

# The 2005/06 NCAR Annual Report



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The National Center for Atmospheric Research (NCAR) is a federally funded research and development center. Together with our partners at universities and research centers, we are dedicated to exploring and understanding our atmosphere and its interactions with the Sun, the oceans, the biosphere, and human society.

This document is the NCAR's science and facility plan for fiscal years 2006/07 and accomplishments for fiscal years 2005/06 and responds to guidance from the National Science Foundation's Division of Atmospheric Sciences (ATM).

The program plan and the NCAR programs it describes were developed and thoroughly reviewed at NCAR. Priorities and programmatic emphases have been established in accordance with published NSF criteria. In addition, NCAR's annual program planning and implementation occurs in the framework of a long-range [strategic plan](#) prepared with community and Foundation involvement.

[NCAR's Science and Facility Plans and Accomplishments](#)

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### Director's Message

Dear Colleagues:

I am very pleased to introduce the new web-based 2006 NCAR Annual Report for the National Center for Atmospheric Research. This report is a merging of NCAR's annual Program Plan that describes NCAR's planned activities for the next two years and the Annual Scientific Report that reports on NCAR's recent accomplishments. Instead of reporting by organizational unit as we did in the past, the new report is arranged in accordance with our strategic planning efforts and provides a closer mapping between our goals and priorities and respective plans and accomplishments. Other changes include an emphasis on higher-level summary descriptions of our activities that is intended to reach a wider audience. Program details are available through weblinks and I encourage you to use the report's search function to find your particular area of interest. Here are a few of our report's highlights:



In March 2005, the HIAPER(High performance Instrumented Airborne Platform for Environmental Research) aircraft arrived at its new hangar at Jeffco airport after more than two decades of planning. HIAPER, also known as the Gulfstream 5, or GV, has just completed a series of progressive science missions to test an initial set of community instruments installed on the aircraft. Community researchers are also developing additional instrumentation funded by NSF's \$12.5 million proposal opportunity.

NCAR continues plans to meet the scientific community's growing computational needs. The Computing and Information Systems Laboratory (CISL) entered FY 2005 with 12.1 teraflops of total computational capacity at NCAR and ended the year with a capacity increase to 21.2 teraflops. In August 2005, CISL took delivery of a new IBM p5-575 supercomputer named "bluevista", supplementing our existing bluesky supercomputer. Bluevista will be made available to general users in January 2006, roughly doubling the supercomputing capacity provided by NCAR from 400 to almost 800 gigaflops. A typical application is expected to run twice as fast on bluevista as it currently does on bluesky.

In the next year, NCAR will work with community partners to develop an integrated science, facility, and funding plan to expand NCAR's supercomputing facility capabilities. The goal is to create a new supercomputing facility that can support the technological developments projected over the next several decades; expand the investment in new supercomputing systems as they become available, and engage the broad geosciences community to utilize and support this initiative.

A major new accomplishment in our climate analysis research is the completion of the simulations in support of the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, AR4. Over 200 scientific papers have been written or are in process based on available IPCC data sets, including the comprehensive runs of

the

Community Climate System Model (CCSM), version 3, managed by NCAR on behalf of the research community. The IPCC AR4 is due to be published in 2007 with NCAR scientists playing a leading role. The Earth System Grid (ESG) is now providing simple, Web portal access to over 70 terabytes of climate simulation data, including the data repository for Working Group 1 of the IPCC AR4. More than 1,400 users have accessed model simulations within these records.

The Earth System Modeling Framework (ESMF), developed and maintained by NCAR and its partners, has become the standard software framework for international environmental modeling. NCAR scientists are currently collaborating on nesting the [Weather Research and Forecasting model](#) (WRF), a weather model, into the CCSM and Community Atmosphere Model (CAM) climate models to simulate more complex, multiscale interactions. Planned activities will also focus on aspects of tropical variability which are poorly simulated in the current CCSM and CAM .

Other weather modeling efforts at NCAR also played a critical role in tracking this year's catastrophic Hurricane Katrina. The results of NCAR's Advanced Research version of the WRF have been impressive, with track and intensity forecasts demonstrating high accuracy. The focus in FY 2006 and FY 2007 will be on the modeling of internal dynamics of tropical cyclones and hurricanes and on developing WRF enhancements to improve its accuracy and efficacy.

Education and outreach efforts continue to grow at NCAR and special funds will be committed toward this effort. In this past year, our first Faculty Fellowship program provided extended visits for 3 university faculty and their graduate students. During NCAR's fourth annual Undergraduate Leadership Workshop, 21 undergraduates in the geosciences spent a week at NCAR this summer to learn more about career and resource opportunities. These are just initial steps and we plan to grow and strengthen these and similar programs.

Our 2005 Postdoctoral recruitment brought 140 highly qualified candidates for the nine positions available. We also just completed our 2005 Scientist I recruitment with a total of six positions hired, including a research engineer to work with HIAPER. Other research emphases will be in multiscale modeling, biogeosciences, the water cycle, and math.

At the management level, we have been involved in extensive strategic planning activities in this last year. These planning activities, which resulted in the goals and priorities you will read about in this report, were facilitated by the new management structure we instituted in early FY 2005. The new structure incorporates a broadly representative Executive Committee, five laboratories, and several new cross-cutting institutes to complement the familiar research divisions and programs. The newest group, created this past spring, is the [Center for Capacity Building](#) (CCB) which will focus on human and institutional capacity building related to climate-society-environment interactions.

I hope you visit this Web report to learn more about NCAR's contributions and plans to areas of your research interests as well as other aspects of our program.

Tim Killeen  
NCAR Director

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### Science & Facility Plans and Accomplishments

Each year, the NCAR Executive Committee conducts an Annual Budget Review (ABR) process, where we formally review our scientific, service, and education portfolios and budgets for the next two years, in the light of changing requirements and needs. The ABR is where NCAR management considers and occasionally adjusts the relative balance among NCAR's major program elements. It is also the means by which NCAR gathers the information provided to NSF in our Annual program plans.

The following plans for fiscal years 2006 and 2007, along with their accomplishments for FY 2005 and FY 2006 are organized by NCAR's goals and priorities as described in NCAR's [Strategic Plan](#).

- [NCAR Science: Investigate, predict, and explain the Earth-sun system](#)
- [Transferring Knowledge and Technology: Develop new societal benefits from atmospheric and related sciences](#)
- [Workforce, Education, and Outreach: Transform the workforce and increase scientific education and understanding](#)
- [Cyberinfrastructure: Develop and provide a robust, accessible, and well-integrated set of information services and tools to support research, analysis and education in the atmospheric and related sciences](#)
- [Observing Systems: Develop and operate a suite of ground and airborne observational facilities for the atmospheric and related sciences community.](#)

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### NCAR Science

The NCAR science enterprise encompasses a wide range of research activities. Atmospheric chemistry research focuses on regional-scale and global-scale air quality and atmospheric composition/climate system interactions. Climate research focuses on community climate system modeling and climate system analysis. We maintain significant efforts in solar physics, solar-terrestrial interactions, and upper atmosphere studies to understand the sun and the sources and manifestations of solar activity and solar influences on the Earth system. Meteorology research emphasizes the development and use of community weather models and improved understanding of atmospheric processes across scales. Inter- and multidisciplinary research on biogeochemical cycles and the water cycle is focused on investigating biosphere-hydrosphere-atmosphere coupling, lower atmosphere–upper atmosphere coupling, and the interactions of weather and climate. Highlights of NCAR's science plans and activities include the following:

- Exploring the role of aerosols.
- Studying megacities and the effects of urbanization.
- Understanding and predicting the influence and impacts of atmospheric composition on the evolving climate system.
- Developing and evaluating a comprehensive community climate modeling capability.
- Improving our understanding and prediction of natural variability of the Earth system.
- Analyzing the climate system by linking diagnostic, theoretical, and idealized modeling capabilities with observation.
- Taking new approaches to multiscale analysis.
- Studying magnetic flux eruptions from the sun and predicting space weather.
- Working toward a comprehensive understanding of the sun and the sources and manifestations of solar activity.
- Understanding solar influences on the earth system.
- Understanding and numerically representing precipitation and chemical processes, including multiscale atmospheric chemical constituent transport, dispersion, and transformations.
- Studying the dynamics and predictability of weather systems on time scales up to 48 hours.
- Understanding and representing teleconnections between multiscale precipitating convective systems and other scales of motion.
- Analyzing and understanding atmospheric boundary layers, including surface interactions.
- Understanding the effects of gravity waves and improving their representation in atmospheric models.
- Improving our understanding of ecosystem biogeochemistry climate interactions.
- Understanding and representing coupling processes at the interface between biosphere, hydrosphere, and atmosphere.
- Understanding and representing coupling processes at the interface between weather and climate.
- Understanding and representing coupling processes between the lower and upper atmosphere.

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### Transferring Knowledge & Technology

Decision makers confront an increasingly complex world as the human population continues to grow and the impacts of that growth on the environment continue to escalate. They need better information, tools, and systems to understand the effects of weather and climate today, as well as in the future. They face difficult problems across time and space scales, from addressing the impacts of a sudden, extreme event on a specific city to planning a nation's response to subtle changes over time. NCAR is committed to assisting decision makers by developing the weather- and climate-related information and products they need and helping them apply this expertise to improve societal resilience to weather and climate. This is a goal well suited to a national center, as it requires a long-term commitment by an institution skilled in conducting interdisciplinary research and development. We see improved interaction with the private sector as a key objective in this regard. Demand for specialized weather information has been increasing steadily, as have services by a growing set of commercial businesses; cooperating with and transferring NCAR's knowledge and systems to this growing economic sector is an important part of our strategy.

The transfer of weather-related technology and knowledge has a long and successful history at NCAR. We plan to continue and increase our work in this area, and we also expect that our efforts in providing similar climate-related services will grow in the future. NCAR also has a long history of performing research on the societal and environmental impacts of climate change and variability. We are seeing an increasing demand for climate information, and we are beginning to work with government agencies and industries that are being affected by climate change to develop and transfer decision support tools that address their information needs. Successful programs in these areas require a strong base and effective integration of engineering, physical science, economics and other social sciences, mathematics, and statistics. NCAR efforts in this area include:

- Investigate, establish and communicate the use and value of science in addressing society's needs for improved weather and climate information systems, and tools;
- Conduct research on the decision-making process and ways science can be used to improve them;
- Explore the connections between society and the environment;
- Create a conceptual framework for integrating research across time and space scales to aid in decision-making and enrich understanding of processes across scales;
- Research, develop, and transfer state-of-the-art weather and climate-related decision support information, tools, and systems;
- Build community capacity with stakeholders and scientists for coping with weather and climate hazards;
- Transfer of research techniques into operational weather forecasting; and
- Develop and conduct Integrated Atmospheric Extremes Research.

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### Workforce, Education, & Outreach

NCAR supports a wide range of formal and informal programs connected with science education, diversity, and outreach. The Advanced Study Program in SERE is focused on graduate and postgraduate education. The program fosters attention on emerging science areas by sponsoring workshops and summer colloquia for NCAR scientists, university faculty, and graduate students. ASP's postdoctoral program is among the most competitive and prestigious in the geosciences, and the program is expanding its efforts to develop broader participation. The NCAR Education and Outreach program addresses both K-12 formal education and broad public communication. In the former area, NCAR has made a major commitment to helping integrate research and education at the middle and high school level through its Climate and Global Change Professional Development Workshops for Educators. Over the last five years, these highly successful workshops have provided extensive scientific and pedagogical support to educators from across the country on how to integrate these topics into their curricula, along with training on specific activities for the classroom. In the area of public information, NCAR is active both in development and dissemination of Web-based material and in design and display of scientific exhibits, both at NCAR and in other facilities and museums. NCAR participates in the UCAR [Significant Opportunities in Atmospheric Research and Science](#) program, which is focused on building diversity in the geosciences at the undergraduate and graduate level.

Plans and accomplishments in the following areas are highlighted below.

- Engage a broader and more diverse community.
- Support and enhance formal science education at all levels.
- Bring modeling and observational facilities into the virtual classroom.
- Foster public awareness and understanding of our science.
- Create a 21 st century research institution.

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### Cyberinfrastructure

High-end computing and data management have always been critical components of NCAR's support for the scientific community. NCAR has developed a large set of computational and information science activities that provide supercomputing and data acquisition, storage, and distribution services to the scientific community. NCAR designs, develops, and maintains software, models, and data analysis and visualization tools, all of which are openly available to the science community and other interested users. Further, NCAR supplies the community with fundamental R&D in computer science, computational science, applied mathematics, and statistics.

NCAR has collaboratively developed a community modeling framework for constructing and combining modeling codes along with a community data portal that simplifies access to NCAR data holdings and experimental results. These activities support the ongoing development of community weather and climate models. NCAR scientists and engineers work with large teams of researchers in the academic community and at other modeling centers to create, maintain, and apply these state-of-the-art models.

Highlights for NCAR's plans and accomplishments in cyberinfrastructure include:

- [Expand the capability and capacity of NCAR supercomputing: A geosciences consortium for high performance computing](#)
- [Production cyberinfrastructure: Procurement and deployment of supercomputers](#)
- [Toward an Earth System Knowledge Environment](#)
- [Research in computing and computational science applied to geophysics](#)

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### Observing Systems

NCAR has a long and successful history of developing, maintaining, and operating a wide range of observing systems and sites on behalf of the atmospheric and solar science communities. The close collaboration between NCAR research, modeling, and observational activities has provided the foundation for this success. Airborne systems include the NSF/NCAR C-130 and the newly arrived High-Performance Instrumented Airborne Platform for Environmental Research, along with a suite of radars, lidars, and radiometers. Surface-based systems include several mobile radars, a new eye-safe lidar, and a wide variety of in situ instruments. NCAR operates and maintains the Mauna Loa Solar Observatory, which includes a coronagraph, polarimeter, and photometer, and has polarimeters and a telescope at the National Solar Observatory in New Mexico. NCAR and UCAR have played major parts in satellite missions through such programs as the [High-Resolution Dynamics Limb Sounder \(HIRDLS\)](#), [Measurements of Pollution in the Troposphere \(MOPITT\)](#), [GPS/MET](#), and [Thermosphere Ionosphere Mesosphere Energetics and Dynamics \(TIMED\)](#). We are contributing to the upcoming Japan-U.S. Solar-B mission and are leading the development of the upcoming Taiwan-U.S. [Constellation Observing System for Meteorology Ionosphere & Climate \(COSMIC\)](#) mission.

Highlights of NCAR's plans and accomplishments for observing systems include:

- Create a comprehensive inventory of present and planned U.S. atmospheric observation instruments.
- Create a Virtual Operations Center for NCAR observing systems.
- Development of new instrumentation from the Earth Observing Laboratory.
- Observing System Sensitivity Experiments
- The design, development, and operation of a 1-meter Aperture Coronagraph.
- Space-Based Remote Sensing
- Field Program Deployments
- NCAR Support for HIAPER (the High-Performance Instrumented Airborne Platform for Environmental Research)

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## Education and Outreach Metrics

### 1. Teaching Arrangements

1.A. Teaching Appointments

1.B. Advising on Graduate Research

1.C. Member of Thesis Committee

### 2. Staff Appointments to NCAR

2.A. Postdoctoral Fellowships

2.B. Graduate Research Assistants

2.C. Graduate Students

2.D. Undergraduate Students/Science Assistants

2.E. Other Undergraduate Students (non-science)

### 3. Other Educational Activities

3.A. SOARS Participation

3.B. K-12 Activities

3.C. Other Activities

## 1. Teaching Arrangements

### 1.A. Teaching Appointments (72)

Employee Last Name	First Name	Division/Institute	Laboratory	Appointment	Institution	City	State	Country
Apel	Eric	ACD	ESSL	Adjunct Associate Professor	Univ. Miami, Rosentiel School of Marine and Atmospheric Sciences	Miami	FL	USA
Branstator	Grant	CGD	ESSL	Adjunct Professor	Iowa State University	Ames	Iowa	USA
Burns	Sean	MMM	ESSL	Professional Research Asst.	University of Colorado	Boulder	CO	USA
Coffey	Mike	ACD	ESSL	Affiliate Professor	Univ. North Florida	Jacksonville	FL	USA
Collins	William	CGD	ESSL	Adjunct Professor	PAOS Program, University of Colorado	Boulder	CO	
Davis	Christopher A.	MMM	ESSL	Adjunct Professor	North Carolina State University	Raleigh	NC	USA
Davis	Christopher A.	MMM	ESSL	Adjunct Professor	Colorado State University	Ft. Collins	CO	USA
Deser	Clara	CGD	ESSL	Faculty Affiliate	Colorado State University	Fort Collins	CO	USA
Deser	Clara	CGD	ESSL	Invited Lecturer	Swiss NCCR Climate Summer School	Grindelwald		Switzerland
Dye	James E.	MMM	ESSL	Affiliate Faculty	Colorado State University	Ft. Collins	CO	USA
Dye	James E.	MMM	ESSL	Affiliate Faculty	University of Alabama in Huntsville	Huntsville	AL	USA
Fowler	Tressa	RAL	WSAP	Instructor	Univ. of Colorado	Denver	CO	USA

Gettelman	Andrew	CGD		ESSL	Guest Lecturer	University of Colorado	Boulder	CO
Gille	John	ACD		ESSL	Adjunct Professor	Univ. Colorado	Boulder	CO
Gilman	Peter	HAO		ESSL	Professor Adjoint	University of Colorado	Boulder	CO
Glantz	Michael	CCB		SERE	Adjunct Professor	Rosenstein School, University of Miami	Miami	FL
Glantz	Michael	CCB		SERE	Professor Adjoint	University of Colorado, School of Journalism	Boulder	CO
Glantz	Michael	CCB		SERE	Adjunct Professor	University of Colorado, Department of Philosophy	Boulder	CO
Glantz	Michael	CCB		SERE	Affiliate Professor	Bard College, Center for Environmental Policy	Annandale-On-Hudson	NY
Gochis	David	HAP		RAL	Kazungu Maitaria	U. Arizona	Tucson	AZ
Gochis	David	HAP		RAL	Edgar Uribe	U. Arizona	Tucson	AZ
Goodrich	Kent	AAP		RAL	Mathematics Professor	University of Colorado	Boulder	CO
Grabowski	Wojciech W.	MMM		ESSL	Adjunct Professor of Mechanical Engineering	University of Delaware	Newark	Delaware
Grabowski	Wojciech W.	MMM		ESSL	Faculty Affiliate	Colorado State University	Ft. Collins	CO
Hagan	Maura	HAO		ESSL	Affiliate Faculty Member	Colorado State University	Fort Collins	CO
Harriss	Robert	ISSE		SERE	Adjunct Professor	Texas A&M University, Dept. of Marine Sciences	Galveston	TX
Harriss	Robert	ISSE		SERE	Adjunct Professor	University of Colorado, College of Architecture and Planning	Boulder	CO
Heymsfield	Andrew J.	MMM		ESSL	Affiliate	University of Wisconsin-Madison	Madison	WI
Holland	Lacey	WSAP		RAL	Adjunct Faculty - Dept. of Earth and Atmos. Sci.	Metropolitan State College	Denver	CO
Kasahara	Akira	CGD		ESSL	Visiting Professor	Tohoku University	Sendai	Japan
Knight	Charles A.	MMM		ESSL	Adjunct Professor	University of Wyoming	Laramie	WY
Knight	Charles A.	MMM		ESSL	Adjunct Professor	Colorado State University	Ft. Collins	CO
Kuo	Ying-Hwa	MMM		ESSL	Adjunct Professor	National Central University, Taiwan	Jhongli City	Taiwan
Kuo	Ying-Hwa	MMM		ESSL	Adjunct professor	University of Hawaii	Hawaii	USA

