

P&O
AUSTRALIA



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Quality Management Systems and ISPO – Ship Owners Perspective

Objective Today

- Brief outline of our Company - to provide context
- What we currently expect from pilotage
- Where we would like to get to - Evolution
- How standards & consistency will assist



P&O Cruises, Australia Fleet



The P&O Fleet – Pacific Explorer



- Built 1997
- Length 262m
- GRT 77,441 T
- Lower Pax 1998
- Crew 850
- Flag UK

The P&O Fleet – Pacific Eden and Pacific Aria



- Built 1992/3
- Length 219m
- GRT 55,877 T
- Lower Pax 1260
- Crew 600
- Flag UK

The P&O Fleet – Pacific Jewel and Pacific Dawn



- Built 1991/2
- Length 245m
- GRT 70,300 T
- Lower Pax 1596/1676
- Crew 700
- Flag UK

The Future Fleet

Golden Princess (2020)

- Built 2000
- Length 289m
- GRT 108,865 T
- Lower Pax 2636
- Crew 1060
- Flag UK



Star Princess (2021)

- Built 1999
- Length 289m
- GRT 108,977 T
- Lower Pax 2600
- Crew 1060
- Flag UK

AREA OF OPERATION



Homeports

3 Types of Pilotage

- Diverse types of pilotage experienced across many ports.
- Basically broken down into three types:
 - **Value added** - *reduces navigational risk*
 - **Value neutral** - *neither reduces or increases risk*
 - **Value negative** – *potential to increase navigational risk*
- **Objective:** To the eradicate the bottom two- Pilotage Quality Management Systems may help



COMBAT

Training & Company Specific Requirements

- Psychometric Assessment Program since January 2017 for selection, promotion and assessment of Deck and Technical officers through evaluation of specific psychological attributes at certain career stages.
- Investment in training prior to joining ship; BRM & specific ECDIS Equipment training.
- Onboard familiarisation period **before** taking any watch duties.
- Continuous professional development training (voyage planning, BRM 1 &2, ship-handling, leadership, stability etc.)

Role Based Bridge Organisation

- Three Manning Levels; **Red**, **Green**, **Yellow**
- **Pilotage- Red Manning:**
- **Navigator-** *responsible for Conning, navigating the ship following the approved passage plan and collision avoidance.*
- **Co-Navigator-** *monitors and cross-checks the actions of the Navigator.*
- **Administrator-** *responsible for alarm management and actions. Alarms to be identified as either urgent or non-urgent alarm.*
- **Operations Director-** *overview of the entire Bridge operation, ensuring that it is, at all times, carried out in accordance with these procedures.*
- **Helmsman**
- **Lookout**





Port Simulation Trials to Define Safe Port Entry Parameters



Cairns Pacific Dawn Project
19th - 20th October 2017

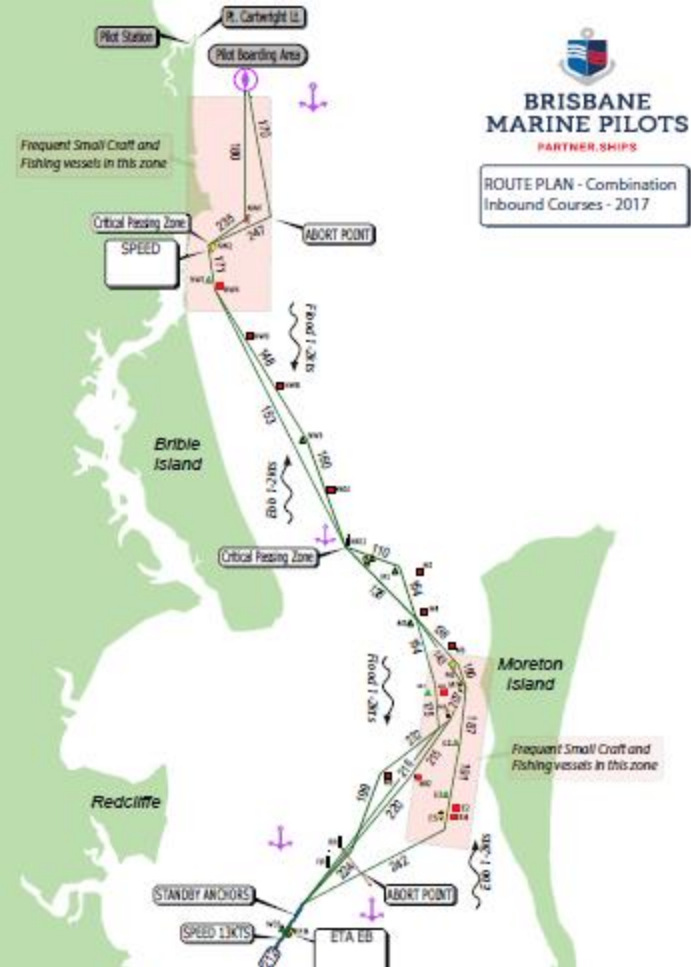
From left: Michael Barnett(MSQ), Peter Listrup(Smartship), Mike Drake(P&O), Trond Kildal(Ports North), Salvatori Lupo(P&O), Doug Bird(P&O), Andrew McClymont(SmartShip), Par Fridolf(Ports North), Darren Oates(Ports North), Darryl Bolger(Svitzer), Steve Midgley(Svitzer).

