

LETTERS TO THE EDITOR

UNITED KINGDOM INCOME TAX RELIEF

Inland Revenue, Personal Tax Division
550 Streetsbrook Road
Solihull B91 1QU
United Kingdom

8 October 1991

Dear Sir,

INCOME TAX RELIEF IN RESPECT OF ANNUAL MEMBERSHIP SUBSCRIPTIONS

A letter of approval is enclosed. The Society name will appear in the next edition of the list of approved bodies which is due for publication early in 1992. Inspectors of Taxes will not receive notification of the Society's approved status until then. Therefore if members wish to obtain a deduction for their subscriptions before the new list is published, they should explain when contacting their local Tax Inspector that the Society has only recently been approved and quote the Head Office reference shown above.

If there is any future change in the constitution or name of the Society, please let me know as soon as possible.

J.E. Miller (Miss)

Inland Revenue, Personal Tax Division
550 Streetsbrook Road
Solihull B91 1QU
United Kingdom

8 October 1991

Dear Sir,

INCOME TAX RELIEF IN RESPECT OF ANNUAL MEMBERSHIP SUBSCRIPTIONS

I am pleased to inform you that the South Pacific Underwater Medicine Society has been approved by the Board of Inland Revenue under Section 201 Income and Corporation Taxes Act 1988, with effect from 6 April 1990.

B. Jones

These two letters, published at the request of the Treasurer of SPUMS, will be of interest to members residing in the United Kingdom.

TECHNICAL DIVING

Fun Dive Centre
255-257 Stanmore Road NSW 2048

16.11.91

Sir

We are poised at the beginning of probably one of the most exciting eras in the history of diving. Not surprisingly, it is also a time of considerable confusion and misinformation.

Enabled by new technologies and techniques, from sophisticated computers to special mix gases, experienced divers are venturing beyond established limits, setting new boundaries, diving deeper, longer and performing dives that would have been thought unfeasible just a few short years before.

I have just returned from the USA where I had the unique opportunity of discussing "high tech diving" with some of the leading authorities in this field and to experience, first hand, the equipment and techniques used in this exciting development of diving.

"Technical Diving" had its humble beginnings in the mid 1980's. Prior to this, although many divers were regularly exceeding the 39 m sport diving limit to explore deep wrecks, walls and caves, the equipment and techniques used were primitive and dangerous as they pushed to the extreme limits and beyond.

Prior to 1985, only 4 heliox/trimix "special mix" dives had been carried out by sport divers. Regrettably, during one of these dives, a diver, due to ignorance, convulsed and died from breathing 100% oxygen at his 15 m decompression stop in accordance with the USN Heliox Decompression Tables.

Since 1985, some 400 heliox/trimix "special mix" dives have been conducted by sport divers without any major incidents. A brief overview of these dives is as follows:

Wookey Hole, UK, 1985 - trimix dive to 73 msw
Nacimiento Manti, Mexico, 1987 - trimix dive to 180 msw
South Andros Island, Bahamas, 1987 - over 60 dives on heliox to a maximum depth of 90 msw.
Wakulla Springs, Florida, USA, 1987 - 84 dives on heliox/trimix to a maximum depth of 93 msw.
Nacimiento Manti, Mexico, 1989 - trimix dive to 265 msw.
Florida, USA, 1991 - trimix dives to a maximum depth of 146 msw.

The use of "trimix" is well enough established in the U.S. that a major university, Florida State University, has

approved it for use in archaeological work.

Although oxygen enriched air has been used by many divers overseas for the past 5 years or so to make dives to depths down to 39 msw safer, its use was banned by all the sport diving certification agencies.

This year a major break-through occurred with the sanctioning of oxygen enriched air diving by the National Association of Scuba Diving Schools (NASDS), the National Association of Cave Divers (NACD) and the Technical Committee of the National Association of Underwater Instructors (NAUI). Given the competitive nature of the sport diving industry, many believe that its only a matter of time before PADI and SSI follow suit and also accept oxygen enriched air diving.

Presently there are 100 oxygen enriched air instructors working through 30 oxygen enriched air dive stores in the USA. This is a 100% increase in both areas over the past 6 months. One dive store in Washington State has converted the majority of its customers to oxygen enriched air and is filling 300-400 oxygen enriched air tanks per month.

The demand for "Technical Diving" equipment has led to the development of a closed circuit sport diving set with 100% redundancy and an endurance of 8-9 hours at 90 msw, safer decompression tables using oxygen enriched air and 100% oxygen, nitrox and heliox dive computers, and a far greater understanding of many of the "grey" areas of diving medicine.

The "Technical Diving" trend is also emerging in Europe where a closed circuit sport diving set has been developed with 100% redundancy of all electronic modules and an operational depth of 450 msw.

"Technical Diving" has forced the re-examination of many existing traditional recreational diving practices and techniques. The use of compressed air and conventional sport diving regulators for dives greater than 57 msw is extremely dangerous and can lead to oxygen CNS toxicity convulsions.

Wes Stiles, one of the world's foremost cave divers with compressed air experience to depths greater than 90 msw, now refuses to dive deeper than 39 msw unless he used "special mixes". He learnt his lesson the hard way several years ago when he only just survived a CNS oxygen hit at 49 msw in a cave system.

"Technical Diving" offers the prepared, knowledgeable diver a chance to experience a realm not previously accessible to humans. There is every reason to think that, as our technology and knowledge advances, we will be able to push the envelope further.

Bob Cason

Readers are referred to the Editorial on page 1 for the less pleasant aspects of Technical Diving.

DECOMPRESSION SICKNESS ?

Telita Cruises
P.O.Box 303, Alotau
Papua New Guinea

Sir

A case of hysterical decompression sickness ?

At 0400 on the morning of October 19th 1991 I was awakened by one of our clients aboard our charter boat. He complained of numbness and tingling in his left arm, said he thought he might have decompression sickness and collapsed to the deck. He was distressed and shocked. Within three minutes we had him breathing 100% oxygen through a scuba regulator, wrapped up with a blanket in a comfortable chair and drinking water.

Within minutes he complained, by signals and writing on a pad, that he felt tingling in his right hand and that his knees were shaking. He had urinated just before waking me "a normal morning urination, yellow". During the next half hour he drank a litre of water.

His Oceanic dive computer was interrogated and the following dive profiles obtained:

Dive	Time	Maximum depth	Dive time
1	0715	24 m 80 ft	63 min multilevel
2	1030	11.8 m 39 ft	68 min
3	1325	6.6 m 22 ft	91 min
4	1540	6 m 20 ft	54 min
5	2030	10.3 m 34 ft	42 min

All dives were well within the No-stops limits of his computer.

After a few minutes on oxygen he felt better, decided that he could not feel anything after all in his right hand. His knees stopped shaking and he was no longer cold, clammy and sweating on his forehead. After 30 minutes on oxygen he felt no symptoms at all. After an air break of ten minutes we gave him another 15 minutes on oxygen as a precaution.

On questioning he admitted that the night before he had slept on his arm and it had "gone to sleep" and he thought that perhaps this had happened again. However he was very concerned about getting the bends and thought that he should do what he did and report it to me.

That afternoon he made a shallow dive with no problems, then continued the diving cruise for a further week making four or five dives a day with no problems.

Bob Halstead