

Dialing In Your Trawler

Suggestions on how to track and monitor the gear and systems on your boat. Tips and Ideas to make boating more fun and enjoyable



by Jeff Merrill, CPYB
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Racing sailboats led to this course

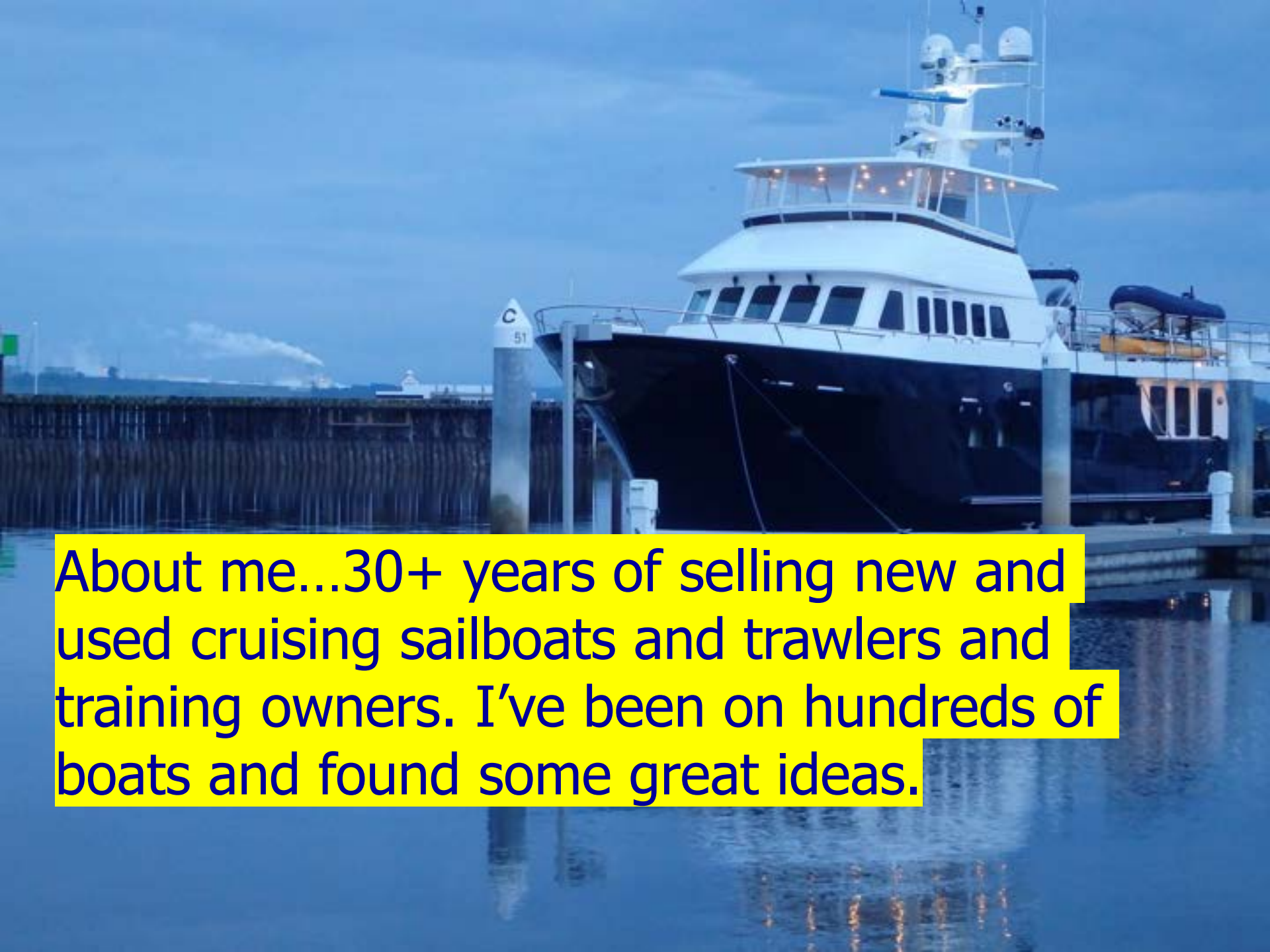


Friday September 26, 2025

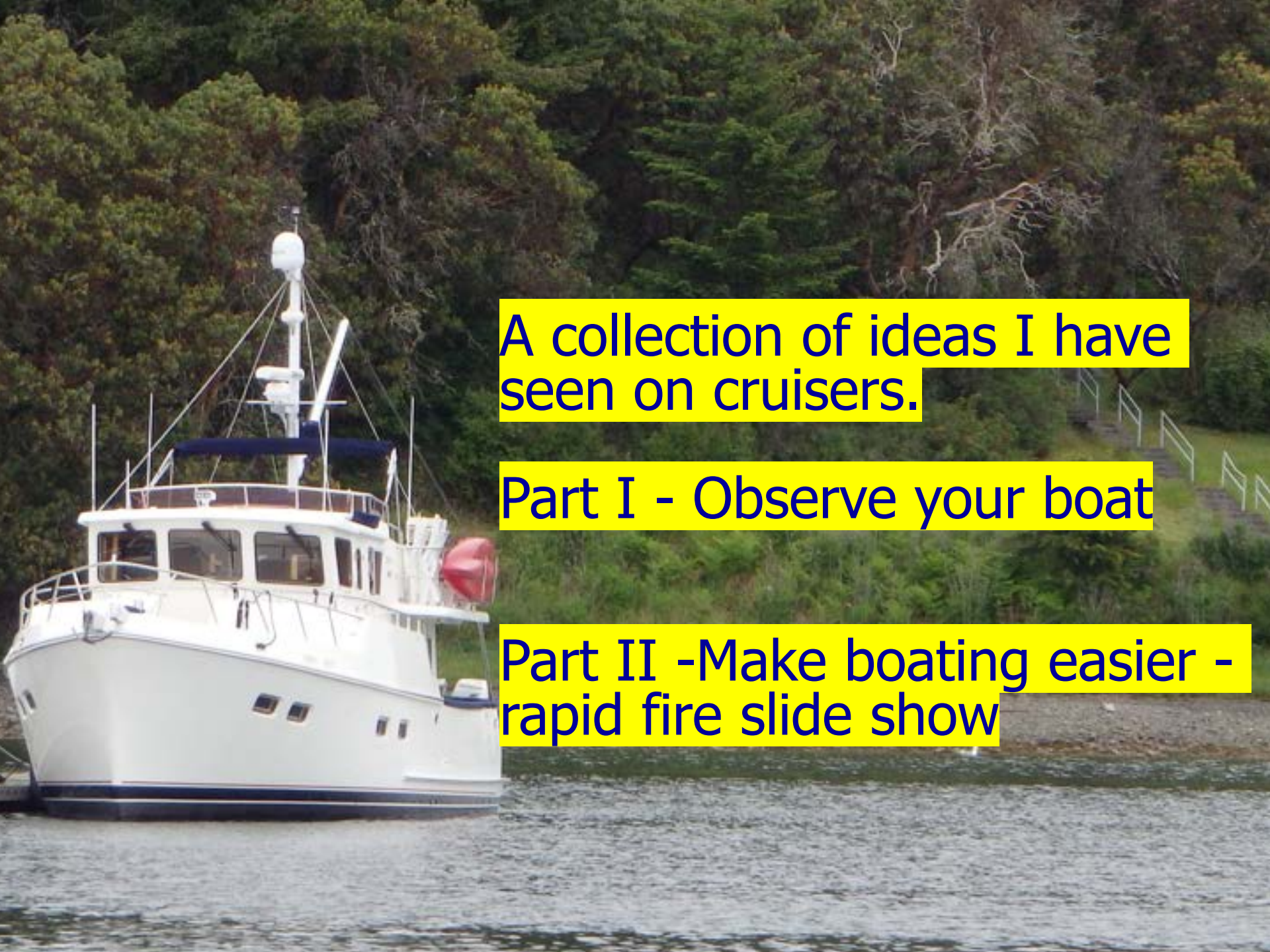
Pilothouse – Gauge Reference

My first power boat “AHA”





About me...30+ years of selling new and used cruising sailboats and trawlers and training owners. I've been on hundreds of boats and found some great ideas.



A collection of ideas I have seen on cruisers.

Part I - Observe your boat

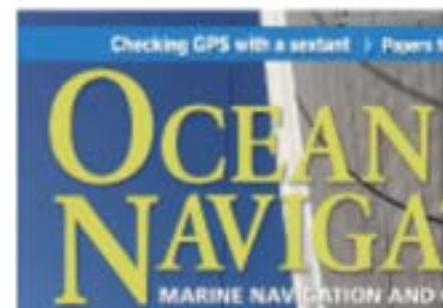
Part II - Make boating easier - rapid fire slide show

HANDOUTS

- Summary Dialing in Your Trawler articles
- USCG inspection Vessel Safety Check
- Maintenance Log - Main Engine
- SDMC / JMYS Maintenance Guideline



ialing-In-Your-Trawler articles Jeff Merrill has written are available



Handout* A list of the articles I have written for Ocean Navigator magazine



Of course, a compass

Mar/Apr 2020



Enabling your boat to talk

Nov/Dec 2019



Ship's Papers

Jul/Aug 2019

Dialing-in-your-trawler articles - the series

There are over two dozen articles in the "Dialing-in-your-trawler" series so far.

Each article has been published in *Ocean Navigator* magazine.

You can read the articles on the *Ocean Navigator* website, "Power Voyaging" section

All articles are also archived on JMYS.com - | - Trawler Lifestyle section - | - Ocean Navigator

Here is a summary of the article titles:

Dialing in your trawler

Engine Essentials

Anticipating Anchoring

Steering Straight

Wanderers Water

Dinghy Dynamics

Night Running

Sea Safety

In Charge - 12V DC

Keeping Current - 120V AC

Fuel to Burn

A Trip to the Engine Room - part 1

A Trip to the Engine Room - part 2

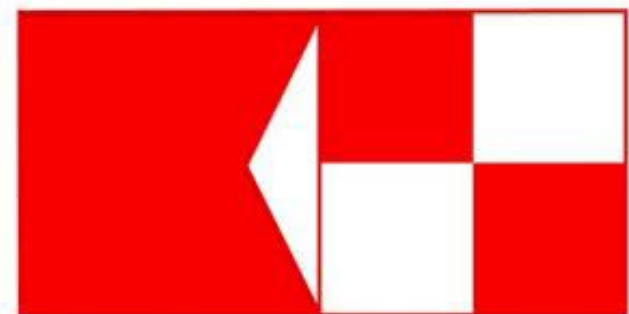
Spare Parts - part 1

Where are you most vulnerable? - Spare Parts - part 2

Expert Instruction From The Brands You Trust.

Offshore Cruising: Preparing Craft & Crew

Preparation is key to successful cruising. Regardless of the size, make or model of your boat, understanding its critical systems and having a plan is crucial to keep your craft performing efficiently and safely. Join yacht broker, boatbuilder and TrawlerFest instructor Jeff Merrill in this exclusive online course designed to help you prepare yourself, your boat and your crew to get the most out of your offshore boating adventures.



Boaters University

YouTube videos



SKILL

TIP #2

Learn something from every boat

Every vessel has a
number of components
that require attention and
observation, we are all
“in the same boat”

! Noticing details will help you monitor your systems and better understand your boat.

I will post this PowerPoint as a PDF and include the handouts on www.JMYS.com within a week.

Please interrupt with questions

Sign up list for email notification.

As a yacht broker I know that eventually you will sell your boat. You want a reliable vessel, and Buyers want maintenance records



Do you keep your maintenance log up to date?

Your Boat is "alive"

Like your body, it make senses that regular
"CHECK-UPS" will keep your boat healthier



Unlike annual human medical exams, a trawler should have many inspections (hourly at first) to check systems





Be observant and pay attention

What can you do to keep track of things
and make boating easier?

A photograph of a boat's cockpit dashboard. The dashboard is dark grey and features several electronic components. On the left, there is a VHF radio with a microphone and a small display. In the center, a laptop is open on a shelf. To the right of the laptop, there is a circular gauge and a small display. Further right, there are two large, rectangular electronic displays, likely for engine monitoring or navigation. The dashboard is mounted on a wooden structure. In the background, there are several windows or portholes, some of which are open, showing a view of the water and other boats. A compass is visible on the right side of the dashboard. The overall scene is a well-equipped boat cockpit.

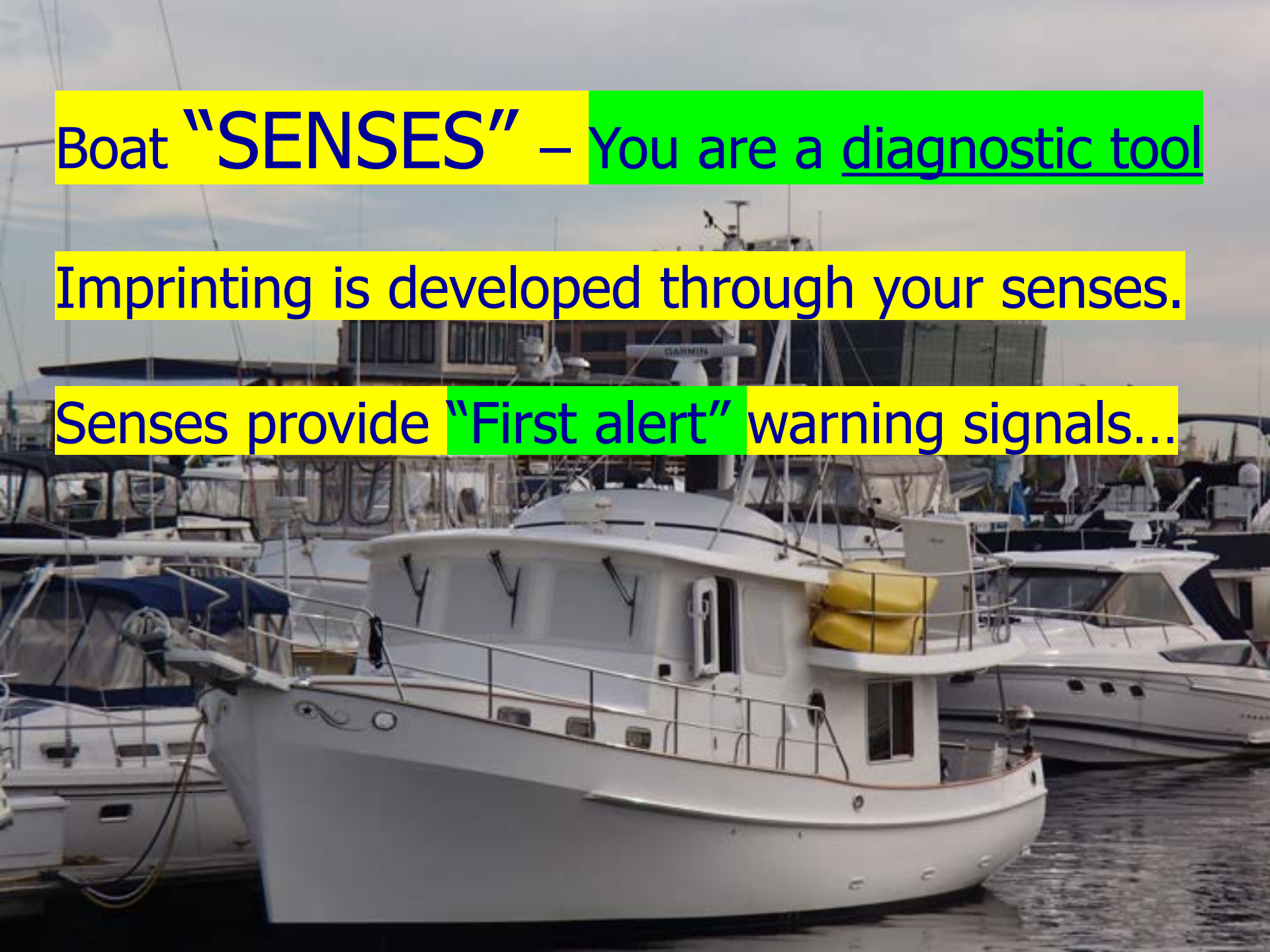
BASELINES

To track your boat you first have to establish baselines, and these initial impressions need to be cataloged so you can learn what the NORM is.

