

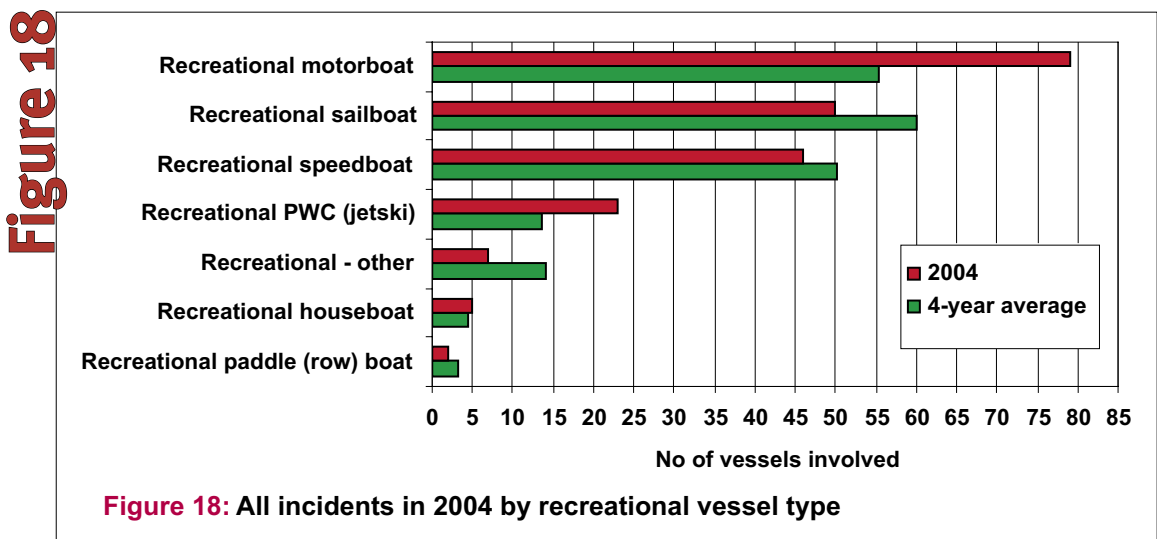
3. Selected marine incident profiles

3.1 Incidents involving recreational vessels

To provide a context for considering the involvement of recreational vessels in marine incidents, there were 189,833 recreational vessels registered in Queensland as at 31 December 2004, an increase of 5.28 per cent in the year compared with an increase in 2003 of 4.88 per cent and in line with the previous four-year average annual increase of 5.36 per cent. Recreational vessels represent 97 per cent of Queensland’s total registered vessel fleet.

Recreational speedboats, that is, boats capable of planing, make up 84.35 per cent of all registered recreational vessels. It is also noted that while recreational personal water craft (jet skis) represent only 4.2 per cent of all registered recreational vessels, their numbers grew in 2004 by nearly 19 per cent compared with an overall increase in registered recreational vessel numbers of 5.28 per cent. Recreational sailing vessels make up approximately 3.25 per cent of all registered recreational vessels in Queensland. Recreational motorboats make up approximately 12.4 per cent of all registered recreational vessels in Queensland.

