CURRICULUM VITAE

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Education

B.S., Cornell University 1974
Major - Physics
Ph.D., University of Washington 1978
Atmospheric Sciences
Doctoral Thesis: "A Numerical and Observational Study of African Wave Disturbances." J. R. Holton, adviser.

Professional Experience

Mid 1981 to present	Assistant, Associate Professor, and Professor, Department of Atmospheric Sciences, University of Washington.
1978 to mid 1981	Assistant Professor, Department of Meteorology, University of Maryland.

Books

The Weather of the Pacific Northwest, University of Washington Press
The Weather of the Pacific Northwest, University of Washington Press, Second Edition
The Science of Weather Prediction, in preparation.

Murphy, P., and C. F. Mass, 2022: The Influence of Regional Meteorology on Carbon Emissions from California Wildfires. Accepted in Weather and Forecasting.

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Mass, C., D. Brees and M. Albright, 1986: The onshore surge of marine air into the Pacific Northwest: a coastal region of complex terrain. *Mon. Wea. Rev.*, **114,** 2602-2627.

Mass, C., and D. Dempsey, 1985: A simple one-level model for diagnosing surface winds in mountainous and coastal regions. *Mon. Wea. Rev.*, **113**, 1211-1227.

Mass, C., and D. Dempsey, 1985: A topographically forced convergence line in the lee of the Olympic Mountains. *Mon. Wea. Rev.*, **113**, 659-663.

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Mass, C., and A. Robock, 1982: The short-term influence of the Mount St. Helens eruption on surface temperature in the northwest United States. *Mon. Wea. Rev.*, **110**, 614-622.

Robock, A., and C. Mass, 1982: The Mount St. Helens volcanic eruption of 18 May 1980: Large short-term effects. *Science*, **216**, 595-610.

Mass, C., 1982: The topographically forced diurnal circulations of western Washington State and their influence on precipitation. *Mon. Wea. Rev.*, **110**, 170-183.

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Mass, C., 1980: The Puget Sound convergence zone. *Weatherwise*, **33**, 272-274.

Mass, C., 1979: A linear primitive equation model of African wave disturbances. *J. Atmos. Sci.*, **36**, 2075-2092.
Mass, C., and S. H. Schneider, 1977: Statistical evidence on the influence of sunspots and volcanic dust on long-term temperature records. *J. Atmos. Sci.*, **34**, 1995-2004.
Holton, J. R., and C. Mass, 1976: Stratospheric vacillation cycles. *J. Atmos. Sci.*, **33**, 2218-2225.
Mass, C., and C. Sagan, 1976: A numerical circulation model with topography for the Martian southern hemisphere. *J. Atmos. Sci.*, **33**, 1418-1430.
Schneider, S. H., and C. Mass, 1975: Volcanic dust, sunspots, and temperature trends. *Science*, 190.

Electronic Publications

National Meteorological Center Grid Point Data Set CD-ROM (Versions I and II).
GALE Experiment CD-ROM.
North American Observational Data for August-December 1987 CD-ROM.
World Weather Disc CD-ROM.
Climate Analysis Center Global Gridded Data

Offices and Honors

Fellow, American Meteorological Society
Max Eaton Award, American Meteorological Society
President, Puget Sound Chapter, American Meteorological Society.
Program Chairman, Puget Sound Chapter, AMS.
Treasurer, Puget Sound Chapter, AMS.
Chairman, UCAR (University Corporation for Atmospheric Research), UNIDATA Data Access Committee.
Associate Editor, Monthly Weather Review.
Consulting Editor, Encyclopedia of Climate and Weather.
Chairman, UCAR Committee on Meteorological Data Sets
Chairman, 15th AMS Conference on Weather Analysis and Forecastings
Chairman, Special Workshop on Real-Time Mesoscale NWP in the University Community
Chairman, AMS Mesoscale Meteorology Committee
Chairman, DTC Science Advisory Board
Co-chair, AMS Committee on Communication

