

Skyfora Tropical Storm Nowcast provides real-time information and frequently updated forecasts for active tropical cyclones globally to first responders, governments and organization in exposed areas, to primary insurers, re-insurers, brokers and to fund/portfolio managers and investors in natural catastrophe risk insurance related instruments like ILSs.

Increased knowledge and reduced uncertainty. With the output data, the informed professional makes faster, better and more informed decision about evacuation needs, mobilization of personnel, need to increase / decrease level of insurance and/or estimated portfolio or industry losses.

Frequent, real-time updates. The in-house developed proprietary algorithms are updated with each new available data point. As a result, the Skyfora Tropical Storm Nowcast provides frequent, real-time updates of tropical cyclone wind speed and position, which are used to update the forecast and to identifying rapid intensification and sudden change of direction as it happens - faster than any other solution.

0-120h Tropical Cyclone Landfall Forecast. The 0-120 hours forecast with landfall parameters is updated with same frequent update rate as the Nowcast. The landfall forecast provides both deterministic and stochastic parameters chosen and optimized to be used either standalone or in conjunction with catastrophe models. Additionally, the service visualises latest official advisory information to improve the level of awareness for the user.

Catastrophe model parameters. Landfall location (latitude and longitude), heading/angle of impact, forward movement speed, wind intensity, radius of maximum wind, pressure and Saffir-Simpson category are used to characterize and determine the upcoming event, to estimate the approaching hazard/intensity and to faster and better determine impact; direct, indirect and consequential losses of the event.

Skyfora Tropical Storm Nowcast includes

- ✓ Real-time Nowcast
- ✓ 0-120h Instant Forecast
- ✓ Landfall Forecast with cat. model parameters:
 - Location (latitude and longitude)
 - Direction/Angle of impact
 - Forward movement speed
 - Wind speed
 - Radius of maximum wind
 - Pressure
 - Saffir-Simpson category

Tropical Storm Nowcast Benefits:

- ✓ Frequent updates, every 15 minutes
- ✓ Immediate identification of rapid intensification and change in direction
- ✓ Frequently updated 0-120 hours AI forecast with cat. model optimized landfall parameters
- ✓ High resolution
- ✓ Comparison to official NHC, JTWC information
- ✓ Global solution covering all basins

Tropical Storm Tracker Features:

- ✓ Proprietary, in-house developed AI algorithms using latest available deep learning technologies applied on satellite images, weather advisories, atmospheric data, oceanic data etc.

The Service. The Skyfora Tropical Storm Nowcast including the 0-120h landfall forecast is a SaaS tool based on artificial intelligence using computer vision and other cutting-edge deep learning technologies. The in-house developed proprietary algorithms benefit of satellite images, NHC and JTWC weather advisories, ocean data, atmospheric data as well as of automated feature extraction trained with a vast array of relevant historical data.

Global Coverage. The Skyfora Tropical Storm Nowcast is not limited to only Hurricanes over the Atlantic and the Northeast Pacific ocean, but it works equally well for Typhoons over the Northwest Pacific Ocean and for Cyclones over South Pacific and Indian Ocean.

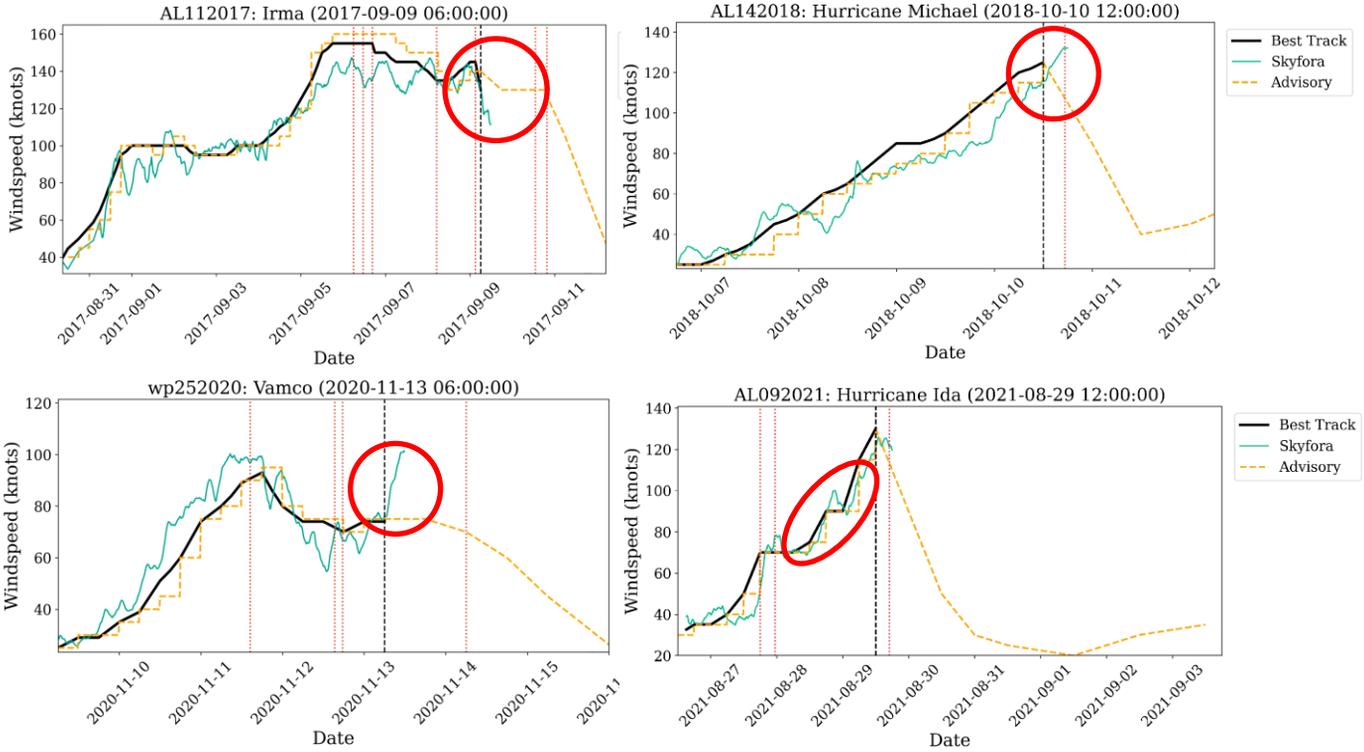
Data availability. Tropical Storm Nowcast data is provided via an intuitive user interface, via a tailored API or as a direct data download upon request. The web application is available using main browsers and the SaaS solution doesn't require any installations or maintenance work from the IT department as it is all managed by Skyfora.

