### DEPARTMENT OF THE ARMY ER 385-1-91

CECW-CO CESO Corps of Engineers 441 G Street, NW Washington, DC 20314-1000

Engineer Regulation No. 385-1-91

1 September 2019

# Safety TRAINING, TESTING, AND LICENSING FOR OPERATORS OF CLASS A AND CLASS I MOTORBOATS

- 1. <u>Purpose</u>. This regulation establishes policy and procedures for the training, testing, and licensing of operators of U.S. Army Corps of Engineers (USACE) boats less than 26 feet in length.
- 2. <u>Applicability</u>. This regulation is applicable to all Headquarters U.S. Army Corps of Engineers (HQUSACE) elements, major subordinate commands (MSCs), districts, laboratories, and field operating activities performing small boat operations.
- 3. <u>Distribution Statement</u>. Approved for public release; distribution is unlimited.
- 4. References.
- a. Code of Federal Regulations Title 29, Part 1960, Occupational Safety and Health Act. https://www.osha.gov/dep/ffshc/standards.html.
- b. Engineer Regulation 1130-2-500, Project Operations, Partners and Support (Work Management Policies). <a href="https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER\_1130-2-500.pdf">https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER\_1130-2-500.pdf</a>.
- c. Engineer Pamphlet 1130-2-500, Appendix M, Project Operations, Partners and Support (Work Management Guidance and Procedures). <a href="https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP\_1130-2-500.pdf?ver=2013-08-22-104517-637">https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP\_1130-2-500.pdf?ver=2013-08-22-104517-637</a>.
- d. Engineer Manual 385-1-1, Safety and Health Requirements Manual.

  <a href="https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM\_385-1-1\_2008\_Consolidated.pdf?ver=2013-09-04-161030-210">https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM\_385-1-1\_2008\_Consolidated.pdf?ver=2013-09-04-161030-210</a>.
- e. Memorandum, Director of Civil Works, 1 March 2018, Revised Policy: U.S. Army Corps of Engineers (USACE) Small Boat Operator Training Program. https://pubs.usace.army.mil/SitePages/HQ.aspx.

<sup>\*</sup>This regulation supersedes ER 385-1-91 dated 30 September 1994

- 5. Records Management (Record Keeping) Requirements. Records management requirements for all record numbers, associated forms and reports required by this regulation are included in the Army's Records Retention Schedule Army (RRS-A). Detailed information for all record numbers, forms, and reports associated with this regulation are located in the RRS-A at https://www.arims.army.mil.
- 6. <u>Policy</u>. All employees who operate USACE boats less than 26 feet in length (Class A and Class I motorboats) will be trained, tested, and licensed under this and other applicable regulations. Employees who operate USACE boats/vessels will do so in a safe and prudent manner according to recognized Federal, state, and local laws and standards.

#### Responsibilities.

- a. The HQUSACE Civil Works Directorate and the Safety and Occupational Health Office will jointly maintain, and offer to employees, a 40-hour Proponent-Sponsored Engineer Corps Training (PROSPECT) Course designated for instructors that will enable licensed motorboat operators to become boat license examiners to teach, qualify, and license operators of Class A and Class I motorboats. HQUSACE and MSC offices may provide peer reviews of licensing programs to ensure compliance with this regulation.
- b. MSC Commanders will appoint in writing, a Regional Motorboat Coordinator (RMC) to organize, integrate, and monitor the regional small boat training and licensing program ensuring that operators of USACE small boats are adequately trained, properly tested, and licensed prior to the official operation of any USACE boat/vessel through review and management of the Internal Controls Program. The RMC will ensure that all revised training requirements as stipulated in Reference 4e are implemented, including the new on-water hazard avoidance maneuvers.
- c. District Commanders will appoint in writing, a District Motorboat Coordinator (DMC) to organize, integrate, and monitor the district's small boat training and licensing program. The DMC is responsible for the following actions.
- (1) Appointing a Lead License Examiner (LLE) for each course who will identify additional instructors, training location, students, schedule, training materials, and course curriculum. License examiners are responsible for submitting the operator's U.S. Coast Guard (USCG) or National Association of State Boating Law Administrators (NASBLA) approved boating safety course certificate and district course certificates to the DMC.
- (2) Issuance and signature of the U.S. Government Operator's Identification Card, OF-346, (Appendix A) to personnel who meet licensing requirements. District Commanders may delegate signature of OF-346 from the DMC to the LLE; however, the LLE is responsible for providing all documentation of training records to the DMC for recordkeeping purposes.
- (3) Maintaining current training records, materials, and schedules for all individuals in the training program and updating all district policies and procedures with current MSC and/or safety regulations.

(4) Conducting an annual review of the district motorboat program to be included in the management of Internal Controls Program.

#### 8. Motorboat Training Course Requirements.

- a. All motorboat operator training will be conducted through three regulated certification programs: the 40-hour USACE-approved Boat License Examiner Course (Appendix B), the 24-hour USACE-approved Motorboat Operator Course (Appendix C), and the 8-hour Motorboat Operator Refresher Course (Appendix D). Training requirements are specified in the referenced appendices and in the standardized training manuals.
- b. All training courses will have a minimum of two license examiners present and the student to examiner ratio will not exceed 4:1. Instructors will use the standardized Corps training manuals may incorporate additional site-specific training materials into the training program. To maintain certification as a motorboat examiner, USACE employees must participate as an instructor in at least one 24-hour motorboat training course or one 8-hour refresher course every three years.

