PASSAGE PLAN AHYOKA (HKG-AUS)

1 BACKGROUND

This Passage Plan has been produced to facilitate the movement of yacht Ahyoka, Beneteau Oceanis 43 from Hong Kong to Cairns, Australia. Date of departure 0900hrs on 21 May 2020.

2 OBJECTIVES

The objectives of the Passage Plan are to deliver the following:

- Booking out of Hong Kong and into Australia in order to conform to local regulations.
- Produce a Communication Plan that complies with SOLAS Regulation IV.
- Produce a Passage Plan that complies with SOLAS Regulation V.
- Produce Pilotage Plans when the route may go through areas of restricted manoeuvrability.
- Produce a plan for both electrical generation and motoring fuel requirements and usage.

3 RESPONSIBILITIES

The following details the responsibilities assigned to individuals.

Title	Name	Role									
Skipper	Rory Hunter	Yacht skipper									
Shore Control	Cameron Ferguson	 Shoreside tracking of yacht position. Communication link from yacht to shore. Monitoring weather on passage. Advising skipper of save and optimal routing. 									

4 NAVIGATION PLAN

4.1 Route

The overview of the navigation route is at Appendix A with a detailed breakdown of the leg at Appendix B. The timings are based on a the VPP for a Beneteau Oceanis 43 downgraded to 80% of the optimal (for details see Appendix C). The speed at which the engine is to be used has been set at $\leq 2kns$ of boat speed.

4.2 Key Timings and Actions

The following table lists the key events and timings (to be updated before departure).

Ref	Date/Time	Wpt	Action
Appx F	Day -2		Yacht checkout from Hong Kong.
Аррх F	Day -1		Checkout crew from Hong Kong.
Аррх А	Day 0 @ 0900hrs	RHKCY CB	Slip berth.
Аррх А	Day 0 @ 1100hrs	Hong Kong	On route set sails.
Аррх А	Day 3 (approx.)	Balintang Channel	
Аррх А	Day 22 (approx.)	Pioneer Channel (NE)	
Аррх А	Day 23 (approx.)	Pioneer Channel (SW)	
Аррх А	Day 26 (approx.)	Rossel Island (E)	
Аррх А	Day 30 (approx.)	Grafton Passage (NE)	
Аррх А	Day 30 (approx.)	Grafton Passage (SW)	
Аррх А	Day 30 (approx.)	Cairns Fairway (C1/C2)	Sails down, engine on.
Аррх А	Day 30 (approx.)	Cairns Fairway (C20)	
Аррх А	Day 30 (approx.)	Cairns Marina (Entrance)	
Аррх А	Day 30 (approx.)	Cairns Marina (Inside)	Dock Cairns Marina

4.3 Charts

For details on both electronic and paper charts for the area to be navigated see Appendix D.

4.4 Weather

A number of weather resources will be used for this voyage:

- Hong Kong Observatory (HKO, www.hko.gov.hk) for weather in the China Sea.
- Weather models ECMWF and GFS are the standard models for the route.
- PredictWind.com will be the normal method of accessing the GRIB files of the standard weather models which are downloaded via the installed satellite phone (Thrane LT-3100) or the IsatPhone2.
- The US Naval Joint Typhoon Warning Centre (JTWC, www.metoc.navy.mil/jtwc) will be used for the forecasting of tropical cyclones.
- A weather study for the route has been completed by Chris Bedford (See Attachment 1). Weather advice will be available from Chris Bedford (www.sailwx.com) a professional meteorologist if required e.g. path and action on a tropical cyclone.

The tropical cyclones in the North Pacific are typically May to November and the HKO are predicting a normal occurrence of 4-7 tropical cyclones this year. The typical frequently by month is shown in the chart.

Departing in early to mid-May there is a low probability of encountering a tropical storm. Shore Control will be monitoring the various weather sources on a daily basis to ensure the longest possible lead time to take suitable action to route the vessel around adverse weather.



The typhoon report from the JTWC is shown below i.e. there and no suspect areas in the western Pacific Ocean as of 0530Z on the 19th May 2020.



In the South Pacific tropical cyclones are November to April so there is no expectation of encountering a tropical cyclone in this region.

4.5 Tides/Current

For full tidal details on tides and currents see Appendix E.

4.6 Navigational Dangers

There are numerous navigational hazards on the route. Each leg is documented in detail at Appendix B along with navigational dangers for the leg.

5 COMMUNICATIONS

The following communication is onboard:

Equipment	Purpose	CALL SIGN/ Number
VHF DSC	Fixed 25W installation for routine and distress communication	MMSI: 477991137
VHF Handheld (DSC)	Handheld for routine and distress communication	MMSI: 477991137
VHF	Handheld for routine communication	VRS7872
Iridium LT-3100	Safety and routine satellite communication	+88 1632597263
Inmarsat IsatPhone2	Emergency communications (not normally monitored)	+87 0776375217

Equipment	Purpose	CALL SIGN/ Number
YB Tracker	Satellite location tracking and SMS	http://yb.tl/hk2cairns
NAVTEX	Weather and safety (receive only)	N/A
AIS	Safety position reporting	MMSI: 477991137
Radar	Safety position	N/A
SART	Distress position reporting via radar	N/A
EPIRB	Distress calling and position reporting (registered to Ahyoka)	UIN: 3BA5E3F420FFBFF
EPIRB PLB	Distress calling and position reporting (registered to Skipper)	3BAEA08BBCFFBFF
AIS+DSC PLB	Distress calling and position reporting (ship-to-ship)	972608001

5.1.1 Yacht Satellite Email Address.

- 5.1.2 **Communication Routine**. There will be check-in with Shore Control every day at 0930hrs Hong Kong time. Communication could be via email, SMS or voice. Shore Control will provide a weather and routing update at this time. Confirmation of the weather and routing advice will always be sent by SMS or email.
- 5.1.3 **Australia Port Arrival**. Vessel will fly the Australian courtesy flag (starboard) and Q Flag (port) as it enters Australian waters.

