PRINCETON
MOCK TRIAL

Tryouts 2015-2016

Mock Trial is a competitive, inter-collegiate competition.
The Princeton Mock Trial team competes against schools across the nation in the **American Mock Trial Association (AMTA)**. Throughout the year, the team participates in invitational competitions at other schools, scrimmages against other teams, and Regional, Super Regional, and National competitions across the country. Most recently, we came 10th Place in the National Mock Trial Tournament in Cincinnati, OH in April.

Mock Trial emulates actual courtroom trials.
Each team is given fictional case materials, including witness affidavits, exhibits, and rules. Team members take on the roles of **witnesses** and **attorneys** and construct cases for both the plaintiff/prosecution and the defense. Each team then argues one side of its **case** against students from another school. Student attorneys give opening and closing statements, perform direct and cross-examinations of the student witnesses, and argue objections. **Judges** award points for effective presentations, based on knowledge of case materials, professionalism, composure, and the ability to think on your feet.

Mock Trial is not just for pre-law students.
Mock Trialers have majored in everything from Economics to Chemical Engineering to Art History, and many continue on to careers outside of the legal profession. We strongly encourage everyone interested to try out.

Interested in trying out for Princeton Mock Trial?
Tryouts for the 2015-2016 team will be held in a two-round, callback-style format **between Monday, September 21 and Saturday, September 26 in Whig Hall**. For the first round of tryouts, which will take place between **Monday, September 21** and **Tuesday, September 22**, we will be using materials from a previous civil case, *Allen v. Neptune Underwater Expeditions*. Attached to this packet are a summary of that case and the affidavits of two witnesses: Angel Duncan (a character witness for the defense) and Dr. Jordan Nelson (a marine physicist testifying as an expert for the defense).

You have the option to try out for the team as an **attorney**, **witness**, or **both**. Though you may feel that you are particularly suited for one or the other, we always encourage trying out as both. An email will be sent out the night of **Friday, September 18** with sign-up information for the first round, which should last approximately five minutes per person. The sign-up sheet will be organized into **30-minute blocks of time** from Monday to Tuesday. Six people may sign up for each block, and then participants will be called in one at a time, first-come first serve, within those thirty minutes.

For those auditioning to be attorneys: The first-round audition for attorneys will consist of one part. We will ask you to recite a **prepared speech**, attached to this document. We recommend that you memorize the speech for delivery.

For those auditioning to be witnesses: The first-round audition for witnesses will have one part. First, we ask that those who audition to choose **one of the two witnesses** provided at the end of this packet. We then will ask all witnesses to create a background story for that witness and deliver a **two to three minute "character monologue"** as the witness. This is an opportunity to show off your creativity; we're not looking for a regurgitation of the contents of the witness statement provided below, but rather for an original character story or introduction that keeps to the spirit of the affidavit. We encourage you to add **character** to the role – for example, by speaking with an accent or having a particular demeanor.

You will receive an email notifying you if you've made it to the second round by Tuesday night. If you are chosen to proceed, your email will include instructions and a sign-up sheet for callbacks. The second round will be scheduled with **individual**, **15-minute time slots**, and will take place between **Friday, September 25** and **Saturday, September 26.**

Again, thank you for expressing interest in Princeton Mock Trial. If you have any other questions, please feel free to contact one of the team officers, show up at the open house on Tuesday or look at our website (www.princetonmocktrial.com). We look forward to seeing you at auditions!

Princeton Mock Trial Officers

President:	Zinna Senbetta	senbetta@princeton.edu
Vice President:	Reed Woodrum	rwoodrum@princeton.edu
Secretary:	Abdiel Santiago	abdiels@princeton.edu

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MOCK TRIAL

Prepared Speech

(For those trying out to be an Attorney)

That car hit my son. Help me. That car hit my son. Could there possibly be a more terrifying phrase for a parent to have to utter? That ladies and gentlemen is the terror inflicted on the Smith family by the defendant JJ Thompson. What we're left with here today is a case built on 3 simple facts. Fact #1: on the evening of February 8th 2002 the defendant chose to drive through Hickory Park, down Hickory Lane. Fact #2: on that night the defendant chose to act negligently. Fact #3: Because of the defendant's choices, Derek Smith is dead. Nothing that we do here today is going to bring him back. And nothing we do here today can relieve the suffering that his family has had to endure. But until now the defendant has avoided these facts and any measure of justice for her choices. And what we can do here today is remedy that.

