NASBLA ENGINEERING, REPORTING AND ANALYSIS COMMITTEE (ERAC) MEETING
TRAINING ROOM, NASBLA HEADQUARTERS, LEXINGTON, KY
FRIDAY, FEBRUARY 21, 2014, 8:05 a.m.-4:55 p.m.

ATTENDEES (in-person and remote; all or portion of meeting)[1] -- ERAC leadership: Tammy Terry, OH (Chair, presiding); Eric Lundin, CT (Vice Chair); Glenn Moates, TN (Vice Chair). **State members:** Rachel Bullene, OR; Joe McCullough, AK; Johanna Naughton, CA (remote); Mark Richerson, MO; Amy Rigby, CA (remote); Seth Wagner, FL; Kris Wahlers, CO; Cindy Wall, AZ; Rachel Zechenelly, LA. **NASBLA project representative:** Gary Haupt, Boating Accident Investigation Training. **U.S. Coast Guard representatives**: Vann Burgess; Philippe Gwet (remote); Jeff Ludwig (remote); Paul Newman (remote); Susan Tomczuk (remote); Rachel Warner (remote). **Associate members:** John Adey, ABYC (remote); Larry Bowling, NTSB; Pete Chisholm, Mercury Marine (remote); Brian Goodwin, ABYC (remote); Bill Griswold, USBI; Ernie Marshburn, USPS; Dan Maxim, CG-AUX; Fred Messmann, NSBC (remote); Bruce Rowe, Forever Resorts; Ted Sensenbrenner, BoatU.S. Fdn.; Dick Snyder, Mercury Marine (ret.); Karen Steely, Aaron Fdn. **Committee Staff:** Deb Gona, NASBLA Research Consultant

MEETING SUMMARY

This summary describes the day's major activities, discussion points, and action items. It is not a transcript. However, the meeting discussions were digitally recorded, and nine audio files (posted Feb. 22, 2014) are available to committee members in the **ERAC Overall Activity** section of NASBLA's Basecamp at https://nasbla.basecamphq.com/projects/5486330/files. Documents (including PowerPoint presentations) associated with particular activities or charges and referred to during the meeting also can be found under their respective charge sections in Basecamp.

Opening Remarks and Introductions

Chair Tammy Terry opened the meeting, and extended a welcome to members who made it to Lexington and all who would be joining in by phone. At the outset, she made special mention of the people who "help [the committee] keep on track," including ERAC's liaison to the NASBLA Executive Board Toby Velasquez (BLA, NM), the NASBLA staff, and committee staff. She also expressed appreciation to the charge team leaders who would be sharing overviews of the work to date, and she strongly encouraged members to jump in and offer their perspectives during those charge discussions. Tammy thanked Vann Burgess, U.S. Coast Guard, for accepting her invitation to stop in and inform ERAC members about things he had shared with participants in the BLA Workshop the prior day. In describing the diversity of the committee and organizations represented on or partnering with it, Tammy made further note of the Coast Guard's ongoing participation, and thanked Susan Tomczuk, who has been serving as primary representative to ERAC, and Paul Newman, who is new to the committee. Thanks also were offered to the ERAC vice chairs for 2014, Glenn Moates and Eric Lundin.

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[1] "Remote" means attendee participated in the meeting by conference call for all or some segment of the agenda.

Tammy's acknowledgments were followed by introductions around the meeting table; as an added twist to giving names and affiliations, each attendee also was asked to describe themselves by answering the questions "if you were a boat, what kind of boat would you be?" and "why?"

What ERAC's about

Tammy likened recreational boating safety at the state and agency level to a "house" of programs and campaigns that needs a solid data foundation underneath it. She described ERAC as a group that works on that data foundation by monitoring, doing analyses, working on training to help the data be better, and now, building a community of people doing similar work. Tammy reminded the members that what they do is important, and said that the committee's work is getting noticed by the NASBLA membership at-large. In a world of shrinking resources, she said, ERAC's efforts help lay the groundwork to help answer "what do I do with what I've got?"

Coverage of accident reporting and related issues from the BLA Workshop, Feb. 19-20

ERAC did not sponsor a presentation at the workshop this year; however, some accident reporting-related issues came up during the BLA discussions and were covered in this meeting. They included:

- A **monthly "compliance check"** described in emails that some states had received from Susan Tomczuk the week of the workshop. The email was regarding the timeliness of the **states' responses to the news media reports** that are provided by the Coast Guard and the actions the Office of Auxiliary & Boating Safety plans to take to resolve non-responses.

  Tammy asked Susan to give members more information about the 30-day compliance check, how it is intended to work, and whether all states would receive the same information. Susan confirmed that all states would get an email, but that it was taking a while for her to get to each one because the notification was being included in her customized CY 2013 wrap-up on each state's accident reporting. Susan said the Office has been tasked with getting quicker resolution of media reports, and it would like states to provide timely updates on them so that the Office also can produce its casualty reports in a timely way. She said these updates can be accomplished by logging into BARD, which has a list of all of the media reports, and creating a dialogue in the system about the cases—that is, noting whether the incident does or does not meet reporting requirements, whether it's outside the state's jurisdiction, and so on. Susan said the plan is to look at the system every month and send out a list of outstanding cases. Emails will be sent to non-respondents, with a request for response within a week. If responses aren't received, then Susan will contact the state, with possible follow-up by Vann Burgess.

- **ABYC/Coast Guard App**: Vann Burgess said that last year, ABYC received a Coast Guard grant to develop a boater checklist. ABYC went a step further and, along with the hard copy checklist, created an iOS application that allows users to input information on up to five boats, including where their boat(s) is/are being operated. The app, in turn, provides information on federal equipment requirements as well as some state information, and gives the user the ability to file and send a float plan to acquaintances. Subsequent to that development activity, the Coast

Guard Foundation received a gift to develop a multiple platform application. Using the ABYC app platform as its basis, the Coast Guard app was being built with components such as the safety checklist, the file-a-float-plan feature, information on the mechanics of the boat, pollution reporting, and America's Waterways Watch information.

