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Our Time and Experience  
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## International Marine Underwriters Seminar

Ladies and Gentlemen:

You may wonder why Mr. Gallagher would ask a marine surveyor to address a group of underwriters. I asked myself the same question and then thought why not, I've been working in the marine industry for 58 years in most aspects of the game - building them, running them, repairing them, refits, the salvage business and finally the survey business. We are now eight (8) men and we primarily survey mega yachts (sail and power). We also do specification for new builds, over see new build construction, insurance claim work and expert witness work for attorneys and the courts.

Strangely enough, the salvage business was really important to the survey and insurance business. We were able to see a lot of what caused the claims and which yachts surveyed (groundings, etc.) with the least damage. In most instances, it was operator error. This in some instances could be avoided by the insistence of licenses for various size yachts.

**LICENSING and MANNING:**

Believe it or not, in my day hardly anybody had a license including me. In our salvage company, we were often sub-contracted to do research work. I was running a 49 meter research vessel doing navy work in the tong of the ocean and one of the scientists came on the bridge and asked why my license wasn't posted. I said "It's right here in my wallet" and I showed him my driver's license. He said "How can you get away with that". My reply was simple, "I'm part owner and she is research vessel registry". That was a long time ago and the rules have changed a bit since then.

Licensing is important whether it is MCA or USCG although some of it is over kill. It takes more than just to be able to pass a test. I would suggest along with asking for crew licenses, it might not be a bad idea to see the resumes and letters of recommendations. Enough on the manning and licensing issue.

**CONDITION and CLASS:**

What about the yachts themselves? Are they built to any classification society and which ones are they? Are they MCA or SOLAS compliant? Does she carry all of the required certificates?

Such as -

- International Convention for the Prevention of Collisions at Sea, 1972, and all current Amendments. Navigation light certification
- International Convention for the Prevention of Pollution from Ships, 1973, and 1978 Protocol. MARPOL and SOPEP certification
- Merchant shipping (lifesavings and fire protection) regulations 1986 for class XII.
- Builder's Certificate.
- Full Class certificates, without conditions or notations
- Panama Canal- and Suez Canal Tonnage certificates.
- Loadline certificate.
- USCG fuel bunkering procedures.
- Radio certificate.
- Solas non-compliance Safety Certificate issued by Country of Registry.
- Certificates for all sundry equipment such as anchors, cables, navigation equipment, and navigation lights, safety equipment, machinery, etc.
- Nav light certificate
- Liferaft certificate
- All required oil containment for IOPP and booklet for flag state.
- De-ratting certificate

This is just to name a few.

**SURVEYS and SAFETY:**

On this subject though don't rely on class and MCA alone. A recent survey is very important for many reasons. For instance, class considers a lot of systems as non-essential. A good surveyor checks everything and will make suggestions for improvement on safety gear and systems. Also, class is only the minimum required. In a new construction, you can always ask for more. Let's face it, most yachts are potential sinkers and fire traps. This is improving with MCA although I don't agree with some things they allow.

For years long before MCA, we have been trying to improve on the safety of yachts by insisting on certain changes in build methods and requirements especially in regard to watertight integrity with more watertight compartments such as extra watertight bulkheads, double bottoms, covered cofferdams, top hats for electronics, transducers, bow thruster compartments that are watertight, service watertight compartments for stabilizers, serious real back up steering systems, emergency bilge pumps, back up fire pumps and high systems, proper muster station arrangements, safety plans, etc.

We have a very strong disagreement with MCA and class on the location of emergency generators. The rule says above the main deck but the intent is the top deck so it's still able to work to the very end in a disaster situation.

**TENDERS and DECK GEAR:**

We do not agree and for years in the summary portion of a survey we have warned that no tenders or toys should be carried on the bow period. They are not insurable for loss or damage done. I can cite too many instances where tenders, toys and gear have been lost and damage done. We are doing two (2) new build yachts approved for tenders in wells way forward under an easily removable hard shell for the securing of the rescue tender but I'd still rather they be elsewhere.

**WEATHER and ROUTING:**

For some reason people in yachting have the idea yachts don't get caught in bad weather. That they have a halo over them or something. Yes, weather routing helps and we recommend that in our summary portion of the survey along with times of the year, latitude and sometimes even crew requirements. No areas of hostility. Extended limits by agreement with underwriter Panama Canal, Suez Canal, etc.

**SURVEYS for VALUE:**

Re-inspection and re-evaluation should be done on a regular basis. Lets face it, a yacht in a good market maybe valued at \$7,000,000.00 or \$8,000,000.00 a few years back but is it worth that today and has it been maintained? It may now only be worth \$5,000,000.00 or \$6,000,000.00 or less and may not have been well maintained.

