

# SAMS<sup>®</sup> NEWSLETTER

**Spring 2017**



**Beautiful Spring Day**

**Volume  
27,  
Issue 1**

**Editor:  
Stuart  
J.  
McLea,  
AMS<sup>®</sup>**

**Message  
From  
The  
Editor  
[Page 2](#)**

**Important  
Member  
Information  
[Page 45](#)**

**SAMS<sup>®</sup>  
International Meeting &  
Educational Conference  
(IMEC)  
Oct. 4th To Oct. 7th, 2017  
Bonita Springs, FL**



**President's  
Message  
[Page 4](#)**

**Members  
Corner  
[Page 46](#)**



**Stuart J. McLea, AMS®**  
**SAMS® Editor/Past President**

**Good Day from “Cold” Nova Scotia**

The winter is starting to move on, but like they say in the North. “March comes in like a Lamb, and goes out like a Lion,” I am waiting for the next and last snow storm.

It is Boat Show Season, and after the show in Halifax closed, the phone began to ring. On the other end they are asking me to do a survey on a boat that is in a 5 foot snow drift. They have to buy it right away because it would not last, or so the broker said.

The Winter SAMS® Board Meeting was held in Jacksonville. The BOD likes to go to SAMS® HQ to meet with the staff. I would like to report, that Executive Director Rhea Shea, is running a tight ship and all is well.

This year’s IMEC is in Bonita Springs, Florida and it is looking to be a great location, with an excellent educational opportunity.

The Board is always receiving requests for extensions, because a Member has not developed and executed his/hers educational plan. This can be a complicated plan of training with lots of expensive travel to obtain your 60 CE's, or it can be as simple as planning to attend two SAMS® Sponsored Meetings each year. Yes two! Your Regional meeting and your annual IMEC. Doing this will give you the meeting requirement, and enough CE's to meet your 60 required CE's if done annually. Now for the newer members of SAMS®. The Board just doesn't pick a location to have a meeting, it is done by rotation, and covering all regions. Example being: we are in Florida this year, Portland the year after, and then Norfolk or Savannah the year after that. “Why does the Board do this you ask?”, so that our members can plan. So, plan to join us in Bonita Springs.

I asked Rhea to send out a request for articles for the Newsletter, and I was overwhelmed by the response. I thank you all who stepped up to the plate. If you haven't sent your article in, that is OK, we are now working on our Summer Newsletter.

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

1. Your article should be technical in content, and of interest to the profession of marine surveying.
2. The article should be in MS Word.
3. Length of the article should be 500 to 1000 words.



4. Articles that have been published before, MUST have a letter of permission letting SAMS<sup>®</sup> re-publish this article. If you are interested in providing an article for the Newsletter, please contact me via email, [stuart@marinesurveys.ca](mailto:stuart@marinesurveys.ca)

### **Errors & Omissions Insurance**

If you missed it in the last Newsletter, I am again looking into a Group Policy for our members. I have been tasked by our President, to put together a presentation on what a group policy will look like, so if you are interested, please come to Bonita Springs to find out more.

Have a safe and warm winter, and I hope to see all of you in Bonita Springs. It is shaping up to be a well-attended educational conference.

**Cheers!**

### **These Members Have**



### **Will Return For The Next Issue**

**Scott D. Schoeler, AMS<sup>®</sup>**  
**Great Lakes Regional Director**



**Thor Jones, AMS<sup>®</sup>**  
**Gulf Regional Director**





## **Lloyd Kittredge, AMS® President**

First of all, I would like to welcome Dylan Bailey, AMS® as your new Florida Region Director. Dylan came to us very well recommended, and has some good ideas to add to his Region. I hope you will all support him and give him some assistance when called upon. Thanks Dylan for stepping up to the plate. As you all know, Dylan is replacing Gary Frankovich, AMS® who was elected to the Board of Directors as your new Membership Vice President. Gary is a very detailed type of guy, and follows through well. He will be one of the major “gate keepers” for SAMS®. This is a tough job, and it requires many hours of checking facts and backgrounds, on our future members. Here again, if called upon to help him out, please do so.

Next, I would like to talk about the upcoming International Meeting and Educational Conference (IMEC), which is being held this year at the Hyatt Regency Coconut Point, in Bonita Springs Florida, on October 4<sup>th</sup> – 7<sup>th</sup>. I understand it is a great property so if you can, try to schedule an extra day, if possible. Kenny Weinbrecht, AMS®, Vice President Education, already has some upscale speakers lined up, and has been very successful in making our session much more informative, and worthwhile. He has listened to the requests on some subjects that were suggested last year, in Newport, and has been able to get several of them filled. If you will recall, last year several of our members were not able to stay at the property, and had to stay in a different hotel, because of a late booking issue. When this happens you miss a lot of time in obtaining your colleague’s ideas, and contacts that are most important for operating a successful business.

Just so you can start planning for “Long range”, 2018 will be in Portland OR, 2019 will be in either Savannah or Norfolk, and then let’s start thinking where we would like IMEC to be in the Gulf Region, for 2020. Thor, why not start asking at your next Regional Meeting for a good location, and be ready to suggest it in Bonita Springs. That will sure save some time.

Another suggestion/request that came up last year, was for the Board to re-visit the E&O insurance that was voted down before. The Board listened and Stuart McLea, AMS® has headed the committee for this, and it will be presented this year in Bonita Spring to the membership. We will try to get as much information out ahead of time as we can, but if it fits into your business plan, you need to be at the Business Meeting Saturday 10/07/2017. Last time, I think, one of the reasons it did not pass, was there was a lot of misinformation being spread around, that just was not correct. To get the proper facts and information you should plan on attending; listen to what Stu has to say and make a decision. This is important stuff!

So, plan on coming to IMEC in 2017. Book as early as you can. It will help you, our staff, and the planning for a successful meeting. Make the decision and book it NOW.



**Robert Horvath, AMS®**  
**Executive Vice President**

## **Vessel Valuations**

I received a very interesting email a couple of weeks ago, it was from one of the larger marine insurers that a lot of you do business with. They were asking, “how one of our members could justify using Captains fees, dockage, and maintenance fees to justify a very large increase in value, on the same boat he had done earlier for far less value?”

I requested copies of the two surveys. After receiving and reviewing both surveys, the difference in valuations was astounding, the first one was more in line with the proper value. The second one was way out of line, giving an incorrect, inflated value.

I could determine why the insurance company thought he was one of ours. Apparently, when he had done the first survey he was a member of SAMS®, but further investigation showed, that even though he was no longer a member, he was still advertising as a SAMS® member. I had the International office contact him by phone, and send an email to immediately stop his false advertising.

After explaining to my contact at the insurance company that when he wrote the second survey he was no longer a member of SAMS®, we were no longer on the hot seat. My concern with this situation is, if he was still a member would the incorrect valuation be the same?

I don’t know if this gentleman has ever taken a USPAP course or not, if he did, he apparently didn’t pay attention. Over evaluation, without proper backup, comes up far more often than it should. Which tells me that more of our members need to take a USPAP course and learn proper ways to make correct valuations. If they haven’t already, I’m sure your Regional Director would have no problem putting one together.

A good thing to remember, once it’s in writing, it’s there forever, hopefully you can defend it if it were to go to court.

**See you in Bonita Springs in October**



**Gary Frankovich, AMS®**  
**Membership Vice President**

Well, it's the beginning of another season, but down here in my neck of the woods you'd never know the last one ever ended. Everyone I talk to is busy. I certainly hope all you folks, farther north, will enjoy the same thing as the weather seems to be breaking. I've pretty much settled into my position as Membership VP. The learning curve wasn't too bad as I've been able to call on my predecessor Jim Sepel, AMS® for advice from time to time. Since the beginning of the year, we've had 32 applications for membership, so far we've approved 7 and denied 3, with the rest still pending. We've also had 15 Surveyor Associates apply to upgrade to AMS® Candidate status, 4 have been approved, one (1) denied, and the rest are still pending. At the moment, we're running 4-6 weeks to handle applications and upgrades, which is not too bad, considering the amount of work the Regional Directors have to do; while I'm talking about Regional Directors, I sure hope everyone understands that they are the real work horses of the organization. The amount of time they spend reading survey reports, interviewing applicants and references on the phone, and then writing the reviews, it's unimaginable unless you've done it. If a Regional Director ever calls on you for help, I certainly hope you step up. The main reason people get denied, is either lack of experience, or poor report writing, and the poor report writing is the same reason why some upgrades to AMS® Candidate are denied, as well. We have a SAMS® Recommended Survey Report Content, it's available to everyone, everyone should have a copy, read it, and check your reports to see if they comply. This is especially important for Surveyor Associates when they send their annual survey report in for review. SAMS® HQ keeps track of what the Regional Director review says about your annual survey reports, and we look at those when you apply for upgrade. Last but not least, it's unfortunate, but as I write this we have 70 members suspended, 68 of them are for not paying their dues, I know January is a tough month, but when your dues become due, it shouldn't be a surprise, it would save the office staff a heck of a lot of work if everyone would just budget for their dues, by January 1st. I hope everyone is planning to come to the IMEC in Bonita Springs, Florida this October. Kenny has an impressive list of speakers lined up, and it's a first class resort, at a reasonable price.

**Reminder!!**

All Surveyor Associates who have not yet become an AMS® Candidate must submit one survey per year within 30 days of the anniversary date of their membership. Please refer to the "Up or Out" Policy for further details.





**Kristoffer Diel, AMS®  
Testing Vice President**

Welcome SAMS® members to 2017. I hope this finds everyone as busy as they want to be!

The ongoing exams overhaul, now includes the recent changes in the Code of Federal Regulations regarding Subchapter M, for the Commercial vessels. The new Ballast Water requirements (as of Dec 2017) will be included in a revision later this summer.

Recently, some procedures for taking the AMS® exams were changed by the SAMS® Board.

After candidate approval to take the AMS® exam; it must now be completed within one year (instead of the old two-year policy). The time allowed between retesting was set at 90 days. Currently, there still are three attempts allowed. The passing score for all exams is 80%.

Overall, electrical, corrosion, and boat nomenclature questions still rank as the most difficult areas of the exams.

I am sure everyone is looking forward to the spring. I suggest you schedule a class sometime this year, to upgrade your talent, as well as CE credits. Pick any subject, just do it.

This action will help keep you on the learning mode, which is the essence of surveying. We study the subject until we understand; or we call in an expert. Of course, the wider your expertise, the better.

Stay safe, tie down your ladders, and learn something about Confined Space Entry.

**See you in Florida!!!!**





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

### **Bonita Springs Resort, October 4 - 7, 2017**

From what I've heard, this is more than just a conference center; it is a resort and it's beautifully set up and a great place to stay.

The agenda for October is progressing very nice.....here's what you can expect.

1. Bob Russo - TVIB - How to become a Certified Surveyor of Inspected Towing Vessels, Subchapter M.
2. Brad Schoenwald - Performance Boat School - Surveying high performance boats.
3. Rolando Santos, AMS® - Marine diesel engine failures.
4. John Walker, AMS® - Chief Surveyor, Braemar - Surveying Mega-Yachts and how to move your practice to that level.
5. David Rifkin, AMS® - Electrical issues
6. Failure analysis of composites.
7. SAMS® Recommended Survey Content and your report.
8. John Malool, Surveyor Associate, Trident Marine Services. Atlantic OSHA Training Center - Work place safety and environmental hazards of our profession.
9. Dylan Bailey, AMS® - Rigging failure and analysis (this subject has been requested again after the Newport meeting by a number of people)
10. Workorders.....do you use them, if not, should we and what are the implications?
11. ABYC - Standards Gone Wild
12. Staying Alive CPR and AED's - A refresher course

### **CE Credit changes:**

We have seen over the last year or so, a large number of surveyors taking online learning courses. CE's are approved for that and the allowed credits are in the SAMS® General Policy Manual. CE policies for both AMS® and Surveyor Associate can now be found on the SAMS® website under education.





**Joseph Lobley, AMS®  
Meeting/Conventions VP**

### **Greetings from the North East**

Despite the crazy weather we have experienced, this region is extremely busy for surveyors and I am sure this will continue into the summer.

