Curriculum Vitae Todd Morris

Certified Consulting Meteorologist (CCM)

President at Global Weather and Climate Consulting, LLC

1560 Newbury Road 14975 E Desert Willow Drive

Suite 1-271 Unit 4

Newbury Park, CA 91320 Fountain Hills, AZ 85268

805-857-1328 602-300-5984

todd@globalweatherandclimate.com

Professional Experience

President at Global Weather and Climate Consulting LLC

November 2013 – Present (5.5 years)

AMS Certified Consulting Meteorologist (CCM) providing expert witness testimony at trial and depositions as a subject matter expert (SME) on weather, water, marine & climate matters. Including data acquisition, analyses, and reports. Meteorological support to TV/film/commercial productions as well as insurance claims. Also, meteorological considerations for homeland security, counter-terrorism, and emergency response.

- Recent clients include:
 - Chevron Corporation
 - Los Angeles Department of Water and Power
 - California Department of Forestry and Fire Protection
 - California Department of Transportation
 - o Long Beach Container Terminal
 - City of Santa Barbara
 - City of Los Angeles
 - Gila Valley Irrigation District
 - Signature Aviation
 - WorleyParsons Engineering
 - Toyota Motor Company
 - Chevrolet Automobile Corporation
 - Laguna Art Museum
 - Saatchi & Saatchi Advertising Company
 - Believe Media Company
 - Bridgestone Corporation
 - Southern California Edison
 - Nevada Department of Justice
 - Pacific Gas & Electric

Recent cases include:

- o Dept. of Forestry & Fire Protection v. California Resources Corporation, et al Plaintiff
- CalFire v. Southern California Edison Company Plaintiff
- o Bisogno, Robin, et al v. CA Dept. of Transportation Defendant
- Sliskovich v. Mid-Century Insurance Company Defendant
- o Noble Textile, Inc. v. United Specialty Insurance Company Defendant
- o Lou v. Little Lake City School District Deposition given for Defendant
- o Valerie Meyers v. National Weather Service (NWS) Deposition given for Defendant
- Citizens Against Radiation Exposure (CARE) v. National Weather Service Deposition given for Defendant
- o 55 cases as an associate to Air, Weather and Sea Conditions, Inc.

Regional Coordinator for Impact-Based Decision Support Services at National Weather Service Western Region Headquarters (Retired) – Salt Lake City, UT

January 2011 – January 2016 (5 years)

Brought the weather decision needs of federal, state, local and tribal partners/stakeholders together with the services and capabilities of the NWS forecast offices in the western U.S. Supported NWS efforts in the west to create an Operational Decision Support Division and an enhanced Regional Operations Center function including the selection of staff, creating/modifying policy/procedures, and providing recommendations/ input to senior staff. Supported efforts to meet NWS Strategic Plan goals of a Weather Ready Nation.

Acting Meteorologist in Charge at National Weather Service - Phoenix, AZ

March 2015 - June 2015 (4 months)

Managed all weather forecast/support activities for central Arizona and southeast California including WFO PSR. This included managing office operations and systems, managing observational networks, providing leadership and oversight to all staff and programs within area of responsibility and within the confines of the mission of the NWS. This included managing and directing day-to-day operations of the WFO including the issuance of forecasts, outlooks, watches, warnings, the oversight of the public service unit, cooperative observer program and NOAA Weather Radio Program.

Acting Deputy Regional Director at National Weather Service - Western Region Headquarters – Salt Lake City, UT

August 2012 - October 2012 (3 months)

Assisted in providing leadership, direction, management and supervision of NWS Western Region. Developed short and long-range plans, including new approaches to problems, and required resources given existing capabilities.

Physical Scientist at National Weather Service - Los Angeles/Oxnard, CA

2003 - 2011 (8 years)

Program management of several critical operational office programs within WFO Los Angeles/Oxnard.

