

## PILOTAGE ADVISORY COMMITTEE

### Movement of Large Cruise Ships Transiting Harbour

#### **Purpose**

The purpose of this paper is to seek members' comments on the proposed new berthing guideline for cruise ships transiting Victoria Harbour.

#### **Background**

2. Owing to the limited availability of berthing slots at Ocean Terminal (OT) and some large cruise ships exceed the structural capacity of OT, in recent years, some cruise ships with length overall (LOA) up to 345 metres need to berth at Kwai Chung Container Terminal (KCCT). To enjoy the night scenery of Hong Kong, these cruise ships will request to transit Victoria Harbour on departure. Since February 2007, a total of 12 transits from KCCT had been conducted.

3. As the new cruise terminal at East Kowloon is planned to come into operation in 2013, it is anticipated that more cruise ships will berth at KCCT and the applications for cruise ship to transit Victoria Harbour will continue to increase. In addition to the three transits completed in March, the Marine Department has received three applications for transit in the month of April this year.

#### **The Transit**

4. The details of the 12 transits completed from February 2007 to March 2009 are shown in Annex 1. Due to recycling of vessel traffic record tapes, data for the first three transits that were conducted before October 2007 were not available. Radar plots for the remaining nine transits are attached at Annex II.

5. According to the records, navigational buoy 'Northern 1' was removed for the first transit by Queen Mary II, and no special arrangement had been made for the transits by Sapphire Princess and Diamond Princess up to December 2008. However, in light of operating experience, Hong Kong Pilot Association (HKPA) requested the removal of 'Northern 1' and

‘Northern 2’ for the passage of Queen Mary II and Queen Victoria. For the Diamond Princess transit on 21 March 2009, due to insufficient time to formulate the berthing guideline, the same arrangement was made.

6. It was noted from the track records that the transits were generally fine in fair weather. However, the transit conducted on 11 November 2007 and 11 March 2009 with northeasterly wind force 5 and 6 respectively, the tracks were not so smooth. It was also observed that large cruise ships after clearing Kwai Chung Basin, would keep to the south of the Northern Fairway or even steer to the south of ‘Northern 2’ buoy in order to keep clear from the coasters anchored close to Stonecutters Island Public Cargo Working Area.

### **Present Situation**

7. As these transits become more frequent, the duration of the navigational buoys being lifted from their charted positions would be lengthened. This poses a risk for other vessels as the markings of the Fairway are incomplete. Furthermore, the frequent movement of the navigational buoys will affect the holding power of the sinkers. The buoys are more liable to shift out of positions.

8. Hence, it is necessary to expeditiously formulate the berthing guideline for the safe transit of large cruise ships transiting Victoria Harbour as well as to keep the disruption to the fairway marking to the absolute minimum.

### **Proposal**

9. On studying the existing Ocean Terminal South berthing guideline (Annex III), the track records of previous transits and simulations conducted in Marine Department Training Centre, it is noted there is significant maneuvering difficulty for cruise ships above 290 metres to arrest the port turn momentum for turning into the Northern Fairway and initiate the starboard turn to pass between ‘Northern 2’ and ‘Northern 3’ navigational buoys. Furthermore, on rounding ‘Northern 1’ buoy into the Central Fairway, it would be fairly tight for ship of such length under the influence of the prevailing easterly wind to clear the ‘Victoria’ buoy. Hence, it is proposed that for cruise ship with LOA at 290 metres and above, removal of navigational buoys ‘Northern 1’ and ‘Northern 2’ is necessary to facilitate the transit. For cruise ship with LOA less than 290 metres, due to the shorter ship’s length and as evidence by previous eight successful transits, no buoy

removal is required. Furthermore, it is necessary to limit the transit for wind force of not more than Beaufort Scale 5, visibility more than 1 nautical mile, and during slack water or flooding tide. Other assistance such as tug escort and patrol boat to clear local traffic are also necessary. The complete draft guideline is at Annex IV.

### **Advice Sought**

10. Members are requested to give their views on the draft berthing guideline at Annex IV.

Pilotage Unit  
Vessel Traffic Section  
Vessel Traffic Services Branch  
Marine Department  
April 2009

**Annex I**

**Cruise Ships Transiting Central Harbour**

(1) Plotting of the following transit could not be provided owing to unavailable of data:

<b>Name of Vessel</b>	<b>Date</b>	<b>Time (POB)</b>	<b>Name of Pilots</b>	<b>From/To</b>	<b>Wind (Green Island)</b>	<b>Tide</b>	<b>Remarks</b>
<b>Queen Mary II</b> LOA 345m Draft 9.9m	28-2-2007	1800	YU Chi-leung LEUNG Koon-sung	KC5 to PBS2	No Data	L 0206 0.5m H 1907 2.2m L 0237* 0.4m	'Northern 2' buoy removed
<b>Sapphire Princess</b> LOA 288.3m Draft 8.4m	10.10.2007	1800	HO Luen-fat CHOW Siu-yu	KC5 to PBS2	No Data	L 1449 1.0m H 2109 2.1m	No removal of buoy
<b>Sapphire Princess</b> LOA 288.3m Draft 8.4m	24.10.2007	1800	WONG Chi-cheong SIU Wai-lim	KC5 to PBS2	No Data	L 1341 0.9m H 2017 2.1m	No removal of buoy