IMEC 2017 will be in Bonita Springs, Florida at the Hyatt Coconut Point which is a short drive from the Ft. Meyers Airport. I will gather transportation information as we get closer. We have a room rate of \$179.00 per night and get free parking. The facility is a beautiful resort with a lot of amenities, including: a private beach island with a water taxi. I have already increased the room block, since this event will likely be well attended. I am working with the hotel to ensure that we have another successful meeting. I ask all of you to do your part and attend! Watch your e-mails from HQ for more information.

IMEC 2018 will be in Portland, Oregon at the Hilton Downtown, with room rates at \$189.00. Unfortunately, parking is at a premium, but there are many transportation options, as is with any city. This is a world class hotel in the heart of the city.

I am in the early stages of selecting our site for 2019. I will be touring sites in Savannah and then in Norfolk. I will keep you all posted.

Drop me a line if you have any suggestions or comments.



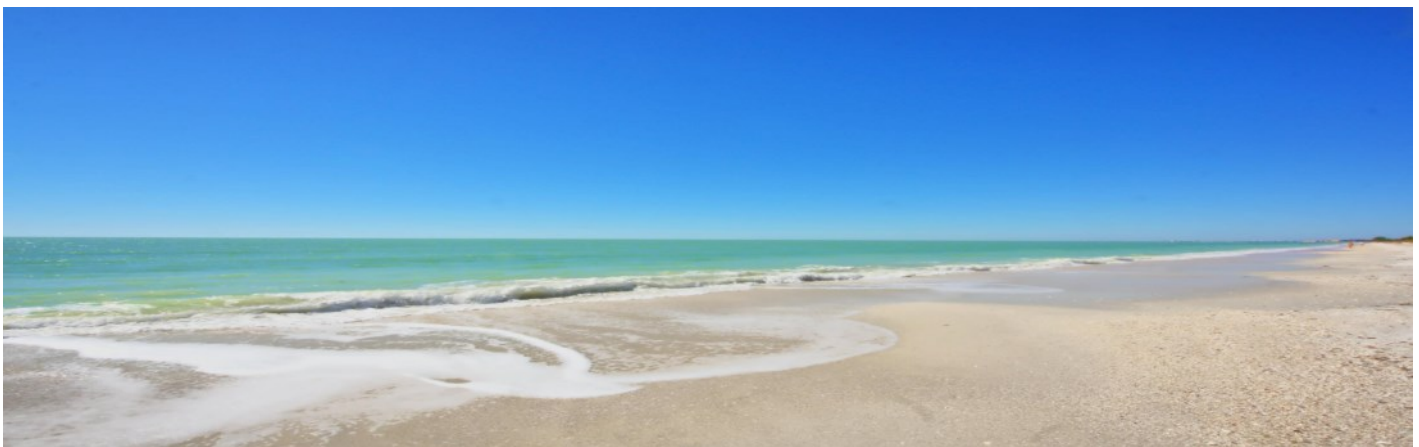


**John Lowe, AMS®  
Public Relations VP**

With the busy season upon us, this may be a good time to take a look at how we communicate with our clients. After being an RD, and now sitting on the board for a while, I see the same issues with complaints against our members arising. These are primarily work product issues. It's important to be sure your client knows what to expect, in terms of the physical survey and the final report. I lay it out for the client as to what they should expect on survey day. Then, I tell them that I will give them a verbal report either in person or via telephone within 24 hours after completing the survey, with the written report within 3 business days. This is not written in stone, and there are times when travel or other issues may extend this time frame, but this is always discussed with the client prior to committing to the job. Many of the complaints we get involve a member who does not deliver a report within a reasonable amount of time, and many of these members will not communicate well with the client once a problem arises. If you put yourself in the client's position, it's understandable why they come to SAMS® with their complaints. They have paid for a service, which they didn't receive. Many of these issues could be avoided with good communication, starting with the initial contact. The time frame of verbal and written reports should be discussed with each client, and the substance of the report should be discussed as well. I once had a client complain, because I didn't have a wiring diagram as part of my report. We all know that this is not part of a typical survey, but this client did not, so part of the blame lies on me for not discussing what would be included in the final report. If a problem comes up, it's very important to communicate and stay on top of it, until the client is satisfied. We all know it's impossible to keep everyone happy, but sometimes going the extra mile can avoid a complaint arriving at SAMS® headquarters or you ending up in court.

Hope you all have a safe, productive season and I will look for you in the yards.

**BE SAFE !!!**





**Bill Trenkle, AMS®**  
**Secretary/Treasurer**

Greetings from San Diego. As you may have read, it has been a brutal winter here, it rained a couple of times! Luckily, even though things really have not slowed down too much over our “winter”, I was able to attend our Pacific Regional Meeting. Randell Sharpe, AMS® Pacific Regional Director did a great job, aided by local Bunker Hill, AMS®. It was especially great to see the meeting start with Darrell Boyes, AMS® being honored for his 7 years as the Pacific Regional Director. He did a fantastic job and his mentoring of Randell Sharpe, AMS® in the position is making the transition go very smoothly.

The meeting was very impressive, with a great line up of speakers and a great turnout. Randell had planned for 50, but ended up expanding to I believe 65 attendees. It was great to meet and mingle with the Region’s members. As the lone Board of Directors member present, I received lots of good input to bring back to the rest of the Board. The number one issue was “let’s bring back the E&O proposal”. This is being worked on, and will be rolled out with plenty of information and time to digest it, before the next vote on it.

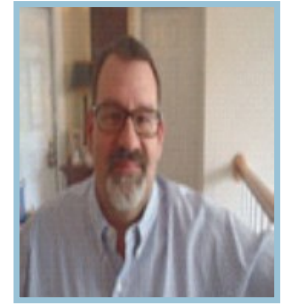
I for one, really enjoy the more intimate Regional Meetings. You are missing out on a great opportunity, if you don’t attend them. They are excellent value financially for great training; they give you CE’s and give you a great chance to network with the surveyors closest to you. If you are new to SAMS® or just have not been going lately, try to make the next one, I am sure you will enjoy it.

### **Smooth Sailing!**





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



In the movie *The Replacements*, when asked, “What are you afraid of?” Keanu Reeves’ character answered “Quicksand.” If you don’t understand the context, rent the movie, one of my favorites.

I HATE deadlines; I’m not necessarily afraid of them, but I hate them, looming up out of the darkest depths of my being; waiting to create pitfalls into - Quicksand.

You promised to do the job and complete the report in a timely manner, then - Quicksand. Another job, a big one, comes and you must travel across the state to attend the joint survey, but there’s that report looming over head; maybe the client might not mind if it’s a day or so late, after all; something came up - Quicksand. Your computer dies (My personal nemesis right now; hint to Fred; get the Apple and stop buying second hand bargain equipment) and you are unable to complete that report, or newsletter submission - Quicksand.

Quicksand can be avoided with preparation, and timely action; never waiting until the last minute when something always comes up to keep you from meeting your personally imposed, or agreed upon deadline; we’re not all school kids cramming the night before the exam, after all.

Moral of the story; do as I say, do not do as I do; get the report to the client in a timely fashion; some say within 24 hours; others say within 3-5 working days, but as agreed. To quote Matthew McConoughey “Under promise; over deliver”.

**R. Dylan Bailey, AMS®**  
**Florida Regional Director**

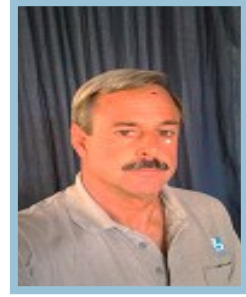


Hello fellow SAMS® members. I hope everyone is having a good winter and are ready for spring. Here in North Florida it has felt like spring for a while.

In January, I attended my first SAMS® Board Meeting, as a Regional Director. The meeting differed from what we are used to at an IMEC. One thing I came away with, is how much the President and Board care about this organization. This group works incredibly hard at what they do for us. I know this is something I have taken for granted in the past. If you have a chance to talk with one of our Board Members in the future, tell them thank you for all that they do.

Have a great and busy spring!

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



We just concluded our Pacific Region annual education meeting. I believe it was a great success with 69 members attending. We had some excellent speakers, and the discussions between members during breaks and meals also provided insight in many areas of our surveying business. It was an excellent networking opportunity, as well. The American Legion Hall in Newport Beach, CA was an excellent host and provided a great meeting place. Many thanks to Bunker Hill, AMS® and Tim Grubin, Surveyor Associate for getting the hall arranged and assisting with obtaining speakers and managing the computer set up for the meeting; I could not do this without their local assistance. For those that could not make it, I hope to see you next year. We plan on holding next year's in the San Francisco Bay area, as we move up the coast from year to year (location and dates to be determined). If you waited until the last minute and were not able to attend, please plan ahead for next year. We had 20 people beg to attend after the sign up deadline, and fortunately the hall was flexible and able to accommodate the additional folks at the last minute, but don't count on that at future meetings. We voted to allow the region to send me to the board meetings again this year, so I will be attending those meetings and will attempt to keep you all informed of the workings of SAMS®. Please let me know if you have concerns or suggestions, that you want me to bring to your Board. We had a good discussion on report writing and the MINIMUM recommended SAMS® content for survey reports. This guide is currently under review, and I am on the committee that is suggesting changes. Please review the guide and email me with any suggestions for us to consider. Make sure you open those emails from SAMS® HQ as they contain important information. When you get a Survey Monkey survey from HQ please take the survey; We Need Your Input! As your regional director, I welcome your input or concerns.



**Eddy J. Assaf, Jr., AMS®**  
**Canada Regional Director**



Well, another winter has gone by, and we are starting to get the new season together. It even looks like an early Spring this year in the Quebec/Ontario area. Hope you all had a great holiday season, and that the New Year started off right.

I also want to take the time to welcome 2 new members, Kimberly Kehler, Surveyor Associate in Kelowna B.C. and Philippe Dourlet, Surveyor Associate in the Baie-St-Paul QC. Welcome to our gang and hope to see you soon at a meeting.

Speaking of meetings, we are going to have a one day Canadian Sub-Regional event on the west coast that John Roberts, AMS® and I (mainly John) are organizing at the end of March. The Canadian Regional is scheduled for November, which seemed to be the most popular time, when we took a vote at the Canadian caucus in Rhode Island. Of course the details will be coming.

I checked recently on the CMAC website, for the next meetings for those that are interested in going. The National meeting will be in December 2017 in Ottawa, and the sub-regional meetings are in Halifax and Vancouver in March 2017, but all can be found on their website at <https://www.tc.gc.ca/eng/marinesafety/rsqa-cmac-menu-826.htm>

CBMU has also posted when their meetings are being held, <https://cbmu.com/> and remember that Canadian Region funds pay the dues to CBMU, so Canadian SAMS® members are eligible to attend.

I do plan on attending the 100<sup>th</sup> anniversary celebration here in Montreal, that is being held on May 24<sup>th</sup> and 25<sup>th</sup>.

I hope some of you took the time over the winter, to catch up on CE credits or study for your AMS® exams. I get an update from HQ all the time, and some are lacking CE's or IMEC meetings. Please remember, that it is your responsibility to keep track of these things, and if you have taken any kind of course that is eligible for CE credits, you must send it to HQ to be accounted for.

For the Surveyor Associates that I have reviewed their reports and have made my comments, please feel free to call me so we can discuss what could be changed to bring your report up to the RSRC, which is what I guide myself on.

Also, everyone got an email for articles to put in the Newsletter, and with the feedback, so far the articles are most interesting and have made the Newsletter much better, so if you have an article you would like to share, and gain CE credits to boot, send your articles to Stu McLea, AMS®. He would be more than happy to review them.

Have a great season and hope to see you at an IMEC or Regional meeting.



