

A View from the Bridge



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Introduction

- Collision avoidance through education and communication
- All countries require pilot services in their territorial waters
- Pilots are experts in ship handling, local knowledge, and navigation of their routes

Topics of Discussion

- Watch standing routine aboard ships
- Ship profiles
- Rules of the Road
- Maneuvering and maneuvering limitations of ships
- Communication



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Modern Wheelhouse



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ARPA

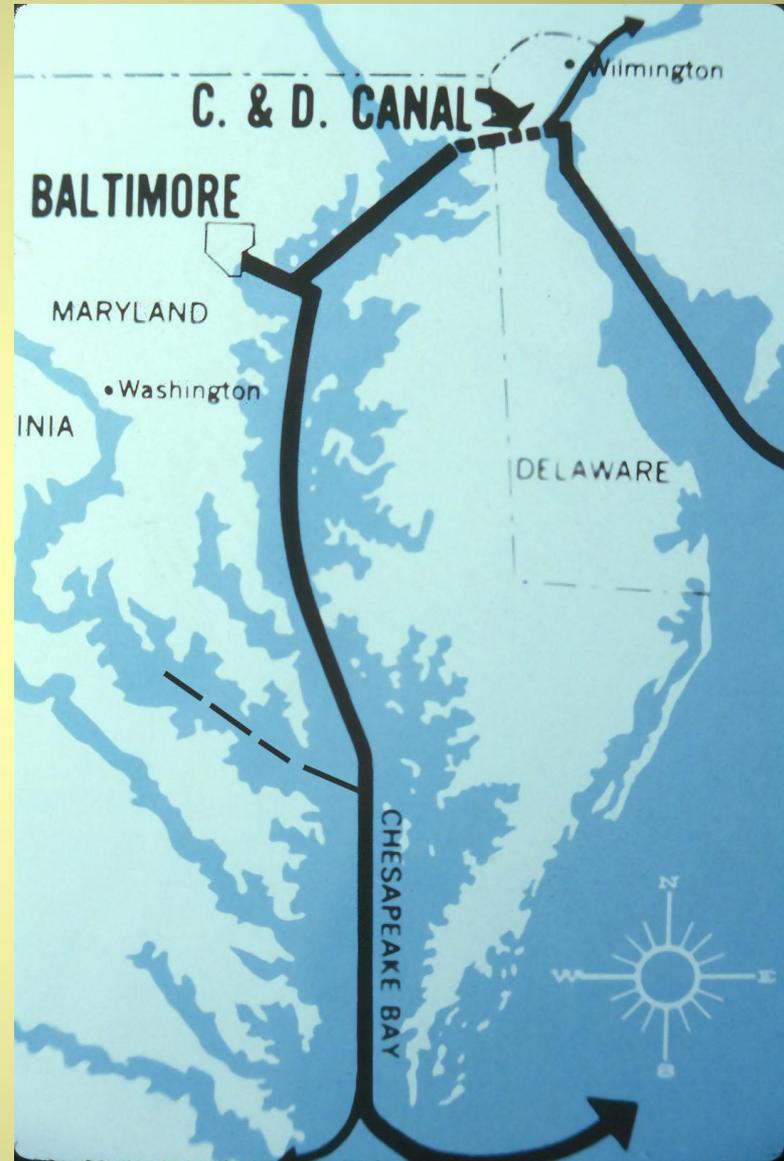
ECDIS



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Typical Chesapeake Bay Pilot Routes

- Cape Henry to Baltimore
- Baltimore to the C&D Canal



Types of Ships

- Ship profiles
- Tugs and barges
- Dredges

Container Ship



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Tanker



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Tanker



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Roll on Roll Off (roro)



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Car Carrier (roro)



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Passenger Ships



Tall Ships



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Bulk Carrier



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Breakbulk Ship



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LNG Ships



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Naval Vessels



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Naval Vessel Protection Zone

- All vessels within 500 yards of a U.S. Naval vessel shall operate at minimum steerageway
- No vessels are allowed within 100 yards of a U.S. Naval vessel unless given permission on VHF-FM channel 16

No Joke!



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Large Bulk Carrier

- Channel project depth of 50 feet in the Chesapeake Bay
- Pilots move 47 feet 6 inches in draft
- Ships can weigh 200,000 tons +



