



VESSEL SIMILAR TO *BIG JOHNSON*

Accident Report

Big Johnson

Capsize resulting in

Fatalities

Pania Reef, Napier on 14 October 2004

KEEPING YOUR SEA SAFE FOR LIFE



Maritime Safety

MARITIME SAFETY AUTHORITY OF NEW ZEALAND
Kia Maanu Kia Ora



REPORT NO.: **04 1150**

VESSEL NAME: **BIG JOHNSON**

CASUALTY DETAILS:

Date of Casualty: 14 October 2004

Time of Casualty: 1730

Casualty Type: Capsize

Casualty Location: Pania Reef, Napier

Weather Forecast Area: Portland

Date MSA Notified: 15 October 2004

Date Investigation Started: 19 October 2004

Date Investigation Completed: 22 November 2004

Investigator: Andrew Hayton



REPORT NO: 04 1150

VESSEL NAME: BIG JOHNSON

VESSEL DETAILS:

Ship Name: *Big Johnson*

Date of Build: 1996 (approx)

Ship Category: Recreational

Overall Length (m): 4.75

Flag: New Zealand



SUMMARY

On the afternoon of 14 October 2004, *Big Johnson* departed Napier with four people onboard bound for Pania Reef. When over the reef, the Skipper dived for mussels. When returning to port, the boat's engine stopped after the key had been accidentally knocked out of the ignition. A large wave broke over the stern knocking the crewmembers off balance. A further wave hit and capsized the boat before the crew had time to call for help. The vessel sank.

The alarm was not raised until the next morning, more than 13 hours after the accident occurred.

Two men were rescued but unfortunately two men died.

1. KEY EVENTS

- 1.1 On Thursday 14 October 2004, at approximately 1545 hours New Zealand Daylight Time (NZDT), **Big Johnson** was launched from the Hawkes Bay Sports Fishing Club boat ramp at Ahuriri, Napier. In addition to the Skipper, there were three people onboard. The voyage plan was for **Big Johnson** to go to Pania Reef where the Skipper would dive for mussels. They planned to be back at the boat ramp by 1730 hours at the latest.
- 1.2 **Big Johnson** motored directly to the northern part of Pania Reef, which was approximately two miles offshore. En route to the reef, the Skipper accidentally knocked the ignition key and the engine stopped. He restarted it straight away and proceeded on passage.
- 1.3 Upon arrival at the reef, the Skipper steamed slowly over the reef looking for the best area to dive, referring to the vessel's depth sounder. When the Skipper had identified a suitable dive site, he donned his diving equipment and entered the water. Passenger 1 took over the role of helmsman. The Skipper had a surface float attached to him by a line so that the crew on **Big Johnson** could follow his progress. At one stage, whilst the Skipper was underwater, the crew anchored the vessel for a short time, but they picked up the anchor when the Skipper moved away from them.
- 1.4 At approximately 1645 hours, the Skipper surfaced and was brought back onboard **Big Johnson** along with the bag of harvested mussels.
- 1.5 Whilst Passenger 1 was assisting the Skipper to remove his diving equipment, Passenger 2 was at the helm of **Big Johnson** and the vessel commenced its voyage back towards Ahuriri at slow speed.
- 1.6 At approximately 1700 hours, whilst the vessel was still in the vicinity of the reef, Passenger 2 accidentally knocked out the ignition key thus stopping the engine. Immediately the engine stopped and the vessel slowed, a wave came over the stern of the vessel flooding it up to the height of the bulwarks. Passenger 1 pushed Passenger 2 to one side and attempted to restart the engine, but by not putting the throttle control into the neutral position first, was unable to do so.
- 1.7 Another wave struck the vessel and knocked the crew off balance with all except the Skipper ending up on the port side of the vessel. This caused the boat to list heavily to port and for the three crewmembers to fall into the sea. The Skipper managed to stay onboard and made an attempt to reach the VHF radio but did not have time to make a radio call before the radio was under water.
- 1.8 The three crewmen that were in the water hung on to the side of **Big Johnson** whilst the Skipper attempted to bail out the water. Shortly afterwards, the vessel capsized.

