

# IHO recommended scale ENC coverage in SW Pacific Ports and other confined coastal areas.

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# Presentation Objectives

South West Pacific Operations Update

COVID has accelerated the transition from small to large passenger vessels

Modern pilotage and why ENC's must be fit for the navigational purpose.

Economic benefit of appropriate ENC's

# P&O can take YOU THERE!

There's a P&O cruise for everyone. We offer everything from amazing weekend trips to exotic once-in-a-lifetime experiences, and we take you there on a carefree cruise... without a worry in the world!

## Departure PORTS



 **DEPARTURE PORT**  
 **DESTINATION PORT**  
 **TENDER PORT**  
 Ship anchors close to port and guests are ferried to land in smaller boats

### SYDNEY

P&O Cruises depart from Sydney to amazing locations all year round.

### BRISBANE

Discover new exotic destinations, or stay closer to home and see amazing places right in your own backyard.

### ADELAIDE

Depart from Adelaide and explore our breathtaking south.

### MELBOURNE

Cruise from Melbourne to exotic destinations or recharge completely on a Short Break.

### CAIRNS

Cruise from Cairns and discover the untouched and intriguing ports of Papua New Guinea.

### FREMANTLE

Depart Fremantle and discover amazing local and South-East Asian destinations.

### AUCKLAND

Sail from Auckland and say *kia ora* to some amazing new places.

### SINGAPORE

Like to holiday in the Lion City? Enjoy some 'me time' on a relaxing cruise either to or from Singapore.





