WHISTLER
Newsletter of COOS BAY POWER SQUADRON

MARCH 2022

COMMANDER'S COLUMN

I confess, I do not know where I got this. I was looking through some files and came across it, as we are still in the grip of winter I thought it was good information that everyone needs to know. If you wrote this get in touch for proper credit.

I'm going to come right out and tell you something that almost no one in the maritime industry understands. That includes mariners, executives, managers, insurers, dock workers, for certain – fisherman, and even many (most) rescue professionals:

It is impossible to die from hypothermia in cold water unless you are wearing flotation, because without flotation – you won't live long enough to become hypothermic

Despite the research, the experience, and all the data, I still hear "experts" – touting as wisdom – completely false information about cold water and what happens to people who get in it. With another season of really cold water approaching, I feel compelled to get these points across in a way that will change the way mariners behave out there on (or near) the water. What follows is the truth about cold water and cold water immersion. I know that you think you know all there is to know about hypothermia already (and maybe you do), but read ahead and see if you aren't surprised by something. When the water is cold (say under 50 degrees F) there are significant physiological reactions that occur, in order, almost always.

You Can't Breath:

The first is phase of cold water immersion is called the cold shock response: It is a stage of increased heart rate and blood pressure, uncontrolled gasping, and sometimes uncontrolled movement. Lasting anywhere from 30 seconds to a couple of minutes depending on a number of factors, the cold shock response can be deadly all by itself. In fact, of all the people who die in cold water, it is estimated that 20% die in the first two minutes. They drown, they panic, they take on water in that first uncontrolled gasp, if they have heart problems – the cold shock may trigger a heart attack. Surviving this stage is about getting your breathing under control, realizing that the stage will pass, and staying calm.

SPRING EVENTS & MEETINGS
REGULAR SQUADRON MEETING 3/26/22

You Can't Swim:

One of the primary reasons given by recreational boaters when asked why they don't wear a life jacket, is that they can swim. Listen up, Tarzan; I swam for a living for the better part of my adult life, and when the water is cold – none of us can swim for very long. The second stage of cold water immersion is swimming failure. lacking adequate insulation your body will make its own. Long before your core temperature drops a degree, the veins in your extremities (those things you swim with) will constrict, you will lose your ability control your hands, and the muscles in your arms and legs will just flat out quit working well enough to keep you above water. Without some form of flotation, and in not more than 30 minutes, the best swimmer among us will drown – definitely – no way around it. Without ever experiencing a drop in core temperature (at all) over 50% of the people who die in cold water, die from drowning perpetuated by swimming failure.

Continued next month, learn what to do if you are in cold water and what to do for someone else in cold water. It can happen to you!

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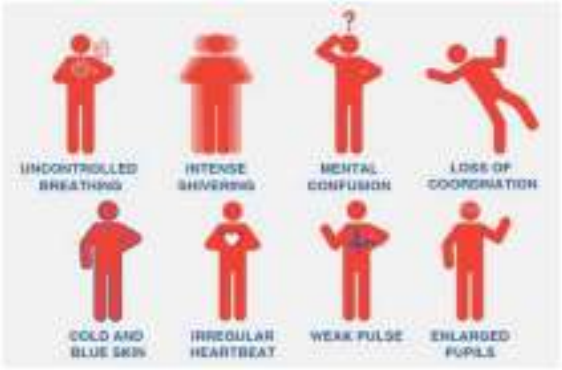

NEW FIRE EXTINGUSHER RULES for RECREATIONAL BOATS APRIL 20, 2022.

POSTED BY CWO KURT FREDRICKSON ON FEBRUARY 9, 2022

Submitted by the Coast Guard Office of Auxiliary & Boating Safety (CG-BSX)

Recreational boaters should be aware that on April 20, 2022 updated Coast Guard requirements take effect for the type of portable disposable fire extinguishers that need to be onboard recreational boats propelled or controlled by propulsion machinery.

In October 2021 The Coast Guard announced these amended fire extinguishing equipment regulations in the Federal Register.

These rules do not change how many extinguishers are required, but they do require the removal of certain extinguishers from service. If your boat was required to have one or more fire extinguishers prior to these updated regulations, it will still need to have the same number of extinguishers with this update.

