C. EXCLUSION BOOMING

Objective & Strategy

The objective of exclusion booming is to exclude any oil slick from entering a sensitive area.

This technique requires the area to be completely boomed off, essentially forming a barrier to protect the location. Conventional containment boom, tidal-seal boom, or a combination of each can be used to exclude spilled oil from a sensitive area. Typically, tidal-seal boom is deployed at the shoreline/water interface on both shores and is secured/anchored into position. Conventional containment boom is then connected to the tidal-seal boom and is secured with additional anchor systems to form a barrier and to maintain shape.

This technique is most efficient in low current areas. Freshwater outflow may assist in maintaining boom configuration and pushing oil away from the area inside the boom.

Resources for this module have been defined as an increment of 200 ft. of containment boom with at least 50 ft. of tidal-seal boom on each shoreward end along with associated support equipment. Quantity of units required will be determined by site, and resource sets may need to be refined as site specific requirements dictate.

Exclusion Booming Deployment Configurations

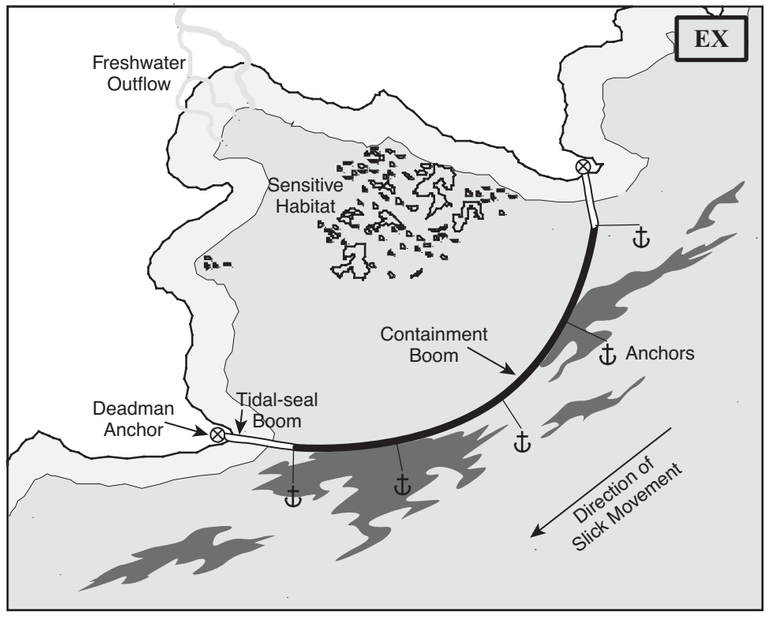

Figure G-2-9. Exclusion booming.

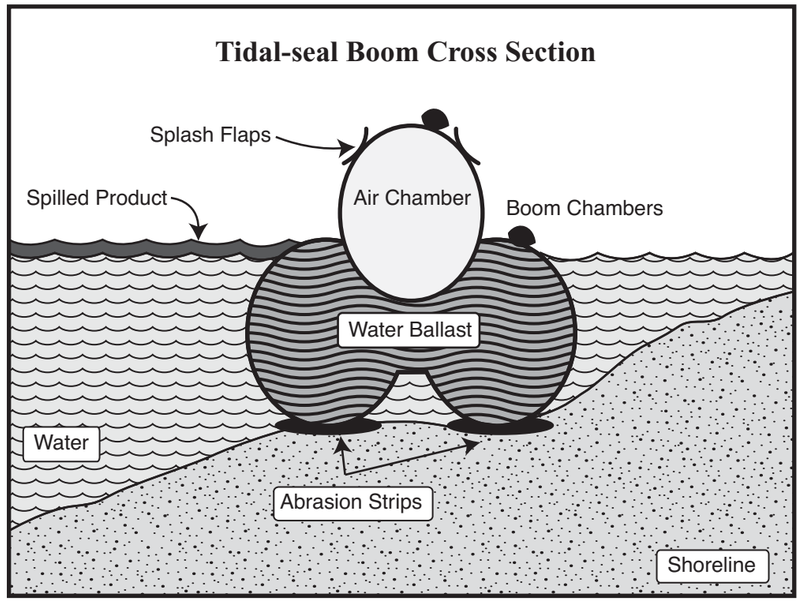

Figure G-2-10. Tidal-seal boom cross section.

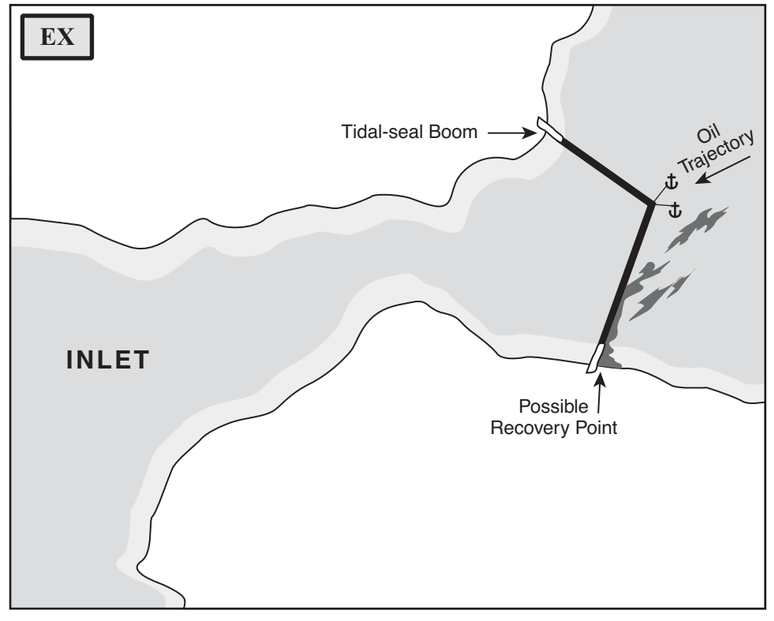

Figure G-2-11. Exclusion booming with apex for exposed shores or currents.

Resources

Exclusion Booming EX

Direct Resources

Description	Type	Function	Quantity
Boom	Calm or Protected water	Exclusion booming	200'
Boom	Tidal-seal	Exclusion booming	100'
Anchor systems	40 lbs. or 60 lbs.	Securing boom	4
Inflator & Pump	Leaf blower & 2" pump with jumpers	Filling tidal-seal boom	
Rigging/Tackle	Misc.		

Support Resources*

Description	Type	Function	Quantity
Vessels	Vessel Class 3/4/5/6	Booming support	2
Personnel**	Crew & Tech./Shift		3 to 10

* Support Resources may need to be re-evaluated, and in most cases decreased, when deploying multiple units or tending the system after deployment.

** Personnel includes vessel crew.

Deployment Considerations and Limitations

- Calm/Protected water boom, and tidal-seal boom are most commonly used for this tactic.
- Do not assume 100% efficiency with one boom system.
- Readjust anchors to maintain shape through tide cycles.
- Constant monitoring of system efficiency is required.
- Deployment planning should be based on average high tidal conditions.
- Technique may be ineffective in currents over 3/4 of a knot.
- See Figure G-2-3 for boom angle relative to current.
- See Figure G-2-4 for anchor system components.
- A gate may be installed to allow vessels to pass inside the boom.