

Rebecca E. Morss

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EDUCATION

- Feb 1999 Ph.D., Atmospheric Science, Massachusetts Institute of Technology
Dissertation: “Adaptive observations: Idealized sampling strategies for
improving numerical weather prediction”
- Jun 1993 B.A., Chemistry, The University of Chicago
General and departmental honors
- Graduate level coursework in public policy and related areas at Harvard
University, Massachusetts Institute of Technology, University of Chicago,
and University of Colorado at Boulder

PROFESSIONAL EXPERIENCE (selected)

- 2005– Scientist II
2002–2005 Scientist I
Mesoscale and Microscale Meteorology Division & Institute for the Study of
Society and Environment; National Center for Atmospheric Research
- 2000–2001 Post-doctoral Fellow
Advanced Study Program; National Center for Atmospheric Research
- 1999 Post-doctoral Associate
1994–1998 Graduate Research Assistant
Program in Atmospheres, Oceans, and Climate; Massachusetts Institute of
Technology
- 1997, 1998, Visiting Scientist
1999 Environmental Modeling Center; National Centers for Environmental Prediction
- 1994 Research Intern
Science, Space, and Technology Committee; U.S. House of Representatives

PUBLICATIONS (selected)

- Morss, R. E., and F. M. Ralph, 2005: The use of information by National Weather Service forecasters and end-users during CALJET and PACJET. *Weather and Forecasting*, in preparation.
- Morss, R. E., O. V. Wilhelmi, M. W. Downton, and E. Gruntfest, 2005: Flood risk, uncertainty, and scientific information for decision-making: Lessons from an interdisciplinary project. *Bulletin of the American Meteorological Society*, in press.
- Morss, R. E., and W. H. Hooke, 2005: The outlook for U.S. meteorological research in a commercializing world: Fair early, but clouds moving in? *Bulletin of the American Meteorological Society*, **86**, 921–936.

- Morss, R. E., 2005: Science fiction, science fact, and society: Meteorology in recent popular film and fiction. *Bulletin of the American Meteorological Society*, **86**, 691-694.
- Morss, R. E., K. A. Miller, and M. S. Vasil, 2005: A systematic economic approach to evaluating public investment in observations for weather forecasting. *Monthly Weather Review*, **133**, 374–388.
- Morss, R. E., 2005: Problem definition in atmospheric science public policy: The example of observing system design for weather prediction. *Bulletin of the American Meteorological Society*, **86**, 181–191.
- Morss, R. E., and D. S. Battisti, 2004: Designing efficient observing networks for ENSO prediction. *Journal of Climate*, **17**, 3074–3089.
- Kim, H. M., M. C. Morgan, and R. E. Morss, 2004: Evolution of analysis error and adjoint-based sensitivities: Implications for adaptive observations. *Journal of the Atmospheric Sciences*, **61**, 795–812.
- Morss, R. E., and K. A. Emanuel, 2002: Influence of added observations on analysis and forecast errors: Results from idealized systems. *Quarterly Journal of the Royal Meteorological Society*, **128**, 285–321.
- Morss, R. E., K. A. Emanuel, and C. Snyder, 2001: Idealized adaptive observation strategies for improving numerical weather prediction. *Journal of the Atmospheric Sciences*, **58**, 210–232.
- Langland, R. H., Z. Toth, R. Gelaro, I. Szunyogh, M. A. Shapiro, S. Majumdar, R. E. Morss, G. D. Rohaly, C. Velden, N. Bond, and C. Bishop, 1999: The North Pacific Experiment (NORPEX-98): Targeted observations for improved North American weather forecasts. *Bulletin of the American Meteorological Society*, **80**, 1363–1384.

LEADERSHIP, SERVICE, and AWARDS (selected)

- 2005–2006 Member, National Research Council Committee on Estimating and Communicating Uncertainty in Weather and Climate Forecasts
- 2005–2006 Invited co-organizer and co-chair, Disaster Simulation and Mitigation session, National Academies of Engineering First Indo-U.S. Frontiers of Engineering Symposium
- Jan-Jun 2005 NCAR/UCAR Leadership Academy
- 2003– Representative on Societal and Economic Applications, North American THORPEX Committee
- 2003– NOAA THORPEX Science and Implementation Team
- 2002–2005 Co-chair, International Societal and Economic Applications Subprogram, THORPEX: A Global Atmospheric Research Programme
- Jul 2001 Moderator, U.S. Congressional Briefing: “Hurricanes: The Danger, The Impacts, The Outlook”
- 1994–1997 MIT Program in Atmospheres, Oceans, and Climate Charney Prize
- 1994–1995 MIT Clare Booth Luce Fellowship
- Jun 1992 inducted to Phi Beta Kappa