6 FUEL

Fuel usage is estimated as follows:

Item	Hours/day	Days	Total Hrs	Fuel*
Vessel power (generator)	4	35	140	200ltr
Motoring ⁺ (5.5knts)	24	4	96	340ltr
Emergency reserve			6	20ltr
			TOTAL	560ltr

* Fuel consumption main engine: 3.5 ltr/hr at 5.5kn, fuel consumption generator engine: 1.4 ltr/hr Engine used when boat speed $\leq 2kns$

Fuel to be carried is as follows:

Location	Size (ltr)	Number	Fuel
Fuel tank	200	1	200ltr
Jerrycans	20	30	600ltr
		TOTAL	800ltr

Fuel usage must be monitored to ensure an emergency reserve is kept.

7 DOCUMENTATION & CIQ

Documentation requirements for vessel checkout the Hong Kong Marine Department and HK Immigration are detailed in Appendix F.

The documentation and process for CIQ in Australia is documented in Appendix F.

8 CONTINGENCY PLANNING

8.1 Alternative Ports

- 8.1.1 Taiwan. Kao Hsiung (22° 37.2N, 120° 15.1E). See page 280 of Southeast Asia Pilot.
- 8.1.2 Taiwan. Houbihu Marina (21° 56.605N, 120° 44.752E). See page 280 of Southeast Asia Pilot
- 8.1.3 Philippines. Subic Bay (14° 45.0N, 120° 12.5E). See page 251 of Southeast Asia Pilot.
- 8.1.4 Palau (Belau). Malakal Harbour (07° 19.357N, 134° 27.621E). See page 246 of Southeast Asia Pilot.
- 8.1.5 **Guam**. Apra Harbour (13° 27.1N, 144° 37.4E).
- 8.1.6 New Guinea. Sorong (0° 53.307S, 131°15.846E). See page 230 of Southeast Asia Pilot.
- 8.1.7 New Guinea. Jayapura (2° 32.415S, 140°42.514E). See page 230 of Southeast Asia Pilot.
- 8.1.8 Manus Island. Lorengau (2° 1.3S, 147°16.6E).

8.1.9 New Britain. Rabaul (4° 12.5S, 152°10.0E).

8.2 Action On

- 8.2.1 **Fog/Poor Visibility**. Should poor visibility arise then use of AIS and radar should be sufficient to enable safe passage. Guard zones must be setup on both the AIS and radar to warn of approaching vessels or hazards.
- 8.2.2 Disabled Vessel. Contact Shore Control to give status report and discuss contingency planning.
- 8.2.3 **Abandoning Ship**. Prioritise contacting the relevant MRCC as detailed in Para 8.3 then contact Shore Control.

8.3 Emergency Contacts

- 8.3.1 Shore Control. Cameron Ferguson 8.3.2 **Skippers Contacts:** Primary: Harry Hunter Home phone (24hours): Mobile: Email Secondary: Melita Hunter Mobile: Email: 8.3.3 Medical: Dr Harriott Southside Health Rory's doctor and ocean yachtswoman. China Sea Area. Hong Kong MRCC: +852 2233 7999 (page 389*) 8.3.4
- 8.3.5 **Philippines**. MRCC +63 25273880 or 25278481 to 489 (page 394*)
- 8.3.6 Palau. Honolulu JRCC +1 8085353333 (page 393*)
- 8.3.7 Micronesia. Honolulu JRCC +1 8085353333 (page 394*)
- 8.3.8 Indonesia. +62 2165867510 or +62 2165867511 (page 390*)
- 8.3.9 Papua New Guinea. MRCC +675 3212969 or +675 3213033 (page 387*)
- 8.3.10 Solomon Islands. Honiara MRCC: +677 21609 96099 (page 387*)
- 8.3.11 Australia. Canberra JRCC: +61 262306811 or +61 262306820 (page 386*)

* Admiralty List of Radio Signals Vol 5

APPENDIXES

- A: HKG-AUS (CAIRNS) WAYPOINTS & ROUTE OVERVIEW
- B: HKG-AUS (CAIRNS) WAYPOINTS & ROUTE DETAIL
- C: WEATHER ROUTING
- D: CHARTS
- E: TIDES AND CURRENTS
- F: DOCUMENTATION & CIQ

ATTACHMENTS

1. Weather Study by Chris Bedford.

APPENDIX A HKG-AUS (CAIRNS) WAYPOINTS & ROUTE OVERVIEW

A.1. Route Table					
Mark	Latitude	Longitude	Bearing* (T)	Variation (approx.)	Range (nm)
Hong Kong	22 12.321n	114 18.693e		2°W	
Balintang Channel	19 43.767n	122 7.228e	107	3°W	463
Pioneer Channel (NE)	03 35.257s	154 16.244e	123	3.5°W to 6.5°E	2360
Pioneer Channel (SW)	04 21.970s	153 49.616e	210	6.5°E	54
Rossel Island (E)	11 36.978s	155 10.590e	170	8°E	443
Grafton Passage (NE)	16 38.147s	146 12.891e	239	6.5°E	603
Grafton Passage (SW)	16 49.889s	146 4.384e	215	6.5°E	14.3
Cairns Fairway (C1/C2)	16 49.889s	145 49.906e	270	6.5°E	13.8
Cairns Fairway (C20)	16 54.624s	145 47.137e	209	6.5°E	5.4
Cairns Marina (Entrance)	16 55.135s	145 47.013e	193	6.5°E	0.5
Cairns Marina (Inside)	16 55.123s	145 46.944e	280	6.5°E	0.1
				TOTAL	3957

A.2. Route Chart

Warning: The following charts are not to be used for navigation.



Version: 1.3 (19/05/2020)

APPENDIX B HKG-AUS (CAIRNS) WAYPOINTS & ROUTE DETAIL

B.1. Leg 1: Hong Kong to Balintang Channel

- 1. Bearing 107°T for 463nm
- 2. Deviation goes from 2°W at Hong Kong to 3.5°W at north Philippines.
- 3. The rhumbline runs along the shipping route so caution must be taken to keep a good lookout for shipping. On the rhumbline at 110nm, 240nm, 325nm, 360nm and 435nm the route crosses shipping routes.
- 4. Set a course to be clear of the oil rigs that are located 100nm from Hong Kong (see area marked).
- 5. For the first 200nm until the continental shelf is reached there are numerous fishing vessels.



