

Quoddy Pilots USA
99 Toll Bridge Road
Eastport, Maine 04631
U.S.A.

April 28 2025

Ref: LD 1477

Dear Senator Nangle, Representative Crafts, and Members of the Joint Standing Committee on Transportation:

My name is Captain Bob Peacock of Eastport, Maine. I am testifying against LD 1477.

I have been a ship pilot in the United States for 54 years (Great Lakes, Delaware, Texas, Puerto Rico) and in Maine for 49 years in Penobscot Bay and River, Bar Harbor, and Eastport/Head Harbor Passage Downeast.

I was extremely fortunate to sail as Master (Captain) of seven tankers in my long shipping career. I sailed as Master starting at the age of 27 and was Master of the UST ATLANTIC, the largest vessel ever built in the USA and in the Western Hemisphere to this day, when I was 30 years old.

I can assure you, that as a young Master I learned very quickly, the **greatest safety asset** to any ship entering or leaving any port, anywhere in the world, is the local pilot with the current local knowledge for the port being navigated: Africa, the Persian Gulf, Asia, South America, Alaska, or **Maine**.

The pilots in Maine work very hard to give **every** ship entering our Maine ports **all** the information (and our expertise) to have the safest and most expeditious transit possible. On April 18th and April 21st, I piloted the STAR HARMONIA, a 650-foot freighter, into Eastport from Sea.

Attached you will find the *Pilot and Port Information* sent to the STAR HARMONIA earlier this month (by e-mail) to give the ship's Master, Officers, and Crew all the information necessary to make a safe entrance into Eastport.

The question for this Committee is: **Do you want the State of Maine exposed to ships entering Maine ports WITHOUT the local knowledge necessary for a successful (and **SAFE**) passage?**

You, as legislators, can send a very clear message: **Maine will not let itself be exposed to navigational failure due to lack of local knowledge.**

Please, take the time to review the attached ship pilot information sent to every ship I pilot into Eastport. **What kind of standard do you, as legislators, want to set for ships coming to Maine with millions of tons of cargo, including petroleum cargo, and hundreds of thousands of passengers?** Very respectfully,

Bob Peacock

CAPT Robert J. Peacock
99 Toll Bridge Road, Eastport, Maine 04631
207-263-6403 qpilot25@gmail.com

MV STAR HARMONIA

Captain James A. Rosaroso, Master

April 18 – 21, 2025



Ship # 1403

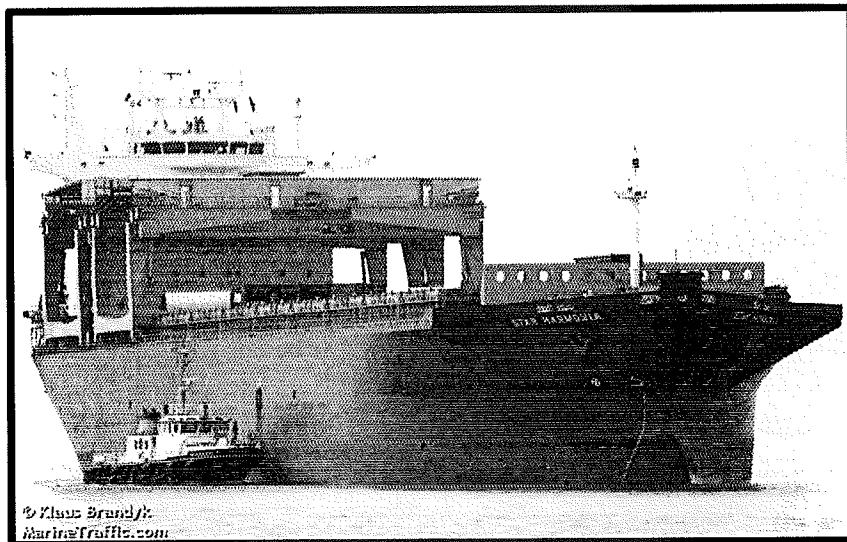


Port of Eastport, Maine

Pilot & Port Information

Prepared for:

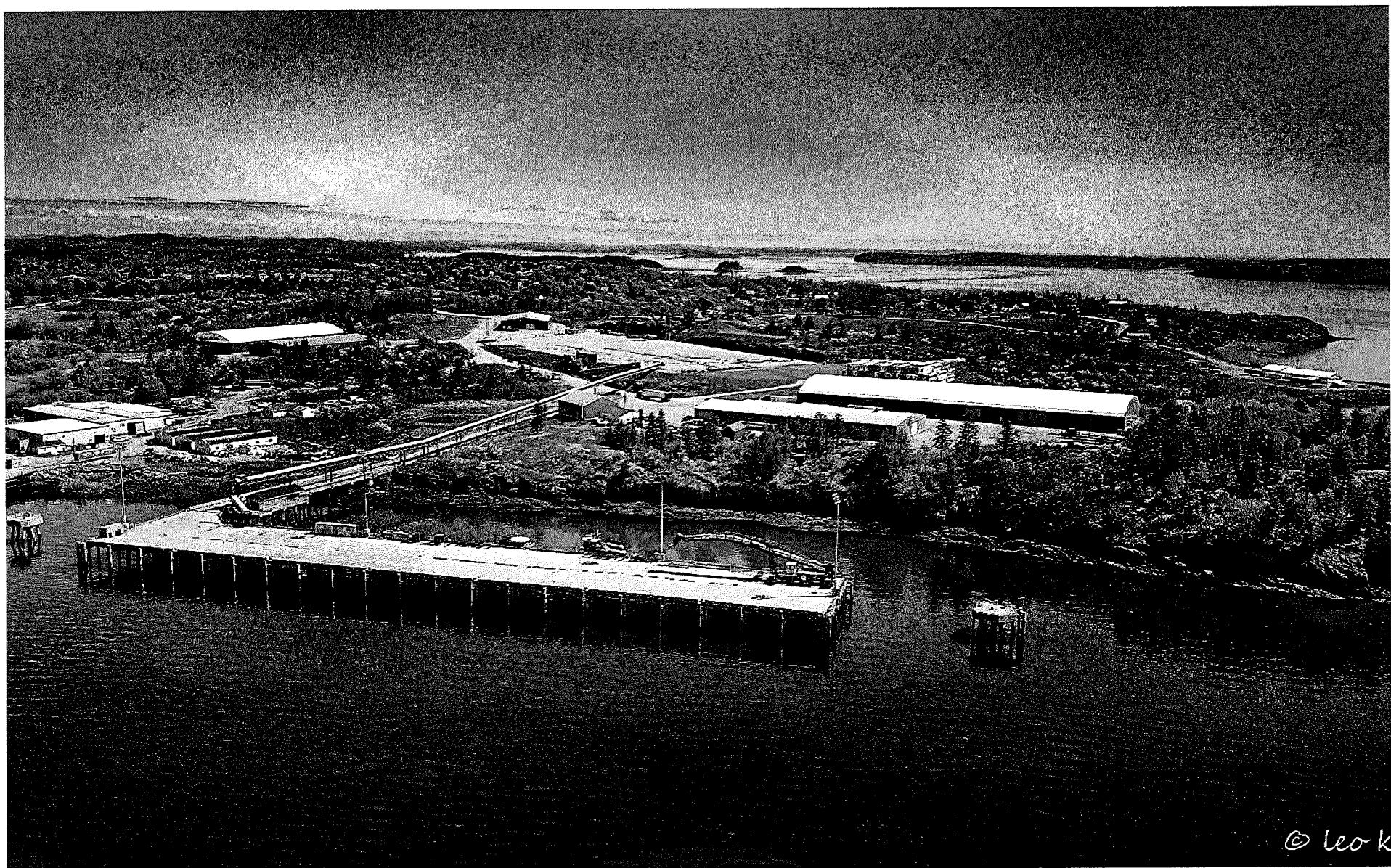
**Maine Legislature Joint Standing
Committee on Transportation**



