



**National Association of
State Boating Law Administrators**

**Engineering, Reporting & Analysis Committee
(ERAC)**

**Final Committee Report
2017 Cycle Activity & 2018 Cycle Recommendations**

v.14 August 2017

ENGINEERING, REPORTING & ANALYSIS COMMITTEE (ERAC) 2017 Cycle Committee Activity Report and 2018 Cycle Recommendations

Chair: Glenn Moates, Tennessee, glenn.moates@tn.gov
Vice Chair: Kris Wahlers, Colorado, kris.wahlers@state.co.us

CHARTER IN SUPPORT OF NASBLA'S MISSION AND SERVICE TO THE MEMBERSHIP:

As one of NASBLA's five standing policy committees in 2017, ERAC identifies, evaluates, and analyzes recreational boating data and other related information that can shed light on factors associated with boating accidents; be used to inform the development of state- and national-level boating safety policies, programs and campaigns; and, ultimately, be used to measure their effectiveness.

To ensure that the results of boating accident research and analyses are valid and reliable, ERAC also actively seeks ways to advance the quality, relevance, accuracy, consistency, applicability, and completeness of the data and information.

IN PRACTICE, ERAC:

- Takes on targeted research questions. ERAC teams analyze accident report data and other boating-related statistics to identify risk factors, patterns and trends in boating accidents;
- Works in partnership with the States, the U.S. Coast Guard, and other key agencies and organizations in the recreational boating community to improve the criteria, processes, and training associated with reporting, collecting, entering and using accident data;
- On behalf of the States, and in the interest of uniformity and shared understanding, collaborates with the U.S. Coast Guard to clarify accident reporting criteria and procedures;
- Identifies and examines boating safety program, equipment design, and related efforts that could mitigate risk factors identified through the committee's analyses;
- Monitors the activities of and receives reports from subcommittees and panels of NBSAC, ABYC, NMMA, and UL, among others, to identify and inform about issues of mutual interest; and
- Also interacts with other NASBLA committees and panels and stays informed about projects of mutual interest—not only to add value to ERAC products, but also to determine how ERAC can effectively serve as a resource to them.

In the 2017 Cycle, ERAC operated with five subcommittees—subgroupings accountable for nine assigned charges and five other related monitoring activities and topic explorations, some in conjunction with other NASBLA policy committees. While the bulk of the discussions and work was conducted through teleconferences and various online formats, the full committee met for an all-day, in-person session in Lexington, Ky., on Fri., March 31, 2017. See **APPENDIX ERAC-2017-Committee Meeting** for the Summary of Key Discussion Points and Action Items and copy of Meeting Agenda. A list of all 2016-2017 committee members can be found beginning page 17 of this report.

MONITORING & EVALUATION SUBCOMMITTEE (Glenn Moates, ERAC Chair / Subcommittee Leader)

Monitor, evaluate, collaborate or take other action as needed on policy proposals, rulemaking, issues, and projects in areas covered by the committee.

ERAC_M&E-2017-1: Input to USCG policy/regulatory proposals and actions

Give input to U.S. Coast Guard policy and regulatory proposals and actions in areas covered by the committee: Monitor and research Federal Register notices to inform the states and encourage them to provide feedback to U.S. Coast Guard policy initiatives and regulatory proposals on accident reporting and other areas covered by ERAC. Coordinate the content development of NASBLA's organizational responses to such notices and use all appropriate NASBLA channels (especially its [Federal Register webpages](#) and the [NASBLA Lighthouse On the Horizon](#) and discussion forum portals) to inform and encourage discussion among the states

Why it's important: Agency notices, proposed rules, final rules and policy guidance issued by the U.S. Coast Guard can significantly impact recreational boating and RBS programs in the states. ERAC has taken a lead in monitoring, analyzing, [chronicling proposed policy and regulatory actions](#), and communicating with NASBLA members about their significance to the states and other RBS stakeholders **and** the importance of weighing in, especially via formal comment submission processes that mandate the Coast Guard to publicly respond to the feedback it receives.

- ✓ **Deliverables:** **1)** For a [Federal Register Notice on the annual collection of State \[Vessel\] Registration Data \(USCG-2014-0713\)](#), issued Nov. 29, 2016, with Jan. 30, 2017 deadline), ERAC leadership and staff participated in discussions with members of NASBLA's Vessel Identification, Registration & Titling Committee (VIRT); ERAC staff provided background and editing both for a VIRT-sponsored survey of the states to gauge interest in that committee's recommended revision of the data reporting form and for the [NASBLA response to the Notice](#). **2)** For a [Federal Register Notice announcing the evaluation of existing Coast Guard regulations, guidance documents, interpretive documents and collections of information \(USCG-2017-0480\)](#), issued June 8, 2017, with extension announced July 7, 2017, for a Sept. 11, 2017 comment deadline), ERAC staff developed and issued a [NASBLA Member Alert](#), and drafted organizational comments for member review input (as of this report, not yet finalized or submitted). **3)** [Tracking and reporting on activity associated with the National Boating Safety Advisory Council \(NBSAC\) Regulatory Reform Task Subcommittee](#) established July 21, 2017, in response to USCG-2017-0480; ERAC has identified / developed and will continue to identify / develop resources for use by NASBLA's CEO, an appointed member of the subcommittee.
- ✓ **Implementation and Challenges:** Original expectation for the charge as assigned was that the focus during this cycle would be to coordinate feedback on the [release of a revised draft Recreational Boating Accident Reporting Manual \(COMDTINST M16782.1, USCG-2015-0753\)](#), on an anticipated information collection request to the Office of Management and Budget regarding the Coast Guard's Boating Accident Report (BAR) (CG-3865), and perhaps on the issuance of a [comprehensive, proposed accident reporting rulemaking, the project for which has been in the Coast Guard pipeline since 2012](#). However, early-2017 actions by the Trump administration first froze federal regulatory (and more broadly, related policy and regulatory interpretation) activity for the near term, and then authorized creation of regulatory reform task forces at the agency level to evaluate existing regulations using set criteria for the purpose of recommending their repeal, modification/update, or replacement as warranted.

