



WEATHER20/20

Ultra-Long-Range Weather Data



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Executive Summary

Weather 20/20's **ultra-long-range weather forecast technology** helps businesses with weather-sensitive products, services, distribution, and supply chains accurately predict market demand months in advance, allowing for accurate logistical and distribution planning, higher margins, and better ROI.

The Problems We Solve

Accurate & Effective Data!

Our patent-pending weather model provides the data & our team provides the weather & business intelligence!

For weather-dependent products, services, distribution, and supply chains **predicting product-market demand** can feel like making a guess in the dark.

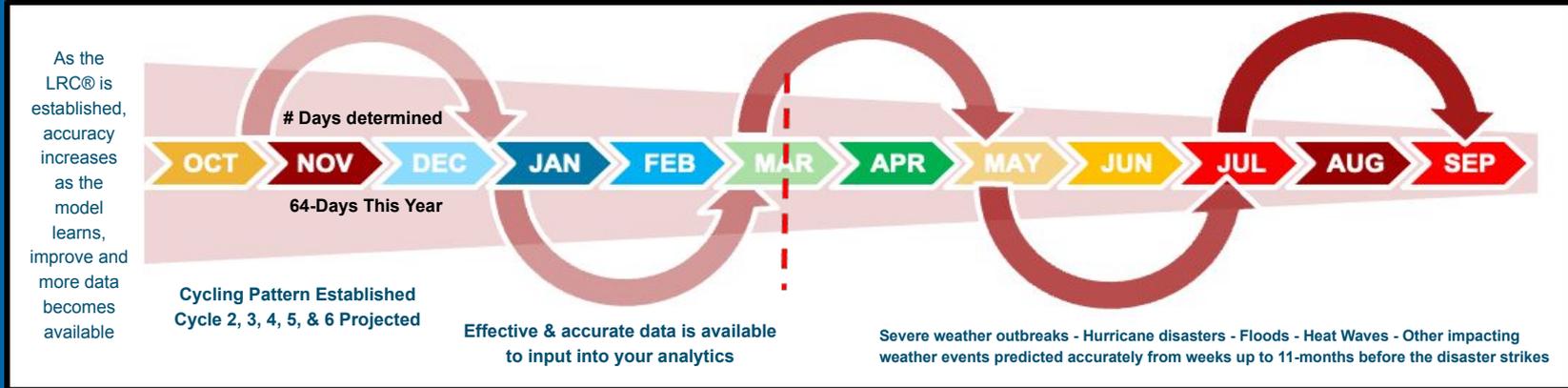
Weather can cause **unforeseen logistical and distribution disruptions**.

Businesses attempt to plan product distribution six-months out only to realize, when the day comes, their **products are in the wrong place at the wrong time** and they're **losing sales**.

The **Lezak** Recurring Cycle (LRC)

Based on 75 years of meteorological research, the LRC allows for highly-accurate weather forecasting 15-300 days out so you can make informed logistical decisions that affect revenue.

The LRC® weighs in astronomical & ocean/land temperature insights to input into the model to produce actionable & effective/accurate data and create the “The Snapshot”. The “sweet spot of accuracy is from January –September!



- A unique pattern sets up every year after the sun sets at the North Pole on the Autumnal Equinox
- A cycle length evolves and is set by December and the pattern cycles through the next September
- Anchor troughs and ridges become established and the stormiest and driest regions are determined, where storm systems will reach their strongest and weakest points

Why it's important that we know when, where, & who (client) a severe weather event will happen

Crossing I-10 near TX/LA border - October 27, 2021



Iowa Tornado March 5, 2022 (129 days or a 64-day-cycle (7 People Killed))

