Trans-93-2

National Implementation Plan

For Modernization

Of The National Weather Service

For Fiscal Year 1994

Department of Commerce
National Oceanic and Atmospheric Administration

April 1993

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

April 12, 1993

In accordance with Section 703(a) of Public Law 102-567, I am transmitting the National Implementation Plan for Modernization of the National Weather Service for Fiscal Year 1994 for consideration by the Congress. This modernization of our Nation's weather warning and forecast program will provide improved services to the public and save lives and property.

Sincerely,

Ronald H. Brown

Enclosure

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Executive Summary

Modernizing and restructuring the weather service will usher in a new era for severe weather, flood warning and forecast services in the United States. Major advances in meteorology and hydrology, coupled with technological breakthroughs for observing and analyzing the atmosphere provide an unprecedented opportunity to improve the weather and hydrologic services. The National Weather Service (NWS) of the future will operate one of the most advanced hydrometeorological warning and forecast systems in the world.

In September 1992, the National Institute of Standards and Technology released the results of a cost-benefit study of the National Weather Service Modernization and Associated Restructuring. The study showed the benefits of modernization are about eight times greater than the costs. The study also showed that once the modernization is completed, segments of the U.S. economy will see benefits worth more than $7 billion per year.

In the last fiscal year, NWS took long strides toward completing the service's largest modernization and restructuring effort ever. Staff have drafted services plans and regional and site specific implementation plans. NWS has given initial approval to the vast majority of these detailed documents and will complete review in early 1993. NWS also revised the plan for the modernization program's validation mechanism, the Modernization and Associated Restructuring Demonstration (MARD).

Last year, NWS installed Next Generation Weather Radars (NEXRAD) in seven locations. The NEXRAD program is now in full-scale production. Information from the new radar is used operationally to predict area weather more quickly and accurately than ever before.

Automated Surface and Observing System (ASOS) units were delivered, installed and tested at approximately 100 NWS, Federal Aviation Administration (FAA) and Department of Defense (DOD) sites in 1992, including all demonstration (MARD) sites.

NWS awarded the Lightning Data System contract in late fiscal year 1992. The contractor will supply real-time lightning data to the National Severe Storms Laboratory, a MARD central receiving site and a limited number of local offices. The Storms Laboratory is developing lightning products for distribution to all NWS offices and other groups.

In keeping with a congressional mandate to ensure staff is trained to use and maintain new technology, NWS has started an intensive training program. NWS offered the first Cooperative Program for Operational Meteorology Education and Training (COMET) course in November 1991. This intensive class covers the latest theories and techniques in meteorological science.

Due to budget and time constraints, most staff training will be done on site, by staff experts and by using new interactive computer workstations. NWS installed the first of these special workstations in September 1992. NWS staff now have access to two computer-based learning modules: one on Doppler radar interpretation and a second on boundary detection and convection initiation. The NEXRAD Operational Support Facility held 16 classes on NEXRADs in 1992, training 258 students. Six offices have completed NEXRAD training requirements.

Although the technology being installed is state-of-the art, NWS continues to research improvements to existing equipment and software, and new technology that could further improve operations. New products will include algorithms for Doppler radar data, atmospheric sounding data from geostationary satellites and vertical wind data from ground-based atmospheric profilers. New computer technology will help meteorologists and hydrologists interpret data more quickly and accurately and convey that information more quickly to the user community.

Last year the Environmental Research Laboratory installed the final nine stations of the Wind Profiler Demonstration Network. This 29-station system, in operation since spring 1992, provides information hourly on above ground-level wind profiles and can respond as often as every six minutes. For a complete report on research efforts see Section 4.

Transition staff kept lines of communications open through bi-weekly, semi-annual and periodic meetings to review progress. In addition, staff completed the *Internal and External Communications and Coordination Plan for the Modernization and Associated Restructuring.* This plan explains how NWS will keep its employees and external users up-to-date.

Other communications efforts include a quarterly report for employees on transition progress, slide and videotape programs on NEXRAD and ASOS technology and a new public relations guide. Communications staff are maintaining and enlarging a mailing list of Weather Service users. In 1992, transition staff sent two updates to the list's recipients. NWS staff continue to brief congressional and state government staff as requested.

Major objectives for fiscal year 1993 include:

- Completing delivery of NEXRADs to MARD sites
- Commissioning some MARD NEXRADs
- Installing over 200 and commissioning approximately 70 ASOS Systems

- Initiating AWIPS development phase contract activities
- Continuing systems training and scientific education
- Continuing office transition and evaluation

Public Law 102-567, passed in October 1992, made key changes to the NWS certification process for safely closing, consolidating, relocating or automating Weather Service Offices and Weather Service Forecast Offices. Under the law, no field office will close before January 1, 1996. Field offices that are closed will have a liaison officer in the area for at least two years to ensure quality of service. Before a field office closes, NWS will offer detailed information on area weather conditions and how new equipment and staff will meet or exceed current levels of services. Services at an airport cannot be closed down unless the Commerce and Transportation Departments conduct a joint air safety appraisal to ensure services will not degrade. If a field office is the only one in a state, the Secretary of Commerce must evaluate the proposed closure to ensure state users an equivalent level of service.

The law requires the National Research Council to review certification criteria and provide a report to the Secretary of Commerce by next June that assesses the NWS criteria for closing, consolidating, automating or relocating offices. The Council will assess commissioning procedures for equipment, the statistical and analytical measures used to determine if new services meet or exceed previous levels of service, and make recommendations it deems necessary.

The law also created a Modernization Transition Committee to advise the Secretary of Commerce on proposed certifications. The committee will also report on the Strategic Plan, this annual report and other public safety matters. Members of the committee will include weather service employees, meteorological experts, private sector users, NWS, DOD, FAA, Federal Emergency Management Administration, civil defense and public safety organization, news media and labor groups. The Secretary of Commerce may request the Modernization Transition Committee to review any proposed certification and should do so if there is a significant possibility service will be degraded within the service area. NWS will publish proposed certifications in the *Federal Register* for public comment as well as publishing final certifications in the *Federal Register*. NWS will also submit certifications to the Congressional Commerce and Science Committees. For more details on certification, see Section 3.8.

Table 6 sets anticipated dates for proposed actions to change operations at, and certifications of field offices during the fiscal years 1994 and 1995. These tables provide notification of these events as required by Sections 703 and 705 of the Public Law. To provide a more complete picture of the transition, the tables also identify actions occurring in fiscal year 1993 and actions affecting NWS offices not defined as field offices under the law.

1.0 Introduction

As the National Weather Service (NWS) enters its second century as a civilian agency, a new era will begin for severe weather and flood warning and forecast services in the United States. Important advances in the sciences of meteorology and hydrology, coupled with major new technological capabilities for observing and analyzing the atmosphere, will provide unprecedented weather service improvements in the next 10 years. The NWS of the future will operate one of the most advanced hydrometeorological warning and forecast systems in the world.

This document, the National Implementation Plan (NIP), required by Public Law 102-567 and tied to the fiscal year 1994 Presidential budget, provides the framework for modernization and associated restructuring of NWS. The NIP describes modernization actions to be accomplished during fiscal years 1994 and 1995. To provide a more complete picture of the transition, actions occurring in fiscal year 1993 are also included. The transition from today's operation to the modernized NWS will require an agency-wide transformation. By the end of the transition, NWS will have re-tooled all major systems, adjusted staff at all field stations, and implemented a new service and product line that focuses on the mesoscale level of meteorology. During the transition, the NWS will maintain its service responsibilities.

1.1 NWS Mission Statement

The mission of the National Weather Service is:

> **To provide weather and flood warnings, public forecasts and advisories for all of the United States, its territories, adjacent waters and ocean areas, primarily for the protection of life and property. NWS data and products are provided to private meteorologists for the provision of all specialized services.**

In accordance with its mission, the NWS in the 1990s must:

- Coordinate its programs with state, local and federal agencies involved with meteorology and hydrology to attain maximum cost effectiveness. For example, NWS will work with aviation safety and forest fire prevention and management officials.
- Work with the private hydrometeorological community to continue providing a spectrum of weather services
- Continue to provide data and products to the private sector
- Continue working closely with the mass media as the chief means of communicating weather and flood warnings and forecasts to the public
- Continue to fulfill international hydrometeorological obligations

- Continue applied research in cooperation with other agencies and the scientific community to improve warnings and forecasts based upon scientific and technological advances.

1.2 Improved Service Mandate

Thunderstorms, tornadoes, hurricanes, blizzards and floods pose serious hazards to life and property. Hundreds of lives and billions of dollars worth of property are lost every year from these ravages of nature. Weather and flood conditions affect the economy directly and indirectly.

Some of the most destructive weather events are short-lived, relatively local, disturbances. Until now the NWS has focused on more slowly changing, larger-scale features of the atmosphere. This emphasis on the synoptic scale of weather reflects the limits of the operational systems now used to routinely observe atmospheric changes and the current state of scientific understanding of the atmosphere.

In addition, the forecaster has had only rudimentary computer systems to assimilate, analyze and communicate complex weather information on a near real-time basis. In most cases, NWS has reacted, providing public warnings of severe weather or flash floods after detecting these events or after reports of visual sightings. It has been difficult to predict small scale violent weather, causing short lead times for warnings.

In the 1990s, the impetus for major changes in NWS is twofold. First, the existing technological base for weather observations, information processing and communication is obsolete and highly costly to maintain. Second, new scientific and technological breakthroughs provide—for the first time—the opportunity to analyze and predict the most destructive weather patterns, a clear mandate to substantially improve service.

Tests of new observational and information processing systems for weather prediction have shown that NWS can improve current services. The results of these tests have yielded new operational concepts for the NWS of the 1990s. These new concepts require restructuring NWS field offices. For the first time, meteorologists and hydrologists will prepare warnings and forecasts based on new, sophisticated data assimilation and prediction processes. The new prediction process has these distinct features:

- Field office forecasters will be better able to integrate knowledge from meteorology and hydrology. Predicting severe storms and flood probabilities must be based upon knowledge of both disciplines.

- Forecasters, assisted by technical staff, will focus on meteorological and hydrological events developing within the next 36-hour time frame. NWS will prepare warning and forecast products working as an integrated unit. This contrasts with the current approach in which responsibilities are divided among forecasters for programs such as public warnings and aviation weather.

- Each field office will have rapid access to all sources of meteorological and hydrological data pertinent to that office.

- Improved product dissemination mechanisms are planned through the Local Data Acquisition and Dissemination Function.

As a result of advances in technology and substantial development efforts over the last 10 years, new hydrometeorological observation, information processing and collection systems will provide data and the tools required by the forecaster of the future. The following new systems will become interlocking components of the NWS in the 1990s:

- **Next Generation Weather Radar (NEXRAD):** A network of advanced Doppler radars to measure the motion of the atmosphere responsible for severe weather such as tornadoes, to detect heavy rainfall, and to increase lead times for predicting severe weather events.

- **Automated Surface Observing System (ASOS):** An automated electronic sensor instrument system to replace manual weather observations now taken at 250 NWS sites.

- **Advanced Weather Interactive Processing System (AWIPS)/NOAAPORT:** An advanced computer/telecommunication system to help forecasters integrate sources of weather data at field offices, to assist them in analyzing fast-breaking storms, and to help quickly prepare and communicate warnings and forecasts. NOAAPORT will provide the broadcast link between the national guidance centers and NWS field offices, and will be the source of NWS data to private sector users.

- **Satellite Upgrades:** A new series of geostationary meteorological satellites to provide higher spatial and temporal resolution imagery, and data to aid shorter-range warnings and forecasts; a new series of polar orbiting meteorological satellites to provide improved, all-weather atmospheric data to assist in longer-term forecasting.

- **National Center Computer Upgrades:** New super computers producing more accurate numerical modeling of the atmosphere to improve national guidance for short-range warnings and forecasts, as well as offering more reliable guidance for medium and long-range forecasts.

1.3 General Approach to Transition Planning

Transition planning is flexible because goals are based on the need for extensive testing and refinement of new equipment. Plans focus on near-term events that are fairly certain, e.g., installing NEXRAD. Plans must be flexible and updated frequently as longer-range events become more certain.

Transition management will handle incremental planning through a sliding-time window concept consisting of a series of long, medium and short-range views. The long-range outlook covers six-years, providing a broad look at full Modernization and Associated Restructuring (MAR) targets and recognizing where the greatest uncertainties lie. The medium-range projection covers three years, offering a more detailed look at events that will occur with much greater certainty. The medium-range projection forms the basis for short-range action plans. The short-range action plan, covering the next year, lists specific activities based on known events. As required by Public Law 102-567, this report details the dates of planned activities and notifications of proposed actions to change operations or certify field offices. (See Table 6, Page 67.)

The Master Transition Schedule (MTS) depicts transition planning and implementation activities; the Deputy Assistant Administrator for Modernization and the Transition Director prepare and maintain the MTS. The MTS is the official vehicle used by the agency to assess and report transition progress. The MTS is described in detail in Section 5.3 and reprinted in Appendix A.

1.4 Hierarchy of Transition Plans

Transition plans are tiered, with the NIP at the top. The Deputy Assistant Administrator for Modernization and the Transition Director are responsible for preparing and updating this report annually and coordinating it with the rest of the agency. The NIP is a broad guidance document for internal and external use. It is based on the *Strategic Plan for the Modernization and Associated Restructuring of the National Weather Service.* Internally, the NIP guides the agency in planning for and completing the transition. Key objectives include:

- Setting the fundamental goals and objectives
- Providing a framework and general strategies for completing the transition
- Setting basic transition management principles to be used throughout the transition period.

This report is not intended to be a stand-alone document. It is backed up by much more detailed transition planning and implementation materials. The first versions of this report provided the Executive Branch, Congress, cooperating agencies, users, the public and employees with an overview of the modernization and associated restructuring and how NWS would make the transition. The NIP now provides progress reports and outlooks on upcoming implementation activities to these parties.

The next tier in the planning hierarchy are the Regional Transition Plans (RTP). These plans provide management flexibility and recognize the decentralized nature of NWS, and the regions' responsibility to maintain operations throughout the transition. The RTP must set a course that will achieve the goals set forth in the NIP, while accounting for differences between the regions and the unique conditions at each site. Each NWS region has responsibility for preparing and updating their RTP annually. RTPs are approved by the Transition Director.

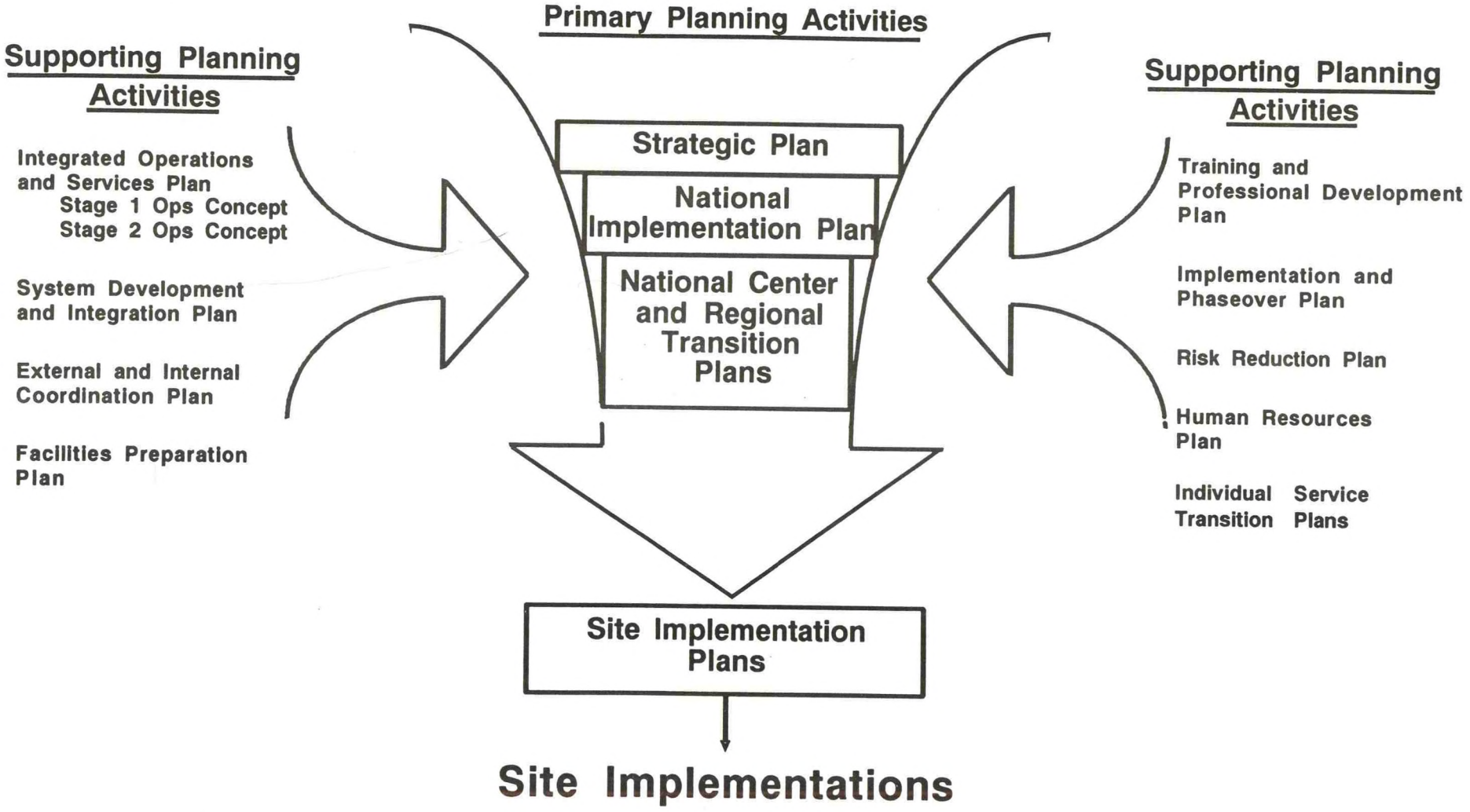
The final tier in the planning hierarchy is the Site Implementation Plan (SIP), which contains specific, detailed actions and schedules. The SIP is set within the framework of the RTP and is subordinate to it. Each Weather Forecast Office (WFO) and WFO/River Forecast Center (RFC) will have a SIP that will address the transition of sites in its area of responsibility. SIPs may be modified to accommodate the requirements and timing of activities in other SIPs. The Regional Director will approve SIPs, which will be contained in the appropriate RTP. Appendix B provides an outline for an RTP and a SIP.

The National Meteorological Center (NMC) has prepared a National Centers Transition Plan as a counterpart to the RTP. This plan addresses the transition activities and schedules for each of the National Centers: NMC, National Hurricane Center (NHC), National Severe Storms Forecast Center (NSSFC), etc.

National, Regional/National Center and site level plans form the primary planning path. As depicted in Figure 1 at the end of this section, they integrate the results of planning efforts that focus on specific areas of NWS operations, such as future operations and services, training and professional development, staffing, system development and integration, and implementation and phaseover.

Appendix C provides a more detailed list of transition planning documents. Other specific information pertinent to transition planning, such as WFO, RFC, NEXRAD and ASOS maps and locations are provided in Appendix D.

Figure 1:
HIERARCHY OF TRANSITION PLANS



2.0 Modernization Goals and Objectives

The Department of Commerce (DOC) has set an ambitious goal for the National Oceanic and Atmospheric Administration's (NOAA) agency, the NWS:

> **To modernize the NWS through the deployment of proven observational, information processing and communications technologies, and to establish an associated cost-effective operational structure. The modernization and associated restructuring of NWS shall assure that the major advances that have been made in our ability to observe and understand the atmosphere are applied to the practical problems of providing weather and hydrologic services to the Nation.**

Within this context, more specific goals of the NWS MAR can be broadly stated as the following:

- Fully operating a predictive warning program focusing on mesoscale meteorology and hydrology
- Advancing the sciences of meteorology and hydrology
- Developing NWS human resources to achieve maximum benefit from recent scientific and technological advances
- Earning user acceptance and support of NWS service improvement objectives
- Strengthening cooperation with the mass media, universities, the research community and the private hydrometeorological sector to jointly fulfill the nation's weather information needs: Providing severe weather warnings and general forecasts to the public, a Government responsibility, and providing detailed and customer specific weather information, a private sector responsibility
- Improving productivity through automation and by replacing obsolete systems
- Operating the optimum NWS warning and forecast system consistent with service needs, user acceptability and affordability.

The NWS move into the future will be driven by service requirements; NWS will accomplish its goals in two stages. Stage 1 involves deploying new observational systems, such as ASOS and NEXRAD; Stage 2 involves installing a new information processing and communications system, AWIPS. This staging provides a stabilization period to allow field offices to adjust to and gain familiarity with the new Doppler radar and high resolution surface observation data.