PRINCETON MOCK TRIAL

THE STATE OF MIDLANDS

FAIRFAX Circuit Court, Civil Division

Case Summary

On April 20, 2011, the Allens engaged the services of Neptune to provide guiding and diving training services for a diving expedition in the Atlantic Ocean near Miami, Florida, from July 3 to July 10, 2011. The Expedition called for two dives in the Florida Keys, three dives in the Bahamas, and four dives to The Hepburn, a shipwreck in the Atlantic Ocean.

The dives to The Hepburn were known as the Dinner Dive (one dive scheduled for July 7, 2011), the Love Nest (two dives scheduled for July 8, 2011), and All the Way Down (one dive scheduled for July 9, 2011). The Allens paid Neptune $20,000 in consideration for the Expedition.

On July 2, the Allens flew to Miami, where they boarded Neptune's dive boat, The Man of the People, on July 3. There were six Neptune employees present during the Expedition: Hayden Hathaway, the sole owner of Neptune; Reggie Rodgers; Casey French; Angel Duncan; Loren Bondo; and Bobby Resnick. Ten customers were present during the Expedition, including the Allens.

On July 7, 2011, Neptune led the Dinner Dive—the sixth dive of the Expedition and the first on The Hepburn. During the July 7 dive, French acted as team leader and Rodgers acted as divemaster. During the July 7 dive, all of the customers other than Lee Allen and Andy Allen were paired as "dive buddies" with other customers. Andy Allen fell ill the night before the dive, and with the agreement of Neptune, chose not to participate in the Dinner Dive. Lee Allen was paired with Rodgers during the Dinner Dive.

During the Dinner Dive, Rodgers had dual responsibility—to Lee Allen as Lee Allen's dive buddy, and to the rest of the customers as their divemaster. During the Dinner Dive, a tropical storm hit the location of the divers while they were underwater. All divers resurfaced except for Lee Allen, who is presumed to be dead.

The plaintiff is alleging that Neptune ignored warning signs about Lee Allen's competence as a diver during previous dives of the Expedition, and that Neptune acted recklessly by allowing Allen to dive the challenging Hepburn shipwreck with a "dive buddy" whose attention was divided, as that buddy had responsibilities during the dive as a Neptune employee. The defense is alleging that the events of July 7 were beyond the company's control, and that the sudden, unexpected arrival of the tropical storm was the cause of Allen's death.

Affidavit of Angel Duncan

After being duly sworn upon oath, Angel Duncan hereby states as follows:
I am over 18 and competent to make this affidavit. I am testifying for Neptune Underwater Expeditions ("Neptune") voluntarily. I was not subpoenaed or compelled to testify.

Neptune currently employs me as a deckhand. I'm in charge of preparing equipment for the dives, cleaning the entire ship, and assisting with meal preparation and cleanup. I used to own a boat and a business, but then, in 2006, I got into some legal trouble. In 2006, I got paid to sneak 20 kilograms of illegal narcotics into the country. The drugs were disguised as children's toys. I knew the toys contained narcotics. Someone tipped off the authorities and in January 2006 I got caught at the border check. The United States government charged me with two felonies: one count of smuggling ("importation of controlled substances," 21 U.S.C. § 952(a)), which carried a prison term of up to 20 years; and one count of making a false statement to a United States customs official (18 U.S.C. § 1001), which carried a prison term of up to 5 years. I pled guilty to both counts because I was guilty of both counts. I was over the age of 18 at the time I committed the crimes. The judge was lenient. I was sentenced to 13 months on each count, to be served concurrently. I behaved in prison and was out after 10 months. In the process, I lost my boat and my business.

It was hard to find employment with a felony conviction but Neptune offered me the deckhand job in 2007. I was surprised to get the job, especially with my criminal record and the fact that I have never been scuba diving in my life. I owe a debt to Hayden Hathaway for giving me a chance and I hope to someday repay that debt. Neptune started me at an annual salary of $25,000 and they've raised my salary each year. Now my annual salary is $29,000! I'm slowly putting my life back together.

