

SAMS[®] NEWSLETTER



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2018**

**2018 SAMS[®]
International Meeting &
Educational Conference
(IMEC)
Oct. 31st To Nov. 3rd**



**Volume
28,
Issue 1**

**Editor:
Stuart
J.
McLea,
AMS[®]**

Spring Has Sprung

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Stuart J. McLea, AMS®
SAMS® Editor

Greetings from the **North** (North East of Canada)

This winter has been a roller coaster of Freezing and Thaws, high winds and an above average of claims assignments. While writing this, we just had a 3rd Nor'easter Storm in seven days. Bring on the claims!

When I took on this job as Past President I wanted to give a new look and more information to our members via the newsletter. In my opinion it was not doing the organization any justice. Now as I was asked to take on this job for another two years I see the newsletter, coming into its own. I am disappointed that not all of our 800+ members actually read the newsletter and that is very disappointing given the information that is available to a SAMS® Member in its pages. Over the last two years I have received lots of great articles, and I must say we have some very knowledgeable and switched on members. The Newsletter is no different. Just to highlight a few submissions, Marine Sanitation Devices basics by Paul Fannin, AMS®, Seacocks by Kevin McGoldrick, AMS®, Fire Prevention for Small-craft an excellent article by John McDevitt, AMS®, and lastly a very informative article by a past member of the SAMS® BOD, Hans Andersen, AMS®, his article is "Watching Out for Number One". Lastly, I can always depend on Joe Derie, AMS® the Commercial Work Boat Chair to provide a timely article on Commercial Work bit stuff... also he has a new picture on file. There have been some very excellent submissions in the past, and I would like to thank you all on behalf of the whole organization for taking the time to share your knowledge with the SAMS® membership. I am here for another few years, and I hope I receive the same support in the future as I have in the past. Please send me your submissions for consideration in future newsletters. It is a great way to receive CE's.

E&O Insurance

I am happy to say that we have 319 members signed up under our Group Policy. I have had a number of calls from our members who waited too long and missed the start date. I will be looking into opening the policy up for new applications starting on June 1, 2018. Please watch your emails from SAMS® HQ so you do not miss this

BOLF (be on the lookout for) emails from SAMS® HQ regarding this opening of the Group E&O Policy for new participants.

IMEC 2020 Montreal “La Belle Province” – Just to clarify a point, French is the first language in Montreal, Quebec but English is also spoken. The Food and Entertainment in Quebec is excellent, and there is lots of history. The Port of Montreal and the St. Lawrence Seaway are integral to industry in Canada and the USA. Also the US dollar is worth more, so your US dollar will go farther. See you in Portland!

Cheers



**Robert Horvath, AMS®
President**

GREETINGS

The weather here in the Great Lakes is finally beginning to look like Spring. Hopefully everyone is starting to get busy.

It is a pleasure to announce that we finally have E & O insurance, thanks to many years of hard work done by our Past President Stuart McLea, AMS®. We presently have 319 members enjoying reasonably priced E & O insurance. Hopefully next year we can get the 450 needed to get another price break.

I think we all should buy him an adult beverage the next time we see him at a SAMS® meeting.

The IMEC 2018 in Portland, Oregon is coming together. Both Kenny Weinbrecht, AMS® VP of Education and Joe Lobley, AMS® VP of Meetings and Conventions are hard at work finalizing the educational programs, food and accommodations.

The Regional Directors are hard at work getting ready to have regional meetings, hopefully they will be well attended. You need to support your regions.

Many of you need the CE credits, these meeting are a great place to keep up to date.

See everyone in Portland.

CHEERS!



Bill Trenkle, AMS[®]
Executive Vice President

With winter winding down and more time in the field coming up, I would like to bring up an office chore that is very important and that every surveyor who does C&Vs needs to take care of. What I am referring to, is a review of your Work Order. This is especially true if you have signed up for the SAMS[®] E&O insurance.

If you have the SAMS[®] E&O insurance you recently received a reminder from the SAMS[®] International Office to make sure you use the Work Order language provided by the insurance carrier. If this does not work into your existing Work Order, you can try and get your own Work Order language approved by the insurance carrier. If you do not get your wording approved, make sure you use theirs, if god forbid you have a claim, you don't want it denied because you did not follow their instructions.

Your Work Order should also include at least a brief description of the work to be performed, costs and terms. It is helpful to include what kind of survey it is, does it include a sea trial, is it an in the water only survey, etc. I know our Work Order is lengthy and includes a lot of details, because that is what our attorney suggested. You may wish to have your Work Order reviewed by a Maritime Attorney to make sure it covers you properly. As the old saying goes "an ounce of prevention is worth a pound of cure". Finally don't forget to get it signed before the survey. Getting it signed after the work is done can provide someone with a complaint, some real legal fodder, since it allows them to claim they did not know before the work started the terms, conditions and liability waivers so they are not valid.

Please remember your work order is a key part of having good communications with the client and providing good customer service. These are the keys to avoiding customer complaints.

Need CE Credits

Newsletter Material Deadline: Have an interesting topic? Send it in! If your article is published in SAMS[®] NEWS, 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 July 1, 2018. The editor must receive all articles by this deadline or they MAY NOT be published in the next issue.



**John Lowe, AMS®
Secretary/Treasurer**



Simple formula to keep out of trouble

Since I have been on the Board, I've had the opportunity to be part of the discussions regarding ethics complaints, It seems we continually see the same type of problems with our members, so I thought it may be a good time to review some of the common issues we see often, so we may possibly avoid potentially expensive and time consuming legal actions.

First, we should avoid taking any assignment we are not qualified for; this does not mean we shouldn't go outside of our comfort zone but, if you do be sure to get some assistance from someone who has been there before. I would recommend taking that surveyor with you on the field inspection as well as having him/her review your report. Communication is key, our services are perceived as being very expensive by many of our clients as they may not have an appreciation of the time it takes to acquire the knowledge and expertise it takes to do a proper job. Clients expect us to be in contact with them during the entire process and beyond. It's not a good idea to break off communications after the check clears. Always give the client more than they bargained for, a call several weeks after a survey to check up goes a long way.

One of the most common complaints is that the report comes late or not at all. This is unacceptable and a schedule of verbal and written reports should be discussed with your client beforehand and adhered to as much as possible.

Cont.

Also, if there is a problem with a client you should make it a priority to handle it before it gets beyond your control, make it your first order of business to satisfy that client, even the Chicago fire could have been put out by one person before it got too big to handle.

Finally, as members of SAMS® we recently had the opportunity to purchase E&O insurance, this should prove beneficial to members in need, but we need to be mindful that if we advertise that we have this, or any other insurance, places a large bullseye on our backs. It is an unfortunate reality that in this litigious society there will be people looking to take action justified or not, so it is unadvisable to advertise coverage.

Hope you all have a safe, productive season and I look forward to seeing some of you in the yards.

Be Safe



**Kenneth Weinbrecht, AMS®
Education Vice President**

International Marine Educational Conference (IMEC)

PORTLAND, OREGON

October 31 - November 3, 2018

IMEC will be here before you know it, don't wait to plan for it; here's what you can expect.

Noted rigger from the Northwest; rigging and failures.

1. Joe Derie, SAMS® AMS®, NAMS-CMS - Accident Investigation
2. Kevin Ritz - Impressed Corrosion & Corrosion Systems
3. Alison Mazon, SAMS® AMS® - Outboard Failure Analysis
4. John Adey, Affiliate - ABYC - Which standard applies to your survey today?
5. Andrew Kinsey, SAMS® AMS®, NAMS-CMS - Allianz Global: Salvage Of Large Vessels.
6. Noted Tug Boat company - new hybrid propulsion
7. Scott McInery, Blue Seas - Circuits and overcorrect protection
8. Wood Boat Surveying

Cont.

Possible other subjects:

Welding and inspection of welds

Audio Gauging

Battery manufacturer

Computer storage and backup

During the year we have a number of calls regarding online courses and viewing a seminar online for CE credit. The Board has discussed this at length at almost every Board Meeting for the last few years. While we all agreed that education is extremely important no matter how we obtain it; the overall consensus is that classroom and conference training is much more interactive and better received by the attendees. Many other professional organizations feel the same way and their attendees prefer the peer interaction. Viewing a seminar online is good, and you will receive some CE credit for it, but there is no way that a participant's attendance can be verified for CE credits.

We have had a few people forget to sign-in each year at an IMEC or another organization's meeting, and have sent in letters stating that they were there and they should get the CE credit even though they did not sign-in. It's not difficult to sign an attendance sheet in the morning especially when the subject of "No signature, No CE, No exceptions" is mentioned two to three times a day. All other professions especially State Insurance departments for adjuster CE's would not give any credit for your adjuster's license if you don't sign in and also sign out!!!

The SAMS[®] policy manual gives all of the requirements for CE's as well as other alternatives to make up CE credits. If you need a copy, call the International Office, one can be emailed to you. This is one of the reasons why we geographically alternate our IMEC's so each region will have the opportunity to have their members attend and make the IMEC requirement as well as the CE requirements that they may need. By the way....are you aware that we now credit 8 CE's per day for IMEC? If you stay for all of the conference you will receive 28 CE's, almost 1/2 of what an AMS[®] needs for their 5 year certification. Your regions are active as well, and some have two to three regional meetings in a year.

I understand that education is expensive, but it is necessary if you are to stay ahead of the wave and keep your head above water. Some things never change and some things always change, be a part of the change; it's a good feeling.

IF YOU THINK EDUCATION IS EXPENSIVE; TRY IGNORANCE; THE ATTORNIES LOVE IT



Kristoffer Diel, AMS[®]
Testing Vice President

Ahoy Shipmates!

Welcome to 2018, I suspect most of you are still in the snow...but look out, Spring is here.

We had 27 new AMS[®] in 2017.

It has been quiet on the Testing front, since the Florida IMEC.

In 2017 we had 35 people take the Y&SC AMS[®] exam; with 27 passing.

Two people did the Commercial Workboat exam: 1 pass and 1 failed.

I am always looking for good test questions, or an amazing photograph. Including the correct answer would be useful, too!

Survey safely; and keep learning something new!

10 MOST COMMON SURVEY FINDINGS ON Powered PLEASURE CRAFT

1. Propane system has not been tested in recent memory (never).
2. Engine room fire suppression system has not been tested, or re-certified since the vessel has been built.
3. GFCI outlets not installed where required, or out of commission.
4. Flares out of date. (Still finding 12GA guns that are non-operational).
5. Burned contacts on the ships' shore power cord inlet fitting (no/broken retaining ring).
6. Zincs in engine/heat exchanger/transmission not recently inspected, (never).
7. Shafts and propellers never pulled, much less rudders.
8. Fuel deck fill fitting "O" rings changed in recent memory (never).
9. Compass w/ no light; and without deviation card.
10. Life jackets still in the plastic wrappers, in the original storage bag. (Below). No ships' name, no lights, etc.
11. (yes I know – but I'm a surveyor)...No Warning Sign on AC Electrical panel regarding INVERTER installation.



Gary Frankovich, AMS®
Membership Vice President

Having just returned from the 2 day Florida Regional Meeting, I want to commend Dylan Bailey, AMS® for putting on a really great educational opportunity for us all. He had David Rifkin, AMS® for the entire day on Friday doing his corrosion course for marine surveyors, and Saturday all the speakers were excellent.

