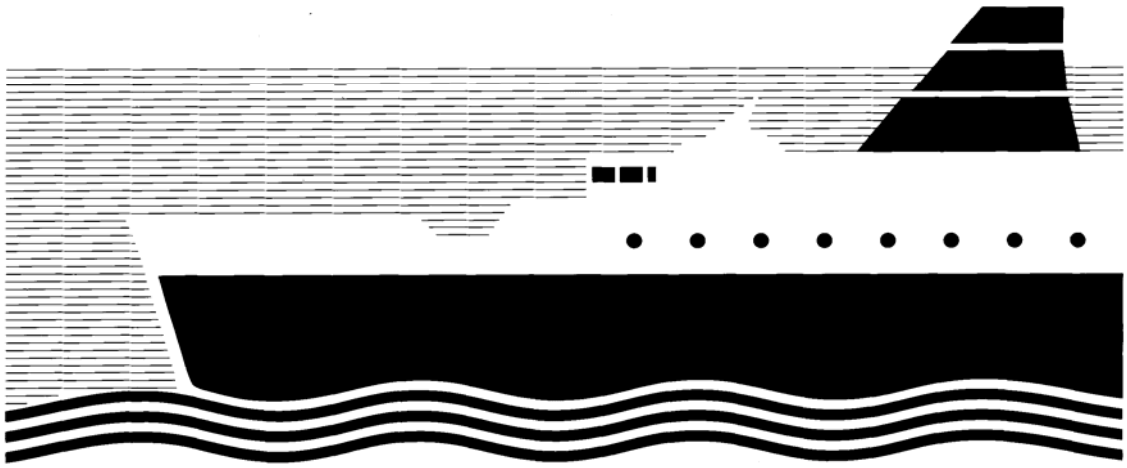
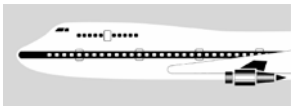
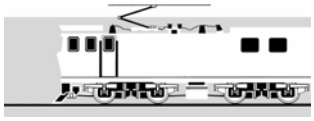


# MARINE OCCURRENCE REPORT

**06-203 fishing vessel *Venture*, grounding, Tipi Bay, Tory Channel 19 April 2006**


**TRANSPORT ACCIDENT INVESTIGATION COMMISSION**
**NEW ZEALAND**

The Transport Accident Investigation Commission is an independent Crown entity established to determine the circumstances and causes of accidents and incidents with a view to avoiding similar occurrences in the future. Accordingly it is inappropriate that reports should be used to assign fault or blame or determine liability, since neither the investigation nor the reporting process has been undertaken for that purpose.

The Commission may make recommendations to improve transport safety. The cost of implementing any recommendation must always be balanced against its benefits. Such analysis is a matter for the regulator and the industry.

# Report 06-203

## fishing boat *Venture*

## grounding

## Tipi Bay, Tory Channel

## 19 April 2006


## Abstract

On Wednesday 19 April 2006 at about 0005, the fishing boat *Venture* grounded on the beach at the base of a small cliff just to the north of Tipi Bay in Tory Channel while on passage from Picton to Oamaru. After checking the watertight integrity of the boat, the skipper attempted to re-float the boat but was unsuccessful. As the boat was in no immediate danger and the crew had suffered no injuries, the skipper decided to wait until daylight before summoning assistance. The crew of a passing ferry noticed the boat aground and reported the incident to Picton harbour radio.

At about 0700 the skipper contacted a local towage contractor and arranged for tug assistance. The tug *Tuahine* arrived on site at about 0935 and the *Venture* was re-floated without incident at about 1150. The *Venture* returned to Picton for a damage survey by a diver. No damage was found and the boat resumed its passage to Oamaru at about 1530 that afternoon.

Safety issues identified included:

- the undertaking of navigational watchkeeping and helmsman tasks whilst impaired by the effects of fatigue
- the lack of a watchkeeping monitor alarm for a single-handed wheelhouse operation.

Safety recommendations were made to the Managing Director of Adventure Fishing Company Limited and to the Director of Maritime New Zealand to address these issues.

**The *Venture* aground in Tipi Bay**

# Contents



# Figures

## Abbreviations

| | |
|---|---|
| °C | degrees Centigrade |
| GPS | global positioning system |
| ILM | Inshore Launch Master |
| IMO | International Maritime Organization |
| m | metres |
| Maritime NZ | Maritime New Zealand |
| nm | nautical miles |
| SMS | safety management system |
| SSM | safe ship management |
| UTC | co-ordinated universal time |

## Glossary

| | |
|---|---|
| astern | outside a boat and directly abaft it |
| autopilot | a machine that automatically keeps a boat's head on a pre-selected course |
| con (conduct) | to direct the course and speed of a boat |
| echo sounder | a device for measuring the depth of water below a boat's bottom |
| fish finder | a device similar to an echo sounder but designed to locate shoals of fish |
| forecastle | crew's quarters in the bow of a boat |
| gross tonnage | a measure of the internal capacity of a vessel; enclosed spaces are measured in cubic metres and the tonnage derived by formula |
| knot | one nautical mile per hour |
| lazarette | storeroom at the stern of a boat, normally where the rudderpost and quadrant are located |
| transceiver | a combined radio transmitter and receiver |
| trolled/trolling | fishing by trailing a baited line behind a slowly moving boat |