#### 9. Licensing Requirements.

- a. Regional Motorboat Coordinator. It is recommended, but not required, that the RMC receive USACE certification in the 40-hour Boat Operator License Examiner Course, maintain current certification as an examiner, and have a current motorboat operator's license.
- b. DMC, Instructors, and Examiners. All instructors, examiners, and the DMC will have USACE certification in the 40-hour Boat Operator License Examiner Course, maintain current certification as an examiner, and have a current motorboat operator's license.
- c. USACE Motorboat Operators. USACE small boat operators must receive USACE certification in the 24-hour Motorboat Operator Training Course. The 24-hour training/testing requirement is located in Appendix C. Additionally, all motorboat operators must attend an 8-hour refresher course as outlined in Appendix D every five years to maintain their license.
- d. USACE employees who are licensed by the USCG and are operating boats subject to USCG restrictions will still be required to receive USACE certification in the 24-hour Motorboat Operator Course to receive the USACE boat operator license for vessels less than 26 feet in length. USACE boats/vessels subject to USCG restrictions must meet USCG inspection and certification requirements and USACE regulations.

#### 10. Motorboat Operator Requirements. All motorboat operators will:

- a. Complete and submit the Motorboat Operator Training Nomination Form (Appendix E) to ensure minimum requirements are being met;
- b. Be trained and certified to be fully knowledgeable of prescribed safety procedures, including the use of all equipment and tools necessary to safely perform assigned tasks;

- c. Complete a USCG or NASBLA approved boating safety course applicable to the employee's state of employment;
- d. Perform all inspections (Appendix F) and follow all approved practices while operating a vessel in the performance of duties;
- e. Inspect and use the vessel engine cutoff device (kill switch) and safety lanyard, and attach the safety lanyard to their person (exclusive use of wireless kill-switch devices are not authorized);
- f. Ensure a safe operating speed, and ensure all passengers on the vessels follow all safety practices and wear appropriate personal protection equipment;
- g. Demonstrate ability to swim 100 yards with a personal flotation device (PFD) and self-rescue into the boat from the water (applicable to both the 24-hour and 8-hour training courses);
- h. Demonstrate ability to perform boat-based emergency procedures including proper recovery of person overboard or incapacitated victim recovery (applicable to both the 24-hour and 8-hour training courses).
- 11. <u>Equipment Inspection</u>. USACE motorboats and auxiliary equipment will be inspected annually and immediately prior to their use in any training course using the checklist in Appendix F. Inspection results will be maintained at the project and be made available upon request during a program audit.
- 12. Activity Hazard Analysis (AHA) with Risk Assessment Code (RAC). An AHA with RAC will be prepared and documented for all small boat operation training. AHAs are considered to be living documents that are intended to be updated as needed. The AHA will be part of the training course curriculum and reviewed with students as part of the safety briefing. A sample AHA with RAC is included in Appendix G. Each district will be expected to add any site-specific hazards and the AHA should be reviewed daily during training to accommodate changing conditions or activities.

#### 13. Authority to Train Outside Entities.

- a. USACE may authorize employees of a United States (Federal) government agency (per 5 United States Code [U.S.C.] Chapter 41) or of state and local governments (per 42 U.S.C. Section 4742), to participate in the 24-hour Motorboat Operator Training Course.
- b. Training to non-USACE personnel will be provided on a space-available basis only. USACE activities will neither increase the size of a scheduled training course to provide training to non-USACE personnel, nor will a USACE activity hold a training course solely to train non-USACE personnel.
- c. USACE will not accept reimbursement for the training of non-USACE personnel (i.e., USACE will waive any costs of providing the training).

- d. Before admitting state or local government personnel to USACE training, USACE will establish an agreement with the state or local government entity to receive the training. This agreement will contain the substantive provisions of Appendix H and will be coordinated with the local USACE Office of Counsel for concurrence and signed by the District Commander.
- e. Such an agreement is not required to admit non-USACE Federal agency personnel to training; however, non-USACE Federal agency personnel will only be admitted to training on an individual case-by-case basis. USACE will not provide certification or licensing to an outside entity nor train personnel to satisfy the training requirements of another entity.
- f. Before participating in training, all non-USACE trainees must sign an individual Acknowledgement of Risk agreement provided in Appendix I. Signed hard-copy agreements will be retained in the files of the USACE project providing the training.
- 14. Delegation and Revocation. The District Commander may suspend or permanently revoke a license for any reckless, negligent, or careless operation that would endanger life or property, or any other violation of this policy that would warrant suspension of a license. The District Commander may delegate this authority to the appropriate Division Chief over motorboat operations. Further delegation is prohibited.

FOR THE COMMANDER:

9 Appendices

A - U.S. Government Operator's Identification Card, OF-346

B - Boat License Examiner Course

C - Motorboat Operator Minimum Training

Course Requirements (24 Hour Initial Course)

D - Motorboat Operator Minimum Training E

- Motorboat Operator Training Nomination Form

F - U.S. Army Corps of Engineers Small Boat (Less Than 26 Feet) and Equipment Checklist

G - Activity Hazard Analysis

H - Memorandum of Understanding Between the Department of the Army, U.S. Army Corps of Engineers, [USACE District or Activity and [Full Name of Non-Federal ENTITY] for Small Boat Operations Training I – Acknowledgement of Risk U.S. Army Corps of Engineers Small Boat Operations Training

