

# **EXHIBIT A**

Roger Bullock  
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Dear Sirs:

As requested, I have reviewed the documents you provided, as well as other documents, and have provided my opinions in the Tuvell vs Blue Water, et.al. litigation.

My professional CV is attached, along with a list of my recent published works. In brief, however, as pertinent to evaluating the present matter, I have been a diver since 1963, a diving instructor since 1976, a PADI Instructor (#8066) since 1977, and a PADI Course Director (instructor trainer) since 1981. I became a fulltime executive for PADI (the Professional Association of Diving Instructors) in 1978 and currently serve as Senior Vice President, Legal Affairs of PADI Worldwide. During my tenure, I have been directly involved in the writing and/or review of most of PADI's educational programs and standards, specifically including the Discover Scuba Diving (DSD) program. Additionally, I was one of the founding Board members of the Recreational Scuba Training Council (RSTC), which we organized for the purpose of creating industry-wide dive training standards (these are reviewed and implemented using the ANSI standards development process and protocols). I was also a member of the Board of Directors of the Diving Equipment and Marketing Association (DEMA), the dive industry trade association, for many years, including serving as President of the Board for 6 years, and was Publisher/Editorial Director for the Skin Diver Magazine Group for 4.5 years.

In preparation for evaluating the incident, I have reviewed the following materials and documents: Tuvell Complaint; Blue Water's Answers and Affirmative Defenses to Amended Complaint; Depositions: Corbett Douglas, Donald Jones, Wendell Nope; Richard Driesbeke, Dale Stacy; Statements: Mike Perry, Matthew Perry; R Driesbeke Equipment Inspection video; Introductory Scuba Standards: PADI, SSI, NAUI, SDI, WRSTC, ISO; *UnderCurrents* magazine, October 2014 and March 2012; "Recreational Diving Fatalities" (April 8-10, 2010); US Consumer Products Safety Commission "Hazard Screening Report, Sports Activities and Equipment" (May 2005); Janeen Reichert complaint letter

Based upon my review, I have the following opinions:

**PADI's Discover Scuba Diving ("DSD") Program's Standards**

1. The DSD program offered by PADI complies with all standards for Introductory Scuba as published by the World Recreational Scuba Training Council (WRSTC), as promulgated by the

following dive organizations: IDEA (International Diving Educators Association), PDIC (Professional Diving Corporation), PADI (Professional Association of Diving Instructors), SDI (Scuba Diving International), SSI (Scuba Schools International), ACUC International, International Aquanautic Club, IDEA Europe, NASDS Germany (National Association of Scuba Diving Schools), PADI EMEA (PADI Europe, Middle East and Africa), PSS (Professional Scuba Schools), SDI Germany, SNSI (Scuba Nitrox Safety International), SSI Europe, PADI Asia Pacific Japan and SSI Nippon.

The DSD program offered by PADI complies with all standards for Introductory Scuba as published under the ISO ("ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization. International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2).

2. In addition to meeting those standards, PADI's DSD standards also require participant registration, with e-mail addresses, for the purposes of Quality Management review. In this process, 100% of such participants are sent a Course Evaluation Questionnaire (CEQ); all CEQ's returned to PADI are examined for answers that might indicate standards violations; and those found are followed up through PADI's normal, ongoing Quality Management process. Violations from all PADI educational programs are examined and adjudicated by PADI's standing Quality Management Committee, which meets every two weeks, ongoing, for this purpose. Confirmed violations result in a range of actions for the PADI Individual Member or Dive Center/Resort involved, depending upon severity, from counseling to mandatory re-education to expulsion from PADI Membership. As no other organization in the dive industry requires such Participant Registration, or performs such ongoing, proactive quality management activity, PADI's knowledge of standards compliance by its members providing introductory dive experiences exceeds that of any other dive organization. Additionally, this expensive, resource-intensive approach, which is over-and-above the standards of any other dive organization or community standards body, is carried out voluntarily by PADI, purely for the purposes of providing for standards compliance and participant safety. In addition, the range and specificity of PADI's required instructional materials to be used during DSD generally exceed those of other organizations.
3. In contradiction to Blue Water's various claims from the deposition of Corbett Douglas regarding various ways in which PADI's DSD standards are purported to be different than, and inferior to, the introductory scuba standards of other dive organizations, the following points illustrate the inaccuracy of Douglas' claims:

- A. That PADI's participant to instructor ratio for introductory scuba exceeds that of other dive organizations – Douglas makes the accusation in his deposition testimony:

"THE WITNESS: I am aware that PADI continues to maintain that standard while other dive industries are certifying in...agencies have reduced their ratios for safety reasons."

