



January 14, 2014

Department of Homeland Security
Commandant (CG-BSX-24)
U. S. Coast Guard
2703 Martin Luther King Jr. Ave
Washington, DC 20593-7501
Attention: Wayne Stacey

Re: Development and Design of a National Course Template for On-Water Instruction for Recreational Boat Operations – HUMAN (formerly PADDLE) – Agreement No. 1202.33

Dear Mr. Stacey:

US SAILING is pleased to submit this final report describing the On-Water Standards Team activities and progress associated with the **2012-2013 Development and Design of a National Course Template for On-Water Instruction for Recreational Boat Operations – HUMAN (formerly PADDLE) grant**. This grant was approved in August 2012 with a period of performance through September 2013 and extended to November 15, 2013. This is the final report on HUMAN standards development for this grant cycle.

As per the grant requirements, attached are the following documents:

- Executive Summary
- Abstract
- Final Financial Report (*Form S 425 filed separately*)

US Sailing continues to be committed to producing a quality outcome for the USCG and believes this work will result in a permanent safety benefit to our nation's power boaters. We are proud to be a part of this important project and appreciate the USCG's support of US Sailing.

Please do not hesitate to contact me, the SME Team Facilitator K. Brian Dorval or Joanne M. Dorval of the Grant Management Team should you have any questions or require clarification.

Sincerely,

A handwritten signature in black ink that reads "Joy McGirl Hadley Ed.D.". The signature is written in a cursive style with a large, looping initial "J".

Joy McGirl Hadley, Ed.D.
Training Director

Enclosures



FINAL Report #4: Fast Track Grant HUMAN

National System of Standards for Recreational Boat Operation

USCG Grant

Date: January 14, 2014

2012-2013 Development and Design of a National Course Template for On-Water Instruction for Recreational Boat Operations - HUMAN Fast Track Grant

Executive Summary

The purpose of this Fast Track grant project was to continue development of entry-level performance standards for recreational boaters in the HUMAN propelled domain which was initiated in 2011 as part of the USCG's vision of a National System of Standards for Recreational Boat Operation. The Grant Oversight Committee is pleased to report that the On-Water Standards Subject Matter Expert (SME) Team has successfully fulfilled the goal of this grant and has come to agreement on Version 2 of 4 (V2 of 4) of a consensus-based set of entry level, skill-based HUMAN Standards.

During the final period of this grant, the Oversight Committee empaneled a *Special Advisor* to the HUMAN propulsion domain with rowing endorsement expertise to assist with the foundational development of HUMAN standards work. The HUMAN Team Leaders along with this *Special Advisor* then conducted a review of HUMAN Standards V1a and made recommendations to ensure that the standards were also applicable to rowing. Those recommendations were confirmed by the Oversight Committee resulting in HUMAN Standards V1b.

As part of the 4-Version Standards development process, the Grant Management Team analyzed a National Content Validation of HUMAN Standards V1b. Following SME Team discussion and consideration, a formal vote was held and the SME Team unanimously agreed to entry-level, skill-based HUMAN Standards V2. The Grant Oversight Committee then confirmed acceptance of HUMAN Standards V2.

This final grant report outlines all of the outcomes for this grant. Additionally, all work products associated with the On-Water HUMAN Standards development under this grant are attached.

Finally, the SME Grant Management Team is now, as part of a follow up grant, developing the Rubrics to assess the performance of these consensus-built, paper validated, HUMAN Standards.

Objectives

To accomplish the goal of coming to consensus on Versions 1 & 2 of HUMAN Standards, the Grant Management Team employed the following methodology:



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- Held a Summit with the full On-Water SME Team (18 SMEs) where the Team vetted the draft list of HUMAN Standards already developed in Summit II, March 2011 and came to agreement on them (Version 1 – V1);
- Conducted a content validation of Version 1a of the HUMAN Standards using the previously designed process used in the development of the POWER Standards. During validation, the list of On-Water HUMAN Standards was shared with a larger audience of SMEs to elicit their input and feedback through the use of an online survey tool called Survey Monkey. This feedback was consolidated and analyzed resulting in Version 2 (V2) of the HUMAN Standards; and
- Developed and submitted a final report to the USCG.

