

Weathernews REPORT

Weathernews Provided a Safe Haven from Hurricane Katrina

HURRICANE KATRINA WAS one of the most catastrophic storms in the history of the United States. In addition to the loss of life and property damage on land, Katrina caused

severe disruption to shipping and offshore oil production in the Gulf of Mexico. Operators were forced to cease production of over a million barrels of oil per day according to the Minerals Management Service (MMS). The storm affected nearly 2,800 oil platforms and shutdown the Louisiana Offshore Oil Port (LOOP), the most important U.S. oil terminal, for several days. Katrina also forced the closure of the Port of New Orleans causing diversion of ship traffic to Mobile, Pascagoula, Houston, Port Everglades, and Freeport, Texas. The loss of the Port of New Orleans backed up barges on the Mississippi, holding up grain

production for about two weeks.

Weathernews minimized Katrina's impact for our customers. Our 2O (Ocean and Offshore) division provided powerful services and support that ensured the safety of our client's equipment and crews. Clients were provided with site-specific forecast information. Plus, our Risk Communication Services helped our customers make the important decisions that they needed to safely evacuate their rigs.

Our Tropical Evasion Services gave clients storm readings and helped ships to adjust course to avoid Katrina.

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SEASONAL WEATHER			
◆ Peak Period ● Likely X None	OCT	NOV	DEC
TROPICAL CYCLONES			
North Atlantic	◆	●	X
East North Pacific	◆	●	X
West North Pacific	◆	●	●
Arabian Sea	◆	◆	X
Bay of Bengal	◆	◆	●
West Indian Ocean	X	●	●
Western Australia	X	●	●
Eastern Australia	X	●	●
South Pacific	X	●	●
WINDS			
NE MONSOON			
South China Sea	●	●	◆
SW MONSOON			
South China Sea	●	X	X
Arabian Sea	X	X	X
TEHUANTEPECER			
	●	◆	◆
MISTRALS			
	X	●	◆
FREAK WAVES			
South Africa	●	●	●
ICE			
NORTH ATLANTIC BERGS			
	●	X	X
PACK ICE			
Eastern Canada	X	X	X
Gulf of Bothnia	X	X	●
Western Pacific	X	X	X
SUPERSTRUCTURE ICING			
North Atlantic	X	●	◆
North Pacific	X	●	◆
FOG			
North Atlantic	X	X	X
North Pacific	●	X	X

Tis' the Season for Nor'easters in the North Atlantic

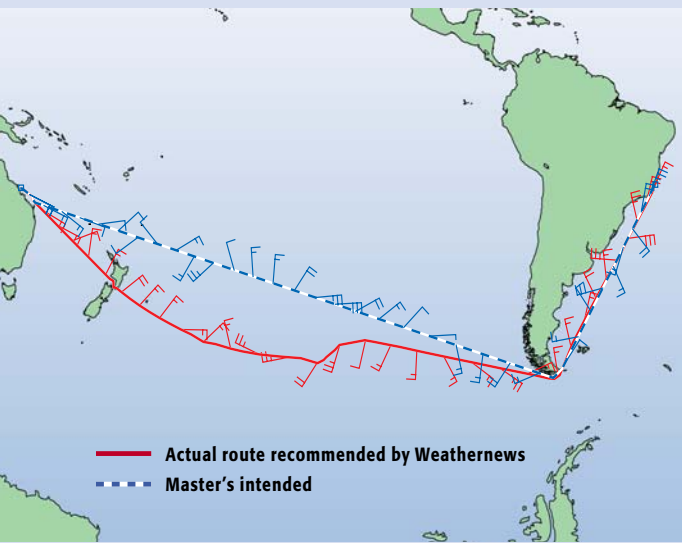
Fall is a critical season for deep, powerful storms that develop off the East Coast of North America. These cyclonic storms are popularly referred to as Nor'easters because the winds over the coastal area that precede the storm are from the northeast. The storms develop when cool air that has developed over land, meets with the warmer temperature of the ocean waters. Typically these storms are not very strong over land. However, the temperature contrast between land and sea can create a storm that is explosive out at sea as the storms pull in arctic air that circulates counter clockwise. These storms are dreaded by mariners because of their howling gale force winds and rough seas.

