The world as it is

An estimate of the risk of fatal shark attack whilst diving in Western Australia

Peter Buzzacott

Key words
Marine animals, deaths, epidemiology

Abstract
(Buzzacott P. An estimate of the risk of fatal shark attack whilst diving in Western Australia. *SPUMS J*. 2005; 35: 92-4.)

Many divers reassure themselves that they are more likely to perish by bee sting or lightning strike than by shark attack. Methods of estimating exposure to risk amongst scuba divers are described. The risk of a fatal shark attack whilst scuba diving in Western Australia is estimated to be less than one in three million dives.

Introduction

Though the absolute risk of a fatal shark attack whilst diving in Western Australia (WA) cannot be calculated with certainty, the likelihood is assured to be less than if there were twice as many attacks as reported, and the number of dives made in WA fewer than is conservatively estimated. By this method the likelihood can be given as “less than…” an estimate of the risk in the worst imaginable case.

Number of shark attacks

A review of the Western Australian newspapers indexed by Factiva found just one report of a diver being attacked by a shark during the last decade. The Taronga Park Zoo Australian Shark Attack File records one fatal attack on a scuba diver during the last ten years, and one on a diver using surface-supplied air (hookah) during the decade prior to that (personal communication, West J, 3 December 2004). In the interests of estimating the risk conservatively, we may consider it unlikely that there are more than two fatal shark attacks upon divers per decade in WA, and that only one is reported.

Number of divers

In 2000 the Australian Bureau of Statistics (ABS) conducted the Participation in Sport survey and found that 30,700 Western Australian divers had made dives during the previous year.1 In 2002, however, the next ABS Participation in Sport survey found only 17,200 Western Australian divers had made dives during the previous year.2 Differing methodology probably accounts for the estimated number of divers almost halving in two years. In 2000 people were asked, in four quarterly surveys, to choose sports in which they had participated from a list, whereas in 2002, during autumn only, they recalled sports from memory.

Methods of estimating numbers of dives

In the Orkney Islands dive-boat operators record the number of boat dives made, whilst shore dives are reported by local dive centres.3 With just two dive centres in the Orkneys it is easier to count dives there than it is in WA. At L’Esartit on the Mediterranean coast personal interviews were conducted at popular dive sites by researchers.4 This is a similar method to both a study conducted since 1996 in Japan, and to a study completed on Saba, a Caribbean island.3,6 With 10,000 km of coastline this method would be difficult to use in WA. Studies in the United Kingdom cited membership of the British Sub-Aqua Club and the Scottish Sub-Aqua Club when estimating exposure, though there are reservations about the completeness of this strategy.7,8 It is not known what proportion of divers in WA belong to dive clubs.

Possibly the most reliable method for determining exposure within a defined area is to count air-fills supplied. This method was used in the US military community on Okinawa Island, Japan, where treatment records of the hyperbaric chamber were compared with the number of air-fills recorded.9 A similar method was employed in the Northern Arabian Gulf to measure the frequency of decompression sickness within a population of commercial divers making scuba dives.10 In Victoria air-fills were used to determine the number of recreational dives made during one year, in a monthly telephone survey of 46 dive centres.11 Likewise, air-fills supplied by dive centres were counted during a 14-month survey of dive centres in British Columbia.12

Research into the number of dives made by divers in WA alone has not been identified. In a survey of charter-boat divers in the Florida Keys, just 54% reported making fewer than 25 dives within the previous year.13 In Great Britain, a prospective survey of 100 asthmatic divers recorded 12,697 dives over five years, averaging just over 25 dives each per

http://archive.rubicon-foundation.org
year. Surveys of British Sub-Aqua Club members in 1986 and 1990 found mean annual diving rates of 22 and 33 dives per year respectively. In Geneva, a survey of 215 dive-club members found a mean of 28 dives made during the preceding six months, while a survey of 29 Australian dive clubs, four of which were in WA, found 346 divers averaged 39 dives per diver per year overall. This latter statistic is higher than found elsewhere and may reflect the high number of diving professionals within these clubs.

