

CURRICULUM VITA

Jennifer A. Francis

Institute of Marine and Coastal Sciences, Rutgers University
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Education:

1988-1994

University of Washington, Seattle, Washington

Ph.D. in Atmospheric Sciences, August 1994. Dissertation title: *Arctic Process and Climate Studies with the TOVS Satellite Sounder*.

1985-1988

San Jose State University, San Jose, Cal.. B.S. in Meteorology, May 1988.

1975-1978

University of New Hampshire, Durham, New Hampshire. Zoology major.

Employment:

10/1994-

Institute of Marine and Coastal Sciences, Rutgers University, New Jersey

7/1995-6/2003

Assistant Research Professor, member of Graduate Program faculty

7/2003-

Associate Research Professor, member of Graduate Program faculty

1/1997-

Research Professor I

4/2007-

Department of Environmental Sciences, Rutgers University

Full member of Graduate Program, Graduate Program in Atmospheric Sciences since Jan. 2006.

1988-1994

Polar Science Center, Applied Physics Laboratory, University of Washington
Graduate Research Assistant (Advisor: Dr. Drew Rothrock)

Awards:

4/1999

NASA CERES Program: Group Achievement Award

1990-1993

NASA Graduate Student Researchers Program Fellowship

Professional Activities:

1/2007-

Co-Director Rutgers Climate and Environmental Change Initiative

10/2003-

NSF/Arctic System Science Program science committee and Exec. Comm.

9/2000-2005

NSF/ HIAPER Advisory Council

4/1999-2002

NSF/OFAP Review Panel, Vice Chair in 2000, Chair in 2001

10/1998

NSF/ HIAPER Review Panel

1/2004-1/2005

Program Chair of 2005 AMS Annual Meeting

11/2003-2007

American Meteorological Society (AMS) Councilor and Exec. Committee

1/1/2007-1/2008

AMS Meetings Oversight Committee, Chair

1/1997-1/2003

AMS Committee on Polar Meteor. and Oceanog., Chair (2000-2003)

4/1996-2005

NASA Polar (NSIDC) DAAC Advisory Group

5/1996-2/2004

NASA Langley DAAC Advisory Panel

4/1995-1999

NASA Polar Pathfinder Working Group

1/2007-

AAAS Electorate Nominating Comm., Atmospheric and Hydro. Sciences Sec.

10/2003-

Study of Environmental Arctic Change (SEARCH) Science Steering Comm.

1/2002

DOE Review Panel for Unmanned Aerial Vehicle Program.

4/1996-2001

Guest Investigator on NASA CERES Team

1990-1994

NASA TOVS Pathfinder Evaluation and Implementation Committees

3-4/1992

LeadEx Experiment, participant in airborne measurement component

1986-

Member of AMS, AGU, AAAS, and Asso. Women in Science

**Graduate
Student
Advisees**

Ph.D. Students: Yonghua Chen (5/05), Natasa Skific (exp. 2008), Michael Foster (10/08).
M.S. Students: Linong Yan (10/03), Natasa Skific (11/05), Marc Chiacchio (1/01), David Groves (1/01, U. of WA).
B.S. Honors Advisor: Weihan Chan (5/05)

**Recent
Selected
Refereed
Publications**

Vavrus, S., D. Waliser, A. Schweiger, and **J. Francis**, 2008: Simulations of 20th and 21st century Arctic cloud amount in the global climate models assessed in the IPCC AR4. *Clim. Dynamics*, doi: 10.1007/s00382-008-0475-6.

Schweiger, A.J., R.W. Lindsay, S. Vavrus, and **J.A. Francis**, 2008: Relationships between Arctic sea ice and clouds. *J. Climate*, doi: 10.1175/2008JCLI2156.1.

Francis, J.A. and E. Hunter, 2007: Drivers of declining sea ice in the Arctic Winter, *Geophys. Res. Lett.*, *34*, L17503, doi:10.1029/2007GL030995.

Francis, J.A. and E. Hunter, 2007: Changes in the fabric of the Arctic's greenhouse blanket, *Environ. Res. Lett.*, *2*, doi:10.1088/1748-9326/2/4/045011.

Miller, J., Y. Chen, G. L. Russell, and **J. A. Francis**, 2007: Future regime shift in feedbacks during Arctic winter, *Geophys. Res. Lett.*, *34*, L23707, doi:10.1029/2007GL031826.

Francis, J.A. and E. Hunter, 2006: New insight into the disappearing Arctic sea ice. *Eos Trans. of AGU*, *87*, 509-524.

Serreze, M.C. and **J. Francis**, 2006: The Arctic amplification debate. *Climatic Change*, doi: 10.1007/s10584-005-9017-y.

Chen, Y., F. Aires, **J.A. Francis**, J.R. Miller, 2006: Observed relationships between Arctic longwave cloud forcing and cloud parameters using a neural network. *J. Clim.*, *19*, 4087-4104.

Francis, J.A., E. Hunter, and C.-Z. Zou, 2005: Arctic tropospheric winds derived from TOVS satellite retrievals. *J. Clim.*, *18*, 2270-2285.

Overpeck, J.T., M. Sturm, **J.A. Francis**, D.K. Perovich, M.C Serreze, and 16 others, 2005: Arctic system on trajectory to new, seasonally ice-free state. *Eos Trans.*, *86*.

**Recent
Research
Grants**

P.I.: NSF, Collaborative Research: Roles of Clouds and Their Accomplices in Modulating the Trajectory of the Arctic System, 1/07-12/09, \$205,170.

Co.I.: NSF, Collaborative Research: Improving remotely sensed surface fluxes over sea ice, 1/07 - 12/09, \$154,616.

P.I.: NSF, Roles of Moist Static Energy Transport in the Changing Arctic System, 7/05 - 6/08, \$256,769.

Co.I.: NASA: Improving Arctic Energy Budget Estimates by Combining New EOS-Era Products from Multiple Satellite Sensors, 4/15/04-4/14/07, \$248,342, P.I. Dr. Eugene Clothiaux, Pennsylvania State University.

Co.I.: Polar Winds from Satellite Imagers and Sounders, NASA, 4/1/04 - 3/31/07, \$175,925, P.I. Dr. Jeffrey Key, NOAA/NESDIS.

P.I.: Interactions among Observations of Lateral Advection, Cloud, and Surface Properties in the Arctic, NSF, 6/03 - 5/07, \$288,567.

P.I.: Correction of Systematic Errors in TOVS Radiances, NOAA/U. of AK, 8/03 - 7/06, \$160,030.

Co.I.: NASA, An Improved GCM Simulation of the Arctic Hydrologic Cycle using Satellite-Derived Products, 2/02-12/06, \$278,463.