COL, EN

Chief of Staff

#### Appendix A U.S. Government Operator's Identification Card, OF-346

OF 346 11/85 US FPM Cha				nt Motor Vehicle Card No. httfication Card	Restrictions		
Name of	Operator	(Not Transfe	rable) Sax	Signature of Operator (Not valid until	QUALIFIE	D TO OPERATE	
			34,	signed)	Type Vehicle and/or Equipment	Capacity	Qualifying Official
Date of E	3irth	Social Secu	ırity No.	Name and Location of Issuing Unit			
Height	Weight	Hair Color	Eye Color				
	1			Signature and Title of Issuing Official	OTHER RE	CORDS (Optional)	
Date Issued Date Expires		olres					
The ho	lder of th	uls card is q	ualified to	operate U.S. Government vehicles and/or tions set forth on the other half of this card, wating Government vehicles.			
Bra mus	it de carri	eo at all lime	s when ope	arating Government vehicles.	NSN 7540-00-634-3999		50346-1

- A.1. <u>Card Number</u>: Local inventory numbered consecutively by the DMC.
- A.2. Social Security Number: Leave blank or use only the last 4 digits.
- A.3. Signature and Title of Issuing Official: DMC unless delegated in writing.
- A.4. Restrictions: List any restrictions imposed on the license.
- A.5. Type Vehicle and/or Equipment: "Class A, I Motorboats."
- A.6. <u>Capacity</u>: Use if horsepower limitations are imposed.
- A.7. Qualifying Official: Lead License Examiner of the training course.

### Appendix B Boat License Examiner Course

- B.1. <u>Headquarters</u>. U.S. Army Corps of Engineers (HQUSACE) Safety and Occupational Health Office serves as the proponent for the 40-hour Boat License Examiner PROSPECT Course No. 172, responsible for course curriculum and the training of qualified USACE employees to teach the 24-hour and 8-hour Motorboat Operator Courses within respective MSCs. The following is the course description as advertised in the Huntsville Learning Center Purple Book.
- B.2. <u>Purpose</u>. This course trains, tests, and licenses individuals as motorboat license examiners for USACE. Lectures, demonstrations, group assignments, and practical exercises cover the areas listed below and enable students to perform duties as outlined in Engineer Regulation 385-1-91 and be in compliance with Engineer Manual 385-1-1, Safety and Health Requirements Manual. Specific areas to be covered include:
  - a. USACE Boat Licensing Policy.
  - b. Equipment requirements and equipment maintenance.
  - c. Boat orientation and boat maintenance.
  - (1) Getting underway.
  - (2) Checking equipment.
  - (3) Starting procedures.
  - (4) Refueling procedures.
  - d. Trailers and trailer maintenance.
  - e. Marlinspike seamanship.
  - f. Aids to navigation.
  - g. Rules of the road.
  - h. Fire suppression.
  - i. Course familiarization.
  - j. Emergency procedures.
  - (1) Rescue sequence.
  - (2) Self-rescue techniques.

- (3) Person overboard rescues.
- k. Boat operation.
- 1. Practical course maneuvering exercises.
- (1) Serpentine course.
- (2) Transition serpentine.
- (3) Avoidance course.
- (4) Docking.
- (5) Trailering.
- (6) Launching and retrieving.
- (7) Alongside maneuvering.
- (8) Towing.
- (9) Anchoring.
- B.3. <u>Prerequisites</u>. Individuals attending this course must show proof of completion of a U.S. Coast Guard or NASBLA training course for the state in which they are operating and be:
  - a. Currently licensed as a USACE Class A and Class I boat operator,
  - b. Able to swim in a PFD for 100 yards,
  - c. Able to self-rescue themselves back into the boat,
  - d. An experienced motor boat operator, and
  - e. Designated to train local motor boat operators in boating skill.

#### Appendix C

#### Motorboat Operator Minimum Training Course Requirements (24-Hour Initial Course)

C.1. The following outline will be the minimum curriculum used by local organizations for initial training of employee operators of boats/vessels less than 26 feet in length. It is not necessary that course days run consecutively. The course schedule can be altered to meet local requirements as long as the subjects listed below are included in the total curriculum.

#### a. Day 1 (8 hours).

- (1) Welcome and purpose of course.
- (2) Written boating knowledge pre-test.
- (3) Safety briefing and complete review of AHA.
- (4) Required boating safety equipment.
- (5) Boats/trailers orientation and maintenance.
- (6) Marlinspike.
- (7) Rules of the road/aids to navigation.
- (8) 100-yard PFD swim and land-based emergency procedures, rescue sequence.
- (9) Demonstration of emergency procedures (man overboard drills).

#### b. Day 2 (8 hours).

- (1) Review of AHA.
- (2) Fire suppression.
- (3) Boat orientation.
- (a) Equipment check.
- (b) Starting procedures.
- (c) Lanyard/kill switch or wireless kill switch operation.
- (d) Getting underway.
- (4) Practical boating skills.
- (a) Refueling procedures.

- (b) Equipment maintenance.
- (c) Marlinspike seamanship.
- (d) Mooring and tying off.
- (5) Trailering, backing, launching, and retrieving.
- (6) Maneuvering courses.
- (a) Boat handling familiarization.
- (b) Docking.
- (c) Serpentine.
- (d) Transition slalom.
- (e) Emergency stop course.
- (f) Star.
- c. Day 3 (8 hours).
- (1) Review of AHA.
- (2) Boat exercises.
- (a) Docking and alongside maneuvering.
- (b) Towing/anchoring of vessels.
- (c) Emergency procedures (boat-based self-rescue and person overboard drill).
- (3) Boating course maneuvering recap with instructor (same as above).
- (4) Written post-test.
- (5) Review/critique/course evaluation.

#### Appendix D

## Motorboat Operator Minimum Training Refresher Course Requirement's (8-Hour Refresher Course)

D.2. The following refresher training outline will be the minimum curriculum used by local organizations to train employee operators of boats/vessels less than 26 feet in length. The course schedule can be altered to meet local requirements as long as the subjects listed below are included in the total curriculum. Course can be expanded beyond 8 hours to account for all training requirements including the swimming and self-rescue tests.

