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# H. MICHAEL MOGIL, CCM HOW THE WEATHERWORKS

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#### Education

Florida State University - BS Meteorology (mathematics minor) - 1967 Florida State University - MS Meteorology (mathematics minor) – 1969 Additional meteorology/mathematics, management, and other coursework at various universities and through special courses / workshops 1969 to 2000

# Appointments (NOAA = National Oceanic and Atmospheric Administration; NESDIS = NOAA Satellite Program; NWS = National Weather Service)

- Forensics Consultant / Expert Witness (1996 present) obtained and analyzed weather data, provided weather event reconstruction, helped develop graphics and visualizations for trials and testified for law firms and insurance; taught course on basic weather interpretation for attorneys
- Weather Education Consultant (1969 present) served as consultant, writer and trainer on numerous weather education projects (including GreenLabs, Science Weekly, StormCenter.com), wrote and edited weather books
- Weather consultant (US Department of Energy) global weather education project (2008)
- Director, Howard University Summer Weather Camp, (2008 2013); consultant to NSF-funded Weather Camp Grant Project (2009-2010)
- Director, Southwest Florida Middle and High School Weather Camps (2014-present)
- Director, National Weather Camp Program (2008-present)
- On-air weather and hurricane expert, WGUF-FM radio, Naples, FL (2008 present)
- Associate Professor Community Colleges and Universities (Maryland, Texas, California) (1979 2002) taught meteorology, physical science, and remote sensing courses
- Ramapo College of New Jersey (1998 2006) and Mississippi State University (1998 2002) Developed and taught online weather and related geoscience course programs
- Short Courses (1985 2000) in Meteorology, Geography and Mathematics at National and State Science Teacher Association Conventions and NSF-funded summer teacher enhancement programs (Florida, Arizona, Missouri, Maryland and New Jersey)
- Short Courses for meteorologists (1980 present) at American Meteorological Society Conferences
- US Department of Agriculture Graduate School (1990 2002) Taught "Weather and Climate" course

- Johns Hopkins University's CTY Program (1995 1997) Taught three-week summer meteorology course for talented and gifted 5th and 6th graders in a university setting Sandy Spring (MD) Friends School, teacher (1995 1996) 5th grade mathscience
- NESDIS Satellite Applications Laboratory (1985 1995) Chief, Training Branch (taught more than 300 courses and workshops for government and television meteorologists on weather satellite imagery interpretation involving more than 10,000 participants)
- NWS (1963 1985) Positions included Southern Region Headquarters (technology transfer meteorologist in the Scientific Services Division); WSFO Fort Worth, TX (Deputy and then Acting Meteorologist-in-Charge); WSFO Redwood City, CA (lead forecaster and disaster preparedness meteorologist; extensive computer troubleshooting experience); AM Weather (served as one of the first team of on-air meteorologists for national PBS weather program); National Weather Service Headquarters (Leader / coordinator for entire NWS severe weather, winter storms, and hurricane programs; served on NOAA Disaster Survey Teams); National Meteorological Center (forecaster); National Severe Storms Forecast Center (severe storms forecaster); Techniques Development Laboratory (severe weather researcher); WSO Tallahassee, FL (summer internship: weather observations, pilot briefing); Scientific Services Division and WSO JFK Airport (summer internship: weather observations, data collection and analysis).

Served on numerous Boards and Committees (AMS and NWA; Currently member, AMS Board of Private Sector Meteorologists and Board of Certified Consulting Meteorologists)

#### **Publications, Papers and Presentations**

- 1970-present: Dozens of technical papers and reports, journal and conference articles about severe weather, flash flooding, ocean storms, emergency preparedness and weather satellite imagery interpretation; numerous lay articles about similar weather and other science topics in newspapers, magazines, weather almanacs, and the Internet. Numerous talks to public, scientific, and other audiences concerning weather and weather safety.
- 1980-present: Wrote, developed and published numerous educational products, including:
  - cloud poster set (Curriculum Product News TOP 100 Award).
  - "Weather Study Under A Newspaper Umbrella," co-author, a teacher's guide for using the newspaper in the classroom for multi-disciplinary weather, geography, and mathematics study (elementary and secondary level).
  - "Our Sea of Clouds," co-producer, video program and teacher's guide (upper elementary) (CINDY AWARD).
  - "The Amateur Meteorologist", lead author; Franklin Watts, NY (a book of investigations and explorations for middle school age children).
  - "A Hurricane: Through The Eyes of Children," co-producer, video program and teacher's guide (upper elementary).

- "Satellite Imagery Interpretation Guide for Teachers," Johns Hopkins University Press [Editor and Co-author (with Eric Conway) of NESDIS].
- "Anytime Weather Everywhere", lead author (with Barbara G, Levine); How The Weatherworks Press, Rockville, MD (a book of awesome weather investigations for young scientists) (Early Childhood News Director's Choice Award).
- Set of 4 elementary weather posters and weather "flash cards".
- · Educators Guide on "Ultraviolet Radiation".
- "Weather Y" series about weather satellites for WRC-TV and 12 other NBC owned and operated TV station web sites.
- Content developer for StormCenter.com (environmental and weather topics).
- Chapter on "Pattern Recognition" for book entitled "The Skilled Interpretation of Weather Satellite Images," appeared in: R. Hoffman and A. Markman (Eds)., The Human Factor in the Interpretation of Remote Sensing Imagery. New York: Lewis Publishers in February 2001.
- "Tornadoes" published April 2001 by Colin-Baxter Publishers, Scotland.
- Cloud photograph (and content material) on "Cloudscapes," a set of 15 U.S. postage stamps - released October 2004.
- "Cloud Watching At The Beach," Edge Magazine, NC Summer 2005.
- Cloud poster "Window to the Clouds," November 2006
- "Extreme Weather" November 2007; reprinted May 2010.
- "Insiders Extreme Weather" (grades 4-8); international editions (published November 2008)
- Frequent Contributor, Weatherwise, including the series on "Climate and Weather of the States" (also conceived project) – 1986 - present
- Content developer at numerous blogging sites, including Global Weather and Climate Center, Storm Center and my own blog (more than 1200 articles, mostly concerning weather)
- Minding the Weather: How Expert Forecasters Think Hoffman, R. R., LaDue, D., and Mogil, H.M., Roebber, P., and Trafton, J.G. (published - 2017) Cambridge, MA: MIT Press
- The Psychology of Weather Matthew J. Bolton and Mogil, H.M. (to be published 2020) Boston, MA: American Meteorological Society

