

“ALL MEN DREAM, BUT NOT EQUALLY. THOSE WHO DREAM BY NIGHT IN THE DUSTY RECESSES OF THEIR MINDS, WAKE IN THE DAY TO FIND THAT IT WAS VANITY: BUT THE DREAMERS OF THE DAY ARE DANGEROUS MEN, FOR THEY MAY ACT ON THEIR DREAMS WITH OPEN EYES, TO MAKE THEM POSSIBLE.”

T.E. Lawrence



ANDY SCHELL // 59 NORTH, LTD.

OFFSHORE YACHT RIGGING

59 NORTH // ISBJÖRN SAILING

- ▶ Andy Schell & Mia Karlsson
- ▶ 50,000+ Bluewater Miles // 7 Combined Atlantic Crossings
- ▶ Former Yacht Rigger at Southbound in Annapolis (now @ Port Annapolis)
- ▶ Own & operate S&S Swan 48 'Isbjorn' on offshore passages worldwide
- ▶ Host of 'On the Wind' sailing podcast



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CREW OFFSHORE ON A SWAN 48

Summer '18 // Arctic & Iceland

Fall '18 // Portugal to Canaries

January '19 // Trans-Atlantic

Winter '19 // RORC Caribbean 600

Summer '19 // Cuba, Bermuda, Newfoundland

Early '20 // South Pacific

Dec. '20 // Sydney-Hobart Race

Spring '21 // AC36 in Auckland, NZ



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'ON THE WIND' // 'SAILING STORIES'



DOWNLOAD FREE ON ITUNES & WHEREVER YOU GET YOUR PODCASTS!

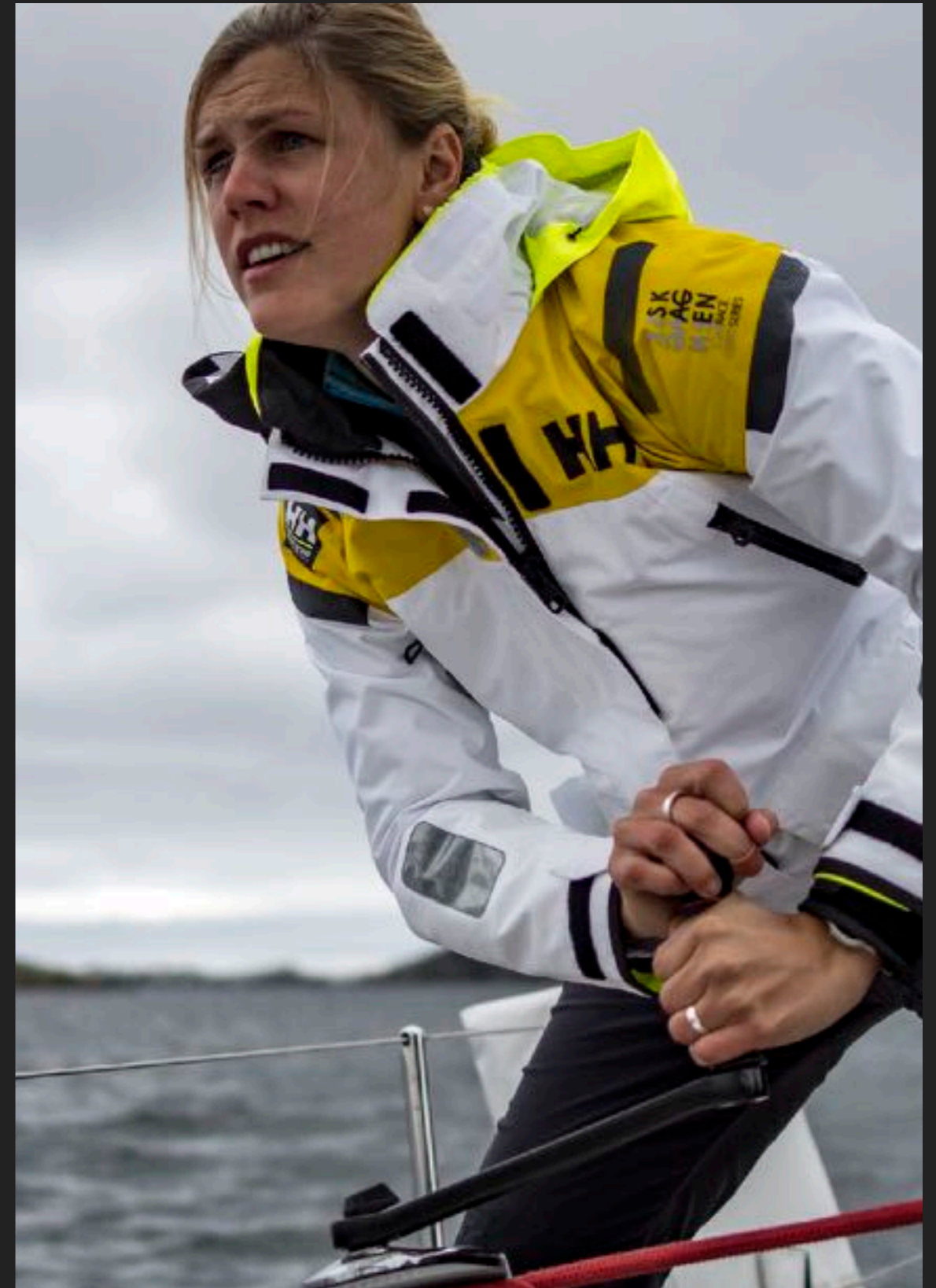
SESSION GOALS

- ▶ Rigging, from a sailors perspective...
- ▶ Fundamentals of preparation.
- ▶ Rigging Inspections.
- ▶ Offshore tricks & tips.
- ▶ Cautionary Tales!!!
- ▶ Emergency management.
- ▶ Distilling the important stuff.
- ▶ Inspire you to go offshore!



