Inquiry into the Sailing Accident

at Annapolis, Maryland, June 23, 2011

Introduction

Following a fatal sailing accident at Annapolis on June 23, 2011, the Severn Sailing Association invited the United States Sailing Association to send representatives to Annapolis to discuss the incident with its officers and staff. The meeting was held at Eastport Yacht Club on July 6 with the following in attendance: SSA Commodore Hal Whitacre, US SAILING President Gary Jobson, Henry Filter (chair, SSA Junior Co), Joel Labuzetta (Junior Program Director, SSA), Nan Walker (Office Manager, SSA), Jack Gierhart (Executive Director, US SAILING), Janine Ahmed Connelly (Training Director, US SAILING), and myself (Safety at Sea Committee, US SAILING).

After an extremely informative and at times emotionally wrenching discussion, Hal Whitacre asked US SAILING to appoint an independent review of the incident. I was asked to conduct this review, and my aims are these: provide a factual narrative of the accident and the response, make findings, and offer recommendations that could be helpful to SSA and all sailors.

Attached is my report:

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John Rousmaniere
October 22, 2011

1. **Summary**

A chain of small events quickly evolved into something very rare in sailing – a tragedy. The wind and waves were not excessive, the sailors were competent, and the boat was a standard model of a long-popular class. Yet a routine capsize rapidly developed into the drowning death of a much beloved young woman, Olivia Constants.

She wore an appropriate Coast Guard-approved life jacket that, as the brave efforts of her young skipper showed, would have carried her up and into the air pocket of the capsized boat had Olivia not become tangled in the rigging.

The nearby coaches and instructors acted promptly and came to her assistance to administer CPR. Trained to observe the rule, "If you think you need to call 911, *call 911*!", a young instructor made a mobile phone call that brought a fire department ambulance to a nearby point of land at the U.S. Naval Academy, where the boat landed and transferred Olivia.

The response of the Severn Sailing Association off the water was also quick. The Commodore, the Junior Program Director, and others improvised a crisis plan while immediately addressing the emotional needs of the young sailors, their families, and the instructors. Less than three hours after the accident, a psychiatrist met with the instructional staff in the first of several counseling sessions. The club conducted a careful review of its sailing program and its risks, making changes at Annapolis, while perhaps hundreds of other sailing programs across North America also reviewed their equipment and procedures. "It really struck home with a lot of sailors," said one parent of the accident.

That this is the case suggests a number of areas that deserve attention and research.

2. Accident Narrative [1]

The accident occurred in midafternoon of Thursday, June 23, 2011 during a training session for the Chesapeake Racers Club 420 travel team sponsored by the Severn Sailing Association. The Club 420 (a heavier, sturdier development of the International 420) is a 13'9" LOA racing and training sloop-rigged dinghy weighing 180 pounds. Approximately 7,000 Club 420s and their close cousins, the Collegiate 420s, have been built, and more than 3,000 of them are sailing today at some 350 yacht clubs, community sailing programs, sailing schools, and other sailing facilities across the United States and Canada. For decades the Club 420 has been the standard North American class for sailors between the ages of about 12 and 21. It is a bulwark of intercollegiate sailing and yacht club junior programs like SSA's, in which approximately 400 young sailors participate at one time or another between mid-June and mid-August.

The Club 420 is usually sailed under mainsail and jib, without a trapeze or spinnaker, by novice to intermediate junior sailors and by school and college sailors. Advanced junior sailors sail it with a spinnaker and trapeze, which enhance the boat's basic speed, acceleration, tenderness, and boathandling demands to make the Club 420 an athletic and mental challenge for both the skipper and the crew.

The boat in the accident was on charter by the club to the family of the skipper, 13-year-old Sarah Alexander. She and 14-year-old Olivia Constants, her crew, were enthusiastic shoreside athletes (Olivia a soccer player, Sarah in ice hockey) and sailors. In June 2011, Olivia and Sarah were members of the club's Chesapeake Racers Club 420 travel team. The team's 16 junior sailors train five days a week from June through August and compete in regattas on the Chesapeake and elsewhere along the East Coast and in Canada.

