

The COAST GUARD Journal of Safety & Security at Sea PROCEEDINGS

VOL. 83, No. 1

of the MARINE SAFETY & SECURITY COUNCIL

RECREATIONAL BOATING SAFETY
**A SHARED
RESPONSIBILITY**



2026 BOATING SAFETY



Produced under a grant from the Sport Fish Restoration and Boating Trust Fund, administered by the U.S. Coast Guard.

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CALENDAR



MAY

LIFE JACKETS ENGINE CUT-OFF SWITCHES



JUN

WATER SPORTS RENTAL BOAT SAFETY



NOV

REGISTRATION RENEWALS



DEC

HOLIDAY GIFT GUIDES



2026 Boating Safety Calendar

Jan Various Boat Shows

Feb Various Boat Shows

Apr 6 #406Day

May 7-8 Virtual International Boating
& Water Safety Summit

May National Water Safety Month

May 15 Wear Your Life Jacket at Work Day

May 16-22 National Safe Boating Week

May 16 Kids to Parks Day

May 22 National Maritime Day

May 23-25 Memorial Day Weekend

Jun National Safety Month

Jun 6-14 National Fishing and Boating Week

June 13 National Marina Day

Jun 18 National Go Fishing Day

June 20 Summer Sailstice

Jul Sun Safe Boating Month

Jul 4 Independence Day

Jul 3-5 Operation Dry Water

Sep 7 Labor Day

Sep 24 World Maritime Day

Sep 26 National Hunting and Fishing Day

Oct National Hunting and Fishing Month

Nov Child Safety Protection Month

Dec Holiday Parade of Boats

(check local community calendars)



twitter.com/BoatingCampaign

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On the Cover: With the Chicago skyline in the background, Montrose Harbor Marina is filled with recreational watercraft. Safe boating is a responsibility shared by the Coast Guard and Coast Guard Auxiliary, non-profit partners, state and local law enforcement, and boaters. Through education, enforcement, and voluntary standards their combined efforts help achieve safer waterways.



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Champion's Note

A sincere thank you to retired Coast Guard Captain Verne Gifford, who envisioned this edition while serving as the Chief of the Boating Safety division. He was instrumental bringing together the articles from various authors within Boating Safety and the Coast Guard Auxiliary. I very much appreciate the opportunity to showcase boating safety and the many contributions made by the Proceedings editorial staff. Enjoy!

Kevin E. Lunday
Commandant
U.S. Coast Guard

**The Marine Safety
& Security Council
of the
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Assistant Commandant's Perspective

by CAPTAIN ROBERT C. COMPBER
*Assistant Commandant for Prevention Policy
U.S. Coast Guard*

The National Recreational Boating Safety (RBS) Program exists for one purpose: Saving lives on our nation's waterways. Since its establishment in 1971, the Program has united the Coast Guard, states and territories, industry, nonprofit partners, and

volunteers to improve recreational boating safety nationwide.

That collaboration is producing measurable results. In 2024, the United States recorded the lowest number of recreational boating fatalities since the Program's inception. The fatality rate



Champion's Point of View

by CAPTAIN BRENT R. SCHMADEKE
*Chief Director
Auxiliary & Boat Safety
U.S. Coast Guard*

The Office of Auxiliary and Boating Safety is honored to showcase the National Recreational Boating Safety (RBS) Program and the volunteer work of the proud Coast Guard Auxiliary. A lot has changed since the programs were highlighted

in Proceedings' Fall 2016 edition and we welcome the opportunity to educate readers on the responsibilities of the 46 active duty, reservists, civilians, and contractors within the Boating Safety program.

The Boating Safety and Auxiliary

per 100,000 registered vessels has declined from 20.6 in 1971 to 4.8 today—more than a fourfold reduction. These outcomes reflect sustained investment in education, standards, enforcement, and partnership across the RBS community.

America's recreational boating industry plays a vital role in this success. In the United States, 95% of the boats sold are manufactured domestically, and more than 85% meet voluntary safety standards that exceed regulatory requirements, reinforcing safety before boats ever reach the water.

This issue of Proceedings highlights these successes

and the critical role of state and territorial programs, national nonprofit organizations, trade associations, volunteers, and other partners. The National RBS Program was designed to rely on strong state leadership while fostering cooperation with the Coast Guard and the broader RBS community—a model that has proven effective and enduring.

As I begin my tour as Assistant Commandant for Prevention Policy, I extend my sincere appreciation to all who contribute to recreational boating safety. Your dedication has delivered real results, and together we will continue advancing safety on our nation's waterways.

divisions work together seamlessly to improve boating safety. Organized into three branches, the Boating Safety division includes 40 people whose primary functions are to assist the 56 state and territory Recreational Boating Safety Programs, administer grant funding, and ensure recreational boats and associated equipment are safe.

The six Auxiliary division staff members support the outstanding work of more than 18,500 Auxiliarists. Annually, Auxiliarists volunteer more than 2 million operational and administrative support hours across missions like boating safety, culinary support, chaplain services, interpreter assistance, health services, and public affairs. In 2025 alone, they saved more than 180 lives and \$6.9M in property.

Since 2016, 5,085 boating deaths, 20,049 injuries, and 34,079 accidents have been recorded. The Coast Guard Auxiliary and the many nonprofit partnerships are aiming to bring those incidents to zero. This issue highlights

RBS Program initiatives that will help achieve those lofty goals. This includes the outstanding partnerships and educational outreach that have already achieved an annual nation-wide boating death average of 585 over the past three years, a historic low. The advancement of the RBS Program is part of an extraordinary investment America has made in the Coast Guard. Moving forward, revolutionized systems to handle technology, information, and financial management will support significantly improved delivery and application of our RBS Program services nationwide.

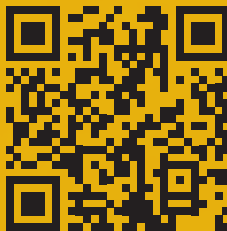
I want to thank the many members of the RBS community for their outstanding efforts to make all forms of boating safer. I hope you enjoy learning about the RBS Program and making boating safer by committing to boating sober, wearing a life jacket, taking a boating education class, wearing an engine cut-off lanyard, and being vigilant whenever boating.



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The Value of the Recreational Boating Safety Program

by VERNE GIFFORD

Chief

Boating Safety Division

Coast Guard Office of Auxiliary & Boating Safety

U.S. Coast Guard

The modern Recreational Boating Safety (RBS) Program traces its inception to the Federal Boat Safety Act (FBSA) of 1971. The Act's purpose was to improve boating safety by encouraging and assisting participation by the states, industry, and public. It also established national construction and performance standards and created flexible regulatory authority concerning boats. Since then, the many elements of the National RBS Program have successfully reduced incidents, injuries, and deaths. Led by the State RBS and National Nonprofit Organization grant programs, the combined effects of many program elements, and safer boats and boaters, the RBS Program achieved the fewest number of boating deaths in its history—a key measure of success.

The National RBS Program and Office of Auxiliary and Boating Safety

President Nixon signed the FBSA on August 11, 1971, helping establish national standards, cooperation among the federal and state governments, and a national recreational boating safety, or RBS Program. Perhaps, most importantly, it created a funding mechanism to facilitate the program's goals. It also encouraged greater uniformity of boating laws and regulations and reciprocity among state jurisdictions. This authority led to regulations addressing vessel numbering, casualty reporting, equipment requirements, defect notification, manufacturer requirements, and boats and associated equipment.

The National RBS Program, administered by the Coast Guard, was established "to encourage greater state participation and uniformity in boating safety efforts, and particularly to permit the states to assume the greater share of boating safety education, assistance, and enforcement activities...."¹ Under the program, an eligible state must have an approved RBS Program, which includes five key elements—enforcement, education, vessel numbering, casualty reporting, and a memorandum of agreement with their U.S. Coast Guard District.²

Within the Coast Guard, the Office of Auxiliary and Boating Safety coordinates the National RBS Program. That office includes the Boating Safety Division with 26 full-time members who are organized into three branches:

- The Program Management and Operations Branch (CG-BSX-21)
- The Grants Management Branch (CG-BSX-22)
- The Product Assurance Branch (CG-BSX-23)

CG-BSX-21 chiefly assists the states with maintaining their approved RBS programs. CG-BSX-22 ensures

Branch Responsibilities

Program Management and Operation:

- Ensure compliance of state RBS programs
- Productions of annual recreational boating statistics report and quinquennial Survey
- Promote uniformity among states
- Oversee vessel identification system

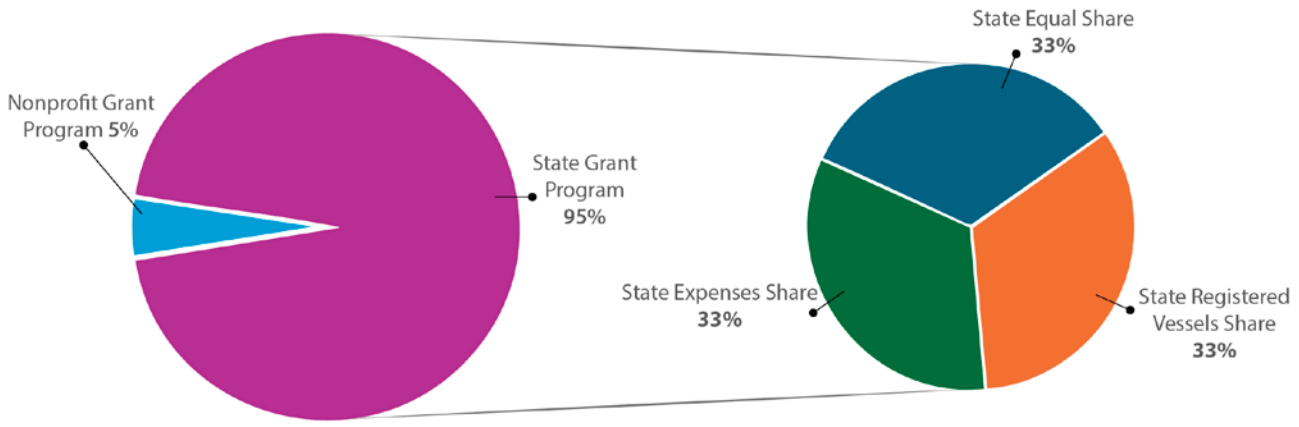
Grant Management:

- Administer state agent program
- Administer national nonprofit grant program
- Ensure compliance with all statutes, regulations, and directives

Product Assurance:

- Maintain recreational boat manufacturer compliance program
- Investigate consumer complaints and incidents to determine legitimacy
- Execute recall campaigns
- Publish boating safety circular

Grant Program Distribution from Trust Fund



Coast Guard graphic

nearly 100 grant awardees are in compliance with all requirements, and CG-BSX-23 ensures compliance by manufacturers of recreational vessels.

The Trust Fund, States, and Nonprofits

The engine driving the RBS Program is the Sport Fish Restoration and Boating Trust Fund (SFRBTF), which is a “user pays, user benefits” funding source. About two-thirds of the fund’s revenue comes from taxes on motorboat and small engine fuel—mostly from people who boat. Taxes on electric motors and fishing equipment, as well as interest and import duties, also contribute to the fund. The Coast Guard receives about 17% of the total disbursements from the Department of the Interior, which administers the fund. In fiscal year 2025 that amounted to nearly \$140.1 million for boating safety.

The SFRBTF is a non-lapsing appropriation which is historically reauthorized every five years. The present authorization expires September 30, 2026, and the Coast Guard expects it will be reauthorized for another five years.

The fund supports both the State RBS and the National Nonprofit Organization grant programs. Funding to the states, which includes five territories, and the District of Columbia, is distributed by a formula where a third is divided equally. Another third of the funds is distributed

Boating Equipment

Required (varies by vessel type):

- Personal Floating Devices
- Visual Distress Signals
- Engine Cut-Off Switches and Links
- Fire Extinguishers
- Ventilation
- Backfire Flame Control
- Sound Producing Devices
- Navigation Lights
- Navigation Rules
- Pollution Placard
- Vessel Registration of Document

Recommended (not a complete list; see Vessel Safety Check form):

- Digital Selective Calling (DSC) Radios
- Electronic Locator Beacon (includes EPIRBs and Personal Locator Beacons)
- Anchor
- Dewatering Device

according to the number of state-registered vessels, and the remaining third is divided according to state boating safety expenditures.³ After administrative expenses, 95% of the money received from the fund goes to the states for their boating safety programs. The remaining 5% goes to national nonprofit organizations.

The National Nonprofit Organization Grant Program is administered by the Coast Guard through a competitive process by which the service annually awards funding to nonprofits for national boating safety activities. Nonprofits assist with standards development, outreach campaigns, standardization of state statutes and regulations, training, efforts to detect and reduce boating under the influence, an outreach and awareness symposium, and other elements critical to protecting the American boating public.

Safer Boats and Equipment

Recreational vessels and associated equipment have significantly improved since FBSA's inception. Those offered for sale in the United States must meet statutory and regulatory requirements, and manufacturers must self-certify that their recreational vessels meet requirements including obtaining a manufacturer's identification code and issuing each vessel a unique hull identification number. To help ensure vessels meet requirements, the Coast Guard has a Boat Testing and Inspection Program that includes factory visits based on several risk factors, testing individual recreational boat models for compliance, and casualty report investigation.

Another critical element regarding recreational vessel safety is that most manufacturers comply with voluntary standards. Regulations for recreational vessels, found mostly in 33 CFR, Subchapter S, have remained largely unchanged since their creation, meaning they have not kept pace with technology. However, manufacturers belonging to the National Marine Manufacturers Association, an industry trade group representing manufacturers that produce 90% of the recreational vessels offered for sale each year, must, as a condition of membership, agree to comply with voluntary standards. These standards have been developed by the American Boat and Yacht Council using the American National Standards Institute processes.

Equipment Requirements

The FBSA allowed for the creation of equipment requirements for recreational vessels including personal flotation devices, visual distress signals, fire extinguishers, and engine cut-off switches. Voluntary equipment that can help ensure the safety of the boater, including electronic locator beacons and digital selective calling (DSC) radios, also exists.

National Boating Safety Advisory Committee and the Strategic Plan

The National Boating Safety Advisory Committee (NBSAC) was created by the FBSA for the purpose of consultation on matters relating to boating safety. The 21-person committee includes equal representation from three different segments of the RBS community—the state officials responsible for state boating safety programs; the boat and associated equipment manufacturers; and the boating organizations and members of the public.⁴ It also has three standing subcommittees:

- Prevention Through People
- Strategic Planning
- Boats and Associated Equipment

Meeting two to three times a year, the committee makes recommendations to, and accepts task statements from, the Coast Guard.

Every five years, the National RBS Program also produces a strategic plan developed with input from the RBS community, including NBSAC, which plays a significant role in its development and provides program direction. The current plan runs through this year and includes three initiatives—Positively Influence Recreational Boater Behavior, Positively Influence Recreational

Boat and Accessory Manufacturers, and Leverage Recreational Boating Data. There are 13 courses of action and 36 activities under these initiatives.

Annual Statistics Report and the Boating Safety Survey

The National RBS Program produces an Annual Recreational Boating Statistics Report each calendar year. The report for calendar year 2024 summarizes the deaths, injuries, and accidents associated with boating. It also includes sections on incident causes and conditions,



**In 2024,
the program achieved
an historic low with
the three-year average
of annual boating
deaths dropping
from 641 to 585, or
an 8.7% decrease.**



incident types, operator and passenger information, casualty data, and registration data.

The NRBSS takes place about every five years to determine American boaters' levels of participation and risk information. It comprises two distinct surveys—Participation and Exposure.

The Participation Survey collects demographic and behavioral information about boaters at the national level. Historically, this required responses from 30,000 Americans during a calendar year.

The Exposure Survey collects the number of person boat hours per year, the number of unregistered recreational vessels, or paddle craft, and other information for each state. Historically, this has required more than 200,000 Americans to respond in a calendar year.

The Life Jacket Wear Rate Observation Study relies on Coast Guard Auxiliary volunteers and a contractor to estimate national life jacket wear rates based on boat type, gender, and age, among other things. This study, the Annual Boating Statistics Report, and the NRBSS are available on the program's web site.

RBS Outreach Program

The National RBS Program includes an outreach element that focuses on boaters, manufacturers, the RBS community, and public awareness on boating safety. It produces video, print, social media, and other content that it distributes in a variety of ways, including a social media calendar that structures campaigns and public messaging.

The program's public-facing web site contains products about statutes, regulations, and policy. The public can also find boating safety topics, manufacturer compliance information—including recalls and safety defects—multimedia resources, as well as information on statistics, NBSAC, and grants on the site. By the end of this year, the web site will migrate to a new URL, though users will be directed from the old URL to the new location.

The Coast Guard Auxiliary and America's Boating Club

The Coast Guard Auxiliary and the United States Power Squadrons/America's Boating Club are tremendous assets for the National RBS Program. These volunteers, who number in the tens of thousands, provide educational courses and conduct vessel safety checks, dealer visits, and other support functions for the program and the Coast Guard.

A Record of Success

In its more than 50 years, the program has had an outstanding record of reducing deaths, injuries, and accidents. Not only did calendar year 2024 have the fewest deaths since the program's inception, but there have been an estimated 95,000 lives saved since 1971 when the FBSA was signed into law. This Proceedings issue explains why the program, through its many elements, has been so successful and why that success will continue. Thank you for taking time to learn about the National RBS Program. 

About the Author:

Verne Gifford has been the chief of the Boating Safety Division for more than eight years. He is supported by an outstanding division team of 26 boating safety and grant professionals. His 34 years on active duty with the Coast Guard included living in a lighthouse on Cape Cod, serving on the Gulf coast for 11 years, two tours at Coast Guard headquarters, and marrying a girl from Metairie, Louisiana.

Endnotes:

- ¹ 46 U.S.C. §13102
- ² 46 U.S.C. §13103(c)
- ³ 46 U.S.C. §13104
- ⁴ 46 U.S.C. §15105
- ⁵ 46 U.S.C. §61026.
- ⁶ 46 U.S.C. 13107(c)(1)(B)(ii) allows for up to \$1.5M per year for the NRBSS



The Recreational Boating Safety website can be found at <http://www.uscgboating.org>

The Boater's Guide to the Federal Requirements for Recreational Boats is available <https://bit.ly/boaters-guide>

The Annual Boating Statistics Report, and the National Recreational Boating Safety Survey are available at <https://uscgboating.org/statistics>

Please contact us at rbsinfo@uscg.mil for additional information

Coast Guard, the States, and NASBLA

The alliance safeguarding America's waterways

by WALT TAYLOR

Senior Recreational Boating Program Specialist

Boating Safety Division

Program Management & Operations Branch

U.S. Coast Guard

When most people think of the U.S. Coast Guard's role in Recreational Boating Safety (RBS), images of low-stress vessel boardings, life jacket checks, and Auxiliary-led safety courses often come to mind. And rightly so, but these are the visible, public-facing elements of a much broader safety ecosystem.

Beneath that surface lies a complex collaborative infrastructure powered by federal legislation, state partnerships, and strategic funding. Step onto America's waterways and you're entering a safety net woven by three powerful strands—the U.S. Coast Guard, the states and territories (states), and the National Association of State Boating Law Administrators (NASBLA). Together they form a safety net that stretches from inland lakes to open seas.

As outlined in 46 U.S.C. § 13102, the Coast Guard is tasked with carrying out a National RBS Program by contracting with and distributing funds to states empowering them to lead education, enforcement, and outreach efforts. The genius of the program lies in its structure—a federally funded initiative executed almost entirely by state agencies. This design isn't just efficient, it's strategic. By channeling resources through state governments, the Coast Guard empowers local experts to tailor safety efforts to their unique waterways, boating cultures, and enforcement challenges.

Each year, an average of \$119 million in grant funding flows from the Coast Guard to eligible states. These funds support a wide range of activities, from boater education and law enforcement to data collection and public outreach. But the RBS Program's true strength lies in its partnerships. State boating law administrators work together with NASBLA, the Coast Guard, and local stakeholders to build a safety net that's both responsive and resilient.

This decentralized model allows for innovation at the state level while maintaining national consistency

through shared standards, training, and coordination. It's a balancing act that requires trust, transparency, and a shared commitment to saving lives.

Building the Foundation

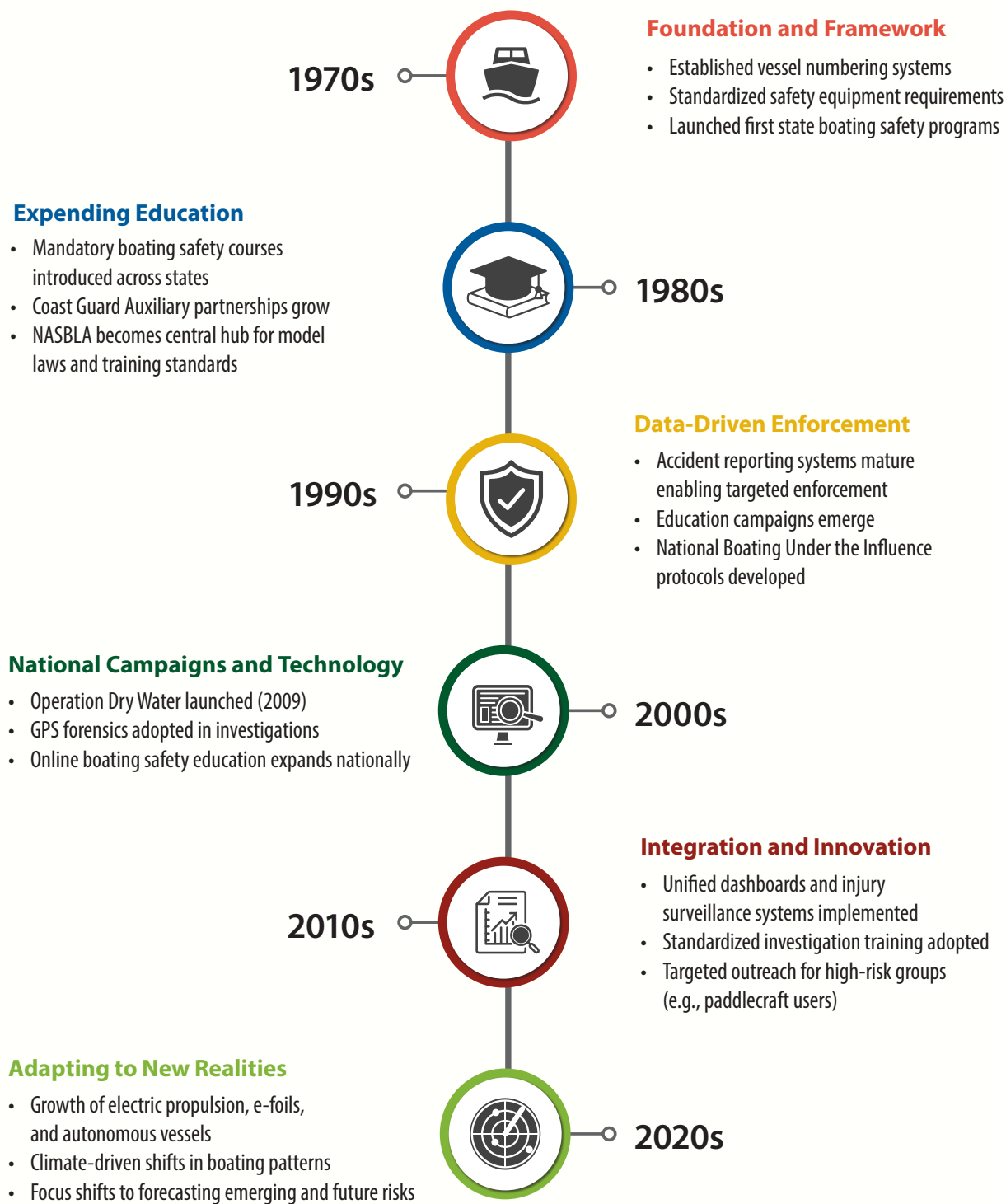
The Federal Boat Safety Act of 1971 (FBSA) was signed into law on August 10, 1971, to address unacceptably high numbers of recreational boating fatalities. It is the foundation of the National RBS Program, which mandates a cooperative federal/state effort to improve safety through mandatory boat manufacturing standards and a coordinated system of laws and regulations. The FBSA empowered the Coast Guard to establish safety standards for boats and equipment, created the National Boating Safety Advisory Committee to provide expert advice, and provided funding for state boating safety programs. The FBSA's intent was clear—build a cooperative federal-state system where states could take the lead in education, enforcement, and outreach, while the Coast Guard provided national standards, oversight, and funding. Since its enactment, the FBSA is credited with preventing an estimated 95,000 fatalities, a testament to the power of coordinated safety policy.

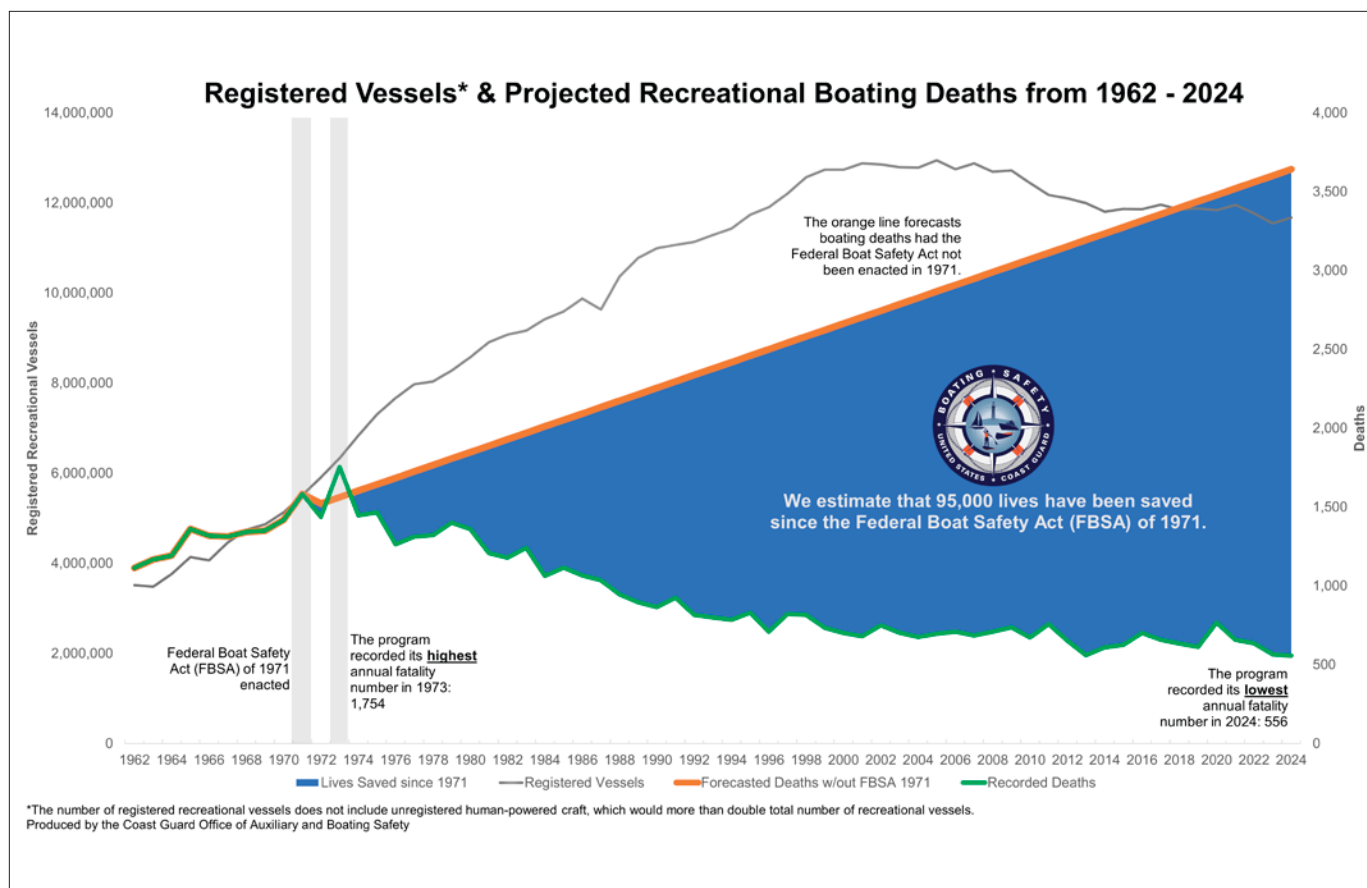
NASBLA

The National Association of State Boating Law Administrators, or NASBLA, is a national 501(c)3 nonprofit organization working to develop public policy for recreational boating safety. It represents the recreational boating authorities of all 50 states, the District of Columbia, and the U.S. territories

Decade-by-Decade

The Evolution of Recreational Boating Safety





Sport Fish Restoration and Boating Trust Fund

While the FBSA created the RBS Program, its success depends on funding. That funding comes from the Sport Fish Restoration and Boating Trust Fund. Created in 1950 and codified in 26 U.S.C. § 9504, the fund is a classic user-pays, user-benefits model. Excise taxes collected from motorboat fuel, fishing tackle, and other boating-related purchases flow into the fund, which is managed by the U.S. Treasury and administered by the Coast Guard's Office of Auxiliary and Boating Safety (CG-BSX). A portion of the fund also supports nonprofit organizations working on national boating safety initiatives. This funding mechanism ensures that those who benefit most from safe waterways, boaters and anglers, are the ones who pay into the system.