6. Balintang Channel waypoint is located between Balintang Island to the north and Babuyan Island to the south. The only navigation light in the area is Balintang Island (FI.5s, 12M) but it's unlikely to be seen as the route is more than 12nm form the island.



B.2. Leg 2: Balintang Channel to Pioneer Channel (NE)

- 1. Bearing 123°T for 2360nm.
- 2. Deviation goes from 3.5°W at north Philippines to 0° near Yap to 6.5°E at Pioneer Channel. Care must be taken to watch for these large changes in deviation.
- The rhumbline runs along the shipping route so caution must be taken to keep a good lookout for shipping. On the rhumbline at 80nm, 95nm, 370nm, 745nm, 965nm, 1045nm, 1100nm, 1390nm, 1495nm and 2330nm from the last waypoint the route crosses shipping routes.



4. At 1110nm the rhumbline passes between Ngulu Atoll to the south and Yap Island to the north. The actual route could be to the south of Ngulu Atoll.



5. If the routing takes the yacht north of Yap Island (shown as Colonia on the above chart) due to the numerous atolls and islands care must be made to ensure forward route planning if thorough.



6. There are no navigation lights in the area.

- 7. The final 100nm approach to the Pioneer Channel (NE) waypoint runs between islands and atolls so it's important to be well rested before making this approach.
- 8. There are no useful navigation lights in the area.



Version: 1.3 (19/05/2020)

B.3. Leg 3: Pioneer Channel (NE) to Pioneer Channel (SW)

- 1. Bearing 210°T for 54nm.
- 2. Deviation is about 6.5°E in the Pioneer Channel. Care must be taken account of these large deviations.
- 3. On the rhumbline runs close and into shipping routes.
- 4. There are no navigation lights in the area.
- 5. Babase and Ambitle islands to the west will be visible but the Pinpel and Nissan islands to the south east are low lying and will be difficult to see. Hence, keep closer to the Babase and Ambitle islands if there is any uncertainty regarding current position.



B.4. Leg 4: Pioneer Channel (SW) to Rossel Island (E)

- 1. Bearing 170°T for 445nm.
- 2. Deviation goes from 6.5°E at Pioneer Channel (SW) to 8°E at Rossel Island (E). Care must be taken account of these large deviations.
- 3. The rhumbline runs along the shipping route so caution must be taken to keep a good lookout for shipping. On the rhumbline at 270nm from the last waypoint the route crosses a shipping route.
- 4. There are no navigation lights in the area.



- 5. On approach to Rossel Island (E) waypoint care much be taken as both Rossel Island to the south west and Pocklington Reef to the east are low lying and difficult to sight.
- 6. There are no useful navigation lights in the area.



B.5. Leg 5: Rossel Island (E) to Grafton Passage (NE)

- 1. Bearing 239°T for 603nm.
- 2. Deviation goes from 8°E at Rossel Island (E) to 6.5°E at Cairns. Care must be taken account of these large deviations.
- 3. The rhumbline runs along the shipping route so caution must be taken to keep a good lookout for shipping. On the rhumbline at 155nm, 210nm and 290nm from the last waypoint the route crosses a shipping route.
- 4. At 400nm care must be taken not to deviate towards the Diane Bank and Holmes Reef to the south or the Bougainville Reef to the north.
- 5. On approach to the Grafton Passage waypoint at night the light on Euston Reef can be used to check position (Fl(4).20s, 17m 10M).



B.6. Leg 6: Grafton Passage (NE) to Grafton Passage (SW)

- 1. Bearing 215°T for 14.3nm.
- 2. Deviation is 6.5°E at Cairns. Care must be taken account of these large deviations.
- 3. This is the recommended channel through the Great Barrier Reef into Cairns.
- Use Little Fitzroy Island lighthouse (Fl(3).15s WRG, 33m, 15M) on a bearing of 219°T to keep in the channel. If the light turns green alter course to port and red to starboard to return to the main channel.



B.7. Leg 7: Grafton Passage (SW) to Cairns Fairway (C1/C2)

- Bearing 270°T for 13.9nm.
- Deviation is 6.5°E at Cairns. Care must be taken account of these large deviations.
- The entrance to the Cairns Fairway is well marked by the Easterly Cardinal C1 (VQ(3).5s, 7M) and the port hand lateral mark C2 (Fl.R.4s 7M).



B.8. Leg 8: Cairns Fairway (C1/C2) to Cairns Fairway C20

- 1. Bearing 209°T for 5.5nm.
- 2. Deviation is 6.5°E at Cairns. Care must be taken account of these large deviations.
- 3. The Cairns Fairway is well marked down its entire route with port and starboard hand lateral markers every 0.5nm. Its strongly recommended to draw a pilotage plan of all the marks on waterproof paper before arriving at the fairway and to 'tick' off each mark as its passed.
- 4. Mark C20 is a yellow Special Mark beacon (Fl.Y.1.5s, 7M) and marks the turning point towards the entrance to Cairns.
- Note that Special Mark beacon T1 (QF) and the Cairns Marina beacon (fixed sectored WRG) are leading lights on 209°T. Care must be taken not to go past beacon C20 when following the leading lights.



B.9. Leg 9: Cairns Fairway C20 to Cairns marine Entrance

- Bearing 193°T for 0.5nm.
- Deviation is 6.5°E at Cairns. Care must be taken account of these large deviations.
- When level with C20 turn onto the Cairns Marina approach.
- The marine is on the west side of the fairway and the entrance is marked by fixed red and green lights.



B.10. Leg 9: Cairns Fairway C20 to Cairns marine Entrance

- 1. Bearing 280°T for 0.1nm.
- 2. Deviation is 6.5°E at Cairns. Care must be taken account of these large deviations.
- 3. The marine is on the west side of the fairway and the entrance is marked by fixed red and green lights.



APPENDIX C WEATHER ROUTING

C.1. Weather Routing Summary

Route distance	3927.04nm
Optimal distance	4487.29nm
Optimal route time	30d 02h 06m 46s
Motoring time	4d 10h 05m 27s
Motoring fuel	371 litres
Created	19/05/2020 20:54:52
Sail chart	Benetaeu Oceanis 43
Polar	Beneteau Oceanis 43 (Standard)
Polar %	80
Model	PWE
Current	Tides, BSH/GMN/Tidetech
Wind %	100
Algorithm	Isochronal





C.3. Weather Routing Table

Routing run 2100hrs 19/05/2020 PWE model with motoring when \leq 2kns BSP using the standard yacht polar.

