysian Delegations. On behalf of the Malaysian Sub-Committee members, it gives me great pleasure to extend our warm welcome to my counterpart and Singapore Sum-Committee members to Kuala Lumpur.

**Your Excellency and distinguished delegates**

During the last meeting held on 1 April 2010 in Johor Bahru, we had finalized the text of the Scope of Works (SOW) for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks and the task for us during this meeting is to discuss on the draft Memorandum of Understanding (MoU) between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.

I believe that with the close working relationship and the sincerity from both sides, we would be able to discuss the draft MoU with an open mind and objective approach so as to enable us to finalise the MoU amicably.

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We also agreed that the potential independent service providers from both countries to make their presentations on the joint hydrographic survey in and around Pedra Branca and Middle Rocks during this meeting.

**Your Excellency and distinguished delegates**

I am optimistic that, with the close cooperation and good will that has long existed between our two countries, this meeting would proceed smoothly and with Your Excellency's able leadership, we would eventually achieve the desired objectives that had been set out.

I look forward to a fruitful discussion with your delegation in the spirit of friendliness and good cooperation to achieve an amicable outcome for this morning's meeting.

Thank you.







**SEVENTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND  
SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
13-14 MAY 2010**

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**OPENING REMARKS BY THE HEAD OF THE SINGAPORE  
DELEGATION**

Your Excellency, Dato' Professor Dr. Abdul Kadir bin Taib, Director-General, Department of Survey and Mapping, and fellow co-chairman of the Sub-Committee; members of the Malaysian Delegation:

2. First, on behalf of the members of the Singapore delegation, I would like to thank you for your warm welcome. We are happy to be back in Kuala Lumpur for this round, and to once again receive the excellent hospitality which your delegation has extended to us in our previous meetings.

3. As you know, during our last meeting in Johor Bahru on 1 April 2010, we were able to finalise the Scope of Works for the Joint Survey and I would like once again to extend my thanks to your delegation for the spirit of cooperation which has enabled us to achieve this. One of the two major pillars which will enable the Survey to commence is now in place. What now remains for us to do is to focus on finalising the second pillar, which is the Memorandum of Understanding for the Joint Survey. I hope we will be able to achieve this in the course of our meetings today and tomorrow, in order to facilitate the start of the Joint Survey works later this year.

4. Malaysia had, just before our last meeting, given us a draft MOU for our consideration. While we had earlier on tabled a text of the MOU at our meeting in January this year, I am happy to inform you that we are agreeable to working off the text that you have provided, in the interests of speeding up the process of concluding the MOU.

5. To help move things along, we sent by diplomatic note yesterday a document setting out a number of proposed amendments and some comments on the MOU. I understand that you have received our document and we will be happy, during this meeting, to discuss it, and to take questions on the document.

6. At our previous meeting, we also started the process of discussing the selection of the independent service provider that both delegations agreed will be appointed to carry out the survey. Both sides presented some quotations and details for the joint survey at our last meeting, and we agreed to ask the potential service providers to make presentations to our Sub-Committee on the second day of this meeting, that is, tomorrow morning. On our side, we have arranged for two potential service providers to be present to make presentations to the Sub-Committee, and I understand Malaysia has also made arrangements for a service provider to do the same. I think this is an essential process in moving forward since it will enable us to evaluate the various potential service providers in terms of things like service delivery and estimated cost. It will also give us the opportunity to seek technical and other clarifications from them. And after the presentations, I look forward to discussing and making further progress on the selection of the service provider as well.





**SEVENTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
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13 - 14 MAY 2010**

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**AGENDA**

1. Opening remarks
2. Adoption of Agenda
3. Discussion on the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
4. Other matters
  - 4.1 Presentation by potential independent service providers on the joint hydrographic survey in and around Pedra Branca and Middle Rocks
5. Closing remarks







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Singapore's Counter-proposal (12 May 2010)

MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE GOVERNMENT OF MALAYSIA  
AND  
THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE  
WITH REGARD TO  
THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS

THE GOVERNMENT OF MALAYSIA, ~~on the one part, as represented by the~~

~~having an address at [official address],~~ and THE GOVERNMENT OF THE  
REPUBLIC OF SINGAPORE, ~~on the other part, as represented by~~

~~having an address at [official address of the signatory]~~ (hereinafter referred to  
singularly as "the Party" and collectively as "the Parties"),

**RECOGNIZING** the existing friendly relations between the Parties and convinced of  
the necessity of a lasting and effective co-operation in the interest of the Parties;

**RECALLING** the judgment of the International Court of Justice (ICJ) in the Case  
Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and  
South Ledge (Malaysia/Singapore) rendered on 23 May 2008 (the Judgment);

**REFERRING** to the Joint Press Statement made by the Parties ~~held on 36~~ June  
2008 in Singapore which reiterated their commitment to honour and abide by the  
Judgment, and to fully implement it;

**FOLLOWING RECALLING** the decision of the Parties ~~in the meeting held on 3 June~~  
~~2008~~ to establish a Joint Technical Committee in furtherance of the aforementioned  
objectives;

*Comment by Singapore:*

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*The Joint Technical Committee was already established on 3 June 2008, when it held its first meeting.*

**WHEREAS** RECALLING FURTHER that the Joint Technical Committee, at its meeting held on 3 June 2008, established a technical sub-committee known as "the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge" (the Sub-Committee) to oversee the conduct of the Joint Hydrographic Survey works;

**ACKNOWLEDGING** that the purpose of the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks is to provide a comprehensive and accurate hydrographic data in the Survey Area in accordance with the Scope of Works;

**ACKNOWLEDGING FURTHER** that the Joint Hydrographic Survey is to prepare for eventual talks between both Parties on maritime issues in and around Pedra Branca, Middle Rocks and South Ledge; and

**BELIEVING** the importance of the scientific and technical data to be acquired in and around Pedra Branca and Middle Rocks and the significance of cooperation between the Parties to acquire and exchange such data for the purposes of the eventual talks between both Parties,

**AND** WHEREAS NOTING that the Joint Technical Committee has endorsed the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" prepared by the Sub-Committee;

***Comment by Singapore:***

*This will require a decision by the MSJTC to endorse the Scope of Works.*

**HAVE AGREED AS FOLLOWS:**

**ARTICLE I**

2



Singapore's Counter-proposal (12 May 2010)

DEFINITIONS

For the purpose of this Memorandum of Understanding, unless the context otherwise states:

- a) "Confidential Information" means ~~any~~ information disclosed in whatever form between the Parties in connection with or during the performance of this MOU ~~which includes~~, including, but ~~is~~ not necessarily limited to scientific and technical data, maps, models, interpretations, reports and any other matters relating to this MOU, where such information has been specified by the disclosing Party as information to be treated as confidential;

*Comment by Singapore:*

*This definition is very wide. We would like to propose some amendments to clarify that for any information to be considered "confidential" under this MOU, it has to be specifically marked or designated as such.*

- b) "Joint Survey" means the Joint Hydrographic Survey to be undertaken jointly by the Parties pursuant to the Scope of Works ~~for purposes of to~~ acquireing scientific and technical comprehensive and accurate hydrographic data ~~comprising of bathymetric [and geodetic data]~~ in the Survey Area in particular to determine the low-water mark of the features and low tide elevations, in order to prepare for eventual talks on maritime issues in and around Pedra Branca and Middle Rocks;

*Comment by Singapore:*

*We have taken the above language from Paragraph 1 of the Scope of Works.*

- c) "MOU" means this Memorandum of Understanding and its Annexes;

Singapore's Counter-proposal (12 May 2010)

- d) "Scope of Works" means the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as referred to in Article 4 and attached in Annex 'I' of this MOU; and
- e) "Survey Area" means the area in and around Pedra Branca and Middle Rocks as shown in **Annex A** of the Scope of Works.

ARTICLE 2

MATTERS NOT TO BE PREJUDICED

~~For the avoidance of doubt, any action taken or omission made by the Parties or any person engaged by the Parties pursuant to the provisions of this MOU, including any documentation and data directly or indirectly acquired, created, provided or generated in the performance of the Scope of Works, shall not be interpreted so as to in any manner whatsoever to prejudice or affect:~~

- ~~(a) The past, present or future position taken by either Party in relation to the interpretation and application of UNCLOS 1982 or any applicable rule of international law;~~
- ~~(b) The baselines and boundary lines as depicted in the relevant official maps of the Parties including methods and any other matters related to the construction of the said baselines and boundary lines;~~
- ~~(c) The question of delimitation of boundaries between the Parties; or~~



Singapore's Counter-proposal (12 May 2010)

- (d) ~~The maritime or territorial claims made by either Party, or prejudging the determination of such claims and shall not be construed as conferring recognition or acceptance by either Party of such claims.~~

The Joint Survey Works undertaken pursuant to the Scope of Works are without prejudice to issues of sovereignty and eventual delimitation of maritime boundaries.

***Comment by Singapore:***

*The above proposal is taken from Article 2 of Singapore's proposed draft MOU which was tabled at the 5th Meeting of the Sub-Committee (5 January 2010, Singapore).*

**ARTICLE 3**

**MUTUAL UNDERSTANDING**

The Parties mutually understand and agree that the Parties shall cooperate in good faith and in a constructive manner in the implementation of this MOU.

**ARTICLE 4**

**SCOPE OF WORKS**

Subject to the terms of this MOU and the laws, regulations and national policies in force including procedures applicable in each Party's country, the Parties shall jointly conduct the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as attached in **Annex 1** of this MOU on the basis of equality and mutual benefit and/or shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to comply with the provisions of this MOU.

Singapore's Counter-proposal (12 May 2010)

**ARTICLE 5**  
**DESIGNATED AUTHORITY**

The designated authority responsible for the implementation of this MOU on behalf of the Government of Malaysia shall be the Ministry of Foreign Affairs Malaysia and on behalf of the Government of the Republic of Singapore shall be

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**ARTICLE 6**  
**ESTABLISHMENT OF JOINT SUB-COMMITTEE ON THE JOINT SURVEY**

~~The Parties have agreed to establish on 3 June 2008 the "Sub-Committee on the Joint Hydrographic Survey in and around Pedra Branca, Middle Rocks and South Ledge" comprising of members as listed in Annex 2 and shall be responsible to:~~

- ~~(a) — Determine the Joint Survey;~~
- ~~(b) — Monitor and regulate the implementation of the Scope of Works;~~
- ~~(c) — Consider and approve related technical matters pursuant to the Scope of Works;~~
- ~~(d) — Determine the timeline for the implementation of the Scope of Works;~~
- ~~(e) — Determine the frequency, venue and agenda of the meetings relating to the Scope of Works;~~
- ~~(f) — Establish a sub-committee(s) or working group(s) as it deems appropriate; and~~



(g) ~~Any other matters necessary for the implementation of the Scope of Works.~~

***Comment by Singapore:***

*We propose deleting the above Article, as the Terms of Reference of the Sub-Committee have already been agreed at the First Meeting of the MSJTC on 3 June 2008.*

**ARTICLE 7**

**FINANCIAL ARRANGEMENTS**

~~The financial arrangements to cover costs and expenses within the framework of this MOU shall be mutually agreed upon by the respective Parties on a case-by-case basis.~~

***Comment by Singapore:***

*We propose deleting the above Article, as Paragraph 15 of the Scope of Works provides for the arrangement on costs.*

**ARTICLE 8**

**PROTECTION OF INTELLECTUAL PROPERTY RIGHTS**

(1) The protection of intellectual property rights shall be enforced in conformity with the respective national laws, rules and regulations of the Parties and with other international agreements ~~signed by both Parties~~ **by which each Party is bound.**

(2) The use of name, logo and/or official emblem of any of the Parties on any publication, document and/or paper is prohibited without the prior written approval of either Party.

Singapore's Counter-proposal (12 May 2010)

(3) Notwithstanding anything in paragraph (1) above, the intellectual property rights in respect of any technological development, products and services development, carried out –

- (i) jointly by the Parties or all the intellectual property rights in any document or material generated, created or provided through the joint activity effort of the Parties in the performance of the Scope of Works, ~~shall be jointly owned by the Parties in accordance with the terms to be mutually agreed upon by the Parties~~ shall be co-owned by the Parties in equal undivided shares, and each Party shall be entitled to exploit, including by way of licence, such documents or materials without reference to the other Party and without any obligation to account to the other Party for the profits and gains from such exploitation; and
- (ii) solely and separately by the Party or all the intellectual property rights in any document or material generated, created or provided by a Party through the sole and separate effort of ~~the~~ that Party in the performance of the Scope of Works, shall be solely owned by the Party concerned ; and

(4) Each Party shall grant to the other Party a royalty-free, non—exclusive and non-transferable license to use, for the sole purpose of implementing this MOU, the documents or materials generated, created and provided by either Party to the other Party ~~for sole purposes of implementing this MOU.~~

~~(5) The intellectual property rights in any document or material generated, created or provided by or licensed to either Party prior to entering into this MOU are considered "Pre-Existing Works" the rights of which are outside this MOU. Such Pre-Existing Works shall remain vested in that Party (or its licensor). To the extent that the Pre-Existing Works form part of any of the documents or material generated,~~



Singapore's Counter-proposal (12 May 2010)

~~created or provided in the performance of this MOU, the Party who owns the intellectual property rights shall provide, or the Party who is the licensee of the Pre-Existing Works shall cause to be provided to the other Party a royalty free, non-exclusive and non-transferable license to use the Pre-Existing Works strictly for the performance of this MOU and on such terms and conditions to be mutually agreed between the Parties.~~

***Comment by Singapore:***

*We propose deleting paragraph 5 above, as it does not appear necessary in the light of paragraph 4.*

**ARTICLE 9**  
**CONFIDENTIALITY**

***Comment by Singapore:***

*We would like to seek clarification on this Article generally, as well as in connection with the comments on Article 1(a) above.*

(1) Each Party shall at all times hold confidential and shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works to hold confidential and prevent them from divulging to third parties, or use in any other way than for the purposes of accomplishing the Scope of Works any Confidential Information from being disclosed, directly or indirectly, to the recipient Party, without the other Party's prior written approval.

(2) Each Party shall take sufficient and appropriate action to ensure that the provisions of this Article are adhered to by their employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works and shall notify promptly to the other Party upon discovery of any instance where the requirements of this Article have not been complied with.

Singapore's Counter-proposal (12 May 2010)

(3) ~~Notwithstanding the above provisions, the Parties are exempted from complying with~~ The prior written approval of the other Party referred to in Paragraph 1 of this Article is not required if:

- (i) the disclosure of the Confidential Information is made in confidence to the Parties'y's employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Partiesy to carry out the whole or any part of the Scope of Works on a need to know basis and after such employees, contractors, subcontractors or subcontractor's employees have been informed of the obligations imposed by this Article and have agreed to be bound in writing by such obligations; or
- (ii) if mutually agreed by the Parties.

**ARTICLE 10**  
**SUSPENSION**

**Comment by Singapore:**

*We would like to seek clarification on this Article.*

Each Party reserves the right for reasons of national security, national interest, public order or public health to suspend temporarily, either in whole or in part, the implementation of this MOU which suspension shall take effect immediately after notification has been given to the other Party through diplomatic channels.

**ARTICLE 11**  
**REVISION, MODIFICATION AND AMENDMENTS**

**Comment by Singapore:**

*We would like to seek clarification on this Article.*



- (1) Either Party may request in writing a revision, modification or amendment of all or any part of this MOU.
- (2) Any revision, modification or amendment agreed to by the Parties shall be reduced into writing and shall form part of this MOU.
- (3) Such revision, modification and amendment shall come into force on such date as may be determined by the Parties.
- (4) Any revision, modification or amendment shall not prejudice the rights and obligations arising from or based on this MOU before or up to the date of such revision, modification or amendment .

## **ARTICLE 12**

### **SETTLEMENT OF DISPUTES**

Any difference or dispute between the Parties concerning the interpretation and/or implementation and /or application of any of the provisions of this MOU shall be settled amicably through mutual consultation and/or negotiations between the Parties through diplomatic channels, without reference to any third party or international tribunal.

## **ARTICLE 13**

### **ANNEXES**

The Annexes to this MOU, duly signed by an authorised representative of the Parties, shall form an integral part of this MOU.

Comment by Singapore:

Singapore's Counter-proposal (12 May 2010)

*As set out in our comments on Article 6 above, we suggest deleting Annex 2. As such, there will be only one Annex.*

**ARTICLE 14**

**ENTRY INTO FORCE, DURATION AND TERMINATION**

(1) This MOU shall be governed by international law and come into force on the date of signing.

~~(2) This MOU shall remain in force for a period of ..... (.....) years.~~

~~(3) Thereafter, it shall be extended for a further period to be mutually agreed by the Parties.~~

~~(4) Notwithstanding anything in this Article, either Party may terminate this MOU by notifying the other Party of its intention to terminate this MOU by a notice in writing through diplomatic channels, at least three (3) months prior to its intention to do so.~~

(5) The provisions of Articles 2 and 9 of this MOU shall continue in force notwithstanding the ~~completion, expiry,~~ suspension or termination of this MOU.

***Comment by Singapore:***

*We would like to suggest deleting paragraphs 2 to 4 above. They may not be necessary because of the relative short duration of the survey.*

**IN WITNESS WHEREOF**, the undersigned, being duly authorized thereto by their respective Governments, have signed this MOU.

**DONE** at ..... on this ..... day of ..... in the year ..... in ~~four (4)~~ two (2) original texts, ~~two~~

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WITHOUT PREJUDICE

Singapore's Counter-proposal (12 May 2010)

~~(2) each~~ in the English ~~and Malay~~ languages, ~~all~~ both texts being equally authentic.  
~~In the event of any divergence of interpretation between any of the texts, the English~~  
~~text shall prevail.~~

FOR THE GOVERNMENT OF  
MALAYSIA

FOR THE GOVERNMENT OF THE  
REPUBLIC OF SINGAPORE

.....

.....

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Singapore's Counter-proposal (12 May 2010)

ANNEX 1

GENERAL SCOPE OF WORKS FOR JOINT HYDROGRAPHIC SURVEY IN AND  
AROUND PEDRA BRANCA AND MIDDLE ROCKS

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SUB-COMMITTEE ON THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

- 1) — The composition of the Malaysian Team in the Sub-Committee are as follows:
- a) — Survey and Mapping Department ————— - Joint Chairman
  - b) — Ministry of Foreign Affairs ————— - Member
  - c) — Ministry of Natural Resources and the Environment ————— - Member
  - d) — National Security Council, Prime Ministers Department ————— - Member
  - e) — Attorney General's Chambers ————— - Member
  - f) — National Hydrographic Centre, Royal Malaysia Navy ————— - Member
  - g) — State Secretary of the Johor State Government ————— - Member

**Singapore's Counter-proposal (12 May 2010)**

2) ~~The composition of the Singaporean Team in the Sub-Committee are as follows:~~

a) \_\_\_\_\_ - Joint Chairman

b) \_\_\_\_\_ - Member

c) \_\_\_\_\_ - Member

d) \_\_\_\_\_ - Member

e) \_\_\_\_\_ - Member

f) \_\_\_\_\_ - Member

***Comment by Singapore:***

*We propose that Annex 2 be deleted, as the composition of the Sub-Committee changes with the composition of each country's delegations for the Sub-Committee meetings.*





Appendices G, H and I have been omitted.



**DRAFT TECHNICAL SPECIFICATIONS****JOINT HYDROGRAPHIC SURVEY**  
**IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS****1. PURPOSE**

The purpose of the Joint Survey Works in and around Pedra Branca and Middle Rocks ("Survey") is to acquire comprehensive and accurate hydrographic data in the area as defined in paragraph 2 ("Survey Area") in particular to determine the low-water mark of the features and low tide elevations.

**2. AREA TO BE SURVEYED**

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS84):

POINT	WGS84	
	LATITUDE (N)	LONGITUDE (E)
1	01° 20' 22.5"	104° 24' 23.7"
2	01° 19' 26.8"	104° 25' 17.6"
3	01° 18' 37.6"	104° 24' 21.1"
4	01° 19' 33.1"	104° 23' 27.2"

The diagram of the Survey Area is shown in **ANNEX A**.

**3. DURATION AND TIMELINE OF THE SURVEY**

The Survey shall commence on a date to be indicated in the Letter of Appointment of the Contractor. The Survey operation is estimated to take about 10 days to complete including patch test, accuracy test and resounding (if deemed necessary). The sounding will be conducted at an appropriate sounding speed.

**4. WEATHER**

The Survey shall be stopped temporarily if the weather deteriorates, i.e. World Meteorological Organization (WMO) sea state more than 3 (wave height >1.25m), as this will affect the accuracy of survey and safety of boat crews.

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### 5. SCALE OF SURVEY

The Fair Sheet for Survey Area shall be plotted on a scale of:

- (a) For the whole Survey Area - 1:2,500; and
- (b) Around Pedra Branca and Middle Rocks - 1:1,000

### 6. STANDARD OF SURVEY

All hydrographic works shall comply with the International Hydrographic Organization (IHO) standard and meet the minimum standard for hydrographic survey in accordance with *IHO Standard for Hydrographic Surveys SP 44 5<sup>th</sup> Edition, February 2008, Order 1B*.

### 7. DATUM

#### 7.1 Horizontal Datum, Projection and Grid

The Survey shall be carried out in World Geodetic System 1984 (WGS84) and plotted based on the following geodetic parameters:

Ellipsoid	: WGS84
Semi Major Axis (a)	: 6378137.0 m
Flattening (f)	: 1/298.25722
Projection	: Universal Transverse Mercator (UTM)
Zone	: 48
False Northing	: 0.0m
False Easting	: 500000.0m
Scale Factor at Central Meridian	: 0.9996
Central Meridian	: Centre of Zone 48

#### 7.2 Vertical Datum



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- 7.2.1 The datum used during the Survey shall be Lowest Astronomical Tides (LAT), which is the lowest water plane to which soundings are reduced and above which drying heights are shown in the Fair Sheet and other survey records. LAT shall be determined by harmonic analysis with data already obtained from continuous tidal observations of at least 30 days. The Benchmark values for the observation of the tidal levels shall be provided to the Contractor for sounding reduction.

### 7.3 Reduction of Soundings

The Contractor shall propose the tide gauge to be used for the sounding reduction. Heights of tide shall be observed throughout the survey period for sounding reduction with sampling interval not more than 10 minutes. Actual tidal observation curves will be smoothened and used for reduction of soundings. Depths will be inked in metres and decimetres.

## 8. POSITIONING

### 8.1 Use of Differential GPS (DGPS) for Hydrographic Positioning

- 8.1.1 Positioning data shall be obtained using Differential GPS (DGPS). The following criteria shall apply:

- (i) The DGPS receivers shall be configured such that only satellites in view above the altitude 10 degrees are to be used in the position computation;
- (ii) The age of pseudo-range corrections used in the position computation shall not exceed 10 seconds;
- (iii) A minimum of four satellites shall be used to compute positioning;
- (iv) The Horizontal Dilution of Precision (HDOP) of the position shall be continuously monitored, recorded and shall not exceed 3.0;
- (v) Dead Reckoning is not permitted; and
- (vi) Horizontal and vertical offsets between GPS antenna and transducers shall be observed and applied in no coarser than 0.1 m increments.



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8.2.2 For the purpose of offline post processing of DGPS data, any of the 4 established geodetic control stations at Pedra Branca and Middle Rocks shall be used for the conduct [ ], [as stated in para. 8.1.1] [To be specified]], of the hydrographic survey.

**8.3 Identification of Fixes**

Fixes are to be identified by calendar date of the year and the Universal Time Coordinated (UTC).

**9. SURVEY METHODOLOGY**

9.1 The Survey shall consist of Multi-beam sonar surveys. In areas where Multi-beam sonar surveys are not feasible, Single-beam and other conventional methods shall be used. The field survey planning shall be carried out and agreed upon by the respective Survey Acquisition Teams prior to the commencement of survey operations, amongst others, to determine the areas for Multi-beam and Single-beam sonar surveys. The Contractor shall propose and present a detailed survey plan for approval within 7 days of appointment. The survey works shall be carried out during daylight hours only.

**9.2 Hydrographic Data Acquisition System (HDAS)**

9.2.1 The HDAS shall comprise hardware and software configured to control, manage, acquire and store digital data in survey format from the positioning system and Single-beam and Multi-beam echo sounder systems.

9.2.2 The HDAS software shall include helmsman display facilities indicating vessel steering in a preplanned survey line, with digital displays showing information on position, depth, COG, heading, SOG, line and fix number, and distance from start and end lines.

9.2.3 The online Quality Control ("QC") for positioning and depth shall be monitored to ensure positional accuracy standard. Daily QC reports shall be included as an annex to the Report of Survey referred to in paragraph 12 (ROS).

9.2.4 The automated logging system shall be set at the following intervals:

Navigation Cycle Time	:	2 sec or better
Depth Cycle Time	:	2 sec or better
Position Logging Interval	:	2 sec or better

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9.2.5 Daily back-up of data shall be carried out at the Survey platform.

9.3 The shallow water Multi-beam echo sounder at a frequency of 200 to 400 kHz [SoW to be amended accordingly] is to be utilised for the sounding operation. The methodology for Multi-beam sonar survey encompasses the following:

(i) Sounding Units

Depths shall be recorded in metres and tenths of metres.

(ii) Depth Accuracy

The total sounding uncertainty for swath widths of at least three times the average water depth shall be in compliance, at the 95% confidence level, with the allowable Total Vertical Uncertainty (TVU) of  $\pm \sqrt{0.25 + (0.013 \times d)^2}$  where d = depth.

(iii) Line Orientation

Sounding track lines shall be generally parallel to the general configuration of the depth contour lines.

(iv) Position

The total uncertainties in the position of soundings and all other significant features shall not exceed  $\pm 2$  metres [SoW to be amended] at 95% confidence level.

(v) Vessel Motion Data

All Multi-beam data shall be corrected for settlement and squat, heave, pitch, roll and the heading of the vessel.

(vi) Velocity of Sound in the Water Column

The velocity of sound through water shall be determined at least daily during Multi-beam sonar operations. The velocity profile shall be determined to a minimum of 95% of anticipated water depth. Velocity corrections shall be based on the data obtained from profile and not on an averaged sound velocity reading for the water column.

(vii) Survey coverage

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The survey lines shall be run to achieve 100% seabed coverage, ie with 50% overlap on each side. The line spacing shall not exceed 3 times the water depth. [to be included in SoW]

(viii) Cross Lines

In addition, cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines. At least 5 cross lines shall be run in the survey area. [to be included in SoW]

(ix) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT.

(x) Accuracy Test

(a) Accuracy tests shall be conducted on the Multi-beam Echo Sounder System (MBES) and DGPS sensors.

(b) Prior to commencing Multi-beam operation, a system accuracy test (patch test) shall be conducted to quantify the accuracy, precision and alignment of the MBES. The patch test shall include determination of roll, pitch, heading and time latency. Depth accuracy testing shall also include testing of MBES against Single-beam echo sounder system. Details of the test shall be included in an annex to the ROS.

(c) Accuracy check for DGPS system shall be conducted using at least two different reference stations. Positional differences should be less than  $\pm 2$  metres. Details of the test shall be included in an annex to the ROS.

9.4 The methodology for Single-beam sonar survey encompasses the following:

(i) Echo Sounder

A Single-beam echo sounder at a frequency of about 200 kHz providing a depth accuracy of  $\pm 0.1$  metre shall be used for the sounding survey. The echo sounder shall be calibrated daily either by bar-check or sound velocity probe up to the maximum depth of the Survey Area, before and after sounding.

(ii) Reduction of Soundings



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Actual tidal observation curves will be smoothed and used for reduction of soundings. Depths will be inked in metres and decimeters.

(iii) Horizontal Accuracy

The following accuracies will be maintained:

Position of ship -  $\pm 0.5$  to 1 metre

(iv) Sounding Line Intervals

Sounding lines at 5 m intervals . Where irregularities or shoals are detected, closer sounded sounding lines and/or cross lines shall be run over these areas.

(v) Drying Lines (Low Water Marks) and Drying Features

The Contractor shall propose the survey methodology to determine drying lines and drying features. All these shall be delineated accurately and measured from LAT.

## 10. DATA PROCESSING

10.1 Data processing for the survey acquired from both the Multi-beam and Single-beam surveys shall be carried out at a venue to be determined by Malaysia and Singapore. The estimated time taken for data processing is 14 days.

### 10.2 Hydrographic Data Processing System (HDPS)

10.2.1 The HDPS software shall include facilities for editing and reducing depth based on shoal bias, smoothing and filtering, sound velocity corrections, common format conversion, QC analysis for depth and positioning and be able to generate the final survey product presentations i.e. fair sheet with hydrographic symbology in accordance with IHO standards. The software shall also be able to handle and manage huge amount of raw and processed digital bathymetric data systematically. The workflow of the "Data Processing model" utilised by the software shall be included in the ROS.

10.2.2 The HDPS software shall be able to perform area based and line by line editing with automatic and/or manual removal of outliers. The

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survey data shall be able to be displayed in plan, spread sheet, profile and 3-dimensional digital terrain model views. All methods used for data editing shall be recorded and included in the ROS. The degree of depth contour smoothening and suppression of depths will be determined by Malaysia and Singapore.

10.2.3 The software shall be able to perform QC for the depths between main lines and cross lines/check lines. The depth and positional data QC test result shall be included as an annex to the ROS to define the reliability of the Survey.

10.2.4 The software shall be able to generate colour-coded soundings, contours, and smooth sheet plotting capabilities.

## 11. OUTPUT

### 11.1 Field Records

All data gathered during the Survey shall be recorded as annexes to the ROS. This includes the following:

- (i) Tidal observation records
- (ii) Benchmarks descriptions
- (iii) Results of tidal analysis
- (iv) Geodetic Control Station
- (v) Accuracy Test for DGPS
- (vi) Patch Test Records for MBES
- (vii) Daily QC Test
- (viii) Echo-sounder graphs
- (ix) Field sheets showing sounding tracks with fix numbers
- (x) Other miscellaneous records and sheets used for submission of survey

### 11.2 Fair Sheet

- (i) Fair Sheet shall be drawn at scale of 1:1,000 or larger for coastal features and low-water line, and at scale of 1:2,500 for general bathymetric information of surrounding waters in Universal Transverse Mercator Zone 48 projection and WGS84 ellipsoid.
- (ii) Fair Sheet shall be submitted by the Contractor for endorsement and signature by the Hydrographers of Malaysia and Singapore.

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**12. REPORT OF SURVEY (ROS)**

12.1 The ROS shall be prepared and submitted by the Contractor for endorsement and signature by the by Hydrographers of Malaysia and Singapore. The estimated time for preparation of the ROS is 5 days.

12.2 The ROS shall be prepared in soft and hard copies.

12.3 The following documents (soft and hard copies) are to be rendered upon completion of the Survey:

- (i) Fair Sheet; and
- (ii) Daily Survey Reports.

**13. SURVEY PLATFORM AND PERSONNEL**

The Contractor shall provide a survey platform complete with crew and a hydrographic survey team headed by one IHO Cat A Hydrographic Surveyor.

One Hydrographic Surveyor [SoW to be amended] each from Malaysia and Singapore will be present throughout the survey acquisition and data processing to supervise the Contractor. The Contractor shall comply with directions given by the Hydrographic Surveyors of Malaysia and Singapore. Where there are differences in views between the two Hydrographic Surveyors, work shall be suspended pending resolution of the matter by Malaysia and Singapore.

**14. COST**

The Contractor shall provide a detailed cost breakdown of the different survey activities as shown in **ANNEX B**.

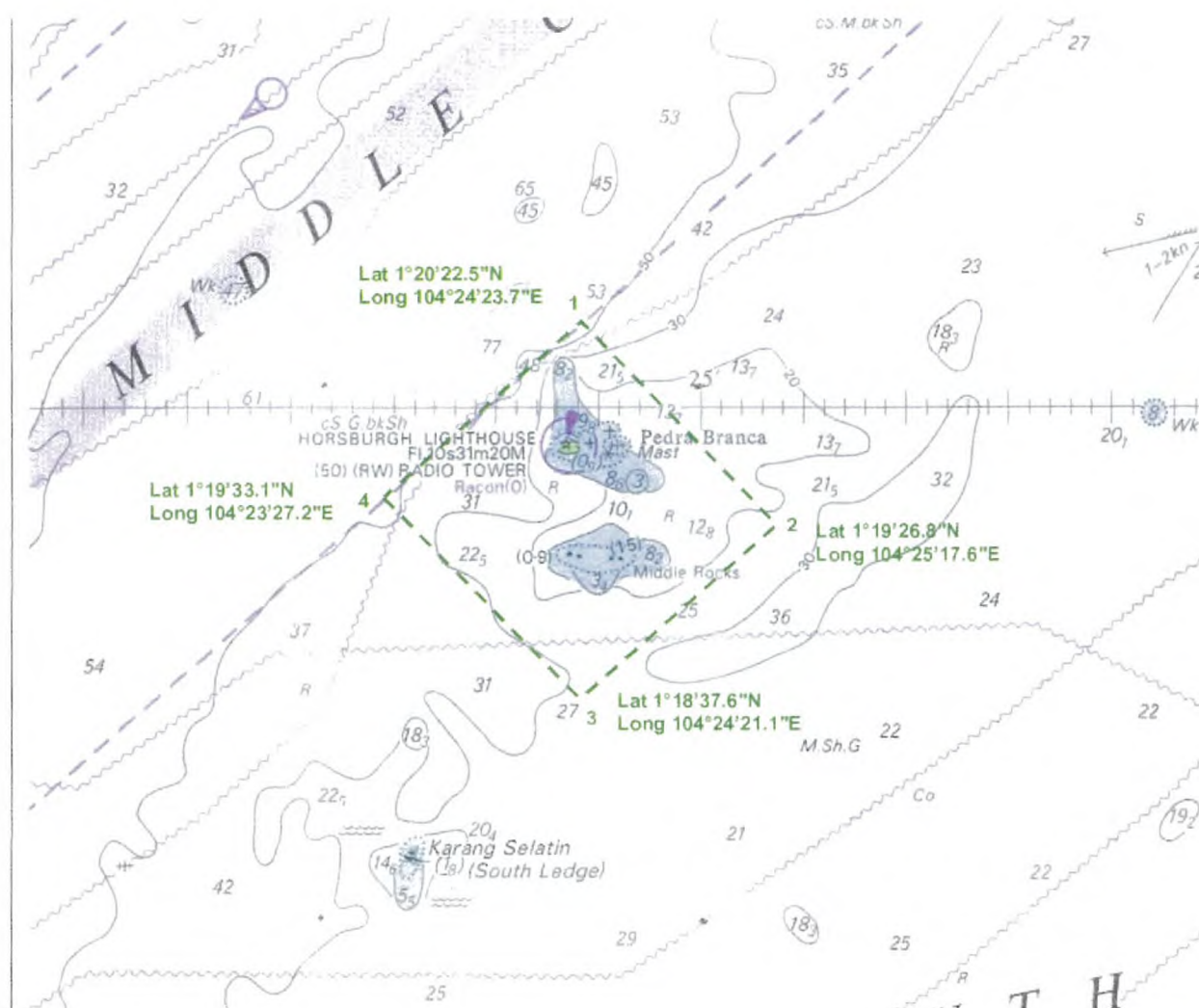
**15. CONFIDENTIALITY OF SURVEY DATA**

[To be proposed by Singapore. ]

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ANNEX A

SURVEY AREA



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**ANNEX B**

No.	Item Descriptions	Details	Cost
	<b>Vessel platforms</b>		
1	Survey boat mobilisation for survey launch and dinghy (Briefly describe type of launch)		
2	Survey boat chartering fees for launch and dinghy (including crew & fuel)		
3	Survey boat demobilisation		
	<b>Equipment</b>		
4	Multibeam		
5	Motion sensor		
6	DGPS		
7	SVP/CTD probe		
8	Tide gauge		
9	Singlebeam		
	<b>Survey Acquisition and Processing Software &amp; Hardware</b>		
10	Survey Acquisition system		
11	Data processing system		
12	Consumables		
	<b>Manpower</b>		
13	Technical Personnel for survey, testing and demobilisation		
14	Cat A Hydrographer		
15	Cat B Hydrographer		
16	Surveyor on board		
	<b>Others</b>		
17	Equipment delivery to site (if any		
18	Equipment insurance		
19	Technical Personnel (if any)		

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## **Annex 54**

*Eighth Meeting of the MSJTC Sub-Committee on the Joint Survey  
Works in and around Pedra Branca, Middle Rocks and South Ledge,  
Singapore, 15-16 July 2010, Joint Record of Discussion*





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**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**JOINT RECORD OF DISCUSSION**

1. The Eighth Meeting of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge between Malaysia and the Republic of Singapore was held in Singapore on 15 – 16 July 2010.
2. The Singapore Delegation was led by Mr. Lionel Yee, Director-General, International Affairs Division, Attorney-General's Chambers, Singapore.
3. The Malaysian Delegation was led by Dato' Prof. Sr Dr. Abdul Kadir bin Taib, Director General of Survey and Mapping, Department of Survey and Mapping, Malaysia.
4. The lists of the Singapore and Malaysian Delegations are appended as **Appendix A** and **Appendix B** respectively.

**AGENDA ITEM 1: OPENING REMARKS**

5. The Opening Remarks by the Head of the Singapore Delegation are appended as **Appendix C**.
6. The Opening Remarks by the Head of the Malaysian Delegation are appended as **Appendix D**.

