

MINUTES OF THE ANNUAL GENERAL MEETING OF THE NEW ZEALAND CHAPTER OF SPUMS

held in The Bevan Lecture Theatre
Christchurch School of Medicine 13th April 1996.

The meeting opened at 1800 hours.

Present

Drs M Davis (Chairman), C Morgan (Secretary), six full members and several Associate members. Apologies were received from four members.

1 Minutes of the last AGM

Accepted.

2 Matters arising

see 3 below.

3 Chairman's Report

Much of the Chairman's year has been taken up with re-establishing the Christchurch hyperbaric unit and preliminary work towards the main SPUMS Annual Scientific Meeting (ASM) in 1997, for which he is convenor. This has left little time for other SPUMS activities such as publicising the Society to a wider audience. The executive has reviewed the chapter's accounts as minuted last year and the Secretary is in the process of rationalising these. Difficulties have again been experienced in obtaining up to date information on NZ members of the society. Next year's conference in the Bay of Islands will be a landmark event for the Chapter and the Chairman urges all NZ members to attend. Professor Richard Moon from Duke University and Dr James Francis from the Royal Navy had both indicated their willingness to participate.

4 Secretary/Treasurer's report

The financial report was not tabled at the meeting and was presented at a later date (see below).

5 Nominations for 1995-96

The office bearers indicated their willingness to stand for another term and there were no other nominations for these positions.

6 Possible venues for future meetings

These were discussed. There will be no separate Scientific Meeting of the Chapter in 1997 because of the Bay of Islands ASM. For the 1998 meeting, the NZ Naval Medical group volunteered to act as hosts at Devonport. This was accepted with pleasure from the chair.

7 General Business

C Kenny advised that he and others would appreciate viewing the accounts of the 1995 meeting in Tairua. He felt that some members may be eligible for a refund of fees as the diving trip had been cancelled.

D Gorman suggested that there must be ways of increasing membership numbers of the NZ Chapter. He pointed out that other chapters were increasing in membership numbers and that dive instructors should be advised that they were eligible for associate membership. Moved Gorman/Kenny: "that the New Zealand Chapter enter an active recruitment program and that all members try to recruit a colleague". Passed unanimously.

There being no further business, the meeting closed at 1845.

FINANCIAL REPORT

At 1st March 1996 there was \$7,016.50 in four New Zealand Chapter accounts. This represents a gain of slightly less than \$1,000 over the last financial year due to interest on the savings accounts and profit from the Tairua meeting.

Assets

BNZ Milford	\$3,168.70
ASB cheque account	\$ 227.73
ASB Savings account	\$2,536.40
BNZ (Meeting) account	\$1,083.67

Total

\$7,016.50

C Morgan

Secretary/Treasurer New Zealand Chapter of SPUMS

SPUMS POLICY ON TECHNICAL RECREATIONAL DIVING

Des Gorman, Drew Richardson, Bill Hamilton
and David Elliott

Key Words

Diving industry, diving safety, mixed gases, policy, rebreathers, technical diving, training.

Introduction

The Society dedicated the 1996 Annual Scientific Meeting to a Workshop on emergent recreational diving practices, the so-called "technical diving", in recognition of the need for some pragmatic guidance in this area from an organisation with no commercial interest in the activity and as a responsible medical society.

The Society has presented opinions on the subject previously in the form of an Editorial in the Journal.¹ This included two basic statements: first, that the risks involved needed to be understood by aspiring divers and trainees;

and that the Society “would not argue” with attempts at relevant regulation. The latter has to be interpreted in the context of the debate at the time, the nature of the then-intended diving practice and the absence of well-established diving systems outside the conventional (open circuit demand scuba-air diving to 40 msw) recreational diving clubs and instructor agencies when the Editorial was written. It also needs to be emphasised that, with the exception of “employed” divers where a regulated “duty of care” for employers is essential, the Society has never supported the external regulation of recreational diving. Indeed, the Cave Divers Association of Australia, has been and will continue to be advocated by SPUMS as a role-model of effective self-regulation.

The debate about technical diving has often been acrimonious, to the discredit of those involved, and has consequently distracted the attention of the debaters from the essential and necessary description of appropriate and relevant risk management. In addition, many commentators have become obsessed with the nature of the *diver* (e.g., recreational versus employed) rather than paying attention to the nature of the *diving*. The issue is made more complex by uncertainty as to what is technical diving. Comprehensive definitions consequently include diving practices with widely divergent risks, thus a debate on the “safety” of technical diving *per se* becomes nonsensical.

The SPUMS workshop on technical diving

The SPUMS Workshop on technical diving was free of both acrimony and rancour, indeed it was vigorous and entertaining, much to the credit of all those who presented papers, some of which are published in this edition of the Journal, and those who became involved in the debate. An acknowledgment here of the high quality of conference convening by Drs Guy Williams and Chris Acott is also appropriate. There were no written submissions.

