

Tropical Storm Intelligence for Maritime Navigation

Since 2004, Tropical Storm Risk (TSR) has provided industry-leading forecasts and warnings to help safeguard people, businesses, and infrastructure from tropical storms. Serving 22,000+ individuals and organisations, TSR delivers real-time risk management solutions and commercial spatial data, modelling storm tracks, intensity, rainfall, and post-event footprints.

A leading ship tracking and intelligence platform, monitoring 350,000+ vessels via GPS, integrates TSR's 'Forecast Wind Swathe to 120 hours for 3-second Maximum Gusts' dataset. This data determines vessel proximity to storms, aiding route planning and risk mitigation. Key users include ship owners, brokers, and insurers, who rely on TSR's insights for safety, operational efficiency, and reduced delays.

TSR Datasets Used

The dataset consists of a 5km resolution shapefile depicting the forecast gust field derived from each advisory provided by the National Hurricane Centre and Joint Typhoon Warning Centre. The footprint shows the live position of the storm, and the forecast storm track, out to 120 hours ahead. Colour-coded bands, showing wind speeds in 10 mph increments from 40 mph - 200 mph. An API integration ensures swift automated data transfer, with a turnaround time of less than 3 minutes from the public advisory release, the creation of the shapefile using Tropical Storm Risk's proprietary models, and the shapefile's upload to the shipping platform.

Through this partnership, the maritime tracking and intelligence provider has significantly enhanced operations while prioritising the safety of vessels and crew members. By leveraging Tropical Storm Risk's gust data, they can make informed routing decisions, optimising shipping routes to avoid cyclone-affected areas. This not only saves operators time by identifying the most efficient routes, but also reduces fuel costs and CO2 emissions through shorter, safer journeys.

TSR's advanced tropical storm analysis provides highly accurate and timely information, helping clients to make critical operational decisions across transport, energy, construction, tourism and humanitarian sectors.

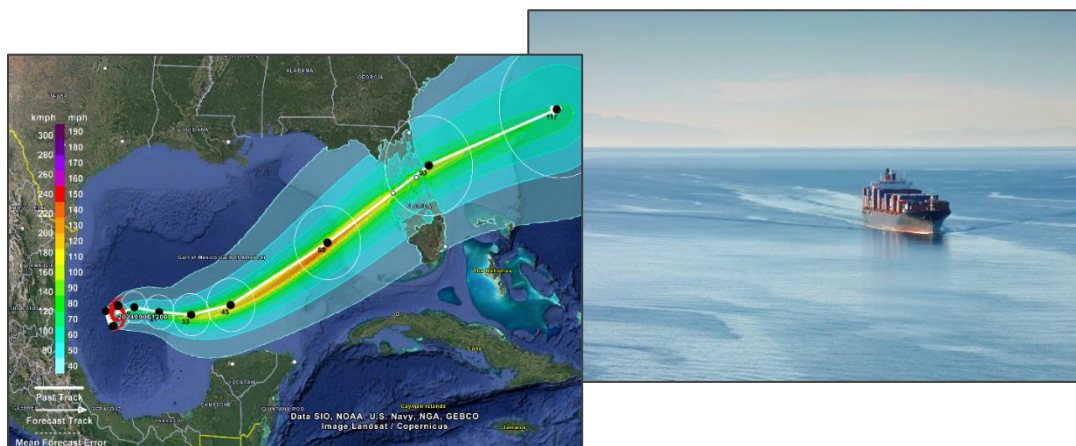


Figure 1: Smooth sailing as vessels steer clear of damaging winds. This is an example of a Peak 3-Second Gustfield Forecast to 120 hrs. This dataset shows Hurricane Milton at 12:00 UTC, 6 Oct 2024, and is updated every 3 hours by the NHC's advisories. Shapefiles are automatically loaded into the client's shipping platform.