The Newsletter of the Northern Virginia Sail and Power Squadron

# of TARS & TERNS

Volume XLIX Number 2 **May/June 2016**

Mark Your Calendar

NVSPS Meetings and Events

May 2016

No General Membership Meeting

(The NVSPS Picnic on 18 Jun will substitute for the General Membership Meeting)

11 **NVSPS Picnic**
1100—1600: Fairfax Yacht Club
10721 Old Colchester Road, Lorton, VA 22079

25 **Executive Committee Meeting**
1930—2100 BoatUS Headquarters

June 2016

08 **General Membership Meeting**
1930—2100 BoatUS Headquarters

22 **Executive Committee Meeting**
1930—2100 BoatUS Headquarters

July 2016

13 **General Membership Meeting**
1930—2100 BoatUS Headquarters

27 **Executive Committee Meeting**
1930—2100 BoatUS Headquarters

A detailed Squadron calendar including all meetings and educational courses can be found on our web site www.nvsps.org

Northern Virginia Sail and Power Squadron
A unit of the
United States Power Squadrons ®

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Northern Virginia Sail & Power Squadron

Commander Sends….

CDR Frederick D. Zugay, JN

As we begin the boating season, I would like to call your attention to one of our Bridge Officers. Our Administrative Officer, Lt/C Kim-Kwok Chu, S has had some recent operations due to a major health issue. I would like to ask the squadron to keep Kim-Kwok and his family in our thoughts and prayers as he works on the road to recovery

At our May General membership Meeting, we had the privilege of having P/C G. Jay Nelson, AP give an excellent Spring Boat Commissioning presentation. This was an extensive checklist on getting your boat ready for the season and was well received by the members. Thank you Jay! .

With the new season is upon us, the squadron will be pursuing efforts to attract new members and also to retain

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In this Issue:

Did you Know?

- When two boats under power are about to meet head-on, neither has the right-of-way. Both vessels must make a noticeable course alteration to starboard after giving the proper signal of one short blast. When two vessels under power are crossing, the boat that has the other to starboard is the give-way vessel and must avoid the other by passing astern. The privileged vessel should maintain course and speed.
- A power-driven vessel operating on a river downstream with a following current, has the right-of-way over an up-bound vessel.
- A power-driven vessel approaching a sailing vessel is always the give-way vessel

Bridge Officers

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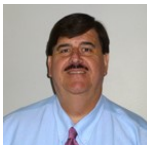

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Scheduled Meetings:

Unless otherwise noted, the General Membership Meetings will be held at the BoatUS™ Headquarters facility at 1900. on the second Wednesday of each month except for the months of August and December. Any changes will be posted in this newsletter or on the Squadron web site.

BoatUS Headquarters and meeting location:

880 South Pickett Street, Alexandria VA. 22304

From the Capital Beltway, take the VA-613/ Van Dorn Street exit, exit number 173, towards Franconia. Turn left onto South Van Dorn Street / VA-613 North. Turn left onto South Pickett Street. Go less than .5 miles and turn in at the BoatUS™ sign and go to the lighted parking lot in the rear. Proceed to the entrance.

Interesting Facts about the Sea…

- The ocean determines climate and plays a critical role in Earth's habitability. Most of the solar energy that reaches the Earth is stored in the ocean and helps power oceanic and atmospheric circulation. In this manner, the ocean plays an important role in influencing the weather and climatic patterns of the Earth.
- Two hundred million years of recorded geologic and biologic history of the Earth are found in the ocean's floor. By studying ocean sediments, scientists can learn about ancient climate, how it changed, and how better to predict our own climate.
- The top 10 feet of the ocean hold the same amount of thermal energy as exists in the entire atmosphere.
- El Nino, a periodic shift of warm waters from the western to eastern Pacific Ocean, has dramatic effects on climate worldwide. In 1997-1998, the most severe El Nino of the century created droughts, crop failures, fires, torrential rains, floods, landslides--total damages were estimated at more than $90 billion (United Nations)
- Undersea earthquakes and other disturbances cause tsunamis, or great waves. The largest recorded tsunami measured 210 feet above sea level when it reached Siberia's Kamchatka Peninsula in 1737.

