

*National Science Board
Task Force
Hurricane Science and Engineering*



*60th Inter-Departmental Hurricane Conference
March 23, 2006*

*Dr. Michael P. Crosby
Director, National Science Board Office*

National Science Board Members



(Photo by
Sam Kittner)

- Twenty-four Members, plus NSF Director
- Nominated by the President - Confirmed by the Senate
- Six-year Terms on Two-year Cycle

About the National Science Board

The National Science Board was established by the NSF Act of 1950:

“...to promote the progress of science; to advance the national health, prosperity, and welfare; and secure the national defense.”

The National Science Board provides:

- **Oversight and policy for NSF**
- **Advice to the President and the Congress** on matters of national science and engineering policy

Background

- The U.S. is increasingly vulnerable to hurricanes because 90 percent of its population lives within 200 miles of a coastline.
- Hurricane-related research is generally performed within the boundaries of traditional disciplines.
- The research community has a societal duty to maximize scientific understanding of hurricanes and ensure its effective application.
- The National Science Board has independent science advisory responsibilities to the President and Congress and is ideally suited to framing this challenge and recommending a national agenda.

National Science Board Action

Seek to accomplish the following for hurricane related science and engineering research exclusive of operational decision making, organized civil response and human health issues:

- a) summarize current activities,
- b) identify gaps and opportunities, and
- c) recommend priorities for action within a national agenda.

Organization of the Task Force

Created December 2006 under the Board's Committee on Programs and Plans.

Task Force Members:

- **Dr. Kelvin Droegemeier (Co-Chair) – University of Oklahoma**
- **Dr. Kenneth Ford (Co-Chair) – Florida Institute for Human and Machine Cognition**
- **Dr. Daniel Hastings – Massachusetts Institute of Technology**
- **Dr. Elizabeth Hoffman – University of Colorado**
- **Dr. Alan Leshner – AAAS**

Objectives of the Task Force

- Use a multi-disciplinary approach to summarize the status of research on hurricanes as an integrated science and engineering problem.
- Involve relevant Federal science agencies and appropriate organizations through a series of workshops and discussions.
- Produce a report and recommendations on hurricane science and engineering research for submission to the President and the Congress.

Task Force Workshops

**January 24, 2006 at National Science Foundation
(Arlington): perspectives from Federal Agencies**

**February 7, 2006 at National Center for Atmospheric
Research (Boulder): NGO research perspectives**

**April 18, 2006 at Institute for Human and Machine
Cognition (Pensacola): NGO research perspectives**

The Task Force's Schedule

December 2005 – Board approves recommendation to create Task Force with formal charge.

January - April 2006 – The task force organizes three workshops around the country and holds a series of discussions.

August 2006 - Draft report to the Board for review.

September 2006 – Final report to the Board for approval.

Task Force Report

- **Assess how increased understanding of hurricanes as natural disasters can be used to improve the Nation's ability to predict, mitigate, and react to future events.**
- **Recommend an integrative approach for addressing deep fundamental science questions regarding hurricanes as natural disasters.**
- **Recommend priorities for meeting critical research needs.**
- **Recommend an agenda for support of essential hurricane-related research within the Federal government and among research organizations.**
- **Identify a specific role for NSF to fill in addressing national needs for essential hurricane-related research.**