



## TOWING ALONGSIDE

### OBJECTIVE & STRATEGY

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The objective of the Towing Alongside tactic, also known as a towing at the hip, is to ensure the safe towing and transport of Towable Storage Devices (TSD) including barges, bladders, and open storage devices during On-Water Free-Oil Recovery and Marine Recovery operations. This tactic should be used in congested areas, for towing short distances, or where constant control of the towed vessel is required (such as during skimming operations).



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Figure AT-1. Towing Alongside

The general strategy is to:

1. Identify the transfer site (destination for the TSD) and assess the conditions at the site and en-route.
2. Determine the type of TSD that requires towing.
3. Prepare on-scene vessel for alongside towing or mobilize and deploy appropriate towing vessel to the site.
4. Establish and safely configure alongside tow in accordance with this tactic and secure TSD for transit in a manner that minimizes the risk of damage to the towing vessel and TSD.
5. Man and monitor the alongside tow as appropriate.



## TACTIC DESCRIPTION

When configured properly, towing alongside affords greater control of the TSD and should be used at all times unless long duration tows are required, in which case stern towing procedures should be followed. Since bit and cleat arrangement varies from vessel to vessel, vessel masters and crew should configure the alongside tow in the arrangement that best suits their specific configuration while still following the general principals outlined in this tactic and the preferred towing arrangement (depicted in Figure AT-2).

### Operating Environments

Recommended operating environments for towing alongside are protected and calm water. Operation may occur in open and fast water under safe weather and sea state conditions. Operations in broken ice environments require careful consideration and planning.



#### OPEN WATER - *Not Recommended*

Successfully towing alongside in open water (sea states up to 6 feet) requires safe weather and sea state conditions. Although possible, operations are not recommended in open water environments because of the potential for secondary spills and the difficulty of vessel-to-vessel mooring. If the option is available, preparing for and making-up an alongside tow will be safer if moved to protected waters. Components for open water operations should be able to withstand seas up to 6 feet and winds up to 30 knots while towing storage vessels.



#### PROTECTED WATER

Vessels used in protected water for towing alongside should be able to safely handle seas up to 3 feet and winds up to 25 knots. Vessels involved in towing alongside may be deep draft or shallow draft, depending on the water depth.



#### CALM WATER

Towing Alongside in calm water can be conducted by vessels and storage devices that can operate in seas of 1 foot and in winds up to 15 knots. Vessels involved in towing alongside in calm water should be able to operate in water depths of 3 feet or less.



#### FAST WATER - *Not Recommended*

Towing alongside is not recommended for the fast water environment, where currents exceed 0.8 knots, because of the potential for secondary spills and the difficulty in maneuvering a composite unit in this environment.



#### BROKEN ICE - *Not Recommended*

Extreme care should be taken when towing alongside in a broken ice environment because of potential damage and loss due to ice





encounters. Towing vessels should constantly monitor the gap between the vessels to ensure that ice does not become lodged between the vessels and cause damage to either. Other risks include ice piling up in front of and between the vessels. This type of broken ice build-up can drive the vessels apart placing undue strain on the towing lines.

### **Deployment Configurations**

Towing alongside can involve vessels and TSDs of various sizes and consideration must be given when selecting an appropriate towing vessel for the barge or device to be towed.

Prior to rigging the tow, fenders of the appropriate size and construction based (on the towing vessel and TSD) must be rigged over the side on the tow side of one or both of the involved vessels prior to rigging the towlines and should be adjusted as necessary during the rigging process. Additionally, chaffing gear should be readily available and utilized appropriately during the rigging process.

#### **RIGGING THE TOW – STERN TOW TO ALONGSIDE TOW**

When preparing to take a TSD alongside from a stern tow the following steps should be followed:

Shortening the tow:

- If manned, towing vessel master or operator should advise the TSD of your intentions.
- Reduce speed gradually, and keep the tow line in view and control at all times.
- Be aware of any set or drift and of any obstacles and hazards.
- Heave in the slack from the towline as the vessels close.

Secure the tow alongside (Using tow line as bow line):

- When the tow has stopped all forward movement, remove the towline from the towing bitt (break the bitt).
- The towing vessel slowly backs and towline is hauled in. The towing vessel should keep some space abeam until the TSD is in the proper fore and aft position.
- Lead the towline to the bow for a bowline. Take a working turn on a suitable bow fitting and take in all slack. The towing vessel should be positioned so that its propeller is far enough aft of the TSD stern to turn the tow in either direction. As a general rule, always ensure that the stern of the barge or primary storage device is forward of the towing vessel rudder.
- Secure the bow line, keeping the bow of the towed vessel slightly angled in towards the bow of the TSD.
- Secure the forward spring line (tow strap).