Based upon examination of instructional materials, the following ratios existed at the time of the Tuvell accident: WRSTC, 4:1; ISO, 4:1; National Association of Underwater Instructors (NAUI), 4:1; Scuba Schools International (SSI), 4:1; Scuba Diving International (SDI), 4:1; and PADI, 4:1. (Scuba Diving International (SDI), the sponsor of the Willis insurance program utilized by Blue Water and its instructor in the Tuvell litigation, has announced a subsequent reduction in its introductory scuba ratio. Interestingly, however, the indication of a reduction was initially announced not by SDI itself, but by its sponsored professional liability insurance program, Willis, saying that it would cease providing professional liability insurance coverage for introductory scuba at ratios higher than 2:1. Further, that announcement was made not specifically to the SDI membership, but instead to those SDI *and other agency dive professionals* who carried Willis professional liability insurance. SDI's standards change regarding such ratios, thought to have been forced by this loss of insurance coverage, was not announced until some eight months later (in early 2013).

- B. That other diving other diving organizations have ceased offering introductory scuba to children, while PADI continues – Douglas and his attorney make that claim in Douglas' deposition testimony:

"Q. (BY MR. CONCANNON:) Are you aware that PADI continues to allow children to participate in the DSD program while other training agencies have raised the minimum age?

A. Yes, I am."

Based upon examination of instructional materials, the following minimum ages for introductory scuba existed at the time of the accident: WRSTC: no minimum age specified; ISO, no minimum age specified; National Association of Underwater Instructors (NAUI), minimum age 12 ( historical, not a change); PADI, minimum age 10; Scuba Schools International (SSI), minimum age 10; Scuba Diving International (SDI), minimum age 10.(SDI recently announced reduced ratios if younger than 14, revision as of 10-1 2014 standards.) It is also interesting to note that the current industry practices involving training children as young as the age of 10 years old were first widely promoted in the US by SDI.

- C. That PADI's requirements of its instructors to reduce ratios when environmental, etc. conditions warrant it are, from Douglas' deposition, "meant merely to protect PADI in the event of an incident, because they can always blame the instructor for not exercising his

professional judgment” - The standards of the major diving organizations (including SDI), and ISO, include a virtually identical requirement. The ISO standard is typical:

“9.1.2 The safe supervision of students is exclusively the responsibility of the scuba instructor. Where environmental conditions are less than ideal (e.g. where underwater visibility is poor, or where there is significant water movement), the scuba instructor shall limit the number of students under his/her responsibility.”

- D. Additionally, PADI’s and other organizations’, as well as the RSTC’s and ISO’s, definitions of “direct supervision”, which is required in all introductory scuba programs, are virtually identical.
- E. Further, PADI’s and other major diving organization’s “buoyancy check” procedure, as further discussed in “The Claim that the Instructor Did Not Violate PADI Standards...” Paragraph 2 (B) below are virtually identical.

#### **The SDI/Willis Insurance Program’s and other SDI-associated Individuals’ Public Activities Regarding Introductory Scuba Ratios**

It is interesting that SDI, the sponsor of the Willis insurance program utilized by Blue Water and Mr. Douglas, has changed its position on introductory scuba ratios several times throughout its history:

1. In 2001, through its former owner, Mr. Bret Gilliam (who has been mentioned as a potential expert witness for Blue Water against PADI in this litigation), SDI attempted to join the RSTC. Among other issues debated, SDI’s introductory scuba ratio at that time was 6:1 while the RSTC standard allowed a maximum of 4:1, as had been adopted by PADI and the other RSTC members. SDI disagreed with the necessity of lowering its intro ratio to 4:1 but ultimately did so in order to be allowed to join.
2. Despite SDI’s approx. 13 years of utilization of the RSTC’s 4:1 introductory ratio, once the SDI-sponsored Willis insurance program announced its coverage reduction to require a maximum of 2:1 effective 1 January 2013, SDI quickly began an attempt to convince the other RSTC members to immediately reduce the RSTC ratio to 2:1. This effort has continued until current times, despite the lack of interest of the other RSTC members, including a letter sent to the RSTC by SDI’s training manager on December 9, 2014.
3. Despite Mr. Gilliam’s sale of SDI to its current owners, his involvement and influence still appear evident. In an article in the October 2014 issue of *UnderCurrents* magazine, he is quoted, along

with the SDI/Willis insurance program's (also Blue Water's) counsel, in an article critical of PADI and the DSD program, with references to the Tuvell case.

### **The Safety Record of the PADI DSD Program**

A key claim being made publicly and in published writings by Mr. Gilliam; the SDI/Willis insurance program/Blue Water counsel; Mr. Carney of SDI and the previous broker for the SDI-sponsored Willis insurance program, is that the safety record of DSD is poor and that PADI's own data show that (using the fatalities per 100,000 dives data) that DSD "has a fatality rate twice that of PADI's Open Water Diver program." (For the sake of accuracy, the study actually reports on "entry-level" certifications, which include both Scuba Diver and Open Water Diver; but for ease of discussion, I'll use a reference to Open Water Diver/Scuba Diver.) This claim is intended to support Blue Water's criticism of the PADI DSD program and its positioning that the instructor did nothing wrong – and, that the accident was caused by the DSD program's poor standards (as ostensibly reflected in its alleged poor safety record).