Since I'm the Membership VP, I thought it fitting that I present a general report on the state of SAMS® membership. We currently have 893 total members, the breakdown goes like this: 618 AMS, 199 SA, 49 Affiliate, and 28 Retired. Membership is down, I'm not sure why, whether the market is flooded, are those other organizations with little or no requirements gaining members, or are there just less people interested in working their butts off to make a living. Regardless, in 2017 we had 78 applications for new members, 58 were admitted, 19 were denied, and 1 application was withdrawn. Denials were invariably due to little or no survey experience, or more often, poor survey reports. As of today, March 5, 2018 we currently have 26 applications for membership and 10 applications for upgrade to AMS® Candidate status pending. Since January 1, 2018, we've admitted 8 new SA's and denied 2, we've approved 7 applications for upgrade and denied 1. There are a lot of AMS® out there (33) who are short on CE's, some are only missing a few, but there are a couple with very few or no CE's and no Annual Meeting (IMEC). I think it prudent to warn you all that the BOD is taking a much tougher stance on extensions, that old excuse of "I was planning to attend the meeting, but my dog ate the survey report I just typed so I had to stay home and re-type it", just ain't gonna fly anymore. SA's, 6 CE's each year, even if you got 50 CE's in 2017, you still need to get at least 6 in 2018, it's called Continuing Education for a reason. SA's, also please remember your "Anniversary Date", that's the date you were admitted into SAMS®. Every year you MUST submit a survey report for review within 30 days of that Anniversary Date, and depending on what number SA (-1,-2,-3) you were admitted as, is the date by which you must apply for Upgrade to AMS® Candidate status. Please refer to your upgrade paperwork given to you in your membership packet. That's enough preaching, everyone get out there and make some money.



**Joseph Loble, AMS®
Meeting/Conventions Vice President**

IMEC 2018 in Portland, Oregon, is now the focus for planning and negotiating with the hotel for the food and beverage orders and our AV needs. The dates of the event are October 31st thru Nov 3rd at the Hilton Portland Downtown. The SAMS® hotel rate is \$189.00 per night which is a very good rate considering the cost of doing business in the area. The hotel is a beautiful property and has undergone a 125 million dollar refit of the lobby and meeting areas. The parking in the city is very expensive and the hotel does not have a parking garage. The average costs of the closest garage is around \$30 per day. The airport has taxis and a Max Light Rail that stops one block from the hotel. I traveled on the train and it took 30 minutes and cost \$2.50 each way. Our hotel is situated in a very high-end area of the city with many food and drink options in close proximity. Portland is a “Foody” destination and boasts they have the most microbreweries of any city.

IMEC 2019 will be at the Hilton Desoto in Savannah, Georgia. The dates are Sept 25th thru the 28th. Our original agreement with the hotel was for the end of October, but due to the rescheduling of the Savannah Marathon the hotel requested a date change. So, I am glad to announce that we have the same off-season rate of \$176.00 per night in September which is a very popular time of the year to be there. Parking in the hotel garage has been negotiated to \$18 per day. The hotel is in the Historic District, six blocks from the River Walk and a few blocks from their famous park. The city has a lot to offer and with its maritime history, is a perfect destination for us. You will want to book early because there will be no hotels in Savannah with the SAMS® room rate.

As I write this newsletter entry, I am making arrangements with several hotels in Montreal for IMEC 2020 and getting set to tour them in April. Eddy Assaf, AMS®, VP Advertising was very nice to volunteer his wife, Linda to do some of the ground work. Eddy and Linda will be extremely valuable in negotiations, since I do not speak French.

I have received several comments regarding the cost of our recent conferences. The size of our group really limits our options. We are too big for the bargain hotels, and too small for any convention center that a city might offer. The only way we can get a decent room rates is to agree to a food and beverage minimum. Without the Food and Beverage guarantee, there are no deals on the room rate. It is as simple as that. If we look back at recent IMECs we have been successful with this formula. Maybe we should consider the value rather than the cost. The education, the networking opportunity, and the time spent with like-minded individuals in a worthy objective. I would also like you to know, that any profit these conferences might generate for SAMS® goes right in the general fund to offset expenses which is why we have not raised dues since 2009.

Hope to see you in Portland, Oregon



Eddy J. Assaf, Jr., AMS®
Public Relations Vice President

Well, now that it's been a few months in this position, I am starting to get a better handle on it. I want to thank all of those who helped me in making my transition.

2018 IMEC will be in Portland, Oregon and again Joe Loble, AMS® has set up a great venue to keep us interested throughout. The hotel, in the downtown area close to the Willamette River, is going to be great. Hope to see you all in large numbers there.

At the last board meeting I announced my new advertising campaign. We had a long term contract with Yacht World that really didn't pan out as well as we expected, and had been on a constant decline, so by the end of March we will be terminating our contract with them.

I have set up some advertising through local markets, thanks to some of the RD's input. We will be running them during certain periods of the year to see how they will pan out. Most are in the new age of digital advertising.

Boating Times is one of the newer advertisers we are using, running ads from March covering markets targeting our

highest number of surveyors e.g.: North East, Great Lakes, California, Pacific Northwest, Florida, Pan Handle, Carolinas, Texas etc., and other advertising for Canada through Canadian Yachting.

All areas will run at different times of the calendar year. Some of these are open to articles by surveyors that could be published along with. If you want to know when it will run in your area feel free to contact me at

info@avtechmarine.com. I would appreciate your comments, and seeing if any references come off of it, which is the whole point behind advertising.

We are still with Boats & Harbor and MPC Boaters Directory and I am also about to finalise some other local advertisers as per suggestions.

Another area I am researching is the trade schools that relate to the marine industry and surveying in general to promote new membership. As some of our members are getting older and retiring, we need to get new members onboard.

For those who are interested in display booths for trade shows and meetings, please feel free to contact me. After several conversations with some RD's and members, a different approach is used which makes it all easier than shipping what we have.

If any of you have any advertising ideas, opportunities, or articles that you would like to be ran in local digital advertising, please contact me. Don't forget for those who like to write articles the SAMS® newsletter is always looking for good ones.

Pretty much it for now, me being far enough north am anxious to start the new season, which should kick off around mid-April.



The Following Members Have

R. Dylan Bailey, AMS®
Florida Regional Director



Will Return For The Next Issue

Michael R. Tock, AMS®
Great Lakes Regional Director



**Randell Sharpe, AMS®
Pacific Regional Director**



We just held our Pacific Regional educational conference in Oakland, California. It was a rousing success if I do say so myself, with 49 members attending and a good variety of speakers. Thanks to the AMS® members that stepped up and gave excellent presentations in their areas of expertise. Also thanks to Zeph Despard, AMS® for coordinating the lunches and to Peggy Feakes, AMS® for donating door prizes for our meeting raffles. If you missed it, you missed an excellent educational opportunity. The next big event is our annual SAMS® IMEC which will be on the left coast this year in Portland, Oregon. No excuses for the Pacific Region members missing this one. If you are lacking your required annual meeting make sure to put this one on your calendar for October 31 - November 3, Hilton Portland Downtown, 921 SW Sixth Avenue, Portland, OR 97204. Be there! Our next regional educational conference will be held in the Seattle, Washington area as we work our way up the coast.

During our business meeting at the Regional Conference we discussed and approved use of our regional funds to have SAMS® represented at local major boat shows. If there is a major show in your area and you want to coordinate a SAMS® booth; workout the details and get me the information and costs. Someone needs to step up and organize these types of events, for the event to be successful. You can't expect someone else to do it. Get involved! The booths should be manned by SAMS® surveyors, so you will need to get members in the area to support the event with their time. Check with the event coordinators to see if you can put on a seminar on surveying, or a topic related to the things we do or find during surveys. This may be a way to reduce the cost of a booth. It's a great way to get our organization into the public eye.

Business continues to be brisk here in northern California, I trust you are all busy. Stay safe.

As always, if you have any questions I am available via phone or email unless I'm under a boat or in the bilge somewhere.

Work Safe & Stay Safe.

**Nicole McLoughlin, AMS®
Canadian Regional Director**



Hello from Vancouver, in beautiful British Columbia, Canada! I'm feeling inspired after the Olympics, the Oscars and by fellow surveyors.

The Olympic games wrapped up with Team Canada claiming 29 medals, including a love-story to Canada told by ice dancers Tessa Virtue and Scott Moir, who won gold. It's true, Canada didn't win at hockey, but stiff competition keeps you sharp!

That dream of achievement was echoed at the Academy Awards, with the impassioned acceptance speech given by Frances McDormand, for Best Actress. McDormand celebrated not only the excellence of her fellow nominees, but the importance of pushing boundaries and striving for inclusion. 50% of the nominees in every category are women.

SAMS®, NAMS, IIMS and independents represented a diversity of talent in both Yacht and Small Craft and Commercial Vessel spheres, and contributed thought-provoking questions at the Canadian Regional Meeting Mar. 2-3rd.



2018 Canadian Regional Meeting, Vancouver, British Columbia.

The first speaker, Jeff Cote, representing Pacific Yacht Systems set the tone saying "I'm passionate about what I do" and delivered an excellent presentation to reflect that.

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Another speaker, Scott McEniry, Western Regional Sales Manager for Blue Sea Systems said “Marine Surveyors are the educators and fault finders” of the marine industry. That’s how fellow marine professionals see us. We are “needed” and “relied upon” as described by Yuris Merk, Senior Yacht Underwriter and Rosemary Adams, Marine Manager, of Intact Insurance, Western Canada Marine Underwriters. To provide guidance when assessing vessel risk. It was a small room, packed full of talent and a commitment to achieving excellence in the field. The highest compliment I can pass on to fellow organizers John Roberts, AMS[®], and Alain Pascal-Routhier, SA, all speakers and participants, is that following the meeting, 3 attendees are applying for SAMS[®] membership.

That makes the entire volunteer effort and giving back to SAMS[®] worthwhile.

One more colleague and friend, out in the field, helping to hold that bar high.

Marine surveying is a highly specialized, yet largely unregulated industry in Canada. It is an industry that demands a level of training and expertise to match.

Best of luck to pending AMS[®] test Candidates, and best wishes for a prosperous start to the survey season!

Portland at Dusk



T. Fred Wright, AMS[®]
Mid-Atlantic Regional Director



I irritated one of my best customers the other day; I told her how nice the weather was at my office (77 and sunny that day, she had 7 degrees with expected snow out West at the time).

Looks like Spring is here in the Mid-Atlantic; phones are ringing from expectant buyers; the boat shows were successful (it helps to have warm sunny weather to make the potential customers want to be outside); boat owners are discovering their engine block froze and cracked during a cold spell (our initial cold snap was back around Thanksgiving; guess they should not have waited). We'll have at least one more bout with old man Winter, even if the daffodils have bloomed already, but it does appear that Spring has sprung. Spring is the appropriate time to take stock; shake off the cobwebs; check your gear, check your continuing education credits and take a good long look in the mirror.

How are those New Year's resolutions coming? Have you lost that 10, 20 or 50 pounds? (That one hits close to home!) Are you working on it? Have you signed up for the ABYC Standards/Electrical/Corrosion class just to learn something new? Have you replaced that quirky moisture meter or bought a new batch of hammers from Reiner? Have you investigated that thermal imaging class?

Check the batteries in the flashlights and make sure you have spares and that all your tools are up to snuff. And take a good look in the mirror. Remember that guy/gal you have looked at each morning as you brush your teeth. Are you being the best surveyor you can be? Are you representing your clients to the best of your ability? Are you avoiding all conflicts of interest, maintaining that separation between service and survey work (a constant complaint regarding those who may be entering the surveying profession from a related field, or that maintain a service shop prior to casting off the yoke of tyranny and taking up the survey profession full time). Take stock. Do the right thing. Best wishes for the upcoming season.

