

JACK A. KAYE

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PROFESSIONAL EXPERIENCE

May 2025 – present: Principal, Earth.Space.Chem LLC. Engage in reading, writing, speaking, and advocacy in Earth system science, remote sensing, and environmental chemistry.

April 2006 – April 2025: Associate Director for Research, Earth Science Division, Science Mission Directorate (SMD), NASA Headquarters. Oversaw program of directed and competed research in most areas of Earth System Science, as well as management of enabling capabilities in airborne science, scientific computing, space geodesy, and education, with total annual budget authority of as much as \$500M. Served as immediate or second level supervisor for some 20 people, mainly government scientists, but also center detailees, contractors, fellows, and visitors. Served as NASA principal for US Global Change Research Program and Subcommittee on Ocean Science and Technology. Served as lead for NASA participation in Coordinating Group on Meteorological Satellites (CGMS), 2010 – 2024; chair of World Meteorological Organization (WMO) Expert Team on Satellite Systems (ET-SAT) 2013 – 2019; Vice Chair of WMO Expert Team on Space Systems and Utilization (ET-SSU) 2020 – 2024. Also served as NASA co-lead for calibration/validation subgroup of NASA-European Space Agency (ESA) Joint Program Planning Group (2012-2025). Served as *ex officio* member of National Academies Roundtable on Science and Technology for Sustainability (from formation till 2024). Previous similar but differently-named positions included Director, Research and Analysis Program, Earth-Sun System Division, NASA HQ/SMD (2005-2006) and Director, Research Division, Office of Earth Science (1999-2004).

June 1991 – July 1999: Manager, Atmospheric Chemistry Modeling and Analysis Program, Office of Earth Science (OES), NASA Headquarters, Washington, DC. Directed research program on computer modeling and data analysis for global scale tropospheric and stratospheric chemistry. Managed total budget in excess of \$10 million/year. Served as program scientist for NASA Shuttle- and satellite-based flight projects.

December 1983 – June 1991: Space Scientist, Atmospheric Chemistry and Dynamics Branch, NASA Goddard Space Flight Center (GSFC), Greenbelt, MD. Conducted basic research on chemistry of Earth's atmosphere, emphasizing incorporation of chemical processes into multidimensional chemistry/transport model and evaluation of models by comparison with satellite, aircraft, balloon, and ground-based data.

January 1982 – December 1983: Research Associate, Plasma Physics Division, US Naval Research Laboratory, Washington, DC. Conducted modeling studies of photochemistry in atmospheres of outer planets and of isotopically substituted and vibrationally excited molecules in the Earth's upper atmosphere.

September 1976 – January 1982: Teaching and Research Assistant, Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA. Studied

atom-molecule collisions using quantum and classical mechanical techniques. Served as teaching and research assistant in department of chemistry.

EDUCATION

September 1976 – January 1982: California Institute of Technology, Pasadena, CA
Ph.D. Degree in Chemistry received June 1982.

September 1972 – May 1976 – Adelphi University, Garden City, NY
B.A. Degree in Chemistry (summa cum laude) received May 1976.

SELECTED AWARDS

2026	Mahoney Lecturer, American Meteorological Society (Washington DC Meeting)
2026	GLOBE Honoree, Next Generation Global Collaboratory
2025	Special ESA (European Space Agency) Award
2024	Pecora Award (Individual) from NASA/US Geological Survey
2024	GEWEX Lifetime Contribution Award
2022	NASA Distinguished Service Medal
2021	Presidential Meritorious Rank Award (also 2010, 2004)
2021	Nelson W. Spencer Lecturer, University of Michigan, Climate and Space Sciences and Engineering
2019	NASA Outstanding Leadership Medal (also 2009)
2015	Honorary Member, Asia-Oceania Geosciences Society
2013	Fellow, American Association for the Advancement of Science
2010	Fellow, American Meteorological Society
1999	Editor's Citation for Excellence in Peer Reviewing, American Geophysical Union (<i>J. Geophys. Res.</i> ; also for <i>Geophys. Res. Lett.</i> in 1988)
1996	NASA Exceptional Service Award
1995	NASA Exceptional Achievement Award

PROFESSIONAL SOCIETY ACTIVITIES

Member of AGU Team to Update Position Statement on Government Support of Science – 2025-present.

Member of Fellows Committee, American Meteorological Society – 2017-2020

Chair-Elect/Chair/Past Chair – American Association for Advancement of Science Section on Atmospheric and Hydrospheric Sciences (Section W) (2015-2018)

Member of Awards Nomination Committee, American Meteorological Society, 2008-2013

Secretary (Chemistry subsection) of Atmospheric Sciences section of AGU (1998-2000)

Edited book *Isotope Effects in Gas Phase Chemistry*, Amer. Chem. Soc. Books, 1992

Member of Publications committee, American Geophysical Union, 1988-90

ADDITIONAL ACTIVITIES

Affiliate, George Mason Univ. Center for Satellite and Earth Science Research, 2025 - present

Member, Advisory Board, Next Generation Global Collaboratory, 2025 - present

Member, Honors Advisory Council, James Madison University, 2013-2016