Navy 26 Standard Operating Procedures
United States Naval Academy
Basic Sail Training

DNASINST 3120.2

From: Director, Naval Academy Sailing

Subj: NAVY 26' (N26) STANDARD OPERATING PROCEDURES (SOP)

Ref: (a) PRODEVINST 3120.3A, USNA N26 Recreational Sailing Policies and Procedures

1. Purpose. To establish and promulgate the Standard Operating Procedures to be used both ashore and while aboard N26 Sail Training Craft (STC).

2. Background. Many different Naval Academy Sailing programs make use of the N26 STC. This manual provides standardization and gives specific guidance for N26 procedures. This manual augments the guidance contained in reference (a) and guides the professional sail training of midshipmen.

3. Action. All sailing program personnel - to include volunteers and recreational users of STC – shall strictly adhere and be held accountable to this instruction. This instruction is not all-inclusive and not a replacement for sound judgment. In all instances, those in positions of authority are responsible and accountable for compliance with this directive, and shall diligently enforce good order and discipline as it pertains to sound seamanship, navigation and conduct. Any person who finds that he or she cannot fulfill the letter and spirit of this instruction shall immediately notify the Director, Naval Academy Sailing.

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100. INTRODUCTION

The Standard Operating Procedures outlined in this instruction are detailed to address boat, facility, and program specific expectations and guidelines. These standards augment the material in the US Sailing Basic Keelboat Book and on the water sail training which provides the basis of the USNA Sail Training Program.

200. SAFETY

Safety is a matter of utmost importance at all times and requires the full attention of all crew members. All personnel should be mindful of their own personal safety by providing hats, sunglasses, drinking water, and sun block as needed. Additionally non-skid, non-marking, closed toe shoes shall be worn at all times.

200.1 BOARDING THE N26

The Skipper shall put on a PFD upon entering the boat and then distribute PFDs to guests and crewmembers while they are on the dock. The Skipper should take care to ensure all PFDs have a proper fit and are fastened correctly on all guests. Companionway hatch boards should immediately be placed below deck as opposed to in the cockpit to eliminate a trip or slip hazard. All personnel step onto and off the N26 amidships at the port or starboard shrouds. Only one person shall board or depart the boat at a time. Actions should be predicated with a vocal "Stepping On" or "Stepping Off" call to alert all other crew members to the possibly of a rocking boat. Once aboard it is important to always hold onto something sturdy when moving around the boat. Parts of the boat that have a silver color are a safe choice as compared to less sturdy lines or halyards. Take note of the tiller bungee which can be a trip hazard.

200.2 SAFETY BRIEF

Once all crew members are on board, the Skipper shall lead a safety brief using the Chartlet, stored in a cockpit lazarette. The brief shall include a check of all the required safety items, current weather conditions, crew tasks, initial sailing plan, and what to do in emergency situations. A discussion should also include how to contact the shore via radio or cell phone in the event of an emergency, especially one in which the Skipper is unable to take charge. The contact cell phone and/or radio shall be kept in audible and accessible range at all times.

200.3 PERSONAL FLOTATION DEVICES (PFDs)

PFDs shall be worn at all times by all personnel on board. It is the responsibility of the Skipper to ensure that PFDs are U.S. Coast Guard approved and fit each individual properly. Life jackets for minors are not available on the N26s and must be provided by the user.

300. RIGGING THE N26

Use the following procedures as a guideline to rigging the N26. Prior to departing the slip, the skipper should verify that the boat has been properly rigged.

- Decide on your departure procedure. If the boat needs to be twisted to set up for proper departure, it should be done before rigging while the deck is clear.
- Pump any water out of bilge and visually inspect that it is dry.
- Clear the foredeck by removing the topping lift from the bow pad eye on the deck and the spinnaker halyard from the bow pulpit. Attach both to the spinnaker pole ring on the mast. Pull the lines tight and secure tightly in the rope clutches.
- Retrieve the jib from the cabin and bring it to the bow. Attach the jib tack to the jib tack shackle located near the bow. Next, attach the jib hanks to the forestay by starting with the bottom hank and proceeding up to the head. Attach all hanks to make sure the jib is not twisted. Then, detach the jib halyard from the bow pulpit and attach it to the head of the jib.
- Uncoil the jib sheets and run them through the jib blocks. Then tie a figure-8 (stopper) knot at the end of each sheet.
- Next begin rigging the mainsail. Start by untying the mainsheet from the boom and then uncoil it, laying the uncoiled sheet in the cockpit. Keep the mainsheet cleated at this point, to keep the boom stable for rigging the main.
- Retrieve the mainsail and with the sail still rolled, slide the clew slug aft through the boom track and attach the outhaul shackle to the clew grommet.
- Secure the tack to the boom with the tack pin.
- Once the clew and tack are attached, tighten the outhaul and then unroll the sail in the cockpit.
- Insert mainsail luff slugs into the mast, starting with the head of the mainsail and proceed down the luff of the mainsail. Slide them up high enough to make room for the remaining slugs. Once all the slugs are in the mast, insert the slug stopper pin to keep the slugs in the mast track. The slug pin hole is located in the center of the mast a few inches above where the mast and boom connect.
- Rig the reefing line (see section 300.1).
- Remove the main halyard from the back of the boom and securely hold halyard at all times until refastened to the head of the sail.
- Tighten main sheet to prevent boom swing until ready to depart.
- Uncleat the boom vang
- Just before departure, remove the tiller bungee from the tiller.

300.1 RIGGING THE REEFING LINE

It is standard practice to always rig the reefing line prior to departure in the event you might need to reef the sail. It is crucial to rig this properly and tie it to the boom correctly so when you tension the reefing line, the sail is pulled down tight to the boom and pulled aft to create a flatter, smaller sail area.

NOTE: Anytime you are rigging or derigging the reefing line, you must keep constant contact with the outboard end of the reef line. If you release it and someone pulls the reefing line, it will be pulled into the boom and the reef line will become inoperable. ALWAYS ensure there is a good stopper knot at the outboard end of the line, it is properly tied to the boom, or you are holding it as you rig/ derig the reef line.