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# The Fleet

UK registered vessels

2000-3000 Passengers

80-110,000 GRT

260-290m

8.5m Draft

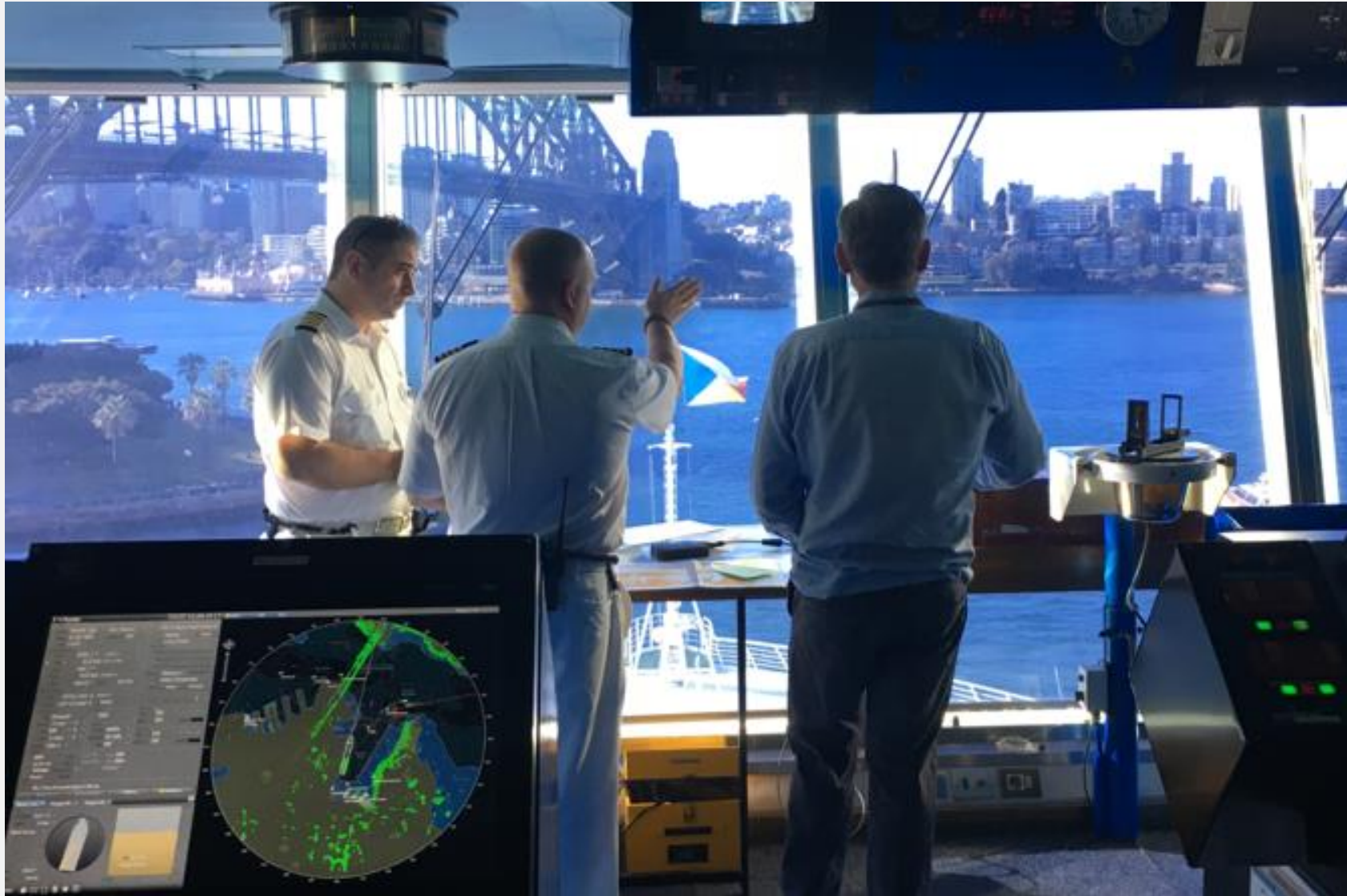


# Ships are getting bigger !





# Safety benefits of ECDIS not being fully utilised – need improved ENC !



# IHO Recommended ENC Scales

| Navigational Purpose | Name     | Scale Range             |
|----------------------|----------|-------------------------|
| 1                    | Overview | <1:1 499 999            |
| 2                    | General  | 1:350 000 – 1:1 499 999 |
| 3                    | Coastal  | 1:90 000 – 1:349 999    |
| 4                    | Approach | 1:22 000 – 1:89 999     |
| 5                    | Harbour  | 1:4 000 – 1:21 999      |
| 6                    | Berthing | > 1:4 000               |

Ships are getting bigger yet the ports remain the same size.

IHO recommended scales are now a critical piece of infrastructure in order to accommodate safe navigation.

Port scale ENC is poorly understood within Port organisations (Worldwide)

| Selectable Range | Standard scale (rounded) |
|------------------|--------------------------|
| 200 NM           | 1:3 000 000              |
| 96 NM            | 1:1 500 000              |
| 48 NM            | 1:700 000                |
| 24NM             | 1:350 000                |
| 12 NM            | 1:180 000                |
| 6 NM             | 1:90 000                 |
| 3 NM             | 1:45 000                 |
| 1.5 NM           | 1:22 000                 |
| 0.75NM           | 1:12 000                 |
| 0.5 NM           | 1:8 000                  |
| 0.25 NM          | 1:4 000                  |

Large vessels also rely on radar or other technologies to berth in a precise position and this requires further consideration of the ENC scale in relation to the radar range in use.

# 2019 Port Vila Survey including Lepatasi Wharf

Survey commissioned by P&O Cruises Australia

The specific objective - to result in the production of a IHO recommended berthing scale ENC

The new berth doubles port capacity for same day vessel calls. However it has a limited berthing pocket