The club's junior program had started on Monday, June 21, following a week of instructor training. This was the girls' first week sailing together and their first week in a 420 with a trapeze and spinnaker. They had been trained to right capsized Optimists, and when Olivia was a member of her high school sailing team in the spring of 2011, SSA instructors trained her

[1] I thank the following for assistance in many ways: Ramsey Alexander, Sarah Alexander, Betsy Alison, Arthur Blodgett, Janine Ahmed Connelly, Bill Crane, Amanda Howard Downing, Henry Filter, Taylor Forster, Deb Sullivan Gravelle, Kim Hapgood, Gary Jobson, Steve Keen, Gary Knapp, Joel Labuzetta, Timmy Larr, Blake Middleton, Paul Miller, Ginny Perry, Paul Risher, Kelly Rousmaniere, Melissa Trost, Nan Walker, Hal Whitacre, and Jodi Weinbecker.

to right Club 420s without trapeze equipment; she capsized several times for practice. Sarah and Olivia were wearing U.S. Coast Guard-approved Type III vest-type lifejackets.

The 420 travel racing team's coach is SSA sailing instructor Arthur Blodgett. Raised sailing 420s in Camden, Maine, he raced at Eckerd College and, in his senior year, in 2008-09, was named an honorable mention on the intercollegiate sailing All-American team. He has taught sailing and coached racing at Northwestern University and at high school. This was his second year as coach of the SSA 420 travel team. Like other SSA coaches and instructors, he is certified as an instructor by US SAILING (the sport's national governing body), and has earned Level 1 certificates in First Aid and CPR.

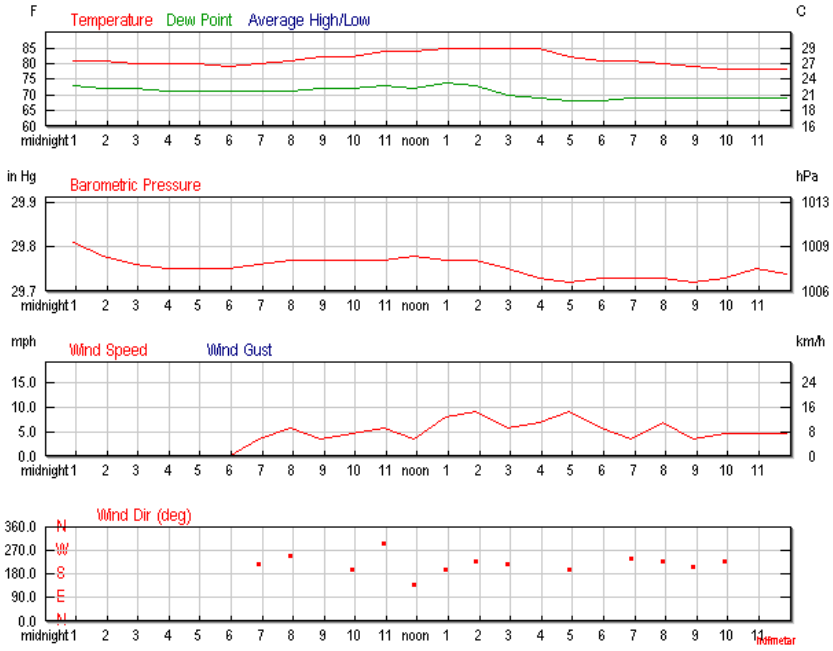
Coaches and instructors carry handheld VHF-FM radios issued by SSA. VHF radios are also located in the clubhouse and club offices. Blodgett and other coaches carry mobile telephones, which are designated solely for use in emergencies and when the boats are out of VHF range to the club.

On June 23, Arthur Blodgett was supervising seven boats in a 420 travel team training session from one of the club's two fast, seaworthy rubber-sided, rigid-bottom 16-foot Zodiac inflatables (RIBs) with 50-horsepower engines. The club also has eight fiberglass "whaler" type outboards. Six are commodious 13-footers with 15-horsepower engines, and the other two are faster 17-footers with 50-horsepower engines. Following SSA policy, one powerboat with at least one instructor is assigned to observe every two to eight sailboats on the water, with the heaviest concentration for beginning sailors in Optimists. At least one coach boat is close at hand for racing team practices. Another eight to ten instructors or coaches are usually on the water with other groups, too, and the SSA docks and personnel are a short distance away.

The racing team's purpose on this Thursday was to practice with trapezes and spinnakers in waves. Coach Blodgett set up a windward-leeward course off SSA using a can buoy in the mouth of the Severn River as the starting, rounding, and finish mark.

Annapolis inner harbor. SSA is at the bottom left. The capsize occurred near the buoy marked "CAN," 300 yards E of Triton Point.

The conditions were not extreme. A weather station at the nearby U.S. Naval Academy recorded a 5-10 knot wind shifting between south and west. On the water, Blodgett saw puffs to 12 knots and wind shifts. An Academy instructor, Paul Miller, by coincidence was looking down at the harbor from his third floor office in Rickover Hall and noted puffs in that range or higher as well as waves near the Academy seawall, where 420s were sailing (Sarah Alexander said she had no trouble steering).