**John McDonough, AMS<sup>®</sup>**  
**North East Regional Director**



**Hello fellow members**

Winter is quickly receding here in New Hampshire, and the snow tires will be coming off any weekend now. It's been a very busy start of the year, in fact it never really slowed. Fortunately, inside storage is becoming the norm in this area, which has allowed for year-round work. All of the boatyards I visit had a good winter workload without exception. Only one major storm brought claims work this year to my area which was untypical, as we were mainly spared of significant snowfall. The NE Region had a well attended seminar in February at the Herreshoff Museum in Bristol, Rhode Island. The museum is closed this time of year, however Mr. Fred Bieberbach, AMS<sup>®</sup> from Riverside, Rhode Island was able to pull some strings and have the museum opened, and all to ourselves. One of the curators took time to come in on his day off and give us a tour of the model room which was a real highlight. If you have never been to the museum you owe it to yourself, to make the time. The folks at Bristol Boat Company, literally across the street, were gracious with their time, and allowed us to mill about in their shop, which smelled wonderfully of turpentine. It felt like stepping back in time to see the old boats and buildings. On the opposite end of the spectrum Paul Grimes, AMS<sup>®</sup> discussed composite construction, and Cay Electronics brought us up to speed on Lithium batteries. Ryan Miller from Latitude Yacht Sales was treated respectfully and had a good round table discussion with us. During our business meeting, I encouraged the members to contact me directly if they have a venue in mind for an upcoming seminar. No one knows your area better than you, so if you feel like you could put together an interesting tour or group of speakers, please reach out. My thought was that instead of doing one or two multi day events, it would be easier on everyone's busy schedules to do multiple one day events. The Bristol, Rhode Island seminar was the model for that approach which worked out very well. At the end of this month, March 24<sup>th</sup> thru the 26<sup>th</sup>, the Maine Boat Builders Show will take place at the Portland Sports Complex on Warren Avenue. SAMS<sup>®</sup> has been invited to share a booth with NAMS, which I spoke about briefly during our business meeting. Several of you have contacted me offering your time which is greatly appreciated. Once the details are finalized, you can expect an e-mail from SAMS<sup>®</sup> HQ. Be safe out there and have a productive spring.





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

**The Inland Rules of the Road Rule 9  
*Narrow Channels Rule* as It Applies to  
Recreational Vessels: What is a Narrow Channel?**

CAPT Joseph A. Derie, NAMS-CMS; SAMS®/AMS®; CMI  
Chair, Commercial Workboat Committee  
Southwest Passage Marine Surveys, LLC

Rule 9 in the Inland Rules of the Road (NAVRULES) is the Narrow Channels Rule which states:

“A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.” (§ 83.09 (a) (i).)

The words “narrow channel” is mentioned six times in Inland Rule 9. The most significant instance is in (§ 83.09 (a) (i)(ii): “a power-driven vessel operating in narrow channels or fairways on the Great Lakes, Western Rivers, or waters specified by the Secretary, and proceeding downbound with a following current shall have the right-of-way over an upbound vessel, shall propose the manner and place of passage, and shall initiate the maneuvering signals prescribed by Rule 34(a)(i) (§ 83.34(a)(i)), as appropriate. The vessel proceeding upbound against the current shall hold as necessary to permit safe passing.” This is the only place in the NAVRULES, other than Rule 14 (d) *Head on Situation*, that the term “right of way” indicating the legal right vessel of a vessel to proceed with precedence over vessels in a particular situation or place. This differs significantly from the normal “give-way” and “stand-on” requirements in the NAVRULES (Rules 16 and 17).

In sub-paragraphs (b) – (e) and (g) of Rule 9 “narrow channel” is used four times basically stating that vessels “shall not impede the passage of any other vessel navigating within a narrow channel or fairway.” Lastly it is used in sub-paragraph (f) which states “A vessel nearing a bend or an area of a narrow channel or fairway where other vessels may be obscured by an intervening obstruction shall navigate with particular alertness and caution and shall sound the appropriate signal prescribed in Rule 34(e) (§ 83.34(e)).”

“Narrow channel” is next mentioned in Rule 30 *Lights and Shapes*, § 83.30 (e) *Vessels anchored, aground and moored barges*, which states: “A vessel of less than 7 meters in length, when at anchor, not in or near a narrow channel, fairway, anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shape prescribed in paragraphs (a) and (b) of this Rule.” (The lights and shapes referred to are the anchor light and anchor ball.) Again the purpose here is that an anchored vessel must not impede navigation in a narrow channel.

What is missing in either Inland Rule 9 or Inland Rule 30 is a definition of “narrow channel.” Certainly, a narrow channel for two ocean-going vessels or two tugboats pushing barges would be different from a narrow channel for recreational vessels. Indeed, the definition for a narrow channel would appear to be different depending on the recreational vessels involved, i.e., two houseboats, two small boats, a small boat and a PWC, or two PWCs.

The authoritative *Farwell’s Rules of the Nautical Road* (7th ed., 2005) devotes Chapter 9 “Responsibilities in Narrow Channels and Fairways.” to Rule 9, covering both the International and Inland Rule 9. The discussions and the examples in this chapter are focused on commercial vessels and not on recreational vessels. However, *Farwell’s* does state: “Mariners must in the first instance determine whether a particular waterway is a narrow channel controlled by Rule 9, ... while understanding that the operators on other vessels and, if the need arises, the courts might disagree.” This would obviously appear to apply to recreational, as well as large commercial vessels.

With regards to narrow channels, in 1982 the National Transportation Safety Board (NTSB) recommended that the US Coast Guard publish “a set of interpretive rulings on the subject.” To date no such document has been published, but the USCG does say this at: [www.navcen.uscg.gov/mwv/navrules/navrules\\_faq.htm](http://www.navcen.uscg.gov/mwv/navrules/navrules_faq.htm)

Q. Who specifies whether a waterway is a Narrow Channel and therefore Rule 9 is applicable?

Ans. A waterway is deemed a narrow channel by the practical and traditional uses of that waterway (usually a court determination) or it can be specified by the Secretary in Title 33 CFR part 89.25.”

If the investigator thinks the narrow channel rule applies to a marine accident involving two recreational vessels and the channel has not previously been determined to be a narrow channel for recreational vessels, it is up to the investigator to prove that the area of the waterway in question is indeed a narrow channel for the recreational vessels involved.

To do this the following guidance should be used.

#### 1. Channel Characteristics:

- Width of the channel – at the location of the accident as well as approaching the area of accident.
- Depth of the channel - at the location of the accident as well as approaching the area of accident.
- Bathymetry of the channel –winding, straight, islands, sandbanks, wrecks, deadheads, shoals.
- Characteristics of the shoreline.
- Aids to navigation - buoys, day markers, waterway markers.
- Aerial view of the waterway. This can be done using a drone. A chart or map (if available) is an important tool in this effort and should be used, but a drone will give more up to date information.

#### 2. Characteristics of vessels using the channel:

- Normal traffic and activity on the waterway
- Length, breadth, and draft of vessels involved.
- Maneuverability of vessels involved – speed, loading, sailboat under sail only?
- Activity of vessels involved – upbound, downbound, pulling a water skier or wakeboarder, trolling?



- Navigation equipment of vessels involved - paper charts, electronic charts, radar (in use?), fathometer, etc.

- Lighting - if required at time of accident.

3. Site visit with two vessels similar to the two vessels involved ,as well as similar water conditions and depth of water.

4. Other factors:

- Local custom.

- Proximity of marinas, docks, piers, breakwaters or other waterfront facilities.

- Construction.

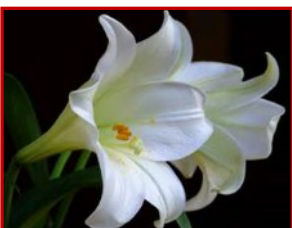
- Weather.

- Sea state.

Utilizing the above factors, the investigator should be able to provide a report that will prove or disprove that the waterway in question is a narrow channel for the recreational vessels involved. It should be noted, that when undertaking a site visit and attempting to recreate the circumstances of the accident, it is important that the Scientific Method be used and that the circumstances be replicated as closely as possible. This includes type of vessels, loading, time of day, waterway conditions, etc. Variations from this can be a reason for the other side to question the validity of the test, and prohibit the results from being admitted in court.

Editor's Comment:

Captain Joe Derie, AMS® is a retired USCG officer and a licensed officer of the merchant marine. A Certified Marine Investigator, he has been admitted as an expert in marine accident investigation and reconstruction in state and federal courts. He has investigated marine accidents involving vessels from PWCs to 800' container ships. For several years he taught the basic and advanced marine accident investigation and reconstruction courses for boating safety officers for the State of California. He has been an instructor in the Rules of the Road at a maritime academy and has published a number of peer reviewed articles on various aspects of the Rules of the Road.



While we fondly remember the departed.....

**Anthony V. Somma, AMS®**

**2/13/2017**

**Parlin, New Jersey**



# The Modified Proctor and Fagerberg Test

A Boon or a Bane?

An Independent Surveyor's Perspective

by Ruchin Dayal, AMS®



*New Research by leading  
scientists and doctors, spanning  
over a decade, suggests that  
cholesterol levels up to 300  
units will not harm your heart*



“New Research by leading scientists and doctors, spanning over a decade, suggests that cholesterol levels up to 300 units will not harm your heart.” How would you react if you read this in a medical journal tomorrow? What would you choose to do from the options below?

1. Jump with joy and start bingeing on steaks, ice-creams and burgers, and stop all forms of exercise.
2. Discontinue any and all medications which you may have been taking for cholesterol control.
3. Refuse to accept the new findings.
4. Be cautious in your approach, and plan a subtle and systematic change in lifestyle, if at all required.

Personally speaking, I am not sure what I would do. But I know what I wouldn't — I wouldn't go with options 1, 2 or 3!

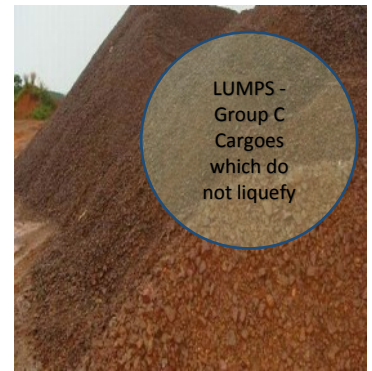
While some of you may find the analogy annoying, the advent of the modified Proctor and Fagerberg test in the context of the present International Maritime Solid Bulk Cargoes (IMSBC) Code and its amendments brings us a similar challenge.

The modified Proctor and Fagerberg test results in significantly higher values of the Transportable Moisture Limit (TML) when compared with the existing methods in the IMSBC Code. While the test has been accepted by the IMO and has the backing of apparent sound research and adequate vetting, its advent has evoked a mixed reaction from the industry; so much so that some prominent experts believe that it is a conspiracy by major states to suit their iron ore export, and that the test will eventually undermine the safety of ships and seafarers. But what is the truth? What should we believe? An umpire cannot change rules!

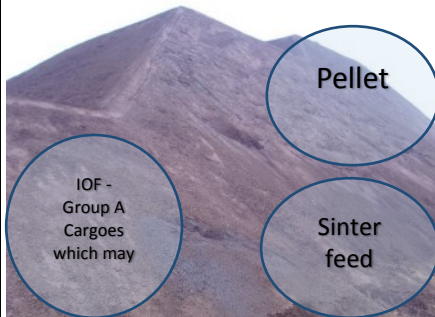
This is not an easy subject by any means, and to truly try and appreciate the predicament the industry is faced with, one will have to dig a little into the background of the iron ore trade, the development of the code and a brief understanding of the test methods.

## ***Background: The Business of Iron Ore***

While iron ore has been carried by ships for many years, the development of the twenty-first-century sintering technology in the making of steel has facilitated the use of iron ore fines, which used to be previously considered as a waste product in the production of iron ore. Iron ore is considered to be largely comprised of lumpy material resembling small rocks or stones of 10–25 mm, while iron ore fines are made up of powdery material below 10 mm in size. Iron ore fines may be produced using various beneficiation processes which may include sieving the natural ores



into various sizes; iron ore fines cargoes belong to Group A in the IMSBC Code. Group A cargoes are defined as those which are liable to liquefy if shipped at a moisture content in excess of their TML, i.e. their Transportable Moisture Limit. Iron ore (lumpy material as described earlier) is a Group C cargo — not liable to be liquefied. Close to 1000 million MT of iron ore fines are transported on ships each year, the bulk from Brazil and Australia to China.