Of Tars & Terns

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Commander Sends….

CDR Fred D. Zugay, JN

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retain current membership. At the April EXCOM meeting, we had in attendance Paul Mermelstein who is now working with the USPS National Office on developing new marketing strategies. Paul shared some of his expertise in marketing that our squadron may consider using.

Our 50th Anniversary Committee is hard at work and will again be meeting in May to continue plans for celebrating this NVSPS milestone. P Lt/C Sue Karjala, P has stepped up to head this committee. Please lend your support to Sue in this effort. Thank you Sue!

There will be no June General Membership Meeting on the 8th. Instead, we will be having our Squadron Spring Picnic at the Fairfax Yacht Club on Saturday, June 18th from 11:00 AM to 4:00 PM. The Commanders Locker will be open at the picnic along with plenty of food. Look for details in this newsletter. Also, a brief general membership meeting agenda will be presented. Please make room on your schedule to attend this event and enjoy the fellowship with our squadron.

Please be safe on the water.

CDR Fred D. Zugay, JN
eaglebs271@cox.net

BoatU.S. Renewable Fuel Standard Issue

The following article was a BoatUS Government Affairs email message to all BoatUS members, with an encouragement to forward onto to all interested parties. *See page 6 for a previous O'Tars & Terns article on this subject.*

The Environmental Protection Agency (EPA) is asking for comments on a proposal to increase the amount of ethanol that must be blended into the nation's gasoline supply for 2017. If adopted, these proposed levels will require the use of a record amount of ethanol, forcing higher-level fuel blends (including E15 or 15% ethanol) into gas pumps and at more gas stations. It's important to know that most marine engines are built to only work with up to 10% ethanol, and it is illegal to use gas containing more than 10% ethanol in any marine engine. Please take a few moments to send a message NOW urging the EPA to lower the ethanol mandates to ensure an adequate supply of fuel that will work in your boat. For more information and to take action go to: http://www.boatus.com/gov/RFS.asp

Background:

The Renewable Fuel Standard (RFS) is the 2005 law that requires the blending of biofuels such as corn-ethanol into our gasoline. When written, it was assumed that America's use of gasoline would continue to rise. However, U.S. gasoline usage has actually dropped steadily since 2005 and now the law forces more ethanol into fewer gallons of gasoline.

To keep up with this mandate, in 2010 the EPA permitted E15 (fuel containing up to 15% ethanol) into the marketplace, for some engines. E15 has been proven to damage boat engines and so it is prohibited in marine engines. It is also illegal to use E15 in snowmobiles, motorcycles, small engines like lawnmowers and leaf blowers, as well as any car or light-truck made before 2001.

E15 and higher ethanol blends fuel can now be found in 23 states, often at the very same pumps as E10 gasoline. A sticker on the pump mixed in with all the other labels may be the only warning for E15 gasoline. This creates a huge potential for mis-fueling and puts boaters at risk of using fuel that will damage their engines.

Thanks for being a BoatU.S. member and for taking action to let EPA hear how more ethanol will affect your boat engine. The deadline for your comment is July 11th, 2016. Help spread the word .

Sincerely,

Margaret B. Podlich
President, BoatU.S.
(703) 461-2878 x8363
www.BoatUS.com/gov

Education Officer

Lt/C Ed Phillips, AP

Now that the 2016 boating season is in full swing, what are your goals for this season? Every time we go out on the water we gain experience. Experience we can share with others. That is the most basic goal; being a better and safer boater. Yet, there are goals beyond that to be considered. The most important is having fun. What do you consider as fun? For me it is the satisfaction of navigating correctly and making my destination within a reasonable ETA. Sailing my proper course and making my objective with a minimum of unnecessary maneuvers. I also enjoy sharing what I have learned to accomplish those tasks. I do love to teach, more importantly, sharing what I have learned to keep others safe on the water.

