



## UCAR FY09-FY10 Advocacy Goals and Actions

*Ensuring that the U.S. continues to lead the world in science and technology will be a central priority for my administration.*

Candidate Obama, 8/30/08

*...science holds the key to our survival as a planet and our security and prosperity as a nation. It's time we once again put science at the top of our agenda and worked to restore America's place as the world leader in science and technology.*

President-Elect Obama, 12/20/08

*We will restore science to its rightful place...and we will transform our schools and colleges and universities to meet the demands of a new age.*

President Obama, Inaugural Speech

### **Environmental Scan**

Since he announced his candidacy for president of the United States, Barack Obama has been consistent in his rhetorical support for scientific research, innovation through science, the restoration of scientific integrity, the importance of science and mathematics education, and action to curb anthropogenic causes of climate change. As president, he has followed that rhetoric with strong appointments to relevant positions in his administration. The possibility for swift enhancement of federally funded scientific research and for meaningful participation of the scientific community in relevant legislative processes improved dramatically on January 20.

The primary political focus of government for this year will be on the economy. While budgets will remain extremely constrained, paradoxically, the overwhelming economic challenges facing the country may provide the scientific community with increased funding through the ongoing stimulus effort. Our community must take full advantage of four major opportunities to advance support for our science: the American Recovery and Reinvestment Bill of 2009 (the “stimulus bill”), the conclusion of the FY09 budget process (which will move beyond the current Continuing Resolution), the FY10 funding bills, and the possible development of energy and climate-related legislation. We must constantly reiterate on Capitol Hill the statement of Congressman Gordon that, “investing in science and developing new technologies is the path to reinvigorating our economy, growing jobs, meeting our energy needs, and helping us address climate change.”

To be effective, our central focus must be elevating our science within the new administration and demonstrating its value in helping to address the enormous challenges facing this country. President Obama has given us a running start in his public expressions of the value of science; UCAR and our main funder, the National Science Foundation (NSF), must both become more prominent players in helping to solve the country’s environmental problems and in demonstrating how science is critical to the nation’s economic health and security.

## **UCAR Roles as Advocate for the Community**

2009 begins a new era in federal science policy. Through UCAR's leadership, the association with Lewis-Burke Associates, and the work of the Office of Government Affairs, UCAR is in an advantageous position to inform and influence the Obama Administration and the 111<sup>th</sup> Congress as they prepare to craft comprehensive climate legislation and reverse many of the science related policies of the previous Administration. We have excellent contacts with continuing congressional and agency staffers and UCAR leadership and Board members have good relationships with new appointees. We will be able to build upon our status as a respected advocate for the broad atmospheric sciences community and we should seek to expand our influence over emerging climate policy.

We must also build on the success of the transition document, *Advice to the New Administration and Congress: Actions to Make Our Nation Resilient to Severe Weather and Climate Change* ([www.ucar.edu/td](http://www.ucar.edu/td)). Created in partnership with 10 leading organizations in our community, this document lists key community goals that we must ensure become goals of the new administration including fully funding the Earth observing system, greatly increasing computing power for weather and climate research and predictions, enhancing research and modeling capabilities to expand our understanding of weather and climate and their impacts to society, and supporting education and training efforts to apply our science for the maximum benefit to society. The transition document will be adapted to provide a continuing blueprint for action.

UCAR will strive to be effective in three roles at three levels of advocacy:

- 1) Advisor to the highest levels of the Administration and Congress regarding science-related policy decisions
- 2) Advisor and educator concerning the additional capabilities needed by the U.S. to produce the best scientific results
- 3) Advisor and educator concerning the direct needs of the atmospheric and related sciences community

To achieve maximum results in these three areas, UCAR must provide leadership and create new partnerships as well as maintaining a strong voice through traditional, proven activities.

### **Level One – UCAR as Advisor to the Highest Science-Related Levels of Government**

#### **Office of Management and Budget (OMB)**

In Jack Fellows, we have excellent entrée to OMB in addition to inside knowledge of the inner workings of the office. We have good relationships with NSF, NOAA and NASA career examiners and will continue to meet with them at every opportunity, advocating for community priorities and providing advice on new programs, such as the national climate service, and existing plans such as that for the NCAR Supercomputing Center. The OMB Program Associate Directors (PADs), political appointees that run the Resource Management Offices, are just now being named. We will make every effort to meet with the Natural Resource Programs PAD (jurisdiction over DOE, NASA, NSF, USDA, EPA) and the General Government Programs PAD

(jurisdiction over DHS, NOAA, NIST), communicating the same message of the value and priorities of our community in service to society.

