Address: WORK: Atmospheric Science Program, Earth & Ocean Science Dept.,

Univ. of British Columbia, 6339 Stores Rd, Vancouver, BC V6T 1Z4, Canada.

Phone: 1-604-822-5901, fax -6088, email: rstull@eos.ubc.edu

**Degrees** Ph.D., Atmospheric Sciences, 1975, University of Washington, Seattle. (under Businger) B.S. Ch. E., Chemical Engineering, 1971, University of Washington, Seattle.

Certifications: Certified Consulting Meteorologist (CCM) through Am. Met. Soc. in USA since 1991. Certified Professional Meteorologist (P.Met) through Envir. Careers Org. (ECO) in Canada since 2011. Certified Flight Instructor (CFII) in USA: single & multiengine land, instrument, airplane. 1978-Present Licensed Commercial Pilot in USA: single & multiengine land, instrument, airplane. 1977 - Present Licensed Private Pilot in Canada. 2000 - Present

Positions: Professor, Atmos. Sci. Program, Earth & Ocean Sci. Dept., Univ. of Brit. Columbia. 2006-Pr. Prof., Atmos. Sci. Prog., jointly appt. 2/3 in Earth & Ocean Sci., 1/3 in Geography, UBC. 1999-2006. Professor, Atmos. Sci. Prog., Geography Dept., Univ. of British Columbia, Canada. 1995-1999 Professor, Dept. of Atmospheric & Oceanic Sciences, Univ. of Wisconsin-Madison. 1989-1995 Visiting Scientist, IBM Environmental Sci. & Solutions Centre, Bergen, Norway, Summer 1992 Visiting Scientist, German Aerospace Research Establishment (DLR), Munich. 1988 Associate Professor, Dept. of Meteorology, Univ. of Wisconsin-Madison. 1985-1989. Visiting Scientist, Royal Netherlands Meteorological Institute (KNMI), DeBilt. 1986 Assistant Professor, Dept. of Meteorology, Univ. of Wisconsin-Madison. 1979-1985. Adjunct Assistant Professor, Atmospheric Sciences Program, Creighton University, Omaha. 1977-79. Num. Predict. Meteorologist, Global Weather Central, Offutt AFB, Nebraska. Captain USAF. 1975-79. Summer Fellow in Scientific Computing, NCAR, Boulder, CO. 1973.

**Field Experiences**: 2010 Winter Olympics. My team ran a field station on Whistler Mtn. 2007-2010.

Vancouver Field Obs: My team deployed 9 weather stations in greater Vancouver, BC. 2004-2009.

Rocketsonde Experimental Launches in BC and TX, 2002, 2003.

FIRESTORM forest fire field program, British Columbia, Canada, 2001

Pacific 2001 air pollution field program, Georgia Basin, BC, Canada, 2001.

Boundary Layer Experiment 1996 (BLX96), Kansas & Oklahoma (PI), 1996.

Atmos. Radiation Measurement (ARM) Intensive Op Period (IOP), Kansas & OK. 1995

Fronts Experiment Systems Test (STORM-FEST), Seneca, Kansas, 1992.

Pine Bluff Field Experiment, Pine Bluff, Wisconsin, 1989.

Longitudinal land-surface Traverse Experiment (LOTREX), Braunschweig, Germany, 1988.

Hydrologic Atmospheric Pilot Experiment (HAPEX), Toulouse, France, 1986.

Boundary Layer Experiment - 1983 (BLX83), Oklahoma (Co-PI).

Cooperative Convective Precipitation Experiment (CCOPE), Montana, 1981.

GARP Atlantic Tropical Experiment (GATE), Dakar, Africa, 1974.

Puerto Rican boundary layer experiment, 1972.

Service: Director, Geophysical Disaster Computational Fluid Dynamics Centre, UBC. 2000-present Chair, Atmos. Sci. Program, Univ. of British Columbia, Canada, 1996-2000, 2007-08, 2010-11. Director, Western Canada Regional Modeling Consortium. Funds mesoscale forecasting. 1997-present. Associate Chairman (Grad.Chair), Dept. of Atmos. & Oceanic Sci., Univ. of Wisconsin. 1989-1995 Associate Editor, Journal of Applied Meteorology. 1989 - 2001

Associate Editor, AMS Glossary of Meteorology 1995-2001.

Associate Editor, Romanian J. of Meteorology. 1996-2000, and 2006 - Present.

Committee Member: Can. Meteor. & Ocean. Soc. (CMOS) Educ. Comm. 1996-2001 (chair 98-01.)

AMS Board of Meteor. & Ocean. Edu. 1991-1998.

AMS Committee on Boundary Layers and Turb. 1990-1995. (chair in 1995).

IUGG/IAMAP Internat'l Commis. on Dyn. Meteor. (ICDM) Bound. Layer Dynamics. 1990-present. UBC Library Sci./Engr. Advisory Panel, 1996-2000.

Advisory Panel Member: NSF/NCAR Observing Facility Advisory Panel (OFAP) 1996-1999.

NSF HIAPER aircraft management program review panel 1998

US Weather Research Program Scientific Advisory Panel 1995-1997

Univ. Wisc. Coop. Inst. for Meteor. Satellite Studies (CIMSS). 1989-1993.

UCAR Cooperative Prog. for Operational Meteor., Education & Training (COMET). 1991-1994.

Lake Michigan Air Directors Consortium. 1990-1993.

Program Chairman for 1997 AMS 12th Symposium on Boundary Layers and Turbulence, in Vancouver. 318 Attendees from 18 countries. 5 full days.

Program Co-Chair for annual Western Canada Weather Workshop. 50 attendees/yr. 1997- 2008.