Boat "SENSES" – You are a diagnostic tool

Imprinting is developed through your senses.

Senses provide "First alert" warning signals...



A photograph of a boat on a body of water during sunset. The sun is low on the horizon, creating a warm orange and yellow glow across the sky and reflecting on the water. The boat is in the lower left, moving away from the viewer. The background shows a distant shoreline with some buildings and trees.

Sight/Vision

- Keen an eye on things...
- Visual observation is the most common way to notice if something is amiss.

Hearing/Sound

New noises to identify:

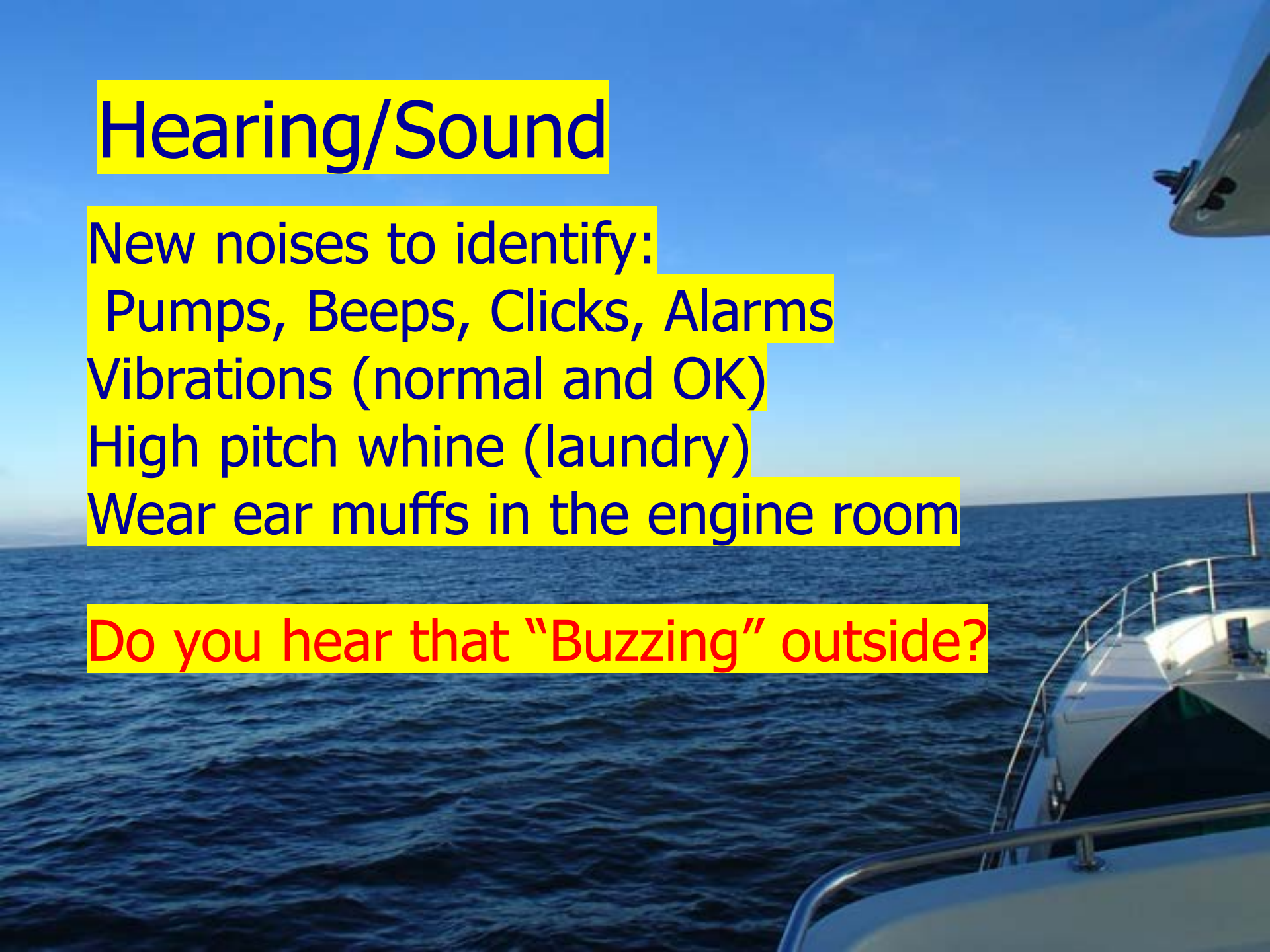
Pumps, Beeps, Clicks, Alarms

Vibrations (normal and OK)

High pitch whine (laundry)

Wear ear muffs in the engine room

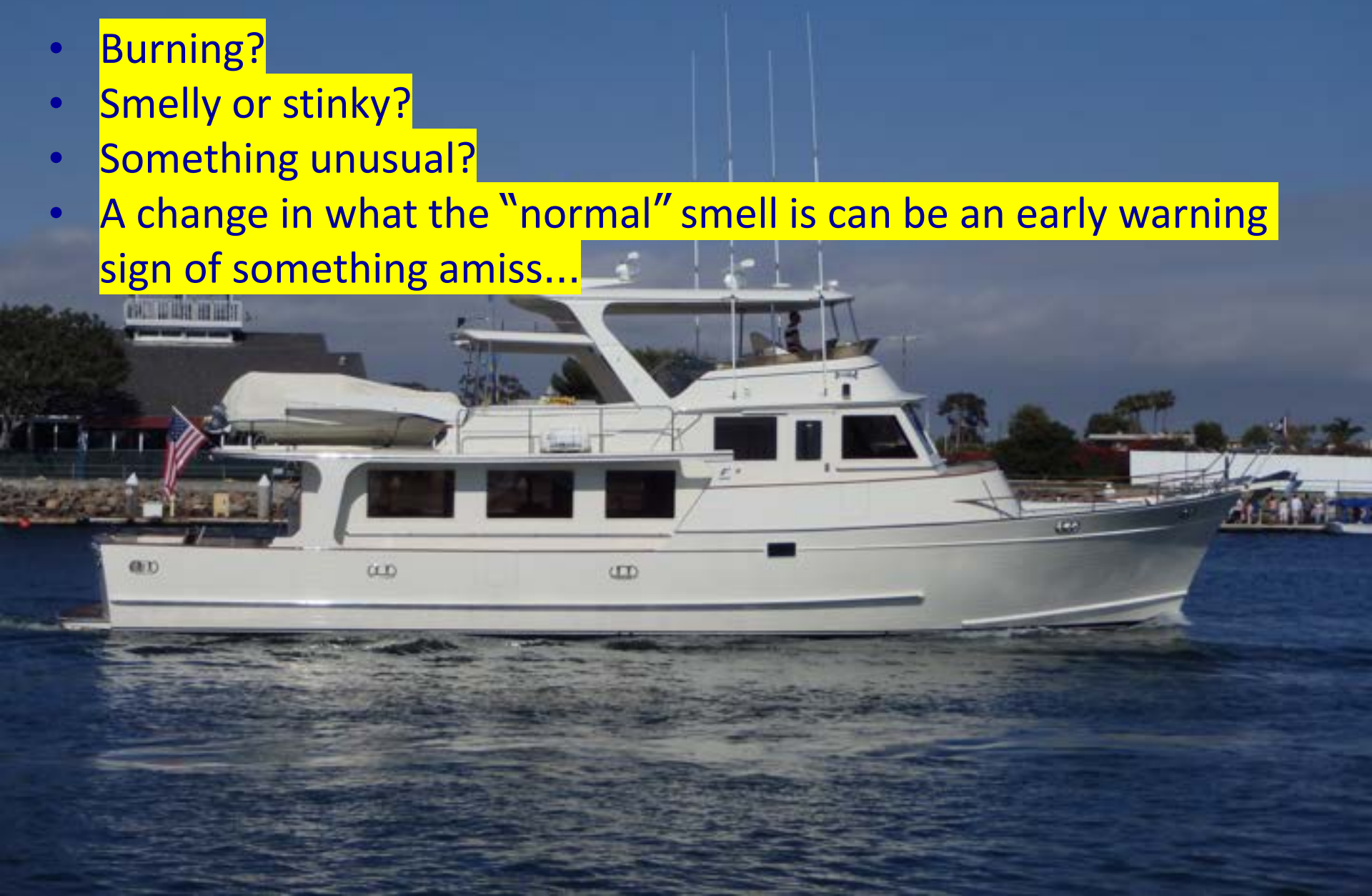
Do you hear that “Buzzing” outside?





Smell

- Burning?
- Smelly or stinky?
- Something unusual?
- A change in what the “normal” smell is can be an early warning sign of something amiss...



Touch (and what not to touch)

Machinery hot parts – be careful of burns

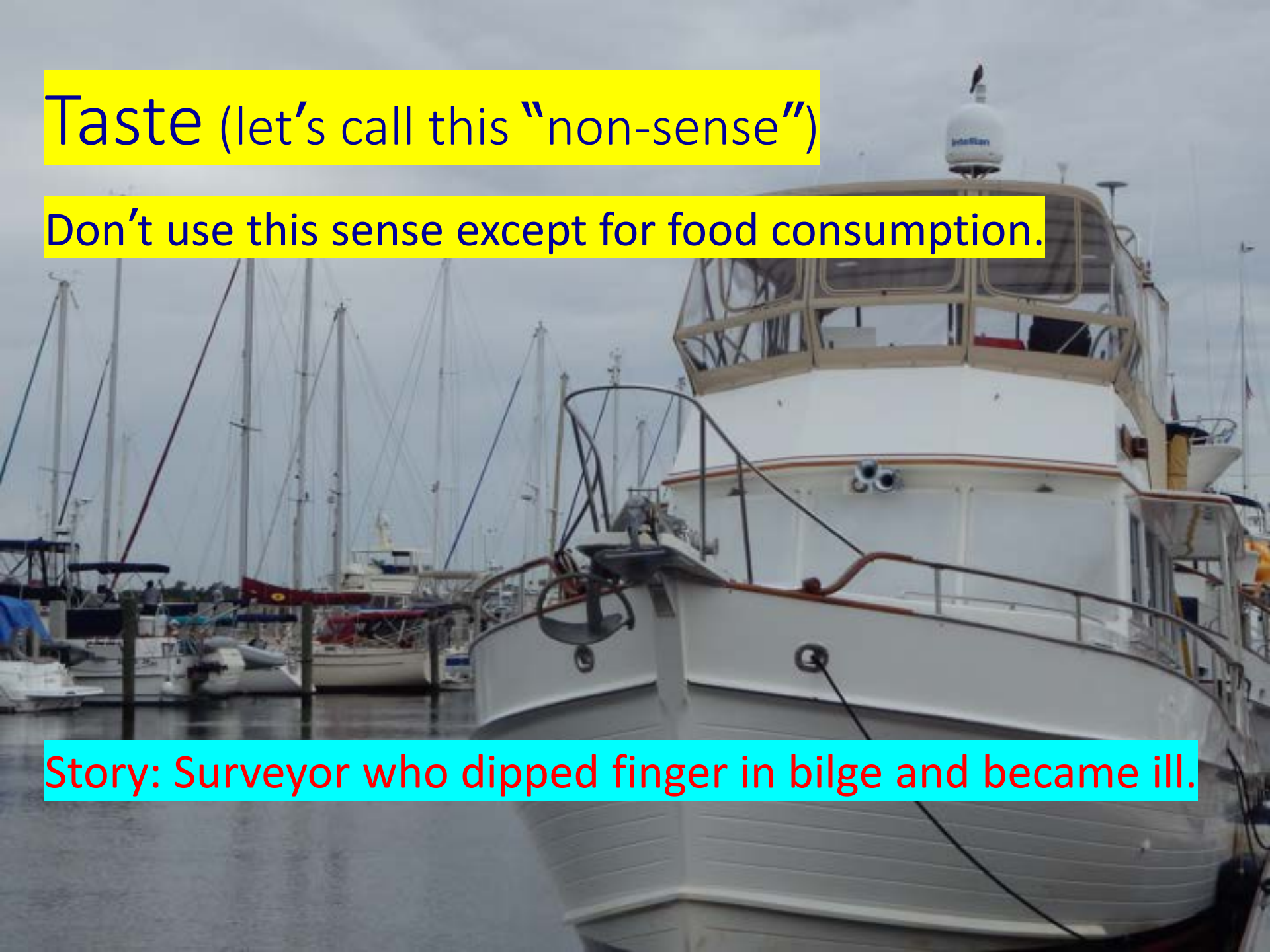
Gloves – anchoring and handling dock lines
(wood dock splinters)

Shoes on deck: hatch dogs, sure footing,
around windlass, anchor and chain

Taste (let's call this "non-sense")

Don't use this sense except for food consumption.