Captain Robert J. Peacock, Quoddy Pilots, USA

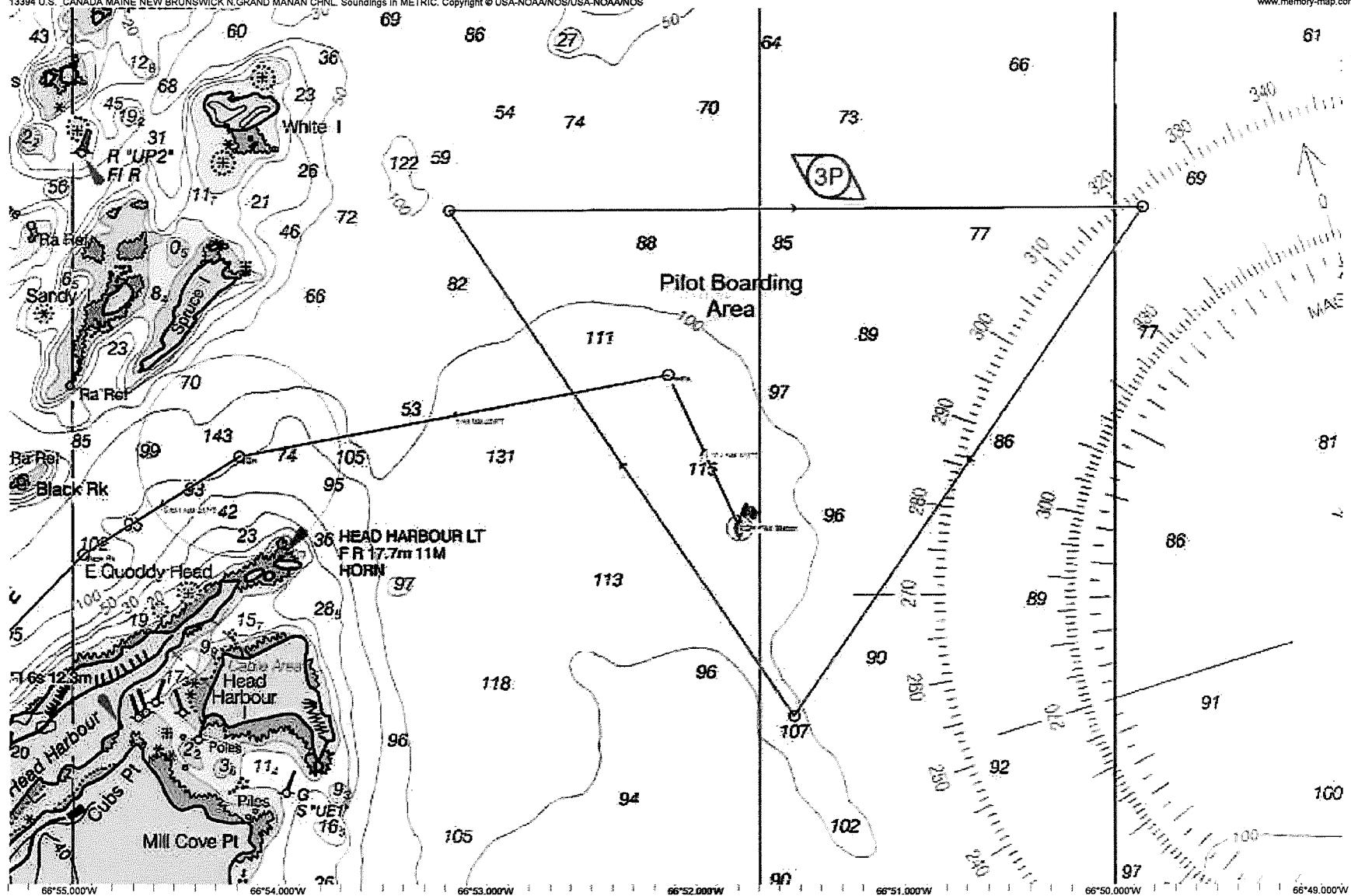


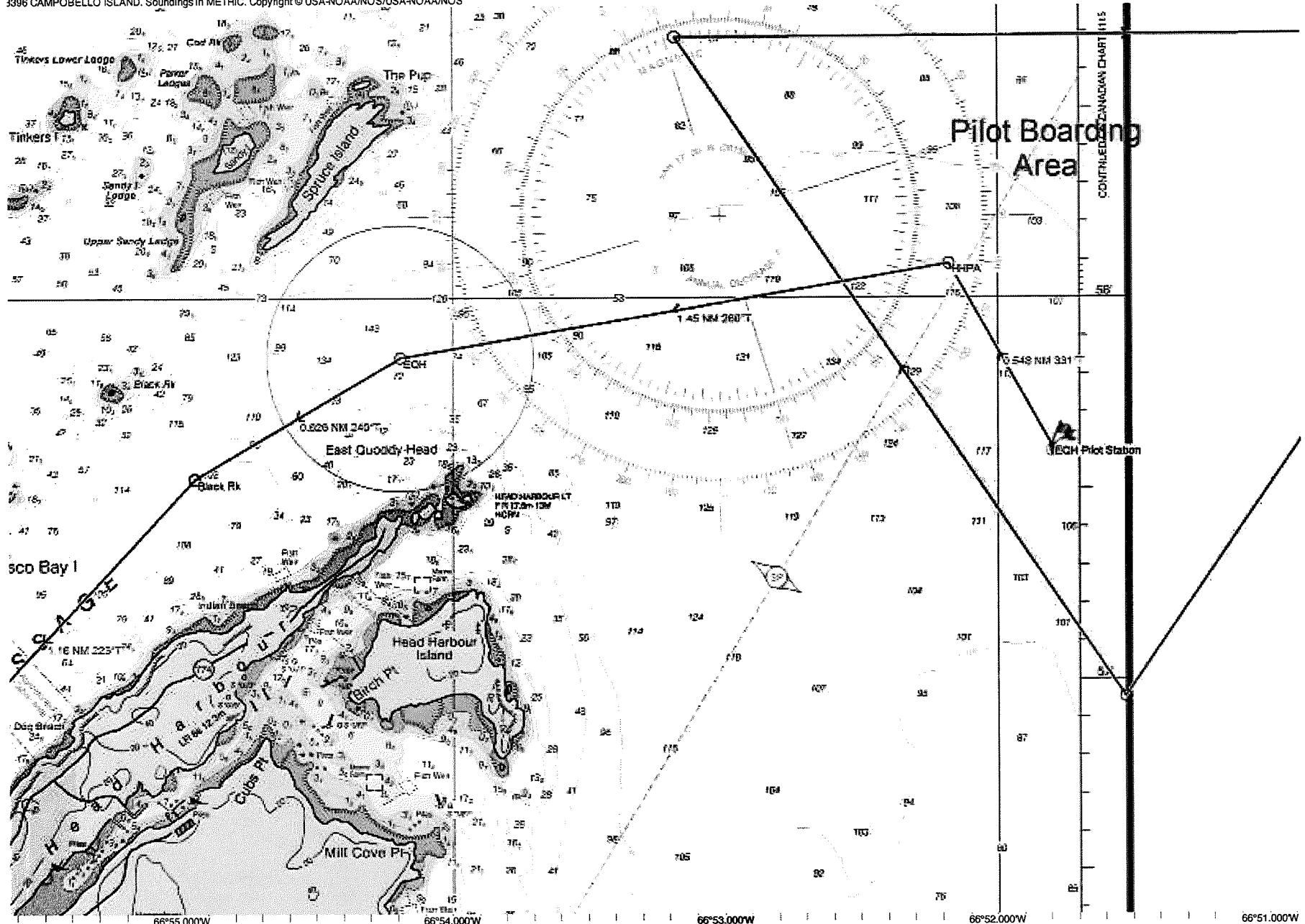
marinetraffic
© mickey rouse



© leo k

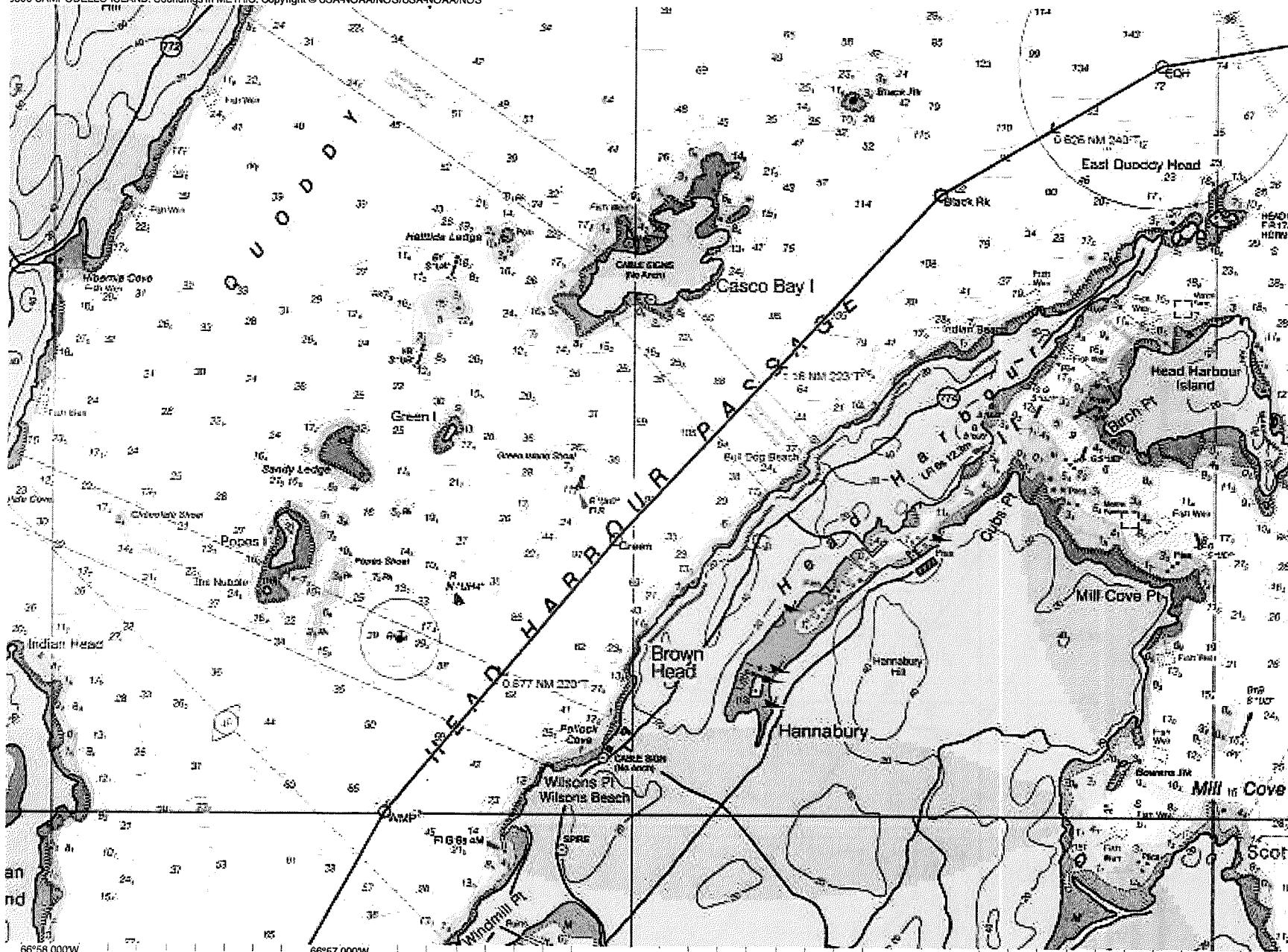






MV STAR HARMONIA
Proposed Eastport Inbound Route

Quoddy Pilots USA
CAPT Robert J. Peacock

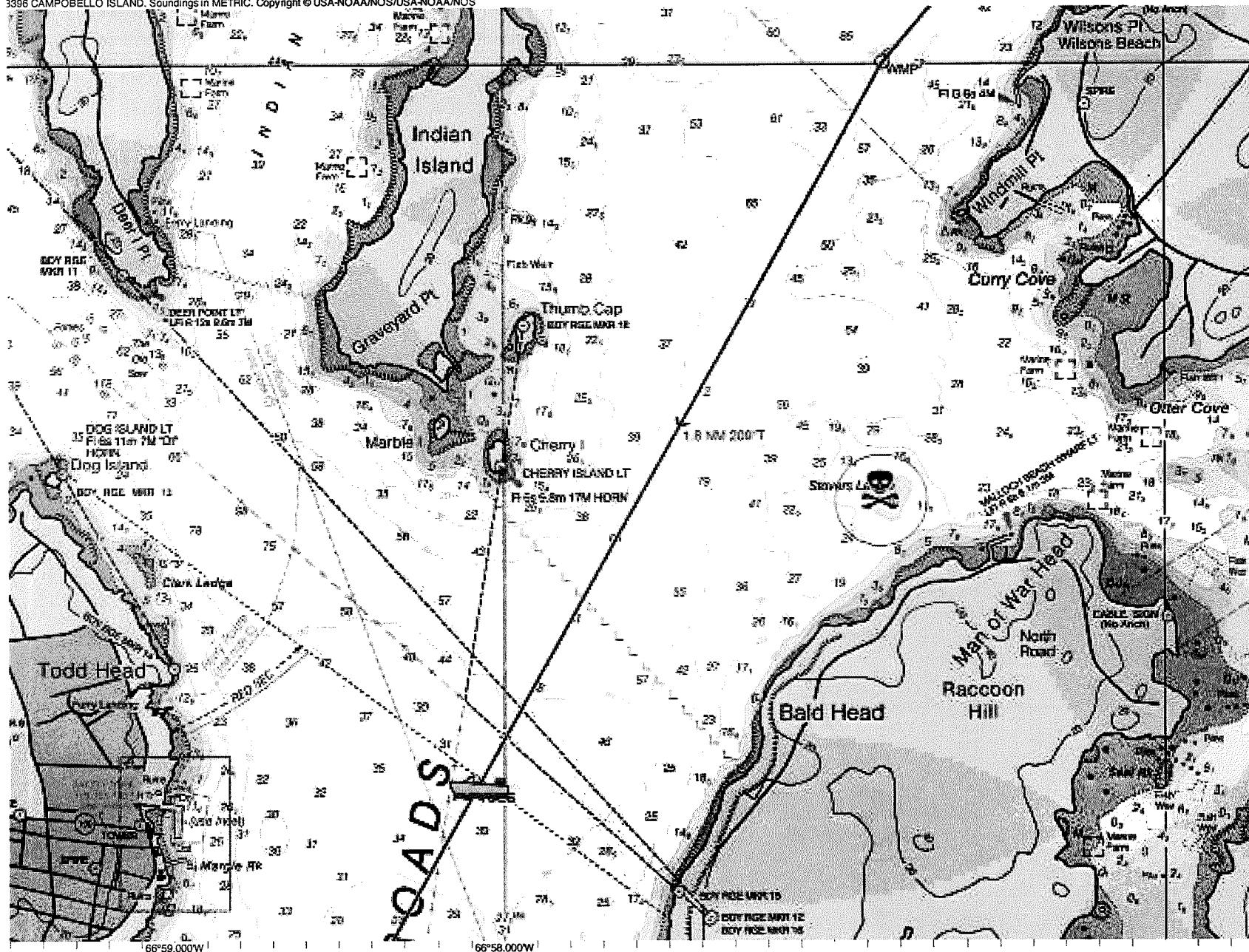


MV STAR HARMONIA
Proposed Eastport Inbound Route

19 April 2025

Sheet 2

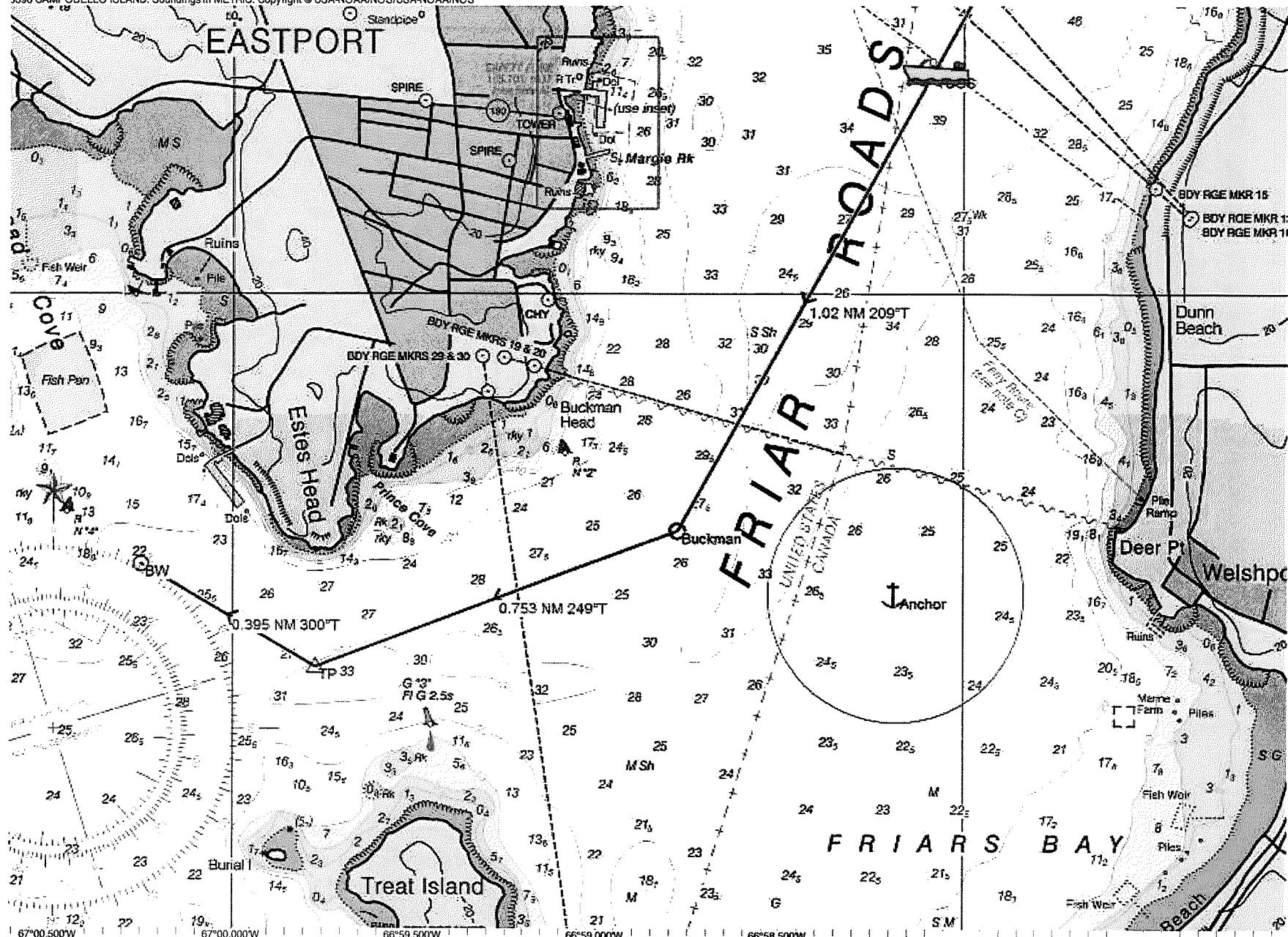
Quoddy Pilots USA
CAPT Robert J. Peacock



MV STAR HARMONIA
Proposed Eastport Inbound Route

19 April 2025
Sheet 3 of 5

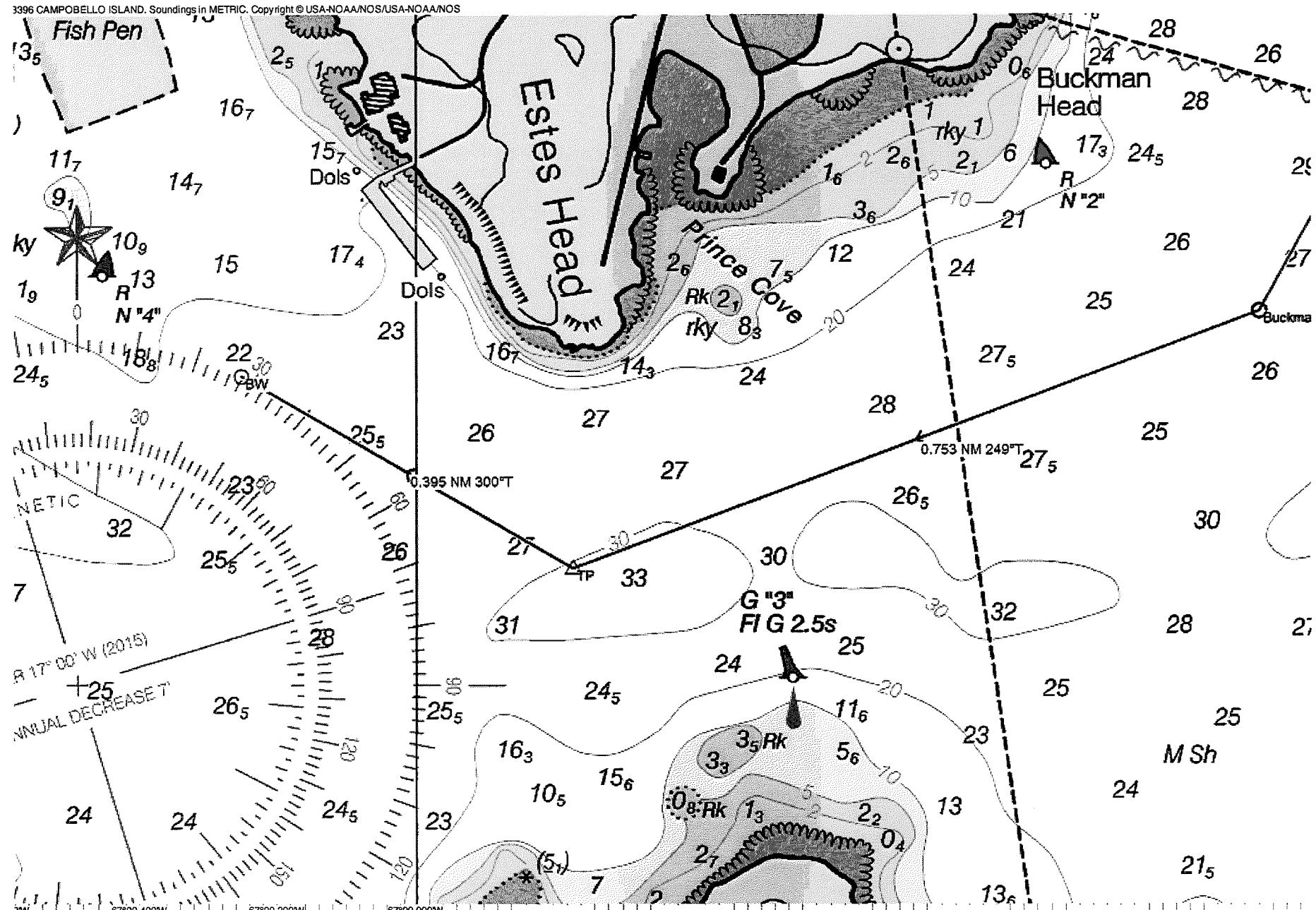
Quoddy Pilots USA
CAPT Robert J. Peacock



