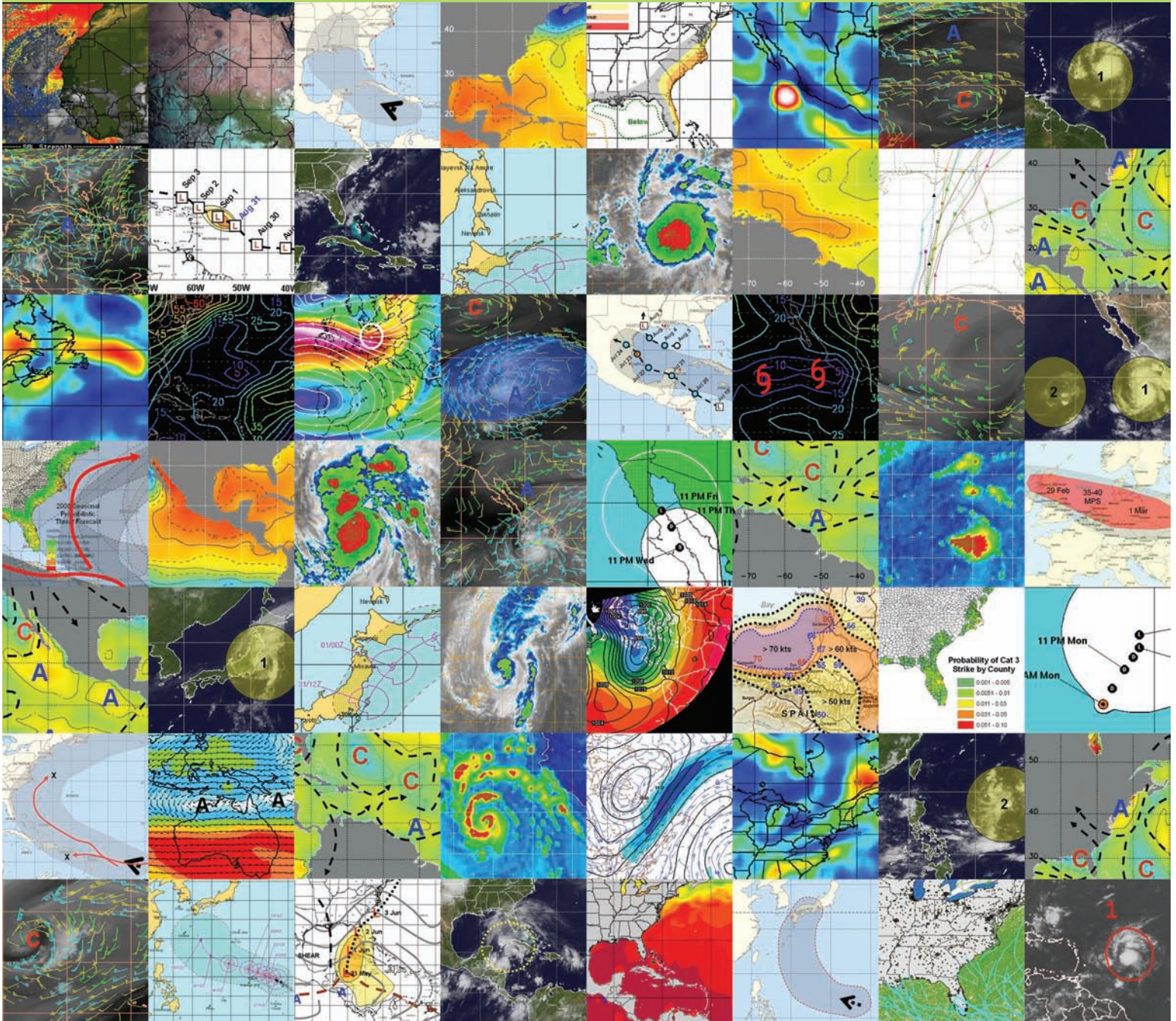


# Planalytics® Severe Weather Service

## Tropical Storm and Windstorm Forecasting and Monitoring



PREDICT. PERFORM. PROFIT.

How active and severe is the coming tropical storm season?

Which geographic locations are at greatest risk this year?

How much value would advance weather intelligence be to my business?

