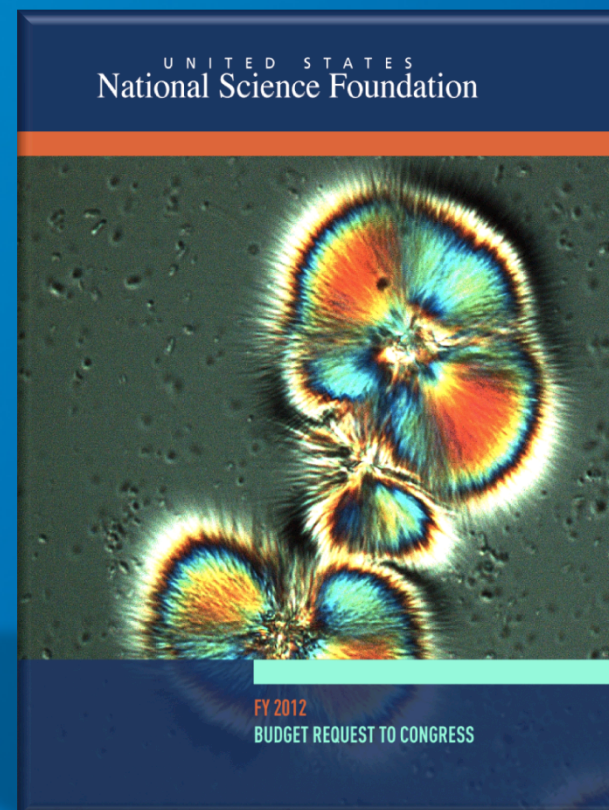




# GEO FY 2012 Budget Request

Tim Killeen  
Assistant Director for Geosciences  
February 14, 2011



# FY 2012 Request

- In 2012, GEO is requesting \$979,160,000; an increase of \$89.52 million or 10.1%.
- All increases are based on the existing FY 2011 Continuing Resolution, which for GEO is the same as the 2010 Appropriation.



# Budget Request by Division

## GEO Funding (Dollars in Millions)

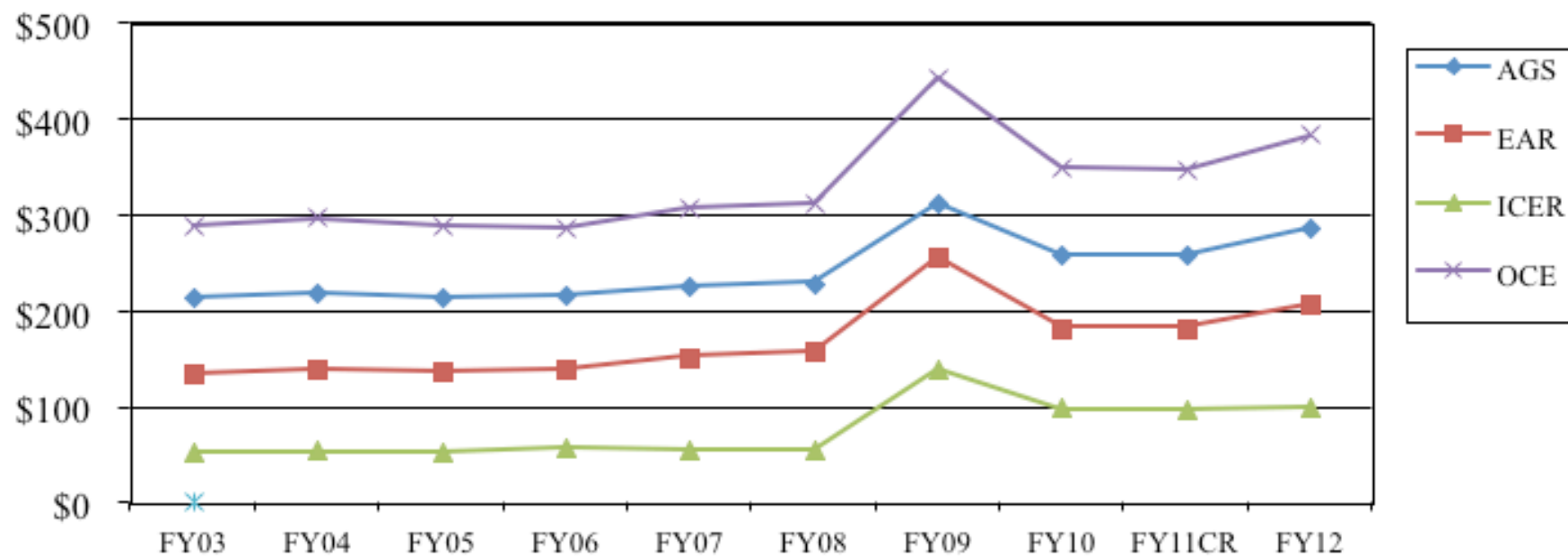
|                   | FY 2010<br>Omnibus<br>Actual | FY 2010<br>Enacted/<br>Annualized<br>FY 2011 CR | FY 2012<br>Request | Change Over<br>FY 2010 Enacted |              |
|-------------------|------------------------------|---|--------------------|--------------------------------|--------------|
|                   |                              |   |                    | Amount                         | Percent      |
| AGS               | \$259.87                     | \$259.80  | \$286.33           | \$26.53                        | 10.2%        |
| EAR               | 183.26                       | 183.00  | 207.27             | 24.27                          | 13.3%        |
| ICER              | 98.87                        | 97.92   | 100.92             | 3.00                           | 3.1%         |
| OCE               | 349.88                       | 348.92  | 384.64             | 35.72                          | 10.2%        |
| <b>Total, GEO</b> | <b>\$891.87</b>              | <b>\$889.64</b>                                 | <b>\$979.16</b>    | <b>\$89.52</b>                 | <b>10.1%</b> |

