

**UNITED STATES POWER SQUADRONS  
BOC-OTW TRAINING COMMITTEE**

**ADVANCED COASTAL  
NAVIGATOR GUIDE**

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For information regarding insurance coverage of United States Power Squadrons sanctioned events, please refer to the insurance information on the [USPS.org](http://USPS.org) website.

**In the event of an accident, call for medical help and provide care to the extent of your training (CPR, First Aid). After rendering aid, contact the proper authorities based on your state law. As soon as possible, contact, in this order (until you are able to reach one), the Regional Director, BOC Rear Commander, ANEO, or NEO for further directions. In addition the USPS Headquarters Director must be notified at 800-367-8777 (800-FORUSPS)**



## GENERAL

This guide contains information for both the Advanced Coastal Navigator Candidate and the Advanced Coastal Navigator Certifier.

### Terms and Conditions

1. It is a condition of taking this course that the candidates acknowledge the fact that there are inherent dangers involved in on water activities. These dangers range from simple inconvenience to serious injury and even death. Conditions can change rapidly, unexpectedly putting even the best planned situation at risk. To this end, safety is of paramount importance. Candidates must at all times wear a properly sized and fitted personal flotation device on the docks or the boat. Furthermore Candidates agree to comply with all regulations and safety instructions given by the instructor. Failure to comply will lead to student's immediate expulsion from the course. This decision is at the sole discretion of the instructor.
2. Boating is physically demanding. Normal access to marina and docks is required. Candidates are required to board a small, open boat unassisted. The student needs to be able to safely support their own weight and have sufficient flexibility and balance while entering and moving around in a boat on their own. Candidates must have sufficient upper body strength to secure themselves during high-speed maneuvers. Candidates must have vision sufficient to see water, boats, hazards and navigational aids at reasonable distances and lighting conditions. Hearing must be adequate to hear and understand instructions, audible warnings and sound signals.
3. Certifiers will decide how all courses are to be conducted. This includes whether or not to go on the water and when to terminate and/or reschedule on the water portions of the course in the interest of safety. Candidates are to observe all requirements, provisions, regulations and orders made by any competent authority relating to or affecting the use of the craft (such as law enforcement). If the student is using their own craft they are to inform the instructor of any special requirement, provision, regulation or order pertaining to the specific vessel. Candidates will at all times obey and carry out all lawful commands and instructions given by Certifiers necessary to complete the coursework. This shall apply regardless of who owns the vessel being used. The instructor's decision in these matters will be final.
4. All craft used in instruction, regardless of ownership, shall carry all equipment required by state, federal and local law, be legal to operate in the waters the instruction is given, and carry a current Vessel Safety Examination sticker.
5. If a candidate's craft is being used for training purposes they must maintain at their own cost a comprehensive policy of insurance covering all usual risks.
6. The student warrants that all representations made in the enrollment process are true and correct.
7. Anyone 18 or under must have a parent or guardian sign all paperwork.
8. The student warrants that they have made full disclosure of all material circumstances, including health, physical limitations, issues of vessel limitations, and of everything respecting the providing of this instruction.
9. If any of these conditions is held to be invalid or unenforceable that will not affect the validity and enforceability of the rest.
10. This agreement cannot be assigned without prior written consent. Any variation to any of these conditions is invalid unless accepted in writing, and the terms and conditions of this agreement shall prevail over any sought to be enforced.

## Candidate's Guide

Welcome to Advanced Coastal Navigator (ACN). This is the third step in the United States Power Squadrons On-The-Water (OTW) Boat Operator Certification (BOC). At this level of certification, you will be asked to demonstrate some basic boating and advanced piloting skills to an Advanced Coastal Navigator Certifier (ACN Certifier). Upon successful completion of the on-the-water demonstrations, and the required course work, you will be granted your Advanced Coastal Navigator certification.

### What is in it for you?

Since its inception, the USPS certification program has been regarded as a leader in on-the-water boat training and certification and is recognized by the USCG and other boating organizations. Our certifications have been valuable in assisting members in chartering boats in the United States and Europe. The USPS Boat Insurance program recognizes the USPS Boat Operator Certification program (BOC) and offers discounts on insurance policies based on the BOC level achieved. We have been recently told that some other insurance programs offer similar discounts. As the program develops, we will be adding many more partners to our growing list.

