TUESDAY, 14 OCTOBER

1. Call to Order, Welcome, and Adoption of the Agenda

Chair of the UCAR Board of Trustees, Rana Fine (University of Miami), called the Annual Meeting of the UCAR members to order at 1:00pm on Tuesday 14 October, in the auditorium of Building One at the UCAR Center Green campus in Boulder, Colorado. Chair Fine welcomed members of the UCAR Board of Trustees, representatives from the Member institutions, representatives from the Academic Affiliates, members of the President’s Advisory Committee on University Relations, NSF sponsors, and early career faculty.

After reviewing the agenda, it was moved, seconded, and passed to adopt the agenda for the 14-15 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, Donald Perkey
University of Alaska, Fairbanks, Nicole Mölders
University at Albany, State University of New York, Chris Thornicroft
University of Arizona, Eric Betterton
Arizona State University, Anthony Braelz
Arizona State University, Matthew Fraser
Brown University, Brad Marston
Brown University, Warren Prell
University of California, Davis, Richard Grotjahn
University of California, Davis, Susan Ustin
University of California, Irvine, Gudrun Magnusdottir
University of California, Irvine, Charles Zender
University of California, Los Angeles, Kristen Corbosiero
University of California, Los Angeles, Joseph Rudnick
University of Chicago, Noboru Nakamura
University of Chicago, Fred Stafford
Colorado State University, Steve Rutledge
Columbia University, Lorenzo Polvani
University of Connecticut, John Clausen
University of Delaware, Albert Dennis Kirwan, Jr.
Drexel University, Frederick House
Florida State University, Bob Ellingson
Florida State University
Georgia Institute of Technology
University of Hawaii
University of Hawaii
University of Houston
University of Houston
Howard University
University of Illinois at Urbana-Champaign
Iowa State University
Iowa State University
University of Maryland
University of Maryland
Massachusetts Institute of Technology
McGill University
McGill University
University of Miami, RSMAS
University of Miami, RSMAS
University of Michigan
University of Minnesota
University of Minnesota
University of Missouri
University of Missouri
Naval Postgraduate School
University of Nebraska-Lincoln
University of Nebraska-Lincoln
Nevada System of Higher Education,
    Desert Research Institute
Nevada System of Higher Education,
    Desert Research Institute
New Mexico Institute of Mining and Technology
New Mexico Institute of Mining and Technology
New York University
North Carolina State University
North Carolina State University
Ohio State University
University of Oklahoma
University of Oklahoma
Oregon State University
Oregon State University
Pennsylvania State University
Princeton University
Purdue University
Purdue University
University of Rhode Island
University of Rhode Island
Rice University
Rutgers University
Rutgers University
St. Louis University
St. Louis University
Stanford University
William Ross Ellington
Judith Curry
Gary Ostrander
Thomas Schroeder
John Casey
Barry Lefer
Everette Joseph
Robert Rauber
Eugene Takle
Xiaoqing Wu
Ernesto Hugo Berbery
Daniel Kirk-Davidoff
Lodovica Illari
John Gyakum
Peter Yau
Otis Brown
David Letson
Richard Rood
Efi Foufoula-Georgio
Katherine Klink
Stephen Anderson
Donald Hagen
Philip Durkee
Kenneth Dewey
Merlin Lawson
Vanda Grubisic
Anna Gannet Hallar
Kenneth Eack
Ken Minschwaner
Andrew Majda
Viney Aneja
Leonard Pietrafesa
Jay Hobgood
Frederick Carr
, Kevin Kloesel
Mark Abbott
Karen Shell
William Easterling
Leo Donner
Ernest Agee
Jonathan Harbor
David Farmer
John Merrill
Arthur Few
James Miller
Alan Robock
Carole Knight
Robert Pasken
Robert Street
Stony Brook University, State University of New York  Minghua Zhang
Texas A&M University  Kenneth Bowman
University of Texas at Austin  Zong-Liang Yang
University of Utah  Steven Krueger
University of Virginia  Jennie Moody
University of Washington  Gregory Hakim
Washington State University  Tom Jobson
University of Wisconsin-Madison  Matthew Hitchman
University of Wisconsin-Milwaukee  Vincent Larson
Woods Hole Oceanographic Institute  Steven Jayne
Woods Hole Oceanographic Institution  Mary-Louise Timmermans
University of Wyoming  Bart Geerts
Yale University  Ronald Smith
York University  Jack McConnell

