

TWENTY FIVE YEARS OF SPUMS 1971-1996

John Knight

This paper is an expanded version, to bring it up to SPUMS's twenty fifth birthday, of the paper presented at the 1995 Annual Scientific Meeting.

I am indebted to Carl Edmonds and Bob Thomas for information about the early years of SPUMS. Any mistakes after 1975, when I joined the Committee, are mine.

SPUMS was founded, on Monday May 3rd 1971, over a drink or two, in the Wardroom of HMAS PENGUIN by Carl Edmonds, Bob Thomas, Douglas Walker, Ian Unsworth and Cedric Deal, whose names appear in the first constitution as Foundation Members.¹ Others, about twenty in all, mostly associated with the Royal Australian Navy (RAN) School of Underwater Medicine (RANSUM) and the Underwater Research Group, a Sydney diving club which had been formed in the days before submersible pressure gauges, were nominated as Charter Members. An aim seems to have been to provide a diving holiday with discussion of diving medical topics making it tax deductible. Ian Unsworth, who was the inaugural Secretary, later spoilt this cosy arrangement by putting a notice in the Medical Journal of Australia that the Society had been founded and soon there were over 60 members. The annual subscription laid down was \$ 2.00. In November 1971 there were 40 paid up members, 64 by May 1972 and 75 by May 1973. The March 1996 issue of the Journal was sent out to 1,128 members and associates.

In the early days of his time at RANSUM Carl Edmonds had let it be known around the diving world that those with diving injuries could be sure of help if they contacted RANSUM. In those days, and for some time later, the Diving School maintained a 24 hour telephone watch, which was the number made available. This system worked well until the telephone watch was stood down as an economy measure. Then people had difficulty getting through and the RAN had to be approached to sanction the service and see that the gate sentries at HMAS PENGUIN, the after hours switch board keepers, knew what to do to contact the duty diving MO. It took time and political pressure to achieve the Divers Emergency Service (DES) which opened for business in 1984 (Figure 1) with a dedicated Sydney number thanks to pressure from individual members of SPUMS, the Committee and the Australian Underwater Federation.² DES moved to Adelaide in 1986 and now has a toll free number.

After being threatened with legal action, when we refused to endorse a diving expedition using the SPUMS name without permission, the Committee decided to incorporate the Society. This involved the Victorian

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Figure 1. SPUMS J cover 1984; 14 (4):

Corporate Affairs Commission as the official address of the SPUMS Journal was 80 Wellington Parade, East Melbourne (it just happened to be the address from which my practice was carried on). What with lawyers being literal in following the suggested constitution provided by Corporate Affairs and resisting Chris Lourey's and my attempts at preserving our existing constitution as much as possible it took about a year to finalise. It was adopted in 1990. As a result of being incorporated in Victoria at least one member of the Committee, the Public Officer, has to reside in Victoria.

Up till 1990 the Society's address was that of the Secretary. Subscriptions were sent directly to the Treasurer. When these offices changed hands many members did not notice the new addresses and John Doncaster, Treasurer 1982-5, was still getting subscriptions sent to him three years later in spite of Grahame Barry's address being printed on the reminder notice!

In July 1990 the Society decided to use the Science Centre Foundation (SCF), in Sydney, as its postal address. But by December 1990, dissatisfied with the service from SCF, and its price, the address was changed to the College of Occupational Medicine in St Kilda West, Victoria. This lasted until the College decided to become a Faculty of the Royal Australasian College of Physicians, and moved to Sydney. In September 1993 our address became The Australian and New Zealand College of Anaesthetists (ANZCA) at the Royal Australasian College of Surgeons, Spring Street, Melbourne. The anaesthetists then bought their own building in St Kilda Road, Melbourne and moved in January 1994. We hope that SPUMS has now stopped moving.

Aims of the Society

The objectives of the Society have never changed. They are:

- 1 To promote and facilitate the study of all aspects of underwater and hyperbaric medicine
- 2 To provide information on underwater and hyperbaric medicine
- 3 To publish a newsletter or journal
- 4 To convene members of the Society annually at a scientific conference.

Information about underwater medicine

The 1970s and 1980s saw considerable activity in diver education. There were meetings in Sydney and Adelaide where Bob Thomas was the principal speaker. In Victoria there were meetings at "Oceans" in Melbourne, in Frankston and Portsea where there were hundreds of divers in the audiences. In 1981 there was a similar meeting in Perth. The last of these diver oriented meetings was held in Rockhampton in 1986 organised by Chris Acott who then lived in Rockhampton.

Other smaller meetings for members, but open to anyone, were also held in Melbourne and Sydney. These were restarted by Darrell Wallner in 1991 but they appear to have petered out.