The major feature of Stage 1 will be improving severe weather detection capability as a result of meteorological interpretation of new and enhanced observational data made available by deploying NEXRAD, ASOS, etc. NWS will compile and analyze this observational and operational data before commissioning new weather service technologies. The major feature of

Stage 2 is operating the predictive warning program. The forecaster will have the tools needed to integrate, analyze and interpret the various data sets and rapidly release information. For the first time, the NWS will be able to forecast severe weather events with lead times of tens of minutes and with more geographical specificity.

2.1 Stage 1 Goals and Objectives

During Stage 1 there will be an immense increase in both the quantity and quality of data available to NWS. The primary goal of Stage 1 is to take advantage of these enhanced data and improve detection of severe weather events to the greatest extent possible without all the new technologies and other changes planned for Stage 2.

In Stage 1, NWS will continue its two-tier field office structure. Statewide forecast responsibility will be carried out by the 52 Weather Service Forecast Offices (WSFO), each of which will receive a NEXRAD, becoming a NEXRAD WSFO (NWSFO). Severe weather warnings will be provided by the NWSFOs and NEXRAD Weather Service Offices (NWSO). The 13 RFCs will continue to provide hydrologic forecasts and guidance. National Centers will continue to provide national level guidance and numerical modeling products. System support for NWS field offices is a critical factor in maintaining reliable warning and forecast operations 24 hours a day. This support involves the full spectrum of hardware and software systems.

More specific Stage 1 objectives are given below for the various categories of field offices and centers. This is not an all-inclusive list of office types, but represents the majority of NWS offices. RTPs detail specific Stage 1 objectives for office types not listed below, such as Tsunami Warning Centers and the Nuclear Support Office.

NEXRAD Weather Service Forecast Offices (NWSFO)

- Continue current programs
- Coordinate internal and external programs
- Increase the number of meteorologists and provide training to enable staff to more fully use the new technologies and observational data (See Table 1 at the end of this section. More information is contained in the Human Resources Plan.)
- Participate in the individual site calibration of the NEXRAD
- Compile and analyze observational and operational data from the new technologies during the commissioning process
- Use the new technologies to improve detection of severe weather and to produce effective and timely warnings and forecasts for assigned area of responsibility
- At selected locations, accept or transfer responsibility for observational and other programs
- Prepare for Stage 2.

Weather Service Forecast Offices (WSFO)

- Receive NEXRAD, continue as an NWSFO (see above).

NEXRAD Weather Service Offices (NWSO)

- Continue current programs
- Coordinate internal and external programs
- Increase the number of meteorologists and provide training to enable staff to more fully use new technologies and new observational data (See Table 2 at the end of this section. More information is contained in the Human Resources Plan.)
- Participate in the individual site calibration of the NEXRAD
- Compile and analyze observational and operational data from the new technologies during the commissioning process
- Use the new technologies to improve detection of severe weather and to produce effective and timely warnings and forecasts for assigned area of responsibility
- At selected locations, accept or transfer responsibility for observational and other programs
- Prepare for Stage 2.

Weather Service Offices (WSO)

- Coordinate internal and external programs
- Automate the surface observation program using ASOS
- Support the planning and smooth transfer of assigned warning and forecast responsibility as well as the upper air, NOAA Weather Radio (NWR), and other programs to designated NWSFOs and NWSOs
- Certify to Congress that automating and/or consolidating will not degrade services
- Adjust staffing as required to operate community preparedness, liaison and other local community support programs throughout Stage 1.

River Forecast Centers (RFC)

- Continue current programs
- Coordinate internal and external programs
- Begin performing Hydrometeorological Analysis and Support (HAS) functions at each collocated WFO/RFC facility to help integrate meteorological information into hydrologic products and services, and vice versa
- Use NEXRAD and ASOS data to enhance products and services to the extent possible given the limits of staffing resources as well as existing information processing systems
- Prepare for Stage 2.

Weather Service Meteorological Observatories (WSMO)

- Automate or transfer observing functions.

Weather Service Contract Meteorological Observatories (WSCMO)

- Automate or transfer observing functions; continue upper air observations at selected locations.

National Centers

- Continue all current programs
- Assume responsibility for high seas warning and forecast services as follows:
  - NMC will have an area of responsibility in the Atlantic Ocean west of 35 degrees west longitude between 30 and 60 degrees north latitude, and in the Pacific Ocean east of 160 degrees east longitude between 30 and 60 degrees north latitude
  - NHC will have an area of responsibility in the Atlantic Ocean west of 35 degrees west longitude between 3 and 30 degrees north latitude, and in the Pacific Ocean east of 140 degrees west longitude between the equator and 30 degrees north latitude
  - WSFO Honolulu's area of responsibility in the Pacific Ocean will remain unchanged
- Prepare and disseminate national NEXRAD products
- Prepare for Stage 2.

Center Weather Service Units (CWSU)

- Continue support to Federal Aviation Administration (FAA) Air Route Traffic Control Centers and prepare for Stage 2.

2.2 Stage 2 Goals and Objectives

The primary goals of Stage 2 are to use new technologies and a trained staff to operate a fully modernized NWS, and to deliver improved warning and forecast services nationwide. As described in the *Strategic Plan for the Modernization and Associated Restructuring of the National Weather Service,* the NWS of the 1990s will consist of 116 WFOs, 13 RFCs and the National Centers. WFOs will replace the current structure of WSFOs and WSOs to provide a uniform level of warning and forecast services. WFOs will issue watches, warnings and forecasts. A WFO will concentrate meteorological expertise to provide products and services for its assigned area of responsibility. A WFO will provide quick analysis, accurate forecasts of mesoscale weather and flood phenomena and rapid dissemination of warnings and forecasts. The emphasis on short-range and local area forecasting in the WFOs will require that National Centers provide improved guidance on long-range and large-area forecasts to the WFOs.

In areas previously served by a WSO that has been certified and closed, NWS will retain a weather coordination officer for at least two years after closing the office. This weather coordination officer will be an extension of the WFO. This officer will serve as liaison between the WFO and weather service users in the area to provide timely information regarding NWS activities that may affect service to the community, including modernization and restructuring. The weather coordination officer will ensure that weather service users, including general aviation, civil defense and emergency preparedness staff and members of the news media are prepared to receive weather warnings and forecasts.

In Stage 2, operations of the RFCs will change in several ways. They will use the new NWS River Forecast System on AWIPS to interactively assimilate the huge volumes of high-resolution data from multiple NEXRAD and ASOS systems for their areas and execute advanced hydrologic forecast models. The RFC flash-flood guidance procedures will produce output for WFOs with much higher resolution than that produced by the area-average procedures used today. Improved coordination and integration of meteorological information into hydrologic products and services will occur routinely. RFCs will update hydrologic guidance and information for use in WFO flash flood procedures more frequently than today. Real-time operational coordination with other water resource agencies is another critical dimension of RFC functions and will significantly increase in Stage 2.

During Stage 2, several factors will shift system support toward centralization. With the new systems of the modernized NWS, field offices will have more consistent hardware and software. This greater consistency of systems will permit increased uniformity and standardization of technical support procedures. The major goal in the system support area is obtaining maximum cost effectiveness through use of the most efficient integrated maintenance and logistics support concepts and achieving the best mix of Government and private industry system support. After cost comparisons were performed, it was determined that it would be more cost effective for the Government to maintain and logistically support the NEXRAD and ASOS systems. A decision has not been reached concerning AWIPS.

More specific Stage 2 objectives are given below for field offices and centers. This is not an all inclusive list of office types, but represents most NWS offices. Specific Stage 2 objectives for office types not listed below are detailed in the appropriate RTP.

Weather Forecast Offices (WFO)

- Coordinate internal and external programs
- Operate a reliable predictive warning program; issue watches, warnings and forecasts
- Deliver improved warning and forecast services
- Operate the WFO with staff trained in mesoscale meteorology and the new technologies (See Table 3, Page 15. More information is in the Human Resources Plan)
- Prepare warning and forecast products using the integrated forecast mode of operation
- Achieve more effective means for rapidly communicating warning to the media

- Work with emergency agency officials and municipalities to anticipate and conduct weather-related disaster response operations for public safety
- Effectively manage observational data networks operated by cooperators and volunteers
- Ensure modernized NWS warning and forecast products meet public and user needs.

Weather Service Offices

- Coordinate internal and external programs
- Certify to Congress that closing a non-NEXRAD WSO will not degrade services
- Close the non-NEXRAD WSO.
- Retain a weather coordination officer for at least two years to serve as liaison between the WFO and weather service users in the community.

Data Collection Offices (Alaska and Hawaii)

- Convert existing upper air WSOs in Alaska and Hawaii to Data Collection Offices to continue observation programs and provide local service outlets at Annette, AK; Barrow, AK; Bethel, AK; Cold Bay, AK; Hilo, HI; King Salmon, AK; Kodiak, AK; Kotzebue, AK; Lihue, HI; McGrath, AK; Nome, AK; St. Paul Island, AK; and Yakutat, AK.

River Forecast Centers

- Conduct internal and external coordination
- Supplement staff to provide nominal 16-hour-a-day RFC operations (See Table 4 at the end of this section. More information is contained in the Human Resources Plan.)
- Implement improved hydrologic models made possible by increased computational power and enhanced data collection and interactive assimilation capabilities
- Provide hydrologic guidance to WFOs more frequently
- Improve analysis and forecasting of hydrometeorological phenomena.

National Centers

- Provide improved guidance products through the use of the latest numerical weather prediction models run on advanced super computers
- Produce digital forecast data bases for use by WFOs in preparing forecasts for time periods of 36 hours and beyond
- Use data available from advanced geostationary and polar orbiting satellites as direct input for numerical weather prediction models, as guidance for high seas and aviation forecasts, and for interpretation and forecasting of hurricanes
- Provide national severe-weather guidance products and issue advisories to WFOs
- Improve forecasts of hurricanes, thunderstorms and flash floods by using better numerical models of the atmosphere and better atmospheric observations.

Center Weather Service Units

- Provide improved aviation products and services through the use of the FAA-provided Meteorological Weather Processor.

Table 1:
STAGE 1 NEXRAD WSFO STAFFING TARGETS

CURRENT STAFFING PLUS:	NO.	APPROVED GRADE	REPORT
Science and Operations Officer	1 *	13/14	7 Mo. Prior to NEXRAD Delivery
Warning Coordination Meteorologist	1 *	13/14	7 Mo. Prior to NEXRAD Delivery
Core Meteorologists (shift)	1-2*	12	4 Mo. Prior to NEXRAD Delivery
Service Hydrologist	1 **	12/13	4 Mo. Prior to NEXRAD Delivery
Data Acquisition Program Manager	1	12	6 Mo. Prior to NEXRAD Delivery
Hydrometeorological Technicians (shift)	5 ***	9/11	On Station
Electronic Systems Analyst	1 ****	12	9 Mo. Prior to NEXRAD Delivery

* Number of meteorologists to be added dependent on whether a WSFO already has a Warning Coordination Meteorologist. At network radar WSFOs, three existing positions will be reprogrammed into three meteorologist positions (including a Science and Operations Officer and a Warning Coordination Meteorologist).

** As assigned; most WSFOs already have this position.

*** Most NEXRAD WSFO's have these positions on station: if not, these positions will be added at the time of NEXRAD delivery.

**** Most WSFO's will also have one or more Electronics Technicians. Total Electronic Technicians staffing will be based on the most cost effective mix of contractor and Government maintenance.

Table 2:
STAGE 1 NEXRAD WSO STAFFING TARGETS

	NO.	APPROVED GRADE	REPORT
Meteorologist-In-Charge (MIC)	1	13/14	12 Mo. Prior to NEXRAD Delivery
Science and Operations Officer	1	13	7 Mo. Prior to NEXRAD Delivery
Warning Coordination Meteorologist	1	13	7 Mo. Prior to NEXRAD Delivery
Core Meteorologists (shift)	5	11/12	4 Mo. Prior to NEXRAD Delivery
Service Hydrologist	1*	12/13	4 Mo. Prior to NEXRAD Delivery
Data Acquisition Program Manager	1	12	6 Mo. Prior to NEXRAD Delivery
Hydrometeorological Technicians (shift)	5**	9/11	On Station
Electronic Systems Analyst	1***	12	9 Mo. Prior to NEXRAD Delivery
TOTAL	16		

*As assigned.

**Most NEXRAD WSOs have these positions on station; if not, these positions will be added by the time of NEXRAD delivery.

***Most WSOs will also have one or more Electronics Technicians. Total Electronics Technician staffing will be based on the most cost effective mix of contractor and Government maintenance.

Table 3:
STAGE 2 WFO STAFFING TARGETS

	NO.	APPROVED GRADE
Meteorologist-In-Charge (MIC)	1	14/15
Science and Operations Officer	1	13/14
Warning Coordination Meteorologist	1	13/14
Core Meteorologists (shift)	8*	12/13
Data Acquisition Program Manager	1	12
Hydrometeorological Technicians (shift)	5	9/11
Electronic Systems Analyst	1**	12/13
TOTAL	18***	

* Actual number of meteorologists may vary depending on WFO responsibilities.

** Most WFOs will also have one or more Electronics Technicians. Total electronic technician staffing will be based on the most cost effective mix of contractor and Government maintenance.

*** Some WFOs will have additional base staff (i.e., Service Hydrologist, Secretary).

Table 4:
*STAGE 2 RFC STAFFING TARGETS**

COMMON BASE STAFF FOR RFCs IN THE CONTERMINOUS 48 STATES

	NO.	APPROVED GRADE
Hydrologist-In-Charge (HIC)	1	15
Development and Operations Hydrologist	1	14
Hydrologists/Hydrometeorologists (Hydrologic Forecasters)	8-13	12/13
Secretary and/or Technician	1-2	5/6, 7/8
Hydrometeorologists (HAS Forecasters)	3	12/13
TOTAL	14-19	

* The positions in this table also exist at RFCs during Stage 1. However, the current complement of hydrologic forecasters will not be augmented until six months prior to AWIPS delivery for extended 16 hr/day operations (nominal) with one to two hydrologic forecasters on shift in accordance with the Strategic Plan. The number of staff performing the non-real-time operations will depend on the number of hydrologic forecasters per shift and total RFC staff at individual sites.

3.0 Transition Strategy

This section defines the general transition strategy NWS will use to modernize and restructure. The terms risk reduction and demonstration are introduced as forms of internal and external validation, respectively. This section emphasizes the importance of programs that reduce risk actions and demonstrate effectiveness. This section also summarizes the process NWS will use to comply with the certification requirement of Public Law 102-567.

3.1 General Transition Strategy

The fundamental transition strategy is an integrated, office-by-office approach. The changes in operations and services related to modernization and restructuring are the ultimate guiding force of the transition. Future services will define the system outputs, staffing type and mix of an office, and the field structure needed to efficiently provide these services.

These services, in turn, set requirements for training and education, facility preparation and a myriad of other aspects of modernizing and restructuring. A realistic view of technology capabilities, schedules, and the NWS environment will help shape the scope and pace of service changes.

The breadth of future operations and services is bounded by the agency mission and by science and technology capabilities. The transition strategy incorporates these factors and retains flexibility to respond to these dynamics. The approach acknowledges that plans for future operations and services may require adjustments. The NWS must be able to capitalize on the new knowledge and understanding it will acquire during the transition period.

Restructuring the NWS field organization, offices, and staff must be done with internal and external support. The agency will gain this support by providing information to individuals and organizations concerning the goals and improvements being sought during the MAR. Support from staff and users requires a knowledge of the goals of modernization and proof of the ability to reach these goals. This can be done only through planning, good management, and close coordination between staff and users. A comprehensive external and internal coordination program is being planned to:

- Ensure users are made aware of changes promptly
- Provide continuous information regarding the progress of modernization
- Establish internal and external communications and maintain them during the transition
- Delineate realistic and substantial improvements in weather services
- Exchange attitudes and expectations for implementing the modernization program.

Generalized Stage 1 and Stage 2 transition strategies described in the following sections address primarily WSFOs, WSOs and meteorological observatories. While these form the bulk of the offices, the absence of transition strategies for other types of offices is not meant to imply that RFCs, National Centers, etc., will not undergo substantial changes during this period. Indeed, related transition activities will also be taking place at RFCs, National Centers, Tsunami Warning Centers, CWSUs, future Data Collection Offices in Alaska and Hawaii, and other types of field offices. Transition activities for these offices are detailed in the National Center Transition, Regional Transition and Site Implementation Plans.

3.2 Stage 1 Transition Strategy

Stage 1 targets the efficient use of NEXRAD technology at RFCs, NWSFOs and NWSOs. In the first stage of modernized operations, NWS will transform these offices to improve services and operations. The transition of offices to Stage 1 will be paced, primarily, by delivery schedules of equipment needed to support services and operations. Staff changes and training will also be based on delivery schedules, with the dual goals of providing the necessary people to perform the job when the systems are ready for operation, and of maintaining uninterrupted weather services at all offices.

Most NEXRAD offices will require additional staff to perform Stage 1 operations. To the extent possible, NWS will draw these additional people from WSOs not scheduled to receive NEXRAD, without degrading current services.

WSOs that have surface observation or local warning radar programs will retain enough staff to carry out these programs until ASOS is commissioned at the site and/or NEXRAD coverage has proved satisfactory for the area. While reducing a WSO's responsibilities, the Region will ensure that community leaders and affected groups are kept informed of significant changes and provided evidence that changes will not degrade warning services and required observations.

NWS will transform non-NEXRAD offices in steps. First, NWS will automate surface observations at these WSOs. Freed resources will be used to develop NEXRAD offices. NWS will further reduce WSO resources only when a NEXRAD office(s) assumes responsibility for the area served by the WSO. Reducing or transferring programs or staff will depend on NWS service requirements. NWS will not be able to transfer staff at some WSOs to NEXRAD offices because those people will be needed to ensure service continuity in the area until additional NEXRAD systems become operational. This factor suggests that NWS can use schedules for deploying ASOS and NEXRAD to optimize personnel assignments and moves.

NWS Headquarters will oversee transition to Stage 1, but regional offices will handle extensive planning. National standards will be developed to define all the operational capabilities that must be confirmed. A successful transition requires assurance that services will continue during transition to Stage 1, and that offices will be capable of performing all Stage 1 operations. NWS will present this assurance in reports that confirm operational capabilities.

A list of activities necessary to start Stage 1 is given below, followed by a checklist of operational capabilities NWS must confirm. These lists provide a sampling of major Stage 1 activities and conditions NWS must meet. SIPs contain the complete list of preparatory activities, which are derived from transition plans for future operations and services, systems development and integration, training and professional development, and implementation and phaseover.

Stage 1 Preparation Activities

- Non-NEXRAD WSO Activities
  - Coordinate with external users
  - Deploy ASOS systems
  - Transfer responsibilities for:
    - Upper Air
    - Radar Observations
    - Warnings
    - NWR
    - Local Forecasts
    - Other
  - Decommission existing systems
  - Certify to Congress that automating and/or consolidating will not degrade services
  - Reallocate staff/positions consistent with maintaining current service levels and community liaison throughout Stage 1

- NEXRAD Site Activities
  - Add Stage 1 staff
  - Provide training
  - Deploy NEXRAD, ASOS and other systems
  - Calibrate NEXRAD specifically for each site
  - Commission new systems
  - Accept responsibility for programs transferred from non-NEXRAD WSOs
  - Confirm that services to users are maintained

- RFC Activities
  - Phase-in HAS Function
  - Provide training (including Hydromet)
  - Implement NEXRAD data procedures
  - Implement Hydromet products and procedures
  - Implement verification procedures
  - Conduct on-site model execution (Prototype RFC Operational Test, Evaluation and User Simulation (PROTEUS) sites only)

- Deploy Automation of Field Operations and Services (AFOS) System Z
- Decommission Network and Local Warning Radars

- Automate and/or Transfer All Observation Responsibilities from WSMOs and WSCMOs to NWSO or NWSFO sites. Some WSCMOs will continue upper air observations.

Stage 1 NEXRAD Site Operational Capabilities Checklist

- Complete facility preparation
- Ensure Stage 1 staff are on site
- Complete system training and hydrometeorological training and education
- Put system support mechanisms in place and complete maintenance training
- Put operations directives and procedures in place
- Prove ability of staff and office to provide defined Stage 1 operations and services
- Complete coordination with external cooperators and users.
- Commission Stage 1 technologies

Stage 1 RFC Operational Capabilities Checklist

- Complete facility preparation
- Ensure Stage 1 staff on site
- Complete system training and hydrometeorological training and education
- Put system support mechanisms in place and complete maintenance training
- Put operations directives and procedures in place
- Prove ability of staff and office to provide defined Stage 1 operations and services
- Complete coordination with external cooperators and users.
- Commission Stage 1 technologies

3.3 Stage 2 Transition Strategy

Stage 2 is based on attaining the following modernization and associated restructuring goals: establishing WFOs and modernizing RFCs, deploying all new technologies, and integrating systems and operations. The transition strategy treats these as fully defined goals, but they may be adjusted to reflect changes in resources, schedules, technology capabilities and the supporting sciences.