This is what the United States Power Squadrons (USPS) is all about. I am sure I can say that is what attracted you to the Northern Virginia Sail and Power Squadron (NVSPS) in the first place. Although, most squadrons are struggling with diminishing class attendance, are you still sharing your knowledge on a one on one basis with those you sail or boat with? How about those folks you see at the marina? Do you conduct Vessel Safety Checks (VSC)s? That is the best way to carry our safe boating message and demonstrate it at the same time. In any event, continue to do what you love and keep others safe out on the water!

The NVSPS will continue to promote safe sailing and boating by presenting USPS seminars on the 2nd and 4th Saturday's of the month. The seminars are presented at the Alexandria West Marine Store at 601 South Patrick St, Alexandria, VA from 9:30 AM to 12:00 PM. If you have an interest in teaching a seminar, please let me know. These are the scheduled USPS seminars through the end of 2016:

- Paddling 21 May 2016
- Weather Forecasting 25 June 2016
- VHF Radio and DSC 23 July 2016
- Anchoring 27 August 2016
- Sail Trim 24 September 2016
- Marine Radar 22 October 2016
- Using GPS 11 June 2016
- Coastal Navigation 09 July 2016
- Emergencies on Board 13 August 2016
- Partner in Command 10 September 2016
- Man Overboard 08 October 2016
- Knots, Bends & Hitches 12 November 2016

I would like to schedule a Virginia Safe Boating Course and a USPS Piloting Course. Please pass the word around to all those you know who have an interest in safe sailing and boating. Let me know if anyone you know is interested in attending one of these classes.

Fair winds and Cool Breezes!

Lt/C Ed Phillips, AP
NVSPS Squadron Education Officer
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Secretary

Lt/C MaryJane Hinkins

The boating season is underway! Finally got L. Stanley in the water and back home at our dock. It was a beautiful cruise up the Rappahannock river to the Morattico. We had light winds and it was hard to believe, no rain. The perfect day for a cruise. We have to dock at high tide, but we had planned that as well. Ah to be able to boat again and sometimes just to sit and watch the creek! Since I am still working its nice that I can view the boat and creek from my office window! I missed all that during the winter months.

I am excited that the June 18th Picnic is back at the Fairfax Yacht club. It should be a very festive occasion. We still hoping to host A Day At the Creek 2 later this summer. D-5 has several Chesapeake cruises planed on Summer Cruise to Various Points on Chesapeake 23-28 Jul, 2016. See the D5 website for more details.

Christmas. Oh my! Don't even want to think of that yet! The boat just got in the water, but our own Sue Karjala has already gotten us a great Christmas venue. We had so much fun last year. I am hoping you can all join us again!

Next year is our 50th anniversary. A committee is underway to make this an anniversary to remember. We are all very excited about it. More will be coming as the year goes on and we get closer to the celebration.

Birthdays – I want to wish our June, July folks the best birthday ever!

Lt/C MaryJane Hinkins
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Hurricane Season Starts 01 June

The past two decades have seen an overall increase in the quantity and intensity of hurricanes in the Atlantic region. For example, the Category 2 hurricane Sandy in 2012 caused about $50 billion in damage and was responsible for more than 150 U.S. deaths last year. While this fact is attention-grabbing, when US hurricane activity is viewed over a longer period of time two more interesting facts emerge: 1) the number of hurricanes that have made US landfall since 1900 has steadily declined, and 2) the US has not had one major Category 3+ make landfall in the past eleven years. The last major category storm that made US landfall was Category 4 hurricane Isabel in September 2003.

Historically, a major hurricane makes landfall on the eastern seaboard every three years, so hurricane predictions this year are ranging from slightly above to slightly below an average season. However, an average season is still 13-15 named tropical storms, 6-8 of which will become hurricanes, and two of which will be major category storms.

Three climate factors that control Atlantic hurricane activity are expected to come together to produce the 2016 hurricane season.

- The current atmospheric climate pattern, which includes a strong West African monsoon that is responsible for the ongoing era of high activity for Atlantic hurricanes that began in 1995, is expected to continue.
- Forecasters predict continued moderate water temperatures in the tropical Atlantic Ocean and Caribbean Sea, an
- The Eastern Tropical Pacific warming trend known as El Niño is not expected to develop and suppress Atlantic hurricane formation.