Skyfora offers also Seasonal and Mid-season Forecasts, which are provided as separate reports and/or via API interface upon request.

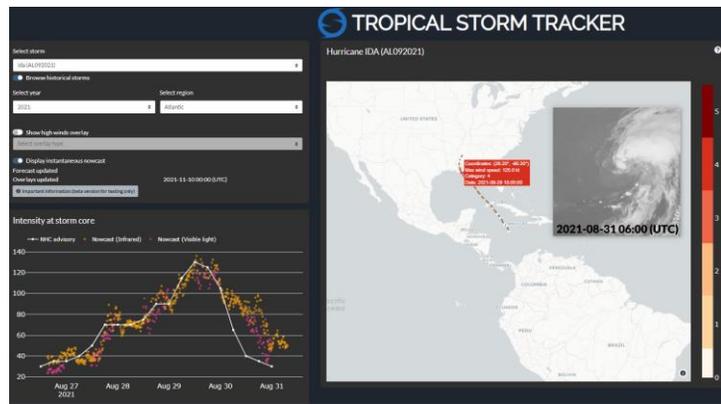
**Skyfora Tropical Storm Nowcast is continuously developed and improved. Latest features and functionalities can be verified with your contact persons.*

Comparison Data

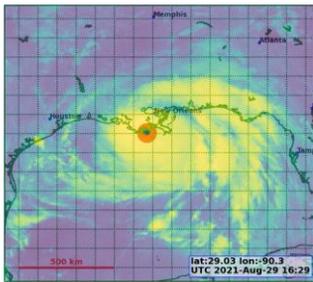
Frequently updated, real-time Skyfora Tropical Storm Nowcast information is compared to post-season corrected best track windspeeds from IBTrACS (black) and official advisories from NHC (Atlantic) and JTWC (Western Pacific) (orange) in the figures below.



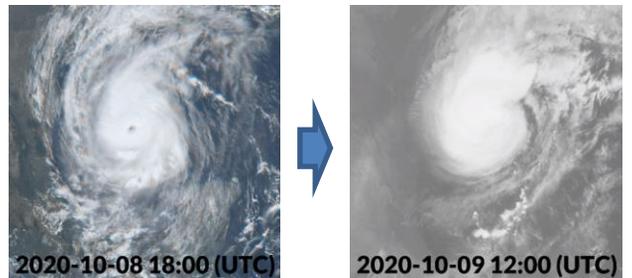
Far right: Screen shot including instantaneous Nowcast from visual and infrared satellite images for Hurricane Ida 2021.



Right: Eye-tracking algorithm following Hurricane Ida at landfall August 29, 2021



An example of Skyfora's in-house developed proprietary AI solution. A modern convolutional neural network architecture works on each incoming satellite image while another neural network assimilates other available data sources: numerical weather prediction, reconnaissance data etc. The nowcast algorithm is then trained against approximately 600.000 satellite images (infra red, visual, sea surface temperature, rain rate data etc.). As the Nowcast is updated with 10-15 minutes intervals, or as soon as any new data is available, sudden intensification or changed direction are identified faster.



Eye disappears from satellite image indicating dissolved structure and reduced intensity.

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