



NSF Update

Eric DeWeaver and Anjuli Bamzai
Climate & Large-Scale Dynamics program
GEO/AGS

Eric Itsweire
Physical Oceanography Program
GEO/OCE



NSF Director: Dr France Córdoba



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NSF Strategic Plan released March 2014

- **Transform the Frontiers of Science and Engineering** Invest in fundamental research to ensure significant continuing advances across science, engineering, and education. Integrate education and research to support development of a diverse STEM workforce with cutting-edge capabilities. Provide world-class research infrastructure ...
- **Stimulate Innovation and Address Societal Needs through Research and Education** Strengthen the links between fundamental research and societal needs through investments and partnerships. Build the capacity of the nation to address societal challenges using a suite of formal, informal, and broadly available STEM educational mechanisms.
- **Excel as a Federal Science Agency** Build an increasingly diverse, engaged, and high-performing workforce by fostering excellence in recruitment, training, leadership, and management of human capital. ...



CLIVAR-relevant Goals

- Advance discovery, knowledge and understanding in all areas of climate science
- Promote teaching, training, and learning in climate and related sciences – broaden participation of women and minorities in climate science
- Bring benefits to society through advancement in climate research

In general, NSF core programs support basic science research and do not attempt to set priorities for the research communities.



Recently Supported US CLIVAR Activities

- CPTs – Current projects expire July 2015
- CMEP - in advance of IPCC AR5
- DYNAMO – 2011 campaign, in analysis phase
- AMOC
- YoTC



DEEPWAVE (Deep Propagating Gravity Wave)

- Currently in the field, based in Christ Church NZ
- Jointly funded by NSF Aeronomy-CLD-PDM
- GV flights over mountain wave locations over and downwind of region near New Zealand
- GV will fly at altitudes 9-13 km
- Mapping of GW structures 15-100 km
- PIs: Ron Smith/Yale, M Taylor/USU, D Fritts/GATTS
- Collaboration: NZ, AU, Germany, UK, CA



How USCLIVAR can provide value to NSF

- Provide feedback on long-range scientific priorities
- Represent the broader climate research community
- Promote activities, such as fostering the availability of tools and datasets, that enhance the productivity of investigators
- Provide information and foster interactions that lead to the submission of stronger research proposals
- Serve as a venue for community input to large field campaigns



NSF SEES Portfolio

Arctic SEES	Dimensions of Biodiversity	Small Business Technology Transfer
Climate Change Education Partnerships	Interdisciplinary Research in Hazard and Disasters	Sustainability Chemistry, Engineering and Materials
Coastal SEES	Ocean Acidification	Sustainable Energy Pathways
Cyber-Enabled Sustainability Science and Engineering	Partnership for International Research and Education	Sustainability Research Networks
Decadal & Regional Climate Prediction Using Earth System Models	Research Coordination Network	Water Sustainability and Climate
Dynamics of Coupled Natural and Human System (CNH)	SEES Fellows	

www.nsf.gov/sees



Long-term Goals of EaSM

- Achieve comprehensive, reliable **global and regional predictions of decadal climate variability and change** through advanced understanding of the coupled interactive physical, chemical, biological and human processes that drive the climate system.
- Quantify the **impacts of climate variability and change on ecological, agricultural and other human systems, and identify and quantify feedback loops** through which human systems help determine environmental outcomes.
- Maximize the **utility of available observational and model data** for impact and vulnerability/resilience assessments through up/downscaling activities.
- Effectively translate model results and associated uncertainties into the **scientific basis for well-informed human adaptation** to and management decisions for climate change.



SEES EaSM

- **EaSM-1 NSF-DOE-USDA**
41 projects, 106 awards interdisciplinary in nature
- **EaSM-2 NSF-DOE-USDA**
10 projects, 25 awards
- **EaSM-3 focus on Goal 1**
Jointly funded by NSF-USDA
Funding recommendations in progress
- **No EaSM solicitation planned for FY 15**
- **PI meetings** July 2012, February 2014, summer 2015(?)



FY 15 Budget Request

- **NSF** \$ 7.255 B (+1.2%)
 - **GEO** \$ 1.304 B (+0.1%)
 - **AGS** \$ 250.61 M (+0.1%)
- NCAR (+3.2%)**
Research (-2.3%)

Changes relative to FY 14 estimate



AGS Leadership

- **Division Director**

Michael Morgan returned to UW Madison

New DD starts ~ Sept 2014 hopefully

Scott Borg is acting until then

- **Section Head Atmospheric Sciences**

New SH starts ~ Sept 2014 hopefully

- **Section Head NCAR and Facilities Section**

Steve Nelson retired April 2014

Sarah Ruth current Acting Section Head



Questions!