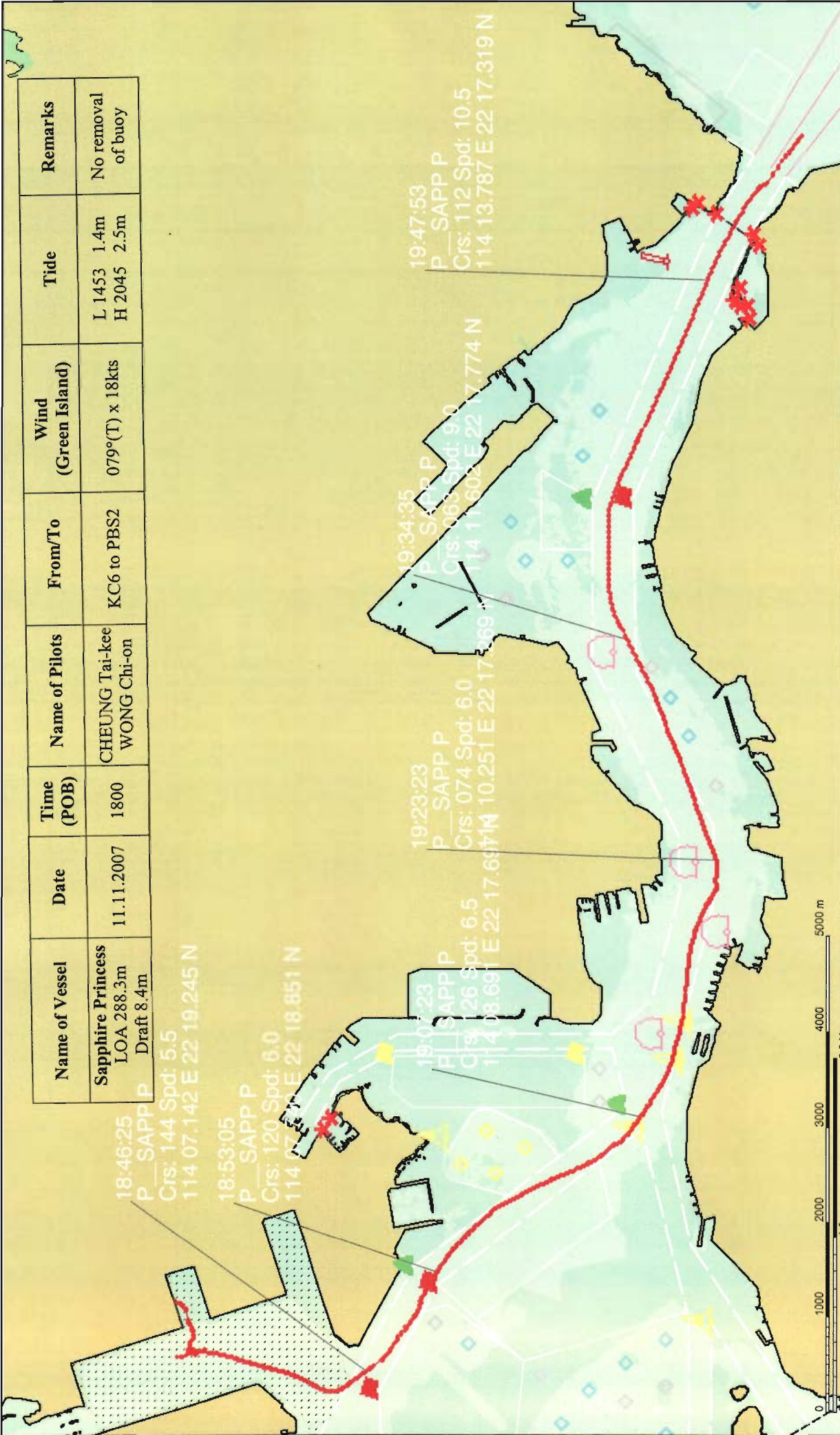
(2) Plotting is available for the following transits :

<b>Name of Vessel</b>	<b>Date</b>	<b>Time (POB)</b>	<b>Name of Pilots</b>	<b>From/To</b>	<b>Wind (Green Island)</b>	<b>Tide</b>	<b>Remarks</b>
<b>Sapphire Princess</b> LOA 288.3m Draft 8.4m	11.11.2007	1800	CHEUNG Tai-kee WONG Chi-on	KC6 to PBS2	079°(T) x 18kts	L 1453 1.4m H 2045 2.5m	No removal of buoy Plotting 1
<b>Sapphire Princess</b> LOA 288.3m Draft 8.4m	25.11.2007	1800	CHAN Chun-lok MOK Kar-yau	KC6 to PBS2	353°(T) x 11kts	L 1425 1.3 H 2113 2.5m	No removal of buoy Plotting 2
<b>Sapphire Princess</b> LOA 288.3m Draft 8.4m	13.12.2007	1800	LEE Ho-yan TONG Kwok- chung	KC6 to PBS2	039°(T) x 4kts	L 1531 1.4m H 2212 2.5m	No removal of buoy Plotting 3
<b>Diamond Princess</b> LOA 288.3m Draft 8.1m	14.10.2008	1400	MAK Wai-yin LI Sai-ling	KA1 to JBA	064°(T) x 2kts	H 0849 2.1m L 1438 1.0m H 2102 2.2m	No removal of buoy Plotting 4
<b>Diamond Princess</b> LOA 288.3m Draft 8.1m	29.10.2008	1900	CHAN Chun-lok TAM Ming-fu	KC6 to JBA	060°(T) x 11kts	L 1451 1.2m H 2106 2.4m	No removal of buoy Plotting 5
<b>Diamond Princess</b> LOA 288.3m Draft 8.1m	15.11.2008	1900	YU Chi-leung HO Wai-man	KC6 to JBA	No data	L 1507 1.4m H 2206 2.8m	No removal of buoy Plotting 6

(3) Recent transits with plotting provided:

Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
<b>Queen Mary II</b> LOA 345m Draft 9.9m	9-3-2009	1800	WONG Chung-kan CHAN Ming-shun	KC6 to PBS2	064°(T) x 9kts	L 1327 1.1m H 2017 2.3m	'Northern 1 & 2' buoys removed Plotting 7
<b>Queen Victoria</b> LOA 294m Draft 7.8m	11-3-2009	2000	CHEN Yu-chi LIM Gee-chung	KC6 to PBS2	066°(T) x 22kts	L 1511 0.7m H 2200 2.2m	'Northern 1 & 2' buoys removed Plotting 8
<b>Diamond Princess</b> LOA 288.3m Draft 8.1m	21-3-2009	1845	Kwok Chuen MAK Wai-yin	KC6 to JBA	182°(T) x 10kts	H 1652 1.9m L 0143* 0.7m	Special arrangement was made on requested by HKPA to remove 'Northern 1 & 2' buoys. Plotting 9

\*Two transits were also conducted by Queen Elizabeth II on 12 & 13 March 2007 from Ngan Chau to Ocean Terminal and vice versa.



Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Sapphire Princess LOA 288.3m Draft 8.4m	11.11.2007	1800	CHEUNG Tai-kee WONG Chi-on	KC6 to PBS2	079°(T) x 18kts	L 1453 1.4m H 2045 2.5m	No removal of buoy

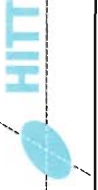
Plot centre [WGS84]: 22 18.931 N 114 11.120 E  
Range: 2.38 NM

Prepared at: 06-04-2009 14:13:22 hour  
Prepared by: \_\_\_\_\_

Start time: 11-11-2007 18:20:23  
Stop time: 11-11-2007 19:53:59

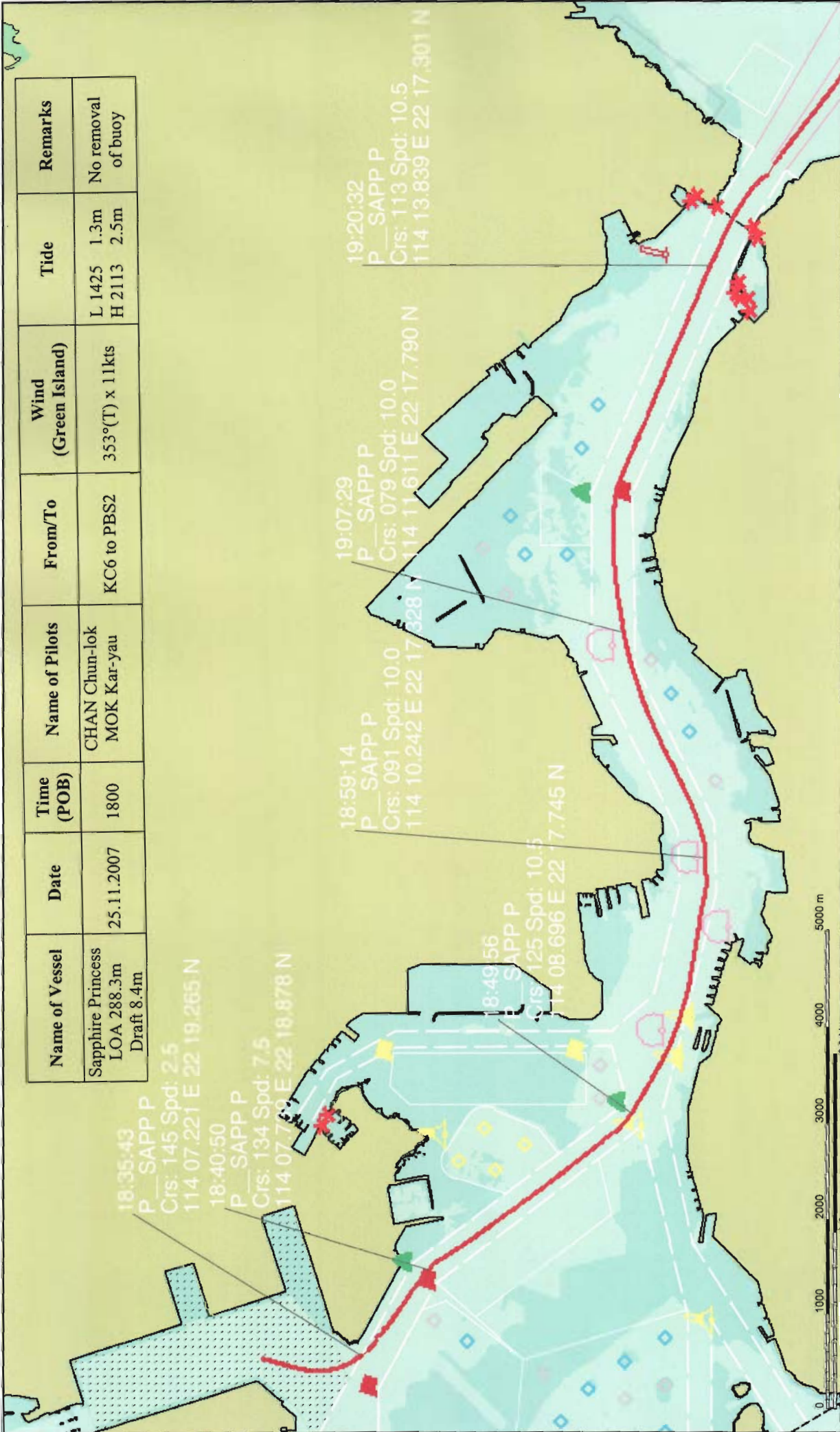
MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT

Plot interval [Sec]: 6  
Vector Length: 3 min





Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Sapphire Princess LOA 288.3m Draft 8.4m	25.11.2007	1800	CHAN Chun-lok MOK Kar-yau	KC6 to PBS2	353°(T) x 11kts	L 1425 1.3m H 2113 2.5m	No removal of buoy