Subject-Matter-Expert (SME) for Los Angeles Terrorism Early Warning Group (TEW) – Los Angeles, CA 2005-2009 (4 years)

Provided weather support/briefings to the TEW (run by Los Angeles County) for exercises and emerging threats. This included analysis of meteorological conditions and their impact on planning, preparedness, and emergency response.

Meteorologist in Charge (MIC) at National Weather Service - Los Angeles/Oxnard, CA

1994 - 2003 (9 years)

Managed all weather forecast/support activities for southern California including WFO LOX and 1 CWSU. This included managing office operations and systems, managing observational networks, providing leadership and oversight to all staff and programs within area of responsibility and within the confines of the mission of the NWS. This included managing and directing day-to-day operations of the WFO including the issuance of forecasts, outlooks, watches, warnings, the oversight of the public service unit, cooperative observer program and NOAA Weather Radio Program.

Deputy Meteorologist in Charge (DMIC) at National Weather Service - Los Angeles, CA

1992 - 1994 (2 years)

Managed and directed day-to-day operations of the WSFO including the issuance of forecasts, outlooks, watches, warnings, the oversight of the public service unit and NOAA Weather Radio Program.

Meteorologist in Charge (MIC) at National Weather Service - Santa Maria, CA

1990 - 1992 (2 years)

Supervised all weather services/support at a small WSO whose primary responsibilities were agricultural forecasting, pilot briefings and surface observations.

Evaluations Officer at National Weather Service - Milwaukee, WI

1988 - 1990 (2 years)

Performed service evaluations of all FSS's and WSO's within the state of Wisconsin as well as forecast responsibilities on all forecast desks including public, marine, aviation and severe weather.

General Forecaster at National Weather Service - Milwaukee, WI

1985 - 1988 (3 years)

Meteorologist Intern at National Weather Service - Reno, NV

1981 - 1985 (4 years)

Certifications

Certified Consulting Meteorologist

American Meteorological Society License #702 February 2014

NWS Weather Observer

Department of Commerce National Weather Service June 1981

Private Pilot

Department of Transportation Federal Aviation Administration January 1978

Professional Affiliations

American Meteorological Society (AMS), Certified Consulting Meteorologist (CCM)

National Council of Industrial Meteorologists (NCIM), Full Member

American Meteorological Society (AMS), Full Member

National Weather Association (NWA), Full Member

Los Angeles Terrorism Early Warning Group (TEW), Full Member

National Weather Service (NWS) Weather Spotter

Community Collaborative Rain, Hail & Snow Network (CoCoRaHS)

International Association of Emergency Managers (IAEM), annual Conference Member

Honors and Awards

Bronze Medal Group Award

Department of Commerce

January 2015

For the provision of an integrated set of innovative decision support services during the on-going California Drought Emergency.

Bronze Medal Group Award

Department of Commerce

December 2008

For outstanding forecasting and briefing efforts over an extended period to the DHS/FEMA (JFO), established in response to the October 2007 southern CA fire siege.

Gold Medal Group Award

Department of Commerce

January 2005

For the service provided during the southern CA rain/floods of Jan. 2005.

Silver Medal Group Award

Department of Commerce

November 2004

For weather support given to firefighting personnel during the wildfires of Oct./Nov. 2003.

Bronze Medal Group Award

Department of Commerce *December 1998*

For public service performed resulting in lives/property saved during the El Nino events of 1997/98.

Isaac Cline Award

National Weather Service - Los Angeles

August 2008

For providing exceptional and dedicated support of operations over an extended period to the DHS/FEMA Joint Field Office, established in response to the October 2007 southern CA fire siege.

Certificate of Appreciation

Tri-Advisory Conference - National Ski Patrol, Far West Division

November 2006

In providing education in the name of service and safety.

30 Year Length of Service Award

Department of Commerce

February 2012

In recognition of 30 years of government service.