Today, the fund provides roughly \$140 million annually, distributed primarily to states with approved RBS programs. The funds are allocated among participating states according to the following formula:

- **Equal Distribution.** One-third of the total funds are allocated equally among all participating states.
- **Vessel-Based Distribution.** One-third of the total funds are allocated in proportion to the number of vessels numbered in the state.

- **Expenditure-Based Distribution.** One-third of the total funds are allocated in proportion to each state's prior-year RBS expenditure.

There are limitations and conditions that must be met, however. A state must provide matching funds equal to at least 50% of program costs. Funds are available for three years from the date of final allocation, and those not used within the three-year period revert to the pool and are reallocated to states in accordance with the allocation formula.

While the Coast Guard establishes the framework, the states carry out the bulk of boating safety work. To receive federal funding, states must meet several core requirements outlined in 46 U.S.C. § 13101-13109. These include:

- An approved vessel numbering system that aligns with 46 U.S.C. § 123, the numbering of undocumented vessels, and 33 CFR Part 74, state numbering and causality reporting systems
- A cooperative boating safety assistance program with the Coast Guard and the state, or a Federal/State RBS Memorandum of Agreement
- Sufficient patrol and other activities to ensure

adequate enforcement of applicable state boating safety laws and regulations

- An adequate state boating safety education program, that includes the dissemination of information concerning the hazards of operating a vessel when under the influence of alcohol or drugs
- An approved marine casualty reporting system

Providing Oversight

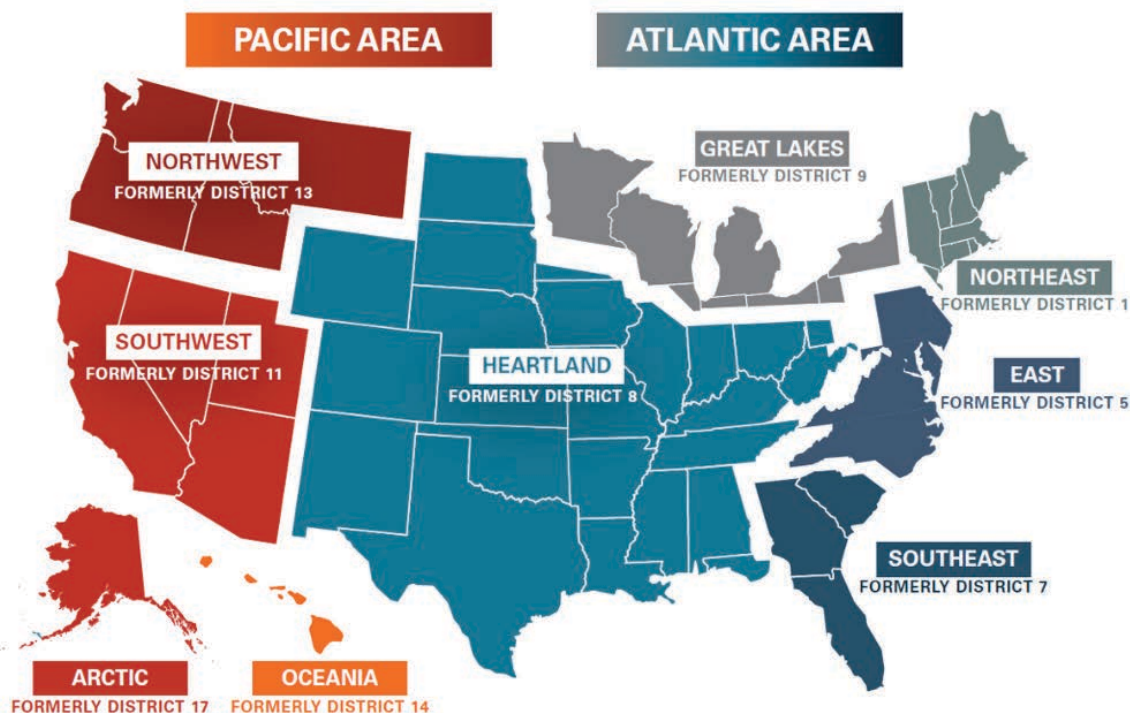
Two separate branches within the Boating Safety Division (CG-BSX-2)—Program Management and Operations Branch (CG-BSX-21) and the Finance and Grants Management Branch (CG-BSX-22)—monitor State RBS Program eligibility. CG-BSX-21 provides three Recreational Boating Program (RBP) specialists that serve as state program coordinators responsible for program compliance oversight of assigned states. The program coordinators are not only RBS subject matter experts, but they are also the experts regarding the operational aspects of state RBS Program compliance. The grant management specialists within the Grants Management Branch monitor the administration of the state's RBS grant funds in accordance with 2 CFR

200, which addresses uniform administrative requirements, cost principles, and audit requirements for federal awards.

The Boating Safety Division is responsible for the administrative and programmatic oversight of the National RBS Program. The operational aspects of the program are executed at the district level and managed by a district RBP specialist. The CG-BSX-2 staff and district RBP specialists function collaboratively with all federal, state, and organizational partners to ensure administrative and operational requirements are met to foster a seamless National RBS Program. The Federal/State RBS Memorandum of Agreement (RBS MOA), a program requirement for states to receive federal funding, is an example of this collaboration.

The current National RBS Program is executed through leveraging the collective authorities and resources of many of our partner agencies and organizations. The Coast Guard has partnered with the states to ensure recreational boaters on our nation's waterways have a safe, secure, enjoyable experience. The total effort required to effectively execute a National RBS program presents often unique and complex communication

U.S. Coast Guard Districts



Coast Guard graphic

and coordination issues. The use of written agreements authorized by 46 U.S.C. § 13109, between the federal government and states, is the proper vehicle for the resolution of such problems. Therefore, Coast Guard districts have an RBS MOA with states located in their area of responsibility. Maintained by the district RBP specialist, these MOAs address consultation, cooperation, and execution of RBS operations pertaining to law enforcement, boating under the influence, public education and training, information sharing, boating incident notification, investigation and reporting responsibilities, and search and rescue.

The MOA is the formal handshake between the Coast Guard and the states that keeps the alliance strong. To ensure agreements are current, on behalf of the district commander, district RBP specialists coordinate RBS MOA reviews with states and Coast Guard Sectors in their area of responsibility every two years.

While districts maintain RBS MOAs with individual states, the Coast Guard's Boating Safety Division maintains a memorandum of understanding (MOU) with NASBLA. This MOU sets forth terms by which NASBLA and the Coast Guard will strive to provide recreational boaters with the benefits available through both organizations.

Anchored by federal law, sustained by Trust Fund investments, and strengthened through partnerships, the Coast Guard's RBS Program is a model of federal and state collaboration. Strong boating safety partnerships with shared objectives and efforts are critical to the success of the Coast Guard's RBS program. Among its many RBS partners, none is more central than NASBLA.

Founded in 1960, NASBLA emerged from a meeting of state boating officials and the Coast Guard to standardize boat numbering systems. Over time, it evolved into a comprehensive national nonprofit organization representing all states. With NASBLA as a national linchpin, the program ensures consistent standards while allowing flexibility for states to address local needs. Together, these efforts create a safer, more enjoyable environment for the nation's 85 million annual recreational boaters.

NASBLA Programs Driving RBS Objectives

Boat Operations and Training Program

Recognized nationally by the Coast Guard, the Boat Operations and Training Program, or BOAT, has trained more than 33,000 marine law enforcement officers, delivering courses from basic vessel operations to advanced topics like pursuit and stop, collision reconstruction, and GPS forensics. Offering a train-the-trainer model option amplifies its reach across states. Finally, BOAT ensures interoperability of state and other agency resources with the Coast Guard.

Law Enforcement and Boating Under the Influence

The Law Enforcement and Boating Under the Influence program offers train-the-trainer courses, which prepare instructors to train others, and advanced BUI detection and enforcement training, including standardized sobriety tests and drug impairment detection.

Also part of this program is the highly successful Operation Dry Water campaign, a high-profile awareness and enforcement push to reduce alcohol/drug-related boating incidents.

Incident Investigation and Data Surveillance

The Incident Investigation and Data Surveillance program offers Level I and II boating incident investigation



The NASBLA Executive Board meets with RADM Wayne R. Arguin at U.S. Coast Guard Headquarters on February 5, 2025, to discuss key boating safety policy and legislative priorities. Photo courtesy of NASBLA



The 2024 National Association of State Boating Law Administrators' Recreational Boating Safety Leadership Academy class preparing to embark on a paddling trip down Elkorn Creek in Frankfort, Kentucky. Photo courtesy of NASBLA

courses emphasizing technical skills in collision analysis and collaboration on a three-tier occupant injury surveillance initiative to improve data quality for policy and prevention.

It also develops boating incident standards and video resources for staged collision training.

Education Standards and Course Approval

The NASBLA Education Standards and Course Approval program works with the National Boating Education Standards Panel to develop American National Standards for boating education as well as reviewing and approving courses to ensure alignment with the standards. This enables reciprocity across states, recognition of NASBLA-approved courses, and national consistency.

NASBLA employs a committee structure to identify issues and address needs in the RBS public policy realm. Its committees function as the primary source, sounding board, and national policy-setting forum for each of the significant program areas addressed in the National

Recreational Boating Safety Strategic Plan.¹ These committees develop the best management practices, model procedures, model acts, position papers, and other products.

The committees also play an important role with respect to shaping a national response to a given challenge, problem, or issue. Some issues impacting boating safety and security are resolved simply through open discussion and the exchange of ideas and experience. On the other end of the spectrum, more entrenched or long-term challenges may ultimately require a statutory or regulatory response to affect the desired outcome. NASBLA committees help the Coast Guard and other policymakers determine the appropriate response.

In addition to the state boating agency members, the committees include broad representation from recreational boating professionals throughout the industry, the nonprofit sector, international interests, the boating public, and federal and local agencies.

NASBLA coordinates and hosts multiple RBS related

educational and outreach events that promote and support the professionals and volunteers that do the day-to-day work of making recreational boating as safe as possible. These events include a state RBS Workshop, the Education Seminar, and the RBS Leadership Academy held at NASBLA headquarters in Lexington, Kentucky, each year. The annual NASBLA meeting takes place in a different location each year, and Operation Dry Water is a year-round prevention/education effort.

The annual, two-day **RBS Workshop** provides boating authorities with an opportunity to attend sessions on current and emerging issues affecting boating program management and engage in open dialog with colleagues on topics specific to state RBS programs.

For RBS education professionals, the **Education Seminar** is a day-and-a-half event that allows attendees to experience hands-on learning about towed watersports, life jackets, outreach and education activities, social media marketing and more.

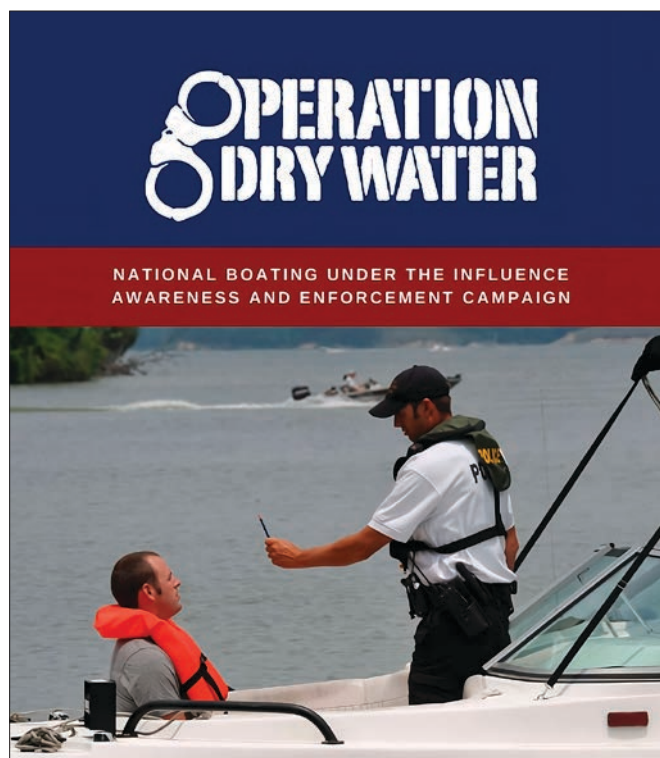
The **NASBLA RBS Leadership Academy** offers valuable insights into the diverse aspects of RBS by allowing participants to engage in interactive events, collaborate in group discussions, and connect with peers as part of a cohort. Providing a comprehensive understanding of the community, the program offers an unparalleled opportunity to interact with new Boating Law Administrators and established leaders from a range of backgrounds. Graduates of the Leadership Academy are well-equipped to serve and lead within their states, NASBLA, and the broader National RBS Community.

The **NASBLA Annual Meeting** combines information sharing, the annual business meeting, and colleague roundtable event for state RBS professionals and others in the community. Every year, the meeting provides focused learning sessions, thought-provoking speakers, an expo hall, and networking opportunities.

Operation Dry Water is a national awareness and enforcement campaign focused on reducing the number of alcohol and drug-related incidents and fatalities while fostering a stronger, more visible deterrent to alcohol and drug use on the water.

Conclusion

Challenges continue to evolve. Emerging technologies, changing demographics, and increasing boating participation require constant adaptation, but the foundation remains solid. The Coast Guard, states, and NASBLA alliance is like a three-strand rope. Each strand is strong on its own, but together, they're unbreakable, and this partnership ensures national standards are upheld while allowing states to tailor solutions to their unique waterways, cultures, and challenges. From inland lakes to open seas, the results speak for themselves with fewer accidents, fewer fatalities, and a boating public



Operation Dry Water, administered by the National Association of State Boating Law Administrators in partnership with the Coast Guard, is a national awareness and enforcement campaign focused on reducing the number of alcohol- and drug-related incidents and fatalities. Photo courtesy of NASBLA

that is better informed and better protected.

In the end, the success of the National Recreational Boating Safety Program isn't the achievement of any single agency. It's the triumph of a nationwide team pulling in the same direction. Anchored in formal agreements, sustained by grant partnerships and collaboration, and propelled by the common mission of making recreational boating safer for everyone, NASBLA and the Coast Guard cooperation creates a safer recreational boating environment for all Americans and visitors to U.S. waterways. 

About the author:

Walt Taylor is the Coast Guard's senior Recreational Boating Program specialist. With 35 years of total Coast Guard experience—including 14 years serving as the Northeast District's RBP specialist—he retired from active-duty Coast Guard service in 2010 as a Senior Chief Boatswain's Mate.

Endnotes

- ¹ U.S. Coast Guard. (n.d.). *The Strategic Plan of the National Recreational Boating Safety Program 2022-2026*. U.S. Coast Guard. Retrieved December 1, 2025, from uscgboating.org/library/strategic-plan/Strategic-Plan-of-the-National-Recreational-Boating-Safety-Program-2022-thru-2026.pdf

National Nonprofit Public Service Organization Grants

A collaborative approach to reducing recreational boating fatalities

by PAVLO OBORSKI
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As paddlesport popularity grows, several organizations are working to get the message out about the unique safety considerations for those who enjoy nonmotorized water sports. Photo courtesy of the National Safe Boating Council

In 1971, Congress established what is now known as the Coast Guard's National Nonprofit (NP) Organization Recreational Boating Safety (RBS) Grant Program. Since then, Congress has authorized the Coast Guard to allocate up to 5% of the grant funding received for the National RBS Program for this effort,¹ or about \$6 million per year. The NP Grant Program's purpose is to ensure the public has a safe, secure, and enjoyable recreational

boating experience by implementing programs designed to minimize the loss of life, personal injury, and property damage. National nonprofit organizations are awarded grants through a competition where subject matter experts evaluate and score applications. Many of the projects funded over the last few years supplement the boating safety efforts conducted by the 56 states and territories in the United States. In fact, the states use

many of the grant funded deliverables for their own boating safety efforts and programs.

In conjunction with state and federal efforts, the grant recipients work to implement the three initiatives of the National Recreational Boating Safety Program's Strategic Plan:²

- Positively Influence Recreational Boater Behavior
- Positively Influence Recreational Boat and Accessory Manufacturers
- Leverage Recreational Boating Data

Many projects from these organizations address multiple initiatives, especially those that provide outreach to both boaters—Initiative 1—and manufacturers—Initiative 2. Recipients also provide measurements of their efforts per increased focus on data under Initiative 3.

Grant Funding at Work

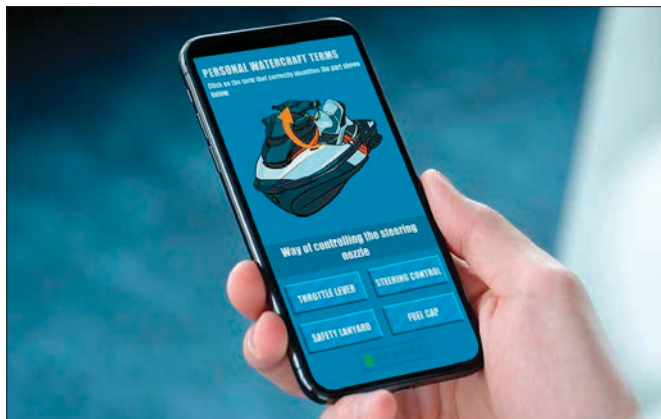
The following nonprofit organizations have recently received funding for recreational boating safety activities.

American Boat & Yacht Council Annapolis, Maryland

American Boat & Yacht Council (ABYC) develops voluntary global safety standards for design, construction, maintenance, and repair of recreational boats. The Coast Guard provides grant support to ABYC to maintain these standards, encourage boat manufacturers to achieve a higher level of safety standards in boat building, and to fund technical education and training of boat building professionals.

American Canoe Association Fredericksburg, Virginia

The American Canoe Association serves the broader paddling public by providing educational programs and supporting stewardship initiatives that affect paddlers.



Through its Search Engine Content Marketing Project, the Water Sports Foundation engages boaters and paddlers when search for information online. Photo courtesy of the Water Sports Foundation

The Expanding Virtual Paddling Education project builds on the Paddlesports Safety Facilitator online course, which teaches basic safety and paddling knowledge, trip planning, group management, and rescue priorities for canoeing, kayaking, and stand up paddleboarding. The Education Through Geofencing project provides a direct-to-mobile, location-based information-sharing technology, which provides information to operators based on their physical activities and the places they go.

American Whitewater Springfield, Oregon

American Whitewater, a river conservation organization, updates river data nationwide for high-use rivers. This initiative has expanded hazard alerts and mapped water flows. An outreach campaign encourages crowdsourced safety contributions, providing real-time tools to over 1 million users annually.

BoatU.S. Foundation Springfield, Virginia

The BoatU.S. Foundation promotes safe, clean, and responsible boating. The Foundation was funded to modernize its national Life Jacket Loaner Program by piloting digital check-out Smart Stations that track usage and provide QR-enabled safety education. This initiative will expand access to properly fitting life jackets, including inflatable options for adults, and promote behavioral change through a national public service announcement campaign. By leveraging technology, this program will reduce drowning fatalities and increase life jacket wear rates. The organization's project on the Multipronged Approach to an Educated Boater provides micro-courses on important lessons to increase boating safety via 30-minute interactive courses.

Coast Guard Auxiliary Association Granite City, Illinois

The Coast Guard Auxiliary Association is dedicated to strengthening the Coast Guard Auxiliary by supporting and enhancing member experiences, securing resources, and ensuring the Auxiliary provides effective support of the Coast Guard's mission. Its Paddlesports Safety Initiative expands awareness of paddle craft safety through outreach activities geared to influence paddle craft manufacturers, vendors, dealers, and liveries. These professionals then influence the paddling public toward increased safety.

U.S. Army Corps of Engineers Natural Resources Education Foundation Pisgah Forest, North Carolina

The U.S. Army Corps of Engineers Natural Resources Education Foundation, or Corps Foundation, supports

lakes and waterway sites managed by the U.S. Army Corps of Engineers throughout the United States. The Foundation's Life Jackets Worn, Nobody Mourns campaign has provided recreational boating safety and outreach materials to increase safety on waterways managed by the Army Corps.

***JSI Research & Training Institute
Boston, Massachusetts***

JSI Research & Training Institute is a public health and education organization that has conducted a National Life Jacket Wear Rate Study for more than 20 years. This study tracks boater behavior via live observations nationwide, with Coast Guard Auxiliary volunteers providing most of these observations to keep the grant costs down. This study is critical to assessing approximately how many recreational boaters wear lifejackets—an essential measure for our grant program.

***National Association of
State Boating Law Administrators
Lexington, Kentucky***

National Association of State Boating Law Administrators (NASBLA) works to develop public policy for recreational boating safety. NASBLA works closely with the states to promote consistency in its statutes, regulations, and enforcement. This includes maintaining American National Standards Institute-approved boating education standards and a consolidated dashboard for all state recreational boating information. NASBLA also provides training that includes Boating Under the Influence: Detection and Enforcement; Effectively Prosecuting Boating Under-the-Influence Cases; and Boating Incident Investigation and GPS Forensics. The latter features staged vessel collisions so officers can learn how to effectively document boating incidents. NASBLA also coordinates the Operation Dry Water campaign, a nationwide effort to reduce alcohol- and drug-related boating incidents.

***National Safe Boating Council
Clearwater, Florida***

The National Safe Boating Council serves as the national catalyst for developing a safe boating culture. To promote increased life jacket wear rates, the Coast Guard has provided funding for the Council's Safe Boating outreach campaign, which features the slogan, Wear It! Its Waves of Hope campaign mobilizes survivors and families as influencers, equipping them with resources to share safety messages through social media, grassroots events, and media platforms. The International Boating and Water Safety Summit Training Event has continued to unite stakeholders. This initiative elevates professional development, shares best practices, and strengthens collaboration within the recreational boating safety



Wearing a life jacket is one of the simplest ways to be safe while enjoying time on the water. csfotoimages | iStock/Getty Images

community. Other projects funded by the Coast Guard include a campaign to educate the public about Level 50 life jackets, and the Boat On Course, which includes a series of educational videos that teach safe vessel operation.

***Safe Kids Worldwide
Washington, District of Columbia***

Safe Kids Worldwide (SKW) was founded to contribute to the reduction of preventable childhood injuries. Through partnership, SKW supports new and existing Safe Kids coalition programs to address boating safety, primarily life jacket wear, at the community level through educational outreach via a Safe Kids Coalition Grant Program.

***Safe States Alliance
Atlanta, Georgia***

The Safe States Alliance's mission is to strengthen the practice of injury and violence prevention. It was funded to enhance recreational boating data to improve prevention efforts for drownings and near-drownings and bridges public health and recreational boating sectors to reduce fatalities through real-time data collection and analysis.

***Sea Tow Foundation
Southold, New York***

The Sea Tow Foundation's mission is to provide access to education, tools, and resources to eliminate preventable recreational boating accidents and deaths. Its Life Jacket Loaner Program establishes loaner stations nationwide. Funding was provided to expand the reach and replenish existing stations. By expanding access to life jackets,

this program will reduce drowning risks and promote safer boating practices. Additionally, the foundation's Sober Skipper Campaign encourages a Don't Drink and Boat message, urging the boat operator to not consume alcohol.

Spirit of America Foundation
Mentor, Ohio

The Spirit of America offers unique, safe, and comprehensive water-based educational and recreational programs. Funding provides various hands-on boating education for youth around the country, bringing interest to a new generation of future boaters.

United States Power Squadrons/America's Boating Club

Raleigh, North Carolina

The United States Power Squadrons/America's Boating Club is dedicated to boating safety and education. Their Boat Live 365/America's Boating Channel promotes and sustains the promotion of content and year-round viewership of the America's Boating Channel's video catalog promoting recreational boating safety themes. The channel is available on streaming services, like YouTube.

Water Solutions Group
Chesapeake, Virginia

Water Solutions Group provides training tools, programs, and activities that maximize safety for recreational boaters. Through the www.RentalBoatSafety.com website, Water Solutions Group launched a national rental boat safety campaign to educate rental customers and equip rental liveries with essential safety resources. This initiative enhanced safety awareness among non-traditional boaters and improved operational safety standards for rental liveries.

Water Sports Foundation
Orlando, Florida

The Water Sports Foundation was founded on the premise that a safer boating culture saves lives and that more should be done to reduce senseless boating incidents. There have been many Water Sports Foundation outreach projects funded including creation of a Search Engine Content Marketing project to engage boaters and paddlers when they actively search for information online. Other projects include collaboration with marine industry leaders and trade press to amplify boating and paddling safety messages and increase awareness of paddlesports safety. These projects combine social media, true stories, and targeted outreach to promote recreational boating and paddling safety. Video public service announcements, search-optimized articles, newsletters, and social media campaigns inform and

persuade audiences to adopt safer boating behaviors. Additionally, collaboration with leading boating and paddling media brands and social media influencers helps increase awareness of Level 50 life jackets.

Wildlife Forever/Future Anglers Foundation
White Bear Lake, Minnesota

Wildlife Forever's mission is to safeguard America's wildlife heritage through conservation education, preservation of habitat, and management of fish and wildlife. Its National Boating Safety Education Expansion project educates the public about boating safety, positively influencing recreational boater behavior using the unprecedented impact of the broadcast airtime value on the Emmy-winning Into the Outdoors Education Network.

Conclusion

These organizations save lives. Since the founding of the Coast Guard's National Nonprofit Organization Recreational Boating Safety Grant Program, these national nonprofit organizations have helped the Coast Guard, the states, and our nation's recreational boaters reduce deaths to the lowest in the program's history. The Coast Guard is excited about continuing the innovations in prevention and looks forward to the many creative projects our colleagues will propose to serve the American public in the future. 

About the Authors:

Pavlo Oborski is the Grants Management Branch chief within the Coast Guard Office of Auxiliary & Boating Safety. More than 16 of his 28 years of federal grant administration experience have been with the Coast Guard. His responsibilities include financial oversight of the State, Nonprofit Organization, and Survey Grant Programs; and advising Coast Guard Leadership on grant administration.

Barry Nobles reported to U.S. Coast Guard Headquarters in 1999 and currently serves as legislative coordinator and facilitate the Sport Fish Restoration and Boating Trust Fund and the Strategic Plan of the National Recreational Boating Safety Program. He's been a recreational boater since 1974 and serves his community as a lifeguard and stand-up paddle board instructor.

Endnotes:

¹ 46 U.S.C. § 13104(c). The remaining 95% is distributed to the State RBS Grant Program

² <https://uscgboating.org/content/strategic-plan.php>



For more information

For a closer look at grant awards by years, please visit <https://bit.ly/4qBDVlc>

Understanding Vessel Numbering, Documentation, and the Risks of System Exploitation

by KRISTIN WILLIAMS
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A robust vessel numbering system is critical to maritime safety and security, tax enforcement, and ownership transparency. In the United States, vessels are identified primarily through either state-issued Certificates of Number (CON) or federal documentation from the U.S. Coast Guard. Understanding the differences between these systems, how they are regulated, and the vulnerabilities within them is essential for state authorities, law enforcement, and policymakers.

Certificate of Number: Federal Requirement, State Responsibility

Title 46 U.S.C. § 12301 requires that all mechanically propelled vessels be issued a CON unless otherwise documented. This requirement is further detailed under 33 CFR Part 173, which governs the minimum requirements for state numbering systems. The Coast Guard delegates the authority to issue CONs to individual states, provided they comply with the standards outlined in 33 CFR Part 174.



It is a federal requirement that all mechanically propelled vessels are issued a Certificate of Number, or a CON, unless otherwise documented. Part of the CON is a state registration number, like the one seen on the hull of this vessel. Coast Guard photo

Each state is responsible for registering vessels primarily operated within its jurisdiction. A CON is a document that includes:

- Vessel ownership, expiration date, and specific details about the vessel
- A state registration number—for example, AL 1234 AB or AL-123-AB for a vessel registered in Alabama—that is affixed on both sides of the forward hull
- A validation decal, which, if issued, must be displayed within six inches of the registration number, be approximately 3 inches square, and indicate the year of expiration by color—blue, international orange, green, and red, in rotation, beginning with blue in 2025. A validation decal is not mandatory but is addressed in regulations.

A state may also require other types of vessels, like sailboats, barges, or paddle craft, to register and may require Coast Guard documented vessels to also obtain a validation decal without assigning a state registration number.

Federal Documentation vs. State Numbering

A documented vessel is one that has been issued a Certificate of Documentation by the National Vessel Documentation Center (NVDC). This federal documentation is required for vessels of at least 5 net tons engaged in coastwise trade, fisheries, or other specific commercial activities in accordance with 46 CFR Part 67.7.

