

# **STRATEGIC PLAN of the National Recreational Boating Safety Program 2012-2016**

The mission of the National Recreational Boating Safety Program 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 while cooperating with environmental and national security efforts.

This plan presents the key performance goals of the program: to reduce fatalities and injuries via eleven objectives and strategies within each objective judged necessary to attain these goals. The plan was drafted by a team consisting of members of the National Boating Safety Advisory Council (NBSAC), the Coast Guard Office of Auxiliary and Boating Safety, and other subject matter experts.

In broad terms the ultimate objective of the plan is to foster the development of a robust “safety culture” among the boating public using an appropriate combination of educational outreach initiatives, regulation, and (where appropriate) enforcement. Regulatory approaches may prove necessary (and are included among the performance initiatives in this plan), but even where these are recommended, the intent is to continue outreach activities to remind the boating public that regulations are designed to codify prudence and are no more stringent than necessary.

This plan is in alignment with the Coast Guard’s Marine Safety Performance Plan. It is the successor to the Strategic Plan for the period from 2007 through 2011 and incorporates the key lessons learned to date. Among the more important lessons learned is that greater focus is necessary. There are many arguably worthwhile initiatives that could be included in the plan, but experience shows that it is inefficient to pursue all simultaneously.

This Strategic Plan is best described as evolutionary, rather than revolutionary. Most of the projected benefits of the plan are derived from continuous improvement rather than performance initiatives. Nonetheless, analysis of the time trend in fatalities (thought to be the most accurate safety indicator) indicates that the historical rate of progress has slowed and that alternative approaches are necessary to address behavioral issues (e.g., boating under the influence, adherence to navigation rules, and wearing life jackets) rather than technical matters to effect continued safety improvement. Therefore, performance initiatives, such as a study of the costs, benefits, and feasibility of mandatory life jacket wear for occupants of certain types of boats and/or under certain circumstances are included in the plan. As another example, the plan includes possible mandatory boating education—presently required by many, but not all states. The plan allows adequate time for analysis of these options and recognizes that the benefits of such actions, if taken, will probably not occur during the planning horizon. However, opportunities to accelerate progress on initiatives with long lead times—and save additional lives—will be sought.

The continuous improvements contemplated by this plan are not merely the replication of older strategies. These reflect lessons learned and the exploitation of new technology. Thus, for example, the outreach and educational efforts included in this plan include the use of social networks (e.g., Facebook, Twitter, and Internet options) as well as more conventional media.

Goals for boating fatalities and injuries were developed using both judgment of subject matter experts and statistical trend extrapolations. The Coast Guard and its boating safety partners are also fully committed to developing improved analytical tools to quantify the benefits of various strategies and initiatives. It may not be feasible in the short term to eliminate the need for subjective judgments, but the

strategies included in the plan will gather and analyze relevant data to develop more focused data-based objectives, strategies, and assessments of likely benefits.

Among the various characteristics of a robust safety culture (e.g., flexible, adaptive, reporting, learning, and informed) is that the system should have strong *reporting* and *learning* components. Strategies are included in this plan to enhance the coverage, accuracy, and timeliness of accident reporting (the reporting component, which also includes outreach activities to share learnings) as well as the use of more sophisticated tools for data analysis (the learning component). Other key components of a robust safety culture are that it be flexible and adaptive. As events unfold during the final years of the present (2007 through 2011) Strategic Plan, it may be appropriate to make revisions to this (2012 through 2016) plan. Thus, the plan is best thought of as a “living document” that will be revised as new information, data, needs, or opportunities become available.

The architects of this plan are convinced that the overall plan is sound—it involves the “right things.” The goals for fatalities are believed realistic. They may appear modest, but recent experience shows the difficulty of reducing fatalities from present levels. And there are some adverse data trends such as an apparent increase in BUI fatalities. The goals for injuries are more speculative, not because injuries are expected to increase, but rather because it is believed that there is significant under-reporting of certain accidents and the plan includes efforts to increase reporting of accidents with injuries. Paradoxically, an increase in *reported* injuries may or may not be an indicator of plan success.

Finally, it should be noted that the success of this plan depends upon many factors not under the direct control of the Coast Guard, including the commitment and follow through of many plan partners and the public response to various initiatives and continuous improvements. If this plan accomplishes its key goals, many partners should share the credit for success.

### Performance Goal - Reduce Casualties

The performance goal of the Strategic Plan of the National Recreational Boating Safety Program is to reduce recreational boating injuries and fatalities. The following numerical targets have been established for recreational boating casualties (the sum of deaths and injuries) from FY 2012 through FY 2016:

Fiscal year	Number of injuries	Number of deaths	Total casualties
2012	3,295	673	3,968
2013	3,212	668	3,880
2014	3,132	665	3,797
2015	3,054	662	3,716
2016	2,997	659	3,656

Notes to accompany above table:

1. Injuries, deaths, and casualties vary from year to year. To smooth out random variations, five-year moving averages are used as target values. Thus, for example, attainment of the target for injuries in FY 2016 would be determined by comparing the numerical goal, 2,997 injuries, with the sum of the injuries recorded in the years 2011 through 2015 divided by 5.
2. These targets were determined by a combination of expert judgment and mathematical extrapolation of prior time-series data. These reflect the assumption that the strategic initiatives employed in this plan will have similar effects to those employed previously over the planning horizon. These targets provide for continued incremental improvement. Substantial discontinuous improvements (e.g., step changes) would require new laws or regulations (e.g., mandatory life jacket wear for a broader segment of the boating public, or a new awareness campaign or education program effectively impacting certain segments of the population). Such performance initiatives are included, but the projected benefits of implementation are not likely to occur before 2016.
3. In order to enable calculation of percentage changes, the specific numerical targets in these tables have not been rounded. The reader should not infer that targets can be determined with this precision.
4. Historically, estimates of injuries are believed to have been understated because not all recreational boating accidents (particularly those involving injuries not requiring hospital admission) are reported. This strategic plan includes initiatives to reduce underreporting and otherwise improve the quality of accident statistics. No specific allowance for increased reporting is reflected in the injury targets given in these tables. Therefore, periodic revisions may need to be made.