From the recreational boating side, the thought was also to include a modified accident reporting piece, such that if a boater was involved in or witnessed an accident, they could hit submit and the information would go to a drop box in the appropriate state (determined by GPS locator). However, during the workshop presentation on the application, some major concerns were identified by the BLAs (e.g., does the boater realize that submission of the information won't result in a direct, immediate response?). Vann said the concerns were duly noted and there is now a "stop" on this component. He will be sending out a follow-up email to the BLAs with a request to document the issues that surfaced during the workshop (or that will surface after some additional thinking about the issues) so that the concerns can be addressed in future development—that is, to ensure that such a component can be "done right" in the future, and in accord with any regulatory changes to the reporting system.

- **National Recreational Boating Survey update**: Tammy also asked Vann to cover some of the information that he had shared at the workshop (see "NRBS 2012_V Burgess presentation_BLA Workshop_021914.pptx" at https://nasbla.basecamphq.com/projects/10558435/files). Vann stressed that the numbers in his presentation are preliminary as the 2012 results are undergoing final review, but he relayed some results on the number of boating households and aggregate exposure hours' information by major boat types. He said the exposure hours' information, along with Performance Report Part II, SAR and other data, would give the Coast Guard the ability to correlate and assign risk. [For more meeting coverage on the NRBS, see the notes under the C1 charge below.]

Updates on 2014 Charges—where we're at and where we're going (see ERAC FY 2014 charter roster charges document for complete wording of charges)

Notes: Charges are not presented in the order in which they were taken up during the meeting; also, while all charges were discussed in plenary session, additional breakouts were conducted for the B3 and C2 charges with follow-up report outs to the full group

A1 – Continuing rollout of accident report terms and definitions. Tammy described that this charge is intended for ERAC to be available to the states to provide guidance when the states are ready to start implementing the new report terms and definitions [i.e., five lists approved by NASBLA membership in 2012 and 2013]. As of the meeting date, no state had taken up the offer, but ERAC stands at the ready. Tammy said she suspects that many states are waiting to hear more from the Coast Guard regarding the accident reporting rulemaking proposal and Commandant's Instructions before they transition to the revised terms.

A2 – Input to Coast Guard policy- and rule-making proposals. Tammy described this as a sort of standing charge as ERAC has had it on the books for a few years. It is regarding proposed policies and rules in which states would have an interest. Two items continue to be of interest—CMDTINST M16761.2C, which will replace the old CG-449 (standard method of reporting), and the anticipated comprehensive accident reporting rulemaking proposal. Tammy asked for updates on them from Susan and from Jeff Ludwig. An additional item, an NPRM issued by the Coast Guard Office of Maritime and International Law, also was covered.

> **RE the status of CMDTINST M16761.2C**: Susan reported that the document had cleared the branches and, approximately two weeks ago, had made its way to Jeff Hoedt's office, where it is awaiting clearance from him. She believes the plan is that ERAC will then receive a copy to review, since the committee had expressed such interest. Tammy reminded her that Richard Moore (BLA, FL) had also expressed such interest in reviewing the draft before its release to the states. [Richard's expression of interest was to Fred Messmann, chair of the NBSAC Strategic Planning Subcommittee prior to the subcommittee's teleconference in fall 2013.]

> **RE the status of the accident reporting rulemaking proposal** [to revise the reporting system with likely incorporation of a "two-tier system" and other modifications in response to National Boating Safety Advisory Council recommendations and strategies in the National RBS Strategic Plan Objective 9.]: Per Jeff Ludwig, it is his goal to have the rulemaking proposal into clearance for the "multiple levels of review" as soon as this summer 2014, but definitely this year. He added that "a lot of the stuff that ERAC has been working on" (e.g., in the way of the report terms and definitions work) has been helpful in the process.

> **RE the "preemption assessment framework" notice of proposed rulemaking (USCG-2008-1259, Assessment Framework and Organizational Restatement Regarding Preemption for Certain Regulations; Proposed Rule** issued by the Coast Guard Office of Maritime and International Law on Dec. 27, 2013, with deadline for comment of March 27, 2014): Tammy said this NPRM came to her attention via Ohio staff that track legislative and federal regulatory developments. Their initial review raised some concerns about the provisions outlining the preemptive effects over particular areas of boating law, both recreational and commercial. Of most immediate concern to the state was language regarding "field preemption," and, depending on how literal the interpretation, the potential that it could "foreclose" a state's ability to regulate in the area of casualty reporting. [In the course of discussion, Vann Burgess said that there are federal regulations in place that require states to have certain regulations and laws (e.g., states *are* required to have an accident reporting system and an enforcement tool for failure to report), so "foreclosure" would be regarding what the details of those laws are.]

> Deb Gona further explained that the NPRM seems to be intended as a "global cleanup" and clarification of the preemptive effects of certain USCG regulations—both to forego having to deal with each affected regulation already in place and to provide the framework for future regulations. She described that in the case of the preemptive effect on Part 173 subpart C (casualty reporting) there are differences in language between the 2012 Final Rule on SNS, VIS and BARD and this NPRM; the latter omits language indicating that Congress requires the Coast Guard to allow state casualty reporting systems pursuant to 44 U.S.C. chapter 131, and in doing so, gives the appearance of a possible shutout of the states from any regulation in this "field."

