Unidata Policy Committee

Benjamin Watkins
NOAA National Climatic Data Center
NCDC is the steward of the Nation’s in-situ and satellite data and information.

Collocated with the U.S. Air Force and Navy Climatology offices.

The three agencies fulfill much of the Nation’s climatological requirements.
Mission Statement

To provide access and stewardship to the Nation’s resource of global climate and weather related data and information, and assess and monitor climate variation and change.
NOAA’s Observing System Architecture (NOSA)

- 99 separate observing systems
- 500 different environmental parameters
- 40 observing systems termed “operational” (by their program managers)
- Describes NOAA’s observing systems purpose
  - Life cycle phase, schedule and system quantities (currently deployed, programmed, or needed)
- Costs –
  - Initial acquisition cost
  - Subsequent upgrade costs
  - Operations and maintenance costs
- Environmental parameters measured by the observing system
- Applications of NOAA observing systems to NOAA’s mission goals
- Location maps of observing platforms or stations
Major Systems Projected Growth
2003-2017

Year

Terabytes

- IN-SITU
- NEXRAD
- DMSP
- Ocean data
- GIFTS
- GOES
- NPOESS
- NPP
- Future NASA satellite missions
- NASA NPP
- NASA EOS (MODIS)
Performance Measures

Number of Days: Observation to Archive

Number Days Cycle Time: Observation to Archive and Users
Time to Get Data in Archive (days) vs. Archive Growth per hour (TB)
Networks: NEXRAD, GOES, POES, ASOS, COOP

- Actual Archive Growth per Hour
- Goal: Archive Growth per Hour
- Observation to Archive (days)

Goal: Observation to Archive (days) (adjusted from FY03)
Prior Goal: Observation to Archive (days)

102 NWS NEXRAD sites now transmitting electronically

Fiscal Year Quarters and FY FTE Program Costs

FY02 $2.7M
FY03 $2.5M
FY04 $2.4M
FY05 $2.2M
FY06 $2.0M
NCDC: On the Forefront of E-Business

Offline Access
Continues to exhibit a sharp decline

On-line Web Access
Continues to exhibit a rapid increase
CLASS Overview

NOAA Observing System
-- Notional Architecture --
The “End-to-End System”
Scientific Data Stewardship
Real time and retrospective management of climate data

Network Performance Monitoring

- Observations & Metadata
  - Analyses and Quality Control
    - Feedbacks
  - Stewardship Teams

Climate Data Records

- Reference Data Sets (Reprocessing) and Model Reanalyses
  - Archives

State of… Reports

Products

Products
Forging New Partnerships

• National Environmental Modeling and Analysis Center
  – UNCA, Asheville-Buncombe Technical Community College and UNC Charlotte
  – More accurate forecasts of flash floods and winter storms for Western North Carolina

• Climate and Weather Impacts on Society and the Environment (CWISE)
  – North Carolina State University, Coastal Service Center, University of South Carolina, Clemson University
  – Understand and assess the impacts of climate variability, and weather events

• Education and Research Consortium of Western Carolinas
ERCWC Network Coverage

As of January 2004

Legend

- n x 2.5Gbit/s Fiber Optic Link
- 55Mbit/s Fiber Optic Link

northern expansion (planned)

Optical (SONET) connection to Tier 1 Internet hubs in Washington, Virginia & Maryland

western expansion (planned)

eastern expansion (planned)

connections to Raleigh Durham

southern expansion (planned)

to Tier 1 Internet Hubs in Atlanta (planned)
NCDC New Homepage
http://www.ncdc.noaa.gov
Questions?

WWW.NCDC.NOAA.GOV