The cool thing about working for Neptune is that the company is always looking for new and exciting dives, regardless of the complexity of the dive itself. Neptune prides itself on offering the best adventures for divers, especially those interested in wrecks. In addition to the Hepburn Expedition, Neptune offers divers a chance to see the *Andrea Doria*, the *Zenobia*, and the *Mikhail Lermentov*.

I like that about Neptune because I usually go with Rodgers and some others to see if dives to these wrecks can be accomplished by less seasoned divers and then work on how we can advertise these adventures, all the while figuring out how to do these dives profitably for Neptune. I love working for Neptune and would never do or say anything to jeopardize my job with Neptune.

I was the deckhand on Neptune's series of Hepburn Expeditions during the summer of 2011. I usually do a ten-week tour with Neptune, get a week or two off, then start back up again. It's a good way to see the world. The crew for the July 3-10, 2011 trip was captain Bobby Resnick, dive leader Reggie Rodgers, divemaster Casey French, chef Loren Bondo, owner Hayden Hathaway, and me. Hathaway hadn't been on any of our previous Hepburn Expeditions that summer.

We also had ten passengers, including Lee and Andy Allen. They were nice people but a little strange. From the moment the Allens boarded the ship, they were always whispering to themselves, paying more attention to each other than to the instructions from the crew. I went up to them on the first day at sea to see if they needed anything that wasn't advertised on the website. They practically screamed at me to get out of their room, like I was interrupting some delicate international negotiation by knocking on the door to their stateroom. As I left their room, I could hear one of them say to the other that they would have to keep their eyes on me because I was always creeping around. I felt the same way about them, and made a mental note to keep my eyes and ears open around them.

As I told the Coast Guard investigator, I don't know very much about what happened with Lee Allen. I wasn't in the water during the July 7 dive or any of the previous dives on July 4, 5, or 6. I didn't see what happened to Lee. I didn't see whether or not Lee was a good diver. Still, as a deckhand, I happened to see and hear a few things that might be helpful.

I overheard a few conversations between Lee and Andy Allen. On July 3, 2011, I helped all of the customers board our live-aboard ship, *The Man of the People*. I came around to each room to make sure everyone was okay. When I got to the Allens' room, they were unpacking their luggage. I heard Lee say to Andy, "Have you seen my blood pressure pills?" Andy said no. I cleaned their cabin every day. The only pills in that cabin were Andy's vitamins.

On July 5, I was cleaning the Allens' cabin when I noticed Lee's computer was on. I knew it was Lee's laptop because I had seen Lee using it a few times. Andy always used an iPad. I glanced at Lee's computer screen. It was a log of all of Lee's dives. It showed that before coming on the Hepburn Expedition, Lee had only done 45 dives, none of them were deeper than 85 feet, and none of them were in a shipwreck! I thought that was strange. To join the Hepburn Expedition, Neptune always required a minimum of 50 dives, at least one dive deeper than 100 feet, and at least one dive into a wreck. It looked like Lee didn't satisfy any of Neptune's requirements. I didn't say anything to anyone from Neptune. If I told Hathaway or Rodgers, they might kick Lee Allen off the trip and I depend on tips.

On July 6, I overheard another conversation between Lee and Andy Allen. They were in their cabin and had just finished their fifth dive of the week. Andy said that maybe Lee shouldn't dive the next day because Lee struggled on dives easier than *The Hepburn* dive. Andy mentioned the possibility of telling Rodgers about Lee's struggles. Lee got angry about the idea of telling Reggie. Lee said Lee was fine and that Lee was going on *The Hepburn* dive. I noticed that Lee sounded a little confused, maybe dazed. Lee was breathing hard and looked dizzy. That wasn't uncommon for customers after dives to 170 or 180 feet. But I didn't usually see that in divers who had only gone to 120 feet, like Lee and Andy had that day. Andy promised Lee that Andy wouldn't tell anyone from Neptune. I don't know if Lee and Andy ever told Rodgers or Hathaway about Lee's struggles but, either way, I know Rodgers and Hathaway were aware that Lee was having trouble in the water.

