

A 3D simulation of a ship's deck, showing the hull and deck structure in a light blue color. A blue arrow labeled 'Wind' points towards the upper right. The text is overlaid on the simulation.

Single-Handed Docking Maneuvers 'Single Screw Vessels' In Medium to High Winds

Captain Tom Schmidt

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Basic Strategy for Single - Handed in medium to high wind conditions on Single Screw Vessels

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Basic Strategy for Single - Handed in medium to high wind conditions on Single Screw Vessels

Exercise Assumptions

- 1) Wind Strength is 12 - 30 knots
- 2) Wind direction is adverse to docking
 - Cross winds
 - Wind pinning to the T-Dock
 - Wind is windward to the T-Dock
 - Wind is additive to the current conditions
- 3) No dockhands to assist

Basic Strategy for Single - Handed in medium to high wind conditions on Single Screw Vessels

Basic Strategy

- 1) Stern to windward
- 2) Stop the vessel
- 3) No Running

Basic Strategy for Single - Handed in medium to high wind conditions on Single Screw Vessels

Basic Strategy - Rationale

- 1) Stern to windward
 - Vessel speeds are low
 - Bow does not blow off with wind
 - Boat acts as weather vane
 - Vessel can 'reverse' quickly away from danger (pilings) by simple placing in forward.
- 3) Helmsman is close to pilings for attaching lines.
- 4) Engine rpms are adjusted to wind conditions

Basic Strategy for Single - Handed in medium to high wind conditions on Single Screw Vessels

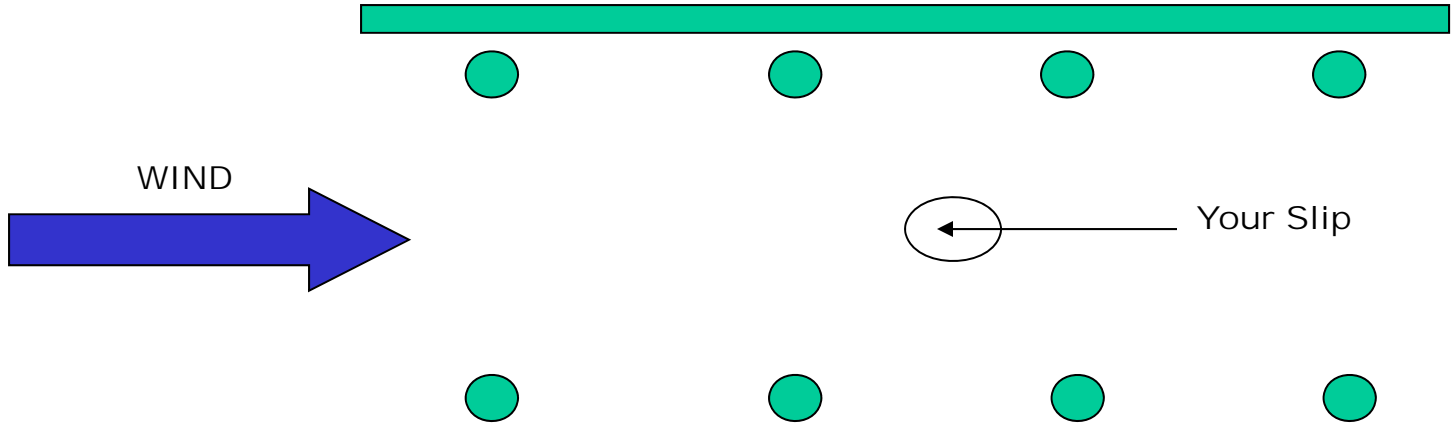
Basic Strategy

1) Stop the boat

- Make the boat fast to a windward piling or cleat.
- Allows for time to set and/or reset spring or warp lines.
- There is no need to 'run' on the deck.
- Line handling and setting is easier and there is time to re-tie, re-set, adjust the lines properly.

Basic Strategy for Single - Handed in medium to high wind conditions

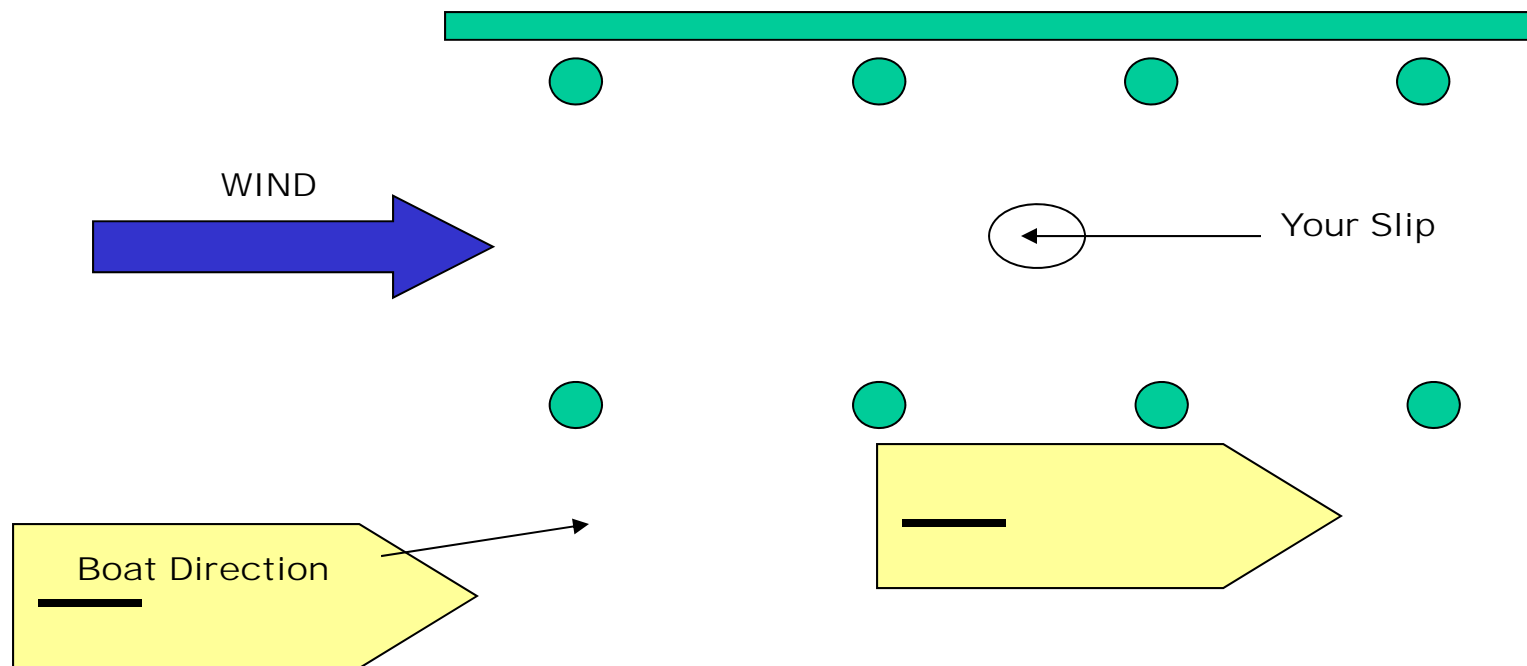
1st Exercise Warping into a slip



Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

Caution: Watch for vessels protruding beyond their pilings



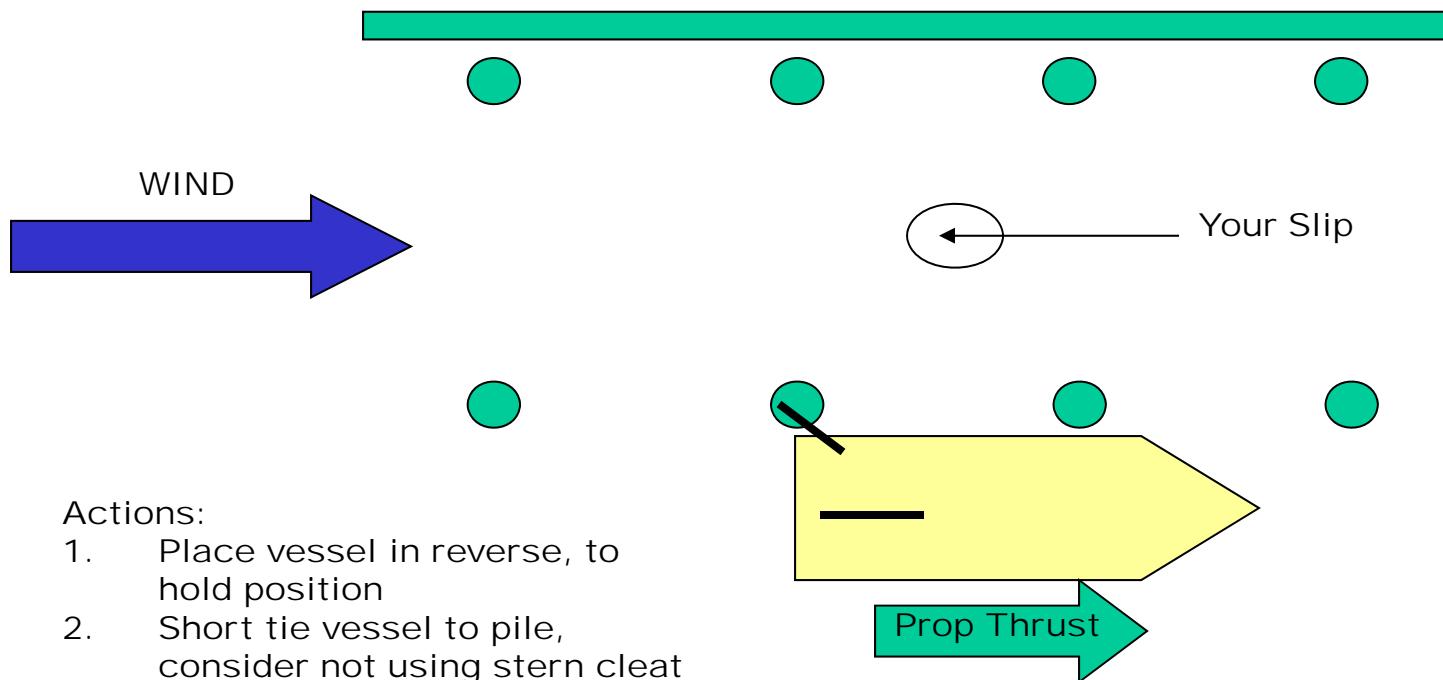
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Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip



Actions:

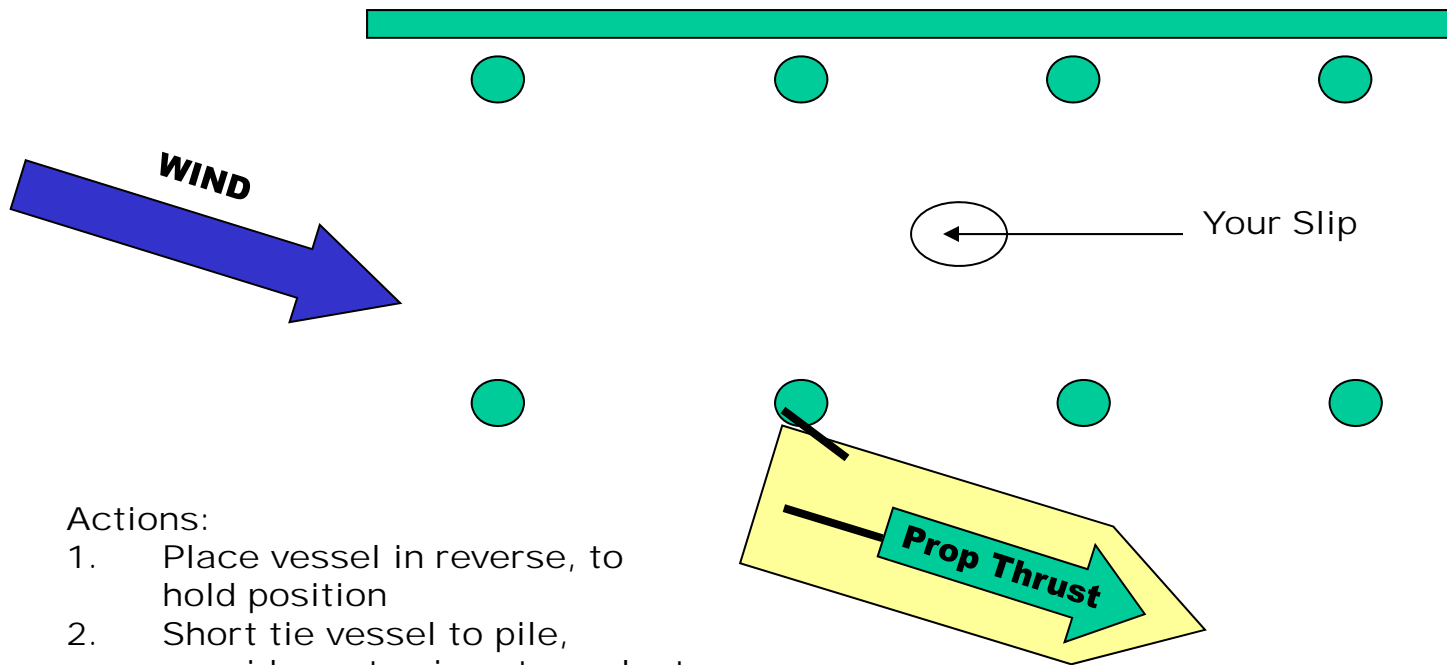
1. Place vessel in reverse, to hold position
2. Short tie vessel to pile, consider not using stern cleat
3. Place engine in neutral
4. Vessel is stopped

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Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip



Actions:

1. Place vessel in reverse, to hold position
2. Short tie vessel to pile, consider not using stern cleat
3. Place engine in neutral
4. Vessel is stopped

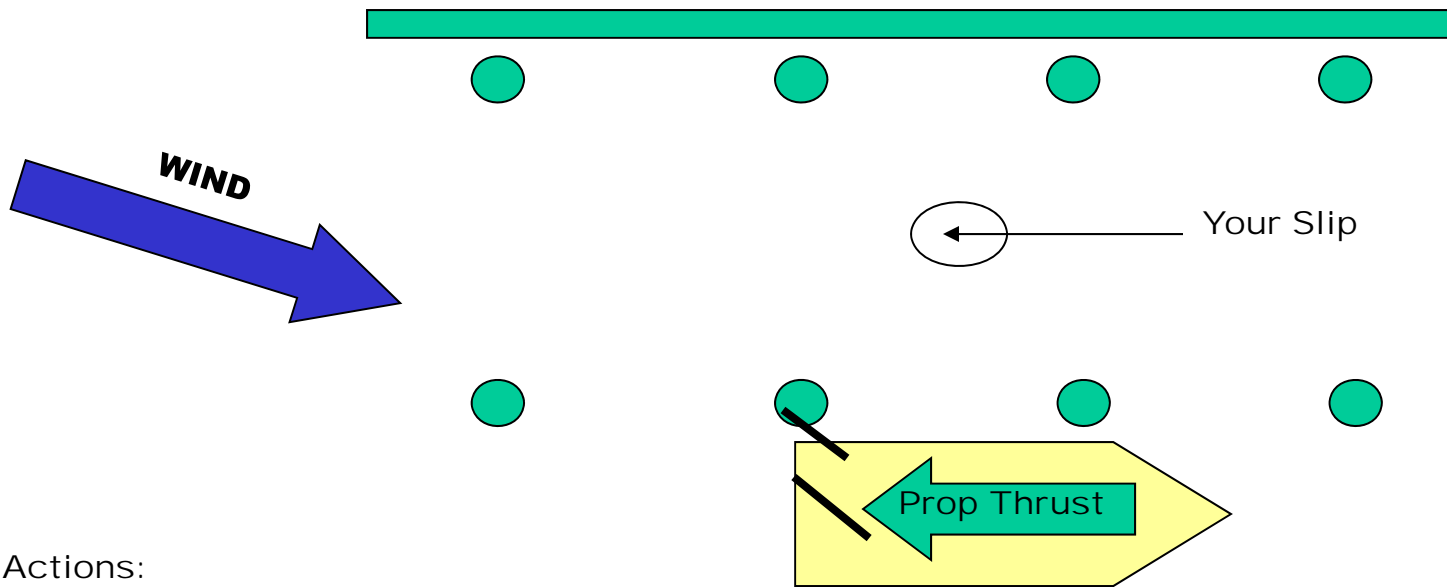
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Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

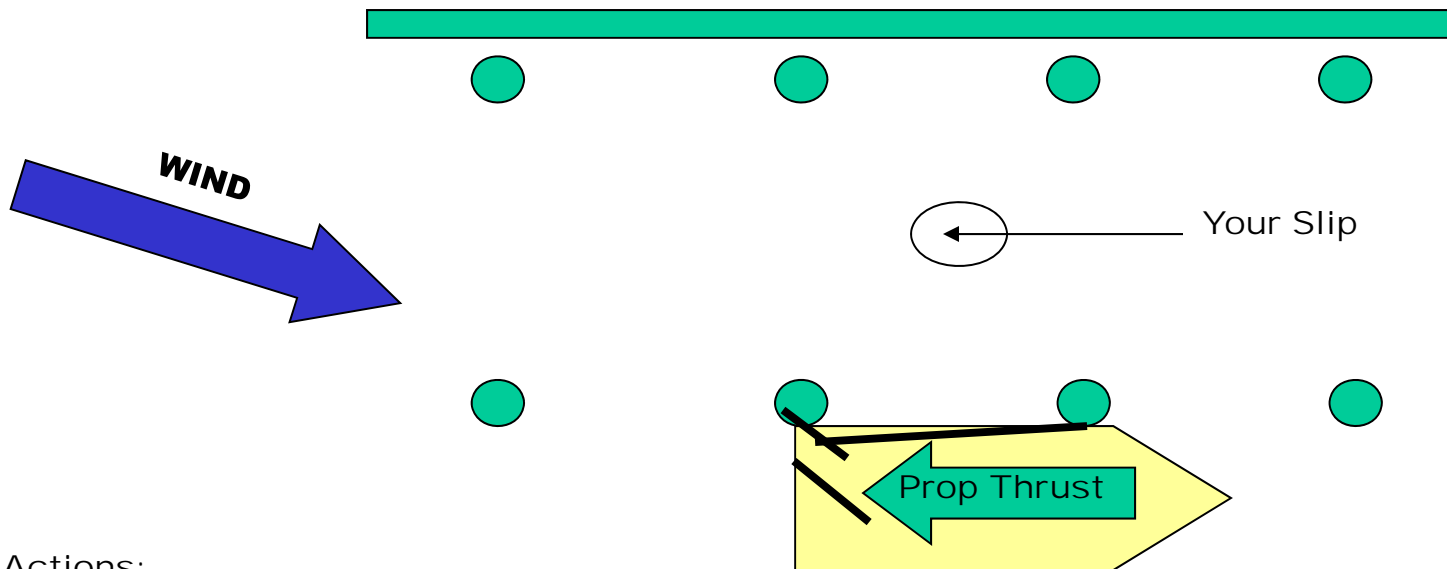


Actions:

1. Place engine in forward, to hold bow Against piling
2. Leave engine in forward, low rpms
3. Vessel is stopped

Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip



Actions:

1. If necessary, leave engine in forward to keep bow against piling
2. Helm locked to port
3. Make fast spring line from leeward piling to stern cleat / winch.