Mark	Sail	Twd°T	Tws	Twg	Twa	Targ	Bsp	Set°T	Drift	Brg®T	Dist nm	Awa	Aws	Mode	Latitude	Longitude
Hong Kong	J1	149	5.6		55	46	3.9	75	0.8	90	20.15	33	8.5	Sail	22 12.321n	114 8.693e
	J1	142	8.7		-40	43	4.5	62	0.6	98	34.19	29	12.5	Sail	22 12.217n	114 40.418e
	J1	151	0.2		66	42	5.9	92	1	86	41.57	43	13.7	Sail	22 7.523n	115 6.916e
	J1	146	0.3		61	42	5.8	90	1.2	85	42.77	40	14.1	Sail	22 10.134h	116 1.6280
	J1:A1	206	13.2		113	148	6.7	53	0.5	90	42.83	82	12.3	Sail	22 15.873n	117 33.642e
	A1	206	12.4		16	148	6.6	82	0.8	89	44.46	84	11.2	Sail	22 15.907n	118 19.843e
	J1	196	12.7		97	148	6.6	64	0.8	95	44.06	68	13.5	Sail	22 16.260n	119 7.794e
	J1	194	11.7		82	42	6.3	112	0.9	112	42.53	56	14	Sail	22 12.276n	119 55.110e
	A1	222	11.7		128	148	6.3	125	0.8	98	43.24	96	9.2	Sail	2156.377n	120 37.592e
	A1	227	11		115	147	6.4	34	1.4	99	42.88	80	0.1	Sail	21 50.446n	121 23.664e
	11	108	13.6		100	147	6.7	110	0.7	100	42.78	72	14.1	Sail	21 43.4250 21 36 104n	122 5.1306
	12-Reef 1	211	15.0		120	159	7.1	91	0.6	91	43.88	93	13.8	Sail	21 30.104m	123 42 8726
	J1;A1	214	12.5		111	148	6.6	23	0.3	100	38.64	80	11.8	Sail	21 26.940n	124 0.018e
	J1	195	12.2		93	148	6.5	04	0.2	101	36.7	64	13.5	Sail	21 20.153n	125 0.799e
	J1	189	11.2		90	42	6.4	249	0.5	102	36.8	60	12.9	Sail	21 13.199n	125 49.398e
	J1	193	11.6		93	148	6.4	194	0.3	102	40.25	63	13	Sail	21 5.709n	126 27.964e
	J1	185	12.2		105	148	6.6	146	1.1	88	45.22	74	12.3	Sail	20 57.020n	127 9.992e
	J1	168	12.4		93	148	6.5	81	1.6	76	50.81	65	13.7	Sail	20 58.481n	127 58.305e
	11	179	0.2		94	147	6.2	94	1.9	87	45.7	62	11.5	Sail	21 10.721n	129 45 205e
	J1	191	9.1		108	147	6	91	1.2	85	42.87	70	9.2	Sail	21 14.516n	130 34.090e
	A1	197	11.1		123	147	6.3	32	1.2	67	44.12	88	9.3	Sail	21 18.280n	131 19.832e
	J1	196	13.2		106	148	6.7	42	1.1	83	45.2	76	13.1	Sail	21 35.539n	132 3.366e
	A1	206	12.7		122	148	6.6	69	1	82	43.77	91	0.8	Sail	21 40.772n	132 51.579e
	J1	197	0.5		105	147	6.3	97	0.9	93	43.69	70	0.8	Sail	21 46.532n	133 8.197e
	J1	185	13		100	148	6.6	131	0.9	91	43.2	71	13.5	Sail	21 43.840n	134 25.060e
	J2;Reef 1	191	12.6		105	148	66	347	0.2	97	40.87	68	14.9	Sail	21 43.323h 21 45 912n	135 11.4808
	J1	190	0.9		85	42	6.3	8	0.3	103	39.51	56	13.1	Sail	21 43.31En	136 37.028e
	J2	186	13.7		83	41	6.5	97	0.4	102	42.27	59	15.9	Sail	21 32.390n	137 8.395e
	J2	171	13.5		66	41	6.4	96	0.7	104	42.95	46	17.1	Sail	21 23.201n	138 2.649e
	J2	188	14.3		84	41	6.6	138	0.7	107	40.47	61	6.4	Sail	21 12.777n	138 47.283e
	J1	190	0.8		87	42	6.3	179	0.4	107	38.97	58	12.8	Sail	21 0.890n	139 28.675e
	J1	179	0.5		74	42	6.1	141	0.6	109	37.42	48	13.5	Sail	20 49.761n	140 8.580e
	J1 J1	158	9.4 8.6		-4	43	5.5 4.5	89	0.4	110	30 31	- 38 29	12.2	Sail	20 37.724n 20 26 586n	140 46.3908
	J1	108	11.9		-48	42	5.7	131	0.2	156	28.19	-33	6.3	Sail	20 0.582n	141 34.950
	J1	128	9		-17	43	4.6	262	0.2	112	31.07	29	12.7	Sail	19 34.938n	141 47.266e
	J2	181	13.2		69	41	6.4	272	0.5	113	34.55	48	6.6	Sail	19 23.499n	142 17.849e
	J1	174	0.7		64	42	6	242	0.7	115	30.6	42	14.4	Sail	199.732n	142 51.353e
	J1	146	9.5		(-10)	43	4.8	216	0.4	162	27.09	-29	13.4	Sail	18 56.978n	143 20.717e
	11	141	11.2		(-24)	42	5.2	67	0.3	160	27.48	-29	15.4	Sail	18 51.302n	143 29.6876
	J2	100	12.8		(-2/)	41	5.3	257	0.2	153	30.14	-29	6.4	JibC Sail	17 38 121n	143 52 6164
	12	1111	13.8		(-40)	42	5.6	232	0.1	153	33.96	-29	8.4	Sail	17 38.1211 17 8.587n	143 32.010e
	J1	98	11.6		-53	42	5.9	90	0.1	151	36.1	-36	15.8	Sail	16 38.636n	144 25.042e
	J2	104	14.5		-53	41	6.1	70	0.3	154	34.97	-38	8.8	Sail	167.252n	144 43.502e
	J2	101	14.3		-49	41	5.9	267	0.5	154	35.23	-35	8.7	Sail	15 35.790n	144 59.212e
	J2	94	14.2		-60	41	6.4	318	0.2	155	37.28	-43	8.3	Sail	15 4.135n	145 15.095e
	J2;Reet 1	89	14.7		-67	41	6.5	0	0.1	155	38.06	-48	8.2	Sail	14 30.457n	145 31.4568
	12:Roof 1	82	15 1		-67	40	6.5	2/3	0.4	153	38.95	-47	8.6	Sail	13 30.074m	145 40.1276
	J2:Reef 1	78	15.5		-74	40	6.6	268	0.3	154	38.23	-54	8.5	Sail	12 47.349n	146 24.364e
	J2;Reef 1	75	15.5		-77	40	6.6	284	0.5	155	37.1	-56	8.2	Sail	12 13.172n	146 41.750e
	J2;Reef 1	79	14.8		-73	40	6.5	278	0.7	157	36.43	-53	17.9	Sail	11 39.568n	146 57.653e
	J2;Reef 1	77	14.7		-74	41	6.5	279	0.9	158	37.28	-53	17.6	Sail	116.057n	147 12.064e
	J2	73	14.5		-79	41	6.6	280	0.4	155	38.93	-57	17	Sail	10 31.638n	147 26.473e
	J2;Reef 1	78	15.4		-81	40	6.6	343	0.1	158	38.23	-59	17.7	Sail	09 56.350n	147 43.002e
	12:Reef 1	81	14.0		-75	40	6.6	263	0.4	159	38.55	-54	17.4	Sail	0845 5550	148 11 1856