It is a sad fact that as the Society has grown its contacts with ordinary divers has lessened. Perhaps this is because better teaching means that divers have little to learn about diving medicine, but I doubt it. I think it is because members feel that the Committee should organise such meetings. Unfortunately the success of these diver education meetings depends on enthusiastic local publicity involving local dive shops and local SPUMS members. It is always possible to import speakers but nothing can replace local involvement.

In the early 1980s members suggested to the Committee that SPUMS should run courses in underwater medicine as it was difficult to get places on the RANSUM courses. The Committee decided that trying to duplicate the RAN course from SPUMS resources was not feasible. It was felt that the correct role for SPUMS was to approve courses which met or exceeded the standards set by the RAN. This was to be done by the Censors, appointed to assess candidates for the Diploma of Diving and Hyperbaric Medicine, who were the President, the Secretary and the Director of a hyperbaric unit. The opening of the Royal Adelaide Hospital Hyperbaric Unit in 1986 and its courses reduced the pressure on RANSUM places. Since 1990 the Censors have been the President, the Director of a hyperbaric unit and the Education Officer.

New Zealand formed its own Chapter in 1985 with

an inaugural meeting at Great Barrier Island where I was the guest speaker. They have had annual scientific (and diving) meetings ever since.

In 1990 Ray Rogers asked if we would allow a North American Chapter. This was agreed to and Lori Barr and Steve Dent joined him as the North American Chapter executive. They did sterling service at DEMA meetings bringing the Society to people's attention. Ray had to resign as Chairman in 1992, when Lori took over. Unfortunately Lori and Steve put in their resignations from the North American Executive in early 1995, so the Chapter is in abeyance.

At present SPUMS is represented on four Standards Australia Committees, those dealing with occupational diving, recreational diving, working in compressed air and therapeutic hyperbaric chambers. The AMA is represented by Dr Ian Millar, a SPUMS member, on the same committees and Dr Harry Oxe, another SPUMS member, represents the Australian and New Zealand Hyperbaric Medicine Group (ANZHMG) on the therapeutic chamber committee.

Diving Medicals

Medical Standards for divers appeared for the first time in the second Newsletter.³ They have appeared at intervals ever since.

For a number of years the Society was unpopular with the recreational diving industry. We were accused of being anti-dive instructors. I think these views arose because SPUMS has always advocated a diving medical for every prospective diver before the first dive of the course. Many instructors considered that this was a waste of time and money, which could better be spent in their

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shops. Some statements from diving doctors, who were SPUMS members but were not then on the Committee, drawing attention to the practice of some instructors who sent prospective divers, who had failed a medical with one doctor, to see another doctor with instructions not to mention their asthma (Figure 2) probably did not go down well and the blame was put on the Society rather than the members concerned. Whatever the causes, distrust of SPUMS by the recreational industry lasted into the 1990s but been alleviated during Des Gorman's presidency. Unfortunately a rift has developed between the technical diving community and SPUMS in the last few years.

At the same time Bob Thomas was attacking the competence of GPs who failed to look in people's ears before certifying them fit to dive. Carl Edmonds published a paper, *MMM the Mickey Mouse Medical*, in 1986 which demonstrated that, among other things, the doctors surveyed were unable to pick the correct treatment for four common diving illnesses any better than 50% (guessing level).⁴ They had to choose the correct treatment for decompression sickness, air embolism, marine animal injury and pneumothorax from four answers, recompression, medical or surgical, surgical or 100% oxygen and recompression.

In 1989 Standards Australia started the process of preparing a Standard to cover recreational diver training. SPUMS applied for a place on the Committee and I was appointed to fill it. Among the comments on the proposal standard was one from a PADI instructor who advocated adopting the PADI training scheme as the Standard! However this did not meet with the committee's approval and the standard was eventually published as AS 4005.1 in 1992. Unfortunately the Committee, after agreeing, in December 1991, that the medicals should be done by doctors trained in underwater medicine, as advocated by SPUMS, refused to accept this condition at its next meeting. The Queensland Government however legislated to enforce the requirement when they brought in regulations for the recreational diving industry.

The Queensland government's insistence on proper training for doctors doing diving medicals rapidly increased the number of such doctors, thanks in large part to the Diving Medical Centre long weekend courses run by Bob Thomas and Carl Edmonds. These and courses run each year by the Fremantle hyperbaric unit were approved by the Censors as providing the necessary minimum knowledge to do diving medicals properly. The legislation and the increased number of trained doctors also influenced dive shops towards relying on medicals rather than questionnaires. The legislation was used by SPUMS to push the Australian Medical Association (AMA) into accepting that doctors doing diving medicals should have the proper training.

