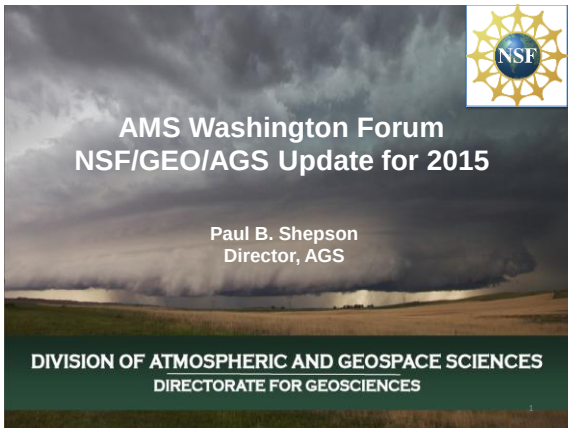


GEO Research Inititives

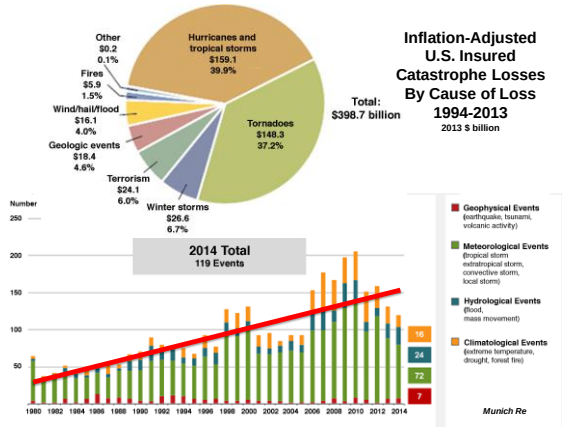
- **PREEVENTS (*Prediction of and Resilience Against Extreme Events*)**
  - **GEO's part of NSF's Risk and Resilience activity. ($23.50M)**
- **INFEWS (*Innovation at the Nexus of Food, Energy, and Water*)**
  - **New interdisciplinary investment to study the food-energy-water nexus. ($14.78M)**

There is substantial AGS connection with these initiatives

- **SEES (Sci, Engineering, and Educ for Sustainability)**
  - **GEO has been a leader in NSF's SEES priority area. 2016 continues sunsetting for this investment. ($34M, $25M below FY15)**

Prediction of and Resilience against Extreme Events (PREEVENTS)

- **GEO's contribution to NSF's FY16 Risk & Resilience activity (co-lead ENG – CRISP: *Critical Resilient Interdependent Infrastructure Systems and Processes*)**
- **Focus on natural hazards and extreme events**
- **PREEVENTS is intended to:**
  - **Enhance understanding of the fundamental processes underlying geohazards and extreme events on various spatial and temporal scales**
  - **Improve models of geohazards, extreme events, and their impacts on natural, social, and economic systems**
  - **Develop new tools to enhance societal preparedness and resilience against such impacts**
- **Expecting to issue a Dear Colleague Letter announcing the upcoming program in FY15**
- **Program starts in FY16.**



AGS Atmospheric Section Budgets

$, M	2014	2015
• Atmos. Chem.	18.4	18.4
• Phys. Dyn. Met.	22.9	22.9
• Paleoclimate	8.2	8.2
• CLD	21.8	21.8
• NCAR	95.2	98.2

Fiscal Year 2016 Budget Request by Division

GEO Funding
(Dollars in Millions)

	FY 2014 Actual	FY 2015 Estimate	FY 2016 Request	Change Over FY 2015 Estimate Amount	Percent
Atmospheric and Geospace Sciences (AGS)	$250.85	$251.15	$262.88	$11.73	4.7%
Earth Sciences (EAR)	177.81	177.20	188.21	11.01	6.2%
Integrative and Collaborative Education and Research (ICER)	83.53	83.74	95.20	11.46	13.7%
Ocean Science (OCE)	356.27	355.95	369.61	13.66	3.8%
Polar Programs (PLR)	452.87	436.35	449.51	13.16	3.0%
U.S. Antarctic Logistical Support (USALS)	*[68.94]*	*[67.52]*	*[67.52]*	-	-
Total, GEO	**$1,321.32**	**$1,304.39**	**$1,365.41**	**$61.02**	**4.7%**

Totals may not add due to rounding.

But…

Challenges

ITIF The Information Technology & Innovation Foundation

25 Recommendations for the Reauthorization of the 2013 America COMPETES Act

BY STEPHEN J. EZELL AND ROBERT D. ATKINSON | APRIL 2013

In particular, Congress should direct, and the administration should implement, a reallocation of NSF resources toward the kinds of science that has direct economic and industrial benefits for the United States. In particular, this means increasing NSF budgets for four key directorates: 1) math and physical sciences; 2) engineering; 3) computer and information sciences and engineering (CISE); and 4) biological sciences, while permitting research budgets for the geosciences and social sciences to shrink"

HR 1806, The America Competes Reauthorization Act

	2015 Actual ($M)	FY16 1806	Δ, %
NSF total:	7344	7597	+3.4
BIO:	731.03	834.8	+14.2
CISE:	921.73	1050	+13.9
ENG:	892.31	1034	+15.9
GEO:	1304.39	1200	-8.0
MPS:	1336.72	1500	+12.2
SBE:	272.2	150	-44.9
EHR:	866.0	866.0	0.0

Other Items of Interest

Air Force's plan to drop U.S. forecast system for U.K. model d... http://www.washingtonpost.com/blogs/capital-weather-gang/wp...

Capital Weather Gang

Air Force's plan to drop U.S. forecast system for U.K. model draws criticism

By Jason Samenow April 20

The U.S. Air Force Weather Agency, which provides forecasts for Air Force and Army missions around the world, plans to replace its U.S.-based forecasting system with a model from the United Kingdom.

The U.K. model selected by the Air Force, known as the Unified Model of the United Kingdom Met Office, is widely respected. The Air Force says it will improve its forecast capabilities and lower its costs. Within a single framework, this model is able to provide both short- and longer-range forecasts over large and small areas — which is not a seamless operation within the current U.S. system.

But the decision — which was made without coordination with the National Weather Service or U.S. Navy, who partner with the Air Force to improve predictions — has drawn criticism from parts of the U.S. weather research and forecasting community. Several leading figures say they are perplexed that the Air Force has selected a foreign model when the United States is investing substantial resources to develop its own world-class models.

Verification and the Origins of Rotation in Tornadoes Experiments – Southeast (VORTEX-SE)

- NOAA OAR received $5.2M for FY15 in support of VORTEX-SE
- NSF to be a collaborating partner
- Project to be managed by National Severe Storms Laboratory (NSSL)
- Science plan to be developed by Scientific Steering Committee
- Workshop planning in development
- Science issues:

1) whether/where local values of instability may be larger than those depicted by current analysis tools; 2) whether/when instability may grow larger for short periods of time, again unresolved in current analysis tools; and 3) whether, and for how long, storms can persist and possibly be tornadic in near-zero instability environments.

The "next generation" of Storm-Penetrating Instrumented Aircraft For Atmospheric Research