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# Contact Management and Avoidance:

Hal Moore



# Introduction

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What is Contact Management all about?

Basic Objective: Avoiding close quarters situations with other vessels



# Introduction

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- Other mistakes can put you aground, damage the boat, injure the crew or even kill somebody (MOB)
- A contact management mistake can **destroy the boat and kill everybody** on board



# Ground Rules

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- YOU are responsible for avoiding collision. Other vessels may or may not avoid you. **ASSUME THEY WILL NOT!**
  - Commercial vessels have limited watchstanders, especially at sea (open ocean)
  - Sailboats make poor radar contacts
  - Tug Captains are experienced and usually alert, but a larg tow is not very maneuverable
  - Recreational vessel skippers (both sail and power) may be inattentive, confused, ignorant, or drunk- **best count on all of the above**



# Ground Rules

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- Contact management is more **difficult** and **dangerous** at night. There are fewer recreational vessels, but just as many commercial vessels.
- **ASSUME THEY DO NOT SEE YOU.**  
**KNOW YOUR LIGHTS!**



# Priorities



- Contact Management Priorities:
  1. Large commercial vessels
  2. Tugs and tows
  3. Fishing vessels
  4. Recreational vessels
- Remember that sailboats rank fairly low in terms of right of way. Sailboats under power rank at the bottom.



# Commercial Vessels



- General principle for large commercial vessels: Avoid close contact with them irrespective of RoR. **Obey the law of raw tonnage.**
  - How? Understand WHERE the ship is going to go and WHAT the ship is going to do.
  - Commercial vessels very seldom make rapid or unexpected movements. If you are aware of where you are relative to the main shipping channel, you should know exactly where the ship will be going.
  - At sea, commercial vessels rarely change course unless required to do so by close quarters situations or harbor approaches.



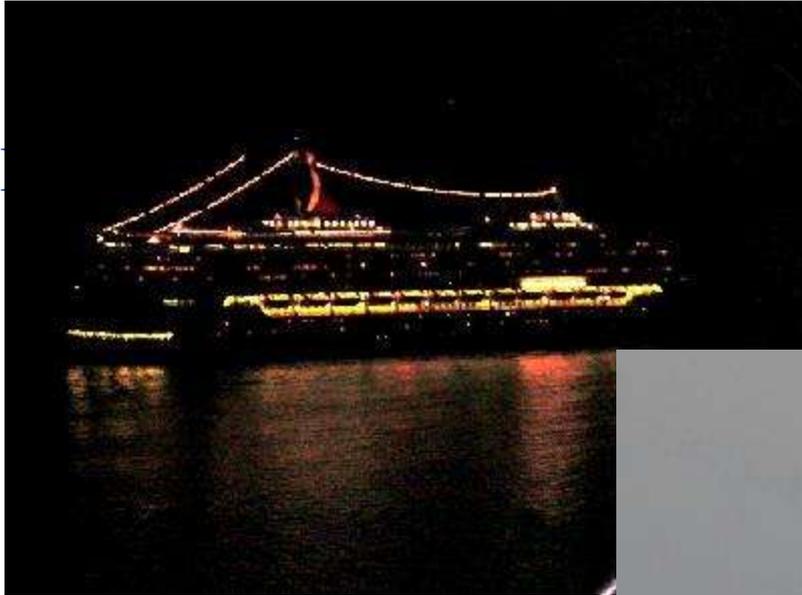
# Commercial Vessels



- In piloting waters, such as Chesapeake, Delaware, and Narragansett Bays, they are very restricted in their ability to maneuver.
- However, they will have U.S. Pilots who will be guiding them. They are very responsive on the radio.
- At sea, do not be afraid of them.
- Call them...be assertive on the radio.
  - Remember in a few years, for those of you who become SWOs or SH-60 pilots, you will be querying them, stopping them, and boarding them. They will not be happy when you do so.
  - This is a good time to build your self-confidence on the radio now.



