

Unidata Policy Committee

Benjamin Watkins

NOAA National Climatic Data
Center





National Climatic Data Center (NCDC)

Asheville, North Carolina

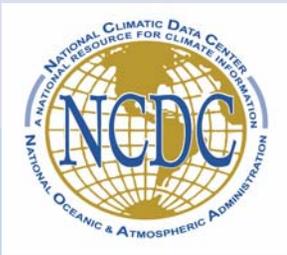
- **NCDC is the steward of the Nation's in-situ and satellite data and information.**
- **Collocated with the U.S. Air Force and Navy Climatology offices.**
- **The three agencies fulfill much of the Nation's climatological requirements.**



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.

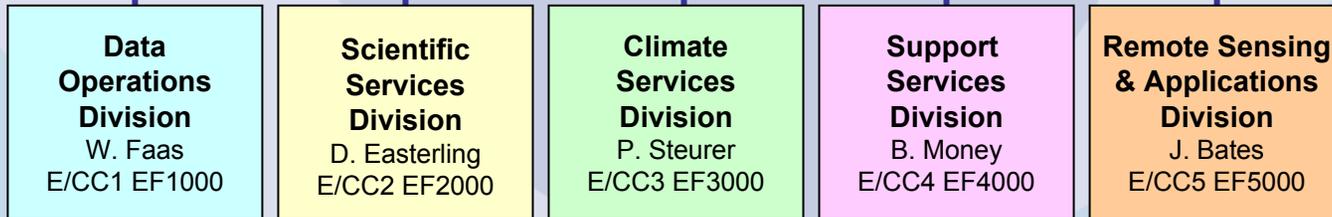




Director
Deputy Director
Operations Planning Officer
Strategic Planning Officer
RCC/State Climatologist Liaison

T. Karl	E/CC	EF0000
S. LeDuc	E/CCx1	EF0000
B. Watkins	E/CCx2	EF0000
J. Jensen	E/CCx3	EF0000
T. Owen	E/CCx4	EF0000

**Regional
Climate
Centers**



Climate Database Modernization Contractor
 (KY, MD, NC, WV)

