

What I am going to cover:

2018 Vessel Speed Reduction (VSR) request

Share a few results from the 2017 VSR data analysis

Ship strike and acoustic impact risk reduction studies underway

Share paper we published on ship traffic along the California Coast

Industry Engagement

New collaboration with the Air Quality Management District

Marine Mammal Commission grant and next steps



2018 Vessel Speed Reduction (VSR):

Who: Vessels 300GT or larger

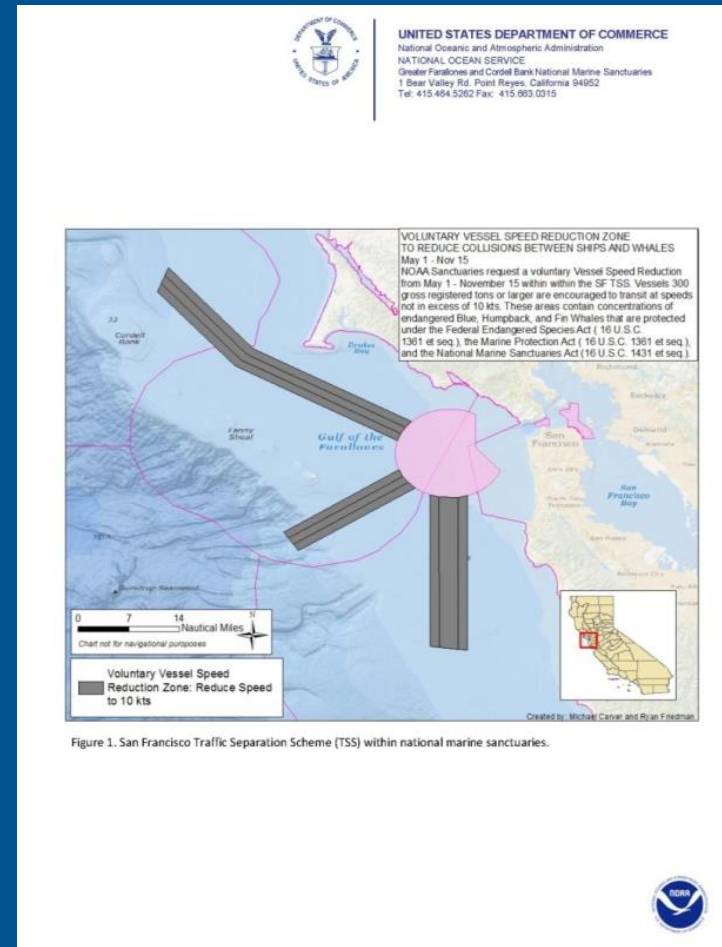
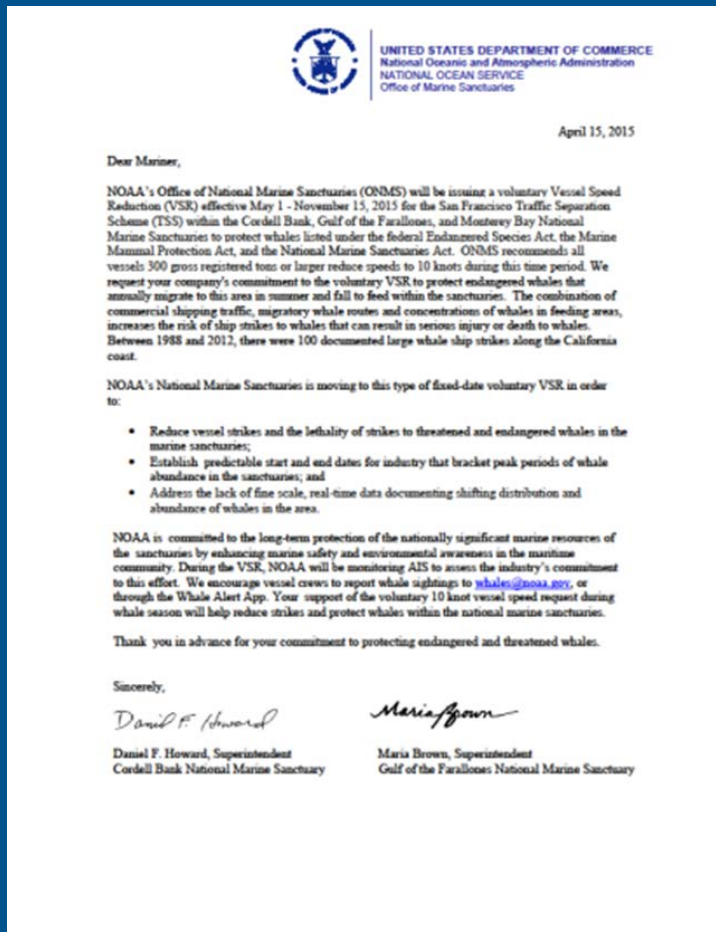
When: May 1- November 15, 2018