- ✓ **Current status:** For the remainder of this 2017 cycle and into the first quarter of the next, the focus is and will be on active participation, resource development and information sharing in the regulatory reform efforts underway by NBSAC and any corollary regulatory or policy developments by the Coast Guard—especially, but not exclusively, regarding recreational boating accident reporting requirements.
- ✓ **Measures of effectiveness:** Short term: On key policy initiatives that will impact all states to some degree, an increase in the comment/response rate of NASBLA member states (propose minimum of 30 jurisdictions). Long-range: More robust input submitted to the U.S. Coast Guard. Improved communications and coordination of efforts between the states and the Coast Guard.
- ✓ **2018 cycle recommendation for this charge:** Continue as standing charge with revised language to reflect near-term and any follow-up regulatory reform efforts and their outcomes. **Preliminary 2018 charge language: Give input to U.S. Coast Guard policy and regulatory proposals and actions in areas related to the committee’s charter:** Monitor, research and provide feedback to any policy initiatives and regulatory proposals on accident reporting and other areas related to ERAC’s charter that may be proposed by the Coast Guard and approved for publication in the Federal Register or issuance through other official mechanisms. Inform the states and encourage them to provide feedback. Coordinate NASBLA’s organizational responses to such proposals and use [NASBLA’s Federal Register webpages](#) and the [NASBLA Lighthouse On the Horizon](#) and discussion forum portals to provide resources and encourage discussion among the states.

KNOWLEDGE & CONTENT MANAGEMENT (Kris Wahlers, ERAC Vice Chair/ Subcommittee Leader)

Develop, maintain, and deliver ERAC’s products in alignment with NASBLA’s knowledge, content and learning management systems.

ERAC_K&CM-2017-1: Lighthouse Forum

Continue developing the NASBLA Lighthouse Forum: Continue developing the content, components, and protocols of the [NASBLA Lighthouse](#). Continue uploading and classifying library resources according to NASBLA protocols. Implement best practices for driving users to the webpages and increasing active membership and participation in the discussion and library components. Ensure existing content and files migrate when NASBLA transitions to new knowledge, content, and learning management system platforms. Integrate any further work on the [Accident Reporting Terms and Definitions Reference and Resource Modules](#) (v2013.2; ERAC-2016-B1) into the Lighthouse development.

Why it’s important: [The Lighthouse](#), with its public webpages and a member portal to a discussion forum and resource library, had its origins in a need identified by a 2010 ERAC charge team trying to figure out what methods and data would best answer some critical boating safety research questions. In the process, the group wished there had been an accessible gathering place where users and producers of recreational boating data from all sectors could forego “reinventing the wheel,” share data and successful practices applicable to their work, and locate viable resources and information for their research. The need for collaboration and timely sharing of information on complex boating safety issues has not waned; with increasingly constrained time and resources at all government levels and across all sectors, such a value-added resource has even more merit. Moreover, this activity is responsive to data-related initiatives of the Strategic Plan of the National RBS Program 2017-2021.

- ✓ **Deliverables:** Successful transition of—and resolution of migration issues associated with—the [Lighthouse main and subpages](#) to NASBLA’s new web platform. See also discussion under “Implementation and Challenges.”
- ✓ **Implementation and Challenges:** In 2017, the charge team had to balance content development on the main Lighthouse webpages and strategies for increasing participation in the discussion forum and population of the resource library with the challenges posed by NASBLA migrating to a new web platform (the second such platform change since the Lighthouse launched in Oct. 2014). The June rollout of NASBLA’s redesigned website—which is intended to encourage greater interaction between the organization’s web pages, related library/educational/training resources, discussion areas, and various membership-related services—revealed multiple content, format, and log-in issues that required immediate resolution.
- ✓ **Current status:** Since the migration issues have resolved, ERAC has resumed web page updates, uploads of library materials, and initiation of discussion threads to better understand the new platform and potential for interactions. For the remainder of this 2017 cycle and into the next, the focus is on continued posting of updates to the primary web pages, including [announcements regarding the Federal Register and comment deadlines](#) (see also [ERAC_M&E-2017-1](#)); posting of the committee’s final products; creation of instructions for the Connect site to reflect its relationship to the Lighthouse web portals; stocking of the Lighthouse Library (especially regarding [human factors](#) and [electric shock drowning](#) resources cited on the [Get Equipped portal](#)); developing a plan for recruiting/encouraging active members; and working closely with NASBLA staff and other policy committees on library and discussion forums use, format, responsibility, and keywords.
- ✓ **Measures of effectiveness:** Short term: Facilitate discussion of at least three topics of interest/relevance to Lighthouse users. Minimum of 100 percent increase in number of members currently enrolled on discussion forum. Long-range: More informed, engaged states and other stakeholders regarding measures and details associated with recreational boating and boating accident data.
- ✓ **2018 cycle recommendation for this charge:** Continue as standing charge, with revised language. **Preliminary 2018 charge language:** Continue developing the identity, content and components of the [NASBLA Lighthouse](#). Be actively involved in discussions on and execution of NASBLA-wide knowledge and learning management (KMS and LMS) efforts. Format the Lighthouse webpages, ensure integration of ERAC products, and upload and classify resources in accord with protocols developed through the KMS efforts. Implement best practices for driving users to the discussions and library holdings.

