Introduction. Last year provided a tremendous opportunity for UCAR to reassess, realign and strengthen its advocacy efforts to respond to the incoming Obama Administration and the spotlight directed on many of the issues important to the UCAR community. Our FY09-10 advocacy focused on the community’s key issues and strategies for engaging with the new Administration and the new Congress. The following document builds on what we learned during the past year as we came to know the new Administration and the 111th Congress, summarizes our accomplishments, and outlines a strategy for advocacy for FY10-11 and beyond.

The Obama Administration’s focus on jobs and the economy and the President’s imposition of a budget cap for all federal non-security discretionary spending (to begin to address the deficit), a category that includes the budgets of all agencies of importance to NCAR and the UCAR community, provides a sobering backdrop for our efforts this year. However, the President stated in his State of the Union Address recently that discretionary budgets would not be held static across the board, and our priorities clearly continue to have the support of the Obama Administration, as can be seen in the FY11 budget request. Advocates for programs that have been cut will fight hard in the halls of Congress to regain what they have lost in this initial step in the budget process; we will need to fight harder to secure what we are slated to gain.

Resilience: Framing our Advocacy for FY10-11. For FY10-11 we will work to meet ongoing goals to ensure that our agencies have adequate funding, influence key legislation, build effective outreach and advocacy efforts and partnerships, and actively engage the community in advocacy activities. In addition, when appropriate, we will address the Administration’s emphasis on economic development, workforce development, and job creation and state clearly how our science and community serves society (the NCAR 50th Anniversary theme) in these difficult times.

The focus of last year’s Transition Document (see http://www.ucar.edu/td/) was how to make the nation more resilient to severe weather and climate change, with a strong emphasis on climate. We will build on the resiliency theme again this year, broadening the context to include the breadth of science represented by our work and clarifying what it means to make civilization more resilient to the natural forces we study -- what it means relative to the economy, to the nation’s workforce and to the manner in which we relate to the environment in which we live. In large part, this effort must include a focus on the next generation of environmental leaders and rapidly diversifying the workforce on which our future depends.
During the past year we developed new alliances for climate change research advocacy activities. This year we will nurture those relationships and build new ones in our efforts to take our resiliency message to the next level – that is, working together as a community to advocate for science that will help citizens and communities prepare for and adapt to inevitable changes in climate and weather patterns (particularly weather extremes) and build resilience to associated impacts on our nation’s economy, national security, water resources, food supply, and health. Only through partnerships and cooperation will we be able to tackle such complex challenges.

In a postscript to this document, we provide a vision for this “resiliency” work that goes far beyond current annual advocacy for our science, encompassing a potential long term role for the UCAR community to address the difficult times in which we live.

Recap of Advocacy Goals and Accomplishments (Highlights) for FY09-10

**Agency Budgets and Programs**
- **Goal:** Ensure that key agencies had appropriate budgets for our priorities.
- **Accomplishments:**
  - Provided agency budget testimony on the FY10 budget request
  - Advocated for increased science budgets for FY09 appropriations
  - Leveraged opportunities presented by the American Recovery and Reinvestment Act
  - Advocated within Congress, OMB, OSTP, Council on Environmental Quality (CEQ), and individual federal agencies and departments for key climate-related programs of the UCAR community, including the full complement of missions recommended in the Decadal Survey, enhanced regional modeling, and the application of climate science to adaptation issues

**Legislation**
- **Goal:** Monitor and influence key legislation important to our community.
- **Accomplishments:**
  - Met frequently with key House and Senate committee staff and provided language and comments for relevant draft bills, especially on the matter of national climate services
  - Provided testimony on the creation of a National Climate Service
  - Advocated for a NOAA Organic Act, research funding to study ocean acidification, the establishment of a National Hurricane Research Initiative, and the creation of a National Climate Service
Outreach and Advocacy Partnerships

- **Goals:** Partner with like-minded organizations on key advocacy issues (as directed by the Board) in order to be an authoritative source of information to decision-makers.

- **Accomplishments:**
  - Used the Transition Document (eight partners) to inform candidates, the President-Elect and Members of the 111th Congress of our community’s priorities
  - Submitted nearly 200 nominations for high-level positions in the new Admin.
  - Teamed to host four climate-related briefings on Capitol Hill addressing urban adaptation strategies, water resources, regional models, and climate and health
  - Teamed with numerous other respected organizations to make our case to the White House and Congress regarding components of climate change legislation
  - Continued to staff the Weather Coalition to advocate for weather research
  - Worked with the Western Governor’s Association, the Western Water Assessment and others on regional climate modeling and water supply issues
  - Reached out to OSTP and “new” (for us) offices and agencies including the CEQ, USDA, State Department, and the National Institutes of Health re climate issues

**Advocacy Activities for FY10-11**

UCAR will continue the contract with Lewis-Burke Associates (Lewis-Burke) LLC. This relationship has proven to be invaluable with Lewis-Burke providing eyes and ears in Washington, advocacy strategy advice, a complete understanding that UCAR government affairs work is done on behalf of the entire atmospheric sciences community, and excellent contacts within Congress and the Administration. Their assistance with both our Washington advocacy and education activities is broad and deep.