#### a. CLASSROOM.

- (1) USACE boating policy.
- (2) Safety briefing/AHA review.
- (3) Required equipment and equipment inspection.
- (4) Boat and trailer maintenance.
- (5) Fire suppression.
- (6) Rules of the road and aids to navigation.
- (7) Written test.

#### b. PRACTICAL.

- (1) Swim test and boat-based emergency procedures/self-rescue/onboarding incapacitated persons.
- (2) Trailering, launching, retrieving, and docking.
- (3) Equipment check.
- (4) Lanyard/kill switch or wireless kill switch operation.
- (5) Towing.
- (6) Maneuvering courses.
- (a) Boat handling familiarization.
- (b) Docking.
- (c) Serpentine.

- (d) Transition slalom.
- (e) Emergency stop course.
- (f) Star.

U.S. Army Corps of Engineers (USACE)  MOTORBOAT OPERATOR TRAINING NOMINATION  The proponent agency is CECW-CO.						
The prop	onent agend	cy is CE	CW-CO.			
Name	P	Phone				
Duty Station	Р	Position T	Title			
Number of hours of USACE boat operation in past five years:						
(Note: Students in 24-hour initial training need a minimum of 5 horefresher training are required to have operated a USACE boat for						
Student is capable of swimming 100 yards while wearing a PFD:						
Student is physically able to re-enter a boat from the water withou	t assistance:	:				
Student holds a valid NASBLA approved state boat operator's per	mit or certific	cate:				
Which state:						
What type of vessel(s) will you be operating?						
	it the above	informati				
Student's Name	Date		Student's Signature			
Supervisor's Name	Date		Supervisor's Signature			
*This form must be completed and returned to instructor prior to a	ttending clas	ss.				
**Information on this form will be used to identify qualifications for Training Team to process the nomination.	the course.	It will or	nly be shared with the Supervisor and the Motorboat Operator			

### U.S. Army Corps of Engineers (USACE) SMALL BOAT (LESS THAN 26 FEET) AND EQUIPMENT CHECKLIST The proponent agency is CECW-CO. Project Date Type and Length of Boat Type and Horsepower of Motor Inspected By **Motorboat Inspection Criteria** Yes No N/A Comments 1. Are pre-training and annual inspections and tests of all marine plant and equipment made to ensure safe operating conditions? (19.A.01) 2. Was all marine plants and equipment put into use on the job, inspected, tested, and found to be in safe operating condition before initial use? (19.A.01) 3. Are marine plants and/or equipment found to be unsafe, taken out of service, and its use prohibited until unsafe conditions are corrected? (19.A.01)4. Do inspection records maintained at the site become part of the official project file and made available to designated authorities? (19.A.01) 5. Are signal devices (navigation lights, sound devices, visual distress signals) working properly on the vessel to give signals required by the applicable navigation rules? (19.A.05) 6. Is the motorboat equipped with fenders to prevent damage and sparking and to provide safe areas for workers exposed to pinching situations? (19.A.05)7. Are all carburetors on gasoline engines equipped with a backfire trap or flame arrestor? (19.A.06) 8. Are provisions made for preventing accumulation of fuel/oils on floors, decks, and in bilges? (19.A.07) 9. Is the motorboat equipped with one portable or permanent ladder to allow self-rescue? (19.B.04) 10. Is the motorboat equipped with other methods or means to assist in the rescue of an incapacitated person? (19.B.04)

Motorboat Inspection Criteria	Yes	No	N/A	Comments
11. Is the motorboat equipped to provide continuous perimeter protection around the vessel? (19.D.07)				
12. Is the maximum number of personnel and weight that can be safely transported posted on all launches, motorboats, and skiffs? (19,F.02)				
13. Is the motorboat equipped with an operable kill switch, and was it tested prior to getting underway? (19.F.02)		Г		
14. Is the motorboat equipped with at least one 1-A:10- BC fire extinguisher? (19.F.03)				
15. Is the motorboat equipped with a built-in automatic CO <sub>2</sub> fire extinguisher system meeting the requirements of 46 CFR 25.30-15? (19.F.03)	Г			
16. Is a Type III, 16 Unit First Aid Kit on board? (03.B.01)				
17. Are Type III, Type V work vests, or better USCG personal flotation devices (PFDs) provided for all boat passengers? (05.J.01)				
18. Are PFDs inspected for defects that would alter their strength and buoyancy before and after each use? (05.J.05)				
19. Are all PFDs international orange or American National Standards Institute (ANSI) 107 yellow-green color and have at least 31 sq. in. of retroreflective material on the front and back of the PFD? (05.J.03)				
20. Is each boat/skiff equipped with at least one USCG-approved life ring (minimum 20" diameter) with at least 90 feet of 3/8-inch solid braid polypropylene line or equal attached? (05.J.06) (05.K.04)				
21. If skiffs are used, does the skiff have four oars (two if the skiff is motor powered)? (05.K.04)				
22. On the skiff, are oarlocks attached to gunwhales or oars? (05.K.04)				

Motorboat Inspection Criteria	Yes	No	N/A	Comments
23. Does the skiff have one ball-pointed hook? (05.K.04)				
24. Is type and size of anchor and attached line suitable for the size of the vessel?				
25. Is bilge pump and discharge in proper working condition?				
Trailer Inspection Criteria	Yes	No	N/A	Comments
26. Is the hitch secured to the tongue-locking mechanism sound and non-binding?				
27. Are safety chains and hooks adequate for the size of the load?				
28. Are trailer safety chains of a sufficient length to properly cradle the trailer tongue?				
29. Is the trailer tongue weight proper for the boat carried?				
30. Are all lights operating properly?				
31. Are tires in good condition: adequate tread, free of dry rot, and properly inflated?				
32. Are wheel bearings properly lubricated, and is the proper torque on the wheel nut?				
33. Are caps and/or buddy bearings installed properly and functional?				