MV STAR HARMONIA Proposed Eastport Inbound Route

19 April 2025
Sheet 4 of 5

**Quoddy Pilots USA
CAPT Robert J. Peacock**



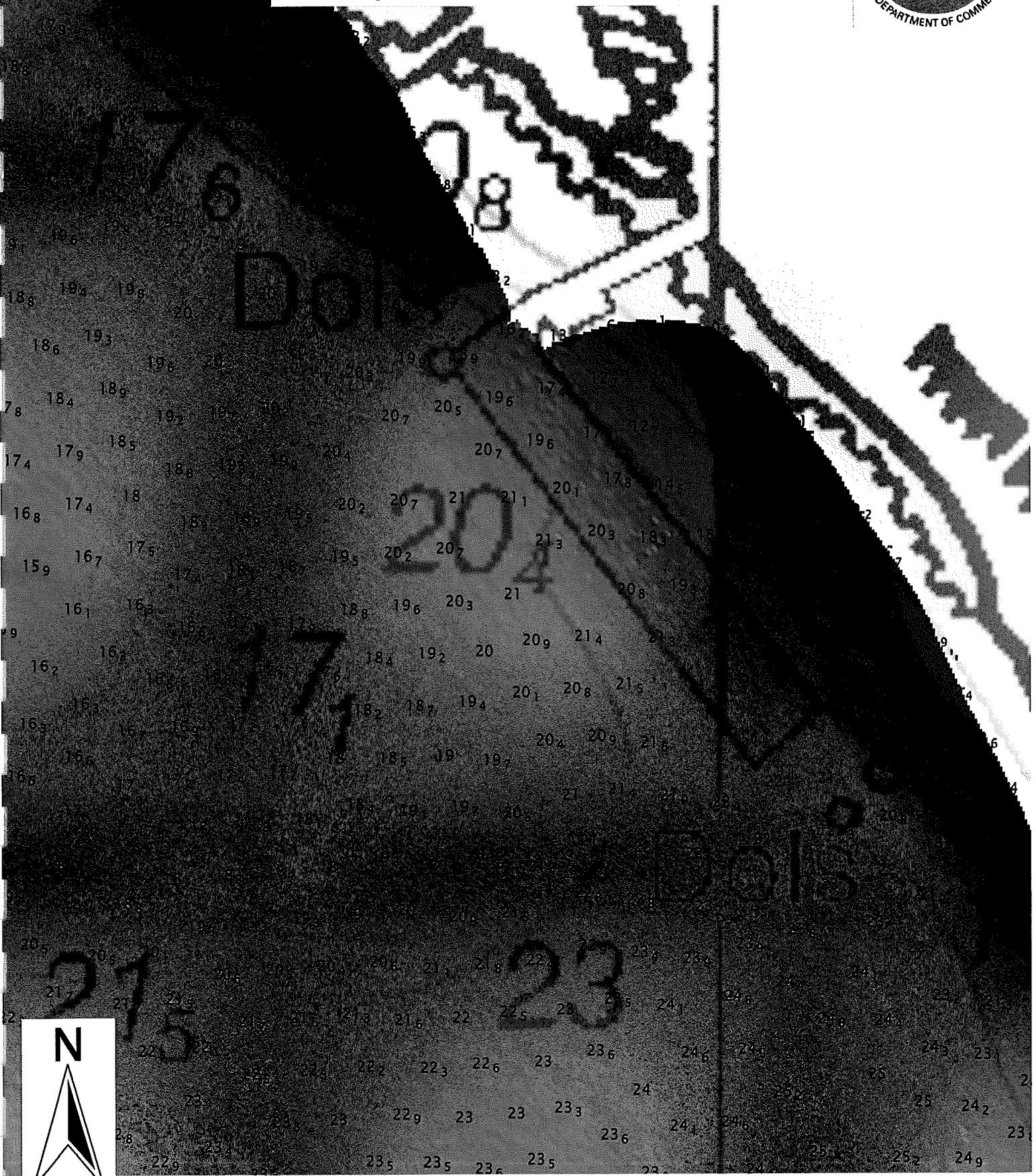
MV STAR HARMONIA Proposed Eastport Inbound Route

19 April 2025

Sheet 5 of 5

**Quoddy Pilots USA
CAPT Robert J. Peacock**

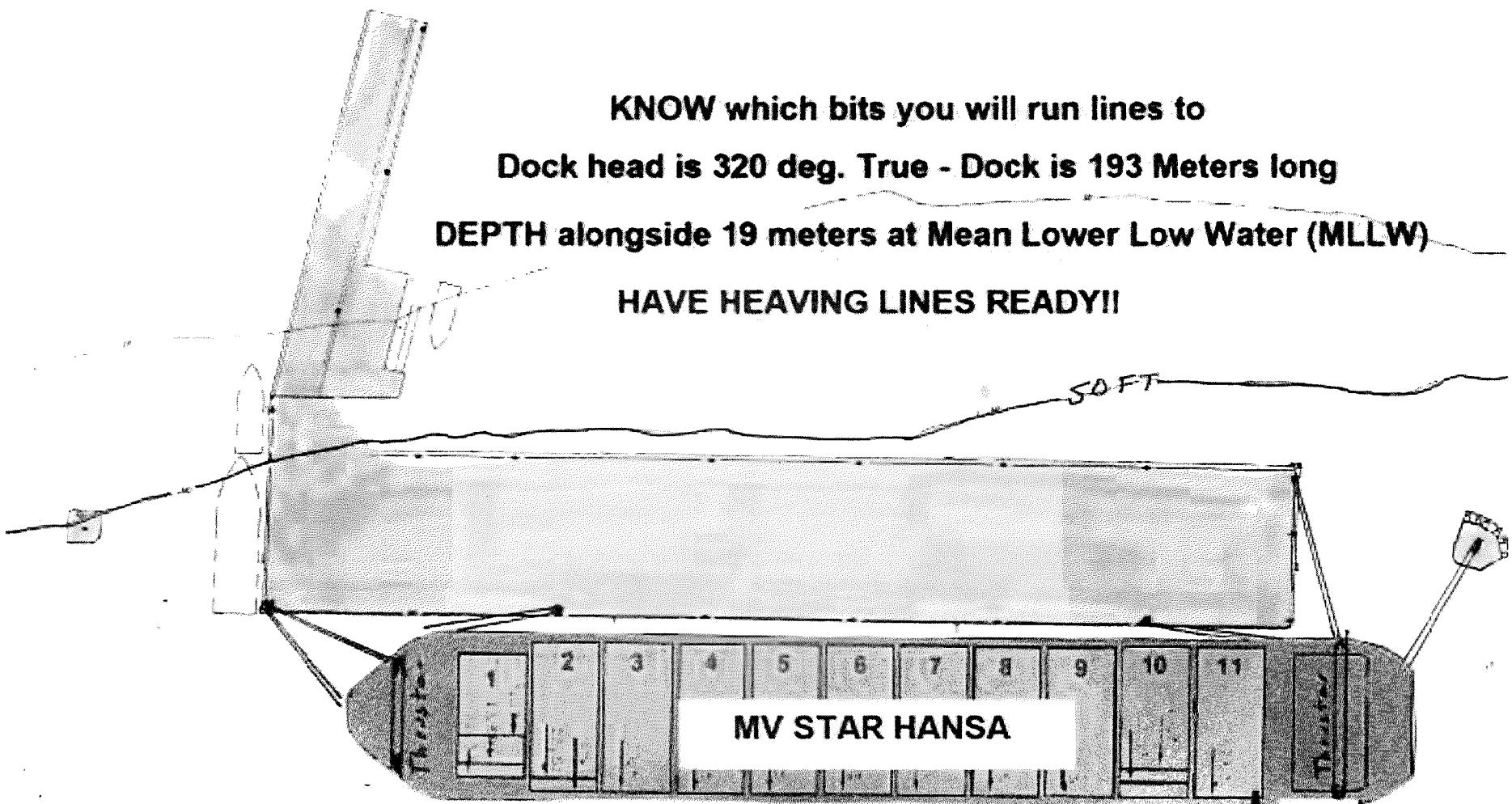
This data is not for use for navigation.
Only predicted tide data has been applied.
Soundings are in meters at mean lower low water.



**KNOW which bits you will run lines to
Dock head is 320 deg. True - Dock is 193 Meters long**

DEPTH alongside 19 meters at Mean Lower Low Water (MLLW)

HAVE HEAVING LINES READY!!



Quoddy Pilots USA

Apr-25

RJP

Checked for accuracy

Form Revised 7/25/12

Date	Local Time	Height FT MLLW		Height M	Slack	Alongside	Linesmen	Tug Time	TARGET Boarding	Pilot Boarding Windows	Undocking Windows
				MLLW	Estes	EH	Time				
04/18/25	Fri	02:52	17.7	H	5.4	3:38	02:52	02:22	01:47	01:02	00:32 01:32
04/18/25	Fri	09:19	1.6	L	0.5	10:04	09:04	08:34	07:39	06:54	06:24 07:24
04/18/25	Fri	15:22	16.4	H	5.0	16:05	15:22	14:52	14:17	13:32	13:02 14:02
04/18/25	Fri	21:35	3.1	L	0.9	22:17	21:20	20:50	19:55	19:10	18:40 19:40
04/19/25	Sat	03:37	17.4	H	5.3	4:25	03:37	03:07	02:32	01:47	01:17 02:17
04/19/25	Sat	10:06	1.9	L	0.6	10:51	09:51	09:21	08:26	07:41	07:11 08:11
04/19/25	Sat	16:10	16.1	H	4.9	16:54	16:10	15:40	15:05	14:20	13:50 14:50
04/19/25	Sat	22:24	3.4	L	1.0	23:07	22:09	21:39	20:44	19:59	19:29 20:29
04/20/25	Sun	04:28	17.1	H	5.2	5:15	04:28	03:58	03:23	02:38	02:08 03:08
04/20/25	Sun	10:58	2.2	L	0.7	11:43	10:43	10:13	09:18	08:33	08:03 09:03
04/20/25	Sun	17:03	16.0	H	4.9	17:47	17:03	16:33	15:58	15:13	14:43 15:43
04/20/25	Sun	23:18	3.4	L	1.0	0:02	23:03	22:33	21:38	20:53	20:23 21:23
04/21/25	Mon	05:24	17.0	H	5.2	6:10	05:24	04:54	04:19	03:34	03:04 04:04
04/21/25	Mon	11:54	2.1	L	0.6	12:38	11:39	11:09	10:14	09:29	08:59 09:59
04/21/25	Mon	18:01	16.2	H	4.9	18:44	18:01	17:31	16:56	16:11	15:41 16:41
04/22/25	Tue	00:18	3.1	L	0.9	1:00	00:03	23:33	22:38	21:53	21:23 22:23
04/22/25	Tue	06:24	17.3	H	5.3	7:07	06:24	05:54	05:19	04:34	04:04 05:04
04/22/25	Tue	12:53	1.8	L	0.5	13:35	12:38	12:08	11:13	10:28	09:58 10:58
04/22/25	Tue	19:00	16.8	H	5.1	19:42	19:00	18:30	17:55	17:10	16:40 17:40

FSO Jackson Larabee Logitec

207-904-9850

207-853-6096

Manager Tom Critchly Logitec

207-214-7162

207-853-6096

USCG Eastport

207-853-2845

Maine Pilotage Commission

207-242-8992

207-624-3565

USCG MSO Belfast

207-338-2019

Fundy Traffic

902-426-9754

VHF 14

Chris Gardner EPA Cell

207-598-8704

Quoddy Pilots - Bob Peacock

207-853-6122

207-263-6403

Eastport Port Authority

207-853-4614

Tug CELL

207-557-6179

Tides:EASTPORT

Harmonic station (NOAA)
44° 54' 12" N 66° 59' 06" W

Average Tides
Mean Range: 18.4 ft
MHWS 21.2 ft
Mean Tide: 9.6 ft

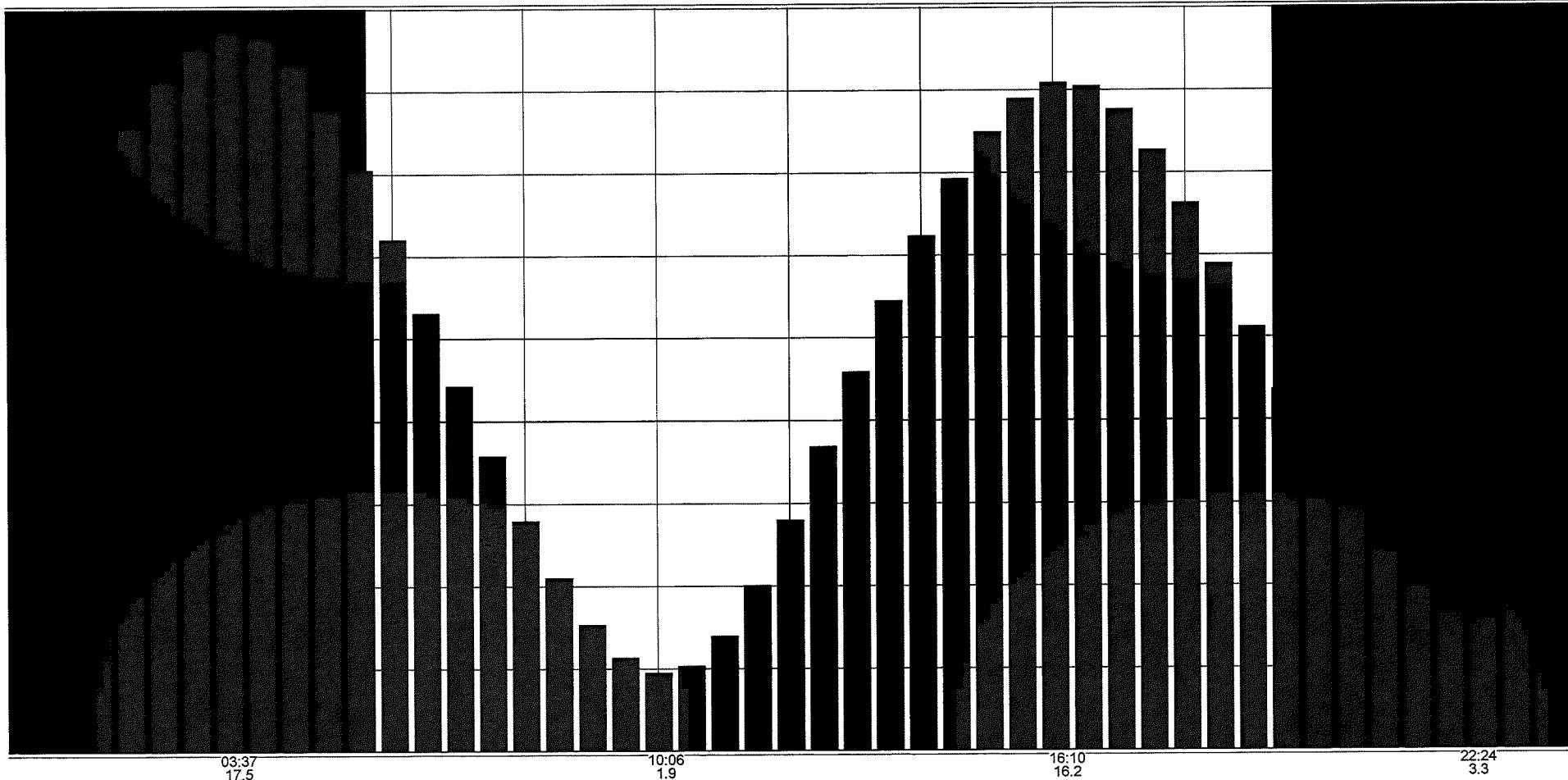
Daily Highs & Lows
03:37 17.5 ft High
10:06 1.9 ft Low
16:10 16.2 ft High
22:24 3.3 ft Low