This issue regarding the DSD program's alleged numerically-poor safety performance has a specific history directly involving Mr. Carney of SDI, Mr. Gilliam and Blue Water's counsel:

1. First, this allegation is only even made possible by two facts: (1) Because PADI, unlike any other dive organization, requires registration of DSD (introductory scuba) participants along with all other educational program students, as well as the reporting of all dive incidents involving or witnessed by PADI members, PADI has the singular ability in the dive industry to be able to track the safety performance for its educational programs; and (2) in 2010, PADI presented a 20-year study of its major educational programs' accident rates at the DAN (Divers Alert Network) Underwater Fatality Conference, which published the results in "Recreational Diving Fatalities" (April 8-10, 2010). PADI went to the significant effort required to carry out this particular study and to present it, for the sole purpose of increasing diver education knowledge and safety. The straight-forward counts of dives, participants and fatalities claimed no complex interpretations, and there certainly was no attempt or means to have the data derive and/or explain the complex, potential relationships between different courses with different levels of training and numbers of dives, as do the claims put forth by the Blue Water parties. The study provided an extensive presentation of global data that had never existed before in the industry, in the attempt to begin to establish useful baselines and to encourage other organizations to add their own data as time went on. No other US dive training organization has ever done anything like this, and as regards introductory scuba programs, nor could they, because they do not require participant registrations.

2. The complete study included DSD and the Open Water Diver/Scuba Diver training courses, for the periods 1989-1998 and 1999-2008, and it was presented in total at the conference. In presenting it, PADI's then-COO (and current President and CEO) Drew Richardson made it clear that, regarding DSD, though the overall study began with 1989 figures, the DSD program was not introduced until 1992. And, because DSD's introduction represented the first time that introductory scuba had ever involved registration of participants, the registration take-up had started slowly. As a result, the number of DSD dives reported and the population of DSD participants for the 1989-1998 period (and to a lesser degree for the 1999-2008 period) were artificially low. (PADI's previous introductory scuba program, like the other existing programs, was general in nature as regarded standards and any required educational materials, and did not require registration.) Additionally, since the DSD numbers reported generally do not account for repeat dives by previously-registered participants (DSD participants often go on subsequent DSD dives but aren't registered again), the number of DSD dives accounted for is even further under-reported. Further, until 2001, PADI, like other RSTC organizations, used a 6:1 ratio, creating an additional data disparity versus more recent years. All that being said, PADI's numbers were presented 'as was', despite the obvious mathematical result that any fatality *rate* (fatalities per 100,000 dives or per 100,000 participants) computed using such low populations would be skewed artificially high. It is of interest to note that both Mr. Carney of SDI and Mr. Concannon, presently the attorney for the SDI/Willis insurance program and Blue Water, were in the audience for this presentation.
  
3. In various published articles, letters, etc. by sources related to the SDI/Willis insurance program, Blue Water's counsel and Mr. Gilliam since the onset of the Tuvell litigation, most recently in a 2014 article in *UnderCurrents* magazine titled "PADI's Wicked Ways" (which quotes both Mr. Gilliam and Mr. Concannon), the 'twice the fatality rate' claim has been repeatedly made. The basic flaw in their implied negative 'meaning' of these data is that the straight-forward, count-based data provided by PADI's report don't provide the information required to adequately draw the sorts of conclusions they attempt to draw. Specifically, DSD is a one-dive supervised experience (and, as mentioned, with any subsequent dives not likely recorded in the data). Open Water Diver (OWD) is a four-dive program, and Scuba Diver is a 2-dive program.

As with, say learning to drive a car in a driver's education course, one might well expect that the risk of an accident would be somewhat higher the very first time behind the wheel, compared to the fourth. (However, without comparative data for the individual driving sessions, a valid conclusion couldn't be drawn.) Similarly with this sort of comparison between DSD and Open Water Diver training, one would tend to expect that OWD's supervised dives two through four, which have been further augmented by additional training along the way, might very well have decreasingly less risk than did its or DSD's dive number one. However, in that the study in no

way compared the DSD dive #1 to any specific OWD or Scuba Diver course dive, there are no data available to support any conclusion that the different fatalities per 100,000 dives ratio for a single DSD dive vs four OWD dives or two Scuba Diver dives means a DSD dive is any way less safe than an OWD or Scuba Diver dive – or vice versa.

4. Perhaps more importantly, however, is that their point also has no bearing on the inherent effectiveness of the DSD program. The real question is not how DSD may differ in a side-by-side, per 100,000 dives comparison with OWD and Scuba Diver, but how effective DSD is (1) against other introductory courses being offered by the diving community (one must keep in mind that the notion of introductory courses in general is not what is being criticized, only the DSD program); and (2) how DSD risks compare against other accepted recreational activities.