THE OCEAN SAILOR...

- ▶ Jack of all trades, master of none...
- ▶ Must understand the fundamentals of all onboard systems
- ▶ Your rig is arguably the **MOST** essential!
- ▶ There is lots of crossover. The well-found boat works as a system.
- ▶ Don't need to be an expert...but ultimately, **YOU'RE** responsible.



**“YOU DO NOT ASK A TAME SEAGULL
WHY IT NEEDS TO DISAPPEAR FROM
TIME TO TIME TOWARD THE OPEN SEA.
IT GOES, THAT’S ALL.”**

Bernard Moitessier // ‘The Long Way’



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RIG INSPECTION

TIMELINE

PRE-PURCHASE // REFIT // PRE-DEPARTURE // AT-SEA // POST-PASSAGE

PRE-PURCHASE // REFIT

- ▶ Rig Age?
- ▶ Chainplates!
- ▶ Furling Gear
- ▶ Standing rigging
- ▶ Running rigging
- ▶ Sail quality
- ▶ Mast heel
- ▶ Blocks, adjusters, etc.



CHECKLIST

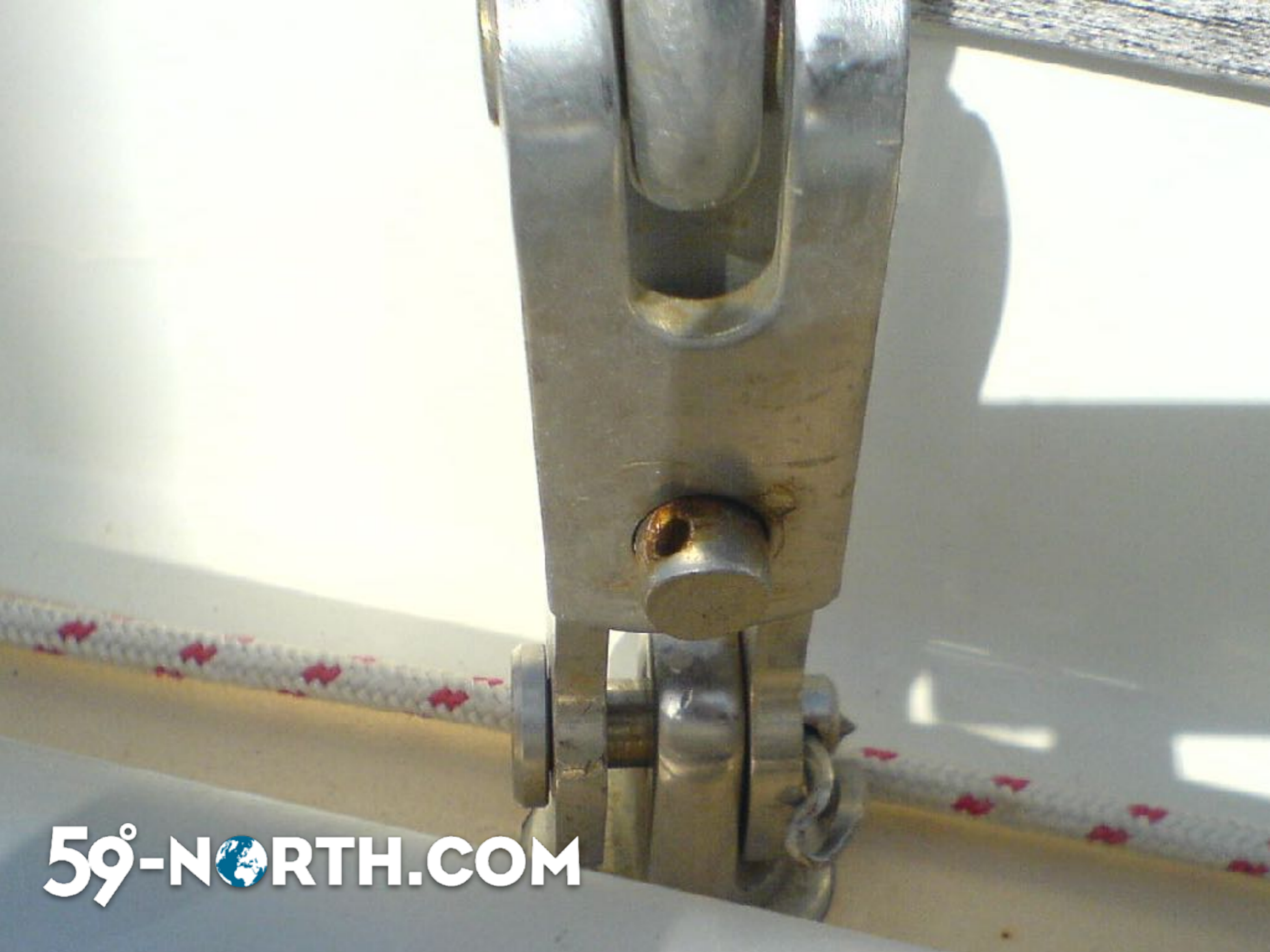
- ▶ What kind of rig?
- ▶ How old is it?
- ▶ How's it attached?
- ▶ What size? Metric or Standard?
- ▶ Specs.
- ▶ Brands/parts/spares?
- ▶ Furling type?
- ▶ Etc.



