

OIL SPILL EQUIPMENT

1. Oil Boom

An oil boom is a floating barrier which is used in cleaning up spilt oil on the surface of the water.

Purpose

Oil Containment

Surrounding floating oil to prevent its spread over the water surface and increase its thickness to facilitate recovery.

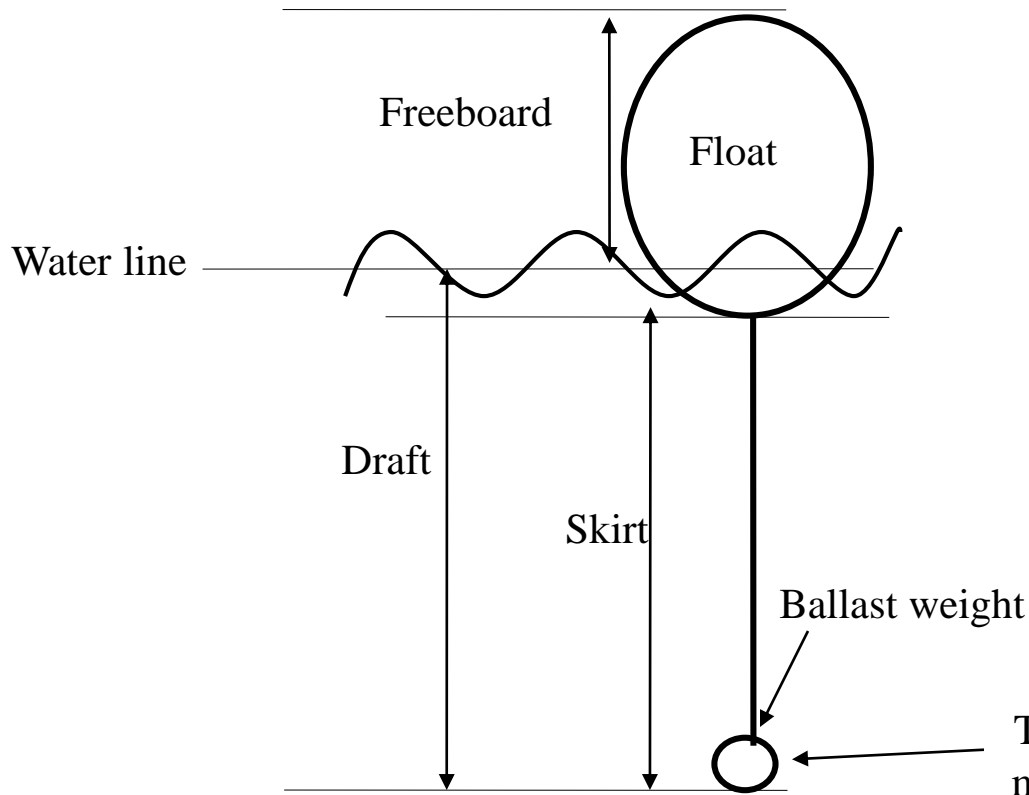
Deflection

Diverting the oil to a suitable collection point on the shoreline for subsequent removal.

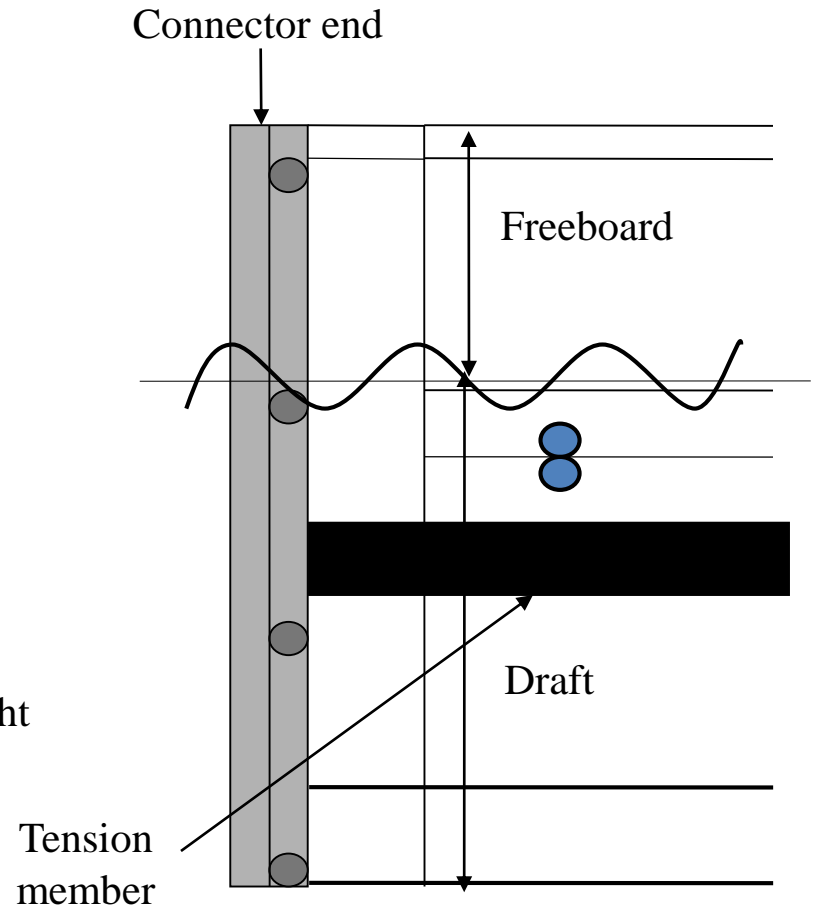
Protection

Diverting the oil away from economically important or biologically sensitive sites.