A Certificate of Documentation:

- Serves as proof of U.S. nationality
- Permits entry into certain trades
- Enables recording of preferred mortgages
- Is optional for recreational vessels 5 net tons or more

In contrast, state numbering applies to recreational and uninspected commercial vessels under 5 net tons or not required to be inspected by the Coast Guard.

State of Principal Operation: A System Vulnerability

The State of Principal Operation is defined as the state in which a vessel is primarily operated during a calendar year—though not necessarily 51% of the time. It determines which state has jurisdiction to issue a CON. Improper enforcement or manipulation of the State of Principal Operation allows vessel owners to:

- Avoid taxes—sales, property, or luxury—by registering in low-tax states
- Evade law enforcement by exploiting lenient registration requirements
- Exploit international laws, as some foreign nations treat U.S.-numbered vessels differently due to political sensitivities

This type of abuse can adversely affect funding for states. The number of registered vessels in a state contributes to its share of federal funding through the

States with Special Provisions for Vessel Titles

State	Requirement
Alaska	Boats > 24 feet are titled; optional < 24 feet
Arkansas	All boats manufactured on or after 1 Jan 2020 are titled
Idaho	All boats model year 2000 and newer are titled upon transfer of ownership
Louisiana	All boats are titled except sailboats < 12 feet
Michigan	All boats > 20 feet and all boats with permanently affixed engine are titled
Mississippi	Optional for all boats
North Carolina	All boats > 14 feet and all PWCs are titled. Optional for boats < 14 feet

Coast Guard graphic

Sport Fish Restoration and Boating Trust Fund, as that number factors into one third of the state's allocation. Inaccurate state registrations can reduce allocations to the state where the vessel is actually operated, undermining boating safety efforts.

Title Washing: A Case of Fraud and Lost Ownership

Title washing occurs when a vessel is stolen or fraudulently transferred and then registered in a non-titling state. Since not all 56 states, territories, and the District of Columbia require titles, the paper trail can be broken, allowing a bad actor to register the vessel with falsified

ownership documents. Once registered in a non-titling state, the vessel can be brought to a titling state and issued a new title—essentially erasing its previous identity.

There are currently no federal requirements, but many states have taken a proactive role in vessel titling. Several states have requirements for what vessels may be titled. There are currently 12 states, including U.S. territories, that do not require a vessel title.

HIN Verification: Strengthening Vessel Identity

Every vessel built primarily for non-commercial use must have a 12-character Hull Identification Number (HIN) as per 33 CFR 183.3. The first three characters are the Manufacturer Identification Code, assigned by the Office of Auxiliary & Boating Safety.

Beginning in 2017, states had to begin determining whether a vessel has a primary HIN meeting the requirements of 33 CFR part 181, subpart C. This verification is applicable to a vessel imported or manufactured on November 1, 1972, or later. If the state determines the vessel does not have a primary HIN meeting the requirements, it can assign a primary HIN and verify that the owner of the vessel has permanently affixed that HIN to the vessel in compliance with 33 CFR part 181, subpart C.

Inconsistencies in HIN verification among

How Title Washing Works

A vessel titled in State A is stolen and taken to State B, which does not require titling. The thief registers it there using false paperwork. Later, the vessel is brought to State C, which requires titling. Without access to accurate records or verification, State C may issue a new title, thus legalizing fraudulent ownership.

HULL IDENTIFICATION NUMBER (HIN)

Manufacturer
Identification Code
(MIC)

Serial Number

Month/Year of
Certification/
Manufacture

Model Year

ACB11840A717

Key to Month of Production

A: January	G: July
B: February	H: August
C: March	I: September
D: April	J: October
E: May	K: November
F: June	L: December

Coast Guard graphic by Munseila Sarun

states—especially those that do not require vessel titling—create opportunities for fraud and identity manipulation. Without proper enforcement, a vessel's identity can be effectively altered simply by re-registering in a different state.

The Vessel Identification System

The Vessel Identification System (VIS) is a national, albeit voluntary, database that compiles vessel registration data from participating states and the NVDC. It is critical for:

- Providing law enforcement access to ownership and HIN data
- Preventing title washing through HIN and ownership verification
- Supporting interstate cooperation in registration and titling

VIS data is only accessible to state or federal issuing authorities and law enforcement personnel.

Currently, 39 of 56 states, territories, and the District of Columbia participate in VIS. Signatory states allow the Coast Guard to upload their vessel data into the system, enabling robust search and verification capabilities. Without participation, vessel records remain siloed, increasing the risk of fraud and registration issues.

Modernization and Challenges

Despite the importance of vessel registration systems, many states still operate with outdated forms and practices. Common problems include:

- Continued use of obsolete application forms
- Failure to include federally required data fields
- Inconsistencies that delay ownership transfers or registration updates

These issues impact not only customer service, but also skew statistical data, hampering national boating safety research and policy development.

Conclusion

The current system of vessel documentation and registration serves its purpose but is vulnerable to misuse. The lack of titling consistency, incomplete participation in VIS, and enforcement gaps in State of Principal Use and HIN verification creates loopholes that can be exploited for fraud, tax evasion, or worse.

State authorities, in partnership with the Coast Guard, must work to:



- Update processes and forms in line with federal regulations
- Participate in VIS to share and verify vessel data
- Enforce State of Principal Use and HIN requirements to prevent exploitation
- Ensure transparency and accuracy in vessel titling and ownership

Through compliance with requirements by the states, the U.S. vessel registration system protects the public and the nation. 

About the authors:

Kristin Williams is a state program coordinator in the Coast Guard's Office of Auxiliary & Boating Safety. She retired from active duty after serving 20 years, primarily as a marine investigating officer. With more than 38 years of Coast Guard service, she oversees the Vessel Identification System and is responsible for monitoring, evaluating, and assisting 17 states and territories with the implementation of the National Recreational Boating Safety Program to make boating safer.

Seth Wagner is a state program coordinator in the Coast Guard's Office of Auxiliary & Boating Safety. He primarily assists 19 states with their participation in the National Recreational Boating Safety Program, which is focused on improving boating safety through education and regulation. He was previously a law enforcement officer with the Florida Fish and Wildlife Conservation Commission. Prior to his retirement, he was assigned to the Boating and Waterways Section and served as the State Boating Law Administrator.

State Recreational Boating Safety Law Enforcement: The Lion's Share

by JEFF DECKER

Chief

Program Management and Operations Branch

Office of Auxiliary & Boating Safety

U.S. Coast Guard

States are required to have an enforcement element as part of their State Recreational Boating Safety (RBS) Program. It's the U.S. Coast Guard's Office of Auxiliary & Boating Safety that reviews the state's RBS law enforcement efforts to ensure those elements are adequate. The intent of the Federal Boat Safety Act (FBSA) was to encourage the state to assume the greater share of boating safety enforcement. When comparing the volume of state to Coast Guard RBS law enforcement efforts, this has been achieved with the states conducting 48 times more enforcement activity.

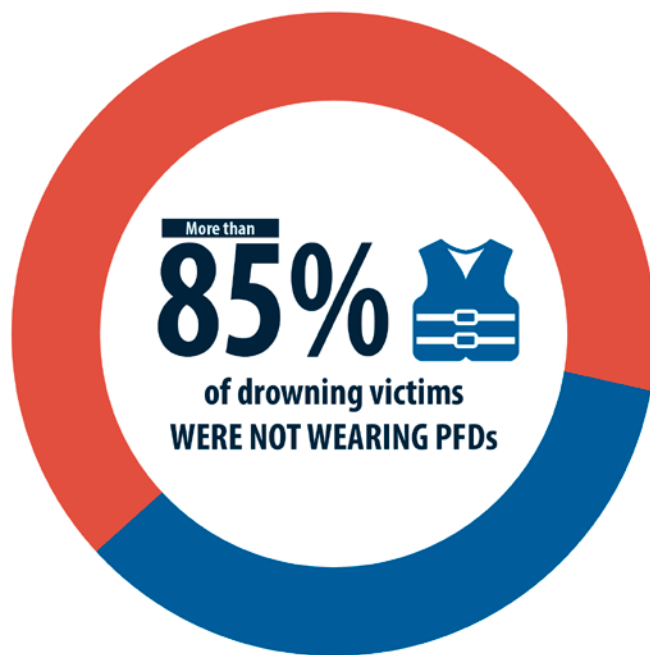
Statutory Requirement

One of the required elements of an approved State RBS Program is "sufficient patrol and other activity to ensure adequate enforcement of applicable State boating safety laws and regulations." The Coast Guard, through work with the states and the National Association of State Boating Law Administrators, has developed policy standards and metrics to measure the adequacy of these efforts.

Policy

The Coast Guard's Program Management and Operations Branch conducts triennial reviews of State RBS programs, including law enforcement. These reviews collect information on the levels of government—state, county, local, or other—conducting RBS law enforcement, as well as:

- Annual grant award amounts for RBS and law enforcement
- Personal flotation device (PFD) and engine cut-off switch wear requirements for law enforcement officers (LEO)
- Joint operations with the Coast Guard and other law enforcement agencies
- The state's implied consent posture
- The number of state LEOs

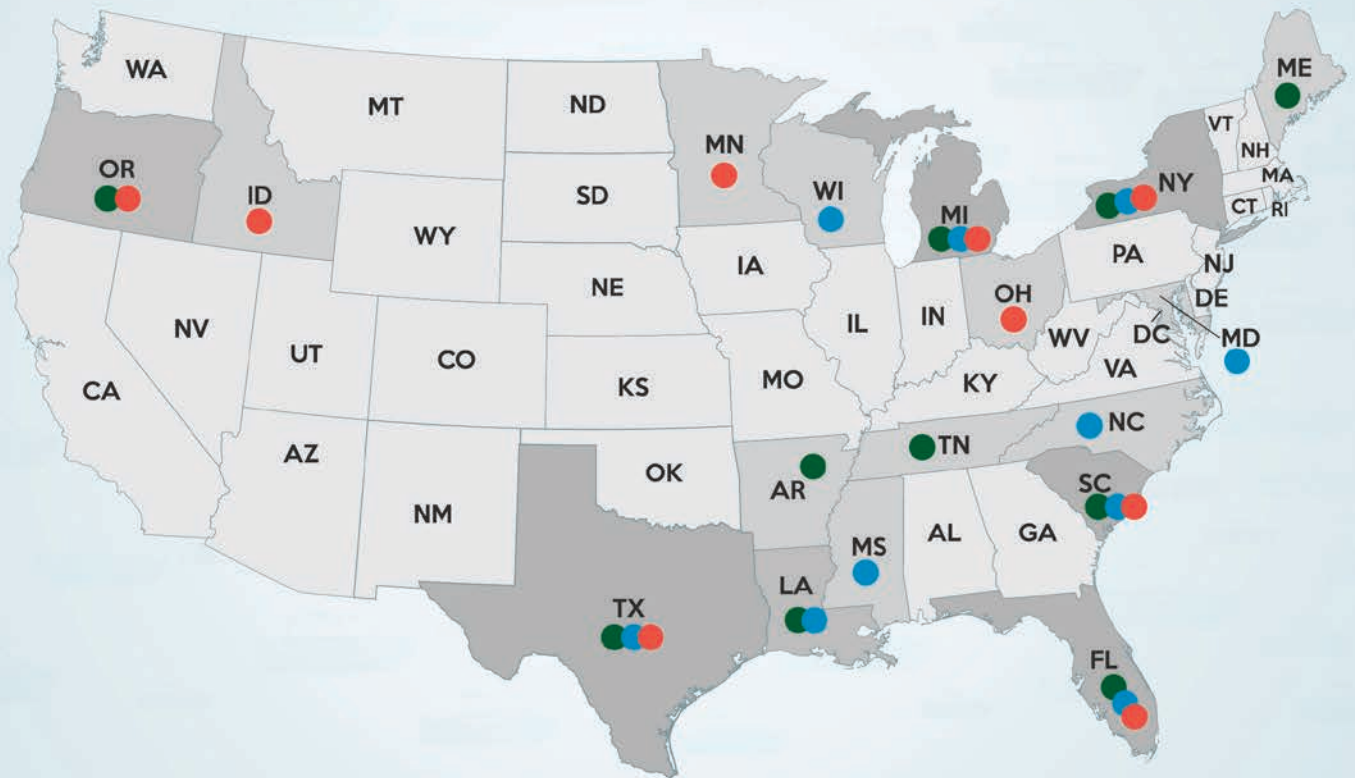


- State training programs for the LEOs
 - State enforcement posture for PFD carriage requirements; visual distress signals; fire extinguishers; negligent operations, including operator inattention, improper lookout, and excessive speed; navigation rules; and BUI

These elements are collected because of their importance in preventing and mitigating boating deaths, injuries, and incidents. For instance, drowning is the leading cause of death, and more than 85% of victims are not wearing PFDs. Negligent operations are the leading contributing factor in incidents, and BUI is the leading contributing factor in boating deaths. Assisting the state in tracking key enforcement elements can allow the program to determine the effectiveness of interventions across the nation.

This tracking is done through state reports to the Coast Guard at the end of each year via the Performance Report Part 2 (PRP2) tool and performance information

BOATING SAFETY BY THE NUMBERS



TOP 10 STATES

INSPECTIONS

- Arkansas
- Florida
- Louisiana
- Maine
- Michigan
- New York
- Oregon
- South Carolina
- Tennessee
- Texas

CITATIONS

- Florida
- Louisiana
- Maryland
- Michigan
- Mississippi
- New York
- North Carolina
- South Carolina
- Texas
- Wisconsin

WARNINGS

- California
- Florida
- Idaho
- Michigan
- Minnesota
- New York
- Ohio
- Oregon
- South Carolina
- Texas

2024

RECREATIONAL VESSEL BOARDINGS, STOPS, AND INSPECTIONS



COAST GUARD REPORTED
24,000



STATE AGENCIES REPORTED
1,150,000 (48X Times!)

Coast Guard graphic by Munseila Sarun

captured includes the elements covered above, as well as:

- The number of LEOs—the standard is one LEO for each 3,000 registered vessels
- The number of patrol boats or vehicles—the standard is one for each 4,500 registered vessels
- The number of boardings or stops—a stop or boarding of 5% of the registered vessels is standard
- The number of officers receiving the minimum level of initial and continuing training

Comparison of State and Coast Guard Recreational Boating Safety Law Enforcement

For calendar year 2024, the states conducted nearly 1.15 million boardings, stops, and inspections of recreational vessels. By comparison, the Coast Guard reported nearly 24,000 boardings of recreational vessels. The states are conducting nearly 48 times more boardings, stops, and inspections than the boarding done by the Coast Guard, which is the intent of the RBS Program

The states issued 91,556 citations, or a citation to inspection rate of 8.0%. The Coast Guard issued 3,919 violations, or a violation to boarding rate of 16.4%. The states also issued 281,480 warnings with a warning to inspection rate of 24.6% compared to the Coast Guard's 1,950, or a warning to boarding rate of 8.1%. It was far more likely the Coast Guard would issue a violation—the state's version of a citation—and a state would issue a warning. The most prevalent reasons for the states and

the Coast Guard to issue citations, violations, or warnings to vessels are expired or missing registration or vessel documents and personal flotation device deficiencies.

The states also had 2,908 BUI arrests for 2024. Coast Guard BUI arrests are much lower, since many Coast Guard cases are passed off to a state or local agency. This is another example of states taking the greater share of RBS law enforcement, allowing the Coast Guard to focus its resources on commercial vessel enforcement and other issues.

Conclusion

In summary, the Federal Boat Safety Act's goal of getting the states to conduct the lion's share of enforcement has been successful. Collectively, both the Coast Guard and the states, at all levels of government, perform an important collaborative role in RBS law enforcement to ensure boaters are safer. 

About the author:

Jeff Decker has served in the Boating Safety Division since 2015 and as the Program Management & Operations Branch chief since 2023. Prior to that, he ran a boating education company with on-line video views in the millions, and he was the nation's outstanding State Boating Safety Education Officer at the Virginia Department of Wildlife Resources. A court-certified Boating Safety expert, he retired from the U.S. Coast Guard as a senior chief boatswain mate.

Endnotes:

- ¹ 46 U.S.C. §13102(a)
- ² 46 U.S.C. §13103(c)(3)
- ³ The State Guide, COMDTPUB 16755.3B, Appendix 1

Recreational Vessel Casualty Reporting

Insight into making boating safer for everyone

by VERNE GIFFORD
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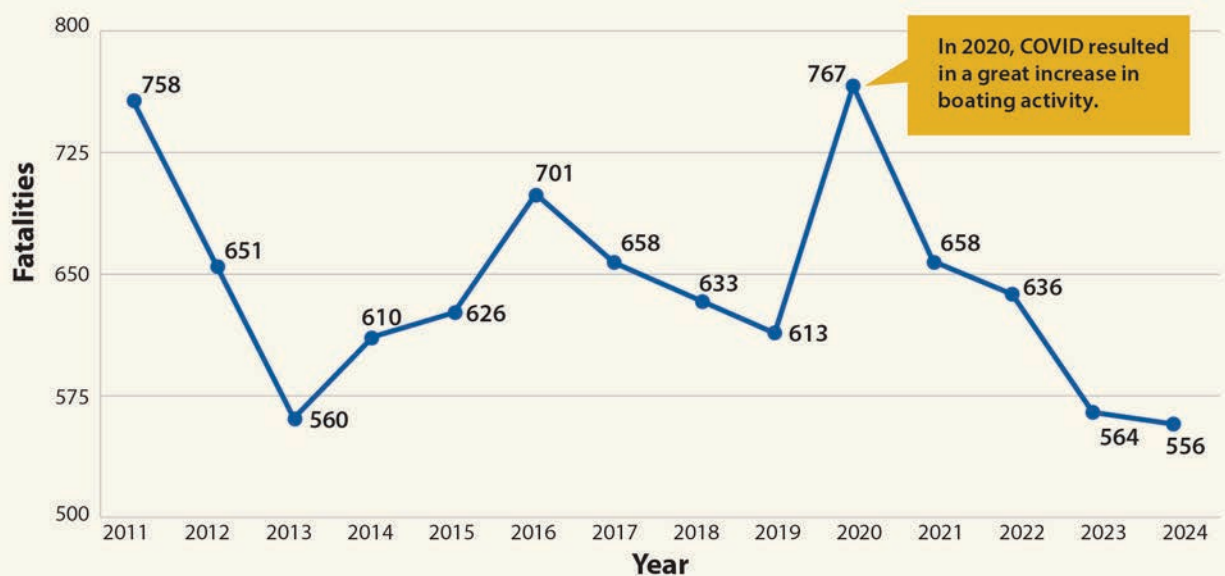
Each year, the casualty reporting system for recreational vessels collects information on boating deaths, injuries, and accidents and reports these incidents¹ to the Recreational Boating Safety (RBS) community and the American public. The result is enhanced insight into the causes and contributing factors behind boating incidents and possible interventions to reduce them. The state RBS programs do an outstanding job gathering this information and entering it into the Boating Accident and Reporting Database, or BARD, the chief information system for this purpose. The Coast Guard is

presently reengineering BARD as part of the Coast Guard Case Management System acquisition.

Requirements for a State Casualty Reporting System and Incident Reporting

The National RBS Program requires states to have an adequate RBS program. A marine casualty reporting system is one of five elements necessary for a state program's approval.² The Coast Guard Program Management and Operations Branch reviews compliance with these requirements. This review includes data

BOATING FATALITIES BY YEAR



Coast Guard graphic

requirements for data entry and conformance with federal reporting—including the reporting form—and the timeliness of submitting casualty reports into BARD.

Federal regulations require recreational vessel operators to report a death, missing person, injury requiring more than first aid, and an event where the damage exceeds \$2,000 to the state reporting authority.³ Deaths require immediate notification, while injuries must be reported within 48 hours, and damage-only accidents within 10 days.

Incident Reporting Form

States play the crucial investigative role of completing the incident case with the required information. This information is reported on a form with 262 fields⁴ divided into 19 different subject areas including details on persons, vessels, and conditions.

The Recreational Boating Statistics Report and Investigator Training

Gathering the information required to complete the incident reporting form takes professionalism, diligence, and training on the part of state casualty investigators. The Coast Guard, through a grant to the National Association of State Boating Law Administrators (NASBLA), provides investigators with this training which is also available to Coast Guard personnel.

Using the state investigators' reports, the Coast Guard produces the annual Recreational Boating Statistics Report each calendar year and is released by June of the following year. The six-month delay is to finalize reporting from the states, review submitted information, and produce the report.

The report includes an executive summary, an

introduction, and sections on incident causes, conditions and types, operator and passenger information, and casualty and registration data. Each report is organized in the same way, to make finding information and comparing data between years easier. The following information appears in the executive summary, unless otherwise stated, and highlights data from the report.

- The number of deaths in 2024 was an all-time low of 556.
- The number of deaths per 100,000 registered recreational vessels was near an all-time low in 2024—at 4.8. This is far below the 20.6 deaths in 1971, which is when the Federal Boat Safety Act (FBSA) that launched the National RBS Program was signed. The program estimates that a nearly 100,000 lives have been saved through FBSA interventions.
- In 2024, the greatest cause of boating deaths was drowning. In fact, for the last 10 years, drowning has been the cause of between 75% and 80% of boating deaths. In those same 10 years, between 83% and 87% of drowning victims were not wearing a personal flotation device.
- Four out of five boaters who drowned were aboard vessels less than 21 feet in length.⁵
- Alcohol has remained the greatest contributing factor in boating deaths, ranging between 16% and 23% of deaths in the past eight years.
- Most incidents happen in calm water, light wind, good visibility, and warm water temperatures.⁶
- In 2024, the percentage of boating deaths from paddle crafts, like canoes, kayaks, rowboats, and stand-up paddleboards, was the second highest of all time at 27.2%.⁷ This included the highest number of stand-up paddleboard deaths—29—in the program's history. In general, since 2020, the percentage of paddle craft deaths has increased slightly from 25.3 deaths in 2019 to 27.2 deaths in 2024.
- Boating injuries have decreased at almost double the rate of boating deaths and other incidents including all deaths, injuries, and damage-only accidents. The average number of injuries in years 2017-2021 was 2,585, though the 3,191 injuries in 2020 were not counted in this average because of the abnormally high activity during the COVID pandemic. The average in the past three years, 2022-2024, was 2,173. That's a decrease of 15.9%. By comparison, deaths went from an average of 641 in those same four years to an average of 585, or an 8.7% decrease. Incidents, including all deaths, injuries, and damage-only accidents, went from an average of 4,261 to 3,924, a 7.9% decrease.
- In 2024, open motorboats had the most incidents



While the number of boating-related death has fallen to an all-time low, alcohol has remained the greatest contributing factor. Coast Guard photo

with 2,475. Personal watercraft were involved in 986, while cabin motorboats and pontoon vessels were involved in 712 and 477, respectively.

- Three primary factors contributed to 39% of open motorboat, 50% of personal watercraft, 40% of cabin motorboat, and 44% of pontoon boat incidents—operator inattention,⁸ improper lookout,⁹ and operator inexperience.¹⁰ These rates are highest among motorized boats.
- Voluntary departure deaths, including when a swimmer leaves a boat voluntarily and drowns, are far more likely on vessels with inexperienced operators and passengers.
- Most incidents happen with operators between 26 and 55 years of age, and those who have more than 100 hours of experience or someone with the same experience but no formal boating education.

Data Concerns

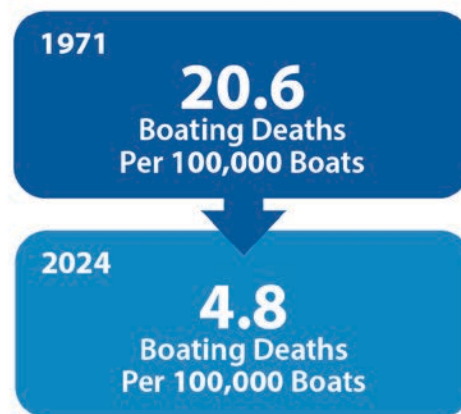
The rate of reporting to the states differs significantly among deaths, injuries, and damage-only accidents. A recent study¹¹ showed that nearly every boating death is included in the Annual Recreational Boating Statistics Report. However, the reporting rate for injuries and damage-only accidents is much less reliable. The Coast Guard worked with insurance companies to determine that the rate of reporting for serious injuries, which required treatment in a hospital, was about 67%. For injuries requiring only first aid, the rate of reporting was about 4%. For damage-only accidents, the rate of reporting was about 6%. Insurance companies do not have a requirement that the boat owner must submit a CG-3865, or recreational boating accident, form with their claim.

Using these rates, the Coast Guard estimates the actual number of incidents per year is about 50,000, more than a tenfold increase in incidents from what is presently reported to the states. The Boating Safety Division's position regarding this shortfall is that enough information is received from the reports that are made. This is especially true since the program receives notice of all deaths and most significant injuries and has reasonable estimates of the reporting shortfall for

Incident Type	Rate of Reporting
Deaths	100%
Serious Injuries	66.7%
Other Injuries	4%
Damage-Only Accidents	6.7%
Property Damage Dollars	10%

Coast Guard graphics

NATIONAL RBS PROGRAM: 50 YEARS OF SAVING LIVES 95,000 Lives Saved



Coast Guard graphic by Munseila Sarun

the remaining incidents. The significant increase in the workload to capture all incidents would not justify the benefit.

To address concerns over incidents that are not reported, especially for deaths and significant injuries, the Coast Guard scrubs media reports of boating incidents and publishes the Boating Accident Descriptions, or BADS. This report assists in identifying those incidents for which the state may not have received a report and is emailed to the RBS community biweekly from May through October and weekly the rest of the year.

The impact of alcohol is another data concern. For motor vehicles, the National Highway Transportation Safety Administration counted 39,345 motor vehicle fatalities in 2024, its most recent report. Alcohol was involved in 12,429, or 30%, of these fatalities. For the same year, the RBS Program's Boating Statistics Report indicated alcohol was a contributing factor in 17% of boating deaths. The Coast Guard will be analyzing the

Life Jacket Wear Rates	
All Boaters	20%
All Boaters (w/o Personal Watercraft)	17%
All Youth Boaters (w/o Personal Watercraft)	62%
All Adult Boaters (w/o Personal Watercraft)	9%
All Powerboat Boaters	61%
All Paddle craft Youth Boaters	80%
All Paddle craft Adult Boaters	56%

number of deaths where the operator is tested for alcohol.

The Coast Guard doesn't know how many drowning deaths occurred when a potential rescuer was nearby. This information is potentially important in determining the capabilities for a life jacket.¹ Can a less capable device reduce the overall risk of drowning if it is more likely to be worn by a boating public?¹

To validate life jacket wear data in BARD, the Coast Guard has awarded a grant to determine wear rate at 31 locations in 30 states. Through that grant, observers—contractors and Coast Guard Auxiliarists—have captured observed wear rates by vessel type and vessel size, boater sex, boater age, season, and other factors. In short, wear rates for adults on motorboats, except personal watercraft, are low.

Mandatory life jacket wear can reduce boating deaths, and on Army Corps of Engineers-controlled waters, the district commander can mandate life jacket wear. This isn't the case on lakes not under the Corps of Engineers control. The results of a limited study was a significant reduction in the number of deaths.

A more reasonable answer is less cumbersome life jackets, which is one of the aims behind the life jacket approval harmonization rulemaking published in December 2024. Level 50 life jackets are less cumbersome and meet the Coast Guard's carriage requirements, but only if worn. With the data captured by the states, we can start looking at the narratives to determine if this reduces fatalities.

BARD Reengineering, ERAC, and Suggested Improvements

BARD is aging, and the effort to replace the system is underway as part of the Coast Guard Case Management System, which will ultimately replace not only BARD, but also the main information systems for Coast Guard operations. Over the course of the next year, the Coast Guard, states, NASBLA, and the National Boating Safety Advisory Committee will provide input into the effort, which should ensure a significantly improved reporting system.

Coupled with the modernization of BARD, NASBLA's Engineering, Reporting, and Analysis Committee, or

ERAC, has made 128 recommendations for updates to the Casualty Reporting System.

Conclusion

The Casualty Reporting System has delivered tremendous insight into the nature of boating incidents—allowing for interventions that have saved nearly 100,000 lives—and continues reducing the number of boating-related deaths, currently at an all-time low. The future is positive and the National RBS Program continues to accomplish its goals long established by the Federal Boat Safety Act more than 50 years ago. 

About the authors:

Verne Gifford has been the Chief of the Boating Safety Division since 2017, and a member of the Coast Guard since 1983. For eight years, he has participated in the development of the annual Recreational Boating Statistics Report, conducted by a dedicated team of a dozen Coast Guard members and hundreds of state officials. Their efforts result in one of the most thorough sources of casualty information produced by the Coast Guard.

Jonathan Hsieh is the senior data analyst for the Boating Safety Division of the Coast Guard's Office of Auxiliary & Boating Safety. He holds a master's in government analytics from Johns Hopkins University and a master's in public administration from Virginia Tech. He is a commander in the U.S. Coast Guard Reserve and a Merchant Mariner by training.