Where: San Francisco Traffic Lanes

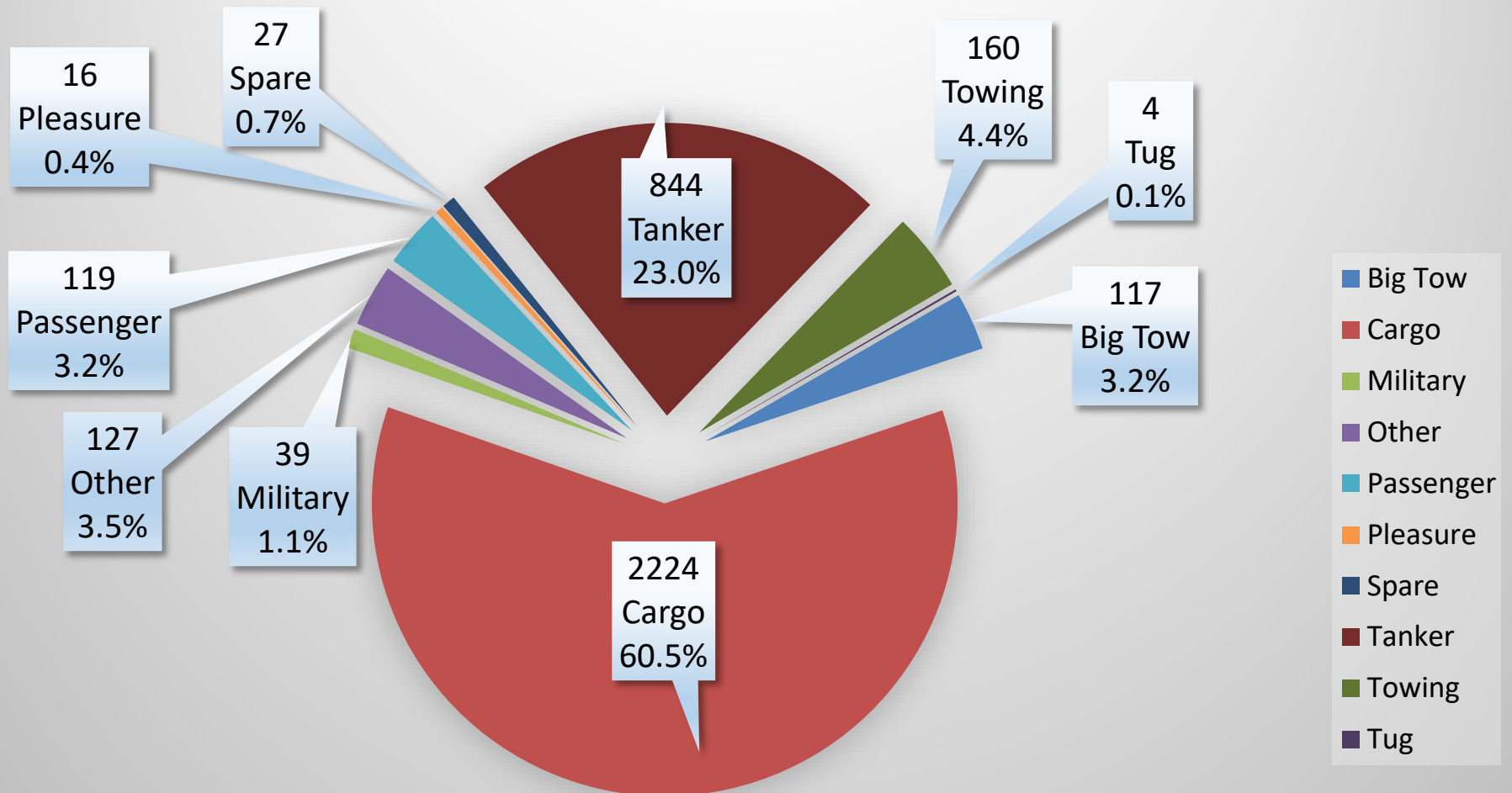
What: Request vessels transit at speeds not in excess of 10 knots.

Why: Reduce the risk of lethal ship strikes, with a secondary outcome of reducing ocean noise and air pollution.