KNOWLEDGE & CONTENT MANAGEMENT continues next page

ERAC_K&CM-2017 Follow up on ERAC's 2016 products ("[Good Practices: Writing Recreational Boating Accident Narratives](#)," and "[Guidance: Documenting Alcohol or Drug Involvement as a Contributor in Recreational Boating Accidents](#)") completed and **passed to NASBLA Enforcement & Training Committee** (as LE_TT-2017-5 and 5A in Techniques and Technology Subcommittee) regarding identification of additional delivery methods to target audiences. **This was not a 2017 charge to ERAC, but a hold-over activity to monitor and collaborate with Enforcement & Training on an as needed basis.**

Why it's important: The information that comes from examining boating accident reports helps us better understand what causes and contributes to accidents. To make sound decisions and develop the kinds of campaigns, programs, and actions that will reduce deaths, injuries and damages, we need solid accident report data. Aligned with other efforts to improve the quality, accuracy, and consistency of data gathered in recreational boating accident reports, these projects have as an ultimate goal the improved understanding of accident causes and factors. One project focuses on helping officers and investigators write clearer, more consistent accident report narratives and aiding state personnel who review and submit the reports to the Coast Guard's Boat Accident Report Database (BARD); the other is to guide officers and investigators in determining and accurately recording alcohol or drug involvement as contributors in boating accidents.

- ✓ **Deliverables from previous cycle:** Two written products by ERAC in 2016—[writing accident report narratives](#) and determining and [accurately recording alcohol or drug involvement as contributors in boating accidents](#)—both posted as written products to the [Lighthouse Get Equipped](#) page.
Anticipated by end of 2017 cycle: As of this report date, ERAC has been advised that video(s) is/are in production by NASBLA Enforcement & Training; the video format is intended to introduce products to officers/investigators, with links back to full content.
- ✓ **Implementation and Challenges:** Per a report from Enforcement & Training Committee staff to ERAC on March 31, the Enforcement team devised a plan to produce videos introducing the products to officers/investigators (e.g., why the topic/information is important to law enforcement) with links back to the written products. The team did not expect to make any revisions to the content of the ERAC products, but the expectation was that script(s) would be provided to ERAC for review. By June, the timeline for sharing scripts and producing and rolling out the videos was reported as dependent on NASBLA's learning management system launch.
- ✓ **Current status:** Per the 2017 final report of the Enforcement & Training Committee, the video(s) is anticipated to be released at the NASBLA Annual Conference in September 2017, and the charge is marked as completed. As of this report date, however, ERAC has not viewed the anticipated script(s) / videos.
- ✓ **Measures of effectiveness:** Will be determined in conjunction with Enforcement & Training Committee following ERAC's receipt and review of the video(s). However, previous short and long-range MOEs in keeping with other, similar projects are: Short term: Verify that at least 10 states have incorporated or are in process of incorporating guidance described in the product(s). Long-term: More consistent, accurate, and viable accident report data gathered for use by the states and submitted by the states to the U.S. Coast Guard.
- ✓ **2018 cycle recommendation:** Presuming video(s) is/are produced, follow-up activity, presumably by both committees, would be to ensure and evaluate the rollout of information—from a training/technical standpoint (Enforcement) and data/reporting content standpoint (ERAC).

INVESTIGATION, REPORTING & ANALYSIS (Seth Wagner, Subcommittee Leader)

Conduct work to improve the criteria, processes, and training associated with reporting, collecting, entering, and using accident data.

ERAC_IR&A-2017-1: BAR Manual Development

Facilitate the states' ability to employ clear, consistent policy and decision criteria and procedures in gathering and reporting recreational boating accident data: [This is an expansion of a 2017 charge originally approved to seek ways for the states to use the [standardized accident report terms and definitions approved by NASBLA members in 2012-2013](#) in the absence of federal-level implementation of those selections, to date.] Develop a “best practices” resource manual for states to employ in gathering and recording accident report data for their own use and in reporting that data to the U.S. Coast Guard. In developing the manual’s contents, closely monitor and incorporate, as needed, any new U.S. Coast Guard policy and regulatory actions in this field (see also charge, **ERAC_M&E-2017-1, “Give input to U.S. Coast Guard policy and regulatory proposals and actions”**).

Why it’s important: Consistent, clear guidance on regulations, policy, and procedures is critical to the states’ ability to capture and report boating accident data to the Coast Guard. In the absence of periodic updates to *the* formal written policy, CG-449, Standard Method of Reporting (1973), other, sometimes varying written and verbal communications have contributed to uncertainties and inconsistencies in reporting and processing of that data. In August 2015, the Coast Guard released to public comment a draft replacement for CG-449 as COMDTINST M16782.1. Since then, the Coast Guard has adjudicated comments received, but has not released its responses, issued a revised draft for further comment, or promulgated a final version. In early 2017, their issuance of policy guidance in the near term was affected by the federal actions described in ERAC_M&E 2017-1. As such, the NASBLA Executive Board saw the need and opportunity for NASBLA to move on the states’ behalf to develop a consensus-based working document that can facilitate consistent, clear guidance and best practices for capturing and reporting of the data