Cape Class Ship



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Tugs and Tows



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Bow of a Barge



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Dredges



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Pilot Operations

- Boarding Ships
- Maneuvering to make a lee
- Pilot tower

Pilot Boats



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Pilot Boarding



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Pilot on the ladder



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Cape Henry Pilot Tower

- Monitors VHF Channels 16 and 11
- Both Maryland and Virginia Pilots

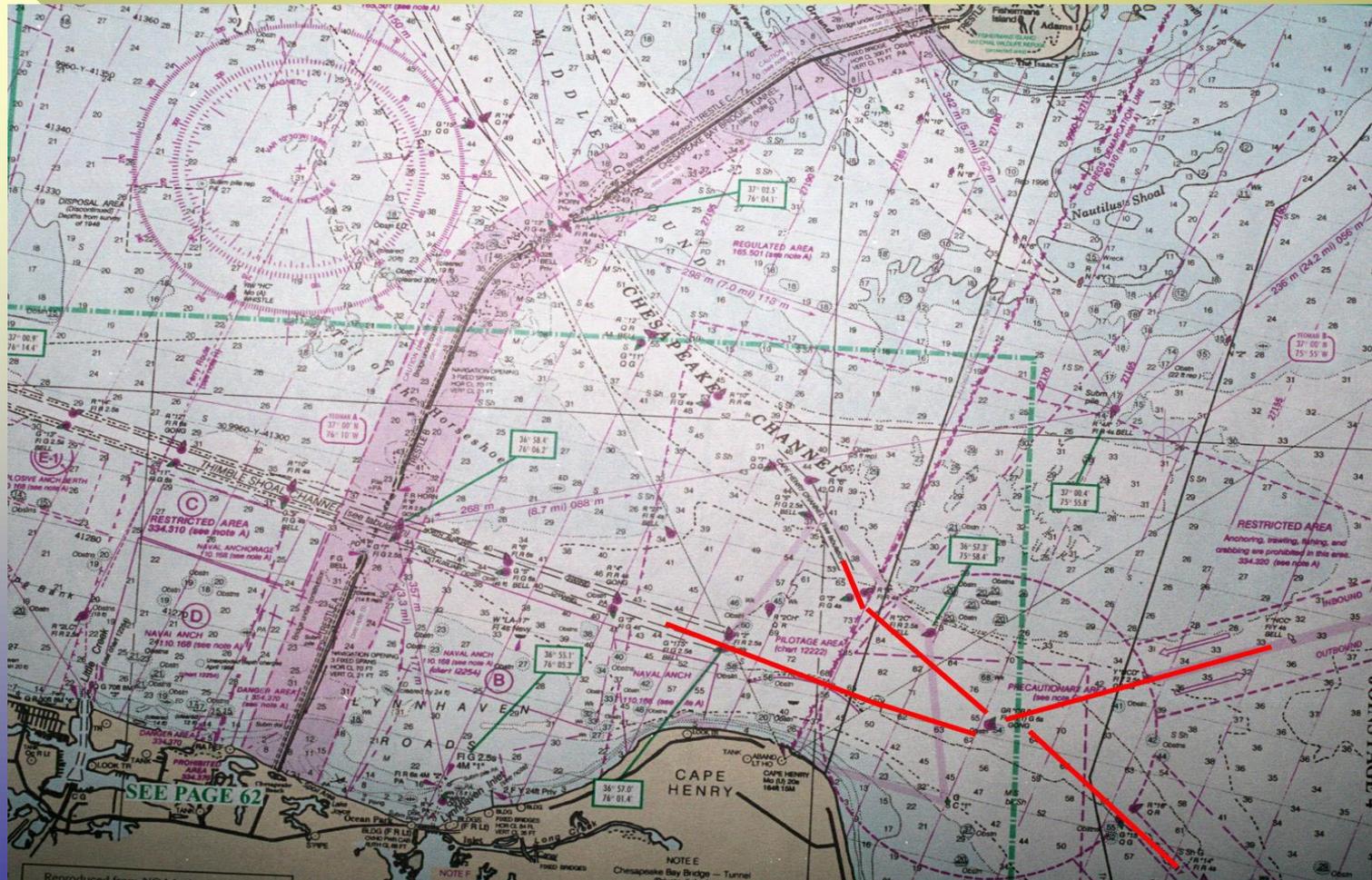


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Cape Henry Traffic Scheme





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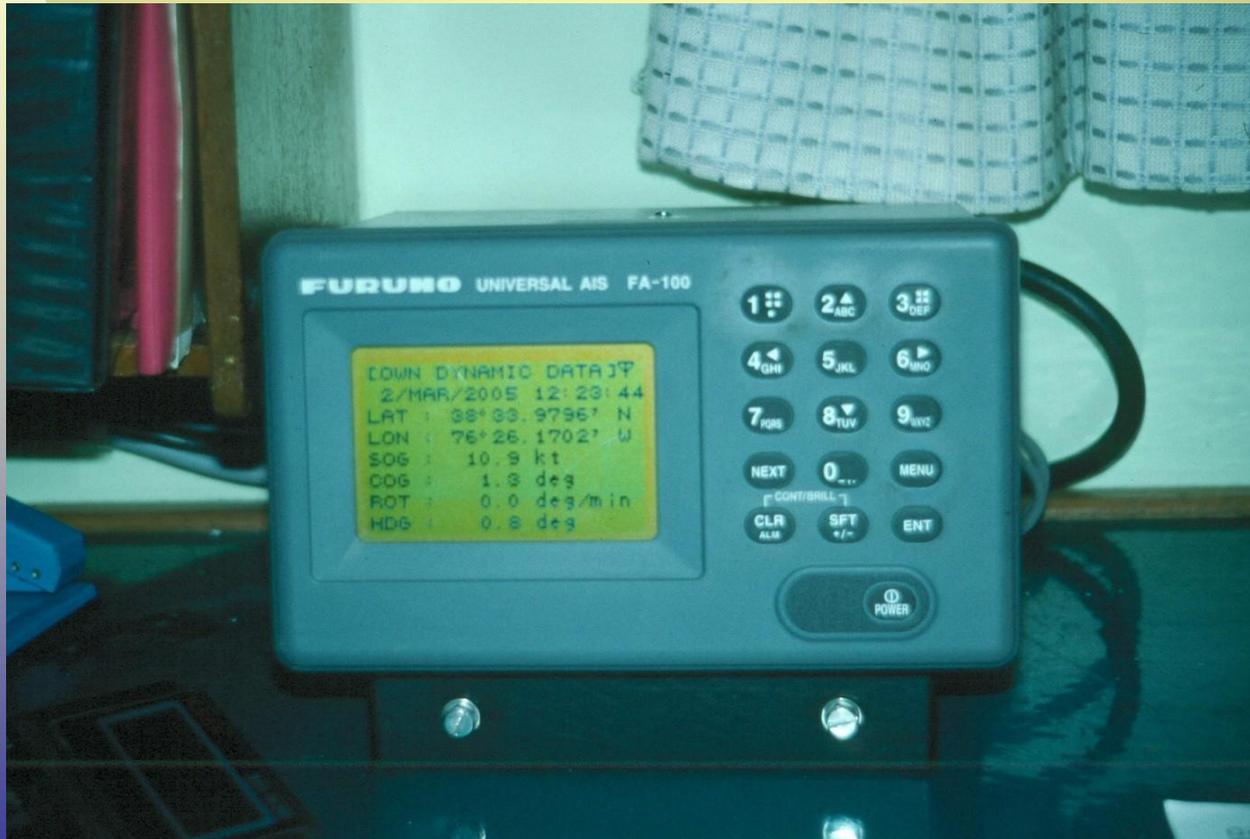
Collision Avoidance