Boom Components



AIR INFLATABLE OIL BOOM



SOLID FENCE OIL BOOM

Boom Main Components

Component	Description
Float	<i>Buoyancy element (foam or air) that keep booms stay on the water surface</i>
Freeboard	<i>Vertical height of a boom above the water line</i>
Skirt	<i>Continuous portion of a boom below the floats</i>
Tension member	<i>Component which carries horizontal tension load acted upon a boom</i>
Ballast	<i>Weight applied to the skirt to help keep it vertical</i>

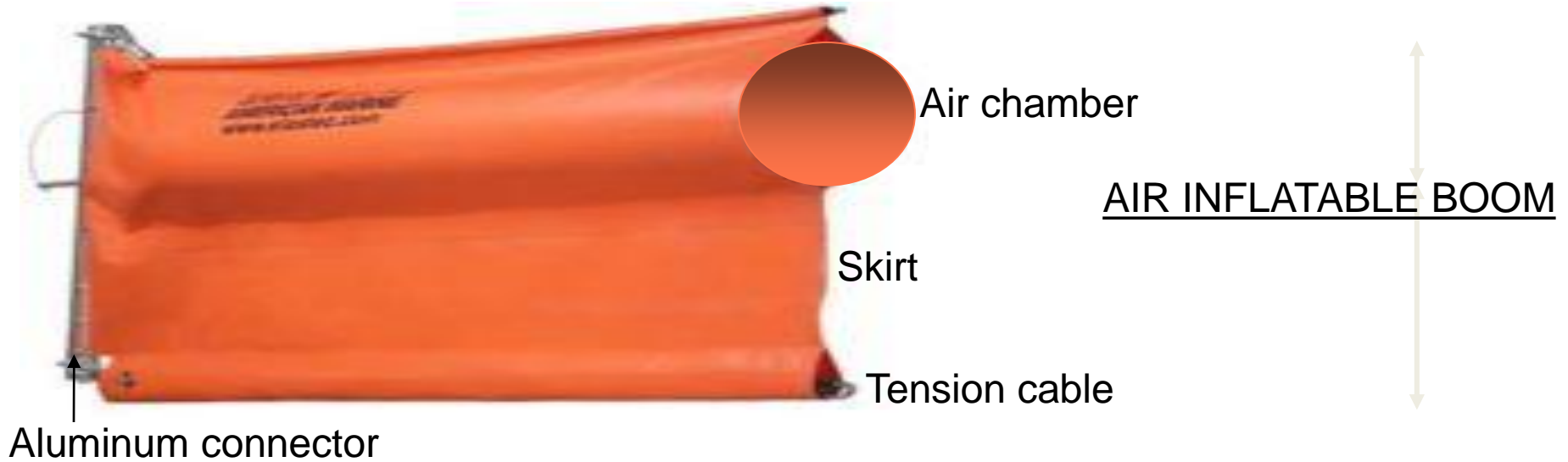
Boom Support Components

Component	Purpose
Anchor point	<i>To attached anchor or mooring lines</i>
Bridle	<i>Distribute the load exerted by towing or anchoring the boom</i>
End connector	<i>Permanently attached to a boom for joining boom sections or other devices</i>
Hinges	<i>Location between boom segments where boom can be folded back</i>

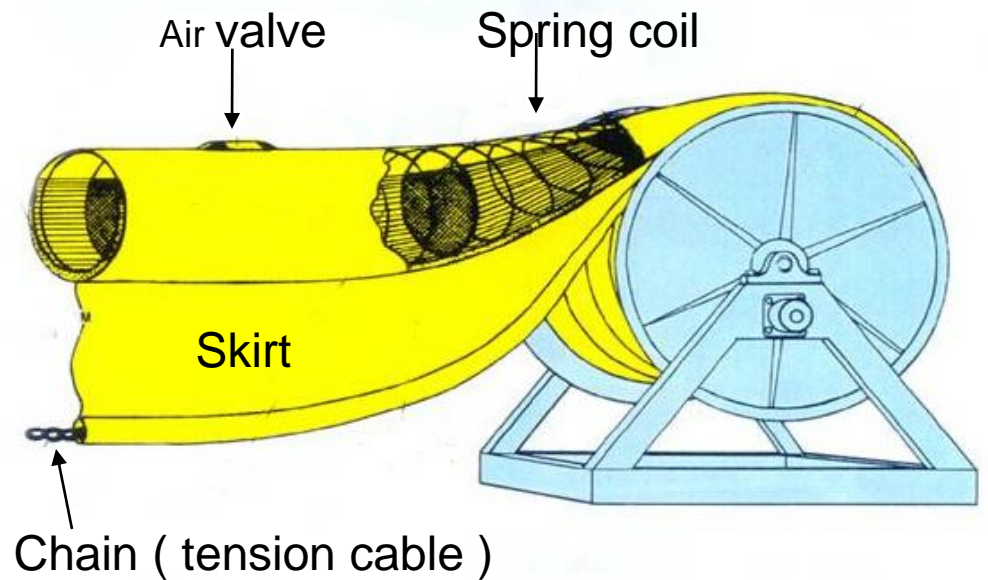
Boom Support Components

Component	Purpose
Handholds	<i>For grasping a boom by hand</i>
Lifting point	<i>Structural point for attachment of a lifting device, e.g. crane</i>
Stiffener	<i>Component which provide support to the membrane</i>

