

# **SAFETY AND OPERATIONS MANUAL 2011**

**CLEVELAND ROWING FOUNDATION**

Revised

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**CLEVELAND ROWING FOUNDATION**  
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# SAFETY AND OPERATIONS MANUAL 2011

## Section A General

**A 1. Purpose.** The Cuyahoga River supports many users ranging from 40,000 ton, 750-foot freighters to single rowers in a 32-pound racing shell. The most vulnerable persons on the river are rowers. Therefore, rowers must understand and comply with water regulations and traditions and our Safety and Operations Manual (“SOM”). This manual will help us:

- a. Conduct safe operations. The SOM addresses critical procedures necessary to operate equipment safely and identifies potential hazards in the boathouse as well as on the water.
- b. Maintain security. The SOM addresses procedures to open, operate, and close the boathouse to maximize security and minimize adverse effects on rowing operations.
- c. Coordinate multiple rowing organizations and programs. The boathouse is congested, and rowing facilities are extensively used. The actions of one group affect all other rowers using the boathouse. The SOM encourages everyone to operate in a predictable and coordinated manner, thus maximizing rowing opportunities and minimizing inconvenience.
- d. Reduce losses due to negligence and ignorance. The SOM educates everyone on how to avoid damage and loss.

**A 2. Authority.** The chain of authority in executing procedures described in this manual is:

- a. The chain of authority from top to bottom
  1. CRF Executive Director (“ED”)
  2. CRF Safety Committee (“Safety Committee”) Chair
  3. CRF Safety Committee members
  4. Member organization coaches, in the following order: CQL-3, CQL-2, CQL-1
  5. Safety qualified organization members, in the following order: SQL-2, SQL-1, SQL-0.
- b. When two or more persons present have the same level of authority, the person who has been qualified the longest is the more senior in the chain of authority.
- c. The Safety Committee consists of the Chair, the ED, and at least three other persons recommended by the Chair and appointed by the Board of Directors of the CRF. At least three voting members constitute a quorum for meetings of the Safety Committee.
- d. The Safety Committee Chair shall monitor and maintain the SOM.
- e. Every four and eight not under the control of a coach from a launch shall designate a person in charge of the shell before going on the water. In general, this person shall be the most senior member present and an SQL-2 or higher.

**A 3. Scope.** The SOM governs the conduct of all member organizations and their members and guests and is binding upon all persons using any portion of the CRF facilities or any equipment or property stored at the CRF facilities owned by CRF, any member organizations or any individual member of a member organization. Compliance with the SOM is mandatory.

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## Section A General

Temporary exceptions may only be made with prior approval of the ED or Safety Committee Chair.

- a. Users of equipment stored at the CRF facility shall be:
  1. Members in good standing of a CRF member organization, or
  2. CRF program participants, or
  3. An approved guest of either of the above.
- b. Failure to comply with the SOM may result in complete or partial loss of participation privileges for participants or member organizations without refund of fees, dues, assessments or the like, or in the restriction or suspension of use of any property, facilities, or equipment stored at CRF facilities, without refund of fees, dues, assessments or the like.
- c. CRF member organizations may adopt rules for their own programs. In the event of a conflict, CRF rules shall prevail; however, CRF member organizations may set more stringent standards for their members.
- d. CRF does not accept responsibility for any consequences arising from anyone acting in disregard of the SOM.

### A 4. Definitions in the Safety and Operations Manual

- a. “Shall” and “must” are mandatory actions; “should” and “may” imply recommended actions.
- b. A “junior” is any person less than 18 years old and/or currently enrolled in high school.
- c. “Organization” and “member organization” refer to the constituent organizations that are considered “members of the corporation” in the Code of Regulations of the CRF.
- d. “Member” or “Members” refers to individuals belonging to one of the CRF member organizations, and to participants in a CRF-operated program..
- e. “Crew” refers to all individuals in a shell, rowers and cox.
- f. “Program” may refer to a program of one of the member organizations or to a program of CRF itself.
- g. “Coaching launch” is a launch that is being used by a CQL-1, CQL-2 or CQL-3.
- h. A “collegiate rower” is any person currently enrolled in a junior or community college or any college or university and a participant in such organization’s rowing program.

### A 5. Abbreviations

Cox	Coxswain
CQL	Coach Qualification Level
CRF	Cleveland Rowing Foundation
ED	CRF Executive Director
PFD	Personal Floatation Device
SOM	Safety and Operations Manual
SQL	Safety Qualification Level

# SAFETY AND OPERATIONS MANUAL 2011

## Section A General

### A 6. Materials and Services Provided by CRF to Member Organizations.

- a. Launches and engines.
- b. Gasoline and safety equipment, including bow and stern lights, for launches.
- c. Maintenance for these materials.
- d. Some member organizations own their own launches. CRF has no responsibility with respect to such launches, but such launches must be equipped and maintained with the standards set forth in the SOM.

### A 7. Breaches of SOM.

- a. Breaches of the SOM related to safety shall be dealt with by the Safety Committee.
- b. The ED and the Chair of the Safety Committee acting jointly shall have the authority to suspend any member or program or suspend any safety certification for any breach of the SOM for a period not to exceed seven (7) days. Written notice of the suspension shall be given to the offending person or to the offending program, through its head coach, president or chair, as promptly as possible, and will take effect when the notice is officially sent. If the Chair and the ED determines that a penalty greater than a one-week suspension may be required, then written notice of the infraction, including the standard violated, will be served on the offending person or program, together with a notice that, if the offender disagrees with the statement of infraction or the proposed penalty, an appeal may be filed to the full Safety Committee, by sending a written notice of appeal to the Chair of the Safety Committee within 72 hours after the notice of infraction has been served.
- c. If an appeal is filed, the Safety Committee shall meet and hear the matter within 72 hours after receipt of the appeal. Notice of the meeting will be given to the offender, who will be given an opportunity to be present and be heard. The written decision of the Safety Committee will be transmitted to the Board of Directors as soon as it is rendered and, if no director objects, within five business days thereafter the decision will become final. If a Director objects, then the decision will be reviewed at the next meeting of the Board of Directors or its Executive Committee, at which time it will be approved, modified or rejected. Thereafter, the action will be final.

### A 8. Personal Conduct. All users of CRF facilities and equipment are expected to treat the premises and other users in a responsible and considerate manner.

- a. Private boats, equipment, or property or a member organization's boat, equipment or property may only be used with the owner's or member organization's prior consent. Do not borrow or take equipment other than your own personal equipment or your own member organization's equipment without permission.

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## Section A General

- b. Do not remove anything other than your own or your own member organization's equipment from the boathouse premises without authorization.
- c. Alcoholic beverages are strictly prohibited on the CRF premises, except as provided in section A 9.
- d. Smoking is prohibited on CRF premises.
- e. Firearms are prohibited on CRF premises.
- f. Excessive noise, foul language or discourteous behavior are prohibited on CRF premises.
- g. Anyone behaving in an unsafe manner shall be removed from and not be allowed to return to CRF premises.
- h. Running inside of the boathouse or in any area where shells are being transported from the boathouse to the docks or on the docks is strictly prohibited.

### A 9. Alcohol use on CRF Property

- a. Alcoholic beverages are strictly prohibited on the CRF premises unless prior approval has been given by the Board of Directors as part of an organized event or an approved function utilizing any portion of the CRF facilities.
- b. In every instance where alcohol is served, either the CRF, acting through the ED, or the member organizations sponsoring the event, shall assume responsibility as the "supervising organization" of the event. The supervising organization shall ensure the following:
  - 1. The Safety Committee Chair, the President of the sponsoring member organization, and the ED will be notified about the serving of alcohol at least one week in advance of the event. If permits are required, copies of such permits will be provided to each of those persons at the time notice is given.
  - 2. A Designated Host (DH) shall refrain from drinking alcohol at any function where alcohol is served or sold.
  - 3. Alcohol may not be consumed by any coach, rower or coxswain prior to going on the water. Once alcohol is consumed whether at the CRF facilities or elsewhere, the coach, rower or coxswain must remain on land for the remainder of that day.
  - 4. Alcohol will not be served to any person who appears intoxicated by the DH.
  - 5. Persons whom the DH determines intoxicated will not be permitted to enter CRF premises or, if already present, to remain on CRF premises.
  - 6. Non-alcoholic beverages shall be made available whenever alcoholic beverages are made available.
  - 7. Alcohol will not be served to persons under the age of 21.
  - 8. Persons under the age of 21 years are not permitted to serve alcohol.
  - 9. Proof of age will be required for anyone serving or consuming alcohol prior to said act.
  - 10. Only government-issued photographic ID will be accepted.

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## **Section A General**

11. The member organization will actively promote the responsible use of alcohol.
12. Alcohol shall not be served at any junior events.

### **A 10. Parking**

- a. Maximum vehicle speed allowed on CRF premises is 5 MPH.
- b. Parking is authorized only in designated areas. Vehicles shall be parked in such a manner that they do not block the exit of vehicles already parked.
- c. Parking is not allowed:
  1. On any area immediately around the perimeter of the boathouse.
  2. In any area blocking egress from the doors of boathouse or access to the dock.
  3. In the dock area (i.e., beyond the boundary between dock area and parking area).
  4. In any place that would restrict movements of shells or launches on land.

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## **Section B Safety Qualification**

**B 1. Waiver Forms.** All users of CRF facilities or equipment must sign a waiver form prior to such use.

**B 2. Swim Test.** Any member organization operating a program with juniors or collegiate rowers must conduct a swim test of all its participants, i.e., rowers, coxswains and coaches, and complete the swimming test form set forth in Appendix 3 hereto and submit the forms to the Safety Chair prior to such participants engaging in any rowing activities. The test must be completed before commencing on water practices each year. Every other rower, cox, and coach must affirm in writing the ability to swim 150 yards, to tread water for 5 minutes and to put on a life jacket and secure it while treading water and, submit a form certifying thereto to the Safety Chair prior to engaging in any on water rowing activities.

### **B 3. Safety Qualification Levels**

- a. No one can participate in rowing activities unless an SQL-0 or higher, except guests, as provided below (B 11, b, 2) when a full SQL-0 briefing is not practical.
- b. There are three Safety Qualification Levels:
  1. SQL-0.
  2. SQL-1.
  3. SQL-2.
- c. There are three Coach Qualification Levels:
  1. CQL-1.
  2. CQL-2.
  3. CQL-3.
- d. The level of qualification represents the level of responsibility that the member is authorized to manage, supervise or coach.
  1. You must be an SQL-2 or higher qualified to be in charge of an eight or a four/quad and to have independent access to the boathouse.
  2. You must be an SQL-1 or higher to participate in rowing activities without supervision.
  3. You must be an SQL-0 or higher to participate in rowing activities.

### **B 4. SQL and CQL Qualification Tests**

- a. There are 4 levels of formal testing, which must be completed in the following order:
  1. SOM Briefing and Discussion.
  2. SQL-1 Test
  3. SQL-2 Test
  4. CQL Test
- b. Testing content and administrative procedures shall be determined and administered by the Safety Committee.
- c. Wherever in Section B there appears a requirement that a person be recommended in order to hold a Qualification Level, the individual making the recommendation

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## Section B Safety Qualifications

affirms that the recommended person has the experience and knowledge necessary to hold the position for which the person is being recommended.

### B 5. SQL-0

- a. Requirements: Receive a formal SOM briefing and discussion.
- b. Qualified activities. An SQL-0 is qualified to handle CRF and member organization equipment and participate in rowing activities under supervision. SQL-0's are responsible for their personal safety. An SQL-0 shall be directly supervised on the water, either by a qualified coach in a launch (B 8, b; B 9, b), a qualified companion shell when rowing in a single scull (B 6, b, 4), or by rowing in an experienced shell (B 11).

### B 6. SQL-1

- a. Requirements.
  - 1. SQL-0 qualified
  - 2. Demonstrated proficiency on the water in a shell. Sweep rowers and single scullers shall normally row 30 supervised rows before being considered for SQL-1 status.
  - 3. Pass SQL-1 test.
  - 4. Be other than a junior.
- b. Qualified activities. An SQL-1 has demonstrated the proficiency and leadership to be responsible for the safety of others. In addition to SQL-0 activities, an SQL-1 is qualified to:
  - 1. Handle rowing equipment and participate rowing activities on land unsupervised.
  - 2. Participate in rowing activities on the water, unsupervised.
  - 3. Supervise one other rower (one on one) on the river, in the same sweep or sculling shell.
  - 4. Supervise an SQL-0 single sculler from another sculling shell, if the SQL-1 has been determined by his/her member organization to be an independent sculler (see D1a).
  - 5. Supervise SQL-0's during boathouse ground operations.

### B 7. SQL-2

- a. Requirements.
  - 1. SQL-1 qualified.
  - 2. Pass SQL-2 test.
  - 3. Recommended by organization or program head coach, CQL-1, 2 or 3, or member of the Safety Committee.
- b. Qualified activities. In addition to SQL-1 activities, an SQL-2 is qualified to:
  - 1. Supervise one eight or four/quad crew while in the eight or four/quad.
  - 2. Have independent access to the boathouse.