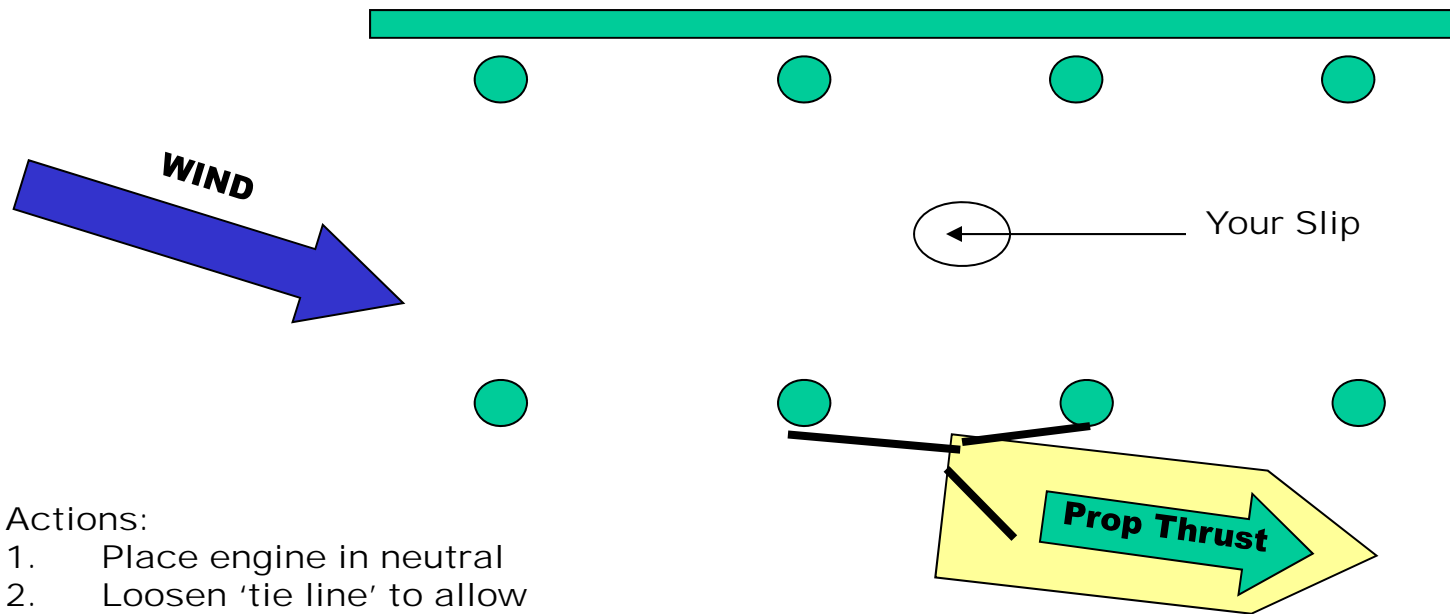
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Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

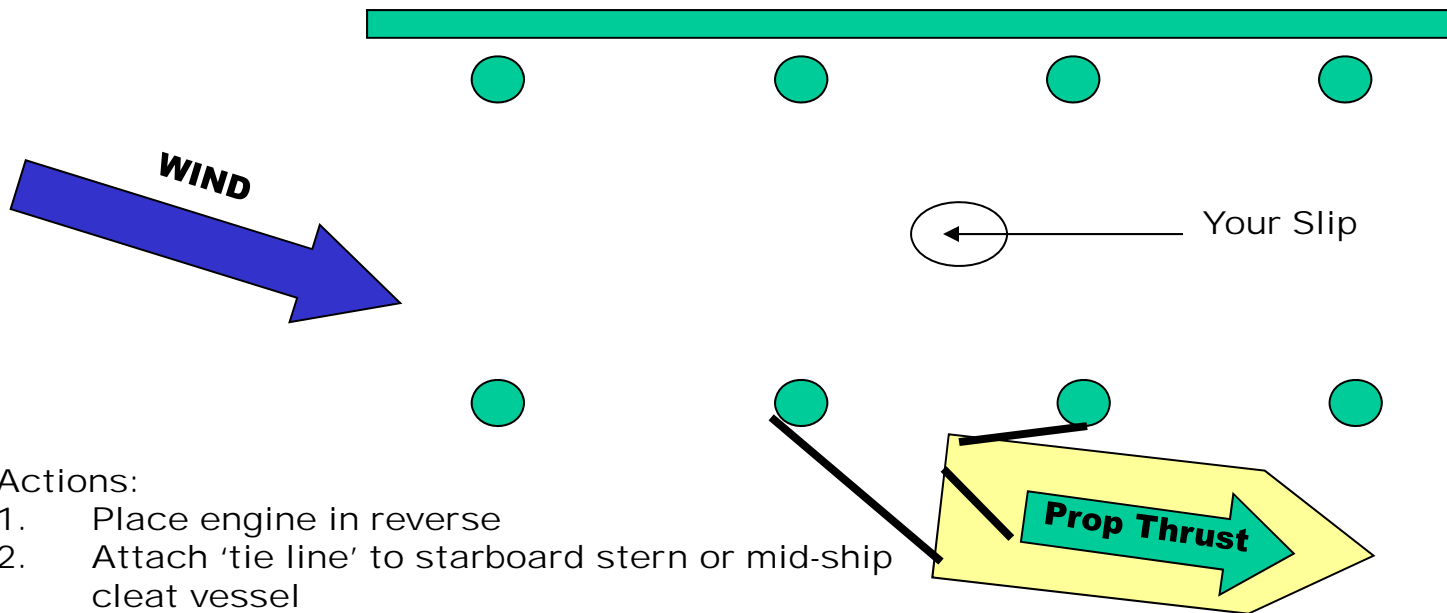


Actions:

1. Place engine in neutral
2. Loosen 'tie line' to allow vessel to slide leeward until sufficient space is allowed for stern to enter slip
3. Tighten 'spring' line.

Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

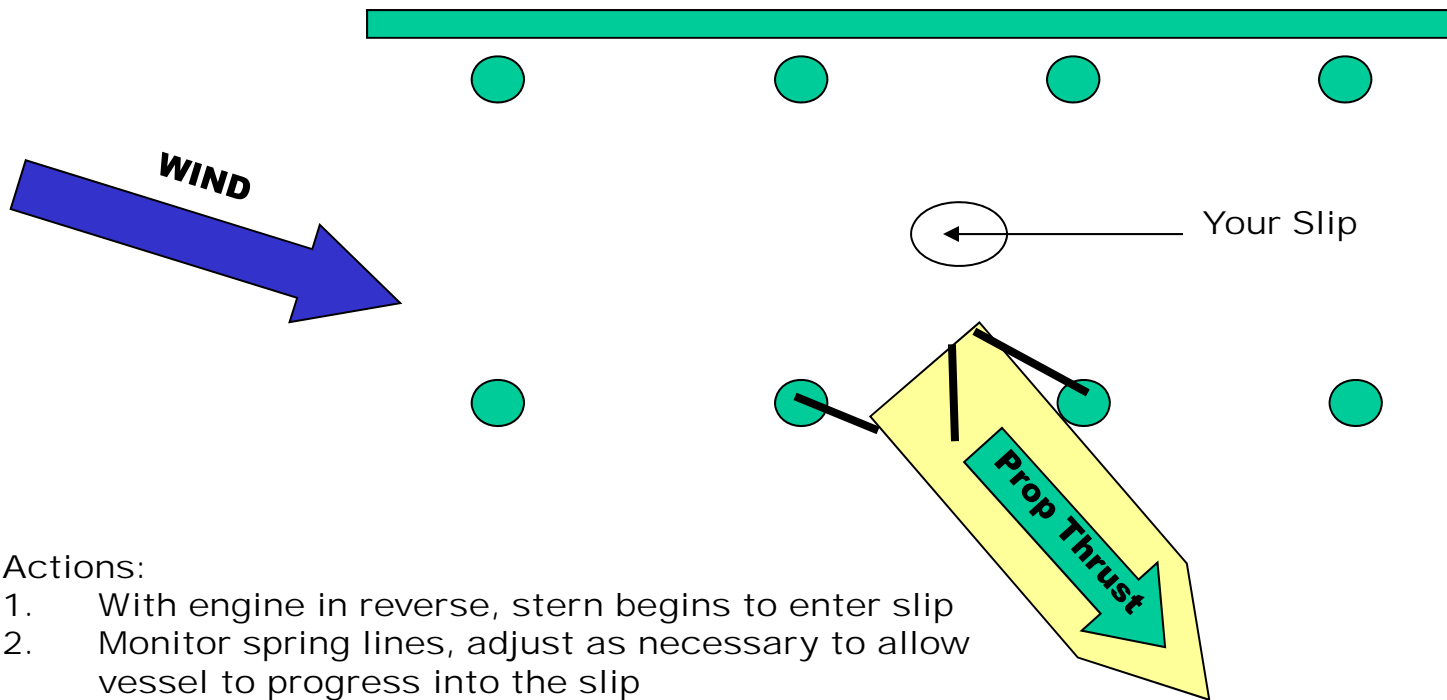


Actions:

1. Place engine in reverse
2. Attach 'tie line' to starboard stern or mid-ship cleat vessel
3. Do not steer with rudder.

Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

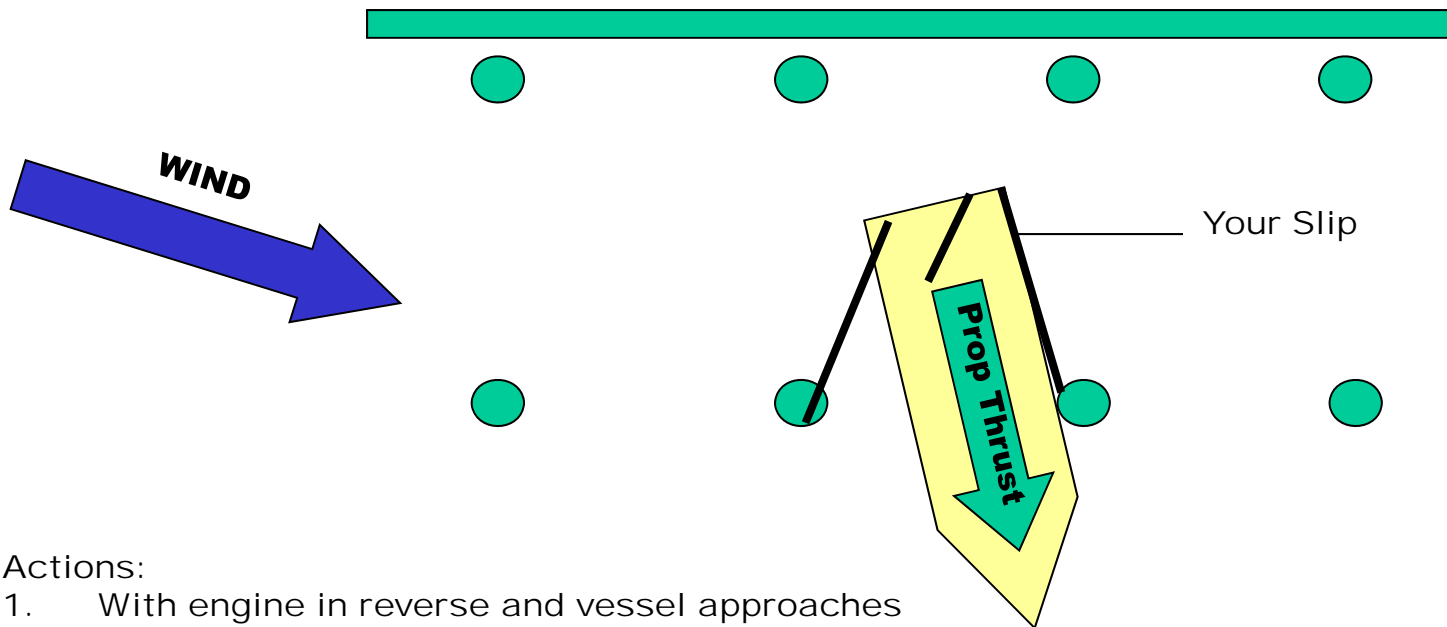


Actions:

1. With engine in reverse, stern begins to enter slip
2. Monitor spring lines, adjust as necessary to allow vessel to progress into the slip
3. Do not steer with rudder.

Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip



Actions:

1. With engine in reverse and vessel approaches being midway in the slip, make fast the windward spring line
2. Ease leeward spring.
3. Do not steer with rudder.

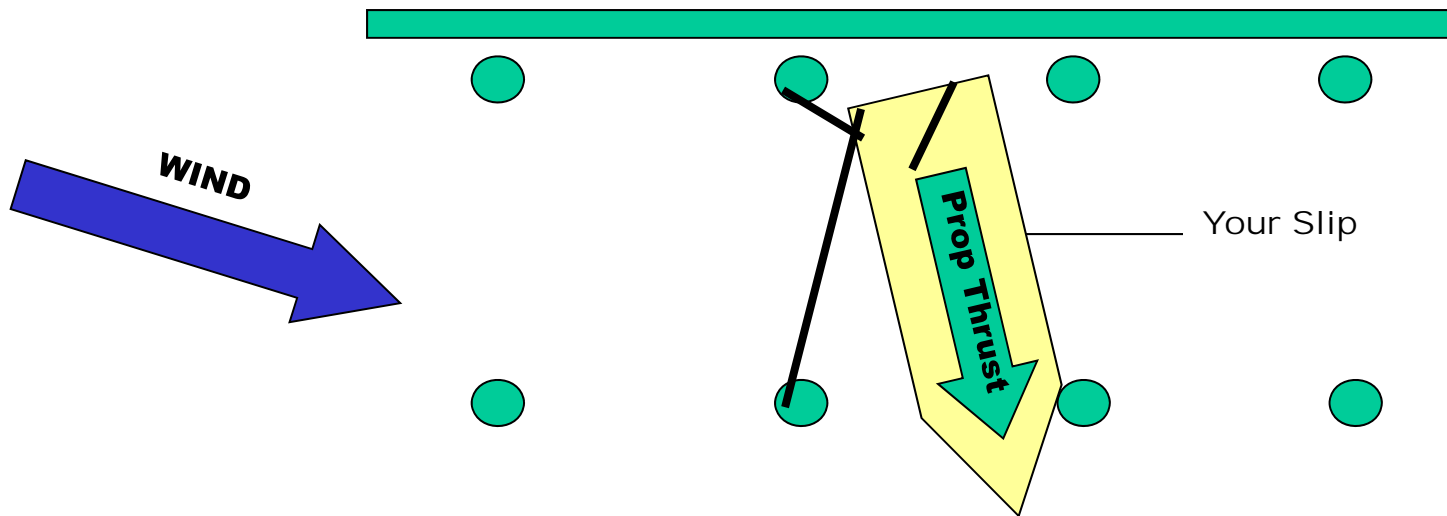
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Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

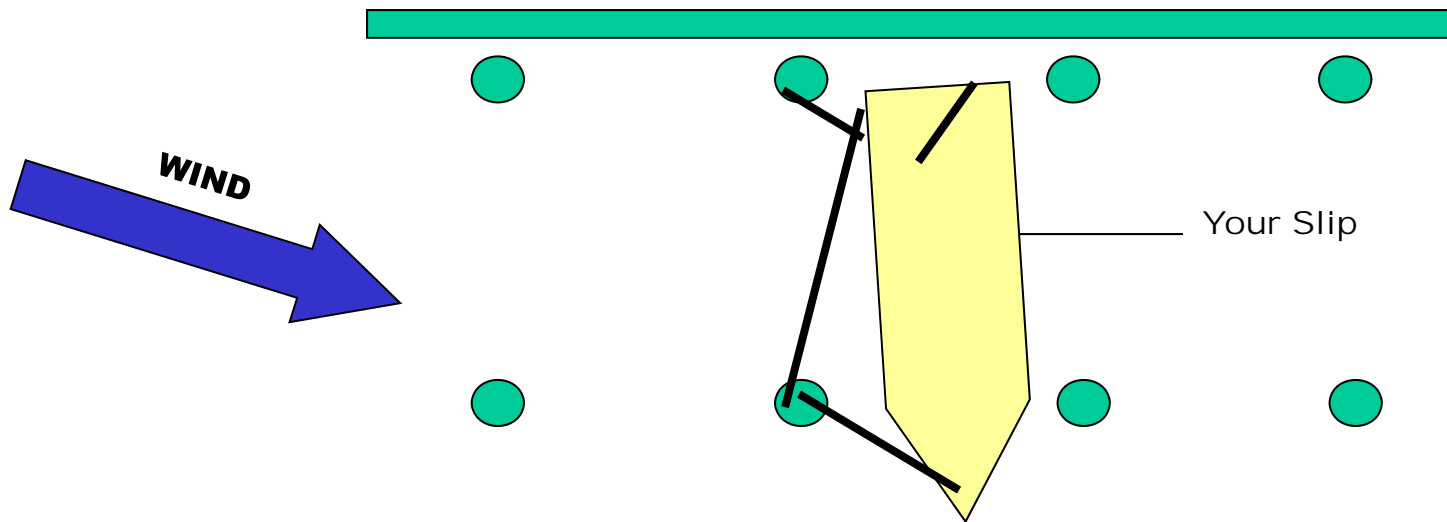


Actions:

1. With engine in reverse and adjust engine speed to attach stern line to piling.
2. When stern line attached, engine to neutral

Basic Strategy for Single - Handed in medium to high wind conditions

1st Exercise Warping into a slip

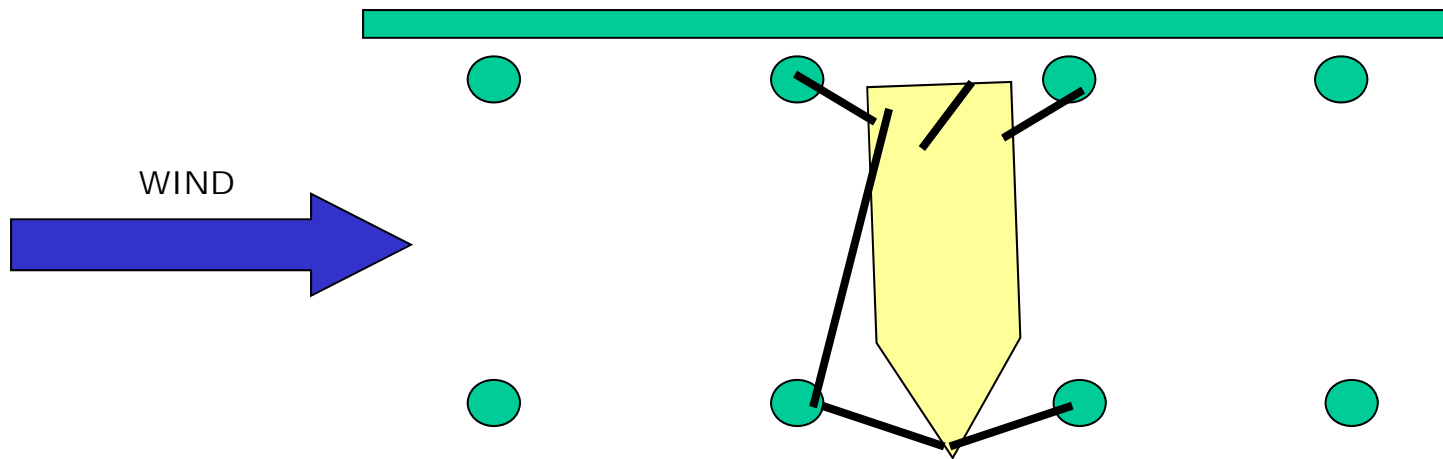


Actions:

1. With engine in neutral and attach windward bow line, and then leeward lines.

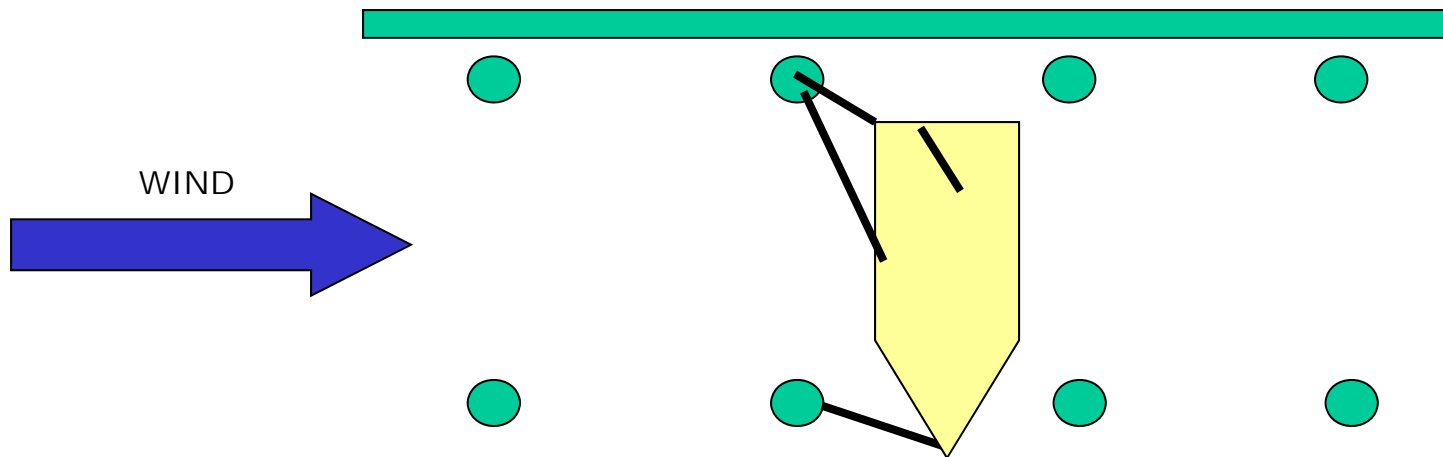
Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip



Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip

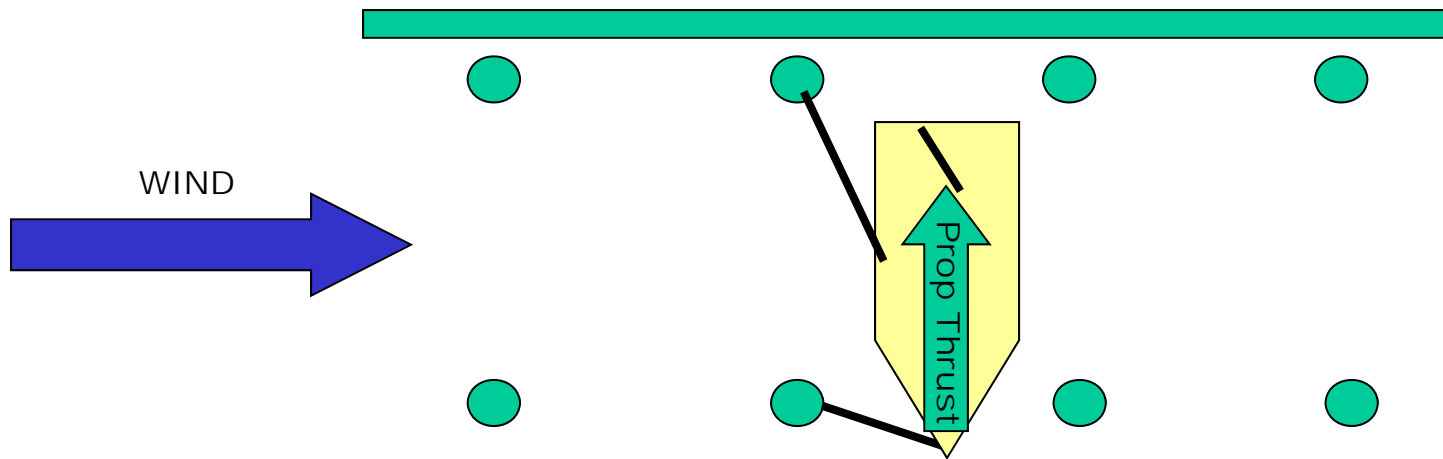


Actions:

1. Remove port mooring lines and forward mooring spring line
2. Attached aft spring line to midship cleat, set for release and retrieval

Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip

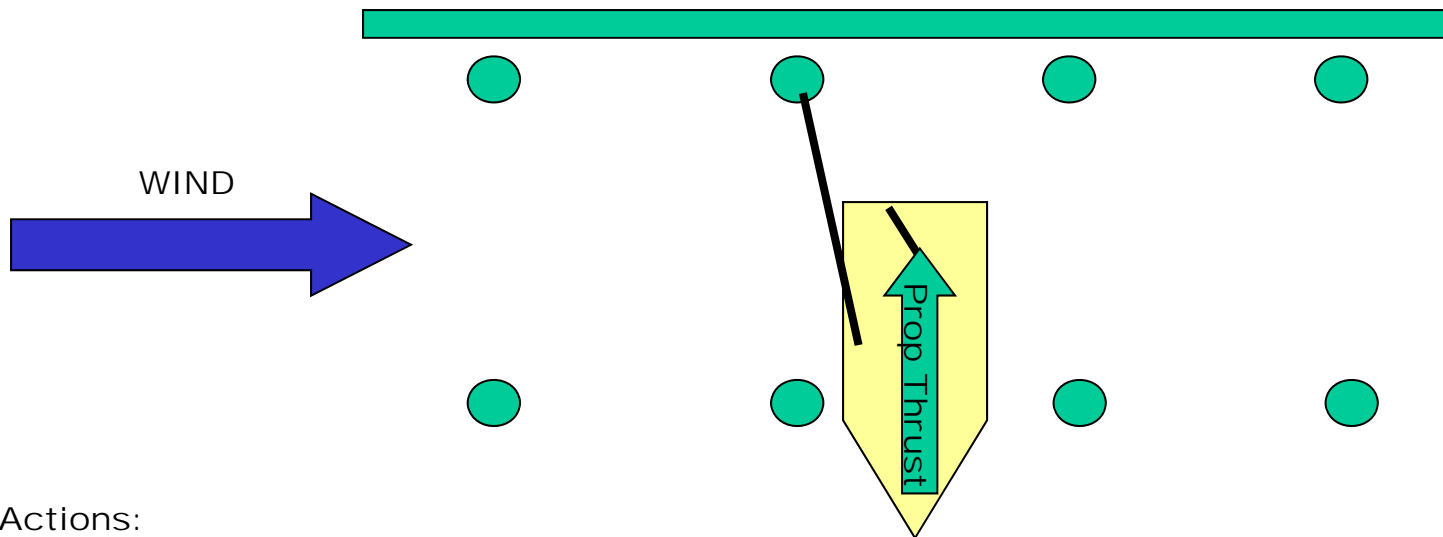


Actions:

1. Remove stern mooring line
2. Place engine in idle forward
3. Lock helm starboard
4. Adjust engine rpm to bring vessel to windward pilings

Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip

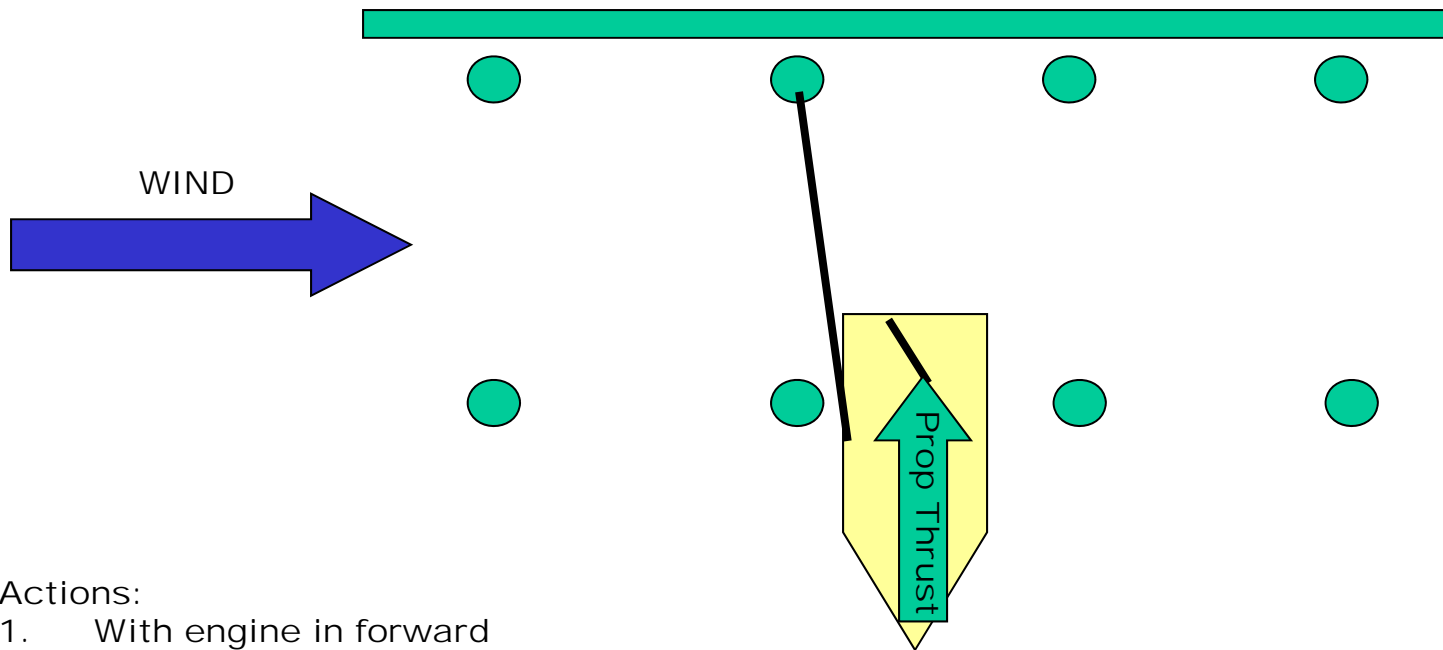


Actions:

1. With engine in forward
2. Ease out spring line to allow vessel to move out of slip
3. Remove forward mooring line
4. Adjust engine rpm to keep vessel to windward pilings
5. Adjust helm to straighten vessel in the slip if necessary

Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip



Actions:

1. With engine in forward
2. Ease out spring line to allow vessel to move out of slip
3. Adjust engine rpm to keep vessel to windward pilings
4. Adjust helm to straighten vessel in the slip if necessary

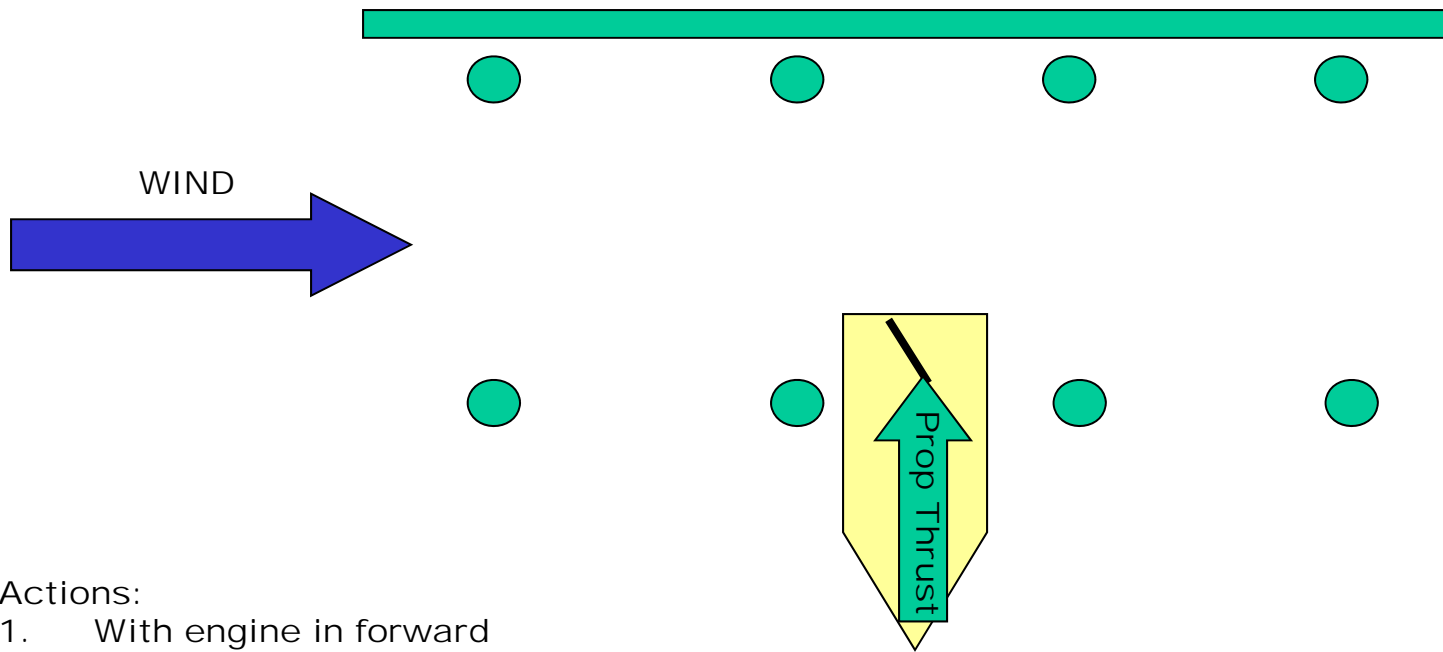
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Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip

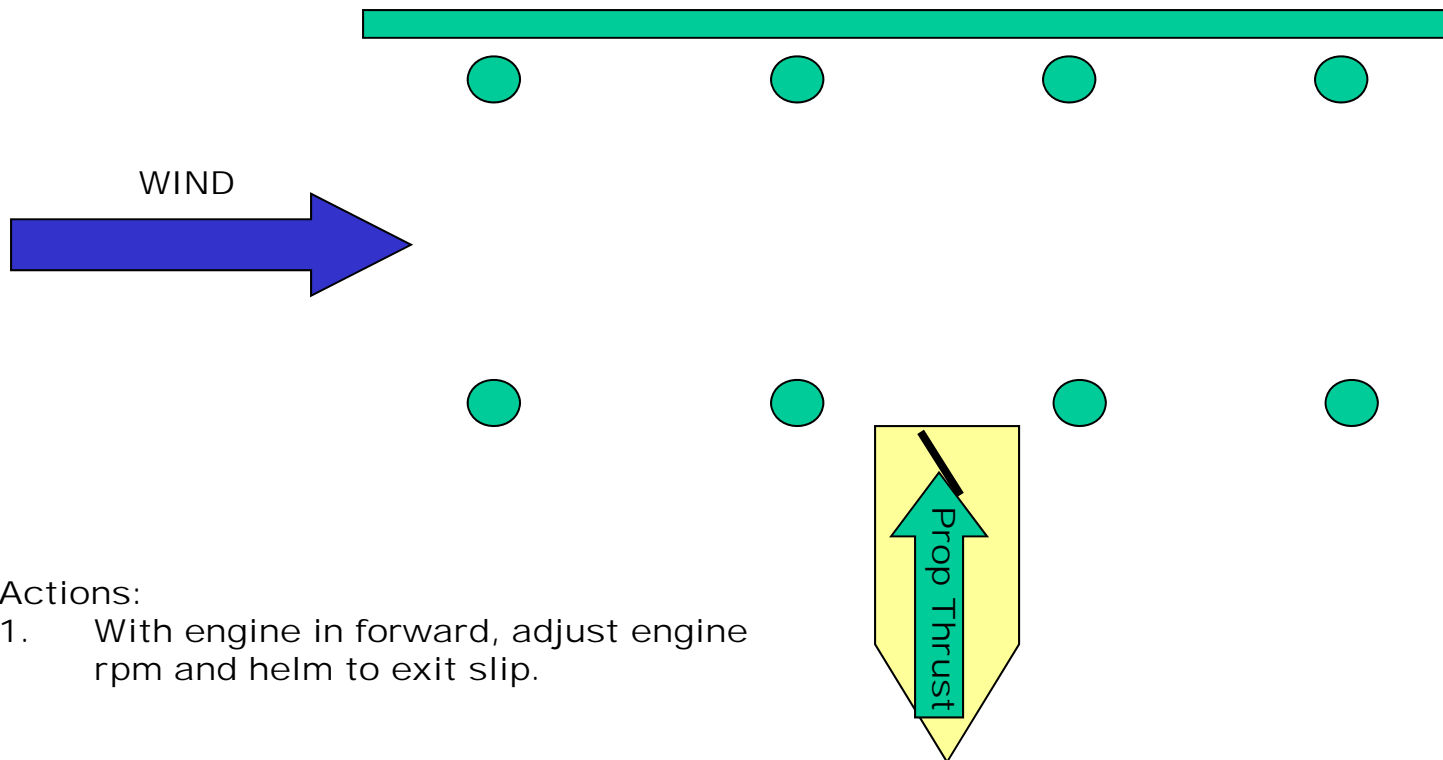


Actions:

1. With engine in forward
2. Release and retrieve spring line back to vessel

Basic Strategy for Single - Handed in medium to high wind conditions

2nd Exercise Warping out of a slip

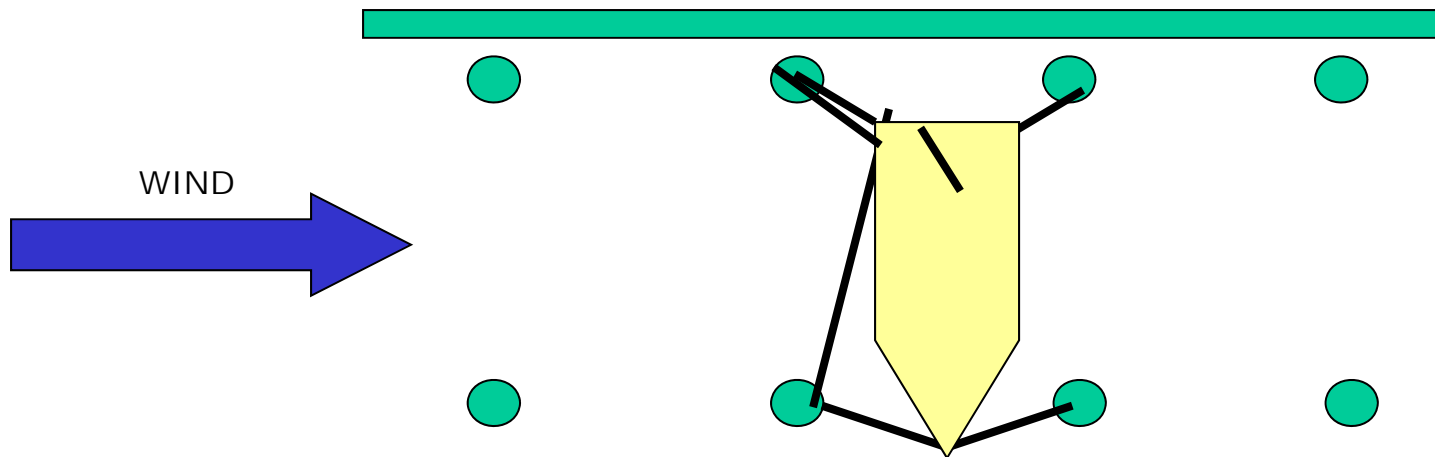


Actions:

1. With engine in forward, adjust engine rpm and helm to exit slip.

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

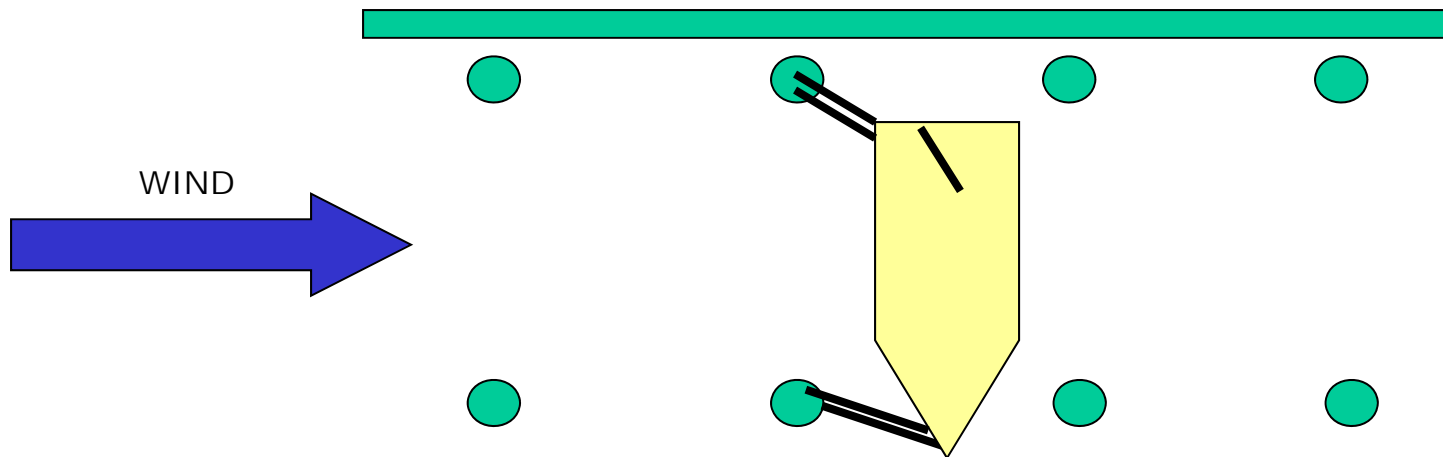


Actions:

1. Attach a spring line to the starboard stern cleat
- In this exercise, the vessel does not have a mid-ship cleat
2. Fasten spring line for release and retrieval to the vessel
3. Start engine