### **Office of Science and Technology Policy (OSTP)**

In nominee John Holdren, OSTP will have a director who is an expert in energy policy and believes that the government "should be quadrupling to ten-tupling the amount of money we're putting into energy research and development." In addition to OSTP director, Holdren will be Assistant to the President for Science and Technology, a position that does not need Senate confirmation.

The influence of OSTP is sure to rise and UCAR should make every effort to capitalize on the community contacts (including Rick Anthes and Eric Barron) that we have with Dr. Holdren. Our task is to communicate to Holdren and other OSTP staffers the fact that energy and climate policy cannot be successful without the basic underpinning of continued advances in the science of climate change. We must not allow science to be passed over in the zeal to create energy policy, and we need to demonstrate repeatedly the value of investment in the goals of the transition document and the important role of NSF in achieving those goals. There has been some talk about reorganizing the U.S. Climate Change Science Program; we need to be aware of that discussion which may come out of OSTP, and be a key participant.

### **President's Council of Advisors on Science and Technology (PCAST)**

President Obama has promised "to remake PCAST into a vigorous external advisory council that will shape my thinking." UCAR is now using connections, through John Holdren who will co-chair PCAST, to encourage the nomination of Rick Anthes to council membership. The council members, distinguished individuals appointed by the President, are drawn from industry, education, and research institutions, and other nongovernmental organizations.

### **Energy and Climate Change**

Carol Browner is the first Assistant to the President for Energy and Climate Change, acting as a high level coordinator for energy and environmental policy. It is not yet clear how this position will interact with that of the President's science advisor or the head of the Council on Environmental Quality; nor is there information on how much authority Browner will be given to spur cooperation among federal agencies. Rumor has it that Browner will run a new **National Energy Council**, composed of top tier multi-agency officials tasked with preparing energy legislation, advising the president on an enhanced research-and-development program, and participating in developing an international agenda for cutting greenhouse-gas emissions. Through former EPA contacts, Katy Schmoll has good connections with Browner with whom she is already requesting a visit to NCAR and/or meeting in Washington. It is critically important that we have a discussion regarding the role of our community in informing efforts that will be undertaken by Browner to create energy and climate policy.

### **Council on Environmental Quality**

The Council on Environmental Quality coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives. Nancy Sutley has been confirmed to chair the council. Prior to her appointment, she was the Deputy Mayor for Energy and Environment for the city of Los

Angeles, so it is entirely possible that we have connections through UCAR members. UCAR has not had previous contact with CEQ, but if it becomes clear that CEQ will play a key role in creating environmental policy to which the work of our community has relevance, we will make every effort to connect.

**Senate Commerce, Science and Transportation Committee (new chair, Senator Rockefeller)**

**Senate Committee on Environment and Public Works (chaired by Barbara Boxer)**

**House Energy and Commerce Committee (new chair [in a coup], Congressman Waxman – - new subcommittee, Energy and Environment, chaired by Congressman Markey)**

**House Select Committee on Energy Independence and Global Warming (chaired by Congressman Markey)**

These congressional committees will play key roles in developing energy and climate policy in the 111<sup>th</sup> Congress and beyond. We have excellent working relationships with staffers of all four committees. Of the chairs, Senator Rockefeller is possibly the least informed about our community, but his staff is definitely up to speed and he has already requested a personal meeting with Eric Barron. Mr. Waxman is likely to be very aggressive about developing cap-and-trade legislation. With these committees, UCAR should focus on the message that physical science research in climate change, the infrastructure that supports it, and the applications of research results to societal problems remain critical priorities that are directly relevant to pressing policy questions. We will call on the UCAR community to communicate with key members of these committees.

**House Committee on Science and Technology (chaired by Congressman Gordon)**

UCAR has excellent relationships with the staff of the Science Committee, which through its various subcommittees, has jurisdiction to one degree or another over all UCAR community scientific interests. UCAR will continue to meet frequently with committee staff, responding to multiple requests for hearing witnesses, language for draft bills, and working through the committee to hold Hill briefings.

## **Level Two – UCAR as Advisor and Educator Regarding Additional Capabilities and Needs**

### **Climate Mitigation and Adaptation**

In draft bills, we have seen Congress focus on energy independence and climate mitigation and adaptation efforts without paying much attention to relevant and necessary climate science. One simply cannot tackle energy, mitigation, or adaptation issues without having better regional projections/predictions of climate change as well as more accurate scenarios for different CO<sub>2</sub> concentration targets. We must continue to make the connection to our work and advocate for the inclusion of science as this legislation moves forward.

