

Leveraging Subseasonal Forecasts for Competitive Advantage

An Application of the World Climate Service

February 2023

<https://www.worldclimateservice.com>

The Customer

“The World Climate Service provides an invaluable set of tools that allows me to have clarity when the models are showing chaos. WCS is often the beacon of light allowing me to see through very poor “visibility” in the collective model suite”, says Ted Zarras, an operational energy meteorologist focusing on leveraging distinct weather-based market trading strategies. “The probabilistic information and analysis available through WCS presents an opportunity to navigate through upcoming forecasts. It helps me get ahead of the deterministic forecasts days ahead of big weather-based market moves.”

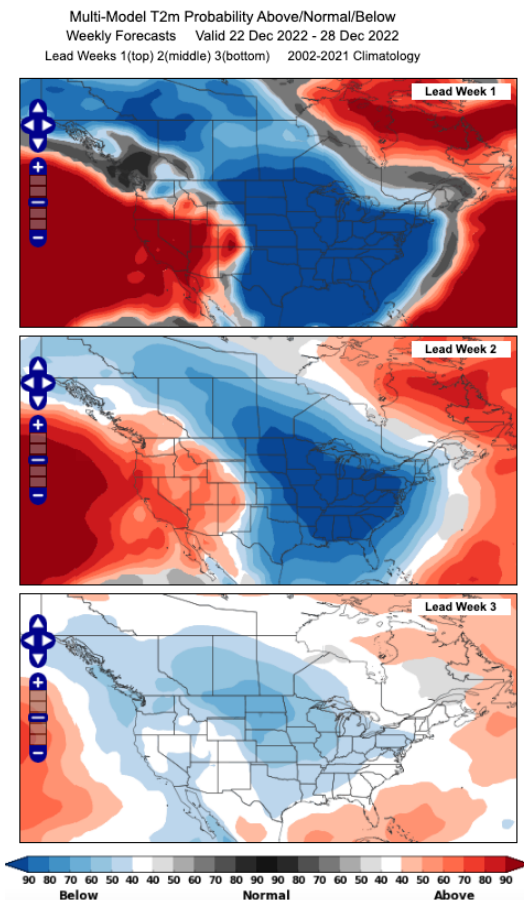


Figure 1. The three-week progression of forecasts leading up to the Christmas 2022 cold air outbreak in the United States.

[Ted Zarras, BSc](#), has supported multiple organizations throughout his career in meteorology, including positions as the forecast team lead at a prominent vendor, an energy meteorologist and trader at several power and gas trading companies, and most recently as a global weather risk forecaster for one of the world’s leading global mineral and fertilizer producers.

“I’ve been on the front line for the better part of my career, where the weather meets the markets. The forecasts I produce and the calls I make have a direct impact on the bottom line, whether supporting a unique weather-based strategy for a group, an individual trader, or managing my own book’s profitability,” says Ted.

The Need

Ted’s no stranger to high-pressure situations where the weather and the collective forecast is driving a trade. “It’s either going to be profitable, or there will be a loss based upon how the market reacts to changes in the forecast – staying ahead of these is key – something the WCS platform excels at.” Ted specializes in long-range forecasting, requiring him to have a time-saving, customizable source of weather information that both mitigates weather risk and identifies unique opportunities. “There are times when the markets are moving fast – with WCS, in just a few clicks I’m able to

assess multiple scenarios, and present the most likely forecast direction, with an understanding of weather risks in probabilistic terms.”

Ted’s internal stakeholders, whether a power or natural gas desk managing a multi-million dollar portfolio, or a global commodities director making weather-based decisions on a financial quarter, understand that there’s always uncertainty in long-range forecasts, though they value his ability to quantify risks and present probabilistic forecast direction. Ted says, “Because I’m providing information about the long-range forecast, I have to think and present in terms of the probabilities of specific outcomes. Everyone wants a single answer, but I strive to educate on the forecast risks associated with the most likely direction in the context of historical subseasonal and seasonal weather information. My long-range forecast process necessitates breaking down the weather risks into easily understood language and actionable terms - WCS greatly eases this arduous task.”

