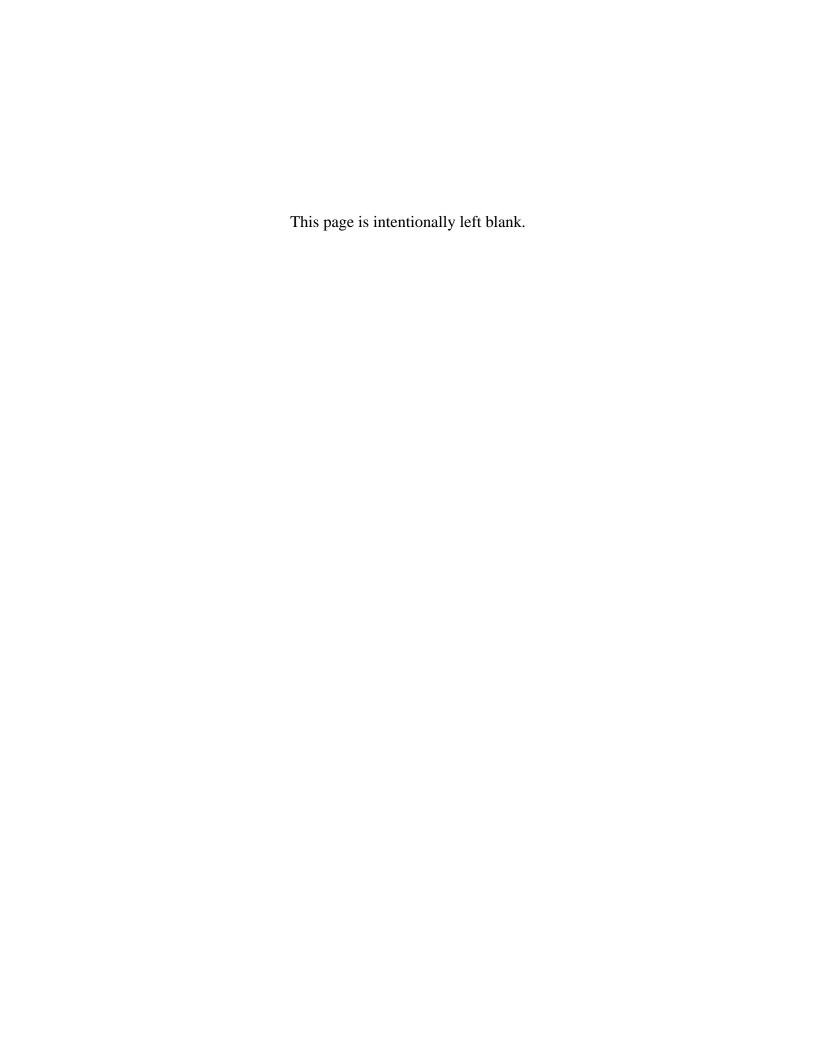
INTERNATIONAL COURT OF JUSTICE

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

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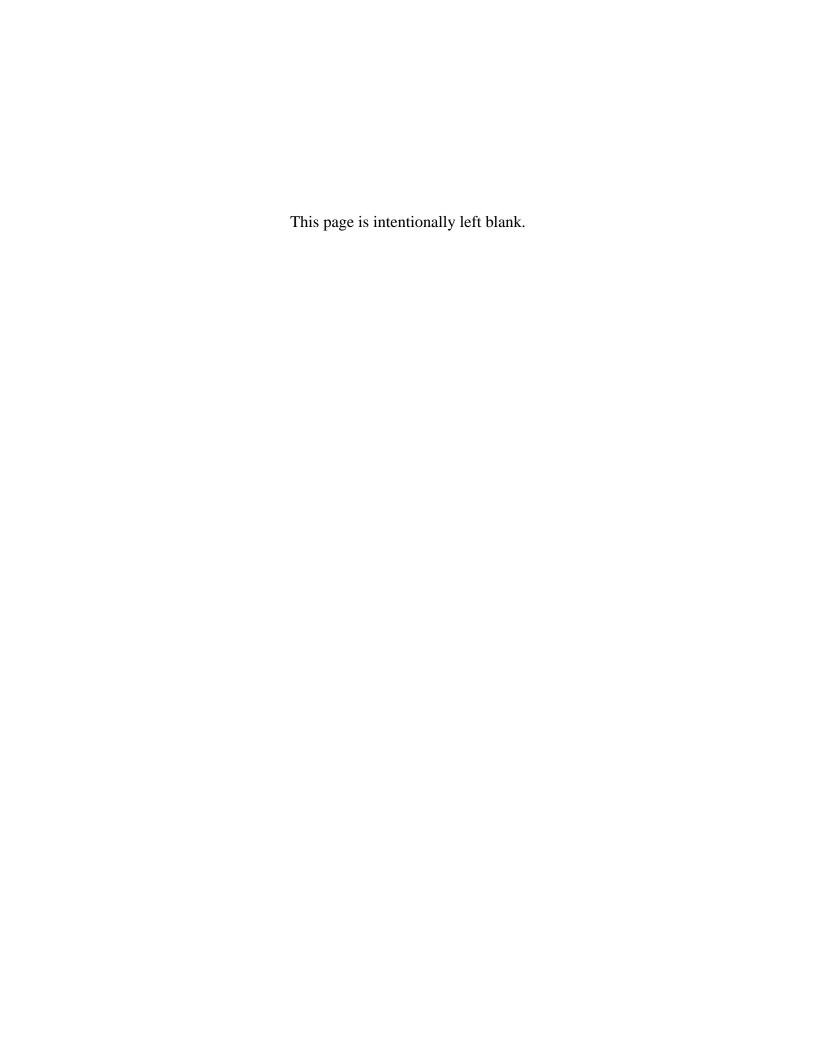
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Letter from Singapore's Permanent Secretary, Ministry of Foreign Affairs, Peter Ho, to Malaysia's Secretary General, Ministry of Foreign Affairs, Rastam Mohd Isa, dated 15 September 2008

MINISTRY OF FOREIGN AFFAIRS



15 September 2008

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

Dear Rastzum

Thank you for your reply dated 29 August 2009. I agree that the Malaysia-Singapore Joint Technical Committee (MSJTC) should be the proper forum to discuss all issues related to the implementation of the International Court of Justice (ICJ) judgment. Nevertheless, as you are aware, the ICJ had ruled that "sovereignty over South Ledge belongs to the State in the territorial waters of which it is located". As the delimitation of boundaries around Pedra Branca, Middle Rocks and South Ledge has yet to be carried out, the status of South Ledge remains indeterminate until the proper process of delimitation has taken place. In this regard, the actions of both sides must be consistent with our agreement to honour and abide by the ICJ judgment. That is to say, both sides should refrain from sending any vessels or personnel to South Ledge. This would also help preserve the good progress and friendly atmosphere that has been achieved at the MSJTC to date.

Singapore remains fully committed to working closely with Malaysia to implement the ICJ judgment and to maintaining good bilateral relations with Malaysia.

With best regards

PETER HO

Permanent Secretary

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Diplomatic note from Singapore to Malaysia, MFA/SEA/00044/2008, dated 9 December 2008



MFA/SEA/00044/2008

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 Notes from the Ministry of Foreign Affairs of Malaysia Reference EC 52/2008, EC 53/2008, EC 54/2008 and EC 55/2008, all dated 29 October 2008.

The Government of Singapore categorically rejects the assertion by the Government of Malaysia in the Note Reference EC 52/2008 that Malaysia's actions at South Ledge on 21 August 2008 were carried out in and around Malaysia's own territorial waters. The Government of Singapore also categorically rejects the assertion of the Government of Malaysia that South Ledge is clearly located within the territorial waters of Malaysia, and that sovereignty over South Ledge belongs to Malaysia in accordance with the principles of international law, in particular the United Nations Convention on the Law of the Sea (UNCLOS) 1982, as well as the judgment of the International Court of Justice (ICJ).

In our Note Reference MFA/SEA/00025/2008 dated 23 August 2008, the Government of Singapore stated that the ICJ had only concluded that the sovereignty of South Ledge "belongs to the State in the territorial waters of which it is located" and that the status of South Ledge has to be determined

through the process of maritime boundary delimitation between our two countries. The Government of Singapore reiterates that Malaysia's actions at South Ledge goes against the spirit of the Malaysia-Singapore Joint Technical Committee (MSJTC) and is not helpful towards the common goal of reaching a peaceful and amicable resolution of the issues relating to the ICJ judgment.

The Government of Singapore strongly rejects the assertion by the Government of Malaysia in the Note Reference EC 53/2008 that the waters around Pedra Branca are part of the territorial waters and maritime areas of Malaysia as depicted in the Map Defining the Boundaries of the Continental Shelf of Malaysia of 1979, as well as the assertion that the maritime area surrounding Pedra Branca is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the judgment of the ICJ. These assertions are completely baseless. The ICJ in its judgment of 23rd May 2008 had affirmed "that sovereignty over Pedra Branca/Pulau Batu Puteh belongs to Singapore" and also spoke of the "territorial waters generated by Pedra Branca/Pulau Batu Puteh". It is incontrovertible that Singapore's sovereignty over Pedra Branca clearly extends to the maritime area and airspace in and around the island. Such statements by Malaysia are also incongruent with its commitment "to honour and abide by the ICJ's judgment" as stated in the Joint Press Statements issued by the Foreign Ministers of Singapore and Malaysia on 6 June and 20 August 2008.

The Government of Singapore refers to the concerns of the Government of Malaysia raised in the Note Reference EC 54/2008 about Singapore's issuance of Notice to Airmen (NOTAM) in the area around Pedra

Branca and in the Note Reference EC 55/2008 about Restricted Area WSR31. The Government of Singapore again rejects the claim of the Government of Malaysia that sovereignty over South Ledge belongs to Malaysia in accordance with the ICJ judgment, as the sovereignty of South Ledge can only be determined after the surrounding waters have been delimited by both countries, and strongly rejects the contention of the Government of Malaysia that the issuance of the said NOTAM is inconsistent with international law. Singapore's actions are in fact in accordance with our Flight Information Region (FIR) authority over Pedra Branca, Middle Rocks and South Ledge as allocated by the International Civil Aviation Organisation (ICAO). The Government of Singapore also wishes to point out that Singapore's actions in relation to Restricted Area WSR 31 is likewise in accordance with our FIR authority over that Restricted Area as allocated by the ICAO, and is likewise consistent with international law.

Singapore is prepared to discuss the NOTAM and WSR31 issues with Malaysia at the third MSJTC meeting. The Government of Singapore would like to take this opportunity to state that Singapore is still waiting for Malaysia to propose a new date for the said meeting, after Malaysia indicated its unavailability on the previously agreed date of 29 October 2008.

The Government of Singapore reiterates that it is fully committed to the MSJTC as a suitable forum for discussing issues relating to Pedra Branca, Middle Rocks and South Ledge 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 9 December 2008

High Commission of Malaysia Singapore



Diplomatic note from Malaysia to Singapore, EC 07/2009, dated 6 February 2009



EC 07/2009

The Ministry of Foreign Affairs of Malaysia presents its compliments to the High Commission of the Republic of Singapore and strongly protests the violation of Malaysia's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government, including but not limited to the following incidents:

- Between 0825 hrs to 1012 hrs on 1 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4614, 4134 and 4765;
- Between 1015 hrs to 1236 hrs on 7 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4204, 4213, 4212 and 4206;
- Between 1045 hrs to 1146 hrs on 7 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4220, 4216 and 0040;
- iv. Between 1354 hrs to 1456 hrs on 7 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4664, 4227 and 4647;
 - Between 1145 hrs to 1302 hrs on 8 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4257, 4351 and 4353;
- vi. Between 1014 hrs to 1125 hrs on 11 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4252, 4250 and 4640;

- vii. Between 1141 hrs to 1225 hrs on 11 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4366, 4205, 4340, 4335 and 4650;
- viii. Between 1159 hrs to 1255 hrs on 11 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4316, 4257, 4323, 4337 and 4330;
- ix. Between 1035 hrs to 1235 hrs on 16 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4627, 4215 and 4217;
- x. Between 1057 hrs to 1233 hrs on 21 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4222, 4221, 4257 and 4256;
- xi. Between 0911 hrs to 1310 hrs on 23 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4217, 4216, 4335, 4312, 4324 and 4315;
- xii. Between 0927 hrs to 1145 hrs on 24 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4227, 4265, 4266 and 4267;
- xiii. Between 1037 hrs to 1325 hrs on 25 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4366, 4254, 4627, 4230 and 4364;
- xiv. Between 1037 hrs to 1203 hrs on 28 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4357, 4270, 4275 and 4303;
- xv. Between 0851 hrs to 1121 hrs on 29 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4257, 4256, 4260, 4362, 4211 and 4216;

- xvi. Between 0938 hrs to 1414 hrs on 30 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4222, 4217, 4360, 4225, 4230, 4235, 4233, 4232 and 4242; and
- xvii. Between 1221 hrs to 1354 hrs on 31 July 2008 by the Singapore Government aircraft SQUAWK Mode 3/A 4257, 4355, 4261, 4277 and 4276.

In view of the above, the Government of Malaysia reiterates its strong objection to the presence of aircraft belonging to the Government of Singapore in Malaysia's airspace off the coast of the State of Johor.

The Government of Malaysia wishes to further reiterate its categorical rejection of Singapore's Restricted Area WSR 31 from an altitude of 3,500 feet to 10,000 feet of Malaysia's airspace over its territory and waters off the coast of the State of Johor, without prior consent from the Government of Malaysia. The designation of the said Restricted Area without the prior consent of the Government of Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. This act by the Government of Singapore is inconsistent with the principles adopted in Singapore's own published Aeronautical Information Publication and also goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia wishes to further reaffirm its categorical rejection of Singapore's continuous issuance of Notice to Airmen (NOTAM) from 0700 hrs to 1900 hrs daily which covers a radius of 3 nautical miles around Batu Puteh and up to an altitude of 2,000 feet which encroaches into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime area. The issuance of the said NOTAM without prior consent from Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. Further, this act by Singapore goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia calls upon the Government of Singapore to withdraw the said Restricted Area WSR 31 and the said NOTAM with immediate effect. The Government of Malaysia further calls upon the Government of Singapore to refrain from further designating Restricted Areas which encroach into Malaysian airspace and from issuing further NOTAMs which encroach into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime areas.

The Government of Malaysia wishes to further remind the Government of Singapore that the airspace above Tubir Selatan is part of Malaysia's airspace following the Judgment of the International Court of Justice (ICJ) of 23 May 2008 wherein the ICJ reaffirms Malaysia's sovereignty over Batuan Tengah/Middle Rocks and further stated that "sovereignty over South Ledge, as a low tide elevation, belongs to the State in the territorial waters of which it is

located". As Tubir Selatan/South Ledge is 7.9 nautical miles from the mainland of Johor and 1.7 nautical miles from Batuan Tengah/Middle Rocks, it is clearly located within the territorial waters of Malaysia. It naturally follows that sovereignty over Tubir Selatan/South Ledge belongs to Malaysia in accordance with the Judgment of the ICJ.

The Government of Malaysia wishes to also remind the Government of Singapore that the airspace over the waters around Batu Puteh, which is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the Judgment of the ICJ, is part of Malaysia's airspace.

The Government of Malaysia further reiterates that any and all activities undertaken by Malaysia in its territory, including activities pertaining to and surrounding the abovementioned airspace and its maritime areas are legitimate exercises of its sovereignty and jurisdiction. Malaysian Government vessels and aircraft have and will continue to patrol and carry out all their activities in the territorial waters, maritime areas and airspace of Malaysia.

The Government of Malaysia therefore calls upon the Government of Singapore to refrain from such intrusions into Malaysian territory, territorial waters and the airspace over its territory and waters.

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



Putrajaya, 6 February 2009

High Commission of the Republic of Singapore Kuala Lumpur

Diplomatic note from Malaysia to Singapore, EC 08/2009, dated 6 February 2009



EC 08/2009

The Ministry of Foreign Affairs of Malaysia presents its compliments to the High Commission of the Republic of Singapore and strongly protests the violation of Malaysia's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government, including but not limited to the following incidents:

- Between 1153 hrs to 1220 hrs on 1 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4222 and 4221;
- Between 1235 hrs to 1325 hrs on 1 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257 and 4256;
- Between 0752 hrs to 1025 hrs on 4 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4217, 4216 and 4335;
- iv. Between 1130 hrs to 1248 hrs on 4 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4312, 4324 and 4315;
- Between 1057 hrs to 1210 hrs on 5 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257, 4256 and 4260;
- vi. Between 1215 hrs to 1124 hrs on 5 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4326, 4211 and 4216;

- vii. Between 0927 hrs to 1124 hrs on 6 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4227 and 4265;
- viii. Between 1240 hrs to 1347 hrs on 6 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4266 and 4267;
- ix. Between 0911 hrs to 1045 hrs on 11 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4215 and 4302;
- Eetween 1245 hrs to 1315 hrs on 11 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4227 and 4224;
- xi. Between 1037 hrs to 1201 hrs on 12 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4357 and 4270;
- xii. Between 1321 hrs to 1456 hrs on 12 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4275 and 4303;
- xiii. Between 1221 hrs to 1231 hrs on 13 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4366, 4254 and 4627;
- xiv. Between 1241 hrs to 1251 hrs on 13 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4230 and 4364;
- xv. Between 0851 hrs to 0945 hrs on 14 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4222, 4217 and 4360;
- xvi. Between 1420 hrs to 1521 hrs on 14 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4225, 4230 and 4235;
- xvii. Between 1610 hrs to 1733 hrs on 14 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4233, 4232 and 4242;

- xviii. Between 0938 hrs to 1145 hrs on 15 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257, 4355 and 4261;
- xix. Between 1250 hrs to 1416 hrs on 15 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4277 and 4276;
- xx. Between 0912 hrs to 1020 hrs on 16 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4235 and 4257;
- xxi. Between 1025 hrs to 1053 hrs on 16 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4254 and 4256;
- xxii. Between 0815 hrs to 1008 hrs on 18 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4324, 4277 and 4304;
- xxiii. Between 1009 hrs to 1109 hrs on 18 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4341, 4351 and 4310;
- xxiv. Between 1245 hrs to 1310 hrs on 18 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4336, 4206 and 4207;
- xxv. Between 1325 hrs to 1426 hrs on 18 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4352 and 4340;
- xxvi. Between 1221 hrs to 1345 hrs on 19 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4333, 4312 and 4306;
- xxvii. Between 1351 hrs to 1451 hrs on 19 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257, 4355 and 4260;

- xxviii. Between 0822 hrs to 0910 hrs on 20 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4335, 4277 and 4334;
- xxix. Between 0914 hrs to 1112 hrs on 20 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4337 and 4332;
- xxx. Between 1210 hrs to 1237 hrs on 20 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4304 and 4331;
- xxxi. Between 0842 hrs to 0905 hrs on 21 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4226 and 4224;
- xxxii. Between 0910 hrs to 0923 hrs on 21 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4220 and 4242;
- xxxiii. Between 0805 hrs to 0915 hrs on 22 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4217 and 4216;
- xxxiv. Between 0917 hrs to 1035 hrs on 22 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4215, 4214 and 4210;
- xxxv. Between 0839 hrs to 1045 hrs on 26 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4330, 4331, 4220 and 4215;
- xxxvi. Between 1105 hrs to 1415 hrs on 26 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4346, 4337, 4332 and 4325;
- xxxvii. Between 0803 hrs to 0910 hrs on 27 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4214, 4213 and 4212;

- xxxviii.Between 0921 hrs to 1127 hrs on 27 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4242 and 4243;
- xxxix. Between 0840 hrs to 0905 hrs on 28 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4224 and 4210;
- xl. Between 0915 hrs to 1009 hrs on 28 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4213 and 4222; and
- xli. Between 1157 hrs to 1240 hrs on 29 August 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4250, 4256 and 0006.

In view of the above, the Government of Malaysia reiterates its strong objection to the presence of aircraft belonging to the Government of Singapore in Malaysia's airspace off the coast of the State of Johor.

The Government of Malaysia wishes to further reiterate its categorical rejection of Singapore's Restricted Area WSR 31 from an altitude of 3,500 feet to 10,000 feet of Malaysia's airspace over its territory and waters off the coast of the State of Johor, without prior consent from the Government of Malaysia. The designation of the said Restricted Area without the prior consent of the Government of Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. This act by the Government of Singapore is inconsistent with the principles adopted in Singapore's own published Aeronautical Information Publication and also goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia wishes to further reaffirm its categorical rejection of Singapore's continuous issuance of Notice to Airmen (NOTAM) from 0700 hrs to 1900 hrs daily which covers a radius of 3 nautical miles around Batu Puteh and up to an altitude of 2,000 feet which encroaches into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime area. The issuance of the said NOTAM without prior consent from Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. Further, this act by Singapore goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia calls upon the Government of Singapore to withdraw the said Restricted Area WSR 31 and the said NOTAM with immediate effect. The Government of Malaysia further calls upon the Government of Singapore to refrain from further designating Restricted Areas which encroach into Malaysian airspace and from issuing further NOTAMs which encroach into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime areas.

The Government of Malaysia wishes to further remind the Government of Singapore that the airspace above Tubir Selatan is part of Malaysia's airspace following the Judgment of the International Court of Justice (ICJ) of 23 May 2008 wherein the ICJ reaffirms Malaysia's sovereignty over Batuan

Tengah/Middle Rocks and further stated that "sovereignty over South Ledge, as a low tide elevation, belongs to the State in the territorial waters of which it is located". As Tubir Selatan/South Ledge is 7.9 nautical miles from the mainland of Johor and 1.7 nautical miles from Batuan Tengah/Middle Rocks, it is clearly located within the territorial waters of Malaysia. It naturally follows that sovereignty over Tubir Selatan/South Ledge belongs to Malaysia in accordance with the Judgment of the ICJ.

The Government of Malaysia wishes to also remind the Government of Singapore that the airspace over the waters around Batu Puteh, which is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the Judgment of the ICJ, is part of Malaysia's airspace.

The Government of Malaysia further reiterates that any and all activities undertaken by Malaysia in its territory, including activities pertaining to and surrounding the abovementioned airspace and its maritime areas are legitimate exercises of its sovereignty and jurisdiction. Malaysian Government vessels and aircraft have and will continue to patrol and carry out all their activities in the territorial waters, maritime areas and airspace of Malaysia.

The Government of Malaysia therefore calls upon the Government of Singapore to refrain from such intrusions into Malaysian territory, territorial waters and the airspace over its territory and waters.

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



High Commission of the Republic of Singapore Kuala Lumpur

Diplomatic note from Malaysia to Singapore, EC 09/2009, dated 6 February 2009



EC 09/2009

The Ministry of Foreign Affairs of Malaysia presents its compliments to the High Commission of the Republic of Singapore and strongly protests the violation of Malaysia's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government, including but not limited to the following incidents:

- Between 1120 hrs to 1205 hrs on 1 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4201 and 4214;
- Between 1050 hrs to 1204 hrs on 3 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4324, 4626, 4335 and 4636;
- Between 1320 hrs to 1539 hrs on 3 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4216, 4315, 4312 and 4317;
- iv. Between 1153 hrs to 1220 hrs on 5 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4221, 4364, 4350 and 4215;

- v. Between 1231 hrs to 1450 hrs on 5 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4254, 4627, 4624 and 4641;
- vi. Between 1505 hrs to 1632 hrs on 5 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4366, 4230 and 4211;
- vii. Between 1019 hrs to 1108 hrs on 8 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4277, 4276 and 4261;
- viii. Between 0840 hrs to 0855 hrs on 9 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4242 and 4220;
- ix. Between 0957 hrs to 0925 hrs on 9 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4226 and 4224;
- x. Between 0926 hrs to 1014 hrs on 10 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4267, 4266, 4265 and 4227;
- xi. Between 1059 hrs to 1135 hrs on 11 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4331, 4337 and 4325;
- xii. Between 1140 hrs to 1431 hrs on 11 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4330;

- xiii. Between 1104 hrs to 1152 hrs on 12 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4224 and 4222;
- xiv. Between 0922 hrs to 1552 hrs on 15 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4230, 4232, 4217, 4222, 4360, 4242, 4233, 4235, 4333 and 4355;
- xv. Between 0951 hrs to 1747 hrs on 16 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4211, 4214, 4215, 4216, 4636, 4350, 4201, 4221, 4204, 4656, 4257, 4256, 4260 and 4362;
- xvi. Between 0846 hrs to 1348 hrs on 17 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4350, 4364, 4366, 4331, 4337, 4245, 4246, 4250, 4206 and 4202;
- xvii. Between 1057 hrs to 1640 hrs on 18 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4351, 4301, 4302, 4245, 4327, 4246, 4202, 4207, 4205, 4217 and 7216;
- xviii. Between 0745 hrs to 1035 hrs on 19 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4624, 4252, 4251, 4223, 4207 and 4353;
- xix. Between 0745 hrs to 1035 hrs on 22 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4302, 4313, 4273, 4274, 4323, 4322 and 4655;
- xx. Between 0941 hrs to 1247 hrs on 23 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4203, 4211, 4210, 4226, 4233, 4234 and 4224;

- xxi. Between 0835 hrs to 1006 hrs on 24 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4221, 4222, 4223, 4350, 4332 and 4220; and
- xxii. Between 1125 hrs to 1213 hrs on 25 September 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4262, 4351 and 4331.