# Commercial Vessels

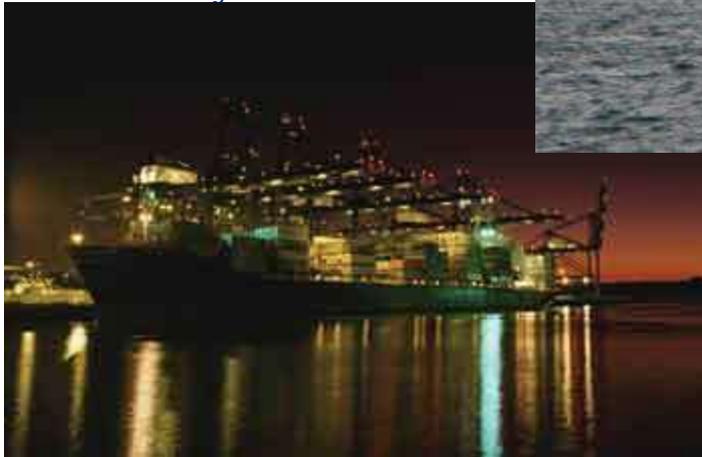


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there will be a pilot onboard and  
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y be more problematic.



# Steering and Sailing Rules



## Sea Story





# Fishing Vessels



- Can be a serious problem. Brightly lit, light patterns are confusing, unpredictable movements, nav lights in poor repair or obscured.
  - Commonly found off NJ coast and near Long Island. Not generally a problem in Chesapeake and Delaware.
  - Be aware and be cautious.
  - Often trailing nets or trawls well astern.





# Tug and Tows



- Know your light patterns!
- Very common in coastal waters including offshore NJ coast, LIS, etc.
- Tugs are generally quite well lit and easy to see. Deck light patterns quite distinctive.
- Running lights on barges range from reasonably good to almost invisible. DO NOT count on seeing barges at night.
- The yellow flashing light forward on many barges is often quite dim.





# Tug and Tow

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- 2-light tugs may be pushing or towing.
- 3 light tugs are always towing.
- LOOK for the barge. NEVER pass close behind a tug unless you are sure it is pushing ahead (know light patterns!).
- The first thing you should do when you see lights of a tug at night is determine where the barge is. If you can't tell, it's almost certainly behind the tug (always towing at sea).
- Use your radar to help see where the barge is. It is normally quite visible on radar.



# Recreational Vessels

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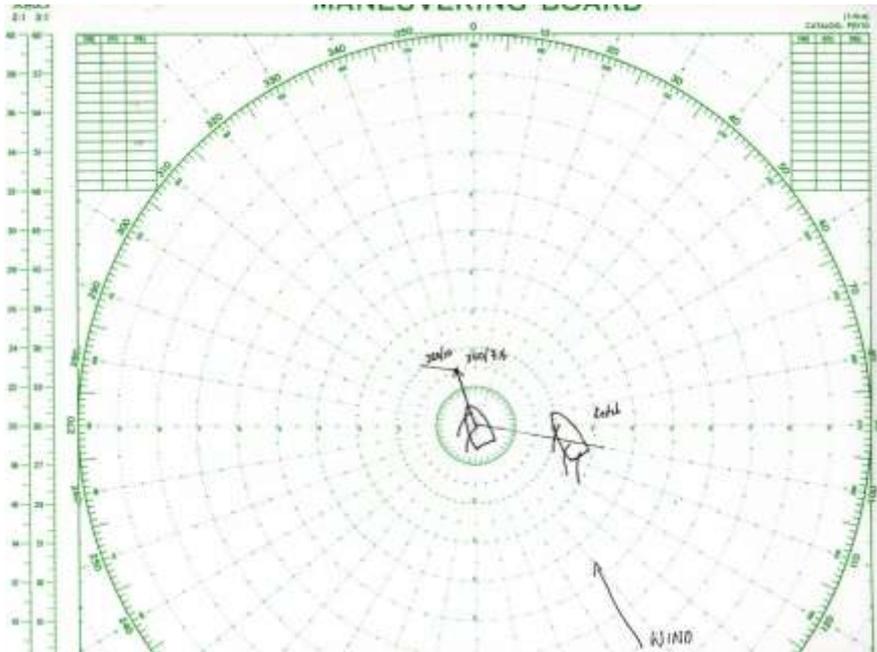
- Issues:
  - Unpredictable movements
  - Inexperienced crews
  - Be aware and keep alert