Tammy said that even though the NPRM didn't come from the Office of Auxiliary & Boating Safety, Jeff Ludwig had been very helpful in trying to get preliminary clarification about some of the language from Coast Guard attorneys. But she added that their responses suggested some uncertainty about impact until it is applied. Jeff concurred, and said that even though the attorneys from the Office of Maritime & International Law suggested that there wouldn't be a problem (i.e., suggesting that the proposed language isn't intended to preempt existing state law/regulation in the area of casualty reporting), they—and he—strongly encourage the states and NASBLA to submit comments in the form of question(s) about this particular issue and any other concerns. Jeff said that doing so would force the Coast Guard to formally address the questions in the final rule and document the purpose and effect (or non-effect) in a publicly accessible document, instead of in a letter that only one state has or some less formal, less weighty format. He said that the comments do not need to be in-depth to elicit a response.

In further discussion on the content of this Notice, questions were raised by members as to whether the primary focus was on accident reporting (no, much of the NPRM deals with regulations on the commercial side); whether the provisions regarding the commercial side would be relevant to review (yes, as some states, like TX and FL, do deal with the commercial side); and whether life jackets were covered in it (no, they're not; as Vann described, life jacket regulations and some other carriage requirements will typically state that they are not subject to preemption or there is an exemption from preemption, depending on the regulation. In cases where a minimum standard *is* set by the federal regulation, the state can be more restrictive, just not less restrictive.

Tammy strongly encouraged all members to review the NPRM and have folks in their states review the entire document and regulations covered in it. She said that an informational piece would go out to the BLAs, and Deb also noted that the webpage used originally for the NPRM and Final Rule on SNS, VIS, and BARD would also be used to house resources on this Notice.

A3 – Examining electrical shock issues—developing information and guidance for states. By way of introducing this charge, Tammy described that ABYC originally proposed a potential project for NASBLA/ERAC to create a model act toward the mitigation of electric shock drownings. Their concern was that random legislation was being passed and, as such, ABYC's hope was to "universalize the issue, the terms, and the solutions." She said that in follow-up to ABYC's provision to ERAC of a white paper on the topic, there were internal discussions within ERAC leadership and with the NASBLA Executive Board and Board Liaison. Tammy said the discussions revolved around whether it was an appropriate topic for ERAC's consideration and whether—given the differences between states—it would be possible to get the sort of meaningful uniformity needed for model language if that product were attempted.

However, she added, when the potential charge was described to committee members, several *had* expressed interest in the issue; moreover, given the reportability aspect of boating accidents where the cause is identified as "electrocution due to stray current related to a vessel," the topic was determined to be appropriate for ERAC's consideration and within its jurisdiction. The question then became one of whether there was a better way than creation of a model act to support ABYC's efforts, serve NASBLA members, and ultimately mitigate this risk.

Tammy said that in follow-up conversations with ABYC representatives John Adey, Brian Goodwin, and Matt Wienold, a "counter proposal" with two facets was identified and generally accepted. She added that the details will need to be further considered and refined as part of the charge team's work that Eric Lundin will be leading. Generally, however, they involve the following: 1) Although the number of ESD numbers seem relatively "low," the question is whether all of those cases are being captured; could we go back into the BARD data to explore incidents that might fit those parameters and get a better handle on how big of an issue it is? And 2) can we gather together all of the materials that have already been compiled—the best practices manual (Best Management Practices for Marina Electrical Safety, Association of Marina Industries), ABYC webinars, and other appropriate tools and resources—and make these resources more readily available to officers and investigators (and potentially legislators) to help them better understand and recognize the details surrounding these types of incidents?

John and Brian concurred with Tammy's description, and followed up with more detail about the status of ABYC's work in this area. They noted that along with other materials and information assembled over the years, ABYC has a database with about 160 documented deaths and near misses collected over about the last 12 years (i.e., data collected from investigations, lawsuits, and so on). More recently, as part of an NFPA Fire Protection Research Foundation grant to research solutions for the land-based side of the in-water shock equation, ABYC is launching into a quick turnaround (six-month) study on devices that could be installed on the marina side to couple with what they have done on the boating side. The critical component will be figuring out what goes wrong accident wise, and the more accident data they can assemble, the better. John said that ABYC is willing to share the research results for this charge as it proceeds.

B1 – Completing stable version of accident report terms and definitions resource modules. Tammy said that she has most of the pieces needed to complete the five modules (currently in beta form), but that the assembly of those pieces has taken a little longer than she anticipated. Tammy went on to thank members (especially Gary Haupt and Seth Wagner) who had already sent along a large number of photos and videos for consideration. Since there are still a few gaps, however, she asked members to review the updated "Wanted" list of photos and videos that was distributed as hard copy and also posted to Basecamp ("B-1 Wanted List – Updated 2-20-14.docx" at https://nasbla.basecamphq.com/projects/8646434/files), and send items to her by mid-March, if possible. She also asked for Susan's assistance in developing text for the Analysis slides. When the next version is ready for review, Tammy will notify the committee and ask for all to give it another look and offer final suggestions and comments.

B2 – Finalizing detail to implement online forum on analysis/data issues and applications. Tammy noted that this continuing charge is intended to create an online forum and engage persons beyond ERAC who have an interest in some of the same issues. After her introductory remarks, she turned the floor over to charge leader Kris Wahlers to brief the committee. Kris said a tremendous amount of work had already been accomplished in prior charge years, especially regarding exploration of the preferred platform for the forum. He suggested that the NASBLA "Connect" community might be a good

environment for it, and described his use of the community for some of the Education Committee work and BEAP discussions. One problem with Connect, however, is that it is hard to find in an internet search. He said that to get around that problem, the content on Connect would be an offshoot of an easier-to-find landing page on the main NASBLA website. Kris said that although there are plans by NASBLA management to transition to a new platform for the main website, any work put up using the current i4a software should translate seamlessly to the new product. Another issue identified as part of forum development and the use of Connect is that it is username and password protected; however, he said that some things could be made public while others are put behind the wall.

