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