### The Business Problem

The insurance industry is well equipped with tools and expertise for analyzing and pricing catastrophic wind damage risk. But that risk assessment is based largely on climatology data, recent storm history, model scenarios and assumptions – none of which have proven to be very accurate or helpful in anticipating severe storm losses in particular geographic regions in any given year. Seasonal storm forecasts, widely available from various sources, are conflicting and too general and subject to frequent revisions to be used for effective decision making.

### Planalytics Solution

Planalytics Severe Weather Service provides year-round global forecasting, monitoring, tracking and alerting for tropical storms, cyclones and windstorms.

Planalytics employs proprietary forecasting models to produce long-range storm forecasts of the timing, path, and intensity of tropical storms in the Atlantic and Western Pacific, as well as a detailed annual outlook for European windstorms. Pre-season forecasts for the entire tropical season are delivered to clients in December each year and updated in April.

The service also includes daily storm monitoring and regular client consultations with a team of senior meteorologists who specialize in severe weather and provide industry-specific focus and knowledge. Our clients in the insurance, reinsurance, and insurance-linked securities industries know more and know sooner about the timing, path, and intensity of developing tropical

#### Pre-Season Threat Forecasts for Atlantic Basin



**INTENSITY**

- Storm
- Strong Storm
- Very Strong Storm

**THREAT PERIODS**

- Early Season
- 12 - 18 Jul
- 19 - 31 Jul
- 01 - 07 Aug

**LEGEND**

- Primary Threat Area
- Moderate Threat Period
- Primary Threat Period

storms and windstorms, allowing them to gain valuable time and make more informed decisions. Planalytics clients are typically given Event Alert notices several days prior to the release of government and other private weather service advisories.

### Year-Round Coverage

#### Pre-Season

- Tropical Storm Threat Forecasts for Atlantic Basin and Western Pacific including “bottom-up” detailed forecasts of storm threat timing, location and intensity using our proprietary models and methodology.
- Probabilistic seasonal forecasts by county for coastal United States with accompanying Excel data file.
- Pre-season threat forecasts are released to clients in early December, and revised if

necessary in late April. Generally, approximately 90% of the forecast information remains unchanged from the December release.

- Delivered and discussed in personal briefing via webcast or in-person with additional phone/email consults as required in support of pre-season decision making.

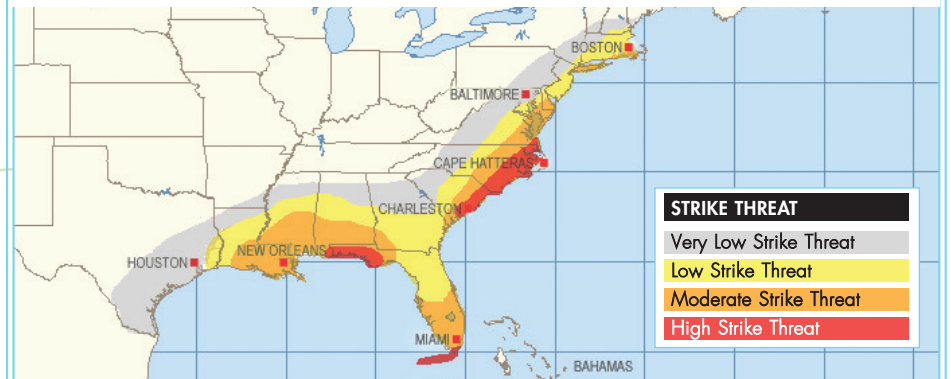
	Pre-Season	In-Season
Atlantic	●	●
W. Pacific	●	●
Europe	●	●
E. Pacific		●
Australia		●
Indian Ocean		●

#### In-Season

- Daily monitoring and forecasting of high wind events, including European Wind Storms.

#### Season Hurricane Strike Forecast

Individual threat forecasts are analyzed and combined to create monthly and full-season landfall strike forecasts.