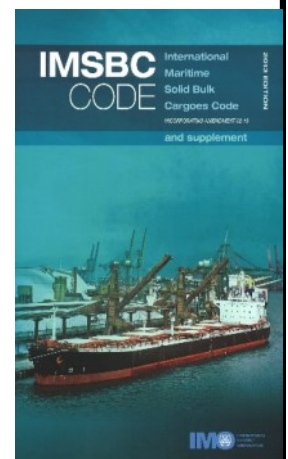
The International Maritime Solid Bulk Cargo Code (IMSBC Code) governs the carriage of solid bulk cargo (except grain) and is mandatory under the SOLAS convention

## **The Development of the IMSC Code**

The mandatory IMSBC Code replaced the recommendatory BC Code on 1 January 2011. The code was, in fact, adopted by the IMO in December 2008 and it was ironic that a spate of casualties due to liquefaction took place during this in-between period (2008–2011), the Asian Forest in 2009 and the Nasco Diamond in 2010 amongst others. What subsequently followed can be termed as chaos. Shippers, unable to understand their obligations under the code, coupled with commercial pressure and complete ignorance about the risks of liquefaction, refused to believe in the code, resulting in mandatory and critical information being treated as cumbersome paper exercise, and owners, albeit guided by clubs and associated surveyors, were left confronting shippers who would not co-operate and more often than not, got away because of the prevailing market conditions (such high demand for ore — seller's market).

## **The Review**

While understanding the IMSBC Code and its implementation was being accepted as a major challenge, the procedures themselves were under review; it was way back in 2011 that Brazil proposed a formation of a working group to deepen the study of the inadequacy of the test methods in the code, basing it on an earlier study by the IMO in 2001; reference is made to DSC 16/4/75 (July 2011) & DSC 6/5/3 (April 2001). Hence, while, during the years between 2008 and 2013 when shippers, owners, surveyors and laboratories were finding an equilibrium to operate at sufficiently controlled and comfortable environments,





there was new research underway, which culminated in DSC.1/Circ.71 (November 2013), which made amendments 3/2015 in June 2015 by way of Resolution MSC.393(95). The most important feature of these amendments was the introduction of the new schedule for iron ore fines and the complementing modified Proctor and Fagerberg test (MPFT).

## The Testing Methods

Iron ore fines are tested for their moisture content and transportable moisture limit: While determination of the Moisture Content is fairly straightforward and governed by national and international standards, the determination of the Transportable Moisture Limit is guided by the methods in the IMSBC Code, Appendix 2; it may be relevant to be noted that the Appendix 2 of the code is “recommendatory” only. The Moisture Content (MC) requires to be less than the Transportable Moisture Limit (TML) for the cargo to be compliant with the code for sea carriage.

Essentially, until the advent of this new test, there existed three methods for the determination of the Flow Moisture Point (FMP)/TML; *The flow moisture point may be defined as the maximum water content, expressed as a percentage, at which a sample of cargo will begin to lose shear strength. Cargoes with moisture content beyond flow moisture point may be liable to liquefy.*  $TML = 0.9 \times FMP$ : (90% of the FMP).

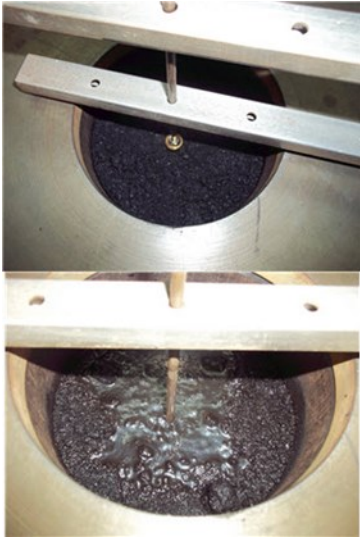
### 1. The Flow Table Test (FTT)

Adopted in the 1980s, this has been a standard test for decades for the determination of the flow moisture point of concentrate fine materials. It is applicable for minerals with a maximum particle top size of 1mm and can possibly be used for a maximum size of up to 7 mm. The sample is compacted into a mould and placed on a horizontal plate, which is connected to a supporting table, mounted in a concrete base built to standard. Once the mould is removed, the sample and its supporting table are rotated and dropped repeatedly. The plate is dropped from a height of 12.5 mm at a rate of 25 drops per minute for two minutes. The test revolves around imparting physical energy into the sample similar to what is experienced inside the ships holds. The behaviour of the sample is observed to distinguish between crumbling and plastic deformation. The water content at which the sample exhibits plastic deformation is deemed the FMP.



While the FTT is a relatively simple test requiring little interpretation of test data, the critical aspect is the reliable identification of a flow state in the test sample. As this is being done visually, the result becomes heavily dependent on the skill and judgement of the chemist performing the test.

## 2. The Penetration Table Test (PTT)



Adopted in the 1990s, this method was developed as an alternative to the flow table test (FTT), which could reduce dependence on individual chemist skills and accommodate a larger particle size up to 25 mm.

The PT is based on the principle that there is a direct relationship between loss of shear strength by cyclic vibration and liquefaction. The test is performed by placing a sample in a cylindrical container, tamped as per the FTT method and then subjected to cyclic vibrations of  $2G \pm 10\%$  on a vibrating table. The sinking of a weight by more than 50 mm, in the form of a penetration bit, placed on top of the sample is considered as an indication of the loss of shear strength by the sample. The moisture content of the sample at this point is determined to be the

FMP. The TML is then calculated as 90% of the FMP.

While the construction of the penetration test table may appear to be complicated, the test itself is simple and relatively objective when compared to the FTT.

## 3. The Proctor and Fagerberg Test (PFT)



The PFT is a dynamic compaction laboratory test method, based on the principle of reproducing dry bulk densities, as experienced in the ships holds by inducing compaction energy using a compaction tool. The dry bulk density is then co-related to the corresponding void ratio and the moisture content — the TML — is considered to be the moisture content at 70% saturation.

The test uses extremely simple equipments and is easy to perform; however, the compaction curves are required to be plotted using standard calculation methods and the results are heavily dependent on the accurate determination of specific gravity. The results are objective and consistent.

*The eDOT Marine Laboratory in Goa has tested over 100 different samples of Indian iron ore fines — each by all above methods, in addition to the modified P&F test. While the results for the prevailing three methods, described above, were found to be consistent and almost nearly equal, the modified Proctor & Fagerberg Test always resulted in higher TML values by nearly 2–3%.*

#### 4. Rhetorical Introspection

Between 2008, when the mandatory IMSBC Code was adopted, and now the new schedule for iron ore fines is set to become mandatory on 1 January 2017:

Did ships run into problems due to liquefaction?

YES

Was the ore tested and certified prior to being loaded on to ships which ran into problems of liquefaction?

YES

Is the IMSBC Code being understood properly by the people concerned (shippers, masters, surveyors, competent authorities, etc)?

?

Are the IOF-testing laboratories competent and completely unprejudiced, especially in the subcontinent and the Far East?

?

Is there a drop in the movement of ore because of the procedures mandated by the code.

NO

What is the biggest challenge in respect to the IMSBC Code?

Effective implementation & integrity of testing?

Hence, how will lowering the bar or diluting the set standards (effectively, that's what is apparent to a layman) of determining the TML help enhance safety? Quite clearly, it will not — but by adopting and mandating the new schedule as well as the modified Proctor and Fagerberg Test, IOF export speed breakers will certainly ease up; in fact, much of the ore in question will suddenly be categorized as a Group C cargo in the IMSBC Code — not liable to liquefy — will not warrant a TML certificate.

Now the question is:

***“Is the new schedule and test procedure for IOF going to compromise the safety of ships and seafarers in any way?”***

#### ***Some deliberations — limitations of the existing methods***

While at first, it may seem to be a clear case of the shippers and exporting community around the world having had their way, it may be worthwhile to try and negotiate a clear and an unbiased and objective perspective on the same — and then go on further to explore ways and means to effectively use the new information properly.

***To start with, why was it necessary to develop a new test?*** The research and subsequent development of the new IOF schedule as well as the new test was the initiative of major exporters from Brazil and Australia, who really make up the bulk of the iron ore export market in the world. The existing Flow Table Test (FTT), Penetration Table Test (PTT) and the Proctor and Fagerberg Test (PFT) were analysed in a controlled, systematic and transparent environment and found to be inadequate and inconsistent for the testing of IOF cargoes;





while the FTT was determined to be subjective and restricted the particle size to 7 mm, the input vibrational energy in PTT was found to have little connection with the actual experienced conditions inside a ship's hold. The PFT was considered as the most consistent test of the lot albeit having a size restriction of 5 mm; furthermore, the input energy using a 350 gm hammer was determined to be excessive when compared to actual hold conditions.

Having established that the PFT was most consistent and objective of the existing methods, extensive tests were conducted to suitably modify the same.

### *The development of the new test*

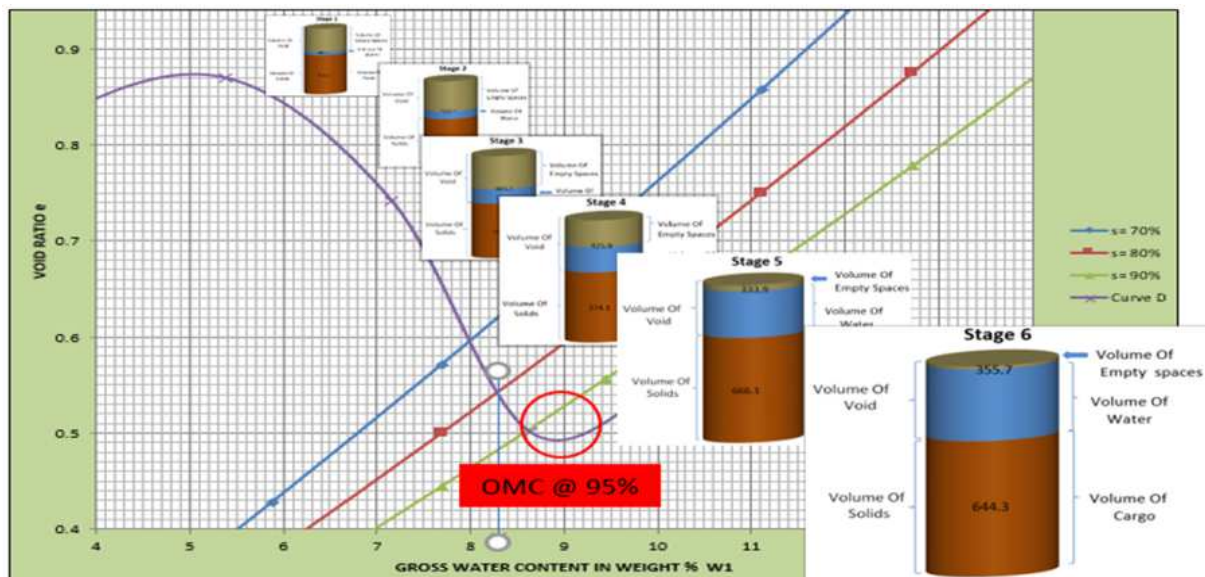
Without going too deep into the technical details, the broad principles on which the research conducted, in modifying the PFT included the following principles:

Bulk density of Iron Ore Fines (IOF) increases when loaded into the ships holds; initially by the loading process, where the material is dropped from significant heights into the holds (20–25 mtrs) and then by the particle re-distribution within the material itself, because of the multiple vibrations & motions experienced within the hold during the voyage.

Quite simply, 
$$\text{Bulk Density} = \frac{\text{Mass}}{\text{Volume}}$$
 and while Mass remains constant, the volume reduces due to compaction during the loading and the subsequent voyage resulting in the effective increase in the density.

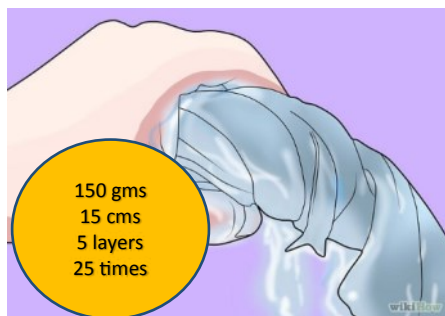
The tamping pressure applied during the testing process must result in densities representative of the actual experienced bulk density inside the ship's holds; a modified PFT hammer weighing 150 gms with a drop height of 15 cm is best suited for the purpose.

The Optimum Moisture of Compaction (OMC) for IOF is 90–95% of saturation when compared with that of mineral concentrates which have their OMC at about 75%. In simple terms, the OMC may be defined as the maximum moisture a cargo may be able to hold beyond which it may become susceptible to liquefaction; by saying that the OMC of IOF occurs at 90-95% of saturation, it is simply meant that the void spaces at maximum compaction or at maximum dry density may be filled up to 90-95% with water with no loss of shear strength of the cargo.



