# Jeffrey R. Key

Full vita is available at http://bit.ly/2u7g2Bn; Summary of career accomplishments at http://bit.ly/323kZri.

## Professional Positions

*Current Positions*: **Scientist** (Scientist III), Space Science and Engineering Center, University of Wisconsin-Madison, 10/2024-present. **Adjunct Professor**, Atmospheric and Oceanic Sciences, University of Wisconsin-Madison, 2007-present.

*Past Positions:* **Consultant**, World Meteorological Organization, 10/2024-01/2025. **NOAA, 1999-2024: Supervisory Physical Scientist,** NOAA/National Environmental Satellite, Data, and Information Service (NESDIS), Madison, WI, 2003-2024 (retired); **Branch Chief**, Program Management Branch, NESDIS, 09/2023-08-2024; **Acting Division Chief**, Cooperative Research Program, NESDIS, 01-06/2023 and 02/2018-10/2019 (2.1 yrs total); **Branch Chief,** Advanced Satellite Products Branch**,** NESDIS, 2003-2023; **Physical Scientist**, NESDIS, 1999-2002. **Adjunct Associate Professor**, Atmospheric and Oceanic Sciences, U. Wisconsin-Madison, 1999-2006. **Associate Professor** (tenured), Dept. of Geography, Boston U., 1995-1999; **Instructor**, Dept. of Mathematical Sciences, U. Alaska-Anchorage, 1984-1987.

## Education

Ph.D., 1988, University of Colorado, Boulder, Dept. of Geography (Climatology)
M.A., 1982, Northern Michigan University, Dept. of Geography (Resource Analysis)
B.S., 1979, Northern Michigan University, Dept. of Geography (Environmental Conservation)

## Awards

NOAA Silver Sherman Award, 2022; NOAA Distinguished Career Award, Scientific Achievement, 2021; U.S. Dept. of Commerce Bronze Medal, 2019; NASA Agency Honor Awards, Group Achievement Award, 2017; DOC Bronze Medal, 2014; NASA Group Achievement Award to Suomi NPP Mission Development Team, 2012; NOAA Administrator's Award, 2009; DOC Bronze Medal, 2008; DOC Silver Medal for Scientific and Engineering Achievement, 2005. (Most are for two or more people)

## Recent Professional Activities

WMO Infrastructure Commission's Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON); WMO Executive Council panel on Polar and High Mountain Observations, Research and Services; WMO Global Cryosphere Watch; WMO Polar Space Task Group (Vice-Chair); Canada's Arctic Observing Mission International Expert Team.

## Research

*Interests*: Satellite remote sensing of polar clouds, winds, snow, and ice; polar climate; surface radiation budget.

**Grants**: PI, Co-PI, or Co-I on 77 grants totaling $42M ($23M as PI) since 1991.

**Publications**: Author/co-author on 134 journal papers and other peer-reviewed publications, 7 book chapters, 18 technical and data reports (some peer-reviewed), numerous workshop reports, conference proceedings papers, and newsletter articles. Metrics: h-index: 61, i10-index: 121, citations: 13K+ (Jan 2025, Google Scholar).

**Major Satellite Products - Operational**: Real-time polar winds from MODIS, AVHRR, and VIIRS; AMSR2 snow and ice products; VIIRS ice products; ABI ice and snow products. **Climate Data Records**: AVHRR Polar Pathfinder (APP) and AVHRR Polar Pathfinder Extended (APP-x); Historical polar winds from AVHRR. **Software**: *Streamer*, a radiative transfer model; *FluxNet*, a radiative transfer neural network.

**Fieldwork**: UAS Sea Ice Retrieval for Calibration/Validation Experiment (USIR-CV EX), Great Lakes (2022) and Alaska (2023); Great LAkes Winter Experiment (GLAWEX), 2017; McMurdo, Antarctica, 2004; Surface Heat Budget of the Arctic Ocean (SHEBA), 1998; Greenland Ice Sheet, 1995; Beaufort and Arctic Seas Experiment (BASE), 1994; Seasonal Sea Ice Monitoring and Modeling Site (SIMMS), 1993; SIMMS, 1992; LEADEX, 1992; U.S. Fish and Wildlife Service sea lamprey surveys, 1980-1982.

## Teaching

Taught 15 different courses (total of 33 sections) in remote sensing, meteorology, statistics, geography, and computer science at Boston University, University of Colorado-Boulder, University of Alaska-Anchorage, and

Northern Michigan University. Research advisor for 14 PhD and Master's students.