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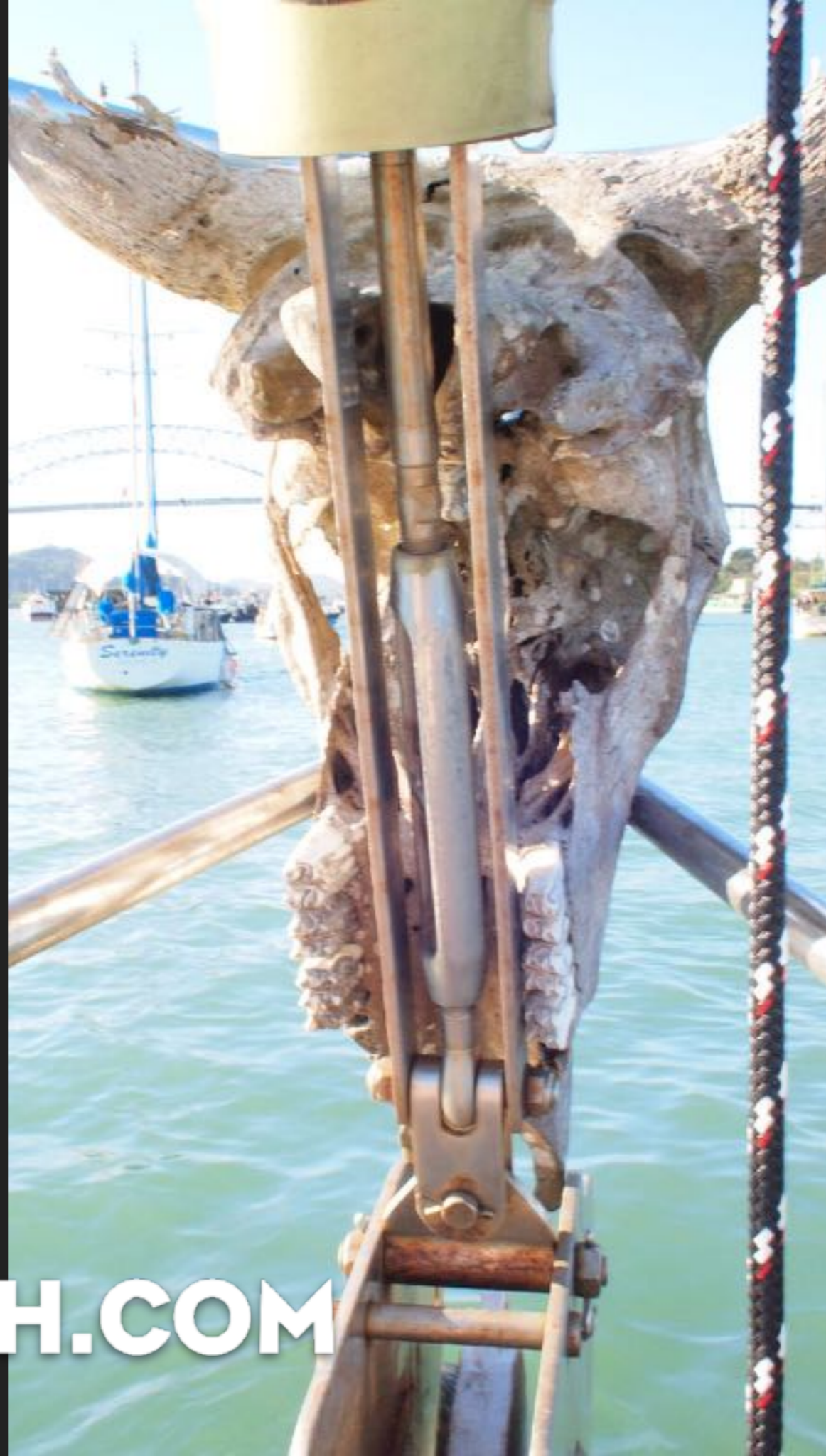


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PANAMA CANAL // 2011

CAUTIONARY TALE!!!



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A close-up photograph showing a weathered, rusted metal pole and a smooth, light-colored wooden post. The metal pole is on the right, showing significant rust and a vertical crack. The wooden post is on the left, appearing clean and straight. Both are set against a clear, bright blue sky. At the top, a dark metal bracket or cap is visible, securing the poles together.

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Port Annapolis Marina
Service Shop
Employees Only
From The Dock To The Boat & Back

OCEAN RESCUE
PRO

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SAGA 43 TRANS-ATLANTIC // 2013

CAUTIONARY TALE!!!



PARAGENO

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PRE-DEPARTURE

- ▶ Use checklists!
- ▶ Send someone aloft (who will be on the passage).
- ▶ Check for BLACK zip ties
- ▶ Rig for conditions
- ▶ Pre-rig storm sails
- ▶ Lube sail track/genoa track.



AT-SEA INSPECTION

- ▶ Walk the decks
- ▶ Go aloft when possible
- ▶ Pay attention!
- ▶ Check for & adjust chafe
- ▶ Furling gear...
- ▶ Where's Mia...?



A photograph of a sailboat's mast and rigging against a blue sky. The mast is the central vertical element, with various ropes and pulleys attached. A white sail is partially visible on the left, featuring the number '14571' and the letters 'VCAI' printed on it. The background shows a clear blue sky with a few wispy clouds. The overall scene is brightly lit, suggesting a sunny day at sea.

AT-SEA INSPECTION // 59 NORTH, LTD.

FURLING GEAR

CARIBBEAN 1500 // FALL 2009

CAUTIONARY TALE!!!



14571

A man with blonde hair and sunglasses is working on the rigging of a sailboat. He is wearing a light blue t-shirt and dark pants. The sailboat is white with a green stripe. The background is the blue ocean. The text 'ESP 5665' is visible on the side of the boat.

ESP
5665

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ALOFT AT-SEA



Kullbåtallians

SWE
59°

FASTCLIMBER



POST-PASSAGE

- ▶ Freshwater rinse
- ▶ Post-inspection
- ▶ Re-tune?
- ▶ Properly DRY & stow gear, blocks, etc.
- ▶ Avoid UV exposure
- ▶ Repairs needed?
- ▶ Routine maintenance
- ▶ (Have your champagne first!)







