
THEME 2
**SHIP
STRIKES**



ACTIONS BEING UNDERTAKEN BY SBNMS TO MANAGE SHIP STRIKES

David Wiley

Marine Ecologist and Research Coordinator

Mike Thompson

Geographer and GIS Analyst

Stellwagen Bank National Marine Sanctuary



Whale Strike Research and Mitigation Efforts:

T. Silva, M. Thompson, L. Hatch & D. Wiley

Realignment of TSS : Boston Port Operators Community, USCG, NEFSC (R. Merrick)

Right Whale Auto-Detection Buoys: C. Clark, Connell University, MARAD/USCG, Excellerate Energy

Large Whale Detection using Infra-red Camera Technology: Dan Zitterbart, (WHOI)

Large Whale Dynamic Management using Satellite-tagged Seabirds: J. Robbins, CCS; Right Whale Consortium

Right Whale Corporate Responsibility Project (Grading SMA compliance): International Fund for Animal Welfare, GARFO

****Underwater Behavior of Large Whales:** S. Parks, Syracuse University, A. Friedlander, UCSC

Whale Alert: V. Zetterling (Conserve IO), P. Ramage (IFAW)

Using Dimethylsulfide (DMS) to Predict Site Occupancy of North Atlantic Right Whales: D. Zitterbart (WHOI); Joe Warren (SUNY Stony Brook); D. Chowlewiak (NEFSC)



Stellwagen Commercial Shipping

>500 vessels/year

>3,500 transits/year

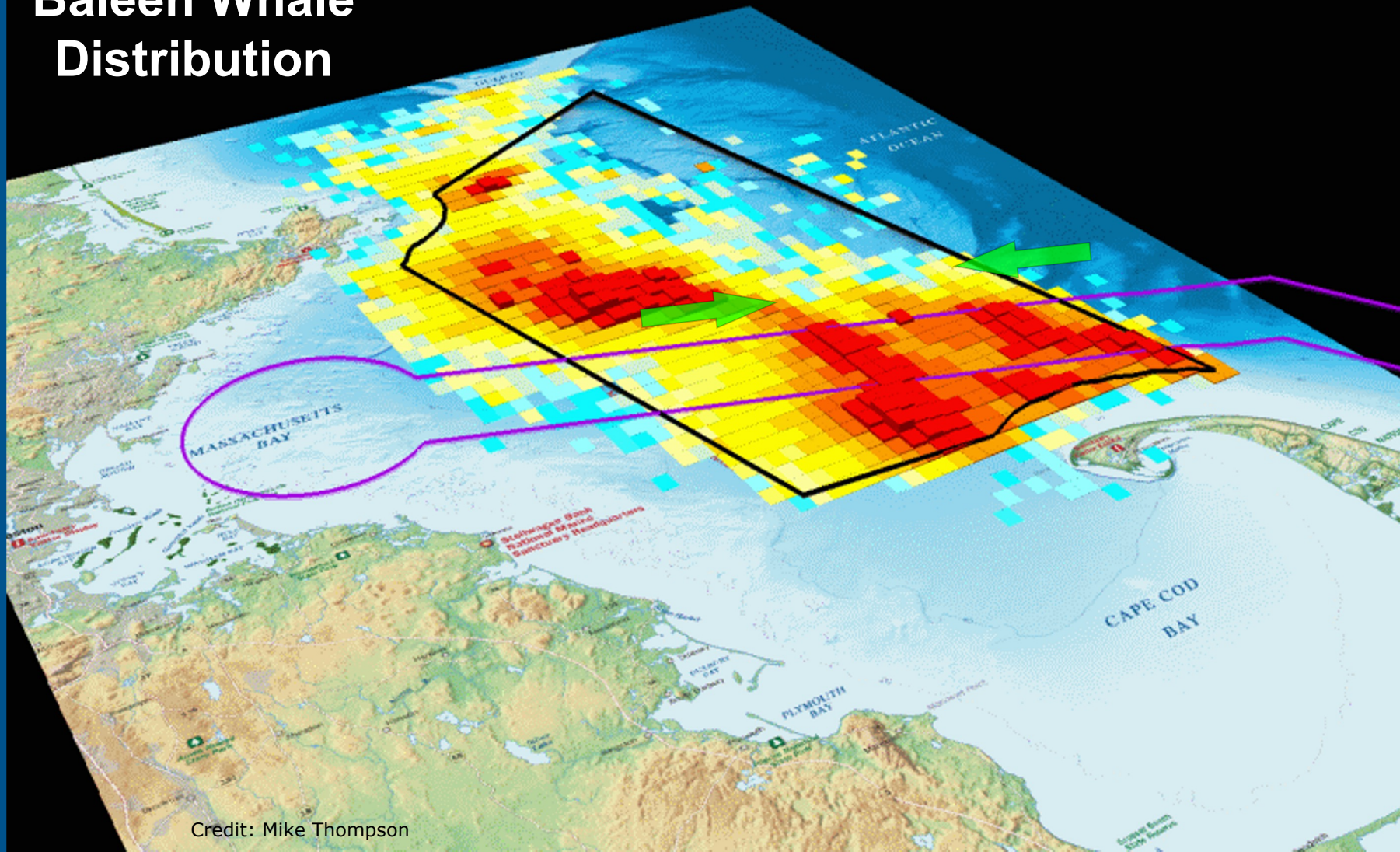


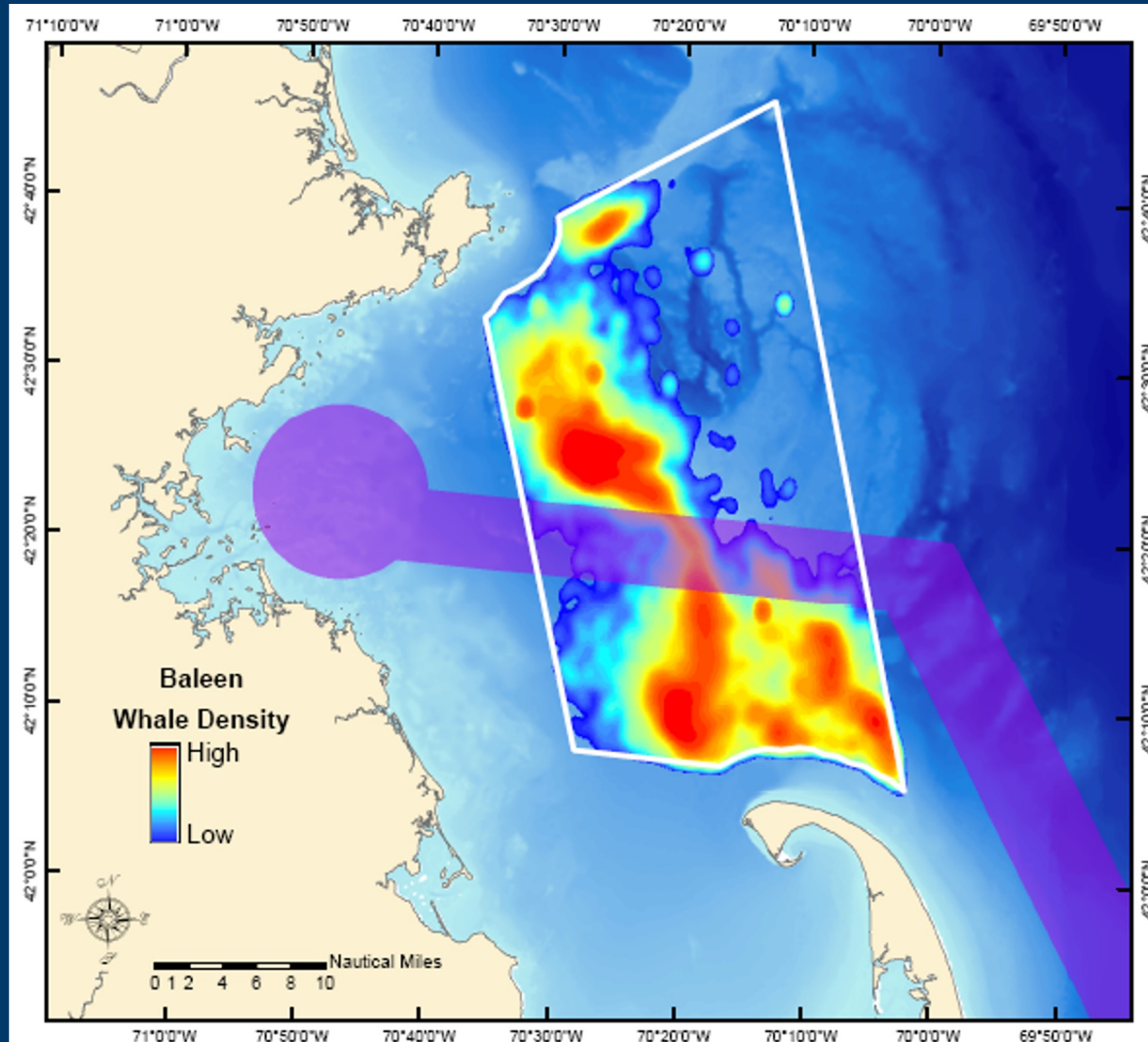
**Whale strikes
are caused by
co-occurrence of
ships and whales**





Baleen Whale Distribution



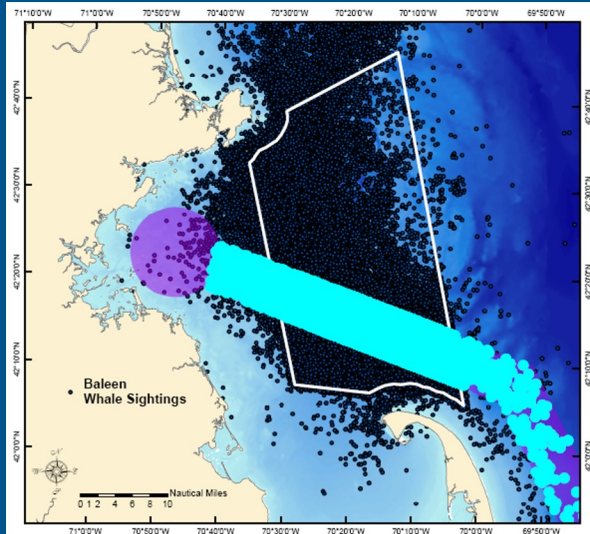


Baleen Whales: Whale Watch Database 1979 – present

WCNE
&
PCCS

Red = highest density
Blue = lowest density

Identify a better
route?



Old TSS

| | |
|----------|--------|
| Humpback | 41,742 |
| Right | 402 |
| Fin | 9,365 |
| Minke | 10,233 |

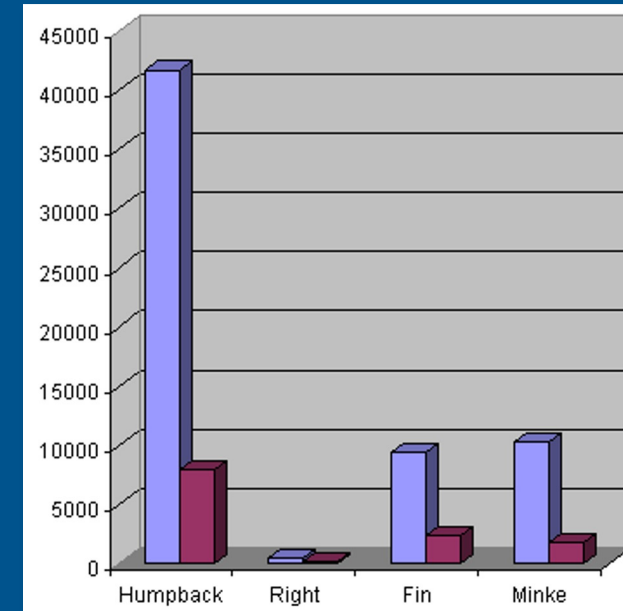
**Total =
61,742**

New TSS

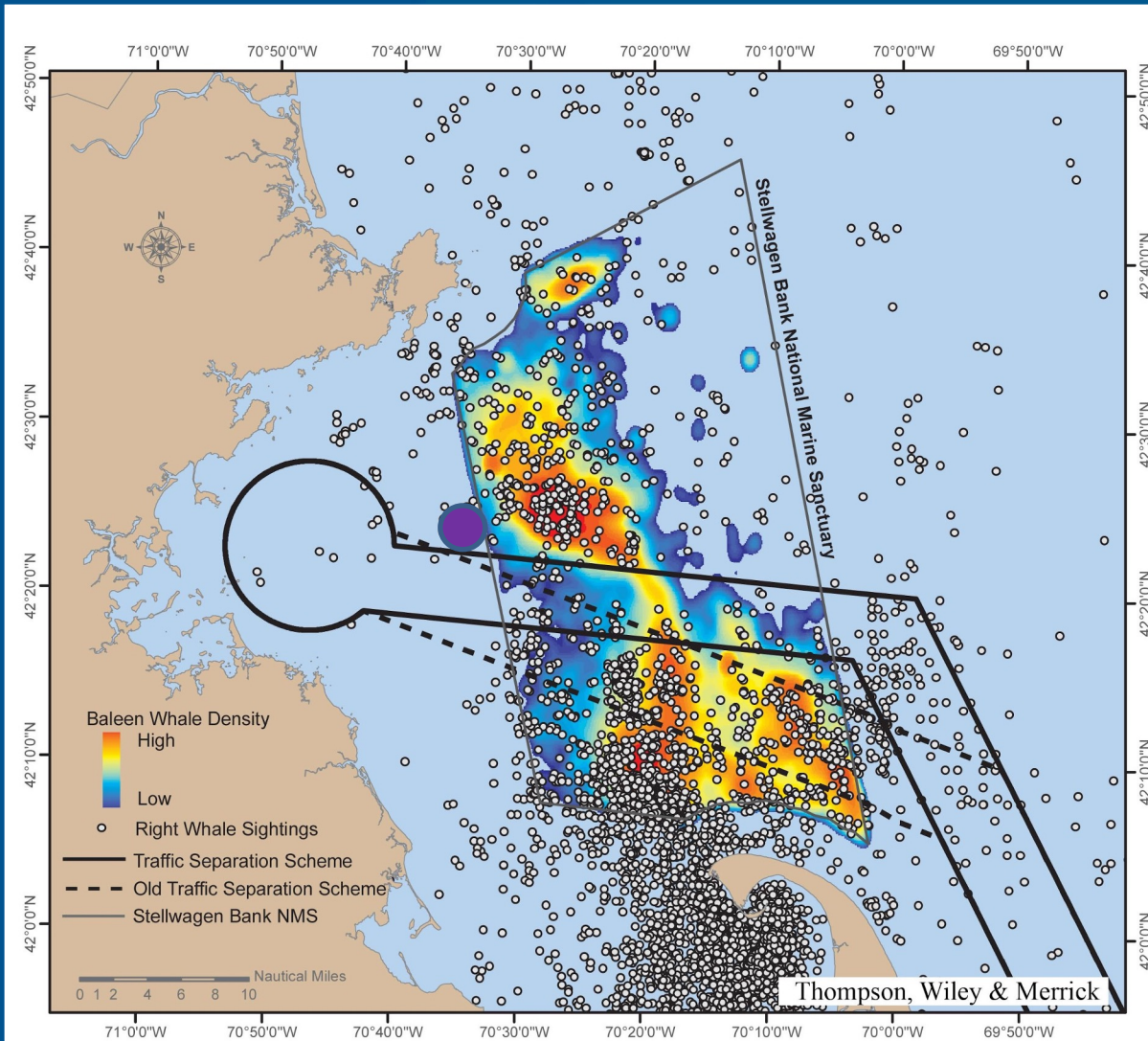
| | |
|----------|-------|
| Humpback | 7,864 |
| Right | 71 |
| Fin | 2,286 |
| Minke | 1,701 |

**Total =
11,922**

Baleen Whales: Whale Watch Database



81% reduction in risk



Realignment of TSS (2007)



Location of Deepwater LNG Ports



Reduced co-occurrence:

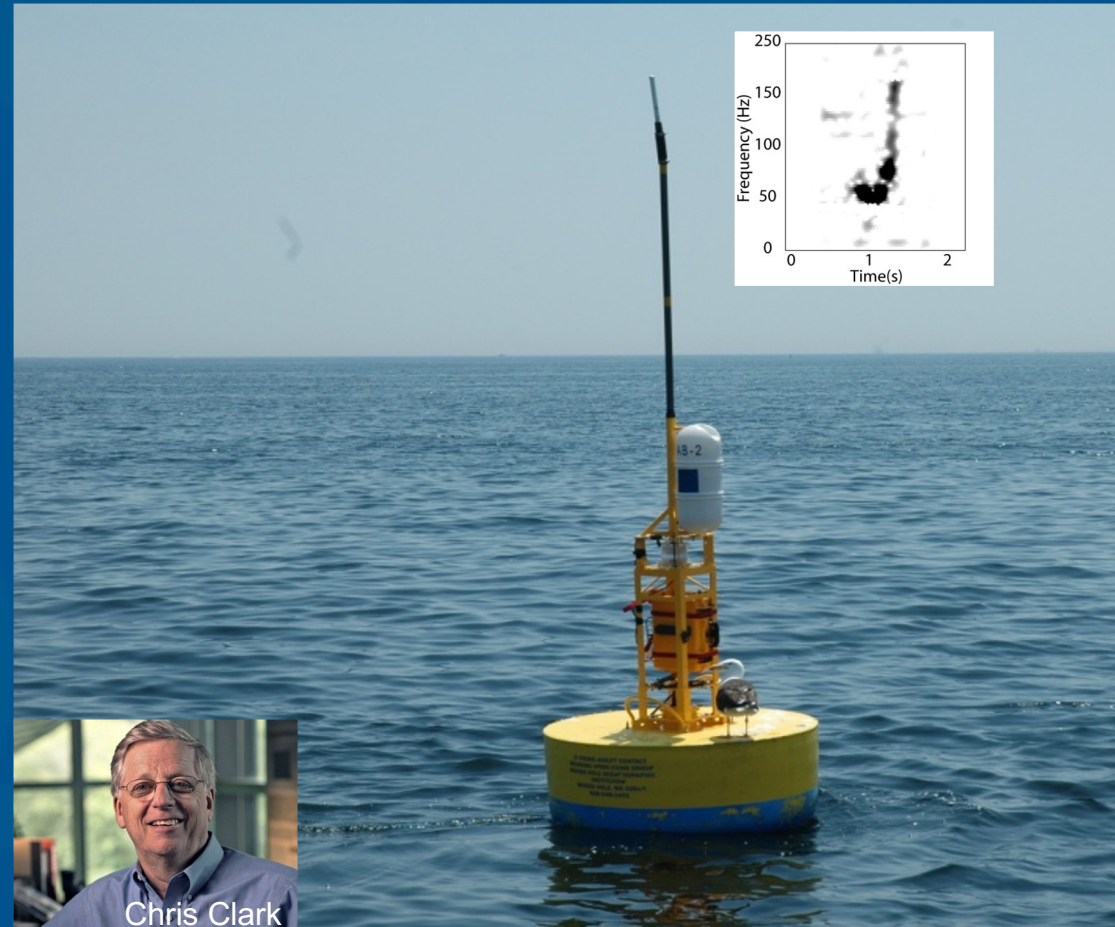
81% all whales

58% right whales



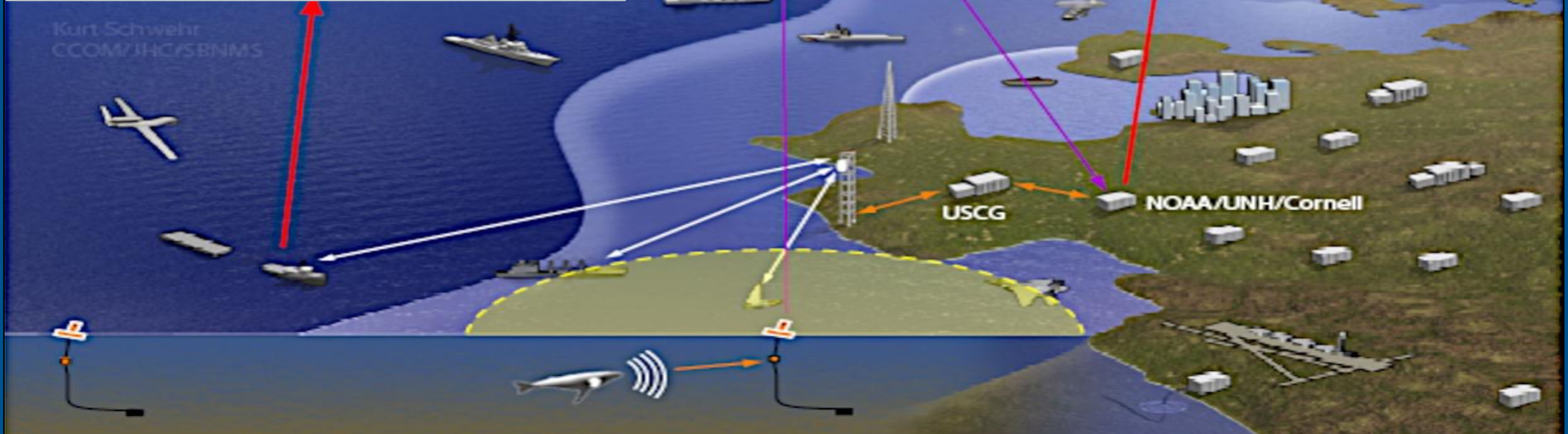
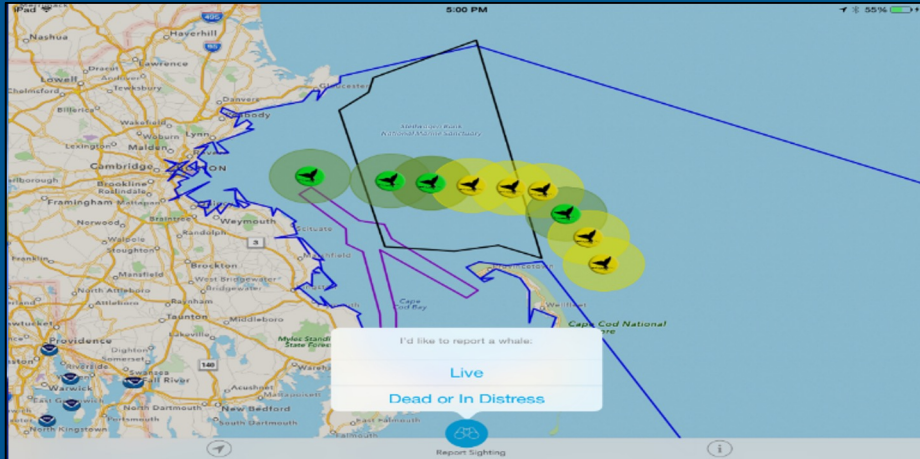
Right Whale Auto-Detection Buoys

- Moored buoys (Cornell BRP & WHOI)
- Hydrophones to detect specific right whale call
- Computer software to identify specific call
- Satellite transmitter to immediately send data to land base for confirmation & communication



Chris Clark

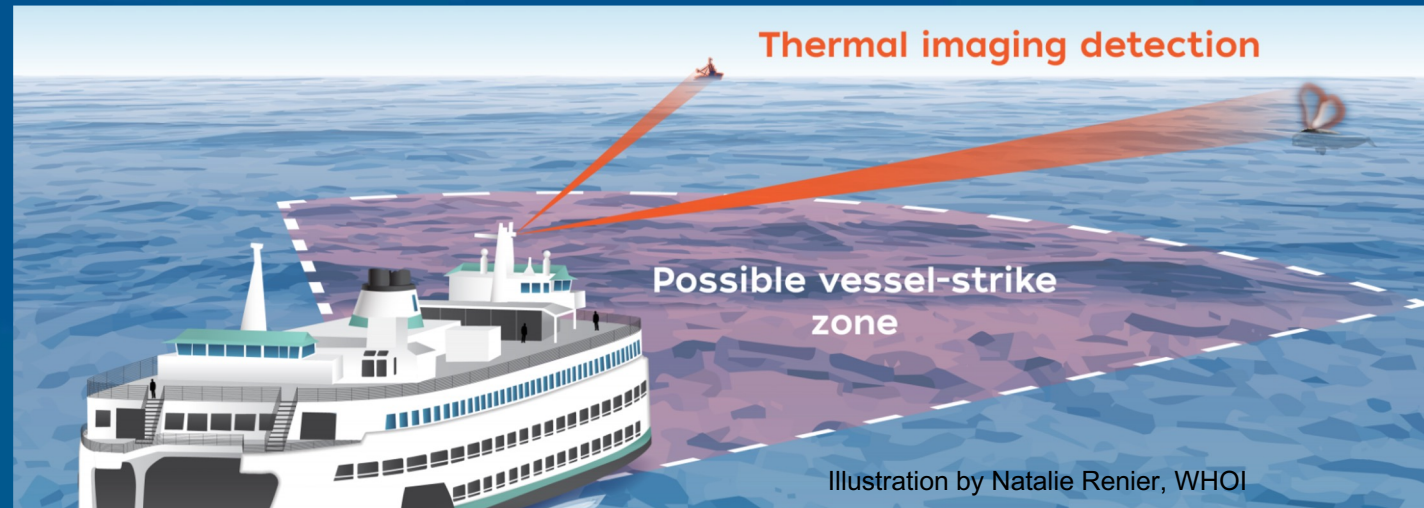
Stellwagen Bank Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration





Large Whale Detection using Infra-red Camera Technology

Collaborators: Dan Zitterbart (WHOI)



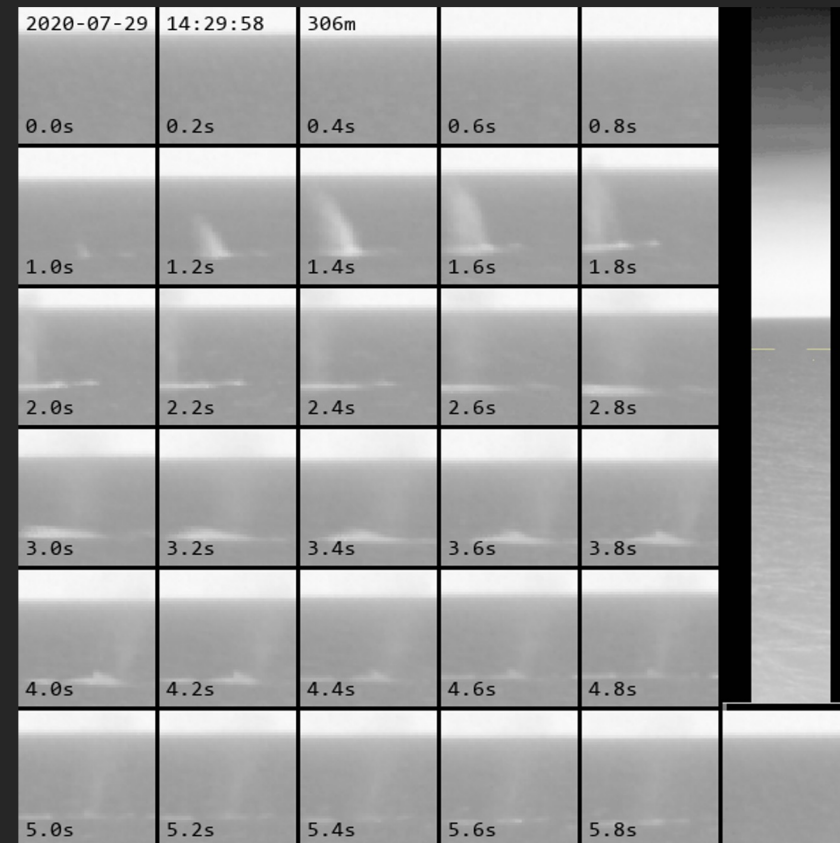
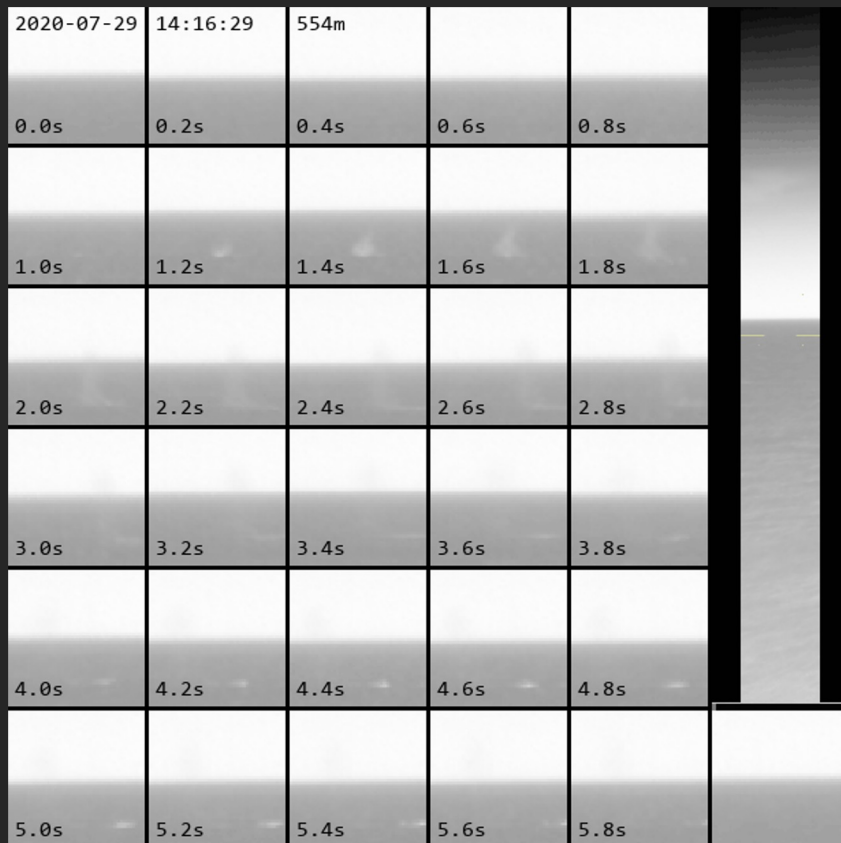
Goal: Reduce risk of ship strike by notifying vessels of right (or other) large whales in their path

How: A thermal imaging (infra-red) scanner searches the surface for blows. If a whale surfaces and blows, its thermal signature can be recorded by the camera and information provided to the ship's bridge.

Uses the temperature difference between blow and background (air).



System successfully detected humpback whales (2020) and right whales (2021)



Successful during day and night / rain and fog interfere with detections



Problem with Real-time or Dynamic Systems

Unpredictable
Hard to verify



Stellwagen Bank
Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration



ifaw
International
Fund for
Animal Welfare



Outreach & Education

2022

Right Whale Corporate Responsibility Project

David Wiley, PhD
Michael Thompson
Liam Waters

NOAA Stellwagen Bank National Marine Sanctuary


Patrick Ramage

International Fund for Animal Welfare

January 19, 2023




Science, Service, Stewardship



NOAA FISHERIES SERVICE

Mandatory speed restrictions of 10 knots or less are required in Seasonal Management Areas along the U.S. East Coast during times when right whales are likely to be present. The purpose of this regulation is to reduce the likelihood of deaths and serious injuries to these endangered whales that result from collisions with ships.



NOAA

Vessels may operate at a speed greater than 10 knots only if necessary to maintain a safe maneuvering speed in an area where conditions severely restrict vessel maneuverability as determined by the pilot or master.