Projects

Climate Information for Disaster Management - Bridging the Weather and Climate Timescales February 2015 to January 2016

Members: Todd Morris, Andrea Bair, Alison Meadows, Zack Guido, Mike Crimmins, Robert Scripp, Jonathan McLeod

<u>Co-author</u> The Federal Emergency Management Agency (FEMA) Region IX (CA, AZ, NV, and Pacific Islands) has based disaster management preparations on weather information for decades. Climate information, which conditions weather risk, however, has been underutilized. The Climate Assessment of the Southwest (CLIMAS), the National Weather Service (NWS) Western Region, and the Response Division of FEMA Region IX have co-designed a hydroclimate dashboard tool that is integrated into FEMA disaster management, stewarded by the NWS, and studied by CLIMAS. The hydroclimate dashboard includes a short narrative and supporting graphics and information that cover: historical climate risk, current conditions, and climate outlooks. The dashboard provides an opportunity to leverage climate information to help FEMA Region IX better monitor, anticipate, and prepare for potential disaster.

Weather (and Decision Support) for Emergency Managers

October 2012 to January 2013

Members: Todd Morris, Jay Rosenthal

<u>Co-author</u> Basic meteorological concepts and understanding play a big role in the response to this nation's natural and man-made disasters, as well as planned responses to terrorist threats against urban and rural areas. Issues such as land-sea breeze circulations, mountain and valley winds, coastal cloud cover, vertical and horizontal wind shear, normal diurnal fluctuations, and the impact of certain predictable and terrain enhanced wind storms all play crucial roles in determining who's at risk, and what strategies are most effective in minimizing harm to people and structures. The ability of the National Weather Service, with its Incident Meteorologists and decision support services, together with rapidly advancing technology in assimilating data over small time and spatial scales, provides the emergency manager or incident commander with a host of essential real-time support capabilities. This paper attempts to identify and highlight the value of this real-time support capability.

Weather Support to FEMA/DHS Joint Field Office Established in Response to the Devastating Southern California Wildfires of October 2007

October 2007 to July 2008

Members: Todd Morris, Eric Boldt

An Incident Support Specialist Overview - On October 24, 2007, President George W. Bush, signed a Major Disaster Declaration for the State of California for severe wildfires affecting Southern California. The Disaster Declaration put into motion federally funded and state coordinated response and recovery efforts, including establishing a FEMA/DHS Joint Field Office. Weather support for this function was provided by an Incident Support Specialist (ISS) from the National Weather Service in Los Angeles/Oxnard, CA. This paper is an overview of those local efforts, including the products and services provided, and an examination of the complexities involved. It also discusses the lessons learned and the successes realized.

History of Weather Observations Los Angeles, CA 1847-1948

January 2006 to January 2006

Members: Todd Morris, Glen Conner, Curt Kaplan

Contributor The turbulent times in California brought the United States Army to the Los Angeles area. An Assistant Surgeon accompanied the small force to provide medical care for the 121 soldiers in Kearny's Dragoons. On the morning of 5 June 1847, duty required Assistant Surgeon, Dr. John S. Griffin of that unit, to record the weather conditions at his post in El Pueblo de Los Angeles. On 20 June 1847, he began recording the "clearness of the sky" and in July he recorded rainfall when it occurred. So began the first official weather observations in Los Angeles. From our vantage point one hundred sixty-nine years later, we are astounded by the survival of that record. Equally astounding is the succession of improvements in meteorology that have occurred between that first observation and the forecasts now being generated by the modern National Weather Service Forecast Office for the Los Angeles area.

NOAA Technical Memorandum NWS WR-261 - Climate of Los Angeles

January 1999 to October 2001

Members: Todd Morris, David Bruno, Gary Ryan, Curt Kaplan

<u>Contributor and Editor</u>, We hope and trust that readers will find The Climate of Los Angeles, California to be both useful and informative, not only as a data source, but as an important document that broadens the understanding of weather and climate systems that affect southern California.