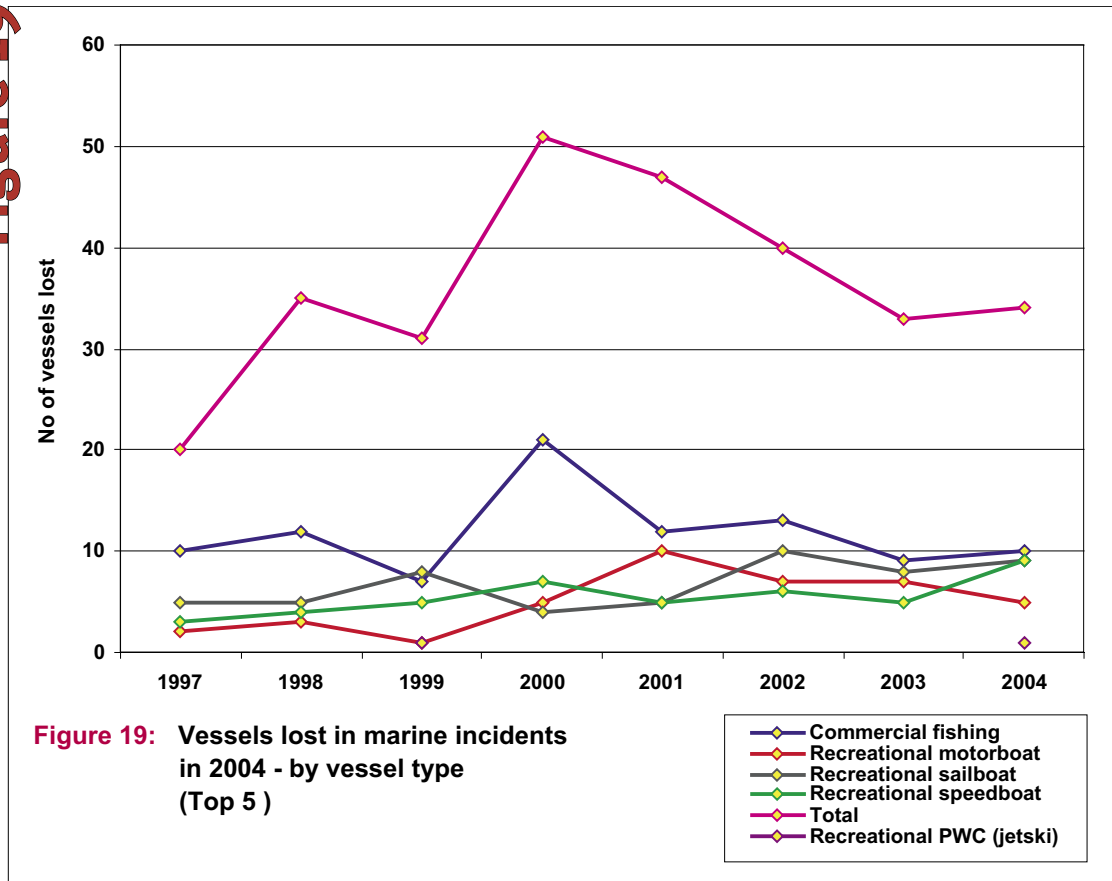
In 2004, recreational vessels were involved in 212 (34.3 per cent) of the 618 reported marine incidents in Queensland—up marginally on their four-year average involvement in 200.75 incidents. Figure 18 shows the relative involvement of the different types of recreational vessels in the 212 recreational marine incidents, together with their previous four-year average involvement in incidents.



More than 60 per cent of the incidents involving recreational vessels occurred in the daytime, in clear weather and good visibility. Fifty seven per cent of the incidents resulted in the vessels being damaged. Approximately 45 per cent of the incidents occurred in smooth waters, 15 per cent in inland waters and the remaining 40 per cent in partially smooth and offshore waters. A little over 58 per cent of the reported recreational incidents occurred in the Brisbane and Gold Coast regions. This level of recreational vessel incident involvement in these two regions is in line with their 57+ per cent share of the state’s registered recreational vessel fleet.

The number of recreational vessels lost in marine incidents in 2004 is also noteworthy. Figure 19 shows clearly the over-representation of recreational vessels in the ‘ship lost’ incident outcomes for 2004. Of the 34 vessels lost in all reported marine incidents in 2004, 24 (70.5 per cent) were recreational vessels – nine recreational sailing vessels, nine recreational speedboats, five recreational motorboats and one recreational jetski. The number of recreational vessels lost is nonetheless consistent with the previous four-year average of 23.75 recreational vessels lost. Recreational sailing vessels lost continue to be over-represented compared with the previous four-year average for lost sailing vessels.

Figure 19



Recreational vessels were involved in 24 FSI incidents in 2004—55.8 per cent of all the reported FSI incidents in Queensland compared with 53.5 per cent in 2003. However, the number of recreational vessel FSI incidents was marginally under-represented when compared with the four-year average of 23.25 units of involvement. Recreational vessel incidents resulted in five (41.6 per cent) of the 12 marine incident fatalities recorded in 2004. Of the 37 serious injuries recorded in 2004, 25 (67.5 per cent) resulted from incidents involving recreational vessels.