Trailer Inspection Criteria	Yes	No	N/A	Comments
34. Are trailer wheel bearing seals marine grade, and do they seal properly to prevent seepage of water into bearings and races?		Г		
35. Has the trailer's wheel cylinders been inspected for signs of brake fluid leakage, under dry conditions?				
36. Are brakes (if equipped), working properly?		Г		
37. Has the trailer's master cylinder been checked for proper level of fluid, and are there any signs of brake fluid leakage?				
38. Are rollers and/or bunks properly aligned and in good condition?	į.			
39. Is the trailer suspension system adequate and capable of supporting the boat and other equipment loadings?				
40. Is the boat secured at bow and stern when trailered?		Ī	Г	
41. Has a transom saver been installed for support of outboard motor skeg (foot)?			Г	
Vehicle Inspection Criteria	Yes	No	N/A	Comments
42. Is the vehicle of adequate weight and power to safely tow the loaded boat and trailer?				
43. Is the hitch properly rated for the weight of the boat and trailer to be towed?				
44. Is the hitch secured to the frame of the vehicle?	П			

Vehicle Inspection Criteria	Yes	No	N/A	Comments
45. Is the ball on the hitch the proper size for the trailer to be towed?				
6. Is the ball securely attached to the tow bar?				
7. Is the remote braking mechanism operating properly?				
8. Does the towing vehicle have adequately sized rear-view mirrors on both ides?				
9. Is rear suspension of towing vehicle sufficient and in condition to accept railer tongue weight?				
additional Findings				

Appendix G Activity Hazard Analysis (AHA)

							L
Activity/Work Task: Boat Operators License Training Course			Overall Risk Assessment Code (RAC): (of the highest hazard):	sk Asses (of l	ssessment Code (RAC) (of the highest hazard):	ode (RAC st hazard)	) :
Project Location:			RA	RAC Matrix	×		
Contract Number:				ď	<b>Probability</b>		
Date Prepared:			Frequent	Likely	Occasion	Seldo	Unlikely
Prepared by (Name/Title):	L	Catastrophic	ш	ш	I	I	Σ
	rity	Critical	ш	I	I	Σ	
Reviewed by (Name/Title):	) 9/	Marginal	Τ	Z	N	1	-
	/aS	Negligible	۶		4	4	, L
Notes: (Field Notes, Review Comments, etc.)	Step 1: D or L)	Step 1: Determine and enter RAC codes for each "Hazard" with safety "Controls" (E, H, M, or L)	er RAC codes fo	or <u>each</u> "Haz	ard" <u>with</u> safe	ly "Controls"	(E, H, M,
	"Probabi accident a Unlikely.	"Probability" is the likelihood to cause an incident, near-miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.	od to cause an Frequent, Likely	incident, nea /, Occasional	r-miss, or , Seldom or	RAC Chart	hart
	"Severity accident o	"Severity" is the outcome/degree if an incident, near-miss, or accident did occur and identified as: Catastrophic, Critical, Marcinal, or Neoligible	degree if an inc ntified as: Catas	ident, near-rr trophic, Critic		E Extremely High Risk H = High Risk	y High
	Ston 2	no the highest in	الاتارات الاتارات	the Hazarde		M = Moderate Diek	Diek
	below as the or the AHA sheet.	Step <u>2</u> : Use the highest individual RAC of the hazards + Controls below as the overall RAC for the Activity, and enter at the top of the AHA sheet.	or the Activity, a	ine nazarus ind enter at th	0.00	II = Low Risk	NISA NISA
					<b>.</b> .		

ER 385-1-91 • 1 September 2019

Job Steps	Hazards	Controls	RAC
1. Boat Operations	1. Personnel	The emergency stop maneuvering course will be conducted with one instructor and one student on each	_
A) Maneuvering Courses	2. Drowning	vessel.  2. Wear Personal Flotation Device (PFD). Know location	Σ
(serpentine, slalom, emergency stop, star)		and proper use of lifesaving devices (throw ring, throw bac reach poles, ladder, and cardo net).	_
	3. Engine Cut-off Device (Kill Switch)	3. Prior to launching boats off trailers or leaving the berth, the kill switch lanyard must be pulled to verify the engine	_
		cut-off device is operational. Re-attach lanyard to both kill switch and operator	J
	4. Collisions	4. Follow and obey boating rules/laws, recognize aids to	-
	5. Falls Overboard	navigation, maintain sate speeds, keep proper lookout. 5. Wear PFD, know proper rescue procedures and wear	J
		proper footwear to maintain balance and footing. Make	Σ
		operator. Pay close attention to all other boats operating	
	!	on maneuvering courses.	
	6. Fires/Explosions	<ul> <li>bollow proper venting and starting procedures. Know location of fire extinguisher and proper suppression</li> </ul>	_
		techniques.	
	7. Sun/Heat	7. Wear proper clothing/hat to limit sun exposure. Use	
		sunscreen and drink plenty of water.	_
	o. Denyaration 9 Eve Fatigue	o. reilydiaie with water/Catchauc. 9. Wear proper evewear/sundlasses.	_
	10. Dust/Debris/Material in Eye	10. Wear proper eye protection.	_
	11. Damaged/Sinking Vessel	11. Obey navigation rules and heed weather warnings.	_
		det to sale nation as soon as possible. Stay with vessel until rescue. Wear PFD.	
	12. Entanglement in Lines	12. Keep vessel deck clear and properly coil or stow dock	•
		lines. Avoid pinch points and stay clear of lines under strain	ر
	13. Lacerations, Cuts, Punctures,	13. Inspect deck area and equipment for hazardous	۷
	and Abrasions	conditions and correct before operating. Wear proper	
		readily accessible and know proper first aid treatment.	