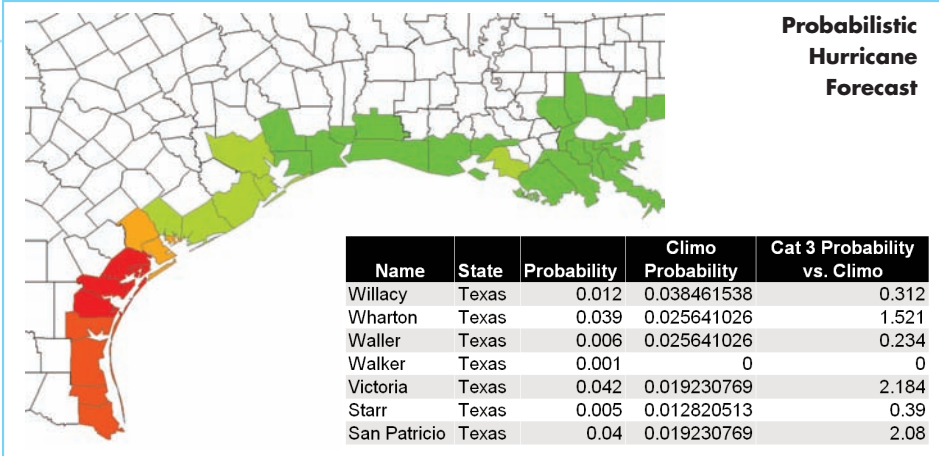


**STRIKE THREAT**

- Very Low Strike Threat
- Low Strike Threat
- Moderate Strike Threat
- High Strike Threat

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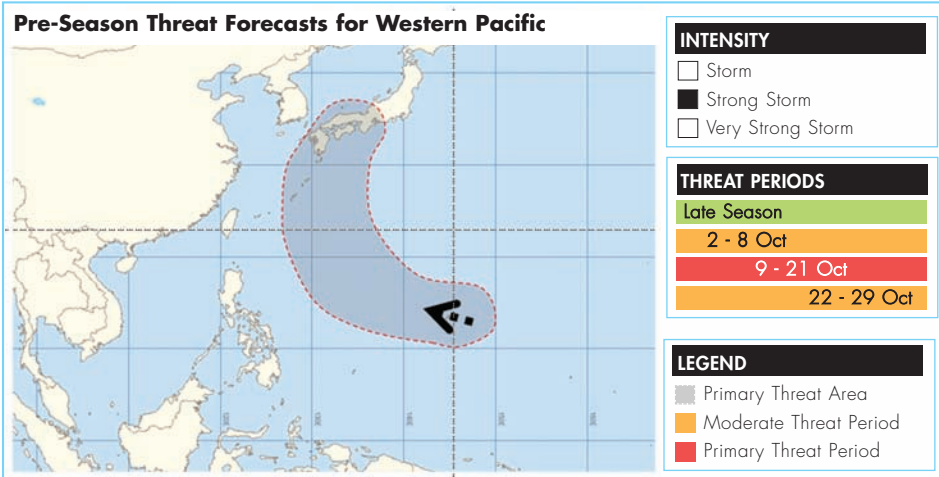
- Alerting (7- to 10-day lead times)
- Daily Tropical Assessment Reports for Atlantic, East Pacific, West Pacific, Australia, North Indian Ocean.
- Monthly update, phone briefings throughout the storm season.
- Phone/email consults and conference calls as required.

**Post-Season**

- Detailed verification of pre-season threat forecasts. 71% annual average accuracy on 2003-2009 Atlantic Basin pre-season forecasts.
- Seasonal recaps, storm-by-storm and by month.
- Lessons learned, comparisons to climatology and prior years.
- Delivered and discussed in personal briefing via webcast or in-person.

**Probabilistic Forecasts**

The seasonal Atlantic Hurricane Threat Forecast includes a “strike probability” forecast. Using Monte Carlo sampling methods, in addition to track, timing and intensity intelligence, Planalytics assigns a strike probability for each county along the Atlantic and Gulf Coasts. These probabilities further quantify the danger of a major hurricane making landfall — down to the county level. Furthermore, Planalytics offers climatological probabilities, which show the ratio between the forecast of the present year versus the normal annual threat.



*“Planalytics’ Severe Weather Service is an invaluable source of both seasonal and real-time forecast information for both tropical cyclone and winter storm activity. Our use of this information continues to enhance our portfolio management and trading efforts.”*



*“As the reinsurance industry becomes more competitive and the demand for sophisticated weather-related products increases, we are delighted to be working with Planalytics. Their clear, unbiased and technical approach gives us a critical edge in understanding synoptic weather processes.”*



*"Planalytics provides us with relevant meteorological information before comparable data becomes available in the public domain. Their focus on client support is like having a team of experienced severe weather experts on our own staff."*



**European Wind Storms**

Planalytics European Wind Storm Support offers the following:

**Daily Monitoring**

Daily monitoring includes a 7-day rolling outlook on potential for significant widespread wind events. A minimum criteria of 25 mps is used. The weekly conditions update is based on monitoring of NAO, SST's, jet stream patterns, Arctic snow and ice pack.