Endnotes:

- ¹ The RBS Community has adopted the term "incident" to mean a boating death, injury, damage-only accident, or any multiple combination thereof. "Incident" and "accident" are used synonymously by the RBS Community
- ² 46 U.S.C. §13103(c)(5)
- ³ 33 CFR. §173 Subpart C
- ⁴ Form CG-3865 (August 2024), which is a six-page form
- ⁵ Per the 2024 Recreational Boating Statistics Report, Page 71, 94% of motorboats are 21 feet or less, but the data shows where to target messaging to have the greatest impact
- ⁶ 2024 Recreational Boating Statistics Report, Page 29; this fact was emphasized by Dr. Leslie "Dan" Maxim, a former Chairman of the National Boating Safety Advisory Council, and a highly regarded member of the RBS Community
- ⁷ 2024 Recreational Boating Statistics Report, Page 32
- ⁸ Operator inattention is defined in the Recreational Boating Statistics Report as failure to pay attention to the vessel, its occupants, or the environment
- ⁹ Improper lookout is defined in the Recreational Boating Statistics Report as the failure of the operator to perceive danger because no one was serving as lookout
- ¹⁰ Operator inexperience is defined in the Recreational Boating Statistics Report as the lack of practical experience operating the vessel
- ¹¹ The study is available by emailing rbsinfo@uscg.mil
- ¹² Life jacket as used here is synonymous with personal flotation device as defined in 33 CFR § 175.13
- ¹³ Personal Flotation Devices are only required, per 33 CFR § 175.15 to be carried on recreational vessels, but the states may require wear by children and those operating personal watercraft, paddle craft, and a sailboard



For more information

Those interested in casualty investigation training or receiving the Boating Accident Descriptions Report should contact the Coast Guard's Boating Safety Division at rbsinfo@uscg.mil

The annual Recreational Boating Statistics Report is available at <https://bit.ly/4pGZxS4>

The results of observed life jacket wear rates are available on the RBS Program's website at <https://bit.ly/4q1JhLX>

The National Recreational Boating Safety Survey

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The National Recreational Boating Safety Survey (NRBSS) is the only method of measuring nationwide recreational boating in the United States. Last conducted in 2018, the Survey estimated there were 84.5 million annual recreational boaters in the United States operating more than 25.5 million boats on over 25,000 miles of navigable waterways. It also produced estimates on boating by Census region and state.

Understanding the boating population is crucial to national security and law enforcement efforts. Survey data supports the federal-state partnership in boating safety by providing the necessary information to optimize safety and on-water law enforcement programs.

The Coast Guard began an informal survey process in the late 1960s as an aid in allocating its boating safety resources. This initiative used a compilation of statistical data from various sources, including a statistical telephone survey of households in the Coast Guard's East District, an observational study of boating activities in the Chesapeake Bay, and other data collection efforts.

2018 NRBSS

In 2018, during the last administration of the survey, there were two distinct elements. The Participation Survey estimated the number of people who went out on the water in a recreational boat at least one time during 2018 and collected participants' demographic characteristics. It estimated about 84.54 million people, or 26.5% of the U.S. population, participated in boating activities. Furthermore, nearly one in four, or 28.37 million U.S. households, had at least one person who went recreational boating, confirming that boating is a family activity. More than half of the recreational boaters polled lived in households with one or more children. They also averaged 17.5 days a year on the water.

The Exposure Survey collected 2018 monthly data to produce different reliable measures of recreational

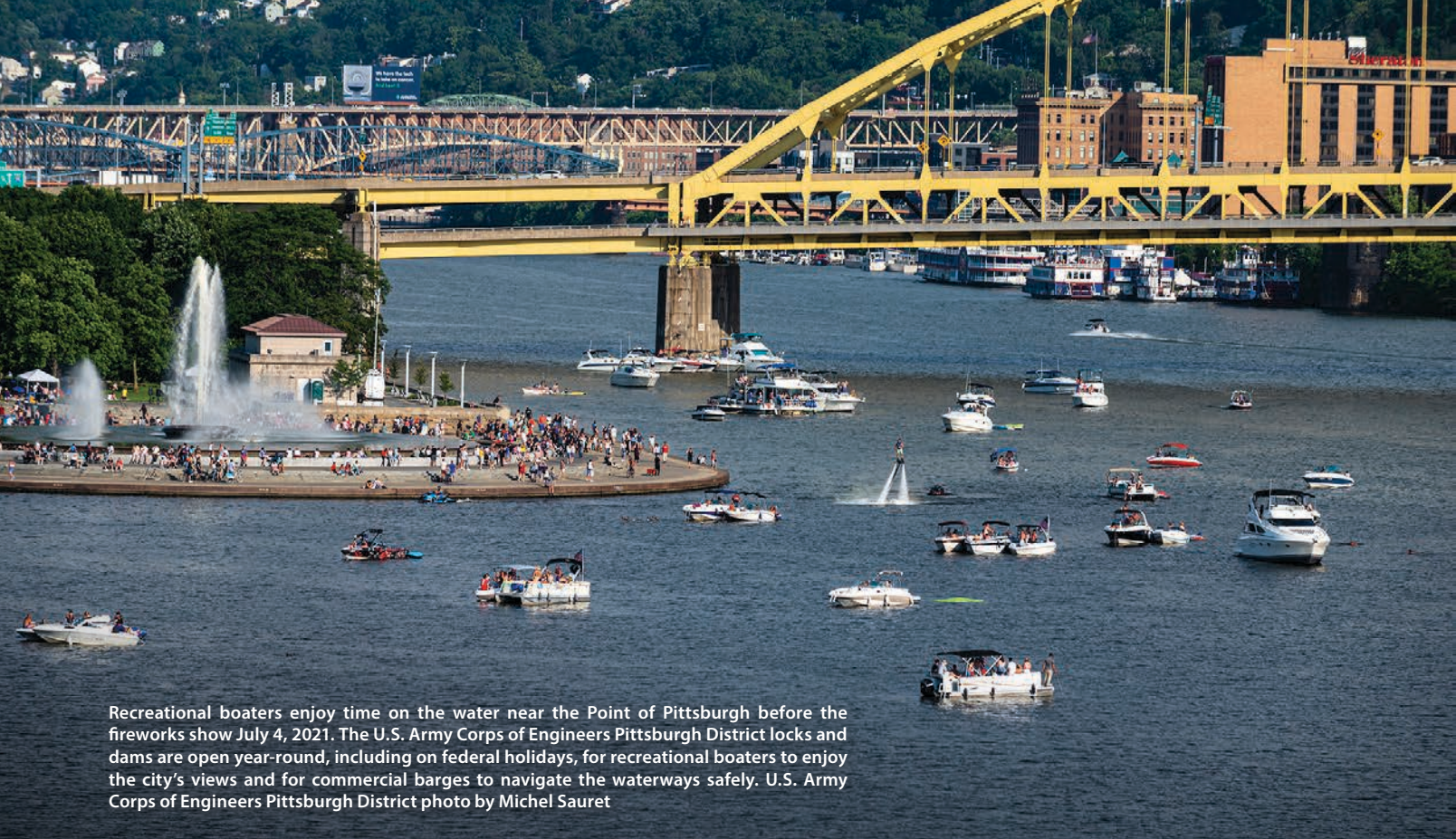
boating usage data. It calculated state-level data by boat type and estimates on unregistered boat types, like paddlecraft; usage of boats; and usage of safety equipment on boats.

Overall Risk of Boating

The Survey estimated risk ratios for the number of accidents that involved fatalities, injuries, and casualties—deaths and injuries combined—for all recreational boats, as well as individually for motorized and human-powered boats. The denominators were 100 million boat days and 100 million boat hours. Boating accidents involving a fatality for all boats in the United States occurred at a rate of 120 fatalities per 100 million boat days in 2018, giving recreational boaters a .0000012% risk of dying in a boating accident.



Coast Guard Petty Officer 3rd Class Charles Foy displays a handheld VHF radio in New Orleans on September 11, 2025. VHF-DSC, or very-high frequency-digital selective calling, radios are key to communicating on the water, allowing boaters to coordinate traffic patterns and reach out for help if they are in distress. Coast Guard photo by Petty Officer 3rd Class Anthony Randisi



Recreational boaters enjoy time on the water near the Point of Pittsburgh before the fireworks show July 4, 2021. The U.S. Army Corps of Engineers Pittsburgh District locks and dams are open year-round, including on federal holidays, for recreational boaters to enjoy the city's views and for commercial barges to navigate the waterways safely. U.S. Army Corps of Engineers Pittsburgh District photo by Michel Sauret

Person-Boat Hours

The survey estimated the usage of recreational boating by state and produced motorized and human-powered usage categories. The most granular unit, person-boat hours, can be used to normalize a risk measurement. It is estimated that, in 2018, boaters spent more than 10.2 billion hours operating boats in the United States.

Unregistered Boat Estimates

The NRBSS also provides the number of unregistered boats by state, including canoes, kayaks, paddleboards and rowboats. To date, there is no scientifically derived or authenticated count of these boats, though it is believed that nearly 13.4 million boats owned in the United States are not required to be registered by the state where they are kept.

Safety Equipment

EPIRBs

The NRBSS survey estimated that one-third of the boats that operated more than 3 nautical miles from shore at least once in the 12-month period, or about 220,000 of the 647,000 total, were equipped with an Emergency Position Indicating Radio Beacons.

Personal Locator Beacons

The NRBSS estimated that about 132,900 of the boats that operated more than 3 nautical miles from shore at least once in the 12-month period were equipped with PLBs.

Engine Cut Off Switches

In 2018, the Frank LoBiondo Coast Guard Authorization Act included a provision requiring that boat manufacturers, dealers, and distributors ensure boats of 26 feet in overall length, or less, and whose engines are capable of more than 115 pounds of thrust, be outfitted with an engine cut off switch, or ECOS.

The NRBSS estimated 83.2% of the motorized boats operated at least once during the survey year were equipped with an ECOS. A higher percentage, 88.7%, of motorized boats in the south Census region were equipped with an ECOS than other regions of the country.

VHF-DSC Radios

The Coast Guard considers a VHF-Digital Selective Calling (DSC) radio to be a very important on-board safety device. These radios enable clear communication from vessel to vessel and from ship to shore. Able to send a digital distress message containing a vessel's GPS position, it can be the only means of reaching the shore or another DSC-equipped vessel for assistance. Some VHF radios offer National Oceanic and Atmospheric Administration weather alert monitoring and, if it meets JIS7 standards, can be fully submerged for 30 minutes in 3 feet of water and still function properly after being removed.

When combined with the Coast Guard's Rescue 21 initiative, the time it will take the Coast Guard to find a person in case of an emergency is significantly

reduced. When properly registered with a Maritime Mobile Service Identity number, the radio can communicate key information to the Coast Guard, including the name and description of the boat, its exact location, and the person to contact in case of emergency. The system is automatic, meaning once initiated it will continue to transmit information even if a boater is unable to operate the radio.

The Future Survey

The Coast Guard has entered into a cooperative agreement with the National Opinion Research Center (NORC) at the University of Chicago to conduct the next NRBSS.

Several enhancements have been made to the 2026 NRBSS Exposure Survey methodology. First, the number of interviews will increase by 50% over previous years to allow for more in-depth analysis. Additional sample sources will be introduced, including partnerships with stakeholder organizations to better represent paddlers and boat renters, as well as the inclusion of non-probability samples to cost-effectively boost interview counts.

Respondents will be able to complete the survey over the phone in addition to online, making the survey more appealing to people less inclined to complete an online survey. Finally, a subset of respondents will be invited to complete a brief follow-up survey to determine whether those who indicated future boating intentions—operating or renting—followed through. This will support more accurate, year-round estimates of boating behavior and improve measurement of boating hours.

Changes have also been made to the 2026 NRBSS Participation Survey methodology. Most notably, the survey will transition to NORC's AmeriSpeak® panel—a probability-based panel representative of all 50 states and the District of Columbia. This shift will improve coverage of traditionally hard-to-reach populations, including individuals without college degrees and those living in rural areas. It will also help mitigate interest bias, which occurs when individuals who do not participate in boating are less likely to respond to boating surveys.

Because AmeriSpeak panelists participate in surveys on a wide range of topics, this approach supports a more balanced and representative sample. The panel approach also allows for surveying the same people multiple times throughout the year allowing for a greater understanding of boating seasonality. Additionally, the number of interviews will increase by 300% compared to previous years, significantly boosting the reliability and precision of the estimates, particularly across age and income groups.

Outreach

The NRBSS provides states with critical data to strengthen boating programs and inform laws that promote a safer and more enjoyable boating experience. Ensuring the continued success of the survey is essential. To support the 2026 NRBSS, the Coast Guard and NORC are actively engaging with stakeholders and state partners.

Organizations can help make the survey more representative—particularly of hard-to-reach groups—by collaborating with NORC to share survey information through membership lists or

listservs targeting renters and paddlers. Individuals can also assist by encouraging states that have not yet provided boat registration lists to do so. These efforts will help ensure comprehensive representation across all 50 states. 

About the authors:

Jonathan Hsieh is the senior data analyst for the Boating Safety Division of the Coast Guard's Office of Auxiliary & Boating Safety. He holds a master's in government analytics from Johns Hopkins University and a master's in public administration from Virginia Tech. He is a commander in the U.S. Coast Guard Reserve and a Merchant Mariner by training.

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David Sterrett is a principal research scientist at the University of Chicago's National Opinion Research Center, where he serves as the project director for the National Recreational Boating Safety Survey. He earned his Ph.D. in political science from the University of Illinois at Chicago.

Reference:

Duffy, T., Kilpatrick, G., Krotki, K., Lewis, T., McMichael, J., Palmer, D., Ridenhour, J., Ryder-Burge, A., Thomas, I., Willis, S., & Mahoney, E. (2020). National Recreational Boating Safety Survey: Participation Survey Report. Washington, DC: U.S. Coast Guard.


**The Survey determined that
about 13.9%, or about 1,272,000
boats, had a VHF-DSC radio.**




Where to get data



bit.ly/4abSVY5

Scan the QR code for National Recreational Boating Safety Survey data, including full reports, methodology details, and an interactive StoryMap with state-level estimates.

Importance of Maritime Mobile Service Identities with Electronic Signaling Equipment

by JOE HERSEY
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During the evening of June 1, 2016, Coast Guard Sector Maryland-National Capital Region watchstanders in Baltimore, Maryland, received a VHF digital selective calling (DSC) distress alert on their Rescue 21¹ radio console. A search of the service's Marine Information for Safety and Law Enforcement (MISLE) database showed the Maritime Mobile Service Identity (MMSI), was associated with the *Karen N*. The alert from the Chesapeake Bay Foundation's 40-foot aluminum shallow-draft, water jet-powered vessel put it in the Chesapeake Bay off Maryland's Bloodsworth Island.

The alert was followed by a distress call on VHF channel 16, "Mayday, mayday, mayday. This is the motor vessel *Karen N*. We have sunk off Bloodsworth Island." Then, silence. The Coast Guard issued an urgent marine information broadcast, notified the Maryland State Police, and launched their own rescue boat.

Jeremy Shockley, the owner of the boat *Ka-Ree* heard the alert while docked on the Bay. Knowing the waters well, he took a small crew to the location and rescued 23 people—including 14 children—from the water,² all of which were wearing life preservers, greatly enhancing their chances of survival. Mr. Shockley received a Governor's Citation for his efforts.

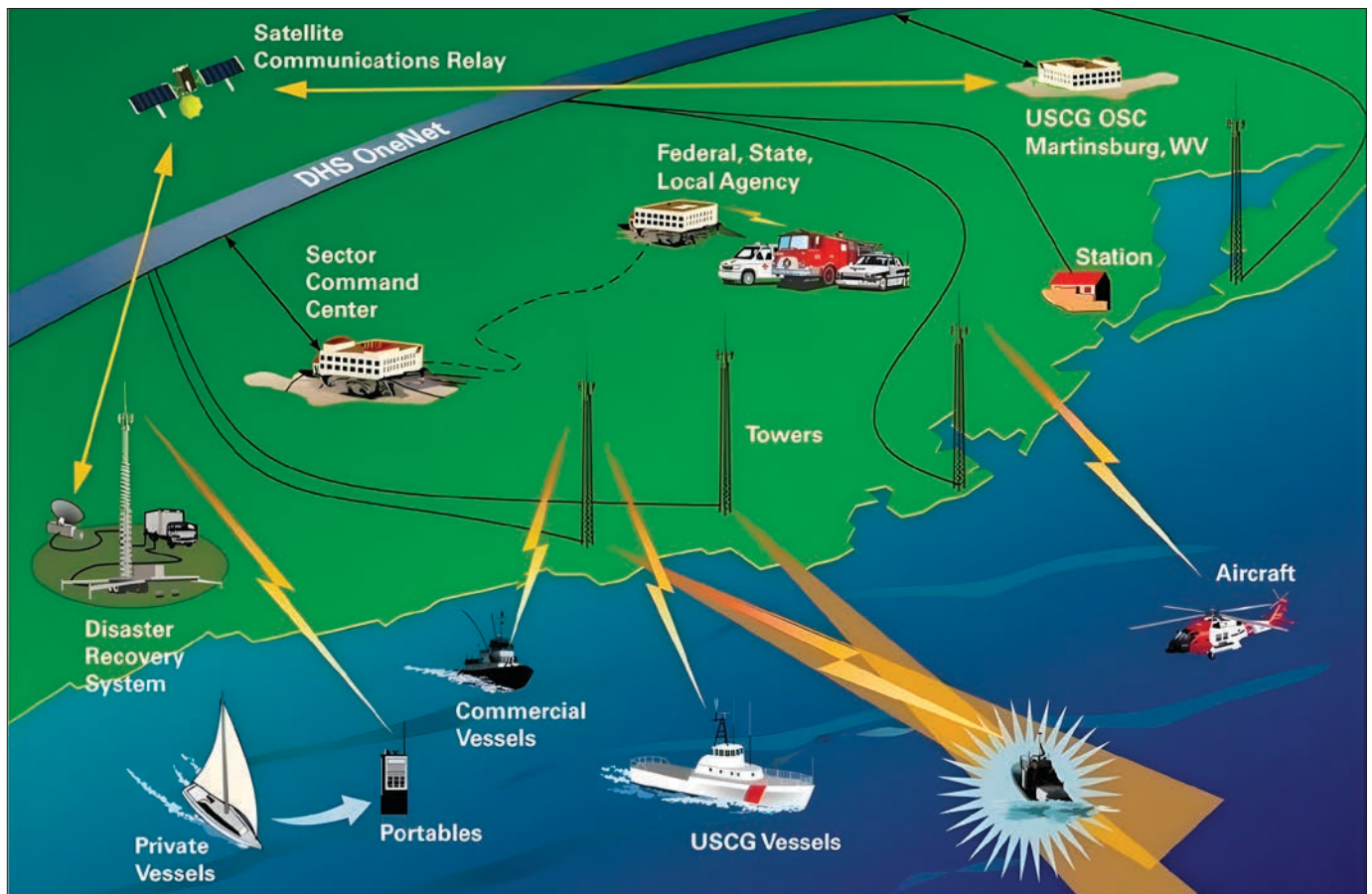
The captain and passengers on the *Karen N*. were well-prepared for an emergency, but that's not always the case. In 2021, the Coast Guard reported to the International Maritime Organization (IMO) that, in 2019, only 24% of the 152 search and rescue (SAR) cases originating via VHF DSC alert yielded enough information to provide a location allowing for the dispatch of SAR resources. Only 39.9% of registered identities from these alerts were sufficient to identify the vessel or person sending it. Taken together, 45.6% of these distress alerts had neither position nor identity information and, unless there was some sort of follow-on voice communications, the only action the Coast Guard could take was to acknowledge it! Acknowledging a DSC alert terminates the very loud,

irritating alarm sounding on nearby vessels' radios. The 152 DSC-initiated SAR cases in 2019 represented just 12% of all Coast Guard-documented SAR cases received by all radio communications documented by the Coast Guard.³

The Origins of DSC, the 911 of the Maritime Mobile Radio Service

When the IMO and International Telecommunications Union (ITU) began planning for the replacement of Morse telegraphy radio systems aboard ships 50 years ago, all maritime radio safety technology came under review. The launch of the first maritime mobile satellite by Commercial Satellite Corporation, later transferred to a newly created, IMO-recognized intergovernmental organization called Inmarsat, drove this review. All shipboard maritime radio systems existing at that time, including Morse telegraphy, radiotelephony, radio direction finders, and emergency position-indicating radio beacons were affected. These new and redesigned maritime radio systems were designated as the Global Maritime Distress and Safety System (GMDSS) and mandated for shipping under amendments to the Safety of Life at Sea Convention that came into force from 1993 to 1999. These changes affected shore-based radio systems as well, including worldwide areas of responsibility for navigational and meteorological warnings and radiotelephony coast stations which later included the Coast Guard's own Rescue 21 system.

During the development of the radiotelephony portions of the GMDSS, the ITU adopted a 50-year-old, 10-bit symbol, error-detecting digital selective calling technology specified for aeronautical use but never adopted. These DSC symbols contained data like the type and call priority, the radio channel being called, and the identity of the radios making and receiving the call. Obtaining automated radio checks or testing the proper operation of other DSC-equipped radios is accomplished by DSC test call and position report request function. It included



Rescue 21 provides direction-finding capability and Digital Selective Calling for more timely response to mariners in distress and allows protected communications for law enforcement and homeland security operations. Coast Guard graphic

public correspondence features allowing the user to make automated ship-to-shore telephone calls, a feature never operationally implemented due to later availability of cellphone technology.

DSC also included a preformatted all-ships distress alert, which included the identity and position of the distressed vessel and the nature of its distress. DSC was, in fact, established as the very definition of an internationally recognized terrestrial maritime distress alert by the ITU in its Radio Regulations.⁴ It is the “911” of the maritime mobile radio service.

Because DSC was intended to become a universal distress and safety system, it was thoroughly tested to ensure reliability in all conditions and all parts of the world. This was especially true for its medium frequency (MF) and high frequency (HF) variants, used on shipborne single-sideband radios. With HF DSC installed, the CGC *Westwind*, became part of these worldwide tests in the 1980s, showing the reliable receipt of DSC test messages sent from polar and other remote regions to the United States and elsewhere around the world.

It was intended from the beginning, and accepted

by maritime safety services worldwide, that distress and safety services adopted for the bigger ships should be available for all mariners, regardless of the vessel size or voyage. Consequently, in 1997, the Federal Communications Commission (FCC) required that all fixed-mount maritime radios, VHF or MF/HF, certified after June 1999, be equipped with DSC. They later expanded this regulation to require that all such radios imported, sold, or installed on vessels after March 2011 have DSC.⁵

The Origins of Maritime Mobile Service Identities (MMSIs)

In the 1980s, during initial stages of DSC development, ITU realized the need for a database and associated digital code that could be used to identify the vessel sending a DSC call and the intended recipient of the call. It would also allow for the identification of vessels sending a distress alert. The 406 MHz Emergency Position Indicating Radio Beacon’s 15-character hex identity was one attractive option. The ITU-managed radio call sign was another.

ITU radio regulations require every radio-equipped ship to have a ship station radio license maintained by the flag state's telecommunications authority. Every ship station license was already required to include vessel identity and the owner's contact information, which could become the basis of an existing distress alert identity database accessible by SAR authorities. Since ITU has regulatory authority over ship station licenses, adapting it to the needs of DSC and SAR authorities has been a straightforward process.

In 1982, ITU chose to use the existing ship station license as its identity database, creating a new nine-digit identity, a digital radio call sign—the Maritime Mobile Service Identity, or MMSI. Assigned by ITU, the first three digits of the MMSI, the Maritime Identification Digits (MID), identify the administration or nation responsible for licensing the radio. The United States was assigned MIDs 338, 366, 367, 368, and 369. The remaining six digits are assigned to individual ships by each nation's telecommunications authority, which in the United States is the Federal Communications Commission (FCC). MMSIs have the same legal status as radio call signs.

Every radio station license, be it a ship station, coast station, or TV and radio broadcast station license, has a radio call sign identifying the transmitted radio signal and authorizing that radio to transmit. Every ship equipped with a DSC radio must have a ship station license, and that license must include the ship's assigned radio call sign and as well as its MMSI.

How MMSIs were Implemented in the United States

The FCC Wireless Telecommunications Bureau is responsible for managing MMSIs in the United States. MMSIs, automatically assigned during the application and licensing process when filing for a station license with the FCC,⁶ are maintained by the FCC's Universal Licensing System database, which routinely updates its information to the Coast Guard's MISLE database. Coast Guard SAR watchstanders receiving a DSC distress call can access this MISLE database anytime to identify the distressed vessel and owner contact information.

While a ship station license is an international mandate affecting every country, Congress allows the FCC more flexibility in licensing recreational boaters. In 1996, while MMSIs were beginning to be assigned and used in the United States, the FCC authorized ship radio stations that operate domestically, but are not required by statute or treaty to carry a radio, to operate without individual licenses, also known as license-by-rule.⁷ This primarily affected radio-equipped recreational boats and their owners, possibly the largest group of DSC users. Here's where MMSI registration in the United States deviates from procedures in the rest of the world.

Since previously mandatory FCC licenses had been how boaters obtained MMSIs, simpler means of issuing MMSIs needed to be found for recreational vessels that were not required to obtain a license. Beginning in 2000, the FCC and Coast Guard established Memorandums of Understanding authorizing license-by-rule providers to assign MMSIs to recreational boaters at reasonable rates, and to routinely provide MMSI registration data to the Coast Guard. These authorized license-by-rule⁸ providers included BOAT US, US Power Squadrons, and Shine Micro.⁹

Why 60% of DSC Distress Alert Identity Information is Unusable in the United States

For vessels required to obtain a license, FCC ship station license regulations ensure an MMSI is issued. But MMSI regulations for vessels licensed-by-rule, which do not need an individual license, are not so clear. Unknown to many recreational boaters, an extra step is required to obtain an MMSI.¹⁰ When recreational boaters install a new radio and are instructed to enter a nine-digit number to complete activation, many make up a number rather than entering a correctly registered MMSI.

The MMSI requirement for radios licensed by rule does exist in FCC regulations, but it is not clearly stated. The Radio Technical Commission for Maritime Services (RTCM), with the cooperation of the Coast Guard, petitioned the FCC in 2016 with a proposal to update its maritime regulations, which would clarify MMSI requirements. While that action is still pending, the FCC has issued a Public Notice attempting to clarify this.¹¹

Once a wrong MMSI number is entered, it is very difficult to fix. Most radio manufacturers allow users three attempts to enter their MMSI. Once entered, the user cannot change it without removing the radio and shipping it to an authorized representative or arranging for an authorized representative to visit the vessel, and both options are costly.

ITU regulations cause this difficulty by stating that "Once stored, it should only be possible for an authorized user to change the MMSI with advice/cooperation from the manufacturer."¹

Resolving These Unusable Distress Alert MMSI Identity Problems

Simplifying the reset process

In 2025, RTCM adopted Standard 10160.0, Procedures for the Resetting of Own-Ship Maritime Mobile Service Identities (MMSIs) on DSC Marine Radios and Setting and Resetting Static Data on Automatic Identification Systems (AIS). This standard is intended to significantly simplify resetting own-ship MMSIs and AIS static data to the factory default. The new procedures allow for

resetting the MMSI without removing the equipment from the vessel, avoiding the need to send the equipment to the manufacturer, or having a manufacturer's representative perform the reset. These simplified means remain fully compliant with all IMO, ITU, and International Electrotechnical Commission (IEC) restrictions. This standard also accommodates the National Marine Electronics Association's data interface standards for both DSC and AIS radios.¹²

Many new Standard Horizon and Icom radios already have a simplified MMSI reset capability. Garmin and others are expected to adopt this functionality, as well. Users of DSC-equipped marine radios want to do the right thing and are more likely to correct an invalid MMSI if it's simple.

The MMSI Working Group

When the Coast Guard began implementing GMDSS in 1993, it chartered a task force to provide a forum for interested parties to consider all aspects of GMDSS implementation and recommend action to appropriate authorities.¹³ An MMSI Working Group was later established under the GMDSS Task Force to address problems specific to MMSI, including:

- An MMSI assignment process for VHF handhelds not associated with a particular ship. ITU assigned an MMSI 8MIDxxxx for this purpose. FCC and Shine Micro¹⁴ now issue these MMSIs.