Methodology also included but was not limited to the following:

- Partnering with the SAIL and POWER SMEs to hold a joint Summit to vet draft standards of SAIL and HUMAN domains; and
- Maintaining the level of participation as a partner in the 2012-2016 Strategic Plan of the National Recreational Boating Safety Program.

Abstract and Progress Report

The On-Water Subject Matter Expert (SME) Standards Team continues to advance development of consensus built Standards and Rubrics as part of the USCG's vision of a National System of Standards for Recreational Boat Operation. Professional Facilitator, K. Brian Dorval, is spearheading consensus building through a guided approach of parallel work across all three domains: SAIL, POWER and HUMAN. The following provides a progress report on the key activities and accomplishments in the On-Water Standards Project for the HUMAN propelled domain of recreational boating for this grant.

- **Confirmed On-Water entry-level skill-based standards for HUMAN (formerly PADDLE) recreational boat operators (Version 1).** Summit III was hosted on November 28-30, 2012 to vet and come to consensus on the HUMAN Standards. The Summit resulted in the consensus-based approval of twenty-nine (29) entry-level On-Water skill-based standards for the HUMAN recreational boat domain. The final votes of SMEs were captured and are reflected with their individual signatures confirming their vote on each of the seven operations within the set of HUMAN Standards. Version I of the HUMAN On-Water standards will now be vetted nationally through a National Content Validation project. (See attachments #1, #2)



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- **Identified the impact of decisions made during Summit III on the POWER Standards and Rubrics.** A number of decisions were made during Summit III that impacted current work being done to develop POWER domain Standards and Rubrics. A summary of those implications were identified and confirmed and shared with the POWER Rubrics Specialists. (See attachment #3)
- **Updated the list of On-Water entry-level skill-based standards in common across recreational boat domains for SAIL, POWER and HUMAN.** The secondary goal of the Fast Track On-Water HUMAN Grant was to update the list of entry-level skills in recreational boating that are in common across the domains of SAIL, POWER and HUMAN. Prior to Summit III, the original list of common standards was comprised of twenty-seven (27). As a result of Summit III, some standards changed based on modifications that were made to the SAIL and HUMAN Standards resulting in an updated list of twenty-six (26) Common standards across the SAIL, POWER and HUMAN domains. (See attachment #4)
- **Formatted a Distribution Copy of HUMAN Standards Version 1.** To continue interest in and commitment to advancing HUMAN Standards development, a Distribution Copy of the HUMAN Standards Version 1 was generated and distributed to the SME Team. This formatting reinforced the draft nature of the standards, confirming that the set of standards will go through four versions before submission to the USCG as a consensus-built set of validated Standards for the HUMAN propelled domain of recreational boating. (See attachment #5)
- **Expanded the size and scope of the SME Specialists Team.** The Oversight Committee expanded the size and scope of the Specialists Team to go beyond a focus on POWER to include an additional SME Team member with HUMAN industry expertise. (See attachment #6)
- **Implemented new approaches for SME Team participation in the On-Water Standards work.** The grant management team introduced three new approaches to help enable SME Team members to volunteer their time to on-going work to develop a National System of Standards for On-Water Recreational Boat Operation. The approaches include: *Cycles of Service*, *Alternates* and *“Stander” long-term affiliation*. These approaches are designed to help SMEs be more flexible in their capacity to participate on the SME Team and to help communicate the scope of investment and responsibility to new members of the SME Team. (See attachment #7)