Climate Database Modernization Program
 J. Elms
 E/CC1x1
 EF1000

USCRN Team
 M. Helfert
 E/CC2x1
 EF2000

Financial Management Branch
 P. Hughes
 E/CC41
 EF4100

Information Technology Branch
 M. Smith
 E/CC42
 EF4200

Data Processing Branch
 S. DelGrecio
 E/CC11
 EF1100

Archive Branch
 G. Shumbera
 E/CC12
 EF1200

Customer Services Branch
 V. Woldu
 E/CC31
 EF3100

Data Access Branch
 N. Lott
 E/CC32
 EF3200

Product Development Branch
 M. Plantico
 E/CC33
 EF3300

Satellite Services Branch
 (vacant)
 E/CC51
 EF5100

Technical Library
 L. Preston
 E/CC5x1
 EF5000

Climate Analysis Branch
 R. Vose
 E/CC21
 EF2100

Climate Monitoring Branch
 J. Lawrimore
 E/CC22
 EF2200

Paleo-climatology Branch
 M. Eakin
 E/CC23
 EF2300

Satellite Services Team
 EF5000

Blended Products Team
 EF5000

Satellite and Radar Products Team
 EF5000



20TH Century

21ST Century

Atmospheric Observations



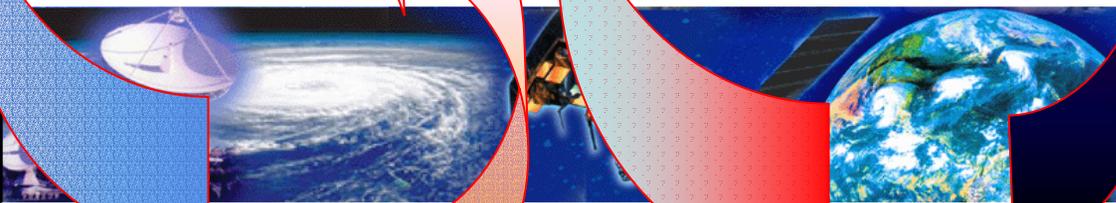
Data Systems



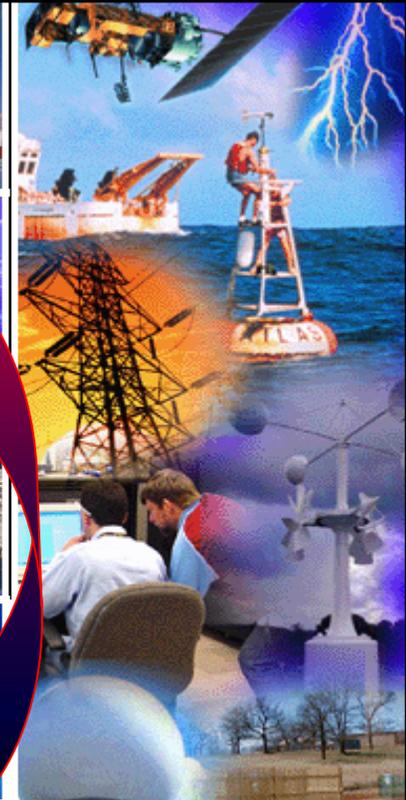
Ocean Observations



Space Observations



Technology Development



Innovations

Breakthrough

**Efficiencies
Cost**

**Mass
Productions**

Innovations

Breakthrough

Efficiencies Cost

Mass Productions

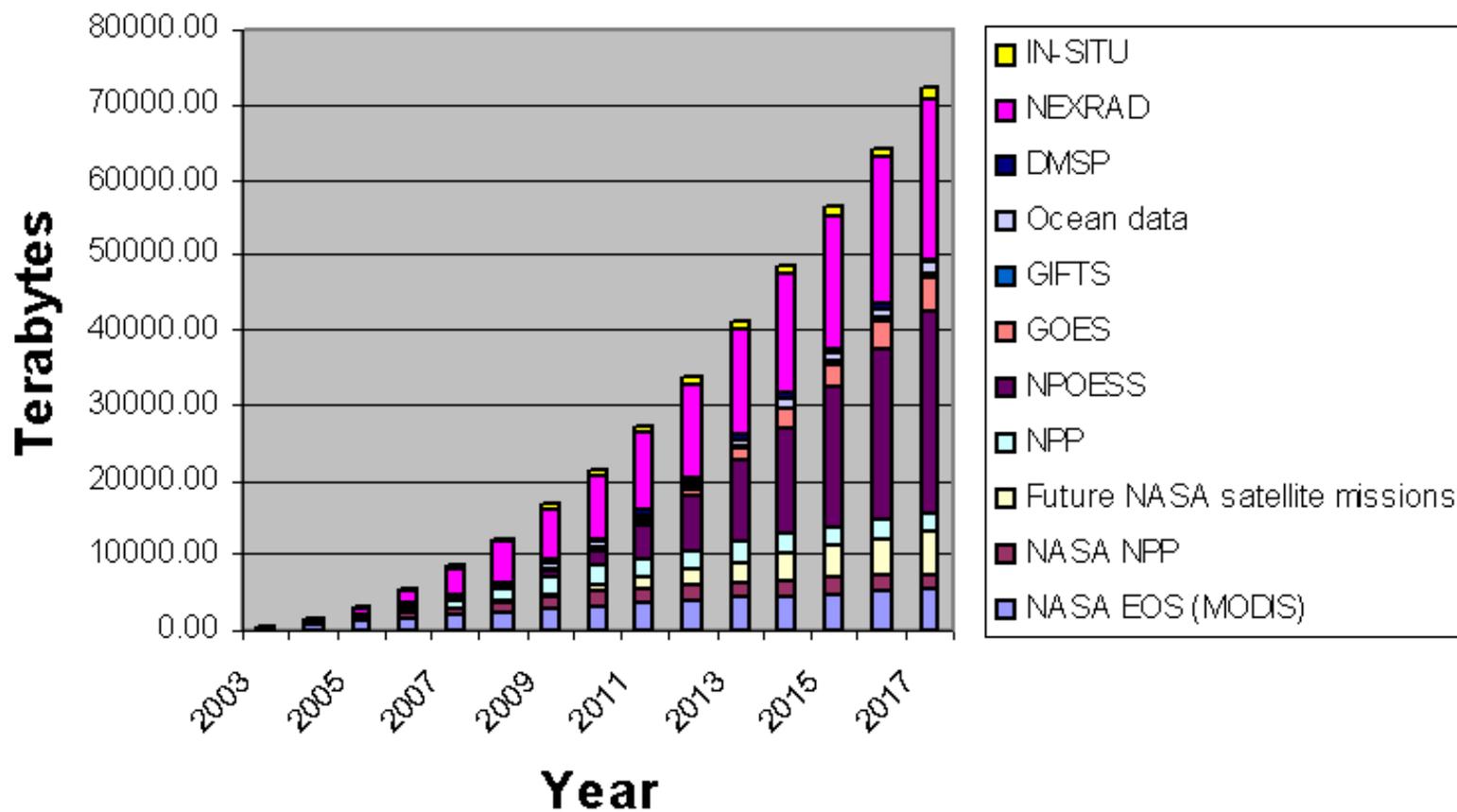
OBSERVING SYSTEM TIMELINE



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

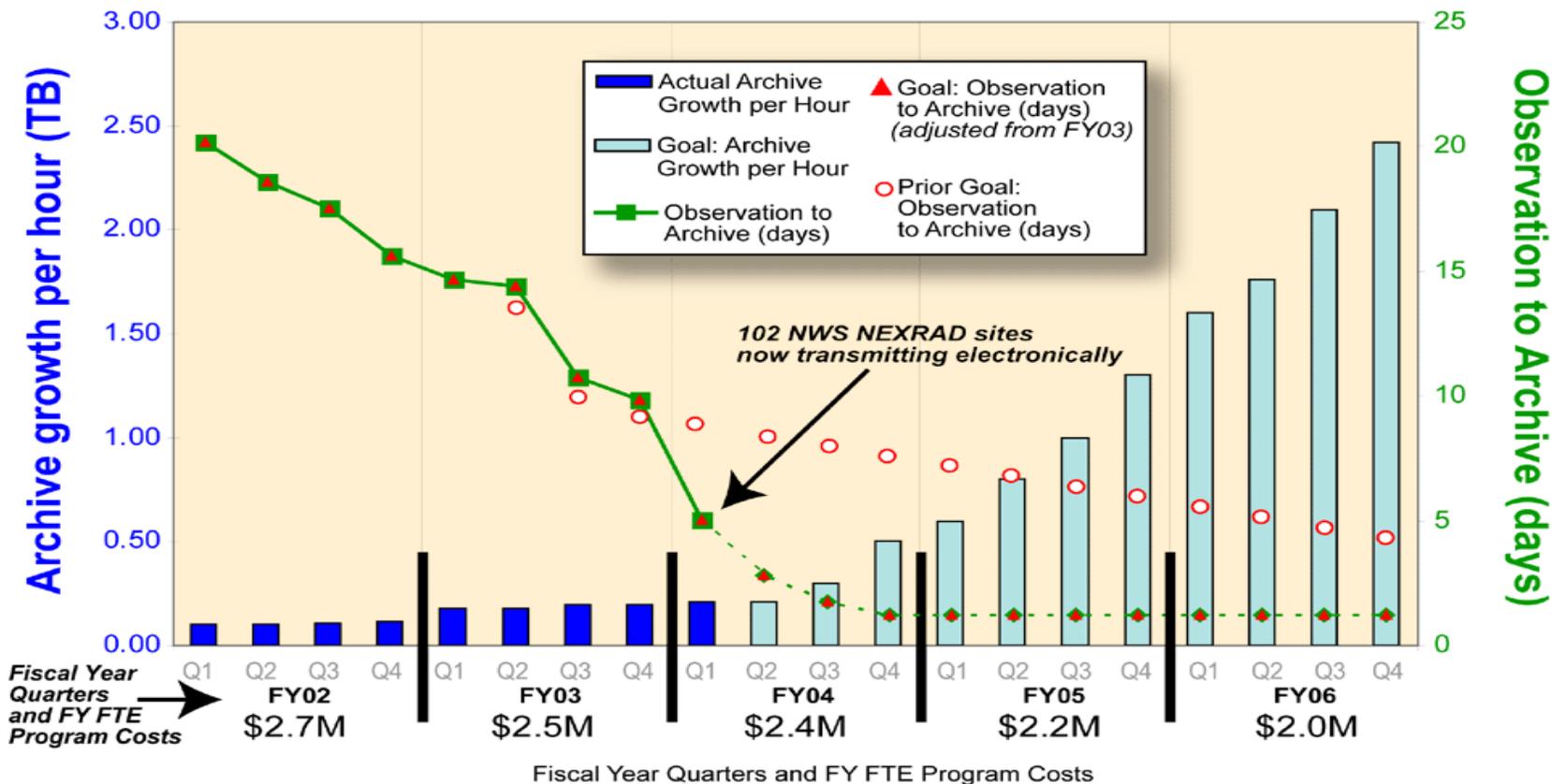
Major Systems Projected Growth 2003-2017