If a deviation from the 10 knot speed restriction is necessary, the following information must be entered into the logbook:

- Reasons for deviation
- Speed at which vessel is operated
- Latitude and longitude at time of deviation
- Time and duration of deviation
- Master of the vessel shall sign and date the logbook entry

Page 1 of 2

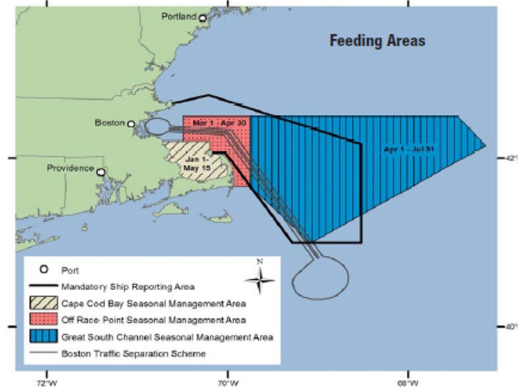
U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Marine Fisheries Service

Compliance Guide for Right Whale Ship Strike Reduction Rule (50 CFR 224.105)

ATTENTION: All vessels greater than or equal to 65 ft (19.8 m) in overall length and subject to the jurisdiction of the United States and all vessels greater than or equal to 65 ft in overall length entering or departing a port or place subject to the jurisdiction of the United States.

YOU MUST SLOW TO SPEEDS OF 10 KNOTS OR LESS IN SEASONAL MANAGEMENT AREAS

Northeast U.S. Seasonal Management Areas



Feeding Areas

Cape Cod Bay

January 1 - May 15

Includes all waters of Cape Cod Bay with Northern Boundary of 42°04'56.5"N, 070°12'W to 42°12'N, 070°12'W then due west back to shore.

Off Race Point

March 1 - April 30

Waters Bounded by: 42°04'56.5"N 070°12'W 42°12'N, 070°12'W 42°12'N, 070°30'W 42°30'N, 070°30'W 42°30'N, 069°45'W 41°40'N, 069°45'W then due west back to shore.

Great South Channel

April 1 - July 31

Waters Bounded by: 42°30'N, 069°45'W 42°30'N, 067°27'W 42°09'N, 067°08'24"W 41°00'N, 069°05'W 41°40'N, 069°45'W then back to starting pt.

The rule does not apply to waters inshore of COLREGS lines.



**Vessels >65 feet
Must slow to
Speeds of 10 knots
or Less**

**Off Race Point
March 1 - April 30**

**Cape Cod Bay
January 1 - May 15**

Boston

Stellwagen Bank

Nautical Miles
0 5 10 20 30 40



Corporate Responsibility:

That says

Duty and rational conduct
is expected of a corporation;

and is the

Accountability of a corporation
to a code of ethics or to
established laws





Use the Corporate Responsibility concept to:

- Increase vessel compliance with NOAA's Right Whale Ship Strike Reduction Rule,
- **Recognize the achievements of deserving maritime ships and companies,** and
- Provide increased protection of North Atlantic Right Whales

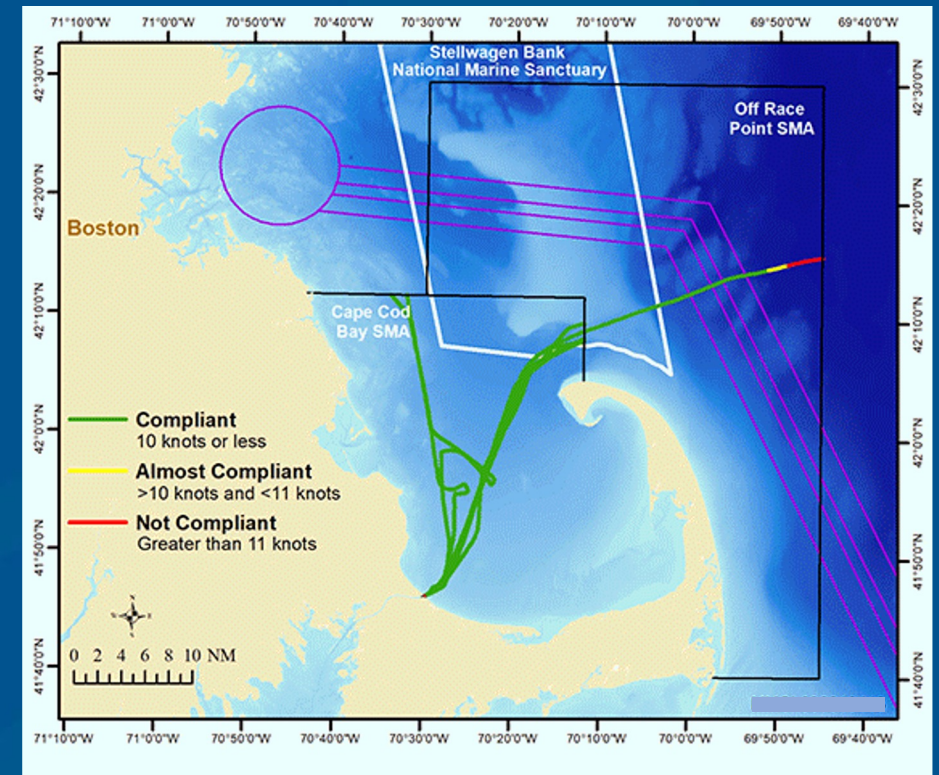
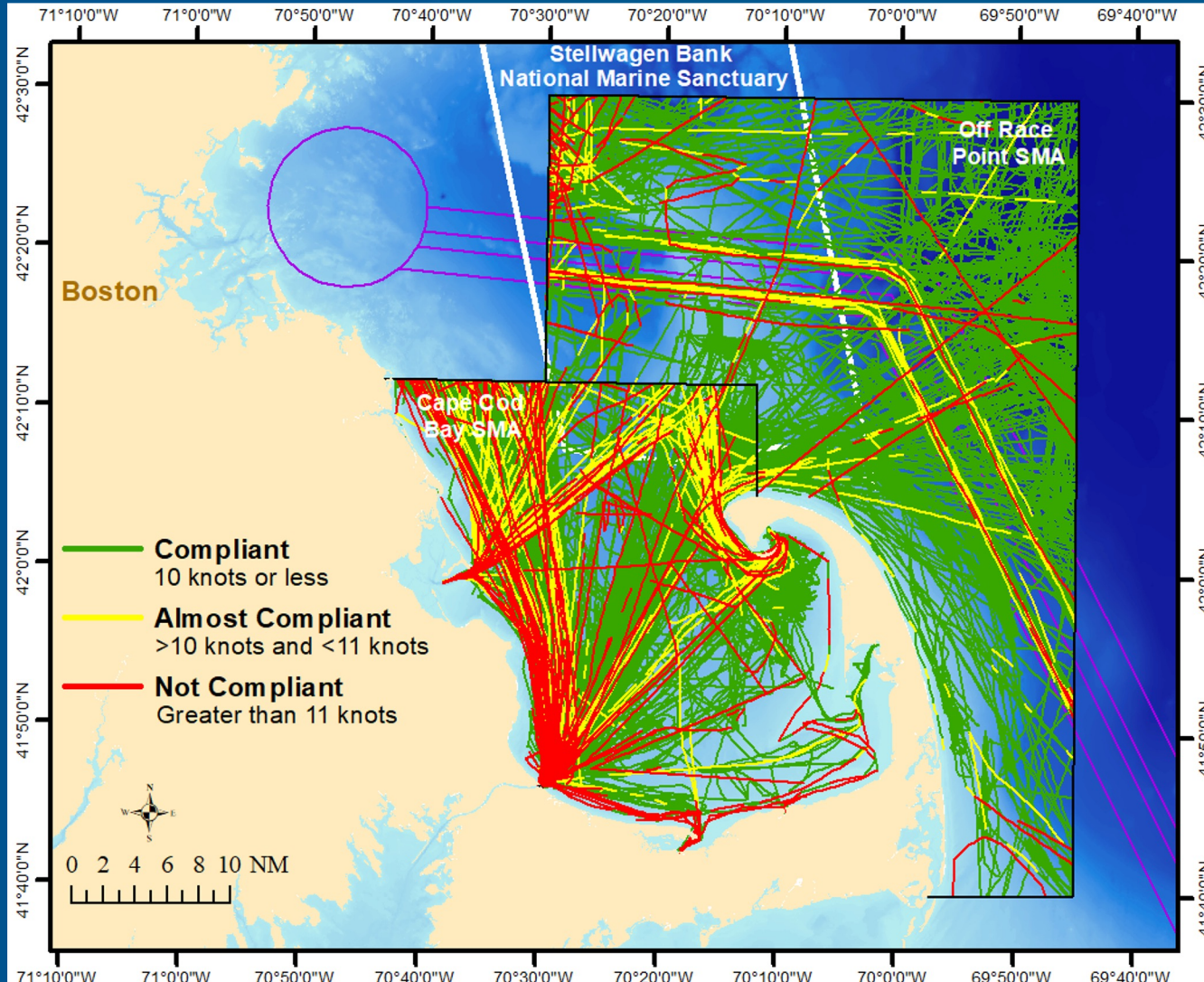


International
Fund for
Animal Welfare



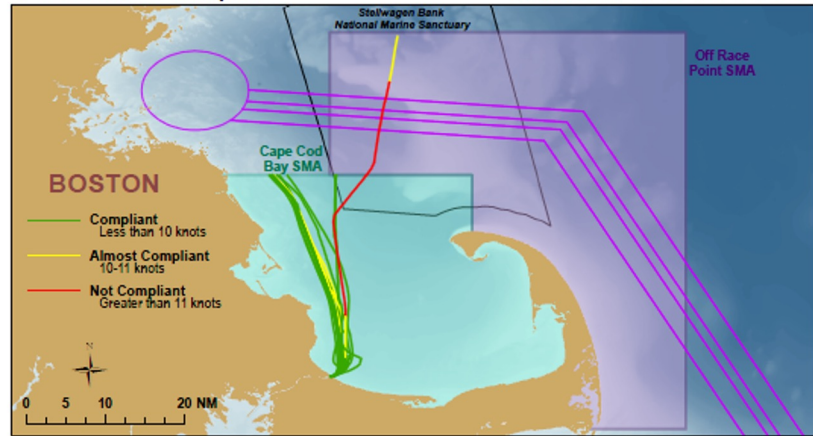
1,669 Transits

71,906 Line Segments



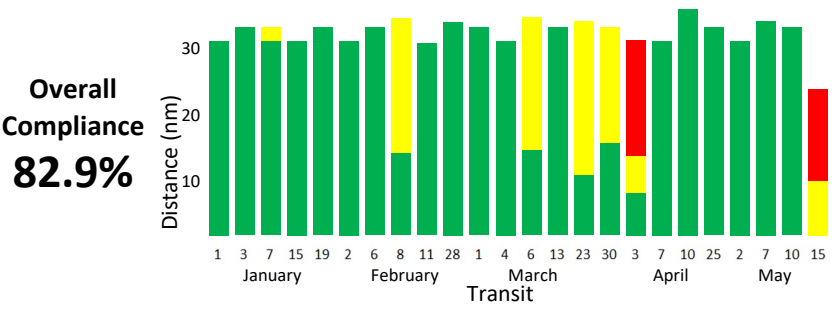


Vessel: Sample MMSI: 123456789



Vessel Information

Vessel Type
Unspecified/Other
Vessel Length
31.9 m
Total Number of Transits
24
Total Distance Traveled
643.4 nm
Percent of Distance Not Compliant
17.1 %
Mean Speed Over Ground
7.4 kts



Report Cards generated for all ships transiting the Seasonal Management Areas

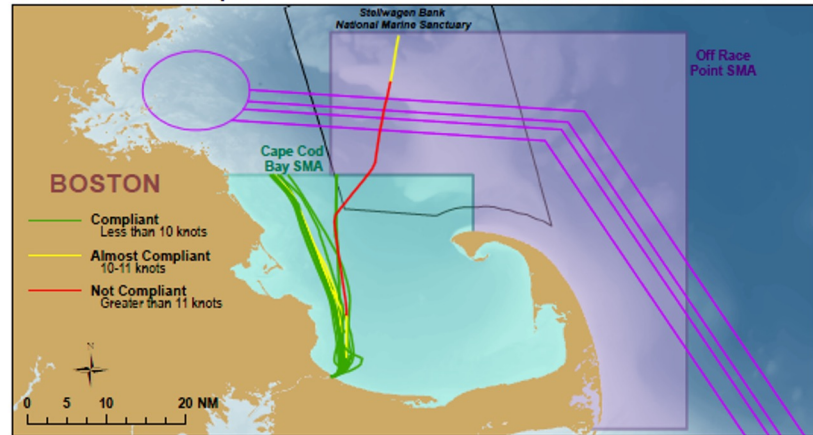
Vessel Information

- Name
- Type
- # of Transits
- Distance Traveled
- % Distance Not Compliant
- Mean Speed Over Ground
- Overall Compliance**

- > 11.0 knots
- 10.1 – 11.0 knots
- <= 10.0 knots



Vessel: Sample MMSI: 123456789



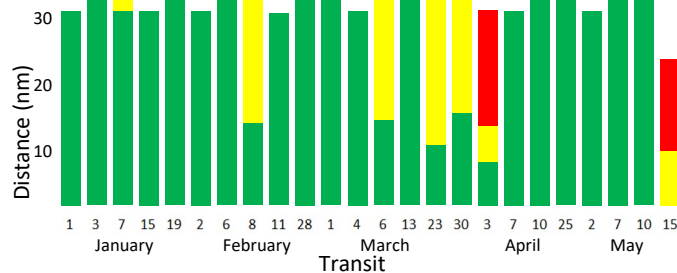
Vessel Information

Vessel Type
Unspecified/Other
Vessel Length
31.9 m
Total Number of Transits
24
Total Distance Traveled
643.4 nm
Percent of Distance Not Compliant
17.1 %
Mean Speed Over Ground
7.4 kts

SMA Transit of Least Compliance

Least Compliant SMA Transit
April 3, 2017 (Cape Cod Bay)
Distance Traveled
29.2 nm
Distance Traveled Not Compliant
26.1 nm (89%)
Mean Speed Over Ground
13.2 knots
Time Lost to be 100% Compliant
14 minutes and 23 seconds

Overall Compliance
82.9%

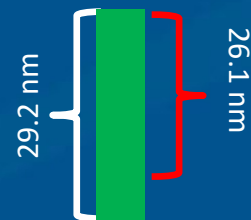


Transit of Least Compliance

Transit
Distance Traveled
Distance Traveled Not Compliant
% Distance Not Compliant
Mean Speed Over Ground
Time Lost to be 100% Compliant

Time Lost would be

00 : 14 : 23
min sec



April 3, 2017 (Cape Cod Bay)



| | |
|----------|-----------|
| 100% | A+ |
| 90 – 99% | A |
| 80 – 89% | B |
| 70 – 79% | C |
| 60 – 69% | D |
| <60% | F |

Ships and Companies
that receive an
A+ or A
rating receive a
**Certificate of
Corporate
Responsibility**





305 Vessels Report Cards
274 Vessel Certificates

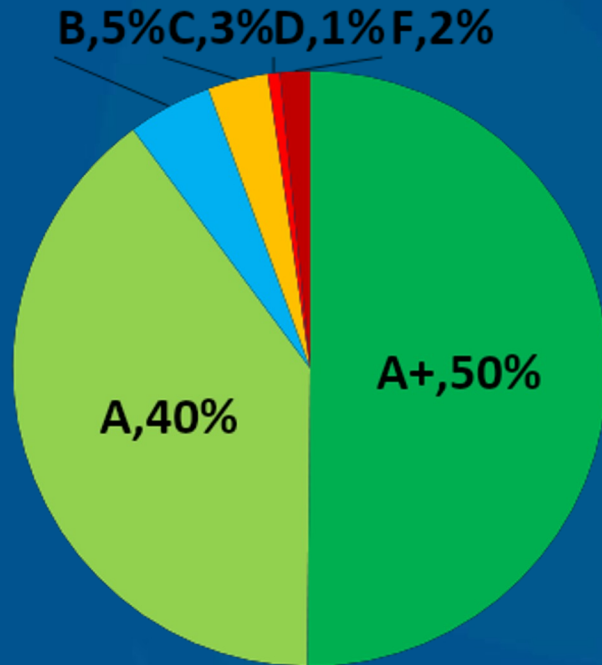


206 Companies
183 Company Certificates

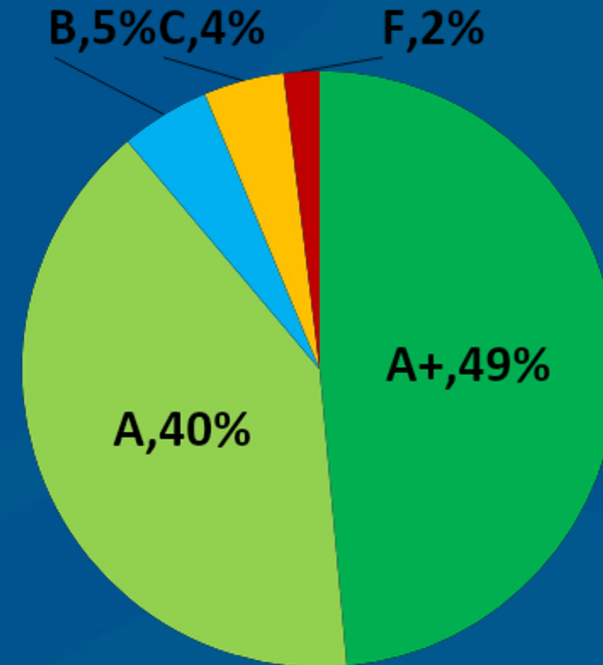


Corporate Responsibility Grades by Vessel (305)