- ✓ **Deliverable (anticipated 2018 cycle):** Recreational Boating Accident Reporting Manual for the States. To provide operational guidance and resource information to the states for decisions regarding the collection of recreational boat accident data and the reporting of that data to the U.S. Coast Guard. Intention is to incorporate best practices to improve uniformity and consistency and to enhance the states’ ability to more effectively use and analyze the data. See discussions under “Implementation and Challenges” and “Current Status.”
- ✓ **Implementation and Challenges:** The manual’s topics (working table of contents, see **APPENDIX ERAC_IR&A-2017-1 BAR Manual Topics**), various reporting and policy issues, and broader deregulation issues were covered at the March 2017 NASBLA Executive Board meeting and an Issues in Accident Reporting session at the spring BLA Workshop. Resources for drafting groups continued to be identified and provided as needed during spring 2017, and drafts of an Introduction, Vessel Safety Defects, and BARD sections have been developed with intent to begin seeking broader feedback. However, early June, the NASBLA Executive Board—following discussions with Captain Scott Johnson, Chief, USCG Office of Auxiliary & Boating Safety, and learning of CG-BSX office plans in progress—asked that ERAC put this charge temporarily “on hold” and modify its timeline in anticipation of receiving additional information that could impact the manual’s development and content. For example, there has recently been a modification in the Boating Safety Division’s interpretation of 33 CFR 174.121 for purposes of determining a state’s compliance with federal

requirements for casualty reporting systems. Such modifications impact the guidance that would be provided in a manual section intended to cover Federal Reporting Authorities-Policy and Regulatory Provisions.

- ✓ **Current status:** As of this report date, drafting and resource development has continued in anticipation of receiving—and having a foundation for responding to and/or assimilating—the additional information on the Coast Guard’s plans. The expectation is that before the end of the 2017 cycle, NASBLA and the committee will receive more detail from CG-BSX on plans to improve accident reporting and update reporting requirements both through regulation and policy and potential development of a revised Boating Accident Reporting Database (BARD). The committee also will participate in resource development and information sharing on accident reporting issues as part of the review to be conducted and recommendations to be made to the Coast Guard by the [NBSAC Regulatory Reform Task Subcommittee](#) (see **ERAC_M&E-2017-1**).
- ✓ **Measures of effectiveness:** To be finalized. However, a long-term MOE in keeping with other, similar projects is: More consistent, accurate, and viable accident report data gathered for use by the states and submitted by the states to the U.S. Coast Guard.
- ✓ **2018 cycle recommendation:** Carry over into the new cycle, with the scope of activity and timeline for completion to be recommended following receipt and assessment of additional information on Coast Guard plans regarding accident reporting.

ERAC_IR&A-2017-2: Roll out state-level statistical report template

Roll out and continue refining the state-level statistical report template: In coordination with the U.S. Coast Guard, roll out this BARD-based report template for use by the states in creating their own accident statistics reports. Request product changes and enhancements that might be identified through states’ experience with the product. Refine instructional materials and maintain them and links to other template resources on the NASBLA Lighthouse Get Equipped dedicated subpage at <https://www.nasbla.org/nasblamain/lighthouse/get-equipped/state-level-report>.

Why it’s important: Many states want or need to identify recreational boating accident-related issues or answer questions posed by the public or legislators, but do not have the resources, time or expertise to easily and accurately build statistical reports on their own from BARD queries. Even states that produce basic reports are looking for ways to improve their products and reduce production time and effort. Working with the Coast Guard—through its primary representative to the committee, who is also responsible for oversight of BARD—ERAC developed the contents for a template intended to give states the ability to more easily and accurately generate state-level statistical reports from the accident report data they enter into BARD. The template, built into BARD-Web, is intended to allow users to generate an editable Microsoft Word document with narrative, summary statistics, and detailed tables.

- ✓ **Deliverables:** None this cycle; see “Implementation and Challenges,” and “Current Status.” The [template working document](#) was delivered to the Coast Guard during the 2015 committee cycle; a [statistical report template subpage](#) on Lighthouse was developed and updated to reflect status.
- ✓ **Implementation and Challenges:** At the close of the 2016 cycle, the product was undergoing final testing and revision with intent to go live by end of November 2016. That month, the Coast Guard

announced procurement of a new BARD vendor and the need to focus attention on the system transition period. While implementation of final revisions to the online product was delayed, the transition was not expected to adversely affect future product development. In mid-January 2017, however, the BARD vendor transitioned to Knight Point Systems. Transition issues needed to be resolved, and product implementation is pending stabilization of the system. At last report from the Coast Guard, the timeframe for going “live” within BARD was uncertain.

- ✓ **Current status:** Although product implementation in BARD is on hold, the template working document is finding new purpose as a resource for a separate grant project—that is, the continued refinement of NASBLA’s Boating Safety Dashboard. As that project moves forward to display specific state data, the contents of the statistical report template (data tables) may facilitate the production of a common state template for that graphical format.
- ✓ **Measures of effectiveness:** To be finalized depending on resolution of issues described above. However, previous MOEs were: Short term: In first year the template is made available through BARD, confirm that at least 10 states are using the tool as a primary or secondary method of developing the content for an annual statistical report on accidents in their states. Long-range: More states using their state-level statistics to inform their RBS program planning, educate policy makers and constituents, and make improvements to data entry.
- ✓ **2018 cycle recommendation:** Carry over into the new cycle; however, the specifics of the recommendation will depend on if/when activity can resume at the Coast Guard. At minimum, the carryover should acknowledge the template data tables’ potential use as a framework for the common state template developed as part of the Boating Safety Dashboard.

ERAC_IR&A-2017-3: Piloting best practices for gathering/analyzing human factors data

Continue piloting and refining best practices for gathering and examining human factors data:

Continue working with Florida and Oregon, the two pilot states tapped to apply the 2016 revision of the [human performance investigation guidance](#) and [supplemental report form](#). Examine data they collect, release the analyses and lessons learned, and refine the guidance and form as needed. Continue building the [human factors product webpage](#) in the Lighthouse Get Equipped portal and the resources in the [Lighthouse Library](#). Communicate and coordinate, as needed, with the [National Boating Safety Advisory Council \(NBSAC\)](#) as it pursues work in this area.