**Activities Regarding Legislation of Interest to the UCAR Community**

Last year, federal climate change legislation was UCAR’s primary vehicle for advancing a number of the community’s policy priorities. This vehicle hit a major roadblock in the Senate last fall, but attention is expected to return to the legislation this spring. In his State of the Union Address, President Obama restated his commitment to the passage of broad climate and energy legislation, and Senators John Kerry (D-MA), Lindsey Graham (R-SC), and Joseph Lieberman (I-CT) are working to craft bipartisan legislation. It has become increasingly apparent, though, that 60 votes for a comprehensive bill that includes a strong price mechanism for carbon will be difficult to achieve; as a result, any final bill may be scaled back dramatically. Once introduced, this legislation will serve as the counterpart to the American Clean Energy and Security Act of 2009 that the House of Representatives passed last June.
UCAR needs to prepare for the following scenarios: (1) climate legislation fails to have traction in the Senate, which ultimately results in no action this year, and (2) omnibus climate and energy legislation fractures into smaller pieces, such as a large energy bill with a few stand-alone climate authorization bills. Should broad climate legislation fail completely in the Senate, UCAR must be prepared with a contingency plan to pick up the pieces and run with the parts of the bill that are relevant to our priorities and have a chance of passing the Senate as stand-alone bills. On the other hand, should legislation move forward in the Senate, UCAR must be ready to advocate for the retention of community priorities during each step of the process. Regardless of how this plays out, one thing is certain: climate change and energy policy is a major priority for many in Congress and they will be relying on our community for support.

Realization of UCAR’s climate- and weather-related legislative priorities will ride, to a significant extent, on the success of the climate bill. These priorities include the establishment of a National Climate Service; the creation of international and natural resources adaptation programs; the reauthorization of the U.S. Global Change Research Program (USGCRP); the establishment of new programs promoting environmental and green energy education, such as the Clean Energy Curriculum Development Grants; the establishment of a Hurricane Research Initiative; Earth observations system legislation; and new jobs tied to enhanced research and adaptation programs.

We will continue to work with key Senate and House committees and the White House to recommend a strategic restructuring of the National Science and Technology Council in order to better organize and unify the Federal Government’s programs in climate change research, climate and weather observations, and climate services. UCAR is in a strong position to make this recommendation because of our understanding, based on longtime experience, that Earth observations, climate research, and climate services are deeply interconnected and need strong leadership and coordination at the highest levels.

Several additional bills that we will support will be pushed energetically by House Science and Technology Committee Chair Bart Gordon (D-TN) since he is retiring and will want to add to his legislative legacy. This will include efforts to enact a NOAA Organic Act (see the Weather Coalition section below), and the reauthorization of NASA, USGCRP (which could get wrapped up in climate legislation), and the America COMPETES Act.

The COMPETES Act reauthorization will top the Chairman’s list of priorities this year and present a significant opportunity for the community to influence the direction of policy that addresses funding for the physical sciences and the scientific workforce for years to come. COMPETES, which was signed into law in 2007, placed NSF, DOE Office of Science, and the National Institute of Standards and Technology (NIST) on a doubling path over the next decade. President Obama has indicated his ongoing support for these agencies through his FY11 budget
request, as discussed above. The law also includes programs to improve science, technology, engineering and math (STEM) education at all levels, which will continue to be a major focus in the reauthorization. The Committee is currently seeking input from the community, specifically with respect to STEM education within COMPETES, and UCAR is responding with comments and ideas.

Additional legislation to monitor for the community includes weather modification/geoenengineering (a topic that is receiving some interest through recent congressional hearings) and legislation addressing air quality and health through black carbon and aerosol issues.

Activities Regarding Federal Agencies of Interest to the UCAR Community

As stated above, the agencies of most interest to the UCAR community (NSF, NOAA, NASA and DOE) have fared well in the FY11 President’s budget request and a major advocacy activity for the year will be to support the request and retain those increases. The focus on establishment of a National Climate Service has attracted attention from several agencies. In addition to the obvious involvement of NOAA, climate adaptation activities will involve the Department of Interior, Department of Agriculture, Environmental Protection Agency, Health and Human Services, Homeland Security, U.S. Geological Survey, and so on. As they try to master this new area, these agencies and others will be looking to nurture external relationships, certainly with the UCAR community, to take advantage of our expertise, particularly related to our resiliency approach. New grant opportunities will also emerge this year as these agencies look to strengthen their role in the climate change arena.