Since 1986 SPUMS has published a list of doctors

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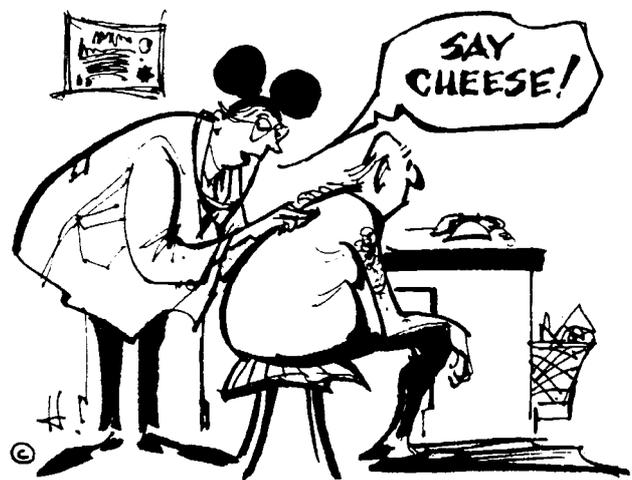


Figure 3. SPUMS J cover 1986; 16 (1):

with appropriate training in underwater medicine.⁵ At first it was limited to those trained by RANSUM. Since then seven other courses have been approved by the Censors. The Diving Doctors list now appears as a supplement to the Journal and covers New Zealand as well as Australia. The March 1996 list contained the names of 347 Australian and 63 New Zealand doctors.

Diploma of Diving and Hyperbaric Medicine

From the first a diploma of diving and hyperbaric medicine had been planned. At the first Annual General Meeting (AGM) the sub-committee investigating the feasibility of establishing a Diploma in Diving and Hyperbaric Medicine reported. Their syllabus⁶ had a close resemblance to the list of contents in Diving and Subaquatic Medicine.⁷ It was suggested that the diploma course should include a nine month correspondence course, to supplement the RANSUM basic and advanced courses and the Prince Henry Hospital (PHH) Hyperbaric Medicine course, and a four weeks hands-on attachment to RANSUM. It was thought that the RAN would back the Diploma as a useful yardstick. As well there had to be affiliation with a university so that the Diploma had academic status. The subcommittee, Bob Thomas, representing the Officer in Charge, RANSUM, Ian Unsworth, as Director of the Prince Henry Hyperbaric Unit, and Rex Gray, representing the SPUMS committee was instructed to institute the Diploma. For non-doctors there was to be a Certificate in Underwater Technology to be looked into by a sub-committee of John Pennefather (scientist), Frank Blackwood

(technician), Fred Ashmore (administrator) and Bob Thomas, all of RANSUM. This certificate never proceeded beyond investigation.

By late 1974 it had become clear that neither of the two universities in New South Wales would be interested in sponsoring a diploma as they had just divested themselves of such things and were only going to issue degrees. So SPUMS took the brave step of issuing its own Diploma of Diving and Hyperbaric Medicine. This was the first non-naval certification of diving medical competence and for many years the only post-graduate qualification. The Foundation diplomates included Jimmy How of the Republic of Singapore Navy, as well as Geoff Bayliss, Carl Edmonds, Rex Gray, Chris Lowry, Bob Thomas and Ian Unsworth, for the Society has been international since its inception. Other overseas Foundation Diplomates were Drs Kee Peng Leong, Tai Lung Ho, Made Subrata, Harijonto Mahdi, Hartono and Gene Chan. Originally the requirements for the diploma by examination were the two RANSUM courses and the PHH course and a treatise suitable for publication. All the foundation diplomates had at least 2 years experience in diving medicine.⁸ The first Diplomas by examination were awarded in 1975 to Chris Acott, Gavin Dawson and John Knight. The requirements for the Diploma now include six months diving or hyperbaric medicine experience and appear in every issue of the SPUMS Journal.

In 1989, when the number of hyperbaric units in Australasia had risen to 10 (there had been three in 1974) SPUMS reviewed their staffs and awarded diplomas to those qualified to receive them. Since then there have been one or two diplomas awarded by examination each year.

In 1991 the Directors of the various Australasian hyperbaric units formed the Australian and New Zealand Hyperbaric Medicine Group as a sub-committee of SPUMS. They and the Hyperbaric Technicians and Nurses Association (HTNA) have held three, very successful, Annual Scientific Meetings, in Darwin, Perth and Melbourne, and the fourth will be in Hobart in August 1996.

The Newsletter and Journal

The first newsletter appeared in May 1971, with Carl Edmonds as editor. When he went on exchange service with the USN in 1973 Bob Thomas, who succeeded him as the Officer in Charge at RANSUM, took over. Carl edited a few issues when he came back and then Douglas Walker, as the only volunteer was elected Editor of the Newsletter in 1974. In September 1976 he changed the title to Journal/Newsletter. By 1979, owing to printing problems, the Journal/Newsletter was months in arrears and I volunteered to get it printed and posted in Melbourne with Douglas supplying me with editorial material. The

October to December 1979 issue had the title SPUMS Journal for the first time.