The series of compaction tests, like in the existing PFT, remain unchanged while the TML is determined by first graphically reproducing the relationship between the void ratio and the water content, and then using the intersection of the curve and the 80% line of saturation for calculations; hence keeping a 10–15% margin from the OMC.

To surmise, the compacting force used in the existing PFT has been reduced to match existing hold densities ascertained by modern techniques like using sophisticated scanners, cameras and other equipment's in the holds — from load-port until discharge, which measure the change in the volume of the cargo inside the holds extremely accurately. It has been determined by a series of compaction tests, that the OMC for IOF occurs at about 90-95%, which leaves a 10-15% margin of safety when using the intersection of the 80% saturation line with the compaction curve as the TML.



*In an absolutely non-technical and primitive manner, the above may be compared to a sponge which can hold more water if squeezed with less force.*

Furthermore, it was determined through a series of cyclic triaxial tests that IOF with a Goethite content of 35% or more were not liable to liquefy — but this is a topic on its own and will be handled in a separate article. For now, it is relevant to note that testing for Goethite is not available commercially in India and many other nations exporting IOF and while the testing standards for this are developed and may mature with time, masters, surveyors, clubs and owners must insist on testing for TML if the consignment complies with the following criteria set down, in respect of the size in the new schedule for iron ore fines:

*10% or more of fine particles less than 1 mm and 50% or more of particles less than 10 mm.*

The research and development which went into the making of the above amendments spanned over half a decade with every technical aspect being vetted and reviewed by Japanese experts, The Imperial College London, P&I Clubs and non-governmental organizations like BIMCO and INTERCARGO. Furthermore, these were deliberated at length by states and stakeholders at every session of the DSC/CCC at the IMO between 2010 and 2015.

### ***Inferences***

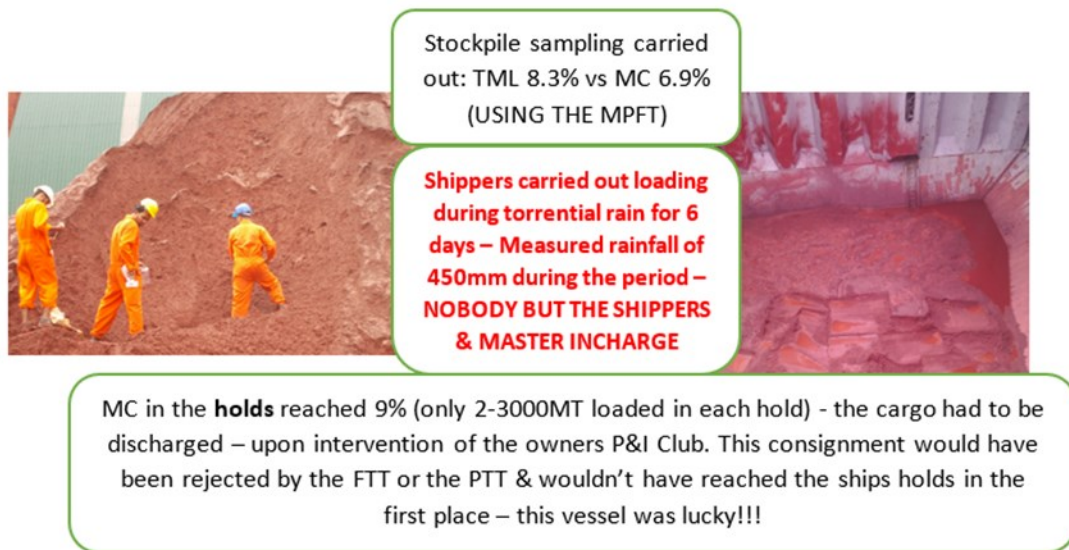
Now, with the background work having been looked at, are we ready for answers to the original question: How should we adopt this new schedule of IOF including the modified Proctor and Fagerberg Test? Like the existing set of methods in the code (FTT, PTT, PFT), this has also gone through a systematic and controlled development process as mandated by the IMO, vetted by experts, tested by exporters in Brazil and Australia, where it's already being used via exemptions granted by their respective maritime authorities and already forms the text of the IMSBC Code as amendment 3/2015. But how do we adopt it properly? And will it help at all, especially in the Subcontinent?

I firmly believe that it is not the law, but the implementation which is the problem in India, and most other places in the world. Making new laws must take into account the context in capacity, capability and the environment for their implementation.

The following are my concerns followed by suggestions, especially in the Indian context:

### Accountability and Responsibility of Shippers

*This always was and remains the biggest challenge* — not just in India but all around the world. How to educate the shippers on their obligations under the code? How to make them accountable beyond just the Charter Party dimension (demurrage & expenses)? While this is a topic for another day and another article, consider this example in a nutshell — a stockpile is sampled and certified by an approved marine lab, the shipper's declaration along with the required TML certificate is presented to the master.



Six days later, after loading 15000MT:

Master/owners appoint their own surveyors, who find that the cargo loaded does not comply with the provisions of the code (MC>TML). This is a frequent occurrence — shippers have just not loaded the certified stockpiles, or have handled the same incessant rain or have had a beneficiation process on the cargo prior to loading. Invariably, the situation leads to a commercial dispute. The Master is blamed for not exercising due diligence, the laboratory is blamed for issuing a “wrong” certificate but nothing really significant happens to the shippers, who are getting ready for their next shipment!

The use of the modified PFT is going to make matters worse — like in the picture above, the margin which was working in absorbing the callous attitude of many shippers will be marginalized.

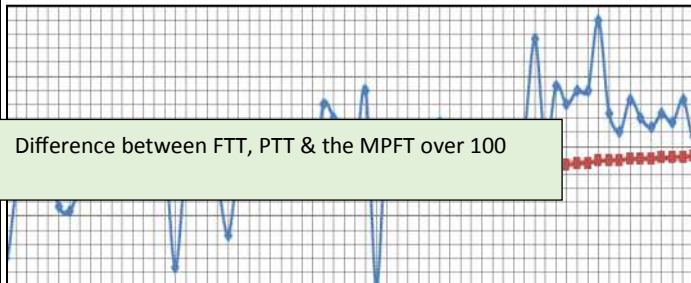
Appointment of owner's surveyors, vetted by IG Clubs, on the primary shipper's time and costs, as a CP clause without which the P&I cover is prejudiced may help, but may be expecting too much too soon!



## The competence, capability & integrity of laboratories

Research and Development in the making of the modified PFT has been carried out on Brazilian & Australian ores. While the Brazilian ores are permeable, the Australian ores are relatively porous with high Goethite content. The Indian ores differ in nature with the grade and the coastline. The high grade cargoes on the east coast are relatively permeable when compared to the low grade Goan cargoes, which tend to hold a lot more water. The eDOT Lab, having carried out exhaustive tests on all types of Indian cargoes, has established that the modified PFT will result in higher TML values of between 1.5 and 3%, subject to the actual disposition of the consignment. Considering that the IMSBC Code is in existence for nearly a decade, the competence of the marine laboratories is not at expected levels; a majority of the labs are happy with the flow table test and use the same irrespective of the particle size of the consignment. This opens up the challenge for validation of the new test; laboratories are expected to have sufficient data on various cargoes, tested by alternate methods to validate the results obtained by the modified PFT. With the new schedule for IOF clearly defining the criteria in respect to the particle size, it becomes imperative that laboratories which may be authorized to carry out the new test, are equipped to carry out the PTT in addition to the FTT (so that consignments with nominal size up to 25mm can be tested and results obtained by the modified PFT may be validated properly).

Furthermore, the integrity of the laboratories will always be in question when their very existence is based on the business of quality-testing for Fe-content for the shippers. The marine laboratories have to be defined as a separate



category with strict parameters for manning and other relevant standards; cannot be mixed up with any testing which may form the basis of a commercial contract.

### Conclusion (if it is possible to have one)

While the test makes an entry into the code and becomes mandatory on 1 January 2017, it is the prerogative of individual states to establish compliance with the code, in their existing context. The existing methods in the code have very valuable intangible benefits for the maritime and export industry in its present predicament; they present largely uncontrolled environments of sampling, testing and export, and discrepancies arising thereof, are absorbed in greater margins of safety in the prevailing methods. It may be noted that awareness of this greater margin has only been evident after the advent of the modified PFT test; This notwithstanding, ships and lives continue to be lost due to liquefaction — quite clearly, the issue is of compliance and while a lot of work has been put-in in this regard, there is more to be done — especially so, in the sampling techniques and the qualification and integrity of surveyors and their representatives.

The present environment in the Subcontinent, like in many places around the world, demands that the introduction of the modified Proctor and Fagerberg Test is handled with extreme caution; stringent measures be introduced for its validation and the competency standards for laboratories be raised suitably to appreciate the background and the limitations of the test procedure.

The understanding of the IMSBC Code within the shipper and surveyor's community is far more demanding, and a pressing need of the hour.

Effective implementation of the IMSBC Code can only be possible through a controlled process; rapidly easing up procedures for export, cannot be made an argument for bringing in the modified Proctor and Fagerberg Test for use.

Hence, technology is welcome but its use is limited in the existing context, if the foundation leading to the development of the same is weak. My advice: **Do not use the method unless you have a transparent system of validation.**

Written in good faith, with the sole objective of contributing to the Maritime and Safety Culture in India and around the world. Contrary or complementing points of view are welcome; please reach me at [ruchin@edot-solutions.com](mailto:ruchin@edot-solutions.com)



# THE BINNACLE LIST

By

Robert J. Dupuis, AMS®

(Definition: sick list posted at or near the binnacle for the use of the officer of the deck.)

**Maybe I can help you see what your looking at, or look at what your seeing?**

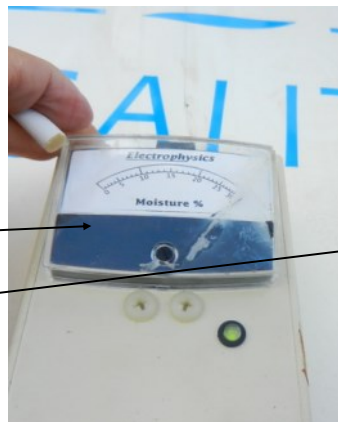
## Hull and Deck. It's the first thing you see!

Remember the first time you looked at a centerfold, that's the approach you have to use? Uh-oh, my wife just got really pissed, from reading that sentence. So, for the ladies, remember the first time you saw your girlfriend's new boyfriend? Same thing, you look at every line and curve, like a centerfold (boyfriend), from every angle. You're looking for marks, scars and tattoos. Looking for anything "out of the ordinary". If you see something that does not fit with the rest of the body, it's probably a repair or something that needs a repair. On a boat, when it's a really good repair, you won't see it. It's like an "airbrush" or "Photoshop" touchup, no freckles or moles. Now, remember where that spot is at...for later.

Most common sight of probable hull repair, is a scar from a bump against something hard, or a rust stain from a stainless steel fastener. The "scar" is more often, just left alone. It's a freckle that gives her/him character. In my report, I would say, "clean and wax the hull". If it's too deep and shows fiberglass, that's gotta be covered. Fiberglass deteriorates in UV light, or worse, water will get behind the gelcoat or paint. It will enlarge that "scar", maybe start to delaminate the glass, and now cost more to fix. That "rust stain" can mean that the stainless steel fastener, that needs oxygen to activate its protection, is corroding. That fastener needs to be checked and sealed in its hole. Sometimes, you will try to back that fastener out and it snaps off. Better now than at sea, especially when it's holding something important; like, a head stay or stanchion! What the rust stain tells you, is that salt water got in. The oxygen molecules dissipated and what we're left with is nitrogen and sodium molecules and the sodium has attacked that nice stainless steel fastener. Technical huh? As for that "out of the ordinary", you noted looking at the curves when we started; that one you need to look at from both the outside and inside, tap it with a hammer and maybe use a moisture meter. Tap all around that "blemish", then tap it dead center. If they all sound alike it's probably a good repair internally, but somebody rushed that "makeup job".

This shows a crack in the gel-coat on the hull running all the way down.

This shows it is also a wet crack. Looks terrible! Just rust from the anchor chain.

