

**EMBARGOED until June 3<sup>rd</sup> 2014: 7 am EDT; 12 midday UK time**

## **Notifying speeding mariners lowers ship speeds in areas with North Atlantic Right Whales**

*Results will help to preserve this critically endangered species*

There are only around 500 North Atlantic right whales alive today. In an effort to further protect these critically endangered animals, a recent NOAA regulation required large vessels to reduce speed in areas seasonally occupied by the whales. The policy of notifying--but not necessarily citing--speeding vessels in protected areas was effective in lowering their speeds, helping to protect these magnificent creatures from ship collisions, while keeping punitive fines to mariners to a minimum.

A NOAA regulation, instituted in December 2008, requires vessels 65 feet or greater in length to travel at speeds of 10 knots or less in areas seasonally occupied by the critically endangered North Atlantic right whale. In a NOAA-led study, published today, researchers examined the compliance with speed regulations by 8,009 individual vessels that made more than 200,000 trips between November 2008 and August 2013, mostly in areas where the endangered whales are known to travel. All vessels were remotely monitored by radio signals sent from the vessels themselves.

Virtually all ships received notification of the speed regulations. The owners or operators of 437 of these ships received non-punitive notifications of violations and were reminded of the regulation, or cited after they were observed violating the restrictions. Twenty-six of them received citations and were fined.

Compliance with the regulation was low at the beginning of the regulatory period but steadily improved, according to the study. Vessels that received fines or citations later showed improved compliance. Informational letters issued by NOAA's Office of Law Enforcement, monthly public summaries of vessel operations, and direct at-sea radio contact also were effective in keeping the vessels in compliance with the law.

*"We've shown that notifying the mariners of their responsibilities, along with issuing citations when applicable, results in widespread compliance,"* said Donna Wieting, director of the NOAA Fisheries Office of Protected Resources. *"We appreciate working with the industry as a trusted partner in conserving natural resources and endangered species."*

Cargo vessels showed the greatest improvement in compliance, followed by tankers and passenger vessels. According to the article, the results could likely be applied in other settings where remote monitoring for compliance is feasible.

*"The novel way to remotely monitor and enforce regulatory compliance in a large international community and on a broad geographic scale has been truly impressive,"* said Bruce Buckson, director of NOAA's Office of Law Enforcement. *"This is evidenced by the quantified increase in compliance rates. And increased compliance equals better protection."*

North Atlantic Right Whales, among the most endangered of marine mammals, are highly vulnerable to collisions with ships. The two biggest threats they face are ship strikes and entanglements in fishing gear. Scientists estimate that there are as few as 500 of these whales alive today. NOAA scientists have not seen one critically endangered right whale that has been struck by a large vessel in the areas where the ship strike reduction rule applies, since it went into effect.

The peer-reviewed study, “*Compliance with Vessel Speed Restrictions to Protect North Atlantic Right Whales*”, was published in PeerJ (an online open access journal) and authored by Gregory Silber, coordinator of recovery activities for large whales with NOAA Fisheries Office of Protected Resources, along with Jeffrey Adams, and Christopher Fonnesebeck of the Vanderbilt University School of Medicine.

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**Image**



**Title:** A group of four North Atlantic right whales – approximately 1% of the entire species in a single photograph.

**Image Credit:** NOAA, available for full re-use

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**Abstract (from the article):**

Environmental regulations can only be effective if they are adhered to, but the motivations for regulatory compliance are not always clear. We assessed vessel operator compliance with a December 2008 regulation aimed at reducing collisions with the endangered North Atlantic right whale that requires vessels 65 feet or greater in length to travel at speeds of 10 knots or less at prescribed times and locations along the U.S. eastern seaboard. Extensive outreach efforts were undertaken to notify affected entities both before and after the regulation went into effect. Vessel speeds of 201,862 trips made between November 2008 and August 2013 by 8,009 individual vessels were quantified remotely, constituting a nearly complete census of transits made by the regulated population. Of these, 437 vessels (or their parent companies), some of whom had been observed exceeding the speed limit, were contacted through one of four non-punitive information programs. A fraction ( $n = 26$  vessels/companies) received citations and fines. Despite the efforts to inform mariners, initial compliance was low (<5% of the trips were completely <10 knots) but improved in the latter part of the study. Each notification/enforcement program improved compliance to some degree and some may have influenced compliance across the entire regulated community. Citations/fines appeared to have the greatest influence on improving compliance in notified vessels/companies, followed in order of effectiveness by enforcement-office information letters, monthly summaries of vessel operations, and direct at-sea radio contact. Trips by cargo vessels exhibited the greatest change in behavior followed by tanker and passenger vessels. These results have application to other regulatory systems, especially where remote monitoring is feasible, and any setting where regulatory compliance is sought.