Saturday, April 19, 2025

Moonrise:01:24
Moonset:09:22

SR:05:36

SS:19:19



00:30 10.4 ft
01:00 12.2 ft
01:30 13.8 ft
02:00 15.2 ft
02:30 16.3 ft
03:00 17.1 ft
03:30 17.5 ft
04:00 17.3 ft
04:30 16.7 ft
05:00 15.6 ft
05:30 14.1 ft
06:00 12.4 ft
06:30 10.6 ft
07:00 8.8 ft
07:30 7.1 ft
08:00 5.6 ft
08:30 4.2 ft
09:00 3.1 ft
09:30 2.3 ft
10:00 1.9 ft
10:30 2.1 ft
11:00 2.8 ft
11:30 4.0 ft
12:00 5.6 ft
12:30 7.4 ft
13:00 9.2 ft
13:30 10.9 ft
14:00 12.5 ft
14:30 13.9 ft
15:00 15.0 ft
15:30 15.8 ft
16:00 16.2 ft
16:30 16.1 ft
17:00 15.5 ft
17:30 14.6 ft
18:00 13.3 ft
18:30 11.8 ft
19:00 10.2 ft
19:30 8.7 ft
20:00 7.3 ft
20:30 6.0 ft
21:00 4.9 ft
21:30 4.0 ft
22:00 3.4 ft
22:30 3.3 ft
23:00 3.6 ft
23:30 4.5 ft

Tides:EASTPORT

Harmonic station (NOAA)
44° 54' 12" N 66° 59' 06" W

Average Tides
Mean Range: 18.4 ft
MHWS 21.2 ft
Mean Tide: 9.6 ft

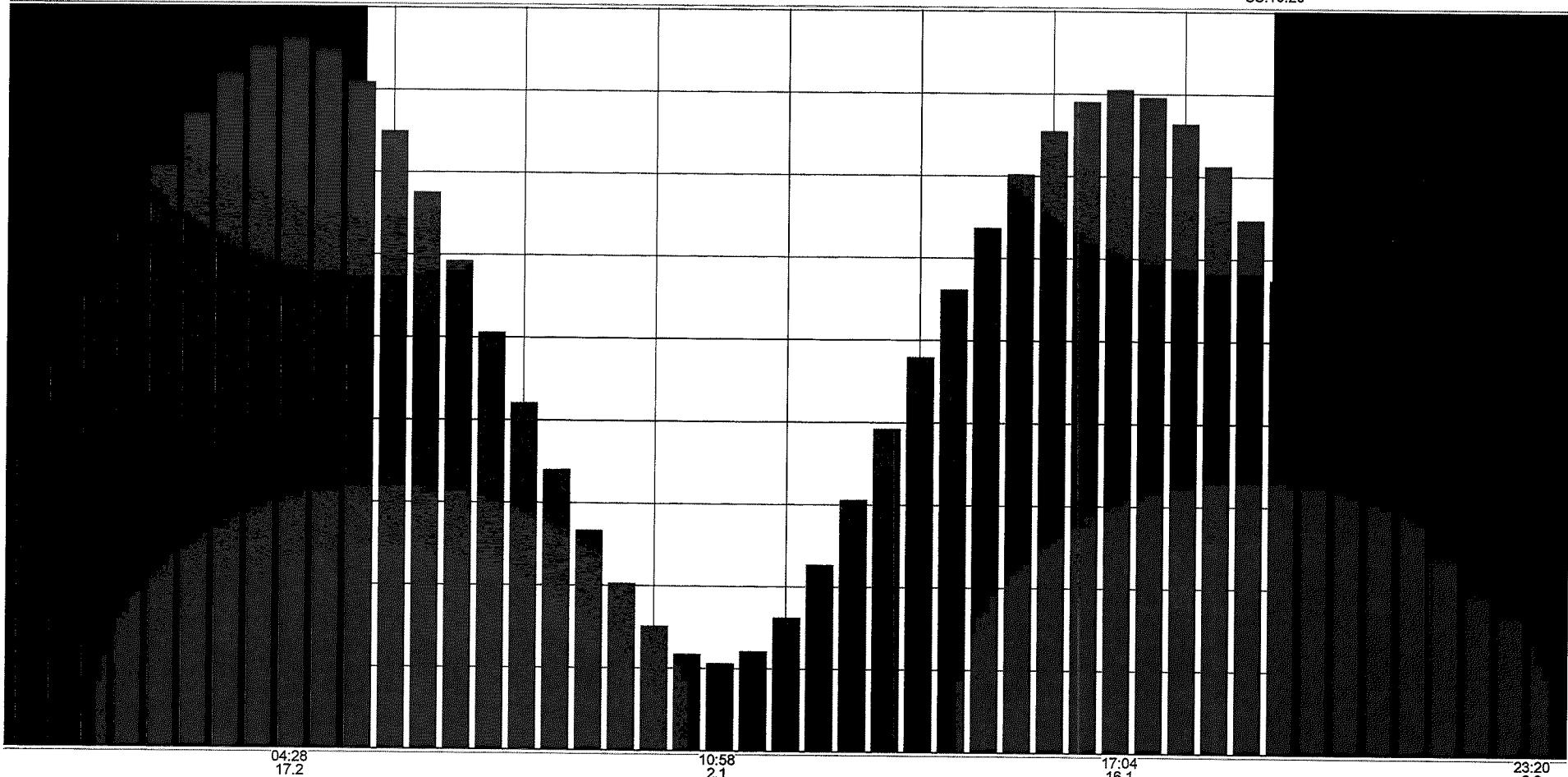
Daily Highs & Lows
04:28 17.2 ft High
10:58 2.1 ft Low
17:04 16.1 ft High
23:20 3.3 ft Low

Sunday, April 20, 2025

Moonrise:02:07
Moonset:10:30

SR:05:34

SS:19:20



00:30	7.5 ft
01:00	9.2 ft
01:30	11.0 ft
02:00	12.6 ft
02:30	14.1 ft
03:00	15.4 ft
03:30	16.4 ft
04:00	17.0 ft
04:30	17.2 ft
05:00	17.0 ft
05:30	16.2 ft
06:00	15.0 ft
06:30	13.5 ft
07:00	11.8 ft
07:30	10.1 ft
08:00	8.4 ft
08:30	6.8 ft
09:00	5.3 ft
09:30	4.1 ft
10:00	3.0 ft
10:30	2.4 ft
11:00	2.1 ft
11:30	2.4 ft
12:00	3.3 ft
12:30	4.5 ft
13:00	6.1 ft
13:30	7.9 ft
14:00	9.6 ft
14:30	11.2 ft
15:00	12.7 ft
15:30	14.0 ft
16:00	15.1 ft
16:30	15.8 ft
17:00	16.1 ft
17:30	15.9 ft
18:00	15.3 ft
18:30	14.3 ft
19:00	12.9 ft
19:30	11.5 ft
20:00	10.0 ft
20:30	8.5 ft
21:00	7.1 ft
21:30	5.9 ft
22:00	4.8 ft
22:30	3.9 ft
23:00	3.4 ft
23:30	3.3 ft

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Tides:EASTPORT

Harmonic station (NOAA)
44° 54' 12" N 66° 59' 06" W

Average Tides
Mean Range: 18.4 ft
MHWS 21.2 ft
Mean Tide: 9.6 ft

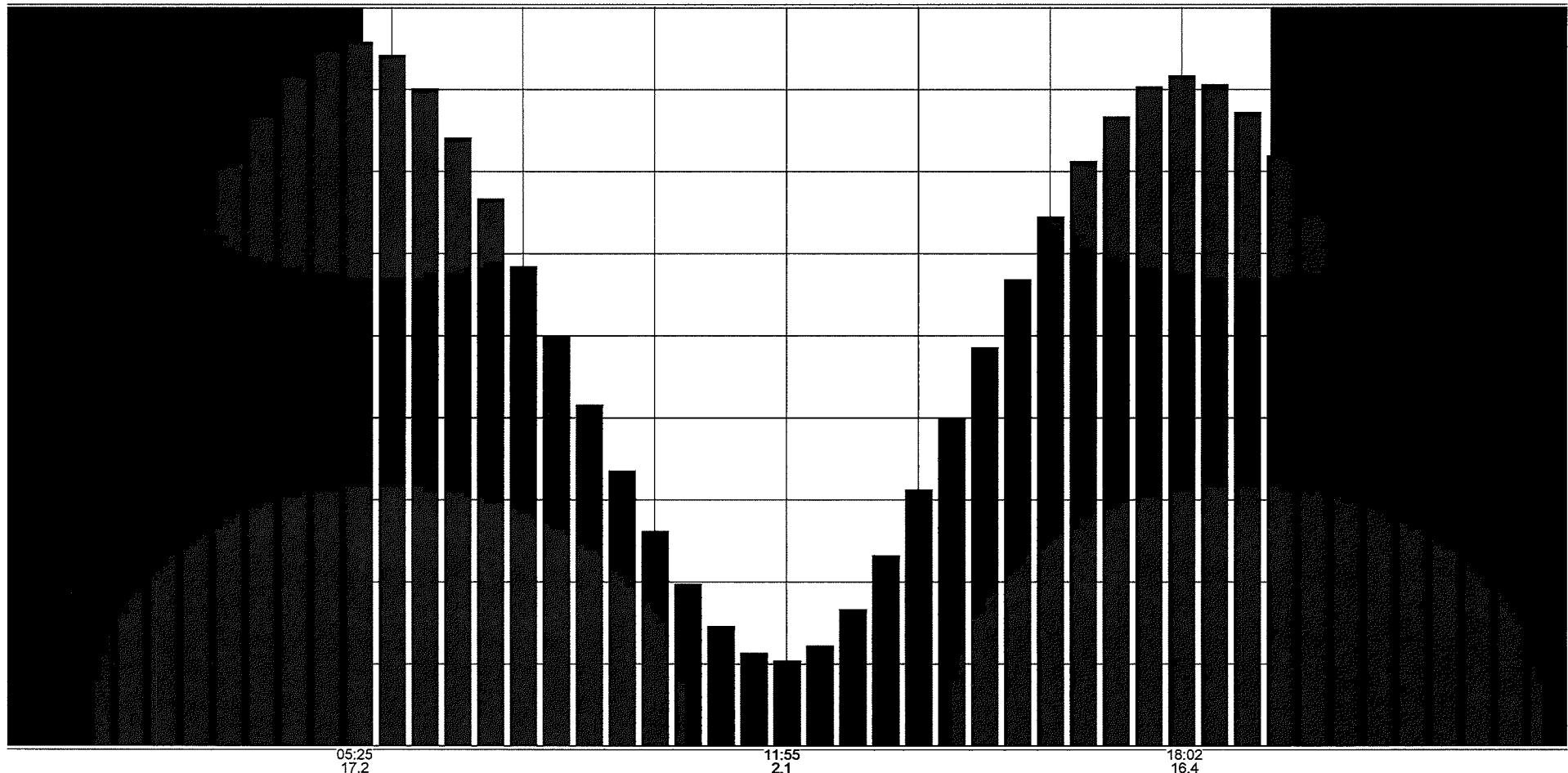
Daily Highs & Lows
05:25 17.2 ft High
11:55 2.1 ft Low
18:02 16.4 ft High

Monday, April 21, 2025

Moonrise:02:42
Moonset:11:43

SR:05:33

SS:19:21



Currents:ESTES HEAD, EASTPORT (32d)

Harmonic station (NOAA)
44° 53' 17" N 66° 59' 44" W

Average Currents
Min Before Flood: 0.1 kt 175°
Avg Max Flood: 2.2 kt 263°
Min Before Ebb: -- --
Avg Max Ebb: 2.4 kt 88°