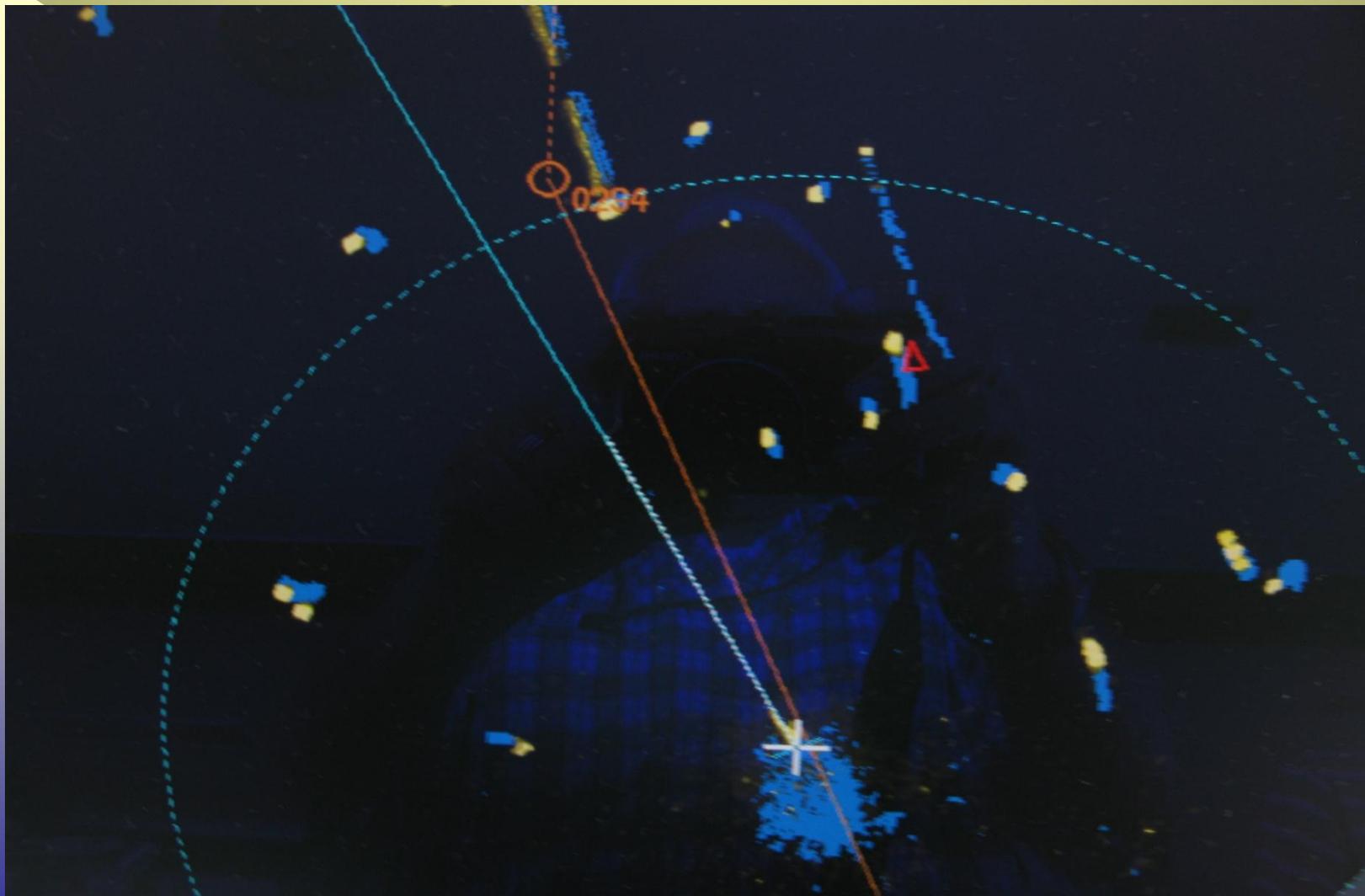
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Automated Information System

AIS



AIS



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Risk of Collision

- A risk of collision exists if the bearing of an approaching vessel does not change over time
- The faster the privileged vessel, the greater the need for early and substantial action by the burdened vessel. This is particularly important if you are running in restricted visibility

Collision Avoidance

- Always stand a good watch
- Know the Rules of the Road
- Take early and substantial action when maneuvering
- Use radar reflectors
- Know the proper use of radios
- Know the meaning of whistle signals
- Keep bright, proper running lights

Collision Avoidance

- In poor visibility, if uncertain what to do stop and let the ship maneuver around you
- Chances are good that large ships will not hear whistle signals from small vessels
- Be aware of the fast relative speed of ships and that they are generally quiet