I have been responsible for the format of the Journal ever since, and since 1990, when Douglas Walker did not nominate as Editor, I have been responsible for the contents.

The Newsletter and its successors were, and still are, the Society's main contact with the majority (over 90%) of members and associates. For nearly twenty years only about 5% of the membership has attended the Annual Scientific Meeting (ASM). The figures are rubbery because Allways counts total passengers and usually about one third are not members or associates.

That is why we struggle to extract the text from every speaker so that his or her talk can be published in the Journal. We go so far as to tell the guest speaker that the invitation is contingent on the delivery of the texts before the meeting. This policy was forced on us by the failure of the guest speakers in 1984, 1986, 1987, 1988, 1991 and 1992 to provide texts of their lectures. Some lectures could be reconstructed from our recordings and some speakers provided previously published papers on the topic which could be cut and pasted into shape for publication. Our members who contribute to the scientific proceedings have also been guilty of not providing the text (even after hearing this presentation in Fiji one New Zealander's contribution to the Asthma Workshop had to be reconstructed from the tapes).

An index of all the articles that have appeared in the SPUMS Newsletter and the Journal has been compiled on the editorial Macintosh and will be available on disc for both Mac and Windows.

Committee

In all only 43 people have been elected to the committee in the 25 years between 1971 and 1995. A very low turnover indeed. Thirteen of them are no longer members. The list appears on pages 98-100. Those marked with * were New Zealand Chapter representatives.

The Society awarded life membership to Carl Edmonds in 1988, Douglas Walker in 1989, Chris Lourey in 1990 and John Knight in 1993. At the 1996 AGM David Elliott, three times guest speaker at ASMs and a member since 1982, was nominated for life membership to be voted on in 1997.

Annual Scientific Meetings

1972

In June 1972 the first AGM was held at Heron

COMMITTEE MEMBERS OF SPUMS

			1978-79	
		President		Ian Unsworth
		Secretary		John Knight
President	1971-72	Carl Edmonds	Treasurer	Bill Rehfisch
Secretary		Ian Unsworth	Editor	Douglas Walker
Treasurer		Fred Ashmore	Members	Victor Brand
	1972-73			Ray Leitch
President		Carl Edmonds		Chris Lourey
Secretary		Ian Unsworth	1979-80	
Treasurer		Fred Ashmore	President	John Knight
Editor		Carl Edmonds	Secretary	Chris Lourey
Members		Rex Gray	Treasurer	Bill Hurst
		Bob Thomas	Editor	Douglas Walker
		Douglas Walker	Members	Victor Brand
	1973-74			Bill Rehfisch
President		Carl Edmonds		Darryl Wallner
Secretary		Ian Unsworth	1980-81	
Treasurer		John Pennefather	President	John Knight
Editor		Bob Thomas	Secretary	Chris Lourey
Members		Jim Hazel	Treasurer	Bill Hurst
		William Lucas	Editor	Douglas Walker
		Frank Blackwood	Members	Victor Brand
		Chris Lowry		Beryl Turner
	1974-75			Darryl Wallner
President		Carl Edmonds	1981-82	
Secretary		Ian Unsworth	President	John Knight
Treasurer		John Pennefather	Secretary	Chris Lourey
Editor		Douglas Walker	Treasurer	Bill Hurst
Members		Jim Hazel	Editor	Douglas Walker
		William Lucas	Members	Victor Brand
		Frank Blackwood		John Doncaster
		Chris Lowry		John McKee
	1975-76			
President		Carl Edmonds	1982-83	
Secretary		Jim Hazel	President	John Knight
Treasurer		Phillip Rubenstein	Secretary	Janene Mannerheim
Editor		Douglas Walker	Treasurer	John Doncaster
Members		John Knight	Editor	Douglas Walker
		Geoff Mcfarlane	Members	Victor Brand
		Ian Unsworth		John McKee
	1976-77			Harry Oxer
President		Ian Unsworth	1983-84	
Secretary		John Knight	President	Chris Lourey
Treasurer		Bill Rehfisch	Secretary	Chris Acott
Editor		Douglas Walker	Treasurer	John Doncaster
Members		Victor Brand	Editor	Douglas Walker
		Ray Leitch	Members	David Davies
		Chris Lourey		John Knight
	1977-78			Janene Mannerheim
President		Ian Unsworth	1984-85	
Secretary		John Knight	President	Chris Lourey
Treasurer		Bill Rehfisch	Secretary	Chris Acott
Editor		Douglas Walker	Treasurer	John Doncaster
Members		Victor Brand	Editor	Douglas Walker
		Ray Leitch	Assistant Editor (Co-opted)	John Knight
		Chris Lourey	Members	David Davies
				Peter McCartney
				John Williamson