	J2	80	14.5		-77	41	6.6	270	0.3	160	37.57	-55	17.2	Sail	08 9.515n	148 24.818e
	J1	83	11.2		-72	42	6.2	261	0.6	160	36.26	-48	14.4	Sail	07 34.353n	148 37.979e
	J1	88	11.5		-63	42	6.1	246	0.5	155	37.15	-42	15.3	Sail	07 0.259n	148 50.245e
	J1	81	11.9		-75	42	6.3	236	0.5	160	36.31	-51	14.8	Sail	06 26.617n	149 5.955e
	J1;J2	121	12.5		-47	41	5.7	145	0.4	166	31.58	- 32	17	Sail	05 52.610n	149 8.563e
	J1	133	8.8 6.7		(-8)	43	4.6	04	0.5	136	24.2	-29	12.6	Sail	05 22.059h	149 26.3856
	J1	140	3.7		4	43	5.5	83	0.8	134	26.05	19	8.4	Motor	04 43.294n	150 5.810e
	J1	126	2.9		-10	48	5.5	80	0.6	130	34.28	-16	7.7	Motor	04 24.549n	150 23.893e
	J1	66	2.4		-68	48	5.5	60	0.2	131	33.28	-19	6.8	Motor	04 2.390n	150 50.044e
	J1	123	2.5		-38	48	5.5	172	0.1	162	33.32	-15	7.4	Motor	03 40.395n	151 14.990e
	J1	123	2.7		-33	48	5.5	246	0.4	160	33.12	-15	7.6	Motor	03 8.806n	151 25.429e
		10	1.8		-23	49	5.5	243	0.7	160	33.49	-11	6.8	Motor	02 37.643n	151 6.4868
	11	131	2.4		-20	48	5.5	259	0.8	159	31.35	-14	7.3	Motor	01 35 451n	151 58 770e
		141	2.1		-11	48	5.5	266	1.1	162	29.53	-13	7.1	Motor	016.243n	152 0.007e
		119	1.6		-56	49	5.5	275	1.5	191	33.13	-12	6.5	Motor	00 38.128n	152 8.872e
		69	1.2		-77	49	5.5	270	1.8	161	27.63	-12	5.9	Motor	00 5.694n	152 12.395e
	J1	95	2.7		-32	48	5.5	275	1.8	136	24.35	-15	7.6	Motor	00 20.439s	152 21.196e
	11	108	3.8		-31	47	5.5	275	1.7	166	18.23	-19	8.6	Motor	00 38.0485	152 37.9456
	J1	101	3		-13	40	5.5	275	1.7	130	22.50	-16	7.8	Motor	01 10 818	153.0.465e
	J1	123	4.1		-2	47	5.5	268	2.1	158	17.26	-20	8.9	Motor	01 25.581s	153 17.918e
	J1	113	5.9		-45	46	3.5	283	0.7	166	21.28	-29	8.7	Motor	01 41.571s	153 24.330e
	J1	120	6.2		(-17)	46	3.7	240	1.3	159	17.12	-29	9.2	Sail	02 2.216s	153 29.312e
	J1	1 8	5.5		(-7)	46	3.4	252	1.5	150	12.94	-29	8.2	Sail	UZ 18.221s	153 35.317e
	J1	1.8	4.3		3	40	5.5	252	2.3	142	14.61	20	9	Motor	02 48.6105	153 50.535
	J1	16	4.8		-45	47	3	272	1.8	190	16.49	-29	7.1	Motor	03 0.171s	153 59.434e
	J1	109	4.8		(-15)	47	3	274	1.5	142	18.12	-29	7.2	Sail	03 16.393s	153 56.661e
Disease Of	J1	108	4.1		-5	47	5.5	270	1.8	119	9.56	-20	8.8	Motor	03 30.569s	154 7.920e
rioneer Channel (NE)	J1	111	4.1		-70	47	3	269	1.7	214	25.15	-41	5.9	Notor	U3 35.257s	154 6.244e
	J1 J1	105	4.9		-02	4/	3.6	260	1.8	206	26.3	- 35	7.5	Sail	03 30.15/5	153 49 834a
Pinoeer Channel (SW)	J1	104	5		-74	46	3.8	246	1.9	206	32.26	-43	7.1	Sail	04 21.970s	153 49.616e
	J1	99	5.3		-96	142	4.1	226	1.5	206	31.59	-56	6.4	Sail	04 50.914s	153 35.446e
	J1	81	5		-99	142	3.8	233	1.8	203	31.79	-58	5.8	Sail	05 19.348s	153 21.770e
	J1	62	6.1		-107	144	4.6	247	1.7	192	34	-63	6.5	Sail	05 48.559s	153 9.302e
	J1 11	57	6.2		-97	144	4.7 c	218	1.2	167	32.89	-57	7.4	Sail	06 53 709-	153 2.192e
	J1	52	7.9		-103	147	5.6	133	1	151	41.76	-64	8.6	Sail	07 27.228	153 21 54%
	J1	52	0.2		-98	147	6.2	120	1.6	143	50.01	-65	11.1	Sail	08 3.755s	153 41.827e
	A1	51	11.8		-118	148	6.5	118	2.4	153	45.04	-85	0.5	Sail	08 43.421s	154 12.467e
	A1	43	11.7		-122	148	6.4	170	0.3	165	39.93	-89	9.9	Sail	09 23.561s	154 32.978e
	A1	44	13		-115	148	6.7	261	0.7	165	39.05	-85	11.8	Sail	10 2.065s	154 43.413e
	A1	43	12.5		-116	148	6.6	262	0.7	165	39.21	-85	11.2	Sail	U 39.719s	154 53.659e
Rossel Island (F)	A1 	45	0.6 9.0		-112	147	5.8	212	0.5	161	20.56 42.24	- /6	U.1 7.6	li6c lic2	11 1/.5835 11 36 978r	155 0 500-
nosser island (E)	A1	83	14.3		-136	150	6.6	170	0.6	214	42.67	-110	0.6	Sail	12 18.5445	155 3.352e
	J2	87	18		-139	161	6.9	129	0.1	225	43.01	-120	13.6	Sail	12 53.667s	154 8.659e
	J2	93	20.5		-134	160	7.3	323	0.2	228	44.89	-115	6.3	Sail	13 23.763s	154 7.223e
	J2;Reef 2	99	22.6		-135	160	7.4	07	0.5	239	47.16	-118	8.1	Sail	13 53.431s	153 32.660e
	J2	109	23.2		-132	160	7.6	282	0.6	244	48.92	-114	19	Sail	14 17.911s	152 51.205e
	12	122	23.3		-128	160	7.6	2/0	0.5	248	49.09	- 110	20.1	Sail	14 59. bb5 14 57 780r	151 8 014-
	J2	123	23.9		-132	160	7,6	259	0.6	255	49.6	-115	19.7	Sail	15 16.7034	150 31 756
	J2;Reef 2	122	22.7		-130	160	7.6	261	0.9	253	50.97	-112	8.7	Sail	15 29.349s	149 42.110e
	J2;Reef 2	122	22.8		-132	160	7.5	252	0.9	253	50.01	-114	8.6	Sail	15 43.797s	148 51.454e
	J2;Reef 2	121	22.5		-128	160	7.6	276	0.6	251	47.67	- 09	8.9	Sail	15 58.024s	148 1.718e
	J2;Reef 2	121	21.8		-126	160	7.5	287	0.4	249	46.18	- 07	8.4	Sail	6 13.623s	147 14.933e
Grafton Barrow (b)	J2	117	20.9		-127	160	7.5	252	0.2	244	18.34	- 07	17.4	Sail	6 30.257s	146 0.130e
Granton Fassage (NE)	12	120	17.0		- 94	100	1.1	226	0.1	215	14.32	- /4	20.5	Sail	C 40 990-	146 4 204-