On Tuesday, July 5, after the customers had finished their third dive of the trip, I overheard Casey French and Reggie Rodgers discussing Lee Allen. They were in the staff lounge. French said Lee Allen wasn't in the same class as the other customers. Rodgers said Lee had trouble finding the anchor line. French said Lee used way too much Nitrox on every dive so far. Rodgers said, "If Lee has trouble doing 90 in open water, we're going to have problems on Thursday." Thursday was the day of the Dinner Dive, the first dive to *The Hepburn*. French said, "Heck, if Lee has trouble doing 90 in open water, we're going to have problems tomorrow." Tomorrow meant Wednesday, which featured a much easier site than *The Hepburn*. Hathaway came in and asked whom they were talking about. Rodgers explained to Hathaway that Lee Allen didn't seem as experienced as Neptune had been told. Rodgers said that maybe Lee Allen wasn't ready to dive to *The Hepburn*. Hathaway said, "The Allens paid us 20 thousand dollars. They're going in the water. End of conversation." And that was the end of the conversation. The next day was Wednesday, July 6. The customers did two dives in the Bahamas. I didn't see or hear how Lee Allen did. Captain Resnick took us to the site of *The Hepburn* and dropped anchor.

That evening, we had our formal dinner. After dinner, I saw Hathaway and Rodgers sitting in the Neptune Office. It was a few minutes after 10 o'clock. Rodgers said, "Let's check tomorrow's weather. We're twelve hours out." Rodgers always does exactly one weather check —at 10 PM, the night before a dive. Hathaway agreed and turned on the office computer. Hathaway logged onto the Koala Climate Institute website and typed in our coordinates (the coordinates for *The Hepburn*) and the next day's date, July 7, 2011. I saw the forecast pop up on the screen. It had the Koala logo. Hathaway skimmed the forecast, scrolled down, closed the Internet browser, and shut the laptop. The forecast had only been on the screen for about 10 seconds when Hathaway shut the laptop. Hathaway said to Rodgers, "We're good to go. There's a storm coming at two o'clock but we'll be out of the water by 10:42." Rodgers agreed. Rodgers never saw the forecast because the screen wasn't facing Rodgers and Hathaway didn't print out the forecast. I was impressed that Hathaway was able to make decisions so quickly.

After the customers had gone to bed, the crew decided to unwind. We met in the lounge around 11:30 PM on July 6, 2011, and everyone was there: French, Hathaway, Rodgers, Chef Bondo, and me. Chef Bondo brought my favorite as a midnight snack: blueberry corn chowder, which Bondo calls "maize and blue" soup. Even better, Hathaway brought a few bottles of alcohol, including an unopened bottle of Johnny Walker Blue. We didn't drink a lot—after all, there was a big dive the next morning— but I think everyone had at least one drink. We called it quits and went to bed just before 2 AM.

I woke up at 6 AM on July 7, 2011. I began preparing the equipment for that day's dive to *The Hepburn*. While I was preparing the cylinders, Andy Allen came up to me and asked me for cold medication. I said I would go look for some but instead I went straight to Hayden Hathaway. I told Hathaway that Andy Allen was feeling sick. Hathaway thanked me, saying Andy's inability to dive would mean that Lee couldn't dive either. Hathaway said, "This gets Neptune off the hook." I didn't understand. I thought Neptune's symbol was the trident.

Later that morning of July 7, I overheard a conversation between Rodgers and Hathaway. Hathaway told Rodgers that Andy Allen couldn't dive, which left Lee Allen without a dive partner. I didn't hear the entire conversation because I try not to eavesdrop. But I did hear Hathaway say "no refunds on my watch" and I did hear one of them use the word "suicide." I went back to preparing the equipment.

