

Letters to the Editor

Accident rates at a busy diving centre

Dear Editor,

The Poor Knights Islands in Northland, New Zealand, is a world-famous, temperate-water, diving tourism destination, popularised many years ago by Jacques Cousteau. By far the largest dive operator there is *Dive! Tutukaka*, with five vessels carrying up to 30 divers, operating on a regular basis throughout the year. *Dive Tutukaka* is required to keep a detailed, daily vessel manifest. Thus, the number of divers is known accurately and all incidents are recorded by the Skipper or the Chief Divemaster on board. Although all dives are logged (time in, time out and maximum depth for every diver) and kept permanently, these data were not utilised for this brief report. Each customer does two dives on a trip and there are between one and four divemasters on board who may do one, two or more dives a day (van der Hulst G, unpublished observations). Thus the accident rate per diver is known, and it is assumed that the rate per dive is very close to half this figure. In addition, under health and safety regulations all non-diving injuries both on shore and on board are documented, but these will include some non-divers.

For the three financial years between July 2005 and 14 June 2008, 32,302 customers dived with *Dive! Tutukaka*, approximately 63,000 dives (a small minority did only one dive). Over the same period, there were an estimated 7,600 dives conducted by the divemasters. The injuries documented during this time are shown in Table 1. There were seven cases of decompression illness (DCI), a rate of about 1 per 10,000 divers (0.5 per 10,000 dives). Two of the seven DCI cases involved serious neurological injury. There was one further possible case of DCI who did not seek medical advice. If this diver is included then the rate is 1.14 per 10,000 divers. More minor diving injuries and incidents occurred at a rate of approximately 2 per 10,000 divers.

Non-diving injuries occurred rarely, the most common being various musculo-skeletal injuries to staff, requiring time off work. Many of these were secondary to lifting and carrying heavy diving equipment, particularly dive tanks. This indicates an area where improved practices by staff could be achieved.

We believe these injury data are robust and provide an accurate picture of a single, mainstream, international tourism diving centre in temperate waters, and indicate a low rate of injury, comparable to the international literature.

Michael Davis, MD, Christchurch Hospital, and
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Table 1
Dive! Tutukaka incidents July 2005 to June 2008.
(figures in parenthesis are customer injuries)

| | Diving injuries | Divers |
|--|------------------------------------|-----------|
| | Ear barotrauma (Bt)* | 5 (3) |
| | External ear infection | 1 |
| | Tooth Bt | 1 |
| | Pulmonary Bt [†] | 3 |
| | Decompression illness [‡] | 7 (4) |
| | Other (panic, rapid ascent) | 3 (3) |
| | Total | 20 |

| | Ship-board | Dock/Dry land |
|----------------------------|--------------|---------------|
| Non-diving injuries | | |
| Musculo-skeletal strains | 3 (1) | 10 |
| Lacerations | 4 | 0 |
| Eye – petrol/solvent | 0 | 2 |
| Chest injury | 2 (2) | 0 |
| Total | 9 (3) | 12 |

*3 customers – vertigo and balance problems, ?inner ear Bt
with ear Bt – tympanic membrane rupture
– tooth and middle ear (possible DCS)

[†]2 pulm Bt cases were admitted to the local base hospital

[‡]2 DCI cases involved serious neurological injury
1 other possible case of DCI did not seek medical help

Key words

Letters (to the Editor), accidents, recreational diving, decompression illness, decompression sickness, data

Monarchy and the Republic

Dear Editor,

I must have missed the news item that Lee Kwan Yu had been made King of Singapore (Royal Singapore Navy).¹ Last time I was in Singapore, admittedly last year, the money was marked Republic of Singapore. When Jimmy How ran the naval diving unit more than 20 years ago he was in the REPUBLIC of Singapore Navy!

John Knight

Life Member and previous Editor, SPUMS Journal

Editor's comment: The present Editor apologises for any offence to Drs Chong and Tan of the Republic of Singapore Navy that may have been given, and assures readers he is not a monarchist.

Reference

- 1 Chong SJ, Tan TW. Cerebral arterial gas embolism in a diver using closed-circuit rebreather diving apparatus. *Diving and Hyperbaric Medicine*. 2008; 38: 46-7.

Key words

Letters (to the Editor), corrections