Western Region Technical Attachment
No. 95-10
April 4, 1995

AWIPS

[Editor's Note: The attached are briefing slides that highlight the current planning for AWIPS development. They were presented at the Manager's Meeting the week of March 27.]

AWIPS MAJOR STAGES

AWIPS PATHFINDER	Initial Operations Begin	Closure Certification Capabilities	Target Staffing Capabilities
June 1995	10/96 - 3/97	1998	1999
DATA			
GOES 7 & 8 Image Data Local NEXRAD Image Data High Resolution Gridded Data	All Modernization Data Sets	Expanded Interactive Access to Data Sets Local Mesoscale Data Sets	Full Interactive Access to Data Sets
COMMUNICATION			
Initial Satellite Broadcast Network Limited Network Control Facility	Full Satellite Broadcast Network Full Network Control Facility Site-to-Site Communications	National Dissemination Systems Limited Local Dissemination	Full Acquisition and Dissemination
APPLICATIONS			
NWS River Forecast System Precip Processing	Additional Hydromet Applications	Simple Product Formatting Warning Generation Expanded Hydromet Capability	Full Hydromet Capability Advanced Product Generation and Support
OPERATIONS			
Data Display AFOS System still present Initial Stage 2 Staffing	Interactive Display and Manipulation AFOS Workstations/PUP/SWIS used for backup, some consoles removed Local Application Development Initial Stage 2 Staffing	AFOS/SWIS removed Weather Forecast Office (WFO) and River Forecast Center (RFC) interactions supported	Full Operational Support Target Staffing Achieved

AWIPS DEVELOPMENT RESPONSIBILITIES

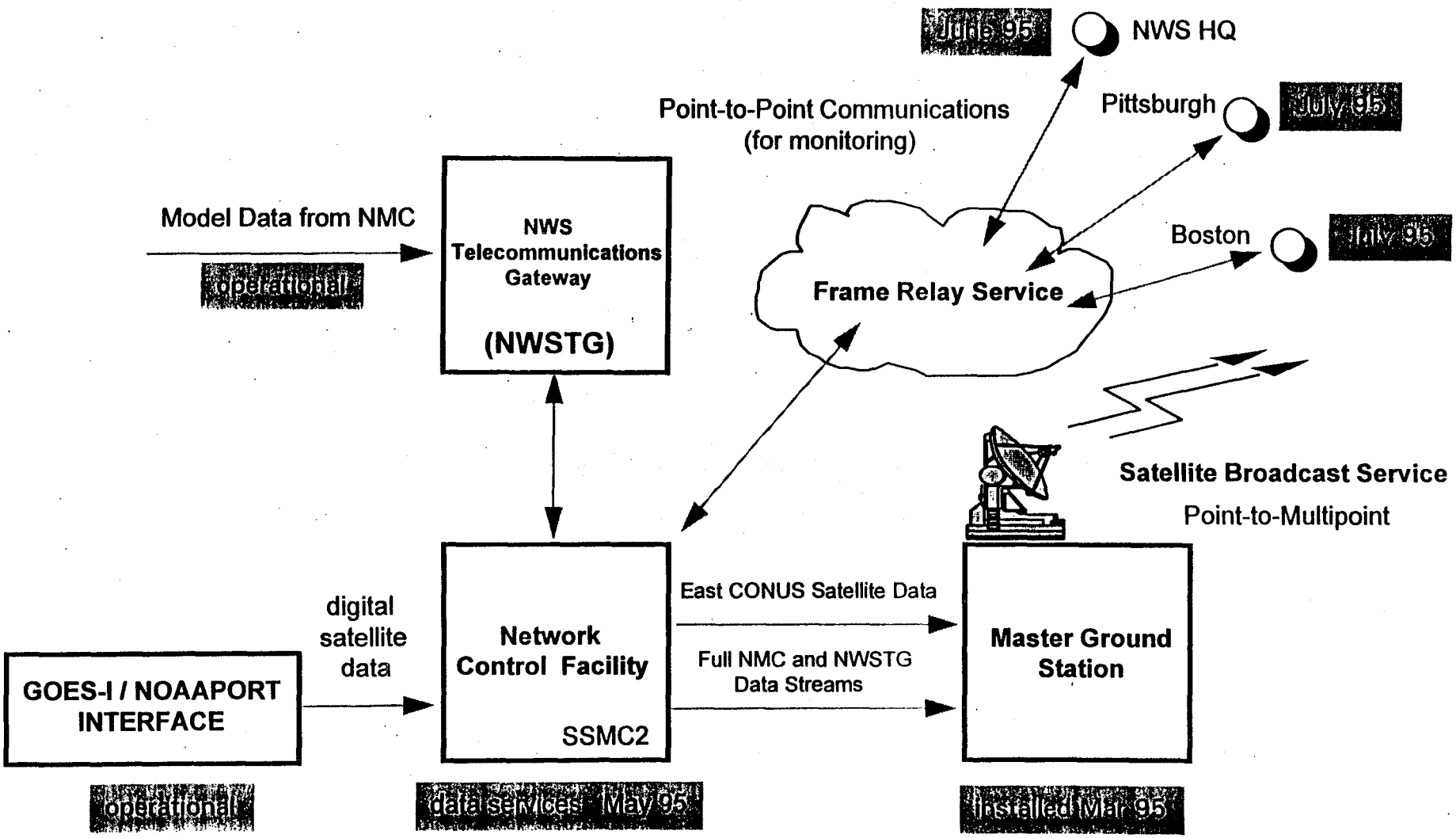
- PRC
  - Design and develop System Infrastructure and Applications Programming Interfaces (API)
  - Integrate hydrometeorological software
  - System Operations and Maintenance