Air Inflatable Boom



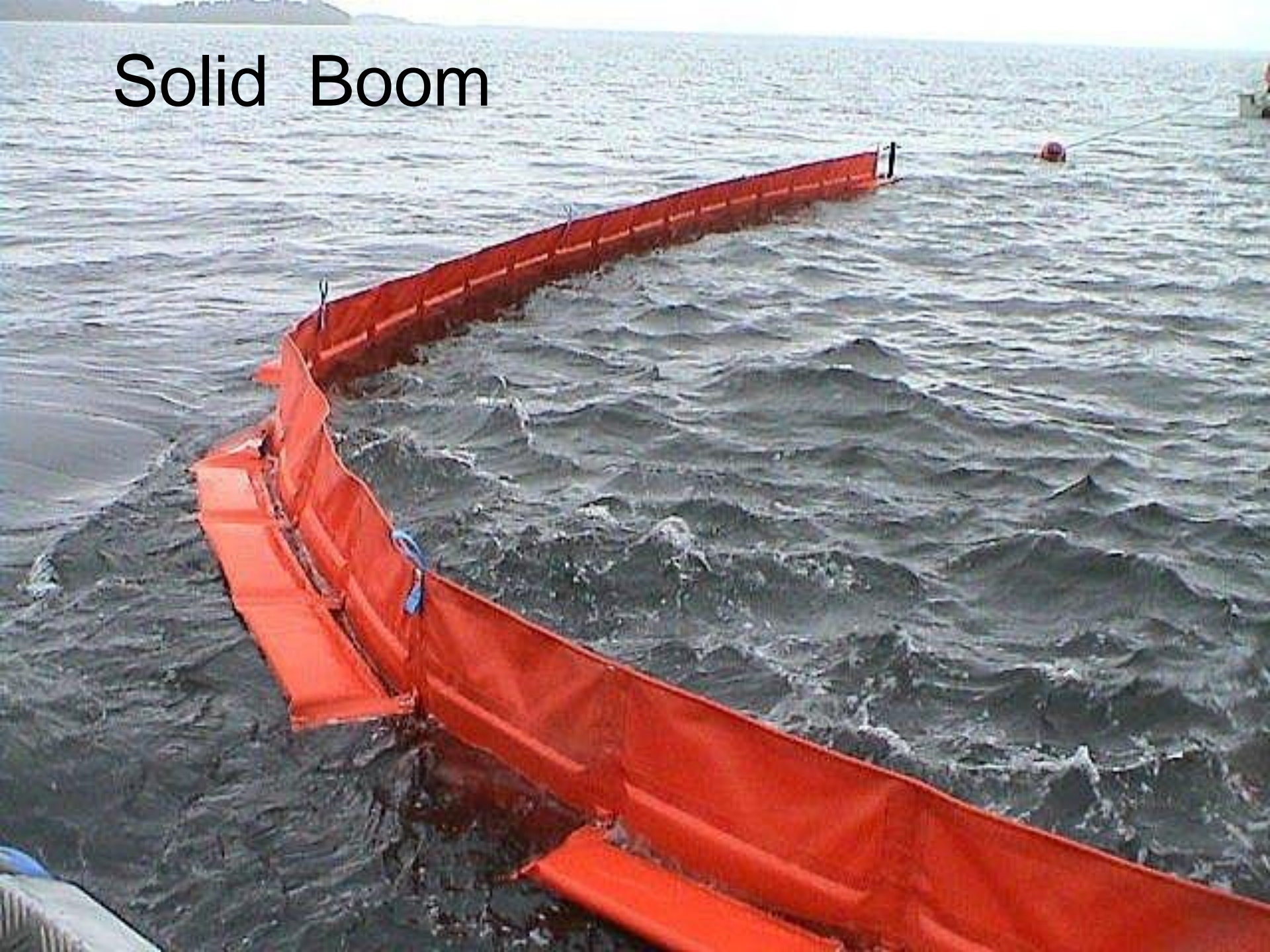
SELF AIR INFLATABLE BOOM



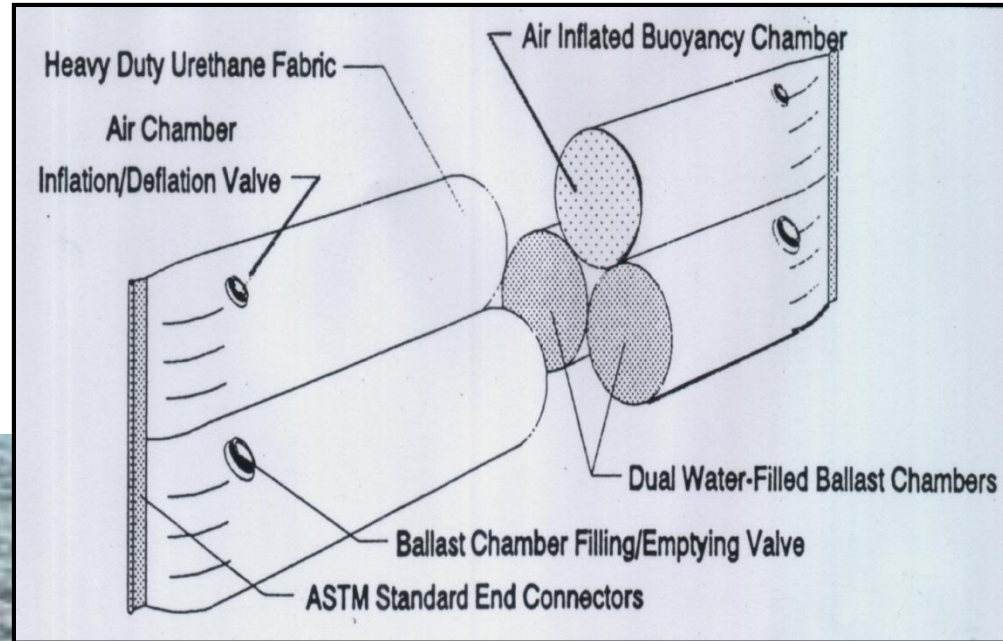
Solid Boom