## Data Summary

### Boat Particulars:

| | |
|---|---|
| Name: | *Venture* |
| Type: | wooden fishing |
| Limits: | offshore commercial fishing, within 100 miles of the coast of New Zealand |
| Length: | 14.72 m |
| Breadth: | 4.46 m |
| Gross tonnage: | 25 |
| Built: | 1956, Miller and Tunnage |
| Propulsion: | a Gardner 8LXB diesel engine driving a single fixed-pitch propeller through a Twin Disc MG 509 reversing gearbox |
| Service speed: | 7 knots |
| Owner/operator: | Adventure Fishing Company Limited |
| Port of registry: | Nelson |
| Minimum crew: | 2 |
| **Date and time:** | 19 April 2006 at about 0005[1] |
| **Location:** | Tipi Bay, Tory Channel |
| **Persons on board:** | 3 |
| **Injuries:** | nil |
| **Damage:** | nil |
| **Investigator-in-charge:** | Captain Iain Hill |

[1] Times in this report are New Zealand Standard Time (UTC + 12 hours) and are expressed in the 24-hour mode.

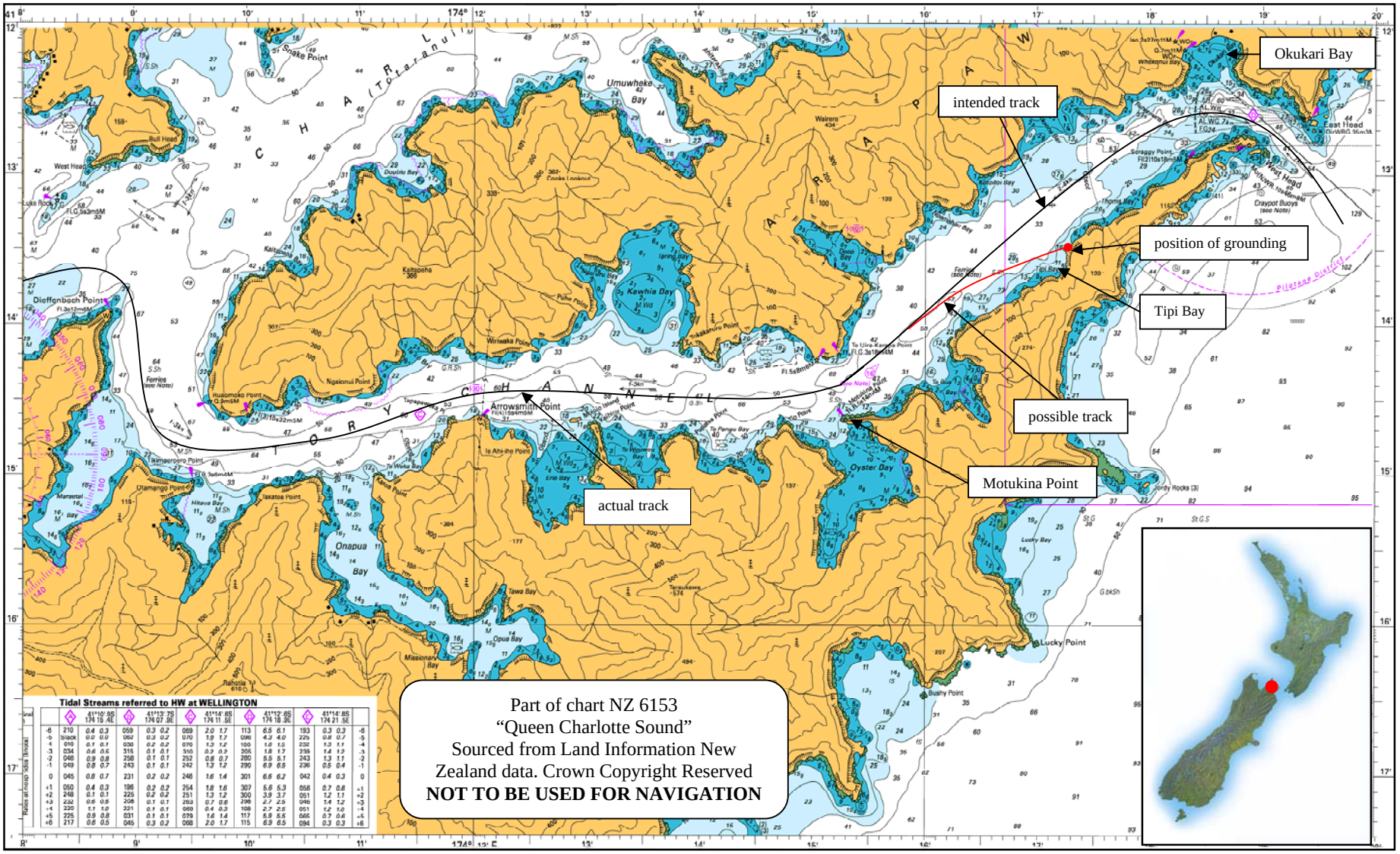



**Figure 1**
**General area of the incident**

# 1 Factual Information

## 1.1 Narrative

1.1.1 On 13 April 2006, the fishing boat *Venture* departed from Greymouth with the skipper and one deckhand on board. This was to be the skipper's last voyage for the albacore tuna season, and his intention was to make for the fishing grounds off Kawhia before proceeding to the boat's home port of Oamaru.