**AGENDA ITEM 2: ADOPTION OF AGENDA**

7. The Agenda for the Eighth Meeting, which was adopted by both Delegations, is appended as **Appendix E**.

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**AGENDA ITEM 3: DISCUSSION ON THE MEMORANDUM OF UNDERSTANDING BETWEEN THE GOVERNMENT OF MALAYSIA AND THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE WITH REGARD TO THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

8. Malaysia made a presentation on its counter-proposal for the draft Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks ('MOU'), which it had forwarded by diplomatic channels to Singapore on 14 July 2010. Malaysia's counter-proposal is appended as **Appendix F.**

9. Following Malaysia's presentation of its counter-proposal, both Delegations discussed the provisions of the MOU. The results of the discussion are contained in a consolidated common working document, which is appended as **Appendix G.**

10. Both Delegations also agreed to make minor amendments to the General Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks ('SOW'). The amended SOW is appended as **Appendix H.**

**AGENDA ITEM 4: DISCUSSION ON THE TECHNICAL SPECIFICATIONS FOR THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

11. Singapore presented its proposed amendments to the preliminary draft Technical Specifications for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks, which are appended as **Appendix J.**

12. After discussion, both Delegations finalised the text of the Technical Specifications, which is appended as **Appendix K.**

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**AGENDA ITEM 5: DISCUSSION ON THE CONTRACTUAL DOCUMENTS FOR THE APPOINTMENT OF THE INDEPENDENT SERVICE PROVIDER TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

13. Singapore made a presentation on its proposed draft contractual documents for the appointment of the Independent Service Provider to conduct the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks, which it had forwarded by diplomatic channels to Malaysia on 14 July 2010. The draft contractual documents are appended as **Appendix L**.

14. Malaysia stated that it would study the draft contractual documents, and respond with its comments at the next Sub-Committee Meeting.

**AGENDA ITEM 6: ANY OTHER MATTERS**

15. The Delegations agreed that the Ninth Sub-Committee Meeting will be held in Kuala Lumpur on 26-27 July 2010, in conjunction with the Fourth Meeting of the MSJTC. Further details of the Meeting will be communicated through diplomatic channels.

**AGENDA ITEM 7: CLOSING REMARKS**

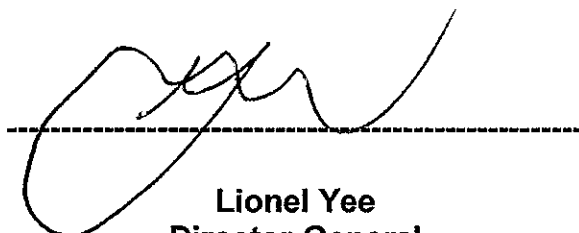
16. The Head of the Malaysian Delegation expressed his gratitude to all the members of the Sub-Committee, and thanked the Singapore Delegation for hosting this Meeting.

17. The Head of the Singapore Delegation also expressed his appreciation to all the members of the Sub-Committee for their co-operation and for the progress made during this Meeting.

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Done in duplicate in Singapore on 16 July 2010.

**Head of the Singapore Delegation**

A handwritten signature in black ink, appearing to be 'Lionel Yee', written over a horizontal dashed line.

**Lionel Yee  
Director-General  
International Affairs Division  
Attorney-General's Chambers  
Singapore**

**Head of the Malaysian Delegation**

A handwritten signature in black ink, appearing to be 'Dato' Prof. Sr Dr. Abdul Kadir bin Taib', written over a horizontal dashed line.

**Dato' Prof. Sr Dr. Abdul Kadir bin Taib  
Director General of Survey and  
Mapping  
Department of Survey and Mapping  
Malaysia**

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APPENDIX A

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**SINGAPORE DELEGATION**

1. **Mr. Lionel Yee (Co-chairman)**  
Director-General  
International Affairs Division  
Attorney-General's Chambers
2. **Mr. Daren Tang**  
Deputy Senior State Counsel  
Attorney-General's Chambers
3. **Mr. David Low**  
State Counsel  
Attorney-General's Chambers
4. **Mr. Louis Lim**  
Manager  
Attorney-General's Chambers
5. **Dr. Parry Oei**  
Chief Hydrographer  
Maritime and Port Authority of Singapore
6. **Mr. Jamie Chen**  
Deputy Chief Hydrographer  
Maritime and Port Authority of Singapore
7. **Mr. Lim Wee Kiat**  
Deputy Chief Hydrographer  
Maritime and Port Authority of Singapore
8. **Mr. Soh Kheng Peng**  
Chief Surveyor

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Singapore Land Authority

9. **Mr. Lucien Hong**  
Country Officer  
Southeast Asia Directorate  
Ministry of Foreign Affairs

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**APPENDIX B**

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**MALAYSIAN DELEGATION**

1. **Dato' Prof. Sr Dr. Abdul Kadir bin Taib (Co-chairman)**  
Director General  
Department of Survey and Mapping
2. **Sr Hasan bin Jamil**  
Director of Survey (Mapping Division)  
Department of Survey and Mapping
3. **Mr. Hasnan Zahedi bin Ahmad Zakaria**  
Under Secretary  
National Security Council  
Prime Minister's Department
4. **First Admiral Zaa'im bin Hasan**  
Director General  
National Hydrographic Centre  
Royal Malaysian Navy
5. **First Admiral Dato' Fadzilah bin Mohd Salleh**  
Research Officer  
Attorney-General's Chambers
6. **Sr Tan Ah Bah**  
Director of Survey (Boundary Affairs)  
Department of Survey and Mapping
7. **Mrs. Wan Fatihat binti Mohamad Jafar**  
Principal Assistant Secretary  
Land, Survey and Mapping Division  
Ministry of Natural Resources and Environment

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8. **Mrs. Suraya binti Harun**  
Senior Federal Counsel  
Attorney General's Chambers
9. **Ms. Suzilah binti Mohd. Sidek**  
Principal Assistant Secretary  
Department of Research, Treaties and International Law  
Ministry of Foreign Affairs
10. **Mr. Mohamed Ridha bin Dato' Abdul Kadir**  
Principal Assistant Director  
Lands and Mines Office  
State Government of Johor
11. **Mr. Mohd Helmy bin Ahmad**  
Principal Assistant Secretary  
National Security Council  
Prime Minister's Department
12. **Cmdr. Ramli bin Johari**  
Staff Officer I  
National Hydrographic Centre  
Royal Malaysian Navy







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**APPENDIX C**

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**OPENING REMARKS BY  
THE HEAD OF THE SINGAPORE DELEGATION**

**MR. LIONEL YEE,  
DIRECTOR-GENERAL,  
INTERNATIONAL AFFAIRS DIVISION,  
ATTORNEY-GENERAL'S CHAMBERS**

Your Excellency, Dato' Professor Dr. Abdul Kadir bin Taib, Director-General, Department of Survey and Mapping, and my fellow co-chairman of this Sub-Committee; members of the Malaysian Delegation:

2. A very good morning to everybody. I hope that you had a comfortable journey here, and for those who arrived here last night, I hope that you had a comfortable rest. On behalf of the members of the Singapore delegation, I would like to welcome you to this Eighth Meeting of the Sub-Committee. I would also like to welcome all of you to Singapore. Our past few meetings have been in Malaysia and we are happy to be able, this time round, to have the opportunity on our home ground to reciprocate the warm hospitality that was extended to us every time you have hosted meetings in Malaysia.
3. During our last meeting in Kuala Lumpur on 13 and 14 May, we began preliminary discussions on the Memorandum of Understanding (MOU) for the Joint Survey, which is the second pillar that we need to establish for the Joint Survey to proceed. The first pillar, as you know, is the Scope of Works (SOW), which is already in place.
4. As for the MOU, at our last meeting, Malaysia indicated that it would respond to Singapore's counter-proposals on the MOU through diplomatic channels after the meeting. I can confirm that we have received Malaysia's response yesterday, and we look forward to furthering our discussions on the basis of your text.

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5. I think we do need to make progress on the MOU and SOW, because the 4<sup>th</sup> Meeting of the MSJTC will be held in about 10 days' time, on 26 and 27 July 2010. It is our delegation's hope that, at this forthcoming MSJTC Meeting, we will be able to report that we have finalised both the Scope of Works, as well as the MOU, and present both documents to our MSJTC leaders for endorsement.

6. At our previous meeting, we also started the process of drafting the Technical Specifications for the Joint Survey, and we hope that we can make further progress on that document today and tomorrow.

7. The Technical Specifications will form an important part of the contract documents that we will use to engage the independent service provider to conduct the Joint Survey. At the last meeting, we indicated that we would provide drafts of the rest of the contract documents for your consideration. We sent copies of them over by diplomatic note yesterday morning, and we also have hard copies for distribution. We have used as the basis for these documents the contract documents used in the *Land Reclamation* case, since that also involved the joint appointment of an independent service provider by both of our countries.

8. So, as you can see, we have quite a bit to cover at this Meeting, but I am hopeful that, given the close working relationship that exists between both sides, we will be able to make good progress on all aspects of our work today and tomorrow.



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**APPENDIX D**

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**OPENING REMARKS BY  
THE HEAD OF THE MALAYSIAN DELEGATION**

**Y. BHG. DATO' PROF. SR DR. ABDUL KADIR BIN TAIB  
DIRECTOR GENERAL  
DEPARTMENT OF SURVEY AND MAPPING MALAYSIA**

**Your Excellency Mr. Lionel Yee, Director-General International Affairs Division,  
Attorney General's Chambers, Singapore, Co-Chairman and distinguished  
members of Singapore and Malaysian delegations**

A very good morning to Your Excellency and members of Singapore and Malaysian Delegations. Let me first thank the Singapore side for hosting this meeting here today and for making all the arrangements to make this meeting possible and for your kind hospitality.

**Your Excellency and distinguished delegates**

During the last meeting, we had discussed the draft Memorandum of Understanding (MOU) with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks. The Malaysian side had studied Singapore's counter proposal and I hope we will be able to discuss the draft MOU in a close working relationship and with the sincerity from both sides, the differences in opinion or approach will not hinder us from finalizing the MOU amicably.

Also at our last meeting in Kuala Lumpur, after the presentation from the potential independent service providers (ISP) we were able to draft the preliminary technical specifications for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks. In my opinion this is an important document in our process of requesting

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for quotation or calling for participation from potential ISP later on. These preliminary technical specifications will be reviewed by our respective competent representatives from both sides and I hope a comprehensive technical specification would be finalized during this meeting.

**Your Excellency and distinguished delegates**

I am optimistic that, with the close cooperation and good will that has long existed between our two countries, this meeting would proceed smoothly and with Your Excellency's able leadership, we would eventually achieve the desired objectives that had been set out.

The outcome of this meeting in some way is important for this Sub-Committee so as to enable us to prepare the necessary report for the coming 4th Technical Meeting between Malaysia and the Republic of Singapore on the Implementation of the International Court of Justice Judgment on Pedra Branca, Middle Rocks and South Ledge schedule to be held in Kuala Lumpur on 26 July 2010.

In this respect, I look forward to a fruitful discussion with your delegation in the spirit of friendliness and good cooperation to achieve an amicable outcome for this morning's meeting.

Thank you.







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**APPENDIX E**

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**AGENDA**

1. Opening Remarks
2. Adoption of Agenda
3. Discussion on the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
4. Discussion on the Technical Specifications for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
5. Discussion on the Contractual Documents for the Appointment of the Independent Service Provider to Conduct the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
6. Any Other Matters
7. Closing Remarks

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**APPENDIX F**

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**DRAFT MEMORANDUM OF UNDERSTANDING  
(MALAYSIA'S COUNTER-PROPOSAL DATED 9 JULY 2010)**

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10.

Malaysia's Counter-proposal (9 July 2010)

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE GOVERNMENT OF MALAYSIA  
AND  
THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE  
WITH REGARD TO  
THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

**THE GOVERNMENT OF MALAYSIA**, on the one part, as represented by the ..... having an address at *[official address of the signatory]* and **THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE**, on the other part, as represented by ..... having an address at *[official address of the signatory]* (hereinafter referred to singularly as "the Party" and collectively as "the Parties"),

**RECOGNIZING** the existing friendly relations between the Parties and convinced of the necessity of a lasting and effective co-operation in the interest of the Parties;

**RECALLING** the judgment of the International Court of Justice (ICJ) in the Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore) rendered on 23 May 2008 (the Judgment);

**REFERRING** to the Joint Press Statement made by the Parties on 6 June 2008 in Singapore which reiterated their commitment to honour and abide by the Judgment, and to fully implement it;

**FOLLOWING RECALLING** the decision of the Parties ~~in the meeting held on 3 June 2008~~ to establish a Joint Technical Committee in furtherance of the aforementioned objectives;

**Comments by Singapore:**

The Joint Technical Committee was already established on 3 June 2008, when it

held its first meeting.

**Comments by Malaysia:**

The proposed amendments as indicated above are acceptable.

**WHEREAS—RECALLING FURTHER that** the Joint Technical Committee, **at its meeting held on 3 June 2008,** established a technical sub-committee known as "the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge" (the Sub-Committee) to oversee the conduct of **the** Joint Hydrographic Survey works;

**Comments by Malaysia:**

The above amendments as proposed by Singapore is acceptable pursuant to the changes made to the previous preamble.

**ACKNOWLEDGING** that the purpose of the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks is to provide a comprehensive and accurate hydrographic data in the Survey Area in accordance with the Scope of Works;

**ACKNOWLEDGING FURTHER** that the Joint Hydrographic Survey is to prepare for eventual talks between both Parties on maritime issues **delimitation** in and around Pedra Branca **and** Middle Rocks and ~~South Ledge~~; and

**BELIEVING** the importance of the scientific and technical data to be acquired in and around Pedra Branca and Middle Rocks and the significance of cooperation between the Parties to acquire and exchange such data for the purposes of the eventual talks between both Parties,

**AND WHEREAS NOTING** that the Joint Technical Committee has endorsed the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" prepared by the Sub-Committee;



**Comment by Singapore:**

This will require a decision by the MSJTC to endorse the Scope of Works.

**Comment by Malaysia:**

The amendment made is acceptable.

**HAVE AGREED AS FOLLOWS:**

**ARTICLE I**  
**DEFINITIONS**

For the purpose of this Memorandum of Understanding, unless the context otherwise states:

- a) "Confidential Information" means ~~any~~ information disclosed in whatever form between the Parties in connection with or during the performance of this MOU which ~~includes~~, including, but is not necessarily limited to scientific and technical data, maps, models, interpretations, reports and any other matters relating to this MOU, where such information has been specified by the disclosing Party as information to be treated as confidential;

**Comments by Singapore:**

This definition is very wide. We would like to propose some amendments to clarify that for any information to be considered "confidential" under this MOU, it has to be specifically marked or designated as such.

**Comments by Malaysia:**

It is observed that Singapore's suggestion would mean that any such confidentiality would not automatically apply to all situations related to this MOU. Confidentiality would only be applicable where it has been specified as and when the need arises.

Malaysia is however of the view that it should apply automatically and should only be disclosed upon mutual agreement of the Parties. Hence, it is proposed that the last part of the sentence in Article 1(a) as in the above be deleted i.e. "where such information has been specified by the disclosing Party as information to be treated as confidential."

- b) "Joint Survey" means the Joint Hydrographic Survey to be undertaken jointly by the Parties pursuant to the Scope of Works ~~for purposes of to~~ acquiring scientific and technical **comprehensive and accurate hydrographic** data ~~comprising of bathymetric [and geodetic data]~~ in the Survey Area **in particular to determine the low-water mark of the features and low tide elevations, in order to prepare for eventual talks on maritime issues maritime delimitation in and around Pedra Branca and Middle Rocks;**

**Comments by Singapore:**

We have taken the above language from Paragraph 1 of the Scope of Works.

**Comments by Malaysia:**

Malaysia is agreeable to the proposed amendments as it follows paragraph 1 of the SOW. However, Malaysia proposes that the term "maritime issues" be replaced with "maritime delimitation" as the very purpose of the Joint Survey Works is for the purposes of the latter.

- c) "MOU" means this Memorandum of Understanding and its Annexes;

- d) "Scope of Works" means the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as referred to in Article 4 and attached in Annex 'I' of this MOU; and
- e) "Survey Area" means the area in and around Pedra Branca and Middle Rocks as shown in **Annex A** of the Scope of Works.

## ARTICLE 2

### MATTERS NOT TO BE PREJUDICED

~~For the avoidance of doubt, any action taken or omission made by the Parties or any person engaged by the Parties pursuant to the provisions of this MOU, including any documentation and data directly or indirectly acquired, created, provided or generated in the performance of the Scope of Works, shall not be interpreted so as to in any manner whatsoever to prejudice or affect:~~

- ~~(a) The past, present or future position taken by either Party in relation to the interpretation and application of UNCLOS 1982 or any applicable rule of international law;~~
- ~~(b) The baselines and boundary lines as depicted in the relevant official maps of the Parties including methods and any other matters related to the construction of the said baselines and boundary lines;~~
- ~~(c) The question of delimitation of boundaries between the Parties; or~~



Malaysia's Counter-proposal (9 July 2010)

- (d) ~~The maritime or territorial claims made by either Party, or prejudging the determination of such claims and shall not be construed as conferring recognition or acceptance by either Party of such claims.~~

The Joint Survey Works or any action or omission undertaken pursuant to the provisions of this MOU or the Scope of Works are without prejudice to issues of sovereignty including positions taken in relation to the interpretation and application of international law, baselines and boundary lines depicted in official maps of the Parties, maritime or territorial claims, and eventual delimitation of maritime boundaries.

Comments by Singapore:

The above proposal is taken from Article 2 of Singapore's proposed draft MOU which was tabled at the 5th Meeting of the Sub-Committee (5 January 2010, Singapore).

Comments by Malaysia:

Malaysia is of the view that in detailing such situations would make clearer the intention of parties, should the parties in the future dispute the matters which should be regarded as non-prejudicial. Therefore, Malaysia proposes the insertion of the words shown in italics, bold and underlined to specify succinctly the matters in which such issues should not be affected by this entire exercise.

ARTICLE 3

MUTUAL UNDERSTANDING

The Parties mutually understand and agree that the Parties shall cooperate in good faith and in a constructive manner in the implementation of this MOU.

ARTICLE 4

SCOPE OF WORKS

Subject to the terms of this MOU and the laws, regulations and national policies in force including procedures applicable in each Party's country, the Parties shall jointly conduct the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as attached in **Annex 1** of this MOU on the basis of equality and mutual benefit and/or shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to comply with the provisions of this MOU.

**ARTICLE 5**

DESIGNATED AUTHORITY

The designated authority responsible for the implementation of this MOU on behalf of the Government of Malaysia shall be the Ministry of Foreign Affairs Malaysia and on behalf of the Government of the Republic of Singapore shall be

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**ARTICLE 6**

~~ESTABLISHMENT OF JOINT SUB-COMMITTEE ON THE JOINT SURVEY~~

~~The Parties have agreed to establish on 3 June 2008 the "Sub-Committee on the Joint Hydrographic Survey in and around Pedra Branca, Middle Rocks and South Ledge" comprising of members as listed in Annex 2 and shall be responsible to:~~

- ~~(a) — Determine the Joint Survey;~~
- ~~(b) — Monitor and regulate the implementation of the Scope of Works;~~
- ~~(c) — Consider and approve related technical matters pursuant to the Scope of Works;~~

- (d) ~~— Determine the timeline for the implementation of the Scope of Works;~~
- (e) ~~— Determine the frequency, venue and agenda of the meetings relating to the Scope of Works;~~
- (f) ~~— Establish a sub-committee(s) or working group(s) as it deems appropriate; and~~
- (g) ~~— Any other matters necessary for the implementation of the Scope of Works.~~

**Comments by Singapore:**

We propose deleting the above Article, as the Terms of Reference of the Sub-Committee have already been agreed at the First Meeting of the MSJTC on 3 June 2008.

**Comments by Malaysia:**

Malaysia is agreeable to the proposed amendments since both Parties have agreed to the TOR of the Sub-Committee.

**ARTICLE 7**

**FINANCIAL ARRANGEMENTS**

~~The financial arrangements to cover costs and expenses within the framework of this MOU shall be mutually agreed upon by the respective Parties on a case-by-case basis.~~

**Comments by Singapore:**



We propose deleting the above Article, as Paragraph 15 of the Scope of Works provides for the arrangement on costs.

Comments by Malaysia:

Malaysia is of the view that Article 7 should be maintained as it stipulates that the Parties shall mutually agree on the financial arrangements and this would not run contrary to paragraph 15 of the SOW. Additionally, Article 7 will cover any other costs which may possibly be incurred by the Parties in carrying out the MOU and which have not been provided for in the SOW.

**ARTICLE 87**

**PROTECTION OF INTELLECTUAL PROPERTY RIGHTS**

- (1) The protection of intellectual property rights shall be enforced in conformity with the respective national laws, rules and regulations of the Parties and with other international agreements ~~signed by both Parties~~ by which each Party is bound.
- (2) The use of name, logo and/or official emblem of any of the Parties on any publication, document and/or paper is prohibited without the prior written approval of either Party.
- (3) Notwithstanding anything in paragraph (1) above, the intellectual property rights in respect of any technological development, products and services development, carried out –
- (i) jointly by the Parties or all the intellectual property rights in any document or material generated, created or provided through the joint activity effort of the Parties in the performance of the Scope of Works, ~~shall be jointly owned by the Parties in accordance with the terms to be mutually agreed upon by the Parties~~ shall be co-owned by the

Malaysia's Counter-proposal (9 July 2010)

Parties in equal undivided shares, and each Party shall be entitled to exploit, including by way of licence, such documents or materials without reference to the other Party and without any obligation to account to the other Party for the profits and gains from such exploitation; and

- (ii) solely and separately by the Party or all the intellectual property rights in any document or material generated, created or provided by a Party through the sole and separate effort of the that Party in the performance of the Scope of Works, shall be solely owned by the Party concerned ; and

(4) Each Party shall grant to the other Party a royalty-free, non—exclusive and non-transferable license to use, for the sole purpose of implementing this MOU, the documents or materials generated, created and provided by either Party to the other Party ~~for sole purposes of implementing this MOU.~~

~~(5) The intellectual property rights in any document or material generated, created or provided by or licensed to either Party prior to entering into this MOU are considered "Pre-Existing Works" the rights of which are outside this MOU. Such Pre-Existing Works shall remain vested in that Party (or its licensor). To the extent that the Pre-Existing Works form part of any of the documents or material generated, created or provided in the performance of this MOU, the Party who owns the intellectual property rights shall provide, or the Party who is the licensee of the Pre-Existing Works shall cause to be provided to the other Party a royalty free, non-exclusive and non-transferable license to use the Pre-Existing Works strictly for the performance of this MOU and on such terms and conditions to be mutually agreed between the Parties.~~

Comments by Singapore:

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We propose deleting paragraph 5 above, as it does not appear necessary in the light of paragraph 4.

Comments by Malaysia:

Malaysia is agreeable to the proposed amendments to paragraphs 1, 3 and 4 above. However, Malaysia is of the view that paragraph 5 is still necessary although it may seem the same as paragraph 4. In this respect, paragraph 5 caters for "Pre-existing Works" which paragraph 4 does not clearly indicate. Such would clearly show the intention of parties in case of dispute as to whether "Pre-existing Works" is considered to be part of the works covered under the scope of protection of intellectual property rights. As such, it is proposed that paragraph 5 of this Article remain.

**ARTICLE 98**  
**CONFIDENTIALITY**

(1) Each Party shall at all times hold confidential and shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works to hold confidential and prevent them from divulging to third parties, or use in any other way than for the purposes of accomplishing the Scope of Works any Confidential Information from being disclosed, directly or indirectly, to the recipient Party, without the other Party's prior written approval.

(2) Each Party shall take sufficient and appropriate action to ensure that the provisions of this Article are adhered to by their employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works and shall notify promptly to the other Party upon discovery of any instance where the requirements of this Article have not been complied with.



(3) ~~Notwithstanding the above provisions, the Parties are exempted from complying with~~ **The prior written approval of the other Party referred to in Paragraph 1 of this Article is not required** if:

- (i) the disclosure of the Confidential Information is made in confidence to the Parties'y's employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Partiesy to carry out the whole or any part of the Scope of Works on a need to know basis and after such employees, contractors, subcontractors or subcontractor's employees have been informed of the obligations imposed by this Article and have agreed to be bound in writing by such obligations; or
- (ii) if mutually agreed by the Parties.

**Comments by Singapore:**

We would like to seek clarification on this Article generally, as well as in connection with the comments on Article 1(a) above

**Comments by Malaysia:**

Where Article 1(a) merely defines as to what "is considered as "confidential information", Article 9 basically explains as to how such is supposed to be addressed by the Parties.

Malaysia has no objections to the amendments proposed by Singapore to this Article as reflected above.

**ARTICLE 109**

**SUSPENSION**

Each Party reserves the right for reasons of national security, national interest, public order or public health to suspend temporarily, either in whole or in part, the implementation of this MOU which suspension shall take effect immediately after notification has been given to the other Party through diplomatic channels.

**Comments by Singapore:**

We would like to seek clarification on this Article.

**Comments by Malaysia:**

In response to Singapore's request for clarification on this Article, Malaysia wishes to state that such provision is a standard provision generally used in most bilateral agreements/treaties entered into between Malaysia and another State. Malaysia views it necessary to have this Article in place to cater for situations reflected in the above Article.

**ARTICLE 1110****REVISION, MODIFICATION AND AMENDMENTS**

- (1) Either Party may request in writing a revision, modification or amendment of all or any part of this MOU.
- (2) Any revision, modification or amendment agreed to by the Parties shall be reduced into writing and shall form part of this MOU.
- (3) Such revision, modification and amendment shall come into force on such date as may be determined by the Parties.

(4) Any revision, modification or amendment shall not prejudice the rights and obligations arising from or based on this MOU before or up to the date of such revision, modification or amendment .

**Comments by Singapore:**

We would like to seek clarification on this Article.

**Comments by Malaysia:**

In response to Singapore's request for clarification on this Article, Malaysia also wishes to state that such provision is a standard provision generally used in most bilateral agreements/treaties entered into between Malaysia and another State. This would also cater for situations where the MOU needs to be amended to address any possible circumstances arising at any given time. In addition, such proposal to amend would of course require the agreement by the other party as reflected in Article 11(2) above.

**ARTICLE 1211**

**SETTLEMENT OF DISPUTES**

Any difference or dispute between the Parties concerning the interpretation and/or implementation and /or application of any of the provisions of this MOU shall be settled amicably through mutual consultation and/or negotiations between the Parties through diplomatic channels, without reference to any third party or international tribunal.

**ARTICLE 1312**

**ANNEXES**



The Annexes to this MOU, duly signed by an authorised representative of the Parties, shall form an integral part of this MOU.

Comments by Singapore:

As set out in our comments on Article 6 above, we suggest deleting Annex 2. As such, there will be only one Annex.

Comments by Malaysia:

Malaysia is agreeable to the proposed amendment as Annex 2 relates to the SubCommittee which has been established on 3 June 2008 and would no longer be needed to be provided in the MOU.

ARTICLE 1413

ENTRY INTO FORCE, DURATION AND TERMINATION

(1) This MOU shall be governed by international law and come into force on the date of signing.

(2) ~~This MOU shall remain in force for a period of ..... (.....) years.~~

(3) ~~Thereafter, it shall be extended for a further period to be mutually agreed by the Parties.~~

(4) ~~Notwithstanding anything in this Article, either Party may terminate this MOU by notifying the other Party of its intention to terminate this MOU by a notice in writing through diplomatic channels, at least three (3) months prior to its intention to do so.~~

(5) The provisions of Articles 2 and 8 of this MOU shall continue in force notwithstanding the completion, expiry, suspension or termination of this MOU.

**Comments by Singapore:**

We would like to suggest deleting paragraphs 2 to 4 above. They may not be necessary because of the relative short duration of the survey.

**Comments by Malaysia:**

Malaysia is agreeable to the proposals made by Singapore except to the deletion of the words "completion, expiry" in paragraph 5 above. Additionally, paragraph 4 above **should be maintained** so as to allow either Party to terminate this MOU if necessary.

**IN WITNESS WHEREOF**, the undersigned, being duly authorized thereto by their respective Governments, have signed this MOU.

**DONE** at ..... on this ..... day of ..... in the year ..... in ~~four (4)~~ **two (2)** original texts, ~~two (2)~~ each in the English and Malay languages, all **both** texts being equally authentic. In the event of any divergence of interpretation between any of the texts, the English text shall prevail.

**Comments by Malaysia:**

Malaysia is not agreeable to the proposed amendments made by Singapore as shown above as the MOU must also be made in the Malay language as required by the Malaysian Government. Therefore the original wordings as ~~striked through~~ above must be maintained.

**FOR THE GOVERNMENT OF  
MALAYSIA**

**FOR THE GOVERNMENT OF THE  
REPUBLIC OF SINGAPORE**

SECRET

WITHOUT PREJUDICE

Malaysia's Counter-proposal (9 July 2010)

ANNEX 4

Comments by Malaysia:

Malaysia proposes that the number "1" be deleted as there are no other annexes in the MOU.

GENERAL SCOPE OF WORKS FOR JOINT HYDROGRAPHIC SURVEY IN AND  
AROUND PEDRA BRANCA AND MIDDLE ROCKS

SECRET

WITHOUT PREJUDICE



SECRET

WITHOUT PREJUDICE

Malaysia's Counter-proposal (9 July 2010)

ANNEX 2

SUB-COMMITTEE ON THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

1) — The composition of the Malaysian Team in the Sub-Committee are as follows:

- a) — Survey and Mapping Department — Joint Chairman
- b) — Ministry of Foreign Affairs — Member
- c) — Ministry of Natural Resources and the Environment — Member
- d) — National Security Council, Prime Ministers Department — Member
- e) — Attorney General's Chambers — Member
- f) — National Hydrographic Centre, Royal Malaysia Navy — Member
- g) — State Secretary of the Johor State Government — Member

SECRET

WITHOUT PREJUDICE

Malaysia's Counter-proposal (9 July 2010)

2) ~~The composition of the Singaporean Team in the Sub-Committee are as follows:~~

a) \_\_\_\_\_ Joint Chairman

b) \_\_\_\_\_ Member

c) \_\_\_\_\_ Member

d) \_\_\_\_\_ Member

e) \_\_\_\_\_ Member

f) \_\_\_\_\_ Member

**Comment by Singapore:**

We propose that Annex 2 be deleted, as the composition of the Sub-Committee changes with the composition of each country's delegations for the Sub-Committee meetings.

**Comments by Malaysia:**

All amendments proposed by Singapore are acceptable.







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APPENDIX G

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**DRAFT MEMORANDUM OF UNDERSTANDING  
(WORKING DOCUMENT DATED 16 JULY 2010)**

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Working Document dated 16 July 2010

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE GOVERNMENT OF MALAYSIA  
AND  
THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE  
WITH REGARD TO  
THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

**THE GOVERNMENT OF MALAYSIA**, on the one part, as represented by the ..... having an address at *[official address of the signatory]* and **THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE**, on the other part, as represented by ..... having an address at *[official address of the signatory]* (hereinafter referred to singularly as "the Party" and collectively as "the Parties"),

**RECOGNIZING** the existing friendly relations between the Parties and convinced of the necessity of a lasting and effective co-operation in the interest of the Parties;

**RECALLING** the judgment of the International Court of Justice (ICJ) in the Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore) rendered on 23 May 2008 (the Judgment);

**REFERRING** to the Joint Press Statement made by the Parties on 6 June 2008 in Singapore which reiterated their commitment to honour and abide by the Judgment, and to fully implement it;

**RECALLING** the decision of the Parties to establish a Joint Technical Committee in furtherance of the aforementioned objectives;

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WITHOUT PREJUDICE

Working Document dated 16 July 2010

**RECALLING FURTHER** that the Joint Technical Committee, at its meeting held on 3 June 2008, established a technical sub-committee known as "the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge" (the Sub-Committee) to oversee the conduct of the Joint Hydrographic Survey works;

**ACKNOWLEDGING** that the purpose of the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks is to provide a comprehensive and accurate hydrographic data in the Survey Area in accordance with the Scope of Works;

**ACKNOWLEDGING FURTHER** that the Joint Hydrographic Survey is to prepare for eventual talks between both Parties on maritime **[issues] [delimitation]** in and around Pedra Branca and Middle Rocks; and

**BELIEVING** the importance of the scientific and technical data to be acquired in and around Pedra Branca and Middle Rocks and the significance of cooperation between the Parties to acquire and exchange such data for the purposes of the eventual talks between both Parties,

**AND NOTING** that the Joint Technical Committee has endorsed the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" prepared by the Sub-Committee;

**HAVE AGREED AS FOLLOWS:**

**ARTICLE 1**  
**DEFINITIONS**

For the purpose of this Memorandum of Understanding, unless the context otherwise states:

SECRET

WITHOUT PREJUDICE



Working Document dated 16 July 2010

- a) "Confidential Information" means information disclosed in whatever form between the Parties in connection with or during the performance of this MOU including, but not necessarily limited to, scientific and technical data, maps, models, interpretations, reports and any other matters relating to this MOU [S:, except information which has been made available to the public].
- b) "Joint Survey" means the Joint Hydrographic Survey to be undertaken jointly by the Parties pursuant to the Scope of Works to acquire comprehensive and accurate hydrographic data in the Survey Area in particular to determine the low-water mark of the features and low tide elevations, in order to prepare for eventual talks on maritime [issues] [delimitation] in and around Pedra Branca and Middle Rocks;
- c) "MOU" means this Memorandum of Understanding and its Annex;
- d) "Scope of Works" means the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as referred to in Article 4 and attached in the Annex of this MOU; and
- e) "Survey Area" means the area in and around Pedra Branca and Middle Rocks as shown in **Annex A** of the Scope of Works.

## ARTICLE 2

### MATTERS NOT TO BE PREJUDICED

Working Document dated 16 July 2010

The Joint Survey Works or any action or omission undertaken pursuant to the provisions of this MOU or the Scope of Works are without prejudice to issues of sovereignty [M: including positions taken in relation to the interpretation and application of international law, baselines and boundary lines depicted in official maps of the Parties, maritime or territorial claims,] and eventual delimitation of maritime boundaries.

Comment: Singapore is prepared to accept Malaysia's proposed additions to Article 2, without the words, 'baselines and boundary lines depicted in official maps of the Parties.'

### ARTICLE 3

#### MUTUAL UNDERSTANDING

The Parties mutually understand and agree that the Parties shall cooperate in good faith and in a constructive manner in the implementation of this MOU.

### ARTICLE 4

#### SCOPE OF WORKS

Subject to the terms of this MOU and the laws, regulations and national policies in force including procedures applicable in each Party's country, the Parties shall jointly conduct the "General Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as attached in the **Annex** of this MOU on the basis of equality and mutual benefit and/or shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to comply with the provisions of this MOU.

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**ARTICLE 5**  
**DESIGNATED AUTHORITY**

The designated authority responsible for the implementation of this MOU on behalf of the Government of Malaysia shall be the Ministry of Foreign Affairs Malaysia and on behalf of the Government of the Republic of Singapore shall be \_\_\_\_\_.

**ARTICLE 6**  
**FINANCIAL ARRANGEMENTS**

The financial arrangements to cover costs and expenses within the framework of this MOU [S: which are additional to the arrangement provided for under the Scope of Works] shall be mutually agreed upon by the respective Parties on a case-by-case basis.

**ARTICLE 7**  
**PROTECTION OF INTELLECTUAL PROPERTY RIGHTS**

- (1) The protection of intellectual property rights shall be enforced in conformity with the respective national laws, rules and regulations of the Parties and with other international agreements by which each Party is bound.
- (2) The use of name, logo and/or official emblem of any of the Parties on any publication, document and/or paper is prohibited without the prior written approval of either Party.



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(3) Notwithstanding anything in paragraph (1) above, the intellectual property rights in respect of any technological development, products and services development, carried out –

- (i) jointly by the Parties or all the intellectual property rights in any document or material generated, created or provided through the joint activity effort of the Parties in the performance of the Scope of Works, shall be co-owned by the Parties in equal undivided shares, and each Party shall be entitled to exploit, including by way of licence, such documents or materials without reference to the other Party and without any obligation to account to the other Party for the profits and gains from such exploitation; and
- (ii) solely and separately by the Party or all the intellectual property rights in any document or material generated, created or provided by a Party through the sole and separate effort of that Party in the performance of the Scope of Works, shall be solely owned by the Party concerned ; and

(4) Each Party shall grant to the other Party a royalty-free, non-exclusive and non-transferable license to use, for the sole purpose of implementing this MOU, the documents or materials generated [S: or] created [S: by, or licensed to, the first Party,] and provided by [S: the first] Party to the other Party [S: , regardless of whether the documents or materials have been generated, created or licensed prior to or after the entry into force of this MOU. The use of documents or materials generated, created or licensed prior to the entry into force of this MOU ("Pre-Existing Works") may be subject to additional terms and conditions mutually agreed between the Parties].

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(5) [M: The intellectual property rights in any document or material generated, created or provided by or licensed to either Party prior to entering into this MOU are considered "Pre-Existing Works" the rights of which are outside this MOU. Such Pre-Existing Works shall remain vested in that Party (or its licensor). To the extent that the Pre-Existing Works form part of any of the documents or material generated, created or provided in the performance of this MOU, the Party who owns the intellectual property rights shall provide, or the Party who is the licensee of the Pre-Existing Works shall cause to be provided to the other Party a royalty free, non-exclusive and non-transferable license to use the Pre-Existing Works strictly for the performance of this MOU and on such terms and conditions to be mutually agreed between the Parties.]

## ARTICLE 8

### CONFIDENTIALITY

(1) Each Party shall at all times hold confidential and shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works to hold confidential and prevent them from divulging to third parties, or use in any other way than for the purposes of accomplishing the Scope of Works any Confidential Information from being disclosed, directly or indirectly, to the recipient Party, without the other Party's prior written approval.

(2) Each Party shall take sufficient and appropriate action to ensure that the provisions of this Article are adhered to by their employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works and shall notify promptly to the other Party upon discovery of any instance where the requirements of this Article have not been complied with.

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(3) The prior written approval of the other Party referred to in Paragraph 1 of this Article is not required if:

- (i) the disclosure of the Confidential Information is made in confidence to the Party's employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Party to carry out the whole or any part of the Scope of Works on a need to know basis and after such employees, contractors, subcontractors or subcontractor's employees have been informed of the obligations imposed by this Article and have agreed to be bound in writing by such obligations; or
- (ii) mutually agreed by the Parties.