Totals may not add due to rounding.



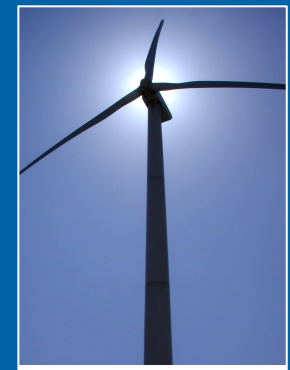
# GEO Ten-year Funding History

**GEO Subactivity Funding**  
(Dollars in Millions)



# Science, Engineering, and Education for Sustainability (SEES)

- Goal: Generate discoveries and build capacity to achieve an environmentally and economically sustainable future
- FY 2012 priorities:
  - *Advance a clean energy future*
  - *Nurture the emerging SEES workforce*
  - *Expand research, education, and knowledge dissemination*
  - *Engage with global partners*
- Environment, energy, and economy nexus
- Increase of \$338 million over FY 2010 enacted level (GEO increase \$87.2M)





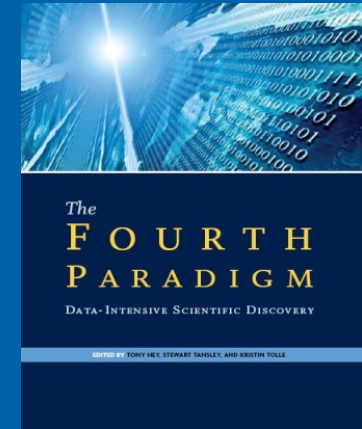
# SEES – Geosciences Foci

- Sustainable Energy Pathways
  - characterize and understand existing energy systems and their limitations (e.g. wind, geothermal, hydro)
  - understand risks and stressors associated with new and emerging energy sources (e.g. tidal, clean coal, carbon sequestration)
- Sustainability Research Networks
  - interdisciplinary research and education partnerships involving government, academe, and the private sector
  - address fundamental issues of use in improving policy and practices with regard to energy, the environment, and human well-being



# Cyberinfrastructure Framework for 21<sup>st</sup> Century Science and Engineering (CIF21)

- Comprehensive and integrated cyberinfrastructure to transform research, innovation and education
- Focus on computational and data-intensive science to address complex problems
- Four major components
  - Data-enabled science
  - New computational infrastructure
  - Community research networks
  - Access and connections to cyberinfrastructure facilities



# CIF21 – Geosciences Foci

- GEO investment is \$16 million in 2012
- Computational Infrastructure
  - acquisition and use of cyberinfrastructure for the conduct of geoscience research
- Data Enabled Science
  - geoinformatics – the tools and techniques that facilitate data-enabled geoscience
  - enhancement of access and connections to facilities and scientific instruments