NOAA's Climate Prediction Center says the 2016 Atlantic hurricane season, which runs from June 1 through November 30, will "most likely be near-normal, but forecast uncertainty in the climate signals that influence the formation of Atlantic storms make predicting this season particularly difficult

These oceanic and atmospheric conditions in the Atlantic basin, weaker wind shear with warmer Atlantic waters and conducive winds patterns coming from Africa, are expected to produce more and stronger hurricanes according to NOAA's Climate Prediction Center. Forecasts for individual storms and their impacts will be provided throughout the season by NOAA's National Hurricane Center.

With the images of Hurricane Sandy's devastation relatively still fresh in our minds, it is important to remember that tropical storm and hurricane impacts are not limited to the coastline. Strong winds, torrential rain, flooding, and tornadoes often threaten inland areas far from where the storm first makes landfall.

What does this mean to the recreational boater in our area? Simply, if you haven't thought about hurricane protection you need to develop your hurricane plan and make preparations for the storms we will undoubtedly experience this coming season. Now is also a good time to review your insurance policy to thoroughly understand the coverage your insurance company provides under "Named Storm" or "Named Windstorm".

Named Storm is a marine insurance policy term which is designed to provide more affordable boat insurance by preventing losses due to owner neglect or indifference to a pending storm. The Named Storm clause allows underwriters to increase the applicable deductibles (usually for hull and machinery, and personal effects) for losses "caused by a storm, cyclone, typhoon, atmospheric disturbance, depression or other weather phenomena designated by the US National Weather Service and/or the US National Hurricane Center where a number or name has been applied."

The deductible for losses incurred in a Named Storm are increased, depending on the wording of your policy, by a multiplication factor (usually double) or a fixed increase of the percentage of the hull value of the vessel. For example; if the clause doubles the deductible, and your deductible is $1000, then claims arising from a Named Storm are subject to a deductible of $2000. If your deductible is normally a percentage of the hull value (typically 2% or 3%), the policy will have a Named Storm provision for higher a fixed percentage of 5% - 10%. In this case, a vessel insured for $100,000 with normal deductible is 2% would see the deducible increase from $2,000 to $10,000. Even worse, some policies expressly exclude losses from Named Storms, which means any damage from such a storm will not be covered.

Usually deductibles for losses under the policy sections covering liability, protection and indemnity, uninsured/ underinsured boaters and medical payments are not affected by Named Storms, but it is prudent to check these clauses. If these conditions are not covered you could be liable for property damage caused by your boat.

(Continued on page 9)

Industry is Still Fighting E15 Fuels

(Reprinted from July/August 2015 OT&T)

Those who have spent any time around me know that for a variety of reasons I am a vocal opponent of ethanol-blended fuels. I will acknowledge at the onset that this article is likely reflect a bit of my bias, but my intent is to be as objective as possible about the introduction of E15 gasoline to the general marketplace and its potential hazards to boaters.

For a decade now E10 fuels (a blend of 90% gasoline and 10% ethanol) have been mandated by the EPA for general use. Ethanol is basically a highly refined grain alcohol (approximately 200-proof) that is added to gasoline to increase gasoline volume (i.e., to reduce dependency on foreign oil sources) and act as an oxygenator to help reduce hydrocarbon emissions that cause air pollution. However, without government subsidies, a gallon of ethanol costs more to produce than a gallon of gasoline, and the use of corn to make ethanol has a detrimental impact on food prices. As a fuel, ethanol-blended fuels produce less energy per gallon than gasoline, which reduces engine performance (miles per gallon) resulting in higher fuel consumption.

If the disadvantages stopped there, I would probably be more passive about ethanol-blended fuels. But the additional cost to the public from government ethanol subsidies and increased fuel consumption does not address the billions of dollars in repair/replacement costs to engines and fuel systems not designed for ethanol-blended fuels. Although E10 gasolines have caused relatively minor problems in automobiles and light trucks, its use as marine fuel has caused quite a few problems for boat owners. There are several reasons for this, primarily, cars have a closed fuel system (i.e., non-vented) and carry smaller quantities of fuel which is consumed quickly. Boat fuel systems are vented and fuel is stored in larger quantities for much longer periods of time.