#### ARTICLE 9 SUSPENSION

[M: Each Party reserves the right for reasons of national security, national interest, public order or public health to suspend temporarily, either in whole or in part, the implementation of this MOU which suspension shall take effect immediately after notification has been given to the other Party through diplomatic channels.]

#### ARTICLE 10 REVISION, MODIFICATION AND AMENDMENTS

(1) Either Party may request in writing a revision, modification or amendment of all or any part of this MOU.



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(2) Any revision, modification or amendment agreed to by the Parties shall be reduced into writing and shall form part of this MOU.

(3) Such revision, modification and amendment shall come into force on such date as may be determined by the Parties.

(4) Any revision, modification or amendment shall not prejudice the rights and obligations arising from or based on this MOU before or up to the date of such revision, modification or amendment.

## **ARTICLE 11**

### **SETTLEMENT OF DISPUTES**

Any difference or dispute between the Parties concerning the interpretation and/or implementation and /or application of any of the provisions of this MOU shall be settled amicably through mutual consultation and/or negotiations between the Parties through diplomatic channels, without reference to any third party or international tribunal.

## **ARTICLE 12**

### **ANNEX**

The Annex to this MOU, duly signed by an authorised representative of the Parties, shall form an integral part of this MOU.

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ARTICLE 13

ENTRY INTO FORCE, DURATION AND TERMINATION

(1) This MOU shall be governed by international law and come into force on the date of signing.

(2) [M: Notwithstanding anything in this Article, either Party may terminate this MOU by notifying the other Party of its intention to terminate this MOU by a notice in writing through diplomatic channels, at least three (3) months prior to its intention to do so.]

(3) The provisions of Articles 2 and 8 of this MOU shall continue in force notwithstanding the [M: completion [S: of the Joint Survey]], [M: expiry,] suspension or termination of this MOU.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto by their respective Governments, have signed this MOU.

DONE at ..... on this ..... day of ..... in the year ..... in [M: four (4)] [S: two (2)] original texts, [M: two (2) each] in the English [M: and Malay] language[M: s], [M: all] [S: both] texts being equally authentic. [M: In the event of any divergence of interpretation between any of the texts, the English text shall prevail.]

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FOR THE GOVERNMENT OF  
MALAYSIA

FOR THE GOVERNMENT OF THE  
REPUBLIC OF SINGAPORE

.....

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ANNEX

GENERAL SCOPE OF WORKS FOR THE JOINT HYDROGRAPHIC SURVEY IN  
AND AROUND PEDRA BRANCA AND MIDDLE ROCKS

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**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**GENERAL SCOPE OF WORKS FOR  
THE JOINT HYDROGRAPHIC SURVEY  
IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

**1. PURPOSE**

The purpose of the Joint Survey Works in and around Pedra Branca and Middle Rocks ("Survey") is to acquire comprehensive and accurate hydrographic data in the area as defined in paragraph 3 ("Survey Area") in particular to determine the low-water mark of the features and low tide elevations, in order to prepare for eventual talks on maritime **[issues] [delimitation]** in and around Pedra Branca and Middle Rocks.

**2. GENERAL SCOPE OF WORKS**

This General Scope of Works for the Survey covers a complete process of survey operation from the planning phase to the submission of the result, which is as follows:

- 2.1 To determine the limits of the Survey Area in and around Pedra Branca and Middle Rocks;
- 2.2 To define the scope and specification for the Survey;
- 2.3 To determine the equipment, survey platform and methodologies for data acquisition and processing used in the Survey;
- 2.4 To determine the conduct of the Survey, which includes mobilisation and demobilisation, commencement date, survey routine, survey lines and others;
- 2.5 To agree on the terms and conditions for data format, sharing and exchange;



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- 2.6 To provide for the collection and processing of data jointly;
- 2.7 To determine the modalities for preparing and finalising the Survey reports and documentations; and
- 2.8 To undertake any other works which are within the ambit of this paragraph.

**3. AREA TO BE SURVEYED**

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS84):

POINT	WGS84	
	LATITUDE (N)	LONGITUDE (E)
1	01° 20' 22.5"	104° 24' 23.7"
2	01° 19' 26.8"	104° 25' 17.6"
3	01° 18' 37.6"	104° 24' 21.1"
4	01° 19' 33.1"	104° 23' 27.2"

The diagram of the Survey Area is shown in **ANNEX A**.

**4. DURATION AND TIMELINE OF THE SURVEY**

The Survey shall commence on a date to be agreed by both Parties. The Survey operation is estimated to take about 10 days to complete including patch test, accuracy test and resounding (if deemed necessary). The sounding will be conducted at an appropriate sounding speed.

**5. WEATHER**

The Survey shall be stopped temporarily if the weather deteriorates, i.e. World Meteorological Organization (WMO) sea state more than 3 (wave height >1.25m), as this will affect the accuracy of survey and safety of boat crews.

**6. SCALE OF SURVEY**

The Fair Sheet for Survey Area shall be plotted on a scale of:

- (a) For the whole Survey Area - 1:2,500; and

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(b) Around Pedra Branca and Middle Rocks - 1:1,000

**7. STANDARD OF SURVEY**

All hydrographic works shall comply with the International Hydrographic Organization (IHO) standard and meet the minimum standard for hydrographic survey in accordance with *IHO Standard for Hydrographic Surveys SP 44 5<sup>th</sup> Edition, February 2008, Order 1B*.

**8. DATUM**

**8.1 Horizontal Datum, Projection and Grid**

The Survey shall be carried out in World Geodetic System 1984 (WGS84) and plotted based on the following geodetic parameters:

Ellipsoid	: WGS84
Semi Major Axis (a)	: 6378137.0 m
Flattening (f)	: 1/298.25722
Projection	: Universal Transverse Mercator (UTM)
Zone	: 48
False Northing	: 0.0m
False Easting	: 500000.0m
Scale Factor at Central Meridian	: 0.9996
Central Meridian	: Centre of Zone 48

**8.2 Vertical Datum**

8.2.1 The datum used during the Survey shall be Lowest Astronomical Tides (LAT), which is the lowest water plane to which soundings are reduced and above which drying heights are shown in the Fair Sheet and other survey records. LAT shall be determined by harmonic analysis with data already obtained from continuous tidal

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observations of at least 30 days. The data for the harmonic analysis shall be provided by both Parties.

8.2.2 Tidal data from both Middle Rocks and Pedra Branca shall be used for datum harmonisation.

### 8.3 Reduction of Soundings

Heights of tide shall be observed throughout the survey period for sounding reduction using tide gauge with sampling interval not more than 10 minutes. Actual tidal observation curves will be smoothened and used for reduction of soundings. Depths will be inked in metres and decimetres.

## 9. POSITIONING

### 9.1 Survey of Geodetic Control Stations

9.1.1 A total of four (4) geodetic control stations shall be established i.e. two (2) each at Pedra Branca and Middle Rocks.

9.1.2 The proposed Global Positioning System (GPS) Survey Network shall be designed as follows:

- (i) a Primary GPS network comprising two (2) Malaysia Real-Time Kinematic GNSS Network System (MyRTKnet) Stations, two (2) Peninsular Malaysia Primary Geodetic Network Stations, four (4) Singapore Satellite Positioning Reference Network (SiRENT), Permanent GPS Stations and one (1) geodetic control station at Middle Rocks;
- (ii) a Secondary GPS network of the four proposed geodetic control stations, as stated in para. 9.1.1;
- (iii) all stations shall be observed simultaneously using static GPS technique; and
- (iv) GPS measurement duration and software shall be selected so as to ensure relative baseline accuracy of one part per million (1 ppm).

9.1.3 The diagram of the proposed GPS Survey Network is shown in **ANNEX B**.



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9.1.4 The GPS receiver set used for the observation shall have the following features and specification:

- (i) tracks only GPS satellites;
- (ii) dual frequency and geodetic type with offline post-processing of Differential GPS data;
- (iii) accuracy for positioning:

Horizontal	5 mm+2 ppm
Vertical	10 mm+1 ppm;
- (iv) the antenna shall be a geodetic L1/L2 with fixed or removable ground plane; and
- (v) each observation party shall be equipped with the necessary communication instrument and other required operational equipment.

**9.1.5 The specifications for the static GPS observation are as follows:**

No.	ITEM	STATIC GPS
a.	Observation	Carrier Phase (L1 and L2)
b.	Number of Satellites	At least 5
c.	PDOP Value	Less than 7
d.	Elevation Angle Cut-off	15 degrees
e.	Epoch Recording Rate	30 seconds
f.	Observation Period	Two (2) independent sessions of three (3) hours observation
g.	Type of Antenna	Geodetic L1/L2 with ground plane/ multipath mitigation technique
h.	Height of Antenna	Nearest mm (Beginning and end of measurement)
i.	Centering of Antenna	On the mark
j.	Atmosphere	Default

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k.	Quality Control	<ul style="list-style-type: none"><li>• Multipath</li><li>• Height of antenna properly measured</li><li>• Positive mark occupation</li><li>• Log sheet to monitor data acquisition</li><li>• Antenna orientation towards north</li></ul>
----	-----------------	--

9.1.6 During the conduct of GPS observation, one representative from each country shall be allowed to be present at each respective geodetic control station.

9.1.7 The data processing and adjustment shall be carried out on the Primary and Secondary GPS Networks using appropriate GPS processing software. Each country shall carry out GPS data processing independently and produce an independent set of coordinates. Comparison of the sets of coordinates shall be carried out to establish the final set of coordinates.

9.1.8 The following technique of least square processing shall be carried out on the GPS data:

- (i) least squares adjustments shall be performed for the final data analysis and coordinate determination;
- (ii) the software used shall be capable of computing formal a priori standard errors from the baseline variance/co-variance statistics, and shall use models which account for the reference ellipsoid for the network control, orientation and scale differences between the GPS and network control datum;
- (iii) least squares adjustments of the network, both minimally constrained and constrained by all the geodetic stations' coordinates, shall be carried out to verify that the survey meets the required standards; and
- (iv) all adjustments of GPS data shall be 3 dimensional on the ITRF2000/WGS84 reference frame.

9.1.9 During the process of observation, the GPS field recording sheets shall be recorded (examples are set out in **ANNEXES C** and **D**). An independent check on the height of the antenna is essential.

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9.1.10 Each country shall make available the following digital data:

- (i) raw observational data shall be archived and each country shall have the same complete set of data and information;
- (ii) if required, result files from the baseline processing and final adjustments shall be supplied in digital form. The processing and/or adjustment software digital format may be requested by the other country to enable automatic inclusion of the results in that country's data base systems;
- (iii) comparison of the sets of coordinates shall be performed for validation, and the final result can be established if the differences are within the agreed tolerance range; and
- (iv) final adjusted coordinates are to be provided in the following coordinate systems:
  - (a) ITRF2000/WGS84
  - (b) UTM derived from ITRF2000/WGS84

9.1.11 The establishment process of geodetic control stations along with the observed data, information, results and analysis shall be systematically and comprehensively documented in the form of hard and soft copies.

**9.2 Use of Differential GPS (DGPS) for Hydrographic Positioning**

9.2.1 Positioning data shall be obtained using Differential GPS (DGPS). The following criteria shall apply:

- (i) The DGPS receivers shall be configured such that only satellites in view above the altitude 10 degrees are to be used in the position computation;
- (ii) The age of pseudo-range corrections used in the position computation shall not exceed 10 seconds;
- (iii) A minimum of four satellites shall be used to compute positioning;
- (iv) The Horizontal Dilution of Precision (HDOP) of the position shall be continuously monitored, recorded and shall not exceed 3.0;



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- (v) Dead Reckoning is not permitted; and
- (vi) Horizontal and vertical offsets between GPS antenna and transducers shall be observed and applied in no coarser than 0.1 m increments.

9.2.2 For the purpose of offline post processing of DGPS data, GPS equipment shall be set up at the four (4) geodetic control stations, as stated in para. 9.1.1, during the period of hydrographic survey.

### 9.3 Identification of Fixes

Fixes are to be identified by calendar date of the year and the Universal Time Coordinated (UTC).

## 10. SURVEY METHODOLOGY

10.1 The Survey shall consist of Multi-beam sonar surveys. In areas where Multi-beam sonar surveys are not feasible, Single-beam and other conventional methods shall be used. The field survey planning shall be carried out and agreed upon by the respective Survey Acquisition Teams prior to the commencement of survey operations, amongst others, to determine the areas for Multi-beam and Single-beam sonar surveys.

### 10.2 Hydrographic Data Acquisition System (HDAS)

10.2.1 The HDAS shall comprise hardware and software configured to control, manage, acquire and store digital data in survey format from the positioning system and Single-beam and Multi-beam echo sounder systems.

10.2.2 The HDAS software shall include helmsman display facilities indicating vessel steering in a preplanned survey line, with digital displays showing information on position, depth, Course Over Ground (COG), heading, Speed Over Ground (SOG), line and fix number, and distance from start and end lines.

10.2.3 The online Quality Control (QC) for positioning and depth shall be monitored to ensure positional accuracy standard. Daily QC reports shall be included as an annex to the Report of Survey referred to in paragraph 13 (ROS).

10.2.4 The automated logging system shall be set at the following intervals:

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Navigation Cycle Time : 2 sec or better  
Depth Cycle Time : 2 sec or better  
Position Logging Interval : 2 sec or better

10.2.5 Daily back-up of data shall be carried out at the Survey platform.

10.3 The shallow water Multi-beam echo sounder at a frequency of about 200 to 400 kHz is to be utilised for the sounding operation. The methodology for Multi-beam sonar survey encompasses the following:

(i) Sounding Units

Depths shall be recorded in metres and tenths of metres.

(ii) Depth Accuracy

The total sounding uncertainty for swath widths of at least three times the average water depth shall be in compliance, at the 95% confidence level, with the allowable Total Vertical Uncertainty (TVU) of  $\pm \sqrt{[0.25 + (0.013 \times d)^2]}$  where d = depth.

(iii) Line Orientation

Sounding track lines shall be generally parallel to the general configuration of the depth contour lines.

(iv) Position

The total uncertainties in the position of soundings and all other significant features shall not exceed  $\pm 2$  metres at 95% confidence level.

(v) Vessel Motion Data

All Multi-beam data shall be corrected for settlement and squat, heave, pitch, roll and the heading of the vessel.

(vi) Velocity of Sound in the Water Column

The velocity of sound through water shall be determined at least daily during Multi-beam sonar operations. The velocity profile shall be determined to a minimum of 95% of anticipated water depth. Velocity corrections shall be based on the data obtained from profile and not on an averaged sound velocity reading for the water column.

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(vii) Survey Coverage

The survey lines shall be run to achieve 100% seabed coverage, ie with 50% overlap on each side. The line spacing shall not exceed 3 times the water depth.

(viii) Cross Lines

Cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines. At least 5 cross lines shall be run in the Survey Area.

(ix) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT.

(x) Accuracy Test

(a) Accuracy tests shall be conducted on the Multi-beam Echo Sounder System (MBES) and DGPS sensors.

(b) Prior to commencing Multi-beam operation, a system accuracy test (patch test) shall be conducted to quantify the accuracy, precision and alignment of the MBES. The patch test shall include determination of roll, pitch, heading and time latency. Depth accuracy testing shall also include testing of MBES against Single-beam echo sounder system. Details of the test shall be included in an annex to the ROS.

(c) Accuracy check for DGPS system shall be conducted using at least two different reference stations. Positional differences should be less than  $\pm 2$  metres. Details of the test shall be included in an annex to the ROS.

10.4 The methodology for Single-beam sonar survey encompasses the following:

(i) Echo Sounder

A Single-beam echo sounder at a frequency of about 200 kHz providing a depth accuracy of  $\pm 0.1$  metre shall be used for the sounding survey. The echo sounder shall be calibrated daily either by bar-check or sound velocity probe up to the maximum depth of the Survey Area, before and after sounding.



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(ii) Reduction of Soundings

Actual tidal observation curves will be smoothed and used for reduction of soundings. Depths will be inked in metres and decimeters.

(iii) Horizontal Accuracy

The following accuracies will be maintained:

Position of soundings -  $\pm 2$  metre

(iv) Sounding Line Intervals

Sounding lines at 5 m intervals. Where irregularities or shoals are detected, closer sounded sounding lines and/or cross lines shall be run over these areas.

(v) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT.

**11. DATA PROCESSING**

11.1 Data processing for the survey acquired from both the Multi-beam and Single-beam surveys shall be carried out jointly at a venue to be agreed by both sides. The estimated time taken for data processing is 14 days.

11.2 Hydrographic Data Processing System (HDPS)

11.2.1 The HDPS software shall include facilities for editing and reducing depth, smoothing and filtering, sound velocity corrections, common format conversion, QC analysis for depth and positioning and be able to generate the final survey product presentations i.e. fair sheet with hydrographic symbology in accordance with IHO standards. The software shall also be able to handle and manage huge amount of raw and processed digital bathymetric data systematically. The workflow of the "Data Processing model" utilised by the software shall be included in the ROS.

11.2.2 The HDPS software shall be able to perform area based and line by line editing with automatic and/or manual removal of outliers. The survey data shall be able to be displayed in plan, spread sheet,

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profile and 3-dimensional digital terrain model views. All methods used for data editing shall be recorded and included in the ROS. The degree of depth contour smoothening and suppression of depths must be agreed by both Parties.

11.2.3 The software shall be able to perform QC for the depths between main lines and cross lines/check lines. The depth and positional data QC test result shall be included as an annex to the ROS to define the reliability of the Survey.

11.2.4 The software shall be able to generate colour-coded soundings, contours, and smooth sheet plotting capabilities.

## 12. OUTPUT

### 12.1 Field Records

All data gathered during the Survey shall be recorded as annexes to the ROS. This includes the following:

- (i) Tidal observation records
- (ii) Benchmarks descriptions
- (iii) Results of tidal analysis
- (iv) Geodetic Control Station
- (v) Accuracy Test for DGPS
- (vi) Patch Test Records for MBES
- (vii) Daily QC Test
- (viii) Echo-sounder graphs
- (ix) Field sheets showing sounding tracks with fix numbers
- (x) Other miscellaneous records and sheets used for submission of survey

### 12.2 Fair Sheet

- (i) Fair Sheet shall be drawn at scale of 1:1,000 or larger for coastal features and low-water line, and at scale of 1:2,500 for general bathymetric information of surrounding waters in Universal Transverse Mercator Zone 48 projection and WGS84 ellipsoid.
- (ii) Fair Sheet shall be endorsed by both Parties and signed by representative of each Party.

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**13. REPORT OF SURVEY (ROS)**

- 13.1 The ROS shall be prepared jointly by both Parties and signed by their respective Hydrographers. The estimated time for preparation of the ROS is 5 days.
- 13.2 The ROS shall be prepared in soft and hard copies.
- 13.3 The following documents (soft and hard copies) are to be rendered upon completion of the Survey:
- (i) Fair Sheet; and
  - (ii) Daily Survey Reports.
- 13.4 The final ROS is to be submitted to the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge for approval.

**14. SURVEY PLATFORM AND PERSONNEL**

The Survey shall be carried out using a single platform (including survey vessel, crew, equipment, acquisition software as well as processing software) to be provided by an independent service provider jointly appointed by both Parties. The Survey shall be carried out under the supervision of the following personnel:

Survey Acquisition Team for the Platform

Malaysia - 1 x Hydrographic Surveyors  
Singapore - 1 x Hydrographic Surveyors

Data Processing Team

Malaysia - 1 x Hydrographic Surveyors  
Singapore - 1 x Hydrographic Surveyors

Where there are differences in views within the Survey Acquisition Team or the Data Processing Team on any aspect of the Survey, the Survey shall be suspended pending resolution of the matter by the two Parties.

**15. COST**

Each Party shall bear its own costs incurred in the conduct of the survey and shall share equally in bearing the cost of services provided by the independent



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service provider referred to in Paragraph 14.

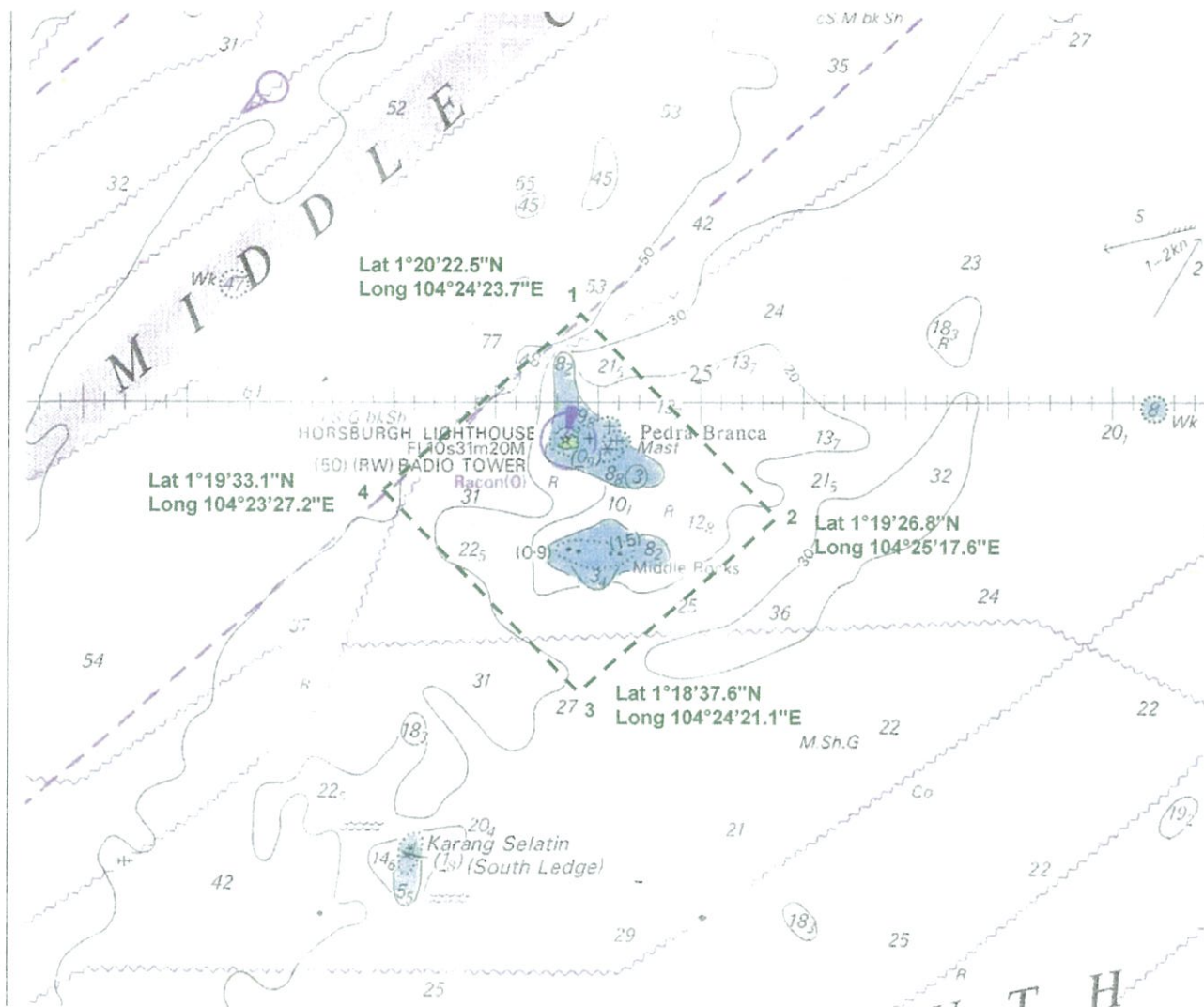
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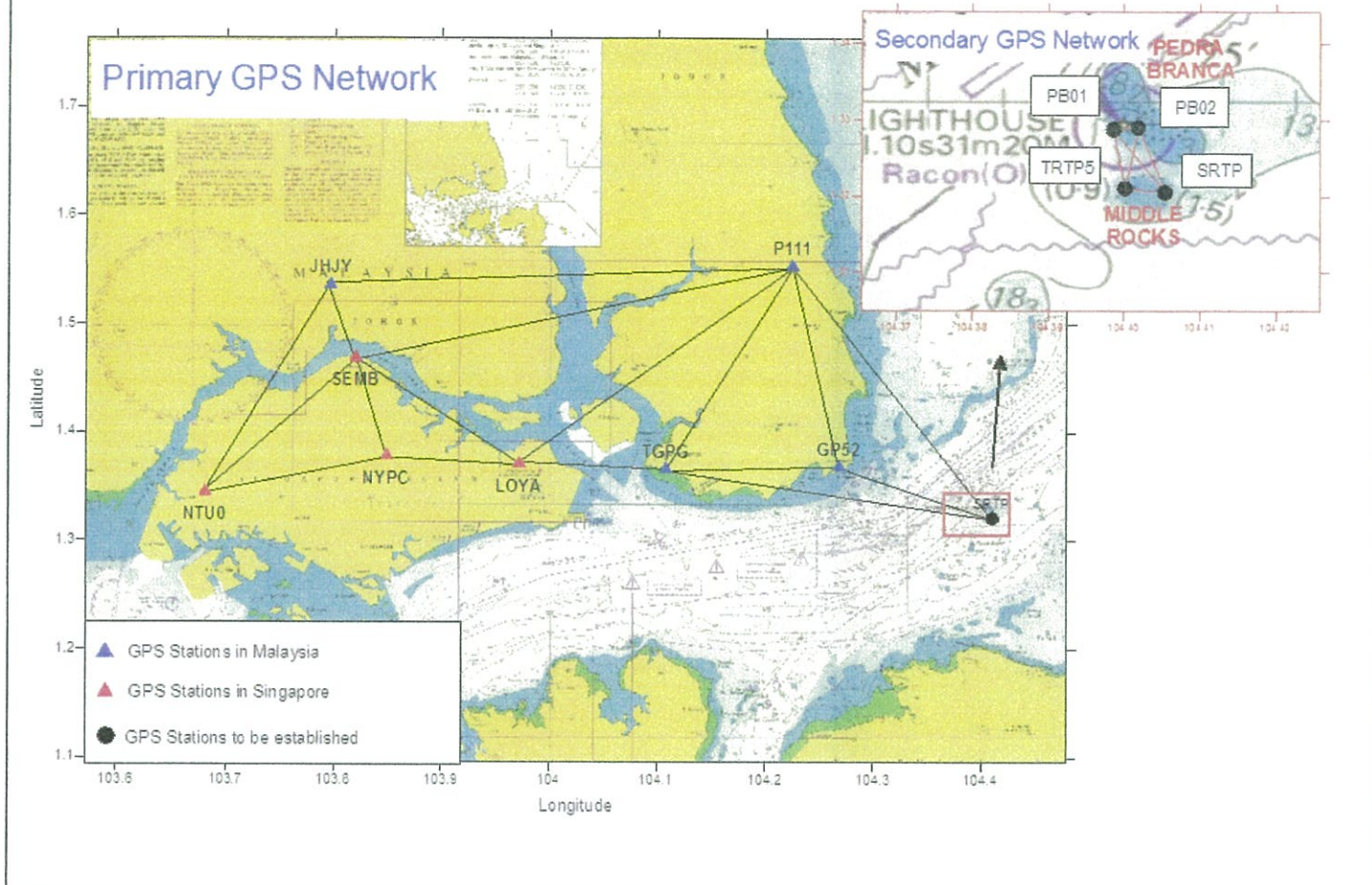
ANNEX A

SURVEY AREA



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Proposed GPS Survey Network



PB01 = 17998  
PB02 = 17999



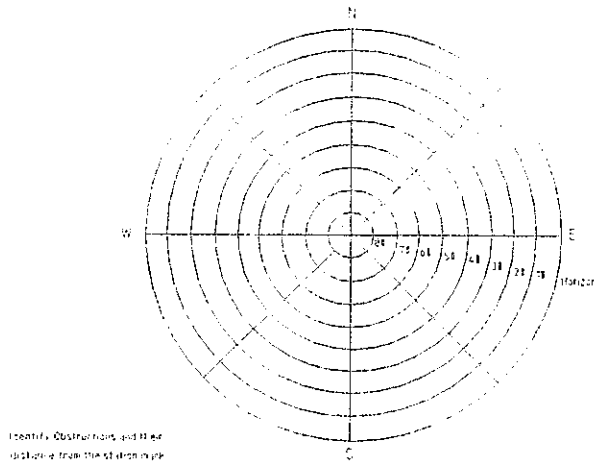
GPS Observation Log

Station Name _____	Station ID _____	Project _____
Location _____	City _____	
Observing Monument Inscription and Description _____		

Receiver _____	Type _____	Model _____	S/No. _____	Receiver Operator _____	Agency _____	
Antenna _____	<i>Equipment Used</i>					
Receiver Software and Version _____						
Collection rate _____	Solution Rate _____	<input type="checkbox"/> Tribrach <input type="checkbox"/> Tripod				
<i>Download Information</i>						
Download Date ____ / ____ / ____		<input type="checkbox"/> 240v AC and power converter <input type="checkbox"/> 12v car battery				
<input type="checkbox"/> Tapes	<input type="checkbox"/> Disks	<input type="checkbox"/> Backups made	<input type="checkbox"/> Internal battery pack			
Disk/Tape	File Name	<input type="checkbox"/> External battery pack				
1 _____						
2 _____						
3 _____						

<i>Timing</i>	Local Time	Local date	UTC Time	UTC Date	UTC Day
Actual Start Time	_____	_____	_____	_____	_____
Actual End Time	_____	_____	_____	_____	_____
Daily Session Number _____	<input type="checkbox"/> Power Failure - started over with new Log				
Receiver Solution (record near end of session)	Site Access - unusual features				
UTC Time	_____				
Latitude	_____				
Longitude	_____				
Height	_____ Metres	_____			



Antenna Sketch

Station Name _____	Station ID _____	Date: __/__/__
Location _____	City _____	
Observing Monument Inscription _____	Observers Name _____	

**Antenna Setup :** Include a sketch of the antenna setup showing all mounting accessories ie. tripod, pillar, tribrach, etc. Show all distances measured from the ground mark to defined points on the antenna. Indicate whether distances are slant or vertical.

**Antenna height above mark in metres - enter the vertical height to the ant. ref. point.**  
Record the measured height above the ground mark to as many of the following as possible:  
For slant measurements, include the horizontal offset distances to the centre of the antenna.

	Distance(metres)	vertical	slant	Offset Distance
Local Weather conditions				
L1 Phase centre	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
L2 Phase centre	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Base of antenna	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Top of ground plane	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bottom of ground plane	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bottom of choke ring	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

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Height Hook used YES ☐ NO ☐  
Measured \_\_\_\_\_ Check \_\_\_\_\_ (Ft. In.)  
Antenna Offset \_\_\_\_\_

**Site Photograph/Sketch**



**Field Team Leader  
(Malaysia)**

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**Field Team Leader  
(Singapore)**

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Singapore's suggested amendments to the preliminary draft technical specifications dated 15 July 2010 are indicated in track changes

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**DRAFT TECHNICAL SPECIFICATIONS**  
**JOINT HYDROGRAPHIC SURVEY**  
**IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

**1. PURPOSE**

The purpose of the Joint Survey Works in and around Pedra Branca and Middle Rocks ("Survey") is to acquire comprehensive and accurate hydrographic data in the area as defined in paragraph 2 ("Survey Area") in particular to determine the low-water mark of the features and low tide elevations.

**2. AREA TO BE SURVEYED**

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS84):

POINT	WGS84	
	LATITUDE (N)	LONGITUDE (E)
1	01° 20' 22.5"	104° 24' 23.7"
2	01° 19' 26.8"	104° 25' 17.6"
3	01° 18' 37.6"	104° 24' 21.1"
4	01° 19' 33.1"	104° 23' 27.2"

The diagram of the Survey Area is shown in **ANNEX A**.

**3. DURATION AND TIMELINE OF THE SURVEY**

The Survey shall commence on a date to be indicated in the Letter of Appointment of the Contractor/Independent Service Provider. The Survey operation is estimated to take about 10 calendar days to complete including patch test, accuracy test and resounding (if deemed necessary). The sounding will be conducted at an appropriate sounding speed.

**4. WEATHER AND SEA STATE**

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The Survey shall be stopped temporarily if the Hydrographic Surveyors of Malaysia and Singapore referred to in Paragraph 13 jointly determine that the weather has deteriorated, i.e. World Meteorological Organization (WMO) sea state more than 3 (wave height >1.25m), or that there is inclement weather which as this will affect the accuracy of survey and/or safety of boat crews.

### 5. SCALE OF SURVEY

The Fair Sheet for Survey Area shall be plotted on a scale of:

- (a) For the whole Survey Area - 1:2,500; and
- (b) Around Pedra Branca and Middle Rocks - 1:1,000

### 6. STANDARD OF SURVEY

All hydrographic works shall comply with the International Hydrographic Organization (IHO) standard and meet the minimum standard for hydrographic survey in accordance with *IHO Standard for Hydrographic Surveys SP 44 5<sup>th</sup> Edition, February 2008, Order 1B*.

### 7. DATUM

#### 7.1 Horizontal Datum, Projection and Grid

The Survey shall be carried out in World Geodetic System 1984 (WGS84) and plotted based on the following geodetic parameters:

Ellipsoid	: WGS84
Semi Major Axis (a)	: 6378137.0 m
Flattening (f)	: 1/298.25722
Projection	: Universal Transverse Mercator (UTM)
Zone	: 48
False Northing	: 0.0m
False Easting	: 500000.0m



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Scale Factor at Central Meridian : 0.9996  
Central Meridian : Centre of Zone 48

### 7.2 Vertical Datum

- 7.2.1 The datum used for the sounding reduction during the Survey shall be Lowest Astronomical Tides (LAT), which is the lowest water plane to which soundings are reduced and above which drying heights are shown in the Fair Sheet and other survey records. LAT shall be determined by harmonic analysis with data already obtained from continuous tidal observations of at least 30 days. The Benchmark values related to the LAT shall be provided by both Governments to the Independent Service Provider for the conduct of the Survey. observation of the tidal levels shall be provided to the Contractor for sounding reduction.

### 7.3 Reduction of Soundings

The Contractor shall propose the tide gauge to be used for the sounding reduction. Heights of tide shall be observed throughout the survey period for sounding reduction with sampling interval not more than 10 minutes.

- 7.2.2 Both Governments shall provide observed tidal records of not more than 10 minute intervals and any Actual tidal observation curves will be smoothened. The Independent Service Provider shall use these records and used for reduction of soundings and Depths will be inked in metres and decimetres.

[Singapore would like to propose that both Parties should provide observed tidal records of not more than 6 minute intervals to the Independent Service Provider]

7.3 The Independent Service Provider may consider installing a tide gauge during the Survey if he deems it necessary.

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## 8. POSITIONING

### 8.1 Use of Differential GPS (DGPS) for Hydrographic Positioning

- 8.1.1 Positioning data shall be obtained using Differential GPS (DGPS). The following criteria shall apply:

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- (i) The DGPS receivers shall be configured such that only satellites in view above the altitude 10 degrees are to be used in the position computation;
- (ii) The age of pseudo-range corrections used in the position computation shall not exceed 10 seconds;
- (iii) A minimum of four satellites shall be used to compute positioning;
- (iv) The Horizontal Dilution of Precision (HDOP) of the position shall be continuously monitored, recorded and shall not exceed 3.0;
- (v) Dead Reckoning is not permitted; and
- (vi) Horizontal and vertical offsets between GPS antenna and transducers shall be observed and applied in no coarser than 0.1 m increments.

8.2.2 For the purpose of offline post processing of DGPS data, DGPS equipment shall be set up by the Independent Service Provider at any of the 4 any of the 4 established geodetic control stations, (2 on at Pedra Branca and 2 on Middle Rocks) that have been established by both Governments. ~~shall be used for the conduct [as stated in para. 8.1.1] [To be specified]] of the hydrographic survey.~~

**8.3 Identification of Fixes**

Fixes are to be identified by calendar date of the year and the Universal Time Coordinated (UTC).

**9. SURVEY METHODOLOGY**

- 9.1 The Survey shall consist of Multi-beam sonar surveys. In areas where Multi-beam sonar surveys are not feasible, Single-beam and other conventional methods shall be used. The field survey planning shall be carried out and agreed upon by the respective Survey Acquisition Teams prior to the commencement of survey operations, amongst others, to determine the areas for Multi-beam and Single-beam sonar surveys. The ~~Contractor~~ Independent Service Provider shall propose and present a detailed survey plan for approval within 7 calendar days of appointment. The survey works shall be carried out during daylight hours only.

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**9.2 Hydrographic Data Acquisition System (HDAS)**

9.2.1 The HDAS shall comprise hardware and software configured to control, manage, acquire and store digital data in survey format from the positioning system and Single-beam and Multi-beam echo sounder systems.

9.2.2 The HDAS software shall include helmsman display facilities indicating vessel steering in a preplanned survey line, with digital displays showing information on position, depth, COG, heading, SOG, line and fix number, and distance from start and end lines.

9.2.3 The online Quality Control ("QC") for positioning and depth shall be monitored to ensure positional accuracy standard. Daily QC reports shall be included as an annex to the Report of Survey referred to in paragraph 12 (ROS).

9.2.4 The automated logging system shall be set at the following intervals:

Navigation Cycle Time	:	2 sec or better
Depth Cycle Time	:	2 sec or better
Position Logging Interval	:	2 sec or better

9.2.5 Daily back-up of data shall be carried out at the Survey platform.

9.3 The shallow water Multi-beam echo sounder at a frequency of 200 to 400 kHz [SoW to be amended accordingly] is to be utilised for the sounding operation. The methodology for Multi-beam sonar survey encompasses the following:

(i) Sounding Units

Depths shall be recorded in metres and tenths of metres.

(ii) Depth Accuracy

The total sounding uncertainty for swath widths of at least three times the average water depth shall be in compliance, at the 95% confidence level, with the allowable Total Vertical Uncertainty (TVU) of  $\pm \sqrt{0.25 + (0.013 \times d)^2}$  where d = depth.

(iii) Line Orientation



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Sounding track lines shall be generally parallel to the general configuration of the depth contour lines.

(iv) Position

The total uncertainties in the position of soundings and all other significant features shall not exceed  $\pm 2$  metres [SoW to be amended] at 95% confidence level.