Recreational speedboats and recreational jet skis were the two most involved classes of recreational vessel in FSI incidents in 2004. There were eight FSI incidents involving recreational speedboats, marginally under-represented when compared with their previous four-year average involvement of 10.75. Recreational speedboat incidents in 2004 resulted in four fatalities and seven serious injuries. There were eight FSI incidents involving recreational jet skis reported in 2004 resulting in ten serious injuries. The number of FSI incidents involving recreational jet skis was up in 2004 compared with the one incident reported in 2003 and a previous four-year average involvement in four FSI incidents per year.

Lack of jet ski experience leads to serious injuries

The vessel: Recreational jet ski

The incident

A recreational jet ski was being ridden close to shore by an unlicensed rider. The rider was wearing an appropriate PFD and had the ignition cut-out cord attached. The owner of the jet ski, a licensed operator, was observing from the beach.

While manoeuvring, the jet ski rider was thrown forward hitting his face on the jet ski and falling into the water. The ignition cut-out cord did its job and the jet ski stopped.

The owner immediately swam out to the rider and pulled the semi-conscious rider to shore. The rider had obvious head injuries (his face was blue).

Members of a nearby surf club attended the injured rider and administered oxygen pending the arrival of an ambulance which took the rider to hospital. The rider sustained a fractured eye socket and a fractured neck.

Subsequent investigation revealed that the owner had not checked whether the rider was licensed prior to allowing him to operate the jet ski. Neither did the owner display a Ride Smart sticker. He also failed to complete a Marine Incident Report within 48 hours of the incident.

Safety insights

- Jet skis, because of the nature of their operation and their operational capabilities require that riders be skilled and competent to ride a jet ski (the earlier-mentioned jet ski licensing initiative addresses this issue).
- Unlicensed riders should only operate a jet skis under the direct supervision of a licensed rider who is able to take immediate control as necessary. Observation from the beach does not satisfy 'direct supervision' obligations.
- The regulatory requirement to display a Ride Smart sticker is to visibly reinforce jet ski operational safety requirements — to both licensed and unlicensed riders.
- Masters are required to report marine incidents to a shipping inspector within 48 hours of an incident occurring.



Recreational motorboat involvement in FSI incidents in 2004 was in line with their previous four-year average involvement in four FSI incidents per year. While no fatalities were recorded from recreational motorboat incidents in 2004, there were five serious injuries recorded.