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- Pass the stern line and move ahead. Slack the bowline to allow the stern to come along side, taking the slack out of the stern line. Secure the stern line.
- Pass the after spring line ( backing line), take the slack out, and secure the backing line.
- With a crewman ready to take the slack of the forward spring line, the towing vessel should back down hard allowing all the slack to be removed from the tow strap.
- Check all the lines to ensure that they are as taut as possible. Perform this by easing the tow vessel forward, then aft, to see that all the towlines are secure. The tug and the tow should be made up tight and behave as a single unit

### RIGGING THE TOW – FREE APPROACH OR DOCKSIDE

This procedure can be used when making a free approach to a TSD on-water or while the TSD is alongside a pier. The first line over will be the bowline. There will not be a spring line to check forward motion with respect to the TSD.

- The master or operator of the towing vessel directs the crew to pass the bowline once alongside the TSD.
- Once alongside, with the bowline connected, position the TSD so that the towing vessel's propeller(s) and rudder(s) are well aft of the TSD's stern.
- Fender placement should be checked and adjustments made so they provide maximum protection at contact points.

If there is little or no movement from wind, seas or current, rig lines in the following order:

- Rig a stern line from the TSD's stern to the towing vessels stern.
- Rig a forward spring line (tow strap) from the towing vessel bow or forward mooring fitting to a point aft on the TSD.
- Rig a after spring line (backing line) from a quarter location on the towing vessel to a location forward on the TSD.
- Check all the lines to ensure that they are as taut as possible. Perform this by easing the tow vessel forward, then aft, to see that all the towlines are secure. The tug and the TSD should behave as a single unit.

**Figure AT-2** depicts three potential deployment configurations for Towing Alongside with one preferred method that affords the towing vessel the greatest amount of maneuverability and reduces movement between the towing vessel and the TSD being towed.