1996-1997

President	Guy Williams
Past President	Des Gorman
Secretary	Cathy Meehan
Treasurer	Robyn Walker
Editor	John Knight
Education Officer	David Davies
Public Officer	Guy Williams
Members	Chris Acott Vanessa Haller Michal Kluger
New Zealand Chapter Representative	Mike Davis

Island. The first dive showed that most of the members had very different ideas about how to dive safely from the Foundation Members! Before the boat had lost way there were splashes all round. The boat supervisor had no list of buddies nor their time of entry. When the vessel anchored it was clear that there was quite a current running but people were jumping in without checking. Bob Thomas and his buddy, Phil Rubenstein, stayed together all through the dive and were the only ones to achieve this. They went up current and then came back to the anchor line. They were first back and it was two hours later that the last of the divers was picked up a mile and more down current. The intervening time was spent searching for and collecting divers from all round the horizon. The scientific program was hurriedly changed to "Diving safety, what not to do" which was illustrated by examples from the morning's dive! According to Bob Thomas the weather was less than ideal and the only entertainment equipment on the island was a single cracked ping-pong ball.

The minutes of that meeting record that, after as many alternatives for the site of the 1973 meeting as there were people present (about 20), including chartering a live-aboard and cruising the Barrier Reef, had been offered, Norfolk Island, Lord Howe Island and Fiji were chosen for further investigation.

A system of regional sub-groups and representatives was set up at the instigation of Peter Nicholl of Queensland. The sub-groups were to consider local problems and keep people in touch throughout the year and generally foster interest. This laudable initiative was certainly never very noticeable in Victoria. Representatives were recorded for Queensland (Peter Nicholl), Victoria (Phil Rubenstein), South Australia (Fred Gilligan), Papua New Guinea (Jay Morton), New Zealand (Tony Slark), Singapore (Jimmy How), Malaysia and Indonesia have handwritten entries that I cannot decipher.

1973

The 1973 AGM was held at the Broadbeach International Hotel, Surfers Paradise, Queensland on 17-18th November. Like the other AGM held in Australia

before the present constitution was adopted, too few members (14) attended to form a quorum. Once again there were many suggestions for the site of the 1974 AGM. In those days and later the AGM had the task of choosing the site. At this meeting the first constitution was replaced by a new interim constitution to last until confirmed at the next AGM when a quorum might be present. The new constitution said that all members of the Executive Committee must reside in the same capital city. This eventually proved to be impossible to maintain. There was a fee increase to \$15.00 for members and \$10.00 for associates. There was to be an entrance fee. As far as I know it was never collected although the idea was resurrected in the 1980s.

1974

At an executive meeting in May 1974 it was suggested that the AGM should be held in Australia, to make it easier for members and associates to attend and the conference somewhere outside Australia. This is an idea which has been raised regularly, but the few occasions this has been tried the AGM has not been well attended. At this committee meeting three committee members were assigned to vet applications as there was waiting time for membership. In those days one had to have a proposer and seconder for membership and they were approached for information about the candidate. This scrutiny of prospective members had been abandoned by 1976 when I took over as Secretary.

That executive meeting selected Bali for the 1975 and New Zealand for the 1976 AGM.

I have seen a provisional conference timetable for an unknown year (probably 1974) from June 18th to 24th. The venue was to be the Isle of Pines. I suspect that the program was for the benefit of the tax man as the conference is described in the Newsletter as "a group of SPUMS members visited the Isle of Pines".⁹

The 1974 AGM and conference was held in Suva, Fiji. This was where SPUMS had its first major diving injury. The baggage master, a NSW police sergeant diver, blew a round window while diving and was invalided back to Sydney. Beyond the minutes I have no other details of that conference.

1975

In spite of the Bali decision the 1975 AGM was held at Port Vila, New Hebrides (now Vanuatu). That was when I was elected to the Committee. The standard of the meeting can be judged by the fact that the scientific program included two displays of slides taken at "last year's meeting". The AGM rejected the New Zealand venue on the grounds that the water was too cold and opted for the Isle of Pines for 1976. Limitations on the number that could be accommodated or dive meant that the Committee had to reject the decision during the year.