Here are the steps to properly rig the reefing line before raising the sail and before departure:

1) The reefing line cleat is on the starboard side of the deck by the mast in a triple rope clutch. Release the cleat and allow line to run free.
2) At the end of the boom, the reefing line should exit the boom from a sheave on the starboard side. Pull the line until you have substantial amount of slack. Untie the stopper knot.
3) Pull more line and run it through the reefing grommet on the leech of the sail from the starboard side of the sail to the port side of the sail. Make sure there are not any twists in the sail.
4) Take the end of the reefing line down the port side of the sail to the boom and feed it between the foot of the sail and the boom- AFT of the webbing that holds the mainsheet up but forward of the boom slug at the sail's clew. Pull some more line out so you have a lot of slack.
5) Loop the end of the line under the boom and back up toward the sail.
6) With the end of the line, you will tie a bowline around the standing part of the reefing line. You are NOT tying a bowline around the boom- you are tying a bowline around the standing part of the reef line before it was wrapped around the boom.
7) Hold the reefing grommet high in the air and verify that everything is rigged properly, there are no twists in the sail, the line is not crossed, and there is some slack in the line for when the mainsail will be raised. Cleat the reefing line at this point.

301. RAISING OR LOWERING THE MAINSAIL

When raising or lowering the mainsail, the maneuver is most efficient while the boat is pointed directly into the wind. Once wind catches the sail, the pressure will cause the mast groove sail slugs to twist and then bind. Any further adjustment will be difficult and cause problems.

Raising the Mainsail:

1) At all times, while raising the main halyard, the crew members shall be seated.
2) Take all slack out of the halyard and look up to make sure the halyard is not wrapped around a spreader.
3) Put the main halyard clockwise around the winch two times.
4) Point the boat directly into the wind and hoist the sail quickly.
5) As the sail is being hoisted, uncleat the mainsheet so the boom can swing freely.
6) Once the sail reaches the top of the mast, secure the halyard with the rope clutch.
7) Assess and readjust the main halyard tension as needed.
8) Place all excess halyard neatly down below.

Lowering the Mainsail:

1) Bring the halyard on deck and untangle it so the halyard can run free once released.
2) Turn the boat directly into the wind and open the rope clutch
3) Have a crew member temporarily stand up near the front of the cockpit to pull the sail down all the way.
4) As the sail is descending immediately pull the mainsheet in tight so the boom is centered and unable to swing.
5) Only once the sail is all the way down, turn the boat to the desired course.

302. RAISING OR LOWERING THE JIB

The jib shall not be used at any time inside the basin. Raising or lowering the jib while underway is best achieved on a close hauled course or a reach. Do not raise or lower the jib while sailing head to wind as you can potentially lose steerage of boat. Do not sail downwind as you raise or lower the jib as you may jibe unexpectedly.

Raising the Jib:

1) Exit the basin and sail clear of the seawall and all boat traffic.
2) Wrap the leeward jib sheet around the winch one or two times.
3) Sail to a close hauled or beam reach course.
4) While seated, quickly raise the jib halyard up tight and then secure it with the rope clutch.
5) Quickly trim the leeward jib sheet so the jib sheets do not tangle.
6) Assess and readjust the jib halyard tension as needed.

Lowering the Jib:
Lowering the jib should be completed prior to entering the basin with enough time to discuss with crew members the entry plan into the basin and docking procedures.

1) Analyze the wind and tidal current direction and determine the angle of your final approach to the basin. Approach on either a reach or close hauled course.
2) Check to make sure the jib halyard is on deck, untangled, and able to run free once released.
3) While sailing, pull the leeward jib sheet in snug so the foot of the sail is inside the bow rail. Place jib sheet in self-tailor cleat.
4) Immediately release jib halyard from the rope clutch (jib will generally come down about halfway)
5) Have one person move to the bow by walking forward on the windward side of boat. At all times, they should hold something secure such as mast, shroud, bow pulpit, or forestay.
6) Quickly pull down remaining jib sail and immediately return to the cockpit on the windward side of boat. There is no need to pull the jib completely down and bundle jib together on deck. If the jib sheet remains cleated, it will not go into the water.
7) It is important for the skipper to maintain a steady and smooth course so crew who ventures onto the bow stays on board the boat. Often you may want to slow down or flatten the boat by easing the mainsheet.

8) When approaching basin to return to the pier, the jib should be lowered early enough to get crew member back into the cockpit and prepared for the next evolutions once in the basin.
9) Safety is crucial thus it is important to minimize the amount of time a person is out of the cockpit. If wind or wave conditions make it unsafe for a person to walk on the bow either lower jib part way on it's own force or lower the jib when inside the basin

303. DEPARTING FROM THE DOCK

There are two ways to depart from the USNA piers on a N26 depending upon the wind direction and which side of the pier your sailboat is docked. You will either use a

1) 'MOORING BALL' departure when boat is docked on the leeward side of the pier.
2) 'SLINGSHOT' departure when boat is docked on the windward side of the pier.

When you depart from the dock, there are a few rules of thumb to abide by:

- Identify the wind direction and determine the departure process for your boat.
- Before you leave the dock, communicate the general departure plan with all on board and assign specific jobs: skipper, main and jib halyards, mainsheet handler, dock line handlers, etc.
- Always have mainsail reefing line rigged prior to raising the mainsail.
- Uncleat and loosen boomvang.
- Uncoil the mainsheet completely. Uncleat the mainsheet only as the mainsail is being raised.
- Raise mainsail only when boat is pointed into the wind.
- Depart under mainsail only, raise jib after exiting and clearing the basin entrance.
- Mainsail should not be raised while the boat is "in" the slip
- Gybing in the basin is strongly discouraged because jibing quickly in a tight space is difficult. In addition, the crew members may be caught by surprise with a jibe.
- All crew should be sitting in the cockpit unless their specific job requires them to do otherwise for a short period of time.
- When handling any dock line, it is important to 'snub it' around a cleat otherwise the dock line handler may be pulled into the water.
- Please note that on the N26 piers, all dock lines are attached to the pier and remain there at all times.

303.1 MOORING BALL DEPARTURE

Use this procedure if your boat is docked on the <u>leeward side</u> of the pier.

