

UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH

MINUTES

Annual Members' Meeting  
4-5 October 2005  
Boulder, Colorado

TUESDAY, 4 OCTOBER

1. CALL TO ORDER, WELCOME, AND ADOPTION OF THE AGENDA

Chairman of the UCAR Board of Trustees Kelvin Droegemeier called the Annual Meeting of the UCAR Members to order at 1:00 pm on Tuesday, 4 October, in the Auditorium of the Center Green campus in Boulder, Colorado. Droegemeier welcomed the members of the UCAR Board of Trustees, Members' Representatives (58 of the 68 institutions were represented), Academic Affiliates' representatives, members of the University Relations Committee, NSF colleagues and guests and thanked them all for attending this meeting. He extended a special welcome to the new Member and Affiliate representatives. After reviewing the agenda, **it was regularly moved, seconded, and passed to adopt the agenda for the 4-5 October Members' meeting.**

Present for all or portions of the meeting were the following Members' Representatives and officially appointed substitutes:

University of Alabama in Huntsville	Don Perkey, S.T. Wu
University of Alaska-Fairbanks	Nicole Mölders
University of Arizona	Steven Mullen
Arizona State University	James Anderson, Joseph Zehnder
University of California, Berkeley	John Chiang
University of California, Davis	Richard Grotjahn, Susan Ustin
University of California, Irvine	Charlie Zender
University of California, Los Angeles	Kuo-Nan Liou
University of Chicago	Noboru Nakamura
University of Colorado	Darin Toohey
Colorado State University	Steven Rutledge
Cornell University	Kerry Cook
University of Denver	James Wilson
Drexel University	Fred House
Florida State University	Robert Ellingson
Harvard University	Kelly Chance
University of Hawaii	Barry Huebert, Tom Schroeder
Howard University	Everette Joseph, Gregory Jenkins
University of Illinois at Urbana-Champaign	Don Wuebbles
Iowa State University	William Gallus
University of Maryland	Ernesto Berbery, Russ Dickerson
Massachusetts Institute of Technology	Jim Hansen
McGill University	John Gyakum
University of Minnesota	Katherine Klink
University of Missouri	Donald Hagen, Tony Lupo
Naval Postgraduate School	Philip Durkee
University of Nebraska-Lincoln	Kenneth Dewey, Clinton Rowe

Nevada System of Higher Education  
New York University  
University of New Hampshire  
New Mexico Institute of Mining & Technology  
State University of New York at Albany  
North Carolina State University  
Ohio State University  
University of Oklahoma  
Oregon State University  
Pennsylvania State University  
Princeton University  
Purdue University  
University of Rhode Island  
Rice University  
Rutgers University  
Saint Louis University  
Scripps Institution of Oceanography  
Stanford University  
Texas A&M University  
University of Texas at Austin  
Texas Tech University  
University of Toronto  
University of Utah  
University of Virginia  
University of Washington  
Washington State University  
University of Wisconsin-Madison  
University of Wisconsin-Milwaukee  
Woods Hole Oceanographic Institution  
University of Wyoming  
Yale University  
York University

Vanda Grubisic, Mark Potosnak  
Andrew Majda  
Huiting Mao, Robert Talbot  
Kenneth Eack, William Winn  
Ken Demerjian  
Gary Lackmann, Len Pietrafesa  
John Rayner, Jay Hobgood  
Fred Carr, John Snow  
Jeff Barnes  
Eric Barron  
Leo Donner  
Ernie Agee, Jeffrey Vitter  
John Merrill  
Arthur Few  
James Miller, Alan Robock  
Carole Knight  
Joel Norris  
Robert Street  
Richard Orville, Mary Jo Richardson  
Zong-Liang Yang  
Christopher Weiss, John Schroeder  
Paul Kushner, Roland List  
Thomas Reichler, Tim Garrett  
Jennie Moody  
Gregory Hakim  
Brian Lamb  
Matt Hitchman, Michael Morgan  
Vincent Larson  
Steven Jayne  
Jeff Snider  
Ron Smith  
Donald Hastie, Rodney Webb

Present for all or portions of the meeting were the following Academic Affiliates:

University of Charleston  
Florida Institute of Technology  
Jackson State University  
Lyndon State College  
Universidad Metropolitana  
Millersville University  
University of North Dakota  
Plymouth State College  
St. Cloud State University  
San Francisco State University  
San Jose State University  
South Dakota School of Mines & Technology  
United States Naval Academy

Laney Mills  
Steven Lazarus  
Quinton Williams  
Bruce Berryman  
Juan Arratia  
Richard Clark  
Michael Poellot  
Eric Hoffman  
Tony Hansen  
Oswaldo Garcia  
Vin Saxena  
John Helsdon  
David Smith

2. SECRETARY'S REPORT

Secretary Steven Rutledge (Colorado State U) presented the minutes from the October 2004 Annual meeting to the Members for approval. **It was moved, seconded, and passed to approve the minutes as written.**

3. TREASURER'S REPORT

In the absence of Treasurer Barbara Feiner, Dan Wilson, UCAR Director of Treasury Operations, reviewed the Consolidated Statement of Funding and Expenditures for the eleven months ended 31 August 2005. The Members received copies of this report in advance of the meeting. Wilson reviewed the major program funding increases and decreases, noting that some of the apparent increases were due to the timing of when the funds were actually received.

**It was moved, seconded, and passed to receive the report.**

4. NOMINATING COMMITTEE REPORT

Fred Carr (U of Oklahoma), Chairman of the Members' Nominating Committee, reported on this year's process for nominating the slate of Trustee candidates and Members' committees. He asked for appointment of the tellers and approval of the voting procedure.

**It was moved, seconded, and passed to appoint Kathy Morgan and Terry Woods as tellers for the Trustee election.**

Carr then reviewed and recommended the customary voting procedure:

*The four candidates receiving the highest majorities will be elected Trustees. If all four positions are filled on the first ballot, the election is complete. If fewer than four Trustees are elected on the first ballot, then the name(s) of those so elected will be removed from the ballot, and an additional ballot or ballots will be taken until all Trustee positions are filled.*

**It was regularly moved, seconded, and passed to adopt the voting procedure as proposed.**

In anticipation of the elections the following day, Carr reviewed the slate of candidates and responsibilities of the Board members.

5. UCAR PRESIDENT'S ANNUAL REPORT

UCAR President Rick Anthes highlighted the following items: completion of the UCAR Metrics Report, the Field Project Support Report, the UCAR Partnerships Around the World document; creation of a GIS Map study showing collaborations and service with UCAR/NCAR/UOP and external scientists; conducting and compiling results from a follow-up Community Survey; and the release of the Interim Report of the BASC Study requested by the National Science Board to assess the NSF's support of the atmospheric sciences. He noted the considerable effort underway to revise the NCAR strategic plan; part of this process was a week long "Camp Center Green" NCAR Planning Retreat that involved Trustees, university members, NSF staff, as well as NCAR directors and staff. The strategic plan will be completed and sent to NSF in January 2006. Community input is being sought. UCAR's strategic plan will be developed after NCAR's is completed.

Anthes summarized the Trustee's discussion of UCAR possibly doing classified research in the future (UCAR has never done classified research). UCAR has for years been involved in research that is of great importance to national security and the protection of life and property, including weather prediction, remote sensing, and transport and diffusion modeling. Some of this research has come close to requiring secret security clearances, and in the future UCAR may be asked to do research that includes a classified component. After considerable study and discussion, the Trustees have concluded that UCAR will not do any classified research. UCAR scientists may partner with universities, private companies, or federal labs at facilities that do classified research and are experienced in mitigating against the risks, provided they do this on their own time and not as UCAR employees. Anthes noted that in a survey of U.S. universities, it was found that more than half are involved in classified research in one way or another.

Recent successes include the arrival of the new HIAPER aircraft, the remodel of Center Green 1, the near completion of the state-of-the-art FLO chemistry building, approval of the bike path between the Center Green and Foothills campuses, and UCAR being selected as the non-profit winner in the "Colorado Best Companies for Working Families" campaign.

Anthes discussed the two recent and devastating hurricanes, Katrina and Rita, and showed a comparison between radar observations and the WRF model; having accurate forecasts 60 hours before landfall undoubtedly saved lives, he said.