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## Section B Safety Qualifications

3. Sponsor guests and give a water operations and Cuyahoga traffic passing procedures briefing to the guest.

### B 8. CQL-1

- a. Requirements.
  1. SQL-2 qualified.
  2. Pass CQL test.
  3. Submit to Safety Committee written evidence of possession of current CPR qualification and either evidence of successful completion of the Ohio Department of Natural Resources boater safety class or attend a briefing by a Safety Committee member authorized to conduct such a briefing with respect to operating a launch.
  4. Demonstrated ability to drive a launch.
  5. Demonstrated experience, to the satisfaction of the Safety Committee Chair or the ED, on the Cuyahoga River.
  6. Recommended by organization head coach, or member of the CRF Safety Committee.
- b. Qualified activities. In addition to SQL-2 activities, a CQL-1 is qualified to:
  1. Operate a coaching launch.
  2. Supervise/coach one eight or four from a launch.
  3. Supervise/coach up to four rowers in any combination of pairs or doubles, from a launch or two rowers in singles from a launch.
  4. Supervise/coach up to two rowers, in a pair, double, from a sculling shell without a launch.

### B 9. CQL-2

- a. Requirements:
  1. CQL-1 qualified for not less than one (1) year.
  2. Demonstrated coaching experience, to the satisfaction of the Safety Committee Chair or the ED, on the Cuyahoga River.
  3. Recommended by organization head coach, or member of the CRF Safety Committee.
- b. Qualified activities. In addition to CQL-1 activities, a CQL-2 is qualified to:
  1. Supervise and/or coach multiple crews from a launch, limited to (i) two eights (ii) three fours or (iii) one eight and two fours.
  2. Supervise/coach up to three boats in any combination of pairs, doubles and singles, from a launch.
  3. Supervise/coach up to two rowers, in a pair, double, or two singles, from the dock area, provided there is a launch immediately available and the rowers remain in sight.

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## Section B Safety Qualifications

### B 10. CQL-3

- a. Requirements.
  1. CQL-2 qualified for no less than three (3) years.
  2. Demonstrated coaching experience, to the satisfaction of the Safety Committee Chair or the ED, on the Cuyahoga River.
  3. Recommended by organization head coach, or member of CRF Safety Committee.
- b. Qualified activities. In addition to CQL-2 activities, a CQL-3 is qualified to:
  1. Supervise and/or coach multiple crews, up to 4 shells from a launch.
  2. Supervise/coach up to four rowers in any combination of pairs, doubles and singles, from a sculling shell without a launch, or up to four such shells from a launch.
  3. Supervise/coach up to six rowers in any combination of pairs, doubles, and singles, from the dock area, provided there is a launch immediately available and the rowers remain in sight.

**B 11. Qualification Period.** SQLs and CQLs must re-qualify in a manner and at a time required by the CRF Safety Committee.

**B 12. Guest Rowers.** A rower may row once with a CRF member organization or member as a guest if he/she is an experienced rower and is sponsored by an SQL-2 or higher. Any rower wanting to row more than once as a guest must have the approval of the ED and Safety Committee Chair acting jointly.

- a. Sponsors will be held accountable for the conduct of their guests.
- b. The sponsor shall ensure the following:
  1. The guest rower shall complete a waiver form before participating in any CRF organization's activities.
  2. The guest rower should receive a water operations and Cuyahoga River traffic passing procedures briefing from an SQL-2 or higher. The guest shall not handle any boathouse equipment, except shells, oars and slings, except in an emergency.
- c. Determining the experience level of guest rowers.
  1. A guest rower in a single or double/pair is normally treated as an SQL-0; he or she may not row unless accompanied by a launch or a sponsoring SQL-2 or higher in an accompanying shell or in the double/pair.
  2. A guest rower in a single or double/pair may be treated as an SQL-1 provided that his or her experience has been judged by an SQL-2 or higher to warrant such treatment. When so treated, he or she may row in a single or double/pair as an experienced rower.
  3. A guest rower in a four/quad or eight may be regarded as either an SQL-0 or SQL-1 (to determine the experience level of the shell), depending on the judgment of the highest ranking of the SQL-2's or higher in the shell.

# SAFETY AND OPERATIONS MANUAL

## Section B Safety Qualifications

4. Any guest rower treated as an SQL-1 is nevertheless subject to the restrictions in Section B 11, b, 2 above.
- d. Kayakers or other persons rowing or paddling small man-powered boats may operate out of the boathouse as guests provided:
  1. They are sponsored by an SQL-2 or higher qualified, and
  2. They sign a waiver.
  3. They receive a water operations and Cuyahoga traffic passing procedures briefing from their sponsor (or other SQL-2 or higher).

**B 13. Waiver.** Notwithstanding anything contained in Sections B8, B9 or B10 to the contrary, the ED and Safety Committee Chair, acting jointly, shall have the authority to waive any time required for CQL status upon demonstrated proof of coaching experience and passing a written test on Cuyahoga River safety matters.

**B 14. Coaching Affiliation.** All coaches coaching out of the CRF facilities must be currently and actively coaching for one of the CRF member organizations or programs. Exceptions to this requirement shall require the joint approval of the ED and the Safety Committee Chair.

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## Section C River Landmarks

The following landmarks designate locations in the areas in which we row. Because of the turns of the river, only the old river bed is oriented in compass directions. Otherwise, side of the river is designated as Rivergate Park side (on which the boathouse and downtown Cleveland lies) or west side.

### C 1. The Old River Bed

- a. South side Lafarge Wharf
- b. Willow Avenue Bridge
- c. South side Great Lakes Towing Shipyard Wharf
- d. North side Old River Yacht Club/Channel Park Marina

### C 2. Norfolk Southern Bridge to Nautica 90-degree Turn

- a. Norfolk Southern RR Bridge #1, aka NS # 1
- b. West side Ontario Stone Old River Dock #1
- c. Flats Competitive Straight Stretch
- d. Main Street Bridge
- e. West side Nautica Queen Dock [*Safety Zone*]
- f. West side Pavilion at Nautica

### C 3. Nautica 90-degree Turn to Columbus Road Bridge

- a. Center Street Bridge
- b. Rivergate Park side Rivergate Park [*Safety Zone*]
- c. RTA Bridge

### C 4. Columbus Road Bridge to Carter Road Bridge

- a. Columbus Road Bridge
- b. Rivergate Park side Southdown Cement Dock
- c. Norfolk Southern RR Bridge, aka British Street Bridge

### C 5. Carter Road Bridge to Collision Bend

- a. Carter Road Bridge
- b. Tower City Competitive Straight Stretch.
- c. West side Forest City Enterprises Wharf [*Safety Zone*]
- d. Rivergate Park side Tower City
- e. West side Fireboat Wharf [*Safety Zone*]

### C 6. Collision Bend to Inner Belt Freeway

- a. Eagle Street Bridge site
- b. West side Just upriver from bridge site [*Safety Zone*]
- c. Lorain Carnegie Bridge

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## Section C River Landmarks

- d. Rivergate Park side River Dock
- e. Norfolk Southern RR Bridge #2, aka NS # 2

### C 7. Inner Belt Freeway to Marathon Turn

- a. Innerbelt Freeway I 90
- b. West 3rd Street Competitive Straight Stretch.
- c. Rivergate Park side Lafarge West 3rd Street Wharf
- d. West side Osterland Dock
- e. Rivergate Park side Just downstream from bridge [*Safety Zone*]
- f. West 3rd Street Bridge
- g. West side Upstream from bridge [*Safety Zone*]
- h. Rivergate Park side Ontario Stone Dock #2
- i. West side Fleet Supplies Wharf

### C 8. Marathon Turn to Turning Basin

- a. Rivergate Park side Marathon Ashland / Cleveland Asphalt Wharf
- b. Rivergate Park side Osborne / Cuyahoga Stone Dock
- c. West side Blue Circle Cement Dock
- d. West side Lafarge "J" Wharf
- e. Interstate 490 Viaduct
- f. Turning Basin [*Safety Zone*]

### C 9. Turning Basin to Upper Steel Plant docks

- a. RR Bridge
- b. Rivergate Park side Steel Plant Upper Dock

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## Section D Rowing Operations

**D 1. Independent Crews.** Subject to the restrictions contained in this Section D, for a shell to be rowed independently (not supervised by a coach), at least half of the crew must be SQL-1 or higher. If the shell holds four or more rowers, there shall be an SQL-2 or higher as a cox or seated in one of the two seats nearest the cox in a coxed shell; if the shell is an uncoxed sweep or quad, the SQL-2 must be in the bow seat.

- a. Any member organization that wishes to certify rowers as independent scullers or rowers qualified to row in doubles or uncoxed pairs must submit to the CRF Safety Committee Chair a written description of the organization's procedure for evaluating the competence of such rowers so that the CRF Safety Committee can authorize that member organization to certify such rowers.
- b. Independent sculler. For a single to be rowed independently, the sculler must be either an SQL-2 or higher, or an SQL-1 whose authorized member organization has evaluated the rower's sculling skills and officially certified him/her as an independent sculler; provided, however, that no junior can be an independent sculler.
- c. Independent double or un-coxed pair.
  1. To be an independent double at least one rower must be an independent sculler or both rowers must be certified by their authorized member organization as qualified to row in a double without an accompanying coaching launch.
  2. To be an independent un-coxed pair, both rowers must be certified by their authorized member organization as qualified to row in an un-coxed pair without an accompanying coaching launch.
- d. Each member organization will annually notify the Safety Committee Chair of every person the organization has certified as qualified to row as an independent sculler, in a double, or in an uncoxed pair. Said notification shall be made by 1 March each year or, at the latest, before the certified individual rows in his or her qualified capacity.
- e. Independent four
  1. At least 3 of the crew must be SQL-1 or higher.
  2. If a stern coxed shell, an SQL-2 must be the cox or one of the stern pair.
  3. If a bow coxed shell, the SQL-2 must be the cox or one of the bow pair.
- f. Independent Quad
  1. At least 3 of the crew must be SQL-1 or higher.
  2. An SQL-2 or higher must be in the bow seat.
- g. Independent eight
  1. At least 5 of the crew must be SQL-1 or higher.
  2. An SQL-2 must be the cox or one of the stern pair.

## D 2. Coached crews

- a. All shells that are not independent must be accompanied by a coach in a launch.
- b. All junior rowers must be accompanied by a coaching launch at all times, unless the junior is accompanied in the shell by his or her parent or legal guardian or the

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## Section D Rowing Operations

junior(s) is rowing a single or double and is accompanied on the water by his or her parent or legal guardian in another single or double. No more than one junior shell can row pursuant to this provision.

- c. An eight that is accompanied by a coaching launch may go out with either eight or six rowers, but in all cases the bow and stern pairs must be filled.
- d. An SQL-0 sculler may row in a single without a coaching launch, provided he/she is supervised by an independent sculler in another shell.
- e. Coaching launches shall be manned by a CQL-1, CQL-2 or CQL-3, except in an emergency. (See sections B 8, B 9 and B 10 on CQL-1, CQL-2 or CQL-3 for number of boats/oarsmen that can be supervised.)
- f. A launch shall be immediately available at the dock when singles, doubles, or pairs are being coached from the dock and the rowers shall remain in sight.

### **D 3. Rules for Rowing Beyond the Mouth of Cuyahoga River (at Coast Guard Station)**

- a. No shells are allowed to operate beyond the breakwall which runs parallel to the Cleveland shoreline extending from southwest to northeast.
- b. Independent pairs, 4+'s, or 8+'s may not operate inside the breakwall beyond the Coast Guard Station at the mouth of the Cuyahoga River unless accompanied by the appropriate coached launch (c.f., B 8 and B 9).

**D 4. Dock Closure.** The dock may be closed at any time in the interest of safety. When at the boathouse, members shall assess conditions that affect safety of operations at all times. The senior member present in the chain of authority (c.f., A2) is responsible for making the decision to close the docks. When the docks are closed, no shells may be launched by any member or organization. All boats that are already on the water when the docks are closed shall be notified by radio to return to the dock.

**D 5. Night Operations.** A red (port side) and green (starboard side) light shall be mounted on the bow (bow light) of all shells and launches, and a white light shall be mounted on the stern (stern light) of all shells larger than a single scull and all launches rowing after sunset and before sunrise. Single sculls shall have a red and green light mounted on the bow. The red and green lights shall conform to the requirements of the Ohio Administrative Code and the Rules of Inland Navigation. The stern light on launches shall be elevated to ensure that it is visible from all angles.

**D 6. Thunderstorms.** Do not row in thunderstorms.

- a. Do not launch until 30 minutes after last audible thunder or visible lighting.
- b. If you are caught in a thunderstorm, seek shelter from lightening under a bridge until the thunderstorm has passed.

**D 7. Rowing in Cold Water.** Because of the danger of hypothermia, rowing is restricted during periods when the water temperature is likely to be too cold.

