U.S. COAST GUARD AUXILIARY
America's Volunteer Lifesavers sm

DEPARTMENT OF HOMELAND SECURITY
The civilian component of the U.S. Coast Guard
Authorized by Congress in 1939

WebWatch

Division 8, 5NR
July 2011

A. FOUNDATION FOR COAST GUARD HISTORY ANNUAL AWARDS

RDML Karl L. Schultz, Director of Governmental and Public Affairs

1. The Foundation for Coast Guard History (FCGH) was formed on 4 August 1999 as a non-profit organization. Its objectives are:

   a. To provide support to the Coast Guard Historians Office,
   b. To encourage studies relating to the history of our service,
   c. To accord recognition to individuals, units, and public and private organizations for both scholarly achievement and for raising public awareness of the challenges, accomplishments, and character of the men and women who have contributed to the proud heritage of the Coast Guard.

2. Each year the foundation has recognized both a large (major cutter, air station and sector) and small (patrol boat, shore station) Coast Guard Units for contributions in preserving the history of the service. The large unit winner receives five hundred dollars and the small unit two hundred dollars for their morale fund. The criteria for eligibility for the unit award are:

   a. Units can be active duty or Reserve, Auxiliary Flotilla, or Spouses Club.
   b. Units must be engaged in a specific undertaking aimed at furthering public awareness of current activities or the history and heritage of the Coast Guard.
   c. Units that receive the award may not resubmit for a period of five years.

3. The winner in the 2010 large unit category was *USCGC Acushnet* (WMEC 167). Among its accomplishments, the crew of *USCGC Acushnet* made a concerted effort to preserve the cutter's history during 2009 as the sole remaining World War II era cutter on active duty in the U.S. Fleet prior to her decommissioning on 11 March 2011. Preservation efforts included: the compilation of images and documents dating back to World War II when *Acushnet* served as *USS Shackle* (ARS-9), the inclusion of history articles in the units quarterly newsletter - The Shackle, the encouragement of visitation by local school groups, the writing of and supervision of content for website pages on the units homepage, Wikipedia and Facebook, and more.

4. In the 2010 Small Unit Category, the winner was USCG Headquarters Office of Aviation Forces. Among their accomplishments was the continued quest to locate,

document, and possibly recover, the remains Of LT John Pritchard, RM1 Ben Bottoms and CPL Loren Howarth, lost during a search and rescue effort on Greenland on 29 November 1942. The efforts thus far have included the gathering of key research details from the national archives, museums and active units across the United States, ice penetrating radar sweeps of suspected areas where the J-2F4 Grumman Duck supposedly went down, and more.

B. 236th BIRTHDAY OF THE UNITED STATES ARMY
Admiral Bob Papp, Commandant

1. On behalf of all Coast Guard members, it is my privilege to congratulate The United States Army on your 236th birthday.

2. Since 14 June 1775, the Army has been the stalwart defender of our freedoms on the front lines around the globe. From the Korean peninsula to the mountains of Afghanistan, from the islands of the Philippines to the heart of Europe, the army stands strong protecting our nation, advancing our national strategic interests, and defeating violent extremism. With over 220,000 of your soldiers deployed in nearly 80 countries around the world, you are there - ready to fulfill your mission the Army way: with honor, integrity, and courage.

3. In the past year, the Army's Active Duty, Guard, Reserve and civilian personnel have faced many challenges. On the battlefields of Iraq and Afghanistan, you combated the forces of violent extremism. On the home front, you stood strong to assist communities devastated by natural disaster - from the fires of Texas, to the tornado-stricken areas in the South and Midwest, to the flood-ravaged Mississippi river basin.

4. The Coast Guard is honored to serve with you. Happy Birthday. Hooah. *Semper Paratus*.

C. MANDATED ANNUAL COAST GUARD INFORMATION SYSTEMS SECURITY (ISS) USER AWARENESS UPDATE
RDML R. E. Day, Assistant Commandant for Command, Control, Communications, Computers and Information Technology

1. Information Systems Security (ISS) MT is an annual requirement for every user of CG Information Systems (Active, Reserve, Contractor, and Civilian - including non-appropriated funds employees, and Auxiliary).

2. The DHS and DOD Annual Information Assurance (IA) user awareness course may be substituted for this course, but the user must provide proof of completion to their training officer who must manually update TMT.

3. Users must complete ISS MT NLT 30 Jun 2011. Users that do not comply with this MT requirement will have their accounts disabled by 31 Jul 2011. Any disabled user will have to contact their training officer to make arrangements to complete the course. Training officers (or command designated alternate) will then need to contact their servicing IT support staff, verify ISS User Awareness Course completion, and request the user account be enabled.