Performance Measures

Number of Days: Observation to Archive

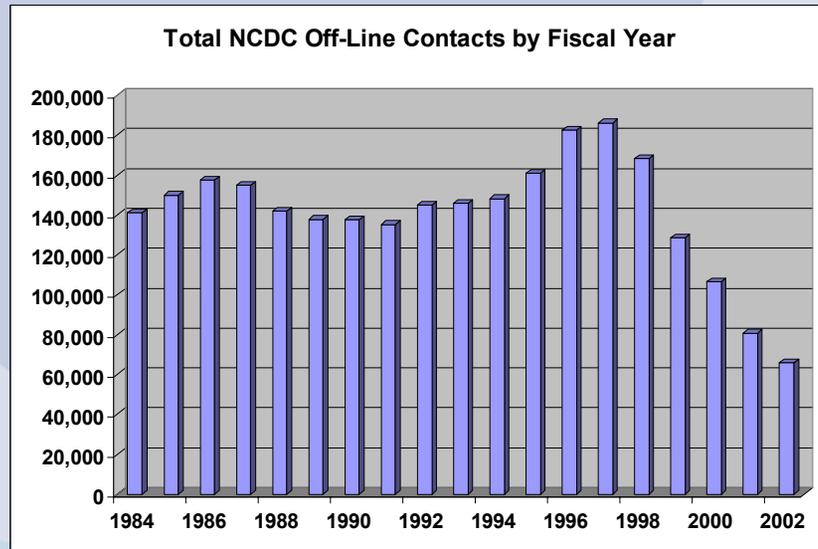
Number Days Cycle Time: Observation to Archive and Users
 Time to Get Data in Archive (days) vs. Archive Growth per hour (TB)
 Networks: NEXRAD, GOES, POES, ASOS, COOP