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## Section D Rowing Operations

- a. From 1 May through 30 November, there are no restrictions for any rower due to cold water, unless either the ED or the CRF Safety Committee declares otherwise.
- b. For all junior or collegiate rowers from 1 December through 30 April, all shells must be accompanied by a coached launch. The rules of Section D 2 apply at all times during the year.
  1. A launch with a CQL-2 or CQL-3 shall accompany no more than two shells.
  2. A launch with a CQL-1 shall accompany no more than one shell.
  3. All coxswains shall wear a PFD.
  4. If the water temperature is below 40°, no pairs, doubles or singles shall be permitted to row; subject to the following limited exception. Pairs, doubles or singles shall be permitted to row if:
    - i) The coach for that boat is a CQL -2 or CQL -3;
    - ii) Notwithstanding the coaching certification level, the launch shall accompany no more than one shell; i.e., one shell per launch ratio; and
    - iii) The rowers in the boat are experienced rowers having rowed at least 30 outings in the immediately preceding fall season in the type of boat they are rowing in the spring.For purposes of this rule, water temperature shall be determined as measured and reported by the National Weather Service for Lake Erie at Cleveland, Ohio.
- c. For adult rowers there are two periods of cold water restrictions on rowing, (1) a period of minimal restrictions, including from 1 December through 1 January and the month of April, and (2) a period of maximum restrictions, from 2 January through 31 March.
  1. Minimal restriction period – all of December, 1 January, and all of April.
    - a) Rowers may row without cold water restrictions if and only if all members of the crew, including the cox, have rowed a minimum of 100 hours during the prior three (3) years in the type of shell in which they row in cold weather. If they are also qualified as an independent crew (see D 1) they may row without a launch, provided that all coxswains must wear a PFD.
      - i) Exception: Rowers who wish to row in a double or pair may count rowing in a single in their 100 hours of required hours. Rowers who wish to row in a single, however, may count only rows in a single in their 100 hours of required outings.
    - b) Rowers not qualifying to row under a) above shall row under the rules for the maximum restricted period of cold water rowing.
  2. Maximum restriction period – 2 January to 31 March. All shells must be accompanied by a coached launch.
    - a) A launch with a CQL-3 shall accompany no more than two 8's or 4's or as many as three shells if at least two are pairs, doubles, or singles.

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- b) A launch with a CQL-1 or CQL-2 shall accompany no more than one 8 or 4 or as many as two pairs or doubles or singles, and if a CQL-1, must have actively coached during the immediately preceding fall.
  - c) All coxswains shall wear a PFD.
  - d) If the water temperature is below 40°, no pairs, doubles or singles shall be permitted to row; subject to the following limited exception. Pairs, doubles or singles shall be permitted to row if:
    - i) The coach for that boat is a CQL -2 or CQL -3;
    - ii) Notwithstanding the coaching certification level, the launch shall accompany no more than one shell; i.e., one shell per launch ratio; and
    - iii) The rowers in the boat are experienced rowers having rowed at least 30 outings in the immediately preceding fall season in the type of boat they are rowing in the spring.For purposes of this rule, water temperature shall be determined as measured and reported by the National Weather Service for Lake Erie at Cleveland, Ohio.
- d. General rules for cold water rowing.
- 1. In addition to other required equipment, all launches must have a working cell phone aboard to be used as needed for emergency calls after any immediate rescue actions have been taken.
  - 2. All rowers going on the water between 1 December and 30 April are encouraged to have an accompanying vessel, either launch or shell, even when not required to do so.
  - 3. Accompanying vessels, whether launches or shells, must always stay sufficiently close to one another to maintain ***audible and visible contact***.
  - 4. Any person or persons who wish to row outside the cold water restrictions of this manual may apply to the ED and CRF Safety Committee Chair for special permission. Such permission, if granted, shall be restricted to specifically designated rows.
- e. Enforcement of cold water rowing rules. For every offense, the CRF ED or Safety Committee Chair will submit a full report of the violation to the governing/administrative body of the member organization or program in violation. In addition, the following penalties will be imposed:
- 1. First Offense: Suspension of the coach, rower(s) and/or program for two (2) days.
  - 2. Second Offense: Any violation within 12 calendar months of previous violation results in a suspension of the coach, rower(s) and/or program for seven (7) days.
  - 3. Third Offense: Any violation that occurs within 12 calendar months of a second violation will be brought to the CRF Safety Committee for review. A third offense is evidence of blatant disregard for the safety of crews and shall result in the coach, rower(s) and/or program being suspended for a period of 90 days. After those 90 days have passed, that coach, rower(s)

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and/or program must, before resuming activities under the CRF, apply to the CRF Safety Committee to be re-instated.

### D 8. Hypothermia

- a. As the water temperature drops, your time of effective mobility diminishes.
  1. At a water temperature of 50° F, you have about 20 minutes to get out of the water before you are incapacitated;
  2. At 40° F, you have about 10 minutes;
  3. At 33° F, you have about 4 minutes.
- b. Heat loss is 25 times greater in water than in air. If you cannot get out of the water, get on top of your boat as described below (F 6).

### D 9. Communications: Radio, Whistle and Horn, and Visual

- a. The primary means of communication with commercial traffic on the Cuyahoga River is by marine band radio. Every launch and every single, double, pair, four, quad, or eight not accompanied by a launch (with one exception, see below) must carry and use a two-way radio appropriate for such communication.
  1. The exception: Any combination of 2 or more shells, either eights, fours, quads, doubles, pairs or singles may use a single radio in one of the shells providing that the shells comprising the group remain within visible sight.
  2. Whenever a CQL is supervising juniors, a radio must be used by the coach in the launch regardless of the type of shells being rowed.
- b. Use of radios.
  1. The radio shall be used to monitor Channel 16, the hailing and emergency channel.
  2. Channel 16 shall be used to send out advisory calls, brief announcements, or to establish communication with another party, but two-way communication must be carried out on another channel by asking the other party to switch channels.
  3. Some other channels that may be used for two-way communication are:
    - a) Channel 13 to communicate with bridges
    - b) Channels 8 and 13 with commercial vessels.
    - c) Channel 68 to communicate with CRF member organizations or members.
- c. Radio calls
  1. Advisory radio calls shall be made when leaving the CRF dock and when approaching blind turns in the river.
  2. Advisory calls shall begin with the alerting phrase, "Security, security..." and should be *brief* but include the following information:
    - a) Your identity (e.g., St. Ignatius High School crew with 4 shells and a launch)
    - b) Your location specified by a river landmark (e.g., Rivergate Park).

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- c) Your intention (e.g., launching to go up river to the Turning Basin and return)
- d) Request for traffic advisory (e.g., river traffic please advise)
- e) When launching, your time frame (e.g., on the water over the next hour and a half)
- 3. Examples of advisory calls
  - a) At launching: "Security, security, this is Western Reserve Rowing with two shells and a launch at Rivergate Park. We are heading down river to the Old River Channel and back over the next hour. River traffic please advise."
  - b) At blind turn: "Security, security. This is Case Rowing crew with two shells at Third St. Bridge going upstream toward Marathon Bend."
- 4. Example of other radio calls: "American Republic, American Republic, this is John Carroll crew, over." "John Carroll, this is American Republic, switch to channel 18." Both switch to channel 18 and continue the call.
- d. (intentionally deleted)
- e. Whistle and Horn Communication.
  - 1. Important whistles or horns blasts mean:
    - a) 3 short blasts Vessel is backing up.
    - b) 5 or more short blasts Danger signal, or a bridge is about to lower.
    - c) 1 long - 1 short blast Request to open a bridge, or bridge is about to open
- f. Visual Communication
  - 1. Signals from the coaching launch:
    - a) To have shell(s) "weigh enough," hold megaphone, oar or arm vertically in the air.
    - b) To have shell(s) turn around, hold megaphone, oar or arm vertically and wave from side to side.
    - c) To have shell(s) return to the dock, hold megaphone, oar or arm vertically and pump it straight up and down.
  - 2. Distress signal from a shell: Wave shirt over head, or raise one oar vertically in the air.

### D 10. Boat Sign Out/In Procedure

- a. All shells, both sweep and sculls, shall be signed out in the log before launching and signed in after recovering

### D 11. Dock and Launching Procedures

- a. Before launching
  - 1. Make a security call on the radio, using main VHF radio in boathouse if practical.
  - 2. Have radio onboard, if required

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3. If a crew requires a launch, that launch must be in the water, engine running, to perform a rescue immediately if needed, except as otherwise provided in this manual.
  4. If a coaching launch is being used:
    - a) Launch safety equipment should be complete. See Section J 1 b.
    - b) Fuel supply should be adequate. See Section J 5.
  5. Shells must carry full crews, including cox's in coxed shells, except that an eight that is accompanied by a coaching launch may go out with either eight or six rowers, but in all cases the bow and stern pairs must be filled.
- b. Dock procedure.
1. The dock shall have two areas: one downstream, and one upstream. Operations, including both launching and recovery shall be carried out as follows, unless an emergency necessitates otherwise:
    - a) Singles, doubles, and pairs shall operate from the downstream area.
    - b) Fours and larger shells shall operate from the upstream area.
  2. Crews shall expedite launching and recovery to free the dock for the next crew. When necessary, tie in on the water. When recovering, get the shell out of the water and off the dock as quickly as possible.
  3. Shells shall normally be launched and recovered heading downstream, unless weather conditions or an emergency require otherwise.
  4. When freighter or barge traffic is approaching, recovering crews have the right of way over launching crews.
  5. If a freighter is passing while shells are in the water at the dock, no more than two persons per shell may stay on the dock to hold the shell in place. All other persons should leave the dock. Those individuals holding the shells should remain on their feet to be ready to reach safety should the freighter lose control or drift too near to dock.
  6. After launching, coached crews may not proceed upriver past the RTA Bridge or downriver past the "West" side abutment of the Detroit Superior High Level Bridge until the launch has left the dock.
  7. Launches shall remain in the water during the rowing season at the plastic dock area.

#### D 12. Rowing on the River.

- a. River Traffic Patterns. Shells shall keep to the right side of the river, except where otherwise specified in this manual.
- b. Cross winds. Cox's should point shells into a cross wind. Cross winds can blow shells to the wrong side of the river, into oncoming traffic and into the bulkhead.
- c. Sloping Bridges. At the Columbus and, Carter Road Bridges, because they slope, tugboats and small tour boats often pass under the high side of the bridge so the bridge doesn't have to be raised. They expect us to give way toward the low side of the bridge.
  1. The high side of these bridges is:

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- b) Carter Road Rivergate Park side of river
- c) Columbus "West" side of river
- 2. So when a tug or small tour boat is going under one of these bridges, you may have to go to the "wrong side" of the river if the on-coming vessel takes the "high side."
- d. Competitive Straight Stretches. Competitive straight stretches are stretches of river where crews may safely run competitive pieces.
  - 1. The three competitive straight stretches are:
    - a) "Flats" Straight Stretch, between Norfolk Southern Bridge and the turn at Nautica.
    - b) "Tower City" Straight Stretch, between Collision Bend and just down river of the Carter Road Bridge.
    - c) "West Third Street" Straight Stretch, between Marathon Turn and the I-90 bridge.
  - 2. Shells competing on competitive straight stretches have right of way over shells entering the straight stretch if and only if a radio announcement is made at the start of each piece and the shells leave a lane open in the oncoming direction..
  - 3. Crews shall enter a competitive straight stretch with caution, visually check the river ahead, to ensure no one is competing before continuing, and weigh enough if necessary.
    - a) Oncoming shells should be aware that competing shells may turn around immediately upstream and downstream from straight stretches, so there is a risk of collision.
  - 4. Launches should avoid making wakes in the competitive straight stretches when competitive pieces are under way.
- e. Blind Turns. Blind turns are river bends where oncoming traffic is not readily visible.
  - 1. Cuyahoga blind turns are, going upstream from the river mouth:
    - a) Nautica 90 Degree Turn
    - b) Collision Bend
    - b) Carnegie-Lorain viaduct to Innerbelt I- 90
    - c) Marathon Turn
  - 2. At turns there may be visual cues we can use to anticipate a large vessel around the corner, i.e., bridge position or high vertical extensions of the ship's hull or superstructure.
  - 3. Coaches in a launch should visually check blind turns by swinging to the outside of the turn and driving ahead of the crew to see around the turn before the crew gets there.
- f. Rowing Restriction in the Flats. Due to high traffic, between the Friday before Memorial Day and the Tuesday after Labor Day, rowers shall not go below the Center Street Bridge after 5:00 PM, Monday through Friday and after 1:00 PM on Saturday and Sunday. At other times, rowers should not go below the Center Street Bridge when ship and pleasure boat traffic is excessive between Center Street and the Norfolk Southern Bridge # 1.

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1. This restriction does not apply to single or double shells or pairs, providing they are independent shells not accompanied by coaching launches.

### D 13. Additional Safety Requirements.

- a. All independent crews, independent scullers and independent doubles or un-coxed pairs shall be required to carry a noise making device, e.g. whistle, while rowing.
- b. All coxswains participating in any junior, collegiate or adult program shall be required to wear a PFD when in a rowing shell. In addition, any junior or collegiate rower serving as a coxswain in any shell being rowed by any other CRF member organization shall be required to wear a PFD when in such rowing shell.
- c. No independent crew, sculler, double or un-coxed pair and no shell accompanied by a coaching launch shall operate inside the breakwall beyond the mouth of the Cuyahoga River if the wind driven waves result in water going over any portion of the riggers of any shell.
- d. All rowers in singles, and all bow rowers in doubles, un-coxed pairs or quads shall wear a rear-view mirror when not accompanied by a coaching launch.