As to how DSD compares to other introductory courses, considering that DSD (as previously illustrated) uses the same baseline standards as other programs, but in addition has more specific educational materials than the others; has required registration for ongoing quality management oversight; and has significant DSD program training and information provided to instructor candidates during their instructor training programs, one might well-surmise that, compared to other introductory programs being offered by the diving community, PADI's DSD program would have better safety performance than the various others. However, since none of the other programs have performance data available, there is no valid statistical basis for making such a claim, regardless of how apparently logical it might be.

5. What can be determined, however, is how DSD compares to other recreational activities that have published fatality rates. In such comparisons, when the frequency of the activity is unknown (which is common because of the difficulty in establishing valid frequency data for participants of recreational activities), the measure normally used is *fatalities per 100,000 participants*. For DSD, the participant count (though tending low, as previously discussed) via registrations is a finite number, as are the numbers of fatalities reported.

The PADI study shows that DSD/introductory scuba had a fatality rate of 2.898 per 100,000 participants for the period of 1989-1998. However, as mentioned above, DSD was not introduced until 1992, and the population was artificially low; and, additionally, the RSTC student to instructor ratio adhered to by PADI was 6:1 prior to 2001, as compared to the 4:1 ratio used ever since. These differences would tend to make the data for the first ten years of the study less-than-reliable for comparison purposes to current performance data.

If, however, the ratios for the entire 1989-2008 period of time measured by the study are used, the fatality rate for DSD is shown to be 1.369 fatalities per 100,000 participants. Further, if the



study's most recent measured period of 1999-2008 is used (the time of more maturation of the DSD program in terms of registration and the present 4:1 ratio, as well as being overall more a likely measure of the program's current standards and performance), the rate for DSD **is 1.140 fatalities per 100,000 participants – and, the study also established that in excess of 31% of those fatalities were cardiac events considered unrelated to anything specific to diving.**

As to how this compares to other similarly reported dive accident figures, the "Recreational Diving Fatalities Workshop Proceedings" (April 8-10, 2010) publication that contained the PADI study also reported the following additional diving fatality per 100,000 participants data:

- \* All divers in the US, in and outside training: 3-6 fatalities per 100,000 participants
- \* BSAC divers in the UK: 14.4 fatalities per 100,000 participants
- \* DAN members: 16.4 fatalities per 100,000 participants

In addition, The US Consumer Products Safety Commission's "Hazard Screening Report, Sports Activities and Equipment" publication (May 2005) provides similar-type data for other sports. As two examples, Swimming Activities have a fatality rate of 6.25 per 100,000 participants, and All-terrain Vehicle Riding has a rate of 7.96 fatalities per 100,000 participants (in both activities, similar to diving, most accidents are among males). And, while PADI analyzes and worries the tragedy of every single fatality that occurs globally in one of its training programs, diving is an activity with known risks that can never be fully eliminated. However, when compared to this other data, the safety performance of the PADI DSD program appears to be responsible and effective.

6. As a final point, given the Blue Water group's attention to the data from the study, it is interesting to note that they have completely ignored the DSD fatalities per 100,000 participants data mentioned above. Had they presented that data, I suppose their point might have been that if the ratios for the entire 1989-2008 period of time measured by the study are used, the fatality rate for Open Water/Scuba Diver is 1.517 fatalities per 100,000 participants, compared to the *lower* 1.369 rate for DSD. Further, if the most recent 10-year measured period of 1999-2008 is used, **Open Water/Scuba Diver shows a rate of 1.619 fatalities per 100,000 participants vs DSD's significantly lower rate of 1.140 fatalities per 100,000 participants.**

All said, I can find no statistical or logical basis for the Blue Water parties' insinuations that PADI's data prove or indicate unsafe, declining or otherwise poor performance within the design and practice of PADI's DSD program.

### **The Claim that the Instructor Did Not Violate PADI Standards and that the PADI DSD Standards Were the Cause of the Tuvell Accident**

Throughout the pleadings and other documents in the case, and specifically in the deposition testimony of Mr. Douglas, it is claimed that Mr. Douglas did not violate any standards and therefore the accident was caused by the DSD standards he followed. Mr. Douglas also falsely testified that regarding his expulsion from PADI resulting from serious standards violations, he did not even know what PADI Standards he violated, because no one told him.

