

Accident Report

Thyme Fatality

New Plymouth Coast on 31 May 2004

KEEPING YOUR SEA SAFE FOR LIFE



Maritime Safety

MARITIME SAFETY AUTHORITY OF NEW ZEALAND
Kia Maanu Kia Ora



REPORT NO: 04 1108

VESSEL NAME: THYME

CASUALTY DETAILS:

Date of Casualty: 31 May 2004

Time of Casualty: 1930 hours New Zealand Standard Time

Casualty Type: Fatality

Casualty Location: New Plymouth Coast off Cape Egmont

Weather Forecast Area: Raglan

Investigator: Ian Howden



REPORT NO: 04 1108

VESSEL NAME: THYME

VESSEL DETAILS:

Ship Name: *Thyme*

Date of Build: 1973

Ship Category: Pleasure Yacht

Registered Length (m): 10.41

Registered Breadth (m): 3.25

Gross Tonnage: 15.31

Net Tonnage (t): 10.23

Flag: New Zealand

Registered Owner: F J & C E Butt
(The Butts were listed as the registered owners on 31 May but the vessel had already been sold to the Skipper)



SUMMARY

This report examines the events leading up to the foundering of the recreational sailing vessel *Thyme* off Warea, Taranaki Coast, on 31 May 2004. It seeks to establish what factors contributed to the accident and the primary cause based on the evidence gathered by the accident investigator during the accident investigation process. The report produces a number of recommendations, which the Maritime Safety Authority (MSA) believes will help prevent a recurrence of this tragic accident.

1. KEY EVENTS

- 1.1 On 30 May 2004 at approximately 1300 hours NZST (New Zealand Standard Time), the sailing vessel *Thyme* departed Nelson for a delivery voyage to Auckland. The intended route was up the west coast of the North Island. On board were the Skipper and three crew.
- 1.2 As *Thyme* cleared Farewell Spit, the calm weather conditions deteriorated with strengthening winds from the northwest, turning southwest. The vessel handled the conditions well under reduced sail. Three of the crew, including the Skipper, were seasick.
- 1.3 During the night, the mainsail was lowered due to westerly winds gusting 45 knots. Subsequently, the headsail was damaged. The vessel continued under bare poles with helm to lee making approximately 2 knots, on a heading of approximately 300°(T). This course took the vessel towards the Maui B platform, situated off Cape Egmont, North Island.
- 1.4 At approximately 1100 hours on 31 May, the crew of *Thyme* sighted the Maui B platform. The motor was started and VHF radio communication was made. Maui B advised they were recording winds of 45 to 50 knots and that winds were predicted to drop to 30 knots that evening.
- 1.5 After passing Maui B, the crew discovered the mainsail was inoperable due to the halyard having become wrapped around the mast steps. As all sails were now inoperable, and conditions were too rough to ascend the mast, or to change the foresail, a decision was made to alter course to 015°(M) (*magnetic*) 036°(T) (*true*), to make for Westgate, Port Taranaki, to effect repairs. The GPS (Global Positioning System) indicated *Thyme's* speed to be 6 knots and up to 8 knots whilst surfing.
- 1.6 Shortly after passing Maui B, Port Taranaki was contacted for enquiries as to port approaches.
- 1.7 At approximately 1800 hours, the Marina Operator in the Port was contacted for berthing and further approach information. *Thyme* did not have a chart of Port Taranaki on board, so the crew prepared a grid chart based on information obtained from the almanac and from communicating with port authorities.
- 1.8 As darkness fell, *Thyme* closed on the Taranaki Coast. The Skipper remained below, suffering from seasickness.
- 1.9 At approximately 1700 hours, when *Thyme* was approximately eight miles south west of Cape Egmont Light, the crewman on the last helm watch commenced his duties.