June 23 data recorded at the USNA weather station at the Crown Sailing Center.[2]

[2] http://www.wunderground.com/history/airport/KNAK/2011/6/23/DailyHistory.html

During a race, the 420 was sailing toward the Severn River buoy on starboard tack with the spinnaker set. In the shifting breeze, the boat was sometimes dead before the wind, sometimes on a broad reach. As usual in 420s, the steerer (Sarah) sat on the leeward (port) air tank, and the crew (Olivia) was on the windward (starboard) side as she trimmed the spinnaker. Sarah has said that Olivia's harness was not hooked to the trapeze before the capsize.

Left: Usual crew positions when running under spinnaker. Right: The forward part of the crew's working area, with the trapeze wires held in place by shock cord led to the bails. The spinnaker is raised from and doused into a pouch just forward of the mast.

The crew cautiously doused the spinnaker early, some 50 or 75 yards from the turning mark, Olivia pulling it down into a pouch forward of the mast. This would have required her to sit in or reach across the starboard forward corner of the cockpit, where the trapeze wire and bail – the loop that the harness hooks into – were hanging.

When the spinnaker was about half-way down, the wind shifted and the boat accidentally jibed to port tack. The boom swung across the cockpit to the starboard side, pressing Olivia outboard and forward. As the boat heeled to starboard, Sarah heard Olivia say, "I'm stuck on something." There was no indication of distress, Sarah said: "She just mentioned it."

As the boat went far over on its starboard side, Sarah reached over the port rail for the centerboard with the idea of grabbing it to prevent or slow a capsize, as she had been trained to do. She missed the centerboard, however, and slid into the water as the boat continued to roll

over on its starboard side with the mainsail in the water. She expected that Olivia would swim out from behind the mainsail, as she had been trained to do.

When Olivia did not appear, Sarah waved to Arthur Blodgett, in the coach boat near the turning mark ahead. He came over quickly (in less than a minute by Sarah's estimate). By now the boat was upside down, with Sarah standing on a gunwale and holding on to the centerboard. Olivia was out of sight. Sarah briefly considered diving under the boat to search for her but decided it would be best to await her coach's instructions. When Arthur Blodgett arrived and learned that Olivia was still under the boat, he asked Sarah to swim below and look for Olivia. In her life jacket, she ducked under the deck into the air pocket under the overturned cockpit. Olivia was entirely submerged in the murky water, in a vertical posture with her arms extended out to her side, and her head near the surface, hair waving in the water.

Sarah attempted to pull Olivia's head up into the air pocket but was unable to budge her; something was holding her down. Sarah swam out and reported that Olivia was not moving.

Arthur by then had called for assistance on the VHF radio and secured the RIB's painter to the rudder. Removing his life jacket, he went into the water and, with Sarah's help, tried to find what was holding Olivia in Annapolis Harbor's notoriously murky water. ("The water around here is very scary," says Melissa Trost, SSA's head instructor. "There is no way that you can see your waist if you look underwater here.") His visibility so limited, Blodgett was guided largely by feel and his efforts were so vigorous that he inadvertently removed Olivia's lifejacket before he discovered the problem.

Her trapeze harness was hooked into the wrong part of the trapeze bail, and so awkwardly that it could not be unhooked. Normally, the sailor places the hook on the trapeze harness into the lower eye of the bail. Here, however, the hook was in the upper eye, the bail was capsized and twisted around the hook, and Olivia was tangled in the trapeze system. Arthur was unable to extract the hook until he loosened a buckle on the harness.

<u>Left:</u> The trapeze hook correctly secured in the lower eye of the bail. <u>Right:</u> The connection as Arthur Blodgett found it. The hook was in the upper eye, and the bail was twisted so hard that it could not be pulled off without loosening the harness.
<u>Note:</u> Though the geometry is similar, this is not the same equipment as the boat's. The bail was like the one shown on page 7, and the harness did not have the nubbin guard under the hook or the quick-release button shown here.

When Arthur and Sarah pulled Olivia out from under the boat, she had been in the water between three and five minutes by their estimate. Three other SSA instructors, Justin Bell, Wilson Stout, and Morgan Wilson, were close by in SSA whalers. They placed Olivia in a small whaler because its freeboard was lower than a larger whaler's and its wide, open, flat-bottom cockpit is more suitable for performing CPR. Olivia had no pulse. Justin immediately began administering chest compressions as the boat was driven to shore. One of SSA's rules for emergencies is that the victim be taken to the nearest land, which in this case was Triton Point, at the U.S. Naval Academy.

