

**Departmental investigation
into the grounding of the
Panamanian bulk carrier
WESTERN WINNER
on Tiparra Reef, Spencer Gulf,
South Australia
on 8 May 1997**

Navigation Act 1912
Navigation (Marine Casualty) Regulations
investigation into the grounding
of the Panamanian bulk carrier
WESTERN WINNER
on Tiparra Reef, Spencer Gulf
South Australia

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Inspector of Marine Accidents
Marine Incident Investigation Unit
GPO Box 9879
CANBERRA ACT 2601
AUSTRALIA

Phone: 06 274 7324
Fax: 06 274 6699
Email: miiu@miiu.gov.au

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Western Winner

Summary

The 30,396 tonne deadweight Panamanian flag bulk carrier *Western Winner* sailed from Singapore on 27 April 1997, bound for the east coast of Australia, by way of Torres Strait. The vessel had been chartered by the Australian Wheat Board to load a cargo of grain for Egypt.

Within 24 hours, on the morning of 28 April, the ship's destination was changed and the vessel was directed to Port Adelaide. The Master altered the vessel's voyage plan and set course by way of the west coast of Australia and the Great Australian Bight.

On 6 May, after the vessel had rounded Cape Leeuwin, the ship's orders were changed again and the ship diverted to Wallaroo in the Spencer Gulf, before calling at Port Adelaide. *Western Winner* did not carry all the necessary charts, lacking two and in particular chart Aus 777, "Winceby Island to Point Riley", which covered Tiparra Reef and the approaches to Wallaroo. The Master telexed the ship's agent requesting that he supply the two charts on arrival at Wallaroo.

The position of the pilot boarding ground off Wallaroo was taken from publications carried on board and marked on a sheet of blank paper fixed to the chart covering the northern area of the Gulf. The ship's course was laid off directly for the pilot boarding ground.

On the afternoon of 8 May, *Western Winner* entered Spencer Gulf. The ship continued on passage, expecting to arrive at the Pilot ground at about 2230. After dark, the ship experienced rain squalls and restricted visibility. At about 2130, the radar showed an echo fine to starboard. In view of the heavy rain, the Master put the engine on standby and reduced speed.

At about 2210, the ship ran aground with Tiparra Reef light bearing 128°x 1.2 miles in position 34° 03.2' South 137° 03.2' East.

Ballast was jettisoned and at about 1345 on 9 May, the vessel refloated without assistance and, under its own power, cleared the reef and proceeded to the anchorage off Wallaroo, dropping anchor at 1530.

No injuries were incurred by any of the crew and no pollution resulted from the grounding.

Sources of Information

The Master and Crew of *Western Winner*

Fortuna Shipping, Hong Kong

The Volunteer Coastguard, Wallaroo

The South Australian Police

The Australian Maritime Safety Authority

The Australian Wheat Board

Pacific Rim Pty Ltd

Acknowledgement

Portion of chart Aus 777 reproduced by permission of the Hydrographic Office, RAN.

Colour chart to be inserted here

Portion of chart Aus 777 showing course of Western Winner

Narrative

Western Winner

The Panama registered bulk carrier *Western Winner* is a 5 hold bulk carrier of 30,396 tonnes deadweight at a summer draught of 10.464 m. The vessel is 175.01 m in length and is powered by a 5 cylinder Sulzer engine developing 7264 kW driving a single fixed propeller, giving a service speed of 15.25 knots and is classed with Lloyd's Register of Shipping. Built in 1982 in Shimizu, Japan, the vessel is owned by Alpha Beta Investments Co Ltd and managed by Fortuna Navigation Co Ltd of Hong Kong.

On 24 April 1997, the Australian Wheat Board fixed a charter with Atlantic and Orient Shipping Pte Ltd, of Singapore, to load a cargo of grain from nominated Australian ports for a voyage to Egypt. Atlantic and Orient in turn chartered *Western Winner* from Fortuna Navigation on a voyage charter.

Voyage to Australia

On 27 April 1997, *Western Winner* sailed from Singapore, where it had been in dry dock undergoing a special survey, with a crew of 24. The Master, Mate, Chief Engineer and 1st Engineer were Korean nationals, while the junior officers and crew came from Myanmar. Bridge and engine room watches were maintained on the usual 4 hour 8-12, 12-4 and 4-8 routine. The Master and Radio Officer had a good standard of spoken English, the junior officers, though not proficient, were competent in marine English.