- 1.10 As *Thyme* closed on Cape Egmont, the crew member who was navigating, took a series of GPS readings and plotted these on the vessel's chart at about 30 minute intervals. Cape Egmont light was first raised 40° on the starboard bow.
- 1.11 At approximately 1800 hours, the navigator plotted *Thyme's* position as being approximately five miles from the coast, in 100 metres of water. The vessel was on a course of 041° (T). He instructed the helmsman to maintain a heading north of 041° (T).
- 1.12 At approximately 1830 hours, the navigator plotted *Thyme's* position as being approximately three miles off the coast and close to the 50 metre depth contour line. He again told the helmsman to hold a course to the left (north) of the vessel's course. He was also instructed to keep the moon clear on the starboard side of the vessel as the compass was difficult to observe from the helm.
- 1.13 Between 1830 hours and 1900 hours, a further plot was made, placing *Thyme* just outside the 30 metre depth contour line.
- 1.14 Shortly before 1900 hours, the navigator went below to plot *Thyme's* position. The helmsman observed a change in sea state to steeper seas with a different wave cap. Before the helmsman could tell the navigator of his concerns, the navigator observed a large breaking wave bearing down on the vessel.
- 1.15 At approximately 1900 hours, *Thyme* was struck by the large breaking wave as the vessel, unbeknown to the crew, had entered the surf line on the coast. The vessel surfed down the wave and then broached to port. *Thyme* then rolled at least 180° and possibly completed a 360° roll. On righting, approximately 30 to 40 cm of water was observed in the vessel. The motor had stopped running. One of the crew commenced operating the manually operated bilge pump.
- 1.16 At 1905 hours, *Thyme* issued a Mayday. This was acknowledged by Cape Egmont Maritime Radio who then passed it on to the MSA Maritime Operations Centre. The Centre was advised the vessel was sinking, and requested a position and number of people on board. A crewman however commented that there was no communication to the effect that the vessel was sinking and that no request was made for a position from Cape Egmont Maritime Radio. The following excerpt is taken from a transcript issued by MSA Maritime Operations Centre:

“1905 nzst Time(?) / ZMV2944 broadcast “Mayday, we have just been xxx (word unreadable) and are sinking. Cape Egmont Maritime Radio acknowledged and requested position and number of people on board. Time (sic) in position 39 14.1s 173 45.9e just off Egmont light, 4 people on board. Cape Egmont Maritime Radio requested twice what safety equipment Time

had on board – no response”. The crewmember who made the Mayday call advised this excerpt does not contain all of the content of the mayday call.

- 1.17 Before the Mayday was completed, a second wave struck *Thyme* causing the vessel to roll 360°. In the course of this, she lost her mast and with it her VHF communication. By this time, the liferaft had broken loose from the deck, became inflated and sustained damage. The canopy was torn off and the raft started to deflate, but remained tethered to windward.
- 1.18 Two of the crew hauled the deflating liferaft to leeward. One jumped on board whilst the other hauled the liferaft closer to *Thyme* to enable the remaining crew to board. When the Skipper came on deck the third crewman assisted him into a lifejacket by pulling it on over his head.
- 1.19 Whilst the Skipper and two remaining crew were on deck, *Thyme* was struck by several waves breaking over the deck and all three were swept over the side. The liferaft capsized and the crewman on board the liferaft was thrown into the sea. Three of the crew were able to reach the raft. The Skipper was lost in the heavy seas.
- 1.20 As the crew righted and then boarded the liferaft, they observed it was deflating rapidly. They called out for the Skipper but received no reply. One crewman thought he may have heard him but was not positive. They then cut the painter securing the raft to the sinking vessel and drifted clear.
- 1.21 As the liferaft was driven towards the coast, the crew were repeatedly pounded by heavy breaking surf. The raft was deflated and served only as an object to cling to and keep them together. The sea temperature of approximately 12° Centigrade was causing the onset of hypothermia.
- 1.22 At 1919 hours, the Taranaki Electricity Trust Search and Rescue Helicopter was tasked by NRCC (National Rescue Co-ordination Centre), in Wellington, to investigate the source of the Mayday.
- 1.23 At about 1940 hours, the crew, who were still clinging to the liferaft, were able to reach shore. The emergency equipment bag from the liferaft was taken from the raft. Shortly after, they sighted the helicopter and lit a hand flare they had taken from the emergency bag.
- 1.24 At 2001 hours, the helicopter advised NRCC it had sighted a flare on the beach.
- 1.25 At 2011 hours, a crewman from the helicopter was dispatched to the beach.
- 1.26 At 2021 hours, rescue services had located the three survivors on the beach and were advised the Skipper was missing.