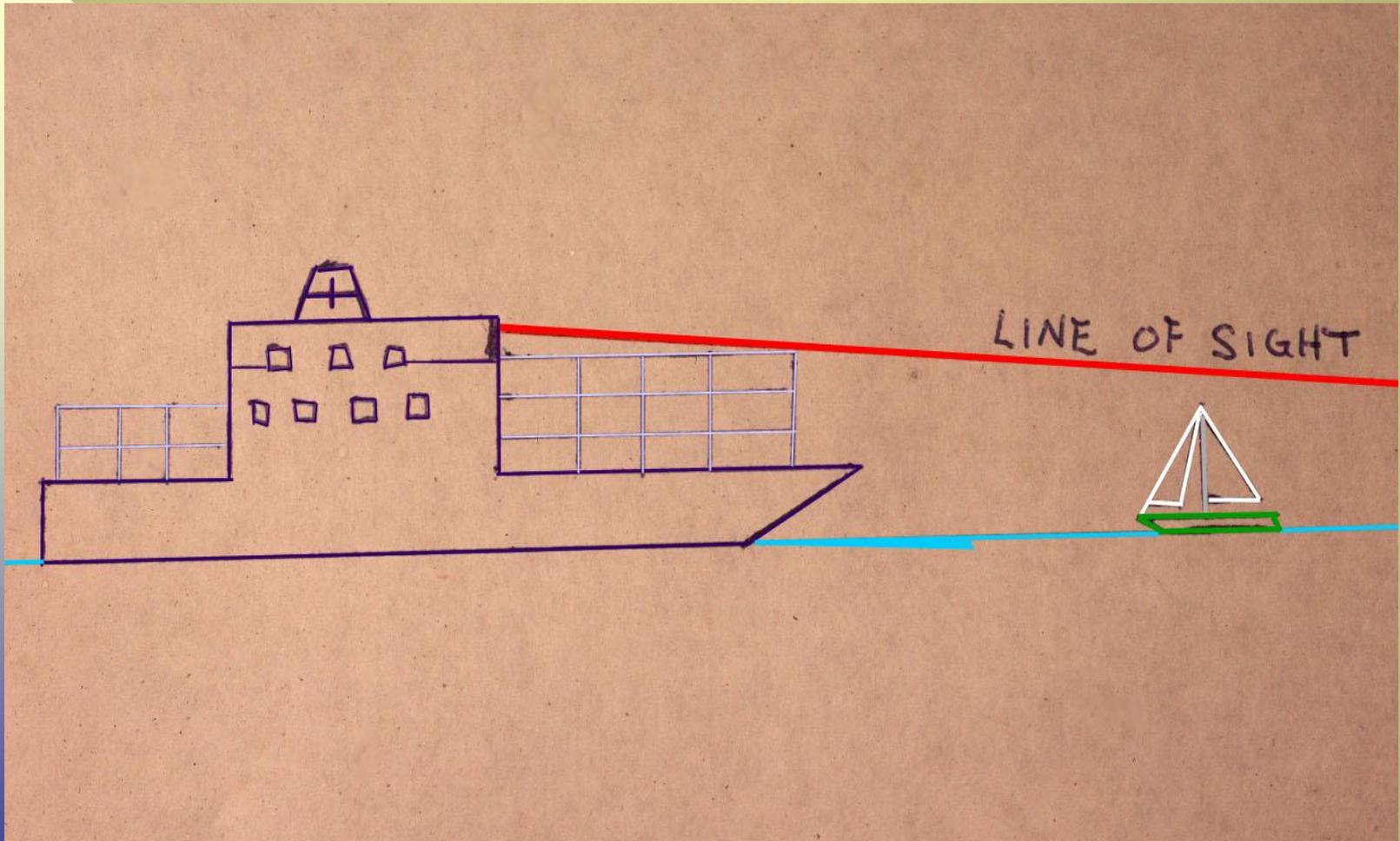
Collision Avoidance

- When possible, stay to the sides or out of shipping channels
- Stay clear of the center span of bridges
- Anticipate ship maneuvers in pilot transfer areas, shipping channels, and anchorages
- Monitor VHF radio traffic 16 & 13 (inland)

Collision Avoidance

- Height of eye and the whole picture
- Inadvertently maneuvering into the ship's lee