Transition to Stage 2 generally will follow the same strategy outlined for Stage 1. NWS will complete Stage 1 with the objective of attaining Stage 2 goals. NWS will synchronize WFO operations and WSO program changes with acquiring, deploying and commissioning systems. NWS is timing and adjusting staff allocation and training to ensure personnel are in place and prepared to use the new technologies when they are available. Future operations and services will be the impetus for Stage 2 transition planning.

At the outset of Stage 2, WFOs and RFCs will operate with AWIPS systems that have been deployed with an Initial Deployment Baseline (IDB). Deferred capabilities, such as system capabilities not included in the IDB but required to fully modernize, will be part of an integrated systems upgrade required for full Stage 2 operations. Introducing system capabilities in phases

will allow staff to assess system maturity and will provide time to develop and validate deferred capabilities while the forecaster is becoming familiar with operation of the new systems.

As with Stage 1, NWS will maintain national oversight during transition to Stage 2, but extensive planning and close regional management will be required. NWS will develop national standards to define all the capabilities it must confirm. A successful transition requires assurance that services will continue during transition to Stage 2 and that offices will be capable of performing all Stage 2 operations. NWS will provide this assurance in reports that confirm operational capabilities. Regions will ensure these national standards are met through a confirmation of operational capabilities program that will precede certification, that is, there will be no degradation of services for each non-NEXRAD WSO closure.

Below is a list of activities necessary to move to Stage 2, followed by a checklist of operational capabilities NWS must confirm. These lists are not all inclusive, but provide a sampling of the major preparatory activities and conditions. The complete list of preparatory activities, will be derived from SIPs, various transition plans for operations and services, systems development and integration, training and professional development, implementation and phaseover, etc.

Stage 2 Preparation Activities

- Non-NEXRAD WSO Activities
  - Coordinate with external users
  - Submit a certification to Congress that no degradation of service will result from closure of a non-NEXRAD WSO
  - Close the non-NEXRAD WSO
  - Retain a weather coordination officer for at least two years after closure

- WFO Activities
  - Adjust staffing levels
  - Deploy AWIPS
  - Provide AWIPS training
  - Commission AWIPS
  - Confirm that services to users are maintained
  - Redistribute forecast responsibilities

- RFC Activities
  - Prepare operational forecast system for transfer to on-site, interactive operations
  - Coordinate upcoming service changes with water resources and cooperators
  - Supplement staff
  - Establish nominal 16 hr/day operations
  - Deploy AWIPS
  - Provide AWIPS training
  - Commission AWIPS
  - Confirm that services to users are maintained

- Decommission AFOS System Z

Stage 2 WFO Operational Capabilities Checklist

- Complete facility preparation
- Ensure Stage 2 staff on site
- Complete system training and hydrometeorological training and education
- Put in place system support mechanisms and complete maintenance training
- Put in place operations directives and procedures
- Prove ability of staff and office to provide defined Stage 2 operations and services
- Complete coordination with external cooperators and users
- Commission Stage 2 technologies

Stage 2 RFC Operational Capabilities Checklist

- Complete facility preparation
- Ensure Stage 2 staff on site
- Complete system training and hydrometeorological training and education
- Put in place system support mechanisms and complete maintenance training
- Put in place operations directives and procedures
- Prove ability of staff and office to provide defined Stage 2 operations and services
- Complete coordination with external cooperators and users
- Commission Stage 2 technologies

3.4 Site Transition Model

The Site Transition Model, shown in Figure 2 at the end of this section, shows the order in which events should occur at non-NEXRAD WSOs and NEXRAD sites for Stage 1 and Stage 2. Not all events need occur in the order given. For example, some sites may receive NEXRAD before ASOS; however, there are specific events that must occur before others. A facility must be complete before staff and new technology arrive. ASOS must be at non-NEXRAD WSOs before surface observations can be automated, some programs can be transferred and staff reallocated.

3.5 Training and Professional Development

The NWS has established an Integrated Training and Professional Development Program to ensure that employees thoroughly understand the new technologies and to keep forecasters current on recent scientific advances in mesoscale forecasting techniques made possible by combining technologies. NWS places the highest priority on concepts that apply to operational forecasting.

As is implied by the title of the program, there are two distinct activities that comprise the NWS strategy of preparing its personnel for the transition: technological systems training and professional development (continuing education). Systems training tends to be a one-time effort following the installation of each new technology, while professional development continues throughout an employee's career.

Systems Training

NWS will conduct the training part of the program primarily on-site. Centralized training generally will be reserved for the most complex technologies that will have the greatest impact on the transition, such as the NEXRAD. For example, during the course of the transition, the NEXRAD Operational Support Facility (OSF) in Norman, OK, will provide a four-week Operations course for more than 2,000 meteorologists and hydrologists. All meteorologists and hydrologists (except interns) at future WFOs and hydrologists/hydrometeorologists at RFCs will be required to pass the four-week NEXRAD Operations Training Course before NEXRAD commissioning.

For other highly complex technologies, such as AWIPS, NWS plans centralized courses for office experts who will then lead structured, on-site training for other personnel. For technologies requiring simpler user interaction, such as the ASOS, training will be primarily on-site with a few centralized classes.

The systems contractors (for NEXRAD, ASOS, AWIPS, etc.) will play a major role in developing and instructing centralized courses for their systems, especially for the first few classes. The NWS Training Center will continue to offer centralized maintenances courses for electronics technicians as well as basic training courses for new hires.

Professional Development

Ideally, NWS would offer professional development by sending employees to centralized courses to update their skills and knowledge. However, logistical and budgetary constraints make this infeasible. Therefore, with the exception of some centralized courses for specialized personnel, most professional development will be on-site. The NWS is seeking to maximize opportunities for distance learning techniques that can provide the necessary training while reducing overall costs. The two primary elements required for a successful on-site professional development program are an effective expert in the office to coordinate the program, and interesting, informative and relevant new learning materials.

The Science and Operations Officers (SOO) and Development and Operations Hydrologists (DOH) will function as resident experts for professional development in each WFO and RFC, respectively. These individuals will be responsible for transferring technology on-station, determining hydrometeorologic topics worthy of local investigation, initiating and serving as liaison for research projects with universities, and incorporating research results into the operational environment.

Centralized courses will be conducted by the University Corporation for Atmospheric Research's Cooperative Program for Operational Meteorology, Education and Training (COMET) in Boulder, CO. For example, COMET will conduct an eight-week Operational Mesoscale Analysis and Prediction course primarily for the SOOs. Other specialized courses will be offered for the DOHs. Additionally, the NWS Training Center will be offering courses in hydrometeorological forecast techniques.

The goal of the COMET "distance learning" program is to prepare a comprehensive curriculum through the use of highly interactive Computer-Based Learning (CBL) materials that are played on specially developed Professional Development Workstations. The materials will be developed by experts at NOAA, Department of Defense (DOD), in the university community, FAA, and other agencies. The CBLs should provide the most cost-effective and efficient method for professional development for NWS meteorologists and hydrologists.

NWS provides opportunities for all employees to upgrade skills. For example, meteorological technicians may enroll in a 12-week course held at San Jose State University at which they can earn six hours of synoptic and six hours of dynamic meteorology credit. These credits may help qualify them to cross over into the meteorologist series. The San Jose course may help reduce employee displacement. The University Assignment Program is available to NWS staff who wish to upgrade their scientific or computer skills. The program enables employees to study full- or part-time at a university, while receiving salary and benefits.

3.6 Risk Reduction

NWS modernization requires completing all objectives without degrading services to users. To a great extent, future service programs rely on new systems developed with highly advanced science and technology. NWS is refining and updating the capabilities and applications of these systems even as the transition begins. NWS has conducted only limited tests of some of the new operational technologies. This lack of testing is recognized in the system acquisition plan for AWIPS, which allows for staged development. At each development stage, opportunities exist for incorporating new scientific understanding and the latest NWS requirements. On the other hand, systems such as NEXRAD, which are based on known and existing technology and are well supported by theory, have undergone extensive field testing.

To reduce the risks of bringing new technologies on line, NWS will continue to conduct extensive testing, development and demonstrations. For example, some areas of risk are currently being addressed by the joint NWS and Environmental Research Laboratory's (ERL) Denver AWIPS Risk Reduction and Requirements Evaluation (DARE) project in Colorado, the development of a prototype WFO at Norman, OK, and the PROTEUS project. NWS expects to need additional risk reduction projects throughout the transition period and possibly beyond. To date NWS has directed risk reduction efforts primarily to questions concerning technology. Other critical questions that remain unanswered range from appropriate staffing levels at Stage 1 and

Stage 2 offices, to the feasibility of totally integrating all warning and forecast functions in future WFOs.

The early stage of modernized operations and the transition process itself will certainly reveal other areas where NWS can reduce risk. Well-defined risk-reduction projects are critical to a successful transition. This transition strategy calls for agency support and response to significant risk reduction activities and their associated results.

3.7 Demonstration

The NWS modernization will provide improved services through the effective and efficient use of new technologies operated by trained staff. This objective implies significant change internally and externally. NWS and external users must take active roles to ensure success. Users are more likely to support changes if they understand why they are needed. Demonstrations of the improved services resulting from changes are a critical element in obtaining support.

NWS will demonstrate improved capabilities and services through a wide range of activities. For example, NWS will show and test the operational capabilities of the new technologies as part of the system commissioning process at each site. These demonstrations and tests will be compiled and analyzed as part of the commissioning process and will form a significant part of the basis for certifications to Congress that services will not degrade. Additionally, before Stage 2, NWS will conduct the Modernization and Associated Restructuring Demonstration (MARD) and will demonstrate the modernized weather service of the 1990s.

Modernization and Associated Restructuring Demonstration

NWS will demonstrate service delivery from weather service offices equipped with new technological systems as a model for transition to national operations of the modernized and restructured NWS during Stage 2.

The MARD will apply new technologies and techniques and convert existing offices into WFOs. Some WFOs will be collocated with an RFC. HAS functions will be implemented in each RFC to facilitate assimilation of large volumes of hydrometeorological information from NEXRAD, ASOS and other sensors; encourage hydrometeorological support and interactions with WFOs; and ensure continuity in hydrologic forecasts across WFO boundaries. The RFCs will reap the benefits of the new technologies to improve main-stem river flooding forecasts and flash flood guidance. The new technologies will help RFCs provide increased support to WFOs.

The proposed demonstration area and the overall design of MARD respond to Section 703(a)(4) of Public Law 102-567. The MARD is a cost-effective approach to verify the service improvements expected in the Strategic Plan without restructuring the entire country. The participating field offices are shown in Figure 3 at the end of this section. This area was chosen for its diversity and frequent occurrence of severe weather. Valuable experience with the current

demonstration of the new ASOS technology in the state of Kansas and the availability of data from the Profiler Demonstration Project are also important factors in the selection of this region.

Several basic criteria must be met to test the new operating configuration. These criteria include involving a sufficient number of WFOs and RFCs to test the implementation of new hydrometeorological support and forecasting operations, including a sufficient number of WFO and RFC offices to test the coordination and interactive support functions in realistic situations, involving a sufficient number of offices to test a true communications network, and providing warning and forecast services over a major area that encompasses important geographical entities, i.e., here, at least two complete states.

To ensure a successful demonstration, NWS must first complete a number of preparatory activities. MARD offices will be staffed with meteorologists and hydrologists who can interpret new data sources such as Doppler radar and mesoscale forecasting techniques. In addition, the new technology systems must be deployed and integrated not only with each other, but also with existing systems at the MARD offices, and commissioned to ensure each performs its unique, but complementary role in supporting modernized operations. After a stabilization period, including initial testing and evaluation of the new operations, NWS will make adjustments necessary to begin the MARD. Based on the current scheduled deliveries of NEXRAD and the availability of AWIPS (under the accelerated 33 month Development Phase), the selected offices will be configured for the operational demonstration between 1991 and 1994. MARD will begin during the latter part of calendar year 1995. The schedule for MARD is shown at the end of this section in Figure 4, Principal Path for Modernization. In the process of preparing for and conducting the operational demonstration, the NWS will:

- Deploy and commission new technologies and integrate them into operations
- Staff the restructured offices with the proper number and mix of personnel
- Develop and apply procedures related to warnings and forecasts
- Train the staff to fully use the new technologies and scientific advances
- Restructure selected NWS field offices into WFOs; realign geographical areas of service responsibilities in close coordination with emergency management groups and others
- Evaluate service performance and responses of users.

3.8 Certification Process

Public Law 102-567, the NOAA Authorization Act of 1992, entered into force on October 29, 1992. Title VII of this law, the Weather Service Modernization Act, modifies the certification provisions of Public Law 100-685 and establishes new certification procedures and other provisions relating to the modernization of the NWS. This section of the report summarizes the certification requirements of Public Law 102-567. NWS will publish proposed regulations and a certification plan that describe the certification process in detail.

Certification Requirement—The Secretary of Commerce must certify to Congress that closing, consolidating, automating or relocating any field office (WSO or WSFO) to implement the Strategic Plan will not degrade services to the affected area. No field office may be closed before January 1, 1996. Each certification will:

- Describe local weather characteristics and weather-related concerns that affect the weather services provided within the service area
- Offer a detailed comparison of the services provided within the service area and the services to be provided after such action
- Describe recent or expected modernization of NWS operations that will enhance services in the service area
- Identify areas within a State that would not receive coverage (at an elevation of 10,000 feet) by the NEXRAD network
- Provide evidence, based upon a demonstration of modernized NWS operations, that was considered in concluding that service would not be degraded from such action
- Provide any report of the Modernization Transition Committee that evaluates the proposed certification.

Special Circumstances— The Secretary of Commerce may not close or relocate any field office:

- At an any airport, unless the Secretary of Commerce, in consultation with the Secretary of Transportation and the Modernization Transition Committee, conducts an air safety appraisal, determines that such action will not degrade service that affects aircraft safety, and includes such determination in the certification; or

- Which is the only office in a State, unless the Secretary of Commerce first evaluates the effect on weather services provided to in-State users, such as State agencies, civil defense officials, and local public safety offices, and includes in the certification the Secretary of Commerce's determination that a comparable level of weather services provided to such in-State users will remain.

Liaison Officer—Public Law 102-567 also requires that when closing, consolidating, automating or relocating a field office, the Secretary of Commerce maintain a liaison officer in the service area for at least two years. This liaison officer is described in Section 2.2 of this report.

Review of Modernization Criteria—Within nine months of enactment, the National Research Council must review the scientific and technical criteria by which the Secretary of Commerce proposes to certify action to close, consolidate, automate or relocate a field office. NWS intends to use its existing contract with the National Research Council for this review, which will:

- Assess requirements and procedures for commissioning new weather observation systems, decommission outdated NWS radars and evaluate staffing needs for field offices in an affected service area

- Assess the statistical and analytical measures that should be made for a service area to determine that services will not be degraded
- Include other recommendations the National Research Council determines are appropriate to ensure public safety.

Within 12 months after enactment, the Secretary of Commerce, in consultation with the National Research Council and the Modernization Transition Committee, and after notice and opportunity for public comment, is required to publish in the *Federal Register* modernization criteria (including all requirements and procedures).

Modernization Transition Committee—Public Law 102-567 establishes a Modernization Transition Committee with representatives from NWS, DOD, the FAA and the Federal Emergency Management Agency, civil defense and public safety organizations, news media, labor organizations certified by the Federal Labor Relations Authority as an exclusive representative of weather service employees, meteorological experts, and private sector users of weather information.

The Secretary of Commerce may request the Modernization Transition Committee to review any proposed certification and should do so if there is a significant possibility service will be degraded within the service area. The committee may submit to the Secretary of Commerce, before publication of the proposed certification, a report that evaluates the proposed certification on the basis of the modernization criteria and with respect to the requirement that service not be degraded.

Publication and Submission of a Certification—Prior to closing, consolidating, automating or relocating a field office, a certification will be:

- Published in the *Federal Register* as proposed certification for a 60-day comment period
- Published in the *Federal Register* as a final certification after considering public comments and any report of the Modernization Transition Committee
- Submitted to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives.

Certification Process—Based on the above requirements of Public Law 102-567, NWS has developed the following process for certifying that services will not be degraded during the modernization.

During Stage 1, the pivotal events will be commissioning a NEXRAD and/or an ASOS unit. Introducing these technologies will lead not only to enhanced weather services but also to consolidation of some operations from existing field offices to NEXRAD offices and/or automation of surface observations at existing field offices. Thus, with one exception discussed below, certifications will be based on the documentation that supports commissioning and on the additional documentation that supports decommissioning of a radar and/or replacing surface observers.

After installing a NEXRAD or ASOS unit, NWS will confirm the capabilities of each new unit in a field setting. Before commissioning a unit, the meteorologist-in-charge will prepare a Commissioning Report that reviews engineering and performance tests for the system, documents field results for this unit, and documents that the new technology is integrated into office operations and that maintenance support is in place.

After commissioning, but before any reassignment of personnel, the meteorologist-in-charge will prepare a second report, the Confirmation of Services Report. This report will document that the necessary interaction with affected users has occurred and that services remain intact and accessible. Depending on the technology involved, the meteorologist-in-charge will also prepare a Radar Decommissioning Report and/or a Surface Observation Modernization Report. The first will document that the area served by an old radar is fully covered by one or more commissioned NEXRADs and that the radar can be turned off; and the second will document that NWS surface observers are no longer required at the site.

Based on these reports, which will incorporate the criteria being reviewed by the National Research Council, and on other information required by Section 706 of Public Law 102-567, the responsible meteorologist-in-charge will prepare a certification recommendation to be reviewed, published for comment and submitted to Congress. NWS will also carry out a certification for a relocation. Relocation does not involve the introduction of any new technology and will be certified in accordance with the process set forth in the regulations. NWS will not close any WSO or WSFO during Stage 1 of modernization.

The sequence of events leading to certification of "no degradation" for a typical WSO consolidation or automation during Stage 1 will be:

- Install and conduct an acceptance test of the NEXRAD and/or ASOS unit
- Operationally demonstrate the unit and coordinate with users
- Prepare the Commissioning Report
- Commission the unit for full operational use
- Transfer service responsibility to the NEXRAD field office while continuing to operate an existing radar at the old office (if it currently operates a radar)
- Confirm that services are maintained and prepare the Confirmation of Services Report
- Prepare the Radar Decommissioning Report and/or Surface Observation Modernization Report
- Decommission any existing NWS radar
- Certify "No Degradation" of services
- Consolidate and/or automate (i.e., remove or replace the radar operators and/or surface observers, and reassign them to the office where needed).

For WSFOs which will make the transition to WFOs, the sequence is somewhat more complex since these offices have forecast responsibilities. Initially, these WSFOs will separate their service responsibilities from their observation responsibilities, transferring the former to the site of the new WFO while continuing, temporarily, to carry out their usual observations at the

existing office. During this first step of the transition, the sequence of events will be: (1) technical coordination with affected users; (2) transfer of service responsibilities (warnings and forecasts) to the future WFO; (3) change in service staff levels as personnel responsible for issuing warnings and forecasts (but not observations) are transferred to the future WFO.

These actions during this forst step of a WSFO transition are "changes in field office operations" which are subject to the provisions of Section 705 of the Act, but not 706. After this step is completed, the existing office will be operating exactly as the WSO described in the first type of certification (and will be known as a "residual WSO") and the sequence will be the same as that described previously except that the service transfer will have already occurred.

During Stage 2, the pivotal events will be to commission an AWIPS unit and decommission AFOS. Introducing AWIPS will lead not only to enhanced weather services but also to fully functioning WFOs, and the closing of some existing field offices.

The certification process for closures will be similar to that for actions during Stage 1. Certifications will be based on operational demonstrations, the commissioning and decommissioning process, and the confirmation of services with users.

Change in Operations—Many of the actions that lead to a certification are defined by Public Law 102-567 as a change in operations. These actions include:

- Transferring service responsibility
- Commissioning weather observation systems
- Decommissioning an NWS radar
- Changing staff levels significantly
- Moving a field office to a new location inside the local commuting and service area.