4. Any user not having completed ISS MT since 1 Aug 2010 should do so prior to 30 Jun 2011 to prevent account disablement.

5. Commanding Officers are responsible to ensure users complete this training. Units may check compliance with the ISS MT requirement via a CGBI ISS exceptions report.

6. POC for learning management system (LMS)-related inquiries is your local training officer.

D. SEVENTY-SECOND ANNIVERSARY OF THE UNITED STATES COAST GUARD AUXILIARY

Admiral Bob Papp, Commandant

1. June 23 marks the seventy-second anniversary of our Coast Guard Auxiliary. Following their formation in 1939, America soon entered WWII. During the war, some 50,000 volunteer Auxiliarists stood watch over our shores, ports and waterways.

2. Today is no different. This year our 31,000 Coast Guard Auxiliarists delivered over 3.2 million hours of operational and administrative support. At sea, in the air, and even in the Incident Command Center, they fortified our response to the Deepwater Horizon spill, assisted with Midwest flood operations, and provided compassionate assistance to West Coast communities threatened by a tsunami.

3. Every day the Coast Guard Auxiliary works to make our waters safer for recreational boaters through education, safety inspections and strong partnerships with the United States Power Squadrons and other members of the boating safety coalition.

4. I consider their work a splendid patriotic service, and I encourage all units to hoist the Auxiliary colors on June 23 to honor their proud tradition and worthy mission. ***Semper Paratus***.

E. PREVENTION PROGRAM CIVILIAN CAREER GUIDE

RADM Kevin Cook, Director of Prevention Policy

1. Over 1200 coast guard civilians support the prevention programs missions in a variety of positions with various technical expertises. Our civilian workforce plays a critical role providing a unique combination of experience, knowledge, skills, and abilities, and essential program continuity that rotating military personnel cannot.

2. The purpose of the guide is to provide civilians in the prevention program with an understanding of the current state of the civilian workforce and the potential opportunities for advancement within the program. Unlike military personnel, creating a career path and career management within the civilian workforce is not as clearly defined. Civilians in the prevention program may not be aware of career development opportunities due to a lack of visibility within their area of expertise. The guide serves as a map to highlight the various elements of the prevention program and the opportunities that comprise these program areas. The guide will also provide tips for career development and career guidance resources available to prevention personnel.

3. Commanders, Commanding Officers and Office Chiefs should ensure widest dissemination of the prevention program civilian career guide. The guide should be used by Coast Guard civilians in planning a career in the prevention program. The guide can also be used by mentors as they counsel civilian employees.

4. The prevention program civilian guide is posted at:
http://www.uscg.mil/hq/cg5/cg54/career.asp

5. The prevention program officer guide is posted at:
http://www.uscg.mil/hq/cg5/cg54/career.asp

F. COMMANDANTS INDEPENDENCE DAY MESSAGE- STANDING THE WATCH

Admiral Bob Papp, Commandant

1. Shipmates, on this Independence Day I want to thank all of you who stand or have stood the watch. Since the earliest days of our Republic, Coast Guardsmen have bravely assumed this obligation of duty. It is by standing the watch that you give our nation - we the people - the most special gift of all: freedom.

2. Freedom is not free. It is earned by sacrifice. Once earned, it is only preserved through constant vigilance - the vigilance that you provide every day in our ports, upon our waterways and over our oceans.

3. You are soaring over the Caribbean and Eastern Pacific oceans on the hunt for illicit traffickers as you honor your 100 year profession of naval aviation. You are patrolling the high latitudes, assessing the impact of a changing climate on an increasingly ice diminished Arctic. You continue to serve in the Arabian Gulf protecting infrastructure vital to a fledgling Iraqi nation. You are inspecting foreign ports to ensure the safety of cargo and ships bound for our shores. You are strengthening our partnerships by conducting maritime safety and security exchanges with West African nations, while simultaneously combating piracy along Africa's east coast. You are assisting our citizens and their property throughout the flood-ravaged Midwest. You are conducting vessel safety checks and recreational boater education, and you are continuing to perform our many other persistent and challenging maritime missions.

4. Your service, including our reserve, civilian, auxiliary and retiree members, is preserving the guarantee that our founding fathers passed down to us 235 years ago today - our unalienable right to life, liberty and the pursuit of happiness. This is our way. This is what we do. We are the men and women of the U.S. Coast Guard.