Why it’s important: Investigations into aviation, commercial shipping, rail and highway accidents indicate the majority of causes or contributing factors are related to human failures. There is strong likelihood the same can generally be said for recreational boating accidents. But getting to more conclusive evidence—and developing interventions in response—requires consistently-collected data and information identifying the contributors *and* getting at why and how failures occurred. ERAC began work toward understanding human error and factors that might be associated with performance failures four years ago. Since then, ERAC has refined guidance and a supplemental report form for use by officers and investigators in states that want to augment their investigations, add to knowledge about human factors, and use it to evaluate their safety programs and strategies.

- ✓ **Deliverable:** “HFACS-Lite applied to a sample of Florida accident cases” (Memorandum from Dr. L. Daniel Maxim to the ERAC IR&A 2017-3 Charge Team, 5 August 2017). See **APPENDIX ERAC_IR&A-2017-3 HFACS Lite Application**.

- ✓ **Implementation and Challenges:** Tennessee tested the human factors guidance and supplement form developed in 2014, applied it to boating fatalities in 2015, and identified challenges associated with the actual collection of the data. As an initial step in the 2016 piloting phase, then, Oregon and Florida were provided revised guidance and human factors supplemental forms to consider applying toward a sample of accidents that had already been investigated and for which there was some information that could be put to the form for analysis. Oregon has further discussed the possibility of additional training with its boating accident investigation team, with rollout in some manner in the future, especially as a new e-learning system is implemented. For Florida—and in follow-up to assignment at this year’s committee meeting—charge team co-leader Dan Maxim analyzed a set of that state’s fatality and serious injury cases using the HFACS-lite guidance developed previously and produced a summary report for review. In the memo directed to the charge team (see **APPENDIX ERAC_IR&A-2017-3**), are aggregate observations about the case material as well as a more detailed HFACS-Lite analysis of a specific incident.
- ✓ **Current status:** The charge assignment as defined at ERAC’s March 31 in-person meeting was completed and should serve as further proof of concept before more extensive field testing and implementation of the human performance guidance and supplemental collection form.
- ✓ **Measures of effectiveness:** To be refined. Previous MOEs were: Short-term: Human performance supplemental tool adopted for initial use by at least three test states (in progress). Long-range: More consistent, in-depth information on human performance gathered in accident investigations.
- ✓ **2018 cycle recommendations:** Human factors work should carry into 2018, with revised charge language to 1) incorporate recommendations outlined in the latest memorandum to the group; 2) engage with the National Boating Safety Advisory Council (NBSAC) on related human factors work; and 3) include development of a grant proposal for the next cycle of Coast Guard non-profit grants.

RBS STATISTICS & RESEARCH (Penny Kanable, Subcommittee Leader)

Identify and work to improve accident and other boating statistics for the purpose of identifying risk factors, patterns, and trends.

ERAC _S&R-2017-1: Explore recalculation of boating fatality rate’s numerator

Explore the implications of a possible recalculation of the numerator used in recreational boating fatality rates: As a follow-up to work conducted in prior years regarding the implications of modifying the fatality rate **denominator** ([registered boats versus exposure hours estimated via the NRBSS](#)), determine the feasibility and implications of recalculating the fatality rate **numerator** on the basis of the accident victim’s state of origin rather than the accident location.

Why it’s important: While exposure hour-based statistics as the basis for the denominator in fatality or injury rates may be an improvement conceptually for assessing the risks associated with recreational boating, that change alone would not result in flawless measures, for example, of the effectiveness of a state’s safe boating initiatives. As described in a July 2015 ERAC [research brief](#), the rate only accounts for where the fatality or injury occurred, not where the boat was registered or the victim resided. That is a potential issue for states with boating opportunities that attract a lot of boaters from other places; those out-of-state boaters may lack the local knowledge and will be, at least partially, products of their home states’ boating safety culture.

- ✓ **Deliverable:** Working document. “Exploring a possible recalculation of the numerator used in boating fatality rates: A look at the gap between the victim’s state of origin and accident location.” See **APPENDIX ERAC_S&R-2017-1 Preliminary Analysis for Discussion**.
- ✓ **Implementation and Challenges:** The primary challenges to implementing this charge are the availability of relevant and valid data for a more comprehensive analysis. Currently, only one year’s worth of state-level exposure data has been generated through [the National Recreational Boating Safety Survey \(2012\)](#), and that data would serve both as a potential basis for recalculating the denominator and for assessing the magnitude of exposure hours associated with out-of-state boaters versus their reported involvement in accidents. Other challenges are associated with the data on the accident victim’s state of origin (i.e., known place of residence or vessel registration). As a result, the 2017 charge was not deemed feasible as assigned and the committee recommended focusing first on the magnitude of the issue—just how much of a gap is there between the victim’s state of residence and the state where the accident occurred? Is it sufficient to even consider a recalculation of (and implications of such a revision to) the numerators for fatality and injury rates?
- ✓ **Current status:** The revised charge as defined at ERAC’s March 31 in-person meeting resulted in creation of a five-year database of BARD records for analysis; initial pivot tables and tabulations of the percentages of fatalities/injuries that were residents, out-of-state, and “unknowns” (without valid residency information); and a preliminary analysis (white paper) for committee discussion (see **APPENDIX ERAC_S&R-2017-1**). As of this report date, the charge team is reviewing the results.
- ✓ **Measures of effectiveness:** To be determined.
- ✓ **2018 cycle recommendation:** Discussion of the observations generated through this revised charge should continue into the first quarter of the new cycle and result in a recommendation to the NASBLA Executive Board as to whether and how to proceed with this exploration.