As next steps in the project, Kris cited the need to create a group (an "eGroup") within Connect and especially to investigate some of the Connect Library issues and formalities (e.g., copyright and public domain issues). Both he and Tammy noted the importance of developing protocols for the forum, including a manual or set of rules for the committee volunteer(s) who will serve as moderator each year. Kris said he would be meeting with the rest of the charge team, but would also welcome more input from the committee on the things ERAC members would like to see addressed in the forum. Some members mentioned that this forum would be a good investment of time, noting especially the value of sharing resources and information, as well as experiences on things like running reports and creating charts and graphs from BARD queries. One member suggested creating a FAQ section or allowance for the forum to be searched to help cut down on repeats of the same questions and answers over time. Members were asked to think about other areas of interest and share them with Kris.

B3 — Developing state-level statistical report/fact sheet templates. Tammy introduced this charge by noting that it originated from a suggestion Rachel Zechenelly made at last year's NASBLA Leadership Academy. Rachel had speculated that a number of states probably would like to create such a report but might not have the resources, time, or expertise to build it from BARD. The hope is that the team can create a template—a sort of "plug and play" format—that would help those states that have an interest. Rachel went on to describe the charge work to date, including compilation of questions to help the team better define the scope of the template, and posting (to Basecamp) of some states' reports for the team to begin reviewing for common features. Rachel said that at the BLA Workshop the day before, she had a chance to pose some of the questions to the BLAs to find out whether the template is a product that other states would want (generally, "yes"; less than half in the room indicated having such reports).

Among the relevant questions for the team and full committee to consider were: what will the charge work entail? (e.g., development of a formula that can be used to plug in numbers? a spreadsheet to generate the data for a "pre-made" report? or specialized query training?); what are the goals? and who are the audiences for the template?

Regarding the first question, members talked in a preliminary way with Susan about the current search data tool (for querying at the national level) that is on the Coast Guard's Boating Safety Division website (https://bard.cns-inc.com/Screens/PublicInterface/Report1.aspx)). If the time and resources are available to make modifications under the BARD contract, Susan said it might be possible to create a version that would allow for state-specific queries [this was considered again during a breakout

discussion; see below]. With regard to goals, Rachel said there might be multiple goals to consider. For example, beyond a template for reports that would run on the order of 10-20 pages, a side suggestion had been made to consider the utility of being able to generate a one-page product on a state for use in reauthorization discussions with legislators. With regard to audiences for the state reports, the group considered that it is not just the public and legislators who would have an interest in the information presented, but also researchers and law enforcement (e.g., to see where they might need to spend more hours patrolling).

Ultimately, after continuing discussion about what information should be included in a standard report/template (accident statistics? boating education statistics? fiscal? other performance information? etc.), there was general agreement that the team should start building the report template with a focus on accident statistics. This is not only because of ERAC's primary interests, but also because the accident statistics component is likely the hardest for a state to assemble on its own. Rachel asked members to take a look at the state documents that have already been posted to Basecamp (at https://nasbla.basecamphq.com/projects/11689091/files), post others that are available, and generally help the charge team in its continuing discussions on what the most critical data would be.

> **Additional report-out from the breakout session on this charge—next steps in the work:**
> - On building queries: In the breakout, team members had continued to discuss their individual experiences in building queries; as an outcome, they said that they definitely would seek Susan's help in seeing if something similar to the current search data tool could be constructed. Based on what Susan had described in the earlier discussion on the charge, it sounded as though it could be possible if time and resources are available under the BARD contract. However, if it's NOT possible to modify or build off of what's already available or if there would be significant cost in doing so, the team also discussed the possibility of building its own queries as part of this template project and having them available to put on everyone's pages to do themselves.
> - Selecting the data sets: Members agreed that they would follow-up from the day's discussion by taking on the task of narrowing the possible data sets for the template to about 10 areas. The team said it wants to keep the template simple.

C1 – Continuing assessment of National Recreational Boating Survey data/findings. In follow-up to Vann Burgess's remarks on the survey, Tammy restarted the charge discussion to take up some of the preliminary questions that she and other team members had identified in their review-to-date of the 2012 methodology reports. Before doing that, Tammy recapped the team's 2013 activities, including its submission of comments on the survey methodology and other matters to the Coast Guard (Jeff Hoedt and Don Kerlin) via memos in March and July.

[Note: For full discussion of the events and information that lead to the decision to route comments via memoranda in lieu of submitting comments to the original 60-day Information Collection Notice that had been issued by the Coast Guard (deadline Feb. 15 2013), see pp. 10-12 of "ERAC Meeting March 1 2013_Summary.pdf" at https://nasbla.basecamphq.com/projects/5486330/files. For a copy of the 2013 C1 charge report with the March and July memos, see "ERAC C1 2013_NRBS_initial report.pdf" at https://nasbla.basecamphq.com/projects/10558435/files]

Tammy also informed the committee that in preparing for this meeting, she and Deb learned that the original, 60-day Notice had proceeded and a formal 30-day follow-up Notice had been issued May 30, 2013, on regulations.gov—meaning the group missed an opportunity to submit its work via the formal channel. She said that was somewhat perplexing given the ongoing communications with Coast Guard staff during that time, but added that the events would not change what the team does, that the NASBLA board was told about the missed formal opportunity as an FYI, and that the team would be moving ahead with digging into the 2012 survey data.