Specific changes in operations in the above sequence involved in phasing out a WSO are the commissioning of a NEXRAD/ASOS, the transfer of warning responsibility from the old office to the office with the NEXRAD, and the decommissioning of the old radar. In the sequence for WSFOs, additional specific changes in operations are: the initial transfer of forecasting and warning responsibility to the future WFO, and the significant change in staffing levels as the forecasters and other service personnel are transferred to the new office.

Notifications for Changes in Operations Occurring After September 30, 1993—Public Law 102-567 requires advanced notification in the annual National Implementation Plan. The National Implementation Plan must also identify any field office that the Secretary intends to certify and the intended date of such certification. This report notifies Congress and users of agency services. Table 6 provides site-by-site notifications of when NWS anticipates changes in operations and certification to occur.

Figure 2:

SITE TRANSITION MODEL

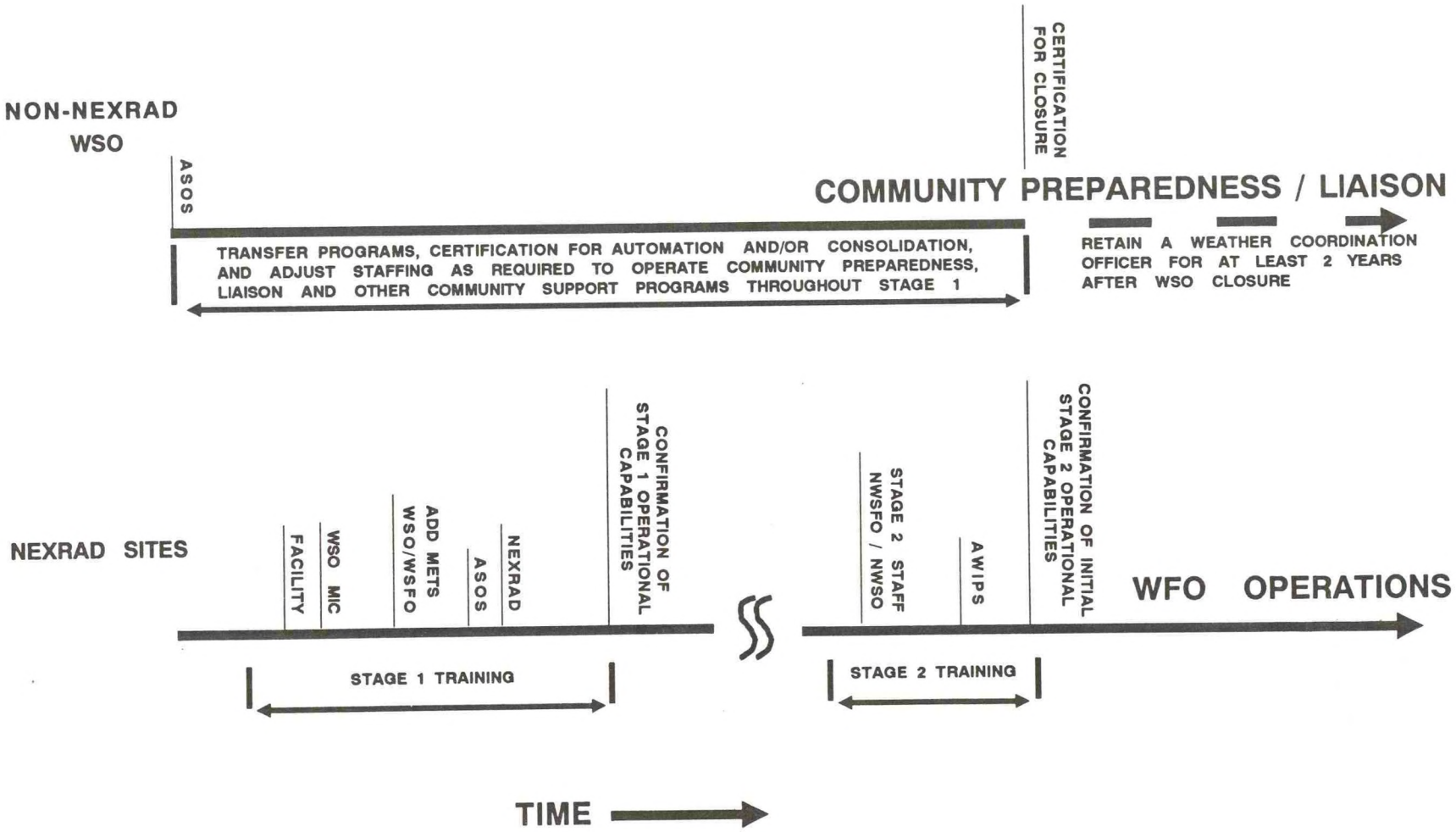
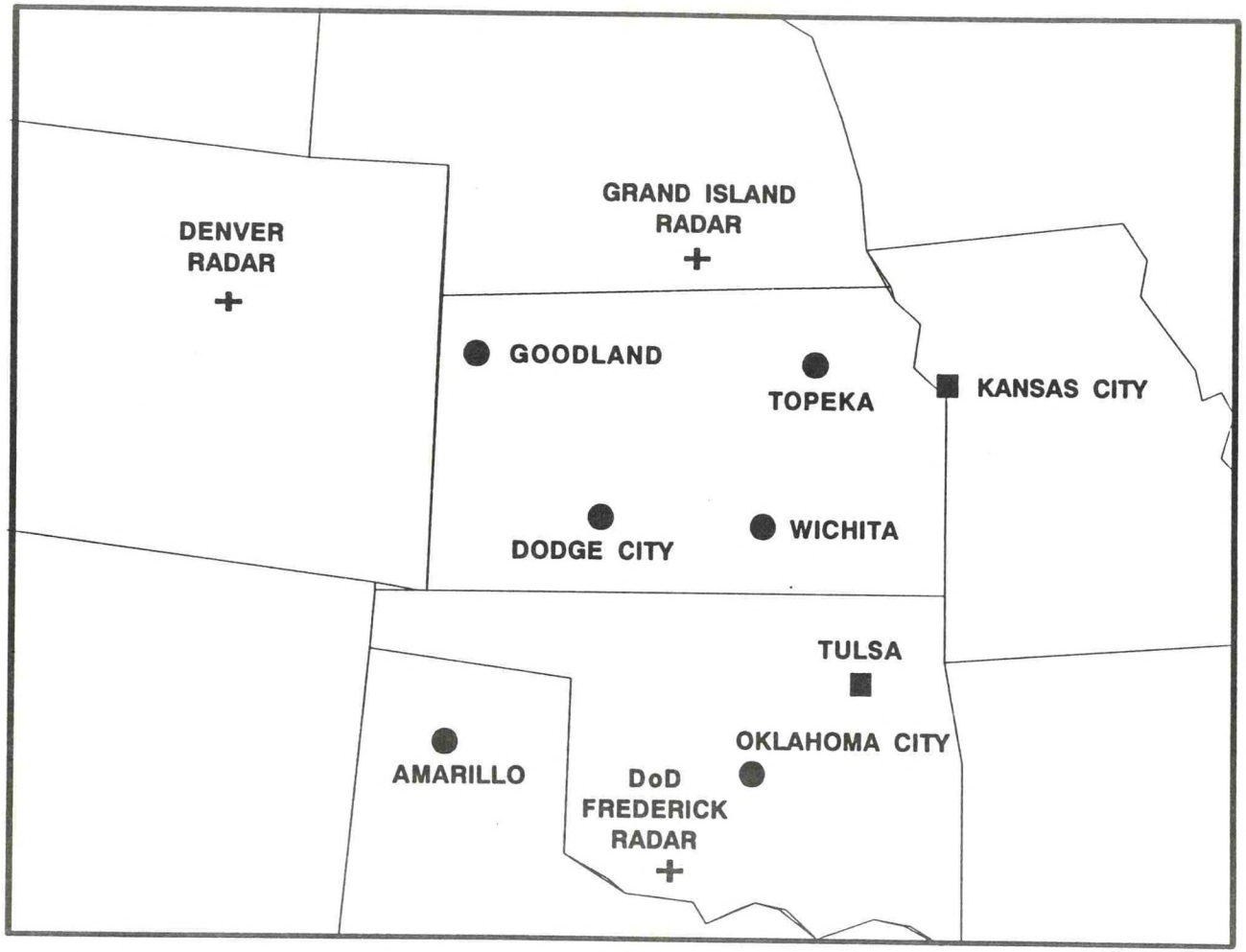


Figure 3:
MODERNIZATION AND ASSOCIATED RESTRUCTURING DEMONSTRATION AREA



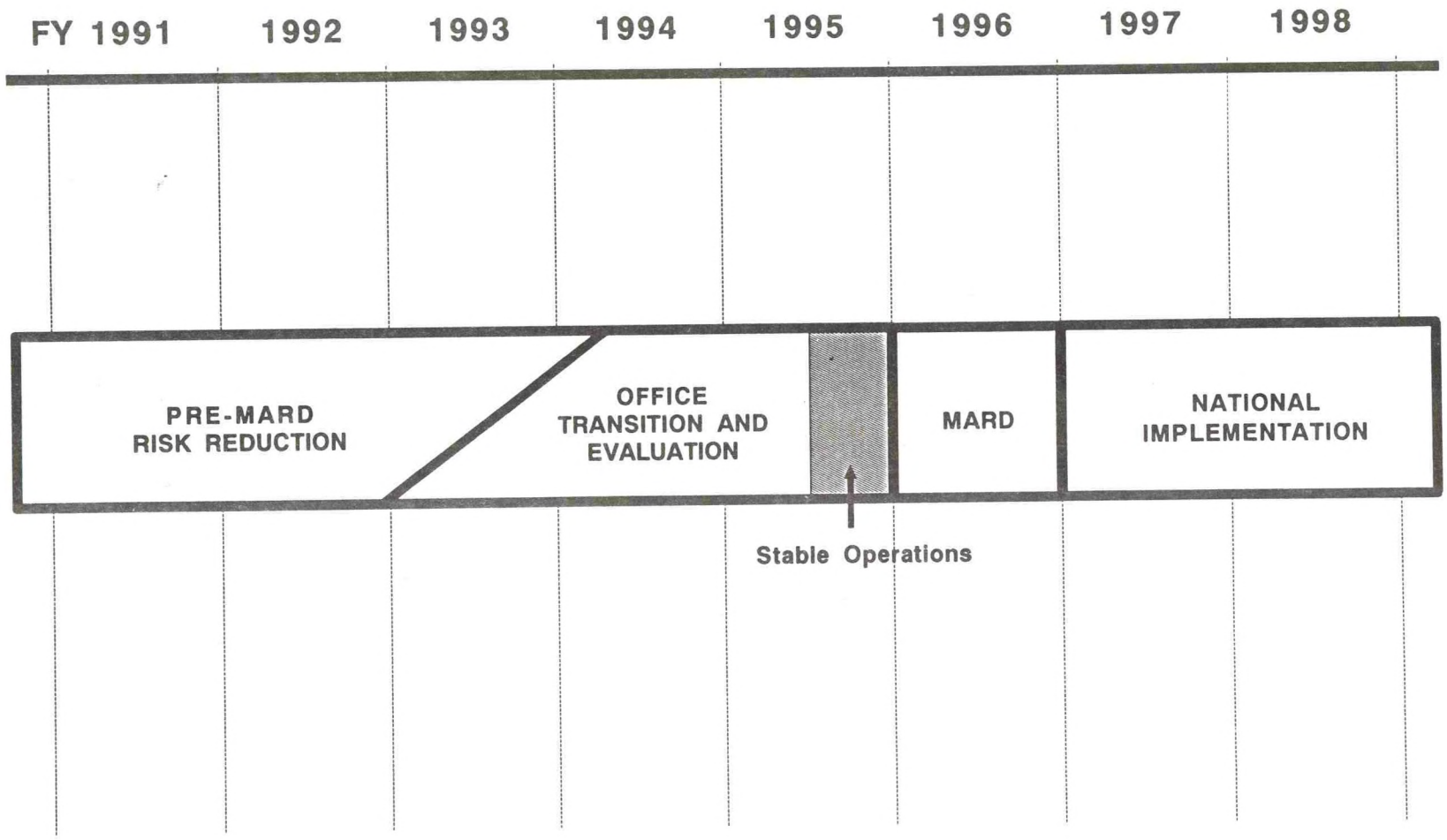
● WFO with NEXRAD

■ WFO/RFC with NEXRAD

\+ NEXRAD

CENTRALLY PREPARED GUIDANCE WILL BE PROVIDED BY THE NATIONAL CENTERS.

Figure 4:
PRINCIPAL PATH FOR MODERNIZATION



4.0 Research Programs

A wide range of research programs are being conducted by NOAA, the academic community and other federal agencies that will transfer scientific and technical knowledge to the NWS modernization program. These programs range from research in the atmospheric and hydrologic sciences to developing specific products and techniques for use at NWS field offices to improve warnings and forecast programs. Research also is underway in computer systems to assimilate data from the diverse observational systems that are coming into use, on a national scale as input to numerical prediction scales, and on the local level for short-term mesoscale forecasting.

The bulk of NOAA's modernization research program is concentrated in the ERL, the NWS and the National Environmental Satellite, Data and Information Service (NESDIS). Section 6 of this report addresses budgets for research programs associated with NWS modernization and restructuring. The end of Section 6 also includes figures showing research schedules, along with schedules for the other major components of modernization and restructuring.

4.1 Environmental Research Laboratory Research Programs

ERL provides fundamental research to develop technology and improve NOAA services to the public. ERL provides this support through dedicated laboratory facilities across the nation. Programs include research on observational systems, modeling and prediction, severe storms, hurricanes, clouds and precipitation processes, and synoptic and mesoscale meteorology.

Forecast Systems Laboratory

The ERL Forecast Systems Laboratory (FSL), in Boulder, CO, is one of the major contributors to NWS modernization. The FSL mission is to improve weather services by testing and transferring advances in science and technology to the NWS. One of the principal FSL activities has been support to the DARE risk reduction programs.

Personnel from FSL help plan, design, implement and support the advanced interactive forecaster workstation to provide a system requirements test-bed for many of the capabilities AWIPS will provide. FSL completed the first phase of the program, DARE-I, at the end of fiscal year 1989. An expanded program, begun in fiscal 1990, DARE-II, covers all phases of the Denver forecast

and warning operations. Currently, the FSL-built DARE systems are operating at the Norman, OK, and Denver, CO, WSFOs.

The FSL programs also evaluate new observational technology that NWS forecasters will use in the future. FSL is developing new and improved forecast products that include algorithms for Doppler radar data, atmospheric sounding data from geostationary satellites, and vertical wind data from ground-based atmospheric profilers. FSL is developing two data assimilation and prediction programs scheduled to be transferred to the NWS for operational forecasting use. These programs will incorporate diverse observational data sets—such as radar, satellite, and profiler data—on the regional and local scale.

The Mesoscale Analysis and Prediction System (MAPS) provides frequent and highly detailed analyses of meteorological parameters and very short-term numerical forecasts to support aviation and local forecast and warning services. MAPS is designed to run on medium-sized computers in national center environments.

The initial phase of the MAPS system, the objective analysis program, was ported to NMC in May 1990; the forecast code was ported in September 1990. FSL continued to test and evaluate the MAPS system in the operational NMC environment in 1992, implementing an upper air analysis system. The system, known as the Rapid Update Cycle, uses data sources such as profilers and Arinc Communications Addressing and Reporting System (ACARS) to completely analyze the upper air every three hours.

In addition, FSL is developing the Local Analysis and Prediction System (LAPS), designed primarily for local NWS offices to use on AWIPS workstations. LAPS uses local data networks, NEXRAD wind data, and profiler output, to provide very high-resolution three dimensional hourly analyses of winds, temperature and moisture. These hourly fields would then feed diagnostic and predictive models to enhance short range forecasting. The target time-frame for developing the LAPS system is the mid-1990s.

For a number of years, ERL's Wave Propagation Laboratory (WPL) has been conducting research programs to develop ground-based sensors that will observe vertical profiles of the atmosphere. As a result of this program's success, NWS is installing a demonstration network of vertical wind profilers across the central part of the nation. The program will be managed by the Demonstration Division of the FSL. During Spring 1992, FSL completed the 29-station Wind Profiler Demonstration Network. The system has been operating and distributing data to the NWS offices, the research community, and the National Climatic Data Center (NCDC). The data generally are available hourly but is collected and available at six-minute intervals. Research on thermodynamic profilers continues.

National Severe Storms Laboratory

The National Severe Storms Laboratory (NSSL) in Norman, OK, develops means for improving weather forecasting through studies of storm processes, numerical and conceptual modeling of

storm phenomena, and by applying new remote-sensing technologies in severe weather conditions. The work at NSSL, probably the most significant contributor to the developing Doppler techniques, supports the NEXRAD program.

The Mesoscale Research Division of NSSL, in Boulder, CO, studies mesoscale convective systems based on data gathered in field programs. Integrating observations from the NOAA P-3 research aircraft, satellites, ground-based radars, and lightning strike networks contributes substantially to Mesoscale Research Division research. NSSL gathered substantial data (using Doppler radar, wind and thermodynamic profilers, radar acoustic sounding systems and the P-3 aircraft) during the Spring of 1991 that will support studies of the mesoscale environment of tornadic storms.

Through relationships with other government agencies and universities, NSSL constitutes an international resource for severe-storm data. During coming years, NSSL will expand its research to include larger scales of meteorological phenomena, and to incorporate modern research workstations, wind profilers, and digital satellite data into case study analyses and the development of conceptual and numerical models.

The NSSL recently has agreed, in collaboration with the NEXRAD OSF and the WSFO at Norman, OK, to formally establish a Norman Experimental Forecast facility. Staff from the three participating groups will work together in applied research problems direct related to improving forecasting techniques within the NWS Modernization Program.

Atlantic Oceanographic and Meteorological Laboratory

ERL's Atlantic Oceanographic and Meteorological Laboratory (AOML) conducts basic and applied research in oceanography and tropical meteorology. Research conducted at AOML supports the hurricane forecasting program carried out by the NWS NHC. To improve existing operational hurricane prediction models, the AOML Hurricane Research Division is developing complex hurricane models using high resolution movable grids. Models with fine-scale resolution down to the 10 kilometer scale are under development.

AOML also supports NHC by improving the performance of hurricane tracking models. Revised tracking models that demonstrated improvements were provided to NHC. AOML continues to support the hurricane forecasting services through studies that examine precipitation features in mature hurricanes, hurricane air-sea interaction and mesoscale structure of land fall hurricanes.

Wave Propagation Laboratory

The mission of the WPL includes developing remote sensors to measure atmospheric parameters required to understand and predict severe weather. The WPL helped develop the radar techniques that are being used in the NEXRAD Program, in evaluating dual polarization radar technology to observe cloud parameters important in forecasting icing and hail versus rain conditions in

clouds, and in developing and improving the wind profiling and thermodynamic technology that will lead to remote, automated profiling of the atmosphere.

The WPL also performs research that could be applied to further improving weather services. This research includes over-the-horizon radar to map ocean surface conditions and surface winds and light detection and ranging applications to observe small-scale turbulence such as microbursts and severe wind gusts.

Geophysical Fluid Dynamics Laboratory

The mission of the Geophysical Fluid Dynamics Laboratory (GFDL) includes developing, testing and evaluating mesoscale and synoptic scale atmospheric models. The GFDL is working with the NMC in upgrading the analysis and prediction models. Recent projects are the improved physics and hurricane algorithms in the forecast models, and developing a state-of-the-ocean forecast model.

4.2 NWS Research Programs

Research supporting the modernization program within the NWS is concentrated in three groups: the Hydrologic Research Laboratory (HRL) of the Office of Hydrology, the Development Division of the NMC and the Techniques Development Laboratory (TDL) of the Office of Systems Development (OSD).

Hydrologic Research Laboratory

The HRL is the nucleus for applied hydrologic research and development supporting the NWS's operational hydrologic forecast mission. HRL works with the Office of Hydrology's Hydrologic Operations Division, the RFCs and to a smaller extent with the FSL and the Office of Atmospheric Research's Weather Research Program for Mesoscale Studies.

HRL has done most of this research and development to capitalize on new data collection and analysis technologies. HRL is placing significantly more emphasis on hydrometeorology, a hybrid science dealing with interrelationships between hydrology and meteorology.

NEXRAD, ASOS and the automated sensors from other programs will greatly increase the volume of available hydrometeorological data. AWIPS will enhance computational power for hydrologic modeling and data management. PROTEUS, a project managed by HRL, supports NWS modernization by reducing risk associated with implementing new technologies. The critical components of PROTEUS include data handling and quality control procedures, NEXRAD precipitation processing algorithms, an on-site interactive version of the NWS River Forecast System (NWSRFS), and high-resolution flash flood guidance based on geographical information systems. Other NWSRFS enhancements include improved snow melt and rainfall-runoff models, and river mechanics procedures.