C.5. Sail Plan



APPENDIX D CHARTS

UK Admiralty		
Chart No.	Area	Reference
BA4410	Luzon Strait	
BA4622	Admiralty Island	
BA4620	Percy Isles to Booby Island	
BA0762	Nomio Islands	
BA0763	Ngulu Islands	
BA0764	Guam	
AUS262	Approaches to Cairns	
AU\$263	Carins (Northern Sheet)	
AUS830	Russel Island-low Islets	

The paper charts for the area to be navigated are:

E.1. Tides Quarry Bay, Hong Kong



Tidal information at Quarry Bay in 2020 Predicted times and heights of high and low tides

Da	te	Time	Height(m)	Time	Height(m)	Time	Height(m)	Time	Height(m)
05	01	1432	1.97	2257	0.59				1712 41 1
05	02	1630	1.95	2353	0.56				
05	03	0719	1.59	1120	1.36	1751	1.96		
05	04	0040	0.56	0739	1.71	1234	1.14	1905	1.97
05	05	0121	0.58	0804	1.85	1332	0.89	2010	1.96
05	06	0200	0.64	0834	2.01	1424	0.66	2111	1.92
05	07	0237	0.73	0907	2.17	1515	0.48	2210	1.84
05	08	0312	0.85	0942	2.30	1604	0.37	2309	1.72
05	09	0347	0.97	1019	2.37	1654	0.35		
05	10	0010	1.60	0420	1.09	1057	2.38	1747	0.39
05	11	0111	1.48	0450	1.20	1136	2.33	1849	0.47
05	12	0214	1.40	0516	1.29	1216	2.24	2002	0.55
05	13	1259	2.11	2110	0.62				
05	14	1351	1.97	2215	0.68				
05	15	1500	1.84	2316	0.72				
05	16	0712	1.56	1031	1.46	1611	1.74		
05	17	0003	0.76	0725	1.63	1204	1.32	1725	1.67
05	18	0039	0.80	0744	1.70	1259	1.15	1847	1.62
05	19	0108	0.85	0805	1.79	1342	0.99	1947	1.58
05	20	0130	0.90	0823	1.88	1421	0.84	2037	1.56
05	21	0153	0.95	0840	1.97	1458	0.70	2122	1.54
05	22	0218	0.99	0859	2.07	1535	0.58	2205	1.52
05	23	0243	1.04	0923	2.14	1613	0.49	2247	1.48
05	24	0306	1.09	0949	2.20	1653	0.43	2331	1.44
05	25	0322	1.13	1014	2.22	1735	0.41		
05	26	0021	1.40	0339	1.17	0941	2.23	1823	0.42
05	27	0123	1.36	0406	1.21	1017	2.20	1917	0.45
05	28	0233	1.35	0440	1.27	1106	2.13	2019	0.45
05	29	1310	2.04	2120	0.52				
05	30	1444	1.93	2215	0.56				
05	31	0541	1.56	0919	1.38	1626	1.85	2306	0.61