ERAC_S&R-2017-2: Input to next National Recreational Boating Safety Survey (NRBSS)

Provide input to the design and analysis of the next iteration of the National Recreational Boating Safety Survey (NRBSS): In accord with the Memorandum of Understanding between the U.S. Coast Guard and NASBLA (Feb. 2016), and in service to the states’ interests, provide constructive advice to the Coast Guard on the design, methodology, and analysis of the next iteration of the survey anticipated to launch sometime during new committee cycle. Maintain the [NRBSS webpage](#) in the Lighthouse Get Equipped portal.

Why it was considered important: Since 2012, ERAC has focused not only the data and findings from the Coast Guard’s NRBSS, but also the methods, scope, and survey instruments employed in it, for two reasons. The primary reason was to be in a better position to accurately and effectively interpret and convey the survey findings for NASBLA’s state members, especially as they related to the survey’s generation of exposure hours by state. The other, also on behalf of the states, was to use the knowledge gained about the workings of the survey and offer the Coast Guard constructive input on analyzing the released survey data and toward the design of future surveys.

- ✓ **Deliverables previous cycles:** Various products resulted from the analysis of the 2012 survey (through 2015) and remain available via the [NRBSS subpage](#) at the NASBLA Lighthouse.

- ✓ **Implementation and Challenges:** In early February 2017, the Coast Guard awarded a grant to conduct the next NRBSS to RTI International, a Research Triangle (NC)-based non-profit firm. Dr. Ed Mahoney, Michigan State University (MSU) would also serve as a consultant to the project. The expectation was that the opportunity for this 2017 charge to proceed in current form—i.e., for ERAC to provide formal input to the methodology and content of the survey instruments for the Participation and Exposure Hours collections—would come with the Coast Guard’s issuance of a notice of intent to submit an Information Collection Request for approval by the Office of Management and Budget. The expectation also was that this would occur during the current cycle as the Participation Survey component was originally scheduled to be conducted late CY 2017, with the Exposure Hours component getting underway on a monthly basis in CY 2018.
- ✓ **Current status:** In mid-August 2017, the Coast Guard informed of a very recent change in the collection of the Participation data, a change representing an enhancement of the prior plans. Notably **both** the Participation and Exposure Hours surveys will be conducted on a monthly basis beginning February 2018 and continuing through January 2019. Relevant to this charge are other modifications: the alternative data methods and design and how the resulting data will be held (by the grantee) means that the Coast Guard will not need to seek OMB approval of the methods and instruments (although RTI and MSU will be required to gain approval from their own institutional review boards); and the raw data from the surveys will be held and made available by the grantee via a website to be developed. The plans are still to generate the Participation data at the national level, with Exposure Hours at the national **and** state levels. (See detail in **APPENDIX ERAC_S&R-2017-2 NRBSS changes**)
- ✓ **Measures of effectiveness:** Previous MOEs associated with this charge were: Short term: Through various channels—including the Lighthouse and NASBLA newsletter—post a minimum of five key findings or “did you know?” discovered as a result of the analysis of the NRBS (achieved through a [Small Craft Advisory article](#) and [corollary piece](#) in 2014). Long-term: Enhanced, practical understanding of the implications of findings from the NRBS. Input to the Coast Guard that is both received and incorporated into future iterations of the survey.
- ✓ **2018 cycle recommendation:** ERAC should monitor activities associated with the next NRBSS as possible, and maintain the [dedicated webpage](#) at the Lighthouse to reflect updates. However, with the changes described above, the recommendation is to **not** carry over this charge in current form as it applies to providing input to the methodology and instruments. The next formal charge to ERAC should come in future cycles when the data are actually generated and made publicly available for analysis.

ERAC_S&R-2017-3: Explore feasibility of linking VIS and BARD

Continue to explore the feasibility of linking VIS (Vessel Identification System) and BARD: Explore the possibility of auto-populating certain vessel-related fields in BARD with available VIS data for the purposes of saving entry time and averting entry errors. Monitor anticipated changes in U.S. Coast Guard technology that could address previously-identified security issues that prevented progress on the related strategy that had been incorporated into the 2012-2016 iteration of the National RBS Strategic Plan.

Why it was considered important: One of the strategies in the 2012-2016 National RBS Strategic Plan was to link BARD with VIS to ensure accuracy and reliability of the data across systems and ability to uniformly analyze trend data to support interventions. Because of various internal security and budgetary issues at the Coast Guard, the strategy went unfulfilled. However, there was still a belief in the merits of linking BARD and VIS, sufficient to continue monitoring the prospects.

- ✓ **Deliverables:** None in this cycle. See “Implementation and Challenges” and “Current Status.”
- ✓ **Implementation and Challenges:** This charge was assigned in light of the possibility that technology changes planned by the Coast Guard might positively affect its ability to link these two systems. However, glitches associated with one change—the transition of BARD to a new vendor in early 2017—and additional internal technology issues within the Coast Guard suggested there likely would not be a timely and positive outcome for addressing the security issues that had prevented progress on the strategy included in the 2012-2016 strategic plan.
- ✓ **Current status:** Various BARD, VIS, security and budgetary issues at the Coast Guard signaled that no significant activity could be conducted on the charge during this cycle, and likely cannot be conducted in the near future.
- ✓ **2018 cycle recommendation:** While ERAC can monitor for possible future action in this area, the activity should not rise to the level of charge status.

Assist the NASBLA Paddlesports Committee as needed on its charges regarding trends and data collection. This was not a formal charge to ERAC in 2017.