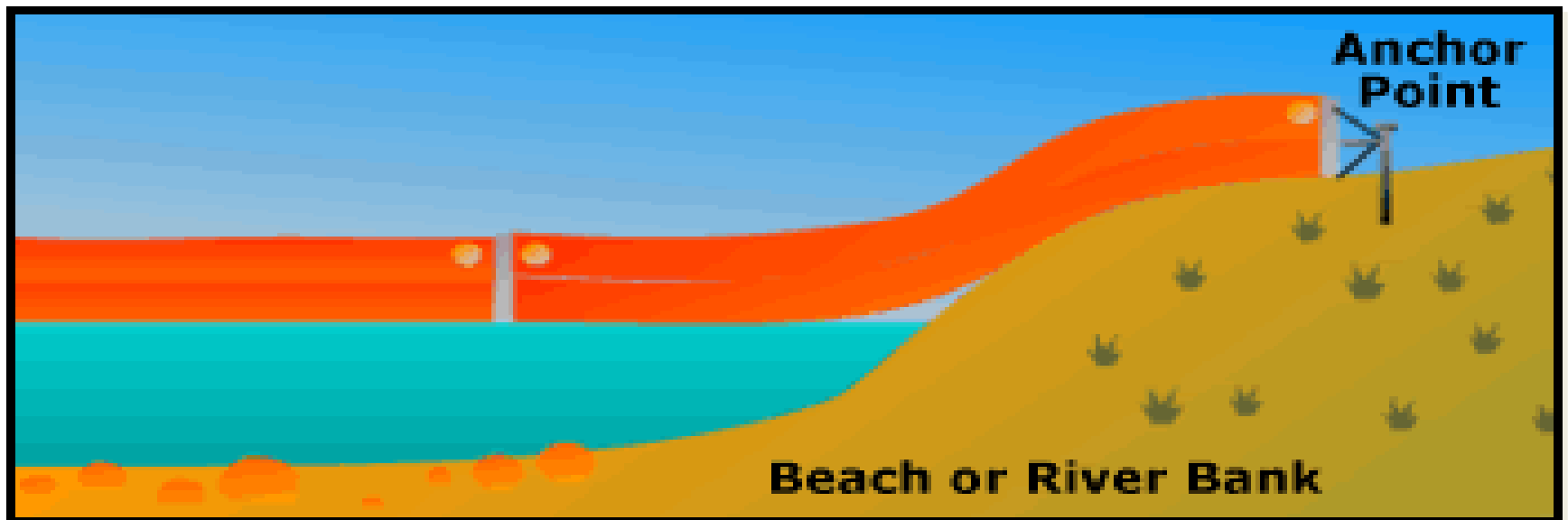
Solid Boom



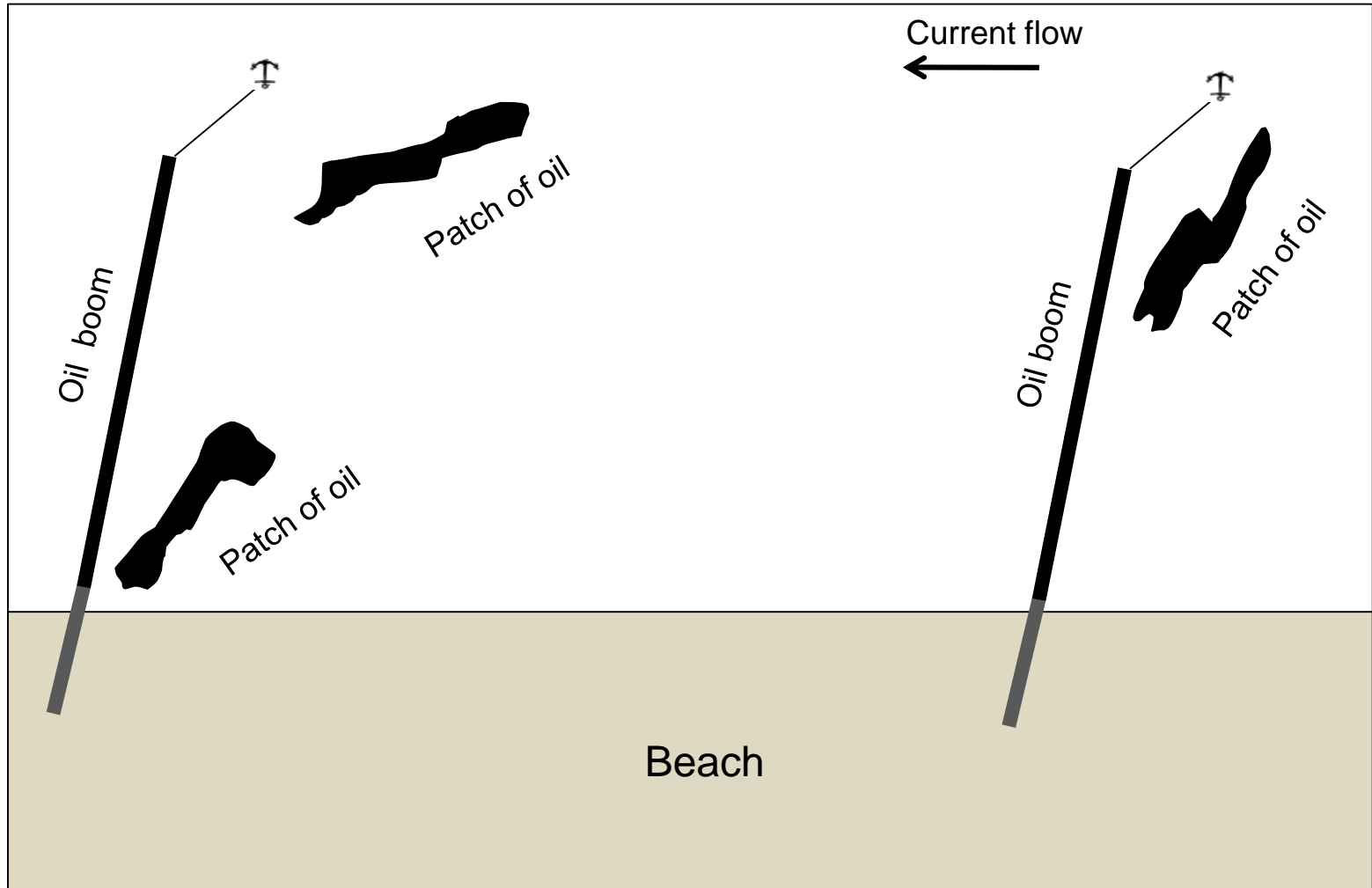
Sealing Boom



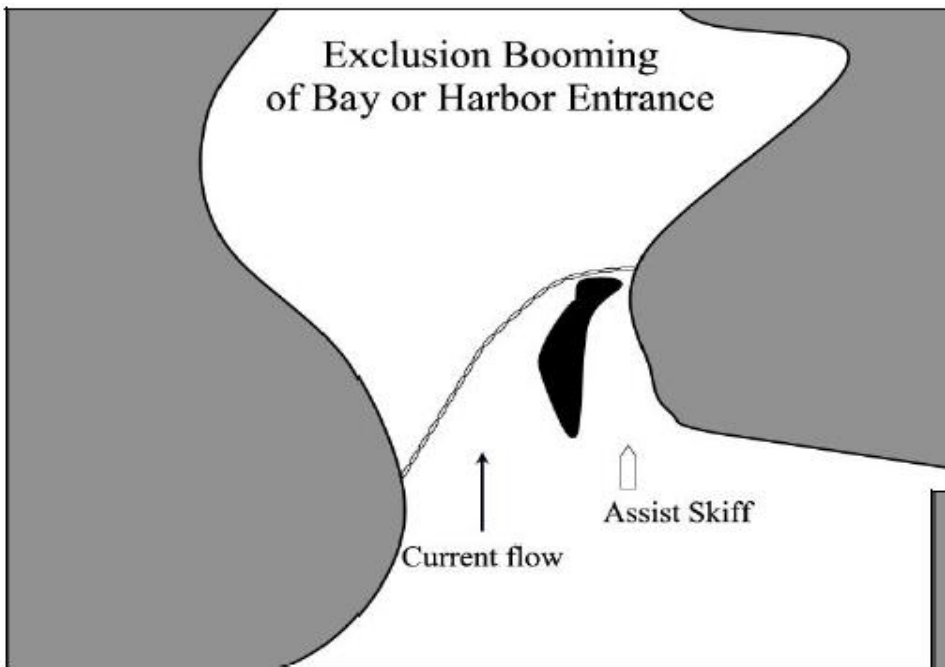
Sealing Boom