Peter J. Spang, AMS®
North East Regional Director



I don't know about the rest of the country, but the weather this winter has us all scratching our heads. The worst of it, temperature wise, was December. Everything froze including harbors on the mainland and the islands requiring ice breakers to keep the ferries running. Even the Cape Cod Canal was choked and the fishing boats making passage had to wind their way through the floating chunks of ice whipping along with the tides.

Our first end-of-season seminar was held in December at the Massachusetts Maritime Academy, and although only a one-day event, had a great turnout and list of presenters. After that came the holidays and my only down time for the winter. I usually depend on January and February for getting North to enjoy skiing and snowmobiling and taking care of "honey-dos", but not this year. As temps warmed in January, and the boat shows attracted record amounts of lookers and buyers, the calls for pre-purchase, C&V, and damage surveys came in. Once hulls thawed, at least the land portion was possible and plans made to return for sea trials and active systems checks later. We just had a second seminar Feb 28 for 2 days at the Mount Sinai Yacht Club on Long Island, NY. An intimate group of 25 enjoyed a diverse group of presenters and an interesting field trip to a local prop shop to watch how props, shafts, and struts are repaired. A LOT of help came from several of the surveyors in that area, it was appreciated. Special thanks to Roy Scott, AMS®, Mt. Sinai for hosting, John Lowe, AMS®, Gerry Zingale, AMS®, Ken Weinbrecht, AMS®, John Malool, SA, and Dan Belson, AMS®. Looking ahead to late Fall for our next adventure.

On another note, The Landing School had 17 students pass through the Marine Surveying program this winter. Their applications for SAMS® SA membership are now coming in. Jim Sanborn, AMS® and I are working with all new applicants to get their reports up to the new SAMS® Minimum Content Standards. Jim has been amazing and has spent hours with anyone who wishes to have his help and Fred Bieberbach, AMS® as my Sub-Director has helped with applications as well as seminars' secretary. But it takes a village to run a region and I would like to find others in the Northeast willing to help as they have. If anyone of you feels their reporting agrees with the new standards and

is willing to help mentoring, please email me. I would like to find one in the upstate NY or PA area and another for NY/NJ. This is an official call for mentoring. I believe we have the best region in SAMS® world and only want to make it better.

**Clinton Evans, AMS®
Gulf Regional Director**



The CFR's have got your back"

As surveyors, many times we backup our recommendations by citing the ABYC Standards. Occasionally we will come across a vessel owner, or captain that will say something to the effect of “those are standards or guidelines and not the law, therefore...” True enough, but some ABYC Standards do have the full backing of State or Federal law. The case in point is ABYC A-16 “Electric Navigation Lights”. When this standard is not met neither is 33 CFR 80 to 90. In my examples below I show violations of no all-around white light and improper installation of the all-around white light.

The first example is a 25' bay boat with a short tower. The vessel is locally built. I walked up to the boat and took note of the port and starboard navigation lights that were mounted on the tower. See the port light in the image below at arrow. The light was nearly six feet above the deck. I walked around looking for the steaming and stern light or all-around light. I did not find one. I looked for a plug for a pole mounted light, not one on the tower or the deck. Even if I had found one on the deck the pole would have to be at least nine feet tall; not an easy thing to miss.



What about this vessel? It has port and starboard side lights mounted on the console, the starboard light is at the arrow. It does have an all-around white light conveniently mounted atop the engine cowling.



Does it meet the CFR's? Take a look at the next image for a view from the position of the light on the cowling.



33 CFR 84.03 (f)(1) states, "The mast head light or lights in Rule 23(a) shall be so placed as to be above and clear of all other lights and obstructions except as described in paragraph (f)(2)". Looks obstructed to me and the engine is in an elevated position. This one also violates another portion of the CFRs that I wish to show in the next image of another vessel.



The side lights are mounted at the black arrows on the console. The all-around white light is again mounted on the engine cowling in the left portion of the image. It is also obstructed. But the other violation is the all-around white light is not “at least one meter higher than the side lights” as required in 33 CFR 84.03 (d).

In the case of navigation lights the ABYC Standards are backed up by the full force of the federal government. Stay alert out there.

**Joseph A. Derie, AMS®
SAMS® Commercial Workboat Chair**



**When Should a Surveyor Begin
Surveying Towing Vessels to the Standards
of 46 CFR Subchapter M?**

At this time surveyors performing pre-purchase, condition, and valuation surveys on towing vessels should be surveying to the current standards including the mandatory requirements of:

- 46 CFR Subchapters 24 and 25
- 46 CFR 27
- various parts of 33 CFR, and
- OSHA

As well as any industry standard that might apply:

- ABYC
- NFPA 302
- ASTM, etc.

This is because the beginning of 46 CFR Subchapter M, 46 CFR 136.172 *Temporary compliance for existing towing vessel* states “An existing towing vessel subject to this subchapter will remain subject to Coast Guard regulations applicable to the vessel on July 19, 2016 until either July 20, 2018 or the date the vessel obtains a COI, whichever date is earlier.”

However, with the advent of 46 CFR Subchapter M less than a year from now, a surveyor must begin preparing to survey to those standards. The question is when, and under what circumstances, should a surveyor make that transition.

46 CFR Subchapter M requires that:

- 1) After July 20, 2017, towing vessels whose keels are laid down or who have undergone major conversions (as defined in 46 CFR 136.110) must meet the requirements of 46 CFR Subchapter M and obtain a Certificate of Inspection (COI) from the USCG.

2) Beginning July 20, 2018, owners or managing operators of more than one existing towing vessel required to have a COI must ensure that their vessels are issued valid COIs in accordance with the following schedule:

By July 22, 2019, at least 25 percent of the towing vessels must have valid COIs on board;

By July 20, 2020, at least 50 percent of the towing vessels must have valid COIs on board;

By July 19, 2021, at least 75 percent of the towing vessels must have valid COIs on board; and

By July 19, 2022, 100 percent of the towing vessels must have valid COIs on board.

Owners or managing operators of only one existing towing vessel required to have a COI must ensure the vessel has a valid COI by July 20, 2020.

From the above phase-in schedule, a surveyor could survey some vessels to the current standards until July 19, 2018. However, at some point prior to that surveyors will need to decide to survey vessels to the standards of Subchapter M. That decision should be driven by:

- 1) The owner's or the buyer's requirements; the owner or buyer may want to know how much work needs to be done to the vessel to enable it to meet the requirements of 46 CFR Subchapter M in order to obtain a COI; and/or
- 2) The proximity of July 19, 2018; or
- 3) Other considerations peculiar to the vessel and/or its operations or route known to the surveyor.

The surveyor must discuss what standards to use with their client and receive their approval. Furthermore, as July 20, 2018 gets closer it is highly recommended that, if the vessel is not surveyed to the standards of 46 CFR Subchapter M, the survey report should include a disclaimer to that effect and, if appropriate, the reason.

It should be noted that one part of 46 CFR Subchapter M is already in effect and that should be a part of every survey. As of July 20, 2016, an existing towing vessel must comply with the watertight or weathertight requirements found in 46 CFR 144.105 *Applicability and delayed implementation* which states:

(a) An existing towing vessel must comply with § 144.320 starting July 20, 2016 and it must comply with other applicable requirements in this part no later than either July 20, 2018 or the date the vessel obtains a Certificate of Inspection (COI), whichever date is earlier.

The reference 46 CFR 144.320 *Watertight or weathertight integrity* in the above states:

(a) Each vessel fitted with installed bulwarks around the exterior of the main deck must have sufficient freeing ports or scuppers or a combination of freeing ports and scuppers to allow water to run off the deck quickly without adversely affecting the stability of the vessel.

(b) Closure devices must be provided for deckhouse or hull penetrations, which open to the exterior of the vessel and which may allow water to enter the vessel. These devices must be suitable for the expected route.

With regards to OSHA, OSHA's requirements for uninspected towing vessels will remain in effect until July 20, 2018, or when the vessel obtains its COI, whichever date is earlier.

Beginning July 20, 2018 or the date of the issuance of a COI for a towing vessel, whichever comes earlier, existing towing vessels covered by Subchapter M will be “inspected vessels” within the meaning of the memorandum of understanding between the Coast Guard and OSHA, and thus the working conditions of seamen on those vessels will not be covered by OSHA. Therefore, beginning on July 20, 2018, OSHA will remain in effect only on those towing vessels that remain uninspected vessels. It would appear then that even if the vessel is being surveyed to 46 CFR Sub M standards prior to July 20, 2018, OSHA standards should also be used and noted in the report.

As always, I hope anyone who wants to discuss this column or has questions about Commercial Workboats or 46 CFR Subchapter M will contact me at 503-236-6818.

This letter is long overdue !!!

J. Wheaton, AMS[®]

I want to extend my gratitude for the experienced surveyors for taking on the Surveyor Associates, to help them along in their surveying abilities and report writing. Their help in preparing us for the AMS[®] exam, and our businesses is very valuable.

1. Reviewing our knowledge and references of rules and standards. Reminding us not to be complacent about keeping them updated.
2. Taking a great deal of time out of their busy day to take our calls to answer even the silly questions.
3. Parting with their expansive knowledge to a wider avenue to different types of surveying, versus just small yachts. Finding a need/niche in the market for your business.

Hats off to Jim Sanborn, AMS[®] who helped me, voluntarily, to prepare me not only for my exam, but in my report writing, and inspections.

Hats off to the many Cargo guys for their huge support that all is possible, and where to find information I may need as well!

So, I have since, paid it forward. It's nice to inspire, and help a few that have much talent, and hard earned knowledge that now can offer to the organization going forward.

A Brief Overview of Marine Sanitation

Devices for Marine Surveyors

Paul Fannin, AMS®

MSD--Marine Sanitation Devices (toilets and associated gear) are evolving from complicated and troublesome mechanical equipment into complicated and hopefully less troublesome electro-mechanical and electronic devices.

Quite a few toilets now have integrated circuits and computer controls.

We surveyors should know what the components of a boat's MSD system are, have a general knowledge of how they operate, and what might be wrong with them when they do not operate.

I do not presume to be an expert in this field, but have five years experience with system design, sales, installation and repair of toilets, holding tanks, pumps and pumpout stations, and have had several new owners call to check out a head that was pronounced dead by a surveyor when the flush water intake valve (**seacock**) was closed and the surveyor did not bother to find and open it. (**Aren't we supposed to check thru-hull valves?**)

Of course, marine toilets are troublesome, and a lot of them do not operate properly unless maintained, but a surveyor should attempt to evaluate the head and system, because repair or replacement could run into thousands of dollars of unforeseen expense for a buyer if problems are missed during the survey.

The essential elements of the MSD system are:

- Toilet**

1. Manual
2. Electric Macerator Type
3. Vacuum

- Flush water type**

1. Seawater
2. Freshwater

- Discharge system**

1. Overboard
2. To holding tank with or without Y-valve
3. To onboard treatment device and overboard

Cont.