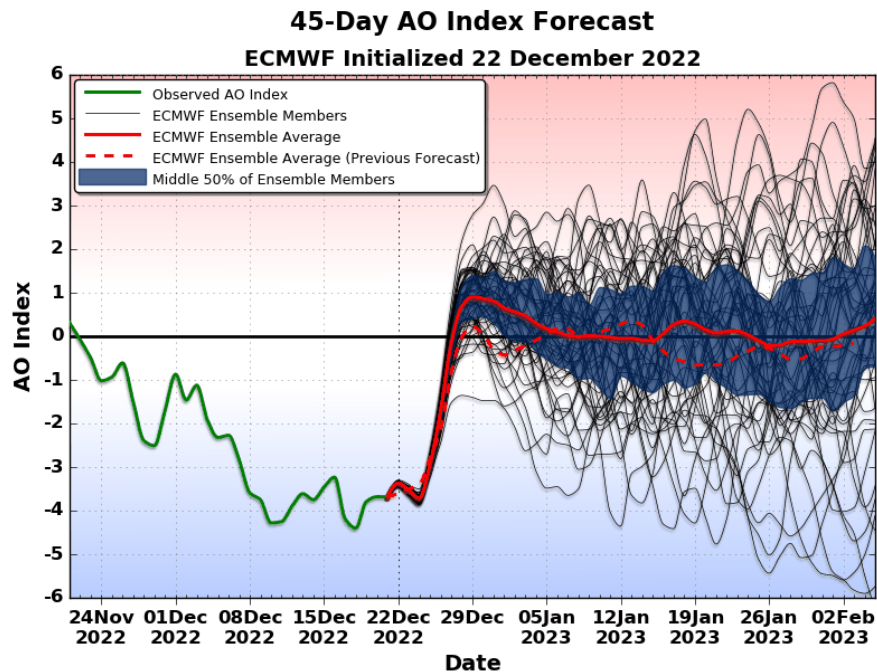


Figure 2. An example Arctic Oscillation climate index forecast from the ECMWF Extended model.

The Technology

Ted Zarras uses the World Climate Service to satisfy his demanding and unique forecast preparation requirements. The World Climate Service saves Ted time because it’s a “one-stop-shop” for long-range forecast information providing a wide range of calibrated subseasonal and seasonal numerical weather prediction information, climate index predictions, power analog analysis tools, and statistical analysis capabilities. “Their analog forecast and analysis capabilities are truly unique. I can execute analyses in the World Climate Service that I can’t do on any other platform,” Ted says.

The World Climate Service also brings decades of climate and subseasonal and seasonal forecasting science to him via the click of a few buttons. Ted comments, “Being able to easily review and compare the latest calibrated forecasts from the ECMWF Extended, NOAA’s Global Ensemble Forecast System (GEFS), the Canadian Meteorological Centre, and even the Japan Meteorological Agency puts substantially better information at my fingertips. I am able to continually develop alternative weather forecast scenarios using the World Climate Service which is key to the identification of unique weather-based trade strategies, all the while communicating market risks embedded in the forecast.”

ECMWF T2m Probability Above/Normal/Below
 Week 3 Forecast Valid 8 Dec 2022 - 14 Dec 2022
 Initialized 24Nov2022 2002-2021 Climatology

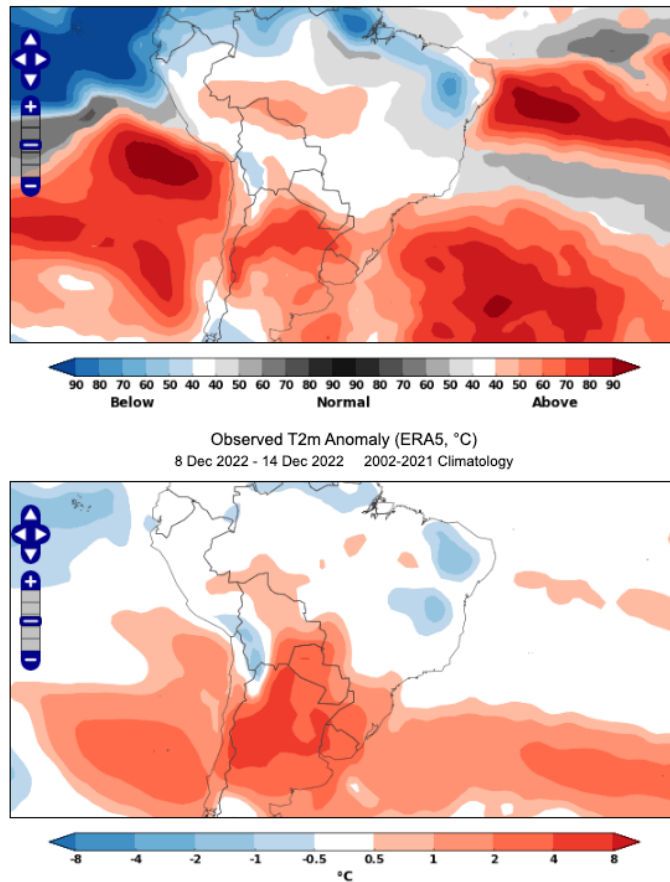


Figure 3. An example of a calibrated three-week lead forecast (top) and the resulting conditions. The high probability forecast showing warmer than normal temperatures in Argentina verified as correct.

The Conclusion

Meteorologists face unique challenges on the fast-paced, data-rich weather trading desks of today. The comprehensive suite of long-range forecast products developed by the World Climate Service provides customers like Ted Zarras the tools they need to succeed. Prescient Weather is proud to have Ted Zarras as customer. We look forward to continuing to support his long-range forecasting efforts for years to come.

For more information about the World Climate Service, please email:

info@prescientweather.com

Or Contact:

Jan Dutton, CEO

jan.dutton@prescientweather.com

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