

IDLE TALK: WHAT DO YOU REALLY NEED TO KNOW?
DG Walker

There is a trick known and practised by every successful politician, and by those who organise any meeting which is intended to produce conclusions, by which the desired answer can be made likely and the difficult questions ruled out of order. This is through the careful wording of the Terms of Reference, a document or statement which hypnotises the average participant like a bright light can a fish at night. The same effect is self induced whenever we seek to answer an immediate problem without giving any thought to the totality of the circumstances within whose frame the problem has arisen. Several instances of this blinkering of thought occur in the diving world, a prime example being a fixation on making it possible for a man to work acclimatised to great ambient pressures when the requirement may be to enable man to work where the job is itself subject to a high ambient but the operator need not be so exposed. A more divisive problem has been the long running saga of the Emergency Ascent Training controversy. Wittingly or otherwise, the Big Five American Diving Instructor groups (NSTC) seem to have orchestrated such a misdirection ploy at the "Workshop" called to discuss this matter under the patronage of UMS and NOAA. Thereby they lost a golden opportunity to make a radical examination of the important matter which should have occupied their thoughts, the basic skills needed by every scuba diver. The chance was ignored.

The meeting was attended by many astute, experienced, highly respected members of the "diving medicine" fraternity of the USA, the majority of whom allowed the discussion to centre about one particular solution to a problem (being out of air) whose frequency, cause, avoidability and true morbidity were not treated as being relevant. There was no attempt made to show that the desired skill (to make a safe emergency ascent in a real need situation) would result from the inclusion of a practice emergency ascent during an initial diving course or that people had either suffered from the omission of such practice or benefited from its inclusion. While it was admitted that emergency ascent practice carried a risk, its proponents readily accepted that accidents were a small price to pay. In their introductory statement to the meeting the Instructors made it clear that they took it to be self evident that the practice of emergency ascent(s) was an essential part of the basic training, without which the diver could not be considered to be equipped to dive safely. What they wanted, it appeared, was to be told that such practice was safe, or could be made safe. It is salutary to remember that what one generation considers to be "self evident" is frequently either disproved or markedly modified by those which succeed it. Unfortunately the belief that Emergency Ascent Practice is A GOOD THING is as deeply ingrained in the subconscious of many divers (Instructors and Doctors included) as was the belief in Original Sin in the Medieval Church. And as difficult to question.

What is the possible origin of this tenet? Probably it arose in the early days of the popularisation of SCUBA, for the equipment was often home made from war surplus materials, there was no instruction available (or thought to be necessary), and cheap imported demand valves were likely to "pack up" unexpectedly. Naturally there were no contents gauges (submersible) because the naval technique with open circuit units was based on decanting between twin bottles. Most of the early divers were graduates from breath-hold spearfishers, at least in the UK, real he-men who welcomed the spice of danger. Twin "tadpole" tanks limited diving somewhat and free ascent practice occurred naturally in the regular course of diving activities. When information filtered down that the USN and Royal Navy put their submariners through supervised Ascent Practice a certain degree of resentment and a feeling of being considered as second class citizens may have been natural when they, the sport divers, were told that they should desist from including this type of ascent in their training programs. This hankering to return to the good old days seems to have been successful in the USA lately, and many European countries never abandoned the practice. But as the latter keep no valid records of their diving casualties, and these are believed to be high, their decision may represent a mistaken priority in training matters. Some faint echoes of the days when divers had a need to be heroes lingers yet, one example being the NAUI "bail out" drill and another the desire to retain or resume practice emergency ascents. While it is instructive for those interested in medicine and biology to watch the foetus recapitulate some of the evolutionary history of its species, such as the appearance of gill slits in the human, it is hardly necessary to suggest the same holds true for diver training. All training courses should be based on the requirements identified from the most recent available information, not on what used to be thought necessary.

Perhaps you remember the story of the traveller who wished to confirm that he was on the right road, so approached a group of the locals for advice. He was soon in receipt of a mass of conflicting directions and began to despair of discovering the truth of the situation. At last one man drew him aside and said "If I were you, I wouldn't start from here". Would that such advice had been tendered loud and clear early in the "workshop", for the advice would have served them better than it did the traveller.

Where therefore should discussion of this or any other significant problem commence? As the King of Hearts told the White Rabbit, one should start at the beginning and go on till you reach the end; then stop. As there have been at least 80 deaths during training of sport divers in the USA 1970-1976, of which 20% were in association with Emergency Ascent training of some sort, it is obvious that present training methods require some improvement. Mr John McAniff, director of the University of Rhode Island National Underwater Accident Data Centre stated his view bluntly; he

believed that NO death from such training was the only acceptable record. However others, while regretting the individual tragedies, considered the incidence statistically insignificant. This viewpoint seems to miss the reasons for obtaining instruction, which do not include Russian Roulette.

