

SPUMS Journal, we now have two kinds of amateur divers, sports diver and recreational diver.

Sports divers will want to know and learn proper emergency ascent techniques and will train for the eventuality.

Recreational divers do not have the same interest in the technicalities of diving and leave "all that" to their instructors and dive masters seemingly with the attitude "They'll get me out of any problem, that what they are there for." These are the people with a little knowledge that is dangerous. It is to facilitate this new recreational diver that well tried and tested methods of good dive practice are being whittled away. Old reliable safety procedures which sports divers learn and train for are too strict and take too long to learn (normally a separate course) for the recreational diver. They only want to dive during the holidays so these safety procedures are watered down or dropped or replaced with another piece of equipment that is "easy" to use. But !! What about the divers mental attitude to the environment he is in or the emergency situation he is likely to be in ? This mental adaptation only comes with training and experience. To facilitate the recreational diver the word "Danger" has been dropped or at least well watered down in the divers vocabulary. The real meaning of the word is still there as large as life, waiting to happen at the least expected time.

The medics can see the dangers and so can the instructors but some of these people shield the divers from it. When accidents happen, as they do, the divers are genuinely surprised, nobody told them it would be like this. The workshop which you are organising should be aimed at people who want knowledge, medics, instructors and sports divers. The information, suggestions and conclusions should be given out with these people in mind. Let the responsibility for the information rest with them. Most of them are responsible people, let them use the information wisely.

Some points I think the workshop, should cover:

- 1 The medical implications of each kind of ascent discussed.
- 2 A recommended maximum rate of ascent for each kind of ascent discussed.
- 3 The free ascent must be considered as the only non-mechanical option. Consider the diver with no mechanical option available to him.
- 4 The consequences of emergency ascents should be itemised with likely illnesses, symptoms, treatment.
- 5 The psychological attitude of each kind of diver likely to be in an emergency ascent situation, instruc-

tor/dive leader, sports diver, recreational diver, trainee diver. All to be considered in the light of their experience and training.

I will be looking forward to reading the report of this workshop. Some years ago the UHMS ran a workshop in Bethesda but did not really come to any firm conclusions at the end. I hope this one will be a little more positive.

Have a good, enjoyable conference.

*Mr Gerry Stokes is a member of the Irish Underwater Council. His address is 78A Patrick Street, Dun Laoghaire, County Dublin, Ireland.*

### A LETTER FROM ENGLAND

The following has been extracted from a letter, dated 19/2/93, to Dr Des Gorman, the convener of the 1993 SPUMS Annual Scientific Meeting, from Surgeon Commander James Francis, Senior Medical Officer (Diving Medicine), at the Institute of Naval Medicine, Alverstoke, Gosport, Hampshire PO12 2DL, UK.

"Thank you for your letter dated 8 February enquiring about SETT (submarine escape training tower) reports. The Standing Committee on Submarine Escape and Rescue (SCOSER) has recognised that even the most recent report is now dated and so it is hardly surprising that your request is serendipitous, Peter Benton and I are currently reviewing the data again and intend to publish a new report.

It will be very different to previous reports in that it will be manifestation-based and no assumptions with respect to the nature of the illnesses which the escapers and instructors suffered will be made. Already, this approach is throwing up some interesting observations: not least, that pulmonary barotrauma (based upon hard signs and investigation results) is nothing like as common as has previously been assumed. This approach will mean that there will be a large "unknown" category in the analysis which will contain the cases in which it is not possible to be confident of what, if anything, went wrong."

### A LETTER FROM AUSTRALIA

The following is an extract from a letter sent by Dr. John Williamson, the Director of the Hyperbaric Medicine Unit at the Royal Adelaide Hospital, to Dr Des Gorman, the Convener of the SPUMS 1993 Annual Scientific Meet-

ing, as a contribution to the Emergency Ascent Training Workshop. It had been originally written in response to a query from the Queensland Diving Industry Workplace Health and Safety Committee.

**Emergency Swimming Ascent Training (ESAT)  
vertical ascent training and multiple dives  
by instructors**

1 The risk of Emergency Swimming Ascent Training (ESAT) is essentially two-fold;

- a Decompression illness
- b Pulmonary barotrauma

The risk of "reverse squeeze" is present, but the incidence appears to be low.

Multiple ascents on a single dive modify, in an unpredictable manner, the kinetics of inert gas clearance from body tissues, in favour of the development of decompression illness.

2 In my opinion (and based partially on my own experience between 1978 and 1983 as a practising PADI open water instructor), it is better to have practised any skill (including ESAT) at least once before having to do it in anger. There is analogous data from resuscitation training that supports this contention, but I know of no firm data either way, relating directly to ESAT.

It should be appreciated that no student does it once only. It is done, as is "buddy breathing ascent" and "octopus ascent", once only in open water. It is practised several times in swimming pools beforehand. This prior pool practice is essential.

3 These practices have been applied, in Australia alone, to hundreds of thousands of student divers. Where are all the injured patients? I find it difficult to advocate curtailing the activity in the face of such admittedly circumstantial evidence. However my understanding of diving medicine causes me to urge strict practice codes for such training. I should be happy to discuss them if you wish, but these are my opinions only.

I believe "horizontal ascent training" is a poor (and not necessarily safe) alternative to ESAT. The concept that ESAT implies a rushed ascent is false.

4 It is the dive instructor who is a maximum risk. However 32 ascents a day is totally unacceptable, medically speaking and is unnecessary. In my view (and after some consultation) there should not be a necessity for an instructor (or his assistant) to do more than 10 ascents from a depth greater than 5 m during any single day with a student class (maximum 10 students). Even that number of ascents is medically undesirable, but difficult to reduce.

The maximum depth of the entire dive should be 5 m or less. The dive must not be a repetitive dive. The practice of conducting multiple open water classes with more than one student group on the same day is to be deprecated. I know it happens.

The use of the divemaster or the assistant instructor to do an equal share of the buddy breathing and octopus ascents is essential. I know at present PADI says only the Instructor can conduct the ESATs.

This approach would mean that each of the Divemaster/Assistant Instructor and the Instructor would conduct 10 ascents in 24 hours (excluding the snorkel dive), in a week-end open water dive course. Conducting the open water component of the course over 2 weekends would be safer, but will be opposed.

5 There is no hard data, except to say the fewer ascents above a total of 1 per dive, the better. However, slowly, painfully, and with the efforts of my colleagues in this Unit, the DAN Australia and DIMS (Diving Incident Monitoring Study) data is accumulating. Some meaningful data should emerge in the next 5 years.

**A LETTER FROM THE U.S.A.**

Larry Williamson

One of the first issues I would like to address is that I think it is a mistake to take an either or approach. Even when there have been rare occurrences of wide spread agreement on what could be best for people, no single solution or technique works every time. So the question should be, not what to throw away but what system is the most likely to be successful and then give that system the most support and give the other options their appropriate levels of support based on their own merit.

During discussions such as this people sometimes point to past results to determine what should be done next. During a recent (May/June 1993) NAUI Sources Forum, the debate focused on "Should Buddy Breathing be discontinued?" The majority said "No" citing such things as many lives were saved in the past because the skill was taught. However, the person saying this did not include how many died while unsuccessfully attempting buddy breathing. But even if they did include all of the past facts, the problem is that they all come from the past and are thereby incomplete or slanted by all of the other events that influence people's actions that were also at work in our culture. We should remember that no one who knew anything about history or current events regarding the relationships between countries predicted that the Berlin Wall would suddenly disappear without a shot being fired. The