### Sub-Tier Goal 1. Reduce Five-Year Average Annual Deaths

Reduce the five-year average of recreational boating deaths as illustrated in the following table from FY2012 through FY2016:

Fiscal Year	Number of deaths
2012	673
2013	668
2014	665
2015	662
2016	659

Notes:

1. See those accompanying the first table.
2. Unlike accidents with certain types of injuries, available data indicates that nearly all fatal accidents are reported.
3. As noted above, this is a five-year moving average. Projected yearly deaths in each of the plan years will be lower than the five-year moving average.

**Sub-Tier Goal 2. Reduce Five-Year Average Annual Injuries**

Reduce recreational boating accident injuries as illustrated in the following table from FY 2012 through FY 2016:

Fiscal Year	Number of injuries
2012	3,295
2013	3,212
2014	3,132
2015	3,054
2016	2,997

## Notes:

1. See those accompanying first table.
2. As noted above, the actual number of injuries is greater than the reported injuries because available data indicate that not all accidents involving injuries are reported. These projections relate to *reported injuries*. In the event that efforts are successful to decrease the present rate of non-response, it may be necessary to adjust these numerical targets.

Shown below are eleven *objectives* and associated implementation *strategies* that underlie the above projections of boating fatalities and injuries. In the 2007 to 2011 Strategic Plan these objectives were listed in an approximate order of priority. This Strategic Plan recognizes the interdependence and integration of these objectives. Therefore, no priority ordering is intended.

**Objective 1: Safety Education Certificates and Successful Course Completions**

Increase the number of persons who complete a boating safety course or test that conforms to the National Boating Education Standards as recognized by the USCG.

**Strategy 1.1 – Track the Number of Certificates - States**

Approved boating safety course providers who provide boating safety courses or tests that conform to the National Boating Education Standards as recognized by the USCG, will report both the number of boating safety education certificates issued and the number of successful course completions for each federal fiscal year to the Boating Law Administrator of that State.

**Timeline:** Annually.

**Strategy 1.2 – Track the Number of Certificates - USCG**

States will report to the USCG, on a federal fiscal year basis, the total number of boating safety education certificates issued as well as the number of successful course completions, as part of the Performance Report Part II reporting requirements.

**Timeline:** Annually.

**Strategy 1.3 – Strengthen Boating Education Laws – States**

Increase the number of persons who complete boating education recognized by the USCG as having met the National Boating Education Standards by encouraging states to strengthen boating education laws.

**Timeline:** Ongoing.

**Strategy 1.4 – Strengthen Boating Education Laws – Federal**

Pursue federal legislation for a national mandatory national boating safety education requirement to increase the number of educated boaters and to enhance reciprocity to ease burden on boaters who move from state to state.

**Timeline:** ASAP.

**Strategy 1.5 – Measure Effectiveness of Education Methods**

Compare effectiveness of mandatory education vs. voluntary education to determine if there is a net change of behavior.

**Timeline:** Ongoing.

## **Objective 2: Boating Safety Outreach**

Deliver effective boating safety messages through various educational resources and media to reduce deaths and injuries of recreational boaters.

### **Strategy 2.1 - Develop a system for measuring the effectiveness of all media outreach efforts utilized within the first year of this Strategic Plan**

Establish an advisory work group that will assist the USCG in developing useful measure(s) of effectiveness of the USCG's awareness messages. In addition, establish unified, outreach and marketing strategies for all partners to deploy.

**Timeline:** Initial measure(s) of effectiveness to be developed by 2012.

### **Strategy 2.2 – National Outreach Work Group**

Form a National Outreach Work Group to assist the USCG in identifying and prioritizing which of the branded messages are to be developed in support of reducing lives lost on the water. Work group members may include some of the members of the advisory work group mentioned in Strategy 2.1. The intent of the work group is to provide assistance to USCG personnel in establishing timelines and deliverables as well as employing best practices in developing and executing a media strategy.

**Timeline:** Establish National Outreach Work Group and have initial meeting no later than January 2012.

### **Strategy 2.3 – Deliver Boating Safety Education Messages through Grassroots Efforts**

In addition to increasing the number of certificates and successful course completions under Objective 1 increase the number of persons who successfully participate in recreational boating safety education initiatives and/or community outreach programs by:

1. Increasing access to and knowledge of boating safety classes nationwide.
2. Engaging and assisting in enhancing community safety organizations on the grass roots level and through national safety education organizations, to provide boating safety education in their programs and initiatives and encourage those organizations to maintain the standards recognized by the USCG in the National Boating Safety Education Standards.
3. Expanding access to grassroots safety programs and initiatives (i.e.: boating safety festivals).
4. Capturing testimonials from persons whose lives were saved through education in an effort to encourage others to become educated.

**Timeline:** Ongoing.

### **Strategy 2.4 – Deliver Branded Messages through Traditional Mass Media**

Deliver branded campaign messages through traditional mass media that include television, radio, public service announcements, and print materials. Find effective ways to deliver messages that attract attention and change behavior. Test the campaign messages and the type of communications media to evaluate the effectiveness of the campaign to determine whether behavior changed. Coordinate with partners on priority messages and funding for those messages.

**Timeline:** Ongoing.

### **Strategy 2.5 – Deliver Branded Messages through Non-Traditional/New/Social Media**

Use multiple social/causal marketing media (e.g. Internet, Facebook, Twitter, YouTube) designed to influence the behavior of various target audiences. Use available measures to track impressions (e.g., Google Analytics) and search for improved measures to test the campaign messages and the type of communications media to determine whether the campaign changed boaters' behavior.

**Timeline:** Ongoing.

**Strategy 2.6 – Reach the Segment of the Boating Public with Limited English Proficiency**

Broaden safe boating campaigns to reach those with limited English proficiency as per Executive Order 13166. Establish a baseline and a measurement under Objectives 9 and 10.

**Timeline:** Ongoing.

**Strategy 2.7 – Deliver Messages via Law Enforcement Officers**

Enlist law enforcement officers to help deliver branded messages through enforcement and outreach efforts. Each interaction between recreational boaters and law enforcement personnel offers the possibility for educational outreach. The intent of this strategy is to enlist the support of law enforcement personnel, provide them with applicable literature, and capture statistically the number of interactions and possible effects. One of the first steps included as part of this strategy is to define valid and easy to measure statistics (e.g., percentage of boardings free of citations, contacts made, number of stickers/brochures distributed to boaters, and number of presentations/ participants).

Law enforcement officers or public information officers responding to the media relative to boating accidents should be trained to always answer three questions, whether they are "asked" or not. Additionally a training seminar should be developed for journalists to learn to ask the three questions.