Story: Surveyor who dipped finger in bilge and became ill.



A large white and blue motorboat is docked in a harbor. The boat has a white upper hull and a blue lower hull. It has a large cabin with windows and a door. In the background, there are other boats, including a white boat with a blue stripe and a blue boat with a white stripe. The water is calm and the sky is clear.

Common Sense

- You typically have time to think through a good solution, don't rush to judgement

5-year expiration...



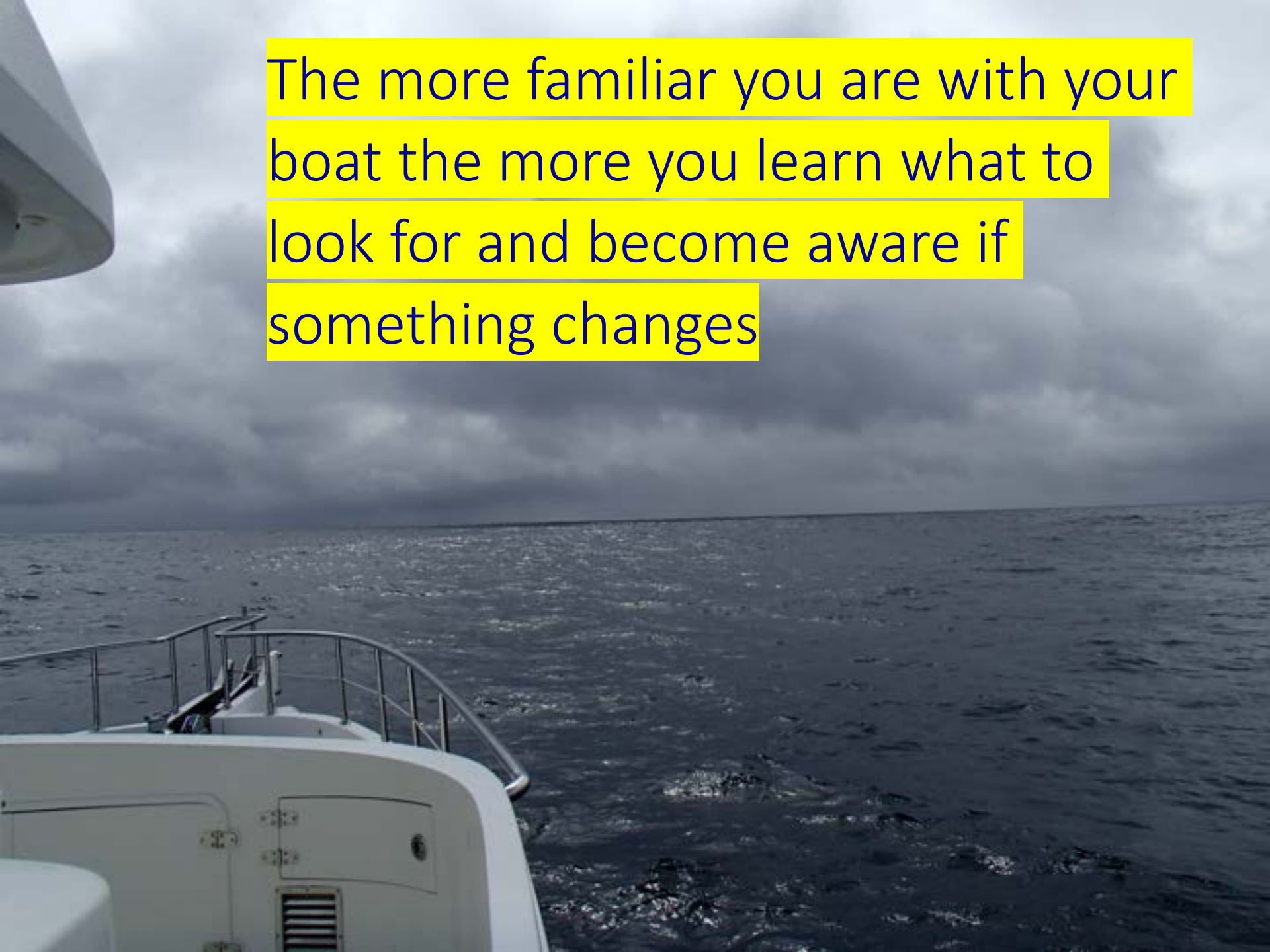
GET YOUR BOAT ON TRACK

Let's see what other boat owners do to stay on top of things.

Machinery with temperatures to monitor and many reminders or quick reference ideas.



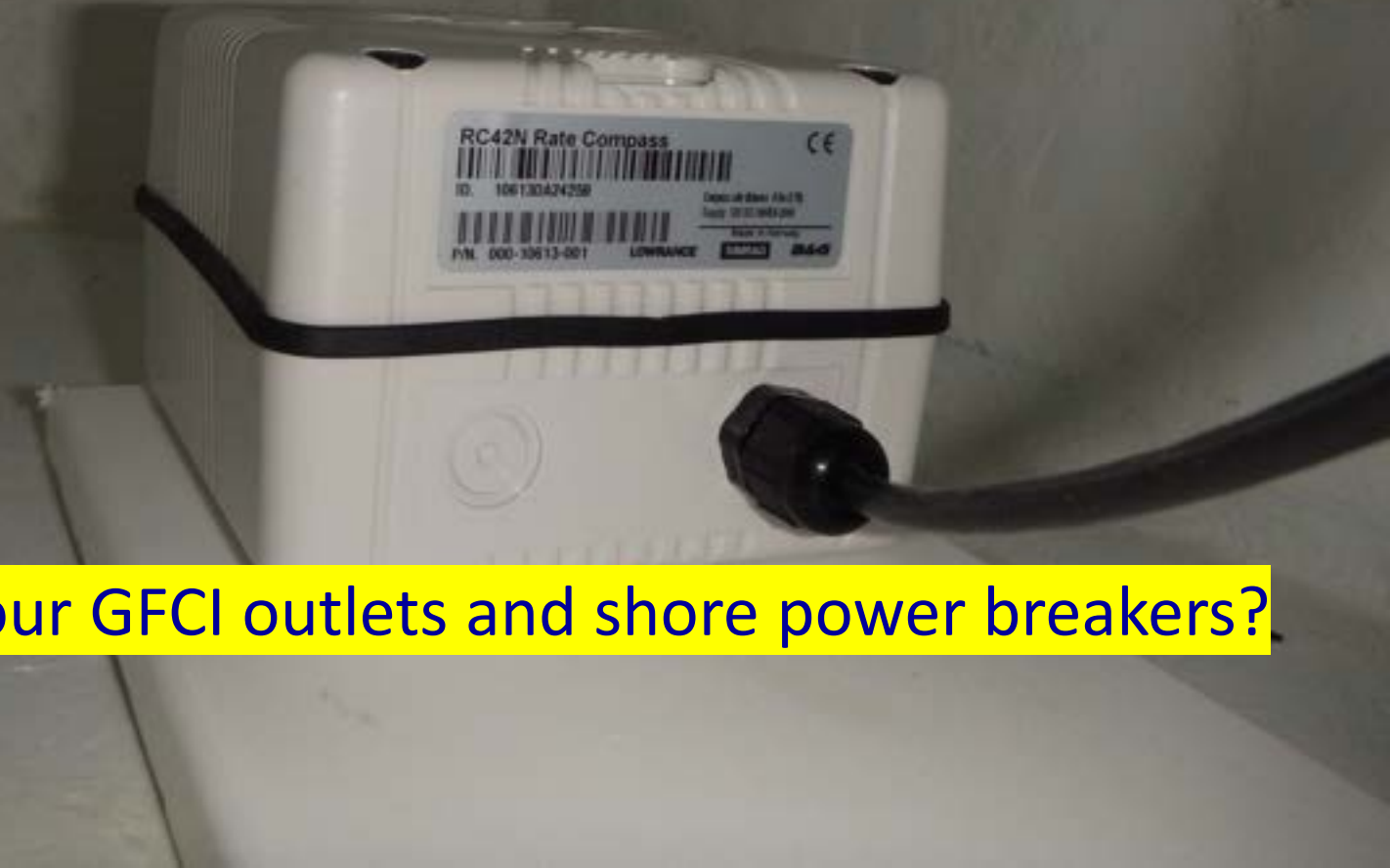
The more familiar you are with your boat the more you learn what to look for and become aware if something changes



Locate where things are installed

Anti siphon vents?

Where is your autopilot rate gain compass?



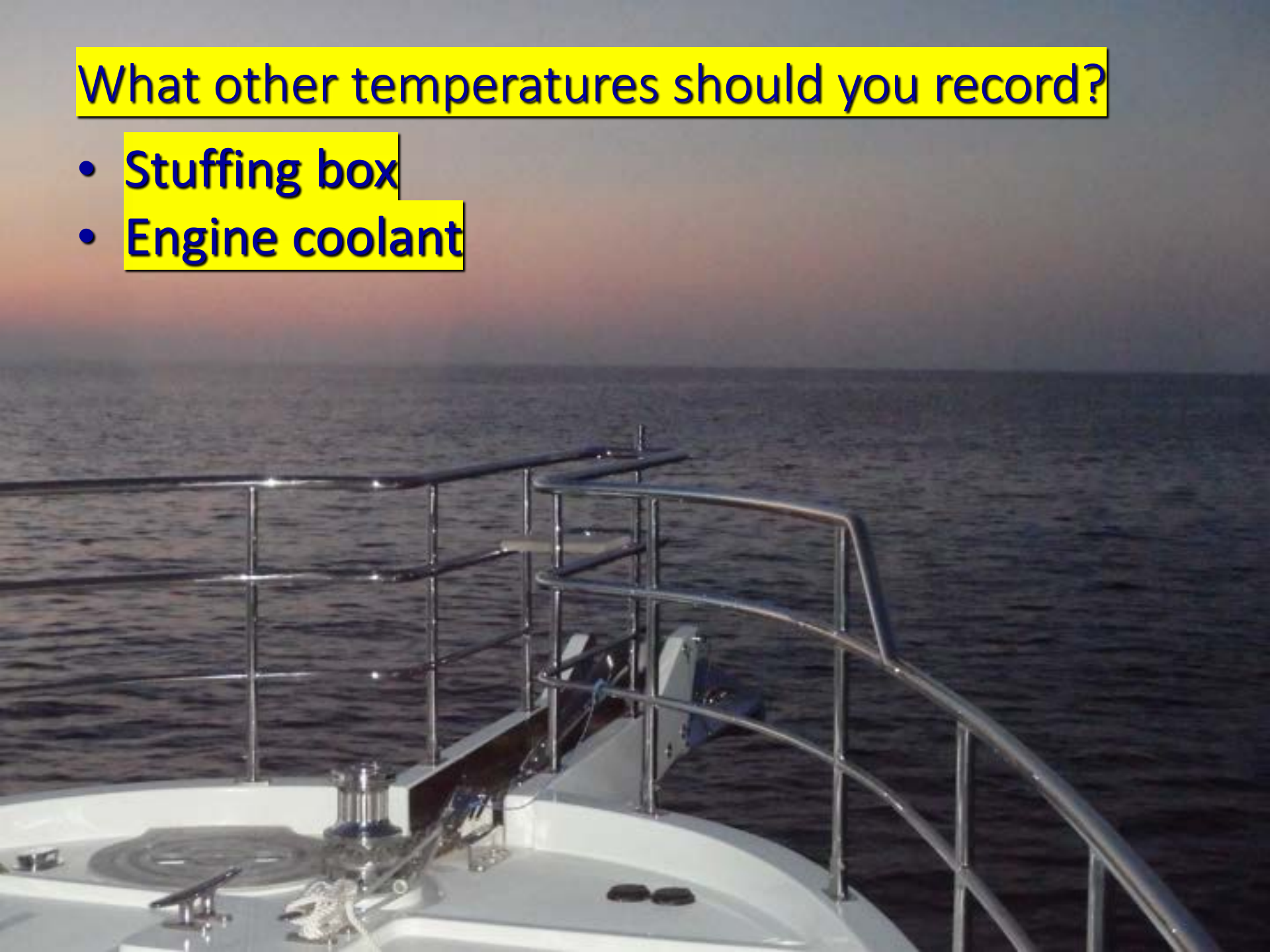
How about your GFCI outlets and shore power breakers?

Temperatures to monitor



What other temperatures should you record?

- Stuffing box
- Engine coolant



Analog "needle marks"



Mark normal needle position.

Do you have a bicycle pump?



Example of "tide mark" level



Learn the "INS"...

OLD

↑ ↑ ↑ IN ↑ ↑ ↑ ↑

10
STBD
MAIN
ENG

RETURN FROM MOTORS

12
PORT
MAIN
ENG

29
FUEL

RETURN FROM TRANSFER PUMP

30
20K#
GEN

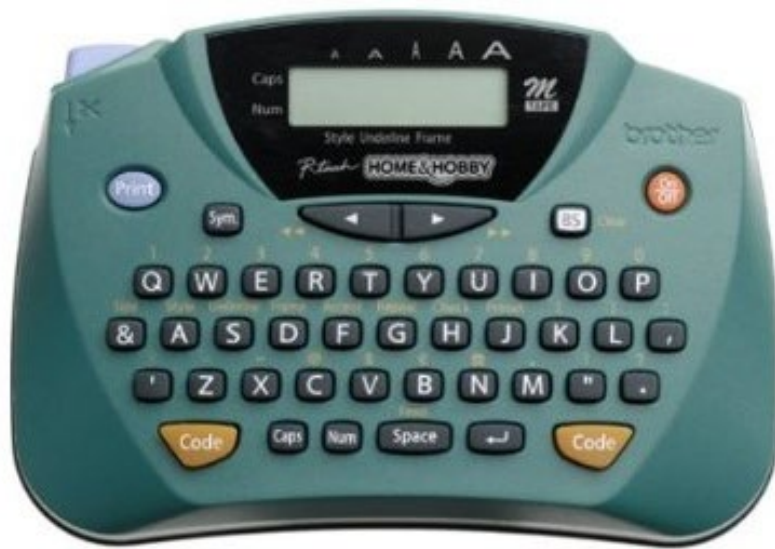


and OUTS...

To and From, Supply and Return



Get a Label Maker and use it!