Preparing the equipment for *The Hepburn* dive on July 7, 2011 was no easy task. It required attention to detail and knowledge of the equipment, which I have. There were nine customers diving and two guides (French and Rodgers). That meant 11 sets of equipment. I laid the equipment on the deck so the divers could suit up by 9:30 AM. Each diver got two air supplies—a primary Nitrox cylinder (20 cubic liters at 300 bar) and a backup Nitrox cylinder (6 cubic liters at 200 bar). Each diver got an open circuit regulator, a hose, a light, a knife, a depth gauge, a timer, and a buoyancy belt. The guides got all of that and a dive slate so they could communicate in writing. The divers brought their own wetsuits, facemasks, and fins (I had extras in case anyone forgot or damaged their own gear).

On July 7, I made sure the divers got what they needed and that all of the equipment was working. I know some people are saying that I made a mistake with Lee Allen's equipment. The Coast Guard investigator asked me if I gave Lee a backup oxygen cylinder. I'm pretty sure I did. The Coast Guard investigator asked me if I checked to see if Lee's 121 oxygen cylinders were full. I'm pretty sure I did that, too. I mean, I can't be one hundred percent certain that Lee got a backup cylinder and a full primary tank. I've made mistakes before when preparing equipment. Who hasn't? But I think I did everything right on July 7, 2011. Besides, this wasn't Lee's first dive. If something was missing or wrong, Lee would have said so. What happened to Lee was a tragedy. My heart goes out to Andy Allen. But it would also be a tragedy to punish Neptune for something they didn't do. This wasn't Neptune's fault.

PRINCETON
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Expert Report of Dr. Jordan Nelson, Ph.D.

QUALIFICATIONS

I am an expert in physical oceanography, also known as marine physics. I earned my B.S in mechanical engineering and M.S. in environmental engineering from Howard University in Washington, D.C. I earned my Ph.D. in oceanography from Scripps Institution of Oceanography, which is part of the University of California, San Diego. After earning my professional degrees, I accepted the director position at the Marine Science Laboratory in Oregon, where for six years I supervised research into the motions and physical properties of ocean waters. In 2007, I joined the faculty of Boston University as the Neuhaus Professor of Oceanography. In 2009, I accepted a dual appointment with the University of Hong Kong. I split my time between Boston and Hong Kong, teaching and conducting research. I have authored or co-authored 23 publications in the field of physical oceanography. My area of research and expertise involves examining the effect of weather on the motion and physical properties of ocean waters, although this requires an understanding of nearly all aspects of physical oceanography, as so much of ocean behavior is interrelated. These are my works that are relevant to the Allen v. Neptune litigation:

- Nelson, J., 2003: Atlantic tidal movements. Geoscientific Research Index.
- Nelson, J. and Hari, R., 2005: Visibility effects. Potter Climate Dynamics.
- Nelson, J. and Yousefi, M., 2006: Survey of speeds of ocean currents by location and depth. Monty Physical Oceanography Journal.
- Nelson, J. and Street, L., 2007: Physiological effects of ocean environment on human body and divers. Lompoc Ocean Journal.
- Nelson, J., and Machete, S., 2008: Interplay between climate and ocean waters, exemplified in Caspian Sea. China Ocean Review.
- Nelson, J., 2011: Hurricane Danny and its Atlantic impact. Storm Analysis.

About once a year, I perform consulting services in a private matter, such as litigation. I have testified as an expert witness three times, been engaged as an expert in nine lawsuits, and performed research for corporations twice. I charge $900 per hour for my services (except for one pro bono case, which I handled without compensation). I devoted
38 hours to this case. Neptune Underwater Expeditions (“Neptune”) has paid me
$34,200 for my time in this case. If I am called to testify at trial, Neptune will pay me an additional $10,000, which I will receive at least 14 calendar days before trial. Prior to this case, Neptune had never engaged me as an expert.