OFFSHORE YACHT RIGGING // 59 NORTH, LTD.

HEAVY WEATHER



Raymarine

SPEED

MAX KTS

34.1

Raymarine Series

speed

trip

timer

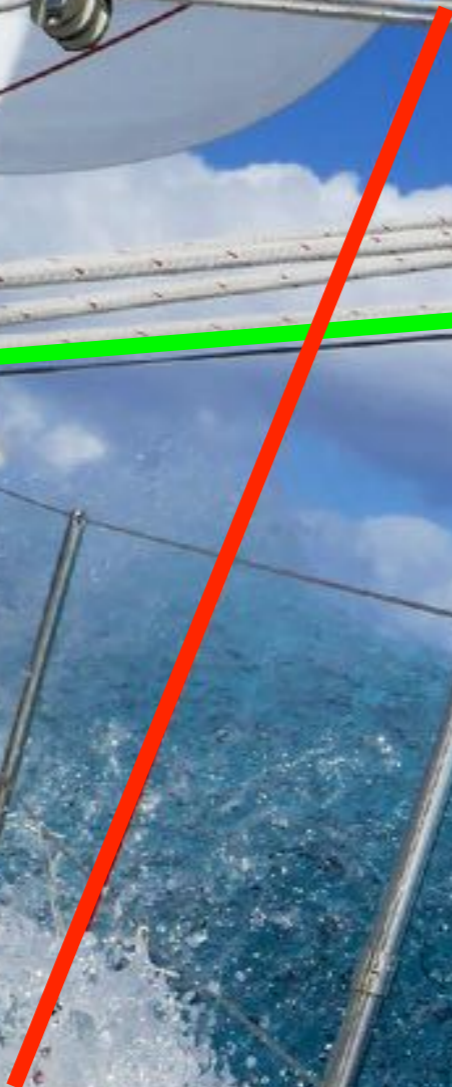
reset