For boats manufactured in model year 2018 and after, the fire extinguisher must be replaced if it is over 12-years old from the date of manufacturing. Boats of model year 2017 and older should replace older, undated, fire extinguishers but can continue to carry these undated extinguishers if they are maintained in good and serviceable condition. Disposable fire extinguisher bottles manufactured during the past 20– years contain a manufacture date stamp on the bottom of the cylinder.

For more information about the final rule, view the Federal Register or search docket number USCG-2018-0099 on *https://www.regulations.gov.*

Fire extinguishers must:

Be on board and readily accessible Be of an approved type; Not be expired or appear to have been previously used; and Be maintained in good and serviceable working condition, meaning: (i) If the extinguisher has a pressure gauge reading or indicator, it must be in the operable range or position; (ii) The lock pin is firmly in place; (iii) The discharge nozzle is clean and free of obstruction; and (iv) The extinguisher does not show visible signs of significant corrosion or damage.

As we roll into another boating season, we encourage you to inspect safety equipment, take a boating safety course, wear a life jacket and refrain from alcohol when operating your boat. Be Responsible, Be Safe!

For more information on recreational boating safety, visit www.uscgboating.org To schedule a free vessel safety check contact your local the USCG Auxiliary or U.S. Power Squadron.

This blog is not a replacement or substitute for the formal posting of regulations and updates or existing processes for receiving formal feedback of the same. Links provided on this blog will direct the reader to official publications, such as the Federal Register, Homeport and the Code of Federal Regulations. These publications remain the official source for regulatory information published by the Coast Guard.

Backfire Flame Arrestor

by Chris Riley Updated on October 2, 2021.

From boatsafe.com

Just like a car engine, a boat engine can backfire. Any boat that is fueled by gasoline needs to have a backfire flame arrestor equipped for this reason. With the exception of outboard motors, that is. The backfire flame arrestor needs to be installed on a carburetor to function.

Attached to the air intake with a flame tight seal, this device can prevent backfires. A backfire occurs when combustion takes place outside of the cylinders. Backfires in an area rich with gasoline fumes can lead to explosions. This is another reason that a four minute venting period is needed. If you start an engine immediately the risk is very high. With no backfire flame arrestor, a backfire could occur. This means a small explosion out of the sealed cylinders of the engine. That can ignore the fuel fumes and cause the saturated space to explode. If enough fumes have built up this could destroy an entire vessel. If you are on the boat at the time, it could be fatal.

Proper maintenance of a backfire flame arrestor is important. Those installed in your boat must meet certain requirements. They must be:

- In good and serviceable condition.

USCG-approved (must comply with SAE J-1928 or UL 1111 standards).
You should inspect them on a regular basis and clean them as necessary. They can develop built up which impedes their ability to work. Look for holes in the grid screen. If there are any, the device will not function properly. Likewise, check for cleanliness. If it's starting to go black, it may require cleaning or replacement. Cleaning is a relatively easy process. You just need to remove it and then wash the heat dissipation grid. Soap and water is all you need. Then allow it to thoroughly dry before reinstalling. Double check your connection to make sure it's flame tight.

Look for oil or gas in the grid as well. None should be there. Finally, make sure it is properly attached.

Respectfully Yours,

P/C Mark S. Krainbrink, AP

Four-story high rogue wave breaks records off the coast of Vancouver Island

By Caitlin Kaiser and Tom Sater, CNN Updated 6:54 PM ET, Sat February 12, 2022

The MarineLabs sensor buoy which detected the record-breaking rogue wave off of Ucluelet, British Columbia. (CNN)A rogue wave measuring 58 feet (17.6 meters) tall was recorded off the coast of Vancouver Island, breaking the record for proportionality at three times the size of surrounding waves. "Only a few rogue waves in high sea states have been observed directly, and nothing of this magnitude. The probability of such an event occurring is one in 1,300 years," said Johannes Gemmrich, one of the lead researchers on rogue waves at the University of Victoria. The wave made a splash in the scientific community for being proportionally the most extreme rogue wave ever recorded. Although it occurred in November 2020, the study confirming it was just released February 2 of this year. A rogue wave is exactly how it sounds: unexpected and terrifying. "They look like a large four-story lump sticking out of the water with a large peak and big troughs before it," Scott Beatty, CEO of MarineLabs, the company operating the buoy which measured the wave, told CNN. In the past few decades, what was once known as marine folklore has now been accepted as real by scientists. "Rogues, called 'extreme storm waves' by scientists, are those waves which are greater than twice the size of surrounding waves, are very unpredictable, and often come unexpectedly from directions other than prevailing wind and waves," The National Oceanic and Atmospheric Association (NOAA) explained.