(v) Vessel Motion Data

All Multi-beam data shall be corrected for settlement and squat, heave, pitch, roll and the heading of the vessel.

(vi) Velocity of Sound in the Water Column

The velocity of sound through water shall be determined at least daily during Multi-beam sonar operations. The velocity profile shall be determined to a minimum of 95% of anticipated water depth. Velocity corrections shall be based on the data obtained from profile and not on an averaged sound velocity reading for the water column.

(vii) Survey coverage

The survey lines shall be run to achieve 100% seabed coverage, ie with 50% overlap on each side. The line spacing shall not exceed 3 times the water depth. [to be included in SoW]

(viii) Cross Lines

In addition, cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines. At least 5 cross lines shall be run in the survey area. [to be included in SoW]

(ix) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT, where applicable. In the event that the drying lines cannot be measured using the Multi-beam sonar survey method, then they shall be determined using the Single-beam sonar method or a land survey method.

(x) Accuracy Test

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- (a) Accuracy tests shall be conducted on the Multi-beam Echo Sounder System (MBES) and DGPS sensors.
- (b) Prior to commencing Multi-beam operation, a system accuracy test (patch test) shall be conducted to quantify the accuracy, precision and alignment of the MBES. The patch test shall include determination of roll, pitch, heading and time latency. Depth accuracy testing shall also include testing of MBES against Single-beam echo sounder system. Details of the test shall be included in an annex to the Survey Report RQS.
- (c) Accuracy check for DGPS system shall be conducted using at least two different reference stations. Positional differences should be less than  $\pm 2$  metres. Details of the test shall be included in an annex to the said Survey Report. RQS.

9.4 The methodology for Single-beam sonar survey encompasses the following:

(i) Echo Sounder

A Single-beam echo sounder at a frequency of about 200 kHz providing a depth accuracy of  $\pm 0.1$  metre shall be used for the sounding survey. The echo sounder shall be calibrated daily either by bar-check or sound velocity probe up to the maximum depth of the Survey Area, before and after sounding.

(ii) Reduction of Soundings

Actual tidal observation curves will be smoothed and used for reduction of soundings. Depths will be inked in metres and decimeters.

(iii) Horizontal Accuracy

The following accuracies will be maintained:

Position of ship -  $\pm 0.5$  to  $\pm 2$  metre

(iv) Sounding Line Intervals

Sounding lines at 5 m intervals. Where irregularities or shoals are detected, closer sounded sounding lines and/or cross lines shall be run over these areas.

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(v) Drying Lines (Low Water Marks) and Drying Features

The ~~Contractor~~ Independent Service Provider shall propose the survey methodology to determine drying lines and drying features. All these shall be delineated accurately and measured from LAT.

9.5 In the event where a hydrographic survey cannot be carried out, the drying lines shall be determined using a land survey method i.e., using geodetic DGPS positioning and offline post processing. For the purpose of offline post processing of DGPS data, the Independent Service Provider shall use any of the 4 established geodetic control stations at Pedra Branca and Middle Rocks referred to in Paragraph 8.2.2.

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**10. DATA PROCESSING**

10.1 Data processing for the survey acquired from both the Multi-beam and Single-beam surveys shall be carried out at a venue to be determined by Malaysia and Singapore. The estimated time taken for data processing is 14 working days.

10.2 Hydrographic Data Processing System (HDPS)

10.2.1 The HDPS software shall include facilities for editing and reducing depth based on shoal bias, smoothing and filtering, sound velocity corrections, common format conversion, QC analysis for depth and positioning and be able to generate the final survey product presentations i.e. fair sheet with hydrographic symbology in accordance with IHO standards. The software shall also be able to handle and manage huge amount of raw and processed digital bathymetric data systematically. The workflow of the "Data Processing model" utilised by the software shall be included in the ROS.

10.2.2 The HDPS software shall be able to perform area based and line by line editing with automatic and/or manual removal of outliers. The survey data shall be able to be displayed in plan, spread sheet, profile and 3-dimensional digital terrain model views. All methods used for data editing shall be recorded and included in the ROS. The degree of depth contour smoothening and suppression of depths will be determined by Malaysia and Singapore.

10.2.3 The software shall be able to perform QC for the depths between main lines and cross lines/check lines. The depth and positional



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data QC test result shall be included as an annex to the ROS to define the reliability of the Survey.

10.2.4 The software shall be able to generate colour-coded soundings, contours, and smooth sheet plotting capabilities.

## 11. OUTPUT

### 11.1 Field Records

All data gathered during the Survey shall be recorded as annexes to the ROSSurvey Report. This includes the following:

- (i) Tidal observation records
- (ii) Benchmarks descriptions
- (iii) Results of tidal analysis
- (iv) Geodetic Control Station
- (v) Accuracy Test for DGPS
- (vi) Patch Test Records for MBES
- (vii) Daily QC Test
- (viii) Echo-sounder graphs
- (ix) Field sheets showing sounding tracks with fix numbers
- (x) Other miscellaneous records and sheets used for submission of survey

### 11.2 Fair Sheet

- (i) Fair Sheet shall be drawn at scale of 1:1,000 or larger for coastal features and low-water line, and at scale of 1:2,500 for general bathymetric information of surrounding waters in Universal Transverse Mercator Zone 48 projection and WGS84 ellipsoid.
- (ii) Fair Sheet shall be submitted by the Contractor for endorsement and signature by the Hydrographers of Malaysia and Singapore.

## 12. REPORT OF SURVEY REPORT (ROS)

12.1 The ROS-Survey Report shall be prepared and submitted by the Contractor-Independent Service Provider for endorsement and signature by the by Hydrographers of Malaysia and Singapore. The estimated time for preparation of the ROS is 5 working days.

12.2 The ROS-Survey Report shall be prepared in soft and hard copies.

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12.3 The Survey Report is to be rendered with the following documents (in soft and hard copies) are to be rendered upon completion of the Survey:

- (i) All raw survey data;
- (ii) Fair Sheet (the soft copy format of which shall be in ascii format; and
- (iii) Daily Survey Progress Reports.

### 13. SURVEY PLATFORM AND PERSONNEL

The Contractor-Independent Service Provider shall provide a survey platform complete with crew and a hydrographic survey team headed by one IHO Cat A Hydrographic Surveyor.

One Hydrographic Surveyor [SoW to be amended] each from Malaysia and Singapore will be present throughout the survey acquisition and data processing to supervise the Contractor-Independent Service Provider. The Contractor-Independent Service Provider shall comply with directions given by the Hydrographic Surveyors of Malaysia and Singapore. Where there are differences in views between the two Hydrographic Surveyors, work shall be suspended pending resolution of the matter by Malaysia and Singapore.

### 14. COST [Singapore proposes to shift this paragraph and Annex B to paragraph 5 ad Appendix A respectively of Annex 3 to the Letter of Intent]

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The Contractor shall provide a detailed cost breakdown of the different survey activities as shown in **ANNEX B**.

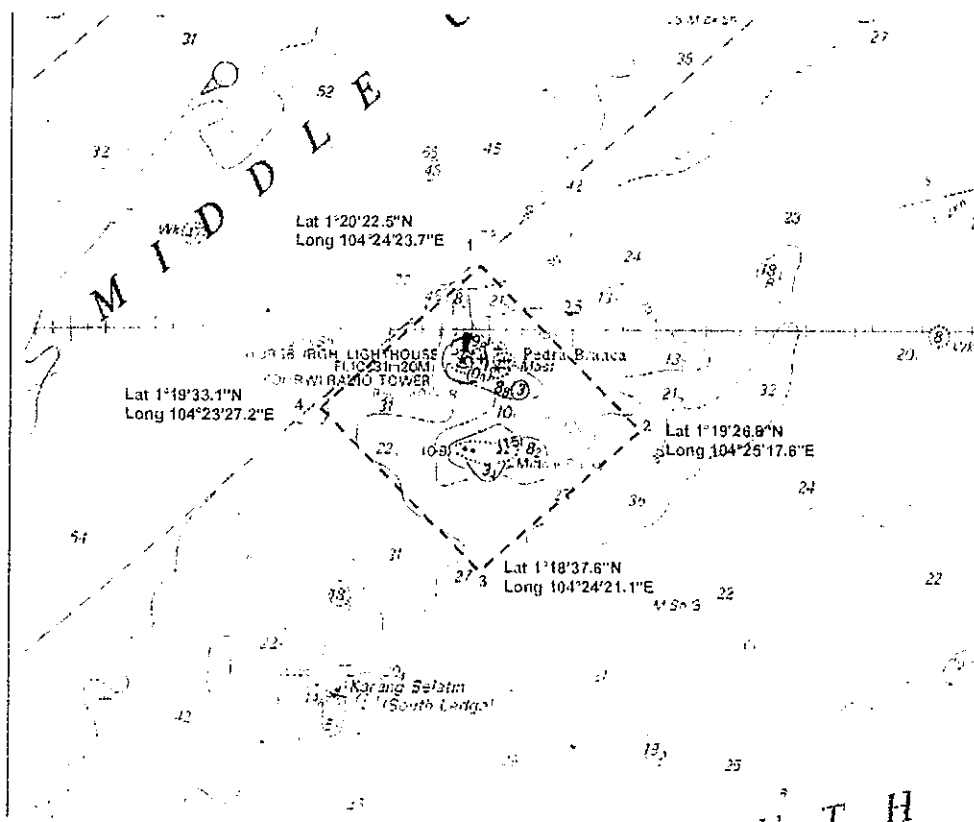
### 15. CONFIDENTIALITY OF SURVEY DATA

[To be proposed by Singapore. ][Singapore proposes to delete this paragraph in light of Annex 2 to the Letter of Intent (Additional Terms and Conditions) and the Undertaking of Confidentiality (Form A to Annex 2), which would address issues of confidentiality]

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ANNEX A

SURVEY AREA



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ANNEX B

No.	Item Descriptions	Details	Cost
	<b>Vessel platforms</b>		
1	Survey boat mobilisation for survey launch and dinghy (Briefly describe type of launch)		
2	Survey boat chartering fees for launch and dinghy (including crew & fuel)		
3	Survey boat demobilisation		
	<b>Equipment</b>		
4	Multibeam		
5	Motion sensor		
6	DGPS		
7	SVP/CTD probe		
8	Tide gauge		
9	Singlebeam		
	<b>Survey Acquisition and Processing Software &amp; Hardware</b>		
10	Survey Acquisition system		
11	Data processing system		
12	Consumables		
	<b>Manpower</b>		
13	Technical Personnel for survey, testing and demobilisation		
14	Cat A Hydrographer		
15	Cat B Hydrographer		
16	Surveyor on board		
	<b>Others</b>		
17	Equipment delivery to site (if any)		
18	Equipment insurance		
19	Technical Personnel (if any)		

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**TECHNICAL SPECIFICATIONS**  
**FOR THE**  
**JOINT HYDROGRAPHIC SURVEY**  
**IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

**1. PURPOSE**

The purpose of the Joint Survey Works in and around Pedra Branca and Middle Rocks ("Survey") is to acquire comprehensive and accurate hydrographic data in the area as defined in paragraph 2 ("Survey Area") in particular to determine the low-water mark of the features and low tide elevations.

**2. AREA TO BE SURVEYED**

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS84):

POINT	WGS84	
	LATITUDE (N)	LONGITUDE (E)
1	01° 20' 22.5"	104° 24' 23.7"
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The diagram of the Survey Area is shown in the **ANNEX**.

**3. DURATION AND TIMELINE OF THE SURVEY**

The Survey shall commence on a date to be indicated in the Letter of Appointment of the Independent Service Provider. The Survey operation is estimated to take about 10 calendar days to complete including patch test, accuracy test and resounding (if deemed necessary). The sounding will be conducted at an appropriate sounding speed.



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### 4. WEATHER AND SEA STATE

The Survey shall be stopped temporarily if the Hydrographic Surveyors of Malaysia and Singapore referred to in Paragraph 13 jointly determine that the weather has deteriorated, i.e. World Meteorological Organization (WMO) sea state more than 3 (wave height >1.25m), or that there is inclement weather which will affect the accuracy of survey or safety of boat crews.

### 5. SCALE OF SURVEY

The Fair Sheet for Survey Area shall be plotted on a scale of:

- (a) For the whole Survey Area - 1:2,500; and
- (b) Around Pedra Branca and Middle Rocks - 1:1,000

### 6. STANDARD OF SURVEY

All hydrographic works shall comply with the International Hydrographic Organization (IHO) standard and meet the minimum standard for hydrographic survey in accordance with *IHO Standard for Hydrographic Surveys SP 44 5<sup>th</sup> Edition, February 2008, Order 1B*.

### 7. DATUM

#### 7.1 Horizontal Datum, Projection and Grid

The Survey shall be carried out in World Geodetic System 1984 (WGS84) and plotted based on the following geodetic parameters:

Ellipsoid	: WGS84
Semi Major Axis (a)	: 6378137.0 m
Flattening (f)	: 1/298.25722
Projection	: Universal Transverse Mercator (UTM)
Zone	: 48

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False Northing	: 0.0m
False Easting	: 500000.0m
Scale Factor at Central Meridian	: 0.9996
Central Meridian	: Centre of Zone 48

### 7.2 Vertical Datum

7.2.1 The datum used for the sounding reduction shall be Lowest Astronomical Tide (LAT), which is the lowest water plane to which soundings are reduced and above which drying heights are shown in the Fair Sheet and other survey records. The Benchmark values related to the LAT shall be provided by both Governments to the Independent Service Provider for the conduct of the Survey.

7.2.2 Both Governments shall provide observed tidal records of not more than 6 minute intervals and any actual tidal observation curves will be smoothened. The Independent Service Provider shall use these records for reduction of soundings and depths will be inked in metres and decimetres.

7.3 The Independent Service Provider may consider installing a tide gauge during the Survey if he deems it necessary.

## 8. POSITIONING

8.1 Use of Differential Global Positioning System (DGPS) for Hydrographic Positioning

8.1.1 Positioning data shall be obtained using Differential GPS (DGPS). The following criteria shall apply:

- (i) The DGPS receivers shall be configured such that only satellites in view above the altitude 10 degrees are to be used in the position computation;
- (ii) The age of pseudo-range corrections used in the position computation shall not exceed 10 seconds;

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- (iii) A minimum of four satellites shall be used to compute positioning;
- (iv) The Horizontal Dilution of Precision (HDOP) of the position shall be continuously monitored, recorded and shall not exceed 3.0;
- (v) Dead Reckoning is not permitted; and
- (vi) Horizontal and vertical offsets between Global Positioning System (GPS) antenna and transducers shall be observed and applied in no coarser than 0.1 m increments.

8.1.2 For the purpose of offline post processing of DGPS data, DGPS equipment shall be set up by the Independent Service Provider at any of the 4 geodetic control stations (2 on Pedra Branca and 2 on Middle Rocks) that have been established by both Governments. The coordinates of the 4 geodetic control stations shall be provided to the Independent Service Provider.

8.2 Identification of Fixes

Fixes are to be identified by calendar date of the year and the Universal Time Coordinated (UTC).

**9. SURVEY METHODOLOGY**

9.1 The Survey shall consist of Multi-beam sonar surveys. In areas where Multi-beam sonar surveys are not feasible, Single-beam and other conventional methods shall be used. The field survey planning shall be carried out and agreed upon by the respective Survey Acquisition Teams prior to the commencement of survey operations, amongst others, to determine the areas for Multi-beam and Single-beam sonar surveys. The Independent Service Provider shall propose and present a detailed survey plan for approval within 7 calendar days of appointment. The survey works shall be carried out during daylight hours only.

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9.2.1 The HDAS shall comprise hardware and software configured to control, manage, acquire and store digital data in survey format from the positioning system and Single-beam and Multi-beam echo sounder systems.



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- 9.2.2 The HDAS software shall include helmsman display facilities indicating vessel steering in a preplanned survey line, with digital displays showing information on position, depth, Course Over Ground (COG), heading, Speed Over Ground (SOG), line and fix number, and distance from start and end lines.
- 9.2.3 The online Quality Control (QC) for positioning and depth shall be monitored to ensure positional accuracy standard. Daily QC reports shall be included as an annex to the Survey Report referred to in paragraph 12.
- 9.2.4 The automated logging system shall be set at the following intervals:
- |                           |   |                 |
|---------------------------|---|-----------------|
| Navigation Cycle Time     | : | 2 sec or better |
| Depth Cycle Time          | : | 2 sec or better |
| Position Logging Interval | : | 2 sec or better |
- 9.2.5 Daily back-up of data shall be carried out at the Survey platform.
- 9.3 The shallow water Multi-beam echo sounder at a frequency of 200 to 400 kHz is to be utilised for the sounding operation. The methodology for Multi-beam sonar survey encompasses the following:
- (i) Sounding Units

Depths shall be recorded in metres and tenths of metres.
  - (ii) Depth Accuracy

The total sounding uncertainty for swath widths of at least three times the average water depth shall be in compliance, at the 95% confidence level, with the allowable Total Vertical Uncertainty (TVU) of  $\pm \sqrt{[0.25 + (0.013 \times d)^2]}$  where d = depth.
  - (iii) Line Orientation

Sounding track lines shall be generally parallel to the general configuration of the depth contour lines.
  - (iv) Position

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The total uncertainties in the position of soundings and all other significant features shall not exceed  $\pm 2$  metres at 95% confidence level.

(v) Vessel Motion Data

All Multi-beam data shall be corrected for settlement and squat, heave, pitch, roll and the heading of the vessel.

(vi) Velocity of Sound in the Water Column

The velocity of sound through water shall be determined at least daily during Multi-beam sonar operations. The velocity profile shall be determined to a minimum of 95% of anticipated water depth. Velocity corrections shall be based on the data obtained from profile and not on an averaged sound velocity reading for the water column.

(vii) Survey coverage

The survey lines shall be run to achieve 100% seabed coverage, ie with 50% overlap on each side. The line spacing shall not exceed 3 times the water depth.

(viii) Cross Lines

In addition, cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines. At least 5 cross lines shall be run in the survey area.

(ix) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT, where applicable. In the event that the drying lines cannot be measured using the Multi-beam sonar survey method, then they shall be determined using the Single-beam sonar method or conventional method.

(x) Accuracy Test

(a) Accuracy tests shall be conducted on the Multi-beam Echo Sounder System (MBES) and DGPS sensors.

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- (b) Prior to commencing Multi-beam operation, a system accuracy test (patch test) shall be conducted to quantify the accuracy, precision and alignment of the MBES. The patch test shall include determination of roll, pitch, heading and time latency. Depth accuracy testing shall also include testing of MBES against Single-beam echo sounder system. Details of the test shall be included in an annex to the Survey Report.
- (c) Accuracy check for DGPS system shall be conducted using at least two different reference stations. Positional differences should be less than  $\pm 2$  metres. Details of the test shall be included in an annex to the said Survey Report.

9.4 The methodology for Single-beam sonar survey encompasses the following:

(i) Echo Sounder

A Single-beam echo sounder at a frequency of about 200 kHz providing a depth accuracy of  $\pm 0.1$  metre shall be used for the sounding survey. The echo sounder shall be calibrated daily either by bar-check or sound velocity probe up to the maximum depth of the Survey Area, before and after sounding.

(ii) Reduction of Soundings

Actual tidal observation curves will be smoothed and used for reduction of soundings. Depths will be inked in metres and decimeters.

(iii) Horizontal Accuracy

The following accuracies will be maintained:

Position of soundings -  $\pm 2$  metre

(iv) Sounding Line Intervals

Sounding lines at 5 m intervals. Where irregularities or shoals are detected, closer sounded sounding lines and/or cross lines shall be run over these areas.

(v) Drying Lines (Low Water Marks) and Drying Features





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The Independent Service Provider shall propose the survey methodology to determine drying lines and drying features. All these shall be delineated accurately and measured from LAT.

- 9.5 In the event where a hydrographic survey cannot be carried out, the drying lines shall be determined using the conventional method i.e., using geodetic DGPS positioning and offline post processing. For the purpose of offline post processing of DGPS data, the Independent Service Provider shall use any of the 4 established geodetic control stations at Pedra Branca and Middle Rocks referred to in Paragraph 8.1.2.

**10. DATA PROCESSING**

- 10.1 Data processing for the survey acquired from both the Multi-beam and Single-beam surveys shall be carried out at a venue to be determined by Malaysia and Singapore. The estimated time taken for data processing is 14 working days.

**10.2 Hydrographic Data Processing System (HDPS)**

10.2.1 The HDPS software shall include facilities for editing and reducing depth based on shoal bias, smoothing and filtering, sound velocity corrections, common format conversion, QC analysis for depth and positioning and be able to generate the final survey product presentations i.e. fair sheet with hydrographic symbology in accordance with IHO standards. The software shall also be able to handle and manage huge amount of raw and processed digital bathymetric data systematically. The workflow of the "Data Processing model" utilised by the software shall be included in the Survey Report.

10.2.2 The HDPS software shall be able to perform area based and line by line editing with automatic and/or manual removal of outliers. The survey data shall be able to be displayed in plan, spread sheet, profile and 3-dimensional digital terrain model views. All methods used for data editing shall be recorded and included in the Survey Report. The degree of depth contour smoothening and suppression of depths will be determined by Malaysia and Singapore.

10.2.3 The software shall be able to perform QC for the depths between main lines and cross lines/check lines. The depth and positional

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data QC test result shall be included as an annex to the Survey Report to define the reliability of the Survey.

10.2.4 The software shall be able to generate colour-coded soundings, contours, and smooth sheet plotting capabilities.

**11. OUTPUT**

**11.1 Field Records**

All data gathered during the Survey shall be recorded as annexes to the Survey Report. This includes the following:

- (i) Tidal observation records
- (ii) Benchmarks descriptions
- (iii) Results of tidal analysis
- (iv) Geodetic Control Station
- (v) Accuracy Test for DGPS
- (vi) Patch Test Records for MBES
- (vii) Daily QC Test
- (viii) Echo-sounder graphs
- (ix) Field sheets showing sounding tracks with fix numbers
- (x) Other miscellaneous records and sheets used for submission of survey

**11.2 Fair Sheet**

- (i) Fair Sheet shall be drawn at scale of 1:1,000 or larger for coastal features and low-water line, and at scale of 1:2,500 for general bathymetric information of surrounding waters in Universal Transverse Mercator Zone 48 projection and WGS84 ellipsoid.
- (ii) Fair Sheet shall be submitted by the Independent Service Provider for endorsement and signature by the Hydrographers of Malaysia and Singapore.

**12. SURVEY REPORT**

- 12.1 The Survey Report shall be prepared and submitted by the Independent Service Provider for endorsement and signature by the Hydrographers of Malaysia and Singapore. The estimated time for preparation of the Survey Report is 5 working days.

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- 12.2 The Survey Report shall be prepared in soft and hard copies.
- 12.3 The Survey Report is to be rendered with the following documents (in soft and hard copies) upon completion of the Survey:
- (i) All raw survey data;
  - (ii) Fair Sheet (the soft copy format of which shall be in ascii format); and
  - (iii) Daily Progress Reports.

**13. SURVEY PLATFORM AND PERSONNEL**

- 13.1 The Independent Service Provider shall provide a survey platform complete with crew and a hydrographic survey team headed by one IHO Cat A Hydrographic Surveyor.
- 13.2 One Hydrographic Surveyor each from Malaysia and Singapore will be present throughout the survey acquisition and data processing to supervise the Independent Service Provider. The Independent Service Provider shall comply with directions given by the Hydrographic Surveyors of Malaysia and Singapore. Where there are differences in views between the two Hydrographic Surveyors, work shall be suspended pending resolution of the matter by Malaysia and Singapore.
- 13.3 The Independent Service Provider shall provide adequate accommodation, meals and drinking water to the Malaysia and Singapore Hydrographic Surveyors during the survey acquisition.

**14. COMMUNICATION**

For the purpose of communication with the Royal Malaysian Navy and Maritime and Port Authority of Singapore offices and for emergencies, the Independent Service Provider shall provide VHF or other communication sets deemed necessary to communicate with the aforesaid offices and a mobile phone with roaming facilities to each of the Hydrographic Surveyors from Malaysia and Singapore throughout the course of the Survey.



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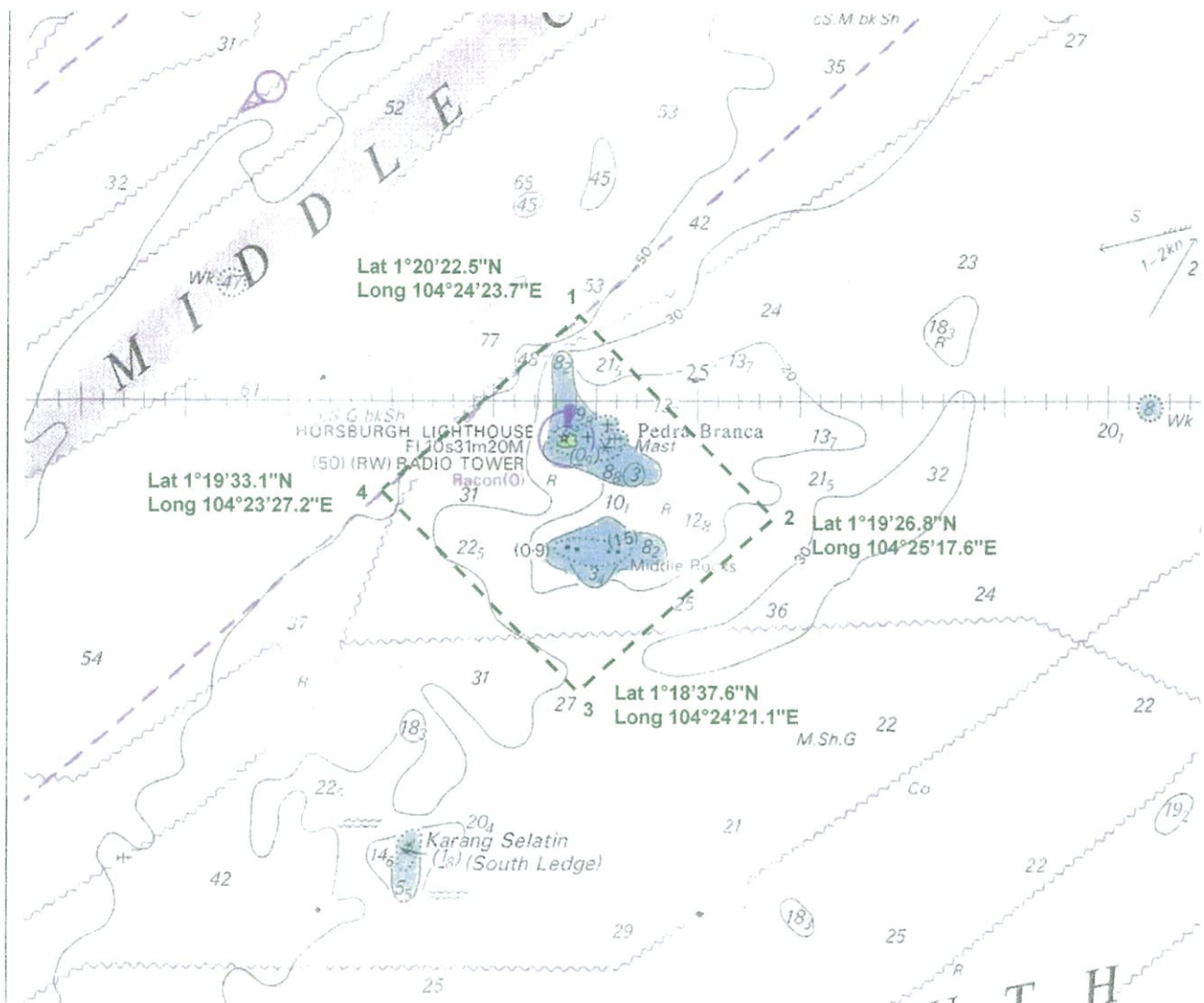
**15. CONFIDENTIALITY, CUSTODY AND SECURITY OF DATA**

- 15.1 The Independent Service Provider is responsible for the security and safe keeping of data provided by either Government for the purposes of carrying out the Survey.
- 15.2 Digital data logged in real time must be backed up to CD/DVD and handed over to each of the Hydrographic Surveyors of Malaysia and Singapore on board the survey platform on a daily basis. The Independent Service Provider is prohibited from making copies of such data in any form without the permission of both Governments.
- 15.3 All digital data stored on any computer must be erased by the Independent Service Provider on completion of the Survey under the supervision of both Hydrographic Surveyors of Malaysia and Singapore.

CONFIDENTIAL

ANNEX

SURVEY AREA



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**APPENDIX L**

**EIGHTH MEETING OF THE MSJTC SUB-COMMITTEE ON  
THE JOINT SURVEY WORKS  
IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**SINGAPORE  
15-16 JULY 2010**

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**DRAFT CONTRACT DOCUMENTS**

- (1) LETTER OF INTENT**
- (2) ANNEX 2 – ADDITIONAL TERMS AND CONDITIONS**
- (3) ANNEX 2 FORM A – UNDERTAKING OF CONFIDENTIALITY**
- (4) ANNEX 2 FORM B – PERFORMANCE GUARANTEE**
- (5) ANNEX 3 – INSTRUCTIONS FOR TECHNICAL AND FINANCIAL PROPOSAL**
- (6) ANNEX 4 – SAMPLE LETTER OF APPOINTMENT**

Page 1 of 1

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Our ref:  
Date:  
Tel:  
Fax:

[Name and address]

Dear Sir,

**LETTER OF INTENT – APPOINTMENT AS INDEPENDENT SERVICE PROVIDER  
TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

1. Pursuant to the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks signed on [date], the Governments of Malaysia and Singapore ("the Parties") have agreed to conduct a joint hydrographic survey in and around Pedra Branca and Middle Rocks using a single platform (including survey vessel, crew, equipment, acquisition software as well as processing software) to be provided by an independent service provider ("the Independent Service Provider") jointly appointed by the Parties.<sup>1</sup>

2. The Parties are considering appointing [XX] as the Independent Service Provider. The relevant terms of the appointment are as contained in the following documents:

- a. The Technical Specifications for the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks, at **Annex 1**;
- b. Additional Terms and Conditions, at **Annex 2**.

3. To facilitate consideration by the Parties of the appointment of [XX] as the Independent Service Provider, [XX] is requested to submit a Technical and Financial Proposal to the Parties for their evaluation. In this regard, the Technical and Financial Proposal must be submitted in accordance with and subject to the terms set out in **Annex 3**.

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<sup>1</sup> Scope of Works para 14

4. The Technical and Financial Proposal shall be submitted to the Parties on or before [date]. You may send your correspondence to the following addressees:

For Malaysia:

XXXXXX

For Singapore:

XXXXXXX

5. A letter of appointment will be issued by the Parties to [XX] upon confirmation and acceptance of the terms of appointment by the Parties. A sample of the letter of appointment (without Annexes) is at **Annex 4**.

Yours faithfully,

For the Government of Malaysia

For the Government of Singapore



**ADDITIONAL TERMS AND CONDITIONS FOR THE APPOINTMENT OF THE INDEPENDENT SERVICE PROVIDER TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS****1. INTERPRETATION AND DEFINITIONS****1.1 All Contract Documents To Be Read As A Whole**

The Contract Documents are to be read as a whole and the effect or operation of any article or clause in these Additional Terms and Conditions must therefore, unless otherwise specifically stated, be read subject to any relevant qualification or modification in any other article or any of the clauses in the Contract Documents.

**1.2 Definitions**

The following words and expressions shall have the meanings hereby assigned to the Contract (as hereinafter defined) except where the context otherwise requires:

<u>Word or Phase</u>	<u>Meaning</u>
Contract:	Means the documents identified as Contract Documents in the Letter of Appointment and all such documents together shall be deemed to form the Contract. <sup>1</sup>
Government:	Means either the Government of Malaysia or the Government of Singapore, as the case may be, and any other person/s appointed by the Government in question to act on its behalf.
Governments:	Means the Governments of Malaysia and Singapore and/or any other person/s appointed by the Governments of Malaysia and Singapore to act on their behalf.
Independent Service Provider:	Means the person who or firm or corporation which has been appointed as such in the Letter of Appointment by the Governments and includes the Independent Service Provider's legal

<sup>1</sup> The term "Contract Documents" continues to be used elsewhere in the Land Reclamation consultancy contract notwithstanding this definition. We have replaced that term from this point onwards with "Contract".



	personal representatives and permitted assigns.
Parties: <sup>2</sup>	Means the Governments and the Independent Service Provider.
Party:	Means any one of the Parties.
Security Deposit: <sup>3</sup>	Means the cash deposit referred to in Clause 19.1 or the guarantee in lieu of the cash deposit referred to in Clause 19.2.
Survey Work:	Means the survey and other services to be undertaken by the Independent Service Provider as specified in the Contract.
Time for Completion:	Means [XX] days from the date of commencement as stated in the Letter of Appointment or the date or dates on which such extension or extensions of time (if any) as the Independent Service Provider may be allowed under the Contract shall expire.

## **2. RELATIONSHIP BETWEEN THE PARTIES**

Nothing contained herein shall be construed as establishing or creating a relationship of master and servant or principal and agent between the Governments and the Independent Service Provider, or between either Government and the Independent Service Provider.

## **3. CONFORMITY WITH PROVISIONS OF LAWS**

3.1 The Independent Service Provider shall conform in all respects with the provisions of applicable laws of Malaysia and Singapore and shall keep the Governments indemnified against all penalties and liabilities of every kind for the breach of any such laws. The Independent Service Provider when carrying out the Survey Work shall comply with such departmental rules and restrictions in respect of access, restricted areas, dues, conduct of safety and working conditions as applicable to each particular place of work.

3.2 The Governments give no warranty in any manner whatsoever for all

<sup>2</sup> Two definitions – of "Parties" and "Party" – are included which do not appear in the Land Reclamation consultancy contract because these terms are used many times in the text.

<sup>3</sup> A new definition because "Security Deposit" appears in Clause 19 without a definition.

documents, drawings, information, materials and data supplied to the Independent Service Provider either as to their accuracy or sufficiency or as to how the same shall be interpreted and the Independent Service Provider, when making use of and interpreting the same, shall do so entirely at his own risk.

**4. CONFIDENTIALITY OF INFORMATION**

- 4.1 [To be drafted depending on the final text of the MOU]
- 4.2 Within seven (7) days of the commencement date, the Independent Service Provider shall submit to each Government a signed Undertaking of Confidentiality in the form set out in Form A attached to these Additional Terms and Conditions.<sup>4</sup>
- 4.3 Without prejudice to the provisions of Clause 13, the Independent Service Provider shall, before he engages or permits the engagement of any sub-contractor for any part of the Survey Work, procure from that sub-contractor a signed Undertaking of Confidentiality to each Government in terms identical to the said Undertaking of Confidentiality set out in Form A.<sup>5</sup>

**5. REMUNERATION**

- 5.1 Each Government shall pay to the Independent Service Provider for the Survey Work one half of the fees specified in the Contract. Each Government shall not be obliged and will not pay for any other expenses or costs of whatsoever nature other than that set forth in the Contract. Payment or payments shall be made in the manner specified in the Contract.
- 5.2 The Independent Service Provider shall submit to each Government an invoice showing the fees due from that Government and a copy of the invoice showing the fees due from the other Government. Payment due to the Independent Service Provider shall be paid within forty-five (45) days of the receipt of the invoice.
- 5.3 Subject to the Government's right to suspend or withhold generally under the terms of the Contract if any item or part of an invoice rendered by the Independent Service Provider is disputed or subject to

<sup>4</sup> In the Land Reclamation consultancy contract, the 14 days runs from the "Letter of Acceptance". This paragraph is taken from the last Clause in the Additional Terms and Conditions for the Land Reclamation consultancy contract. We may however want to provide more confidentiality conditions in the light of the contents of the MOU and to incorporate them in the contract terms so that a breach of confidence is not only a breach of the undertaking but also a contractual breach.

<sup>5</sup> This new Clause 4.3 mirrors paragraph 5 of Form A (Undertaking of Confidentiality)

question by that Government, the Government shall be entitled to withhold payment in receipt of the same but the payment by that Government of that part of the invoice which is not contested shall not be withheld on those grounds.

- 5.4 For the avoidance of doubt, the fees agreed shall include the provision of the following services and expenses and the Independent Service Provider shall not be entitled to any extra payment therefor:
- a. Overseas travelling and accommodation expenses and other similar disbursements incurred by the Independent Service Provider or any employee, servant or agent of the Independent Service Provider.
  - b. All services in connection with the replacement of any work damaged by fire, storm, tempest, lightning, earthquake, aircraft or anything dropped therefrom, aerial objects, flood, riot and civil commotion.
  - c. All services rendered as a result of the Governments instructing minor modifications to the scope of the Survey Work.<sup>6</sup>
- 5.5 If in the opinion of the Governments, the Independent Service Provider is in breach of any of the provisions of the Contract, the Governments shall be entitled to withhold any payment or part thereof as may be due or become payable to the Independent Service Provider without prejudice to any right of action that may have accrued to the Governments and to the continuance in force of the Contract unless otherwise terminated by the Governments.

**6. PROGRAMME OF WORK, TIME SCHEDULE, COMPLETION PERIOD AND DELAYS**

- 6.1 The Independent Service Provider shall plan, execute and complete the Survey Work within Time for Completion. The Independent Service Provider shall also comply with any time schedules stipulated in the Contract.
- 6.2 The Independent Service Provider shall use his best endeavours to maintain where possible the period stipulated for the completion of the Survey Work notwithstanding delays caused by reasons beyond the Independent Service Provider's control.
- 6.3 The Independent Service Provider shall notify the Governments weekly<sup>7</sup> of all delays and their likely effect on the overall period of completion of the Survey Work. The Independent Service Provider

<sup>6</sup> In the Land Reclamation consultancy contract, the word used was "Project" but this is probably erroneous because the term is not defined.

<sup>7</sup> In the Land Reclamation consultancy contract, the frequency was "monthly".

shall also propose to the Governments recovery actions to be taken to regain the original schedule.