There they were soon joined by SSA Junior Program Director Joel Labuzetta. From Rochester, N.Y., Labuzetta captained the College of Charleston's national championship sailing team for two years, coached sailing and directed sailing programs, and, after two years doing research and marketing work for an engineering firm in Switzerland, was hired by SSA. Now 27 years old, he was in his fourth year at SSA, his third as director.

Labuzetta was in his office at SSA when a message from Morgan Wilson came over the VHF radio mounted there. She repeated Arthur Blodgett's original alert, saying that there was an unconscious sailor in the water. Morgan also called 911 on her mobile phone in observance of Labuzetta's rule, "If you think you need to call 911, *call 911*!" She told the operator that she was with SSA and that an ambulance should be sent to Triton Point, at the Naval Academy. At the Eastport Fire Department there was some confusion about whether the ambulance should go to the club or the academy. A second mobile call straightened that out. (Morgan Wilson's caution was appropriate. Police or other emergency boats were not seen in the area of the accident.)

When Labuzetta heard Wilson's message, he ran down to the waterfront, grabbed Yusuf Hafez, another instructor who is also a life guard, and they jumped into a whaler. As they neared Triton Point, Labuzetta saw Justin Bell administering CPR in a whaler that was pulled up on the landing, and also saw Arthur Blodgett running at a full sprint across a playing field, waving at an ambulance. Hafez, Bell, and Labuzetta carried Olivia out of the whaler onto the landing, where Yusuf (who had a CPR breathing mask) did the breaths while Justin did chest compressions. Soon the ambulance arrived, siren screaming, and the paramedics took Olivia to Anne Arundel Hospital.

Labuzetta called Olivia's family and the club officers. Mr. Constants telephoned back from the hospital and said, gently, that she had died. He called back later to ask how her day been on the water. Had she been enjoying herself?

3. **Severn Sailing Association's Response**

Asked later who was in charge at SSA in the wake of the accident, Joel Labuzetta replied instantly, "*Hal*. It naturally fell that way." This did not seem so natural to Hal Whitacre. "I've never done anything like this before; I'd signed up for this job to renovate a building." Whitacre was elected SSA Commodore in 2010 for a two-year term with the understanding that his primary task was to supervise an expansion of the clubhouse. A naval architect and small boat sailor, he is also a passionate musician. In one of the few times he took off during the next week, he and his fellow members of an interracial gospel quintet sang at funeral of the group's former members.

As the former chair of the club's Junior Committee, he had worked closely with Labuzetta, whom Whitacre had hired as the club's 420 coach before he was promoted to head the Junior Program. After the call, Whitacre drove to SSA, where he spoke with Labuzetta, Nan Walker (the club's office manager and a former SSA sailing instructor), Bob Schofield (a member of the Junior Committee), Dirk Schwenk (a member and one of the club's lawyers), and Henry Filter (the Junior Program Chair). All were in or near Annapolis except Filter, who was driving with his son to Connecticut to sail in a Snipe Class regatta; he returned to Annapolis early Friday morning.

Because the club did not have a written crisis/incident/disaster plan, its officers and staff were taken by surprise as surprising quandaries piled up. Are our programs and boats up to date? Do we do business as usual or shut down? What do we tell our members and the public? What are our obligations to our community? The answers to these and other questions evolved in a group process that Whitacre described as "a lot of talking to each other and getting a grasp on your emotions." Henry Filter made the point a little differently: "I am always impressed by any organization that tries to be introspective." This blend of passion and reflection served as a reliable guide over the following days.

It was quickly agreed that the club must immediately address the needs of the group that was closest to the accident. Five of the club's coaches and instructors had been engaged in the futile rescue effort. That was why, less than three hours after the accident, a psychiatrist was meeting with the instructional staff. This was the first of several counseling sessions for them, sailors, or family members that SSA organized after the accident, the last in mid-August at the

time the junior program ended (by then, Sarah Alexander was back racing 420s and serving as a junior instructor).

The leadership group canceled the junior program for Friday and scheduled meetings with parents and the club's young sailors, many of whom had been living with the news since the first of many reports was transmitted over social media on Thursday afternoon. The parents of the 150 children in the basic sailing classes were notified by email. The parents of the children in Olivia's racing team, however, were contacted by telephone because "We wanted the parents to be involved and ask questions," Joel Labuzetta would explain.

