

Dr. David L. Mitchell, Ph.D.

Managing Director and Consulting Forensic Meteorologist

MET Associates

Weather Expert Witness

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Summary of Qualifications

David L. Mitchell is an authority on the numerical modeling of geophysical and atmospheric data with a Doctorate in Meteorology from Purdue University. Dr. Mitchell has over 25 years of technical modeling experience in industry and consulting. His business experience includes various research and technical consulting positions with Conoco, Getty Oil Company, Texaco, Tenneco, British Petroleum and IBM Corporation. Dr Mitchell has extensive knowledge of Forensic Meteorology and has published his research results on the modeling of atmospheric stability and convection. Dr. Mitchell is an expert in the field of Air Pollution Meteorology with over 25 years of experience with the mathematical modeling of wave propagation in elastic media, atmospheric fluid dynamics and air dispersion modeling. He has extensive knowledge of air pollution modeling software and air quality modeling techniques approved by the US Environmental Protection Agency. Dr. Mitchell is a specialist in Weather Event Reconstruction for litigation. He has provided forensic meteorology support for criminal investigations and insurance cases involving weather related accidents, personal injury and property damage. He is a member of the Air and Waste Management Association, the American Meteorological Society and the National Association of Environmental Professionals. Dr. Mitchell is also an Associate Member of the American Bar Association with affiliation with the Litigation Division and is a Certified Professional Geoscientist.

Degrees

Ph.D., Atmospheric Science and Meteorology, Purdue University, 1976

M.S., Physics, Purdue University, 1974

B.S., Physics and Mathematics (Dean's Distinguished List, *Sigma Pi Sigma* Physics Honors), Baylor University, 1972

Dissertation

A Theoretical Investigation of Atmospheric Convective Modes as a Function of Rayleigh Number, Prandtl Number and Eddy Anisotropy; 1977, Meteor. Soc. Japan, Vol. 55, No. 4, 341 - 363.

Certification and Honors: Certified Professional Geoscientist
Associate of the Scientific Research Society of North
America
Sigma Pi Sigma, National Physics Honors Society
Distinguished Expert, National Forensic Center
Who's Who in the South and Southwest - 1981

Litigation Support Experience

MET Associates has provided technical support and expert testimony in deposition on issues of scientific data and mathematical modeling to the Petroleum Industry, the Insurance Industry, and the Legal profession. Forensic Meteorology Litigation cases include providing expert witness support and meteorological data analysis for Air Pollution and Weather Event Re-Construction cases both Domestic and International.

Case examples include:

- 1) Multiple cases involving Air Dispersion Modeling of pollutants and Weather data analysis in defense of petrochemical facilities being sued by surrounding neighborhoods.
- 2) Weather Pattern Re-Construction and analysis of historical rainfall data in an urban setting in defense of commercial building owner being sued due to flooding occurrences resulting in property damage.
- 3) Re-construction of weather conditions and wind data related to the occurrence of dense ground fog and reduced visibility conditions resulting in a major, multi-vehicle freeway accident and personal injury.
- 4) Historical wind data analysis and air quality modeling in support of a class action suit brought by a rural subdivision downwind of a polluting industrial complex.
- 5) Numerous Forensic Meteorology cases involving the re-constuction of weather conditions occurring at the time of an accident, or criminal action.

Business Experience

1976 - 1978	Conoco, Inc., Research Scientist
1978 - 1984	Getty Oil Company/Texaco, Research Department Manager
1984 - 1988	Tenneco Oil Company, Senior Specialist
1988 - 1992	British Petroleum Company, Senior Staff Specialist
1992 - Present Meteorologist	MET Associates, Managing Director and Consulting Forensic

Professional Affiliations

American Meteorological Society

American Association of Petroleum Geologists

National Association of Environmental Professionals

Air and Waste Management Association

Society of Exploration Geophysicists

Scientific Research Society of North America

National Physics Honor Society

American Bar Association, Associate Member Litigation Division