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

• 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.
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.