- Hydrologic Research Laboratory
  - Design, develop and evolve RFC applications and WFO hydrologic applications

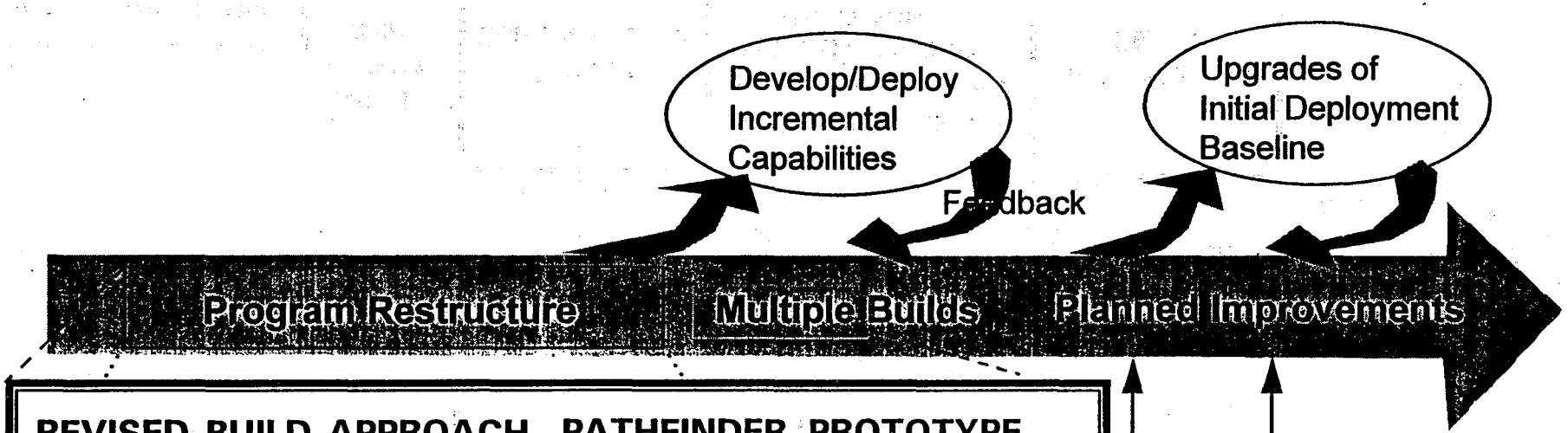
- National Centers for Environmental Prediction (NCEP)
  - Design, develop and evolve NCEP applications and extensions

- Techniques Development Laboratory
  - Design, develop and evolve WFO meteorological applications
  - Integrate all WFO applications

Pathfinder Communications



SYSTEM DEVELOPMENT APPROACH



REVISED BUILD APPROACH
(December, 1994)

Prioritize Requirements

Revise Initial Operations Concept

SYSTEM DESIGN
(April, 1995)