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

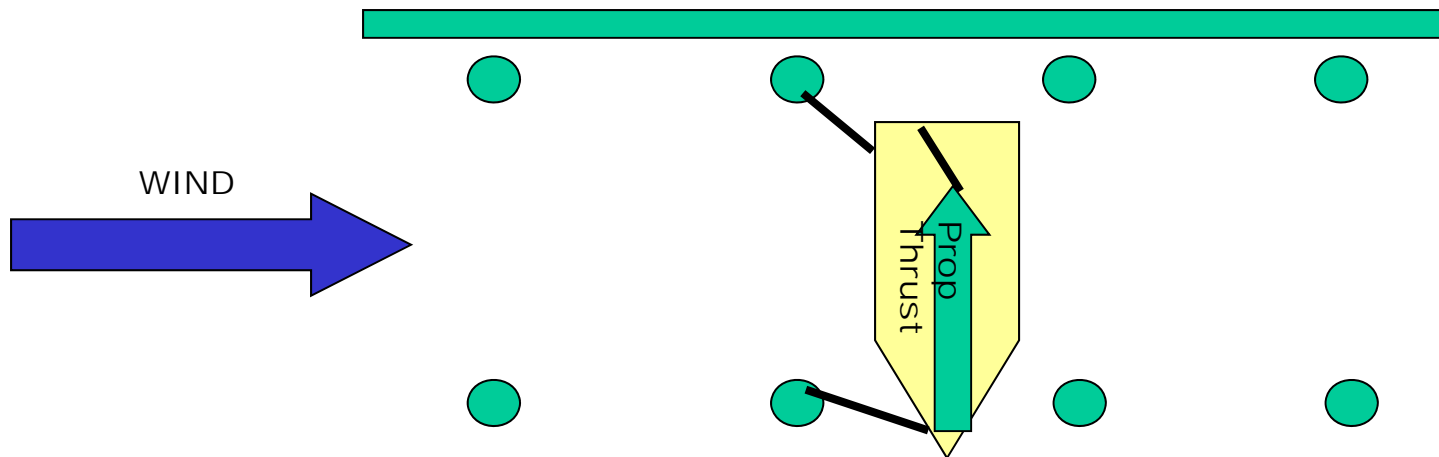


Actions:

1. Remove port mooring lines and mooring spring line
2. Attach forward spring line to forward cleat, attach for release and retrieval

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

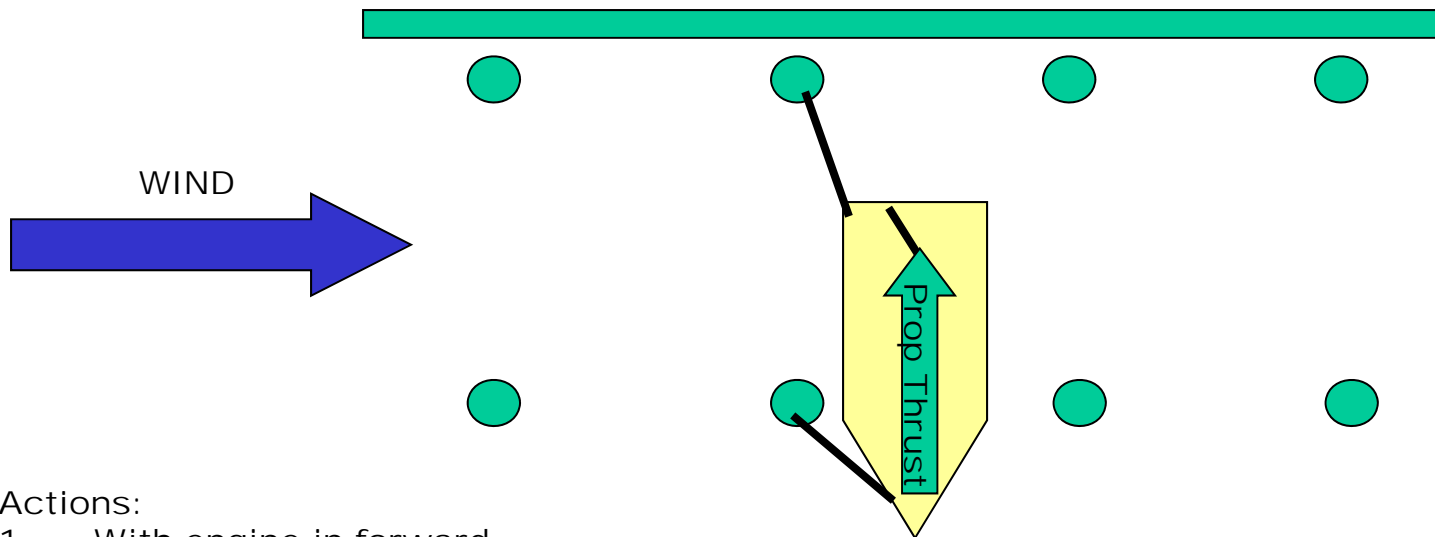


Actions:

1. With engine in forward
2. Ease off forward mooring line
3. Adjust engine rpm to bring vessel to windward pilings
4. Adjust helm to starboard if necessary

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

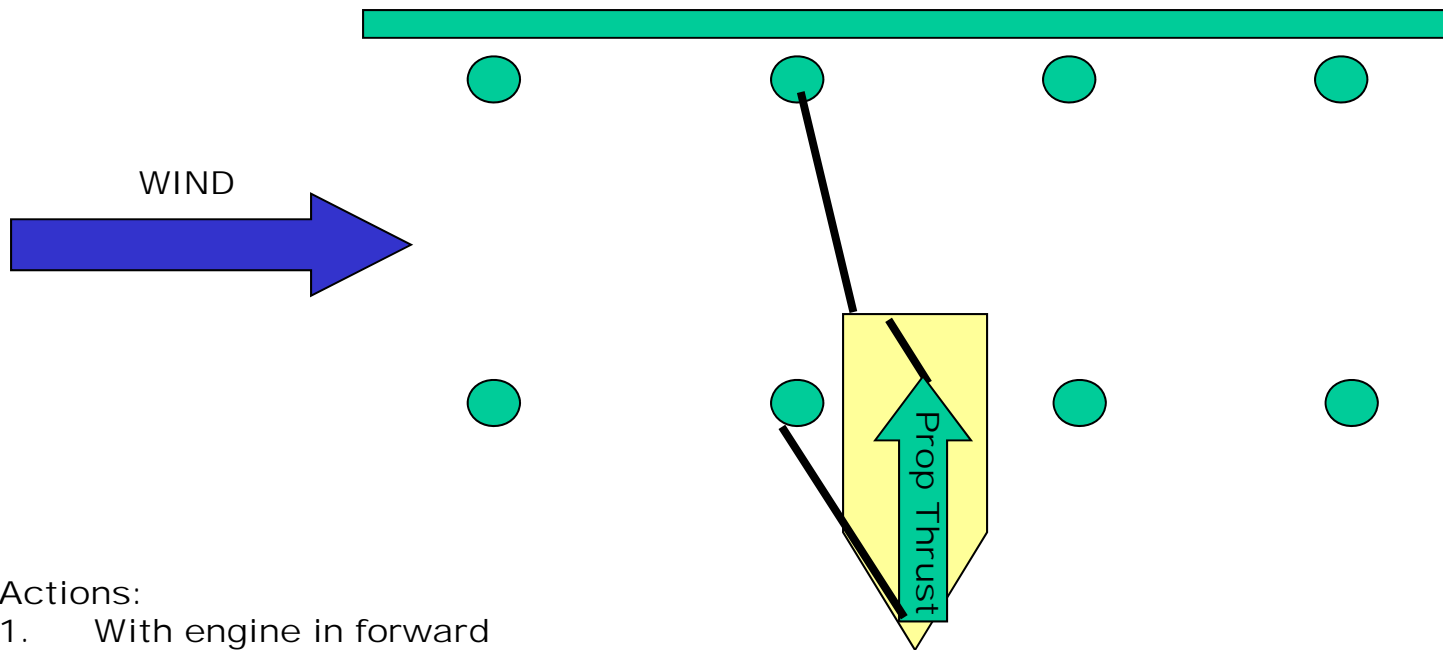


Actions:

1. With engine in forward
2. Ease out spring line to allow vessel to move out of slip
3. Leave sufficient line for the vessel to move 75% out of the slip
4. Adjust engine rpm to keep vessel to windward pilings
5. Adjust helm to straighten vessel in the slip if necessary

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

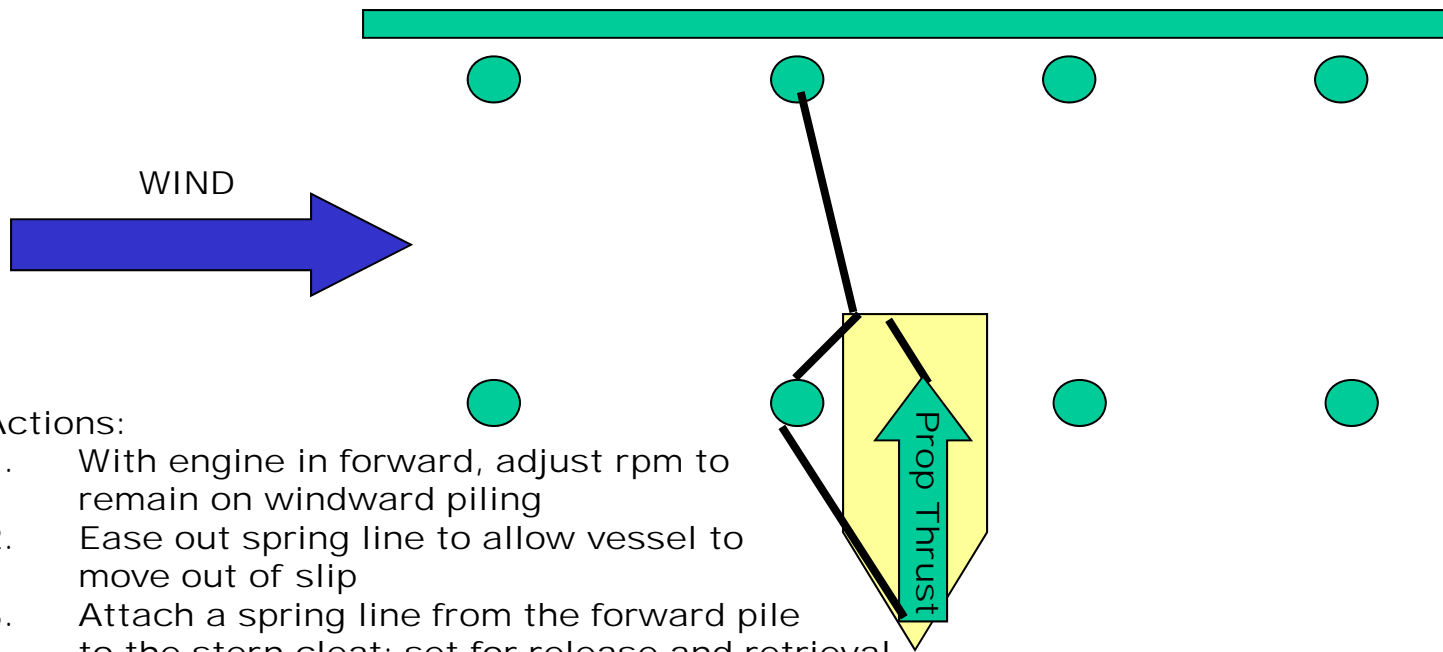


Actions:

1. With engine in forward
2. Ease out spring line to allow vessel to move out of slip
3. Adjust engine rpm to keep vessel to windward pilings
4. Adjust helm to straighten vessel in the slip if necessary

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward



Actions:

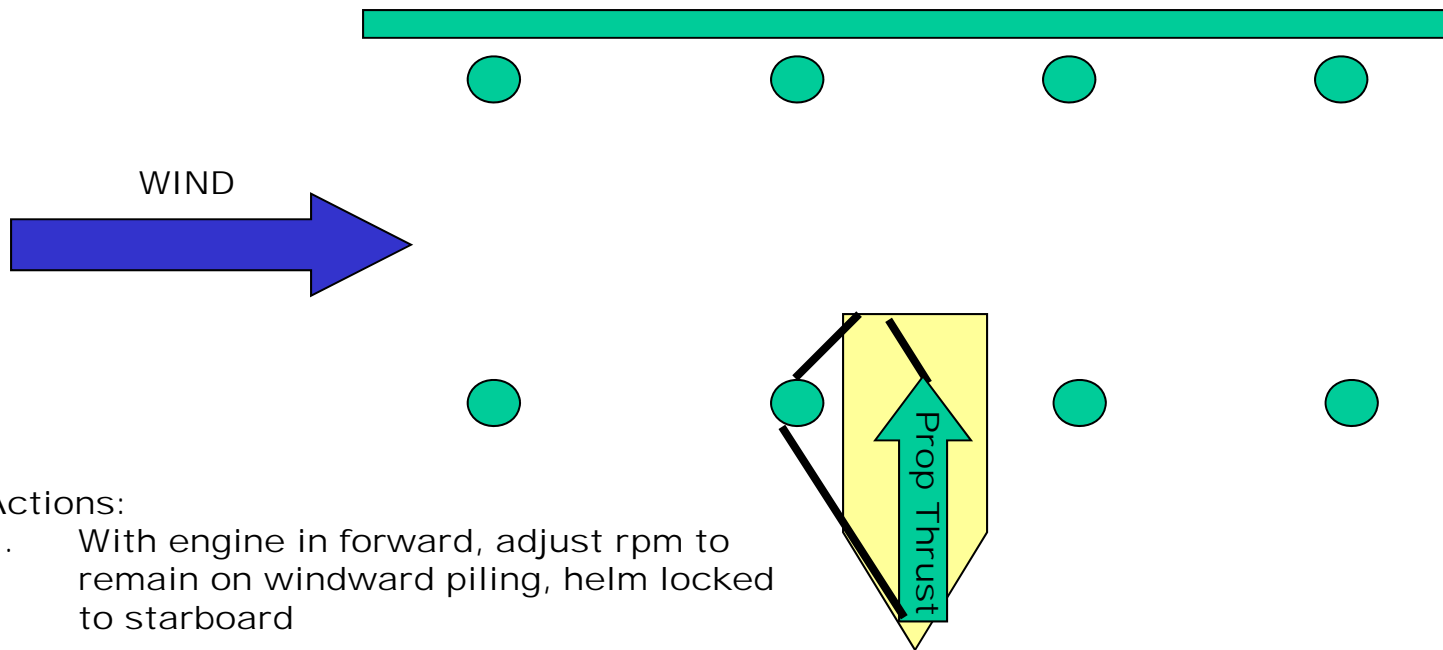
1. With engine in forward, adjust rpm to remain on windward piling
2. Ease out spring line to allow vessel to move out of slip
3. Attach a spring line from the forward pile to the stern cleat; set for release and retrieval
4. When there is sufficient space for the stern to clear the leeward pile, make fast the forward spring line
5. Adjust helm to straighten vessel in the slip if necessary

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Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

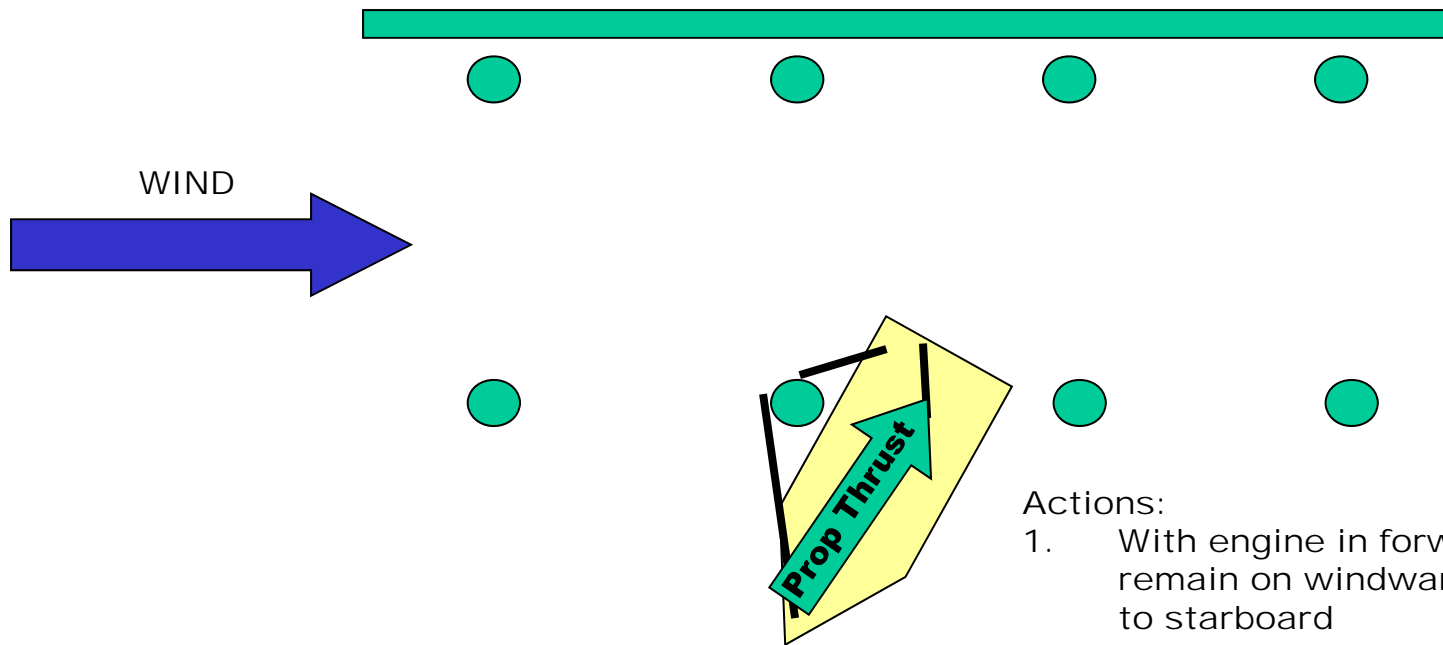


Actions:

1. With engine in forward, adjust rpm to remain on windward piling, helm locked to starboard

Basic Strategy for Single - Handed in medium to high wind conditions

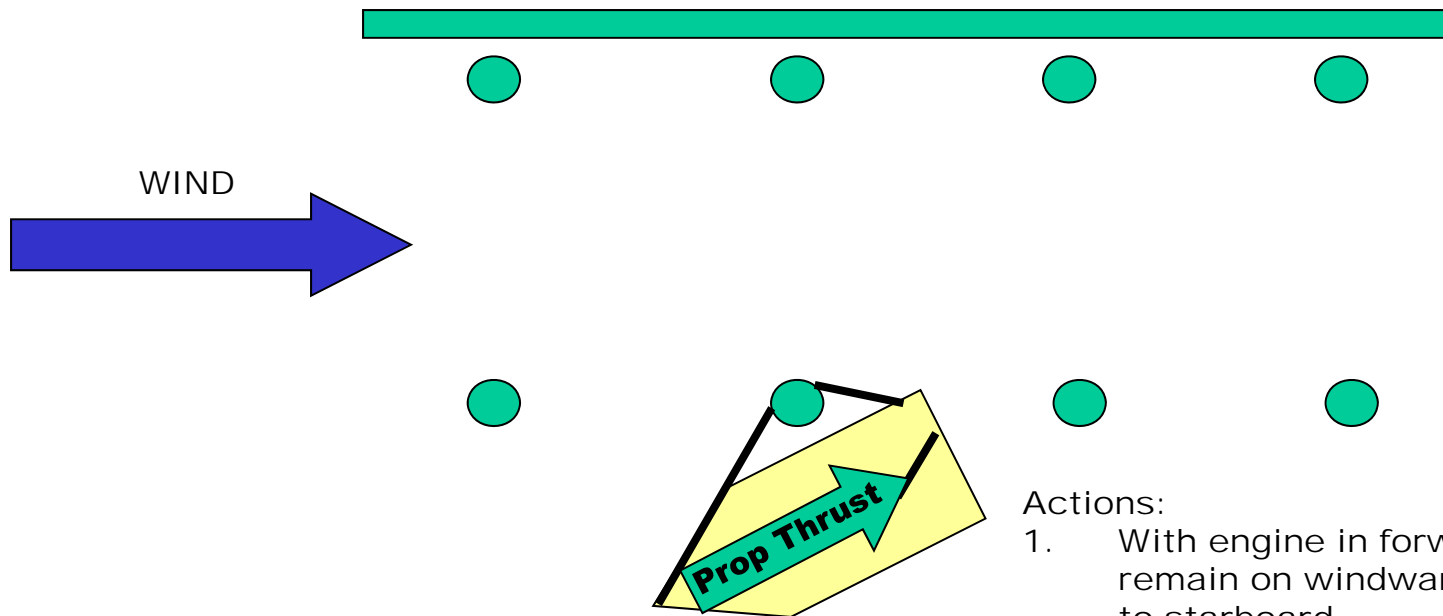
3rd Exercise Warping out of a slip and turning to windward



- Actions:
1. With engine in forward, adjust rpm to remain on windward piling, helm locked to starboard

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

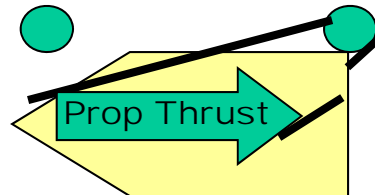
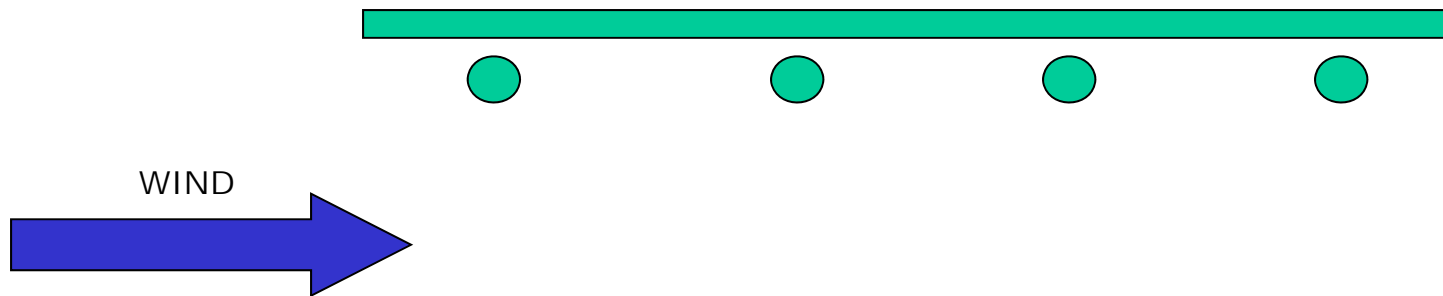


Actions:

1. With engine in forward, adjust rpm to remain on windward piling, helm locked to starboard
2. Vessel bow will move through the wind and move forward.

Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward

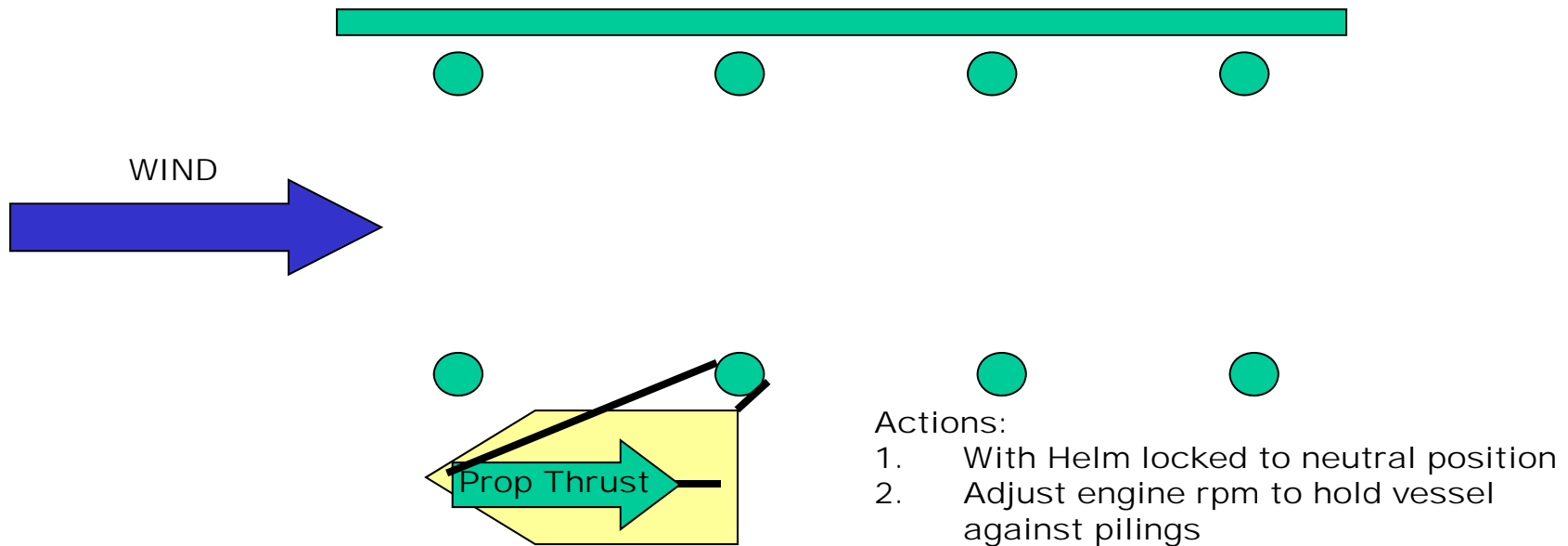


Actions:

1. With engine in forward, adjust rpm to remain on windward piling, helm locked to starboard
2. Vessel bow will move through the wind and move forward.
3. Adjust forward spring to allow vessel to reach windward piling
4. Keep stern quarter on piling by adjusting rear spring.

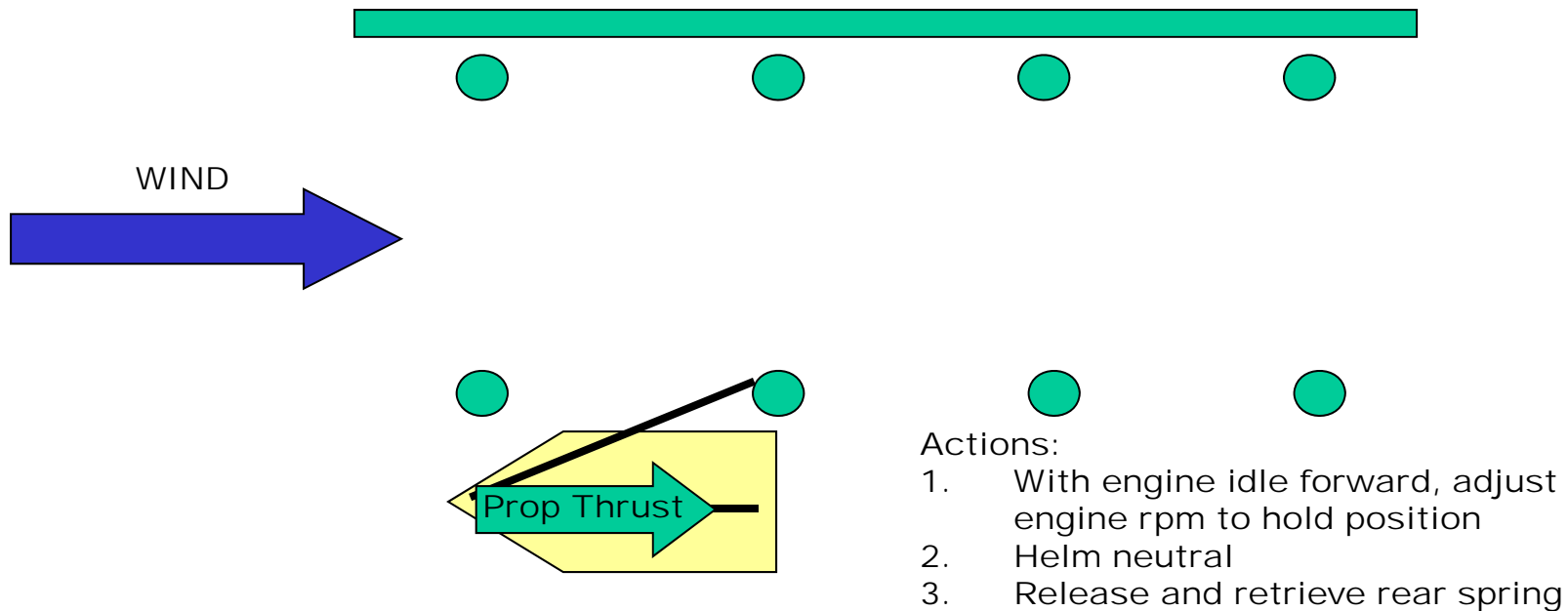
Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward



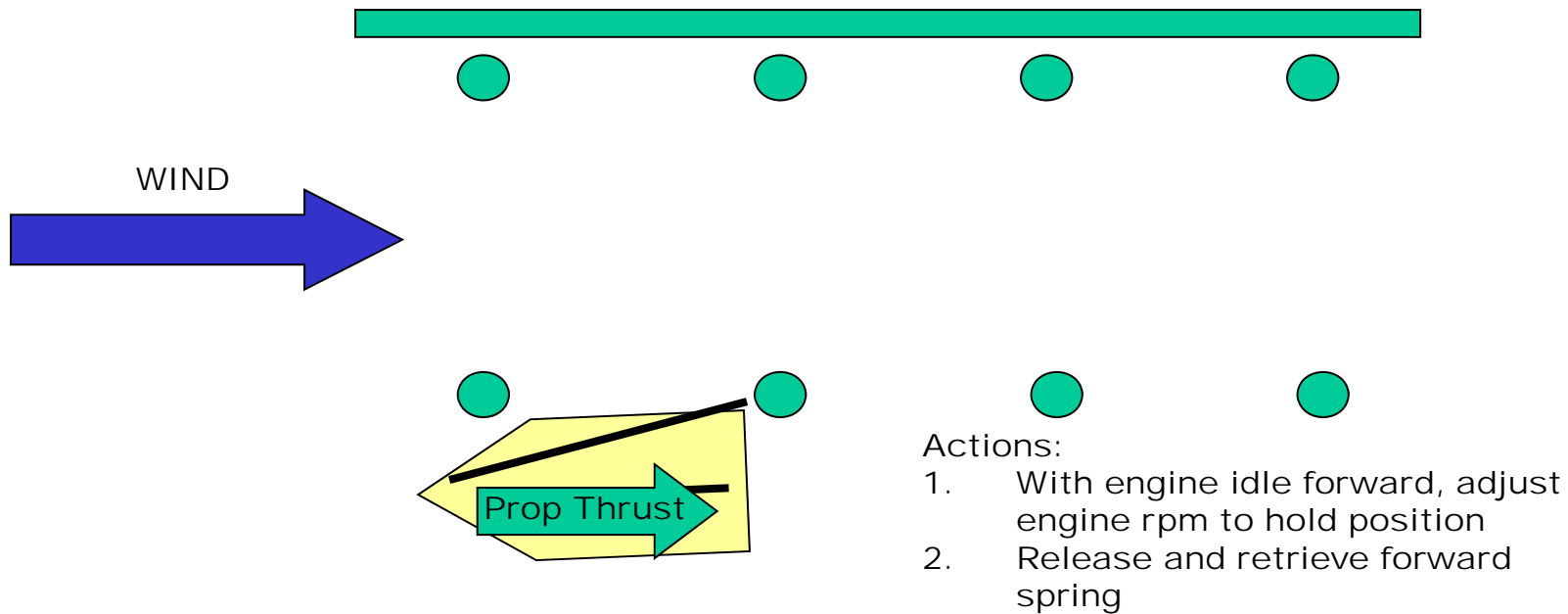
Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward



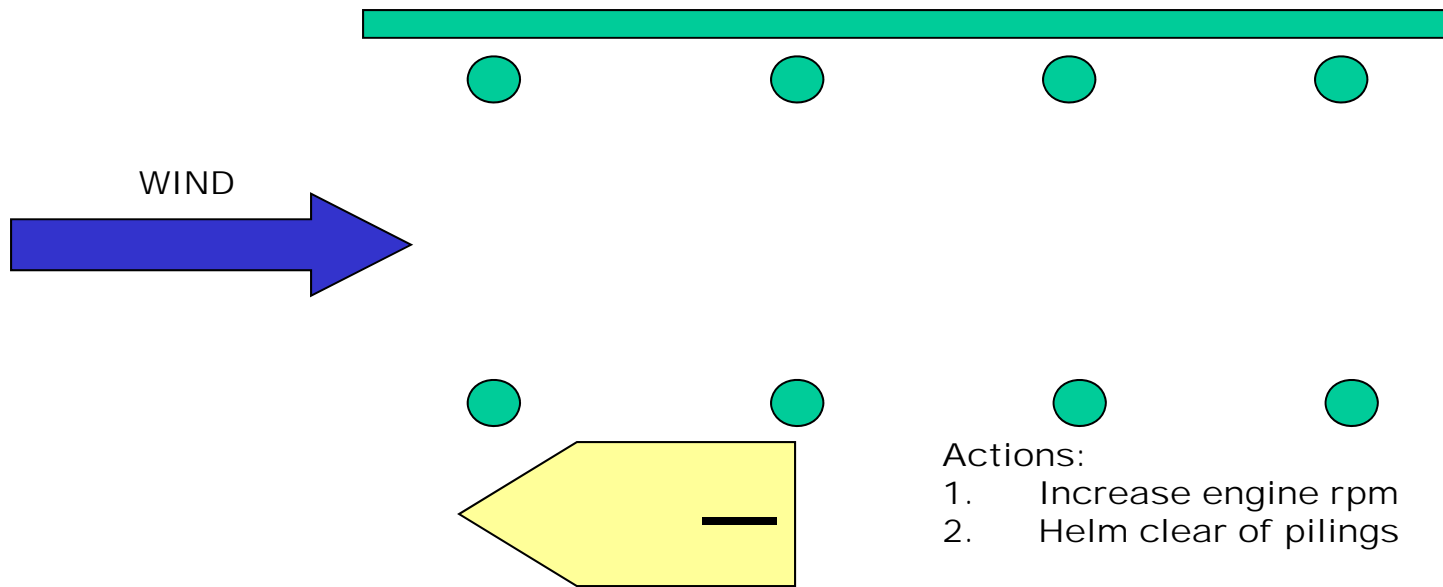
Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise Warping out of a slip and turning to windward



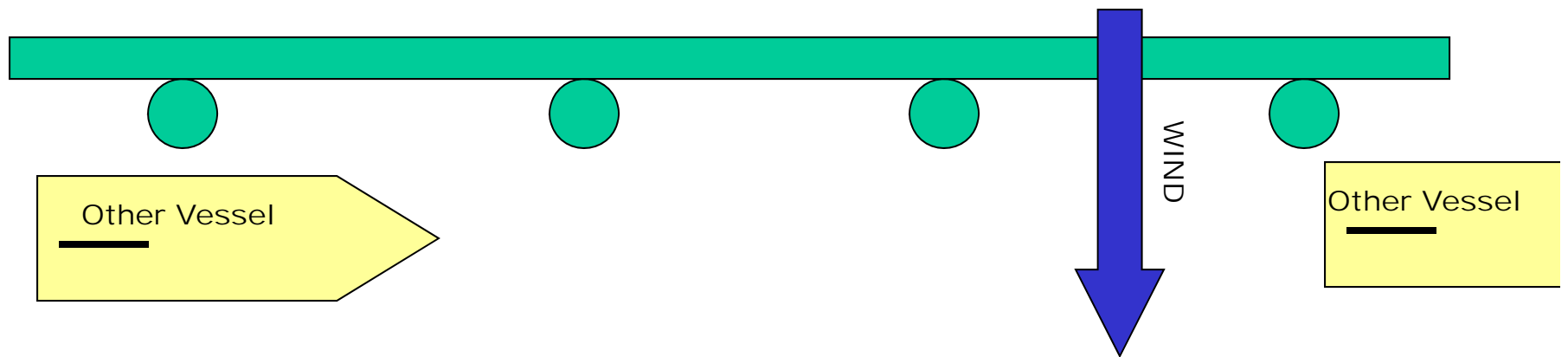
Basic Strategy for Single - Handed in medium to high wind conditions

3rd Exercise
Warping out of a slip and turning
to windward



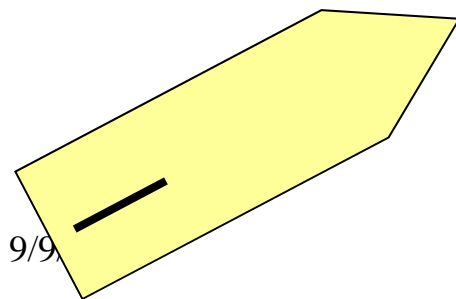
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



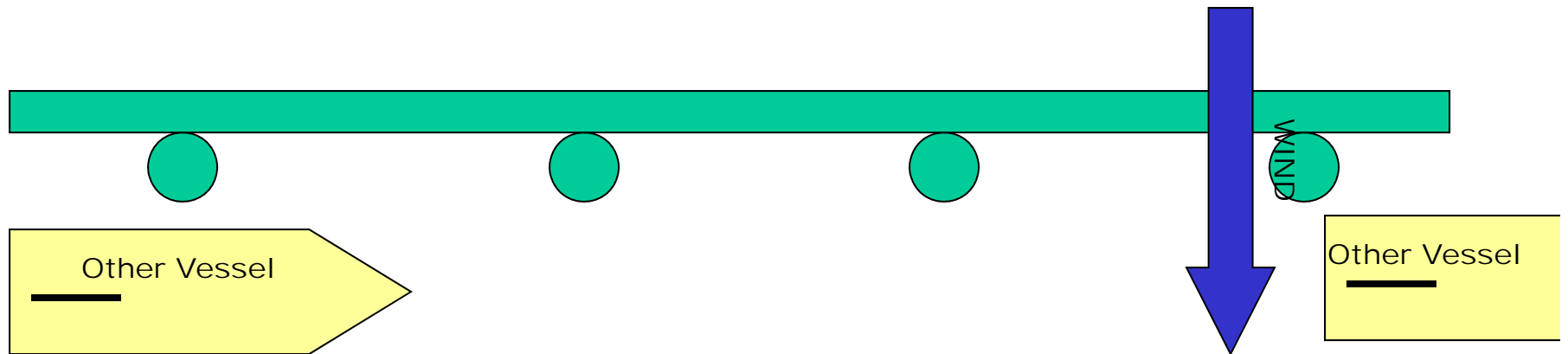
Actions:

1. Approach T-Head to select docking space
2. Then turn leeward



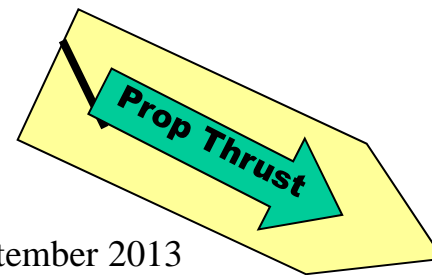
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