In view of the above, the Government of Malaysia reiterates its strong objection to the presence of aircraft belonging to the Government of Singapore in Malaysia's airspace off the coast of the State of Johor.

The Government of Malaysia wishes to further reiterate its categorical rejection of Singapore's Restricted Area WSR 31 from an altitude of 3,500 feet to 10,000 feet of Malaysia's airspace over its territory and waters off the coast of the State of Johor, without prior consent from the Government of Malaysia. The designation of the said Restricted Area without the prior consent of the Government of Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. This act by the Government of Singapore is inconsistent with the principles adopted in Singapore's own published Aeronautical Information Publication and also goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia wishes to further reaffirm its categorical rejection of Singapore's continuous issuance of Notice to Airmen (NOTAM) from 0700 hrs to 1900 hrs daily which covers a radius of 3 nautical miles around Batu Puteh and up to an altitude of 2,000 feet which encroaches into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime area. The issuance of the said NOTAM without prior consent from Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. Further, this act by Singapore goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia calls upon the Government of Singapore to withdraw the said Restricted Area WSR 31 and the said NOTAM with immediate effect. The Government of Malaysia further calls upon the Government of Singapore to refrain from further designating Restricted Areas which encroach into Malaysian airspace and from issuing further NOTAMs which encroach into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime areas.

The Government of Malaysia wishes to further remind the Government of Singapore that the airspace above Tubir Selatan is part of Malaysia's airspace following the Judgment of the International Court of Justice (ICJ) of 23 May 2008 wherein the ICJ reaffirms Malaysia's sovereignty over Batuan Tengah/Middle Rocks and further stated that "sovereignty over South Ledge, as a low tide elevation, belongs to the State in the territorial waters of which it is

located". As Tubir Selatan/South Ledge is 7.9 nautical miles from the mainland of Johor and 1.7 nautical miles from Batuan Tengah/Middle Rocks, it is clearly located within the territorial waters of Malaysia. It naturally follows that sovereignty over Tubir Selatan/South Ledge belongs to Malaysia in accordance with the Judgment of the ICJ.

The Government of Malaysia wishes to also remind the Government of Singapore that the airspace over the waters around Batu Puteh, which is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the Judgment of the ICJ, is part of Malaysia's airspace.

The Government of Malaysia further reiterates that any and all activities undertaken by Malaysia in its territory, including activities pertaining to and surrounding the abovementioned airspace and its maritime areas are legitimate exercises of its sovereignty and jurisdiction. Malaysian Government vessels and aircraft have and will continue to patrol and carry out all their activities in the territorial waters, maritime areas and airspace of Malaysia.

The Government of Malaysia therefore calls upon the Government of Singapore to refrain from such intrusions into Malaysian territory, territorial waters and the airspace over its territory and waters. The Ministry of Foreign Affairs of Malaysia avails itself of this opportunity to renew to the High Commission of the Republic of Singapore the assurances of its highest consideration.



High Commission of the Republic of Singapore Kuala Lumpur

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Annex 32

Diplomatic note from Malaysia to Singapore, EC 10/2009, dated 6 February 2009



EC 10/2009

The Ministry of Foreign Affairs of Malaysia presents its compliments to the High Commission of the Republic of Singapore and strongly protests the violation of Malaysia's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government, including but not limited to the following incidents:

- Between 0825 hrs to 1237 hrs on 3 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4241, 4201, 4240, 4230 and 4610;
- Between 0821 hrs to 1318 hrs on 6 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4656, 4214, 4636, 4350, 4215, 4210, 4221, 4204, 4235 and 4247;
- Between 0833 hrs to 0926 hrs on 7 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4220, 4224, 4242 and 4226;
- iv. Between 1047 hrs to 1313 hrs on 8 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4207, 4223, 4260, 4256, 4257, 4211 and 4353;

- Between 0846 hrs to 1019 hrs on 10 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4346, 4222, 4220, 4227 and 4350;
- vi. Between 1011 hrs to 1102 hrs on 12 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257 and 4201;
- vii. Between 1153 hrs to 1632 hrs on 13 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 3111, 3112, 3113, 3114, 3501, 3502, 3503, 3504, 1401, 1402, 1403, 1104, 3511, 3512, 3513 and 3514:
- viii. Between 0752 hrs to 0904 hrs on 14 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 1401, 1402, 3501, 3502, 3503 and 3504;
- ix. Between 0819 hrs to 1058 hrs on 15 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 3501, 3502, 3503, 3504, 3111, 3112, 3113 and 3114;
- x. Between 0958 hrs to 1055 hrs on 16 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 1411, 1412, 3101, 3102 and 3103;
- xi. Between 0811 hrs to 0952 hrs on 17 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 3611, 3612, 3613, 3614, 3511, 3512 and 3513;
- xii. Between 0817 hrs to 1003 hrs on 18 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 3511, 3512, 3513, 3514, 1401, 1402, 3613 and 3614;

- xiii. Between 0750 hrs to 0818 hrs on 20 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 3501, 3502 and 3503;
- xiv. Between 0749 hrs to 0902 hrs on 21 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 1311, 1312, 1313, 1314 and 1301;
- xv. Between 0745 hrs to 0844 hrs on 22 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 3603, 3611, 3612, 3613 and 3614;
- xvi. Between 0911 hrs to 1107 hrs on 23 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4211, 3611, 3612, 3613, 3614, 3101, 3102, 3103, 3104, 3501, 3502, 3503, 3504, 3511, 3512, 3513, 3514 and 4210;
- xvii. Between 0836 hrs to 0922 hrs on 24 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4221, 4222 and 4350;
- xviii. Between 0740 hrs to 2004 hrs on 28 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4275, 4270, 4274, 4217, 4257, 4235, 4353, 4245, 4146, 4237, 4234, 4221, 4310, 4306, 4346, 4362, 4213, 4207, 4212, 4203, 4202, 0046, 4341, 4204, 4247, 4256, 4343, 4210, 4231, 4261, 4220, 4266, 4252, 4251, 4253 and 4254;
- xix. Between 0821 hrs to 1957 hrs on 29 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4211, 4222, 4221, 4207, 4270, 4230, 4254, 4253, 4251, 4341, 4342, 4256, 4217, 4313, 4362, 4614, 4305, 4312, 4146, 4237, 4234, 4263, 4266, 4212, 4243, 4354, 4212, 4203, 4202, 4201, 4235 and 4245;

- XX. Between 1023 hrs to 1203 hrs on 30 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4634, 4617 and 4606; and
- xxi. Between 0911 hrs to 1742 hrs on 31 October 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4312, 0036, 4664, 4220, 4237, 4240, 4326, 4235, 4352, 4351, 4247, 4216, 4351, 4247, 4215, 4351, 4245 and 4663.

In view of the above, the Government of Malaysia reiterates its strong objection to the presence of aircraft belonging to the Government of Singapore in Malaysia's airspace off the coast of the State of Johor.

The Government of Malaysia wishes to further reiterate its categorical rejection of Singapore's Restricted Area WSR 31 from an altitude of 3,500 feet to 10,000 feet of Malaysia's airspace over its territory and waters off the coast of the State of Johor, without prior consent from the Government of Malaysia. The designation of the said Restricted Area without the prior consent of the Government of Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. This act by the Government of Singapore is inconsistent with the principles adopted in Singapore's own published Aeronautical Information Publication and also goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia wishes to further reaffirm its categorical rejection of Singapore's continuous issuance of Notice to Airmen (NOTAM) from 0700 hrs to 1900 hrs daily which covers a radius of 3 nautical miles around Batu Puteh and up to an altitude of 2,000 feet which encroaches into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime area. The issuance of the said NOTAM without prior consent from Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. Further, this act by Singapore goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia calls upon the Government of Singapore to withdraw the said Restricted Area WSR 31 and the said NOTAM with immediate effect. The Government of Malaysia further calls upon the Government of Singapore to refrain from further designating Restricted Areas which encroach into Malaysian airspace and from issuing further NOTAMs which encroach into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime areas.

The Government of Malaysia wishes to further remind the Government of Singapore that the airspace above Tubir Selatan is part of Malaysia's airspace following the Judgment of the International Court of Justice (ICJ) of 23 May 2008 wherein the ICJ reaffirms Malaysia's sovereignty over Batuan Tengah/Middle Rocks and further stated that "sovereignty over South Ledge, as a low tide elevation, belongs to the State in the territorial waters of which it is

located". As Tubir Selatan/South Ledge is 7.9 nautical miles from the mainland of Johor and 1.7 nautical miles from Batuan Tengah/Middle Rocks, it is clearly located within the territorial waters of Malaysia. It naturally follows that sovereignty over Tubir Selatan/South Ledge belongs to Malaysia in accordance with the Judgment of the ICJ.

The Government of Malaysia wishes to also remind the Government of Singapore that the airspace over the waters around Batu Puteh, which is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the Judgment of the ICJ, is part of Malaysia's airspace.

The Government of Malaysia further reiterates that any and all activities undertaken by Malaysia in its territory, including activities pertaining to and surrounding the abovementioned airspace and its maritime areas are legitimate exercises of its sovereignty and jurisdiction. Malaysian Government vessels and aircraft have and will continue to patrol and carry out all their activities in the territorial waters, maritime areas and airspace of Malaysia.

The Government of Malaysia therefore calls upon the Government of Singapore to refrain from such intrusions into Malaysian territory, territorial waters and the airspace over its territory and waters.

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



High Commission of the Republic of Singapore Kuala Lumpur

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Annex 33

Diplomatic note from Malaysia to Singapore, EC 11/2009, dated 6 February 2009



EC 11/2009

The Ministry of Foreign Affairs of Malaysia presents its compliments to the High Commission of the Republic of Singapore and strongly protests the violation of Malaysia's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government, including but not limited to the following incidents:

- Between 0811 hrs to 0910 hrs on 3 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4222 and 4221;
- Between 0746 hrs to 0911 hrs on 4 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4222, 4223, 4224, 4225 and 4226;
- iii. Between 0751 hrs to 1319 hrs on 5 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4221, 4222, 4230, 4225, 4341, 4241, 4213, 4240, 4257, 4217, 4260 and 4355;
- iv. Between 0807 hrs to 1016 hrs on 6 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4243, 4245, 4246, 4247, 4212 and 4211;

- v. Between 0802 hrs to 0929 hrs on 7 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4220, 4224, 4242, 4226 and 4221;
- vi. Between 1003 hrs to 1054 hrs on 10 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4223;
- vii. Between 1005 hrs to 1104 hrs on 11 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4227, 4324, 4203, 4211 and 4205;
- viii. Between 0911 hrs to 0958 hrs on 12 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4231, 4235, 4226, 4224, 4221, 4230, 4227, 4247, 4243, 4245, 4246, 4231, 4226, 4225, 4256, 4260, 4255, 4257 and 4354;
- ix. Between 0744 hrs to 2048 hrs on 14 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4254, 4253, 4251, 4277, 4276, 4301, 4302, 4305, 4310, 4207, 4211, 4203, 4216, 4247, 4227 and 4324;
- x. Between 0919 hrs to 1017 hrs on 17 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4205 and 4203;
- xi. Between 0815 hrs to 0911 hrs on 18 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4211 and 4212;
- xii. Between 0749 hrs to 2015 hrs on 18 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4220, 4217, 4211, 4216, 4237, 4214, 4237, 4242, 4240, 4241, 4236, 4234, 4035,

4261, 4357, 4262, 4260, 4261, 4263, 4253, 4254, 4256, 4356, 4343, 4276, 4277, 4301, 4305, 4300, 4202, 4206, 4350, 4226, 4233, 4321 and 4322;

- xiii. Between 0737 hrs to 1733 hrs on 20 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4340, 4241, 4242, 4243, 4210, 4211, 4212, 4213, 4214, 4215, 4216, 4217, 4222, 4223, 4224, 4257, 4256, 4350, 4260, 4261, 4341, 4230, 4234, 4226, 4227, 4225 and 4250;
- xiv. Between 0749 hrs to 1653 hrs on 21 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4214, 4236, 4216, 4215, 4222, 4217, 4220, 4221, 4223, 4236, 4213, 4226, 4237, 4242, 4225, 4246, 4245, 4250, 4251, 4247, 4253 and 4211;
- xv. Between 0745 hrs to 0844 hrs on 23 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4242, 4246, 4240, 4361, 4237, 4275, 4276, 4377, 4300, 4306, 4302, 4301, 4303, 4273, 4230 and 4204;
- xvi. Between 0911 hrs to 2054 hrs on 25 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4214, 4220, 4215, 4213, 4221, 4236, 4240, 4241, 4677, 4233, 4227, 4351, 4252, 4251, 4217, 4352, 4266, 4267, 4264, 4261, 4260, 4263, 4310, 4301, 4304, 4314, 4313, 4312, 4260, 4261, 4262, 4263, 4230 and 4233;
- xvii. Between 0906 hrs to 1531 hrs on 26 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4237, 4352, 4240, 4251, 4257, 4252, 4256, 4253, 4263, 4226, 4217, 4211, 4222, 4221, 4216, 4212, 4203, 4207, 4205, 4366, 4367, 4300 and 4302;

- xviii. Between 0924 hrs to 1411 hrs on 27 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257, 4260, 4217, 4240, 4243, 4241, 4244, 4225, 4230, 4221, 4222, 4226, 4225 and 4224; and
- xix. Between 1017 hrs to 1105 hrs on 28 November 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4205 and 4217.

In view of the above, the Government of Malaysia reiterates its strong objection to the presence of aircraft belonging to the Government of Singapore in Malaysia's airspace off the coast of the State of Johor.

The Government of Malaysia wishes to further reiterate its categorical rejection of Singapore's Restricted Area WSR 31 from an altitude of 3,500 feet to 10,000 feet of Malaysia's airspace over its territory and waters off the coast of the State of Johor, without prior consent from the Government of Malaysia. The designation of the said Restricted Area without the prior consent of the Government of Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. This act by the Government of Singapore is inconsistent with the principles adopted in Singapore's own published Aeronautical Information Publication and also goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia wishes to further reaffirm its categorical rejection of Singapore's continuous issuance of Notice to Airmen (NOTAM) from 0700 hrs to 1900 hrs daily which covers a radius of 3 nautical miles around Batu Puteh and up to an altitude of 2,000 feet which encroaches into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime area. The issuance of the said NOTAM without prior consent from Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. Further, this act by Singapore goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia calls upon the Government of Singapore to withdraw the said Restricted Area WSR 31 and the said NOTAM with immediate effect. The Government of Malaysia further calls upon the Government of Singapore to refrain from further designating Restricted Areas which encroach into Malaysian airspace and from issuing further NOTAMs which encroach into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime areas.

The Government of Malaysia wishes to further remind the Government of Singapore that the airspace above Tubir Selatan is part of Malaysia's airspace following the Judgment of the International Court of Justice (ICJ) of 23 May 2008 wherein the ICJ reaffirms Malaysia's sovereignty over Batuan Tengah/Middle Rocks and further stated that "sovereignty over South Ledge, as a low tide elevation, belongs to the State in the territorial waters of which it is

located". As Tubir Selatan/South Ledge is 7.9 nautical miles from the mainland of Johor and 1.7 nautical miles from Batuan Tengah/Middle Rocks, it is clearly located within the territorial waters of Malaysia. It naturally follows that sovereignty over Tubir Selatan/South Ledge belongs to Malaysia in accordance with the Judgment of the ICJ.

The Government of Malaysia wishes to also remind the Government of Singapore that the airspace over the waters around Batu Puteh, which is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the Judgment of the ICJ, is part of Malaysia's airspace.

The Government of Malaysia further reiterates that any and all activities undertaken by Malaysia in its territory, including activities pertaining to and surrounding the abovementioned airspace and its maritime areas are legitimate exercises of its sovereignty and jurisdiction. Malaysian Government vessels and aircraft have and will continue to patrol and carry out all their activities in the territorial waters, maritime areas and airspace of Malaysia.

The Government of Malaysia therefore calls upon the Government of Singapore to refrain from such intrusions into Malaysian territory, territorial waters and the airspace over its territory and waters.

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



High Commission of the Republic of Singapore Kuala Lumpur

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Annex 34

Diplomatic note from Malaysia to Singapore, EC 12/2009, dated 6 February 2009



EC 12/2009

The Ministry of Foreign Affairs of Malaysia presents its compliments to the High Commission of the Republic of Singapore and strongly protests the violation of Malaysia's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government, including but not limited to the following incidents:

- Between 0933 hrs to 1045 hrs on 3 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4461, 4432 and 4425;
- Between 1010 hrs to 1115 hrs on 4 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4255, 4233 and 4256;
- Between 1107 hrs to 1155 hrs on 4 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4216, 4568, 4463 and 4526;
- iv. Between 0955 hrs to 1233 hrs on 5 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4426, 4213, 4155, 4156, 4157 and 4425;

- v. Between 0803 hrs to 0850 hrs on 6 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4112, 4514, 4232 and 4426;
- vi. Between 0750 hrs to 0839 hrs on 7 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4237, 4244, 4246 and 4247;
- vii. Between 0826 hrs to 0934 hrs on 7 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4251, 4257, 4233, 4357, 4266 and 4253;
- viii. Between 0911 hrs to 1006 hrs on 7 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4202, 4203, 4265 and 4307;
- ix. Between 0817 hrs to 0853 hrs on 10 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4244, 4246, 4247 and 4251;
- x. Between 0854 hrs to 0955 hrs on 11 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4305, 4235, 4340, 4322, 4222 and 4226;
- xi. Between 0749 hrs to 0821 hrs on 12 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4237, 4244, 4246, 4247 and 4251;
- xii. Between 0806 hrs to 0909 hrs on 12 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4257, 4265, 4307, 4305, 4235 and 4340;

- xiii. Between 1016 hrs to 1107 hrs on 12 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4322, 4222, 4226, 4655, 4254 and 4253;
- xiv. Between 1157 hrs to 1302 hrs on 12 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4212, 4211, 4213 and 4276;
- xv. Between 0813 hrs to 0911 hrs on 14 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4601, 4312, 4303, 4310, 4342 and 4265;
- xvi. Between 0744 hrs to 0831 hrs on 15 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4610, 4252, 4521 and 4246;
- xvii. Between 0814 hrs to 0903 hrs on 15 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4352, 4374, 4601, 4312 and 4303;
- xviii. Between 0950 hrs to 1041 hrs on 15 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4310, 4342, 4265 and 4222;
- xix. Between 1522 hrs to 1609 hrs on 15 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4225, 4212, 4216 and 4213;
- xx. Between 0737 hrs to 0830 hrs on 16 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4362, 4675, 4252, 4253 and 4354;

- xxi. Between 0804 hrs to 0851 hrs on 16 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4254, 4255, 4634 and 4637;
- xxii. Between 0840 hrs to 0933 hrs on 16 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4202, 4620, 4306 and 4307;
- xxiii. Between 1154 hrs to 1249 hrs on 16 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4301, 4313, 4237, 4240 and 4301;
- xxiv. Between 1432 hrs to 1508 hrs on 16 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4421, 4344, 4364 and 4352;
- xxv. Between 0916 hrs to 1022 hrs on 17 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4605, 4207, 4202, 4212 and 4277;
- xxvi. Between 1229 hrs to 1344 hrs on 17 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4307, 4211, 4306, 4336, 4365 and 4316;
- xxvii. Between 0758 hrs to 0847 hrs on 18 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4202, 4250, 4251 and 4244;
- xxviii. Between 1140 hrs to 1241 hrs on 18 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4211, 4212, 4226 and 4224;

- xxix. Between 0821 hrs to 0912 hrs on 19 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4642, 4241, 4243 and 4260;
- xxx. Between 1015 hrs to 1102 hrs on 19 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4337, 4343, 4277, 4340 and 4222;
- xxxi. Between 0911 hrs to 1040 hrs on 22 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4207, 4212, 4337, 4350, 4307 and 4306;
- xxxii. Between 1102 hrs to 1120 hrs on 22 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4223, 4222, 4233 and 4224;
- xxxiii. Between 1210 hrs to 1450 hrs on 22 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4346, 4216, 4241, 4236 and 4267;
- xxxiv. Between 1502 hrs to 1524 hrs on 22 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4270, 4276, 4347, 4357, 4350 and 4354;
- xxxv. Between 1533 hrs to 1600 hrs on 22 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4306, 4214, 4302, 4351, 4304 and 4305;
- xxxvi. Between 1636 hrs to 1801 hrs on 22 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4361, 4337, 4223 and 4224;

- xxxvii. Between 0906 hrs to 1001 hrs on 23 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4616, 4612 and 4657;
- xxxviii.Between 0911 hrs to 1004 hrs on 25 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4252, 4354, 4674, 4247 and 4346;
- xxxix. Between 1107 hrs to 1215 hrs on 25 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4421, 4322, 4402, 4132, 4532 and 4221;
- xl. Between 1017 hrs to 1105 hrs on 26 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4205, 4217, 4322 and 4402;
- xli. Between 0800 hrs to 0849 hrs on 29 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4674, 4247, 4346 and 4421;
- xlii. Between 0823 hrs to 0902 hrs on 29 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4532, 4217, 4322, 4212 and 4211;
- xliii. Between 0922 hrs to 1013 hrs on 29 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4132, 4134, 4222 and 4213;
- xliv. Between 1144 hrs to 1233 hrs on 29 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4316, 4230, 4311, 4231 and 4232;

- xlv. Between 1519 hrs to 1604 hrs on 29 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4226, 4223, 4215 and 4314;
- xlvi. Between 0756 hrs to 0902 hrs on 30 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4426, 4337, 4236, 4411 and 4241;
- xlvii. Between 1117 hrs to 1221 hrs on 30 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4326, 4431, 4260, 4221, 4236, 4223;
- xiviii. Between 0835 hrs to 0922 hrs on 31 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4221, 4222, 4223 and 4346; and
- xlix. Between 1004 hrs to 1109 hrs on 31 December 2008 by the Singapore Government aircraft SQUAQWK Mode 3/A 4220, 4230, 4236 and 4251.

In view of the above, the Government of Malaysia reiterates its strong objection to the presence of aircraft belonging to the Government of Singapore in Malaysia's airspace off the coast of the State of Johor.

The Government of Malaysia wishes to further reiterate its categorical rejection of Singapore's Restricted Area WSR 31 from an altitude of 3,500 feet to 10,000 feet of Malaysia's airspace over its territory and waters off the coast of the State of Johor, without prior consent from the Government of Malaysia. The designation of the said Restricted Area without the prior consent of the

Government of Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. This act by the Government of Singapore is inconsistent with the principles adopted in Singapore's own published Aeronautical Information Publication and also goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia wishes to further reaffirm its categorical rejection of Singapore's continuous issuance of Notice to Airmen (NOTAM) from 0700 hrs to 1900 hrs daily which covers a radius of 3 nautical miles around Batu Puteh and up to an altitude of 2,000 feet which encroaches into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime area. The issuance of the said NOTAM without prior consent from Malaysia is inconsistent with international law, in particular the Convention on International Civil Aviation (Chicago Convention) of 1944. Further, this act by Singapore goes against the spirit of ASEAN solidarity and understanding.

