

Erik Proseus

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What is your meteorological background (education, prior work experience, etc.) and what prompted you to Cirrus Weather Solutions?

I've had a passion for weather since middle school when a trio of events (tornado, flooding, snow) affected the region, particularly West Memphis, AR, around Christmas time. I parlayed that interest into a B.S. Geography (Concentration: Meteorology) degree from The University of Memphis in 1997. After college, I worked in aviation weather research (primarily radar-based studies) for MIT-Lincoln Laboratory at their Memphis field location. After 7 years, I joined FedEx Express as an aviation meteorologist, where I have been employed for over 10 years.

Cirrus Weather Solutions, LLC is a private weather entity that I started in February 2010 and serves as an umbrella organization for MemphisWeather.net (MWN), which I founded in 2003, and JacksonWeather.net (JWN), which I acquired in 2009. MWN serves the public in the greater Memphis area by providing the latest weather information, forecasts, and trends via the MWN website, social media feeds (Facebook, Twitter, Google+, YouTube, Blogger, Instagram), and mobile apps of the same name. Cirrus Weather was created to formalize the organization of these disparate organizations into a business entity.

Your business is very focused on delivering weather information via social media platforms. How do you engage your followers on Twitter and Facebook, and how many users do you have for your weather App?

Without social media, my business model would not exist. In particular, Twitter and Facebook have given me and my team a platform for delivering event-driven weather information, rather than being tied to a time schedule, as traditional media typically does. Today's society demands information on their schedule (pull), rather than when someone wants to deliver it (push). We focus on a three-pronged mission to "protect, inform, and educate" the public on inclement and hazardous weather, all while wrapping the information in old-fashioned customer service. While time-consuming, we attempt to respond to most every question posed to us on social media in a timely fashion, with courtesy and respect. The numbers show that that angle is appreciated as our followers tend to be very loyal and "spread the word" generously! In just a few years, MWN has garnered nearly 25,000 followers on Facebook and Twitter and our mobile app, which serves as a primary means of that "on-demand," "human-generated" weather content, is installed on thousands of iOS and Android devices across the greater metro region.

The weather business is basically forecasting the future. How does the process work for you to come up with what you feel is the most accurate forecast?

Computer models, which are basically simulations of potential atmospheric conditions based on current conditions and complex mathematical and scientific formulas, drive most forecasts. There are many “flavors” of models that are useful for various situations and types of forecasts. Some are excellent in the ultra-short term (hours), while others are tuned for the short range (up to a couple of days) and still others at the mid to long-range (out to a week or longer). The problem lies in how these models are used. Many forecasts, especially in the mobile app world, are simply the output from one particular model, which can change (sometimes vastly) many times a day. They are inconsistent and confusing at best and grossly inferior at worst. The complaint level is high with these computer-generated forecasts.

We only recommend “human-powered” forecasts and that’s all I produce. In other words, while I use computer models to aid in forecasting, I use my education, knowledge of local patterns, and real-world experience to prepare a forecast that is based on the output of the models (many times multiple models help form the basis for the forecast). I can often catch problems a model is having simply by looking out the window and checking radar, satellite, and weather conditions upstream. There is no substitute for human touch in a forecast.

How does the recent snow event rate historically on temperature and winter precipitation?

We’ve just ended a three-week period of weather that is fairly rare in the Mid-South. Temperature-wise, the 2nd half of February (Feb. 16-28) ranked as the coldest on record (since 1875) by over 4 degrees, while the entire month of February was the 7th coldest on record. The first week of March was in the top 10 coldest as well. For the winter (Dec-Feb), the average temperatures was 2.3° below average, but a little more than a degree warmer than last year’s brutally cold (but dry) winter.

As far as precipitation, last week’s snowfall (including sleet) puts this month in the top 10 snowiest Marchs. One would think it would be near the top, but actually the biggest snowfalls in Memphis history have occurred in March, when a combination of higher moisture typically associated with spring collides with still common cold blasts from Canada. However, since 1928, last week was only the 2nd time that Memphis had 1” of snow on the ground for 3 consecutive days in March. The snow event of February 25 set records across north MS and north AL as totals topped 6-10”, though less than an inch fell at Memphis International Airport. Amounts reached 4” or more just a few miles south in DeSoto County. For the winter season (starting with two early light snowfalls in November and continuing through last week), Memphis International Airport has received 6.1” of snow, well above the typical seasonal average.

And a fun one:

Memphians love to stock up on milk and bread when snow threatens. When snow is in the forecast, what is on your grocery shopping list?

I typically let my wife take care of the nutritional needs of my family! Honestly, there are few instances, outside of the dreaded historic ice storm (see February 1994), in which people in the Mid-South can't get out to a grocery store within a couple of days. That being said, I hear that a couple bottles of wine and ingredients for s'mores over the fireplace are just as popular as having to eat French toast for a week.

Also, could you provide us with the top 10 coldest days in March and top 10 snowfalls in March to see where last week ranked? We would credit the information to MemphisWeather.net.

Top 10 Record Low Temperatures (March)

1	12.0	1943-03-03
2	14.0	1932-03-09
-	14.0	1923-03-19
4	15.0	2015-03-06
-	15.0	2014-03-03
-	15.0	1960-03-05
-	15.0	1899-03-07
8	16.0	1996-03-08
-	16.0	1943-03-07
-	16.0	1893-03-04

Top 10 March Snowfalls (inches)

1	18.0	1892-03-17
2	9.0	1875-03-07
3	8.7	1968-03-21
4	8.0	1876-03-20
5	7.4	1968-03-22
6	4.6	1960-03-14
7	4.0	2008-03-07
8	3.1	2015-03-05
9	3.0	1896-03-14
10	2.6	1917-03-04

Credit to MemphisWeather.net / NOAA-National Weather Service