Groups like the National Marine Manufacturers Association and Outdoor Power Equipment Institute have issued strong warnings to consumers to pay attention to their fuels or risk severe engine damage. They recommend the use of a fuel stabilizer if the engine will sit for more than a few weeks, specifically to reduce the ethanol/water separation and potential gumming problems.

Ethanol is uniformly dissolved in the gasoline in the manufacturing process and, assuming the fuel distribution system is not contaminated, E10 fuel presents no problems for marine four-stroke engines. Any moisture in the fuel in concentrations of less than 0.5% remains suspended in the fuel mix and is simply burned in the engine with the fuel. But the hygroscopic (i.e., readily taking up and retaining moisture) qualities of ethanol attract and attach to any water in the tank. When stored over a period of time, temperature changes caused by hot days and cool evenings allow condensation to build in vented fuel tanks. Gasoline expands when warm and contracts when cold. This action forces air in and out of the tank through the vent over the course of the day. Warm summertime air suspends a lot of moisture that is drawn into the tank, and as it cools in the evening condensation forms on the walls of the tank as moisture is expressed into the fuel. An almost-empty tank leaves more space on tank walls for condensation to occur, and lower gasoline levels in the tank means there will be less ethanol to absorb the condensation. Keep in mind that if the delivery tanks (i.e., the fueling station, marina, etc.) are above ground, this same action occurs before the fuel is even pumped into your boat. It is for this reason alone that I recommend keeping your tanks full as much as possible, including over the winter.

When the water in ethanol-blended fuel exceeds 0.5% phase separation occurs and the various components of the fuel are no longer a homogeneous mixture. At this point the water and ethanol drop out of the mixture and settle into the bottom of the tank, forming a highly corrosive ethanol/water mixture that will remain in the tank even after fresh fuel is added. The gasoline that remains on top of the ethanol/water mix will also have a significant reduction in octane due to this separation. When the fuel pick-up at the bottom of the tank picks up this watery/ethanol mix and passes it through the fuel system to the engine, water separators and fuel filters along the way become saturated causing the engine to run poorly or not at all.

There is no practical additive that can prevent phase separation from occurring. The only practical solution is to keep water from accumulating in the tank. And there are no additives or techniques to restore fuel once it has separated. The only way to remedy the problem is to completely drain the tank. Even on modest boats this in an expensive process as the contaminated fuel must be removed and disposed of in accordance with EPA regulations.

Just leaving ethanol-blended fuel sitting in the tank for more than 90 days presents problems. The fuel can develop sticky brown goo that gums up fuel systems. Why this occurs is a matter of debate, but it is believed this goo is caused by water mixing with one or more of the 108 approved additives that can be used in gasoline. These additives vary among suppliers, so one solution is to change to a different brand of gasoline. Another is to use carburetor cleaner, which has sometimes remedied the problem.

Ethanol is a corrosive solvent that loosens the varnish, sludge and dirt that has built up in the bottom of the tank and in fuel lines over the years. This results in varnish, dirt, rust and other particles breaking loose and becoming suspended in the fuel, which clogs fuel filters and injectors. Worse, ethanol tends to degrade the

E-15 Gasoline *(Continued from page 6)*

Rubber and plastic part in fuel systems that were never designed to withstand ethanol-bearing fuel. This can damage fuel pump diaphragms, fuel seals and fittings, and cause potentially hazardous fuel leaks.

Highly tuned two-stroke engines run leaner (and consequently hotter) on the lower BTU per gallon gasoline/ethanol mix, potentially leading to piston and valve damage and scuffed cylinder walls.