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## Section E Traffic Hazards on the River

### E 1. Hazards from Things Other than Vessels

- a. River Debris.
  1. It is greatest after heavy rains.
  2. It accumulates where currents collide (e.g., where a stream flows into the river), at bridge and bulkhead projections, at river bends, or when the wind blows opposite to the current.
  3. It can be particularly dangerous if it is lodged on the river bottom, so that what appears to be a floating object is, in fact, solidly fixed.
- b. Stationary objects like bulkheads, docks, bridge abutments, etc.
- c. River current and wind make control of a shell, as well as of other vessels difficult. Shells are particularly affected when they are stationary (e.g., in a safety zone.)

### E 2. Hazards posed by other vessels

- a. Some hazards are present with all vessels, even small ones
  1. It is important to remember that other vessels may take an unexpected course due to hazards such as debris, wind, etc.
  2. Even small vessels may produce a wake. If you encounter a large wake, take it broadside to avoid having parts of shell unsupported by water when the waves pass.
    - 1) Turn the shell so wake hits it from the side.
    - 2) Stop, feather the oars
- b. Vessels that can sometimes be safely passed on the river
  1. Vessels in this category include
    - a. Dredge-tug-barges associated with dredging the Cuyahoga. While dredges, both moving and stationary, can usually be safely passed, as you approach a dredge, always beware of:
      - 1) Dredge tug prop wash.
      - 2) Dredge bucket swing.
      - 3) Dredge tubes, which are submerged at the surface of the water.
    - b. Tug boats, alone or moving a barge
    - c. Large Tour Boats like the Goodtime III.
    - d. Small tour boats like the Holiday.
    - e. Recreational motor boats and sail boats.
    - f. Paddled boats such as row boats, canoes, and kayaks.
  2. Row past these vessels where the river is relatively straight and wide enough to pass safely. If there is not room to pass, park to the side so they can move past you..
- c. Vessels that Cannot be Safely Passed and Require Parking Shell in Safety Zone
  1. Small freighters with a tug.
  2. Large freighters without tugs, e.g., the American Republic.
  3. Large tug - barge combinations

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### Section E Traffic Hazards on the River

4. Two tugs at opposite ends of a vessel they are propelling.
- d. Passing Docked freighters.
  1. Any freighter that is securely docked and, consequently, inactive, can be passed so long as there is sufficient room for passage.
  2. When visually checking a docked freighter or barge, check to see if the mooring lines have been secured to the bulkhead.
  3. If a coach or other person in charge of a shell approaches an apparently docked or otherwise inactive freighter/barge that shows evidence of possible activity (such as a conveyor unloading from its hold showing a change in direction, mooring lines extending across the river, smoke from the stack, or water turbulence indicating engine activity, etc.), the coach/SQL with the radio should break off any pressure piece, approach slowly, hail the vessel over the radio, ask that the vessel switch to channel 13 or 8, and inquire to determine if it is safe to pass. If communication with the vessel cannot be established, the shell should not proceed but reverse direction.
- e. Special areas where other vessels may pose special hazards.
  1. Zones where large vessels may turn around or pass one another.
    - a. Collision Bend
    - b. West 3<sup>rd</sup> Street Straight Stretch
    - c. Turning Basin
  2. At sharp turns, the stern and bow of the freighter pass close to the bulkhead on the outside of the turn. The central hull passes close to bulkhead on the inside of the turn.

#### E 3. CRF Safety Zones. Areas in which shells can wait while freighters are safely passing.

- a. Listed in order of their position from the mouth of the river, the safety zones are:
  1. At Nautica docks on the west side of the river.
  2. At the docks at the Rivergate Park.
  3. In front of Forest City Enterprises Wharf on the west side of the river along the long bulkhead.
  4. At the Fire House at Collision Bend on the inside of the turn, but space is limited to two shells.
  5. Approximately 100 yards upstream of Collision Bend on the west side of the river.
  6. Approximately 50 yards downstream of the W. 3rd Street Bridge on the Rivergate Park side of the river. This may not be safe if there is a stiff wind blowing from the opposite bank in a upriver direction.
  7. Between the W. 3rd Street Bridge and Marathon Turn on the west side of the river. This may not be safe if there is a stiff wind blowing vessels into the west side bank.
  8. In the Turning Basin.
- b. Procedures to be used while being passed by a freighter in a safety zone.

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### Section E Traffic Hazards on the River

1. Point shell in the direction opposite to that in which the freighter is traveling. This orientation gives you the best escape route and allows you to row clear as soon as an opening develops.
  2. Position shells to compensate for expected drift up- or downstream while freighter is passing. See Displacement Drift (Section E 8 b, below).
  3. Align the shell's hull relative to the bulkhead as follows:
    - Hull with bow pointing out 10-30 degrees. This alignment allows any combination of rowers to row forwards or back. In addition, if you get a thruster impulse, you have a chance of rowing away from bulkhead. Rowers should be ready to row as needed.
  4. Set the boat with blades feathered when a freighter is passing.
  5. When you need to row in the vicinity of a freighter or in water made turbulent by prop wash, half the rowers should row and half set the boat to ensure stability..
  6. Wait until the freighter is about half way past you and a clear opening develops ahead of you. Then, row past the ship using half the rowers; steer clear of the stern propellers.
- c. Limitation of safety zones near bridges.  
If a freighter is approaching a bridge that is not yet raised, don't park in a safety zone next to the bridge if the freighter is on the same side of the bridge as your shell. If the bridge does not go up in time the freighter must stop in the river *next to you*, and thrusters will kick prop-wash everywhere, including toward you. This situation is likely to occur at the two safety zones on either side of the W. 3<sup>rd</sup> St. Bridge.

#### E 4. Dangers in being near large vessels

- a. Bow Thrusters, Propellers. Large vessels require a large impulse to change their momentum. This impulse generates a lot of prop wash when large vessels must maneuver.
  1. Freighters have bow and stern thrusters to push the boat sideways to get around turns or correct for wind and current. Tug boats propel barges in a similar manner.
  2. When turning, thrusters and propellers generally thrust toward the outside of the turn to control the direction of the turn.
  3. Wind forces push the vessel downwind; therefore thrusters generate prop wash on the downwind side to correct.
  4. Tugboat/freighter combinations are more hazardous to rowers than freighters maneuvering with thrusters. Tugboats are less efficient at turning freighters than ship bow/stern thrusters. Tugboat prop wash moves more water to change freighter momentum than thrusters, and tugs maneuver to control the towline between themselves and the freighter. The most dangerous tug-freighter combination for rowers is a freighter being maneuvered by two tugs, one on the bow and one on the stern.

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### Section E Traffic Hazards on the River

- b. Displacement drift occurs during passing situations with large freighters and tug-barges.
  - 1. A freighter or a tug-barge displaces a significant amount of water, and the river is narrow. As the large vessel moves forward, water ahead of it is displaced to its rear.
  - 2. The displacement current causes your shell to drift opposite the direction in which the large vessel is moving. It can be strong enough to make you drift upstream, if the vessel is going downstream.
  - 3. Anticipate displacement drift when positioning to allow a large vessels to pass. Give yourself room to drift in the anticipated direction. Worst case is when the wind is in the same direction as the river current, and the vessel is going upstream, so all three forces combine to move you downstream at a fast pace.
- c. Two Tug Combinations. Two tug combinations are freighters with two tugs, one on the bow and one on the stern. They are particularly dangerous because the combination takes up a lot of room. The towing tug at the bow and the pushing tug at the stern swing about the bow and stern to maneuver the ship and generate more propeller wash than ship thrusters.
  - 1. If you are caught upstream of the boathouse and the 2 tug-freighter is proceeding upstream toward you, there are three safety zones where you can park relatively securely.
    - a) Forrest City Enterprises Wharf safety zone on the boathouse side. Position shell closed to the upstream end of the safety zone to allow room for the stern tug to thrust the downstream end of the freighter toward the opposite (outside) bulkhead, as it starts its turn.
    - b) On the West 3<sup>rd</sup> St. Straight Stretch approaching Marathon Turn on the west side. As at the Forest City Enterprises Wharf safety zone, position your shell(s) toward the upstream end of the zone.
    - c) Turning Basin.
  - 2. If you are caught downstream of the boathouse and the 2-tug combo is proceeding downstream toward you, the only place to allow the 2-tug combo to pass safely is the Rivergate Park safety zone. Otherwise, proceed to the Old River bed or the Inner Harbor.
  - 3. Let the combination know by radio where you are and what you are doing.

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## Section F Emergency Procedures

**F 1. Emergency Assistance.** Call for help on the radio (Channel 16) should you require assistance. If you cannot contact the organization you want (e.g., Coast Guard or WRRRA), request a freighter (Channel 16) or a bridge (Channel 16 or 13) to relay the request for assistance.

- a. If the situation is critical, use Channel 16 and *declare that you have an emergency*.
- b. If the situation is not critical, use standard radio hailing procedures.

**F 2. Person Overboard - Individual Action.** Your shell and oar have been designed to provide floatation. They are not PFD's, but they may be used as emergency floatation devices.

- a. Under no circumstances should a rower in the water leave his or her floating boat. Even if a swamped boat is within possible swimming distance from the shore, the rower should not strike out for the shore. Instead, *swim the boat* to the shore. Do not leave your floatation even if you consider yourself a strong swimmer.

### F 3. Person Overboard - Shell Action

- a. Stop the boat.
- b. In an eight or four the stern rower opposite the side of the person overboard removes his or her oar from the oarlock and slides it to the person in the water.
- c. The swimmer lies across the oar and remains close to the shell.
- d. Another rower may, if necessary, enter the water to assist the swimmer.
- e. If there is no launch immediately available, the swimmer can climb back into the shell or be escorted or towed to shore.
- f. If the swimmer cannot get into the shell, he/she should hang onto a rigger or gunwale, or lay on top of the stern section and be towed to shore or to a bulkhead ladder.
- g. When anyone goes into the water, an incident report shall be filed (c.f. G 2, a).

### F 4. Person Overboard - To Climb Back into the Shell

- a. Shells with rowers still in shell (usually sweep shells)
  1. All rowers remaining in the shell set it up by using the oars. Oar of person in water should be held out of way by adjacent rower.
  2. The person in the water begins entry of shell from the side opposite his or her oar to help balance shell. (Rowers may lean a little away from the side on which the person in the water is attempting to get in.) Grasp only the gunwales; do not touch the skin of the shell or the riggers.
  3. Initially just your hands will be transferring your weight to the gunwales. As you come aboard, your body, legs and feet will transfer your weight to the gunwales.
  4. Kick with legs to propel body over shell while keeping body low.
  5. When body is across shell, twist to sit in shell and then brings legs aboard.
- b. Sculls with single rower or all rowers in the water.

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### Section F Emergency Procedures

1. One rower at a time should board shell, beginning with stern-most rower and proceeding toward bow; the other rowers hold shell stable by placing an equal number of individuals on each side of the shell holding the gunwales steady.
2. The person in the water should first position the oars by holding both oars together over center of shell with hand closest to stern
3. Person in water should try to lay flat on water surface facing the shell while holding shell by gunwale with hand closet to bow grasping gunwale opposite to the side you are on.. Try not to push down on gunwale on your side.
4. While continuing to hold the oars with your stern-most hand, kick with feet to drive body toward shell. As body comes over shell, stay low over the shell to keep center of gravity low. As you move forward, your weight should be transferred to the center of the shell.
5. When the boat is balanced with your body across the shell, bring your bow-most leg across the shell behind you and straddle the shell. Then get your rear on the seat or seat platform. Once the shell is balanced with your legs on either side of the shell, bring your legs up in front of you into the shell.
6. Now you are ready to take one oar with each hand and steady the shell with the oars.
7. If another sculler is in the water, you should use your oars to keep shell steady while persons remaining in water repeat steps 1-6.

#### F 5. Person Overboard - Launch Action

- a. Upon coming to the swimmer, stop the launch and put the engine in neutral, or shut down the engine if circumstances permit.
- b. If possible, pull the swimmer out of the water into the launch. Then put him/her back in the shell, if desired.
- c. If many rowers are in the water, distribute PFD's as required, rescue the rowers, and shuttle them to the nearest shore. Avoid overloading the launch. If the situation permits, have rowers in the water hold onto the sides of the launch and proceed slowly to shore.

#### F 6. Shell Swamped, Broken or Sinking

- a. If the shell is swamped, everyone must get out. If you stay in the shell, the flotation chambers at the ends, combined with weight in the middle, may cause the shell to break.
- b. Unload the shell by pairs, starting from the middle of the boat (e.g., rowers 3 and 4, 5 and 6, 1 and 2, 7 and 8. Cox exits with stern or bow pair as appropriate.
- c. If rescue by a launch is not imminent:

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### Section F Emergency Procedures

1. If you can swim the shell to shore, keep the shell upright, trail the oars in the oarlocks and swim the shell and oars to shore or a bulkhead ladder. Get out of the water.
2. If conditions do not permit you to swim the shell to shore, maximize your survival time: Remove the oars, but do not let them drift away. Move to the ends of the shell. Invert the shell, hull side up. The hull traps air under it and thus forms a stable platform. Survivors can lay partly on top of the hull, and buddies can hold onto each other across the hull.
3. Do not swim away from a floating boat.
- d. To Lift a Swamped Shell Out of the Water:
  1. Bail all possible water out of the shell to lighten it so it can be lifted more easily.
  2. If the shell bow and stern compartments have filled with water, they must be drained before the boat can be removed from the water.
  3. Get many extra people to help lift the boat.
  4. Lift the gunwale closest to the dock and roll the shell away from the dock to pour the water out as you lift the shell.
  5. Keep the shell from hitting the dock as you lift.