Corporate Responsibility Grades by Company (206)



| Grade | 2022 |
|-------|-------------|
| A+ | 50% (n=153) |
| A | 40% (n=121) |
| B | 4% (n=14) |
| C | 3% (n=10) |
| D | 1% (n=2) |
| F | 2% (n=5) |
| Total | 305 |



| Grade | 2022 |
|-------|-------------|
| A+ | 49% (n=100) |
| A | 40% (n=83) |
| B | 5% (n=10) |
| C | 4% (n=9) |
| D | 0% (n=0) |
| F | 2% (n=4) |
| Total | 206 |



Corporate Responsibility 2022

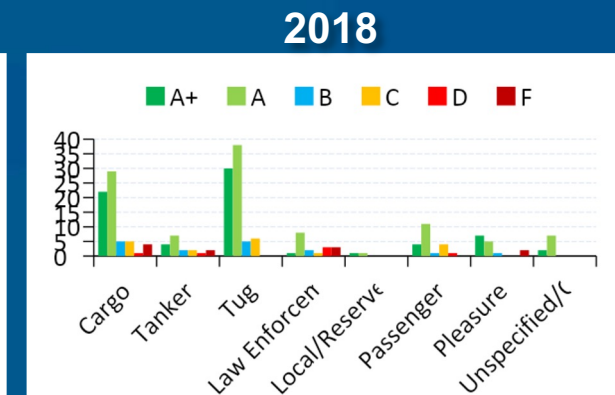
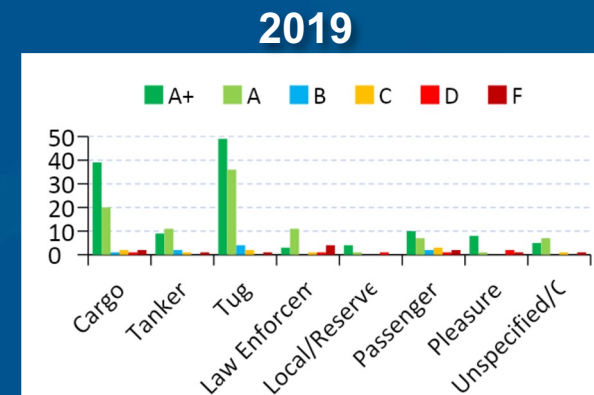
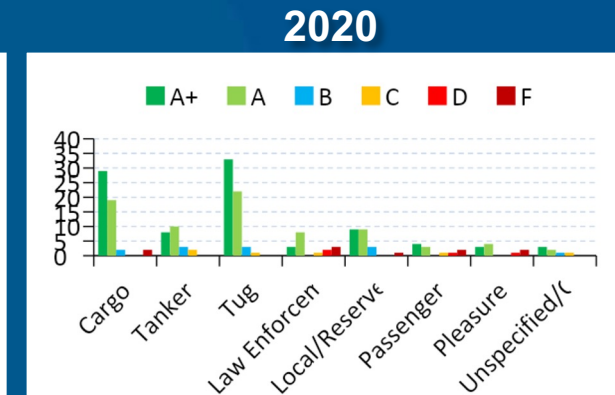
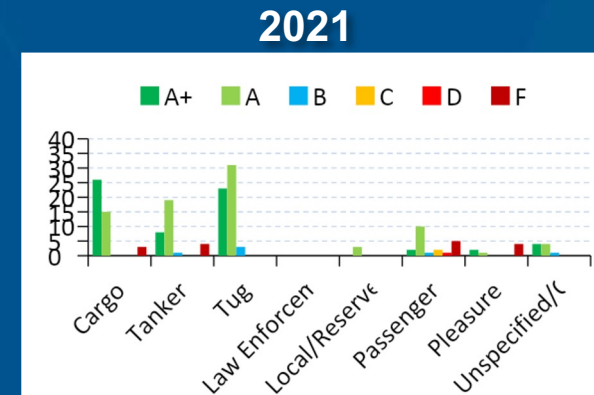
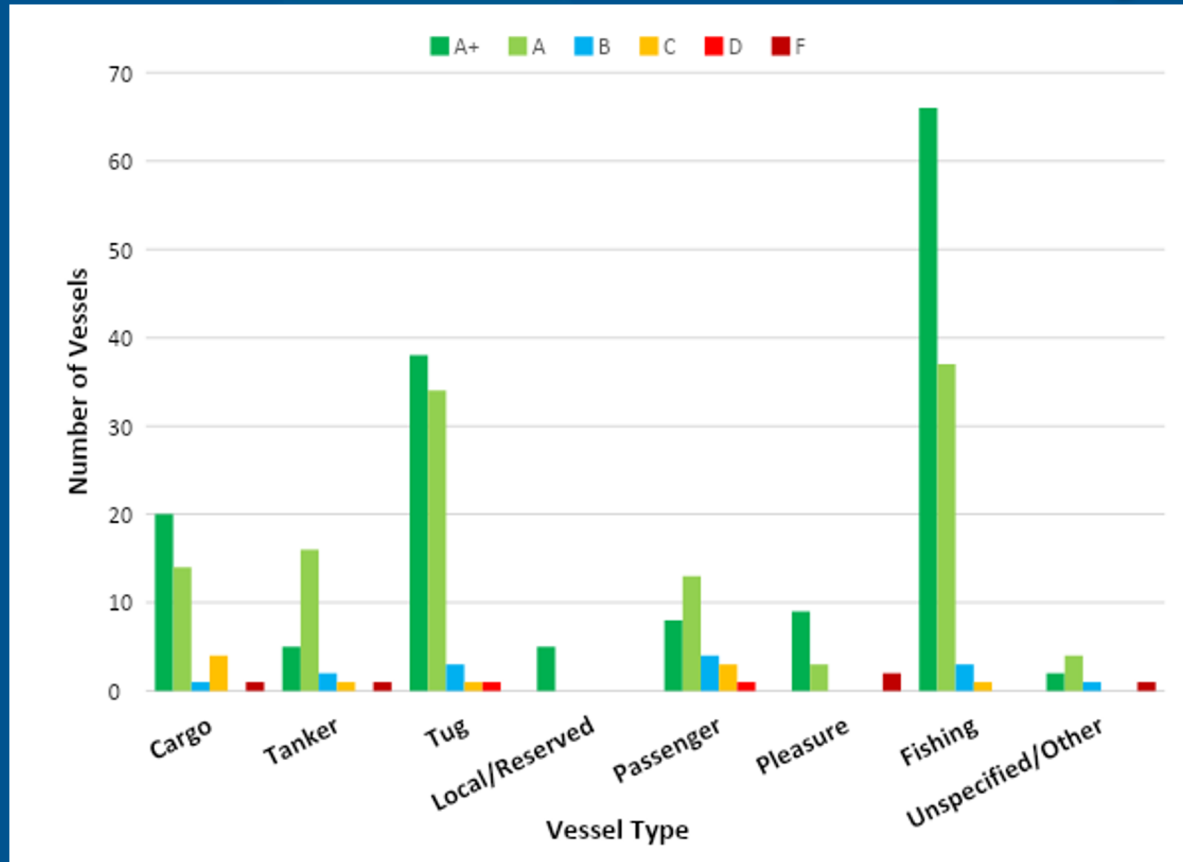
Grades by Vessel Type (Percent of Grade by Vessel Type): n=305

| Vessel Type | A+ | A | B | C | D | F | Total |
|---|------------|------------|-----------|-----------|----------|-----------|------------|
| Cargo | 50% (n=20) | 35% (n=14) | 3% (n=1) | 10% (n=4) | 0% (n=0) | 3% (n=1) | 40 |
| Tanker | 20% (n=5) | 64% (n=16) | 8% (n=2) | 4% (n=1) | 0% (n=0) | 4% (n=1) | 25 |
| Tug | 49% (n=38) | 44% (n=34) | 4% (n=3) | 1% (n=1) | 1% (n=1) | 0% (n=0) | 77 |
| Local, Reserved, And Dredgers | 100% (n=5) | 0% (n=0) | 0% (n=0) | 0% (n=0) | 0% (n=0) | 0% (n=0) | 5 |
| Passenger And High Speed Craft | 28% (n=8) | 45% (n=13) | 14% (n=4) | 10% (n=3) | 3% (n=1) | 0% (n=0) | 29 |
| Pleasure And Sailing | 64% (n=9) | 21% (n=3) | 0% (n=0) | 0% (n=0) | 0% (n=0) | 14% (n=2) | 14 |
| Fishing | 62% (n=66) | 35% (n=37) | 3% (n=3) | 1% (n=1) | 0% (n=0) | 0% (n=0) | 107 |
| Unspecified/Oth er | 25% (n=2) | 50% (n=4) | 13% (n=1) | 0% (n=0) | 0% (n=0) | 13% (n=1) | 8 |



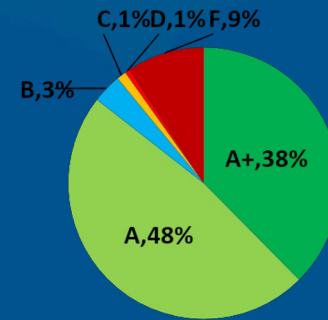
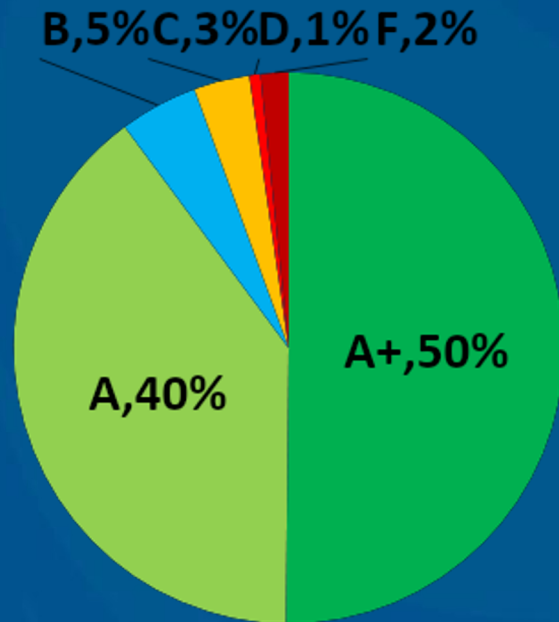
Corporate Responsibility 2022 vs other years

Grades by Vessel Types

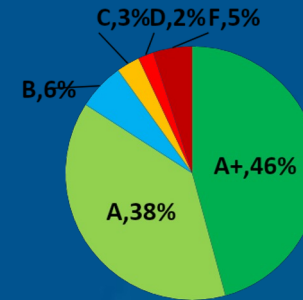




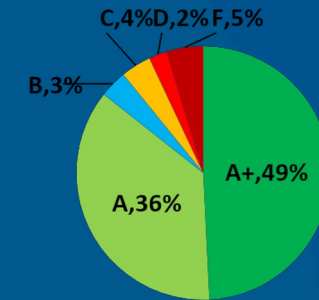
Corporate Responsibility 2022 vs other years Grades by Vessel



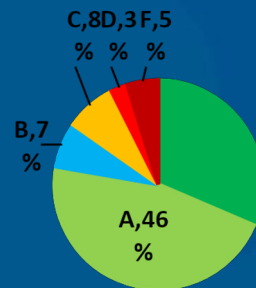
2021



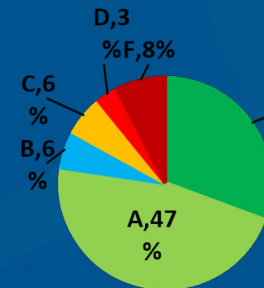
2020



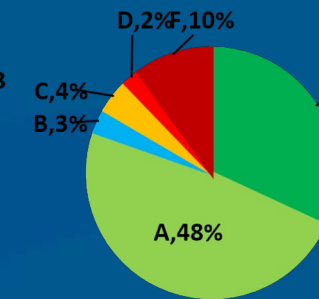
2019



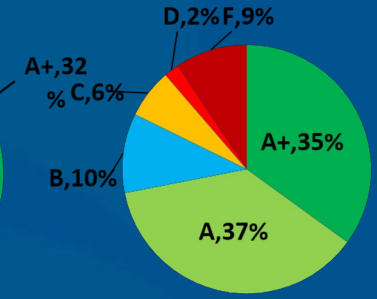
2018



2017



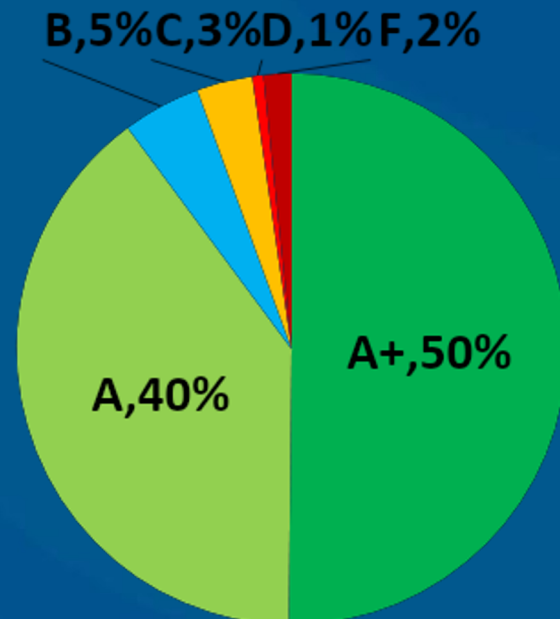
2016



2015



Corporate Responsibility 2022 vs other years Grades by Vessel



Corporate Responsibility 2022

- 48% (n=95) were new/first time vessels
- 100% of the F's were new/first time vessels (5 vessels)
- 47% of the A+ & A's were new/first time vessels (80 vessels)

Stellwagen Bank Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration



ifaw

International Fund for Animal Welfare



Corporate Responsibility Project

Company Certificate

Vessel Report Card(s) & Certificate(s)

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of National Marine Sanctuaries
Stellwagen Bank National Marine Sanctuary
135 Seaside Road, Suite 1000
New Bedford, MA 01904
Tel: 508-548-8004 Fax: 508-548-8030

Company Name: _____
Address 1: _____
Address 2: _____

Dear COMPANY NAME:

Your vessel(s) were monitored transiting the National Oceanic and Atmospheric Administration's (NOAA) Stellwagen Bank National Marine Sanctuary, portions of which overlap the Cape Cod Bay and Off Race Point Seasonal Management Areas. These Seasonal Management Areas (SMA) were promulgated under NOAA's Final Rule To Implement Speed Restrictions to Reduce the Threat of Ship Collisions With North Atlantic Right Whales published 10/10/2010, 71FR60017, and are designed to reduce the likelihood of deaths and serious injuries to these endangered whales that result from collisions with ships.

Mandatory speed restrictions of 10 knots or less are required in the Cape Cod SMA (Jan 1-May 15, annually) and the Off Race Point SMA (Oct 1-Apr 30, annually). Mariners are advised to refer to Coast Pilot 1 for information on these restrictions and to obtain additional information for reducing ship strikes. As a country to all operations transiting the sanctuary that are also required to abide by the Right Whale Ship Strike Reduction Rule, Stellwagen Bank National Marine Sanctuary, in conjunction with the International Fund for Animal Welfare, is sending out these informational letters to all vessels that transited the sanctuary within either of the above identified SMAs.