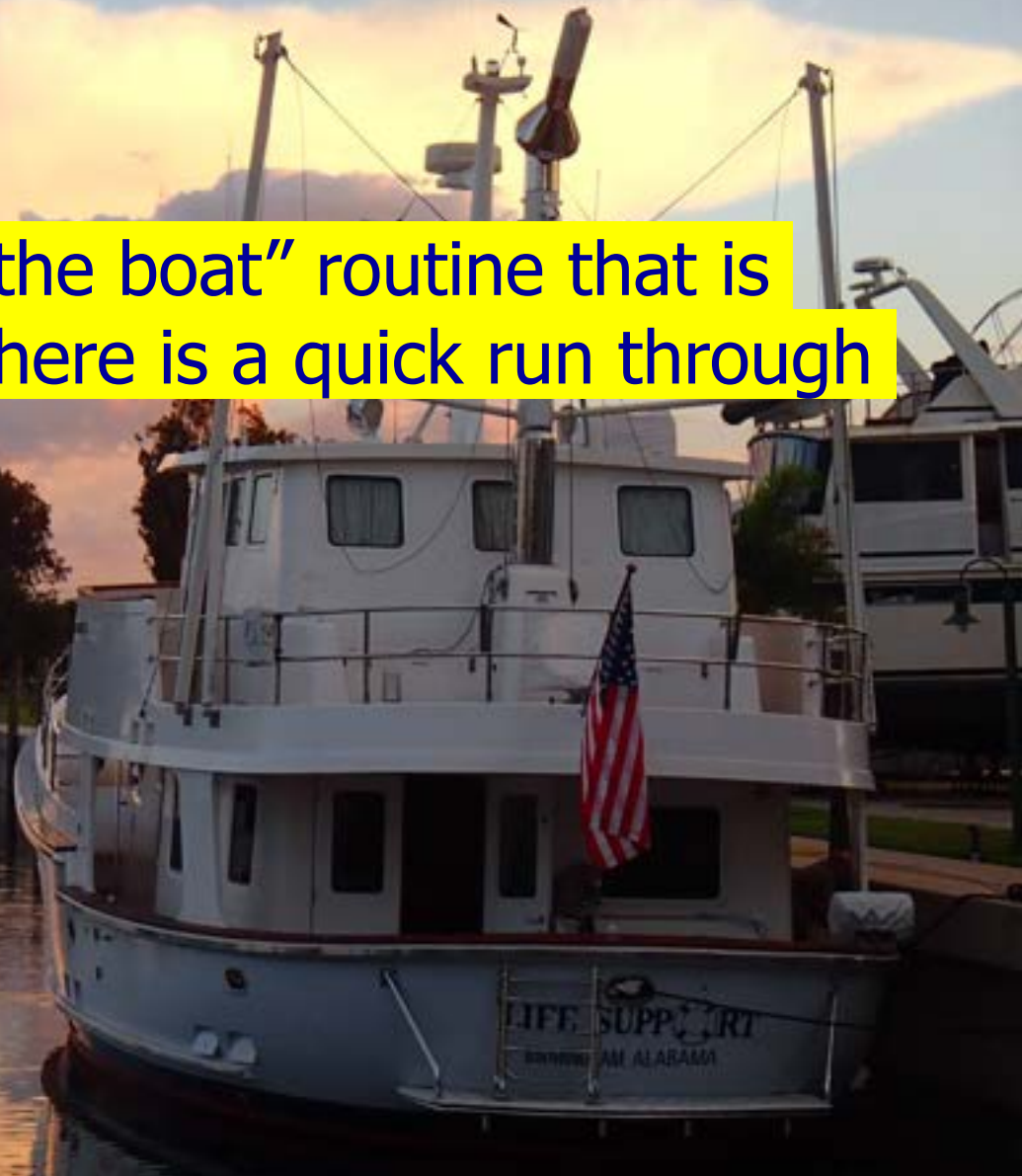


Bow Thruster ON/OFF



Routines

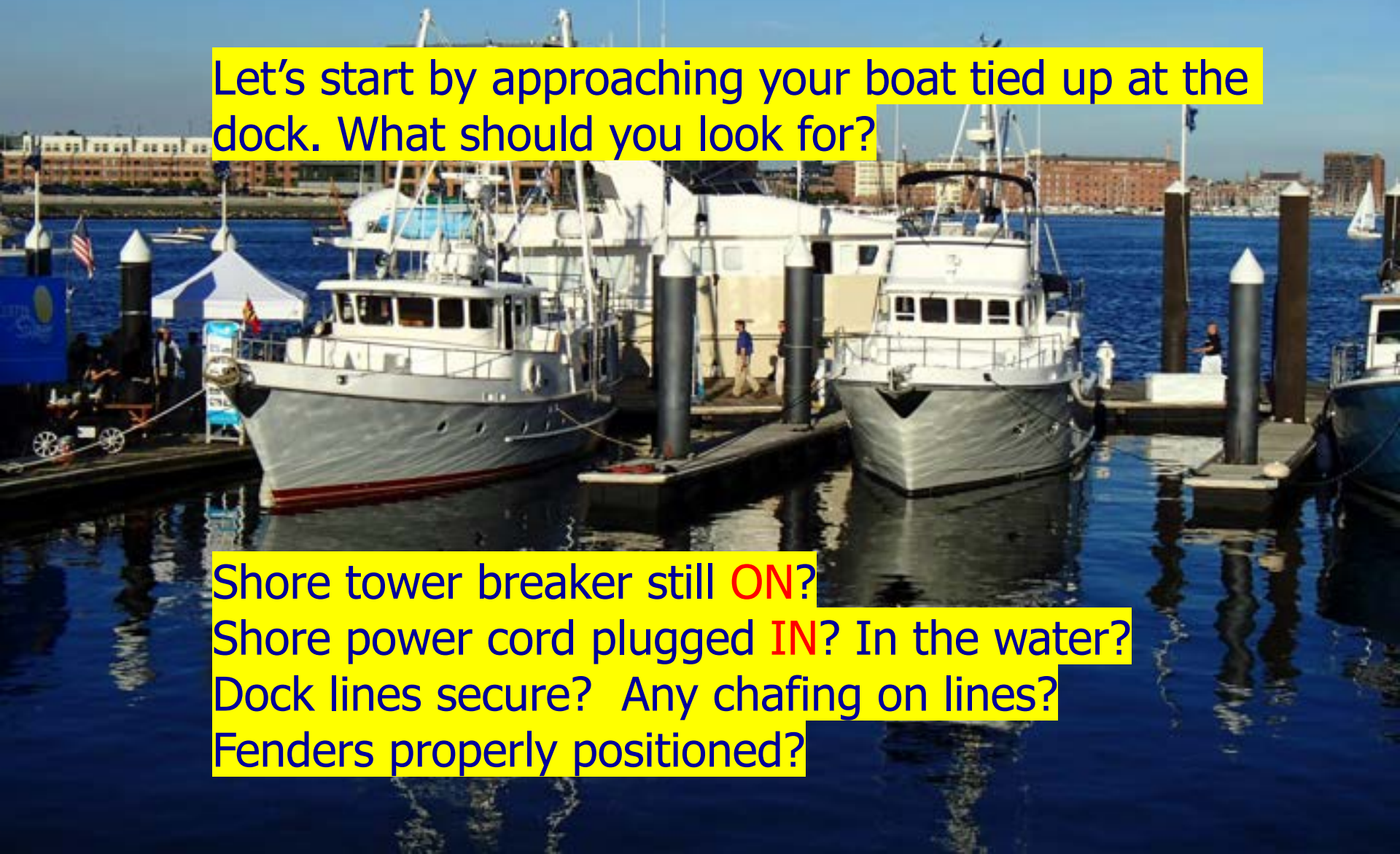
Develop a “return to the boat” routine that is the same each time, here is a quick run through of what I do.



At The Dock

Let's start by approaching your boat tied up at the dock. What should you look for?

Shore tower breaker still **ON**?
Shore power cord plugged **IN**? In the water?
Dock lines secure? Any chafing on lines?
Fenders properly positioned?



On Board

Can you be contacted
in an emergency?

Do you have a key for
access to the boat?



Emergency Contact Information

M/V Convexity

USCG #1186437

IN CASE OF EMERGENCY
CALL OR TEXT 415-420-8800

Combination lock box for key



Is your lazarette hatch lockable?



Inside- My First Two Priorities

Electrical – Do I have shore power coming in and are my batteries charged?

Bilge – How much water do I have in the bilge?



AC IN = Good!



Ship Shape

Keeping things clean and tidy makes it easier to notice when something goes wrong

USCG Vessel Safety Check

Handout* This is a great way to make sure you are in compliance



VESSEL SAFETY CHECK (VSC)

To be completed by a U.S. Coast Guard approved Vessel Examiner.
See the back of this form for a brief explanation of required items.
A Federal Requirements pamphlet is also available.

Date of VSC: _____

Decal Awarded: Yes ☐ No ☐

Owner/Operator Name: _____

Owner/Operator has attended a CGAUX, USPS, State
or _____ Boating Safety Class: Yes ☐ No ☐

Location of VSC - County: _____ State: _____

Replaced decal was: Last Year ☐ Outdated ☐ First time ☐

VESSEL INFORMATION:

Registration or
Documentation Number: _____

HIN: _____

Length: <16 ☐ 16-25 ☐ 26-39 ☐ 40-65 ☐ >65 ☐

Powered by: Gas ☐ Diesel ☐ Sail ☐ Other ☐

Area of Operations: Inland ☐ Coastal ☐

Type: PWC ☐ Open ☐ Cabin ☐ Other ☐

VESSEL SAFETY CHECK DECAL REQUIREMENTS

Item	Yes	No	N/A
1. Display of Numbers			
2. Registration/Documentation			
3. Personal Flotation Devices (PFD)			
4. Visual Distress Signals (VDS)			
5. Fire Extinguishers			

RECOMMENDED AND DISCUSSION ITEMS

(While encouraged, items below are not VSC requirements)

Item	Yes	No
I. Marine Radio		
II. Dewatering Device & Backup		
III. Mounted Fire Extinguishers		
IV. Anchor & Line for Area		
V. First Aid and PIW Kits (**over)		

A photograph of a boat's cockpit dashboard, featuring a wooden finish and various electronic instruments. A yellow rectangular text box is superimposed over the center of the image. The dashboard includes a steering wheel, a central display screen showing a white flower, and several analog and digital gauges. The background shows a marina at night with other boats visible through the cockpit windows.

There are several areas where you can
"Dial In"

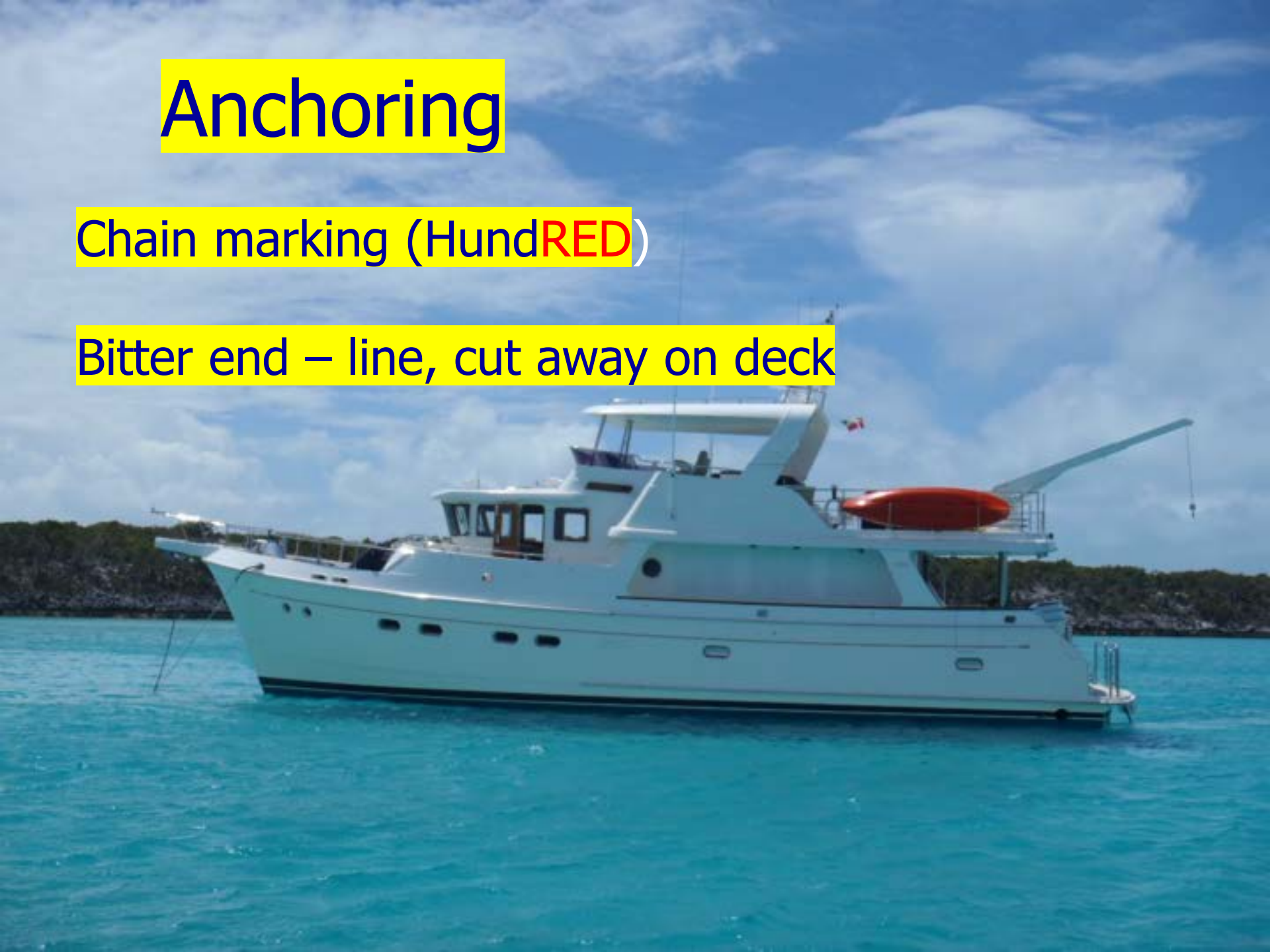
Anchoring Ideas



Anchoring

Chain marking (HundRED)

Bitter end – line, cut away on deck



Hund-RED's

NORDHAVN N5725
ANCHOR CHAIN
COLOR KEY

WHITE	=	50 FT
RED	=	100 FT
RW	=	150 FT
RR	=	200 FT
RRW	=	250 FT
RRR	=	300 FT
RRRW	=	350 FT
RRRR	=	400 FT

Color code summary right by windlass

WHITE	50'
RED	100'
WHITE	150'
GREEN	200'
WHITE	250'
RED	300'