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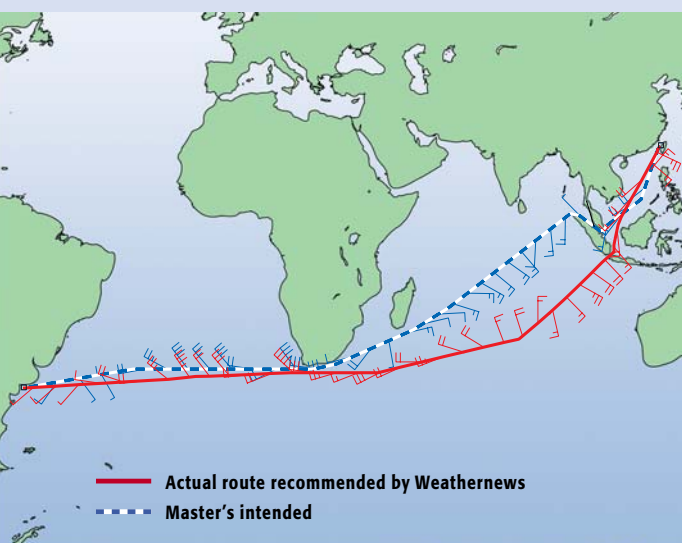
37 HOURS SAVED



\$40,000 USD SAVED

A laden bulk carrier sailing from Dalrymple Bay intended to follow a direct rhumb line route passing abeam Cape Horn en route to her destination at Praia Mole. Weathernews advised to follow a more southerly route passing through Cook Strait down to latitude 54°S. Weathernews' route kept the vessel sailing in an area of high pressure, while avoiding heavier conditions to the south and developing lows to the north. By following Weathernews' recommendation, approximately 37 hours of sailing time were saved, resulting in an estimated savings of over \$40,000 in average hire rates and fuel costs. □

\$40,000 USD SAVED



350 NAUTICAL MILES SAVED

The master of a laden bulk carrier bound to Taichung from Bahia Blanca intended to pass the Cape of Good Hope, and then head northeast passing abeam Sabang, and sailing via Malacca strait. Weathernews recommended a more southern route via 30°S 80°E then a great circle to Sunda Strait which allowed the vessel to clear south of gale force easterly conditions in the Indian Ocean and reduced the overall sailing distance by over 350 nautical miles. By following Weathernews' advice, approximately 33 hours of sailing time were eliminated, saving over \$40,000 in average hire rates and fuel costs. □

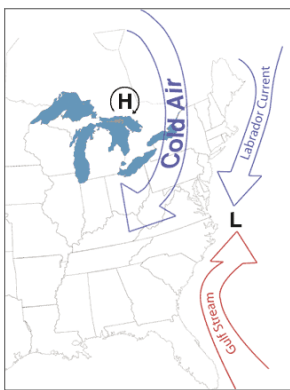
Tis' the Season for Nor'easters in the North Atlantic

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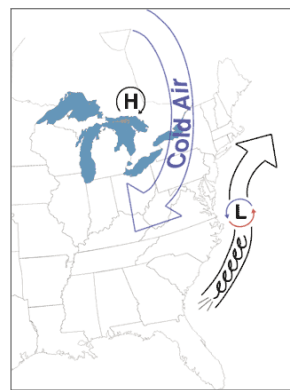
Weathernews is in the business of protecting its clients from these "perfect storms." We use computer models that can detect Nor'easters upwards of five days beforehand. Then we combine our knowledge of the weather with our knowledge of our customer's business to keep them

safe from the storm. For example, on the 23rd of January this year, a Nor'easter started to move up the eastern seaboard threatening a moderate sized chemical tanker en route from Coryton to Portland (ME). The system moved between the ship and the port with heavy north-northeasterly winds backing to the northwest present from about 43°N southward to around 30°N. Winds of 40 to 45 knots and waves in excess of 7 meters stood between the ship and port as she headed westward along latitude 43°N. The ship followed our recommended route that repositioned the vessel along the northern side of the Nor'easter, keeping conditions mostly following or at least aft of beam. This avoided the heaviest conditions which significantly impacted routes further south. The recommended diversion then took the vessel close abeam Cape Breton Island to Cape Sable which positioned the ship in fetch-limited water.

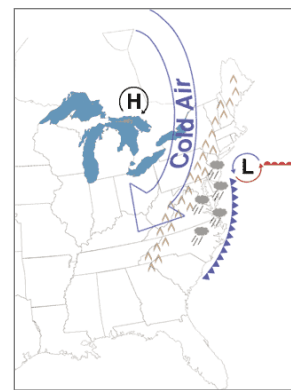
Genesis of a Nor'easter



Stage 1 – Low pressure forms off the east coast of the United States and is fed with warm moisture associated with the Gulf Stream.