We at Stellwagen Bank National Marine Sanctuary, the International Fund for Animal Welfare and the Greater Atlantic Regional Fisheries Office believe that the specific information contained in this mailing will be helpful to you as you navigate these waters, which are heavily populated with endangered whales. We hope your knowledge of this risk in conjunction with the information contained herein will increase overall compliance rates and reduce lethal ship strikes. As a part of this letter you will find a map and summary of your vessel's transits of the SMA within the sanctuary in 2021. Data were derived from the United States Coast Guard's Automatic Identification System (AIS).

Information includes:

- Dates and map of your vessel's SMA transits;
- A bar chart of each of your vessel's transits color-coded to show the distance traveled in an SMA at speeds of 10 knots or less (in compliance with the Right Whale Ship Strike Reduction Rule), 10.1 - 11 knots, and greater than 11 knots;
- Percent of distance traveled in an SMA during which your vessel was in compliance with the Right Whale Ship Strike Reduction Rule (traveling at a speed greater than 10 knots);
- As analysis of your vessel's least compliant track, if one existed, calculating how much additional time it would have taken for you to transit the SMA at a compliant speed of 10 knots.

We note that our effort here is separate from any enforcement action NOAA Office of Law Enforcement may take. These letters serve as an educational tool for your reference and as a way to ensure you are aware of this critical rule. If you have questions regarding this letter or the analysis contained in please contact Dr. David Wiley, Research Coordinator for the Stellwagen Bank National Marine Sanctuary, at 508-243-1350 or david.wiley@noaa.gov, or Alicia Schulte, Greater Atlantic Regional Fisheries Office, Protected Resources Division, at alicia.schulte@noaa.gov. We thank you for your interest in making maritime activity compatible with right whale conservation and look forward to working with you in the future.

We at Stellwagen Bank National Marine Sanctuary, the International Fund for Animal Welfare and the Greater Atlantic Regional Fisheries Office believe that the specific information contained in this mailing will be helpful to you as you navigate these waters, which are heavily populated with endangered whales. We hope your knowledge of this risk in conjunction with the information contained herein will increase overall compliance rates and reduce lethal ship strikes. As a part of this letter you will find a map and summary of your vessel's transits of the SMA within the sanctuary in 2021. Data were derived from the United States Coast Guard's Automatic Identification System (AIS).

Additional: Please also be aware of NOAA's Mandatory Ship Reporting (MSR) system (<https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales>), which is separate and distinct from the SMA requirements described above. The MSR requires mariners to provide a report when entering the designated MSR area. Mariners will then receive a return message regarding right whales and avoiding ship strikes.

Certificate of Corporate Responsibility

Recognizing your achievement to protect the North Atlantic right whale through commitment to speed restrictions in seasonal management areas transiting the National Oceanic and Atmospheric Administration's Stellwagen Bank National Marine Sanctuary between January 1, 2021 and May 15, 2021.

Company Name
Grade

Captain Peter DeCola, U.S. Coast Guard (Retired), Superintendent, Stellwagen Bank National Marine Sanctuary

Patrick Ramage, Senior Director, Outreach and Program Collaboration, International Fund for Animal Welfare

Overall Compliance: 77.6%

Time to be 100% Compliant: 02 min 25 sec

| Parameter | Value | Target | |
|-------------------------------------|-------|-----------------------------------|---------------|
| SMA Transits of Least Compliance | 04/04 | Mean Speed Over Ground (knots) | 9.54 |
| Total Distance (NM) Traveled in SMA | 33.40 | Total % of Distance Not Compliant | 22.4% |
| Distance (NM) Not Compliant | 10.87 | Time to be 100% Compliant | 02 min 25 sec |

Bar chart showing compliance percentages for three transits: 03/29 (77.6%), 03/30 (77.6%), and 04/04 (77.6%).

Certificate of Corporate Responsibility

Recognizing your achievement to protect the North Atlantic right whale through commitment to speed restrictions in seasonal management areas transiting the National Oceanic and Atmospheric Administration's Stellwagen Bank National Marine Sanctuary between January 1, 2021 and May 15, 2021.

Vessel Name
Grade

Overall Compliance: 77.6%

Time to be 100% Compliant: 02 min 25 sec

Bar chart showing compliance percentages for three transits: 03/29 (77.6%), 03/30 (77.6%), and 04/04 (77.6%).

Grading Explanation

Right Whale Corporate Responsibility Program

In 2016, Stellwagen Bank National Marine Sanctuary and the International Fund for Animal Welfare initiated the Right Whale Corporate Responsibility Program. The corporate responsibility concept involves recognizing companies for actions that demonstrate a commitment to right whale conservation, and recognizing donors for their efforts. The program uses Report Card data (collected) to compare a company's and ship's level of compliance in the Cape Cod Bay and Off Race Point and Cape Cod Bay Seasonal Management Areas. Compliance is defined as the percentage of distance traveled in compliance with the Right Whale Ship Strike Reduction Rule (traveling at a speed greater than 10 knots).

How Have Your Vessel Grades Been Determined?

Vessel grades are determined by analyzing ship speed derived from AIS tracks. Using AIS data we calculate a vessel's compliance with NOAA's Right Whale Ship Strike Rule when transiting the Off Race Point and Cape Cod Bay Seasonal Management Areas. Compliance is defined as the percentage of distance traveled in compliance with the Right Whale Ship Strike Reduction Rule (traveling at a speed greater than 10 knots).

Grading Example: In this example report card, the ship traveled only 77.6% of the SMA at a compliant speed (10 knots or less). However, the vessel's overall speed was 9.54 knots, and the least compliant transits speed was also 9.54 knots. The ultimate grade was an A.

Comparison Results:

Overall Compliance: 77.6%

Time to be 100% Compliant: 02 min 25 sec

Grading Explanation

Vessel grades are determined by analyzing ship speed derived from AIS tracks. Using AIS data we calculate a vessel's compliance with NOAA's Right Whale Ship Strike Rule when transiting the Off Race Point and Cape Cod Bay Seasonal Management Areas. Compliance is defined as the percentage of distance traveled in compliance with the Right Whale Ship Strike Reduction Rule (traveling at a speed greater than 10 knots).

Grading Example: In this example report card, the ship traveled only 77.6% of the SMA at a compliant speed (10 knots or less). However, the vessel's overall speed was 9.54 knots, and the least compliant transits speed was also 9.54 knots. The ultimate grade was an A.

Free Whale Alert App
Reducing Ship Strikes to Large Whales

A new enhanced version of Whale Alert is now available for Apple and Android devices from **WHALEALERT.ORG**

All Important Features Still Included:

- Current ship location
- Seamless NOAA raster charts
- GPS tracking and alerts when entering right whale management areas
- Dynamic Management Areas
- Seasonal Ship Reporting Areas
- Recommended Routes
- Areas to be avoided
- Acoustic right whale detection beeps through the Stellwagen Bank NMS

NEW DISPLAY FEATURES INCLUDE:

- NOAA PORTS® (Optional Oceanic Real-Time System) for weather and tide data needed for safe navigation
- Ability to report live whale sightings to managers and scientists using our whale ID guide to contribute to right whale alerts and understanding whale habitat
- Report dead, injured, entangled or stranded whales - time is critical to a successful response!
- Capture time/date/location stamped photos to submit with sightings
- Whale watching guidelines for operational guidance when in sight of whales
- Greater geographic coverage (east and west coast of US, Alaska and maritime Canada)
- Real-time autonomous underwater vehicle (AUV) detections of right, humpback, fin & sei whales

Download the Free Whale Alert App to Avoid Fines and Protect Whales!

Whale Alert
Free Smart Phone App Helps Mariners Avoid Right Whales and Monetary Fines

Collisions between ships and whales is a problem that is drawing world-wide attention. From the United States to the Mediterranean to New Zealand, mariners are increasingly being asked to take action to reduce the risk of such collisions, receive vital help in doing so. Led by scientists from the US National Oceanic and Atmospheric Administration's Stellwagen Bank National Marine Sanctuary, a consortium of scientists, industry representatives and conservation groups has developed a new application. Whale Alert is a free mobile application that provides maritime consumers and others with up-to-date information pertaining to NOAA's Stellwagen Bank National Marine Sanctuary. Detection beeps on Whale Alert charts as green circles. The circles turn yellow to indicate that a right whale has been detected within the past 24 hrs and a > 10 knot speed is required.

What Will Mariners See on Whale Alert?

Whale Alert provides mariners with a visual display of all relevant right whale management initiatives digital raster charts via their smart phone, including:

- Current Blue Sighting - An icon depicts a ship's real-time GPS derived location.
- Seasonal Management Areas (SMA) - SMAs are ocean areas that the US Coast Guard requires mariners to transit at specific knots. SMAs are active only during specific times of the year of right whales are historically present. SMAs appear on Whale Alert charts as orange-colored areas and are only displayed during the time period in which the SMA is active. As a ship enters an SMA a pop-up window (designated as "GPS") indicates apparent sighting mariners that the ship should be traveling at a speed of 10 knots.
- Management Ship Reporting (MSR) - MSRs are areas that, if entered, a ship must contact the US Coast Guard to receive right whale information. MSRs are displayed on Whale Alert as a blue line that borders the reporting area. When a ship enters an MSR a pop-up window appears containing the name and report to the US Coast Guard and provided information on reporting procedures.
- Areas to be Avoided (ATBA) - DBO sanctioned ATBAs to protect right whales appear on the 9% Alert charts as red values and where they are active.

Download the Free Whale Alert mobile app to whalealert.org

Comparison Results

Whale Alert Pamphlet

Stellwagen Bank Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration



ifaw

International
Fund for
Animal Welfare



Responses from Companies

U.S. Department of Commerce
Attn: Mr. Graig Mac Donald, P
National Marine Sanctuary
Stellwagen Bank National Marine
175 Edward Foster Rd.
Scituate, MA 02066

March 24, 2015

Dear Mr. MacDonald and dear M

Herewith we confirm good recept

We want to thank you for this c

and in the office, we will where

the wider awareness of this imp

unbelievable marine species.

Once more on behalf of our cre

Yours sincerely,

Evert van Dishoeck
Evert van Dishoeck,
Director
Rederij Clipper Stad Amsterdam

McALLISTER TOWING AND TRANSPORTATION COMPANY, INC.
17 BATTERY PLACE, NEW YORK, NY 10004-1260
TEL (212) 269-3200 FAX (212) 509-1147

March 24, 2015

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Office of National Marine Sanctuaries
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, MA 02066

To whom it may concern:

We received a letter dated February 17, 2015 from the United States Departme

National Oceanic and Atmospheric Administration regarding the implementatio

Corporate Responsibility Program.

While we can appreciate this initiative, it is important to note that the vessel, S

the letter, does not belong to McAllister Towing & Transportation Company, Inc

Please correct this information in your system and revise McAllister Family Inve

responsibility rating. Please respond in writing to confirm that the correction ha

Thank you for your attention to this matter.

Very truly yours,
Alessandra Tebaldi
Alessandra Tebaldi, General Co

AT/jc

Email Received by Dave Wiley on 30 Jan 2013:

Dear Sir,

We have received information from your good office that our vessel Freja Hafnia had violated

Voluntary speed reduction requi

time.

In this we extremely apologize

ensure that such actions are no

As ISO 14001 certified company

protection and we will strengthe

and ensure that our vessels str

March 4, 2011

Craig MacDonald, Ph.D.
Superintendent
Director
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, Massachusetts 02066

ZODIAC MARITIME AGENCIES LTD.
6th Floor, 1 Hanover Street, London W1S 1YZ

Reederei Blue Star
Member of the Konoworld Group

Dr. C. MacDonald, Superintendent, Stellwagen
National Marine Sanctuary
Mr. P. Ramage, Global Whale Program Directo
International Fund for Animal Welfare

National Oceanic and Atmospheric Administra
National Ocean Service
Office of National Marine Sanctuaries
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, Massachusetts 02066

Ref: **Maersk Dartford** – transit overview through NOAA Stellwagen
Marine Sanctuary

Dear Mr MacDonald, Dear Mr Ramage,

Thank you for your letter informing us about the performance of our ve

during her transit.

As ISO 14001 certified company we are aware of the importa

protection. We will take this report as an opportunity to remind our

policy in respect of whale protection, although it is already included in o

our vessels calling US ports.

With kind regards

Christoph Werner
Christoph Werner
Fleet Team Manager
Reederei Blue Star GmbH

Yours sincerely,
Paul Shields
Paul Shields,
Director of Operations
Zodiac Maritime Agencies Ltd.

Lloyd's Register

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of National Marine Sanctuaries
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, Massachusetts 02066

Ref: **Maersk Dartford** – transit overview through NOAA Stellwagen
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policy in respect of whale protection, although it is already included in o

our vessels calling US ports.

With kind regards

Christoph Werner
Christoph Werner
Fleet Team Manager
Reederei Blue Star GmbH

Reederei Blue Star GmbH, Kattrepel 2, 20095 Hamburg, T +49 40 32 96
Eintägung Amtsgericht Hamburg HRB 78009 Geschäftsführer: Harald Strak
Umsatzsteuerident.Nr. DE 232801216 Steuer Nr. 27/227/008
Bank Fortis Bank S.A./N.V. - Belf. EUR 113 5833 193 - BIC: FORTIBEL33
SWIFT: CEZBAE33 - Belf. USD 113 5836 486 - Belf. USD: DE31 370 10609

Gentle Maritime Limited
PO Box 166, 4th Floor, One Circular Road, Douglas, Isle of Man IM99 3NZ
Tel: +44 (0) 1624 640 150 Fax: +44 (0) 1624 640 152

22 February 2011

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Office of National Marine Sanctuaries
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, Massachusetts 02066

Dear Sirs,

Gentle Leader

Thank you for your recent letter of which I duly attach a copy. We have been advised that that the vessel concerned has been instructed to implement the speed restriction as per requirements. For all future operation matters please may they be addressed as follows:

Attn: Capt. P Kakolyris
Stamco Shipmanagement S.A
21 Akti Miaouli Street
Piraeus 18535
Greece

Email: stamco@stamco.gr ssmcoltd@hotmail.gr
Telephone: +30 210 4220031
Fax: +30 210 4220073/74

Yours faithfully

S. Georgeson
Sandra Georgeson
Director

Dear Sirs,

As owners and operators of captioned vessel we have received your letter with speed histograms and other useful information.

First of I would like to express my appreciation for the job you are doing to protect the North Atlantic Right Whales.

We as diligent ship-owner do take note and apply your speed restrictions whenever practically possible and with utmost attention.

In this particular case we have investigated the circumstances relating to the speed of just above 11 kts (< 11.75 kts) as occurred on 24th April 2012 and of exactly 11 kts as occurred on 27th April 2012.

On 24th April 2012 vessel was transiting with reduced speed as per SMA

Unfortunately charterers insisted we increase in order to arrive at Pilot station

morning at 08:30 LT. This was done accordingly in order not to miss our berthing

extra lookouts were posted on the bridge to monitor for whales presence. Please see

NOON position report from 23rd where it is documented that average speed was 11.75

ONLY an average for the 24 hours period and we can confirm that vessel was sailing

its at some stages during that day.

On 27th April 2012 vessel was strictly monitoring her speed and applying 10

action. However it is worth pointing out that accurate speed monitoring with sea

force 6) and gusting winds is very challenging task. Speed of 10 kts is very

our vessel should maintain to ensure safe steering and to maintain her track in

ons. Anyhow we have tried our best again to comply with SMA speed restrictions to

our abilities. Needless to say that no whales were sighted in the vicinity.

Two NOON report for your kind assurance.

able for any further clarification or information you might need.

upport your initiative and hope that North Atlantic Right Whales will be

protected I the future.

S. Mario

tanari S.p.A.
ini, 36 - 61832 Fano (PU) - Italy

0721.890371
401.943823
0721.830781
ufficio.sms@navmont.com
mario.grbic@navmont.com
/www.navmont.com

- Mailed Letters
- Faxes
- Emails
- Phone Calls



Herewith we confirm good receipt of your letter and the attached "Certificate of Corporate Responsibility for the protection of the North Atlantic right Whale through Compliance".