**Diving exposure in Western Australia**

The Recreational Diving Taskforce was appointed in WA in 1999, and tasked with analysing the accident and injury data for Western Australian scuba divers. The taskforce reported “...there is no mechanism to collate information on dive activity, e.g. tank fills, as part of a statewide database on recreational diving in Western Australia.” (p.11) before conceding “It has not been possible to quantify nor qualify the degree of exposure to risk in the industry” (p.12). The aforementioned British Columbia study managed a participation rate of 65%.

Taking the estimate of 30,700 divers in 2000 as the most accurate to date, and allowing for an annual population growth of 1.4%, we might reasonably expect there to be 32,500 divers in WA today.

Unless the mean number of dives made annually by Western Australians significantly differs from the populations surveyed in the above studies, then it is likely the average number of dives made in WA each year by Western Australians is no fewer than 15 to 20 per diver. If 32,500 divers make no fewer than 17 dives per year in WA then local divers account for at least 550,000 dives per year.

Between March 2000 and March 2003 there were, on average, 1.45 million visitors to Western Australia per year, not including interstate and day visitors. If the proportion of this visiting population who dive is approximately equal to the proportion of Western Australians who dive, which in 2001 was 31,100 divers out of 1,826,676 Western Australians within Australia on the night of the last census, then 25,000 of the visitors to WA each year made dives during the preceding year.

A survey of visitors to the southern half of the state between 1999 and 2002 found that, whilst on holiday in Australia/ WA, 48% of international visitors had engaged in a sport or activity such as scuba diving, golf and/or fishing during their visit. When domestic visitors were added the overall sports participation rate fell to 32%. If we accept that 25,000 visitors per year are divers and, on average, at least 32% will take either one single-dive or one double-dive trip during their stay, then a further 12,000 or more dives are made in WA each year by visiting divers.

At last count there were 50 dive centres operating in WA, certifying more than 9,000 people each year and generating at least an additional 40,000 dives. Therefore, the estimated number of dives made in WA each year is no fewer than 550,000 by locals, 40,000 by trainee divers and staff, and at least 12,000 by visitors, totalling no fewer than 600,000 dives per year in WA.

**Results**

If the number of fatal shark attacks on divers in WA is estimated as above at less than 0.2 per year, and no fewer than 600,000 dives are estimated to be made in WA each year, then the risk of a fatal shark attack while diving in WA is less than one in three million dives (1:3,000,000).

**Discussion**

It cannot be known for certain how many divers are killed by sharks in WA each decade. It is possible, though unlikely, that fatal attacks remain unreported in either the media or the Australian Shark Attack Files. The 2001 census did not account for Western Australians who were overseas for the night of the census, so the population of WA may be slightly higher than the denominator used to estimate popularity of diving amongst residents. The number of international visitors to WA is calculated by surveying visitors at airports as they are leaving, missing international visitors travelling by other means. The number of interstate visitors is generated by telephone survey. The proportion of visitors who dive may differ significantly from the proportion of Western Australians who dive.

There were 8,900 Professional Association of Diving Instructors (PADI) certifications issued in WA during 2003 (personal communication, Oliver D, 31 January 2005). The total annual number of certifications is likely to be higher than this as other training providers certify divers in WA.

If a risk of shark attack as low as this fails to reassure, then nervous divers might consider the adage: if you dive with a buddy, your own risk of an attack feels immediately halved.

**References**

5. Nakayama H, Shibayama M, Yamami N, Togawa S,
I couldn’t believe the figure when I first heard it. Unforgivably, I thought Pat Oates, the Secretary of the Scuba Industries Trade Association (SITA), must at least have added a stray nought, so that when she said “nearly 400,000”, she actually meant “nearly 40,000”. Even 40,000 seemed such a lot. But I should not have doubted her – when she said 400,000, she meant it.

I refer to the number of names on the petition which SITA, UK diving’s trade body, launched in 2003 to test feeling on discriminatory airline baggage allowances. The latest figure is 409,925 and it’s still growing. SITA has been helped in reaching this dizzy number in part by enlisting the help of PADI and gaining access to its membership lists...[section deleted]...SITA has had its critics, but three cheers to the diving trade for standing up and taking action. It is now contacting the airlines to seek real concessions for you, so if you haven’t signed the petition already, visit <www.sita.org.uk> and download a form.

More than 400,000 names should be enough to light bulbs in the dimmest airline marketing exec’s brain. That’s a lot of bums on seats, with or without a few extra kilos of dive gear.