The initial orders were for *Western Winner* to proceed to the east coast of Australia by way of Torres Strait. Before noon on 28 April, however, the ship's orders were changed for Port Adelaide. The vessel carried charts for both the east coast of Australia and charts necessary for the passage to Port Adelaide.

On 30 April, the vessel entered the Australian Ship Reporting area and became a reporting ship under the Australian Ship Reporting System (Ausrep). The ship reported its position, a speed of 12.8 knots and an ETA at Port Adelaide of about 0930 on 9 May.

In the forenoon of 5 May, *Western Winner* rounded Cape Leeuwin and passed the port of Albany, making good a speed of about 12.6 knots. On the afternoon of 5 May a message was received from the charterers changing the vessel's first Australian port of call to Wallaroo, in the Spencer Gulf, where the ship was to load 4,400 tonnes, the quantity remaining in one of the silos. The vessel was then to continue its voyage to Port Adelaide, where it was to load the balance of the cargo.

The ship had been to Whyalla in January 1992 and carried the chart Aus 778 "Point Riley to Port Augusta", covering the area of the Spencer Gulf north of Wallaroo, but not including Tiparra Reef. However, the two charts, Aus 777 "Winceby Island to Point Riley" (covering the southern area of the Spencer Gulf) and Aus 344 "Spencer Gulf" were not carried in the ship's portfolio.

At noon on 6 May, *Western Winner* was in position 35° 21' South 122° 18'

East, a little over 90 miles due south of Esperance, making good a speed of about 12.8 knots. During the morning of 6 May, the ship's agent in Wallaroo sent notification of *Western Winner's* arrival to the Ports Corporation of South Australia, nominating 1200 on 9 May as the estimated time of arrival. In the afternoon, the Master sent a telex to the ship's agent at Wallaroo giving an estimated time of arrival of 0800 on 9 May and requesting two charts, Aus 344 and Aus 777.

At noon on 7 May, *Western Winner* was about 445 miles from Wallaroo, making good a speed of 13.27 knots, giving an ETA of about 2200 on 8 May. The vessel at this time was 200 miles from the Australian coast.

The Incident - Passage in Spencer Gulf

At noon on 8 May, *Western Winner* was 142 miles from Wallaroo and about 40 miles from South Neptune Island, at a draught of about 6 m. The Second Mate fixed some pieces of blank paper to the bottom of chart Aus 778 and extended the latitude scale on the eastern edge. The Master and Second Mate looked at the details of Wallaroo given in the "Guide to Port Entry", and in Volume 6 Part 3 of the Admiralty Radio Signals, and plotted the position of the Pilot boarding ground on the blank extension to chart Aus 778.

At 1446, South Neptune Island was bearing 101°x 3.5 miles and the ship altered course to 041°(T) at 1500, to pass midway between South Neptune and North Neptune Islands. *Western Winner* maintained a steady course and the ship's position was fixed every 30 minutes on chart Aus 345, "Gulf of

St Vincent and Approaches". At 1600, the Second Mate completed the log book entry, recording the wind as force 4 (11-16 knots) from the south-west, the sea as moderate and the weather as cloudy with moderate visibility. Twilight was at about 1800 and darkness fell at about 1830, when the ship's position was plotted in position 34° 40' South 136° 17.7' East, 17.5 miles north-west of Corny Point. The last position on chart Aus 345 was plotted at 2000, in the title of the chart, an area devoid of any chart detail.

At 2000, the Third Mate took over the watch from the Mate, the Master was on the bridge, the course of 041° was maintained and both radars were in operation, the Master using the automatic radar plotting aid (ARPA). A rating as lookout/helmsman was on duty on the bridge. The sky was generally overcast, with occasional rain showers, and both the sea and visibility were recorded as moderate. At about 2130, the Third Mate, using the forward radar, detected an echo fine on the starboard bow at about 6 miles and reported it to the Master. By 2135, the visibility was affected by heavy showers of rain and no shore lights could be seen, so as a precautionary measure, the Master put the engine on to "stand-by". Thereafter the Third Mate left the radar and stood near the engine control, adjusting the telegraph as required and maintaining a visual lookout. The engineers changed from heavy bunker fuel to diesel, ready for manoeuvring.

At 2140, the Master ordered manoeuvring full ahead, 100 rpm and acquired the target on ARPA. He recalled the ARPA gave the target's course as 135° at 5 knots and he ordered an alteration of course to 034°.