The considerable efforts underway to develop initial capabilities for hydrometeorological operations will continue in the 1990s to capitalize on the new technologies. In parallel with this work, NWS will place emphasize more complete modeling of the hydrologic cycle. Investigations will range from efforts to model the transfer of soil moisture to the atmosphere (for use in both short-range numerical weather prediction models, long-range global climate models, and for predicting the impacts of global climate change on water resources), to improved forecasts and warnings for shorter time scale, mesoscale events.

NWS will use advances in computer technology and graphical user interfaces and geographical information systems to complement the new data technologies. These new data technologies, coupled with improved understanding of mesoscale weather processes, will make possible the use of improved hydrologic forecasting tools and distributed forecast models to forecast smaller areas such as flash-flood prone watersheds and urban areas.

National Meteorological Center

The Development Division of NMC researches and develops data assimilation and numerical modeling of the atmosphere and interactions between the atmosphere, ocean and land surfaces. The goal of this research is to improve the skill and extend the range of the NMC forecasting capabilities. The Development Division supports and refines the models in use by NMC, develops and implements new and better models and objective analysis methods, and provides the research community with the infrastructure to test new techniques.

The Division's research is concentrated in three major areas:

- Regional and mesoscale modeling
- Global weather and climate modeling
- Marine prediction.

Regional and mesoscale global modeling research includes topics such as:

- Mesoscale four-dimensional data assimilation of satellite, conventional, and direct and indirect ground-based observations, in support of the NWS modernization
- Advanced numerical techniques applied to mesoscale modeling problems
- Diagnostic studies of mesoscale model performance
- Mesoscale data quality control.

The research in the area of global weather and climate modeling includes:

- Four-dimensional data assimilation of satellite and conventional observations
- Advanced numerical techniques for modeling the atmosphere and interactions between the atmosphere, ocean and land surfaces

- Developing a climate data assimilation system and reanalysis studies for archival and use by the scientific community
- Extended range prediction.

The marine prediction research includes:

- Surface wind modeling over the global oceans, coastal seas, and the Great Lakes area
- Development of deep and shallow water wave forecasts
- Sea ice modeling.

In researching the above areas, the NMC Development Division focuses on short-range forecasting (12 to 72 hours) over limited domains, such as regional and hurricane prediction models, and over global domains. The medium range (3 to 10 days) covers the entire globe, while the extended range (10 to 30 days) deals with regional, hemispheric and global domains.

The research programs to support these activities concentrate on using the diverse data sources of new observing systems in more complex and sophisticated atmospheric models to improve forecast skill. These observing systems include or will include systems such as NEXRAD, ASOS, ACARS, and the Geostationary Operational Environmental Satellite (GOES). The systems also will integrate data from experimental satellite cloud and oceanographic remote sensing programs. The target computer for the operational use of these prediction model enhancements is the advanced super computer system.

Office of Systems Development

The TDL of the OSD researches techniques that have promise in weather forecasting and analysis. Techniques are developed for objectively forecasting basic weather elements used in public and aviation forecasts, such as clouds, temperature and visibility. Emphasis also is given to marine-related forecasts, to those forecasts associated with mesoscale processes, and to techniques to be implemented at AWIPS- equipped NWS field offices.

The supporting research at the TDL covers areas of synoptic scale weather prediction, mesoscale weather prediction, marine environmental prediction and local field office forecast applications. The synoptic activities are directed towards procedures to be run on centralized computer systems in contrast to mesoscale weather techniques and local applications designed for use at the modernized NWS field offices.

Local applications include interactive techniques to support a digital database, product formatters to prepare specific products from the digital database, data decoders and verification techniques. Mesoscale weather prediction includes techniques to predict short-lived thunderstorms, severe local storms and heavy precipitation. Short-term forecasting techniques apply sensor-produced data, such as data from NEXRAD, the GOES satellites, and the experimental profiler system, to develop thunderstorm forecasting procedures and specialized radar algorithms.

The TDL developed a numerical model that forecasts oceanic flooding over coastal areas during hurricane landfall situations. NHC issues this storm surge model to provide critical guidance on expected flooding in advance of the hurricane. NWS also has used the program extensively as a tool for hurricane evacuation planning through the use of a series of computer simulations of hypothetical hurricanes that show areas of potential flooding.

4.3 NESDIS Research Programs

NESDIS research programs are conducted by its Office of Research and Application, geared to improve meteorological predictions. Its goal is to provide data derived from satellite sensors to improve analysis and prediction models. These satellite applications range from the lower levels of the atmospheric boundary layer to tracking and monitoring of synoptic and mesoscale systems.

Numerical weather prediction efforts at NESDIS have concentrated on developing enhanced moisture products, wind fields and three dimensional vertical soundings of temperature and moisture. Work is underway to develop surface vegetation, temperature and snow-cover products from satellite sensors for use in initializing boundary conditions for the models.

NESDIS is evaluating satellite data as "blended" products for the future. Research to improve Sea Surface Temperature products has resulted in a new atmospheric aerosol product. NESDIS can track warming and cooling effects from volcanic eruptions and airborne sand and adjust/correct the Sea Surface Temperature products that are key to initializing numerical models. NESDIS has developed a satellite cloud observation algorithm to supplement ASOS.

NESDIS supports the NWS warning and forecast program with research on tropical storms, clear air turbulence and wind and stability products; improved detection of nighttime fog over oceanic and land areas; and quantitative precipitation estimates for flash flood warnings. Scientists continue to document the use of polar satellite and METEOSAT data. These publications are part of intensive training that ranges from visits to NWS forecast office to workshops to developing training modules in the COMET.

NESDIS is developing multichannel products to prepare for the data stream from the GOES I-M satellites. NWS is emphasizing quantitative products that can assist forecast operations at National Centers and the local forecast office.

5.0 Transition Program Management

The NWS has never undertaken a systematic modernization and restructuring effort of the magnitude described in this report. Virtually every NWS activity will change in some way during the transition. Management will be complex, involving all levels of the NWS.

To coordinate these changes, NWS has created in its headquarters an Office of the Deputy Assistant Administrator for Modernization. Reporting to the Assistant Administrator for Weather Services, the Deputy Assistant Administrator for Modernization's responsibility is to provide a sustained organizational focus on the MAR Program. Supporting the Deputy Assistant Administrator for Modernization is a Transition Director and program staff. In each Headquarters Office and Region, NWS has designated Transition Representatives. These representatives provide a focus for transition activities within their unit.

NOAA has established a Systems Program Office (SPO) reporting to the Deputy Under Secretary for Oceans and Atmosphere. The SPO is responsible for developing and acquiring the major new systems: NEXRAD, ASOS, AWIPS and GOES required for the transition. The following subsections present the management philosophy NWS has adopted for the transition.

5.1 Introduction

The NWS management philosophy for the transition has two key features: To the extent possible, NWS will use the existing structure and management authority to plan and implement transition activities; transition planning and implementation must not disrupt operations and service.

The Assistant Administrator for Weather Services and Deputy Assistant Administrator for Modernization already have extensive statutory and procedural authority. Procedures for budgeting, staffing and modifying field offices already exist. Every action required to modernize the NWS can be done, in theory, through existing mandated procedures. In practice, approvals, such as changing the status of a field office in the context of the annual appropriations process, may be difficult; however, the service improvements of the modernization and associated restructuring provide substantial leverage on a case-by-case basis to establish the merits of proposed changes.

5.2 Transition Work Breakdown Structure

The management approach to the transition is to organize, plan, schedule, execute, monitor and report on the essential activities necessary to modernize and restructure the NWS. All NWS organizational units are involved in the planning, implementation/execution, reporting and management of transition activities. A formal Work Breakdown Structure (WBS) is used to plan and manage all of these activities. The major elements of the Transition WBS are shown in Figure 5 at the end of this section.

The elements of the WBS represent aspects of the transition program such as planning, execution or implementation, project management and control and reporting. Not all elements are presented for the same purpose, nor is the assignment of lead office responsibilities necessarily consistent with normal responsibilities. The WBS is designed to ease coordination and cooperation in work planning and implementation and to offer management insight in the monitoring of major activities during the implementation process. The Transition WBS document and dictionary is available for reference.

5.3 Master Transition Schedule

The MTS is the official vehicle used by NWS to assess and report progress on the transition. The MTS is maintained by the Transition Director and uses the Transition WBS as the reporting framework.

The MTS takes the form of a Program Evaluation and Review Technique (PERT) chart. The PERT chart (also called a PERT network) shows the major transition activities and their dependencies to each other plotted against time. The critical path on the MTS determines the duration of the transition.

The MTS is also the means by which NWS evaluates proposed schedule changes. The evaluation determines how the proposed change impacts the critical path. Approval of any change is dependent on its impact on the critical path. The current MTS is provided in Appendix A.

5.4 Transition Program Monitoring and Control System

NWS has set up a transition program monitoring and control system to provide concise, accurate and timely transition status information. To keep internal and external audiences informed, NWS is sending out the following forms of communication:

- Regular Transition Program Reviews: These sessions are conducted by the Transition Director with the Assistant Administrator, Deputy Assistant Administrators for Modernization and Operations, Office Directors and Transition Representatives

- Periodic Progress and Technical Reports: Reports are published and distributed throughout the agency to provide all NWS employees with transition information

- Semi-Annual Transition Management Meetings: These sessions, devoted entirely to transition matters, are conducted by the Transition Director for the Assistant Administrator, Deputy Assistant Administrators for Modernization and Operations, and the Office/Regional Directors

- Transition Progress Reports: These reports are a standard agenda item for the Spring and Fall Directors' Conferences.

The heart of the program monitoring and control system is a computer-based project management system. The information contained in this system is accessible to all parts of the agency. NWS has installed security measures to restrict access to sensitive data. The Transition Program Monitoring and Control System description and procedures document is available for reference.

5.5 Transition Change Management

Transition to the modernized NWS consists of a complex series of separable but tightly interrelated activities. Once plans are approved and actions set in motion, requests to amend plans and the need to adjust actions will be the rule rather than the exception. Such requests for change must be handled in a disciplined and coordinated manner.

The Transition Change Management (TCM) process deals with proposed changes. The Transition Director operates the change process with support from Transition Representatives in each Headquarters Office and Region. The TCM process does the following:

- Evaluates the impact on all areas potentially affected by proposed transition changes

- Considers implementation, schedule and cost aspects in evaluating the merits of proposed transition changes

- Ensures maximum use of existing agency change/configuration management systems for screening and evaluating proposed transition changes

- Provides for levels of approval: Changes with major impact are approved by the Deputy Assistant Administrator for Modernization after concurring with the TCM Committee, consisting of the Transition Director and Office/Regional Directors; changes with minor impact are approved by the cognizant Office/Regional Director or Program Manager

- Documents and communicates the results of all change requests as well as reports the status on change requests while they are being evaluated or implemented.

The complete TCM policy document, available for reference, is being updated to reflect procedures that have evolved over the past several years.

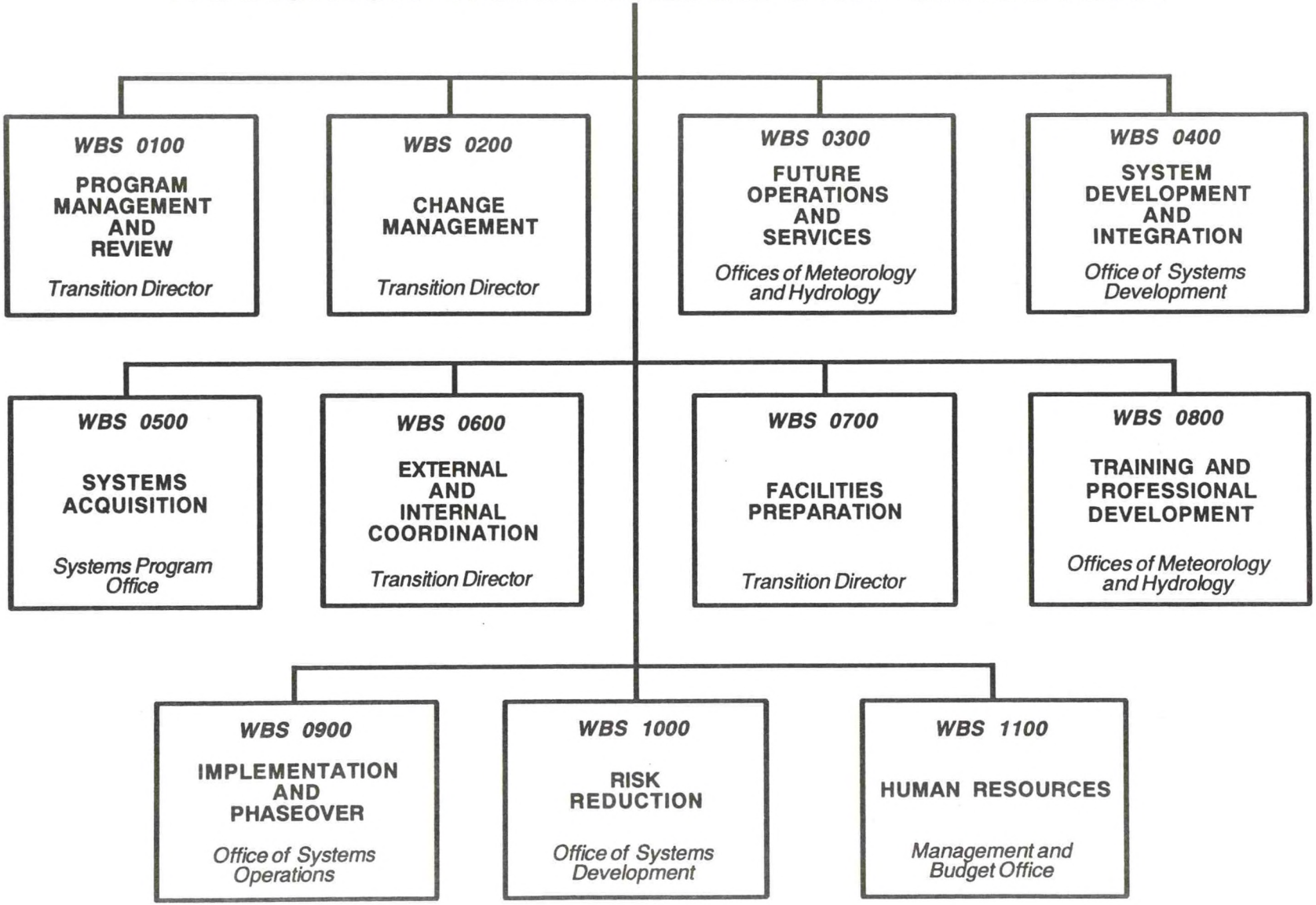
5.6 Transition Management Meetings

An integral part of the transition management process are Transition Management Meetings organized and conducted by the Transition Director and attended by the Assistant Administrator, Deputy Assistant Administrators for Modernization and Operations and all Office and Regional Directors. These meetings are devoted exclusively to transition related matters. They are held semi-annually in addition to the Spring and Fall Directors' Conferences. Standard agenda items for the transition management meetings are the following:

- Review transition progress
- Focus on specific transition problems/issues
- Review/approve transition change proposals
- Define/adjust three-year outlooks and one-year action plans, setting the agency's course for the coming year.

Figure 5:

TRANSITION WORK BREAKDOWN STRUCTURE



6.0 Transition Program Status and Outlook

This section describes the status and outlook of the transition program. The section first reviews fiscal year 1992 progress, then discusses plans for fiscal years 1993-1995. Table 5 at the end of this section supports these discussions with detailed budgets for fiscal years 1993 and 1994. Table 5 also shows budgetary planning ceilings for fiscal year 1995 for each of the major program components. Table 5, however, is not intended to portray the total cost of the transition program. Figures 6-15 further support the discussions with presentation of program schedules for each of the major components of the transition. Table 6 provides notification of proposed actions to change operations and of intent to certify as required by Public Law 102-567.

6.1 Current Status of the Transition Program

During the past year, the NWS has made significant progress. NWS has directed much of the effort toward developing integrated programs to ensure the transition is well coordinated internally and externally. In addition in the last fiscal year, NWS continued to deploy ASOS and NEXRAD systems; the first installed systems are now in use.

The National Institute of Standards and Technology conducted a benefit-cost study of National Weather Service Modernization and Associated Restructuring and issued a report in September 1992 which showed that the economic benefits to the Nation are about eight times greater than the costs to modernize. The study also showed that once the modernization is fully deployed, the Nation will realize benefits of over $7 billion per year to various segments of the United States economy.

Funding Status

Congress has funded the modernization and associated restructuring primarily through cumulative appropriations for technology. Through fiscal year 1992, Congress has appropriated $434.1 million for NEXRAD, $70.5 million for ASOS, and $104.8 million for AWIPS/NOAAPORT. The NWS transition program budget funds all other elements of modernization and associated restructuring; to date $22.4 million has been appropriated.

Transition Program Management

The Transition Program Office (TPO), established within the NWS in 1986, manages and coordinates program efforts. TPO has identified and developed tools described earlier in this report, including the hierarchy of plans, the Transition WBS, the MTS and a program monitoring and control system.

During fiscal year 1992, NWS approved the Eastern, Alaska and Southern RTPs; the first annual update of the Central RTP was completed. SIPs have been completed at least through a first draft. All SIPs in the Eastern, Southern, and Western Regions have been approved either through the TCM process or at the regional level. In the Central Region, NWS has approved 21 SIPs with the remaining ones scheduled for approval in early calendar year 1993. In the Alaska Region, NWS has approved one SIP with the other two scheduled to be completed in February 1993. The MARD Plan was revised and submitted to the TCM process for review by the agency.

In March 1992, the National Research Council released *Toward a New National Weather Service--A Second Report,* which generally endorsed the modernization and associated restructuring and NWS's approach to the transition. The report made a number of recommendations. In June 1992, it was sent to members of Congress; Governors; NWS National, Regional and Field Managers; NWS field offices; selected offices in NOAA and DOC; other Federal Agencies; and external audiences. NOAA released a response to the report in November 1992.

NWS conducted systematic reviews of transition activities through bi-weekly meetings, semi-annual Transition Management Meetings and Directors' Conferences, and periodic program reviews in the various Offices and Regions.

To encourage information exchange, NWS has set up a Transition Information System, which provides electronic mail/bulletin board capability throughout NWS, and a National Transition Database (NTD), which makes transition data available for use in planning and tracking. During fiscal year 1992, NWS demonstrated the NTD to National and Regional Headquarter's personnel.

Transition Change Management

The TCM process supports planning and implementation using the established procedures for considering and evaluating policies, plans and schedules and proposed changes to these procedures by NWS management.

Future Operations and Services

Future Operations and Services Plans have been completed and approved for the Public Warning and Forecast, Aviation, Marine, Agriculture, and Fire Weather Programs. The Hydrometeorological Service Operations for the 1990's Plan is being updated and the Agricultural Services Contingency Plan is being developed.

System Development and Integration

In fiscal year 1992, the NEXRAD Program completed its Limited Production Phase (LPP) of 10 units with deliveries of NEXRAD units to Houston, Dodge City, St. Louis and Keesler AFB. NEXRAD LPP units previously delivered include Baltimore/Washington, Melbourne, Oklahoma City, NWS Training Center, Frederick AFB and Northwest Florida (USAF). Full Scale Production Phase NEXRAD deliveries were initiated with units delivered to the NWS National Reconditioning Center, Wichita, Goodland and Kansas City. NWS offices have used the information from these radars to improve forecasts and increase the lead time on warnings for severe weather.

ASOS units were delivered, installed and contractually accepted at approximately 100 NWS, FAA, and DOD sites during fiscal year 1992, including all sites supporting the NWS MARD. ASOS units were commissioned at Alamosa, Goodland, Dodge City, Concordia, Oklahoma City, Tulsa, Pueblo and Grand Island. Quality control and maintenance support mechanisms are in place for all commissioned systems.

AWIPS Definition Phase activities consisted of preparing for the award of the Development Phase contract, which included refinement of the Development Phase Request-for-Proposal, and proposal evaluation of the two competing contractors. The AWIPS Program schedule was rebaselined and accelerated, resulting in a 39-month Development Phase (including incentives for a 6-month acceleration) and a 24-month Deployment Phase.

The entire 29-site Wind Profiler Demonstration Network has been installed at locations in the midwestern U.S., and was routinely providing data through the NWS Telecommunications Gateway to NWS offices and other users.

The NWS Lightning Data System contract was awarded in late fiscal year 1992. The contractor will supply national real-time lightning data to NSSL, a MARD central receiving site, and to a limited number of local NWS offices. NSSL is developing lightning products for distribution to all NWS offices. Provisions in the contract also allow for the Bureau of Land Management, FAA, other Government sites, and NCDC to receive lightning information.