1.27 At 2027 hours, the helicopter resumed searching for the Skipper. After approximately one hour his body was sighted on rocks approximately 100 metres from where the survivors were located.

1.28 The survivors were taken to New Plymouth hospital and treated for mild hypothermia.

N.B. The time of events noted above are estimates only, based on recorded times by SAR (Search and Rescue) data and the crew's recollections. Where there are inconsistencies between crew as to the time of events, an approximation has been made based on all data, including the estimated speed of the vessel.

2. KEY CONDITIONS

2.1 The Vessel

2.1.1 *Thyme* was an 11.58 metre 'Townson' design recreational wooden sailing vessel. She was designed by Des Townson and built in 1973, specifically for blue water cruising. The vessel's previous owners had completed a circumnavigation. Townsons are popular cruising vessels with large numbers in existence in New Zealand waters. The Skipper had the vessel professionally inspected on 26 April 2004. The inspection report stated *Thyme* was soundly constructed, using good trade methods, and was in good condition.

2.1.2 The Skipper purchased *Thyme* on 30 April 2004. Her purchase price was \$79 000. After this accident, she was declared a constructive total loss.

2.1.3 The Skipper completed a coastal voyage form before departure, with an ETA in Auckland, of 31 May.

2.1.4 The crew flew to Nelson on 28 May and spent two days preparing *Thyme* for the voyage. Thorough preparations and safety checks were made prior to departure.

2.1.5 The problems encountered with *Thyme's* rig and the condition of the crew were the primary reasons for attempting to enter Port Taranaki. The main halyard became inoperable after wrapping around the mast steps on the mast. The furling headsail had been damaged and was furled. The sea state prevented the crew from being able to go safely on deck, either to replace the jib or to ascend the mast to free the halyard. The Skipper had a new mainsail made for *Thyme* before departure. He also had the headsail inspected by sailmakers in Nelson. A small stitching repair was made. He was advised by the sailmakers that it was suitable for the voyage.

2.2 Navigational / Safety Equipment

2.2.1 *Thyme* was equipped with the following equipment:

Navigation:

- GPS (Type – Garman 45)
- Depth Sounder
- Radar – Type Koden 16 mile maximum range
- Charts on board included – NZ Charts 23-43-46-48-51-61-243-4314-614-615-6153
- Magnetic Compass (3)

- NZ Almanac
- Sumlogs (2)

Communications:

- Uniden VHF Radio
- Ham Radio
- Cellphone
- EPIRB (Emergency Position Indicator Radio Beacon)
- Single Sideband Radio

Safety Equipment:

- Fire Extinguisher
- Spare batteries for the VHF Radio and GPS
- Handheld Flares (3)
- Parachute Distress Rockets (2)
- Smoke flares
- Radar reflector
- Liferaft containing emergency pack type NZYF (New Zealand Yachting Federation) Cat 1
- Life jackets
- Storm jib and trysail
- Dan buoy

Standing orders were that crew on watch wore safety harnesses and either lifejackets or survival suits.

2.3 Owner and Crew

2.3.1 The Skipper of *Thyme* was an experienced yachtsman and a strong swimmer.

2.3.2 The crew of *Thyme* were as follows:

- Crew member 1 is an experienced yachtsman with offshore experience. He holds a Inshore Launchmaster (ILM) Certificate and a Coastal Yachtmasters Certificate.
- Crew member 2 is a highly experienced yachtsman with considerable offshore experience. He holds a Restricted Limits Launchmaster (RLL) Certificate and a Boatmaster's Certificate.
- Crew member 3 is an experienced recreational yachtsman with limited coastal experience.

2.4 Weather

2.4.1 Before their departure to Nelson, the Skipper and one crew went to the Auckland office of the New Zealand Metrological Service (MET) to obtain weather predictions for the following week. The vessel's departure from Nelson had originally been planned for 28 May. However, this was delayed due to a bad weather forecast. The crew stated the MET service advised the Skipper that the weather was due to clear on 30 May. A MET report had been downloaded on the night of 29 May. On 30 May at 0515 hours, the crew listened to the National Radio forecast. This predicted strong southwest winds moderating. It was considered these winds would ensure a rapid passage up the coast. Local skippers on the day of the vessel's departure advised the crew that weather patterns looked good for the intended passage.