The light of the target could be seen intermittently and after about one mile he ordered a resumption of the original course. At about this time at 2205, he ordered half ahead on the ship's telegraph, shortly after which there was a slight shock, the ship was felt to vibrate and the Master stopped the engine, realising the ship had run aground. After about five minutes, at 2215, the engine was run at full astern for five minutes until 2220, however, the vessel remained aground and the engine was stopped.

It was realised at about this time, that the target echo observed earlier and assumed to be a small vessel, was in fact Tiparra Reef light beacon, which could be seen flashing just abaft the starboard beam bearing 128° x 1.2 miles.

After the grounding

The Master mustered the crew and ordered that all spaces should be checked for possible ingress of water. The Second and Third Mates sounded the water depth on the port and starboard side, at the ship's bow, amidships and at the stern.

The vessel grounded in position 34° 03.2' South 137° 23.3' East, on a heading of 035°. The tide was falling and at 2210 was about 0.9 m above datum. Within half an hour the ship's head was noted as 028°. Low water was at 0019 on 9 May with a predicted height of 0.4 m above datum. The estimated draught of the ship at the time of grounding was 4 m forward and 6 m aft. There was about 1113 tonnes of heavy oil in engine room tanks and centre line double bottom fuel tanks, together with about

115 tonnes of diesel oil in engine room tanks.

Following the grounding the Master telephoned the ship's managers informing them of the casualty.

At about 2310, the Master and Radio Officer tried to make contact with Wallaroo Port Authority. He called three times on channel 16 VHF and these were monitored by the Volunteer Coastguard at Wallaroo, who responded to the Master's request for help. After some initial language/ accent difficulties, the Coastguard established the position of the grounding and confirmation that nobody on board was hurt and there was no pollution. The Master also confirmed that the ship did not carry a chart of the area and the ship needed help.

The Coastguard contacted the ship's agent, the Marine Rescue Coordination Centre and the local police. By 0230, the South Australia State Committee of the National Plan to Combat Pollution of the Sea had set up a command post in Adelaide to monitor the situation and activate the State plan. After assessing the situation and potential for a pollution incident, the State Committee sent a pollution combat team to Wallaroo. The Australian Maritime Safety Authority Pollution Prevention Section were alerted to support the State authority if necessary.

At 0600, the ship's head was pointing 060°. Later that morning, at about 1000, the ship's agent boarded *Western Winner*, taking with him a chart supplied by the Volunteer Coastguard.

