April 2006 Board approval. Use:

- Stretch goals being integrated into program strategic plans.
- Partnerships and new ideas developing (GLOBE, Unidata, DPC).
- Guiding where we want to be in 2011+.
- Community Meeting and Investments
DLESE Program Center

- DLESE now serves 1.5M users annually
- NSF GEO has decided to phase out funding for DLESE
- DPC requested to “harden” the library and find a host over the next year (no funds for host)
- The DPC has laid-off staff (15-5) and exploring how the DLESE tools can help the community.
- Working closely with NSDL to transfer a lot of resource organization, data discovery, and contextualization tools.

Partnerships:
- WGBH Teacher’s Domain. Created an on-line professional development course for middle school teachers teaching out of area of expertise.
- Syracuse University Center for Natural Language Processing. Auto assignment of National Science Education Standards to resources. Integration and evaluation of state standards in system.
- COMET. “Introduction to the EUMESAT Polar System.” webcast designer.
- GLOBE. Helped on “GLOBE at Night” website design and graphics.
- WMO. Enhance the capabilities for distributing metadata across WMO centers in a timely and reliable fashion.
National Science Digital Library

Educational Cyberinfrastructure

- NSF repository for scientific research in education
- NSDL-funded development of technologies to represent educational standards
  - a comprehensive database to align standards across states
  - a tool to automate the assignment of standards to resources
- Partnership Networks of Resource Providers and Educational Users
- Online Learning Environments
  - Monthly NSDL web seminars through the National Science Teachers Association
  - New Expert Voices service puts researchers in dialogue with educators and learners

Pathways and Partners:

Biological Sciences, Chemistry, Computational Science, Engineering, Materials Science, Mathematics, Physics and Astronomy, Middle School, K-12
Rich Media, Community and Technical Colleges

Publishers partnerships to custom link NSDL resources to textbook and journal content
GLOBE

- The Next Generation GLOBE plan is being implemented – helping large-scale science projects have relevant student-oriented research investigations.
- Four NASA/NSF earth systems science projects competitively chosen:
  - Watersheds
  - Seasons and biomes
  - Carbon cycle
  - Deep ocean environment
- Annual Meeting and Regional Consortium (1M kids/25K teachers, 109 countries).
- GLOBE at Night (18K participated).
Spacecraft status. All satellites are in good health and providing initial data.

COSMIC-COMET Module.
- Basics of GPS radio occultation science
- Applications to weather, climate, and ionosphere
- COSMIC Mission description
meted.ucar.edu/COSMIC/
COSMIC Data Access

- [http://www.cosmic.ucar.edu](http://www.cosmic.ucar.edu)
- Select the 'Sign Up' link under COSMIC
- Accept data use agreement and provide user information.
- An email will be sent within 2-3 business days to indicate access has been granted.

More than 200 users have already registered.
60% of COSMIC soundings can penetrate to below 1 km, and can be used to measure boundary layer height and moisture.
Verification of WRF model with COSMNIC

Fcasts initialized between 2006080812 and 2006082400

WRF minus COSMIC in refractivity
Unidata 2006 Users Workshop

- **Theme:** Expanding the Use of Models as Educational Tools in the Atmospheric & Related Sciences

- Exit survey feedback very positive:
  - “Fantastic workshop. I have so many ideas for my courses…”
  - “Learned a lot”; “Very worthwhile…”
  - “A very useful and thought-provoking workshop with plenty of real-world applications to take home.”
  - “Many brilliant thoughts and ideas, in addition to the software and projects presented! Some, I am sure, will inspire me personally in my work.”
  - “Sharing data/models, democratization of data and models were the highlight of the workshop.”

72 participants, including 9 students who received fellowships.
Community Equipment Awards. 30 awards ($460K) since 2003 and $100K in 2006:

- University of Alaska-Fairbanks, Automating Volcanic Ash Forecast System with improved visualization tools
- University of Nebraska, Integrating Meteorology Data in Hydrology Research and Education
- George Mason University, Fire and Remote Sensing Data Processing and Distribution
- University of Northern Colorado, Advancing Education and Research in Meteorology
Data Tools

- **Integrated Data Viewer.** Platform-independent software for analyzing and visualizing geoscience data. Community use rapidly growing:
  - vis tool for the T-REX Ops. Center
  - solid earth community (GEON).

- **IDD.** Now has ~350 hosts in 171 network domains on five continents.
  - THORPEX-TIGGE data collection and distribution is using the IDD and LDM.
  - Data from 524 automatic surface stations shared through the IDD-Brazil and flowing into the MADIS database at NOAA/GSD
JOSS and VSP

Community Support Services:

- JOSS administered travel for 1150 community members to 406 events (and managed 25 of these events).
- JOSS managed 36 off-site staff to provide scientific, technical and programmatic expertise to national and international programs.
- VSP made 80 visitor or postdoc appointments in 2006 with broad university participation and managed a broad range of community workshops.
COMET

- COMET received the 2006 American Geophysical Union Excellence in Geophysical Education Award
- New Initiatives:
  - Fire Weather
  - Oceanography
  - On-line Tropical Textbook
  - Mandatory Registration for MetEd
New COMET Modules

The COMET Program won the 2006 AGU Excellence in Geophysical Education award for "a sustained commitment to excellence in geophysical education by a team, individual, or group." More...

Recent Publications

- Watersheds: Connecting Weather to the Environment
- Rip Currents: Forecasting
Goal: help university faculty make greater and more effective use of multimedia in their teaching.

Presentations from COMET, Unidata and DLESE on instructional strategies and resources

Participants presented their own experiences using multimedia in instruction

Small groups developed resources to support multimedia instruction in topical areas

Workshop website with Moodle interface designed to optimize sharing

A great deal of interest in COMET support for university instruction
  - Participants desire a library of learning objects
  - Considerable support for the idea of a community proposal

24 participants from 23 institutions. 4 international participants supported by WMO

'I have to get ready for classes in the Fall, and now I’m prepared to do it.” --Paul Croft, Kean University
Learning Objects

Términos básicos de agua del suelo y escorrentía

Tidal Forcing During a Complete Lunar Cycle
Day 0

©The COMET Program