Many fiberglass fuel tanks in older boats are made with orthopthalic resin that dissolves in ethanol blended gasoline, resulting in a sludge build up can cause significant performance issues that can ultimately ruin an engine. In short, ethanol in boat fuel is a bad idea. Having said that, even I will admit that E10 fuel today is not the malevolent foe I initially envisioned. For the first several years ethanol caused very significant problems for boaters as we went through the transition to E10 fuels. Older fuel systems went through a difficult cleaning-out and upgrading period, and older fiberglass fuel tanks had to be replaced at significant expense to their owners. But, except for phase separation problems, you do not hear of these issues being prevalent today. Ironically, the marine industry may have exacerbated the transition period as most marinas desperately tried to provide non-blended fuel to their customers; to this day, many marinas still provide ethanol-free fuels. But ethanol-blended fuels are predominant throughout the country today and many marinas have switched to E10 gasolines. In addition, over the past decade marine fuel systems and engines have been designed/modified to withstand the effects of ethanol to a moderate degree. According to Mercury Marine, E10 fuel may actually be a superior marine fuel, as it tends to keep low levels of water moving through the fuel system, keeping the system "dry". However, there is a mindset that has yet to be fully embraced, especially with long-time boaters, that all fuels should be treated with a stabilizer if they are not going to be used within a few weeks.

So if we have learned to live with E10 gasoline, what is the issue? The EPA has proposed an increase in the percentage of ethanol in gasoline from 10% to up to 15% (E15). The National Marine Manufacturer's Association, virtually every boat engine manufacture and many boating service organizations (such as BoatUS) have all expressed significant concerns with the introduction of E15 gasoline to the marine industry. These organizations and manufactures are unanimous in their position that an increase in the percentage of ethanol blended in gasoline could prove to be far more damaging to boats than E10 for both new and old boats. Moreover, the use of E15 voids all current engine manufacturers' warranties. Mercury Marine's position on E15 is: "Fuel containing higher proportions of ethanol is not compatible with many fuel system and engine components and, if mistakenly used, will cause irreversible damage to these components that will lead to engine failure and potential safety risks." The bottom line is that E15 gasoline is not simply a slight expansion of issues we have already addressed with E10 gasoline; the difference between 10% and 15% ethanol in gasoline is very significant, and has the potential to cause substantial damage to your boat.

The EPA ruled in early 2010 that if E15 were introduced into gasoline the sale of it would be "limited to on-road vehicles" and only apply to vehicles 2007 and newer, but the marine industry is concerned boats are still at risk. While E15 may not be offered at your local fuel dock, at least initially, the vast majority of trailered boats and fuel for two-stroke engines is purchased on land at a standard gasoline stations. Also, the marketing of E15 as a lower cost fuel may be attractive boat owners that are not informed about the potential impact on their boat engine.

To address the issue of vehicles older than 2007, the EPA is considering fuel delivery systems at gas stations that dispense both E10 and E15, or have blender pumps that dispense mid-level ethanol fuels for Flex-Fuel automobiles. This is all still being resolved, and how and when E15 will be offered for sale, or if it will ever be sold in your local marina, is still a matter of debate. However, boaters need to be aware of the presence of E15 gasoline and the potential risks it represents to your engine and fuel systems.

To keep your engine and fuel system safe:

- Do not put any fuel containing more than 10% ethanol (E10) in your boat's fuel tank or outboard motor as it could cause extensive engine and fuel system damage.
- Check the pump to be sure that it is dispensing E10 (the pump should be labeled, but if not, ask). Some gas pumps at local gas stations may only dispense E15 fuel because it is likely to be less expensive
- Do not let ethanol gasoline sit in fuel tanks. Use fuel within 90 days and refuel often to prevent problems.
- Keep up with maintenance. Change fuel filters and maintain a clean carburetor/injectors to limit sludge build-up caused by ethanol in your boat engine.
- Address issues quickly. When performance problems persist consider taking the proactive measure of draining a fuel tank and refueling. Such action may save you from bigger issues like a destroyed boat engine.
- Choose ethanol-free fuel. You may have options for avoiding ethanol gasoline altogether. There are many marinas that now offer ethanol-free fuel or fuel with additives that may reduce the impact of ethanol in gasoline.
- Fuel your boat at marinas. Don't risk fueling your boat with a higher level of ethanol if E15 becomes available at gasoline stations on land. Fueling your boat at a marina will be safer because E15 will not be approved for sale at a marina.