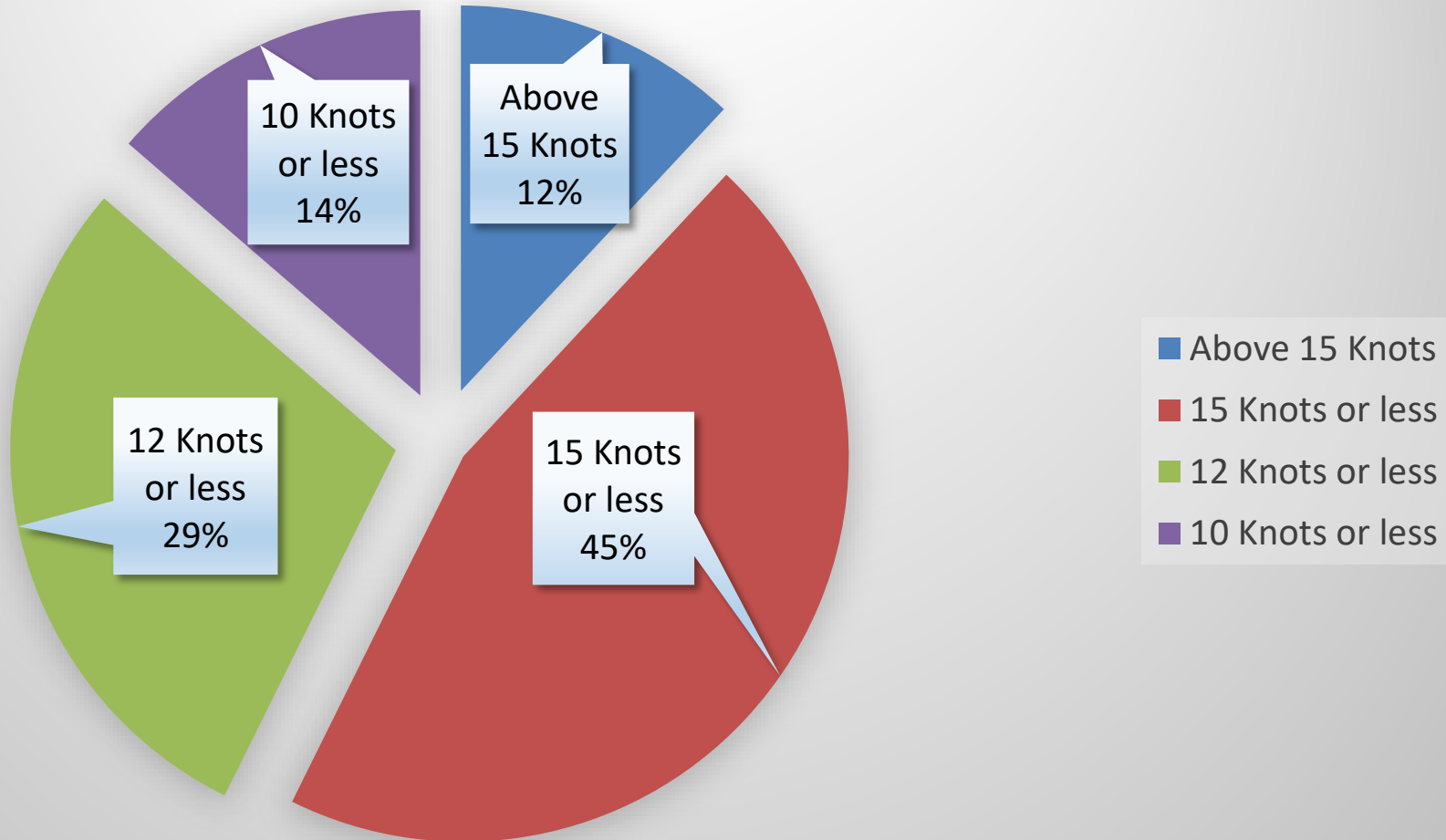
How Vessel Speed Reduction request is communicated :



