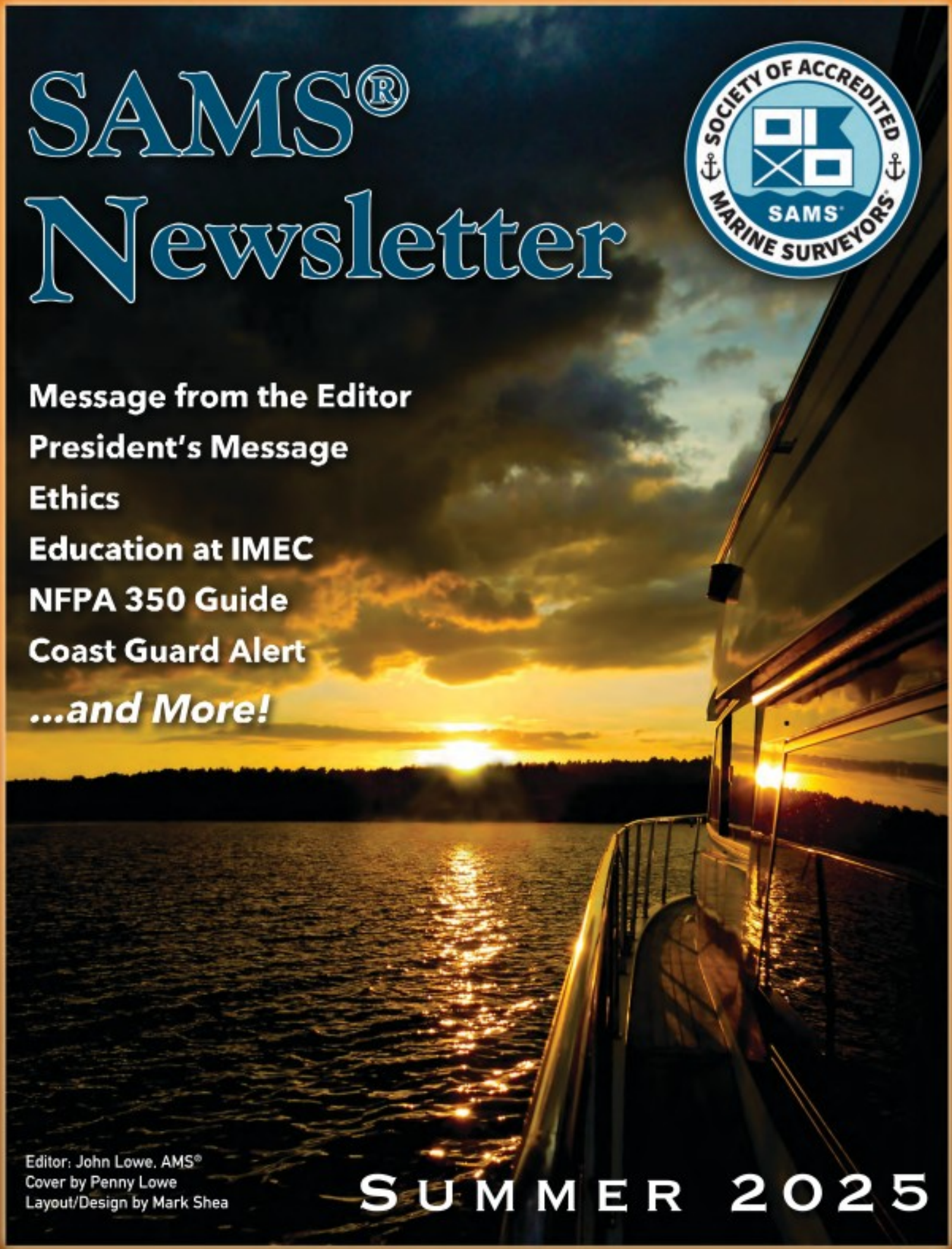
VOLUME 35 • ISSUE 2

SAMS® Newsletter



Message from the Editor
President's Message
Ethics
Education at IMEC
NFPA 350 Guide
Coast Guard Alert
...and More!

Editor: John Lowe, AMS®
Cover by Penny Lowe
Layout/Design by Mark Shea

SUMMER 2025

John Lowe, AMS®
Immediate Past President
SAMS® Newsletter Editor

Hello Everyone,

I know this information has been posted before but a reminder may not be a bad idea. We have finally arrived at summer here in the northeast and we all will be exposed to extreme conditions working in boat yards that never have any shade and more times than not we are working on asphalt which increases temperatures considerably. Below are some of the risks we all are exposed to. Understanding them will help us to avoid advancing from the early stages to a full-blown heat stroke.

- **Heat Rash:** Also known as prickly heat, this condition is characterized by itchy skin and a rash of small red bumps. It happens due to excessive sweating that leads to clogged sweat ducts.

- **Heat Cramps:** Heat cramps are painful, involuntary muscle spasms that usually occur during heavy exercise in hot environments. Sweating leads to losing body salts and fluids, which can result in cramping.

- **Heat Syncope:** Heat fainting is a brief loss of consciousness due to low blood pressure caused by dehydration and standing or rising suddenly in a hot environment.

- **Heat Exhaustion:** This serious condition can develop from prolonged exposure to high temperatures and inadequate or unbalanced replacement of fluids. Symptoms include heavy sweating, rapid pulse, dizziness, fatigue, cool and moist skin with goosebumps in the heat, and muscle cramps.

- **Heatstroke:** This medical emergency occurs when the body's temperature regulation fails, leading to a dangerously high body temperature. Symptoms include high body temperature, altered mental state or behavior, nausea and vomiting, flushed skin, rapid breathing, racing heart rate, and headache. Untreated heatstroke can quickly damage your brain, heart, kidneys, and muscles.
- Extreme heat conditions can also impact worker productivity and safety significantly. Heat can impair concentration, leading to careless errors and accidents. Physical performance, especially strength, can also be reduced. Furthermore, prolonged exposure to excessive heat can lead to dehydration, further exacerbating fatigue and cognitive impairment. Workers may also experience a decreased ability to self-pace their work, leading to overexertion and potential heat-related illnesses.

Several risk factors can heighten workers' susceptibility to extreme temperature hazards, making it critical for surveyors to identify and consider them in their occupational health and safety strategies.

- **Age:** Older workers may be more susceptible to extreme temperatures, especially heat, due to the physiological changes that come with aging. These changes can include a decreased ability to sweat and a slower metabolic rate, making it harder for the body to regulate its temperature.
- **Pre-existing Medical Conditions:** Certain health conditions can exacerbate the effects of extreme temperatures. For example, individuals with heart conditions, diabetes, high blood pressure, or respiratory diseases may worsen their symptoms in extreme heat or cold.

Cont.

- **Medications:** Some medications can interfere with the body's ability to regulate temperature or increase dehydration risk, making individuals more vulnerable to temperature extremes. Examples include diuretics, antihistamines, blood pressure medications, and certain psychiatric medications.
- **Physical Fitness:** Workers with low physical fitness levels or obesity may have difficulty coping with temperature extremes. The body's ability to regulate temperature is closely linked to physical health and fitness.
- **Lack of Acclimatization:** Workers not used to working in extreme temperatures, either hot or cold, are particularly at risk. Acclimatization is a process of gradual adaptation to changes in the environment, and without it, the body can be shocked by sudden exposure to extreme conditions.
- Inadequate Hydration or Nutrition: Dehydration can quickly exacerbate the effects of extreme heat and also affect the body's response to cold. Similarly, inadequate nutrition can reduce the body's ability to withstand or adapt to temperature extremes.

Avoiding these conditions is pretty simple.

- Provide good workplace ventilation – moving air has a cooling effect. A shop fan strategically placed can be an asset.
- Shield heat sources – to control radiant heat and prevent sun burn. An umbrella or pop-up shade used by mechanics would be a good choice.
- Provide cool refuges – take breaks and go sit in your truck or yard office with the AC on.
  Drink plenty of water or isotonic drinks. Don't count on water alone as too much water intake can actually remove important salts and electrolytes. Mix in a Gatorade, Pedialyte or similar drink. Eat frequently and eat small portions. We acquire approx. 20% of our water thru food intake so eating fruits and veggies is a good idea. That big cup of coffee we all drink on our way to the job is not doing us any good.

- Provide appropriate clothing for use in the hot work environment, but consideration must be given to other workplace hazards. Proper footwear is a must. I'm reluctant to take my shoes off despite the owner's requests, we work in machinery spaces and stocking feet are a bad idea. SPF shirts (loose fitting) and wide brim hats will certainly help along with cooling neck gaiters (Miracool) used by construction workers help as well.

Hope this helps someone out there, I had what I found out was heat Exhaustion last summer and it cost me a couple days of work. Be careful and work smart.

Be Well
I will look for you in the yards.

Need CE Credits ???

Newsletter Material Deadline: Have an interesting topic? Send it in! If your article is published in the SAMS® NEWSLETTER, you not only contribute news and information, you may be eligible to receive (3) CE Credits* for your article. The cutoff date for material to be submitted for publication in the next SAMS® Newsletter is November 15, 2025. The editor must receive all articles by this deadline or they MAY NOT be published in the next issue.

If you are planning to write an article you should know the following:

1. Your article should be technical in content, and of interest to the profession of marine surveying.
2. The article should be in MS Word.
3. Please use Times New Roman, font size 12
4. Length of the article should be 500 to 1000 words.
5. Articles that have been published before, MUST have a letter of permission letting SAMS® re-publish this article.

Kristoffer Diel, AMS®
SAMS® President

Ahoy! Fellow SAMS® Surveyors

I am proud and pleased to report that the SAMS® organization is doing very well.

Always, FIRST: KUDOS and THANKS to the Office personnel!

Mrs. Rhea and Mr. Mark Shea
Mrs. Cheryl Roach
Ms. Jessica Manchino

They are always ready to help and have successfully steered the Corporation to its' current enervating status.

SAMS® is in very firm financial condition and the future is looking good. While a growing number of members are approaching retirement age, SAMS® is experiencing a surge of new members, slowing the shrinking membership roll. Look around you and find a surveyor to mentor!

The next item is not so wonderful!

Mr. Richard "Dick" Frenzel has passed. Dick joined SAMS® in 1987 making him a Charter Member and he was given AMS® #32. His dedication to SAMS® was remarkable as he was always willing to assist in any way. Dick also held the position of Membership Vice President in 2007.

Rest in Peace, Richard 'Dick' Frenzel

Dick was the reason I joined SAMS®. We met in the USCG Auxiliary in early 2002. He suggested SAMS® was a way to improve my surveying. He was the one who called me, as SAMS® VP Membership, to inform me of my AMS#. He was a crucial supporter during my stint as Regional Director and was ALWAYS available for questions and suggestions. May the Lord Bless & Keep You for the kindness and attention, you shared with everyone.

Secretary/Treasurer Mr. Randell Sharpe, and Vice President, Mr. Gary Frankovich, are currently overhauling all the various SAMS® manuals. I recommend everyone go online and check out the updated Manuals. We will email everyone a new copy when it is completed.

And finally! Thank You! to all the Regional Directors and Board Members. I understand the effort involved to make SAMS® function and this is in addition to surveying and running your business.

I hope everyone makes a BIG effort to attend the upcoming IMEC 2025, in Baltimore. Looking forward to seeing everyone there! Be careful in the summer heat!

Respectfully submitted, *Kristoffer Diel*

Gary Frankovich, AMS®
SAMS® Executive Vice President
Ethics Chair

Summer has arrived and I hope everyone is taking advantage of putting some money in the bank right now as it still seems to be a toss-up as to how the economy is going to perform for the rest of the year. What do you all think is the most common reason is for people to complain to SAMS® about the surveyor they employed? No. 1 of course is the report has either not been delivered in a timely manner or not at all, followed closely by, and normally in concert with, a LACK OF COMMUNICATION! We constantly hear the report was promised by a certain date but didn't arrive, when the client tries to contact the surveyor, their emails, texts, and voicemails are ignored. We all know sometimes things come up and possibly delay the report by a few days, but anything more than a few days is NOT ACCEPTABLE, unless of course something really dire has occurred, but no matter why, there is simply NO REASON to not communicate with the client and let them know why the report has not been delivered. Most people understand small delays and are quite forgiving, if they are kept informed, BUT nothing makes them more angry than being ignored. Remember there is usually either an insurance underwriter or loan officer also waiting for that report, delaying the report can sometimes cause a cancellation of insurance, or problems with a loan. As someone famous once said, "GIT'ER DONE"!. Since this is probably my last article as the Ethics Chair, I want to mention that everyone that I asked to help with Ethics Complaints by serving on a committee to investigate a complaint, not a single member said they were too busy, so THANK YOU ALL. See you in Baltimore in Sept. for the IMEC. Don't Miss It!

Randell Sharpe
Secretary/Treasurer

Your board is working hard to promote the SAMS® organization and our members. Please review your survey reports to ensure that they are up to the current SAMS® recommended survey report guidelines. Your report is the product that the insurance and financial industries see and judge you by as well as judging SAMS® as an organization. Be a shining example of what a report should look like as you represent SAMS® as well as yourself. The only way they know if you conducted a complete and thorough survey is by what is contained in your report. SAMS® is financially sound, and we are continuing to spend your dues to promote you and the organization. At the recent board of directors meeting, we reviewed and updated our policy manuals clarifying and updating policies. If you have not read the manuals recently you can request a copy from HQ. They contain policies concerning the operations of the organization and discuss important issues like ethics, continuing education, AMS® testing, complaint procedures, and dues.