•**Holding Tank**

1. Rigid tank
 - A. FRP
 - B. Polyethylene
 - C. Aluminum or stainless steel
2. Flexible

•**Onboard Treatment System**

•**Vented loops for water intake and discharge**

Things we should be looking for during survey:

1. Does the head pump water into the bowl?
2. Does the water intake valve (**seacock**) operate?
3. Does the head pump effluent out?
4. Does effluent flow back into the bowl?
5. Does the Y-valve operate?
6. Does the overboard discharge valve operate.
7. Is the head securely mounted to the boat?
8. If equipped with a pump to discharge contents of holding tank, does the pump operate?
9. Are there apparent leaks at the toilet, hose connections, or holding tank?
10. Are there pronounced odors from hoses or holding tank area—hoses will become permeated with odor if waste is left in them, and eventually crystals will form on the exterior of the hoses. When the hoses are permeated, replacement with quality hose (\$10+ per foot plus labor) is expensive.
11. Is the holding tank properly secured against movement? (Think of sailing across the Gulf of Mexico with a loose holding tank.)
12. Are vented loops (anti-siphon) properly installed on water intake and discharge lines to prevent water siphoning into the toilet and flooding the boat?
13. Always check for rusted hose clamps. Human waste is corrosive, and leaks will rust hose clamps.

Cont.

14. Aluminum holding tanks should be inspected for pitting and leaks. Many boat builders install aluminum holding tanks, and if not properly lined inside, will become perforated by corrosion and leak. On boats with tanks installed before the interior liner is set in place, major surgery is required to extricate leaking tanks.

15. Plastic tanks often have leaks around threaded connections that have been over-tightened or where improper sealant or metal fittings have expanded and broken the fittings.

16. When checking electric vacuum toilets (Vacuflush™) be sure the potable water system is charged, and power is supplied to the toilet system. Lift the foot pedal to allow water into the bowl, step on the foot pedal to flush and let it snap back up, then time the vacuum pump. It should take 30-45 seconds to build vacuum, shut off, and stay off for about 3 hours with no vacuum leaks.

17. Most new style macerator toilets use pressure freshwater, so be sure potable water system is on.

18. Some installations have fresh or seawater flush options, and the electric toilets generally need separate pumps to supply pressure fresh and sea water. The seawater pump is usually the anchor chain washdown pump and there will be a manifold to switch from fresh to sea. Look for the switches and manifold and test for proper operation.

19. When seawater is used for flushing, calcium carbonate will accumulate in pumps and discharge hoses and will eventually clog the hoses. When pumping a manual head, excessive pump pressure could indicate this condition (so could a full holding tank or clogged holding tank vent). An electric toilet with clogged discharge hose will not discharge water properly; the water will swirl around the bowl and leave very slowly. It is common to remove a 1 ½" ID hose with a ¼" hole through the buildup in the hose.

References:

Boatowners Mechanical and Electrical Manual-Nigel Calder

Dometic Supertech Technical Guide

Jabsco Pumps

Raritan Marine Products

Seacocks

By Kevin McGoldrick, AMS®

Seacocks are arguably the most overlooked and under-maintained system on a boat. Other than holing a vessel below the waterline, or losing a propeller shaft, few scenarios will sink a boat faster than a failed seacock. Through my years as a surveyor, I often see seacock installations that do not meet American Boat and Yacht Council (ABYC) standards. Short comings run the gamut from the use of residential plumbing gate valves to incompatible materials to flimsy installations. The most common failures are a seized valve (usually in the open position), lost or broken handle, rotted wood backing blocks, and galvanic corrosion.

Terminology:

Let's begin by getting our terminology straight. According to the ABYC a *Through-Hull Fitting* is designed to attach to hoses or valves to permit water to enter or exit the hull. A *Seacock* is a valve used to control the intake or discharge of water through the hull. A *seacock* is operated by a lever type handle usually operating through a 90° arc, giving a clear indication of whether it is open or shut. *Seacocks* are required on all hose or piping lines penetrating the hull below the maximum heeled waterline (MHWL). The MHWL is defined as an angle of 7° for power boats, and the level of the sheer amidships for sailboats. The purpose of a seacock is to stop the admission of water should hose or piping fail.

Selection:

Seacocks are required to withstand significant force before failing. The acid test as described in ABYC Standards states that "A *seacock* shall be securely mounted so that the system will withstand a 500 pound static force applied for 30 seconds to the inboard end of its connecting fitting, at any point in its most vulnerable direction without the system failing to perform as intended". This test should include the hose barb and any hard piped elbows attached to the *seacock*. A 500 pound static force is a significant amount of force. Many times a through-hull fitting will be held in place with a narrow threaded ring with a ball valve and hose barb screwed on top. Although I've not personally tried it, I am not convinced that this common installation technique would withstand the 500 pound test. Add some elbows and reducers and the chance for failure increases dramatically.

Considering the importance of the *seacock* system to the integrity of the vessels' hull, only purpose-made Marine UL listed *seacocks* should be installed. The small increase in the cost of materials and labor is more than offset by the secure installation and piece of mind they provide.

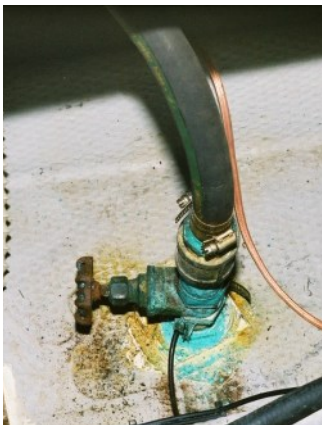
More often than not, the failed *seacocks* I observe are of gate valve variety. Gate valves (the kind with the round metal handle) simply do not belong on any through-hull fitting on a boat.

Replacing them with purpose-made *seacocks* results in a safer vessel that is easier to use. Gate valves operate by raising and lowering a metal gate on a threaded rod as you turn the handle. Most of these valves are not manufactured for marine use and consequently have a number of major short comings. Although the metal used may look like the bronze fittings on the rest of your boat, non-marine grade fittings are manufactured from alloys that are high in zinc and eventually become brittle in the marine environment. Some brass alloys can be as high as 41% zinc. Since you cannot readily tell if a particular valve is made from a marine grade bronze alloy you should only use fittings from reputable manufacturers carrying a Marine UL listing. Even gate valve bodies that are manufactured from the proper alloy may use mild steel or other corrosion prone metals in the stem fitting, packing nut, or handle. The result is galvanic corrosion that causes the stem to seize or shear and the handle to crumble in your hand.

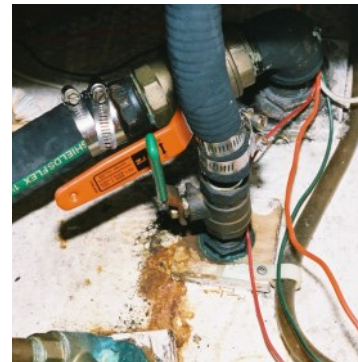
Unlike purpose-made seacocks, one cannot immediately tell from look or feel if a gate valve is open or closed. Even when a gate valve appears to be closed tight, marine growth may be blocking the gate from fully seating. Being able to tell at a glance or by feel if a *seacock* is open or closed could save precious time if the need should arise in an emergency.

Finally the design of the gate valve itself does not make it a suitable fitting as a seacock. It has no means to be independently secured to the hull; instead it is typically screwed onto the top of the through-hull fitting. *Seacock* fittings have a substantial flange that allows the *seacock* to be through bolted to the hull with 3 or 4 bolts. Through bolting creates a much stronger installation over the rather flimsy ring nut provided with most mushroom fittings.

Perhaps the most insidious problem with gate valves is that they are manufactured with tapered threads known as American Standard Taper Pipe Threads or 'NPT' and should only be used with other fittings that are also NPT. Through-hull fittings have straight threads known as American Standard Straight Pipe Threads or 'NPSM'. The NPSM through-hull fitting is able to catch a few threads in a NPT gate valve fitting before it binds up; the result is that 10 to 20 percent of the available thread area is engaged creating a very weak link.

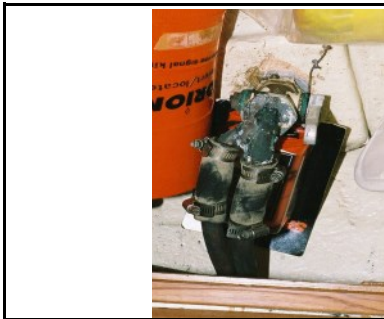


The use of gate valves, especially in older boats is common. This seacock is obviously leaking and is clearly beyond its useful life. Note the corrosion where the bonding wire attaches.



Here is an example of another leaking seacock. Note how the upper clamp on the front seacock has pinched the hose. The hose barb on this fitting is not designed for two hose clamps. Note too how the clamp tang on the rear seacock is pointing to the left. The screw mechanism of this clamp has failed and the clamp should be replaced.

Available Marine UL listed seacocks are generally manufactured from bronze or a reinforced plastic called Marelon®. Marelon *seacocks* are manufactured by the Forespar Products Corp. (www.forespar.com). The bronze alloy used to manufacture *seacocks* has a low zinc content of 5% or less making it well suited to the marine environment. *Seacocks* often have other desirable features such as a bonding wire connection stud, drain plug, and quick release plugs which make winterization easier or allow engine-intake seacocks to do double duty as emergency bilge pumps. Whether you are installing a bronze or plastic seacock, it is advisable to use the same material throughout the installation. For example if the *seacock* is Marelon, the through-hull fitting and any elbows or hose barbs should also be Marelon. One of the major benefits of plastic *seacocks* is its corrosion resistance, adding a bronze elbow or hose barb would defeat this purpose. In the case of bronze seacocks using elbows or through-hull fittings of black iron or stainless steel is a recipe for galvanic corrosion. The use of similar metals even extends to the mounting screws and nuts which should be bronze and not stainless steel. Bronze seacocks that are expected to come into contact with bilge water should be connected to the vessel's common ground point via the vessel's bonding system to minimize the possibility of stray current corrosion and to help protect persons onboard or in the water from a short in the AC shorepower system. The cathodic bonding system is typically connected to a single zinc anode outside the hull thus protecting all submerged metal from galvanic corrosion simultaneously. Plastic *seacocks* are immune to galvanic and stray current corrosion so they do not require anode (e.g. zinc) protection or a bonding wire thus making installation a little easier.



This seacock on a 42' sailboat was frozen solid. The aluminum handle and bronze seacock was a recipe for galvanic corrosion disaster which likely caused the valve to freeze in the open position. The use of a larger hose to act as a reducer for the seacock is a bad practice. The hose used should connect directly to the seacock using a properly sized hose barb.



Talk about a knuckle buster! This handle is less than an inch off of the bilge with oversized screws protruding through the hull just to make operating the valve that much more difficult.

Installation Considerations:

If the hull in question is built using cored construction, additional precautions are necessary. Cored construction refers to a hull manufactured with a core material such as balsa, foam, or other product sandwiched between inner and outer layers of fiberglass. This type of construction results in a very ridged and lightweight hull and adds some level of sound and thermal insulation. These desirable attributes require that the bond between the core material and the fiberglass remains intact. If water is permitted to enter the core material it could break this bond resulting in a weakened hull structure.

Some hulls are cored above the waterline only, while others are fully cored above and below the waterline. Cored hulls usually require extra work to ensure that water does not enter the core material causing serious hull problems in the future. Some of the better builders of cored hulls remove the core material at locations where *seacocks* will be installed, in effect creating a small patch of solid FRP hull and protecting the core from moisture intrusion. Other manufacturers bond aluminum plate into the hull in place of the core material thus protecting the core while creating an immensely strong area to mount the *seacock*. Sometimes these *seacock* mounting locations are built into the vessel to permit additional *seacocks* to be added at a later date. If the *seacock* must be installed in a cored location a patch of solid FRP hull can be created by removing an area of inner laminate and core material leaving only the outer laminate. Additional fiberglass material must then be bonded over the area from inside the hull sealing the core and creating a reinforced area of solid FRP. This is a job best left to a professional. Solid FRP hulls are generally easier to pick the mounting location because one can install them just about anywhere that is convenient, and additional fiberglass work is usually unnecessary.