We want to thank you for this certification, we are very proud on this recognition onboard and in the office, we will where possible publish this achievement in order to support the the wider awareness of this important responsibility towards these fantastic and unbelievable marine species.

As owners and operators of captioned vessel we have received your letter with speed histograms and other useful information.

First of I would like to express my appreciation for the job you are doing to protect the North Atlantic Right Whales.

We as diligent ship-owner do take note and apply your speed restrictions whenever practically possible and with utmost attention.

In this particular case we have investigated the circumstances relating to the speed of just above 11 kts (11.75 kts) as occurred on [REDACTED] and of exactly 11 kts as occurred on

27th April 2012



Herewith
Responsibility

We want
and in the
the wider
unbelievable

We wish to respond to your letter addressed to the [redacted] Company in connection with NOAA's documented record showing that our vessel, [redacted] [redacted] was out of compliance with mandatory speed restrictions on [redacted] [redacted] as she transited the Stellwagen Bank National Marine Sanctuary.

I regret that [redacted] failed to observe the Right Whale Ship Strike Reduction Rule at the time of her transit. We are taking immediate steps to make sure that [redacted] mariners are well-informed of the 10- knots-or-less restrictions on Cape Cod Bay and Off Race Point Seasonal Management Areas.

Voluntary speed reduction requirement at Cape Cod Bay for short period of time.

In this we extremely apologize for our vessel action and we will endeavor and ensure that such actions are not repeated by our vessels in this future.

As ISO 14001 certified company we also actively take part in environment protection and we will strengthen our campaign against right whale protection and ensure that our vessels strictly complies with Speed reduction requirement.

In this regard we have already forwarded below mentioned message to all vessels in the fleet.

histograms

t the North

actically

of just
occurred on



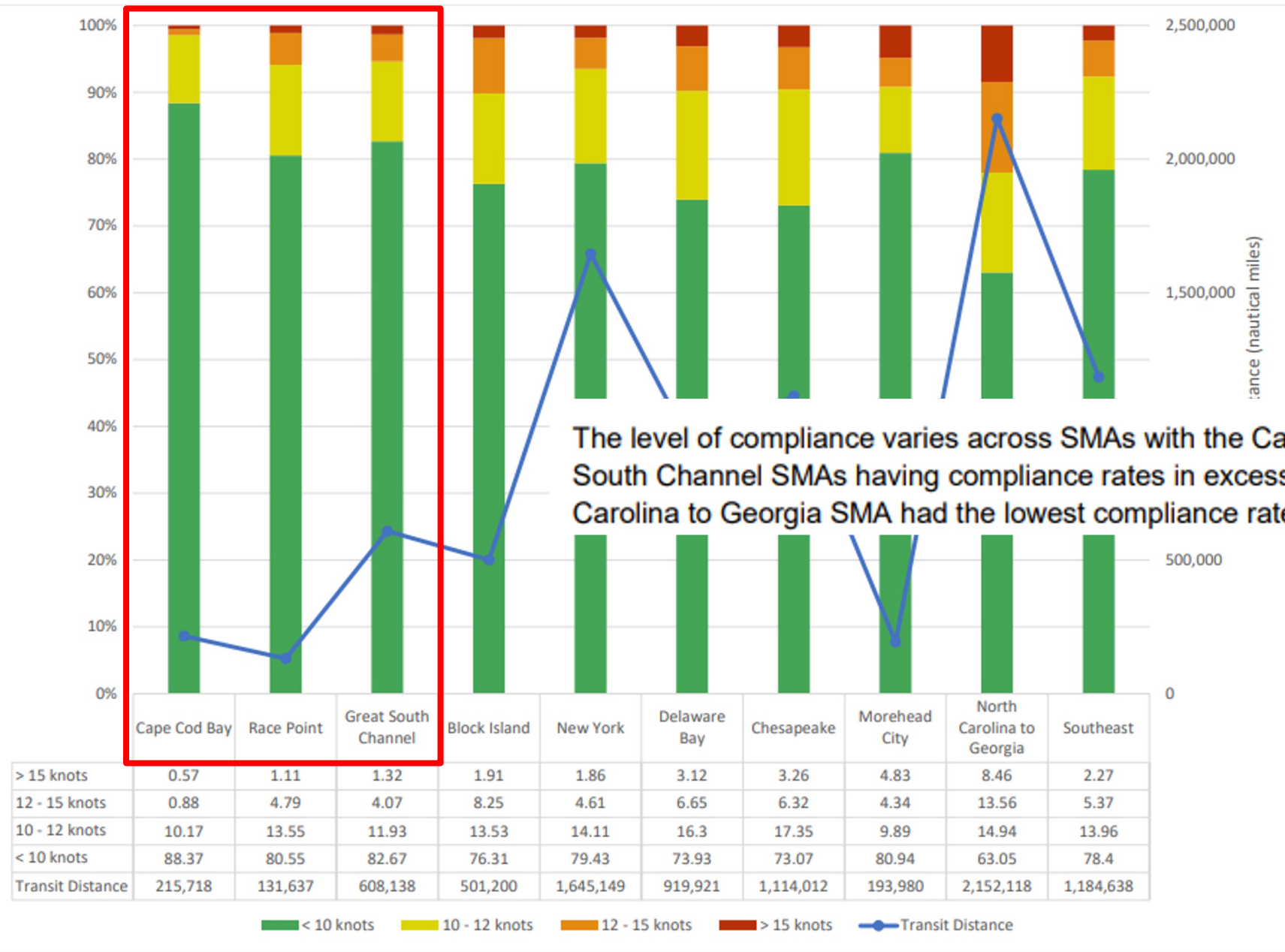
Corporate Responses



“We just received your packet for the Right Whale Compliance and we got quite a few certificates, thank you very much.

One of our vessels however the _____ I got the data page with the vessel information but we did not receive a Certificate for it in the packet.

I was just calling to see if we could get that Certificate because we give them to our vessels and they post them on board, they're very proud of these Certificates.”

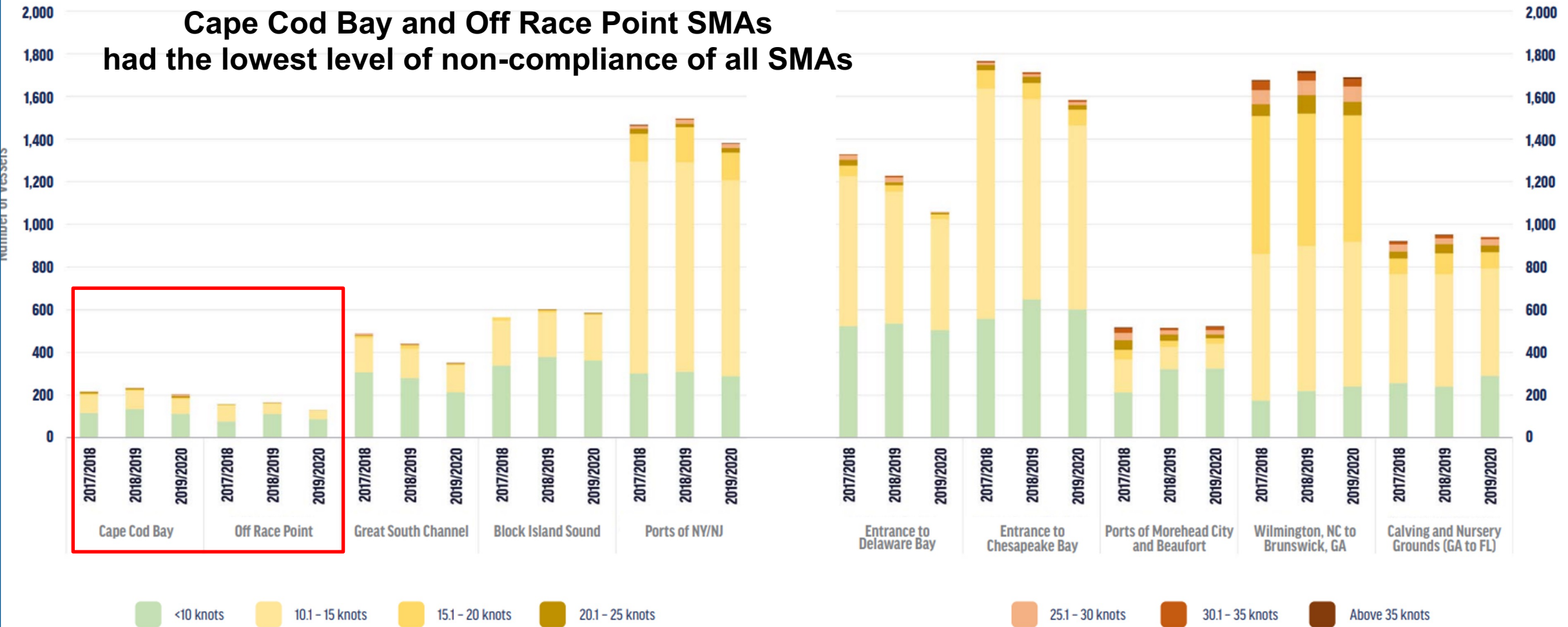


From: National Marine Fisheries Service. 2020. North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment. National Marine Fisheries Service, Office of Protected Resources, Silver Spring, MD.

Figure 10. Proportion of total distance traveled through each active SMAs by speed class across all seasons. The blue line indicates the total distance transited in each SMA.



Cape Cod Bay and Off Race Point SMAs had the lowest level of non-compliance of all SMAs





IVER SHIPS

Iver Ships committed to whale protection

Iver Ships' six product tankers call at the US port of Boston many times a year. During the whale season, from 1 January to 15 May, they participate in a scheme of speed restrictions for Boston calls, requested by the National Oceanic and Atmospheric Administration (NOAA).

Whales passing through the Stellwagen Bank sanctuary during this period each year to feed are vulnerable to being struck by vessels. Right whales are particularly vulnerable to a ship strike, as they skim the surface of the water with open mouths. In 2008, NOAA, the agency in charge of protecting right whales in US waters, began

requesting large ships to slow down to 10 knots or less while passing through right whale seasonal areas. Some of these areas include the Stellwagen Bank National Marine Sanctuary, a critical seasonal feeding area for right, humpback, fin and minke whales. If ships slow down, any collision they may have with a whale has a smaller chance of being fatal.

In 2010, NOAA, the Massachusetts Port Authority and the International Fund for Animal Welfare launched the Right Whale Corporate Responsibility Project. The US Coast Guard (USCG) provides information that tracks each individual ship and its speed while passing through seasonal

management areas. The USCG Responsibility Project team uses these data to generate report cards on compliance with speed limits that are then sent to the shipping companies, including Iver Ships.

In 2019, five vessels called at Boston during the whale season and all received the Grade A Certificate for fully complying to the speed restrictions.

We are proud of our masters and crews for their adherence to the restrictions and contributions to the protection of this great animal. Well done!



Vroon B.V.
P.O. Box 6400
4802 HK, Breda
Netherlands

Dear Vroon B.V.,

Your vessel(s) were monitored transiting the National Oceanic and Atmospheric Administration's Stellwagen Bank National Marine Sanctuary during the 2019 Right Whale Season. These Seasonal Management Areas (SMA) are designated to protect the North Atlantic right whale population from ship strikes. The USCG and NOAA are pleased to announce that your vessel(s) have been awarded the Grade A Certificate of Corporate Responsibility for fully complying to the speed restrictions in the SMA.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Sanctuary Program
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Rd.
Scituate, MA 02565
(781) 546-6004 FAX: (781) 545-8036



In 2019, five of our product tankers called at Boston during the whale season and all received the Grade A Certificate for fully complying to the speed restrictions.

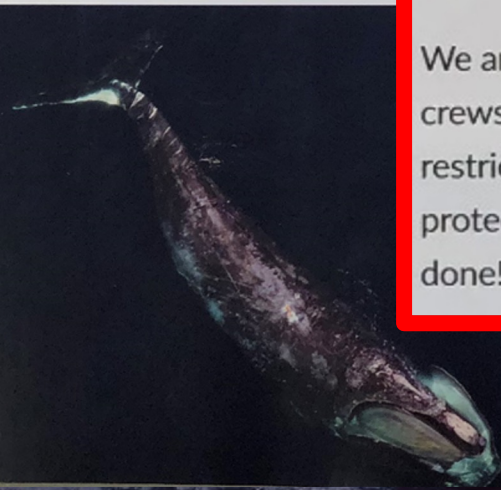
We are proud of our masters and crews for their adherence to the restrictions and contributions to the protection of this great animal. Well done!



Follow the link for more information about Right Whale Corporate Responsibility Project



Follow the link for more information about Right Whale Corporate Responsibility Project