1) Maneuver the sailboat <u>out</u> of the slip with the dock lines (sails are NOT up). It is preferable to tie to the piling that has a walkway pier attached. Please note one of two scenarios below:
    a. If the boat is 'bow in" you simply move the boat backwards out of the slip so the bow can be tied to a piling with a dock line.
    b. If the boat is "stern in", you need to move boat out of slip and turn it around so the bow can be tied to a piling with a dock line.

2) Secure the sailboat to a dock piling using one dock line from piling to the bow cleat. Allow four to six feet of slack so the boat is not tight against the piling. This will allow the boat to 'wind vane' with the bow pointing into the wind.
3) Take time to make sure boat and personnel are ready to depart and review the departure plan.
4) Have all personnel sitting down in the cockpit to avoid being hit by the boom.
5) Uncleat and loosen the boom vang. Keep line uncleated.
6) Uncleat and loosen the mainsheet. Keep line uncleated.
7) Raise the mainsail while boat is still tied to piling.
8) Loosen the mainsheet to allow the boom to swing fully. Do NOT hold or restrict the boom or the mainsheet.
9) Adjust all sail controls properly including the outhaul, main halyard, boom vang, and reef line.
10) Have one crew go to the bow and cast off bowline. This person should attempt to direct the bow of towards the river.
11) Steer the boat appropriately and adjust mainsail for proper point of sail.
12) *****Please note***** if the boat needs to be steered away from the pier, you must quickly ease the mainsail, often to the point that it is luffing, to allow the boat to bear away from the wind efficiently.
13) Raise jib after departing the basin.

303.2 SLINGSHOT DEPARTURE

Use this procedure if your boat is docked on the windward side of the pier.

1) Maneuver the boat so it is in the slip with the bow pointing out. Note that the boat should be backed all the way into the slip to allow more 'slingshot' action. If the boat is "stern in" you will not need to maneuver the boat at all. If the boat is "bow in", you need to move boat out of the slip, turn it around using the dock lines, and back the boat back into the slip. Twist the boat prior to rigging.
2) Have all other personnel sit down in the cockpit to avoid being hit by the boom.
3) Uncleat and loosen the boom vang. Keep line uncleated.
4) Review the departure plan. Assign two dock line handlers and one person to raise the mainsail, and one person on the tiller. Analyze the wind direction.
5) Uncoil the mainsheet completely so the sheet will run free when uncleated. However, do not uncleat the mainsheet at this time.
6) Have the two bow line handlers get lines in hand. One stands on the port side on the cockpit seat at the forward edge. The other person stands on the starboard side on the cockpit seat at the forward edge. Each should be holding a dock line that is attached to their respective side outboard pilings. Make sure the dock line is led aft and outside the shrouds.
7) The stern line handler (who might also be the skipper) holds both stern lines and keeps the boat centered as much as possible.
8) Identify the exact direction of the wind. The skipper will need to steer this direction upon departure from the slip.

9) Slingshot the boat out of the slip by dropping the stern lines and then having the dock line handlers pull swiftly with strong equal force. As the boat is leaving the slip, line handlers should toss dock lines towards piling. Immediately thereafter, they should sit down in the cockpit. The faster the boat is pulled out of the slip, the easier the maneuver will be.
10) Skipper steers boat directly into the wind and holds that heading. The boat should still have momentum from the 'slingshot' maneuver.
11) A designated crew member, while seated, quickly raises the mainsail when the boat is pointing into the wind.
12) Uncleat the mainsheet to allow the boom to swing freely.
13) Once the mainsail is raised, the skipper turns the boat in the direction of the river.
14) Do not hold boom or cleat the mainsheet at this time.
15) Steer the boat appropriately and adjust mainsail for proper point of sail.
14) Confirm that all sail controls are adjusted properly to include outhaul, main halyard tension, boom vang, and reef line.
16) Raise jib sail only after departing the basin.

303.3 SPECIAL CIRCUMSTANCES REGARDING DEPARTURES

Sometimes the wind is perpendicular to the seawall (one direction or the other) and thus the sailboat is neither on the leeward nor the windward side of the pier. In this case, you will still use either the 'mooring ball' or 'slingshot' maneuvers. Watch the wind for a while and choose the plan that will be the most successful. Sometimes you might move the boat to the end of the pier, away from the seawall**.** Never tie the boat to the seawall and attempt a departure.

304. TACKING

Before tacking, ensure jib sheets are clear in the cockpit, your intended course is clear of other boats/hazards, and all crew members are in safe zones for the maneuver. Communication is important for all steps. The assumption is that you will tack from a close hauled course to a close hauled course. If you are intending to tack from any other point of sail, it becomes two separate evolutions- first being to head up to a close hauled course and then secondly to tack.

These are the general steps to tacking the jib on a N26:

1) The skipper says "prepare to tack" and crew members take their positions
2) The jib trimmer(s) places sufficient turns of the lazy jib sheet on the windward winch and takes slack out of the lazy sheet. The jib trimmer(s) also uncleats the working jib sheet from the self-tailor, removes excess turns on the working winch, and holds same in preparation to tack. The jib crew then reports back, "ready to tack".
3) Skipper prepares for his duties with the tiller and mainsheet and confirms by communicating also "ready to tack".
4) Skipper communicates "tacking" as he begins to turn the boat into the wind
5) When the jib begins to luff, the jib trimmer(s) 'breaks' the jib by releasing working jib sheet completely off the winch.
6) Once the jib has crossed centerline of the boat, but not sooner, the jib trimmer(s) pulls in on the new jib sheet as fast as possible.

7) Jib trimmer(s), depending upon wind strength, can either place another wrap or two around the winch and place into the self-tailor cleat or place jib sheet directly into the self-tailor.
8) If additional tension is needed on the jib sheet, the trimmer should properly place the winch handle in the winch and grind the sail in further.
9) Once the jib sheet is trimmed properly, the winch handle should be removed and placed in the winch handle pocket.

305. JIBING

A controlled jibe is the standard procedure while recreationally sailing an N26. Before jibing, ensure jib sheets and mainsheet are clear in the cockpit, your intended course is clear of other boats/hazards, and all crew members are in safe zones for the maneuver. Communication is important in all steps. The assumption is that you will jibe from a broad reach to a broad reach course. If you intend to jibe from any other point of sail starting on a course higher into the wind, it becomes two evolutions; first being to bear away from the wind to a broad reach course and then secondly to jibe.

