

NASBLA ENGINEERING, REPORTING & ANALYSIS COMMITTEE (ERAC) FY 2014

NASBLA'S MISSION:

To strengthen the ability of the state and territorial boating authorities to reduce death, injury, and property damage associated with recreational boating and ensure a safe, secure, and enjoyable boating environment.

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

ERAC is charged with identifying, evaluating, and analyzing data and information that can shed light on factors associated with recreational boating accidents; that can be used to inform the development of boating safety policies, programs and campaigns at the state- and national-levels; and that ultimately can measure their effectiveness. To ensure that the results of boating accident research and analyses are valid and reliable, ERAC is further directed to actively seek ways to advance the quality, relevance, accuracy, consistency, applicability, and completeness of the data and information.

IN PRACTICE:

- In response to targeted research questions, ERAC analyzes available, relevant accident report data and other boating-related statistics to identify risk factors, patterns and trends in recreational boating accidents;
- Based on its analyses—and in partnership with NASBLA's member states, the U.S. Coast Guard, and other key agencies and organizations in the boating community—ERAC recommends and works for the implementation of improvements to the criteria, processes, and training associated with reporting, collecting, entering and using accident data;
- On behalf of NASBLA's member states and in the interest of uniformity and shared understanding, ERAC collaborates with the U.S. Coast Guard on clarifying accident reporting criteria and procedures, and continues to offer input and support for the completion and issuance of reporting guidance to the states in the form of Commandant Instruction M16761.2C (Part II Standard Method of Reporting) and similar instruments;
- ERAC identifies and examines boating safety program and equipment design efforts that could mitigate risk factors identified through its analyses;
- ERAC representatives monitor, receive reports from, or actively participate in the efforts of relevant task forces, subgroups, and panels of the National Boating Safety Advisory Council (NBSAC), the American Boat and Yacht Council (ABYC), the National Marine Manufacturers Association (NMMA), and the Underwriters Laboratories, among others; and
- ERAC interacts with and strives to remain informed about the work of other NASBLA policy committees and the National Education Standards Panel to add value to its own products, determine how it can effectively serve as a resource to their efforts, and collaborate on projects of mutual interest.

ERAC members are assembled into project teams, taking the lead on specific, assigned charges in four categories, and completing significant monitoring and resource activities. The bulk of committee activities are conducted online and via teleconference. However, ERAC had an in-person, all-day meeting on Friday, February 21, 2104, in Lexington, Kentucky.

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A. REGARDING RULEMAKING AND POLICY GUIDANCE

A-1 As part of the rollout of the standardized accident report terms and definitions and in follow-up to the committee's issuance in CY 2013 of basic guidance for states to consider in transitioning to the new terms, continue to identify issues and respond to questions that may arise with implementation.

[National RBS Plan Obj. 9, Boating Accident Reporting, and Obj. 10, R&D; and NASBLA's strategic goal of providing standards that support uniformity.]

In 2013, ERAC completed work to update and achieve approval of the five work products associated with the Accident Reporting Terms & Definitions Project. In Sept. 2013, it issued basic "Guidance on the Implementation and Use of the Revised Accident Report Terms and Definitions Lists" to assist states as they consider how and when to make the transition to the new terms. ERAC will continue to be available to the states to assist—if it is within the scope of the committee's jurisdiction or ability to act—or at minimum, to share information and explore resolutions with NASBLA members. This also may include assisting or sharing information with the states as they implement report terms authorized under the Final Rule on Changes to SNS, VIS, and BARD.

A-2 Provide input to U.S. Coast Guard policy and rulemaking proposals to revise, clarify, and improve the accident reporting system, criteria, and processes. Facilitate the sharing of information with—and the gathering of feedback from—NASBLA's member states on such proposals and related efforts. *[National RBS Plan Obj. 9, Boating Accident Reporting, and Obj. 10, R&D; and NASBLA's strategic goal of providing standards that support uniformity.]*

This is a carryover charge from 2012 and 2013. While its focus is on ERAC's continued monitoring of the Coast Guard's progress in finalizing CMDTINST M16761.2C, and on the committee's readiness to respond to anticipated rulemaking proposals to revise the accident reporting system, the charge also covers other proposals relevant to ERAC's areas of interest. This year that included examining, sharing information, and commenting on USCG-2008-1259—an NPRM issued by the Office of Maritime and International Law and intended to restate and clarify the preemptive effects of certain federal regulations. The NPRM provisions of particular interest to ERAC were regarding regulations associated with casualty and accident reporting.