1.1.2 On 17 April 2006, the *Venture* was off Kawhia and between about 50 and 80 nautical miles (nm) north of New Plymouth. The skipper and deckhand trolled for tuna during the morning but they caught no fish and the weather forecast was for the wind to increase from the north, so the skipper decided to put the wind astern and head for Cook Strait.

1.1.3 The skipper and deckhand stood watches overnight as they made their way towards Cook Strait, trolling for tuna as they went. By midday on 18 April the boat was well into Cook Strait and they hauled in the trolling lines and altered course for the Tory Channel entrance to Queen Charlotte Sound, to make for Picton where they were to pick up the skipper's nephew.

1.1.4 At about 1530, the *Venture* entered Tory Channel eastern entrance and proceeded to Picton, berthing at Fisherman's Wharf at about 1830. The skipper and deckhand then went ashore for a meal. By the time they returned, the skipper's nephew had arrived on board. After completing their pre-departure checks they departed for Oamaru at about 2130.

1.1.5 On departure, the skipper had the con; the deckhand went to the forecastle to sleep and the skipper's nephew bunked down on the settee in the corner of the wheelhouse. The skipper set the engine at 800 revolutions per minute and lit the diesel stove to provide warmth and heating for the kettle.

1.1.6 The skipper was navigating using the fitted chart plotter, with the steering in autopilot and the radar on standby. He stated later that he remembered altering course at Motukina Point and setting a course to keep to the starboard side of the channel. The next thing he remembered was feeling the boat "taking the ground", which woke him. The skipper also stated that he thought that he had been asleep for "a couple of minutes, 5 minutes max".

1.1.7 The *Venture* had grounded on sand just north of Tipi Bay at about 0005 on 19 April. The skipper immediately pulled the gear lever to put the engine into neutral, he then woke the deckhand and his nephew, told them of the situation and ascertained that they were not harmed. The skipper then went into the engine room and checked for water ingress, while the deckhand checked the forecastle and lazarette.

1.1.8 They found no damage to the boat and no evidence of water ingress. Hearing a Cook Strait ferry approaching, the skipper decided to try to re-float the boat using the wash from the ferry to assist. This attempt was not successful.

1.1.9 The *Venture* appeared to be undamaged and in no immediate danger, so the skipper decided to wait until daylight before contacting a local towage company to arrange for a tug to assist in pulling the boat free.

1.1.10 At about 0700, the skipper contacted the local towage company by cellphone and it dispatched the tug *Tuahine*. On arrival, the *Tuahine* passed a line to the *Venture* and at about 1150, approximately 30 minutes before high water Picton, and again using the wash generated by a passing ferry, the *Venture* was re-floated.

1.1.11 The skipper then conned the *Venture* back to Picton for an underwater examination. With no damage found, the *Venture* departed from Picton at about 1530 on 19 April, and arrived in Oamaru on 22 April 2006 without further incident.

## 1.2 Boat information

1.2.1 The *Venture* was a 14.72 m wooden-hulled fishing boat configured for trolling. It was built in 1956 by Miller and Tunnage in Port Chalmers, New Zealand. The boat had a beam of 4.46 m and a gross tonnage of 25.

1.2.2 The *Venture* was powered by a single 175 BHP [131 kW] Gardner 8LXB diesel engine driving a single fixed-pitch propeller through a twin disc MG 509 reversing gearbox.

1.2.3 The wheelhouse was equipped with standard equipment necessary for navigation and fishing which included:

- a Sauru Keiki magnetic compass
- a Benmar autopilot
- a Koden MD3400 radar
- a Raytheon V850 echo sounder
- a Furuno GP1250 global positioning system (GPS)
- a Codan 6801 S Mk2 single side band radio transceiver
- a King 7000 very high frequency radio transceiver
- 2 Furuno GPS plotters
- a Furuno fish finder.

1.2.4 The *Venture* was not fitted with a watchkeeping alarm.

1.2.5 The *Venture* was certified to operate in the Offshore Area, as defined in Maritime Rule Part 20, up to 100 nm off the coast with the correctly qualified skipper and crew on board.

## 1.3 Legislation

1.3.1 Maritime New Zealand[2] (Maritime NZ) promoted the use of watchkeeping alarms and was developing draft requirements for fitting them on small fishing boats which operate at night with a single watch keeper, as an aid in developing appropriate fatigue management arrangements.

1.3.2 In 2001 Maritime NZ had also convened the Fishing Industry Safety and Health Advisory Group (FISHgroup) as part of the measures to counter the effects of fatigue on fishing boat crews. One of the recommendations in the FISHgroup's final report, dated June 2003, was:

> the fitting and use of watchkeeping alarms (or suitable alternative warning systems) on fishing boats for night operations with a single watch keeper (while recognizing the limited benefits of this approach and the need for broader-based countermeasures), and ask that this work also consider the possibility of providing incentives for the use of such systems.