Following the grounding and an appraisal of the situation, the Master

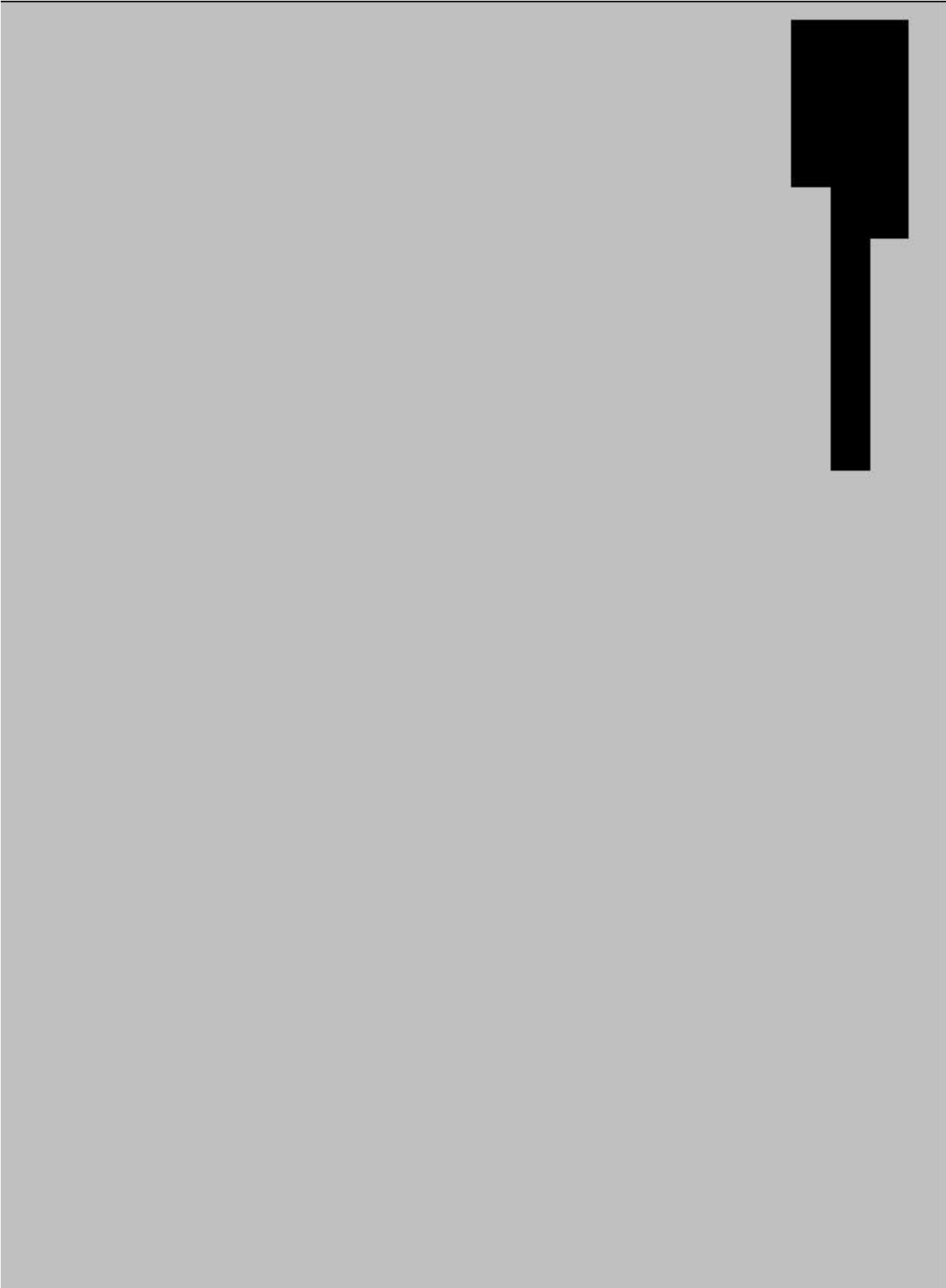
ordered that ballast should be dropped from the ship's top side tanks in order to assist in refloating. Crew members also monitored the sea around the ship and no oil was seen to escape from the hull and no ingress of water was reported.

At about 1345, when the water depth was about 1.0 m above datum on a rising tide, the ship started to move. With the vessel afloat, the Master checked the chart and manoeuvred away from the reef and set course for

Wallaroo, anchoring off the fairway at 1515.

At the anchorage the vessel was inspected by an AMSA surveyor and other AMSA staff from Ship and Personnel Safety Services.

Representatives of the Classification Society and the ship's Protection and Indemnity Club, together with divers also attended the ship. An investigator from the Marine Incident Investigation Unit boarded to interview the ship's staff and inspect the vessel.



Comment and Analysis

Introduction

The *Western Winner* grounded because it did not have the necessary chart for the passage from the southern Spencer Gulf to Wallaroo. In January 1992, the vessel had called at Port Pirie without incident and had probably carried the necessary charts at that time.

Tiparra Reef is 11.5 miles south west of Wallaroo pilot boarding point and lies on the direct track from the entrance to Spencer Gulf to the Wallaroo pilot boarding ground.

Western Winner is the second vessel to ground on Tiparra Reef within 18 months. On 2 December 1995, the bulk carrier *Sea Crane* ran aground in similar circumstances. *Sea Crane*, on charter to the Australian Barley Board, carried charts for its original destination, the vessel's loading ports were changed and the vessel did not have charts for its new destination in the Spencer Gulf.

Western Winner was well maintained and newly painted, having left dry dock in Singapore. The vessel was in the advanced stages of the accreditation process for the International Ship Management Code, which was expected to be implemented on board in September. Under the ISM procedures the Master was designated as responsible for the charts aboard ship.

Western Winner was also involved in a serious collision with the tanker *British Trent* off the Wandelaar pilot station, in

the North Sea on 3 June 1993. None of the ship's officers involved in the collision were on board at the time of the grounding.

Obligation to carry nautical publications

Regulation 20 of Chapter 5 of the Safety of Life at Sea Convention 1994, requires:

“All ships shall carry adequate and up-to-date charts, sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage.”

When the vessel sailed from Singapore, the vessel had on board all the necessary charts and publications for the ship's original destination, the east coast of Australia, and for passage to Port Adelaide. At Singapore, the ship had received the UK Admiralty Notice to Mariners edition 10, issued on 6 March 1997. The ship's charts covering Australia, together with the light list and list of radio signals had all been corrected in accordance with the Notice to Mariners during the south bound voyage, the records showing that the corrections had been completed by 7 May.