#### 6. UOP DIRECTOR'S REPORT

UOP Director Jack Fellows related a brief history of UOP with its inception in 1992 at the request of the community to help meet the collective research and education needs. He highlighted the eight UOP programs, all of which will be participating in the UCAR Forum poster session, in particular the education and training tools and programs provided by DLESE, NSDL, COMET, Unidata, GLOBE and VSP. Unidata, COSMIC, and DLESE provide technology and data services to the community. Fellows announced three national awards recently given to COMET for their educational materials.

#### 7. CHAIRMAN OF THE BOARD REPORT

Chairman Droegemeier reported on a number of items that the Board considered over the past year:

- Reviewed and approved the 2005 UCAR salary ranges and budget (salary ranges were increased by 2.5%; a 3% overall salary budget was approved.)
- Approved six new NCAR senior scientists: Andrew Crook (RAL/ESL); Clara Deser (CGD/ESL); Wojciech Grabowski (MMM/ESL); Greg Holland (MMM/ESL); Bill Skamarock (MMM/ESL); and Roger Wakimoto (EOL)
- Approved an affiliate scientist position for Paola Rizzoli from MIT
- Approved the 2005 advocacy plan - The high priority areas are the NSF, Climate Research and Observations, Weather Research and Technology Transfer, NASA, Computing, Science Education, and Road Weather Management.
- Received the final audit. The outside auditors, KPMG, gave UCAR an unqualified opinion with no findings.
- Received thorough reports from the Treasurer and considered and approved various routine and other financial matters.

- Discussed the current version of the NCAR Strategic Plan in detail.
- Explored the need for more computing power at NCAR to meet research community needs.
- Considered the issue of doing classified research at UCAR.

The Board was briefed regularly:

- by Cliff Jacobs on the rationale and schedule for the NSF competition for the management of NCAR, and from Rick Anthes on UCAR's preparation for the competition.
- on the process for updating the NCAR Strategic Plan
- on the success of the childcare facility
- on the status of space use at NCAR, UCAR, and UOP
- on the new chemistry building at the Foothills campus—the ground breaking was one year ago! A number of you toured the new building this morning.
- on the progress of the HIAPER project – an \$81.5M project for the community that was superbly managed, and is now operational!
- on the funding situation at UCAR and for the sciences in general
- from Joel Widder and/or April Burke from Lewis Burke Associates in Washington on the federal science budget situation and most effective ways to advocate on behalf of our science.
- The Board had a very valuable session at the May Board Meeting in Washington with Deborah Wince-Smith, President, Council on Competitiveness
- conducted a self-assessment
- Some Board and URC members participated in the NCAR Strategic planning retreat this past summer.
- AMS and Weather Coalition co-sponsored a workshop entitled "The Future of the US Weather Prediction Enterprise".

Upcoming items of interest.

- National Science Board visit in February.
- NCAR review by NSF (March 06).

## 8. NCAR DIRECTOR'S REPORT

NCAR Director Tim Killeen reported on a number of NCAR activities, including on the planning process for the updated NCAR Strategic Plan. He noted the importance of the university involvement in updating the plan and thanked the Board for their valuable suggestions. The plan is an ambitious one, he said, and needed the university community to realize the goals as outlined. Killeen reported on various outreach programs: the successful completion of the fourth annual Undergraduate Leadership Program summer workshop whose purpose is to inform undergraduates in the geosciences about opportunities for graduate study, research, and careers in the atmospheric and related sciences; the selection of three faculty fellows for the inaugural year of the Faculty Fellowship Program: Weiging Han from University of Colorado, Boulder; Lian-Ping Wang from the University of Delaware (who came with two graduate students); and Arne Winguth from the University of Wisconsin; and the continued success of the Windows to the Universe program whose website receives approximately 10M "hits" a year.

He updated the Members on NCAR's "investments in science", especially the completion of the new chemistry lab, the deployment of the HIAPER research aircraft, the plans to take computing power at NCAR to the next level in order to realize the goals of the NCAR Strategic Plan, and be able to serve the NCAR and academic communities at the highest level.

The Members then recessed to visit the UCAR and NCAR labs, divisions and programs poster session.