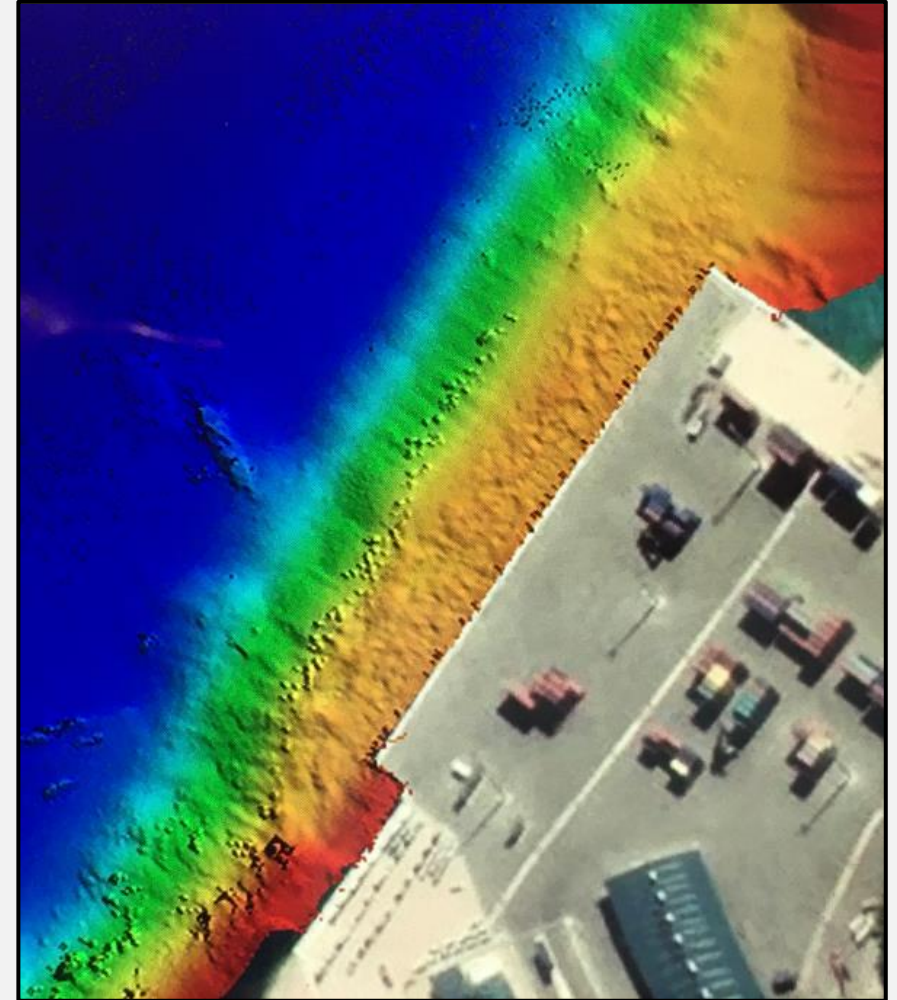
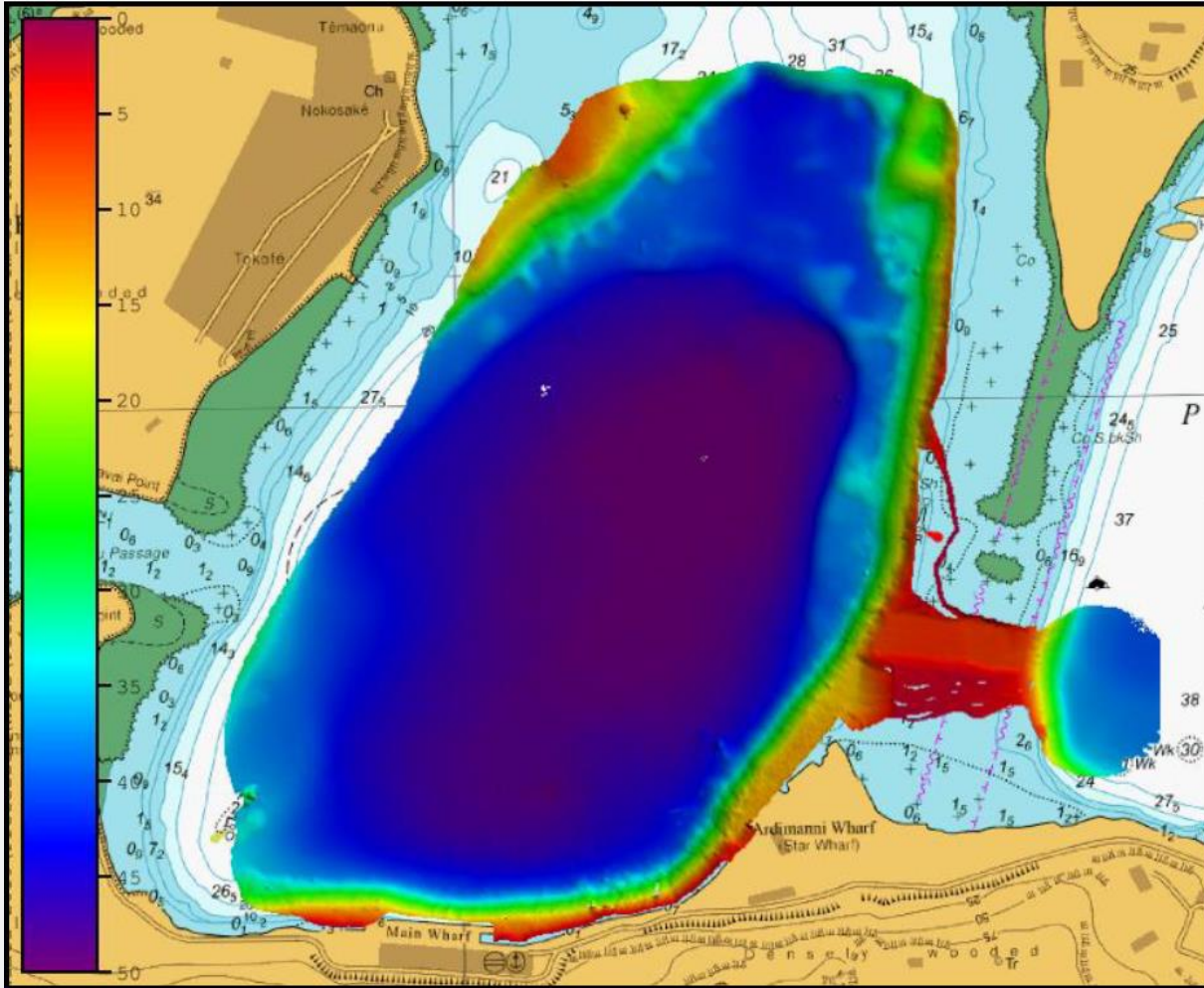
Port Vila must be able to accommodate larger ships for countries economic prosperity