2.4.2 MARINE WEATHER BULLETIN FOR NEW ZEALAND COASTAL WATERS

Forecast issued by Meteorological Service of New Zealand

AREA STEVENS

AT 1241 HOURS 30 MAY 2004
VALID UNTIL MIDDAY 31 MAY 2004

GALE WARNING IN FORCE

West of a line Farewell Spit to Hawera, northwest 20 knots becoming southwest 30 knots this evening and rising to 40 knots in the morning. Elsewhere, northwest 20 knots becoming southwest 25 knots in the morning. Sea becoming very rough in the west. Southwest swell in west rising to 4 metres. Northwest swell elsewhere rising to 2 metres. Poor visibility in showers this afternoon and again in the morning.

OUTLOOK FOLLOWING 12 HOURS: Southwest easing to 30 knots in the west and northwest 15 knots elsewhere.

AT 1637 HOURS 30 MAY 2004
VALID UNTIL MIDDAY 31 MAY 2004

GALE WARNING IN FORCE

West of a line Farewell Spit to Hawera: Southwest 20 knots, rising to 30 knots tonight and to 40 knots in the morning. Elsewhere: Northwest 20 knots, becoming southwest 25 knots in the morning. Sea becoming very rough in west. Southwest swell in west rising to 4 metres. Northwest swell rising elsewhere to 2 metres. Fair visibility in showers.

OUTLOOK FOLLOWING 12 HOURS: Southwest easing to 30 knots in west and northwest 15 knots elsewhere.

AT 0031 HOURS 31 MAY 2004
VALID UNTIL MIDNIGHT 31 MAY 2004

GALE WARNING IN FORCE

West of a line Farewell Spit to Hawera: Southwest rising to 40 knots this morning, easing to 30 knots in the evening. Elsewhere: Northwest 20 knots, becoming southwest 25 knots this morning. Very rough in the west. Southwest sea in the west, easing. Southwest swell in west 4 metres. Elsewhere: Northwest swell 2 metres easing. Fair visibility in morning showers.

OUTLOOK FOLLOWING 12 HOURS: Becoming westerly 25 knots throughout.

AT 0443 HOURS 31 MAY 2004
VALID UNTIL MIDNIGHT TONIGHT 31 MAY 2004

GALE WARNING IN FORCE

West of a line Farewell Spit to Hawera: Southwest rising to 40 knots this morning, easing to 30 knots in the evening. Elsewhere: Northwest 20 knots, becoming southwest 25 knots this morning. Very rough sea in the west, easing. Southwest swell in west 4 metres. Elsewhere, northwest swell 2 metres, easing.

OUTLOOK FOLLOWING 12 HOURS: Becoming westerly 25 knots throughout.

AT 1159 HOURS 31 MAY 2004
VALID UNTIL MIDDAY 01 JUNE 2004

GALE WARNING IN FORCE

West of a line Farewell Spit to Hawera: Southwest rising to 40 knots, easing to 30 knots this evening. Elsewhere: Southwest 25 knots tending northwest in the morning. Very rough sea in the west, easing. Southwest swell in west, 4 metres. Elsewhere: Northwest swell 2 metres easing. Fair visibility in morning showers.

OUTLOOK FOLLOWING 12 HOURS: Westerly 25 knots throughout.

2.5 Sea State

At 1800 hours on 31 May, the Maui B Platform, situated 31 miles southwest of Cape Egmont Light, was recording winds of 55 knots and a southwest swell of six to seven metres with the occasional ten metre wave. *Thyme* encountered confused seas off Maui B, coming from between the northwest and southwest. The predominant direction was from the southwest. One crewman estimated the wave height to be between 10 to 12 metres

2.5 Tide

- 2.6.1** The recorded tidal range for Port Taranaki on 31 May was 2.5 metres. A tide of 3.3 metres was predicted for 1928 hours.