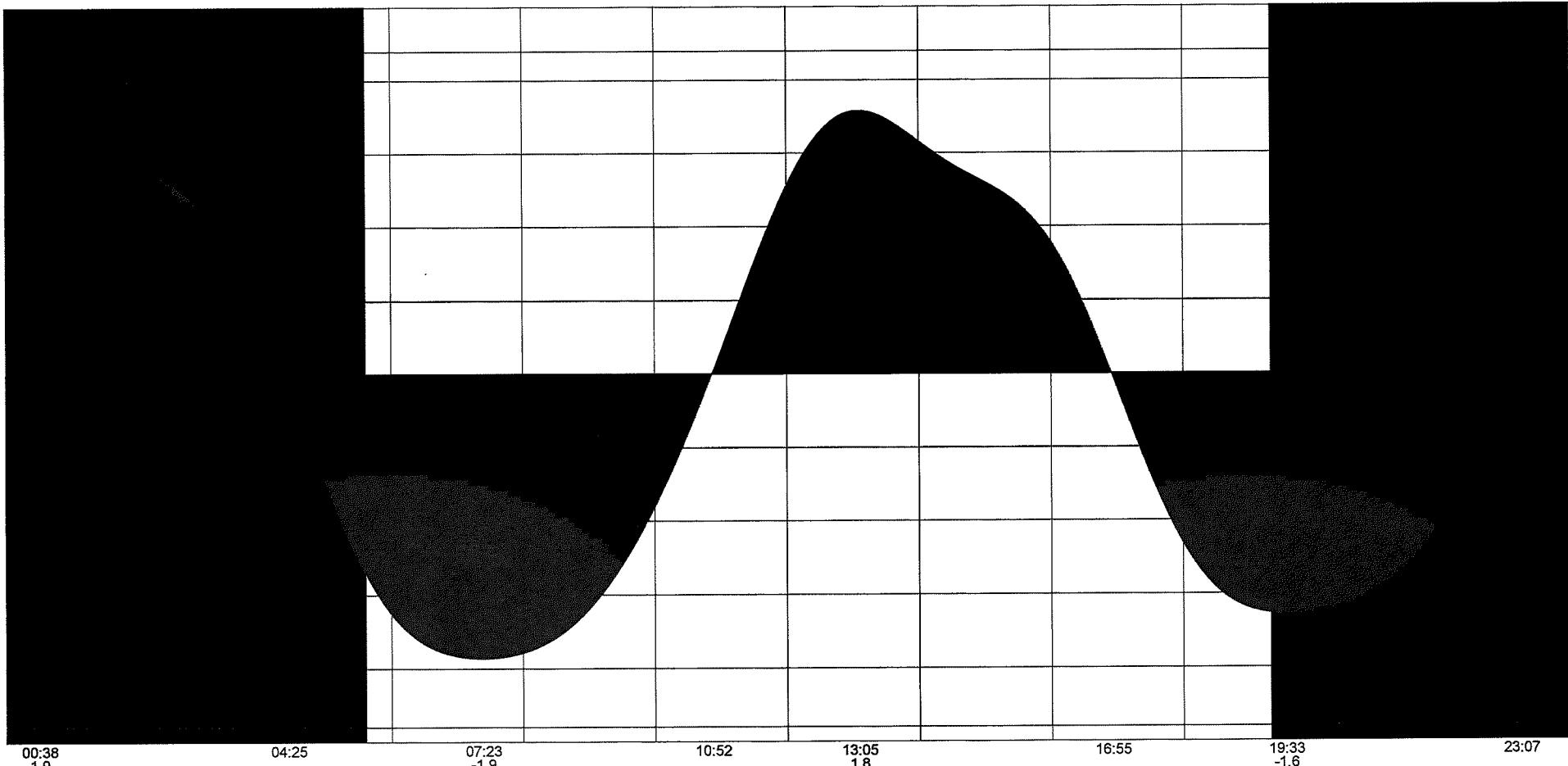
Saturday, April 19, 2025

Slack Max Flood & Ebb
00:38 1.9 kt 263° fid
04:25 07:23 1.9 kt 88° ebb
10:52 13:05 1.8 kt 263° fid
16:55 19:33 1.6 kt 88° ebb
23:07

Moonrise:01:24
Moonset:09:22

SR:05:36

SS:19:19



00:38
1.9

01:00 1.8 kt fid
01:30 1.7 kt fid
02:00 1.5 kt fid
02:30 1.4 kt fid
03:00 1.2 kt fid
03:30 0.9 kt fid
04:00 0.5 kt fid
04:30 0.1 kt slk
05:00 0.7 kt ebb
05:30 1.3 kt ebb
06:00 1.6 kt ebb
06:30 1.8 kt ebb
07:00 1.9 kt ebb
07:30 1.9 kt ebb
08:00 1.9 kt ebb
08:30 1.8 kt ebb
09:00 1.6 kt ebb
09:30 1.3 kt ebb
10:00 0.9 kt ebb
10:30 0.4 kt ebb
11:00 0.2 kt fid
11:30 0.8 kt fid
12:00 1.3 kt fid
12:30 1.6 kt fid
13:00 1.8 kt fid
13:30 1.7 kt fid
14:00 1.6 kt fid
14:30 1.4 kt fid
15:00 1.3 kt fid
15:30 1.2 kt fid
16:00 0.9 kt fid
16:30 0.5 kt fid
17:00 0.1 kt slk
17:30 0.7 kt ebb
18:00 1.2 kt ebb
18:30 1.5 kt ebb
19:00 1.6 kt ebb
19:30 1.6 kt ebb
20:00 1.6 kt ebb
20:30 1.6 kt ebb
22:00 1.0 kt ebb
22:30 0.6 kt ebb
23:00 0.1 kt ebb
23:30 0.4 kt fid

Currents:ESTES HEAD, EASTPORT (32d)

Average Currents
 Min Before Flood: 0.1 kt 175°
 Avg Max Flood: 2.2 kt 263°
 Min Before Ebb: -- --
 Avg Max Ebb: 2.4 kt 88°

Harmonic station (NOAA)
 44° 53' 17" N 66° 59' 44" W

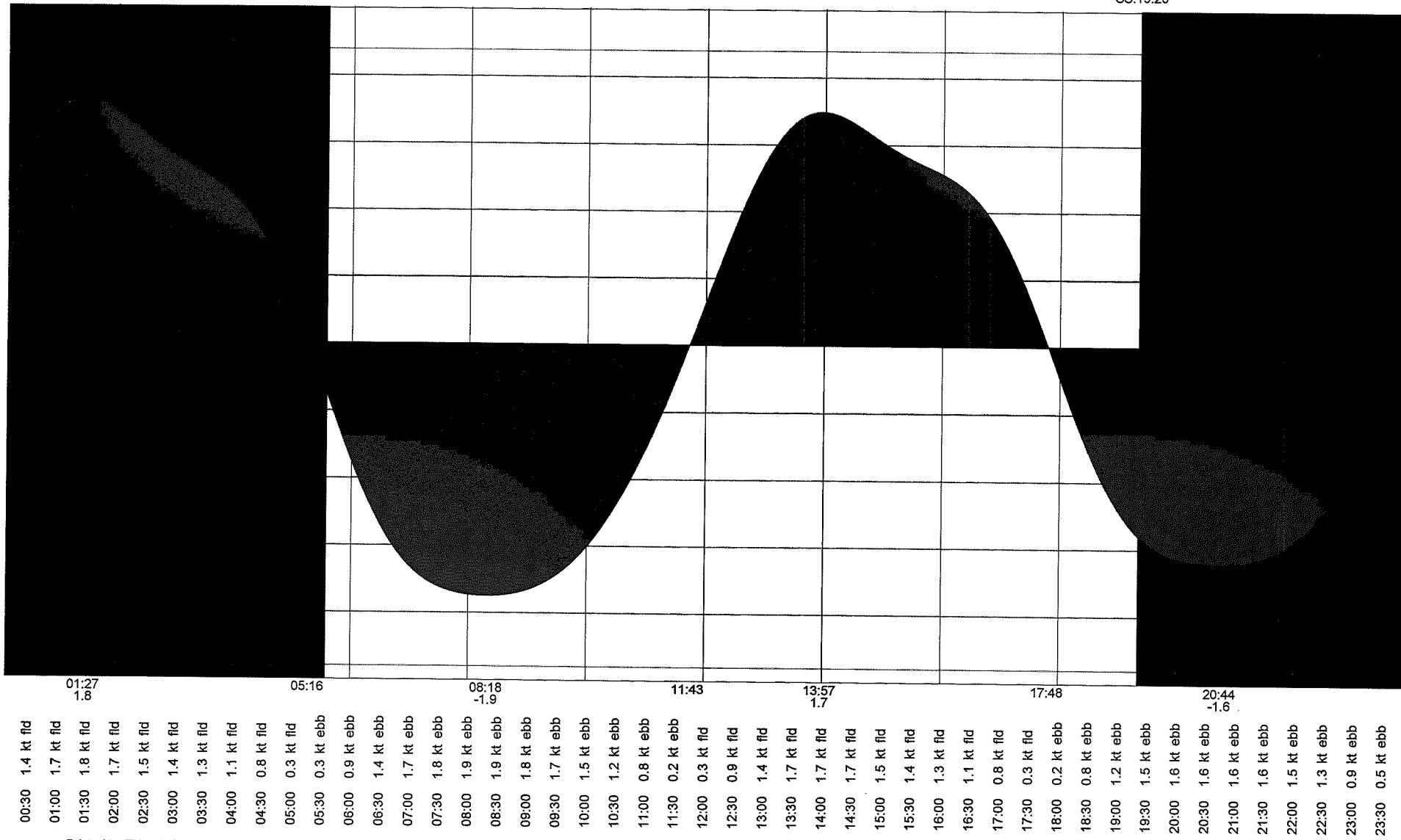
Sunday, April 20, 2025

Slack	Max Flood & Ebb
01:27	1.8 kt 263° fdb
05:16	08:18 1.9 kt 88° ebb
11:43	13:57 1.7 kt 263° fdb
17:48	20:44 1.6 kt 88° ebb

Moonrise:02:07
 Moonset:10:30

SR:05:34

SS:19:20



Currents:ESTES HEAD, EASTPORT (32d)

Average Currents
Min Before Flood: 0.1 kt 175°
Avg Max Flood: 2.2 kt 263°
Min Before Ebb: -- --
Avg Max Ebb: 2.4 kt 88°

Harmonic station (NOAA)
44° 53' 17" N 66° 59' 44" W

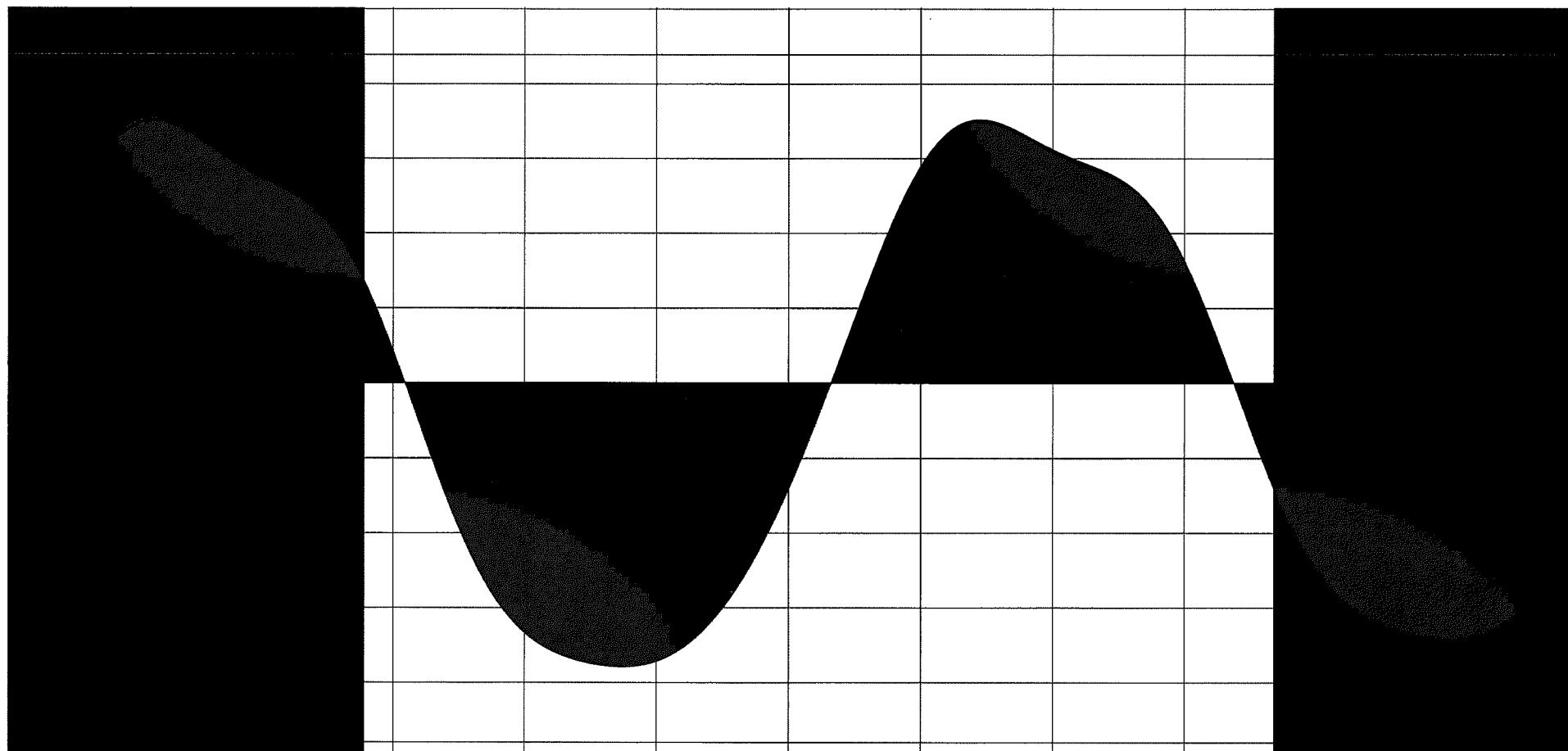
Monday, April 21, 2025

Slack Max Flood & Ebb
00:02 02:21 1.8 kt 263° fid
06:10 09:28 1.9 kt 88° ebb
12:38 14:54 1.8 kt 263° fid
18:45 22:02 1.7 kt 88° ebb

Moonrise:02:42
Moonset:11:43

SR:05:33

SS:19:21



Time	Current Speed (kt)	Current Direction (°)
0:02	0.5	fid
0:30	1.1	fid
1:00	1.5	fid
1:30	1.7	fid
2:00	1.8	fid
2:30	1.7	fid
3:00	1.7	fid
3:30	1.5	fid
4:00	1.4	fid
4:30	1.3	fid
5:00	1.1	fid
5:30	0.7	fid
6:00	0.2	fid
6:30	0.4	ebb
7:00	1.0	ebb
7:30	1.4	ebb
8:00	1.7	ebb
8:30	1.8	ebb
9:00	1.9	ebb
9:30	1.9	ebb
10:00	1.9	ebb
10:30	1.7	ebb
11:00	1.5	ebb
11:30	1.2	ebb
12:00	0.7	ebb
12:30	0.2	ebb
13:00	0.4	fid
13:30	1.0	fid
14:00	1.5	fid
14:30	1.7	fid
15:00	1.8	fid
15:30	1.7	fid
16:00	1.6	fid
16:30	1.5	fid
17:00	1.4	fid
17:30	1.2	fid
18:00	0.8	fid
18:30	0.3	fid
19:00	0.3	ebb
19:30	0.8	ebb
20:00	1.2	ebb
20:30	1.5	ebb
21:00	1.6	ebb
21:30	1.7	ebb
22:00	1.7	ebb
22:30	1.7	ebb
23:00	1.6	ebb
23:30	1.3	ebb



Eastport Pilot Boat 17 FEB 2016

Boarding Pilot on the MV STAR ISMENE

Eastport Ship Report

Ship Number: 1,403
 Ship Name: **STAR HARMONIA**
 Flag: Norway
 Call Sign: LAGB5
 Propulsion: Diesel, DD, RH
 Draft Inbound: 9.5 Meters 31.0 Feet
 Master: James A. Rosaroso
 Nat Officers: Filipino
 Nat Crew: Filipino
 Crew Size: 20
 Last Port: Brunswick
 Next Port: Liverno
 Agent: Norton Lilly
 Agent in Port: Paul Lovetere
 Cargo Aboard: Forest Products
 LOA: 198.0 Meters 649.6 Feet
 Breadth: 31.1 Meters 102.0 Feet
 Gross Tons: 32,749 412.7 P/U.
 Net Tons: 18,317
 DWT (Summer): 46,604
 Deep Draft: 12.319 Meters
 Moulded Depth: 19.0 Meters 62.3 Feet
 Year Built: 1998
 Place Built: Japan
 Eastport Cargo: 14,500 MT WP
 Draft Outbound: 11.1 Meters 36.4 Feet

Maneuvering Info:

Bridge to Bow: 176.4 Meters 578.7 Feet
 Bridge to Stern: 21.2 Meters 69.6 Feet
 DS (KTS): 5.4
 SLOW (KTS): 6.9 Full to Stop: 0.54 nm
 HALF (KTS): 10.0 Half to Stop: 0.51 nm
 FULL (KTS): 11.0
 Bow Thruster: Yes

Notes:

Vessel has 1500 HP Bow & 1500 HP Stern Thruster. Becker Rudder, Open Wings, Side Port, No elevator. Cell # 011-479-061-0467. Vsat # 011-472-240-9530. IMO # 9103130. Fast loading. Good Master and crew.