The discussion continued with several questions identified from the NRBS trip and participant survey methodology reports; they were briefly discussed when Philippe Gwet, U.S. Coast Guard, signed on to the teleconference and was able to respond to some of them [note: all of the questions would be taken up again in the course of charge team teleconferences subsequent to this meeting]. Among the items that were broached: the small number of persons used in the cognitive testing of the survey instruments [reason: more than nine interviewees would have required OMB clearance]; the spike in trip reports for the months of August and September when the vendor recognized that they weren't getting enough responses to fill the 2012 quota *and* whether that change in methodology would have skewed the results; the similarity in sample sizes across the states [reason: that is favorable for producing reliable state-level data, though less favorable for generating national-level statistics]; and the higher number of cell phone, than landline, completions.

During the review of some of the methodology questions, member Dan Maxim told the group that if the committee has these sorts of questions, it would be useful to get them to him. He recounted that the Coast Guard plans to do subsequent surveys and they are in the process of writing questions to prospective respondents (i.e., those who responded to the grant opportunity for the 2015 survey). Dan told the group that he will be on committee reviewing the bids and will have some input to the contractor selection. If there are methodology concerns, he said that the committee could have influence on the future surveys by getting those concerns to him. After raising and then having dispelled the possible conflict of interest posed by Dan's participation in the ERAC discussions, Tammy said it would still be good to also relay those concerns directly to the powers that be at the Coast Guard.

Telephone issues prevented Philippe from staying on the line for a longer segment of the agenda, but before he dropped off the call, he was able to clarify or confirm some of the NRBS matters that Vann was unable to fully answer in the BLA Workshop or earlier in the ERAC meeting. Those items included Philippe's confirmation that the 2012 survey will produce the state-level exposure hour data for all but apparently one state (New Mexico, where there was a problem with the number of respondents); speculation that the 2012 report would be out within the next couple of weeks, perhaps by mid-March; and confirmation that the official report would have a table with the state-level exposure hour data in it.

C2 – Continuing human factors work—gathering detail for HFACS-lite analyses. Tammy asked Dan Maxim, one of the co-leaders on this charge, to present the overview. (See "ERAC C2_human factors_022114 presentation.pptx" at https://nasbla.basecamphq.com/projects/6173198/files) Speaking to the importance of doing this work in the realm of recreational boating, Dan said that studies

on accidents in other sectors generally indicate that human factors are a primary cause for most of accidents. He said that in the past a voluntary effort had been initiated to collect such information within BARD; however, just over 30 states participate. With this charge, the group hopes to make the effort a bit more rigorous and ultimately used by more states. Dan said that very often at the local law enforcement level the focus is on "who" questions, and while that is important, in order to change things, we need to use "what," "how" and "why" questions.

Dan gave some background on the Human Factors Analysis & Classification System (HFACS) that had been developed for the FAA, is in use by DOD, and has four levels. For recreational boating and purposes of this charge, however, only the first two levels—unsafe acts (violations and errors) and preconditions for unsafe acts—are the focus and make up what is being termed as HFACS-lite. He said that last year the team looked at a sample of accident cases provided by Susan (from BARD) and Larry Bowling (from NTSB) as well as Glenn Moates (from TN) and determined that HFACS-lite could be applied as an analysis tool for recreational boating accidents. [In adding to Dan's mention of ERAC's "A1" work from the last few years and applicability to this charge, Tammy explained that the reference is primarily to the distraction codes that the A1 team developed for the factor "Improper Lookout/Inattention" to get at "what" boaters were doing instead of paying attention. Gary Haupt added that the codes were developed using information from NHTSA and modified to fit the marine environment.] Now, Dan said, comes the "hard part"—bringing HFACS-lite to practice and, especially, determining which of the preconditions for unsafe acts (the factors that affect the likelihood of unsafe acts) are practical to include and what data to capture in accident investigations. In saying this, Dan stressed that some of the "human factors" related information collected in the investigation will still be used the way it's always been used; but some will be collected so that others can analyze it and figure out what's important. The analysts' interest won't be in the results of an individual accident, but rather in looking at the statistical properties of a group of accidents.

Dan described that the remaining tasks for the team include: defining the relevant data elements to be gathered in investigations (as a start, Larry had provided a set of NTSB questions for team consideration and comment); developing guidance for the analysts who will use the human factors data; developing instructional materials that will be easy to understand; and finding some states willing to pilot the use of HFACS-lite for a sample of accidents.

Glenn Moates, co-leader on the charge, continued the presentation, describing two items that were circulated to the committee and that would be up for discussion and comment—one, the initial draft of the document with guidance and questions that states could use to incorporate into their boat accident investigations (based on the NTSB human performance investigation questions); and the other, the list of distraction codes because they had been incorporated into the draft. See "Human performance investigation template ERAC draft 02182014.docx" and "See p 2 distraction codes_Contributing FactorsCauses_Sept 11 2012.docx" at https://nasbla.basecamphq.com/projects/6173198/files.

In setting the stage for continuing discussion, Glenn described the two-pronged approach to the investigation of accidents at the state level: one is the criminal investigation, especially in the case of a fatality or injury where somebody likely broke a state law or rule and the focus is to find out who did it

and make sure justice is served; the other is purely data collection, where you want to collect as much information as you can to analyze it. He suggested that one of the hurdles to overcome is how you reconcile those two paths at the state level—that is, the challenge of how you gather human factors data without compromising a criminal investigation and the due process and protocols that must be followed. He welcomed members' thoughts on those issues and on the feasibility of capturing information from the proposed questions in the draft document. Tammy suggested and Glenn concurred that it might also be helpful to know which states already gather some of the information or already ask similar questions.

Before the breakout session, members offered some thoughts as to how the draft questions might be modified to gather/extract the intended information—for example, make some of them more open ended to allow the parties to just talk about the accident—and as to whether it might be possible to get the desired data and information without even having to ask those questions.