2.7 Navigation

- 2.7.1** Navigation duties were delegated equally between the two most experienced crew.
- 2.7.2** On departure from Nelson, waypoints were entered on the chart, five miles east of Cape Farewell and two miles east of Maui B. Fixes were placed on the chart based on GPS readings throughout the passage. After the decision was made to attempt entry to Port Taranaki, a waypoint was entered on the chart four miles off the entrance to the Port.
- 2.7.3** The Latitude and Longitude read out of the GPS, when the Mayday was given, placed *Thyme* 2.7 miles NNE of Cape Egmont and 0.4 miles from the shore.
- 2.7.4** The crewman who was navigating before the foundering, stated the GPS indicated the vessel had ten miles to run to Port Taranaki. He estimated the vessel was approximately two miles offshore at that time. It was his intention to maintain a two-mile distance from shore on the run in to the Port.

- 2.7.5** The distance to Port Taranaki from the Mayday position was 17 miles. From this position, a different course was required to safely clear the coast. This was due to the curvature of the coastline to the east. From the estimated position at three miles from the coast, a course of 026°(T) was required to maintain a three mile clearance for at least a further five miles of the vessel's track. After five miles the curvature of the coastline would have safely allowed a more easterly course.
- 2.7.6** During the course of the investigation it was suggested that the crewman who entered the waypoint off Port Taranaki on the chart may, in error, have entered a different position to the south in the GPS. He may have entered a position of 39° 10' S 174° 00' E as opposed to 39° 00' S 174° 00'E. Position 39° 10' S 174° 00' E lies inland ten miles to the south of the intended waypoint and is 7.1 miles SSW of the port entrance. If this suggestion is correct it would explain why the crewman navigating from the GPS prior the foundering thought the vessel had less distance to travel to the entrance of Port Taranaki and why the course displayed on the GPS took the vessel in to the coast. The course to the incorrect waypoint lines up with the position where *Thyme* foundered.
- 2.7.7** The crewman who took the last helm watch at approximately 1700 hours, had difficulty viewing the compass and was told by the previous helmsman to keep "to the west of the moon" that was dead ahead when he took over helming duties. He stated that due to the necessity to avoid broaching from wave action it was not possible to stay on a steady heading. He considered an onshore current to have been an important factor in causing the accident.
- 2.7.8** Both crew on helming duties before the foundering, commented it was difficult to hold a steady course in the conditions and both stated there were times that the seas were on the starboard quarter. The compass course varied as much as 40° due to the movement of the vessel in the heavy seas.
- 2.7.9** The Skipper had stated earlier in the trip that he wished to clear the coast by at least five miles on the original northbound track. Based on *Thyme's* estimated track when she first came within five miles of the coast, a course of 018° (T) was required to keep five miles clear of the coast. One of the navigators commented he was unaware of the Skipper's intention to keep five miles clear.
- 2.7.10** The depth sounder was operational as *Thyme* approached the coast. However, it was not relied upon as it was considered that accurate readings could not be obtained due to the movement of the vessel in the heavy seas.
- 2.7.11** The radar was switched on. It had been checked in Nelson before sailing and found to be working satisfactorily. It was used in unsuccessful attempts to determine *Thyme's* position in relation to Cape Egmont. This was likely to have been due to the pitching and rolling of the vessel.

2.8 Taranaki Coast

2.8.1 The Taranaki coastline is characterised by shallow waters. In heavy seas breakers are encountered well offshore. The New Zealand Pilot states that between Port Taranaki and Cape Egmont, south west winds are dangerous to small craft and that seas break heavily on the coast during south west and northerly winds. Locals advise that an onshore current exists on the coast and that shallows extend some distance offshore.

2.8.2 A Yachting New Zealand (YNZ) Category 1 Inspector, who has considerable experience sailing on the New Zealand coast, commented on the lack of beacons and prominent landmarks on the coast, north of Cape Egmont. In a letter in the August publication of Boating New Zealand he commented on the loss of *Thyme*:

*“Timely reminder with regard to the loss of the yacht, **Thyme**, on 31 May 2004, off the Taranaki coast, just a few miles north of Cape Egmont lighthouse: this is a particularly dangerous stretch of the New Zealand coastline. It receives a lot of wave action all around and along its length, coming mostly from the Southern Ocean and bad weather in the Tasman Sea. This, with a wide, shallow, shelving, rocky bottom, extending way out beyond the surf line, requires great a deal of attention and careful navigation. The coast extends in a continuous arc without any recognisable headlands. It can be difficult to round in daylight and much more dangerous at night. This part of the passage should best be made during daylight. The surf line can be half a nautical mile offshore, depending on the tide level, and the surf and wave forming zone another half-mile beyond that. Vessels should pass along the coast at least two miles out from the shore. The local coastal road is not called Surf Highway for nothing”*

(With permission of Boating NZ and YNZ inspector)

He is aware of a number of small vessels that have been lost or damaged on the coast north of Cape Egmont. He considers a navigational beacon is needed at Paora Road (Punihoi district) due to the hazardous coastline north of Cape Egmont and the many unlit headlands and extending points of land on the low and extending shore.

2.8.3 Cape Egmont Light is located 33 metres above chart datum and has a nominal range of 19 miles. In good conditions it is visible to within eight miles of the entrance to Port Taranaki. It is obscured from vessels that navigate close to the coast from a point six miles to the north of Cape Egmont Light. It was not however obscured at the position where *Thyme* foundered. The next light north is the Mikotahi light located at the south west end of the Port breakwater. It has a nominal range of 10 miles and was not visible at the position of foundering.

2.9 Liferaft

2.9.1 *Thyme's* liferaft was a RFD Seasava 6 Plus model, manufactured in 1989. RFD Nelson serviced it on 19 May 2004, 12 days before she foundered. The liferaft was contained in a hard valise. Before departure the crew secured it to the deck. Holes were drilled through the deck and three stainless steel u-bolts with plates were installed. Heavy 30 millimetre (mm) nylon webbing was then used to secure the raft to the bolts.

2.9.2 As *Thyme's* liferaft deflated after deployment, the MSA commissioned an independent inspection to determine the cause of failure. On page four paragraph one of the report, the assessor observed the arch tube had been detached from the upper buoyancy chamber and explained how pressure would have been lost as a result. He was able to partially inflate the upper tube to determine if it was further damaged. On paragraph three he refers to a seven centimetre (cm) cut and abrasions on the lower buoyancy section on the outboard section of the raft. In reference to these cuts, he stated:

This would indicate that the liferaft, at some stage, had been dragged or swept over a sharp object such as rigging, with equal cutting edges. With a cut of this size in the buoyancy, any Co2 in the chamber would have been lost very quickly, deflating the lower chamber completely. There was also water in tube which would indicate the cut had happened at sea" (See Appendix 10 - Inspection report).

When first observed by the crew the canopy had been torn off possibly through contact with *Thyme's* rig.

2.9.3 When the emergency pack was opened on the beach it was found that seawater had entered the bags containing emergency supplies. The food was not edible due to saltwater saturation. RFD New Zealand Ltd advised that the rations, Seven Seas Oceans, were manufactured in Norway and SOLAS (Safety of Life at Sea) approved and certified.

2.10 Lifejackets

2.10.1 In total five lifejackets were forwarded to MSA after being recovered from the crew and from wreckage on the shore. Three of the jackets were Hutchwilco, Model 150N, Inflatable Life Jackets with 150 newtons of buoyancy. The other two were Hutchwilco, Model 402, Sheltered Waters Life Jackets. In addition, one durlon horseshoe ring was forwarded. The Skipper was wearing one of the inflatable jackets when last seen, however it was not on his body when recovered.

2.10.2 One of the crew who was also wearing the same model lifejacket, found that whilst he was being driven ashore by the seas, the lifejacket wrapped around his head and held his face up into the breaking waves, obstructing his breathing.

2.11 Seasickness

2.11.1 Three of the crew suffered from seasickness. The crewman who was not seasick had a headache, possibly due to dehydration. The Skipper was below for much of the trip, including a period of approximately 6 hours before the foundering. He was considered by the crew to have been very weak at the time of foundering, due to seasickness. One crewman commented that despite his condition he was quite lucid and seemed to be aware of the situation.

2.12 Discrepancies between items that were known to have been on board *Thyme* and items recovered from the wreckage are to be expected given the rough seas and the length of coast that debris was scattered. There were also reports of theft of items from the vessel.

