



Accident Report
Serious Harm Injury to Passenger
aboard Dolphin Discovery V
4 January 2010



Maritime New Zealand

Maritime New Zealand (MNZ) is a Crown Entity appointed under section 429 of the Maritime Transport Act 1994, with the responsibility to promote maritime safety, security and the protection of the marine environment.

Section 431 of the Maritime Transport Act sets out MNZ's functions. One of those functions is to investigate and review maritime transport accidents and incidents.

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Glossary

IP	Injured Passenger
m	Metre(s)
MNZ	Maritime New Zealand
NW	North West
SSM	Safe Ship Management

Summary

1. A passenger sustained a serious harm injury whilst on the 24 metre vessel ***Dolphin Discovery V***. The trip departed Paihia in the Bay of Islands and was bound for an area near Cape Brett called “the hole in the rock. After viewing this area the vessel then headed back towards the more sheltered area of the trip. The weather conditions near the hole in the rock were poorer than those found further inshore. As a result of the weather and swell conditions the vessels bow started to rise and fall. There were several passengers situated on the bow deck at this time, one of which was thrown to the deck as a result of the movement where she suffered a serious harm injury.



Figure 1 *Dolphin Discovery V*

Event

2. On 4 January 2010 the passenger vessel ***Dolphin Discovery V*** departed Paihia bound for “The Hole in the Rock” near Cape Brett in the outer Bay of Islands
3. The weather conditions at the time were moderate sea 1 to 1.5m NW swells taken on the starboard bow, and wet decks. In a report from the owners of the vessel, Explore NZ, they state that the skipper said it was a *marginal day*.
4. The skipper told all passengers to sit down if they were not steady on their feet. The bow deck was left open to adults only. They were told to hold onto the hand rails and that if, at any stage, they would like the boat to stop, to raise their hand to the skipper in the wheelhouse.
5. Once all passengers were comfortable, the skipper proceeded to pick up speed and leave the Hole in the Rock, heading for Urupukapuka. Four minutes after leaving the Hole in the Rock, a passenger on the starboard side bow fell after leaving the deck due to the motion of the vessel. There was a scream and the skipper stopped the boat after being signalled from the bow deck by passengers.
6. Passengers then crew helped bring the passenger inside and First Aid was applied. Shore base was called and an ambulance was arranged to meet the vessel at Paihia. The injured passenger sustained a fractured foot (in three places) and returned home to the United Kingdom for surgery.

Investigation

7. Investigation of the injured passenger's statements and the accident scene were completed and interviews were held with the General Manager of the company Explore NZ, the skipper, the Senior Skipper/SSM Manager, and the mate.
8. The injured passenger (IP) stated that she returned to the bow deck of the vessel with her husband after finishing a coffee inside. They were informed that the vessel would not transit through the hole in the rock as there was too much swell.
9. The skipper headed away from the island and started to accelerate the bow started to rise and fall due to the swell height encountered at the time. The IP states that it was like "*being on a big dipper making your stomach turn*". Shortly after this she said her feet left the deck and she could not let go of the rail to signal to the skipper as requested.
10. At the time another male passenger was also on the bow deck. He was standing one step up from the IP and her husband. He said the skipper announced that he would close the bow deck if it got too rough, the passenger thought that things were already pretty rough, he was soaked through with spray.
11. He heard the IP scream as the bow lifted and fell and immediately went to her aid when he realised she had fallen.
12. She landed very heavily on her feet and fell to the deck. The vessel was slowed, she was retrieved through the door into the cabin with the aid of other passengers and crew.



Figure 2 Bow deck of vessel

Injury

13. The IP sustained severe Lisfranc fracture dislocation of the tarsal metatarsal joints of the left foot. Ongoing surgery and rest will be required for up to six months.
14. Her Medical Specialist states that she is likely to develop post traumatic arthritis in the long term.

Findings

At the time of the investigation.

15. Inadequate communication between skipper and crew
 - skipper cannot see all of the foredeck from the helm station and has to rely on communication from the crew, which in his own admission was inadequate on the day in question; anecdotally a significant number of the passengers were suffering from motion sickness.
16. Passenger Safety Briefings
 - passengers have complained that weather warning was not communicated until vessel had left the berth.
 - passengers have stated that insufficient details of expected weather conditions were given, and that if they had been made fully aware of these conditions they would have either not gone on the trip and/or stood on the bow in the rough weather.
 - passengers commented that safety briefings were vague and lacked essential detail.
17. Passenger Supervision
 - There was no close monitoring of the foredeck during the period of rough weather conditions.
 - passengers located in areas not visible from the helm and were unsupervised
18. Skipper Concerns
 - had during various meetings recommended to management that crew levels be increased to 4 for over 75 passengers, but no action has been taken.
 - no induction training is provided to new crew members.
 - Instructed to sail on several occasions without extra skipper when carrying over 100 passengers, as per requirements.
 - concerns have been raised at informal safety meetings, but no minutes are kept and no action taken.
19. Skipper Judgement
 - skipper admitted he made wrong call on the day and in hindsight should have closed the foredeck.
 - immediately following the accident, company management altered the weather parameters (i.e. acceptable wave height) in the operating procedures.

Recommendations

20. It is recommended that Explore NZ implements the following:
- a) Improved communication systems which enable the skipper to be fully aware of passenger whereabouts and welfare at all times. This would allow for two way communication with crew.
 - b) Passenger Safety Briefings are fully reviewed for effectiveness and to include:
 - i) Timeliness of delivery i.e., before passengers embark
 - ii) Full details of all relevant trip information
 - iii) Effective communication to non-English speaking people.
 - c) Crew operating procedures are reviewed to include improved monitoring and supervision of passengers at all times, particularly in hazardous areas and when in adverse conditions.
 - d) Crew training procedures are reviewed to include:
 - i) Induction training prior to first joining the vessel
 - ii) On-going training plans for all crew members.
 - e) Effectiveness of safety meetings to be reviewed to include:
 - i) Changes to the frequency of the meetings
 - ii) Employee participation
 - iii) Agreed action plans to effect improvements going forward
 - iv) Safety meeting minutes to be logged and retained.

Outcomes of the Investigation process

21. A meeting was convened between Explore NZ and MNZ to discuss the above recommendations and agree action plans. All of the recommendations were implemented and the company was inspected at the end of May 2010 to ensure compliance.
22. Explore NZ have displayed a positive and cooperative attitude throughout the investigation, welcomed the recommendations and have quickly implemented improved safety procedures and practices.
23. The company and their vessels will be closely monitored by Maritime New Zealand to ensure their ongoing safe operation over the 2010/11 summer season.