Steve Weinman

Editor’s note: This is an international effort to allow concessions for diving equipment carried on international air flights to diving destinations. Many SPUMS members have been charged for excess baggage on flights to ASMs or on other diving trips. Readers are invited to support this effort.

Peter Buzzacott, BA, is a PADI Master Instructor. He is currently researching Western Australian scuba diving injuries at the School of Population Health, University of Western Australia, for a Master of Public Health Degree.

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SPUMS notices and news

South Pacific Underwater Medicine Society Diploma of Diving and Hyperbaric Medicine

Requirements for candidates

In order for the Diploma of Diving and Hyperbaric Medicine to be awarded by the Society, the candidate must comply with the following conditions:

1. The candidate must be medically qualified, and be a financial member of the Society of at least two years’ standing.
2. The candidate must supply evidence of satisfactory completion of an examined two-week full-time course in Diving and Hyperbaric Medicine at an approved Hyperbaric Medicine Unit.
3. The candidate must have completed the equivalent (as determined by the Education Officer) of at least six months’ full-time clinical training in an approved Hyperbaric Medicine Unit.
4. The candidate must submit a written proposal for research in a relevant area of underwater or hyperbaric medicine, and in a standard format, for approval by the Academic Board before commencing their research project.
5. The candidate must produce, to the satisfaction of the Academic Board, a written report on the approved research project, in the form of a scientific paper suitable for publication.

Additional information

The candidate must contact the Education Officer to advise of their intended candidacy, seek approval of their courses in Diving and Hyperbaric Medicine and training time in the intended Hyperbaric Medicine Unit, discuss the proposed subject matter of their research, and obtain instructions before submitting any written material or commencing a research project.

All research reports must clearly test a hypothesis. Original basic or clinical research is acceptable. Case series reports may be acceptable if thoroughly documented, subject to quantitative analysis, and the subject is extensively researched and discussed in detail. Reports of a single case are insufficient. Review articles may be acceptable if the world literature is thoroughly analysed and discussed, and the subject has not recently been similarly reviewed. Previously published material will not be considered.

It is expected that all research will be conducted in accordance with the joint NHMRC/AVCC statement and guidelines on research practice (available at http://www.health.gov.au/nhmrc/research/general/nhmrcavc.htm) or the equivalent requirement of the country in which the research is conducted. All research involving humans or animals must be accompanied by documented evidence of approval by an appropriate research ethics committee. It is expected that the research project and the written report will be primarily the work of the candidate.

The Academic Board reserves the right to modify any of these requirements from time to time. The Academic Board consists of:
Dr Chris Acott, Education Officer, Professor Des Gorman and Associate Professor Mike Davis.

All enquiries should be addressed to the Education Officer:
Dr Chris Acott,
30 Park Avenue
Rosslyn Park
South Australia 5072
Australia
E-mail: <cacott@optusnet.com.au>

Key words
Qualifications, underwater medicine, hyperbaric oxygen, research

Minutes of the SPUMS Committee Meeting held in Sydney on 30 October 2004

Opened: 1020 hr
Present: Drs R Walker (President), C Meehan (Secretary), M Davis (Editor), A Patterson (Treasurer), D Walker (Committee Member), D Smart (ANZHMG Representative)
Apologies: Drs G Williams (Immediate Past-President), C Acott (Education Officer), S Mitchell, C Lee (Committee Members)

1. Minutes of the previous meeting (May/June 2004)
Moved that the minutes be accepted as a true record, after minor corrections.
Proposed Dr M Davis, seconded Dr A Patterson, carried.

2. Matters arising from the minutes
2.1 Improving our Internet cost effectiveness
Dr R Walker gave an update on the new SPUMS website being developed by SQUIZ Pty Ltd. Dr Walker will attend a training session in November. One other committee member may need to do the same.

2.2 There was some discussion regarding the SPUMS Journal CD and ways to improve it. Giving the CD to new members as part of a joining package was also discussed. This would require an increase in membership
fee and this would have to be proposed at the AGM by the Treasurer. The earliest this could be effective would be 2006.

2.3 It is planned to publish the constitution and to put the diving doctors list on the website. The constitution is to be scanned and retyped.