1. Were life jackets available and/or worn and would it or did it make a difference regarding this accident.
2. Were alcohol or drugs a possible contributing factor you are investigating regarding this accident?
3. Were there possible violations of the rules of the road that are being investigated regarding this accident?

**Timeline:** Measures to be defined no later than January 2012.

**Strategy 2.8 – Deliver Messages via Marine Dealer Network**

The marine dealer network (including marine retailers) offers a potentially valuable distribution channel for boating safety messages. Develop a distribution plan (e.g., what is to be distributed and the channels of distribution [e.g., direct shipment, USCGAUX, USPS]) and relevant measures of effectiveness. Consider increased participation of USCG representatives on the marketing and public relations committees of such groups as: NMMA, MRAA, and AMI.

**Timeline:** No later than January 2012.

**Objective 3: Advanced and/or On-Water, Skills-Based Boating Education**

Increase the number of boaters who have completed advanced and/or on-water, skills-based boating education<sup>1</sup>.

**Strategy 3.1 – Track Participation in and Effectiveness of Advanced Education and On-Water, Skills-based Boating Education Courses**

Identify providers of advanced and on-water, skills-based training programs. Survey these providers to estimate the number of instructors, students and student-instructors (e.g. instructor candidates) involved in these courses by tracking the following minimum participation information:

1. Type and number of courses taught
2. Number of students trained
3. Number of instructors involved in training
4. Number of certificates awarded for student course completion
5. Number of instructor-level courses taught
6. Number of certificates awarded to student-instructors

In parallel with the above activities, search for relevant data to assess the effectiveness of advanced and on-water training in order to evaluate the potential to use these existing programs to train boaters to a national standard of boating safety practices and performance.

**Timeline:** Develop the key initial data by FY2012.

**Strategy 3.2 – Coordinate Best Practices for On-Water, Skills-Based Boating Education Courses**

USCG will assemble a group of implementing partners to identify best practices for on-water, skills-based education. Disseminate these best practices to marine retailers, marine dealers, and other organizations and potential course providers. Contact marine retailers and dealers to encourage customers to take on-water, skills-based training and a boating safety education course.

Key tasks and milestones included in this effort include:

1. Development of relationships between key implementing partners and the importance of on-water training in advancing the RBS Strategic Plan.
2. Implementing partners to agree on best practices (review of NASBLA & other groups) by 2012 including the basis for course and instructor certification.
3. Determine which courses will be included in the numerical targets for future years by 2012.

**Timeline:** Starting FY 2012 and continuing.

**Strategy 3.3 – Set Numerical Targets for Participation in Advanced Education and On-Water, Skills-Based Boating Education Courses**

Based upon the results of the efforts in Strategies 3.1 and 3.2:

1. Set numerical targets for the types of courses included in the program and the numbers of students to be trained.
2. Establish communication and implementation strategies for instructors and instructor trainers.
3. Develop goals for lives saved.

**Timeline:** Goals to be set no later than 2013.

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<sup>1</sup> For the purposes of this Plan, the following definitions apply:

Advanced Education means a course of instruction that meets and exceeds the National Boating Education Standards as recognized by the USCG.

On-Water Education means a course of instruction that is boat-based and on the water for skill development, regardless of the level of the course content.



### **Objective 4: Life Jacket Wear**

Increase adult life jacket wear rates nationwide. Targets: 1. Increase the observed adult life jacket wear rate in open motorboats by 3% from the previous year's wear rate. 2. Increase the observed adult life jacket wear rate on non-motorized vessels by 3% from the previous year's wear rate.

#### **Strategy 4.1 – Track and Evaluate Life Jacket Wear Rates**

Utilize the National Life Jacket Wear Rate Observation Study (see Strategy 10.2) to measure life jacket wear rates and (in concert with other information) assess whether or not the collective strategies associated with this Strategic Plan are increasing life jacket wear by recreational boaters. Attention should be given to the following:

1. Conduct the National Life Jacket Wear Rate Observation Study at appropriate intervals. Conduct the Wear Rate Study annually in Wear It targeted campaign states and for special projects such as those of the U.S. Army Corps of Engineers.
2. Engage in periodic independent observations to validate life jacket wear rates and report the results to NBSAC.
3. Explore independent means of documenting life jacket wear rates through routine efforts made by implementing partners. Seek reports from those partners.

**Timeline:** Ongoing.

#### **Strategy 4.2 – Continue the Life Jacket Wear Rate Tiger Team**

The Wear Rate Tiger Team will make formal recommendations to implementing partners on how best to initiate programs and strategies aimed at increasing life jacket wear rates. This team should:

1. Expand active partner involvement in the national “Wear It” Campaign and report on progress.
2. Utilize BARD data provided by Objective 10 research to identify and track the at-risk recreational boating populations via activities, contributing factors, accident type, operation at the time of the accident, and demographic analysis (age, gender, operator experience, boating education and life jacket wear) that result in drowning fatalities in order to prioritize Tiger Team focus and recommendations for life jacket intervention.
3. Identify and promote specific efforts which will (or are most likely to) result in successful education of the at-risk population(s) about life jacket wear and change boater behavior.
4. Identify and document those people, programs and organizations most likely to influence a behavioral change by the identified at-risk population(s).
5. Engage a variety of influencers to participate in targeted efforts aimed at increasing life jacket wear within their sphere of influence. Report the results.

**Timeline:** Ongoing.

#### **Strategy 4.3 – Engage all RBS Professionals in Public Demonstrations of Inflatable Life Jackets**

Engage professionals within the recreational boating safety community to regularly demonstrate the wearing of inflatable life jackets and to capitalize on any opportunities to educate the boating public about the comfort and benefits associated with inflatable life jacket wear while boating. Examples include:

1. Vessel Safety Check examiners should wear an inflatable life jacket during inspections and discuss devices with boat owners.
2. Boating Safety Course instructors should wear inflatable life jackets while teaching public courses and engage students in discussion about the benefits of life jacket wear while boating. Instructors should also demonstrate inflation of a life jacket when possible.
3. Marine law enforcement officers should wear life jackets while on patrol and make an effort to discuss various life jacket technologies with boaters contacted while on patrol.
4. Boat show sales personnel should wear inflatable life jackets while discussing their product with potential buyers.
5. Retailers should wear and have their passengers wear life jackets (inflatable, where appropriate) while providing on-water demonstration rides.