Present Expectations

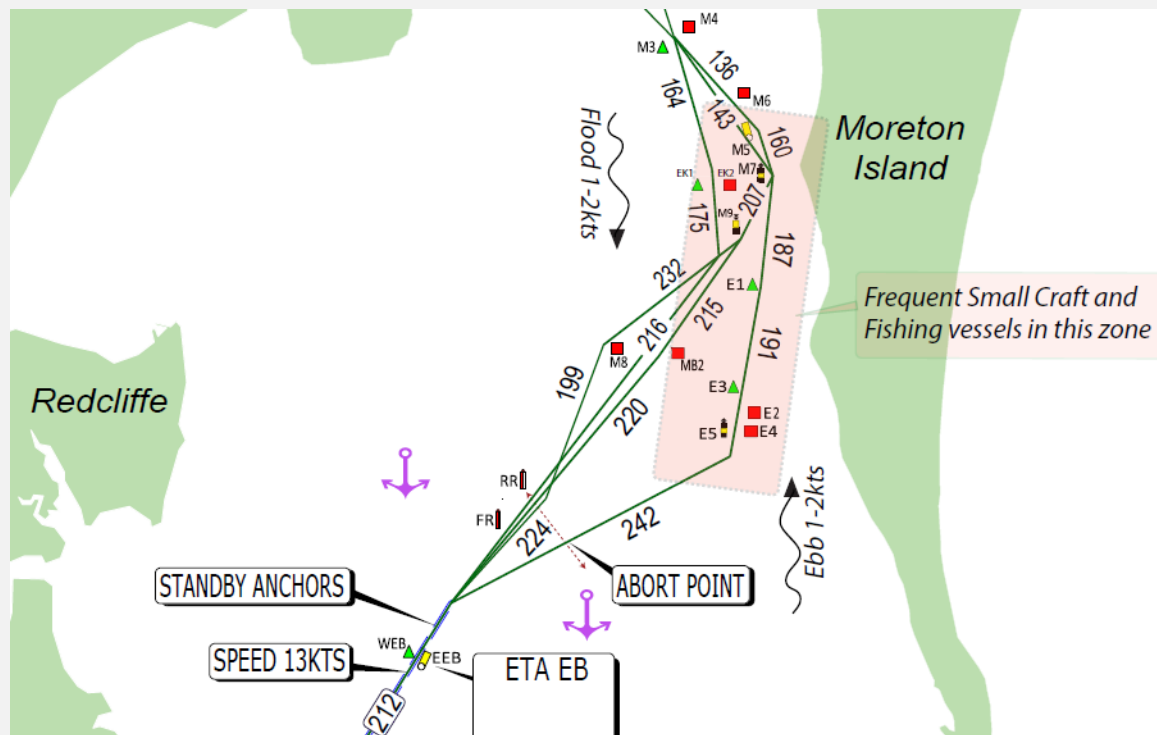
- A detailed pilotage passage plan BEFORE arrival at the pilot station- e mailed preferably
- Minor adjustments made as required after boarding
- Adequate time for Master/Pilot Exchange & familiarisation
- Detailed plan to be common to Bridge Team & Pilot
- **Plan on PPU & ECDIS to be the same (charts to be common)**
- Pilot to be BRM trained
- Ships manoeuvring, propulsion & plant type – advised in advance
- Debrief after arrival/ departure evolution to help continuous improvement