Plot centre [WGS84]: 22 18.927 N 114 11.094 E  
Range: 2.35 NM

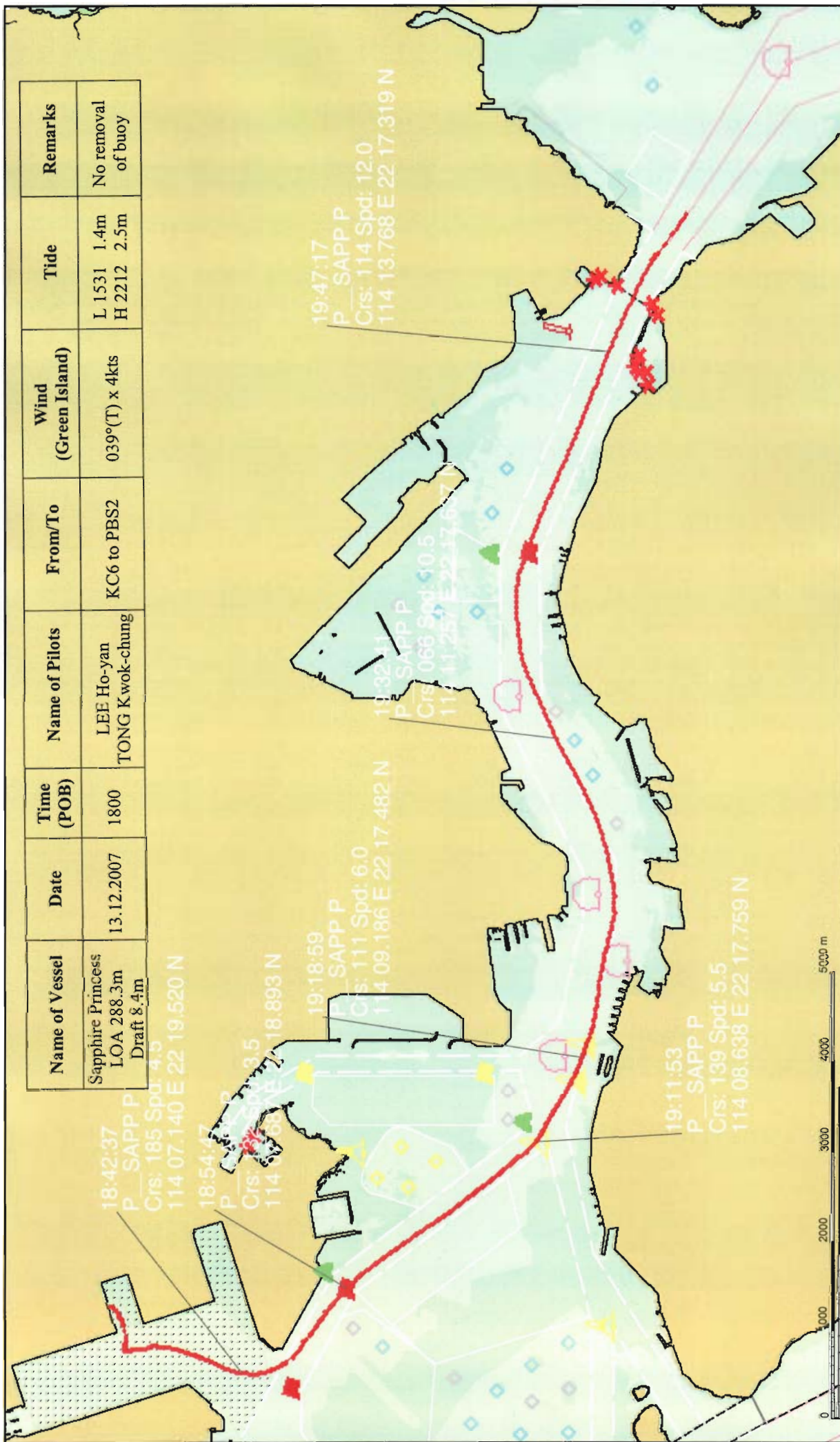
Prepared at: 07-04-2009 10:35:43 hour  
Prepared by:

Start time: 25-11-2007 18:28:19  
Stop time: 25-11-2007 19:30:29

Plot interval [Sec]: 3  
Vector Length: 3 min

MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT





Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Sapphire Princess LOA 288.3m Draft 8.4m	13.12.2007	1800	LEE Ho-yan TONG K wok-chung	KC6 to PBS2	039°(T) x 4kts	L 1531 1.4m H 2212 2.5m	No removal of buoy

Start time: 13-12-2007 18:15:23  
Stop time: 13-12-2007 19:52:14

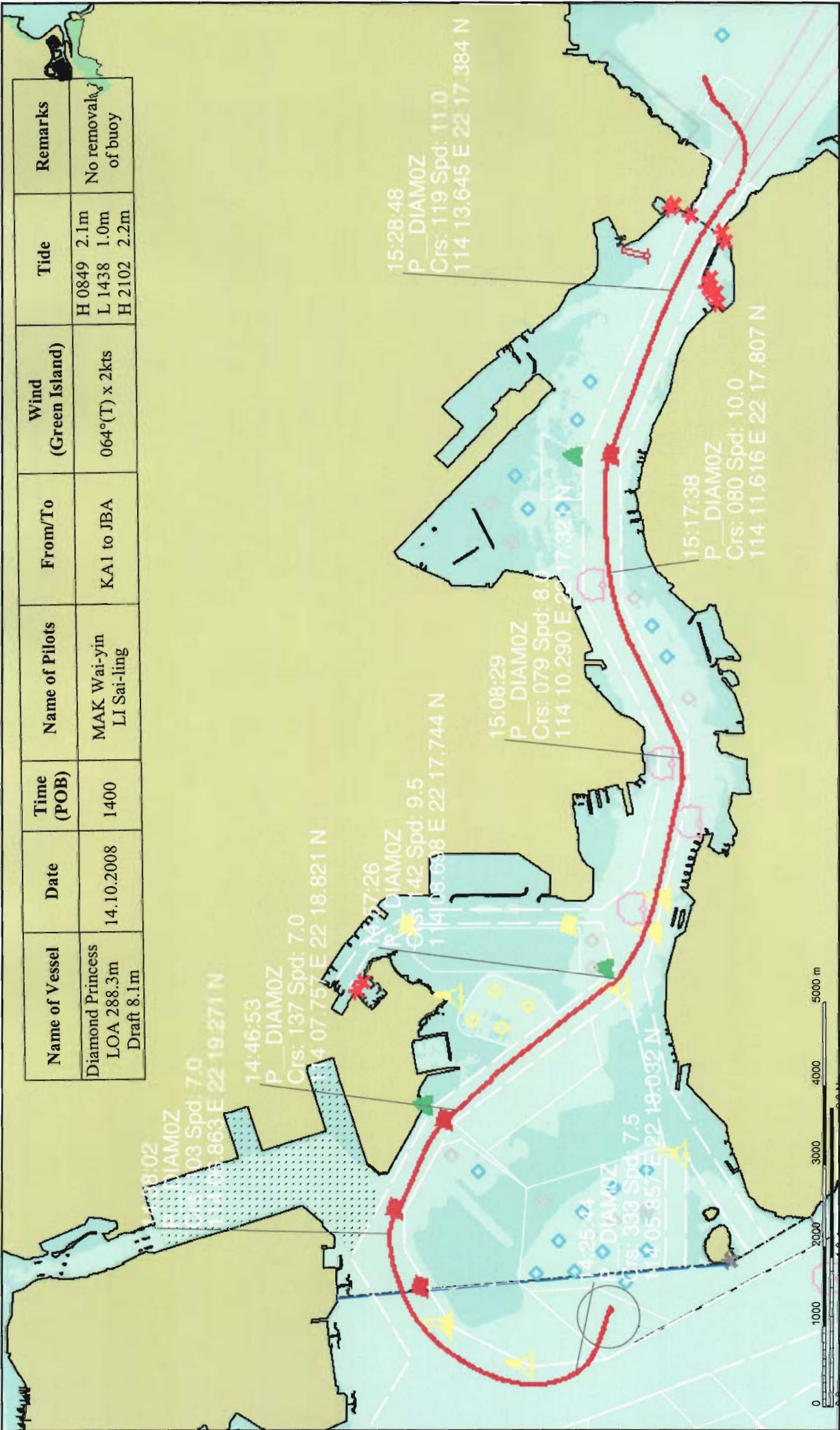
Plot interval [Sec]: 6  
Vector Length: 3 min