METHODS AND DATA

In order to assess the impact that oceanological events had on a particular scenario, it is necessary to review two sets of information: (1) the oceanological and meteorological data surrounding the scenario; and (2) the details of the scenario itself. In this case, I had access to both. I obtained all of the weather and current information for The Hepburn location on July 7, 2011 from the Koala Climate Institute ("Koala"). I traveled to The Hepburn location in August 2011 to conduct my own research. I reviewed the affidavits of Hayden Hathaway (Case Document 10) and Reggie Rodgers (Case Document 11). This report contains each of my conclusions regarding the events surrounding the death of Lee Allen. I understand this report will be provided to both parties in preparation for trial. I have a duty to update this report if I receive any additional information or make any further observations or conclusions. I understand I have an obligation to be truthful and complete in this report, and I have complied with that obligation. Each of the conclusions in this report is drawn to a reasonable degree of scientific certainty. In reaching these conclusions, I employed methods that are customary in my field. Each of my methods and assumptions was based on a combination of actual data and proven theories about marine physics. These methods and assumptions have been peer-reviewed by other scientists and meet acceptable confidence levels. I focused on what role, if any, oceanological circumstances played in the death of Lee Allen. I have no opinion whether the equipment, training, or guidance provided by Neptune was proper, appropriate, or safe. While I can assess the oceanological factors that affect the safety of underwater exploration near The Hepburn, I have no opinion as to whether The Hepburn is a safe or dangerous spot for diving based on its depth or the fact that it includes a closed environment (the wreck). I also have no medical opinion regarding Lee Allen or anyone else involved in the dives in question. For the sake of my conclusions, I have assumed that Lee Allen died because of an eventual lack of oxygen and that the key event precipitating Lee Allen's death was Lee's separation from the group on July 7, 2011. On that day, Rodgers instructed Allen to swim ahead while Rodgers helped extricate a diver whose equipment was caught. When Rodgers returned to the group, Allen was not there. Rodgers searched for Allen. Rodgers found Allen on the second level of The Hepburn, which was not part of the scheduled path for the July 7 dive. I have assumed for the sake of my analysis that had Allen been on the path that Rodgers followed – and that the divers were instructed to follow – that
Allen would have been found by Rodgers sooner and that Allen would have survived. I acknowledge that there is probably no way to know whether this assumption is correct and, even if there were a way to verify this assumption, it lies outside of my expertise.

ANALYSIS

The Hepburn Wreck under Normal Conditions

The dive in question occurred July 7, 2011. The site was The Hepburn, located in the Atlantic Ocean near the Bahamas (N26 37 40, W76 17 20). Neptune guided nine paying customers to a shipwreck and proceeded along a relatively level dive path 170 feet below the ocean surface. They explored the top level of the ship. Lee Allen did not surface.
From an oceanological view, the area of ocean surrounding The Hepburn is generally friendly to scuba divers. Located in the Tropics, on most summer days the surface temperature at The Hepburn is approximately 85º degrees Fahrenheit and the water 170 feet below the surface is approximately 69º F. The temperature 69º F is not warm for the human body, but that is warmer

than ocean water found through most of the world. The mean deep ocean temperature throughout the planet is approximately 35º F. This warmer temperature makes underwater diving safer for humans. The currents near The Hepburn are generally hospitable. The Coriolis Effect is minimal near the equator, which means the ocean currents near The Hepburn are relatively calm and predictable (as opposed to the wild currents that afflict the ocean regions closer to the Poles). The climate near The Hepburn is good for human underwater exploration. Aside from the occasional hurricane or storm, the region near the Bahamas is generally sunny without much wind or many clouds. This generally results in clear, calm underwater conditions for divers. Finally, the depth of The Hepburn generally insulates it from deep ocean currents. Most deep ocean currents are caused by thermohaline circulation, an effect caused by differences related to temperature, density, and salinity. Thermohaline circulation generally does not affect depths of less than 300 feet, which means The Hepburn, located 190 feet below the surface, is immune from such currents (which are rarely faster than 1 or 2 miles per hour). This is not to say that The Hepburn is safe for scuba diving; that requires knowledge of scuba diving that I do not possess. Rather, I can say that to the extent a shipwreck of The Hepburn's depth could ever be safe for scuba diving, The Hepburn's global position is as safe as it gets.