Official References

- IMO Guidelines & Recommendations Resolution A.892 (21)- Guidelines for Voyage Planning
- International Chamber of Shipping (ICS) Bridge Procedures Guide (Fifth Edition)
- IMO Resolution A.960- Recommendations on Training & Certification and operational Procedures for Maritime Pilots (every pilot should be trained in Bridge Resource Management)



Pilotage - Shared Mental Model



Pilotage - Shared Mental Model

Port Jackson Passage Plan Arrival		
Ship:	To:	Date:
Tides:	Working Ch:	Wind:
VHF - VTS:		
Traffic:		
First / Last Line:		
Bridge Marker:	Clearance Ahead:	Astern:

The information on this chart is for pilotage information only, it is not to be used for navigational purposes. The pilotage plan is subject to change due to operational requirements.

The Bridge Team is to monitor the pilotage at all times as per IMO requirements.

Under Keel Clearance	
TO BE COMPLETED WHEN DRAFT > 10M	
Draft	
+10%	
Depth Required	
Minimum Depth	
Tide	
Actual Min. Depth	
UKC	

Checklist	
ME Tested	
Thruster Working (%)	
Anchors Clear	
Crew Standby Forward	
Steering Motors	
Pilot Card	
Defects	
Propeller (type & no.)	
Rudder (type & no.)	
SWL Bitts (for tug)	
SWL Leads (for tug)	
Confirm Fuel Changeover (passenger vessels only)	