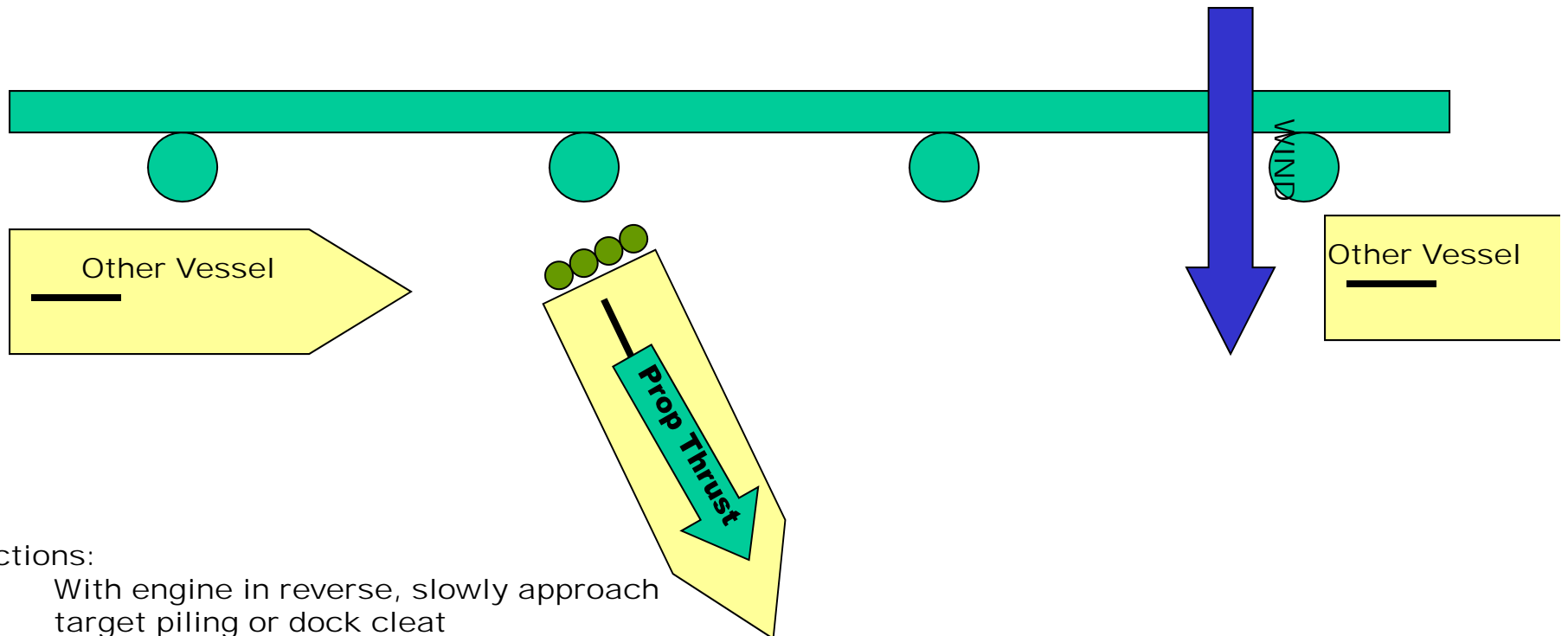
Actions:

1. With engine in reverse, gain way and steerage



Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



Actions:

1. With engine in reverse, slowly approach target piling or dock cleat
2. Hang fenders off stern - considering tying fenders together

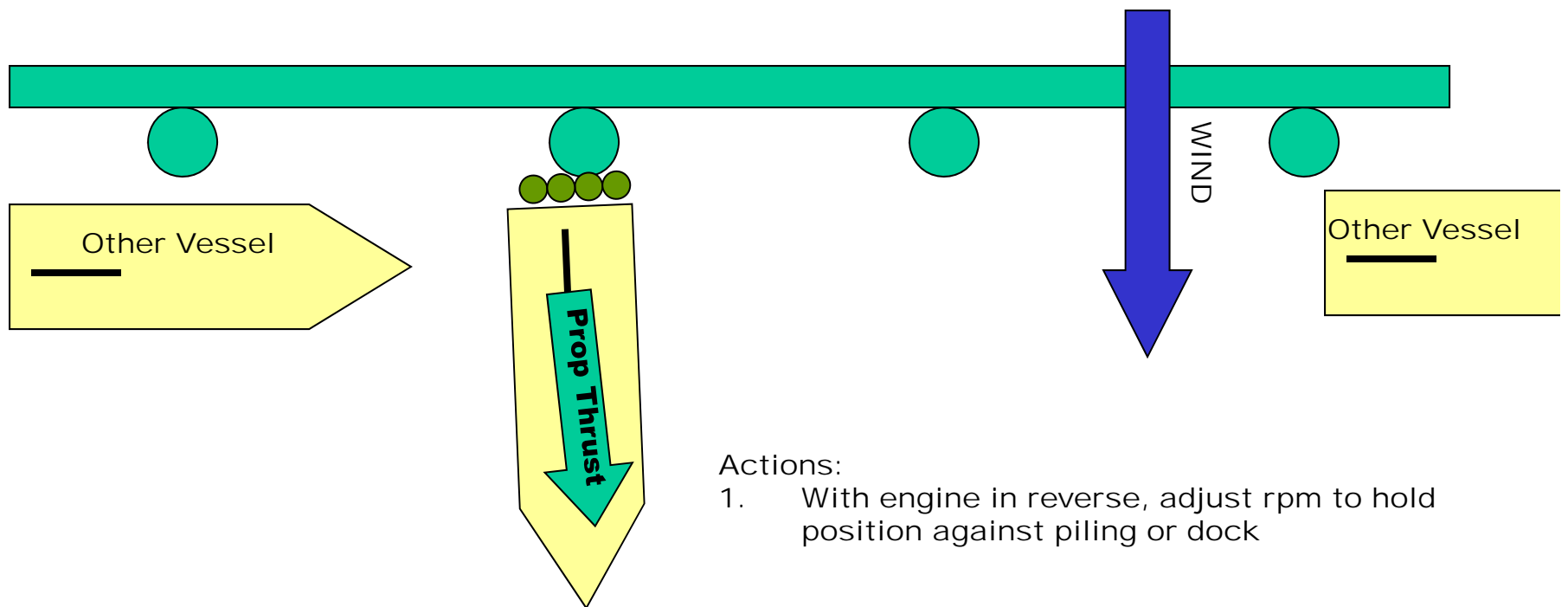
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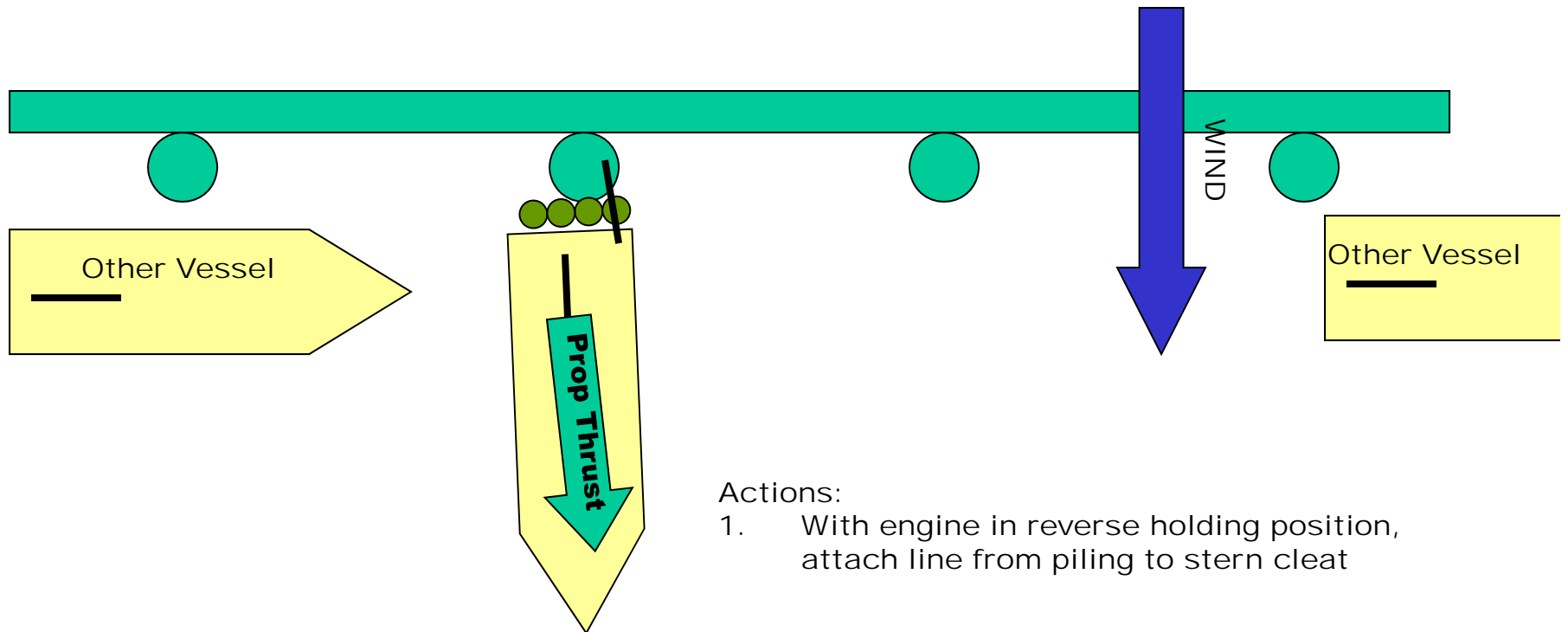
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



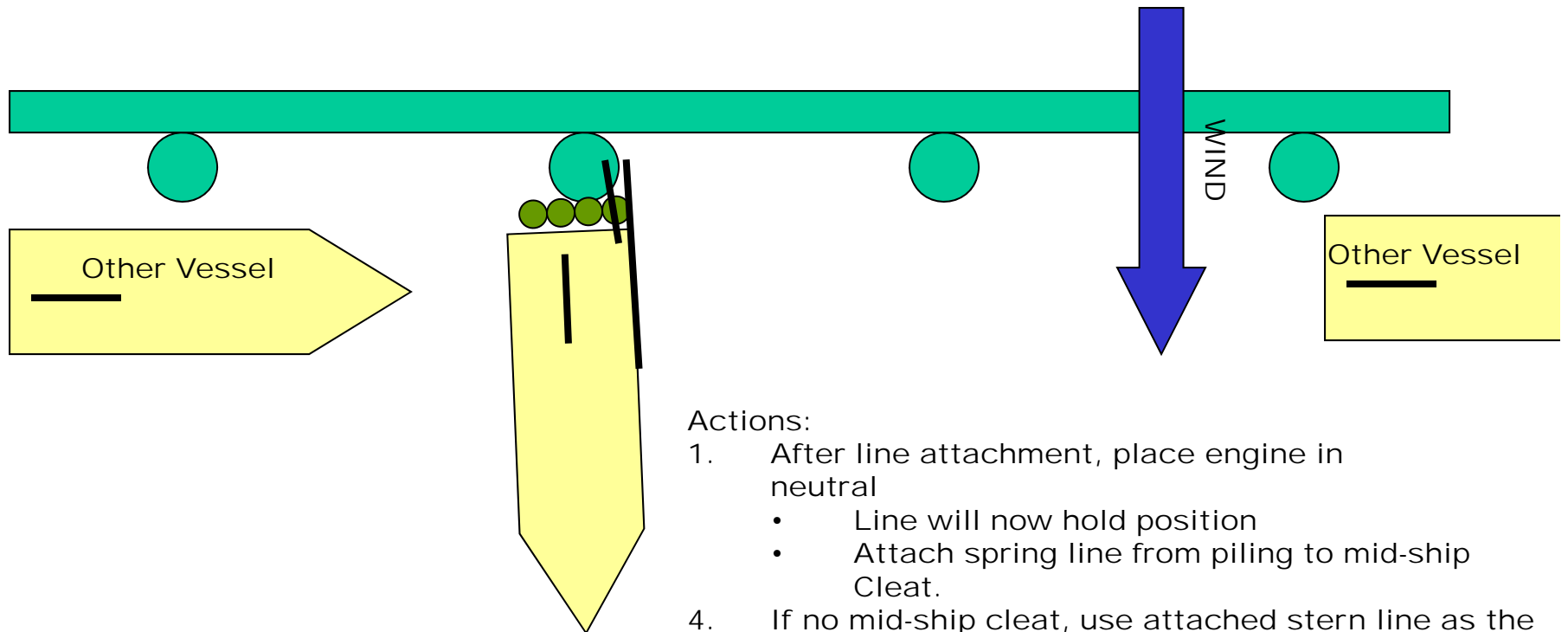
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



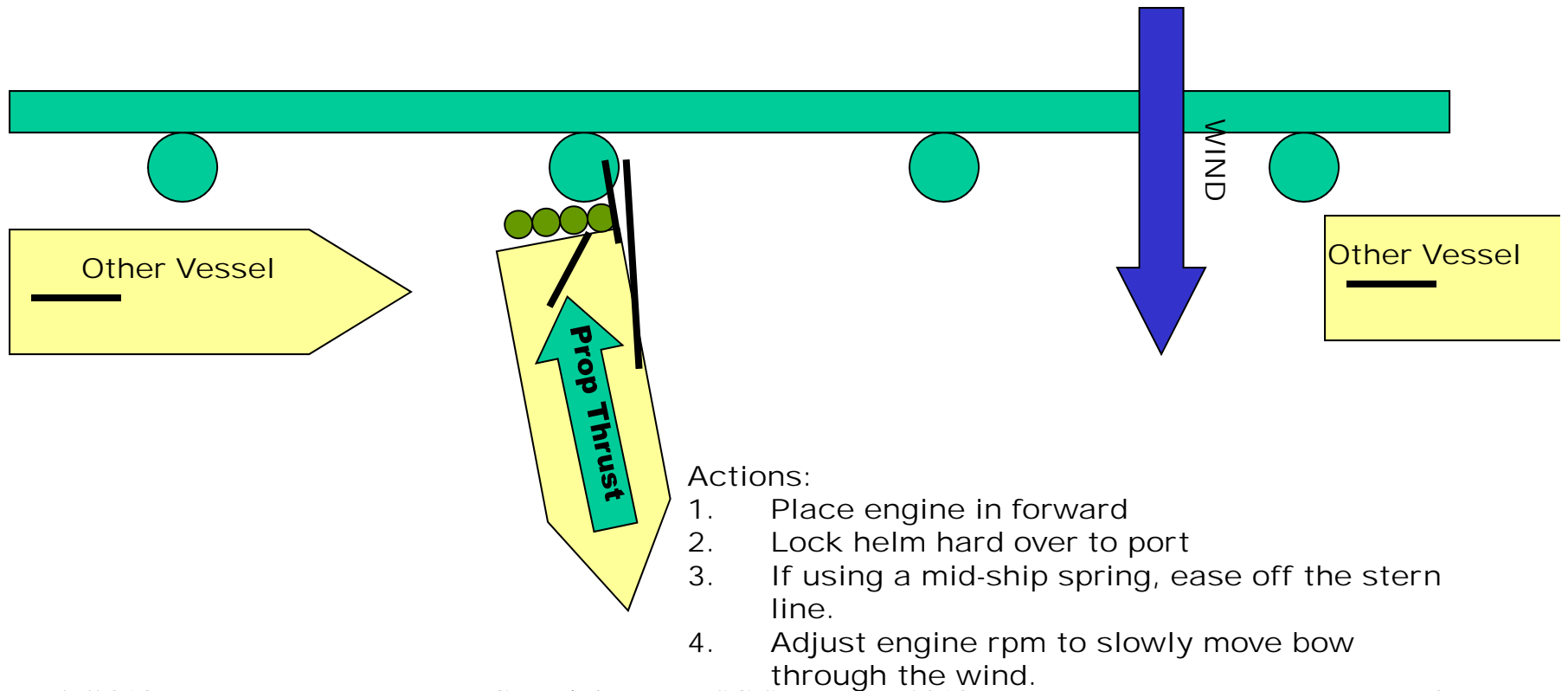
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



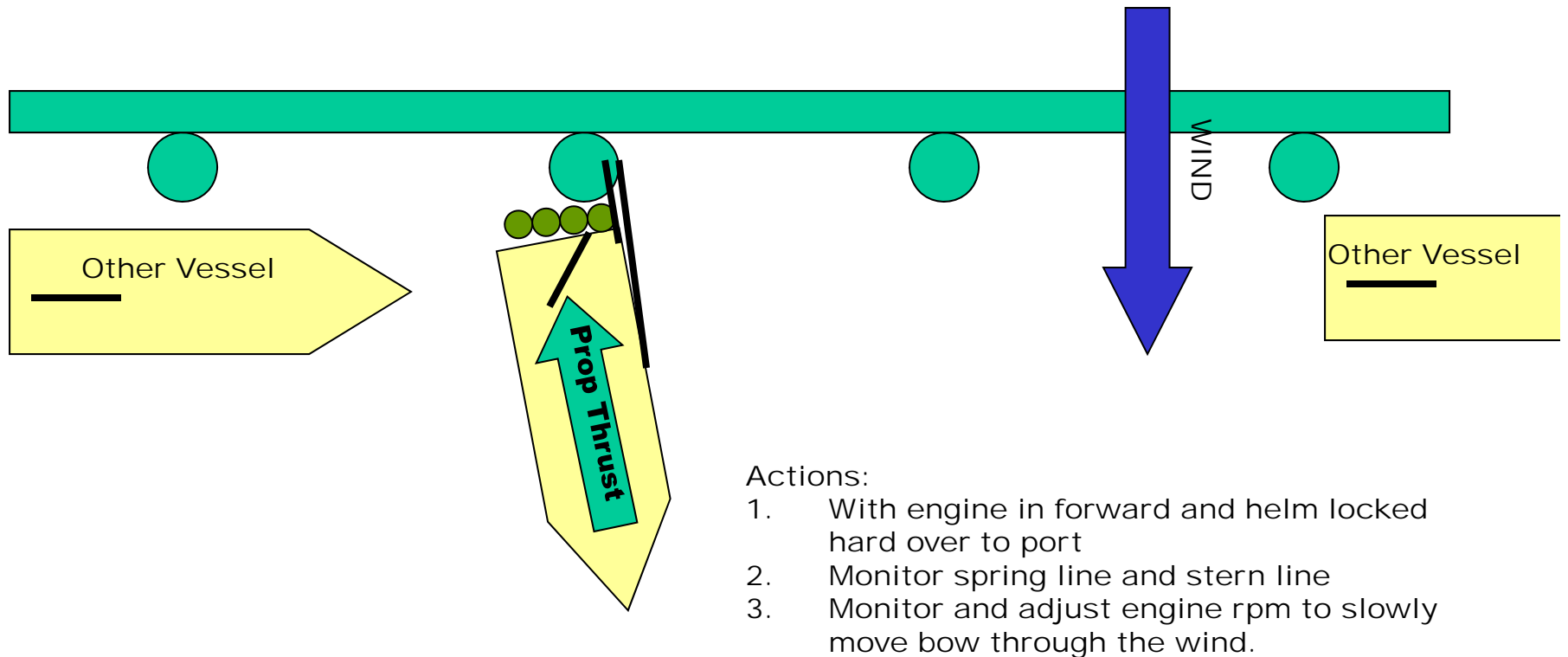
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



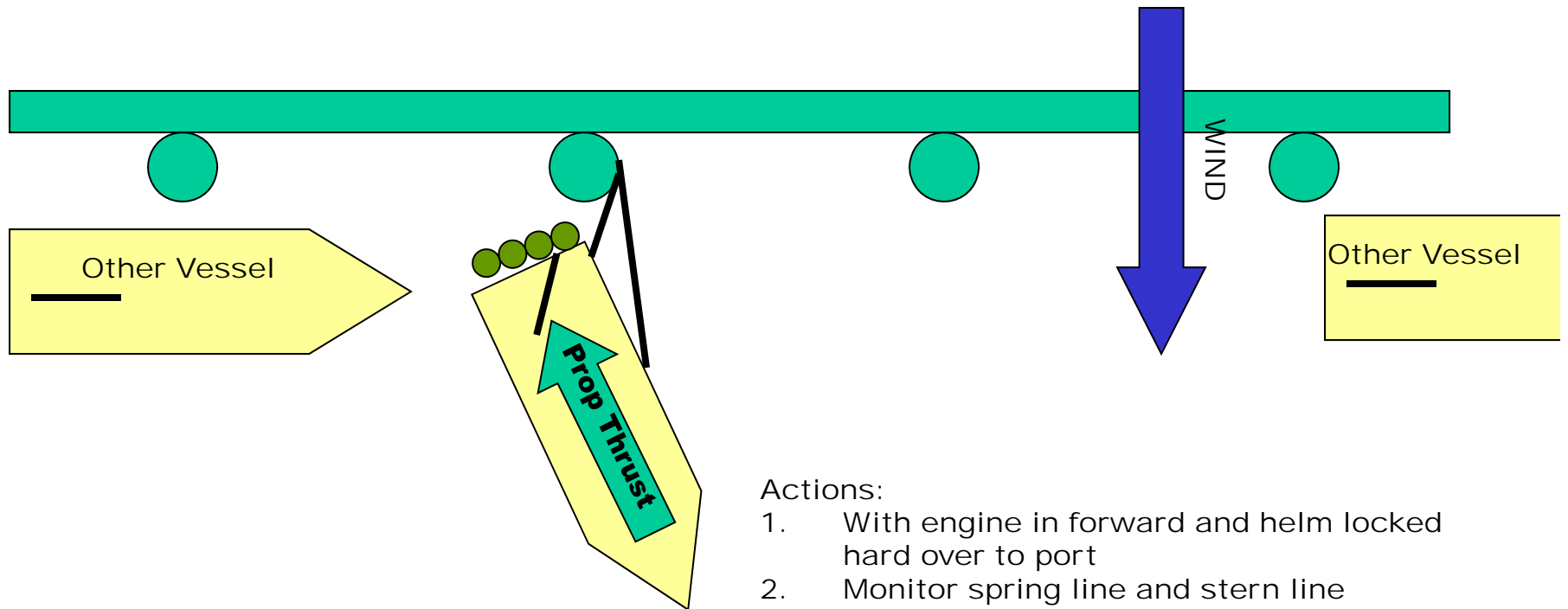
Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'



Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'

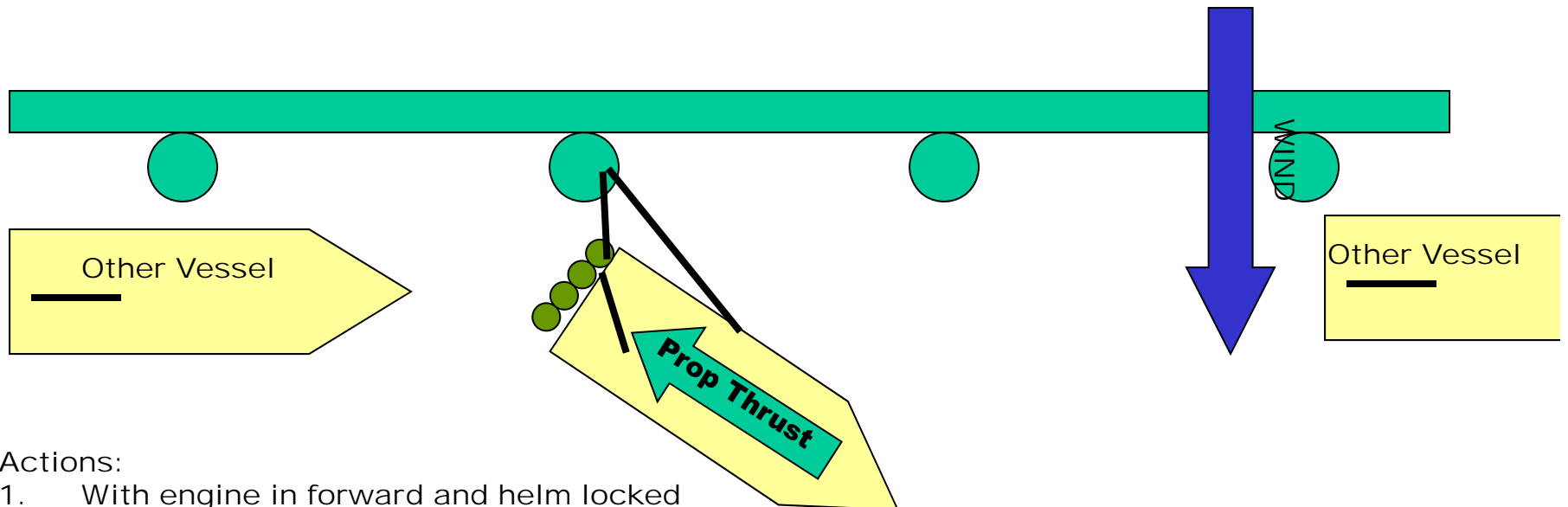


Actions:

1. With engine in forward and helm locked hard over to port
2. Monitor spring line and stern line
3. Monitor and adjust engine rpm to slowly move bow through the wind.

Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'

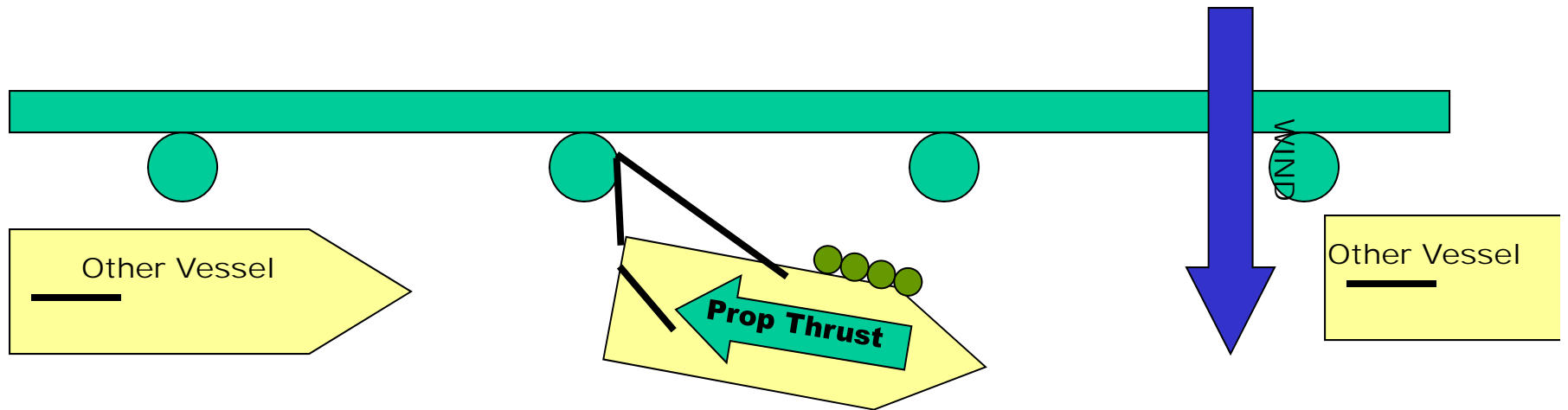


Actions:

1. With engine in forward and helm locked hard over to port
2. Monitor spring line and stern line
3. Monitor and adjust engine rpm to slowly move bow through the wind.

Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'

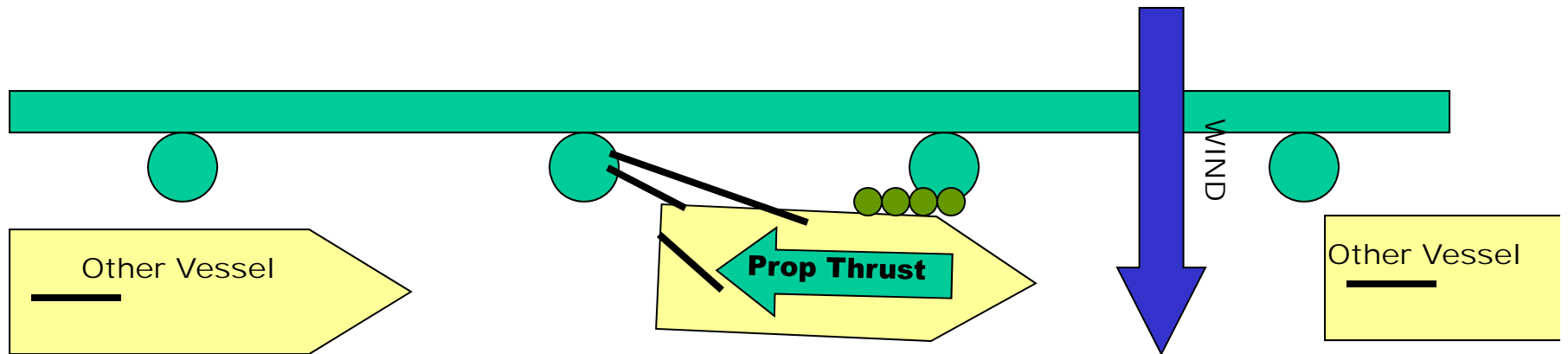


Actions:

1. With engine in forward and helm locked hard over to port
2. Monitor spring line and stern line
3. Monitor and adjust engine rpm to slowly move bow through the wind.
4. Move fenders to port side as needed

Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'

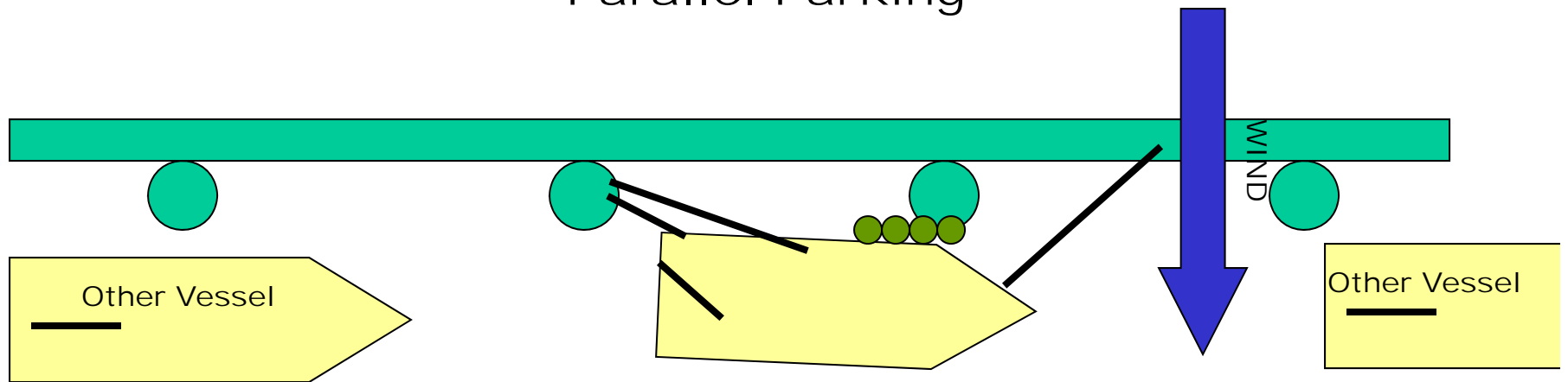


Actions:

1. Keep engine in forward and helm locked
hard over to port to hold position against T-Head Dock
2. Make ready to set mooring lines

Basic Strategy for Single - Handed in medium to high wind conditions

4th Exercise Docking to a T-Head Dock 'Parallel Parking'

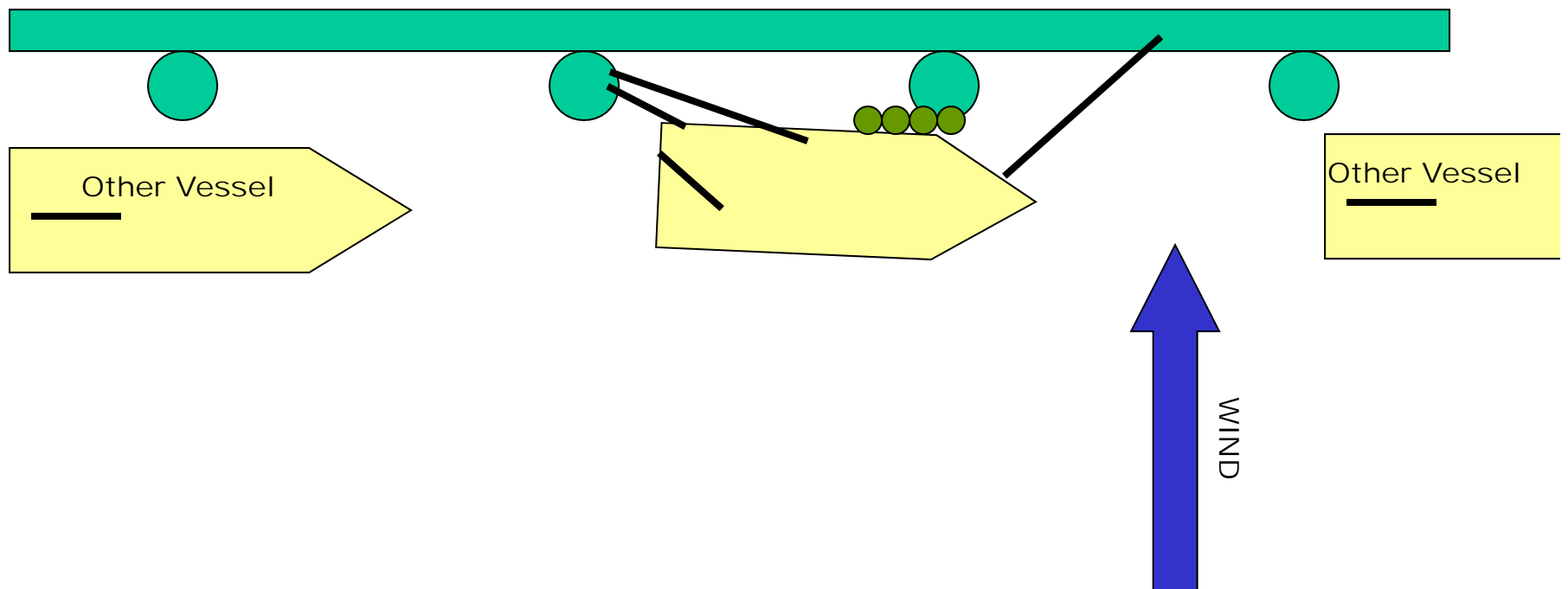


Actions:

1. After lines are set to dock, engine to neutral.

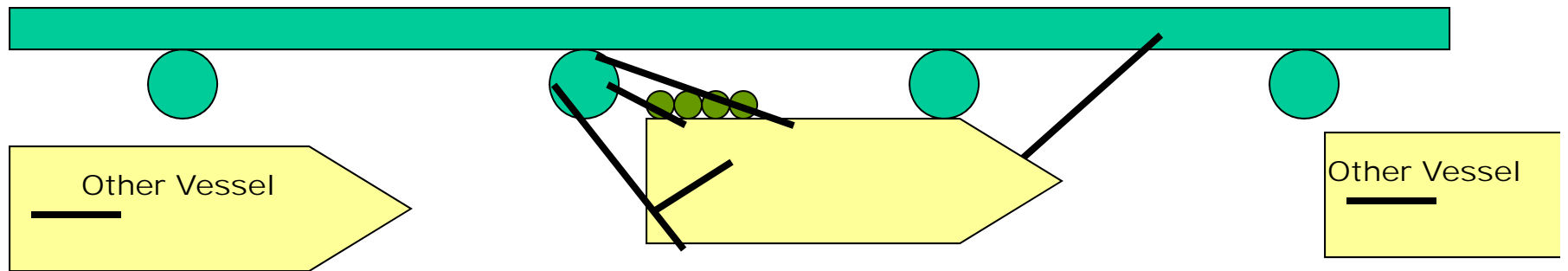
Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'



Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'



Actions:

1. Attached line from aft piling to starboard stern cleat; set for release and retrieval from vessel
1. Move fends to aft quarter
2. Lock helm hard to starboard

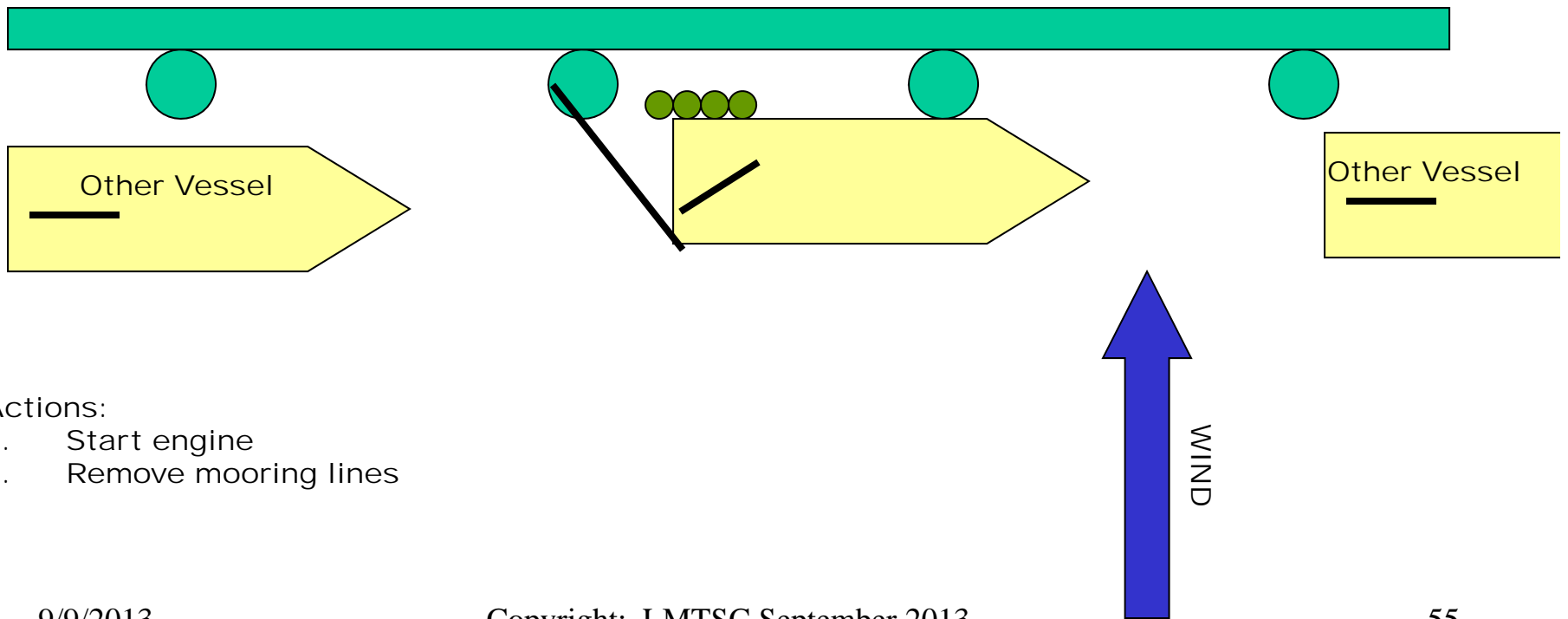
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Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'

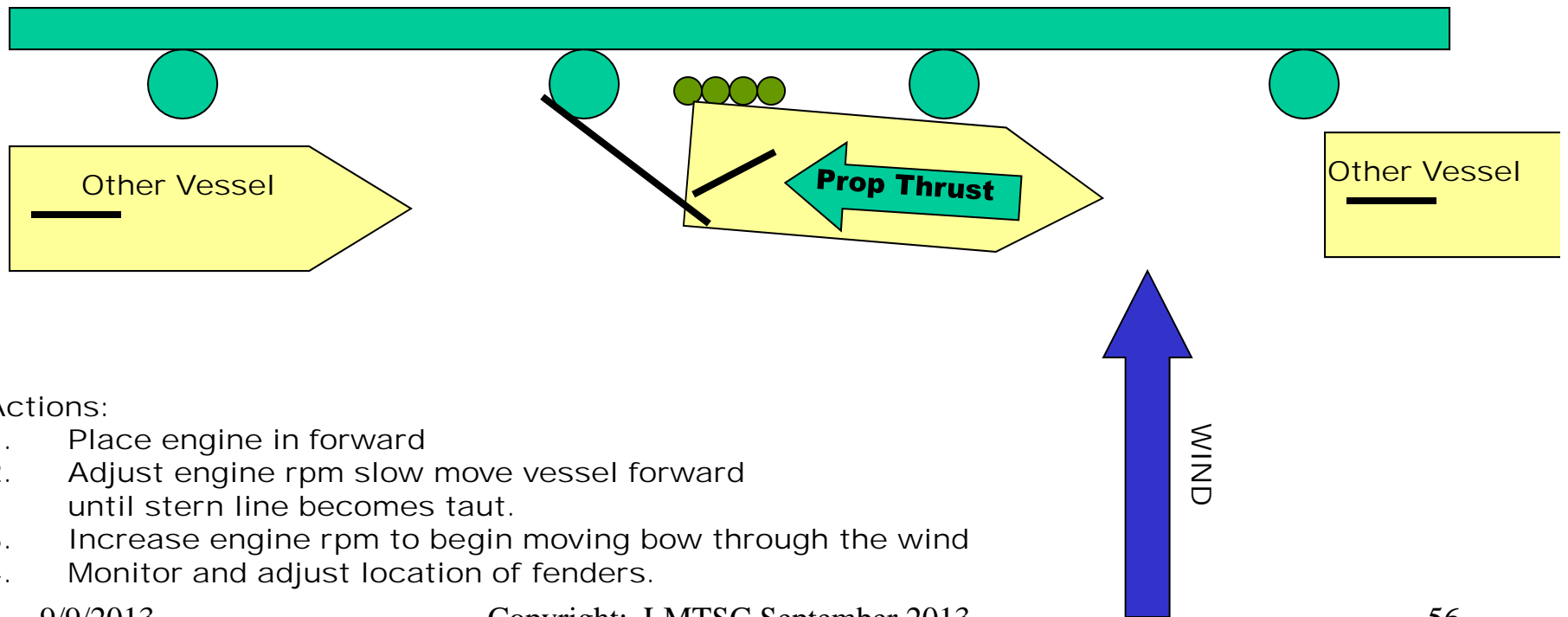


Actions:

1. Start engine
2. Remove mooring lines

Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'



Actions:

1. Place engine in forward
2. Adjust engine rpm slow move vessel forward until stern line becomes taut.
3. Increase engine rpm to begin moving bow through the wind
4. Monitor and adjust location of fenders.

