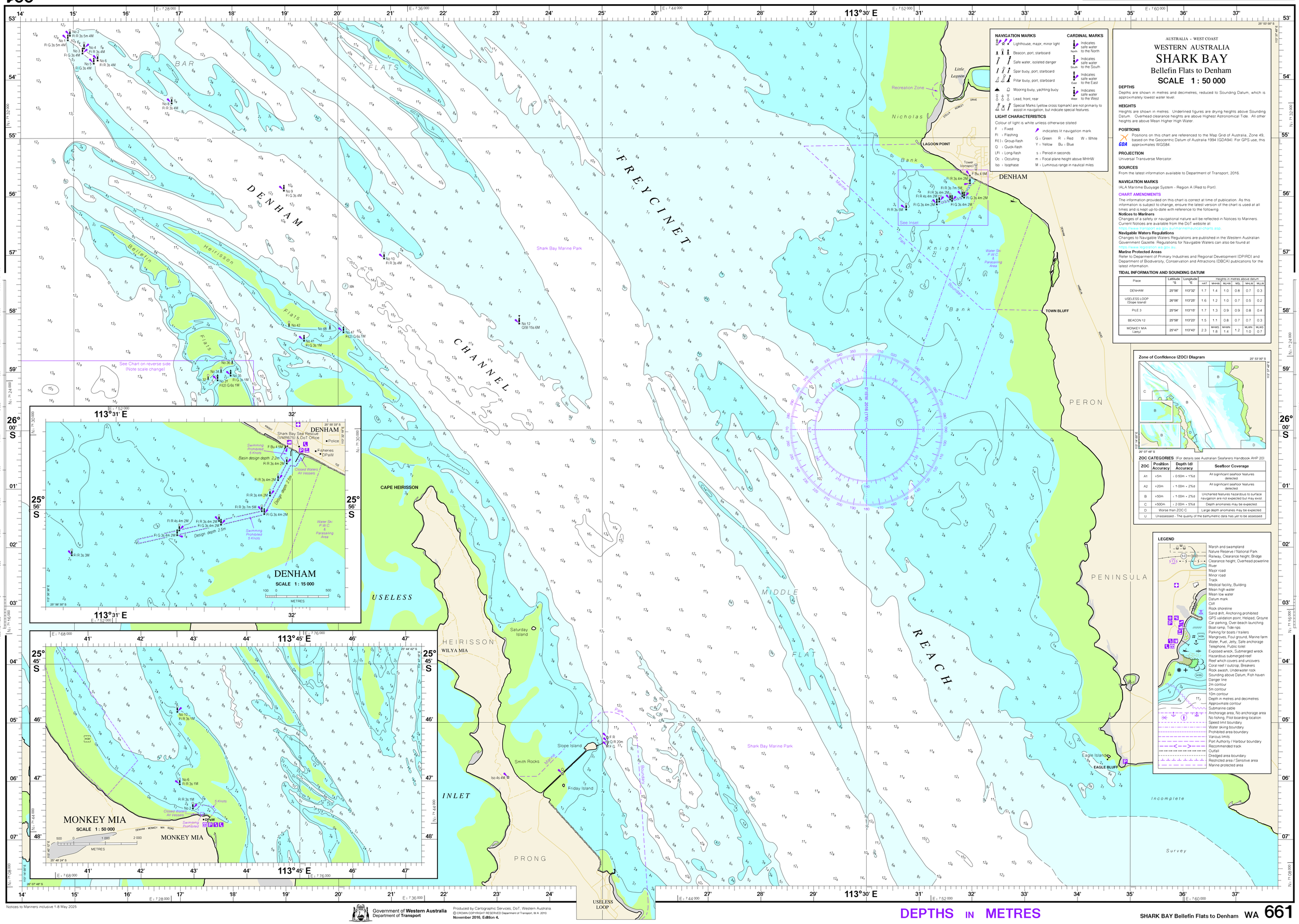
DEPTHS IN METRES

SEE RELATED PUBLICATIONS: Notice to Mariners (https://www.transport.wa.gov.au/marine/nautical-charts.asp), Symbols, Abbreviations and Terms (INT 1), Tide Tables, Sailing Directions. For surveys beyond this chart refer to RAN Chart AUS 331



NAVIGATION MARKS

Lighthouse, major, minor light
Beacon, port, starboard
Safe water, isolated danger
Spar buoy, port, starboard
Pillar buoy, port, starboard
Mooring buoy, yachting buoy
Lead, front, rear
Special Marks (yellow cross topmark) are not primarily to assist in navigation, but indicate special features.