- In reduced visibility understand the radar picture

Obstructed View



Poor Visibility Ahead



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**MSC Heidi - LOA 1100' Beam 143' 8000 boxes
43' Draft Service Speed 28 knots**



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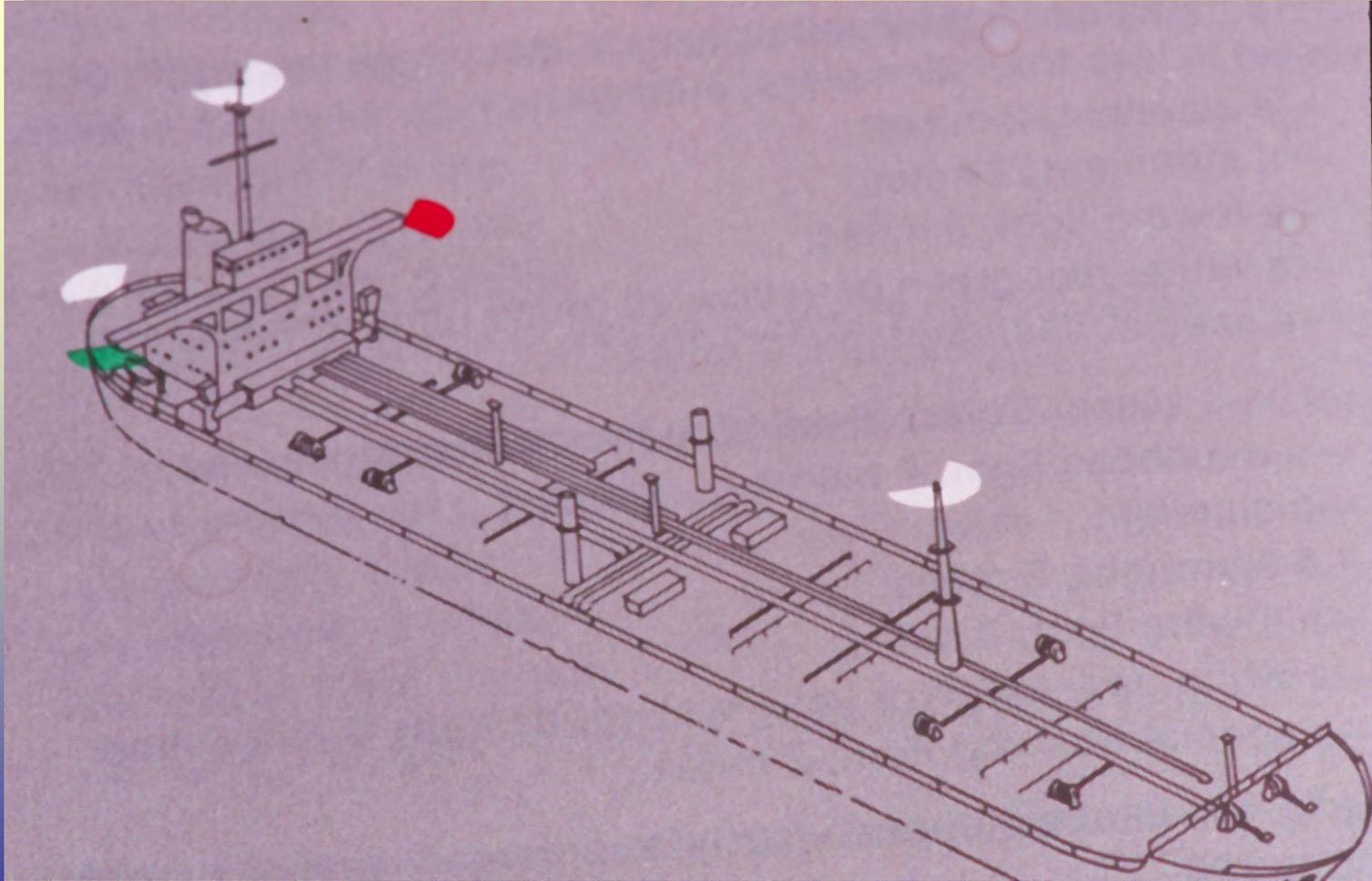
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Dangerous Wake

