At any stage in the Stratified Screening Program, a significant ECG abnormality (resting or on treadmill) or elevated risk factors can cause a subject's temporary grounding pending definitive assessment of his status.

In the first 12 months' experience of using the Stratified Screening Program in Tactical Air Command, only 23 exercise tolerance tests were adjudged abnormal and only two aviators were permanently grounded. Moreover, temporary suspensions from flying have been shortened to less than six weeks each, on average.

MINIMAL REQUIREMENTS FOR ADEQUATE MAXIMAL EXERCISE TOLERANCE TEST USED FOR SCREENING FOR LATENT CORONARY ARTERY DISEASE

1. Fast for 12 hours prior to test (no meals, coffee, cigarettes, or other tobacco products).
2. If possible, perform test early in the morning shortly after patient wakens.
3. Insure serum potassium is normal.
4. Perform the following baseline studies: fasting 12 lead ECG and supine and standing hyperventilation sample of the leads which will be monitored throughout the exercise.
5. Include at least lead V5 at the end of each stage. Ideally, all 12 leads should be recorded every minute.
6. Accurately record all leads, stages of exercise and blood pressures during each stage of the stress test.
7. Exercise tests should be maximal, limited primarily by symptoms (usually leg fatigue).
8. Include at least six minutes of recovery tracings with the exercise ECG.

The major benefits of the Stratified Screening Program are:

(a) flyers not having increased risk of coronary artery disease are not subject to additional screening procedures, and

(b) reduction in number of "false positive" results requiring flyers to undergo full School of Aerospace Medicine evaluation.

Tactical Air Command believes the present Stratified Screening Program is a valuable predictive tool. It has been adopted now by USAF in Europe, and the USAF's Pacific Air Forces. Further refinements in the program should be possible as experience increases and historical data accumulate. Aircrew acceptance has been excellent, due to publicity given to the need for the program and the high "return rate" of flyers investigated even at Phase II and III levels. The Stratified Screening Program should have considerable future applicability in military aviation medicine practice.

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WILL YOU BE DAMNED IF THEY SUE?

Douglas Walker

Until recently divers in the UK and Australia, particularly those involved in Sport diving, had a secure feeling of somewhat condescending superiority when they discussed their fellow divers in the USA, a tribe seemingly living in constant fear of having a $1 million lawsuit slapped on them at the drop of a weight belt. It did not seem to be necessary to do more than give someone a helping hand before being lumbered with a lawsuit by relatives and lawyers flush with a disposed-of dearly beloved and a thirst for cash. The recently reported case in the UK where two highly trained, respected and more than averagely careful divers ended up defending themselves in the High Court shows that the Days of Innocence are over in the UK, and presumably the "let's sue" habit will soon come here. Do not rely on a ten year or so time lapse for such matters, rather learn and take appropriate care NOW. Remember the advice given to young girls (at least before the days of Supporting Parents Pension) "If you can't be good, be careful".

In these days what degree of care is expected of a dive shop, instructor, or chance buddy? Only time, and a Court of Law can say, but it is unlikely that the hire or loan of compressed air type diving apparatus, whether in good or poor condition, will be thought reasonable unless the recipient is reasonably believed to be competent to use it. Past Incident Reports may be thought to relate to the "hairy" days of diving before the value of adequate instruction and practice became accepted, before the value of using contents gauges and efficient buoyancy vests became the norm rather than the exception. The standard of care expected has risen, and will continue to rise.

Litigation often hits the good guy who makes an honest mistake, but careful attention to presently accepted practices of safe diving is the essential weapon your lawyer will require from you. Getting your customers to sign an indemnity form will hardly be a valid defence if they can be shown not to appreciate the dive's possible dangers, as there would be (arguably) an absence of informed consent and understanding. Or so the tale might go, and who wants to be a test case in our High Court? Leaving aside what may have occurred in Australian waters, we can look at a case reported in the USA as a warning to dive shop operators to keep up their Insurance. In a country where more pupils die yearly under instruction than die from all causes in Australian waters, it is ironic that the case appears to confirm the belief that it is the good guys who get it in the neck.