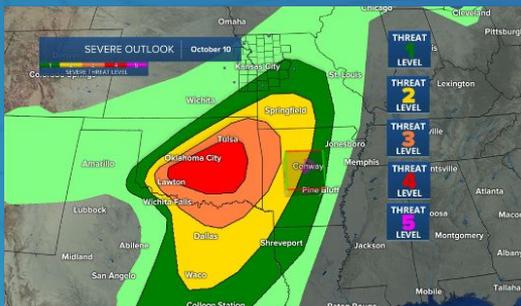


- This is NOT a coincidence! It is predictable accurately far in advance (weeks to months)
- When the severe weather outbreak happened on October 27th, it is then predictable for the pattern to return when the LRC cycle length is determined, so around March 5th, and now May 8th
- This also means that the patent-pending model is reliable, accurate, and the data is useful for your company to add into your business analytics, which we will look at in a live demo

Long-Range Weather Alert

Past Severe Weather Outbreaks

Oct 9 - 13, 2021



Dec 10 - 15, 2021



Significant severe weather happened in the first two cycles of this year's pattern, which increases the probability of nearly 100% that a major severe weather outbreak will happen in at least one of the next three cycles.

Future Severe Weather Outbreaks, as forecasted using The LRC

Feb 15 - 18, 2022

April 16 - 24, 2022

Most likely to be the most severe outbreak.

June 20 - 28, 2022

Long-Range Weather **Alert**

Past High Wind Events

Dec 30, 2021 - Jan 1, 2022

Storm bringing snow to mountains, strong winds to plains



Good news and stories of hope from Denver?

Photos by: U.S. Forest Service / (Blue Sky) National Geographic

Storm hit on a general basis in Park County on Dec. 30, 2021.



Boulder County, CO had a major fire disaster in early 2022 caused by a high wind event. The part of the weather pattern that produced the high winds will return. We predict potential power outages, dust storms, and fires.

Future High Wind Events, as forecasted using **The LRC**

Mar 3, 2022

May 5, 2022

Significant Weather Alert - High Wind Event

Storm bringing snow to mountains, strong winds to plains



Photos by U.S. Forest Service - Pike San Isabel National Forest
Snow left on a plowed barn in Park County on Oct. 26, 2021.

By Stephanie Butzer

Posted at 12:47 PM, Oct 26, 2021 and last updated 1:53 PM, Oct 26, 2021

A cold front will dump several inches of snow across some of Colorado's mountains on Tuesday, while bringing gusts of wind up to 60 mph to the Front Range and plains well into the evening hours.



Good news and stories of hope from Denver7



- Boulder County, CO had a major fire disaster that was caused by a high wind event
- The part of the pattern that produced the high winds will return around March 3, 2022, and May 5th, 2022
- Impact Prediction: Power Outages, Dust Storms, & Possibly Fires Again

Our Technology Stack



Ultra-Long-Range
Weather Data Platform



A **continuous, global, ultra-long-range weather data feed** added to your enterprise's data warehouse. Allows analysts to compare & correlate your proprietary datasets with weather data and model weather's past & future impact on business outcomes.



Ultra-Long-Range
Weather Dashboard Tool



Enables users to **visualize curated ultra-long-range weather datasets** from our global weather data warehouse, including forecasts and historical weather data, and understand the significance of weather trends on business outcomes.



Ultra-Long-Range
Weather Forecast API



Powers your internal applications with ultra-long-range weather data. Enables applications to access global weather data in milliseconds.

Benefits



Data-informed logistical & distribution decisions



More accurate prediction of market demand



Reduced internal demands, time & energy saved



Higher margins, better ROI

Weather 20/20 Customer Success



Doug Yoder

Executive Director,
Shopper & Category Insights

“In the past four years Elanco has been developing models incorporating Weather 20/20’s LRC model weather data, resulting in a 3% to 7% impact on \$4B yearly revenue, totaling \$120M - \$280M.”



Tad Trout

President

“We have been working with Weather 20/20 for three years now. Our products are being placed strategically now using these accurate weather forecasts months in advance.”



Michael Collar

President

“It will blow your mind how accurate these forecasts have been over the past ten years working with Weather 20/20. The LRC has helped us to ship fireworks to locations that will have the best sales.”



Mike Mason

Owner

“Weather is very important – it runs our business... Based on the long-range forecast for below-average snow for the entire winter, my company limited the amount of material we purchased for the winter season.”