1.3.3 In 2004, FISHgroup was replaced by FishSAFE with the primary aim of developing and managing an implementation plan to give effect to the recommendations in the FISHgroup report.

1.3.4 On 21 May 2004, FishSAFE had its inaugural meeting. The group comprised representatives from Maritime NZ, the Seafood Industry Training Organisation, the Accident Compensation Corporation and a wide spectrum of the fishing industry.

[2] The Maritime Safety Authority's name changed on 1 July 2005 to Maritime New Zealand. The current name Maritime New Zealand and the abbreviation Maritime NZ have been used throughout the report for consistency.

1.3.5 On 12 May 2006, FishSAFE launched its guidelines for health and safety on board small fishing boats. The guidelines contained specific references to the management of fatigue.

1.3.6 The *Venture* was certified to operate in the Offshore Area, as defined in Maritime Rule Part 20, up to 100 nm off the coast with the correctly qualified skipper and crew on board. To operate in this area Maritime Rule Part 31C required the skipper to hold a New Zealand Offshore Master's certificate.

1.3.7 To operate in the Coastal Area, as defined in Maritime Rule Part 20, Maritime Rule Part 31C required the skipper to hold a New Zealand Offshore Watch keeper's certificate endorsed with an Inshore Launch Master's certificate (ILM).

1.3.8 To operate in the Inshore Area, as defined in Maritime Rule Part 20, Maritime Rule Part 31C required the skipper to hold an ILM.

1.3.9 To operate in the Offshore or Coastal Area the boat was required to carry a crew of at least 2 persons and to operate in the Inshore Area the boat was required to have a crew of one.

1.3.10 The skipper of the *Venture* at the time of the accident held an ILM, so was therefore allowed to operate the *Venture* in the Inshore Area. However, during the accident voyage the skipper had probably been operating the *Venture* in the Coastal Area and possibly in the Offshore Area in contravention of Maritime Rule Part 31C.

1.3.11 The skipper used the chart plotter for navigating the boat; however, he did have on board New Zealand paper nautical chart number 46, Cook Strait with a scale of 1:200 000. This chart was at a scale to give an overview of the general area of Cook Strait. The chart had not been kept corrected up to date.

1.3.12 Maritime Rule Part 25 Nautical Charts and Publications states:

> **25.6 Inshore and Enclosed Areas**
> (1) Except as provided in rule 25.6(2), the owner and the master of any vessel that operates in the inshore or enclosed areas must ensure that the vessel carries –
> (a) nautical charts that comply with rule 25.7; and
> (b) a nautical publication containing tide tables that complies with rule 25.8.
> (2) If a nautical chart or tide tables are not published for the waters in which a vessel is operating, the owner and the master of the vessel must –
> (a) ensure that the vessel carries the best alternative information available; and
> (b) in the case of a nautical chart, advise the Director that no nautical chart is available for that operation.
>
> **25.7 Nautical Charts**
> (1) A nautical chart carried to meet the requirements of this Part must –
> (a) be appropriate to the vessel's area of operations; and
> (b) be of the largest scale available and suitable for the type of navigation it is being used for; and
> (c) if it is an electronic chart –
> (i) be part of an Electronic Chart Display and Information System that meets the requirements of *Performance Standards for Electronic Chart Display and Information Systems (ECDIS)* adopted by the International Maritime Organisation by Assembly Resolution A.817(19); and
> (ii) have paper back-up nautical charts; and
> (iii) be operated only by persons who have received training, that is acceptable to the Director, in the use of electronic charts.
> (2) Subject to rule 25.7(2A), a paper nautical chart carried to meet the requirements of this Part must:

(a) be certified by the relevant government institution as correct up to the date of supply to a chart retailer; and
(b) be maintained in a fully correct condition.

1.3.13 The International Regulations for Preventing Collisions at Sea, 1972 (Colregs) apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels. In New Zealand, Maritime Rule Part 22 gives effect to the Colregs. Part 22 provides the steering and sailing rules for ships, as well as standards for the installation, performance and use of lights for collision avoidance and the sound and light signals used for communication of safety information. There are minor editorial changes between the Colregs and Part 22, but the changes do not alter the meaning of the rules pertaining to this occurrence.

1.3.14 The paragraphs of Maritime Rule Part 22 relevant to this investigation are:

> **22.2 Definitions**
>
> (1) In this Part –
>
> "**Vessel not under command**" means a vessel which through some exceptional circumstance is unable to manoeuvre as required by this Part and is therefore unable to keep out of the way of another vessel.
>
> "**Underway**" means that a vessel is not at anchor, or made fast to the shore, or aground:
>
> **22.5 Look-Out**
>
> Every vessel must at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions, so as to make a full appraisal of the situation and the risk of collision.
>
> **22.27 Vessels not under command or restricted in their ability to manoeuvre**
>
> (1) A vessel not under command must exhibit –
> (a) two all-round red lights in a vertical line where they can best be seen; and
> (b) two black balls or similar shapes in a vertical line where they can best be seen; and
> (c) when making way through the water, sidelights and a stern light.