A-3 In coordination with and in support of the American Boat and Yacht Council (ABYC) and other organizations' efforts to mitigate electric shock drowning(s) (ESDs) and other electrical shock injuries and deaths, assemble and (as warranted) develop relevant guidance and other resources for easy access and use by officers and investigators, BLAs, and potentially state legislators. *[National RBS Performance Goal for reducing casualties; NASBLA's strategic goals of conducting research and providing models that support best practices, inform decision makers, and support uniformity.]*

In 2013, ABYC had proposed a charge designed to result in development of a model act toward mitigation of ESDs. Through a series of discussions, the scope of the charge was modified to better align with NASBLA stakeholder needs in this area and with ERAC's jurisdiction and expertise. Mid-cycle, activities are under way to create products intended to improve understanding about and mitigation of these incidents and facilitate effective policy development (i.e., assembling ESD-related resources as part of ERAC's online forum development (see Charge B-2); identifying enhancements to accident investigation coursework and materials, and potentially, on-site guidance for use by investigators; and creating a FAQ document of vital steps in development of ESD-related legislation/policy for use by legislators and BLAs.)

B. GUIDANCE/TRAINING ON ACCIDENT REPORTING, DATA ENTRY, DATA USE

B-1 Complete the beta phase of the Accident Report Terms & Definitions Reference and Resource Modules development. Release the next, stable version with additional content for all five report category modules (Accident Types, Contributing Factors, Operation, Activity, Vessel Types/Vessel Sub-Types). Work with NASBLA management to identify additional platforms for distribution. Explore the potential for creating additional modules with content targeting other core aspects of accident reporting.

[National RBS Plan Obj. 9, Boating Accident Reporting (esp. strategy 9.16 re: assisting the states in training/education/outreach efforts on accident notification and reporting regulatory/policy revisions), and Obj. 10, R&D (esp. strategy 10.4 re: continuing to assess/improve/train on BARD data); NASBLA's strategic goals of offering professional development and training, and providing standards that support uniformity.]

This carryover charge has three related components—short- and long-term in nature. The first is completion of the modules package currently in beta version; the B1 charge team continued work on the modules during the transition between committee cycles with an eye toward completing the next version in CY 2014. The second involves working with NASBLA and its partners to identify ways to move the content currently contained in the PowerPoint version to web-based and mobile applications. The third is to reopen discussions (from early 2013) on the possibility of adding modules on other accident reporting topics, such as what information is required in BARD, reportability, and quality narrative writing, among others.

B-2 Finalize content detail and implement components of an online forum to share and discuss recreational boating accident analyses, data, data issues and applications, and related products with other researchers and data users in the governmental, academic and non-profit communities. Develop protocols and instructions for an appointed member of the committee to administer and maintain the webpage and moderate forum discussions. Work with NASBLA management to ensure that product development is in accord with plans to migrate to new association management software and web platform in 2014. *[National RBS Plan Obj. 10, R&D (esp. strategies 10.4 re: continuing to assess/improve/train on BARD data, and 10.5 re: analyzing BARD data); NASBLA's strategic goals of offering professional development and training, and providing models/standards that support best practices and uniformity.]*

This is a carryover charge intended to widen the circle of participants in ERAC's ongoing discussions about how to apply and improve accident research and data and related issues. In 2013, an ERAC charge team continued work begun in earlier cycles, and created a mockup to illustrate initial thoughts about layout and content. In 2014, while the committee awaits the migration of the NASBLA website to a new platform, the charge team is proceeding with work on the 'mechanics' of developing and maintaining the forum and populating the components (e.g., a resource library in NASBLA's Connect) that will be linked from the forum homepage on the website. A breakout session on the forum is scheduled for NASBLA's annual conference in Oct. 2014.