Internal and External Coordination

NWS increased internal and external coordination and communication significantly during fiscal year 1992 as it continued to deploy NEXRAD radars and ASOS. The accelerated pace of deployment required intensive coordination with external users of ASOS and NEXRAD data. Programs included:

- Completing the *Internal and External Communication and Coordination Plan for the Modernization and Associated Restructuring of the NWS*. This plan specifies the design, execution, monitoring and evaluation of communication and technical coordination with NWS employees and external communities affected by, or interested in, MAR activities

- Completing and sending the *NWS Modernization Public Relations Resource Guide* to NWS field offices. This guide provides field managers with information and briefing materials to use when explaining the NWS's transition activities to users. NWS will update the guide as new material becomes available

- Developing 35mm slide technical presentations for the ASOS and the NEXRAD. Narrative scripts accompany these slide sets

- Developing and distributing two videotapes to field offices: "Precipitation Processing Using the NEXRAD," and "ASOS--A Step Into the Future." NWS also sent field officers a copy of "The Future of Weather," a video taped for Cable News Network's Future Watch

- Establishing and refining a constituent data base. NWS completed two direct mail efforts to all constituencies

- Producing and distributing four editions of the "Critical Path," an employees' technical report on the progress of the NWS modernization

- Continuing to brief Congressional delegations and Governors' staffs.

Facilities Preparation

The NWS has implemented an aggressive WFO facility design and construction schedule to prepare for delivery and installation of NEXRAD systems. During fiscal year 1992, NWS finalized 108 of 116 site decisions, 30 WFO facilities were in the design phase, 21 WFO facilities were under construction, and six WFO facilities were completed.

Training and Professional Development

COMET—NWS completed the first COMET Mesoscale Analysis and Prediction Course (COMAP) in November 1991, at the COMET facility in Boulder, CO. This highly intensive course, covering the latest theories and techniques in the meteorological science, was attended by 10 NWS SOOs and four other NWS employees.

COMET completed production and distribution of the first two CBLs during the fiscal year, *Workshop on Doppler Radar Interpretation*, and *Boundary Detection and Convection Initiation*. These highly interactive, multi-media modules are played on specially developed PC-based systems, called Professional Development Workstations (PDW). NWS awarded the contract for the PDWs in July 1992; the first PDW was installed in September 1992.

NEXRAD Training—The NWS's NEXRAD OSF in Norman, OK, is responsible for training NWS meteorologists and hydrologists on the use of the NEXRAD radar and interpretation of its products. The facility held 16 NEXRAD classes in fiscal year 1992, successfully training 258

NWS students. In addition, six NWS offices have completed the NEXRAD Operations Training requirements: WSFOs Sterling and Norman, WSOs Melbourne and Houston, and CWSUs Leesburg and Fort Worth.

Implementation and Phaseover

The ASOS Commissioning Plan was approved in August 1992; NWS began commissioning ASOS sites in September 1992. The ASOS Operations and Monitoring Center officially began 24-hour-a-day monitoring of the operability of ASOS systems across the country. The Systems Decommissioning Policy, governing decommissioning of equipment and systems replaced by MAR technology, was approved in September 1992. The Systems Transition Guidance Document, which provides information on procedures and strategies to be followed as systems are implemented, was updated and distributed to the field in August 1992.

Risk Reduction

NWS currently is conducting the following major transition risk reduction projects:

DARE—The DARE project, a joint effort between the NWS and the NOAA Office of Atmospheric Research, was started in 1986. The objective of this project is to demonstrate and test fundamental AWIPS systems and operational concepts.

NWS achieved a number of major accomplishments and milestones with the Denver/Norman risk reduction projects during fiscal 1992. Four major upgrades were implemented into these systems in support of risk reduction activities. The most significant aspects of these upgrades were:

- Upgrading software to integrate the Twin Lakes and OSF NEXRAD radar data and Principal User Processor (PUP) emulation functions to the Norman pre-AWIPS system
- Incorporating a full suite of GOES Satellite products to the Norman WSFO via the Information Stream Project for AWIPS and NOAAPORT (ISPANS) NESDIS
- Providing system and application enhancements to improve the useability of the DARE system to fully support the WSFO warning function.

NWS completed unscheduled "enhancements" to correct identified problems or to support special activities or user requests. One example of this is the Doppler reflectivity/radial velocity display problem that was fixed in response to its identification and an NWS request. The central data server computers and central data base disks on the two operational DARE systems were replaced with faster and more powerful versions to relieve critical system bottlenecks.

Problems were encountered with the timeliness and reliability of ISPAN graphics, and staff recommended that a substantial number of centrally produced graphics be eliminated from the

ISPAN stream. To compensate, the DARE grid-to-graph facility was significantly enhanced to provide improved performance. This change has substantially reduced overhead on NMC computers as well as the Telecommunications Gateway system.

FSL continued to develop and support the NEXRAD Product Interface (NPI) subsystem. Several enhancements to this subsystem, including improvements to special applications to display and interact with the NEXRAD products were completed. In addition, the interface to, and the integration of the Frederick, OK, NEXRAD data was completed in July.

With the DARE system implemented in Norman, the NWS has achieved an organizational goal of national significance. This was a highly complex undertaking involving many different NOAA and NWS elements.

Norman—The primary objective of the Norman, OK, risk reduction project is to measure the ability of a WFO to provide required services, to develop interfaces to the new observing systems, particularly NEXRAD, and to validate the ability to ingest centralized data streams into the advanced pre-AWIPS workstation installed at Norman. In fiscal year 1992, the Norman WSFO evolved to WFO-type operations and services. The NEXRAD has become an integral part of the office warning program. Norman forecasters, combining sound meteorological science with the new radar, have provided tornado warning lead times unmatched in the history of the National Weather Service. Local emergency management officials have credited this new technology with saving lives across the state of Oklahoma.

NWS has made considerable progress in integrating various data types into the pre-AWIPS interactive computer system, especially with respect to NEXRAD data. Currently, Norman forecasters use the pre-AWIPS for all forecast functions and most warning responsibilities. Also, in the past year, the central data feed, ISPAN, stabilized and now provides most data for WFO-type operations and services.

PROTEUS—The PROTEUS project is designed to demonstrate enhanced computer hardware and software applications required by RFCs to work with AWIPS. The Office of Hydrology at NWS Headquarters is demonstrating and refining IDB RFC software based on feedback from RFCs taking part in the PROTEUS project. The PROTEUS project has implemented systems at RFCs in Harrisburg, PA; Salt Lake City, UT; Kansas City, MO; Anchorage, AK; and Tulsa, OK. PROTEUS operations began at the Tulsa RFC in 1990, augmenting activities underway at other RFCs. Primary emphasis in the PROTEUS project has shifted to the Tulsa RFC due to the unique role played by the NWS Southern Region in the pre-MARD and MARD risk reduction activities.

Tulsa RFC—A project parallel to the Norman risk reduction project, the primary objective of this project is to investigate and demonstrate future hydrologic operations before they are implemented nationwide. During fiscal year 1992, the Tulsa RFC moved to the new RFC facility and maintained required communications with the Office of Hydrology, the NMC and WSFO Norman. The Tulsa RFC implemented pre-AWIPS software applications developed by PROTEUS and made the transition to the modernized RFC operations. Preparation for pre-MARD opera-

tions included becoming familiar with operations and starting experimental RFC operations, including initial delivery of modernized river forecast products to Norman, OK.

Ohio RFC HAS Risk Reduction—The primary objective of the project is to evaluate one of the critical HAS functions—assimilation of Quantitative Precipitation Forecast ingest to the RFC and subsequent use of the data in the RFC hydrologic models.

Sterling—The NWS Eastern Region is carrying out a national risk reduction exercise at the new Baltimore, MD\Washington, DC WSFO in Sterling, VA. The focus of this work is to devise ways in which information from various remote sensor technologies can be integrated to produce comprehensive, state-of-the-atmosphere reports that promote aviation safety. NWS has developed and tested techniques to identify aviation-oriented hazardous weather based on data from conventional radar reports, a national lightning detection network, and collateral observations from ASOS. NWS evaluated a preliminary version of the lightning/radar product from December 1991 through January 1992 for five airports within WSFO Washington's area of responsibility (southern Virginia to southern Delaware). Although the product was accurate and contained useful information, it was difficult to interpret as presented. NWS developed and tested an enhanced version during August and September 1992.

Human Resources

NWS developed and circulated a second draft of the Human Resources Plan and is adjusting it to include final comments in accordance with the Transition Change Management process. The plan will be published in the second quarter of fiscal year 1993. NWS has resolved position grade issues; NOAA personnel are finalizing position classifications. NWS has set annual working sessions with NOAA servicing staff to plan for, identify and schedule actions related to facility moves, spin-up and spin-down activities.

6.2 Outlook for fiscal year 1993

Major objectives for fiscal year 1993 are to:

- Complete delivery of NEXRADs to MARD sites
- Commission some NEXRADs
- Continue installation of ASOS units across the country
- Award the AWIPS development phase contract
- Initiate procurement of an advanced super computer at the NMC
- Continue systems training and scientific education
- Continue Office Transition and Evaluation (OT&E).

Funding Requirements for Fiscal Year 1993

NWS and/or SPO need sufficient fiscal year 1993 funding to do the following:

- Participate in the tri-agency production contract for NEXRADs. NWS will continue to modify and construct NEXRAD user sites to ensure sites are ready on the dates contracted. NWS will continue to establish the repair capabilities of initial central-depots

- Fund the full-scale production contract for ASOS and to cover the NWS share of the central depot maintenance-support operations and logistics

- Substantially upgrade the electrical power systems supporting the advanced super computer, including the cost of acquiring and installing an uninterruptible power system to prevent power anomalies

- Purchase a new supporting computing system, scientific workstations and a terabyte mass storage system

- Initiate the AWIPS development phase contract. This phase includes all contractor support to be centered on establishing a central network control and communications capabilities, the development of a pre-production AWIPS system at the contractor's facility, and the development and implementation of AWIPS MARD systems at the MARD sites.

The NWS Transition program will require funds in fiscal year 1993 to complete these tasks:

- Hire needed personnel to supplement staffs at MARD offices and offices receiving NEXRAD

- Move more offices and personnel than normally budgeted for by the NWS. These increased costs are directly related to the magnitude of the modernization program

- Continue risk reduction efforts to derive critical information needed to define, analyze and assess technical trade-offs and impacts on operations and services, and continue risk reduction activities related to RFC prototyping

- Develop and implement scientific education on the interpretation of new data sources such as Doppler radar and mesoscale forecasting techniques that must be provided for meteorologists and hydrologists at NWS field offices

- Develop the NWR Radio Console Replacement System (CRS)

- Support MARD preparation activities and develop operational procedures and evaluation guidelines and continue developing materials to support technical coordination with external users at all sites.

Transition Program Management

The remaining SIPs in the Central and Alaska Regions will be approved. NWS will continue the annual update process for RTPs as well as previously approved SIPs. The MARD Plan will be reviewed and approved. NWS has renewed the contract with the National Research Council. NWS will continue to review transition activities at bi-weekly meetings, semi-annual Transition Management Meetings and Directors' Conferences, and periodic program reviews in the various offices and regions. NWS will make a substantial effort to fully implement the NTD during the fiscal year.

Transition Change Management

The Transition Change Management will continue to support the planning and implementation of the modernization.

Future Operations and Services

Completed and approved plans will be reviewed and updated as necessary to ensure they remain consistent with MAR goals. The updated Hydrometeorological Service Operations for the 1990's Plan and the Agricultural Services Plan will be completed and approved. NWS will realign County Warning Areas (CWA) as it commissions NEXRAD radars. Offices will be encouraged to participate in the Short Term Forecast concept. If evaluations of this idea prove successful, NWS expects the Short Term Forecast to be replaced by the Area Weather Update nationwide at all NEXRAD locations.

System Development and Integration

The NEXRAD Program's Full Scale Production Phase will continue in fiscal year 1993 with NEXRAD unit deliveries to the following locations: Amarillo, Little Rock, Phoenix, Jackson, Miami, Tulsa, Denver, Topeka, Detroit, Chicago, Grand Island, Pittsburgh, Cleveland, Indianapolis, Binghamton, Milwaukee, Memphis, Philadelphia, Central Pennsylvania, Louisville, New York, Albany, Boston, Griffiss AFB, Andersen AFB, Dover AFB, East Alabama (USAF), Vandenberg AFB, Kunsan AB, Fort Hood, Kadena AB, Camp Humphreys, and Dyess AFB.

ASOS installations are scheduled at 241 locations during fiscal year 1993; 71 NWS-sponsored ASOS units are scheduled for commissioning. FAA-sponsored ASOS commissionings, paced by FAA long-line communications enhancements, could number between 50 and 137 locations.

The AWIPS Program awarded the Development Phase contract to Planning Research Corporation in December 1992. Government Development Platforms (GDPs), consisting of AWIPS off-the-shelf hardware and software, are expected to be delivered to the NWS Headquarters, NMC, FSL, Tulsa RFC, and Kansas City RFC three months after contract award. These GDPs will serve as hosts to Government software development efforts which are required by the AWIPS contract.

The AWIPS contractor will conduct a Preliminary Design and Plans Review, Software Requirements Reviews, and a Preliminary Design Review during fiscal year 1993.

An assessment of the Wind Profiler Network, evaluating the meteorological and engineering facets of the 29-site demonstration network, should be completed in fiscal year 1993. NWS also will complete validation of the contractor Lightning Data System performance with regard to data quality and availability in fiscal year 1993. NSSFC will continue to receive data and to develop AFOS lightning data products and display capabilities. The data will be incorporated into the MARD data stream and sent to participating MARD offices as they come on-line. The data also will be sent to NWS and other Government offices.

Internal and External Coordination

NWS will conduct the following programs to promote communication:

- Specify awareness activities and technical coordination needed to confirm services in the Internal and External Coordination Plan for modernization and associated restructuring

- Augment the slide show, "Forecast for the Future" with several program-specific slides series. NWS will highlight the public warning and forecast, marine, aviation, fire weather and GOES programs

- Develop brochures and fact sheets to increase awareness of the changes and to coordinate technical activities. These will include a general brochure on modernizing, an ASOS brochure, a NEXRAD brochure, and a fact sheet detailing how NWS will give users warnings and forecasts

- Conduct a four-day Field Managers Meeting in Boulder, CO, in March 1993 for key field management personnel to review the specific steps and process for phasing their current office into future operations

- Develop a plan to target and track user briefings on the fiscal year 1993 activities of modernization and associated restructuring. Constituents include Members of Congress; Governors; regional, state, and local officials; other Federal agencies; trade associations and professional societies; academia; private companies; the media; and the general public. NWS will contact each constituency through personal briefings, workshops, direct mail, conference presentations or exhibits

- Compile information repositories containing relevant modernization plans and documents and distribute to selected communities

- Develop, implement and evaluate Internal and External Coordination Plans containing management strategies for communicating with users of weather services.

Facilities Preparation

NWS will continue site selection, land acquisition and facilities construction during fiscal year 1993. By the end of fiscal year 1993, 30 WFO designs will be completed, construction will have begun on 24 additional sites, and 22 new WFO facilities will be built.

Training and Professional Development

The COMAP II course is scheduled for fiscal year 1993. The NWS Training Center will complete and conduct one session of the Hydrometeorological Technician (HMT) Course this year. A SOO operational workshop will be scheduled. Dual classes will continue for NEXRAD training. The start of triple training classes will be delayed about five months due to delays in PUP installations and instructor hires.

Implementation and Phaseover

The NEXRAD Commissioning Plan will be approved. NWS will continue to commission ASOS units and install NEXRADs. NWS will finalize and approve Decommissioning Plans and System Disposal Plans for equipment replaced by ASOS and NEXRAD.

Risk Reduction

DARE—The project's focus in fiscal year 1993 will be to emulate and do an operational evaluation of the WFO and to integrate additional data sets into the Norman system, i.e., the Oklahoma mesonet and a modern hydrologic data set via a new dedicated link to the Tulsa RFC.

Norman—With the implementation phase for WSFO Norman nearly complete, NWS transferred warning responsibility for eight north Texas counties from WSO Wichita Falls to Norman in the spring of 1993. WSFO Norman now has warning and forecast responsibility for its future WFO area. At the same time, the remaining three counties assigned to Wichita Falls were transferred to WSFO Fort Worth, TX. These steps were necessary to proceed with some of the risk reduction and evaluation activities and do not represent a change in NWS policy to transfer county warning responsibility after NEXRAD commissioning. To ensure uninterrupted, high quality services to the north Texas counties, all conventional radars and the three NEXRADs covering this area will remain operational and fully staffed and special communications links between the Wichita Falls, Texas, and Norman offices will be established and maintained during the risk reduction period. During this same period, NWS will complete support for hydrological functions at WSFO Norman. NWS will finalize computer applications in the pre-AWIPS that support quality control of gage data for Stage 1 and Stage 2 precipitation processing. In addition, Norman forecasters will have modernized flash flood and river guidance from the RFC at Tulsa, OK.

PROTEUS—Fiscal year 1993 work will focus on continuing the development, delivery and refinement of the major RFC software components of the pre-AWIPS system. This integrated software system will be available for experimental use by the Tulsa RFC before the middle of fiscal

year 1993. In addition, PROTEUS will continue to provide training for the Tulsa RFC in computer and communications systems and in the use of the application software components.

Tulsa RFC—In February 1993, the Tulsa RFC is expected to receive a GDP to emulate AWIPS. To prepare for this, the office will move software from an existing system to support the RFC from that platform. The Tulsa RFC will extend hours of operation in the summer of 1993; the HAS function will begin at approximately the same time. NWS will extensively evaluate the interaction between WSFO Norman and the modernized RFC Tulsa during the next year.

Ohio RFC HAS Risk Reduction—During fiscal year 1993 the HAS Quantitative Precipitation Forecast will continue to be evaluated.

Sterling—During fiscal year 1993, NWS will evaluate and document the results of the lightning/radar product testing which took place in fiscal year 1992. With the installation of the hardware and software components required to interface to the new radar, NWS will bolster work begun in fiscal year 1992 to use data from the NEXRAD at Sterling to produce more aviation-oriented hazardous weather products to add to ASOS reports. NWS will integrate several base data products produced by the NEXRAD with lightning network data to develop a Doppler radar/lightning product. NWS will test this product during the year.

Human Resources

NWS will continue to resolve staffing issues for the modernized and restructured NWS according to guidance provided by the DOC advisory committee for human resources issues.

6.3 Outlook for Fiscal Year 1994

The transition program's major objectives are to:

- Finish commissioning of MARD NEXRADs
- Prepare for delivery of AWIPS MARD systems
- Continue ASOS deliveries
- Continue systems training and scientific education
- Continue the OT&E.
- Complete installation of advanced super computer at NMC

Funding Requirements for Fiscal Year 1994

NWS and/or SPO need fiscal year 1994 funding to pay for:

- Continued deliveries of NEXRADs under a tri-agency contract. NWS will continue to modify and construct NEXRAD user sites to ensure sites are ready on the dates scheduled

- Operations and maintenance support of NEXRAD installations
- Full-scale production contract for ASOS and for NWS share of the central depot maintenance support operations and logistics
- Development phase of the AWIPS contract.
- Purchase and install an advanced super computer to permit the NMC to fully implement centralized forecast and mesoscale guidance products
- Contract for meteorological/computer experts to ensure efficient and effective use of the advanced super computer and supporting systems

The NWS Transition program will require funds in fiscal year 1994 to continue to:

- Supplement staffs at offices receiving NEXRADs with additional personnel to ensure no delays in NEXRAD commissioning
- Move more office and personnel than normally budgeted for by the NWS. These increased costs are directly related to the magnitude of the modernization program
- Reduce risks by deriving critical information needed to define, analyze and assess technical trade-offs and impacts on operations and services, and continue RFC prototyping and precipitation processing risk-reduction activities
- Develop and offer scientific education on the interpretation of new data sources, such as Doppler radar and mesoscale forecasting techniques which must be provided for meteorologists and hydrologists at NWS field offices
- Develop the NWR CRS
- Prepare for MARD; develop operational procedures and evaluation guidelines, and develop materials to help field staff explain program to external users of weather data.

6.4 Outlook for Fiscal Year 1995

In fiscal year 1995, the transition programs major objectives are to:

- Commission remaining ASOS systems
- Continue NEXRAD deliveries
- Continue OT&E activities at MARD area offices and begin the stable operations period in preparation for the MARD.
- Continue systems training and scientific education.