Observations about the FY11 budget request and advocacy activities for specific agencies follow:

National Science Foundation (NSF). While we continued last year to emphasize the value of NSF to the nation, NSF has been largely absent when the President talks about his ”science team,” while other agencies, like DOE, have stepped up. This is not to suggest, however, that NSF is not viewed as valuable. The President’s FY11 request of 7.2 percent above the FY10 appropriated level certainly demonstrates support to keep NSF on the doubling track as intended by the America COMPETES Act. UCAR will support this increase as one of our highest priorities for the year.

The Geosciences Directorate (GEO) receives a 7.4 percent increase in the request with the Atmospheric and Geospace Science (AGS) program receiving an 8.1 percent boost; NCAR is listed for an 11.3 percent increase with much of that going toward building the community facility, the NCAR-Wyoming Supercomputing Center (NWSC). Given the center’s broad geosciences applications, the GEO divisions of Earth Sciences and Ocean Sciences also
contribute. On the Hill, our approach will be to support the GEO amount, and reiterate that support for the community’s infrastructure (such as NWSE and NCAR) is critical to the ultimate success of the research community.

As NSF leadership transitions this year, we must continue to do all that is possible to ensure that NSF continues to be viewed as an integral player and a key component of the President’s science vision and team.

**National Aeronautics and Space Administration (NASA).** The President’s request gives NASA an overall 1.5 percent increase, with major changes proposed to cancel the Constellation Program (the next-generation human spaceflight capabilities), end the Space Shuttle Program in late 2010 or early 2011, and increase the Earth Science line in the Science Mission Directorate by 26.8 percent. The outcry about job loss and national status implications has already been heard from the Moon to Mars and back. Clearly, the Administration, with its concerns about climate change and severe weather impacts has prioritized Earth observing systems data over human space flight missions. There will be strenuous objections by some members of Congress over this approach. The recommendations of the Decadal Survey for Earth observations have been a high advocacy priority for us since the report (co-chaired by Rick Anthes and Berrien Moore) was released in 2007. Without speaking out against human space flight, we should do all that we can do support this Earth Science increase that moves NASA much closer to meeting community Earth observing recommendations than any budget in recent years.

**National Oceanic and Atmospheric Administration (NOAA).** ThePresident’s request would provide the largest increase for NOAA -- 17 percent -- that the agency will have received in its history. The majority of the increase will be focused on restructuring NPOESS in addition to significant growth for climate change programs. Increases in both of these areas are needed badly, especially considering the role NOAA will be expected to assume for the National Climate Service. UCAR will support the NOAA budget request. As of this writing, NOAA’s National Climate Service plans have not been announced, but will factor into our advocacy plans once they are, with UCAR likely supporting any reorganization that makes establishment of this service possible.

**Department of Energy (DOE).** In the past year, the Administration has vested much responsibility in DOE for activities relating to climate change research, modeling, and energy technology development. The President would provide DOE with a 6.8 percent increase with the Office of Science budget exceeding $5 billion for the first time. DOE provides significant support for the Community Climate System Model. UCAR will support the President’s budget request to expand climate research to resolve uncertainties surrounding the prediction of climate change and to increase the accuracy of projections. In addition, we will seek out opportunities for our community to access DOE funds to increase weather research that enhances the
efficiency of energy generation from natural sources such as wind, sunlight, tides, hydrologic power, and geothermal heat.

**Education/Outreach Activities (Selected) for FY10-11**

We will continue our efforts to educate Congress and the Executive Branch about the value of our research and its applications.

**Capitol Hill Briefings.** In keeping with what we see as the community’s responsibility to help the nation adapt to climate change, all four of our briefings last year were devoted to climate adaptation topics. This year, we will address additional topics of relevance to emerging legislation including a clean air and climate briefing series on (1) black carbon and other aerosols, (2) ozone, and (3) the clean air co-benefits of reducing greenhouse gas emissions. Another topic being explored is applications of weather research to renewable energy efficiency.

**Weather Coalition.** UCAR continues to staff the Weather Coalition (WC), a group of private sector companies, academic institutions, non-profits, and associations all interested in advocating for the enhancement of weather research. The WC was a driving force behind the recent establishment of NOAA’s Environmental Information Services Working Group (EISWG), an external advisory panel charged with, among other things, addressing the incorporation of scientific and technical capabilities to enhance NOAA products and services. The WC will use the EISWG this year to advise NOAA on weather-related issues. A WC advocacy priority for FY10-11 will be passage of a NOAA Organic Act, which as previously stated will be among Science Committee Chairman Gordon’s priorities before retiring.

Through the WC, we will also continue to push for passage of the National Hurricane Research Initiative Act, legislation with which we have been involved for several years, and we will advocate for the introduction of legislation (now in draft form) to address more efficient coordination of the Earth observing system.