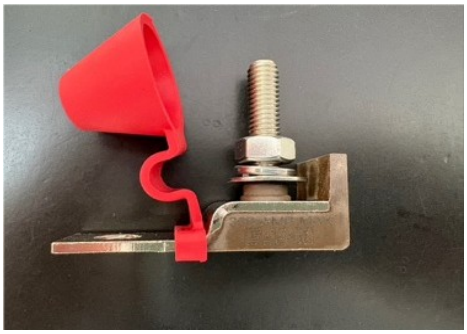
OK enough of the mundane business stuff. Dangerous situation of the month that may be partly hidden and can result in fires and the loss of life or a vessel. I recently surveyed a high-end cruising yacht that has a dry stack exhaust system. In the engine room the exhaust system was clean and well maintained with well installed insulation that showed no signs of deterioration or leakage. The vessel had been delivered to the boat yard the day before with no apparent issues. It was moved to the yard ahead of time for ease in getting to the vessel and conducting the survey dockside and hauled out, with an underway trial scheduled for after the haul out. As I went through the vessel galley area and opened cabinets, I found heat damaged wood inside the cabinets that were adjacent to the dry stack exhaust. Close examination found that the cabinet wall had been turned into charcoal. The varnish on the outside of the cabinetry above the cabinet had partly blistered. Minor excavation (my finger went easily through the panel) found that the interior of the trunk containing the dry exhaust stack was severely charred. When wood is exposed to high heat over time it will slowly turn to charcoal, and this causes the temperature at which the wood will combust to be much lower. When looking at exhaust stacks whether it is an engine dry stack exhaust or a cabin heater exhaust, look closely at the adjacent wood and penetrations to evaluate any heat damage to the adjacent wood which may have greatly lowered the temperature at which it will combust.

Initially it may appear that there is simply a water leak. Close examination found an exhaust leak and substantial damage to the inside of the exhaust trunk.

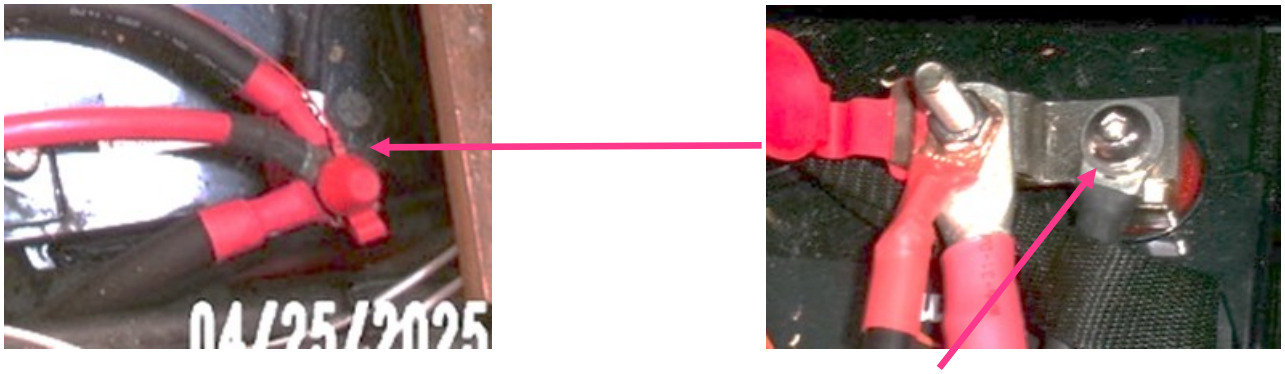
Cont.

Electrical Joe Saturday of the month: Joe was installing Li batteries in his 50 foot sailboat. A pair of 460 amp hour batteries for the house and a 100 amp hour battery for the anchor winch.

You are likely familiar with the Blue Sea Systems square box type fuses that can be neatly attached directly to a battery post or bolted to the threaded fitting. The metal tab bolts to the battery and the brown polymer insulates the mounting bolt where wires are attached. The square block fuse sits neatly on the metal tab and creates the fused path to the stud to connect wiring.



Look closely at the batteries in the above photo. See past the fact that they are not secured, and there are wing nuts, and unprotected terminals, and the rat's nest of wiring, and any other issues you may see. Look at the fuse attachments. The square block fuse is supposed to be installed as shown above in the manufacturer's literature. In this case Joe Saturday installed the fuse between the battery terminal stud and the tab on the left side of the mount and then used oversized terminals to slide past the insulating nub on the mounting block to make contact with the metal tab.



The lesson is don't miss the detail hidden in the forest.

I hope to see you all at the IMEC in September.

Kenneth Weinbrecht, AMS®
Education Vice President

IMEC is fast approaching, mark your calendars for Baltimore, September 9 - 12. Joe Lobley has made an outstanding choice for the hotel in the Inner Harbor. Here's a sneak peek at the agenda.

SAMS® IMEC BALTIMORE

Tuesday - 9/9

1230 - 1400 Safety Committee - Confined Space Safety- Joe Derie AMS

1400 - 1500 E&O, What You Should Know - Robert Sniffen (ITEC)

1500 - 1530 Break

1530 - 1645 Brian Goodwin - ABYC - New Updates To The Standards

1645 - 1730 Dry Boat - Drying Wet Core Presentation

1830 - ? Presidents Reception

Wednesday - 9/10

0830 - 0900 Presidents Intro of the Board.

0900 - 1000 Sensar Marine - Paul Garland - Remote Boat Monitoring.

1000 - 1030 Break

1030 - 1200 Rigging Inspections - Jay Herman, Annapolis Rigging

1200 - 1330 Lunch on your own.

1330 - 1430 Solid State Marine Batteries - Tom Calef CEO

1430 - 1500 Break

1500 - 1600 Marine Products International - Mark Strang - Marine Fuel Hose

1600 - 1715 Gougeon Bros. - Don Gretzner - Structural / Stringer Repairs

1830 - ? Dinner

Thursday - 9/11

0830 - 0845 Moment of Silence - Housekeeping.

0845 - 1000 How To Be The Kind Of Surveyor Lawyers Love To Hire - Chris Abel - Wilcox - Savage

1000 - 1030 Break

1030 - 1200 Corrosion, Basic & Advanced - Mike Bonicker - ABYC Lead Instructor

1200 - 1330 Lunch on your own.

1330 - 1500 SEA Limited - Lithium-Ion Batteries In Marine Applications - Michael Venturella P.E. & Krysta Rasmussen P.E.

1500 - 1530 Break

1530 - 1700 TBD

TWO ETHICS CE'S WILL BE AWARDED FOR TUESDAYS E&O SESSION

Speakers and times are subject to change.

We are looking forward to seeing you there.

Relaxation Time

Joseph Lobley, AMS®
Meeting / Conventions
Vice President

Hello from the coast of Maine! I know you are all busy but remember to take some time off to recharge. Here are some great ideas…

This year's IMEC will be held at the Hyatt Hotel Inner Harbor Baltimore, September 9-12, 2025. We were here in 2012 and had an excellent event and I expect a huge turnout from the Northeast and Mid-Atlantic members. The room rate is $180.00 per night. This will be our first departure from the typical week day format of starting Wednesday and ending on Saturday. We are moving the format to start on Tuesday and finish with the Business Meeting on Friday. The hotel has been remodeled and has all the usual amenities and is in a very good location with the National Aquarium, several museums, historic ships, and many shops and restaurants in walking distance. There is on-site parking.

IMEC 2026 will be in Tampa, FL, at the Grand Hyatt Tampa Bay September 1-4. The room rate is $170/night with free parking and waived resorts fees. The property is beautiful and the rooms and meeting spaces are very nice.

IMEC 2027 will be at South Point Casino & Spa in Las Vegas, Nevada, September 21-24 with a room rate of $75.00 and a $20.00 daily resort fee. The location is a bit away from the airport but is a very safe location with a casino, bars, restaurants, movie theater, live performance theater, 60 lane bowling alley, a rodeo arena, full service spa and pool area. The hotel has a complimentary shuttle to and from the airport. The "strip" is a short Uber ride away.

Hyatt Hotel Rooms

Angel Zeno, AMS®
Testing Vice President

Are you a trivia buff and consider yourself the master of esoteric details and terms. What about the term Yacht, as surveyors we use this word often, but how did the term Yacht originate. Would you believe that the word yacht goes back to seventeenth century Holland. The Dutch Navy used a narrow, light sailboat to hunt down pirates and smugglers in their shallow coastal waters. “Jacht”, the Dutch word for hunt, came to be associated with these boats. Built for speed, and fun to operate this design became the basis for the recreational craft of that era, affordable only by royalty and wealthy merchants. When Charles II brought one back to England in 1660 for his personal use, “Jacht” became the anglicized “Yacht”.

Continuing on with the trivia theme, I recently came across an old archived article dealing with the use of Hydropel and wanted to share the information with our newer members that may not be aware how this vinylester resin can provide false moisture meter readings.

In the early 2000’s some boat builders were incorporating Hyrodpel H010-B vinylester as a moisture barrier between the polyester gelcoat and the outer laminates. The Hydropel was incorporated to assist in preventing water osmosis, mostly in part due to conductive ingredients like zinc and graphite. While effective in preventing water migration, the zinc and graphite would produce false readings when a surveyor attempted to use a moisture meter.

In 2004 Silverton hosted a workshop consisting of engineers from Silverton and Alpha-Owens Corning (the marketer of Hydropel) along with several members of SAMS®. If you want to learn the rest of the story, try a Google search for Silverton SOP-T318, or drop me a note and I can send you a copy of the article.

Now let me switch to my SAMS® Testing VP hat. I wanted to be sure that our members were aware that there are several options available for proctoring the AMS® upgrade exam. Of course, IMEC and Regional Meetings are always a perfect fit. But if you plan accordingly, you could also sit for your AMS® exam at the International Office, or with pre-approval of another AMS® member who is willing can act as the proctor. Bear in mind, in any event advance notice and coordination is the key. As a general rule of thumb, it is best to plan at least thirty days in advance, as the Internation Office needs to prepare the exams.

Another often overlooked fact is that if another AMS® member agrees to proctor the AMS® upgrade exam, they will receive a pre-paid UPS envelope addressed to deliver the completed exam to my attention for scoring. Once the exam is completed and placed in the pre-paid envelope the member only needs to drop it off at a UPS drop off location, however, because the envelope has already been paid for, the local UPS office will not be able to issue a receipt. So it’s a good idea to take a photo of the label along with the tracking number to assist in tracking the completed packet.

At a recent SAMS® Board of Directors meeting I advised the Board that I had been exploring the possibility of providing online proctoring of the AMS® upgrade exam. Unfortunately, after discussions with several of the companies that provide this service, with the number of AMS® upgrade exams that we administered per year, the cost per exam would be prohibitive.

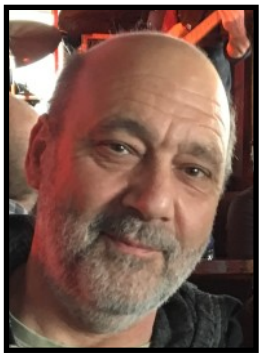
Cont.

If you know me at all you know that I'm all about celebrating and recognizing achievements and with that in mind I wanted to let you know that from January to June we administered 9 AMS® upgrade exams, the highest score was 97% with an average passing score of 86.5%. Of those tests, three had 100% in the open book portion of the exam. I wish I could share names and acknowledge the achievement, but hey, you know who you are, and well done.

For those of you that are preparing to sit for the AMS® upgrade exam, feel free to reach out to me directly. I can point you in the right direction, help calm your nerves, dispel rumors, and provide tips on how and what to study.

In closing, remember, you are responsible for your own safety and should never take short cuts when it comes to working safely. And always let someone know when you head out on an assignment along with some information on where you are going and when you should be finished. And always tie up that ladder.

Baltimore Inner Harbor



Eddy Assaf, AMS®
Public Relations
Vice President

Hello all, hope you're all having a good season, seeing we are more than halfway past the year. I have been speaking with the other surveyors in the area, and it seems a little queiter this year, but no one is complaining about it, business is going back to where it was pre-covid and slowly getting back to normal. As for me as mentioned in the past I lowered my work schedule over 50% and slowly getting ready to hang up the "gone fishing" shingle in a few years, mind you I have been saying that for the last few years.

Advertising wise all is on a roll, using the same advertisers and still looking for new ones. We changed our digital ads a few years ago and now will start replacing the printed ads, time to refresh the look.
Lita Smith, who takes care of our social media sent me an interesting email on how our members can promote, while geared towards non-profits, the idea of telling stories on social media applies to your surveyors and their customers.

She stated that:
- When facts are wrapped in a story, they become memorable.
- Emotion boosts action by 2-3x.
- Story-based campaigns show 300% higher social engagement.
- Only 5% of people can remember stats from a presentation, but 63% could remember a story.

She invites members that want to go in that direction to send her a short videos or photos and a concise version of an experience. content@brinytalksocial.com.

We have been having a little problem with the search engine on the website aligning surveyors to their areas, we are working on it and hopefully have it solved soon. I apologize to those who are not being shown properly in the search engine.