ER 385-1-91 • 1 September 2019

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	14. Bruises and Broken Bones	14. Keep steering wheel, throttle control and vessel interior as dry as possible. Maintain three-point body contact with	_
	15. Falls Inboard (rough waters, current, waves, under water obstruction or objects)	vessel. 15. Standing Position: Maintain firm standing position with feet separated at least two times your foot length, with knees slightly bend. Sitting Position: stay seated while operating the vessel. Always keep three points contact with the boat and controls.	_
B) Docking/Alongside Maneuvering	1. Entanglement in Lines	Keep vessel deck clear and properly coil or stow dock lines. Avoid pinch points and stay clear of lines under	_
	2. Pinch Points 3. Falls	Strain.  2. Deploy boat fenders. Keep all body parts inside vessel.  3. Remain seated or in a stationary position until vessel is stopped. Maintain three points body contact with vessel.	
2. Trailering/Launching Boats	1. Accidents while Trailering	1. a. Utilize a properly sized tow vehicle and trailer for the load. Drive defensively. Obey traffic laws. Perform walk around of vehicle prior to driving and make sure all lights	_
		are operational.  b. Check fluid levels, condition of tires and perform preventive maintenance as needed. Verify trailer is properly connected to tow vehicle and trailer lights are	_
	2. Accidents while Launching and Retrieving Vessels	operatorial. Do not eat, unifit, smore, use ceri priorie, or perform other tasks that interfere with attention to driving.  2. Prepare the vessel in staging area. Make sure boat ramp is clear of obstructions and make note of ramp conditions (wet, algae, etc.). Remove PFD before entering tow vehicle, encade 4wheel drive if necessary. Lower the	_
		driver's side window, remove seat belt and turn off radio. Use a spotter when available to back down ramp. Set parking brake when trailer is lowered to proper launch depth. Start vessel engine before disconnecting winch strap. Maintain communication with vehicle operator as	
	3. Pinches and Lacerations	well as boat operator understanding signals given.  3. Be aware of strap tension, pinch points and winch handle tension while releasing winch lock. Keep face and hands away from winch handle.	_

	4. Vehicle Enters the Water	4. Stay calm, unfasten seat belt and lower window(s) to equalize pressure and offer an escape route. Use automatic center punch to break window if necessary.	_
3. Refueling Boats	1. Fires and Explosions	Before fueling: close all compartments, hatches.  Turn off electrical system and extinguish any open flames.  No smoking.  Remove nortable fuel tanks from boat.	
		b. During fueling: maintain a ground between the fuel nozzle and the gas tank. Fill slowly to avoid spillage. Do not fill tank to brim. Leave room for fuel to expand.	_
		<ul> <li>c. After fueling: Replace fuel cap tightly, open all compartments, hatches. If equipped, run blower motor for four minutes to vent bilge before starting.</li> </ul>	_
4. Using Auto Inflatable PFDs	1. General Use	<ol> <li>Prior to use of an auto inflatable PFD, employees will complete in-water testing and be trained in the use, maintenance, restrictions, care, storage inspection and post deployment procedures as per manufacturer's</li> </ol>	_
	2. Failure of PFD/Improper Use/Assembly	instructions.  2. Employees must follow manufacturer's instructions for wearing and properly installing re-charge kit. Verify indicator gauge reads "green."	
	3. PFD damaged from storage	3. PFD must be thoroughly inspected by disassembling PFD and manually inflating bladder to check its integrity. Inspect arming mechanism for damage. Any deficiencies must be corrected before the PFD can be put back in	_
	4. Drowning	service.  4. Employees wearing this PFD must have basic ability to tread water and be physically able to swim. Employee must be trained in the manual operation of this PFD should automatic inflation fail.	Σ
5. Using PFDs	1. General	<ol> <li>Before use make sure PFD is in serviceable condition and is not ripped or torn and all buckles, zippers or other fasteners are working properly. Make sure PFD is the right size and type for the task at hand and fits snugly.</li> </ol>	_

ER 385-1-91 • 1 September 2019

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Employees must demonstrate ability to self-rescue themselves back into the vessel by one of four methods:     a. Cavitation Plate on vessel engine     b. Chin bounce     c. Stirrup     d. Ladder	Employees must demonstrate ability to rescue a conscious and unconscious victim back to the vessel:     a. Conscious Victim: Use rescue procedure of Talk-Reach-Throw-Go and elevate procedure to the proper step depending on circumstances.     b. Unconscious Victim: Use any means (throw ring, cargo net, dock lines, reach pole, etc.) to get victim astride of the boat. If possible retrieve victim back into boat. If not possible secure victim astride years!	Stand with back to wind and point away from face and body when igniting and while signal is burning.     Point away from face and do not look directly at flame while signal is burning.	
1. General	1. Muscle Strain	1. Severe Burns 2. Eye Damage	
6. Self-Rescue	7. Victim Rescue	8. Signal Flare Use	9. Reserved