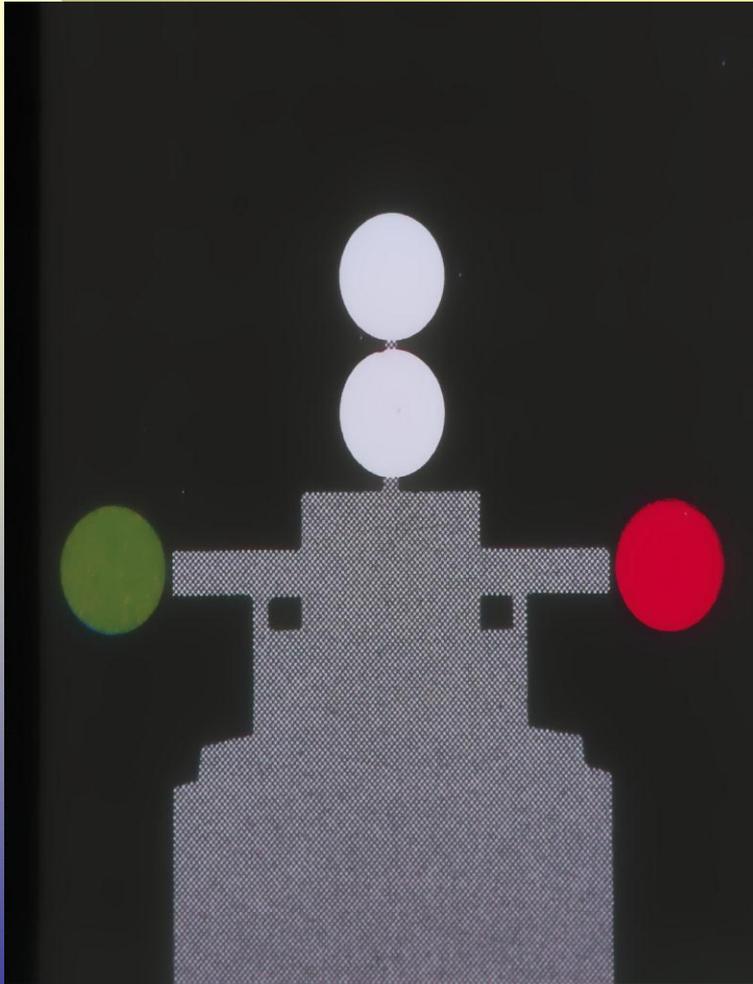


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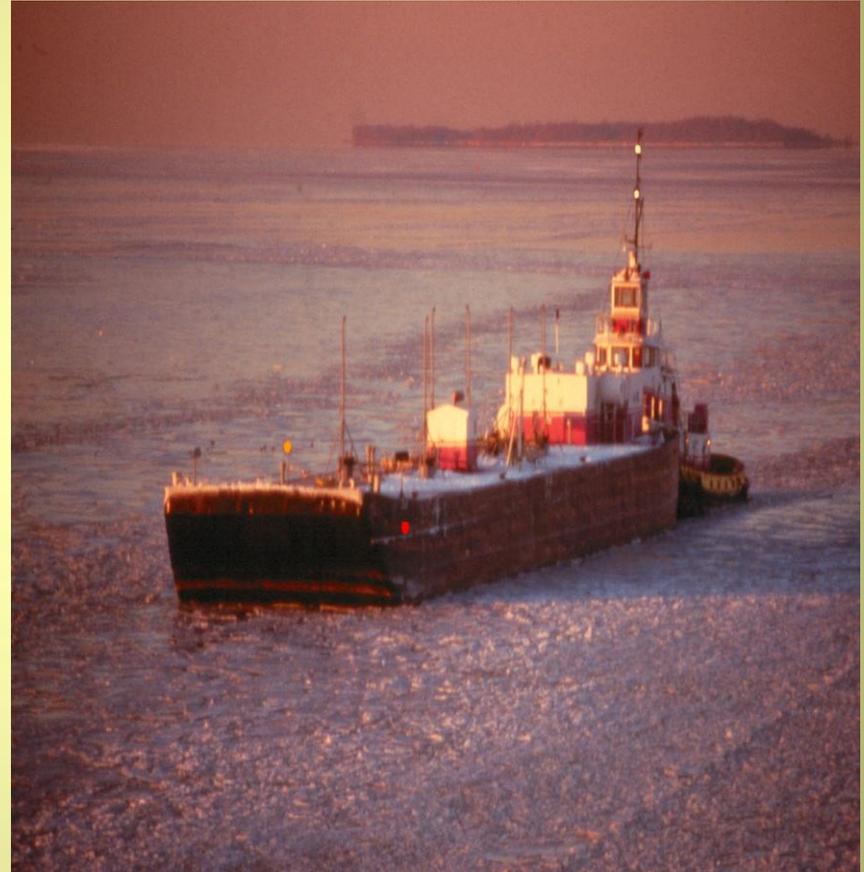
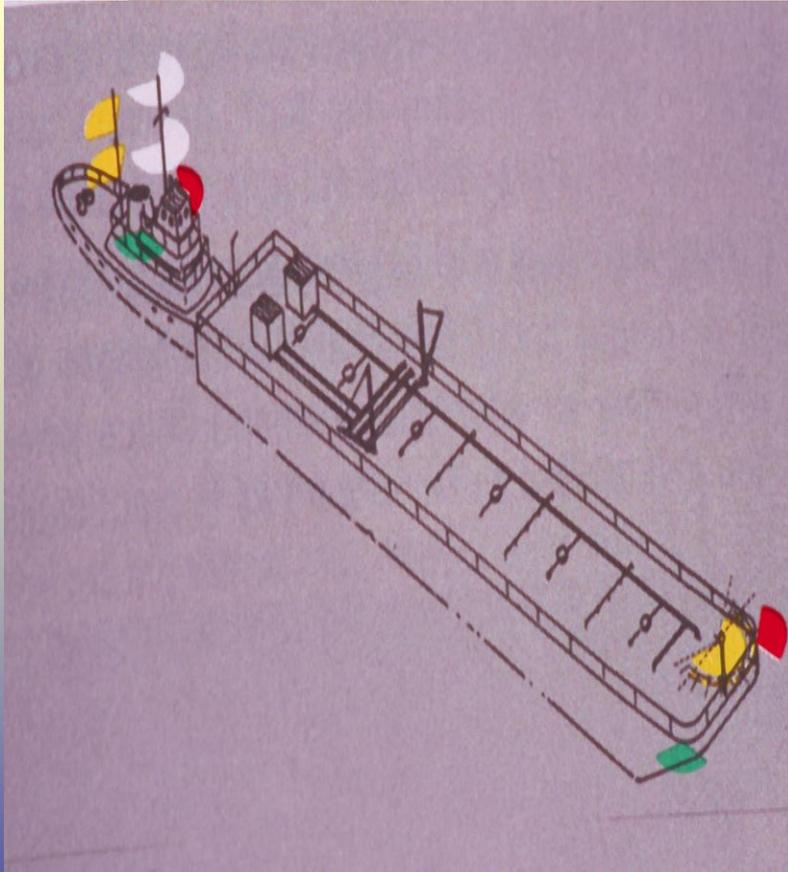
Navigation Lights