- A major update to the Coast Guard Navigation Center MMSI website describing registration procedures for all relevant categories of vessels and related information¹⁵
- Improved data transfer between MMSI providers and the Coast Guard
- Procedures for notifying theft of radio in MMSI registration
- A process for determining which registration authority assigned the MMSI¹⁶
- A way for obtaining MMSIs for AIS use on autonomous vessels
- A means for handling duplicate MMSI registrations
- Education. United State Power Squadrons emphasized MMSIs in the instruction program, and the Coast Guard Auxiliary included radio MMSIs in the 03-25 edition of the Vessel Safety Check form ANSC 7012

What to Do When Selling or Disposing of Your Radio or Radio-Equipped Vessel

Many used radios or used radio-equipped boats that are sold are still registered in the MMSI database to the previous owner. When the distress button is pressed on this radio, it is the previous owner, not the current owner, who is identified to SAR authorities as the one in distress. If the distress is real, you do not want SAR responders going to the previous owner to find out who purchased your radio before launching a rescue. And



Coast Guard watch standers conduct routine maritime safety and security operations in the newly renovated Northeast District Command Center in Boston, in March 2008. Coast Guard photo by Petty Officer 2nd Class Luke Pinneo

if the distress is false, you want it resolved quickly and effectively.

If you sell or dispose of your radio or radio-equipped vessel, you have two options.¹⁷

- Contact the manufacturer of each AIS and DSC-equipped radio on the vessel and have its MMSI deleted. If you have an RTCM 10160.0-compliant radio, or a radio whose user manual gives clear instructions on resetting own-ship MMSI, choose this option. If your boat has an AIS or another radio that you are keeping, which uses the same MMSI, you must choose this option. Once completed, confirm that own-ship MMSI has been deleted by switching on the radio.
- Transfer your MMSI registration to the new vessel owner at the time of sale, following the instructions of the organization that holds your MMSI registration. This option should only be followed if the first option is impractical and if the purchaser is willing to cooperate with the transfer process.

Why 76% of DSC Distress Alerts Have No Position

All cellphones today are required to include an internal GPS receiver to ensure that a 911 call is routed to the proper 911 emergency call center. That's not necessarily true with DSC-equipped VHF radios, despite the radio having a distress button. FCC rules require that these radios allow the user to connect the radio to an external GPS. Unfortunately, unless the radio is installed on an inspected vessel where interconnection is required, few users bother to make that electrical connection, but this will change soon.

In 2015, ITU began requiring that DSC radios used on recreational boats and small craft have an internal global navigation satellite system receiver. The IEC 62238 DSC certification test standard, required for radios used on recreational and small commercial vessels, hasn't been updated since 2003. Neither the IEC 62238 DSC certification test standard, nor the FCC DSC radio regulations, have caught up with the ITU. However, a new edition of IEC 62238 that will require an internal global navigation satellite system receiver—as well as reference the new RTCM simplified MMSI reset standard—is expected to be released in 2027.

Conclusion

DSC-equipped VHF marine radios with an integral GPS and simplified MMSI reset are becoming increasingly common. Over time, all radios will have these features, and distress alerts with no position and invalid identity information will be a problem of the past. For now, if you are in the market for a new VHF marine radio and you

wish to be quickly found and rescued when you press that distress button, please seek out a model that has these two features. 

About the authors:

Joe Hersey began working for the U.S. Coast Guard in 1975 as a radar engineer. In 2013, he retired as Chief, Spectrum Management and Telecommunications Policy Division. He is co-vice chair of the RTCM Board, Chairman of RTCM Special Committee 137 on LED EMC and co-chair of Special Committee 101 on Digital Selective Calling. Additionally, he serves as Secretary to the US National Committee Technical Advisory Group USNC (TAG) to IEC TC80 Maritime navigation and radio communication equipment and systems, is a member of the USNC AG to IEC TC18, CISPR D, CISPR F, and the IEEE EMC Society

Brian Moore retired from the U.S. Coast Guard in 2016, after serving more than 25 years on active duty. He currently serves as the program and operations analyst, as well as a boating safety and law enforcement specialist, for the Boating Safety Division's Programs and Operations Branch, in the Office of Auxiliary and Boating Safety at Coast Guard headquarters.

Endnotes:

- ¹ Rescue21 is the U.S. Coast Guard's very high frequency (VHF) distress and safety radio network, from which watchstanders keep watch on a 24/7 basis.
- ² Reported in WBAL TV 11 News Today <https://www.wbalv.com/article/14-kids-among-23-rescued-from-sinking-boat-in-chesapeake-bay/7101013> and in Workboat <https://www.workboat.com/passenger-vessels/tour-boat-sinks-chesapeake-bay>.
- ³ IMO NCSR 8/Inf.9, dated 12 February 2021
- ⁴ "The distress alert is a digital selective call (DSC) using a distress call format, in the bands used for terrestrial radiocommunication..." Article 32.1 a) of the ITU Radio Regulations. The ITU Radio Regulations, like the SOLAS Convention, is generally recognized as having treaty status in the United States
- ⁵ See 47 CFR 80.225
- ⁶ Federal users obtain MMSIs from the National Telecommunications and Information Administration, which in turn receives MMSI blocks from the FCC. USCG users obtain MMSIs from CG-672, which is responsible for MMSI management and policy within the Coast Guard
- ⁷ See 47 CFR 80.13 and 58010 Federal Register / Vol. 61, No. 219 / Tuesday, November 12, 1996, at <https://www.govinfo.gov/content/pkg/FR-1996-11-12/pdf/96-28875.pdf>
- ⁸ "License by rule" is an FCC term indicating that the required radio license is not a physical license, but the license requirement is instead covered by FCC regulation. See 47 CFR 80.13(c)
- ⁹ See FCC Public Notice DA 12-1989 at <https://docs.fcc.gov/public/attachments/DA-12-1989A1.pdf> and FCC webpages at <https://www.fcc.gov/wireless/bureau-divisions/mobility-division/maritime-mobile/ship-radio-stations/maritime-mobile>. Sea Tow later withdrew from the MOU; their data is being assumed by US Power Squadrons
- ¹⁰ The process for obtaining an MMSI is described in the U.S. Coast Guard Navigation Center website at <https://www.navcen.uscg.gov/maritime-mobile-service-identity>
- ¹¹ RTCM later assumed sponsorship of the GMDSS Task Force, supported the Coast Guard, and remains active. See <https://www.navcen.uscg.gov/task-force-background>
- ¹² PGN 130055 - Radio MMSI and Class B AIS Static Data Access
- ¹³ RTCM later assumed sponsorship of the GMDSS Task Force, supported the Coast Guard, and remains active. See <https://www.navcen.uscg.gov/task-force-background>
- ¹⁴ AIS Receivers for Aircraft and EEZ Monitoring - Shine Micro, Inc - Home
- ¹⁵ See <https://www.navcen.uscg.gov/maritime-mobile-service-identity>
- ¹⁶ See "Who registered my MMSI" in the MMSIs for Recreational Vessels webpage at <https://www.navcen.uscg.gov/mmsis-for-recreational-vessels>
- ¹⁷ A more complete procedure is described in *What to do when Selling or Disposing of your Radio or Radio-equipped Vessel*, USCG NAVCEN MMSI website at <https://www.navcen.uscg.gov/what-to-do-when-selling-or-disposing-your-radio-or-radio-equipped-vessel>

Boating is Better Sober

by BRIAN M. MOORE

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It is essential for all boaters to recognize the hazards associated with operating a vessel under the influence of alcohol or drugs. Boating under the influence presents distinct risks that may surpass those encountered when driving on land, primarily due to environmental factors specific to waterways. Exposure to sun, wind, and waves can accentuate the effects of alcohol, leading to quicker impairment relative to land-based scenarios, diminishing reaction times, impairing judgment, and increasing the risk of accidents.

Statistics continue to indicate that, where a primary cause is known, alcohol is the leading known contributing factor in fatal recreational boating accidents. According to the Coast Guard 2024 Recreational Boating Statistics, alcohol was listed as the leading factor in 20% of deaths and was the primary contributing factor in 244 incidents, resulting in 92 deaths and 192 injuries.¹ Federal, state, and local law enforcement agencies' efforts have made great strides in reducing the number of impaired boaters on U.S. waterways, but more work is needed to meet some of the challenges in detection and enforcement.

The Legal Aspects of Boating Under the Influence

Boating under the influence—operating any type of vessel while impaired by alcohol or drugs—or BUI, is prohibited on every federal navigable waterway and in every state. The federal blood alcohol concentration (BAC) limit for a person operating a recreational vessel is .08%.² Nearly all states have adopted the .08% BAC except for Utah and North Dakota, which have limits of .05% and .1% BAC, respectively.³

Another commonality amongst most states is implied consent laws regarding BUI. Implied consent BUI stipulates that individuals operating a vessel on state waters are deemed to have consented to chemical testing if a law

enforcement officer has reasonable suspicion of impairment. Refusal to undergo such testing may result in penalties, including suspension of boating privileges, and may also be submitted as evidence in court proceedings related to BUI charges.

Federal penalties for BUI include civil or criminal fines, incarceration, or both. These federal sanctions are distinct from state BUI regulations which may impose further and, in some cases, more severe consequences

including additional incarceration, increased financial penalties, and revocation of boating privileges. Penalties such as these are deterrents to stop boaters from operating vessels under the influence, but the main purpose is to create safer waterways. Through partnerships between the Coast Guard, state law enforcement agencies, and nonprofit associations—including initiatives such as Operation Dry Water and Sea Tow Foundation's Sober Skipper Campaign—we have made progress towards safer waterways by boating sober.

Operation Dry Water

Operation Dry Water (ODW) is a year-round BUI awareness and enforcement campaign. Its mission is to reduce the number of alcohol- and drug-related recreational boating accidents and fatalities by increasing boat operator awareness and fostering a stronger, more visible deterrent to alcohol use on the water.

The National Association of State Boating Law Administrators (NASBLA) launched ODW in 2009 after receiving Coast Guard nonprofit grant funding for the initiative. Since then, the campaign has grown exponentially and is currently coordinating a successful yearlong outreach and awareness. It also includes a targeted nationwide enforcement crackdown on BUI that includes the Fourth of July in every state and territory.



**Federal penalties
for BUI can include
civil fines up to
\$1,000, criminal
fines up to \$5,000,
the potential
for one year of
incarceration,
or a fine and
incarceration.**



PRIMARY CONTRIBUTING FACTOR OF INCIDENTS & CASUALTIES 2024				
		Incidents	Deaths	Injuries
Operation of Vessel 2385 Incidents 268 Deaths 1540 Injuries	Alcohol use	244	92	192
	Drug use	7	5	1
	Excessive speed	279	26	245
	Failure to vent	27	2	25
	Improper lookout	464	24	348
	Inadequate onboard navigation lights	16	7	13
	Navigation rules violation	288	17	163
	Operator inattention	551	42	294
	Operator inexperience	436	42	213
	Restricted vision	36	2	19
	Sharp turn	35	9	27
	Starting in gear	2	0	0
Loading of Passengers or Gear 150 Incidents 48 Deaths 74 Injuries	Improper anchoring	36	3	8
	Improper loading	54	25	27
	Overloading	27	10	18
	People on gunwale, bow or transom	33	10	21
Failure of Boat or Boat Equipment 384 Incidents 18 Deaths 104 Injuries	Equipment failure	37	2	5
	Hull failure	58	3	5
	Machinery failure	289	13	94
Environment 562 Incidents 120 Deaths 235 Injuries	Congested waters	32	1	17
	Dam/lock	8	4	1
	Force of wave/wake	122	5	80
	Hazardous waters	172	53	69
	Missing/inadequate navigation aid	40	2	15
	Weather	188	55	53
Miscellaneous 406 Incidents 102 Deaths 217 Injuries	Carbon monoxide exposure	0	0	0
	Ignition of fuel or vapor	47	1	45
	Sudden medical condition	6	2	4
	Other	174	12	106
	Unknown	179	87	62
All categories combined		3887	556	2170

2024 Recreational Boating Statistics. U.S. Coast Guard Office of Boating Safety, (BSX-21), 2025

ODW awareness and outreach increases leading up to the heightened enforcement weekend. NASBLA works strategically with state recreational boating authorities, other law enforcement agencies, boating safety organizations, and the Coast Guard to develop and execute ODW while also coordinating media and public outreach on a national level. Meanwhile, recreational boating safety partners work diligently to spread the message in their areas of coverage.

Law enforcement agencies participate in the outreach and awareness component of the campaign. This includes working with their local media, providing press releases, setting up press conferences and ride-a-longs, and sending their messaging out through print, radio, television, and social media.

Through these combined media efforts, the campaign generates a wide range of news coverage and publicity increasing awareness of the dangers of BUI in addition to other boating safety issues such as boater education and life jacket wear.

ODW has successfully reduced alcohol-related fatalities by 18% since its inception in 2009. Nearly 3.2 million boaters have been reached, and 7,453 impaired operators have been removed from waterways.⁴

ODW, now in its 16th year, continues to see impressive growth and participation from local, state, and federal law enforcement agencies. From 2009 to 2024, law enforcement participation increased by 190%. This participation has not only deterred the number of impaired vessel operators, but it has also led to a positive increase in recreational boater outreach.

In 2024, 485 local, state, and federal agencies participated in ODW in all 56 states and territories. During the 2024 Fourth of July crackdown, the agencies reported the following results:

- 7,144 law enforcement officers deployed
- 296,190 recreational boaters contacted
- 584 BUI arrests for drugs and/or alcohol
- 10,008 citations and safety warnings issued
- 97,649 vessel contacts made⁵

ODW operates year-round through strengthened partnerships among federal, state, and local agencies across the country to combat impaired boating. A great example is the cooperation between Coast Guard Sector Mobile and Alabama Law Enforcement Agency.

These two agencies addressed BUIs during several rafting events that, in years past, produced more than 200 BUIs. The agencies combined forces by partnering Coast Guard Officers with Alabama State Officers on state agency boats, and the Alabama State Officers doing the same on Coast Guard boats. This effort led to a 75% reduction in BUIs.

Sea Tow Foundation's Sober Skipper Campaign

The Sea Tow Foundation developed the Sober Skipper Campaign⁶ in 2014 as a positive, proactive campaign centered on making people aware of the dangers of drinking and boating while offering a simple means of avoid-

ing it by providing helpful tips and guidelines to boating sober. Modeled on the successful Mothers Against Drunk Driving (MADD)⁷ campaign, the Sober Skipper Campaign, which receives Coast Guard grant funding, encourages boaters to make the smart choice prior to going boating by designating a sober skipper. This helps ensure everyone on board gets home safely.

While the Sober Skipper Campaign is inclusive of all boaters, its primary target audience is the high-risk boating audience described in the Coast Guard 2024 Recreational Boating Statistics—men.⁸

The friends and family of the campaign's primary target audience make up its secondary audience. Parents, siblings, partners, and friends can assert their influence over the men in their lives to help change their behavior.

Members of this audience are often the passengers of impaired boaters and have a vested interest in their skipper's sobriety.

Enforcement Challenges

No matter how great the results of ODW and year-round enforcement, there are still challenges. While standardized field sobriety tests (SFST) are crucial tools for detecting intoxicated drivers, they are not always appropriate in BUI cases.

A new tool incorporates the best aspects and essential nature of the battery of SFSTs into a practical solution for BUI detection—seated SFSTs. More importantly, this new standardized sitting battery could have significant future applications beyond boating in situations where SFSTs are simply ineffective. Environmental factors, weather conditions, or other circumstances can render the SFST battery unworkable.



**Working with
volunteers and
advocates around
the country,
MADD educates
people on
the dangers of
drunk driving.**





A deputy from the Kootenai County Sheriff's office performs field sobriety tests on a boater suspected of boating under the influence on Idaho's Lake Coeur d'Alene in June 2018. The Coast Guard worked closely with the deputies throughout the July 4th holiday week to collaboratively patrol waterways and promote boating safety. Coast Guard photo by Petty Officer 2nd Class Ali Flockerzi

To develop the SFST, the National Highway Traffic Safety Administration (NHTSA) supported sobriety test studies conducted by Southern California Research Institute in the late 1970s and early 1980s. The studies assessed the ability of six tests to detect BACs of .10% or higher among 238 subjects assigned to four BAC groups, those with BACs of .00%, .05%, .10%, and .15%. Officers administered one-leg stand, finger-to-nose, walk-and-turn, finger count, tracing, and horizontal gaze nystagmus tests.⁹

Once these studies were validated, NHTSA standardized them and they have been used by law enforcement agencies throughout the country to detect impairment.

Fast forward to 2011 and several new studies for seated SFSTs addressed specific application to BUIs. Recently, NHTSA has commissioned research to explore alternative non-standing SFSTs for individuals with mobility impairments. The research aims to investigate alternative tests that could be used in roadside situations where traditional standing tests are not feasible. It will also provide credibility for use in BUI detection.

The review by NHTSA is important because the International Association of Chiefs of Police's Technical

Advisory Panel, which oversees the SFST program, will not endorse the use of any alternative roadside tests without NHTSA's approval. This ensures that any new tests developed through this research will meet the necessary standards and receive the required validation before implementation.

Many agencies throughout the United States are already using seated SFSTs in roadside situations when a suspect has mobility issues and in BUI situations when a standing SFSTs are impractical. The results have been good, providing an accurate means of removing impaired boaters from the waterways.

The detection of drug use is another challenge facing BUI enforcement. While technology and testing procedures have made detection and identification of the presence of drugs more commonplace, officers are still hindered when working to determine the intoxicant, quantity, and level of impairment.

New Tools and Techniques

While BUI enforcement challenges continue, there are new tools, techniques, and enforcement priorities. Enforcement training is constantly improving and

opportunities, like courses developed to help officers detect impairment and identify the type of chemical impairment, provide standardized training for law enforcement officers around the country.

Considering the rapidly changing drug laws in many states, it is extremely important that enforcement efforts change and adapt. Since recreational marijuana use and possession is treated as non-criminal in many jurisdictions, little to no enforcement action is taken. Nonetheless, enforcement options must remain available when necessary and training is essential for this.

Education and awareness efforts also continue within the judicial system. Part of the BUI training program includes segments on courtroom procedures and increasing the knowledge base of prosecutors and judges. The course, *Effectively Prosecuting Boating Under the Influence Cases: Enhanced Training for Courtroom Preparation*, is a Coast Guard nonprofit grant-funded project offered by NASBLA. This course has been instrumental in the successful prosecution of BUI cases, especially those that involve the seated SFST.



A boater under arrest for boating under the influence submits to a breath test on a Coast Guard boat near Sykes Creek, Florida. A boater arrested the first time for BUI can expect jail time and a fine up to \$5,000. Coast Guard photo by Petty Officer 2nd Class Bobby Nash

Tips For Boating Sober

Boating and other water sports are enjoyable recreational activities, but it's essential to promote awareness regarding the dangers of BUI. Many recreational boaters may not realize that a boat qualifies as a vehicle and that its safe operation is a legal and personal responsibility. Consumption of alcohol can transform an otherwise pleasant outing into a potentially tragic event.

Consider the following alternatives to consuming alcohol while on the water:

- Bring a selection of refreshments—soft drinks, water, iced tea, lemonade, or non-alcoholic beer.
- Prepare an ample supply of food.
- Choose attire that will keep you and other passengers cool and comfortable.
- Limit your excursion to a reasonable duration to reduce fatigue, bearing in mind that exhaustion can set in more rapidly on the water.

If you wish to include alcohol in your day's activities, it is advisable to organize gatherings at the dock, a picnic area, a boating club, or in your backyard. Select a venue where there is sufficient time between social activities and returning to your boat. Abstaining from alcohol while aboard is the safest approach to enjoying boating activities, as intoxicated passengers face an increased risk of injury and falling overboard.

Stay sober and boat safe! 

About the author:

Brian Moore retired from the U.S. Coast Guard in 2016, after serving more than 25 years on active duty. He currently serves as the program and operations analyst, as well as a boating safety and law enforcement specialist, for the Boating Safety Division's Programs and Operations Branch, in the Office of Auxiliary & Boating Safety at Coast Guard headquarters.

Endnotes:

- ¹ 2024 Recreational Boating Statistics. U.S. Coast Guard Office of Boating Safety, 2025, <https://www.uscgboating.org/library/accident-statistics/Recreational-Boating-Statistics-2024.pdf>
- ² 33 CFR § 95.020
- ³ *Boating Under the Influence Dashboard*. NASBLA, 2025, <https://idash.nasbla.net/idashboards/viewer/?guestuser=guest&dashID=135&c=0&NRD=True>
- ⁴ *Operation Dry Water*. NASBLA, 2024, <https://www.nasbla.org/operationdry-water/resources/national-results>
- ⁵ Ibid
- ⁶ Sea Tow Foundation Sober Skipper Campaign. Available online at Sober Skipper Program - Sea Tow Foundation.
- ⁷ Mothers Against Drunk Driving. Available online at <https://www.madd.org>.
- ⁸ 2024 Recreational Boating Statistics. U.S. Coast Guard Office of Boating Safety, 2025, <https://www.uscgboating.org/library/accident-statistics/Recreational-Boating-Statistics-2024.pdf>
- ⁹ Burns, M., Moskowitz, H., 1977. Psychophysical Tests for DWI Arrest (US Department of Transportation Rep. No. DOT HS-802 424). National Highway Traffic Safety

Effective Use of Social Media to Promote Recreational Boating Safety

by TOM DARDIS
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Social media platforms have become the go-to source of news for more than half of Americans, especially younger adults. The Coast Guard Boating Safety Division is now using social media's unparalleled ability to reach specific audience segments and create positive change within the U.S. boating community. These efforts flow through cooperative agreements with several non-profit boating safety organizations.

The New Media Landscape

In early summer 2020, the Water Sports Foundation (WSF) made a three-minute video showing the capsizing of an overloaded motorboat in Destin Pass, Florida, and the subsequent rescue of nine passengers, including three children. The boat had taken two waves over the bow

at the mouth of the pass. When the operator turned for home, a third wave broke over the stern, disabling the engine.

The video¹ starts with the arrival of Okaloosa County Sheriff Department's SGT Brian Parkton. Footage captured by his body camera shows the disabled motorboat under tow, riding low in the water with a clutch of passengers huddled around an American flag. In the left of the video is a massive dredging pipeline, water foaming white around it as the tide rushes out like water through a pasta strainer.

SGT Parkton speaks into his radio, "Y'all watch out. If this vessel sinks those people are going to get pulled under [the pipe]." Precisely eight seconds later, the tow line parts and the boat rolls into the water. The video, created in an afternoon using only footage from SGT Parkton's body camera and an interview conducted over Zoom, soon garnered more than 1.2 million views on the Boating magazine and Water Sports Foundation YouTube channels. The video is sometimes blurry, and the sound is muffled, but the clip has a quality no Hollywood production could ever match. It is viscerally real.

Two decades ago, the clip never would have seen the light of day. The resolution doesn't meet network standards, and a newspaper or magazine article would not have captured the visual impact of the event, or the emotional weight of SGT Parkton hoisting a 7-year-old boy into his patrol boat, telling him "I got you."

The clip's viral success illustrates the new opportunities social media presents for boating safety outreach. It's an example of the successful strategy Coast Guard nonprofit grant recipients are using to deliver boating



Television, magazines, and newspapers may be traditional boating safety outreach methods, but social media is far more effective. Coast Guard photo by Petty Officer 1st Class Lisa Ferdinando

safety messages to engage larger audiences than previously possible. The media environment has changed dramatically in the last 20 years. The internet evolved to allow real-time communication between media providers and their audiences, fueling the rise of tens of thousands of influencers, each with their own loyal and highly engaged followers.

This new environment requires a nimble approach to boating safety outreach. The Boating Safety Division supports numerous outreach projects through cooperative agreements with nonprofit organizations. While the most successful projects use a variety of social media strategies, all share three common elements.

- They harness the unique ability of social media influencers to deliver and amplify safety messages to distinct boating communities.
- They work collaboratively with like-minded organizations, agencies and personalities.
- They understand that social media is only one part of a complete outreach strategy.

The Influencer Economy

If you were to look around your dentist's waiting room 15 years ago, you would have seen people engrossed in general-interest magazines like *Sports Illustrated* or *People*. You might even have found a dog-eared copy of *Boating* in the stack. Today, you're unlikely to find any magazines. Now people scroll on phones or tablets as they wait, their attention captive to social media platforms like Instagram and TikTok where complex algorithms determine everything they see.

With the internet displacing television and printed media as the primary carrier—and thus gatekeeper—of information, online platforms and personalities have become increasingly important to successful audience outreach. Gone are the days when a broadcasting license or a printing press was required to reach mass audiences. Sharing a message has become easier than ever. The challenge now is getting people to pay attention.

This is where influencers excel. Online personalities have built great credibility with select audiences who view their endorsements as more authentic and genuine than traditional outreach methods like television, magazines, or newspapers. In recent years, nonprofit boating safety organizations supported by the National Recreational Boating Safety (RBS) Program have used influencer outreach to cost-effectively deliver millions

of targeted safety messages to American boaters.

These efforts are administered by the Coast Guard's Boating Safety Division in support of its mission to reduce property damage, injury, and loss of life by improving the knowledge and skill of recreational boaters. In 1971, Congress passed The Federal Boat Safety Act, which established the National RBS Program. The results have been quite successful with the boating fatality rate in the United States dropping from 20.6 persons per 100,000 registered recreational vessels to an all-time low of 4.9 persons in 2024, a five-fold decrease. The program estimates more than 95,000 lives have been saved since its inception 54 years ago. Financial support for the projects comes from the Sport Fish Restoration and Boating Trust Fund through taxes on recreational motorboat fuel, excise taxes on sport fishing equipment, and import duties on fishing tackle and yachts. The Trust Fund is an excellent example of a user pay/user benefit program.

The bulk of National RBS Program funds are distributed through matching grants to state agencies, with up to 5% of available grant funding reserved for nonprofit organizations. This article describes the social media outreach work of several RBS nonprofit grant recipients, including the National Safe Boating Council, Sea Tow Foundation, and Water Sports Foundation.

Nonprofits' Social Media Boating Safety Efforts

Sea Tow Foundation

The Sea Tow Foundation contracts a social media agency to manage its online presence, and a creative agency to



A wake boarder exhibits good boating safety by wearing a personal floatation device, or a life jacket. Photo courtesy of Water Sports Foundation

execute its Sober Skipper video projects. The result was a trio of gorgeously produced mini documentaries featuring well-known boating personalities speaking out against boating under the influence. The segment from Key West-based influencers Clay and Stephanie Cowart registered more than 400,000 views on the couple's Life by the Bow social channels. Videos featuring professional wake boarder Thomas Herman and angler Mike Iaconelli also drew strong audiences. Each video was tailored to the targeted audience segment using language and imagery specific to the activity.

"It was important to us that they use their own words. We didn't want it to sound scripted," Sea Tow Foundation Executive Director Gail Kulp, who oversaw the productions, said. Just as importantly, the video footage catered to the target audiences, with Herman's wakeboarding clip opening with a high-amplitude front flip, and Iaconelli's video closing with him holding a fat bass to the camera.

Water Sports Foundation

The WSF's campaigns have placed a premium on authenticity, employing a guerilla-marketing strategy in which influencers are empowered to script and create their own content, within parameters set by WSF project managers. The first guideline is to model and promote safe boating, but it is equally important that influencers share the message in the style of their channel. This strategy has the benefit of low production costs and consistent results.

While it's not possible for influencers to guarantee impressions, because the social media platforms ultimately control traffic volume, their posts deliver a predictable level of engagement and range of views. For example, the WSF partnered in 2024 and 2025 with The Qualified Captain, Instagram's leading boating influencer with 1.66 million current subscribers. As part of its New Media Outreach for Boating Safety project, the influencer posted eight safety-focused reels during the summer 2025 boating season. The posts delivered a median of 609,000 views,

for an extraordinarily low cost-per-thousand (CPM) of \$1.64. For comparison, television CPM ranges from \$15 to

\$50 for broadcast and from \$10 to \$25 for cable.² While the best-performing video collected more than 1.3 million views, it's notable that the *lowest-performing* reel still garnered 184,000 views. Even if all the videos had performed at the lower end of the range, the project would have achieved a highly competitive CPM of \$5.43. This predictable range of views allows project managers to establish a likely traffic "floor" that ensures good value for the project.

Organic influencers wield the most traction in the social media environment. These individuals exert tremendous cultural influence on their followers, who in some cases number

in the millions. And, by carefully choosing which influencers to work with, boating safety advocates gain access to narrowly defined audience segments. Think about the people in your dentist's waiting room. If anybody is going to pick up that old copy of *Boating* it's going to be the middle-aged gent in the Parrothead shirt, not the young man hunched over his phone.

The young male demographic is becoming increasingly hard to reach through traditional marketing and has proven particularly resistant to public service announcements like the old "This is Your Brain on Drugs" campaigns featuring an egg bubbling in a hot skillet. Two of the biggest risk-factors in boating are being young and being male. Boating influencers whose followers skew young and male are an excellent conduit to this critical at-risk audience.

Cross-referencing incident data with specific user groups allows RBS nonprofits to identify the people they want to connect with and the influencers most likely to facilitate that connection. Bass anglers, for example, are more likely than other boaters to fall overboard while underway. For recreational kayakers, the risk factors are inexperience and kayaks that lack internal flotation. Guided by these

data, the WSF built its 2025 paddling safety outreach campaign around beginner-focused tips videos.

When Kulp began planning Sea Tow Foundation's



In 39.8% of kayaking fatalities in 2022, the kayaker had less than 10 hours experience.