- 1.9 The Skipper and crew tried to right *Big Johnson* several times but the vessel kept turning over to port. The Skipper lashed the child's personal flotation device (PFD) and the two diving buoys to the low side of the vessel in an attempt to keep it above water, but this failed.
- 1.10 *Big Johnson* was floating in a capsized condition and the crew either held on to the vessel or treaded water in the vicinity of the vessel whilst they organised themselves. The Skipper passed a PFD to Passenger 2 and gave his Buoyancy compensation device (BCD) to Passenger 1. Passenger 3 was already wearing a PFD when he entered the water.
- 1.11 The men remained in the vicinity of *Big Johnson* until its hull was awash. As night time approached, the men made a joint decision to try and swim for shore.
- 1.12 At approximately 2130 hours, as they were not making much progress swimming as a group, it was decided that the strongest swimmers, the Skipper and Passenger 2, would go ahead and try and make it ashore to raise the alarm. For the first couple of hours, the two groups shouted out to each other at about 30 minute intervals to check on each others well being.
- 1.13 In the early hours of Friday 15 October, Passenger 3 passed away. Approximately 30 minutes later, Passenger 1 left Passenger 3 and continued his attempt to swim to shore.
- 1.14 At 0644 hours, the Police were called and informed that the crew of *Big Johnson* had not returned home the previous night. Napier Police became the On Scene Controllers.
- 1.15 At 0700 hours, Napier Police advised the local Coastguard unit, and a patrol car was dispatched to the Sports Fishing Club.
- 1.16 At 0727 hours, Napier Marine Radio broadcast a 'Mayday Relay' over VHF channel 16.
- 1.17 At 0730 hours, the Coastguard vessel left port. Approximately five minutes later the Coastguard Air patrol commenced its first sweep of Pania Reef. Other vessels to join the search were *Adrenalin*, *Big Kahuna* and *Queen Rune*.
- 1.18 At approximately 0800 hours, the Skipper passed away. His companion, Passenger 2, continued swimming towards the shore.
- 1.19 At 1003 hours the Port of Napier pilot vessel *Pania* joined the search.
- 1.20 At 1010 hours, *Queen Rune* rescued Passenger 2 from the water in position 39° 31.45' S 176° 59.4' E. He was able to tell *Queen Rune's* crew what

had happened. The sea and air search was concentrated in the vicinity of the rescue.

- 1.21 At 1015 hours, a helicopter was paged by the Police to assist in the rescue operation.
- 1.22 At 1034 hours, the Coastguard Air Patrol sighted an object in the water and dropped a smoke bomb close by as a reference mark. Shortly after a further smoke bomb was dropped when the Air Patrol spotted another object.
- 1.23 At 1041 hours, the Coastguard vessel arrived at the location of the first smoke bomb and rescued Passenger 1 in position 39° 32.2' S 177° 00.4' E.
- 1.24 At 1042 hours, a helicopter joined the search.
- 1.25 At 1047 hours **Big Kahuna** arrived at the second smoke bomb and recovered the body of Passenger 3 in position 39° 32.4' S 177° 00.7' E.
- 1.26 At 1204 hours the Coastguard Air Patrol sighted a person in water but lost sight of him in the sun. The plane found the body again at 1240 hours and dropped a smoke float.
- 1.27 At 1245 hours, **Big Kahuna** recovered the body of the Skipper in position 39° 34.00' S 177° 01.06' E.
- 1.28 At 1356 hours, the Maritime Operations Centre broadcasted a 'Seelonce Feenee' on VHF channel 16.

2. KEY CONDITIONS

2.1 Vessel Details

- 2.1.1** *Big Johnson* was a Senator 470 type, manufactured by Senator Boats of Napier. It was a pontoon type vessel with a length overall of 4.75 metres (m) and a beam of 1.81m. The vessel's approximate weight was 200 kilograms and it was approximately 8 years old.
- 2.1.2** The vessel was jointly owned by the Skipper and another person who was not aboard the vessel at the time of the accident. They had owned the vessel for approximately 12 months.
- 2.1.3** The vessel was powered by a 1996 Suzuki 65 horsepower (HP) outboard that had been fitted about a year earlier.
- 2.1.4** The manufacturers recommended horsepower for this vessel was 50 HP but the vessel was rated for engines between 30 and 70 HP.
- 2.1.5** The vessel was constructed from marine grade aluminium and had a hull thickness of four millimetres. The pontoon thickness was three millimetres. It was fully welded.
- 2.1.6** The manufacturer gave the vessel a 'maximum safe loading' of five adults.
- 2.1.7** *Big Johnson* carried two adult personal flotation devices (PFD) and one child's PFD. Also onboard were a wet suit and a divers buoyancy compensator device (BCD).
- 2.1.8** The vessel was fitted with a fixed Very High Frequency (VHF) radio and a Global Positioning System.
- 2.1.9** The vessel was fitted with an electric bilge pump.
- 2.1.10** The pontoon type of construction provided three separate trapped air buoyancy chambers within the pontoons, one in the bow and one on either side. In addition, there was a trapped air buoyancy chamber beneath the floor plate.