5. Stand a taut watch. ***Semper Paratus***.

G. SILVER ANCIENT MARINER SELECTION

Admiral Bob Papp, Commandant and Thirteenth Gold Ancient Mariner

1. I am pleased to announce the selection of BMCM Lloyd A. Pierce as the eleventh Silver Ancient Mariner since the inception of the program in 1978. BMCM Pierce will assume the title of Silver (Enlisted) Ancient Mariner from BMCM

Steven B. Hearn during a ceremony onboard *USCGC Kankakee* on 19 Aug 2011. BMCM Hearn will be retiring after 30 years of exemplary service.

2. BMCM Pierce is currently the Command Master Chief (CMC) at the U. S. Coast Guard Academy. He has over 14 years of sea time while serving aboard eight Coast Guard cutters including *CGC Red Oak, CGC Lipan, CGC Steadfast, CGC Sherman* and *CGC Matinicus*. BMCM Pierce was Officer in Charge (OIC) of *CGC Point Franklin, CGC Mako* (plankowner) and *CGC Seahawk.*

3. The Ancient Mariner title recognizes the officer and enlisted person with the earliest designation as a permanent Cutterman and requires a minimum of ten years of sea time. The award recipients must personify and uphold the core values of honor, respect and devotion to duty, along with the professionalism and leadership associated with long service at sea.

4. Congratulatory letters and e-mails may be sent to BMCM Pierce at the U. S. Coast Guard Academy.

H. A MOMENT OF SILENCE FOR CG HELO 6017 CREW

VADM Brian M. Salerno, Deputy Commandant for Operations

1. Tomorrow marks the one year anniversary of the CG Helo 6017 tragedy and the day we lost three shipmates. CG Helo 6017 crashed in the waters off La Push, WA on 07 July 2010 while transiting from Astoria, OR en-route to Sitka, AK. Lieutenant Sean Kruger, Petty Officer Adam Hoke and Petty Officer Brett Banks lost their lives serving our country. We should never forget their sacrifices and the families they left behind.

2. Operations permitting, Coast Guard units are encouraged to observe a moment of silence at 0905 PST on 07 July 2011 in memory of the CG 6017 crew and all our service members who have made the ultimate sacrifice serving our nation with honor.

3. CGAS Sitka in conjunction with the community and the Alaska Native Tribe of Sitka will erect a traditional Southeast Alaska totem pole to honor our lost heroes on 04 August 2011.

4. The men and women of the Coast Guard perform vital work and are called to protect the public, the environment and U.S. national interests in our ports and waterways, along the coast, on international waters and in any maritime region as

required to support our missions. It is of the greatest importance that we remain vigilant in our duties and responsibilities and keep safety as a top priority.

5. The Coat Guard suffered seven Class A Aviation mishaps since September 2008. However, we have now reached a milestone. This past year of flight operations has been free of major mishaps, a great achievement attributable to the dedication and tireless efforts of all hands, from the most junior airman to commanding officers. All involved have honored our profession by focusing on the basics: Aviate, Navigate and Communicate. Our resolve in combating complacency, managing the rate of change and mitigating risk remains an imperative and must continue as we perform our service to the Nation.

I. ANCIENT ALBATROSS CHANGE OF WATCH

ADM Bob Papp, Commandant and Thirteenth Gold Ancient Mariner

1. I am pleased to announce RADM Gary T. Blore will transfer the honor and mantle of The Ancient Albatross to VADM John P. Currier on 14 July 2011 at Sector Columbia River Astoria, OR. RADM Blore accepted The Ancient Albatross Artifacts during a ceremony in Elizabeth City, NC on 01 October 2009.

2. The Ancient Albatross is a prestigious honor bestowed upon the individual who has held an aviation designation for the longest period of time. Since its inception in 1966, there have been twenty-two aviators accorded this recognition.

3. As RADM Blore prepares to transition into retirement from active service, we send our sincere thanks for his long and dedicated service to Coast Guard Aviation and to our nation.

4. I congratulate VADM Currier on his designation as our twenty-third Ancient Albatross. In this capacity I am certain he will ably represent the rich traditions of Coast Guard Aviation and the hundreds of Coast Guard men and women who fly and provide daily support for Coast Guard missions.

5. For the 2011 competition, units and organizations are encouraged to submit a concise written description, in triplicate, of their efforts. These may be a single specific completed project or an ongoing, continuing undertaking. Photographs and printed material related to the project are useful but not necessary. Material will not be returned.

6. Units and organizations are also encouraged to nominate individuals who have contributed to the furthering of Coast Guard history. Documentation should be in

the form of a letter, in triplicate, detailing the contributions of the individual. In 2010, LCDR Michael Bennett was selected for an achievement award as a result of the recognition he brought to the Coast Guard through his in-depth research on Coast Guard Intelligence history.