Whale Alert: A tool to Reduce Collisions between Whales and Ships

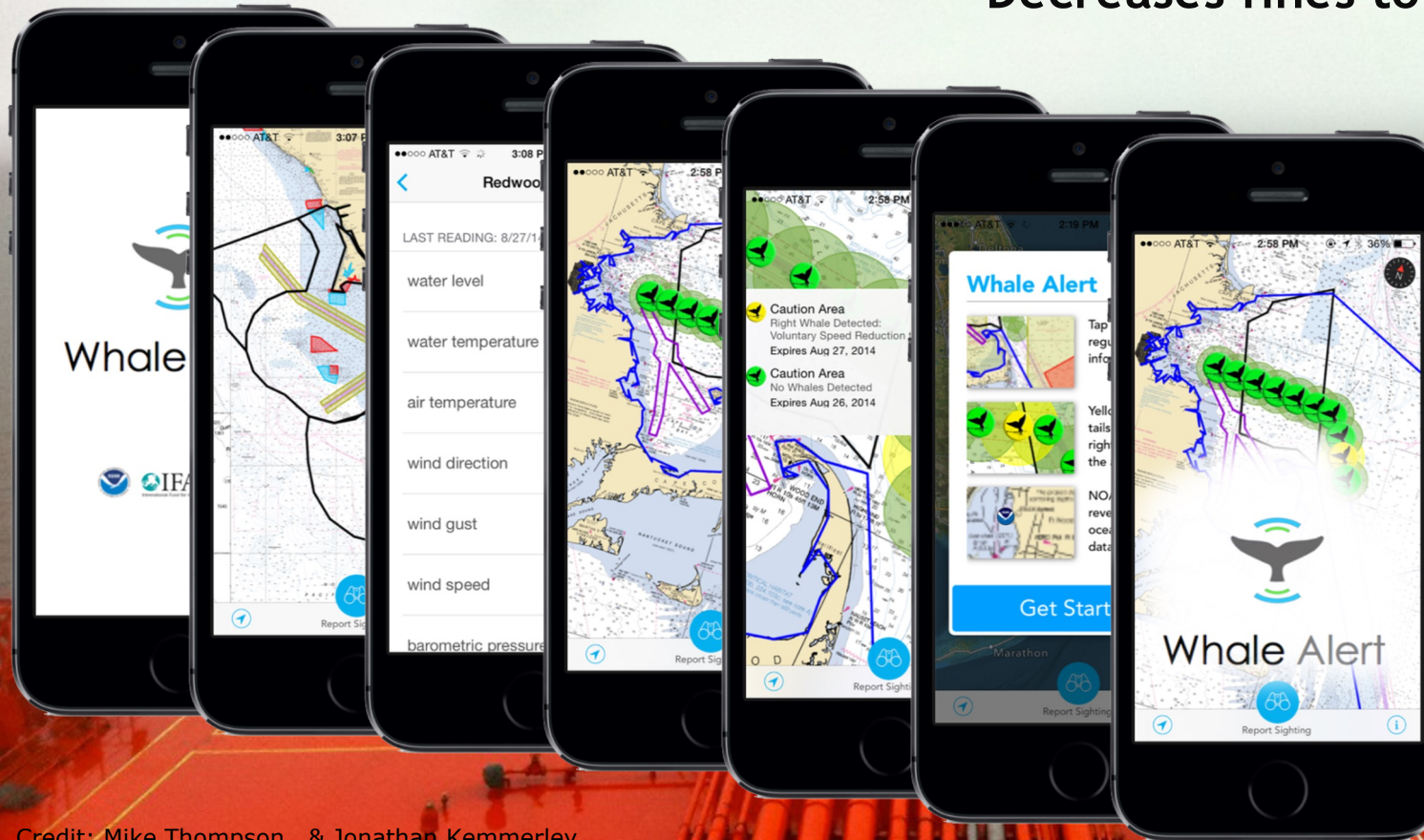


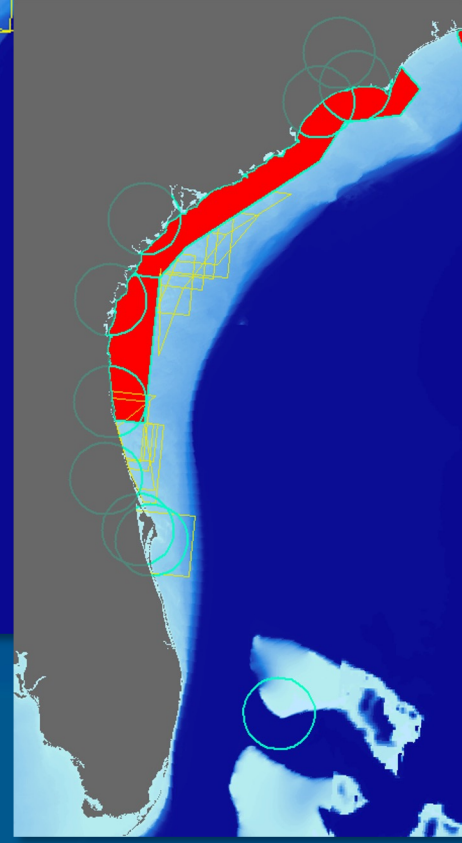
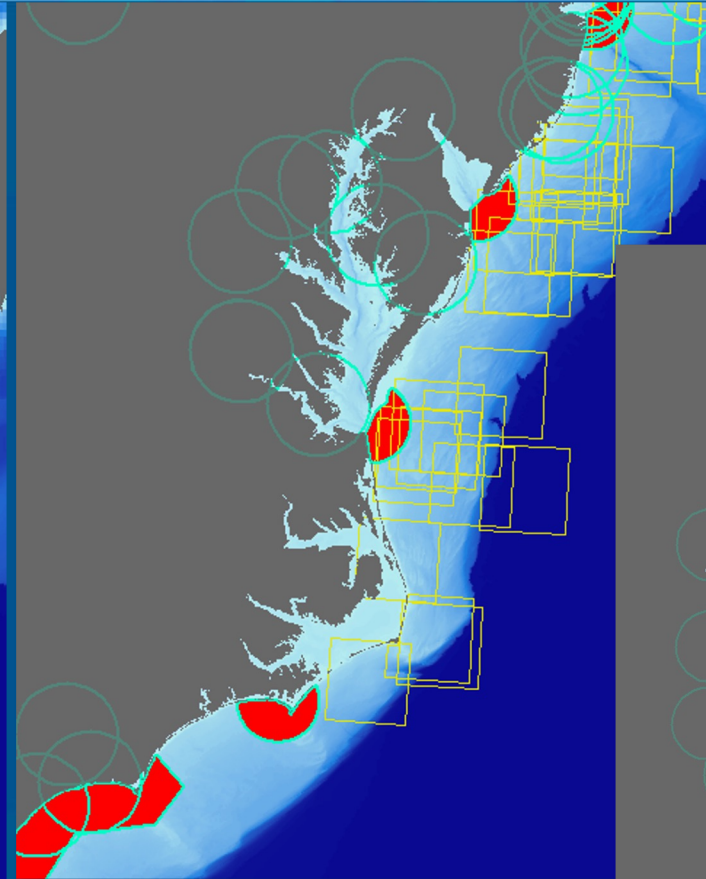
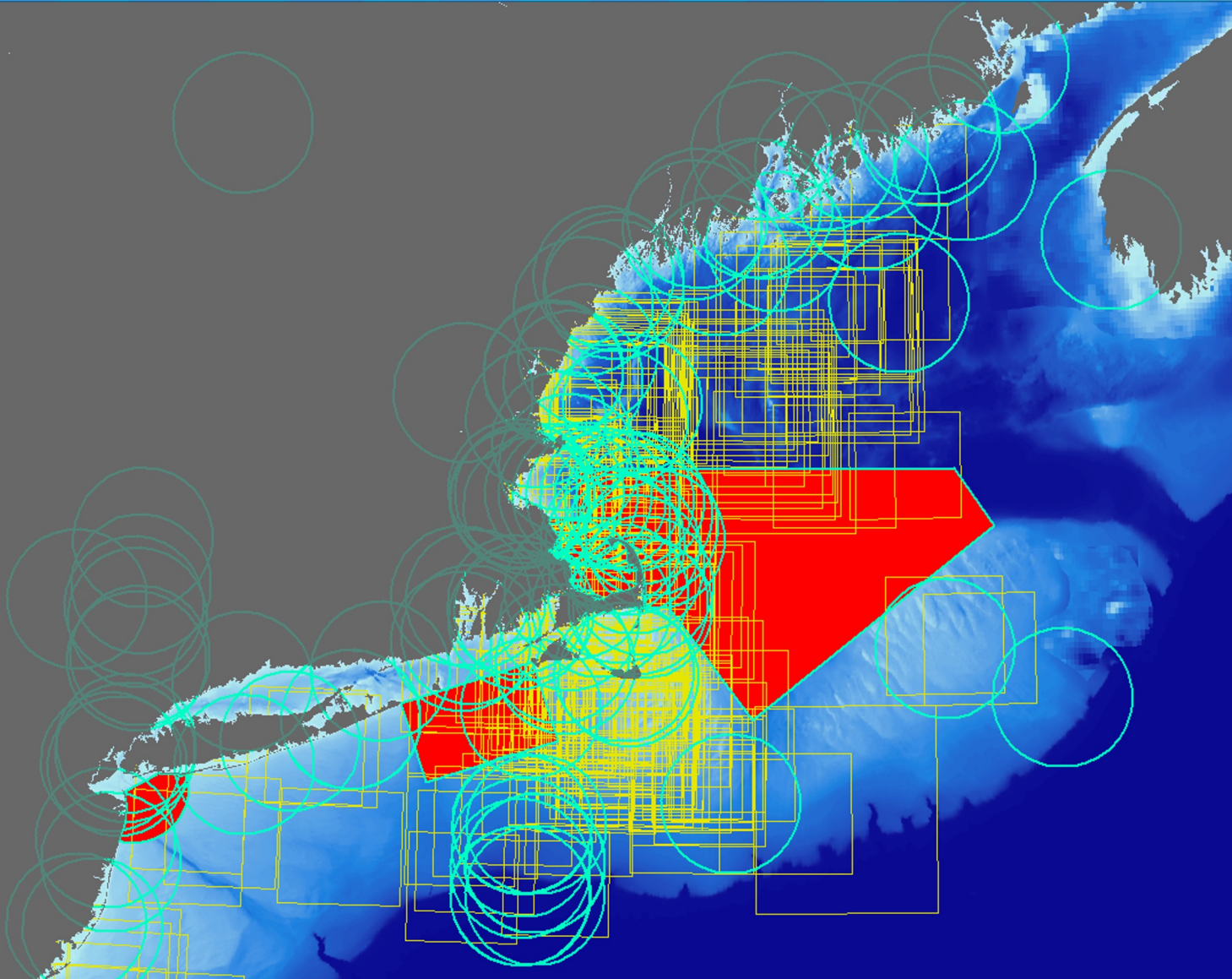
Whale Alert provides *real-time, geo-smart* information that increases mariner awareness and enables them to comply with regulations and voluntary measure to reduce the risk of whale strikes.






Whale Alert

- Increases whale conservation
- Increases mariner's situational awareness
- Decreases fines to mariners





-  SMA
-  SMA
-  Broadcast Area (AtoNs & VAtoNs)



Platform Partners



Research Partners



Government & Industry Partners





National Marine Sanctuaries
National Oceanic and Atmospheric Administration

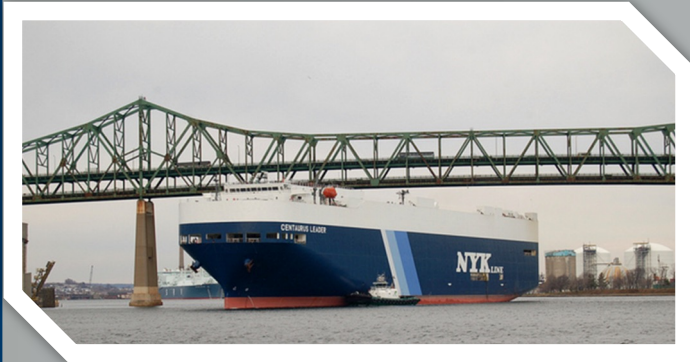


Norwegian Dawn Carnival Glory





National Marine Sanctuaries
National Oceanic and Atmospheric Administration



NYK Lines 838 Vessels

148 containerships, 354 bulk carriers,
56 wood-chip carriers, 121 car
carriers, 85 tankers, 28 LNG carriers,
3 cruise ships, & 43 other ships.
NYK's revenue in fiscal 2011 was
~\$23 billion.



4,000+ cars
656 ft (200m) length
105 ft (32m) beam
49 ft (15m) draft
170 ft (52m) height



National Marine Sanctuaries
National Oceanic and Atmospheric Administration



The Pilots' Association
for the Bay & River Delaware



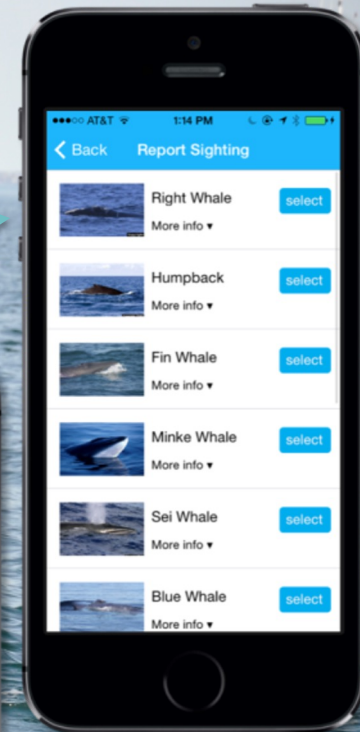
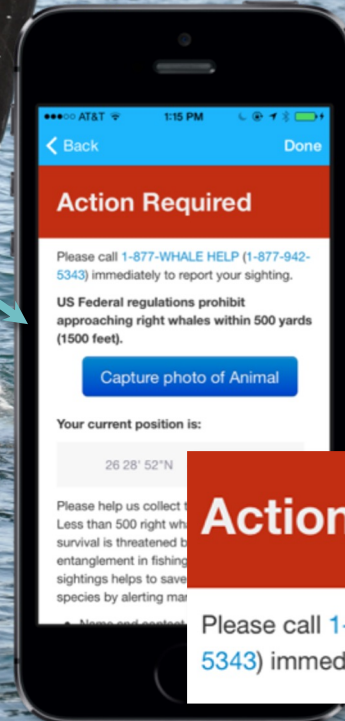
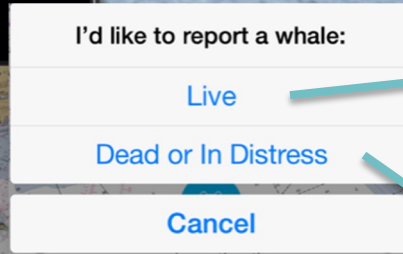
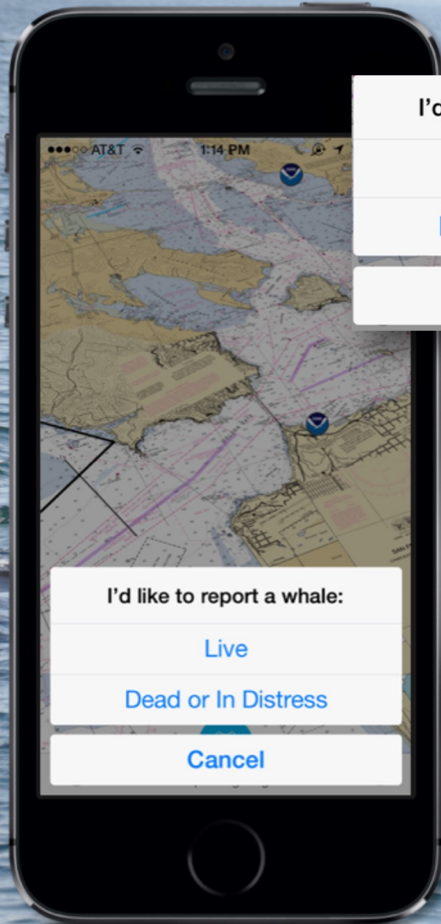
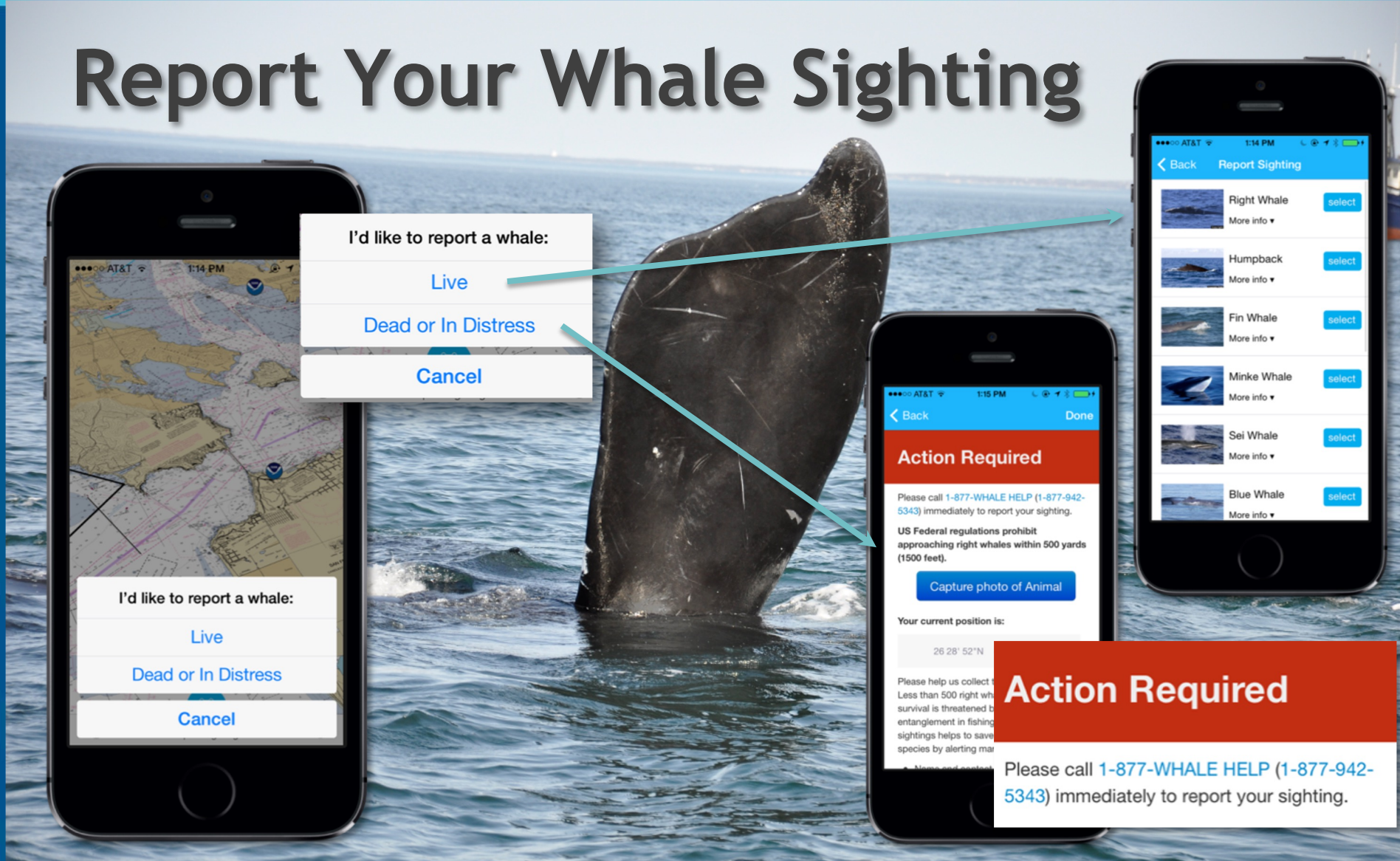
Air Station Cape Cod



FISHERIES SERVICE
Northeast Fisheries Science Center
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



Report Your Whale Sighting



Action Required

Please call 1-877-WHALE HELP (1-877-942-5343) immediately to report your sighting.