1. As to Mr. Douglas being told what his standards violations were during the Tuvell incident, he was personally briefed by Ms. Linda Van Velsan, PADI's Manager, Quality Management, on 26 July 2011. Interestingly, Mr. Douglas agreed in his deposition testimony that she spoke to him, but denied that she told him what his standards violations were.
2. Mr. Douglas' various statements to others on-site at the time of the accident; his deposition testimony; other witness and deposition testimony, and his own statements to PADI indicated a number of violations of PADI, RSTC and ISO standards and practices (several of which appear to have been directly associated with the fatal accident) including:
  - A. Failure to use the required academic materials (no instructional Flip Chart and current DSD pamphlet); failure to administer the required DSD Diving Knowledge and Safety Review.
  - B. Gross overweighting of participants and failure to conduct a proper Buoyancy Check. According to witness testimony, the "Weight Check," as it was termed, appeared to basically have been the opposite of a buoyancy check. A buoyancy check, as defined by PADI and generally agreed to throughout the dive industry, is described as: "Proper weighting – At the surface and in water too deep in which to stand, have student divers practice weighting for neutral buoyancy. They should float at eye level at the surface with no or minimal air in the BCD and while holding a normal breath. If done with full cylinders, add weight to compensate for air used during the dive – typically about 2kg/5lbs." Its purpose is to assist students' initial weighting set-ups in order to avoid significant over or under-weighting, with the goal being to make neutral buoyancy easier to achieve and maintain throughout a dive's various depths and cylinder air pressures, given the particular exposure suit and other equipment being used.

The procedure used by Mr. Douglas, as described by other participants and his own testimony, was instead to have the participants don wetsuits and weight

belts, wade into shoulder-deep water, and then attempt to kneel on the bottom. If they could maintain contact with the bottom (ie be negatively buoyant), then they were considered fine. If not (as with the victim), they had additional weight added (another 5-pound weight was added to Tuvell's original 25 lbs of weight). The technique clearly tended to over-weight the child participants, especially considering that the 50 cu.ft. steel cylinders they would use would add an additional estimated approx. 2.5 lbs of negative buoyancy during the dive. The effect of the over-weighting practice with these small boys was described in a complaint letter received by PADI from the mother of a Boy Scout who took Douglas' DSD program the day before the Tuvell accident:

"My son said the dive master (Note added: Douglas) put a weight belt on him with 4 weights (Note added: testimony is that 5 lb weights were used) on it over the suit and a single tank and a BC vest. My son was in about waist deep water and to see if the weight was correct, the dive master pushed him and he stumbled and got back on his feet. Some test! ....There was no attempt to see if he was negatively buoyant in shallow water or in water over their heads. My son was so overweighted that he spent most of the dive stomping around on the lake bottom kicking up silt...He said he could swim a little in short bursts with a great deal of effort."

- C. Failure to monitor and adjust the buoyancy of participants during the dive, as required:
- "Position yourself so that you or a certified assistant can make immediate physical contact with, adjust buoyancy for, and render assistance to, participants."
- According to Mr. Douglas' own testimony, and that of Mr. Perry (the adult participant of the dive), Mr. Perry became too buoyant at some point in the dive and floated up to the surface. It was the instructor's sole responsibility to monitor and control the participants' buoyancy throughout the dive, which he failed to carry out for Mr. Perry.
- D. Failure to maintain control of participants during the dive:
- "Supervision Do not leave participants unattended, either at the surface or underwater.
- Position yourself so that you or a certified assistant can make immediate physical contact with, adjust buoyancy for, and render assistance to, participants.
  - Continually observe participants with only the brief, periodic interruptions needed to lead the dive and to provide assistance to individual divers.

By Mr. Douglas' own testimony, even though he described himself as the buddy of Mr. Perry, he acknowledged that Mr. Perry floated up to the surface, alone. This clearly constituted a loss of control and a violation of direct supervision requirements, as defined by PADI, WRSTC, ISO and all other major dive organization standards.

Camp employee, Mr. Don Jones, who assisted in the search and finally located the victim, testified regarding what Mr. Douglas told him had happened:

(BY MR. HALL) Let me back up. Did Corbett tell you that he left David and --

**A The Perry kid.**

**Q -- the Perry kid under water?**

**A Yes.**

**Q Did he tell you why he left them?**

**A Because Mr. Perry had left and he was his buddy and --**

**Q Corbett was Mr. Perry's buddy?**

**A That's correct.**

**Q Okay.**

**A And so he didn't know why Mr. Perry left, so it was important for him to find out why he left, so he said that he made sure they were on the line going to the dock, and told them to go in, and then he went to find out what Mr. Perry's situation was.**

**Q Okay. So Corbett told you that he told the boys to -- he indicated to the boys to follow the Line in to shore.**

**A Uh-huh (affirmative).**

**Q And that he went to check on Mr. Perry; is that correct?**

**A That's correct.**

The proximity and ability to provide immediate assistance obligations required of the instructor were violated in this first separation incident. Where the instructor was located as Mr. Perry began floating up is unknown; but he apparently was not in a position, as required, to provide immediate assistance and to adjust Mr. Perry's buoyancy. And, testimony is clear that this was not an emergency situation, but a gradual separation that should have been prevented at its onset, had the instructor been in a position to notice it and take the simple steps to prevent it.