## 1.4 Personnel information

1.4.1 The skipper had been fishing locally off the boat's home port of Oamaru for a number of years before starting to fish for tuna about 7 years prior to the accident. He had owned the *Venture* for about 4 years, and had skippered it for 4 seasons. The skipper held an ILM.

1.4.2 The deckhand had been fishing for about 2 years, working out of Nelson and Greymouth. He was on his third voyage on board the *Venture*. The deckhand held no maritime qualification.

1.4.3 The third person on board at the time of the incident was the skipper's nephew, who was on board only for the voyage from Picton to Oamaru.

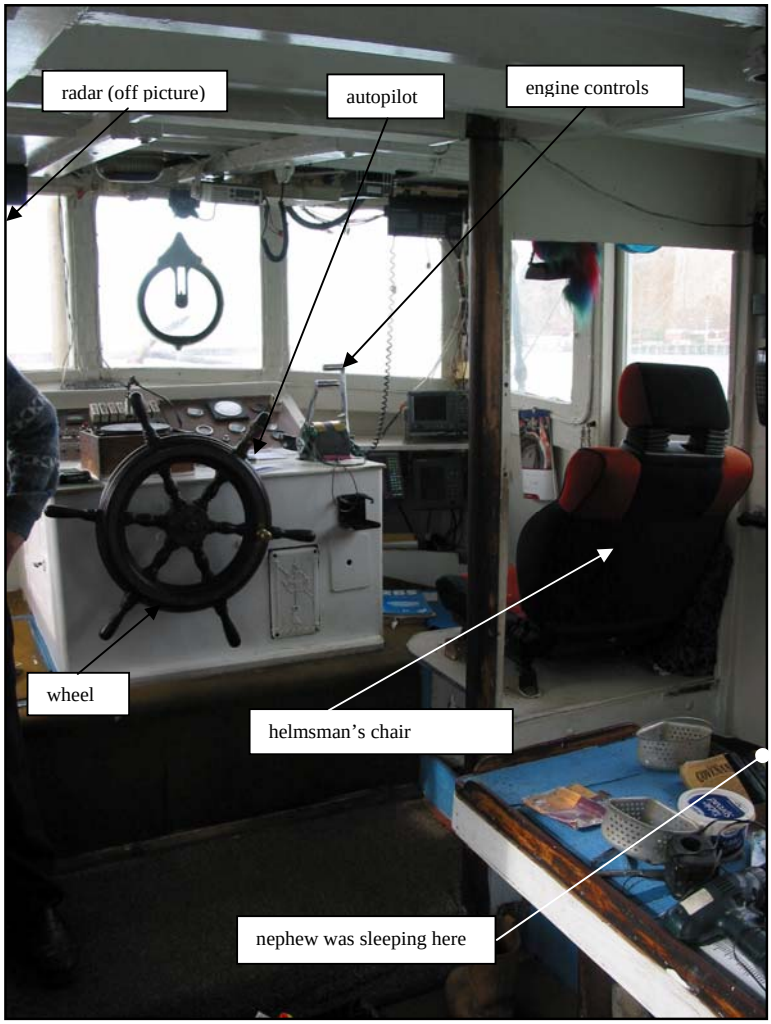



**Figure 2**
**Wheelhouse interior**

## 1.5 Climatic and environmental conditions

1.5.1 A high pressure system was moving over New Zealand from the Tasman Sea. The weather at the time of the occurrence as reported at The Brothers automatic weather station and Cape Campbell automatic weather station was for north-westerly winds with a speed of about 7 metres per second [14 knots] with a temperature of about 15°C. Due to the shelter afforded to Tory Channel from the surrounding hills, the wind had reduced to virtually nil and the waters were calm.

1.5.2 The predicted tidal data for Okukari Bay (see Figure 1), a secondary port based on data from Picton and the closest secondary port to the occurrence site, for 18/19 April 2006, was:

| Date | High water | | Low water | | High water | | Low water | |
|---|---|---|---|---|---|---|---|---|
| | Time | m | Time | m | Time | m | Time | m |
| 18/04/2006 | 0002 | 1.1 | 0530 | 0.2 | 1210 | 1.0 | 1751 | 0.3 |
| 19/04/2006 | 0032 | 1.1 | 0605 | 0.2 | 1243 | 1.0 | 1829 | 0.3 |

The tide at the time of the accident was therefore rising and the vessel would have been on a rising tide for about a further 30 minutes.

1.5.3 Sunrise was at about 0659 on 18 April and sunset was at about 1746. Moonrise was at 2011 on 18 April and moonset was at 1235. The moon was in its third quarter, full moon having been on 14 April.

## 1.6 Routines

1.6.1 The normal routine for the skipper and crew was to work for the daylight hours then rest for the hours of darkness. During their rest periods, at night, they did not keep any form of lookout but lit their "not under command" lights while drifting. They had used this routine from when they set sail until the night of 17 April.

1.6.2 During the night of 17 April, they were underway from north of New Plymouth to Cook Strait so the skipper and the deckhand took watches conning the boat. The skipper stated later that during this run the watches were not divided equally, with the deckhand probably standing the longer amount of watch time. During 18 April, because the fishing was poor, the person not on watch was able to rest.