Present for all or portions of the meeting were the following Academic Affiliates:
Central Michigan University  Richard Mower
College of Charleston  Laney Mills
Creighton University  Joseph Zehnder
Florida Institute of Technology  Steven Lazarus
Jackson State University  Quinton Williams
Lyndon State College  Bruce Berryman
Metropolitan State College  Richard Wagner
Universidad Metropolitana  Juan Arratia
Millersville University  Richard Clark
University of North Dakota  Mark Askelson
Plymouth State University  Eric Hoffman
St. Cloud State University  Anthony Hansen
San Francisco State University  Oswaldo Garcia
South Dakota School of Mines and Technology  John Helsdon
State University of New York at Brockport  Jose Maliekal
U.S. Naval Academy  David Smith

Present for all or portions of the meeting were the following faculty and other guests:
University of Alabama in Huntsville  S.T. Wu
American Association for the Advancement of Science  Shirley Malcom
University of Arizona  Jonathan Overpeck
Center for Disease Control/DVBID  Emily Zielinski-Gutierrez
University of Chicago  Elisabeth Moyer
University of Colorado  Lisa Dilling
University of Colorado  Brad Udall
University of Colorado at Colorado Springs  Eve Gruntfest
University of Connecticut  Mark Rudnicki
University of Connecticut  Anji Seth
University of Delaware  Matthew Oliver
Florida State University  Bob Hart
University of Idaho  Jeff Hicke
University of Illinois at Urbana-Champaign  Nicole Riemer
Jackson State University  Heping Liu
University of Miami, RSMAS  Rana Fine
2. Chair of the Board Report

Chair of the Board, Rana Fine (University of Miami), reported on the Board activities over the past year. The Board thanked and bid farewell to Tim Killeen as he moved into his new position as Assistant Director of the NSF Geosciences Directorate. Eric Barron was welcomed as the new NCAR Director. In May, the National Science Board announced their decision that after their first and rigorous competition, UCAR was awarded a five-year cooperative agreement to manage NCAR. Fine thanked Rick Anthes and the Trustees for their diligent work on the proposal to NSF. She reported that the Board spent considerable time addressing the severe budget conditions facing NCAR and UCAR. The Board reviewed and approved three new NCAR Senior Scientists: Yuhong Fan, Alan Fried, and Steve Tomczak. On behalf of the Board, Fine extended congratulations to these excellent scientists. Chair Fine also reported that the Development of the NCAR Supercomputer Center in Wyoming continues to move forward. NSF has given approval for UCAR, NCAR, and the Wyoming partners to proceed with the initial facility design in FY09.

3. Secretary’s Report
Secretary and Trustee Rosina Bierbaum (University of Michigan) presented the minutes of the October 2007 Annual Meeting for Members’ approval. There was a correction requested to the Nominating Committee and the Membership Committee reports.

**With these corrections, it was moved, seconded, and passed to approve the minutes from the October 2007 Annual Members’ Meeting.**

4. **Treasurer’s Report**

Treasurer and Trustee Barbara Feiner (Washington University in St. Louis) reviewed the UCAR Consolidated Financial Statement for the period ending 31 August 2008. She said that it appears that funding is the highest of the last three years, however much of this is new foreign (subcontractor) work so most of these funds will not stay in UCAR. The actual core programs within NCAR continue to experience the strain of sub-inflation funding over the last four years. For FY08, the NCAR base funding increased just 1%. UOP has also received a lower rate of increase in funding, only up 1.5% for FY08. As always, there are timing differences in receipt of funding from agencies. NSF continues to provide the largest share of funding at 56% for 2007 compared to 53% for 2008. NOAA and NASA are the next largest funders.

