

B. DIVERSION BOOMING

Objective & Strategy

The objective of diversion booming is to divert the spilled oil from one location or direction of travel to a specific site for recovery.

This technique consists of boom and anchor systems placed at an optimum angle to the current, using the movement of the current to assist in response operations. One basic deployment technique is to secure/anchor one end of the boom up-current from the selected recovery site, then secure additional anchor systems to the boom to achieve the desired diversion with the least amount of entrainment or escapement.

Diversion Boom (single boom): Boom is deployed from one bank at an optimum angle to the current and secured/anchored to divert the oil to an eddy, quiet water, or collection beach for recovery.

Diversion Boom (cascade): Several booms are deployed in a cascade configuration when a single boom cannot be used because of fast current or because it is necessary to leave openings in the boom for vessel traffic, etc. This configuration can be used in strong currents where it may be impossible to effectively deploy one continuous section of boom. Shorter sections of boom used in a cascade deployment are easier to handle in faster water, thereby increasing efficiency of oil control. Additional equipment may be required to set and maintain this system as compared to the single boom configuration.

Chevron boom configurations may be used in fast water. Two booms are deployed from an anchor in the middle of the stream/river and then attached to each bank. A closed chevron configuration is used to divide a slick for diversion to two or more recovery areas. An open chevron can be used where boat traffic must be able to pass. In the open chevron configuration the two booms are anchored separately midstream, with one anchor point up-stream or downstream of the other. An inverted chevron can also be used to funnel the oil slick to a marine recovery unit anchored mid-channel.

Resources for this module have been defined as an increment of 200 ft. of boom 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.

Diversion Booming Deployment Configurations

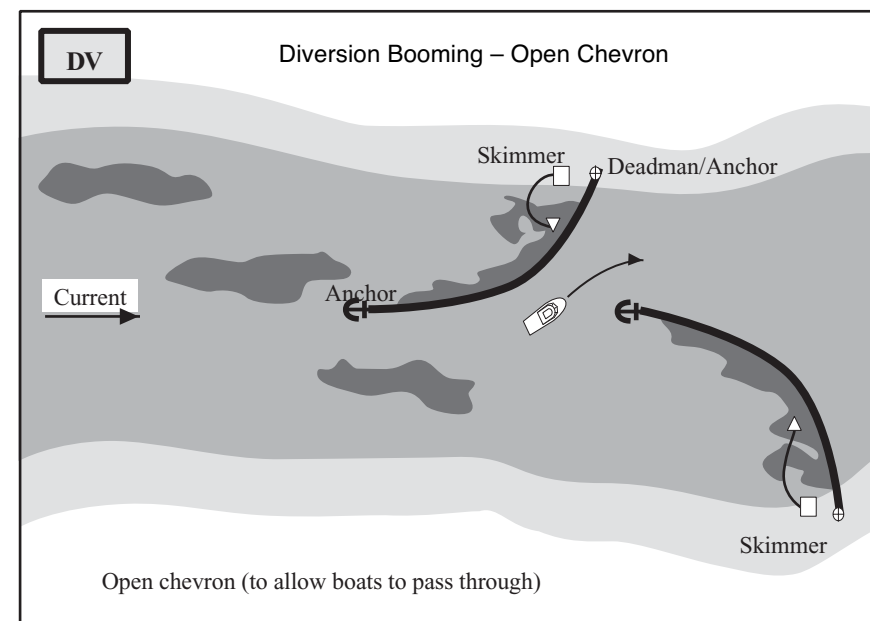


Figure G-2-5. Diversion booming, open chevron.

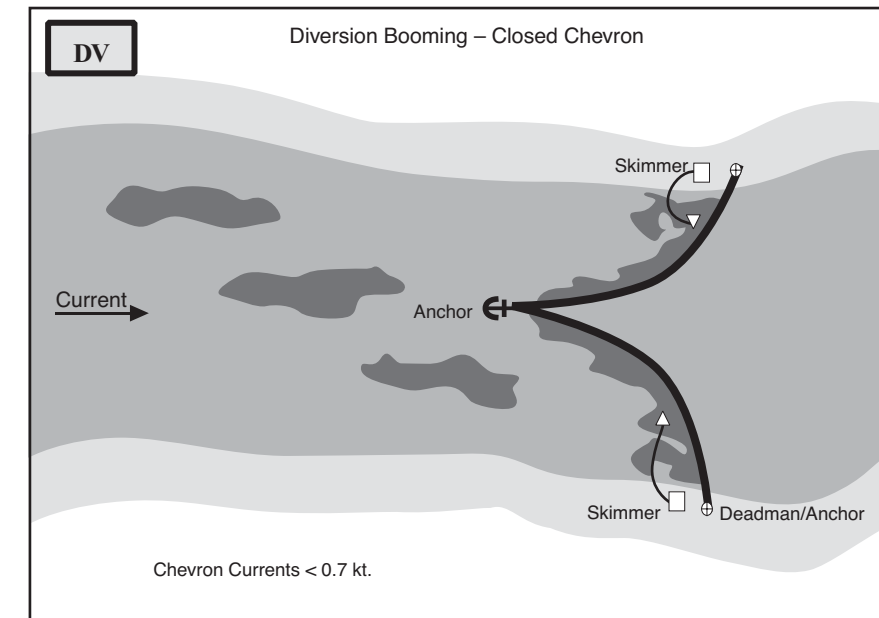


Figure G-2-6. Diversion booming, closed chevron, on-shore skimming.

