

RESUME OF JAY ROSENTHAL, CCM, President, AIR, WEATHER & SEA CONDITIONS, INC.

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TECHNICAL AREAS OF SPECIALIZATION AND INTEREST

In many areas of litigation, weather factors can be crucial, sometimes decisive factors in establishing liability and the size of a reasonable settlement. The expert witness-meteorologist can be a great ally to plaintiff and defendant alike, separating fact from fiction, and reconstructing what weather conditions existed. The following areas of specialization are provided:

- Identifying relevant weather issues (including rain, wind, temperature, icing, sun etc)
- Analysis of marine, coastal, urban, mountain, desert and local conditions
- Reconstruction of weather & sea conditions for accidents, personal injury (P.I.) investigations, and wildfires
- Determining when weather or sea conditions impact aviation, boating, auto, building construction and mold issues (including storm and wave conditions)
- Comparisons of observed to normal conditions
- Determining if observed conditions were foreseeable
- Estimating degrees of unusualness
- Selection, acquisition and evaluation of data that is representative of conditions at the time and place of interest
- Establishing/installing instrumentation/measurement sites; site evaluations
- Atmospheric effects on radars, acoustics, weapons, operations and planning
- Air pollution transport
- Alternative Energy systems
- Meteorological considerations for Homeland Security and counter-terrorism
- Experienced Trial testimony, depositions, reports and analyses
- Weather factors in marketing and industry analyzed
- Weather and climate considerations for planning travel, and TV/Film productions

TECHNICAL BACKGROUND

- Over 30 years of professional experience in field of meteorology
- Federal government scientist and manager in meteorology, oceanography, satellite data applications and air pollution transport (1963-2001)
- Research Leader, Battelle Memorial Institute in air pollution transport, Navy meteorological support, and counter-terrorism/homeland security applications of meteorological data, including planning and supporting training exercises
- Consultant to government, industry, media and education in meteorology and effects on operations (1969 to present)
- Legal/forensic applications and effects of weather and marine science (1977 to present) and President, Air, Weather & Sea Conditions, Inc.

PROFESSIONAL EXPERIENCE

- (2004-present) President, Air, Weather & Sea Conditions, Inc. Provide scientific, technical and measurement support to government (unclassified and classified) and private agencies; Provide consultation and expert witness services to insurance companies, law firms and government entities on storm, weather events and related atmospheric conditions.
- (2005-2009) Subject-Matter-Expert (SME) on weather for Los Angeles Terrorism Early Warning Group (TEW) and TEW Exercise participant to coordinate meteorological data and knowledge for emergency response planning
- (2001-present) Research Leader, Battelle Memorial Institute, Camarillo Office. Provide technical support, consultation and documentation to U.S. Navy on air pollution transport mechanisms; satellite data applications; effects of meteorological conditions on systems and operations; and homeland security/counter-terrorism applications of meteorological data, and DoD site selection studies.
- (1989-2001) Geophysics Division/Branch Head, and Associate Head, Naval Air Systems Weapons Division, Point Mugu, California. Provide technical and administrative leadership of multi-disciplinary organization of scientists, engineers, technicians, military and contractor personnel to provide all weather and ocean support for Navy's Sea and Land Ranges, and airfields at Point Mugu, San Nicolas Island and China Lake. Responsible for observing, measuring, instrumenting, forecasting, testing and evaluating weather and air-ocean conditions; Determining impact on aviation and operations at sea; Support lead for 'Purple', 'Orange', and 'Blue' meteorological and oceanographic (METOC) cells for Third Fleet counter-terrorism exercise and experiment; Development and demonstration of new prediction and analysis techniques; Quality control; Technical documentation; Established Air Pollution/Contamination Transport Response Team for the Navy to provide independent METOC modeling and evaluation support to address environmental encroachment and regulatory issues (e.g. Ship Channel, East Kern County ozone bump-up, and Searles Valley PM-10 bump-up proposals).
- (1970 to present) Expert Witness and Consultant, and President, Air, Weather & Sea Conditions. Provide analysis and reconstruction of weather, rain, wind, storm, lightning, severe weather, sea and visibility conditions, and testimony for law firms, insurance companies and engineers regarding: floods; construction damage; slope failures; wildfires; personal injury; aviation; boating; and auto/motorcycle accidents; and to local government agencies on air pollution transport. Consultant and climatic planning for international investment. Advertisements for real estate development. Consultant to television network station.
- (1987) Head, Special Programs Branch, Pacific Missile Test Center (PMTC). Provide technical and administrative leadership of project managers, task managers, operation

PROFESSIONAL EXPERIENCE (continued)

conductors and Range Operations supervisors for the planning, operational support and post-op assessments of high visibility programs on the Range, including Trident, Tomahawk, Harpoon and Japanese Defense Force. Review and approve program documentation; Provide and schedule Range Operations support personnel; Conduct operations in Tracking & Control rooms.