Seacocks should be installed in a location that allows the handle to move fully from opened to closed without interfering with nearby equipment or *seacock* handles. They should be placed where access is quick and easy in case of an emergency. I often find seacocks at the bottom of storage lockers or buried under piles of spare parts and duffle bags. The mounting location should be as flat as possible to allow complete contact between the backing block and the hull.



A good seacock installation, however note the use of stainless steel screws and nuts. Ideally these should be bronze and trimmed so as not to pose a danger to persons moving about the bilge.



A bronze seacock. Note the screw on the mounting flange for connection of the bonding wire.



Reinforced plastic seacock.



Admiralty Law

Expert Analysis

'Mari-Crimes' on the Radar

Due to the rigors of the sea, long periods of time away from home and the whim of tyrannical captains, seafarers have historically been treated as "wards" of the court and with the "tenderness of a guardian." *Boulton v. Moore*, 14 F.922, 926 (N.D. Ill. 1883). However, that tide may be turning.

In a time not long ago, a seaman could venture ashore in a foreign port, jump out of the window of a brothel and break a leg. Yet, that seaman was nonetheless entitled to a remedy against his employer for "maintenance" (daily living expenses) and "cure" (medicine) while recovering. The reason being that even some deliberate acts of misbehavior were considered a "classic predisposition of sailors ashore." As a result, courts were liberal in their attitude toward seamen who

By
James E.
Mercante



received injuries while on shore leave through their "notorious penchants." *Koistinen v. American Export Lines*, 194 Misc. 942 (City Court, New York County 1948). In a case involving a seaman's brawl aboard ship, the Second Circuit stated that the ordinary seaman is likely to be less even tempered than others, while recognizing that a shipowner violates its duty only if there is present in the crew "a seaman with a wicked disposition, a propensity to evil conduct, a savage and vicious nature." *Gerald v. United States Lines Co.*, 368 F. 2d 343 (2d Cir. 1966).

Mari-Crimes

A recent verdict in excess of \$70 million in favor of a marine stewardess raped by a fellow crewmember is signaling that vessel owners need a system to weed out those seafarers

equipped with wicked dispositions. *Baca v. Island Girl*, No. 16-003324 (Fla. 17th Cir. Ct. Jan. 29, 2018).

On Feb. 25, 2015, a 20-year-old woman was working as a stewardess onboard a three-deck, 150-foot luxury yacht named "ENDLESS SUMMER." The stewardess and a fellow deckhand had separate cabins on the lowest deck, while the captain had his

A recent verdict in excess of \$70 million in favor of a marine stewardess raped by a fellow crewmember is signaling that vessel owners need a system to weed out those seafarers equipped with wicked dispositions.

cabin on the third deck. The deckhand went ashore and returned to the yacht intoxicated. He then reportedly forced his way into the stewardess' cabin and raped her. The captain was in his cabin at the time and either did not see or otherwise prevent the drunken sailor from boarding the yacht, nor hear the stewardess' cry for help from below deck. There were no other people

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onboard and the yacht's communication system was down, so the stewardess apparently had no means to call for help. The deckhand was prosecuted and pled guilty to sexual battery. The stewardess initiated a civil suit against the deckhand and her employer, the yacht owner. According to the verdict sheet, the jury found that the plaintiff stewardess was acting within the course of employment as a crewmember of a vessel in navigation at the time of the incident; that the yacht owner was negligent and that negligence was the legal cause of the damage to plaintiff. *Id.*

There were issues in the *Baca* case as to whether the laid-up and out of commission yacht still qualified as a "vessel in navigation" under maritime law and, in the same vein, whether the culpable deckhand qualified as a "seaman." Seaman status goes hand-in-hand with employment aboard a vessel, but by the same token, if the yacht no longer qualifies as a vessel in navigation, the worker no longer qualifies as a seaman. The jury's determinations on these issues apparently triggered the yacht owner's marine insurance policy indemnifying for negligent acts of a crewmember. The "status" issues reportedly will be the subject of an appeal.

Marine Liability

When a crime occurs at sea involving a crew member or passenger, the finger typically gets pointed at the

vessel owner or employer with the deep pocket and a responsibility to provide persons with a safe vessel. In practice, a seaman's employer can be held accountable for liability arising from injury or death to another seaman under the federal "Jones Act" (46 U.S.C. §30104) or the doctrine of "unseaworthiness." Comparatively, a common carrier like a cruise ship owner owes a non-delegable duty to protect its passengers from crimes. While most courts hold carriers strictly liable for assault by a crewmember on a passenger, New York federal courts anchor carrier

Thorough employee background checks and proper onboard security and communications measures are here to stay for vessels of all shapes and sizes employing a crew.

liability based on negligence. *York v. Commodore Cruise Line, Ltd.*, 863 F. Supp. 159 (S.D.N.Y. 1994).

An employer's liability under the Jones Act for a crewmember's assault against another crewmember requires either that the: (1) assault was committed by a crewmember's superior for the benefit of the ship's business; (2) ship's officers negligently failed to prevent a foreseeable assault; or (3) employer negligently hired the seaman when it should have known of the seaman's troubling temperament. *Lambert v.*

Morania Tanke, 677 F.2d 245 (2d Cir. 1982). In *Cain v. Alpha S.S.*, 35 F.2d 717 (2d Cir. 1929), a shipowner was held responsible when its captain beat a crewmember with a wrench for being late to work. Oddly enough, in finding liability, the court held that the assault was done to benefit ship's business because the captain was making an "effort to maintain discipline and obtain a full engine room crew for the watch of which he was in charge." *Id.* In *Baca v. Island Girl*, the yacht owner's reported failure to conduct a background check on its hired crew coupled with the captain not enforcing a rule against allowing intoxicated crew members to board the vessel was apparently instrumental in finding negligence and unseaworthiness of the vessel.

The doctrine of seaworthiness is a general maritime law concept developed by federal admiralty courts. It is a close cousin of strict liability when a vessel is deemed not fit for its intended purpose, whether by poor design, a dangerous condition, or the owner's hiring of an incompetent officer or crewmember. The duty includes the obligation to provide a ship with seamen "equal in disposition and seamanship to the ordinary men in the calling." *Jones v. Lykes Bros. Steamship*, 204 F.2d 815, 817 (2d Cir. 1953). For example, just the presence onboard of a violent crewmember

can trigger a shipowner's liability if the crewmember is deemed to be "savage" and "vicious" in nature. *Boudin v. Lykes Bros. S.S. Co.*, 348 U.S. 336 (1955). In *Miles v. Apex Marine*, 498 U.S. 19 (1990), evidence of an assailant's vicious infliction of 62 knife wounds was enough to deem the vessel unseaworthy. A seaman who was attacked from behind by an "insane" crewmember with a meat cleaver was also able to recover against his employer in *Kenn v. Overseas Tankship*, 194 F.2d 515 (2d Cir. 1952).

Still, in *Walters v. Moore-McCormack Lines*, 309 F.2d 191 (2d Cir. 1962), a run-of-the-mill fistfight was considered by the Second Circuit to be a "normal" risk faced by a seaman, and did not in itself make a vessel "unseaworthy." In addition, the assault was held to have been committed solely to satisfy the temper of the assailant, and not for any benefit of the ship or the ship's business. Surprisingly, in *Ballance v. Energy Transp.*, 2001 U.S. Dist. LEXIS 16763, 2002 AMC 198 (S.D.N.Y. 2001), the Southern District of New York held that a female cook aboard ship who was sexually harassed both verbally and physically by her fellow crewmembers did not have a claim for unseaworthiness. The court explained that it "is aware of no case, nor does plaintiff present one, in which alleged sexual harassment aboard a vessel, even

that which involves possible physical contact, survived a summary judgment motion. Unlike the assault claims where the attacks were savage and vicious, the alleged assault here does not fall into the same category." However, the seaman's claim under the Jones Act survived summary judgment since a question of fact existed as to whether she feared an immediate risk of physical harm by the alleged sexual harassment. *Id.*

In addition to civil liability, maritime law maintains its own set of criminal statutes. Most significantly, the Seaman's Manslaughter Statute can impose criminal liability on a vessel owner or officer for a seaman's death caused by negligence. 18 U.S.C.S. §1115. In *United States v. Lee Peng Fei*, 225 F.3d 167 (2d Cir. 2000), a smuggler was sentenced to 10 years' imprisonment under the Seaman's Manslaughter Statute. He had arranged for hundreds of aliens to be transported and cast ashore from the cargo ship GOLDEN VENTURE with no life preservers, limited access to food and inhumane conditions. The defendant ordered the ship to intentionally ground at full speed off the coast of Rockaway Point in Queens, N.Y., and directed passengers to jump overboard and swim to shore. Six died from drowning, and the court found that the defendant's control over the ship and his misconduct warranted his

conviction for the statute's maximum punishment.

Lien on Me

Even if a victim is able to prove liability against the vessel owner for a criminal act, there is typically an uphill battle in collecting the judgment. This is because most marine insurance policies exclude coverage for criminal or illegal acts. If this becomes an issue, the crewmember will likely attempt to assert a maritime lien against the vessel by initiating an "in rem" action in federal court. In this scenario, a federal court will be asked to issue a warrant of "arrest" to seize and sell the vessel to allow the seafarer to recover damages up to the value of the vessel.

Time's Up!

Courts are drifting away from the idea that violence is an acceptable risk for persons enduring the rigors of the sea and the temperament of certain seafarers. Thorough employee background checks and proper onboard security and communications measures are here to stay for vessels of all shapes and sizes employing a crew. Indeed, vessel owners today are much more involved in making sure that not only the vessel but also the crew is "seaworthy."

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John McDevitt, AMS[®]



FIRE PROTECTION AND THE MARINE INDUSTRY

At the SAMS[®] / NAMS regional meeting in December 2016, during a marine fire protection presentation I made, one of our attending surveyors asked, “So what I am supposed to put in my report?” He knew the proper fire protection recommendation to put in his report, but that wasn’t supported by current ABYC Standards. The question, at the time, did not get my attention as well as it did on my five hour drive back to Philly.

Fire protection in the marine industry has been a moving target. Some of the rules are not consistent, well written, updated on a timely basis or maintained on a par with other fire protection requirements that have been in place elsewhere on land for many years. Surveyors are put between a rock and a hard place when they know what they should state in their client’s report, but the rules don’t adequately support their conscience approach.

When we are finished, I will summarize some of the shortcomings we face but more importantly provide the foundation for some sound and credible fire protection advice we can offer in a written report to our clients.

Loss statistics

Before we get started, let’s look at what we know, or don’t know, about marine industry fire loss statistics. The USCG Boating Safety Statistics are published every year. The losses shown are typically taken from the Coast Guard BARD (Boating Accident Report Database). These loss numbers are usually open water events. When a fire takes place in a marina, where most marine fires occur, the Coast Guard’s responsibility is limited to pollution control and the marina fire loss information is usually not recorded in the USCG safety statistics.

The NFPA randomly publishes a “Vehicle Fires Report” and a section of this report covers “Water Vehicle Fires”. The information in the NFPA report is taken from nationwide fire department records. In the years the NFPA report was published, the fire loss data was nearly seven times higher than the corresponding number of fire incidents shown in the USCG Boating Safety Statistics during the same years.

Cont.

The USCG report may have credible statistics for boating accidents, but the fire losses are seriously understated. These USCG statistics should not be used, as they have been, to justify fire protection decisions. In light of the large inaccuracies, the Coast Guard should remove fire loss statistics from the report or at least explain the fire loss statistics shortcoming.