G. Jay Nelson

Boating Safety – Alcohol on the Water

It is a temptation brought on by the company of good friends and family and the joy of being outdoors on a warm summer day - a few cold beers to quench your thirst. While most boaters intuitively understand that drinking and boating is not a good idea, they often fail to appreciate the enhanced affects alcohol has on the water. Drink for drink, the effects of alcohol on operating a boat is greater than driving a car. This is because the boating environment is rich with natural stressors such as prolonged exposure to the sun, glare from the surface of the water, wind and engine noise, continuous engine vibration and constant motion. These factors combine to produce "boater's fatigue", and while the cold beer might seem to be relaxing, the addition of alcohol actually amplifies the effects of boater's fatigue.

It takes fewer drinks than you might imagine to make you legally intoxicated. A 200 pound man will be legally intoxicated after just 6 beers over three hours. A 140 pound woman over that same period of time will be legally intoxicated after just 4 beers or 4, 3 ounce glasses of wine. Aside from being "legally intoxicated", alcohol, in any amount to varying degree, decrease a person's ability to safely operate a boat in several ways.

· Vision is impaired - Alcohol causes your peripheral vision and color separation to diminish. This combined with the bright sun, reflections off the surface of the water and a hazy atmosphere make seeing and identifying object in the water difficult. At night, your depth perception is compromised, which can disorient you, place you too close to hazardous objects, or fail to appreciate the speed and direction of other boats.

· Sense of balance is compromised - Alcohol decreases the sensitivity of your equilibrium, making you unsteady on your feet. On a moving platform this can cause injuries from falls on the deck, or worse, falling overboard. According to the US Coast Guard, the majority of pleasure boating deaths occur from falling overboard without a PFD.

· Physical coordination deteriorates - Alcohol causes a person to lose space awareness and physical dexterity. While this can be an injury concern aboard the boat, if the person falls overboard they are less likely to be able to assist in their own recovery due to disorientation the shock of the relatively cold water causing muscle cramping

· Judgment is impaired - Alcohol is a depressant that goes immediately to the nerves, blood stream and brain. As such, it tends to make people complacent and more likely to make risky decisions, or ignore dangerous conditions, they would have avoided if not under the influence.

· Surface blood vessel dilate - Alcohol causes the blood vessel at the surface of the skin to dilate, which causes the body to rapidly lose body heat. On warm days this might not be noticeable, but in cold weather, or if you are suddenly thrown overboard into relatedly cold water, hypothermia sets in and further reduces your decision-making ability

· Dehydration takes affect - Alcohol dehydrates the body. On warm days the body cools itself through perspiration. A dehydrated body has less water to cool itself, which can cause overheating and affect your decision-making ability. Under this condition, additional alcohol is more readily absorbed by the body and the effects are greatly accelerated.

In Maryland, Virginia and the District of Columbia, if you are suspected of boating while intoxicated you will be stopped by the Marine Police, Harbor Patrol US Coast Guard, Game Warden or any other law enforcement authority. Just as if you were suspected of driving a car under the influence, you will be asked to perform a variety of field sobriety tests. After this time you will be asked to submit to a chemical test (such as a Breathalyzer test) to determine your Blood Alcohol Content (often referred to as BAC).

There is a law known as implied consent. When you get your driver's license, you agree to be tested for chemicals if you are suspected of driving under the influence. If you refuse to take a chemical test (whether it is breath, blood or urine) your license will automatically be suspended or revoked for a year. Boating under the influence is no different. If you refuse to get tested for you BAC level, you will lose both your driving and boating privileges. This refusal will also affect you when you go to trial.

There is also a term known as "presumption of guilt". Basically this means that if you are found to have a BAC of .08% or more you are presumed to be guilty of boating under the influence, and you will be arrested.

If convicted, the first offence is a $250 fine and a mandatory suspension of your driver's license for one year. The second conviction is a $500 fine, a mandatory suspension of your driver's license for three years and ten days in jail.