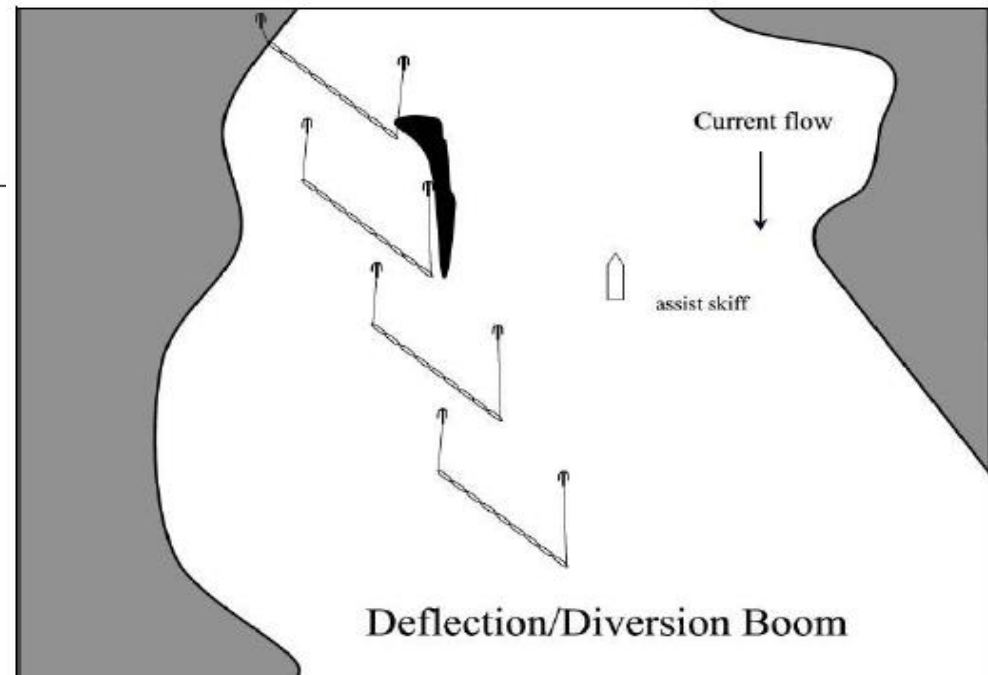
Shoreline Booming



Exclusion Booming

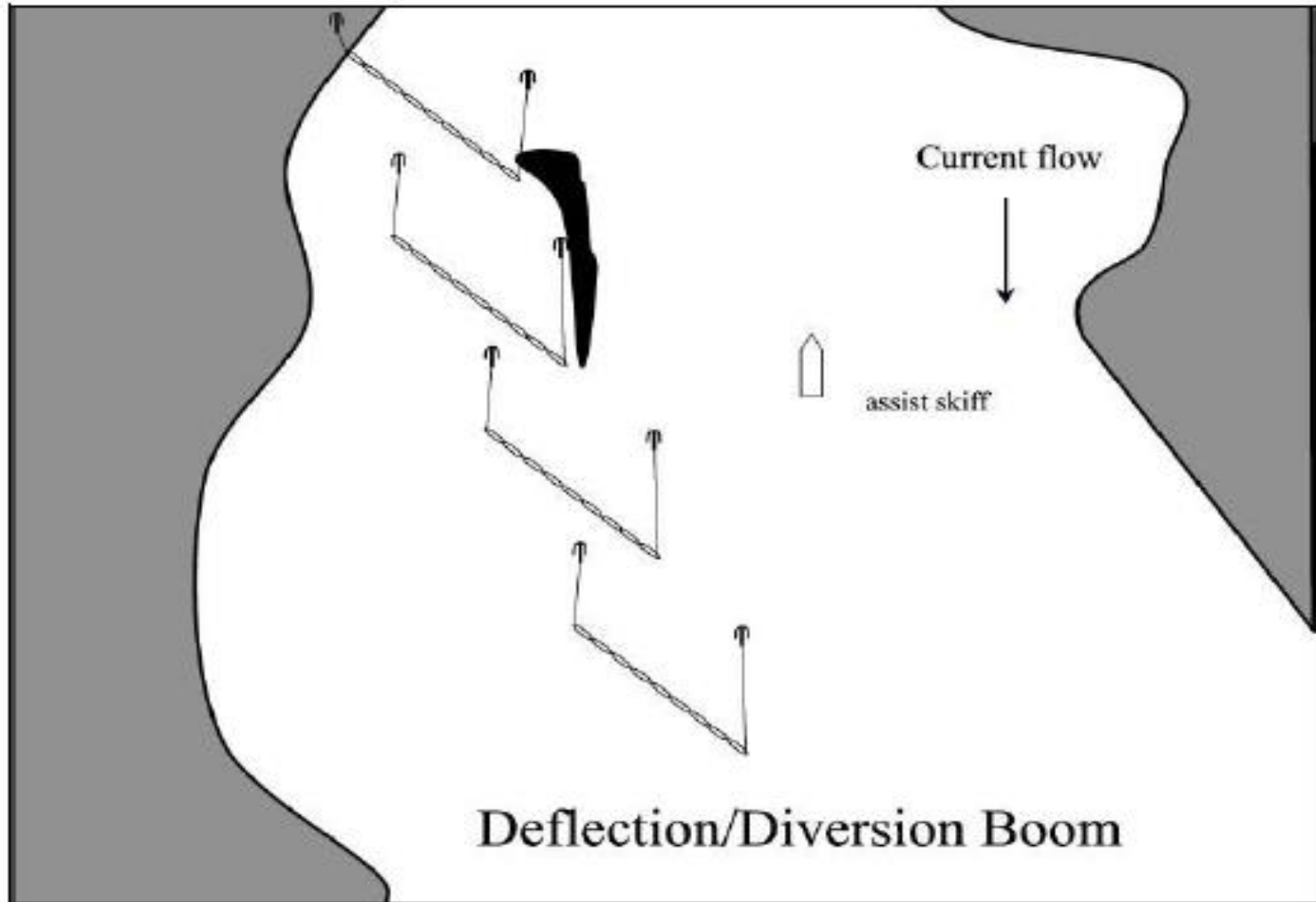


Harbour & Inlets



Deflection /diversion