The Government of Malaysia calls upon the Government of Singapore to withdraw the said Restricted Area WSR 31 and the said NOTAM with immediate effect. The Government of Malaysia further calls upon the Government of Singapore to refrain from further designating Restricted Areas which encroach into Malaysian airspace and from issuing further NOTAMs which encroach into Malaysian airspace above the Malaysian territory of Batuan Tengah/Middle Rocks and its maritime areas.

The Government of Malaysia wishes to further remind the Government of Singapore that the airspace above Tubir Selatan is part of Malaysia's airspace following the Judgment of the International Court of Justice (ICJ) of 23 May 2008 wherein the ICJ reaffirms Malaysia's sovereignty over Batuan Tengah/Middle Rocks and further stated that "sovereignty over South Ledge, as a low tide elevation, belongs to the State in the territorial waters of which it is located". As Tubir Selatan/South Ledge is 7.9 nautical miles from the mainland of Johor and 1.7 nautical miles from Batuan Tengah/Middle Rocks, it is clearly located within the territorial waters of Malaysia. It naturally follows that sovereignty over Tubir Selatan/South Ledge belongs to Malaysia in accordance with the Judgment of the ICJ.

The Government of Malaysia wishes to also remind the Government of Singapore that the airspace over the waters around Batu Puteh, which is located within the territorial waters of Malaysia in accordance with the principles of international law as well as the Judgment of the ICJ, is part of Malaysia's airspace.

The Government of Malaysia further reiterates that any and all activities undertaken by Malaysia in its territory, including activities pertaining to and surrounding the abovementioned airspace and its maritime areas are legitimate exercises of its sovereignty and jurisdiction. Malaysian Government vessels and aircraft have and will continue to patrol and carry out all their activities in the territorial waters, maritime areas and airspace of Malaysia.

The Government of Malaysia therefore calls upon the Government of Singapore to refrain from such intrusions into Malaysian territory, territorial waters and the airspace over its territory and waters.

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



Putrajaya, 6 February 2009

High Commission of the Republic of Singapore Kuala Lumpur

Annex 35

Diplomatic note from Singapore to Malaysia, MFA/SEA/00018/2009, dated 20 April 2009



MFA/SEA/00018/2009

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 Notes from the Ministry of Foreign Affairs of Malaysia Reference EC 7/2009, EC 8/2009, EC 9/2009, EC 10/2009, EC 11/2009 and EC 12/2009, all dated 6 February 2009.

The Government of Singapore categorically rejects Malaysia's allegations in the aforementioned Notes of the violations of Malaysian's airspace over its territory and waters off the coast of the State of Johor by aircraft of the Singapore Government in the period July 2008 to December 2008. Of the 974 alleged violations listed in the six Notes, 598 could not be matched to any actual flights in the Singapore Government's records while 24 (as listed in Annex A) were flights by non-Singapore Government aircraft and 37 (as listed in Annex B) were flights by Singapore Government aircraft which had received prior authorisation to operate in Malaysian airspace. The remaining 315 flights either took place wholly within Singapore's airspace or were exercising the right of transit passage in the Singapore Strait. Consequently, there was no violation of Malaysia's airspace by any of the flights listed in the six aforementioned Notes.

The Government of Singapore observes that the aforementioned Notes repeated the Government of Malaysia's earlier allegations about Singapore's issuance of Notice to Airmen (NOTAM) in the area around Pedra Branca and about Restricted Area WSR31 without addressing the response already given by the Government of Singapore in Note Reference MFA/SEA/00044/2008 dated 9 December 2008. As explained in the said Note MFA/SEA/00044/2008:

- (a) the issuance of the said NOTAM and Singapore's actions in relation to Restricted Area WSR31 are in accordance with Singapore's Flight Information Region (FIR) authority over Pedra Branca, Middle Rocks and South Ledge as allocated by the International Civil Aviation Organisation and are consistent with international law; and
- (b) Singapore was prepared to discuss the NOTAM and WSR31 issues with Malaysia at the third Malaysia-Singapore Joint Technical Committee (MSJTC) meeting and was still waiting for Malaysia to propose a new date for the said meeting, after Malaysia indicated its unavailability on the previously agreed date of 29 October 2008.

The Government of Singapore would like to take this opportunity to reiterate that Singapore remains prepared to discuss these issues at the third MSJTC meeting and is still waiting for Malaysia to propose a new date for the said meeting.

The Government of Singapore again rejects the claim of the Government of Malaysia that sovereignty over South Ledge belongs to Malaysia, as the ICJ ruled that the sovereignty of South Ledge "belongs to the State in the territorial waters of which it is located". It therefore follows that the sovereignty over South Ledge, and the surrounding waters and airspace, can only be determined after the surrounding waters have been delimited by both countries.

The Government of Singapore strongly rejects the assertion by the Government of Malaysia that the waters around Pedra Branca are territorial waters of Malaysia, as well as the assertion that the airspace over the waters around Pedra Branca is part of Malaysia's airspace. The Government of Singapore reiterates that such assertions are completely baseless. The ICJ in its judgment of 23rd May 2008 had affirmed "that sovereignty over Pedra Branca/Pulau Batu Puteh belongs to Singapore" and also spoke of the "territorial waters generated by Pedra Branca/Pulau Batu Puteh". It is incontrovertible that Singapore's sovereignty over Pedra Branca clearly extends to the waters and airspace in and around the island. Such statements by Malaysia are also inconsistent with Malaysia's commitment "to honour and abide by the ICJ's judgment" as stated in the Joint Press Statements issued by the Foreign Ministers of Singapore and Malaysia on 6 June and 20 August 2008.

The Government of Singapore reiterates that it is fully committed to the MSJTC as a suitable forum for discussing issues relating to Pedra Branca, Middle Rocks and South Ledge 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 20 April 2009

High Commission of Malaysia Singapore



24 flights by Civil and Foreign Government aircraft

- On 1 Jul 08, between 0825 hrs to 1012 hrs, Indonesian Government aircraft squawking Mode 3/A 4614 (Callsign: A2307) operated in Indonesian airspace between Tanjong Pinang and Batam.
- On 7 Jul 08, between 1045 hrs to 1146 hrs, civil aircraft squawking
 Mode 3/A 0040 (Callsign: FDX 9019) operated in Malaysian airspace with commercial aviation rights.
- 3. On 16 Sep 08, between 0951 hrs to 1747 hrs, civil aircraft squawking Mode 3/A 4636 (Callsign: MDL 140) operated in Malaysian airspace with commercial aviation rights.
- 4. On 13 Oct 08, between 1153 hrs to 1632 hrs, Royal Australian Air Force (RAAF) aircraft squawking Mode 3/A 3111 (Callsign: RENAULT01) operated in Malaysian airspace under Five Power Defence Arrangements (FPDA) Ex Bersama Lima 08.
- 5. On 13 Oct 08, between 1153 hrs to 1632 hrs, RAAF aircraft squawking Mode 3/A 3112 (Callsign: RENAULT02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 6. On 13 Oct 08, between 1153 hrs to 1632 hrs, RAAF aircraft squawking Mode 3/A 3113 (Callsign: RENAULT03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.

- 7. On 13 Oct 08, between 1153 hrs to 1632 hrs, RAAF aircraft squawking Mode 3/A 3114 (Callsign: RENAULT04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 8. On 23 Oct 08, between 0911 hrs to 1107 hrs, RAAF aircraft squawking Mode 3/A 3101 (Callsign: KILLER01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 9. On 23 Oct 08, between 0911 hrs to 1107 hrs, RAAF aircraft squawking Mode 3/A 3102 (Callsign: KILLER02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 10. On 23 Oct 08, between 0911 hrs to 1107 hrs, RAAF aircraft squawking Mode 3/A 3103 (Callsign: KILLER03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 11. On 23 Oct 08, between 0911 hrs to 1107 hrs, RAAF aircraft squawking Mode 3/A 3104 (Callsign: KILLER04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 12. On 7 Nov 08, between 0802 hrs to 0929 hrs, United States Air Force (USAF) aircraft squawking Mode 3/A 4226 (Callsign: SLING01) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.

- 13. On 12 Nov 08, between 0911 hrs to 0958 hrs, USAF aircraft squawking Mode 3/A 4226 (Callsign: RASTA01) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.
- 14. On 14 Nov 08, between 0744 hrs to 2048 hrs, Royal Air Force (RAF) aircraft squawking Mode 3/A 4216 (Callsign: RRR511) was authorised under diplomatic clearance DOR/UD/1742/08 to operate in Malaysian airspace.
- 15. On 20 Nov 08, between 0737 hrs to 1733 hrs, USAF aircraft squawking Mode 3/A 4224 (Callsign: SLING01) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.
- 16. On 21 Nov 08, between 0749 hrs to 1653 hrs, USAF aircraft squawking Mode 3/A 4213 (Callsign: SLING01) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.
- 17. On 21 Nov 08, between 0749 hrs to 1653 hrs, USAF aircraft squawking Mode 3/A 4226 (Callsign: SLING02) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.
- 18. On 21 Nov 08, between 0749 hrs to 1653 hrs, USAF aircraft squawking Mode 3/A 4225 (Callsign: SLING03) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.
- 19. On 21 Nov 08, between 0749 hrs to 1653 hrs, USAF aircraft squawking Mode 3/A 4242 (Callsign: RASTA01) was authorised to operate in Malaysian airspace during USAF Fighter Detachment Operations.

- 20. On 26 Nov 08, between 0908 hrs to 1531 hrs, USAF aircraft squawking Mode 3/A 4260 (Callsign: ATN73102) was authorised under diplomatic clearance DOR/UD/1813/08 to operate in Malaysian airspace.
- 21. On 7 Dec 08, between 0911 hrs to 1006 hrs, Royal Thai Air Force (RTAF) aircraft squawking Mode 3/A 4202 (Callsign: RTAF 119) was authorised under diplomatic clearance DOR/UD/1938/08 to operate in Malaysian airspace.
- 22. On 7 Dec 08, between 0911 hrs to 1006 hrs, civil aircraft squawking Mode 3/A 4203 (Callsign: FDX 9007) operated in Malaysian airspace with commercial aviation rights.
- 23. On 11 Dec 08, between 0854 hrs to 0955 hrs, USAF aircraft squawking Mode 3/A 4235 (Callsign: ATN 450) was authorised under diplomatic clearance DOR/UD/1871/08 to operate in Malaysian airspace.
- 24. On 29 Dec 08, between 0823 hrs to 0902 hrs, USAF aircraft squawking Mode 3/A 4211 (Callsign: ATN 730) was authorised under diplomatic clearance DOR/UD/1879/08 to operate in Malaysian airspace.

37 flights by Singapore Government aircraft which had received authorisation to operate in Malaysian airspace

- On 12 Oct 08, between 1011 hrs to 1102 hrs, Republic of Singapore Air Force (RSAF) aircraft squawking Mode 3/A 4201 (Callsign: TRUMPET) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 2. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3501 (Callsign: RUBY02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3502 (Callsign: RUBY01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 4. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3503 (Callsign: RUBY03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 5. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3504 (Callsign: RUBY04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 6. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 1401 (Callsign: AMCO1) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.

- On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 1402 (Callsign: AMCO2) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 8. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3511 (Callsign: BIGFOOT01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 9. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3512 (Callsign: BIGFOOT02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3513 (Callsign: BIGFOOT03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 11. On 13 Oct 08, between 1153 hrs to 1632 hrs, RSAF aircraft squawking Mode 3/A 3514 (Callsign: BIGFOOT04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 12. On 15 Oct 08, between 0819 hrs to 1058 hrs, RSAF aircraft squawking Mode 3/A 3501 (Callsign: COBRA01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 13. On 15 Oct 08, between 0819 hrs to 1058 hrs, RSAF aircraft squawking Mode 3/A 3502 (Callsign: COBRA02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.

- 14. On 15 Oct 08, between 0819 hrs to 1058 hrs, RSAF aircraft squawking Mode 3/A 3503 (Callsign: COBRA03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 15. On 15 Oct 08, between 0819 hrs to 1058 hrs, RSAF aircraft squawking Mode 3/A 3504 (Callsign: COBRA04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 16. On 17 Oct 08, between 0811 hrs to 0952 hrs, RSAF aircraft squawking Mode 3/A 3611 (Callsign: TELSTAR01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 17. On 17 Oct 08, between 0811 hrs to 0952 hrs, RSAF aircraft squawking Mode 3/A 3612 (Callsign: TELSTAR02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 18. On 17 Oct 08, between 0811 hrs to 0952 hrs, RSAF aircraft squawking Mode 3/A 3613 (Callsign: TELSTAR03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 19. On 17 Oct 08, between 0811 hrs to 0952 hrs, RSAF aircraft squawking Mode 3/A 3614 (Callsign: TELSTAR04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 20. On 18 Oct 08, between 0817 hrs to 1003 hrs, RSAF aircraft squawking Mode 3/A 3511 (Callsign: BOSTON03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.

- 21. On 18 Oct 08, between 0817 hrs to 1003 hrs, RSAF aircraft squawking Mode 3/A 3512 (Callsign: BOSTON04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 22. On 18 Oct 08, between 0817 hrs to 1003 hrs, RSAF aircraft squawking Mode 3/A 3513 (Callsign: JELLY01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 23. On 18 Oct 08, between 0817 hrs to 1003 hrs, RSAF aircraft squawking Mode 3/A 3514 (Callsign: JELLY02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 24. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3611 (Callsign: VULTURE01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 25. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3612 (Callsign: VULTURE02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 26. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3613 (Callsign: VULTURE03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 27. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3614 (Callsign: VULTURE04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.

- 28. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3501 (Callsign: COBRA01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 29. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3502 (Callsign: COBRA02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 30. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3503 (Callsign: COBRA03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 31. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3504 (Callsign: COBRA04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 32. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3511 (Callsign: JAGUAR01) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 33. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3512 (Callsign: JAGUAR02) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 34. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3513 (Callsign: JAGUAR03) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.

- 35. On 23 Oct 08, between 0911 hrs to 1107 hrs, RSAF aircraft squawking Mode 3/A 3514 (Callsign: JAGUAR04) operated in Malaysian airspace under FPDA Ex Bersama Lima 08.
- 36. On 29 Oct 08, between 0821 hrs to 1957 hrs, RSAF aircraft squawking Mode 3/A 4217 (Callsign: SIERRAEIS) was authorised under diplomatic clearance DOR/UD/1561/08 to operate in Malaysian airspace.
- 37. On 12 Dec 08, between 1157 hrs to 1302 hrs, RSAF aircraft squawking Mode 3/A 4276 (Callsign: SIERRAEIS) was authorised under diplomatic clearance DOR/UD/1887/08 to operate in Malaysian airspace.

Annex 36

Diplomatic note from Singapore to Malaysia, MFA/SEA/00030/2009, dated 3 September 2009



MFA/SEA/00030/2009

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.

Following the ICJ Judgment, the governments of both countries established a Joint Technical Committee on the Implementation of the ICJ Judgment on Pedra Branca, Middle Rocks and South Ledge for the purpose of fully implementing the ICJ in the spirit of good relations and cooperation.

The Singapore Government therefore notes with regret that Malaysia has been acting in disregard of the ICJ Judgment by unilaterally sending Royal Malaysian Air Force B200T aircraft to fly over and around South Ledge. We refer to the following dates and incidents:

- i. On 12 January 2009 at 1615 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.4 nm of South Ledge.
- ii. On 22 January 2009 at 1836 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.1 nm of South Ledge.

- iii. On 30 January 2009 at 0716 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft overflew South Ledge.
- iv. On 3 February 2009 at 0903 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 200 feet. The aircraft overflew South Ledge.
- v. On 11 February 2009 at 0710 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 700 feet. The aircraft overflew South Ledge.
- vi. On 16 February 2009 at 0858 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.2 nm of South Ledge.
- vii. On 5 March 2009 at 1001 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.2 nm of South Ledge.
- viii. On 10 March 2009 at 1613 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.
- ix. On 19 March 2009 at 0934 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 700 feet. The aircraft overflew South Ledge.

- x. On 25 March 2009 at 1548 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft overflew South Ledge.
- xi. On 1 April 2009 at 0808 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft overflew South Ledge.
- xii. On 6 April 2009 at 1356 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.
- xiii. On 17 April 2009 at 0903 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 800 feet. The aircraft overflew South Ledge.
- xiv. On 24 April 2009 at 1557 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.1 nm of South Ledge.
- xv. On 30 April 2009 at 0830 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 300 feet. The aircraft came within 0.3 nm of South Ledge.
- xvi. On 5 May 2009 at 1300 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.

xvii. On 15 May 2009 at 0757 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft came within 0.4 nm of South Ledge.

xviii. On 18 May 2009 at 0952 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft came within 0.4 nm of South Ledge.

xix. On 29 May 2009 at 0743 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 200 feet. The aircraft overflew South Ledge.

xx. On 9 June 2009 at 0835 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 300 feet. The aircraft came within 0.2 nm of South Ledge.

xxi. On 12 June 2009 at 0710 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft came within 0.3 nm of South Ledge.

xxii. On 16 June 2009 at 0954 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.

xxiii. On 26 June 2009 at 0749 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft came within 0.2 nm of South Ledge.

xxiv. On 30 June 2009 at 1009 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.3 nm of South Ledge.

The Singapore Government protests Malaysia's unilateral actions in the airspace over and around South Ledge, which go against the spirit of the Malaysia-Singapore Joint Technical Committee and are inconsistent with the mutual agreement to honour and abide by the ICJ judgment. Malaysia's actions in respect of South Ledge are not helpful in 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 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

03 September 2009



High Commission of Malaysia Singapore

Annex 37

Diplomatic note from Singapore to Malaysia, MFA/SEA/00033/2009, dated 9 October 2009



MFA/SEA/00033/2009

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. further honour to refer Ministry has the to our earlier MFA/SEA/00025/2008 dated 23 August 2008 protesting Malaysia's activities on South Ledge on 21 August 2008 and our Note MFA/SEA/00030/2009 dated 3 September 2009 protesting Royal Malaysian Air Force flights over and around South Ledge.

The Singapore Government notes with regret that, on 8 October 2009, Malaysia continued to act in disregard of the ICJ judgment by unilaterally landing 5 persons on South Ledge using a seaboat that was earlier launched from KD PERANTAU. These 5 persons remained for more than an hour, during which they were observed taking photographs and measurements.

The Singapore Government protests Malaysia's unilateral actions at South Ledge, which go against the spirit of the Malaysia-Singapore Joint Technical Committee, 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, 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

9 October 2009

High Commission of Malaysia Singapore

Annex 38

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 12 October 2009

TUTAH SINGANA

MINISTRY OF FOREIGN AFFAIRS

12 October 2009

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 East Asia Summit Senior Officials Meeting in Bangkok on 9 October 2009, during which I had expressed our concerns about Malaysia's unilateral action of landing five personnel on South Ledge to conduct surveying activities on 8 October 2009. As we discussed on 9 October 2009 in Bangkok, this was not the first time that Malaysia is taking unilateral action on South Ledge. Malaysia had previously sent personnel to South Ledge to conduct surveying activities on 21 and 22 August 2008. You would recall my letter dated 22 August 2008 and our phone conversation on 29 August 2008, in which I expressed Singapore's concerns over Malaysia's actions.

- I refer further to our conversation at the sidelines of the Second Malaysia-Singapore Joint Technical Committee (MSJTC) Meeting on the Implementation of the International Court of Justice (ICJ) Judgment on Pedra Branca, Middle Rocks and South Ledge in Putrajaya on 20 August 2008. We both agreed that, consistent with the ICJ judgement, the status of South Ledge would have to be determined by the proper process of delimitation.
- It is of serious concern to Singapore that in addition to Malaysia's activities on South Ledge on 8 October 2009, Malaysia has again chosen to act unilaterally by landing four personnel on South Ledge on 9 October 2009, and landing six personnel on South Ledge on both 10 October 2009 and 11 October 2009. The personnel also erected a vertical structure on South Ledge on 9 October 2009 and a second vertical structure on 11 October 2009. Malaysia's actions go against the spirit of the MSJTC and our mutual agreement to honour and abide by the ICJ judgment. These actions are not

TANGLIN, SINGAPORE 248163 TEL: (65) 6379 8000 FAX: (65) 6474 7885 E-mail: mfa@mfa.gov.sg Website: http://www.mfa.gov.sg helpful in reaching a peaceful and amicable resolution of the issues relating to the ICJ judgment.

- As you would also recall, it was Malaysia that had cancelled the Third MSJTC Meeting, which had been scheduled to be held in Singapore on 29 October 2008. Since then, we have reminded your officials several times that we are still waiting for Malaysia to propose a new date for the meeting. During the visit of Prime Minister Dato' Sri Mohd Najib Razak to Singapore on 20-21 May 2009, you had also told me that the MSJTC should be reconvened.
- We urge Malaysia to immediately cease all activities on South Ledge, dismantle the vertical structures, remove all equipment and refrain from conducting further activities until the status of South Ledge has been determined.
- We are committed to maintaining good relations with Malaysia and would prefer to work with you to settle this without having to resort to other procedures. But the continuation of such activities against the spirit and letter of the ICJ decision is not conducive to cooperation between our countries.

With best regards

PETER HO

Permanent Secretary

Diplomatic note from Singapore to Malaysia, MFA/SEA/00034/2009, dated 12 October 2009



MFA/SEA/00034/2009

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 judgement 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. The Ministry has the further honour to refer to our earlier Note MFA/SEA/00033/2009 dated 9 October 2009 protesting Malaysia's activities on South Ledge on 8 October 2009.

The Singapore Government notes with regret that Malaysia continued to act in disregard of the ICJ judgement on 9 October 2009, 10 October 2009 and 11 October 2009 by unilaterally landing personnel on South Ledge using a seaboat that was launched from KD PERANTAU. On 9 October 2009, four personnel landed on South Ledge where they remained for more than two hours and erected a vertical structure on South Ledge. On 10 October 2009, six personnel landed on South Ledge where they remained for more than two hours and were observed performing maintenance works on the vertical structure. On 11 October 2009, six personnel landed on South Ledge where they remained for more than three hours, during which they erected a second vertical structure on South Ledge.

The Singapore Government strongly protests Malaysia's unilateral actions at South Ledge, which go against the spirit of the Malaysia-Singapore

Joint Technical Committee, and are inconsistent with the mutual agreement to honour and abide by the ICJ judgement. 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 judgement.

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 the vertical structures and all equipment on South Ledge, 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 judgement 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

12 October 2009



High Commission of Malaysia Singapore

Diplomatic note from Singapore to Malaysia, MFA/SEA/00036/2009, dated 20 October 2009



MFA/SEA/00036/2009

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 judgement 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. The Ministry has the further honour to refer to our earlier Notes MFA/SEA/00033/2009 dated 9 October 2009 and MFA/SEA/00034/2009 dated 12 October 2009 protesting Malaysia's activities on South Ledge from 8 October 2009 to 11 October 2009.

The Singapore Government notes with regret that Malaysia continued to act in disregard of the ICJ judgement by unilaterally landing four personnel on South Ledge on 19 October 2009 using a seaboat. The personnel remained on South Ledge for approximately one hour and were observed erecting a third vertical structure.

The Singapore Government strongly protests Malaysia's unilateral actions at South Ledge, which go against the spirit of the Malaysia-Singapore Joint Technical Committee, and are inconsistent with the mutual agreement to honour and abide by the ICJ judgement. 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 judgement.

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 the vertical structures and all equipment on South Ledge, 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 judgement 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

20 October 2009



High Commission of Malaysia Singapore

Diplomatic note from Singapore to Malaysia, MFA/SEA/00038/2009, dated 27 October 2009



MFA/SEA/00038/2009

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. 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, and MFA/SEA/00036/2009 dated 20 October 2009 protesting Malaysia's activities on South Ledge from 8 October 2009 to 11 October 2009 and on 19 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 21 October 2009 using a speedboat. The personnel remained on South Ledge for approximately two hours and were observed fixing equipment onto the three vertical structures recently placed on South Ledge by Malaysia unilaterally, and subsequently dismantling the equipment.