Eduipment to be Used	Inspection Requirements	Training Requirements & Competent or
		Qualified Personnel Name(s)
1. Motorboats less than 26' in length	Small Boat and Equipment Checklist	1. Employees participating in this training must:
with outboard engines.	from ER 385-1-91.	<ul> <li>a. Have completed a NASBLA or equivalent</li> </ul>
2. Corresponding trailer matched to the	2. Small Boat and Equipment Checklist	boaters safety education course.
motorboat.	from ER 385-1-91.	<ul> <li>b. Be able to swim 100 yards with a PFD.</li> </ul>
3. Properly Equipped Tow Vehicle.	3. Small Boat and Equipment Checklist	<ul> <li>c. Be able to self-rescue themselves back into the</li> </ul>
4. Safety rescue devices such as throw	from ER 385-1-91.	vessel.
rings, throw bags, reach poles, ladders,	4 & 5. Requirements vary to each	<ul> <li>d. Pass the written exam with a minimum score of</li> </ul>
cargo net and lines, first aid kit.	particular piece of equipment as outlined in	80%.
5. Classroom equipment to include:	USACE Safety Manual EM 385-1-1 or as	e. Be tethered to the kill switch via a lanyard when
computers, projector, and copy	per manufacturer's instructions.	operating the vessel.
machine.		<ol> <li>Wear a Type III or better inherently buoyant PFD</li> </ol>
		unless qualified to wear auto-inflatable.
		<li>g. Demonstrate the ability to handle the boat and</li>
		operate correctly through the maneuvering courses.
		h. Be able to trailer, launch and retrieve the boat.
		<ol> <li>Demonstrate the ability to correctly dock the</li> </ol>
		boat.
		<ol> <li>Closed-toed and closed-heeled shoes will be</li> </ol>
		worn during entire training including all water
		exercises.
		2. Boat License Examiners:
		<ul> <li>a. A minimum of two examiners are required to</li> </ul>
		perform the 24-hour motorboat training course.
		<ul> <li>b. Must be trained and certified in CPR/First</li> </ul>
		Aid/AED.
		<ul> <li>c. Option to use a second lanyard attached to the</li> </ul>
		students kill switch lanyard when student is operating
		the vessel.
		Qualified Examiners: List the names of the certified
		boat examiners instructing the course.

#### Appendix H

Memorandum of Understanding Between the Department of the Army, U.S. Army Corps of Engineers, [USACE District or Activity] and [Full Name of Non-Federal ENTITY] for Small Boat Operations Training

- H.1. THIS MEMORANDUM OF UNDERSTANDING entered into this \_\_\_\_\_ day of \_\_\_\_\_ by and between the Department of the Army, U.S. Army Corps of Engineers, [USACE DISTRICT] ("[USACE DISTRICT]"), and the [FULL NAME OF THE NON-FEDERAL ENTITY] ("Non-Federal Entity") (collectively, the "Parties").
- H.2. WHEREAS, Section 4742 of Title 42 of the United States Code (U.S.C.) authorizes a federal agency to admit state and local government employees and officials to agency training programs; and
- H.3. WHEREAS, the Non-Federal Entity exercises [TYPE OF JURISDICTION] over certain federally owned, U.S. Army Corps of Engineers ("USACE")-managed lands within the responsibility of the [USACE DISTRICT]; and
- H.4. WHEREAS, the Non-Federal Entity requests the [USACE DISTRICT] provide the employees and officials of the Non-Federal Entity with small boat operations training ("training");
- H.5. NOW THEREFORE, the parties memorialize their mutual understanding that the Non-Federal Entity may request, and the [USACE DISTRICT] may provide, training as follows:
- a. <u>Request for Training</u>: A representative of the Non-Federal Entity may contact the District Motorboat Coordinator to request that training be provided to Non-Federal Entity personnel.
- b. <u>Admittance to Training</u>: The District Motorboat Coordinator may admit personnel of the Non-Federal Entity to any available training. Admittance of Non-Federal Entity personnel to training will be on a space-available basis only, at the sole discretion of the District Motorboat Coordinator or an authorized [USACE DISTRICT] representative. The [USACE DISTRICT] will not increase the size of any training course to admit Non-Federal Entity personnel nor conduct training for Non-Federal Entity personnel only.
- c. <u>Course Prerequisites and Conduct</u>: Trainees must be in good health to participate in the training and must satisfy the training prerequisites. The [USACE DISTRICT] will make available information on the training prerequisites, or other training policies or procedures, upon the request of the Non-Federal Entity. However, the Non-Federal entity, and not USACE, is responsible to ensure its personnel meet all course prerequisites and are in good health before attending training.

Non-Federal Entity personnel will comply with all applicable laws, regulations, policies, and procedures, including any policies or procedures as set forth by the District Motorboat Coordinator, while participating in the training.

- d. <u>Assumption of Training Risks</u>: The Non-Federal Entity acknowledges that the training involves the exercise of considerable discretion by the training instructor and other USACE personnel in conducting the training. Furthermore, the Non-Federal Entity acknowledges that the training involves substantial risks, including the risk of injury to, or the death of, any participants in the training, and that neither USACE nor any person employed by USACE has any duty to protect any Non-Federal Entity personnel from any such risks. Non-Federal Entity personnel participating in the training assume the risks of the training.
- e. <u>Training Agreement</u>: Prior to participating in the training, each Non-Federal Entity person to be trained will sign a training agreement, to be provided by the [USACE DISTRICT].
- f. <u>Personnel</u>: Each Party is responsible for all costs of its personnel, including pay and benefits, supplies, and travel. Each Party is responsible for the supervision and management of its personnel.
- g. <u>Points of Contact</u>: The following points of contact will be used by the Parties to communicate in the implementation of this Memorandum of Understand (MOU). Each Party may change its point of contact upon written notice to the other Party.
  - (1) For: **[USACE DISTRICT]**