> **Additional report-out from the breakout session on this charge—next steps in the work:**
> * Continue to refine the draft questions by looking at them again in terms of the answers (information) they want to get at—that is, the team will identify the desired information <u>first</u> and then figure out the ways to get at it (perhaps even through means other than direct questions);
> * Rank the importance of the information categories in the draft checklist (based, for example, on what you would seek out on minor accidents versus what you would want to delve into for more detail on other events);
> * Review more cases to see what other information is already out there and how it is being collected (for example, what is written into BARD is what's required and the narratives could be abbreviated; there would be more information to review in the investigator's case report/accident files);
> * Reach out to NHTSA to find out more about what that agency is doing regarding human factors in car crashes; and
> * Reach out to local highway patrols to find out how they're gathering such human factors related information on the highways; have they developed some techniques that might be transferable?

C3 – Continuing assessment of Vessel Safety Check data from USBI project. Tammy introduced Bill Griswold, co-leader for this charge, to deliver the presentation. (See "VSC DATA COLLECTION Feb 14.pptx" at https://nasbla.basecamphq.com/projects/6173165/files.) Bill described that the National RBS Strategic Plan calls for increased operator compliance with USCG safety equipment requirements. That objective has served as the basis for this USBI Coast Guard-funded grant project. The purpose is to make better use of the data that comes from the Vessel Safety Check (VSC) process—especially to figure out why vessels fail VSCs (not just that they passed or failed) and try to compare the results with accident data to see if there are any correlations.

As part of the project, a page was created on the USBI website (http://www.usbi.org/vsc.php) to allow Coast Guard Auxiliary (CGAux) examiners to input information on the vessels that failed the VSC and use the posted list of 15 items to check off the reasons why the vessel failed. The United States Power

Squadrons (USPS) examiners, on the other hand, complete their VSCs with the additional data requested, and send them to the Squadron VSC chairs for entry on a new USPS input page. The data is then passed along to USBI to merge with the CGAux data in the base.

USBI wanted to learn whether the program was capturing significant data on the failed exams, so a comparison was made between the Coast Guard Auxiliary data and what was being input to this project. During the data collection period of July 2012 through December 2013, a little over 159,000 vessel exams were conducted by the Coast Guard Auxiliary, with about a quarter of the vessels recorded as failing. However, only about 3.8 percent of all of the failed exams were reported to the USBI webpage, a figure that Bill said was significantly lower than he had hoped they would achieve. Some of that could have been attributed to the setback in 2012 when Hurricane Sandy flooded the host equipment, effectively shutting down the website for about two months. That event affected the CGAux input of data, but did not affect the USPS; as a result, of the just over 9,000 failed VSC exams recorded during the collection period, about 83 percent came from the USPS.

Looking at the data that was collected, and focusing mainly on five of the reasons for vessel exam failure that could potentially cause an accident, Bill presented results that showed 14 percent of the recorded failures were related to navigation lights; 13 percent to visual distress signals; 11 percent to fire extinguishers; 5 percent to life jackets; and 4 percent to sound devices. In response to members' questions, Bill clarified that a vessel could have failed the VSC for more than one of these five reasons (or also could have failed for any of the other 10 reasons collected for the project); and he also clarified that there was no distinguishing between wearable and throwable life jackets. In reviewing the data on the top 10 states reporting VSC failures to the project, Florida (13 percent), Ohio (10 percent), and Michigan (9.6 percent) came in as the top three.

Bill also noted that there were some discrepancies between the Auxiliary and USPS in their capture of failures, with the Auxiliary capturing a larger percentage of VDS and navigation light failures than the USPS and the USPS capturing a larger percentage of fire extinguisher failures. Among the possible reasons for these differences, he said, were the lack of consistency in the criteria used by each examining organization and their reporting to the USBI, and differences in the boat populations and locations being examined by the two groups.

However, one red flag for the organizations was in their reporting of VDS failures attributed to vessels on inland waters where they aren't required. Of the Auxiliary's reported VDS failures, 26 percent were on inland waters while 51 percent of the USPS-reported VDS failures were on inland waters. He said this result points to an examiner training program issue. Other observations from the data collected to date can be found on slides 23 through 26 of "VSC DATA COLLECTION Feb 14.pptx."

Bill remarked that this project is fulfilling a long time wish of people who have been dealing with the VSC program and who have wanted to collect the information on why boats fail the exams, where they are, and what they don't have on board. He said that unlike other databases, perhaps this method can be used to help direct educational efforts and public awareness. In concluding his remarks, Bill said that VSCs reach less than 1 percent of the total number of registered boats and that many of the failures

recorded (discrepancies with overall condition, display of numbers, registration, and pollution placards) aren't associated with accident causes. But, he asked, is there a correlation between any of these findings (about VSC failures) and accident statistics?

Tammy described that for the ERAC charge this year, the scope was broadened to begin taking a look at that question. Member Seth Wagner was asked to serve as co-leader on the charge and examine Florida's numbers. In describing his preliminary work, Seth said that this was an eye opener for him to try to take the VSC data and apply it to their accidents. First, he had to break out those accidents that would have involved not having that safety equipment (i.e., reviewing accidents involving fire/explosions (fire extinguishers) or lack of proper lights (navigation lights)). However, because of the amount of registered boats, the percentages are relatively small, so he said that it is taking some work to try to make sense of it.

Among the items for follow-up, Bill noted that he would be working with Susan to get the national accident numbers for possible correlation with this VSC data; Tammy asked that Seth stay in the loop with that effort as he continues to work on the state-level data; Fred Messmann asked that the project information be provided to Terry West, who is now serving as the National RBS Strategic Plan Objective 8 leader; and Tammy asked Bill to share feedback that he receives from IBWSS attendees when he presents this information at the upcoming Summit, and also to close out the USBI portion of the charge with a final presentation to the committee at the end of the 2014 cycle.