THE SPUMS POLICY ON TECHNICAL DIVING

1 Recognition of technical diving

The Society recognises, but does not necessarily endorse, technical diving. Such diving includes activities “outside” the conventional recreational limits of open-circuit demand scuba-air diving to 40 msw and often involves special techniques, equipment, gas mixtures and decompression procedures. Although a common definition of technical diving limits practice to those which involve a rebreather or a change in breathing gas during the dive (and hence excludes shallow enriched air diving and deep air diving), it is still considered that, for the purpose of risk management, technical diving is not a sufficiently specific

term. This is because the types of diving referred to by this title are widely divergent in nature and risk. Instead, a consideration of each type of diving in isolation is necessary. It also follows that unique training and diving conduct measures are necessary for each type of diving activity.

The Society believes that the critical issue in assessing diving practice is the nature of the practice and not the intent or employment status of the divers.

2 Risk management in technical diving

Many of the following comments are generally applicable to diving, but are especially important in the context of technical diving and hence are included in this policy statement. In general, the Society encourages those who engage in any form of diving to have the requisite training, experience, attitude, equipment and support (both in the water and at the surface), operational planning and organisation to be able to dive “safely”.

The Society believes that before anyone undertakes any form of diving education or diving practice, it is important that:

the health and other hazards associated with either the diving or the training are identified, the associated risks be assessed, in the context of the health of that individual, and that appropriate control measures for these hazards are in place;

the individuals concerned understand and accept (in writing) the risks of that activity and especially in the context of their health; and

where an employer-employee relationship exists, that an appropriate duty of care be exercised in accordance with local health and safety legislation, such as occupational diving fitness standards.

Again, although this is generally true for all diving, the Society also believes that, given the current level of undergraduate education in diving medicine for medical practitioners, some form of post-graduate training is a pre-requisite to the effective conduct of “diving fitness” examinations.

3 Self-regulation of technical diving

The Society encourages recreational diving instructor agencies and dive organisations to evaluate critically all forms of diving technique that they intend to teach or practice. This recognises the current low rates of risk involved in conventional recreational diving as defined above. It is also reasonable to assume that effective control (i.e. risk management) of emergent diving techniques will result in the following:

individual morbidity and mortality rates and associated costs to local health systems will not increase; relevant health and life insurance premiums will, at worst, remain unchanged and, at best, may decrease; the public perception of recreational diving in general will either be maintained or improved; and, consequently, there will be no substantial stimulus for any increase in external regulation of recreational diving activities.

Although the Society believes that occupational health and safety agencies should be encouraged to produce codes of diving training and practice, especially for operational dive organisation and planning, and technical codes for such things as equipment design, gas standards, gas mixing and testing, it is strongly recommended that these be seen as templates and that recreational diving groups become self-regulating. It is also recommended that this regulation should be visible in the form of standards and activities such as independent audits of incidents and accidents as part of an overall quality management program.

The Society is also concerned at the currently extravagant, and occasionally inaccurate, advertising of diving equipment and practice made by some manufacturers and training agencies and at the likely consequent misleading of the diving public. A self-regulated code of practice is recommended in this context. Members of the Society are also reminded that regulations concerning the accuracy of advertising do exist in most countries and that they should be active in alerting the relevant regulators.

4 Specific forms of technical diving

Compressed air diving is not recommended deeper than 40 msw. Deep air diving below these depths in pursuit of individual or community records is considered foolish and should be discouraged.

Open-circuit demand scuba enriched air diving in accordance with proposed limits is not considered to represent a significantly greater risk to divers than conventional recreational diving practice as defined above. The PADI EANx (enriched air nitrox) program is acknowledged by the Society as being excellent and is recommended as a benchmark in this context.

Rebreathers currently available to the diving public may have operating instructions that are based on inappropriate assumptions concerning semi-closed diving apparatus and respiratory physiology. This could, and has been shown to, result in hypoxia and equivalent-air-depths that under-estimate the inert gas exposure. All semi-closed diving apparatus should be assessed for inspiratory gas content (at least over the oxygen consumption range of 0.5 to 3 litres/minute) by a suitable laboratory before sale to the

diving public. Closed circuit diving apparatus also needs testing, but with a greater emphasis on technical reliability.

5 Treatment of technical diving accidents

The first-aid management of an injured technical diver should be determined by the nature of the injury and will not differ from that recommended for divers in general.

Although the majority of technical divers developing a decompression illness will be well treated with a conventional treatment schedule such as USN 6, the Society encourages medical practitioners who may have to treat such divers to be aware of techniques such as oxygen-helium gas mixtures and saturation decompressions.

References

- 1 Gorman DF. High-tech diving. *SPUMS J* 1992; 22 (1): 1-2

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Dr Bill Hamilton, PhD, was one of the guest speakers at the SPUMS 1996 Annual Scientific Meeting. He is a diving physiologist with special interests in designing decompression tables. Many of his tables have been used very successfully by technical divers. His address is Hamilton Research, Ltd., 80 Grove Street, Tarrytown, New York 10591-4138. U.S.A. Fax +1-914-631-6134. E-mail 70521.1613@compuserve.com .

*Dr David H Elliott was one of the guest speakers at the SPUMS 1996 Annual Scientific Meeting. He is Co-Editor of *The Physiology and Medicine of Diving*, which was first published in 1969, with the most recent edition in 1993 and is also the Civilian Consultant in diving medicine to the Royal Navy. His address is 40 Petworth Road, Haslemere, Surrey GU27 2HX, United Kingdom. Fax + 44-1428-658-678. E-mail 106101.1722@compuserve.com*