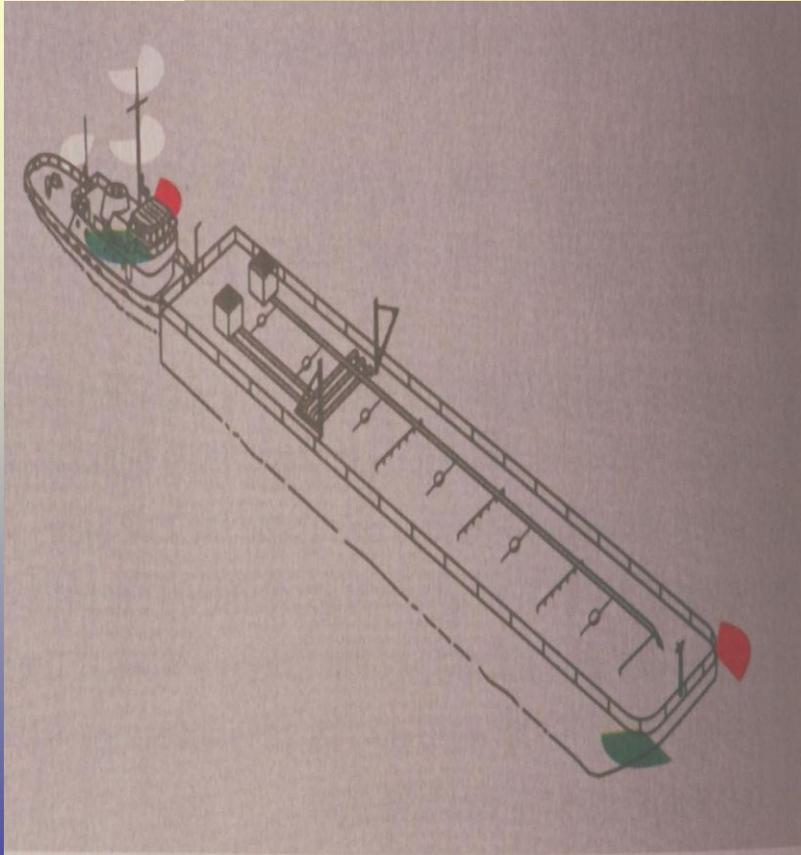
Ship End On



Tug Pushing Inland

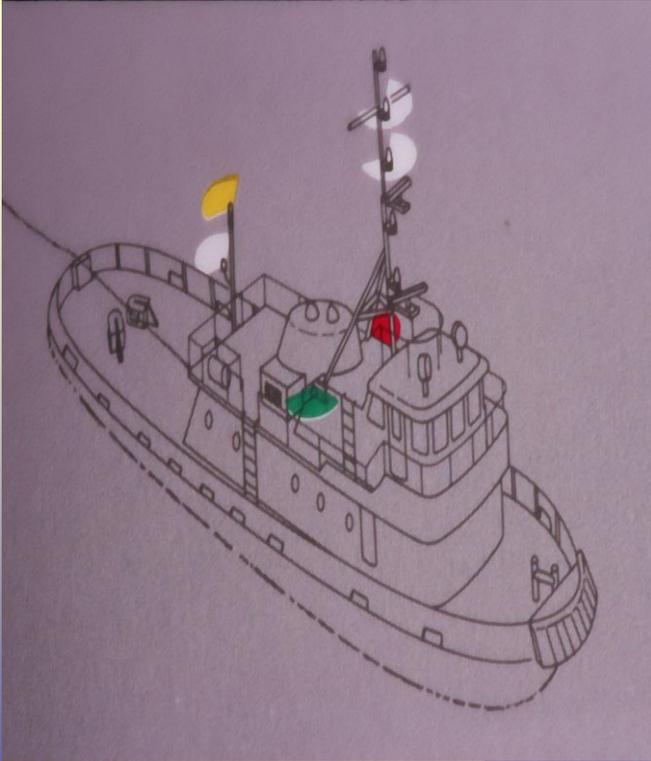


Tug Pushing International

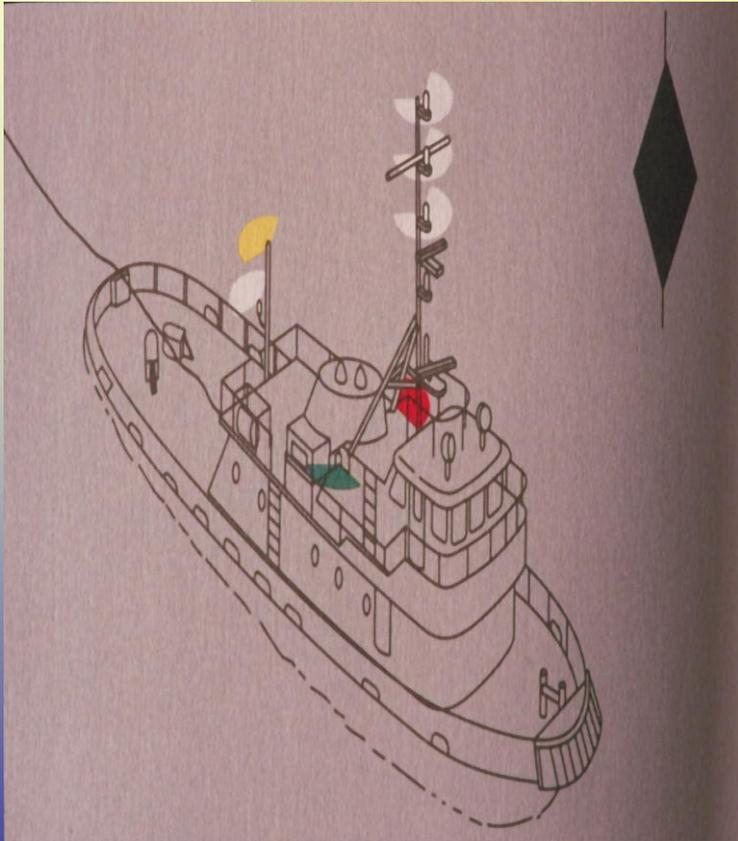


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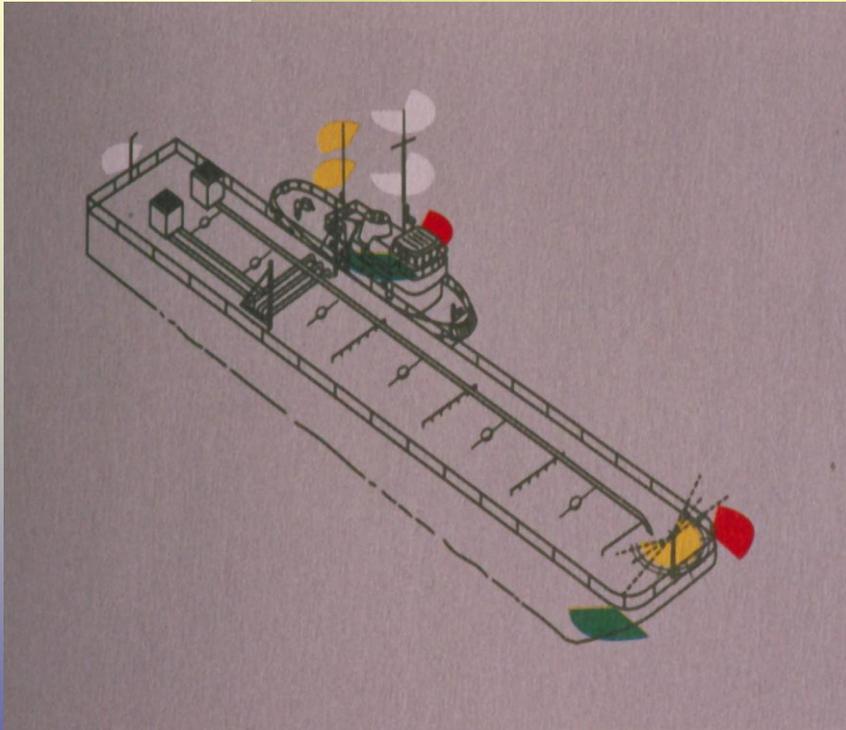
Tug Towing Less Than 200 meters