Measure the effectiveness of this strategy through periodic surveying of persons contacted to determine whether a change in behavior occurred, if inflatable life jackets were purchased, how often worn, if there are any barriers to willingness to wear, and the users' ability to properly re-arm and re-pack (if used). The measure of effectiveness should also include an assessment of whether the inflatable life jacket worn is properly armed and packed.

**Timeline:** Ongoing.

#### **Strategy 4.4 – Continuously Improve Life Jacket Testing and Approval Standards**

Promote innovation in USCG-approved life jackets through efforts aimed at enhancing wearer comfort, style, and increasing affordability of technologically advanced life jackets. This strategy will be accomplished by:

1. Ensuring a robust life jacket standards development process with active engagement of all stakeholders through an independent ANSI-accredited standards development organization (SDO).
2. Providing for competitive and streamlined processes of testing and evaluation of life jackets being submitted for USCG approval without compromising safety.
3. Modernizing and streamlining required production quality control and follow-up systems without compromising safety.
4. Expanding the selection of approved inflatable life jackets by taking regulatory measures to allow for approval of models for wear by persons under the age of sixteen.
5. Encouraging standardization of inflation systems and inflation system components for inflatable life jackets, and encouraging innovation and creativity of inflation systems development.
6. Evaluating and updating current USCG regulations pertaining to life jacket carriage and wear requirements.
7. Supporting a wider array of USCG-approved life jackets for the recreational boater. This support should include, but not be limited to, adoption of ISO level 50 devices.
8. Investigating the anatomical characteristics of infants and children with a view to redefining the construction and performance requirements for child and infant devices currently defined by weight ranges.

**Timeline:** Ongoing.

#### **Strategy 4.5 – Evaluate Mandatory Life Jacket Wear**

Continue to evaluate and assess the benefits and feasibility of mandatory life jacket wear regulations that target the at-risk population(s) and report those evaluations and recommendations to NBSAC.

**Timeline:** No later than the Spring NBSAC meeting in 2012.

#### **Strategy 4.6 – Evaluate Life Jacket Loaner Programs**

Identify and evaluate life jacket loaner programs in the United States. Catalog and evaluate the programs, considering program design methodology, goals, objectives and strategies, as well as, measured outputs and outcomes. Rate the effectiveness of each program. Disseminate results, including key lessons learned and best practices. Help promote program types which show the greatest likelihood of success.

**Timeline:** Ongoing.

#### **Strategy 4.7 – Address Life Jacket Wear in Boat Owners/Operators Manuals**

Engage standards and certification organizations to ensure that boat builders have adequate information regarding the role of life jackets in preventing drownings to pass on to end users through owner's manuals and collateral literature.

1. Work with the American Boat & Yacht Council (ABYC) to include additional life jacket value and wear information to its Technical Information Report titled T-24 Owners/Operators Manuals.
2. Encourage the National Marine Manufacturers Association (NMMA) to incorporate ABYC T-24 in the NMMA Certification program.

**Timeline:** 2013.

### **Objective 5: Operator Compliance, Navigation Rules**

Reduce fatalities associated with Navigation Rules (NAVRULES) violations by 2% per year from the previous year.

#### **Strategy 5.1 – Expand the Number of States with Mandatory Boating Safety Classes for NAVRULES Violators**

Encourage states to adopt the NASBLA model act that requires NAVRULES violators to take a mandatory NASBLA-approved boating safety course or any boating safety course that conforms to the National Boating Education standards as recognized by the USCG. By 2016 have 10% of the states and territories adopt the NASBLA model act for Mandatory Boating Safety Course for Certain Violations. Develop an optional (condensed) national course for navigation rule violators based on the current NASBLA model act for certain violations of navigation rules.

Certain violations for this strategy include, but are not limited to, careless/reckless operation, excessive speed, no proper lookout, operator inattention, rules of the road infraction, and lack of proper boat lights.

**Timeline:** 2016.

#### **Strategy 5.2 – Implement and Revise Curriculum for Officer Training to help ensure Strict Enforcement of NAVRULES**

Modify PRPII to include collection of information regarding number of officers trained in NAVRULES. Target: 80% of state marine officers will complete formal training in NAVRULES enforcement by 2016. Ask the states to provide via PRPII the number of marine officers who completed training.

**Timeline:** 2016.

#### **Strategy 5.3 – Increase Navigation Rule Awareness Among Boaters**

Increase NAVRULES awareness and compliance in conjunction with outreach in Objective 2. Identify trends in the NAVRULES-related contributing factors and share annually with providers of boating safety courses and NASBLA staff for their information in revising courses.

**Timelines:** Annually.

#### **Strategy 5.4 – Improve Consistency in Recording NAVRULES violations as contributing factors in BARD**

Work with appropriate NASBLA committees to achieve greater consistency in identifying/documenting NAVRULES violations and their coding in BARD. Any resulting changes in the list of contributing factors may impact the measures.

**Timeline:** No later than December 2012.

### **Objective 6: Boating Under the Influence (BUI)**

Achieve a 5% overall decrease in the number of deaths by CY 2016 (using a five-year moving average) where the use of alcohol or other drugs by a boat's operator and/or occupants was either a direct or indirect cause of the accident<sup>2</sup>. The five-year average for the 2005 to 2009 time period was 156.<sup>3</sup>

#### **Strategy 6.1 – Measure Alcohol and/or Drug Use in Recreational Boating**

Measure and document trends in alcohol and/or drug use while boating using the following data sources:

1. BARD alcohol and/or drug "caused" accidents.
2. BUI violations from USCG Form 4100.
3. Performance Report Part II reports from the states.

**Timeline:** Annually.

#### **Strategy 6.2 – Train Marine Law Enforcement Officers on BUI Detection**

Ensure that all marine law enforcement officers within the U.S. are provided up-to-date training on the detection and apprehension of impaired boat operators by:

1. Maintaining a nationally recognized, standardized course curriculum and related training materials and resources.
2. Expanding "train-the trainer" course offerings.
3. Creating a tracking system for course delivery/officer participation and reporting that data annually.