2.2 Crew Details

- 2.2.1** The Skipper, aged 48 was a joint owner of the vessel. He held no commercial maritime qualifications. He was an experienced Skipper and diver.

2.2.2 The other crewmembers were Passenger 1, aged 46, Passenger 2 aged 19 and passenger 3 aged 50. All had had previous experience onboard recreational boats.

2.2.3 When the crew found themselves in the water, the Skipper was wearing shorts, a wetsuit and booties. The wetsuit was a type featuring cut off sleeves. He was not wearing a PFD. Passenger 3 was wearing a T-shirt, shorts and a PFD. Passenger 1 was wearing a T-shirt, shorts and the BCD. Passenger 2 was wearing a T-shirt, shorts and a PFD.

2.2.4 None of the crewmembers were carrying a cell phone or other means of communication on their body.

2.3 Weather Details

2.3.1 The weather forecast for the Port of Napier issued at 1012 hours Thursday 14 October included a 'Forecast for Napier Harbour area for today, tonight and tomorrow'. It forecast:

"Fine and warm again today with strong gusty westerly quarter winds, easing a little this afternoon and tending more southwesterly. Tomorrow, fine and warm again with strong gusty northwesterlies developing and high cloud."

Southern Hawkes Bay Area:

<i>Today</i>			<i>Tomorrow</i>		
	Winds	Wave		Winds	Wave
Morning	W/15-25 gust 35	1.0m	Morning	NW/15-25 gust 35	1.0m
Afternoon	W-Sw/15-25 gust 30	1.0m	Afternoon	NW/15-25 gust 35	1.0m
Evening	W-SW/15-20	1.0m	Evening	NW/15-25	1.0m
Night	W/15-20	1.0m	Night	NW/15-25	1.0m

(wind speed in knots, significant wave heights in metres)

2.3.2 The weather forecast for the Port of Napier issued at 1704 hours Thursday 14 October included a 'Forecast for Napier Harbour area for today, tonight and tomorrow'. It forecast:-

Fine tonight and tomorrow with fresh to strong gusty northwesterlies and high cloud.

2.3.3 The weather forecast for the Port of Napier issued at 0817 hours, Friday 15 October included:-

Southern Hawkes Bay Area:

Today

Tomorrow

	Winds	Wave		Winds	Wave
Morning	NW/10-15	1.0m	Morning	NW/15-25 gust 35	1.0m
Afternoon	NW/15-20	1.0m	Afternoon	NW/10-15	1.0m
Evening	NW/15-25 gust 30	1.0m	Evening	NE/5-10	1.0m
Night	NW/15-25 gust 35	1.0m	Night	NW/10	1.0m

(wind speed in knots, significant wave heights in metres)

2.3.4 The Port of Napier has an anemometer located within the port. At the time when **Big Johnson** was launched, the recorded wind direction was 270°(T) and the wind speed was between 25 and 35 knots.

2.3.5 According to the Port of Napier anemometer, at the approximate time of **Big Johnson** capsizing, the wind direction was 290°(T) and the wind speed was between 26 and 35 knots.

2.3.6 During the night of 14/15 October, the wind was recorded to have remained in the direction of between 320°(T) and 340°(T). The wind speed started to decrease at approximately 2100 hours and, after varying between 8 and 18 knots, became calm at 0400 hours. At approximately 0430 hours, the wind speed began to increase, reaching a maximum of between 16 and 30 knots from a direction of between 240°(T) and 340°(T) at 0700 hours. The wind then veered to a direction of 020°(T) and decreased to between 4 and 17 knots until the rescue operation was completed.

2.3.7 The water temperature was 14°C.

2.4 Maritime Rules

2.4.1 Maritime Rule Part 91.4 **Personal Flotation Devices** states:-

(1) No person in charge of a recreational craft may use it unless there are on board at the time of use, and in a readily accessible location, sufficient personal flotation devices of an appropriate size for each person onboard.