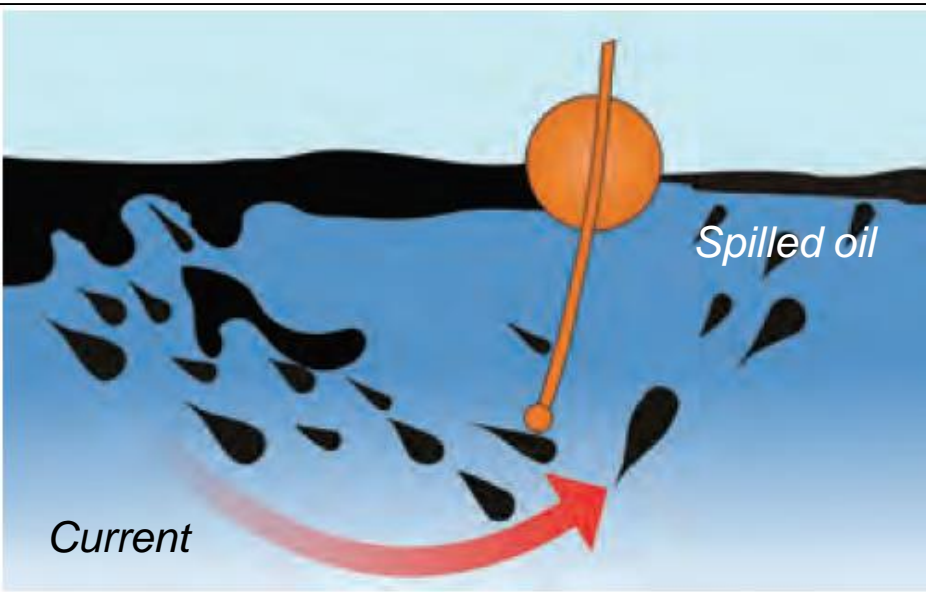
Diversionary Booming



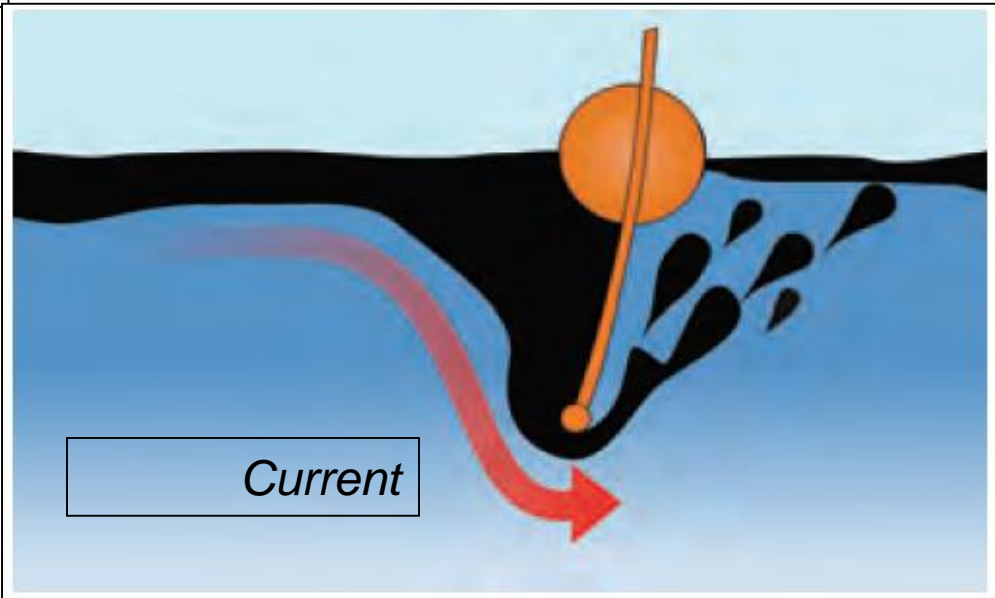
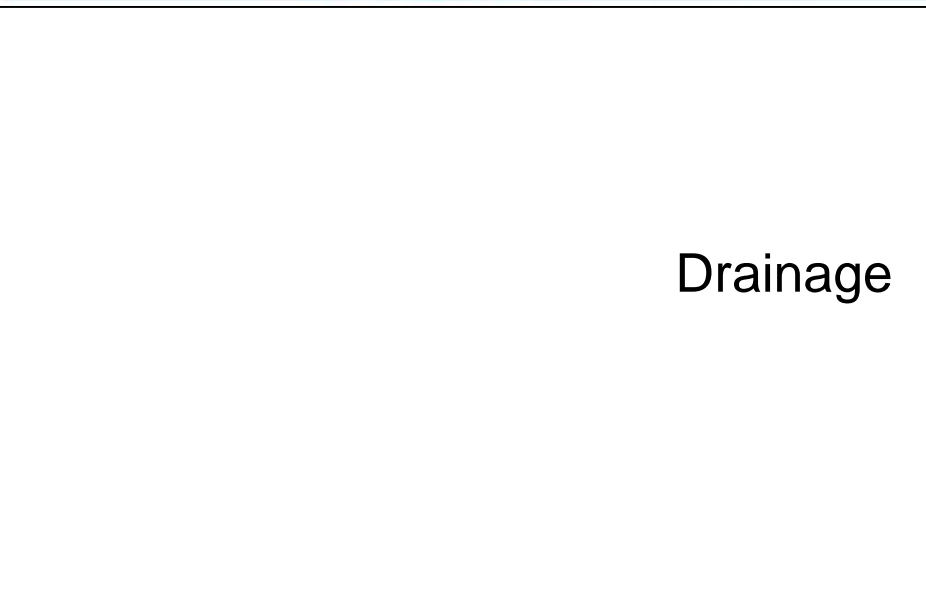
Characteristics of Common Boom Types