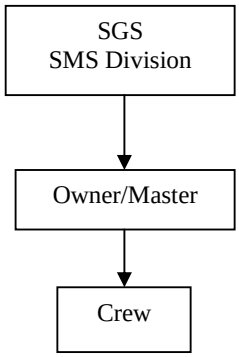
1.6.3 The skipper stated later that normally the person on watch would move around the wheelhouse switching the radar from standby to on and back to standby, changing ranges on the radar, making hot drinks and generally keeping alert.

1.6.4 The facilities for rest and sleep on board were necessarily cramped on a boat the size of the *Venture*.

## 1.7 Safe ship management

1.7.1 The *Venture* was under safe ship management (SSM) with SGS M&I. The certificate was issued on 15 November 2004, and subject to periodic audit/inspection of the ship and its management system, was valid until 15 November 2007.

1.7.2 The SSM manual for the *Venture* included the following:

> In the implementation of the ship's Safety Management System, the following structure will apply:
>
> 
> 
>
> The owner will, at all times, employ only appropriately qualified, certified, experienced and medically fit seafarers to man this ship. The only exception to qualifications will be seafarers under training and then only as additional crew to the minimum manning levels required by legislation or regulation.
>
> Ship's Master: Responsibilities:
>
> - The master has the ultimate responsibility for the operation of this ship and is responsible to the owner.
> - He/she is responsible for ensuring that the safety and environmental protection policies defined in the boat's Safety Management System are strictly adhered to.

- He/she is responsible for ensuring that all crew are trained in and understand the Ship's Management System and observe the requirements.
- He/she is responsible for all instructions and orders given relating to the operation of the ship, that these instructions and orders are simple, clearly understood and followed by all crew or land-based support staff who from time to time report to him/her.
- He/she is responsible for verification that all of the foregoing is observed.
- He/she is responsible for reviewing the Ships Management System and reporting to the Company any improvements identified or deficiencies found.

Authorities

- The master has ultimate authority, while at sea; to decide on and take whatever action he sees fit to maintain the safety of the crew, the environment, the ship, and its cargo.
- In conjunction with the owner, the Master has the authority to recruit appropriately qualified and experienced persons to fill crew positions.
- In all other respects he/she has the authorities as detailed in his /her conditions of employment.

1.7.3 The *Venture* had undergone a safety survey with SGS M&I on 2 December 2005. The boat's last survey and audit, prior to the accident, by Maritime NZ was on 18 November 2003.

1.7.4 By May 2005, in response to the Commission's safety recommendations 042 and 043/04, SGS M&I had issued appendices covering manning and fatigue in fishing ships and in passenger and non-passenger ships. SGS M&I had also issued a table listing signs and symptoms of fatigue and instructed that this table be copied and displayed in a prominent place where the master and crew could see it.

## 1.8 Fatigue

1.8.1 There are many definitions of fatigue but no universally accepted one. The extent to which individuals may be affected by a given set of circumstances will vary. The definition most widely accepted by the shipping industry was that used by the International Maritime Organization (IMO), namely:

> A reduction in physical and/or mental capability as the result of physical, mental or emotional exertion which may impair nearly all physical abilities including strength; speed; reaction time; co-ordination; decision-making or balance.

1.8.2 Work-related fatigue has three main causes:

1. excessively long and/or hard work (time-on-task fatigue and workload)
2. inadequate, irregular or poor-quality sleep
3. working and resting at inappropriate times in the circadian rhythm[3], which leads to reduced task performance and impaired sleep quality respectively.

1.8.3 Sleep is not equally possible across the 24-hour day. How quickly a person can fall asleep and how long they remain asleep are regulated by their circadian body clock. This can be visualised in terms of competing sleep and wake "drives". The sleep drive is highest in the early hours of the morning when the urge to fall asleep is most overwhelming and can be completely uncontrollable.

[3] The inherent pattern of physical and mental characteristics related to a 23- to 25-hour internal central nervous system activity cycle.

1.8.4 Not only the amount of sleep but also the quality of sleep can have important effects on wake-time functioning. Sleep that is restless and fragmented by frequent awakenings leaves a person sleepy and at increased risk of making errors. Sleep can be disrupted by a wide variety of factors including physical sleep disorders and other health problems, changing work and rest schedules, poor sleep habits and ill-informed attitudes about increasing wake-time activities by cutting back on sleep.

1.8.5 Environmental factors can have an important effect on sleep quality. For crew sleeping on board, such factors as noisy or cramped quarters and rough sea conditions can be expected to reduce sleep quality.

### 1.9 Damage

1.9.1 The *Venture* sustained no damage during the grounding.

### 1.10 Previous occurrences

1.10.1 On Friday 26 March 2004 at about 0215, the fishing boat *Bronny G* grounded on rocks at Steep Head on Banks Peninsula while the boat was on passage back from fishing grounds to Lyttelton Harbour (TAIC Marine Occurrence Report 04-205).

1.10.2 On Thursday 16 April 2004 at about 0215 the fishing boat *Poseidon* grounded on the beach to the north of the Manukau Harbour entrance while the boat was on passage back from fishing grounds to Onehunga (TAIC Marine Occurrence Report 04-207).