Consultancies: Battelle/Army 97, Environ. Canada 1996, SAIC Sep 92-Mar 94, Battelle Apr 90-Mar 92, ENSR Sep 89-May 90.

Courses Taught: (at all undergrad and grad levels) The catastrophic earth -- natural disasters, Meteorology of storms, Computer lab in earth & atmospheric sciences, Atmospheric boundary layers & turbulence, Micrometeorology, Methods in meteorology (weather instruments), Physical geography-air and water, Remote sensing, Atmospheric diffusion & air pollution, Cloud dynamics, Weather & climate (freshman meteorology), Weather & climate for scientists and engineers, Statistics for meteorologists, FORTRAN for meteorologists, Weather for sport flying, Atmos. scientist: professional perspectives, Turbulence & chaos, Current & classical problems in meteorology, Ensemble forecasting seminar. Also organized weekly electronic weather-map discussions.

**Teaching Evaluations**: Above departmental averages at both U. Wisc. and UBC.

Graduate Students Supervised: While at U. Wisc: Major prof for 22 MS and PhD students, Committee member for 51. Formal external examiner for 3 Ph.D. students from: Canada, Australia, India While at UBC: Major prof. for 16 PhD students, 10 MSc. Students. Supervised 4 postdocs. Committee member for 20 students. External examiner for 10 students.

**Memberships**: Royal Meteorological Society - international fellow, American Meteorological Society - fellow & Certified Consulting Meteorologist (CCM), Canadian Meteorological and Oceanographic Society - fellow.

**Honors**: SOCIETIES: Sigma Xi, Phi Kappa Phi, Phi Lambda Upsilon. SCHOLARSHIPS: NSF Traineeship, AWARDS: Tau Beta Pi Prize, Delaware Society of Professional Engineers Award, American Institute of Chemical Engineers Scholarship Award, USAF Commendation Medal. Fellow in Canadian Meteorological & Oceanographic Society.

**Areas of Research Interest**: Numerical weather prediction (including ensemble forecasting, weather-related disasters, Kalman filtering, wind- and hydro-power, probabilistic forecasting), socio-economic impact of weather, mountain meteorology, mesoscale meteorology, atmospheric boundary layers, turbulence, dispersion and air quality, aviation meteorology.

**Research Grants & Contracts**: over 89 during the 16 years at UBC. 23 during the 16 years at U. Wisc. Plus numerous internal university grants.

# Public Seminars and Colloquia Given: over 300 at locations including:

Germany: Univ. Bonn, Univ. Hannover, Univ. Karlsruhe, München Univ., Univ. Göttingen.

Switzerland: Univ. of Bern, Swiss Federal Inst. of Tech-Zurich.

Netherlands: Wageningen Ag Univ., Amsterdam Acad. of Arts and Sci.

Norway: IBM Bergen Scientific Centre.

Portugal: Univ. of Aveiro.

Spain: Univ. of Madrid, Polytech Inst of Madrid.

England: Cambridge Univ.

At international government agencies: RISØ-Denmark, DLR-Germany, KNMI-Netherlands,

ECMWF-England, British Met. Office-England, CNRM-France, NATO-Germany.

European Geophysical Society (EGS) Conferences in Spain, Germany, Denmark, France.

IAMAP/IPSO/IUGG Conferences in Hawaii and Vienna.

OHOLO Conference in Israel.

Canada: York U., U. British Columbia, U. Saskatchewan, U. Alberta, AES-Toronto, U. Northern BC, U. Victoria, Canadian Avalanche Assoc., Canadian Meteor. & Ocean. Society-Halifax.

USA: Univ. Wisconsin-Madison, Univ. of Wisconsin-Milwaukee, Oregon State Univ., Univ. of Washington, Stanford Univ., Texas Tech Univ., Penn State Univ., Naval Postgrad. School, Air Force Geophysics Lab, White Sands Army Atmospheric Research Lab, Battelle PNL, Argonne National Lab, Brookhaven National Lab, National Meteorological Center, National Center for Atmospheric Research, Univ. of Arizona, Wash.State U.

Numerous TV & radio interviews, including CNN. Numerous public lectures to civic & school groups.

Software Published: Meteorological Education and Research Algorithms (MERA) - Intellimation Corp.

## **Web Sites Developed:**

UBC Weather Forecast Team (this is my research group, where we serve over 3000 new weather map images every day as output from our daily real-time multi-model mesoscale weather forecasts, including ensemble forecasts): http://weather.eos.ubc.ca/wxfcst/

Course web page for first year natural disaster course: http://www.eos.ubc.ca/courses/eosc114/Course web page for second-year meteorology course: http://www.eos.ubc.ca/courses/atsc201/Course web page for second-year computer lab: http://www.eos.ubc.ca/courses/atsc212/Course web page for 3rd-year weather-instrum.course: http://www.eos.ubc.ca/courses/atsc303/

### Infrastructure Acquired via Grants for my Research Team to do Mesoscale Ensemble Forecasts:

Many workstations and computers, including a 434-core linux cluster.

#### **Publications**

Total refereed journal publications: 87. More being submitted.

Single-author textbooks: 3

Stull, R.B., 1988: An Introduction to Boundary Layer Meteorology. Kluwer/Springer, 666pp.

Stull, R.B., 2000: Meteorology for Scientists & Engineers, 2 Ed. Brooks/Cole/Thomson, 502pp.

Stull, R.B., 2011: Meteorology for Scientists & Engineers, 3 Ed. Discount Textbooks, 938pp.

Chapters in other books: 10 (including Wallace & Hobbs 2006: Atmo. Science, An Intro. Survey, 2Ed)

### Citizenship

Dual: Canada and USA.