Tug Towing, Tow in Excess of 200 meters



Tug Alongside

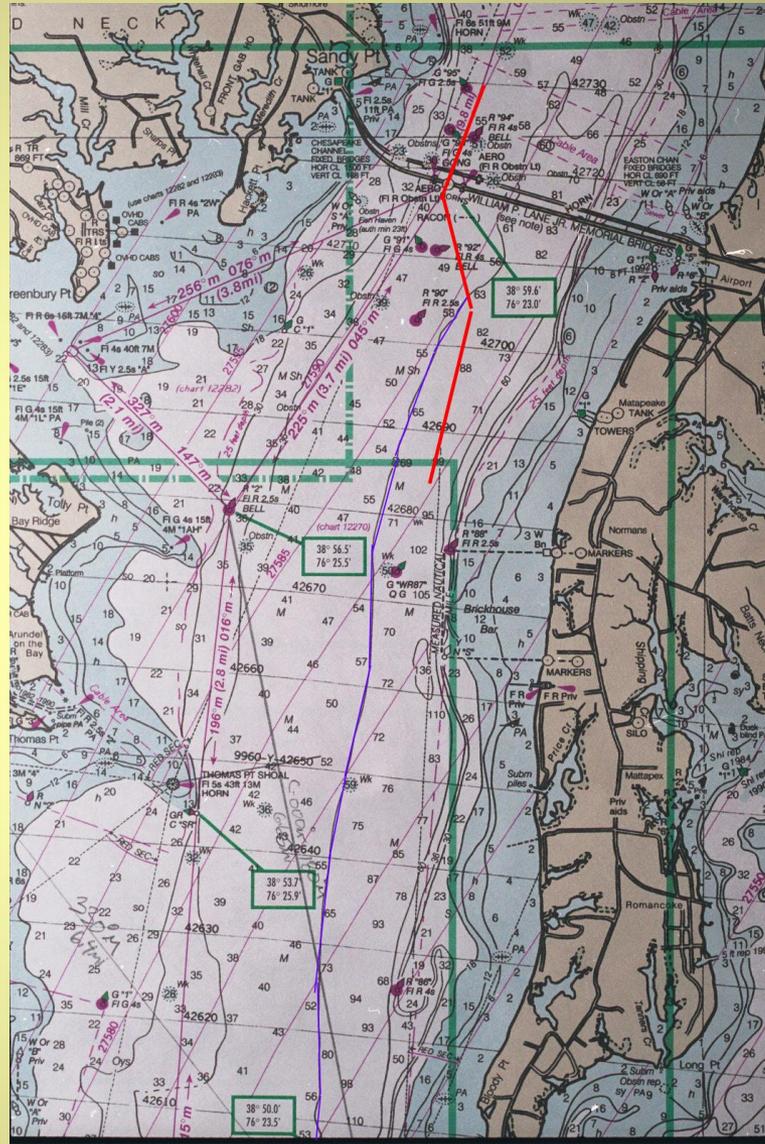




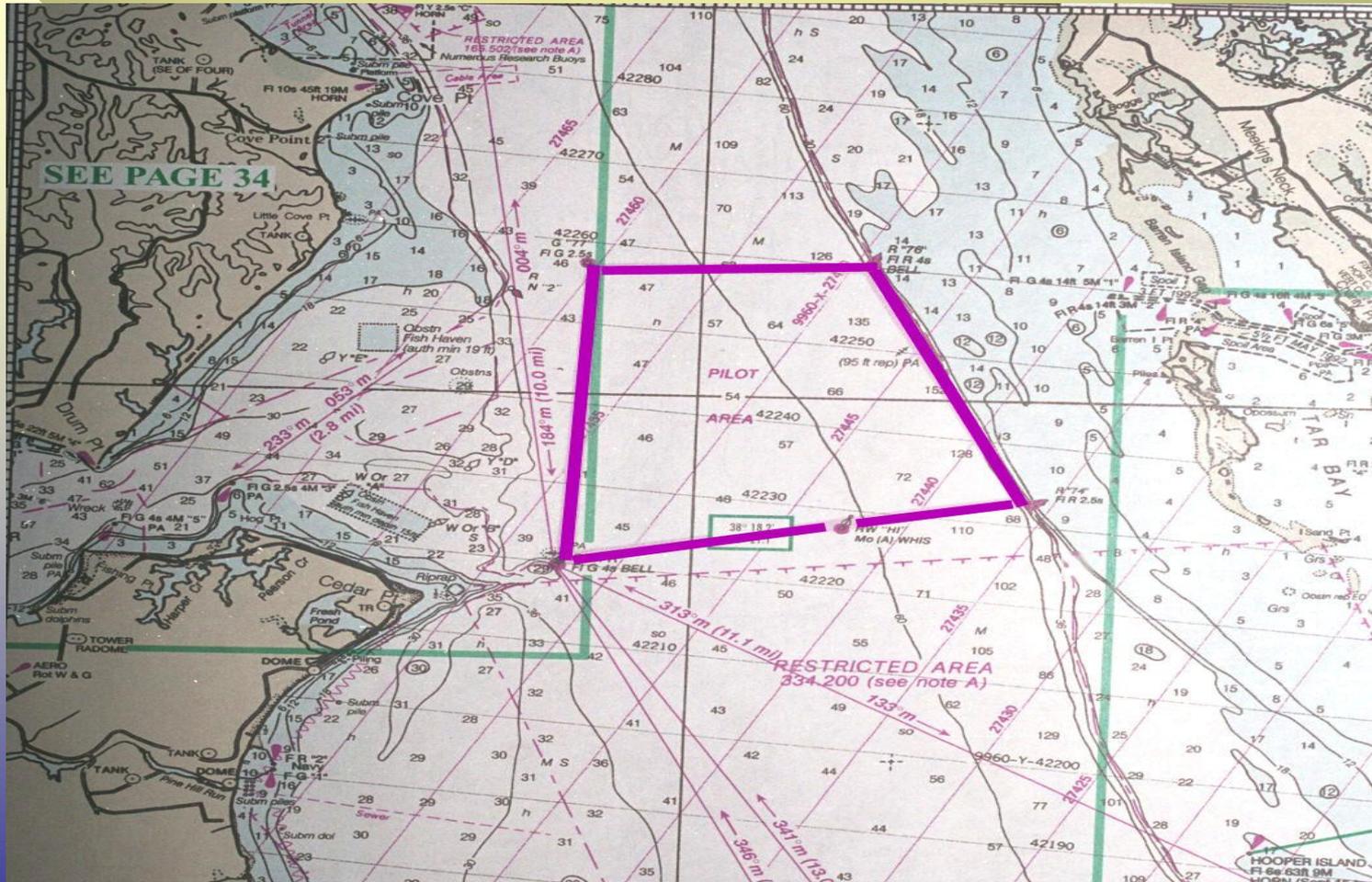
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Bay Bridge to Bloody Point

Preferred Ship Route



Pilot Transfer Station PTS



Fog



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FOG



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Thunderstorms



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Snow & Ice



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C & D Canal and Approaches

- Channel project depth of 36 feet
- Maximum draft for pilots 33'6"
- Maximum width 400 feet
- Distance from Baltimore to pilot change at Chesapeake City is 40 miles



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Docking/Undocking Ships



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Lost containers



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Pilot / Routeing charts



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Heavy Weather



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H Flag



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