3 Update from the Editor, Dr M Davis
A journal report was presented. Sarah Webb has officially resigned from the New Zealand Medical Journal. Dr Mike Davis has suggested that SPUMS withdraws from that office. Dr Davis will continue the SPUMS editorial work on the computer at the HBU. Dr Davis sought permission from the Committee to form an editorial board and noted that this may have a financial cost. The Treasurer, Dr A Patterson suggested that Dr Davis comes back to the Committee with a proposal outlining costs. Dr Davis would also like to increase the Diving Doctor’s Diary section in the Journal. There are still outstanding papers for the last SPUMS ASM in Noumea. Dr R Walker will write to the speakers. There will be a template for speakers outlining the requirements for the meeting.

4 Update from the Education Officer, Dr C Acott
This was given by Dr R Walker. Dr Meehan will see if Dr J Knight has any of the original Mac back-up files. There are some data that need to be verified.

5 Annual Scientific Meetings
5.1 2004 ASM Noumea final figures
There was possibly a small loss incurred at the last ASM. Final figures are not yet available.
5.2 2005 ASM, Coco Palm Resort and Spa, Maldives update
As the island seems to have adequate oxygen delivery equipment readily available (and which is well maintained) SPUMS will not need to take our own equipment to the Maldives. There was discussion about the need to upgrade the SPUMS projector. The upgrade will be delayed for now, as a back up is available at the resort. There is no requirement to upgrade the SPUMS computer for this ASM. There have been several changes in the quotes provided by Allways, partly as a result of exchange-rate variations with the US dollar, and also as a result of changes in SPUMS requirements. Clarification of the changes from the original quote provided in December 2003 has been requested. There is an ongoing need to improve the transparency of the process of managing the ASM. There was discussion regarding the practice of Allways Dive Expeditions to include a list of participants and their full contact details with the travel documents. A list of participants can be included with the travel documents but contact details should be used only with the attendee’s permission.

There was discussion regarding on-line registration for future conferences. There was also a discussion regarding graphing the ASM attendance rate to help with future planning. Dr Meehan will ask Steve Goble to provide the data for this. There was also some discussion with regard to exchange-rate variations. It was suggested that, in future, costs linked to a different currency could be quoted in that currency. This would solve the problem of having to adjust the quote if the exchange rate changed.

5.3 Venues for future ASMs to be discussed
The Marshall Islands have been recommended, as has been returning to PNG. Mabul Island, Sabah, was also discussed again, although the safety of this region is still in question. Taveuni, Fiji, was also mentioned as a possible future venue. Due to the reducing numbers attending the conference alternative options for the ASM format will be explored.

6 Treasurer’s report
There is a substantial cost involved in upgrading the SPUMS website. In view of this there may need to be an increase in the SPUMS membership fees. There was discussion regarding an additional joining fee to cover the cost of the proposed SPUMS Journal CD.

7 Correspondence - Nil

8 Other business
8.1 Report from Dr D Smart regarding Australian Standards Committee 017
8.2 Report from Dr C Meehan regarding the Queensland Industry Code of Practice
8.3 There is to be a certificate signed by the President and the Education Officer to accompany the SPUMS HTNA prize.
8.4 Review of the Editor’s contract
The contract needs updating. At present the remuneration increases annually according to the CPI. The total remuneration package needs to be discussed at the face-to-face meeting held at the end of every year and adjustments made as deemed appropriate by the Committee. If more hours are required, there needs to be a formal business proposal presented to the Committee.
8.5 Discussion regarding committee positions which will be up for nomination at the next AGM. Notice of the AGM and a call for motions will need to go into the December 2004 journal, due to early timing of the AGM. The positions of Editor, Education Officer, Public Officer and the ANZHMG Representative are not elected. The Treasurer was elected at the last AGM and so has two further years to serve. There will be a call for nominations at the 2005 AGM for the President, Secretary and three committee members. Dr M Davis will print the nomination forms.
8.6 Dr D Smart will format a manual of corporate memory to assist the new members of the Committee.