Quoddy PILOTS USA

Date In: 04/18/25
 Pilot In: PEACOCK
 Observer In: None
 Pilot Boat In: NORTH SEA
 Boat Capt In: Don Bailey
 Boat Crew In: Tom Baker
 Tide In: L 21:35 3.4'; Slack 22:17
 Weather In: O'cast, SW 20, Hvy SW Sea
 Aboard Inbound: 18:54

 E Quoddy In (T): 19:21 E Quoddy In (D): 0.35 n.m.
 Black Rock In (T): 19:25 Black Rock In (D): 0.38 n.m.
 Green I L/B In (T): 19:32
 Popes I In (T): 19:36 Popes I In (D): 0.50 n.m.
 Windmill Pt In (T): 19:43 Windmill Pt In (D): 0.30 n.m.
 Cherry I In (T): 20:00 Cherry I In (D): 0.25 n.m.
 Tugs a/s In: Tug In: McALLISTER BROS Escort
 Astern Test: 21:06 First Line or Anchor: 21:42
 Position: 21:54 FWE: 22:18

 Date Out: 04/21/25
 Pilot Out: PEACOCK
 Observer Out: None
 Pilot Boat Out: NORTH SEA
 Boat Capt Out: Elijah Brice
 Boat Crew Out: Tom Baker
 Tide Out: L 11:54 2.1'; Slack 12:38
 Weather Out: Clear, NW 15 Kt
 Aboard Out: 11:30
 Tugs Out: McALLISTER BROTHERS -Escort
 SBE: 13:00 Last Line: 13:12
 Cherry I Out (T): 13:56 Cherry I Out (D): 0.25 n.m.
 Windmill Pt Out (T): 14:03 Windmill Out (D): 0.30 n.m.
 Popes I Out (T): 14:07 Popes I Out (D): 0.50 n.m.
 Green I Out (T): 14:12
 Off Vessel: 14:30

qpilot25@gmail.com

From: bos-ops@nortonlilly.com
Sent: Friday, April 18, 2025 10:09
To: master.harmonia@griegvessels.no; ena-med@g2ocean.com; ops.atlanta@g2ocean.com
Cc: tcritchley@logistec.com; qpilot25@gmail.com; jabbott@mcallistertowing.com; cleppin@mcallistertowing.com; bfournie@mcallistertowing.com; troy.m.case@cbp.dhs.gov; lubecpoe@cbp.dhs.gov; ssatter@nortonlilly.com; bulkgroup@nortonlilly.com; bulkgroup@nortonlilly.com; bos-ops@nortonlilly.com
Subject: ENA-MED - STAR HARMONIA 2502 - EASTPORT - CONFIRMED Berthing Prospects

VESSEL NAME: STAR HARMONIA

VOYAGE #: 2502

REFERENCE #: ENA-MED

NLI CALL #: 2512398

PORT: EASTPORT

TIME ZONE: UTC-4:00

PREVIOUS PORT: BRUNSWICK, GA

NEXT PORT: LIVORNO

ETA NEXT PORT:

ON-DUTY AGENT:

ETA: 04/18/2025 19:00

ATA:

ETB: 04/19/2025 21:10

ATB:

ETC: 04/21/2025 18:00

ATC:

ETD: 04/21/2025 19:00

ATD:

REMARKS

Good day,

Understand vessel is scheduled to load 14,500 mt of baled wood pulp during this call to Eastport.

Maintaining an eta of 1900/18 with an arrival deep draft of 11.4m / 37' 4" to Eastport pilot station, duly noted.

Terminal confirms vessel is on their schedule and berth available upon arrival. Three full days of cargo operations anticipated.

Pilots have informed vessel will be tide restricted during transit to and from the berth.

Berthing tide windows as follows - first time is POB window:

1840 - 1940/18 (LW - 2135/18)

0117 - 0217/19 (HW - 0337/19)

0711 - 0811/19 (LW - 1006/19)

Based upon latest eta and tide window, please note the following CONFIRMED berthing and work schedule:

1900/18 – End of Sea Passage
1900/18 – Pilot on board (target boarding per pilot request)
1945/18 – Meet One (1) escort tug
2040/18 - Linemen request to be site (pilot's request)
2110/18 – ETB / First line ashore
2145/18 – All fast Logistec Terminal Eastport / STBDSIDE TO
2200/18 – Terminal gangway secured
0700/19 – Commence loading 13000 mt of wood pulp - TBC
1900/19 - Stop cargo operations / End of labor shift
0700/20 - Resume cargo operations / Beginning of next shift
1900/20 - Stop cargo operations / End of labor shift
0700/21 - Resume cargo operations / Beginning of next shift
1800/21 - ETC / Completed loading (3 days of cargo anticipated by the terminal)
1900/21 – ETD / Last line Logistec Terminal Eastport (sailing tide window 1730 - 1930)
2030/21 – Commence Sea Passage

Receipt of Notice for initial enoa has been received.

Will revert with updates as available.

TERMINAL REMARKS

POR T LOG

FROM TO PORT LOG ITEM REMARKS

CARGO SUMMARY

TERMINAL: LOGISTEC EASTPORT TERMINAL

BERTH: MAIN

CARGO: BALED WOOD PULP

OPERATION: LOADING

QUANTITY: 14500.000 MT

PIECES:

Paul Lovetere
Port Manager

Office:

CAUTION MARINERS

Help Avoid Collisions and Entanglements with Right Whales

The North Atlantic Right Whale is Critically Endangered, Only About 500 Remain

Right whales are protected in Canadian waters under the *Species at Risk Act*.

Right whales can be injured or killed by collisions with vessels and entanglement in commercial fishing gear. **Please avoid close approaches.**

Right whales are difficult to see and are seldom aware of vessels or fishing gear. **Do not assume the whales will get out of your way or avoid fishing gear.** Where you see one right whale, there are likely more nearby.

If you see a right whale, please record the date, time and position and send the sighting and any photos to XMARwhalesightings@dfo-mpo.gc.ca

For more info visit canadianwhaleinstitute.ca

For recent sightings visit: sigo.ca and nefsc.noaa.gov/psb/surveys



**CANADIAN
WHALE**

How to Identify a Right Whale:

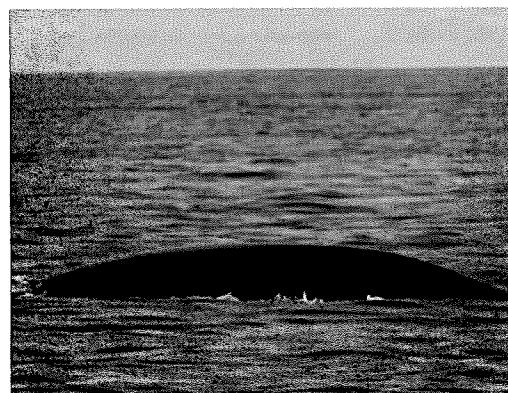


V-shaped blow

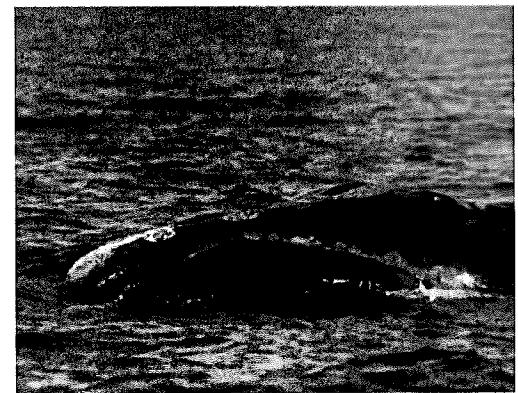


Flippers: broad, black and spatula shaped

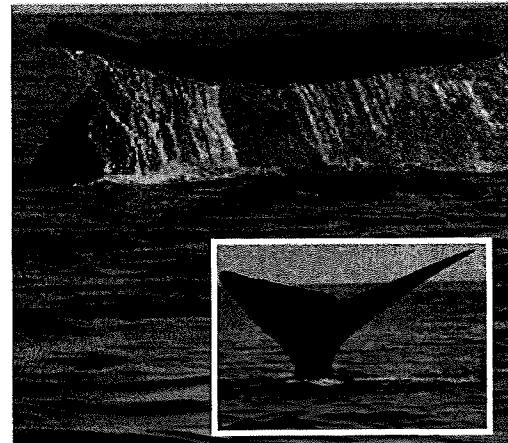
ADULT LENGTH MEASURES: 14-17 METRES, 40-50 FEET



No dorsal fin, smooth black back



Whitish growths on top and sides of head



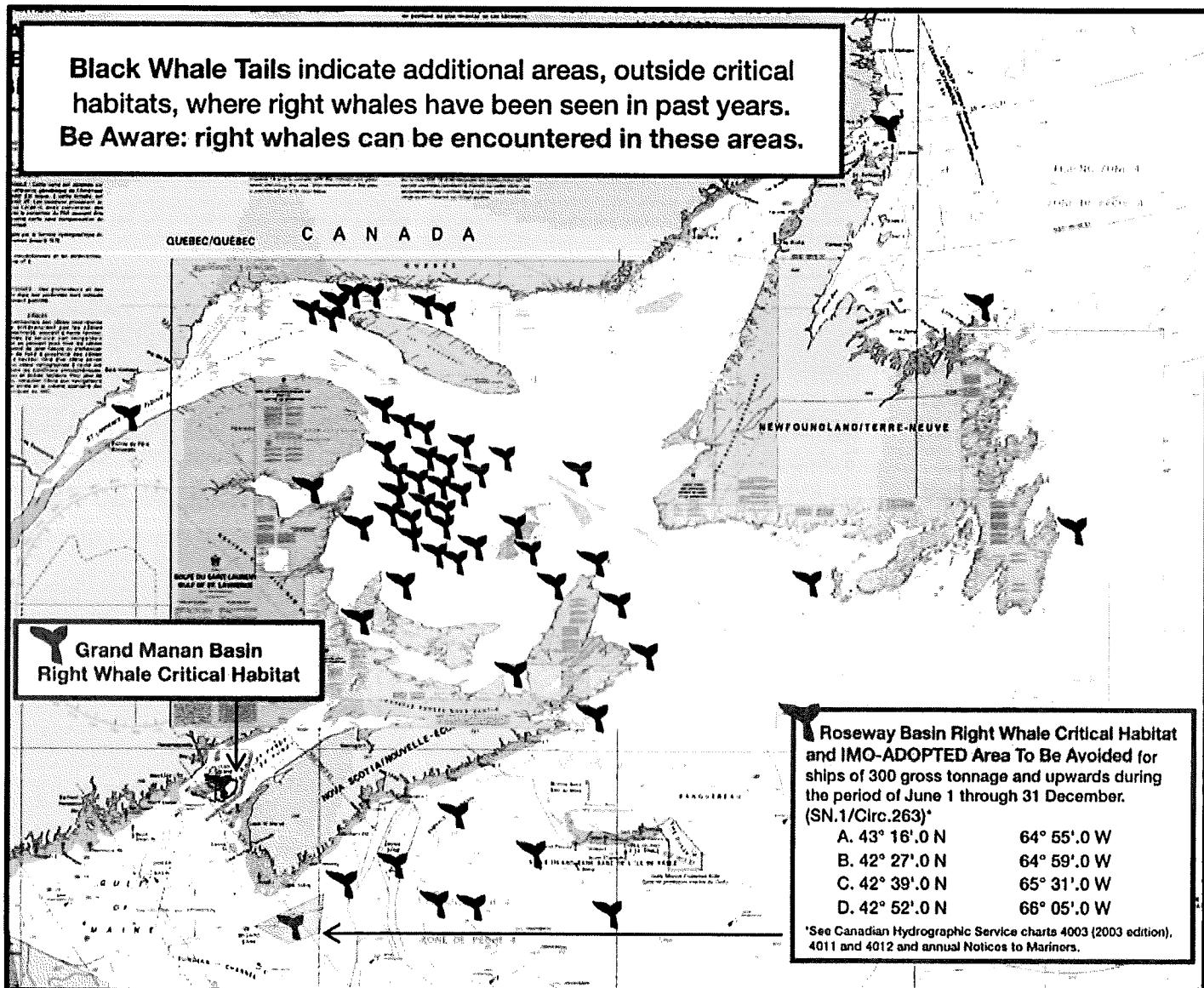
Tail: black, deeply notched, raised when diving



Can be in social groups of 5-30 whales

Right Whales in Eastern Canada

Right whales are found in these waters *from June through December*. They range from their critical habitats in the Grand Manan Basin, lower Bay of Fundy and Roseway Basin, south of Nova Scotia, across the Scotian Shelf, into the Gulf of St. Lawrence and in Newfoundland waters.