Another item on the web page I want to bring up is the "UPCOMING EVENT" tab which gives selections for SAMS® Events and Marine Industry Events. These are there for you to use with upcoming events and on going courses to get extra or needed CE's. As we advance there will be more presented there so definitely worth the time to look at it once and a while.

As usual I always ask if anyone has an area that they are in that you don't see any of our ads or a local marine magazine that you would think might be good to advertise in, please reach out to me, we like to place ads in smaller communities which appear to give better results.

That's about all for now, remember please be safe out there and that the quality of our work is the best advertisement we can make.

Cheers

Charles W. Solarek, AMS®
Membership Vice President

Summer is here, for some, and I sincerely hope everyone is as busy as they wish to be. Surveying this time of year is usually a pleasure with the great weather (just a second, the grandkids are calling) and long days.

But it is easy to get distracted while in a boatyard or on the water. Everyone needs to remember that there is a lot happening in a boatyard. And being out on the water is really an abnormal environment. I should not have to dwell on the fact that distractions while in a boatyard or on the water can be dangerous. Stay focused on the task at hand. Be aware of your surroundings.

As part of the survey process most of us have a conversation with the customer so that everyone is on the same page. I always find out who is planning on attending the survey. After all, this is a working day, not a pleasure cruise. One request from me is to have 60-90 minutes onboard before all the interested parties arrive. No distractions while I take general pictures, no asking people to move or move their backpack, purse, etc.

What happens when you meet the customer the day of the survey and find out that you have something really cool in common? GREAT! Maybe. It is easy to get involved in conversations that have nothing to do with your job, which is to survey the boat. And just like that, the day is gone, and you are no where close to being finished. And do not get me started on how distracting some boat brokers can be. You need to be tactful, but **you** should be in charge and running the show.

What do you do when the boat yard is behind and you are sitting out there on the water waiting and waiting to be hauled out? Easy to get frustrated and distracted. Don't just stand around and complain, continue surveying. Sometimes you have no control over circumstances and just need to "go with the flow."

You can even be easily distracted in your office. My grandsons when visiting regularly stop me from writing a report. They want to see the boat pictures or go inspect the pillow fort they built. They are great kids, but it is a distraction when you are under a deadline for a customer.

However, there is also a time when distractions may be welcomed when you are starting to stress. Sometimes I listen to music while writing my reports. This time of year, baseball and golf seasons are in full swing (yes, pun intended). My main computer will be streaming either a baseball game or golf tournament. This allows my mind to take a quick break when I hear the crack of the bat or the roar for a great golf shot. Just those few seconds can be a great refresher. Whatever the situation, all of us should expect something or someone to cause a distraction during the surveying process. As you gain experience you may be able to plan for some and eventually it becomes easier to handle them. The bottom line is that life happens (being called to go check on that pillow fort) and so do distractions. Take charge when you can to minimize them. If that is not possible, make the best of the situation and move on.

I genuinely wish for everyone to have a great summer season!

As always, be diligent and stay safe out there!

Michael A. Terminel, AMS®
Pacific Regional Director

Stability for ~~Dummies~~ Surveyors

Now that I have your attention, how important is stability to a surveyor. Better yet how important is it to recognize poor stability on a vessel and notify the client, owner or potential buyer. As Pacific Regional Director, I review a lot of surveys, not as many as Florida, but all the same, a lot of surveys. Every single one of them, has the following catch all phrase somewhere in the boiler plate verbiage that states: " Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto".
Not to point any fingers, but this catch all phrase is in every Condition and Value Survey, Hull and Machinery, Trip and Tow, Protection and Indemnity, Pre Purchase, Cargo and Draft Survey that I write. Which got me thinking, is it right?

Stability is not just looking at the painted waterline and saying: "yup got plenty of freeboard". It is a complex theorem of metathetical calculations. In Toronto I asked a question how many 100-ton captains were in the room, I recall about 50 out of 300 surveyors stood up. In general surveyors have limited stability knowledge consisting of how to determine Period of Roll. What is important about Period of Roll, you can determine GM. Is GM important, it surely is. But it's not all.

The next group of polled surveyors that stood were 500- and 1600-ton masters licenses, a lot fewer stood. These surveyors have been tested on Free Surface, Loading Moments, finding Vertical Center Gravity, Center of Buoyancy, and basic mud boat stability curves. In the room there were only three Unlimited Masters. These individuals have taken advanced stability at an academy and have been thoroughly tested on all conditions of upright stability. It seems like a millennium ago that I took advanced stability, I recall about 40 different stability problems, however on the exam there were over 70 different ways they could ask the question. You had to have the theory and formulas memorized; this information it's not in Bowditch. Naval architects turned surveyors have even more education on this subject as well. I've had a couple interactions with several surveyors on stability and had a past client come to me with a problem.

The question I'm asking is it our responsibility as surveyors to know when a vessel has an issue with stability? If the vessel has an issue with stability and you write at the end of your report and please don't attack me it's only for conversation here and you say that the vessel "is fit for duty" or "is fit for intended use" or is fit per manufacturer recommendations, whatever you write in your survey and he has an issue and you didn't point it out, where does the liability lie? Has anyone ever surveyed a boat that had a top house put on it? Has anyone ever surveyed a boat that put bigger fuel and water tanks in? Has anyone ever surveyed a boat that had a mid-body put in. Has anyone ever surveyed a vessel that has been repowered? Stability has changed from the original design.

I think you get my point, we all have, all of these points effect the upright stability characteristics of a vessel.

Cont.

I just had a client come to me with a 30’ aluminum pilothouse fishing boat. I won’t name the brand but it's a popular Pacific Northwest vessel that’s been sold as an offshore sport fisher. The client repowered and his observation was when he got up on step the vessel would flop to either side without warning. The vessel prior had a Volvo D44 Diesel with a Volvo Penta Dual Prop Outdrive. Needless to say the vessel putted along at about 17 knots all day long. The client wanted more speed so he put twin 350’s on the vessel. These 30’ sport fishers are rated to 700 hp. But now this boat gets up to 50 knots. The vessel owner said that when the vessel is on step he rides high in the water and when it flops it comes down hard. In my opinion he took a semi displacement hull and turned it into a planning hull. What’s happened is when it had the Volvo engines, the vessel had plenty of GM. (G = Center of Gravity and M, the Metacentric Height) When they got up on plane and lost the vessel waterplane area, M rose close or above G. this caused instability. In general terms when M rises above G this is called Angle of Lull. It's a very serious condition that you might just not recover from. The boat will flop easily from one side to another. This is just one condition of stability that can occur. Seeing cracks in a hull or deck could be from overloading, adverse transverse and longitudinal bending moments. Just repairing the crack does not fix the problem.

So what can we do about this? Education is the key. For the Pacific Northwest crew I am working on a basic stability awareness presentation that will hopefully help with some of these conditions and issues we face every day.

Finally preparing for our Regional Meeting is a year-round planning event for the Regional Director and local surveyors where the event will occur. As discussed at our last meeting we will “encourage” surveyors to step up and present. We are looking for subjects and topics that have not been covered before. As an incentive if you present we will waive the attendance fee for the surveyor to the Regional Meeting. We would like one Surveyor Associate and one AMS® to present. Email me an outline by IMEC 2025 for the 2026 Regional and the Assistant Regional Director and myself will review the entrants and we will pick the two lucky contestants at that time.

Beautiful Baltimore Harbor

Richard Reichelsdorfer, AMS®
Great Lakes Regional Director

It was 2 am (it's always 2 am when bad things happen) and we were closing in on the finish of a log distance race with about 30 miles to go. There are a couple reefs and an island between us and the finish line that we need to steer around which we have done numerous times before having sailed this race at least 20 times before. All on board are feeling good with the owner is at the helm and we are reaching along with the spinnaker up going 12 knots. We are approaching a well-marked reef that once we pass, we will head up about 20 degrees and will change from the spinnaker to a headsail. As we approach the reef, a call for a sail change is made. Some onboard quietly note our proximity to the lighthouse just as we feel the first bump. Less than a second later we slam into the reef and come to a full stop. As you can imagine, going from 12 to 0 instantly, everything went flying. After a couple of minutes checking on everyone and any injuries (bumps and bruises all around), an inspection of the boat was carried out. What we found was a mess, broken bulkheads, broken keel floors and bent keel backing plates. We were taking on water that we were able to manage. Our race was done.

Why the sea story you ask. I recently surveyed a production-built sailboat and found a rather alarming discovery that somewhat relates. At some point in the history of the vessel, someone decided to cut away the top half of a keel floor. There were no signs of distress around the area, and it didn't appear to influence the hull keel joint in any way but knowing what could happen from experience led me to call attention to it to the buyers as well as the broker. This modification could have been there for years and could last many more but all it takes is a bump on the rocks that could cause a catastrophic failure.

We as surveyors not only need to inspect vessels as they are, but we also need to think about what will happen if things are not repaired, maintained, upgraded etc. By reporting on what the vessel is currently as well as advising how to care for it will lead to better boat owners and happy clients.

Rolando Santos, AMS®
South Florida Regional Director

I am writing this from Texas not far from where I last had lunch with Richard Frenzel on one of my work trips to the area. I want to take a moment and recognize that the Marine Surveying world lost a great man who was the consummate professional. I personally knew and worked with Richard Frenzel. He was a Professional and a person of integrity. May he rest in peace.

Update on Florida Regional Meetings:

Before I jump into this subject I want to state that I had the majority of the presenters at the last SFLRM discuss "Content" of reports and what should Marine Surveyors be doing in the field. Some presented the actual consequences of NOT having done a proper marine survey that resulted in Hull Failure, sinking and fire. I want to give a shout out to **Gary Frankovich, AMS®** who following the theme of "content" presented a report from an AMS® who hit all the check marks but the report was "a dumpster fire". I missed having my NY gang this year lead by **Roy Scott, AMS®** who always helped shake down members for tips for the volunteer group cooking and serving the food.

Christopher and I (mostly Christopher) have been kicking around on how to do the Regional Meeting for next year. At this last SFL Regional we did have a good attendance and the presenters were good even those at the last minute due to substitutions. Christopher's regional was also well attended.

So why make a change? Simple. As it stands right now both regions compete for resources, time and attendees. One idea given by a Panhandle Marine Surveyor was to alternate locations. As it stands right now I've held two in Central Florida at the Lake Placid Moose and Chris has held his at the Pelican YC in Ft. Pierce – which for years has been the traditional location for Florida.
So the with this in mind I have prioritized what I thought was applicable and important in ranking:

1. Quality of presenters & content of presentations
2. Cost to attend – meeting, hotel and travel
3. Location – Central, North, South

Length of meeting – (1) or do we consider (2) days
The one suggestion I received from Mr. Panhandle was simple. Alternate the locations every year and hold one large meeting and keep it to ONE day. He suggested the locations to be from the Panhandle (to include Jacksonville, Ocala, etc.) to South Florida (Ft. Lauderdale, Miami or the Keys).

My personal opinion this needs to be hashed out and having been recently indoctrinated to this RD responsibility I can also say that once you establish a relationship with a location its important to foster that relationship so it will be available the next year.

I am a member of the Moose and the American Legion. The Moose organization has locations all over Florida and as a member in good standing I can book these "Lodges" at no cost. Each facility is unique.

Cont.

The costs for each regional, if held at a Moose Lodge, is then restricted to the food that is arranged based on the number of projected attendee's. This is the fun part. I pull out my séance hat and like a Las Vegas bookie I attempt to "guess" how many members will show up. So I project the number and depending on the location they will provide back to me a cost per head.

The American Legions do charge for their facilities and that does vary from each location. Like a Moose lodge there is some legwork involved. It does require the RD to visit the location and check and see what they are capable of providing then determining the gaps that need to be filled. I can go on but I think everyone gets the picture. This is a ton of work and time to pull off. At this juncture and point in time neither Chris nor I have any concrete plans YET but both of us are looking for suggestions that we can both work with.

I am a fan of keeping it simple so I implore all of you reading this even if you are a snow bird itinerant Marine Surveyor to please drop me a suggestion and PLEASE include Christopher Day in the suggestion for the following categories:

Locations:

1. Alternate location (North, Central, South) every year and hold one large (1) day meeting
2. Alternate location (North, Central, South) every year and hold one large (2) day meeting

Costs: - Let me just say that it would be far easier for me and Chris to just book a meeting at a convention center but the cost of the meeting would be reflected.

1. Do we use more costly Convention Centers or do we work to find Moose / American Legion facilities that can host the meeting?