Latham	John	MMM	ESSL	Emeritus Professor	University of Manchester Institute of Science & Technology	Manchester		United Kingdom
Latham	John	MMM	ESSL	Visiting Professor	University of Leeds, UK	Leeds		United Kingdom
Latham	John	MMM	ESSL	CIMMS Fellow	University of Oklahoma	Norman	OK	USA
Latham	John	MMM	ESSL	Adjunct Professor	Texas A & M University	College Station	TX	USA
Latham	John	ASP	SERE	Emeritus Professor	University of Manchester	Manchester		UK
Latham	John	ASP	SERE	Visiting Professor	University of Leeds	Leeds		UK
Latham	John	ASP	SERE	CIMMS Fellow	University of Oklahoma	Norman	OK	
Latham	John	ASP	SERE	Adjunct Professor	Texas A & M University	College Station	TX	
LeMone	Margaret A.	MMM	ESSL	Adjunct	University of Wyoming	Laramie	WY	USA
LeMone	Margaret A.	MMM	ESSL	Affiliate	Colorado State University	Ft. Collins	CO	USA
LeMone	Margaret A.	MMM	ESSL	Adjunct	University of Colorado	Boulder	CO	USA
Liu	Han-Li	HAO	ESSL	Faulty Affiliate	Colorado State University	Fort Collins	CO	USA
Liu	Han-Li	HAO	ESSL	Visiting Professor	Chinese Acadey of Sciences	Beijing		China
MacGregor	Keith	HAO	ESSL	Lecturer	University of Colorado	Boulder	CO	USA
Mearns	Linda	ISSE	SERE	Graduate Faculty Member	University of Nebraska, Dept. of Agricultural Meteorology	Lincoln	NE	USA
Moeng	Chin-Hoh	MMM	ESSL	Affiliate	Colorado State University	Ft. Collins	CO	USA
Nychka	Doug	IMAGe	CISL	Faculty Affiliate	Colorado State University	Fort Collins	CO	USA
Nychka	Doug	IMAGe	CISL	Faculty Affiliate	University of Colorado	Boulder	CO	USA
Nychka	Doug	IMAGe	CISL	Faculty Affiliate	University of Colorado	Denver	CO	USA
Nychka	Doug	IMAGe	CISL	Faculty Affiliate	North Carolina State University	Raleigh	NC	USA
Pocernich	Matthew	WSAP	RAL	Instructor	Metropolitan Stae College	Denver	CO	USA
Poulos	Greg	EOL	EOL	Adjunct Faculty	University of Utah	Salt Lake City	UT	USA
Poulos	Greg	EOL	EOL	Adjunct Faculty	University of Colorado	Boulder	Co	USA
Rosenbloom	Nan	CGD	ESSL	Instructor	Univ Northern Colorado	Denver	CO	USA
Rotunno	Richard	MMM	ESSL	Adjunct Professor	North Carolina State University	Raleigh	NC	USA
Saravanan	Ramalingam	CGD	ESSL	Visiting Professor	Texas A & M University	College Station	Texas	USA
Snyder	Chris M.	MMM	ESSL	Adjunct Professor	Texas A & M University	College Station	TX	USA
Sullivan	Peter P.	MMM	ESSL	Affiliate	Colorado State University	Ft. Collins	CO	USA

Sullivan	Peter P.	MMM	ESSL	Affiliate	Colorado State University	Ft. Collins	CO	USA
Tie	Xuexi	ACD	ESSL	Guest Professor	Peking University	Beijing		China
Tie	Xuexi	ACD	ESSL	Adjunct Professor	Texas A&M	College Station	TX	USA
Tie	Xuexi	ACD	ESSL	Guest Scientist	Institute of Atmospheric Physics, Chinese Academy of Sciences	Beijing		China
Tufo	Henry	SCD	CISL	Associate Professor	University of Colorado	Boulder	CO	USA
Warner	Thomas	NSAP	RAL	Research Professor	University of Colorado	Boulder	CO	USA
Weisman	Morris L.	MMM	ESSL	Affiliate	Colorado State University	Ft. Collins	CO	USA
Weisman	Morris L.	MMM	ESSL	Adjunct Professor	State University of New York at Albany	Albany	NY	USA
Weisman	Morris L.	MMM	ESSL	Adjunct Professor	Florida State University	Tallahassee	FL	USA
Wiltberger	Michael	HAO	ESSL	Instructor	Boston University CISM Space Weather Summer School	Boston	MA	USA

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#### 1.B. Advising on Graduate Research (54)

Employee Last Name	First Name	Division/Institute	Laboratory	Student Name	Institution	City	State	Country
Ammann	Casper	CGD	ESSL	James Bradbury	University of Massachusetts	Amherst	MA	USA
Ammann	Casper	CGD	ESSL	Deborah Battista	University of Colorado	Boulder	CO	USA
Anderson	Jeffrey	IMAGe	CISL	Natalie Holloway	University of Colorado	Boulder	CO	USA
Anderson	Jeffrey	IMAGe	CISL	Shree Khare	Princeton University	Princeton	NJ	USA
Branstator	Grant	CGD	ESSL	Wan-Ru Huang	Iowa State University	Ames	IA	USA
Brown	Time	HAO	ESSL	Creevey, Orlagh	University of La Laguna/Instituto de Astrofisica de Canarias	La Laguna, Tenerife		Spain
Collins	William	CGD	ESSL	David Fillmore	University of Colorado	Boulder	CO	USA
Deser	Clara	CGD	ESSL	Rei Ueyama	University of Washington	Seattle	WA	USA
Emoons	Louisa	ACD	ESSL	Park, Key Hong	SUNY - Stony Brook	Stony Brook	NY	USA
Field	Paul	MMM	ESSL	Chris Westbrook	University of Warwick	Coventry		United Kingdom
Fried	Alan	EOL	EOL	Sherri Heck	University of Colorado	Boulder	CO	USA
Gettelman	Andrew	CGD	ESSL	Erin Burke	University of Washington	Seattle	WA	USA
Gille	John	ACD	ESSL	Hoffman, Odele	Univ. Colorado	Boulder	CO	USA
Gochis	David	HAP	RAL	Kazungu Maitaria	University of Arizona	Tucson	AZ	USA

Gochis	David	HAP	RAL	Edgar Uribe	University of Arizona	Tucson	AZ	USA
Grabowski	Wojciech	MMM	ESSL	Piotr Rasinski	Warsaw University	Warsaw		Poland
Guenther	Alex	ACD	ESSL	Madronich, Monica	Univ. Colorado	Boulder	CO	USA
Hacker	Josh	NSAP	RAL	Doug McCollor	Univ of British Columbia	Vancouver	BC	Canada
Hahmann	Andrea	NSAP	RAL	Ana L. Mosor	Uiniversity of Arizona	Tucson	AZ	USA
Heymsfield	Andrew	MMM	ESSL	Paul Connoly	University of Manchester	Manchester		United Kingdom
Heymsfield	Andrew	MMM	ESSL	Brian Kahn	University of California, Los Angeles	Los Angeles	CA	USA
Holland	Marika	CGD	ESSL	Joel Finniss	University of Colorado	Boulder	CO	USA
Holzer	Tom	HAO	ESSL	Gilber, Holly	University of Oslo	Oslo		Norway
Jochum	Markus	CGD	ESSL	Hyodae Seo	Scripps Institute of Oceanography	San Diego	CA	USA
Karl	Thomas	ACD	ESSL	Rizzo, Luciana	Univ. Sao Paolo	Sao Paolo		Brazil
Karl	Thomas	ACD	ESSL	Jardine, Kolby	SUNY - Stony Brook	Stony Brook	NY	USA
Laing	Arlene	MMM	ESSL	Laura Zamboni	University of Bologna	Bologna		Italy
Laing	Arlene	MMM	ESSL	Marc Byme	University of South Flordia	St. Petersburg	FL	USA
Lamarque	Jean-Francois	ACD	ESSL	Laepple, Thomas	Univ. Heidelberg			Germany
Latham	John	MMM	ESSL	Wiebke Deierling	University of Alabama	Huntsville	AL	USA
Latham	John	ASP	SERE	Weibke Deiring	University of Alabama	Huntsville	AL	
Liu	Changhai	MMM	ESSL	Aijuan Bai	Institute of Earth Environment Chinese Academy of Science	Beijing		China
Madronich	Sasha	ACD	ESSL	Dzepina, Katja	Univ. Colorado	Boulder	CO	USA
Moser	Susanne	ISSE	SERE	John Tribbia	University of Colorado	Boulder	CO	USA
Nychka	Doug	IMAGe	CISL	Eric Gilleland	Colorado State University	Fort Collins	CO	USA
Nychka	Doug	IMAGe	CISL	Dan Cooley	University of Colorado	Boulder	CO	USA
Poulos	Greg	EOL	EOL	Stephan DeWekker (ASP post-doc)	NCAR	Boulder	Co	USA
Randel	William	ACD	ESSL	Huck, Petra	University of Canterbury	Christchurch		NZ
Rast	Mark	HAO	ESSL	Criscuoli, Serena	Universita di Roma	Rome		Italy
Richmond	Arthur	HAO	ESSL	Lin, Chien-Hung	National Central University	Chung-Li		Taiwan
Richmond	Arthur	HAO	ESSL	Kwak, Young-Sil	Kyungpook National University	Daegu		South Korea
Sassi	Fabrizio	CGD	ESSL	Irene Cionni	University of L'Aquila	L'Aquila		Italy
Sharman	Bob	AAP	RAL	Jennifer Abernathy	CU	Boulder	CO	USA
Smith	James	ACD	ESSL	Dunn, Matthew	Univ. Colorado	Boulder	CO	USA
Smith	James	ACD	ESSL	Lance, Sara	Georiga Tech	Atlanta	GA	USA

Smolarkiewicz	Piotr	MMM	ESSL	Nils Wedi	European Centre for Medium Range Weather Forecasting	Reading		United Kingdom
Socas- Navarro	Hector	HAO	ESSL	Pietarila, Anna	UAO	Boulder	CO	USA
Solomon	Stanley	HAO	ESSL	Semenov, Alexy	St. Petersburg University	St. Petersburg		Russia
Solomon	Stanley	HAO	ESSL	Qian, Liying	Pennsylvania State University	State College	PA	USA
St-Cyr	Amik	SCD	CISL	Lewis Holly Kay	Colorado School of Mines	Golden	CO	USA
Sullivan	Peter	MMM	ESSL	Jaeyong Chung	Colorado State University	Ft. Collins	CO	USA
Warner	Thomas	NSAP	RAL	Benjamin Lampte	Pennsylvania State U.	University Park	PA	USA
Wiedinmyer	Christine	ACD	ESSL	Sakulyanontvittaya, Tanarit	Univ. Colorado	Boulder	CO	USA
Wiltberger	Michael	HAO	ESSL	Claudepierre, Seth	University of Colorado	Boulder	CO	USA

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### 1.C. Member of Thesis Committee (79)

Employee Last Name	First Name	Division/Institute	Laboratory	Student Name	Institution	City	State	Country
Ammann	Caspar	CGD	ESSL	ChaoChao Gao	Rutgers University	New Brunswick	NJ	USA
Branstator	Grant	CGD	ESSL	Wan-Ru Huang	Iowa State University	Ames	IA	USA
Brown	Tim	HAO	ESSL	Sobrino, Roi Alsonso	University of La Lagune/Instituto de Astrofisica de Canarias	La Laguna, Tenerife		Spain
Chen	Fei	HAP	RAL	Ethan Gutmann	University of Colorado	Boulder	CO	USA
Chen	Fei	HAP	RAL	Jeff Fung Lo	Hong Kong University of Science and Technology	Taipei		Taiwan
Collins	William	CGD	ESSL	David Fillmore	University of Colorado	Boulder	CO	USA
Collins	William	CGD	ESSL	Lansing Madry	University of Colorado	Boulder	CO	USA
Davis	Christopher A.	MMM	ESSL	J. Marc Hidalgo	Colorado State University	Ft. Collins	CO	USA
Davis	Christopher A.	MMM	ESSL	Ellie Meng	Texas A & M University	College Station	TX	USA
Davis	Christopher A.	MMM	ESSL	Kate Musgrave	Colorado State University	Ft. Collins	CO	USA
Deser	Clara	CGD	ESSL	Laura Ciasto	Colorado State University	Fort Collins	CO	USA
Dye	James E.	MMM	ESSL	Wiebke Deierling	University of Alabama in Huntsville	Huntsville	AL	USA
Fasullo	John	CGD	ESSL	S.K. Hasibus Rahman	Gujarat University	Ahmedabad		India
Flyer	Natasha	SCD	CISL	Julia Zuev	University of Colorado	Boulder	CO	USA
Flyer	Natasha	SCD	CISL	Susan Hovde	University of Colorado	Boulder	CO	USA

Flyer	Natasha	SCD	CISL	Cecile Piret	University of Colorado	Boulder	CO	USA
Frehlich	Rod	AAP	RAL	Jennifer Abernathy	University of Colorado	Boulder	CO	USA
Garcia	Rolando	ACD	ESSL	Calvo, Natalia	Universidad Complutense de Madrid	Madrid		Spain
Gille	John	ACD	ESSL	Hoffman, Odele	Univ. Colorado	Boulder	CO	USA
Gilman	Peter	HAO	ESSL	Browning, Matthew	University of Colorado	Boulder	CO	USA
Grabowski	Wojciech W.	MMM	ESSL	Yan Xue	University of Delaware	Newark	DE	USA
Grabowski	Wojciech W.	MMM	ESSL	Wang Hailong	University of Illinois at Urbana-Champaign	Champaign	IL	USA
Guenther	Alex	ACD	ESSL	Madronich, Monica	Univ. Colorado	Boulder	CO	USA
Guenther	Alex	ACD	ESSL	Sakulyanontvittaya, Tanarit	Univ. Colorado	Boulder	CO	USA
Guenther	Alex	ACD	ESSL	Ortega, John	Univ. Colorado	Boulder	CO	USA
Guenther	Alex	ACD	ESSL	Jardine, Kolby	SUNY - Stony Brook	Stony Brook	NY	USA
Guenther	Alex	ACD	ESSL	Chen, Jack	Washington State U.	Pullman	WA	USA
Hack	James	CGD	ESSL	Jingbo Wu	Stony Brook University	Stony Brook	NY	USA
Hack	James	CGD	ESSL	Stefan Muszala	University of Colorado	Boulder	CO	USA
Hacker	Josh	NSAP	RAL	Doug McCollor	Univ of British Columbia	Vancouver	BC	Canada
Heymsfield	Andrew J.	MMM	ESSL	Gannett Hollar	University of Colorado	Boulder	CO	USA
Katz	Richard	ISSE	SERE	Dan Cooley	University of Colorado	Boulder	CO	USA
Kiehl	Jeffrey	CGD	ESSL	Cindy Shellito	University of California	Santa Cruz	CA	USA
Lamarque	Jean-Francois	ACD	ESSL	MIchou, Martine	Univ. Toulouse			France
Latham	John	MMM	ESSL	Wiebke Deierling	University of Alabama in Huntsville	Huntsville	AL	USA
Latham	John	ASP	SERE	Weibke Deiring	University of Alabama	Huntsville	AL	
Lazo	Jeffrey	ISSE	SERE	Peter Larsen	Cornell University	Ithaca	NY	USA
LeMone	Margaret A.	MMM	ESSL	Diane Strassburg	University of Colorado	Boulder	CO	USA
LeMone	Margaret A.	MMM	ESSL	Qun Miao	University of Wyoming	Laramie	WY	USA
Lenschow	Donald H.	MMM	ESSL	Robert Tardiff	University of Colorado	Boulder	CO	USA
Lenschow	Donald H.	MMM	ESSL	David Leon	University of Wyoming	Laramie	WY	USA
Liu	Han-Li	HAO	ESSL	Li, Tao	Colorado State University	Fort Collins	CO	USA
Liu	Han-Li	HAO	ESSL	Bhattacharya, Yajnavalkya	York University	Toronto	Ontario	Canada
Madden	Roland	CGD	ESSL	James Benedict	Colorado State University	Fort Collins	CO	USA
					University of CA	Santa		

Mahowald	Natalie	CGD	ESSL	Masaru Yoshioka	at Santa Barbara	Barbara	CA	USA
Mahowald	Natalie	CGD	ESSL	Toby Westbury	University of CA at Santa Barbara	Santa Barbara	CA	USA
Mahowald	Natalie	CGD	ESSL	David Fillmore	University of Colorado	Boulder	CO	USA
Miesch	Mark	HAO	ESSL	Browning, Matthew	University of Colorado	Boulder	CO	USA
Moeng	Chin-Hoh	MMM	ESSL	L.-Y. Lin	National Central University, Taiwan	Jhongli City		Taiwan
Moeng	Chin-Hoh	MMM	ESSL	L.-P. Hong	National Central University, Taiwan	Jhongli City		Taiwan
Nychka	Doug	IMAGe	CISL	Cari Kaufman	Carnegie Mellon University	Pittsburgh	PA	USA
Nychka	Doug	IMAGe	CISL	Kristen Foley	North Carolina State University	Raleigh	NC	USA
Poulos	Greg	EOL	EOL	Justin Cox	University of Utah	Salt Lake City	UT	USA
Richmond	Arthur	HAO	ESSL	Lin, Chien-Hung	National Central University	Chung-Li		Taiwan
Richmond	Arthur	HAO	ESSL	Kwak, Young-Sil	Kyungpook National University	Daegu		South Korea
Rotunno	Richard	MMM	ESSL	Heather Reeves	North Carolina State University	Raleigh	NC	USA
Saravanan	Ramalingam	CGD	ESSL	Li Zhang	Texas A & M University	College Station	TX	USA
Sharman	Bob	AAP	RAL	Jennifer Abernathy	University of Colorado			
Smith	Anne	ACD	ESSL	Cierpik, Kim	Univ. Colorado	Boulder	CO	USA
Smith	James	ACD	ESSL	Dunn, Matthew	Univ. Colorado	Boulder	CO	USA
Smith	James	ACD	ESSL	Lance, Sara	Georiga Tech	Atlanta	GA	USA
Snyder	Chris M.	MMM	ESSL	Altug Aksoy	Texas A & M University	College Station	TX	USA
Snyder	Chris M.	MMM	ESSL	Ryan Torn	University of Washington			
Snyder	Chris M.	MMM	ESSL	Glen Romine	University of Illinois at Urbana- Champaign	Champaign	IL	USA
Stith	Jeffrey	EOL	EOL	Rick R. Damiani	University of Wyomin	Laramie	WY	USA
Sullivan	Peter P.	MMM	ESSL	Jaeyoung Chung	Colorado State University	Ft. Collins	CO	USA
Sun	Juanzhen	MMM	ESSL	Tian-feng Chai	University of Iowa	Ames	IA	USA
Tie	Xuexi	ACD	ESSL	Li, G.H.	Univ. Texas A&M	College Station	TX	USA
Tie	Xuexi	ACD	ESSL	Li, Peng	Beijing University	Beijing		China
Tie	Xuexi	ACD	ESSL	Fan, J.W.	Univ. Texas A&M	College Station	TX	USA
Warner	Thomas	NSAP	RAL	Jamie Wolff	U. of Colorado	Boulder	CO	USA
Warner	Thomas	NSAP	RAL	Thomas Hopson	U. of Colorado	Boulder	CO	USA
Warner	Thomas	NSAP	RAL	Mark Seefeldt	U. of Colorado	Boulder	CO	USA
Warner	Thomas	NSAP	RAL	Christian Sutton	U. of Colorado	Boulder	CO	USA
Weisman	Morris L.	MMM	ESSL	Alicia Wasula	State University of New York at	Albany	NY	USA

Weisman	Morris L.	MMM	ESSL	Tom Galarneau	Albany State University of New York at Albany	Albany	NY	USA
Weisman	Morris L.	MMM	ESSL	Paul Quelet	Colorado State University	Ft. Collins	CO	USA
Wigley	Tom	CGD	ESSL	Angela Pignotti	University of California, Santa Cruz			
Wu	Wanli	CGD	ESSL	Chuanli Du	Chinese Academy of Sciences	Xi'an		China

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## 2. Staff Appointments to NCAR

2.A. Postdoctoral Fellowships (52)								
Last Name	First Name	Division/Institute	Laboratory	NCAR Host	Institution	City	State	Country
Ahn	Kwang-Deuk	MMM	ESSL	Dale Barker	Korean Meteorological Administration	Seoul		Korea
Alexandros	Alexandros	ASP	SERE	GTP	University of Chicago	Chicago	IL	
Beres	Jadwiga	ASP	SERE	HAO/CGD/ACD	University of Washington	Seattle	WA	
Berner	Judith	ASP	SERE	CGD	University of Bonn	Bonn		Germany
Bin	Shui	ASP	SERE	ISSE	Carnegie Mellon University	Pittsburg	PA	
Boy	Michael	ASP	SERE	ACD	University of Helsinki	Helsinki		Finland
Bryan	George	ASP	SERE	MMM	Pennsylvania State University	University Park	PA	
Butcher	Kirsten	ASP	SERE	DLESE	University of Colorado	Boulder	CO	
Cai	Huaqing	ASP	SERE	ATD	Desert Research Institute	Reno	NV	
Chen	Yongsheng	MMM	ESSL	Chris Snyder	McGill University	Montreal		Canada
DeWekker	Stephan	ASP	SERE	CGD	Pacific Northwest Laboratory	Richland	WA	
Done	James	MMM	ESSL	Christopher Davis	University of Reading	Reading		UK
Drignei	Dorin	IMAGe	CISL	Doug Nychka	Iowa State University	Ames	IA	USA
Furrer	Eva	IMAGe	CISL	Doug Nychka	Ecole Polytechnique Federale de Lausanne	Lausanne		Switzerland
Furrer	Reinhard	IMAGe	CISL	Doug Nychka	Ecole Polytechnique Federale de Lausanne	Lausanne		Switzerland
Jablonowski	Christiane	ASP	SERE	SCD	University of Michigan	Ann Arbor	MI	
Jee	Geonhwa	HAO	ESSL	HAO	Utah State	Logan	UT	USA
Johnson	Ben	ASP	SERE	CGD	University of Reading	Reading		UK
Johnson	Christine	ASP	SERE	CGD	University of Reading	Reading		UK
Kavanagh	Andrew	HAO	ESSL	HAO	Lancaster University	Lancaster		United Kingdom
Kazil	Jan	ASP	SERE	HAO	University of Bern	Bern		Switzerland

