

Dr. Ronald Gelaro

Dr. Ronald Gelaro earned his B.S., M.S. and Ph.D. degrees in Meteorology from the Pennsylvania State University. He completed his Ph.D. in 1989 while working full time at the Naval Research Laboratory in Monterey, CA (then called the Naval Environmental Prediction Research Facility), where he began working in 1985 as a member of the global modeling section. His thesis work comprised the study of tropical-extratropical interactions on seasonal timescales, but his focus at NRL turned quickly to the study of atmospheric predictability on shorter time scales, including the improved use of observations in forecasting and data assimilation and the development of techniques for adaptive observing. His interests in these areas were accelerated by a sabbatical at ECMWF during 1994 and 1995, where he worked on ECMWF's ensemble prediction system and various related applications of adjoint sensitivity analysis. He continued this work upon returning to NRL, where he led the atmospheric predictability group until 2001, and was an active participant in various large-scale field campaigns as part of this research.

In 2001, Dr. Gelaro joined the Data Assimilation Office at NASA's Goddard Space Flight Center and was named the lead scientist for atmospheric data assimilation upon the merger of the DAO into the Global Modeling and Assimilation Office in 2003. He oversees the development of the GMAO's atmospheric data assimilation system and the GMAO's formal collaboration in data assimilation development with NOAA/NCEP. He is heavily involved in the GMAO's (ongoing) historical reanalysis project and the development of the Office's new 4DVar data assimilation system. His current research focuses on observing system science studies using adjoint tools and applications related to the design of observing system simulation experiments (OSSEs).