**Timeline:** End of 2012 fiscal year.

#### **Strategy 6.3 – Expand Nationwide Use of the Validated Standardized Seated Sobriety Tests**

Ensure that the seated sobriety tests are widely used and receive acceptance in courtrooms across the country through:

1. Training aimed at updating BUI instructors on the proper administration and evaluation of the tests.
2. Adequate support from researchers and prosecutors to help gain acceptance among our nation's courts.
3. Tracking court rulings that address use of these tests.
4. A coordinated effort with the National Highway Traffic Safety Administration (NHTSA) to inform our nation's law enforcement officers about the proper use of this test battery.

**Timeline:** Ongoing.

#### **Strategy 6.4 – Analyze Individual State Efforts to Link BUI Violations with Driver's Licenses**

Prepare an analysis of the effectiveness of state efforts to:

1. Link BUI violations with the violator's driver license.
2. Enhance penalties for BUI violators with a high blood or breath alcohol concentration (BAC) level (usually 0.15 or higher).

If appropriate, initiate and report on an effort to persuade additional states to enact legislation to link violations to driver licenses and/or to enhance penalties for BUI violators with high BAC levels.

**Timeline:** 2013.

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<sup>2</sup> It should be noted that the achievement of success in strategies 6.2 and 6.6 may, or may not, result in an increase in the accuracy of identifying and reporting alcohol or drug-use as a contributing factor in recreational boating fatalities.

<sup>3</sup> Data show that the intended outcome in the previous strategic plan was not attained (actually trend was increasing). This Objective strives to reverse this trend and generate a 5-percent decrease in deaths over the span of this strategic planning period. The target for the average number of deaths for the five year period 2012 to 2016 is 148 or less.

**Strategy 6.5 – Conduct BUI Awareness and Enforcement Campaign<sup>4</sup>**

Engage our nation’s marine law enforcement officers, boating safety partner organizations and the media in a nationwide campaign which blends targeted enforcement of BUI laws with a measureable increase in public awareness about the risks associated with BUI. Such an effort should include:

1. Targeted outreach to marine law enforcement agencies and their officers to enhance participation and reporting.
2. Development and distribution of single-theme media and public awareness products for use on local, state and federal levels.
3. A tracking mechanism to quantify participation and to measure media exposure.
4. A method to evaluate changes in public awareness and perception of the BUI problem.
5. Annual reporting of campaign activities.

**Timeline:** Annually.

**Strategy 6.6 – Improved Accuracy of Reporting Alcohol and/or Drug Use in Recreational Boating Accidents**

Develop and disseminate a training module for all law enforcement officers to assist them in detecting and accurately documenting the contribution of operator and/or occupant impairment to recreational boating accidents during accident investigations.<sup>5</sup> This effort should:

1. Attempt to reach all law enforcement officers who may become involved in the reporting of recreational boating accidents and other BARD data entry personnel.
2. Maintain the training module as an ongoing resource for law enforcement officers and other BARD data personnel.
3. Track the delivery of the training and report participation data annually.
4. Identify trends in operator and/or occupant impairment (as identified in boating accident reports) and correlate that data (as applicable) to increased officer awareness and accuracy in accident reporting.

**Timeline:** Annually.

**Strategy 6.7 – Test and Evaluate a Pilot Project to Assist in Setting Future Targets (Measures)**

Initiate a pilot project to test components of this Objective and use the results to assist in setting long-term targets (measures). The initiative should include:

1. Analysis of local trends to select pilot project area(s) and establish pre-initiative baselines (Strategy 6.1).
2. Assurances that the marine law enforcement officers in the test area(s) have received up-to-date training in BUI detection (Strategy 6.2).
3. Use of the validated Standardized Seated Sobriety Tests throughout the test area(s), including documented support from the local prosecutor(s) (Strategy 6.3).
4. Initiation and tracking of a targeted, local BUI awareness and enforcement campaign in the test area(s) (Strategy 6.5).
5. Training marine law enforcement officers in the test area(s) to assist them in detecting and accurately documenting operator impairment in boating accidents (Strategy 6.6).

**Timeline:** Fall of 2012: Site selection and preparation; Fall of 2012- Fall of 2013: Implement; and Spring 2014 NBSAC meeting: Evaluate results and report findings.

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<sup>4</sup> Related to Objective 2

<sup>5</sup> It should be noted that success in achieving improved detection of alcohol-involvement and more accurate reporting of such will likely lead to an increase in the number of alcohol-involved accidents (deaths) being reported. Success in this area may result in a perceived failure to meet the overall target for this Objective.

### **Objective 7: Manufacturer Compliance**

Decrease the recreational boat manufacturer ratio of discrepancies per factory inspection annually by 5% and keep boats with insufficient flotation off the market.

#### **Strategy 7.1 – Identify Problem Boats/Manufacturers**

Continue USCG's comprehensive Factory Visit Program designed to decrease preventable accidents by inspecting registered manufacturing facilities to ensure compliance with federal safety regulations, specifically those regulations that address fire and explosion, capsizing, sinking and swamping risks. Implement corrective action as needed. The USCG will supervise personnel that conduct the visits and inspections:

1. The number of inspections conducted each year should be commensurate with the historic inspection rate, considering the number of active manufacturers, complexity and type of production, geography and history of compliance.
2. The Coast Guard should investigate if there are more efficient schemes to determine the number and allocation of factory visits.
3. Seek to continue or improve 5% annual decrease in number of discrepancies per factory inspection.

**Timeline:** Ongoing.

#### **Strategy 7.2 – Test/Target Recreational Boats with Flotation Issues**

Test recreational boats annually for compliance with flotation regulations as budget permits. Target those boats that have a high probability of failure. Use the Factory Visit Program to invite strategically selected boat manufacturers to submit boats voluntarily for flotation tests at the contractor's facility. Take corrective action as indicated. The Coast Guard should direct the contractor that coordinates and conducts the flotation testing to:

1. Select only questionable boats to purchase on the open market for flotation testing.
2. Attempt to find new models without significant market penetration to prevent non-compliant boats from reaching consumers.
3. Facilitate flotation testing for those manufacturers that pose a high risk of non-compliance (high risk boats and limited resources).