B-3 Develop, distribute, and provide online instruction on the use of a standardized template(s) that would give states the ability to more easily and accurately generate state-level statistical reports and legislative fact sheets from BARD queries. *[National RBS Plan Obj. 10, R&D (esp. strategies 10.4 re: to assess/improve/train on BARD data, and 10.5 re: analyzing BARD data); NASBLA's strategic goals of offering professional development and training, and providing models/standards that support best practices and uniformity.]*

This new charge is intended to give states the tools to more fully utilize the accident report data they enter into BARD. It expands upon -prior ERAC work, including a 2010-2012 series of charges that resulted in the committee's development of a template for analyzing localized incidents and issues using a state's accident and other data (Template for In-Depth Analysis of Fatality Trends by Body of Water (Aug 2012)). The state-level reports generated by completion and release of the anticipated charge products might also serve to identify local or regional issues for further investigation.

C. COMPILATION AND ANALYSIS OF ACCIDENT AND OTHER BOATING RELATED DATA/INFORMATION

C-1 Continue to assess the data and findings of the U.S. Coast Guard’s National Recreational Boating Survey (NRBS). Give particular attention to reviewing state-level exposure hour data generated in the 2012 survey and assisting the states in evaluating and using the survey results. Develop content for a planned NRBS-themed issue of NASBLA’s *Small Craft Advisory* July/August 2014. Continue to offer the Coast Guard constructive input on possible revisions to future survey efforts. [National RBS Performance Goal for reducing casualties; RBS Obj. 9, Boating Accident Reporting, and Obj. 10, R&D (esp. strategy 10.5 re: analyzing BARD data); NASBLA’s strategic goals of conducting research and providing models that support best practices and inform decision makers.]

This is a carryover charge. In 2013, ERAC reviewed findings from the 2011 NRBS and carefully examined the methodology and survey instruments used for the 2011 and 2012 surveys. That activity resulted in the committee providing comments to the Coast Guard for its consideration in future survey development. With the public release of the 2012 data and the Coast Guard’s official summary report on findings in early 2014, the focus of ERAC’s primary work has shifted to review of that data and findings, and especially to assisting the states in understanding and using the results. An article examining exposure hour methodology, and a related informational piece were submitted for inclusion in the SCA July/August issue. A general session on the NRBS topic is scheduled for NASBLA’s annual conference in Oct. 2014.

C-2 Continue refining and developing more detailed guidance on the use of “HFACS-lite”—a modified version of the Department of Defense’s Human Factors Analysis and Classification System that was developed and applied to an analysis of accident cases in the 2013 committee cycle. Use the National Transportation Safety Board’s human performance investigation tools as a starting point to assess the sorts of additional information—necessary to complete the HFACS-Lite analysis—that might reasonably be gathered in recreational boating accident investigations. [National RBS Performance Goal for reducing casualties; RBS Obj. 9, Boating Accident Reporting (esp. strategy 9.15 re: suitability of accident causation models), and Obj. 10, R&D (esp. strategy 10.5 re: analyzing BARD data); NASBLA’s strategic goals of providing models supporting best practices; research that evaluates/sustains RBS program efforts.]

This is a carryover from the 2012 and 2013 cycles and is in continuing support of an improved understanding of factors associated with human error in recreational boating accidents. In 2013, an ERAC charge team reviewed a sample of accident cases that had already been investigated in order to gauge the utility of “HFACS-lite” as a tool for analysts in reviewing available accident data. In the 2014 cycle, more detailed guidance for HFACS-lite’s use as an analysis tool (beyond committee use) will be developed. But the primary focus has been on what other factual human performance information potentially could be gathered in recreational boating accident investigations to aid in such analyses, and the implications for doing so. An NTSB white paper developed in 2013 and containing potential investigation questions has served as a catalyst for the 2014 discussion and draft documentation currently is under development.

C-3 Continue to review the data from the United Safe Boating Institute (and affiliated organizations) efforts to capture the reasons why vessels fail Vessel Safety Checks (VSC), and the VSC program analyses conducted to date by USBI project partners. Assess the significance of the data and analyses and determine whether there are any potential applications of—and implications for—the data findings beyond the original intent. [National RBS Performance Goal for reducing casualties; RBS Obj. 8, Operator Compliance-Required Safety Equipment; NASBLA’s strategic goal of conducting research for evaluating RBS program efforts and informing decision makers.]