Adults ages 18-36 represented 30% of U.S. boating fatalities in 2024, while men accounted for 79% of those deaths.



2024 Sober Skipper campaign, she knew she wanted to include a male influencer with first-rate fishing resume. Mike Iaconelli, a professional bass angler, podcaster, and television host, was a perfect fit.

“For the Sober Skipper message, we wanted it to appeal to the men who are the biggest audience,” Kulp said. Iaconelli met Kulp on a winter’s day in Philadelphia, and when he somehow pulled a massive bass from the cold water his celebration was pure dude-speak: “That is a Delaware River stud!” he hollered, and the comment section lit up.

National Safe Boating Council

As boating safety advocates, we must always remember we’re selling medicine, and whether the patient is a 5-year-old with a cold—grape cough syrup—or a diabetic cat—liver pâté—medicine always goes down easier when mixed with something more appealing. For boating audiences that means embedding safety messaging in content that reminds people why they love to spend time on the water, said Peg Phillips, Executive Director of the

National Safe Boating Council. “Our content promotes the boating lifestyle. It’s fun, it’s energizing. It’s creative,” she said. “We don’t want fear-based marketing, because it doesn’t work.”

The Education Headwind

As part of her master’s thesis in communications, Coast Guard Public Affairs Specialist Corinne Zilnicki analyzed 1,072 posts on the Coast Guard Heartland District’s Facebook page from 2019 to 2021. Zilnicki monitored the posts for reach and engagement based on a suite of factors including format—video, photo, graphic—text length, hashtags, tagging of other Facebook pages, and subject. The analysis determined that educational content performed poorly in comparison to every other genre.

The study provides data-based support for a phenomenon recreational boating safety advocates have wrestled with since the dawn of the social media era 20 years ago. Audiences want action, humor, scandal, and eye-candy. They don’t want safety education, and they actively resist being lectured. “Our average Facebook audience



Newsworthy topics, like the salvage of liftboat *Seacor Power*, receive strong social media engagement. Coast Guard photo by Nicolle Groll

members typically are not willing to spend even one second liking or reacting to a post that is blatantly educational,” Zilnicki concludes.

The analysis found that content about Heartland District operations, such as search-and-rescue cases and law enforcement missions, reached more people and received greater engagement than any other type of content. Newsworthiness also played a role. Heartland’s most engaging subjects in 2020 were the capsizing of the liftboat *Seacor Power*, which delivered a reach of 2,942,464 in nine posts, and Hurricane Ida, which developed a reach of 4,489,071 with 48 total posts. These so-called booster events helped grow the Heartland Division’s Facebook audience 88.6% during the 34-month study period.

The analysis showed that video posts performed best, followed by photo posts. Surprisingly, posts with longer text descriptions of 71-100 words performed better than those with short captions —1 to 30 words—or moderate captions—31 to 70 words. And posts that tagged two or more other Facebook pages elicited significantly more comments than those without tags, reinforcing the importance of collaboration. While Zilnicki’s research focused on Facebook, her findings can be applied to boating and boating-safety messaging on other platforms, notably Instagram, X, and YouTube.

Collaborate or Stagnate

Collaboration is the key ingredient of social media outreach. We see that with Zilnicki’s research showing the importance of tagging on Facebook, and the compounding effect of collaborative posts on Instagram. The platform allows up to five collaborators on a single post, which enables boating safety outreach projects to reach new audiences and maximize the impact of limited resources. Like other forms of advertising, the cost of influencer marketing is scaled to audience size. But an influencer campaign can resonate far beyond its paid reach. By introducing the influencer’s audience to the campaign’s own social channels, a well-designed collaboration can bring thousands of views and new followers to a boating safety organization.

The National Safe Boating Council invites collaboration with dozens of agencies and brands each year, Phillips said. “Some of those are the different Coast Guard sectors and state agencies. Some are boat manufacturers or life jacket manufacturers, and others might be a Waves of Hope family,” she said.

One of the biggest collaborative events in RBS is National Safe Boating Week, an annual awareness campaign in the run-up to Memorial Day. The event dates to 1958, but in recent years has become a social media phenomenon with strong participation from the boating industry, government agencies, and nonprofits. The

National Safe Boating Council has created a calendar and toolkits designed to make it easier for organizations and individuals to share safe boating messages during the designated week and year-round. The toolkits include suggested text, images, and hashtags. The Sea Tow Foundation also has developed social media toolkits supporting its Sober Skipper campaign and National Boating Safety Awards.

One Piece of the Strategy

Social media is consuming ever more of our attention. In little more than a decade it has become the primary source of information for millions of Americans, and RBS nonprofit grant recipients have responded by making social media the centerpiece of many national boating safety outreach efforts. Like a fast-spreading invasive species, social media has radically changed the media ecosystem. But it’s still an ecosystem. Those magazines that used to clutter medical offices are still around, publishing in print and online. Television is more accessible to niche marketers than ever before. Podcasting has become a powerful cultural force. Mobile apps are gaining momentum, radio is going strong, and newspapers are still hanging on. All have a place in an integrated national RBS outreach strategy.

At the moment, social media is the best way to grab an audience’s attention, though other forms of media are still better at holding it. The video of SGT Parkton pulling that 7-year-old boy from Destin Pass didn’t go viral by itself. The tension, emotion, and raw reality were there, but it needed a push to gain traction and context to drive home the safety lessons. That came in the form of a partnership with Boating magazine, which published the video together with an article full of important details a three-minute reel couldn’t convey. Boating and its sister titles promoted the story with shorter clips on their social media channels, funneling traffic to the article. All of those elements worked together to create a powerful story with one unforgettable message: Life jackets save lives. 

About the authors:

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Endnotes:

¹ Water Sports Foundation. (n.d.) *Heroic Boating Rescue*. Water Sports Foundation. Retrieved November 18, 2025, from <https://www.watersportsfoundation.com/heroic-boating-rescue-at-destin-pass>

² SRDS (n.d.) *Media Buying Solutions*. Standard Rate & Data Service, 2025. Retrieved November 18, 2025, from www.srds.com/media-buying-solutions

Strengthening Boating Safety Through Standards and Outreach

Emphasizing safety through certification, education, and advocacy

by SCOTT M. BERRY

Vice President, Engineering Standards

National Marine Manufacturers Association

From championing rigorous safety standards to expanding public awareness campaigns, the National Marine Manufacturers Association (NMMA) stands as a vital partner to the U.S. Coast Guard in protecting America's waterways and the people who enjoy them. Representing the majority of recreational boats, engines, trailers, and marine accessories built in the United States and Canada, NMMA unites manufacturers, policymakers, and consumers around a shared commitment to safety, stewardship, and innovation.

Recreational boating is a uniquely American-made industry, with 95% of boats sold in the United States built by domestic manufacturers. The American boat building industry continues to set the standard for quality, safety, and innovation in marine design and construction ensuring recreational boating remains not only accessible, but also safer and more sustainable for generations to come.

Unifying the Voice of North America's Boating Industry

NMMA is the leading trade association representing North America's recreational boating industry. Formed through the 1979 merger of the Boating Industry Association and the National Association of Engine and Boat Manufacturers, NMMA was established to unify the voice of marine manufacturers and advocate on behalf of recreational boating. Its mission centers on promoting safe and sustainable boating, supporting manufacturers, and advancing policy that protects access to waterways and fosters innovation.

While the NMMA name dates to the late 1970s, its roots stretch back to the early 20th century when smaller trade groups represented different segments of the boating industry—from engine makers to hull and component manufacturers. As recreational boating became a major



Image courtesy of NMMA

outdoor recreation activity, NMMA expanded its scope to include boat shows. It further engaged consumers through Discover Boating, safety certification programs, and technical standards aligned with the American Boat & Yacht Council (ABYC) and the International Organization for Standardization.

Today, NMMA represents more than 85% of the boats, engines, trailers, and marine accessory manufacturers in the United States and Canada. The association works closely with federal agencies, including the Coast Guard, on a wide range of regulatory, environmental, and safety issues—from emissions compliance and safe fueling to education and workplace safety. In recent years, NMMA has also played a leadership role in international efforts to further decarbonize the recreational marine sector, through lifecycle assessment work and collaboration

with global organizations like the International Council of Marine Industry Associations.

With offices in Washington, Chicago, and Canada's capital of Ottawa, NMMA continues to serve as a vital conduit between marine manufacturers, government stakeholders, and the broader recreational boating community. Through its ongoing partnerships and policy work, the association supports a resilient, forward-looking industry that shares a strong commitment to safety, stewardship and innovation on the water. By providing a unified industry voice, NMMA helps the Coast Guard implement the National Recreational Boating Safety Strategic Plan by encouraging manufacturers of boats and associated equipment to build products that meet and, in many cases, exceed the Coast Guard's minimum requirements.

Driving Market Expansion Through Lifestyle Marketing

Discover Boating plays a critical role in supporting NMMA's market expansion goals by welcoming the next generation to recreational boating and helping them become lifelong boaters. One of the most effective ways to do this is by reaching current and future boaters where they already are and engaging with the content and platforms that shape their decisions. Discover Boating's year-round, fully integrated omni-channel marketing strategy, centered around the See You Out Here campaign, is connecting with potential boat buyers at every turn and helping new audiences see themselves as part of the boating lifestyle.

This initiative is driven by a robust digital community, boat shows, experiential activations, public relations, and brand partnerships. The industry-wide effort connects with people identified in Discover Boating research as most likely to be interested in boating—as many as 91 million—ensuring they not only feel welcome, but informed and excited about boat ownership and the benefits of life on the water.

Additionally, NMMA is one of the world's leading producers of consumer boat shows, hosting 10 shows under the industry's Discover Boating brand in some of the largest markets in the United States, including New York, Chicago, Miami, and Atlanta. Discover Boating boat shows provide the recreational boating industry with quality sales venues that engage the next generation of boaters while retaining and growing the existing boat owner community.

Certification Drives Safety

The NMMA Certification program is one of the most respected safety initiatives in the recreational boating industry. It encompasses boats, yachts, personal watercraft, trailers, components, and marine oils. Designed to elevate safety, reliability, and customer satisfaction, NMMA Certification is widely recognized

as a benchmark for boatbuilders and component manufacturers committed to producing high-quality products. More than 85% of boats sold annually in the United States are NMMA Certified, and a recent study found that these boats are 43–47% less likely to be involved in specific types of boating accidents. When incidents do occur, they carry a 26–58% lower fatality rate. These findings reinforce the program's tangible impact on real-world safety outcomes.

Coast Guard regulations provide minimum safety standards, and NMMA Certification ensures boats and marine products comply with established industry standards and regulations that meet and, in many cases, exceed Coast Guard requirements. These standards are primarily set by ABYC and encompass a wide range of safety and construction practices.

The program is voluntary and highly regarded within the industry.

To achieve NMMA Certification, manufacturers must undergo rigorous annual inspections and provide documentation that their products meet or exceed the applicable ABYC standards, Coast Guard regulations, and Environmental Protection Agency requirements, where applicable.

The certification process involves:

- Factory inspections conducted by third-party inspectors
- Evaluation of boat design, systems, and equipment
- Labeling and capacity compliance
- Verification of consumer information

Achieving NMMA Certified status offers five benefits:

Enhanced Product Quality and Safety: Certified boats are built to meet or exceed more than 55 critical safety standards. These cover everything from electrical systems and fuel lines to flotation requirements and fire protection, which significantly reduces the risk of accidents or failures.



**Discover Boating,
powered by NMMA
and the Marine
Retailers Association
of the Americas,
is the industry's
consumer-facing
lifestyle brand.**



Consumer Confidence: Look for the NMMA Certified seal near the helm of a boat signifying a manufacturer's commitment to quality and safety. This can provide peace of mind that the boat or product meets the highest industry standards.

Regulatory Compliance: The program helps manufacturers stay compliant with federal regulations, including Coast Guard regulations. It also ensures up-to-date knowledge of industry-best practices and safety innovations.

Brand Reputation and Market Advantage: NMMA Certification can be a differentiator in a competitive market. Certified brands often use the NMMA logo in their marketing, signaling to buyers that their boats have undergone thorough inspection and validation.

Access to Industry Resources: NMMA Certified manufacturers gain access to a network of industry

professionals, market insights, and resources. They can participate in industry events and seminars that help keep them updated on new trends, regulations, and technologies in the marine sector.

Beyond safety, the NMMA Certification program provides manufacturers with a competitive edge. Annual inspections, ongoing technical guidance, and access to the latest compliance resources ensure that certified manufacturers stay ahead of evolving safety and environmental regulations. The program also opens access to retail channels, insurance benefits, and industry recognition that may not be available to uncertified builders.

For manufacturers, NMMA Certification is not just a sticker, it's a commitment to building safer, better boats. For consumers, it's a reliable indicator of quality and trustworthiness. In an industry where safety, reliability, and performance are paramount, it sets the gold standard and delivers tangible benefits to all stakeholders in the recreational marine space.



A National Marine Manufacturers Association inspector uses a digital checklist to inspect a battery. The association inspects 5,000 marine vessel components that are type-accepted to the American Boat & Yacht Council standards. Photo courtesy of NMMA



A National Marine Manufacturers Association inspector conducts an engine inspection. The association certifies 182 brands each year resulting in seven times fewer recalls. Photo courtesy of NMMA

NMMA Certified boats offer a superior ownership experience and deliver long-term value, trust, and confidence for recreational boaters.

Equipping Boaters with the Knowledge to Stay Safe

NMMA is committed to supporting a safer boating experience through a range of educational tools and resources for the industry. Discover Boating, in partnership with Progressive Insurance®, produces a series of safety videos designed to inform and engage boaters of all skill levels on best practices for vessel operation, maintenance and accident prevention. These videos, along with downloadable safety materials, checklists, and consumer-facing assets, are available to help industry stakeholders reinforce safe boating behaviors year-round.

In addition, NMMA partners with local organizations, safety agencies, and community groups to support life jacket fitting demonstrations and giveaway events across the country. This helps ensure boaters of all ages have properly fitted, Coast Guard-approved life jackets before heading out on the water. By combining high-quality educational content with hands-on community outreach, NMMA works to equip the recreational boating community with the knowledge, tools, and resources needed to promote a strong culture of safety.

As recreational boating continues to evolve, NMMA remains steadfast in its commitment to advancing safety, fostering innovation, and strengthening collaboration

with the Coast Guard and other partners. Through industry-leading certification programs, public education initiatives, and advocacy for policies that protect waterways and enhance access, NMMA is helping ensure every boater—whether new to the water or a seasoned mariner—can enjoy a safe, sustainable, rewarding experience. Together, the industry and the Coast Guard are charting a course toward a stronger, safer future for all who share America's waters. 

About the author:

Scott Berry is the vice president of Engineering Standards at the National Marine Manufacturers Association, where he has worked for seven years. With over 20 years of experience in the marine industry, his expertise spans engineering, quality, and supply chain management. He is an active leader in industry standards, currently serving on the American Boat & Yacht Council's (ABYC) Technical Board, several ABYC Project Technical Committees, the International Marine Certification Institute Board of Directors, and as the ABYC Thermal Appliance Project Technical Committee Chair.



For more information

View the Progressive Insurance safety videos at <https://bit.ly/3LOJN1B> and the downloadable safety materials are available at <https://bit.ly/4q1OiQ5>

Behind the Scenes with the Coast Guard and the American Boat & Yacht Council

Partnering to make boating safer

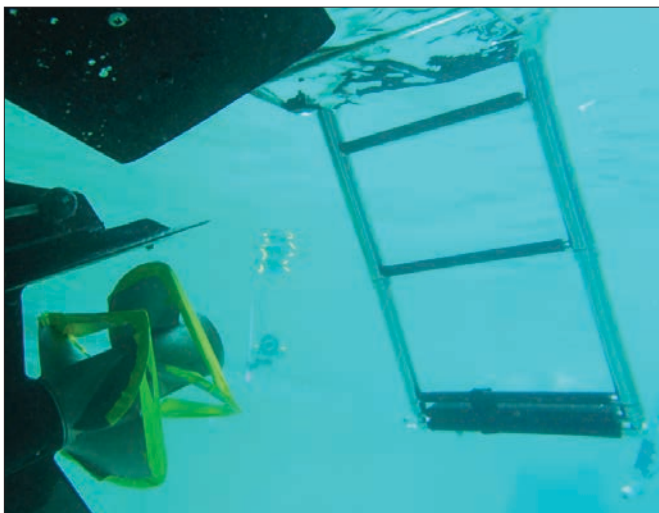
by JOHN ADEY

President

American Boat & Yacht Council

The difference between a propeller injury and an uneventful reboarding of a boat is 12 inches. These same 12 inches had the potential to prevent 75% of the reported propeller injuries over a 10-year span. When advocates were pushing for propeller guards on all boats, the U.S. Coast Guard worked with the American Boat & Yacht Council (ABYC) to look at the nature of the accidents and report on findings and solutions.

A simple change to the depth of a boarding ladder from 10 inches below the waterline to 22 inches allowed the swimmer more control and the ability to avoid the propeller altogether, running or not. Add to this a requirement for boatbuilders to install an engine cut-off system in the event the driver is displaced from the helm, and you have a solution that addresses most of the accidents involving an individual being struck by a propeller. The best news is that this result can be achieved without adding a propeller guard—which comes with its own set of complications and limitations.



Testing revealed that simple changes to boarding ladders substantially decreased propeller contact while reboarding. Photo courtesy of ABYC

Federal Boating Safety Act of 1971

Years of creation and use of standards and best practices when building recreational boats resulted in the first federal regulations covering the construction of boats in the United States. Largely unchanged since 1971, these regulations primarily address fuel and electrical systems on inboard gasoline boats, as well as capacity, flotation, and powering requirements on boats less than 20 feet in length.

In the '70s population of boats matched the regulations. However, boats in use in the United States today are vastly different. This is where ABYC's voluntary standards come in. They're proven to fill the gaps between new technology and old federal regulations without costly, lengthy regulatory action.

Why Voluntary Standards?

The ABYC is the author of voluntary construction standards used by the recreational marine industry, and nearly 90% of U.S. builders choose to use them. The council was formed in 1954 to create safety standards where federal regulations did not exist. Written under the rules of the American National Standards Institute, or ANSI, ABYC enlists volunteers from all over the recreational boating universe. The experts in the ABYC process—builders, marine surveyors, insurance experts, lawyers, the general public, and the government—are involved in the initial creation of a standard as well as the cyclical review of those standards.

Inevitably when a consumer uses a product, there will be accidents and other issues that will point to the manufacturer as the cause. Proof of construction to a recognized standard—thus the need for ANSI accreditation—is the first step in defending the product in question. This is why builders choose to use voluntary standards.

As with most U.S. manufacturing, marine technology

advances faster than federal requirements can react. ABYC provides the ability to address new technology as it occurs, not when the regulation has had the chance to catch up. Coast Guard involvement in the standards-writing process is at the core of the standards' relevance. With engineers from the service's Office of Auxiliary & Boating Safety (CG-BSX) represented on every committee, boats and accessories builders know that, in lieu of a regulation, a written standard has had our federal regulators input and review.

Partnership Offers Longterm Success

ABYC's relationship with the Coast Guard began with its 1954 founding, and the service's participation and support is essential to keeping recreational boaters safe. Today that relationship is essentially unchanged. We rely on each other's sphere of influence to ensure that manufacturers have access to the solid, well-thought-out, attainable standards that can help build a safe product.

Financial backing that ABYC receives in the form of the Coast Guard's National Nonprofit Organization Grant Program funding benefits recreational boating as a whole. Research, testing, and even reimbursing small businesses' expenses for their participation in the standards development process have been hallmarks of the grant applications over the years.

Whether it's working is a question that comes up continually. A recent study by Industrial Economics looked at incidents involving boats built to ABYC standards versus boats not using these standards.

"This important research confirms what many have believed anecdotally, which is recreational boats that are built to voluntary standards are less likely to be in certain accidents than those built to the Coast Guard's minimum standards," said Jeff Ludwig, Chief of the Coast Guard's Recreational Boating Product Assurance Branch.

A History of Working Toward Safer Boating

In the last 20 years, we've seen some very significant causes of accident mitigated by the Coast Guard/ABYC partnership working to identify reasonable, sustainable solutions.

Carbon Monoxide Poisoning

Beginning in the mid-1990s, the recreational boating industry became aware of the possibility that carbon

monoxide (CO) poisoning can happen outdoors. Several high-profile deaths, originally suspected drownings, were ultimately linked to CO poisoning from the exhaust of houseboat generators. The waterline exhaust output caused the odorless, colorless, tasteless gas to accumulate under swim platforms and other areas where swimmers might encounter it.

Building on Coast Guard accident investigations, the ABYC standards had made some significant changes in this area by the late '90s. Beginning with isolating propulsion engines from the interior of the boat, these changes extended to a complete redesign of the way houseboat generator installation is performed. This included new products that separate the exhaust from the cooling water, with the exhaust exiting through a "dry stack" high above the top deck of the houseboat.

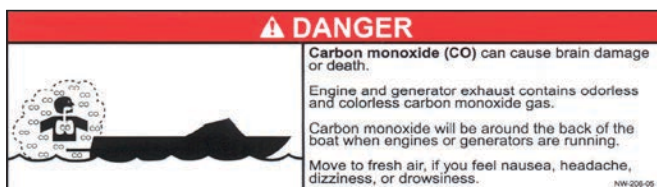
Subsequent studies were done for towed watersports that led to a document on manufacturer testing of boats to see where CO may accumulate, as well as trying to identify an effective outdoor detector for the gas. Today's standards include many provisions to mitigate both the generation of CO as well as provide warnings through labels and indoor detectors suitable for the marine environment. Many states have passed laws requiring the installation of the CO warning labels that ABYC builders have been applying since 2009.

Electric Shock Drowning

Similar to the misunderstanding of CO hazards, electric shock drowning was also not fully understood. Upon autopsy, several deaths originally suspected as drownings revealed there was no water in the victims' lungs. Rescuers also gave accounts in their post-accident interviews of "paralyzing" and "shocking" sensations while in the water. As a result, victim advocates approached the Coast Guard for assistance.

Over the course of two separate grant periods, the phenomenon was identified and tested on a repeated basis. Faults and miswiring of boats and docks created a small and intense electrical field, which in nonconductive freshwater is in search of a grounding element. The swimmer who encounters the field becomes the ground and, in severe cases, experiences paralysis and electrocution.

Working through a grant, the ABYC Electrical Project Technical Committee identified a device called an equipment leakage circuit interrupter. Acting like the ground fault breaker in a household bathroom, these devices became required on recreational vessels with alternating current in late 2011. Other mitigation strategies are also now required to reduce the possibility of stray current entering the water. In standard NFPA 303, Fire Protection Standard for Marinas and Boatyards, the National Fire Protection Association required a device to respond to



levels of electrical current in the water and cut the power should current be present.

Emerging Innovations

When products fall so far outside the scope of a traditional vessel but reach the market before there is a chance for discussion on construction and safety, ABYC has a model to follow to develop standards. As an example, CG-BSX identified the eFoil, a type of powered surfboard, as a device needing further study. It was developed and gained popularity on the heels of advances in electric propulsion and lithium-ion batteries. Responsible manufacturers created safe products, but not every model in the marketplace was equally safe.

To develop a standard for eFoil, CG-BSX engineers and ABYC staff interviewed manufacturers as they demonstrated their products. The result is the outline of a new standard focusing on key safety points like lithium batteries and electric propulsion elements. Once the draft standard is completed, it will undergo review through the rigorous committee process to ultimately obtain the comments and votes required by ANSI. All of this ensures that a single manufacturer does not have proprietary control over the requirements in the standard.

Though this standard is far from complete, it's a very current example of the ongoing projects between the Coast Guard and ABYC. The choice to create a standard before a potentially lengthy regulatory process ensures products more quickly achieve an appropriate level of safety. This is important when a manufacturer creates a novel or non-traditional product under the definition of a vessel.



Government and industry representatives gathered to test eFoil on Maryland's South River. They are, from left, Craig Scholten of American Boat & Yacht Council; Brandon George of Chesapeake Watersports; Peter Chisholm and Rudi Miklosvary of Fliteboard; Jeff Ludwig of the Coast Guard; Brian Goodwin of American Boat & Yacht Council; and Darrin Watson, Eric Johnson, and Will Hillyer, all of the Coast Guard. Photo courtesy of ABYC



Unregulated product entering the United States poses a problem for state registrations. Without a legitimate manufacturer identification code, there is no proof that U.S. Coast Guard standards have been met. Photo courtesy of ABYC

Imported Products

Another concern is the surge in imported products that don't necessarily meet any standards, much less federal regulations. States are reporting the attempted registration of foreign-made vessels without a legitimate manufacturer identification code (MIC). Legitimate MICs provide proof that Coast Guard standards have been met. Purchases range from small personal watercraft to multiple larger boat models that the buyer intends to sell.

The states are looking to the Coast Guard for guidance on how to make sure these products do not pose safety risks. Options, including intervention at the time of arrival in the United States, full inspections, and the use and development of ABYC standards, are still being considered. Ultimately, the Coast Guard wants to ensure the state registers safe products, and this is another way that voluntary standards can support the service's continuing, and sometimes unique, work as the regulatory body for the recreational boating industry.

Future Work

The ABYC/Coast Guard partnership makes a difference. There is no end to the boating industry's innovation, but the Coast Guard's Recreational Boating Safety Program must ensure that products are safe for the general public. From the need for new standards to modifying existing standards based on accident data, ABYC exists to help the Coast Guard make boating safer for all. 

About the author:

John Adey is the president of the American Boat & Yacht Council and a member and past vice chair of the U.S. Coast Guard's National Boating Safety Advisory Committee.

The Coast Guard's Recreational Boat Testing and Compliance Program

by KEVIN FERRIE
Product Assurance Engineer
Office of Auxiliary & Boating Safety
U.S. Coast Guard

The Recreational Boat Testing and Compliance Program (RBTCP) was established in 1971 with President Richard Nixon's signing of the Federal Boat Safety Act (FBSA), which mandated a cooperative federal/state effort to improve recreational boating safety in the United States. It also established the National Recreational Boating Safety Program and gave the U.S. Coast Guard the authority to establish mandatory boat manufacturing and safety standards. This act was established at a time when boating's popularity was at an all-time high and, as a result, there was a concerning trend in the growing number of fatalities. Just a few years after the passage of the FBSA, fatalities were down by more than 10%.

Before going further into the RBTCP, imagine what a typical recreational vessel looked like in the early 1970s. One of two images likely comes to mind. The first is a 16- to 20-foot open motorboat with a marinized inboard gasoline engine and an outdrive to propel it through the water. The second, is a similar sized vessel with a 2-stroke outboard engine sucking gasoline mixed with oil from a red, 5-gallon gas tank on deck. That was boating in the 1970s, and the increased fatalities were, in part, caused by the lack of any oversight or safety standards.

Title 46 U.S.C. Chapter 43: Recreational Vessels is the RBTCP's primary authority. This gives the Coast Guard the authority to:

- Prescribe regulations to establish minimum safety standards
- Conduct inspections and testing of recreational vessels to determine compliance with safety standards
- Require manufacturers to repair vessels that are deemed noncompliant
- Contain a situation that creates a substantial risk of personal injury to the public through a recall program

This law resulted in 33 CFR Subchapter S: Boating Safety and contained regulations by which the RBTCP

operates. The program has evolved over the years and currently ensures compliance through manufacturer inspections, testing boats for compliance with flotation requirements, and visiting dealers and boat shows to identify potential noncompliant vessels for testing, and/or manufacturer visits. A typical year includes about 400 manufacturer inspections, 35 boat tests, and 200 dealer and 10 boat show visits.

Program Overview

The RBTCP is managed by the Coast Guard Office of Auxiliary & Boating Safety's Recreational Boating Product Assurance Branch (CG-BSX-23). Staffed by eight personnel, the branch ensures manufacturer compliance with all applicable Coast Guard safety requirements through inspections and testing, issuance of manufacturer identification codes, interpretation of federal regulations, guidance to recreational boat builders, and investigation of consumer complaints.

Manufacturers Identification Codes

Prior to building and selling a recreational boat, the builder or importer must obtain a valid manufacturer identification code (MIC) from CG-BSX-23. This MIC is a three-letter code that makes up the first three digits of any vessel's Hull Identification Number (HIN).¹ This provides the Coast Guard, or any other federal/state agency, the ability to track any vessel back to the responsible party—the builder or importer responsible for introducing the vessel for sale in the United States. Unlike commercial shipping, where the Coast Guard reviews, inspects, and ensures compliance before placing a vessel into service, the recreational compliance program is based upon self-certification. The builder or importer self-certifies that the vessel meets federal requirements, so more limited oversight prior to sale is required. The RBTCP then conducts oversight tests and inspections. If problems are found, the Coast Guard determines whether the responsible party needs to recall and fix all vessels or just fix vessels that are built from that point forward. If the deficiency presents a serious safety issue, the Coast

Guard will require all vessels to be fixed.