## **Synergistic Activities**

- Developed own web pages and am highly knowledgeable about web-based data retrieval
- Knowledgeable about graphics design programs can create art, graphs, and other visuals and also aware of TV-based computer-graphics display systems
- Well-connected with sources of weather and related information
- Earned Able Toastmaster Rank (public speaking)
- Member, AMS Board of Private Sector Meteorology (1999-2001; 2009-2016)
- Member, NWA Board of Professional Affairs (2009-2012)
- Member, NWA Professional Development Committee (2012-2015)
- Member, AMS Board of Certified Consulting Meteorologists (2010-2014)
- President, National Council of Industrial Meteorologists/ACM (2015-2017)

- Board member, National Council of Industrial Meteorologists/ACM (2017-present)
- Member, ACM Marketing Committee (2018-present)
- Chairman for NWA Training (1986-89) and Weather Analysis (1993-95)
   Committees
- Member, NWA Education Committee (1992–98)
- Program Chair for two NWA Annual and two AMS Special Program Conferences; served on other AMS conference program committees
- Member, planning committee for Extreme Weather Experience Project (2015present)
- Developed and Chaired Interagency Training Coordination Working Group to foster dialogue and cooperative use of resources among Federal agencies involved in satellite-focused training
- Reviewer for National Science Teacher's Association Elementary Education journal "Science and Children." (1983-2002)
- Co-director of NATIONAL SKY AWARENESS WEEK, a program designed to bring an awareness of meteorology, geography, mathematics, and astronomy to teachers, students, and others (1991 - present)
- Certified NWS Storm Spotter (2006-present)
- COCORAHS Observer (2007-present)

#### **Certifications and Awards**

Able Toastmaster

Who's Who in Technology Today (1979); In Technology Today (1979); In American Education (1994 - 95); and In Science and Engineering (2003) Who's Who (2017-2019)

American Meteorological Society TV Seal of Approval – 1979 and Certified Broadcast Meteorologist – 2008 (CBM #334)

American Meteorological Society Certified Consulting Meteorologist – 1993 (CCM # 391);

NWA Digital Media Sealholder #1410102D

National Weather Association Member of the Year (1988) for "wide-reaching and innovative educational activities."

National Weather Association Public Education Award (2013)

3 NOAA Unit Citations

1994 - "..for significant contributions made towards modernization of weather services by providing excellent training in the application of satellite data in forecasting.."

1983 - "...for timely warning of killer tornado that struck Paris, TX.."

1978 - "..for long-term support of NWS forecasting and warning programs.."

NOAA EEO Award - 1994

Department of Commerce Bronze Medal - 1991

1993 Satellite Applications Laboratory (NOAA) "Trainer of the Year"

Inducted into Chi Epsilon Pi (meteorology honor society) - 1969

APEX Writing Award – "Snow and Ice" column, Courier newspapers (2006)

American Contract Bridge League - NABC Master (2020)

Starfish Award – Naples Daily News – Recognition for Community Service in addressing deficiencies in Collier County's Red Light Camera Program (2010)

#### **Internet Awards**

SchoolZone (United Kingdom educational reviewers) - "highly commended" web site 2000

National Science Teacher's Association - "SciLink" site 2001

Society of Environmental Journalists - Watersheds: Web Site of the Week (March 7, 2004)

### **Professional Affiliations (past and current)**

National Weather Association
Weatherwise Magazine
National Earth Science Teachers
Association
National Council for Industrial
Meteorology (ACM-NCIM)

American Meteorological Society
International Weather Watchers
National Science Teachers
Association
American Weather and Climate
Industry Association

#### **Community Service**

- Served in various capacities for local Cub Scout and Boy Scout Troops (1975-90)
- Co-founder (and member of Board of Directors) for Rockville Consortium of Science (a not-for-profit science education awareness group) (1990-2005)
- Mentor for numerous high school and college students (1996-present)
- Mentor for 6th grade students at Sandy Springs Friends School (1996-97)
- Presenter at Science Days at several local schools (1995–2004)
- Science Fair Judge (1990-2012)
- Resource and Review team member, "Celebration of Science," Sandy Spring Friends School (1999)
- President, King Farm Civic Association, Rockville, MD (2000-02)
- City of Rockville Citizens Forum Panelist (2004)
- Member Middle School Math Textbook Adoption Committee (Collier County, FL (2010)
- Collier County Textbook Review (independent community reviewer 2016 [history] and 2017 [science]; formal community member 2018 [math])
- Collier County Elections Board (Ballot Specialist: Aug.-Nov. 2016: Inspector: Oct.-Nov. 2018; Clerk: Nov. 2018 and March 2020)
- Member Regency Reserve Condominium Association Building and Maintenance Committee (2016-present), Landscape Committee (2017-present), and Hurricane Preparedness Committee (2018-present)
- Collier County Public Schools STEAM Event (2018-present) communityfocused science presentations