He and Whitacre made many of those calls. Some parents asked if the instructors' training certificates and other requirements were up to date (Labuzetta assured them they were). Others who were not sailors wanted to know if accidents like this happen often (no said Labuzetta, accurately). When a mother said her son had gone straight to his room without mentioning the accident, Labuzetta spoke with him. On Friday morning the club held a meeting of parents while a psychologist retained by the club led a counseling session for the sailors on all the racing teams. Afterwards the sailors ate lunch together at a nearby Eastport restaurant and then went sailing in the 420s, with the coaches nearby in the whalers and RIBs.

These sailors were already a tight-knit group. Many had been sailing with or against each other for years in Optimists and on school teams. Some instructors were junior program graduates. The young sailors became extremely close, especially the girls who had known Olivia. "The girls were all inseparable for a week," remembered a mother. Wilson Stout, an instructor, designed bumper stickers and patches (shown above) for life jackets and trapeze harnesses with Olivia's name, in her favorite color, hot pink. Several days after the accident, the junior sailors and instructors greeted the adults returning from an evening race by scattering pink daisies along the club's pathways.

By then the story of the accident was in the media. When the families arrived at the club on Friday morning, several Washington and Baltimore reporters and TV cameramen were already posted outside the club's gate and helicopters were overhead. (A Google search for Olivia's name and "capsize" finds 1,400 reports of the accident in late June, plus 97 blog postings.) Hal Whitacre decided that someone should meet with the press, and that it should be him. "We agreed that all information should come from only one person, *me*." Although SSA's insurance agent advised him to offer only minimum information, Whitacre's inclination was to be open: "That's when the gut feeling came in," he looked back three weeks later. "It had to be layered: I had to express my feelings, but I had to find a balance between what I said and what I didn't say." He avoided engaging in speculation, and he declined to reveal the names of children and instructors. "I didn't want to overstep that boundary. All the sailors are under 18; even all the coaches are young. I did not want the names to get out." He was aware that any television interview he gave would probably be seen by Olivia's parents.

Public relations firms offered their services, but the club after some discussion declined to retain one. Whitacre and the others agreed that the club should draft and issue its own statement about the known facts of the accident. As he, Bob Schofield, and Dirk Schwenk, one of the club's lawyers, worked on it, the statement became more personal. "We sat down and talked about our feelings and our kids," Whitacre recalled. The club meanwhile scheduled more meetings for parents to ask questions and children to find consolation in their own company. Gary Jobson spoke to one gathering of sailors.

The questions came not only from the parents. Because it occurred during the first week of junior sailing across North America, news of the accident (more accurately, the many dire rumors and few accurate facts about it) spread via social media, and stimulated vast and deep concerns at yacht clubs and community sailing programs from coast to coast. Labuzetta spoke with many coaches and directors of other sailing programs.

One source of encouragement was the community of sailors. Sailing school students at one club sent dozens of supportive cards that they made themselves. When the waterfront director at the nearby Annapolis Yacht Club, Jay Kehoe, assured families of the club's concern for safety, he added, "In my 25+ years of coaching sailing, nothing like this has hit so close to home. Our hearts are heavy and our thoughts and prayers go out to our brothers and sisters at Severn Sailing Association." Another heartening source of support was the fire department. One

of the paramedics who had administered CPR came to SSA to express his condolences and to assure the instructors that their own rescue effort was handled very well. He surprised the staff by asking if his paramedics had performed satisfactorily. He was assured that indeed they had.

The robust local support may have reflected the historic maritime town's appreciation of the many challenges of sailing. "They get it," said Whitacre. That could be said, too, of the members of the Severn Sailing Association, a low-dues, no-frills, do-it-yourself small boat racing club whose parking area is packed with boats, racing schedule is long, and clubhouse is unpretentious to an extreme, with its funky snack bar, large grill area, and a main lounge whose table is the cockpit of an old racing dinghy.

Yet pressure was building. After officials of the Department of Natural Resources stated publicly that the trapeze on the club-owned boat played a part in the accident, the blogosphere became filled with theories. When a public relations man advised removing trapezes from all the 420s, the club went along and Joel Labuzetta spent the good part of an afternoon hoisting masts out of boats and unrigging them. The next day, SSA partially reversed itself. On club-owned 420s that were not under charter, trapezes would be installed and maintained by the sailors themselves, working under a coach's close supervision. As Arthur Blodgett would explain, "This way you learn how to avoid getting a lifejacket caught on a cotter pin."

Other rules were put in place. One was that if one boat turtles, the instructor or coach blows a whistle and the crews cast off sheets and lay the boat sideways to the wind until the capsized boat is righted. (This replaced a rule that three capsizes triggered a moratorium.) Coaches' boats were equipped with wire cutters, serrated knives, breathing masks for CPR, large bandages, and other equipment. In addition, the SSA sailing staff and North Sails, working with existing designs, developed a buoyant float to attach to the head of the mainsail to prevent boats from turtling, or at least slow the process. Some of the young sailors acquired sailing knives, serrated with blunt tips.