(2) Rule Part 91.4 (1) and (6) shall not apply to:-

(c) a diver on board a boat of 6 metres or less in length overall that is used for recreational diving within 5 miles of shore, if a full body dive suit is worn at all times.

There is no definition of a full body dive suit within Rule Part 91.

3. CONTRIBUTING FACTORS

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

- 3.1 ***Big Johnson*** was not carrying the number of lifejackets required by Maritime Rule Part 91.4 – Personal Flotation Devices, although there was a divers BCD onboard and the Skipper was wearing a dive suit.
- 3.2 The ignition key was located in a position where it could be easily knocked out by crewmembers, thus stopping the engine.
- 3.3 The weather both as forecast and experienced was marginal for a vessel of ***Big Johnson's*** size.
- 3.4 The delay in raising the alarm to authorities meant that no rescue operation was commenced until more than 13 hours after the men had entered the water.
- 3.5 The crew were lightly clothed.

4. CAUSE

Human Factor

<input checked="" type="checkbox"/> Failure to comply with regulations	<input type="checkbox"/> Drugs & Alcohol	<input type="checkbox"/> Overloading
<input type="checkbox"/> Failure to obtain ships position or course	<input type="checkbox"/> Fatigue	<input type="checkbox"/> Physiological
<input type="checkbox"/> Improper watchkeeping or lookout	<input type="checkbox"/> Lack of knowledge	<input checked="" 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 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 checked="" 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 checked="" type="checkbox"/> Inadequate stability	<input type="checkbox"/> Other . . .

- 4.1** The cause of the accident was that the vessel was hit by a wave whilst the engine was stopped, flooding the vessel and knocking the crewmembers off their feet. The vessel became unstable and capsized.

5. OPINIONS & RECOMMENDATIONS

5.1 Opinions

- 5.1.1 The Skipper underestimated the sea conditions prior to leaving harbour.
- 5.1.2 The Skipper returned to his home at lunchtime to collect the boat and his diving gear. He told his daughter that he was going diving for mussels after work because they were finishing at 3pm.
- 5.1.3 *Big Johnson* has not been located or recovered; it is therefore not possible to establish how it sank.
- 5.1.4 *Big Johnson* did not have enough lifejackets onboard for all of the crew. It was however within 5 miles of shore and so therefore complied with Maritime Rule 91.4 in regard to the Skipper wearing a dive suit.
- 5.1.5 There is no definition in Maritime Rule Part 91.4 as to what constitutes a 'full body dive suit'.

The Investigator has been unable to find a written definition of the term 'full body dive suit'. Such a term is widely used by outfitters, although it can refer to suits that are either buoyant (typically neoprene-type materials) and non-buoyant (typically lycra). Underwater NZ has a working definition for their purposes:

'an overall-type garment (which may be one or two pieces) that finishes at the ankles, neck and wrists and is of 5mm or more in thickness'.

Maritime Rule Part 91 provision is aligned with Maritime Rule Part 40A, appendix 8 (Code of Practice for Safety of Boats of 6 Metres or Less Engaged in Recreational Diving Operations) section 11.1(2)(b). This is noted in the Advisory Circular to Part 91. There is a slight variation in wording – Part 40A refers to 'full body **wetsuit**', whereas Part 91 refers to a 'full body **dive suit**'.

5.2 Recommendations

- 5.2.1 The Maritime Safety Authority media department should issue a press release reminding the need for recreational boat Skippers, and others in the boat, to inform somebody ashore of where they are going and when they expect to return. If a vessel carries some means of communication, such as a hand held VHF or cell phone, any revision in the return time should be given. In referring to this accident, there is a strong possibility that lives could have been saved had the alarm been risen earlier.

- 5.2.2** It is recommended that the Maritime Safety Authority give consideration to inserting an explanation of full body dive suit in the Advisory Circular to Maritime Rule Part 91.
- 5.2.3** It is recommended that Land Information New Zealand (LINZ) consider adding tidal stream diamonds to the navigational chart 'Approaches to Napier' (NZ 571), if sufficient tidal information is available to do so. This would greatly assist incident controllers to be able to plot set and drift in the area.
- 5.2.4** It is recommended that a copy of this report be sent to the manufacturer's of the boat, pointing out the ease with which it was possible to knock and disengage the ignition key.