In simplified terms, "A rogue wave is actually just a wave that is large compared to the surrounding wave field," Gemmrich clarified. Overall size doesn't matter, but the comparison in size to other waves does. Thus, while a wave achieving a four-story height equivalent is impressive, its magnitude being three times that of its surrounding waves is what landed it in the record books. The first rogue wave recorded, known as "The Draupner Wave," was measured in 1995 off the coast of Norway at 84 feet (25.6 meters) with surrounding waves of approximately 40 feet (12 meters), making the original rogue wave about twice the size of those around it. The record-breaking rogue wave recorded in November 2020 measured at almost 58 feet (17.6 meters) in comparison to surrounding waves of around 20 feet (6 meters), blowing the original proportions out of the water. Recording these "killer waves" is no easy feat The rogue wave in the study was measured via a MarineLabs buoy approximately 4.3 miles (7 kilometers) off of the coast of Ucluelet, British Columbia.

"We're a real-time intelligence company, and we provide real-time updates on what is going on along the coastline, including wind, waves, and other data," Beatty explained. The company produced a video simulation of the buoy around the time the rogue wave came through, showing the swell in comparison to the smaller surrounding waves. The problem lies in how to continuously track rogue waves once identified by a sensor. "Most observations are at a single buoy, a single location, and so the wave passes through, and we know at this moment it was this high, but we don't know how long. That is the big science question," Gemmrich noted. One thing is known for sure: Rogue waves are not afraid to rock the boat. Such waves can pose a significant threat to marine operations as well as the public due to their immense power and lack of predictability, Beatty stressed. "They are unexpected, so the vessel operator has little warning. If it is high enough that it can cause some damage to the vessel, the operator has no time to change course or react to it." Gemmrich added.

One common misconception Gemmrich wanted to emphasize is rogue waves are not to be mistaken for tsunamis. Although both are known for being large waves, the way they come about is completely different. "Rogue waves are generated by wind, so they are just a rare occurrence of wind generated waves. Whereas a tsunami is generated most commonly by an earthquake, underwater earthquake, or as we've seen recently a volcano eruption," Gemmrich stated.

Coastal communities everywhere are vulnerable to rogue waves. According to Gemmrich, anywhere exposed to water could experience a rogue wave, though places with strong currents may be more likely to see them. As for Vancouver Island, there was no reported damage from the rogue wave, as it occurred too far offshore. However, they can present onshore danger if they originate closer to the coast.

To ensure better safety in the future, the scientific community is pushing for better research and forecasting to help prevent any damage to maritime operations or the public.

Jennie Lyons at NOAA pointed out there are specialized distinctions for rogue waves. A "sneaker wave" typically describes a rogue wave condition along the beach because it sneaks up on you. Rogue waves out over open water much larger than those around it, are often called "freak" waves. And rogue waves large enough to damage a ship or cause a ship to roll more than normal are called "killer waves," because if they are severe enough, the damage could capsize a ship, potentially killing people.

MarineLabs has a system of 26 buoys placed strategically in the oceans surrounding North America with hopes to more than double their number by the end of 2022. "We are aiming to improve safety and decision-making for marine operations and coastal communities through widespread measurement of the world's coastlines," Beatty stated.

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AO Donald Starbuck,SN	719-989-0146
Treas Kim Singh	541-404-6307
Sec Carol Schuldt	541-756-4408
ASEO Arthur Schuldt,SN	541-756-4408

MEETINGS
Squadron / Board Meetings are schedued for **FOURTH** Saturday each month at 1300 (1:00 PM) in Squadron Bldg Charleston.
Covid-19 protocol observed as required.

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