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 the vertical structures and all equipment on South Ledge, 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

27 October 2009

High Commission of Malaysia Singapore

Diplomatic note from Singapore to Malaysia, MFA/SEA/00040/2009, dated 5 November 2009



MFA/SEA/00040/2009

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.

Following the ICJ Judgment, the governments of both countries established a Joint Technical Committee on the Implementation of the ICJ Judgment on Pedra Branca, Middle Rocks and South Ledge for the purpose of fully implementing the ICJ in the spirit of good relations and cooperation.

The Singapore Government therefore notes with regret that Malaysia has been acting in disregard of the ICJ Judgment by unilaterally sending Royal Malaysian Air Force B200T aircraft to fly over and around South Ledge. We refer to the following dates and incidents:

- i. On 9 July 2009 at 0748 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 200 feet. The aircraft overflew South Ledge.
- ii. On 14 July 2009 at 0809 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.

- iii. On 24 July 2009 at 0757 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.
- iv. On 27 July 2009 at 0806 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft overflew South Ledge.
- v. On 7 August 2009 at 0726 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 400 feet. The aircraft came within 0.1 nm of South Ledge.
- vi. On 12 August 2009 at 0807 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 300 feet. The aircraft came within 0.1 nm of South Ledge.
- vii. On 22 August 2009 at 1827 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft came within 0.2 nm of South Ledge.
- viii. On 27 August 2009 at 0920 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft overflew South Ledge.

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The Singapore Government protests Malaysia's unilateral actions in the airspace over and around South Ledge, which go against the spirit of the Malaysia-Singapore Joint Technical Committee and are inconsistent with the mutual agreement to honour and abide by the ICJ judgment. Malaysia's actions in respect of South Ledge are not helpful in 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 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 co-operation 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

5 November 2009

High Commission of Malaysia

Singapore

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Letter from Malaysia's Secretary General, Ministry of Foreign Affairs, Rastam Mohd Isa, to Singapore's Permanent Secretary, Ministry of Foreign Affairs, Peter Ho, dated 23 November 2009



SECRETARY GENERAL MINISTRY OF FOREIGN AFFAIRS MALAYSIA

23 November 2009

Dear Peter,

Thank you for your letter of 12 October 2009. I apologise for the delay in responding to the letter. However, it was necessary to obtain the relevant information from our agencies regarding the activities around Tubir Selatan/South Ledge which are indeed consistent with Malaysia's activities in and around any of its territories or in its own territorial water.

You may recall that in my letter dated 29 August 2008, I had expressly stated that Tubir Selatan/South Ledge lies within Malaysian waters. I wish to reiterate that consistent with the judgment of the International Court of Justice (ICJ) dated 23 May 2008 "that sovereignty over South Ledge belongs to the State in the territorial waters of which it is located", Tubir Selatan/South Ledge clearly lies in Malaysian territorial waters as it is located at a distance of only 1.2 kilometres from Batuan Tengah/Middle Rocks. I wish to inform you that the vertical structures on Tubir Selatan/South Ledge are survey markers.

In light of the above, I wish to relterate further that Malaysia's actions on and around Tubir Selatan/South Ledge do not go against the Judgment of the ICJ nor the spirit of the MSJTC. Nevertheless, we are willing to include all issues related to the ICJ judgement, including Tubir Selatan/South Ledge, on the agenda of the next meeting of the MSJTC.

In response to your proposal when we spoke in Singapore on 14 November 2009, I can agree that the next MSJTC meeting be held on 5 and 6 January 2010.

I wish to give you the assurance that Malaysia too remains committed to maintaining good relations with Singapore and we are confident that the two countries would be able to resolve any outstanding difficulties at the MSJTC.

Rastam Mohd Isa

H.E.Mr. Peter Ho Permanent Secretary Ministry of Foreign Affairs Republic of Singapore This page is intentionally left blank.

Diplomatic note from Singapore to Malaysia, MFA/SEA/00045/2009, dated 25 November 2009



MFA/SEA/00045/2009

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.

Following the ICJ Judgment, the governments of both countries established a Joint Technical Committee on the Implementation of the ICJ Judgment on Pedra Branca, Middle Rocks and South Ledge for the purpose of fully implementing the ICJ Judgment in the spirit of good relations and cooperation.

The Singapore Government therefore notes with regret that Malaysia has been acting in disregard of the ICJ Judgment by unilaterally sending Royal Malaysian Air Force B200T aircraft to fly over and around South Ledge. We refer to the following dates and incidents:

i. On 2 September 2009 at 1604 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 700 feet. The aircraft overflew South Ledge.

- ii. On 13 September 2009 at 1851, hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft came within 0.2 nm of South Ledge.
- iii. On 24 September 2009 at 0814 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 300 feet. The aircraft overflew South Ledge.
- iv. On 30 September 2009 at 1421 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 700 feet. The aircraft overflew South Ledge.
- v. On 5 October 2009 at 1707 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft came within 0.5 nm of South Ledge.
- vi. On 17 October 2009 at 1517 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 700 feet. The aircraft overflew South Ledge.
- vii. On 23 October 2009 at 0823 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 500 feet. The aircraft overflew South Ledge.
- viii. On 26 October 2009 at 1130 hrs, an RMAF B200T aircraft was observed to be operating in the airspace near South Ledge at a height of approximately 600 feet. The aircraft overflew South Ledge.

The Singapore Government protests Malaysia's unilateral actions in the airspace over and around South Ledge, which go against the spirit of the Malaysia-Singapore Joint Technical Committee and are inconsistent with the mutual agreement to honour and abide by the ICJ Judgment. Malaysia's actions in respect of South Ledge are not helpful in 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 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 co-operation 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

25 November 2009



High Commission of Malaysia Singapore

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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 10 December 2009

10 December 2009



MINISTRY OF FOREIGN AFFAIRS

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

Dear Ratau

Thank you for your letter of 23 November 2009 agreeing to the proposal to re-convene the Third Malaysia-Singapore Joint Technical Committee (MSJTC) Meeting in Singapore on 5-6 January 2010 and to discuss the issue of South Ledge at the MSJTC meeting.

- As we had earlier agreed, the MSJTC is the proper forum to discuss all issues related to the implementation of the ICJ judgment. However, I note that Malaysia has continued to assert that sovereignty over South Ledge belongs to Malaysia as a result of the International Court of Justice (ICJ) Judgment of 23 May 2008. As stated in my earlier letter to you on 15 September 2008, based on the ICJ Judgment, the status of South Ledge remains indeterminate until the proper process of delimitation of boundaries around Pedra Branca, Middle Rocks and South Ledge has taken place. Malaysia's unilateral activities on South Ledge are therefore not consistent with our mutual agreement to honour and abide by the ICJ Judgment. Consequently, Malaysia must remove the remaining survey markers placed on South Ledge and refrain from conducting further activities until the status of South Ledge has been determined.
- My colleagues will follow-up on the venue, proposed agenda and involvement list for the MSJTC meeting shortly. I look forward to welcoming you and your delegation to Singapore, and having a productive discussion at the forthcoming MSJTC Meeting.

With best regards

PETER HO

Permanent Secretary

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Third 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, 5 January 2010, Singapore, Record of Meeting

THIRD 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

5 JANUARY 2010 SINGAPORE

Record of Meeting

The Third Meeting of the Malaysia-Singapore Joint Technical Committee (MSJTC) on the Implementation of the International Court of Justice's (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 Mr Peter Ho, Permanent Secretary, Ministry of Foreign Affairs of the Republic of Singapore.

- The list of the Malaysian Delegation is attached as <u>ANNEX A</u>. The list of the Singapore Delegation is attached as <u>ANNEX B</u>. The Agenda of the Meeting is attached as <u>ANNEX C</u>.
- 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.
- The Meeting, without prejudice to the issues of sovereignty and eventual delimitation of maritime boundaries, discussed and agreed on the following:
 - (i) That the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge will meet intersessionally to finalise the Scope of Works (SoW) for the Joint Survey in and around Pedra Branca and Middle Rocks;

- (ii) That the SoW will be appended to a Memorandum of Understanding (MoU) to be agreed between the parties; and
- (iii) the Terms of Reference of the Sub-Committee on Maritime & Airspace Management and Fisheries is at ANNEX D.
- The Meeting was briefed on the outcome of the Fourth Meeting of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge, and the First Meeting of the Sub-Committee on Maritime & Airspace Management and Fisheries. The report of the Fourth Meeting of the Sub-Committee on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge is attached as <u>ANNEX E</u>, and the report of the First Meeting of the Sub-Committee on Maritime & Airspace Management and Fisheries is attached as <u>ANNEX F</u>.
- The Joint Press Statement from the Meeting, which will be issued at an agreed date, is attached as **ANNEX G**.
- The Meeting agreed that the next meeting would be held as soon as possible in one to two months' time. The exact date and venue of the Meeting will be agreed upon through diplomatic channels.

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THIRD 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

5 JANUARY 2010 SINGAPORE

DELEGATION LIST

Ministry of Foreign Affairs

- HE Tan Sri Rastam Mohd Isa Secretary General
- 2. HE Dato' Md Hussin Nayan High Commissioner
- HE Dato' Noor Farida Ariffin
 Director General
 Research, Treaties and International Law Department
- Dr. Ahmad Faisal Muhamad Deputy High Commissioner
- Mr. Shaharuddin Onn
 Principal Assistant Secretary
 Research, Treaties and International Law Department
- Ms. Suzilah Mohd. Sidek
 Principal Assistant Secretary
 Research, Treaties and International Law Department
- Mr. Azhan Mohamed Yasin Second Secretary High Commission of Malaysia

National Security Council

- 8. Datuk Mohamed Thajudeen Abdul Wahab Secretary
- Mr. Hasnan Zahedi Ahmad Zakaria Undersecretary
- Mr. Mohd Helmy Ahmad Principal Assistant Secretary

National Hydrography Centre

11. First Admiral Zaaim Hasan Director General

Department of Survey and Mapping

- Dato' Prof Dr Abdul Kadir Taib Director-General
- 13. Mr. Tan Ah Bah Director
- Mr. Hasan Jamil Director
- Dr. Azhari Mohamed Director
- Mr. Zulkifli Sidek
 Principal Assistant Director

Prime Minister's Department

 Mr. Mohd Naziruddin bin Mohd Yunus Director

Royal Malaysian Police

- Dato' Isa bin Munir Commander, Marine Operations Force
- ACP Leow Fook Kong Royal Malaysian Police, Johor

Department of Fisheries

 Mr. Ahmad Saktian bin Langgang Head of Unit Management of Marine Resources

Attorney-General's Chambers

- 21. Mr. Alfian Yang Amri Head of International Unit 1
- 22. Ms. Suraya Harun Senior Federal Counsel

Ministry of Defence

- Major-General Dato' Roslan Saad Commander 1st Air Division
- Brig. Gen. Mohd Nor Osman Director, Strategic Intelligence Directorate

Malaysian Armed Forces Staff College

Rear Admiral Dato' Abd Hadi A. Rashid
 Assistant Chief of Staff (Operations and Defence Training)

Department of Civil Aviation

- 26. Dato' Azharuddin A Rahman Director General
- 27. Mr. Ahmad Nizar Zolfakar Air Traffic Director

Department of Marine

28. Mr. Muhammad Razif bin Ahmad Director, Seaman and Port Division

Malaysian Maritime Enforcement Agency

29. Maritime Rear Admiral Dato' Noor Aziz bin Yunan Deputy Director General (Operations)

Johor State Economic Planning Unit

- Dr. Badrul Hisham Kassim
 Deputy Director
 Johor State Economic Planning Unit
- 31. Mr. Mohammed Ridha Dato' Hj. Abd. Kadir Principal Assistant Director (Development) Johor Lands and Mines Office

ANNEX B

THIRD 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

5 JANUARY 2010 SINGAPORE

Singapore Delegation

- Mr Peter Ho Leader of Delegation/Co-Chairman
 Permanent Secretary
 Ministry of Foreign Affairs
- Ms Foo Chi Hsia
 Second Director
 Southeast Asia Directorate
 Ministry of Foreign Affairs
- Ms Iris Chen
 Deputy Director
 Southeast Asia Directorate
 Ministry of Foreign Affairs
- Ms Sharon Wong
 Country Officer
 Southeast Asia Directorate
 Ministry of Foreign Affairs
- Mr Ramanathan Manivasagan
 Country Officer
 Southeast Asia Directorate
 Ministry of Foreign Affairs

6. Mr Lucien Hong

Country Officer Southeast Asia Directorate Ministry of Foreign Affairs

7. Mr Lionel Yee

Principal Senior State Counsel Attorney-General's Chambers

8. Mr Pang Khang Chau

Senior State Counsel Attorney-General's Chambers

9. Mr Daren Tang

Deputy Senior State Counsel Attorney-General's Chambers

10. Mr Marcus Song

State Counsel Attorney-General's Chambers

11. Ms Davinia Aziz

State Counsel Attorney-General's Chambers

12. Mr Louis Lim

Legal Executive Attorney-General's Chambers

13. Dr Parry Oei

Chief Hydrographer Maritime and Port Authority of Singapore

14. Mr Jamie Chen

Deputy Chief Hydrographer Maritime and Port Authority of Singapore

15. Mr Lim Wee Kiat

Deputy Chief Hydrographer Maritime and Port Authority of Singapore

16. Capt Lee Cheng Wee

Port Master Maritime and Port Authority of Singapore

17. Mr Soh Kheng Peng

Chief Surveyor Singapore Land Authority

18. Mr Lee Yuen Hee

Deputy Secretary (International) Ministry of Transport

19. Mr Bernard Lim

Director (International Relations and Security) Ministry of Transport

20. Ms Ngiam Siew Ying

Deputy Director (Sea Transport) Ministry of Transport

21. Ms Penny Ng

Senior Assistant Director (Air Transport) Ministry of Transport

22. Mr Gregory Goh

Senior Assistant Director (Security Policy) Ministry of Transport

23. Ms Jan Chua

Deputy Director (Policy) Ministry of Defence

24. Ms Annabella Ng

Policy Officer Ministry of Defence

25. LTC David Foo

Naval Operations Department Ministry of Defence

26. LTC S Subash

Air Operations Department Ministry of Defence

27. AC Teo Kian Teck

Commander Police Coast Guard

28. SUPT Devrajan Bala

Assistant Director (Operations Department) Singapore Police Force

29. ASP Peter Yip

Operations Officer (Operations & Security Branch)
Police Coast Guard

30. Mr Ng Tee Chiou

Director (Air Traffic Services) Civil Aviation Authority of Singapore

31. Mr Kuah Kong Beng

Chief Air Traffic Control Officer Civil Aviation Authority of Singapore

32. Mr Vincent Hwa

Head (International Air Navigation Services Policy) Civil Aviation Authority of Singapore

33. Mr Leslie Cheong

Director, Food Supply and Technology Agri-Food & Veterinary Authority of Singapore

34. Mrs Tan-Low Lai Kim

Assistant Director (Post Harvest) Agri-Food & Veterinary Authority of Singapore

ANNEX C

THIRD 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

5 JANUARY 2010 SINGAPORE

Agenda

- 1. Opening Remarks
- 2. Confirmation of Agenda
- 3. Joint survey
- Maritime and Airspace Management
- 5. Fisheries
- 6. Any other matters
- 7. Date and venue of next meeting
- 8. Closing remarks

ANNEX D

TERMS OF REFERENCE OF SUB-COMMITTEE ON MARITME & AIRSPACE MANAGEMENT AND FISHERIES

- This committee is a technical sub-committee of the Malaysia-Singapore Joint Technical Committee on the implementation of the International Court of Justice (ICJ) judgment on sovereignty over Pedra Branca, Middle Rocks and South Ledge.
- It shall be known as the "Sub-Committee on Maritime & Airspace Management and Fisheries".
- Its purpose is to discuss the airspace & maritime management and fisheries issues in and around Pedra Branca, Middle Rocks and South Ledge.
- 4. The Sub-Committee shall report to the Joint Technical Committee on the outcomes of the issues discussed.
- It shall be co-chaired by one member from Malaysia and Singapore respectively.

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ANNEX E

(Note: Annex E is in a separate document)

THIRD JOINT TECHNICAL COMMITTEE MEETING BETWEEN MALAYSIA AND SINGAPORE ON THE IMPLENTATION OF THE ICJ JUDGMENT ON SOVEREIGNTY OVER PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

FIRST SUB-COMMITTEE MEETING ON MARITIME & AIRSPACE MANAGEMENT AND FISHERIES

5 JANUARY 2010 SINGAPORE

- 1. The First Sub-Committee Meeting on Maritime & Airspace Management and Fisheries (the Meeting) was held on 5 January 2010 in Singapore.
- 2. The Meeting was co-chaired by Mr Lee Yuen Hee, Deputy Secretary (International), Ministry of Transport, Singapore and Datuk Mohamed Thajudeen Abdul Wahab, Secretary, National Security Council, Prime Minister's Department, Malaysia. Singapore's delegation list is attached as Appendix F1. Malaysia's delegation list is attached as Appendix F2.
- 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. The discussion covered the following matters:

Terms of Reference

4. Both sides agreed to the Terms of Reference of the Sub-Committee as attached at **Appendix F3**.

Fisheries

5. Both sides agreed that there were no outstanding fisheries issues.

Maritime Management

6. Both sides agreed that there were also no outstanding maritime management issues. Both sides reaffirmed the mutual commitment to work together to ensure that the ground situation in and around Pedra Branca, Middle Rocks and South Ledge remained calm. Both sides also reaffirmed the agreement that the operational agencies should continue to work closely to minimise the risk of accidental collisions and other incidents on the ground.

Airspace Management

- 7. Concerning the Notice to Airmen (NOTAM), Singapore explained that this is issued for the purposes of aviation safety as Horsburgh Lighthouse is used as a visual reference by VFR flights and there is heavy air traffic in the area. Having considered Malaysia's concerns, Singapore proposed that instead of issuing a daily NOTAM, the contents of the NOTAM could be transferred into the Singapore Aeronautical Information Publication (AIP) instead. This proposal is made in the spirit of friendly cooperation and without prejudice to issues of sovereignty and maritime delimitation.
- 8. Malaysia recalled that during the 2nd JTC held on 20th August 2008 in Putrajya, Singapore fully recognised Malaysia's sovereignty over Middle Rocks. Malaysia had also stated that it had full and exclusive sovereignty over Middle Rocks. Malaysia welcomed Singapore's proposal to stop issuing such NOTAM. However, Malaysia stated that it would need to consider further the proposal to replace the NOTAM by inserting the draft as attached in **Appendix F4** into the Singapore AIP. Malaysia will revert to Singapore at an appropriate time on the matter. Singapore clarified that its proposal was not to stop issuing the NOTAM but to transfer the NOTAM to the AIP.
- 9. On the issue of restricted area WSR31, Singapore noted Malaysia's concern that "restricted area" has territorial connotations, and proposed that it be converted to a "danger area" which does not carry connotations of territorial sovereignty.
- 10. Malaysia felt that the proposal did not sufficiently address their concerns as the WSR31 area covered Malaysia's sovereign airspace, and asked that the WSR31 area be realigned so that it does not cover any part of Malaysian sovereign airspace. Singapore responded that it is not

possible to consider realigning the boundaries of WSR31 before delimitation of the waters in the area.

11. Malaysia expressed concern over the overflight of its land territory and internal waters by Singapore state aircraft travelling between SINJON to HOSBA and onward to the South China Sea. Both sides agreed that UNCLOS provided for the right of transit passage through the territorial sea of coastal states in straits used for international navigation for as long as it is in conformity with applicable international laws. Singapore agreed to examine if its flight profiles went over Malaysia's land territory or internal waters.

.

Appendix F1

SINGAPORE DELEGATION

1. Mr Lee Yuen Hee - Co-chair of Sub-Committee

Deputy Secretary (International) Ministry of Transport

2. Mr Bernard Lim

Director (International Relations and Security) Ministry of Transport

3. Ms Ngiam Siew Ying

Deputy Director (Sea Transport) Ministry of Transport

4. Ms Penny Ng

Senior Assistant Director (Air Transport) Ministry of Transport

5. Mr Gregory Goh

Senior Assistant Director (Security Policy) Ministry of Transport

6. Ms Foo Chi Hsia

2Director/Southeast Asia Ministry of Foreign Affairs

7. Ms Sharon Wong

Country Officer Southeast Asia Directorate Ministry of Foreign Affairs

8. Mr Pang Khang Chau

Senior State Counsel Attorney-General's Chambers

9. Mr Marcus Song

State Counsel Attorney-General's Chambers

10. Ms Jan Chua

Deputy Director (Policy) Policy Office Ministry of Defence

11. Ms Annabella Ng

Policy Officer Ministry of Defence

12. LTC David Foo

Naval Operations Department Ministry of Defence

13. LTC S Subash

Air Operations Department Ministry of Defence

14. AC Teo Kian Teck

Commander Police Coast Guard

15. ASP Peter Yip

Operations Officer (Operations & Security Branch)
Police Coast Guard

16. SUPT Devrajan Bala

Assistant Director (Operations Department) Singapore Police Force

17. Capt Lee Cheng Wee

Port Master
Maritime and Port Authority of Singapore

18. Mr Kuah Kong Beng

Chief Air Traffic Control Officer Civil Aviation Authority of Singapore

19. Mr Ng Tee Chiou

Director (Air Traffic Services) Civil Aviation Authority of Singapore

20. Mr Vincent Hwa

Head (International Air Navigation Services Policy) Civil Aviation Authority of Singapore

21. Mr Leslie Cheong

Director, Food Supply and Technology Agri-Food & Veterinary Authority of Singapore

22. Mrs Tan-Low Lai Kim

Assistant Director (Post Harvest)
Agri-Food & Veterinary Authority of Singapore

MALAYSIA DELEGATION

1. Datuk Mohamed Thajudeen Abdul Wahab

(Co-Chair)

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 TUDM

Commander No. 1 Air Division

6. Mr Mohd Naziruddin Mohd Yunus

Director

Prime Minister's Department

7. SAC II Dato' Isa Munir

Commander

Marine Operations Force

8. Brigadier-General Mohd Noor Osman

Director

Strategic Directorate, DISD

9. Haji Ahmad Nizar Zolfakar

Air Traffic Director

Department of Civil Aviation

10. Mr Alfian Yang Amri

Head I, International Unit

Attorney-General's Chambers

11. Mr Muhammad Razif Ahmad

Director

Marine Department

12. ACP Leow Fook Leong

Deputy Head of Special Branch, Johor

Royal Malaysia Police

13. Dr Haji Badrul Hisham Kassim

Deputy Director

Johor State Economic Planning Unit

14. Mr Ahmad Saktian Langgang

Head of Unit

Management of Marine Resources

Fisheries Department

15. Mr Shaharuddin Onn

Principal Assistant Secretary

Research, Treaties & International Law Department

Ministry of Foreign Affairs, Malaysia

16. Mr Mohd Helmy Ahmad

Principal Assistant Secretary

National Security Council, Prime Minister's Department

Appendix F3

TERMS OF REFERENCE

- This committee is a technical sub-committee of the Malaysia-Singapore Joint Technical Committee on the implementation of the International Court of Justice (ICJ) judgment on sovereignty over Pedra Branca, Middle Rocks and South Ledge.
- It shall be known as the "Sub-Committee on Maritime & Airspace Management and Fisheries".
- Its purpose is to discuss the airspace & maritime management and fisheries issues in and around Pedra Branca, Middle Rocks and South Ledge.
- The Sub-Committee shall report to the Joint Technical Committee on the outcomes of the issues discussed.
- It shall be co-chaired by one member from Malaysia and Singapore respectively.

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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 TRANSIT

2.1 Introduction

2.1.1Horsburgh Lighthouse (011949N, 1042420E) is commonly used as a visual reference by VFR flights. The HOSBA Transit facilitates aircraft transiting to the east and vice versa. The HOSBA transit is used daily by a high volume of traffic during the active period.

2.2 Using The HOSBA Transit

2.2.1For 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 Altimeter Setting

2.3.1The Singapore QNH shall be used by all aircraft using the HOSBA Transit.

