

1883 Sea Rescue Gives Scientists Info About Wave Dynamics

May 30, 2017

Slick thinking: 19th-century sailors poured fish oil on the ocean surface to dampen waves during a storm, enabling the rescue of a battered merchant ship.

In 1883, the *Grecian*, a merchant ship bound from Philadelphia to Portugal, was caught in a raging storm. When hope was almost lost, a rescue vessel, the *Martha Cobb*, spotted them and rushed to their aid. But with the storm still overhead, how did they succeed? According to historical records, the crew of the *Martha Cobb* poured 19 liters of fish oil in the space between their ship and the foundering *Grecian*. Within minutes, the oil had calmed the waves to the point that the *Grecian's* crew could be safely transported to the *Cobb*.

In a novel approach, a research team at Scripps Institution of Oceanography in San Diego, Calif., has used this thrilling account to examine how oil slicks affect ocean waves. According to co-author Xin Zhang, most examples of oil dumping that he and his team came across did not include sufficient quantitative data.

Lead author Charles "Chip" Cox discovered the *Grecian's* story, but passed away in November 2015 shortly after completing the paper's initial draft. Zhang credits his late colleague with the study's success: "This record that Chip found really gave us the information that we needed."

Read about the daring rescue and its implications for wave dynamics research in *EARTH*, now online at <https://www.earthmagazine.org/article/1883-sea-rescue-informs-new-model-wind-wave-interactions>.

The June issue of *EARTH* is now available online. In this month's *Travels in Geology*, read about the hydrogeologic ties that bind the Okavango Delta, a major river delta in the middle of the dry Kalahari, and thundering Victoria Falls, a day's drive away. And don't miss a returning favorite: *EARTH* has partnered again with the U.S. Geological Survey to bring back the "Mineral Resource of the Month." For these stories and more, subscribe to *EARTH Magazine*.

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Media Contact:

Joseph Lilek, Communications Manager

outreach@americangeosciences.org

(703) 379-2480, ext. 244

Twitter: @AGI_Updates