- E. The second instance of failure to maintain control and to remain in a position to provide immediate assistance was as regards the two boys. While this event is the focus of Blue Water's claims against PADI, it actually was the *second* separation that had occurred, not the first or only one (and, had the original separation with Mr. Perry not occurred, the ultimate difficult decision alleged by the instructor would not have become necessary). As to the decision then made, the instructor admittedly had the time to communicate to the boys (whom testimony has shown he knew to be low on air and, through the results of his weight check, likely over-weighted) what he wanted them to do, then left them to join the adult known to be floating on the surface. The instructor's testimony as to why he didn't simply take them with him -- which would have met PADI and industry standards -- regarding presumed rough surface conditions, was shown to be ultimately the poorest, and last, of several poor decisions in violation of PADI and Industry standards that the instructor made.

- F. The testimony of the surviving child, Matthew Perry, the buddy of Tuvell, is clear as to what happened next, and appears to answer the instructor's repeated questions in his testimony regarding why the boys didn't follow his instructions and stay where he left them. Tuvell, for whatever reason (perhaps frightened at having been left alone on the bottom?), indicated to his buddy that he wanted to go up. And, despite their increasingly desperate attempts, as described by Matthew Perry, they simply could not get him to the surface, due to his being so heavy:

"Then I tried lifting him up because he wasn't moving at that point and it didn't look like anything was right, so I tried lifting him up. But it was literally like trying to lift a metal pole that's been cemented into the ground. He was staying put where he was. When I tried lifting him I was pulling myself under. I was physically unable to help him at that point in time.

For these various reasons, I feel the accident was *not* caused by PADI's DSD standards, but instead by a disregard of basic standards promulgated by the WRSTC, ISO, PADI and every major dive organization in the US. While the program may have been called a DSD by Blue Water and the instructor, for all practical purposes, it simply was *not* a DSD. The overall approach used in conducting this program appears to have been a hybrid, non-standard, short-cut process that had evolved over time, which included a number of techniques that did not comply with any dive organization's standards or common, safe practice, much less those of the DSD program. Again from the testimony of Mr. Don Jones, the lack of control and lack of constant direct supervision inherent in the Tuvell accident appears to have not been a singular occurrence:

**Q** Did you have any discussions with Lowell (Note: The Blue Water Divers' owner) about why David was left under water without his instructor?

**A Okay. He was with his buddy, right?**

**Q** Right.

**A That's normal for a Discover dive.**

**Q** Is it?

**A Yes. That they pair off and they just swim around the confined space.**

**Q** Without their instructor?

**A That's correct.**

**Q** Okay. Is that something you observed in other Discover schools?

**A All the time. That was procedure.**

**And:**

**Q** You testified that there were times when the instructor during Discover Scuba Diving programs would let the participants play in the area; is that correct?

**A That's correct.**

**Q** And in the area are -- there's bowling balls and other features under water and things like that; is that correct?

**A That's correct.**

**Q** That's what the students would play with; is that right?

**A Yes.**

**Q** Would the instructor remain within sight of the students during those times or would they just get out of the water and go off someplace else?

**A** He would monitor them coming in and out of the water.

**Q** Right. But they would be --

**A** If he was submerged, he wouldn't be able to keep an eye on them because the visibility wasn't that much. But what he would do is get up out of the water and actually look at the groups of bubbles.

**Q** During Discover Scuba Diving or during Open Water?

**A** Well, most of the times I was involved was Discover, so --

In conclusion, this occurrence did not involve a DSD program in full compliance with PADI standards in which there was an accident resulting from a one-event, 'devil's choice' circumstance, as described by Blue Water and its instructor. Instead, the track toward the unfortunate accident appears to have involved a cascading sequence arising from the use of a non-standard, home-made introductory scuba program, pushed forward at each critical step by actions or decisions that unfortunately did not comply with dive industry standards, good practice or good judgment.

Respectfully submitted,

A handwritten signature in black ink, consisting of a large, stylized 'A' followed by a horizontal line and a small loop at the end.

Al Hornsby

**Al Hornsby**  
**Publications**

**2005**

(none)

**2006**

"Sri Lanka; Exotica Unbound", Sport Diver Magazine

"Ralph Erickson, Co-Founder of PADI, 1922 -2006", Sport Diver Magazine

**2007**

"Sri Lanka", Asian Diver Annual 2007

**2008**

"Just Thinking....Continuing Education", Undersea Journal, 1<sup>st</sup> Quarter 2008

"Looking Back, Looking Ahead: Underwater Photography", Undersea Journal, 2<sup>nd</sup> Quarter 2008

"DEMA's "Be A Diver" Acquisition Campaign: In Progress", Undersea Journal, 3<sup>rd</sup> Quarter 2008