Chain color coding by windlass control



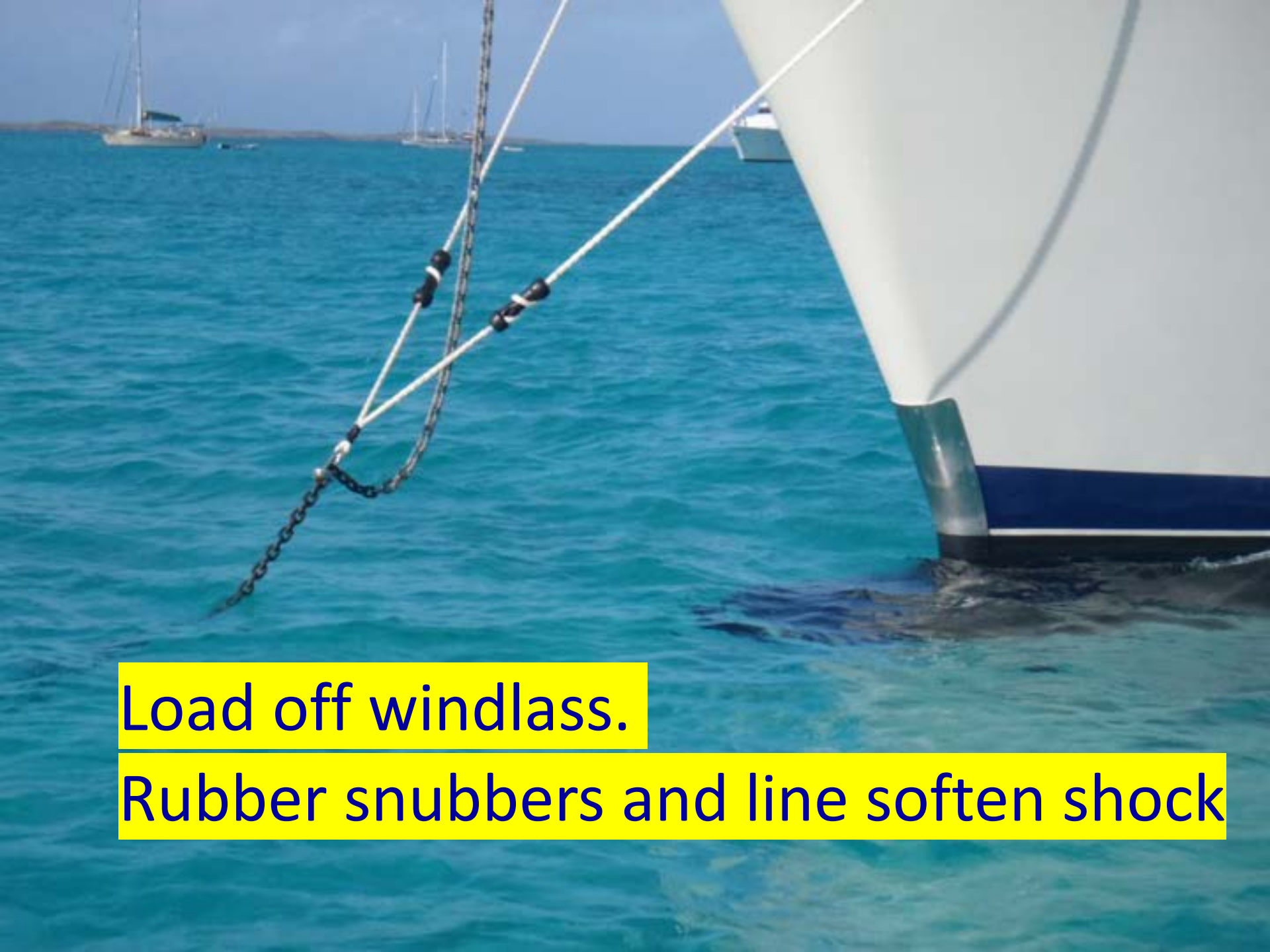
Last 50' feet or anchor at waterline.

Can you disconnect from bitter end?



Anchor Bridle





Load off windlass.

Rubber snubbers and line soften shock



Stop Slop

Chain tensioner, snug anchor on roller





Spare Fortress anchor on foredeck

Spare Fortress anchor on swim platform



Deck and Dinghy Tips



Secure outside deck lockers



Life raft – lock it? Positioning, how launch it?



EMERGENCY LIFE RAFT INFLATION PROCEDURE

1. PULL BLACK AND WHITE LANYARD TO RELEASE
PULLER LINE FROM SNAP ON BACKLE.
2. ATTACH TO NEAREST STOWING POINT ON VESSEL.
3. THROW LIFE RAFT IN CROWDED OVERBOARD.
4. LIFE RAFT WILL INFLATE AFTER 30 FEET OF LINE IS OUT.
5. IF CALM SEA, TUNE LINE TO INFLATE.
6. PULL LIFE RAFT ALONGSIDE VESSEL AND BOARD.
7. KEEP LIFE RAFT AWAY FROM SHARP PROTRUSIONS.

WINSLOW LIFERAFT COMPANY
8700 WINSLOW DRIVE, LAKE BUZZA, FL 34708
(800) 838-5022



Flopper stopper – color code line attachments



Reflective tape on flopper pole



Dinghy launch with crane – level gauge



A white robotic crane is positioned on a grey deck with white painted lines. The crane has a cylindrical base and a horizontal arm extending to the left. In the background, a white railing and a steering wheel are visible. A yellow rectangular box with black text is overlaid on the center of the image.

Mark crane pick up to simplify line-up at return

Boom winch lines can be marked with a Sharpie –
Amsteel or Dyneema

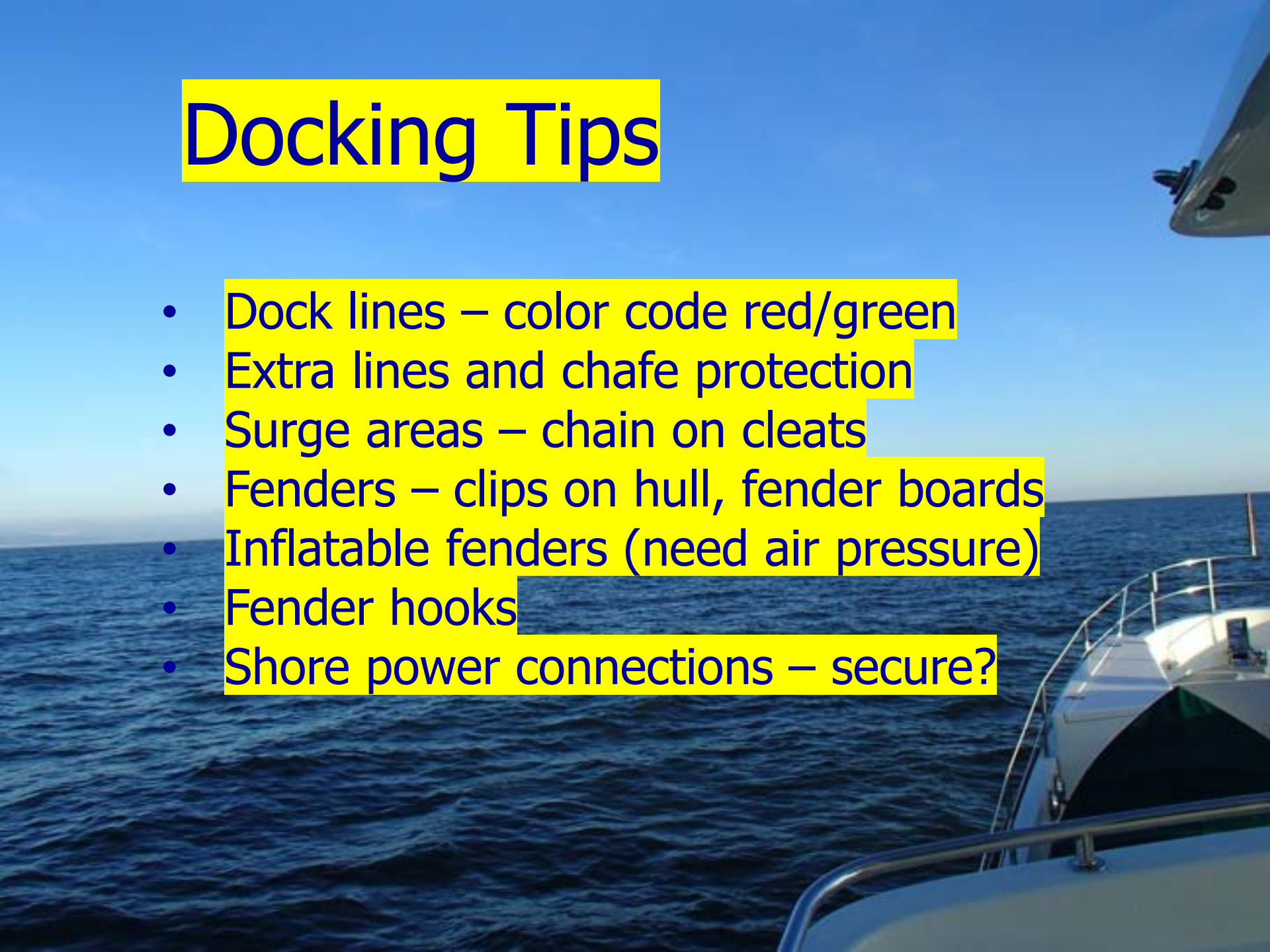




Outboard skid plate

Docking Tips

- Dock lines – color code red/green
- Extra lines and chafe protection
- Surge areas – chain on cleats
- Fenders – clips on hull, fender boards
- Inflatable fenders (need air pressure)
- Fender hooks
- Shore power connections – secure?



Color markings or numbering of dock lines

Dock Lines
Short – White whipping
Medium – Red whipping
Long – Black whipping

Fender Boards




Folding pad eye for clipping on fenders



Boat Hook Ready!



Shore Water: Filter Before Adding To Tanks



Hardware store cartridges
sediment removal, charcoal –
remove impurities



Water
softener

The background of the slide is a photograph of a ship's deck at sunset. The sky is a gradient of blue and orange, with the sun low on the horizon. The ship's railing and some equipment are visible in the foreground, and the ocean stretches to the horizon.

Main Engine Maintenance Log

Handout - Nordhavn 55*

This example is for a main engine. I recommend you create an individual log for all major components: Transmissions, Generator, Windlass, Crane, Watermaker, Stabilizers, etc.

Nordhavn 55

Main Engine Maintenance Log

John Deere I Luger L1276A.2C/MG5091SC Serial # 1271-2708 :340 HP @ 1800 RPM

Fuel, Coolant (brand and gallons) Filters (air, fuel oil), Belts,
Zincs, Oil Changes

Service contact:

Engine mounts, drips/leaks

Engine mounts, shaft, stuffing box, shaft brush

Main Engine Service records

Date	Hours	Project	Comments
Note - create a separate maintenance page for ALL major equipment:			
		Black holding Toilets	
		Crane or Davit	
		Engine 2 (twin or wing)	
		Fuel Log	
		Fuses and Breakers	
		Generator (s)	
		Haul out	
		Hydraulics	
		Laundry	
		Lube oil	
		Main Transmission	
		Shaft, stuffing box, propeller	
		Stabilizers	
		Steering	
		Tender and outboard	
		Thruster(s)	
		Watermaker	
		Windlass	
		Zincs	

Maintenance Log - Records

Note all purchases and upgrades

Keep receipts

Track oil changes and all service repairs

This collected information is an important record and doubles as a sales tool when you are ready to sell your boat

Handout*

Steve D'Antonio and
Jeff Merrill Maintenance List

We will take a 5 minute break

Maintenance Guidelines and Recommendations

Engines and Generators

- Check engine oil, transmission fluid and coolant daily/before each use
- Change oil and filters seasonally or every 200 hrs. whichever comes first
- Change primary and secondary fuel filters seasonally, or if vacuum exceeds 5 in. hg. All primary filters should be equipped with vacuum gauges, see <https://www.proboat.com/the-vacuum-gauge-tool.html> for more on vacuum gauge selection, installation and use.
- Adjust valves per engine manufacturer's requirements (typically every 1000-2000 hrs.). <http://www.cruisingworld.com/how/keep-valve-train-track>
- Check belts monthly, replace every two years.
<http://www.cruisingworld.com/how/orderly-transfer-power>
- Check/replace air filters as needed. These should be equipped with vacuum monitors. See <http://stevedmarineconsulting.com/fuel-and-air-filter-service-protocols/>
- Pressure test cooling systems annually.
- Flush and refill cooling systems every two years or 1000 hrs. whichever comes first. Coolant should be analyzed annually.
<http://stevedmarineconsulting.com/photo-essay-may-2015/>
<http://www.cruisingworld.com/how/engine-cooling-system-tips>

- We will take a 5 minute break

Next = PART TWO

TrawlerFest.

BOAT SHOW - EDUCATIONAL EXPERIENCE - RENDEZVOUS

by Jeff Merrill, CPYB

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I hope you will say...

That's a good idea!