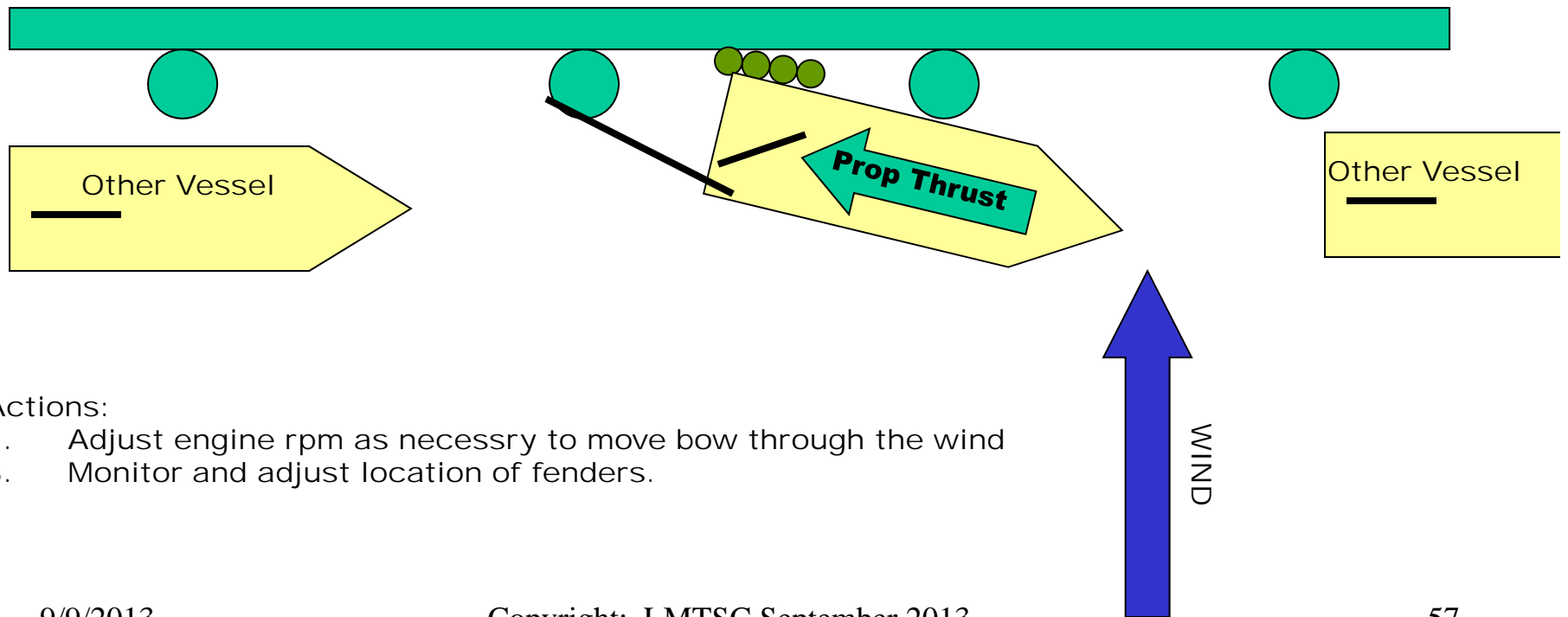
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Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'

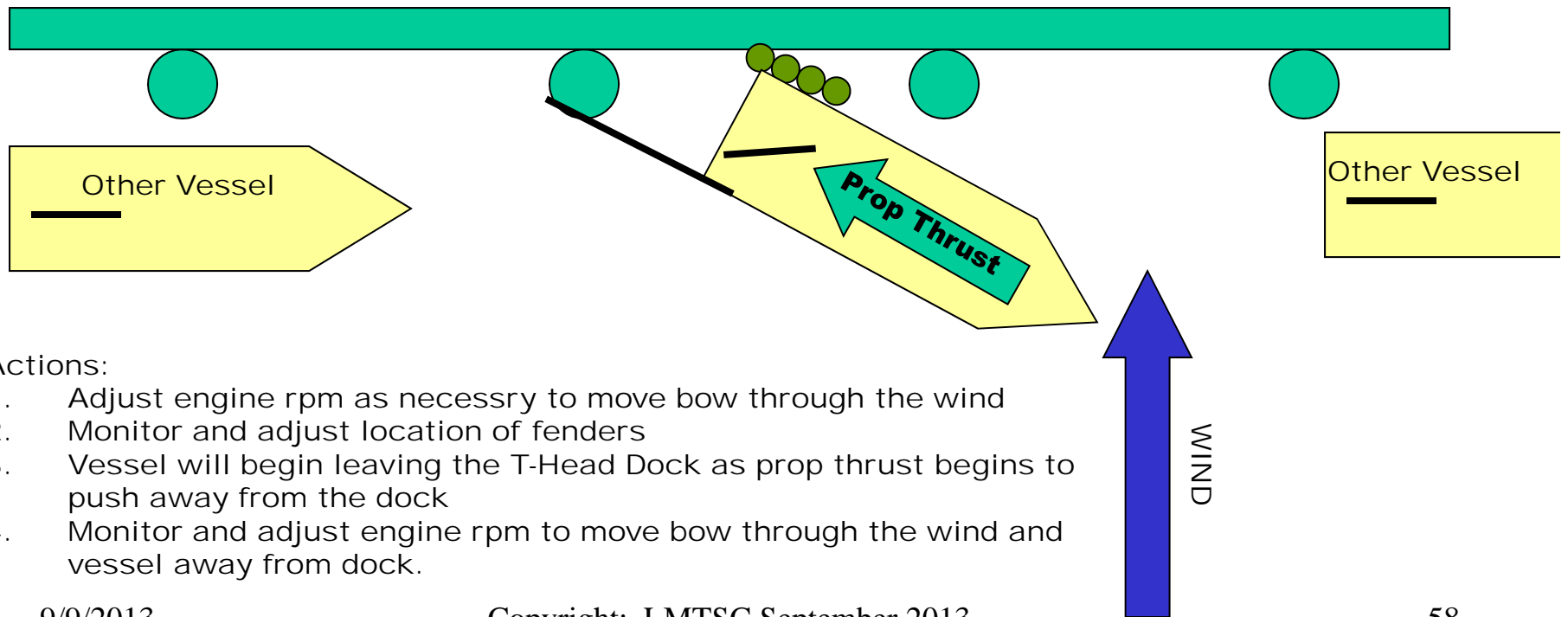


Actions:

1. Adjust engine rpm as necessary to move bow through the wind
3. Monitor and adjust location of fenders.

Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'

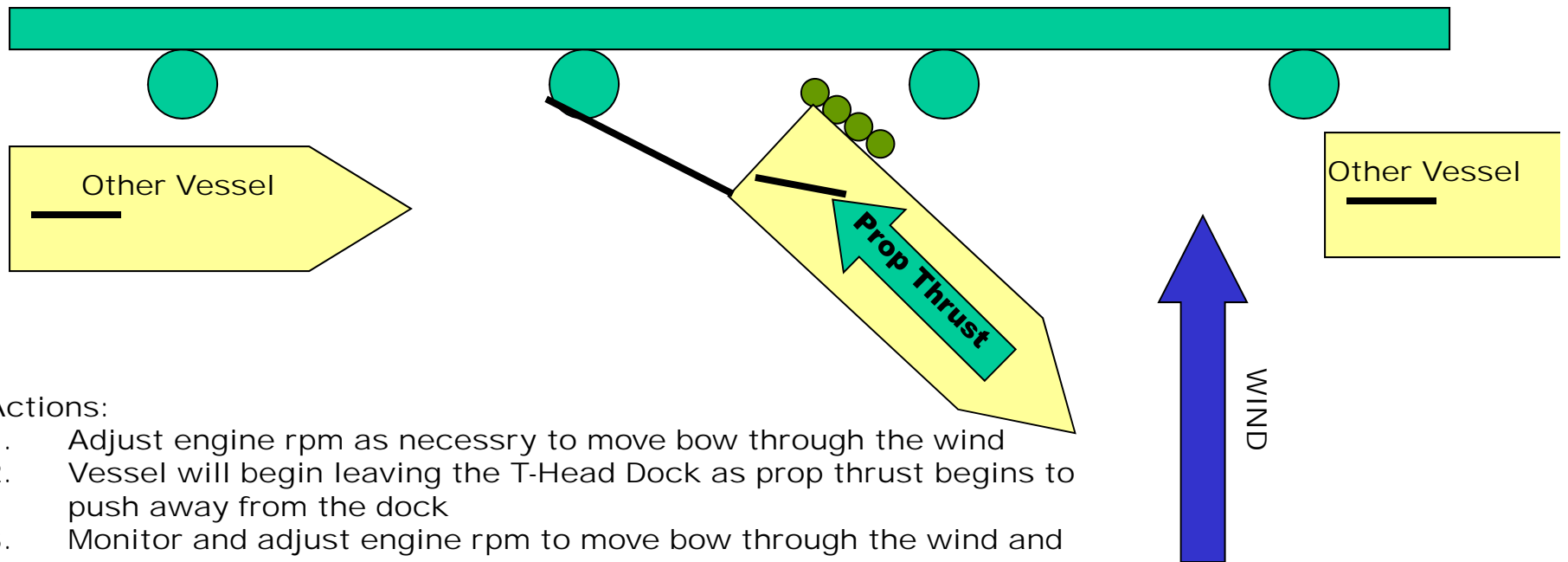


Actions:

1. Adjust engine rpm as necessary to move bow through the wind
2. Monitor and adjust location of fenders
3. Vessel will begin leaving the T-Head Dock as prop thrust begins to push away from the dock
4. Monitor and adjust engine rpm to move bow through the wind and vessel away from dock.

Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'

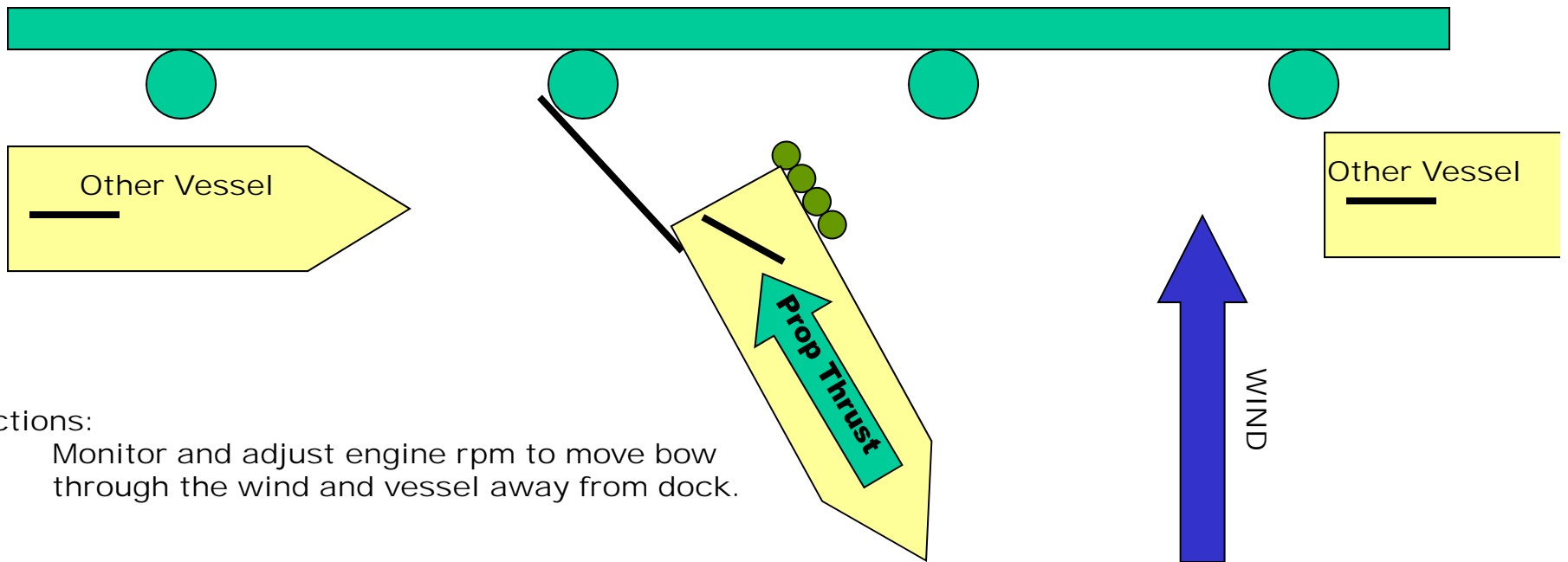


Actions:

1. Adjust engine rpm as necessary to move bow through the wind
2. Vessel will begin leaving the T-Head Dock as prop thrust begins to push away from the dock
3. Monitor and adjust engine rpm to move bow through the wind and vessel away from dock.

Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'

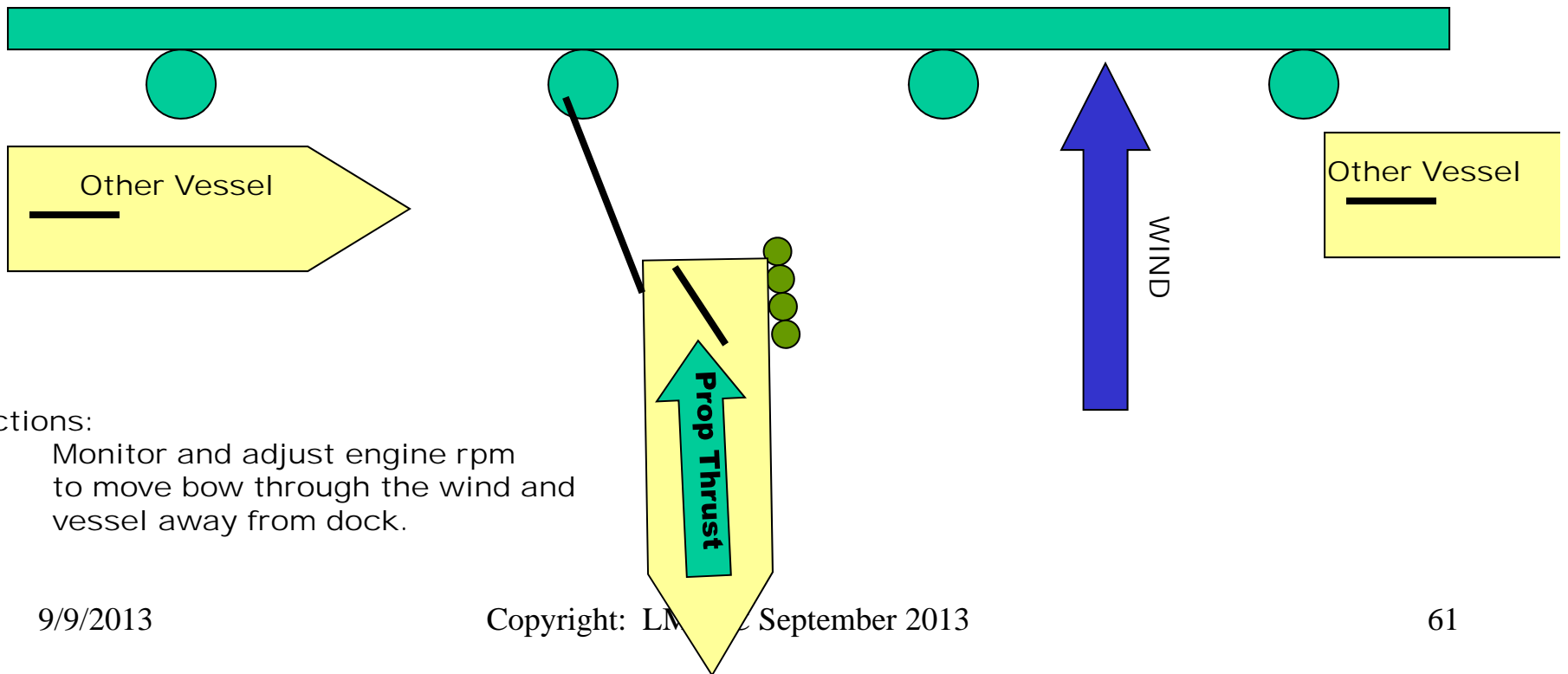


Actions:

1. Monitor and adjust engine rpm to move bow through the wind and vessel away from dock.

Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'

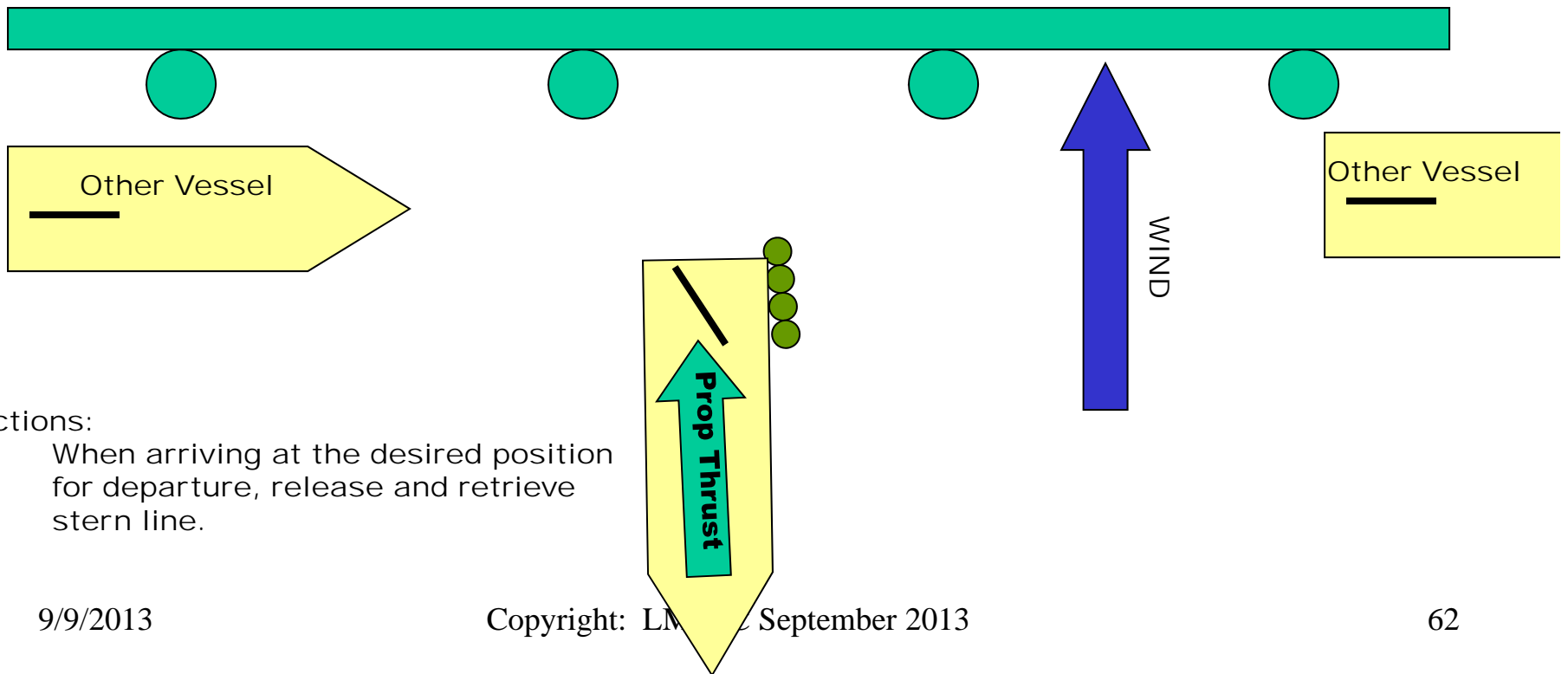


Actions:

1. Monitor and adjust engine rpm to move bow through the wind and vessel away from dock.

Basic Strategy for Single - Handed in medium to high wind conditions

5th Exercise Leaving a T-Head Dock 'Pinned to the Dock'



Actions:

1. When arriving at the desired position for departure, release and retrieve stern line.