"You be the Judge", Undersea Journal, 4<sup>th</sup> Quarter 2008

"Truk Lagoon: Immersion into History", Sport Diver Magazine

**2009**

"You Be the Judge," Undersea Journal, 1st Quarter 2009

"You Be the Judge", Undersea Journal, 2<sup>nd</sup> Quarter 2009

"You Be the Judge", Undersea Journal, 3<sup>rd</sup> Quarter 2009

"You Be the Judge," Undersea Journal, 4th Quarter 2009

"Profile: Clement Lee, Diving Pioneer and Environmentalist", Undersea Journal, 2<sup>nd</sup> Quarter 2009

**2010**

"You Be the Judge – No Good Deed Goes Unpunished", Undersea Journal, 1<sup>st</sup> Quarter 2010

"You Be the Judge", Undersea Journal, 2<sup>nd</sup> Quarter 2010

"You Be the Judge", Undersea Journal, 3<sup>rd</sup> Quarter 2010

"You Be the Judge", Undersea Journal, 4<sup>th</sup> Quarter 2010

**2011**

"Risk Management: Adapting to Teaching TecRec and Other Tec Programs", Undersea Journal, 3<sup>rd</sup> Quarter 2011

"Baa Atoll", Sport Diver UK

“Sport Diver Getaways – Four Season’s Explorer”, Sport Diver Magazine  
“Thailand’s Phuket”, Sport Diver UK  
“Wakatobi’s Pelagian”, Scuba Diving Magazine

## **2012**

“The Use of Certified Assistants in Training and Experience Programs”, Undersea Journal, 2<sup>nd</sup> Quarter 2012  
“The “Liability Release and Assumption of Risk Agreement” and the “Statement of Risks and Liability” Form - What They Are and What They Mean”, 3<sup>rd</sup> Quarter 2012  
“Control-related Dive Incidents”, Undersea Journal, 4<sup>th</sup> Quarter 2012

## **2013**

“Trademarks – What’s All the Fuss?” Undersea Journal, 1<sup>st</sup> Quarter 2013  
“Agency – What it Is and What it Means to PADI Members”, Undersea Journal 2<sup>nd</sup> Quarter 2013  
“The Global Role of Insurance in Diving Risk Management”, Undersea Journal, 3<sup>rd</sup> Quarter 2013  
“Following Standards – Risk Management the Old-fashioned Way”, Undersea Journal 4<sup>th</sup> Quarter 2013  
“Whales of Tonga”, Sport Diver AP digital magazine  
“An Extraordinary Komodo Adventure”, Sport Diver UK

## **2014**

“Personal Information and Privacy”, Undersea Journal, 1<sup>st</sup> Quarter 2014  
“The Revised Open Water Diver Course and Its Interesting Numbers”, Undersea Journal, 2<sup>nd</sup> Quarter 2014  
“ReActivate: A Unique, Multi-layered Risk Management Tool”, Undersea Journal 4<sup>th</sup> Quarter 2014  
“Bali to Komodo”, Sport Diver AP digital magazine

## **2015**

“When They Are Students, Not Assistants”, Undersea Journal, 1<sup>st</sup> Quarter 2015



**Al Hornsby**  
**Curriculum Vitae**

**Current Positions:**

Senior Vice President, Legal Affairs, PADI Worldwide Corp

**Previous Positions:**

President, DEMA Board of Directors

Chairman, Board of Directors Executive Committee, DEMA

Chairman, Legal and Legislative Committee, DEMA

Member, Bylaws Committee of the Reorganization Task Force, DEMA

Member, DEMA Asia Committee, DEMA

Member, Research Committee, DEMA

Group Publisher and Editorial Director, Primedia Marine Group (Skin Diver and Dive Report Magazines, Skin Diver OnLine)

Editor, Skin Diver Magazine

Vice President, Legal Affairs, Professional Association of Diving Instructors

Executive Vice President, Professional Association of Diving Instructors

Member, Executive Management Committee, Professional Association of Diving Instructors

Vice President, Board of Directors, Professional Association of Diving Instructors

Vice President, Legal and Environmental Affairs, Professional Association of Diving Instructors

Secretary, Board of Directors and Managing Director, Project AWARE Foundation

Founding Board Member, Secretary/Treasurer, Recreational Diving Research Foundation, Inc.