**Timeline:** Ongoing.

#### **Strategy 7.3 – Manufacturer Outreach**

Challenge USCG, ABYC, NMMA, industry and others as appropriate to communicate actively with manufacturers on affirmative steps to ensure compliance with federal regulations. ABYC, NMMA, industry and others as appropriate to communicate actively with manufacturers to adopt recommended voluntary standards through in-person outreach, written communications and web-based training. Specific steps will include:

1. Attend key industry meetings and boat shows to liaison with boat manufacturers.
2. Staff a USCG booth at IBEX each year.
3. USCG to provide yearly update to manufacturers at NMMA Annual Engineering Seminar outlining common discrepancies that led to federal recalls arising from the USCG factory visit program
4. USCG to publish at least one Boating Safety Circular each year.
5. Maintain [www.Safeafloat.com](http://www.Safeafloat.com) manufacturer outreach website. Obtain a 5% annual increase in number of visits to [safeafloat.com](http://www.safeafloat.com) website.
6. Conduct specific outreach to canoe/kayak manufacturers encouraging them to adopt ABYC Standards H-29, Canoes and Kayaks, and T-24, Owner/Operator's Manuals.

**Timeline:** Ongoing.

**Strategy 7.4 – Conduct and support research to identify new products, new designs or new safety standards that would reduce boating injuries and deaths.**

Conduct research to determine whether changes to existing federal regulations or voluntary standards will reduce recreational boating injuries and deaths. Key implementing partners should:

1. On a yearly basis, create a minimum of one new and/or modify existing ABYC standard(s) to incorporate objective findings from research or other objective data into performance standards.
2. Using BARD data analysis, create five warnings/information pieces to address most significant contributing factors of boating accidents and, if appropriate, incorporate in ABYC standards and NMMA certification program.
3. Revise numbers 1 and 2 above periodically, as appropriate.

**Timeline:** Ongoing.



### **Objective 8: Operator Compliance – USCG Required Safety Equipment**

Increase compliance levels for specific required safety equipment on recreational boats.

#### **Strategy 8.1 – Evaluate Incidents of Non-Compliance with specific USCG Required Safety Equipment**

1. Identify the number of incidents of non-compliance with safety equipment carriage requirements to determine trends from PRP II and MISLE data.
2. Ascertain when USCG Required Safety Equipment is carried, whether the additional requirements of accessibility, condition, and appropriate size are met.
3. Use NASBLA’s Engineering, Reporting and Analysis Committee (ERAC) 2009 analysis and other available sources to pinpoint realistic means to gather and use non-compliance data.
4. Consider technological solutions and social media to gather and quickly analyze specific compliance data. (Note: For example, vendors of cartographic software are using smart phone applications to collect chart errors from their customer base and greatly reducing the costs of data surveys.)
5. Recognize that data gathering may require a variety of innovative means, including altering PRP II, using data from USCG courtesy exams, enhancing Operation Drywater, and other sources.

**Timeline:** Ongoing.

#### **Strategy 8.2 – Analyze Required and Recommended Equipment**

Using BARD, MISLE, and other sources determine what additional equipment would have made a difference in eliminating a fatality, injury, or accident. Attempt to answer the question: “How could this fatality have been prevented by the carriage of X required item, or by the incremental carriage of Y non-required item?”

Items that might be considered include the following:

- 1) Re-boarding ladders.
- 2) Anchor and ground tackle (chain and line).
- 3) Very high frequency (VHF) radio.
- 4) Personal Locator Beacon (PLB)/ Emergency Position-Indicating Radio Beacon (EPIRB).
- 5) Personal lights.
- 6) Automatic extinguishers for gasoline-powered boats.
- 7) Automated External Defibrillator (AED).
- 8) Life Raft, Inflatable Buoyant Apparatus (IBA).
- 9) Different specification Personal Flotation Device (PFD).
- 10) Helmets (Personal Watercraft PWC).
- 11) Redesigned electronic charting man overboard function.

Examine the data with regard to the current required equipment list to determine adequacy of list.

Clearly communicate the conditions under which the current requirements are focused (inland, warm water, moderate conditions) and what additional equipment would be called for in more challenging circumstances (rough water, offshore, cold water, limited rescue services, long duration)

Recommend alterations in the required equipment list or in education efforts as a result of these investigations, as appropriate.

**Timeline:** Ongoing.

**Strategy 8.3 – Assess effectiveness of current boater education outreach and law enforcement programs to achieve higher compliance rates with USCG Safety Equipment carriage requirements, including life jackets**

Assess effectiveness of current programs. Based on this analysis, develop best management practices for future outreach efforts regarding required safety equipment to increase compliance further.

**Timeline:** Ongoing.

**Strategy 8.4 – Enhance Compliance Outreach**

To increase compliance, identify those items that are missing from the boat, and those items that are vital to safety. This focuses the scope of outreach and enforcement conducted under this Objective.

1. Work in conjunction with Objective 2 to maximize effectiveness of boating safety messages, and quantify effectiveness of same.
2. Target specific problem compliance areas, as reported in strategy 8.1, through increased education and public awareness campaigns, including a wide array of methods to reach boaters.
3. Target compliance through increased awareness of USCG Required Safety Equipment with enforcement patrols.

**Timeline:** Ongoing.

**Strategy 8.5 – Simplify the Message**

The current list of required equipment includes many non-safety items and items already included by the boat-builder. To reduce confusion and increase compliance with lifesaving safety equipment, future efforts should be focused on the specific safety items that a boater is required to carry on his/her boat. Working with the advisory work group outlined in Strategy 2.2, consider narrowing the list of items using data from other strategies in this objective along with the following:

- a) Separate the Federal Recreational Boating Equipment Requirements into four categories:
  - 1) Portable safety items.
  - 2) Pollution control items.
  - 3) Boatbuilder [original equipment manufacturer (OEM)] items.
  - 4) Documentation.Discontinue the process of presenting these as a single long, hard to learn and hard to retain list.
- b) Focus on the six portable safety items, not pollution control items, OEM items, or documentation:
  - 1) Life jackets.
  - 2) Throwable flotation.
  - 3) Lights.
  - 4) Sound (horn).
  - 5) Visual Distress Signals (Flares, etc.).
  - 6) Fire extinguishers.

**Timeline:** Ongoing.

**Strategy 8.6 – Increase Boaters’ Knowledge of Safety Equipment**

1. Include a safety equipment checklist in boating education course workbooks (i.e. – pull-out page), posters for display at marine stores, and other points-of-sale that specify requirements, the justification for the requirements, and penalties for non-compliance. Include a safety equipment checklist as part of ABYC standard owner’s manual, T24. Recommend inclusion of this information with state boat registration packets.
2. Utilize the widest array of communication opportunities for boaters for dissemination of this information (in coordination with Objective 2) including in-person networks like boat clubs, boat shows, boating organizations, USPS, USCGAUX, NMMA, MRRA, AMI, dealers, marinas, boat supply stores. Incorporate social and virtual networks like internet, Facebook, Twitter, YouTube, and other mediums, and printed materials. Maximize work with partner organizations.