Plot centre [WGS84]: 22 18.424 N 114 11.347 E

Range: 2.52 NM

Prepared at: 07-04-2009 09:16:57 hour  
Prepared by:

MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT



Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Diamond Princess LOA 288.3m Draft 8.1m	14.10.2008	1400	MAK Wai-yin LI Sai-ling	KAI to JBA	064°(T) x 2kts	H 0849 2.1m L 1438 1.0m H 2102 2.2m	No removal of buoy

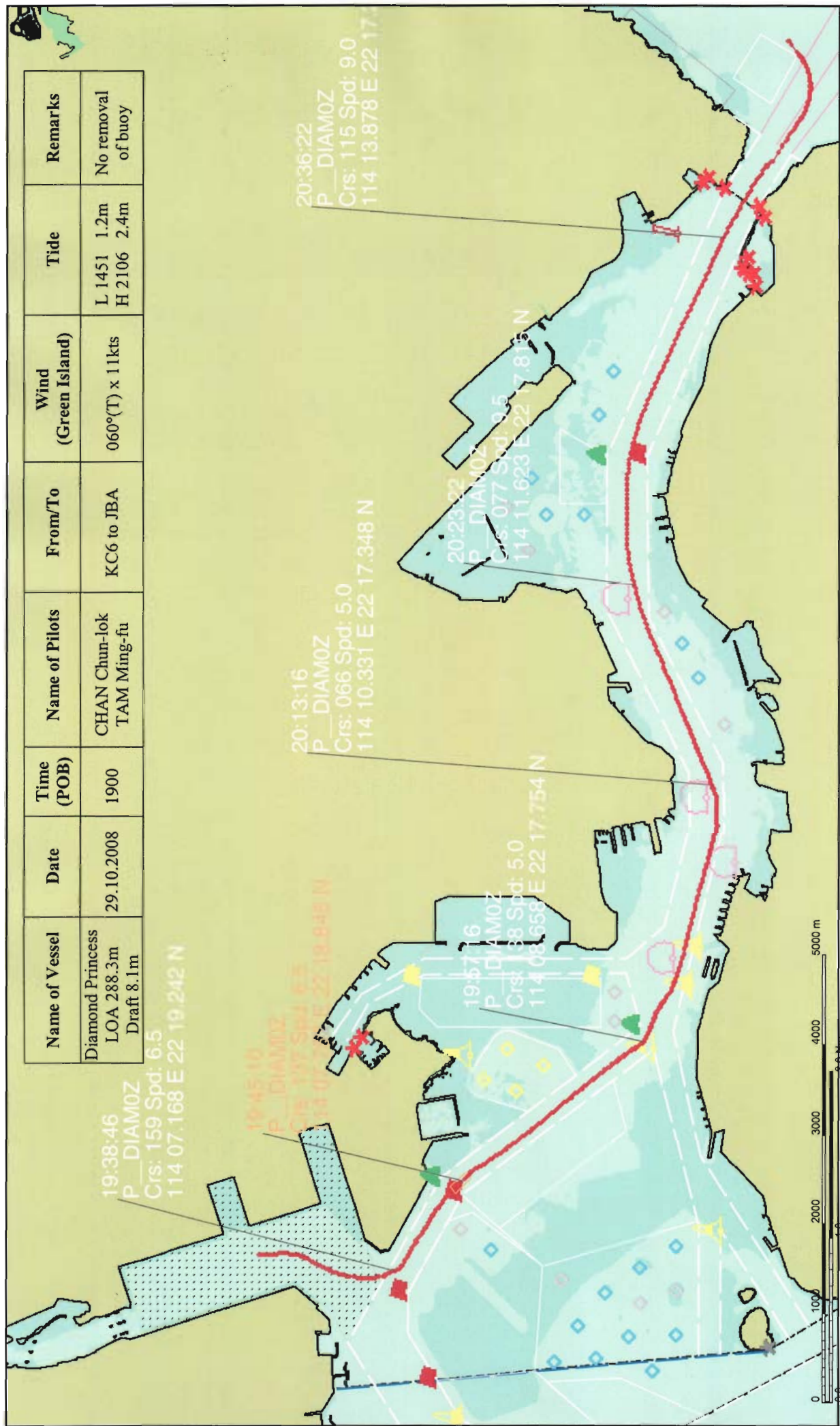
Plot centre [WGS84]: 22 19.069 N 114 10.580 E  
 Range: 2.78 NM  
 Prepared at: 07-04-2009 09:38:20 hour  
 Prepared by: \_\_\_\_\_

Start time: 14-10-2008 14:15:23  
 Stop time: 14-10-2008 15:48:33  
 Plot interval [Sec]: 3  
 Vector Length: 3 min

MARINE DEPARTMENT, HKSAR GOVERNMENT  
 RADAR PLOT



Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Diamond Princess LOA 288.3m Draft 8.1m	29.10.2008	1900	CHAN Chun-lok TAM Ming-fu	KC6 to JBA	060°(T) x 11kts	L 1451 1.2m H 2106 2.4m	No removal of buoy