WEDNESDAY, 5 OCTOBER

9. NOMINATING COMMITTEE REPORT (cont'd.)

A. Trustees Election

Nominating Committee Chairman Carr recommended adoption of the slate of Trustee candidates as presented the previous day. **It was moved and seconded to close the nominations and to adopt the slate. There being no nominations from the floor, the motion passed.**

The result of the Trustee election is as follows:

*Institutional Trustees (Three-year term):*

*Eric Barron (Penn State)*

*Robert Dickinson (Georgia Tech)*

*Berrien Moore III (U of New Hampshire)*

*Leonard Pietrafesa (North Carolina State U)*

*Trustee-at-Large (Three-year term):*

*Hemant Shah (Risk Management Solutions)*

*Richard Truly*

*Trustee-at-Large (Two-year term):*

*Robert Palmer*

B. Members' Committees' Election

The following nominations were submitted for UCAR Members' committees:

*Membership Committee (Three-year term)*

*Matt Hitchman (U of Wisconsin-Madison)*

*Bob Weller (Woods Hole)*

*University Relations Committee (Three-year term)*

*Wendy Schreiber-Abshire (UOP/COMET)*

*Ned Chamberlain (NCAR/EOL)*

*Clara Deser (NCAR/ESSL)*

*Jim Hansen, Chairman (MIT)*

*Alan Robock (Rutgers U)*

*Anne Thompson (Penn State)*

*Sepi Yalda (Millersville U)*

*Nominating Committee (Three-year term)*

*Kerry Cook, Chairwoman (Cornell U)*

*Bob Ellingson (Florida State U)*

*Rana Fine (U of Miami)*

*Neal Lane (Rice U)*

*Gudrun Magnusdottir (U of California, Irvine)*  
*James Moore (St. Louis U)*

*Scientific Programs Evaluation Committee (SPEC) (Five-year term)*

*Susan Avery (U of Colorado)*  
*Katharine Gebbie (NIST)*  
*Conway Leovy (U of Washington)*  
*Berrien Moore (U of New Hampshire)*  
*Mary Jo Richardson, Chairwoman (Texas A&M)*

There were no nominations from the floor. **It was moved, seconded, and passed to elect the slate of Members' committees as submitted.**

10. NSF TOPICS

Cliff Jacobs, Head, UCAR and Lower Atmospheric Facilities Oversight Section, ATM/NSF reported on NSF's cyberinfrastructure planning as well as the strategic plan for high performance computing. A cyberinfrastructure "vision" document will be completed by March 2006, when it will be available on the web for public comment.

Jacobs also discussed the impetus for the NSB asking that NSF look at how effectively it is providing support to the atmospheric science community, and the resulting interim report from the committee. The report addresses parts of the five "tasks" assigned to it with the remaining parts needing more input from the community before the committee can answer them in its final report due in December 2006. Field projects are one such area needing community input; these are getting larger and larger and more funding needs to be moved to the deployment pool to fund these. Is this the best way to meet the community's needs? NSF is also considering how to efficiently receive more input from the community, perhaps a survey or visits to regions. In answer to the question of the cost of this study, Jacobs responded that to date, it has cost between \$300 and \$400K.

11. ADVOCACY, LEGISLATION, AND APPROPRIATIONS UPDATE

Joel Widder, Lewis-Burke Associates, in his report on legislative and policy issues of interest to the community, reviewed the status of FY06 funding for NSF and the other federal agencies. With the massive federal response anticipated for the Katrina and Rita hurricane disasters, all of the final FY06 appropriation bills will be negatively impacted, including major science agencies and programs. Widder stated that a continuing resolution is likely to be passed by Congress, funded at the lowest amount appropriated or at the current FY05 budget. Concern is being expressed that the NSF proposal success rates has dropped considerably. As a result, NSF is beginning to limit the number of proposals that each institution can submit in order to raise the success rate. This action is causing additional concern because it may prevent small and/or innovative proposals from even getting into the proposal pipeline. Widder reported that the innovation issue is picking up steam in Congress; a number are growing increasingly concerned about R&D, education, and the future of the U.S. All of the above mentioned factors highlight the importance of continued advocacy on the part of the community when legislation affecting the science agencies is being considered.