These are the steps to jibing a N26:

1) The skipper slowly turns the boat to a course downwind to where the jib begins to collapse and partially fills to windward. We refer to this as the jib "winking". Then, the skipper turns the boat back up towards the wind just until the jib fills to leeward. The skipper should now be on a broad reach course and must look ahead for a visual reference to keep the boat steering straight ahead.
2) The skipper says "prepare to jibe" and crew members take their positions.
3) The jib trimmer places sufficient turns of the lazy jib sheet on the windward winch and pulls slack out of the lazy sheet. The jib trimmer also uncleats the working jib sheet from the self-tailor, removes excess turns on the working winch, and holds same in preparation to jibe. The jib crew reports back, "ready to jibe."
4) Continuing to steer straight (achieved by staying focused on the reference point), the skipper switches sides to sit to leeward. Skipper confirms crew communication by repeating "ready to jibe."
5) The mainsheet trimmer pulls in the mainsheet until the boom reaches the leeward corner of the transom (not centerline). Make sure mainsheet is pulled in by holding a single line with no wraps around hands or holding a bunch of line. Do not cleat the mainsheet.
6) The skipper gets a visual reference for the new direction of the boat after the jibe. The skipper slowly turns the boat further downwind by moving the helm away from the boom. As the stern of the boat swings through the wind, the skipper communicates "jibing." The boom will switch to the opposite side. As soon as the mainsail fills on the new side, the skipper puts the helm back in the center of the boat.
7) As the boom crosses centerline during the jibe, the mainsheet needs to be released quickly so the boom goes all the way out to the proper sail trim. Please note that the mainsheet will go out faster if the mainsheet block ratchet has been previously turned off.

Also note that if the wind is moderate to heavy, the mainsheet may go out very quickly so be careful not to get rope burn by letting it run through your hands.

8) As the jib collapses, the jib trimmer releases the working jib sheet completely off the leeward winch.
9) Once the jib has crossed centerline of the boat, but not sooner, the jib trimmer pulls in on the new jib sheet that has been previously wrapped around the winch pulling the jib in half way and placing it in the self-tailor cleat.

306. STOPPING

While recreationally sailing, you may want to temporarily stop the boat to discuss an evolution, adjust an item on the boat, or respond to a minor issue. Whenever stopping the boat, it is important to always remain in control of the boat.

With the sails up there are three recommended efficient and safe ways to stop and then start the boat:

1. Head to Wind: Stopping the boat in the head to wind position is quick and efficient. Start this maneuver by turning the boat directly into the wind. It is important to completely release both jib sheets from both winches so the jib does not catch wind. Uncleat and release the mainsheet so it is completely luffing. Though the boat will stop quickly, it is important to note that the boat will soon lose all steerageway and then start to drift backward causing you to have little to no control. Also, all people on the boat should remain seated in the cockpit to avoid being hit by the boom as it will be directly overhead and moving erratically. To start sailing the boat again once it is completely stopped in the water or moving backwards, turn the tiller towards the direction you would like to go and pull the jib sheet in on what will be the new windward side of the boat (effectively back winding the jib). Once on the new course, release the jib and bring it in on the correct side while pulling the mainsail in. Adjust both sails properly.

2. Safety Position: Stopping the boat in the safety position is simple, safe, and easy. This method is used for short period of time in light winds as the boat does drift forward. Also, the jib sheets may tangle. To put the boat in safety position, simply sail on a close reach and then let both the mainsail and the jib sail out so both are completely luffing. To start sailing again, first pull in the jib making sure the jib sheets are untangled, and then pull in the mainsail. Adjust both sails properly.

3. Heave to: Stopping the boat in the heave to position is the best way to stop the boat for an extended period of time. It is also the first step used when putting a reef in the mainsail. To heave to, first sail to a close hauled course. Then slowly begin to tack, trying to make the boat go as slow as possible throughout the tack. As the boat crosses head to wind, DO NOT release the jib sheet. Leave it securely cleated on the old leeward, or new windward, winch. The jib will backwind and cause the boat to be pushed to a reach. To complete your heave to position, ease the mainsheet completely so the main luffs and the forward motion of the boat will stop. At the same time, slowly put your helm to leeward to turn the boat towards the wind without tacking. Once the jib fills with enough pressure in the jib, your bow will turn away from the

wind. At this point continue to push the helm to leeward until it is touching the leeward rail. Take your tiller bungee and attach one end to the leeward backstay cleat. The other end should be attached to the stern cleat. This will keep your tiller secure in its position. Your boat is now balanced and should no longer be making forward speed, just slight leeward drift. A good check that you are properly in a heave to position is to look in the water to the windward side of your rudder. The water should be continually swirling in this area indicating that the foils are sufficiently stalled.

307. HANDLING THE MAINSHEET

When handling the mainsheet (or any other line on a N26) it is important to hold just a single line in your hand with your thumbs pointing toward you. Avoid wrapping the line numerous times around your hand as this may cause injury. While sailing and adjusting the mainsheet, it is important to always hold the mainsheet, even if it is cleated, so you have the ability to release it quickly if needed.

The mainsheet block in the middle of the boat that is mounted on a pedestal prior to the mainsheet cleat should be a "ratchet block". There is a black knob on the side face of the ratchet block that turns the ratchet mechanism on or off. To change the status to on or off, it is best done when there is a little pressure pulling in on the mainsheet. When the mechanism is "on" and you pull the mainsheet in, you should hear 'clicks.' This creates friction and helps hold the mainsheet in. When the ratchet is 'off', and you pull the mainsheet in, it will not have a clicking sound. The sheet will come in smoother and will release without friction. If you let the mainsheet out under pressure and you hear the 'clicking' sound, your mainsheet is rigged the wrong direction through the block.

There are certain circumstances when you may want your mainsheet to be released quickly and smoothly, and thus it would be beneficial to turn the ratchet "off". Situations include when maneuvering in close quarters such as docking or around other boats, or in light air conditions.