Raymarine

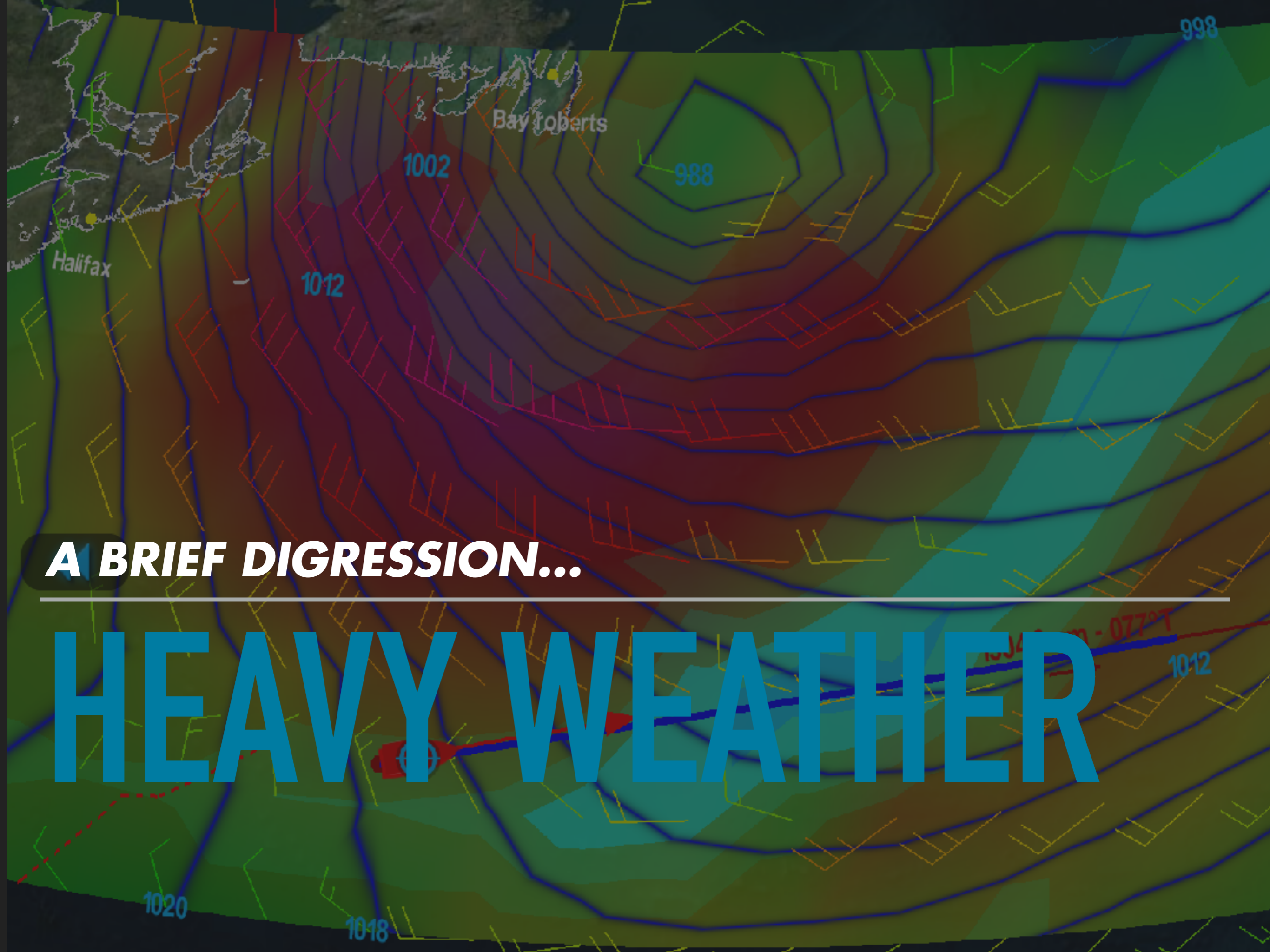
RPM



set

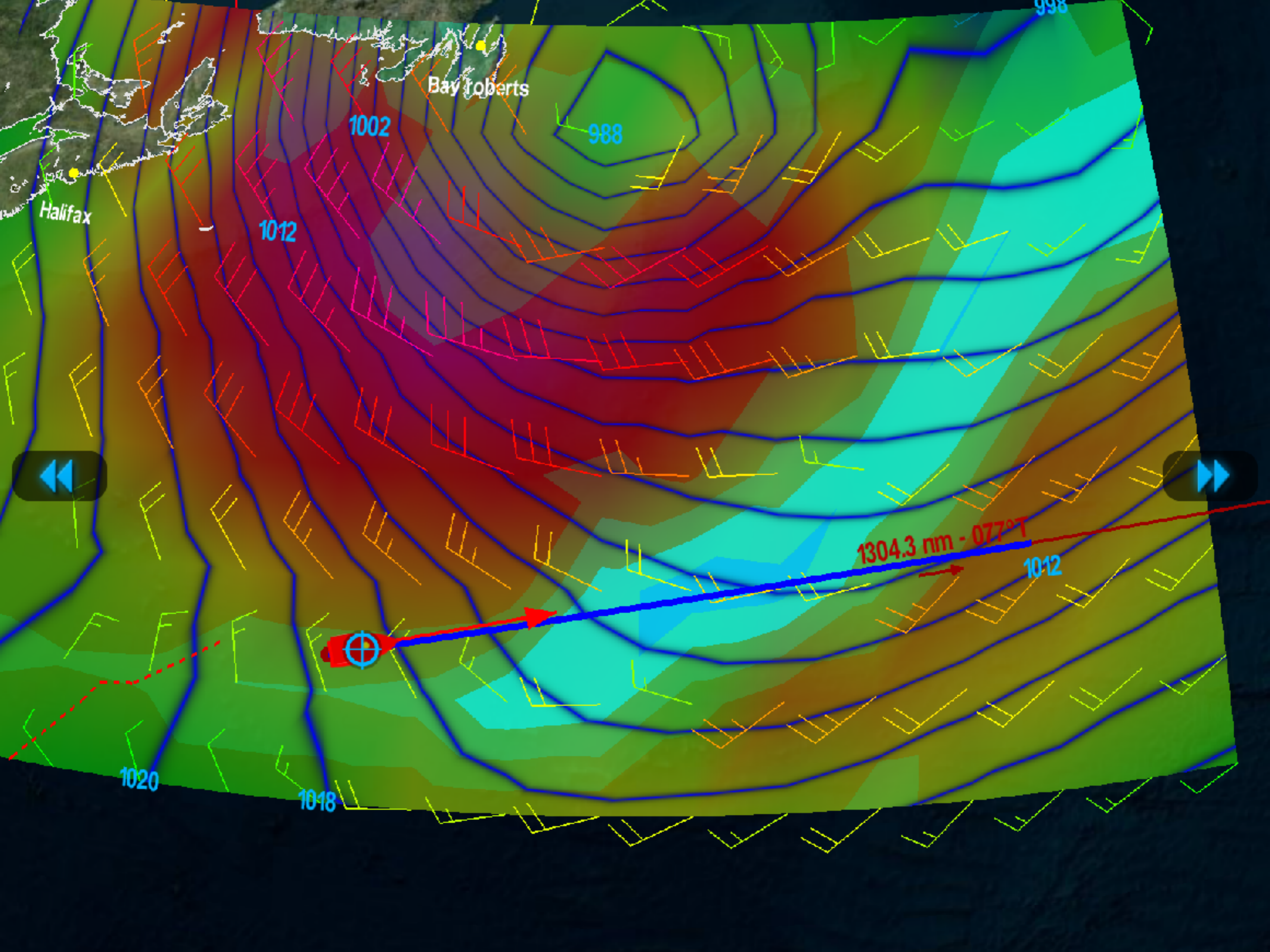


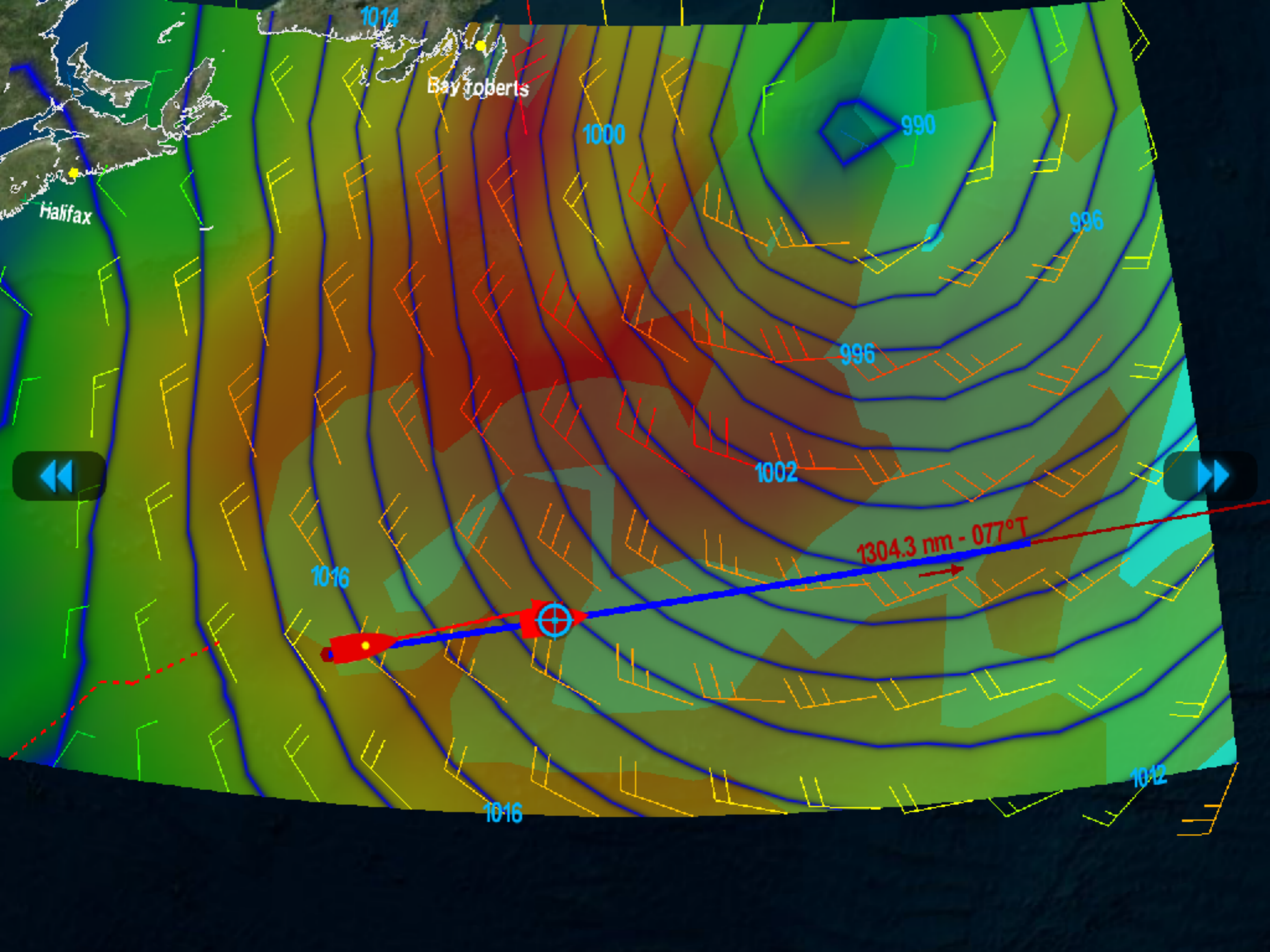




A BRIEF DIGRESSION...