Cindy Schmidt, Director, Office of Government Affairs, reviewed all the ways in which UCAR advocates on behalf of the community. She highlighted the well-attended Hill science briefings, Congressional hearings and testimony given by Tim Killeen and Jim Hurrell, visits to various Congressional and agencies offices on the Hill, and advocacy done with the Weather Coalition. She emphasized the importance of university members quickly responding to Action

Alerts by writing or calling their Congressional representative. These Action Alerts are targeted to areas with key Congressional representatives involved in legislation important to the community. She also thanked Lewis-Burke Associates for their invaluable help with legislative issues and advocacy.

In showing appreciation for their active advocacy activities, Schmidt announced the winners of the 2005 Science Advocacy Awards. They include: Ernie Agee (Purdue University), Rich Clark (Millersville University), Richard Grotjahn (University of California-Davis), Barry Huebert (University of Hawaii), John Merrill (University of Rhode Island), Len Pietrafesa (North Carolina State University), Mary Jo Richardson (Texas A&M University), Alan Robock (Rutgers University), Gene Takle (Iowa State University), and Don Wuebbles (University of Illinois at Urbana-Champaign).

## 12. MEMBERSHIP COMMITTEE REPORT

UCAR Membership Committee Chairman Robert Talbot reviewed the renewal process, and recommended re-election of the following universities to UCAR Membership for eight-year terms beginning in January 2006. **It was moved, seconded, and passed to re-elect the University of Maryland, the University of Miami, the University of Missouri, Princeton University and Texas Tech University.**

Talbot recommended the election of the University of Houston to UCAR Membership. **It was moved, seconded, and passed to elect the University of Houston to UCAR Membership.**

Talbot reported that the Membership Committee approved the affiliate membership of the Florida Institute of Technology and the renewal of the following institutions to the Academic Affiliates Program for eight-year terms beginning in January 2006: the University of Louisiana at Monroe, Plymouth State University, San Francisco State University, and St. Cloud State University.

He further reported that the committee revised the Membership and Affiliate renewal procedures, and thereby streamlining the process.

## UCAR MEMBERS' MEETING FORUM: PLENARY SESSION

John Merrill, URC Chairman, emphasized that the poster session was focused on creating productive partnerships between universities and UCAR, NCAR, and UOP in order to address important scientific questions, consider new collaborative ideas, and how these might fold into a new UCAR Strategic Plan.

The discussion question is: How can we be working more closely together in this area to reach an outcome together that we cannot achieve separately?

A number of topics came up in the plenary discussion:

Visualization. Unidata has visualization tools like IDV which is a desktop application and JAVA enabled, linking in three dimensions. It is application-based and works with a number of different formats and protocols, and is useful to the entire community.

Unidata's IDV might possibly be used for partnership with international and regional climate modelers.

How to best use large-scale computers. It is much more challenging now for students to use large scale and cyberinfrastructure tools. They need training to best utilize these sophisticated tools. Can NCAR help establish curricula and a program that would intersect math, computer science, and the discipline? Cliff Jacobs noted that the NSF/ATM did a needs' study and the highest recommendation was for education and training in cyberinfrastructure and the related fields. It was noted that SCD/NCAR used to host summer workshops for computing, the last of which was in 1993. A lot of models are written in Fortran computer language, which is no longer taught. In the last two years, NCAR/CISL offered to the SOARS students a small summer program on parallel processing, UNIX and Fortran. It was highly rated. CISL management will look into offering these types of summer training programs to a larger group.

DLESE. Discussion centered on the very useful access tools provided by DLESE. Gene Takle mentioned that DLESE funding has been reduced, and asked that the community find possible ways to continue funding.

Earth science data sets. There are vast amounts of data from field campaigns and no adequate catalog of what's available. There needs to be some way to make these huge data sets available to the larger community. Mary Marlino mentioned that the DLESE discovery system can create "smart links" to access data files; she asked for researchers to email DLESE and request that links be made.

General question asked of group: How to create broader access to data sets, such as from field projects? If so, this idea would broaden the impact of the field campaigns, because only a relatively few number of people can actually participate in the field project. Make the data easy to discover – through more useful metadata? Many data sets are used in global models, and not just at NCAR, but at universities as well. Could/should this be a university/NCAR/UCAR initiative?