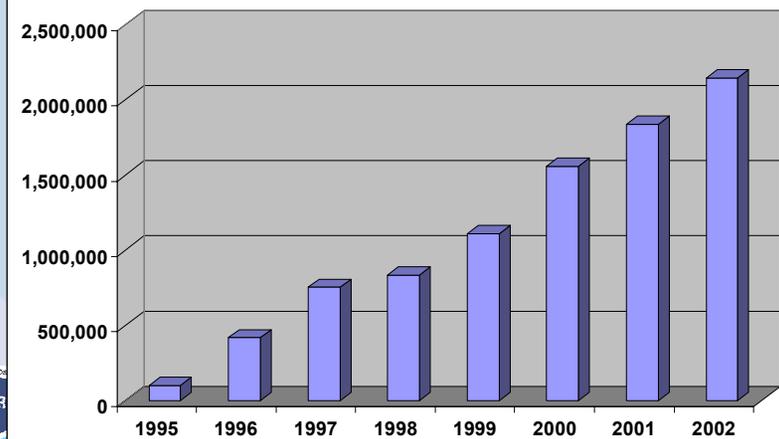
NCDC: On the Forefront of E-Business

Offline Access

Continues to exhibit a sharp decline



Total NCDC On-Line Contacts by Fiscal Year



On-line Web Access

Continues to exhibit a rapid increase



Current NOAA Management Model

NOAA Observing
System Council
Data Stewardship
Committee