3. Work with the USCGAUX and USPS to obtain the best data available on boater safety equipment compliance. Use data to supplement other available information.
4. Utilize law enforcement and boardings as educational opportunities on this topic.
5. Conduct specific outreach to educate boaters about the proposed engine cut-off switch regulation which is expected to become effective by 2012. This new regulation will require vessel manufacturers, after a certain date, to install engine cut-off switches in all powered vessels less than 26ft in length, and require operators of any vessel equipped with an engine cut-off switch to use said device when in operation and maintain the device in good working order.

**Timeline:** Ongoing.

**Strategy 8.7 – Encourage Purchase of Required Safety Equipment**

1. Develop marketing strategy to promote purchase of required safety equipment, including encouragement for boat retailers and dealers to sell the required safety equipment within commissioning packages for boat owners.
2. Promote array of life jackets choices to boaters to help them become more familiar with life jackets that they are more likely to wear.

**Timeline:** Ongoing.

### **Objective 9: Boating Accident Reporting**

Using the baseline BARD data from 2009, work towards a goal of 100% by 2016, for boat accident report completeness, accuracy and timely submission pursuant to 33 CFR 173 and 174.

#### **Strategy 9.1 – Recommendations of the “Regulatory Review and Accident Reporting Requirement Regulation” Task Force**

Review and respond to the 15 recommendations (Strategies 9.2 through 9.16) of the “Regulatory Review and Accident Reporting Requirement Regulation” Task Force as approved by the National Boating Safety Advisory Council in April 2009, and address, as necessary, any USCG concerns relative to Policy, Regulation (CFR) or Statute (USC).

**Strategy 9.2** – Develop a two-tiered boating accident notification/reporting system requiring operator (or owner) notification of the accident to the state reporting authority or designee, with required state follow-up investigation and gathering and submission of all required report data by the state authority. Continually evaluate innovative technology for reporting (coordinate with strategy 2.2).

**Strategy 9.3** – Clarify through policy and regulation, which watercraft qualify for boating accident reporting.

**Strategy 9.4** – Include exclusive state waters in accident reporting requirements.

**Strategy 9.5** – Clarify which boating-related injuries qualify for reporting by adopting OSHA standards for “medical treatment beyond first aid” as the standard for recreational boating injury reporting.

**Strategy 9.6** – Consider revising reportable boating accident criteria to exclude incidents where the vessel was underway and being used as a swimming platform or a person voluntarily leaves the vessel as the first event.

**Strategy 9.7** – Create a Decision Matrix that will simplify the boating accident and casualty reporting decision-making process for state reporting authorities, their designees, boating accident investigators and the boating public.

**Strategy 9.8** – Establish and enforce the responsibility and accountability of first responders for notifying of an accident or casualty and of state reporting authorities for investigating and submitting boating accident report data.

**Strategy 9.9** – Amend the *Code of Federal Regulations* (CFR) to specify the essential elements of information required to be included in the initial notification of a boating accident.

**Strategy 9.10** – Amend the *Code of Federal Regulations* (CFR) to abstain from including specific data elements and require that essential elements of boating accident report information be specified in a U.S. Coast Guard policy document.

**Strategy 9.11** – Revise the former guidance document CG-449, and make it available in a condensed version through electronic media.

**Strategy 9.12** – Examine the feasibility of harmonizing commercial and recreational boating accident cause data.

**Strategy 9.13** – Continue to research methods for statistical adjustment of accident totals to help extrapolate unreported accidents.

**Strategy 9.14** – Draft text for inclusion in *Boating Statistics* discussing possible errors and limits to interpretation of data extracted from BARD.

**Strategy 9.15** – Examine the suitability of additional models of accident causation (human factors) for use in describing fatal recreational boating accidents.

**Strategy 9.16** – Assist the states in conducting training, education and outreach efforts directed toward the boating public and accident investigators and regarding boating accident notification and reporting regulatory and policy revisions.

**Implementing partners for Strategies 9.1 – 9.16:** USCG

**Timeline:** To be completed on or before April 2016.

**Strategy 9.17 – Vessel Identification System (VIS)**

Increase states' participation in the Vessel Identification System (VIS).

**Timeline:** Ongoing.

**Strategy 9.18 – Link BARD to VIS**

Link the Boating Accident Report Database (BARD) to the Vessel Identification System (VIS) and have all States using VIS to better ensure the accuracy and reliability of the data and the ability to uniformly analyze trend data to support interventions.

**Timeline:** No later than April 2016.

**Strategy 9.19 – Manufacturer Provision of Vessel Information**

Establish a program for manufacturers to provide vessel information at the point of manufacturer to partners such as NICB for possible incorporation into other databases, as appropriate.

**Timeline:** 2015.

## **Objective 10: Research and Development**

Gather and analyze data relevant to recreational boating accidents and exposure.<sup>6</sup>

### **Strategy 10.1 – Conduct a National Boating Survey<sup>7</sup> at two-year intervals**

Conduct a National Boating Survey at two-year intervals to develop reliable data on exposure and provide data to evaluate strategies included in other objectives of this plan (e.g., Objective 2. Promote awareness of safe boating practices).

**Timeline:** Survey results expected in 2012.

### **Strategy 10.2 – Conduct Life Jacket research<sup>8</sup>**

1. Continue to measure life jacket wear rates.
2. Develop a valid and accurate method to estimate benefits (reduced drownings) associated with greater life jacket wear rates and evaluate the benefits of mandatory life jacket use regulations (see Strategy 4.5).
3. Gather relevant data and assess the effects of mandatory life jacket wear laws or regulations.
4. To support the Life Jacket Tiger Team's recommendations for life jacket intervention, use BARD data to identify and track the at-risk recreational boating populations via activities, contributing factors, accident type, operation at the time of the accident, and demographic analysis that result in drowning fatalities.