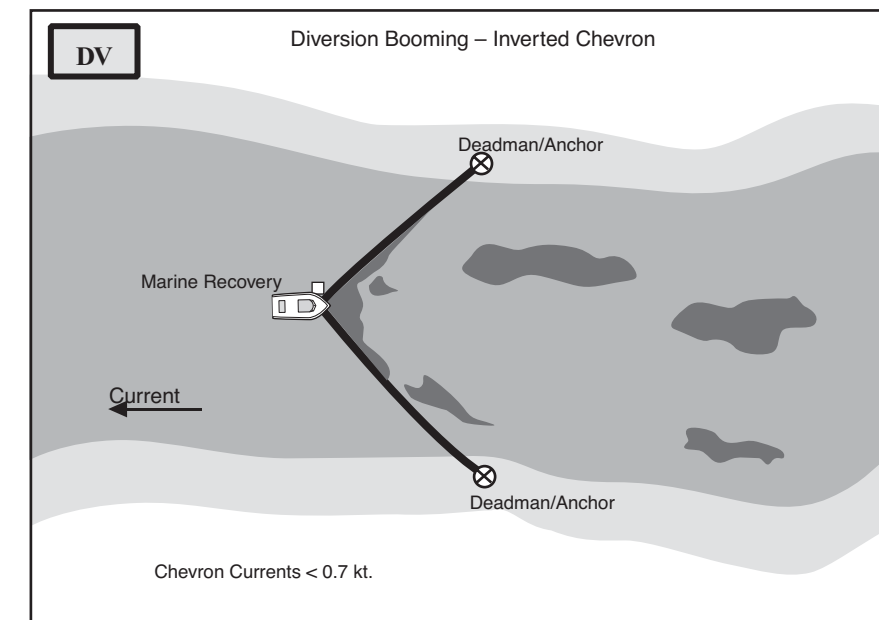


Figure G-2-7. Diversion booming, inverted chevron, marine skimming.

Resources

Diversion Booming, Fixed DV

Direct Resources

Description	Type	Function	Quantity
Boom	Calm/Protected water	Diversion booming	200'
Anchor systems	40 lbs.	Securing boom	2
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 are most commonly used for this tactic.
- Do not assume 100% efficiency with one boom system.
- Readjust angles and widths between boom sections as necessary to meet changing conditions.
- Constant monitoring of system efficiency is required.
- Deployment planning should be based on average high tidal conditions.
- See Figure G-2-8 for anchor system components.
- Title 16 permit required to work inside an anadromous stream. Due to the possibility of contaminating spawning habitat, avoid diverting and/or collecting oil inside a stream mouth if possible.
- See Figure G-2-15 for methods to keep oil from contaminating beaches at collection points.

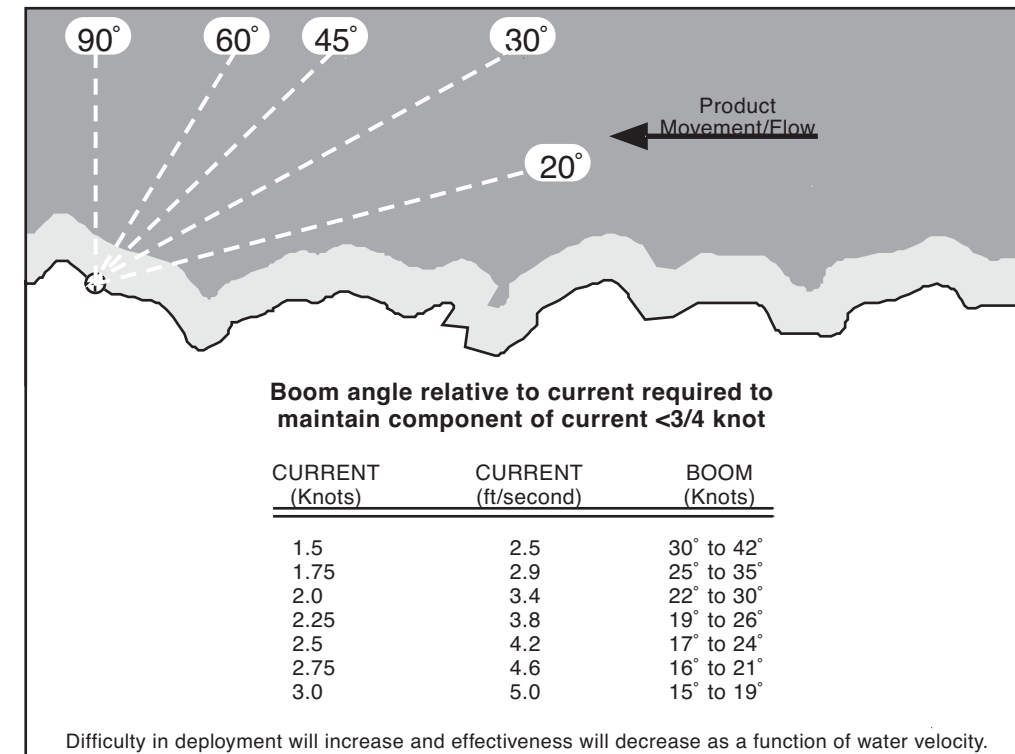


Figure G-2-8. Boom angle relative to current.