Thus when *Western Winner* sailed from Singapore it had on board all the required publications for the intended voyage at the time of sailing.

Charter party requirements

The charterer is at liberty to change the ship's loading port, within the terms of the charter. In law the charterer has no responsibility for the seaworthiness of

the vessel. The charter party places on the ship owner a contractual obligation to ensure the ship is fit in all respects for the intended voyage and is able to meet the terms of the charter party, including any changes in orders to other ports covered by the document.

A vessel operating under the Australian Wheat Charter 1990 contracts to proceed to one or two ports in Western Australia, one or two ports in south-eastern Australia (New South Wales, Victoria, South Australia) or one of two ports in Queensland. The ports nominated in south-eastern Australia included Wallaroo.

It is quite normal for a ship's orders to be changed, for ports of call to be cancelled and for a ship to be diverted to other ports as the availability of cargoes dictate. The charter party allowed for such variations and it would be reasonable to anticipate such a change. As soon as Port Adelaide was nominated on 28 April there was a reasonable possibility that the ship would be required, under the terms of the charter, to go to Wallaroo.

However, a number of incidents in Australian waters has demonstrated that ships do not necessarily carry charts for areas adjacent to the ship's route. A simple query by the charterer, when diverting vessels or changing voyage plans, would establish whether or not the ship had the necessary charts and publications to meet the changed requirements and afford the opportunity to safely rectify any deficiency. The Inspector notes that the Australian Wheat Board, in their ship suitability questionnaire (as amended since this grounding), specifically addresses the issue of suitable navigation equipment and charts.

Voyage planning and amended planning

With the change of orders the Master consulted the List of Radio Signals and the Guide to Port Entry for details of Wallaroo. From these he plotted the position of the pilot boarding ground as 33° 56' South 137° 37' East.

At interview the Master expressed the opinion that, had the track to Wallaroo held any possible hazards, following the telex requesting charts Aus 777 and Aus 344 he would have been alerted and acted accordingly. This was an unwarranted and dangerous assumption. The agent's task is generally commercial and the ship husbandry duties do not require experience in navigation.

The telex to the ship's agent read:

ETA WALAROO 0800/9TH PLS
ARRG AUS CHARTS NOS.344,777
2 SH'TS

B REGARDS

The Master did not expressly inform the agent, or his owner, or any other person that he lacked the necessary chart to reach Wallaroo.

The ship's managers were also informed of the change of orders on 6 May, making Wallaroo the first port of call instead of Adelaide. The ship managers presumed that the ship carried the charts for the southern Spencer Gulf as the vessel had called at Whyalla in January 1992 and the charts for the southern areas of the Gulf are essential for the passage to Port Pirie.

The ship carried a complete set of sailing directions including the Australian Pilot Volume 1, "South

Coast of Australia from Cape Leeuwin to Green Point”. Chapter 4 of this volume offers descriptions of Spencer Gulf and the approaches to it. The description of the track to the north of Spencer Gulf highlights the presence of Rosalind Shoal, with a least depth of 16.7 m which *Western Winner* passed to the south-east of at about 1745, and also highlights the location of Tiparra Reef.

Sailing Directions supplement the information on the chart. The information contained in the Sailing Directions is not sufficiently comprehensive or accurate on which to base a free hand chart and not sufficient to base navigation on, in the absence of an up-to-date chart.

However, the Sailing Directions contained more than enough information to alert the Master and ship’s officers to potential dangers and for them to reassess their situation.

The Master, in submission, pointed out that his orders had been changed four times and that the diversion was to a small port, whereas the ship carried all charts for major ports. However, the Inspector notes that Wallaroo is a port specifically mentioned in the charter party and that the Master was aware that the ship lacked the appropriate chart on 6 May, two days before the grounding.

The Master’s only proper option was to contact his managers, inform them of the missing charts and arrange for any necessary charts to be delivered off a port to which the vessel could safely navigate. The Inspector recognises the pressures placed on ship’s Masters to minimise expense in terms of both time

lost and the added expense that would be involved in the hiring of a boat or helicopter to transfer of charts. However, it was the only realistic option regardless of whether or not it delayed the ship’s arrival and tendering of notice of readiness to load. Tiparra Reef and all other hazards are clearly marked on the appropriate charts - the voyage would have been routine and straight forward with the chart on board.