J. PERSONAL FLOTATION DEVICE SAFETY ADVISORY

VADM J. P. Currier, Deputy Commandant for Mission Support and
VADM Brian M. Salerno, Deputy Commandant for Operations

1. Despite our best efforts to mitigate the risks inherent in our operations, we experienced 34 mishaps in the past year that involved CG persons in the water. The safety of our members is a service wide imperative - involving all hands from the Commandant to those on the deck plates. Operating safely is paramount and directly supports the Commandant of the Coast Guard Guiding Principles of honoring our profession and respecting our shipmates. This message is intended to affirm the need for engagement at all levels to improve our safety record and particularly to reemphasize the importance of properly maintaining, managing and wearing personal flotation devices (PFD's)

2. Discussion:

   a. Safety is paramount. Program managers, commands, team leads, unit rescue and survival systems managers, and ultimately every Coast Guard member shares in the responsibility for assuring that personal protective equipment (PPE) is properly used and in good working condition. Proper use of PPE requires a team effort and failure to maintain PPE can result in mission failure and loss of life.

   b. PFD's are an essential element of PPE and the first line of defense for potential exposure to risk in any hazardous environment involving working on or over the water. It is critical that PFD's are properly managed by each unit, to include segregating out of service PFD's to prevent inadvertent use. All PFD's require rigorous inspection and maintenance to ensure good working condition.

3. Action: All units that use PFD's shall:

   a. NLT 7 Aug 2011, complete a visual inspection of all PFD's under their control. Any PFD that does not pass inspection shall be immediately removed from service and clearly tagged and/or physically segregated from in-service PFD's until made serviceable. Where out of service PFD's can not be locked in

a separate storage area, storage areas shall be clearly marked as to PFD condition (i.e., in-service or out of service).

b. Implement unit level controls (PQS, safety briefs, refresher training, etc.) To ensure all personnel are properly trained on PFD wear and use, including emergency procedures, before being authorized to engage in operations where PFD's are required.

c. Encourage the use of self-checks and shipmate-checks of PPE prior to all evolutions, and incorporate these checks into pre-evolution briefings and/or operational risk management programs.

K. EXPERT TIPS FOR SAVING FUEL

By Kevin Falvey, Boating Magazine

"How much fuel will it burn?" is one of the most-asked questions at a marine dealer's showroom. It certainly is a question we get tons of mail about. But you might not realize that the answer to that question is largely in your own hands: It's in the way you handle the throttle. It's also in the way you load or overload your boat and the way you trim it. There are more than a half-dozen contributing factors to an overindulgence at the fuel pump, so to give you the best tools to boat green and save gas, we tapped our contacts at the Ralph Evinrude Test Center in Stuart, Florida.

Working hand in hand with the engineering staff, we formulated test procedures to measure the cost of poor boating habits and confirmed the validity of the results. These Evinrude guys eat, sleep and drink boats and motors, and so they proved a valuable resource in developing data you can count on.

So what did we learn? Depending on how many gas-guzzling habits you have, you could be costing yourself a double-size fuel bill each outing. We're about to show how to shave that bill down to size.

1. Props, Tops and Trim

We get tons of mail about which propellers are best for a particular boat. Unlocking the secrets of fuel efficiency on our Bluewater 2550 can give you insight for correctly propping your own boat. "Props are important to efficiency," deadpanned Mike Rogge, senior engineering technician for Evinrude and our prop specialist for this test. His no-nonsense delivery and demeanor confirmed our instinct to test the effects of props on fuel burn with him.

It's important to note that the primary criterion for selecting a propeller is to make sure it allows the engine to "turn up" to a speed within the band designated by the manufacturer — usually within 500 revolutions of absolute top rpm. This ensures a long life for the engine, neither lugging it down nor letting it over-rev. But within that band, you can select a variety of props that will allow the engine to turn up, yet have differences in pitch and number of blades, plus possess more subtle characteristics such as rake, skew and cup. Evinrude offers demo props through participating dealers for the purpose of allowing their customers to pick the best props for their needs.

Our Bluewater was run and turned up with eight different stainless-steel propellers. Not only did fuel consumption vary wildly, but also the thirstiest set of wheels allowed the engines to rev up only to the low end of the range specified by the manufacturer. The most fuel-saving wheels allowed the motors to rev to near the maximum of that range, however, meaning they'll not only save dinero at the pump, but will also pay dividends in increased long-term durability and reliability.

So, the right prop matters, meaning it's worthwhile to beg, borrow or steal a selection to try out on your boat. What else can help improve your boat's efficiency?