# Recreational Vessels



## Sea Story





# Recreational Vessels

## Sea Story

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- A friend, who is an experienced offshore sailor, but not a naval officer, was sailing in Chesapeake Bay.
- He was fiddling with something below, when his wife noticed a power boat coming at them CBDR on their port side.
- He came up and said “Oh..he has to give way to us”.
- The power boat slammed right into them.
- The skipper of the power boat was down below fiddling with the head and had the boat on autopilot with his 8 year old son as “lookout.”
- They slammed into the side of my friends boat. Fortunately, no casualties. But my friend’s wife, refuses to go on the water any more.



# Maneuverability Constraints

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- Commercial vessels- poor to nonexistent (especially in draft constrained situations)
- Tugs with tows: Poor
- Tugs without tows: Good
- Fishing vessels: Poor to fair
- Recreational: Excellent



# Assessing and monitoring the situation

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- CBDR is basic.
- Changes in bearing do not guarantee safe clearance.
- Changes in aspect are helpful. It takes practice and experience to predict a close call versus clear passage vs collisions.
- When in doubt, assume there will be a problem and act accordingly.



# Contact management using radar

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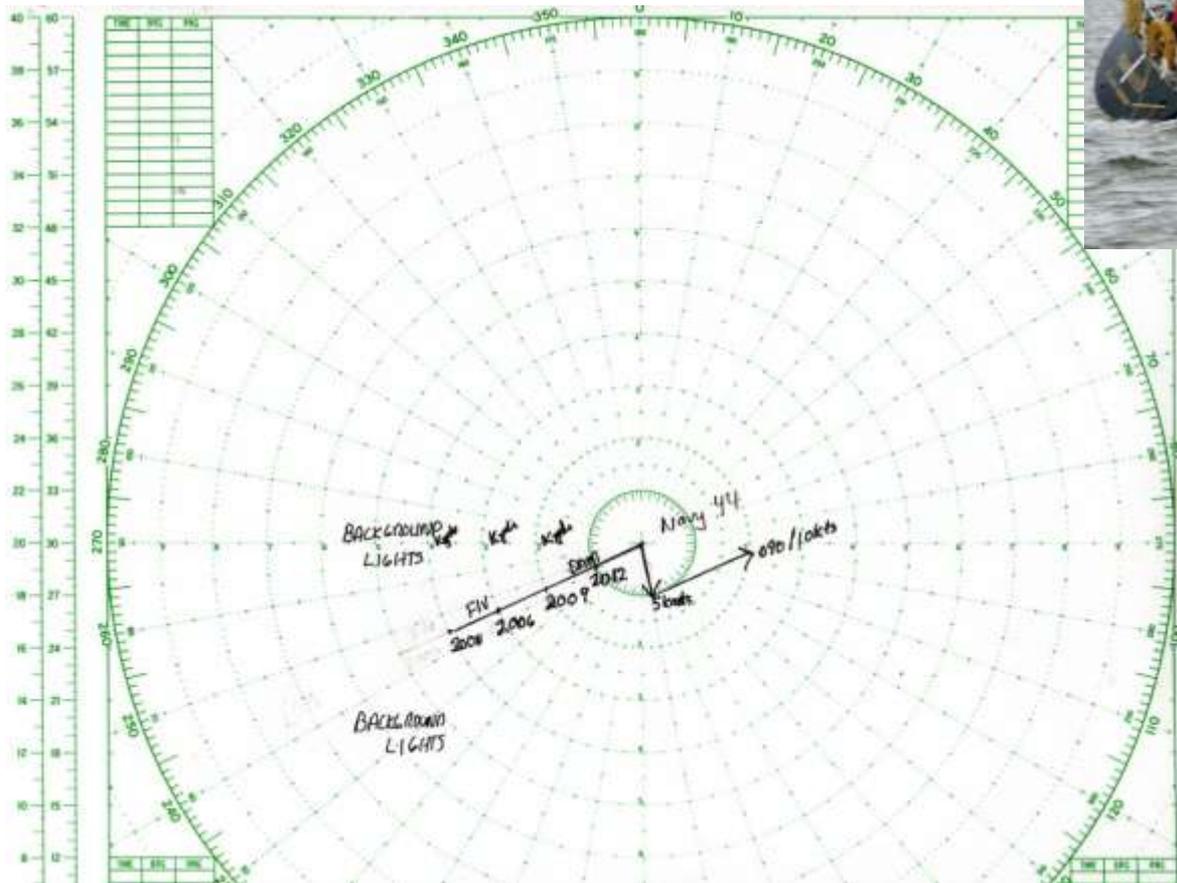
- CBDR can be calculated using Maneuvering Board.
- Remember that the bearing to the contact is a function of relative bearing on the radar and the boats current course.
- Using grease pencil to draw a DRM line may be less precise than using a moboard sheet.