## Candidate's Requirements

Advanced Coastal Navigator candidates are required to have visual and auditory acuity (drivers license is acceptable). To receive the Advanced Coastal Navigator (ACN) certificate, candidates are required to first attain the Inland and Coastal Navigator (IN and CN) levels of certification. The on-the-water ACN Navigation skill (ADN) may be completed before the entire classroom and seminar requirements of IN and CN are completed, as long as the Advanced Piloting Course and the CN Navigation skill (NAV) are completed prior to the ADN skill demonstration. Completion of the following courses, seminars, and skill demonstrations are required before the ACN Certificate will be granted:

### Required Courses:

- Advanced Piloting
- Marine Navigation Systems or (ME 103)
- Cruise Planning

### Required Seminars:

- Emergencies on Board (EO)
- Marine Radar (this is optional for CN, but required for ACN, even if the candidate completed Advanced Piloting 2005 or later).

### Skill Demonstrations

- First Aid (FA - Offered by American Red Cross or American Heart Association)
- Advanced Navigation (ADN)

### Recommended But Not Required

- CPR/AED (Offered by American Red Cross or American Heart Association)

When your ACN Passport is complete contact your Regional Director (RD), and send him/her your original Passport and all supporting documentation (Be sure to keep a copy for your records and in case the original is lost). The RD will check the materials and if correct will credit you with ACN. Headquarters will send you your certificate and wallet card. Your new rating will also show up in DB2000.

## The ADN OTW Advanced Navigation Skill Demonstration

Advanced Coastal Navigator is based on Advanced Piloting (version 2011 [any version after 2005]). As such, it emphasizes electronic navigation with traditional navigation as a backup. While electronics are not absolutely necessary for ACN completion (traditional navigation is accepted), the use of a GPS or electronic charting system is highly recommended, as this is the current USPS standard. Regardless, traditional plotting (printed chart) procedures are required, so it is recommended that you refresh your basic plotting skills as taught in Advanced Piloting. During one of the legs of your route, you will take a fix of at least 20 minutes duration and compare it to your GPS or traditional fix (or both), as well as your DR position.

Operating in conditions of Restricted Visibility (fog, heavy rain and seas, and night cruising) is a requirement at the ACN level. We have thus chosen to have an exercise at night as the time is totally predictable. If conditions provide for reduced visibility during daytime hours and the vessel is equipped to operate in these conditions (AIS, Radar, and GPS Chartplotter), the exercise may be conducted under the reduced visibility in combination with night operations.

While it is true that most power boaters travel at higher speeds and usually make it to their port or anchorage before nightfall, there are times when this will not or cannot happen. Situations such as mechanical breakdown, weather, illness, accidents, stopping to help others or travel plans changes may get in the way. The experience for ACN is to leave from a port during daylight hours and return to the same port at least an hour after nightfall so you get to see the same area under daylight and nighttime conditions.

Advanced coastal cruising is typically done in less protected waters where a greater variety of conditions may occur. However, many cruisers may travel the length of an entire coast, often running for more than one day at a time, and never be out of the sight of land. While it is desirable and recommended that at least part of the ADN cruising skill demonstration be conducted out-of-sight of land, it is not required for this certification. As such the oceans, Great Lakes, Chesapeake, Delaware, Gulf of Mexico, the Salish Sea, San Francisco Bay and other similar bodies of water are acceptable.

It is also recommended that part of the cruise be conducted in waters with sufficient ATONs available for the activity and if possible, shared with larger commercial traffic (this should include proper radio communication if required for safety). Therefore, most inland lakes and rivers are unacceptable for ADN skill demonstrations.

Some areas of the Illinois, Tennessee, Lower Columbia, and Mississippi Rivers along with large reservoirs might be considered as being acceptable, provided they do not offer narrow, parallel, defined banks that guide the candidate along the course for the majority of the cruise and RD concurrence for the skill demonstration to be performed on these waters is obtained. When ACN skills are demonstrated on water that does not fully challenge the candidate with each experience, such as running an inlet or performing GPS and DR navigation without the aid of shore structure to guide the candidate, the ACN Certifier may accept other evidence such as extensive coastal cruising experience or question the candidate to test his/her knowledge. The goal is to provide as closely as possible, open water, near coast, navigation skill demonstration in daylight and at night.