Khare	Shree	IMAGe	CISL	Doug Nychka	Princeton University	Princeton	NJ	USA
Khoo	Michael	ASP	SERE	DLESE	University of Colorado	Boulder	CO	
Kirshbaum	Daniel	ASP	SERE	MMM	University of Washington	Seattle	WA	
Kwon	Young-Oh	CGD	ESSL	Clara Deser	University of Washington	Seattle	WA	USA
Lampertey	Benjamin	HAP	RAL	Tom Warner/David Gochis	Pennsylvania State University	University Park	PA	USA
Lei	Jiuhou	ASP	SERE	HAO	Chinese Academy of Sciences	Beijing		China
Malmberg	Anders	IMAGe	CISL	Doug Nychka	Lund University	Lund		Sweden
Manso-Sainz	Rafael	ASP	SERE	HAO	University of La Laguna	La Laguna		Spain
Maryuama	Naomi	HAO	ESSL	HAO	Tohoku University	Taiwan		Japan
Mason	Joanne	HAO	ESSL	HAO	University of Leeds	Leeds		United Kingdom
Matsunaga	Sou	ASP	SERE	ACD	Hokkaido University	Sapporo		Japan
Matsuo	Tomoko	IMAGe	CISL	Doug Nychka	State University of New York	Stony Brook	NY	USA
Matthes	Katja	ACD	ESSL	Garcia	Free University Berlin	Berlin		Germany
Merkel	Aimee	ACD	ESSL	Garcia	University of Colorado	Boulder	CO	USA
Metcalfe	Travis	HAO	ESSL	NSF	Harvard	Cambridge MA		USA
Mininni	Pablo	IMAGe	CISL	Annick Pouquet	University of Buenos Aires	Buenos Aires		Argentina
Morrison	Hugh	ASP	SERE	MMM	University of Colorado	Boulder	CO	
Ortiz-Carbonell	Ada	ASP	SERE	HAO	Universitat de Barcelona	Barcelona		Spain
Park	Mijeong	ACD	ESSL	Garcia	Seoul National University	Seoul		South Korea
Park	Sungsu	ASP	SERE	CGD	University of Washington	Seattle	WA	
Peter	Justin	ASP	SERE	ATD	Monash University	Melbourne		Australia
Petrie	Gordon	HAO	ESSL	HAO/SCD	University of Athens	Athens		Greece
Petron	Gabrielle	ASP	SERE	ACD	Univ. Paris VI	Paris		France
Pfister	Gabriele	ASP	SERE	ACD	University of Graz	Graz		Austria
Salabert	David	HAO	ESSL	HAO	University of Nice	Nice		France
Seifert	Axel	ASP	SERE	MMM/RAL	University of Karlsruhe	Karlsruhe		Germany
Shell	Karen	ASP	SERE	CGD	University of California	San Diego	CA	
Sukhatme	Jai	ASP	SERE	GTP	University of Chicago	Chicago	IL	
VanReken	Tim	ASP	SERE	ACD	Caltech	Pasadena	CA	
Weibring	Petter	EOL	EOL	Alan Fried	Lund Institute	Lund		Sweden
Woodfield (Kavanagh)	Emma	ASP	SERE	HAO	University of Leicester	Leicester		UK

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## 2.B. Graduate Research Assistants (27)

Last Name	First Name	Division/Institute	Laboratory	NCAR Host	Institution	City	State	Country
Abernathy	Jennifer	AAP	RAL	Bob Sharman	University of Colorado	Boulder	CO	USA

Bocque	Florence	ACD	ESSL	Lee-Taylor	University of Colorado	Boulder	CO	USA
Chen	Jack	ACD	ESSL	Wiedinmyer	Washington State University	Pullman	WA	USA
Cotter	Andrew	AAP	RAL	John Williams	University of Colorado	Boulder	CO	USA
Creevey	Orlagh	HAO	ESSL	HAO	University of La Laguna	Tenerife		Spain
Criscuoli	Serena	HAO	ESSL	HAO	University of Rome	Rome		Italy
Duhl	Tiffany	ACD	ESSL	Guenther	University of Colorado	Boulder	CO	USA
Feilberg	Karen	ACD	ESSL	Orlando/Tyndall	University of Copenhagen	Copenhagen		Denmark
Fillmore	David	CGD	ESSL	William Collins	University of Colorado	Boulder	CO	USA
Foster	David	HAO	ESSL	HAO	University of Colorado	Boulder	CO	USA
Huck	Petra	ACD	ESSL	Randel	University of Canterbury	Christchurch		New Zealand
Kim	Sae Wung	ACD	ESSL	Flocke	Georgia Institute of Technology	Atlanta	GA	USA
Krewson	Kay	ACD	ESSL	Guenther	University of Miami	Miami	FL	
Laepple	Thomas	ACD	ESSL	Madronich	Max-Planck-Institut fuer Meterologie	Hamburg		Germany
Larsen	Peter	SIP	RAL	Jeff Lazo	Cornell University	New York	NY	USA
Lida	Ken	ACD	ESSL	Smith, J.	University of Minnesota	Minneapolis	MN	USA
Lin	Charles	HAO	ESSL	HAO	National Central University	Taiwan		Japan
Madronich	Monica	ACD	ESSL	Guenther	University of Colorado	Boulder	CO	USA
Ortega	John	ACD	ESSL		University of Colorado	Boulder	CO	USA
Park	Key Hong	ACD	ESSL	Emmons	State University of New York	Stony Brook	NY	USA
Perring	Anne	ACD	ESSL	Flocke	University of California	Berkeley	CA	USA
Piatarila Graham	Jonathan	IMAGe	CISL	Annick Pouquet	University of Colorado	Boulder	CO	USA
Pietarila	Anna	HAO	ESSL	HAO	University of Oslo	Oslo		Norway
Semenov	Alexey	HAO	ESSL	HAO	St. Petersburg State University	St. Petersburg		Russia
Shaw	Cynthia Ann	ACD	ESSL	Kinnison	University of Colorado	Boulder	CO	USA
Tardif	Robert	AAP	RAL	Paul Herzegh	University of Quebec	Chicoutami		Canada
Vanchindorj	Ulzisiaikhan	ACD	ESSL	Guenther	University of Colorado	Boulder	CO	USA

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### 2.C. Graduate Students (29)

Last Name	First Name	Division/Institute	Laboratory	NCAR Host	Institution	City	State	Country
Acuff	Kaylee	ACD	ESSL	Barth	Unaffiliated			USA
Andre	Benjamin	ACD	ESSL	Guenther	I.U.T. Louis Pasteur	Strasbourg		France
Bang	Cheolhan	MMM	ESSL	Jimy Dudhia	Yonsei University	Seoul		Korea
Besson	Pierre	ACD	ESSL	Guenther	IUT Louis Pasteur	Strasbourg		France

Bir	Timsy	ACD	ESSL	Guenther	University of Colorado	Boulder	CO	USA
Blazer	Cherelle	ACD	ESSL	Tyndall	Unaffiliated			USA
Chen	Shu-ya	MMM	ESSL	Bill Kuo	Natioinal Central University of Taiwan	Taiwan		China
Cope	Jason	SCD	CISL	Henry Tufo	University of Colorado	Boulder	CO	USA
Denu	Thomas	ACD	ESSL	Apel	I.U.T. Louis Pasteur	Strasbourg		France
Dunn	Matt	ASP	SERE	ACD	University of Colorado	Boulder	CO	
Dzepina	Katja	ASP	SERE	ACD	University of Colorado	Boulder	CO	
Graham	Jonathan	ASP	SERE	GTP	University of Colorado	Boulder	CO	
Grim	Joseph	MMM	ESSL	Christopher Davis	University of Illinois, Urbana	Urbana	IL	USA
Jimenez	Pedro	MMM	ESSL	Jimy Dudhia	Universidad de Murcia	Murcia		Spain
Kim	Ju Hye	MMM	ESSL	Jimy Dudhia	Yonsei University	Seoul		Korea
Kumar	Anil	MMM	ESSL	Joseph Klemp	University of Pune	Pune		India
Lance	Sara	ASP	SERE	ACD	Georgia Institute of Technology	Atlanta	GA	
Lee	Ed	SCD	CISL	Rich Loft	Columbia University	New York	NY	USA
Levy	Michael	SCD	CISL	Henry Tufo	University of Colorado	Boulder	CO	USA
Lin	Mei-Ying	MMM	ESSL	Chin-Hoh Moeng	Natioinal Central University of Taiwan	Taiwan		China
Morino	Yu	ACD	ESSL	Madronich, Tie	University of Tokyo	Tokyo		Japan
Nixon	Scott	SCD	CISL	Michael Burek	University of Colorado	Boulder	CO	USA
Oberg	Michael	SCD	CISL	George Fuentes	University of Colorado	Boulder	CO	USA
Park	Seon Joo	MMM	ESSL	Jimy Dudhia	Yonsei University	Seoul		Korea
Remmel	Mark	MMM	ESSL	Richard Rotunno	University of Wisconsin- Madison	Madison	WI	USA
Rizzo	Luciana	ACD	ESSL	Guenther	University of Sao Paulo	Sao Paulo		Brazil
Seifert	Patric	MMM	ESSL	Andrew Heymsfield	Institute for Tropospheric Research	Leipzig		Germany
Southwick	Kendall	NSAP	RAL	Stephen Dowdy	Univ. of Colorado	Boulder	CO	USA
Woitaszek	Matthew	SCD	CISL	Henry Tufo	University of Colorado	Boulder	CO	USA

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## 2.D. Undergraduate Students/Science Assistants (23)

Last Name	First Name	Division/Institute	Laboratory	NCAR Host	Institution	City	State	Country
Bar-or	Omer	AAP	RAL	Rod Frehlich	Colorado College	Boulder	CO	USA
Benjamin	Christopher	WSAP	RAL	Jamie Braid	University of Colorado	Boulder	CO	USA
Boylan	Patrick	WSAP	RAL	Jamie Braid	University of Colorado	Boulder	CO	USA
Brecht	Tom	HAO	ESSL	HAO	University of Colorado	Boulder	CO	USA
Cavanaugh	Liam	CCB	SERE	Michael Glantz	University of Colorado	Boulder	CO	USA
Cavanaugh	Liam	MMM	ESSL	Rebecca Morss	University of Colorado	Boulder	CO	USA
Connors	Megan	ISSE	SERE	Olga Wilhelmi	University of Colorado	Boulder	CO	USA
Edmondson	Justin	HAO	ESSL	HAO	University of Michigan	Ann Arbor	MI	USA
Fielder	Todd	HAO	ESSL	HAO	University of Colorado	Boulder	CO	USA
Hack	Chris	HAO	ESSL	HAO	University of Colorado	Boulder	CO	USA
Holladay	Scott	ISSE	SERE	Kathleen Miller	University of Colorado	Boulder	CO	USA
Laidlaw	Emily	ISSE	SERE	Jeffrey Lazo	University of Colorado	Boulder	CO	USA
Makar	Laura	ISSE	SERE	Kathleen Miller	University of Colorado	Boulder	CO	USA

Phillips	Cody	AAP	RAL	Scott Landolt	U. of Northern Colorado	Greeley	CO	USA
Roesch	Conrad	ISSE	SERE	Kathleen Miller	University of Colorado	Boulder	CO	USA
Schmit	Donald	HAO	ESSL	HAO	Boston University	Boston	MS	USA
Simard	Jennifer	AAP	RAL	Scott Landolt	Metropolitan State College	Denver	CO	USA
St. Jean	Cedric	HAO	ESSL	HAO	University of Montreal	Montreal	Quebec	Canada
Strassberg	Diane	MMM	ESSL	Peggy LeMone	University of Colorado	Boulder	CO	USA
Tollerud	Jonathan	WSAP	RAL	Jamie Braid	University of Puget Sound	Tacoma	WA	USA
Tribbia	John	ISSE	SERE	Susanne Moser	University of Colorado	Boulder	CO	USA
Udelhofen	Eric	CCB	SERE	Michael Glantz	Carleton College	Northfield	MN	USA
Xu	Weibin	HAO	ESSL	HAO	University of Colorado	Boulder	CO	USA

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#### 2.E. Other Undergraduate Students (non-science) (16)

Last Name	First Name	Division/Institute	Laboratory	NCAR Host	Institution	City	State	Country
Avila	Tomas	EOL	EOL	Shane Mayor	NCAR/EOL	Boulder	CO	USA
Bettge	Sara	WSAP	RAL	Kim Webster	University of Colorado	Boulder	CO	USA
Brucker	Liam	CSC	RAL	Deirdre Garvey	University of Colorado	Boulder	CO	USA
Burek	Tatiana	SCD	CISL	Lana Soller	Front Range Community College	Westminster	CO	USA
Caldwell	Blake	SCD	CISL	Marla Meehl	University of Colorado	Boulder	CO	USA
Carmichael	Patrick	SCD	CISL	George Fuentes	University of Colorado	Boulder	CO	USA
Eret	Mark	AAP	RAL	Wes Wilson	University of Colorado	Boulder	CO	USA
Humphrey	James	SCD	CISL	Michael Burek	University of Colorado	Boulder	CO	USA
Li	Liya	IMAGe/SCD	CISL	John Clyne	Ohio State University	Columbus	OH	USA
Murray	Candice	SCD	CISL	Janice Kauvar	Red Rocks Community College	Lakewood	CO	USA
Pratt	Jacob	CSC	RAL	Deirdre Garvey	University of Colorado	Boulder	CO	USA
Richter	David	EOL	EOL	Steve Semmer	NCAR/EOL	Boulder	CO	USA
Tang	Matthew	EOL	EOL	Charlie Martin	NCAR/EOL	Boulder	CO	USA
Tribbia	John	SCD	CISL	Marla Meehl	University of Puget Sound			USA
Waukau	Eileen	SCD	CISL	Marla Meehl	Loyola Marymount University	Los Angeles	CA	USA
Zednik	Stephan	AAP	RAL	Marcia Politovich	University of Colorado	Boulder	CO	USA

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### 3. Other Educational Activities

3. A. SOARS Participation (30)								
Employee Last Name	First Name	Division/Institute	Laboratory	Activity	Institution	City	State	Country
Ammann	Caspar	CGD	ESSL	Rebecca Chan				
Barth	Mary	MMM/ACD	ESSL	Marco Orozco				
Bevirt	Brian	SCD	CISL	Alisha Fernandez	University of Colorado	Boulder	CO	USA

Buja	Lawrence	CGD	ESSL	Alisha Fernandez				
Butcher	Kirstin	SCD/ASP	CISL/SERE	Forbes	Shanna-Shaye			
Cross	Susan	SCD	CISL	Luna Rodriguez	University of Puerto Rico	Rio Piedras	PR	
Davis	Chris	MMM	ESSL	Amber Reynolds				
Ellis	Scott	EOL	EOL	Keith Goodman Advisor	NCAR/EOL	Boulder Co	USA	U.
Gochis	David	RAP	RAL	Bret Harper	Colorado/U. Cal. - Berkely	Boulder CO / Berkely CA	USA	
Golden	Mary`	MMM	ESSL	Braxton Edwards				
Harriss	Robert	ISSE	SERE	Bret Harper				
Holland	Lacey	WSAP	RAL	Nicole Ngo				
Horst	Tom	EOL	EOL	Olusegun Goyea Advisor	NCAR/EOL	Boulder Co	USA	
Kessinger	Cathy	AAP	RAL	Keith Goodman, Jr.				
Kuo	Bill	MMM/COSMIC	ESSL	Erick Adame				
Kuo	Bill	MMM/COSMIC	ESSL	Anthony Didlake				
LeMone	Margaret	MMM	ESSL		SOARS Advisory Committee			
Mahowald	Natalie	CGD	ESSL	research advisor				
Mearns	Linda	ISSE	SERE	Nicole Ngo				
Mearns	Linda	ISSE	SERE	Julien Wang				
Morrill	Carrie	CGD	ESSL	Melissa Burt				
Morss	Rebecca	MMM/ISSE	ESSL	Braxton Edwards				
Morss	Rebecca	ISSE	SERE	Braxton Edwards				
Rogers	Dave	EOL	EOL	Olusegan Goyea, Mentor	NCAR/EOL	Boulder Co	USA	
Smith	Lesley	CGD	ESSL	SOARS Mentor	NCAR	Boulder CO	USA	
Smith	James	ACD	ESSL	Prepared Research Project (although did not get to mentor a student on this project)	NCAR	Boulder CO	USA	
Trenberth	Kevin	CGD	ESSL	Member, SOARS Panel on Policy and Science	NCAR	Boulder CO	USA	
Wiedinmyer	Christine	ACD	ESSL	Writing Mentor	NCAR	Boulder CO	USA	
Wilhelmi	Olga	ISSE	SERE	Braxton Edwards				
Yin	Jeffrey	CGD	ESSL	Science Mentor	NCAR	Boulder CO	USA	

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### 3. B. K-12 Activities (34)

Employee Last Name	First Name	Division/Institute	Laboratory	Activity	Institution	City	State	Country
Burkepile	Joan	HAO	ESSL	presented space weather science and provided handouts to students/teachers at the NCAR Mesa Visualization Lab arranged through Tim Barnes (NCAR tours)	Mesa Elementary	Boulder	CO	USA
Burkepile	Joan	HAO	ESSL	Created 50 color handouts of the sun and 5 largest planets for Allendale Elementary School, Arvada through the visiting scientists program	Allendale Elementary School	Arvada	CO	USA

				(5900 Oak St. Arvada 80004 303 982-1165 teacher: Janet Yates 3rd grade class)				
Burkepile	Joan	HAO	ESSL	Gave a lecture on Space Weather and provided handouts to a 6th grade class at Prairie Middle School, near Cherry Creek in Denver (near Ifliff and Peoria) for Ms. Kelly Wahalen, teacher through Metro State College, Visiting Scientist Program  participated in NCAR Super Science Saturday	Prairie Middle School	Cherry Creek	CO	
Burkepile	Joan	HAO	ESSL	Teaching kids about magnets, Earth/Sun magnetic field, surface tension  "Science With Steve" presentations on a variety of topics once a week during Spring Semester. The final topic was human exploration of space. We ended up designing our own mission to Mars.	NCAR	Boulder	CO	
Carson	Steve	AAP	RAL		Rocky Mountain School for the Gifted	Boulder	CO	USA
Flocke	Frank	ACD	ESSL	Science projects judge  Applications of mathematics in climate and solar modeling" to the Adams High School (Denver) math club	Boulder Valley Public Schools	Boulder	CO	USA
Flyer	Natasha	SCD	CISL		Adams High School	Denver	CO	USA
Flyer	Natasha	SCD	CISL	Two lectures on the role of applied math in space and geophysical modeling at NCAR	Colorado High School Honors Institute, University of Colorado Boulder	Boulder	CO	USA
Fowler	Tressa	WSAP	RAL	Science Fair Judge	Kohl Elementary	Broomfield	CO	USA
Golden	Mary	MMM	ESSL	Volunteer Science Teacher	Crestview Elementary School, Boulder, CO	Boulder	CO	USA
Grubin	Rick	SCD	CISL	VisLab Presentation	Running River School	Boulder	CO	USA
Hacker	Josh	NSAP	RAL	Collaborate on CIRES outreach program: Weather Outside our Windows	Regional School Districts		CO	USA
Haggerty	Julie		EOL/RAL	Presentation on airborne measurements of the atmosphere  Wrote test for	Hulstrom Elementary School	Thornton	Colorado	USA

Holland	Lacey	AAP	RAL	Colorado Science Olympiad for Meteorology (middle school)	Regional School Districts		CO	USA
Katz	Richard	ISSE	SERE	Talk on climate statistics	Margaret Beeks Elementary School	Blacksburg	VA	USA
Kleypas	Joanie	ISSE	SERE	Presentation to 7th/8th Graders on the Carbon Cycle	Challenge School-Cherry Creek	Denver	CO	USA
Kleypas	Joanie	ISSE	SERE	Speaker at Sumatra Tsunami Benefit	Boulder High School	Boulder	CO	USA
Knievel	Jason	NSAP	RAL	Judged science fair	MORE	Boulder	CO	USA
				Snow Plow Art - Winter Weather Hazards. Worked with 6 Louisville, Colorado schools on a project that blended art and science. Students painted city snow plows to get a better appreciation for winter driving hazards	Fireside Elementary, Louisville Elementary, Coal Creek Elementary, Louisville Middle, Monarch K-8, Monarch High School	Louisville	Colorado USA	
McDaniel	Larry	ISSE	SERE	Organizer, "Father's Day Bubble Show"	NCAR	Boulder	CO	USA
McGinnis	Seth	ISSE	SERE	Fishbanks Educational Game demo	La Veta High School	La Veta	CO	USA
Megenhardt	Dan	AAP	RAL	Career day	Namaqua Elementary	Loveland	CO	USA
Megenhardt	Dan	AAP	RAL	Science Fair	Berthoud Elementary	Berthoud	CO	USA
Nychka	Doug	IMAGe	CISL	Presented a talk to the University Hill Elementary School 4th grade class	NCAR	Boulder	CO	USA
Nychka	Doug	IMAGe	CISL	Presentation given to high school students that were visiting the University of Colorado Applied Mathematics Dept.	NCAR	Boulder	CO	USA
Nychka	Doug	IMAGe	CISL	Presentation given to Adams County High School students	NCAR	Boulder	CO	USA
Siemsen	Pete	SCD	CISL	Presentation at Education Outreach Day	Breckenridge High School	Breckenridge CO	CO	USA
Siemsen	Pete	SCD	CISL	Participated in High School Engineering Jamboree	University of Colorado Boulder	Boulder	CO	USA
Wiedinmyer	Christine	ACD	ESSL	Regional Secondary Science Fair	Boulder Valley Public Schools	Boulder	CO	USA
Wildcat	Wes	SCD	CISL	Presentation to Upward Bound students	University of Colorado Boulder	Boulder	CO	USA
Wildcat	Wes	SCD	CISL	Presentation to the Society for the Advancement of Chicano and Native American Students (SACNAS)	SACNAS	Boulder	CO	USA
				Presentation on use				