Why it’s important: There is strong and broad interest in paddlecraft, paddlecraft risks and the increasing number of accidents as boating safety issues—coming in at #4 of the top 10 as identified by NASBLA members in 2015-16; and #4 and #2, respectively among members of NBSAC and the Coast Guard BSX-2 / RBS Specialists, in a separate issue ranking conducted in the fall of 2016. In 2017, what was originally an ad hoc group to engage NASBLA members in dialogue with a diverse group of stakeholders, was elevated to a standing policy committee on Paddlesports. In areas of mutual data and research interests and trends identification, ERAC stands ready to partner with this still new committee.

- ✓ **Deliverables:** This was not a formal charge to ERAC, but an assist to Paddlesports. Future products to be determined.
- ✓ **Implementation and Challenges:** A range of data, of varying quality and scope, is available – some of which has been compiled for assimilation into the NASBLA Boating Safety “Dashboard” grant project; some consultation has occurred between ERAC staff and assistants to Wade Alonzo, BLA Washington State and Chair, Paddlesports Committee, regarding the validity of fatality and accident data; and a preliminary draft analysis has been conducted by the Washington State personnel as part of comparing non-motorized fatalities among states. Follow-up discussions will need to take place between ERAC and Paddlesports Committee and committee staff to identify the future focus of activity.
- ✓ **Current status:** This activity is an assist to Paddlesports and on-hold pending further discussion.
- ✓ **2018 cycle recommendation:** Continue monitoring Paddlesports activities and collaborating and consulting on an as-needed basis.

ENGINEERING & EQUIPMENT (Joe McCullough, Subcommittee Leader)

Identify and examine engineering issues, equipment design and related efforts that could mitigate risk factors identified through the committee's activities.

ERAC_E&E-2017-1: Identify best approach to capture/record vessel hull design characteristics

Identify best approach(es) for capturing and recording vessel hull design characteristics and related detail in accident investigations: Assess the feasibility of adding a mechanism for officers and investigators to capture specific hull design characteristics as part of boating accident investigations and for recording that detail in BARD for annual statistics and as-needed review. Intent is to capture such data to allow for improved understanding of potential design flaws that may lead to serious injury or death.

Why it's important: Handling issues have surfaced in relation to "Texas Flats" and other shallow water boats. Those issues, associated with tragic accidents, have been described in detail by state members in past NASBLA forums as well as in USCG Boating Safety Circulars [88](#) (Fall 2014) and [89](#) (Spring 2016). The Coast Guard, in discussions on these incidents and in seeking resolution of them, places emphasis on whether or not BARD results show the issue to be significant and national in scope. Currently, however, hull and other vessel design information is not systematically gathered in BARD for ongoing evaluation or when circumstances arise. Like other efforts to increase the quality and consistency of accident detail, the task is to balance need for the information with the ability to identify the best—and most officer-friendly—means for recording these characteristics.

- ✓ **Deliverables:** Work on this multi-year project continues, but no formal results product is issued this cycle. Anticipate first report out at 2018 BLA Workshop and NASBLA Annual Conference. See "Implementation and Challenges" and "Current status" below.
- ✓ **Implementation and Challenges:** One immediate challenge was uncertainty as to when the Coast Guard would release a Federal Register Notice of its intent to submit an information collection request (ICR) to OMB for their Boating Accident Report Form (CG-3865). That still has not occurred, and will likely be impacted by regulatory reform efforts underway in 2017. However, it is important because, at present, the content of that report form drives what the Coast Guard identifies as significant for national tracking in BARD and for report out of the annual boating statistics. As such, apart from identifying potential fields for inclusion on that form, the team had to consider—and weigh the burden of—other methods for capturing the data.
- ✓ **Current status:** At the March 31 ERAC meeting, members identified a question to beta test as an add-on to the accident investigation report in select states over a two-year period. The intent is to not focus solely on the hull so as to capture data on possible issues and trends associated with any design characteristics. The question as drafted: *"Were there any features or design characteristics of the vessel that may have contributed to this accident? ___ Yes ___ No; if Yes, then describe thoroughly in the narrative."* Potential pilot states were identified by the team, with at least one ERAC member state agreeing to amend its form to capture the basic information. As of this report date, discussions continue with the team and prospective pilots and the project is being undertaken with the understanding that pilot states may tailor their collection efforts.
- ✓ **Measures of effectiveness:** To be finalized. However, a previous long-range MOE in keeping with other, similar projects is: More consistent, accurate, and viable accident report data gathered for

use by the states and submitted by the states to the U.S. Coast Guard.

- ✓ **2018 cycle recommendation:** Carryover charge as a multi-year collection, with initial evaluation at the end of the first year. A final recommendation regarding specific language for the charge to carry over into 2018 will be made after all pilot states are identified and on board. However, the following is preliminary 2018 language: **Assess approach(es) for capturing vessel features or design characteristics as accident contributors:** Continue beta test with selected states that agreed to incorporate additional question to their boating accident investigations. Evaluate initial findings mid-cycle and make refinements as needed.

Topic exploration in conjunction with Paddlesports Committee: Nature and extent of basic flotation issues, as they apply to canoes and kayaks. This was not a formal charge to ERAC in 2017.

Why it's important: Interest was sparked by reviews in more recent years of canoe and kayak accidents involving people swimming away from – or attempting to swim away from – their vessels after capsizings: this, in contrast to experiences with older aluminum craft that allowed people to stay and stay afloat with their vessels. Reports of vessels sinking or barely maintaining at the surface (and perhaps not allowing support of a human body) *at least suggested* that the involved may not have had an alternative other than to swim away. Such reports, coupled with reviews of limited data, raised questions about vessel materials and manufacture of some canoes and kayaks, as well as the efficacy of education on the use of PFDs and of devices for flotation, generally.