This carryover has been on ERAC’s books in one form or another over several years; it is in support of ERAC’s past work on operator compliance with safety equipment requirements and counsel to the USBI’s grant-awarded efforts to capture the reasons why vessels fail VSCs. A USBI-hosted website to collect the data was functional from July 2012 to mid-2014, and focused on gathering failed VSC data through the efforts of the

United States Power Squadrons and Coast Guard Auxiliary. The volume of data collected and recorded in 2013 did not give ERAC an opportunity to independently assess their significance or attempt exploration alongside BARD data. However, USBI project partners did begin analyzing the data and identified differences between the examiner organizations. Those analyses and initial findings have served as a basis for ERAC's 2014 continuing examination, and for a more specific exploration of the relationships, if any, between VSC failures and accident data in one state (Florida).

D. ADVISORY AND TREND MONITORING ACTIVITIES

D-1 Develop and implement a formal method for the committee to continuously and effectively identify and “triage” emerging recreational boating issues and hot topics that are within ERAC’s sphere.

This is a new charge intended to enhance the committee’s ability to more quickly surface and determine appropriate responses to critical issues that are or might soon be affecting NASBLA’s membership. Such responses could include, among other actions, an immediate redirection of committee resources to address an issue or event; a more deliberate postponement of consideration until a viable charge can be developed for a future committee cycle; or simply an informational alert to NASBLA members via ERAC’s online forum (when fully implemented; see Charge B-2) or any of NASBLA’s communication channels.

D-2 Continue serving in an advisory role to the research project, *Advanced Spatial Analysis of Accident Risks in Recreational Boating*, with a special emphasis on reviewing and providing input to the principal investigator as requested regarding project findings. [National RBS Plan Performance Goal for reducing casualties; RBS Obj. 9, Boating Accident Reporting (esp. strategy 9.15 re: examining suitability of accident causation models), and Obj. 10, R&D (esp. strategy 10.5 re: analyzing BARD data); NASBLA’s strategic goals of providing models that support best practices, and conducting research for evaluating/sustaining RBS program efforts.]

This is a carryover charge regarding a project conducted by Dr. Ernest G. Marshburn (East Carolina University) in the test states of Florida and Ohio. ERAC has served in an advisory capacity to foster and facilitate the project’s objectives and will continue to provide a mechanism for reviewing, vetting and sharing the results of the research with the NASBLA membership in 2014.

In the 2013 cycle, each NASBLA policy committee was asked to identify two “measures of uniformity” and two “measures of effectiveness.” To start the process, ERAC leadership identified two possible uniformity measures and one possible effectiveness measure and initiated discussion about them with the general committee membership. In the 2014 cycle, this draft will serve as the basis for continuing discussion with the committee about the feasibility of implementing these measures, what modifications might need to be made to them to make them more meaningful and measurable, and whether there are other relevant measures that need to be considered—either as additions to or replacements for the draft items.

POSSIBLE MEASURES OF UNIFORMITY -- a first cut for discussion

1. The standardization of accident reporting terms and definitions used by 50 states and 6 territories in providing BARD data in five key fields (accident types, contributing factors, operation, activity, vessel types/sub-types).

This measure relates to two (2013) charges -- A-1 and B-1

While there are some questions as to how to measure this standardization, one possibility might be to “test” before and after the training module(s) (under development during this committee cycle). Another, if agreement could be reached to do so, might be to ‘measure’ the amount of recoding that the USCG needs to do on these key field (pre- and post-rollout).

2. Standardization in the understanding of reportability parameters in recreational boating accident reporting.

This measure relates to four (2013) charges – A-1, A-3, B-1, B-2

Once again, there remain some questions as to how to measure this standardization. However, as in the above case, one possibility might be to “test” before and after the training module(s) (under development during this committee cycle).

POSSIBLE MEASURES OF EFFECTIVENESS -- a first cut for discussion

1. Based upon a determination of “X” number of key data elements in BARD-Web that will be identified by a team composed of state and USCG members; and measuring completion rates of these data fields both before and after the implementation of an online module that emphasizes the importance of these key data elements and affords resources and suggestions to meet the challenge of collecting the key data elements; show an improvement of at least “X%” in the completion rate of each of the key elements identified by {insert date}.

This measure relates primarily to one (2013) charge – B-1

One possible way to measure might be to identify the percentage of non-completed key data element fields before and after the training module is released (something that would require us to know which states use the training so that we could look at the “before and after” details)