The rules and regulations

For this report, I will assume that our SAMS[®] members are familiar with the organizations that publish standards that impact fire protection in the marine industry. There are however, some fire protection inconsistencies and omissions between these organization's requirements, and where possible I will point that out.

Prevention, Detection, Egress, Suppression

Every good fire protection assessment should include fire **prevention**, early warning **detection**, safe **egress**, and fire **suppression**. These are important considerations every marine survey should include.

As for **prevention**, we will bypass the familiar rules and regulations currently in place that are intended to *prevent* fires. AC and DC electricity, batteries, fuel systems, exhaust systems, etc. will not be discussed here. We will cover the other three items in detail – detection, egress and suppression – which, once a fire has started, are very important considerations for the occupants of a boat.

Detection

Smoke detectors were introduced nationwide in the late 60s and early 70s and soon became mandatory for all structures that people inhabit. Since then, they have been credited with saving lives by alerting the occupants of the fire and allowing their safe and timely escape. They are also credited with reducing monetary losses from fire by putting the occupants in a position to handle a small fire on their own or by allowing a more timely notification of the fire department. The former, can not be over stated. 80% of the fires discovered by a smoke alarm are handled by the occupants without the need of the fire department. Smoke detectors are required by law, code, standard and/or common sense everywhere we go.

Underwriters Laboratories writes a number of standards that equipment and hardware are tested to. Many of these tests evaluate the device operation in particular environments.

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There are two UL Standards that evaluate smoke alarms. They are UL217 **Single and Multiple Station** Smoke Alarms and UL268 Smoke Detectors for Fire Alarm **Systems**. We will focus here on UL217.

There are three UL 217 testing criteria for smoke alarms. The first is the typical household device listing. The second is the RV listing and the third is the Marine Listing. We will get back to the household device listing later.

Some of the elements of these UL testing criteria are: [Temperature, humidity, vibration, jarring and corrosion](#). The UL RV and the UL marine tests are very similar and more stringent than the UL household test. The RV and Marine tests both include the ASTM B117 Salt Spray Test.

The RV industry, has required smoke alarms since 1982. The RV industry recognized the fire protection importance of smoke alarms and worked with Underwriters Laboratories to develop an RV listing that would evaluate alarms for the RV environment. The UL RV Listing has been in place for 35 years and there are some RV alarms tested and available in the marketplace. It is my opinion, however, that the selection and options are limited.

Although there is a UL Marine listing (2006) for smoke alarms, the device manufacturers don't view the marine industry as a large enough market to warrant the expense involved in obtaining a UL Marine Listing and marketing smoke alarms to the marine industry. Therefore, there are no smoke alarms available that have been tested to the marine environment and have a UL Marine Listing.

In summary, there are no UL marine listed smoke alarms in production today. There are some UL RV listed smoke alarms in production but selection and options are not robust.

There is a regulatory difficulty in requiring smoke alarms for a boat. The ABYC won't require smoke alarms because they have not been tested to the marine environment. Some regulators, including the older CFRs for small inspected passenger vessels, have required the installation of RV alarms. Again, selection and options leave something to be desired.

Household devices are also tested to temperature, humidity, vibration, jarring and corrosion. These tests are to lesser degrees than the RV and Marine tests but they are still fairly stringent. Smoke alarm manufacturers will tell you that when they produce a smoke alarm, they do not know where it will be purchased and installed. The alarms can still go into other challenging environments, perhaps a garage in Alaska, a shed in the Outer Banks or a hut in Central

America.

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The dry places of a boat are not as extreme as some of the other places where smoke alarms are installed and work properly.

In the early nineties, the US Coast Guard awarded a grant to the ABYC and Underwriters Laboratories to evaluate the effectiveness of household smoke alarm use in pleasure boats. Smoke alarms were tested at UL to marine testing criteria. Smoke alarms were also tested in derelict vessels during live burns in Annapolis. Underwriters Laboratories published **UL Report 92NK26482 – Fire Detection in Recreational Vessels**. The report states in part: **“some presently available models successfully completed the tests. Thus, it is possible that at least some manufacturers may not need to produce special marine use models, thus minimizing the cost to the boat builders and ultimately to the consumers.”** Despite these published findings, the US Coast Guard, the Underwriters Laboratories and the American Boat and Yacht Council did nothing with the information obtained in the study. No requirements, recommendations or consumer advisories were ever brought forward by either of the three organizations.

There are other marine regulatory concerns who are facing the same dilemma, but are moving forward in favor of household devices and away from the RV and Marine devices. Notably, the recently published ISO9094 – Small Craft Fire Protection (published November 2015) requires smoke alarms, but not tested to the more stringent RV or marine conditions. ISO9094 reads simply: “A means to alert craft occupants to the outbreak of fire is required for all craft with more than one habitable space”.

The Towing Vessel Regulations known as Subchapter M (published June 2016) also allows for smoke alarms that are not tested to the RV or Marine tests. Subchapter M reads: “this may be accomplished by an installed detection system, or by using individual battery-operated detectors meeting UL 217”.

There are some folks who, through actions and words, seem to believe that no smoke alarm in a boat is better than a household alarm in a boat. I have had household alarms in my personal vessel for years. Household alarms offer selection such as ionization vs. photoelectric and interconnection via RF. They are also reasonably priced.

Household alarms passed the above mentioned UL/ABYC/USCG tests and operate properly in other challenging environments.

Still there is potential that an alarm may not function as intended – on the water or on land. We must tell our customers that smoke alarms are an important safety measure for a boat with cabin spaces. We must tell them about the very remote possibilities that the alarm may not function properly or on a timely basis.

Most marine standards and regulations call for early warning detection, and many are not specifying RV or marine devices. The ABYC as of this writing still does not publish a standard or technical bulletin about the requirement or benefits of early warning detection.

Based on the strength of the UL report of the mid nineties and the new requirements in ISO9094 and Subchapter M, surveyors should recommend, in every survey report, the installation of smoke alarms (tested to the household criteria - non RV and non marine) in UL217 Single Station Smoke Alarm Standard. There should be an explanation and disclaimer in order to protect our statement.

Egress

There are two egress challenges for the occupants of a boat during a fire. First, small portholes that will not allow a safe second way out. Second, when a fire occurs on the open water and the only option for safe egress is to enter the water.

The rules for hatch sizes and placement (both NFPA 302 and ABYC H-3) state that the boat must have a second means of egress that is not blocked by an engine room or galley. The rule is satisfied by one 14” x 18” hatch in the forward part of the boat.

Many boats, particularly over 40 feet, have staterooms with no second means of egress. The only way to exit the stateroom is to enter back into the common area in the boat – usually toward the fire.

The new full beam master stateroom most times is also a one way out stateroom. The port and starboard portholes that are sometimes installed in the hull are not large enough to be effective or considered as egress. If they are large enough, the seaworthy integrity may prevent the breach of these windows and allow for safe egress in the event of a fire. (Small sledge hammer anyone?)

The forward stateroom usually does have a properly sized hatch in most of today’s boats. But many times the forward hatch is compromised. Reaching, opening and climbing out of the hatch may be difficult or impossible,

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particularly for small children or the elderly. There are also many rigid inflatables mounted directly over the forward hatch and completely eliminating it as a means of egress.

The second egress concern takes place when the boat is away from the dock. There is no place to run from a fire while underway. A large percentage of the fires that occur on the open water start in the engine room. In vessels over 40 feet the occupants may be two levels above the engine room and have no way of knowing about a fire there. Engine room fires typically burn undetected for some time. In an unacceptable number of cases, the fixed fire extinguishing system is not installed properly and fails to activate in a timely fashion or at all. More on this when we discuss suppression.

We should be mindful of the serious egress limitations for the occupants of a boat. Early warning detection is a critical part in assuring safe egress from a boat fire.



Fire Suppression

Portable Fire Extinguishers

The US Coast Guard is currently harmonizing their regulations with other existing industry standards. Portable fire extinguishers fall into this category. Inspection, maintenance and testing requirements should now comply with

NFPA 10 Portable Fire Extinguishers and UL711 Rating and Testing of Fire Extinguishers.

The Coast Guard rating system relied on a prescriptive *weight-based* standard for the extinguishing agent, while the modern industry standards, NFPA 10 and UL 711, are *performance-based*. Currently, all Coast Guard-approved fire extinguishers are rated by their testing laboratories using both the Coast Guard and the NFPA 10 and UL 711 rating systems. You will see both the USCG and the NFPA / UL references on fire extinguishers but eventually the NFPA / UL ratings will prevail.

Fire Extinguishers – type, number and placement - The ABYC A-4 Fire Fighting Equipment Standard has not been updated in 10 years. The new (46 CFR part 25 - 2017) Coast Guard requirements still focus on B extinguishers only and do not have an adequate number of A or C extinguishers in their requirements. Because these are federal regulations, they are frequently published by many different boating safety entities and in doing so, the USCG mis-leads the boating public about what fire extinguishers you should be carrying on your boat. I would recommend using NFPA 302 Watercraft for fire extinguisher complements and placement information which is the most up to date requirement available. While the USCG does not require a type A extinguisher at all, NFPA 302 requires an A capable extinguisher for every accommodation space.

Portable fire extinguisher selection is based upon potential fire hazards.

Class A fires are fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.

Class B fires are fires in flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable gases.

Class C fires are fires that involve energized electrical equipment. It is very likely that some form of all three of these potential fire hazards will be found on a boat.

Nonrechargeable Fire Extinguisher is a fire extinguisher that is intended to be used one time and not capable of or intended to be recharged and returned to service. Non-rechargeable extinguishers will have the year it was manufactured either on the label or stamped on the bottom of the cylinder.

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These extinguishers are good for 12 years from date of manufacture. After 12 years they are not considered protection. Non-rechargeable extinguishers may also have a plastic or inexpensive nozzle compared to a metal or more expensive nozzle on a rechargeable extinguisher.

Rechargeable Fire Extinguisher is a fire extinguisher capable of undergoing complete maintenance, including internal inspection of the pressure vessel, replacement of the agent, replacement of all substandard parts and seals, and hydrostatic testing. These extinguishers are subject to monthly inspection, annual maintenance and hydro-static testing.

Fire extinguisher inspection, maintenance and hydrostatic testing.

Extinguisher Inspection is a quick check, by the owner, operator or his agent, that a fire extinguisher is in its designated place, that it has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent its operation. This inspection is to be performed monthly.

NFPA 10 requires non rechargeable extinguishers to receive annual maintenance by a certified technician. (46 CFR 25.30-10 /08-17) Allows for annual maintenance of non-rechargeable extinguishers to be performed by the owner or his agent and not by a certified technician. 46CFR 25.30 reads: *Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, **the annual maintenance need not be conducted by a certified person** and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.*

Hydrostatic Testing is the pressure testing of the extinguisher to verify its strength against unwanted rupture.

Hydrostatic testing is performed, by a certified person, on rechargeable extinguishers every 5 to 12 years, depending on the agent and the construction material of the cylinder. The cylinder must be emptied, inspected (internally and externally) and hydrostatically tested. (Most dry chemical extinguishers are every 12 years.)

Certified Fire Extinguisher Technician – the International Code Council provides fire extinguisher technician certification. This usually costs under \$500 and certification is good for three years. There is some study and testing involved. NFPA 10 Portable Fire Extinguishers is a large part of the program. Please consider undertaking this certification. It is always difficult to find a certified technician for fire extinguishers on a boat.