- 6.4 The approval by the Governments of the Independent Service Provider's revised schedule and further details and information provided pursuant to this Clause shall not in any way affect the Independent Service Provider's liabilities and obligations under the Contract.
- 6.6 The Independent Service Provider is required to proceed with due diligence and in an expeditious manner for the Survey Work required under the Contract. If the Governments consider that the Independent Service Provider has failed to carry out the Survey Work under this Contract with due diligence, the Governments reserve the right to terminate the Contract without paying the Independent Service Provider for the work of the phase, or of the part of the phase, which has commenced but has not been totally completed.

## **7. COMMENCEMENT TIME AND EXTENSION OF TIME**

- 7.1 The Independent Service Provider shall commence the Survey Work on the date or dates specified in the Governments' Letter of Appointment and shall proceed with the Survey Work with due expedition and without delay to achieve completion in accordance with the Contract.
- 7.2 The Time for Completion<sup>8</sup> shall be extended in accordance with this Clause if the delay in completion is due to any of the following causes:
- a. Force majeure;
  - b. War, hostilities, insurgency, terrorism, civil commotion or riots;
  - c. The Independent Service Provider has not received from the Governments, within a reasonable time, necessary instructions or other information regarding the Survey Work;
  - d. Acts or omissions of employees, contractors or agents engaged by the Governments;
  - e. Any act of prevention or breach of Contract by the Governments or their employees, contractors or agents;
  - f. Any other ground for extension of time expressly prescribed in the Contract.

<sup>8</sup> The Land Reclamation consultancy contract refers to "date for completion" but the term defined in Clause 1.2 is "Time for Completion".



provided the Independent Service Provider has taken all reasonable steps to avoid or reduce the delay and the delay is not due to any act, negligence, default, omission or breach of the Contract by the Independent Service Provider.

- 7.3 It shall be a condition precedent to an extension of time by the Governments in the events falling within paragraph (a) to (d) of Clause 7.2 that the Independent Service Provider shall, within 7 days of the event relied upon, notify the Governments in writing together with a short statement of the reasons why delay to completion will result.
- 7.4 In the event of any act or omission of the Governments or their employees, contractors or agents giving rise to any delay falling within paragraphs (e) to (g) of Clause 7.2, then the Independent Service Provider shall, within 7 days of the commencement of any acts or omissions relied upon, notify the Governments in writing of such delay.
- 7.5 If, in the opinion of the Governments, completion of the Survey Work was delayed by any of the causes specified in Clause 7.2 and provided that the Independent Service Provider has duly complied with the requirements of Clauses 7.3 and 7.4, then the Governments shall, at the completion of the Survey Work or within a reasonable time thereafter or at such earlier time as the Governments may at their<sup>9</sup> discretion deem necessary or appropriate, certify a fair and reasonable extension of time for the completion of the Survey Work.
- 7.6 The Independent Service Provider shall not be entitled to and is deemed to have waived any claim for loss, expenses, costs or damages caused by or arising from any extension of time properly given under the provision of this Clause.

## **8. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY RIGHTS**

### **[To be finalised upon completion of the MOU]**

- 8.1 All documents prepared by the Independent Service Provider in connection with the Survey Work pursuant to the Contract shall be co-owned by the Governments in equal undivided shares.<sup>10</sup> The Independent Service Provider hereby assigns to the Governments the intellectual property rights pertaining to all such documents either in their original form or in a form which is the result of modifications made to the original form. For the avoidance of doubt, this shall apply even if the Independent Service Provider's appointment is terminated by the Governments.

<sup>9</sup> This was expressed in the singular in the Land Reclamation consultancy contract, probably erroneously.

<sup>10</sup> We have amended this sentence to mirror Singapore's counter-proposal to article 8(3)(i) of the MOU.

- 8.2 Notwithstanding the provisions of Clause 8.1, each Government shall have independent rights to use such documents.<sup>11</sup>

9. **ASSIGNMENT AND TERMINATION OF AGREEMENT**

- 9.1 The Independent Service Provider shall not have the right to assign or transfer the benefits of the Contract or any part thereof without the prior written consent of the Governments.

- 9.2 In the event that a Party defaults in the performance of or breaches any of the terms and provisions of the Contract,

- a. the Governments, if they are not the defaulting parties, may:
  - i. if such default or breach is capable of being remedied, terminate the Contract after giving written notice of such default or breach to the Independent Service Provider and such default or breach has not been remedied within [XXX days/weeks] of the giving of the written notice; and
  - ii. if such default or breach is not capable of being remedied, terminate the Contract at any point at their absolute discretion; and
- b. the Independent Service Provider, if he is not the defaulting party, may terminate the Contract after giving written notice of such default or breach to the Governments and such default or breach has not been remedied within [time frame] of the giving of the written notice.

- 9.3 Notwithstanding Clause 9.2 above, in the event that the Independent Service Provider becomes bankrupt or has bankruptcy petition filed against him or (being a company) goes into liquidation (other than for the purposes of amalgamation or reconstruction) or has a winding-up petition filed against it, or if the Independent Service Provider becomes insolvent or compounds or makes an arrangement with creditors, or execution is levied against the Independent Service Provider's assets, or if the Governments certify in writing that in their opinion the Independent Service Provider :

- a. has abandoned the Contract; or
- b. without reasonable excuse has failed to commence the Survey Work in accordance with Clause 7 of these Additional Terms and Conditions; or
- c. despite previous warning by the Governments in writing, has

<sup>11</sup> The words "for its own studies" in the Land Reclamation consultancy contract have been omitted.

failed to proceed with the Survey Work with due expedition and without delay or has otherwise persistently or fundamentally been in breach of his obligations under the Contract; or

- d. has assigned to another person or firm or corporation or permits vicarious performance by another person or firm or corporation of his duties or functions or has assigned any benefit or interest in the Contract without prior consent; or
- e. has previously received a valid and justified warning under paragraph (c) hereof with which he complied at the time but at any time thereafter has again failed to proceed with the Survey Work with due expedition and without delay or has persistently or fundamentally been in breach of his obligations under the Contract; or
- f. has, in defiance of the instructions of the Governments to the contrary, sub-contracted any part of the Contract; or
- g. has offered or attempted to offer a bribe, commission or gift to any employee, contractor, or agent of either Government; or
- h. has breached the obligation of confidentiality and security of information as set out in the Contract;

then the Governments may, after giving 7 days' notice in writing to the Independent Service Provider, terminate the Contract without waiving either Government's right or releasing the Independent Service Provider from any of his liabilities or obligations under the Contract and may themselves complete the Survey Work or may employ any other persons to complete the Survey Work.

- 9.4 If the Governments terminate the Contract pursuant to this Clause, neither of them shall be liable to pay to the Independent Service Provider any money on account of the Contract until the costs of completion and damages for delay in completion (if any) and all other expenses incurred by the Governments have been ascertained. The Independent Service Provider shall then be entitled to receive only such sum or sums (if any) as the Governments may certify would have been due to him upon due completion by him after deducting the said amount. If such amount shall exceed the sum which would have been payable to the Independent Service Provider on due completion by him, then the Independent Service Provider shall upon demand pay to the Governments the amount of such excess and it shall be deemed a debt due by the Independent Service Provider to the Governments and shall be recoverable accordingly.<sup>12</sup>

<sup>12</sup> In the Land Reclamation consultancy contract, DHI subsequently negotiated and the Governments agreed to limit the sum payable by DHI to the Contract Sum.

- 9.5 In the event of termination of the Contract pursuant to this Clause, all documents, drawings, information, materials and data prepared by the Independent Service Provider pursuant to and for use under the Contract shall be promptly handed over to the Governments.

**10. LUMP SUM CONTRACT**

- 10.1 The Contract is awarded on a lump sum basis and the Contract Sum<sup>13</sup> as accepted by the Governments shall remain fixed for the duration of the Contract. Save as otherwise provided in the Contract, there shall be no change in the fees<sup>14</sup> payable by the Governments to the Independent Service Provider for the services to be provided.

- 10.2 Save as otherwise expressly provided in the Contract, the Contract Sum shall be inclusive of all ancillary and other work and expenditures and disbursements, whether separately or specifically mentioned or described in the Contract or not, which are either necessary to carry out and bring to completion the Survey Work described in the Contract, or which may become necessary to overcome difficulties or delays before completion.

**11. LIQUIDATED DAMAGES**

If the Survey Work shall not have been substantially completed within the Time for Completion, the Independent Service Provider shall pay or allow to each Government liquidated damages at the rate of [XXXX]/day.<sup>15</sup>

**12. GOVERNING LAW**

The Contract shall in all respect be governed by and its terms construed in accordance with the laws of England.

**13. SUB-CONTRACTING**

Except where otherwise specified in the Contract, the Independent Service Provider shall not engage or permit the engagement of any sub-contractor for any part of the Survey Work without the prior written approval of the Governments, which approval if given, shall not relieve the Independent

<sup>13</sup> The Contract Sum is not defined in these Additional Terms and Conditions. It is currently referred to in the requirements for the Technical and Financial Proposal (Annex 3 to the Letter of Intent) and the Letter of Appointment.

<sup>14</sup> The term "amount" used in the Land Reclamation consultancy contract has been replaced with "fee" to align with Clause 5 above and the instructions on the Technical and Financial Proposal.

<sup>15</sup> In the Land Reclamation consultancy contract, DHI subsequently negotiated and the Governments agreed to the phrase "subject to a combined maximum of 5% of [the contract sum]" being added to this Clause.



Service Provider of any of his liabilities or obligations under the Contract.

#### 14. VARIATIONS

14.1 The term "variation" shall mean any change in the original Contract as a whole describing or defining the Survey Work to be carried out and shall include but is not restricted to:

- a. an increase or decrease in the quantity of any part of the Survey Work;
- b. an addition to or omission from the Survey Work;
- c. a change in the character, quality or nature of any part of the Survey Work;
- d. a requirement to complete the Survey Work earlier than the Time for Completion or any phase or part of them by a date earlier than that stipulated in the Contract.

For the avoidance of doubt, the term "variation" shall include any changes as aforesaid which may be designed to alter the use to which the Survey Work will be put, but shall exclude any instruction (which would otherwise be a variation) which has arisen due to or is necessitated by or is intended to cure any default of or breach of contract by the Independent Service Provider.

14.2 The Governments may at any time issue an instruction in writing requiring a variation. If or to the extent that an instruction does not state that it requires a variation but the Independent Service Provider considers that it does require a variation, the Independent Service Provider shall within 7 days from the date of receipt of the instruction notify in writing the Governments who may, if they think fit, within 7 days from the date of receipt of the Independent Service Provider's notification, confirm, modify, rescind or contradict in writing the instruction and the Independent Service Provider shall then comply forthwith.

14.3 The Governments may, before issuing an instruction for any variation, require the Independent Service Provider to submit a quotation for any proposed variation and the Independent Service Provider shall be obliged to submit such quotation in writing at his own cost. The Governments, may before or after issuing an instruction, accept in writing the Independent Service Provider's quotation and the provisions of Clause 15 shall not apply to the valuation of that variation nor shall the Independent Service Provider be entitled to any loss and expense in respect of that instruction or any other compensation, damages or other amount whatsoever other than a value in accordance with the accepted quotation. An instruction requiring a

variation shall not be treated as an acceptance of any quotation.

## 15. VALUATION OF VARIATIONS

### 15.1 Valuation Methods

Subject to Clause 14.3, all variations shall be valued based on the fair market rate. The Unit Rate to be used to value the variation may be agreed upon by the Independent Service Provider and the Governments after the submission of the quotation. The Independent Service Provider will be required to justify the time spent on the additional work. The Governments shall have the right to reject the Independent Service Provider's time spent claim if it is found to be unreasonably high.

### 15.2 Agreement on Valuation

a. The Independent Service Provider shall carry out all variations instructed by the Governments pending the valuation of the variation.

b. The Independent Service Provider shall provide the Governments with such details and particulars, including invoices and receipts as the Governments may require, for the purpose of valuing the variation. The Governments shall make such valuation as shall in their opinion be reasonable and shall notify the Independent Service Provider in writing of the value of the variation. The Independent Service Provider shall, within 7 days of the receipt of the notice of the value of the variation, give notice of any disagreement in writing to the Governments and shall at the same time set out the valuation which he considers should have been made, giving full details and particulars and the appropriate Contract references. If the Independent Service Provider does not give notice of his disagreement with the valuation of the Governments as aforesaid, he shall be deemed to have accepted the valuation and such valuation shall be final and binding on the Independent Service Provider and shall not thereafter be disputed or questioned by the Independent Service Provider in any way whatsoever.

## 16. THIRD PARTIES RIGHTS

Any person, firm, corporation or organisation who is not a Party to the Contract shall acquire no rights whatsoever under the Contract by virtue of the Contracts (Rights of Third Parties) Act 1999 of England and any equivalent laws in Malaysia and Singapore.

## 17. MEDIATION

- 17.1 The Governments and the Independent Service Provider shall try to resolve disputes or differences arising from and/or in connection with the Contract amicably.<sup>16</sup> If, after a reasonable time of at least one month, one or more Parties conclude that it is not possible to resolve a dispute or difference amicably, the Parties shall agree that before referring any dispute or difference to arbitration, they shall consider resolving the dispute or difference through formal mediation.
- 17.2 For avoidance of doubt, the provision herein shall not amount to any legal obligation on the part of any Party to attempt mediation or the extent to which they shall do so, as a means of resolving their dispute or difference.

**18. ARBITRATION**

- 18.1 Any dispute or difference between the Parties arising out of or relating to or in connection with the Contract, including any question regarding its existence, validity or termination, shall be resolved by reference to arbitration.
- 18.2 The arbitral tribunal shall consist of one arbitrator to be agreed upon by the Parties. Any Party may propose to the other the name or names of one or more persons, one of whom will serve as the arbitrator. If no agreement is reached within thirty (30) days after the receipt by the other Party of such a proposal from the other Party, the arbitrator shall be appointed by the Appointing Authority. The Appointing Authority shall be the International Chamber of Commerce ("ICC") International Court of Arbitration acting in accordance with the rules adopted by the ICC for this purpose.
- 18.3 Where a dispute or difference is to be resolved by the arbitration, the tribunal shall not enter on the reference until the completion or alleged completion of the Survey Work unless with the written consent of the Governments.
- 18.4 For purposes of this Clause, the two Governments shall be treated as a single Party.

**19. SECURITY DEPOSIT**

- 19.1 Within 14 days of the date of commencement of the Contract,<sup>17</sup> the Independent Service Provider shall deposit with each Government 2.5% of the Contract Sum by way of security for the due performance of and observance by the Independent Service Provider of his

<sup>16</sup> We have standardized the language used in this paragraph to refer to "resolving" and "disputes or differences" throughout. In the Land Reclamation consultancy contract, various formulations were used in the same paragraph.

<sup>17</sup> In the Land Reclamation consultancy contract, the 14 days runs from the "Letter of Acceptance".

obligations under the Contract.

- 19.2 The Independent Service Provider may, in lieu of the cash deposit in Clause 19.1 and for the same purposes, provide a guarantee for an equivalent amount from a bank or insurer approved by the relevant Government and in form set out in Form B attached to these Additional Terms and Conditions.
- 19.3 Each Government may utilise the Security Deposit to make good any loss or damage sustained or likely to be sustained as a result of any breach of contract whatsoever by the Independent Service Provider, including any liquidated damages. If the amount of the Security Deposit utilised by the Government to make good any such loss or damage is found to be greater than the amount of loss or damage actually sustained by the Government, then the Government shall pay the balance of the amount utilised by the Government without the addition of interest to the Independent Service Provider or to the bank or insurer, as the case may be, upon the completion of the Survey Work. Where the Security Deposit is made in cash, the Government shall pay to the Independent Service Provider the unutilised amount without interest upon the completion of the Survey Work.
- 19.4 The provisions of this Clause shall not affect the rights and remedies expressly reserved herein to either Government or bar each Government from claiming losses, expenses, costs or damages incurred or sustained or likely to be sustained by the Government as a result of any breach of contract by the Independent Service Provider.

## **20. INJURY TO PERSONS AND DAMAGE TO PROPERTY**

### **20.1 Injury to Persons**

The Independent Service Provider shall be solely liable for and shall indemnify the Governments in respect of all liabilities, losses, claims, costs, charges, expenses and proceedings arising under any statute or at common law in respect of personal injury to or the death of any person arising out of the execution of the Survey Work.<sup>18</sup>

### **20.2 Damage to Property**

The Independent Service Provider shall be solely liable for and shall indemnify the Governments in respect of all liabilities, losses, claims, costs, charges, expenses and proceedings arising under any statute or at common law in respect of any injury or damage to property, real or

<sup>18</sup> In the Land Reclamation consultancy contract, DHI subsequently negotiated and the Governments agreed to the phrase "and provided always that the same is due to any negligence, omission or default of the [Independent Service Provider], his servants or agents or any sub-contractor or any circumstances within the [Independent Service Provider's] control" (replicated from the end of Clause 20.2) being added to this Clause.



personal, arising out of the execution of the Survey Work and provided always that the same is due to any negligence, omission or default of the Independent Service Provider, his servants or agents or any sub-contractor or any circumstances within the Independent Service Provider's control.

**20.3 Policy of Insurance**

The Independent Service Provider shall before the commencement of any work under the Contract ensure that there is in force a policy or policies of insurance indemnifying each Government, the Independent Service Provider and all sub-contractors against the aforesaid risks or matters. Such insurance, including All-Risks Policy, shall be effected by the Independent Service Provider with such company or companies and on such terms as may be approved by the Governments. Provided that neither of the Governments shall be under any liability to the Independent Service Provider for any loss, injury or damage to the Independent Service Provider that may arise from the failure to effect such insurance or from any deficiency in any insurance taken hereunder. The Independent Service Provider shall be liable for all "excess" under the policy or policies.

The Independent Service Provider shall submit copies of the insurance policy or policies as required to the Governments before commencing any Survey Work under the Contract.

**21. WITHHOLDING OF TAX**

The Governments<sup>19</sup> shall deduct from every payment due to the Independent Service Provider the amount of withholding tax at the rate applicable to the Independent Service Provider under their respective Income Tax Acts for the gross fees/income derived from services performed in their respective countries. This provision is only applicable if the Independent Service Provider is a non-resident of the country in question.

**22. WARRANTIES**

The Independent Service Provider warrants that the personnel performing the tasks under the Contract are suitably qualified and competent to carry out the Survey Work. The Independent Service Provider further warrants that the Survey Work will be carried out in a professional and diligent manner.

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<sup>19</sup> We have omitted the words "of Malaysia and Singapore", which are found in the Land Reclamation consultancy contract since "Governments" has been given a defined meaning in Clause 1.2 above.

**FORM A****UNDERTAKING OF CONFIDENTIALITY**

To: The Governments of Malaysia and Singapore

In consideration of your appointing us as the Independent Service Provider to conduct the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks, we, [XX], hereby agree and undertake to treat all data and information we obtain or derive in relation to the Survey Work, including its results and recommendations, ("Information") with utmost confidentiality at all times and further agree and undertake as follows:

1. We will not, without the prior written consent of the Governments of Malaysia and Singapore, use, publish or disclose or allow to be used, published or disclosed all or any of the Information to any person at any time.
2. We will not use the Information for any purpose unrelated to the Survey Work, unless otherwise agreed to in writing by the Governments of Malaysia and Singapore.
3. We will take all reasonable precautions in dealing with the Information so as to prevent any unauthorised person from gaining access to it.
4. We will take all steps to ensure that our employees, servants, agents and sub-contractors,<sup>1</sup> will strictly comply with the obligations of confidentiality as contained in this Undertaking.
5. We will, before we engage any sub-contractor for any part of the Survey Work (the engagement of which shall be approved by the Governments of Malaysia and Singapore) procure from that sub-contractor a signed Undertaking of Confidentiality to each Government in terms identical to this Undertaking.<sup>2</sup>
6. We will fully indemnify the Governments of Malaysia and Singapore and keep each Government fully indemnified at all times against any losses, costs, expenses or damages that each Government may sustain or incur as a result of any breach of confidentiality by us, our employees, servants, agents and sub-contractors.<sup>3</sup>
7. We will return to the Governments of Malaysia and Singapore all Information (whether in the form of documents or otherwise) given to us by either

<sup>1</sup> The reference to sub-contractors has been inserted given the possibility that the Independent Service Provider may have to sub-contract parts of the Survey Work.

<sup>2</sup> This is a new paragraph given the possibility that the Independent Service Provider may have to sub-contract parts of the Survey Work. The bracketed portion is taken from Clause 13 of the Additional Terms and Conditions.

<sup>3</sup> The reference to sub-contractors has been inserted given the possibility that the Independent Service Provider may have to sub-contract parts of the Survey Work.

Form A of Annex 2 to the Letter of Intent

Government and any copies thereof or otherwise dispose of or delete the same in such manner as may be directed by the relevant Government.

8. The obligations of confidentiality as contained in this Undertaking shall survive the termination of the Contract, howsoever caused.

Date:

For and on behalf of [XX]



FORM B

PERFORMANCE GUARANTEE

THIS GUARANTEE is given on the \_\_\_\_\_ day  
\_\_\_\_\_ 2010 (Two Thousand and Ten) BY  
\_\_\_\_\_  
(name of  
Guarantor) of

\_\_\_\_\_  
([Address, etc.]) (hereinafter called "the Guarantor").

IN FAVOUR OF the Government of [Malaysia] [Singapore] (hereinafter called  
the "Government"), including its Assigns and Successors in law, of  
\_\_\_\_\_ (address).

WHEREAS

1. The Government has entered into a contract (hereinafter called the  
"Contract") with  
\_\_\_\_\_ of  
\_\_\_\_\_

\_\_\_\_\_ (hereinafter called "the Independent Service  
Provider") for the conduct of a joint hydrographic survey in and around Pedra Branca  
and Middle Rocks (hereinafter called "the Survey Work").

2. The Guarantor has agreed to guarantee the due performance of the Contract  
in the manner hereinafter appearing.



Form B of Annex 2 to the Letter of Intent

THE GUARANTOR HEREBY AGREES with the Government as follows:

In consideration of the Government not insisting on the Independent Service Provider paying cash as a Security Deposit for the Contract, the Guarantor hereby undertakes as follows:

1. The Guarantor unconditionally and irrevocably undertakes and covenants to pay the Government forthwith upon demand in writing any sum or sums that may from time to time be demanded by the Government up to a maximum aggregate sum of \_\_\_\_\_ (\$\_\_\_\_\_) without requiring any proof that the Government is entitled to such sum or sums under the Contract or that the Independent Service Provider has failed to execute the Contract or is otherwise in breach of the Contract. Any sum or sums so demanded shall be paid forthwith by the Guarantor unconditionally, without any deductions whatsoever and notwithstanding the existence of any differences or disputes between the Government and the Independent Service Provider arising under or out of or in connection with the Contract or the carrying out of work thereunder or as to any amount or amounts payable thereunder and notwithstanding that differences or disputes have been referred to arbitration or are the subject of proceedings in Court or are in the midst of any other means of dispute resolution.
2. The Guarantor shall not be discharged or released from this Guarantee by any arrangement made between the Independent Service Provider and the Government without the assent of the Guarantor or by any alteration in the obligations undertaken by the Independent Service Provider or in the Survey Work to be done thereunder or by any forbearance whether as to payment, time, performance or otherwise or by any other indulgence or matter of whatever nature accorded by the Government to the Independent Service Provider.
3. The Guarantee shall take effect from the date hereof and shall remain in full force and effect until all the Survey Work has been completed to the satisfaction of the Government.

**TECHNICAL AND FINANCIAL PROPOSAL**

1. The Technical and Financial Proposal shall provide a detailed description of the methodology and approach for conducting the various components of the Survey Work, the required timeframe for the various components of the Survey Work (which should be within the timeframe as stated in the Technical Specifications) and the overall timeframe for the completion of the whole of the Survey Work from the date of the award of the Contract.<sup>1</sup>
2. The Technical and Financial Proposal should contain a detailed description of .....
3. The Technical and Financial Proposal shall include a list of proposed personnel who will be involved in the studies, together with their complete CVs. It should also provide a proposed work programme and schedule for the Survey Work
4. The Governments of Malaysia and Singapore are not bound to accept the Technical and Financial Proposal received. After evaluating the Technical and Financial Proposal, the Governments of Malaysia and Singapore may propose changes to the methodology and approach that has been proposed by [XX] so as to ensure that their respective interests are properly addressed in the Survey Work.
5. The Technical and Financial Proposal shall specify clearly the fees payable to [XX], providing a Contract Sum in the form of a total lump sum and a detailed breakdown of the components of the Contract Sum attributed to the different survey activities as shown in **APPENDIX A**. Where applicable, provisions for tax payable to each Government shall also be stated.<sup>2</sup> The Contract Sum shall be final and binding on [XX]. Notwithstanding the fees stated in the Technical and Financial Proposal, the Contract Sum shall be deemed to be net of any discount offered by [XX] to the Governments of Malaysia and Singapore.
6. The Technical and Financial Proposal shall remain valid and binding upon [XX]  
for a period of [two (2)] calendar months from the date of receipt of the Proposal by the Governments of Malaysia and Singapore.
7. Any notice or correspondence relating to the Technical and Financial Proposal and the appointment of [XX] as the Independent Service Provider:

<sup>1</sup> We are including a provision stating that the Independent Service Provider has to provide the overall timeframe for completion so as to allow us to calculate the Time for Completion.

<sup>2</sup> We have shifted paragraph 14 (Cost) of the Technical Specifications to this paragraph of this Annex as we think that it is more appropriately sited here, given that the breakdown of costs is connected to the issue of the Contract Sum.

Annex 3 to the Letter of Intent

- a. may be served by post to the Service Address which is to be given by [XX] in its Technical and Financial Proposal or to its last known place of business and such posting shall be good service of the notice or correspondence, whether or not the same was actually received by [XX]; and
- b. shall be effectively served and communicated to [XX] immediately upon the same being faxed by or on behalf of the Governments of Malaysia and Singapore in accordance with the fax number which is to be given by [XX] in the Technical and Financial Proposal whether or not it was actually received by [XX], or immediately upon the same being collected by [XX] under the instructions of the Governments of Malaysia and Singapore.

APPENDIX A

No.	Item Descriptions	Details	Cost
	<b>Vessel platforms</b>		
1	Survey boat mobilisation for survey launch and dinghy (Briefly describe type of launch)		
2	Survey boat chartering fees for launch and dinghy (including crew & fuel)		
3	Survey boat demobilisation		
	<b>Equipment</b>		
4	Multibeam		
5	Motion sensor		
6	DGPS		
7	SVP/CTD probe		
8	Tide gauge		
9	Singlebeam		
	<b>Survey Acquisition and Processing Software &amp; Hardware</b>		
10	Survey Acquisition system		
11	Data processing system		
12	Consumables		
	<b>Manpower</b>		



Annex 3 to the Letter of Intent

13	Technical Personnel for survey, testing and demobilisation		
14	Cat A Hydrographer		
15	Cat B Hydrographer		
16	Surveyor on board		
	<b>Others</b>		
17	Equipment delivery to site (if any		
18	Equipment insurance		
19	Technical Personnel (if any)		

Our ref:  
Date:  
Tel:  
Fax:

[Name and address]

Committee

Dear Sir,

**LETTER OF APPOINTMENT AS INDEPENDENT SERVICE PROVIDER TO  
CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

1. Pursuant to the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks signed on [date], the Governments of Malaysia and Singapore ("the Parties") have agreed to conduct a joint hydrographic survey in and around Pedra Branca and Middle Rocks using a single platform (including survey vessel, crew, equipment, acquisition software as well as processing software) to be provided by an independent service provider jointly appointed by both Governments ("the Independent Service Provider").<sup>1</sup>
2. The Parties hereby appoint you as the Independent Service Provider. The Contract Documents stating the terms and conditions of your appointment consist of this letter and the following documents:
  - a. The Technical Specifications for the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks, at **Annex 1**;
  - b. Additional Terms and Conditions, at **Annex 2**;
  - c. The Technical and Financial Proposal, dated [date], as submitted by [XX], at **Annex 3**; and
  - d. Amendments to The Technical and Financial Proposal, dated [date], agreed between [XX] and the Parties, at **Annex 4**.

---

<sup>1</sup> Scope of Works para 14

3. The Contract Documents are intended to be read consistently with each other. In the event that there is any inconsistency between the terms and conditions stated in the above Contract Documents, the following shall apply:

- a. the Technical and Financial Proposal (Annex 3) shall be considered as having been amended by the Amendments to the Technical and Financial Proposal agreed between [XX] and the Parties (Annex 4);
- b. the Technical and Financial Proposal as amended shall prevail over the Technical Specifications (Annex 1); and
- c. the Technical and Financial Proposal as amended and the Technical Specifications shall prevail over the Additional Terms and Conditions (Annex 2).

4. The date of commencement of the Contract is [date] and the Contract Sum is [XX].<sup>2</sup>

5. Please confirm in writing the acceptance of your appointment in accordance with the above terms by return fax.

Yours faithfully,

For the Government of Malaysia

For the Government of Singapore

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<sup>2</sup> The statement of the Contract Sum in this letter is additional to that used in the Land Reclamation consultancy contract. It has been inserted because the Additional Terms and Conditions make references to the Contract Sum and it is not clear at this stage how the Technical and Financial Proposal submitted by the Independent Service Provider will deal with this.



## **Annex 55**

Diplomatic note from Singapore to Malaysia, MFA/SEA/00030/2010,  
dated 19 July 2010







MFA/SEA/00030/2010

The Ministry of Foreign Affairs of the Republic of Singapore presents its compliments to the High Commission of Malaysia and has the honour to refer to the Judgment of the International Court of Justice (ICJ) of 23 May 2008, wherein the ICJ ruled that sovereignty over South Ledge belongs to the State in the territorial waters of which it is located. It therefore follows that the status of South Ledge can only be determined after the process of maritime boundary delimitation is completed. As such, both sides should refrain from undertaking any activities on South Ledge pending the delimitation of the boundaries around Pedra Branca, Middle Rocks and South Ledge. The Ministry has the further honour to refer to our earlier Notes MFA/SEA/00033/2009 dated 9 October 2009, MFA/SEA/00034/2009 dated 12 October 2009, MFA/SEA/00036/2009 dated 20 October 2009 and MFA/SEA/00038/2009 dated 27 October 2009 protesting Malaysia's activities on South Ledge from 8 October 2009 to 11 October 2009, 19 October 2009 and 21 October 2009.

The Singapore Government notes with regret that Malaysia continued to act in disregard of the ICJ Judgment by unilaterally landing eight personnel on South Ledge on 16 July 2010 using a Marine Operations Force boat. The personnel remained on South Ledge for approximately forty minutes.

The Singapore Government strongly protests Malaysia's unilateral actions at South Ledge, which go against the spirit of the Malaysia-Singapore Joint Technical Committee (MSJTC), and are inconsistent with the mutual agreement to honour and abide by the ICJ Judgment. Malaysia's actions at South Ledge are not helpful towards the common goal of reaching a peaceful and amicable resolution of the issues relating to the ICJ Judgment.

The Singapore Government seeks the co-operation of the Malaysian Government to ensure the immediate cessation of its current activities on South Ledge, the removal of all structures and equipment unilaterally placed on South Ledge by Malaysia, and to refrain from conducting further activities there until the status of South Ledge has been determined through the process of maritime boundary delimitation between our two countries.

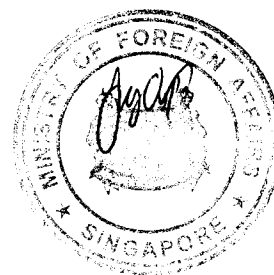
Singapore remains fully committed to implementing the Judgment of the ICJ, and to maintaining continued good relations and cooperation with Malaysia.

The Ministry of Foreign Affairs of the Republic of Singapore avails itself of this opportunity to renew to the High Commission of Malaysia the assurances of its highest consideration.

SINGAPORE

19 July 2010

High Commission of Malaysia  
Singapore



## **Annex 56**

Letter from Singapore's Permanent Secretary, Ministry of Foreign Affairs, Peter Ho, to Malaysia's Secretary General, Ministry of Foreign Affairs, Rastam Mohd Isa, dated 23 July 2010







23 July 2010

H E Tan Sri Rastam Mohd Isa  
Secretary General  
Ministry of Foreign Affairs  
Malaysia

Dear *Rastam*

I refer to our conversation at the sidelines of the ASEAN Senior Officials Meeting in Hanoi, Viet Nam, on 17 July 2010, during which I had expressed our serious concerns over Malaysia's unilateral action of landing eight personnel on South Ledge on 16 July 2010. This was not the first time that Malaysia had undertaken unilateral activities on South Ledge. You would recall my earlier letter dated 12 October 2009, in which I had expressed Singapore's concerns over Malaysia's unilateral activities on South Ledge in August 2008 and October 2009.

2        These unilateral activities go against the spirit of the Malaysia-Singapore Joint Technical Committee (MSJTC), which will be holding its Fourth Meeting in Kuala Lumpur from 26-27 July 2010. They are clearly inconsistent with our mutual agreement to honour and abide by the Judgment of the International Court of Justice (ICJ). As you are aware, in its Judgment of 23 May 2008, the ICJ had ruled that "sovereignty over South Ledge belongs to the State in the territorial waters of which it is located". It therefore follows that the status of South Ledge can only be determined through the process of maritime boundary delimitation. Therefore, both sides should refrain from conducting activities on South Ledge until the status of South Ledge has been settled through the delimitation of boundaries around Pedra Branca and Middle Rocks.

3        As Prime Minister Dato' Sri Mohd Najib Tun Abdul Razak had told my Prime Minister at the sidelines of the APEC Economic Leaders' Meeting in Singapore on 14 November 2009, unilaterally undertaking activities on South Ledge will not change the legal position of South Ledge.

4        We therefore urge Malaysia to cease all activities on South Ledge, to remove all structures and equipment unilaterally placed there by Malaysia, and to refrain from conducting further activities on South Ledge until the status of South Ledge has been determined through the process of maritime

boundary delimitation between our two countries. In that regard, both sides should work towards conducting the Joint Survey soon to lay the groundwork for commencing boundary delimitation negotiations in respect of the area around Pedra Branca, Middle Rocks and South Ledge.

5 I assure you that Singapore remains committed to maintaining good relations with Malaysia and I look forward to working together with you to realise this.

With best regards

Yours Sincerely

A handwritten signature in dark ink, appearing to be 'P. Ho', with a long horizontal flourish extending to the right.

**PETER HO**  
Permanent Secretary

## **Annex 57**

*Ninth Sub-Committee Meeting on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge, Kuala Lumpur, Malaysia, 26 July 2010, Record of Discussion*





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**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**RECORD OF DISCUSSION**

1. The Ninth Meeting of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge between Malaysia and the Republic of Singapore was held in Kuala Lumpur, Malaysia on 26 July 2010.
2. The Malaysian Delegation was led by Dato' Prof. Sr Dr. Abdul Kadir bin Taib, Director General of Survey and Mapping, Department of Survey and Mapping, Malaysia.
3. The Singapore Delegation was led by Mr. Lionel Yee, Director-General, International Affairs Division, Attorney-General's Chambers, Singapore.
4. The lists of the Malaysian and Singapore Delegations are appended as **Appendix A** and **Appendix B** respectively.

**AGENDA ITEM 1: OPENING REMARKS**

5. The Opening Remarks by the Head of the Malaysian Delegation are appended as **Appendix C**.
6. The Opening Remarks by the Head of the Singapore Delegation are appended as **Appendix D**.

**AGENDA ITEM 2: ADOPTION OF AGENDA**

7. The Agenda for the Ninth Meeting, which was adopted by both Delegations, is appended as **Appendix E**.

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**AGENDA ITEM 3: DISCUSSION ON THE MEMORANDUM OF UNDERSTANDING BETWEEN THE GOVERNMENT OF MALAYSIA AND THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE WITH REGARD TO THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

8. Both sides discussed the draft Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.

9. The agreed draft Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks (MOU) is appended as **Appendix F**.

10. The Meeting agreed that the said draft MOU be forwarded to the Joint Technical Committee between Malaysia and Singapore on the Implementation of the International Court of Justice Judgment on Pedra Branca, Middle Rocks and South Ledge for consideration and endorsement, with a view towards its signing in late September/October 2010 after the necessary approvals of their Governments had been obtained.

**AGENDA ITEM 4: DISCUSSION ON THE SCOPE OF WORKS FOR JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

11. Both sides discussed the Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.

12. The agreed draft Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks (SOW) is appended as **Appendix G**.

13. The Meeting agreed that the said draft SOW to be attached as an Annex to the MOU be forwarded to the Joint Technical Committee between Malaysia and Singapore on the Implementation of the International Court of Justice Judgment on Pedra Branca, Middle Rocks and South Ledge for consideration and endorsement.

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**AGENDA ITEM 5: DISCUSSION ON THE CONTRACTUAL DOCUMENTS FOR THE APPOINTMENT OF THE INDEPENDENT SERVICE PROVIDER TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

14. Singapore presented its amended draft contractual documents for the appointment of an Independent Service Provider to conduct the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks which is appended as **Appendix H**.

15. Malaysia stated that it will study the draft contractual documents and will forward its response through diplomatic channels.

**AGENDA ITEM 6: ANY OTHER MATTERS**

16. The Meeting agreed that the next meeting will be held in Singapore. The date and venue will be decided through correspondence.

**AGENDA ITEM 7: CLOSING REMARKS**

17. The Head of the Singapore Delegation expressed his gratitude to all the members of the Sub-Committee, and thanked the Malaysian Delegation for hosting this Meeting.

18. The Head of the Malaysian Delegation also expressed his appreciation to all the members of the Sub-Committee for their co-operation and for the progress made during this Meeting.

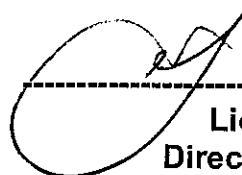
Done in duplicate in Kuala Lumpur, Malaysia on 26 July 2010.