2.4 Vertical Limits

2.4.1 Ground/Sea Level to 2,000ft.

DRAFT JOINT PRESS STATEMENT

THIRD 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

Malaysia and Singapore met on 5 January 2010 in Singapore 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 by continuing the discussions pursuant to the Second MSJTC Meeting held in Putrajaya, Malaysia on 20 August 2008.

The MSJTC reviewed the work of the Sub-Committee on Joint Survey Works and agreed that the Sub-Committee should continue to hold discussions in the following weeks to finalise technical preparations relating to the Joint Hydrographic Survey. The Meeting also reviewed the work of the Sub-Committee on Maritime & Airspace Management and Fisheries.

Both sides were pleased with the progress made by the Joint Technical Committee and agreed that the next meeting be held in one to two months in Malaysia.

MINISTRY OF FOREIGN AFFAIRS MALAYSIA MINISTRY OF FOREIGN AFFAIRS REPUBLIC OF SINGAPORE

[DATE], 2010

Annex 47

Fourth Sub-Committee Meeting on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge, Singapore, 5
January 2010, Record of Discussion

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

SINGAPORE 5 JANUARY 2010

RECORD OF DISCUSSION

INTRODUCTION

- 1. The Fourth 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 Singapore on 5 January 2010.
- 2. The Malaysian delegation was led by Dato' Prof. Dr Abdul Kadir Taib, Director General of Survey and Mapping, Department of Survey and Mapping, Malaysia and the Singapore delegation was led by Mr. Lionel Yee, Principal Senior State Counsel, Attorney-General's Chambers, Singapore. The lists of the Singapore and Malaysian delegations are appended as **Appendix E1** and **Appendix E2** respectively.

AGENDA ITEM 1: OPENING REMARKS

3. The Head of the Singapore Delegation's opening remarks are attached as **Appendix E3**. The Head of the Malaysian Delegation's opening remarks are attached as **Appendix E4**.



CONFIDENTIAL ANNEX E

AGENDA ITEM 2: ADOPTION OF THE AGENDA

4. The Meeting adopted the Agenda, which is appended as **Appendix E5**.

AGENDA ITEM 3: DISCUSSION ON THE SCOPE OF WORKS
FOR JOINT HYDROGRAPHIC SURVEY IN AND
AROUND PEDRA BRANCA AND MIDDLE
ROCKS

- 5. Malaysia presented its counter-proposals on the proposals made by Singapore at the Third Sub-Committee Meeting on the Scope of Works for Joint Hydrographic Survey as appended in **Appendix E6**.
- 6. Singapore thanked Malaysia for the counter-proposals and said that it would study them. Singapore also indicated that it had some amendments to make further to its earlier proposals, as listed in **Appendix E7**.

AGENDA ITEM 4: OTHER MATTERS

- 7. Singapore presented its proposed draft Memorandum of Understanding on Joint Survey Works in and around Pedra Branca and Middle Rocks as appended in <u>Appendix E8</u>. Malaysia stated its position that the said draft Memorandum of Understanding will not be discussed until after all matters pertaining to the Scope of Works have been resolved.
- 8. The Meeting agreed that the next meeting would be held in Malaysia. The date and venue would be decided through correspondence.

AGENDA ITEM 5: CLOSING REMARKS

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



CONFIDENTIAL ANNEX E

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

Done in duplicate in Singapore on 5 January 2010.

Head of the Singapore Delegation

Lionel Yee

Rrincipal Senior State Counsel Attorney-General's Chambers

Singapore

Head of the Malaysian Delegation

Dato' Prof. Dr Abdul Kadir Taib Director General of Survey and

Mapping

Department of Survey and Mapping Malaysia

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

5 JANUARY 2010 SINGAPORE

Singapore Delegation

1. Mr Lionel Yee – Co-chair of Sub-Committee

Principal Senior State Counsel Attorney-General's Chambers

2. Mr Daren Tang

Deputy Senior State Counsel Attorney-General's Chambers

3. Ms Davinia Aziz

State Counsel Attorney-General's Chambers

4. Mr Louis Lim

Legal Executive Attorney-General's Chambers

5. Ms Iris Chen

Deputy Director Southeast Asia Directorate Ministry of Foreign Affairs

6. Mr Lucien Hong

Country Officer Southeast Asia Directorate Ministry of Foreign Affairs

7. Mr Ramanathan Manivasagan

Country Officer Southeast Asia Directorate Ministry of Foreign Affairs





8. Dr Parry Oei

Chief Hydrographer Maritime and Port Authority of Singapore

9. Mr Jamie Chen

Deputy Chief Hydrographer Maritime and Port Authority of Singapore

10. Mr Lim Wee Kiat

Deputy Chief Hydrographer Maritime and Port Authority of Singapore

11. Mr Soh Kheng Peng

Chief Surveyor
Singapore Land Authority



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

SINGAPORE 5 JANUARY 2010

MALAYSIAN DELEGATION

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

- Co-Chairman

- Mr. Hasan Jamil
 Director of Survey (Mapping Division)
 Department of Survey and Mapping
- Mr. Hasnan Zahedi Ahmad Zakaria Under Secretary National Security Council Primes Minister's Department
- Dr. Ahmad Faisal Muhamad Deputy High Commissioner High Commission of Malaysia
- First Admiral Zaaim Hasan
 Director General
 National Hydrographic Centre
 Royal Malaysian Navy
- 6. Mr. Tan Ah Bah
 Director of Survey (Boundary Affairs)
 Department of Survey and Mapping
- Dr. Azhari Mohamed
 Director of Survey (Geodesy)
 Department of Survey and Mapping
- 8. Mr. Mohammed Ridha Dato' Abdul Kadir Principal Assistant Director Lands and Mines Office State Government of Johor
- Ms. Suraya Harun
 Senior Federal Counsel
 Attorney General's Chambers



Ms. Suzilah Sidek
 Principal Assistant Secretary
 Research, Treaties and International Law Department
 Ministry of Foreign Affairs

11. Mr. Zulkifli Sidek Principal Assistant Director of Survey Boundary Affairs Section Department of Survey and Mapping



OPENING REMARKS OF MR LIONEL YEE, SINGAPORE CO-CHAIRMAN OF THE SUB-COMMITTEE ON THE JOINT SURVEY WORKS IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE, 5 JANUARY 2010, SINGAPORE

Your Excellency, Dato' Professor Dr Abdul Kadir bin Taib, Director-General, Department of Survey and Mapping, fellow cochairman of this Sub-Committee on the Joint Survey Works, members of the Malaysian Delegation:

Let me begin by wishing everyone a Happy New Year, and I am very happy indeed to welcome all of you to Singapore. I recall with a lot of gratitude the warm hospitality that was shown to us when Malaysia hosted not one, but the last two meetings of this sub-committee in 2008, and we now have the opportunity to reciprocate that hospitality.

Let me, in particular, extend a very warm welcome to Dato' Kadir, the head of the Malaysian delegation and my new co-chair from Malaysia on this sub-committee. I should also pay tribute to your predecessor Datuk Hamid Ali, whom I understand has retired since this sub-committee last met. Datuk Hamid was always friendly and very competent, and he was a real pleasure for me to work with. On behalf of my delegation, I would like, through you, to convey our very best wishes to him on his retirement after a very long and illustrious career. Under your leadership, I am confident that we will continue to work with the same spirit of friendliness and cooperation as we did under Datuk Hamid.

This sub-committee last met in September 2008. That was about 15 months ago.



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What we had hoped to do was to start the Joint Survey before the onset of the north-east monsoon at the end of 2008. Unfortunately, we were not able to do so. We are now in the middle of the current north-east monsoon, and it is the hope of my delegation that we will be able to commence the Joint Survey when the current monsoon ends.

At the end of the previous meeting, there appeared to be not too many outstanding issues to be resolved with respect to the Scope of Works for the Joint Survey. These were, as our Plenary chairs have said, the survey area, the survey platform, and the issue of costs. Some suggestions were made to find a way forward on these issues, and I hope we can find a way forward at this meeting.

At the previous meeting, Malaysia had suggested that we should have a Memorandum of Understanding in addition to the Scope of Works. We agree, and what my delegation has done for this meeting is to prepare a first cut of the Memorandum of Understanding for your consideration, and we hope this draft can facilitate progress in this area as well.

So let me conclude by saying that I look forward to working with everyone in the spirit of co-operation, friendliness and openness so that we will achieve a good outcome for this meeting.



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

SINGAPORE 5 JANUARY 2010

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, 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 and I think I am not too late to wish everybody a happy new year.

Firstly on behalf of the Malaysian delegation, let me thank you and your delegation for hosting this meeting and for making all the arrangements to make this meeting possible and for your kind hospitality.

Since this is my first meeting, let me introduce myself, I am Dr. Abdul Kadir Taib, Director General, Department of Survey and Mapping Malaysia and I have taken over from Datuk Hamid Ali the former Director General, Department of Survey and Mapping Malaysia since June 2009. It is a great pleasure and honour for me to be acquainted with Your Excellency and your delegation and I am looking forward to work with your delegation to attain the desired objectives that had been set out by the Joint Technical Committee.

Your Excellency and distinguished delegates

I was made to understand that the draft Scope of Works (SOW) for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks had been discussed during the last two Sub-Committee Meetings and substantive progress



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had been made in narrowing the difference of opinions, I believe that with the close working relationship and the sincerity from both sides, the differences in opinion or approach will not hinder us from finalizing the SOW amicably.

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 working with your delegation in the spirit of friendliness and good cooperation to achieve a fruitful outcome for this morning's meeting.

Thank you.

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

## 5 JANUARY 2010 SINGAPORE

## Agenda

- 1. Opening remarks
- 2. Adoption of Agenda
- 3. Discussion on the Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
- 4. Other matters
- 5. Closing remarks



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Malaysia's Counter Proposal of 5 Jan 2010 to Singapore's proposal of 11 Sep 08

# GENERAL SCOPE OF WORKS FOR 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 <u>relevant</u>, comprehensive and accurate <u>bathymetric hydrographic</u> data in the area as defined in paragraph 5 4 ("Survey Area") in <u>particular to determine the low-water mark of the features and amongst others</u>, <u>low tide elevations</u>, in order to prepare for eventual talks on maritime issues in and around Pedra Branca and Middle Rocks.

## 2. [MATTERS NOT TO BE PREJUDICED [note: to be moved to MoU]

For the avoidance of doubt, any action taken or omission made by the Parties or any person engaged by the Parties the Joint Survey Works undertaken any action taken or omission made by the Parties or any person engaged by the Parties pursuant to the Scope of Works are without projudice to issues of sovereignty and eventual delimitation of maritime boundaries \* (As per paragraph 3 of Annex E of the Record of Meeting between Malaysia and Singapore on the Implementation of the ICJ Judgment on Pedra Branca, Middle Rocks and South Ledge dated 3 June 2008) 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 prejudice or affect:



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- 2.1 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;
- 2.2 The baselines and boundary lines as depicted in the relevant official maps and charts of the Parties including methods and any other matters related to the construction of the said baselines and boundary lines;
- 2.3 The question of delimitation of boundaries between the Parties; or
- 2.4 The maritime or territorial claims made by either Party, or the determination of such claims and shall not be construed as conferring recognition or acceptance by either Party of such claims.]

### 3. GENERAL SCOPE OF WORKS

Theise 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 are as follows including:

- 3.1 To determine the limits of the Survey Area in and around Pedra Branca and Middle Rocks:
- 3.2 To define the scope and specification for the Survey works;
- 3.3 To determine the equipment, survey platform and methodologies for data acquisition and processing used in the Survey;
- 3.4 To determine the conduct of the Survey, which includes mobilization and demobilization, commencement date, survey routine, survey lines and others;



Dr

- 3.5 To agree on the terms and conditions for data format, sharing and exchange;
- 3.6 To provide for the collection and processing of data jointly; and
- 3.7 To <u>determine the modalities for preparinge</u> and finalizinge the Survey reports and documentations, and
- 3.8 To undertake Aany other works which are within the ambit of this paragraph.

## 4. AREA TO BE SURVEYED

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS 84):

|       | WGS 84                                         |                                            |  |  |
|-------|------------------------------------------------|--------------------------------------------|--|--|
| POINT | LATITUDE (N)                                   | LONGITUDE (E)                              |  |  |
| 1     | [ <del>01° 20.0'N</del> ] 01° 20' 28.6"        | [ <del>104° 24.00'E</del> ] 104° 24' 35.2" |  |  |
| 2     | [ <del>01° 20.0'N</del> ] 01° 19' 23.9"        | [ <del>104° 25.00'E</del> ] 104° 25' 38.6" |  |  |
| 3     | [ <del>01° 19.0'N</del> ] <u>01° 18' 23.6"</u> | [ <del>104° 25.00'E</del> ] 104° 24' 29.4" |  |  |
| 4     | [ <del>01° 19.0'N</del> ] 01° 19' 28.4"        | [ <del>104° 24.00'E</del> ] 104° 23' 26.0" |  |  |

The Survey Area covers an area of 2.8 kilometres x 2.8 kilometres which is equivalent to 7.84 square kilometres.

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

## 5. DURATION AND TIMELINE OF THE SURVEY



- Page A471 -

The Survey, will take about 3 days to complete inclusive of 1 day downtime with 8 hours of working period per day will commence ing from mid-October 2008, and shall consist of about 2 days of multi-beam sonar survey to detect low-tide elevations in the vicinity of Pedra Branca and Middle Rocks and about 7 days of single-beam sonar survey to determine the low-water lines. The sounding will be conducted at a speed appropriate to the operation Sounding speed during operation is 6 to 8 knots.

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.

#### 6. 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.

#### 7. SCALE OF SURVEY

The Survey shall be plotted on a scale of 1:1,0002,500 for Fair Sheet.

#### 8. STANDARD OF SURVEY

All hydrographic works and field sheets 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.

#### 9. DATUM

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9.1 Horizontal Datum, Projection and Grid

The Survey shall be carried out in World Geodetic System 1984 (WGS 84) and plotted based on the following geodetic parameters:

Ellipsoid

: WGS 84

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

#### 9.2 Vertical Datum

- 9.2.1 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 <u>data already obtained from continuous tidal</u> observations of at least 30 days. The data for the harmonic analysis shall be provided by both Parties.
- 9.2.2 Tidal data from both observation shall be carried out in the waters off-Middle Rocks and Pedra Branca shall be used for datum harmonization.
- 9.3 Reduction of Soundings



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9.2.3 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 smoothedned and used for reduction of soundings. Depths will be inked in metres and decimeters.

## 10. POSITIONING

## 40.310.1 Survey of Geodetic Control Stations

All geodetic control stations to be utilized for the purpose of the Survey must be agreed upon by both Parties.

- 10.1.1 A total of four (4) geodetic control stations shall be established i.e. two (2) each at PB-Pedra Branca and MR-Middle Rocks.
- 10.1.2 The proposed GPS Survey Network shall be designed as follows:
  - (i) a Primary GPS network comprising of two (2) Malaysia RealTime Kinematic GNSS Part Network System (MyRTKnet)
    Stations, two (2) Peninsular Malaysia Primary Geodetic
    Network Stations, and 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. 10.1.1.;
  - (iii) all stations shall be measured 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).



- 10.1.3 The diagram of the proposed GPS Survey Network is shown in Annex B.
- 10.1.4 The GPS receiver set used for the observation shall have the following features and specification:
  - (i) tracks only GPS satellites;

Equipment to be used shall be

- (ii) dual frequency and of Ggeodetic type Receiver(s) with offline post-processing of Differential GPS data:
- (iii) accuracy for positioning: Horizontal 5 mm+1 ppm

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



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## 10.1.5 The specifications for the static GPS observation are as follows:

| No.       | ITEM                    | STATIC GPS                                                                                                                                                                                             |  |  |  |
|-----------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <u>a.</u> | Observation             | Carrier Phase (L1 and L2)                                                                                                                                                                              |  |  |  |
| <u>b.</u> | No. of Satellites       | At least 5                                                                                                                                                                                             |  |  |  |
| <u>C.</u> | PDOP Value              | Less than 7                                                                                                                                                                                            |  |  |  |
| <u>d.</u> | Elevation Angle Cut-off | 15 degrees                                                                                                                                                                                             |  |  |  |
| <u>e.</u> | Epoch Recording Rate    | 30 seconds                                                                                                                                                                                             |  |  |  |
| <u>f.</u> | Observation Period      | The period for observation shall be minimum Two (2) independent sessions of three (3) 2-hours observation per station                                                                                  |  |  |  |
| <u>g.</u> | Type of Antenna         | Geodetic L1/L2 with ground plane/<br>multipath mitigation technique                                                                                                                                    |  |  |  |
| <u>h.</u> | Height of Antenna       | Nearest mm (Beginning and end of measurement)                                                                                                                                                          |  |  |  |
| <u>i.</u> | Centering of Antenna    | On the mark                                                                                                                                                                                            |  |  |  |
| Ŀ         | <u>Atmosphere</u>       | <u>Default</u>                                                                                                                                                                                         |  |  |  |
| <u>k.</u> | Quality Control         | <ul> <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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- 10.1.6 During the conduct of GPS observation, at least one representative from each country shall be present at the each respective geodetic control station.
- 10.1.7 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 sthe an independent set of coordinates. Comparison of the set of coordinates sets shall be carried out to establish the final set of coordinates sets.
- 10.1.8 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/covariance 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;
  - diii)—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
  - (iii) all adjustments of GPS data shall be 3 dimensional on the



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## HTRF2000 WGS 84 reference frame.

- 10.1.9 During the process of observation, the GPS field recording sheets shall be recorded (the examples are set out in Appendices Annexes1 and 2 C and D). An independent check on the height of the antenna is essential.
- 10.1.10 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 recommended requested by the recipient other country to enable automatic inclusion of the results in the recipient's that country's data base systems:
  - (iii) comparison of the sets of coordinates sets 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
- 10.1.11 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.



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

- 10.2.1 Positioning data shall be obtained using Differential GPS (DGPS). The following criteria shall apply:
  - The DGPS receivers shall be configured such as only satellites in view above the altitude 10 degrees 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.
- 10.2.2 For the purpose of offline post processing of DGPS data, GPS equipment shall be set up at the four (4) geodetic control



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stations, as stated in para. 10.1.1, during the period of hydrographic survey.

## 10.3 Identification of Fixes

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

#### 11. SURVEY METHODOLOGY

The Survey shall consist of (A) Multi-beam senar survey and for the purposes of detecting low-tide elevations and (B) Single-beam senar surveys. In areas where the aforementioned methods are not feasible other conventional methods shall be used. The Survey shall consist of Multi-beam sonar surveys. In areas where data quality acquired by Multi-beam survey is not acceptable, Single-beam and other conventional methods may be used. The execution of the field survey. The methodology of field bathymetric observation will be decided by the Survey Acquisition Team during the Survey operation. For the purposes of determining the low-water line. The Survey shall consist of Multi-beam sonar surveys. In areas where the aforementioned survey is 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 area for Multi-beam and Single-beam sonar survey.

## 11.2 Hydrographic Data Acquisition System (HDAS)



ba

- (i) The HDAS shall comprise of hardware and software configured to control, manage, acquire and store digital data in survey format from positioning system and Multi-beam echo sounder system.
- (ii) The HDAS software shall include helmsman display facilities indicating vessel steering in a preplanned survey line, with digital display showing information on position, depth, COG, heading, SOG, line and fix number, distance from start and end line.
- (iii) The online QC for positioning and depth shall be monitored to ensure positional accuracy standard. Daily QC report shall be included as annex to the Report of Survey (ROS).
- (iv) 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

(v) Daily back-up of data shall be carried out at the Survey platform.

(A) Methodology for Multi-Beam Sonar Survey

- The shallow water Multi-beam echo sounder at a frequency of about 200 kHz to be utilized for the sounding operation. The Survey methodology for Multi-beam sonar survey encompasses the following activities:
  - (ii)(i) Sounding Units

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



- Page A481 -

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

## (iviii) Line Orientation

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

## (**y**iv) Position

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

## (viv) Vessel Motion Data

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

## (viivi) 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.

## (viii) Bottom Coverage

100% complete Multi Beam coverage for the Survey Area.

(ixviiivii) Cross Lines



Pa,

Cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines.

(<u>xviii</u>) Drying Lines (Low Water Marks) Aand Drying Features

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

## (xii)Heights of Rocks

The heights of rocks and other maritime features shall be determined from the summit to Mean High Water Spring (MHWS).

## Other Detected Underwater Features

Any sign or indication of wreckage or artificial obstructions observed during the sounding operation shall be investigated by sonar sweep.

## (xivxiix) 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. Patch test shall include determination of roll, pitch, heading and time latency. Depth accuracy testing shall also include



15

testing of MBES against Single-beam echo sounder system. Details of test shall be included in the 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 2 metres. Details of test shall be included in the annex to the ROS.

## (B) Methodology for Single-Beam Sonar Survey

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

## (i) Echo Sounder

A Single-beam echo sounder at a frequency of about 200 kHz providing a depth accuracy of ± 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 - ± 0.5 to 1 metre



16

(iv) Sounding Line Intervals

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

- (v) <u>Drying Lines (Low Water Marks) Aand Drying Features</u>

  <u>All drying lines and drying features shall be delineated accurately</u>

  and measured from LAT.
- (vi) Other Detected Underwater Features

  Any sign or indication of underwater features observed during the sounding operation shall be investigated by sonar sweep Multi Beam.

(xv) Data Processing

Data processing is to be carried out jointly.

## 12. DATA PROCESSING

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

## 12.1 HYDROGRAPHIC DATA PROCESSING SYSTEM (HDPS)



10.

- depth, smoothing and filtering, sound velocity corrections, common format conversion, Quality Control (QC) analysis for depth and positioning and able to generate the final survey product presentations i.e. fair sheet with hydrographic symbology in accordance to 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" utilized by the software shall be included in ROS.
- (ii) 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 and profile view. All algorithms used for data editing should be recorded and included in the ROS. The degree of depth contour smoothening and suppression of depths must be agreed by both parties.
- (iii) 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 annex to the ROS to define the reliability of the Survey.
- (iv) The software shall be able to generate colour-coded bathymetry, contours, and smooth sheet plotting capabilities.

42.13. OUTPUT

1213.1 Field Records



- Page A486 -

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

Data processing for the survey acquired from both the multi-beam and single-beam surveys shall be carried out jointly in (venue). The estimated time taken for data processing is 14 days.

## <del>12.3</del>13.2 Fair Sheet

- (i) Fair Sheet shall be drawn at scale of 1:1,0002,500 in Universal Transverse Mercator Zone 48 projection and WGS 84 ellipsoid.
- (ii) Fair Sheet shall be endorsed by both Parties and signed by representative of each Party.

## 4314. REPORT OF SURVEY (ROS)



b.

- ROS shall be prepared jointly by both Parties and signed by the respective Hydrographers. The estimated time for preparation of the ROS is 5 days.
- ROS shall be prepared in soft and hard copies.
- The following documents (soft and hard copies) are to be rendered upon completion of the Survey:
  - (i) Fair Sheet; and
  - (ii) Survey Reports;
- 1314.4 The final ROS is to be submitted to the Joint Survey SubeCommittee for approval.

## 4415. SURVEY PLATFORM AND PERSONNEL

The Survey Area shall be divided into two equal halves, with Singapore responsible for providing the survey platforms and conducting the surveys in the northern half and Malaysia responsible for providing the survey platforms and conducting the surveys in the southern half. The survey team shall consist of conduct the Survey using the survey platform agreed by both Parties with the following composition of personnel:

The Survey team shall conduct the Survey using a single platform (including survey vessel, crew, equipments, and acquisition software) agreed by both Parties with the following personnel.]:

Survey team shall conduct the Survey using a single platform (including survey vessel, crew, equipment and acquisition software) agreed by both Parties with the following personnel:



- Page A488 -

Survey Acquisition Team for the Platform

Malaysia - 2 x Hydrographic Surveyors

Singapore - 2 x Hydrographic Surveyors

Boat Crews - 2 x (Helmsman and Technical staff)

A representative from one Party shall be on board the survey platform of the

other Party to witness the conduct of the survey in accordance with the standards

and specifications set out in this Scope of Works.