Type of Boom	Flotation Method	Storage	Moored or Towed	Ease of Cleaning	Relative Cost	Preferred Use
<i>Curtain Boom</i>	<i>Inflatable</i>	<i>Compact when deflated</i>	<i>Both</i>	<i>Straight forward</i>	<i>High</i>	<i>Inshore or offshore</i>
	<i>Solid foam</i>	<i>Bulky</i>	<i>Moored</i>	<i>Easy/ Straight forward</i>	<i>Mid-range to Low</i>	<i>Sheltered inshore water e.g. harbours</i>
<i>Fence Boom</i>	<i>External foam floats</i>	<i>Bulky</i>	<i>Moored</i>	<i>Low</i>	<i>Low</i>	<i>Sheltered waters (e.g. ports, marinas)</i>
<i>Shore-Sealing Boom</i>	<i>Inflatable upper & lower chambers water filled</i>	<i>Compact when deflated</i>	<i>Moored</i>	<i>High</i>	<i>High</i>	<i>Shoreline or river bank</i>

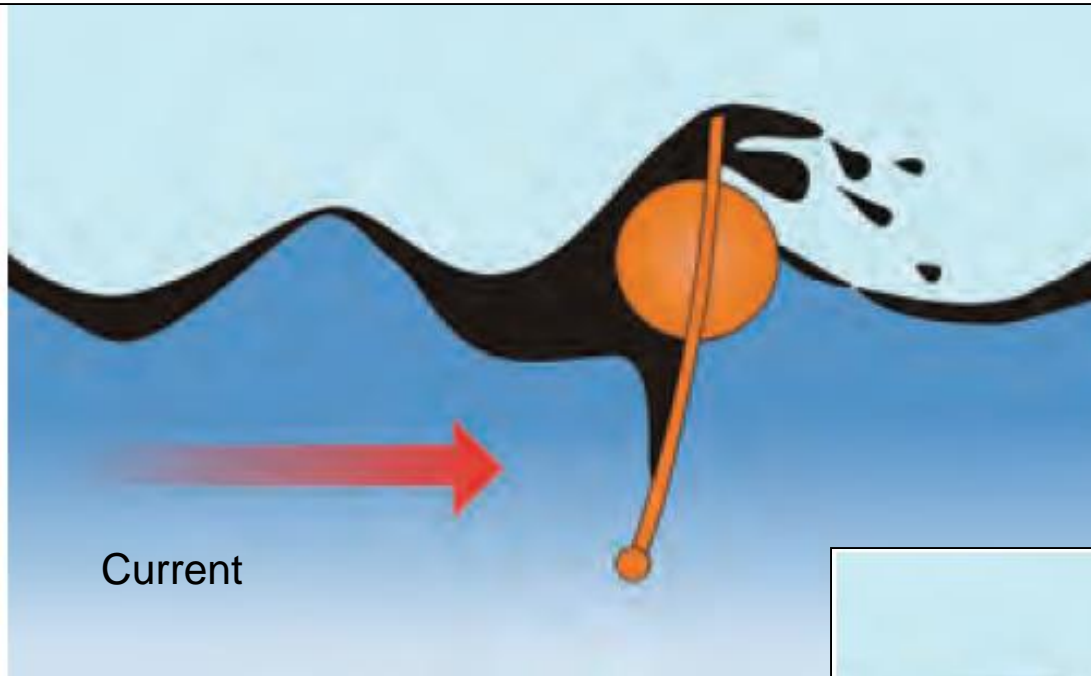
Booming Limitation



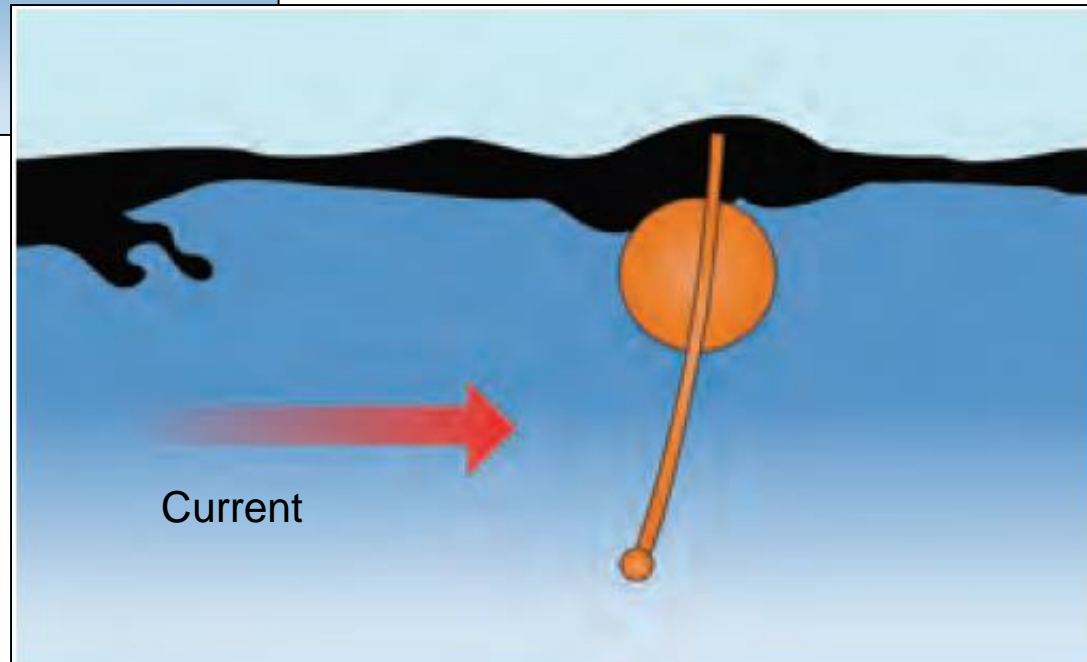
Entrainment



Booming Limitation



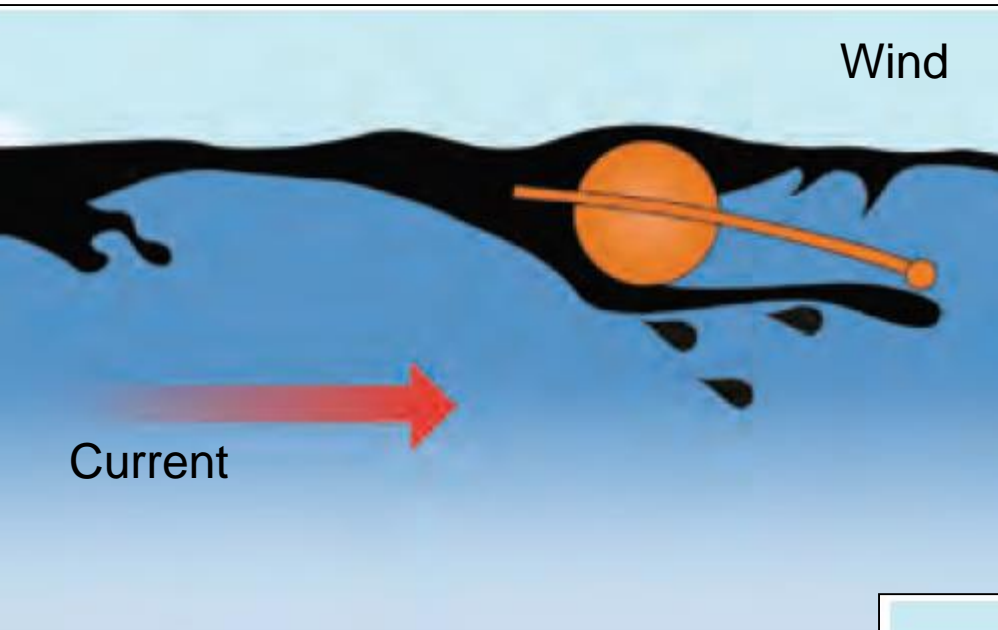
Splash-over



Submergence

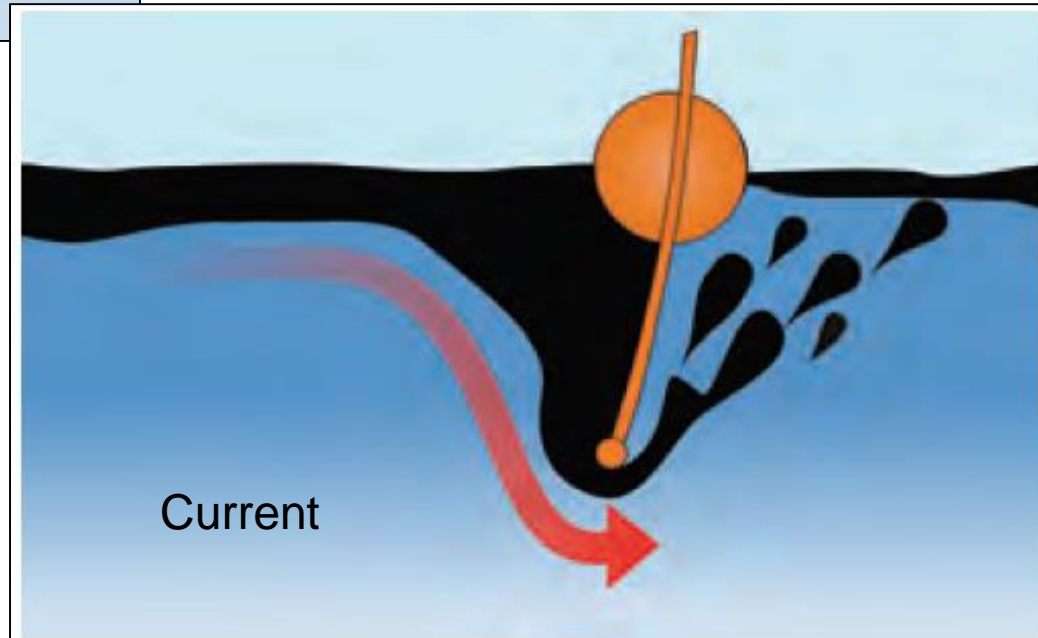
Current

Booming Limitation



Planing

Critical Accumulation



Current

Boom Anchoring

