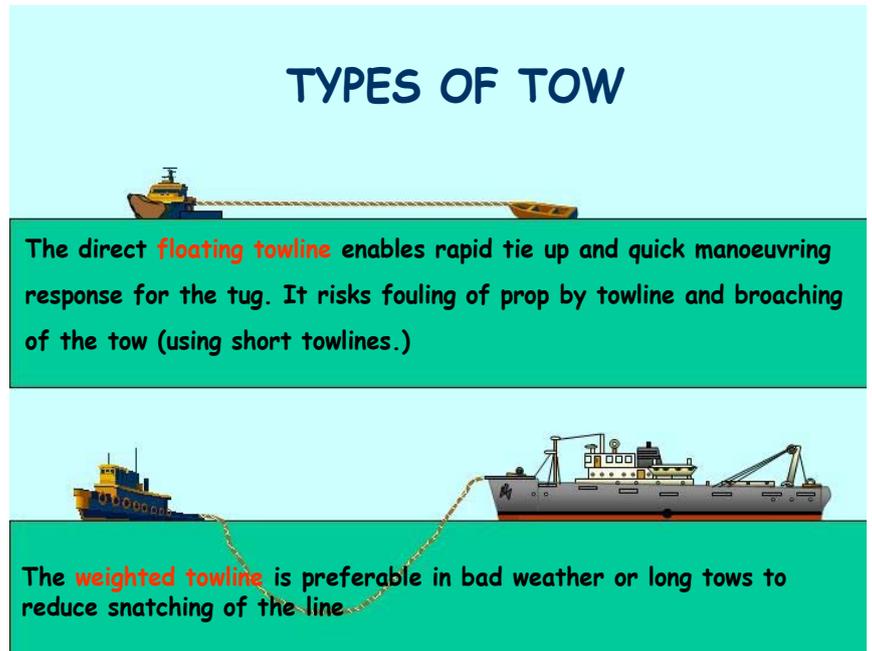


CR1 EX 8 – CR1 SKIPPER - HEAVY TOWS & GROUNDED VESSELS

Purpose: The implementation of hazard control measures for heavy towing operations.

Heavy tows involve disabled vessels, barges adrift, heavy weather or the refloating of grounded vessels. It is always hazardous for a tug to pull a tow appreciably heavier than itself. Vessels with a bowsprit, no strong point or tendency to yaw will require bridles. Anti-chaffing measures, such as packing around towline points of wear on both vessels are essential.



The inertia of a heavy tow necessitates a gentle take up of tension on the towline, low on the tow post. This can foul the transom bulwarks on CR1 limiting her safe turning ability. The crew must be cautioned about the hazards of a towline that may part under pressure.

As the tow has considerable momentum it will close up on a tug that decelerates to avoid a hazard ahead. Usually the only escape for the tug is to turn away from the tow in an attempt to slow or divert it. The consequent heel on turn and drag from the tow will cause capsize. Slow and easy, always keeping a safe distance ahead of the tow with a hand on the quick release is the rule.

Now practice towing CR1 with the Rib, with a floating short line and manoeuvre to a berth.

Now practice towing CR1 with the Rib using chain to weight the towline (CR1 anchor chain).



Safe length



Unsafe length

Photos courtesy of USCG

MANAGING GROUNDED VESSELS

The opportunity to give practical training in refloating grounded vessels to trainee skippers will be infrequent. However, trainers should prepare trainees in the principles & techniques shown below.

An assessment of grounded vessels watertight integrity must precede any action. Do not refloat a vessel that will sink later in deeper water.



A risk assessed approach will limit damage from the obstruction that caused the grounding or from the resulting flotsam. The control of pollution spills by exposing ruptured tanks is of high priority.



Falling tide or onshore wind necessitates timely action. Place anchors (to prevent driving on) and shore to ensure the vessel is best placed to float off on the next tide. Winching her clear using her own anchors provides great torque, enough to over stress her fittings and structure.



Moving weight, removing weight or heeling the vessel may reduce the draught enough to pull her clear. Rocking to break the suction on the keel can help.



After persons are removed to safety some situations are best left to shore based salvage operators with heavy lift equipment. Grounding of NSW Commercial vessels is a notifiable incident.



Training resources:

Learners Guide- "Respond to navigational emergencies."
Presentation - CD Index>CR1 Lessons> Apply seamanship skills.> "Towing"
Exercises - CD Index>CR1 Lessons>Apply seamanship skills.> "Pete's toolbox"