HEAVY WEATHER





1014

Bay Roberts

1000

990

Halifax

996

996

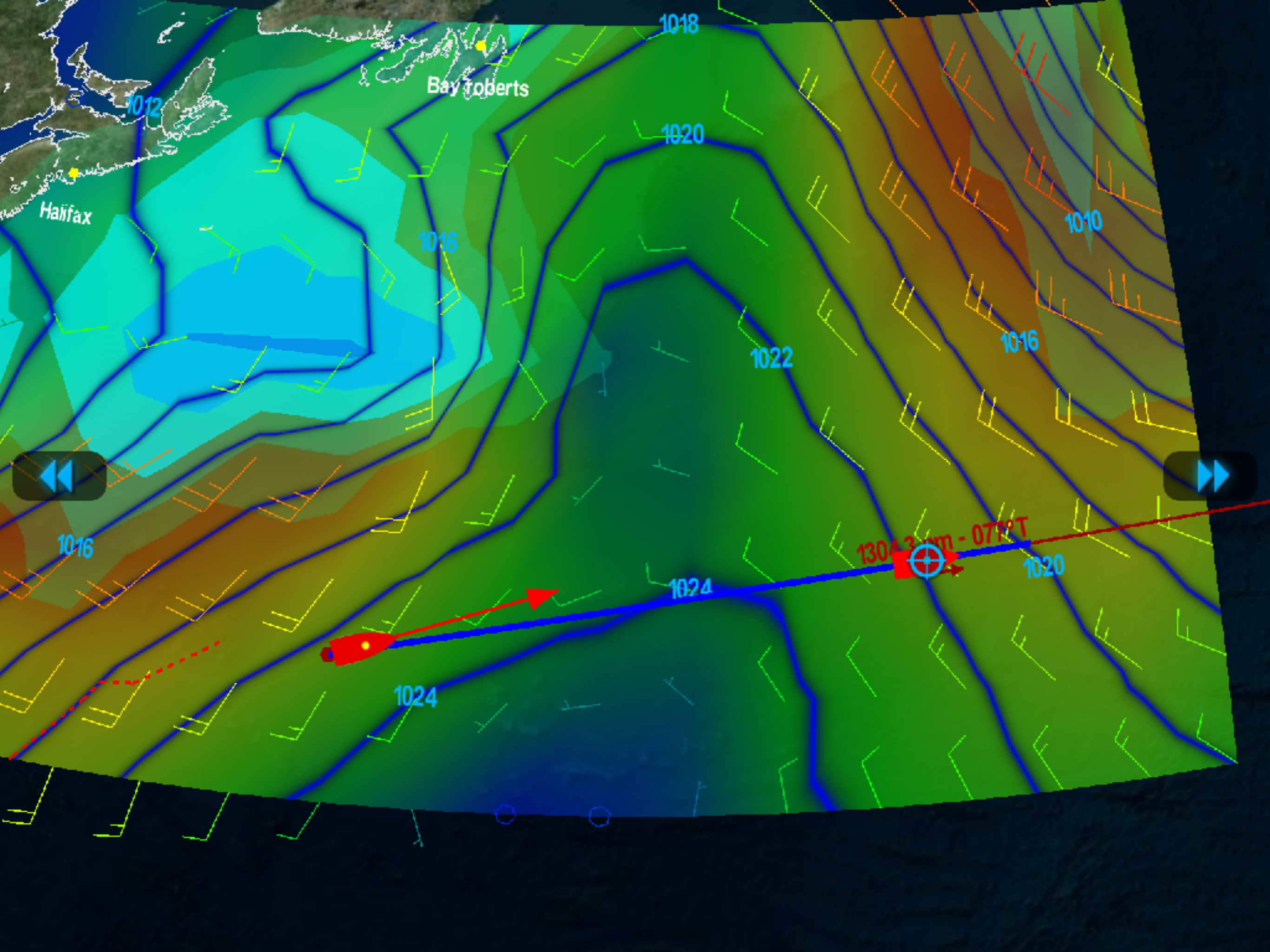
1002

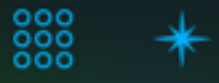
1016

1304.3 nm - 077°T

1016

1012





06:00 UTC
Mon, 05/29



gfs201705...04984 06Z

LAT N38°42'16"	LON W032°42'53"	SOG 9.2 kts	COG 98 °T	VAR -11.0 °
Wind 10.3 kts 252°	Pressure 1022 hPa	Precipitations 0.0 mm/h	CAPE 2 J/kg	



1024

1022

1024

1020

1010

1791.4 nm - 068°T

403.0 nm

Ponta delgada

TAKEAWAYS

- ▶ Chafe (or rather stopping it!) is a TOP priority
- ▶ Leads on sheets (hove to?), furling lines, preventers, etc.
- ▶ Not enough winches? Install clutches?
- ▶ Running - LOTS of lines in the cockpit. Color code them.