I recommend that every surveyor have a copy of NFPA 10 Portable Fire Extinguishers. The current edition is 2018 and has just been released. About \$50 at www.nfpa.org

Fixed Fire Extinguishing Systems

There are two basic types of fixed fire extinguishing systems – engineered and pre-engineered.

An **engineered system** is a somewhat custom installation usually aboard a bigger vessel. This installation frequently receives oversight during construction by the system manufacturer.

A **pre-engineered system** is a smaller system that is sized for the specific engine room in a particular boat model. Engine room dimensions are submitted by the boat builder to the fixed system manufacturer and an appropriately sized pre-engineered system is provided to the boat builder for installation. These systems are installed by the boat builder during the production process with little or no oversight from the extinguisher manufacturer.

Engine room fires may burn undetected for some time. In an unacceptable number of cases, the fixed fire extinguishing system is installed improperly and fails to activate in a timely fashion or at all.

Many fixed systems are installed too close to natural and/or mechanical ventilation equipment, too low in the engine room to effectively meet the trip temperature, or too remote in the engine room for effective application of the extinguishing agent. Engine room air turnover rates also interfere with the timely activation of the fixed systems.

Fixed fire suppression systems also require inspection, maintenance and hydrostatic testing. Each fixed extinguisher should be inspected monthly by the owner or his agent/employee. Each fixed extinguisher must be inspected annually by a certified extinguisher technician. Each fixed extinguisher must be hydrostatically tested on a published schedule that is based on the extinguishing agent and the construction of the cylinder.

Early warning detection should be installed in the engine rooms of vessels over 40 feet and should alarm on the bridge. Boat builders should be mindful that the proper installation of fixed fire extinguishing equipment is critical if the system is to activate on a timely basis. Most times an improper installation or maintenance is the reason fixed systems do not function properly.

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Summary

The ABYC, the primary standards writing organization for the pleasure boat industry, is disengaged with fire protection. ABYC A-4 Fire Protection Equipment has not been reviewed in 10 years. The NMMA Boat and Yacht Certification Program, which requires builders to be compliant with nearly 50 ABYC Standards, does not recognize A-4 as one of them. The ABYC participated in a mid-nineties US Coast Guard grant to evaluate the use of early warning detection in pleasure boats and did nothing with the information obtained in the study. While ISO9094 and the recent Subchapter M are allowing the installation of devices without a marine listing, the ABYC still will not require them, talk about them, suggest them to the public or explain why.

The Coast Guard does not actively manage all of the aspects of the pleasure boat rules and regulations. 46CFR Part 183 contains basic USCG requirements but fire protection equipment is not included here. The Coast Guard has recently republished 46 CFR Part 25.30 – (2016) Fire Extinguishing Equipment for Uninspected Vessels. The latest publishing, Incorporates by Reference, a number of outdated standards. In addition, the USCG fire extinguisher requirements focus only on type B extinguishers and completely ignore the good sense requirements for type A and type C extinguishers.

These B requirements are frequently presented, without mention of A and C extinguishers. The boating public that follow these laws are inadequately prepared.

There is very good information on egress, detection and suppression available in NFPA 302 in both the main document as well as the annex.

Recommendations

Extinguishers must be inspected monthly by the owner or his agent. Rechargeable extinguishers must receive maintenance annually. There is some disagreement on Non Rechargeable extinguishers. NFPA 10 requires annual maintenance of non rechargeable extinguishers while 46CFR part 25 does not require annual maintenance for non rechargeables. Write them up accordingly.

Fixed systems must also be inspected monthly by the owner or his agent. Annual maintenance by a qualified person

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also applies. Write them up accordingly.

Obtain a copy of NFPA 10 Portable Fire Extinguishers. The 2018 edition was just published and will be in effect until 2021.

Obtain a copy of NFPA 302 Watercraft. The 2015 edition will be in effect until 2019.

Consider looking into the fire extinguisher technician certification. There is a need in the marine industry.

Recommend smoke detection for all boats 26 feet and larger. There are a number of marine standards that require smoke and heat detection. The ABYC does not.

Recommend CO detection for all boats with enclosures. The ABYC now requires CO detectors for ALL boats not just gasoline boats.

Closely evaluate the means of egress aboard every boat. Be sure hatches are accessible, easily opened and clear of any gear that would interfere with proper operation.

John McDevitt spent over 25 years in the Fire Service just outside of Philadelphia. He held a number of positions from the ranks fire-fighter to Deputy Chief. He was a Pennsylvania State Certified Fire Service Instructor and has studied Fire Science

Technology. He is a member of the International Association of Arson Investigators (IAAI) and the International Association of Marine Investigators (IAMI).

John is active with the ABYC (American Boat and Yacht Council) and has taught a number of ABYC Marine Electricity Courses. He holds a number of ABYC Technical Certifications and is an ABYC Master Technician Certificate. John is an (AMS[®])

Accredited Marine Surveyor with the Society of Accredited Marine Surveyors[®] (SAMS[®]) and holds a 100 Ton USCG Masters License since 1992.

John is the Chairman of the National Fire Protection Association (NFPA) 302 Technical Committee for Pleasure and Commercial Watercraft. He has also been a Technical Committee Member for NFPA 303 Marinas and Boatyards for over 15 years.

Among a number of other marine related activities, John specializes in both marine fire protection/investigation and marine electricity as a surveyor, instructor, consultant and expert witness.

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Are you taking care of yourself?

It's early in the morning, the sun is rising, and you're off to your job for the day. It's an older wooden vessel that was hauled out yesterday afternoon and its bottom was cleaned for your pending inspection. As you drive down the freeway towards the yard, you are thinking about the old boat and what your game plan will be. Of course, you will start with the bottom inspection, testing the planking, scratching the bronze looking for corrosion, checking the cutless bearings, looking for worm or other damage, and sighting the shafting and propellers.

You arrive at the yard, greet the yard manager and a few of the shipwrights you have known for years, then greet your client for the day. He's proud of his boat. Walking over to the boat your eyes are scanning the vessel to determine if the boat has any obvious signs of hogging, like distressed planks forward or aft. She looks tight. You go over the boat's bottom and topsides in your usual fashion, and point out the good and the bad to your client. After the visual and non-destructive testing is completed, you ask the yard to remove some questionable fasteners for further inspection. While the yard begins that operation you board the vessel to inspect her decks, deckhouse, and interior.

The decks appear to be in fair to good condition, however some of the deck seam compound appears to be dried out and cracked. Prodding with your Mark 1 ice pick, indicates some softness in the sub-decking and you mark the area and make a note as to its location so you can hopefully observe that area from inside the boat. You lightly tap the deckhouse sides with your wooden mallet searching for that hidden delamination in the plywood structure. You find some suspect areas below the windows on the starboard side – the morning side of the boat when she is lying in her slip. You note those areas and lightly mark them for further investigation. Done with the deck, you remove your dirty shoes and step into the vessel's saloon. She is a nicely appointed vessel and is tastefully decorated in a nautical fashion. You sit down at the galley table and ask for the ship's papers. You peruse the papers making notes as to the documentation, FCC station license, insurance papers and so forth. Then you get into the vessel itself.

I tend to go over a vessel from bow to stern so it's off to the chain locker. As your inspection moves aft, you notice some yellow stains on some of the woodwork and do a little scratching to determine the cause of the discoloration. The stains flake off easily and there seems to be no wood deterioration in those areas. Eventually you work your way down to the bilge areas.

You notice that some of the floor timbers have partially wasted galvanized bolts and note those defects on your worksheet. Frames look good but there is a bit of a gap between the outer faces of the frames and the planking, with some dark matter between the face of the frame and the planking. You scrape some of that up and sniff it for that pungent aroma we all know so well. Yep, it smells like Poria. You note that down. There is some brackish water lying in the bilges, and some evidence of electro-chemical decay around some of the keel bolts. You get out your hammer and strike test the keel bolts, and put your wrench on them to test for tightness. The sounding of the keel bolts sound good and the bolts are “mostly” tight. You note that on your work sheet.

The lazarette is in fair condition, although it is quite musty in that locker. There’s evidence of weepage from the rudder packing glands and you suspect that this may be the source of the brackish water in the bilges. You note that deficiency down in your notes. You then enter the last place you go, the dungeon or engine room as it’s called. It’s fairly cramped in the engine room with the fuel tanks, the two engines, and the generator taking up a lot of space. You work your way around the engine room making notes of the visual condition of the machinery, the packing glands, the shaft logs, the electrical switchboards, the sewage tank, and so forth. On the underside of the deck beams you notice some fuzz wood rot from insufficient ventilation and heat. You note those defects into your notes.

Eventually the survey is completed. You take your client to the coffee shop next door and discuss your findings. Since you have taken photographs of the findings you use your camera to show what you have discovered. After the recap you provide a copy of your recommendations to the client and the yard, so the yard can work up an estimate for repairs. You put all of your stuff away in your car and drive home.

The next day while typing up your report you feel a little “fuzzy” in the head. You chalk it up to fatigue and continue your paper work. Later that afternoon you feel listless, and you begin shaking and “shivering” even though you’re not cold. Your spouse sticks her head into your office and asks what you’d like for supper. You hear your spouse loud and clear, you know what you want to say, but you can’t speak. It’s like you’ve had a stroke. Your spouse sees you “shivering” and gets concerned. Long story short, your spouse thinks you’ve had a stroke so you get piled into the car and off to the emergency room you go.

The ER physician takes you into an examination room immediately – ahead of people that are waiting. A quick examination and blood test confirms what he suspects. You have sepsis. Pulmonary blood poisoning. You are in critical condition and are immediately sent to ICU. You’re put on a monitor and IVs are stuck into your arms.

Nurses have worried looks on their faces as they care for you. Your spouse looks scared to death. Your brain is numb and you are confused.

After three to four days, you are released from the hospital and return home – oh yeah, to finish typing up your report. You feel good, but you also came home with a box full of pill bottles to continue your treatment. How did this happen? What made you sick?

The boat made you sick. During the course of your survey you were breathing in fungi from decomposed wood and rot. There are two types usually found on boats: Dry Rot (*Poria Incrassate*) and Wet Rot (*Coniophora Cerebella*). Both of these types of rot are fungal in nature. As you disturb these area of rot fungi spores are released into the air, in an area with poor ventilation and you ingest these spores into your lungs by breathing them in. The fungus then transmits itself into your blood stream as your blood passes through your lungs to become oxygenated. This can KILL you.

I have been hospitalized four times in the last three years by this situation. None of my doctors ever asked me what I did for a (I'm so old they probably figured I was retired). As they explained my case to me the last time it dawned on me that I had surveyed an old wooden boat within one or two days prior to becoming ill in each and every circumstance. Now, I've been surveying old wooden boats for over 50 years so there is some thought that my situation was exacerbated by years of exposure. But, that being said, this should be a warning to all of us in this profession. I now wear a respirator when I am aboard an old wooden boat, and I think you should, too.

Take care of No. 1.

SURVEYOR SKILLS PUT TO TEST: THE UNUSUAL TAXI RIDE

by Ruben D. Serrano, AMS®

We had been hired for one of our clients to attend a bunkers detective survey onboard one of their vessels at San Nicolas, Argentina. Since our HO is located in Sao Paulo, Brazil, I took the flight to Buenos Aires, a taxi from Ezeiza Airport to Retiro, the main bus station in Buenos Aires. After the three hour bus ride, I arrived to San Nicolas, a nice port over the *La Plata* River. When the survey was completed, after two days of hard work, I ate a good steak (that is a must-have when in Argentinian territory) and took the bus back to Buenos Aires. When I arrived to Retiro, I was a little bit late on my schedule, and I was concerned about arriving on time to the airport to catch my flight back to Brazil.