Failure to acquire the necessary charts before entering waters not covered by the ship’s folio, whether or not they were required in the navigational documents for the “intended voyage”, is a breach (or violation) of the normal practice of seamen.

The Inspector cannot accept the argument put forward in submission by a local person, that the Master would have been more prudent to have waited until daylight before attempting to undertake the passage through the waters of the southern Spencer Gulf. It was submitted that the original ETA, given on 6 May was 0900 on 9 May, and to await daylight would have not resulted in a significant delay.

However, the central issue of the casualty is the lack of the appropriate chart for the passage, which was absolutely necessary, regardless of whether it was day or night. It is also worth noting that the grounding of the bulk carrier *Sea Crane* on Tiparra Reef occurred in daylight, when the Tiparra Reef light structure was thought to be an oil exploration platform.

The absence of charts for the voyage is not unique to this casualty. The Unit has investigated three incidents since December 1995, where the vessel

involved did not have the necessary charts to complete the voyage undertaken and where masters have requested charts be provided after the voyage has been completed. This suggests that it is not unknown for vessels to have a deficient chart folio

for the voyage and that there are vessels routinely trading without the necessary charts. Vessels completing such voyages only reinforce the violation, adding pressure on others to compound the breach of proper standards.

Conclusions

These conclusions identify the different factors contributing to the incident and should not be read as apportioning liability or blame to any particular individual or organisation. The following factors are considered to have contributed to the grounding of *Western Winner* on Tiparra Reef on 8 May 1997:

- The absence of the appropriate charts for the approaches to Tiparra Reef and Wallaroo
- The failure to refer to the Admiralty sailing directions for a description of the waters of Spencer Gulf.
- The Master not informing the owners of the absence of the chart on 6 May.
- An unwarranted assumption by the Master that the ship's agent would have been alerted to the absence of appropriate charts, merely because he requested charts be supplied on arrival, and he would have been informed of any hazard on the passage.
- The change in orders from Port Adelaide to Wallaroo as first port.
- A lack of compatible records between the ship and shore management as they related to the chart folios carried on board *Western Winner*.

Submissions

The provisions of sub-regulation 16 (3) of the Navigation (Marine Casualty) Regulations require if a report, or part of a report, relates to a person's affairs to a material extent, the Inspector must, if it is reasonable to do so, give that person a copy of the report or relevant part of the report. Sub-regulation 16(4) provides that such a person may submit written comments or information relating to the report.

The final draft of the report, or parts thereof, was sent to the Master and ship managers, who submitted the following:

The ship managers

Fortuna Ship Management holds a current list of all charts, which was sent to the office from *Western Winner*, in accordance with the requirements of the ISM Code:

- Neither the Master nor agent informed the ship management office of the shortage of two charts.
- *Western Winner* had called at Whyalla in January 1992.
- Nowadays, under satellite navigation with all navigation

equipment in working order, it is very rare to have such a grounding under normal circumstances, provided the Master and officers exercise due diligence in their navigation.

- The main cause of the grounding was due to the negligence of navigation, as the vessel did not double check to establish whether the target seen at 2130 was a fishing vessel or a light beacon.
- Fixing a ship's position at intervals of half an hour is not sufficiently frequent under coastal navigation with a shortage of coastal charts.

The Master

I do not agree with some items of the Inspector's report as it is one sided.

On the voyage my vessel's situation changed with four sudden changes in the loading port. Any vessel carrying a world wide folio will have all the main ports, but unfortunately (in this case) charts for the small port was missing.

Also, I sent ETAs to Wallaroo agent many times, but there was no reply, no information and there was no answer from port control. If a foreign vessel is entering the port, from where may a vessel get instructions.

Details of ship

Name	Western Winner
IMO No.	8029258
Flag	Panama
Classification Society	Lloyd's Register of Shipping
Ship type	Bulk carrier
Owner	Alpha Beta Investments Co. Ltd.
Manager	Fortuna Navigation Co. Ltd. of Hong Kong
Year of build	1982
Builder	Nippon Kokan KK, Shimizu, Japan
Gross tonnage	17,858
Net tonnage	10,098
Summer, deadweight	30,396 tonnes
Draught (summer)	10.464 m
Length overall	175.01 m
Beam	26.04 m
Engine	5 cylinder Sulzer diesel
Engine power	7,264 kW
Crew	24