To some, these penalties seem harsh. But consider this, in 2012, 34% of all boating accidents and 17% of all boating fatalities were alcohol related. As the captain of the vessel, you are at all times responsible for the safety of your passengers and crew.

Boat alcohol free - boat safe

Beaufort Wind and Sea State Scale

One of the first scales to estimate wind speeds and the effects was created by Britain's Admiral Sir Francis Beaufort (1774-1857). He developed the scale in 1805 to help sailors estimate the winds via visual observations. The scale starts with 0 and goes to a force of 12. The Beaufort scale is still used today to estimate wind strengths. Sea state refers to the height, period, and character of waves on the surface of a large body of water. The large number of variables involved in creating the sea state cannot be quickly and easily summed, so simpler scales are used to give a rough description of current conditions, primarily for reporting in a ship's log or similar record.

Force	Speed MPH Range	Speed Average MPH	Wind Description	Sea Condition	Wave Height
0	0	0	**Calm**	Sea like a mirror	0
1	1 - 3	2	**Light air**	Ripples with the appearance of scales are formed, but without foam crests.	0.33
2	4 - 7	6	**Light Breeze**	Small wavelets, still short, but more pronounced. Crests have a glassy appearance and do not break.	0.66
3	8 - 12	11	**Gentle Breeze**	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered white horses.	2
4	13 - 18	15	**Moderate**	Small waves, becoming larger; fairly frequent white horses.	3.33
5	19 - 24	22	**Fresh Breeze**	Moderate waves, taking a more pronounced long form; many white horses are formed. Chance of some spray.	6.66
6	25 - 31	27	**Strong Breeze**	Large waves begin to form; the white foam crests are more extensive everywhere. Probably some spray.	9.99
7	32 - 38	35	**Near Gale**	Sea heaps up and white foam from breaking waves begins to be blown in	13
8	39 - 46	42	**Gale**	Moderately high waves of greater length; edges of crests begin to break into spindrift. The foam is blown in well-marked streaks along the direction of the wind.	18
9	47 - 54	50	**Severe Gale**	High waves. Dense streaks of foam along the direction of the wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.	23
10	55 - 63	60	**Storm**	Very high waves with long over-hanging crests. The resulting foam, in great patches, is blown in dense white streaks along the direction of the wind. On the whole the surface of the sea takes on a white appearance. The 'tumbling' of the sea becomes heavy and shock-like. Visibility affected.	30
11	64 - 73	70	**Violent Storm**	Exceptionally high waves. The sea is completely covered with long white patches of foam lying along the direction of the wind. Everywhere the edges of the wave crests are blown into froth. Visibility affected.	38
12	74 - 95	90	**Hurricane**	The air is filled with foam and spray. Sea completely white with driving spray;	46+

Hurricane Season Starts 01 June *(Continued from page 5)*

While the Named Storm deductible clause might seem financially onerous, it is designed to incent boat owners to take the reasonable and appropriate steps (as defined by the insurance policy) to protect their property. With the multiple early warning systems such as television, radio, newspaper, internet, marine weather radio bands and other sources, there is generally plenty of time to implement a hurricane plan to protect your boat.

BoatUS, USPS' partner and our Squadron's host for our General Membership Meetings, is advising their policy holders that preparing your boat is the best way to avoid paying the full Named Storm Deductible should you incur a loss during a hurricane or tropical storm. BoatUS points out that even if you are not able to prepare your boat for a named storm, BoatUS program policies features Haul Out coverage to help with the expense of having a professional do the preparation and/or hauling. The BoatUS website provides an excellent series of Seaworthy Hurricane Preparation Guides and downloadable Hurricane Worksheets that provide complete instructions on when and how to take action, what to expect during a hurricane and how best to recover in the aftermath. If you are a BoatUS member, you can sign up for Hurricane Advisory Alerts to receive email alerts straight to your email inbox, as public advisories are issued for your area by the National Hurricane Center. I encourage you to visit the BoatUS website at http://www.boatus.com/hurricanes for more information.

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