1976

The 1976 AGM was held at Mana Island. The organisers, Jim Hazel and other Sydney members, had overestimated the number likely to attend and to fill the rooms, which they had booked and paid for, rounded up any diver who had the money regardless of SPUMS membership. Once again the attitude of some to safe diving was worrying. The scientific sessions were held on one side of a curtain and on the other was the bar, full of noisy drinkers. Once again we were treated to slides of last year's meeting. The AGM was memorable for the verbal explosion by the President, Carl Edmonds, when he resigned because too many members were treating the ASM as a diving holiday paid for by the tax payers. Neither Jim Hazel, the Secretary, nor Phil Rubenstein, the Treasurer, had come to the meeting nor had they sent reports. As the only member of the committee there who was willing, I was elected Secretary and Bill Rehfish was elected Treasurer. Ian Unsworth was elected President (sleeping partner variety) if he was willing to serve. Accepting election as Secretary I pointed out that I was a firm believer in the committee system and my ideal committee had three members, one off sick, one overseas and myself making the decisions.

One of the decisions I made was to rewrite the constitution to reduce the number of members needed to form a quorum at an AGM. It had been 25% of the membership which was reasonable when the membership was 40, but unattainable with a membership of 200. It was changed to 10% or 25 whichever was the smaller. To counterbalance the increased ease of passing resolutions at the AGM all decisions of the AGM had to be approved by a postal ballot of the membership.

1977

In 1977 the AGM and Annual Scientific Meeting (ASM) was at Truk and no slides of the previous meeting appeared on the screen. We were there because Anthony Newly, who had just started Allways Travel, came to me with the idea at an almost unbelievable price for a charter. I had met Anthony in 1974 when he was a student on the course the Royal Australian Naval Reserve (RANR) diving team in Melbourne, on instructions from Navy Office, ran for the Underwater Instructors Association of Victoria (UIAV).

Some months after we had booked, Air Nauru rang up and apologised that they had forgotten to include the return journey in the price. Then later they rang again with more apologies that they had only charged for getting back to Nauru! In spite of these increases the price was well below any other way and really quite reasonable. The emphasis (or theme) of the meeting was on education and diving safety. For the first time, contents gauges and buoyancy devices were compulsory. The first day's diving was interesting as very few of the divers had used their new buoyancy devices before and a number came to the surface

when they first tried to use it. One turned his Fenzy on but not off so had a Polaris ascent. He was really quite lucky as he had hopped in wearing bathers with his wet suit weights on his weight belt and needed to be brought back to the surface! The meeting was a mini diving medicine course, with Royal Navy and US Navy films on diving physiology and decompression diseases and lectures on these topics and on diving safety. This certainly needed attention as five people ran out of air underwater during the conference. No one came to any harm because we had 5 safety divers, one for each boat. Each hovered above his group of six and watched. Their octopuses brought the airless divers to the surface and back to the boat safely. When these incidents were discussed at the evening meeting one of the members said "Every diver runs out of air at least once a year"! Bob Cumberland, a senior Melbourne diving instructor, who had never run out of air in over twenty years of diving, verbally tore him to shreds and after that people started looking at their contents gauges.

1978

For the 1978 meeting in Suva we had an overseas guest speaker for the first time. Glen Egstrom lead us through the mechanical and mental problems of diving safely. Every meeting since has had invited guest speakers and more recently the meetings have had official topics and workshops.

It was obvious that buoyancy compensators (BCs) were still not properly understood by some of the members. One couple had bought two compensators from their local dive shop just before they left for Fiji and had never been instructed in their use. One BC had a scuba feed and the other relied on the diver's puff. The husband wore the one without the scuba feed attachment, but had the inflator hose waving from his first stage. The wife wore the one with the scuba feed. Neither ever put any air into their BC, which did not matter to the husband for he was a strong swimmer and kicked all the time. The wife was a weak swimmer and kept on stopping her leg movements. Every time this happened she sank. On one dive, when the bottom was at around 300 m or more, I watched her sink in spurts from 10 m to 30 m completely unnoticed by her husband. I swam down, blew into her compensator and dragged her towards the surface to prevent a tragedy. Her husband was most irate at my interference.

1979

In 1979 the ASM was held in Port Vila again and Jeff(erson) Davis, who wrote *Diving Medicine* with Fred Bove, was the guest speaker. At this meeting I was elected President because Ian Unsworth did not wish to continue in office and Chris Lourey, not to be confused with Chris Lowry, took over as Secretary. Here it was that we met the two belt diver, who needed two weight belts joined end to end to reach round his middle, for one could not call it a waist.

1980

The 1980 meeting included a two day conference in Singapore hosted by SPUMS and the Republic of Singapore Navy. This introduced us to the amazing world of the diver fishermen who picked up dynamited fish from sea going ships. They used surface supplied air, homemade equipment and paid no attention to decompression tables. They often got bent and even if paralysed they stayed aboard until the holds were full. So it might be 2 weeks or more before they presented for treatment. Jimmy How and his team found that treatment even after this interval often improved them dramatically. The Singaporeans had organised an effective rehabilitation program which often returned these paralysed people to employable condition.

