



NAVIGATION

Member's Name:	Member's Number:
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EVALUATION CRITERIA

Navigate a facility to arrive at a required destination/position.

Requirements:

- Visibility must be greater than 1NM and sea conditions calm.
- Use at least 3 waypoints and one course change of 20 degrees or more.
- For facilities with no installed GPS or Electronic Charting System (ECS), complete Preparations and Seaman's eye Navigation sections.
- For facilities with an installed GPS or ECS (Radar and depth sounder optional, if installed), complete Preparations and Electronic Navigation (GPS or ECS) sections.
- **NOTE:** Use of paper charts only required if available for area of operation.

A drill will automatically be deemed unsatisfactory if any of the following conditions are met: (S)

- Jeopardizing safety of passengers and crew (i.e., Engine Cutoff Switch, jewelry, etc.)
- Unsafe operation or navigation of the boat.
- Failure to wear and use serviceable crew safety and survival equipment (PPE).
- Failure to properly assign and utilize crewmembers.
- Failure to use applicable operational risk management and updating as necessary.

All steps (as applicable) with an (S) must be performed for a satisfactory drill.

PREPARATIONS

(S) Brief crew on mission, specific job responsibilities, and forecast environmental condition.

NOTE: Chart preparation completed as necessary.

(S) Coxswain verbally assign lookout.

Coxswain assigns helmsman, if needed.

SEAMAN'S EYE (MANUAL) NAVIGATION (No GPS or ECS)

(S) Clear boat from pier and start on course. (if not already u/w).

(S) Identify terrestrial landmark or aids to navigation to be used to steer to all turn points.

(S) Steer boat directly to all turn points.

Used compass to determine course to steer (if installed).

Coxswain demonstrates use of time/distance/ speed relationships.

(S) Estimate position utilizing terrestrial ranges, depth sounder, ATON and/or seaman's eye.

(S) Report navigation situation to crew (i.e., nearest hazard to navigation, depth of water, recommended course) at least once each leg.

(S) Come to bare steerageway/ stop if navigation situation is unclear.

(S) Operate vessel IAW Navigation Rules & Regulations (lights, sound signals, etc.).

(S) Arrive at final destination position



NAVIGATION

Member's Name:	Member's Number:
ELECTRONIC NAVIGATION (GPS or ECS)	
(S) Activate the GPS/DGPS or ECS.	
(S) Enter waypoints into the GPS/DGPS or ECS.	
(S) Insert waypoints into a route and active route.	
(S) Provide ETA to destination.	
(S) Clear boat from pier and start on course. (If not already u/w).	
(S) ECS ONLY: Pilot facility toward the turn point using system navigation data, visual and radar information (use all means available-do not over rely on the electronic charting system.) to make good, estimated times. Adjust navigation plan and update remaining ETAs as needed due to traffic, safe speed, sea conditions, etc.	
GPS ONLY: Verified positions by using the depth sounder, if available.	
(S) All turns must be made within 100 yards of the turn point.	
(S) Determine boat's speed using the GPS/DGPS or ECS, stopwatch, or clock.	
Coxswain demonstrates use of time/distance/ speed relationships.	
Determine set and drift.	
(S) Facility remained within 1/10 of a nautical mile (200 yards) of the intended course.	
(S) If helmsman is used, steered boat directly to each turn point using proper helm commands.	
(S) Recommend course to maintain or regain track.	
(S) Report navigation situation to crew (i.e., distance left/right of track, time to go to turn, nearest hazard to navigation, depth of water, recommended course) at least once each leg.	
(S) Come to bare steerageway/ stop if unable to fix position, maintain plot, or piloting situation unclear.	
(S) Operate vessel IAW Navigation Rules & Regulations (lights, sound signals, etc.).	
(S) Arrive at final destination position within 100 yards and +/- 5 min. of ETA.	
COMMENTS	