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DR. JOANNE SIMPSON

Chief Scientist for Meteorology

Education

D.S.C. (Hon), State University of New York at Albany, 1991

Post-doc, Statistics, Dartmouth, 1970-71

Ph.D., Meteorology, University of Chicago, 1949

M.S., Meteorology, University of Chicago, 1945

B.S., Meteorology, University of Chicago, 1943

Employment

1979–Present: NASA Goddard Space Flight Center. Present Position Chief Scientist for Meteorology, Earth Sciences Directorate.

1986–1997: Project Scientist for the Tropical Rainfall Measuring Mission.

Among positions held: Instructor to Ass't Prof. Physics, Illinois Institute of Technology, 1945-1951. Meteorologist, Woods Hole Oceanographic Institution, 1951-1960; Prof. Meteorology, UCLA, 1960-64; Director, Experimental Meteor. Lab., NOAA, 1964-1974; Corcoran Prof of Env. Sci., Univ. of Virginia, 1974-1979; Chief Scientist, Simpson Weather Associates, 1974-1979. Head, Severe Storms Br, GLA, GSFC, NASA, 1979-1988

Honors and Awards (not a complete list)

Honorary Member Royal Meteorological Society, 1999

Honorary Member American Meteorological Society (AMS), 1995

First Nordberg Award for Earth Sciences, 1994

Goddard Senior Fellow 1989–

National Academy of Engineering, 198.

NASA Exceptional Scientific Achievement Award, 1982

Weather Modification Association, Vincent J. Schaefer Award, 1979

Professional Achievement Award, University of Chicago Alumni, 1975, 1992

Department of Commerce Gold Medal, 1972

AMS Meisinger Award 1962, Rossby Research Medal, 1983, C. F. Brooks Award, 1992

Guggenheim Fellowship, 1954

Membership in Academies, Professional Societies, and Editorships

Phi Beta Kappa

Sigma Xi

American Geophysical Union, Fellow 1994

American Meteorological Society, Fellow, 1968. Certified Consulting Meteorologist. Two terms Councilor, 1970's. Commissioner of Scientific and Technological Activities, 1981-1987. President Elect, 1988, President, 1989, Publications Commissioner 1991-1997.

Publications

More than 190 in refereed literature, on tropical meteorology, tropical cloud systems and modeling, tropical storms and tropical rain measurement from space. more than 30 publications on cumulus modeling since 1988, 12 on rain measurement from space. 14 significant publications on tropical cyclones in 1950's, 1960's and two on their development 1997, 1998.

Public Service (not a complete list)

Project Stormfury on Hurricane Modification Advisory Panel, 1962-1965 (Director, 1965 1966).

Member, IAPO-IAMAP Joint Committee on Atmosphere-Ocean Interaction of the International Union of Geodesy and Geophysics, 1964-1972.

Member, Advisory Panel, National Science Foundation (Division of Atmospheric Sciences), 1973-1978. Member, Florida Governor's Environmental Coordination Council, 1971-1974.

NASA Affiliate to the Global Change Center at the Penn State University 1991-92.

Numerous NAS/NRC Committees, Board on Atmospheric Sciences and Climate 90-93, Geophys and Env Data 1984-1993.

Visiting Professor of Mathematics at Monash University, Melbourne, Australia.

1990- present Visiting Scientist at the Australian Bureau of Meteorology.

NASA Affiliate to the Global Change Center at the Penn State University 1991-92.

Numerous NAS/NRC Committees, Board on Atmospheric Sciences and Climate 90-93, Geophys and Env Data 93-96.

Committees on Climate, Ecosystems, Infectious Diseases and Human Health, 1999-.

Experience and Accomplishments

Pioneered in cloud modeling, with first one-dimensional model and first cumulus model on a computer. P.I. on cumulus modeling projects since early 1950's.

Led the work into multi-cloud modeling via observations of mergers and cloud interactions in lines.

Extensive experience in planning and leading observational experiments on convective cloud systems, such as the joint NOAA-Navy Project Stormfury, and the Florida Area Cumulus Experiment.

A leading participant in the aircraft aspects of several GARP experiments, particularly GATE, MONEX and TOGA/COARE

Senior author of book published by University of California Press, 1964, with co-author Herbert Riehl, entitled Cloud Structure and Distributions Over the Tropical Pacific Ocean. 229 pp.

Author of a Chapter in two other books, The Sea: Ideas and Observations, Interscience Publishers, entitled Large Scale Interactions pp 88-294, and Cumulus clouds and their modification. Weather Modification, W. N. Hess, Editor. John Wiley and Sons, 229-281, 1974. Senior author with A. S. Dennis.



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