**Timeline:** Annually.

### **Strategy 10.3 – Measure exposure<sup>9</sup>**

Use the data generated by the National Boating Survey to develop valid and accurate exposure estimates for various types and lengths of boats. Seek and evaluate other data sources that might be used as surrogates. As part of this strategy, monitor available data on the size and demographics of the potentially exposed population.

**Timeline:** 2012.

### **Strategy 10.4 – Assess, improve, and train on BARD data<sup>10</sup>**

Use data from the 2005 through 2009 “baseline time period” to develop statistics on the percentage of fields that contain missing data and assess the importance of various data fields. Develop and implement a plan to redesign the accident reporting form (if necessary), clarify definitions associated with data fields, provide training and develop other means necessary to reduce the frequency of missing data fields and improve the overall quality and accuracy of the BARD data.

**Timeline:** 2012: Identify data gaps and develop a plan; 2013: plan implementation.

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<sup>6</sup> In the 2007-2011 Strategic Plan Objective 10 was limited to measuring boating participation days and determining exposure hours, both of which are estimates to be developed from the analysis of data from the National Boating Survey. This Strategic Plan has been reorganized for improved clarity and certain strategies have been moved among objectives. Other strategies have been added.

<sup>7</sup> This strategy was listed as Strategy 2.1 in the 2007-2011 Plan.

<sup>8</sup> Portions of this strategy were included in Strategy 4.1 in the 2007-2011 Plan.

<sup>9</sup> This strategy was listed as Objective 10 in the 2007-2011 Plan.

<sup>10</sup> This is a new strategy; portions of this are also included in Objective 9.

**Strategy 10.5 – Analyze BARD data<sup>11</sup>**

Continue to analyze BARD data to learn more about accident causes and circumstances in support of other objectives, existing USCG publications, and as suggested by boating safety partners. A key component of this effort is to provide the data and analyses to support strategies contained in other objectives, such as Strategy 6.1 (Measure Alcohol Use in Recreational Boating) and Objective 5 (Operator Compliance, Navigation Rules).

**Timeline:** Ongoing.

**Strategy 10.6 – Research methods to reduce or compensate for non-response<sup>12</sup>**

Gather existing data and conduct new research to fill data gaps in BARD and for under-reporting to BARD.

**Timeline:** Ongoing.

**Strategy 10.7 – Assess priority for Non-compliance work**

1. Using available data, derive estimates of accidents and fatalities in the last 10 years caused by or associated with deficiencies in required safety equipment carriage. Utilize these estimates to help determine the appropriate priority of work to be conducted under Objective 8 compared to other Objectives. Provide an analysis of money spent to date.
2. Consider that enforcement agencies working on smaller budgets will not necessarily have the extra time to invest in this data gathering. Recognize that funding or technology may have to accompany additional data requirements.
3. Involve boating safety organizations including NGOs to help promote carriage of required safety equipment.

**Timeline:** Ongoing.

**Strategy 10.8 – Examine available data on boaters with limited English proficiency and develop measures of effectiveness for outreach efforts**

Objective 2 contains an outreach Strategy 2.6 (Reach the Segment of the Boating Public with Limited English Proficiency). This strategy is fully consistent with Presidential Executive Order 13166, dated 11 August 2000. In order to craft meaningful measurements and targets for initiatives linked to this strategy, it is necessary to learn a great deal more about the population of boaters with limited English proficiency. This strategy includes gathering potentially relevant data on persons with limited English proficiency (e.g., from the Bureau of the Census), searching for demographic information on the involvement of this population subgroup in recreational boating, and identifying data gaps and candidate sources. If justified, consideration will be given to making modifications in the BARD reporting system to capture English proficiency and preferred language.

**Timeline:** Report to be prepared no later than December 2013.

**Strategy 10.9 – Review Performance Report Part II**

The objective leader will assemble subject matter experts (SMEs) to review (together with personnel from the USCG) the performance measures reported by the States in PRP II and make recommendations to the Coast Guard for improvements and continuation of successful grant programs. Non-profit grants that use a

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<sup>11</sup> This strategy was not explicitly identified in the 2007-2011 Plan.

<sup>12</sup> This strategy was not explicitly identified in the 2007-2011 Plan.

measurement from PRP II will work with NASBLA and the Coast Guard to determine the efficacy of the measurements as part of the grant. Measurements and their efficacy are the focus of this strategy in Objective 10. Objective 11 addresses possible enhancements to the grants program.

**Timeline:** Annually.

**Strategy 10.10 – Reduce the regulatory backlog for rules affecting the Boating Safety Division**

The USCG, through the NBSAC, has conducted a regulatory review and developed recommendations to edit and update the recreational boating safety program. Over the last several years, many of those recommendations have not been implemented.

1. Assign a NBSAC advisory work group to identify, prioritize, and deliver recommendations for a comprehensive regulatory modernization rulemaking based upon the recommendations of NBSAC in 2002 and 2003 for 33 Code of Regulations (CFR) parts 95, 100, 173, 174, 175, 177, 181, 183, and 46 CFR parts 25 and 58.
2. Include with this prioritization, any actionable recommendations from the regulatory review of the boating accident reporting system under Objective 9, and forward to CG-542 for review.
3. CG-542 will provide NBSAC recommended regulatory proposals to the Coast Guard's Marine Safety and Security Council for consideration and prioritization.

**Timeline:** Ongoing.



**Objective 11: Effectiveness of Non-Profit Organization Grants**

Improve the effectiveness of and increase access to the grant products of the national non-profit organization.

**Strategy 11.1 – Review Non-Profit Organization Grants**

Prior to each NBSAC meeting, the Coast Guard will provide the Objective 11 leader with the final executive summaries submitted by the non-profit grant organization recipients for review. The Objective 11 leader will discuss the results of this review with the USCG and report to NBSAC. NBSAC will make recommendations to USCG for improvements to the programs and possible future grant projects. The USCG grant manager will include an analysis of effectiveness and linkage to the strategic plan.

**Timeline:** Semi-annually.

**Strategy 11.2 – Provide public access to effective grant products**

Each non-profit organization grant proposal should include a plan for distribution (include who target audience is and method for distribution).

The USCG will make available through appropriate means each grant product or product materials for use by the public, Implementing Partners and their constituents, and media outlets. The USCG will also publicize the availability of grant opportunities to encourage broader participation. The USCG will do so via the USCG's website and social media outlets. Grant recipients will use their media outlets to distribute information.

**Timeline:** Ongoing.

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