- ▶ Plan ahead! Weather strategies // how do you want the rig setup for the FUTURE weather?
- ▶ Need to think about this NOW.

An aerial, high-angle photograph of a sailboat's deck and mast. The boat is white, and the mast is a tall, white pole. The deck is covered with various pieces of equipment, including a yellow and black bag, a white cooler, and some ropes. The boat is moving through the ocean, creating a white wake. The water is a deep blue color. The text is overlaid on the image.

POLES & PREVENTERS // 59 NORTH, LTD.

LIGHT AIR & DOWNWIND













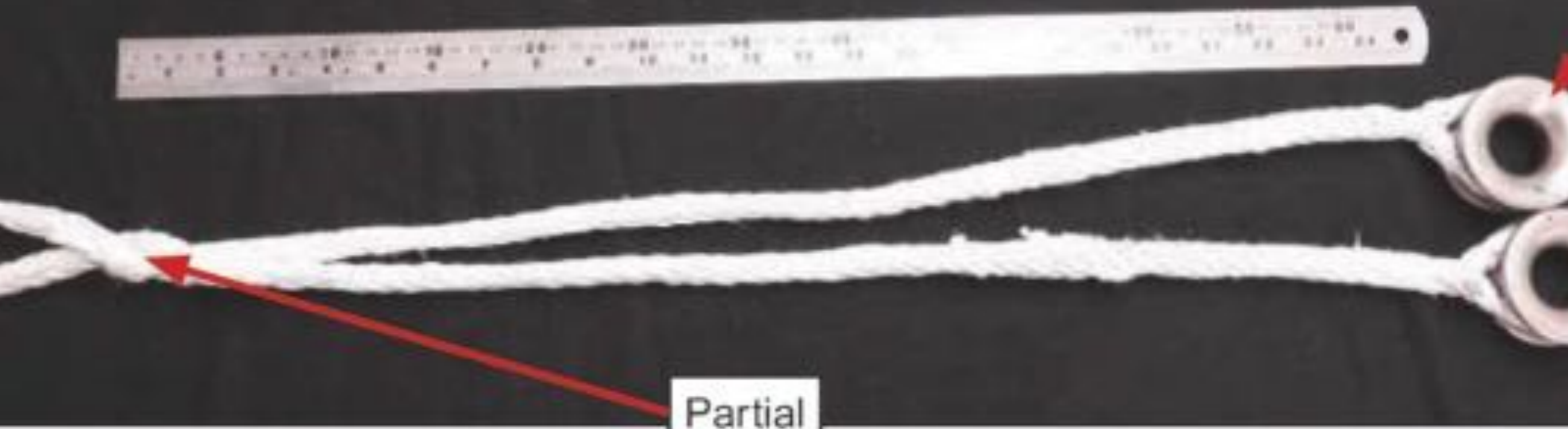


CLIPPER RACE // 2016

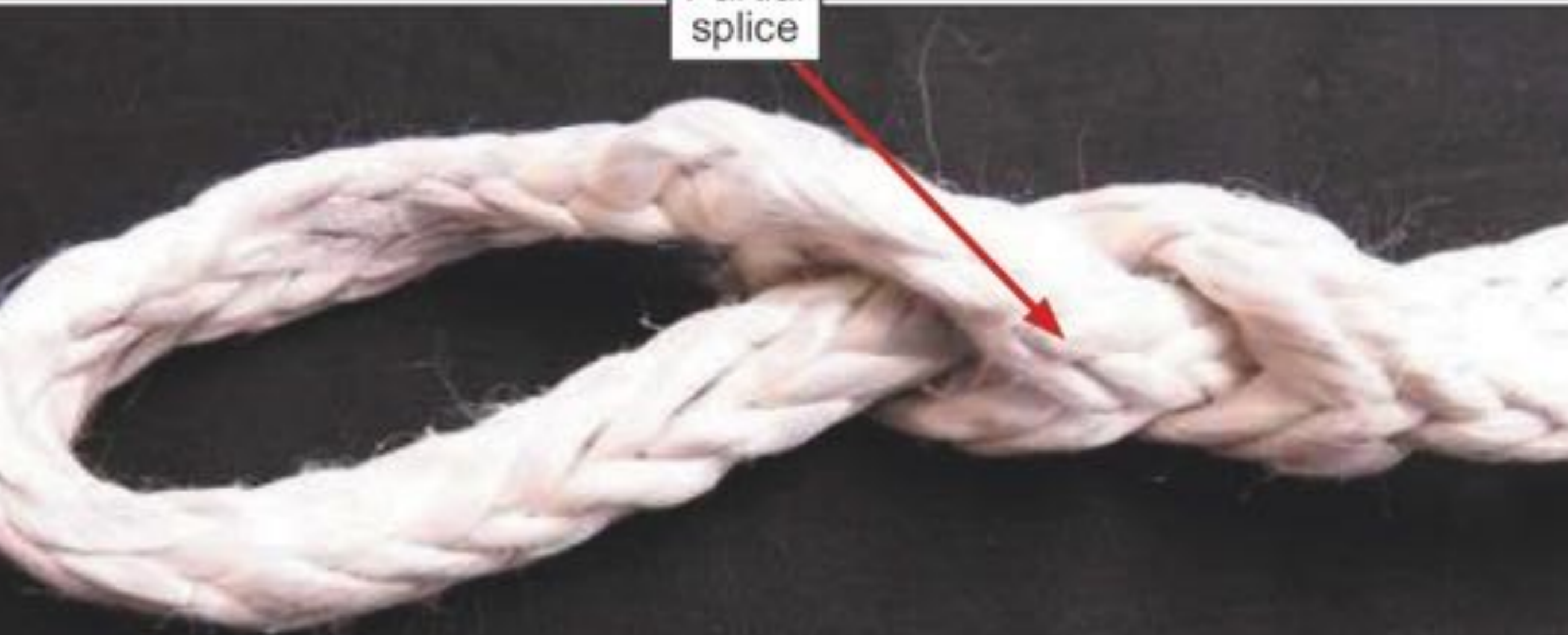
CAUTIONARY TALE!!!