1. Primary: [Name and e-mail]

2. Alternate: [Name and e-mail]

(2) For: [Non-Federal Entity]

Primary: [Name and e-mail]
 Alternate: [Name and e-mail]

- h. <u>Funds and Manpower</u>: This MOU does not document nor provide for the exchange of funds or manpower between the Parties, nor does it make any commitment of funds or resources. This MOU does not obligate the **[USACE DISTRICT]** to expend, exchange, or reimburse funds, services, or supplies, or to transfer or receive anything of value. Further, no provision of this MOU will be interpreted to require obligation or payment of funds in violation of 3 l U.S.C. § 1341.
- i. <u>Enforcement</u>: Nothing in this MOU may be construed to obligate the United States to any current or future expenditure of resources. Each Party will use its own resources, including the expenditure of its own funds, in pursuing the objectives enumerated in this MOU. Each Party will carry out its activities as consistent with any applicable laws, regulations, or policies.

Nothing in this MOU is intended to alter, limit, or expand the Parties' statutory or regulatory authorities. Nothing in this MOU is intended to create any substantive or procedural right or benefit enforceable at law by any party against the United States, its agencies, its officers, or any person.

- j. <u>Exclusivity</u>: This MOU in no way restricts USACE from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals. Nothing in this MOU will be construed as affording the Non-Federal Entity any preferential treatment or exclusive rights or privileges.
- k. <u>Trademarks and Promotion</u>: USACE does not permit the use, reproduction, copying, or redistribution of its brands, trademarks, and logos without written permission from the Department of the Army. The Non-Federal Entity will obtain prior approval of all press releases, published advertisements, or other statements intended for the public that refer to this agreement, or to the agencies, or to the name or title of any employee of the agencies, in connection with this agreement or the activities conducted under this agreement.
- 1. <u>Modification of MOU</u>: This MOU may be modified only by the written mutual agreement of the Parties, duly signed by their authorized representatives. This MOU will be reviewed annually on or around the anniversary of its effective date.
- m. <u>Disputes</u>: Any disputes relating to this MOU will—subject to any applicable law, executive order, directive, or instruction—be resolved by consultation between the Parties.
- n. <u>Termination</u>: This MOU may be terminated at will by either Party. Termination will be effective upon the receipt of written notice by the representative of the non-terminating Party.
- o. <u>Transferability</u>: This MOU is not transferable except with the written mutual consent of the Parties.
- p. <u>Entire Understanding</u>: It is expressly understood and agreed that this MOU embodies the entire understanding between the Parties regarding the subject matter of the MOU.
- q. <u>Severability</u>: Nothing in this MOU is intended to conflict with current law, regulation, or USACE policies. If a term of this MOU is inconsistent with such authority or policy, then that term will be invalid, but the remaining terms and conditions of this MOU will remain in full force and effect.

- r. Effective Date: This MOU takes effect beginning on the day after the last Party signs.
- s. Expiration Date: This MOU expires on [insert date, not to exceed 9 years (a period of 5 years or less is recommended)].

H.6.	APPROVED: [Approval authority signature will never be alone on a blank page]			
For th	e U.S. ARMY CORPS OF ENGINEERS	For the [Non-Federal Entity]		
-				
DATI	E:	DATE:		

#### Appendix I

# Acknowledgement of Risk Agreement: U.S. Army Corps of Engineers Small Boat Operations Training

This agreement provides for the acknowledgement of the risks of the U.S. Army Corps of Engineers (Corps) small boat operations training (training). By signing this agreement, I agree that I participate in the training at my own risk. I agree that the Corps has no duty to protect me from any risks of the training. Such risks include, but are not limited to, the risks set forth below. Furthermore, I agree that the Corps has no duty to protect me from the conduct of any instructors or participants in the training, including from my own conduct, which conduct may be found reckless or negligent.

The training involves the operation, by myself and by an instructor, of a vessel on the water. As part of the training curriculum, I will be asked to perform activities that involve all types of inherent risks and man-made risks, including risks that could result in serious injury or death. These risks include, but are not limited to, any injury or death resulting from:

- Operation, by an instructor or student (including myself) of a vessel on the water;
- Collision with objects or hazards in or on the water (such as debris, vessels, or other watercraft);
- Falling overboard the vessel or within the vessel, due to any cause, including sudden movements of the vessel;
- Physical contact with objects inside the vessel, or with the vessel itself; and
- Failure or malfunctioning of any equipment, including safety equipment (such as life preservers) provided to me by the Corps.

I acknowledge that the Corps is providing training to me for my own benefit or for the benefit of the agency that employs me, and that the Corps does not receive any compensation from providing the training. The training involves the exercise of discretion by a training instructor and other Corps personnel, who determine how to execute the training and also make inherently subjective judgments based on conditions on the water and elsewhere.

On-water conditions vary due to weather events, obstacles, or other hazards encountered on the water; other persons, vessels, or watercraft on the water; the features of the vessel used for the training; the reactions of the vessel and the vessel operator to events and conditions on the water; and various other occurrences.

By signing below, I agree that I participate in the training at my own risk. I understand that the Corps is under no obligation to protect me from any risk. I certify that I am in good health and that I have no physical limitations that might preclude my participation in the training.

I understand that it is my duty to satisfy the training course prerequisites before participating in the training and that my failure to satisfy any prerequisite of the training places me at an increased risk for injury or death. I voluntarily assume all risks of the training.

Name (please print):	Agency:	
Signature:	Date:	