2. Optimum Trim

"You'll never have optimum fuel economy if you don't use optimum trim," says Steve Kocourek, Evinrude senior engineering technician. Testing bore out the veracity of Kocourek's statement. During extensive discussion he hammered home the fact that trimming out reduces the wetted surface of the hull by raising the bow. How do you know if you're trimmed for efficiency? "Trim out until the prop ventilates a little (sucks air). Then bring it down a little," Kocourek says.

3. T-Tops, Hardtops, Towers

Not every technique we tested saves as much fuel as does spinning the right prop or optimizing trim. Canvas enclosed T-tops, hardtops, towers and Bimini tops all create aerodynamic drag, causing the engine to work harder to make the boat go any given speed. Over the course of my career I've tested boats with the canvas up and the canvas down, and I've seen enclosures scrub as much as 3 mph off of a boat's speed. interestingly, some T-tops actually enhance efficiency: They act as a wing and create lift. But once you put canvas on, life's a drag once again.

Even something as simple as opening or closing a split windshield can affect how much go-juice the engine drinks. Our Bluewater's top wasn't removable, nor was it fitted with canvas, so we jumped into the first Chaparral 327 SSX bowrider to come off the line and tested it with the split windshield open and closed. Then we compared

the results. This time, the economy was better with the windshield open, but for most bowriders, closing the windshield results in greater speed at a given rpm and, thus, better efficiency. Try your boat both ways, monitoring tach and speed, to see what's best. OK, so you won't be repowering with the money saved by closing or opening a windshield. Fuel economy is improved by a combination of tactics that incrementally add up to less fuel burned.

4. Pounds = A Real Drag

Weight is another story. We boaters are all guilty of carrying too much gear aboard. it accumulates one lure, one ski and one gadget at a time, during months and years of boating. One of the quickest ways to get more miles per gallon is to get the lead out! No, don't leave the dock without tools, spares or safety equipment, and don't go so far as to drink your sundowner neat instead of on the rocks. But don't stow the fishing gear aboard when the season is over, the water skis and wakeboards when your kids are back at school, and the 12 cases of fizzy stuff here and there "just because." That stuff has got to go if you want to save more fuel.

To prove the point, we loaded the Bluewater with a crew of seven and all the gas and water we could carry. Check the chart below for the dismal results.

Next, we ran the Bluewater "light." We drained the fuel down to 20 gallons. We stripped it of every bit of gear but for required safety equipment — and, yes, discovered we had more on board than we'd need on any three fishing trips. Then we set out with a three-man crew weighing 600 pounds and increased our economy by a whopping 27 percent.

Such a dramatic increase isn't likely in normal use, since few boaters will either strip or weight their rigs to the extremes that we did for testing. Put in terms you can use, we added 1 percent to our cruise-speed efficiency for every 100 pounds we took off the boat. if this boat were run 100 hours a year, we'd save 16 gallons annually for

every hundred pounds we didn't carry. If you're shopping for a boat, compare displacement carefully when deciding between models if maximized fuel economy tops your priorities. Ditto for comparing the weights of engines. Hundreds of pounds will cost you hundreds of dollars.

5. Later Craters

Also, "a clean, smooth bottom is a real efficiency enhancer," says product manager Karl Sandstrom, a 21-year Evinrude veteran. If you keep your boat at a slip or mooring, use a quality bottom paint. Traditional "hard" paints are effective anti-foulants, but they create a cratered surface after a few years of built-up coats. If your boat's bottom looks like the Sea of Tranquility, break out a scraper, or hire a bead blaster to remove that old cratered paint. Efficiency mavens select ablative paints, such as Interlux Micron or Pettit Hydrocoat. These wear away, leaving a smooth surface. If your boat has sat idle for a while, it pays to hire a diver to scrub the bottom or to don a mask and fins and do it yourself.

Of course, keeping an engine in top shape counts toward the economy total. Adhere to the maintenance schedule in the owner's manual. Send the prop out for reconditioning if you bend a blade. (Or learn to coax dings back to normal with file, mallet and the judicious application of double-wrenching.) The recipe for maximized efficiency is like stew, rich with many ingredients that add up to something good. Apply the techniques we tested, and watch your fuel gauge move slower and slower and slower.

6. Proving-Ground Procedures

Our guinea pig was a 25-foot Bluewater 2550 center console, powered by twin 200 Evinrude E-TEC outboards. Our battery of tests were run in salt water, measuring fuel burn using Evinrude I-Command NMEA 2000 instruments reading directly from the engines' electronic control modules. Speeds were recorded from a Lowrance LCX-26 GPS. All runs were done in two directions, to negate the effects of wind and current.