Approved Requirements

Requirements

CLASS

Information
Exchange

Archive
Requirements
Working Group

Data Centers &
Related
Offices

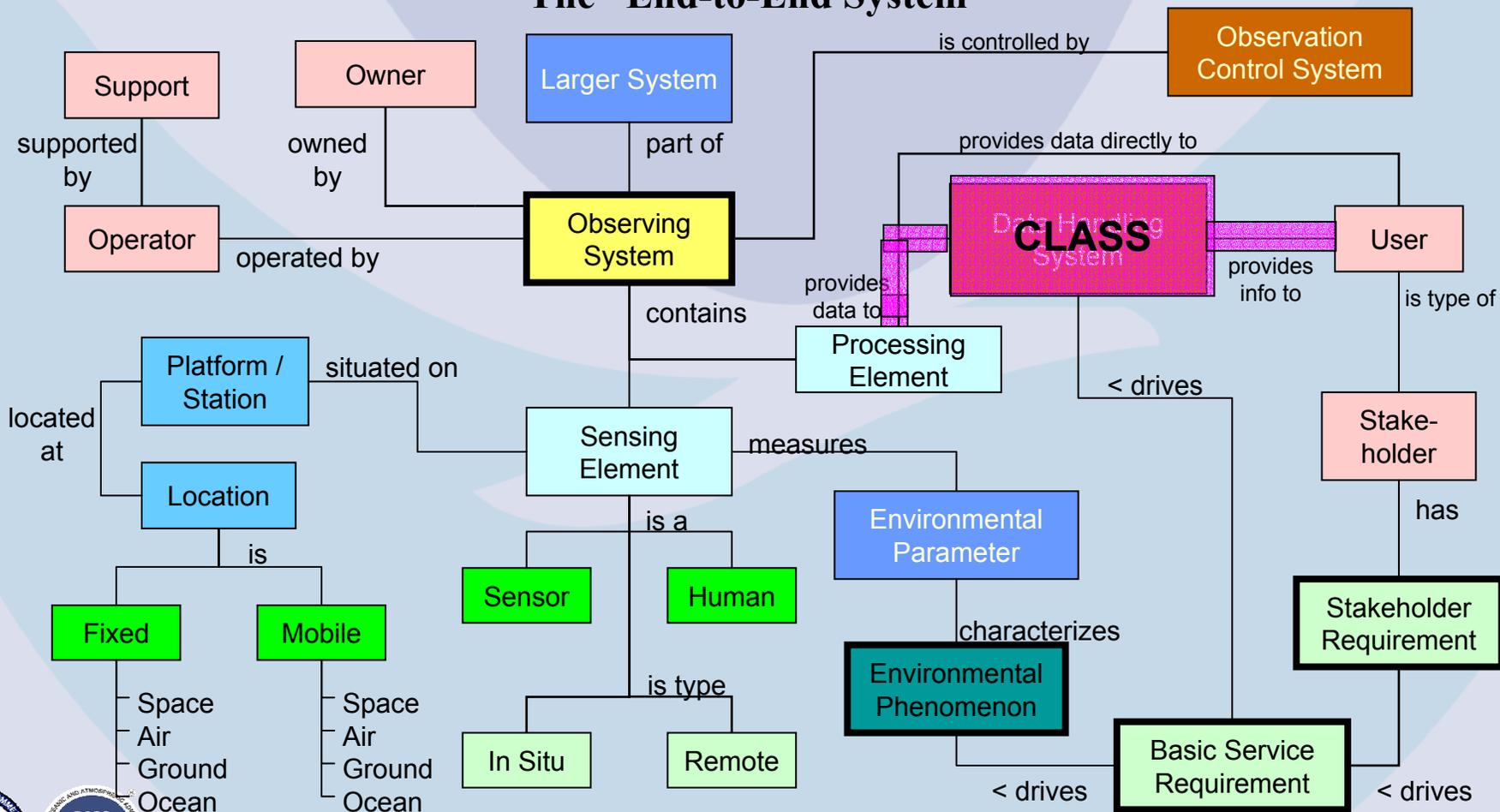
Knowledge
Experience

Implementation



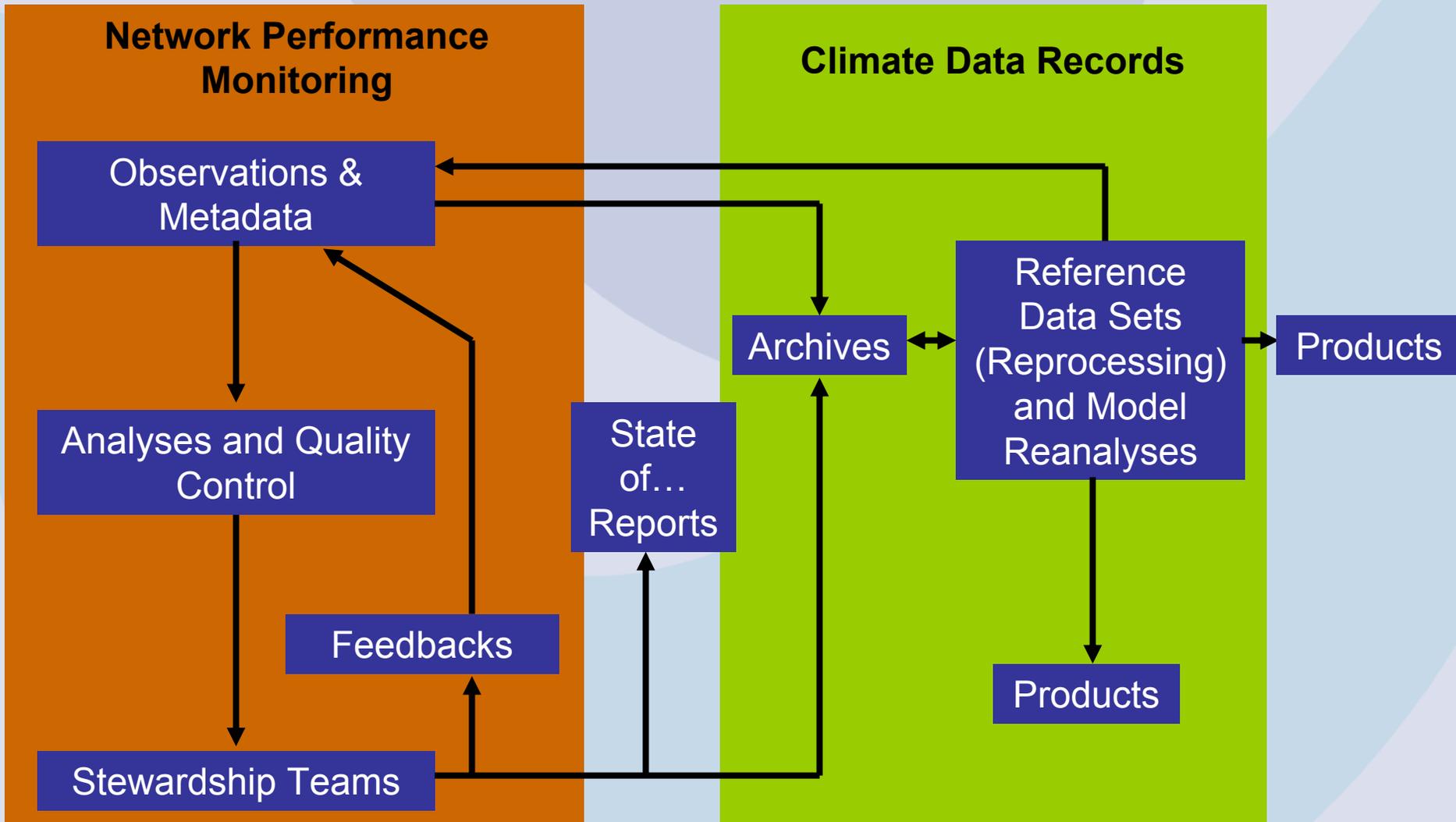
CLASS Overview

NOAA Observing System
 -- Notional Architecture --
 The “End-to-End System”