**Head of the Malaysian Delegation**



-----  
**Dato' Prof. Sr Dr. Abdul Kadir bin Taib**  
**Director General of Survey and**  
**Mapping**  
**Department of Survey and Mapping**  
**Malaysia**

**Head of the Singapore Delegation**



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**Lionel Yee**  
**Director-General**  
**International Affairs Division**  
**Attorney-General's Chambers**  
**Singapore**







**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**MALAYSIAN DELEGATION**

1. Dato' Prof. Sr Dr. Abdul Kadir bin Taib - Co-Chairman  
Director General  
Department of Survey and Mapping
2. Sr Hasan bin Jamil  
Director of Survey (Mapping Division)  
Department of Survey and Mapping
3. First Admiral Zaa'im bin Hasan  
Director General  
National Hydrographic Centre  
Royal Malaysian Navy
4. First Admiral Dato' Fadzilah bin Mohd Salleh  
Research Officer  
Attorney General's Chambers
5. Sr Tan Ah Bah  
Director of Survey (Boundary Affairs)  
Department of Survey and Mapping
6. Sr Dr. Azhari bin Mohamed  
Director of Survey (Geodesy)  
Department of Survey and Mapping
7. Mrs. Wan Fatihat binti Mohamad Jafar  
Principal Assistant Secretary  
Land, Survey and Mapping Division  
Ministry of Natural Resources and Environment
8. Mrs. Suraya binti Harun  
Senior Federal Counsel  
Attorney General's Chambers

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9. Mr. Shaharuddin bin Onn  
Principal Assistant Secretary  
Department of Research, Treaties and International Law  
Ministry of Foreign Affairs
10. Mr. Mohamed Ridha bin Dato' Abdul Kadir  
Principal Assistant Director  
Lands and Mines Office  
State Government of Johor
11. Sr Zulkifli bin Sidek  
Principal Assistant Director of Survey  
Boundary Affairs Section  
Department of Survey and Mapping
12. Mr. Mohd Fariq bin Uzir  
Assistant Secretary  
National Security Council  
Prime Minister's Department
13. Cmdr. Ramli bin Johari  
Staff Officer I  
National Hydrographic Centre  
Royal Malaysian Navy







**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**SINGAPORE DELEGATION**

1. Mr. Lionel Yee - Co-Chairman  
Director-General  
International Affairs Division  
Attorney-General's Chambers
2. Mr. Daren Tang  
Deputy Senior State Counsel  
Attorney-General's Chambers
3. Mr. Louis Lim  
Manager  
Attorney-General's Chambers
4. Dr. Parry Oei  
Chief Hydrographer  
Maritime and Port Authority of Singapore
5. Mr. Jamie Chen  
Deputy Chief Hydrographer  
Maritime and Port Authority of Singapore
6. Mr. Soh Kheng Peng  
Chief Surveyor  
Singapore Land Authority
7. Mr. Lucien Hong  
Country Officer  
Southeast Asia Directorate  
Ministry of Foreign Affairs







**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**OPENING REMARKS BY  
THE HEAD OF THE MALAYSIAN DELEGATION**

**Y. BHG. DATO' PROF. SR DR. ABDUL KADIR BIN TAIB  
DIRECTOR GENERAL  
DEPARTMENT OF SURVEY AND MAPPING MALAYSIA**

**Your Excellency Mr. Lionel Yee, Director-General International Affairs Division,  
Attorney General's Chambers, Singapore, co-chairman of this Sub-Committee  
and distinguished members of Singapore and Malaysian delegations**

A very good morning to Your Excellency and members of Singapore and Malaysian Delegations. On behalf of the Malaysian Sub-Committee members, it gives me great pleasure to extend our warm welcome to my counterpart and Singapore Sum-Committee members to Kuala Lumpur.

**Your Excellency and distinguished delegates**

During the last meeting, the Malaysian side had presented its counter proposal on the draft Memorandum of Understanding (MOU) with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks. During the discussion we were able to draft a consolidated common working document of the MOU which I believe reflects our desire to understand each side's point of view so as to enable us to finalise the MOU amicably. The Malaysian side had studied the MOU and are prepared to discuss the documents further.

Also at our last meeting in Singapore, your side made a presentation on the proposed draft contractual documents for the appointment of the Independent

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Service Provider to conduct the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks. The Malaysian side had made preliminary study on the proposed draft contractual documents.

**Your Excellency and distinguished delegates**

I am optimistic that, with the close cooperation and good will that has long existed between our two countries, this meeting would proceed smoothly and with Your Excellency's able leadership, we would eventually achieve the desired objectives that had been set out.

In this respect, I look forward to a fruitful discussion with your delegation in the spirit of friendliness and good cooperation to achieve an amicable outcome for this morning's meeting.

Thank you.







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**APPENDIX D**

**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

---

**OPENING REMARKS BY  
THE HEAD OF THE SINGAPORE DELEGATION**

**MR. LIONEL YEE,  
DIRECTOR-GENERAL,  
INTERNATIONAL AFFAIRS DIVISION,  
ATTORNEY-GENERAL'S CHAMBERS**

Good morning, Your Excellency, Dato' Professor Dr. Abdul Kadir bin Taib, Director-General, Department of Survey and Mapping, and my fellow co-chairman of this Sub-Committee; members of the Malaysian Delegation:

2. On behalf of all the members of the Singapore Delegation, I would like to thank you for your warm welcome and for the excellent arrangements you have made to host this ninth meeting of the Subcommittee in Kuala Lumpur.

3. As this Meeting is a breakout session from the main MSJTC Meeting, we will be reporting to the MSJTC Plenary when it re-convenes tomorrow morning. I hope that we will have good news to report, in that we will have finalised both the Memorandum of Understanding (MOU) and the Scope of Works (SOW) in the course of this Meeting. We can then invite our MSJTC leaders to endorse the product of our work.

4. At our last meeting in Singapore about 10 days ago, we made significant progress on the MOU. We had a good exchange of views, and my sense is that for many of the outstanding issues, there were already compromise proposals which, at the delegation level, both sides were comfortable with but needed to go back to their respective superiors to get formal clearance. So I am optimistic that we can conclude our work on the MOU today.

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5. We have also almost finalized the SOW. There is only one outstanding issue but it is linked to the MOU and if we finalise the MOU, we will also finalise the SOW.

6. At our previous meeting, we had also made a presentation on our proposed draft contractual documents for the appointment of the Independent Service Provider to conduct the Joint Survey. We hope that we can make further progress on that issue today and tomorrow. To facilitate the discussion, we have proposed a number of amendments to the documents that we gave to you to take into account Malaysia's preference for a 3-stage process starting with the Letter of Invitation to be issued to a number of potential independent service providers, followed by the Letter of Intent to enter into discussions on the proposals submitted, to the Letter of Award of the contract. I agree with you that this process can take place in parallel with getting approval for the signing of the MOU.

7. On the issue that you have raised with regard to overall time lines, this is something we will need to consider further. As you are aware, in the informal discussions between our MSJTC leaders, they asked us to think through when the survey was likely to take place and to work backwards to determine the time lines for the signing of the MOU and so on.. My MSJTC leader had also indicated that he hoped the survey could take place before the onset of this year's monsoon. We will consider what you have said about your understanding of the time lines. There are some other windows of opportunity for signing of the MOU. We know, for example, that the Malaysia-Singapore Joint Implementation Team are thinking of meeting before the Prime Ministers meet in September. We should also discuss when the Sub-Committee can meet before the next MSJTC meeting in order to discuss the contract documents.

8. Time is short for the Sub-Committee since we have to report to the Plenary tomorrow morning. Our focus will clearly be on the finalisation of the MOU and SOW so that we can take the Joint Survey process one step closer to becoming a reality. Let me give you my Delegation's commitment to working towards the finalisation of both documents, building on the momentum from our last few meetings and the warm working relationship that exists between both sides.







**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**AGENDA**

1. Opening remarks
2. Adoption of Agenda
3. Discussion on the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
4. Discussion on the Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
5. Discussion on the Contractual Documents for the Appointment of the Independent Service Provider to Conduct the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
6. Any other matters
7. Closing remarks







**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE GOVERNMENT OF MALAYSIA  
AND  
THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE  
WITH REGARD TO  
THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

**THE GOVERNMENT OF MALAYSIA**, on the one part, as represented by the ..... having an address at *[official address of the signatory]* and **THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE**, on the other part, as represented by ..... having an address at *[official address of the signatory]* (hereinafter referred to singularly as "the Party" and collectively as "the Parties"),

**RECOGNISING** the existing friendly relations between the Parties and convinced of the necessity of a lasting and effective co-operation in the interest of the Parties;

**RECALLING** the judgment of the International Court of Justice (ICJ) in the Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore) rendered on 23 May 2008 (the Judgment);

**REFERRING** to the Joint Press Statement made by the Parties on 6 June 2008 in Singapore which reiterated their commitment to honour and abide by the Judgment, and to fully implement it;

**RECALLING** the decision of the Parties to establish a Joint Technical Committee in furtherance of the aforementioned objectives;

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**RECALLING FURTHER** that the Joint Technical Committee, at its meeting held on 3 June 2008, established a technical sub-committee known as "the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge" (the Sub-Committee) to oversee the conduct of the Joint Hydrographic Survey works;

**ACKNOWLEDGING** that the purpose of the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks is to provide a comprehensive and accurate hydrographic data in the Survey Area in accordance with the Scope of Works;

**ACKNOWLEDGING FURTHER** that the Joint Hydrographic Survey is to prepare for eventual talks between both Parties on maritime issues in and around Pedra Branca and Middle Rocks; and

**BELIEVING** the importance of the scientific and technical data to be acquired in and around Pedra Branca and Middle Rocks and the significance of cooperation between the Parties to acquire and exchange such data for the purposes of the eventual talks between both Parties,

**AND NOTING** that the Joint Technical Committee has endorsed the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" prepared by the Sub-Committee;

**HAVE AGREED AS FOLLOWS:**

**ARTICLE 1**  
**DEFINITIONS**

For the purpose of this Memorandum of Understanding, unless the context otherwise states:



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- a) "Confidential Information" means information disclosed in whatever form between the Parties in connection with or during the performance of this MOU including, but not necessarily limited to, scientific and technical data, maps, models, interpretations, reports and any other matters relating to this MOU except for information which has been made available to the public as agreed to by both parties or information already in the public domain that has not been the subject of any breach of an undertaking or obligation of confidentiality.
- b) "Joint Survey" means the Joint Hydrographic Survey to be undertaken jointly by the Parties pursuant to the Scope of Works to acquire comprehensive and accurate hydrographic data in the Survey Area in particular to determine the low-water mark of the features and low tide elevations, in order to prepare for eventual talks on maritime issues in and around Pedra Branca and Middle Rocks;
- c) "MOU" means this Memorandum of Understanding and its Annex;
- d) "Scope of Works" means the "General Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as referred to in Article 4 and attached in the Annex of this MOU; and
- e) "Survey Area" means the area in and around Pedra Branca and Middle Rocks as shown in **Annex A** of the Scope of Works.

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**ARTICLE 2**  
**MATTERS NOT TO BE PREJUDICED**

The Joint Survey or any action or omission undertaken pursuant to the provisions of this MOU or the Scope of Works are without prejudice to issues of sovereignty including positions taken in relation to the interpretation and application of international law, maritime or territorial claims whether in written form or otherwise and eventual delimitation of maritime boundaries.

**ARTICLE 3**  
**MUTUAL UNDERSTANDING**

The Parties mutually understand and agree that the Parties shall cooperate in good faith and in a constructive manner in the implementation of this MOU.

**ARTICLE 4**  
**SCOPE OF WORKS**

Subject to the terms of this MOU and the laws, regulations and national policies in force including procedures applicable in each Party's country, the Parties shall jointly conduct the "General Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" as attached in the Annex of this MOU on the basis of equality and mutual benefit and/or shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by the Parties to comply with the provisions of this MOU.

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**ARTICLE 5**  
**DESIGNATED AUTHORITY**

The designated authority responsible for the implementation of this MOU on behalf of the Government of Malaysia shall be the Ministry of Foreign Affairs, Malaysia and on behalf of the Government of the Republic of Singapore shall be the Ministry of Foreign Affairs, Singapore.

**ARTICLE 6**  
**FINANCIAL ARRANGEMENTS**

The financial arrangements to cover costs and expenses within the framework of this MOU shall be as specified under the Scope of Works. Any other costs and expenses within the framework of this MOU shall be mutually agreed upon by the respective Parties on a case-by-case basis.

**ARTICLE 7**  
**PROTECTION OF INTELLECTUAL PROPERTY RIGHTS**

- (1) The protection of intellectual property rights shall be enforced in conformity with the respective national laws, rules and regulations of the Parties and with other international agreements by which each Party is bound.
- (2) The use of name, logo and/or official emblem of any of the Parties on any publication, document and/or paper is prohibited without the prior written approval of either Party.
- (3) Notwithstanding anything in paragraph (1) above, the intellectual property rights in respect of any technological development, products and services development, carried out –



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- (i) jointly by the Parties or all the intellectual property rights in any document or material generated, created or provided through the joint activity effort of the Parties in the performance of the Scope of Works, shall be co-owned by the Parties in equal undivided shares, and each Party shall be entitled to exploit, including by way of licence, such documents or materials without reference to the other Party and without any obligation to account to the other Party for the profits and gains from such exploitation; and
  - (ii) solely and separately by the Party or all the intellectual property rights in any document or material generated, created or provided by a Party through the sole and separate effort of that Party in the performance of the Scope of Works, shall be solely owned by the Party concerned ; and
- (4) Each Party shall grant to the other Party a royalty-free, non-exclusive and non-transferable license to use, for the sole purpose of implementing this MOU, the documents or materials generated or created by, or licensed to, the first Party, and provided by the first Party to the other Party, regardless of whether the documents or materials have been generated, created or licensed prior to or after the entry into force of this MOU. The use of documents or materials generated, created or licensed prior to the entry into force of this MOU may be subject to additional terms and conditions as mutually agreed to between the Parties.

**ARTICLE 8**  
**CONFIDENTIALITY**

- (1) Each Party shall at all times hold confidential and shall cause its employees, contractors, subcontractors or subcontractors' employees or any person engaged by



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the Parties to carry out the whole or any part of the Scope of Works to hold confidential and prevent them from divulging to third parties, or use in any other way than for the purposes of accomplishing the Scope of Works any Confidential Information from being disclosed, directly or indirectly, to the recipient Party, without the other Party's prior written approval.

(2) Each Party shall take sufficient and appropriate action to ensure that the provisions of this Article are adhered to by their employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Parties to carry out the whole or any part of the Scope of Works and shall notify promptly to the other Party upon discovery of any instance where the requirements of this Article have not been complied with.

(3) The prior written approval of the other Party referred to in Paragraph 1 of this Article is not required if:

- (i) the disclosure of the Confidential Information is made in confidence to the Party's employees, contractors, subcontractors or subcontractor's employees or any person engaged by the Party to carry out the whole or any part of the Scope of Works on a need to know basis and after such employees, contractors, subcontractors or subcontractor's employees have been informed of the obligations imposed by this Article and have agreed to be bound in writing by such obligations; or
- (ii) mutually agreed by the Parties.

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**ARTICLE 9**  
**SUSPENSION**

Each Party reserves the right, under exceptional circumstances for reasons of national security, national interest, public order or public health, to suspend temporarily, either in whole or in part, the implementation of the Joint Survey which suspension shall take effect immediately after notification has been given to the other Party through diplomatic channels.

**ARTICLE 10**  
**REVISION, MODIFICATION AND AMENDMENTS**

- (1) Either Party may request in writing a revision, modification or amendment of all or any part of this MOU.
- (2) Any revision, modification or amendment agreed to by the Parties shall be reduced into writing and shall form part of this MOU.
- (3) Such revision, modification and amendment shall come into force on such date as may be determined by the Parties.
- (4) Any revision, modification or amendment shall not prejudice the rights and obligations arising from or based on this MOU before or up to the date of such revision, modification or amendment.

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**ARTICLE 11**  
**SETTLEMENT OF DISPUTES**

Any difference or dispute between the Parties concerning the interpretation and/or implementation and/or application of any of the provisions of this MOU shall be settled amicably through mutual consultation and/or negotiations between the Parties through diplomatic channels, without reference to any third party or international tribunal.

**ARTICLE 12**  
**ANNEX**

The Annex to this MOU, duly signed by an authorised representative of the Parties, shall form an integral part of this MOU.

**ARTICLE 13**  
**ENTRY INTO FORCE, DURATION AND TERMINATION**

- (1) This MOU shall be governed by international law and come into force on the date of signing until the Joint Survey has been completed.
- (2) The provisions of Articles 2 and 8 of this MOU shall continue in force notwithstanding the completion of the Joint Survey, suspension or termination of this MOU.

**IN WITNESS WHEREOF**, the undersigned, being duly authorized thereto by their respective Governments, have signed this MOU.

**SECRET**

**WITHOUT PREJUDICE**

Agreed Draft dated 26 July 2010

**DONE** at ..... on this ..... day of  
..... in the year ..... in two (2) original texts, in the English  
language, both texts being equally authentic.

**FOR THE GOVERNMENT OF  
MALAYSIA**

**FOR THE GOVERNMENT OF THE  
REPUBLIC OF SINGAPORE**

.....

**SECRET**

**WITHOUT PREJUDICE**



SECRET

WITHOUT PREJUDICE

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ANNEX

GENERAL SCOPE OF WORKS FOR THE JOINT HYDROGRAPHIC SURVEY IN  
AND AROUND PEDRA BRANCA AND MIDDLE ROCKS

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**APPENDIX G**

**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**GENERAL SCOPE OF WORKS FOR  
THE JOINT HYDROGRAPHIC SURVEY  
IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

**1. PURPOSE**

The purpose of the Joint Survey Works in and around Pedra Branca and Middle Rocks ("Survey") is to acquire comprehensive and accurate hydrographic data in the area as defined in paragraph 3 ("Survey Area") in particular to determine the low-water mark of the features and low tide elevations, in order to prepare for eventual talks on maritime issues in and around Pedra Branca and Middle Rocks.

**2. GENERAL SCOPE OF WORKS**

This General Scope of Works for the Survey covers a complete process of survey operation from the planning phase to the submission of the result, which is as follows:

- 2.1 To determine the limits of the Survey Area in and around Pedra Branca and Middle Rocks;
- 2.2 To define the scope and specification for the Survey;
- 2.3 To determine the equipment, survey platform and methodologies for data acquisition and processing used in the Survey;
- 2.4 To determine the conduct of the Survey, which includes mobilisation and demobilisation, commencement date, survey routine, survey lines and others;
- 2.5 To agree on the terms and conditions for data format, sharing and exchange;

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- 2.6 To provide for the collection and processing of data jointly;
- 2.7 To determine the modalities for preparing and finalising the Survey reports and documentations; and
- 2.8 To undertake any other works which are within the ambit of this paragraph.

**3. AREA TO BE SURVEYED**

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS84):

POINT	WGS84	
	LATITUDE (N)	LONGITUDE (E)
1	01° 20' 22.5"	104° 24' 23.7"
2	01° 19' 26.8"	104° 25' 17.6"
3	01° 18' 37.6"	104° 24' 21.1"
4	01° 19' 33.1"	104° 23' 27.2"

The diagram of the Survey Area is shown in **ANNEX A**.

**4. DURATION AND TIMELINE OF THE SURVEY**

- 4.1 The Survey shall commence on a date to be agreed by both Parties. The Survey operation is estimated to take about 10 days to complete including patch test, accuracy test and resounding (if deemed necessary). The sounding will be conducted at an appropriate sounding speed.
- 4.2 The survey of the geodetic control stations referred to in paragraph 9.1, shall be carried out jointly at a suitable date agreed upon by both Parties prior to the commencement of the Survey.

**5. WEATHER**

The Survey shall be stopped temporarily if the weather deteriorates, i.e. World Meteorological Organization (WMO) sea state more than 3 (wave height >1.25m), as this will affect the accuracy of survey and safety of boat crews.

**6. SCALE OF SURVEY**

The Fair Sheet for Survey Area shall be plotted on a scale of:

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- 6.1 For the whole Survey Area - 1:2,500; and
- 6.2 Around Pedra Branca and Middle Rocks - 1:1,000

### 7. STANDARD OF SURVEY

All hydrographic works shall comply with the International Hydrographic Organization (IHO) standard and meet the minimum standard for hydrographic survey in accordance with *IHO Standard for Hydrographic Surveys SP 44 5<sup>th</sup> Edition, February 2008, Order 1B*.

### 8. DATUM

#### 8.1 Horizontal Datum, Projection and Grid

The Survey shall be carried out in World Geodetic System 1984 (WGS84) and plotted based on the following geodetic parameters:

Ellipsoid	: WGS84
Semi Major Axis (a)	: 6378137.0 m
Flattening (f)	: 1/298.25722
Projection	: Universal Transverse Mercator (UTM)
Zone	: 48
False Northing	: 0.0m
False Easting	: 500000.0m
Scale Factor at Central Meridian	: 0.9996
Central Meridian	: Centre of Zone 48

#### 8.2 Vertical Datum

- 8.2.1 The datum used during the Survey shall be Lowest Astronomical Tides (LAT), which is the lowest water plane to which soundings are reduced and above which drying heights are shown in the Fair Sheet and other survey records. LAT shall be determined by

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harmonic analysis with data already obtained from continuous tidal observations of at least 30 days.

- 8.2.2 The tidal data from both Middle Rocks and Pedra Branca used for harmonic analysis and the method used to determine the LAT, including the results for such determination, shall be exchanged by the Parties on a suitable date agreed upon by them prior to the commencement of the Survey.

**8.3 Reduction of Soundings**

Heights of tide shall be observed throughout the survey period for sounding reduction using tide gauge with sampling interval not more than 10 minutes. Actual tidal observation curves will be smoothened and used for reduction of soundings. Depths will be inked in metres and decimetres.

**9. POSITIONING**

**9.1 Survey of Geodetic Control Stations**

- 9.1.1 A total of four (4) geodetic control stations shall be established i.e. two (2) each at Pedra Branca and Middle Rocks.

- 9.1.2 The proposed Global Positioning System (GPS) Survey Network shall be designed as follows:

- (i) a Primary GPS network comprising two (2) Malaysia Real-Time Kinematic GNSS Network System (MyRTKnet) Stations, two (2) Peninsular Malaysia Primary Geodetic Network Stations, four (4) Singapore Satellite Positioning Reference Network (SiRENT), Permanent GPS Stations and one (1) geodetic control station at Middle Rocks;
- (ii) a Secondary GPS network of the four proposed geodetic control stations, as stated in para. 9.1.1;
- (iii) all stations shall be observed simultaneously using static GPS technique; and
- (iv) GPS measurement duration and software shall be selected so as to ensure relative baseline accuracy of one part per million (1 ppm).

- 9.1.3 The diagram of the proposed GPS Survey Network is shown in **ANNEX B**.

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9.1.4 The GPS receiver set used for the observation shall have the following features and specification:

- (i) tracks only GPS satellites;
- (ii) dual frequency and geodetic type with offline post-processing of Differential GPS data;
- (iii) accuracy for positioning:

Horizontal	5 mm+2 ppm
Vertical	10 mm+1 ppm;
- (iv) the antenna shall be a geodetic L1/L2 with fixed or removable ground plane; and
- (v) each observation party shall be equipped with the necessary communication instrument and other required operational equipment.

9.1.5 The specifications for the static GPS observation are as follows:

No.	ITEM	STATIC GPS
a.	Observation	Carrier Phase (L1 and L2)
b.	Number of Satellites	At least 5
c.	PDOP Value	Less than 7
d.	Elevation Angle Cut-off	15 degrees
e.	Epoch Recording Rate	30 seconds
f.	Observation Period	Two (2) independent sessions of three (3) hours observation
g.	Type of Antenna	Geodetic L1/L2 with ground plane/ multipath mitigation technique
h.	Height of Antenna	Nearest mm (Beginning and end of measurement)
i.	Centering of Antenna	On the mark
j.	Atmosphere	Default

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k.	Quality Control	<ul style="list-style-type: none"><li>• Multipath</li><li>• Height of antenna properly measured</li><li>• Positive mark occupation</li><li>• Log sheet to monitor data acquisition</li><li>• Antenna orientation towards north</li></ul>
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9.1.6 During the conduct of GPS observation, one representative from each Party shall be allowed to be present at each respective geodetic control station.

9.1.7 The data processing and adjustment shall be carried out on the Primary and Secondary GPS Networks using appropriate GPS processing software. Each Party shall carry out GPS data processing independently and produce an independent set of coordinates. Comparison of the sets of coordinates shall be carried out to establish the final set of coordinates.

9.1.8 The following technique of least square processing shall be carried out on the GPS data:

- (i) least squares adjustments shall be performed for the final data analysis and coordinate determination;
- (ii) the software used shall be capable of computing formal a priori standard errors from the baseline variance/co-variance statistics, and shall use models which account for the reference ellipsoid for the network control, orientation and scale differences between the GPS and network control datum;
- (iii) least squares adjustments of the network, both minimally constrained and constrained by all the geodetic stations' coordinates, shall be carried out to verify that the survey meets the required standards; and
- (iv) all adjustments of GPS data shall be 3 dimensional on the ITRF2000/WGS84 reference frame.

9.1.9 During the process of observation, the GPS field recording sheets shall be recorded (examples are set out in **ANNEXES C and D**). An independent check on the height of the antenna is essential.



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9.1.10 Each Party shall make available the following digital data:

- (i) raw observational data shall be archived and each Party shall have the same complete set of data and information;
- (ii) if required, result files from the baseline processing and final adjustments shall be supplied in digital form. The processing and/or adjustment software digital format may be requested by the other Party to enable automatic inclusion of the results in that Party's data base systems;
- (iii) comparison of the sets of coordinates shall be performed for validation, and the final result can be established if the differences are within the agreed tolerance range; and
- (iv) final adjusted coordinates are to be provided in the following coordinate systems:
  - (a) ITRF2000/WGS84
  - (b) UTM derived from ITRF2000/WGS84

9.1.11 The establishment process of geodetic control stations along with the observed data, information, results and analysis shall be systematically and comprehensively documented in the form of hard and soft copies.

9.2 Use of Differential GPS (DGPS) for Hydrographic Positioning

9.2.1 Positioning data shall be obtained using Differential GPS (DGPS). The following criteria shall apply:

- (i) The DGPS receivers shall be configured such that only satellites in view above the altitude 10 degrees are to be used in the position computation;
- (ii) The age of pseudo-range corrections used in the position computation shall not exceed 10 seconds;
- (iii) A minimum of four satellites shall be used to compute positioning;
- (iv) The Horizontal Dilution of Precision (HDOP) of the position shall be continuously monitored, recorded and shall not exceed 3.0;

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- (v) Dead Reckoning is not permitted; and
- (vi) Horizontal and vertical offsets between GPS antenna and transducers shall be observed and applied in no coarser than 0.1 m increments.

9.2.2 For the purpose of offline post processing of DGPS data, GPS equipment shall be set up at the four (4) geodetic control stations, as stated in para. 9.1.1, during the period of hydrographic survey.

### 9.3 Identification of Fixes

Fixes are to be identified by calendar date of the year and the Universal Time Coordinated (UTC).

## 10. SURVEY METHODOLOGY

10.1 The Survey shall consist of Multi-beam sonar surveys. In areas where Multi-beam sonar surveys are not feasible, Single-beam and other conventional methods shall be used. The field survey planning shall be carried out and agreed upon by the respective Survey Acquisition Teams prior to the commencement of survey operations, amongst others, to determine the areas for Multi-beam and Single-beam sonar surveys.

### 10.2 Hydrographic Data Acquisition System (HDAS)

10.2.1 The HDAS shall comprise hardware and software configured to control, manage, acquire and store digital data in survey format from the positioning system and Single-beam and Multi-beam echo sounder systems.

10.2.2 The HDAS software shall include helmsman display facilities indicating vessel steering in a preplanned survey line, with digital displays showing information on position, depth, Course Over Ground (COG), heading, Speed Over Ground (SOG), line and fix number, and distance from start and end lines.

10.2.3 The online Quality Control (QC) for positioning and depth shall be monitored to ensure positional accuracy standard. Daily QC reports shall be included as an annex to the Report of Survey referred to in paragraph 13 (ROS).

10.2.4 The automated logging system shall be set at the following intervals:

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Navigation Cycle Time : 2 sec or better  
Depth Cycle Time : 2 sec or better  
Position Logging Interval : 2 sec or better

10.2.5 Daily back-up of data shall be carried out at the Survey platform.

10.3 The shallow water Multi-beam echo sounder at a frequency of about 200 to 400 kHz is to be utilised for the sounding operation. The methodology for Multi-beam sonar survey encompasses the following:

(i) Sounding Units

Depths shall be recorded in metres and tenths of metres.

(ii) Depth Accuracy

The total sounding uncertainty for swath widths of at least three times the average water depth shall be in compliance, at the 95% confidence level, with the allowable Total Vertical Uncertainty (TVU) of  $\pm \sqrt{0.25 + (0.013 \times d)^2}$  where d = depth.

(iii) Line Orientation

Sounding track lines shall be generally parallel to the general configuration of the depth contour lines.

(iv) Position

The total uncertainties in the position of soundings and all other significant features shall not exceed  $\pm 2$  metres at 95% confidence level.

(v) Vessel Motion Data

All Multi-beam data shall be corrected for settlement and squat, heave, pitch, roll and the heading of the vessel.

(vi) Velocity of Sound in the Water Column

The velocity of sound through water shall be determined at least daily during Multi-beam sonar operations. The velocity profile shall be determined to a minimum of 95% of anticipated water depth. Velocity corrections shall be based on the data obtained from profile and not on an averaged sound velocity reading for the water column.

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(vii) Survey Coverage

The survey lines shall be run to achieve 100% seabed coverage, ie with 50% overlap on each side. The line spacing shall not exceed 3 times the water depth.

(viii) Cross Lines

Cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines. At least 5 cross lines shall be run in the Survey Area.

(ix) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT.

(x) Accuracy Test

(a) Accuracy tests shall be conducted on the Multi-beam Echo Sounder System (MBES) and DGPS sensors.

(b) Prior to commencing Multi-beam operation, a system accuracy test (patch test) shall be conducted to quantify the accuracy, precision and alignment of the MBES. The patch test shall include determination of roll, pitch, heading and time latency. Depth accuracy testing shall also include testing of MBES against Single-beam echo sounder system. Details of the test shall be included in an annex to the ROS.

(c) Accuracy check for DGPS system shall be conducted using at least two different reference stations. Positional differences should be less than  $\pm 2$  metres. Details of the test shall be included in an annex to the ROS.

10.4 The methodology for Single-beam sonar survey encompasses the following:

(i) Echo Sounder

A Single-beam echo sounder at a frequency of about 200 kHz providing a depth accuracy of  $\pm 0.1$  metre shall be used for the sounding survey. The echo sounder shall be calibrated daily either by bar-check or sound velocity probe up to the maximum depth of the Survey Area, before and after sounding.



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(ii) Reduction of Soundings

Actual tidal observation curves will be smoothed and used for reduction of soundings. Depths will be inked in metres and decimeters.

(iii) Horizontal Accuracy

The following accuracies will be maintained:

Position of soundings -  $\pm 2$  metre

(iv) Sounding Line Intervals

Sounding lines at 5 m intervals. Where irregularities or shoals are detected, closer sounded sounding lines and/or cross lines shall be run over these areas.

(v) Drying Lines (Low Water Marks) and Drying Features

All drying lines and drying features shall be delineated accurately and measured from LAT.

## 11. DATA PROCESSING

11.1 Data processing for the survey acquired from both the Multi-beam and Single-beam surveys shall be carried out jointly at a venue to be agreed by both sides. The estimated time taken for data processing is 14 days.

### 11.2 Hydrographic Data Processing System (HDPS)

11.2.1 The HDPS software shall include facilities for editing and reducing depth, smoothing and filtering, sound velocity corrections, common format conversion, QC analysis for depth and positioning and be able to generate the final survey product presentations i.e. fair sheet with hydrographic symbology in accordance with IHO standards. The software shall also be able to handle and manage huge amount of raw and processed digital bathymetric data systematically. The workflow of the "Data Processing model" utilised by the software shall be included in the ROS.

11.2.2 The HDPS software shall be able to perform area based and line by line editing with automatic and/or manual removal of outliers. The survey data shall be able to be displayed in plan, spread sheet,

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profile and 3-dimensional digital terrain model views. All methods used for data editing shall be recorded and included in the ROS. The degree of depth contour smoothening and suppression of depths must be agreed by both Parties.

11.2.3 The software shall be able to perform QC for the depths between main lines and cross lines/check lines. The depth and positional data QC test result shall be included as an annex to the ROS to define the reliability of the Survey.

11.2.4 The software shall be able to generate colour-coded soundings, contours, and smooth sheet plotting capabilities.

## **12. OUTPUT**

### **12.1 Field Records**

All data gathered during the Survey shall be recorded as annexes to the ROS. This includes the following:

- (i) Tidal observation records
- (ii) Benchmarks descriptions
- (iii) Results of tidal analysis
- (iv) Geodetic Control Station
- (v) Accuracy Test for DGPS
- (vi) Patch Test Records for MBES
- (vii) Daily QC Test
- (viii) Echo-sounder graphs
- (ix) Field sheets showing sounding tracks with fix numbers
- (x) Other miscellaneous records and sheets used for submission of survey

### **12.2 Fair Sheet**

- (i) Fair Sheet shall be drawn at scale of 1:1,000 or larger for coastal features and low-water line, and at scale of 1:2,500 for general bathymetric information of surrounding waters in Universal Transverse Mercator Zone 48 projection and WGS84 ellipsoid.
- (ii) Fair Sheet shall be endorsed by both Parties and signed by representative of each Party.

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**13. REPORT OF SURVEY (ROS)**

13.1 The ROS shall be prepared jointly by both Parties and signed by their respective Hydrographers. The estimated time for preparation of the ROS is 5 days.

13.2 The ROS shall be prepared in soft and hard copies.

13.3 The following documents (soft and hard copies) are to be rendered upon completion of the Survey:

- (i) Fair Sheet; and
- (ii) Daily Survey Reports.

13.4 The final ROS is to be submitted to the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge for approval.

**14. SURVEY PLATFORM AND PERSONNEL**

The Survey shall be carried out using a single platform (including survey vessel, crew, equipment, acquisition software as well as processing software) to be provided by an independent service provider jointly appointed by both Parties. The Survey shall be carried out under the supervision of the following personnel:

Survey Acquisition Team for the Platform

Malaysia - 1 x Hydrographic Surveyors  
Singapore - 1 x Hydrographic Surveyors

Data Processing Team

Malaysia - 1 x Hydrographic Surveyors  
Singapore - 1 x Hydrographic Surveyors

Where there are differences in views within the Survey Acquisition Team or the Data Processing Team on any aspect of the Survey, the Survey shall be suspended pending resolution of the matter by the two Parties.

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**15. COST**

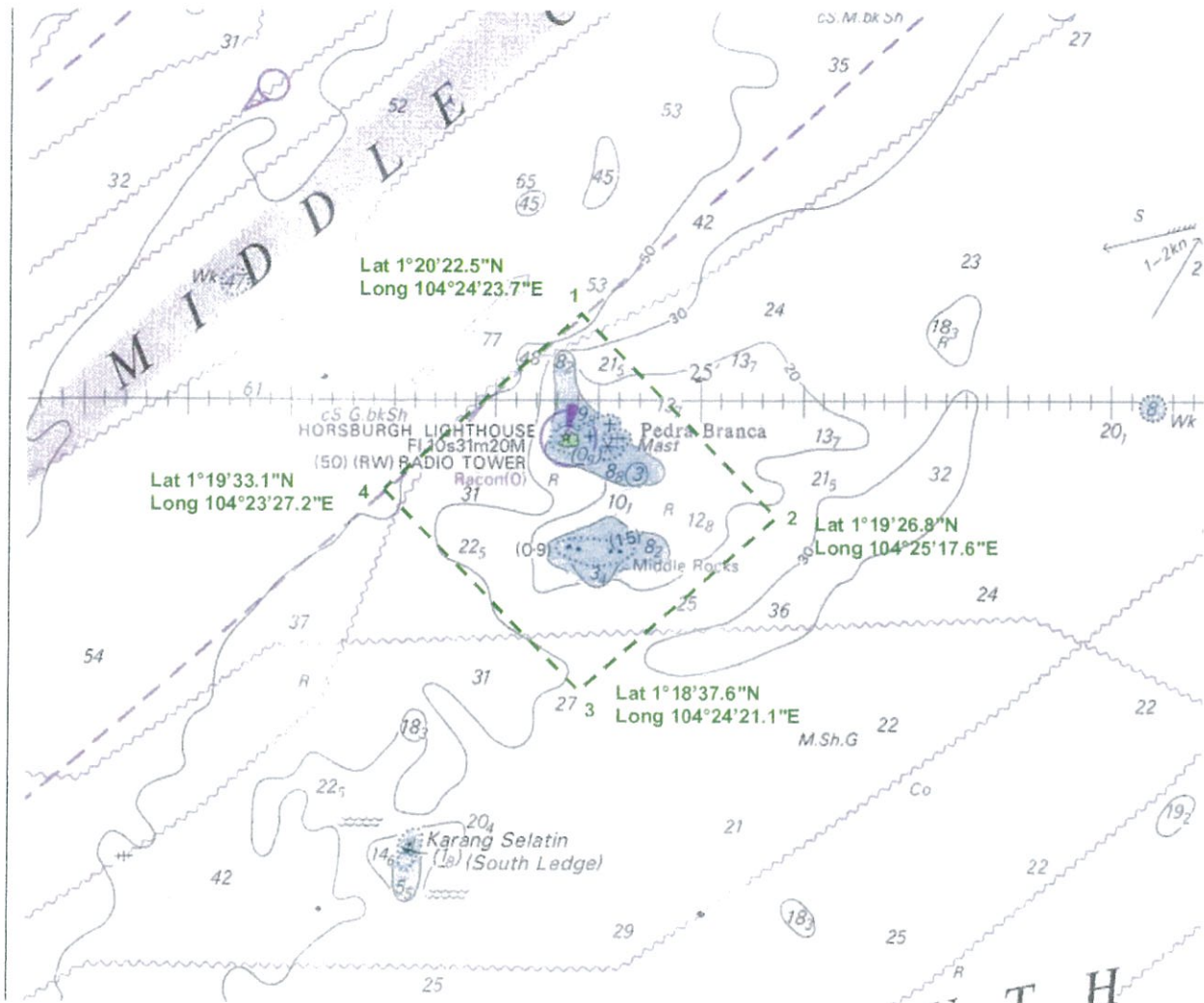
Each Party shall bear its own costs incurred in the conduct of the survey and shall share equally in bearing the cost of services provided by the independent service provider referred to in Paragraph 14.