## **Data Processing Team**

Malaysia - 2 x Hydrographic Surveyors

Singapore - 2 x Hydrographic Surveyors

## [15. COST

Each side will bear the cost it incurs in the conduct of the survey.]



De

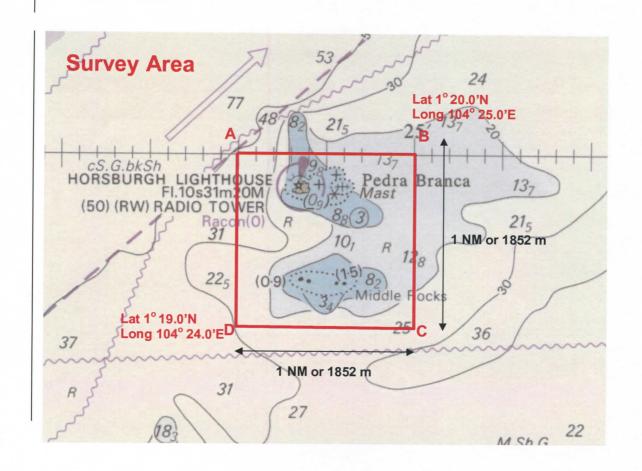


Chart Source: British Admiralty Chart 3831(Edn 30 Sept 2004)



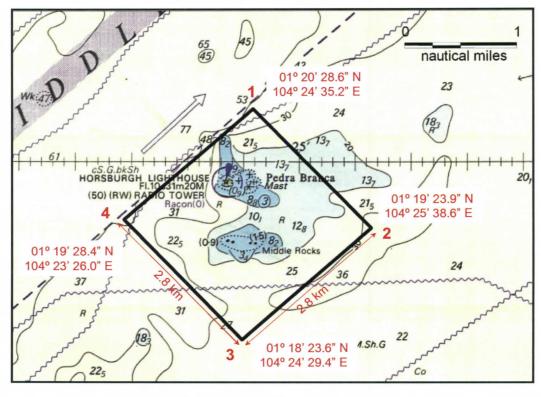
B

## [(To be replaced by Annex A on the preceding page)]

CONFIDENTIAL

Survey Area for Joint Survey Works in and around Pedra Branca and Middle Rocks

**ANNEX A** 

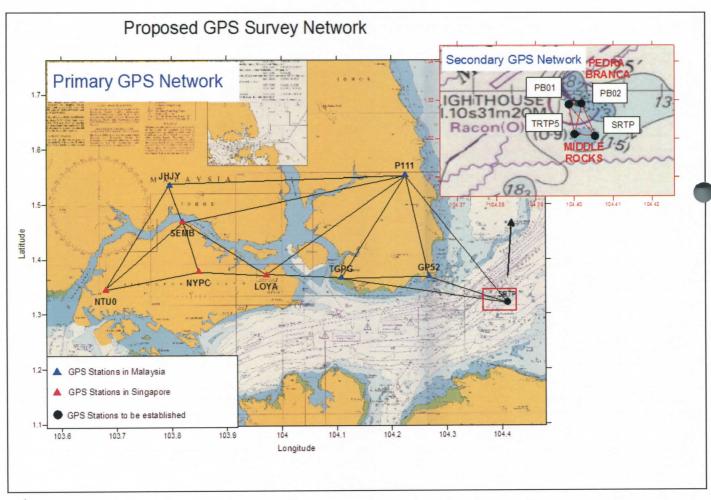


For illustrative purposes only



1a.

## **ANNEX B**



PB01 = 17998 PB02 = 17999





## ANNEX C APPENDIX 1

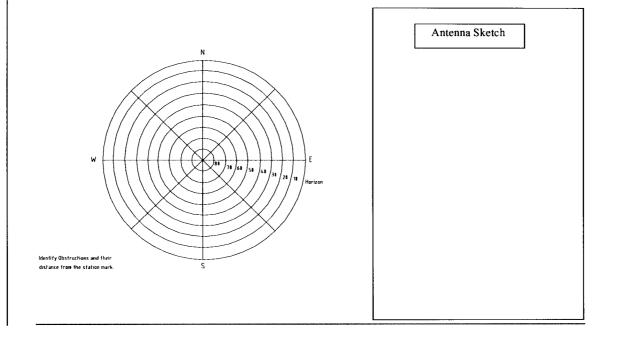
## **GPS** Observation Log

| Station Name                | Station ID Project                                     |
|-----------------------------|--------------------------------------------------------|
| Location                    | City                                                   |
| <b>Observing Monument I</b> | nscription and Description                             |
|                             |                                                        |
|                             |                                                        |
| Type                        | Model S/No. Receiver Operator                          |
| Receiver                    | Agency                                                 |
| Antenna                     | Equipment Used                                         |
| Receiver Software and       |                                                        |
| Collection rate             | Solution Rate     Tribrach                             |
| Download Inform             |                                                        |
| Download Date               | / / 240v AC and power converter                        |
| ☐ Tapes ☐ Di                | sks 🗆 Backups made 🖂 12v car battery                   |
| Disk/Tape                   | File Name                                              |
| 1                           | ☐ External battery pack                                |
| 2                           |                                                        |
| 3                           |                                                        |
|                             |                                                        |
| ***                         | cal Time Local date UTC Time UTC Date UTC Day          |
| Actual Start Time           |                                                        |
| Actual End Time             |                                                        |
| Daily Session Number        | Power Failure - started over with new Log              |
| Receiver Solution (reco     | rd near end of session) Site Access - unusual features |
| UTC Time                    |                                                        |
| Latitude<br>Langitude       |                                                        |
| Longitude                   | Maduag                                                 |
| Height                      | Metres                                                 |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |
|                             |                                                        |



B

#### ANNEX D



| Station Name                   |      | Station ID | Date:    | // |
|--------------------------------|------|------------|----------|----|
| Location                       | City |            |          |    |
| Observing Monument Inscription |      | Observe    | ers 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.

| I                       | Distance(metres) | vertical | slant | Offset Distance |
|-------------------------|------------------|----------|-------|-----------------|
| Local Weather condition | on <u>s</u>      |          |       |                 |
| L1 Phase centre         |                  |          |       |                 |
| L2 Phase centre         |                  |          |       |                 |
| Base of antenna         |                  |          |       |                 |
| Top of ground plane     |                  |          |       |                 |
| Bottom of ground plan   | e                |          |       |                 |



Pa

| DRAFT                                               |                   |            |                         |
|-----------------------------------------------------|-------------------|------------|-------------------------|
| Bottom of choke ring                                |                   |            |                         |
| Height Hook used YES  Measured Check Antenna Offset | NO □<br>(Ft. In.) |            |                         |
| Allunia Olisce                                      | <del></del>       |            |                         |
|                                                     |                   |            |                         |
|                                                     | Site Photogra     | aph/Sketch |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
|                                                     |                   |            |                         |
| Team (Malaysia)                                     | Leader            |            | Team Leader (Singapore) |
|                                                     |                   |            |                         |

Cox

De.

SINGAPORE'S FURTHER AMENDMENTS OF 5 JANUARY 2010 TO SINGAPORE'S PROPOSAL OF 11 SEPTEMBER 2008 (APPENDIX G OF RECORD OF DISCUSSION OF THIRD SUB-COMMITTEE MEETING ON THE JOINT SURVEY WORKS IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE)

## **Article 10.1.2 (iii)**

To amend the word "measured" to "observed".

## Article 10.1.5 item (f)

In the column "Static GPS", to insert a second sentence as follows:

"Observations shall be made simultaneously at all stations."

## **Article 10.1.6**

To amend as indicated in bold text:

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

## **Article 10.1.7**

In the fifth line, to amend "set of coordinates" to "sets of coordinates".

## **Article 10.1.8 (ii)**

To reinstate sub-paragraph (ii).

## **Article 10.1.8 (v)**

- (a) To renumber the sub-paragraph as sub-paragraph (iv).
- (b) To replace "WGS 84" with "ITRF2000/WGS84".

## **Article 10.1.10 (iv)**

In both sub-sub-paragraphs (a) and (b), to reinstate "ITRF2000".



B

#### **DRAFT**

Singapore's proposal of 5 Jan 10

#### **MEMORANDUM OF UNDERSTANDING**

ON

## JOINT SURVEY WORKS IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS

#### **BETWEEN**

## THE GOVERNMENT OF MALAYSIA

#### AND

## THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE

Whereas the International Court of Justice ("the ICJ") issued its Judgment in the Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge on 23 May 2008 ("the Judgment");

And whereas the Government of Malaysia and the Government of the Republic of Singapore (hereinafter referred to collectively as "the Parties") reiterate their commitment to honour and abide by the Judgment, and to fully implement it;<sup>1</sup>

And whereas the Parties established a Joint Technical Committee in furtherance of the aforementioned objectives;

And whereas the Joint Technical Committee 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 joint survey works to prepare for eventual talks on maritime issues in and around Pedra Branca, Middle Rocks and South Ledge;<sup>2</sup>

And whereas the Joint Technical Committee has endorsed the general scope of works for the joint hydrographic survey in and around Pedra Branca and Middle Rocks prepared by the Sub-Committee;<sup>3</sup>

Now therefore the Parties agree as follows:

<sup>&</sup>lt;sup>3</sup> To be adjusted depending on the eventual formulation.



A

<sup>&</sup>lt;sup>1</sup> Joint Press Statement, 3 June 2008

<sup>&</sup>lt;sup>2</sup> Record of Meeting, 3 June 2008, para 4(iii)

## **ARTICLE 1**

The joint hydrographic survey works in and around Pedra Branca and Middle Rocks (hereinafter referred to as "the Joint Survey Works") shall be carried out in conformity with the Scope of Works appended hereto as **Annex**.

## **ARTICLE 2**

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

*In witness whereof*, the undersigned, being duly authorised by their respective Governments, have signed this Memorandum of Understanding.

| Done in duplicate at           | on the | day of | , both |
|--------------------------------|--------|--------|--------|
| texts being equally authentic. |        |        |        |

FOR THE GOVERNMENT OF MALAYSIA

FOR THE GOVERNMENT OF THE REPUBLIC OF SINGAPORE





## Annex 48

Joint press statement by Malaysia's Foreign Minister and Singapore's Foreign Minister, "Third Meeting of the Malaysia-Singapore Joint Technical Committee (MSJTC) on the Implementation of the International Court of Justice Judgment on Pedra Branca, Middle Rocks and South Ledge", dated 8 January 2010, available at: https://www.mfa.gov.sg/content/mfa/media\_centre/press\_room/if/2010/201001/infocus\_20100108\_03.html (last accessed: 13 October 2017)

**Print** Close

January 08, 2010

Joint Press Statement on the 3rd Meeting of the Malaysia-Singapore Joint Technical Committee on the Implementation of the ICJ Judgment on Pedra Branca, Middle Rocks & South Ledge

JOINT PRESS STATEMENT BY H.E. DATO' SRI ANIFAH AMAN, MINISTER OF FOREIGN AFFAIRS, MALAYSIA AND H.E. GEORGE YEO, MINISTER FOR FOREIGN AFFAIRS, REPUBLIC OF SINGAPORE

THIRD MEETING OF THE MALAYSIA-SINGAPORE JOINT TECHNICAL COMMITTEE (MSJTC) ON THE IMPLEMENTATION OF THE INTERNATIONAL COURT OF JUSTICE JUDGMENT ON PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

Malaysia and Singapore met on 5 January 2010 in Singapore 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 by continuing the discussions pursuant to the Second MSJTC Meeting held in Putrajaya, Malaysia on 20 August 2008.

The MSJTC reviewed the work of the Sub-Committee on Joint Survey Works and agreed that the Sub-Committee should continue to hold discussions in the following weeks to finalise technical preparations relating to the Joint Hydrographic Survey. The Meeting also reviewed the work of the Sub-Committee on Maritime & Airspace Management and Fisheries.

Both sides were pleased with the progress made by the Joint Technical Committee and agreed that the next meeting be held in one to two months in Malaysia.

. . . . .

MINISTRY OF FOREIGN AFFAIRS MALAYSIA MINISTRY OF FOREIGN AFFAIRS REPUBLIC OF SINGAPORE 8 JANUARY 2010 This page is intentionally left blank.

### Annex 49

Report dated 6 February 2010 by *Utusan Malaysia*, "Malaysia pertahankan kedaulatan Tubir Selatan" (translated into English as: "Malaysia defends sovereignty over South Ledge"), and English translation provided by Singapore, available at: http://www.utusan.com.my/berita/nasional/malaysia-pertahankan-kedaulatan-tubir-selatan-1.286060 (last accessed: 4 October 2017)

Report by Utusan Malaysia, a Malaysian newspaper, dated 6 February 2010,

"Malaysia pertahankan kedaulatan Tubir Selatan", available at:

http://www.utusan.com.my/berita/nasional/malaysia-pertahankan-kedaulatan-

tubir-selatan-1.286060

(last accessed: 4 October 2017)

**ENGLISH TRANSLATION** 

Malaysia defends sovereignty over South Ledge

PUTRAJAYA 5 Feb. – Malaysia will defend the sovereignty over South Ledge through

negotiations and diplomacy with Singapore. Deputy Foreign Minister A. Kohilan Pillay

said that negotiations are underway with Singapore and are expected to take some time

before a final decision is reached.

"Respectively Malaysia and Singapore want to claim their ownership rights over South

Ledge.

"South Ledge is a rock that only emerges during low tide, it is situated in the

overlapping area in the waters of Malaysia and Singapore," he said when contacted by

Utusan Malaysia here today.

The International Court of Justice (ICJ) in The Hague, Netherlands had last year ruled

Pedra Branca as belonging to Singapore whereas Middle Rocks would belong to

Malaysia.

The status of another maritime formation which is South Ledge however has been

granted to whichever country whose territorial waters the formation lies in.

- Page A505 -

With regard to that, Malaysia and Singapore need to detail the waters between Pedra Branca and Middle Rocks as well as South Ledge through the Technical Committee.

Meanwhile, Kohilan said that Wisma Putra has not received any information on the Defence Attache of a foreign embassy who had been spying on national secret information.

"We have yet to receive more information on this matter," he said when asked whether Wisma Putra will send a protest memo to the foreign embassy concerned which had been alleged to have been spying on national military information.

. . . . .



↑ BERITA VIDEO RENCANA HIBURAN BISNES KOTA PENDIDIKAN S&T GAYA HIDUP SUKAN KL 2017

**■ MENU** 

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TERKINI UTAMA POLITIK PARLIMEN WILAYAH LUAR NEGARA JENAYAH MAHKAMAH KOMUNITI NAHAS & BENCANA

### Malaysia pertahankan kedaulatan Tubir Selatan

06 Februari 2010 1:29 AM







PUTRAJAYA 5 Feb. - Malaysia akan mempertahankan kedaulatan ke atas Tubir Selatan (South Ledge) melalui cara diplomasi dan rundingan dengan Singapura. Timbalan Menteri Luar, A. Kohilan Pillay berkata, rundingan sedang dijalankan dengan Singapura dan ia dijangka mengambil masa sebelum keputusan akhir dipersetujui.

"Masing-masing Malaysia dan Singapura mahu menuntut hak pemilikan ke atas Tubir



est in Melbourne, New Apartments from A\$619K Bright and spacious 2 & 3 bedrooms with carpark, bal & stunning views. Great location in the CBD's Legal Pr

"Tubir Selatan merupakan batu yang hanya timbul semasa laut surut, ia terletak dalam kawasan pertindihan di perairan Malaysia dan Singapura," katanya ketika dihubungi Utusan Malaysia di sini hari ini.

Mahkamah Keadilan Antarabangsa (ICJ) di The Hague, Belanda pada tahun lalu memutuskan Batu Putih milik Singapura sementara Batuan Tengah (Middle Rocks)

Status satu lagi bentuk maritim iaitu Tubir Selatan bagaimanapun diserahkan kepada negara perairan di mana pulau itu terletak.

Sehubungan itu, Malaysia dan Singapura perlu memperincikan kawasan perairan antara Batu Putih dengan Batuan Tengah serta Tubir Selatan menerusi Jawatankuasa

Sementara itu, Kohilan berkata, Wisma Putra belum menerima maklumat mengenai Atase Pertahanan kedutaan asing yang mengintip maklumat sulit negara

"Kita belum menerima maklumat lanjut mengenai perkara ini," katanya ketika ditanya sama ada Wisma Putra akan menghantar memo bantahan kepada kedutaan asing berkenaan yang didakwa mengintip maklumat ketenteraan negara.

Tag Berkaitan Putrajaya Perbicaraan Semasa











### **Popular**



[VIDEO] Hari 'hitam' terjun Malaysia



Jenazah Syahirah selamat dikebumi



'Mana wang kemenangan kami?'



Felda kalahkan juara Liga Super 2017



Penubuhan JITN Suatu Pembaziran - KP SPRM

### **ARTIKEL BERKAITAN**



BNM rugi lebih RM30b





kerugian - Mohd. Sidek



Bekas CEO FIC, pegawai khas bebas reman

Yusoff mengaku tidak bersalah TKP JPJ perlu hadir sendiri di

mahkamah [VIDEO] Anak saudara Jamalul Kiram III tarik balik rayuan

**VIDEO TERKINI** 









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### Annex 50

Report dated 19 February 2010 by *Utusan Malaysia*, "Wisma Putra jawab isu Tubir Selatan dengan Singapura" (translated into English as: "Wisma Putra replies about South Ledge issue with Singapore"), and English translation provided by Singapore, available at: http://www.utusan.com.my/berita/nasional/wisma-putra-jawab-isutubir-selatan-dengan-singapura-1.302580 (last accessed: 4 October 2017)

Report by Utusan Malaysia, a Malaysian newspaper, dated 19 February 2010,

"Wisma Putra jawab isu Tubir Selatan dengan Singapura" available at:

http://www.utusan.com.my/berita/nasional/wisma-putra-jawab-isu-tubir-selatan-

dengan-singapura-1.302580

(last accessed: 4 October 2017)

### **ENGLISH TRANSLATION**

### Wisma Putra replies about South Ledge issue with Singapore

PUTRAJAYA 18 Feb. – Malaysia and Singapore need to carry out measuring works before determining the sovereignty of South Ledge in south Johor.

This was confirmed by the Chief Director of Research, Treaty and International Law of the Foreign Ministry, Datuk Noor Farida Ariffin in reply to the issue concerning the sovereignty of the rocky outcrop which only emerges when the tide is low.

She informed that even though geographical fact shows that South Ledge is situated in the national waters and is nearest to Middle Rocks, nevertheless Kuala Lumpur would continue with negotations based on the spirit of neighbourlines and friendship with Singapore.

"Negotiations are needed to prove that Malaysia has sovereignty over South Ledge."

"This is one of the things that are contained in the Malaysia-Singapore Joint Technical Committee's meeting agenda," she said in a statement here today.

The statement was issued as a reply to a press report by this daily on 5 February concerning the issue of ownership of South Ledge.

On 23 May last year, the International Court of Justice (ICJ) in The Hague, Netherlands decided that Pedra Branca belongs to Singapore, while Middle Rocks which is situated about 0.5 nautical miles south of Pedra Branca, belongs to Malaysia.

The status of South Ledge had however been left to the waters of the country where the island is situated.

Noor Farida said that, in the third Technical Committee meeting pertaining to the implementation of the ICJ judgment on Pedra Branca, Middle Rocks and South Ledge in Singapore on 5 February, both sides had reiterated the agreement and commitment to respect and carry out the ICJ's decision.

"The government is also concerned about the issue of fishermen's welfare in the area.

"In the first Technical Committee meeting, both countries had agreed that the activities of traditional fishermen from Malaysia and Singapore are allowed in the areas beyond 0.5 nautical miles from the Pedra Branca, Middle Rocks and South Ledge waters," she said.

Noor Farida further said: "Among other things that had been agreed to by the Malaysia and Singapore sides are that the two countries have agreed that if there were occurrence of any incident in the waters, the ship or boat nearest to the incident needs to provide help besides ensuring that there is an open communication line among implementing agencies in issues of maritime safety."

• • • • •



**■ MENU** 



↑ BERITA VIDEO RENCANA HIBURAN BISNES KOTA PENDIDIKAN S&T GAYA HIDUP SUKAN KL 2017



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TERKINI UTAMA POLITIK PARLIMEN WILAYAH LUAR NEGARA JENAYAH MAHKAMAH KOMUNITI NAHAS & BENCANA

### Wisma Putra jawab isu Tubir Selatan dengan Singapura

19 Februari 2010 2:20 AM









PUTRAJAYA 18 Feb. - Malaysia dan Singapura perlu menjalankan kerja-kerja ukur terlebih dahulu untuk menentukan kedaulatan Tubir Selatan (South Ledge) di selatan

Perkara itu disahkan oleh Ketua Pengarah Jabatan Penyelidikan, Triti dan Perundangan Antarabangsa Kementerian Luar, Datuk Noor Farida Ariffin sebagai menjawab persoalan berhubung kedaulatan bongkah batu yang hanya muncul ketika air surut itu.



Beliau memberitahu, walaupun fakta geografi menunjukkan Tubir Selatan terletak dalam perairan negara dan paling hampir dengan Batuan Tengah, namun Kuala Lumpur tetap akan meneruskan rundingan berdasarkan semangat kejiranan dan setiakawan

"Rundingan perlu untuk membuktikan bahawa Malaysia mempunyai kedaulatan ke atas Tubir Selatan.

"Perkara ini merupakan salah satu daripada perkara yang terkandung dalam agenda Mesyuarat Jawatankuasa Teknikal Bersama Malaysia-Singapura," katanya dalam satu kenyataan di sini hari ini.

Kenyataan itu dikeluarkan sebagai menjawab laporan akhbar ini pada 5 Februari lalu berhubung persoalan hak milik Tubir Selatan.

Pada 23 Mei tahun lalu, Mahkamah Keadilan Antarabangsa (ICJ) di The Hague, Belanda memutuskan Batu Putih menjadi milik Singapura, sementara Batuan Tengah (Middle Rocks) yang terletak kira-kira 0.5 batu nautika di selatan Batu Putih, adalah milik Malaysia

Status Tubir Selatan pula bagaimanapun diserahkan kepada negara perairan di mana

Noor Farida berkata, pada Mesyuarat ke-3 jawatankuasa teknikal berhubung Pelaksanaan Penghakiman ICJ ke atas Batu Putih, Batuan Tengah dan Tubir Selatan di Singapura pada 5 Februari lalu, kedua-dua pihak sekali lagi menegaskan persetujuan dan komitmen untuk menghormati dan melaksanakan penghakiman ICJ.

"Kerajaan juga prihatin dengan isu kebajikan nelayan di kawasan tersebut.

"Pada mesyuarat pertama jawatankuasa teknikal berkenaan, kedua-dua negara telah bersetuju supaya aktiviti nelayan tradisional daripada Malaysia dan Singapura terus dibenarkan di dalam kawasan melepasi 0.5 batu nautika daripada perairan Batu Putih, Batuan Tengah dan Tubir Selatan," kata beliau.

Kata Noor Farida: "Antara perkara lain yang juga telah dipersetujui oleh pihak Malaysia dan Singapura adalah kedua-dua negara telah bersetuju sekiranya berlaku apa-apa insiden di laut, kapal yang berhampiran perlu memberikan bantuan di samping memastikan terdapat talian perhubungan yang terbuka antara agensi-agensi pelaksanaan dalam isu-isu keselamatan maritim."

Tag Berkaitan Putrajaya Kerajaan Semasa













### **ARTIKEL BERKAITAN**







Sekolah Tahfiz: 6 svor

**Popular** 



[VIDEO] Hari 'hitam' terjun Malaysia



Jenazah Syahirah selamat dikebumi

'Mana wang



kemenangan kami?'



Felda kalahkan juara Liga Super 2017



Penubuhan JITN Suatu Pembaziran - KP SPRM



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### Annex 51

Fifth Sub-Committee Meeting on the Joint Survey Works in and around Pedra Branca, Middle Rocks and South Ledge, Kuala Lumpur, Malaysia, 23-24 February 2010, Record of Discussion

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

### KUALA LUMPUR, MALAYSIA 23 - 24 FEBRUARY 2010

### RECORD OF DISCUSSION

### INTRODUCTION

- 1. The Fifth 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 23 24 February 2010.
- 2. The Malaysian delegation was led by Dato' Prof. Dr. Abdul Kadir bin Taib, Director General of Survey and Mapping, Department of Survey and Mapping, Malaysia and the Singapore delegation was led by Mr. Lionel Yee, Director-General, International Affairs Division, Attorney-General's Chambers, Singapore. The lists of the Malaysian and Singapore delegations are appended as **Appendix A** and **Appendix B** respectively.