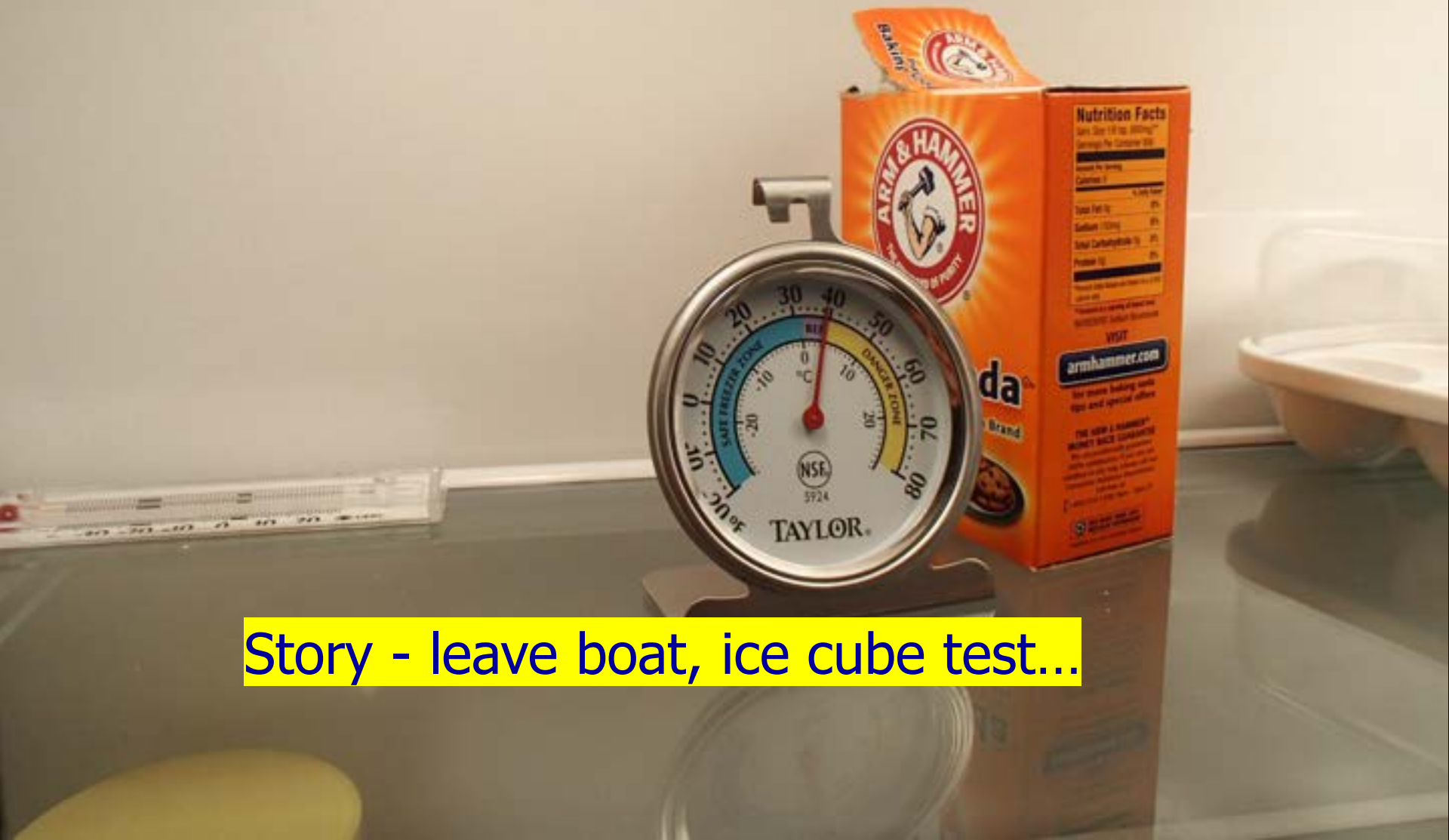
Clear plastic protects wood surfaces



Refrigerator organization – bars and tubs



Thermometer and baking soda in refrigerator



Story - leave boat, ice cube test...

Shelf levels create more storage space





Soft rubber mesh protects

Peg system for plates and bowls



Kadey-Krogen peg system for
pots and pans





Organized home style drawer caddy



Clear tubs for storage



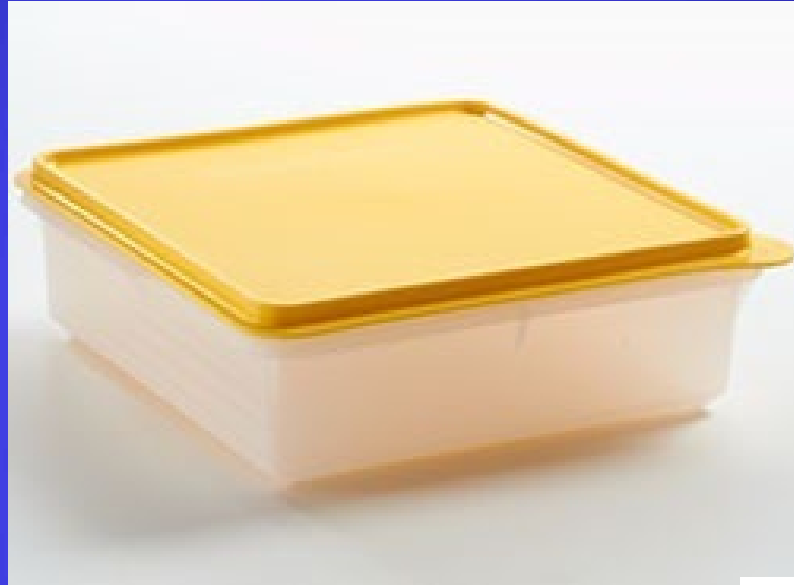
Storage bins "Lock and Lock"



Really Useful Boxes



Loose Parts Bin (you'll identify where it goes later)





Dust buster small vacuum

(Kelp flies story)

Swiffer Sweeper Vacs are great for wood floors



Squeegee and Shower Spray



Suction cup caddy



Helm area suggestions





WDE 4988

VHF call sign label

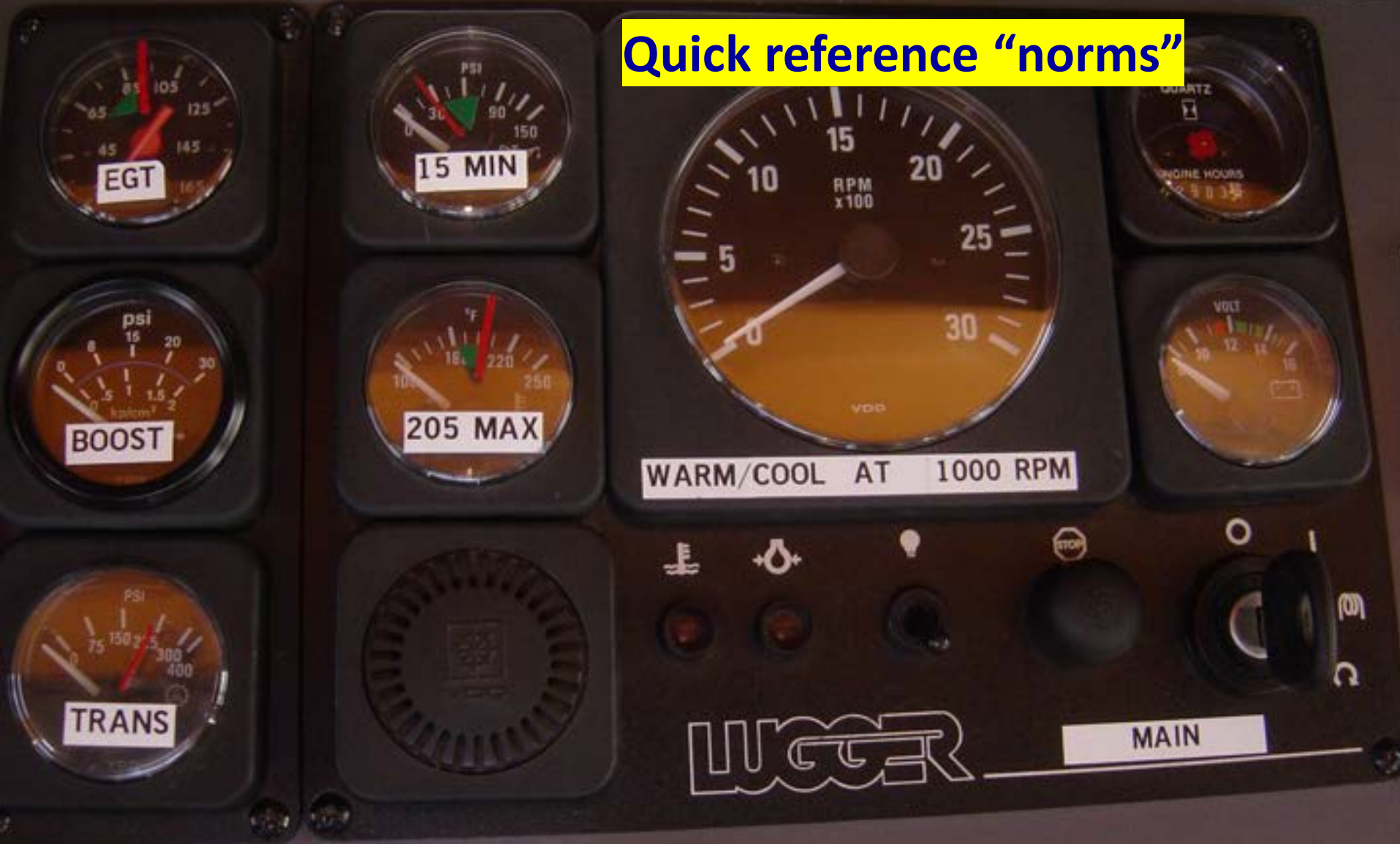




Keep your display screens clean

- above hydraulics breaker, protected switch)
- SET 2200 RPM ON WING ENGINE
 - PRESS "START" (GREEN) ON BOW THRUSTER KEYPAD; pump will whine and discharge stb'd. side, aft
 - PRESS "STOP" (RED) ON KEYPAD WHEN BILGE IS EMPTY; Repeat as necessary while locating water entry.

Quick reference "norms"





LOA 61 FT
BEAM 17 FT
DRAFT 6 FT
HEIGHT 24 FT
ANCHOR MARKS 25 FT

LOA, Beam, Draft, Bridge clearance

M.V. JODA

DRAFT	5.0'	1.525 m
LOA	48.5'	14.75 m
BEAM	16.75'	5.10 m
DISPL.	56,200 lbs	
WATER	540 USG	2,044 L
FUEL	1,038 USG	3,945 L
MAST	30' 4"	9.2 m

What depth are you reading?



Inland, River reminders

1 WHISTLE

HEAD ON PORT TO PORT

OVERTAKING BOAT PUTTING SLOWER BOAT TO PORT

2 WHISTLES

HEAD ON STBD TO STBD

OVERTAKING BOAT PUTTING SLOWER BOAT TO STBD

Detail tape to segment electrical panel



Color code dots – ON/OFF – Day/Night



1 BATTERY CHARGER
ENGINE

2 BATTERY CHARGER
WING ENGINE

3 GALLEY
REFRIGERATOR

4 WATER
HEATER

5 OUTLET

6 GUEST CABIN
OUTLET

7 MASTER CABIN
OUTLET

8 SALON
OUTLET

9 PILOT HOUSE
OUTLET

10 GALLEY
OUTLET

15 TV/VCR

16 E/R LIGHTS

17 E/R OUTLET

18 F/B OUTLET

19 FUEL POLISHING
SYSTEM

20 GARBAGE
DISPOSAL

21 SPARE

22 SPARE

23 SPARE

24

Color code AND numbered on Selene

Toggle guards on “permanent” breakers

INVERTER

FWD

AMIDSHIPS

TS AFT

ETS PILOT HOUSE

NE ROOM LIGHTS

/STEREO

4V CHARGER



GALLEY FRIDGE/FREEZE

EXHAUST STACK COOLING

P/H CHEST FREEZER

WASH COMPACTOR

MICROWAVE / SALON TV

STOVE TOP IGNITER

GARBAGE DISPOSAL

WATERMAKER

E / ROOM BLOWERS





Binocular rack

The image shows the interior of a boat's cockpit, focusing on the dashboard area. The dashboard is dark grey or black, with a wooden trim around the edges. On the left side of the dashboard, there is a stack of electronic equipment: a Raymarine electronic display at the top, a stereo unit in the middle, and a VQ-4 voltage meter at the bottom. Below the voltage meter is a VHF radio with a microphone. In the center of the dashboard is a large, black, rectangular screen. To the right of the screen is a small, white, rectangular label with blue text. On the far right side of the dashboard, there is a small, potted plant with green leaves. Above the dashboard, there is a wooden shelf or counter. On this shelf, there is a wooden binocular rack holding a pair of black binoculars. The background shows the boat's windows and the exterior structure.

Drink holders



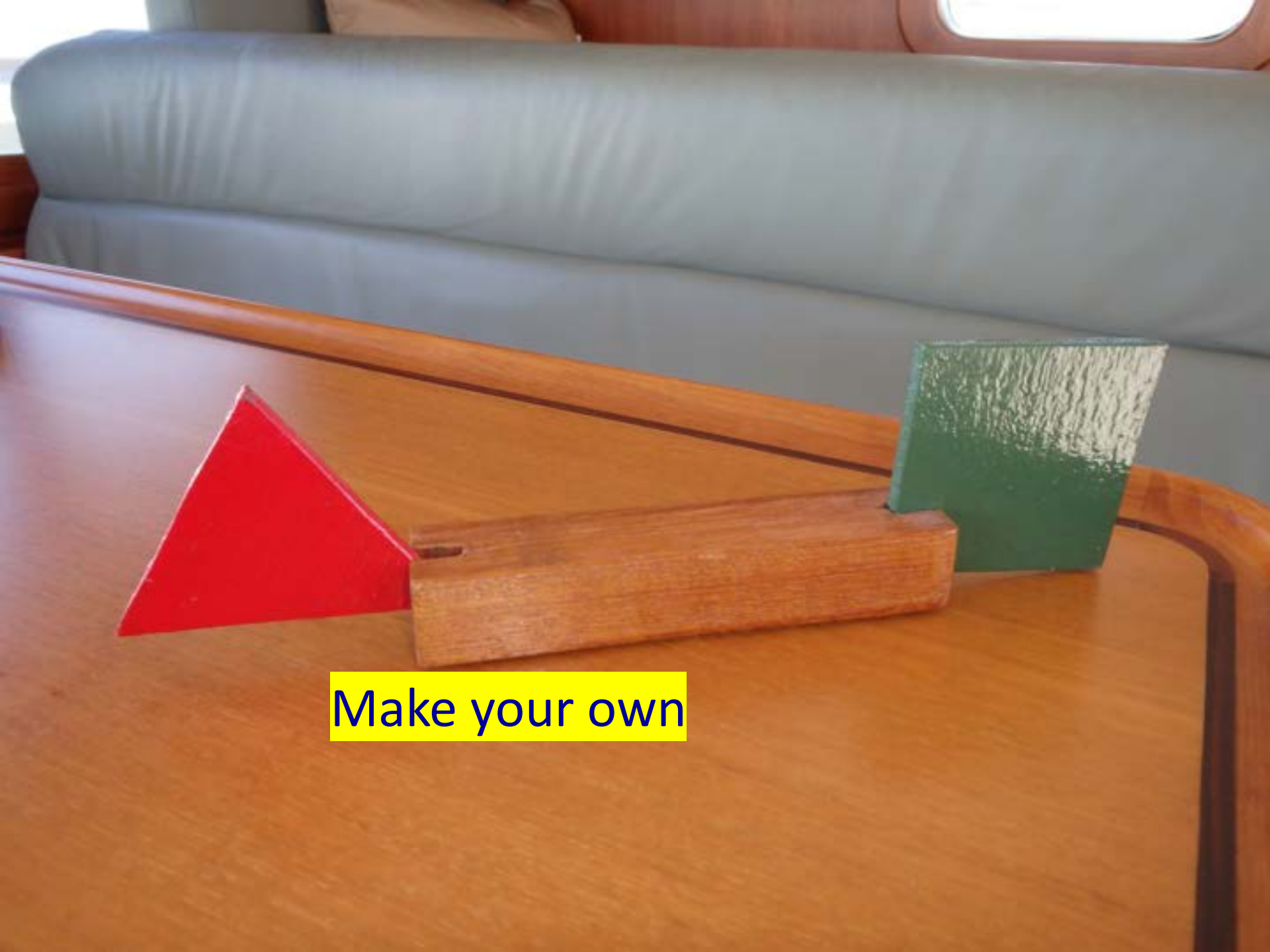


Portable caddy for important “stuff”

Channel buoy reminder

Easily reversible!