**Partnerships.** During the past several years, we have worked to build new partnerships as we address our emerging role in climate change adaptation and associated resiliency issues. These include organizations such as the Western Governors Association, the Water Utility Climate Alliance, the Western Water Assessment, the Pew Center on Global Climate Change, the American Chemical Society, and the American Association for the Advancement of Science. This year, those relationships will be of tremendous use as UCAR Vice President Jack Fellows works at the request of OSTP to organize a National Climate Adaptation Summit in May in Washington, D.C. It is a tribute to UCAR’s influence that this task, which puts us at the center of climate change adaptation planning for this country, falls to us. Jack is working closely with
OSTP, CEQ, and NOAA leadership to organize this meeting. Results will surely inform any relevant, future legislation.

Also related to climate adaptation activities, UCAR is heavily involved with approximately 20 federally-funded labs based in Colorado (NOAA, Department of Agriculture, NREL, USGS, etc) to establish the **first model climate service** in the country. UCAR plans to team with these labs and many resource managers to build this model that should inform national efforts as well as other state-based programs. It is possible that such a model could be disseminated through the efforts of UCAR Member Universities and Academic Affiliates. It is this sort of program that could attract the attention of university presidents at special sessions that UCAR could hold during meetings such as the Association of Public and Land-grant Universities (APLU) where university presidents are already gathered. Such engagement of presidents could elevate the campus and regional status of atmospheric and related departments.

**UCAR Leadership.** The leadership of UCAR is engaged heavily in education and advocacy activities in Washington and with policy making groups around the country. This year, we have an excellent opportunity to introduce the new NCAR director, Roger Wakimoto, and to involve him not only in education and advocacy activities on behalf of NCAR and university community research, but to offer his expertise regarding current congressional committee work on severe weather issues, the Network of Networks, and Earth observing systems. Eric Barron, immediate past NCAR director, provided much advice in Washington based on his experience chairing national climate service reports over a period of about 10 years. While his service will be missed, UCAR and NCAR have much depth in climate research/services/adaptation and will remain influential in Washington through involvement of President’s Council members, senior climate scientists, and community members. In his new position as president of Florida State University, a UCAR member, we expect to continue to work with Eric, especially as we make an effort to contact UCAR university member presidents.

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**Conclusion.** The UCAR community is in an excellent position with Congress and the Administration to build on progress we have made with transition efforts and community advocacy activities and to continue to advise our nation’s policy makers on legislation concerning the country’s weather- and climate-related issues and impacts.

There is no scientific community more engaged with the major issues of our time and in a better position to help the country solve looming environmental problems. Our FY10-11 advocacy activities should enable the community to enhance and advance that work.

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Postscript on National Resilience – A Challenge for the UCAR Community

As American society is buffeted by unprecedented challenges, including the changing global climate and worldwide economic instability and uncertainty, the nation’s future hangs precariously in the balance. Our success depends on the capacity of the nation’s people and institutions to build a broad-based resilience in the face of great challenges. Indeed, resilience is the key characteristic of a successful society’s ability to adapt to change.

Our national universities, most of which are members of UCAR, have an integral role to play. Perhaps better than any other set of institutions, they are able to prepare the next generation of Americans to understand and address the challenges society will face, including having to ensure reliable access to food, water, energy, and health resources for millions. And universities, in concert with the nation’s research laboratories, are equipped to supply the on-the-ground tools, such as regional climate modeling, that stakeholders will need to make us resilient to change.

UCAR, as a university consortium and operator of the nation’s weather and climate laboratory, has a tremendous opportunity to be a leader in such activity. To build a stronger capacity for resilience, we need to leave our comfort zone to help build curricula that foster civic engagement and environmental education from preschool through college. Universities must recognize that in educating the next generation of leaders and the next generation’s workforce, we are responsible for the nation’s environmental, economic, and national security future.

To make a major contribution as a community, we must focus also on promoting policies that build resilience and society’s ability to adapt and build the kind of institutional and governmental partnerships that make this possible. The National Climate Adaptation Summit, teaming with stakeholders, the federal government, universities and the corporate sector is a good beginning to address one part of this complex challenge.

In reaching out to new partners, we should emphasize how ethics, business, law, politics, the sciences, and many other fields must all interact. Our community must also come together to chart this path to produce the next generation workforce. We have struggled to get more participation in the sciences by underrepresented groups who must be included if we are to muster all of the intellectual forces at hand. By stepping up to face some of society’s biggest challenges and demonstrating that we can address them, perhaps these groups will find this field to be of relevance and join us in this daunting work.

This “revolution” is already taking place across campuses today, but the UCAR community has a chance to lead and accelerate the effort in new and novel ways. This will not be easy, but it may be one of the most important things our community can do for this planet.