Flotation Testing Program

The Flotation Testing Program is a key component to verifying compliance with flotation standards. Outboard powered boats less than 20' in length are required to have foam or other suitable flotation installed so that if a boat is swamped it stays afloat and relatively level so that boaters do not have to enter the water. If they do enter the water, the boat can serve as a safety platform to hold onto until help arrives. To test compliance with the level flotation requirement, CG-BSX-23 purchases about 35 vessels per year on the open market. They are carefully derigged, and weight is added to simulate engines, fuel, and other key weights at a facility in southern Maryland. The boat then undergoes a series of tests, including swamping the vessel, to evaluate compliance with the required regulations. If the vessel fails, the Coast Guard works with the builder to install enough flotation to pass and then, through a recall process, requires the builder to fix all the vessels that have been sold.

Boat tests are the most thorough inspection. During a boat test, compliance inspectors calculate safe loading and powering, and test boats for flotation. During the 2023 calendar year, there were 43 initial boat tests. Of these, 26 failed at least one of the eight categories tested. Seventeen boats were retested after failure, resulting in just five repeat failures.

Manufacturer Inspections

The Coast Guard inspects about 400 manufacturers per year, or about 13% of the more than 3,000 registered builder's and/or importers in the United States are visited per year. A manufacturer inspection typically occurs at the manufacturing facility, which ranges from an assembly line production to a builder's home garage. This visit facilitates direct one-on-one interaction between the builder and the Coast Guard's compliance inspectors (CI) while giving inspectors access to the boat while it is under construction. The CI will go over administrative requirements, conduct a general audit of overall compliance, and perform an inspection of a vessel under construction. Specific regulatory requirements can be reviewed on our Compliance Inspection Checklist. This is a useful tool that contains all the Coast Guard regulatory requirements for recreational vessels, as well as the regulatory citations so the specific requirements can be reviewed.

Dealer Visits and Boat Shows

CIs visit dealer locations and boat shows to conduct research on the industry and follow the latest trends in recreational boat building. This is particularly important given the self-certification basis for the compliance

program. It allows the Coast Guard to stay current and continually assess the risks associated with recreational boats and their increasingly complex systems. These visits are not thorough inspections, but allow the CI to identify any manufacturers that need an inspection and boats that may not meet the flotation requirements, making them good candidates for a boat test.

Recalls

If a recreational vessel or associated equipment has a defect, it may be subject to a recall. Title 46 U.S.C. § 43 grants the Coast Guard authority to recall recreational vessels and associated equipment. The rules implementing this authority are found in 33 CFR § 179.

A boat recall can occur for one of two reasons—regulatory non-compliance or a substantial risk defect. When the manufacturer or the Coast Guard determines a recreational vessel fails to comply with minimum safety standards found in 46 U.S.C. § 43 and 33 CFR Subchapter S, it is in regulatory non-compliance. If a recreational vessel contains a defect that the manufacturer or the Coast Guard determines creates a substantial risk of personal injury or death, this is a substantial risk defect. Regulatory non-compliance is straight forward. If a recreational vessel fails to comply with Coast Guard safety standards, that vessel may be subject to recall. Substantial risk defect determinations are a little more complicated and are made on a case-by-case basis. The Coast Guard considers the following criteria when determining whether a vessel or equipment may have a substantial risk defect:

1. The defect creates an unanticipated hazard. An obvious risk that is typical of normal vessel operations or normal wear and tear does not normally create the basis for a defect.
2. The defect occurs with some frequency. One isolated occurrence may not constitute the basis for a finding of a defect for an entire product line.
3. The defect clearly presents a risk of death or personal injury.

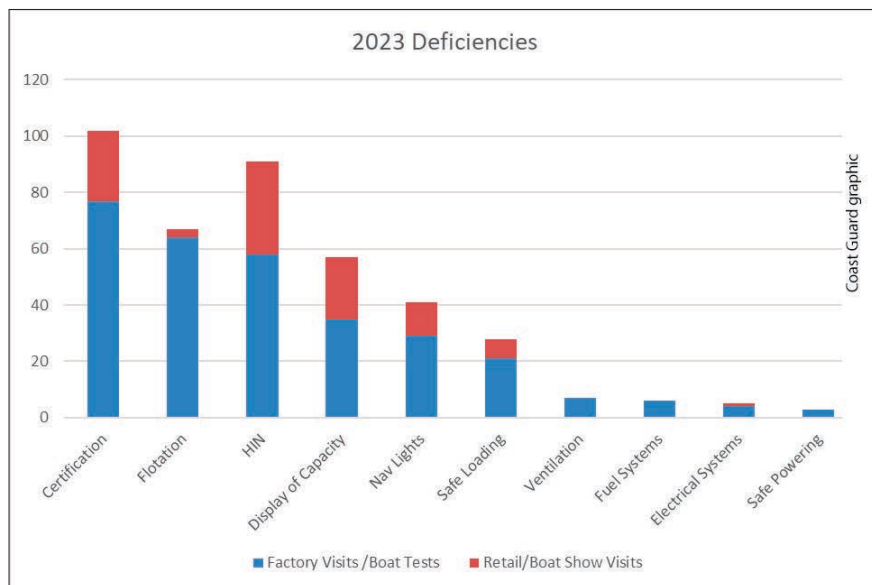
At the time of the writing, there were 182 open recalls that affected more than 1.5 million units.

What Are We Finding

A detailed look at inspection data for 2023 revealed manufacturer inspections and boat tests had a 29% deficiency rate, while retail and boat show inspections had only a 7% deficiency rate. This is expected as the retail and boat show visits are much less rigorous. While it appears manufacturer visits and boat tests are much more effective, dealer and boat show visits are beneficial, providing visibility of the more than 3,000 manufacturers active in

the United States and allowing CIs to inspect multiple brands in one location.

Hull identification numbers (HINs) are the biggest deficiency noted in all inspection types. This is because every recreational vessel is required to have a HIN. For example, even a kayak needs a HIN, though other federal safety standards don't apply. Deficiencies with flotation are found primarily only during boat tests, a small subset of overall inspections. The chart below shows categories with high levels of deficiencies that were noted in 2023



during inspections. HINs, safe loading, flotation, and display of capacity and certification are most often noted as deficient.

After reviewing the deficiencies chart, an obvious question may be, *what about fuel and electrical systems as boats become larger and more advanced?* The short answer is that 33 CFR Subchapter S, Subpart I, Electrical Systems and Subpart J, Fuel Systems do not apply to gasoline powered outboard boats, which are the overwhelming percentage of boats sold in the United States. We expect this industry trend of bigger boats and a higher proportion of outboard boats to continue and, in the absence of federal standards, voluntary standards fill the gap. In the rare instance where a builder fails to comply with voluntary standards and introduces a boat to the market with an unsafe fuel or electrical system, the Coast Guard's authority to initiate a recall due to a substantial risk safety defect can be exercised to mitigate the unsafe condition.

As federal regulations become more obsolete, voluntary standards become more important to fill the gap until regulations can catch up. The Coast Guard participates in the development and maintenance of American Boat and Yacht Council standards as well as applicable

International Standards Organization, the National Fire Protection Association and the Society of Automotive Engineers standards. It is critical to ensure voluntary standards do not conflict with minimal federal safety standards and are consistent with the intent of the Federal Boat Safety Act. CG-BSX-23 also conducts investigations into unique boating accidents to determine if a recall is necessary or if updates to the regulations or standards are warranted.

The RBTCP is managed wholly out of Coast Guard

Headquarters, but that doesn't mean that local Coast Guard units don't run into issues with recreational boats. When they do, CG-BSX-23 is available to assist. Should Coast Guard units have questions on recreational boat standards—Coast Guard requirements or voluntary standards—or need assistance with an investigation, it is recommended they reach out to CG-BSX-23. The office can also provide resources for a recreational boat casualty investigation, including independent lab testing and subject matter expert consultation.

Born in the 1970s, the RBTCP continues to evolve and serves as the primary compliance method for recreational boat manufacturers and is the check for an otherwise self-certifying

compliance program. It's a critical part of ensuring more than 3,000 manufacturers comply with minimal safety standards and provides an excellent avenue for the Coast Guard to work with builders to continue improving safety on the water. 

About the author:

Kevin Ferrie is a retired Coast Guard officer who served an active-duty career in the commercial compliance industry. In his role as an engineer in CG-BSX-23, he oversees all manufacturers in the northern half of the United States.

Endnote:

¹ 33 C.F.R. § 181 Subpart C requires every recreational vessel have a HIN.



For more information

Find the Compliance Inspection Checklist at <https://www.safeafloat.com> under the Boat Builders Tool Kit in the Factory Checklist Tab

The Coast Guard's Boating Product Assurance Branch, CG-BSX-23, can be reached at rbscompliance@uscg.mil

Safeguarding Our Waterways

The Coast Guard Auxiliary's crucial role in boating safety

by ROBIN POPE

Director

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U.S. Coast Guard Auxiliary

Each day, U.S. Coast Guard personnel conduct a tremendous variety of operations from aids to navigation (ATON) maintenance and port security to marine environmental protection, ice patrols, law enforcement, and search and rescue. Though vast, the Coast Guard's responsibilities center on its central mission of ensuring our nation's maritime safety, security, and stewardship.

The U.S. Coast Guard Auxiliary is the Coast Guard's uniformed volunteer auxiliary service. Founded in 1939 by Congress as the Coast Guard Reserve and renamed the Coast Guard Auxiliary in 1941, its nearly 20,000 members support every Coast Guard mission except for military and law enforcement operations. However,

its core mission is to promote and improve recreational boating safety. Each year, Auxiliary members volunteer millions of hours of their time and expertise, with an estimated benefit to the United States of nearly \$220 million.¹ In the process, Auxiliary members annually save hundreds of lives, protect many millions of dollars' worth of property, perform approximately 150,000 vessel safety checks, and teach approximately half a million students in safe boating classes.

Data collected by the Coast Guard through the 2011, 2012, and 2018 National Recreational Boating Safety Surveys detail the growth in recreational boating over the years. In 2018, there were 85 million recreational boaters in the country. Taken together, the data from



Roland McDevitt, Division Chief, Paddlecraft Safety Division, compares the strengths of different kayaks during classroom training in Nags Head, North Carolina. Photo by Auxiliarist Greg South

the three surveys shows an average annual growth of more than 1.5 million boaters each year, suggesting there are approximately 95 million recreational boaters in the United States today.

Auxiliary members help keep them safe by engaging with the boating community, educating boaters via formal and informal educational opportunities, and when necessary, rescuing boaters through search and rescue operations.

Engaging, educating, and, when necessary, rescuing boaters is easy to say. However, when the numbers are considered, the scope of the challenge seems overwhelming. More than 90 million boaters are served by fewer than 20,000 Auxiliary members—a ratio of more than 4,500 boaters to 1 Auxiliarist. To achieve the Auxiliary's core safety mission requires each member's dedication, hard work, and skill. However, achieving that mission also requires an understanding of boating accidents and why they happen so that prevention and response efforts can be effectively focused, turning an overwhelming challenge into an achievable mission.

Boating Accident Research

The Coast Guard's Boating Safety Division annually publishes recreational boating statistics, describing types of accidents across all types of vessels, contributing factors that lead to boating accidents, and other factors—weather and water conditions—associated with the accidents. Additional information is available through the Boating Accident Reporting Database. Other organizations, like American Whitewater, also publish information regarding boating accidents. These resources allow researchers and boating safety professionals to investigate boating accidents and then develop evidence-based, data-driven prevention and response strategies.

Research conducted by Auxiliary members and published in the Coast Guard Auxiliary journal RBS Job One presents a clear picture when all types of boats are considered.

- Collisions are the most common type of boating accident reported but cause only a small fraction of all boating fatalities.
- Unexpected entry into the water by capsizing or falling overboard is the most common type of fatal boating accident.
- Most boating fatalities are due to drowning.
- Most drowning subjects are not wearing life jackets.
- Most boating fatalities occur when the vessel's operator has no boating education.
- Most boating fatalities occur in good weather, when winds are less than 15 knots, wave height is less than 2 feet—0.6 meters—weather is clear, and visibility is greater than 5 miles.

However, different vessel types have unique patterns. For example:

- In some years, more than half of boaters who died while aboard inflatable boats and whitewater kayaks were wearing a life jacket.
- Whether the vessel operator had any type of boating education is unknown in approximately half of all boating fatalities. Where known, approximately 27% of open motorboat operators involved with fatalities had received some type of boating education. In contrast, less than 10% of those involved in kayaking fatalities had obtained boating education.
- Aboard pontoon boats, approximately half of the fatalities involve voluntary departure from the vessel and more than a third involve alcohol consumption.
- Personal watercraft are the only vessel type where traumatic injury, rather than drowning, is the leading cause of death. They're also the only craft where collision is the most common type of fatal accident.
- Understanding these types of nuances is an essential part of creating effective boating safety interventions. The two most important takeaway messages from boating accident research may be that nearly all fatal boating accidents are due to human factors—decisions made and actions taken by boaters—and that nearly all fatal boating accidents are preventable.



Students practice re-entering capsized kayaks after retrieving them during joint Auxiliary-American Canoe Association training events at Missouri's Smithfield Lake. Photo by Auxiliarist Julie Carey

Trip planning, skilled boat handling, learning how to self-rescue and rescue others, carrying and using proper safety gear, wearing a life jacket, and following all principles of good seamanship help make boating safer. Alone, none of these measures makes boating 100% safe. However, when combined, these interventions create a strong safety net for boaters. Auxiliary members apply this safety net in many ways, some of which are highlighted below.

Recreational Boating Safety Operations

The Auxiliary's Recreational Boating Safety Operations are wide-ranging but all focus on engaging and educating boaters to prevent boating accidents. Formal education is done through the Auxiliary's Public Education Directorate with members delivering formal courses meeting national boating education standards to approximately 500,000 boaters each year. However, informal efforts go far beyond that.

Each year, approximately 150,000 vessel safety checks are performed. The National Recreational Boating Safety Surveys suggest as many as five people use the average boat, meaning these safety checks impact as many as 750,000 boaters each year. Vessel safety checks examine boats for compliance with safety requirements, like life jacket and fire extinguisher carriage, and for legal requirements like proper vessel registration. Owners are advised of deficiencies and encouraged to correct them. Because these are courtesy exams, no punitive action is taken when a deficiency is discovered. Instead, the issue is discussed and the vessel operator is advised on how to correct the problem. It is common for vessel owners to learn that the bulb on a navigation light is out or that a fire extinguisher is beyond its service date. Problems



Information booths at waterway access points and at water-based outdoor events, like this one in Lorain, Ohio, can reach thousands of boaters over the course of a weekend. Photo by Auxiliarist William Ferry

like these are easy to correct if found early but could be catastrophic if discovered only when the equipment is desperately needed.

Equally important, safety checks create opportunities for vessel operators and Auxiliary personnel to speak about boating safety. Operators can ask questions and examiners can highlight boating safety practices and the reasoning behind them. For example, a boater might argue that life jacket wear is unimportant because they're a strong swimmer. Vessel examiners then have an opportunity to discuss the challenge of donning a life jacket in the water under even the most ideal situations. Boaters might question the value of thoroughly cleaning a boat when moving from one watershed to



Margaret Gering, AUXPAD Operator, patrols at Lake Hopatcong, New Jersey, giving a safety talk to children on paddleboards and their parents. Photo by Auxiliarist Shari Dulski

another, creating opportunities to discuss the problem of invasive aquatic species. Regardless of the question, having access to a well-trained boating safety professional creates the opportunity for boaters to learn how to make boating safer and more enjoyable.

Vessel examiners work with individual boaters, and program visitors expand that work by engaging with entities where boaters might be found—marinas, retail and even grocery stores, and gas stations. Program visitors can answer questions from employees and serve as a resource when boaters have questions employees cannot answer. A key job for program visitors is to leave information that boaters can pick up and read for their own education, on their own time. Some of the information is accessed via QR codes on printed material. Other information is found in brochures and pamphlets. In the age of QR codes and cell phones, pamphlets might seem old-fashioned, but they provide a permanent resource whose batteries never die and whose function does not depend on the presence of a working cell tower nearby.

Both vessel examiners and program visitors play important roles in promoting boating safety at the local level.

“Our Vessel Examiners and Partner Visitors play a crucial role in educating the boating public and our marine partners,” Thomas Niles, director of the V Directorate, said. “Through their personal interactions during vessel safety checks and partner visits, they help explain key safety topics and contribute to making recreational boating safety better for everyone involved.”

On larger scales, partnerships between the Auxiliary and like-missioned national organizations like the American Canoe Association (ACA) lead to strong national recreational boating safety (RBS) programs. The Auxiliary learns from their boating experts and has an opportunity to promote boating safety. Joint work by Auxiliary and ACA members led to previously discussed research and the creation of Smart Start for Safe Paddling. Smart Start is a resource library that includes a free online course, along with a text, student workbook, and presenter tools. It incorporates the Auxiliary’s boating safety research, experience from ACA’s 145-year history, and the more than 50,000 paddling instructors they have certified, and requirements established by the National Association of State Boating Law Administrators. The Auxiliary-ACA partnership led to a uniquely evidence-based educational tool that also meets

the needs of educators and of regulatory and enforcement agencies.

Similar success has occurred with West Marine, the largest marine retailer in the United States. Partnership between West Marine and the Auxiliary led to more than half a million boating safety contacts during National Safe Boating Week in 2025. It also led to vessel safety checks, formal public education classes, and informal educational opportunities being offered at West Marine stores across the country throughout the year.

Partnerships with Sea Scouts, a boating-focused part of the Scouting America program, has led to the creation of Auxiliary-sponsored Sea Scout ships. Scouts and their adult leaders learn maritime skills from experienced Auxiliarists, participate in on-water training, and develop leadership skills. Some move into active-duty roles in the Coast Guard and other military branches. Others pursue careers in maritime industries. All learn valuable boating, safety, and leadership skills.

Creation of invaluable educational resources, expanded opportunities to deliver boating safety messages, and development of boating safety awareness in Scouts who likely will be future leaders, all result from the Auxiliary’s partnership programs. These are only a small list of examples that demonstrate the value of boating safety programs partnering to achieve joint goals. “Partnerships are a force multiplier for the Auxiliary’s RBS mission,” Rodney Janssen, RBS outreach liaison division chief, said.

Strong partnerships are important, and effective communications are a key part of creating and maintaining them. The Auxiliary communicates RBS messages through many avenues including through a strong social media presence on Facebook, Instagram, and YouTube, which offers messages about Auxiliary-related topics including boating safety. Auxiliary websites provide a wealth of boating information, as do publications like *The Auxiliarist* and *RBS Job One*. Strong communication of high-quality boating safety content, strong national partnerships, and strong local relationships created by skilled Auxiliary members further strengthens the safety net for boaters.

Paddlesport Operations

There are approximately 35 million paddlers in the United States, using canoes, kayaks, inflatable boats, and stand-up paddleboards. They comprise approximately



V Directorate is shorthand for the Vessel Examination and Partner Visitation Directorate.





Coast Guard graphic by Munseila Sarun

40% of the U.S. recreational boating community. Growth in paddlesport participation accounts for more than half of the annual growth in recreational boating participation, but it's not surprising.

Paddlers can launch from nearly anywhere. Boats can be stored in basements, barns, garages, or, for inflatables, a closet. There are no fuel costs and few maintenance costs. Paddlecraft can be relatively inexpensive, with some costing less than \$100. Even the most expensive cost a few thousand dollars, at most. Purchasing a 25-foot powerboat is a major expenditure whereas paddlecraft might be purchased on a whim.

Higher performance paddlecraft are generally sold at stores whose staff have paddlesports training and who sell a full line of safety equipment. Boaters purchasing these more expensive boats often seek out advanced training or are already advanced paddlers and paddling instructors. They often join paddling groups where they can find training, mentorship and paddling partners. In contrast, less expensive boats often are purchased at stores where few employees have any boating safety education and where safety equipment—even equipment as basic as life jackets—is not available. Unfortunately, in too many cases, this leads to paddlecraft being purchased without any thought about safety equipment or skill training.

Research clearly shows that, as with other types of boats, nearly all serious paddling accidents are preventable. Most occur when an inexperienced paddler not wearing a life jacket capsizes or falls overboard and then cannot stay afloat, swim to safety, or re-enter their boat. In most cases, the paddler is boating alone and has never received any kind of boating education. It is easy to assume these accidents happen only under extreme conditions. Data shows otherwise. Most paddling fatalities occur when seas are calm and weather is clear. The Auxiliary's Paddlecraft Safety Program, AUXPAD, strives to prevent these fatalities and is delivered via Auxiliary members trained through the partnership with the ACA.

AUXPAD's shore-based programs focus on accident prevention through engagement and education. Vessel safety checks ensure new paddlers are carrying appropriate safety equipment and encourage life jacket wear whenever paddling. They give an opportunity to provide informal education and encourage more structured training. Examiners can provide contacts for local paddling clubs that offer training and mentorship. Entry-level programs developed by the ACA and the Auxiliary provide a strong introduction to paddling and focus on simple safety messages like:

- Wear a life jacket every time you paddle.
- Avoid capsizing and falling overboard through trip planning and good boat handling.

- All paddlers are, at some point, swimmers. Be prepared for swims and learn to rescue yourself and others when accidents happen.

Auxiliary Members who provide AUXPAD's on-water program are trained through a partnership with the ACA, provide an on-water example of safe boating practices and, when necessary, conduct search and rescue operations. They also provide expert resources to Coast Guard personnel and other boating safety professionals who may have little or no paddling experience.

More advanced ACA courses provide hands-on, on-water boat handling, leadership, and rescue skills training, solidifying the points above in progressively more challenging conditions. As with other types of boats, the combination of formal and informal education along with direct engagement with boaters leads to safer, more enjoyable boating experiences.

Search and Rescue

In 2025, Auxiliary members reported participating in 25,809 hours of public education; 37,904 hours of vessel examinations; and 29,399 hours of program visitation. These prevention efforts undoubtedly prevented many boating accidents, injuries, and deaths.

In contrast, only 830.4 hours associated with search and rescue missions were reported. However, these few hours had a tremendous impact, saving 181 lives, providing assistance in 263 cases, and protecting nearly \$7 million in property. Auxiliary members who conduct search and rescue operations are trained to Coast Guard standards, developing strong lifesaving abilities. Recreational boating safety is the Auxiliary's core mission but there can be no doubt that the mission includes both prevention and response.

Take Aways

A recent rescue highlights a wide range of Auxiliary safety operations and how they contribute to overall safe boating. Auxiliarist Joey Taguding was one of several Auxiliary members working with local boating safety partners to provide security for an open-water swim. Some members of the safety team were stationed at fixed locations while others roved about the swimmers in kayaks that could safely navigate in the pack and shallow areas inaccessible to power boats. Personnel were tasked with keeping boat traffic out of the swimming area and assisting any swimmers in need.

Taguding was notified of a swimmer in distress and holding on to another volunteer's kayak. He assessed the situation, transferred the subject to his boat, and paddled him to a motorized vessel outside the swimming area. From there, the subject was taken to a nearby dock and transported to the hospital via EMS. The combination of

local partners seeking out safety personnel, Auxiliary volunteers as watch standers, paddlecraft operators, and boat crew members—as well as professional rescuers providing EMS support—directly led to a life saved. Not mentioned in this report are the problems that didn't happen during the event due to the actions of Auxiliary members and other local volunteers. That was the result of solid recreational boating safety programs.

The Coast Guard Auxiliary's core mission of recreational boating safety is successfully achieved by engaging with boaters, educating them, and when necessary, responding to problems. It's a challenging mission, made more achievable by working with like-missioned partners. And, because of the commitment, hard work, and dedication of those involved, it's a mission that is almost always successful. Recreational boating safety should be a shared mission for every boater because boating is fun—and safer boating is more fun. 

About the author:

Robin Pope, Ph.D., PA-C, FAWM, is the Director of the Coast Guard Auxiliary's Recreational Boating Safety Outreach Directorate and brings more than four decades of experience in aquatics and boating safety to Auxiliary programs. In fulfillment of his belief that boating is fun, but safer boating is more fun, he brings a combination of professional research skills, medical experience, and a passion for aquatic and boating safety to his work.

Endnotes:

- ¹ United States Department of Homeland Security. (2024, September 9). U.S. Coast Guard Auxiliary. Retrieved September 1, 2025, from <https://www.dhs.gov/us-coast-guard-auxiliary>

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The Coast Guard Auxiliary

A force multiplier and the Coast Guard's vital partner

by RICK CORRALES

National Director of Public Affairs

U.S. Coast Guard Auxiliary

When I first put on the U.S. Coast Guard Auxiliary uniform nearly three years ago, I did it for one simple reason. I wanted to teach safe boating classes in Spanish to families in my community who had never had that opportunity before.

I found the Auxiliary much like many people discover opportunities today, through a simple social media post. One day, while scrolling past my friends' chatter and the usual news, I saw a message about volunteering with the Coast Guard Auxiliary. To learn more, I simply had to schedule a virtual meeting. That one click opened the door to a mission bigger than I ever imagined.

I saw a gap. These were neighborhoods where Spanish was spoken at home, but where vital boating safety information rarely reached families launching canoes, fishing skiffs, or small powerboats on local rivers. I believed then, and still do, that the Auxiliary's greatest mission is not just saving lives on the water but making sure every American has access to the knowledge and trust in the organization that keeps them safe.

Not long after I joined, I volunteered as public affairs and social media manager for the Coast Guard's 2023 National Scout Jamboree Task Force. At the Bechtel Summit Reserve in West Virginia, I worked side by side with active-duty Coasties, recruiters, and fellow Auxiliarists to share our mission with nearly 16,000 Scouts. It was the first Jamboree in six years and the first to welcome girls into Scouting. That summer, our team earned the Coast Guard Meritorious Team Commendation, proof that volunteers can make a national impact.¹

From that hot week on the mountain, my Auxiliary path grew quickly. Each new opportunity revealed the depth and broad reach of the mission. From internal communications and operational messaging to multi-media production, I found my voice and purpose within Team Coast Guard.

U.S. Coast Guard Auxiliary

The U.S. Coast Guard Auxiliary is the uniformed, volunteer component of the Coast Guard. Established by Congress in 1939, the Auxiliary operates under Title 14 of the U.S. Code, providing non-combat support across all

Coast Guard mission areas.

Each time, I've seen the same truth. When the Coast Guard needs more hands, the Auxiliary answers. Doctors, interpreters, communicators, and retirees, we show up and adapt. Auxiliarists multiply the Coast Guard's service in moments that matter most.

This is our story. This is how we serve. And this is why America still needs us, now more than ever.

Force Multipliers in Every Mission

One voice in Team Coast Guard

When the nation tunes in to watch the Coast Guard in action, there's often an Auxiliarist helping ensure the story is told right.

During the 2024 Titan submersible hearings, I served as the Coast Guard's media producer, creating the streamed content that was distributed on the Associated Press wire for two weeks and is now featured in the Netflix documentary, *Titanic: The OceanGate Disaster*. It became one of the most widely viewed investigations of the year. The work of Auxiliary public affairs



Coast Guard Auxiliarist Patrick Brown, the Auxiliary's national conference A/V coordinator, works to configure the network during the National Transportation Safety Bureau's Titan Submersible investigation. Coast Guard photo

professionals helped ensure that families, media, and the public received timely, accurate, and trusted updates.

Involvement in significant events is not unusual, and the Auxiliary public affairs team is passionate and ready to lend its support. I took leave from my city job to serve as the Joint Information Center Manager during the critical first three weeks of the Francis Scott Key Bridge collapse response. I spent my birthday supporting national messaging during the Reagan airport aviation incident on the Potomac River. I also contributed to communications planning for both the Presidential Inauguration and the State of the Union address. In each of these moments, Auxiliary public affairs members helped ensure the Coast Guard's voice remained visible, credible, and trusted.

Beyond crises, Auxiliary PA specialists support year-round efforts—creating national campaigns, managing social media strategies, writing feature stories, and building public trust through accurate, engaging messaging. It's not just background work. It's operational communication, and it's vital to the service.

The Language Bridge

The Coast Guard Auxiliary Interpreter Corps is a unique capability that strengthens the service's ability to navigate language barriers during complex marine casualty investigations. With proficiency in 57 foreign languages, these volunteers provide critical support where clear communication can make the difference between an incomplete investigation and actionable safety insights.

In 2015, when the U.S.-flagged cargo vessel *SS El Faro* tragically sank in Hurricane Joaquin, five Polish nationals were among the lives lost. During the Marine Board of Investigation, investigators sought to interview a Polish crewmember who had previously served aboard *El Faro* but was not on the accident voyage. The Coast Guard reached out to the Auxiliary, and Auxiliarist Ewa Benavides stepped forward. She provided precise, unbiased Polish translation throughout the sensitive, technical inquiry, ensuring every question and response was fully understood by all parties involved.