Since Advanced Coastal Navigator is based on Advanced Piloting, it is expected that you have knowledge of tides and currents.

While tidal experience is desired, it is not mandatory. You will be asked to determine the predicted height of tide at times during your cruise, as well as determining the effect of tidal currents (set and drift) on your boat. Physically anchoring your boat is not required for ACN (this has been covered in both IN and CN). You will however be asked to select a suitable anchorage for the area of your cruise and determine the proper rode for an overnight anchorage (if you were to anchor and procedure for setting the anchor alarm).

Every area is different so the actual types of navigation skills used will differ some from area to area. When planning the actual training exercise, consider, to the extent possible, providing a diverse set of conditions to demonstrate and experience. In addition to open water navigation, harbor/port entrances, selecting areas appropriate to take a minimum twenty minute long running fix and maintaining DR navigation without the assistance of electronic navigation (except radar in fog), the candidate should maintain periodic fixes (abeam, or by taking two or three bearings and plotting the results.

### **What to do before the day of the training and skill demonstration?**

Your ACN Certifier will discuss the route with you in person, by computer, or phone. At this time you and your ACN Certifier will determine where you will start (Waypoint 1, WP1) and where you will finish (WP6 or more). Then you will plot your route (on a printed chart/Chartplotter or both), inserting at least four additional waypoints, for a total of 5 or more legs. The length of each leg depends on the local conditions, but each should be long enough to provide extended time on a course line and to realize the effect of tidal current on the boat. The total distance for the exercise will vary depending on the speed of the vessel but should provide at least two hours of daytime and two hours of reduced visibility navigation. A suggested distance is approximately 10 - 20nm in daylight and 5 - 10nm in reduced visibility.

ACN Certification will also include Man-Overboard routine (MOB).

### **What should I bring with me?**

- PFD (required to be worn by everyone aboard during all USPS training exercises).
- Jacklines, harness and tether are suggested on a sailboat when going forward.
- Personal strobe light or glow stick attached to your PFD
- Red flashlight to minimize light use onboard
- White flashlight to illuminate ATONs as you pass.
- A watch with an illuminating or luminescent face will aid you in recording times
- Traditional Plotting Tools (Suggest: parallel rules/USPS plotting tool, dividers, and several graphite lead pencils [note: no ballpoint pencils])
- Hand Bearing Compass. Binoculars with a bearing compass built in are optional but an excellent tool.
- Personal gear (hat, sunglasses, sun screen, drinking water, food and snacks, sun protection,, appropriate clothing for both daytime and nighttime).
- Waterproof bag to carry your gear
- Your charts (every vessel is required to have at least one set of chart(s)) aboard to record cruise progress and the running fix(s) on.
- At least one EPIRB or personal locator beacon onboard is desired, but not required.

While not absolutely necessary, it is desirable to do the ACN Certification on your own boat.

### **Additional boat equipment**

- Compensated compass
- GPS with waypoint in it
- Manuals for electronic equipment, if possible
- VHF Radio
- Paper Charts for the area with planned course identified
- Other safety equipment as required by the U.S. Coast Guard or local authorities

**What to expect during the training?**

The ACN-OTW program has three steps. First, you will submit your cruise planning exercise (See NOTE A and explanation beginning on page 11) to your ACN Certifier for review. Once it has been approved, you may schedule your OTW portion with the ACN Certifier. Second, the ACN Certifier will explain the program and what is expected. This will be much like one of the USPS seminars, except it is usually completed in less than one hour. Third, you will perform the first leg of the cruise or a pre-designated training cruise OTW, in both daylight and limited visibility conditions.

You are expected to file a float plan for the cruise. The boat owner needs to familiarize the ACN Certifier and any candidates with the vessel so that everyone operating the vessel is acquainted and comfortable with it.

**How will the skills demonstration be conducted?**

An ACN Certifier administers the skills demonstration. An additional person should be available to assist you with some of the tasks. If you have a first mate with whom you normally cruise, include this person in your certification skills demonstration. We have found that the person assisting will also learn from the experience. The skills demonstration of the second person will not be evaluated unless they separately complete all the required exercises and are actual candidates for the ACN level of certification.