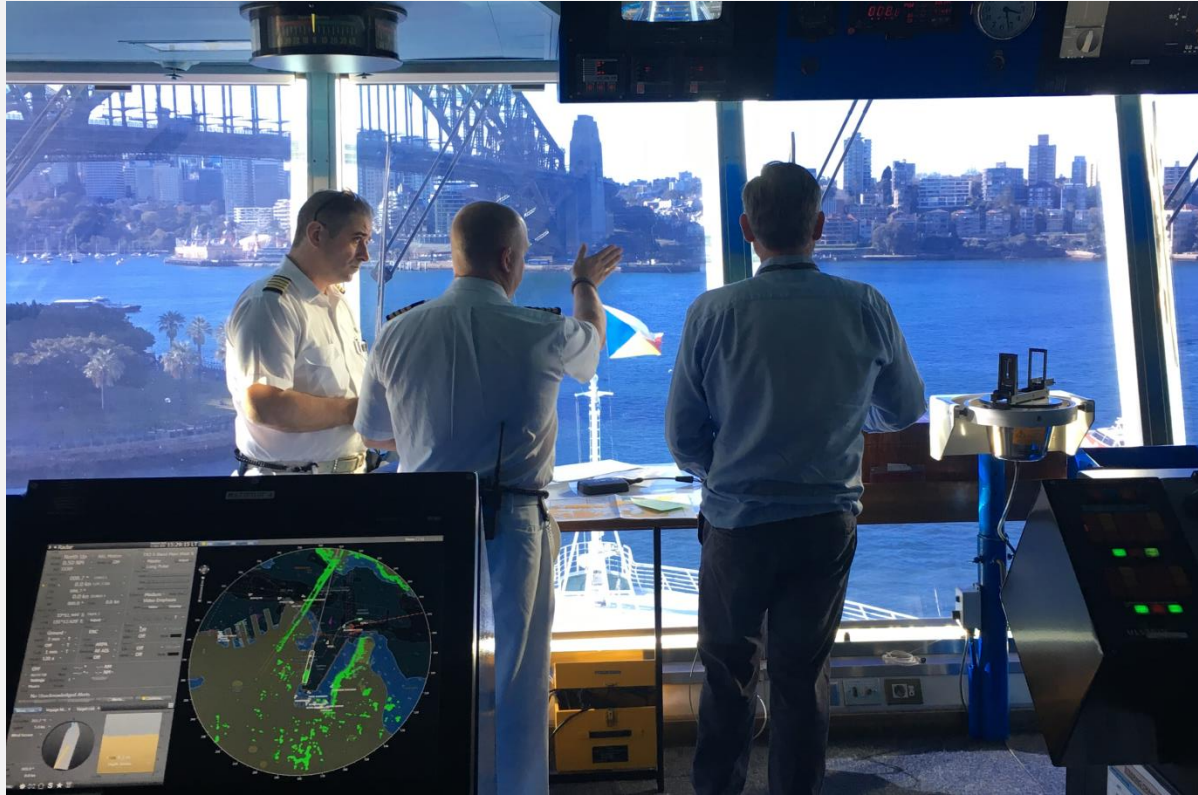
TUGS

No Anchoring

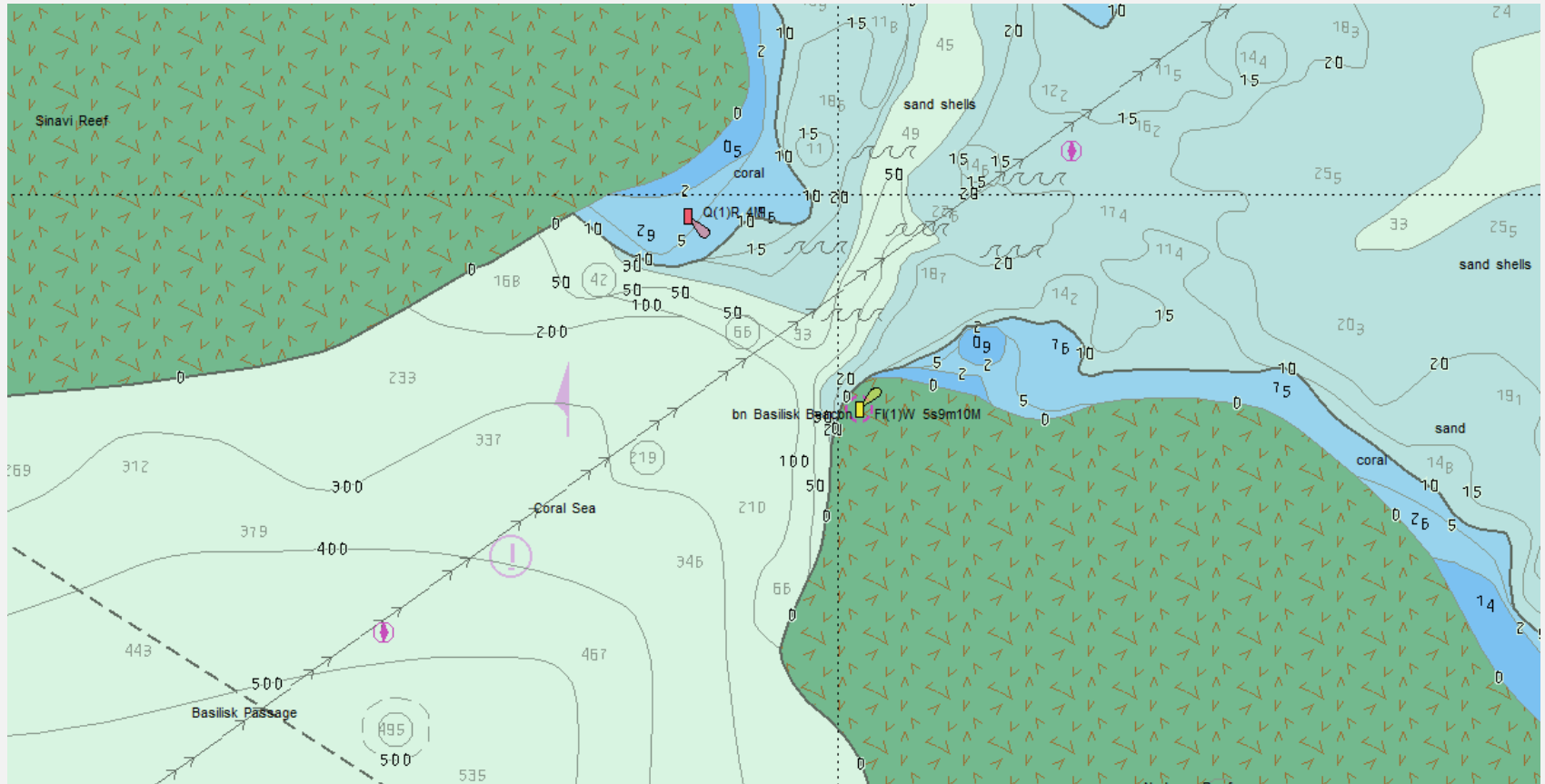
These plans are for pilotage information only and are not to be used for navigational purposes

- A full comprehensive passage plan is now expected.
- Well in advance of arrival to incorporate into ships voyage plan.
- From Boarding Ground to Bollard.
- BRM Trained Pilots.
- Cognisant of vessel specific propulsion and manoeuvrability.
- PPU same as ships ECDIS.