**F 7. Capsized by a Freighter Thruster.** If you are capsized or end up in the water as a result of wash from a freighter thruster, you could be in a critical situation.

- a. Take a deep breath and hold it.
- b. Stay in contact with the surface of the water. Hang on to anything you can – shell, oar, other boat, bulkhead –to prevent yourself from going underwater. In any case, stay away from the freighter so you do not get sucked into or forced to the bottom by a thruster.

**F 8. Trapped by a Freighter Against the Bulkhead.** If you are caught between a freighter and the bulkhead and you are unable to row clear, e.g., the freighter has lost steering and bowthruster control and is slowly drifting toward you, pinching you between the side of the ship and the bulkhead, then:

- a. Keep the shell set as long as possible, oars feathered on the water.
- b. Keep the oars out perpendicular to the shell even if the oars touch the bulkhead or freighter.
- c. When the oars make contact with *both* the freighter and the bulkhead, let the oar on the bulkhead side come inboard, allowing the shell to drift toward the bulkhead.
- d. As the shell nears the bulkhead, lean away from the bulkhead so the shell does not capsize into the bulkhead.
- e. When the shell reaches the bulkhead, rowers should, one at a time, jump to the bulkhead and climb out.

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### **Section F Emergency Procedures**

- f. If you cannot get out of the water and the ship is very close to the bulkhead, seek refuge in one of the bulkhead indentations, using the hull of the ship and the bulkhead for leverage.

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## Section G Incident Reports

**G 1. Purpose.** The purpose of Incident Reports is to determine how the incident came about, create procedures to prevent future occurrences, and address issues between our operations and other river users, if necessary.

**G 2. When to Make an Incident Report** An Incident Report shall be filed whenever there is any physical injury, and any significant (i.e., greater than a lost skeg) damage to equipment. In addition, a report shall be filed in the event of any of the following:

- a. When a person goes in the water.
- b. When an emergency signal (5 blasts on the horn or radio emergency call) is sounded by anyone within your area of activity (except when it signals a bridge being lowered).
- c. When a freighter or barge must stop or suddenly change course to avoid you.
- d. When an oar or shell touches any commercial vessel or pleasure boat navigating the river.
- e. When a shell loses control as the result of wash from bow thruster or propeller.
- f. When there is a confrontation over the radio (or in some other way) with other river users.

### **G 3. Procedure for Completing an Incident Report**

- a. Blank incident reports are available on the website and in the CRF office.
- b. Complete incident report and place it in the incident report box before you leave the boathouse or transmit it to the CRF Safety Chair or ED as soon as possible.
- c. In any case, notify the CRF Safety Chair or ED by telephone or email within 24 hours.
- d. If one has been required by a governmental authority to complete an accident report, a copy of that report should be sent to the CRF Safety Chair or ED as soon as possible.

# SAFETY AND OPERATIONS MANUAL 2011

## Section H Boathouse Operations

**H 1. General Boathouse Information.** The boathouse consists of certain common or meeting room areas, a boat storage area with 5 overhead doors facing the river containing approximately 14,500 square feet (the “Western Section”) and an area for privately owned boats and member organization equipment containing approximately 2,900 square feet (the “Eastern Section”). Attached as Appendix 4 is a schematic of the boathouse marked with designated areas. All entrances are protected by security systems.

- a. General Building Access
  1. All users of the boathouse will enter through the main designated personnel door either utilizing their validly issued key/access code or by checking in with the staff person monitoring the entrance.
  2. No juniors or collegiate rowers shall be permitted on the CRF premises unless their coach is present or the boathouse is then staffed.
- b. Western Section
  1. The Western Section provides boat and oar storage for all member programs and some privately owned shells.
  2. Rack space in the Western Section shall be assigned by the ED and all member organizations or private boat owners shall enter into a Boat Storage Agreement and adhere to the CRF Boat Storage Policy.
  3. Boats shall be transported to the dock and returned to their rack through the five overhead doors facing the river.
- c. Eastern Section
  1. The Eastern Section provides boat and oar storage for privately owned shells, member organization equipment and ergometers.
  2. Rack space in the Eastern Section shall be assigned by the ED and all private boat owners shall enter into a Boat Storage Agreement and adhere to the CRF Boat Storage Policy.
  3. There are 4 overhead doors and one personnel door in the Eastern Section.
  4. Boats shall be transported to the dock and returned to their rack either through the Western Section or by exiting through the overhead doors in the Eastern Section and walking around the boathouse on the northern perimeter.
- d. General Policies
  1. No flammable material shall be stored anywhere in either section of the boathouse.
  2. A portion of the Eastern Section will be made available for boat repairs, however, any flammable materials utilized for such repairs must be stored elsewhere.
  3. No wooden rowing shells shall be stored in the Western Section.
  4. No boats or other large equipment shall be moved between the Western and Eastern Sections through the interior but rather shall be walked around the boathouse.

## H 2. Requirements and Authorization for Unsupervised Access to Boathouses

# SAFETY AND OPERATIONS MANUAL 2011

## Section H Boathouse Operations

- a. Only independent scullers and SQL-2 and higher qualified members are eligible for unsupervised access to the main gate, the parking lot, and the boathouse.
  1. Any individual issued a key, access code, or security alarm password shall not allow the key or codes to be used by any other individual. Any violation of this rule may, at the discretion of the ED or person in that individual's member organization managing boathouse access, be grounds for removing the key, codes, and privilege of independent access to the boathouses for the individual found in violation.
  2. The ED or the Safety Committee Chair may grant an otherwise ineligible person unsupervised access as described above for the purpose of carrying out specific CRF duties, but this access shall not be used for personal rowing.
  3. Coaches shall not allow any keys or codes to be given to or utilized by juniors or collegiate rowers, unless they are qualified as independent scullers.
- b. Procedures for authorizing and managing boathouse access
  1. The ED:
    - a) Generates all keys, combinations, and access codes and alarm passwords.
    - b) Coordinates access codes and alarm passwords with security firm.
    - c) Distributes keys, combinations, codes, and passwords to each CRF member organization or their members.
  2. Access is granted to a qualified member, i.e. independent sculler or SQL-2 and higher qualified member by his or her rowing organization.
    - a) The Head Coach, President, or Chair of each CRF member organization shall manage boathouse access within his or her organization, subject to this SOM. He/she is responsible for
      - (1) Determining which eligible members are to obtain keys, combinations, access codes, and the alarm passwords and distributing them accordingly..
      - (2) Ensuring that members with keys and codes know how to use them properly.
      - (3) Keeping a record of those who have been authorized to access the boathouses, including name, phone number, email address, access code given, date of authorization, and by name of person who authorized access privileges
      - (4) Collecting keys for those who no longer will have access and making sure that the ED cancels that code.

### H 3. Gaining Independent Access to the Boathouse

- a. General boathouse access includes access to the parking lot (through the gate), the Boathouse and the gasoline storage shed. General access is open only to SQL-2's or higher.

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## Section H Boathouse Operations

- b. Scullers access is to the Boathouse and is restricted to those individuals who have private shells in the boathouse and/or have qualified as independent scullers.
- c. Individuals with CQL status qualify for general boathouse access as well as access to the gasoline storage shed.

### H 4. Materials Needed to gain Access to Boathouse

- a. Keys to open the main personnel doors and security codes/access code/combinations to open the main gate and the gasoline storage shed.
  - 1. The general boathouse key opens the Boathouse.
  - 2. A security code/access code/combination is necessary to open the gasoline storage shed and the parking lot gate.
- b. Security codes are necessary to shut down the security system when opening the boathouse and to arm the security system when closing down those areas.
  - 1. Codes for coaches. SQL-2's and scullers work on all key pads.

### H 5. Security Procedures for the Boathouse [TO BE REVISED]

### H 6. Opening and Closing Overhead Doors

- a. Manual overhead doors.
  - 1. Unpin door and place pin where it can be found when door is to be closed and secured.
  - 2. Slide lock back from hasp.
  - 3. Raise and lower door slowly - the rollers are fragile.
  - 4. When door is closed, be sure to slide lock into hasp and insert pin.
- b. Motorized overhead doors.
  - 1. Push top button to open, bottom button to close.
  - 2. Center button should be used if door must be stopped while opening or closing.

### H 7. Handling Equipment in the Boathouse

- a. Rowing Equipment. Rowing equipment is vulnerable to damage when out of the water. Exercise maximum care when moving about and handling equipment.
  - 1. Shells: do not step over shells.
  - 2. Oars: carry oars blade forward.

### H 8. Storage of Shells and Oars

- a. Rack Assignment. Racks for shells and oars shall be assigned by the ED pursuant to the Boat Storage Agreement forms and policies adopted by CRF.
- b. Shells in Slings. Shells shall not be left in slings in the Boathouse except for the maintenance area in the Eastern Section.

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## Section H Boathouse Operations

- c. Sling storage. Slings shall be stored in areas designated by the ED.
- d. Privately owned shells shall be required to comply with CRF boat storage policies and sign a Boat Storage Agreement.
- e. Privately owned Shells shall have protective padding installed on oarlocks when stored in the boathouse.

### H 9. Special Storage Procedures for Shells

- a. Intentionally deleted.
- b. Mechanical Shell Lift Procedures
  1. A minimum of five persons are needed to use the two mechanical lifts to remove a shell from a high rack. Two persons shall be on each lift, one to man the windlass and one to assist in positioning the lift. The fifth person shall stand at the end of the aisle to observe the operation, and to act as coxswain for the lift operators.
  2. The lift operators position the lifts in the aisle next to the shell to be removed, forks parallel to each other and perpendicular to the shell at the ends of the gunnels (before the splash guard at the bow) of the shell to be removed. When maneuvering the lifts, take great care that the forks are clear of all obstructions, in particular any shells on lower racks.
  3. Using the windlass on each lift, crank the forks upward, **SLOWLY** and at the same rate on each lift, to just below the gunnels of the shell to be moved, and just above the bottom of the shell below it, if any. The coxswain at the end of the aisle is responsible for assuring proper height of the forks, and for giving commands as to raising/lowering the forks.
  4. When the forks of both lifts appear to be at the proper height, the command to **SLOWLY** move the lifts toward the shell rack. At this time, as the forks approach the shells, their height may need to be adjusted. This is done on the coxswain's commands. Once the forks are under the ends of the gunnels of the shell to be removed, stop. During this process, the lifts may have to be moved forward or aft, to avoid obstructions on the ground closer to the rack and to avoid riggers on the shell being moved or shells below it. Once the forks are under the gunnels of the shell to be moved, they are raised together, until they come into contact with the gunnels and raise the shell about two inches (5 cm) of the rack.
  5. The coxswain then commands the lift operators to move the lift, with the shell on it, away from the rack, both lifts being moved **SIMULTANEOUSLY**. Once the shell's riggers are clear of the riggers on the shells below it on the racks, the coxswain gives the command to lower the forks, using the windlasses, **SIMULTANEOUSLY** and **SLOWLY**. Lower the shell in the aisle to head height, so that the crew can raise the shell from the left racks and take it out of the house.
  6. The lifts must be moved out of the aisle and into a corner of the boathouse immediately after use.

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## Section H Boathouse Operations

7. To return a shell to a high rack using the lifts, place the lifts in the aisle prior to carrying the shell into the house, and reverse the process in steps 1 – 6 above.

**H 10. Storage of Member Organization Equipment.** Each organization operating under CRF shall be allocated specific storage space by the ED.

- a. All organization equipment shall be stowed in the shelf areas assigned to each organization. No equipment should project beyond the front of the shelves (impeding movement and risking damage).
- b. Equipment not stored on shelves must be stored in locations designated by the ED.
- c. Equipment left in boathouse in an unassigned area may be moved. Anyone missing such equipment should contact the ED.

### H 11. Storage of Equipment

- a. No flammable materials shall be stored anywhere in the Boathouse. Such materials shall be stored elsewhere.
- b. Lost and Found Locker -
- c. Medical Locker -
- d. Cox Box Lockers. Cox Box lockers are assigned to CRF member organizations by the ED.
- e. Bow and Stern Lights. Bow and stern lights are provided by CRF for use on all launches. The lights for launches are permanently affixed to the launches. Bow and stern lights for shells must be provided by the individual or organization owning the shells. Lights for shells owned by member organizations are stored in areas assigned to each organization. CRF does not provide a location for storing lights owned by individuals.

**H 12. Equipment Maintenance.** Equipment maintenance shall be performed so as to minimize interference with rowing operations. Clean up after maintenance work. Do not leave materials cluttering up the boathouse.

Cleaning responsibilities: Organizations shall be responsible for keeping their assigned spaces clean. Communal space cleaning shall be accomplished by the organizations and individuals most associated with the space. For example, organizations shall be responsible for cleaning areas where their shells are located; individual scullers shall be responsible for cleaning areas where their sculls are located; communal areas such as the yard shall be the responsibility of all user organizations. If a space is constantly messy, those responsible may be suspended until the space is clean

### H 13. Information Media [TO BE REVISED]

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## Section I Security

### I 1. Thefts

- a. Report all thefts as soon as possible to the ED. Include the following information:
  1. Item(s) stolen
  2. Value
  3. Best estimate of date and time of theft. Review the boathouse rowing logs and consult other members to assist.
- b. The ED can review computer records of boathouse access if the theft is reported promptly.

