

# 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 Secrets of Weather Prediction*, in preparation.

- Mass, C., D. Ovens, R. Conrick, and J. Saltenberger, 2021: The 2020 Labor Day wildfires over the Pacific Northwest. *Wea. Forecasting*. In review.
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- Conrick, R., C. F. Mass, and Q. Zhong, 2018: Simulated Kelvin-Helmholtz waves over terrain and their microphysical implications. *J. Atmos. Sci.*, **75**, 2787-2800
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- Mass, C., 1982: The topographically forced diurnal circulations of western Washington State and their influence on precipitation. *Mon. Wea. Rev.*, **110**, 170-183.
- Mass, C., 1981: Topographically forced convergence in western Washington State. *Mon. Wea. Rev.*, **109**, 1335-1347.
- 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 Gritmit, 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 Gritmit, 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.