Make your own

When you depart,

leave yourself a reminder...

Thru Hull Closed!!

Gen
Viking
Water Maker

Start Charger - Off

Engine Room Inspection Tips

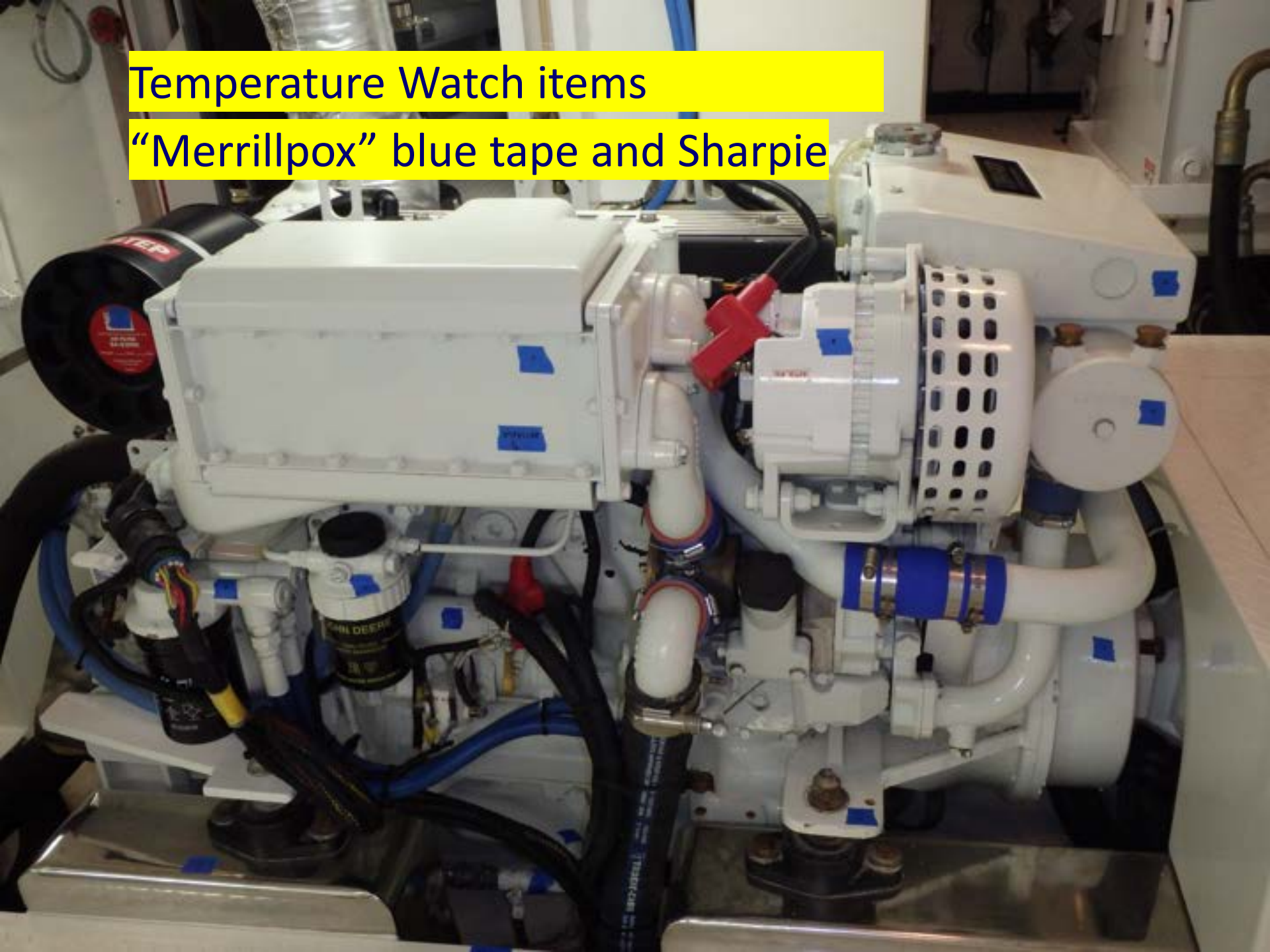


Infrared Temperature Gun



Temperature Watch items

“Merrillpox” blue tape and Sharpie

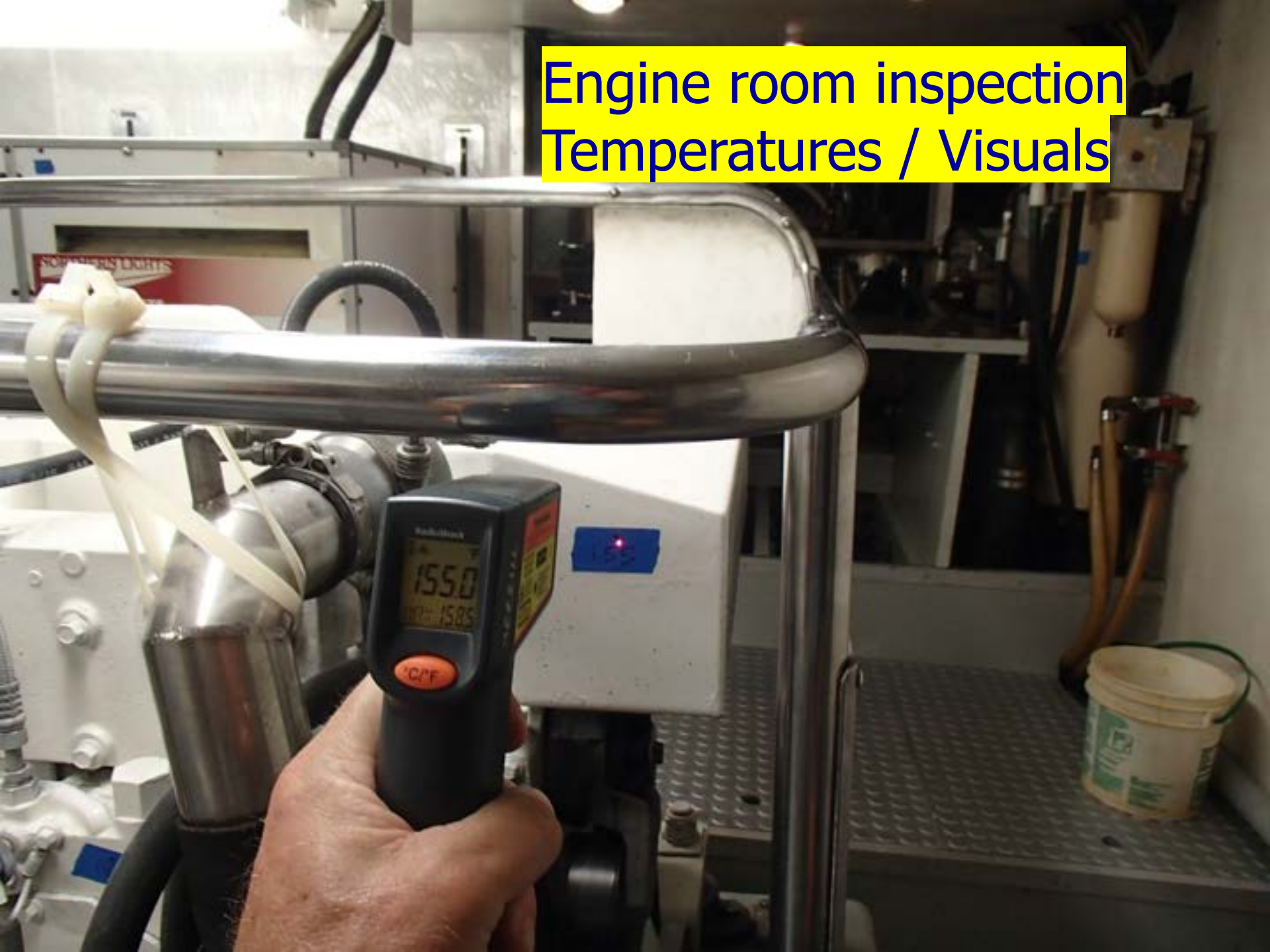


Temperature Targets

Mark single point to shoot



Engine room inspection Temperatures / Visuals



Hold Gun 2 – 6" away



Visual inspection “(*)” Eye





Torque wrench and mark your mounts

engine
13
mounts



Bilge
16
Level

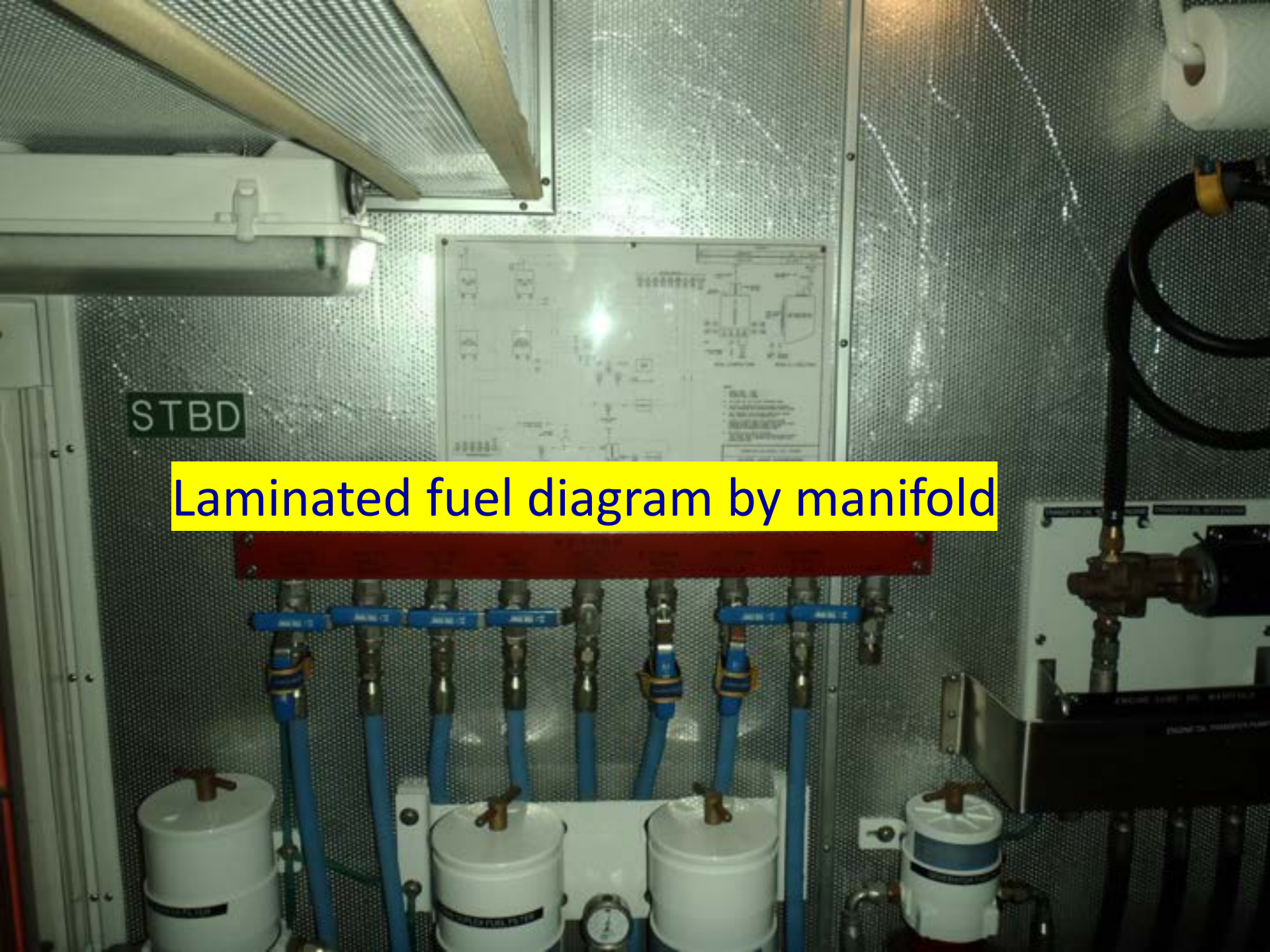
SNUGGED DOWN
ALL ENGINE MOUNT.

13 SEPT 13

3/4" WRENCH.