Wilhelmi	Olga	ISSE	SERE	of GIS for research in weather, climate, and impacts	University of Colorado	Boulder	CO	USA
Williams	John	AAP	RAL	Volunteer tutor	Lakewood High School	Lakewood	CO	USA
Young	Kate	EOL	EOL	Girl Scout Day	NCAR	Boulder	CO	USA

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### 3.C. Other Activities (126)

Employee Last Name	First Name	Division/Institute	Laboratory	Activity	Institution	City	State	Country
Ammann	Caspar	CGD	ESSL	Interview/Contributor	NCAR - Climate Future Exhibit	Boulder	CO	USA
Ammann	Caspar	CGD	ESSL	Lecturer	COMET - Paleoclimate Module	Boulder		
Ammann	Caspar	CGD	ESSL	Lecturer	U.S. Senate Staff Briefing			
Ammann	Caspar	CGD	ESSL	Contributor	Realclimate.org			
Ammann	Caspar	CGD	ESSL	Lecturer	NCAR Education and Outreach - Teachers Guide and Lesson Plans on Assessment Initiative: Little Ice Age	Boulder	CO	USA
Ammann	Caspar	CGD	ESSL	Lecturer	UNIVISION Science Briefing on Climate Change			
Bradley	William	ACD	ESSL	Super Science Saturday Support	NCAR	Boulder	CO	USA
Carmichael	Bruce	AAP	RAL	Worked the NCAR/RAL booth and conferences/tradeshows	various			
Coen	Janice	MMM	ESSL	Exhibit at Wildland Fire 2005	Wildland Fire Collaboratory	Albuquerque	NM	USA
Collins	William	CGD	ESSL	Invited lecturer	Scripps Howard Institute on the Environment	Boulder	CO	USA
Collins	William	CGD	ESSL	Advisory Committee Member	NCAR Climate Futures Exhibit	Boulder	CO	USA
Collins	William	CGD	ESSL	Interview/Contributor	NCAR Climate Futures Exhibit	Boulder	CO	USA
Collins	William	CGD	ESSL	Interview/Contributor	CNN Climate Change Program	Boulder	CO	USA
Collins	William	CGD	ESSL	Interview/Contributor	HBO Climate Change Program	Boulder	CO	USA
Collins	Nancy	SCD	CISL	ESMF tutorial	NASA Stennis	Bay St. Louis	MS	USA
Collins	Nancy	SCD	CISL	ESMF tutorial	NCAR	Boulder	CO	USA
Collins	Nancy	SCD	CISL	ESMF tutorial	MIT	Cambridge	MA	USA
Comeaux	Joseph	SCD	CISL	Tutorial for SOARS Proteges	NCAR	Boulder	CO	USA
Crook	Andrew	RAP	RAL	Worked the NCAR science booth at Boulder Creek Festival	NCAR	Boulder	CO	USA
				Interviewed by a number of radio, TV, and				

Dai	Aiguo	CGD	ESSL	newspaper reporters on global warming & drought during the spring and summer of 2005.	Various			
Dai	Aiguo	CGD	ESSL	Provided precipitation and other climate data to high school students and teachers, and college and graduate students for their science projects.	Various			
Dai	Aiguo	CGD	ESSL	Helped UCAR Education and Outreach Program with visitors from Asia	NCAR	Boulder	CO	USA
DeLuca	Cecelia	SCD	CISL	ESMF tutorial	NASA Stennis	Bay St. Louis	MS	USA
DeLuca	Cecelia	SCD	CISL	ESMF tutorial	NCAR	Boulder	CO	USA
Dikpati	Mausumi	HAO	ESSL	HAO Visitor Committee	HAO/NCAR	Boulder	CO	USA
Dunnebecke	Joanne	DIR	RAL	Worked the NCAR/RAL booth at conferences/tradeshows	various			
Flocke	Frank	ACD	ESSL	Helped translate NCAR visitor pamphlets into German	NCAR	Boulder	CO	USA
Fried	Alan	EOL	EOL	Research Associate	Atmospheric and Oceanic Science University of Colorado	Boulder	CO	USA
Gettelman	Andrew	CGD	ESSL	Lecturer	IMAGe summer colloquium at NCAR	Boulder	CO	USA
Gettelman	Andrew	CGD	ESSL	Lecturer	Cargese International School on the Upper Troposphere and Lower Stratosphere	Cargese		France
Ghosh	Siddhartha	SCD	CISL	Tutorial for SOARS Protégés	NCAR	Boulder	CO	USA
Gibson	Sarah	HAO	ESSL	Solar Week for Girls				
Golden	Mary	MMM	ESSL	Communicating Science: ESL Program	NCAR	Boulder	CO	USA
Goldstein	Janine	EOL	EOL	Super Science Saturday Wizard Demo	NCAR	Boulder	CO	USA
Haggerty	Julie		EOL/RAL	Presentation to UCAR Undergraduate Leadership Workshop	NCAR	Boulder	Colorado	USA
Haley	Page	SCD	CISL	Tutorial for SOARS Protégés	NCAR	Boulder	CO	USA
Hartsough	Craig	CGD	ESSL	Contributor	National Collegiate Weather Forecasting Contest (NCWFC)	Penn State	PA	USA
Jablonowski	Christiane	SCD/ASP	CISL/SERE	Tutorial on Parallel Computing 101	Supercomputing 2004 Conference	Pittsburgh	PA	USA
Jablonowski	Christiane	SCD/ASP	CISL/SERE	Tutorial on The Lin-Roof Finite Volume (FV) Dynamical Core	NCAR	Boulder	CO	USA
Johnson	Christine	ASP	SERE	Career Fair	Ranum High	Denver	CO	

					School		
Johnson	Christine	ASP	SERE	Girl Scout Event	NCAR	Louisville	CO
Johnson	Christine	ASP	SERE	Super Science Saturday	NCAR	Boulder	CO
Johnson	Christine	ASP	SERE	Outreach Presentation	Residential Home (The lodge at Balfour)	Boulder	CO
Johnson	Benjamin	ASP	SERE	Classroom Demonstrations	NCAR	Boulder	CO
Johnson	Benjamin	ASP	SERE	Lectures to College Students	NCAR	Boulder	CO
Lecinski	Alice	HAO	ESSL	HAO Tour	Mesa Elementary		
LeMone	Margaret	MMM	ESSL	GLOBE Chief Scientist	NCAR	Boulder	CO USA
LeMone	Margaret A.	MMM	ESSL	Interview by Ewen Calloway	KGNU	Boulder	CO USA
Lundeen	Rose	DIR	RAL	Worked the NCAR/RAL booth and conferences/tradeshows	various		
Mahoney	William	WSAP	RAL	Worked the NCAR/RAL booth and conferences/tradeshows	various		
Massie	Steve	ACD	ESSL	ATOCC 5235: Remote Sensing of Atmospheres and Oceans, Spring Semester 2005	Univ. Colorado	Boulder	CO USA
McDaniel	Larry	ISSE	SERE	2005 CU Special Year in Art and Mathematics	University of Colorado	Boulder	CO USA
McDaniel	Larry	ISSE	SERE	Organizer, talk on "Fluid Dynamics and Photography"	NCAR	Boulder	CO USA
McDaniel	Larry	ISSE	SERE	Organizer, Tad Pfeffer Showing	NCAR Gallery	Boulder	CO USA
McGinnis	Seth	ISSE	SERE	Disaster Dynamics: Hurricane Landfall Game	University of Colorado at Denver	Denver	CO USA
McGinnis	Seth	ISSE	SERE	Disaster Dynamics: Hurricane Landfall Game	University of Colorado	Boulder	CO USA
Otto-Bliesner	Bette	CGD	ESSL	Contributor	NCAR - Climate Future Exhibit	Boulder	
Otto-Bliesner	Bette	CGD	ESSL	Lecturer	COMET - Paleoclimate Module	Boulder	
Page	Mike	SCD	CISL	Presentation to Lightning User Community	NCAR	Boulder	CO USA
Page	Mike	SCD	CISL	Tutorial for SOARS Protégés	NCAR	Boulder	CO USA
Park	Carol	WSAP	RAL	Worked the NCAR science booth at Boulder Creek Festival	NCAR	Boulder	CO USA
Petty	Kevin	WSAP	RAL	Worked the NCAR/RAL booth and conferences/tradeshows	various		
Politovich	Marcia	AAP	RAL	Sponsor for CU CS Senior Project	University of Colorado	Boulder	CO USA
Rasch	Philip	CGD	ESSL	Adjunct Faculty	University of Colorado	Boulder	CO
Rast	Mark	HAO	ESSL	Referee Service	Astrophysical Journal		
Rast	Mark	HAO	ESSL	PSPT Data Service			
Rempel	Matthias	HAO	ESSL	HAO Colloquium co-coordinator	HAO/NCAR	Boulder	CO USA

Rew	Juli	SCD	CISL	Presentation to Lightning User Community	NCAR	Boulder	CO	USA
Rew	Juli	SCD	CISL	Tutorial for SOARS Proteges	NCAR	Boulder	CO	USA
Rife	Daran	NSAP	RAL	Training for U.S. Army Test and Evaluation Command Meteorologists at ranges: Ft Huachuca AZ, Aberdeen MD, Dugway UT, White Sands NM, Redstone AL	Various Ranges throughout the US		UT, MD, AL, NM, AZ	USA
Scheitlin	Tim	SCD	CISL	Visualization Demo for SOARS Proteges	NCAR	Boulder	CO	USA
Shea	Dennis	CGD	ESSL	Answered many queries related to use of NCL to address scientific data and processing issues	NCAR & University community	Various		
Shea	Dennis	CGD	ESSL	Answered many queries related to use of NCL to address scientific data and processing issues	NCAR & University community	Various		
Snyder	Chris M.	MMM	ESSL	First ESL Workshop	NCAR	Boulder	CO	USA
Sun	Jielun	MMM	ESSL	Communicating Science: ESL Program	NCAR	Boulder	CO	USA
Swerdlin	Scott	NSAP	RAL	Worked the NCAR/RAL booth and conferences/tradeshows	various			
Trenberth	Kevin	CGD	ESSL	Participant in "On Point"	NPR, WBUR Group	Boston	MA	USA
Trenberth	Kevin	CGD	ESSL	Radio interview	KAAA & KZZZ Tri State	Kingman	AZ	USA
Trenberth	Kevin	CGD	ESSL	Radio interview	KPFT, Houston Public Radio, Free Speech Radio News	Houston	TX	USA
Trenberth	Kevin	CGD	ESSL	Radio interview	XM Satellite Radio			USA
Trenberth	Kevin	CGD	ESSL	Radio interview	WPKN-FM	Bridgeport	CT	USA
Trenberth	Kevin	CGD	ESSL	Radio interview	WZBC News	Boston	MA	USA
Trenberth	Kevin	CGD	ESSL	Radio interview	Democracy Now	Boston	MA	USA
Trenberth	Kevin	CGD	ESSL	Climate Change Documentary	"Burning Down the House", John Cork, Cloverland	Los Angeles	CA	USA
Trenberth	Kevin	CGD	ESSL	TV interview on hurricanes	Japanese Broadcasting Corp, Kenshi Fukuhara	Boulder	CO	USA
Trenberth	Kevin	CGD	ESSL	Hockey Stick/Barton controversy discussion	KPFA	Berkeley	CA	USA
Trenberth	Kevin	CGD	ESSL	G8 Kyoto Pronouncements call-in radio show	KGNU	Boulder	CO	USA
Trenberth	Kevin	CGD	ESSL	TV interview: "Source Code"	Dish Network Free Speech News			USA
Trenberth	Kevin	CGD	ESSL	Speaker & Panel Member at "Katrina: a hurricane of issues"	Present Tense Films & Discussion	Boulder	CO	USA
Trenberth	Kevin	CGD	ESSL	Participant in "Global Warming: the signs and the science" TV documentary	PBS, Stone Haven Productions			USA
				Participant in global				

Trenberth	Kevin	CGD	ESSL	warming TV documentary to be aired on Earth Day 2006	HBO, Sean Kaminsky			USA
Trenberth	Kevin	CGD	ESSL	TV interview on "Global Agenda"	KBDI	Denver	CO	USA
Trenberth	Kevin	CGD	ESSL	Radio interview on hurricanes	WTOP News	Washington	DC	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	US News and World Report			USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	TIME Magazine			USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	WSKY	Gainesville	FL	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KPFA	Berkeley	CA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KDKA	Pittsburg	PA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	WDTW	Detroit	MI	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KOA	Denver	CO	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KPSA	Berkeley	CA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	WDAL	Baltimore	MD	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	SEMANA	Bogota		Columbia
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	20/20, ABC News	New York	NY	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	Forbes.com	New York	NY	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	USA Today	McLean	VA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	Popular Science magazine	Brewster	MA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KSRO Radio	Santa Rosa	CA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	Paris Match magazine	Paris		France
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KCPW & KPCW - NPR	Salt Lake City	UT	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KPFA Radio (Pacifica Network)	San Francisco	CA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	Random Lengths News	Los Angeles Harbor Area	CA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	Reuters	Washington	DC	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	San Jose Mercury News	San Jose	CA	USA
Trenberth	Kevin	CGD	ESSL	Interview on hurricanes	KUSA, Channel 9 TV	Denver	CO	USA
Tufo	Henry	SCD	CISL	Taught graduate seminar	University of Colorado, Boulder	Boulder	CO	USA
Wagoner	Richard	DIR	RAL	Worked the NCAR/RAL booth and conferences/tradeshows	various			
Wang	Junhong	EOL	EOL	Guest lecture for "Measurements and Instruments"	Colorado State University	Fort Collins	CO	U.S.A.
Warner	Thomas	NSAP	RAL	Advised Diane Strassberg on bachelor's thesis	U. of Colorado	Boulder	CO	USA
Wiedinmyer	Christine	ACD	ESSL	Discussion Leader/Panelist/Participant : NCAR GIS in Weather, Climate and Impacts Workshop	NCAR	Boulder	CO	USA
Wiedinmyer	Christine	ACD	ESSL	NCAR Undergraduate Leadership Workshop	NCAR	Boulder	CO	USA
Wolfe	Jon	SCD	CISL	ESMF tutorial	NASA Stennis	Bay St. Louis	MS	USA
Wolfe	Jon	SCD	CISL	ESMF tutorial	MIT	Cambridge	MA	USA

MMM	ESSL	WRF Tutorial	NCAR	Boulder	CO	USA
MMM	ESSL	MM5 Tutorial	NCAR	Boulder	CO	USA

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## Awards

### 1. Honors and Awards

#### 2. Fellowships

#### 1. Honors and Awards (22)

Last Name	First Name	Division/Institute	Laboratory	Title of Award/Honor	Society/Institution
Bernstein	Ben	AAP	RAL	Weather and Forecasting Editor's Award	AMS
Edwards	David	ACD	ESSL	Group Achievement Award for Aura Team	NASA GSFC
Edwards	David	ACD	ESSL	Group Achievement Award for Aura Project	NASA
Emmons	Louisa	ACD	ESSL	AGU Editor's Citation for Excellence in Refereeing for JGR-Atmospheres	AGU
Fried	Alan	EOL	EOL	NASA Group Achievement Award for contributions to the Intercontinental Chemical Transport Experimen	NASA
Gettelman	Andrew	CGD	ESSL	Editor's Award	Journal of the Atmospheric Sciences
Gille	John	ACD	ESSL	Fellow of AAAS	AAAS
Gille	John	ACD	ESSL	AMS	AMS
Hurrell	James	CGD	ESSL	Who's Who in American	
Hurrell	James	CGD	ESSL	Highly Cited Researchers	Thomas ISI
Jochum	Markus	CGD	ESSL	Excellence in Reviewing	American Geophysical Union
Moser	Susanne	ISSE	SERE	Geography Faculty Development Alliance	University of Colorado
Randel	William	ACD	ESSL	Group Achievement Award for Aura Project	NASA
Roble	Raymond	HAO	ESSL	World Meteorological Organization Norbert-Gerbier Mumm Award for 2005 for the paper "Review of Mesospheric Temperature Trends" published in Reviews of Geophysics in 2003	
Tufo	Henry	SCD	CISL	IBM Faculty Award "Developing Next Generation Weather and Climate Applications for IBM Linux Power and Blue Gene Systems"	IBM
Tufo	Henry	SCD	CISL	Dean's Award for Professional Progress	University of Colorado, Boulder
Walega	James	EOL	EOL	NASA Group Achievement Award for contributions to the Intercontinental Chemical Transport Experimen	NASA
Wilhelmi	Olga	ISSE	SERE	Special Achievement in GIS	ESRI International Users Conference
Williamson	David	CGD	ESSL	Vilhelm Bjerknes Medal	European Geosciences Union
				Royal Meteorological Society SYmon	Royal Metereological

Wilson	James	EOL	EOL	Lecture for 2005	Society
Wilson	James	EOL	EOL	Royal Meteorological Society, London	Royal Meteorological Society
Wolff	Cory	AAP	RAL	Group Achievement Award	NASA Earth Science Applications Team

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## 2. Fellowships (5)

Employee Last Name	First Name	Division/ Institute	Laboratory	Society / Institution
Glantz	Michael	CCB	SERE	Osher Fellow, San Francisco Exploratorium
Knoelker	Michael	HAO	ESSL	Senior Fellow, Institute for Pure and Applied Mathematics, University of California at Los Angeles
Moser	Susanne	ISSE	SERE	Fellowship, Aldo Leopold Leadership Program
Ortiz-Carbonell	Ada	HAO	ESSL/SERE	American Geophysical Union
Politovich	Marcia	AAP	RAL	American Meteorological Society

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# The 2005 NCAR Annual Report

The National Center for Atmospheric Research & the UCAR Office of Programs  
Operated by the University Corporation for Atmospheric Research

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## Community Service

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### 1. Workshops (117)

Laboratory	Division/ Institute	Title	Date(s)	City	State	Country	Sponsor(s)	# of Attendees
CISL	SCD	Westnet Meeting	1/11-14/04	Boulder	CO	USA	Westnet	
CISL	SCD	StorageTek Japan User Group	10/11/04	Boulder	CO	USA	StorageTek	40
CISL	SCD	DOE's National Collaboratories Program Development Workshop #2	12/1-3/04	Boulder	CO	USA	DOE	325
CISL	IMAGe	Fusing Geophysical Models with Data	13-17 June 2005	Boulder	Colorado	USA	NSF	
CISL	SCD	Westnet Meeting	6/22-24/04	Boulder	CO	USA	Westnet	
CISL	IMAGe	Coherent Structures in Atmosphere and Ocean	11-14 July 2005	Boulder	Colorado	USA	NSF	
CISL	SCD	THIC - Premier Advanced Recording Technology - Forum	7/18-20/05	Boulder	CO	USA	THIC	
CISL	SCD	4th Annual ESMF Community Meeting and ESMF on the Grid Workshop	7/20-22/05	Cambridge	MA	USA	NCAR/NASA	
CISL	SCD	Computing in the Atmospheric Sciences 2005 (CAS2K5)	9/12-15/05	Annecy		France	NCAR/Vendors	55
CISL	IMAGe	Emerging Mathematical Strategies for Multi-Scale and Stochastic Modeling. Multi-Scale Interactions in the Tropics to Midlatitudes: Mathematical Theory, Observations and Numerical Models	26-30 September 2005	Boulder	Colorado	USA	NSF	
CISL	SCD	The Development of Improved Observational Data Sets for	9/28-30/05	Greenbelt	MD	USA	NOAA/NSF	

		Reanalysis: Lessons Learned and Future Directions						
EOL	EOL	Workshop to define climate requirements for UA obs	8-11 Feb 2005	Boulder	CO	USA	NOAA/GCOS	40
EOL	EOL	AVAPS Users Group Meeting	4/13/2005	Boulder	CO	USA	EOL- RTF-Sounding Group	
EOL	EOL	Study of Asian Dust and Pollution Plumes & Their I	5/20/2005	Boulder	CO	USA	EOL/RAF	50
EOL	EOL	13th WMO/IAEA Meeting of Experts on CO2 and Related Tracer Measurement Techniques	September 19 - 22 2005	Boulder	CO	USA	WMO, IAEA, NOAA, NCAR, CU	
EOL	EOL	7th International Carbon Dioxide Conference	25-30 September 2005	Broomfield	CO	USA	NOAA,NIST,NCAR,CIRES,WMO,DOE, NASA,NSF,UNESCO,USGS	
EOL	EOL	AIRS-2 C-130 data meeting	10/12/2005	Boulder	CO	USA	NCAR/RAF	
ESSL	ACD	Future Needs for Climate Monitoring	2/1/05	Boulder	CO	USA	NOAA	unknown
ESSL	ACD	The Transfer of the Solar Signal from the Stratosphere to the Troposphere: Northern Winter	2/5/05	New York	New York	USA	Goddard Institute for Space Studies (GISS)	unknown
ESSL	ACD	Stratospheric Temperature Trends	3/5/05	Reading		UK	Reading University	unknown
ESSL	ACD	Writing Powerful Journal Articles, A UCAR/NCAR Communicating Science workshop for ESL Authors	2/28/05	Boulder	CO	USA	NCAR	unknown
ESSL	ACD	The Transfer of the Solar Signal from the Stratosphere to the Troposphere: Northern Winter	4/5/05	Greenbelt	MD	USA	NASA GSFC	unknown
ESSL	ACD	The Transfer of the Solar Signal from the Stratosphere to the Troposphere: Northern Winter	5/5/05	Washington, DC		USA	NOAA	unknown
ESSL	ACD	Processes governing the chemical composition of the extra-tropical UTLS	5/18-20/2005	Mainz			Germany Max-Planck Institute	
ESSL	ACD	The Transfer of the Solar Signal from the Stratosphere to the Troposphere: Northern Winter	6/5/05	Washington, DC		USA	NRL	unknown
ESSL	ACD	CCSM Workshop	Jun-05	Breckenridge	CO	USA	CCSM	50
ESSL	ACD	Workshop on the Results of the Intercomparison of OVOC	6/20-22/2005	Julich		Germany	ACCENT – Atmospheric Composition Change the European Network of	25