Presenters & Content:

I have always advocated education. As a Marine Surveyor with +40 years I always learn something new. Even at this last regional I learned more about Lithium Ion Batteries listening to the attendee's and their personal knowledge when Steve Hebert had his open exchange. Very valuable.
I presented on report content and what I found to be "Marine Survey Failures". As already stated Gary Frankovich did the same.
As I write this newsletter I have spent the last (5) days drafting an expert report which included rebuttal comments on the content of another Marine Surveyor's report and his failure (at least in my opinion) to properly investigate the matter.
So with that being stated I always try to have presenters to discuss (open to suggestions):

1. Emerging technology so all attendee's can have an idea of what is coming down the pike
2. Non-destructive testing that ALL of us should be doing and the consequences of not performing those task
3. Benefits of having subject matter experts to attend the marine survey either pre-, during or post
4. Incorporating the findings of those subject matter experts into your marine survey report

And finally CONTENT of the report and all of this boiler plate in the formats. Drives me nuts to read these reports and see suggestions that should be made, words being used when they are out of our wheelhouse, etc.
So this is my suggestion BUT I am looking for input.
Please provide me and Christopher Day with input. Our contact information is below:

Rolando R. Santos - sflrd@alphamarine.com
Christopher Day - cdayrad@gmail.com

Marine Survey Failures:

For those of you that attended the regional you saw what I presented and in time I will go over that again but not in this newsletter. What I want to really emphasize is the importance of doing a hull examination of a vessel that you are inspecting. I am currently dealing with more than a handful of claims where for some reason or another the hull of the vessels were never properly inspected. In most cases the hull was never sounded with a phenolic hammer. This is just not acceptable. As a consequence these particular vessels had flaws in the hull that could have been easily discovered by a combination of:

1. Visual inspection (flaws in the hull, gelcoat finish, discoloration areas of previous repair, etc)
2. Phenolic hammer testing (sound anomalies)
3. And infrared thermography

Cont.

These are all available tools and non-destructive testing techniques available to the Marine Surveyor.

The first two are very basic and a must to be done, in my opinion. I understand that sometimes the buyer or your client may want to cheap out and not pay to have the vessel hauled out for inspection or not even hire his own marine surveyor to protect his interests but instead use some outdated unknown marine survey report for consideration. At this point it really does becomes "Buyer Beware".

So for those of you that do nothing but pre-purchase / insurance surveys I would strongly suggest that you always check the hull bottom. The number of hull failures that land on my desk with no one checking the hull at the time of purchase is shocking and creates potential liability for the Marine Surveyor.

In my next newsletter I will try to discuss in more detail other testing techniques that I see being used by other Marine Surveyors and the applicability of those tools.

Please stay safe, busy and always try to be your best. Remember that you represent yourself, ME and the organization as a S.A.M.S. Marine Surveyor

God Bless

John McDonough, AMS®
Northeast Regional Director

Greetings from the Northeast.

It's been a very wet and busy season. This Spring I was asked if I would consider helping out again as the North East Regional Director. I accepted the offer and am now here to assist where I can. Thank you, Brian Williams AMS®, for the hard work you put in as the prior North East Regional Director. SAMS® Applicants and Surveyor Associate's please remember that your Regional Directors and Board Members are helping on a voluntary basis, running their own businesses, raising family's etc., so please be patient with them and consider helping out if called upon.
In the past two months we have gained a half dozen Surveyor Associates and have several now approved for upgrade.

I have been working closely with Chuck Solarek, SAMS® VP of Membership and Cheryl Roach in the office to streamline the process, and we are working diligently to get caught up. I attended the Board meeting in Jacksonville, Florida in June and will be in Baltimore this fall for the IMEC, so if we have not met yet, look me up.

On a personal note, after several years aboard our Lord Nelson Victory tug and a year in the Bahamas we have decided to take a break from boating and have transitioned to a prairie schooner. By the end of August we will have crossed the continent from British Columbia, to Mexico to Newfoundland in our Sprinter. Our personal watercraft now consists of paddle boards, kayaks and a paddle boat. I miss our Tug but not expenses or responsibility.

See you in Baltimore!

Christopher Day, AMS®
North Florida Regional Director

Hello from Sunny (hot and humid) Florida . . . I wanted to start off by saying, "Thank you," to all of those who attended the Regional Meeting held at the beginning of March 2025. It was a great success with an attendance of 70+ people. I would also like to thank those speakers who offered their time and knowledge. A big shout out to Jerry Schmitt (Retired AMS®) for the help of coordinating the use of the Pelican Yacht Club. A congratulations go out to all the members who won door prizes this year. We gave away everything from flashlights, ear plugs, inflatable PFD's and fold up wagons. It is great to have such an active group of people to work with and have attend my meetings.

So, I think this is the year I officially earned "MY CHIP" as a surveyor. I officially got blasted and B-rated by a broker. I was doing a survey on a 2021 Pursuit 378 CC and saw a crack in gel coat along the upper edge of an athwart-ship cross member. When tapping the hull out, I heard an off sound around the chine/stringer that it was attached to. I did show the broker each of my inspection points of concern. As most brokers do, he blew it off and thought the inspection points were superficial and his last words were, "Don't make a big deal about those findings . . . Don't hurt the boat too bad as I need this boat to be sold. . ." He obviously had a vested interest in selling this boat as I found out that his parents owned it and needed to sell it. So, there was my red flag. As I always do, I reached out to the boat manufacture and spoke with a few other surveyors to run through possibilities of causation of the cracking of gel coat and off sounding that I heard. Without doing destructive testing, I was limited in what I could tell my client. So, I gave him a best case and worst case scenario. Best: simple gel coat crack (Grind and fill to repair). Worst: Possible structural issue (repair or replacement of cross member and stringer.) This began the borage of texts and phone calls by the broker calling me every name in the book. Seeing that the vessel STILL had 1 year of warranty left on the hull and structure I called back to Pursuit and spoke with the warranty manager. He felt that it was "An Air Void within the Gel Coat". I pursued and asked further about the process and how long it may take to repair such an issue. His response was, "It depends on what we find when we start grinding." So while I was doing this, my client also decided to contact a Fiberglass and bottom painting company. To which the response from them was almost the same as mine, but they put a price tag on the actual repair IF it was not going to be covered by the warranty. So, that was enough for the client to walk away from the sale as he did not want to get into a possible warranty issue with a newly purchased boat.

My point with all of this was that it was important for me to maintain my composure and not go on the defensive with this broker. It is important to remember the job that I was hired for: Inspect and report. If I had not reported the items I found and something were to have happened down the line, all fingers point back to me. In this case I just kept doing the research and provided my client the information he needed to feel comfortable to make his buying decision. Just remember, the boat and the people will eventually end up telling the whole story. As for this broker, I may not ever get a call to do a boat that he is selling ever again and I am okay with that. BUT, it would not surprise me IF I get a call from him if he decides to buy a boat of his own.

Stay cool out there. It's already blistering hot and summer has just begun.

The Following Members

Will Return For the Next Issue

Alain Pascal Routhier, AMS®
Canadian Regional Director

Ryan Uhlich, AMS®
Gulf Regional Director

Tribute to Dick Frenzel

by

David E. Ghidoni, AMS®

When I was a new SA, back in time over 21 years ago, I started my surveying business in Key West, FL hardly knowing how to write a report. I knew the technical aspects about the vessels, based on many years of experience as a captain, but when it came to being a marine surveyor, I had no clue. At one of the Florida Regional meetings, I met a man named Richard "Dick" Frenzel. Dick was much older than me, much more experienced and was already a very successful and respected marine surveyor. I decided to glue myself to him and listen to whatever he had to say, and he had a lot to say, to other surveyors both young and old. I was fascinated listening to him talk about report writing, the value of ethics, the need for USPAP training and a multitude of other subjects. This was the guy I wanted to be like, admired and respected in our field. When the meeting was over Dick came to me and said, "I know you are not going to get any help from other surveyors in your area so feel free to call on me anytime you have a question or a problem I can help with". I was shocked as I certainly was not used to other surveyors offering to help me grow my business or educate me in my quest to become a successful surveyor. In fact, he was right. No one but Dick helped me through my first few years of struggle.

Cont.

I started to lean on Dick as I grew as a surveyor asking him for advice when I needed it. I know he was a busy man being a Charter Member of SAMS® and NAMS but he was never too busy to take my calls, patiently answer my questions and advise me on how to continue to grow as a surveyor.

Fast forward to 2017 and I move to SE Texas from Florida with my new bride and start my surveying business once again from scratch. Although I knew the challenges of starting over in a new location, I did have one advantage, friendship with Dick Frenzel from La Grange Texas. We started working together doing damage survey work in the Houston Ship Channel area surveying tugboats, freighters, fireboats and every other type of vessel imaginable including some amazing wooden boats. Dick knew everyone and everyone knew him. I was proud to work with Dick and I learned even more just being around him in the field. He reviewed my reports, edited my work always with the goal of making me a better report writer and surveyor. We did a lot of damage and appraisal work for several large insurance carriers and were definitely two busy boys.

One day he said I needed to join NAMS. As many of you know he was a founding member of that organization just as he was with SAMS®. He helped and guided me to become a Certified Marine Surveyor with NAMS just because he thought it would be good for me. He was equally proud to have been instrumental in the success of both organizations.

At the end of 2018 I received a call from an adjusting firm from Houston named York Risk. York was a company handling vessel damage claims from companies like Brit, Gallagher, Rachel Falvey, Nationwide and many others. We were already doing damage work for York Risk when they offered me a position as a marine claims adjuster, and I took it. Dick was very proud of me and said I was now on a different level. At that time, I didn't quite know what he meant. York Risk was subsequently bought up by Sedgwick Global Marine, the largest claims adjusting firm in the world, and I am now the Senior Marine Claims adjuster/surveyor for several large marine insurance carriers.

I no longer inspect boats myself but as some of you know, I hire many SAMS® surveyors to produce damage reports for me all over the world. I can state unequivocally that I would not be in such a great position in life without the help and friendship of Dick Frenzel, my mentor.

Dick was not enjoying good health over the last few years, but he would always take my calls, and we would share a story or two and have a few laughs over some of the claims I was handling. He was again, always there for me along with many others. I think it gave him a lot of pleasure knowing he was still needed, viable and admired in the surveying business by his fellow SAMS® and NAMS surveyors. In the many years I knew him I never heard anything but good words about Dick.

Dick was an amazing man and a good friend. When we first met, I wanted to be like him, and I think in many ways I am. I try to help other surveyors as much as possible and try to continue the legacy Dick started by helping a new Surveyors Associates and others in the business as much as I can. Dick instilled that virtue in me, and it is a tradition I am very happy to continue.

When it comes to SAMS®, Dick was an amazing man and a good friend. When we first met, I wanted to be like him, and I think in many ways I am. I try to help other surveyors as much as possible and try to continue the legacy Dick started by helping a new Surveyors Associate and others in the business as much as I can. Dick instilled that virtue in me, and it is a tradition I am very happy to continue.

When it comes to SAMS® and NAMS, Dick will not be forgotten. He helped start all of this for us and we all owe him a debt of gratitude for his unselfish efforts on our behalf.

I hope we can all raise a glass one day and remember our friend, mentor and a great man, Dick Frenzel. We are all, as surveyors, and men and women who knew him, in a better and stronger position in life and in our respective businesses because Dick cared about what we would become and how he helped us get there.

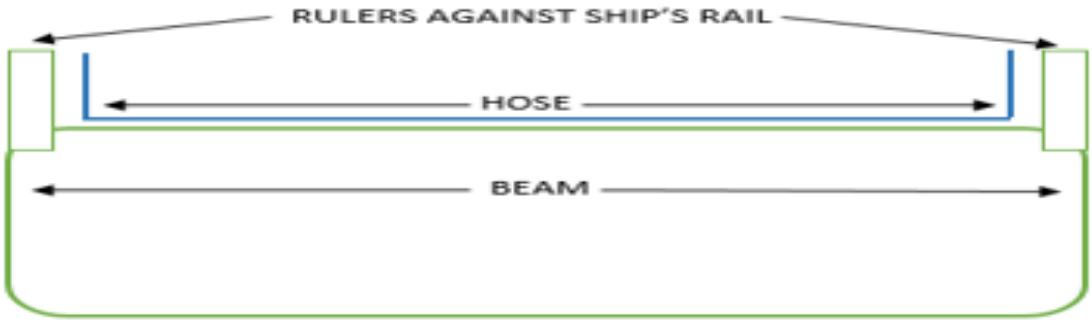
Fair winds and following seas Dick, our friend.

William Robinson, AMS®
Mid - Atlantic Regional Director

Managing Ship List with a Manometer

Operating standards can fluctuate from one ship to the next, and ship list management is not an exception. I have worked with officers who have had no practical means of accurately measuring their ship's list and have accepted a 20cm list as being upright when conducting a draft survey. Being able to manage and evaluate the list accurately is paramount to safe loading practices and can assist significantly in the accuracy of draft survey calculations.

A manometer is one of the cheapest and most effective means of managing and measuring list. Essentially, a manometer is a hose filled with water that runs along the beam of a ship, where the difference in the water level between the port and starboard sides corresponds to the list. A manometer can measure as little as a centimeter, and depending on geographical and environmental factors, can provide greater accuracy than reading the outboard draft mark.



At its fundamental form, a manometer can be set up with a hose, a ruler, and a marker; however, this article will cover setup costs and equipment for those who require a more mobile solution.

Equipment	Cost $
Electrical Tape	5.00
Marker or Pen	5.00
Carpenters/Masons Ruler * 2	35.00
50m * 8mm clear hose	50.00
Hose Reel	30.00
Valves * 2	10.00
Food Colouring	3.00
Total	**138.00**

Cont.

Hose Reel

A garden hose reel makes it easy to store and unpack a manometer hose. It also makes it easy to move the hose to and from your vehicle and on and off a ship. It is important to get the right size reel to accommodate the length of hose that you need. The length of the hose will be dependent on the size of the ship, for example, 50 meters for a Capesize ship, 35 meters for a Panamax ship.

Valves

Valves on the ends of a manometer hose ensure that the water is contained when the hose is packed up. The hose can be filled with water, and the valves closed to avoid bubbles residing within the hose. Closing the valves will prevent evaporation of the water in the hose when the manometer is not being used. Also, closing the valves when the ship is listing, when cargo is being loaded into or discharged from the wings of a hold, will prevent water from flowing out of the hose.