As we adapt the transition document for continued use, we need to broaden our message to help bring federal mitigation and local adaptation policy activities together and address the climate-energy connection (see attached paper by Jack Fellows – begin with page 2). Advocacy goals to help guide the debate on the climate-energy challenge facing our nation include:

1) **Non-Federal Partnerships.** There continues to be a substantial disconnect between the slow federal mitigation debate and the relatively rapid adaptation activities being undertaken by the states. As we have seen in federal draft legislation, the states tend to skip over the science as they create strategies to address climate change. We will work closely with governors and mayors, and resource (water, agriculture, forestry, health, etc) managers, to better understand their adaptation tool and information needs, demonstrate how the work of our community can contribute to addressing their environmental problems, and enlist them to help us advocate for sound environmental policies at the federal level. To date, we have begun relationships with the Western Governors Association and several water resource management associations to demonstrate the potential for regional climate modeling to inform their adaptation strategies.

2) **Non-Governmental Organization (NGO) Partnerships.** As energy and climate change federal legislation is drafted, credible environmental NGOs are playing an influential advisory role. We initially approached the NGO community to get them engaged in helping our mitigation/adaptation advocacy efforts at the federal level. We are making progress there, but we are also learning much from them about the kind of information needed for effective policy development and the perils of scientific uncertainty as federal and international negotiations continue. To date, we have developed productive relationships with the Union of Concerned Scientists, the Pew Center on Climate Change, and the World Wildlife Fund and will continue to expand on these associations.

3) **Federal Communication.** We need to identify and brief all Administration and Hill leaders and staff who will be involved in the mitigation and adaptation agenda. Some of the tactics to contribute to our communications will include:

- a. **Hill Briefing/Summit.** UCAR will hold a Capitol Hill briefing that highlights state-level adaptation activities, the need to better organize these efforts, the role of science in addressing them, and our community's willingness and ability to contribute to this effort. It is possible that such a briefing could lead to discussions with partners on orchestrating a national summit to bring together the mitigation-adaptation effort players at all levels. While UCAR could take a lead role, it is possible that an organization such as the Western Governors Association or the National Academy of Science would be the major convenor.
- b. **Clarification of Uncertainties.** It will be difficult for us to be engaged in the energy and climate debate without a clear position on uncertainties associated with greenhouse gases concentration, their relationship to warming levels, and what that means to society. We can not say both that this is a serious threat to society and that the uncertainties are so great that we do not really understand the relationship between CO<sub>2</sub> concentration, warming, and impacts. We must clarify our position as an institution by at least characterizing the range of beliefs. We are hiring for a replacement position within OGA and will task that person to summarize the climate, energy science and policy landscape as a basis from which to begin this work.
- c. **Briefing materials.** Develop related briefing materials for Congress describing what we know about climate change and what the needs are for the next stages of climate science research.

## **Cap and Trade Legislation**

The Speaker of the House has left open the possibility that a serious attempt will be made to pass green house gas mitigation legislation during the 111<sup>th</sup> Congress. At the very least, bills will be drafted, although it is very possible that fears about the economy and uncertainties concerning identifying emission reduction targets and timetables (both in national and international policy contexts) will cause the debate to drag on beyond FY09. House Science Committee Chair Bart Gordon states, “R&D will play a critical role in the effectiveness of any regulations. If we pass cap and trade, we’ll need reliable technologies to monitor reporting and compliance with greenhouse gas emission limits.” Our community needs to participate as bills are drafted. Any cap and trade legislation will result in revenue streams for which many sectors in the country are vying. There is a strong case to be made that the new tools the country needs to monitor compliance and to inform adaptation strategies should be funded from this resource. As UCAR makes that case, we need to be careful in this economy that Congress does not take this as an opportunity to shift the funding of much basic climate research and observing systems. Those funding priorities should continue to reside with the government through the appropriation of federal funding. But UCAR will move forward with the argument that new tools to meet growing needs caused by climate change could be supported through this new revenue stream.

## **National Climate Service**

To address climate change adaptation and mitigation issues, this country will need to establish and implement a national climate service. Eric Barron led the “tiger team” that just produced a report for NOAA on what such a service might involve and how it might be organized. Establishment of this service should be a comprehensive effort that becomes a high priority of the new administration and spans appropriate agencies. No roles are clear at this point, but there must be involvement from the UCAR community in providing research results, possibly through an expanded suite of forecasting products, that will be the basis for mitigation and adaptation programs at the national, regional and local levels. We must remain actively involved as deliberations continue.