National Committees

Exec. Committee AMS Forecast Interest Group
AMS Membership Committee
AMS Board on Enterprise Communication
DTC Science Advisory Board
WRF Research Applications Board
NRC Committee on Atmospheric Predictability
AMS Ad-Hoc Committee on Community Fora
Chairman and member, USWRP CONDUIT committee
USWRP Science Advisory Board

WRF Science Board
Chairman and member, AMS Mesoscale Committee
USWRP PDT#4 on Mountain Meteorology
USWRP PDT#9 on Hydrology
AMS Committee on Weather Analysis and Forecasting
MM5 Community Oversight Committee
AMS Information Systems Committee
UCAR/NWS Local Digital Library Committee
UNIDATA Steering and Data Access Committees
National Academy of Sciences Geophysical Data Committee
UCAR COMET Advisory Committee
Search Committee for New NWS Director
Executive Committee, Board of Oceans and Atmosphere, National Association of State Universities and Land Grant Colleges
UCAR UCAM Committee

Regional Committees

Northwest Regional Modeling Consortium

University Committees and Organizations

Member and Chair: College Council, College of the Environment
Member, University Senate 1988-1990, 2004-2006
Department Computer Committee
Arts and Sciences Graduation Committee
Department Rules and Computer Committees

Past Graduate Students

Kucera, T., 1981: M.S. on mesoscale modeling in complex terrain.
Delman, A., 1981: M.S. on diurnal wind and temperature variations and air quality in Washington, D.C. area.
Dubofsky, D., 1981: M.S. on a diagnostic study of Hurricane David.
Dempsey, D., 1985: Ph.D. on mesoscale modeling in complex terrain.
Pam Speers, 1985: M.S. on precipitation diagnoses and modeling in complex terrain.
David Portman, 1988: M.S. Effects of major eruptions on surface temperature and pressure.
Daniel Brees,1988: M.S. Onshore push of the Pacific Northwest.
Brian Ulrickson, 1989: Ph.D. 3D primitive equation modeling of flow in the LA basin.
Garth Ferber,1991 M.S. Mesoscale pressure perturbations forced by the Olympic Mountains.
David Schultz, 1992, M.S. Structural analysis of a midlatitude cyclone over land.
Brian Colle, 1994, M.S. Northerly surges to the east of the Rocky Mountains.
Jim Steenburgh, 1995, Ph.D: Mesoscale modeling of synoptic/orographic interactions.
Brian Colle, 1997, Ph.D: Dynamics of windstorms in three dimensional terrain
Fang-Ching Chien, 1997, Ph.D: Interaction of fronts with coastal topography.
Ken Westrick, 1998, M.S.: Coupling of atmospheric and distributed hydrological models.
Richard Steed, 1999, M.S.: Initialization of mesoscale forecasting models.

Eric Grimit, 2001, M.S.; A Short-Range Ensemble Prediction System
Justin Sharp, 2002: M.S.: A Study of the Meteorology of the Columbia River Gorge
Tony Eckel, 2004: Ph.D. Effective Short-Range Mesoscale Ensemble Prediction.
Eric Grimit, 2004: Ph.D. Predicting Forecast Skill Using a Mesoscale Ensemble System
Justin Sharp, 2005, Ph.D. Modeling study of the flow in the Columbia River Gorge.
Brian Ancell, 2006, Ph.D. Adjoint and ensemble-based forecast sensitivity
Bri Dotson, 2007, M.S.. Structure and dynamics of major Pacific windstorms.
Garrett Wedam, 2008, M.S. Errors in numerical prediction models
Robert Hahn, 2008, M.S. Understanding of microphysical errors in numerical models.
Ken Dixon, 2013: M.S. Lightning Data Assimilation
Michael Warner, 2014. M.S. , Ph.D. Heavy precipitation events of the U.S. West Coast
Lee Picard, 2015. MS. An idealized model of orographic precipitation
Matt Brewer, 2017: Ph.D. Structure and dynamics of the thermal trough
Luke Madaus, 2016. Ph.D. Initiation of convection and smartphone data assimilation
Brandon McClung, 2019, M.S. Diablo Winds.
Robert Conrick, 2021, Ph.D. Warm rain microphysics
Callie McNicolas, 2021, Ph.D. Smartphone pressure observations.