The Hepburn Wreck on July 7, 2011

Unfortunately, these were not the conditions on July 7, 2011. When the Neptune divers entered the water at 10:00 AM, the weather was pristine: sunny, 88º F, minimal wind, clear skies. By my calculations, the ambient environment in and around The Hepburn (at 170 feet below the surface) was approximately 71º F. But at 10:08 AM, a tropical storm ("the Storm") hit the region encompassing The Hepburn. The Storm lasted 90 minutes. With 20-minute sustained winds of 54 miles per hour, the Storm was more severe than a tropical depression but less severe than a Category 1 hurricane (which is generally characterized by wind speeds exceeding 65 miles per hour). While some may be aware that the Storm eventually moved toward the Florida coastline, picked up speed from its original 54 miles an hour to its eventual 66 miles an hour, and became Hurricane Danny, it only became a hurricane two hours after it had fully passed The Hepburn. At the time it reached the area of The Hepburn, it was only a tropical storm.

In my opinion, the Storm had several effects on Rodgers, Allen, and the events of July 7. First, poor surface weather diminishes visibility below the surface. It is already relatively dark at 170 feet below the surface and areas near wrecks are especially prone to poor visibility. Inside the wreck itself, visibility is even more limited. At 170 feet, divers not only have limited visibility, but they are likely to have trouble gauging distances. But the Storm on July 7 must have further decreased the visibility for all divers on The Hepburn both by reducing sunlight, kicking up silt, and increasing currents. Based on the depth, the weather before and during the Storm, and my on-site inspection of the area near The Hepburn, I would estimate that the Storm decreased deep ocean visibility by 25 percent. In the open water at 170 feet, divers during the Storm probably could not see more than ten feet in front of them. Inside The Hepburn, divers during the Storm likely could not see more than six feet in front of them. In reviewing Rodgers's account of that day, nearly everything could have been affected by the decreased visibility: Rodgers's ability to help the diver whose equipment was caught, Rodgers's ability to communicate with Allen; Allen's ability to properly follow Neptune's designated path inside The Hepburn; Rodgers's ability to locate Allen; and Rodgers's ability to help Allen surface. All of

these factors may have contributed to Allen's death. Second, the surface winds can drastically increase the speed of ocean currents. With no surface winds, ocean currents are fairly slow, usually measured at orders of inches per second (as opposed to surface winds, which are usually measured at orders of feet per second). This creates a fairly stationary deep ocean environment. Indeed, on most days the area around The Hepburn has weak ocean currents. But when the Storm reached The Hepburn on July 7, the surface winds were 54 miles per hour. As part of an effect called the Ekman Transport, as the surface winds gust across the surface of the sea, they take hold of a thin layer of the surface water. That thin layer transfers energy to the thin layer beneath, which in turn transfers energy to the thin layer beneath it. This process continues rapidly and thereby causes ocean currents. Surface winds can easily affect ocean depths of up to 300 feet and can sometimes even affect depths of up to 500 feet below the surface. The affected areas are called gyres. In my opinion, there is no question that the Storm on July 7 affected the ocean currents surrounding Lee Allen, Reggie Rodgers, and The Hepburn, as they were at depths no greater than 190 feet. There is no way to know the precise speed of the ocean currents surrounding The Hepburn during the Tropical Storm, but my calculations – based on the surface winds and the depth of The Hepburn – estimate that Lee Allen, Reggie Rodgers, and the others participating in that dive were dealing with ocean currents of approximately 2.5 miles per hour. To put that in perspective, the best swimmers in the world swim approximately 5 miles per hour under ideal conditions; most humans are considerably slower; and scuba divers carrying heavy equipment are even slower than that. Thus, Rodgers and Allen faced a gruesome challenge: in open water, currents moving 2.5 miles per hour could have effectively prevented any movement in the opposite direction. Inside The Hepburn, the effects of the currents would be lessened but not eliminated. In reviewing Rodgers's account of that day, nearly everything could have been affected by the currents introduced by the Storm: Rodgers's ability to help the diver whose equipment was caught; Rodgers's ability to communicate with Allen; Allen's ability to properly follow Neptune's designated path inside The Hepburn; Rodgers's ability to locate Allen; and Rodgers's ability to help Allen surface. All of these factors may have contributed to Allen's death. Obviously, Neptune had no control over the Tropical Storm. The Storm did not have enough time to significantly affect the underwater temperatures faced by Allen and Rodgers. Temperature played no role in Lee Allen's death.