It is a common 'beginner's' mistake to forget to open the valves when monitoring and measuring the list. Closed valves will, of course, stop the flow of water within the hose, which will likely provide a false indication of the list.

Cont.

Hose

8mm – 10mm clear polyethylene hose is practical for the requirements of the job. The size allows for the water to flow freely, therefore being responsive to the change in the list. The size also allows for water to be added to the hose without air lock restrictions, and is practical in the fact that it is not too heavy to be carried around when full of water.

The length of the hose needed is dependent on the beam of the ship. It is best to have the hose cover the entire beam of the ship with a few meters to allow for obstacles along the deck and length to run up the rail. It is still possible, however, to set up a manometer if the length of the hose does not cover the beam of a ship. This can be explained by the diagrams below, using a 45m beam ship as an example, where a 22.5 meter length of hose is used.

22.5 Meter Hose

45m Beam

The angles of both triangles are equal, therefore:

$$\frac{\text{Apparent list}}{\text{22.5m manometer}} = \frac{\text{List}}{\text{45m}}$$

Therefore:

$$\frac{45 \times \text{Apparent list}}{22.5} = \text{List}$$

Therefore:

$$2 \times \text{Apparent list} = \text{List}$$

In this case, if the difference between the port and starboard sides of the 22.5m manometer is 5cm, then the actual list of the ship is 10cm.

Cont.

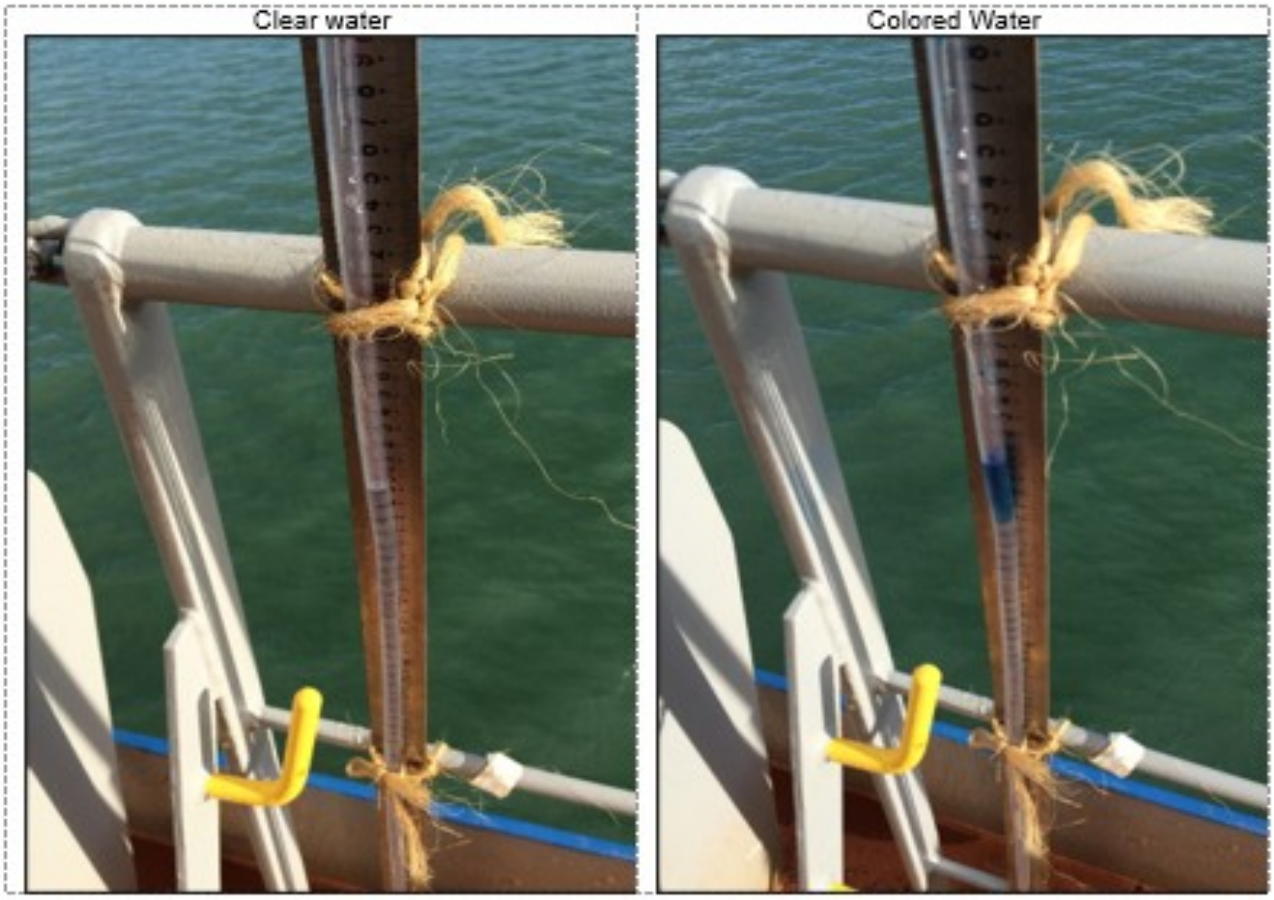
The condition of the hose must be checked every time the manometer is used to ensure accurate results. Inaccuracies can result from leaks, kinks, and air bubbles. A kinked hose will restrict the flow of the water, and air bubbles can impede the even flow of the water as the ship lists.

Water Coloring

The benefits of coloring the water inside the hose are that the water level against the measuring device is made much easier to read and that bubbles within the hose are much more noticeable. The easiest way to fill a hose with colored water is first to fill a bucket with the water, mixing in the coloring, and then siphon the water through the hose using gravity.

Sunflower oil is an excellent substitute for water when operating in freezing temperatures, as its freezing point is -17 degrees Celsius.

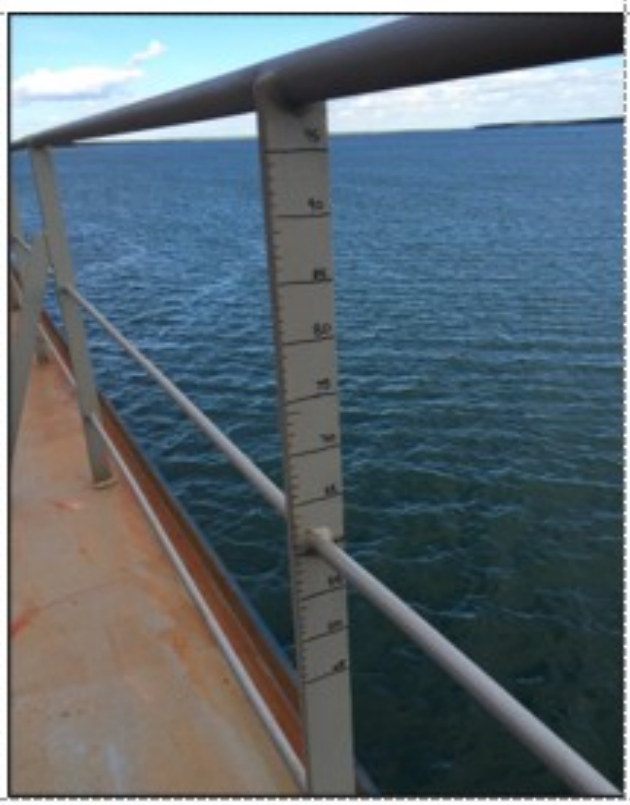
These two pictures demonstrate the difference between clear and coloured water when determining the water level.



Measuring the Water Level

The water level of a manometer can be measured with a ruler, tape measure, or makeshift measuring boards. A carpenter's ruler folds from 25cm out to 1 meter. This makes it compact, lightweight, and easy to carry in a bag. A carpenter's ruler is easy to read with clear markings and can be taped easily to the ship's rail. If a ruler is not available, the same results can be achieved by marking measurements on the ship's rails with a black marker and a tape measure or sounding tape. It is essential to ensure that both the port and starboard sides are of equal vertical distance from the keel of the ship.

Cont.



Top Left:

Carpenter's ruler folded up

Top Right:

Carpenter's ruler taped against the ship's rail

Left:

Markings on the ship's rail with a pen and a tape measure

Joseph A. Derie, AMS®
SAMS® Commercial Workboat Chair
SAMS® Tug & Barge Chair
Safety Committee

NFPA 350 *Guide for Safe Confined Space Entry and Work*

NFPA 350 *Guide for Safe Confined Space Entry and Work* "provides guidance and best practices for protecting workers from hazards associated with confined spaces. It supplements existing regulations and standards by offering detailed recommendations for identifying, evaluating, and controlling hazards, as well as establishing rescue plans."

The Guide addresses various aspects of confined space safety, including hazard identification, evaluation, control, and rescue procedures. It also supplements existing regulations, such as OSHA's 29 CFR 1910.146 and OSHA's 29 CFR 1015, by offering additional guidance. "The Guide's recommendations are intended to help organizations achieve a higher level of safety than may be required by regulations alone."

Topics covered in the Guide include:

- Identification of confined space
- Evaluation of hazards
- Atmospheric monitoring
- Hazard elimination and control
- Ventilation
- Rescue and rescue planning
- Confined space personnel duties, responsibilities, and competencies
- Pre-entry evaluation forms and permits
- Confined space personnel duties, responsibilities, qualifications and competencies
- Written confined space programs
- Pre-Entry Evaluation and entry permits
- Record keeping
- Management of Change (MOC)
- Prevention Through Design (PtD)
- Prevention Through Design (PtD)

In addition, there are annexes with

- Explanatory material
- A sample confined space pre-entry evaluation form and permit
- OSHA alternate entry procedures and reclassification
- A sample Management of Change (MOC) Form
- Informational references

Cont.

NFPA 350 is highly recommended for your bookshelf if your surveys include frequent entries into confined spaces on vessels, whether afloat or in shipyards. It is an excellent supplement to OSHA's 29 CFR 1910.146 and OSHA's 29 CFR 1915 and will assist you in achieving a higher level of safety in approaching and working in a confined space.

As always, I hope anyone who wants to discuss this column or has questions about surveying commercial workboats, tugs, barges or 46 CFR Subchapter M should contact me at 503-236-6818.

A win for industry-led standards as ABYC C-5 replaces decades-old UL 1104

ANNAPOLIS, Md. (June 24, 2025) – The American Boat & Yacht Council (ABYC) announced that the U.S. Coast Guard (USCG) has officially accepted ABYC C-5, *Construction and Testing of Electric Navigation Lights*, as an equivalent to UL 1104, according to Policy Letter 01-25. This acceptance gives manufacturers and boat builders a modern way to meet compliance, especially for vessels over 65 feet (19.8 meters) in length.

"ABYC C-5 is a technology-forward standard that reflects how navigation lights are built today," said Craig Scholten, ABYC vice president of standards and compliance. "This is what success looks like when industry and regulators work together."

Vessels over 65 feet must use navigation lights that meet UL 1104 or another standard specified by the Commandant. The Coast Guard's acceptance of ABYC C-5 fulfills this requirement with a current, relevant standard.

The current edition of UL 1104 was produced in 1998. Since then, the technology used in navigation lights has dramatically changed. UL 1104 was not devised to address light-emitting diode (LED) navigation lights, and various tests it requires are not applicable to LED technology. Additionally, LED lights present different failure modes that are not addressed in UL 1104 testing.

ABYC C-5 addresses this gap with updated testing requirements and international alignment. It applies to vessels of all sizes and includes standards for both incandescent and LED navigation lights—covering visibility, color, service life, electromagnetic compatibility, materials, and labeling. The C-5 standard aligns with ISO 19009 Electric navigation lights— Performance of LED lights.

Where Titles 33 and 46 of the Code of Federal Regulations (CFR) require navigation lights to be certified, a USCG accepted independent laboratory may be authorized under approval series 111.075 to certify navigation lights as meeting ABYC C-5.

For more information or to access the standard, visit www.abycinc.org or contact techs@abycinc.org.

Summary: What Manufacturers Should Know

- UL 1104 is outdated and no longer maintained. It does not reflect LED technology or modern performance needs.
- ABYC C-5 is now officially accepted by the U.S. Coast Guard for compliance with navigation light regulations.
- ABYC C-5 applies to all vessel sizes, not just those under 65 feet
- Covers both incandescent and LED lights, including requirements for:
  - Luminous Intensity and Range of Visibility
  - Chromaticity Area Requirements
  - Degradation Caused by Service Life Conditions
  - Materials and Construction
  - Testing Requirements including Electromagnetic Compatibility
  - Marking
  - Owner's Manual and Collateral Literature
- Aligns with ISO 19009 for international consistency.
- Most new lights already meet C-5, offering a wide range of compliant options.
- Lights can be certified through Coast Guard–accepted labs listed in CGMIX.

UNITED STATES COAST GUARD
U.S. Department of Homeland Security

MARINE SAFETY ALERT

Inspections and Compliance Directorate

April 22, 2025
Washington, DC

Safety Alert 10-25

COMBUSTIBLE INSULATION PANELS DISCOVERED ON FIBERGLASS SMALL PASSENGER VESSELS

Coast Guard marine inspectors discovered a serious structural fire protection deficiency while conducting an inspection of a certificated small passenger vessel (SPV) that had been converted from recreational service. This led to the discovery of similar deficiencies on other SPVs around the United States and a multi-year project that brought forty-six certificated vessels into compliance with the requirements in title 46 Code of Federal Regulations (CFR) Part 177.410.