--- (1986) Assistant Program Manager, Systems Commands (SYSCOM) Oceanography Coordinator Office, Space and Naval Warfare Systems Command, Washington D.C. Assist the Program Manager in the identification of emerging and follow-on METOC support requirements within Naval Air Systems Command, Naval Sea Systems Command and Space and Naval Warfare Systems Command; Document environmental sensitivities associated with high visibility systems; Draft Tri-Syscom instructions to coordinate Navy METOC support; Develop technical and programmatic documentation.

--- (1985) Instructor, University of California at Los Angeles (UCLA) Extension. Instructor for course "Meteorology for Pilots". Lecturer on "The Weather and Soaring" for program on 'Motorless Flight'.

--- (1978-1987) Head, Geophysical Sciences Branch, Geophysics Division, PMTC, Point Mugu, California. Supervisor and team leader. Principal Investigator on applied research projects. Development, test and evaluation of new techniques of analysis and prediction; Climatic planning; Post-operation evaluation; Established real-time "Project Forecasting" and briefing process for Range Operations; Alternative energy ;Technical documentation; Invited participation at 5 NATO working groups in various host countries.

--- (1963-1978) Research Meteorologist, and Section Head, Geophysics/Meteorology Division, PMTC, Point Mugu, California. Developed weather prediction and assessment techniques; Post-operation evaluation; Observation and description of California weather regimes; Research applications; Shipboard at-sea advisor/consultant to First Fleet staff; Developed Tacmemo for Commander, Third Fleet.

--- (1970) TV Weathercaster, KNBC, Channel 4, Los Angeles (Burbank), California. Preparation and live telecast describing past and present weather conditions, and forecasts of upcoming weather for Southern California from the ocean, to the mountain resorts, to inland desert regions.

--- Teaching, and Research Assistant, U.C.L.A., Los Angeles, California. Taught laboratory class on synoptic meteorology to U.C.L.A. students including U.S. Air Force personnel. Provided computations, data reduction and support on general circulation research projects.

PROFESSIONAL EXPERIENCE (continued)

--- Instructor/Counselor, American Meteorological Society (AMS) and National Science Foundation (NSF) Summer Science program in Atmospheric Science, at Loomis School, Windsor, Connecticut. Served as instructor, advisor and counselor to gifted high school students selected nationwide for science aptitude. Conducted lectures and demonstrations in cloud seeding and related projects.

--- Research Aide, Department of Meteorology and Oceanography, New York University (NYU), Bronx, New York. Performed data reduction on oceanic wave properties for developers of ocean wave spectral prediction and analysis model.

EDUCATION

--- Masters Degree (M.A.) in Meteorology, University of California at Los Angeles, U.C.L.A., Department of Meteorology.

--- Bachelor's degree (B.A.) in Meteorology, New York University (N.Y.U.), Department of Meteorology and Oceanography.

--- Nine credits in Broadcasting, Los Angeles City College, Los Angeles

--- Various training in satellite data interpretation, radio/radar meteorology, air pollution meteorology and management techniques.

--- Various courses in Incident Management/Unified Command; Incident Command System/NIMS; Operational WMD (Weapons of Mass Destruction) Response; and Computer-Aided Management of Emergency Operations (CAMEO); ICS 300, 400 (Advanced ICS Command and General Staff-Complex Incidents); Radicalization of terrorist groups.