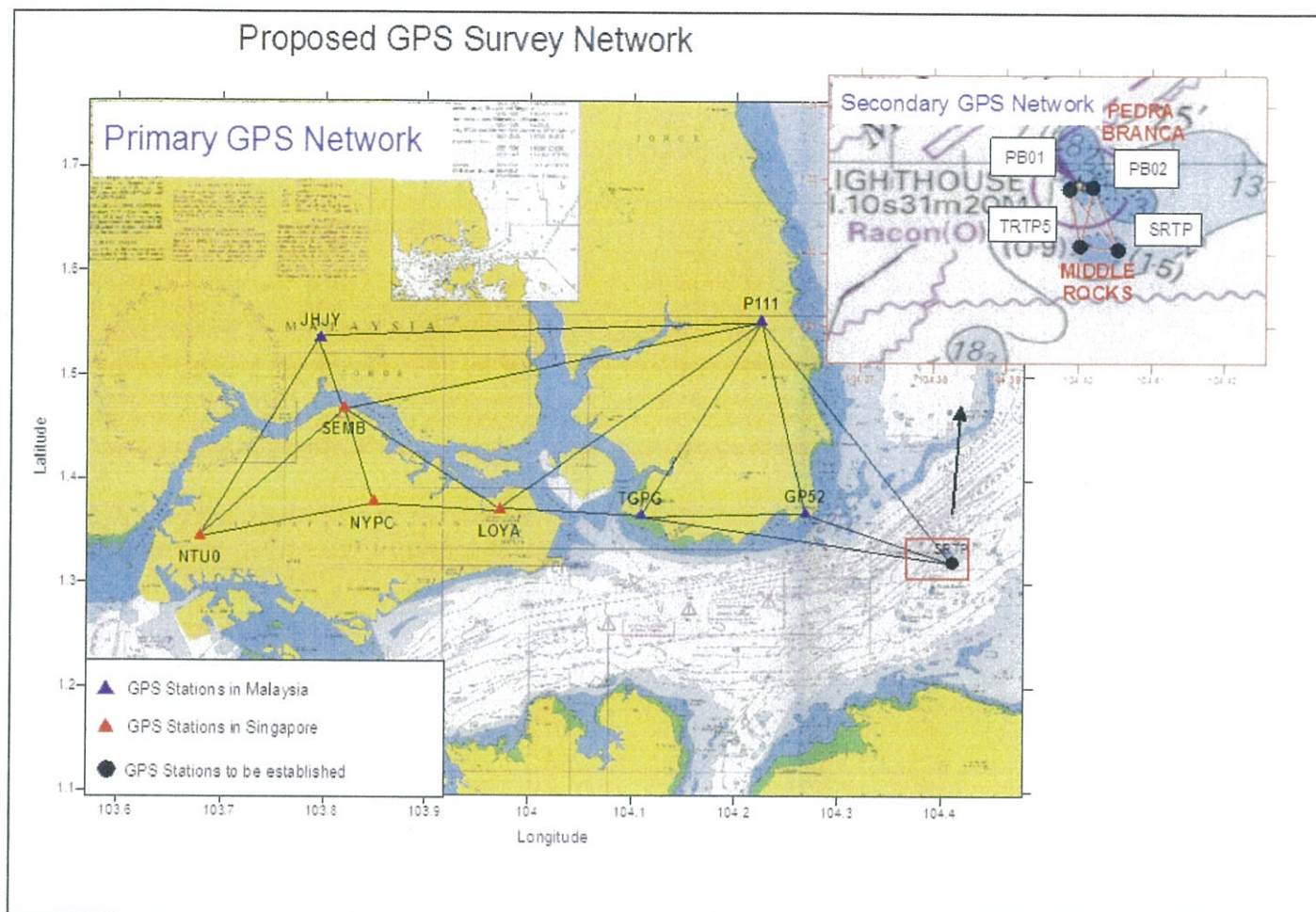
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ANNEX A

SURVEY AREA



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PB01 = 17998  
PB02 = 17999

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**ANNEX C**

**GPS Observation Log**

Station Name _____	Station ID _____	Project _____
Location _____	City _____	
Observing Monument Inscription and Description _____		

	Type	Model	S/No.	Receiver Operator	
Receiver	_____	_____	_____	Agency	_____
Antenna	_____	_____	_____	<i>Equipment Used</i>	
Receiver Software and Version _____					
Collection rate	_____	Solution Rate	_____	<input type="checkbox"/> Tribrach	
- Download Information			<input type="checkbox"/> Tripod		
Download Date ____/____/____			<input type="checkbox"/> 240v AC and power converter		
<input type="checkbox"/> Tapes	<input type="checkbox"/> Disks	<input type="checkbox"/> Backups made	<input type="checkbox"/> 12v car battery		
Disk/Tape	File Name		<input type="checkbox"/> Internal battery pack		
1	_____		<input type="checkbox"/> External battery pack		
2	_____				
3	_____				

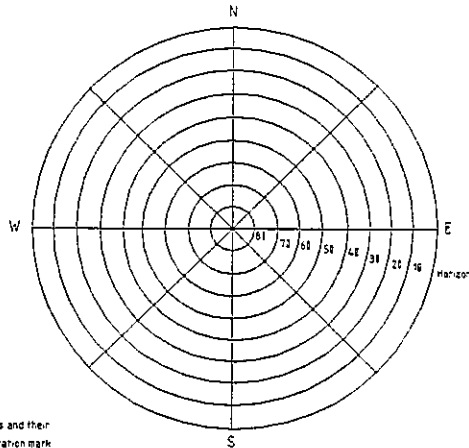
  

<b>Timing</b>	Local Time	Local date	UTC Time	UTC Date	UTC Day
Actual Start Time	_____	_____	_____	_____	_____
Actual End Time	_____	_____	_____	_____	_____
Daily Session Number	_____	<input type="checkbox"/> Power Failure - started over with new Log			
Receiver Solution (record near end of session)			Site Access - unusual features		
UTC Time	_____				
Latitude	_____				
Longitude	_____				
Height	_____	Metres	_____		



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## ANNEX D



Identify Obstructions and their distance from the station mark

Antenna Sketch

Station Name _____	Station ID _____	Date: __ / __ / __
Location _____	City _____	
Observing Monument Inscription _____	Observers Name _____	

**Antenna Setup :** Include a sketch of the antenna setup showing all mounting accessories ie. tripod, pillar, tribrach, etc. Show all distances measured from the ground mark to defined points on the antenna. Indicate whether distances are slant or vertical.

**Antenna height above mark in metres - enter the vertical height to the ant. ref. point.** Record the measured height above the ground mark to as many of the following as possible:

For slant measurements, include the horizontal offset distances to the centre of the antenna.

	Distance(metres)	vertical	slant	Offset Distance
Local Weather conditions				
L1 Phase centre	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
L2 Phase centre	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Base of antenna	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Top of ground plane	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bottom of ground plane	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bottom of choke ring	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____



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Height Hook used YES ☐ NO ☐

Measured \_\_\_\_\_ Check \_\_\_\_\_ (Ft. In.)

Antenna Offset \_\_\_\_\_

Site Photograph/Sketch

Field Team Leader  
(Malaysia)

Field Team Leader  
(Singapore)







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**APPENDIX H**

**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**DRAFT CONTRACT DOCUMENTS**

- (1) LETTER OF INVITATION**
- (2) ANNEX 2 – ADDITIONAL TERMS AND CONDITIONS**
- (3) ANNEX 2 FORM A – UNDERTAKING OF CONFIDENTIALITY**
- (4) ANNEX 2 FORM B – PERFORMANCE GUARANTEE**
- (5) ANNEX 3 – INSTRUCTIONS FOR TECHNICAL AND FINANCIAL PROPOSAL**
- (6) ANNEX 4 – SAMPLE LETTER OF APPOINTMENT**

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Our ref:  
Date:  
Tel:  
Fax:

[Name and address]

Dear Sir,

**LETTER OF ~~INTENT~~ INVITATION – APPOINTMENT AS INDEPENDENT SERVICE PROVIDER TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

1. Pursuant to the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks signed on [date], the Governments of Malaysia and Singapore (“the Parties”) have agreed to conduct a joint hydrographic survey in and around Pedra Branca and Middle Rocks using a single platform (including survey vessel, crew, equipment, acquisition software as well as processing software) to be provided by an independent service provider (“the Independent Service Provider”) jointly appointed by the Parties.<sup>1</sup>

2. The Parties would like to invite ~~are considering appointing~~ [XX] to submit, for their consideration, a Technical and Financial Proposal for possible appointment as the Independent Service Provider. The relevant terms of the appointment are as contained in the following documents:

- a. The Technical Specifications for the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks, at **Annex 1**;
- b. Additional Terms and Conditions, at **Annex 2**.

3. To facilitate consideration by the Parties, ~~of the appointment of [XX] as the Independent Service Provider, [XX] is requested to submit a~~ Technical and Financial Proposal referred to in paragraph 2 ~~to the Parties for their evaluation. In this regard,~~

---

<sup>1</sup> Scope of Works para 14



| ~~the Technical and Financial Proposal~~ must be submitted in accordance with and subject to the terms set out in **Annex 3**.

4. The Technical and Financial Proposal shall be submitted to the Parties on or before [date]. You may send your correspondence to the following addressees:

For Malaysia:

XXXXXX

For Singapore:

XXXXXXX

| 5. If the Parties decide to appoint [XX] as the Independent Service Provider, A letter of appointment will be issued by the Parties to [XX] upon confirmation and acceptance of the terms of appointment by the Parties. A sample of the letter of appointment (without Annexes) is at **Annex 4**.

Yours faithfully,

For the Government of Malaysia

For the Government of Singapore

**ADDITIONAL TERMS AND CONDITIONS FOR THE APPOINTMENT OF THE INDEPENDENT SERVICE PROVIDER TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS****1. INTERPRETATION AND DEFINITIONS****1.1 All Contract Documents To Be Read As A Whole**

The Contract Documents are to be read as a whole and the effect or operation of any article or clause in these Additional Terms and Conditions must therefore, unless otherwise specifically stated, be read subject to any relevant qualification or modification in any other article or any of the clauses in the Contract Documents.

**1.2 Definitions**

The following words and expressions shall have the meanings hereby assigned to the Contract (as hereinafter defined) except where the context otherwise requires:

<u>Word or Phase</u>	<u>Meaning</u>
Contract:	Means the documents identified as Contract Documents in the Letter of Appointment and all such documents together shall be deemed to form the Contract. <sup>1</sup>
Government:	Means either the Government of Malaysia or the Government of Singapore, as the case may be, and any other person/s appointed by the Government in question to act on its behalf.
Governments:	Means the Governments of Malaysia and Singapore and/or any other person/s appointed by the Governments of Malaysia and Singapore to act on their behalf.
Independent Service Provider:	Means the person who or firm or corporation which has been appointed as such in the Letter of Appointment by the Governments and includes the Independent Service Provider's legal

<sup>1</sup> The term "Contract Documents" continues to be used elsewhere in the Land Reclamation consultancy contract notwithstanding this definition. We have replaced that term from this point onwards with "Contract".

	personal representatives and permitted assigns.
Parties: <sup>2</sup>	Means the Governments and the Independent Service Provider.
Party:	Means any one of the Parties.
Security Deposit: <sup>3</sup>	Means the cash deposit referred to in Clause 19.1 or the guarantee in lieu of the cash deposit referred to in Clause 19.2.
Survey Work:	Means the survey and other services to be undertaken by the Independent Service Provider as specified in the Contract.
Time for Completion:	Means [XX] days from the date of commencement as stated in the Letter of Appointment or the date or dates on which such extension or extensions of time (if any) as the Independent Service Provider may be allowed under the Contract shall expire.

## 2. RELATIONSHIP BETWEEN THE PARTIES

Nothing contained herein shall be construed as establishing or creating a relationship of master and servant or principal and agent between the Governments and the Independent Service Provider, or between either Government and the Independent Service Provider.

## 3. CONFORMITY WITH PROVISIONS OF LAWS

3.1 The Independent Service Provider shall conform in all respects with the provisions of applicable laws of Malaysia and Singapore and shall keep the Governments indemnified against all penalties and liabilities of every kind for the breach of any such laws. The Independent Service Provider when carrying out the Survey Work shall comply with such departmental rules and restrictions in respect of access, restricted areas, dues, conduct of safety and working conditions as applicable to each particular place of work.

3.2 The Governments give no warranty in any manner whatsoever for all

<sup>2</sup> Two definitions – of “Parties” and “Party” – are included which do not appear in the Land Reclamation consultancy contract because these terms are used many times in the text.

<sup>3</sup> A new definition because “Security Deposit” appears in Clause 19 without a definition.



documents, drawings, information, materials and data supplied to the Independent Service Provider either as to their accuracy or sufficiency or as to how the same shall be interpreted and the Independent Service Provider, when making use of and interpreting the same, shall do so entirely at his own risk.

#### 4. CONFIDENTIALITY OF INFORMATION

- 4.1 [To be drafted depending on the final text of the MOU]
- 4.2 Within seven (7) days of the commencement date, the Independent Service Provider shall submit to each Government a signed Undertaking of Confidentiality in the form set out in Form A attached to these Additional Terms and Conditions.<sup>4</sup>
- 4.3 Without prejudice to the provisions of Clause 13, the Independent Service Provider shall, before he engages or permits the engagement of any sub-contractor for any part of the Survey Work, procure from that sub-contractor a signed Undertaking of Confidentiality to each Government in terms identical to the said Undertaking of Confidentiality set out in Form A.<sup>5</sup>

#### 5. REMUNERATION

- 5.1 Each Government shall pay to the Independent Service Provider for the Survey Work one half of the fees specified in the Contract. Each Government shall not be obliged and will not pay for any other expenses or costs of whatsoever nature other than that set forth in the Contract. Payment or payments shall be made in the manner specified in the Contract.
- 5.2 The Independent Service Provider shall submit to each Government an invoice showing the fees due from that Government and a copy of the invoice showing the fees due from the other Government. Payment due to the Independent Service Provider shall be paid within forty-five (45) days of the receipt of the invoice.
- 5.3 Subject to the Government's right to suspend or withhold generally under the terms of the Contract if any item or part of an invoice rendered by the Independent Service Provider is disputed or subject to

<sup>4</sup> In the Land Reclamation consultancy contract, the 14 days runs from the "Letter of Acceptance". This paragraph is taken from the last Clause in the Additional Terms and Conditions for the Land Reclamation consultancy contract. We may however want to provide more confidentiality conditions in the light of the contents of the MOU and to incorporate them in the contract terms so that a breach of confidence is not only a breach of the undertaking but also a contractual breach.

<sup>5</sup> This new Clause 4.3 mirrors paragraph 5 of Form A (Undertaking of Confidentiality)



question by that Government, the Government shall be entitled to withhold payment in receipt of the same but the payment by that Government of that part of the invoice which is not contested shall not be withheld on those grounds.

5.4 For the avoidance of doubt, the fees agreed shall include the provision of the following services and expenses and the Independent Service Provider shall not be entitled to any extra payment therefor:

- a. Overseas travelling and accommodation expenses and other similar disbursements incurred by the Independent Service Provider or any employee, servant or agent of the Independent Service Provider.
- b. All services in connection with the replacement of any work damaged by fire, storm, tempest, lightning, earthquake, aircraft or anything dropped therefrom, aerial objects, flood, riot and civil commotion.
- c. All services rendered as a result of the Governments instructing minor modifications to the scope of the Survey Work.<sup>6</sup>

5.5 If in the opinion of the Governments, the Independent Service Provider is in breach of any of the provisions of the Contract, the Governments shall be entitled to withhold any payment or part thereof as may be due or become payable to the Independent Service Provider without prejudice to any right of action that may have accrued to the Governments and to the continuance in force of the Contract unless otherwise terminated by the Governments.

## **6. PROGRAMME OF WORK, TIME SCHEDULE, COMPLETION PERIOD AND DELAYS**

- 6.1 The Independent Service Provider shall plan, execute and complete the Survey Work within Time for Completion. The Independent Service Provider shall also comply with any time schedules stipulated in the Contract.
- 6.2 The Independent Service Provider shall use his best endeavours to maintain where possible the period stipulated for the completion of the Survey Work notwithstanding delays caused by reasons beyond the Independent Service Provider's control.
- 6.3 The Independent Service Provider shall notify the Governments weekly<sup>7</sup> of all delays and their likely effect on the overall period of completion of the Survey Work. The Independent Service Provider

<sup>6</sup> In the Land Reclamation consultancy contract, the word used was "Project" but this is probably erroneous because the term is not defined.

<sup>7</sup> In the Land Reclamation consultancy contract, the frequency was "monthly".

shall also propose to the Governments recovery actions to be taken to regain the original schedule.

- 6.4 The approval by the Governments of the Independent Service Provider's revised schedule and further details and information provided pursuant to this Clause shall not in any way affect the Independent Service Provider's liabilities and obligations under the Contract.
- 6.6 The Independent Service Provider is required to proceed with due diligence and in an expeditious manner for the Survey Work required under the Contract. If the Governments consider that the Independent Service Provider has failed to carry out the Survey Work under this Contract with due diligence, the Governments reserve the right to terminate the Contract without paying the Independent Service Provider for the work of the phase, or of the part of the phase, which has commenced but has not been totally completed.

## **7. COMMENCEMENT TIME AND EXTENSION OF TIME**

- 7.1 The Independent Service Provider shall commence the Survey Work on the date or dates specified in the Governments' Letter of Appointment and shall proceed with the Survey Work with due expedition and without delay to achieve completion in accordance with the Contract.
- 7.2 The Time for Completion<sup>8</sup> shall be extended in accordance with this Clause if the delay in completion is due to any of the following causes:
- a. Force majeure;
  - b. War, hostilities, insurgency, terrorism, civil commotion or riots;
  - c. The Independent Service Provider has not received from the Governments, within a reasonable time, necessary instructions or other information regarding the Survey Work;
  - d. Acts or omissions of employees, contractors or agents engaged by the Governments;
  - e. Any act of prevention or breach of Contract by the Governments or their employees, contractors or agents;
  - f. Any other ground for extension of time expressly prescribed in the Contract.

<sup>8</sup> The Land Reclamation consultancy contract refers to "date for completion" but the term defined in Clause 1.2 is "Time for Completion".



provided the Independent Service Provider has taken all reasonable steps to avoid or reduce the delay and the delay is not due to any act, negligence, default, omission or breach of the Contract by the Independent Service Provider.

- 7.3 It shall be a condition precedent to an extension of time by the Governments in the events falling within paragraph (a) to (d) of Clause 7.2 that the Independent Service Provider shall, within 7 days of the event relied upon, notify the Governments in writing together with a short statement of the reasons why delay to completion will result.
- 7.4 In the event of any act or omission of the Governments or their employees, contractors or agents giving rise to any delay falling within paragraphs (e) to (g) of Clause 7.2, then the Independent Service Provider shall, within 7 days of the commencement of any acts or omissions relied upon, notify the Governments in writing of such delay.
- 7.5 If, in the opinion of the Governments, completion of the Survey Work was delayed by any of the causes specified in Clause 7.2 and provided that the Independent Service Provider has duly complied with the requirements of Clauses 7.3 and 7.4, then the Governments shall, at the completion of the Survey Work or within a reasonable time thereafter or at such earlier time as the Governments may at their<sup>9</sup> discretion deem necessary or appropriate, certify a fair and reasonable extension of time for the completion of the Survey Work.
- 7.6 The Independent Service Provider shall not be entitled to and is deemed to have waived any claim for loss, expenses, costs or damages caused by or arising from any extension of time properly given under the provision of this Clause.

## **8. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY RIGHTS**

### **[To be finalised upon completion of the MOU]**

- 8.1 All documents prepared by the Independent Service Provider in connection with the Survey Work pursuant to the Contract shall be co-owned by the Governments in equal undivided shares.<sup>10</sup> The Independent Service Provider hereby assigns to the Governments the intellectual property rights pertaining to all such documents either in their original form or in a form which is the result of modifications made to the original form. For the avoidance of doubt, this shall apply even if the Independent Service Provider's appointment is terminated by the Governments.

<sup>9</sup> This was expressed in the singular in the Land Reclamation consultancy contract, probably erroneously.

<sup>10</sup> We have amended this sentence to mirror Singapore's counter-proposal to article 8(3)(i) of the MOU.

- 8.2 Notwithstanding the provisions of Clause 8.1, each Government shall have independent rights to use such documents.<sup>11</sup>

**9. ASSIGNMENT AND TERMINATION OF AGREEMENT**

- 9.1 The Independent Service Provider shall not have the right to assign or transfer the benefits of the Contract or any part thereof without the prior written consent of the Governments.
- 9.2 In the event that a Party defaults in the performance of or breaches any of the terms and provisions of the Contract,
- a. the Governments, if they are not the defaulting parties, may:
    - i. if such default or breach is capable of being remedied, terminate the Contract after giving written notice of such default or breach to the Independent Service Provider and such default or breach has not been remedied within [XXX days/weeks] of the giving of the written notice; and
    - ii. if such default or breach is not capable of being remedied, terminate the Contract at any point at their absolute discretion; and
  - b. the Independent Service Provider, if he is not the defaulting party, may terminate the Contract after giving written notice of such default or breach to the Governments and such default or breach has not been remedied within [time frame] of the giving of the written notice.
- 9.3 Notwithstanding Clause 9.2 above, in the event that the Independent Service Provider becomes bankrupt or has bankruptcy petition filed against him or (being a company) goes into liquidation (other than for the purposes of amalgamation or reconstruction) or has a winding-up petition filed against it, or if the Independent Service Provider becomes insolvent or compounds or makes an arrangement with creditors, or execution is levied against the Independent Service Provider's assets, or if the Governments certify in writing that in their opinion the Independent Service Provider :
- a. has abandoned the Contract; or
  - b. without reasonable excuse has failed to commence the Survey Work in accordance with Clause 7 of these Additional Terms and Conditions; or
  - c. despite previous warning by the Governments in writing, has

<sup>11</sup> The words "for its own studies" in the Land Reclamation consultancy contract have been omitted.



failed to proceed with the Survey Work with due expedition and without delay or has otherwise persistently or fundamentally been in breach of his obligations under the Contract; or

- d. has assigned to another person or firm or corporation or permits vicarious performance by another person or firm or corporation of his duties or functions or has assigned any benefit or interest in the Contract without prior consent; or
- e. has previously received a valid and justified warning under paragraph (c) hereof with which he complied at the time but at any time thereafter has again failed to proceed with the Survey Work with due expedition and without delay or has persistently or fundamentally been in breach of his obligations under the Contract; or
- f. has, in defiance of the instructions of the Governments to the contrary, sub-contracted any part of the Contract; or
- g. has offered or attempted to offer a bribe, commission or gift to any employee, contractor, or agent of either Government; or
- h. has breached the obligation of confidentiality and security of information as set out in the Contract;

then the Governments may, after giving 7 days' notice in writing to the Independent Service Provider, terminate the Contract without waiving either Government's right or releasing the Independent Service Provider from any of his liabilities or obligations under the Contract and may themselves complete the Survey Work or may employ any other persons to complete the Survey Work.

- 9.4 If the Governments terminate the Contract pursuant to this Clause, neither of them shall be liable to pay to the Independent Service Provider any money on account of the Contract until the costs of completion and damages for delay in completion (if any) and all other expenses incurred by the Governments have been ascertained. The Independent Service Provider shall then be entitled to receive only such sum or sums (if any) as the Governments may certify would have been due to him upon due completion by him after deducting the said amount. If such amount shall exceed the sum which would have been payable to the Independent Service Provider on due completion by him, then the Independent Service Provider shall upon demand pay to the Governments the amount of such excess and it shall be deemed a debt due by the Independent Service Provider to the Governments and shall be recoverable accordingly.<sup>12</sup>

<sup>12</sup> In the Land Reclamation consultancy contract, DHI subsequently negotiated and the Governments agreed to limit the sum payable by DHI to the Contract Sum.

- 9.5 In the event of termination of the Contract pursuant to this Clause, all documents, drawings, information, materials and data prepared by the Independent Service Provider pursuant to and for use under the Contract shall be promptly handed over to the Governments.

## 10. LUMP SUM CONTRACT

- 10.1 The Contract is awarded on a lump sum basis and the Contract Sum<sup>13</sup> as accepted by the Governments shall remain fixed for the duration of the Contract. Save as otherwise provided in the Contract, there shall be no change in the fees<sup>14</sup> payable by the Governments to the Independent Service Provider for the services to be provided.
- 10.2 Save as otherwise expressly provided in the Contract, the Contract Sum shall be inclusive of all ancillary and other work and expenditures and disbursements, whether separately or specifically mentioned or described in the Contract or not, which are either necessary to carry out and bring to completion the Survey Work described in the Contract, or which may become necessary to overcome difficulties or delays before completion.

## 11. LIQUIDATED DAMAGES

If the Survey Work shall not have been substantially completed within the Time for Completion, the Independent Service Provider shall pay or allow to each Government liquidated damages at the rate of [XXXX]/day.<sup>15</sup>

## 12. GOVERNING LAW

The Contract shall in all respect be governed by and its terms construed in accordance with the laws of England.

## 13. SUB-CONTRACTING

Except where otherwise specified in the Contract, the Independent Service Provider shall not engage or permit the engagement of any sub-contractor for any part of the Survey Work without the prior written approval of the Governments, which approval if given, shall not relieve the Independent

<sup>13</sup> The Contract Sum is not defined in these Additional Terms and Conditions. It is currently referred to in the requirements for the Technical and Financial Proposal (Annex 3 to the Letter of Intent Invitation) and the Letter of Appointment.

<sup>14</sup> The term "amount" used in the Land Reclamation consultancy contract has been replaced with "fee" to align with Clause 5 above and the instructions on the Technical and Financial Proposal.

<sup>15</sup> In the Land Reclamation consultancy contract, DHI subsequently negotiated and the Governments agreed to the phrase "subject to a combined maximum of 5% of [the contract sum]" being added to this Clause.



Service Provider of any of his liabilities or obligations under the Contract.

#### 14. VARIATIONS

14.1 The term "variation" shall mean any change in the original Contract as a whole describing or defining the Survey Work to be carried out and shall include but is not restricted to:

- a. an increase or decrease in the quantity of any part of the Survey Work;
- b. an addition to or omission from the Survey Work;
- c. a change in the character, quality or nature of any part of the Survey Work;
- d. a requirement to complete the Survey Work earlier than the Time for Completion or any phase or part of them by a date earlier than that stipulated in the Contract.

For the avoidance of doubt, the term "variation" shall include any changes as aforesaid which may be designed to alter the use to which the Survey Work will be put, but shall exclude any instruction (which would otherwise be a variation) which has arisen due to or is necessitated by or is intended to cure any default of or breach of contract by the Independent Service Provider.

14.2 The Governments may at any time issue an instruction in writing requiring a variation. If or to the extent that an instruction does not state that it requires a variation but the Independent Service Provider considers that it does require a variation, the Independent Service Provider shall within 7 days from the date of receipt of the instruction notify in writing the Governments who may, if they think fit, within 7 days from the date of receipt of the Independent Service Provider's notification, confirm, modify, rescind or contradict in writing the instruction and the Independent Service Provider shall then comply forthwith.

14.3 The Governments may, before issuing an instruction for any variation, require the Independent Service Provider to submit a quotation for any proposed variation and the Independent Service Provider shall be obliged to submit such quotation in writing at his own cost. The Governments, may before or after issuing an instruction, accept in writing the Independent Service Provider's quotation and the provisions of Clause 15 shall not apply to the valuation of that variation nor shall the Independent Service Provider be entitled to any loss and expense in respect of that instruction or any other compensation, damages or other amount whatsoever other than a value in accordance with the accepted quotation. An instruction requiring a

variation shall not be treated as an acceptance of any quotation.

## 15. VALUATION OF VARIATIONS

### 15.1 Valuation Methods

Subject to Clause 14.3, all variations shall be valued based on the fair market rate. The Unit Rate to be used to value the variation may be agreed upon by the Independent Service Provider and the Governments after the submission of the quotation. The Independent Service Provider will be required to justify the time spent on the additional work. The Governments shall have the right to reject the Independent Service Provider's time spent claim if it is found to be unreasonably high.

### 15.2 Agreement on Valuation

a. The Independent Service Provider shall carry out all variations instructed by the Governments pending the valuation of the variation.

b. The Independent Service Provider shall provide the Governments with such details and particulars, including invoices and receipts as the Governments may require, for the purpose of valuing the variation. The Governments shall make such valuation as shall in their opinion be reasonable and shall notify the Independent Service Provider in writing of the value of the variation. The Independent Service Provider shall, within 7 days of the receipt of the notice of the value of the variation, give notice of any disagreement in writing to the Governments and shall at the same time set out the valuation which he considers should have been made, giving full details and particulars and the appropriate Contract references. If the Independent Service Provider does not give notice of his disagreement with the valuation of the Governments as aforesaid, he shall be deemed to have accepted the valuation and such valuation shall be final and binding on the Independent Service Provider and shall not thereafter be disputed or questioned by the Independent Service Provider in any way whatsoever.

## 16. THIRD PARTIES RIGHTS

Any person, firm, corporation or organisation who is not a Party to the Contract shall acquire no rights whatsoever under the Contract by virtue of the Contracts (Rights of Third Parties) Act 1999 of England and any equivalent laws in Malaysia and Singapore.

## 17. MEDIATION



- 17.1 The Governments and the Independent Service Provider shall try to resolve disputes or differences arising from and/or in connection with the Contract amicably.<sup>16</sup> If, after a reasonable time of at least one month, one or more Parties conclude that it is not possible to resolve a dispute or difference amicably, the Parties shall agree that before referring any dispute or difference to arbitration, they shall consider resolving the dispute or difference through formal mediation.
- 17.2 For avoidance of doubt, the provision herein shall not amount to any legal obligation on the part of any Party to attempt mediation or the extent to which they shall do so, as a means of resolving their dispute or difference.

## 18. ARBITRATION

- 18.1 Any dispute or difference between the Parties arising out of or relating to or in connection with the Contract, including any question regarding its existence, validity or termination, shall be resolved by reference to arbitration.
- 18.2 The arbitral tribunal shall consist of one arbitrator to be agreed upon by the Parties. Any Party may propose to the other the name or names of one or more persons, one of whom will serve as the arbitrator. If no agreement is reached within thirty (30) days after the receipt by the other Party of such a proposal from the other Party, the arbitrator shall be appointed by the Appointing Authority. The Appointing Authority shall be the International Chamber of Commerce ("ICC") International Court of Arbitration acting in accordance with the rules adopted by the ICC for this purpose.
- 18.3 Where a dispute or difference is to be resolved by the arbitration, the tribunal shall not enter on the reference until the completion or alleged completion of the Survey Work unless with the written consent of the Governments.
- 18.4 For purposes of this Clause, the two Governments shall be treated as a single Party.

## 19. SECURITY DEPOSIT

- 19.1 Within 14 days of the date of commencement of the Contract,<sup>17</sup> the Independent Service Provider shall deposit with each Government 2.5% of the Contract Sum by way of security for the due performance of and observance by the Independent Service Provider of his

<sup>16</sup> We have standardized the language used in this paragraph to refer to "resolving" and "disputes or differences" throughout. In the Land Reclamation consultancy contract, various formulations were used in the same paragraph.

<sup>17</sup> In the Land Reclamation consultancy contract, the 14 days runs from the "Letter of Acceptance".



obligations under the Contract.

- 19.2 The Independent Service Provider may, in lieu of the cash deposit in Clause 19.1 and for the same purposes, provide a guarantee for an equivalent amount from a bank or insurer approved by the relevant Government and in form set out in Form B attached to these Additional Terms and Conditions.
- 19.3 Each Government may utilise the Security Deposit to make good any loss or damage sustained or likely to be sustained as a result of any breach of contract whatsoever by the Independent Service Provider, including any liquidated damages. If the amount of the Security Deposit utilised by the Government to make good any such loss or damage is found to be greater than the amount of loss or damage actually sustained by the Government, then the Government shall pay the balance of the amount utilised by the Government without the addition of interest to the Independent Service Provider or to the bank or insurer, as the case may be, upon the completion of the Survey Work. Where the Security Deposit is made in cash, the Government shall pay to the Independent Service Provider the unutilised amount without interest upon the completion of the Survey Work.
- 19.4 The provisions of this Clause shall not affect the rights and remedies expressly reserved herein to either Government or bar each Government from claiming losses, expenses, costs or damages incurred or sustained or likely to be sustained by the Government as a result of any breach of contract by the Independent Service Provider.

## 20. INJURY TO PERSONS AND DAMAGE TO PROPERTY

### 20.1 Injury to Persons

The Independent Service Provider shall be solely liable for and shall indemnify the Governments in respect of all liabilities, losses, claims, costs, charges, expenses and proceedings arising under any statute or at common law in respect of personal injury to or the death of any person arising out of the execution of the Survey Work.<sup>18</sup>

### 20.2 Damage to Property

The Independent Service Provider shall be solely liable for and shall indemnify the Governments in respect of all liabilities, losses, claims, costs, charges, expenses and proceedings arising under any statute or at common law in respect of any injury or damage to property, real or

<sup>18</sup> In the Land Reclamation consultancy contract, DHI subsequently negotiated and the Governments agreed to the phrase "and provided always that the same is due to any negligence, omission or default of the [Independent Service Provider], his servants or agents or any sub-contractor or any circumstances within the [Independent Service Provider's] control" (replicated from the end of Clause 20.2) being added to this Clause.



personal, arising out of the execution of the Survey Work and provided always that the same is due to any negligence, omission or default of the Independent Service Provider, his servants or agents or any sub-contractor or any circumstances within the Independent Service Provider's control.

### 20.3 Policy of Insurance

The Independent Service Provider shall before the commencement of any work under the Contract ensure that there is in force a policy or policies of insurance indemnifying each Government, the Independent Service Provider and all sub-contractors against the aforesaid risks or matters. Such insurance, including All-Risks Policy, shall be effected by the Independent Service Provider with such company or companies and on such terms as may be approved by the Governments. Provided that neither of the Governments shall be under any liability to the Independent Service Provider for any loss, injury or damage to the Independent Service Provider that may arise from the failure to effect such insurance or from any deficiency in any insurance taken hereunder. The Independent Service Provider shall be liable for all "excess" under the policy or policies.

The Independent Service Provider shall submit copies of the insurance policy or policies as required to the Governments before commencing any Survey Work under the Contract.

## 21. WITHHOLDING OF TAX

The Governments<sup>19</sup> shall deduct from every payment due to the Independent Service Provider the amount of withholding tax at the rate applicable to the Independent Service Provider under their respective Income Tax Acts for the gross fees/income derived from services performed in their respective countries. This provision is only applicable if the Independent Service Provider is a non-resident of the country in question.

## 22. WARRANTIES

The Independent Service Provider warrants that the personnel performing the tasks under the Contract are suitably qualified and competent to carry out the Survey Work. The Independent Service Provider further warrants that the Survey Work will be carried out in a professional and diligent manner.

<sup>19</sup> We have omitted the words "of Malaysia and Singapore", which are found in the Land Reclamation consultancy contract since "Governments" has been given a defined meaning in Clause 1.2 above.

## FORM A

UNDERTAKING OF CONFIDENTIALITY

To: The Governments of Malaysia and Singapore

In consideration of your appointing us as the Independent Service Provider to conduct the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks, we, [XX], hereby agree and undertake to treat all data and information we obtain or derive in relation to the Survey Work, including its results and recommendations, ("Information") with utmost confidentiality at all times and further agree and undertake as follows:

1. We will not, without the prior written consent of the Governments of Malaysia and Singapore, use, publish or disclose or allow to be used, published or disclosed all or any of the Information to any person at any time.
2. We will not use the Information for any purpose unrelated to the Survey Work, unless otherwise agreed to in writing by the Governments of Malaysia and Singapore.
3. We will take all reasonable precautions in dealing with the Information so as to prevent any unauthorised person from gaining access to it.
4. We will take all steps to ensure that our employees, servants, agents and sub-contractors,<sup>1</sup> will strictly comply with the obligations of confidentiality as contained in this Undertaking.
5. We will, before we engage any sub-contractor for any part of the Survey Work (the engagement of which shall be approved by the Governments of Malaysia and Singapore) procure from that sub-contractor a signed Undertaking of Confidentiality to each Government in terms identical to this Undertaking.<sup>2</sup>
6. We will fully indemnify the Governments of Malaysia and Singapore and keep each Government fully indemnified at all times against any losses, costs, expenses or damages that each Government may sustain or incur as a result of any breach of confidentiality by us, our employees, servants, agents and sub-contractors.<sup>3</sup>
7. We will return to the Governments of Malaysia and Singapore all Information (whether in the form of documents or otherwise) given to us by either

<sup>1</sup> The reference to sub-contractors has been inserted given the possibility that the Independent Service Provider may have to sub-contract parts of the Survey Work.

<sup>2</sup> This is a new paragraph given the possibility that the Independent Service Provider may have to sub-contract parts of the Survey Work. The bracketed portion is taken from Clause 13 of the Additional Terms and Conditions.

<sup>3</sup> The reference to sub-contractors has been inserted given the possibility that the Independent Service Provider may have to sub-contract parts of the Survey Work.



Form A of Annex 2 to the Letter of [Intent/Invitation](#)

Government and any copies thereof or otherwise dispose of or delete the same in such manner as may be directed by the relevant Government.

8. The obligations of confidentiality as contained in this Undertaking shall survive the termination of the Contract, howsoever caused.