Predictability of Events

Clearly, no one should be scuba diving during weather conditions similar to those experienced around The Hepburn on the morning of July 7, 2011. No company should be leading guided scuba diving tours during an event such as the Storm. As explained above, the Storm created grave dangers for any divers. But there is also the question of whether Neptune should have known or foreseen the Storm's existence or severity. I will start with what is known about the predictability of tropical storms. Reliable studies show that the intensity and wind speed of a storm is more difficult to anticipate than its path and direction. In other words, it is easier for forecasters to identify where a storm will be than how severe it will be. Forecasters almost invariably know within 24 hours – and often much earlier than that – whether a tropical depression, storm, or hurricane will reach a particular location. They rarely can predict the exact time or hour when the storm will reach a particular location. Similarly, the margin for error regarding a tropical storm's speed is quite high. Storm forecasting has increased dramatically in accuracy but there is still much we do not know. On July 6, 2011, at 10:00 PM, Neptune owner

Hayden Hathaway and Dive Leader Reggie Rodgers checked the Koala website. They obtained the forecast for the next day, July 7, 2011. I have made that forecast available to counsel for both parties. It has been marked as Case Document 23. I commend Neptune for consulting Koala. First, not everyone is responsible enough to check for weather updates, as Neptune did here. Some lifelong sea aficionados prefer viewing the horizon or trusting their gut. Science is safer. Second, Neptune chose the right source. Koala, located in Queensland, Australia, is the gold standard in meteorological forecasting. The forecast from the evening of July 6, 2011 was prepared under the supervision of Dr. Thyme Subick, an outstanding team leader at the Atlantic Basin Division of Koala. In my professional opinion, based on the 10 PM forecast from July 6, it was reasonable for Neptune to undertake its dive on July 7. The July 6 forecast was only 12 hours before the dive. It predicted a storm would arrive more than three hours after the dive was supposed to conclude (at 10:42 AM). Koala did not predict a tropical storm would strike The Hepburn at 10:15 AM. It is unreasonable to expect Neptune to have foreseen what the world's best forecasting system did not. Admittedly, Neptune could have checked the Koala website on July 7 before starting the dive. I have made available to counsel for both parties the Koala forecast from 3:00 AM on July 7, 2011, which has been marked as Case Document 24. Had Neptune checked the Koala website at any time after 3:00 AM, Neptune would have known the weather forecast had changed. I know this because Koala provided me with printouts of their hourly updates for July 7, 2011 at The Hepburn's coordinates; these updates span 10 PM on July 6 (when Neptune checked the Koala website) to 10 AM on July 7 (when Neptune undertook the dive). I concluded that had Neptune checked the Koala website anytime after 3:00 AM on July 7, 2011, it would have known that thunderstorms would arrive during the planned dive. The only correct decision would have been to abort the dive. I recommend that all divers and all dive companies (such as Neptune) check the weather conditions within three hours of their dive time. As anyone who has spent time at sea knows, weather predictions can change dramatically and quickly. Here, Neptune only once checked the weather forecast for July 7, 2011—at 10:00 PM on July 6, 2011. Thus far, I have discussed whether Neptune reasonably should have known of the Storm's existence. There is also the question of the Storm's severity. Koala forecasted a tropical depression, even though it ultimately proved to be a tropical storm. It predicted winds of 22 miles an hour and then later predicted winds of 32 miles per hour, even though the Storm ultimately brought winds of 54 miles per hour. Put simply, Koala underestimated the intensity of the Storm. Regardless, even a prediction of a tropical depression is sufficient to put divers and guides on notice of the potential dangers. No diver and no dive company should be scuba diving during a tropical depression.

SUMMARY

The Tropical Storm on July 7, 2011 made underwater conditions especially treacherous because of reduced visibility and faster ocean currents. In these ways, the Storm likely caused (or contributed to) Lee Allen's separation from the group and thus likely caused (or contributed to) Lee Allen's death. Neptune knew a storm would strike its location on July 7 but was unaware that the Storm would strike during the July 7 dive. Accurate information about the timing of the Storm was publicly and freely available for the last seven hours before Neptune's July 7 dive. While Neptune and its employees could have exhibited more caution in monitoring weather conditions, it is my opinion that Neptune acted reasonably in relying on the July 6 Koala forecast.