ALISTRALIA EAST COAST CAIRNS

AUSTRALIA, EAST COA										JAS	1 - CAIRNS 5° 47' E							2020					
				Ti	mes	and H	leigh	o ts of	High	and l	.ow	⊏ Nater	s					Time Zone –1000					
	M	AY					JU	NE					JU	LY					AUG	UST	r		
Time 1 0447 1128 FR 1706 FR 1706	m 2.64 1.28 1.98	16 SA	Time 0552 1211 1819	m 2.65 1.03 2.20	1 мо	Time 0540 1203 1826	m 2.83 0.71 2.52	16 TU	Time 0012 0611 1233	m 1.43 2.32 0.92	WE	Time 0009 0607 1224	m 1.16 2.50 0.51	16 TH	Time 0040 0609 1229	m 1.49 2.03 0.87	1 SA	Time 0156 0743 1342	m 0.99 2.24 0.37	16 su	Time 0128 0702 1311	m 1.21 2.05 0.59	
2250 2 0530 1155 SA 1752 2343	2.84 1.05 2.25 0.99	17 su	0000 0625 1239 1853	1.26 2.63 0.96 2.34	2 TU	0014 0626 1242 1916	0.99 2.85 0.51 2.78	17 WE	0050 0638 1258 1935	2.35 1.41 2.27 0.84 2.48	2	0102 0657 1306 2004	1.08 2.45 0.39 2.98	17 FR	0111 0639 1257 1947	1.42 2.04 0.76 2.60	2 su	0235 0822 1422 2117	0.94 2.24 0.35 3.10	17 мо	0159 0740 1349 2036	2.84 1.07 2.17 0.44 3.00	
3 0614 1229 SU 1838	3.01 0.81 2.53	18 мо	0038 0653 1305 1924	1.23 2.60 0.90 2.45	3 WE	0103 0709 1321 2003	0.92 2.81 0.37 2.98	18 TH	0122 0702 1322 2003	1.39 2.23 0.78 2.59	FF	0151 0742 1348 2048	1.03 2.39 0.32 3.10	18	0142 0711 1328 2020	1.33 2.06 0.65 2.74	3 мо	0311 0858 1459 2150	0.93 2.23 0.39 3.03	18 то	0234 0819 1428 2113	0.94 2.27 0.33 3.10	
4 0031 0655 MO 1305 1924	0.81 3.13 0.59 2.78	19 TU	0111 0717 1330 1953	1.23 2.55 0.86 2.54	4 тн	0149 0749 1400 2048	0.89 2.72 0.28 3.12	19 FR	0152 0726 1347 2033	1.36 2.19 0.71 2.68	4 S/	0236 0824 1429 2128	1.00 2.32 0.31 3.14	19 su	0215 0746 1402 2055	1.25 2.09 0.55 2.85	4	0346 0931 1534 2220	0.98 2.19 0.49 2.90	19 WE	0310 0858 1508 2150	0.85 2.35 0.29 3.13	
5 0116 0735 TU 1342 2008	0.69 3.17 0.42 2.99	20 WE	0141 0737 1351 2019	1.25 2.48 0.82 2.61	5 FR	0236 0829 1440 2131	0.93 2.58 0.28 3.17	20 SA	0223 0752 1415 2105	1.34 2.15 0.66 2.75	SUC	0321 0905 1510 2208	1.02 2.23 0.36 3.09	20 MO	0250 0822 1439 2132	1.17 2.12 0.47 2.93	5 WE	0421 1003 1607 2247	1.06 2.11 0.65 2.74	20 TH	0349 0940 1549 2225	0.79 2.38 0.35 3.07	
6 0159 0812 WE 1420 2051	0.65 3.11 0.31 3.13	21 TH	0208 0754 1413 2045	1.29 2.40 0.79 2.66	6 SA O	0323 0910 1521 2215	1.01 2.41 0.35 3.12	21 SU	0258 0820 1446 2140	1.33 2.11 0.63 2.79	м	0406 0945 1552 2246	1.08 2.13 0.48 2.98	21 TU	0328 0901 1519 2210	1.12 2.14 0.45 2.97	6 тн	0454 1034 1637 2312	1.17 2.01 0.85 2.55	21 FR	0429 1024 1632 2303	0.79 2.35 0.52 2.91	
7 0243 0848 TH 1458 2134	0.72 2.96 0.30 3.17	22 FR	0235 0811 1435 2112	1.32 2.32 0.77 2.70	7 su	0413 0954 1604 2301	1.14 2.21 0.50 3.01	22 MO	0335 0853 1522 2218	1.33 2.06 0.64 2.79	7 TL	0452 1026 1631 2324	1.16 2.02 0.64 2.82	22 WE	0409 0942 1600 2249	1.10 2.13 0.49 2.94	7 FR	0527 1104 1703 2333	1.28 1.90 1.07 2.36	22 SA	0513 1115 1718 2345	0.84 2.27 0.79 2.66	
8 0328 0926 FR 1538 2219	0.87 2.73 0.38 3.12	23 SA	0305 0832 1501 2143	1.37 2.24 0.77 2.70	8 мо	0510 1042 1648 2351	1.27 2.01 0.70 2.84	23 TU	0418 0931 1602 2300	1.35 1.99 0.69 2.76	WE	0541 1108 1710	1.27 1.89 0.85	23 TH	0454 1029 1644 2332	1.11 2.08 0.60 2.86	8 SA	0600 1139 1727 2353	1.36 1.79 1.29 2.18	23 su	0601 1220 1813	0.93 2.16 1.12	
9 0418 1007 SA 1619 2309	1.09 2.44 0.55 2.98	24 su	0339 0855 1531 2217	1.43 2.14 0.81 2.67	9 ти	0625 1136 1735	1.38 1.83 0.93	24 WE	0508 1018 1647 2350	1.39 1.91 0.79 2.70	TH	0003 0636 1153 1746	2.62 1.37 1.77 1.07	24 FR	0543 1125 1733	1.13 2.01 0.79	9 su	0638 1227 1757	1.43 1.69 1.51	24 мо	0038 0703 1354 1944	2.37 1.02 2.10 1.43	
10 0515 1054 SU 1703	1.33 2.14 0.78	25 MO	0418 0924 1604 2258	1.51 2.02 0.88 2.60	10 WE	0050 0801 1245 1827	2.67 1.41 1.70 1.15	25 TH	0609 1120 1739	1.42 1.81 0.93	10 FF	0043 0752 1248 1821	2.43 1.42 1.67 1.29	25 SA	0019 0640 1237 1828	2.71 1.15 1.94 1.04	10 мо	0014 0937 1653 1842	2.01 1.44 1.74 1.71	25 TU	0158 0853 1606 2215	2.09 1.04 2.24 1.44	
11 0009 0650 MO 1153 1754	2.80 1.51 1.86 1.04	26 TU	0506 0958 1643 2352	1.60 1.89 0.99 2.52	11 ™	0201 0931 1427 1935	2.52 1.36 1.66 1.33	26 FR	0051 0744 1253 1843	2.63 1.38 1.75 1.10	11 s/	0132 0935 1449 1907	2.26 1.38 1.64 1.49	26 su	0118 0801 1413 1945	2.53 1.14 1.94 1.29	11 т∪	0040 1030 1734	1.85 1.33 1.93	26 WE	0348 1017 1727 2341	1.96 0.92 2.50 1.27	
12 0131 0914 TU 1335 1909	2.65 1.46 1.69 1.26	27 WE	0617 1049 1732	1.67 1.74 1.12	12 FR	0314 1028 1602 2103	2.43 1.27 1.75 1.45	27 SA	0204 0915 1443 2008	2.58 1.25 1.82 1.24	12 st	0255 1030 1649 2107	2.13 1.29 1.78 1.64	27 MO	0233 0932 1559 2150	2.37 1.03 2.09 1.40	12 WE	0000 0441 1104 1802	1.70 1.77 1.20 2.12	27 TH	0510 1118 1821	1.99 0.77 2.74	
13 0310 1039 WE 1538 2055	2.61 1.33 1.74 1.36	28 TH	0116 0938 1236 1847	2.47 1.54 1.62 1.26	13 SA	0416 1106 1708 2227	2.40 1.18 1.90 1.48	28 SU	0314 1011 1609 2151	2.56 1.06 2.01 1.29	13 MC	0413 1106 1740 2304	2.08 1.19 1.95 1.63	28 TU	0352 1035 1726 2315	2.26 0.87 2.35 1.34	13 TH	0035 0520 1134 1828	1.58 1.80 1.07 2.30	28 FR	0034 0609 1209 1906	1.09 2.08 0.63 2.92	
14 0420 1115 TH 1649 2217	2.62 1.21 1.89 1.35	29 FR	0258 1016 1529 2046	2.53 1.36 1.74 1.30	14 su	0503 1138 1754 2327	2.37 1.08 2.06 1.46	29 MO	0417 1057 1722 2308	2.55 0.87 2.26 1.24	14 TU	0501 1136 1816	2.05 1.08 2.13	29 WE	0505 1127 1826	2.22 0.71 2.62	14 FR	0045 0553 1204 1856	1.47 1.86 0.92 2.48	29 SA	0112 0657 1253 1947	0.95 2.17 0.51 3.02	
15 0512 1143 FR 1739 0 2315	2.64 1.11 2.05 1.30	30 SA	0400 1049 1635 2216	2.64 1.15 1.98 1.22	15 мо	0539 1207 1831	2.35 1.00 2.21	30 TU	0514 1141 1824	2.53 0.68 2.53	15 WE	0000 0537 1202 1847	1.57 2.04 0.97 2.30	30 TH	0019 0606 1216 1916	1.21 2.21 0.56 2.85	15 SA	0103 0626 1236 1926	1.34 1.94 0.76 2.66	30 su	0146 0737 1332 2022	0.86 2.25 0.45 3.05	
		31 su	0452 1125 1733 2320	2.75 0.93 2.24 1.10										31 FR	0111 0658 1300 2001	1.08 2.22 0.45 3.01				31 мо	0217 0813 1408 2054	0.82 2.30 0.44 3.01	
© Copy	right	Com	nmon	wealt	h of A	ustra	lia 20	019,	Burea	au of I	Vete	orolog	JУ				•						