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I took the first taxi passing in front of the main gate. The driver was a young fellow and he started to chat with me introducing himself as Miguel. As we spoke, he told me that he was married and had two kids. As we did the route to the airport, that I know very well due to many years travelling to Argentina, he continued telling me about his life as a taxi driver and asking about the Brazilian way of life.

The trip that was calm until then, began to have a plot twist. All of a sudden, his boss started to call him repeatedly asking him to deliver, as soon as possible, the money collected during the entire day. Miguel tried to convince his boss to let him deliver the money on the next day, arguing that there was a long distance between the airport and the place where he should deliver the money. At a certain moment, the boss' wife called him and shouted through the phone 'Miguel, the money is for today, not for tomorrow. Right?'

As I pretended that I wasn't paying attention to the whole situation, our friend Miguel, turns to me and says that he needs to tell me something about him. I told him to proceed, and he tells me the following: 'Sir, I am 34 years old and during my life I have worked honestly, for only about one year ago. I used to be a bank robber and paid my debt to society after 7 years in jail. I'm on probation at the moment. What are your thoughts on that?'

A million things went through my mind: Was I going to be robbed in the middle of the night, on a lonely road half-way to the airport? I tried to calm my rushing mind, since there wasn't much I could do. Trying not to look nervous and stepping on egg shells as I spoke, I told him, 'My friend, those days are long gone. Now you are an honest man, and the food you put on your table is paid with money that is a result of your hard work. Now, you don't have to worry about being arrested in the middle of the night...Miguel nodded, and finally said, 'Sir, that was the answer I was expecting. Thank you.'

After a few more minutes we arrived at the airport and Miguel gave me a long handshake, along with his business card. He told me to call him the next time I was in town and needed a driver. Since I didn't plan on having more adventures on a taxi ride, it is needless to say that the business card wasn't used.

As surveyors, most of our life is resumed to having contact with people, from all around the world and it is extremely important to know what to say at the right moment. Besides that, we must be able to deal with the most diverse types of situations, and both of those skills were put on trial on that ride. Being a good surveyor is not just related to doing a good job on the vessel, but also being able to apply those skills in unexpected situations of our life.

VESSEL DAMAGE CLAIM WORK CONTINUES IN THE FLORIDA KEYS

by
Keith Douglass, AMS®

My wife Diane and I have enjoyed living and raising our two daughters in the Florida Keys, since 1990. Following our arrival we have experienced a number of storms, but mercifully the Keys have been spared numerous times; not this time. Since the passage of Hurricane Irma we were allowed to return to our home on Lower Matecumbe Key (Mile Marker 74 Bayside) based on the geographically based phased in return. With no power or cell service those who returned early had to rely on their own resources, and those of their neighbors. Once electrical power was restored the requests to address damaged vessels began for Douglass Marine Company. Thus far, we have inspected nearly 80 commercial and recreational vessels ranging in size from a few personal watercraft to those in excess of 50 ft. Recent statistics state that more than 1,500 vessels in the Florida Keys were salvaged for disposal with many still lining the fairways of a Marathon golf course where previously hundreds of refrigerators, freezers and stoves were stored for disposal. Fortunately, the vast majority of the vessels we were involved with are repairable. The difficulty lies in obtaining estimates from fiberglass repair technicians, outboard motor and diesel mechanics as well as electronic equipment vendors. Much of the damage we have seen required fiberglass repair work ranging from punctured hulls when a jack stand failed to superstructure damage due to hurricane force winds. Windblown debris littered nearly all the vessels we encountered, leading to corrosion of metal parts.

The worst damage we witnessed and had to investigate occurred in Boot Key Harbor, in Marathon, the site of a large anchorage, mooring field and live-aboard community. Several hundred vessels were either complete total losses (CTLs) or severely damaged. Many vessels were directed to leave protected berths inside the harbor to anchor, or secure to a mooring where the moorings held but their pendants failed in many cases piling vessels into the mangroves and canals on the western shore. Simply getting aboard vessels was a challenge and disposing of the CTLs remains a costly and logistical challenge for local and state officials.

Although the storm surge varied depending on location along the island chain, windblown salt spray (WBSS) as we now refer to it, defined as rain laced with salt from the nearby Atlantic, Gulf of Mexico and Florida Bay and mixed with horticultural debris also saltwater laden. The WWSB found its way into lower unit gear casings, covered hulls, homes and about everything else, as the rain blew horizontally across marinas, neighborhoods and businesses.

Like the delayed reaction from a lightning strike where severely energized electrical components are affected, but continue to function for a time then fail weeks or months later, the corrosion caused by the WWSB is having a similar delayed affect.

Diane and I inspected a dozen vessels a day during one stretch. The humidity was over 80 percent and the temperature was in the 90's. Yes, we are used to the humidity and temperature, but the exertion over many hours each day and trying to stay hydrated found me collapsing one morning and a trip to the Mariner's Hospital ER (embarrassing as I knew well the head of the ambulance crew and another member went to school with our elder daughter). Dehydration I learned can occur over several days, which is what took place. I now wear a "Camelback" like backpack when I can. Diane and I recognize that we are working in a marine "war zone" and are taking precautions in addition to avoiding dehydration to prevent an accident. We deemed one vessel to be unsafe to board given its location and another located in a severely damaged dry stack building in a Middle Keys marina forced us to call off the inspection until the vessel could be removed from the building and relocated to a safe location. The tools we use are simple, as the need for mobility especially when dealing with multiple vessels in a location.

Basic tools include tape measures, chalk, magnifying glass, phenolic hammer, mirrors and a few others easily carried in a waist pack. Our tool bags with other surveying equipment are nearby in our truck, if needed. Safety equipment we have been using includes rubber gloves, knee pads and safety glasses, when warranted, along with plenty of sunscreen, snacks and a cap.

We have had the pleasure of working with a number of insurance companies, some for the first time and each has made it evident that they were committed to assisting those they insured and gave us the latitude to ensure that each claim was handled efficiently, to allow folks to get back on their feet. It's remarkable but not surprising to us that folks who just lost their homes are more worried about their boats. Perhaps it's a Keys thing but we do understand. Maybe it's time we launch our boat and get aboard again to help bring some sense of normalcy back to our lives as well.



Attention All AMS® Members

The SAMS® Nominating Committee is accepting nominations for the upcoming election of officers at the Annual Business Meeting on Saturday, November 3, 2018 in Portland, OR. Any AMS® members interested in running for an elective office should apply in writing with accompanying documentation to show the Nominating Committee your qualifications, knowledge and understanding of SAMS® Policies and By-laws. The letters should be addressed to the SAMS® International Office. To the attention of the Chairman/Nominating Committee. Must be received by May 1st. Nominations can also be made from the floor during the Annual Business Meeting, per SAMS® Policy.

Congratulations to SAMS® New AMS® Retirees

**Wishing you lots of enjoyment and relaxation in
whatever you decide to spend your time doing !!!**



Edwin C. Boice
East Dennis, MA

William Mullin
Bensalem, PA



While we fondly remember the departed.....



Eric Agneessens, AMS®
Osprey, Florida

Paul Logue, AMS®
Scituate, Massachusetts





IMPORTANT MEMBER INFORMATION



**2018 SAMS®
International Meeting & Educational Conference
(IMEC)
Oct. 31st To Nov. 3rd
Portland, OR**

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

Worth 3 CE Credits

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.

CE Credits:

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

Please just ask!

If anyone needs an updated Policy Manual, Bylaws or the Recommended Survey Report Content, please contact the International Office. They will be happy to email any or all of them.

Attention All SAMS® Members

SAMS® Google Group - <https://groups.google.com/forum/?hl=en#!forum/marinesurveyors> .

To access the SAMS® Group, please go to the above link. Upon logging in, an approval will be given via SAMS® HQ to enter the site. To be approved you need to be a member in good standing, and you will need your display name (nickname) to show your first and last name.

The cost of this is covered as part of your annual dues. All we ask is that you abide by the group Policy, and show respect to your fellow surveyor.



MEMBER'S CORNER

DECEMBER 2017 THROUGH FEBRUARY 2018

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

"YACHTS & SMALL CRAFT"

William S. Collier, Winston, GA; **Steve Heiger**, Perry Hall, MD; **Robert W. Lomax**, Wrightsville Beach, NC; **Glen Reitter**, Centerport, NY; **Kenneth Ray Roberts**, Lothian, MD; **Richard Sassmann**, Miami, FL; **Thomas R. (Rob) Sherrill, Jr.**, League City, TX; **Tolga Yalcin**, Antalya, Turkey

The following people have been accepted into SAMS® as:

SURVEYOR ASSOCIATES:

Perry A. Billiot, Jr., Norwich, CT; **Michael Lee Current**, Key West, FL; **Ronald Joe Cornelius**, Strawberry Plains, TN; **Dennis James Crowley**, Aberdeen, WA; **Robert R. Duncan, III**, Wareham, MA; **Colleen Feeney**, Whitman, MA; **Timothy L. Green**, San Diego, CA; **Charles J. Hazouri**, New Orleans, LA; **Matthew Hoxie**, Sebastian, FL; **Steven Alan Jones**, Fairfax, CA; **Thomas Lande Jones**, Atlantic Beach, FL; **Christian Mancebo**, San Diego, CA; **Kyle P. McAvoy**, Philadelphia, PA; **John Andrew Mecionis**, Port Jefferson Station, NY; **Paul Michael Morgan**, Tampa, FL; **Antony Herve Nahitchevansky**, Virginia Beach, VA; **William Henry Nicolls, III**, Newport News, VA; **Joseph Ostrander**, Georgian Bluffs, ON, Canada; **William E. Padgett**, Somerset, KY; **Chester Moore Valdes**, Mill Valley, CA;

NEW AFFILIATE MEMBER:

Stephen Ingham, Yacht Underwriters, Red Shield Insurance Company, **Portland, OR**
John Rae, Arnprior, Marine Boat Parts , Competition Composites, Inc. , **ON, Canada**

The following applicants seeking SAMS® membership:

Medhat Ahmed Sahir Altawil, North Vancouver, BC, Canada; **Jeffrey Arseneault**, Gagetown, NB, Canada
Rogelio Enrique Fabrega Barsallo, Ancon, Rep. of Panama; **Erich Bauer**, Issaquah, WA; **Richard Blessing**, Nokomis, FL; **Timothy J. Brown**, Stuart, FL; **Nick Everse**, Holland, MI; **William James M. Foster**, Mystic, CT;
Nicolas Gibault, Otterburn Park, QC, Canada; **Josh Clayton Gray**, Louisville, KY; **Leloni Johnson**, Fort Lauderdale, FL; **John D. Joyner**, Baton Rouge, LA; **Troy Lee Langford**, Punta Gorda, FL; **Bert Jeff Magee**, Pittsboro, NC; **Christopher Marchesani**, Lake Park, FL; **Gregory M. Metcalf**, Kennebunk, ME; **Michael E. Minor**, Stafford, VA; **Peter Moorhead**, Larkspur, CA; **Robert Shannon Nutt**, Saunderstown, RI; **Matthew T. Peebles**, Ketchikan, AK; **Jerome Pereira**, Guyton, GA; **Gregory Quintana**, Tampa, FL; **Trevor Graham Salmon**, North Vancouver, BC, Canada; **John Seckman**, Little Elm, TX; **Michael L. Toppozini, Jr.**, Rockland, ON, Canada; **Thomas Hennett Wagner**, Annapolis, MD; **Todd Deverne Young**, Spring Lake, MI



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