If You See an Injured, Entangled or Dead Whale Please Report It to:

Organization	Response Area	Hotline
Marine Animal Response Society	New Brunswick, Nova Scotia, Prince Edward Island	866-567-6277
Urgences Mammifères Marins	Quebec	877-722-5346
Whale Release and Strandings	Newfoundland and Labrador	888-895-3003
Canadian Coast Guard	In Eastern Canada via radio on VHF Channel 16	800-565-1633



We thank you for your help and attention.
Working together we can make a difference

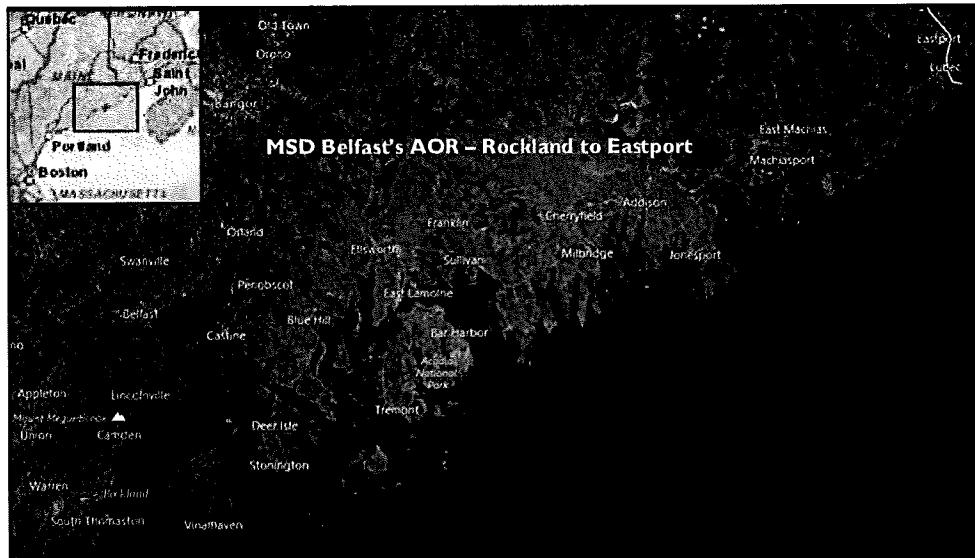


United States Coast Guard
Marine Safety Detachment Belfast

*2 Franklin Street, Suite 201, Belfast, Maine 04915
phone 207-338-8395 / fax 207-338-8906 / OPFAC 01-37000-30E*

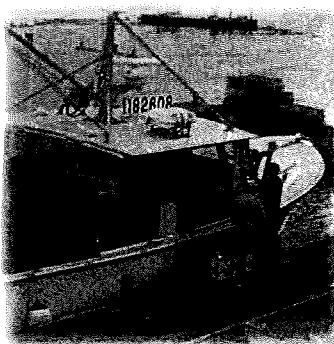
Area of Responsibility

Marine Safety Detachment (MSD) Belfast is responsible for the Maine coast from Owls Head (just south of Rockland) to the Canadian border, encompassing over 1500 miles of shoreline. Driving time by road from one end of the AOR to the other is approximately four hours. MSD Belfast is a detachment of Coast Guard Sector Northern New England, based in Portland, Maine.



Missions

Domestic Vessel Inspections: MSD personnel inspect eighty-six certificated vessels, the majority of which are small passenger vessels. This fleet is unique in that 50% are wood-hulled. About 20% are traditional sailing schooners, including some with no power other than sail; a few had their keels laid over a century ago. The largest ship in the MSD's inspected fleet is Maine Maritime Academy's 500ft training vessel **STATE OF MAINE**, homeported in Castine.



CFVSE issuing a decal by MSD Belfast

Commercial Fishing Vessel Safety: Approximately 4000 commercial fishing vessels work within the MSD's area of responsibility. One full-time civilian examiner with the assistance of MSD personnel performs 400 dockside vessel exams per year. Lobster is the primary fishery, but others include herring, salmon aquaculture, scallops, tuna, and haddock.



Schooner Inspection by MSD Belfast

Marine Casualty Investigation and Enforcement: Schooner Inspection by MSD Belfast
MSD personnel investigate groundings, sinkings, fires, and passenger injuries involving commercial vessels as mandated by federal law and regulation and initiate enforcement actions as warranted.

Port State Control: The MSD screens foreign vessel arrivals and conducts port state control exams on freight, tank and cruise vessels. Deep draft ports are located in Eastport, Bar Harbor, Bucksport, and Searsport. Bar Harbor is Maine's primary cruise ship port, receiving 188 passenger vessels between April and October in 2018. In the 2018 season there will be over 250 cruise ship port calls throughout the AOR. Freight vessels call in Eastport to take on wood pulp. Searsport receives bulk liquid and solid cargo including refined petroleum products, clay slurry, petroleum coke, slag, salt, and break-bulk while exporting scrap steel and wood chips. Bucksport receives only refined petroleum products.





EHS offload by MSD Belfast

Facilities and EHS: The MSD inspects sixteen regulated waterfront facilities, including five bulk oil facilities, to ensure safety and security. The unit also conducts oversight on two liferaft servicing facilities and oversees approximately eight permitted explosive transfer operations a year.

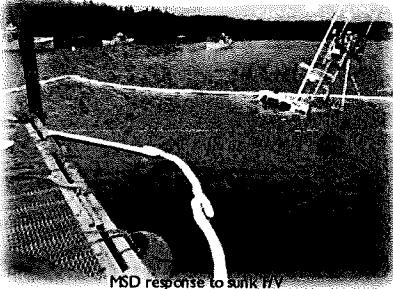
Pollution Response and Enforcement: The MSD partners closely with the Maine Department of Environmental Protection to respond to approximately 120 oil spills and other pollution incidents affecting navigable

waterways annually. The MSD is also an active participant in the Penobscot River Oil Pollution Advisory Committee (PROPAC), which operates as an oil spill response partnership between industry and regulators to ensure the health of the Penobscot River.



Liferaft Facility Inspection by MSD Belfast

Planning & Homeland Security: The MSD works closely with a range of local, state and federal agencies and industry partners to enhance safety and security preparedness. There is one Area Maritime Security subcommittees located within the MSD's area of responsibility.



MSD response to sink W/V

Personnel

Active Duty (Rotation Date)

LT Tom Whalen (Supervisor) (2019)
MSSE4 Stephen Carlson (2021)
MSSE4 David Wharfe (2020)
MST1 Alex Olbert (2019)
MST1 Dannielle Haile (2018)
MST2 Andrew Kistner (2021)
MST2 Jonathan Clough (2021)
MST3 Marcus Pezzuti (2019)
MST3 Karl Haslauer (2021)

Civilian

GS12 Daniel Hieter
GS12 James Guerette

Reserve

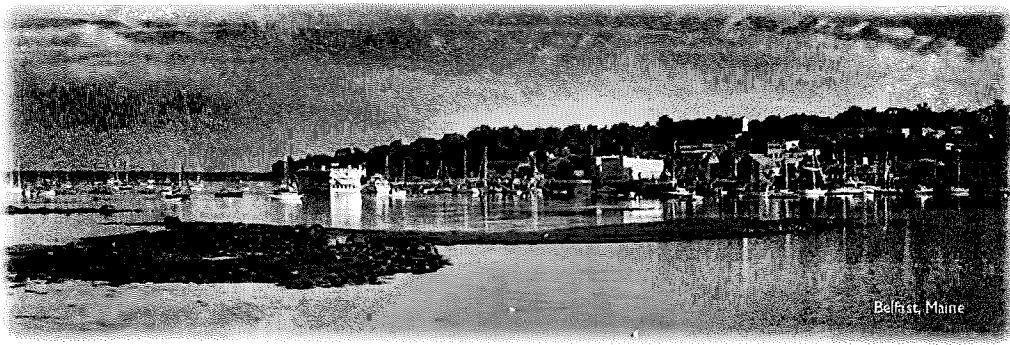
MST1 Daniel Hieter

Auxiliary

Flotilla 11 (Bucksport)
Flotilla 12 (Bangor)
Flotilla 13 (Quoddy Bay)
Flotilla 14 (Mt. Desert Island)
Flotilla 15 (Penobscot Bay)
Flotilla 18 (Midcoast region)

Unit History

The unit has been re-named and moved to many different locations since it began in Bucksport in 1974 as Marine Safety Detachment Bucksport. At that time, it consisted of one officer, three enlisted personnel and eight reservists. In 1981, the unit moved to Hammond Street in Bangor and became a Marine Safety Field Office. In 1987, the Bangor office shut down and the unit became a one-officer operation out of Station Rockland, with the assigned lieutenant living in the Owls Head Lighthouse. In 1991, the office moved back to Bangor, on Essex Street in the Naval Reserve buildings, which were later condemned, prompting another move in 1993 to the new Armed Forces Reserve Center at Bangor International Airport. During this time, three enlisted personnel were added back to the unit, and it went back to being a Marine Safety Detachment. In 1995, the unit moved back to Main Street in Bucksport and the first warrant officer was assigned. It remained there till 2004, when it moved to its current home above the Belfast Police Department.



Belfast, Maine

What is Medical Attention Beyond First Aid?

29 CFR 1904.7(b)(5)

OSHA defines "first aid" as:

- Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);
- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);
- Cleaning, flushing or soaking wounds on the surface of the skin;
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);
- Using hot or cold therapy;
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
- Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.);
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- Using eye patches;
- Removing foreign bodies from the eye using only irrigation or a cotton swab;
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
- Using finger guards;
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
- Drinking fluids for relief of heat stress.



Contact the Investigations Division at
Sector Northern New England
for any non-emergent questions about reporting responsibilities or procedures

- Phone 1: (207) 741-5424
- Phone 2: (207) 767-0313
- Fax: (207) 767-0308
- Mail:

USCG Sector Northern New England
Prevention Department (Investigations)
259 High Street
South Portland, Maine 04106
• MSD Belfast: (207) 338-8395
• MSD Portsmouth: (603) 433-7324

National Response Center

1-800-424-8802

24/7 number for reporting:

1. Oil spills
2. Chemical Spills
3. Suspicious Activity (any incident, activity, or behavior that you deem to be activity of a suspicious nature)

Coast Guard Online

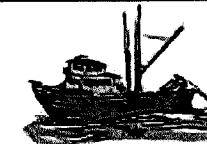
United States Coast Guard
www.uscg.mil

National Response Center
www.nrc.uscg.mil

CG Sector Northern New England
www.uscg.mil/d1/sectNNE

CG Commercial Fishing Industry Safety
www.fishsafe.info

Schedule your free 'no fault'
Commercial Fishing Vessel
Dockside Safety Exam on
www.fishsafe.info or call
(207) 780-3256



United States Coast Guard
**Sector Northern
New England**

A Guide to Reportable Marine Casualties

(for commercial vessels,
excluding state-numbered boats)

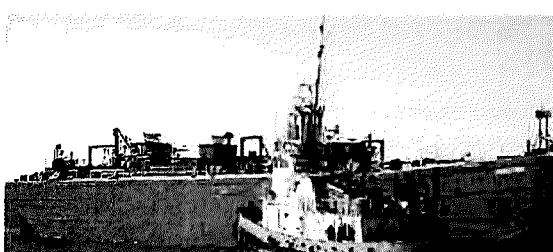
CALL: 207-767-0303

What is a Reportable Marine Casualty?

46 Code of Federal Regulations (CFR) 4.05-1

1. Unintended grounding, or bridge allision;
2. Intended grounding, or bridge allision causing a hazard to navigation, the environment, safety of a vessel, or creates #3 through #8 below;
3. Any loss of main propulsion, primary steering, or any associated component or control system that reduces the maneuverability of the vessel;
4. An occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route;
5. Loss of life;
6. Injuries requiring professional medical treatment (treatment beyond first aid), and, for persons engaged or employed aboard, renders them unfit to perform routine duties;
7. Occurrence causing property damage in excess of \$25,000;
8. An occurrence involving significant harm to the environment as defined in 46 CFR 4.03-65 (oil discharge or reportable quantity hazardous material pollution release).

Why? The Coast Guard investigates reports of marine casualties to determine the cause in an effort to prevent a reoccurrence of similar casualties.



HOW TO REPORT
to Sector Northern New England
(Atlantic Coast off of all parts of New Hampshire & Maine, plus Lake Champlain)

After addressing the resultant safety concerns, the owner, agent, master, operator, or person in charge of a vessel, shall notify the Coast Guard.

Immediately contact the Sector Northern New England Command Center to make an initial report, using VHF Channel 16 or phoning 207-767-0303. If you are unsure about whether the incident meets mandatory reporting thresholds, ask the Coast Guard for clarification. Note that there are also immediate Coast Guard notification requirements for inspected vessels outside of 46 CFR Part 4 when a vessel is imperiled or when a hazardous condition exists onboard.

Also within 5 days submit a written report (Form CG-2692: Report of Marine Accident, Injury or Death) to Coast Guard Sector Northern New England via mail, fax (207-767-0329) or email (SecNNECC@uscg.mil).

CG-2692 forms can be obtained online at: www.uscg.mil/forms/cg/CG_2692.pdf.

Failure of a vessel owner or operator to report a marine casualty could result in fines up to \$35,000. If in doubt, CALL!

Post-casualty Testing for Alcohol & Drugs

Who & When?

Coast Guard regulations require marine employers to take all practical steps after a **Serious Marine Incident** to have each individual engaged or employed on board a federally documented vessel in commercial service, who is directly involved in the incident, chemically tested for evidence of drug and alcohol use.

How?

Alcohol: Commercial vessels must have D.O.T. approved alcohol testing devices on board, unless crews can reach shore-side alcohol testing within 2 hours of any casualty (including a grounding). A list of test kits and devices that meet these standards can be obtained by contacting Coast Guard Sector Northern New England Investigations Division. Alcohol testing is mandatory within 2 hours following a Serious Marine Incident. If alcohol testing cannot be conducted within 2 hours due to safety concerns directly related to the casualty, testing is to be conducted as soon as the safety concerns have been adequately addressed to permit such testing, but no later than 8 hours after the incident.

Drugs: Drug testing must be conducted in accordance with D.O.T. standards. Contact your drug testing consortium or Sector Northern New England Investigations Division for help in finding a provider. Drug testing is mandatory within 32 hours following a Serious Marine Incident.

Reports:

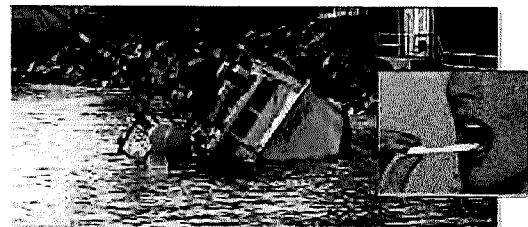
A completed CG Form 2692b *Report of Required Chemical Drug and Alcohol Testing* must be submitted to Sector Northern New England within five days of the incident.

Failure of a marine employer to ensure testing is completed can result in a penalty of up to \$7000 per offense. If in doubt about whether to test, call the Coast Guard!

What is a Serious Marine Incident?

The term **Serious Marine Incident** includes the following events involving a federally documented vessel in commercial service:
Any marine casualty or accident, as defined on the front of this brochure or 46 CFR 4.03-1, which is required to be reported by 46 CFR 4.05-1 resulting in the following:

1. One or more deaths;
2. An injury to a crewmember, passenger, or other person which requires professional medical treatment beyond first aid, and, in the case of a person employed aboard a vessel in commercial service, which renders the individual unfit to perform routine vessel duties;
3. Damage to property, as defined in 46 CFR 4.05-1(a)(7) of this part, in excess of \$100,000;
4. Actual or constructive total loss of any vessel subject to inspection under 46 USC 3301;
5. Actual or constructive total loss of any self-propelled vessel, not subject to inspection under 46 USC 3301, 100 gross tons or more;
6. A discharge of oil of 10,000 gallons or more into the navigable waters of the United States, as defined by 33 USC 1321, whether or not resulting from a marine casualty;
7. A discharge of a reportable quantity (RQ) of a hazardous substance into navigable waters of the U.S. or a release of a RQ of a hazardous substance into the environment, whether or not resulting from a marine casualty.