			Measurements			Excellence			
ESSL	ACD	Weather, Climate and Impacts	7/6-8/2005	Boulder	CO	USA	NCAR		18
ESSL	ACD	The Upper-Lower Atmosphere Interface	7/13/05	Boulder	CO	USA	NCAR		unknown
ESSL	ACD	Stratosphere-Troposphere Coupling	7/25/05	Toulouse		France	SOLARIS (Solar Influence Intercomparison for SPARC (Stratospheric Processes and their Role in Climate))		unknown
ESSL	ACD	MOZART Meeting	8/17-19/05	Boulder	CO	USA	NCAR		unknown
ESSL	ACD	TIMED Science Working Group workshop	8/30/05-9/1/05	Boulder	CO	USA	NCAR		unknown
ESSL	ACD	Solar Induced Stratospheric Effects	9/13-16/2005	Durango	CO	USA	SORCE Science Meeting		unknown
ESSL	ACD	DC3 Planning Workshop	9/19-20/2005	Boulder	CO	USA	TIMES		unknown
ESSL	ACD	Coordinator of the NCAR Aerosol Program, which hosts the Front Range Aerosol Research Discussion	3x year	Boulder	CO	USA	NCAR		
ESSL	CGD	International CLIVAR Workshop on Ocean Reanalysis	Nov. 8-12, 2004.	Boulder	CO	USA	US CLIVAR		24
ESSL	CGD	10th CCSM workshop	6/20-23/05	Breckenridge CO		USA	NSF		350
ESSL	CGD	ESSL community modeling strategic planning retreat	Jan-05	Boulder	CO	USA	NCAR		102
ESSL	CGD	TIMES strategic planning retreat	Feb-05	Boulder	CO	USA	NCAR		38
ESSL	CGD	Workshop on research needs and directions of regional climate modeling using WRF and CCSM	Mar-05	Boulder	CO	USA	NCAR		32
ESSL	CGD	AMS Middle Atmosphere Meeting	6/1/2005	Boston	MA	USA	AMS		50
ESSL	CGD	Gordon Research Conference on Solar Radiation and Climate	Jun-05	Portland	ME	USA	Gordan Research		100
ESSL	CGD	IAMAS2005, Session C5: Physics and Feedbacks Leading to Droughts & Wet Periods	Aug. 2-11, 2005	Beijing		China	International Association of Meteorological and Atmospheric Science		45
ESSL	CGD	IAMAS2005, Session C7: The Diurnal Behavior of the Atmosphere	Aug. 2-11, 2005	Beijing		China	International Association of Meteorological and Atmospheric Science		40
ESSL	CGD/AIMES	Young Scientists Network (immediately following annual CCSM)	6/23-25/05	Breckenridge CO		USA	NSF, MPI, Columbia, NCAR		75
		Dahlem Integrated History and Future							

ESSL	CGD/AIMES	of People on Earth Conference (IHOPE); Organizing Committee	6/13-17/05	Berlin		Germany	AIMES, Dahlem,	30
ESSL	CGD	Workshop on Advancing Cloud Microphysics in CCSM	11/1/2005	Breckenridge CO	USA	CCSM		35
ESSL	HAO	Kepler Science Team Meeting	12-Oct-04	Boulder	CO	USA	NASA	42
ESSL	HAO	Living With a Star (LWS) Steering Committee Meeting	2/15-2/16/05	Boulder	CO	USA	NSF	25
ESSL	HAO	CEDAR-GEM Workshop	6/26-7/01/05	Santa Fe	NM	USA	NSF, NCAR, Rice University	543
ESSL	HAO	CEDAR Workshop on Mesospheric Effects of Sudden Stratospheric Warming Events	30-Jun	Santa Fe	NM	USA	NSF, NCAR	50
ESSL	HAO	SPD summer school on helioseismology	7/24 - 7/29	Boulder	CO	USA	NASA, BU, NASA/LWS, NSF/ATM, HAO, ASP of NCAR	53
ESSL	HAO	SDO-HMI/CSAC Ambiguity Resolution Workshop	9/26-9/27/05	Boulder	CO	USA	NCAR	25
ESSL	HAO	Living With a Star (LWS) Focused Science Topic Team on Thermospheric Density and Composition	9/29-9/30/05	Boulder	CO	USA	NASA, BU	19
ESSL	HAO	Solar Polarization Workshop 4	9/19-9/2./05	Boulder	CO	Boulder	NCAR	85
ESSL	HAO	PROM Workshop	10/27-10/28/05	Boulder	CO	Boulder	HelioResearch,NCAR	25
ESSL	HAO	Examples of the Hanle effect used to study solar magnetic fields	13-Oct-04	Boulder	CO	USA	Observatoire Midi-Pyrénées	
ESSL	HAO	The challenges of neutral thermosphere data assimilations	20-Oct-04	Boulder	CO	USA	NOAA	
ESSL	HAO	Theoretically modeling the ionospheric response at low latitudes to the Great Halloween Storms in October	27-Oct-04	Boulder	CO	USA	NOAA	
ESSL	HAO	The geomagnetic seasons in the auroral zone: dayside magnetopause reconnection versus solar illumination	3-Nov-04	Boulder	CO	USA	CU-LASP	
ESSL	HAO	Exploiting the Planet-Metallicity Correlation	10-Nov-04	Boulder	CO	USA	University of California, Berkeley	
		Leakage of photospheric oscillations into						

ESSL	HAO	the solar atmosphere: Driving chromospheric spicules and coronal waves	17-Nov-04	Boulder	CO	USA	Lockheed Martin Solar and Astrophysics Lab
ESSL	HAO	Physics of dusty plasmas: Applications in space and in the laboratory	1-Dec-04	Boulder	CO	USA	CU-LASP
ESSL	HAO	Observing gravity waves from space: overview and recent progress	8-Dec-04	Boulder	CO	USA	Colorado Research Associates
ESSL	HAO	Spectropolarimetric investigations of stellar magnetism	5-Jan-05	Boulder	CO	USA	Royal Military College of Canada
ESSL	HAO	Seasonal and geophysical variations in the auroral electron and ion hemispheric power from DMSP and NOAA after intersatellite adjustments	19-Jan-05	Boulder	CO	USA	NCAR/HAO
ESSL	HAO	Solar irradiance variations induced by faculae and small magnetic elements in the photosphere	26-Jan-05	Boulder	CO	USA	NCAR/HAO
ESSL	HAO	Solar and space physics observations, end-to-end space weather models, and impacts on the NASA exploration vision	2-Feb-05	Boulder	CO	USA	CU-LASP
ESSL	HAO	The magnetic fields of young stars and turbulent dynamos	9-Feb-05	Boulder	CO	USA	Rice University
ESSL	HAO	Convection zone dynamics: A data-driven view	23-Feb-05	Boulder	CO	USA	NOAO
ESSL	HAO	The solar ultraviolet radiation in the Earth's lower atmosphere- Estimates, sensitivities and impacts	9-Mar-05	Boulder	CO	USA	NCAR/ACD
ESSL	HAO	First evidence of a filament in the heliosphere: Observing CMEs in situ	16-Mar-05	Boulder	CO	USA	University of Michigan
ESSL	HAO	New physics in the light of dark energy	23-Mar-05	Boulder	CO	USA	Dartmouth College
ESSL	HAO	Spatial multiresolution analysis using wavelets or spectral elements:	30-Mar-05	Boulder	CO	USA	NCAR/ASP

		Applications to nonlinear geophysical fluid dynamics diagnosis and simulation					
ESSL	HAO	Balloon observations of relativistic electron precipitation	6-Apr-05	Boulder	CO	USA	Dartmouth College
ESSL	HAO	Atmospheric gravity waves: Understanding their sources and properties with satellite observations	13-Apr-05	Boulder	CO	USA	NASA
ESSL	HAO	The importance of Peroxyacetyl Nitrates (PANs) in the troposphere and a brief history of measurement techniques	20-Apr-05	Boulder	CO	USA	UCAR
ESSL	HAO	Effect of anomalous electron heating on the transpolar potential in global MHD simulations	27-Apr-05	Boulder	CO	USA	Boston University
ESSL	HAO	Helioseismology with both full-disk and imaging doppler velocity instruments	4-May-05	Boulder	CO	USA	NCAR/HAO
ESSL	HAO	The Aeronomy of Ice in the Mesosphere (AIM) Small Explorer (SMEX) Investigation	11-May-05	Boulder	CO	USA	CU-LASP
ESSL	HAO	Entity-based evaluation of Earth-system models	18-May-05	Boulder	CO	USA	NCAR/MMM
ESSL	HAO	Extrasolar planet atmospheres and related pleasures	25-May-05	Boulder	CO	USA	NCAR/HAO
ESSL	HAO	Code coupling and frameworks in CISM	1-Jun-05	Boulder	CO	USA	Dartmouth College
ESSL	HAO	A medley of magnetic models: Toward a coupling between the solar interior, corona and heliosphere	29-Jun-05	Boulder	CO	USA	Lockheed Martin Solar and Astrophysics Lab
ESSL	HAO	Radiative MHD simulations of magneto-convection in the solar photosphere	7-Sep-05	Boulder	CO	USA	NCAR/HAO
ESSL	HAO	Magnetic reconnection in the solar wind	21-Sep-05	Boulder	CO	USA	CU-LASP
ESSL	HAO	Heating in small auroral arcs	28-Sep-05	Boulder	CO	USA	University of Alaska
ESSL	MMM	4th WMO International Symposium on Assimilation of		Prague	Czech	International Program Committee	300

		Observations in Meteorology and Oceanography			Republic		
ESSL	MMM	ICE Initiative Steering Committee	Boulder	CO	USA	NCAR	20
ESSL	MMM	Junior Faculty Forum	Boulder	CO	USA	NCAR	40
ESSL	MMM	ICE Initiative Workshop	Boulder	CO	USA	NCAR	24
ESSL	MMM	WWRP Symposium on Nowcasting & very Short Range Forecasting	Toulouse		France	WMO Meteo- France	300
ESSL	MMM	IAMAS Session on Data Assimilation	Beijing		China	IUAG	100
ESSL	MMM	MM5/WRF Annual Workshop	Boulder	CO	USA	NCAR	224
ESSL	MMM	Informal workshop on ensemble data assimilation	Boulder	CO	USA	NCAR	20
ESSL	MMM	NOx Lightning and Anthropogenic Production	Beijing		China	IAMAS 2005 Conference	75
ESSL	MMM	MMM-CSU/CIRA Joint Workshop	Boulder	CO	USA	NCAR/CSU	20
ESSL	MMM	INDO-US Forum Workshop	Boulder	CO	USA	NCAR	40
ESSL	MMM	BAMEX Steering Committee Meeting	Fairview Heights,	IL	USA	NCAR	20
ESSL	MMM	WRF-GRAPES Workshop	Boulder	CO	USA	NCAR	30
ESSL	MMM	Regional Climate Modeling Workshop	Boulder	CO	USA	NCAR	54
ESSL	MMM	HEPEX Workshop	Boulder	CO	USA	NCAR	55
ESSL	MMM/ ATD	WWRP Science Steering Committee	Boulder	CO	USA	NCAR	30
RAL	AAP	UK In-flight Icing and Turbulence	Exeter		England	UK Met Office	50
RAL	DTC	WRF-NMM Tutorial	Boulder	CO	USA	NCAR/RAL/DTC	36
RAL	NSAP	WRF/MM5 Joint Users' Workshop	Boulder	CO	USA	NCAR	50
RAL	NSAP	Update on NCAR Auto-Nowcaster - 1st Workshop on Severe Weather Warning Technology for NWS Warning Decision Making	Silver Spring MD		USA	NOAA/MDL	60
RAL	RAP	NAME Science Working Group Meeting 7	Mexico City	D.F.	Mexico	NOAA-OGP	40
RAL	RAP	NAME Science Working Group Meeting 7.5	State College	PA	USA	NOAA-OGP	40
RAL	RAP	2nd International Symposium on QPF and Hydrology	Boulder	CO	USA	WMO-NCAR	
RAL/ESSL/EOL AAP		Ice Initiation Workshop	Boulder	CO	USA	NCAR	25

RAL/ISSE	SIP	Hurricane Social Science Research Workshop	Pomona	CA	USA	California Polytechnic University	32
RAL/ISSE	SIP	Hurricane Forecast Social and Economic Working Writers Workshop	Boulder	CO	USA	NCAR/SIP (Societal Impacts Program)	5
SERE	ISSE	Workshop on the Impacts of Increasing Atmospheric CO <sub>2</sub> on Coral Reefs and Other Marine Calcifiers	St. Petersburg	FL	USA	Kleypas	60
SERE	ISSE	Atmospheric CO <sub>2</sub> on Coral Reefs and Other Marine Calcifiers					
SERE	ISSE	Working Group 5 - Socioeconomic Aspects and Management Strategies of the CLIOTOP	Honolulu	HI	USA	Miller	18
SERE	ISSE	Hurricane Social Science Research Workshop	Pomona	CA	USA	Lazo	32
SERE	ISSE	Hurricane Forecast Social and Economic Working Writers Workshop	Boulder	CO	USA	Lazo	5

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## 2. Colloquia/Symposia (9)

Laboratory Division/Institute Title			Date(s)	City	State	Country	Sponsor(s)	# of Attendees
EOL/RAL		Member of organizing committee - 2006 IEEE International Geoscience & Remote Sensing Symposium		Denver	Colorado	USA	IEEE	1000-1500
ESSL	ACD	Solar Influence on Climate Through Mesospheric-Stratospheric Chemical and Dynamical Processes	Dec-04	San Francisco	CA	USA	AGU	
ESSL	ACD	The Chemistry of the Mesosphere	5-May	New Orleans	LA	USA	AGU	
ESSL	CGD	NCL Class	11/9-12/05	Boulder	CO	USA	UCAR Staff Development	
RAL	WSAP	AMS Corporate Forum		Washington	D.C.	USA	AMS	100
RAL	WSAP	Surface Transportation Weather		Orlando	FL	USA	ITS Florida	100
SERE	ASP/HAO	Space Weather Colloquium	05/31-6/10/05	Boulder	CO		NSF	10
SERE	ASP/HAO	SPD Summer School on Helioseismology	7/24-29/05	Boulder	CO			
SERE/ESSL	ASP/CGD	Junior Faculty Forum	7/27-29/05	Boulder	CO			

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## 3. Field Programs (17)

Laboratory Division/Institute Title			Date(s)	City	State	Country	Sponsor(s)
EOL	EOL	RICO	11/15/04 - 1/24/05			Barbuda and Antigua	NSF
EOL	EOL	Career	1/15/05 - 3/31/05	Columbia	MO	US	NSF
			August -				

EOL	EOL	Rainex		September 05	Tampa	Florida	US	NSF
ESSL	MMM	RICO-Rain in Cumulus over the Ocean			Antiqua		Barbuda	NSF
ESSL	MMM	MIDCIX-Midlat. Cirrus Experiment			Salt Lake City	UT	USA	NASA
ESSL	MMM	TCSP-Tropical Cloud Systems and Processes			San Jose		Costa Rica	NASA
ESSL	MMM	ICE-Ice in Clouds Experiment			Broomfield CO		USA	NCAR
ESSL	MMM	RAINEX-Tropical Storm Rain band Experiment			Tampa	FL	USA	
ESSL	MMM	M-PACE-Mixed-Phase Arctic Clouds Experiment			Prudhoe Bay	AK	USA	DOE
ESSL	MMM	OHATS-Ocean Horizontal Array Turbulence Study			Woods Hole	MA	USA	NCAR/PSU/Woods Hole
ESSL/EOL	CGD/NCAR	ACME/CME	2004-present		Broomfield CO	US	NSF, NASA, NCAR	
RAL	AAP	NASA-Glenn In-flight			Southern Great Lakes domain	USA	NASA-Glenn Research	
RAL	AAP	Icing Program			Cleveland OH	USA	Center - Cleveland OH	
RAL	HAP	Precipitation Enhancement Program			Bari		Italy	Aerotech
RAL	HAP	Precipitation Enhancement - Sulawesi			Soroako		Indonesia	BCPP
RAL	NSAP	Pentagon Shield 2			Arlington VA		USA	DARPA
RAL	WSAP	Maintenance Decision Support System (MDSS) Colorado Demonstration			Denver Area	Colorado USA		Federal Highway Administration

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## 5. Editorships (68)

Last Name	First Name	Division/Institute	Laboratory	Role	Journal	Year or duration (in years)
Bonan	Gordon	CGD	ESSL	Editorial board	Global Change Biology	1994-present
Brown	Barbara	WSAP	RAL	Assistant Editor	Weather and Forecasting	
Bryan	George	MMM	ESSL	Associate Editor	Monthly Weather Review	
Burns	Alan	HAO	ESSL	Associate Editor	Journal of Atmospheric and Solar Terrestrial Physics	2000-present
Cantrell	Chris	ACD	ESSL	Editor	Journal of Geophysical Research - Atmospheres	
Deser	Clara	CGD	ESSL	Editor	Journal of Climate	2005-2008 (3 years)
Dudhia	Jimy	MMM	ESSL	Associate Editor	Weather and Forecasting	
Edwards	David	ACD	ESSL	Associate Editor	Journal of Quantitative Spectroscopy & Radiative Transfer	
Fasullo	John	CGD	ESSL	Editor	Journal of Meteorological and Atmospheric Physics	4 years
Garcia	Rolando	ACD	ESSL	Guest Editor	Journal of Atmospheric and Solar-Terrestrial Physics (special issue)	
Gent	Peter	CGD	ESSL	Associate Editor	Journal of Physical Oceanography	Since 1992
Glantz	Michael	CCB	SERE	Editorial Board	Advances in Atmospheric Sciences	5
Glantz	Michael	CCB	SERE	Editorial Board	Sustainability: Science, Practice & Policy	1
Glantz	Michael	CCB	SERE	Editorial Board	Global Environmental Change	15
Glantz	Michael	CCB	SERE	Editorial Board	Problems of Desert Development	11
Grabowski	Wojciech W.	MMM	ESSL	ICCP Special Issue	Atmospheric Research invited guest editor	
Grabowski	Wojciech W.	MMM	ESSL	EUROCS Special Issue	Quarterly Journal of the Royal Meteorological Society (QJRMS) invited guest editor	