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- **Successfully tested application of process used to develop and reach consensus on standards that was originally designed for POWER Standards.** One of the opportunities of this Fast Track Grant was to capitalize on work previously conducted on the POWER Standards to help develop HUMAN Standards (saving time, money and resources). The standards framework and language structure, along with the process for voting and reaching consensus that were developed for the POWER domain were successfully applied to the HUMAN domain. This demonstrated that this approach for developing standards can be transferred from one domain to the next. (See attachment #8)
- **Changed the domain name PADDLE to HUMAN to reflect a consistent level of abstraction with the SAIL and POWER domains.** Following SUMMIT III, the Oversight Committee, after extensive discussions and collaboration with the USCG and HUMAN (formerly PADDLE) SMEs, agreed that the three recreational boating domains should be broad, inclusive and at a similar level of abstraction, with each domain augmented by specialty endorsements. As a result, based on extensive research on vocabulary options, the Oversight Committee unanimously voted to rename the PADDLE domain of recreational boating to the HUMAN domain.
- **Confirmed the definition of the three recreational boating domains as follows:**
 - **POWER domain.** The source of energy that propels the boat is a motor. The motor causes movement of a propulsion unit subsequently causing the boat to move (mechanically propelled). Motors on the boat can come in varying sizes, shapes or numbers.
 - **SAIL domain.** The source of energy that propels the boat is the wind. The wind is captured via a sail causing the boat to move (wind propelled). Sails on the boat can come in varying sizes, shapes or numbers.
 - **HUMAN domain.** The source of energy that propels the boat is a person/people. The individual(s) use(s) human energy to manually move a propulsion unit (e.g. oar, paddle, pole) and/or a part of the body (e.g., hand, foot) to propel the boat (manually propelled). The person or propulsion unit on the boat can come in varying sizes, shapes or numbers.
- **Expanded the SME Team Structure to include a domain specific Special Advisor.** After extensive discussions and collaboration with the USCG, the Oversight Committee agreed to create a *Special Advisor* role for an SME to work with a specific domain sub-group to advise on matters associated with ensuring domain-specific Standards and Rubrics are inclusive of boating activities across the full domain, with special considerations germane to the *Special*



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Advisor's expertise. This *Special Advisor* would also promote the On-Water Standards project to the *Special Advisor's* constituent group(s). (See Attachment #9)

- **Agreed to empanel a Special Advisor to the HUMAN domain.** The Oversight Committee agreed to empanel and individual to serve as *Special Advisor* to the HUMAN propulsion domain with rowing endorsement expertise. This individual would participate on a **HUMAN Standards Workgroup** empaneled to review (electronically) HUMAN Standards Version 1 to identify and report to the Oversight Committee any potential changes to the list of standards that would be needed to ensure the list is inclusive of skills associated with recreational rowing at an entry level.
- **Empanelled Willie Black (USRowing Coaching Education Manager) to be the Specialty Advisor to the HUMAN Domain (July, 2013).** Oversight Committee confirmed his role as Specialty advisor and the results were communicated to the SMEs. (See attachment #10)
- **Updated HUMAN Standards to be more inclusive of rowing specialty (July, 2013).** Involved the newly appointed *Specialty Advisor* (Willie Black) to the HUMAN domain SME Team who reviewed the HUMAN Standards and developed a recommendation for how to ensure standards were inclusive of rowing. The recommendation was confirmed by the HUMAN Team leaders and the Oversight Committee. (See attachments #11, #12)
- **Conducted a National Content Validation project on HUMAN Standards Version 1b (September, 2013).** The focus was to check the work done on the HUMAN Standards with a larger group of SMEs from around the country. Recommendations for how to respond to the over 1,360 participants in the survey were developed and shared with the SME Team. (See attachment #13)
- **Confirmed On-Water entry-level skill-based standards for HUMAN recreational boat operators (Version 2).** Conducted SME Team formal vote for how to respond to recommendation developed as a result of a HUMAN Standards National Content Validation project (October, 2013). The result of the vote was the unanimous decision to accept the recommendation, resulting in the approval of HUMAN Standards Version 2. This version is currently being used to develop HUMAN Rubrics. With additional grant funding the Standards and Rubrics will undergo National On-Water (in-the-field) Validation to ultimately produce HUMAN Standards & Rubrics Version 4 of 4. (See attachments #14, #15)



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Current Status: On-Water Standards Project

Work to advance development of the three domains of recreational boating (SAIL, POWER and HUMAN) through a rigorous 4-version process continues. The On-Water Standards Oversight Committee is very pleased with the progress being made to generate a comprehensive national set of the highest quality skill-based standards in a concentrated period. The SME Team continues to convey to the boating public that these consensus-built standards and rubrics will be made freely available for voluntary incorporation by boating education curriculum designers nationwide. (See attachment #16)

Outcomes thus far. To date, the On-Water Standards Project has produced the following:

- Complete
V4 of 4

 - **POWER Standards Version 4 (FINAL)** (a set of **38** entry-level, skill-based standards)
 - **POWER Rubrics Version 4 (FINAL)** (a 3-level description to assess performance of each of the 38 standards)
 - **POWER Rubrics CHECKLIST (FINAL)** (a tool validated to sort safe from un-safe powerboat operators)

- Working
Rubrics V2

 - **SAIL Standard Version 2 of 4** (a set of **54** agreed-upon standards ready for rubrics development)

- Working
Rubrics V2

 - **HUMAN Standards Version 2 of 4** (a set of **29** standards ready for National Content Validation)

Plans going forward. The graphic below identifies what has been accomplished since 2011 and plans underway to continue development of the US Coast Guard's *National System of Standards*.



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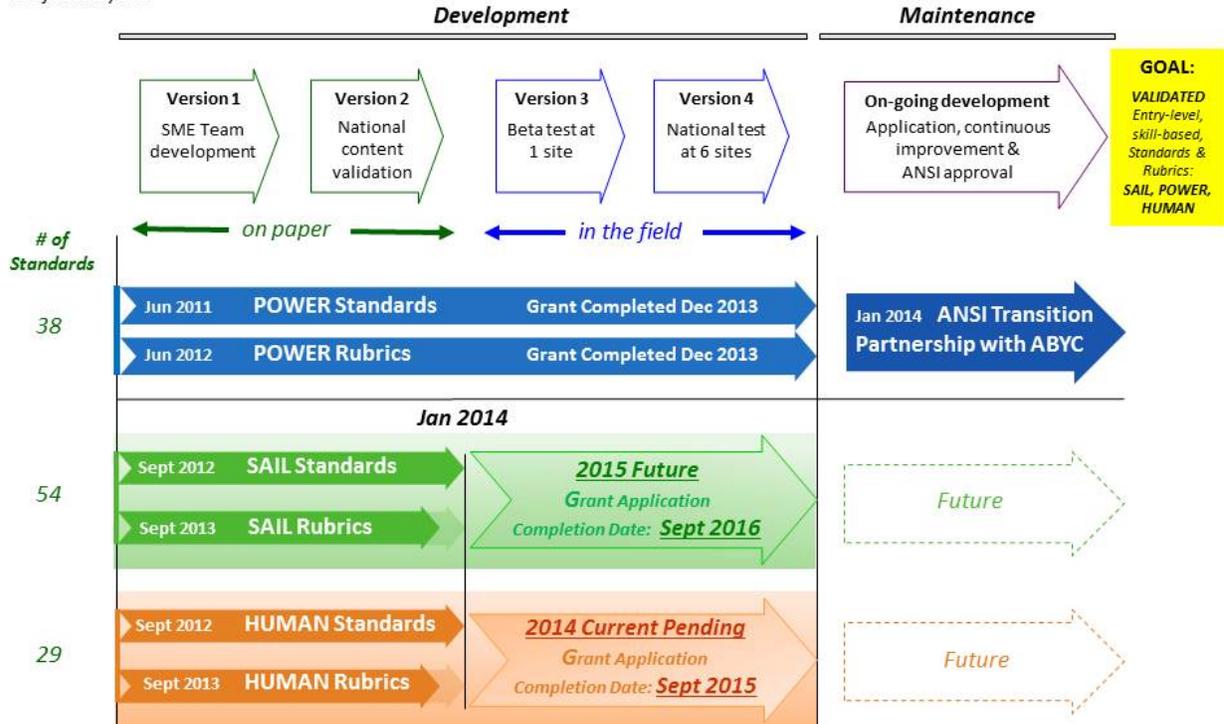
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National System of Standards for Recreational Boat Operation - USCG On-Water Standards Development Process / Project Status

As of January 2014



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Summary

US Sailing is grateful for the opportunity to continue to facilitate development of a consensus-based National System of Standards for Recreational Boat Operation. The Grant Oversight Committee is pleased to report progress in developing On-Water, entry-level, skill-based HUMAN Standards. Parallel advancement of the SAIL, POWER and HUMAN domain Standards and Rubrics development is highlighting the similarities among the domains, fostering collaboration and building friendships within the recreational boating community. These partnerships will only help facilitate greater success in implementing the USCG's Strategic plan aimed at increasing safety and saving lives.