5. **NSF report**

Cliff Jacobs, Head, UCAR and Lower Atmospheric Facilities Oversight Section - ATM/NSF reviewed the three-year competition process for the management of NCAR leading up to UCAR’s being granted the award. He reported that the review panel “recommended …..’unanimously and without reservation that NSF make an award’….to UCAR for management and operation of NCAR”, and that the NSF/UCAR cooperative agreement will be signed in the near future.

Jacobs highlighted the continuing budget challenge. Although the NSF FY08 proposed budgets initially looked promising, increases evaporated in the Omnibus Bill signed in December 2007. In principle, Congress continued to support science and NSF resulting in hopeful FY09 budget numbers, however, as a result of the current Continuing Resolution (CR), all federal agencies are now operating at flat FY08 levels until March 2009.

Jacobs reviewed trends in numbers of proposals submitted for research grants to NSF, noting that while the number of proposals submitted continues to rise, funding rates have decreased overall for NSF. However, the average award size and duration for ATM has increased. Jacobs also noted that, in general, NSF overall has increased the number of proposals funded for women and new PIs, though, GEO has not done as well as NSF overall.

6. **UCAR President’s Report**

UCAR President Rick Anthes said that management is working on the new activities presented in the recent UCAR proposal to NSF for the management of NCAR. Some of these new activities include developing a workforce management plan, a new NCAR strategic plan, as well as the creation of a new Board committee on Budget and Planning. The Wyoming NCAR Supercomputing Center is moving ahead, Anthes reported. Providing computing resources to the atmospheric sciences community is NCAR’s highest priority. A new publication—the Transition Document—is a multi-organizational effort spearheaded by Jack Fellows. It lays out science
priorities and suggests an implementation plan for the next administration’s transition team. It has garnered considerable attention in the media, Anthes said.

He related the budget issues that UCAR/NCAR/UOP is facing. For the first time ever, salary increases for staff have been delayed to the beginning of FY09. The FY10 funding situation is unclear, and he noted that the federal funding situation is highly uncertain for all of the science community, not just for UCAR/NCAR/UOP.

7. NCAR Director’s Report

NCAR Director Eric Barron reported on key areas and new directions of NCAR activities. He said he is focusing on actions to make an already great institution more efficient and effective. After meeting with and listening to various entities across the organization, he has gleaned a lot of ideas and is open to additional input from the Members.

His broad theme is: are we thinking strategically as an institution? Although the current strategic plan is very inclusive, it doesn’t guide investment and management decisions. He is proposing a template of three areas:

- Imperatives: What must we do at NCAR to be successful as a national center?
- Frontiers: What are the new directions that require new investment and partnerships?
- Fabric: How do we maintain collegiality, community, mentoring, and an international role?

Barron addressed the following eight broad topics:

a) The key to the above framework is clear priorities: are they actionable and demonstrable? Barron reviewed the process which will include a new strategic planning council.

b) Is the management organized to be successful? How can we reduce costs and increase dollars for science, facilities, and service. He gave his first example which was combining the ASP director and NCAR Deputy Director positions.

c) Do we have a sufficiently deliberate focus on external relationships, especially universities, visitors (including graduate and postdoctoral fellowships), new partnerships, and alternative funding groups, as well as advisory panels?

d) What type of reporting will be consistent, efficient, and will signal the importance of our objectives? Although a wealth of reports have been produced, there is no clear evidence of how, or if, they are used.

e) Ensure an appropriate connection between budgets and planning. The strategic plan has a budget, the Annual Budget Review follows the plan, and the result should be budgets that ensure growth in units as individuals retire. The Board will be giving input into the budget and planning process.

f) Does our review process promote success in our mission?

g) Enhance success through workforce management, which includes diversity in all areas.

h) Promote even more effective relationship between UCAR and NCAR by refocusing collaborations.
Barron emphasized the importance of looking at what was done in the past, why it was done, and how successful it was. In all of this, NCAR will continue to ask the question: “How does atmospheric research intersect with other disciplines and where can it be transformative, not necessarily in-house, but by being the collaborator?”