Architectural Analysis

Performance Modeling

Make versus Buy

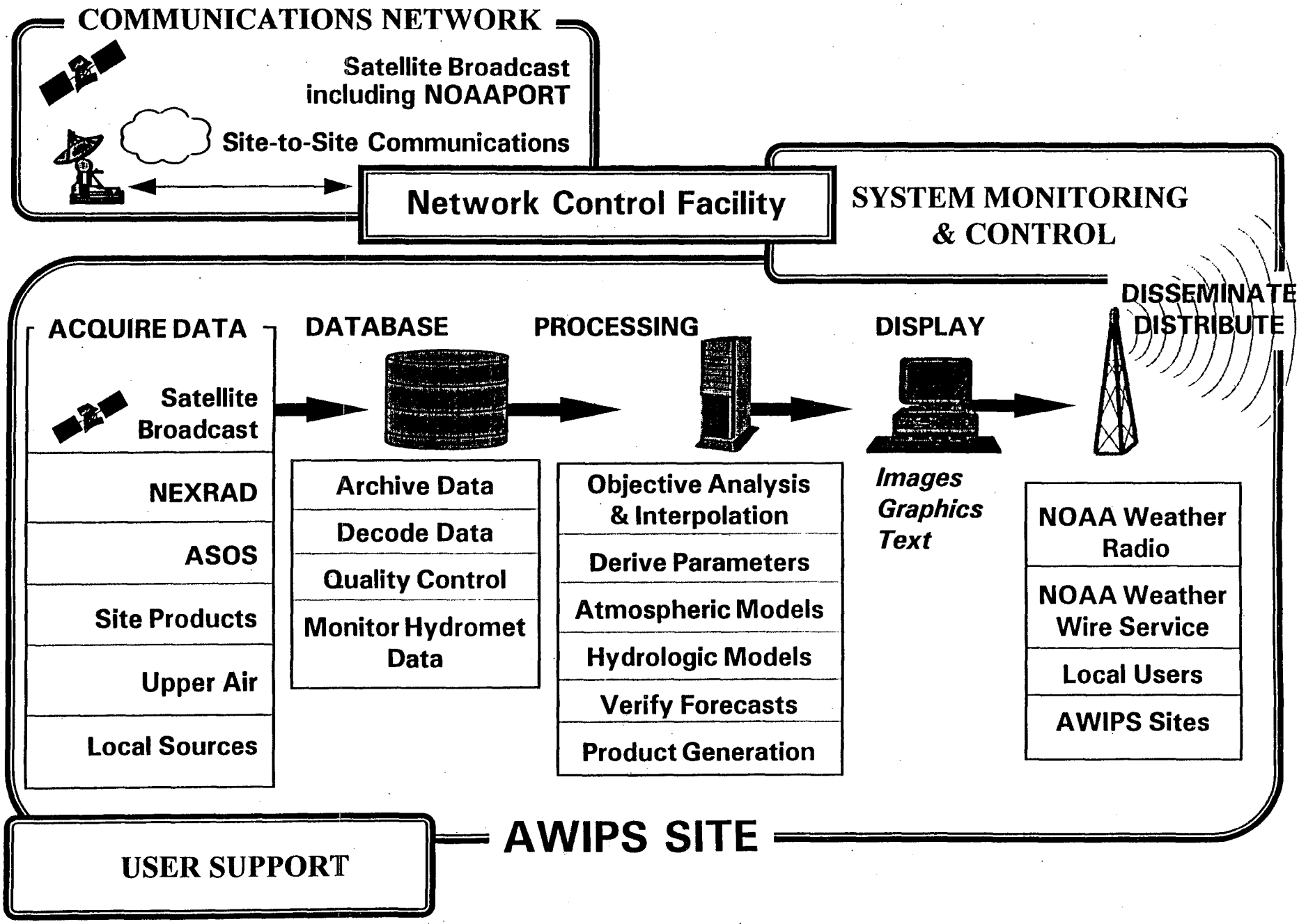
PATHFINDER PROTOTYPE
(June, 1995)