PPU passage plan = ECDIS passage plan



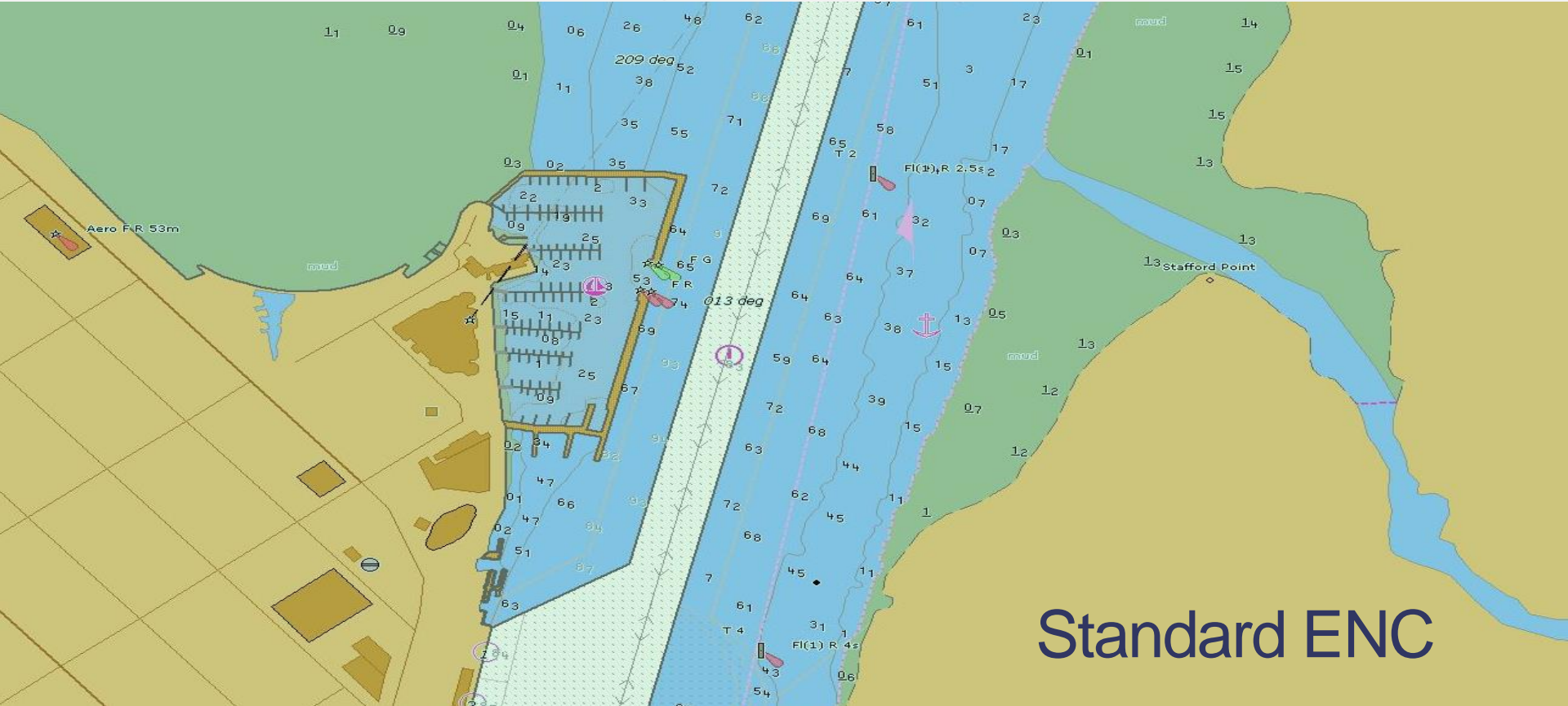
Pragmatic Pilot Boarding Ground



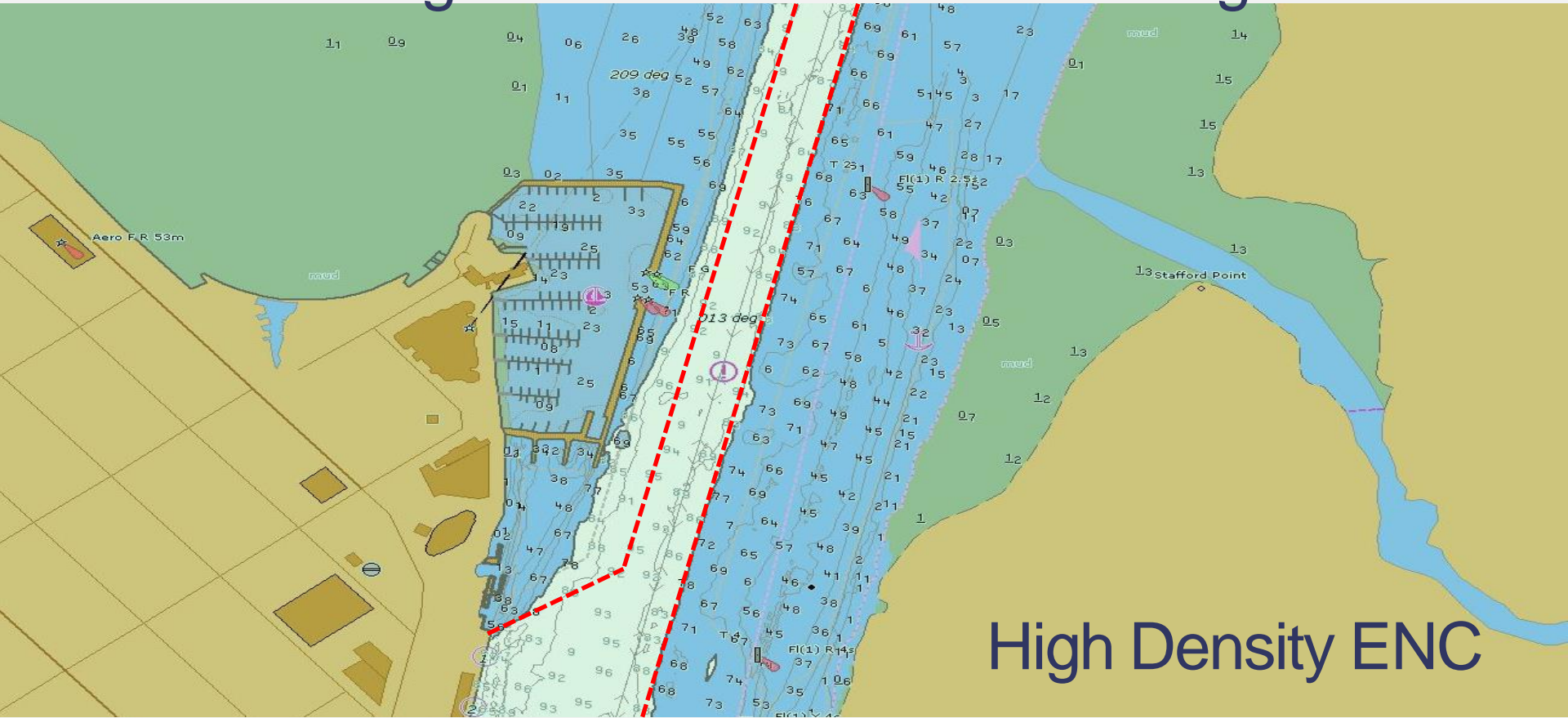
Where we like to get to :

- Electronic Navigation Charts (Band 6 High Density) to equal best scale port/PPU charts
- Agreed defined critical navigational elements on the pilotage voyage plan (cross-track distance, speed, ROT, drift angle- to ensure level of information exchange on bridge enables timely challenge & response); *June edition “Seaways”*
- Embarkation point as published- chart & sailing directions
- Chart usability improvements- where relevant
- Post navigation – mooring support with port authorities where relevant