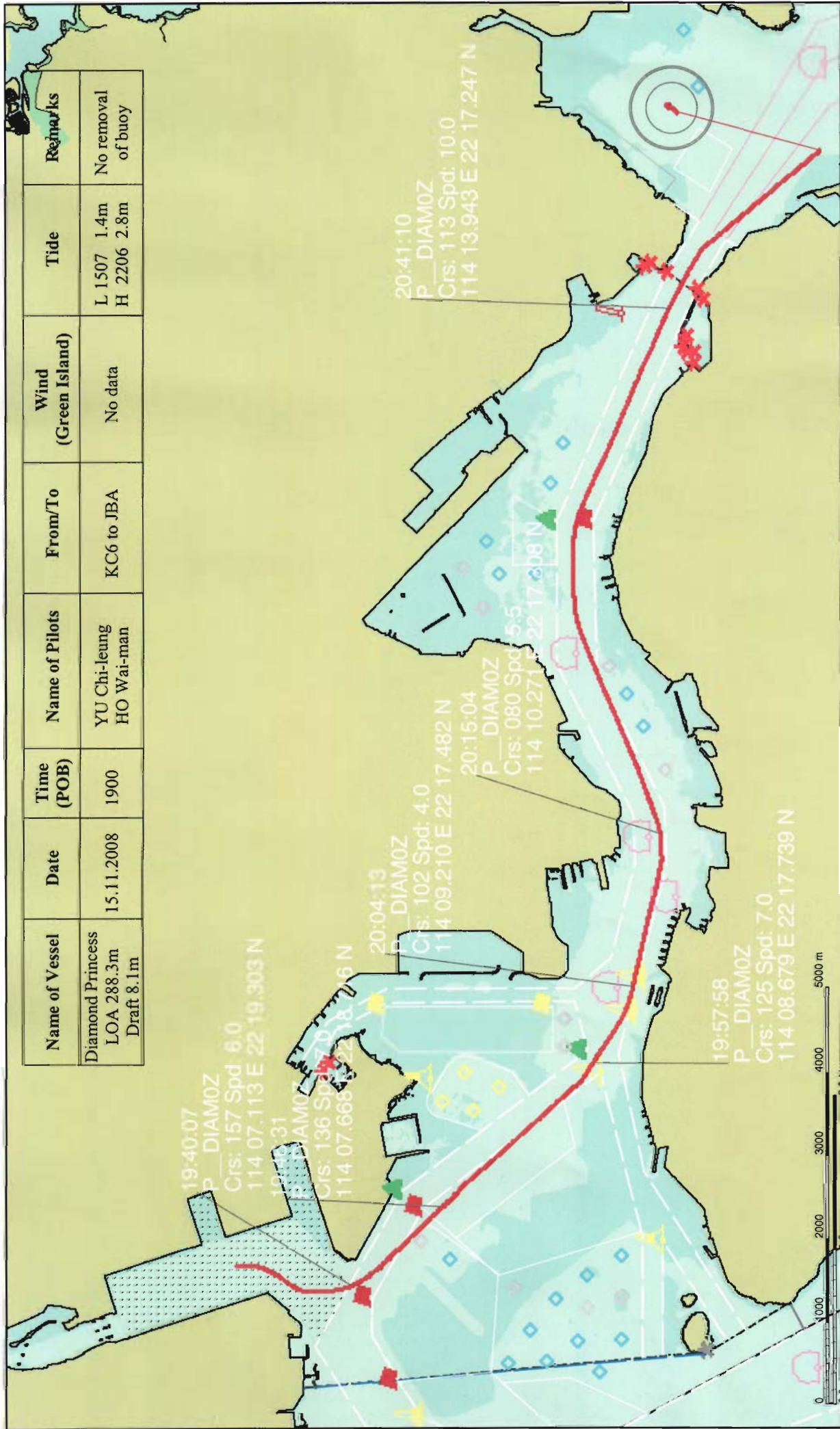


Start time: 29-10-2008 19:29:52  
Stop time: 29-10-2008 20:48:01  
Plot interval [Sec]: 6  
Vector Length: 3 min

Plot centre [WGS84]: 22 19.089 N 114 10.767 E  
Range: 2.50 NM

Prepared at: 07-04-2009 09:28:19 hour  
Prepared by: \_\_\_\_\_

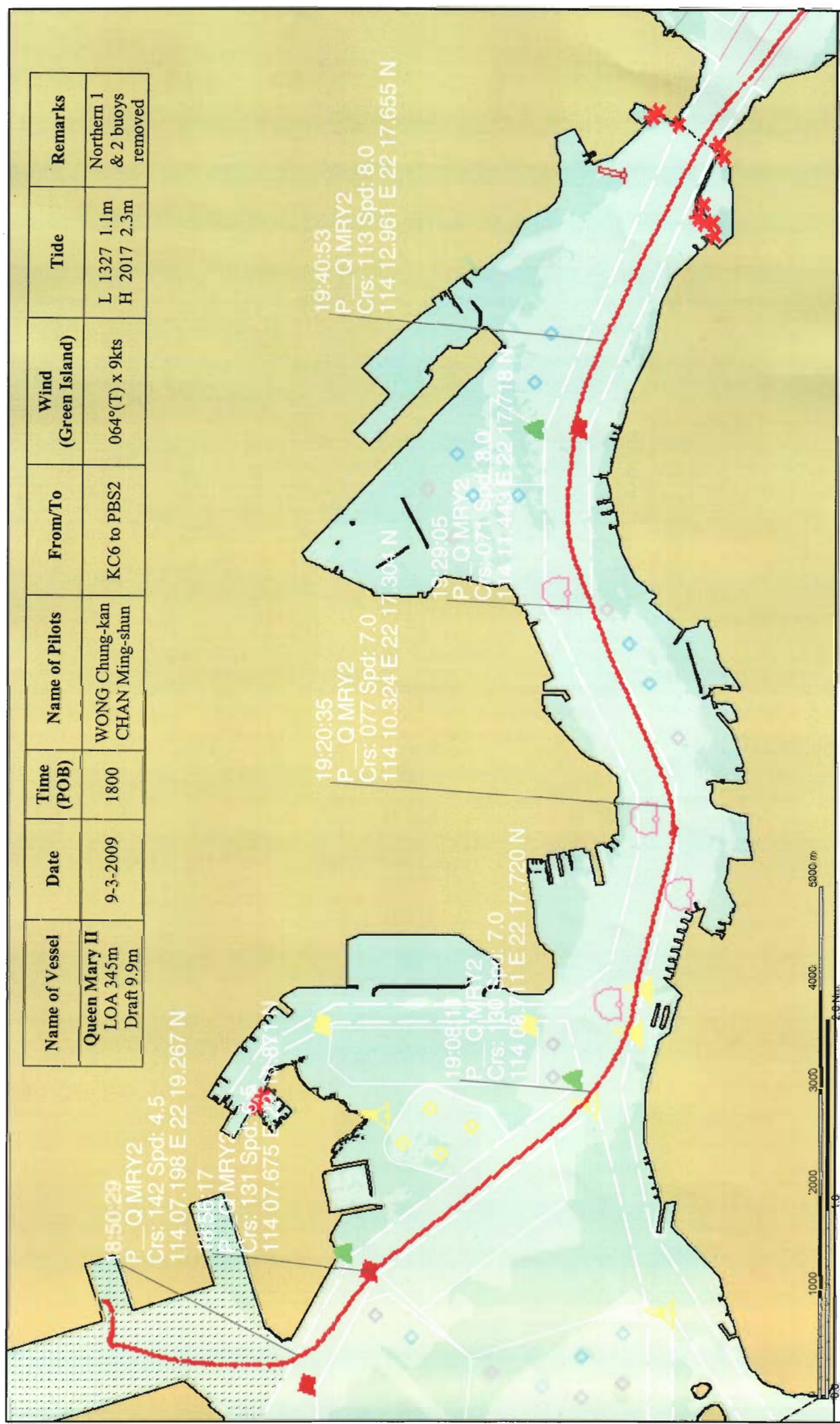
MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT



Start time: 15-11-2008 19:30:34  
 Stop time: 15-11-2008 21:07:01  
 Plot interval [Sec]: 3  
 Vector Length: 3 min  
 MARINE DEPARTMENT, HKSAR GOVERNMENT  
 RADAR PLOT

Plot centre [WGS84]: 22 18.846 N 114 11.090 E  
 Range: 2.70 NM  
 Prepared at: 07-04-2009 09:24:07 hour  
 Prepared by: \_\_\_\_\_

Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Queen Mary II LOA 345m Draft 9.9m	9-3-2009	1800	WONG Chung-kan CHAN Ming-shun	KC6 to PBS2	064°(T) x 9kts	L 1327 1.1m H 2017 2.3m	Northern 1 & 2 buoys removed



Plot centre [WGS84]: 22 18.613 N 114 10.839 E  
Range: 2.18 NM

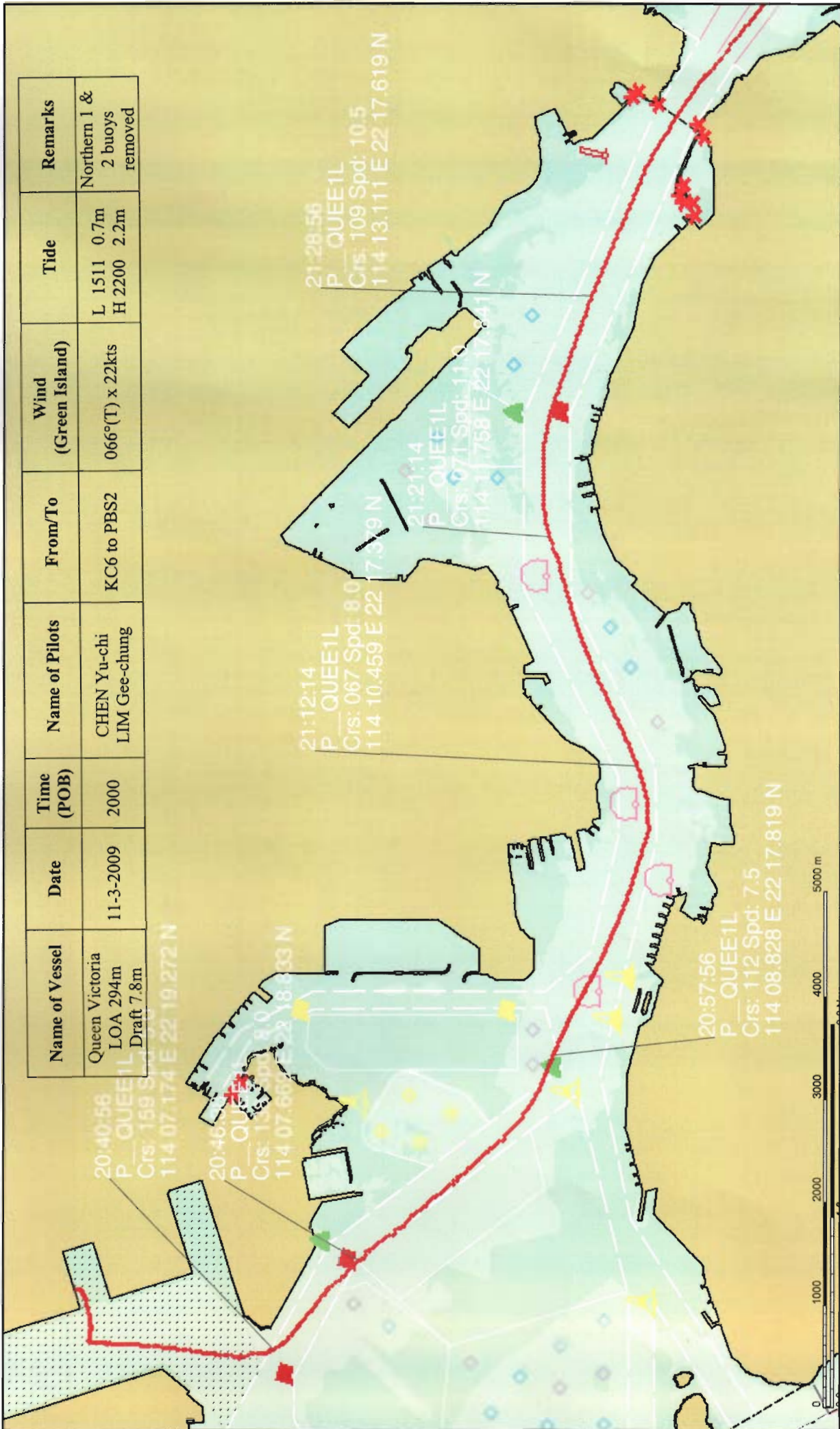
Prepared at: 06-04-2009 16:40:02 hour  
Prepared by: \_\_\_\_\_