Closed: 1730 hr approximately
Minutes of the Annual General Meeting of SPUMS held at Coco Palm Resort and Spa, Baa Atoll, Maldives, on Wednesday 27 April 2005

Opened: 1820 hr

Present: All members attending the Annual Scientific Meeting
Apologies: Graham McGeoch, Guy Williams

1 Minutes of the previous meeting
Unratified minutes of the previous meeting will be posted on the meeting notice board and appeared in the SPUMS Journal 2004; 34: 159-64.
Motion that the minutes be taken as read and is an accurate record.
Proposed Dr M Davis, seconded Dr V Haller, carried.

2 Matters arising from the minutes
Nil

3 Annual reports
3.1 President’s report
3.2 Past-Presidents Committee report
3.3 Secretary’s report
3.4 Education Officer’s report

4 Annual financial statement and Treasurer’s report
These were read by Dr R Walker.
Motion that the financial statements be accepted and the subscription fees will remain the same.
Proposed Dr S Paton, seconded Dr V Haller, carried.

5 Election of office bearers
The following nominations were received:
President: Dr C Acott
Secretary: Dr S Sharkey
Committee Members: Drs C Lee, D Voté, G Williams
Proposed Dr R Walker, seconded Dr M Davis, carried.

6 Appointment of the Auditor: Mr David Porter
Proposed Dr V Haller, seconded Dr C Lee, carried.

7 Business of which notice has been given
Nil

Closed: 1838 hr

President’s report 2005

It seems that no time has passed since we last convened in Noumea. At last we have been blessed with fantastic weather, a fabulous resort and great diving. It seems the Society has been troubled by natural disasters (a volcano eruption soon after we left Rabaul, the earthquake and tsunami of 26 December 2004) and terrorist events (9/11 and in the region of South-East Asia more generally). It has become increasingly difficult to find a safe venue and attract the large numbers to our conferences that we did in the 1990s.

However, one of the aims of the Society is to promote and facilitate the study of all aspects of underwater and hyperbaric medicine and the Committee is determined to persevere. We must take heed of the decreasing numbers attending the ASM and look at the format and content as well as the destinations (and make it financially affordable). Any suggestions in this regard are welcomed.

A final decision for next year’s ASM has not been made, but Fiji is once again the most likely choice. A decision will be made shortly.

As foreshadowed last year, the SPUMS website has undergone a complete overhaul. Whilst delays (mostly on my part) have prevented the completion of this project, I expect we will go live shortly after our return from the Maldives. This will allow payment of fees via the Internet, group e-mail, members-only pages, etc. I believe this will make the face of our Society more professional.

I would expect to provide details of next year’s ASM via this means, so if members wish to be kept up to date please ensure we have your current e-mail address.

The Journal, which is the backbone of the Society, continues to develop in leaps and bounds under Mike Davis’s stewardship. I believe the Journal fulfils a unique role as a practical, relevant and dedicated diving medicine journal that other journals in this field do not match. I encourage all members to consider publishing in the Journal in preference to other more generalised publications.

The Society remains in a prosperous financial position, which has further improved with the efforts of our Treasurer Andrew Patterson (who is, I might say, very ably assisted by his wife Jenny).

Our long-standing Secretary of 12 years (Cathy Meehan) is standing down from the Committee this year. Cathy has given many hours of her time over the years to the Society and her corporate memory will be sorely missed. Cathy has also convened this year’s meeting, which I am sure you will agree has been an outstanding success. Thank you, Cathy.

Simon Mitchell and Douglas Walker have also not sought renomination this year on the Committee and will step down. I thank them for their thoughtful contributions.

The Committee will continue to focus on membership and will be looking at additional Society membership categories for consideration at the next Annual General Meeting. This may include a retired member’s category.
I acknowledge that there is a lot more that the SPUMS Committee could achieve but as we are a voluntary organisation and as most of the Committee hold down full-time positions we can never achieve all we would like. I have been President for six years and this is too long. New ideas, and fresh enthusiasm and direction are needed to ensure the Society remains relevant and at the forefront of diving medicine. The last six years have been characterised by many ups and downs but I hope that overall the Society has progressed. I have had much support from the Society and have made many friends. I will continue to participate in the Society but am pleased to hand over the reins to Chris Acott. I wish him well.

Robyn Walker

Secretary's report 2005

It is with great sadness but even greater happiness that I am making this, my last Secretary’s report. I attended my first SPUMS conference in 1992. It was held in Port Douglas, in the far north of Queensland, and as I lived in Cairns, less than an hour away by road, it was a very easy and non-threatening start. Or so I thought!