CARDINAL MARKS

Indicates safe water to the North
Indicates safe water to the South
Indicates safe water to the East
Indicates safe water to the West

LIGHT CHARACTERISTICS

Colour of light is white unless otherwise stated

F : Fixed
Fl : Flashing
Fl I : Group-flash
Q : Quick-flash
LFl : Long-flash
Oc : Occulting
Iso : Isophase

indicates lit navigation mark

G : Green R : Red W : White
Y : Yellow Bu : Blue

s : Period in seconds
m : Focal plane height above MHHW
M : Luminous range in nautical miles

AUSTRALIA - WEST COAST

WESTERN AUSTRALIA

SHARK BAY

Bellefin Flats to Denham

SCALE 1 : 50 000

DEPTHS

Depths are shown in metres and decimetres, reduced to Sounding Datum, which is approximately lowest water level.

HEIGHTS

Heights are shown in metres. Underlined figures are drying heights above Sounding Datum. Overhead clearance heights are above Highest Astronomical Tide. All other heights are above Mean Higher High Water.

POSITIONS

GDA

Positions on this chart are referenced to the Map Grid of Australia, Zone 49, based on the Geocentric Datum of Australia 1994 (GDA94). For GPS use, this approximates WGS84.

PROJECTION

Universal Transverse Mercator.

SOURCES

From the latest information available to Department of Transport, 2016.

NAVIGATION MARKS

IALA Maritime Buoyage System - Region A (Red to Port).

CHART AMENDMENTS

The information provided on this chart is correct at time of publication. As this information is subject to change, ensure the latest version of the chart is used at all times and is kept up-to-date with reference to the following:

Notices to Mariners
Changes of a safety or navigational nature will be reflected in Notices to Mariners. Current Notices are available from the DoT website at https://www.transport.wa.gov.au/marine/nautical-charts.asp.

Navigable Waters Regulations
Changes to Navigable Waters Regulations are published in the Western Australian Government Gazette. Regulations for Navigable Waters can also be found at https://www.legislation.wa.gov.au.

Marine Protected Areas
Refer to Department of Primary Industries and Regional Development (DPIRD) and Department of Biodiversity, Conservation and Attractions (DBCA) publications for the latest information.

TIDAL INFORMATION AND SOUNDING DATUM

Place	Latitude °S	Longitude °E	Heights in metres above datum						
			HAT	MHHW	MLHW	MSL	MHLW	MLLW
DENHAM	25°56'	113°33'	1.7	1.4	1.0	0.8	0.7	0.3
USELESS LOOP (Slope Island)	26°06'	113°25'	1.6	1.2	1.0	0.7	0.5	0.2
PILE 3	25°54'	113°15'	1.7	1.3	0.9	0.9	0.8	0.4
BEACON 12	25°58'	113°23'	1.5	1.1	0.8	0.7	0.7	0.3
MONKEY MIA (Jetty)	25°47'	113°43'	2.3	MHWS 1.8	MHWN 1.4	1.2	MLWN 1.0	MLWS 0.7

Zone of Confidence (ZOC) Diagram

ZOC CATEGORIES (For details see Australian Seafarers Handbook AHP 20)

ZOC	Position Accuracy	Depth (d) Accuracy	Seafloor Coverage
A1	±5m	± 0.50m + 1%d	All significant seafloor features detected.
A2	±20m	± 1.00m + 2%d	All significant seafloor features detected.
B	±50m	± 1.00m + 2%d	Uncharted features hazardous to surface navigation are not expected but may exist.
C	±500m	± 2.00m + 5%d	Depth anomalies may be expected.
D	Worse than ZOC C		Large depth anomalies may be expected.
U	Unassessed - The quality of the bathymetric data has yet to be assessed.		