1.10.3 Safety issues identified in both groundings included:

- the lack of a working watchkeeping alarm for a single-handed wheelhouse operation
- the undertaking of navigational watchkeeping and helmsman tasks whilst suffering from the effects of fatigue.

## 2 Analysis

2.1 The skipper elected to take the navigational watch and con the *Venture* out of Picton, which he undertook from the helmsman's chair as the boat was operating in autopilot. The onset of fatigue coupled with the regular noise of the engine, the warm conditions inside the wheelhouse, and the lack of required input to steering and his sitting position could possibly have lulled the skipper to sleep.

2.2 The skipper could remember altering course off Motukina Point but very little afterwards. He probably drifted off to sleep shortly after completing the alter course. Although the autopilot would have maintained a heading, the boat was probably pushed off course by current and weather, unnoticed by the sleeping skipper.

2.3 The skipper thought that he had just fallen asleep or, at the most, been asleep for 5 minutes. However, he may have been asleep for longer than he thought considering the distance travelled by the boat from his last recollected position. The skipper was only woken by the change in motion of the boat when it "took the ground". Had the *Venture* continued on the intended course it is probable that the skipper would not have woken for some time, with the boat running aground in a possibly far more dangerous position near the entrance.

2.4 Owing to the inherently irregular and prolonged nature of work during fishing operations and the harsh, uncomfortable and noisy conditions often experienced aboard fishing boats, fatigue is common amongst fishing boat crews. This fact has been recognised and legislation requires the owner, skipper and crew to take responsibility for recognising and managing the problem.

2.5 Although the skipper and deckhand had opportunity for rest during the working day when trolling and usually had a period of about 13 hours at night in which to rest and to sleep, the conditions were probably not conducive to restorative rest.

2.6 The night of 17 April was not routine as they were working shifts as they steamed through the night to Cook Strait. Neither the skipper nor the deckhand could remember the hours they worked or rested, although the skipper said he thought that the deckhand had probably done more time on watch than him. However, the skipper would still not have received as much sleep as he normally did and the restorative value of that sleep could not be gauged.

2.7 The night of 18 April was another night out of routine with the added stress of navigating through Queen Charlotte Sound to Picton, berthing at an unfamiliar wharf, then departing again after a short while and having to navigate back through Queen Charlotte Sound to Cook Strait. This would have added to the possibility of the master becoming fatigued.

2.8 Although neither the skipper nor the deckhand could remember the actual hours they worked, from what they could recall a rough work/rest pattern for the skipper could be established. The skipper's normal pattern would consist of about 10.75 hours of work (daylight hours) with some periods of rest followed by 13.25 hours available for relaxation and sleep. In the days preceding the accident, the skipper's work/rest pattern was about:

| Date | Description | Hours worked | Hours of rest/sleep |
|---|---|---|---|
| 17 April | Daylight hours, normal routine | 6 | 4.25 |
| 17 April | Night passage | 6 | 7.25 |
| 18 April | Fishing | 3 | 3 |
| 18 April | Passage into Picton | 5.5 | 0 |
| 18 April | Ashore Picton | 3 | 0 |
| 18 April | Passage out of Picton | 2.5 | 0 |

Thus since the morning of 17 April the skipper had worked, approximately, 26 hours and had 14.5 hours in 3 separate periods available for rest and sleep before he fell asleep involuntarily.

2.9 Although the skipper was not chronically fatigued, and not feeling as though he was fatigued, the break in his normal routine was probably sufficient to start the onset of fatigue and made him more susceptible to falling asleep lulled by the rhythmic engine noise, warm cabin and sound of the boat moving through the calm waters.

2.10 With the skipper's nephew asleep in the wheelhouse, the skipper may have been wary of disturbing him by using his normal routine of moving freely around the wheelhouse. Remaining in a sitting position probably increased the risk of falling asleep. With the nephew asleep in the wheelhouse it is unlikely that the skipper would have made use of a watchkeeping alarm, had it been fitted, as this would, as it was designed to, have disturbed the sleeping relative. However, if a watchkeeping alarm had been fitted, working and used properly the alarm would not have sounded, having been reset by the watch keeper prior to its sounding.

2.11 Although the normal routine, when fishing, was for the skipper and deckhand to stop the boat and drift during the hours of darkness with the "not under command" lights lit, these actions did not comply with the requirements of Maritime Rule Part 22. To comply with the Rule a proper lookout must be kept by sight and hearing at all times that the boat is underway and the boat was not hampered through any exceptional circumstances in its ability to manoeuvre. However, this non-compliance did not contribute to the grounding.

2.12 The boat had the correct complement of crew to operate in the areas in which it was being used to fish. However, the certificate held by the skipper was not that required for him to fish in the Coastal or Offshore Areas; he was therefore probably operating in contravention to Maritime Rule 31C. However, this did not contribute to the grounding.