8. UOP Director’s Report

UOP Director Jack Fellows gave a snapshot of the eight UCAR Office of Programs activities as well as budget issues. Chair Fine thanked Jack on behalf of the Board for his leadership and excellent work on the Transition Document.

9. Unstructured discussion

Chair Fine stated that in response to requests made at last year’s Members’ meeting, unstructured discussion has been scheduled earlier in the meeting so that more representatives can participate. Members commented on the following topics: declining budgets for the entire science community; the proposed NCAR Supercomputing Center in Wyoming; models and community partnerships; imperatives and frontiers for NCAR facilities, as well as science; promoting high risk research in this tight budget climate; and partnering with the private sector.

10. Membership Committee Report

Matt Hitchman, University of Wisconsin-Madison, reported on the Membership Committee’s recommendations:

A. The committee recommends the election of Brown University and the University of Connecticut to UCAR Membership for an eight-year term beginning in January 2009.

A motion was made, seconded, and passed to approve Brown University and the University of Connecticut for UCAR Membership.

Jack Fellows introduced the representatives from both universities. He joined the Membership Committee on the visits and enjoyed meeting the university faculty. He stated that both universities bring a lot to UCAR and will contribute to the forum discussion.

B. Hitchman reviewed the renewal criteria and procedures and presented the following institutions for renewal to UCAR Membership for eight-year terms beginning in January 2009:

- Arizona State University
- University of Alabama in Huntsville
- Drexel University
- Howard University
- Iowa State University
- New Mexico Institute of Mining and Technology
- Ohio State University
- Rice University
- Rutgers University
- Stanford University
- Woods Hole Oceanographic Institution
- University of Wyoming
- Yale University

It was moved, seconded, and passed to renew the membership of these thirteen institutions.

Hitchman noted that nine institutions are up for renewal in 2009:

- University of Arizona
- University of California, Los Angeles
- University of Chicago
- Cornell University
- Florida State University
- Johns Hopkins University
- University of Iowa
- Massachusetts Institute of Technology
- University of Rhode Island

11. Academic Affiliates Report

Rich Clark, Millersville University, reported on the Academic Affiliates (AA) meeting where 16 of the 21 Affiliates were represented. The University of Creighton and University of Texas at Arlington were accepted as new Affiliates this past year. For the first time, there is an AA representative nominated to the UCAR BOT as an at-large member. AA continues the discourse on accreditation of geoscience programs and AMS guidelines. Terry Murray, NCAR Library, reported on plans for an institutional digital repository which would preserve and make freely available the intellectual assets of NCAR, such as results from field projects like MIRAGE. Quinton Williams (Jackson State University) continues to spearhead diversity efforts. An upcoming “Listening Conference” organized by Raj Pandya (UCAR) is another step in reaching out to tribal and community colleges and Hispanic-serving institutions to hear what they are confronting and how our community can address these issues. Their questions and top priorities should drive the discussion.

12. UCAR Members’ Nominating Committee Report

Nominating Committee Chairman Robert Ellingson (Florida State University) reported that the committee received more nominations from the Members this year than ever before. He also related the Committee’s work over the past year, and reviewed the responsibilities of the UCAR Board of Trustees. He presented the candidates for election to the Board of Trustees, as well as the slate for the Members’ Committees.

He asked for approval of the tellers. It was moved, seconded, and passed to approve William Hammel (UCAR F&A) and Susan Chavez (NCAR/ESSL) as election tellers.

It was also moved, seconded, and passed to approve the following 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 the so elected will be removed from the ballot, and an additional ballot or ballots will be taken until all Trustee positions are filled.
13. Advocacy, Legislation and Appropriations Update

April Burke and Sarah Spreitzer of Lewis Burke Associates reviewed the federal budget and, in particular, the discretionary portion out of which science is funded. Burke also discussed the political reality for FY2010 science funding and beyond. She urged the UCAR community to stay involved in advocating for science, and encouraged use of the Transition Document.

Cindy Schmidt, Director of UCAR Office of Government Affairs, highlighted OGA activities over the past year and emphasized broadening the partnerships as noted in the Transition Document. She then focused on two additional areas:

- Forming new partnerships within the climate research policy community and the Non-Governmental Organizations (NGO), and
- Leveraging additional funding for research by reaching out to regional organizations such as the Western Governors Association to assist in mitigation and adaptation activities.