The ASM was on Palau Tioman, an island off Malaysia, for a week. Here our guest speaker was John Miller, an expatriate Australian from America. Before he went to the USA to become a Professor of Anaesthesia he had worked with Carl Edmonds at RANSUM. He was an excellent lecturer and drinking companion. From a discussion, Development of a National Plan, at this meeting came a poster¹⁰ which SPUMS sent to every hospital in Australia giving the first aid treatment for diving illnesses (Figure 4). This emphasised getting expert advice from RANSUM. On the background of flag alpha was the first aid advice, oxygen, fluids and aspirin (the latter is no longer recommended) and obtain expert advice. In the swallowtail was the telephone number of RANSUM and what information to give.

1981

1981 saw SPUMS at Madang; one malarial area after another. Fred Bove was guest lecturer. Bruce Bassett was also there and gave a presentation on his modification of the USN tables, which had been prompted by finding large numbers of bubbles in divers who had been decompressed on USN no-stop tables and then taken to 10,000 ft for an hour. This was to simulate what might happen to a USN SEAL diver involved in clandestine operations. Later John Lippmann and I produced the Bassett tables, 3 fudge factors in the first dive and 5 in the second, in a "no thought required" form.¹¹ All one had to do was put one's finger on the correct depth and then run it sideways to the elapsed time and then down to the repetitive group letter and once there sideways again to the surface interval time and down to the new depth. It never caught on as the dive shops only made a dollar a copy (in spite of their 100% mark up) which made it not worth stocking when you could make \$5 or more on other brands. Now computers allow much longer underwater times than square dive tables and are even more profitable.

1982

1982 brought David Elliott out to SPUMS for the first time to lecture in the Philippines. That new 4 star hotel was built without hot water as the owners considered that no one would need hot water in that climate. Our lectures were in an open sided games room, which was pleasant, at the top of a hill, which was not as the beer was at the bottom. Unfortunately the room could not be

SCUBA DIVING ACCIDENTS

can include:

- *decompression sickness*
- *pulmonary barotrauma*

FIRST AID FOR BOTH OF THESE:

1. OXYGEN
2. FLUIDS
3. ASPIRIN
4. OBTAIN EXPERT ADVICE

CONSCIOUS PATIENT

- 100% O₂ mask. High flow
- Fluids — salted and sweetened 1 litre/hour
- Two tablets of aspirin

UNCONSCIOUS PATIENT

- Intubate O₂; 100% High flow
- I.V. fluids (saline or Hartmann's Solution) 1 litre/hour

LOCAL CONTACTS

Duty Diving Medical Officer
 R.N.Z. School of Underwater Medicine
 (02-960 0444 (0800-1000 hrs)
 (02-960 0321 (other hours)
 Please state:
 The diving medical emergency
 and for the Duty Diving M.D.O. to be contacted
 Give your telephone number

darkened until the sun went down which made seeing slides early in the afternoon very difficult. In spite of the problems it was a very successful meeting.

1983

1983 we were to have used the Regent of Fiji, with its black sand beach, as a base for off shore diving. But a cyclone swept one and a half metres of water through the hotel some weeks before we were due to arrive and the ASM had to be shifted to the Fijian. Here the reefs were hardly worth the bother of diving on, but the guest speaker, Brian Hills gave an excellent, and believable, account of the problems of decompression and decompression sickness (DCS). He introduced us to his thermodynamic theory which explains, as well or better than any other theory, why the Torres Strait pearl divers did not have the expected incidence of DCS given the depths they dived to and the time they spent on the bottom. Their first stop was deep, 21 m (70 ft) or so and they were able to reach the surface far faster than the USN tables would have allowed. The USN would have spent a long time at shallow depths treating the bubbles that their first long pull would have caused. The different profiles did not mean that the Torres Strait divers were DCS free, far from it, but they should have bent on every dive according to the USN tables.

1984

In 1984 the ASM was at Phuket, an island in the Andaman Sea off Thailand. The guest speaker was Ramsay Pearson, Surgeon Captain in charge of the Royal Navy's Underwater Medicine. His and the other lectures failed to beat the attractions of the sunshine and the island. It was our least successful scientific meeting, and none of Ramsay's lectures could be published as he never handed over any text.