There have been instances where yachts that weren't selling have mysteriously become a total loss due to a fire or sinking. On that subject, watch out for the yacht that called for help because it was sinking and in subsequent calls, now all of a sudden it was on fire as well. This is usually because it wasn't sinking fast enough. Please don't think it's a joke. I've seen and know of situations that were unbelievable. No picture for these as it usually happens in very deep water with no possibility of salvage.

**STRUCTURAL DURABILITY:**

**Motor Yachts:**

What type of yacht will generally take a grounding or collision and have the best chance of surviving? It's simple. Without a question, steel. Steel will dent but it is not easy to make a hole in or rip open. It has greater tinsel strength.

Aluminum lacks tinsel strength and will rip open a lot easier. Also, repairs are more costly. There are steel welders almost anywhere in the world but not always aluminum welders in far off out of the way places.

In the salvage business most salvages being done is by no cure no pay contracts. We would not leave port if a wood yacht or vessel without a guarantee if one was aground on a reef.

While some GRP yachts are very strong and some builders claim bullet proof, the reality is that in a grounding, on rocks or coral, the hulls are inclined to chafe through and in some cases crush in.

**SAIL MEGAYACHTS:**

Sailing megayachts are becoming more prevalent and of course have their share of problems but generally unless the owner is cheap, the crews are better seamen. Sailing yacht owners are not all cheap but there is the philosophy that since the wind is free so everything else should be free. Seriously though, a well designed well engineered sailing yacht today is greatly improved over days gone by. Most are steel, aluminum or a combination. Some are high tech GRP or carbon fiber. Most problems to be concerned with are back flooding due to the machinery being low in the hull, in many cases well below the waterline. This can be tricky and have their share of problems. The other area of concern are the rigs. Frequent checks should be made and a regular schedule of removal for magna fluxing of all of the fittings. Steering gear can be crucial and cause problems that ultimately cause claims.

Lets face it, yachts today are floating cities with all of the infrastructure except the roads trying to exist in the worst environment, the salty sea. On a sailing yacht, this is compound by being naturally wetter and almost always several degrees of angle, unless under power and then they're usually rolling more due to the tall rig. All putting chafe, wear and tear on system and equipment.

**DAMAGE BY FIRE:**

This is a common cause which comes from several conditions, some of which can be prevented and now due to new rules of class and MCA, fire zones, high fog and other prevention criteria are a definite help. These fires are caused by galley stove grease fires, lightning, electrical shorts and chafing of cables, etc.

Oil fires caused by broken high pressure fuel, hydraulic or oil lines, breaking and atomized over hot elements such as exhaust, boilers, un-shielded hot piping, motors, electrical panels, etc.

Damage can be extensive from the heat and flames which can not only burn wood and materials but can warp plates and aluminum actually burns. These are a given and usually can be repaired or fixed by complete removals. The worst problems come from smoke and smell which permeates everything all over the yacht unless it is contained to a small area. This means a galley fire that escapes the area will make it necessary to remove interiors seemingly undamaged by fire. You can not get the smoke and smell damage out. It's a complete removal out to skin. There are no shortcuts that would be acceptable as being back to original.

**SALT WATER DAMAGE:**

Damage by salt water in a sinking or partial sinking means complete removal and replacement of everything that got wet, i.e. cabling, lights, fixtures, insulation, furniture, appliances, upholstery, carpets, floors, art, antiques, you name it. There are items which if properly taken care of quickly and treated, can be saved and rebuilt. Engines if pickled right away. Electric motors if flushed out, disassembled, cleaned and baked. The same for generator electric sets. There will always be some parts replacements required due to corrosion but for the most part salvageable. Electric panels, no way. Replace new. Maybe the cabinet could be saved.

There always comes the question of new for old in some cases, new might cost less than repairs. A surveyor should be able to put this into his bid package.

**ELECTRONICS:**

This is a pretty much replacement situation if wet or burned. This for the most part is new for old.

Lightening often takes out electronics and electrical systems and panels. There can be a lot of unseen damage to fastenings and materials that are covered up.

In the case of a sailing yacht, the rigging mast and chain plates may look fine but with full testing, magna fluxing, etc. future problems such as a dismasting and injuries could occur. It's better to do it right and only once.

**FRESH WATER DAMAGE:**

By sinking or partial sinking is a lot easier fix. Washing out, cleaning and drying out takes care of a lot as far as motors, engines, and things like this are concerned but interior damage, while it may not appear great, the damage is there. All the insulation and material behind needs to come out. Wood warping and delaminating etc. will occur. It still needs to come out and be replaced.

**ANY QUESTIONS**