D1 – Developing method to identify/triage emerging issues and topics. Tammy described how each year, midway into the committee cycle, unexpected things come up for ERAC's consideration, and because of other commitments the committee can't effectively address them. She said she proposed this charge to create a process that would set aside some resources to deal with such unexpected issues and topics in an organized fashion. Her initial thinking was that this charge group would serve on "standby" to screen those issues and help determine how the issue or idea should be handled.

Tammy presented her initial thinking in a document (see "D-1 Initial Thoughts.docx" at https://nasbla.basecamphq.com/projects/6173157/files) that showed three possible paths toward which an issue could be directed: in the first, the group determines that it's not a "ERAC issue"; in the second, the group determines it is an ERAC issue and it needs to be dealt with "now" (that might involve researching the topic and deciding what to do to move it along); and in the third, the group determines that it's an ERAC issue, but it doesn't need to be dealt with immediately.

Tammy asked committee members to think about screening questions that could be used to help determine which path the issue takes and to email those questions to her with a copy to co-charge leader Mark Richerson. She also asked members to think about how those ideas might come to the committee in the first place, and where the committee should "keep" the issues that don't need to be dealt with immediately (so they're not lost between cycles).

D2 – Serving advisory role for Advanced Spatial Analysis Project. Before turning the floor over to Ernie Marshburn, who was participating in his segment of the meeting via teleconference, Tammy reminded that several members had likely attended his session at NASBLA's (2013) conference in Boise. She also noted that she and Richard Moore (BLA, FL) are currently working with Ernie to get a little more feedback from officers on the unit and technology that was used in the data collection.

In his update on project activities since summer 2013, Ernie reported that all of the data associated with the project has been collected. With regard to the satellite imagery, he said most of the summer was spent trying to digitize that imagery and place the physical points on the locations of the boats. He described five sections to the final report that is in process—an introductory section (discussing how the various factors come together to impact accidents); a review of the marine transportation and recreational boating literature; a methodology section to describe the research questions, the research data and fusion process (i.e., how all of the data are being fused into a common system), the units of analysis, and analytical techniques; an analytical modeling (data analysis) section in which he will be taking the separate databases and coupling them; and a results and discussion section.

Regarding the analysis section, Ernie said that he would be comparing data pulled from NOAA buoys in the area with the BARD and on-water survey data, and that he would also be identifying "navigation complexity issues" (vessels near a channel, a bridge, an intersection, or a narrowing of the waterway, as opposed to being in open water). The challenge with comparing these different databases, he said, is that they have different variables with different names, but similar purposes. Before he can merge them into a common database, he has to ensure that the names are identical. In the merger itself, he will start with an Excel spreadsheet before moving into a modeling process and extracting indicators that might suggest when an accident is more probable than not. Ernie hopes the process will finish up in the May timeframe.

In closing out his remarks, Ernie said he already is beginning to think about the results in terms of officers' collection of the information and the collection unit itself (with possible future incorporation of an iPad), and about a potential second round for the project. Of particular interest and possible utility for a second round would be a new twin satellite system. To illustrate the advances, he said that the imagery he had used in the current project was at .8 meter resolution; the new satellite imagery is under .5 meter resolution. If any states—including and beyond Ohio and Florida, the original study participants—are interested in getting involved in a second round, he would like to know that. Ernie added that he would also be willing to look at additional variables if any states express such interest.

What other groups and organizations are doing--monitoring reports and updates

ABYC update: Brian Goodwin reported on several standards development and related activities including: steering load research and testing on triple and quadruple outboards; seat structures testing; new battery technologies; revision of standard H-41 (Reboarding Means, Ladders, Handholds, Rails, and Lifelines) to lengthen the reboarding ladder to 22 inches below the water surface (for mitigation of propeller strikes in accord with the findings of an ABYC/USCG study); a USCG grant to create uniform

labels and warnings (consolidating some labels and making them more relevant to accidents occurring today; intention is to revise standards in accord); the ABYC app, Boat Essentials; and boating checks. Brian also reported that the propeller guard testing protocol has been released and is available at the USCG website (http://www.uscgboating.org/safety/default.aspx).

NBSAC, NSBC, IBWSS updates: Fred Messmann reported that three NBSAC subcommittee calls have been scheduled and their agendas should be posted shortly. They are the Boats & Associated Equipment Subcommittee, March 13; the Strategic Planning Subcommittee, March 27; and Prevention Through People, April 2. All are scheduled to convene at 1:00p ET and are expected last about two hours. He also reminded members about: the upcoming IBWSS in Nashville (ibwss.org) and noted that they've moved toward incorporating more certification and training type programs; the NSBC's Wear It! campaign; and the upcoming National Safe Boating Week (May 17-23).

Boating Professional Certification Commission: Tammy briefly described the new commission, which had its origins in an Education Committee initiative but was expanded into this effort to develop a professional certification program around all of the various aspects and skill sets associated with the RBS program (i.e., education, law enforcement, training, numbering and titling, accident reporting, etc.). She asked the two ERAC members who have been appointed to the commission —Rachel Zechenelly and Eric Lundin—to update the committee on their activities to date. They noted that the commission, which is staffed by John Malatak and chaired by Virgil Chambers, has 13 members ranging from BLAs to industry representatives; and, similar to the Education Standards Panel, commission members' terms are staggered and the group is structured to operate more independently than a committee. The commission is only in its earliest stages of activity, but Rachel and Eric described that members will be looking into certification program development, seeking job descriptions for the various areas covered in the RBS program, and developing testing and training tools, among other tasks.