Schmidt reported a record year of action alerts responses. 78 people (versus last year’s 50) were involved this year. She announced the winners of the Science Advocacy Awards for strong participation in UCAR advocacy activities. They are: Ernie Agee (Purdue University), Eric Betterton (University of Arizona), Rich Clark (Millersville University), Kelvin Droegemeier (University of Oklahoma), Ken Eack (New Mexico Institute of Mining and Technology), Bob Ellingson (Florida State University), Arthur Few (Rice University), Richard Grotjahn (University of California, Davis), John Helsdon (South Dakota School of Mines and Technology), Gudrun Magnusdottir (University of California, Irvine), John Merrill (University of Rhode Island), Gary Ostrander (University of Hawaii), Donald Perkey (University of Alabama at Huntsville), Len Pietrafesa (North Carolina State University), Alan Robock (Rutgers University), Robert Street (Stanford University), Susan Ustin (University of California, Davis), and Xiaoqing Wu (Iowa State University).

The Member and Affiliate Representatives, the President’s Advisory Committee on University Relations, early career faculty and other guests, recessed to the Center Green lobby and auditorium for a reception.

WEDNESDAY, 15 OCTOBER

The Members reconvened at 8:30 am.

14. Trustees and Member Committee Elections

A. Trustee and Committee Elections

Nominating Committee Chairman Bob Ellingson asked for nominations from the floor, and hearing none, asked for a voted to approve the slate of Trustee candidates. It was moved, seconded, and passed to accept the slate of Trustee candidates. He instructed the Members to complete one ballot, selecting four of the six institutional trustees presented in the slate, and the two trustees-at-large candidates.

The results of the Trustee election on the first ballot are as follows:
Institutional Trustees elected for three-year terms:
Mark Abbott, Oregon State University
Roberta Balstad, Columbia University
Fred Carr, University of Oklahoma
Don Wuebbles, University of Illinois

Trustees-at-large (three-year term)
Rich Clark, Millersville University of Pennsylvania
Richard Truly, Retired

B. Members’ Committees Election

The following slate of committee members was submitted for approval.

MEMBERSHIP COMMITTEE (three-year term)
Nicole Mölders – University of Alaska, Fairbanks
Gousheng Liu – Florida State University
Gerald Mace – University of Utah

PRESIDENT’S ADVISORY COMMITTEE ON UNIVERSITY RELATIONS (PACUR) (three-year term)
Wendy Abshire – UOP
Lisa Dilling – University of Colorado
Gordon Farquharson – NCAR
Marika Holland – NCAR
Alan Robock – Rutgers University

MEMBERS’ NOMINATING COMMITTEE (one-year term)
Jim Anderson – Arizona State University
Otis Brown – University of Miami
Greg Carmichael – University of Iowa
Nicole Mölders – University of Alaska-Fairbanks
Bob Rauber – University of Illinois- Urbana-Champaign
Steve Rutledge – Colorado State University
Anne Thompson – Pennsylvania State University
Susan Ustin – University of California, Davis
Minghua Zhang – SUNY, Stony Brook

Seeing that there were no nominations from the floor, Bob Ellingson moved to elect the slate of nominees for UCAR Members’ Committees including the Membership Committee, the President’s Advisory Committee on University Relations, and the Nominating Committee. **Ellingson’s motion was seconded and passed to elect the slate of Members’ committees as submitted.**
15. President’s Advisory Committee on University Relations (PACUR) report

PACUR Chair Lisa White (San Francisco State University) reported on activities of the PACUR over the past year, including the April meeting in Austin, Texas, PACUR responsibilities, and potential partnerships with tribal and community colleges. White reported that after discussion on some issues, all the non-core proposals reviewed were deemed compliant with the stated criteria. For 2008, NCAR leadership has implemented new processes to ensure stronger collaboration with universities. White thanked Vanda Grubisic for her diligence and help in updating the process.