The masthead float is made with 1.5-inch foam in a sleeve secured over the head of the sail.

SSA's board of directors held a special meeting on Sunday morning, June 26. Beforehand, Schofield assembled more than 20 questions that might be asked concerning the accident. The board approved the new safety policies and also the statement from the heart that had been in preparation for more than a day. Titled "Reflecting on This Tragedy with Disbelief," it was published in the Annapolis *Capital*, other local media, and many sailors' newsletters and blogs (the statement is on the next page).

Fears that large numbers of families would pull their children out of the program eased. At a meeting with parents on Monday, said Henry Filter, "There was not one negative person. Everybody was asking, 'How can I help?' Ninety-nine percent of the parents were supportive, and most were happy to hear from us at meetings and in phone calls." Seven children were withdrawn from the program, their families citing fears, more than that were registered for the summer program. "This summer was our highest enrollment ever at SSA, 397," Joel Labuzetta wrote in September, adding the high-school sailing for the fall season was at peak capacity, with 62 sailors and four teams.

On the Monday after the accident, the Severn Sailing Association community attended Olivia Constants' wake, and the next day they gathered again at her funeral. On September 11, the members of the racing team, at their request, met with Olivia's parents, accompanied by Hal Whitacre and Joel Labuzetta. When the family established the Olivia Constants Foundation in her memory, the first fundraising event was a high school regatta that raised $1,400.

4. Severn Sailing Association Statement

"Reflecting on this Tragedy with Disbelief"[3]

By Hal Whitacre, Commodore, Severn Sailing Association, June 26, 2011

The last several days have been notably some of the most challenging of my life. As the Commodore of Severn Sailing Association, I am faced with great responsibilities relating to the loss of a fellow sailor. Even more difficult for me, as a father of three children, are the haunting emotions and sympathy I feel for the grieving family of Olivia Constants, a young sailor on our junior race team who lost her life in a sailing accident last Thursday.

I can only reflect on this tragedy with disbelief. Surely we all often think of the dangers of the sea as we venture from the dock. Seldom, though, do we hear of a life-threatening event occurring in our local sailing community. In general, accidents of this magnitude are rare and this one involved experienced sailors and competent instructors. However, the rarity of such an accident is no comfort to me or any other parent.

My understanding thus far is that the 420 capsized to windward while sailing downwind, and then rolled into a "turtled" position (mast pointing downward). The coach immediately approached the boat, radioed for additional assistance, and worked diligently to dislodge Olivia, who at that moment appeared to be unconscious. Concurrently, another instructor phoned 911. Once she was retrieved from the water, coaches immediately performed CPR and proceeded to the Naval Academy's seawall, which was the nearest point of land, to meet the emergency response team. Unfortunately, Olivia could not be resuscitated.

At this point the exact cause of Olivia's drowning is unknown and under investigation by Maryland DNR.

Conditions at the time were excellent for training, and both sailors have sailed, and capsized, in much rougher conditions. Both Olivia, her skipper, and all coaches were wearing their PFDs, in accordance with our Junior Program Rules.

The Severn Sailing Association's junior sailing program has a history of over 50 years of producing world-class sailors, from local champions to Olympic sailors; with thousands of

[3] Published in the *Annapolis Capital*, at http://www.eyeonannapolis.net/2011/06/27/severn-sailing-association-comments-on-olivia-constants-death/ , and elsewhere.

students having safely completed the program. The current junior program, consistent with our past programs, is committed to making sailing accessible to the public and to help those wanting to pursue higher levels in the sport. Our sailing program director and his coaches have a passion to teach, and hold safety as a top priority.

As a result of this incident we are reviewing and critiquing our safety procedures and equipment. As with any incident such as this, a greater light is shown on safety and with this focus good safety measures can be made even better. As this incident has had far reaching impact within the greater junior sailing community, we have reached out to other junior programs to both tell them our current safety thinking and to glean any additional information they may have to contribute. We intend to have an independent, expert, organization perform a safety review of our junior program equipment and procedures and will share our findings with the greater sailing community.

I have been in contact with the Constants family and they are very appreciative of the outpouring of support and love expressed for Olivia. I am grateful for the outpouring of support from the community. There has been a clear message encouraging the club to continue with the current program and its positive contributions to youth instruction and the promotion of sailing. We appreciate your support of our program, and particularly to our staff.