ESP (esp.nasbla.org): Tammy said that the Education Standards Panel is continuing its work, and added that she reminded Jeff Johnson, the ESP Chair, to let ERAC know if there's anything that the committee can do for the panel, especially as it moves beyond the current revisions and into the risk based analysis of the standards. ERAC members Joe McCullough and Bob Sweet (also a member of the ESP) will continue to serve as the committee's links to the panel.

UL Standards Technical Panel 1123 – Deb gave some background on ERAC's (and predecessor committees') past interest and involvement in monitoring the UL consensus-based standards development work as it applied to PDFs. There had been a lull in coverage, but Richard Moore has since been appointed to participate on STP 1123, and he will relay updates on the work to NASBLA and ERAC as warranted. For this meeting, he provided a synopsis of discussion and activity from a recent set of task group sessions. The item is a chart of STP task group activities and standards under development. See "UL STP 1123 PFD TG (2-10-14).docx" at https://nasbla.basecamphq.com/projects/5486330/files.

Putting a wrap on the day

Before recapping the major outcomes of the charge discussions and calling for any other business, Tammy encouraged the charge teams to give some thought to developing annual conference presentations as they go about their work and consider potential products in this cycle. She reminded that this year NASBLA is formally asking for session proposals and topic submissions (March 31 deadline).

In response to the call for other business, Joe asked what ERAC would be doing in the way of potential updates to NASBLA's existing PFD model act—this, in light of the BLA Workshop session on the changes in PFD labeling. Tammy said that Jeff Johnson had suggested ERAC involvement, and that the item would be on ERAC's radar. [The committee does address BAE, having absorbed that committee and related topics when ERAC was created.] However, Tammy added that she doesn't yet have a clear idea of what that's going to involve.

As a final meeting activity, Tammy asked members around the table and still on the phone to evaluate the day by answering the questions of "what did we do right?" and "what could we do better?" Overall, members thought the day was productive (with a lot accomplished in the breakouts) and that it was "one of the better" meetings, some suggesting that it might have been because there was more discussion throughout. Members on the phone commented that they still experienced a share of sound/volume issues, but overall it was an improvement over previous years.

With no other business on the agenda, the meeting was adjourned.

NASBLA ENGINEERING, REPORTING AND ANALYSIS COMMITTEE (ERAC) MEETING
FRIDAY, FEBRUARY 21, 2014
PRELIMINARY AGENDA

Meeting Site: NASBLA Headquarters Training Room
1648 McGrathiana Parkway, Suite 360, Lexington, KY 40511 (859.225.9487)

Long distance participants: [information on dial in and GoToMeeting to come separately]
Times shown are EST and subject to adjustment
You will receive updated information via email regarding progress of agenda

Meal/beverage information: Breakfast on your own. Coffee/other beverages available onsite. Lunch provided.
Breaks: Two 15-20 minute breaks

8:00 a.m. EST **Call to order / member and guest introductions / opening remarks / agenda review**
Welcome from NASBLA and ERAC leadership; review of committee and meeting goals; review of committee processes, product timelines, and measures of uniformity/effectiveness; housekeeping items

What it's all about—ERAC's roles in NASBLA, National RBS Strategic Planning, regulatory and policy guidance, and service to the States

Including:
- Recap of any ERAC-related issues and topics emerging from presentations and discussions at the BLA Workshop (Feb. 19-20), as warranted.
- Review and discussion of ERAC's continuing roles in and relationships to NASBLA's strategic plan work; National RBS Strategic Plan implementation; U.S. Coast Guard rule-making and policy guidance on accident reporting and other ERAC-related fields; and the states' collection, understanding, and use of accident reporting and other critical boating data.

8:30 a.m. EST **Where we're at and where we're going—the 2014 Charges—status updates, presentations, full committee and breakout discussions**

Charge A-1: *Continuing rollout of accident report terms and definitions*
Charge A-2: *Input to Coast Guard policy- and rule-making proposals* (approx. 8:50 a.m. EST)
Charge C-1: *Continuing assessment of National Recreational Boating Survey data/findings* (approx. 9:15 a.m. EST)

Break—15 minutes

Charge B-2: *Finalizing detail to implement online forum on analysis/data issues and applications* (approx. 10:15 a.m. EST)
Charge B-1: *Completing stable version of accident report terms and definitions resource modules* (approx. 10:45 a.m. EST)
Charge B-3: *Developing state-level statistical report/fact sheet templates* (approx. 11:00 a.m. EST)
Charge C-2: *Continuing human factors work—gathering detail for HFACS-lite analyses* (approx. 11:30 a.m. EST)

ERAC PRELIMINARY AGENDA (continued)

Noon EST **WORKING LUNCH**

12:30 p.m. EST Breakout discussions around charges B-2, B-3, C-2 (gather with your team or circulate). Reconvene to recap for full committee (approx. 1:30 p.m. EST)

2:00 p.m. EST **Where we're at and where we're going—the 2014 Charges (continued)**

Charge D-1: *Developing method to identify/triage emerging issues and topics*
Charge A-3: *Examining electrical shock issues—developing information and guidance for states* (approx. 2:30 p.m. EST)

Break—15 minutes

Charge C-3: *Continuing assessment of Vessel Safety Check data from USBI project* (approx. 3:15 p.m. EST)
Charge D-2: *Serving advisory role for Advanced Spatial Analysis Project* (approx. 3:40 p.m. EST)

4:00 p.m. EST **What other groups and partnering organizations are doing—monitoring reports and updates** (American Boat and Yacht Council, National Boating Safety Advisory Council, Boating Professional Certification Commission, National Education Standards Panel, Underwriters Laboratories STP 1123)

4:30 p.m. EST **Putting a wrap on the day**—recapping next steps and setting timelines for post-meeting decision-making on charge work and product delivery to NASBLA Executive Board and NASBLA membership

4:45 p.m. EST **Other business**

5:00 p.m. **Adjourn**