**About the Director**



Dr. Alexander E. (Sandy) MacDonald was named the first Director of the Earth System Research Laboratory and first Deputy Assistant Administrator for NOAA Research Laboratories and Cooperative Institutes on July 27, 2006. Dr. MacDonald served as Acting Director for the Earth System Research Laboratory and Director of the ESRL Global Systems Division during the consolidation of the Boulder Laboratories into the Earth System Research Laboratory in 2006. Prior to the consolidation, Dr. MacDonald led the Forecast Systems Laboratory.

Dr. MacDonald was the Director of the Program for Regional Observing and Forecasting Services (PROFS) from 1983 to 1988. From 1980 - 1982, he was Chief of PROFS' Exploratory Development Group and from 1975 - 1980 he was a Techniques Improvement Meteorologist in the Scientific Services Division, Western Region, National Weather Service in Salt Lake City, UT. He was an Air Force Officer while a member of the U.S. Air Force from 1967 - 1971.

**Contact the Director**

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**More Information**

* [Curriculum Vitae](http://www.esrl.noaa.gov/about/AEMacDonaldCV2006.pdf)

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| **EDUCATION** | |
| Ph.D. in Meteorology (Minor in Computer Science), University of Utah, 1975 | |
| M.S. in Meteorology, University of Utah, 1973 | |
| B.S. in Mathematics/Physics, Montana State University, 1967 | |
| USAF Weather Course Certificate in Meteorology, St. Louis University, 1968 | |
| **PROFESSIONAL EXPERIENCE** | |
| **2006 - Present** | Deputy Assistant Administrator, Laboratories and Cooperative Institutes, OAR Director, Earth System Research Laboratory, NOAA |
| **1988 - 2006** | Director, Forecast Systems Laboratory, NOAA |
| **1983 - 1988** | Director of the Program for Regional Observing and Forecasting Services (PROFS), Environmental Research Laboratory (ERL), NOAA |
| **1980 - 1982** | Chief of PROFS, Exploratory Development Group, ERL, NOAA |
| **1975 - 1980** | Techniques Improvement Meteorologist in the Scientific Services Division, Western Region National Weather Service, NOAA in Salt Lake City |
| **1973 - 1975** | University of Utah - Research Fellowship |
| **1971 - 1973** | University of Utah - Instructor, Synoptic Meteorology Laboratory |
| **1967 - 1971** | Officer, U.S. Air Force |
| **MEMBERSHIP IN PROFESSIONAL SOCIETIES** | |
| American Meteorological Society | |
| National Weather Association | |
| **RESEARCH INTERESTS** | |
| Dr. MacDonald has published in atmospheric modeling, statistics, dynamics, and meteorological systems. His interests are applications of science and technology to improve operational forecasting. | |
| **ACTIVITIES** | |
| **2005** | Patent #6,937,210, "Projecting Images on a Sphere", Alexander E. MacDonald |
| **2002** | Patent #6,421,010, "Atmospheric Sondes and Method for Tracking", Russell B. Chadwick and Alexander E. MacDonald |
| **1994** | Executive Committee Member, AMS; AMS Fellow |
| **1993** | Developed GLOBE Program (a Vice-Presidential Initiative) |
| **1992** | Councilor, AMS three-year appointment |
| **1983 - Present** | Lecturer at numerous AMS chapters throughout the United States. |
| **1987 - Present** | Member, AMS Committee on Aviation, Range, and Aerospace Meteorology |
| **1984 - Present** | Member, Panel on Mesoscale Research, NRC |
| **1988 - Present** | Fellow with the Cooperative Institute for Research in the Atmosphere - Colorado State University |
| **1983 - 1988** | Set up workstations to allow demonstrations of PROFS' unique capabilities to a large number of federal agencies, e.g., FAA, NWS, NESS, NESDIS, AF, AWS, DOD, and numerous universities. |
| **AWARDS** | |
| **2007** | [Presidential Rank Award - Meritorious](http://www.opm.gov/ses/2007merit.asp) |
| **2001** | [Presidential Rank Award - Meritorious](http://www.opm.gov/ses/2001merit.asp) |
| **1997** | [Presidential Rank Award - Distinguished](http://www.fsl.noaa.gov/about/pres-award-AEM.html) |
| **1993** | Gold Medal - Leadership in Technology Transfer |
| **1980** | Bronze Medal - Accomplishments in NWS AFOS Program |