Stage 2 – As the low begins to lift northeastward; cold air continues wrapping in along the back side which helps to further strengthen the low.



Stage 3 – The Nor'easter has fully developed into a strong ocean gale containing high winds, rough seas, and heavy rains.

In addition to making sure our client's voyages are safe, we also look for ways to harness the weather's energy to make voyages more efficient. We have the knowledge to know when a ship might be safe in a close-by, but more favorable, region of a mild storm. Or we might position a ship into following storm conditions so the ship can gain extra speed and reduce travel time.

Weathernews' experienced team of marine meteorologists is constantly monitoring the weather patterns which can lead to the development of a dangerous Nor'easter. We keep our clients safe at sea by delivering the most up-to-date forecasts and route recommendations. Our risk communicators are on call 24/7 to help our customers keep their crews and cargo safe, especially during extreme and often unpredictable weather. □

"Hurricane Katrina" (continued from page 1)

One example of how we protected a ship was a tow that was affected as it came across the South Atlantic through the Gulf of Mexico. Due to the erratic nature of Katrina, we needed to warn and divert the vessel several times. We kept it more than 150 nautical miles from the storm and it was not affected by the storm or any of its damaging squall bands. Another ship, a seismic research vessel, was working with very sensitive equipment in the northeast Gulf of Mexico near Biloxi-Gulfport. Once Katrina moved westward we warned them and strongly recommended that they move. They had enough time to pick up their equipment and stay out of harm's way. As soon as the storm passed over their research area, they were able to reverse course and move slowly back to their research site.

Hurricane Katrina, and now Hurricane Rita, have empha-

sized how dependent our offshore and shipping industries are on the weather. During the last several years, our storms



Image courtesy of MODIS Rapid Response Project at NASA/GSFC

seem to have become more significant and damaging. While there is much debate as to whether global warming is the cause, or whether we are just in an increased period of cyclical activity, there is no question that the offshore and shipping industries need to be prepared for severe weather.

Weathernews stands ready to protect our customers. None of our clients sustained loss of life or significant damage from Katrina. We were able to give

our clients customized information tailored to their capabilities and their needs. Our clients were receptive to our warnings. In Katrina's and Rita's aftermaths, our clients are extremely grateful to have Weathernews shepherd them to safety. □

A Special Delivery



Rendering of Zurab Tsereteli's "Tear of Grief" safely in place across the Hudson River from Ground Zero.

RECENTLY, WEATHERNEWS was instrumental in the safe voyage of the "Tear of Grief" to New York harbor. "Tear of Grief" is a monumental sculpture created by the Russian artist Zurab Tsereteli in commemoration of the victims of 9/11 in New York. The statue is approximately 100-foot high and 170 tons. It will be erected at the Peninsula at Bayonne Harbor in New Jersey, across the Hudson

River from Ground Zero.

The sculpture was transported from St. Petersburg, Russia to New York. Prior to the voyage, the carrier contacted Weathernews to inform us that they would be carrying sensitive cargo. Weathernews provided weather details to the ship's master throughout the voyage. This allowed the ship to stay in favorable conditions and arrive in port on a timely basis.

Weathernews' team of meteorologists and risk communicators are equipped to safely deliver sensitive cargo. Our voyage planning risk communicators will take the details of the delivery and plan a route that balances safety with efficiency. Once in route, our team of professionals will continue to work with the carrier until they have safely reached their destination. □

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DUE TO THE INCREASED DEMAND FOR WEATHERNEWS' service in North America, we recently opened two offices in the key markets of New York and Atlanta. The new offices will be able to locally serve clients and prospects with Weathernews' array of aviation, energy, marine, and mobile solutions.

"Complementing our presence in San Francisco and Norman, our new offices in New York and Atlanta place Weathernews at the center of two vital business centers," said Chris Keys, Vice President of Business Development at Weathernews Americas. "Increasingly, companies across the country recognize the impact of weather on their business and are seeking new products and services from Weathernews to minimize that risk. We are pleased to be able to

develop intimate and customized solutions to meet the needs of clients in the nation's financial capital, New York, and the 'capital of the south,' Atlanta."



James Brune will lead the New York office as Regional Sales Director for the Northeast Region. Prior to joining Weathernews, he worked for two Fortune 500 corporations in energy marketing and trading. For the Atlanta office, Charles Voss has been tapped as Regional Sales Director for the Southeast Region. He holds an MBA from Emory University and led the PR Newswire's sales staff on media intel-

ligence services prior to joining Weathernews. Both highly qualified individuals will ensure Weathernews' ability to provide its clients with the highest level of service. □