LEGEND

Marsh and swampland
Nature Reserve / National Park
Railway, Clearance height, Bridge
Clearance height, Overhead powerline
River
Major road
Minor road
Track
Medical facility, Building
Mean high water
Mean low water
Datum mark
Cliff
Rock shoreline
Sand drift, Anchoring prohibited
GPS validation point, Helipad, Groyne
Car parking, Over-beach launching
Boat ramp, Tide rips
Parking for boats / trailers
Mangroves, Foul ground, Marine farm
Water, Fuel, Jetty, Safe anchorage
Telephone, Public toilet
Exposed wreck, Submerged wreck
Hazardous submerged reef
Reef which covers and uncovers
Coral reef / outcrop, Breakers
Rock awash, Underwater rock
Sounding above Datum, Fish haven
Danger line
2m contour
5m contour
10m contour
Depth in metres and decimetres
Approximate contour
Submarine cable
Anchorage area, No anchorage area
No fishing, Pilot boarding location
Speed limit boundary
Water skiing boundary
Prohibited area boundary
Various limits
Port Authority / Harbour boundary
Recommended track
Outfall
Dredged area boundary
Restricted area / Sensitive area
Marine protected area

Government of Western Australia
Department of Transport

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November 2016, Edition 4.

DEPTHS IN METRES

DEPTHS IN METRES

SEE RELATED PUBLICATIONS. Notice to Mariners (https://www.transport.wa.gov.au/marine/nautical-charts.asp), Symbols, Abbreviations and Terms (INT 1), Tide Tables, Sailing Directions. For surveys beyond this chart refer to RAN Chart AUS 331.

AUSTRALIA - WEST COAST

WESTERN AUSTRALIA

SHARK BAY

Steep Point to Bellefin Flats

SCALE 1 : 30 000

DEPTHS

Depths are shown in metres and decimetres, reduced to Sounding Datum, which is approximately lowest water level.

HEIGHTS

Heights are shown in metres. Underlined figures are drying heights above Sounding Datum. Overhead clearance heights are above Highest Astronomical Tide. All other heights are above Mean Higher High Water.

POSITIONS

Positions on this chart are referenced to the Map Grid of Australia, Zone 49, based on the Geocentric Datum of Australia 1994 (GDA94). For GPS use, this approximates WGS84.

PROJECTION

Universal Transverse Mercator.

SOURCES

From the latest information available to Department of Transport, including surveys of 1986, 1988, 1998 and 2016.

NAVIGATION MARKS

IALA Maritime Buoyage System - Region A (Red to Port).

CHART AMENDMENTS

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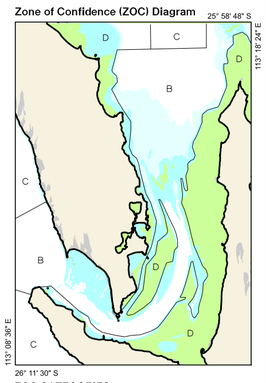
TIDAL INFORMATION AND SOUNDING DATUM

Place	Lattitude °S	Longitude °E	Heights in metres above datum					
			HAT	MHHW	MLHW	MSL	MHLW	MLLW
DENHAM	25°56'	113°32'	1.7	1.4	1.0	0.8	0.7	0.3
BLIND STRAIT (Sunday Bay)	26°08'	113°13'	1.5	1.0	0.8	0.7	0.7	0.4

Zone of Confidence (ZOC) Diagram



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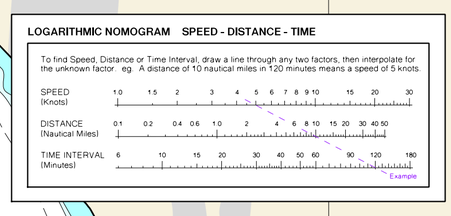
D	Worse than ZOC C		Large depth anomalies may be expected.
U	Unassessed - The quality of the bathymetric data has yet to be assessed.		

LOGARITHMIC NOMOGRAM SPEED - DISTANCE - TIME

To find Speed, Distance or Time Interval, draw a line through any two factors, then interpolate for the unknown factor. eg. A distance of 10 nautical miles in 120 minutes means a speed of 5 knots.



RADIO COMMUNICATION

Please check with your local Marine Rescue Group for hours of operation and radio frequencies as listed below.