Whale Alert in World Wide Apple Commercial

iPad Air 2 Explore Buy Now

Water Change is in the Air

iPad Air 2 isn't just the thinnest and lightest iPad we've ever created. It's the most powerful. From the studio to the classroom, the field to the garage, it's helping people discover new and better ways to do the things they love. Imagine what you'll do with it.

Watch the film

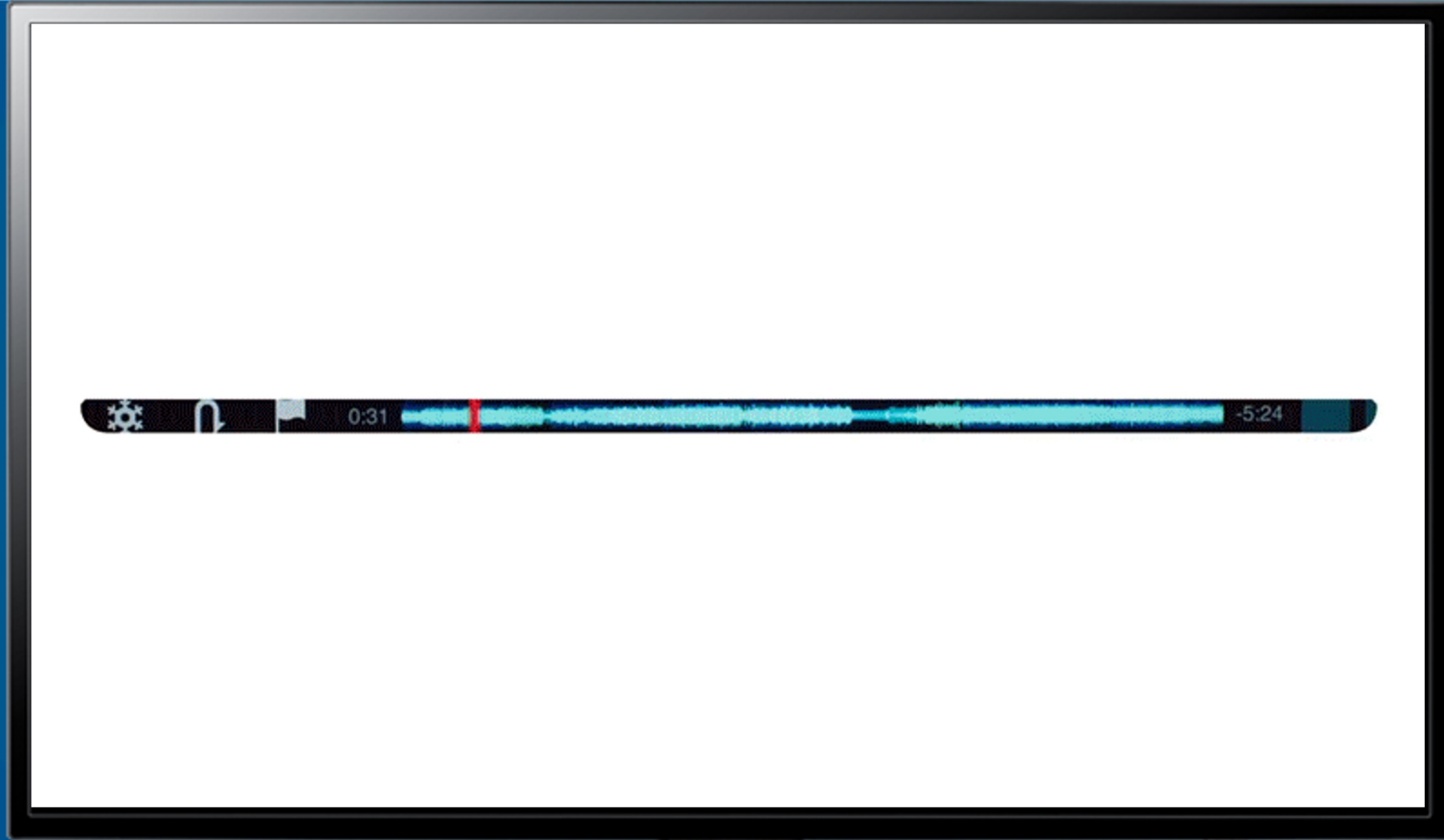


Whale Alert

Fatal strikes between ships and whales are being dramatically reduced by this crowdsourced whale notification app.

[View in the App Store >](#)





Whale Alert





Using Dimethyl sulfide (DMS) to Forecast Site Occupancy by North Atlantic Right Whales

Collaborators: Dan Zitterbart (WHOI);
Joe Warren (SUNY Stonybrook);
S. Mayo (CCS)



What is DMS and why could it be used to predict right whale occurrence?

DMS is a gas released in measurable quantities when zooplankton (e.g., Calanus copepods) eat phytoplankton. Therefore it could identify where and when right whales would aggregate to feed.

COMMUNICATIONS BIOLOGY

ARTICLE

<https://doi.org/10.1038/s42003-021-01668-3>

OPEN

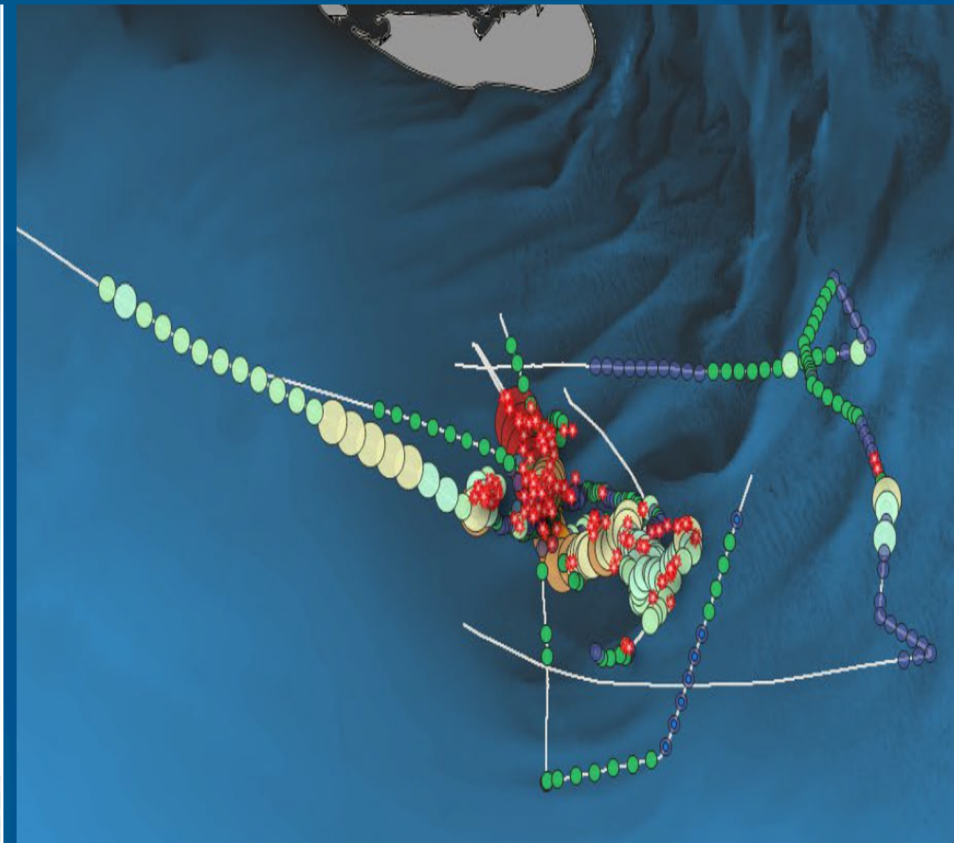
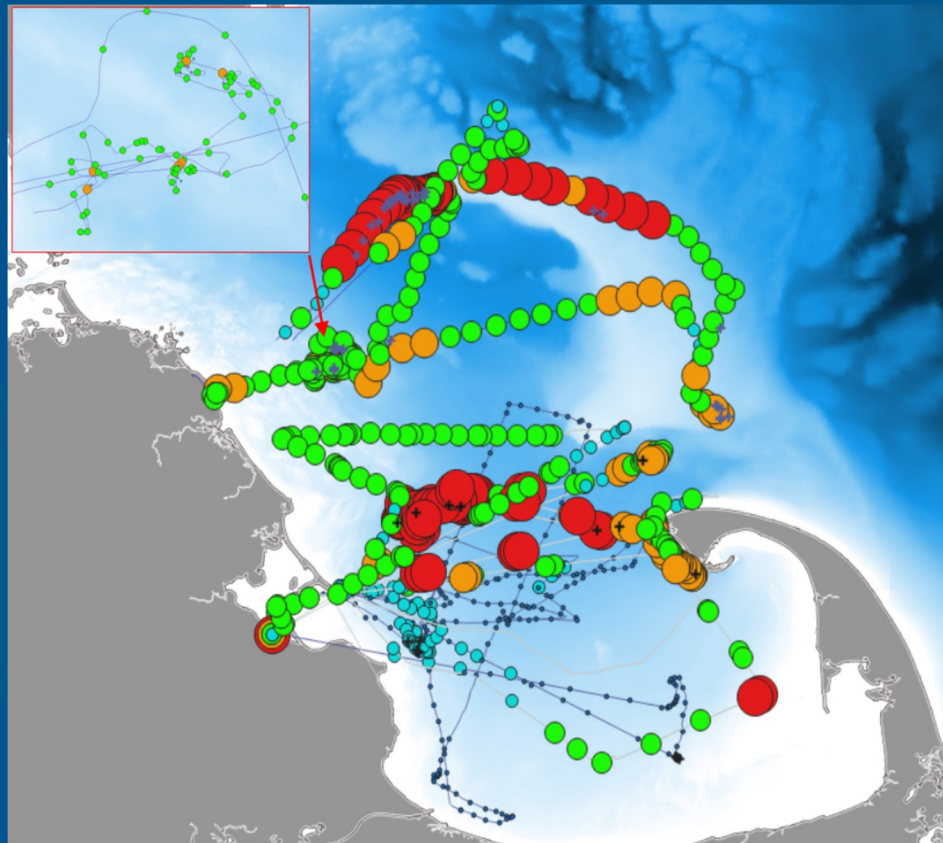


Natural dimethyl sulfide gradients would lead marine predators to higher prey biomass

Kylie Owen^{1,2,3}, Kentaro Saeki⁴, Joseph D. Warren⁵, Alessandro Bocconcelli¹, Dave Wiley⁶, Shin-Ichi Ohira⁴, Annette Bombosch¹, Kei Toda⁴ & Daniel P. Zitterbart^{1,7,8}

Meyer et al. 2020. **Ocean regime shift** is driving collapse of the North Atlantic Right Whale population. *Oceanography* Vol 34.

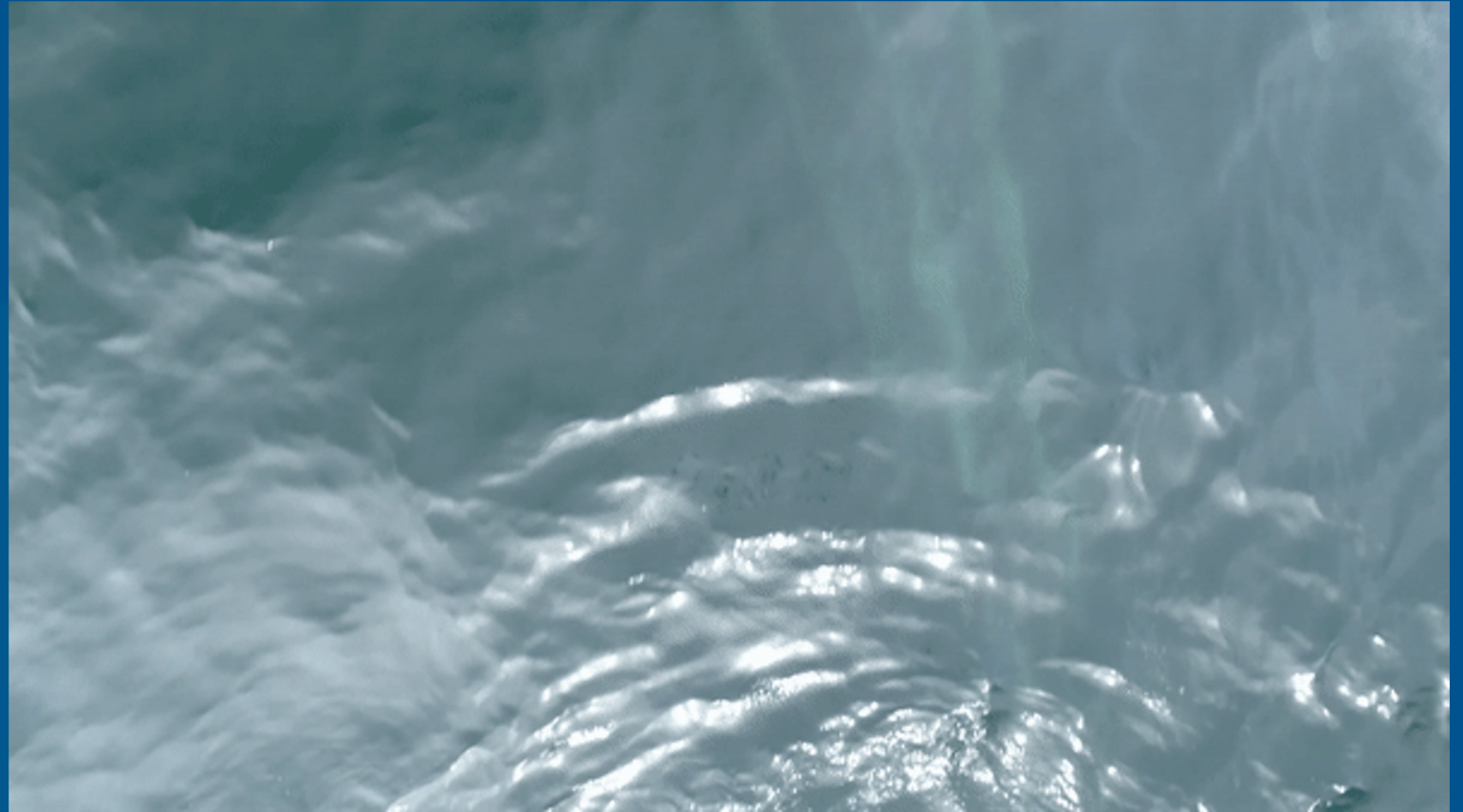
“Anticipating that similar processes will continue to unfold in the future, federal agencies in Canada and the United States will need to adopt more dynamic management plans, ones that utilize continuous monitoring of relevant ocean conditions and whale sightings to inform models that can forecast right whale habitat use.”



DMS concentration (circles and numbers) and NARW sightings (crosses) during our April 2021 CCB experiment on R/V Auk. Black crosses are sightings from the R/V Auk and red crosses are sightings provided by CCS aerial survey team.



Sei whale tagging





Relevance to Management

Predictive modeling to provide advance notice of impending NARW arrival or departure provides managers with the *ability to plan*. *PAM and aerial surveillance are reactive*;

Wind Energy – site operators can plan for changes to more benign activities or begin planning for orderly and economically controlled reduction or ramp up in effort;

Whale Strike – port operators can plan for initiating or curtailing risk reduction measures;

Entanglement – managers can inform fisherman and response personnel of elevating or diminishing risk and modify risk reduction measures.



Questions?

2021 Calf Of Eg1145; yearling
Permit No. 21371-01 to NMFS
Northeast Fisheries Science Center

OPEN DISCUSSION