### AGENDA ITEM 1: OPENING REMARKS

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

### AGENDA ITEM 2: ADOPTION OF THE AGENDA

4. The Meeting adopted the Agenda, which is appended as **Appendix E**.





# AGENDA ITEM 3: DISCUSSION ON THE SCOPE OF WORKS FOR JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS

- 5. The Meeting discussed the Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks (SOW). Both sides presented their further amendments to the SOW of 5<sup>th</sup> January 2010.
- 6. With regard to the Survey Area, the Survey Platform and Costs, the Malaysian and Singapore proposals at the commencement of the Meeting are as follows:
  - 6.1 Malaysia's Proposal:

### SURVEY AREA

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS 84):

|       | WGS 84        |                |
|-------|---------------|----------------|
| POINT | LATITUDE (N)  | LONGITUDE (E)  |
| 1     | 01° 20′ 28.6″ | 104° 24' 35.2" |
| 2     | 01° 19' 23.9" | 104° 25' 38.6" |
| 3     | 01° 18' 23.6" | 104° 24' 29.4" |
| 4     | 01° 19' 28.4" | 104° 23′ 26.0″ |

### SURVEY PLATFORM

The Survey shall be conducted by using both the Malaysia and Singapore survey platforms (including survey vessel, crew, equipment and acquisition software). Each side shall cover the whole Survey Area. A representative from one party shall be on board the survey platform of the other to witness the conduct of the survey in accordance with the standards and specifications set out in the SOW.



### COSTS

Each side will bear the costs it incurs for the purposes of the Scope of Works for the Survey.

### 6.2 Singapore's Proposal:

### SURVEY AREA

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS 84):

|       | WGS 84       |               |
|-------|--------------|---------------|
| POINT | LATITUDE (N) | LONGITUDE (E) |
| 1     | 01° 20.0′N   | 104° 24.00'E  |
| 2     | 01° 20.0′N   | 104° 25.00'E  |
| 3     | 01° 19.0'N   | 104° 25.00'E  |
| 4     | 01° 19.0'N   | 104° 24.00'E  |

### SURVEY PLATFORM

The Survey Area shall be divided into two zones. Malaysia is responsible for providing the survey platforms in the zone allocated to Malaysia. Singapore is responsible for providing the survey platforms in the zone allocated to Singapore.

The survey team shall consist of:

Survey Acquisition Team on Malaysia's Platform

Malaysia

- 2 x Hydrographic Surveyors

Singapore

- 2 x Hydrographic Surveyors





Survey Acquisition Team on Singapore's Platform

Malaysia

- 2 x Hydrographic Surveyors

Singapore

- 2 x Hydrographic Surveyors

### **Data Processing Team**

Malaysia

- 2 x Hydrographic Surveyors

Singapore

- 2 x Hydrographic Surveyors

### COSTS

Each side will bear the costs it incurs in the conduct of the Survey.

7. After deliberation, with regard to the Survey Area, the Survey Platform and Costs, the Meeting agreed that both sides should explore with their respective authorities the following:

### SURVEY AREA

An area of 2.3 km x 2.3 km covering the 10m isobath in and around Pedra Branca and Middle Rocks.

### SURVEY PLATFORM

The Survey Platform and equipment (including multi-beam and single-beam sounding equipment) to be used in the Survey is to be sourced from an independent service provider. Each side shall obtain further details regarding the equipment, software and costs of doing so from potential independent service providers.

### COSTS

The costs of sourcing from the independent service provider shall be shared equally by both sides.

8. The Survey Area proposed by Malaysia is appended as **Appendix F**. Singapore agreed to study this proposal.



(Hay)

9. The draft SOW reflecting Malaysia's and Singapore's agreed amendments, with the exception of the Survey Area, the Survey Platform and Costs is appended as **Appendix G**.

### **AGENDA ITEM 4: OTHER MATTERS**

- 10. Malaysia stated that the draft Memorandum of Understanding (MOU) proposed by Singapore at the last meeting is currently being studied but will not be discussed until all matters pertaining to the SOW have been resolved. Malaysia however informed that its response may be forwarded to Singapore in the next meeting or through diplomatic channels. Singapore expressed the desire that the MOU be discussed and finalised at the next meeting.
- 11. The Meeting agreed in principle that the next meeting would be held in Johor Bahru, Malaysia on 1 April 2010. Further details of the meeting would be communicated through diplomatic channels.

### AGENDA ITEM 5: CLOSING REMARKS

12. 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 their close working relationship and sincerity will continue. 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 24 February 2010.

Head of the Malaysian Delegation

Head of the Singapore Delegation

Dato' Prof. Dr. Abdul Kadir Taib

Director General of Survey and Mapping

Department of Survey and Mapping Malaysia

Lionel Yee

Director-General

International Affairs Division Attorney-General's Chambers Singapore

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

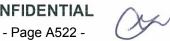
### KUALA LUMPUR, MALAYSIA 23 - 24 FEBRUARY 2010

### **MALAYSIAN DELEGATION**

1. Dato' Prof. Dr. Abdul bin Kadir Taib **Director General** Department of Survey and Mapping - Co-Chairman

- 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 Primes Minister's Department
- 4. First Admiral Zaaim 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. Mr. Ab. Aziz bin Ismail Principal Assistant Secretary Land, Survey and Mapping Division Ministry of Natural Resources and Environment
- 9. Mr. Mohamed Ridha bin Dato' Abdul Kadir Principal Assistant Secretary Lands and Mines Office State Government of Johor





- 10. Ms. Suraya binti Harun Senior Federal Counsel Attorney General's Chambers
- 11. Mr. Shaharuddin bin Onn Principal Assistant Secretary Department of Research, Treaty and International Law Ministry of Foreign Affairs
- 12. Capt. Wan Baderul Hisan bin Wan Muda RMN Director National Hydrographic Centre Royal Malaysian Navy
- 13. Mr. Zulkifli bin Sidek Principal Assistant Director of Survey **Boundary Affairs Section** Department of Survey and Mapping
- 14. Mr. David Chang Leng Hua Principal Assistant Director of Survey (Geodesy) Department of Survey and Mapping
- 15. Mr. HMohd. Helmy bin Ahmad Principal Assistant Secretary National Security Council Primes Minister's Department
- 16. Cmdr. Ramly bin Johari Staff Officer 1 National Hydrographic Centre Royal Malaysian Navy





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

### KUALA LUMPUR, MALAYSIA 23 - 24 FEBRUARY 2010

### SINGAPORE DELEGATION

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

- Co-Chairman

- Mr. Pang Khang Chau Senior State Counsel Attorney-General's Chambers
- Ms. Davinia Aziz
   Deputy Senior State Counsel
   Attorney-General's Chambers
- Dr. Parry Oei
   Chief Hydrographer
   Maritime and Port Authority of Singapore
- Mr. Jamie Chen
   Deputy Chief Hydrographer
   Maritime and Port Authority of Singapore
- Mr. Soh Kheng Peng
   Chief Surveyor
   Singapore Land Authority
- 7. Mr. Lucien Hong
  Country Officer
  Southeast Asia Directorate
  Ministry of Foreign Affairs
- Mr. Ian Mak
   First Secretary
   High Commission of the Republic of Singapore
   Kuala Lumpur





Appendix C

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

### **KUALA LUMPUR** 23 - 24 FEBRUARY 2010

### 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, 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 and let me first wish everybody a happy and prosperous Chinese New Year and to my counterpart, Mr. Lionel Yee, I would like to congratulate you on your appointment as the Director General, International Affairs Division, Attorney-General's Chambers.

On behalf of the Malaysian Sub-Committee members, it gives me great pleasure to extend our warm welcome to Your Excellency and Singapore Sub-Committee members to Kuala Lumpur. I think Kuala Lumpur is not an unfamiliar place for our Singapore neighbour and I hope that the Singapore delegates will have a pleasant stay in Kuala Lumpur.

### Your Excellency and distinguished delegates

During the last meeting held in Singapore on 5 January 2010, we had made some progress on the draft Scope of Works (SOW) for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.



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 we would eventually achieve the desired objectives that had been set out.

I look forward to working with Your Excellency and your delegation in the spirit of friendliness and good cooperation to achieve a fruitful outcome for this meeting.

Thank you.





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### OPENING REMARKS OF MR LIONEL YEE, SINGAPORE CO-CHAIRMAN OF THE SUB-COMMITTEE ON THE JOINT SURVEY WORKS IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE, 23 FEBRUARY 2010, KUALA LUMPUR, MALAYSIA

Your Excellency, Dato' Professor Dr Abdul Kadir bin Taib, Director-General, Department of Survey and Mapping, fellow cochairman of the Sub-Committee on the Joint Survey Works, members of the Malaysian Delegation:

First, I would like, on behalf of the members of my delegation, to thank you for your most gracious welcome. We are glad to be back in Kuala Lumpur and to once again enjoy the very warm hospitality which your delegation has always extended to us.

I am particularly happy that we are meeting inter-sessionally just a month after our last meeting. I believe that this underscores our firm and joint commitment to resolve all outstanding issues relating to the Scope of Works and the Memorandum of Understanding.

It is my sincere hope that we will be able to finalise the Scope of Works at this round. Given the spirit of co-operation and accommodation in which these talks have been conducted, I am confident that we will be able to do so.

At the last round in Singapore, I remarked that "there appeared to be not too many outstanding issues to be resolved". During the plenary session of the MSJTC, our leaders pointed out that the main issues in relation to our sub-committee revolved around the survey area and

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platform, as well as costs. I was very pleased that we had the opportunity to discuss these issues informally at our last round and to work together to come up with some creative approaches to accommodate each other's concerns. It is my hope that, over the next two days, we can build on these informal discussions to arrive at concrete solutions which will be satisfactory to both delegations. Let me also take this opportunity to reiterate my Government's commitment to resolving these issues, and to affirm that we will adopt a flexible and practical approach on them

As for the Memorandum of Understanding, if Malaysia is in a position to do so, I hope we will also be able to discuss the MOU with a view to finalising it. This is because both the SOW and MOU will need to be finalised in order for the joint survey works to be carried out.

Lastly, I wish to say that I look forward to our meeting and to working again with the members of your delegation. I sincerely hope that at the end of this round, we will have good news to bring back to our respective leaders in preparation for the next MSJTC meeting, and to have set down the groundwork for the joint survey.

As is the usual practice, I will now ask the members of my delegation to introduce themselves.

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

### KUALA LUMPUR, MALAYSIA 23-24 FEBRUARY 2010

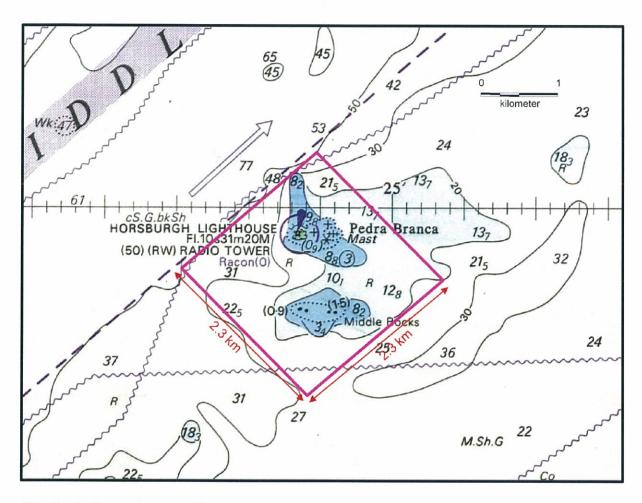
### **AGENDA**

- 1. Opening remarks
- 2. Adoption of Agenda
- 3. Discussion on the Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
- 4. Others matters
- 5. Closing remarks





### Malaysian Proposed Survey Area for Joint Survey Works in and around Pedra Branca and Middle Rocks



For illustrative purposes only

### GENERAL SCOPE OF WORKS FOR 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;
- 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.

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### 3. AREA TO BE SURVEYED

[to be further discussed]

### 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
- (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.

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### DATUM

8.1 Horizontal Datum, Projection and Grid

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The Survey shall be carried out in World Geodetic System 1984 (WGS 84) and plotted based on the following geodetic parameters:

Ellipsoid

: WGS 84

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 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.

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### 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 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**.
  - 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 postprocessing 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.

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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.  | No. 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/<br>multipath mitigation technique                                                                                                                                    |
| h.  | Height of Antenna       | Nearest mm (Beginning and end of measurement)                                                                                                                                                          |
| i.  | Centering of Antenna    | On the mark                                                                                                                                                                                            |
| j.  | Atmosphere              | Default                                                                                                                                                                                                |
| k.  | Quality Control         | <ul> <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

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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.
- 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:

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- (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;
    - (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).

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#### 10. SURVEY METHODOLOGY

- 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, COG, heading, 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:

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.
- The shallow water Multi-beam echo sounder at a frequency of about 200 kHz is to be utilised for the sounding operation. The methodology for Multibeam sonar survey encompasses the following:
  - (i) Sounding Units

Depths shall be recorded in metres and tenths of metres.

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(ii) Depth Accuracy

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The total sounding uncertainty for swath widths of at least three times the average water depth shall be in compliance with the allowable Total Vertical Uncertainty (TVU) of  $\pm \sqrt{[0.25 + (0.013 \text{ x})^2]}$  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 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) Cross Lines

Cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines.

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

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

- (ix) 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 ROS.
- (c) Accuracy check for DGPS system shall be conducted using at least two different reference stations. Positional differences should be less than 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 ± 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 - ± 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

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

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#### 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, 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

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- (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 WGS 84 ellipsoid.
- (ii) Fair Sheet shall be endorsed by both Parties and signed by representative of each Party.

#### 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.

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#### 14. SURVEY PLATFORM AND PERSONNEL

[to be further discussed]

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15. COST

[to be further discussed]

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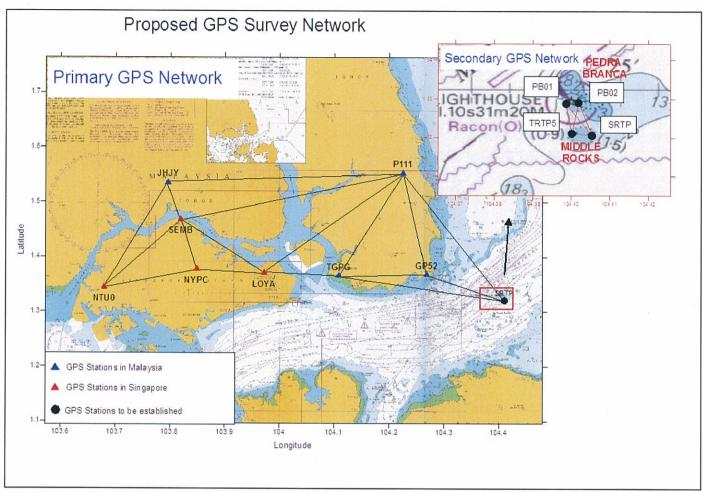
ANNEX A

[to be further discussed]

14



#### **ANNEX B**



PB01 = 17998

PB02 = 17999

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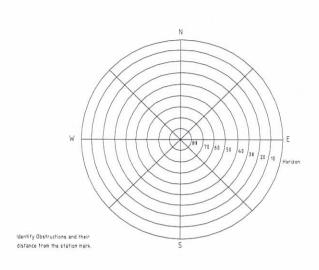
#### **ANNEX C**

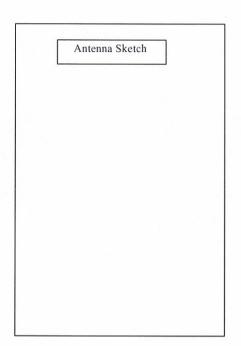
## GPS Observation Log

| 0.0000 / 1.1.0                                                               |                    | and Description                           |
|------------------------------------------------------------------------------|--------------------|-------------------------------------------|
|                                                                              |                    |                                           |
| Type                                                                         | Model              | S/No. Receiver Operator                   |
|                                                                              |                    |                                           |
| ceiver<br>tenna                                                              |                    |                                           |
| ceiver Software and                                                          | Version            | Equipment Osca                            |
| llection rate                                                                | Solution Rate      | Equipment Used                            |
| Download Infor                                                               |                    |                                           |
| <b>Download Date</b>                                                         | //                 | ☐ 240v AC and power converter             |
| ☐ Tapes ☐ D                                                                  | isks   Back        | kups made                                 |
| Disk/Tape                                                                    |                    | ☐ Internal battery pack                   |
|                                                                              |                    |                                           |
|                                                                              |                    |                                           |
|                                                                              |                    |                                           |
| uina I.                                                                      | and Time I and     | al date UTC Time UTC Date UTC Day         |
|                                                                              |                    |                                           |
| tuai Stait I IIIIC                                                           |                    |                                           |
| tual End Time                                                                |                    |                                           |
| tual End Time<br>ilv Session Number                                          | П                  | Power Failure - started over with new Log |
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| tual End Time ily Session Number ceiver Solution (reco                       | ora near ena oi se | ession) Site Access - unusual leatures    |
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ANNEX D





| Station Name                   | Station ID | Date: / / |
|--------------------------------|------------|-----------|
| Location City                  |            |           |
| Observing Monument Inscription | Observ     | vers 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 conditi | ions             |          |       |                 |
| L1 Phase centre       |                  |          |       |                 |
| L2 Phase centre       |                  |          |       |                 |
| Base of antenna       |                  |          |       |                 |
| Top of ground plane   |                  |          |       |                 |
| Bottom of ground plan | ne               |          |       |                 |
| Bottom of choke ring  |                  |          |       |                 |
|                       |                  |          |       |                 |
| Height Hook used YE   | s □ NO □         |          |       |                 |

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Measured \_\_\_\_\_ Check \_\_\_\_\_(Ft. In.)
Antenna Offset \_\_\_\_

Site Photograph/Sketch

Field Team Leader (Malaysia)

Field Team Leader (Singapore)

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**ANNEX E** 

[to be further discussed]

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#### Annex 52

Sixth Meeting of the MSJTC Sub-Committee on Joint Hydrographic Survey in and around Pedra Branca, Middle Rocks and South Ledge, Johor Bahru, Malaysia, 1 April 2010, Record of Discussion

# SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

#### RECORD OF DISCUSSION

#### INTRODUCTION

- 1. The Sixth Meeting of the MSJTC Sub-Committee on Joint Hydrographic Survey in and around Pedra Branca, Middle Rocks and South Ledge between Malaysia and the Republic of Singapore was held in Johor Bahru, Malaysia on 1 April 2010.
- 2. The Singapore Delegation was led by Mr. Lionel Yee, Director-General, International Affairs Division, Attorney-General's Chambers, Singapore.
- The Malaysian Delegation was led by Dato' Prof. 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: CONFIRMATION OF THE AGENDA

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

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### AGENDA ITEM 3: DISCUSSION ON THE SCOPE OF WORKS FOR JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA AND MIDDLE ROCKS

- The Delegations discussed the Scope of Works for Joint Hydrographic Survey 8. in and around Pedra Branca and Middle Rocks ('SOW'). Both Delegations agreed on resolving the issue of the Survey Area, the Survey Platform and Costs as set out in paragraph 7 of the Record of Discussion of their 23-24 February 2010 meeting.
- Singapore proposed provisions to be included in the SOW to reflect this 9. agreement. Singapore's proposed text is appended as Appendix F.
- Referring to Singapore's proposal, Malaysia proposed that the Survey Area 10. be moved north-eastwards. Malaysia's counter-proposed Survey Area is appended as Appendix G.
- After further deliberation, both Delegations finalised the text of the SOW, which is appended as Appendix H.
- Both Delegations presented information on the quotations that they had 12. received from various potential independent service providers for the survey work. Singapore presented information that it had received from Geometra International (Pte) Ltd and Kongsberg Maritime Pte Ltd, which is appended as Appendix J and Appendix K respectively. Both sides took note of the information regarding the preliminary price ranges between approximately RM130,000/SGD57,780 and RM220,000/SGD96,000 as quoted by the potential independent service providers. In this respect, both sides acknowledged that the price ranges were obtained merely for the purposes of obtaining the estimated costs involved in carrying out the survey work.
- Both Delegations agreed that the potential independent service providers, 13. Kertau, Geometra and Kongsberg would be asked to make a presentation at the next meeting. The final decision on the choice of the independent service provider, which may not necessarily be limited to the three independent service providers, will be discussed further by both sides after the said presentations.

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#### AGENDA ITEM 4: OTHER MATTERS

- Singapore will study Malaysia's draft MOU text which it had received. Both 14. Delegations agreed that the MOU would be discussed at the next meeting of the Sub-Committee.
- The Delegations agreed that the next meeting will be held in Kuala Lumpur 15. tentatively on 13-14 May 2010. The first day will be used for discussion of the MOU. The presentations by the potential independent service providers will take place on the morning of 14 May 2010. Further details of the meeting will be communicated through diplomatic channels.

#### AGENDA ITEM 5: CLOSING REMARKS

- The Head of the Malaysian Delegation expressed his gratitude to all members of the Sub-Committee, and thanked the Singapore Delegation for hosting this Meeting.
- The Head of the Singapore Delegation also extended his appreciation to all 17. the members of the Sub-Committee for their kind cooperation, support and understanding throughout the Meeting.

Done in duplicate in Johor Bahru, Malaysia on 1 April 2010.

Head of the Singapore Delegation

Head of the Malaysian Delegation

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

Director General of Survey and Mapping Department of Survey and Mapping

Dato' Prof. Dr. Abdul Kadir bin Taib

Malaysia

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#### APPENDIX A

## SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

#### SINGAPORE DELEGATION

1. Mr. Lionel Yee (Co-chairman)

Director-General International Affairs Division Attorney-General's Chambers

Mr. Daren Tang

Deputy Senior State Counsel Attorney-General's Chambers

3. Mr. David Low

State Counsel 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

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#### APPENDIX B

#### SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

#### MALAYSIAN DELEGATION

- Dato' Prof. Dr. Abdul Kadir bin Taib (Co-chairman)
   Director General
   Department of Survey and Mapping
- Mr. Hasan bin Jamil
   Director of Survey (Mapping Division)
   Department of Survey and Mapping
- Mr. Hasnan Zahedi bin Ahmad Zakaria
   Under Secretary
   National Security Council
   Prime Minister's Department
- First Admiral Zaaim bin Hasan
   Director General
   National Hydrographic Centre
   Royal Malaysian Navy
- First Admiral Dato' Fadzilah bin Mohd Salleh Research Officer Attorney-General's Chambers
- Mr. Tan Ah Bah
   Director of Survey (Boundary Affairs)
   Department of Survey and Mapping
- Dr. Azhari bin Mohamed
   Director of Survey (Geodesy)
   Department of Survey and Mapping

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#### 8. Mr. Alfian bin Yang Amri

Senior Federal Counsel Attorney-General's Chambers

#### 9. Mr. Mohamed Ridha bin Dato' Abdul Kadir

Principal Assistant Secretary Lands and Mines Office State Government of Johor

#### 10. Mr. Shaharuddin bin Onn

Principal Assistant Secretary Department of Research, Treaty and International Law Ministry of Foreign Affairs

#### 11. Mr. Zulkifli bin Sidek

Principal Assistant Director of Survey Boundary Affairs Section Department of Survey and Mapping

#### 12. Mr. Mohd. Helmy bin Ahmad

Principal Assistant Secretary National Security Council Primes Minister's Department

#### 13. Mr. Shaffri bin Baudi

Assistant Secretary
Land, Survey and Mapping Division
Ministry of Natural Resources and Environment

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# SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

#### 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 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 welcome you to this Sixth Meeting of the Sub-Committee. I am happy that we have been able to overcome the logistical challenges for this Meeting, and I believe that this reflects our firm and common commitment to work together on finalising the Scope of Works and Memorandum of Understanding.
- 3. As you know, we made very significant progress on the draft Scope of Works during our last meeting in Kuala Lumpur from 23-24 February 2010. In fact, almost all of the draft Scope of Works has already been finalised, leaving us with just a number of outstanding issues relating to the survey area, survey platform and personnel, and costs.
- 4. In relation to these outstanding issues, we did, at the previous meeting, agree to explore a way forward which will take into account our respective concerns. We agreed at the last meeting, firstly, to consider a proposed survey area of 2.3 km x 2.3 km which will cover the 10m isobath around Pedra Branca and Middle Rocks; secondly, to look at having the survey platform and equipment provided by an independent service provider; and thirdly, to have the costs of sourcing for this independent service provider shared equally by both sides.