COASTAL WATERS FORECAST FOR MAINE
NATIONAL WEATHER SERVICE CARIBOU ME
640 AM EDT WED APR 16 2025
ANZ005-162315- 640 AM EDT WED APR 16 2025

SYNOPSIS FOR EASTPORT ME TO STONINGTON ME OUT 25 NM...

LOW PRES TRACKS INTO THE MARITIMES THROUGH THU. HIGH PRES RETURNS FRI WITH THE NEXT LOW PRES TRACKING NORTH OF THE WATERS ON SAT AND INTO THE MARITIMES SUN. HIGH PRES BUILDS IN FROM THE WEST MON.

ANZ050-162315-

COASTAL WATERS FROM EASTPORT, ME TO SCHOODIC POINT, ME OUT 25 NM-

640 AM EDT WED APR 16 2025

FRI... W WINDS 10 TO 15 KT WITH GUSTS UP TO 20 KT. SEAS 2 TO 3 FT. WAVE DETAIL: SW 3 FT AT 8 SECONDS AND W 2 FT AT 5 SECONDS.

FRI NIGHT... **SW WINDS 15 TO 20 KT, INCREASING TO 20 TO 25 KT AFTER MIDNIGHT. SEAS 3 TO 4 FT, BUILDING TO 4 TO 6 FT AFTER MIDNIGHT. WAVE DETAIL: SW 4 FT AT 5 SECONDS AND S 2 FT AT 8 SECONDS, BECOMING S 6 FT AT 6 SECONDS. A CHANCE OF RAIN IN THE EVENING, THEN RAIN LIKELY AFTER MIDNIGHT.**

SAT... SW WINDS 20 TO 25 KT. SEAS 6 TO 9 FT. RAIN LIKELY, MAINLY IN THE MORNING.

SAT NIGHT... W WINDS 15 TO 20 KT. SEAS 5 TO 8 FT. A CHANCE OF SHOWERS IN THE EVENING.

SUN... W WINDS 15 TO 20 KT. SEAS 4 TO 6 FT.

SUN NIGHT... NW WINDS 10 TO 15 KT. SEAS 3 TO 5 FT.

INLAND WEATHER FORECAST

Friday Night... Mostly cloudy. A slight chance of rain in the evening, then rain likely after midnight. Lows in the upper 30s. Chance of rain 60 percent.

Saturday... Rain likely. Highs in the mid 50s. Chance of rain 70 percent.

Saturday Night... Mostly cloudy with a chance of showers in the evening, then partly cloudy after midnight. Lows in the lower 40s. Chance of rain 40 percent.

Sunday... Partly sunny. Highs in the lower 50s.

Sunday Night... Mostly clear. Lows in the lower 30s.

Monday... Mostly sunny in the morning, then becoming partly sunny. Highs in the lower 50s.

Monday Night... Partly cloudy. Lows in the mid 30s.

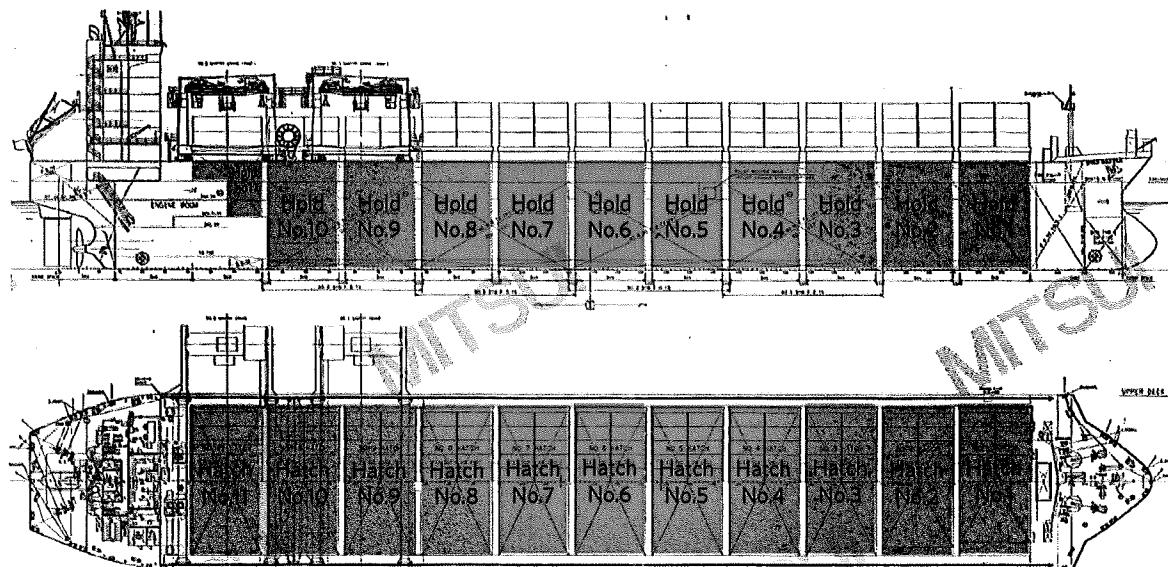
Tuesday... Partly sunny in the morning, then becoming mostly cloudy. A chance of showers. Highs in the upper 40s. Chance of rain 40 percent.



GRIEG STAR

H-class vessels

CLASS NOTATION: +1A1, General Cargo/Container Carrier HC/EA EO
v1. NOTE! Information given in this booklet is reflecting the situation at the time being created, Oct 2012.



MAIN DIMENSIONS

LOA:	198,00 m	Depth main deck:	19,00 m	Depth Mid:	19,00 m
LPP:	187,00 m	Draught Mid.:	12,30 m	Cargo hold cap.:	66.682 m ³
Breadth mid.	31,00 m	Draught ext.:	12,47 m	Max air draught:	46,00 m



Owners: Grieg International II AS / Grieg Shipping II AS

Management: Grieg Star

Operator: Grieg Star

Nationality: Norway (NIS)

Port of registry: Bergen

Deadweight: 46.600 mt

Gross ton: 32.744 mt

Net ton: 13.647 mt

PC/UMC: 27.152 mt

Suez: 29.596 mt

Bale capacity: 61.491 m³

Number of holds: 11

Speed: 16 knots

General description:

Open hatch general cargo carrier with 2 x 40 mt gantry cranes on deck and 11 box-shaped cargo holds intended for the carriage of baled pulp, ore, grain, cement, paper, packaged lumber and other solid bulk cargoes.

Containers arranged in holds and on deck. Max load on tank top 28 mt/m². Dehumidification system for all cargo holds. Accommodation aft for a total of 29 persons. Water ballast in fore- and Aft peak tanks and in 12 tanks in double hull and double bottom. No ballast in cargo holds. Four HFO storage tanks in double bottom.

Painted surface:

Hull (top side): 4.020 m²

Flat bottom: 3.670 m²

Hull (top side): 4.470 m²

Deadweight & Draft

	Draft (m)	Deadweight (mt)
Tropical fresh water	12,854	47.920
Fresh water	12,598	46.593
Tropical sea water	12,575	47.942
Summer	12,319	46.580
Winter	12,063	45.237



GRIEG STAGE

Container Capacity

Max intake 20 ft units, balance of 40 ft units

HOLD/HATCHNO.	11	10	9	8	7	6	5	4	3	2	1													
BAYNO.	42	38	34	30	26	22	18	14	10	06	02													
	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	09	07	05	03	01		
TIER NO.																								
ON DECK	10					10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
00	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
08	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
TOTAL	40 FT																							
	20 FT	20	20	20	20	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	600
IN HOLD																								
07			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	93	186			
	10	10																		2	2	24	24	
06			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	93	186			
	10	10																		2	2	24	24	
05			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	93	186			
	10																			10	10			
04			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	93	186			
	10																			10	10			
03			8	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	5	182	182	
	6	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	5	178	178	
02			6	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	5	178	178	
	6	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	5	5	178	178	
01																								
TOTAL	40 FT			40	40	40	40	40	40	40	40	40	40	40	40	40	40	32	20	372				
	20 FT	20	40	20	20	30	30	30	30	30	30	30	30	30	30	30	30	30	24	24	19	19	606	1350
																								GRAND TOTAL 1950



GRIEG STAR

Container Capacity

Max Intake 20 ft units (à 30 lt)

HOLD/HATCH NO.	11	10	9	8	7	6	5	4	3	2	1											
BAY NO.	42	38	34	30	26	22	18	14	10	06	02											
	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	09	07	05	03	01
	TIER NO.																					
ON DECK	10				10	10	10	10	10	10	10									80	160	
	09	10	10	10	10	10	10	10	10	10	10									110	220	
	08	10	10	10	10	10	10	10	10	10	10									110	220	
TOTAL 40 FT UNIT	20	20	20	30	30	30	30	30	30	30	30									300	600	
IN HOLD	07		10	10	10	10	10	10	10	10	10									95	190	
	06		10	10	10	10	10	10	10	10	10									95	190	
	05		10	10	10	10	10	10	10	10	10									93	186	
	04		10	10	10	10	10	10	10	10	10									93	186	
	03		8	10	10	10	10	10	10	10	10									91	182	
	02		6	10	10	10	10	10	10	10	10									89	178	
	01		6	10	10	10	10	10	10	10	10									89	178	
TOTAL 40 FT UNIT			60	70	70	70	70	70	70	70	70									645	1304	
																				GRAND TOTAL	945	1904



GRIEG STAR

Cargo Holds

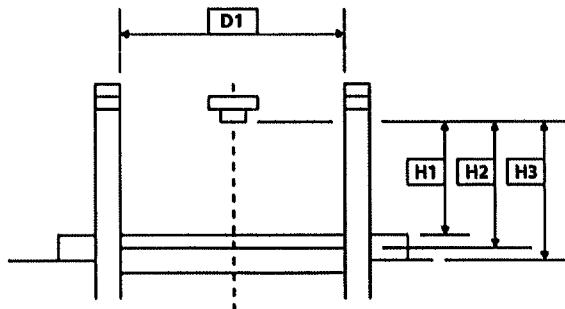
COMPARTMENT	LOCATION FR. NO.	CAPACITY		CENTER OF GRAVITY	
		CUB. M	CUB. FT	MID. G (M)	KG (M)
NO. 01 HOLD	191 - 206	4.048,8	142.983	-71,05	12,43
NO. 02 HOLD	175 - 190	5.510,5	194.603	-57,55	11,55
NO. 03 HOLD	159 - 174	6.206,4	219.179	-44,05	11,43
NO. 04 HOLD	143 - 158	6.206,4	219.179	-30,55	11,43
NO. 05 HOLD	127 - 142	6.206,4	219.179	-17,05	11,43
NO. 06 HOLD	111 - 126	6.206,4	219.179	-3,55	11,43
NO. 07 HOLD	95 - 110	6.206,4	219.179	9,95	11,43
NO. 08 HOLD	79 - 94	6.206,4	219.179	23,45	11,43
NO. 09 HOLD	63 - 78	6.206,4	219.179	36,95	11,43
NO. 10 HOLD	47 - 62	5.722,2	202.079	50,45	12,04
NO. 11 HOLD	31 - 46	2.764,7	97.635	62,83	16,19
TOTAL	-	61.491	2.171.553	-	-

NOTE: 1 CUB. M. = 35,315 CUB. FT.

*17,00 mt/m² on tank top. 8,00 mt/m² on under upper deck level.



GRIEG STRA



Gantry Cranes

2 x Mitsui Paceco make,
SWL: 40 mt
Hoisting speed: 35 m/min
Lowering speed: 43 m/min
Trolley speed: 76 m/min
Gantry speed 30 m/min
Turn table rotation: 1 r.p.m.
Hoisting height (top hatch): 26,6 m
Outreach, from shipside: 8 m
Clearance between legs: 13,95 m
Auxiliary hoist cap. 6 mt

Gantry Crane vital measurements

Distance between crane legs D1	13,95 m
Max drift to hatch cover H1	6,60 m
Max drift to Cillbeam H2 (mld part)	6,65 m
Max drift to hatch coaming H3	7,45 m

Main engine

One 6-cylinder 2 stroke single acting cross head marine diesel engine-
Type: Mitsui B&W 6S60MC
MCR: 10520 kW at 96 RPM
NCR: 9470 kW at 92 RPM
Turbo charger: MAN B&W N-57 TM8 141T

Diesel Generators

Two 8 cylinder 4 cycle single acting diesel engine
Type Rolls Royce KRG-8
Engine output: 1395 kW at 720 rpm
Generator output: 1625 KVA / AC 450V at 720 rpm
One 5 cylinder 4 cycle single acting diesel engine
Type: Rolls Royce KRG-5
Engine output: 775 kW
Generator output: 922 KVA / AC 450V at 720 rpm

Bow and stern thrusters

One bow- and one stern thruster.
1100 kW each thruster.



GRIEG STAR

Incinerator

One incinerator Sunflame type OSGI_50SA.
100.000 kcal/h capacity. Burning sludge oil and solid waste

Exhaust gas economizer, OSAKA Boiler
Type: EG-183242-H
Steam production: 1100 kg/h
Working pressure: 6 kg/cm²
Exhaust gas amount: 79220 kg/h

Air compressors

Two main air compressors:
SPERRE HV2/200
145 m³/h capacity at 30 bar.
One working air compressor
SPERRE HV2/300
439 m³/h capacity at 8 bar.
One diesel generator cold start air compressor
SAMVA S3A, 5 m³/h at 30 bar

Fresh Water Generator

One fresh water generator NIREX
Type JWP-26-C100.
Capacity: 30 tons/day

Dehumidifiers

Munters Honeycomb Disiccant
MA 5000, semi closed, 2 x 5000 m³/hour.
2 x 52 kW

Purifiers and Separators

Two HFO purifiers, Alfa Laval Type MFPX307TDF-21-60
2200 l/h capacity at 98 degree centigrade
Two M/E lube oil purifiers Alfa Laval type MOPX205TGT-24-60
1500 l/h capacity at 85 degree centigrade.
One HEISHIN HMS-200, 15 ppm Bilge water separator 2 m³/h
One Westfalia Bilge water separator model WSD -18-01-037
15 PPM, Throughput: 3000 l/h

Boilers

Auxiliary Boiler, OSAKA Boiler
Type: AQ 12 - 160
Steam production: 1200 kg/h
Working pressure: 7 kg/cm²
Fuel oil consumption: 89 kg/h

Sewage Treatment Plant

One marine sewage plant, Sasakura Type ST-3A,
68 person capacity.