2.13 Although the *Venture* was not equipped with the largest-scale chart available corrected to date as required by Maritime Rule part 25, the skipper was able to navigate through the sounds successfully using the chart plotter. Also the chart plotter did not conform to the requirements of the Maritime Rule as it did not meet the rigorous requirements of performance standards for Electronic Chart Display and Information Systems as adopted by the IMO and the certificate held by the skipper did not encompass training acceptable to the Director of Maritime NZ in the use of electronic charts. The lack of the correct navigational chart, equipment and training had no bearing on the outcome of the accident. However, in different circumstances it could have contributed to an accident or incident.

# 3 Findings

3.1 The *Venture* grounded on a beach at the base of a cliff in Tory Channel because the skipper, who had the con of the boat, fell asleep.

3.2 The *Venture* was undamaged in the grounding and was successfully re-floated on the next high tide with the assistance of a tug.

3.3 At the time of the grounding the skipper was probably suffering from fatigue.

3.4 The skipper's fatigue was probably caused by a change to his normal routine over the previous 2 days combined with stress from navigating through an unfamiliar environment.

3.5 Had the skipper been more aware of the signs and symptoms of fatigue he would have been better prepared to deal with it.

3.6 More prudent action would have been for the skipper to remain alongside in Picton until the next morning to ensure that the crew and he were adequately rested.

3.7 Had a watchkeeping alarm system been fitted and working, although it would not have prevented the skipper falling asleep it may have woken him in time to avert the grounding.

# 4 Safety Recommendations

4.1 On 28 November 2006, the Commission recommended to the Managing Director of Adventure Fishing Company Limited that he:

4.1.1 obtain a copy of and implement on board all vessels operated by his company the "Safety Guidelines for Small Commercial Fishing Vessels" as issued by FishSAFE organisation with particular reference to the more pertinent sections on fatigue management and the fitting of a watchkeeping alarm. (041/06)

4.2 On 28 November 2006, the Commission recommended to the Director of Maritime New Zealand that he:

4.2.1 advise all owners of New Zealand fishing boats by the most appropriate means, of the safety benefits of voluntarily attending FishSAFE workshops and the availability of the "Safety Guidelines for Small Commercial Fishing Boats" on the FishSAFE website. (042/06)

4.3 On 11 December 2006, the Director of Maritime New Zealand replied, in part:

> Maritime NZ considers that this recommendation has already been implemented throughout the course of launching the FishSAFE programme. As an example, please see the July 2006 edition of "Safe Seas Clean Seas" (attached) which is sent out to all vessel owners. Further publicity material is being issued on an ongoing basis by FishSAFE itself.

Approved on 14 December 2006 for publication

Hon W P Jeffries
**Chief Commissioner**

**Recent Marine Occurrence Reports published by the Transport Accident Investigation Commission (most recent at top of list)**

| | |
|---|---|
| 06-203 | fishing vessel *Venture*, grounding, Tipi Bay, Tory Channel, 19 April 2006 |
| 05-211 | container ship *Spirit of Resolution*, collision with bridge, Onehunga, 8 October 2005 |
| 05-210 | restricted limit passenger vessel *Milford Mariner*, engines' stall resulting in grounding, Harrison Cove, Milford Sound, 18 September 2005 |
| 05-208 | passenger freight ferry *Santa Regina*, near grounding, Tory Channel eastern entrance, 9 June 2005 |
| 05-207 | freight and passenger ferry *Santa Regina* and private launch *Timeless*, collision, off Picton Point, Queen Charlotte Sound, 2 May 2005 |
| 05-206 | passenger/freight ferry *Arahura*, loss of propulsion, Cook Strait, 24 April 2005 |
| 05-205 | restricted limit passenger vessel *Black Cat*, control cable failure and collision with rock wall Seal Bay, Akaroa Harbour, 17 April 2005 |
| 05-202/204 | passenger freight ferry *Aratere*, steering malfunctions, Wellington Harbour and Queen Charlotte Sound, 9 February and 20 February 2005 |
| 05-201 | passenger ferry *Quickcat* and restricted passenger vessel *Doctor Hook*, collision, Motuihe Channel, 4 January 2005 |
| 04-219 | restricted limit passenger vessel *Tiger 111*, grounding, Cape Brett, 18 December 2004 |
| 04-217 | fishing vessel *San Rochelle*, fire and foundering, about 96 nm north-north-west of Cape Reinga, 27 October 2004 |
| 04-216 | passenger freight ferry *Aratere*, total power loss, Queen Charlotte Sound, 19 October 2004 |
| 04-215 | restricted limit passenger vessel *Southern Winds*, grounding, Charles Sound, Fiordland, 15 October 2004 |
| 04-214 | passenger freight ferry *Aratere*, loss of mode awareness leading to near grounding, Tory Channel, 29 September 2004 |
| 04-213 | restricted limits passenger ferry *Superflyte*, engine room fire, Motuihe Channel, Hauraki Gulf, 22 August 2004 |
| 04-212 | Fishing vessel *Iron Maiden*, foundered off Pandora Bank, Northland, 16 August 2004 |

Transport Accident Investigation Commission
P O Box 10-323, Wellington, New Zealand
Phone: +64-4-473 3112 Fax: +64-4-499 1510
E-mail: reports@taic.org.nz Website: www.taic.org.nz

Price $22.00 ISSN 1173-5597