308. REEFING

Reefing reduces mainsail area and is a crucial evolution when the wind is too strong or the boat is heeling too much. A reef will help control the boat. Here are some general considerations:

- The reefing line should always be properly rigged and ready to use before the boat departs from the dock
- Ensure personnel remain clear of the boom and mainsheet to prevent injuries from erratic movements
- Never stand inside the boat's companionway (hatchway) at any time as erratic movements of the boom/ boom vang could cause injury
- Personnel should stay in the cockpit as much as possible. On a N26, it is generally not necessary for a person to go onto the deck or stand in mast area.
- Reefing a N26 during a recreation sail is best done while in the heave to position. Due to the halyard and winch configuration, it is easier to reef while in a heave to position on starboard tack. But reefing can be accomplished on either tack.

- Do not go head to wind or downwind to reef a N26.

These are the general procedures to reef a N26:

1) Skipper says "prepare to reef".
2) Heave to, preferably on starboard tack
3) Wrap the main halyard around the winch (preferable port winch) and make sure the main halyard is clear to be eased.
4) Uncleat and release the boom vang.
5) Ease the mainsheet until the sail begins to luff.
6) Lower the main halyard until the reefing grommet in the luff of the main is at the level of the reefing hooks. Place the reefing grommet on a hook and make sure it is not twisted.
7) Tighten the main halyard and cleat securely.
8) Pull the reefing line to bring the leech reef point down to the boom. Make sure the reefing line is tightened sufficiently to ensure the reefing grommet is as close to the boom as possible (almost touching)
9) Reevaluate that the main halyard has sufficient tension. Re-tension if necessary and place below.
10) If you have reef ties available, tie up the excess sail to increase your visibility. Insert one end of the reef tie line through the reef point grommet in middle of the sail and then tie the sail up by tying the reef line around the sail and back to itself with a square knot. DO NOT tie the reef line around the boom. Repeat this procedure using the second grommet in the middle of the sail.
11) With your third reef tie, use it to secure the back end of the main at the clew. Insert the reef tie through the reef grommet on the leech. Tie this sail tie completely around the boom and secure. This will act as a safety line if your reef line breaks.
12) Re-tension the boom vang.
13) Pull jib into proper position and pull in the mainsheet to continue sailing.

308.1 REMOVING A REEF

Taking a reef out of the sail allows more sail area when the wind lightens. Here are some general considerations:

- Ensure personnel remain clear of the boom and mainsheet to prevent injuries from erratic movements
- Never stand inside the boat's companionway at any time as erratic movements of the boom/ boom vang could cause injury
- Personnel should stay seated in the cockpit as much as possible. On a N26, a person does not need to go up on deck or stand by the mast to execute the maneuver.
- Removing a reef on a N26 during a recreation sail is best done while in the heave to position. Due to the halyard and winch configuration, it is easier if the boat is on a heave to position on starboard tack. Do not go head to wind or downwind to take a reef out on a N26.

These are the general procedures to take a reef out of a N26:

1) Skipper communicates to all to "prepare to shake the reef".

2) Heave to, preferably on starboard tack.
3) Remove any reef tie lines you may have used to tie the sail up.
4) Wrap the main halyard around the unused winch and make sure the main halyard is clear.
5) Uncleat and release the boom vang
6) Ease the mainsheet until the sail begins to luff
7) Release and uncleat the reefing line.
8) Ease the main halyard until the reefing grommet is able to be removed from the reefing hook. Remove the reefing grommet from the hook.
9) Raise the main halyard until there is proper tension in the luff of the sail. Cleat the main halyard.
10) Make sure the reefing line has some slack and cleat in that position.
11) Take main halyard off the winch and secure appropriately below.
12) Re-tension the boom vang.
13) Maneuver sails and boat out of a heave to position, pull in sails and continue sailing

309. CREW OVER BOARD RECOVERY

All N26 skippers must know how to react quickly to a crew overboard situation. On the N26 we practice the 'Quick Stop Recovery' method.

These are the general steps for crew overboard recovery on a N26:

1) The person sighting the crew overboard should call out "Crew overboard, port (starboard) side" and point to the victim until relieved
2) Toss a floatable cushion or extra PFD to the victim
3) If not already on a close-hauled course, begin to turn the boat up towards the wind while pulling jib sheet and mainsheet to close-hauled trim
4) When approximately 2-3 boat lengths away from the crew overboard, tack the boat but do not release the jib sheet or the mainsheet. You are tacking into a 'modified heave to position' and then will be bearing away from the wind
5) Keep the mainsheet and jib sheet trimmed in as you slowly continue to turn the boat downwind in a circular track keeping a constant radius from the crew overboard. A good tip is to keep the crew sighted off the traveler bar which is slightly aft of the beam of the boat. "Trust the circle" you are creating.
6) Once directly downwind, jibe the boat then immediately release the mainsheet and jib sheet allowing both to run completely free so sails are luffing.
7) Steer toward the crew overboard in somewhat of a slow safety position (not head to wind). Approach crew overboard so the boat is preferably to windward (the crew is to leeward of the boat). The boat should be basically stopped in the water and you make contact with the crew overboard.
8) Rescue the crew overboard at the scoop transom.

310. SPECIAL PROCEDURES

This section provides guidance on special situations that may occur during use of an N26. Not every specific situation can be covered and therefore sound judgment is critical in these circumstances.

310.1 AVOIDING COLLISIONS

The basic purpose of the Navigation Rules is to avoid collisions. The boat that has the right of way is the stand-on vessel and should maintain course and speed. The give-way vessel must keep out of the way and should make its change of course obvious and early. It is always the vessel's obligation to avoid collisions even if it has right of way. Unless danger is straight ahead, one of the best ways to avoid a collision is simply push or pull the *tiller toward trouble*, which will turn your boat away from the object. You can also help avoid collisions by slowing or stopping your boat.

310.2 ANCHORING

The anchor that is in a N26 is for emergency purposes only. It is not permissible to anchor the boat for recreational purposes. The anchor is located in the locker on the foredeck at the bow of the boat. When performing your safety check, ensure that the line (anchor rode) is securely tied to both the anchor and the eye bolt found in the bow locker.

Preparing to Anchor

1) Determine a preferable spot to anchor. Ideally, your anchorage spot should be out of all ship channels, near a windward shore, and in shallow waters (8'-20').
2) Drop your jib as you approach your anchorage area.
3) Send someone to the foredeck to retrieve the anchor and rode from the bow locker.
4) While crouching or sitting on the bow, uncoil the anchor line and clear it from the anchor so it will run freely upon lowering.
5) Prepare the main halyard so it will be free to run in anticipation of dropping the main.