Date:

For and on behalf of [XX]

## FORM B

PERFORMANCE GUARANTEE

THIS GUARANTEE is given on the \_\_\_\_\_ day  
\_\_\_\_\_ 2010 (Two Thousand and Ten) BY  
\_\_\_\_\_  
(name of  
Guarantor) of

\_\_\_\_\_  
([Address, etc.]) (hereinafter called "the Guarantor").

IN FAVOUR OF the Government of [Malaysia] [Singapore] (hereinafter called  
the "Government"), including its Assigns and Successors in law, of  
\_\_\_\_\_ (address).

**WHEREAS**

1. The Government has entered into a contract (hereinafter called the  
"Contract") \_\_\_\_\_ with  
\_\_\_\_\_ of  
\_\_\_\_\_  
\_\_\_\_\_ (hereinafter called "the Independent Service  
Provider") for the conduct of a joint hydrographic survey in and around Pedra Branca  
and Middle Rocks (hereinafter called "the Survey Work").

2. The Guarantor has agreed to guarantee the due performance of the Contract  
in the manner hereinafter appearing.

THE GUARANTOR HEREBY AGREES with the Government as follows:

In consideration of the Government not insisting on the Independent Service Provider paying cash as a Security Deposit for the Contract, the Guarantor hereby undertakes as follows:

1. The Guarantor unconditionally and irrevocably undertakes and covenants to pay the Government forthwith upon demand in writing any sum or sums that may from time to time be demanded by the Government up to a maximum aggregate sum of \_\_\_\_\_ (\$\_\_\_\_\_) without requiring any proof that the Government is entitled to such sum or sums under the Contract or that the Independent Service Provider has failed to execute the Contract or is otherwise in breach of the Contract. Any sum or sums so demanded shall be paid forthwith by the Guarantor unconditionally, without any deductions whatsoever and notwithstanding the existence of any differences or disputes between the Government and the Independent Service Provider arising under or out of or in connection with the Contract or the carrying out of work thereunder or as to any amount or amounts payable thereunder and notwithstanding that differences or disputes have been referred to arbitration or are the subject of proceedings in Court or are in the midst of any other means of dispute resolution.
2. The Guarantor shall not be discharged or released from this Guarantee by any arrangement made between the Independent Service Provider and the Government without the assent of the Guarantor or by any alteration in the obligations undertaken by the Independent Service Provider or in the Survey Work to be done thereunder or by any forbearance whether as to payment, time, performance or otherwise or by any other indulgence or matter of whatever nature accorded by the Government to the Independent Service Provider.
3. The Guarantee shall take effect from the date hereof and shall remain in full force and effect until all the Survey Work has been completed to the satisfaction of the Government.



**TECHNICAL AND FINANCIAL PROPOSAL**

1. The Technical and Financial Proposal shall provide a detailed description of the methodology and approach for conducting the various components of the Survey Work, the required timeframe for the various components of the Survey Work (which should be within the timeframe as stated in the Technical Specifications) and the overall timeframe for the completion of the whole of the Survey Work from the date of the award of the Contract.<sup>1</sup>
2. The Technical and Financial Proposal should contain a detailed description of .....
3. The Technical and Financial Proposal shall include a list of proposed personnel who will be involved in the studies, together with their complete CVs. It should also provide a proposed work programme and schedule for the Survey Work
4. The Governments of Malaysia and Singapore are not bound to accept the Technical and Financial Proposal received. After evaluating the Technical and Financial Proposal, the Governments of Malaysia and Singapore may propose changes to the methodology and approach that has been proposed by [XX] so as to ensure that their respective interests are properly addressed in the Survey Work.
5. The Technical and Financial Proposal shall specify clearly the fees payable to [XX], providing a Contract Sum in the form of a total lump sum and a detailed breakdown of the components of the Contract Sum attributed to the different survey activities as shown in **APPENDIX A**. Where applicable, provisions for tax payable to each Government shall also be stated.<sup>2</sup> The Contract Sum shall be final and binding on [XX]. Notwithstanding the fees stated in the Technical and Financial Proposal, the Contract Sum shall be deemed to be net of any discount offered by [XX] to the Governments of Malaysia and Singapore.
6. The Technical and Financial Proposal shall remain valid and binding upon [XX] for a period of [two (2)] calendar months from the date of receipt of the Proposal by the Governments of Malaysia and Singapore.
7. Any notice or correspondence relating to the Technical and Financial Proposal and the appointment of [XX] as the Independent Service Provider:

<sup>1</sup> We are including a provision stating that the Independent Service Provider has to provide the overall timeframe for completion so as to allow us to calculate the Time for Completion.

<sup>2</sup> We have shifted paragraph 14 (Cost) of the Technical Specifications to this paragraph of this Annex as we think that it is more appropriately sited here, given that the breakdown of costs is connected to the issue of the Contract Sum.



Annex 3 to the Letter of Intent Invitation

- a. may be served by post to the Service Address which is to be given by [XX] in its Technical and Financial Proposal or to its last known place of business and such posting shall be good service of the notice or correspondence, whether or not the same was actually received by [XX]; and
- b. shall be effectively served and communicated to [XX] immediately upon the same being faxed by or on behalf of the Governments of Malaysia and Singapore in accordance with the fax number which is to be given by [XX] in the Technical and Financial Proposal whether or not it was actually received by [XX], or immediately upon the same being collected by [XX] under the instructions of the Governments of Malaysia and Singapore.

**APPENDIX A**

No.	Item Descriptions	Details	Cost
	<b>Vessel platforms</b>		
1	Survey boat mobilisation for survey launch and dinghy (Briefly describe type of launch)		
2	Survey boat chartering fees for launch and dinghy (including crew & fuel)		
3	Survey boat demobilisation		
	<b>Equipment</b>		
4	Multibeam		
5	Motion sensor		
6	DGPS		
7	SVP/CTD probe		
8	Tide gauge		
9	Singlebeam		
	<b>Survey Acquisition and Processing Software &amp; Hardware</b>		
10	Survey Acquisition system		
11	Data processing system		
12	Consumables		
	<b>Manpower</b>		
13	Technical Personnel for survey, testing		

Annex 3 to the Letter of [Intent Invitation](#)

	and demobilisation		
14	Cat A Hydrographer		
15	Cat B Hydrographer		
16	Surveyor on board		
	<b>Others</b>		
17	Equipment delivery to site (if any		
18	Equipment insurance		
19	Technical Personnel (if any)		

Our ref:  
Date:  
Tel:  
Fax:

[Name and address]

Committee

Dear Sir,

**LETTER OF APPOINTMENT AS INDEPENDENT SERVICE PROVIDER TO  
CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

1. Pursuant to the Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks signed on [date], the Governments of Malaysia and Singapore ("the Parties") have agreed to conduct a joint hydrographic survey in and around Pedra Branca and Middle Rocks using a single platform (including survey vessel, crew, equipment, acquisition software as well as processing software) to be provided by an independent service provider jointly appointed by both Governments ("the Independent Service Provider").<sup>1</sup>
2. The Parties hereby appoint you as the Independent Service Provider. The Contract Documents stating the terms and conditions of your appointment consist of this letter and the following documents:
  - a. The Technical Specifications for the Joint Hydrographic Survey In and Around Pedra Branca and Middle Rocks, at **Annex 1**;
  - b. Additional Terms and Conditions, at **Annex 2**;
  - c. The Technical and Financial Proposal, dated [date], as submitted by [XX], at **Annex 3**; and
  - d. Amendments to The Technical and Financial Proposal, dated [date], agreed between [XX] and the Parties, at **Annex 4**.

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<sup>1</sup> Scope of Works para 14



3. The Contract Documents are intended to be read consistently with each other. In the event that there is any inconsistency between the terms and conditions stated in the above Contract Documents, the following shall apply:

- a. the Technical and Financial Proposal (Annex 3) shall be considered as having been amended by the Amendments to the Technical and Financial Proposal agreed between [XX] and the Parties (Annex 4);
- b. the Technical and Financial Proposal as amended shall prevail over the Technical Specifications (Annex 1); and
- c. the Technical and Financial Proposal as amended and the Technical Specifications shall prevail over the Additional Terms and Conditions (Annex 2).

4. The date of commencement of the Contract is [date] and the Contract Sum is [XX].<sup>2</sup>

5. Please confirm in writing the acceptance of your appointment in accordance with the above terms by return fax.

Yours faithfully,

For the Government of Malaysia

For the Government of Singapore

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<sup>2</sup> The statement of the Contract Sum in this letter is additional to that used in the Land Reclamation consultancy contract. It has been inserted because the Additional Terms and Conditions make references to the Contract Sum and it is not clear at this stage how the Technical and Financial Proposal submitted by the Independent Service Provider will deal with this.

Our ref:  
Date:  
Tel:  
Fax:

[Name and address]

Dear Sir,

**LETTER OF INTENT – APPOINTMENT AS INDEPENDENT SERVICE PROVIDER  
TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA  
BRANCA AND MIDDLE ROCKS**

1. The Governments of Malaysia and Singapore ("the Parties") refer to the Letter of Invitation dated [date] sent to [XX] and the Technical and Financial Proposal ("Proposal") dated [date] submitted by [XX] to the Parties.

2. To facilitate the consideration of your Proposal, the Parties request that~~would like to invite~~ you to attend a meeting on [date] at [location] at which~~to seek~~ further clarifications will be sought on your Proposal, including on the proposed methodology and approach of the Survey Work, ~~the various timelines indicated and the Contract Sum.~~

Yours faithfully,

For the Government of Malaysia

For the Government of Singapore

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## **Annex 58**

*Fourth Meeting of the Malaysia-Singapore Joint Technical  
Committee on the Implementation of the International Court of  
Justice Judgment on Pedra Branca, Middle Rocks and South Ledge,  
Kuala Lumpur, 26-27 July 2010, Record of Meeting*





**FOURTH MEETING OF THE MALAYSIA-SINGAPORE  
JOINT TECHNICAL COMMITTEE ON THE IMPLEMENTATION OF  
THE INTERNATIONAL COURT OF JUSTICE JUDGMENT ON PEDRA  
BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR**

**26-27 JULY 2010**

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**Record of Meeting**

The Fourth Meeting of the Malaysia-Singapore Joint Technical Committee (MSJTC) on the Implementation of the International Court of Justice (ICJ) Judgment on Pedra Branca, Middle Rocks and South Ledge was co-chaired by HE Tan Sri Rastam Mohd Isa, Secretary-General, Ministry of Foreign Affairs, Malaysia, and HE Mr Peter Ho, Permanent Secretary, Ministry of Foreign Affairs, Republic of Singapore.

2. The list of the Malaysian Delegation is attached as ANNEX A. The list of the Singapore Delegation is attached as ANNEX B. The Agenda of the Meeting is attached as ANNEX C.
3. The Meeting continued discussions on related issues arising from the International Court of Justice (ICJ) Judgment on the Case Concerning Sovereignty Over Pedra Branca, Middle Rocks and South Ledge. The Meeting re-affirmed that the MSJTC is the established bilateral mechanism for resolving all issues arising from the ICJ Judgment.
4. The Meeting was briefed on the outcome of the Fifth to the Ninth Meetings of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge, and the Second Meeting of the Sub-Committee on Maritime & Airspace Management and Fisheries.
5. The Meeting took note of the achievements of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge. The report of the Sub-Committee is attached as ANNEX D. The Sub-Committee had agreed to the draft "Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks" and the

draft “General Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks”. The Meeting endorsed both drafts and agreed that they would be submitted to their respective Governments for approval with a view to signing the MOU at the next meeting of the MSJTC. Both sides hope to commence the Joint Survey Works as soon as practicable, taking into account the onset of this year’s monsoon.

6. The Meeting was also briefed on the outcome of the Second Meeting of the Sub-Committee on Maritime & Airspace Management and Fisheries. The report of the Sub-Committee is attached as ANNEX E.

7. The Joint Press Statement of the Meeting, which will be issued at an agreed date, is attached as ANNEX F.

8. The Meeting agreed that the next meeting would be held as soon as possible. The exact date and venue of the Meeting will be agreed upon through diplomatic channels.

. . . . .

**FOURTH MEETING OF THE MALAYSIA-SINGAPORE  
JOINT TECHNICAL COMMITTEE ON THE IMPLEMENTATION OF  
THE INTERNATIONAL COURT OF JUSTICE JUDGMENT ON PEDRA  
BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALALUMPUR**

**26-27 JULY 2010**

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**Malaysian Delegation**

**Ministry of Foreign Affairs, Malaysia**

1. **HE Amb. Tan Sri Rastam Mohd Isa** – Leader of Delegation/Co-Chairman  
  
Secretary-General
2. **HE Amb. Dato' Noor Farida Ariffin**  
  
Director-General  
  
Research, Treaties & International Law Department
3. **Dr Azfar Mohamad Mustafar**  
  
Principal Assistant Secretary  
  
Research, Treaties & International Law Department
4. **Mr Shaharuddin Onn**  
  
Principal Assistant Secretary  
  
Research, Treaties & International Law Department



**5. Ms Suzilah Sidek**

Principal Assistant Secretary

Research, Treaties & International Law Department

**6. Mrs Prisheela Prakas Raw**

Assistant Secretary

Research, Treaties & International Law Department

**7. Mr Rizal Lynam MatJeraei Sulong**

Assistant Secretary

Research, Treaties & International Law Department

**8. Ms Hanizah Mohd Izzudin**

Assistant Secretary

Research, Treaties & International Law Department

**National Security Council, Prime Minister's Department**

**9. Datuk Mohamed Thajudeen Abdul Wahab**

Secretary

National Security Council, Prime Minister's Department

**10. Mr Hasnan Zahedi Ahmad Zakaria**

Undersecretary

Maritime Security and Sovereignty Division

**11. Mr Mohd Helmy Ahmad**

Principal Assistant Secretary

Maritime Security and Sovereignty Division

**12. Mr Mohd Fariq Uzir**

Assistant Secretary

Maritime Security and Sovereignty Division

**13. Cik Rosmilawati Dzulkifli**

Assistant Secretary

Maritime Security and Sovereignty Division

**Department of Survey and Mapping, Malaysia**

**14. Dato' Prof Sr Dr Abdul Kadir Taib**

Director-General of Survey and Mapping

**15. Sr Hasan Jamil**

Director of Survey (Mapping Division)

**16. Sr Tan Ah Bah**

Director of Survey (Boundary Affairs)

**17. Sr Dr Azhari Mohamed**

Director of Survey (Geodesy)

**18. Sr Haji Zulkifli Sidek**

Principal Assistant Director of Survey

Boundary Affairs Section

**Ministry of Natural Resources and Environment**

**19. Mrs Wan Fatihat Mohamad Jafar**

Principal Assistant Secretary

Land, Survey and Mapping Department

**National Hydrographic Centre**

**20. First Admiral Zaa'im Hasan**

Director-General of National Hydrographic Centre

**21. Cdr Ramli Johari**

Staff Officer I Hydrography

Planning and Operations

**Department of Civil Aviation Malaysia**

**22. Dato' Azharuddin Abdul Rahman**

Director-General of Department of Civil Aviation Malaysia

**23. Haji Ahmad Nizar Zolfakar**

Air Traffic Director

**24. Mr Jamil Khir Mohamed**

Deputy Director

Air Traffic Management Centre

**Prime Minister's Department**

**25. Mr Rani Ismail Hadi Ali**

Deputy Director

Research Division

**26. Mrs Hilyati Salwa Sokri**

Assistant Director

Research Division

**Ministry of Defence**

**27. Rear Admiral Dato' Abd Hadi A Rashid**

Assistant Chief of Staff (Defence Operations and Training)

**28. Major-General Dato' Roslan Saad RMAF**

Commander No. 1 Air Division

**29. Major Mohamad Daud Sulaiman RMAF**

PS I Policy and Doctrine

RMAF HQ

**30. Captain Sahak Omar RMN**

Operations Director

**31. Cdr Najhan Md Said RMN**

Staff Officer I Maritime Law

**32. Lt Cdr Lukman Hanafiah Azamar Omar @ Ahmad Badaruddin  
RMN**

RMN HQ

**33. Lt Cdr Shafie Mohd Ali RMN**

RMN HQ

**34. Lt. Col Annuar Abdul Wahab**

Malaysian Armed Forces



**Ministry of Defence (Intelligence)**

**35. Brig Gen Mohd Noor Osman**

Director

Strategic Directorate, DISD

**Malaysian Maritime Enforcement Agency**

**36. Maritime Rear Admiral Dato' Noor Aziz Yunan**

Deputy Director-General (Operations)

**Ministry of Home Affairs**

**37. Mr Azizi Haji Wahab**

Deputy Undersecretary

Police and Border Security Division

**Royal Malaysian Police**

**38. Dato' Ramli Hassan**

Head of Special Branch

Johor

**39. SAC II Dato' Isa Munir**

Commander, Marine Action Force

**40. SAC Dato' Chuah Ghee Lye**

Commander

Police Air Unit

**Attorney-General's Chambers**

**41. Datuk Azailiza Mohd Ahad**

Head

International Affairs Division

**42. First Admiral Dato' Fadzilah Mohd Salleh**

Research Officer

**43. Mr Alfian Yang Amri**

Head I, International Unit

**44. Ms Suraya Harun**

Senior Federal Counsel

**45. Ms Nur Fauzah Mokhtar**

Senior Federal Counsel

**State Government of Johor**

**46. Dr Haji Badrul Hisham Kassim**

Deputy Director

State Economic Planning Unit

**47. Mr Mohamed Ridha Dato' Hj Abd Kadir**

Principal Assistant Director

Land and Mines Office

**Department of Fisheries**

**48. Mr Ahmad Saktian Langgang**

Head

Marine Resources Management Unit

Licensing and Resource Management Division

**Marine Department**

**49. Capt Nazri Abu Hassan**

Principal Assistant Director

Mariners and Ports Affairs Division

. . . . .

**ANNEX B**

**FOURTH MEETING OF THE MALAYSIA-SINGAPORE  
JOINT TECHNICAL COMMITTEE ON THE IMPLEMENTATION OF  
THE INTERNATIONAL COURT OF JUSTICE JUDGMENT ON PEDRA  
BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR**

**26-27 JULY 2010**

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**Singapore Delegation**

1. **HE Mr Peter Ho – Leader of Delegation/Co-Chairman**  
Permanent Secretary  
Ministry of Foreign Affairs
2. **Mr Ng Teck Hean**  
Director  
Ministry of Foreign Affairs
3. **Ms Foo Chi Hsia**  
2Director/Southeast Asia  
Ministry of Foreign Affairs
4. **Ms Iris Chen**  
Deputy Director  
Ministry of Foreign Affairs



5. **Mr Lucien Hong**  
Country Officer  
Southeast Asia Directorate  
Ministry of Foreign Affairs
6. **Ms Chay Yuen Ting**  
Country Officer  
Southeast Asia Directorate  
Ministry of Foreign Affairs
7. **Mr Lionel Yee**  
Director-General  
International Affairs Division  
Attorney-General's Chambers
8. **Mr Daren Tang**  
Deputy Senior State Counsel  
International Affairs Division  
Attorney-General's Chambers
9. **Mr Marcus Song**  
Deputy Senior State Counsel  
International Affairs Division  
Attorney-General's Chambers
10. **Mr Louis Lim**  
Manager  
International Affairs Division  
Attorney-General's Chambers

11. **SLTC S Subash**  
Branch Head  
Republic of Singapore Air Force  
Ministry of Defence
12. **LTC Danny Teo**  
Branch Head  
Republic of Singapore Navy  
Ministry of Defence
13. **Ms Tang Zhi Hui**  
Branch Head  
Defence Policy Office  
Ministry of Defence
14. **SUPT Devrajan Bala**  
Assistant Director, Operation Planning  
Operations Department  
Singapore Police Force
15. **DSP Shanmuganandam s/o Nachiappan**  
Ops Officer, Management  
Police Coast Guard
16. **ASP Yip Hoi Phang**  
Ops Officer, Planning  
Police Coast Guard

17. **Mr Lee Yuen Hee**  
Deputy Secretary (International)  
Ministry of Transport
18. **Mr Gregory Goh**  
Acting Deputy Director, Security Policy  
Ministry of Transport
19. **Ms Penny Ng**  
Acting Deputy Director, Air Transport  
Ministry of Transport
20. **Dr Parry Oei**  
Chief Hydrographer  
Maritime and Port Authority of Singapore
21. **Mr Jamie Chen**  
Deputy Chief Hydrographer  
Maritime and Port Authority of Singapore
22. **Mr Ng Tee Chiou**  
Director, Air Traffic Services  
Civil Aviation Authority of Singapore
23. **Mr Kuah Kong Beng**  
Chief Air Traffic Control Officer  
Civil Aviation Authority of Singapore

24. **Mr Vincent Hwa Teck Pheng**

Head, International Air Navigation Services Policy  
Civil Aviation Authority of Singapore

25. **Mr Soh Kheng Peng**

Chief Surveyor  
Singapore Land Authority

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**ANNEX C**

**FOURTH MEETING OF THE MALAYSIA-SINGAPORE  
JOINT TECHNICAL COMMITTEE ON THE IMPLEMENTATION OF  
THE INTERNATIONAL COURT OF JUSTICE JUDGMENT ON PEDRA  
BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALALUMPUR**

**26-27 JULY 2010**

**AGENDA**

1. Opening Remarks
2. Confirmation of Agenda
3. Joint Survey
4. Maritime and Airspace Management
5. Other Matters
6. Date and Venue of Next Meeting
7. Closing Remarks

**NINTH SUB-COMMITTEE MEETING  
ON THE JOINT SURVEY WORKS IN AND AROUND  
PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALA LUMPUR, MALAYSIA  
26 JULY 2010**

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**RECORD OF DISCUSSION**

1. The Ninth Meeting of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge between Malaysia and the Republic of Singapore was held in Kuala Lumpur, Malaysia on 26 July 2010.
2. The Malaysian Delegation was led by Dato' Prof. Sr Dr. Abdul Kadir bin Taib, Director General of Survey and Mapping, Department of Survey and Mapping, Malaysia.
3. The Singapore Delegation was led by Mr. Lionel Yee, Director-General, International Affairs Division, Attorney-General's Chambers, Singapore.
4. The lists of the Malaysian and Singapore Delegations are appended as **Appendix A** and **Appendix B** respectively.

**AGENDA ITEM 1: OPENING REMARKS**

5. The Opening Remarks by the Head of the Malaysian Delegation are appended as **Appendix C**.
6. The Opening Remarks by the Head of the Singapore Delegation are appended as **Appendix D**.

**AGENDA ITEM 2: ADOPTION OF AGENDA**

7. The Agenda for the Ninth Meeting, which was adopted by both Delegations, is appended as **Appendix E**.

**AGENDA ITEM 3: DISCUSSION ON THE MEMORANDUM OF UNDERSTANDING BETWEEN THE GOVERNMENT OF MALAYSIA AND THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE WITH REGARD TO THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

8. Both sides discussed the draft Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.

9. The agreed draft Memorandum of Understanding between the Government of Malaysia and the Government of the Republic of Singapore with regard to the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks (MOU) is appended as **Appendix F**.

10. The Meeting agreed that the said draft MOU be forwarded to the Joint Technical Committee between Malaysia and Singapore on the Implementation of the International Court of Justice Judgment on Pedra Branca, Middle Rocks and South Ledge for consideration and endorsement, with a view towards its signing in late September/October 2010 after the necessary approvals of their Governments had been obtained.

**AGENDA ITEM 4: DISCUSSION ON THE SCOPE OF WORKS FOR JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

11. Both sides discussed the Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.

12. The agreed draft Scope of Works for the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks (SOW) is appended as **Appendix G**.

13. The Meeting agreed that the said draft SOW to be attached as an Annex to the MOU be forwarded to the Joint Technical Committee between Malaysia and Singapore on the Implementation of the International Court of Justice Judgment on Pedra Branca, Middle Rocks and South Ledge for consideration and endorsement.

**CONFIDENTIAL**

**AGENDA ITEM 5: DISCUSSION ON THE CONTRACTUAL DOCUMENTS FOR THE APPOINTMENT OF THE INDEPENDENT SERVICE PROVIDER TO CONDUCT THE JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS**

14. Singapore presented its amended draft contractual documents for the appointment of an Independent Service Provider to conduct the Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks which is appended as **Appendix H**.

15. Malaysia stated that it will study the draft contractual documents and will forward its response through diplomatic channels.

**AGENDA ITEM 6: ANY OTHER MATTERS**

16. The Meeting agreed that the next meeting will be held in Singapore. The date and venue will be decided through correspondence.

**AGENDA ITEM 7: CLOSING REMARKS**

17. The Head of the Singapore Delegation expressed his gratitude to all the members of the Sub-Committee, and thanked the Malaysian Delegation for hosting this Meeting.

18. The Head of the Malaysian Delegation also expressed his appreciation to all the members of the Sub-Committee for their co-operation and for the progress made during this Meeting.

Done in duplicate in Kuala Lumpur, Malaysia on 26 July 2010.

**Head of the Malaysian Delegation**

**Head of the Singapore Delegation**

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**Dato' Prof. Sr Dr. Abdul Kadir bin Taib**  
**Director General of Survey and**  
**Mapping**  
**Department of Survey and Mapping**  
**Malaysia**

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**Lionel Yee**  
**Director-General**  
**International Affairs Division**  
**Attorney-General's Chambers**  
**Singapore**



**4<sup>TH</sup> JOINT TECHNICAL COMMITTEE MEETING BETWEEN  
MALAYSIA AND SINGAPORE ON THE IMPLEMENTATION OF THE  
ICJ JUDGMENT ON SOVEREIGNTY OVER PEDRA BRANCA,  
MIDDLE ROCKS AND SOUTH LEDGE**

**SECOND SUB-COMMITTEE MEETING  
ON MARITIME & AIRSPACE MANAGEMENT AND FISHERIES**

**26 JULY 2010  
KUALA LUMPUR**

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1. The Second Sub-Committee Meeting on Maritime & Airspace Management and Fisheries (the Meeting) was held on 26 July 2010 in Malaysia.
2. The Meeting was co-chaired by Datuk Mohamed Thajudeen Abdul Wahab, Secretary, National Security Council, Prime Minister's Department, Malaysia and Mr Lee Yuen Hee, Deputy Secretary (International), Ministry of Transport, Singapore. Malaysia's delegation list is attached as **Appendix A**. Singapore's delegation list is attached as **Appendix B**.
3. The Meeting was held to discuss maritime & airspace management and fisheries issues related to the International Court of Justice (ICJ) Judgment on the Case Concerning Sovereignty over Pedra Branca, Middle Rocks and South Ledge.

Provisional Agenda

4. Both sides agreed to the Provisional Agenda of the Meeting as attached in **Appendix C**.

Airspace Management

- *Malaysia's response on the draft text to be included in the Singapore Aeronautical Information Publication (AIP) proposed by Singapore at the First Sub-Committee Meeting on 5 January 2010*

5. Malaysia recalled that during the last meeting on 5 January 2010, Singapore proposed that the contents of the Notice to Airmen (NOTAM) be transferred into Singapore's AIP. The draft text proposed by Singapore was attached as Appendix F4 of the Record of Discussion of the last Meeting.

6. Malaysia presented its response to the draft text and subsequently presented the counter-proposal as attached in **Appendix D**. Singapore responded that it would study Malaysia's counter-proposal and respond to Malaysia at the next meeting.

- *Singapore's response on its flight profiles over Malaysia's land territory or internal waters*

7. Malaysia recalled that at the last meeting on 5 Jan 2010, it had raised concerns about Singapore Government aircraft flight profiles over Malaysia's land territory or internal waters. Singapore informed Malaysia that it had checked and confirmed that Singapore Government aircraft do not overfly Malaysia's land territory or internal waters. On this issue, Malaysia continues to express its reservations.

- *WSR 31*

8. Malaysia recalled that during the 2<sup>nd</sup> Joint Technical Committee Meeting held on 20 August 2008, in Putrajaya, Singapore fully recognised Malaysia's sovereignty over Middle Rocks. In this regard, Malaysia would like to reiterate its concern that WSR31 covers Malaysia's sovereign airspace and would like to request that WSR31 be realigned so that it does not infringe upon any part of Malaysia's sovereign airspace.

9. Since Malaysia is of the view that Singapore's proposal to redesignate WSR31 as WSD 31 did not sufficiently address its concern that WSR31 area covered Malaysia's sovereign airspace, Singapore highlighted that any proposal to realign the boundaries of WSR31 could only be considered after the delimitation of maritime boundaries between the two countries has been completed.

10. Malaysia acknowledged that both sides need to delimit the maritime boundary in that area. However, Malaysia reiterated that part of WSR31 is located within Malaysia's sovereign airspace which is not subject to delimitation.

11. Both sides agreed to further discuss this issue at the next Meeting.

#### Maritime Management

12. Malaysia expressed concern over several incidents involving the navies of both sides, in which challenges and counter-challenges have occurred in the months of January, February, March and early July 2010. In this regard, Malaysia proposed that the issue be discussed between the Chiefs of Navy of both sides.

13. Singapore noted Malaysia's concern and informed that the Chiefs of Navy meet regularly on a bilateral basis and at the sidelines of multilateral forums, and they can discuss the issue where relevant and appropriate. Malaysia however proposed that in order to prevent any untoward incidents, this issue could be discussed between the navies of both sides.

14. Both sides reaffirmed the mutual commitment to work together and cooperate in ensuring that the ground situation in and around Pedra Branca, Middle Rocks and South Ledge remained calm and non-escalatory.

#### Fisheries

15. Both sides agreed that there were no outstanding fisheries issues.

**MALAYSIA DELEGATION**

1. **Datuk Mohamed Thajudeen Abdul Wahab**  
(Co-Chair of Sub-Committee)  
Secretary  
National Security Council, Prime Minister's Department
2. **Dato' Azharuddin Abdul Rahman**  
Director-General  
Department of Civil Aviation
3. **Vice-Admiral Maritime Dato' Noor Aziz Yunan**  
Deputy Director-General  
Malaysian Maritime Enforcement Agency
4. **Rear Admiral Dato' Abd Hadi A. Rashid**  
Assistant Chief of Staff (Defence Operations and Training)  
Malaysian Armed Forces Headquarters
5. **Major-General Dato' Roslan Saad RMAF**  
Commander No. 1 Air Division  
Royal Malaysian Air Force
6. **Dato' Ramli Hassan**  
Royal Malaysian Police
7. **Dato' Chuah Ghee Lye**  
Royal Malaysian Police
8. **Mr. Hasnan Zahedi Ahmad Zakaria**  
Undersecretary  
National Security Council, Prime Minister's Department
9. **Brigadier-General Mohd Noor Osman**  
Director  
Strategic Directorate, DISD  
Ministry of Defence



10. **Capt. Nazri Abu Hassan**  
Principal Assistant Director  
Mariners and Ports Affairs  
Marine Department
11. **Nur Fauzah Mokhtar**  
Senior Federal Counsel  
Attorney General's Chambers
12. **Haji Ahmad Nizar Zolfakar**  
Air Traffic Director  
Department of Civil Aviation
13. **Dr Haji Badrul Hisham Kassim**  
Deputy Director  
Johor State Economic Planning Unit
14. **Mr Ahmad Saktian Langgang**  
Fisheries Department
15. **Dr. Azfar Mohamad Mustafar**  
Principal Assistant Secretary  
Research, Treaties & International Law Department  
Ministry of Foreign Affairs, Malaysia
16. **Capt. Sahak Omar RMN**  
Operation Director  
Royal Malaysian Navy
17. **Mr. Jamil Khir Mohamed**  
Deputy Director  
Air Traffic Management  
Department of Civil Aviation
18. **ACP Francis Najur**  
Royal Malaysian Police

19. **Cdr. Najhan Md Said RMN**  
Staff Officer I Maritime Law  
Royal Malaysian Navy
20. **Major Mohd Daud Sulaiman RMAF**  
Royal Malaysian Air Force
21. **Mr. Azizi Haji Wahab**  
Deputy Undersecretary  
Ministry of Home Affairs
22. **Ms Suzilah Mohd. Sidek**  
Principal Assistant Secretary  
Research, Treaties & International Law Department  
Ministry of Foreign Affairs, Malaysia
23. **Mr Mohd Helmy Ahmad**  
Principal Assistant Secretary  
National Security Council, Prime Minister's Department
24. **Mr. Rani Ismail Hadi Ali**  
Prime Minister's Department
25. **Ms Hilyati Salwa Shokri**  
Prime Minister's Department
26. **Lt. Col. Anuar Abdul Wahab**  
Malaysia Armed Forces
27. **Lt. Cdr. Lukman Hanafiah Azamar Omar RMN**  
Royal Malaysian Navy
28. **Lt. Col. Shafie Muhamad Ali RMAF**  
Royal Malaysian Air Force
29. **Ms Hanizah Mohd Izzuddin**  
Assistant Secretary  
Research, Treaties & International Law Department  
Ministry of Foreign Affairs, Malaysia

30. **Ms Rosmilawati Dzulkifli**  
Assistant Secretary  
National Security Council, Prime Minister's Department

**SINGAPORE DELEGATION**

1. **Mr Lee Yuen Hee**  
Deputy Secretary (International)  
Ministry of Transport
2. **Mr Ng Tee Chiou**  
Director (Air Traffic Services)  
Civil Aviation Authority of Singapore
3. **Mr Marcus Song**  
Deputy Senior State Counsel  
International Affairs Division  
Attorney-General's Chambers
4. **Mr Kuah Kong Beng,**  
Chief Air Traffic Control Officer  
Civil Aviation Authority of Singapore
5. **SLTC S Subash**  
Branch Head  
Republic of Singapore Air Force  
Ministry of Defence
6. **Mr Vincent Hwa**  
Head (International Air Navigation Services Policy)  
Civil Aviation Authority of Singapore
7. **Ms Iris Chen**  
Deputy Director  
Southeast Asia Directorate  
Ministry of Foreign Affairs
8. **Ms Penny Ng**  
Acting Deputy Director (Air Transport)  
Ministry of Transport



9. **SUPT Devrajan Bala**  
Assistant Director, Operation Planning  
Operations Department  
Singapore Police Force
10. **Mr Gregory Goh**  
Acting Deputy Director (Security Policy)  
Ministry of Transport
11. **DSP Shanmuganandam s/o Nachiappan**  
Ops Officer, Management  
Police Coast Guard
12. **LTC Danny Teo**  
Branch Head  
Republic of Singapore Navy  
Ministry of Defence
13. **ASP Yip Hoi Phang**  
Ops Officer, Planning  
Police Coast Guard
14. **Ms Chay Yuen Ting**  
Country Officer  
Southeast Asia Directorate  
Ministry of Foreign Affairs
15. **Ms Tang Zhi Hui**  
Branch Head  
Defence Policy Office  
Ministry of Defence

**SECOND SUB-COMMITTEE MEETING ON MARITIME & AIRSPACE  
MANAGEMENT AND FISHERIES**

**26-27 JULY 2010  
KUALA LUMPUR**

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**AGENDA**

1. Opening Remarks
  - Malaysia's Head of Delegation
  - Singapore's Head of Delegation
2. Confirmation of Agenda
3. Discussion:
  - 3.1 Airspace Management
    - Notice To Airmen (NOTAM)
      - Malaysia's response on the Aeronautical Information Publication (AIP) drafted by Singapore during the First Sub-Committee meeting on 5<sup>th</sup> January 2010
    - Singapore's response on its flights profiles over Malaysia's land territory or internal waters
    - WSR 31
  - 3.2 Maritime Management
    - Conduct at sea
  - 3.3 Fisheries
4. Closing Remarks
  - Singapore's Head of Delegation
  - Malaysia's Head of Delegation

**MALAYSIA'S COUNTER PROPOSAL AIP**

**DRAFT TEXT OF THE SINGAPORE AERONAUTICAL  
INFORMATION PUBLICATION (AIP) TO REPLACE THE NOTAM**  
(To be inserted in the ENR Section of the AIP, after text on SINJON Crossing)

**2. HOSBA**

2.1 Horsburgh Lighthouse (HOSBA) (011948N, 1042418E) is commonly used as a visual reference by VFR flights.

2.2 For the purpose of safe navigation, all VFR traffic transiting or in the vicinity of the HOSBA shall exercise extra caution when approaching the area.

2.3 The Singapore QNH shall be used by all aircraft in the vicinity of HOSBA.

**DRAFT JOINT PRESS STATEMENT**

**FOURTH MEETING OF THE MALAYSIA-SINGAPORE  
JOINT TECHNICAL COMMITTEE ON THE IMPLEMENTATION OF  
THE INTERNATIONAL COURT OF JUSTICE JUDGMENT ON PEDRA  
BRANCA, MIDDLE ROCKS AND SOUTH LEDGE**

**KUALALUMPUR**

**26-27 JULY 2010**

Malaysia and Singapore met on 26-27 July 2010 in Kuala Lumpur to further discuss the implementation of the International Court of Justice (ICJ) Judgment on Pedra Branca, Middle Rocks and South Ledge.

The Malaysian delegation was led by Tan Sri Rastam Mohd Isa, Secretary-General of the Ministry of Foreign Affairs, Malaysia, and the Singapore delegation was led by Mr Peter Ho, Permanent Secretary of the Ministry of Foreign Affairs, Singapore.

Both sides reiterated their commitment to honour and abide by the ICJ's judgment and fully implement its decision and agreed to continue the discussions following from the Third MSJTC Meeting held in Singapore on 5 January 2010.

The MSJTC reviewed the work of the Sub-Committee on Joint Survey Works and the Sub-Committee on Maritime & Airspace Management and Fisheries. The MSJTC commended the Sub-Committee on Joint Survey Works for completing the drafting of the Memorandum of Understanding (MoU) on the Joint



Hydrographic Survey in and around Pedra Branca and Middle Rocks, which will now have to go through the internal approval processes in both countries.

Both sides were pleased with the progress made by the Joint Technical Committee and agreed that the next meeting be held soonest in Singapore.

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**MINISTER OF FOREIGN AFFAIRS, MALAYSIA**  
**MINISTER OF FOREIGN AFFAIRS, REPUBLIC OF SINGAPORE**

**[DATE], 2010**