Recreational vessels are designed to a different safety standard than certificated vessels, particularly with regard to fire resistance of fiber reinforced plastic (FRP) structures. When a vessel converts to commercial service, it can be difficult to determine if the existing FRP structures meet the regulatory requirements to be considered fire retardant and may even require destructive testing.

A SPV constructed of FRP may be built with general purpose resin only if it complies with additional fire safety measures compared to vessels built with fire retardant resin. Those additional requirements include fire boundaries surrounding cooking areas, protection of ignition sources, a fire detection system, fire resistant furnishings, limits on the number of overnight accommodations and cargo carriage, and limits on use with gasoline engines. Finally, machinery space bulkheads must be lined with noncombustible panels or insulation approved in accordance with 46 CFR 164.009.

Marine inspectors raised concerns during the aforementioned SPV's certification process, that the insulation panels installed throughout the vessel were not constructed with non-combustible material. The key distinguishing feature that initially raised the concern was the black color of the panel's insulation, which was only visible on the sides of the insulation exposed on the underside of the deck hatch leading to the engine room. For the majority of the insulation panels in the space, the sides were concealed from an inspector's viewpoint due to the typical side-by-side arrangement of engine room panels, with the

silver outer layer being the most noticeable. Marine inspectors subsequently wrote a deficiency after the vessel owner was unable to provide documentation proving the installed panels complied with 46 CFR 164.009. Insulation panels, particularly on vessels converted from recreational service, are often installed by the manufacturer or the owner for noise reduction purposes and may actually increase the risk of fire spread.

The Coast Guard **strongly recommends** that vessel owners and operators seek documentation from their vessel's manufacturer on (1) the test specifications of the resin used to build their vessels and (2) the approval standard of insulation panels installed on machinery space boundaries. Vessel owners and operators that are unsure are encouraged to contact their cognizant Marine Inspection Office when considering purchasing new noncombustible panels.

This Safety Alert is provided for informational purposes only and does not relieve any domestic or international safety, operational, or material requirement. It was developed by Marine Safety Unit Chicago and distributed by the Office of Investigations and Casualty Analysis. Questions may be sent to HQS-SMB-CG-INV@uscg.mil.

UNITED STATES COAST GUARD
U.S. Department of Homeland Security

MARINE SAFETY ALERT

Inspections and Compliance Directorate

May 12, 2025
Washington, DC

Safety Alert 12-25

FIXED GAS FIRE EXTINGUISHING SYSTEMS – VERIFICATION OF PROPER FUNCTIONALITY

The Coast Guard has identified a recurring safety concern involving fixed gas fire extinguishing systems on vessels. In multiple cases, safety pins were left in the service or maintenance position after system servicing by certified technicians, rendering the system incapable of activating during an emergency.

Typically, there are two pins on the activation head of most fixed gas fire extinguishing systems. One is a safety pin, as mentioned above, which prevents inadvertent discharge during transport or maintenance and which must be removed for the system to properly function. The other is a retaining cotter pin that holds the system's manual pull cable in place. It is important to know the difference and to understand that the cotter pin must remain in place to allow for manual operation of the system.

Vessel owners and operators are reminded to take an active role in understanding the design and operation of their fire suppression systems and to verify their system is fully operational before getting underway.

Key Findings:

a) Recent Incident – Fireboy-Xintex MA2 Series System (February 2025)
- A small passenger vessel with a Fireboy-Xintex MA2 Series fixed-gas fire extinguishing system was serviced in accordance with 46 CFR 176.810(b)(2).
- The safety pin was inadvertently left in place which would prevent the system from activating.
- On this model, the pin must be inserted during servicing but removed after completion, either left hanging or placed in the affixed holder per the manufacturer's manual.

Figure 1 Fireboy-Xintex MA2 Series diagram

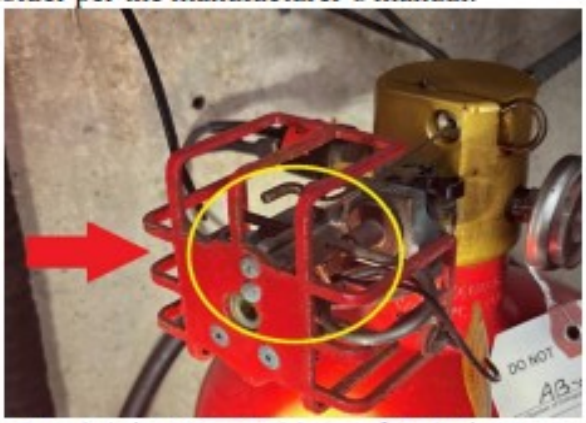


Figure 2 Fireboy-Xintex MA2 Series safety pin placement

b) Prior Incident – Sea-Fire NFD500 System (August 2024)

- A small passenger vessel with a Sea-Fire NFD500 system suffered an engine room electrical fire during which the Master attempted to activate the system from the helm but was unsuccessful.
- The safety pin had been left in the service position and prevented the system from activating.
- The fire was ultimately extinguished with a portable extinguisher.

Figure 3 Sea-Fire NFD 500 Series diagram

Figure 4 Sea-Fire NFD 500 Series safety pin placement

The Coast Guard **strongly recommends** that vessel owners and operators:

- Review the owner's manual for your specific system.
- Do not rely solely on service technicians - be actively involved to ensure your system is ready for operation.
- Verify proper safety pin placement immediately after maintenance and before getting underway.
- Verify glass ampule is intact and is full of liquid; if the ampule does not contain liquid, the system will be incapable of automatic activation.
- If you are uncertain about your system's status, contact your servicing provider immediately.
- Be present during fire suppression system servicing and ensure you are familiar with your system's operation.
- When conducting crew training in accordance with Title 46 Code of Federal Regulations (CFR) §185.420 (b)(1) or 46 CFR § 122.420 (b)(1), ensure that fixed-firefighting system maintenance and pin placement are covered topics.
- Consult your local U.S. Coast Guard Marine Inspector if your vessel is inspected and you need additional guidance.

This Safety Alert is provided for informational purposes only and does not relieve any domestic or international safety, operational, or material requirement. Developed by U.S. Coast Guard Sector Key West and distributed by the Office of Investigations and Casualty Analysis. Questions may be sent to HQS-SMB-CG-INV@uscg.mil.

UNITED STATES COAST GUARD
U.S. Department of Homeland Security

MARINE SAFETY ALERT

Inspections and Compliance Directorate

July 14, 2025
Washington, DC

Safety Alert 14-25

LITHIUM-ION (LI-ION) BATTERY SYSTEM INSTALLATIONS

An integrated Li-ion battery bank recently caught fire onboard an inspected passenger vessel when loosely crimped lugs overheated. While no one was injured and the vessel sustained minimal damage, this casualty highlights safety hazards unique to Li-ion batteries. All integrated (installations used for propulsion and electrical power) Li-ion battery systems on inspected vessels must undergo engineering plan review, be fitted with supporting safety systems, be tested and inspected at installation and periodically afterward, and be properly maintained by competent mariners, regardless of the battery bank size or end consumer.

Unique Safety Considerations

Energy Density: Li-ion batteries are used on vessels because their high energy densities allow for longer voyages and full electrification. However, high energy density increases risk because if a fire occurs, it will burn hotter and longer.

Thermal Runaway: Upon internal failure or short circuit, Li-ion batteries may release high-temperature flammable gases that can catch fire or explode. The heat output of a fire can increase the rate of off-gassing, and those off-gasses in turn increase the size of the fire in an uncontrolled chain reaction.

Fire Suppression Resistance: A thermal runaway fire is very difficult to suppress once it has begun to propagate to other battery modules. Instead, fire management strategies focus on early detection, fire containment, and heat absorption with a water-based suppression system.

Toxic Off-Gasses: In thermal runaway, Li-ion batteries release varied toxic gases, many in excess of their "Immediately Dangerous to Life or Health" thresholds, placing passengers and crew in potential danger. Further, the composition of off-gasses varies dramatically across different Li-ion battery chemistries and manufacturer makes and models.

Battery Management: Li-ion batteries will often have a battery management system to prevent degradation from overcharging, undercharging, or over-cycling. Propulsion, electrical loads, topping loads, and recharging cycles are managed by complex integration systems, which are key in mitigating the increased risks of Li-ion battery systems.

Cont.

Design Requirements

The Coast Guard provided design guidance for integrated Li-ion battery systems in CG-ENG Policy Letter 02-19 (PL 02-19), Design Guidance for Li-Ion Battery Installations Onboard Commercial Vessels, which incorporates American Society for Testing and Materials (ASTM) F3353-19, Standard Guide for Shipboard Use of Li-ion Batteries. These "integrated" systems are hardwired to power the ship's electrical loads; plug-in electronics and Li-ion batteries as cargo are not addressed by this Safety Alert. (See Safety Alert 01-22 for more information on Li-ion batteries as cargo.) As Li-ion battery technology evolves, additional guidance may be released.

PL 02-19 and ASTM F3353-19 address the following major safety considerations for Li-ion battery hazards: ship specific risk/safety assessments, battery management systems, qualitative failure analyses for vital ship systems, design verification test procedures (DVTPs), periodic safety test procedures (PSTPs), hazardous area plans (for toxic off-gasses), structural fire protection, fire/smoke/gas detection systems, water-based fixed fire suppression systems, and exhaust ventilation. Due to the unique safety risks and design considerations, the Coast Guard does not conduct expedited plan review under Navigation and Vessel Inspection Circular (NVIC) 10-92.

Owner and Operator Guidance

Li-Ion Battery Identification: Packaged Li-ion batteries often visually resemble traditional lead acid batteries, regardless of type, so the best way to identify them is by reading the nameplate specifications. Li-ion batteries can be identified in a variety of ways depending on electrode, electrolyte, and separator materials. Some common types in maritime use are Lithium Iron Phosphate (LFP), Lithium Nickel Manganese Cobalt Oxide (NMC), Lithium Cobalt Oxide (LCO), Lithium Nickel Cobalt Aluminum Oxide (NCA), and Lithium Titanate (LTO). New chemistries continue to emerge as technology advances.

Plan Review: Plan review and proper design testing procedures (DVTPs and PSTPs) should be completed early in the construction process. If plan review and system design testing have not been approved by delivery, marine inspectors may require plan review to be completed through the Marine Safety Center.

Material Condition: Batteries should be visually inspected for signs of deterioration, such as bulging cells or corroded electrical connections. Documentation on the completion of required maintenance should be maintained.

Operational and Maintenance Procedures: Crew members responsible for battery operation and maintenance should be well-trained in the manufacturer's guidelines and operational procedures and familiar with the functioning of the battery management system. They should also know how to respond to abnormal battery conditions or fires. Safety drills for Li-ion battery fires should be performed, and Li-ion battery system arrangements and risks should be taken into account when conducting other drills.

This Safety Alert is provided for informational purposes only and does not relieve any domestic or international safety, operational, or material requirement. It has been developed by the Marine Safety Center and distributed by the Office of Investigations and Casualty Analysis. Questions may be sent to msc@uscg.mil.

Steve Heinrich, AMS®
Safety Committee Chair

Must-Have Safety Supplies for the Marine Surveyor—All Under $15
Marine surveyors occupy an unusual niche: we crawl through engine rooms, are exposed to hazardous substances and atmospheres, sometimes work alone in remote boatyards, and do not have paid sick-leave. Yet most accidents that sideline a surveyor could be prevented with a handful of affordable items. The following kit costs less than $15 per component, fits in a small dry bag, and can spare you serious injury, medical bills, and lost income.

---

1 Knowledge (Free—but Priceless)

Before buying any gadget, invest in the one resource that weighs nothing and never expires: training.

- **Ladder Safety courses:** Free ladder safety training courses are available online and will create a certificate to confirm successful completion.
Werner Ladder Safety Training
American Ladder Institute Ladder Safety Training

- **Ladder Safety app for your cell phone:** The National Institute for Occupational Safety and Health (NIOSH) offers a free app that has a unique feature that allows immediate inspection of the ladder angle, using an app on your cell phone.
NIOSH ladder safety app

- **Confined-Space Entry**: Engine-rooms in recreational vessels, chain lockers, and bilge areas that must be entered for inspection, have the potential to contain a hazardous atmosphere. Free online webinars are available and explain the hazards of confined space work and the requirements for safely working within confined spaces.
Oregon OSHA free confined space training

- **Continuing Education Credits**: Check with SAMS® to confirm acceptance for CEUs.

Protect your body, polish your résumé, and spend exactly **$0**.

---

2 Safety Glasses

A moment's distraction can turn rust flakes, a splash of oil while pulling an oil sample, a spray of sea growth while sounding a hull, or a splash of bilge water into a corneal injury. ANSI Z87.1-rated safety glasses cost **$5–$10** and weigh less than two ounces. Look for:

- **Wrap-around lenses**—better peripheral shielding.

- **Anti-fog coating**—warm engine rooms and humid bilges rapidly fog untreated lenses.

- **Scratch resistance**—polycarbonate lenses withstand salt crystals and the inevitable tumble onto non-skid decks.