Cairns Showing Maintained Depth Only

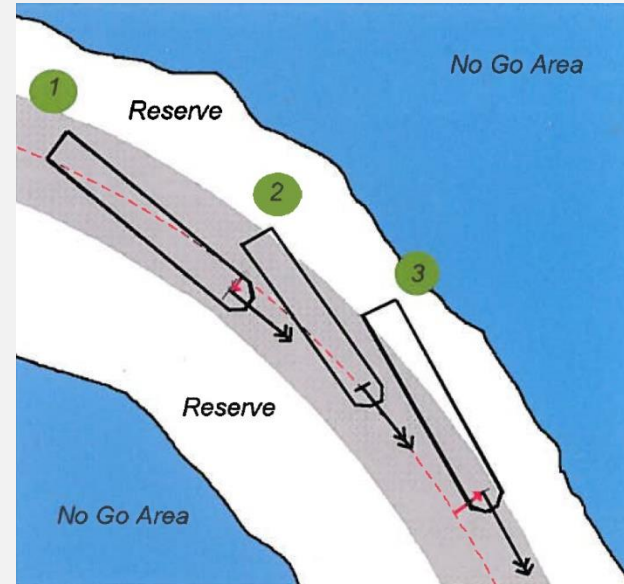
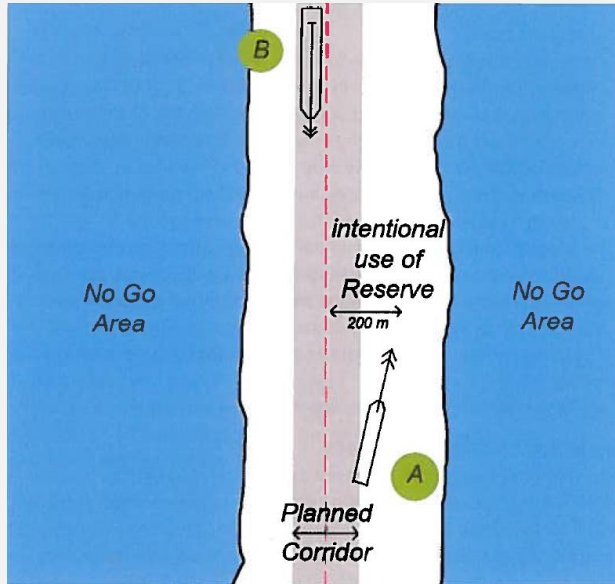


Cairns Showing the 8m Contour Actual Navigable Water



High Density ENC

Just Follow the Track !



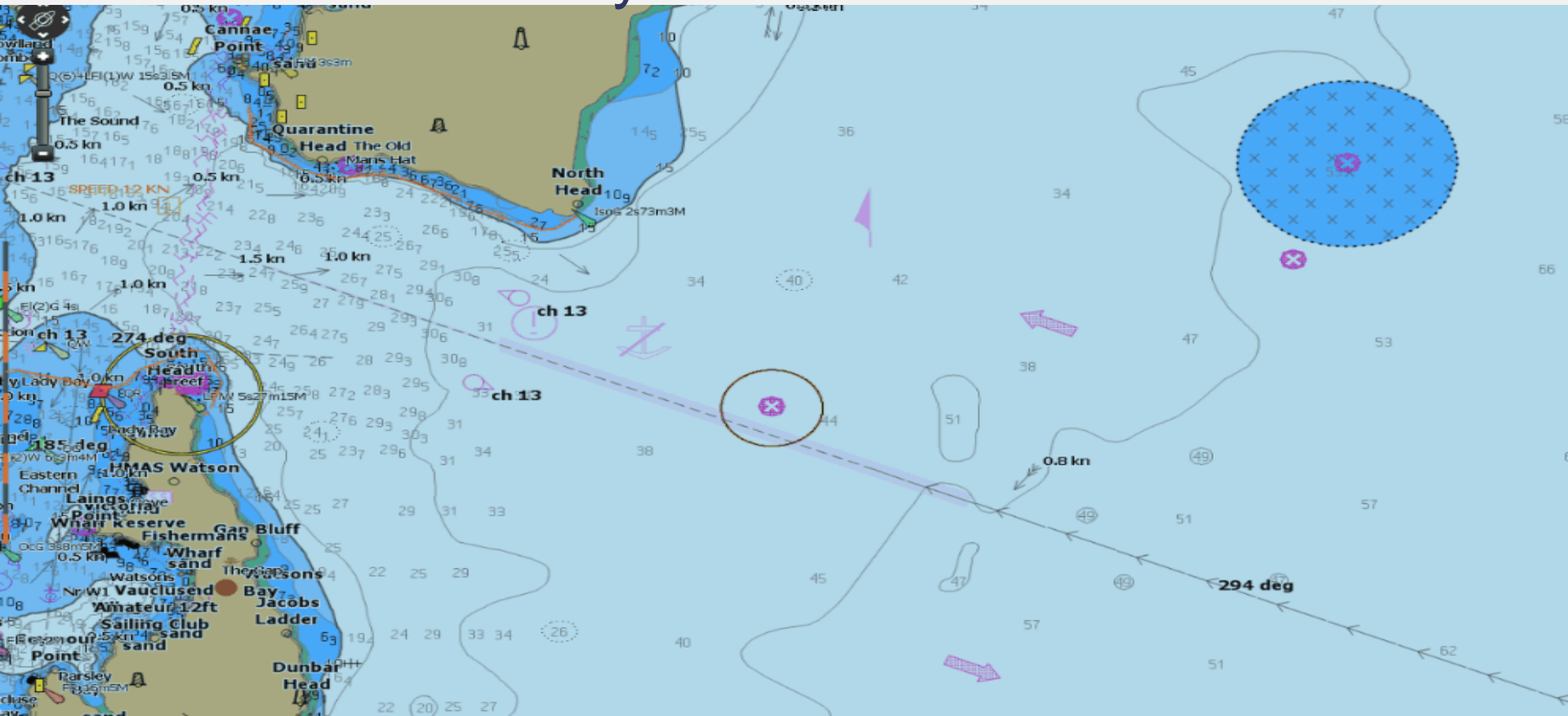
There is less risk involved when a ship is kept strictly to the intended track by increasing or decreasing its rate of turn in response to the influences of factors such as tide and wind