National Weather Digest, Volume 14, Issue 4, Pages 14-18 - "The Possible Influence of an Existing Snow Field on the Track of a Surface Low Pressure-A Case Study"

January 1989 to November 1989

Members: Todd Morris

<u>Author</u> One of the challenges for meteorologists who deal with winter storms is accurately forecasting the position and track of the surface low-pressure center. This can help determine not only precipitation type but also where the greatest amount of precipitation will fall. A case study was examined which fit an "old and unwritten" rule of thumb. This theory is that the surface low-pressure center will track along the southern edge of an existing snow field. The case study fit perfectly, physical reasoning is included, and further investigations are encouraged.

Skills & Expertise

Meteorology	Coordination	Preparedness
Weather	Coaching	Air Quality
Climatology	Training	GIS
Weather Forecasting	Policy	CAMEO
Environmental Science	Government	Weather Radar
Decision Support	Remote Sensing	Environmental Policy
Incident Command Sys/NIMS	Weather Observing	Personnel Management
Program Management	Hydrology	Hazard Mitigation
Project Management	Severe Weather	Technical Writing
Budget Monitoring	Emergency Management	Technical Support
Research	Disaster Response	Strategic Planning

Education

FEMA – Washington, D.C.

Occupational Certificates, Incident Command System/NIMS (ICS 300, 400, 700, 800), 2008-2010

Emergency Management Institute - Emmetsburg, MD

Occupational Certificate, Emergency Management, 2008 - 2008

Texas A&M University

Occupational Certificate, Emergency Management, 2006 - 2006

NTL Institute - Alexandria, VA

Occupational Certificate, Human Interaction, 2003 - 2003

Army Management Staff College - Ft. Belvoir, VA

Occupational Certificate, Personnel Management, 2001 - 2001

SUNY Albany

Coursework completed, Radar Meteorology/Hydrology, 1984 - 1984

University of Wisconsin-Madison

Bachelor of Science (BS), Meteorology, 1978 - 1982

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45 BEACON STREET, BOSTON, MASSACHUSETTS 02108 - 3693 U.S.A

TEL: 617-227-2425 FAX: 617-742-8718 E-MAIL: amsinfo@ametsoc.org WEB: www.ametsoc.org KEITH L. SEITTER, EXECUTIVE DIRECTOR EMERITUS RONALD D. MCPHERSON, EXECUTIVE DIRECTOR EMERITUS RICHARD E. HALLGREN, EXECUTIVE DIRECTOR EMERITUS KENNETH C. SPENGLER, EXECUTIVE DIRECTOR EMERITUS

Date: 14 February 2014

Todd Morris Earns the AMS
Certified Consulting Meteorologist Designation

Newbury Park, CA: Todd Morris of TRM Consulting Services has earned the nationally recognized Certified Consulting Meteorologist (CCM) designation by the AMS.

The CCM designation is issued by the Society to highly qualified meteorologists providing research and services to a wide variety of users of weather information, including agriculture, business, industry, and various sectors of government. These services extend beyond the traditional public service functions and statutory responsibilities of the National Weather Service.

To earn the CCM credential, a meteorologist must make application for the designation, be recommended by three associates, pass a stringent written examination, and pass an oral examination before a national board of examiners. The CCM designation is granted only to those who demonstrate a broad background in meteorology together with detailed knowledge in a particular field of specialization. CCMs must demonstrate exemplary qualities of character and devotion to high professional standards.

CCMs are highly regarded by their peers in meteorology. They are considered experts in the application of weather information to a host of practical challenges ranging from specialized forecasts to engineering design support and expert testimony on weather-related court cases. Certification enables users of meteorological services to select consultants or employees with greater confidence in the quality and reliability of the products or services they will receive.

The AMS promotes the development and dissemination of information and education on the atmospheric and related oceanic and hydrologic sciences and the advancement of their professional applications. Founded in 1919, AMS has a membership of more than 14,000 professionals, students, and weather enthusiasts. AMS publishes 11 atmospheric and related oceanic and hydrologic journals—in print and online, sponsors more than 12 conferences annually, and offers numerous programs and services.

SERVING THE ATMOSPHERIC AND RELATED OCEANIC AND HYDROLOGIC SCIENCES SINCE 1919