It was at this, my first SPUMS conference, that John Williamson and Des Gorman approached me and asked if I would be willing to consider accepting a nomination to the position of Secretary of SPUMS at the next AGM. Not quite knowing what this involved, and feeling very honoured, I said “Yes”. However, after spending the week in a twin share with Dr Sue Paton, who was then the Treasurer, and seeing the piles of paperwork she had brought with her and the intensity of her commitment, I wondered if there was any way of retracting my yes and getting out of it.

In 1993 at the AGM in Palau, I became Secretary and have been so for the last 12 years. Although it has been a very interesting and fruitful experience, I am sure that many will agree with me that I am more than ready to pass on the task to a younger and fresher candidate who can bring new enthusiasm to the position.

The past 12 years have flown past through a kaleidoscope of ASM venues and events, Palau 1993, Rabaul PNG (followed by the volcano eruption), Fiji, The Maldives, New Zealand, Palau again, Layang Layang (followed by the kidnappings by Philippines rebels of the divers on Sipadan), then the millennium ASM in Fiji followed by the coup, Madang in PNG, Vanuatu, Palau again, New Caledonia, and now The Maldives again, preceded sadly by the tragic tsunami. It becomes difficult to find an ASM venue that is safe from political unrest or risk of natural disaster. There was a time when our President was reluctant to take us to PNG, considering it unsafe and remote, but now even PNG is looking more and more like one of our safest and easiest destinations.

When first taking over the reins as Secretary back in 1992, all communication was done by facsimile and telephone. I spent hours feeding sheets of paper through the fax machine repeating each transmission nine times for the nine other committee members. What joy it was when we purchased the latest-model facsimile, which had a memory and automatically stored and then dialled all numbers on your list. Soon I heard of this new form of communication called e-mail, and encouraged the Committee to experiment with this exciting way of communication. For many years the Committee communicated half by e-mail and half by fax. Eventually, when all embraced this new modality, communication became a cinch.

Somewhere around this time I was also Secretary of our local dive club. Our first venture into cyberspace was putting some information about SPUMS on the Secretary’s page of the Nautilus Dive Club website. Our own SPUMS site was developed a few years later, and we have been using this site since. After embarking early on an exciting voyage we then slowed down. We have been aware for a few years now that our website is behind the times and so it is with great pleasure that we look forward to launching the new SPUMS website with its increased functionality and dependability. We are hoping that this will encourage growth in our membership and greatly improve our service to our members.

So without wasting any more of your time, I would like to thank the past and present members of the Committee for their hard work, and for putting up with me for the last 12 years. In particular, I would like to thank Robyn Walker, the exiting President, who has successfully steered SPUMS through some difficult periods. I would also like to thank all the members of SPUMS for their involvement with the Society, and particularly all the past and present attendees at the SPUMS Annual Scientific Meetings for making the meetings so interesting and enjoyable.

I look forward to attending a SPUMS meeting as a totally free agent, although wonder what I will do with all that spare time. Well, the bar sounds good, as does walking on the beach in the moonlight.

Cathy Meehan

Treasurer’s report 2005

As can be seen from the Financial Statements for the 2004 financial year, the Society is once again in a strong financial position.

While the deficiency for the year of some $13,000 is disappointing, it is largely accounted for by the cost of setting up the Society’s new website and by the writing off of $5,889, a sum that has been carried as Accounts receivable since 2003. The history of this item remains unclear. It was first presented in the Financial Statements for the year.
ending December 2003 and is thought to be outstanding membership subscriptions. Unfortunately, records are insufficient to provide a clear picture. Mr. Porter, the Society’s auditor, has advised that the sum should be written off.

For the first time the funds remaining in a New Zealand bank account (BNZ Achiever Savings) are being recorded in the Financial Statements. This money derives from the residue of the account held by a separate NZ Chapter, now defunct, of the Society. I have elected to maintain this account because of the convenience it offers in supporting the work of the Editor of the SPUMS Journal. Although no large balance is kept in it at any time, I believe it is important to account for it in order to maintain proper standards of governance.

I am pleased to be able to report that after taking advice from an unpaid expert, who spent considerable time researching records of credit card transactions (such as annual subscriptions and ASM registrations) reaching back over four years to the commencement of GST, the Australian Taxation Office returned over $4,000 in GST owing to the Society.