### I 2. Trespassers. Trespassers may be found on boathouse property.

- a. Precautions.
  1. Do not compromise your personal safety when confronting probable trespassers. If uncomfortable, call police. The Cleveland Police prioritize dispatches depending on the “threat,” especially during odd hours. Risk of theft is low priority; risk of personal injury is high priority.
  2. Do not unnecessarily identify yourself to the trespassers as associated with Cleveland Rowing to preclude retaliation vandalism.
- b. Approaching Trespassers. Should you elect to challenge trespassers on the property:
  1. Before approaching trespassers:
    - a). Record any likely auto license plates.
    - b). Use a cell phone to inform someone what you are doing.
  2. When approaching trespassers
    - a) Have a companion to back you up if at all possible
    - b) Be polite and diplomatic.
    - c) Ask for drivers licenses or other identification, write down names, addresses, drivers licenses of all.
    - d) After the trespassers leave, be sure all doors and gates are locked.

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## Section J Launch Operations

### J 1. Launch Equipment

- a. There are three types of launches owned by CRF and made available to CRF member organizations.
  1. Small 14' launches, carrying a maximum total of 3 persons.
  2. Large 16' launches, carrying a maximum total of 5 persons.
  3. A large wakeless launch, carrying a maximum of 4 persons.
- b. Launch Safety Equipment
  1. Radio
  2. Bow and stern lights
  3. Megaphone
  4. Bailer
  5. Water resistant orange safety box containing:
    - a) Flashlight
    - b) Tool kit
    - c) Electrical tape
    - d) Horn
    - e) 19 Space blankets
    - f) Fire extinguisher
    - g) First aid kit
  6. 3 “emergency” PFD containers containing at least 16 PFD's and 1 throw rope with float
  7. 1 “working” PFD container containing 3 PFD's and 1 paddle.
- c. If member organizations own their own launches, they shall be responsible for equipping them consistent with these requirements and shall be solely responsible for their maintenance and repair. In addition, they shall not permit any such launches to carry more than the maximum persons such launches are designed to carry. A small wakeless launch shall not carry more than 3 persons and a large wakeless launch shall not carry more than 4 persons.
- d. The per person limits in this Section J 1, shall not apply during rescue operations.

### J 2. Launch Storage

- a. During the rowing season, launches will be kept in the water secured to the dock/bulkhead of the designated launch area. When not in use, the launch engine shall be locked in the “up” position.
- b. During the non-rowing season, launches will be kept outside on the “Six-Pack” Launch Rack or other area as designated by the ED.
- c. “Six-Pack” Launch Rack. In general, heavier launches go on the bottom racks and lighter launches go on the upper racks. However, inoperative launches or launches that are not expected to be used for a period of time may be stored on the upper level of the launch rack. Store launches on racks as follows:
  1. Take care not touch engine or stand behind or under engine when moving a launch into or out of the launch rack. Touching or movement may release

## SAFETY AND OPERATIONS MANUAL 2011

### Section J Launch Operations

the engine up-lock and allow the engine to fall to the down position, possibly damaging it or persons near it.

2. Lift launch, bow toward rack, to rack level at which launch is to be stored.
3. Push launch all the way into rack so as to position the vertical portion of the stern *past* the rollers into the rack. Otherwise, launch may roll out onto floor.

#### J 3. Moving Launches on Land

- a. Launches are carried to the river by hand or on the launch carrier.
- b. A launch is secured to the launch carrier with three chains.
  1. There are two side chains that end in hooks that attach to the launch gunwales on each side. The hooks are designed to reach outside and beneath the gunwales of a 16' launch and lift the launch.
  2. There is also a bow chain hooks into the bow eye of the launch.
- c. The larger, 16' launch is attached to the launch carrier as follows.
  1. Position launch carrier over the launch while launch is on a dolly or on the ground.
  2. Raise the front (tongue) of the launch carrier, so that the rear of the carried is lowered close to the gunwales of the launch.
  3. Attach the hook on each launch carrier side-chain launch gunwales, slightly aft of the center of gravity of the launch (there should marks on the gunwales to indicate the correct placement of the hook. Ensure the hooks are securely seated under each gunwale. Do not attach hooks to the corner stiffening brackets in the stern.
  4. Secure a link in each chain to a pin on the launch carrier so as to eliminate any slack in the chains that are now attached to the gunwale
  5. Now lower the tongue of the launch carrier and hook a link in the bow chain into the bow eye of the launch so that chain it taut.
  6. Now the tongue may be lifted to support launch, but check to make sure that the hooks on each side have remained securely seated under gunwale.
  7. The launch is ready to move.
- d. The small 14' launch is not designed to be carried by the launch carrier because the gunwales cannot support be gripped securely by the side-chain hooks. It is possible, however, to use the carrier with small launches by hooking the side chains under the stern stiffening brackets, triangular braces that are attached to the two corners of the stern of the launch..
- e. Do not leave launches hanging on the launch carrier, as it may fall. If launch is left in place, remove it from carrier by reversing the above procedure.

#### J 4. Transferring Launches between Bulkhead and Dock

- a. Launches are lowered to and raised from the dock by the persons carrying the launch.

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### **Section J Launch Operations**

1. A minimum of 8 persons are normally required to safely lift or lower a 16' launch and a minimum of 6 persons are normally required to lift or lower a 14' launch.
2. The engine should always be in the "up" position unless the launch is in the water.
3. Position launch so that bow is pointed toward land, stern toward river.
4. Lowering to dock
  - a). The launch should be lowered by the person carrying the launch.
  - b). Before placing stern of launch into the water, check to be certain that the drain plug is securely in place, or that the drain hole has been welded shut.

#### **J 5. Launch Engine Operations**

- a. General considerations with regard to launch engines.
  1. Do not swap motors on launches without clearing with the ED.
  2. Do not carry launch motors down to the dock. Motors must be mounted on a launch.
  3. Do not remove fuel lines from the motor. This releases fuel vapor into the air. Disconnect fuel lines from the tank only.
- b. Cautions regarding use of gasoline.
  1. No smoking is allowed anywhere on CRF property.
  2. Never pour gas from one container to another within 60 feet of the boathouse.
  3. Do not open a gas tank within 60 feet of the boathouse without authorization from the ED or the CRF Safety Committee Chair.
  4. If gasoline is inadvertently spilled, ensure the area is well vented. Wash puddles in the building out/down with water. Then clean it up with absorbent material.
  5. It is very hazardous to transport gasoline containers in a vehicle. Fumes in an enclosed space may overcome the driver and could explode. Gas tank vents shall be closed for transport.
  6. If you smell gasoline vapor in the boathouse, carefully open all doors for ventilation and check all launches for fuel leaking from gas tank.
- c. Getting Fuel for a Launch.
  1. Full gas tanks may be found in the gasoline storage area.
    - a) The only fuel containers allowed on the premises are launch fuel tanks. No other fuel container is permitted.
    - b) We use two sizes of fuel tanks: 6 gallon and 3 gallon.
    - c) We have two types of fuel tank fittings, Evinrude double-bayonet and Japanese stud-push-on. The Japanese stud push-ons currently come in two sizes: Nissan and Honda. Be certain that the motor you are using matches the gasoline tank.
    - d) There are gasoline tanks for two stroke (mixed oil and gasoline) and four stroke engines. The gasoline tanks for four stroke engines

## SAFETY AND OPERATIONS MANUAL 2011

### Section J Launch Operations

are marked with yellow paint and/or have a yellow band on the handle. Never use the wrong gasoline mixture with the wrong tank. If there is any doubt that the tank you are contemplating using is not the correct one for the engine you have, DO NOT USE IT.

2. A typical workout uses about 1 gallon of gas.
  3. When a tank is empty, return it to the storage shed. Otherwise, it may not get filled. Be sure to close the fuel tank vent.
  4. Avoid transferring fuel from tank to tank. The fumes are hazardous, and the correct gas:oil ratio may be lost if it is a tank for a two-stroke engine..
  5. Avoid carrying several extra tanks of gas in the launch. Sufficient tanks must be available in storage shed so other launches can go out.
  6. Changing Gas Tanks. Use up all the gas in a tank before switching tanks in a launch. It is much more difficult to fill partially full tanks than it is to fill an empty tank. Best is to run the tank dry and switch fuel tanks when the engine stalls out from lack of gas.
  7. When obtaining/replacing gas tanks in the shed, be certain to re-lock the shed door, and return the lock combination to "0000".
- d. Filling Gas Tanks
1. Four stroke engine use fuel to which NO oil is to be added.
  2. Two-stroke engines use gas to which oil must be added.
    - a) The correct gas:oil mixture is 50:1. New engines being broken in require a gas:oil mixture of 25:1. When measuring oil into near-empty gas tanks, fill the large gas tanks with 6 gallons of gas and the small gas tanks with 3 gallons. Use the graduated beaker near the double doors of the wood boathouse to measure the oil. Measure using the 50:1 scale on the side. A 6-gallon tank uses a full beaker of oil. Store the beaker upside down on the toilet paper roll so excess oil is absorbed by the toilet paper and the beaker does not fill up with goo.
    - b) Put oil in gas tank before you fill it with gas, so the oil will mix with the gas when the gas is added. Then, fill up the gas tank. Ensure the vent is closed for transport and storage. Do not put more than 6 gallons of gas into large tanks or more than 3 gallons into small tanks.
    - c) The closest gas station is Eckes at the corner of Columbus Road and Center Street.
    - d) Incorrectly mixed launch gas can cause permanent damage to the engine.
    - e) Because of the danger of improper fuel mixtures, members are discouraged from filling gas tanks on their own.

**J 6. Launch Cleanliness.** Keep launches clean when not in use. The CQL using the launch is responsible for ensuring the launch is properly clean and secured. Ensure that the launch safety equipment is properly secured. Do not leave loose life jackets, empty gas tanks, or other gear, including empty bottles and other debris, in the launch.

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## Section K Trailer Operations

**K 1. Loading the Trailer.** Principal considerations in loading a trailer are, in order of importance:

- a. Aerodynamics. The shells act like airfoils at highway speeds. If the shells are not properly aligned, the truck-trailer may become unstable, especially during deceleration and in cross winds. To reduce unstable aerodynamic forces on the trailer, load the shells bow forward, and fins aft. Point the bows of the shells slightly into the axis of the trailer and sterns slightly out. Given a choice, position the shells aft on the trailer rather than forward.
- b. Distribution of the load. The more distant the weight of the load is from the axles, the more likely the trailer will sway. There is not much you can do about shells, since shell weight is distributed uniformly along the length of the trailer. However, regatta boxes and heavy items loaded on the trailer should be placed as close to the axles as possible and slightly forward of each trailer axle.
- c. The center of gravity of the trailer affects tongue weight. Tongue weight adds to stability, provided the weight in the trailer is properly distributed. But, if tongue weight is too great it raises the tires of the truck and reduces stability. Tongue weight should not exceed manufacturer's limits.

## **K 2. Tow Truck and Trailer Configuration**

- a. The following equipment configurations affect truck-trailer stability:
  1. Truck weight. Heavier trucks are more stable. Loads carried between the axles adds to stability. Thus, passengers and cargo in the tow truck increase stability.
  2. Truck wheel base. A longer truck wheel base is more stable.
  3. The distance from the back axle of the truck to the trailer ball. The closer the ball to the back axle, the more stability. Best ball position is a 5th wheel arrangement.
  4. Truck suspension system. A Stiff suspension is more stable. Even better is a stiff suspension and a low truck chassis.
  5. Tires. Dual rear tires on each side and high tire inflation pressures are more stable than single rear tires. Best are 80 psi tires. Inflate tires to maximum pressure allowed.
  6. Trailer brakes help prevent the trailer from pushing the truck off track when decelerating.
  7. Truck fuel quantity. A less than full tank adds to dynamic stability because sloshing fuel damps out sideways motion. A full fuel tank contributes little to dynamic stability.
  8. Tow truck axle and towing limits. The manufacturer's limits provide a good indicator of the towing capabilities of a truck, except that they do not include the additional aerodynamic and inertia factors associated with towing shells. As a result, towing limits must be reduced below manufacturer's limits.

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### Section K Trailer Operations

- a) Reduce towing limits to 2/3 manufacturer's limits when towing a shell trailer *with* brakes.
- b) Reduce towing limits to 1/3 to 1/2 manufacturer's limits when towing a shell trailer *without* brakes.
- c) Thus, a vehicle with a 10,000 lb. limit shall tow a shell trailer *with* brakes of no more than 6700 lbs. and a shell trailer *without* brakes of 3333 to 5000 lbs.