Scientific Data Stewardship

Real time and retrospective management of climate data



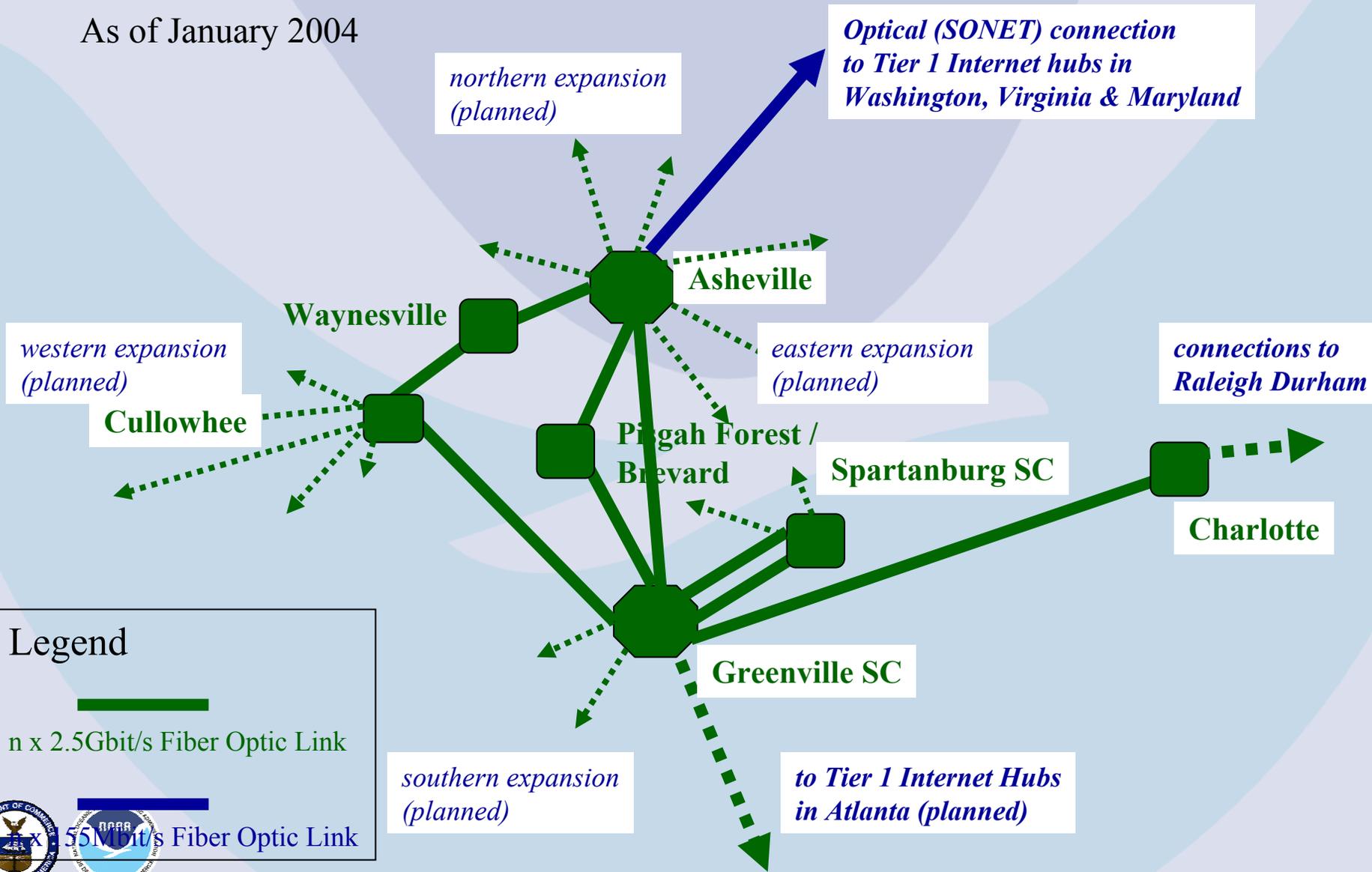
Forging New Partnerships

- 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

NCDC New Homepage

<http://www.ncdc.noaa.gov>



NOAA Satellites and Information

National Environmental Satellite, Data, and Information Service



National Climatic
Data Center

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Keyword(s), City, Station Name

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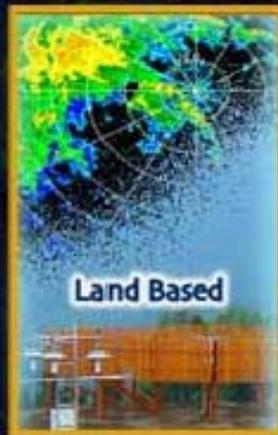
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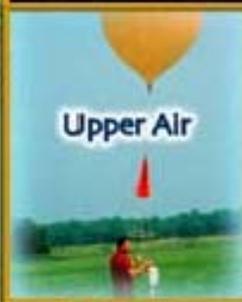
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Data Center**
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Land Based



Upper Air



Marine



Satellite

Weather/Climate
Events,
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Questions?

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