

## Report on the Vila Meeting of SPUMS

June 1979

Dr John Knight

Held at the Le Lagan Hotel, Port Vila, New Hebrides the Annual Scientific Meeting was extremely successful. However disaster nearly struck before we left Sydney. Our overseas speaker, Dr Jefferson C Davis, the President of the Undersea Medical Society, was to have flown into Sydney on Thursday evening. Owing to the grounding of the DC10s he had to transfer to a flight due in at 0830 Friday. Our UTA flight (on board a chartered Qantas 747) was to leave at 1100. Dr Davis' flight was delayed and yet further delayed. Luckily for SPUMS UTA's take-off had to be delayed. A worried Secretary of SPUMS, a worried travel agent and a worried UTA official haunted the PanAm arrival gate and collected Jeff Davis with just enough time for the three passengers to be last onto the 747, Dr Davis without a seat allocation. Luckily for SPUMS Jeff is a widely travelled man and always carries his slides and clothes with him as hand luggage. His diving gear was in the PanAm cargo hold and reached him a week later.

At Noumea we transferred to an Air Nauru 737, again on charter to UTA, arriving at Vila airport in the dark shortly after 6pm. The hotel provided excellent accommodation, reasonable food and a very suitable meeting room. However gremlins were about. The slide projector would work when tested before the lecture but coyly refused to function during the lecture. Here Jeff Davis displayed the flexibility that come to the rescue on a number of occasions. He carried on while another projector was produced. Next day the electricity supply disappeared in the same way. Thereafter projection was no problem. However by then the Secretary of SPUMS had tripped over the microphone lead, pulling the amplifier from its stand to the floor. It then sulked and refused to work for SPUMS, it was however mended in time for the band to blast our eardrums at the Saturday Barbecue.

Jeff Davis was the main speaker. Resumes of his talks are being prepared and will be published in the Newsletter. The first week was mainly devoted to Decompression Sickness and hyperbaric oxygen therapy, including many case reports. It was a fascinating and informative series of sessions. Dr Davis has extensive experience of decompressions sickness. He is an US Air Force doctor and for reasons connected with its easily remembered telephone numbers the USAF gets many Scuba diving accidents, both decompression sickness and air embolism. The USAF has chambers around the world for the treatment of its own personnel who develop "aviators bends". His experience include some remarkably complicated patients most of whom improved dramatically with recompression and adjuvant therapy. The Edmonds Underwater oxygen apparatus for the treatment of decompression sickness was demonstrated in the pool during the sessions on decompression sickness therapy. Vila is some hours by air from the nearest chambers and there are no aircraft immediately available that can pressurise to ground level. The water is warm and there is always somewhere sheltered to immerse the patient. Almost the ideal place to use the Edmonds equipment if it was necessary.

Ian Unsworth, President SPUMS 1975-1979 and Jeff Davis presented two days of hyperbaric oxygen. Both have considerable experience, although Brooks AFB has attracted more patients.

The two speakers advanced similar treatment regimes and produced similar results. Dr Unsworth preferred uninterrupted oxygen breathing while Dr Davis uses cycles of 25 minutes on oxygen and 5 minutes on

air. Dr Unsworth also differed in his approach to burns treatment. He covers the burn in a plastic bag and runs oxygen through the bag so as to bathe the wound in oxygen and raise the PO<sub>2</sub> to bacteriotoxic levels throughout the wound. The presentations of the treatment of radionecrosis of surgical wounds of the head and neck were most impressive and the results most satisfactory. Dr Davis distributed reprints, when his diving gear arrived, of his paper (Davis JC, Dunn JM, Gates GA and Helmbach RD, Hyperbaric Oxygen, A New Adjunct in the Management of Radiation Necrosis Archives of Otolaryngology, Feb 1979, 105: 58-61) to all participants. There are a few copies of the reprint left, and they can be obtained from the Secretary of SPUMS, Dr Chris Lourey, 43 Canadian Bay Road, Mount Eliza, 3930.

Jeff Davis' most controversial presentation was that on physical standards for sports divers. Once again the subject of asthmatics not diving raised protests. In the ensuing melee neither side could convince the other.

During the second week inner and middle ear barotrauma was discussed. One day was devoted to the problems of medical care in the New Hebrides. The spectrum of disease and the primitive nature of the local society mean that public health should have a high priority, but this is the weakest side of health care. At popular request from the local diving club a second demonstration of the Edmonds underwater oxygen therapy equipment was put on. This time the audience was almost all French divers. Luckily for them they had an efficient interpreter so they did not have to listen to John Knight's bad French. Jan Pegg gave an interesting talk on the habitat dive to 500 feet run by the University of Hawaii some years ago. The whole exercise was conducted in the open ocean and the next speaker contrasted habitats with the current system of saturation diving where the divers live in a chamber on the deck and travel to work in a personnel transfer capsule (commonly called a bell by commercial diver). In this segment the principles of saturation diving were covered with a discussion of the physiological and engineering problems involved. The session ended with a slide tour of various chamber installations. The highlight was Jan Pegg's tape of helium speech at the surface, at 50 feet and at 500 feet. Very few had heard helium distorted speech before and none could decipher any more than the opening A,B,C. No one put his hand up when the speaker said "Anyone who can understand this put his hand up".

The last session was devoted to a discussion of the sperm whale's sonar system by Jan Pegg and a conducted tour of the USN's new Experimental Diving Unit at Panama City by John Knight. The Ocean Simulation Facility with a wet pot 48 Feet by 15 feet and a depth capability of 2000 feet, has been used for testing new equipment, such as the Mk 12, which will one day supersede the old hard hat Mk V, and the Mk 14 push-pull very deep diving concept.

The social and diving side of the programme was a success. There was one unfortunate dive trip when an inexperienced skipper anchored in the wrong place but every other dive was acceptable or better. Votes of thanks are due to Anthony Newly and Renato Miola of Always Travel who once again oversaw the travel and diving arrangements, to Bob and Gill Netherwood of "Escapade" and Denny and Merrell Smith of "Nautilus Dive Shop" who ran the diving operations with great skill and immense enthusiasm.