3. CONTRIBUTING FACTORS

N.B. These are not listed in order of importance.

- 3.1 Heavy seas.
- 3.2 Reduced visibility.
- 3.3 Seasickness and tiredness effecting judgement.
- 3.4 Lack of awareness of the crew of the distance from shore of the surf line.
- 3.5 The inability of the Skipper to monitor the vessel's course.
- 3.6 Lack of familiarity with the vessel by the crew.
- 3.7 The failure of the navigator to monitor carefully the effect his instructions to the helmsman had on the vessel's course.

4. CAUSE

Human Factor

- | | | |
|--|--|--|
| <input type="checkbox"/> Failure to comply with regulations | <input type="checkbox"/> Drugs & Alcohol | <input type="checkbox"/> Overloading |
| <input checked="" type="checkbox"/> Failure to obtain ships position or course | <input checked="" type="checkbox"/> Fatigue | <input type="checkbox"/> Physiological |
| <input checked="" type="checkbox"/> Improper watchkeeping or lookout | <input type="checkbox"/> Lack of knowledge | <input type="checkbox"/> Ship Handling |
| <input type="checkbox"/> Misconduct/Negligence | <input checked="" type="checkbox"/> Error of judgement | <input type="checkbox"/> Other . . . |

Environmental Factor

- | | | | |
|---|---|------------------------------------|--|
| <input checked="" type="checkbox"/> Adverse weather | <input type="checkbox"/> Debris | <input type="checkbox"/> Ice | <input type="checkbox"/> Navigation hazard |
| <input checked="" type="checkbox"/> Adverse current | <input type="checkbox"/> Submerged object | <input type="checkbox"/> Lightning | <input type="checkbox"/> Other . . . |

Technical Factor

- | | | |
|---|---|---|
| <input type="checkbox"/> Structural failure | <input type="checkbox"/> Wear & tear | <input type="checkbox"/> Steering failure |
| <input type="checkbox"/> Mechanical failure | <input type="checkbox"/> Improper welding | <input type="checkbox"/> Inadequate firefighting/lifesaving |
| <input type="checkbox"/> Electrical failure | <input type="checkbox"/> Inadequate maintenance | <input type="checkbox"/> Insufficient fuel |
| <input type="checkbox"/> Corrosion | <input type="checkbox"/> Inadequate stability | <input type="checkbox"/> Other . . . |

4.1 The failure of the crew to navigate a safe distance from shore.

5. OPINIONS & RECOMMENDATIONS

5.1 Opinions

5.1.1 *Thyme* was a strongly constructed and well found vessel. Both the Skipper and crew made thorough preparations, both in terms of obtaining Met Service forecasts and preparing the vessel for a coastal voyage. She encountered heavy seas on the day of the foundering. Whilst the conditions were uncomfortable for the crew, the vessel was not in immediate danger.

5.1.2 There was no delegation of navigational duties to an individual crewman.

5.1.3 Voyage planning is an essential factor in safe coastal navigation. Whilst plots were being entered on a chart as *Thyme* closed with the Taranaki coast, they were being used to determine the vessel's position as opposed to ensuring she was maintaining a pre-determined course. The failure of the crew to plot a course that kept *Thyme* well clear of the coast and maintain such a course was a key cause of the accident.

5.1.4 The Mayday position was obtained from *Thyme*'s GPS. Whilst satellite derived positions are used extensively in modern navigation especially in conditions of limited visibility there are cases where inaccurate information has been obtained. It is more common however for accurate information to be incorrectly interpreted. Accordingly it is recommended that such information be used as an aid to navigation only in conjunction with other accepted methods of position fixing including radar, depth sounder and any other means available. It is acknowledged however that in extreme conditions, especially in small vessels, position fixing using methods such as compass bearings cannot always be utilized. Reliance on a single method of fixing position, especially close to shore, has lead to many groundings.

5.1.5 The instructions to the last helmsman to steer towards the moon and subsequently to keep the moon clear on the starboard bow would have contributed to *Thyme* being too close to the coast.