Anchoring

1) When near your desired anchorage location, point the bow into the wind and drop the mainsail (per section 301).
2) Keep the boat pointed into the wind until it loses forward momentum.
   Once the boat is no longer moving forward, drop the anchor from the bow through the bow pulpit and into the water. Pay out the line until the anchor touches bottom keeping note of how much line has been let out.
3) Continue to let the boat drift back as you let out line that is 3-5 times the depth of water in which you are anchoring. Secure the line to the cleat.
4) Take note of your position relative to a fixed object, preferably on shore, to check for drift. You should continue to monitor your position every 5 minutes to assure there has been no anchor drag. If the anchor is dragging, pull it completely out of the water, rinse the mud off the anchor, and then reset it as above.

5) Call Cutter Shed for assistance.

Retrieving the Anchor & Departing the Anchorage

1) Raise the mainsail (as described in the mooring ball dock departure section).
2) Once raised, keep the mainsheet uncleated so the sail freely luffs and the boom can swing.
3) Standing on the bow in a low and balanced position, begin to pull up the anchor line. Once the anchor is visible, wash any mud and debris off the anchor by dipping it in and out of the water until the anchor is clean. Then, hoist the anchor onto the deck
4) Begin sailing clear of the anchorage area. If you have forward momentum, this is accomplished by steering the boat with proper sail trim. If the boat is completely stopped or moving backwards, please refer to section 306 which describes how to get boat moving after stopping in the head to wind position.
5) Restow the anchor into the bow anchor locker by placing the anchor line in the locker first by following the line from the eyebolt in the locker toward the anchor and neatly coiling the line. Then place the anchor on top of the coiled line, close the locker, and secure the locker with the latch.

310.3 ACCEPTING A TOW

There are several reasons why you might be towed in a N26. Some of the more common ones include the lack of wind, an impending storm, or an opposing current which is greatly slowing your return to the basin. In any case, a power driven vessel will assist you in getting to your destination. Below are the two most common types of tows and how to prepare and maneuver your N26 safely while under tow.

Being Towed Astern of another vessel:

1) Lower your jib
2) Retrieve your tow line from the cabin. Send a crew member to the bow of the boat with tow line in hand.
3) Uncoil the tow line. Attach it to the bow cleat by placing the loop of the tow line over the cleat so that it forms an oval shape over both ends of the cleat. Then, pass the entire coil of line through the bow pulpit on either the port or starboard side.
4) Walk with the coil of line back toward the front of the cockpit with the towline outside the shrouds. Recoil the remaining tow line so it is ready to be thrown to the vessel where you will be attached to for the tow.
5) If conditions permit you to drift with no sails and present no danger of running into any shallow water or fixed objects, you may choose to take your mainsail down and secure it to the boom. Otherwise continue sailing toward your destination.
6) When the towing vessel is within 50 yards of your boat, lower your mainsail and secure it (per section 301).
7) As the tow vessel approaches to take your tow line, steer a course parallel to the boat receiving your tow line. When the tow vessel is close enough to receive your line, toss them your tow line. At this time, all crew members should be seated in the cockpit.

8) If the boat you are tying to is another N26, once the tow line is secure on the boat ahead of you, signal to the motorboat that the tow line is securely attached and you are ready to have the tow boat increase speed.
9) While being towed, there must be a helmsman alert and steering at all times. Follow in the wake of the boat directly in front of you, looking out for any objects in your path you may need to make slight course adjustments to avoid such as crab pots or buoys.

If accepting the tow line from another N26 who will be towed behind you, steer parallel to their course as you approach being careful not to go so close that the masts of the two boats, when heeled, can touch. Once you have received the tow line of the other vessel, quickly snub it and then secure it to either the port or starboard aft cleat by using a cleat hitch. Make sure to keep the length of the tow line as long as possible for ease of maneuverability while being towed.

The tow boat will communicate when you should drop off from the tow line. When you have reached your destination, the tow boat will slow down and call for boats to be released in an orderly fashion, with the aft most boat being released first and the first boat in the tow line being released last. Once released from the tow line, be prepared to paddle a short distance to your final destination if necessary.

Towing Alongside:
It is important to remember that crew members should never place any part of their body between the towboat and the N26 as this will cause injury.

1) If possible, sail to an area where you can clearly drift with no sails for 2 minutes without running into hazards such as a buoy or shoal water. When there, and the tow boat is in site, drop your jib.
2) Then drop your main and secure it to the boom. Make the boom rigid by tightening the mainsheet.
3) Await the arrival of the tow boat. One crew member should be near the horn cleat located at the beam of the boat. Another crew member should be on the same side near the horn cleat located near the stern.
4) When the tow boat arrives, receive the bow line of the tow boat and tie it to the horn cleat at the beam so the boats are separated by 3'.
5) Receive the stern line of the tow vessel and tie it to your boat's stern horn cleat so the two boats are snug.
6) Before the tow boat accelerates, make sure all the crew is seated in the cockpit.
7) Once under tow, it is crucial that the skipper of the N26 communicates with and steers exactly in the same direction as the tow boat. If the N26 skipper fails to pay attention to steering, the tow boat will be unable to tow effectively.

310.4 RUNNING AGROUND

While you should attempt to never put the N26 in a position to potentially run aground, it can inevitably happen. If so, it is important to remain calm and follow the below steps.

1) Remain in the N26 at all times. Do not attempt to get into the water to push or pull the N26 free.

2) If it is safe, with the sails still up use the sails and crew's weight to gently heel the boat over enough to raise the keel off the bottom and sail away. Do not try to excessively heel the boat. If the boat sails free in a few minutes, immediately return to Santee Basin and notify the Cutter Shed Watch Team.
3) If the N26 remains stuck longer than a few minutes, lower the sails and immediately call or radio the Cutter Shed Watch Team to come tow you back to Santee Basin.