Where Physics Fails

- Physics models **can only approximate current atmospheric conditions** for physics equations, leading to only approximations of outcomes
- **Errors compound** with each passing hour
- The forecasts past 10-days are **highly inaccurate and unreliable**



Statistics Prevails

- The LRC uses this year's weather pattern and projects forecasts forward using a **statistical pattern-based algorithm**.
- The LRC becomes **more accurate** as it phases out the "butterfly effect" of compounding errors due to approximated data
- **Ultra-Long Range Weather Data 20 to 200 days out** are as accurate as a 7-day forecast in a typical weather app.

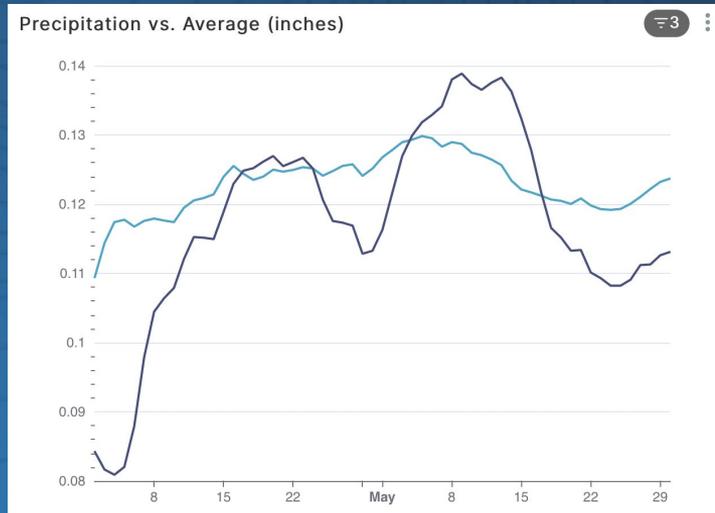
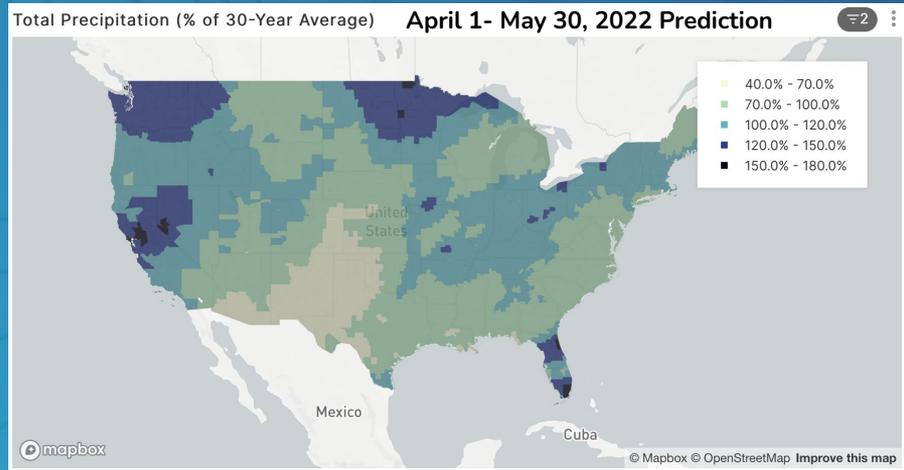


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The LRC vs. Competing Solutions

	The LRC Model	Enso	Sea Surface Temp	Global Climate Models
Forecast of when significant events will hit with months lead time (Severe outbreaks, tropical storms, major winter storms)	60% to 90% accurate	Not capable of predicting events	Not capable of predicting events	No, likely wrong
Forecast of when & where the cold outbreaks & heat waves will occur	Reliable with 80%+ accuracy	Not capable of predicting when	No, impossible to do	No, it will be at least a few weeks off and likely wrong
30-day to 90-day weather forecasts	Excellent accuracy (>80%)	Some accuracy	Some accuracy	Likely wrong
Drought/flood predictions	Excellent accuracy (>80%)	Not capable of predicting when	Impossible to do	Likely wrong

Dashboard output from the LRC-patent-pending weather model (100-day predictions as accurate as the 7-day is on your weather app!)



The model is global, accurate, effective!