- ✓ **Deliverables:** This was not a formal charge to ERAC, but given mutual interests, is an assist to and collaborative effort with the Paddlesports Committee. Future products to be determined.
- ✓ **Implementation and challenges:** A primary challenge is the limitation of data in gauging flotation issues. BARD data alone, for example, cannot help determine the adequacy of flotation in this exploration, so the ERAC and Paddlesports members had to consider alternate approaches to addressing the basic question of why flotation is important and what it does for the user.
- ✓ **Current status:** For 2017, NASBLA's Paddlesports Committee adopted a formal charge regarding Flotation Standards (i.e., to create a subcommittee to review manufacturing standards for kayaks and canoes to determine sufficiency, and plan for a process to involve stakeholders in making recommendations for improving standards). In November 2016, ERAC sponsored a teleconference on flotation issues that included both ERAC members interested in pursuing this topic exploration and Paddlesports members; [the recap for that discussion](#) is available on Basecamp. Since then, team members have commented on the ABYC H-29 Standard re Canoes and Kayaks, and participated in follow-up discussions with the Paddlesports charge leader and the full Paddlesports Committee. During ERAC's March 2017 meeting and team breakout discussions on the best course of future action, the team agreed to continue working with Paddlesports, especially regarding ABYC's H-29 Standard and efforts to seek out manufacturers' input and compliance with same.
- ✓ **Measures of effectiveness:** To be developed jointly with Paddlesports Committee.
- ✓ **2018 cycle recommendation:** Continue collaborating with Paddlesports on the aforementioned areas of interest and monitoring of ABYC activity on the H-29 Standard.

2016-2017 ENGINEERING, REPORTING & ANALYSIS COMMITTEE (ERAC), updated 2/28/17

COMMITTEE-WIDE LEADERSHIP

CHAIR: Glenn Moates, Tennessee, 615.781.6684, glenn.moates@tn.gov

VICE CHAIR: Kris Wahlers, Colorado, 303.791.7275 x 4580, kris.wahlers@state.co.us

BOARD LIAISON: Kenton Turner, Indiana, 317.232.0935, KTurner@dnr.in.gov

COMMITTEE STAFF

Deborah Gona, PhD, Research Consultant, 859.421.9258, deb@nasbla.org / dgona@prodigy.net

SUBCOMMITTEE LEADERSHIP

Monitoring & Evaluation: Glenn Moates, Tennessee, 615.781.6684, glenn.moates@tn.gov

Knowledge & Content Management: Kris Wahlers, Colorado, 303.791.1954 x 4127, kris.wahlers@state.co.us

Investigation, Reporting & Analysis: Seth Wagner, Florida, 850.617.9455, seth.wagner@MyFWC.com

RBS Statistics & Research: Penny Kanable, Wisconsin, 608.228.9352, Penny.Kanable@wisconsin.gov

Engineering & Equipment: Joe McCullough, Alaska, 907.269.8704, joseph.mccullough@alaska.gov

U.S. COAST GUARD REPRESENTATIVES

HQ Primary: Susan Weber, 202.372.1103, Susan.M.Weber@uscg.mil

11th District RBS Specialist: Paul Newman, 510.437.5364, Paul.L.Newman@uscg.mil

Additional USCG SMEs: Donald Kerlin, Donald.J.Kerlin@uscg.mil; Rachel Warner, Rachel.Warner@uscg.mil

NASBLA PROGRAM REPRESENTATIVE

Gary Haupt, Boating Accident Investigation Training, gthaupt@gmail.com

STATE MEMBER ROSTER

John Girvalakis, Massachusetts

john.girvalakis@state.ma.us

Rachel Bullene Graham, Oregon

rachel.b.graham@osmb.state.or.us

Penny Kanable, Wisconsin

Penny.Kanable@wisconsin.gov

Eric Lundin, Connecticut

Eric.Lundin@ct.gov

Joe McCullough, Alaska

joseph.mccullough@alaska.gov

Glenn Moates, Tennessee

glenn.moates@tn.gov

Johanna Naughton, California

Johanna.Naughton@parks.ca.gov

Amy Rigby, California

Amy.Rigby@parks.ca.gov

Seth Wagner, Florida

seth.wagner@MyFWC.com

Kris Wahlers, Colorado

kris.wahlers@state.co.us

ASSOCIATE MEMBER ROSTER (continues next page)

Caroline Bell / Larry Bowling, NTSB

Caroline.Bell@ntsb.gov / Larry.Bowling@ntsb.gov

Alexander Cascione, USCG Auxiliary

alexcascione@msn.com

Pete Chisholm, Mercury Marine

pete.chisholm@mercmarine.com

Brian Goodwin, ABYC

bgoodwin@abycinc.org

Caroline Mantel, BoatHistoryReport.com

caroline@boathistoryreport.com

Eugene Molteni, USPS

Eugene.molteni@verizon.net

Bruce Rowe, Forever Resorts

browe@foreverresorts.com

Ted Sensenbrenner, BoatU.S. Foundation

teds@boatus.com

Dick Snyder, Mercury Marine (ret.)

dick_snyder@mercmarine.com

Karen Steely, Aaron Foundation

steelyks@yahoo.com

Ernest Marshburn, USPS

marshburne@ecu.edu

Dan Maxim, USCG Auxiliary

Postsf@aol.com

Fred Messmann, NSBC

deputy@safeboatingcouncil.org

Robert Sweet, USPS

aep@mindspring.com

Tamara Terry, Individual Member

complicatedperfectstorm88@gmail.com