The victim went to a dive store and booked for a boat dive, at the same time hiring equipment of a type with which he was acquainted. His C-Card was checked before the transaction was finalised and the equipment itself was checked in the store before a witness before being handed over. On the boat all the divers were informed of the boat and dive rules before diving commenced. The boat was licenced for such commercial dive trips. At some time later the victim was seen to surface about 100 feet from the

dive boat with mask up on his forehead. He was alone and was seen to wave twice, then submerge. Water conditions were calm. These events were observed and a search was initiated. He was reached within four minutes of his disappearance and on the boat within six minutes. Both the store employees on the boat were trained in CPR, which was immediately begun. The Coast Guard, with two paramedics, arrived sixteen minutes from the commencement of the incident. The victim was noted to have air remaining and to have neither inflated his buoyancy vest nor dropped his weight belt. No details are known about the dive or the buddy's version of what had occurred, but this sounds like a classical air embolism fatality following a panic type ascent, "topside" having done everything reasonable. But the deceased's relatives thought than a lawyer could make their loss bearable and summonses were issued.

The claim was made on a number of grounds, consideration of which could be salutory to everyone in a position of responsibility in a diving situation. The dive shop in this fatality appears to have an excellent defence (and insurance to pay a good lawyer!), but nevertheless the charges were made viz, that they failed to instruct the deceased in the proper procedures for scuba diving, failed to determine whether prior to the incident he was competent to perform the dive in question, failed to properly instruct the deceased AND HIS DIVING BUDDY as to the procedures of the "buddy-system" when one diver is in trouble, and failed to properly instruct the employees on the boat as to the proper supervision of the divers from the boat to determine if they were in trouble. It was charged that there was also failure to rescue the diver when he was in trouble and failure to maintain the equipment of the deceased and of the others. This is known as a blunderbuss charge, fired with the hope that some chink in the defence will thereby be discovered. To add to the entertainment, the buddy was sued also. He was charged with "the duty to use due care in observing the location and condition of his diving partner and breaching the duty when he failed to observe than the deceased was in desperate trouble". The dive store is expecting to present a successful defence, but the buddy is less well placed if such a charge is pursued, the cost in cash and worry being high even if he should be exonerated. Perhaps he should counter claim against the estate of the deceased for being put in personal jeopardy himself and for the mental stress, etc. caused by the litigation. As it is said to be cheaper to kill than injure on the roads of the USA, he just might come out on top. It is mind boggling to try to imagine the dive conducted in accord with total legal safeguards. One would never dive except alone with one's own apparatus made by oneself, as would have been the compressor. Naturally nobody would be fool enough to stick his neck out by training and certifying to your competence. Which is absurd. But LIABILITY is here to stay and the best defence is to always act in a manner your peers would defend against a lawyer armed with hindsight and a Diving Manual. You have been warned!

ADDENDUM

A newspaper report on the inquest held recently in Cairns concerning the death of a day-trip tourist diving with hired equipment indicates the urgent need for the application of stricter safety standards. The victim and his wife were on an advertised trip to an offshore tourist resort. As an added attraction, scuba diving equipment was available to anyone who paid extra. The couple had only once previously used scuba, ten days previously in shallow water. They were provided with equipment and allowed to descend to 50 feet depth at the boat's side before commencing an underwater swim towards the reef area shorewards of them. There was another customer, but he gave up when aware of the dive situation. The "instructor" from the boat swam on ahead of the two others, but swam back hurriedly when he observed that the victim was motionless underwater. It was stated that the buoyancy vest was lacking a CO_2 cylinder and that the regulator was functioning imperfectly. The Coroner recommended that the Queensland Government legislate to prevent such a situation being allowed in the future.

SPUMS SCIENTIFIC CONFERENCE 1981

MEDICAL SUPPORT FOR DIVERS IN NEW ZEALAND

Tony Slark

New Zealand is a small country and we have a very centralised system for controlling commercial diving. This is only inhibited slightly by rivalry between government departments, which seems to be a problem with government departments everywhere. The Department of Labour has the administration of the Construction Act, the legislation which covers work under water. There is in the Construction Act a requirement for the Department of Labour to produce a code of practice for the worker under water. This is under constant revision. It was revised again at the end of 1980. It follows very much the pattern of the past and has only got a few vital changes which some of us were influential in making.

The other Department concerned is the Department of Energy. This is a very important Department in New Zealand and one which likes to retain it autonomy. Often it refuses to co-operate with the Department of Labour in trying to control the legislation and management of people who work under water. Their reasons for this are difficult to understand. I suppose that they feel in view of the relatively few people involved that their present management is as good as possible. In theory, they review every single contract, note the way that the contract is managed, and send people out periodically to see that everything is alright. It works less well in practice because occasionally things happen that should not happen and no-one ever tells them about it, while some supervisors