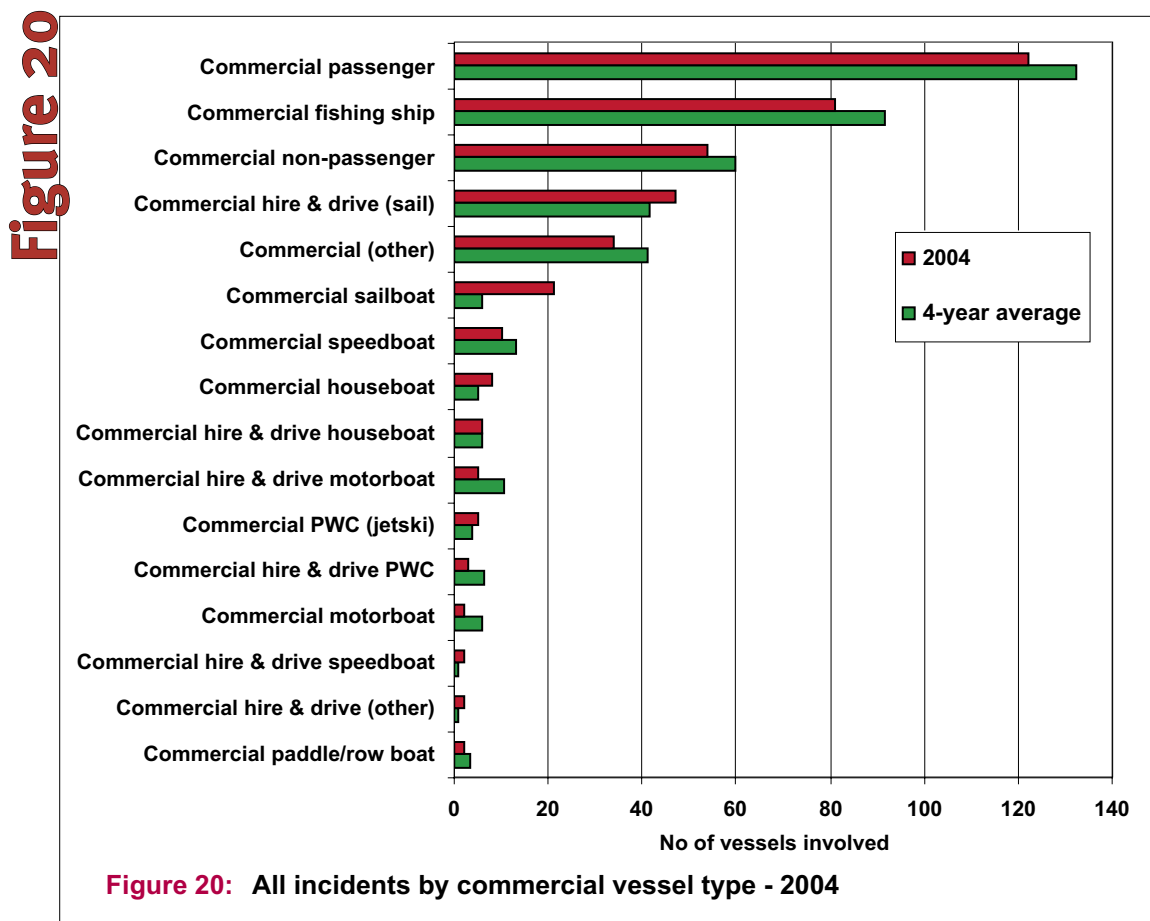
Analysis shows that the predominant characteristics of recreational vessel incidents involving fatality and/or serious injuries in 2004 were, as expected, incidents occurring in fair-to-good visibility, daylight hours, smooth waters and clear conditions. These factors were involved in more than 54.5 per cent of recreational vessel FSI incidents.

A significant proportion of the state's total boating activity is concentrated in South-East Queensland. Combined, the Brisbane and Gold Coast regions account for more than 57 per cent of the state's registered recreational vessel fleet. Despite this concentration and the extensive associated recreational boating activity in the south-east sector of the state, only 51 per cent of total recreational vessel incidents involving fatality or serious injury in Queensland occurred in South East Queensland. While there were no recreational boating fatalities recorded in either region, there were 18 serious injuries reported – eight in the Gold Coast region and ten in the Brisbane region. With such concentrated boating activity, the involvement of recreational vessels in FSI incidents in South East Queensland will continue to be monitored with a view to targeting compliance and educational initiatives in this area.

3.2 Incidents involving commercial vessels

The number of registered commercial vessels has been steadily increasing over the last five years (with 1.8 per cent growth in 2004), as shown earlier in Figure 11. In 2004, commercial vessels represented 3.02 per cent of Queensland's registered vessel fleet, but were involved in 401 (65 per cent) of the

year's 618 reported marine incidents. Figure 20 shows the relative involvement of the different types of commercial vessels in marine incidents in 2004, together with their previous four-year average involvement in incidents.



Looking at the more serious marine incidents, commercial vessels were involved in 19 (44.2 per cent) of the State's 43 FSI incidents in 2004—below their four-year average involvement in 30.75 FSI incidents.

Seven fatalities resulted from marine incidents in 2004 involving commercial vessels, compared with two fatalities in 2003 and a previous four-year average fatality rate of four. Of the 19 FSI incidents in 2004 involving commercial vessels, five involved vessels capsizing, five involved onboard incidents including four crushing incidents and four involved a person overboard. Two of the commercial vessel FSI incidents involved a person being struck by the vessel or its propeller.