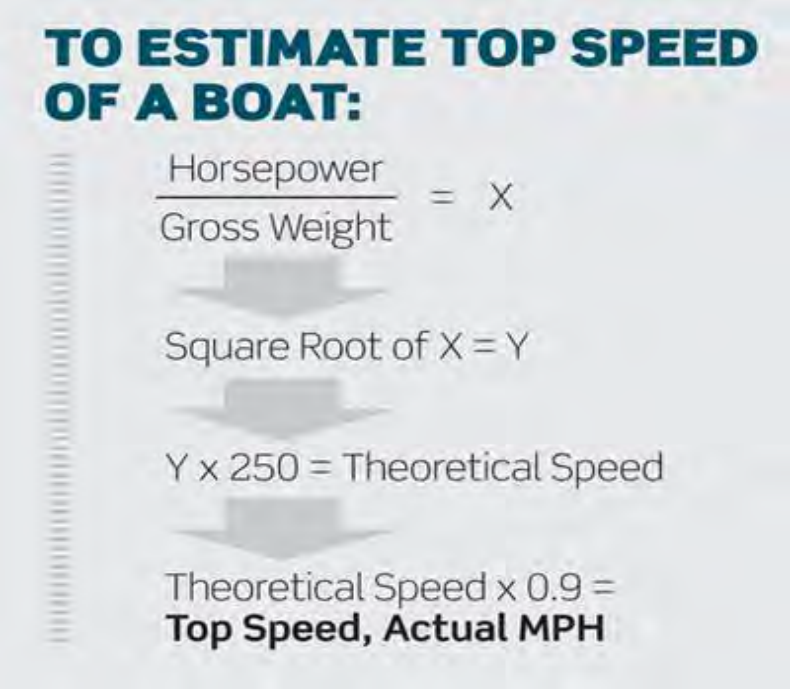
7. Dollars and Cents

Tallying all gains and losses from the testing done with our Evinrude-powered Bluewater, and extrapolating that data, resulted in these eye-opening, albeit idealized, results based on running 100 hours at 30 mph.

SPEED	TIME	FUEL BURNED
30 mph	30 min.	7.5 gallons
35 mph	25 min., 42 sec.	9.0 gallons
52 mph	17 min., 18 sec.	9.8 gallons

8. Back Off, Burn Less

Simple but true: Back off the throttle to burn less fuel. Naturally we don't expect you to troll everywhere, but unless you're in a tournament, are racing to make a bridge opening or have that momentary need for speed that afflicts us all, slow down to save fuel without costing any real time. Check out the 15-mile run numbers from our Bluewater test boat.



9. Do You Know It Takes...

- 2 gallons of crude oil to make 1 gallon of gasoline
- 26 pounds of corn to make 1 gallon of ethanol
- 1/2 pound of fuel to make 1 horsepower per hour
- 1 gallon of gasoline = 6 pounds
- 1 gallon of diesel = 7 pounds

L. Avoiding Costly Boating Mistakes

By David Seidman, Boating Magazine

Admit it. You take a certain pleasure when you hear about another boater's misfortune. You feel smarter and somehow superior. And that's ok; we all do. But remember that not learning from the mistakes of others is just plain dumb. Here are some screw-ups from the files of the Coast Guard. The names have been changed to protect the innocent — just make sure you don't join their ranks one day!

1. **Blinded by Science - San Juan Islands, Washington**
   "I'd just installed a new electronic chart, totally up to date; the chart plotter said we were far off and in deep water."

   Problem: Cold, rainy and almost no visibility. Just another night passage for Mark in his 42-foot motor yacht through waters littered with islands swept by strong currents. It's too nasty to stand watch outside, plus he's alone and can't leave the helm, so Mark puts his faith in the chart plotter — which in turn puts him on the rocks. Afterwards it was found that he was unknowingly dealing with a navigational error of more than 450 feet.

   Prevention: Navigating with GPS is not always as accurate as it seems. Set one down so it is not moving and just watch the readings keep changing. According to the U.S. Department of Defense, which maintains the system, the GPS signals we get should be accurate to within 50 feet 95 percent of the time, while the other 5 percent can be out as much as 300 feet. In practice, however, the average tends to be around 30 feet. To improve on this, WAAS (wide area augmentation system) brings it to an official 23 feet for 95 percent of the time but seems to average closer to 10 feet.

   All very good, but what about the chart the GPS is putting you on? Until the mid 1990s, in pre-satellite times, NOAA's general requirement was for position accuracy on a typical coastal chart to be around 30 yards. While charts are constantly being updated using modern electronics to provide greater accuracy, it's a slow process.