That same year, Auxiliary interpreters Morley and Rebecca Mason supported the investigation into the grounding of the commercial fishing vessel *Sea Hawk 68*. With 20 Indonesian crew members and Taiwanese leadership, the case demanded skilled linguistic and cultural navigation. Having lived in Indonesia as missionaries, the Masons brought not only language fluency but essential cultural awareness, helping investigators piece together the sequence of events that led to the vessel's pre-dawn grounding.

Their contributions informed both Coast Guard and National Transportation Safety Board reports, enhancing strategies to prevent similar maritime accidents in

the future. Through the Interpreter Corps, the Auxiliary ensures that language is never a barrier to safety, accountability, or mission success.²

Strengthening Readiness from the Clinic

Auxiliary National Commodore Mary Kirkwood knows the Coast Guard's mission of readiness starts well before anyone steps aboard a cutter. After a 40-year career in critical care and nursing management, she continues to serve, not on the water, but in the clinic.

Twice a week for the last three years, she has volunteered as a Registered Nurse at the Coast Guard's Training Center Petaluma Medical Clinic. She focuses on referrals for specialty services like cardiology, OB/GYN, sleep medicine, and radiology.

"This is very important support for the mission of readiness," Kirkwood says. "Our Coast Guard troops must be able to perform to the highest caliber to meet the needs our nation asks of them."

The Petaluma clinic is just one example. Across the country, qualified Auxiliarists serve as medical force multipliers at Coast Guard training centers and clinics. Under the Coast Guard Auxiliary Medical Support program, these volunteers include physicians, dentists, nurses, physician assistants, and pharmacists who serve within Coast Guard facilities under the direction of local clinic leadership. Whether supporting specialty referrals, managing documentation, or providing direct patient care, they ensure that Coast Guard members receive the care they need without delay.

Their support increases access, reduces administrative burden, and boosts the Coast Guard's ability to deliver timely care. It is quiet work often unseen outside clinic walls, but it embodies the same commitment that defines the entirety of the Auxiliary.

Providing Spiritual Support Across the Service

The spiritual care and support Auxiliary Chaplain Support members bring to the Coast Guard is an essential, but often overlooked, form of augmentation.

As an Auxiliary chaplain, Sue Carter fills a critical gap when active-duty chaplains are not available. She participates in ceremonies, provides shipboard ministry, and offers pastoral care to Coast Guard members across ranks.

"Acting as an Auxiliary chaplain in the Coast Guard offers myriad ways to be a force multiplier," Carter says. "The range is almost limitless."

From blessing retirements to sailing aboard the Barque *Eagle*, Carter's service demonstrates the flexibility and reach of the Auxiliary Chaplain Support program. Her work reminds us that readiness is not just about equipment and drills. It is also about morale, spiritual well-being, and human connection.

Chaplains Aboard The Eagle

The *Eagle's* deployments are long journeys involving students, active duty, and Auxiliary volunteers. It is the first mission for many, and having a chaplain on board offers the crew a resource for spiritual support.

Defending the Maritime Cyber Frontier

For Jim Cummings, serving in the Coast Guard Auxiliary is about applying his professional expertise to meet one of the nation's fastest-growing threats. He serves as the Auxiliary Cyber Advisor for Sector Lake Michigan and as the Auxiliary branch chief for Cybersecurity Policy in the Great Lakes District. In these roles, he has:

- Co-presented a briefing on AI-generated deepfakes at the May 2025 Area Maritime Security Committee meeting
- Developed a list of recommended actions for Maritime Transportation System stakeholders to strengthen cybersecurity defenses in response to the June 2025 Department of Homeland Security Iranian Threat Advisory
- Provided input on the Maritime Transportation Security Act of 2002 Cyber Hygiene Checklist for facilities inspectors, with specific considerations for Operational Technology and Industrial Control System risks

- Co-developed a Cyber Threat Intelligence Program briefing for stakeholders

Cummings' expertise directly enhances the Coast Guard's ability to engage with industry partners and infrastructure owners on cyber vulnerabilities, reinforcing the Coast Guard's role in protecting the Marine Transportation System from both nation-state and criminal threat actors.

The Auxiliary University Program Builds Coast Guard Officers

When Hurricane Helene struck in October 2024, the Coast Guard Auxiliary was ready. At Claytor Lake, Virginia, 21 Auxiliarists from the New River Valley Flotilla and the Virginia Tech Auxiliary University Program carried out post-storm assessments and public safety patrols that helped the community reopen the waterway. Cameron Alemand, now a commissioned Coast Guard officer, was one of those university Auxiliarists.

During the response, the Auxiliary's mission was expansive, requiring the mapping of more than 1,500 acres of storm debris, identifying and reporting hazardous materials, recovering displaced vessels, and escorting HAZMAT teams, VIPs, and special operations craft. It was now-Ensign Cameron Alemand who led efforts to maintain the safety zone after the Captain of the Port closed the lake due to overwhelming debris. He continues to serve as Flotilla Commander of the New River Valley Flotilla.

The real-time debris mapping, developed and updated within hours, far exceeded initial agency estimates and directly supported federal and state response



Members of the U.S. Coast Guard Auxiliary's New River Valley Flotilla and Auxiliary University Program cadets map Claytor Lake storm debris after Hurricane Helene in October 2024. Coast Guard photo

efforts. Over seven days, the team conducted 12 patrols and logged more than 1,000 man-hours alongside FEMA, the U.S. Army Corps of Engineers, the Environmental Protection Agency, and state partners.

"Missions like the Hurricane Helene response prove that the Auxiliary is not only capable of supporting the Coast Guard, but [we're] capable of executing the mission ourselves," Alemand says. "When we deliver results like this with limited resources, it shows the true strength of our volunteer force and just how impactful the Auxiliary can be."

For this work, the New River Valley Flotilla received the 2024 Captain Niels P. Thomsen Innovation Award in the Auxiliary Category.

Alemand credits the Auxiliary with providing the real-world experience that helped him pursue his Coast Guard career. "The Auxiliary played a key role in helping me pursue that goal by giving me real-world opportunities to serve," Alemand says. "Even though I am now a commissioned officer, I remain in the Auxiliary because I want to keep making a difference."

A National Reach, A Lasting Impact

The stories in this article highlight more than isolated examples. They show the full spectrum of what the U.S. Coast Guard Auxiliary brings to the mission—every day, in every district.

With nearly 20,000 members across all 50 states and territories, the Auxiliary extends the Coast Guard's operational footprint beyond the limits of active-duty capacity. Auxiliarists operate on rivers, lakes, and coastal waters, in clinics and classrooms, behind cameras, in interpreter booths, and in cybersecurity briefings.

Our members augment missions during national emergencies and routine operations. We help shape public messaging during presidential inaugurations, provide spiritual care when active-duty chaplains are unavailable, support medical referrals at training centers, and offer language interpretation in marine casualty investigations. We do not wait to be needed. We are already there.

This is a force that adapts to the nation's evolving needs. It responds not only to disasters and crises, but to the less visible gaps in language, trust, connection, and mentorship that define operational readiness just as much as technology and training.

Every patrol. Every watch. Every augmentation. Every time the Coast Guard calls, the Auxiliary answers. We are not a supplement. We are an integrated part of the Coast Guard's mission success. Our reach is national, and our impact is personal and enduring.

Join the Mission

The Coast Guard Auxiliary is open to anyone with a heart for service and the drive to contribute. Whether

you're a young student, mid-career professional, retiree, or military veteran, there's a place for you in our ranks.

No matter your background, you'll find a mission that matches your skills. Communications specialists manage public information during national emergencies. Legal professionals assist with regulations and ethics. Boaters help teach seamanship. Pilots serve as air observers. Cybersecurity experts defend the Marine Transportation System. Interpreters help ensure international safety and compliance. Chaplains and health professionals serve those who serve.

Service in the Auxiliary isn't just about giving. It's about growing. Members build lifelong friendships, sharpen leadership skills, and make a tangible difference in their communities. The commitment is flexible and scalable to your availability. What matters most is your willingness to answer the call.

Every story I've included reflects one truth: The Coast Guard Auxiliary is not just a support organization. It is a powerful, professional, ready force, deeply embedded in the Coast Guard's mission success. We are the Coast Guard's trusted force multiplier, not just in numbers but in skill, dedication, and reach. Our members believe in something greater than themselves and that citizenship carries responsibility.

This is your invitation to become part of that legacy. Every mission, every patrol, every briefing, every crisis shows us that the nation needs the Auxiliary now more than ever. The Auxiliary needs new voices, new perspectives, and new hands willing to carry the oar. If you have ever wondered how to give back in a way that truly matters, the Auxiliary is your answer. 

About the author:

Rick Corrales, AUXPA1, is National Director of the Public Affairs Directorate for the U.S. Coast Guard Auxiliary. He leads national communications and crisis media operations, ensuring the Auxiliary's 20,000 volunteers remain a trusted force multiplier alongside the U.S. Coast Guard.

Endnotes:

- ¹ United States Coast Guard, "Coast Guard Meritorious Team Commendation: National Scout Jamboree Task Force," 2023
- ² Chidester, Thomas R. et al. "Interpretation in US Coast Guard Marine Casualty Investigations," Transportation Research Board, 2020. <https://trid.trb.org/View/1659130>



For more information

Learn more about how you can join the Coast Guard Auxiliary at <https://cgaux.org>

Education and Outreach

Advancing boater safety through the Coast Guard Auxiliary

by BARRY DENTON

Deputy Assistant National Commodore

FORCECOM

U.S. Coast Guard Auxiliary

In a country blessed with thousands of miles of coastline, inland waterways, and navigable lakes, recreational boating is both a national pastime and a public safety responsibility. With more than 11 million registered recreational boats in the United States, and millions more unregistered, and increasingly popular, paddlecraft in use, the potential for accidents, injuries, and fatalities on the water is ever-present and growing rapidly. This is where the United States Coast Guard Auxiliary comes into action.

While its members do not engage in direct law enforcement or military operations, Auxiliarists provide critical volunteer support in areas such as recreational boating safety (RBS), public education, vessel safety inspections, and community outreach. Nowhere is their impact more evident than in their unwavering efforts to educate the public on how to stay safe while enjoying America's waterways.

A National Mission: Educating the Boating Public

Public education is the cornerstone of the Auxiliary's mission. Each year, thousands of Auxiliary members teach courses, conduct boat safety inspections, and engage directly with boaters to promote best practices on the water. These efforts are not just helpful and great for community outreach, but they save lives.

Boating safety statistics from the U.S. Coast Guard consistently show that accidents and fatalities are far less common among boaters who have taken a safety course.



Coast Guard Auxiliarists Mike Kessler and Orlando Villa perform complimentary vessel safety checks during The Metropolitan Water Association's City of Water Day Festival on New York's Governors Island, in July 2014. Photo courtesy of Auxiliarist Michael Hines

In 2023, more than 70% of fatal boating accident victims had not received any formal safety training. This correlation makes the Auxiliary's education mission more

urgent and essential than ever before.

Delivering a comprehensive slate of public education courses nationwide, the Auxiliary offers in-person, online, and hybrid formats to accommodate diverse learning styles and schedules, working to reach today's boater in every fashion. The most common courses include the Boat America course which offers an in-depth and interesting boating safety course providing the knowledge needed to be better prepared to boat safely. In addition, courses like the Suddenly in Command class are designed for those who are not normally at the helm but who may find themselves "Suddenly in Command" if the skipper becomes ill, gets injured, or falls overboard.

By combining authoritative instruction with accessibility, the Auxiliary makes it easier for the public to comply with regulations and protect themselves on the water.

Going Beyond the Classroom

The Auxiliary's public education efforts extend beyond the classroom and into marinas, boat ramps, yacht clubs, schools, libraries, and community events. Through safety booths, interactive demonstrations, and guest lectures, Auxiliary members meet the boating public where they are.



Students listen intently as U.S. Coast Guard Auxiliary instructor Ed Sponable of Occoquan, Virginia, Flotilla 14-06, teaches boat handling to students attending the Auxiliary's America's Boating Course class in Woodbridge, Virginia, in June 2004. Coast Guard photo

One of the most successful community engagement programs is the Vessel Safety Check (VSC) initiative. Auxiliarists trained as vessel examiners offer free, voluntary inspections of recreational boats to ensure they meet both federal and state safety requirements. These checks serve as personalized education sessions, where boaters learn about life jacket requirements, fire extinguisher maintenance, and safe fueling practices.

The VSC program helps boaters correct safety deficiencies before they become emergencies while also building trust between the public and the Auxiliary. Boat owners who pass the inspection receive a VSC decal which provides a visible mark of commitment to safe boating, and in some instances can provide the boater with the opportunity to receive discounts on their boating insurance.

Another critical aspect of education is the Program Visitor initiative. This program focuses on outreach to marine dealers, marinas, and boating supply stores. Trained Auxiliarists provide safety literature, brochures, posters, and even videos that reach customers at the point of sale. Various topics include navigation rules to cold water immersion, alcohol awareness, and most importantly, encouragement for patrons to always wear a life jacket while boating.

Social Media: A Boating Safety Beacon

Emerging as the primary way the Auxiliary engages with the world, social media is a powerful tool in the Auxiliary's education and outreach strategy. With platforms like Facebook, Instagram, Twitter (X), LinkedIn, and YouTube, the Auxiliary engages with both recreational boaters as well as the general public in real time, across demographics, and without geographic limitations.

Flotillas and divisions are encouraged to maintain their own social media accounts, aligned with national guidelines and branding. This coordinated social media approach allows units to address region-specific concerns, such as local water conditions, seasonal boating hazards, or community events. Social media content includes:

- Boating safety tips and checklists
- Infographics on topics like life jacket use, or navigation lights
- Testimonials from boaters who benefited from Auxiliary education
- Photos from vessel checks, public events, and training sessions
- Reminders about local courses

Social media campaigns also coincide with national events such as National Safe Boating Week and Wear Your Life Jacket to Work Day, helping to build momentum,



Richard Weiss, a member of Cape May, New Jersey's Coast Guard Auxiliary Flotilla 8-2, inspects a life jacket during a vessel safety check at Bree-Zee-Lee Yacht Basin in Cape May, during the 2010 National Safe Boating Week. Coast Guard photo by Petty Officer 3rd Class Jonathan Lindberg

spread safety messages, and engage with the community.

For example, during the 2024 National Safe Boating Week, Flotillas across the country used short-form video content on Instagram Reels to encourage people to wear their life jackets while boating. The campaign's reach exceeded 2 million views nationally, with high engagement from younger boaters.

The best thing about using social media is its interactive nature that allows boaters to ask questions, request course information, and share feedback. This responsiveness strengthens public trust and positions the Auxiliary as a reliable and approachable source of maritime knowledge.

Supporting Outreach with Publications

Traditional media still plays a vital role in educating both Auxiliarists and the public and the Auxiliary produces two national publications. *The Navigator* and *The Auxiliarist* serve as cornerstone communication tools while promotional productions—reels and short

videos—highlight several aspects of the Auxiliary.

- *The Navigator*, distributed in January of each year, is a professionally produced digital magazine that includes articles on safety best practices, public affairs success stories, training updates, and highlights of innovative Auxiliary programs.
- *The Auxiliarist*, a quarterly digital publication, offers operational guidance, leadership communications, and practical tips that Auxiliary members can apply in their communities.

Education in Action

Boating safety education makes a measurable difference—saving lives and reducing accidents. The U.S. Coast Guard estimates that approximately 75% of boating fatalities occur when the operator has no formal safety instruction.

Formal education and training—such as National Association of State Boating Law Administrators

approved courses offered through organizations like the Auxiliary—play a pivotal role in changing these statistics. According to national data, drowning accounts for about 75% of boating deaths, and more than 80% of those who drowned were not wearing a life jacket. Wearing life jackets and being trained in emergency protocols can significantly reduce these risks.

On a broader scale, the Coast Guard Auxiliary contributes substantially to boating safety education. Annually, it:

- Trains more than half a million learners in skills ranging from seamanship to navigation
- Performs more than 150,000 voluntary vessel safety checks
- Helps save about 500 lives per year and assists around 15,000 mariners in distress

Daily averages from past reports highlight the impact of outreach programs. Auxiliarists typically educate about 369 people per day on boating safety and

conduct nearly 300 vessel exams each day. These routine educational and safety activities contribute directly to safer waterways and fewer preventable tragedies.

Together, these statistics paint a clear picture. Boating safety education—including formal courses, checklists, public awareness campaigns, and vessel examinations—has a documented, lifesaving impact.

Training the Trainers: Investing in Instructors

Behind every successful safety class or social media campaign is a trained and committed Auxiliarist. The Auxiliary maintains rigorous standards for its instructors, public affairs officers, and vessel examiners. Members must complete formal qualifications and periodic refreshers to maintain their status.

Instructor training includes coursework in pedagogy, public speaking, and course management. Social media coordinators attend webinars on digital communication ethics, branding guidelines, and content accessibility. The result is a professionalized volunteer force capable of delivering top-tier education across all platforms.



Members of Flotilla 14-07 conducted vessel safety checks at Vilano boat ramp in St. Augustine, Florida, during the 2025 National Safe Boating Week. Coast Guard photo by Henry Seiden



Coast Guard Auxiliarist Greg Norton secures a safety zone for the Madisonville Wooden Boat Festival boat race in Madisonville, Louisiana, in October 2022. Coast Guard photo by Petty Officer 3rd Class Gabriel Wisdom

Challenges and Opportunities

While the Auxiliary's outreach is extensive, challenges persist. Reaching nontraditional and underrepresented boating communities requires new strategies and resources. Language barriers, technology gaps, and cultural differences can all impact the effectiveness of safety messaging.

To address these challenges, some flotillas have begun developing bilingual materials and are now using QR codes on printed materials that link to digital resources in multiple languages. These efforts underscore the Auxiliary's adaptability and commitment to serving all boating communities.

The future of the Auxiliary is focused on innovation and a broader reach to the communities it serves. At the same time, the Auxiliary continues to work on growing its membership to better reflect the nation's population and waterways. With just under 19,000 members, recruitment and retention is essential for continued success.

The Auxiliary's education and outreach programs form the bedrock of America's recreational boating safety strategy. From classrooms and marinas to smartphones and social media feeds, the Auxiliary meets boaters where they are, sharing accurate information, compassionate service, and a tireless commitment to saving lives.

As technology evolves and boating demographics shift, the Auxiliary is rising to meet the moment by embracing

innovation, expanding access, and leading with purpose. In doing so, it strengthens not just individual boaters, but the collective safety of our nation's waters.

When the sun rises on each new boating season, there are Auxiliarists ready to educate, inspect, and inform. Their mission is not just about rules and regulations. It is about stewardship, service, and safeguarding the very freedom to navigate our nation's rivers, lakes, and seas. 

About the author:

Barry Denton, AUXPA1, is Deputy Assistant National Commodore of FORCECOM for the Coast Guard Auxiliary. He earned his bachelor's and master's in criminal justice from the University of Louisville, his second master's in emergency management from the American Military University, and his Doctorate in Organizational and Educational Leadership from Spalding University.

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Understanding Acetic Anhydride

by LT NICHOLAS REMKE
Staff Engineer, Marine Safety Center
U.S. Coast Guard

What is it?

Acetic anhydride is a clear, colorless liquid with a pungent smell of vinegar, it's not-too-distant relative. Due to its low cost and effectiveness in acetylation, it has many industrial applications, but its flammable, corrosive, irritating properties make it a hazardous material regulated globally. For its role in the synthesis of illicit drugs, acetic anhydride is classified as DEA List II precursor and tracked by more than 28 exporting countries.

How is it used?

Industrial Use

Acetic anhydride is primarily used throughout industry for converting cellulose from wood pulp to cellulose acetate which is a main ingredient in the production of yarns, plastics, photographic film, coatings, and cigarette filters.

Drug Synthesis

The pharmaceutical industry uses acetic anhydride to make acetylsalicylic acid, more commonly known as aspirin. On an illicit note, acetic anhydride can be used to process heroin, amphetamine, and methamphetamine. According to a 2024 report, the illicit trade of the chemical peaked in 2018 at almost 200,000 liters seized. Since then, seizures have been minimal due to the rise of synthetic opioids like fentanyl, the Taliban's ban on opium cultivation in Afghanistan, and the heroin market shifting to southeastern Asian countries with less tendency to report.

Shipping Hazards

Acetic anhydride's corrosive and irritating effects pose significant safety hazards. Special requirements including vapor detection, chemical protective clothing, and increased ventilation are required for maritime carriage.

What is the Coast Guard's role?

The Coast Guard enforces maritime transportation

requirements for all hazardous materials in liquid bulk, including acetic anhydride. The Office of Design and Engineering Standards at Coast Guard Headquarters establishes and interprets domestic regulations, including hazardous cargo classifications. The Marine Safety Center's Tank Vessel and Offshore Division conducts engineering plan review and creates individual certificates detailing authorized cargoes. Upon completion of successful inspections, local Coast Guard inspectors issue the certificates as authorization for the vessels to operate while carrying liquid bulk cargoes.

About the Author:

LT Nicholas Remke is a staff engineer in the Marine Safety Center's Tank Vessel and Offshore Division. A 2019 U.S. Coast Guard Academy graduate, he holds a bachelor's in marine and environmental sciences and a master's in chemical engineering from Northwestern University. This office may be contacted at msc@uscg.mil.

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NAUTICAL ENGINEERING

QUERIES

Prepared by NMC Engineering Examination Team

1. Air/Fuel ratio is defined as _____.

- A. The ratio of the volume of air present to the volume of fuel injected during each compression stroke of an internal combustion engine
 - B. The ratio of the volume of air present to the volume of fuel injected during each power stroke of an internal combustion engine
 - C. The ratio of the weight of air present to the weight of fuel injected during each compression stroke of an internal combustion engine
 - D. The ratio of the weight of air present to the weight of fuel injected during each power stroke of an internal combustion engine
-

2. A fire that has developed in a pile of rubber gasket material would be classified as a _____.

- A. Class "A"
 - B. Class "B"
 - C. Class "C"
 - D. Class "D"
-

3. When a battery-operated megohmmeter (insulation tester) is used to perform a dielectric absorption test, the resistance is measured and recorded from each conductor to ground each minute for 10 consecutive minutes. What condition accounts for a gradual rise in resistance each successive minute?

- A. The insulation is cracked and otherwise deteriorated
 - B. The insulation has direct continuity with ground
 - C. The insulation is contaminated with moisture
 - D. The insulation is in good condition
-

4. Modern day boiler automation allows bypassing the "flame safeguard" system to permit a burner to have a "trial for ignition" period during burner light off. This period may not exceed _____.

- A. 5 seconds
- B. 10 seconds
- C. 15 seconds
- D. 30 seconds

1. A. The ratio of the volume of air present to the volume of fuel injected during each compression stroke of an internal combustion engine Incorrect answer
- B. The ratio of the volume of air present to the volume of fuel injected during each power stroke of an internal combustion engine Incorrect answer
- C. The ratio of the weight of air present to the weight of fuel injected during each compression stroke of an internal combustion engine Incorrect answer
- D. The ratio of the weight of air present to the weight of fuel injected during each power stroke of an internal combustion engine **Correct answer:** The ratio of the weight of air present to the weight of fuel injected during each power stroke is called the air-fuel ratio.

Reference: Diesel Engine Operation and Maintenance, Maleev, page 147

2. A. Class "A" **Correct Answer:** Class A fires involve ordinary combustible materials such as wood, cloth, paper, rubber and many plastics.
- B. Class "B" Incorrect answer
- C. Class "C" Incorrect answer
- D. Class "D" Incorrect answer

Reference: Marine Firefighting, 1st Ed., IFSTA, p. 23.

3. A. The insulation is cracked and otherwise deteriorated Incorrect answer
- B. The insulation has direct continuity with ground Incorrect answer
- C. The insulation is contaminated with moisture Incorrect answer
- D. The insulation is in good condition **Correct Answer:** Good insulation shows a continual increase in resistance. Moist or cracked insulation shows a relatively constant resistance.

Reference: Troubleshooting Electrical/Electronic Systems, Mazur & Proctor, p. 208

4. A. 5 seconds Incorrect answer
- B. 10 seconds Incorrect answer
- C. 15 seconds **Correct Answer:** Means provided to bypass the flame-scanner control system temporarily during a trial-for-ignition period is to be limited to 15 seconds from the time the fuel reaches the burners. Except for this trial-for-ignition period there is to be no means provided to bypass one or more of the burner flame scanner systems unless the boiler is being locally controlled.
- D. 30 seconds Incorrect answer

Reference: ABS, Rules for Building and Classing, Marine Ves., Part 4, Ves. Sys. and Machinery, July 2022, (e-library), Ch. 4, sec. 1, 4-4-1, para. 11.5.3(b) Reference: Diesel Engine Operation and Maintenance, Maleev; pages 275, 276 and 282, Fig 16-17



NAUTICAL DECK QUERIES

Prepared by NMC Engineering Examination Team

1. **BOTH INTERNATIONAL & INLAND** When is your vessel traveling at a “safe speed” as defined in COLREGs and Inland Navigation Rules?
 - A. When you are traveling slower than surrounding vessels
 - B. When no wake comes from your vessel
 - C. When you can stop within your visibility range
 - D. When you can take proper and effective action to avoid collision

2. **One of the sailboat’s crew has just fallen overboard. Which is the most efficient way to stop the vessel to recover the victim?**
 - A. Head the vessel into the wind
 - B. Head the vessel downwind
 - C. Trim in the mainsheet
 - D. Ease out the mainsheet

3. **Which term describes the horizontal fore and aft motion of a vessel?**
 - A. Pitch
 - B. Roll
 - C. Sway
 - D. Surge

4. **When considering currents, which defines the term “set”?**
 - A. It is the velocity in knots
 - B. It is the direction from which it flows
 - C. It is the direction towards which it flows
 - D. It is the estimated current

1. A. When you are traveling slower than surrounding vessels Incorrect answer

B. When no wake comes from your vessel Incorrect answer

C. When you can stop within your visibility range Incorrect answer

D. When you can take proper and effective action to avoid collision

Correct Answer: "Every vessel shall at all times proceed at a safe speed so that it can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions."

Reference: International & U.S. Inland Navigation Rules, Rule 6

2. A. Head the vessel into the wind

Correct Answer: "On a sailboat, it is always best to head into the wind immediately, using the Quick-Stop method..."

B. Head the vessel downwind Incorrect answer

C. Trim in the mainsheet Incorrect answer

D. Ease out the mainsheet Incorrect answer

Reference: Chapman Piloting and Seamanship, Husick, 68th. Ed., page 424

3. A. Pitch

Incorrect answer

B. Roll Incorrect answer

C. Sway Incorrect answer

D. Surge **Correct Answer:** "Surging or longitudinal bodily motion."

Reference: Stability & Trim for the Ship's Officer, George, 4th Ed., page 33

4. A. It is the velocity in knots

Incorrect answer

B. It is the direction from which it flows Incorrect answer

C. It is the direction towards which it flows **Correct Answer:** "Set refers to the current's direction and drift refers to the current's speed."

D. It is the estimated current Incorrect answer

Reference: The American Practical Navigator, Vol. I, 2024 Ed., Section 1006

IN THE NEWS

CGC *Tampa* crew members conduct dewatering and righting operations on a capsized panga during an interdiction in the Eastern Pacific Ocean, on March 23, 2026. In support of Operation Pacific Viper, *Tampa's* crew interdicted a fishing vessel with three pangas in tow or found nearby, seizing approximately 1,700 pounds of cocaine valued at nearly \$12.8 million. Coast Guard photo



COMMANDANT (CG-5PS-D)
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Our Ocean, Our Obligation, Our Opportunity

Congratulations to the winners of the 2025 North American Marine Environment Protection Association's annual student art contest! Students in Kindergarten through 12th grade were invited to artistically interpret *Our Ocean, Our Obligation, Our Opportunity* to highlight the importance of advancing maritime safety and environmental protection in the era of emerging technologies and alternative fuels. The contest was co-sponsored by the U.S. Coast Guard and The Inter-American Committee on Ports of the Organization of the American States. To learn more, go to <https://bit.ly/artcontest25>



Chloe L., Grade 7
Harrington Park, New Jersey



Isla W., Grade 1
Newton, Massachusetts



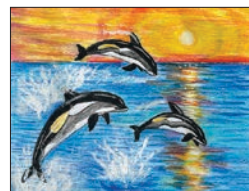
Jin G., Grade 7
Vancouver,
British Columbia, Canada



Kyle S., Grade 4
Vancouver,
British Columbia, Canada



Anastasia R., Grade 11
San Fernando, Trinidad,
Trinidad and Tobago



Jacqueline W., Grade 2
Tewlsbury, Manitoba,
Canada



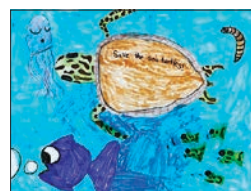
Vincent C., Grade 7
Vancouver,
British Columbia, Canada



Casey C., Grade 7
Juneau, Alaska



Adaya K., Grade 5
San Jose, California



Emerson W., Grade 2
Newton, Massachusetts



Evie L., Grade 5
Newton, Massachusetts



Jonathan S., Grade 9
Union City, Indiana