Start time: 09-03-2009 18:20:23  
Stop time: 09-03-2009 20:18:20  
Plot interval [Sec]: 6  
Vector Length: 3 min

MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT



Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Queen Victoria LOA 294m Draft 7.8m	11-3-2009	2000	CHEN Yu-chi LIM Gee-chung	KC6 to PBS2	066°(T) x 22kts	L 1511 0.7m H 2200 2.2m	Northern 1 & 2 buoys removed



Plot centre [WGS84]: 22 18.505 N 114 10.737 E  
Range: 2.18 NM

Prepared at: 06-04-2009 17:22:02 hour  
Prepared by: \_\_\_\_\_

Start time: 11-03-2009 20:16:14  
Stop time: 11-03-2009 22:14:24

MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT

Plot interval [Sec]: 6  
Vector Length: 3 min





Name of Vessel	Date	Time (POB)	Name of Pilots	From/To	Wind (Green Island)	Tide	Remarks
Diamond Princess LOA 288.3m Draft 8.1m	21-3-2009	1845	Kwok Chuen MOK Kar-yau	KC6 to JBA	182°(T) x 10kts	H 1652 1.9m L 0143 0.7m	Northern 1 & 2 buoys removed



Start time: 21-03-2009 19:18:08  
Stop time: 21-03-2009 21:05:47  
Plot interval [Sec]: 6  
Vector Length: 3 min

MARINE DEPARTMENT, HKSAR GOVERNMENT  
RADAR PLOT

Plot centre [WGS84]: 22 18.399 N 114 11.148 E  
Range: 2.33 NM

Prepared at: 07-04-2009 10:36:39 hour  
Prepared by:

### Annex III

#### Berthing Guidelines

*PAC endorsed on 17 January 2003*

Location : OTS

#### Ocean Terminal south berth

010     **Berthing**     LOA: Max 80m  
**Draft:**   Max. 7.5m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    1  
**Remarks:**

011     **Unberthing**   LOA: Max 80m  
**Draft:**   Max. 7.5m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    1  
**Remarks:**

020     **Berthing**     LOA: Max 130m  
**Draft:**   Max. 8m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    2  
**Remarks:**

021     **Unberthing**   LOA: Max 130m  
**Draft:**   Max. 8m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    2  
**Remarks:**

030     **Berthing**     LOA: Max 230m  
**Draft:**   Max. 10.67m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    2. If D>10m incl. 1 GI est.  
**Remarks:**

031     **Unberthing**   LOA: Max 230m  
**Draft:**   Max. 10.67m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    2. If D>10m incl. 1 est.  
**Remarks:**

040     **Berthing**     LOA: Max 270m  
**Draft:**   Max. 10.67m (min 10% UKC)  
**Time:**   D&N HW-2 to LW+2  
**Tugs:**    3 incl. 1 GI est.  
**Remarks:** Port side to.  
          Max Fwd = 9.45m Aft =10.67m.

041     **Unberthing**   LOA: Max 270m  
**Draft:**   Max. 10.67m (min 10% UKC)  
**Time:**   24 hrs.  
**Tugs:**    2 incl. 1 est.  
**Remarks:** Max Fwd = 9.45m Aft =10.67m.

050     **Berthing**     LOA: Max 290m  
**Draft:**   Max. 10.67m (min 10% UKC)  
**Time:**   D&N HW-2 to LW+1  
**Tugs:**    3 incl. 1 GI est.  
**Remarks:** 2 pilots. Port side to.  
          Max Fwd = 9.45m Aft =10.67m.

051     **Unberthing**   LOA: Max 290m  
**Draft:**   Max. 10.67m (min 10% UKC)  
**Time:**   D&N HW-2 to LW+2  
**Tugs:**    2 incl. 1 est.  
**Remarks:** 2 pilots.  
          Max Fwd = 9.45m Aft =10.67m.



**(DRAFT)**

<p style="text-align: center;"><b>Cruise Ship Transiting Central Harbour</b></p>
--

Location: CHT **Central Harbour Transit**

010 **East Bound** LOA: Max 270m  
**Draft:** Max. 9.0m (min 10% UKC)  
**Time:** 24 Hrs.  
**Tugs:** 1 Escort from Berth/Anchorage  
to Hung Hom  
**Remarks:**

020 **East Bound** LOA: Max 290m  
**Draft:** Max. 10.0m (min 10% UKC)  
**Time:** D&N LW-2 to HW  
**Tugs:** 2 Escort from Berth/Anchorage  
to Hung Hom  
**Remarks:** 2 pilots.

030 **East Bound** LOA: Max 345m  
**Draft:** Max. 10.0m (min 10% UKC)  
**Time:** D&N LW-2 to HW  
**Tugs:** 2 Escort tugs (1 from  
Berth/Anchorage to Hung Hom  
and 1 from Berth/Anchorage to  
TCS4)  
**Remarks:** 2 pilots.  
Removal of N1 & N2 buoys  
1 patrol boat to clear the passage  
to Hung Hom

General Remarks:

- 1) This BGL is intended for CRUISE SHIP transiting Central Harbour from Kwai Chung Terminals or anchorages in western harbour. For berthing/unberthing requirements please refer to separate BGL of the related terminal.
- 2) The operation of this BGL shall be postponed when:
  - (a) Visibility is less than 1 mile
  - (b) Wind force at the harbour area is greater than 21 knots.
- 3) For Cruise Ship of LOA >270m transiting Central Harbour GMB B26 should be vacated.
- 4) Subject to VTC prior approval & traffic condition.
- 5) If deemed necessary, the pilot may deviate the vessel from the stipulated traffic route or general flow, for the purpose of safe navigation and maintaining adequate UKC. Pilot must keep VTC closely informed of his intention.
- 6) Cruise Ships of size exceeding those specified above transit the Central Harbour are subject to special tugs and other requirement having regard to the circumstances of the case.