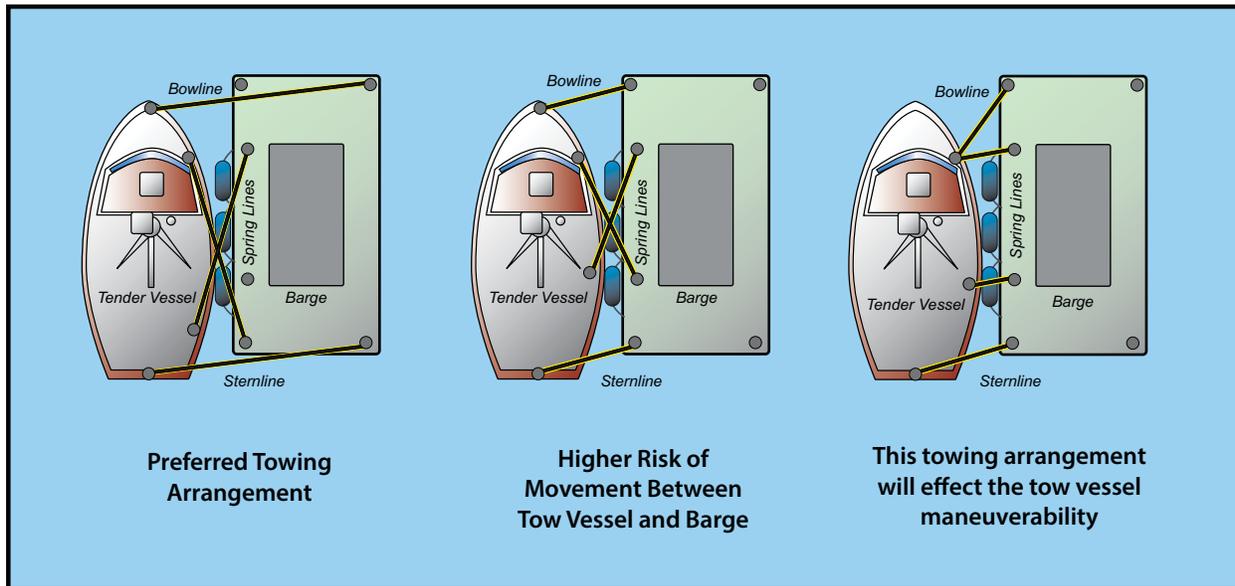


Figure AT-2. Towing Alongside - Configurations

## DEPLOYMENT CONSIDERATIONS AND LIMITATIONS

### SAFETY

- Daily weather evaluation is recommended, and should include distance to closest Staging Area or safe harbor, transit times and exposure of vessels.
- Vessel masters are always responsible for the safety of their vessel and crew. They should have appropriate local knowledge of the operating area, operating environment, and tactic and should:
  - Know the speed and direction of the current, set, drift, and tidal state for the area to be transited.
  - Proceed at a speed prudent for the weather, visibility, traffic density, tow draft, possibility of wake damage, speed of the current, and local speed limits.
- Never attempt to fend off a moving vessel or barge by hand. Utilize fenders. Maintain situational awareness and ensure all crewmembers can quickly and safely move to a safe area should there be a danger of the two vessels making contact with each other without fenders.
- Never stand near lines under heavy strain. Seek safe shelter if there is a chance that a line under heavy strain may part.
- If possible, vessels in transit to/from an operating or staging area should transit in pairs, using the buddy system.



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- A communication schedule should be established and followed, between vessels in transit and the Operations Section or Radio Dispatcher.
- Vessels, including skiffs, must have a minimum of two crewmen aboard.
- Response personnel should wear PPE as required by the incident-specific Site Safety Plan.

### DEPLOYMENT

- When engaged in alongside towing, USCG Navigation Rules, Rule 24 – Towing and Pushing regarding lights, must be followed. (See <http://www.navcen.uscg.gov/?pageName=navRulesContent#rule24>)
- The towing vessel master or operator who is directing and controlling the movement of the towing vessel must understand the arrangement of the tow and the effects of maneuvering on the towing vessel and on the TSD being towed.
- Vessel master and/or operators must ensure that all towing lines and related equipment:
  - Are appropriate for the vessels horsepower
  - Are appropriate for the arrangement of the tow
  - Are frequently inspected
  - Remain serviceable
- Never secure the towlines so they cannot be thrown off quickly and easily.
- When coming alongside a dock, barge, or other primary storage device, approach it at minimum control speed with the TSD on the dockside.
- Site conditions may influence alongside towing configuration options. Sometimes the lee side of the barge or primary storage device is the only option.

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### REFERENCES TO OTHER TACTICS

Other tactics associated with Alongside Towing (Hip Tow) Tactic include:

-  • Marine-Based Storage and Transfer of Oily Liquids
-  • Marine Recovery
-  • On-Water Free-Oil Recovery
-  • Nearshore Response Group Logistics Base



**Towing Alongside****EQUIPMENT AND PERSONNEL RESOURCES**

Commonly used resources for this tactic include adequate towing line(s) based on the size of the towing vessel and TSD, messenger/throwing lines, fenders, and chafing gear. Resource sets will need to be refined as requirements dictate.

Typical Equipment	Function	Quantity	Notes
Class 1, 2, 3, 4, or 5	Towing Vessel	1	Vessel class dependent upon general availability, barge configuration, operating environment, weather and sea state
Towing lines	Towing Alongside	Vessel specific	Lines can be 3-strand or double braided as appropriate for vessel size and tow configuration
Messenger/Throwing lines	Passing towing lines to and from towing vessel and barge	Vessel specific	Messenger lines are typically 3-strand polypropylene
Fenders	Prevents damage to boats, vessels and berthing structures	Vessel specific	Should be secured with a slip-type hitch in the event the fender needs to be moved
Chafing gear	Prevents wear on towing lines where they make contact with chocks and other parts of a vessel when tied off for long periods of time and when under strain	Vessel specific	Various materials and sizes. Each vessel should have an ample supply prior to undertaking towing operations. Potential chafe locations should be inspected hourly to minimize damage to lines
Typical Personnel	Function	Quantity	Notes
Vessel Operators, open-water, protected/calm water	Masters of towing vessels	2*	*Personnel numbers dependent upon vessel class, duration of voyage, and any local, state, and federal vessel licensing and manning requirements
Skilled or General Technicians	Crew vessels, oversee and monitor towing alongside configuration	2*	*Personnel numbers dependent upon vessel class, duration of voyage, and any local, state, and federal vessel licensing and manning requirements

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