



METSTAT

Forensic Meteorology

Services

fact sheet

Accurate, site-specific information for past weather events is crucial for legal professionals managing weather-related cases and insurance companies validating weather-related claims. Our testimony and/or analysis could provide pivotal information that could save you and your client money.

Why METSTAT?

- Highly qualified and insured. See back for Statement of Qualifications and/or visit metstat.com.
- Experts in reconstructing weather events that are key in cases involving weather. Our Storm Precipitation Analysis System has been used to reconstruct over 200 rainfall events.
- Experts in providing a statistical sense of how rare (or common) the weather (e.g. wind, rain, snow, ice) was at a particular time and location where weather played a role in an incident. We can tell you if it was a 100-year event or not.
- We specialize in Western U.S. weather-related cases, but committed to cases nationwide. In fact, Tye Parzybok, Chief Forensic Meteorologist, authored the book *Weather Extremes of the West*.
- Utilize a comprehensive in-house weather database and when necessary a network of professionals in related disciplines (e.g. hydrologists).
- Among our strengths is quality control/assurance, so we guarantee the comprehensive data and products we use are legally compliant, written/voiced in "plain-English" and accurate.
- Competitive billing rates.

Examples

~Wind~



A "windstorm" knocked a tree limb on a person, injuring them at an apartment complex. If the wind speeds associated with the "windstorm" were considered very common (a 2-year event), then the apartment complex could be negligent since improper tree pruning likely caused the limb to fall verses extreme winds.

~Snow~



By evaluating weather data we can determine how long icy or snowy conditions existed on a given sidewalk that a slip and fall incident occurred. If it is proven that the ice had existed for an unreasonable amount of time, the party responsible for clearing the sidewalk could be found negligent.

~Rain~



A flooded basement appeared to be the result of an extreme rainfall event, but instead it was determined the rainstorm was not unusual and the flooding was caused by a clogged storm drain.

~Hail~



Was automobile damage the result of a hammer or hail? Validating hail stone diameter and duration for insurance claims can save insurance companies a great deal of money.

25 Years Experience

About METSTAT, Inc.

Tye W. Parzybok, Chief Forensic Meteorologist, and METSTAT have been providing high quality meteorological services, including forensic weather analysis, and products for nearly 25 years. METSTAT is a leader in past weather event reconstruction/evaluation, extreme precipitation analysis, real-time precipitation monitoring, weather data quality control and spatial interpolation of weather/climate variables. Our data has been used in hydrologic models, design optimization plans, storm water analyses, litigation, insurance claims, inundation mapping, probable maximum precipitation (PMP) studies and radar-estimated precipitation.

METSTAT, Incorporated
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METSTAT

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Statement of Qualifications

Tye W. Parzybok, Chief Forensic Meteorologist

EDUCATION

B.S. Physical Geography (Atmospheric Science emphasis) Oregon State University	1993
Graduate Studies (Meteorology) University of Utah	1994

RELATED SKILLS

- Conduct storm inventories
- Quality control
- Real-time operations
- Meteorological measurement
- Gauge and radar-calibrated precipitation
- GIS analysis of meteorological data
- Interpret & synthesize weather/climate data
- Weather event reconstruction/investigation
- Author/lecturer
- Weather and climate analysis
- Spatial interpolation
- Storm analysis

RELATED WORK EXPERIENCE

President & Chief Meteorologist Metstat, Inc.	Windsor, CO 1999 – Present
<ul style="list-style-type: none"> • Conduct data analysis and meteorological investigations in support of forensic cases involving weather. • Periodic guest instructor at the National Center for Atmospheric Research COMET hydrometeorological classes. • Authored book <i>Weather Extremes of the West</i> in 2005. • Develop weather frequency grids/maps using custom programs, Geographical Information Systems and statistics. • Manage, manipulate, create, interpret and document large weather/climate datasets with differing formats. • Contractor for NOAA's National Weather Service Office of Hydrologic Development (1999-2010) and a key player in the development of NOAA Atlas 14 Precipitation Frequency Atlases. • Designed the NOAA/NWS Precipitation Frequency Data Server (http://hdsc.nws.noaa.gov/hdsc/pfds/) • Lead developer of the Storm Precipitation Analysis System (SPAS) which is used to reconstruct rain/snow events. • Developed and implemented quality control software for screening 1-hour gauge precipitation data for use in radar-adjusted U.S. precipitation. • Developed and implemented software to translate real-time precipitation into an Average Recurrence Interval. • On-call precipitation expert for the World Meteorological Society's World Record Evaluation Committee. 	
Research Scientist/GIS Analyst Oregon Climate Service, Oregon State University	Corvallis, OR 1996 – 1999
Operational Meteorologist/Forecaster WeatherBank, Inc.	Salt Lake City, UT 1994 – 1995
Graduate Research Assistant University of Utah, Meteorology Department	Salt Lake City, UT 1993 – 1994
Undergraduate Research Assistant/GIS Technician Oregon Climate Service, Oregon State University	Corvallis, OR 1992 – 1993
Research Assistant Colorado Climate Center/CIRA, Colorado State University	Fort Collins, CO 1987 – 1990

PROFESSIONAL AFFILIATIONS AND CERTIFICATIONS

• Certified Geographic Information Systems Professional	• American Meteorological Society
• Certified Consulting Meteorologist (pending)	• National Weather Association
• Association of State Dam Safety Officials	• National Hydrologic Warning Council