Guenther	Alex	ACD	ESSL	Editor	Atmospheric Chemistry and Physics	
Guenther	Alex	ACD	ESSL	Editorial advisory board	Atmospheric Environment	
Haggerty	Julie		EOL/RAL	Associate Editor	J. Atm. And Oceanic Tech.	
Harriss	Robert	ISSE	SERE	Contributing Editor	Environment	
Harriss	Robert	ISSE	SERE	Editorial Board	Journal of Earth Systems Science Education	
Heymsfield	Andrew J.	MMM	ESSL	Associate	Atmospheric Research	
Heymsfield	Andrew J.	MMM	ESSL	Editor	Journal of the Atmospheric Sciences	
Huang	Xiang-Yu	MMM	ESSL	Editor	The EGGS (Newsletter and Information Service of the European Geophysics Society)	
Hurrell	James	CGD	ESSL	Co-editor	Inter-Research Oldendorf/Luhe	2004
Hurrell	James	CGD	ESSL	Co-editor	Oxford University Press	2004
Jochum	Markus	CGD	ESSL	Associate Editor	Journal of Geophysical Research - Oceans	Since 2003
Katz	Richard	ISSE	SERE	Associate Editor	Water Resources Research	
Katz	Richard	ISSE	SERE	Editorial Board Member	Statistical Theory and Applications in Science, Engineering, and Economics	
Katz	Richard	ISSE	SERE	Editorial Board Member	Climatic Change	
Klemp	Joseph B.	MMM	ESSL	Publications Commissioner	AMS	
Kleypas	Joanie	ISSE	SERE	Co-Editor	AGU Monograph on "Corals and Climate Change"	
Kuo	Ying-Hwa	MMM	ESSL	Co-chief editor	Monthly Weather Review	
Kuo	Ying-Hwa	MMM	ESSL	Associate Editor	Terrestrial, Atmospheric and Oceanic Sciences	
Lazo	Jeff	SIP	RAL	Chair	THORPEX Societal and Economics Application Working Group	
Lenschow	Donald H.	MMM	ESSL	Editorial Board	Boundary-Layer Meteorology	
Lenschow	Donald H.	MMM	ESSL	Editorial Board	Journal of Atmospheric Chemistry	
Liu	Gang	HAO	ESSL	Associate Editor	Journal of Geophysical Research/Space Physics	10/2001 - 10/2005
Madronich	Sasha	ACD	ESSL	Guest Co-Editor	Journal of Atmospheric Environment (special issue)	
McKenna	Daniel	ACD	ESSL	Editor	ACP special edition on "water vapour measurements in the upper troposphere"	
Moeng	Chin-Hoh	MMM	ESSL	Guest Editor	Journal of Terrestrial, Atmospheric and Oceanic Sciences (TAO)	
Nychka	Doug	IMAGE	CISL	Associate Editor	Journal of the American Statistical Association	2
Otto-Bliesner	Bette	CGD	ESSL	Guest Editor	Paleogeography, Paleoclimatology, Paleoecology	
Politovich	Marcia	AAP	RAL	Editor	Journal of Oceanic and Atmospheric Technology	
Pouquet	Annick	IMAGE	CISL	Associate Editor	Journal of Computational Physics	12
Pouquet	Annick	IMAGE	CISL	Associate Editor	Journal of Turbulence	2
Randel	William	ACD	ESSL	Associate Editor	Journal of Atmospheric Sciences	
Richmond	Arthur	HAO	ESSL	Editor	Journal of Geophysical Research/Space Physics	10/2001 - 10/2005
Rife	Daran	NSAP	RAL	Reviewer	JGR Atmospheres	
Saravanan	Ramalingam	CGD	ESSL	Associate Editor	Journal of Climate	2005
Skamarock	William	MMM	ESSL	Co-Chief Editor	Monthly Weather Review	
Smolarkiewicz	Piotr		ESSL	Associate Editor	International Journal of Applied Mathematics & Computer Science	
Smolarkiewicz	Piotr		ESSL	Associate Editor	Journal of Computational Physics	

Snyder	Chris M.	MMM	ESSL	Editor	Journal of Atmospheric Sciences	
Snyder	Chris M.	MMM	ESSL	Guest Editor	QJRMS	
Sullivan	Peter P.	MMM	ESSL	Editorial Board	Dynamics of Atmospheres and Oceans	
Sullivan	Peter P.	MMM	ESSL	Associate Editor	Journal of Atmospheric Science	
Sun	Jielun	MMM	ESSL	Editorial Board	Boundary Layer Meteorology	
Sun	Jielun	MMM	ESSL	Associated Editor	Journal of Applied Meteorology	
Tie	Xuexi	ACD	ESSL	Associate Editor	Advances in Atmospheric Sciences	
Wang	Junhang	EOL	EOL	Editor	J. of Atmos. and Oceanic Tech.	
Weil	Jeffrey	MMM	ESSL	Editorial Board	Boundary-Layer Meteorology	
Weisman	Morris L.	MMM	ESSL	Editorial Board	BAMS	
Weisman	Morris L.	MMM	ESSL	Advisory Board	Encyclopedia of Atmospheric Sciences	
Weisman	Morris L.	MMM	ESSL	Associate Editor	Monthly Weather Review	
Wigley	Tom	CGD	ESSL	Editor	Climate Dynamics	12 years
Wilhelmi	Olga	ISSE	SERE	Guest Editor	Meteorological Applications, Special Issue on Use of GIS in Meteorology and Climatology	

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## 6. External Scientific, Policy, or Educational Committees and Advisory Panels, Boards (485)

Employee Last Name	First Name	Division/Institute	Laboratory Role	Committee/Panel/Board		Year or duration (in years)
Ammann	Caspar	CGD	ESSL	Member	American Geophysical Union	
Ammann	Caspar	CGD	ESSL	Member	American Meteorological Society	
Ammann	Caspar	CGD	ESSL	Member	International Association of Volcanology and Chemistry of the Earth's Interior	
Ammann	Caspar	CGD	ESSL	Member	European Society for Environmental History	
Ammann	Caspar	CGD	ESSL	Member	International Space Science Institute	
Ammann	Caspar	CGD	ESSL	Member	New York Academy of Science	
Ammann	Caspar	CGD	ESSL	Member	American Quaternary Association	
Ammann	Caspar	CGD	ESSL	Member	National Geographic Society	
Anderson	Jeffrey	IMAGe	CISL	Panel Member	Joint Center for Satellite Data Assimilation Scientific Advisory Panel	2
Aulenbach	Steve	CGD	ESSL	member	North American Carbon Program Data Systems Task Force	2005
Barth	Mary	MMM	ESSL	Member	Observing Facilities Advisory Panel	
Barth	Mary	MMM	ESSL	Member	University Relations Committee	
Bettge	Tom	SCD	CISL	Panel Member	Net @ EDU Meeting	1
Bogdan	Thomas	HAO	ESSL	President	Commission 12: Solar Structure and Radiation IAU	2003-2006
Bogdan	Thomas	HAO	ESSL	Member	Editorial Advisory Board	2001 - no expiration
Bogdan	Thomas	HAO	ESSL	Member	Scientific Advisory Board	2003-present
Bogdan	Thomas	HAO	ESSL	Member	Committee on Astronomy and Astrophysics	2004-present
Bogdan	Thomas	HAO	ESSL	Member	Warner/Pierce Prizes Selection Committee	2005-2007
Bogdan	Thomas	HAO	ESSL	Member	NASA Senior Review Committee	2005
Bogdan	Thomas	HAO	ESSL	Member	Nasa Sun-Earth Connection Roadmap Committee	2004-2005
Bogdan	Thomas	HAO	ESSL	Member	Scientific Organizing Committee	2004-present
Bonan	Gordon	CGD	ESSL	member	CCSM scientific steering committee	2003-2007

Boville	Byron	CGD	ESSL	Member	American Geophysical Union	1990 - present
Boville	Byron	CGD	ESSL	Member	American Meteorological Society	1976 - present
Brady	Esther	CGD	ESSL	Member	American Geophysical Union	
Brady	Esther	CGD	ESSL	Member	The Oceanographic Society	
Branstator	Grant	CGD	ESSL	Member	Scientific Advisory Committee; Center for Ocean, Land, Atmosphere Studies	Since 1999
Branstator	Grant	CGD	ESSL	Member	American Meteorological Society	
Brown	Barbara	WSAP	RAL	Chair	WMO WWRP/WGNE Joint Working Group on Verification	
Brown	Barbara	WSAP	RAL	Member	Scientific Steering Committee, Beijing 2008 Olympics Forecast Demonstration Project	
Brown	Barbara	WSAP	RAL	Member	Scientific Steering Committee, THORPEX International Grand Global Ensemble (TIGGE) Project	
Brown	Barbara	WSAP	RAL	Member	National Academy of Sciences Panel on "Estimating and Communicating Uncertainty in Weather and Climate Forecasts"	
Brown	Barbara	WSAP	RAL	Member	Joint Program Development Office (JPDO) Weather Forecasting Subgroup	
Brown	William	EOL	EOL	Co-Chair, Organizing Committee	International Symposium on Tropospheric Profiling	.
Bryan	Frank	CGD	ESSL	Member	World Climate Research Program Working Group on Ocean Model Development	Since 1999
Bryan	Frank	CGD	ESSL	Chair	Ad-hoc Committee for a Petascale Earth System Collaboratory	Since 2004
Burkepile	Joan	HAO	ESSL	Member	Committee on Astronomy and Public Policy	2005
Burkepile	Joan	HAO	ESSL	Primary Author	DASI report on scientific drivers and DASI instrumentation needs for the Solar and Heliospheric community	2004 - 2005
Burkepile	Joan	HAO	ESSL	Member	Scientific Organizing Committee	2004 - 2008
Burkepile	Joan	HAO	ESSL	Member	Steering committee	2001 - 2005
Caron	Julie	CGD	ESSL	Member	American Geophysical Union	2000 - present
Caron	Julie	CGD	ESSL	Member	American Meteorological Society	2000 - present
Caron	Julie	CGD	ESSL	Steering Committee Member	Early Career Scientists Assembly (ECSA)	2004 - present
Casini	Roberto	HAO	ESSL	Member	NCAR Scientist I Search Committee	
Clyne	John	SCD	CISL	Member	Steering Committee for the DOE Computer Graphics Forum	1
Coen	Janice	MMM	ESSL		National Resource Allocation Committee (NRAC) Large Resource Allocations Committee (LRAC)	
Coen	Janice	MMM	ESSL		Alliance Allocation Board (AAB) Medium Resource Allocations Committee (MRAC)	
Cohn	Stephen A.	EOL	EOL	Chair, Organizing Committee	7th International Symposium on Tropospheric Profiling: Needs and Technologies	.
Cohn	Stephen A.	EOL	EOL	Organizing Committee, 11th Conference on Aviation, Range, and Aerospace Meteorology	AMS	
Colburn	Scot	SCD	CISL	Chair	Front Range GigaPop Technical Committee	1
Colburn	Scot	SCD	CISL	Member	National LamdaRail Engineering Committee	1
Collins	William	CGD	ESSL	Member	AMS Committee on Atmospheric Radiation	1999 - present
Collins	William	CGD	ESSL	Chair	NCAR CCSM Scientific Steering Committee	2003 - 2005

Collins	William	CGD	ESSL	Chair	AMS Committee on Atmospheric Radiation	2002 - present
Collins	William	CGD	ESSL	Lead Author and Contributing Author	IPCC Working Group I Fourth Assessment Report	2004-2007
Collins	William	CGD	ESSL	Expert Reviewer	IPCC Working Group I Fourth Assessment Report	2004-2007
Collins	William	CGD	ESSL	Member	NASA Earth-Sun System Subcommittee	2005
Collins	William	CGD	ESSL	Member	SCD Advisory Panel	2005
Collins	William	CGD	ESSL	Vice-chair	Gordon Research Conference on Solar Radiation and Climate	2005
Collins	William	CGD	ESSL	Member	American Geophysical Union	1992 - present
Collins	William	CGD	ESSL	Member	American Meteorological Society	1992 - present
Collins	William	CGD	ESSL	Member	American Physical Society	1992 - present
Collins	William	CGD	ESSL	Member	American Association for the Advancement of Science	1992 - present
Collins	Nancy	SCD	CISL	ESMF Liaison	SciDAC Common Component Architecture Group	1
Collins	Nancy	SCD	CISL	Program committee member	Compframe 2005 conference	1
Crook	N. Andrew	MMM	ESSL	Member	NSF External Committee for Center for Adaptive Sensing of the Atmosphere	
Dai	Aiguo	CGD	ESSL	Member	NCAR Biocomplexity Scientific Steering Committee	2004-2005
Dai	Aiguo	CGD	ESSL	Member	Overseas Advisory committee on Coupled Model Development, Institute of Atmospheric Physics, Chinese Academy of Science	2004-2005
Dai	Aiguo	CGD	ESSL	Member	American Geophysical Union	1992-2005
Dai	Aiguo	CGD	ESSL	Member	American Meteorological Society	2001-2005
Dai	Aiguo	CGD	ESSL	Contributing Author	IPCC 4th Assessment Report	2004-2005
Dai	Aiguo	CGD	ESSL	Contributing Author	NCAR TIMES Strategic Plan	2005
Dai	Aiguo	CGD	ESSL	Manuscript Reviewer	Nature, Science, J. Climate, JGR, GRL, JAS, JAM, J. Hydrometeorology, Clim. Dynamics, & others	2004-2005
Dai	Aiguo	CGD	ESSL	Session Chair	16 th Symposium on Global Change & Climate Variations	2005
Dai	Aiguo	CGD	ESSL	Panel member & individual reviewer for research proposals	NSF, NOAA, NASA, DOE	2004-2005
Davis	Christopher A.	MMM	ESSL	Member	SCD Advisory Panel	
de Toma	Giuliana	HAO	ESSL	Chair	NSO Users Committee	2005
DeLuca	Cecelia	SCD	CISL	Co-chair	CCSM Software Engineering Working Group	1
DeLuca	Cecelia	SCD	CISL	Member	ESMF Executive Board	1
Deser	Clara	CGD	ESSL	Member	University Relations Committee	2005-2007
Deser	Clara	CGD	ESSL	Co-Chair	CCSM Climate Variability Working Group	2004-2007
Deser	Clara	CGD	ESSL	Member	NCAR Scientist I Search Committee Review Panel	2005
Deser	Clara	CGD	ESSL	Member	AMS Awards Committee	2005-2007
Deser	Clara	CGD	ESSL	Member	American Geophysical Union	1987-2005
Deser	Clara	CGD	ESSL	Member	American Meteorological Society	1987-2006
Dye	James E.	MMM	ESSL	Member	NASA/USAF Lightning Advisory Panel	

Dye	James E.	MMM	ESSL	Member	International Committee on Atmospheric Electricity	
Edwards	David	ACD	ESSL	Member	NASA Review Panel for AURA Science	
Elmore	David	HAO	ESSL	Member	NSF	2005
Elmore	David	HAO	ESSL	Member	NSF	2001 - Present
Emery	Barbara	HAO	ESSL	Ex Officio Member	Coupling, Energetics, and Dynamics of Atmospheric Regions (CEDAR) Science Steering Committee	1987 - present
Fan	Yuhong	HAO	ESSL	Chair, local organizing committee	Solar Phhsics Div. of AAS	2005
Fan	Yuhong	HAO	ESSL	Member	NSO	July 19-22 2005
Fan	Yuhong	HAO	ESSL	Member	NSF	Oct-04
Fasullo	John	CGD	ESSL	Member	American Meteorological Society	1992-2005
Fasullo	John	CGD	ESSL	Member	American Geophysical Union	2005
Fowler	Tressa	RAP	RAL	Member	AMS committee on Planned and Inadvertent Weather Modification	
Fried	Alan	EOL	EOL	Program co-chair and co-organizer	International Topical Meetings. Laser Applications to Chemical Analysis	
Fried	Alan	EOL	EOL	Member	International Advisory Committee. Fifth Conference on Tunable Diode Laser Spectroscopy	
Fried	Alan	EOL	EOL	Special Session Convener	Tropospheric Photochemistry. 2004 Fall American Geophysical Union Meeting	
Fried	Alan	EOL	EOL	Member	Scientist I/Research Engineer I Search Committee Member	
Fried	Alan	EOL	EOL	Member	Board of Directors. Rocky Mountain Optical Society	
Fried	Alan	EOL	EOL	Member	Deep Clouds, Convection and Chemistry HIAPER Study Steering Committee	
Fried	Alan	EOL	EOL	Chair	EOL Seminar Series	
Fried	Alan	EOL	EOL	Member	EOL Director search subcommittee	
Gettelman	Andrew	CGD	ESSL	Member	American Geophysical Union	2000 - present
Gettelman	Andrew	CGD	ESSL	Member	American Meteorological Society	2000 - present
Gettelman	Andrew	CGD	ESSL	Steering Committee Member	SPARC Chemistry-Climate Model (CCM) Validation Project	2004 - present
Gettelman	Andrew	CGD	ESSL	Communications Secretary	AGU Atmospheric Sciences Section	2003-present
Gettelman	Andrew	CGD	ESSL	Organizer	CCM Validation 2005 Workshop	2004 - present
Gettelman	Andrew	CGD	ESSL	Member	AMS Middle Atmosphere Committee	2003 - present
Gibson	Sarah	HAO	ESSL	Member	National Research Council	2002-2005
Gibson	Sarah	HAO	ESSL	Member	National Research Council	2005
Gibson	Sarah	HAO	ESSL	Member	National Research Council	2005 -
Gibson	Sarah	HAO	ESSL	Member	National Research Council	Jun-05
Gibson	Sarah	HAO	ESSL	Member	National Research Council	Aug-05
Gille	John	ACD	ESSL	Member	SPARC Science Steering Group;	
Gille	John	ACD	ESSL	Member	Science Advisory Panel for the Ozone Monitoring and Profiling System (OMPS) on NPOESS	
Gillman	Pamela	SCD	CISL	Chair, Systems Administration Working Group	XPXXL	3
Gilman	Peter	HAO	ESSL	Member	AURA Board of Directors	
Gilman	Peter	HAO	ESSL	Member	Solar Observatory Council, AURA	

Gilman	Peter	HAO	ESSL	Member	NSO GONG Scientific Advisory Committee	
Gilman	Peter	HAO	ESSL	Member	NSO SOLIS Advisory Committee	
Glantz	Michael	CCB	SERE	Member of Steering Committee	Global Terrestrial Observing Systems (GTOS)	6
Glantz	Michael	CCB	SERE	Synthesis Team	Millennium Ecosystem Assessment	3
Glantz	Michael	CCB	SERE	Participant	IPCC Expert Meeting	2
Glantz	Michael	CCB	SERE	Steering Committee	UNEP Early Warning &Assessment	3
Glantz	Michael	CCB	SERE	Advisory Board	CO J. International Environmental Law	16
Glantz	Michael	CCB	SERE	Steering Committee	Center for Environmental Journalism	13
Glantz	Michael	CCB	SERE	Member of Steering Committee	Environmental Literacy Council	7
Gochis	David	RAP	RAL	Committee Member	NAME Science Working Group	
Gochis	David	RAP	RAL	Committee Member	CUASI Science Advisory Team	
Gochis	David	RAP	RAL	Committee Member	NAME Hydrometeorological Working Group	
Golden	Mary	MMM	ESSL	Member	AMS Manuscript Tracking System Advisory Committee	
Golden	Mary	MMM	ESSL	CEA Advisory Committee	AMS Publications Commission	
Golden	Mary	MMM	ESSL	Outreach Liaison	UCAR-Geological Society of America	
Grabowski	Wojciech W.	MMM	ESSL	member	International Committee on Clouds and Precipitation (ICCP)	
Guenther	Alex	ACD	ESSL	Member	NSF Biosphere-Atmosphere Research and Training IGERT short course committee	
Hack	James	CGD	ESSL	Member	DOE Climate Change Prediction Program (CCPP) Science Team	1991 - present
Hack	James	CGD	ESSL	Review-panel member	DOE Science Graduate Fellowship Program	1990 - present
Hack	James	CGD	ESSL	Member	DOE Atmospheric Radiation Measurements (ARM) Science Team	1991 - present
Hack	James	CGD	ESSL	Member	Oak Ridge National Laboratory Computer Science and Mathematics Division Advisory Committee	1998 - present
Hack	James	CGD	ESSL	co-chair	Clouds and Climate Program	1999 - present
Hack	James	CGD	ESSL	Member	CSM Scientific Steering Committee	2002 - present
Hack	James	CGD	ESSL	US Secretary of Energy-Appointed Member	DOE Office of Science Advanced Scientific Computing Advisory Committee	2003 - present
Hack	James	CGD	ESSL	Member	US Global Water Cycle Scientific Steering Committee	2002 - present
Hack	James	CGD	ESSL	Member	US Water Cycle Steering Group	2003 - present
Hack	James	CGD	ESSL	Member	US GEWEX Cloud Systems Study (GCSS) Scientific Steering Group	2004 - present
Hack	James	CGD	ESSL	co-chair	US CLIVAR Process Studies and Model Improvement Panel	2005
Hack	James	CGD	ESSL	Member	Oak Ridge National Laboratory Computer Science and Mathematics Division Advisory Committee	1998 - present
Hack	James	CGD	ESSL	Member	DOE Computational Science Graduate Fellowship Advisory Review Committee	2003 - present
Hack	James	CGD	ESSL	Member	CCSM Scientific Steering Committee	2002 - present
Hack	James	CGD	ESSL	co-chair	NCAR Clouds and Climate Program	1998 - present
Hack	James	CGD	ESSL	co-chair	NCAR Water Cycle Initiative Scientific Steering Committee	2003 - present