Protect your eyesight! An injury to your eye that results in loss of vision is likely a career-limiting or career-ending injury.

Cont.

3 9-Mil Nitrile Gloves

Always wear gloves when your hands are in contact with bilge contents. Standard 3 to 4 mil shop gloves rip the first time you catch on a hose clamp. **9 mil nitrile gloves** resist fuel, solvents, and barnacle edges, yet are thin enough to feel a hairline crack in a heat exchanger. A box of fifty costs **$12–$15**.
Benefits for surveyors:

- **Resistance** to fuel, oils, bilge contents, and hydraulic fluid.
- **Allergy-free**—nitrile contains no latex proteins.

Keep a handful in your workbag or pocket, ready and accessible when you need to protect your hands.

---

4 Whistle or Personal Alert Device

Many marine surveys are solo affairs, potentially out-of-sight of other workers or boat owners. Should you get stuck in an engine room, wedge a foot in a lazarette, or become immobile because of an injury, shouting might go unheard. A **pea-less marine whistle** costs **$3–$8** and produces 120 dB even when wet.
Attach it to your belt loop with a short lanyard. One sharp blast every ten seconds is widely recognized as a distress signal in outdoor safety protocols.
. Optional upgrades—still under $15—include:

- **LED strobe/whistle combo** for night work.
- **Compact air horn** (3-oz canisters) that meets USCG sound-signal rules.

---

5 Custom Mini First-Aid Kit (Total ≈ $15)

Commercial kits often overflow with gauze pads but omit items marine surveyors actually need. Immediate treatment of a minor wound can prevent an infection and speed healing. Having a bandage will prevent leaving a blood-trail on beautiful white faux-leather. Build your own in a re-seal-able waterproof pouch.

a. Hand-sanitizer wipes (>70 % alcohol). Clean hands and tools before treating cuts; disposables eliminate leaking gel bottles. $2–$4.

b. Povidone–iodine prep pads. Broad-spectrum antiseptic that works in oily environments where alcohol alone fails. $3.

c. Triple-antibiotic ointment packets. Single-use foil pouches prevent cross-contamination in dirty bilges. $4.

d. Assorted waterproof bandages and knuckle wraps. Seal minor cuts from further injury; waterproof adhesive stays on in bilges. $2–$4.

e. Sterile solution for flushing eyes. Sterile isotonic buffered solution, 16-ounce bottle. $12.

Integrating the Kit into Your Workflow

1. **Pre-Survey Checklist**
   - ●Confirm you've completed any needed hazard courses within the past 12 months.
   - ●Inspect safety glasses for scratches; swap if clarity is compromised.
   - ●Add two pairs of nitrile gloves to a pocket where they're reachable without rummaging.
2. **On-Site Setup**
   - ●Clip your whistle to a belt loop.
   - ●Tell someone (marina office, vessel owner) your expected finish time and location on the boat.
3. **During the Survey**
   - ●Change gloves between engine compartment and interior spaces to prevent cross-contamination.
   - ●At any sign of eye irritation, pause work and use your eyewash rather than "toughing it out."
4. **Post-Survey**
   - ●Sanitize hands before writing notes or working on your computer—glove residue is still contaminated
   - ●Replace used first-aid items and log any near-misses in your continuing-education file.

Final Thoughts

Marine surveyors often spend thousands on their tools, yet many skip the basic gear that actually protects their livelihood—their body. For roughly the price of a dockside lunch, you can assemble a safety kit that keeps you healthy enough to survey another day. Pack it, practice with it, and preach its value to colleagues and apprentices. Your eyes, skin, and career will thank you.

Towing - New York Style

By
Pat Folan, AMS®

I began towing in Boston Harbor on small tugs. We moved one barge at a time and a busy day would have involved four barge moves around Cashman's yard. Most of the barges were small – 30' x 90's and 120' x 40's – but that was good,
because we were small – 45 ft, single Detroit Diesel 6-71. We would take a barge from a mooring to dock where it would be loaded with construction materials and then we would take it to the jobsite (if we were lucky!) or just leave it at the dock and move it around the yard the next day so we could use the dock for the next barge. Over time the boats and barges got bigger, but the moves were all performed the same way – grab the barge on the hip, shift it and if we were going somewhere with it after loading, we would take it on the hip, heads to tails, so we could string it out for the offshore tow. Once in a while, we would push the barges, but most of the tugs didn't have push gear. It took the introduction of some southern boats with winches to get us to get behind our barges. Joe Simpson of Simpson Towing was the first one that I saw one-lining barges. Joe would grab the barge on a head line and just go, leaving us all behind as we wasted time putting up our push wires. How did he think of that? How did he do that? And with a single screw boat! Joe worked the coast and spent time in NY Harbor and to us up in Boston, NY Harbor was the big time. NY Harbor was a busy harbor, a place we only passed through occasionally, a place of larger than life captains and sea stories. Joe moved oil in NY and we figured he learned from the pros. And he probably did, but as we got to know Joe, he probably taught the pros a thing or two too. Years went by, and then decades and towing involved larger distances and fewer barges. I bought a tug, towed wherever the money brought me – from Maine to Florida and out to Michigan but never did much on one line again. Circumstances dictated tighter control and running a barge through the Erie Canal for four days with just a headline out trying to make 30 locks would have grown old fast. After a while I sold the tug and company and ended up in NY with the pros. I was fortunate enough to land on a boat with Harry Reimer moving scrap barges around Claremont Terminal and to and from the various scrap yards in the NYC area. After 24 years of towing, my education in barge handling had begun. Harry Reimer is the master of one line moves. He only put up the push wires to cross the Upper Bay to Gowanus. For local moves a headline was more than enough and sometimes wasn't necessary and for moves of any distance we used the gate lines, but more about them in the next installment. One line between you and the barge and you can do anything – you can push, pull and take it alongside. The reality of it was for Harry it was fun. Decades earlier he had figured out the mechanics of the moves – push the stern to port, the bow goes to starboard, etc. So when I met him, late in his career - a man intrigued with puzzles, he enjoyed the challenges and had a lot to teach.

We were on the Herbert P Brake, a 1,000 hp twin screw push boat with an elevating wheelhouse. My only other one line moves were with model bow boats, so the flat bow added a new challenging in timing – it takes a little longer to get the power to bear in the direction that you want as you pivot a slab-sided towboat on one knee to the other. The benefit is the flat bow though, because once you are headed in the direction that you want to go, you can just let her push.

Backing a hopper loaded with 1,500 tons of shredded steel drawing 15 ft ¼ mile from the barge racks to shipside. This barge move takes 35 minutes on push wires but only 20 minutes on one line.

The Herbert is stationed at Claremont Terminal in Jersey City, NJ. Claremont is the where most of NYC's scrap ends up. Each day we send light barges out to the scrap yards in Brooklyn, Queens, the Bronx, Eastchester, Albany and Stamford, Ct and they get swapped out for loaded barges that are returned to Claremont. The scrap eventually leaves here by ship.

We tend a fleet of forty barges and shift 18 barges a day. A busy day involves 30 barge moves. And because of the volume of moves, one-lining the barges makes the most sense. If we had to put the push wires up 18 times a day with our manual winches the deckhands would revolt. Most moves take 25 minutes and the longest distance is three-quarters of a mile. 39 of our barges are around 140 ft long, 35 feet wide and draw 9 ft loaded. When loaded they range in weight from 1,500 tons to 2,300 tons. One barge is 270 ft long, 52 ft wide and draws 10ft when loaded light iron.

The hardest part of one-lining for any new mate is getting beyond being tightly made up to the tow. The one line requires slack. Five to seven feet is usually ideal as it lets the boat range from side to side. Moving barges around on one line allows the operator to gain a greater understanding of the relationship between the tug and tow. You learn how a little pressure at low rpm's in the right place is far more effective than muscling a barge around with the wires up and the engines screaming. With just a nudge you can easily change direction when pushing the barge. Too much of a nudge? Just back on the line and pull the bow back to where you want it. So once you get used to the fact that the tug and barge are two independent units connected by a piece of line, you can begin.

When shifting a barge, while pushing it, you have to remember that to get the bow to go the way that you want it, you have to push the stern the opposite way. If you need to slow down and get the bow to go to port, you can back on the line, dragging the stern to starboard. The key to backing is watching the way that the line is leading from the stern of the barge to the bow of your boat. All the force is applied along that line. You can be pushing along in a straight line with the boat just off to the port side of the barge's stern when you have to slow down and get the bow to port. Just backing down will initially swing the bow to starboard – the force exerted through the line from the boat off the barge's port stern will cause it to turn to starboard. So you have to walk the boat over to the starboard side before applying any significant amount of throttle astern.

One line moves do require some extra thought. You have to think a few moves ahead and adjust to the ever changing situation. As the bow wanders off to port, you adjust the boat's position so that you are pushing the stern to port and the minute you see movement of the bow to starboard you have to readjust so as not to over steer the barge. In the above example, light barges will slide sideways more than loaded ones – I know it sounds obvious, but it catches people off guard – so as we go through a 90 degree turn to starboard and you are pushing the stern to port, you have to be aware of how much you are pushing the whole barge sideways as she sweeps through the turn. A little pressure is usually better than a lot.

Pushing a light scrap barge out a narrow channel. With both knees against the barge, she pushes straight out.

As we approach the first 90 degree turn to port, I shift the boat over to the port stern. This gives a little more leverage for pushing the stern to starboard and the bow to port and also keeps the tug's wheels in good water as it is shallow off to starboard.

Pushing straight through the opening and setting up for the next 90 degree turn to port. Note the slack in the line. I am letting the boat drift along behind the barge to allow the barge to slow down.

Beginning the turn. The boat is angling off to starboard and pushing the bow around to port, as well as, ahead.

Wind can make it a bit trickier with light barges as well. Speed can help overcome some of the force of the wind but you have to have thought out the approach and landing well in advance and then have a Plan B and Plan C.

Cont.

Downwind landings require that you back the stern over to the dock or barge that you are landing against, but unlike a conventional makeup, when you back over to what you are landing the barge's stern, the tug's stern goes over to it much farther than it would if you were using push wires. So if you don't have a lot of room, you can put the boat in indirect mode (I borrowed that term from tractor tugs).

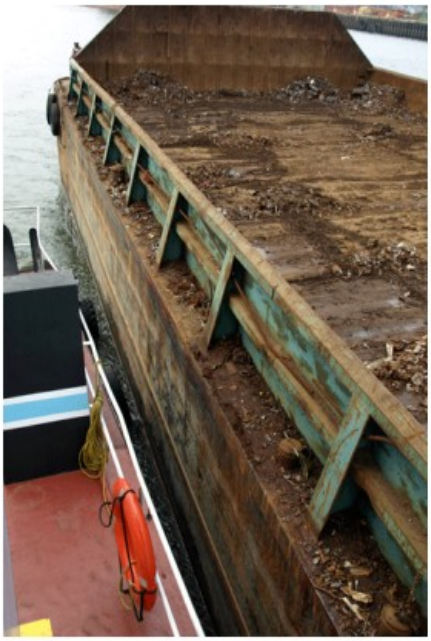
As long as the line is pointing in the direction that you want the barge to go, it doesn't matter where the tug is pointed. Rather than stern to the dock, spin the boat so she is bow to the dock and walk the boat away from the barge and towards the dock always keeping the line pointed to the dock. It requires much more throttle and constant adjustment of the throttles (twin screw boat), but as you walk the boat, the barge will follow.

Backing a barge over to another barge – just keep the headline pointing in the way that you want the barge to go.

One line can also be used for alongside work. Normally when you are making up on the hip, the tug would be made up on the after half of the barge (depending on barge length and tug length). A bow line, spring line and stern line allow you to do anything with the barge. You become one unit that just crabs a bit. But with one line, you try to put it out on the barge's quarter bitt forward of the center. With just

Cont.

your head line, you are able to lean your boat's stern on the barge and lift her head (your rudders would be hard to port if you were on the barge's port side) and by just steering towards the barge (rudders amidships or slightly to starboard if on the barge's port side) you can push the bow to starboard. As you may guess, a twin screw boat allows you a little more flexibility. With just one line you are able to come alongside whatever you happen to want to land on and then just pivot the boat out to a 90 degree angle and pin the barge in.



Alongside a light scrap barge with the Herbert Brake. Just a headline is out on the forward quarter bitt

One line makes turning barges in tight areas a lot easier. You can lay the boat along the head log and work ahead into your line. The barge will pivot in place. Backing on the line will stop the turn.