# Contact Management Using Radar



## Sea Story





# What to do in cases of concern



1. Change course. NAVRULES state:  
“Any alteration of course and/or speed to avoid collision shall ...be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course and/or speed should be avoided.” (Rule 8B). Think 20-30 degrees at a minimum.
2. Call the vessel involved
3. Slow down or stop if necessary.



# Radio procedure

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- You must let the ship know you are talking to HIM. Remember he is hearing an anonymous radio call. “Calling the big ship off my bow” is NOT helpful, any more than “Calling the southbound sailboat” would be to you.
- Identifying the kind of ship is helpful, but not always possible. Use DIRECTION and POSITION. “Calling the southbound ship approaching buoy 83”. “Calling the northbound tug and tow 5 miles southeast of Block Island”.
- Let the commercial vessel suggest an action, or ask how you can stay clear. Often they will tell you to hold course and speed.
- Commercial vessels (and MD/VA pilots) will often be guarding 13, not 16.



# Sample Call Up



- “Northbound merchant vessel in Chesapeake Bay approaching Bloody Point Light, this is the southbound blue hulled sailing sloop BOLD on your port bow at about 2 nm, over.”
- “BOLD, this is the Alyeska Shanghai, over.”
- “Yes Sir, this is BOLD, please switch to Channel 68, over.”
- “This is Alyeska Shanghai, switching to Channel 68, over.”
- [on 68] “Alyeska Shanghai this is Bold, I am going to be heading toward Eastern Bay, however, I will stay to west of you until you have passed, over.”
- “This is Alyeska Shanghai, roger, thank you Captain, over.”
- “This is BOLD, standing by channels 13 and 16, out.”

# Sample Call Up (at sea with no geographic landmarks)

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- “Eastbound merchant vessel 50 miles east of Cape May,, at position 38°-49.8N, 074°-37.5 W, this is the southbound sailing vessel Bold, 5 nm on your starboard bow. I am lighting up my sails briefly so that you can see me, sir, over .” [briefly hit the main with the BFL].
- “BOLD, this is the Alyeska Shanghai, I see your sails, over.”
- “Yes Sir, this is BOLD, please switch to Channel 68, over.”
- “This is Alyeska Shanghai, switching to Channel 68, over.”
- [on 68] “Alyeska Shanghai this is BOLD, I hold us to be on constant bearing decreasing range, and I am the stand on vessel. Are you able to easily maneuver, sir.”
- “BOLD, this is Alyeska Shanghai, roger, I have plenty of water out here, I will come to starboard and pass astern of you, over .”
- “This is BOLD, thank you Captain, standing by channels 13 and 16, out.”



# Quality of radio responsiveness

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- Ships in pilot waters (Chesapeake, Delaware, Narragansett Bay, LIS, etc.): excellent
- **Ships at sea:** Expect zero
- **Tugs and tows:** Excellent, although might be a bit gruff or impatient.
- **Fishing vessels:** Generally poor to nonexistent.
- **Recreational vessels:** Bigger ones, usually good (professional crews). Smaller ones: don't expect much.
- Commercial vessels are usually on channel 13. If no response, try 16, but if they don't answer on 13, they probably won't on 16 either.
- We will cover Communications more in detail on Thursday



# Why call?

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- It makes sure they see you or at least know you're out there, especially at night.
- They may change course for you or tell you to hold course.
- It will make you feel better.
- They will be **DELIGHTED** that you called. It means you're not asleep, not totally ignorant, and not drunk – which is what they expect from recreational vessels.