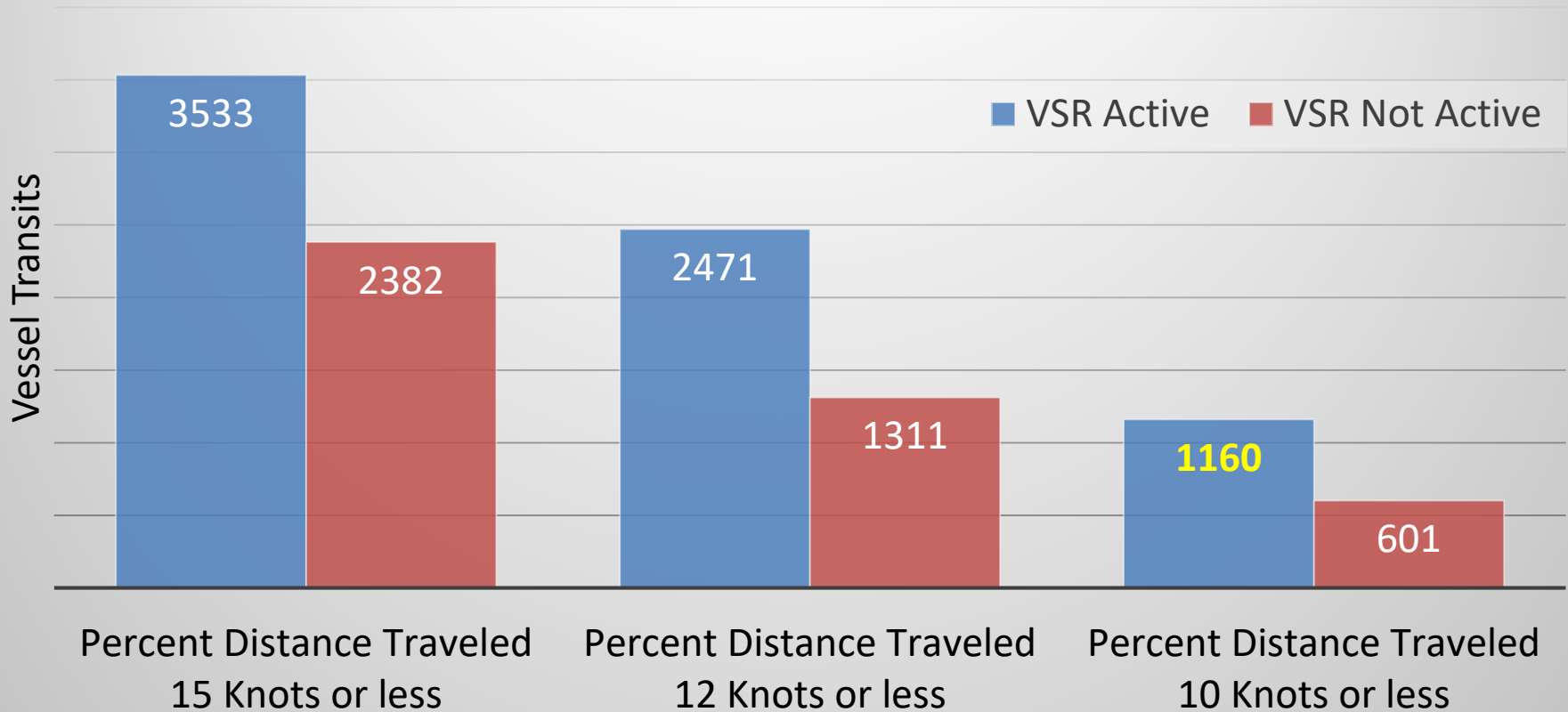
2017 Vessel Transits by Type During the NMS San Francisco Vessel Speed Reduction



Percent of Total 2017 Transits Relative to 10, 12 and 15 Knot Speed Thresholds



2017 Transits VSR Active vs Not Active





	2015	2016	2017
Total Transits (all tonnage)	7109	7274	7473
VSR Transits (300gt, May 1-November 15)	3785	3614	3944
% Transit Distance <10 knots, all transits	28.7%	45.3%	44.9%
% Transit Distance <10 knots, tanker	28.8%	35.9%	42.8%
% Transit Distance <10 knots, passenger	4.3%	2.8%	26.6%
Reporting Companies			109