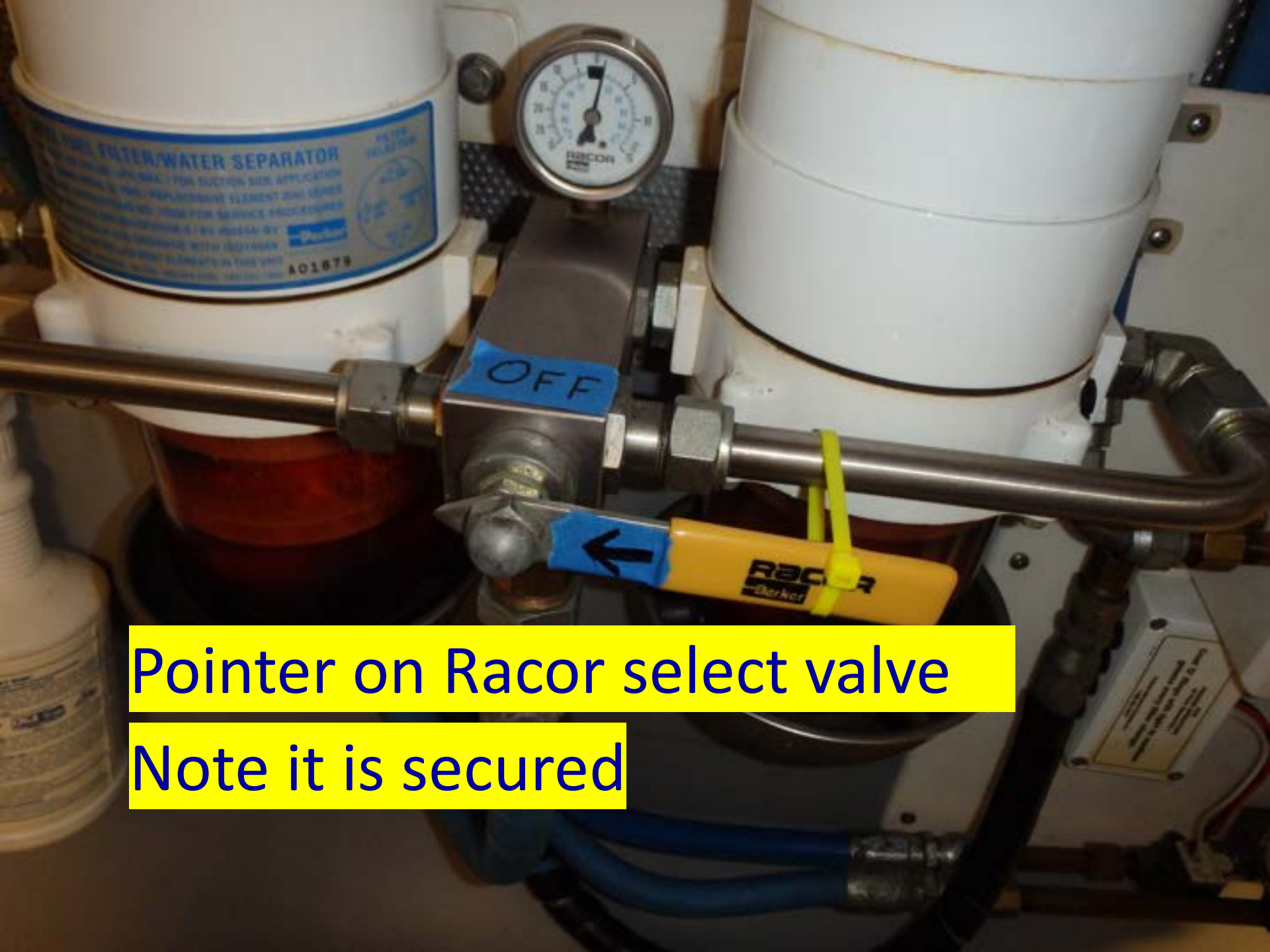
STBD

Laminated fuel diagram by manifold





The sharp end points to desired bowl



Pointer on Racor select valve

Note it is secured

Velcro straps so valve handle isn't bumped



Replacement sizes and hours noted



Color code multiple tank valves



Nail polish, red Sharpie to mark pencil zinc/anodes





Mark fuel filter for bleeding

WARNING
DO NOT RUN ANY ENGINE WITH AN
UNCONTROLLED FUEL SYSTEM

FUEL FILTER
SEPARATOR
51005

NORTHERN

FILTER @ 1700 HRS
14 APRIL 2015

LUGGE

A close-up photograph of a white plastic primer lever assembly. A red wax seal is applied to the lever's pivot point. The lever is connected to a white plastic housing. In the background, a black label with white text is partially visible, showing "HN DEE" and "S". The lever is positioned vertically, and the wax seal is a bright red, irregular shape. The surrounding area is white plastic, with some visible wear and tear. The text "And the primer lever" is overlaid in a yellow box with blue text.

And the primer lever



Potential trouble, will your muffler drain?

Install a drain valve



Anodes (pencil zincs) and hydraulic oil weight





Coolant over flow catcher




DELO 400 15W-40
4 GALLONS

Brand of oil, viscosity weight and quantity.
Make it easy!

ATTENTION
CHECK OIL LEVEL

Label filters to track changes





The image shows a white electrical panel with three fuse holders. A yellow horizontal bar is at the top. Each fuse holder has a black label with white text. The left label reads 'BILGE PUMP POWER SOURCE (50A FUSE)'. The middle label reads 'FROM STBD. ENG. ISOLATOR TO CHARGE HOUSE BANK (60A FUSE)'. The right label reads 'FROM PORT ENG. ISOLATOR TO CHARGE HOUSE BANK (60A FUSE)'. The fuse holders are transparent, showing the internal components. Black corrugated cables are connected to the bottom of each holder. A yellow bar is also visible at the bottom of the image.

BILGE PUMP
POWER SOURCE
(50A FUSE)

FROM STBD. ENG.
ISOLATOR TO
CHARGE HOUSE
BANK (60A FUSE)

FROM PORT ENG.
ISOLATOR TO
CHARGE HOUSE
BANK (60A FUSE)

Identify fuses, carry spares



Secure spare fuse near active one

The image shows a close-up of a boat's engine compartment. A clear plastic fuse block is mounted vertically, containing two red fuses. To the left of the fuse block, there are brass fittings and black hoses. To the right, a black corrugated hose is visible, along with a brass component that has a white label with the text "1 TRACON" and "3000 A.M. 2000". In the bottom left corner, a black hose is labeled "TRIDENT" and "NET EXHAUST & WATER HOSE • 250°F (121°C) • LLOYD'S APPROVED CERT 03-6000".

Replacement at location



Stuffing box wrench caddy





Cleaning
spray
bottles
ready

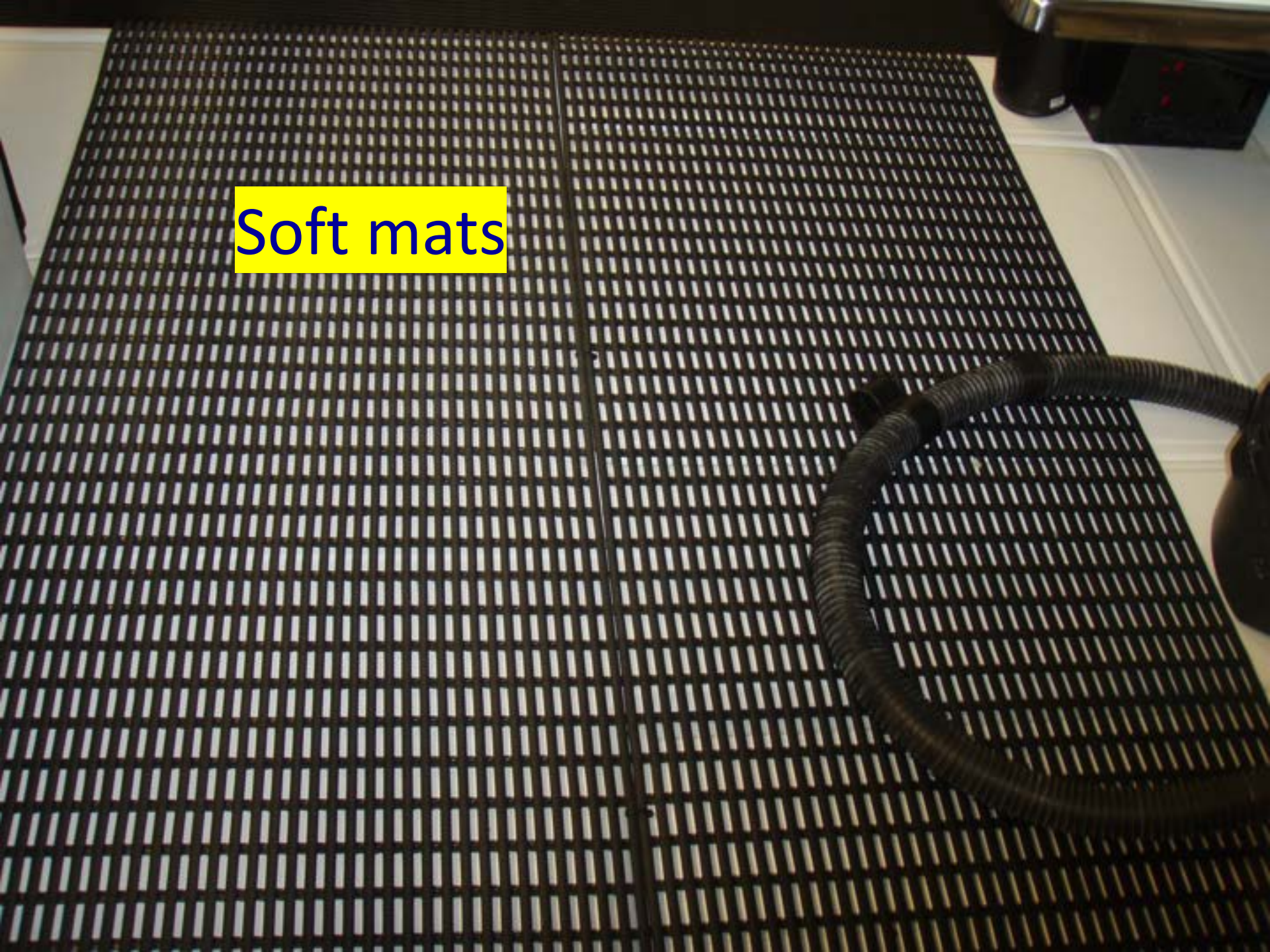




Fresh water tap and bucket



Soft mats



Engine room temp and clothes line





Cleaning product shelf



Storage hammock

A white mesh storage hammock is suspended from a white surface, likely a wall or ceiling. The hammock is filled with various items, including a green pen, a small white container, and some crumpled paper. The background is a white surface with some visible hardware and a small label.

A blue mesh bag is shown against a light background. The bag has a button at the top center and a zipper on the left side. The mesh is made of a fine, woven material. The bag is slightly wrinkled and has some folds. The text "Suction mesh bag for through hull bungs" is overlaid on the bag in a yellow box with blue text.

Suction mesh bag for through hull bungs



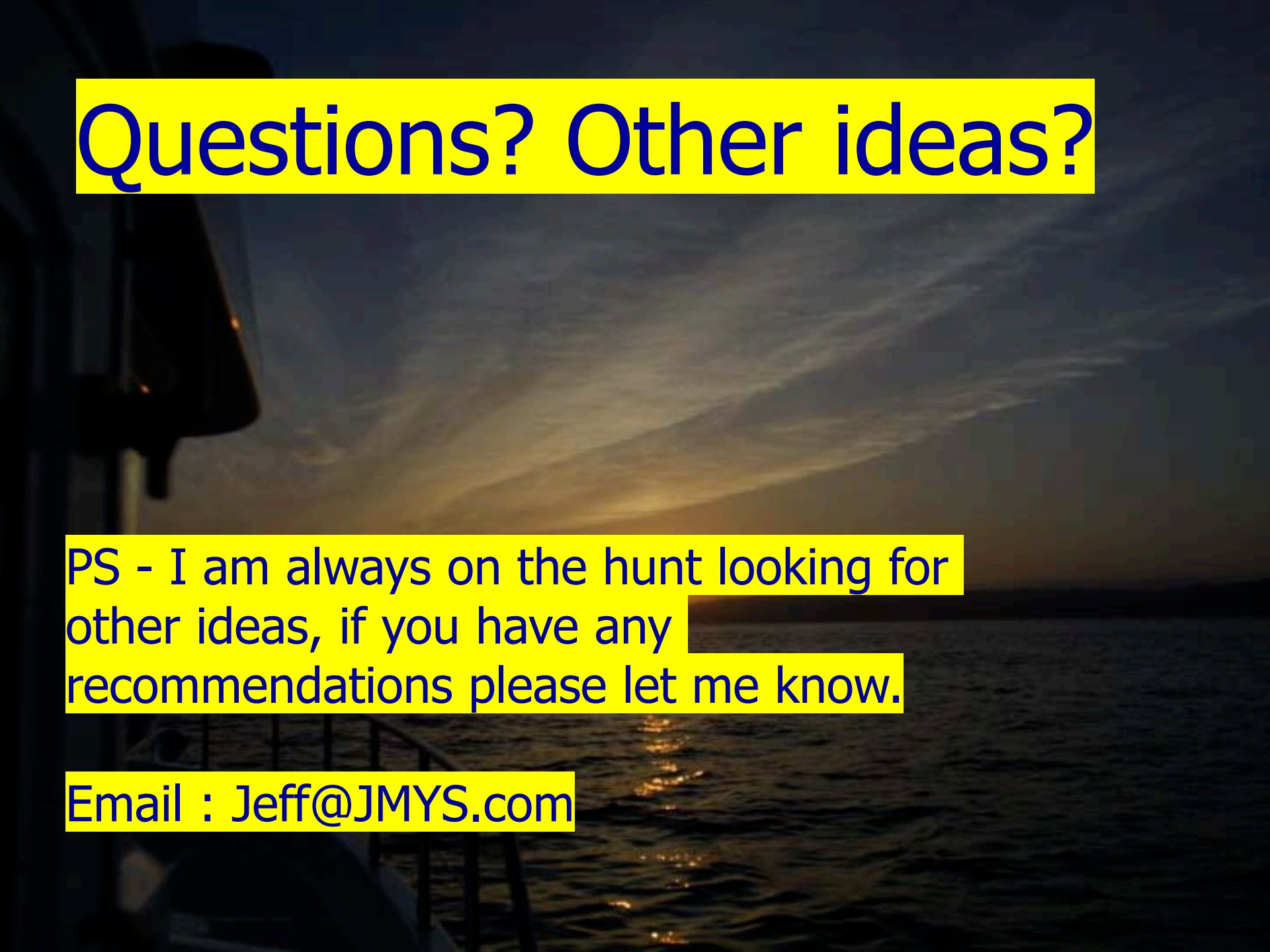
Zippered pillow bag for engine diapers

Shoes off basket



Get out there and have fun!



A photograph of a sunset over a body of water. The sun is low on the horizon, creating a bright orange glow that reflects on the water's surface. The sky is a mix of orange, yellow, and blue. In the foreground, the dark silhouette of a boat's railing is visible on the left side.

Questions? Other ideas?

PS - I am always on the hunt looking for other ideas, if you have any recommendations please let me know.

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A full-page background image of a sunset over the ocean. The sun is a bright, glowing orb on the horizon, casting a shimmering reflection on the dark, choppy water. The sky is filled with large, billowing clouds that are illuminated from below, giving them a warm, orange and yellow glow. The upper parts of the sky are a deep, clear blue.

Thank you!

Dial-In-Your-Trawler series PDF on www.JMYS.com