Because a number of refunds were made to members following the 2004 ASM, the final overall costs for that meeting exceeded the income. I do not expect the 2005 ASM to improve on that situation. There will be further planned expenditure on the new website. However, I anticipate that the fully functional website will reduce the overall costs of administering the Society. Therefore, I recommend that subscription rates remain unchanged for the coming year, 2006.

Andrew Patterson

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### THE SOUTH PACIFIC UNDERWATER MEDICINE SOCIETY
### BALANCE SHEET
### AS AT 31 DECEMBER 2004

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<th>2004</th>
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<tr>
<td><strong>TOTAL</strong></td>
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<td>$133,237</td>
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<td><strong>NON-CURRENT ASSETS</strong></td>
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<td>13,333</td>
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| **CURRENT ASSETS**   |               |               |
| ANZ Bank ASM Account | -             | 6,447         |
| ANZ Access Cheque    | 46            | 13,632        |
| ANZVZ Plus           | 100,590       | 96,400        |
| ANZ SPUMS Annual     | 6,949         | -             |
| Scientific Meeting   | 2,307         | -             |
| Accounts receivable  | -             | 5,889         |
| Prepaid 2004 ASM     | -             | 10,333        |
| expenses             |               |               |
| GST recoverable      | 1,262         | 536           |
|                      | 111,154       | 133,237       |

**NET ASSETS**

$124,487

$133,237

These are the accounts referred to in the report of D S PORTER, Chartered Accountant, Mona Vale, NSW 2103

Dated: 17 April 2005
## THE SOUTH PACIFIC UNDERWATER MEDICINE SOCIETY STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 DECEMBER 2004

### INCOME

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<td>ASM 2004</td>
<td>37,370</td>
<td>-</td>
</tr>
<tr>
<td>ASM 2005</td>
<td>3,100</td>
<td>-</td>
</tr>
<tr>
<td>Sundry income</td>
<td>807</td>
<td>1,102</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td><strong>137,672</strong></td>
<td><strong>142,536</strong></td>
</tr>
</tbody>
</table>

### EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization of website</td>
<td>6,667</td>
<td>-</td>
</tr>
<tr>
<td>ASM costs</td>
<td>36,110</td>
<td>39,406</td>
</tr>
<tr>
<td>ASM registrations previous year</td>
<td>10,333</td>
<td>-</td>
</tr>
<tr>
<td>Bad debt written off</td>
<td>5,889</td>
<td>1,456</td>
</tr>
<tr>
<td>Secretarial wages</td>
<td>13,868</td>
<td>14,527</td>
</tr>
<tr>
<td>Stationery, printing, postage</td>
<td>1,332</td>
<td>2,122</td>
</tr>
<tr>
<td>Journal</td>
<td>37,907</td>
<td>27,645</td>
</tr>
<tr>
<td>Committee expenses</td>
<td>5,509</td>
<td>5,766</td>
</tr>
<tr>
<td>Computer equipment</td>
<td>2,778</td>
<td>747</td>
</tr>
<tr>
<td>Mail forwarding</td>
<td>456</td>
<td>-</td>
</tr>
<tr>
<td>Miscellaneous/Subscriptions</td>
<td>231</td>
<td>386</td>
</tr>
<tr>
<td>Bank charges</td>
<td>4,415</td>
<td>4,799</td>
</tr>
<tr>
<td>Audit</td>
<td>2,000</td>
<td>1,800</td>
</tr>
<tr>
<td>Editor’s honorarium</td>
<td>17,350</td>
<td>19,335</td>
</tr>
<tr>
<td>Insurance</td>
<td>5,961</td>
<td>6,166</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>150,806</strong></td>
<td><strong>124,155</strong></td>
</tr>
</tbody>
</table>

### SURPLUS/(DEFICIENCY) FOR YEAR

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surplus/(Deficiency)</strong></td>
<td><strong>$(13,134)</strong></td>
<td><strong>$18,381</strong></td>
</tr>
</tbody>
</table>

These are the accounts referred to in the report of D S PORTER, Chartered Accountant, Mona Vale, NSW 2103. Dated: 17 April 2005

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Audit report to the members of the South Pacific Underwater Medicine Society

I have conducted various tests and checks as I believe are necessary considering the size and nature of the Society and having so examined the books and records of The South Pacific Underwater Medicine Society for the year ended 31 December 2004 report that the accompanying Income and Expenditure and Balance Sheet have been properly drawn up from the records of the Society and gives a true and fair view of the financial activities for the year then ended.