5.1.6 The crew failed to appreciate how close *Thyme* was to the Taranaki Coast as the vessel passed Cape Egmont Light.

5.1.7 It is difficult to judge distance from shore at night in conditions of reduced visibility and rough seas.

- 5.1.8** Many sailing vessels are now equipped with furling headsails. To drop a furling headsail the entire sail must be unfurled before it can be lowered. This procedure is difficult in extreme conditions and in the case of *Thyme* would have placed the crew in danger. Equally, attempting to ascend the mast to free the mainsail halyard in the conditions would have been foolhardy. Yachtsman should be aware that furling sails cannot readily be changed with adequate safety margins in extreme conditions and should consider what effect this may have on a vessel's safe operation. It is likely that had the headsail been easier to change and the mainsail halyard had not wrapped around the mast steps, *Thyme* would have proceeded north without attempting to enter Port Taranaki.
- 5.1.9** Based on the liferaft inspection report and the accounts given by surviving crew, it is likely that that failure of the raft to remain inflated was the damage caused by rigging or sharp objects, protruding from the deck or hull of the vessel. This is likely to have occurred as the vessel rolled and whilst the raft was inflating. The danger of a liferaft being damaged by a vessel's rigging or other objects on deck after inflation, is well known. Hydraulic forces, exerted by breaking seas, can place considerable pressure on liferafts positioned in exposed areas of a deck. Mariners should give careful consideration to the placement of rafts and method of securing with this in mind. It is important liferafts also be readily accessible and able to be released when required in emergencies.
- 5.1.10** It is not possible to determine how the Skipper's lifejacket became detached from his body or which of the jackets recovered from the scene of the wreck was his. It is believed the Skipper was wearing one of three Hutchwilco, model 150N, Inflatable manual Life Jackets that were recovered from the wreckage from the vessel.
- 5.1.11** The possibility of seasickness and tiredness compromising a crew's ability to properly perform their duties, is a factor that should always be taken into account on a voyage. Whilst it is not possible to determine the extent to which the crew's ability to safely navigate the vessel may have been affected, it is clear that the Skipper was incapacitated by seasickness and was not in command for considerable periods of time, including the crucial period as *Thyme* closed with the Taranaki Coast.
- 5.1.12** A common factor with delivery voyages is that the crew are often unfamiliar with vessel and its equipment. In such cases additional caution in all aspects of vessel operation is prudent.
- 5.1.13** It is possible that the loss of the mast may have been caused by it striking bottom as the vessel rolled. The mast would have been approximately 13 metres in height. The Mayday position put *Thyme* on the charted five-metre depth contour line.

5.1.14 During the course of the investigation it was suggested that the crewman who entered the waypoint off Port Taranaki on the chart may, in error, have entered a different position to the south in the GPS. He may have entered a position of 39° 10' S 174° 00' E as opposed to 39° 00' S 174° 00'E. Position 39° 10' S 174° 00' E lies inland ten miles to the south of the intended waypoint and is 7.1 miles SSW of the port entrance. If this suggestion is correct it would explain why the crewman navigating from the GPS prior the foundering thought the vessel had less distance to travel to the entrance of Port Taranaki and why the course displayed on the GPS took the vessel in to the coast. The course to the incorrect waypoint lines up with the position where *Thyme* foundered.

5.1.15 Thee surviving crew expressed their gratitude to Search and Rescue services who responded well to the emergency and are commended for their actions.

5.2 Recommendations

5.2.1 It is recommended that the Education and Communications Division of the MSA review this report and the Coroner's findings drawing the circumstances surrounding this accident to the attention of the yachting community and boat owners who undertake coastal voyages.

5.2.2 It is recommended that a copy of this report be sent to Coastguard Education for forwarding to all Coastguard Units and Tutors to highlight the dangers and consequences of operating a vessel too close to a lee shore

5.2.3 It is recommended that the MSA include a copy of this report on its website and in the next edition of the Recreational Accident Report book so that it be circulated as widely as possible throughout the maritime community.

5.2.4 It is recommended that the Safety Services Division of MSA give consideration to the placement of a navigational aid between Cape Egmont and Port Taranaki subject to a cost benefit analysis and historical groundings on this section of the coast.

5.2.5 It is recommended RFD review the packing of emergency supplies to determining if improvements can be made to better ensure the watertight integrity of emergency supply packs.