   In Mark's case the position of the tiny island he hit was from an old survey, accurate to only 160 feet. Plus, three of the four visible satellites (ones above the horizon that the receiver can use) were almost in a straight line, giving a poor fix. For optimum accuracy you want the satellites to be spread out all around you. To check, look at the unit's satellite page to see where the satellites are and the EPE (estimated position error) display.

   When navigating in a channel the Coast Guard likes to have an accuracy of 15 feet or better, which is not always possible. That's why when things get tight it's time to take your eyes off the screen and start keeping a good lookout.

2. Stuff It - Fire Island Inlet, New York

"We could see that the waves were breaking, but from offshore they still looked manageable."

Problem: Pete's in the ocean aboard his go-fast center console searching for fish. As the sea breeze builds during the day, so do the waves, but coming back along with them he doesn't sense their full power — that is, until just inside the inlet when the boat's long, skinny bow buries itself into the back of a wave all the way to the console. The boat comes back up and Pete makes it in, but he's wet and obviously shaken.

Prevention: Waves always look smaller when seen from behind, and that was Pete's first problem — perception. His next issue was speed.

In a following sea, adjust the drives and tabs to keep the bow up, then work with the throttles. You can safely run at almost any speed as long as your boat's bottom is long enough to span three wave crests, keeping the ends supported so as not to let the bow drop into a trough. Seas of three feet or less should not affect a boat 30 feet or longer, and boats under that length can usually handle a small chop. But when offshore, more throttle work is required.

Follow a contour up and down the waves, constantly changing the boat's running attitude with the throttle. Start matching the speed of the waves, riding on their backs about a third of the way down from the crest. You can occasionally throttle up to run over a wave crest after it has broken. Don't forget to watch astern to make sure a breaking wave isn't catching up to you. If one does, goose it to remain ahead.

Pete's final issue was timing. It's best to enter an inlet during slack high water so there is little current and plenty of deep water. The worst time is toward the end of an ebbing tidal current.

3. Plane to See - Chesapeake Bay, Maryland

"I only lost sight of the other boat for a few seconds as we were getting up on plane."

Problem: Coming out of the harbor's channel in his bowrider, John sees a personal watercraft to port that is headed in but apparently still far off. So John nails it to get on plane, and then — wham! — he and the watercraft collide. John

admits that for about six seconds he was running blind but says the craft didn't seem that close. The watercraft rider was unhurt but shared the blame.

Prevention: First off, the watercraft rider ignored a basic rule of the road. In crossing situations, the boat to starboard (John's boat) is the "stand on" vessel and must maintain its course so the other vessel (the watercraft) can better predict its movements. The watercraft is the "give way" vessel, which must keep clear — which it didn't.

Confusing the issue was that John was gaining speed so rapidly that it was difficult for the watercraft rider to predict the bigger boat's trajectory. And John had the difficult task of judging the speed and distance of a small object, the watercraft, coming directly at him.

The biggest problem here was the boat's poor performance, taking so long to get on plane with its bow high in the air. Imagine driving a car and not being able to see where you're going for six seconds while accelerating to highway speed. Enforceable guidelines for excessive bow rise are vague, but, in general, anything more than 5 degrees or losing sight of the horizon while seated is too high. A boat struggling to get on plane with its bow in the air is often a sign of insufficient power. If a boat you're thinking of buying does this, consider upgrading to a larger engine. Most sport boats should be on plane within four seconds. Cruisers to 32 feet should take about eight to 10 seconds. Another good reason to always take a test drive before you buy.

4. Failed to Pass - Intracoastal Waterway, South Carolina

"It's a fast boat, so I focus more on what's coming at me than what's behind."

Problem: Bob's hardtop express cruiser is stuck behind a sailboat creeping along under power at 3 mph in a narrow channel. When oncoming traffic finally allows, he swings out to port to pass. But, to Bob's surprise, he's immediately rammed by another boat trying to pass both him and the sailboat. Bob later admitted that, although he checked, he never saw the other boat coming.

Prevention: Boats that are about to pass are required to signal by radio or horn. Bob should have signaled the sailboat, and it should have responded so everyone would know what was about to happen. The same goes for the boat that hit Bob, which also remained silent. The bigger issue, however, was Bob's lack of visibility to his port quarter. When shopping for a boat, it is up to you to look for these blind spots.