Hack	James	CGD	ESSL	Member	NCAR SCD Climate Simulation Laboratory Advisory and Allocation Panel	2002 - present
Hack	James	CGD	ESSL	Member	NCAR ARG Investigative Committees	2001 - present
Hagan	Maura	HAO	ESSL	Scientific Discipline Representative	Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) International Council of Scientific Unions	1999 - present
Hagan	Maura	HAO	ESSL	Member	NASA Geospace Sciences Management Operations Working Group (GMOWG)	2003 - present
Harano	Gene	SCD	CISL	Session Chair	Tape Head Interface Committee (THIC)	1
Harano	Gene	SCD	CISL	Member	StorageTek Strategic Advisory Council and StorageTek Large Tape Users Group	1
Harano	Gene	SCD	CISL	Program committee member	22nd IEEE/13th NASA Goddard Conference on Mass Storage Systems and Technologies	2
Harriss	Robert	ISSE	SERE	Member	NSF Geosciences Advisory Committee	
Harriss	Robert	ISSE	SERE	Member	NSF GPRA Advisory Committee	
Harriss	Robert	ISSE	SERE	Chair	Geosciences Advisory Subcommittee on Education and Diversity	
Harriss	Robert	ISSE	SERE	Member, External Advisory Committee	Utah Trace-Gas Emissions Study (UTES) Project, University of Utah	
Harriss	Robert	ISSE	SERE	Member, External Advisory Committee	Decision Center for a Desert City, Arizona State University	
Harriss	Robert	ISSE	SERE	Technical Advisory on Sustainability and Lifelong Learning	Houston Advanced Research Center	
Heymsfield	Andrew J.	MMM	ESSL	Scientific Steering Group	GCSS	
Holland	Marika	CGD	ESSL	Member	International CLIVAR Working Group on Ocean Model Development	Since 2005
Holland	Marika	CGD	ESSL	Member	WCRP Climate and Cryosphere (CliC) Project, Arctic Climate Panel	Since 2004
Holland	Marika	CGD	ESSL	Co-chair	NSF/ARCSS Freshwater Initiative, Changes and Attributions Working Group	Since 2004
Holland	Marika	CGD	ESSL	Member	National Science Foundation, Arctic System Science (ARCSS) Committee	Since 2003
Holland	Marika	CGD	ESSL	Co-chair	Community Climate System Model, Polar Climate Working Group.	Since 2003
Holzer	Tom	HAO	ESSL	Member	NSF	
Holzer	Tom	HAO	ESSL	Member	NSF	
Huang	Xiang-Yu	MMM	ESSL	Member	ECMWF Scientific Advisory Committee	
Huang	Xiang-Yu	MMM	ESSL	Member	EUMETSAT Meteosat Third Generation (MTG) Mission Team	
Huang	Xiang-Yu	MMM	ESSL	Guest Professor	Beijing Meteorological College	
Huang	Xiang-Yu	MMM	ESSL	Guest Professor	Beijing Urban Meteorological Research Institute	
Hurrell	James	CGD	ESSL	Member	Phi Alpha Epsilon	1981 - present
Hurrell	James	CGD	ESSL	Member	Sigma Zeta	1983 - present
Hurrell	James	CGD	ESSL	Member	Alpha Chi	1984 - present
Hurrell	James	CGD	ESSL	Member	Sigma Xi	1986 - present
Hurrell	James	CGD	ESSL	Member	Phi Kappa Phi	1987 - present
Hurrell	James	CGD	ESSL	Member	American Meteorological Society	1985 - present
Hurrell	James	CGD	ESSL	Member	American Geophysical Union	1996 - present
						2000-

Hurrell	James	CGD	ESSL	Member	Royal Meteorological Society	present
Hurrell	James	CGD	ESSL	Co-chair	U.S. Climate Variability and Predictability (CLIVAR) Scientific Steering Committee	2003-present
Hurrell	James	CGD	ESSL	Member	International CLIVAR Atlantic Implementation Panel	1999 - present
Hurrell	James	CGD	ESSL	Member	NRC Committee on Climate Data Records from Operational Satellites: Development of a NOAA Satellite Data Utilization Plan	2003-present
Hurrell	James	CGD	ESSL	Member	International CLIVAR/PAGES Intersection Working Group	2004 - present
Hurrell	James	CGD	ESSL	Member	US CCSP Synthesis and Assessment Team: Product 1.1. Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences	2004 - present
Hurrell	James	CGD	ESSL	Member	International GLOBEC Scientific Steering Committee	2005 - present
Judge	Philip	HAO	ESSL	Member	NSO Users Committee	
Karl	Thomas	ACD	ESSL	Member	Sub Division of Atmospheric Sciences: Boundary Layer Processes & Surface Interactions of the European Geophysical Union	
Karl	Thomas	ACD	ESSL	Reviewer	ACP, JGR, GRL, ES&T	
Kasahara	Akira	CGD	ESSL	Member	American Meteorological Society	
Kasahara	Akira	CGD	ESSL	Member	American Association for the Advancement of Science	
Kasahara	Akira	CGD	ESSL	Member	American Geophysical Union	
Kasahara	Akira	CGD	ESSL	Member	Sigma-Xi Scientific Society	
Kasahara	Akira	CGD	ESSL	Member	Meteorological Society of Japan	
Katz	Richard	ISSE	SERE	Member	NSF Proposal Review Panel on Biocomplexity in the Environment: Dynamics of Coupled Natural and Human Systems	
Katz	Richard	ISSE	SERE	Member	AMS Committee on Probability and Statistics	
Katz	Richard	ISSE	SERE	Program Co-Chair	AMS 18th Conference on Probability and Statistics in Atmospheric Sciences	
Kellie	AI	SCD/IMAGE	CISL	Board Member	IBM-Deep Computing Institute External Advisory Board	2
Kellie	AI	SCD/IMAGE	CISL	Board Member	Battlespace Environment Institute BoD	1
Kellie	AL	SCD/IMAGE	CISL	Board Member	WMO	2
Kiehl	Jeffrey	CGD	ESSL	Member	American Meteorological Society	
Kiehl	Jeffrey	CGD	ESSL	Member	Geological Society of America	
Kiehl	Jeffrey	CGD	ESSL	Member	National Academies of Science Committee on Radiative Forcing Effects on Climate	
Kiehl	Jeffrey	CGD	ESSL	Member	CALYPSO External Advisory Panel	
Kiehl	Jeffrey	CGD	ESSL	Member	External Advisory Panel, Cooperative Institute for Climate Science Princeton University	
Klemp	Joseph B.	MMM	ESSL	Chair	AMS Publications Commission	
Klemp	Joseph B.	MMM	ESSL	Chair	AMS Information Systems Committee	
Klemp	Joseph B.	MMM	ESSL	member	AMS Awards Oversight Committee	
Klemp	Joseph B.	MMM	ESSL	member	LEAD External Advisory Panel	
Kleypas	Joanie	ISSE	SERE	Co-Chair	IGBP Fast Track Initiative, "Ocean Acidification"	
Kleypas	Joanie	ISSE	SERE	Member	Carbo-Ocean Scientific Steering Committee (European Union)	
Knight	Charles A.	MMM	ESSL		NRC Panel to review cold regions research and engineering lab	
Knoelker	Michael	HAO	ESSL	Member	AURA Board of Directors	1999-2005
Kwon	Young-Oh	CGD	ESSL	Member	American Geophysical Union	1999-2005
Kwon	Young-Oh	CGD	ESSL	Member	Korean Society of Oceanography	1998-2005
Laing	Arlene	MMM	ESSL	Member	AMS Committee on Satellite Meteorology and Oceanography	

Laing	Arlene	MMM	ESSL	Member	National Academy of Sciences, Committee on Climate Data Records from Environmental Satellites	
Lamarque	Jean-Francois	ACD	ESSL	Member	GEIA Steering Committee	
Lawrence	David	CGD	ESSL	Member	American Geophysical Union	
Lawrence	David	CGD	ESSL	Member	American Geophysical Union	
Lazo	Jeffrey	ISSE	SERE	Chair	THORPEX Societal and Economics Application Working Group	
LeMone	Margaret A.	MMM	ESSL	Member	University of Chicago Review Committee for Environmental Research Division	
LeMone	Margaret A.	MMM	ESSL	Member	NAE Program Development Committee	
LeMone	Margaret A.	MMM	ESSL	Member	AMS Planning Commission	
LeMone	Margaret A.	MMM	ESSL	Member	AMS Ethics Committee	
LeMone	Margaret A.	MMM	ESSL	Member	NRC Committee Surface Transportation: The Roadway Environment	
LeMone	Margaret A.	MMM	ESSL	Member	NRC Committee on Strategic Guidance for NSF's Support of Research in the Atmospheric Sciences	
LeMone	Margaret A.	MMM	ESSL	Member	Jack Williams Weather Book Advisory Committee - AMS	
Liu	Han-Li	HAO	ESSL	Co-Chair	The Institute for Integrative and Multidisciplinary Earth Study (TIIMES) Focus Group on Lower/Upper Atmospheric Coupling	2005 - present
Low	B.C.	HAO	ESSL	Member	National Council for Research	2005 - 2007
Low	B.C.	HAO	ESSL	Member	NASA	2004
Low	B.C.	HAO	ESSL	Member	Tsing Hua University, Taiwan	2004 - present
Low	B.C.	HAO	ESSL	Member	Tsing Hua University, Taiwan	1991 - present
Lu	Gang	HAO	ESSL	Scientific Discipline Representative	Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)	1999 - present
Lu	Gang	HAO	ESSL	Member	Geospace Environment Modeling (GEM) Science Steering Committee	2002 - present
Lu	Gang	HAO	ESSL	Member	National Academy of Science Committee on Solar and Space Physics (CSSSP)	2003 - present
Lu	Gang	HAO	ESSL	Aeronomy Secretary	Space Physics and Aeronomy Section of the American Geophysical Union	2004 - present
Lu	Gang	HAO	ESSL	Co-Leader	Working Group on Theme 3.3: Atmospheric Coupling Processes - Coupling by Electrodynamics Including Ionospheric/Magnetospheric Processes of the Climate And Weather of the Sun-Earth System (CAWSES) International Program	2004 - present
Madden	Roland	CGD	ESSL	Member	American Meteorological Society	1963 - 2005
Madden	Roland	CGD	ESSL	Interview and transcription of interview of Harry van Loon		
Madden	Roland	CGD	ESSL	Member	American Geophysical Union	1980 - 2005
Mahoney	William	WSAP	RAL	Committee Member	AMS ITS & Surface Transportation Weather Committee	
Mahoney	William	WSAP	RAL	Committee Member	AMS Economic Development Committee	
Mahoney	William	WSAP	RAL	Chair	Board on Enterprise Economic Development	
Mahoney	William	WSAP	RAL	Associate Member	Aurora Board	
Mahoney	William	WSAP	RAL	Member	Weather Information & Applications Special Interest Committee	
Mahowald	Natalie	CGD	ESSL	Member	Steering Committee IGBP AIMES	2004 - present
Mankin	Bill	ACD	ESSL	Member	NASA Review Panel for AURA Science	
Massie	Steve	ACD	ESSL	Member	AURA Education committee	
Matsunaga	Sou	ACD	ESSL	Referee	Atmospheric Environment	
Matsunaga	Sou	ACD	ESSL	Referee	Separation Science and Technology	
McKenna	Daniel	ACD	ESSL	Member	Atmospheric Chemistry and Physics	

Mearns	Linda	ISSE	SERE	Member	NAS Climate Research Committee
Mearns	Linda	ISSE	SERE	Member	Human Dimensions of Global Change Committee
Mearns	Linda	ISSE	SERE	Member	IPCC Task Group on Climate Assessments
Mearns	Linda	ISSE	SERE	Member	IPCC Global Environmental Change and Food Systems (GECaFS)
Mearns	Linda	ISSE	SERE	Lead Author	IPCC Working Group 1
Mearns	Linda	ISSE	SERE	Lead Author	IPCC Working Group 2
Meehl	Gerald	CGD	ESSL	Member	American Meteorological Society
Meehl	Gerald	CGD	ESSL	Member	American Geophysical Union
Meehl	Gerald	CGD	ESSL	Member	Pacific Science Association
Meehl	Gerald	CGD	ESSL	Member	Working Group One Report Group, IPCC, WMO
Meehl	Gerald	CGD	ESSL	Lead Author	IPCC Fourth Assessment Report
Meehl	Gerald	CGD	ESSL	Member	Climate Variability and Predictability Working Group on Coupled Models (CLIVAR WGCM), World Climate Research Program
Meehl	Gerald	CGD	ESSL	Chairman	Coupled Model Intercomparison Project (CMIP), CLIVAR, World Climate Research Program
Meehl	Gerald	CGD	ESSL	Member	Steering Committee for Initial Assessment of the Consequences of Climate Variability and Change for the Pacific Islands, East-West Center, University of Hawaii
Meehl	Gerald	CGD	ESSL	Member	U.S. CLIVAR Scientific Steering Committee
Meehl	Gerald	CGD	ESSL	Chairman	Working Group on Coupled Models (WGCM) Climate Simulation Panel
Meehl	Gerald	CGD	ESSL	Vice-chair	CLIVAR Working Group on Coupled Models (WGCM)
Meehl	Gerald	CGD	ESSL	Member	National Research Council Climate Research Committee
Meehl	Gerald	CGD	ESSL	Co-Chair	CCSM Climate Change Working Group, NCAR
Meehl	Gerald	CGD	ESSL	Member	Japan/US. Scientific Advisory Committee for the International Pacific Research Center, University of Hawaii
Meehl	Marla	SCD	CISL	Member	Quilt Steering and Executive Committees
Meehl	Marla	SCD	CISL	Member	BRAN Management and BRAN Technical Committees
Meehl	Marla	SCD	CISL	Board Member	Front Range GigaPop
Meehl	Marla	SCD	CISL	Chair	Front Range GigaPop Management Committee
Meehl	Marla	SCD	CISL	Secretary	National LambdaRail Board of Directors
Meehl	Marla	SCD	CISL	Member	Westnet Steering Committee
Middleton	Don	SCD	CISL	Member	IEEE Visualization 2004 Organizing Committee
Miesch	Mark	HAO	ESSL	Volunteer	NSF
Miller	Kathleen	ISSE	SERE	Member	Scientific Steering Committee of the GLOBEC-CLIOTOP
Moeng	Chin-Hoh	MMM	ESSL		AMS Committee on Meteorological Aspect of Air Pollution
Moncrieff	Mitchell W.	MMM	ESSL	member	NASA CloudSat Applications Advisory Group
Moncrieff	Mitchell W.	MMM	ESSL	Member	NASA Precipitation Science Team
Moncrieff	Mitchell W.	MMM	ESSL	member	Advisory Board of the Encyclopedia of Atmospheric Sciences
Moncrieff	Mitchell W.	MMM	ESSL	Member	Cloud System Study (GCSS) Science Panel
Moncrieff	Mitchell W.	MMM	ESSL	member	NASA Earth System Science Panel (ESSP) Science Panel
Moncrieff	Mitchell W.	MMM	ESSL	member	Deutsche Forschungsgemeinschaft (DFG) Review Panel
Morrill	Carrie	CGD	ESSL	Member	American Meteorological Society
Morrill	Carrie	CGD	ESSL	Member	American Geophysical Union
Morrill	Carrie	CGD	ESSL	Scientific Reviewer	DLESE Climate Change Collection
Morrill	Carrie	CGD	ESSL	Co-Coordinator Student Awards	AGU Paleoceanography & Paleoclimatology Focus Group
Morss	Rebecca	ISSE	SERE	Member	National Research Council Committee on Estimating and Communicating Uncertainty in Weather and Climate

					Forecasts	
Morss	Rebecca	ISSE	SERE	Member	Organizing Committee for National Academies of Engineering First Indo-U.S. Frontiers of Engineering Symposium	
Morss	Rebecca	ISSE	SERE	Representative on Societal and Economic Applications	North American THORPEX Committee	
Morss	Rebecca	ISSE	SERE	Member	NOAA THORPEX Science and Implementation Team	
Morss	Rebecca	MMM	ESSL	Member	North American THORPEX science planning committee, representative on societal impacts	
Morss	Rebecca	MMM	ESSL	Member of Advisory Panel	NCAR Climate and Weather Impact Assessment Initiative	
Morss	Rebecca	MMM	ESSL	Co-chair	THORPEX, The Observing -system Research and Predictability Experiment: Societal and Economic Applications sub-program	
Morss	Rebecca	MMM	ESSL	Member	THORPEX, The Observing -system Research and Predictability Experiment: International Scientific Steering Committee	
Morss	Rebecca	MMM	ESSL	Member	NOAA THORPEX Science and Implementation Team	
Morss	Rebecca	MMM	ESSL	Member	National Research Council Committee on Estimation and Communication Uncertainty in Weather and Climate Forecasts	
Morss	Rebecca	MMM	ESSL	Member	National Academies for Engineering Indo-US Frontiers of Engineering Symposium Organizing Committee	
Morss	Rebecca	MMM	ESSL	Member	NCAR/Inter-American Institute Program Steering Committee	
Moser	Susanne	ISSE	SERE	Reviewer (proposals)	Inter-American Institute for Global Change Research	
Moser	Susanne	ISSE	SERE	Reviewer (manuscripts)	Global Environmental Politics	
Moser	Susanne	ISSE	SERE	Reviewer (manuscripts)	ARCTIC	
Moser	Susanne	ISSE	SERE	Reviewer (manuscripts)	Climatic Change	
Moser	Susanne	ISSE	SERE	Reviewer (manuscripts)	Regional Studies	
Moser	Susanne	ISSE	SERE	Reviewer (manuscripts)	Local Environment	
Moser	Susanne	ISSE	SERE	Reviewer (manuscripts)	Global Environmental Change	
Moser	Susanne	ISSE	SERE	Co-Organizer	AGU Annual Meeting: Session on Communicating Climate Change	
Moser	Susanne	ISSE	SERE	Co-Chair	AAG Annual Meeting: Session on Responding to Climate Change	
Moser	Susanne	ISSE	SERE	Co-Chair	AAG Annual Meeting: Session on Coastal Futures	
Moser	Susanne	ISSE	SERE	Co-Chair	Paper Session: Sixth Open Meeting of the Human Dimensions of Global Change Community	
Moser	Susanne	ISSE	SERE	Member	AAG Scientific Freedom and Responsibility Committee	
Moser	Susanne	ISSE	SERE	Member	Scientific Advisory Council, Consortium of Atlantic Regional Assessment	
Moser	Susanne	ISSE	SERE	Member	Scientific Advisory Board, Social Change and the Nascent Climate Movement	
New	Gary	SCD	CISL	Electrical Chair	Infrastructure Committee, IEEE Supercomputer 2004 Conference	3
Nychka	Doug	IMAGe	CISL	Member	Committee on Applied and Theoretical Statistics, National Academies	2
Nychka	Doug	IMAGe	CISL	Chair	Committee on Applied and Theoretical Statistics, National Academies	1
Nychka	Doug	IMAGe	CISL	Member	Center for Integrating Statistical and Environmental Science Scientific Advisory Panel	3
O'Neil	Peter	SCD	CISL	Member	National LambdaRail Engineering Committee	1

Otto-Bliesner	Bette	CGD	ESSL	Member	American Geophysical Union	
Otto-Bliesner	Bette	CGD	ESSL	Member	American Meteorological Society	
Otto-Bliesner	Bette	CGD	ESSL	Lead Author	IPCC Fourth Assessment Report, Chapter 6	
Otto-Bliesner	Bette	CGD	ESSL	Contributing Author	IPCC Fourth Assessment Report, Chapter 9	
Otto-Bliesner	Bette	CGD	ESSL	Steering Committee Member	Paleoclimate Modeling Intercomparison Project (PMIP)	
Otto-Bliesner	Bette	CGD	ESSL	Chair	Paleoceanography and Paleoclimatology Focus Group, AGU	
Otto-Bliesner	Bette	CGD	ESSL	Panel Member	NOAA Paleoclimatology Program Review Panel	
Otto-Bliesner	Bette	CGD	ESSL	Steering Committee Member	GeoSystems Initiative	
Pan	Laura	ACD	ESSL	Member	AMS Middle Atmosphere	
Phillips	Adam	CGD	ESSL	Member	American Meteorological Society	1998-2005
Politovich	Marcia	AAP	RAL	Councillor	AMS Council	
Poulos	Greg	EOL	EOL	Chair	Mountain Meteorology Committee. AMS	
Pouquet	Annick	IMAGe	CISL	Committee Member	Review of The Observatoire de Toulouse	1
Pouquet	Annick	IMAGe	CISL	Advisory Panel	National Science Foundation Science and Technology Center, Magnetic Self-Organization Center in Astrophysical and Planetary Plasmas	1
Pouquet	Annick	IMAGe	CISL	Member of Organizing Committee	International Union of Theoretical and Applied Mechanics Conference	1
Pouquet	Annick	IMAGe	CISL	Member of Organizing Committee	2007 Turbulence Conference at the Newton Institute	1
Pouquet	Annick	IMAGe	CISL	Referee	Canadian Council	1
Pouquet	Annick	IMAGe	CISL	Member	Habilitation committee in Grenoble	1
Powers	Jordan G.	MMM	ESSL	Member and Modeling Science Representative	Antarctic Regional Interactions Meteorology Experiment (RIME) Scientific Steering Committee	
Powers	Jordan G.	MMM	ESSL	Member	Antarctic RIME Science Board	
Qian	Taotao	CGD	ESSL	Member	American Meteorological Society	2000-2005
Randel	William	ACD	ESSL	Member	National Research Council (NRC) Board on Atmospheric Sciences and Climate (BASC)	
Randel	William	ACD	ESSL	Chair	NRC review panel for the Climate Change Science Program (CCSP) Assessment on Temperature Trends in the Lower Atmosphere	
Randel	William	ACD	ESSL	Member	Scientific Steering Group for the Network for the Detection of Stratospheric Change (NDSC)	
Randel	William	ACD	ESSL	Project Leader	SPARC	
Rasch	Philip	CGD	ESSL	Member	American Meteorological Society	1977 - present
Rasch	Philip	CGD	ESSL	Member	American Association for the Advancement of Science	1999 - present
Rasch	Philip	CGD	ESSL	Member	American Geophysical Union	1975 - present
Rasch	Philip	CGD	ESSL	Editorial Advisory Board Member	Tellus	1991 - present
Rasch	Philip	CGD	ESSL	Steering Committee Member	Polar Study using Aircraft, Remote sensing, surface measurements and models, of Climate, Chemistry, Aerosols, and Transport (POLARCAT)	2004 - present
Rasch	Philip	CGD	ESSL	Scientific Steering Committee Chair	International Global Atmospheric Chemistry (IGAC) program	2002 - present