## **Health Effects of Climate Change**

Through Eric Barron’s leadership, UCAR will seek to develop new research and funding partnerships with the entities focusing on the health effects of climate change. Inquiries regarding potential partnerships will be explored through the National Center for Environmental Health within the Center for Disease Control and Prevention and the National Institute of Environmental Health Sciences and National Institute for Allergy and Infectious Diseases, both within the National Institutes of Health. Lewis-Burke Associates will give access to these agencies and to relevant congressional committees should potential work relationships develop.

## **Level Three – UCAR as Advocate and Educator Regarding Direct Community Needs**

At this level, our key focus must be the federal science budget and the Appropriations Committee. (Please see <http://www.ucar.edu/oga/html/budget/index.html> for budget history.) Obviously, our goal is to ensure that the relevant science agencies have sufficient resources to support the weather and climate community. There is a tremendous opportunity before us in the inclusion of science agencies in the current stimulus bill. UCAR is joining with other organizations and leading our community in supporting the highest numbers for relevant

agencies, placing particular emphasis on the House number of an additional \$3 billion for NSF. This process should be concluded by mid-February.

Within the regular appropriations process, the Commerce, Justice, Science (CJS) funding bill is by far our most important focus on behalf of the community, given that it contains the budgets of NSF, NASA and NOAA -- our key agencies. We know the staff well and through our UCAR Member Reps and Academic Affiliates, we have access to CJS House and Senate Subcommittee Member offices. As of this writing, the FY09 budget is on hold and a Continuing Resolution is in place. The Obama FY09 request will be unveiled some time in February. The final FY10 President's Request will not be available until April. UCAR education and advocacy will be implemented through

- open and closed (for specific committee members or staff only) briefings on Capitol Hill,
- budget testimony (both written and oral),
- responses to Committee requests for hearing witnesses and legislative language,
- the preparation of background materials for congressional staff as requested,
- action alerts to call on the widespread congressional access of our UCAR members,
- requests for UCAR members and affiliates to provide access to/communicate with their Members on the House and Senate Appropriations Committees,
- and partnerships with community organizations including the Coalition for National Science Funding, the Alliance for Earth Observations, AMS and AGU.

The following is a very brief summary of UCAR advocacy focus for key agencies, but minus the benefit of proposed FY09 or FY10 budget numbers.

### **National Science Foundation (NSF)**

NSF remains our highest agency advocacy priority with emphasis on GEO, ATM and NCAR funding levels. We will advocate for the highest possible levels, especially given that our science has been essentially flat-funded for years. Since NSF did not factor large in transition team discussions concerning environmental issues, at every opportunity with OMB, OSTP and congressional committees, UCAR will reiterate the critical nature of NSF's contribution to climate change research in particular, its central role in funding basic research for this country, and its potential for funding additional research that will inform adaptation and mitigation policy.

### **National Aeronautics and Space Administration (NASA)**

Out-year funding, as planned by the Bush Administration even before the economic melt-down, falls absolutely short of the recommendations in the National Research Council report, *Earth and Science Applications from Space: National Imperatives for the Next Decade and Beyond*, otherwise known as the Decadal Survey, with the gap between the cost of missions requested and what is needed to fund them growing with time and inflation. It appears that the Obama Administration is trying to address the incredible additional pressures on NASA (e.g., Space Station, shuttle, Moon-Mars) by exploring the possibility of tearing down long-standing barriers between U.S. civilian and military space programs to speed up a mission to the moon amid the prospect of a new space race with China. While the space race side of NASA will consume much attention, revitalizing Earth Science funding should be a high priority politically because of the growing public concern about climate change – but we need to make that connection for people. On behalf of the community, UCAR will continue to advocate within OMB and

Congress for the full complement of missions recommended in the Decadal Survey, arguing that with climate change accelerating more rapidly than expected, there are few NASA responsibilities more important than monitoring the Earth's environment.

### **National Oceanic and Atmospheric Administration (NOAA)**

For many reasons, NOAA is an agency under siege. In Jane Lubchenco, the Obama nominee for NOAA Administrator, it should have excellent new leadership that is included in the Obama energy and climate team. Lubchenco knows our community well and we should have good access to her.

For years, Congressman Ehlers tried to interest colleagues in a NOAA Organic Act, an effort that UCAR supported. His interest seems to have waned and, given other more pressing priorities, we will cease any activity regarding this attempt. An effort that has succeeded recently is that of the Weather Coalition (operated by UCAR's Office of Government Affairs) to have NOAA establish an external advisory committee for weather and climate issues. The Science Advisory Board's Environmental Information Services Working Group has been established on a one year trial basis. The Weather Coalition has submitted nominations from throughout the community and will work to advise NOAA on issues of concern to our community through the committee process. We will continue to participate in the activities of the Friends of NOAA coalition which includes numerous organizations from both the wet and dry sides of the community.