In bowriders or deck boats, ask people in the showroom to sit in the forward cockpit to determine whether you'll be able to see ahead. Ski boats offer excellent wide-angle rearview mirrors. Install one either on the windshield frame or the helm. Sit in the driver's seat with your head up and good posture to check if the windshield frame cuts off your view. Turn around in the seat as if looking back and to the sides. Like Bob, you'll be doing this quickly while under way, so anything — no matter how small — can block your view. Put on polarized sunglasses to see if the windshield's glass shows a blotchy pattern that is hard to see through. Look for flip-up bolster helm seats that let you sit higher or stand securely for a better view. Buy the windshield wiper option. Make sure that the blade fully retracts and that the motor is mounted out of your field of vision. The top of the helm should be a dark, dull, textured surface to reduce glare. If not, see if it can be covered with a snap-on section of dark canvas.

5. Tanks for the Warning - Mobile Bay, Mississippi

"I never knew there was a problem; you can't fix what you don't know is wrong."

Problem: Jeff is obsessive when it comes to caring for his six-year-old cruiser. So he was surprised when the surveyor said that the fire that destroyed his boat was caused by a poorly maintained aluminum fuel tank. There was a pinhole leak that let gas gather in a section of the bilge where the limber holes were clogged. Jeff said it was the one place on the boat he couldn't reach.

Prevention: Not long ago the Coast Guard issued a warning about the alarming failure of aluminum fuel tanks in recreational boats. Citing a long-term Underwriters Laboratories study, the Coast Guard pointed out that 92 percent of the failures were a result of corrosion. As the study reveals, part of the problem is that aluminum fuel tanks are often considered "maintenance-free." So, with limited available space, they are often pushed into the least accessible corners, making regular inspection almost impossible.

Although corrosion from sloshing bilge water is the most common culprit, the study found several instances of abrasion. One boat's fuel tank was mounted on top of a rubber pad, but the staples that held the pad in place weren't recessed and eventually wore into the tank. In another case, brass fittings were secured directly into the aluminum, promoting galvanic corrosion.
Almost every aluminum tank examined had some form of corrosion, which can be seen as a patch of fine white powder. In every case the common factor was that the tank hadn't been installed so that it could be inspected or repaired.

Ask your builder or dealer where the inspection ports are, and determine whether you can see susceptible connections, joints, welds, supports and restraints. Examine the bilge to see whether water will flow freely past the tank and not be trapped under or around it. Also, consider thickness. The study found that most failures occurred in tanks constructed of 0.090-inch or thinner aluminum. An alternative to aluminum is polyethylene; just make sure the tank is marked to show that it meets Coast Guard or ABYC standards.

M. Top 10 Ways We Get Into Trouble

1. Operator inattention - 749 accidents
2. Operator inexperience - 439 accidents
3. Excessive speed - 427 accidents
4. Improper lookout - 335 accidents
5. Alcohol - 308 accidents
6. Machinery failure - 282 accidents
7. Weather - 260 accidents
8. Hazardous waters - 242 accidents
9. Force of wave or wake - 229 accidents
10. Not knowing rules of the road - 110 accidents

N. EPA Finalizes Pump Label and Other Misfueling Guidelines for E15

Christine Pomorski, NMMA's Washington Wave, July 21, 2011

The Environmental Protection Agency (EPA) has released the warning label that will be affixed to gas pumps dispensing gasoline containing up to 15% ethanol, more commonly known as E15.

While the EPA has approved E15 for model year 2001 and newer cars, E15 has NOT been approved for marine engines and other non-road engines such as snowmobiles, lawn and garden equipment. However, the boating community continues to be concerned that the EPA is not doing enough to stop anticipated problems with consumer confusion and possible misfueling.

The English-only label is not strong enough to capture the user's attention, especially among the many existing point-of-sale labels already competing for consumers' attention. Despite recommendations from the boating community to require physical barriers to E15 such as electronic key pad confirmation, verbal cashier confirmation or radio frequency identification (RFID) tags on E15 compatible vehicles that would lock fuel dispensers for any non-compatible use such as boats, the EPA is not requiring any of

these measures. Instead of conducting a consumer education campaign, the EPA is asking stakeholders to do so, despite the fact that corn-industry groups have aggressively marketed E15 with misleading consumer information in the past.

In addition, the EPA will not require that E10 remains available in the marketplace. Without this requirement, fuel for boats and other non-road engines will become an expensive specialty fuel. Earlier this month, Jeff Wasil, Emissions Certification Engineer for Bombardier Recreational Products' Evinrude Marine Engine division testified on behalf of NMMA at a Congressional hearing entitled "Hitting the Ethanol Blend Wall: Examining the Science on E15." NMMA continues to remain engaged in the ongoing legal challenge against the EPA, asserting that it should not have approved a fuel that only works with certain engines and not others, like boats.