**K 3. Trailer Departure Checklist.** Inspect and check the following equipment before departing the boathouse:

- a. Trailer lights – Operating properly
  1. Tail
  2. Brake
  3. Directions
  4. Emergency flashers.
  5. Side
- b. Tires – Properly inflated
- c. Emergency Equipment – Present
  1. Jack
  2. Spare Tire
  3. Tools
- d. Eights – Bows slightly in, sterns slightly out
- e. Shells and Gear – Secured
- f. Hitch – Secured and pinned
- g. Trailer Safety Chains – Installed
- h. Ground Safeties – Signals briefed
- i. Follow-vehicle – Signals briefed
- j. Radios – Tuned
- k. Truck Mirrors – Set
- l. Trailer Brakes – Checked

**K 4. Driving the trailer in confined circumstances.** Safeties, along with the driver, work together to prevent shell crunches when maneuvering in close quarters.

- a. It is difficult for the driver to maneuver the truck/trailer in confined, unfamiliar areas and to look at safeties simultaneously. It is also difficult for the driver to hear directions above the noise of the engine. One of the most difficult places to maneuver a trailer, and the most important time to use safeties, is when approaching and maneuvering in boathouse yards and race parking areas. So,
  1. At least two safeties on the ground around the trailer shall work with the driver.
    - a) One safety shall be positioned at the rear end of the trailer.
    - b) One safety shall be next to the driver to augment the driver's view of other safeties and to communicate verbally with the driver.
  2. The driver shall not move unless he/she receives positive signals that the path is clear.
  3. The driver and all safeties on the ground shall be in visual (gestural) *and* verbal communication with each other. The signals they use must be

## SAFETY AND OPERATIONS MANUAL 2011

### Section K Trailer Operations

thoroughly understood by the team before maneuvers are started. The team must specifically attend to:

- a) The tails of the shells. They are 60 feet away from the driver. In a turn, the tails swing well outside the truck-trailer turning circle.
- b) The bows of the shells. The bows project off to the left or right of the tow truck when it is turning. They can hit signs and light poles that the tow truck clears. On sudden inclines, the bows can hit the cab of the tow truck.
- c) Trailer wheels and wheel guards. The wheels are wider than most tow trucks. In a turn, they track well inside of the turning circle of the tow truck.

**K 5. Driving the trailer on the road.** A safety in a follow-vehicle helps prevent the tail of the trailer from hitting and being hit by other vehicles. The follow-vehicle positions itself to prevent other traffic from driving where the tail of the trailer and shells will be. A good follow-vehicle anticipates where the truck trailer will go.

- a. When the truck-trailer is going to turn, the follow-vehicle positions itself in the lane opposite to the direction of a turn. This may require the follow-vehicle to pull into a lane of oncoming traffic. In general, when the trailer makes a 90-degree turn, the tail swings a full lane in the opposite direction of the turn. If the truck-trailer is going to turn right, the follow-vehicle positions itself in the lane to the left of the trailer, prior to the turn, and vice versa.
- b. When the truck-trailer is going to change lanes, the follow-vehicle blocks the lane on the side into which the trailer is turning before the move. This occurs in merge, enter and exit lanes, and at toll booths, as well as when maneuvering around traffic and obstructions.
- c. In gas stations and parking lots, the follow-vehicle maneuvers as on a street or in a boatyard, positioning itself to block the lane where the tail will swing when the truck-trailer turns.
- d. Safeties in the follow-vehicle and inside the tow-truck shall monitor driving conditions and route at all times. Safeties must take the initiative in communicating with truck driver (ideally by 2-way radio) regarding, e.g. trailer stability, appropriate speeds when approaching turns (“a boat-killing turn!”); lateral and vertical clearances of overheads, bridges, and tunnels; signs and other obstructions, etc.
- e. Follow-Vehicle Light Signals. Use 2-way radios so you needn't resort to light signals. If you don't have the use of radios, consider the following light signals from the follow-vehicle.
  1. “Pull over now”: Flash headlights while flashers operating.
  2. “Pull over next exit”: Flash headlights while right blinker is flashing.
  3. The truck-trailer acknowledges messages by flashing blinker lights for a few moments.

# SAFETY AND OPERATIONS MANUAL 2011

## Section K Trailer Operations

### K 6. Driving Techniques

- a. Always drive slowly at start of a trip, whenever the driving conditions, trailer configuration, or driver has changed, and when the fuel tanks have been filled.
  1. It takes a short period of time for a new driver to get used to driving the trailer.
  2. Immediately after refueling, the tanks are full and the truck-trailer will be less stable than it was prior to refueling.
- b. Assess the stability of the trailer for several minutes at lower speeds before accelerating to higher speeds. Start stability checks at about 45 mph.
  1. Ensure the road is level and traffic is well clear of the truck and trailer.
  2. When stabilized at desired speed, check for any tendency for the trailer to sway.
  3. If the trailer is stable at a steady speed, perform an easy deceleration check to investigate for any tendency for the trailer to sway during easy deceleration.
  4. If the trailer is stable during an easy deceleration, perform a harder deceleration check.
  5. If the trailer is stable during the deceleration checks, you can accelerate to the next speed, in an increment of 2 to 3 mph. Repeat the steps above.
  6. If the trailer shows any sign of sway, your maximum speed is your highest stable speed minus 5 mph. For example, if the trailer is stable at 55 mph but is slightly unstable at 57 mph, your maximum speed is 50 mph.
- c. The principle driving techniques to prevent rollovers and jackknives are:
  1. Slow down gradually. A high rate of deceleration may cause the trailer to over run the truck and push it around.
  2. Drive at slow speeds around turns. This is especially important in turns off interstate highways and throughways.
  3. *Avoid decelerating during a turn.* Slow down to turn speed well prior to a turn.
- d. If the truck and trailer start to sway, *steer straight ahead and release the brakes*, unless you are going to hit something. If the road is clear ahead, do not steer to the side and minimize deceleration.
- e. Toll Roads. Enter toll booths at automatic booths or closest to the median/center of the throughway. Use a trailer stinger light on the turnpike, and have a follow-vehicle.

### K 7. Trailer Parking at CRF Boathouse

- a. Store all trailers in the location designated by the ED. The trailers should be parked close to one another, approximately 1 foot wheel to wheel, except when shells and equipment are being loaded and unloaded.
- b. Whenever a trailer has shells extending beyond the trailer end, place a cone or large object under the end of the extending shells to induce passing traffic to avoid the shells.

## **SAFETY AND OPERATIONS MANUAL 2011**

### **Section K Trailer Operations**

- c. It is not advisable to leave equipment unattended on a trailer for extended periods or overnight. Items may get stolen.

# SAFETY AND OPERATIONS MANUAL 2011

## Section L Coaching Operations

**L 1. Launch Driving and Passengers.** When launches are required to be with shells, shells and launches should stay within hailing distance. Shells should not row, or be let out of sight of the launch unless (1) appropriate measures have been taken to ensure the river is clear and the shell or shells have, in the coach's judgment, the knowledge and experience to recover a person in the water, or (2) there is an emergency.

- a. Coaches should position themselves to check river ahead for debris and other traffic. The best position for a launch is abeam (in some cases ahead of) the lead shell(s) and on the outside of river turns, provided they are not waking the trailing shell(s).
- b. Coaches and launch drivers shall make every effort to minimize launch-wake at all times when navigating the river.
  1. Launch-wake affects moored pleasure boats and makes it difficult for other shells in the vicinity to row. Launch-wake is troublesome for crews because it reflects between the bulkheads and continues for some minutes after a launch has passed.
  2. Coaches can minimize launch-wake during competitive pieces by positioning a coach or assistant at each end of a competitive course to monitor the crews while instead of following them in the launch. In such case the following rules apply:
    - a) There shall be no commercial traffic in transit between the two positions.
    - b) Both positions shall have operating radios.
    - c) Neither position needs to be completely stationary.
    - d) Normal SOM criteria apply for CQL's and launch requirements, except that a coach and a launch do not have to be close to the shells. For example, up to four crews in company with a CQL-3 in a launch at one end and an assistant (non-CQL) in a launch at the other can run the competitive course.
    - e) If only one launch is required, as in the above example, the CQL in charge of the practice remains with the launch.
    - f) This option is limited to the competitive straight stretches.
  3. Coaches shall reduce speed and proceed at minimum wake when approaching and/or passing other rowing shells.
- c. When driving a launch the coach
  1. Shall attach the engine kill lanyard to him- or herself. The launch will then stop if the driver falls overboard.
  2. Shall wear a PFD at all times.
- d. Launch drivers should stop launch engines by pressing the ignition cut off button or switch. Do not stop engines or run the carburetor dry by disconnecting the fuel line. Running the carburetor dry increases gumming up the carburetor, since the remaining fuel in the carburetor will evaporate completely and fuel additives will precipitate onto mechanical components.
- e. Coaches and launch drivers shall not overload the launches.
- f. All passengers in a launch shall wear a PFD when riding in the launch.

# **SAFETY AND OPERATIONS MANUAL 2011**

## **Section L Coaching Operations**

- g. Do not open emergency PFD containers except in an emergency. Do not use these PFD's for normal operations.

### **L 2. Minimum Wake Zones**

- a. Tower City straight stretch
- b. The area of the Boathouse.
- c. The end of the old river bed.
- d. Any of the three Competitive Straight Stretches when competitive pieces are under way.

### **L 3. Intentionally deleted**

## **SAFETY AND OPERATIONS MANUAL 2011**

- Map 0 Lower Cuyahoga River: River Mouth to Arcelor Mittul Middle West Dock
- Map 1 Old River Channel: Willow Ave. Bridge to Channel Park Marina
- Map 2 Norfolk Southern RR Bridge (NF # 1) to Detroit Superior Viaduct
- Map 3 Detroit Superior Viaduct to Carter Rd. Bridge
- Map 4 Carter Rd Bridge to River Dock
- Map 5 Lorain Carnegie Viaduct to Marathon Bend
- Map 6 Marathon Bend to Turning Basin
- Map 7 Turning Basic to Arcelor Mittul Middle West Dock

**LOWER CUYAHOGA RIVER: RIVER MOUTH TO STEEL PLANT MIDDLE WEST DOCK**



**OLD RIVER CHANNEL: WILLOW AVE. BRIDGE TO CHANNEL PARK MARINA**

**<NORFOLK SOUTHERN RR BRIDGE (NS # 1) TO DETROIT SUPERIOR**

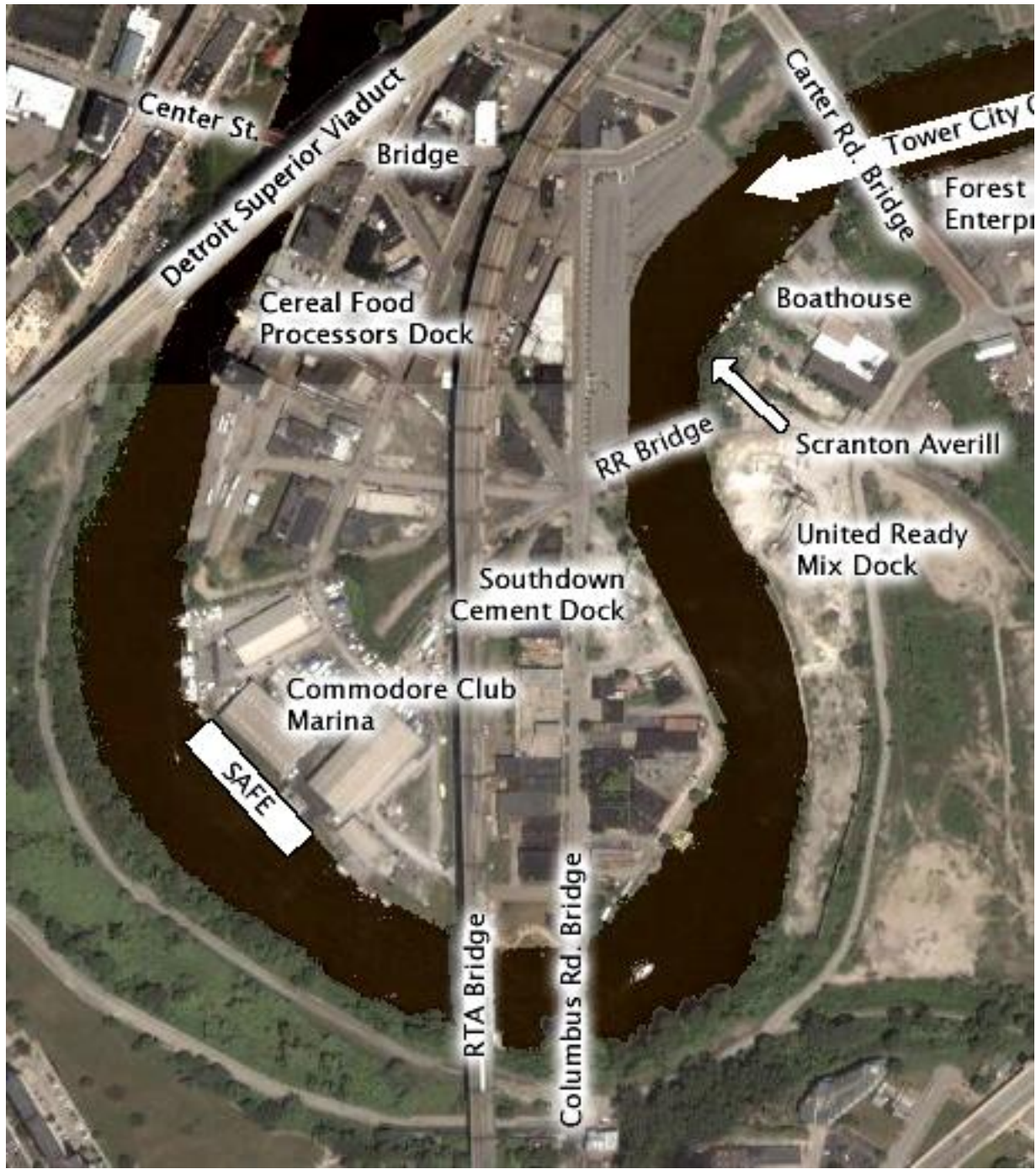


3702744.4

VIADUCT



**DETROIT SUPERIOR VIADUCT TO CARTER RD. BRIDGE**



Center St.