CLIPPER RACE STANDARD OPERATING PROCEDURES:

- ▶ "- Main sail traveller - (death alley) never sit in line with the traveller, never walk around the leeward side of the traveller, never walk over the traveller and never hold the mainsheet between the traveller and the boom or sit between the traveller winches and aft 'coffee grinder' when running down wind
- ▶ - Boom preventer - This is to be used at the skipper's discretion and at all times that the yacht is sailing **DEEPER THAN A BEAM REACH**. Whenever sailing deeper than a beam reach, no crew shall sit in the area between the main sheet traveller winches and the aft 'coffee grinder'. In case of failure of the preventer, the skipper is advised to rig a second temporary preventer when the course they are on is likely to be steady for a considerable time'."



Partial
splice



**'FAILURE WAS CONSISTENT
WITH OVERLOAD FAILURE AT
THE STROP'S PARTIAL SPLICE.'**

MAIB ACCIDENT BOARD REPORT

CLIPPER RACE 2016 // MAIB CONCLUSIONS

- ▶ It is possible that Andrew was PRE-OCCUPIED considering the reefing evolution and the pre-reefing brief that he was about to give to his team, and so forgot about the danger zone.
- ▶ The danger zone was not marked on the deck and there were no visual hazard markings to remind the crew of the danger.
- ▶ Had Clipper been aware of the preventer strop's ACTUAL BREAKING LOAD and its relative weakness in the preventer arrangement, the strop could have been redesigned so as to ensure its load capacity was more consistent with its intended application.
- ▶ As the wind increased... it would have been wise for the helmsman to have been replaced with a MORE EXPERIENCED crew member.
- ▶ Andrew entered the cockpit danger zone without challenge from other crew members.
- ▶ Wider promulgation of the limitations of HMPE rope would be beneficial.

**GET CREATIVE
OFFSHORE!**





PART FOUR // 59 NORTH, LTD.

RIGGING EMERGENCIES



Photograph by Tim W
photoaction.c



14571





JURY-RIG // 59 NORTH, LTD.

THE MAGICK-BYRD


















TAKEAWAYS

- ▶ Prevention! If you've paid attention, you can avoid most.
- ▶ Creativity in the moment.
- ▶ An understanding of what you're getting into...
- ▶ Fitness - nobody talks about it! WHY NOT?
- ▶ Best practices - just because *everyone* is doing something, doesn't make it RIGHT. Consider the source...



JURY-RIG // 59 NORTH, LTD.

ONBOARD TOOLS

EMERGENCY KIT

- ▶ Grinder/hacksaw
- ▶ Bulldog clamps
- ▶ Mechanical fittings
- ▶ Dyneema & Dux
- ▶ Colligo Emergency Shroud Kit





OFFSHORE YACHT RIGGING // 59 NORTH, LTD.

DISTILLING IT ALL.....

ANDY'S OFFSHORE RIG PREFERENCES

- ▶ STANDING RIGGING: 1x19 // Swaged aloft, mechanical on deck, CONTINUOUS if possible
- ▶ Gotta have a second forestay // SOLENT best
- ▶ Double-line // horn-hook SLAB reefing
- ▶ 3 DEEP mainsail reefs (or skip the 1st...)
- ▶ SPINNAKER with ATN-style dousing sock
- ▶ Dyneema/Dux & low-friction rings // blocks
- ▶ PRE-RIGGED preventers, both sides
- ▶ Rope clutch on genoa furling line

- ▶ *DO*: Hire expert help & LEARN from them
- ▶ *DO*: Prepare EARLY
- ▶ *DO*: Put the BOAT FIRST
- ▶ *DO*: Understand *PAN PAN*
- ▶ *DO*: Pay attention offshore...small stuff can have BIG consequences
- ▶ *DO*: Practice going aloft...OFTEN & OFFSHORE
- ▶ *DON'T*: Assume it's fine because it was last time...
- ▶ *DON'T*: Put off routine maintenance
- ▶ *DON'T*: Over-complicate the rig to make it 'easier'



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T.E. Lawrence



THANKS!

HOW TO FIND US...

- ▶ 59-north.com
- ▶ Instagram: @59northsailing
- ▶ facebook.com/59north