Founding Board Member, Vice President of the Board, Recreational Scuba Training Council (ANSI Z-86.3 Standards Secretariat),

Member, Board of Directors, Earth Communications Office (ECO)

Member, Board of Directors, California Artificial Reef Enhancement Program

Member, Board of Advisors, Coral Reef Alliance

Advisor to Board of Directors, PADI Foundation

Advisor to CEO, Long Beach (CA) Aquarium

Member, Board of Directors, Serrano Creek Ranch

Editor, Dive Industry News

Marketing Manager, US Cavalero

Dive Instructor, Dive 'n Surf

**Publications/Media:**

**Books**

Author, *This is The Caribbean*

Author, *The Retail Dive Store: Management and Operations*

Co-author, *Shark Diving*

Contributor, *Voices of the Deep* (poetry collection)

Editor-in-Chief, *The Encyclopedia of Recreational Diving*

Development Supervisor and Editor, The PADI Course Director Manual, 1994

Editor/Reviewer, PADI educational materials 1978-1997  
Risk Management Reviewer, PADI educational materials 2002-2014

**Magazine Articles:**

(1978-2014; recent list available upon request)

**Audiovisual Productions/Photographic Exhibitions**

Writer, Photographer, Producer, Voice-over, Soundtrack editor: "Expedition Indian Ocean", "Night Moves"  
Writer, Photographer, Producer, Voice-over, Soundtrack editor, Original music score and performance: "Indigo Dream" (environmental multi-projector slide production)  
Celebrate the Seas "Master Image Makers Gallery" Photography Exhibition (Singapore)  
City of Long Beach, "Children's Vision to the Sea" Photography Exhibition  
CORAL "Marine Masterpieces" Photography Exhibition  
Writer, Performer, "Dolphin's Dance" original music album

**Electronic Media**

Development Manager and Editor, Skin Diver Online Website

**Speaking Engagements, Presentations and Courses:**

Speaker, DAN Diving Fatality Workshop, 2010: "Models For Estimating the Diver Population of the United States: An Assessment"  
Presenter/Instructor, Scuba Diver Australasia Magazine "Shoot-out Series" 2008  
Presenter, Celebrate the Seas Underwater Film Festival, 2005  
Speaker, Asia Pacific Environmental Conference, 2004  
Master of Ceremonies, Presenter, Cayman Islands Film Festival, 2002  
Speaker, Bahamas Shark Diving Symposium, 2000  
Speaker, ADEX-DEMA Trade Conference, 2000  
Awards Banquet Master of Ceremonies and Photo Instructor, Malaysia Underwater Photo Competition, 1999-2001  
Speaker, DEMA Asia Seminar Series, 1998  
Key Note Speaker, DEMA Trade Show, 1998  
Key Note Speaker, DEMA Asia Trade Show; Malaysia Marine Park Fundraiser, 1997  
Speaker, original Bonaire Diving Festival, 1997  
Speaker, Caribbean Hotel Association Environmental Conference, 1995  
Instructor, PADI HQ Annual Course Director Training Course, 1983-1997  
Program Author and Presenter, PADI Retail Dive Store Seminar Series, 1978-1983  
Seminar and Film Festival Presenter: Our World U/W, Beneath the Sea, Sea Space, Boston Sea Rovers, Scuba Extasea, Scuba (Long Beach), Discover Diving Atlanta, Discover Diving Dallas, Discover Diving Santa Clara, Ocean Fest, ADEX consumer dive conventions (various years, 1979-2003)  
On-camera Presenter, Jerry Lewis Muscular Dystrophy Telethon (various years)

**Environmental Programs/Awards**

Member, Board of Directors, California Artificial Reef Enhancement Program

Member, Origination Team, and Program Manager, Project AWARE  
Developer, Project AWARE Foundation; Managing Director and Secretary of Board of Directors  
Board of Governors, Project AWARE  
Originator, Project AWARE-Center For Marine Conservation International U/W Beach Clean-up  
Manager, Project AWARE Foundation annual grant allocation process  
Member, Board of Directors, Earth Communications Office  
Member, Board of Advisors, Coral Reef Alliance  
Advisor to the Board of Directors, PADI Corporate Representative, PADI Foundation annual grant allocation process  
Member, Board of Directors, Ocean Futures  
Participant and management advisor, Florida Keys Marine Sanctuary Management Plan development and political action  
Participant and management advisor, Florida Manatee Protection initiative  
Member, NOAA Marine Sanctuary Communications Committee  
Participant and management advisor, California Gill Net initiative  
Participant and corporate representative, Texas Rigs to Reefs initiative  
Co-developer, Seaspace-PADI Environmental Award  
Recipient, CORAL STAR Award  
Recipient, City of Long Beach "Children's Vision" Award  
Recipient, City of Long Beach "Deep Impact" Award

**Education:**

Bachelor of Arts, Psychology, University of Georgia, 1973

Other Training:

PADI Course Director Training Course, 1981

NASDS Instructor Training Course, 1976

DAN O2 Provider

Emergency First Response Instructor

Medic First Aid Instructor

American Red Cross Lifeguard

**Current Diving Qualification:**

PADI Course Director, CD-8066

PADI Underwater Photography Distinctive Specialty Instructor

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**List of all other cases in which, during the previous four years, the witness testified as an expert at trial or by deposition:**

None

**Statement of the compensation to be paid for the study and testimony in the case:**

The witness is not being paid separately from his normal remuneration in his position at PADI.