The most frequently represented commercial vessels in FSI incidents in 2004 were commercial fishing vessels. There were seven commercial fishing vessel incidents resulting in four fatalities and three serious injuries. This compares with only two commercial fishing vessel FSI incidents in 2003 and a previous four-year average of 7.25 commercial fishing vessels involved in FSI incidents. Two of the fishing vessels capsized and sank, with three men perishing as a result. The other commercial fishing ship fatality was the result of a skipper becoming entangled in the vessel's drum winch and getting crushed. The three serious injuries were the result of an onboard fall while the vessel was operating, a person going overboard and another crushing incident.

The next most frequently involved commercial vessels were commercial passenger vessels. There were five FSI incidents involving commercial passenger vessels in 2004. These five incidents resulted in one fatality and four serious injuries. The five commercial passenger vessel FSI incidents included a speed-related collision between two vessels in which one of the operators lost his life, a collision between a commercial passenger vessel and a fixed object, two personal injury incidents, and one person overboard incident.

Commercial water taxi fatal collision

The vessels: A six-metre commercial water taxi and a nine-metre semi-displacement recreational cruiser

The incident

A water taxi and a recreational cruiser were approaching each other along a navigable channel at twilight. Conditions were calm and although visibility was reasonable, light was fading. The water taxi, with only the master aboard, was travelling at a speed several witnesses estimate at around 35 knots. The cruiser, also with only the master aboard, was proceeding at around 6 knots. Both vessels had their navigation lights on.

The master of the cruiser observed the water taxi heading directly towards him. So he made a small alteration to starboard. The water taxi seemed to mirror his course change and continue towards the cruiser. The cruiser master then made a series of small alterations to port then to starboard, as the water taxi continued to seemingly alter course each time to head towards the cruiser. While making a starboard course alteration, the vessels collided.

The master of the water taxi was killed by the impact, and thrown into the water. The master of the cruiser was not physically injured, but was treated for shock at the scene.

Safety insights

- Masters need to keep a proper lookout by sight and hearing to adequately assess the risk of a collision and to then act positively and noticeably to avoid a collision.
- The use of all available resources such as radios, lights and whistles/horns may also reduce the likelihood of collisions.
- Vessels should be operated at a speed commensurate with prevailing light conditions and visibility to enable sufficient reaction time to minimise the risk of a collision.



There were ten commercial vessels lost as a result of marine incidents in 2004. Notably, all ten were commercial fishing vessels. Two of these incidents resulted in two fatalities.

From the perspective of regional involvement in commercial vessel FSI incidents, it is noteworthy that the Cairns region recorded eight of the 19 FSI incidents in 2004, compared with a zero result in 2003. FSI incidents in the Cairns region in 2004 resulted in two fatalities and six serious injuries. Brisbane and Gold Coast regions each recorded two fatalities in 2004 as a result of commercial vessel incidents. Gladstone region recorded one commercial vessel fatality in 2004.

In 2004, 10 (52.6 per cent) commercial vessel FSI incidents occurred in offshore waters. This is in line with the relative involvement of commercial vessels in FSI incidents in offshore waters in the previous four-year period (10).

Commercial fishing dangers



The vessel: 7 metre aluminium commercial fishing vessel

The incident

A commercial fisherman was killed while fishing alone in coastal waters. His vessel, fitted with a rear control console and powered by dual gohp outboard motors, was found drifting off Marcoola Beach. The vessel had a forward-mounted, mechanically-powered net drum. The deceased fisherman was discovered entangled in the nets that were wound around the net drum. The actual cause of death and factors contributing to the incident are not known as there were no witnesses. It appears that the man became caught up in the net whilst it was being retrieved.

Safety insights

- Sole operation of any vessel is inherently dangerous, particularly in situations where emergency assistance may be required.
- Masters must ensure that their vessel is not only safe to operate, but appropriately equipped and crewed to meet the likely risks of the intended task or voyage.
- Commercial fishing is a dangerous occupation. Fishers need to be mindful of the risks, particularly the high risk of entanglement while net fishing, and to go beyond minimum safety standards, particularly when sole-operating.
- Fishers should always be personally equipped with the tools necessary to cut away fishing equipment.
- The wearing of a lifejacket and a personal EPIRB is highly recommended for any sole person operation of a vessel.
- Hydraulic equipment on vessels should be fitted with safety guards and automatic cut-off switches, to prevent or minimise injury.