**Pre-Event Alerts**

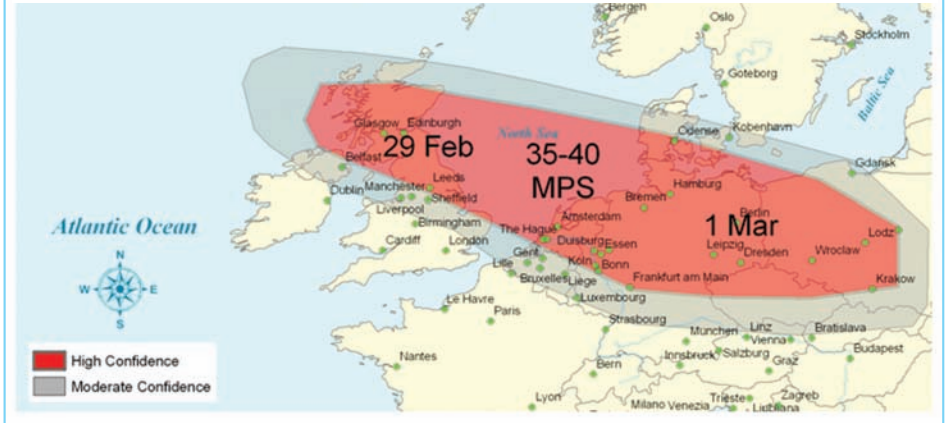
Planalytics will provide an alert up to 10 days in advance of a potential high wind event that could cover up to approximately 500 European cities. A minimum criteria of 35 mps (~70kts/80mph) peak (3 second) gust threshold is used. Coverage must generally be widespread and include several countries. Exceptions may be made if several high profile cities will be affected due to a more local event.

Clients can anticipate a minimum of one update each day. Additional updates will be provided as changes occur. Updates and alerts are sent via e-mail, typically by 9AM Eastern time.

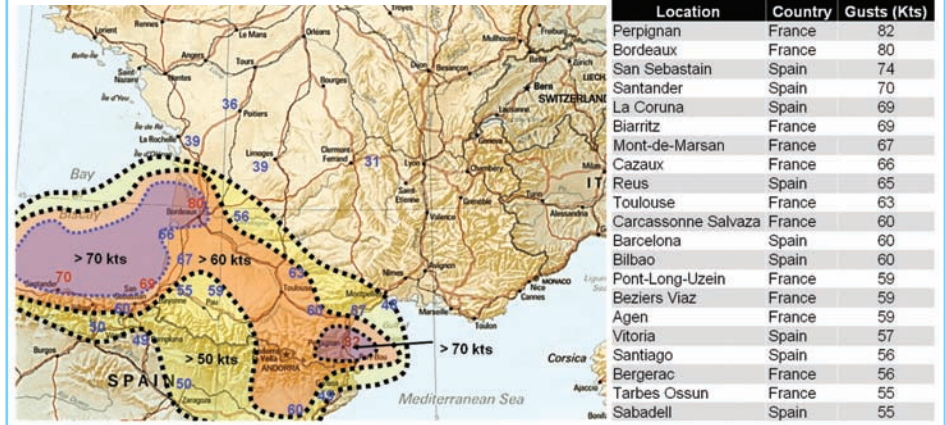
**During Significant Events**

Planalytics will monitor the situation as it occurs and will produce a minimum once-daily synopsis of wind speeds for all affected "reporting" locations. The

**European High Wind Support Alerts**



**Klaus Verification France Observations**



synopsis will be sent in report format with appropriate commentary.

**Post-Event Reports**

Planalytics will create and send a final report within 3 days after the event. The

summary of the event includes weather analysis, evolution, "stats", damage reports, etc.

**PREDICT. PERFORM. PROFIT.**

Companies across many industries use Planalytics' Business Weather Intelligence to effectively shape strategies, pinpoint opportunities and make more profitable decisions.

To schedule a personal briefing to learn more about our Severe Weather Service, our proprietary long-range tropical models, and what may be in store for this year, please call us at **800.882.5881**.



Jim Gagne, SVP Financial Services  
 Planalytics, Inc.  
 200 Berwyn Park  
 920 Cassatt Road, Suite 300  
 Berwyn, PA 19312

phone 610.407.2956  
 fax 610.640.0147

[www.planalytics.com](http://www.planalytics.com)