Additional electronic equipment such as radar or AIS (Automatic Identification System) may be used, but their use will not be included in the evaluation.

**How the skills demonstrations are “evaluated”**

The goal of this BOC program is your success as an Advanced Coastal Navigator. The ACN Certifier is not only a skill evaluator but also an instructor, if necessary. If you have difficulties with any task, the ACN Certifier will work with you (within reason) so you can complete what is required. You must complete all tasks. If you cannot complete all tasks the ACN Certifier marks off only those skills accomplished and signs the ED-C1 form. The candidate must keep the form and give it to the next ACN Certifier when planning to complete his/her remaining skills demonstration. When the candidate has successfully completed all the ACN skills demonstrations, the final ACN Certifier enters the completion using BOC Tools.

**Safety**

Safety of the crew and boat is the first concern. All practices on board must be conducted in a manner approved by USPS. A USPS member is in control of the vessel. Others can be at the helm but the USPS member is on board and in control. If, at any time you consider an act or routine dangerous, you should stop and discuss it with your ACN Certifier.

There are steps you can take to minimize the risk to you, your crew and vessel.

- The plan is required to have the candidate return after nightfall on the same, familiar course after a trip into open water.
- The training can be made safer by selecting a well marked, major ship channel, the use of a Chartplotter with waypoints and route, a backup GPS with the same route info and a depth sounder.
- If available, you can use radar for backup in case of poor visibility.
- Searchlights should be available to help avoid running into unlit markers or other obstructions but their use should be minimized because of the negative impact its use has on night vision.
- Minimize deck work at night unless safety harnesses and jack lines are used.
- Having more than one boat in a group is a possibility to consider during planning.
- If, for some reason, the need arises, you should also be prepared to wait until daybreak.
- Local weather forecasts and conditions as well as the vessel and crew capabilities must be taken into consideration.
- Training should be conducted in weather that all are comfortable with.



## Advanced Coastal Navigator Certifiers Guide

The following is the ACN Certifiers section for evaluating candidates for the Advanced Coastal Navigator certificate. The ACN Certifier may deviate from the expected demonstrations if the water conditions or vessel used do not allow the candidate to meet the Evaluation Criteria as written in a reasonable manner. Any alternate demonstrations must provide objective evidence the candidate has the skills to meet the basic criteria.

- Discuss the testing routine, and the route, with the candidate before the day on the water. The candidate must pre-plot his or her route (chart/Chartplotter?) prior to meeting for the skills demonstration certification. If this is not done, extra time will need to be allotted before leaving the dock.
- File a float plan with a responsible person remaining onshore.
- Ensure that skill demonstrations are held in a safe manner. (Advanced Coastal Navigator certification should be done in weather conditions consistent with the boat and crew capabilities. All parties on the boat need to keep safety first and foremost.
- It is recommended that in addition to the ACN Certifier and the candidate, a “look-out” is on the vessel to assure safe operation at all times. The lookout could be the first mate of the candidate.

Besides basic certification, the ACN Certifier may explain the skill to be demonstrated and may also teach or coach the candidate. This may be true especially when reviewing DR navigation skills with the candidate. The candidate must demonstrate OTW skills consistent with the ability to safely operate a vessel as required in both Inland Navigator and Coastal Navigator. These skills are described in the various training information provided for Inland Navigator, Coastal Navigator and in the required USPS courses, ABC 3, Seamanship, Piloting and Advanced Piloting.

Advanced Coastal Navigator is designed for navigation using electronic navigation systems, with traditional navigation as backup. However, if the candidate prefers, the entire certification can be done using traditional navigation methods (printed charts and traditional navigation tools). The requirements and evaluation may be adjusted as appropriate.

### ACN Skill Requirements:

- A boat suitable for overnight coastal cruising is required. A cabin is preferred, but not required.
- The boat should have necessary equipment for anchoring.
- It is necessary to have access to open water that is suitable.
- There is no speed requirement. The boat should be operated the way the owner normally and safely operates it.
- A GPS, Chartplotter, or Computer navigation system is recommended, but not required. If the boat doesn't have a GPS, the certifier, or student, should arrange to have a portable unit onboard for verification of DR plot.
- A hand-bearing compass is recommended. However bow-on bearings are acceptable for determining LOPs.