1985

1985 saw SPUMS at Bandos Island Resort in the Maldives. The guest speakers were Carl Edmonds and Struan Sutherland, who spoke of his work on envenomation and enlightened us with a dissertation on hydroponics. The meeting produced our first diagnosed case of DCS at a meeting. Carl preferred to treat him with surface oxygen rather than use the chamber which had not been used for a long time. The patient's symptoms went with oxygen, but not his altered mental state. He continued to threaten to sue Carl and SPUMS for negligence until he was recompressed in Australia, then he apologised and said that he had not been himself! A helping of barbecued tuna produced a textbook case of scombroid poisoning the night before we left the island.¹²

1986

1986 brought Andy Pilmanis from Santa Catalina Island off California to Moorea as guest lecturer. He had interesting messages to impart but no eye for the clock. With a portable acrylic pressure chamber just large enough to take a depth gauge I was able to confirm that SPUMS

members' gauges conformed to the British and American pattern, one third read shallow, one third were about right and one third read deep.

1987

SPUMS went to Honiara, Solomon Islands, in 1987 when Tom Shields was the guest speaker. His informative presentations included the National Hyperbaric Centre in Aberdeen and diving in Scapa Flow, where the German fleet was scuttled rather than be handed over to the British by their crews. Many of the ships lie in over 50 m and so are associated with a steady stream of diving accidents. Unfortunately Tom failed to bring his text with him and like Ramsay resisted all written encouragement, so the members missed out again.

1988

In 1988 SPUMS returned to Mana Island with Bob Thomas and Bill Runciman as speakers. They provided excellent lectures of considerable interest. Unfortunately they spoke from slides and memory and failed to provide texts, so their lectures could not be printed in the Journal. It was at this meeting that Chris Acott, Allan Sutherland and John Williamson did a pilot study of diving incidents¹³ which provided the groundwork for the current DIMS (Diving Incident Monitoring Study) run by Chris Acott. A survey of the members' ability to use the tables for repetitive dives showed dismal results, with a large proportion of lecture attendees failing to return the simple questionnaire.¹⁴

1989

The 1989 AGM was in Port Vila, Vanuatu, with Jimmy How, from the Republic of Singapore Navy, as the guest speaker. He brought his texts with him so the members who did not attend could read his presentations in the Journal.

1990

1990 saw the ASM in Palau, after a long flight from Australia which was made bearable by the fact that the front part of the plane was set up as a bar area where one could stand and chat and drink. The guest speaker was Greg Adkisson, recently returned to the USN after serving as an exchange officer with the Royal Navy at the Institute of Naval Medicine. At this meeting Ray Rogers presented the story of the development of the PADI tables with their repetitive groups controlled by the 60 minute half-time tissue.

At this meeting we heard a presentation from the Science Centre Foundation (SCF) offering to act as a secretariat for a fee. The Committee later decided to use the SCF, but found the service too expensive and unsuited to our requirements. The services of the SCF were terminated in November 1990.

1991

In 1991 SPUMS went back to the Maldives but to a different island. The Karumba resort did have excellent meeting facilities but we had poor weather as the monsoon had started. The topics were *Fitness for diving, Equipment, Buoyancy control devices, Diving emergency procedures, Decompression procedures* and *Diving accident investigation*. Glen Egstrom, the guest speaker, gave excellent presentations on each topic, excluding *Decompression procedures*. In addition there were reviews of cases from two hyperbaric units and papers from the recreational diving industry.

1992

In 1992 the ASM was devoted to the Barrier Reef and held in Port Douglas. The guest speakers were most of the staff of AIMS and many from GBRMPA (Great Barrier Reef Marine Park Authority). Unfortunately not as many members as expected came to Port Douglas, which seems to be a common thread running through the annual meetings held in Australia. Once again it was impossible to get their texts from some speakers.

1993

1993 saw SPUMS back in Palau with David Elliott as guest speaker. The theme of the meeting was *The long term effects of diving* and for the first time there was a workshop, to consider SPUMS policy on *Free ascent training*. This exotic, but expensive, location attracted a good turnout suggesting that, in spite of everything else, the thing that matters to members who attend the ASM is the diving.

1994

In 1994 the ASM had no guest speaker as Peter Bennett had to cancel too late for us to find a replacement. The theme was *Causes and management of diving accidents* and the workshop was on *Diving computers*. Excellent papers made up for the less than exciting diving. The registration fees that normally pay for the guest speaker, among other things, were used to provide St Mary's Hospital, Vunapope, with two oximeters.

1995

The meeting at Castaway Island, Fiji, was the best attended ever. SPUMS took over the whole resort and late bookers were accommodated on nearby islands. Fred Bove was back as guest speaker dealing with the theme of *Fitness to dive* and the workshop was on *Asthma*. The excellent presentations were set off by very pleasant diving.

1996

David Elliott returned to share the limelight with Bill Hamilton. The venue was Paradise Island in the Maldives. Here SPUMS was a small proportion of the hotel population. The diving was rather spoilt by strong currents and too much plankton, but the quality of the

presentations compensated for that. The theme was *Technical diving* and the meeting was almost completely a long workshop.

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Key Words

Diver emergency service, general interest, history, medical standards, meetings, qualifications.

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