Olivia will be greatly missed by everyone. Our thoughts and prayers remain with her family.

Annapolis Accident Review, October 22, 2011, John Rousmaniere

5. Findings

A. The accident was caused by a chain of small events. Had Olivia not been dousing the spinnaker at the moment the boat jibed accidentally, she probably would not have been pressed by the boom and vang into the area of the trapeze, where she inadvertently hooked onto the bail and became tangled in the rigging. Evidence that this connection was accidental is that the hook was in the wrong eye on the bail. While the accidental connection might have been avoided had there been a nubbin or guard under the hook, nubbins have been known to obstruct a connection or make it difficult to disconnect. The harness did not have a quick-release system, but this also is not a reliable cure-all.[4]

B. According to the Maryland Department of Natural Resources, Olivia's death was an accidental drowning, with no head trauma or other serious injury. Like many drownings, this one occurred extremely rapidly.[5]

C. Both sailors wore appropriate Coast Guard-approved life jackets. As Sarah's brave effort indicates, the life jacket would have floated Olivia up into the air pocket had it not been for her entanglement in the rigging.

D. The conditions were not excessive for the boat and crew. While the crew was somewhat inexperienced with spinnakers and trapezes, they had sailed this boat all week in more wind, without trouble and with caution (as the early spinnaker takedown indicates). Both had had been trained in capsizes and recoveries, though not in a trapeze boat.

E. The sailors were supervised by a certified professional coach in a fast, seaworthy power boat a short distance away, with other coaches on the water nearby. The coaches and instructors acted promptly and used their radios and mobile phones responsibly and properly to call for help.

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[4] A thorough review of trapeze gear and capsize is in a *Sailing Anarchy* thread at http://forums.sailinganarchy.com/index.php?showtopic=82654&hl=safety&st=0

[5] A discussion of Instinctive Drowning Response is at http://mariovittone.com/2010/05/154/

F. The response of the Severn Sailing Association to the accident on the water was admirable, as was the improvised incident plan on shore.

6. **Comments**

First and above all else, our fundamental concern in this tragedy lies with the family of Olivia Constants.

Second, sailing is one of the safest of all outdoors adventure sports, yet it has inherent risks. One reason why accidents like this one are so notorious is that they are so rare. Yet it is a fact that sailing is inherently challenging. "We can't eliminate risk unless we sail on a computer," a New Zealander coaching 420s in Connecticut, Steve Keen, told me. "Every day you go on the water there's a chance something might happen not according to plan."

This does not mean that risks should be passively accepted as the hand of fate, or that when accidents occur we should search wildly for causes, no matter how improbable they may be. One of the more constructive comments after the accident came from Peter Commette, a champion small boat sailor and former Olympian:

> All sports involve inherent risk. Our sport needs to learn all that we can from the event to move forward even more safely, if possible, while at the same time preventing irrational fear of youth sailing as a result of this terrible, horrible, freak accident. A number of people's futures, young and old, are at stake here (Olivia's family and friends, the junior sailors involved in the event, the coaches involved, the SSA parent members who run the program). They will be traumatized for life. Finger pointing prevents the degrees of healing that can be accomplished and will overshadow any good for the future that may be learned, if possible, from this event.[6]

People who consistently take risks are obliged to do their best to keep them within reasonable bounds. The good sailor respects the power of wind and sea, anticipates the probability of future challenges, makes and enforces appropriate safety rules, and prepares for all sorts of emergencies with forethought, training, and practice. This aptitude of forehandedness was memorably expressed a century ago by Joseph Conrad when he wrote in *The Mirror of the Sea*, "A seaman laboring under an undue sense of security becomes at once worth hardly half his salt."

Sailing, like life itself, is a work in progress. Improvement is pressed onward by the lessons learned from events. Within hours of the accident, sailors everywhere engaged in reflection and

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[6] http://forum.sailingscuttlebutt.com/DISCUSSION_C6/Dock_Talk_F5/EIGHT_BELLS%3A_Olivia_Constants__P12126/

self-examination. "It really struck home with a lot of sailors," Bill Crane, a Club 420 builder and parent of 420 sailors, told me. An experienced coach said that news of the Annapolis accident "makes me realize how many close calls I've had."

An instructor at a Connecticut yacht club commented that the timing of the Annapolis accident was fortunate because it occurred in the first week of almost every junior training program in North America. Soon after the initial reports came out from Annapolis, the Canadian Yachting Association sent a notice to its clubs saying, "In light of this tragedy it is important that all coaches, instructors, schools and clubs be reminded of the importance of safety and vigilance at all times."[7] Some clubs changed their equipment, while others focused on training. "This incident is a reminder to everyone about teaching and practicing," said an instructor in Rhode Island. A friend of mine who runs races on Great South Bay, on Long Island, told me, "Ever since that horrible tragedy in Annapolis in June, everybody on my RC boats pays much more attention to capsized boats, especially in junior regattas. First thing I do is radio the nearest patrol boat to immediately locate all crew members; I carry a list of crew members with me on the water."

