David Moran, AMS Certified Consulting Meteorologist
E-Mail: david@davidmoranweather.com
Phone: (405) 693-5632

Summary: Operational meteorologist since 2011 with forecast experience in a variety of industries. Extensive background in radar meteorology and severe weather forecasting. Proficient in written and verbal communication of meteorological information. AMS Certified Consulting Meteorologist (Certificate #730). Member of the AMS Board of Certified Consulting Meteorologists (2018-2022).

Work History

Nov 2010 – present Consulting Meteorologist
Weather Decision Technologies

- Wrote a daily forecast blog highlighting hazardous weather across the country to potential customers. These blogs served as an impetus to drive consumers to mobile apps available for purchase and to learn more about services offered.
- Drew frontal analyses from ECMWF for clients and other products. I prepared these analyses for an oil company using in house model data and a computer program to plot the fronts. These plots were also part of a daily forecast product that was made available to all customers.
- Issued forecasts for utility and shipping companies. Prepared two daily forecasts for OG&E (utility company) including temperature, wind, and precipitation for the day ahead. I also wrote a brief forecast discussion for marine clients in the Bay of Campeche giving an overview of the weather conditions anticipated over the next five days.
- Issued severe weather watches and warnings to clients on impending weather that was a threat to their assets in the short term (Six hours or less).

Jun 2008 – May 2009 Meteorology Intern
National Severe Storms Laboratory

- Processed radar data from past hurricanes in preparation for journal articles written by NSSL scientists using WDSS II.
- Data analyses on Doppler radar performance in precipitation estimates.
- Imported and plotted various precipitation data from mobile radar units used in studies on flooding in mountainous areas.

Forecast Experience

- Issued watches and warnings to clients regarding hazardous weather.
- Issued alerts regarding potential winter weather, significant severe weather, and excessive rainfall at extended range (4-7 days). Also drew threat polygons for areas where hazards were expected.

- Prepared forecast of temperature, dewpoint, winds, cloud cover, and precipitation for the following day for a utility company
- Wrote forecast discussion on expected conditions for the Bay of Campeche. This forecast included information on winds and swells, as well as precipitation. Have experience using WaveWatch III.
- Prepared daily precipitation forecast for shipping company highlighting areas of heavy rainfall and snowfall across the US. Forecast for day 1-7 period as well as a brief 8-15 day discussion.

Consulting Experience

- Radar data analysis for litigation purposes
- Educational blogs on meteorological topics
- Severe and Winter Weather Forecasting

Professional Development

- Served on committee to rewrite CCM written exam (2017-present)
    - Was chosen to serve as lead on a subcommittee in March 2018
- Member of the Board of Certified Consulting Meteorologists (January 2018-Present)

Education

- **B.S. in Meteorology (2009)**
  University of Oklahoma
- **B.A. in Mathematics (2009)**
  University of Oklahoma

Certifications

- **Certified Consulting Meteorologist (2017)**
  American Meteorological Society (Certificate #730)

Memberships

- **American Meteorological Society**: 2010-Present
- **National Weather Association**: 2015-Present
- **Association of Certified Meteorologists**: 2017-Present

Software Expertise

Proficient with:

- WordPress
- GR2Analyst
- GRLevel3
- GREarth
- RAOB
- Digital Atmosphere
- AWIPS

Areas of Expertise

Meteorology:

- Radar Meteorology
- Synoptic Meteorology
- Mesoscale Meteorology

Forecasting Expertise: Severe Weather

Mathematics

- Ordinary and Partial Differential Equations
- Fourier Series
- Mathematical Modeling
- Complex Analysis
- Applied Statistical Methods

Programming Skills

- C (Basic to intermediate)
- Python (Basic)
- Linux (Basic)

Publications

RadarScope: Do You Know What Tornado Debris Signatures Look Like?
- https://blog.weatherops.com/radarscope-what-do-tornado-debris-signatures-look-like

RadarScope: Identifying Microbursts in Radar Data - https://blog.weatherops.com/radarscope-identifying-microbursts-in-radar-data

RadarScope: Comparing Tornado Signatures from NEXRAD and TDWR
- https://blog.weatherops.com/radarscope-comparing-tornado-signatures-from-nexrad-and-tdwr

RadarScope: Difference Between Hydrometeor Classification and Hybrid Hydrometeor Classification - https://blog.weatherops.com/radarscope-difference-between-hydrometeor-classification-and-hybrid-hydrometeor-classification

RadarScope: Learn More About Spectrum Width - https://blog.weatherops.com/radarscope-learn-more-about-spectrum-width

RadarScope: Learn More About Vertically Integrated Liquid - https://blog.weatherops.com/radarscope-learn-more-about-vertically-integrated-liquid

What Does Differential Reflectivity and Correlation Coefficient Tell Us - https://blog.weatherops.com/what-does-differential-reflectivity-and-correlation-coefficient-tell-us

Is That Storm Rotating? How to Find Out - https://blog.wdtinc.com/is-that-storm-rotating-how-to-find-out

The "Big One" Is Coming -- Or is it? - http://davidmoranweather.com/2016/12/the-big-one-is-coming-or-is-it/

How Much Snow Can Your Roof Hold? - http://blog.wdtinc.com/how-much-snow-can-your-roof-hold?

Snow to Liquid Ratios - How are They Calculated? - http://blog.wdtinc.com/rainfall-to-snow-ratios-how-are-they-calculated

Great Lakes Experiencing Lake Effect Snow - http://blog.wdtinc.com/great-lakes-experiencing-lake-effect-snow

RadarScope: Identifying Between Rain, Sleet and Snow - http://blog.wdtinc.com/radarscope-identifying-between-rain-sleet-and-snow

Difference Between Single vs Multiple Lake Effect Snow Bands (co author with Chris Robbins)- http://www.iweathernet.com/educational/difference-between-single-vs-multiple-lake-effect-snow-bands

Mechanics of 2014's Historic Lake Effect Snow Event (co author with Chris Robbins) – http://www.iweathernet.com/educational/lake-effect-snow-great-lakes

Honors and Awards

- Featured as Geek of the Week on The Weather Channel's WX Geeks (5/21/17)

Other Information

I continually educate myself on other areas of meteorology, as well as the latest advances in radar, mesoscale, and synoptic meteorology. I do this by reading AMS journal articles and completing COMET modules.

I have done forecasts for a wide variety of environments and places. I have built a fully functional weather center in my home office and am confident that I can deal with any forecast situation.

References available upon request