

## **Enabling National Weather and Climate Priorities**

A Policy Statement of the American Meteorological Society  
(Adopted by AMS Council on 17 September 2008)

### **Weather, water, and climate pose growing challenges for the United States.**

Recurring events such as hurricanes (Katrina, etc.) droughts, wildfires, and floods are neither isolated nor short-lived. Instead, their impacts have proved persistent and widespread, even global. Rises in temperature and sea level, pestilence outbreaks, reductions in ice mass, and other manifestations of climate variability and change call into question the adequacy of past coping strategies. Together, these events and trends presage emerging, relentless environmental challenges that will increasingly reshape many aspects of American life.

**While these challenges pose serious risks that must be managed, they also offer a remarkable national opportunity.** By building on decades of past U.S. investments in environmental sciences and services (and related social science), we can:

- ensure public health and safety in the face of weather and climate hazards
- guide weather- and climate-sensitive economic decisions in agriculture, energy, water-management, and transportation sectors, and
- protect the environment and ecosystems.

U.S. leadership in the environmental sciences and services, and underlying technologies, can at the same time:

- open substantial foreign markets for U.S. products and services, and
- create opportunities for the United States to be a good neighbor and trusted international partner in global efforts to achieve a safer, more sustainable world.

**However, to realize this opportunity requires that we develop national policies based on the best available physical and social science; that we put what we know into practice; that we continually *advance* our science and services; and that we learn from experience. These actions cannot be implemented unilaterally by the AMS community, but rather require that the AMS, Congress, and the executive branch act in concert.<sup>1</sup> Specifically, we must take the following mutually supportive and interdependent actions now:**

### **1. Develop Leadership and Coordination.**

- a. **Goal:** Appoint key leaders and improve federal coordination.

---

<sup>1</sup>This statement contains material reinforcing, and complementary to, *Advice to the New Administration and Congress: Actions to make our Nation resilient to severe weather and climate change*, <http://www.ucar.edu/td/transition.pdf>, which the American Meteorological Society has co-signed. Other related AMS policy statements are available at [http://www.ametsoc.org/policy/amsstatements\\_inforce.html](http://www.ametsoc.org/policy/amsstatements_inforce.html)



capabilities. *Congress and the executive branch* should also work together to identify and develop the funding needed to support the coming new generation of *operational* polar-orbiting and geostationary satellites, surface radar networks, and other key observing systems. *The AMS community* must harness these resources to improve products and services with the utmost urgency.

4. **Ensure That New Understanding and Knowledge Will Be There When Needed.**
  - a. **Goal:** Ensure that the scientific understanding needed for tomorrow's decisions is indeed available
  - b. **Action:** *Congress* should meaningfully augment funding for weather-and-climate basic research, and related social sciences, over decades. *The executive branch* should mount an immediate, high-level review of current agency work in these areas to prioritize allocations. Members of *the AMS community* will be largely responsible for implementing the new research and should identify and take concrete steps to accelerate, and report on, progress.
  
5. **Evaluate Progress and Make Needed Mid-Course Changes.**
  - a. **Goal.** Create and/or exercise existing mechanisms to monitor progress on goals 1–4.
  - b. **Action:** *Congress* should request that *the executive branch* report progress in addressing these priorities, and on their impacts with respect to national policy, on a regular and frequent basis. *The AMS community* should also help by developing and providing information for these reports.

**To accomplish these actions will require increased levels of federal investment, sustained over decades. However, the return on such investments will far exceed the costs. By taking these actions, and by working together, Congress, the executive branch, and the AMS community can position the United States, and indeed other world nations, to cope effectively with weather and climate challenges well into the 21<sup>st</sup> century. By the same token, failure to take these actions will subject the United States to unnecessary and unacceptable risk in the face of hazards, business loss in weather-sensitive sectors of the economy, continuing deterioration of the environment and ecosystems, and increased political instability, both at home and abroad.**