311. RETURNING TO THE DOCK

When you return to the dock, there are a few rules of thumb to abide by:

- Before you start entering the basin, identify the wind direction, which dock you are returning to, and what side of the dock your boat slip is on.
- Before you enter basin, communicate the general docking plan with all on board and assign specific jobs: skipper, main and jib halyards, bow person to get jib down, mainsheet handler, dock line handlers, etc.
- Take the jib down before entering the basin. If wind/ waves/ weather provide an unsafe situation, take jib down immediately upon entering basin. See section 302 addressing the expected way to take the jib down.
- The final approach to the dock is with mainsail only. It is crucial to prepare the main halyard properly so the sail will come down quickly when released. Prior to entering the basin, and after the jib is lowered, pull the main halyard from below decks, make sure it is uncoiled and free to run smoothly.
- Jibing in the basin is strongly discouraged. Jibing quickly in confined waters is difficult. In addition, the crew members on the boat are not necessarily focused at the task on hand and may be caught by surprise with a jibe.
- Always take mainsail down when the boat is pointing directly into the wind (otherwise the mainsail slides will twist and the sail will not come down)
- The final approach into your specific slip is <u>always bow first</u> into slip with mainsail down. After landing has been made, you may need to twist your boat to the bow out position.
- Remember to focus on your boat heading in relation to the wind and adjust your sails accordingly, to speed up or slow down when making your dock landing approach.
- It is acceptable to do a 'fly by' to demonstrate to crew members your intended plan or if you are not properly prepared for a landing.
- If your final approach to the pier area with the mainsail up is too fast or you have incorrect boat positioning, tack around and do a second approach.
- If your approach into the slip with your mainsail down is too fast and you have space to maneuver, turn the boat in a tight circle to slow momentum.
- If your approach into the slip with your mainsail down is too fast and your bow is already in the slip, DO NOT attempt to physically slow the boat by placing any part of your body between the boat and the dock / piling to slow it down. Have all crew members sit in the cockpit and let the boat hit the dock or piling.
- Use a spring line on the dock line cleat in the middle of the boat to help slow the boat. Always immediately snub it around the cleat and do not try to hold only with your hands. See section 311.3 for more details.

311.1 LEEWARD SIDE RETURNS

Use this procedure if your boat is to be docked on the leeward side of the pier.

1) Take jib down before entering basin by following the general guidelines noted above.
2) The goal is that you will be lowering your mainsail prior to arriving in the slip and the boat will glide under its own momentum. Please realize that the wind speed and boat momentum will be different each time you return to the dock thus affecting the speed of your boat.
    a. If it is very windy, you will come in with speed. However, once your mainsail is lowered, the wind will push you away from the dock and slow you down quickly.
    b. If it is light air, you will not have much speed coming into the dock. Once your mainsail is lowered, you will not have a lot of momentum to glide forward.
3) Approach your slip from a reaching angle and remember to monitor your mainsail trim as it is your speed control.
4) Determine the direction the boat will be going when pointed directly in the wind and realize that angle will be your last path into your slip.
5) Anticipate the distance your boat will glide once the mainsail is down and approach the pier accordingly.
6) Turn the boat DIRECTLY into the wind and quickly lower the mainsail per section 301. Often this requires a crewmember to reach up and actually pull the sail down.
7) As the mainsail is being lowered, immediately pull the mainsheet in and cleat it so the boom is centerline and does not swing. This allows the skipper to stand up to see where the boat is going without being hit by the boom. Please note the tiller lifts up so a skipper can comfortably steer while standing.
8) Skipper then steers into the slip with the boat's momentum
9) If there is too much momentum when the mainsail is down, the skipper can steer the boat in a tight circle or zig zag track to dissipate the forward motion.
10) If the boat stops in the water before getting to the dock, do not 'scull' the boat in. Simply raise the main by pointing into the wind, turn the boat toward the river, and sail away from the dock and into open space. Repeat the process and make a second attempt at docking.
11) Please note the general guideline above about snubbing the dock line to slow the boat and handling the lines once inside the slip.

311.2 WINDWARD SIDE RETURNS

Use this procedure if your boat is to be docked on the windward side of the pier.

1) Take jib down before entering basin by following the general guidelines noted above.
2) The goal is that you will be lowering your mainsail while pointed directly into the wind prior to arriving in the slip. The boat will glide under its own momentum. Wind speed and boat momentum will be different each time you return to the dock thus affecting the speed.
    a. If it is very windy, you will come in with speed. However, when you turn into the wind and lower the mainsail, your boat will slow down quickly. Also remember

that, since you are on the windward side of the dock, the wind will always push you downwind toward the dock.

b. If it is light air, you will not have much speed coming into the dock but also once your mainsail is lowered you will need to be patient as the wind will eventually push you to the dock.

3) Best to have final approach slow
4) Approach the windward side of the pier on a reaching angle and remember to monitor your mainsail trim as it is your speed control.
5) Steer boat close to the windward side of the pier making sure the leeward side of boat or the boom does not hit a piling or the dock, the mainsheet will not catch on a piling, nor will the stern of the boat hit a piling when you begin your turn up into the wind.
6) Sail slightly past your slip and then turn the boat DIRECTLY into the wind as you quickly take down the mainsail.
7) As the mainsail is being lowered, immediately pull the mainsheet in quickly and cleat it so the boom is centerline and does not swing. This allows the skipper to stand up to see where the boat is going without being hit by the boom. Please note that the tiller lifts up so a skipper can comfortably steer while standing.
8) The Skipper continues to steer the boat past head to wind in a circle and starts to steer toward the slip.
9) If there is too much momentum, the skipper can steer the boat in another tight circle or zig zag track to dissipate the forward motion.
10) If the boat stops in the water before getting to the dock, be patient as the wind will generally push you downwind to the dock. Do not 'scull' the boat.
11) Please note the general guideline above about snubbing the dock line to slow the boat and handling the lines.

311.3 SNUBBING

Snubbing a dock line is a maneuver used to safely slow and then stop the boat as it is entering the slip. To snub a dock line, utilize the boat's amidships cleat. At no time should a person try to buffer an impact by placing themselves between the boat and dock/ piling.

Here are the steps to snub a dock line during a landing:

1) As the boat is about to enter the slip (without sails), a crew member should move to stand on the deck at or around the amidships docking cleat on the side that is near the finger pier. Hold the shrouds for personal stability.
2) Attain the spring line that is attached to the piling at the end of the finger pier in one of two ways:
    a. A dock line handler will toss you a line.
    b. A crew member may need to physically reach for the dock line.
3) Once you have the dock line, quickly loop it around the FORWARD horn of the amidships cleat and pull the slack out of the line. At all times, keep your hands one to two feet away from the cleat.