3.3 Incidents involving a person overboard

In 2004 there were 18 reported marine incidents involving a person overboard. Despite being under-represented when compared with the previous four-year average involvement of 22.75, these incidents are significantly over-represented in terms of their outcome. While the 18 reported person overboard incidents represent only 2.9 per cent of the 618 reported marine incidents in 2004, they account for 25 per cent of the marine incident fatalities recorded in 2004. This follows the 57 per cent representation of person overboard incidents in marine incident fatalities in 2003.

Seven of the 18 person overboard incidents in 2004 occurred in offshore waters and four of these incidents resulted in two fatalities and two in serious injuries. There were four person overboard incidents in smooth waters and four in partially smooth waters.

Of the 18 person overboard incidents reported, 13 involved commercial vessels and five involved recreational vessels. Four of the six recorded fatalities and serious injuries from person overboard incidents in 2004 resulted from incidents involving commercial vessels.

Human factors such as inattention and alcohol and drugs were identified as contributing to more than 77 per cent of the 18 reported person overboard incidents, with drugs and alcohol identified as contributing to more than 27 per cent of these incidents. More than 66 per cent of the reported person overboard incidents occurred in clear weather, good visibility and light to moderate wind conditions.

Persons overboard from recreational speedboat

The vessel: A three-metre aluminium recreational speedboat

The incident

Four boys aged between 10 and 11 years were using a small tinnie to tow each other around Tallebudgera Creek on a rubber tube. Three of the boys were in the tinnie and the fourth on the rubber tube. All of the boys were well under the licensing age for recreational boat operation and there were no licensed persons supervising the operations of the tinnie. The tinnie, which should have been registered, was not registered.

Two of the boys took turns at operating the vessel. Some of their manoeuvres were quite erratic. One had just taken the controls when the tinnie suddenly turned and started doing circles in the water. The boy at the controls was thrown forward whilst the other two were thrown into the water. In the process the boy on the rubber tube became entangled in the tow rope and was pulled underwater.

The tinnie's motor eventually cut out. The two boys thrown from the vessel made their way back into the vessel, pulled the tube in and managed to free the entangled boy who, up to this point, was still underwater. The boy thrown forward sustained a deep cut to his head.

The boys paddled the tinnie ashore and were helped by the resident of a nearby house. The Ambulance Service attended and transported two of the boys to hospital – one for stitches to his head and the other for shock. Neither were admitted to hospital.

Safety insights

- Unlicensed persons should not be operating a recreational speedboat, except under the direct supervision of an appropriately licensed person.
- Vessels being used for towing a skier or similar towing activity must be operated by an appropriately licensed person. There must also be an observer in the vessel who is at least 12 years of age.



3.4 Incidents involving jet skis

In December 2000 there were 3,348 registered recreational jet skis in Queensland. There were a further 166 jet skis registered for commercial use. At that time jet skis represented approximately 1.7 per cent of the total registered vessel fleet in Queensland.

At the end of December 2004 there were 7,956 recreationally registered jet skis and 229 commercially registered jet skis in Queensland, representing a 133 per cent increase in numbers over the four-year period. Growth in registered jet ski numbers in 2004 alone was in excess of 18 per cent, compared with five per cent for registered vessels generally. Jet skis currently make up approximately 4.2 per cent of all registered vessels in Queensland.