UCAR will advocate for NOAA programs of importance to our community, particularly those funded within the National Weather Service (NWS), the National Environmental Satellite, Data, and Information Service (NESDIS), and the Office of Oceanic and Atmospheric Research (OAR). We will partner with the ocean community to advocate for the Integrated Ocean Observing System and improved hurricane services and infrastructure. NOAA's Earth observing satellite programs threaten to overwhelm the NOAA budget for years to come. We will advocate for the health of NOAA's budget through funding that is new and not taken from other NOAA programs. Focus will be placed obviously on the GOES-R series and NPOESS, including restoration of the climate sensors, several of which are supposed to be reinstated in the FY09 budget.

### **Department of Energy (DOE) Office of Science**

DOE is funded within the Energy and Water Development, and Related Agencies appropriations bill. Given the emphasis on energy issues, it is likely to fare well and be a very important player in climate related activities, the importance of which has been emphasized repeatedly by Dr. Steven Chu, newly confirmed DOE Secretary. Within the Office of Science, we will advocate specifically for Biological and Environmental Research (BER) which funds climate change related programs. BER and DOE's Advanced Scientific Computing Research (ASCR) sponsor (along with NSF) the Community Climate System Model maintained by NCAR. We will continue to advocate for DOE's excellent support for this important national asset.

### **U.S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA)**

USDA and EPA have not been a part of our advocacy plan in the past, but may play an increasingly important role in climate change mitigation and adaptation work under the new

administration. The USDA Climate Change Program Office already supports the Change Science Program (CCSP) and there is some speculation that EPA's Office of Research and Development, essentially decimated under the previous Administration, may be resuscitated with new funding for climate related science. UCAR will seek to develop relationships with these agencies in the very near future and to educate them about the importance of the UCAR community's climate work to mitigation and adaptation efforts.

### **Authorization Bills to Monitor**

With a new Congress seated, previous authorizing bills will need to be reintroduced and new bills presented. UCAR will monitor and report on those of interest to the community and, when possible given resource limitations, join efforts to advocate for those that have the potential to survive the legislative process. We cannot ignore this classification of legislation since authorizing legislation is often the beginning step in creating new programs and funds.

**Hurricane Research.** The National Hurricane Research Initiative has been reintroduced by Congressman Hastings as H.R. 327. The bill's origins are in high-profile reports from the National Science Board, the NOAA Science Advisory Board, and AGU in the wake of Katrina and Rita. There are some changes in the Senate leaders on the companion bill of last year: Senator Martinez, S. 931's original sponsor, is retiring in 2010; Senator Dole, another of the five cosponsors, lost her re-election fight. If the bill is to survive, it needs congressional support beyond the southeastern and gulf coast states.

### **Climate Science Research**

Several bills were introduced in the previous Congress regarding climate science research, most notably The Global Change Research Improvement Act, S. 2307 and The Climate Change Adaptation Act, S. 2355, both of which passed out of committee in late 2007. Lacking House counterpart bills (although the Global Change Research and Data Management Act of 2007, H.R. 906 had some similarities) there was little subsequent action. As discussed above, much activity is expected in this arena during the 111<sup>th</sup> Congress.

### **Ocean Acidification Research**

The Federal Ocean Acidification Research and Monitoring Act (FOARAM) (S. 1581 and H.R. 4174) was passed by the House and passed out of the Senate Commerce Committee in the previous Congress. It was unfortunately ensnared in broader political maneuvering and did not get to the Senate floor. In FY09 it is anticipated that these companion bills will be reintroduced without substantive changes and should move without controversy. Joanie Kleypas of NCAR has testified and been centrally involved with an effective coalition working this bill.

### **New Adaptation Legislation**

UCAR will consider supporting new authorizing legislation, if introduced, that gives clear guidance to relevant federal agencies (*e.g.*, USDA; NIH; USGS; AID) to employ research results in the assessment of climate impacts on society and that give direction for adaptation implementation.

**Conclusion**

The critical nature of our science and its relevance to social issues has never been greater. The stakes for our community and the country are high. Strong, effective and creative UCAR advocacy and broad community involvement is perhaps more important now than ever before.

-- End of Plan --

*I am confident that if we recommit ourselves to discovery, if we support science education to create the next generation of scientists and engineers right here in America, if we have the vision to believe and invest in things unseen, then we can lead the world into a new future of peace and prosperity.*

Barack Obama, 12/20/08