NOTE A: ADN Skill requires planning for two cruises: a three-day cruise (done as a paper cruise only) and a one-day certification cruise.

## Three Day Paper Cruise

Plan a three day cruise on your boat on waters in your area or home waters. This does not have to be part of the ACN Certification cruise (although it may be). This is a “paper cruise” only. This cruise may be carried out on oceans, sounds, bays, large lakes, or rivers. The cruise may be a non-stop cruise along coastal areas or a day-to-day cruise with stops in an anchorage or marina for the night. For planning purposes, the cruise will have four souls onboard, Captain plus three crew with one period on the water greater than 24 hours and the necessary watch schedule.

- Vessel: Sail or power vessel.
- Charts: Plot using charts for your cruise area. You can use electronic charts to plan your three day cruise. Electronic software along with charts are available to all members. Electronic charts, NOAA vector and raster and Corps of Engineers charts for your area can be obtained online at no cost.
- Label courses in Magnetic.
- Speed: Use your normal cruising speed.
- Fuel: Amount of fuel onboard and amount needed for cruise.
- Range: Range with fuel onboard plus reserve.
- Distance: Distance based on your normal cruising speed for 3 days but not less than 168 nautical miles for boats that will overnight at a marina.
- Plan an anchoring location even if you do not normally anchor. This plan should include proper tide calculations including scope for your location and conditions.
- ETD: Show estimated departure time.
- ETA: Show estimated arrival time allowing for tides and currents, weather etc...
- Weather: Note weather forecast for the cruise area, both short and long term for the time of the cruise.
- Watch Schedule: Plan a watch schedule for the three day cruise using the captain plus crew.
- Water: Amount of water onboard. Plan water needs for a crew of four.
- Food: Plan meals for crew of four for the cruise, three days, plus emergencies.

Discuss your cruise with your certifier on the day of your on-the-water navigation and skills exercise.

### NOTE B: Operation with Reduced Visibility

Reduced visibility may include fog, heavy rain or heavy seas, or nighttime. While prudent skippers plan to cruise when the weather is fair and calm, often travelling from port to port during daylight hours and good weather, situations sometimes arise that disallow this. This could include an illness, family emergency, equipment failure, stopping to render assistance, or unpredicted weather conditions. ACN Certification requires a portion of the certification routine be complete before sunrise or after sunset or in other limited visibility conditions. While not your normal cruising style, you need to be prepared when adverse situations occur.

The Night time operation portion of ACN may be accomplished in whatever manner or order makes sense for the conditions. The night time tasks, as published, with these tasks being completed on the return to the dock is recommended, but not required.

NOTE C: Man Overboard

The recommended device for the MOB skill demonstration is a one-gallon, clear plastic milk bottle, about 15-25% filled with water. The size of this object closely resembles a human head. It is recommended that a loop of floating rope attached to the bottle to make actual retrieval easier (with a boat hook for instance). The activity will be done in daylight and good visibility only and may be a group activity.

With IN, we taught a modified Williamson Turn which is useful when on plane or when an extended or unknown period of time may have expired, because it brings you back onto the reciprocal course and allows you to retrace where you travelled. For ACN, we will use a “Quick Stop” method of recovery, where the MOB is announced as soon as it hits the water. The candidate will execute a quick stop maneuver, turning the boat 90 degrees and simultaneously pulls the throttle back to idle. The candidate then directs the crew and maneuvers the vessel for an expeditious recovery. The goal in this case is to minimize the time in the water.

For training, this maneuver should be conducted in a location and in seas that will allow it to be performed safely. The candidate should understand the limitations of maneuvering with large seas and the impacts it would have on locating and recovering a MOB.