Detroit Superior Viaduct

Bridge

Cereal Food Processors Dock

Southdown Cement Dock

Commodore Club Marina

SAFE

RTA Bridge

Columbus Rd. Bridge

RR Bridge

Boathouse

Scranton Averill

United Ready Mix Dock

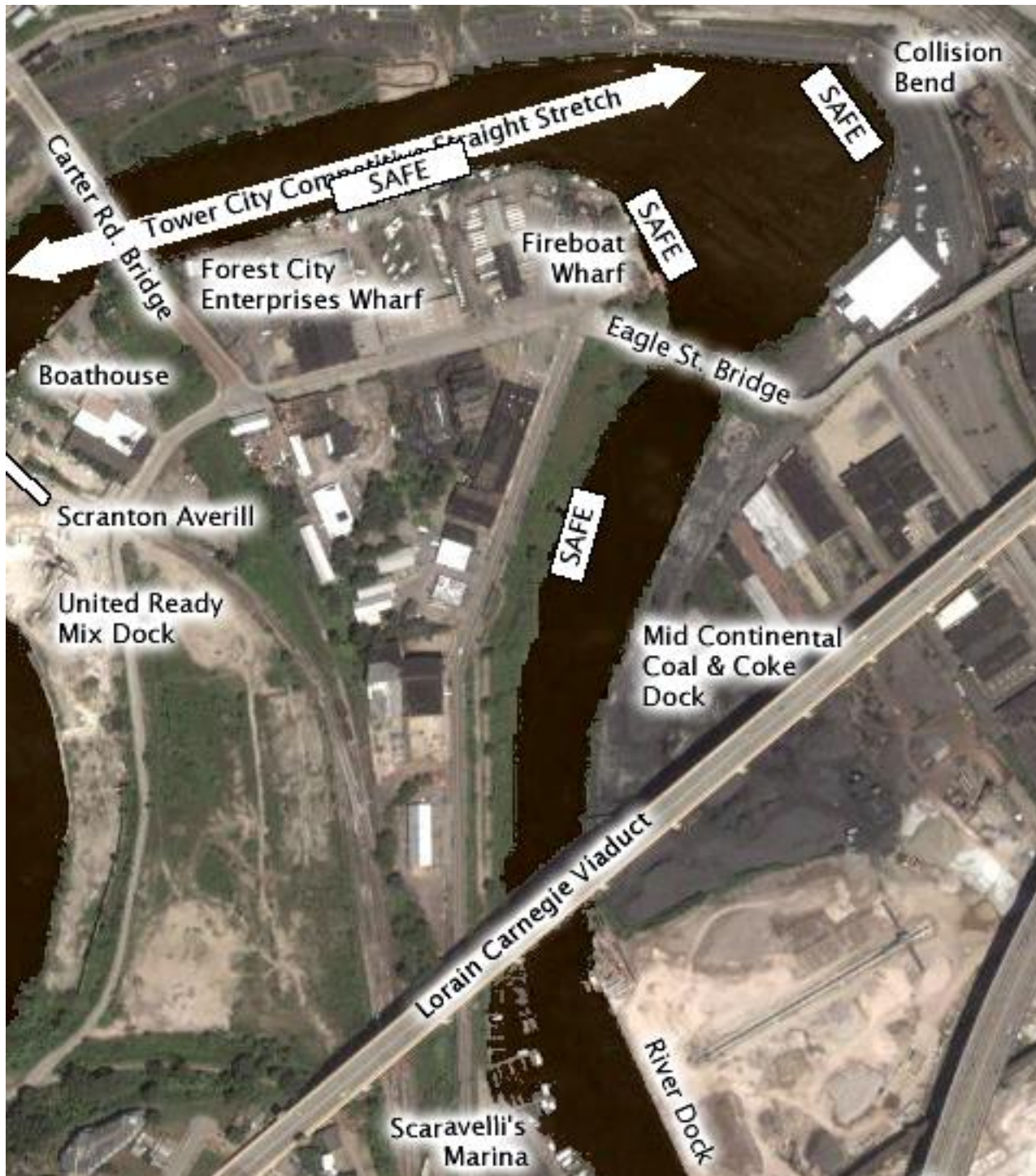
Carter Rd. Bridge

Tower City

Forest Enterpr



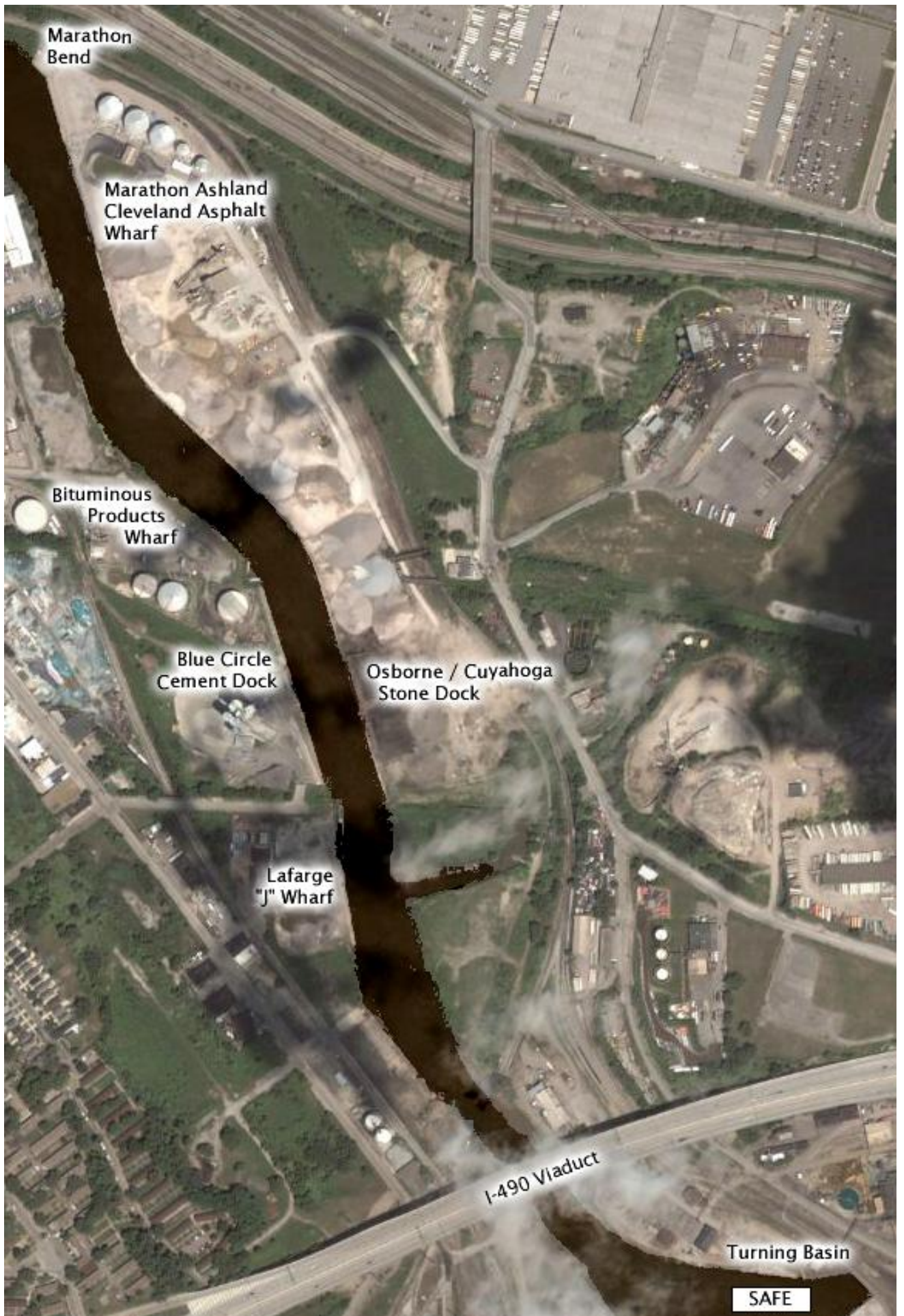
**CARTER RD. BRIDGE TO RIVER DOCK**





LORAIN CARNEGIE VIADUCT TO MARATHON BEND





Marathon Bend

Marathon Ashland Cleveland Asphalt Wharf

Bituminous Products Wharf

Blue Circle Cement Dock

Lafarge "J" Wharf

Osborne / Cuyahoga Stone Dock

I-490 Viaduct

Turning Basin

SAFE

**MARATHON BEND TO TURNING BASIN**

**TURNING BASIN TO STEEL PLANT MIDDLE WEST DOCK**



Turning Basin

SAFE

ISC Lower West Dock

ISC Lower East Dock

RR Bridge

ISC Middle West Dock

## SAFETY AND OPERATIONS MANUAL 2011

### Appendix 2 Coaching and Cox Commands

Coach and Cox Commands generally follow the following format:

<i>Who</i>	“All eight”
<i>What</i>	“20 strokes”
<i>Conditions</i>	“On the feather”
<i>Power and stroke rate</i>	“Full Power at 30”
<i>Execute</i>	“In two...one, two. Row.”

- a. Commands may combine, swap or omit command parts if they are redundant or not required. The execute command should be clear and sharp, so no one is left behind on the first strokes. Commands for high power at a specific stroke rating are with a preparatory count, “in two, full power at 30.” The high power comes on at the first stroke, but the crew takes 3 strokes to reach the desired stroke rate. Time the commands that involve a change in power or rating so that the execute command is given at the beginning of the stroke, which is at the “release” or early during the recovery. Exception is “weigh enough,” which should be given at the start of the “drive.”
- b. Examples of command elements are:
  - 1) *Who*: Bow pair / stern pair / bow four / stern four / bow pair and stern four / starboards / ports / bow man/ stroke / three and four / two man / seven man / all eight...practically any combination of rowers imaginable.
  - 2) *What*: 20 strokes / 40 strokes / 2 minutes / for the straight stretch / weigh enough / to row / to back / hold water / lean away / lean to port / lean to starboard / set it up / tie in / out / in / series of sixes / spin it / drills, etc.
  - 3) *Conditions*: On the feather / on the square / full slide / half slide / three quarters slide / arms only / arms and backs only / pause at the release / pause in the middle, etc.
  - 4) *Power and stroke rate*: Quarter power / half power / three quarters power / full power / zero power, etc.
  - 5) *Execute!* Up in three, NOW! / ready all, ROW!
- c. Typical Cox and Coach Commands: An abbreviated sequence of commands follows.

“All eight, push off in three, one - two - three - push!” – Push off the dock.

“Bow man, one stroke” – Point the bow away from shore. Only one person is rowing so it is not necessary for a sharp execute command.

“Stern four to row, bow four set it up, on the square, quarter power, ready, ROW!” – Row away from the dock using the stern four.

“Three and four in, in two, one - TWO!” – Change from stern four to stern six rowing. The bow pair will set the boat up.

“Stern six to row, bow pair set it up, one series of six's, swap out every 20 strokes, on the feather, three quarter power, up in three, NOW!” – The boat will row 4 sets of 20 strokes by sixes. Every 20 strokes a new pair will weigh enough and set the boat, and the pair that had been setting up the boat will start rowing, at 3/4 power.

“Bow pair in, three and four out, in two, one - TWO” – Change the six combination of rowers rowing.

“All eight, 20 strokes, full power at 30, up in three, NOW!” – 3 plus 20 stroke power piece at 30 strokes per minute. The first three strokes build the stroke rate.

## SAFETY AND OPERATIONS MANUAL 2011

### Appendix 2 Coaching and Cox Commands

“ Power on port, ease off on starboard.” – Differential power turns the shell around corners. In this instance the shell will turn to starboard.

“Weigh enough and ride it” – The eight stops rowing, brings the oars to the middle of the recovery, balances the boat and lets it run, trying to keep the oars off the water. Give this command at the beginning of the power drive.

“Weigh enough, hold water.” – Emergency stop.

“Weigh enough, lean to port, ports hold water.” – Uses the boat's momentum to slew the shell to a new heading.

“Starboards to row, ports to back, ready, ROW” – Turns the shell around. Each side keeps time and rows or backs while the other side recovers.

“Bow to row, stroke to back.” – A way to turn the shell around while most of the rowers set the boat up.

“Stern four back it down, bow four set it up.” – Moves the shell backward.

“Bow six set it up, stern pair to row, ready, ROW” – Approaching the dock, no speed is needed.

“Lean away” – Approaching the dock, this raises the dockside oars to clear the dock.

“Stroke back it down” – Slews the stern to starboard, into the dock.