A modern berthing ENC will support this





# 2019 Port Vila Survey including Lepatasi Wharf



# Modern Pilotage & Navigation Requirements

Absolute Positioning

Go / No- Go areas, defined by 1m contours.

Improved situational awareness

Widely accepted as best practise by worldwide pilotage organisations

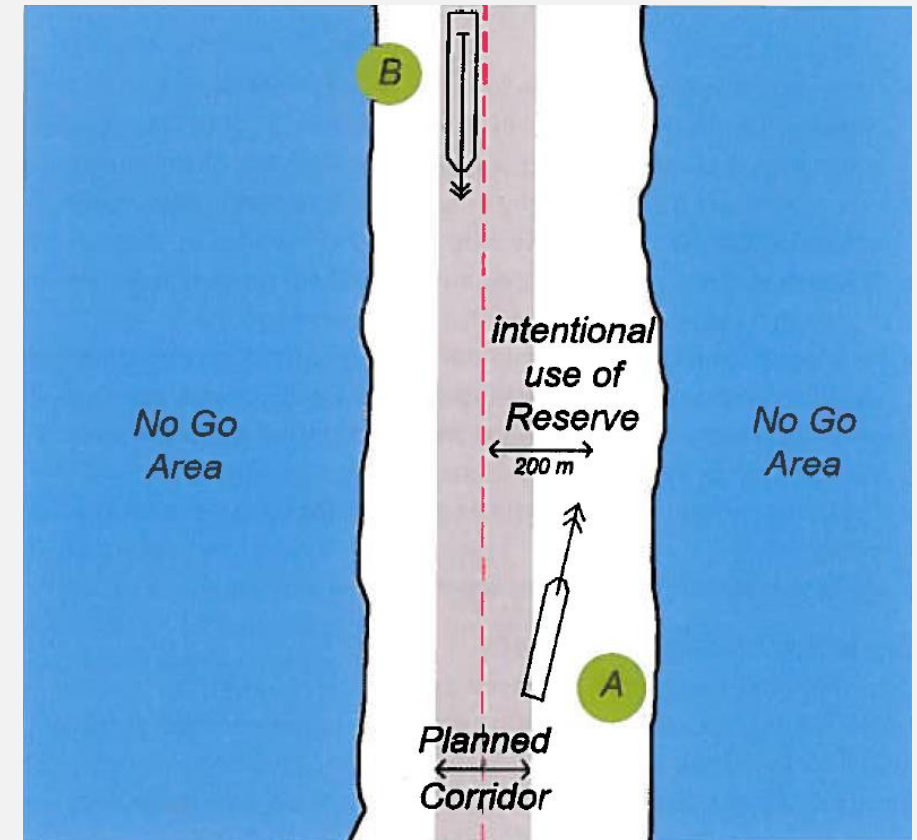
Larger ships or bigger ships than before drive economic development.

A

Vessel intentionally uses available water without entering its no go area

B

Vessel can remain within its planned corridor





[illegible]



# HD ENC unlocked Cairns as a destination for Queen Elizabeth on 28 February 2020



# Thanks you - Questions