# Creating a More Disaster Resilient America (CaMRA)

- GEO will initiate a new \$10.0 million GEO-wide program on Creating a More Disaster Resilient America (CaMRA)
- CAMRA will catalyze basic research efforts in hazard-related science to improve forecasting and prediction of natural and man-made hazardous events
- AGS, EAR, and OCE are participating
- A formal solicitation is anticipated



# Continuing Investments in Education and Diversity

- GEO is continuing to develop the geoscience workforce of the future
  - OEDG
  - GEO Ed
  - GEO Teach
  - COSEE
  - CAREER
- GEO's direct investments exceed \$50 million in 2012



# Infrastructure Update

- Ocean Observatories Initiative
  - Construction is underway
- R/V SIKULIAQ
  - Construction proceeding on schedule
- NCAR/Wyoming Supercomputing Center
  - 2012 is the final year of construction
- Regional Class Research Vessels
  - Construction of up to 3 ships is under consideration as an MREFC project





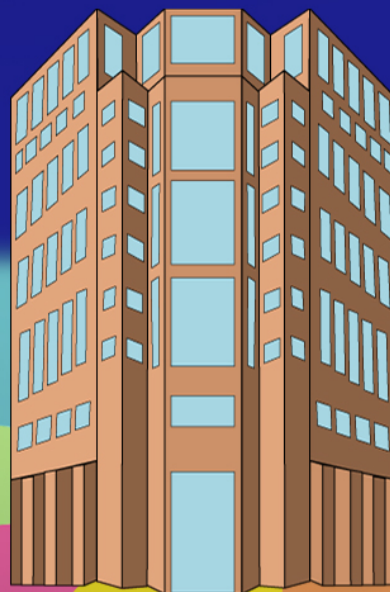
# OneNSF



**catalyze** human capital development



**improve**  
organizational  
efficiency



**create**  
networks and  
infrastructure  
for the nation



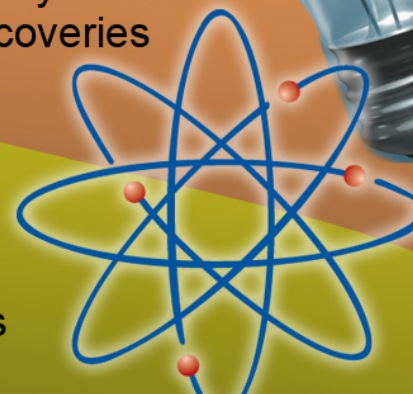
**spark** greater innovation  
and opportunity for  
scientific discoveries



**address**  
multidisciplinary  
challenges of  
national/global significance



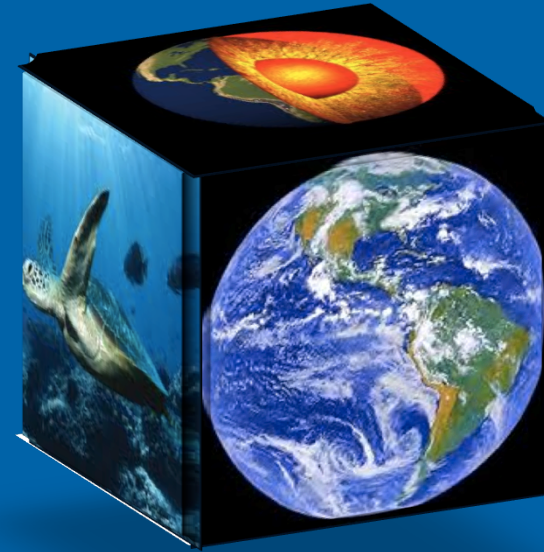
**support**  
fundamental  
research in  
all disciplines





# GEO in OneNSF

- GEO's FY2012 Budget Request provides exciting opportunities to:
  - Attack complex multidisciplinary challenges
  - Ignite innovation and opportunity for discovery
  - Catalyze breakthroughs across the sciences
  - Create new networks and cyberinfrastructure
  - Explore the planet in new and transformative ways





# GEO is committed to sustainable practices



- All materials are available online – [www.geo.nsf.gov](http://www.geo.nsf.gov)



*Where discoveries begin*