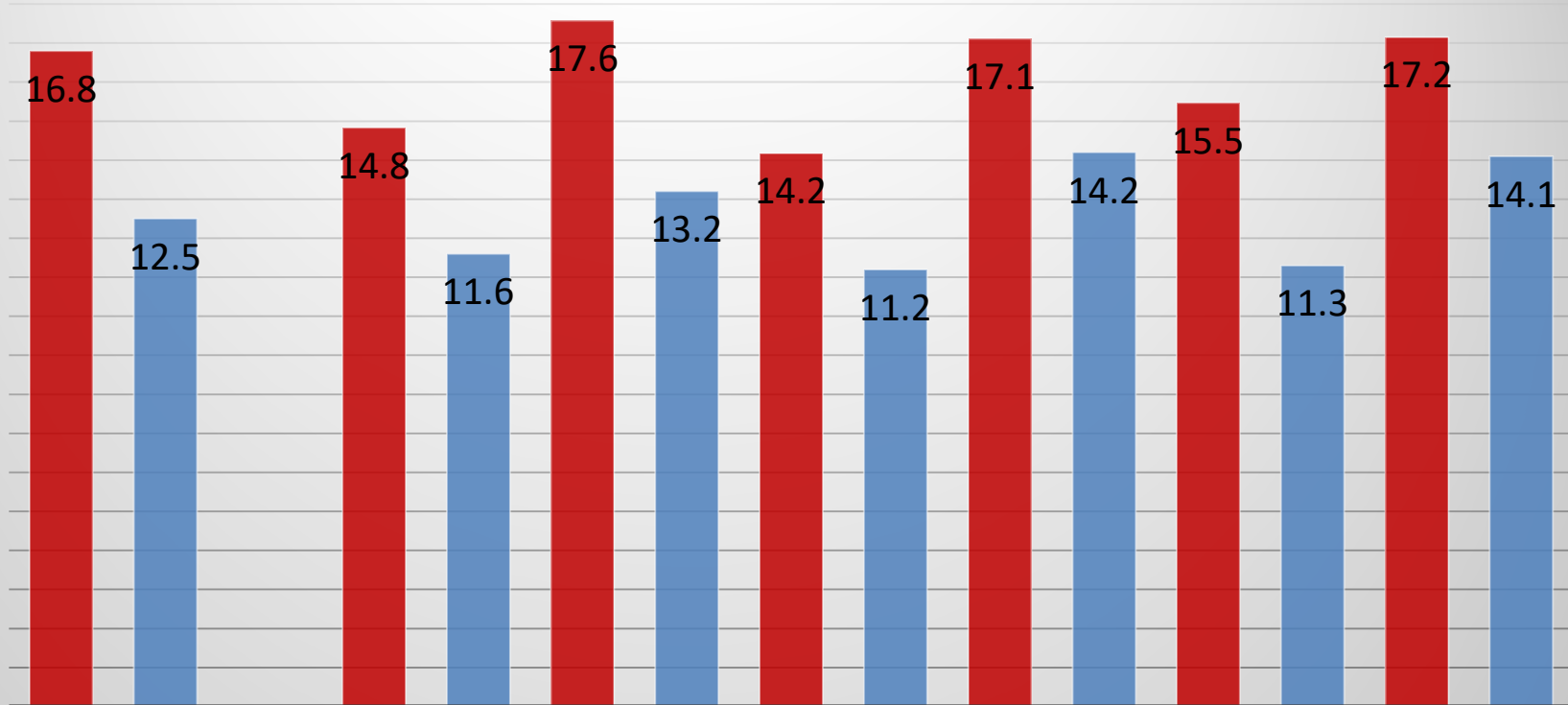


Sanctuary Vessel Speed Reduction (VSR)	2017 Cooperation
Channel Islands NMS VSR	≈ 17%
Greater Farallones and Cordell Bank NMS VSR	≈ 45%



Average Cargo Vessel Transit Speed by Traffic Lane 2017 vs 2010

Average Vessel Transit Speed in Knots



AVERAGE SPEED 2010
AVERAGE SPEED 2017
NORTH INBOUND 2010
NORTH INBOUND 2017
NORTH OUTBOUND 2010
NORTH OUTBOUND 2017
WEST INBOUND 2010
WEST INBOUND 2017
WEST OUTBOUND 2010
WEST OUTBOUND 2017
SOUTH INBOUND 2010
SOUTH INBOUND 2017
SOUTH OUTBOUND 2010
SOUTH OUTBOUND 2017



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Exploring ship traffic variability off California

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ABSTRACT

Seaborne trade continues to grow and is an important component of the global economy. Threats from shipping to marine ecosystems include oil spills and other water pollution, air pollution, anchor scouring, biological invasions, container loss, chronic noise, and collisions between ships and large whales. Shipping and its associated threats can be influenced by a suite of regulations and economic events. The dynamic nature of ship traffic can be characterized using ship tracking data from automatic identification system (AIS) technology. These data enhance our ability to analyze the ecological threats from commercial shipping as a component of spatially



5 Key messages

1. We are seeing a large difference in cooperation between when the VSR is active vs not active.
2. There is a significant difference between cooperation for San Francisco Traffic Lanes vs the Santa Barbara Channel.
3. The emission reductions of the VSR are significant
4. Ship traffic has slowed down considerably over the last decade.



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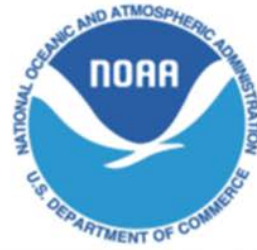
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