The basic reason for making an emergency ascent of the type under discussion is actual, imminent, or supposed interruption of air supply. The most common reason for this in a Scuba diver is that he has used up his air, equipment and malfunction being rare (it is said). Such an out-of-air situation should be largely avoidable if the diver monitors his remaining air. There is no reliable information available as to the frequency of such situations, only a fairly complete roll of those who die as a result. Cases where the ascent is either completely or partially non-traumatic are poorly documented, for a number of reasons. Fatality reports seem to indicate that it is the untrained and the inexperienced who die, careful divers following accepted safe diving rules rarely paying this price for their mistakes. This seems to indicate the value of training in the basic skills and attitudes to diving, which will keep the diver from creating danger situations for himself. This view receives support from the excellent safety record of the BS-AC, which for many years has not allowed Emergency Ascent to be practised by its members, but has concentrated rather on strict training and dive discipline. Well trained divers are likely to resist panic and are more likely to make successful out-of-air ascents based on their knowledge of what to do (as contrasted with having previous practical experience of the procedure). Naturally some BS-AC members hanker to be allowed to "Free Ascend", but remain restrained by Royal Navy advice.

Both Art and Science have their fashions, trends which overwhelm the critical faculties of the majority of those currently active in moulding opinion. Medicine's fads and fancies have been legion but have usually yielded in time to the force of facts. Such evidence is rarely accepted immediately, however compelling it may appear to those who come later, because current beliefs effectively censor out unwelcome input. It is, however, possible to side step this obstacle by rephrasing the problem such that it is accepted not as an attack on accepted beliefs but rather as a fresh challenge. The brain, like a computer, will use only the program you set it. It answers the question you set, not the one you thought you were asking. If you ask how to make it safe to make an Emergency Ascent, or reduce HPNS, or withstand cold/oxygen/nitrogen/decompression risks, etc., it will work on the problem without asking whether exposure to such risks is worthwhile ... unless you program yourself or the computer to seek such information. The first stage in any discussion should be a defining of the basic problem (safe achievement of some underwater program) and the collection of all possible relevant information. Diving Medicine has been seduced by a belief that all was understood about basic safety and has wandered off into the interesting borderlands of

knowledge. Diving exposes an individual, with an unique, complex and ever changing physiology, to a series of constantly changing thermal, barometric, chemical and psychological Stresses. The problem is made more complicated by failure to recognise, till recently, that such factors were operative. The only measurement used till recently has been the scale dead/ill/minor or nil complaints, without regard to finer degrees of morbidity. Morbidity, of course, is very difficult to measure and has a large subjective element: it is also something most people don't want to find! It is this very unwillingness to seek the basic problems and to prefer to concentrate on the peripheral ones that leads to expensive and spectacular progress towards what may turn out to be dead ends. Is it truly our intent to have every sport diver "overtrained" in emergency ascent through multiple repeated practice ascents, or is there a better approach to safety? Is the answer to exploring the depths to be liquid filled lungs, or artificial gills, or a machine-dependent man breathing exotic gas mixture, or would a 1 ATA suit be simpler and safer. Unless we start to consider what we are trying to achieve, we will continue to risk a misdirection of effort. As such misdirected effort may expose those concerned to risk, serious thought must be given to both current and proposed practices. How about holding a "workshop"?

HOW TO AVOID FISH HANDLER'S DISEASE

A common occupational disease among people in the fishing industry has been called "fish handler's disease", and is known medically as erysipeloid. Symptoms include an inflammation of the skin on the hands and arms, ranging from small red spots to large red swollen areas.

The disease is actually an infection of the skin caused by the bacteria *Erysipelothrix insidiosa*. These bacteria are present on marine fish and cause the infection by entering the skin through tiny cuts and scratches.

"Fish handler's disease" can usually be prevented by washing your hands and arms thoroughly with a strong soap or detergent after handling fish. For further protection you can rinse your hands and arms in a sanitising solution. There are a variety of commercial sanitising solutions available, or you can make your own by mixing two teaspoons of household bleach in a gallon of fresh water.

REPRINTED BY KIND PERMISSION OF THE UNIVERSITY OF CALIFORNIA MARINE ADVISORY PROGRAMS NEWSLETTER.