Herbert Brake turning a barge into a slot in the barge racks at Claremont Terminal

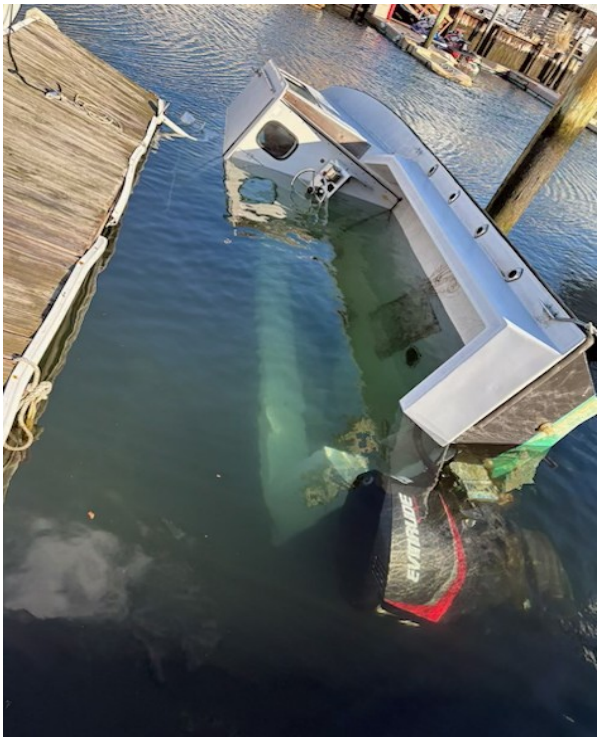
As with all tug work, one line work is a game of momentum. The more you learn about how boats and barges react to each other and outside forces, the easier it gets. Most times you try to set the moves up so that you can work with the barge's motion. If you know that as you come through a turn, the barge will slide a certain way, you can use her motion to your benefit rather than fighting it to do it the way you envisioned it. It's a lot easier to go with the flow.

I have seen towboats in the Western Rivers' fleets drag barges around on one line and once in a while along the coast I encounter boatman doing the same, but New York Harbor seems to the home of one line moves. The Brown tugs are always on one line with multi-barge tows and they go all around the harbor like that. To watch them coming at you, you would think they had their push gear up. Don Jon Marine, Buchanan and Sea Wolf Marine boatmen are close seconds to the Brown captains. So many guys on boats in New York got their start moving scrap and stone and they have moved on to bigger boats and oil where one-lining is frowned upon, but the art is alive and well in the Sixth Borough and thanks to Joe and Harry for passing it along.

John P Brown pushing a loaded sanitation scow

John P Brown with only a headline out

BAD BOAT PICS



Attention IMEC Attendees

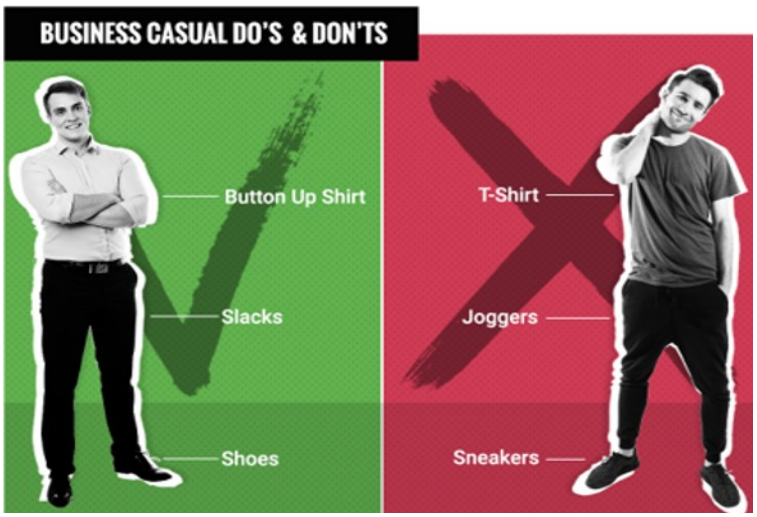
How about Business Casual – What to Wear or Not Wear

When an IMEC is held at a 4 or 5 star hotel as is the norm, I would expect our members to realize that they are not in the boatyard or in Billy-Bob's brew shack. Stretched out faded T-shirts paired with ragged jeans might be acceptable at Billy-Bob's, but unfortunately, some of our members don't seem to know how to dress for different environments.

When you attend an IMEC, you are not only representing yourself, but the SAMS® organization as a whole. SAMS® has never asked you to wear a suit and tie, and probably never will, but it seems to me that a little more thought when packing for the IMEC might get us a lot more respect at the venue. I've taken the time to look up "Business Casual" and this is what it says along with examples of what IS and what is NOT Business Casual.

"Appropriate business casual dress typically includes slacks or khakis, dress shirt or blouse, open-collar or polo shirt, optional tie or seasonal sport coat, a dress or skirt at knee-length or below, a tailored blazer, knit shirt or sweater, and loafers or dress shoes that cover all or most of the foot."

Please study the pictures carefully and honestly decide which one best represents you and the organization!!



From a former SAMS® President.

IMPORTANT MEMBER INFORMATION

CE Credits:

Don't forget to check the website under "Education" for ideas to obtain CE's.

Are you aware of educational opportunities available under the Upcoming Events Drop Down on the Website?

We will be listing special events and meetings under the Marine Industry Events Page.

Legal Liability Insurance from the International Office

One of the important benefits that you receive from being a SAMS® member is the Legal Liability insurance. I felt a little clarity would be helpful especially for our newer members. It is important that you understand what this in-surance covers and more importantly, what it does not cover. The simplified description comes from a more detailed explanation provided by our insurance agent Roanoke Brokerage Services, Inc. This pol-icy covers your legal liability for physical damage to property or bodily injury to per-sons, as a direct result of your actions while you are actually in the act of performing a survey. Examples of such incidents might be:

- the vessel catches fire or sinks during or immediately after your survey, which is the direct result of something you damaged;
- you accidentally spilled something onto the deck or in the bilge that results in an expensive repair or clean-up;
- you break an engine part while climbing around the engine room;
- or your client trips over your tool bag resulting in serious injury.

These are a few examples, but the policy is not limited to these types of incidents. Now, the policy does not cover incident's which are considered "Errors and Omissions" in nature or in other words, incidents where you are held responsible for overlooking, misjudging, or mistaking something during your survey. Several examples would be: a client sues you because he or she purchases a boat on your advice and later discovers the vessel needs significant repair or a vessel sinks because you missed a bad sea water hose.

There will be times that a marina will ask to be named as a "certificate holder". All requests must go through the International Office and not directly to Roanoke. All you need to do is send us their company name, address and requester's email. We in turn send Roanoke proof that you are a current member, and they usually complete it within a few hours. They will send the "Accord" certificate to the requester with a copy to you. Due to unforeseen circumstances, we kindly ask that you do not wait until the day of the survey to request an insurance certificate.

Also, there has also been some confusion lately with a few marinas asking to be listed as an "Additional Insured". Please note, this is usually for "General Liability" which we do not offer at SAMS® and Roanoke cannot provide that for you. As always, please feel free to contact us with any questions you may have.

Member's Corner
March - July
2025

The following members are now Accredited Marine Surveyors with the earned designator:

"YACHTS & SMALL CRAFT"

Mudd, Kevin, *Sapulpa, OK*
Lowe, Andrew, *Port Saint Lucie, FL*
Capriccio, II, Phillip 'Anthony' , *Capitola, CA*
Blanco, Daniel, *Pompano Beach, FL*

"HULL & MACHINERY"

NONE

The following people have been accepted into SAMS® as:

" SURVEYOR ASSOCIATES"

Shaun Ashton, *Somerset, MA*
Christopher J. Aubut, *Duxbury, MA*
Furat Abraham, *Pheonix, AZ*
Griffin Bartlett, *Freedom, ME*
Joseph C. Buser, *Great River, NY*
Douglas S. Carroll*, Cordova, AK*
Jack R. Clayton, *Miami, FL*
Richard D'Argento, North Palm Beach, FL
Ian Duff, *New Bedford, MA*
Craig English, *Easton, MD*
Michael J. Foster*, Coventry, RI*
Sophie Foster*, St. Catherines, ON, Canada*
Denny Galloway*, Mystic, CT*
Peter Gulick *Fort Lauderdale, FL*
Ryan Poplaski *Epping, NH*
Kyle Majka, *Freehold, NJ*
Kevin Brian Quinn, *Fort Lauderdale, FL*
James P. Rakoczy*, Davie, FL*
Hugh Ritchie, *Toronto, ON, Canada*
Jason Scott-Douglas *Watford, ON Canada*
Alex Weiss, *Boothbay, ME*
Zac Zipperian*, North Bend, OH*

APPLICANTS SEEKING SAMS® MEMBERSHIP:

Robert C. Albright, *Woodsville, NH*
Austin Artis, *Ventura, CA*
Michael C. Berg-Hansen, *Jensen Beach, FL*
Jared M. Boileau, *Laurel, MD*
Jason Burns*, New Castle, DE*
Luis Cacciaguerra*, Miami, FL*
Jason L. Caple*, Victoria, Canada*
Alberto Carranza, *Ft. Lauderdale, FL*
Mark Cartret, *Shallotte, NC*
Nicholas Cote, Nanaimo, BC, Canada
John DiFilippo, Salisbury, MA
Scott Felegy*, West Barnstable, MA*
Charles Fehn*, Kenvil, NJ*
John "Scott" Kost, *Sparta, TN*
Kyle Scott Glowacky*, Brentwood, NH*
David McCurdy*, Newport, RI*
Milburn, Scott*, Niagara Falls, ON, Canada*
Carig O'Hara*, Palm Beach Gardens, FL*
Jason Parker, *Berlin, MD*
Ezra Paskus, *Port Townsend, WA*
Paul Michael Szejk, *Mt. Pleasant, SC*
Robert Thornton, *Sooke, BC Canada*
Miquel Suarez*, Seattle, WA*

Society of Accredited of Marine Surveyors®

BOARD OF DIRECTORS

President
Kristoffer A. Diel, AMS®
oceansurveys@msn.com
504-236-8151

Executive Vice President
Gary Frankovich, AMS®
garyfrankovich@gmail.com
904-377-0475

Secretary/Treasurer
Randell B. Sharpe, AMS®
rsharpe@sharpesurveying.com
510-337-0706

Immediate Past President
John Lowe, AMS®
captursa@aol.com
516-359-0806

Membership Vice President
Chuck Solarek, AMS®
cws659@outlook.com
206-225-3045

Education Vice President
Kenneth Weinbrecht, AMS®
oceanbaymarine@yahoo.com
631-924-4362

Public Relations Vice President
Eddy J. Assaf, Jr., AMS®
info@avtechmarine.com
514-248-0756

Testing Vice President
Angel Zeno, AMS®
vptesting@aamarinesurvey.com
616-826-9121

Meetings/Conventions Vice President
Joe B. Lobley, AMS®
jblmarine@roadrunner.com
207-557-5300

International Office
Executive Director……..……Rhea P. Shea
Admin. Asst./Membership……..……Cheryl Roach
Admin. Asst./Support…..……Jessica Mancheno
Admin. Asst./Education ……..……..…..Mark Shea

REGIONAL DIRECTORS

North East Region	John C. McDonough AMS®	Capt100J@yahoo.com	603-303-4104
Mid - Atlantic Region	William Robinson, AMS®	onslowbaymarine@gmail.com	910-547-8077
North Florida Region	Christopher B. Day, AMS®	cdayrad@gmail.com	772-643-7300
South Florida Region	Rolando R. Santos, AMS®	sflrd@alphamarine.com	305-324-1555
Gulf Region	Ryan F. Uhlich, AMS®	seesharp@yahoo.com	504-756-1610
Great Lakes Region	Richard Reichelsdorfer, AMS®	rich@marineproservice.com	920-889-0758
Pacific Region	Michael A Terminel, AMS®	survey@alaskasurvey.com	907-360-2145
Canadian Region	Alain P. Routhier	alain@discoverymarinesurveys.com	604-318-1402
Asia Pacific Region	Ruchin C. Dayal, AMS®	ruchin@edot-solutions.com	+91-832-2501715
European Region	Roberto Scalvini, AMS®	roby@msb-palma.com	+34-971-403-370

COMMITTEE CHAIRS

Cargo Chair	Dan McDonald, AMS®	dan.mcdonald@mcdonaldmarinesurveys.com	416-670-1160
Diesel Engine Chair	Dennis Guthrie, AMS®	gutmarinc@bellsouth.net	954-294-4481
Gas Engine Chair	Reinier Van Der Herp, AMS®	rvmarinesurveying@gmail.com	609-618-8511
Ethics Chair	Gary Frankovich, AMS®	garyfrankovich@gmail.com	904-377-0475
Fishing Vessel Chair	Michael Andrews, AMS®	obxmarinesurvey@gmail.com	252-202-3121
Hull & Machinery Chair	Rolando R. Santos, AMS®	sflrd@alphamarine.com	305-324-1555
Newsletter Chair/Editor	John Lowe, AMS®	captursa@aol.com	516-359-0806
Insurance Chair	Eddy J. Assaf, Jr., AMS®	info@avtechmarine.com	514-248-0756
Commercial Workboat Chair	Joseph A. Derie, AMS®	joederie@comcast.net	503-236-6818
Tug & Barge Chair	Joseph A. Derie, AMS®	joederie@comcast.net	503-236-6818
Safety Committee Chair	Steve Heinrich, AMS®	steve@flagshipmarinesurvey.com	715-255-0515

LIAISON

American Boat & Yacht Council	Kenneth Weinbrecht, AMS®	oceanbaymarine@yahoo.com	631-924-4362
National Fire Protection Association	Kenneth Weinbrecht, AMS®	oceanbaymarine@yahoo.com	631-924-4362

SAMS® 2025

International Meeting
&
Educational Conference (IMEC)

September 9th - September 12th


Baltimore Inner Harbor

Hyatt Regency
300 Light Street
Baltimore, Maryland 21202

<u>For More Information Contact:</u>
Society of Accredited Marine Surveyors®, Inc.
800-344-9077 / 904-384-1494
samshq@marinesurvey.org / www.marinesurvey.org