Datum of Predictions is Lowest Astronomical Tide

Moon Phase Symbols

New Moon

First Quarter O Full Moon

Last Quarter



E.3. Current Hong Kong to Philippines



E.4. Current Philippines to Papa New Guinea







APPENDIX F DOCUMENTATION & CIQ

This section lists the documentation required for the passage.

F.1. Hong Kong Departure

Port Clearance. The vessel must be cleared out of Hong Kong Marine Department (HK MD) before leaving Hong Kong. The skipper will visit the Marine Department, Central Marine Office, Room 308 Harbour Building, 38 Pier Road, Central with the following documentation up to <u>72hrs before</u> departing:

- Letter of authority to act on behalf of owner.
- HK MD General Declaration form MD510 in <u>duplicate</u>.
- HK MD Sailing Notice form MD518.
- HK Certificate of Ownership.
- HK Operating Licence.
- Vessel Certificate of Insurance.
- PVOL2 licence.
- HK ID.
- Passport.

Hong Kong Immigration. The skipper must report to the Hong Kong Immigration, Harbour Control Section, 2nd Floor, Central Government Pier, 32 Man Fai Street, Central with the following documentation up to **24hrs before** departing:

- Hong Kong Marine Department Vessel Clearance Document (obtained after Port Clearance).
- HK ID Particulars of Crew from ID 207A in triplicate.
- HK ID.
- Passport.

F.2. Australia Arrival

The following CIQ documentation must be submitted in advance:

• Small Craft Arrival Report (B333) to cairnsshipping@homeaffairs.gov.au

The following documents must be carried onboard the vessel when arriving:

- Hong Kong Port Clearance.
- Certificate of Registration.
- Builder's certificate.
- Certificate of Insurance.
- Passport.