NOTE D: Dead Reckoning (DR) for ACN

In addition to all of the expectations for CN DR, the candidates should demonstrate:

1. An understanding of the potential impact for wind and current on each of the expected DR legs.
2. Establish estimates for set and drift for each leg
3. Correct the course and leg time to compensate for set and drift

The accuracy of the navigation will be subject to how well the boat can maintain course and speed. Also the candidate is expected to account for wind and currents. The evaluation is based on the overall performance of the student and the distance from the objective. The DR leg is expected to be within .15 nm/nm of the intended waypoint(s). At the conclusion of the DR exercise, the instructor will provide feedback on performance and accuracy. At the conclusion of the DR section, the instructor will provide feedback on performance and accuracy. The candidate may wish to retry the exercise, as needed (if time permits).

**Skill: ADN – On-The-Water Navigation and Boat Handling Skill**

SKILLS	EVALUATION CRITERIA – ADVANCED COASTAL NAVIGATOR
Number of Students	When more than one candidate is on board some activities will be group activities.
Trip planning and preparation (paper cruise). See NOTE A.	Candidate completes all the cruise preparation sheets and chart plotting before meeting for the OTW demonstration. Create a 3-day cruise and include all the requirements as mentioned in Note A (with one period on the water greater than 24 hours and the necessary watch schedule assuming a 3-person crew).
Trip Planning (actual one-day cruise)	Any portion of the above “paper cruise” may be used for the actual skill, or a separate cruise plan may be developed. It is required for safety reasons that the cruise will depart and return to the same location. Part of the cruise will be completed at night (see NOTE B).
Estimate the expected current for each leg from tables or electronically.	Current and wind calculations for the expected trip should be completed and calculations discussed with the certifier. Discussion should include the effects of current and wind when departing from and returning to the slip or dock, as well as during the trip. Calculations will be compared with the actual affect on the boat during the cruise.
Create the route on a printed chart,	Route lengths should provide adequate time and distance to allow candidate to navigate, taking bearings, and take a running fix (20 minutes long minimum). At least one leg should be long enough to demonstrate current effect.
Enter into electronic navigation instrument(s)	This may be completed at any time prior to the day of the OTW; however, candidate must demonstrate they know how to do this especially if on somebody else’s boat.

<p>Check boat for safety requirements and equipment location (prior to departure).</p>	<p>Candidate explains and/or demonstrates the safety, communications, and navigations to everyone on board.</p> <ul style="list-style-type: none"> <li>• VSC Decal</li> <li>• Float Plan (Filed)</li> <li>• Fire Extinguishers</li> <li>• Navigation lights</li> <li>• First Aid Kit</li> <li>• Radio and other electronics</li> <li>• Flares</li> <li>• Thru-hull locations</li> <li>• Electrical Panel and Master Battery Switch</li> <li>• Throwable flotation device</li> <li>• Jacklines, harnesses and tethers, as appropriate for the vessel</li> <li>• Fuel is adequate (1/3 each way, 1/3 reserve) minimum</li> <li>•</li> </ul> <p>Lifejackets worn at all times by all onboard. Every safety item on the boat must be visibly displayed to all occupants on the boat (such as thru hulls, life jackets, fire extinguishers, etc). It is not enough just to point to a locker or floorboard and say “it is over there.” In some instances the use of safety equipment may need to be demonstrated (such as removing fire extinguisher from bracket, or operating thru hulls).</p>
<p>Weather Check</p>	<p>Candidate uses WX 1 (or local VHF weather channel), newspaper, radio, internet, television, (or any other reliable means) to confirm weather is within the requirements for ACN and for the boat to be used.</p>
<p>Communications</p>	<p>Discuss bridge to bridge communication channels and protocols. If waterway is controlled by the Coast Guard, or other authority (VTS) channels and communication protocols are discussed. If appropriate, communication bridge-to-bridge, or to VTS center is conducted.</p>
<p>Activate route in GPS/Chart Plotter or Laptop Charting Program.</p>	<p>Candidate is able to successfully activate the route created. If the GPS has a night screen, it is recommended the candidate know how to use it or set it on automatic so that as it gets dark, the GPS does not create a night blindness situation for the candidate.</p>
<p>Check boat for safety requirements and any other requirements (departure).</p>	<p>Candidate acquaints himself or herself with the vessel controls and systems. Proper ventilation times and checks are observed. Vessel fuel level is checked. Boat is verified to be in neutral. Once engine is running, applicable gauges and alarms are checked to verify proper system functioning (temperature, charging and oil pressure, etc). Outboard water flow is verified if visible. Specific vessel or generic checklist should be a part of the validation process.</p>
<p>Safe Operation</p>	<p>Candidate operates the boat safely during the trip. Candidate is required to maintain, steer, a heading that maintains his course. He is required to be aware at all times of traffic, other vessels, reefs or shallow areas and changes in weather". Candidate must not focus on computer, chart plotter, radar or GPS to the exclusion of his maintaining his course and looking for other vessels and hazards</p>