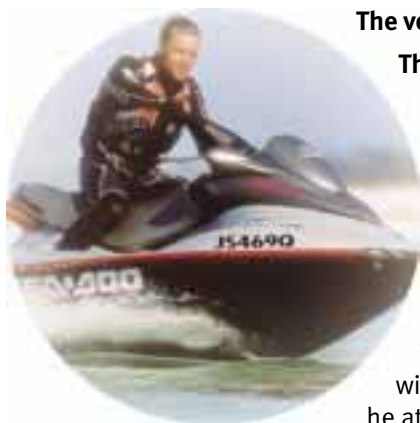
Historically, jet skis have not figured significantly in reported marine incidents. To some extent, this is likely to have been as a result of under-reporting rather than an absence of incidents. In 2004, there was a noticeable increase in the number of reported jet ski incidents. This increase is considered to reflect both an improvement in the level of reporting and heightened media coverage given jet skis and jet ski issues in 2004. During the year there were a number of high profile media reports about incidents involving jet skis.

As mentioned in section 2.4.4, following a comprehensive review of jet ski operations in Queensland, the government has introduced a multi-faceted jet ski management plan. As well as the mandatory jet ski licensing components of the plan, effective from 1 January 2006, MSQ has also ramped-up its jet ski safety education and on-water enforcement programs.

In 2004, there were 31 reported marine incidents involving jet skis in Queensland. This compares with the 18 jet ski incidents reported in 2003 and a previous four-year average of 23.75 jet ski incidents. Human factors were identified as contributing to 78 per cent of the 31 reported jet ski incidents in 2004, with inattention, human operator error and excessive speed the most frequently identified contributing factors. More than 58 per cent of the reported jet ski incidents involved collisions, either with another vessel, with the shore or with some other fixed structure. The majority (55+ per cent)

of jet ski incidents occurred in smooth waters and an average of 70 per cent of the incidents occurred between the hours of 7:00am and 5:00pm, in clear weather conditions, nil to light winds and in good visibility. Almost 78 per cent of the incidents occurred in south-east Queensland. In terms of the types of jet skis involved, 23 were recreationally registered jet skis, five were commercially operated jet skis and three were commercial hire jet skis.

Jet ski misadventure



The vessel: Recreational jet ski

The incident

Around sunset, two friends decided to have some fun on their jet skis in the waters of Keppel Bay near Great Keppel Island. The weather was less than favourable - winds were strong, seas were rough and darkness was approaching.

Somewhere between Great Keppel Island and Pelican Island one of the jet skis broke down. It appears the other jet skier did not have visual contact with his friend and was therefore unaware of the breakdown.

The master of the broken down jet ski remained with his vessel until the wind and current brought him close to Pelican Island. After reaching shore, he attempted to hold the jet ski in the choppy waters of the foreshore. But he eventually succumb to the strong current and prevailing wind and the jet ski drifted away.

Meanwhile, the other jet skier attempted to locate his friend. With darkness approaching and having no success in locating his friend, he reported his friend missing to the local volunteer marine rescue group. After spending the night on the foreshore the stranded jet skier was located and picked up by a Search and Rescue helicopter the next morning. While he was unharmed by his misadventure, his jet ski was never located.

Safety insights

- Trip-planning is critical to any boating adventure, and must take account of the range of prevailing conditions including sea, wind, visibility and light/time conditions.
- Trip-planning also involves ensuring that vessels are seaworthy for the intended trip, and that all the necessary safety equipment is available and accessible – to deal with any potential emergency that might arise.
- The jet ski operators in this instance should have maintained visual contact with one another. Doing so would have obviated the need for a costly search and rescue operation, and would likely have avoided the loss of the jet ski.

Turning to the more serious marine incidents, there were eight such jet ski incidents reported in 2004 that resulted in serious injuries. These eight incidents resulted in 10 serious injuries requiring hospitalisation. While jet skis currently comprise only 4.18 per cent of all registered vessels in Queensland, in 2004 jet ski incidents made up nearly 18.6 per cent of reported incidents resulting in fatality or serious injury. While there has only been one recorded jet ski incident fatality in Queensland (in 2000), jet ski incidents are increasingly resulting in serious injuries. Of the 10 serious injuries sustained in reported jet ski incidents in 2004, seven resulted from collisions, and three from falls or the way in which the jet skis were operated. Seven of the eight serious injury incidents occurred in the Brisbane and Gold Coast regions. Almost 100 per cent of the serious injury incidents occurred in what would be deemed ideal operational conditions.