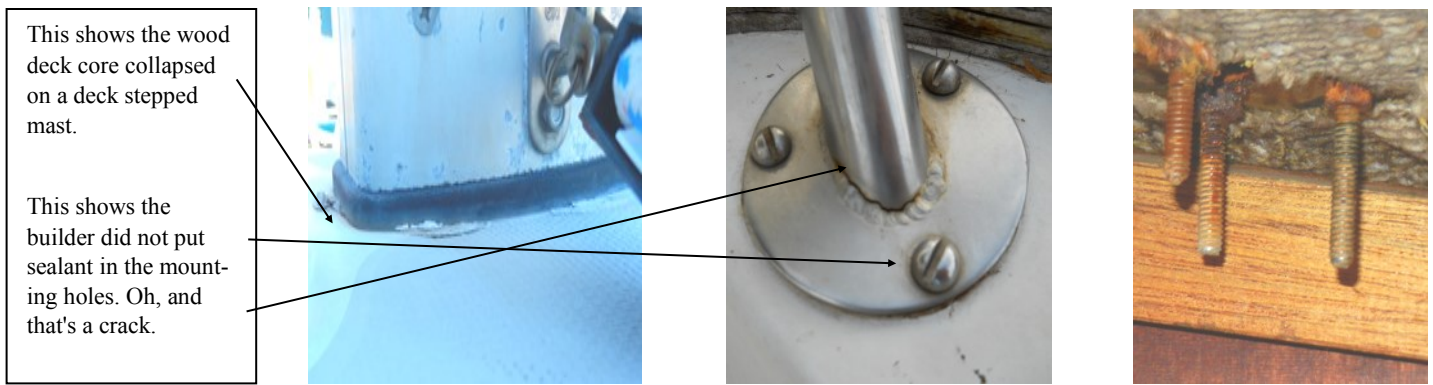




## DECK:

Now this you have to look at, as if it's the woman, (or for the ladies the man), you met at a bar, but now, you're out in the daylight. Does it have lots of wear and tear? That brings the price down. Look like it was put away wet? That could be good or it could be bad. Does everything "kinda fit" together or does it look disorganized or neglected? Disorganized can be fixed, people arrange their boats for their own needs. Neglected, means you will have more work to do. I believe in first impressions. What's your gut reaction? Yeah, this could work or Hmmm, let me see some more?

Most common sight for probable deck repairs, again, deck fasteners that show no sealant. Almost 100% of boat deck construction at boat builders is a molded "fiberglass sandwich". A few layers of fiberglass, wood of some type, and another few layers of fiberglass. You put a screw into that "wood sandwich" without sealant and the water runs down the threads and turns the wood to wet cardboard. Some boats end up with deck sections that are like trampolines. Some have deck stepped masts that you can crank the rigging turnbuckles down and the wire is still loose. Somewhere the deck mounted tackle gets pulled out at the very worse time. So, in my report, I ask you to do the "diligence" and check the screw! As for it being put away wet, rinsing that boat with fresh water from the dock hose, is the very best thing you can do after you use a boat, it gets rid of the salt.



These are some of the things that a surveyor "stumbles" on in the first few minutes. Nothing big right! Unless the boat is 15, 20 or 30 years old, then maybe the hull has to be stripped in that area, fiberglass repaired, and a \$20,000 hull paint job. Or maybe 35% of the deck core is rotten and has to be replaced, and everything below those screws has been wet for years..

This small hull and deck tutorial is to help you understand what you are seeing, and just some basics. We can get real technical when these problems get real complicated. The Naval Architect that designed the boat did all the math for loads, stress, etc. The boat builder, we hope, followed the plans. The surveyor's job is to see if all was done correctly and has held up. Tell them what you did, and what needs to be fixed. As for my initial analogies regarding women...our last boat we owned for 15 years, and sailed it near 30,000 miles; her name was "Mistress", it took all my time and all my money. It was the only mistress my wife said, "I could have".

## THE INSURANCE SURVEY:

Benefits of a Professional Surveyor's Advice in Potentially Saving a Boat, Protecting the Owner's Assets and Ensuring Safety of Friends and Family while Onboard

By

**John B. Wenz, AMS®**

Experienced boat owners are savvy to the many reasons that a pre-purchase survey is considered a necessity. But, there's another scenario where the findings of a marine surveyor can be tremendously useful, and even life-saving, and that's when an insurance company requests an updated marine survey.

In my own professional marine survey practice, I would receive inquiries, often in the spring, from boat owners who were asked to provide a current survey report as a condition for policy renewal. Although, a boat owner may initially be concerned that a surveyor will find problems that could cost money to address, the true purpose of an insurance company survey is to ensure the ongoing, safe condition of the vessel and safety of those onboard, and to prevent a loss *before* one occurs.

Let's take a quick look at three reasons why an insurance company survey benefits a boat owner:

**Identifying Maintenance Issues:** It's no secret that boats and their equipment seem to get more complicated with every new season. Aside from increasingly sophisticated engines and electronics, boat owners have grown to expect all the comforts of home. And, boats exist in a world that isn't the friendliest to electricity, machinery, and personal possessions. Equipment wears out and breaks down in a marine environment. Statistics show that more than two-thirds of boat sinkings are preventable, with more than one-half of those due to maintenance-related causes. For a variety of reasons, potential problems can go unseen or neglected or deferred, even with some of the most basic systems and components on a boat. For example, during one survey, I once found a "dripless" stuffing box with a significant leak that could potentially have led to a loss, if unaddressed. The boat owner mistakenly thought the stuffing box was "maintenance-free."

**Complying with Current Standards:** A marine surveyor's role is to inspect your boat with respect to the rules and standards created by the American Boat and Yacht Council, the National Fire Protection Association, and the Code of Federal Regulations in regard to recreational boating. A proper survey report will reference those standards, and make recommendations for compliance. Now here's the tricky part: standards change as the boating industry learns from experience. What might have been considered "safe" when your boat was built, may now be considered hazardous, as a result of accidents or failures. The standard for safe grounding of inverters, for instance, has changed significantly since these devices first became available. Older installations might represent a serious electrical hazard, and the details are not apparent to the untrained eye. This is not meant to say that your insurance company will require you to bring your boat up to comply with every change, but safety hazards should be identified so they can be eliminated or minimized, wherever practical.

**Second Set of Expert Eyes:** Many boat owners are “hands-on” people, and they do an acceptable job of “yacht husbandry”; seeing to the cosmetic and the mechanical needs of their prized possession. But, as a long-time yacht captain of a number of “gold-platers”, I can tell you that before I would leave the yard in the spring, I would often go through my boat together with the service manager or yard owner, to ensure nothing was overlooked. It is the smart and prudent thing to do. Keep in mind that marine surveyors are on and off all kinds of boats every day. So they know what to look for, what fails, and what might be hidden, even though the particular equipment or component may look right. Detecting corrosion is a great example of this situation. There are very subtle, telltale signs of stray current or galvanic corrosion that are not readily apparent if you don’t know where to look or what to look for in particular. A corroded through-hull fitting that fails, could result in a disastrous loss without any notice. Since the marine surveyor’s job is to “observe, report, and recommend”, the boat owner will come away with a report that includes a list of the surveyor’s specific recommendations. Based on this report, the insurance company underwriter will determine which of the recommendations are going to be necessary to maintain coverage. Any required recommendations will help ensure that your vessel remains ship shape. We can all agree that preventing a loss before one occurs is in everyone’s best interest, from both a safety and financial perspective. Boat owners don’t want to see their prized boat or yacht damaged, or worse, and certainly no one wants to see someone injured. In general, fewer claims also help to keep insurance premiums affordable for all boaters. Take it from me: We surveyors care about protecting the lives and assets of the customers. That’s why many of us are in this part of the business. We love boats, boating, and the many friends we have in the boating community.

**Author’s Note:** *Two years ago I received a request from Windcheck Magazine to submit an article on Marine Surveying. Rather than re-hashing the same stuff we see over and over again, I decided to use the typical experience I had before I joined ACE, which is now Chubb. We’ve all been there....*

*You get a call from a prospective client. He or she is a little nervous to have to call you and says something like “My insurance guy says I need a new survey. What do you charge?” And after a suitable discussion about more important issues, and if the prospective client is agreeable to your fee, the next thing he says is “I’ll let you know when the boat is ready,” as if he has stuff to hide....*

*In response, I would first assure the prospect that I was not “THE BOAT POLICE.” I would go on to say that “I’m not OUT TO GET YOU for VIOLATIONS.” I would remind him or her that “I work for you.” And, I’d go on to suggest that, “instead of assuming that I’m going to cost you a lot of money, raise your premium, or cancel your policy, why don’t you look at me, as someone who can point out some potential hazards, protect your asset, and actually save you some money. More important, I might just point out something that can prevent a serious injury to you, one of your family, or a guest.”*

*I put the first draft of the article together, and I ran it by the PR and Legal people at ACE. I guess my tone was a little too harsh, so they made me change my approach. Anyway, here’s the final result. If you like it, feel free to pass it on to clients, or put it on your website. Please just provide the appropriate acknowledgments so nobody gets excited. This appeared in Windcheck magazine in May of 2015:*

## Lead Keel vs Cast Iron Keel

By Travis L. Palmer, SAMS® Surveyor Associate

In this article we will discuss the benefits of having a cast iron sailboat keel vs. the benefits of having a lead sailboat keel. Keep in mind we are keeping it very simple here.

### *Lead Benefits:*

- 1) Lower center of gravity, as lead is very dense and therefore heavy. Twice as heavy as iron but taking up the same amount of space.
- 2) Lead is less corrosive than iron. Will not corrode internally as iron will.
- 3) Some say lead has better performance.
- 4) Grounding energy transfer tends to not deform the hull; it simply deforms the keel or bulb, which is relatively easy to fix.

### *Iron Benefits:*

- 1) Much stronger than lead. So, if you hit something you will most likely plow right through it (i.e coral reefs).
- 2) Iron keels have the advantage of having removable and replaceable keel bolts, whereas lead keels must have radical surgery or be re-cast to replace corroded bolts.
- 3) Much cheaper than lead, due to environmental concerns and other factors.
- 4) Will not chip away during impacts, and the repairs are fairly simple.

### **In summary:**

If I had to choose between the two options, I would choose iron for the simple fact that it has low maintenance if you properly prime and paint the iron correctly. Iron is also very strong, so if you hit little things here and there (which everyone does at some point), its not going to mess up your sailing, due to the fact that iron does not deform on impact. Others have indicated that lead absorbs some impact on grounding. My opinion on this is, that if you are grounding a sailboat, the keel is not absorbing anything, in fact if the same boat with two different types of keels grounded exactly the same. The same result would happen; a damaged hull. So, that argument comes down to how hard you hit. I also would choose iron, because the benefits of lead do not out weigh the cost of lead. Simply put, I do not see enough difference between the two to choose the more expensive option of lead. I have inspected many iron keeled sailboats, and rarely see major damage on them to sway my opinion. There are many arguments online about this subject, as many people know, sailboat owners are very passionate about their vessels, almost too passionate to the point where they miss the simple facts. The difference between the two simply comes down to designer preference and ballast differences. Both are working, viable options that serve one purpose. A buying decision should not be made on one or the other.