4) Use a method of alternately snubbing (holding) and easing (slacking) the dock line around the cleat to control the rate of movement into the slip. The desired action is to slow the boat down to a stop before the bow hits the dock.
5) Once the boat is stopped, cleat the spring line and tie up the boat appropriately in the slip.

312. STOWAGE PROCEDURES UPON RETURNING

These are the guidelines regarding proper stowage of the boat upon return to Santee Basin

- Return to dock under mainsail only.
- Boats shall be returned to the proper slip number and shall be moored alternating bow-in or stern-in to reduce damage to the masts.
- The dock lines are secured to the pier and then adjusted on cleats on the boats.
- Boats shall be tied and centered in slip by five lines: two bow lines, two stern lines, and a spring line on the finger pier.
- Roll the sails and store below in the bow. Sails should be rolled on the boat and not on the dock.
    - The mainsail should be put away first to clear the cockpit area. To roll the mainsail, keep outhaul and tack attached to boom. Place the sail on one side of boom. Crew members stand on other side of boom. Fold the head of the sail down to the second batten. Roll from the second batten down to the foot of sail. Remove from boom. Place sail on port side of forward berth below. Do not fold sail in half as this breaks battens.
    - To roll the jibe remove from forestay and bring jib back to cockpit. Place the sail on one side of boom. Crew members stand on other side of boom. Fold head of jib down to approximately the second seam of sail. Roll toward foot of sail. Jib sheets stay attached to the sail and are coiled and secured independently. Do not wrap jib sheets around sail.
- Uncleat the boom vang
- Release backstay tension then loosely cleat the line.
- Position traveler car in the center of the boat and cleat on both sides.
- Pull the majority of the mainsheet to the middle of the boat. Cleat mainsheet at both cockpit and stern cleats. Provide enough mainsheet tension to prohibit boom from swinging. Properly coil and hang mainsheet from the middle of boom with a clove hitch.
- Secure tiller amidships with shock cord. To do this, clip one plastic hook to the backstay cleat. Loop the bungee around the tiller twice, aft of the black tiller extension attachment point. Then secure the other plastic hook to the backstay cleat opposite the other plastic hook to the backstay cleat opposite the original one.
- Attach main halyard to the shackle on the end of the boom (not to the outhaul). The boom should be parallel to the deck.
- Mainsail tack pin placed onto tack fitting.
- Mainsail slide pin placed into hole in mast groove.
- Jib halyard led to starboard pulpit with slack taken out and rope clutch secured.
- Spinnaker halyard led to port pulpit with slack taken out and rope clutch secured.
- Topping lift led to pad eye on foredeck with slack taken out and rope clutch secured.

- All rope clutches in down and locked position, slack taken out – lines coiled and hung on winch.
- Store winch handle in the winch handle pocket in cockpit
- The sponge, tow line, reef ties are stored in the large bailing bucket below deck.
- The whistle, chartlet, and first aid kit are stored in the starboard locker in the cockpit.
- The paddle is stored on a forward berth down below.
- Remove all trash.
- All PFDs (minimum of six) should be hung up on lines provided at top of compression post. PFDs should never be stored on floorboards or seats.
- The throwable cushion should be stored in a cockpit locker.
- Pump any water out of bilge and visually inspect that it is dry.

312.1 TWISTING THE BOAT

Twisting the boat is sometimes required to properly position boat in slip prior to departure or after return to dock. It is a very dynamic and sometimes confusing evolution but once learned it is a fairly easy maneuver.

- Twist the boat prior to rigging on departures or after derigging on returns. The tiller must be secured in the center of the boat with the shock cord before twisting.
- At least two crew are needed to complete this maneuver. If more than two crew are present, stage at least one of the crew on the dock to help handle lines as you exit and re-enter the slip.
- Slowly move the boat out of the slip. As the boat moves out of the slip hold on to the lines that are attached to the outmost pilings – one from the finger pier side and one from the piling side.
- Have one crew take the line from the finger pier and a separate crew take the line from the piling.
- Allow the boat to turn in its natural direction based on wind as you slowly exit the slip. Holding onto the previously mentioned lines guide the boat so that it turns perpendicular to the slip. At this point there should be one crew near the bow with a line in hand and one crew near the stern of the boat with a line in hand.
- Keeping the lines under the appropriate tension, these crew should now simultaneously walk around the boat in the same direction, effectively spinning the boat beneath them.
- As the crew walk, it is important to keep the lines outside all of the shrouds, backstay, forestay, etc. as the boat is twisted. It is also important that the crew continuously hold onto something solid on the boat as to not be pulled off the boat.
- Once the boat is in the correct direction to slide it back into the slip, the crew should be on the port and starboard amidships respectively.
- Pull the boat back into the slip and retrieve the new bow/stern lines and spring line from the dock or line handler and correctly cleat off the lines to stow the boat.

400. N26 RECREATIONAL SAILING BOUNDARIES

Navy 26s shall not be sailed west of the Severn River Bridge, east of a line drawn between Greenbury Point and Sycamore Point, inside Annapolis Harbor, or otherwise into any river or creek.

A shoal area of note within the sailing boundary: As you exit the basin and continue across the river, there is a shoal area parallel to the shore and toward the bay past red nun "14". ***You will run aground if you pass RN 14 and continue half the distance to the shore.***
A review of the Annapolis Harbor chart is required prior to sailing.

500. ALCOHOL AND TOBACCO POLICY

Alcoholic beverages will not be consumed by anyone, in any manner, while on board an N26. Alcoholic beverages are not permitted on the piers or quay walls or in the parking lot at Santee Basin. Additionally, tobacco products shall not be used on board an N26. Failure to abide by any aspect of this policy shall result in administrative and/or disciplinary action.

600. REPORTING MATERIAL DISCREPANCIES, DAMGE, OR INJURY

All material discrepancies shall be reported to the Cutter Shed watch immediately by submitting a Sail Craft Discrepancy Report. Temporarily fixing an item is NOT authorized on board Navy 26s without permission from the Director, Basic Seamanship Training.

All incidents or injuries, no matter how minor, shall be reported using the Incident Report Form.