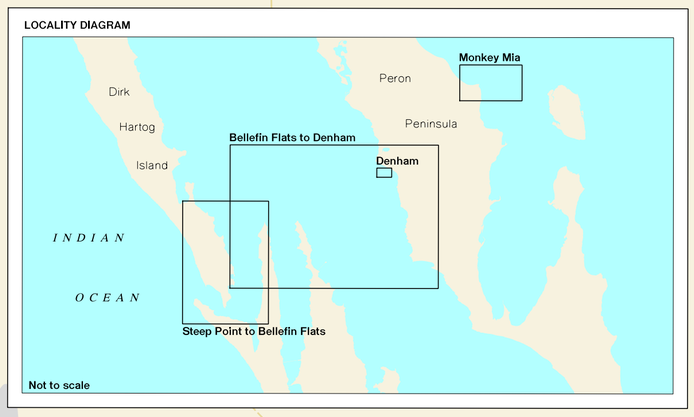
Channels are as follows:

- 27MHz channel 88 (DISTRESS AND CALLING)
  channel 90 (Recreational and working)
- VHF channel 16 (DISTRESS AND CALLING)

Call signs:

SHARK BAY VOLUNTEER MARINE RESCUE - VMR675

LOCALITY DIAGRAM



LEGEND

- Marsh and swampland
- Nature Reserve / National Park
- Railway, Clearance height, Bridge
- Clearance height, Overhead powerline
- River
- Major road
- Minor road
- Track
- Medical facility, Building
- Mean high water
- Mean low water
- Datum mark
- Cliff
- Rock shoreline
- Sand drift, Anchoring prohibited
- GPS validation point, Helipad, Groyne
- Car parking, Over-beach launching
- Boat ramp, Tide rips
- Parking for boats / trailers
- Mangroves, Marine farm
- Water, Fuel, Jetty, Safe anchorage
- Telephone, Public toilet
- Exposed wreck, Submerged wreck
- Hazardous submerged reef
- Reef which covers and uncovers
- Coral reef / outcrop, Breakers
- Rock awash, Underwater rock
- Sounding above Datum
- Danger line
- 2m contour
- 5m contour
- 10m contour
- Depth in metres and decimetres
- Approximate contour
- Submarine cable
- Anchorage area, No anchorage area
- No fishing, Pilot boarding location
- Speed limit boundary
- Water skiing boundary
- Prohibited area boundary
- Various limits
- Port Authority / Harbour boundary
- Recommended track
- Outfall
- Dredged area boundary
- Restricted area / Sensitive area
- Marine protected area

NAVIGATION MARKS

- Lighthouse, major, minor light
- Beacon, port, starboard
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- Spar buoy, port, starboard
- Pillar buoy, port, starboard
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Q : Quick-flash
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Oc : Occulting
Iso : Isophase

indicates lit navigation mark

G : Green R : Red W : White
Y : Yellow Bu : Blue

s : Period in seconds
m : Focal plane height above MHHW
M : Luminous range in nautical miles

NATIONAL PARKS AND NATURE RESERVES

National Parks and Nature Reserves are gazetted for the Protection of Flora, Fauna and Landscape values. Dumping of rubbish, lighting of fires (including ground fires), firearms, pets, removal of rocks, soil and timber, driving off established tracks and disturbance of flora and fauna are all prohibited in National Parks and Nature Reserves. Camping is only allowed in gazetted areas of National Parks. Refer to Department of Biodiversity, Conservation and Attractions publications for further information on parks and reserves.

LEEUWIN CURRENT

The Leeuwin Current is most predominant during May to August with a surface current generally less than 1 knot. It has an average width of 30 nautical miles and extends to a depth of approximately 200 metres, carrying warm, low salinity water from the North West Shelf area along the continental shelf south to Cape Leeuwin and then east into the Great Australian Bight. For details of currents generally refer to R.A.N. Australia Pilot Vol I.

WESTERN ROCK LOBSTER FISHERY

Between November and June, extensive lobster fishing takes place between latitude 24°S and 34°S. Mariners are advised to keep well clear of lobster pot floats and submerged lines.

FISHING

Fishing regulations apply throughout Western Australia. Refer to Department of Primary Industries and Regional Development publications for further information.

ROADS AND TRACKS

The representation on this chart of any road or track is not necessarily evidence of a Public Right of Way.

HISTORIC SHIPWRECKS

All wrecks, 75 years old or more, are protected under an Act which prohibits the removal of artefacts or wilful damage of any sort. By this means, the sites will remain better preserved for divers in the future. Refer to WA Maritime Museum for further information.

Government of Western Australia
Department of Transport

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November 2016, Edition 4