## Surveying U.S.S. RELIANCE (AFDL-47) FLOATING DRYDOCK

By JOSEPH W. LOMBARDI, AMS®

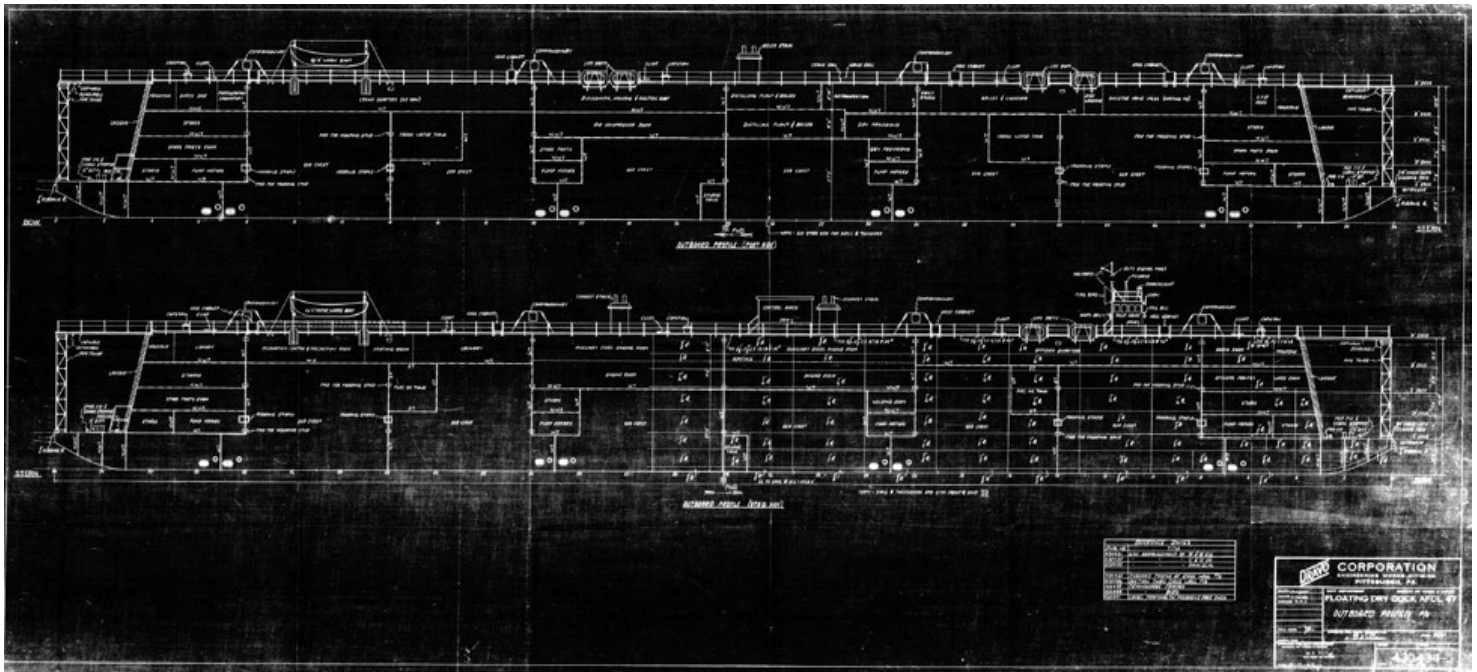
27 February 2017

As a surveyor, ship owner or drydock operator, we all come in contact with various types of equipment throughout our careers. Some drydock facilities are more challenging than others, but all require a close level of scrutiny as to their material condition and operating systems.

Pontoon deck of drydock.



In this country the industry is still largely relying on WWII or earlier graving docks or floating drydocks. The owner, underwriter or surveyor has an approaching challenge for ensuring his client's vessel is safely berthed for repairs.



U.S.S. RELIANCE (AFDL-47) outboard profiles.

In my experience, I have seen floating drydocks sink from lack of maintenance (AFDL-47) and had experience with leaking graving docks (Drydock #1) in Charlestown, MA. The U.S.S. RELIANCE (AFDL-47) sank the morning that I had a destroyer (U.S.S. LAFHEY) under tow for Detyens Shipyard in N. Charleston, a very challenging time as the destroyer had wasted keel, transverse & longitudinal frames and pourous bulkheads, that had recently been the subject of progressive flooding, emergency repairs and hazmat remediation.



**Drydock #1, Charleston Navy Yard, Boston, MA. Notice keel blocks set for U.S.S. CASSIN YOUNG, A Fletcher Class destroyer.**

We docked the ship pier side at Detyens Shipyard for over a week while the yard scrambled to replace electrical equipment; this was done and a test was made of that drydock. She sank again and another round of repairs were required. As a surveyor, I insisted that the yard lower and raise the drydock several times upon completion of the 2nd round of repairs to ensure my vessel would not be harmed. The resulting drydocking was uneventful and the ship was superbly repaired. Close coordination between vessel owner, underwriter and yard were paramount to the success of this project.



**U.S.S. LAFHEY (DD-724) in floating drydock AFDL-47 for repairs.**





**U.S.S. LAFFEY (DD-724) receiving new 3/8" hull plating from bow to stern, port to starboard to 1' above existing waterline. Vessel was drydocked on AFDL-47 for the entire restoration.**

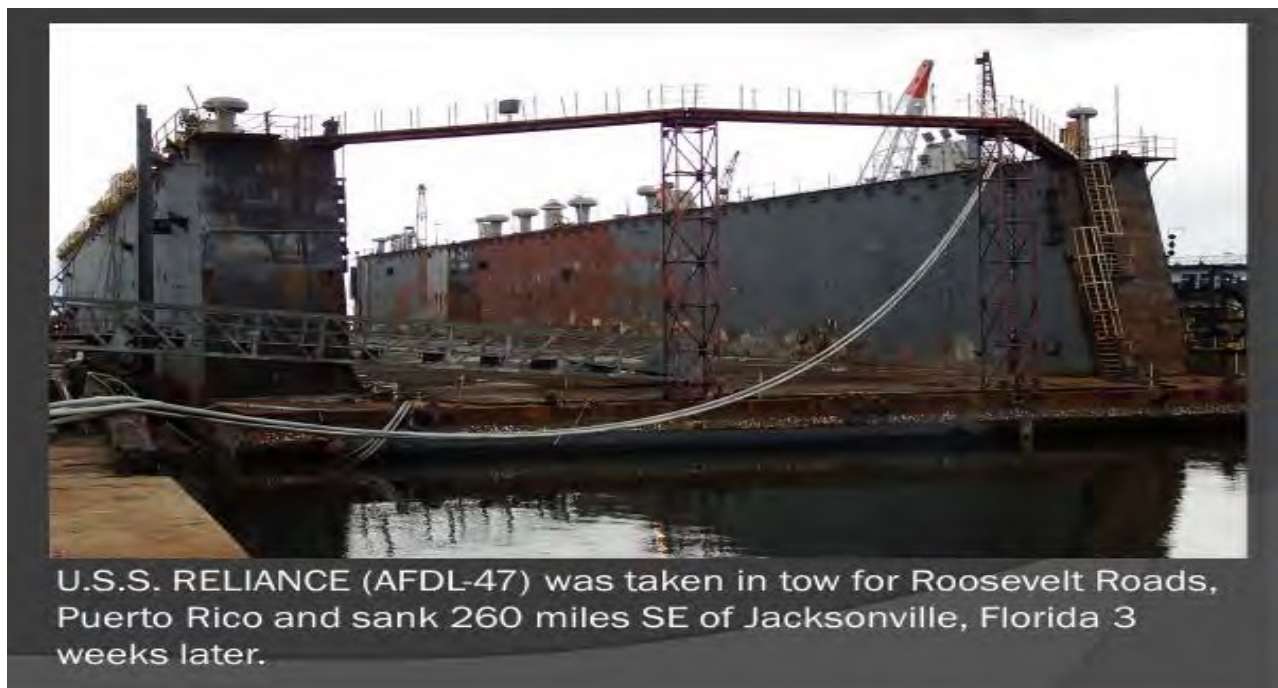
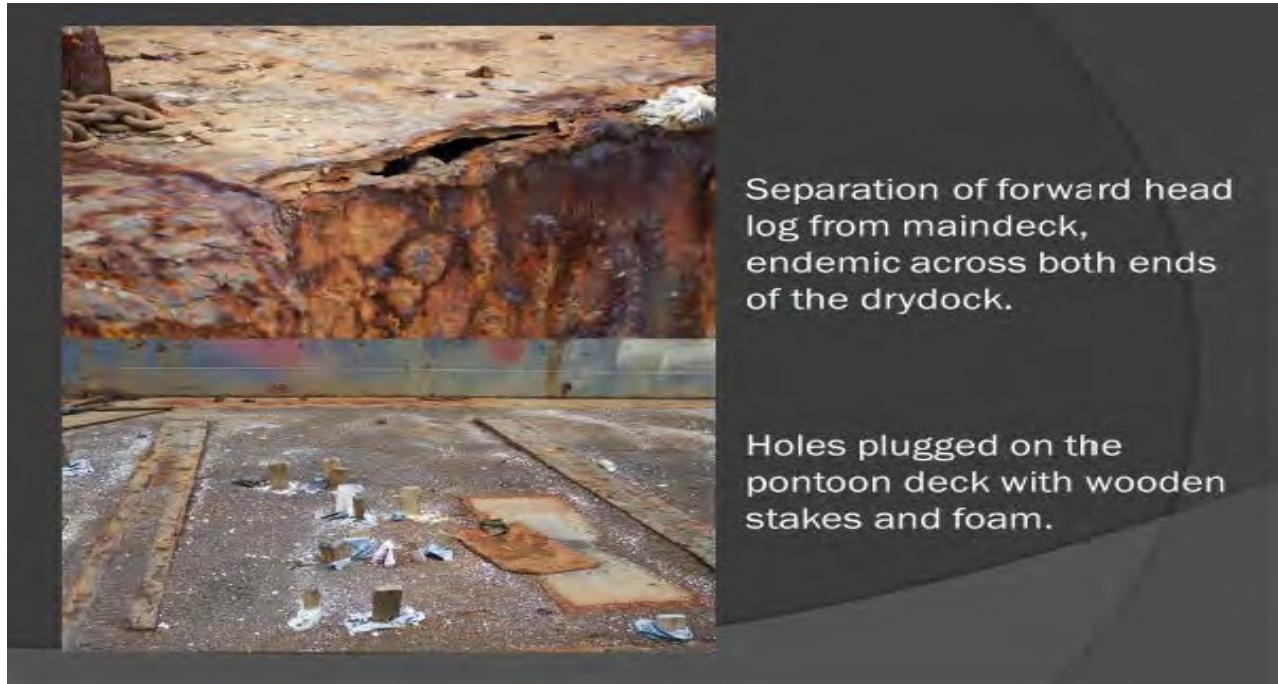
Years went by, and this past September I received a call from underwriters to conduct a Trip-in-Tow and Tow Plan for the floating drydock AFDL-47 as she was to be purchased from Detyens by a ship recycling firm at the old Roosevelt Roads Naval Station, in Puerto Rico. I had surveyed this floating drydock in 2010 when Detyens decided to purchase the drydock from the Navy.

Surveyors are asked to do many things, and they are usually in the middle of two or more parties and must answer to many different masters. They are also responsible for their actions and reports. I reported what I had seen to the underwriter and advised that the drydock needed extensive repairs; their conservative approach was that they would cover 'Port Risk' while the drydock was pierside, but they would not bind coverage for the tow.

The Owner of this drydock did not have the drydock surveyed before purchase. I asked that the drydock be pumped out, which was done, and I began my inspection of the forward rake tankage. I had finished inspecting the forward rake and the new Owner stated to me that he could not get hull/liability coverage for the drydock for the upcoming trip. He stated that his company was going to self insure the drydock. They then proceeded to load about \$1M in scrapyard machinery and plate steel on the pontoon deck for the tow. I pointed out to him that both rake ends were detached (deck from vertical rake) and that there were hundreds of holes on the pontoon deck and on the wing walls that needed plating. I also stated that I had only just completed inspection of the two forward rake compartments.

I ended my further participation in the survey.

As the Owner was self-insuring the drydock, I decided that this was not a good situation and I ended my participation in this work. I went back to the yard a week later and the 1 man crew had squirted foam into the holes on the deck.



As a surveyor, review your business practices and formulate a contract format that has been vetted by legal business experts, that understand contracting, and write a contract that both parties can be comfortable with while taking care of YOUR back.



## **“HOW WOULD YOU HANDLE THIS?” A SURVEYOR ASSOCIATES DILEMMA**

**By Chuck Solarek, AMS®**

As Marine Surveyors, we are constantly finding ourselves in situations where there really is no right or wrong answer to a particular situation. More times than we can remember, it is all about how we present the information available from our observations. Which is the best method to present our findings to give an accurate representation of the inspected vessel AND protect our client(s)? The following is one such case that I would like to share with you. I found myself in quite a dilemma, and after some restless nights and consultations with colleagues, decided on my particular course of action. The situation described below happened several years ago while still learning the trade as a Surveyor Associate.

### **What would you have done?**

I was contacted by a couple to conduct a pre-purchase Condition & Value, and mechanical survey on a boat they had found, fallen in love with, and were considering to purchase. This would be the second go around with them as clients. The first vessel had some engine/gear issues and they had backed out of the transaction. They were looking for a used boat that would maybe need some work, but nothing extensive. “Rose colored glasses” were not part of their attire. The boat in question was a 1993 CARVER 300 with twin crusader engines.