Rit Carbone, Director of the NCAR TIIMES Institute said it was a good time for universities to get involved in the institute, and noting the interdisciplinary nature of the Institute, asked that economics, biology and other areas that strongly couple with our interests and NCAR initiatives become involved.

Communication with community about NCAR initiatives. The question was raised as to how best give the Members and Affiliate Reps and other faculty the "big picture" of NCAR's initiatives? Perhaps distribute powerpoints, and follow-up with a visit from NCAR or UCAR.

The posters will be on the follow-up website so that Members' Representatives can share this information with other university staff and faculty. Could a seminar or a CD about UCAR and NCAR be developed to send out to all the departments of Members Reps and Academic Affiliates so that they could just play the video and then someone from here could give a seminar? Something like this would be so helpful in educating the next generation of faculty members about the tremendous opportunities for research and collaboration with UCAR, NCAR, and UOP.

Other topics:

- Management of field campaign data.
- Training students in GPS, remote sensing and other technologies coming on-line.
- COMET modules. These modules are being used in some universities but not systematically. Perhaps there is a need to develop a learning plan. These modules could be used to make survey courses much more interesting and possibly attract more students to atmospheric and related sciences.

### 13. UNIVERSITY RELATIONS COMMITTEE (URC) REPORT

Chairman John Merrill (U of Rhode Island) reviewed the committee's role in the governance of UCAR and reported on their key activities undertaken over the past year: assisting in the development of the Junior Faculty Program and serving on the selection committee for the first applicant group; discussing how to expand the SOARS program; and critiquing the updated NCAR Strategic Plan and participating in last summer's planning meeting of that document. Another major role of the URC, Merrill reported, is the review of non-NSF NCAR proposals and non-core UOP proposals. He explained that twice a year a random selection of proposals are reviewed by a subcommittee for adherence to established guidelines to preclude unfair competition. Overall, the subcommittee has found the compliance to these requirements very good. Lastly, Merrill encouraged the community members to contact the URC with suggestions, comments, or concerns.

### 14. ACADEMIC AFFILIATES REPORT

After noting that next year will be the 15<sup>th</sup> year anniversary of the Affiliate program, Rich Clark (Millersville U) reported on the previous day's meeting. Some of the main agenda items were AAP's place in the re-competition of NCAR management and new opportunities emerging for the Affiliates from NCAR's re-organization. The Affiliates also discussed accessing NCAR library for online subscriptions and revising the language in AMS' policy statement on B.S. degrees in Atmospheric Science/Meteorology. A presentation on opportunities available in COMET was given by COMET Director Tim Spangler. Clark concluded by commenting on the usefulness of collocating all NCAR's Webcasts onto one Web site, adding that some institutions are building short courses around these webcasts.

### 15. UNSTRUCTURED DISCUSSION

The decline in federal funding support for research and its effect on the conduct of science was the general topic of discussion. The issue is a complex one for many reasons; major factors include the smaller amounts of proposals being funded and slow Congressional appropriations process and the shortfall that many institutions experience in the interim.

NCAR Director Killeen noted that NCAR just went through a round of painful layoffs because of the federal funding situation. Somehow we need to advocate more strongly about the importance of science, engineering, and technical development for the future of the US economy.

NSF recognizes this problem. NSF's Division of Atmospheric Sciences success rate on proposals is 40%. NSF as a whole has a much lower success rate: 20-22%. NSF is a partial player and is working hard to keep the success rate up. Kelvin Droegemeier noted that soft money support is losing a lot of key people. The hard money support is really needed to keep these kinds of key staff.

It was suggested that the research community needs to more effectively sell the socio-economic impacts of our science to the private sector and look to them to help with funding. However, we also need to find a way to maintain and even increase support for small grants; otherwise, we will lose the innovation often represented by these small grants.

The meeting adjourned at 2:50 pm.

End of Draft Minutes

Minutes approved by:

Steven Rutledge  
Secretary of the Corporation

Minutes approved by:

Susan Friberg  
Asst. Secretary to the Corporation