TECHNICAL PUBLICATIONS

--- Over 100 technical reports and presentations at Navy and professional technical symposia on subjects of weather forecasting, satellite data techniques and interpretation, meteorological data accuracies, radio/radar propagation, air pollution transport, effects of weather on air, sea and ground operations, model comparisons and evaluations, establishing field programs, weather in litigation, etc. including:

---- Point Mugu Forecasters' Handbook, 1972 (on Southern California weather regimes)

---- Atmospheric Environment (on ozone transport across southern California)

and other publications in:

---- Monthly Weather Review, American Meteorological Society

---- Naval Institute Proceedings

---- American Meteorological Society Conference proceedings

---- Naval Engineers Journal

TECHNICAL PUBLICATIONS (continued)

- NATO Document "Atmospheric Ducts and Radio Wave Propagation"
 - Range Commanders Council
 - Journal of International Test and Evaluation Association
 - Commander, Third Fleet Tacmemo
 - Navy Tactical Applications Guidebook
 - Navy-wide refractivity forecasting guide for Arabian Gulf
 - Experts-At-Law Magazine
- and
- Invited papers and presentations at AMS, AAAS, NATO, National Weather Service, University of California, DoD air pollution conferences, and other seminar programs or workshops on weather-related topics.

PROFESSIONAL AFFILIATIONS

- Certified Consulting Meteorologist (CCM), American Meteorological Society (AMS)
- American Meteorological Society (AMS), full Member
- Sigma Xi, the Honorary Research Society of America
- Subject Matter Expert (SME), Los Angeles Terrorism Early Warning Group (TEW)
- National Weather Service official "Weather Spotter"

AWARDS AND RECOGNITION

- 2009: Presentation to L.A. TEW: "Weather Issues Associated with Maritime Threats"
- 2007: Invited presentation "The Role of Atmosphere in Forensic Investigation" Workshop to the American Academy of Forensic Sciences, San Antonio, TX
- 2005: Invited talk "Critical Weather Factors for Emergency Response", San Diego
- 2005: Invited participation as Instructor at American Meteorological Society Short Course on Forensic Meteorology at National Meeting (Jan 2005)
- 2005: Live interview by Fox Network News on Hurricane Katrina imminent landfall
- 2004: Invited presentation to Los Angeles Terrorism Early Warning Group (TEW)
- 2004: Invited presentation at Town Hall mtg of Sen. Alarcon (Community Service)
- 2001: Awarded nationally-recognized Certified Consulting Meteorologist (CCM) designation by the American Meteorological Society
- 2001: Awarded Department of the Navy Meritorious Civilian Service Award
- 2001: Letters by Oceanographer of the Navy; Commander, Naval Meteorology and Oceanography Command; and others on the occasion of my retirement after 38 years of federal service in meteorology.
- 1998-2000: Member, California Air Resources Board's Deep Sea Vessel/Shipping Channel Technical Working Group (TWG)
- 1997-1998: Represented the Navy and Department of Defense on Federal Advisory Committee Act (FACA) Committee on Ozone, Particulate Matter and Regional

AWARDS AND RECOGNITION (continued)

- Haze, Science and Technical Workgroup
- 1995: Special Achievement Award presented by Commander, Naval Air Warfare Center for descriptions, analyses and documentation on air pollution transport provided to the Department of the Navy, the Office of Management and Budget, the U.S. Environmental Protection Agency, Congressional Representatives, and local governments during final negotiations of the Federal Implementation Plan (FIP)
 - 1992: Recipient, Sea Range Directorate Senior Manager of Year Award
 - 1990: Recipient, PMTC EEO Leadership Award
 - 1990: Selected/Graduated Naval Air Systems Command, 'Senior Executive Management Development Program'
 - 1988: Recipient, the Technical Director's PMTC Fellows Award
 - 1982: Chairman, American Meteorological Society's national Board for Government Operational Meteorologists
 - 1976: Invited 'Discusser', American Society of Naval Engineers (ASNE) Day Technical Program, Washington D.C. to present critical review of Navy-developed environmental prediction system
 - 1976: Selected Point Mugu 'Professional Of The Year'
 - 1975: Invited by NATO Scientific Affairs Division to serve on Panel for Working Group on Radio Ducting, Appleton Laboratory, England
 - 1973-1974: Chairman, Santa Barbara/Ventura Chapter of American Meteorological Society
 - 1972-1973: Recipient, Los Angeles Chapter of American Meteorological Society Achievement Award for authoring the 'Point Mugu Forecasters Handbook', used extensively as a principal reference on Southern California weather regimes and forecast issues
 - 1971: Appointed Member by California State Parks Director on Citizens' Advisory Committee for Point Mugu State Park
 - 1968-1970: Chairman, Electromagnetic Propagation Working Group, Range Commanders Council (RCC)