Of the 10 persons injured, six were jet ski riders and four were passengers. Two of the injured passengers were children and two were female passengers in a speedboat with which a jet ski collided.

Six of the jet ski riders were appropriately licensed and four were unlicensed – a 16 year old male, a 17 year old male, a 22 year old female and a 30 year old male. The jet ski riders involved in the eight serious injury incidents ranged in age from 16 years to 50 years. The average age of all the riders involved was a little over 32 years – with two riders under 20 years of age (both unlicensed), four between 21 and 30 years, and four between 31 and 50 years.

In view of the high public profile of jet ski issues, the recent rise in the number of reported jet ski incidents and the soon to be implemented suite of government jet ski management initiatives, the involvement of jet skis in marine incidents will continue to be monitored and reported annually.

3.5 Incidents occurring in offshore waters

The offshore category is one of four incident location descriptors and includes waters beyond designated smooth and partially smooth waters off the Queensland coast. In 2004, 123 (20 per cent) of the state's 618 reported marine incidents occurred in offshore waters. Of these incidents, 16 resulted in eight fatalities and 11 serious injuries. This represents a significant over-representation in the proportion of FSI incidents in offshore waters compared with the five offshore FSI incidents reported in 2003 and the previous four-year average of 14.5 offshore FSI incidents.

Not unexpectedly, the prevailing wind and weather conditions and visibility for the 123 reported offshore marine incidents varied significantly. For the 16 reported FSI incidents in offshore waters nearly 50 per cent occurred in otherwise favourable conditions.

There were 20 vessels involved in the 16 reported FSI incidents in offshore waters in 2004. The vessels most frequently involved were:

- Commercial fishing vessels (7)
- Recreational speedboats (4)
- Recreational jet skis (3), and
- Commercial motorboats (2)

Commercial fishing vessels continue to be over-represented in offshore incidents often with severe outcomes in terms of fatalities and ship losses. In 2004 there were six FSI incidents involving commercial fishing ships. These incidents resulted in four fatalities, two serious injuries and two ships lost. A further two commercial fishing ships were lost in non-FSI incidents in offshore waters.

Commercial fishing ship and master lost in shipping channel incident

The vessels: Class 3B offshore commercial fishing ship and a commercial trade ship/freighter

The incident

Around midnight a commercial fishing ship was trawling off the John Brewer Reef area near Townsville. The ship's master and one deckhand were onboard — both very experienced seamen. The deckhand was on watch while the master was sleeping. Just before midnight the deckhand noticed a large ship on the radar at about 4-6 nautical miles. He went to wake up the master to prepare to winch up the nets. On returning to deck he noticed the green sidelight and white masthead light of a large ship, much closer than he expected. By the time he ran back to warn the master that a collision was imminent, the trawler's nets became fouled by the freighter and the trawler was dragged under the water, stern first. The deckhand jumped overboard but the master was lost with his ship.

The master of the freighter was aware of the presence of fishing vessels in the area but did not consider the likely risk of a collision. While the freighter took some avoidance actions when a collision was imminent, he failed to sound signals of warning or course alteration. Neither did the freighter make radio contact with any of the fishing vessels at any time.

Safety insights

- Masters need to keep a proper lookout by sight and hearing to adequately assess the risk of a collision and to then act positively and noticeably to avoid a collision.
- Extra vigilance is required where vessels are restricted in ability to manoeuvre, for example, fishing ships when trawling and trading ships because of the time they take to change course or stop.
- The use of all available resources such as radios, lights and whistles/horns may also reduce the likelihood of collisions.



Recreational speedboats were also over-represented in offshore FSI incident in 2004. There were four single-vessel recreational speedboat incidents reported as occurring in offshore waters in 2004. These four incidents resulted in three fatalities, four serious injuries and the lost of one of the vessels.

There were a total of 13 vessels reported as lost as an outcome of the 123 reported offshore waters incidents in 2004. Nine of these were recreational vessels including six recreational sailing boats, two recreational speedboats and one recreational motorboat. The remaining four ships lost were commercial fishing vessels.