Depart from slip or dock	Candidate communicates intent to depart dock and what his or her role is to others onboard and nearby boat(s). Candidate should leave the dock in a controlled fashion with minimal contact. Fenders are removed from the exterior of the boat once safely away from the dock or slip. Appropriate departure signals shall be demonstrated or simulated. Group activity.
Plot GPS and abeam Fixes	Each candidate properly plots GPS and abeam fixes on the printed chart as they are reached. Candidate also uses two bearings to obtain a fix, when needed to supplement the other fixes.
Hand Steer following route	Without the use of an autopilot, each candidate can follow at least one leg of the route using the GPS/Chartplotter/laptop in chart view.
Use GPS Highway display to determine if you are on course (optional)	If GPS is so equipped, use the "Highway" screen to determine corrections needed to stay, or return to course.
One leg will be completed using DR.	Without using the electronic navigation instruments, one leg will be completed using compass, printed chart, and traditional navigation tools only.
Running Fix (minimum 20 minutes long)	While navigating the DR leg, the candidate takes a bearing and manually plots a line of position on the printed chart. At an appropriate time, candidate takes a second bearing on the same or different object and advances the first LOP to determine a running fix. This is then compared with the GPS location.
Pick a location for anchoring and look-up tide depth from tables or electronic programs. Calculate depth of water and rode required.	Candidate selects an appropriate area to anchor on the trip. Determination includes anticipated tidal changes for the duration at the anchorage, depths during that time period, the necessary scope, and amount of rode for the existing and anticipated conditions. Data used may originate electronically or from printed tables and charts. .
Setting Anchor (optional)	It is recommended, but not required that the candidate set the anchor and determine if it is holding. In some cases this may not be physically possible. In these cases, the methods should be discussed with the Certifier
Set anchor watch/alarm	If electronics are available an electronic anchor watch should be set using the plotting software. If anchor is not deployed this exercise is still recommended and it should be done when possible.
Weigh anchor (optional)	Candidate should instruct all on board how to safely retrieve the anchor and stow it. This is especially important if a windlass is used. If anchor is not deployed (see above), this should be discussed.

Return to dock	The candidate will return to the dock. Any part of the above requirements may be completed during this time. Regardless, this is part of the certification and the operation of the boat and equipment will be observed and noted by the certifier.
Restricted visibility and night operation Return to dock  NOTE B: See note on nighttime operation	Part of the return trip is to be completed after dark. The distance travelled at night may be limited, but should include portions that include some night navigation (holding station just off the marina and then proceeding in is not sufficient). Candidate should instruct all on board on night time safety requirements.
Man Overboard (MOB)  NOTE C see note regarding MOB routine.	The MOB is announced as soon as it hits the water. The candidate will execute a quick stop maneuver, turning the boat 90 degrees and simultaneously pulls the throttle back to idle. The candidate then directs the crew and maneuvers the vessel for an expeditious recovery.
Approaching dock	Candidate appropriately directs or performs the following: Candidate deploys fenders prior to approaching dock or slip. Candidate correctly uses the wind and current to assist docking to the extent possible and is able to safely bring the boat into a dock or slip. Speed during docking is judged to be the minimum required to maintain control of the boat. Using the controls, the boat's forward progress is stopped by the candidate, so that lines can be safely secured to the dock. Candidate uses methods appropriate for the area and conditions to secure the boat to the dock or slip. Group activity.
Complete the trip plan	Candidate reviews completed certification routines and discusses any concerns or question with the ACN Certifier. Discuss any lessons learned.
Complete paperwork	The ACN Certifier completes the candidate's OTW skill on the passport as appropriate, and submits the documentation to the Regional Director.