Mooring integrity (ships stronger than bollards)

- Increasing number of ships being blown off wharves



Is the Symbol too General ?



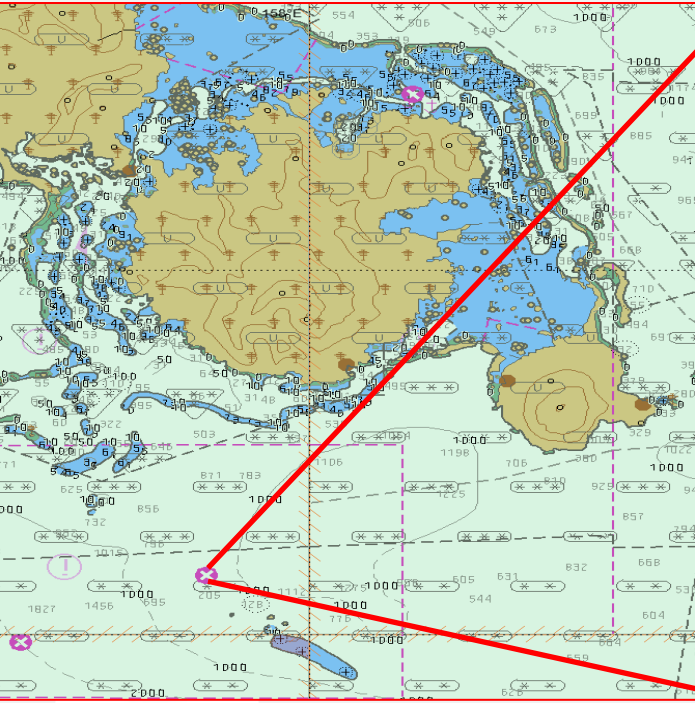


Isolated Danger Marks



- Isolated Dangers- “Generally, rocks, wrecks and obstructions may be displayed as the isolated danger symbol depending on the safety setting in the ECDIS combined with the encoding of the object” (NP 5012)
- Generally the isolated danger symbol will display for submerged rocks, wrecks and obstructions where the depth is shoaler than or equal to the contour or where the exact depth is unknown (NP 5012)
- Solomon's Airways Magazine (Issue 61); Kavachi “Thirteen miles to the seaward of Gatokae and Vangunu Islands the volcano spends most of its time just below the sea, erupting on a totally unpredictable but frequent basis, ranging from once a day to every two to three minutes..... “

Isolated Danger Marks



Does this SYMBOL provide context of danger to navigation ?

VOLCANIC ACTIVITY
Volcanic and major earthquake activity may have resulted in changes to charted depths and an uplifting of reefs throughout the area.

THANK YOU