# Don't be afraid to Call

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- Just don't turn Channel 16 and 13 into your chat circuits.
  - 16 is for hailing and emergencies.
  - 13 in inland waters can be used for more contact avoidance discussion, but as a best practice, switch to an alternate circuit.
- Log the communications in the offshore log.



# Securite Calls

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- Very helpful
- In heavy coastal fog last year, while heading north in Delaware Bay, we used it on Fearless.
- The winds were about 15 knots and we were pitching heavily. We could see land and RACON buoys on radar, but shipping was hard to make out.
- Three large container ships were heading outbound.
- The leading vessel immediately responded to our call.
  - They gave us a course to steer to keep out of their way.
  - They passed us bearings and ranges from us to all contacts of interest in our vicinity.
- They will almost invariably be glad to help you out.
- What they hate is when you never bother to call.



# Securite Calls



- For example, let's say that you are heading north in Chesapeake Bay. You are abeam of Thomas Point Light, and visibility in mist and snow is about 1000 yards of visibility. You should probably make a call about every 15 minutes. Most tugs and merchants will be making similar calls. You should be maintaining a vigilant radar watch.
  - “Securite, Securite, Securite, this is the northbound sloop BOLD one mile east of Thomas Point Light. All interested traffic, contact me on Channel 16, over.”
  - “BOLD, this is the Alyeska Shanghai, request you switch to Channel 68, over.”
  - “This is BOLD, roger, switching to Channel 68, over.”
  - [on 68] “Aleyeska Shanghai, this is BOLD, over.”
  - “BOLD, this is Aleyska Shanghai, we are Southbound just past the Bay Bridge. I only hold you on radar. Are any of your friends out here, over?” **[In Delaware and Chesapeake Bay they know to ask this question whenever they hear names like “BOLD, INTREPID...”]**
  - “This is BOLD, negative, we are sailing independently over”
  - “This Alyeska Shanghai, roger, request that you head west if possible. I will let you know when we have safely passed, over”
  - “This is BOLD, roger, I am heading up coming to a course of a 290 magnetic, will that be satisfactory, over”
  - “This is Alyeska Shanghai, thank you Captain, that will work. Alyeska Shanghai, standing by Channels 13 and 16, out.”



# Whistle signals

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- Commercial skippers and pilots refer to whistle passings.
  - 1 Whistle: “Normal”. “I will leave you to my port”. 1 W = 1 syllable
  - 2 Whistles: “Unusual”. I will leave you to starboard:. 2W = 2 syllables.

# What to do if you don't know what to do

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- If you're XO, call the skipper! Don't wait until it's an emergency.
- If you're the skipper, try to figure out what the other vessel is going to do. Call them.
- If you aren't sure, turn away from them. Slow down or stop (engine idle, luff sails). Make yourself more visible. Shine BFL on sails. Do not shine BFL at bridge of other vessel except in emergency. Have white hand flare ready if needed.



# Common problem:

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- Nav lights not conforming to what's expected. Missing, obscured, confusing.



# Proper lookout

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- Proper lookout is 360 degrees!
- All members of the cockpit should look astern every few minutes.
- Also look under the jib.
- The navigator should be popping his head up every few minutes to confirm what he is seeing on radar at night.



# Monitoring long encounters

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- Some lights can stay with you for an entire watch section, especially if vessels on similar course.
- Keep track of the various contacts so you know where they are and where they're going.
  - Use “Skunk” designations.
  - Critical to be able to advise your watch relief about what's going on.



# Summary



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- YOU are your best defense against close encounters or, worse, collisions.
  - Commercial vessels will obey ROR. However, they may not see you and may not be required to give way even if they do. Assume that they do not see you. Be prepared to act as though you are give-way vessel even if you are not.