Doing my research, I found the listing online and was moderately impressed with the overall cleanliness of the vessel. There had been some recent upgrades including newer carpet and bottom paint. The engines reportedly had a little over five hundred (500) hours on them. Nothing in my preliminary findings gave cause to be concerned. But, having been down this road before, I did not make any assumptions before actually seeing the boat.

Upon arrival I was not mislead in the appearance of her. Her bottom had been well maintained and there was nothing out of the ordinary. Percussion testing revealed no soft areas or delamination. The decks were solid as well. The accommodation spaces were immaculate! Appliances were in good operating condition. The few things I could find were really minor in nature such as the fact she had no high bilge level alarm per ABYC Standards; no remote shut-off for the LPG cylinder; the electric horn did not function from the fly bridge. You get the idea.

Opening the engine space access hatches changed my impression quickly. While I had seen worse spaces in regard to cleanliness, this was not consistent with the rest of the vessel. The bilges needed cleaning and the engines looked a little “rough” but not overly so. The heat exchanger end caps on both engines had an excessive amount of corrosion built up from the gaskets leaking. A quick check of the fluid levels revealed nothing other than they were correct. I advised my clients that we were good to go for the sea trial.

Once in the water the broker representative started the engines with no issues. Exhaust smoke was a little excessive, but these engines had been sitting for a while, so I thought we would see at the end of the trial if things improved.

The port engine exhaust was leaving a slight “sheen” in the water, but again, they had not been operated in a while so I was not really concerned at this point.

We headed out to put her through the paces. They (the engines) sounded fine. Inspection with my RAYTEC infrared thermometer showed consistent temperatures on the risers, heat exchangers, oil pan, raw water pump, etc. Then I saw it. The starboard engine breather hose from the valve cover to the carburetor had been disconnected at the carburetor. There was quite a bit of smoke/steam exiting it. It felt like steam and had a slight coolant smell to it. The broker rep informed me he had disconnected it while putting some fuel (gas) in the carb to get the engine started prior to the survey a “few days ago”. Things were starting to not look good. I now had evidence of crankcase blow by, and maybe a coolant issue in one engine and we were only at low RPMs. The rep then added that his prep work was most likely the cause of the sheen at the port engine exhaust as well. Really?

Once we were clear of the marina, we performed our Wide Open Throttle (WOT) test on the engines. If anything is going to happen, it always happens during this run. In this case it did not take long. These particular crusaders are rated for 4000-4400 RPMs at WOT. The port engine only reached 3200 RPMs. The starboard engine reached 3800 RPMs. I had the yard rep. run the WOT twice to confirm these findings, and to allow me to sit below with the engines on the second go around, to get a better feel on what may be the root cause. If you are conducting a survey on your own, it is a good idea to be at the helm one time and down with the engines a second time. As we returned to the marina I let my clients know that I had some serious concerns with the engines, since they could not get up to the manufacturer’s recommended RPMs. Things did not get any better once we returned to the marina. Before securing the engines, I asked the yard rep to idle down the engines to let them cool down some, and allow me to make some more observations. The exhaust smoke issue had improved quite a bit. However, the sheen from the port exhaust was just as prevalent as it was during initial start-up. Combined with the fact this engine could not get close to its rated RPMs at WOT was another indicator something was just not right.

Once everything was secured, I inspected the zinc anodes in both heat exchangers, they were wasted. Oil samples were taken from both engines and gears to be sent to S.O.S. NC POWER in Tukwila, WA for analysis. I conducted an out brief with my clients, explaining that in my opinion there were some serious concerns regarding the engines and oil samples might help us determine those issues.

A few days after submitting the oil samples, I received a call from the lab. As those of you who do oil samples know, this is out of the norm. The technician specifically asked about the starboard engine, to my surprise. He stated the call was because they had not seen such a bad sample, out of an engine with so few hours on it. When I explained my observations he took a look at the port engine results and they were just as bad. There was excessive wears metals in both. Glycol and salt was found. Because these were gas engines, the lab said they could not perform a fuel dilution test. The final report stated that both engines need to be thoroughly inspected to determine the cause of coolant, salt, and excessive wear metals in the oil. Now the real dilemma, I had to write a report.

My clients had made a reasonable offer on the boat, based on how she appeared to them. They hired me to confirm, what they felt, was a very nice vessel. As we have now seen, the engines were in serious need of maintenance. Quite possibly a complete overhaul that could cost several thousand dollars apiece. How do I put a value on this vessel? There is no real way to estimate repairs. These things vary from facility to facility. And there was no way for me to really know just how bad the engines were, without further inspection, which is beyond the scope of my job.

I could value the boat and put in a disclaimer, stating the value is based on correcting the noted deficiencies found during the survey. Some of my colleagues would have preferred this course. For me, my instinct was telling me that doing so, would put my clients in jeopardy of paying too much for the boat as is, and then finding out they had to spend several thousands of dollars to make her capable of safely cruising the Puget Sound waters. I was afraid the broker would perform a few “simple” and inexpensive repairs and call her “good”.

I also remembered that when I first started surveying boats, I was told, that we are making a statement on how that boat looked on the day we saw her. Every vessel has the potential to be improved upon, but we are taking a “snapshot”, as it were, of the boat the day we inspected her.

After researching the values of similar boats, of that make, model and age, I de-valued her based on the fact that the engines required significant inspections to determine the extent of repairs required to meet manufacturer specifications. The report went to my clients, who in turn, forwarded it to the selling broker (in Florida on vacation). The broker went ballistic! He e-mailed my clients asking them “what were my qualifications to make such a determination on the engines, as most marine surveyors do not inspect engines?” Despite the fact that all my findings were laid out in the report, I had to send a correspondence explaining my background as a US Navy mechanic for 26 years, surveyor for three, etc., etc. The broker replied that in his opinion once the oil was changed, and the heat exchangers replaced all would be fine with the engines. Here were the “simple” inexpensive fixes I had worried about. Now, who did not know about engines? I advised my clients that the repairs proposed would in fact not fix all the issues, these engines had. And there were too many indicators that these engines had not been properly maintained and more repairs would be needed.

They walked away from the deal a few days later after some contemplation, talking with me again and several of their boating friends. I felt I had served my clients well and protected their interests, which is why they hired me. Even in hindsight, I would handle this in this way again, given these particular circumstances. But, I do realize that each situation is different and should this happen again, maybe ...

So I ask again, “What would you have done?” If you think about it, it is all up to you and what is best for YOUR situation. There is not a simple black and white situation. And so it goes with each and every vessel we survey. It is what I like about being a Marine Surveyor!



## Disintegrating Laminate

by **Kim Skov-Nielsen, AMS<sup>®</sup>**

It was during a standard pre-purchase condition survey on a 70' motor yacht. The yacht was placed ashore on Friday, and I went along to inspect the underwater hull on Monday – giving her some time to dry out over the weekend.

It is common amongst some boat builders, to pass air-conditioning gas through an underwater heat-exchanger array. Usually a couple of pipes in a double-U configuration on the outside of the hull, just below the waterline on the upright surface.

In this case the heat-exchange function had been deleted some years previously, but the piping left in place.

The shipyards all round the Western Med., where she was cleaned off and re-anti-fouled on a yearly, or even twice-yearly basis, could not know that the array had been deleted, so they still cleaned it diligently every time the boat was lifted.

And in Spain we all know what that means – after initial spray-off, the shipyard workers come along with a box of 12 1-litre bottles of Hydrochloric Acid and start to pour it all over the props, shafts, rudders and any other underwater metalwork – like the calcified array below. Regardless of cutlass bearings or rudder bearings! And, they don't skimp on the acid – so stand back!



Calcification



The first sign of trouble was a large bubble, which I immediately pierced with my spatula to see liquid pour out – see picture below.



I sniffed it and tested it, but it was not vinegary. It was just seawater. Great, but not great – seawater in the laminate makes you scratch your head a bit. It really shouldn't be there. So, you go looking further.

So, I attacked the area with my pocketknife, after receiving the vendor's permission. The laminate, not just the thin gelcoat on the outside, but the actual laminate started coming away in great chunks. See below, the porous-looking chunks, which disintegrated to dust as they dried out over the next 24 hours:



Several layers of laminate could be easily lifted away – see pictures below – until there were just big holes:



It appears that while the heat exchangers were operative, the heat generated accelerated *some* osmotic action in this area. However, the most damaging action appears to have been the standard Spanish shipyard practice of repeatedly using Hydrochloric Acid (*Agua Fuerte* - readily available in supermarkets here) to clean calcified crustaceans off underwater metalwork; together with the high-pressure washing-off nozzle right up against the hull forcing acid under high pressure into the laminate.

This caused irreparable damage to the laminate, and led to a situation where the boat was millimetres away from sinking, and no-one had any idea what was going on, or even where to look for water ingress.

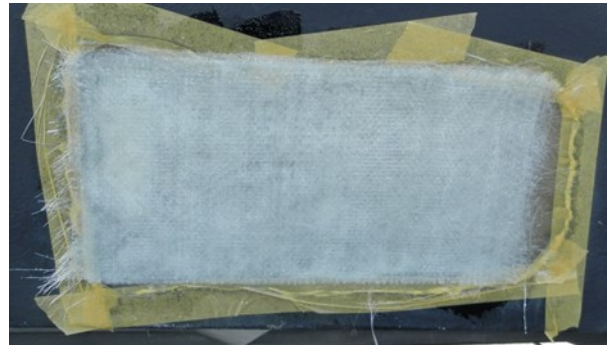


When ground back to solid laminate, the depth and extent of the damage was quite shocking.



The original boat builders initially created an interior inset into the hull laminate (which is a vacuum-bagged, foam-sandwich & E-Glass construct some 40mm thick) to allow for these gas pipes to be led to the outside of the hull, resulting in a patch of hull with only external laminate (no foam, no inner layer, no sandwich) some 10mm thick, with gelcoat on the outside.

The exterior damage has been repaired thus:



In the interior to this, there was added a 28mm block of closed-cell PVC foam, and several layers of fibreglass to restore the sandwich and tie it all in together.

Before



After



Care was taken, to add the new interior foam, while the exterior was still wet ensuring cohesion between the layers, thus creating a solid sandwich box. Both external layers were vacuum-bagged. Finally, the interior was painted with gelcoat while the exterior was sanded and primed and the boat was launched for sea-trials.

**In conclusion:** It is clear that the yearly (sometimes twice yearly) intense high-pressure injection of Hydrochloric Acid, caused the breakdown of the laminate. In fact, it turned the fibreglass to dust – the porous-looking granules pictured above are the remainder of the laminate, and even these crumbled to fine powder as they dried out over the next 24 hours.

I have never seen, or even heard, of this happening ever before. It is quite incredible and a salutary warning to all about the dangers of using acid on fibreglass of any kind – gelcoat and laminate clearly both just crumbled under the acid onslaught here.

I guess that in the future I will look much more closely at such arrays, and will suggest they be painted with expensive, high-speed propeller anti-fouling, to limit the calcification and thereby (perhaps) the shipyards' inclination to use acid.





## IMPORTANT MEMBER INFORMATION



### Attention All AMS® Members

The SAMS® Nominating Committee is accepting nominations for the upcoming election of officers at the Annual Business Meeting on Saturday, October 7, 2017 in Bonita Springs, FL. 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 June 1st. Nominations can also be made from the floor during the Annual Business Meeting, per SAMS® Policy.

### 2017 IMEC

**October 4th - October 7th**  
**Hyatt Regency Coconut Point**  
**5001 Coconut Road**  
**Bonita Springs, FL 34134**  
**Reservations: 888-421-1442**

### CE CREDITS REMINDER: Each request should include:

- \* Your AMS® or Surveyor Associates CE Credits Reporting Form,
- \* Your certificate of attendance or certification, etc.,
- \* An agenda for the Seminar/Training Class/Event attended,
- \* If the training was “Distance or Online Learning” was the test distance or online, as well as the training or was it a proctored test?

The more details you submit the better .

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 2016 THROUGH FEBRUARY 2017

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

#### **“YACHTS & SMALL CRAFT”**

*Jeff Kibler, Charleston, SC; John Michael Martin, Croatia; Giles Morin, Beloeil, QC, Canada*

The following people have been accepted into SAMS® as:

#### **SURVEYOR ASSOCIATES:**

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