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- 5. I indicated to you that I would seek clearance from my authorities on the proposed way forward, and I am happy to inform you that we can agree to this approach. I hope that Malaysia is also in a position to confirm acceptance of this proposed way forward. If so, we have prepared a proposed text for the respective portions of the Scope of Works which are still outstanding, which reflect our common understanding, for your consideration.
- Turning to the Memorandum of Understanding, we have in the past 15 6. minutes or so, received confirmation from our mission in Kuala Lumpur that the text of the MOU was faxed to them yesterday afternoon. I have just received a hard copy of it from you. I would like to thank you for the draft MOU. We have not had a chance to look at it, but we will study it carefully. We note Malaysia's position in your Note of 26 March 2010 that this should only be discussed upon finalisation of the Scope of Works. It was very much our desire that we will in fact finalise the Scope of Works in the first part of today's meeting, and then move on with the remaining time available, to begin consideration of the MOU. We can go along with the proposal to remove the MOU as a specific item from the agenda as you have requested. But I hope that we will some opportunity to discuss how we will deal with the MOU at this session. We have already had some exchange of views earlier about having an additional meeting to discuss the MOU. I hope that we can move forward with the MOU, so that all the necessary documents relating to the joint survey will be finalised and can be put before the MSJTC leaders at their next meeting.
- 7. As ever, I look forward to our Meeting, and to working with the members of your delegation. It is my fervent hope that at the end of today's session, we will have laid the groundwork for the joint survey works to proceed, and that we will be able to report a happy outcome to our respective MSJTC leaders.



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#### APPENDIX D

# SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

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

#### Y. BHG. DATO' PROF. DR. ABDUL KADIR BIN TAIB, DIRECTOR GENERAL, DEPART OF SURVEY AND MAPPING MALAYSIA

Your Excellency, Mr. Lionel Yee, Head of the Singapore Delegation and distinguished members of the Singapore and Malaysian delegations

A very good morning to Your Excellency and members of the Singapore and Malaysian Delegations. Let me first thank the Singapore side for hosting this meeting here today in Johor Bahru even though it is supposed to be held in Singapore. I think Johor Bahru is also not an unfamiliar place for the Singapore delegates.

The last Meeting was held on 23 - 24 February 2010 and in just over a month we are gathered here today to continue our discussion. This certainly shows the commitment and the good cooperation between both sides in our endeavour to finalise the Scope of Works (SOW) for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks.

#### Your Excellency and distinguished delegates

During the last meeting, the Malaysian side proposed a new Survey Area covering an area of 2.3 km x 2.3 km which is the average of the areas proposed by the Malaysian and Singapore sides and also covers the 10m isobath in and around Pedra Branca and Middle Rocks. Among others we also agreed that both sides should explore with our respective authorities with regard to the Survey Platform and equipment (including multi-beam and single-beam sounding equipment) to be used in the Survey is to be sourced from an independent service provider and the costs of sourcing from the independent service provider shall be shared equally by both sides.

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In this regard the Malaysian sides had discussed and gathered informations regarding the independent service providers based in Malaysia and also seek the consideration of the Chairman of the Malaysian Technical Committee. I think we are ready to discuss further on this matter.

#### 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.

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#### APPENDIX E

#### SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

#### **AGENDA**

- Opening Remarks
- Confirmation of Agenda
- Discussion on the Scope of Works for Joint Hydrographic Survey in and around Pedra Branca and Middle Rocks
- 4. Any Other Matters
- Closing Remarks

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#### APPENDIX F

#### SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

#### SINGAPORE'S PROPOSED TEXTS

#### PARAGRAPH 3

#### 3. AREA TO BE SURVEYED

The Survey Area is bounded by the following coordinates in World Geodetic System 1984 (WGS 84):

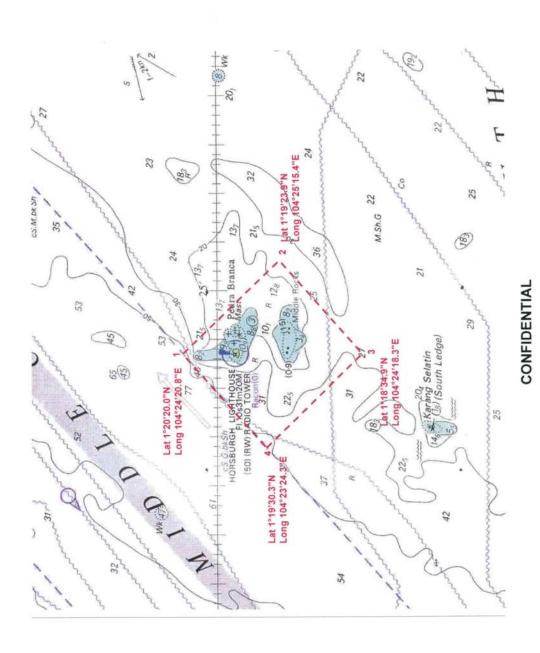
|       | WGS 84        |                |  |
|-------|---------------|----------------|--|
| POINT | LATITUDE (N)  | LONGITUDE (E)  |  |
| 1     | 01° 20'20.0"N | 104° 24'20.8"E |  |
| 2     | 01° 19'23.9"N | 104° 25'15.4"E |  |
| 3     | 01° 18'34.9"N | 104° 24'18.3"E |  |
| 4     | 01° 19'30.3"N | 104° 23'24.3"E |  |

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# ANNEX A: AREA TO BE SURVEYED





#### PARAGRAPH 14

#### SURVEY PLATFORM AND PERSONNEL 14.

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

#### Survey Acquisition Team for the Platform

Malaysia - 2 x Hydrographic Surveyors Singapore - 2 x Hydrographic Surveyors

#### **Data Processing Team**

 2 x Hydrographic Surveyors Malaysia Singapore - 2 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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#### (For Reference Only)

A comparison between this proposal and Malaysia's 5 January 2010 proposal:

The Survey shall be carried out team shall conduct the Survey using a single platform (including survey vessel, crew, equipment and acquisition software) to be provided by an independent service provider jointly appointed agreed by both Parties. The Survey shall be carried out jointly by the Parties with the following personnel:

#### Survey Acquisition Team for the Platform

Malaysia - 2 x Hydrographic Surveyors Singapore - 2 x Hydrographic Surveyors

#### Data Processing Team

Malaysia - 2 x Hydrographic Surveyors Singapore - 2 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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#### PARAGRAPH 15

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 E**

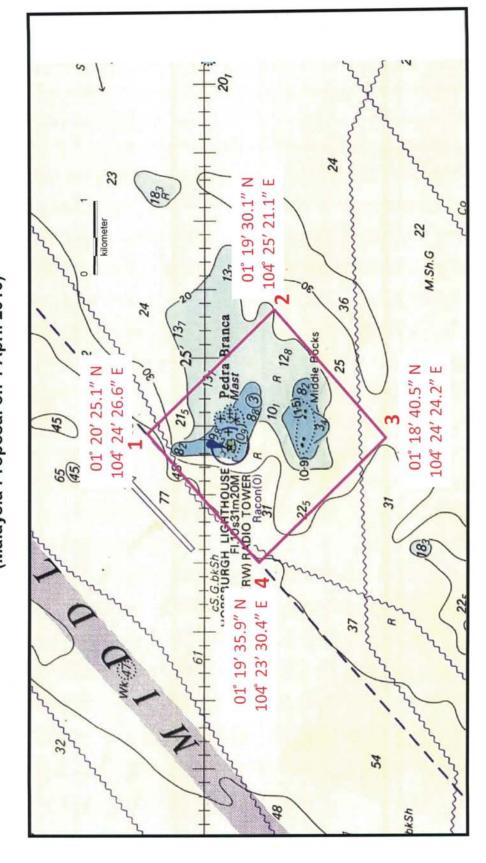
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APPENDIX G

Survey Area for Joint Survey Works in and around Pedra Branca and Middle Rocks (Malaysia Proposal on 1 April 2010)





#### APPENDIX H

#### SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

#### JOHOR BAHRU, MALAYSIA 1 APRIL 2010

## GENERAL SCOPE OF WORKS FOR 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;
- 2.6 To provide for the collection and processing of data jointly;

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

#### AREA TO BE SURVEYED 3.

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

|       | WGS84         |                |  |
|-------|---------------|----------------|--|
| POINT | 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
- (b) Around Pedra Branca and Middle Rocks - 1:1,000

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

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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 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**.
  - 9.1.4 The GPS receiver set used for the observation shall have the following features and specification:
    - tracks only GPS satellites;

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- dual frequency and geodetic type with offline post-processing of Differential GPS data; (ii)
- Horizontal 5 mm+2 ppm accuracy for positioning: (iii) 10 mm+1 ppm; Vertical
- the antenna shall be a geodetic L1/L2 with fixed or (iv) removable ground plane; and
- each observation party shall be equipped with the necessary (v) 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/<br>multipath mitigation technique                                          |  |
| h.  | Height of Antenna       | Nearest mm (Beginning and end of measurement)                                                                |  |
| i.  | Centering of Antenna    | On the mark                                                                                                  |  |
| j.  | Atmosphere              | Default                                                                                                      |  |
| k.  | Quality Control         | <ul> <li>Multipath</li> <li>Height of antenna properly measured</li> <li>Positive mark occupation</li> </ul> |  |

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| <ul> <li>Log sheet to monitor data<br/>acquisition</li> </ul> |
|---------------------------------------------------------------|
| <ul> <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:
  - 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.
- 9.1.10 Each country shall make available the following digital data:
  - raw observational data shall be archived and each country shall have the same complete set of data and information;

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- (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:
    - 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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- 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, COG, heading, 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:

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.

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- 10.3 The shallow water Multi-beam echo sounder at a frequency of about 200 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 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) Cross Lines

Cross lines shall be run at angles of 45 to 90 degrees to the main scheme lines.

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

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

- (ix) 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 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.

(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 1 metre

(iv) Sounding Line Intervals

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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, 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.

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## 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.

# 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.

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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 - 2 x Hydrographic Surveyors Singapore - 2 x Hydrographic Surveyors

# **Data Processing Team**

Malaysia - 2 x Hydrographic Surveyors Singapore - 2 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 service provider referred to in Paragraph 14.

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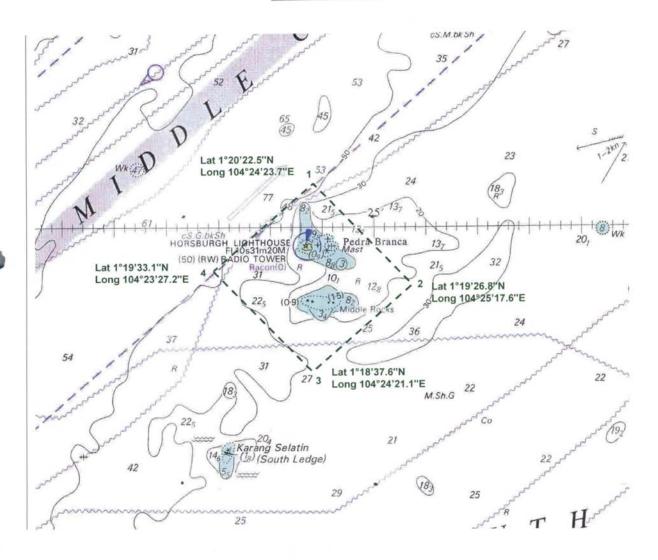
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# ANNEX A

# **SURVEY AREA**



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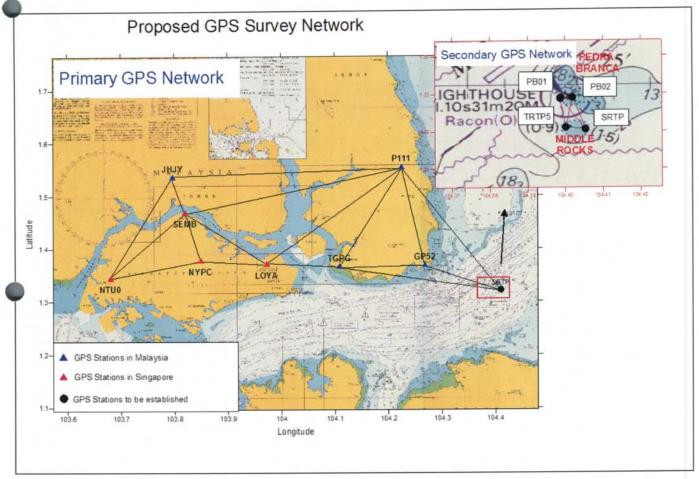
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# ANNEX B



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# **ANNEX C**

# GPS Observation Log

| ver Software and Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
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| Actual End Time  Daily Session Number  Daily |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |
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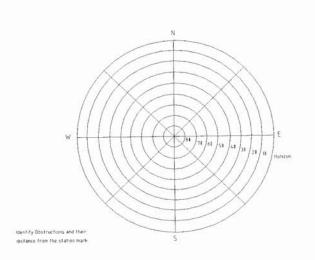
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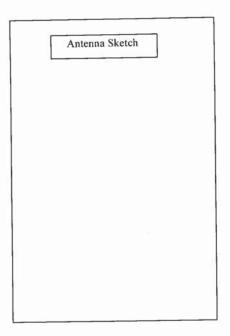
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# ANNEX D





| Station Name       |             | Station ID    | Date://  |
|--------------------|-------------|---------------|----------|
| Location           | City        |               |          |
| Observing Monument | Inscription | Observ Observ | ers 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 condit | tions            |          |       |                 |
| L1 Phase centre      |                  |          |       |                 |
| L2 Phase centre      |                  |          |       |                 |
| Base of antenna      |                  |          |       |                 |
| Top of ground plane  |                  |          |       |                 |
| Bottom of ground pla | ne               |          |       |                 |
| Bottom of choke ring |                  |          |       |                 |

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| Site | Photograph/Ske | tch |  |
|------|----------------|-----|--|
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# APPENDIX J

# SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

# JOHOR BAHRU, MALAYSIA 1 APRIL 2010

# INFORMATION OBTAINED FROM GEOMETRA INTERNATIONAL (PRIVATE) LIMITED



71 Ubi Crescent #02-10 Excalibur Centre Singapore 408571 ROC No.: 1978004322

Tel: (65) 6743 7262
Fax: (65) 6746 1941
Website: www.geometra.com.sg
Email: geometra@pacific.net.sg



### QUOTATION

DATE: 11th March 2010 : Maritime Port Authority of Singapore TEL NO: (65) 6375 1226 ATTN : Mr Jamie Chen Fax No: (65) 6278646 OUR REF : Q2010-128/H FROM : Adeline Ong Mr. Rajamohan Munisamy
No of Pages: (02) including of this page
Multi Beam and Single Beam Echo Sounding Survey off Horsburgh Lighthouse

Dear Mr Jamie Chen

Thank you for the invitation to quote. Please find our quote, for the above subject, for your kind consideration.

- To carry out Multi Beam and Single Beam Echo Sounding survey off Horsburgh Lighthouse (Approximate area 2.3km x 2.3km)
- Survey runlines :
- Multi-beam echo sounding (area approx 3.69km²) at 20m line interval with 30% overlap
- single-beam echo sounding with 5m runline spacing and 50m cross-lines within shallow area (area approx 1.61km²)
- To provide Multi beam, single beam survey equipment, personnel including survey vessel M/v Geometra Surveyors or M/v Golden Swan and small survey boat for shallow water area

The multi beam survey shall be operating on a daily basis (12 hours shift) daylight work only.

### Equipment

- Veripos Ultra Standard Signal System
   Reson Seabat 8125 Multi Beam System
   Reson Seabat 7101 Multi Beam System (to be installed onboard M/v Golden Swan)
   Cinsy Data Logging and Hydro Pro Navigation Software
   IBM Compatible Computer
   Odom Echotrac DG3200 Mark II Dual Channel Echo Sounder

- kxea Octans Gyro Compass / Motion Sensor
   Applied Micro System SV Pro Sound Velocity Probe
   MV Geometra Surveyors' or MV Golden Swan Survey Vessel
   small boat for shallow water

### Personnel

- 1 x Senior Hydrographic Surveyor 1 x Hydrographic Surveyor 1 x System Engineer cum Data Processor 1 x Helmsman

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### Schedule of fees ( Singapore Dollars)

### OPTION 1:

### Onboard M/y "Geometra Surveyors"

4.1) Mobilization and Demobilization Personnel And Equipment

Lump Sum S\$2,000/- per survey trip

Multi Beam and Single Beam Survey, Vessel, Equipment and Personnel as per above scope of work

Lump Sum S\$36,000/-

### OPTION 2:

### Onboard M/v "Golden Swan

4.3) Mobilization and Demobilization Personnel And Equipment

Lump Sum S\$10,000/- per survey trip

Multi Beam and Single Beam Survey, Vessel, Equipment and Personnel as per above scope of work

Lump Sum S\$45,000/-

### Notes

- 5.1) Price excludes GST.
- 5.2) A written confirmation or Purchase Order is required prior to commencement of project.
- 5.3) Payment terms 30 days upon receipt of invoice.

- 5.4) Client's responsibilities to obtain permit for overnight mooring of survey vessel including survey personnel, during duration of survey, at Horsburgh Lighthouse.

  5.5) Data processing, charting and reporting are not inclusive in above scope of work.

  5.6) Upon award of job, Geometra shall start the survey in the 2<sup>nd</sup> week of April. Duration of survey shall be approximate one week.
- 5.7) Any expenses, including mooring fees, incurred on client's behalf will be charged at cost plus 15%.

We trust the above meets your requirement. Please contact the undersigned at our office if you have any further queries. Thank you.

Yours sincerely Geometra International Pte Ltd

Accepted and confirmed by: Maritime Port Authority of Singapore

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Adeline Ong Survey Manager

(Authorised Signatory)

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# APPENDIX K

# SIXTH MEETING OF THE MSJTC SUB-COMMITTEE ON JOINT HYDROGRAPHIC SURVEY IN AND AROUND PEDRA BRANCA, MIDDLE ROCKS AND SOUTH LEDGE

# JOHOR BAHRU, MALAYSIA 1 APRIL 2010

# INFORMATION OBTAINED FROM KONGSBERG MARITIME PTE LTD

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Kongsberg Maritime



### **SERVICE RATES - 2010**

|                   | Normal time Working time limited to 8 hours between  07 <sup>00</sup> and 17 <sup>00</sup> work days. | Overtime Working time exceeding normal time including weekends and holidays. |
|-------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| In-house / repair | SGD 240per hour                                                                                       | SGD 290. per hour<br>(Hinanum charge 2 hours)                                |
| Onshore / site    | SGD 260 per hour<br>(Hinimum charge 4 hours)                                                          | SGD 330 per hour<br>(Minimum charge 4 hours)                                 |
| Living onboard *) | Service Engineer SGD 330,- per hour (Minimum charge 12 hours)                                         |                                                                              |
| Travel time       | Service Engineer<br>SGD 190,- per hour                                                                |                                                                              |

IS OF PAYMENT
30 days from date of invoke. Interest will be charged on overdue amounts.
: Rabes are effective from 1<sup>st</sup> January 2010 and given in Norwegian Kroner (NOK).
Kongabang Markima reserves the right to change these raise without prior notification

KONGSBERG MARITIME AS
Kirkeglindreiten 45, Carpus P.O. 80x 483, 11-3601 Kongsberg, Norway, Tel: +47 3228 5000 Fax +47 3228 5010
Enterprise number NO 943 073 678, MVA Bank account 7139.05.23194, www.kongsberg.com

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Kongsberg Maritime



# Kongsberg Maritime requirements to HSE and working conditions

General

Kongsberg Maritime anticipate the customer or yard to follow internationally accepted standards for industry, shipping and offshore with respect to HSE and Working Conditions.

The working conditions in Norway or on a Norwegian installation have to comply with the Norwegian national regulations. These regulations will be the guidelines for a Kongsberg Maritime representative working outside Norway.

In the event of the representative deems the conditions to be unsafe or harmful to health, Kongsberg Maritime reserves the right for him/her to discontinue of his/her work until the situation is acceptable. However, Kongsberg Maritime will inform the customer or site representative and work together in order to sort out the altitudies.

Working Hours
The number of working hours for Kongeberg Maritime representative is limited to 18 hours a day.

If these limits are exceeded this will have a detrimental effect on the elertness of our representatives, and an increased possibility for human errors.

If a Kongeberg Maritime representative is instructed by the customer or yard to extend these time limits, possible cost due to faults or errors deemed to be the result of extended working hours, has to be covered by the customer or yard.

Accommodation
If the outstomer or yard provides accommodation or meals on site or onboard, Kongaberg Maritime anticipates
the following standards:

- A proper single bed with linen in an environment suitable for sleeping.
   Proper facilities for taking care of personal hygiene and washing of clothes.
   A minimum of three meals per day including availability of potable water at all times.

In the event of these requirements not being fulfilled, Kongsberg Maritime reserves the right to charge daily allowance and travel cost in accordance with the local travel regulations.

KONGSBERG MARITIME AS
Kirkegirlösveten 45, Carpus P.O.Box 483, H-3601 Kongsberg, Norwey, Tel: +47 3228 5000 Fax +47 3228 5010
Enterprise number 10 943 073 678, NVA Bank account 7139.05.23194, www.kongsberg.com

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### Proposal

| E-mail:  | Siti.hajar@kongsberg.com | Telefax:  | +65 6411 6401  |
|----------|--------------------------|-----------|----------------|
| From:    | Siti Hajar               | Phone:    | +65 6411 6400  |
| Our Ref: | Q2010-145                | Your Ref: | Email 03/02/10 |
| Сору:    | Grant Rawlinson          | Pages:    | 1 of 1         |
| Emeil:   | Jamie@mpa.gov.sg         | Mobile:   |                |
| Attn:    | Ms Jamie                 | Phone:    | 65 375 1226    |
| To:      | MPA                      | Telefax:  |                |
|          |                          | Date:     | 02/03/10       |
|          |                          |           |                |

Dear Ms Jamie

Please find enclosed our quotation  ${\bf Q2010\text{-}145}$  for EM3002S Full System for your kind perusal.

| Qty | Description                                                                        | Unit Price/days<br>0-30 31-90 +90 |
|-----|------------------------------------------------------------------------------------|-----------------------------------|
| 1   | EM3002 - Sonar Processing Unit (PU)                                                | S\$800 S\$680 S\$580              |
| 1   | EM3002 - Single Sonar Head                                                         | S\$600 S\$510 S\$435              |
| 1   | Seafloor Information System (SIS) Software - Installation CD-Rom - USB License Key | S\$170 S\$145 S\$125              |
| 1   | HWS 11 Hardware Acquisition PC                                                     | S\$55 S\$47 S\$40                 |
| 1   | Sound Velocity Sensor                                                              | S\$47 S\$39 S\$32                 |

- Notes:

  1. Price quoted are in Singapore Dollars, FCA Singapore for rental items.

  2. All Prices are exclusive of freight/handling/taxes & duties/brokerage/ 7% GST etc.

  3. Priced quotation is valid for 30 days from this date.

  4. Kongsberg Maritime Standard Terms and Conditions of Rental to apply.

  5.

Should you require further information, please do not hesitate to contact us.

Best regards KONGSBERG Maritime Pte Ltd

Siti Hajax Sales & Marketing Coordinator

KONCESTERG MARITIME PTE-LTD 51 Tob Guar Road East 904-01 Secons Cross Singapore 608006 Telt +65 6411 6400 Fax +65 6411 6401 Company Businers Registration No. 1957005229° Website: www.kongsburg.com

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