Rasch	Philip	CGD	ESSL	Co-chair	CCSM Atmospheric Model Working Group	2003 - present
Rasch	Philip	CGD	ESSL	Steering Committee Member	NASA Global Modeling Initiative (GMI)	2002 - present
Rasch	Philip	CGD	ESSL	Member	Cloud Processing Team	2002 - present
Rasch	Philip	CGD	ESSL	Member	NASA Microwave Image Satellite Radiometer Team	2002 - present
Rasch	Philip	CGD	ESSL	Scientific Organizing Committee Member	Fourth International Workshop on Multiangular Measurements and Models (IWMM-4)	2004 - present
Rasch	Philip	CGD	ESSL	Steering Committee Member (ex officio)	International Geosphere-Biosphere Programme (IGBP)	2002 - present
Rasch	Philip	CGD	ESSL	Editorial Panel Member	Tellus	1992 - present
Richmond	Arthur	HAO	ESSL	Member	Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) Climate and Weather of the Sun-Earth System (CAWSES) Steering Committee	2002 - 2005
Richmond	Arthur	HAO	ESSL	Member	American Geophysical Union (AGU) Space Physics and Astronomy Section Executive Committee	2002 - 2005
Richmond	Arthur	HAO	ESSL	Leader	NASA Living With A Star (LWS) Focused Science Topic Team on Thermospheric Density and Composition	2005 - present
Richter	Dirk	EOL	EOL	President-Elect	Rocky Mountain Optical Society	
Ringleman	Edward	EOL	EOL	ICAP Inspector for NASA DC-8	Interagency Committee for Aviation Policy. ICAP	
Ringleman	Edward	EOL	EOL	Project Lead	Feasibility Study of NSF Polar Programs LC-130	
Roble	Raymond	HAO	ESSL	Member	University of Alaska Geophysical Institute Advisory Board	1985 - present
Roble	Raymond	HAO	ESSL	Member	Space Physics and Aeronomy Fellows Committee	2005 - present
Rotunno	Richard	MMM	ESSL	Member	Thorpex International Scientific Steering Committee	
Rotunno	Richard	MMM	ESSL	Member	Scientific Steering Committee, Mesoscale Alpine Programme (MAP)	
Rotunno	Richard	MMM	ESSL	Member	AMS Awards Committee	
Saravanan	Ramalingam	CGD	ESSL	Member	American Meteorological Society	
Saravanan	Ramalingam	CGD	ESSL	Member	American Geophysical Union	
Sassi	Fabrizio	CGD	ESSL	Board of Directors Member	Atmospheric Systems and Analysis Corporation	2002 - present
Sassi	Fabrizio	CGD	ESSL	Member	American Geophysical Union	1992 - present
Schimel	David	CGD	ESSL	Committee Member	NRC Decadal Survey	2005 - 2006
Schimel	David	CGD	ESSL	Committee Member	DOE BERAC subcommittee	2005
Schimel	David	CGD	ESSL	Editorial board	Annual Review of Environment and Resources	
Schimel	David	CGD	ESSL	Board of advising editors	Science Magazine	
Schimel	David	CGD	ESSL	Editor in Chief	Ecological Applications	
Shea	Dennis	CGD	ESSL	Data Archivist	ERA-40 Data archive at T85 resolution	
Shea	Dennis	CGD	ESSL	Member	American Meteorological Society	1965 - 2005
Shields	Christine	CGD	ESSL	Member	American Meteorological Society	
Skamarock	William	MMM	ESSL		AMS Mesoscale Proseess Committee	
Smith	James	ACD	ESSL	Member	Bylaws Committe of the American Assoication for Aerosol Research	

2002-

Smith	Lesley	CGD	ESSL	Member	American Geophysical Union	2005
Smith	Lesley	CGD	ESSL	Member	American Physical Society	1987 - 2005
Snyder	Chris M.	MMM	ESSL	Member Scientific Committee	2005 Program on Data Assimilation in Geophysical Systems, Statistical and Applied Mathematical Sciences Institute	
Solomon	Stanley	HAO	ESSL	Member	Program Committee, Remote Sensing of the Atmosphere, SPIE Meeting	2004
Solomon	Stanley	HAO	ESSL	Co-Covener	Special Session "Climatological Variations in the Upper Atmosphere," AGU Joint Assembly	2005
Solomon	Stanley	HAO	ESSL	Co-Covener	Special Session "The Response of Planetary Ionospheres to Solar Irradiance," AGU Joint Assembly	2005
Solomon	Stanley	HAO	ESSL	Member	TIGER Project Steering Committee	1998 - present
Solomon	Stanley	HAO	ESSL	Member	NASA TIMED Mission Science Workshop Group	1993 - present
Solomon	Stanley	HAO	ESSL	Member	Center for Integrated Space Weather Modeling (CISM) Executive Committee	2002 - present
Stephens	Britton	EOL	EOL	panel member	The Surface Ocean - Lower Atmosphere Study (SOLAS) Implementation Group 3	
Stephens	Britton	EOL	EOL	panel member	SOLAS - IMBER Joint Working Group for Carbon Research	
Sun	Juanzhen	MMM	ESSL	Radar Meteorology	AMS Committee	
Thornton	Peter	CGD	ESSL	Co-chair	North American Carbon Program, Data Management Planning Workshop	Jan-05
Thornton	Peter	CGD	ESSL	Invited member	North American Carbon Program Science Steering Group	January 2005 - present
Thornton	Peter	CGD	ESSL	Co-chair	Data System Task Force	January 2005 - present
Thornton	Peter	CGD	ESSL	Member	Continental Synthesis Task Force	January 2005 - present
Thornton	Peter	CGD	ESSL	Invited Member	Oak Ridge National Lab, Data Active Archive Center, User Working Group	November 2001 - present
Thornton	Peter	CGD	ESSL	Chair	Regional and Global Data Subcommittee	December 2004 - present
Thornton	Peter	CGD	ESSL	Chair	NCAR Early Career Scientists' Assembly	December 2003 - present
Thornton	Peter	CGD	ESSL	Invited Member	AmeriFlux Network Science Steering Committee	October 2004 - present
Trenberth	Kevin	CGD	ESSL	Chair, Cross Chapter Interactions	IPCC	May-05
Trenberth	Kevin	CGD	ESSL	Member, Executive Committee	NOAA Working Group (formerly Advisory Panel) on Climate and Global Change	1987 - 2005
Trenberth	Kevin	CGD	ESSL	Member	Joint Scientific Committee, WCRP	1999 - 2005
Trenberth	Kevin	CGD	ESSL	Member, Executive Committee	Joint Scientific Committee, WCRP	2003 - 2005
Trenberth	Kevin	CGD	ESSL	Chair	Working Group on Observations and Assimilation (WGOA)	2004 - 2005
Trenberth	Kevin	CGD	ESSL	Meeting Chair	WCRP Observation and Assimilation Panel (WOAP)	2005
Trenberth	Kevin	CGD	ESSL	Member	Task force on Coordinated Observations and Prediction of the Earth System (COPES)	2003 - 2005
Trenberth	Kevin	CGD	ESSL	Member	WCRP Modelling Panel	2004 - 2005

Trenberth	Kevin	CGD	ESSL	Member	NOAA Working Group on Climate Monitoring (formerly Council on Long-term Climate Monitoring)	1998-2005
Trenberth	Kevin	CGD	ESSL	Member	NOAA Climate Observing System Council	1999-2005
Trenberth	Kevin	CGD	ESSL	Member	NOAA Science Advisory Panel for the Climate Change Data & Detection (CCDD)	2001-2005
Trenberth	Kevin	CGD	ESSL	Member	Ad hoc NOAA Paleoclimate Advisory Committee	2003-2005
Trenberth	Kevin	CGD	ESSL	Member	CCSP reanalysis implementation plan working group	2003-2005
Trenberth	Kevin	CGD	ESSL	Member	CERES Climate Model and Analysis Advisory Group	2003-2005
Trenberth	Kevin	CGD	ESSL	Member	Organizing Committee for International CLIVAR workshop on Ocean Reanalysis	2004
Trenberth	Kevin	CGD	ESSL	Member	NRC Panel on "Evaluation of climate change indicators for EPA"	2004
Trenberth	Kevin	CGD	ESSL	Member	American Association for the Advancement of Science	1978-2005
Trenberth	Kevin	CGD	ESSL	Member	American Meteorological Society	1969-2005
Trenberth	Kevin	CGD	ESSL	Member	Meteorological Society of New Zealand	1980-2005
Trenberth	Kevin	CGD	ESSL	Member	American Geophysical Union	1998-2005
Trenberth	Kevin	CGD	ESSL	Coordinating Lead Author	IPCC 4th Assessment Report, Chapter 3	2004-2005
Trenberth	Kevin	CGD	ESSL	Participant	NRC Climate Research Committee meeting on reanalysis	2005
Trenberth	Kevin	CGD	ESSL	Panel Member	SOARS protégés on Policy and Science	2005
Trenberth	Kevin	CGD	ESSL	Advisory Member	EUMETSAT meeting	2005
Trier	Stanley B.	MMM	ESSL	Committee Member	AMS Severe Local Storms Committee	
Tufo	Henry	SCD	CISL	Program committee member	6th LCI International Conference on Linux Clusters: The HPC Revolution	1
Tyndall	Geoff	ACD	ESSL	co-author	Book: The Atmospheric Chemistry of Alkanes	
VanDyke	Jim	SCD	CISL	Member	BRAN Management and BRAN Technical Committees	1
Wang	Junhong	EOL	EOL	committee member	NRCâ€™s committee on reviewing US CCSP's first report about "Temperature trends in the lower atmosphere: steps for understanding and reconciling differences"	
Wang	Junhong	EOL	EOL	Committee member	AMS committee on measurements	
Wang	Junhong	EOL	EOL	Committee member	NOAA/GCOS Upper-Air workshop II steering committee	
Wang	Junhong	EOL	EOL	Chair	a breakout group at NOAA/GCOS workshop to define climate requirements for upper air observations, 8-11 February 2005, Boulder, CO	
Washington	Warren	CGD	ESSL	Member	American Association for the Advancement of Science	
Washington	Warren	CGD	ESSL	Member	American Geophysical Union	
Washington	Warren	CGD	ESSL	Member	American Meteorological Society	
Washington	Warren	CGD	ESSL	Member	National Academy of Engineering	
Washington	Warren	CGD	ESSL	Member	American Philosophical Society	
Washington	Warren	CGD	ESSL	Member	National Council of the Environmental Defense Fund	
Washington	Warren	CGD	ESSL	Member	National Committee, AAAS	
Washington	Warren	CGD	ESSL	Member	Secretary of Energy Biological and Environmental Research Advisory Committee	
Washington	Warren	CGD	ESSL	Co-chair	CCSM Climate Change Working Group, NCAR	

Washington	Warren	CGD	ESSL	Member	U. S. Commission on Ocean Policy Science Advisory Panel	
Washington	Warren	CGD	ESSL	Member	National Academies of Science Coordinating Committee on Global Change	
Washington	Warren	CGD	ESSL	Member	NOAA Research Review Panel	
Washington	Warren	CGD	ESSL	Member	National Research Council Survey Steering Committee for Earth Sciences and Applications from Space: A Community Assessment and Strategy for the Future	
Washington	Warren	CGD	ESSL	Member	Advisory Committee of the AAAS Center for Advancing Science & Engineering Capacity	
Washington	Warren	CGD	ESSL	Member	AMS Development Committee	
Washington	Warren	CGD	ESSL	Member	American Philosophical Society Class 1 Committee on Memberships	
Washington	Warren	CGD	ESSL	Chairman	National Science Board	
Webster	Chris	EOL	EOL	Chairman	IWGADTS - Inter-agency working group for Airborne	
Weil	Jeffrey	MMM	ESSL	Chair	AMS/EPA Regulatory Model Improvement Committee	
White	Dick (Oran)	HAO	ESSL	Member	Organizing Committee for Annual SORCE Science Meeting	2005
Wiedinmyer	Christine	ACD	ESSL	Representative	NCAR Early Career Scientist Assoc.	
Wiedinmyer	Christine	ACD	ESSL	Reviewer	Journal of Geophysical Research, Atmospheric Environment, Geophysical Research Letters, Atmospheric Chemistry and Physics, NOAA	
Williams	John	AAP	RAL	Member	American Meteorological Society Committee on Artificial Intelligence Applications to Environmental Science	
Williamson	David	CGD	ESSL	Member	DOE Climate Change Prediction Program (CCPP) Science Team	1991 - present
Williamson	David	CGD	ESSL	Member	Joint Scientific Committee (JSC) for the World Climate Research Programme and the WMO Commission for Atmospheric Sciences (CAS) Working Group on Numerical Experimentation (WGNE)	1991 - present
Williamson	David	CGD	ESSL	Member	Program Committee PDES	1991 - present
Williamson	David	CGD	ESSL	Organizing Committee Member	NCAR ARG	2003-2005
Williamson	David	CGD	ESSL	Member	NCAR ARG Investigative Committees	2003-2005
Williamson	David	CGD	ESSL	Member	Program Committee for the 2006 Workshop on Numerical Solutions of Fluid Flow in Spherical Geometry	2004-2006
Williamson	David	CGD	ESSL	Member	Organizing Committee for the Aqua-Planet Experiment (APE)	2002 - present
Williamson	David	CGD	ESSL	Member	European Geosciences Union	2005 - present
Williamson	David	CGD	ESSL	Member	American Meteorological Society	1962 - present
Wiltberger	Michael	HAO	ESSL	Member	NSF GEM General Geospace Circulation Model Coordinating Committee (GGCMCC)	2003 - present
Wiltberger	Michael	HAO	ESSL	Main Scientific Organizer	COSPAR D3.1 Meeting Session	2004
Wiltberger	Michael	HAO	ESSL	Mail Reviewer	NSF GEM and NSW Programs and NASA LWS and GI Programs	2000 - present
Wiltberger	Michael	HAO	ESSL	Reviewer	GRL and JGR Space Physics and Advances in Space Research Publications	2000 - present
Worley	Steve	SCD	CISL	Organizing Chair	The Development of Improved Observational Data Sets for Reanalysis: Lessons Learned and Future Directions Workshop	1
Wu	Qian	HAO	ESSL	Member	NSF Proposal Review Panel	2005
Yin	Jeffrey	CGD	ESSL	Member	American Meteorological Society	2001-2005

Yin	Jeffrey	CGD	ESSL	Member	American Geophysical Union	2001 - 2005
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## Publications

### Computational and Information Systems Laboratory (CISL)

IMAGe: Refereed and Non-Refereed

SCD: Refereed and Non-Refereed

### Earth Observing Laboratory (EOL)

EOL: Refereed and Non-Refereed

### Earth and Sun Systems Laboratory (ESSL)

ACD: Refereed

CGD: Refereed and Non-Refereed

HAO: Refereed and Non-Refereed

MMM: Refereed and Non-Refereed

### Research Applications Laboratory (RAL)

RAL: Refereed and Non-Refereed

### Societal-Environmental Research and Education Laboratory (SERE)

ASP: Refereed and Non-Refereed

CCB: Refereed and Non-Refereed

ISSE: Refereed and Non-Refereed

### Computational and Information Systems Laboratory (CISL)

#### IMAGe

##### Refereed (39)

Alexakis, A., P. Mininni, and A. Pouquet, 2005: Shell to shell energy transfer in MHD turbulence. *Phys. Rev. E*, **72**, doi: 10.1103/PhysRevE.72.046301.

Anderson, J. L., \*B. Wyman, \*S. Zhang, and T. Hoar, 2005: Assimilation of surface pressure observations using an ensemble filter in an idealized global atmospheric prediction system. *J. Atmos. Sci.*, **62**, 2925-2938.

Anderson, J., \*V. Balaji, \*A. J. Broccoli, \*W. F. Cooke, \*T. L. Delworth, \*K. W. Dixon, \*L. J. Donner, \*K. A. Dunne, \*S. M. Freidenreich, \*S. T. Garner, \*R. G. Gudgel, \*C. T. Gordon, \*I. M. Held, \*R. S. Hemler, \*L. W. Horowitz, \*S. A. Klein, \*T. R. Knutson, \*P. J. Kushner, \*A. R. Langenhorst, N. -C. Lau, \*Z. Liang, \*S. L. Malyshev, \*P. C. D. Milly, \*M. J. Nath, \*J. J. Plosky, \*V. Ramaswamy, \*M. D. Schwarzkopf, \*E. Shevliakova, \*J. J. Sirutis, \*B. J. Soden, \*W. F. Stern, \*L. A. Thompson, \*R. John Wilson, \*A. T. Wittenberg, and \*B. L. Wyman, 2005: The new GFDL global atmosphere and land model AM2/LM2: Evaluation and prescribed SST simulations. *J. Climate*, **17**, 4641-4673.

**Bengtsson, T.** , \*R. Milliff, **R. Jones**, D. Nychka, and \*P. P. Niiler, 2005: A state-space model for ocean drifter motions dominated by inertial oscillations. *J. Geophys. Res.*, **110**, doi: 10.1029/2004JC002850.

\*Brandli, R., \*T. D. Bucheli, \*T. Kupper, R. Furrer, \*F. X. Stadelmann, and \*J. Tarradellas, 2005: Persistent organic pollutants in compost and its input materials - A review of field studies. *J. Environmental Quality*, **34**, 735-760.

Caya, A., J. Sun, and C. Snyder, 2005: A comparison between the 4DVAR and the ensemble Kalman Filter techniques for radar data assimilation. *Mon. Wea. Rev.*, in press.

Cooley, D., **P. Naveau**, and \*V. Jomelli, 2005: A Bayesian hierarchical extreme value model for lichenometry. *Environmetrics*, in press.

Drignei, D., 2005: A nonstationary statistical model for computationally intensive numerical ordinary differential systems. *Comm. in Statistics: Simulation and Computation*, **34**, 737-750.

\*Feingold, G., R. Furrer, **P. Pilewskie**, \*L. A. Remer, **Q. Min**, and \*H. Jonsson, 2005: Aerosol indirect studies at Southern Great Plains during the May 2003 intensive operation period. *J. Geophys. Res.*, in press.

\*Fournier, B., and R. Furrer, 2005: Automatic mapping in the presence of substitutive errors: A robust kriging approach. *Applied GIS*, **1**, doi: 10.2104/ag050012.

Furrer, R., 2005: Covariance estimation under spatial dependence. *J. Multivariate Analysis*, **94**, 366-381.

Gilleland, E., and D. Nychka, 2005: Statistical models for monitoring and regulating ground-level ozone. *Environmetrics*, **16**, 535-546.

**Gomez, D. O.**, and P. D. Mininni, 2005: Numerical simulations of MHD dynamos. *J. Atmos. Solar Terr. Phys.*, in press.

**Gomez, D. O.**, and P. D. Mininni, 2005: Description of Mauder-like events from a stochastic alpha-omega model. *Adv. Space Res.*, in press.

**Gomez, D. O.**, and P. D. Mininni, 2004: Direct numerical simulations of helical dynamo action: MHD and beyond. *Nonlinear Processes in Geophys.*, **11**, 619-629.

**Gomez, D. O.**, and P. D. Mininni, 2004: Understanding turbulence through numerical simulations. *Physica A*, **342**, 69-75.

**Gomez, D. O.**, P. D. Mininni, and **P. Dmitruk**, 2005: MHD simulations and astrophysical applications. *Adv. Space Res.*, **35**, 899-907.

**Gomez, D. O.**, P. D. Mininni, and **P. Dmitruk**, 2005: Parallel simulations in a turbulent MHD. *Phys. Scripta*, **T116**, 123-127.

\*Khare, S. P., and J. L. Anderson, 2005: An examination of ensemble filter based adaptive observation methodologies. *Tellus A*, in press.

\*Lillo, R., P. D. Mininni, and **D. O. Gomez**, 2005: Toward a dynamo model for the solar tachocline. *Physica A*, **349**, 667-674.

Liu, H., J. L. Anderson, and Y.-H. Kuo, 2005: Importance of forecast error multivariate correlations in idealized assimilation of GPS radio occultation data with the ensemble adjustment Kalman Filter. *Mon. Wea. Rev.*, in press.

**Mahajan, S. M.**, P. D. Mininni, and **D. O. Gomez**, 2005: Waves, Coriolis force and the dynamo effect. *Astrophys. Journal*, **619**, 1014-1018.

Matsuo, T., A. D. Richmond, and G. Lu, 2005: Optimal interpolation analysis of high-latitude ionospheric electrodynamics using empirical orthogonal functions: Estimation of dominant modes of variability and temporal scales. *J. Geophys. Res.*, **110**, doi: 10.1029/2004JA010531.

Mininni, P. D., and **D. O. Gomez**, 2004: A new technique for comparing solar dynamo models and observations. *Astron. Astrophys.*, **426**, 1065-1073.

Mininni, P., and **D. C. Montgomery**, 2005: Low magnetic Prandtl number dynamos with helical forcing. *Phys. Rev. E.*, in press.

Mininni, P. D., A. Alexakis, and A. Pouquet, 2005: Shell to shell energy transfer in MHD. II. Kinematic dynamo. *Phys. Rev. E.*, **72**, doi: 10.1103/PhysRevE.72.046302.

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