Third, this type of incident is not unusual. Three recent Club 420 trapeze-related accidents could have resulted in a fatality:

In 2009, in Hamilton, Bermuda, a girl was hooked onto the trapeze when a 420 turtled while running under spinnaker in light air. She was under water for more than a minute when a pair of quick-thinking instructors righted the boat. "That accident really scared me because we came close," recalled the head of the program, Deb Sullivan Gravelle, who credited imaginative instructors. "It's hard to be a clear thinker. Most people don't think about righting the boat."

In October 2010, at the Club 420 Mid-Atlantic Championship at Noroton, Conn.**,** a boat doing a crash tack to avoid a starboard-tacker turtled on top of the crew. A coach who was watching, Steve Keen, saw only one head bob up. "You had to be *looking* at it to *understand* it," he told me. He gunned his high-powered crash boat and got to the 420 in less than a minute. Even then the sailor (whose feet were tangled in sheets and other lines) might have been lost, except for a number of fortunate circumstances that came together: he didn't swallow any water, there was no hypothermia, his clothes didn't hinder him, he was fully conscious, and he was able

[7] http://www.sailing.ca/news/a_genuin_tragedy

to put his head up into the air pocket in the cockpit. Although Keen is not a swimmer, he dove in and extracted the sailor with the help of another coach, Jim Kehoe.

In July 2011, just days after the Annapolis accident, at the Indian Harbor Yacht Club in Greenwich, Conn., a Club 420 did a quick tack, capsized to windward, and turtled. The young woman on the trapeze became twisted in the trapeze and was entrapped under the boat. Instructor Juan Pablo Carranza needed three dives under the hull before he finally unwound and extracted her. The Annapolis tragedy lay so heavily on everybody's mind, an officer of the club later said, that the young sailors were exuberant.

Steve Keen would say of the rescue he made that "Nothing else was unusual, but still it was a close call. It's very easy for things to change very quickly. The seconds quickly go by, and you don't know they go by."

7. Recommendations

A. Capsize Causes and Recovery

RECOMMENDATION: Trials and other research should be undertaken on avoiding capsize and turtling by Club 420s, and also on righting them and recovering crew.

B. Life Jackets

RECOMMENDATION: Various types of life jackets should be tested with the aim of identifying their strengths and limitations for dinghy sailing.

C. Trapeze Gear and Training

RECOMMENDATION: Recreations of the Annapolis accident and other accidents will help identify risks, as well as the equipment and skills needed for trapeze work.

D. Entrapment

RECOMMENDATION: Research should be conducted with turtled boats and crews with the aims of identifying sailor entrapment, and developing and teaching effective methods of recovery.

E. Electronic Communications

RECOMMENDATION: There should be trials of the relative effectiveness in emergencies of old media (VHF-FM), new media (cell phones, social media), alarms (PLB, SPOT), and signals (flares, whistles, lights).

F. Language

RECOMMENDATION: A standard vocabulary and grammar should be developed for emergency communications, both verbal and non-verbal.

G. Crisis/Incident/Disaster Plans

RECOMMENDATION: Model risk management procedures and incident/disaster plans should be developed as templates for use by yacht clubs, race organizers, and sailing programs.

Suggested Crisis Plan Outline (JR)

1. ***Record*** all important contact information, including rescue services, hospitals, the Coast Guard, and marine police.

2. ***Think*** through scenarios, likely and unlikely.

3. ***Act*** quickly, responsibly, humanely, and openly.

4. ***Appoint*** a small management committee, with outside advisors on call for reality checks.

5. ***Speak*** with one voice.

Annapolis Accident Review, October 22, 2011, John Rousmaniere

6. ***Send*** as few emails as necessary. Communicate by phone or in person.

7. ***Avoid*** pointing fingers and casting blame.

8. ***Listen*** to your insurance agent and lawyer (but don't talk like one).

9. ***Honor*** the public's need to know, while also respecting victims' privacy.

10. ***Be accurate.***

11. ***Take ritual seriously.*** Set aside time for your community to reflect.

12. ***Respect*** PTSD. It affects everybody who breathes the air of an emergency. Grief counseling is extremely valuable. Be as kind to yourself as you are trying to be to others.

END