**Dated:** 17 April 2005

David S Porter  
Chartered Accountant  
Suite 7, Ground Floor, 20 Bungan Road  
Mona Vale, New South Wales 2103
THE SOUTH PACIFIC UNDERWATER MEDICINE SOCIETY MOVEMENTS ON BANK BALANCES
FOR THE YEAR ENDED 31 DECEMBER 2004

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPENING BALANCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANZ bank – ASM account</td>
<td>6,447</td>
<td>9,212</td>
</tr>
<tr>
<td>– Access cheque account</td>
<td>13,632</td>
<td>8,085</td>
</tr>
<tr>
<td>– Plus</td>
<td>96,400</td>
<td>92,825</td>
</tr>
<tr>
<td></td>
<td>116,479</td>
<td>110,122</td>
</tr>
<tr>
<td>add, RECEIPTS</td>
<td>137,666</td>
<td>142,536</td>
</tr>
<tr>
<td></td>
<td>254,145</td>
<td>252,658</td>
</tr>
<tr>
<td>less, PAYMENTS</td>
<td>144,253</td>
<td>136,179</td>
</tr>
<tr>
<td>CLOSING BALANCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANZ bank – ASM account</td>
<td>-</td>
<td>13,632</td>
</tr>
<tr>
<td>– Access cheque account</td>
<td>46</td>
<td>6,447</td>
</tr>
<tr>
<td>– VZ Plus</td>
<td>100,590</td>
<td>96,400</td>
</tr>
<tr>
<td>– SPUMS Annual Scientific Meeting</td>
<td>6,949</td>
<td>-</td>
</tr>
<tr>
<td>BNZ Achiever Savings</td>
<td>2,307</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>109,892</td>
<td>116,479</td>
</tr>
</tbody>
</table>

NOTE: Receipts and Payments above may include Balance Sheet items which are not included in the Income and Expenditure statement.

The Australian and New Zealand College of Anaesthetists Special Interest Group in Diving and Hyperbaric Medicine

The Australian and New Zealand College of Anaesthetists now awards a Certificate in Diving and Hyperbaric Medicine to specialists, in recognition of the expertise and specialist knowledge required for practice in this field of medicine. The Certificate represents the significant achievement of recognition of diving and hyperbaric medicine as a ‘subspecialty’ by a well-established, learned College, and is an important step toward raising the profile of diving and hyperbaric medicine throughout the medical community. The SPUMS Diploma is regarded as the basic qualification for entry into the training for the ANZCA Certificate, which is intended for those who are working in hospital-based hyperbaric units, providing hyperbaric oxygen therapy for a variety of medical conditions as well as diving-related disorders. Details of the training requirements for the ANZCA Certificate in Diving and Hyperbaric Medicine are now posted on the ANZCA website, <www.anzca.edu.au>, under education and training.

The first examination was held in September 2004, four candidates presented, of whom three passed. It is anticipated that the exam will be held annually, according to demand. At present there has not been a date set for the next examination. In order to be eligible to sit the exam, trainees must have completed their SPUMS Diploma, and a minimum of 12 of the 18 months’ FTE clinical experience in an accredited unit. There are currently three accredited units in Australia, at Royal Hobart Hospital, Fremantle Hospital, and Prince of Wales Hospital Sydney. Hyperbaric units wishing to be accredited for training should contact the Australian and New Zealand College of Anaesthetists for details and an application form.

On behalf of all the members of the SIG, I would like to congratulate Dr Bob Wong on his unceasing efforts to achieve recognition of diving and hyperbaric medicine within the ANZCA, culminating in the Certificate we have today.

The ANZCA/ASA SIG in Diving and Hyperbaric Medicine will hold its Annual General Meeting at the Hyperbaric Nurses and Technicians Meeting in Melbourne in August 2005. Notice of the meeting and an agenda will be circulated to all members prior to this meeting.

Margaret Walker, Chairperson