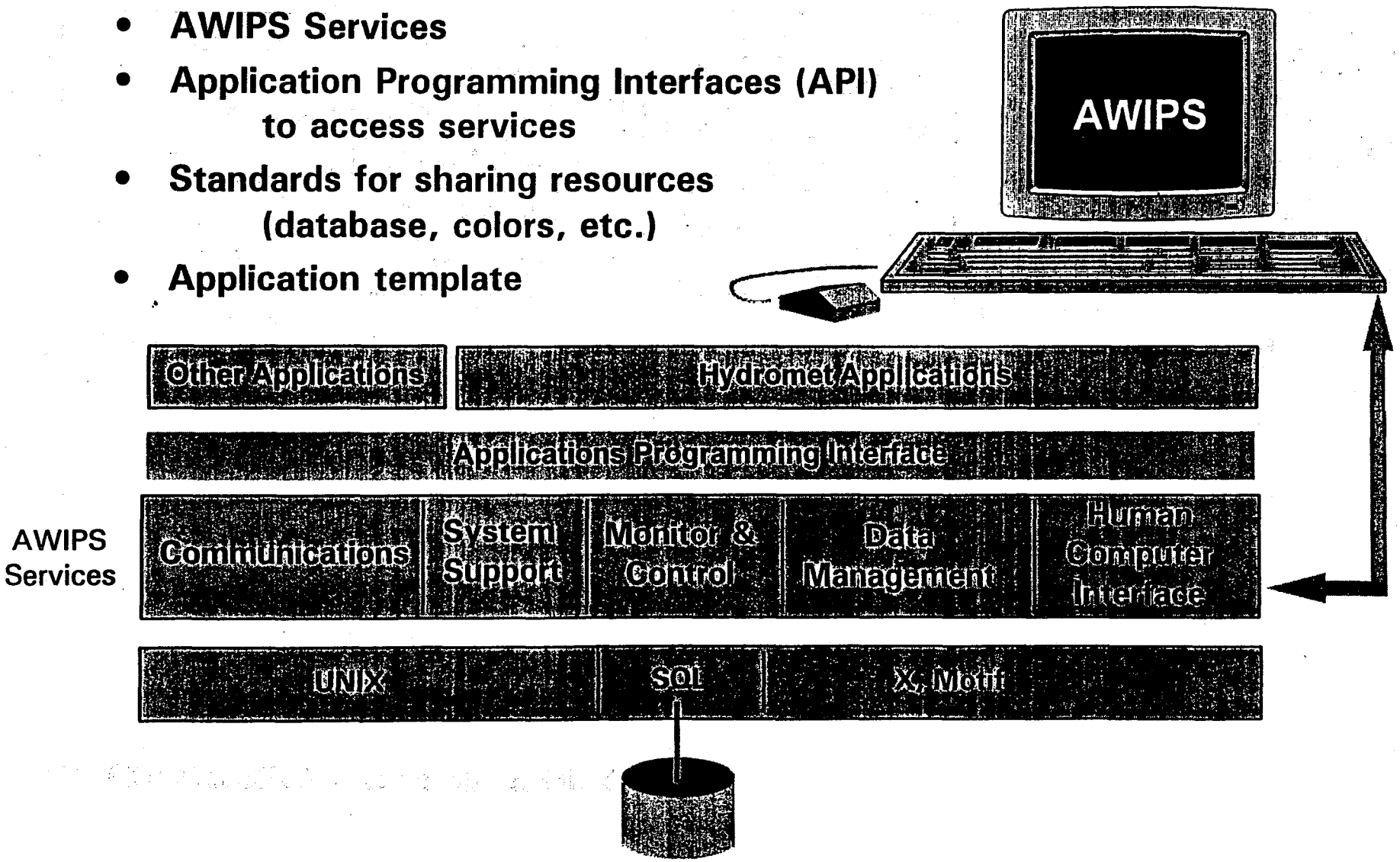
Initiate Satellite Communications

Validate Select Design Features

Gain Experience:
- **Installation**
- **Operations**
- **Maintenance**

CONTRACT MODIFICATION
(August, 1995)


COMMUNICATIONS NETWORK
Satellite Broadcast including NOAAPORT
Site-to-Site Communications
Network Control Facility
SYSTEM MONITORING & CONTROL
ACQUIRE DATA
Satellite Broadcast
NEXRAD
ASOS
Site Products
Upper Air
Local Sources
DATABASE
Archive Data
Decode Data
Quality Control
Monitor Hydromet Data
PROCESSING
Objective Analysis & Interpolation
Derive Parameters
Atmospheric Models
Hydrologic Models
Verify Forecasts
Product Generation
DISPLAY
Images
Graphics
Text
DISSEMINATE
DISTRIBUTE
NOAA Weather Radio
NOAA Weather Wire Service
Local Users
AWIPS Sites
USER SUPPORT
AWIPS SITE

AWIPS Application Framework

- **AWIPS Services**
- **Application Programming Interfaces (API) to access services**
- **Standards for sharing resources (database, colors, etc.)**
- **Application template**