16. UCAR Forum: Making the Nation Resilient to Severe Weather and Climate Change

Maura Hagan, NCAR Deputy Director and Director of the NCAR Advanced Study Program, introduced the forum by saying that our science is key to implementing climate legislation, helping to develop a green economy, reduce key uncertainties, and assist local and regional decision makers in dealing with climate change. The goal of this forum is to address these overarching topics. Many Members are already working on projects with decision makers. The question is, “How can we better support these partnerships?”

Hagan introduced the first keynote speaker, Vicky Arroyo, Director of Policy Analysis for the Pew Center on Global Climate Change. Arroyo reviewed the history of federal legislation from 1992 to the present and highlighted the many complicated issues facing proposed climate related legislation. She urged the science community to develop tools like regional climate models and improved information delivery that is easily understood as well as accessible to the public. Increased integration of social sciences into decision maker partnerships is also needed.

Rosina Bierbaum, Professor and Dean of the University of Michigan School of Natural Resources and Environment and currently on leave with the World Bank, was the second keynote speaker. She reviewed what is currently known scientifically about climate change before discussing the many areas of innovation needed in both adaptation and mitigation.

The Members Representatives and NCAR scientists recessed to break out sessions covering the following five topics: water, forestry, agriculture, public health, and air quality.

17. Announcement: Rick Anthes asked for a moment of silence to honor Tony Slingo, Professor of Environmental Science and Deputy Director at the U.K.’s Environmental Systems Science Centre. His unexpected death came as a shock to many. He was an outstanding scientist and will be greatly missed by the community.

18. Reports from the Forum Breakout Sessions

Each of the five breakout session leaders reported on their discussions. These reports will be posted on the follow-up website. Some common themes across all areas included:

   a. Communication: Needed at several different levels:
      - Between stakeholders - each has a different language; frequently difficult to understand the other’s specific needs, concerns, definitions of success. And currently there is a bottleneck from the climate information output to the end user.
      - To policy makers, be they local, regional, state, or federal. Focus on punch line and not details but still communicate uncertainty to policy makers.
- To society in general, in a way they understand what, why, and how things have to change. Has to be done in lay terms.

b. New “breed” needed to interface between scientists, policy makers, other stakeholders, and the public. Recognizing and rewarding this, especially for the scientists, if they choose to do some of this work in addition to their research. Huge time commitment; difficult to do with “volunteers”.

c. The need for funding, especially for the critical interdisciplinary research among different communities that don’t usually work together, for example, health and atmospheric science.

d. Partnerships. We, the community, need to be proactive in initiating these alliances, at whatever level and combination: NCAR, universities, state, regional, private funding, foundation funding. Partnership effectiveness has to rapidly improve or the progress might be too slow to meet the climate change adaptation and mitigation challenge that is coming faster and faster. Workshops are needed to bring together key leaders in divergent fields.

e. Models: continuing need for models and impacts to be brought down to the local/regional level, while maintaining state of the art larger scale models to understand larger impacts. Need funding to do both and explain importance of doing both at the same time.

f. Barriers: What are the barriers for understanding human adaptation? Huge need for social science interaction and perspective in conjunction with climate change research.

g. Training and Outreach: Perhaps UCAR and NCAR could host training workshops, for example, to demonstrate utilizing regional and local climate modeling in NetCDF format. Visualization tools would be very useful; young scientists from developing countries should be engaged; they will return to their own nation and train fellow scientists there.

h. Development of Tools: Risk assessment tools such as GIS technology to overlap air quality maps with vulnerable communities need to be developed. Scientific and white papers are not enough. Also time horizons have to be relevant to decision makers.

i. Integration of social scientists and policy relevancy. Bring understanding of societal impacts demonstrated in research and apply to policy development.

Rick Anthes thanked the keynote speakers, the forum leaders, the BOT Chair and Board members, MR Committee members, the Members, PACUR, young faculty, and other guests for their participation in one of the largest ever annual meetings.

The meeting adjourned at 3:30pm.

Respectfully submitted:

Susan Montgomery Hodge
Executive Assistant to the UCAR President
Minutes approved by:

Rosina Bierbaum
Secretary of the Corporation