Funding Requirements for Fiscal Year 1995

NWS and/or SPO need fiscal year 1995 funding to pay for:

- Scheduled deliveries of NEXRADs under a tri-agency contract. NWS will continue to modify and construct NEXRAD sites to ensure they are ready on the dates scheduled
- Operations and maintenance support of NEXRAD installations
- Full-scale production contract for ASOS and to cover the NWS share of the central depot maintenance support operations and logistics
- Install, check and commission AWIPS at MARD sites. NWS expects a decision on full production of AWIPS.

The NWS Transition program will require funds in fiscal year 1995 to continue to:

- Add staff at offices receiving NEXRADs to ensure commissioning remains on schedule
- Support an increase in the number of office and personnel moves over that which NWS normally experiences. These increased costs are directly related to the magnitude of the modernization and associated restructuring program
- Reduce risks by deriving critical information needed to define, analyze and assess technical trade-offs and impacts on operations and services, and continue RFC prototyping and precipitation processing risk-reduction activities
- Develop and offer scientific education on the interpretation of new data sources, such as Doppler radar and mesoscale forecasting techniques, which must be provided for meteorologists and hydrologists at NWS field offices
- Continue development the NWR CRS.

6.5 Notification of Proposed Actions to Change Operations and of Intent to Certify

In accordance with Public Law 102-567, Table 6, which begins on Page 68, sets forth the anticipated dates for proposed actions to change operations at and to certify field offices during fiscal years 1994 and 1995 (October 1, 1993 through September 30, 1995). These tables are notification of these events as required by Sections 703 and 705 of the Public Law. To provide a more complete picture of the transition, the tables also identify actions occurring in fiscal year 1993 and actions affecting NWS offices not included as field offices under the law and therefore not subject to these notification requirements.

In addition, the modernization of the Nation's weather services includes the fielding of FAA-sponsored ASOSs and of DOD- and FAA-sponsored NEXRADs, data from which will be utilized by the NWS. The reader is referred to Appendix D for a listing of these ASOSs and NEXRADs.

Table 5:
MODERNIZATION BUDGETS (Fiscal Year 1993 - 1995)

	FY 93	FY 94	Planning Level FY 95
MODERNIZATION INITIATIVES ($M)			
NEXRAD	84.5	123.5	56.6
ASOS	18.0	18.1	10.0
AWIPS/NOAAPORT	23.8	43.6	46.6
SATELLITE UPGRADE (GOES)	118.0	182.7	151.6
CENTRAL COMPUTER FACILITY UPGRADE	7.8	14.6	13.9
NWS TRANSITION (MARDI)	23.3	75.8	84.9
WFO FACILITIES	49.3	62.8	14.7
HUMAN RESOURCES (FTE)			
NWS BASE	4602	4619	4619
STAFFING AUGMENTATION	140	454	597
	4742	5073	5216
RESEARCH ($M)			
ERL	12.1	12.1	12.1
NWS	9.0	9.0	9.0
NESDIS	8.5	8.5	8.5

Figure 6:

FACILITIES PREPARATION SCHEDULE

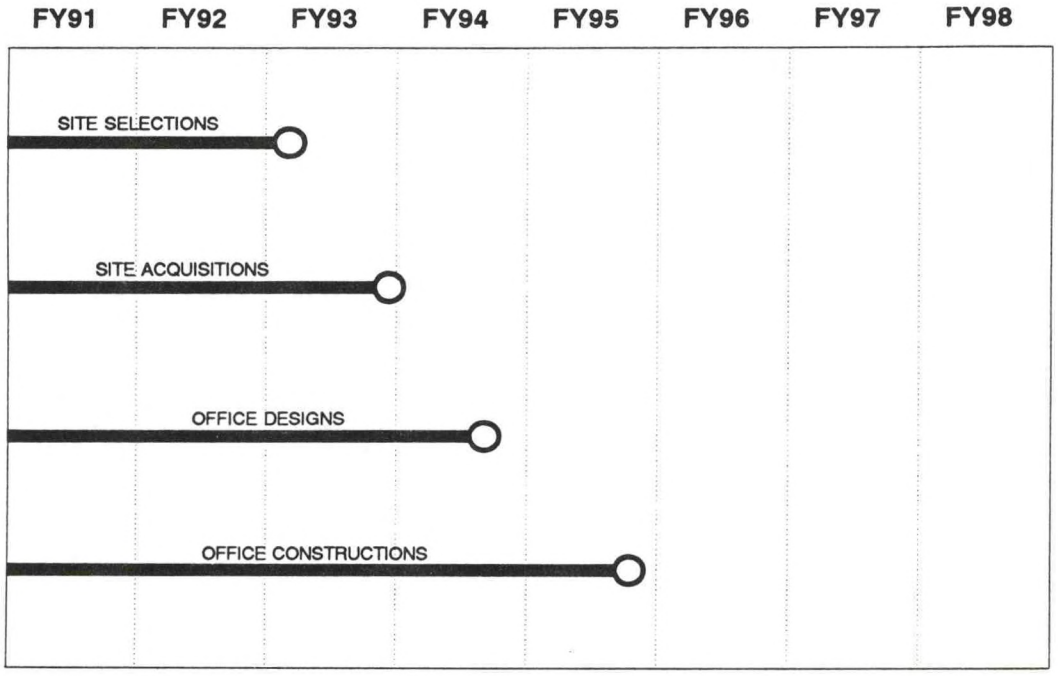


Figure 7:

NEXRAD SCHEDULE

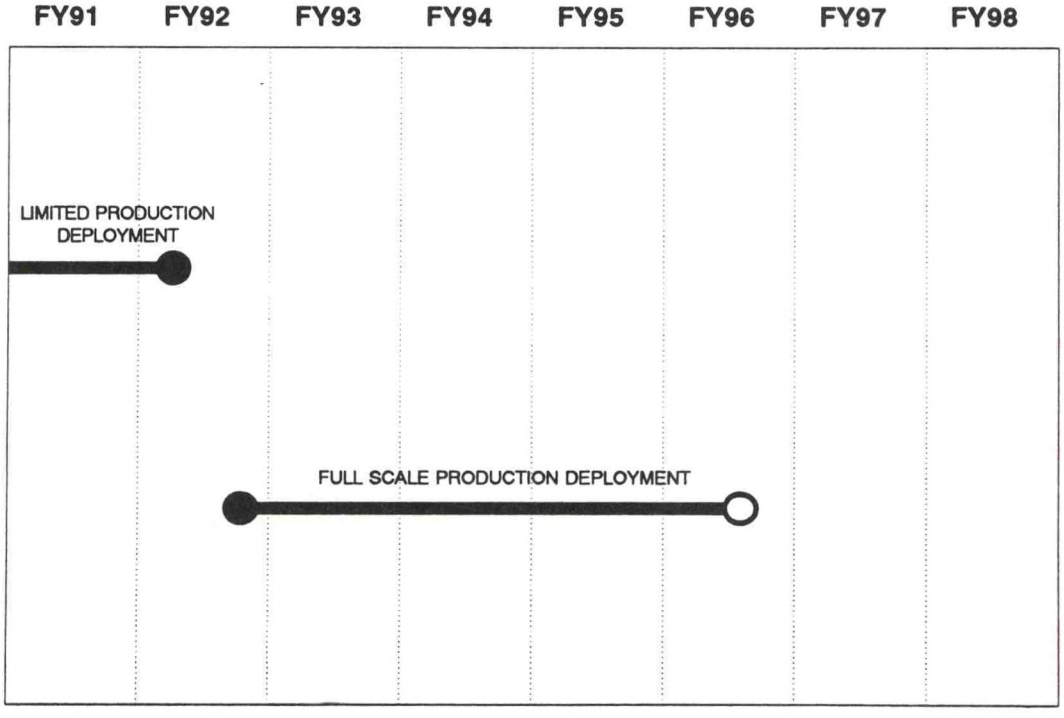


Figure 8:

ASOS SCHEDULE

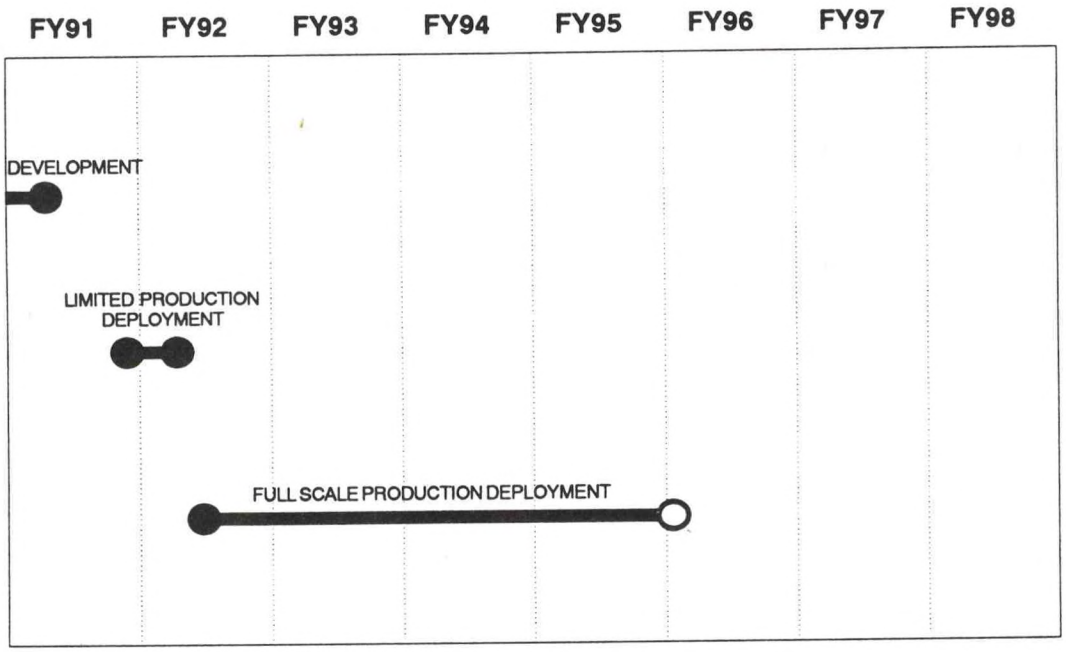


Figure 9:

AWIPS/NOAAPORT SCHEDULE

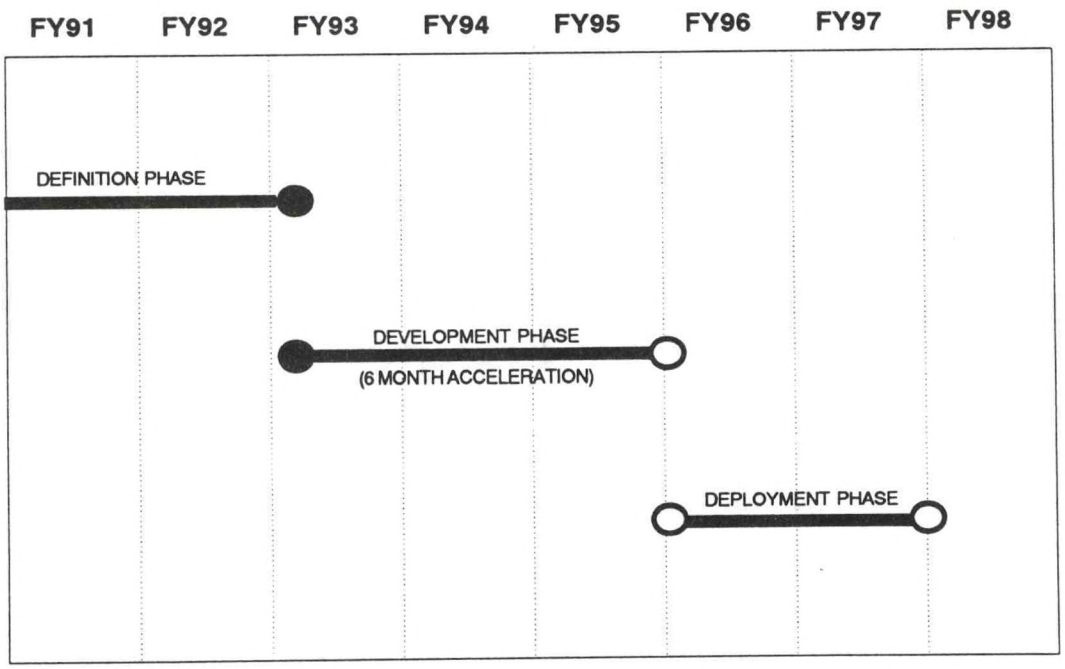


Figure 10:

SATELLITE UPGRADE SCHEDULE

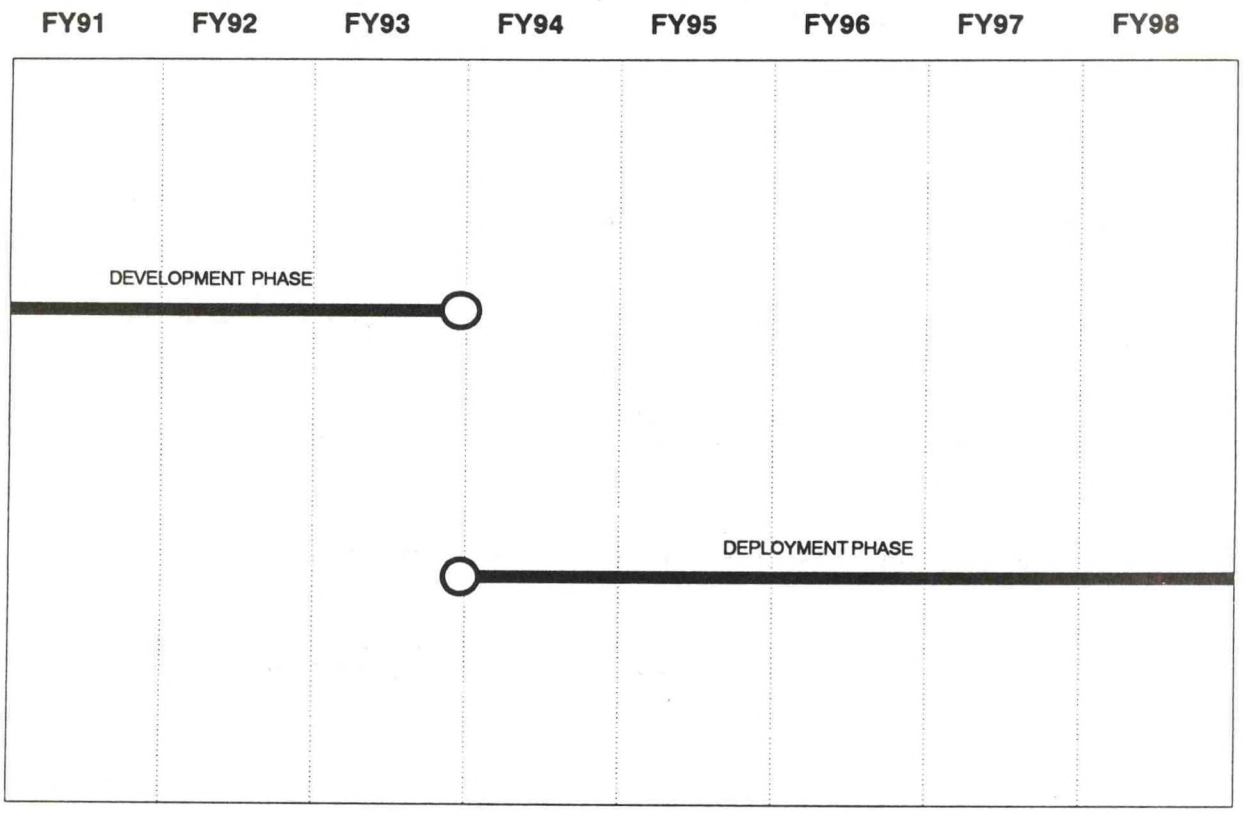


Figure 11:

NATIONAL CENTER COMPUTER UPGRADE SCHEDULE

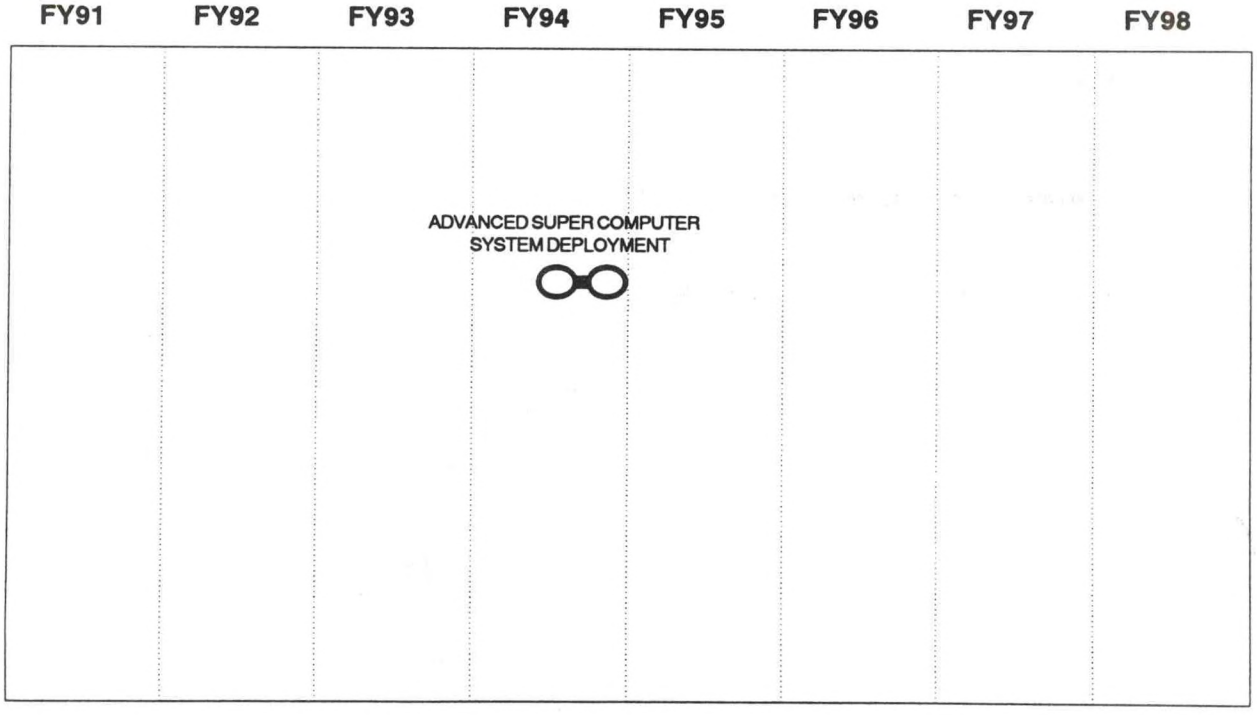


Figure 12:

SCIENTIFIC EDUCATION AND PROFESSIONAL DEVELOPMENT SCHEDULE

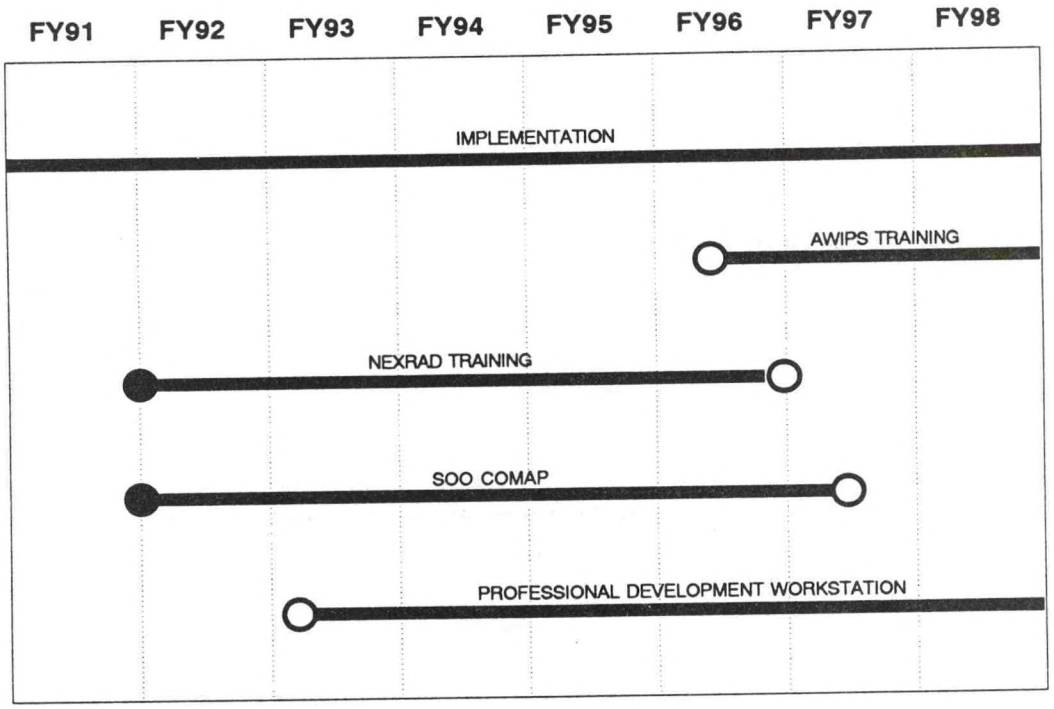


Figure 13:

MARD SCHEDULE

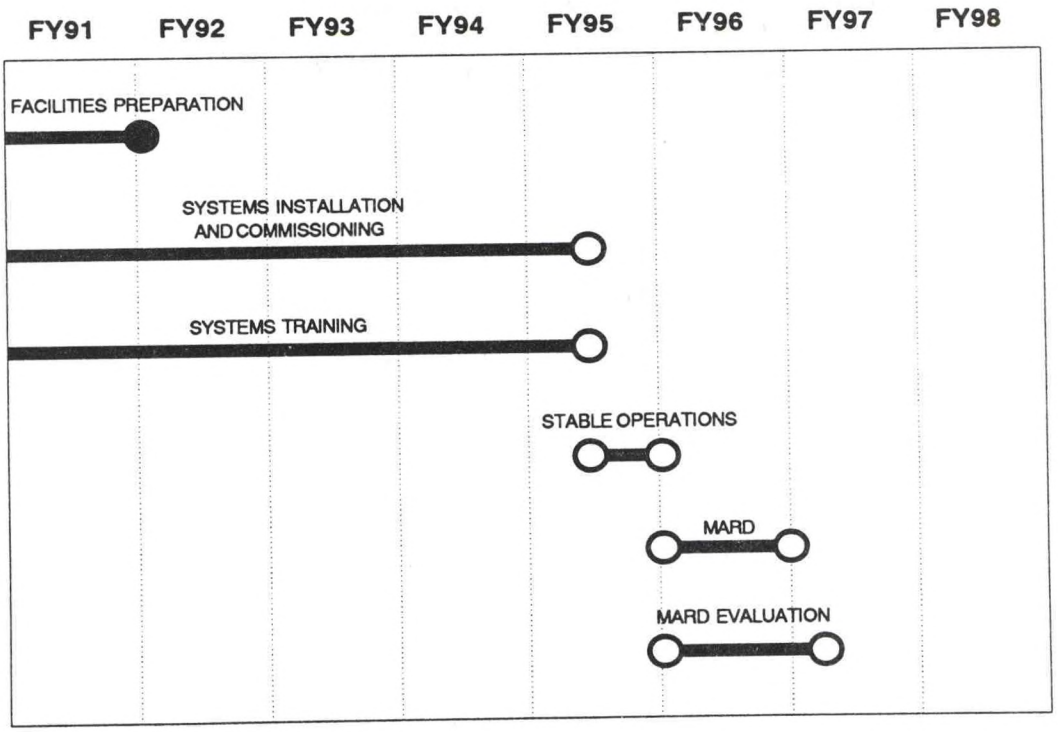


Figure 14:

ERL RESEARCH PROGRAM SCHEDULE

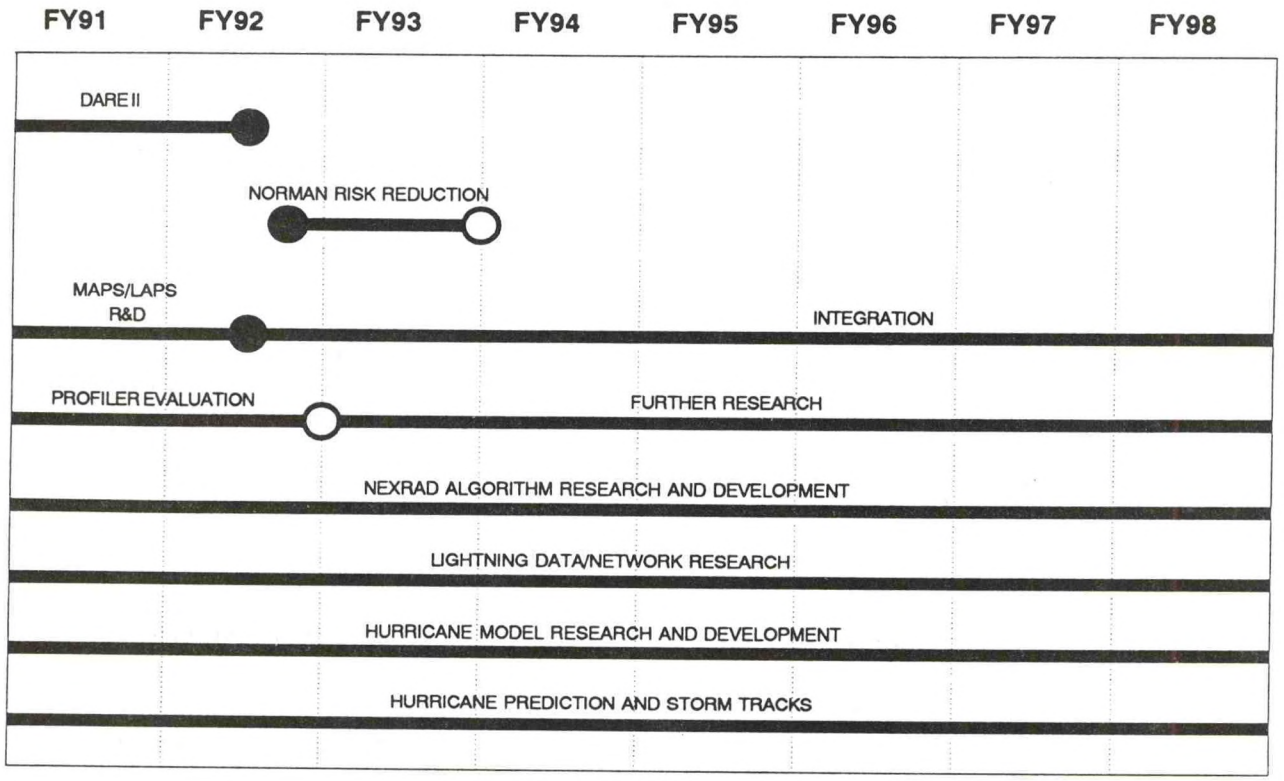


Figure 15:

NWS RESEARCH PROGRAM SCHEDULE

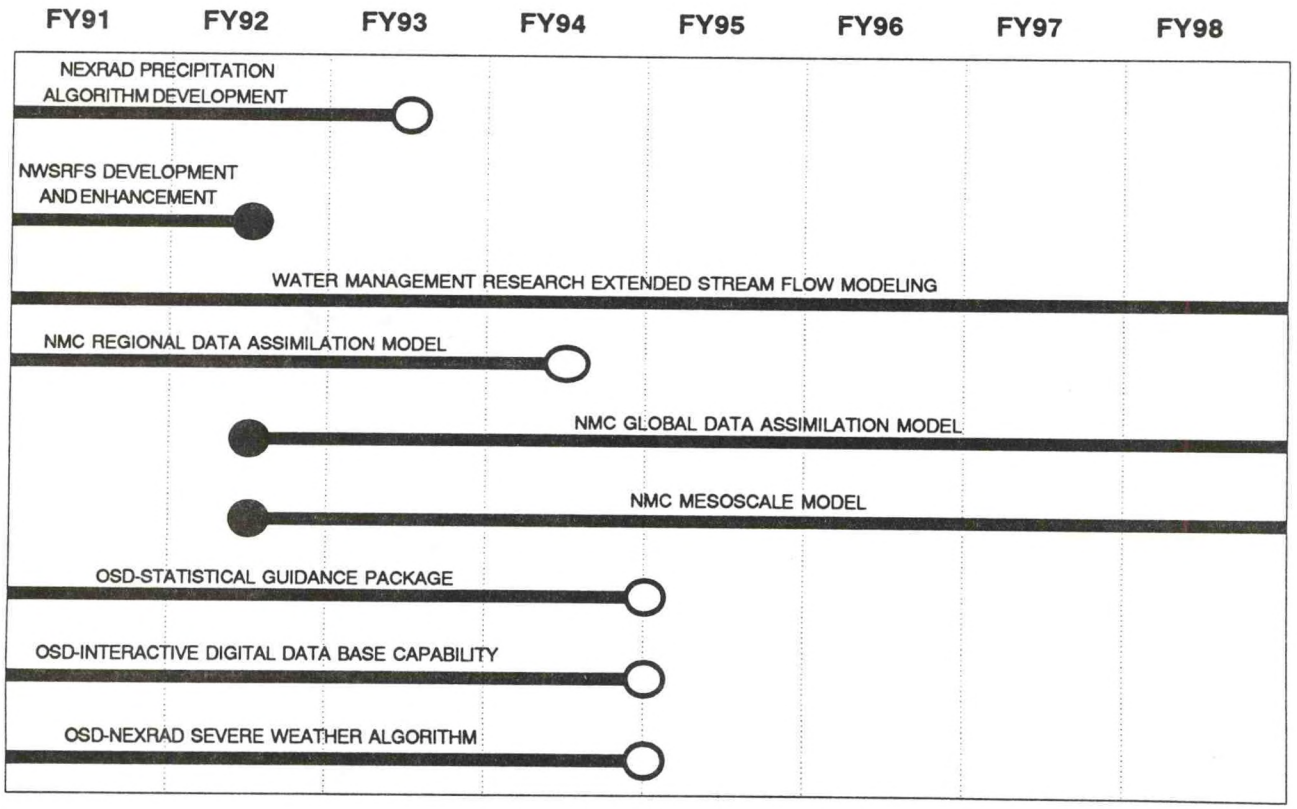


Figure 16:

NESDIS RESEARCH PROGRAM SCHEDULE

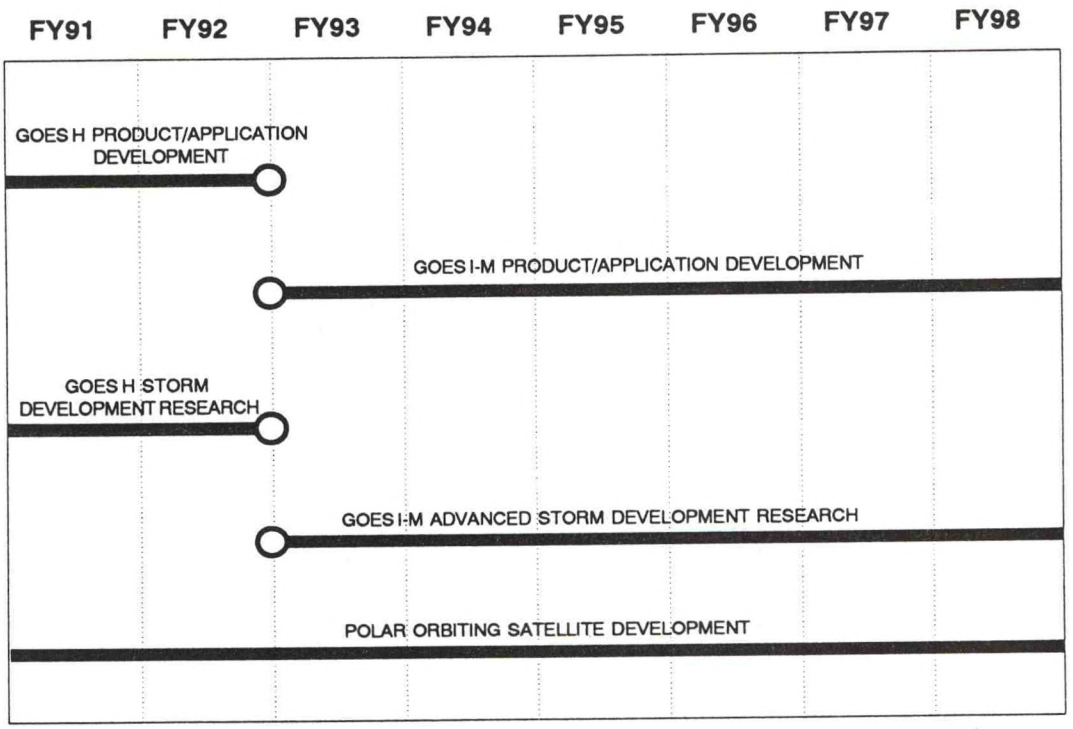


TABLE 6

Notifications To Take Actions to Change Operations at Field Offices And of the Intent to Certify Field Offices

This table provides the notifications, as required by Sections 703 and 705 of Public Law 102-567, of actions anticipated to occur during fiscal years 1994 and 1995 to change operations at field offices and of the intent to certify field offices, i.e., Weather Service Forecast Offices (WSFO) and Weather Service Offices (WSOs). To provide a more complete picture of the transition, the table also identifies actions occurring in fiscal year 1993. These notifications are organized by state and within each state by the Weather Forecast Offices (WFO) that eventually will be providing service to the state. WFOs are identified by name in bold letters followed by an indication of the type of field office that is transitioning, e.g., **GRAND RAPIDS, MI** (WSO to WFO), **BIRMINGHAM, AL** (WSFO to WFO); or an indication that the WFO is a newly established office, e.g., **MELBOURNE, FL** (New WFO).

All current NWS offices associated with a given WFO are identified whether or not they are included as field offices under the law. Offices included under the law are:

- **WSFOs and WSOs** that will eventually become WFOs.
- **WSOs** that will phase down and/or eventually close.
- **"Residual" WSOs** created, during the transition of a number of WSFOs, to temporarily maintain radar and/or surface observations at the transitioning WSFO's current location after transfer of its other service functions to the future WFO.

Offices that are not included under the law and that therefore do not require notifications of actions to change operations at field offices or of the intent to certify are:

- **Weather Service Meteorological Offices (WSMO)** at which one or more changes will occur, such as commissioning an ASOS, decommissioning a current radar, and decreasing staff.
- **Weather Service Contract Meteorological Offices (WSCMO)** at which an ASOS commissioning will occur. Decreases

of staff are not reported as no NWS staff is involved.

- **River Forecast Centers (RFC).** There are 13 such offices, each to be collocated with a WFO. These offices are listed immediately following the WFO with which it is associated. Its listing is at the same level as that of the WFO and is in the format of the WFO name followed by the name of the RFC, e.g., SACRAMENTO, CA California-Nevada RFC. The changes associated with these offices are the move to (occupy) the RFC facility (such moves may be independent of the move to the WFO portion of the facility), the commissionings of an RFC's non-associated NEXRAD Principal User Processor (PUP) and AWIPS, and significant staffing increases.

Notifications. Notifications, as indicated above, are of actions to change operations at field offices and of the intent to certify field offices. These notifications are as discussed below.

A. **Actions to Change Operations.** Notifications of these actions are presented under the following column headings:

- **Occupy (Move to) Facility.** These entries provide notification of the anticipated date that the facility of a future WFO or RFC will first be occupied.
  - For a WFO, occupancy will result from a change in operations at a field office due to the:
    - Move of an entire field office, including personnel and equipment, from its current facility to the facility of the future WFO located within the field office's commuting and service area.
    - Transfer of a portion of a WSFO, i.e., personnel and equipment associated with the delivery of forecast and warning services and its administrative functions as a WSFO, from the current office location to the facility of the future WFO.
    - Filling of newly created positions at a "new" WFO.
  - For an RFC, occupancy is a result of a current RFC moving into its new facility.
- **Systems Commissioned.** These entries provide notifications of the anticipated dates of:
  - The commissioning of an ASOS, NEXRAD or AWIPS at a given office.

- In the case of the NEXRAD Program, the commissioning of individually delivered associated PUPs (APUP) to selected WFOs, or non-associated PUPs (NPUP) to RFCs. (APUPs are those that provide dedicated access, by means of a direct communication link, to a DOD or FAA NEXRAD. NPUPs are those which allow RFCs to access any NEXRAD in the network by means of a dial-up communications link).

Note that "88D" will be used to indicate the commissioning of a complete NEXRAD.

- **NWS Radar Decommissioning.** These entries provide notifications of the anticipated dates of the decommissioning of existing NWS radars as a result of the commissioning of one or more NEXRADs.

- **Service Transfer.** These entries provide notification of the anticipated dates of transferring:

  - Warning responsibilities from a non-NEXRAD WSO to its associated future WFO as a result of the commissioning of a NEXRAD.
  - Forecast and warning responsibilities from a non-NEXRAD WSFO to the facility of its future WFO.
  - Forecast and warning responsibilities from a NWSFO to a NWSO.
  - Remaining service responsibilities from a non-NEXRAD WSO to its associated WFO as a result of the commissioning of an AWIPS at the WFO.

- **Significant Staff Change.** These entries provide notification of the anticipated dates of:

  - An increase in staff at WFOs associated with the anticipated delivery of NEXRADs or AWIPS and at RFCs, with the delivery of individual NPUPs.
  - A decrease in staff, at WSFOs at which a two step transition is required (see residual office above), corresponding to the transition of forecast and warning responsibilities from the current location of the WSFO to its new location at the facility of the future WFO.
  - A decrease in staff associated with commissioning an ASOS and cessation of manual surface observations. Such decreases are noted for non-NEXRAD WSOs (by law) and at WSMOs for completeness in describing NWS staff changes. Such decreases at non-NEXRAD WSOs require prior certification for automation.
  - A decrease in staff associated with the transfer of warning responsibilities as a result of the commissioning of a NEXRAD and the subsequent decommissioning of an associated current NWS radar. Such decreases are noted at non-NEXRAD WSOs (by law) and at WSMOs for completeness in describing NWS staff

changes. Such decreases at non-NEXRAD WSOs require prior certification for consolidation.

- A decrease in staff associated with the transfer of remaining service responsibilities at non-NEXRAD WSOs as a result of the commissioning of an AWIPS at its WFO. Such decreases require prior certification for closure.

B. Actions Requiring Certification. Notifications of the intent to certify are presented under the following column headings:

- **Automation.** These entries provide the date anticipated for the publication, in the *Federal Register*, of the final certification to replace employees with automated weather service equipment.

- **Consolidation.** These entries provide the date anticipated for the publication, in the *Federal Register*, of the final certification to transfer or reassign weather service personnel from one field office to another field office as the result of the decommissioning of a current NWS radar and/or the transfer of a service responsibility.

- **Relocation.** These entries provide the date anticipated for the publication, in the *Federal Register*, of the final certification to move a field office outside of its current commuting or service area for the purpose of locating in the facility of the future WFO. A notification of a proposed move is coincident with such a certification.

- **Closure.** These entries provide the date anticipated for the publication, in the *Federal Register*, of the final certification to close a field office by transferring or reassigning all of its weather services. Such a certification will be preceded by the commissioning of an AWIPS at the WFO associated with the field office and by appropriate notifications. By law, no closures can occur before January 1, 1996 and therefore are not included in this table.

Conventions Used in Table: The following conventions are used to provide required notifications and clarifying information:

- **Notifications Within Reporting Period.** Notifications anticipated to occur during the reporting period are listed with a month and year (e.g., 06/93) in the appropriate action and certification column(s) for the office. In the case of actions to change operations by the commissioning of a system, the type of system being commissioned is included with the anticipated commissioning date, e.g., ASOS 11/92.

- **Notifications Beyond Current Reporting Period.** Notifications anticipated to occur after fiscal year 1995 are indicated by asterisks.

- **Shading**. Shading indicates that an action or certification is not applicable to a given office.

- **Additional Information**. Footnotes are used to clarify actions or certifications and to provide information on transition activities not covered by the Public Law.

Changes to Anticipated Notification Dates. Proposed actions or certifications occurring within the period during which the approved NIP is authoritative (i.e., actions/certifications, contained in the current NIP, anticipated to occur before congressional approval of the next NIP, approximately February 1994) will, in general, not occur earlier than the date given. For actions or certifications that require the advancement of a date, before the issuance of the next NIP, NWS will provide special notifications to Congress through an amendment to the schedule.

STATE OF ALABAMA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Alabama will result in services being provided by two in-state WFOs (Birmingham and Mobile) and the WFO in Tallahassee, Florida, that will provide service to five counties in southeastern Alabama. WFO Birmingham also will provide service to four counties in Georgia, and WFO Mobile to three counties in western Florida and five counties in southeastern Mississippi.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BIRMINGHAM, AL (WSFO to WFO)	10/93	88D 01/95 APUP 09/93[1]		01/95	12/93				
•WSO Columbus, GA		ASOS 06/93	*	01/95		01/94	01/94	*	
•WSO Huntsville, AL		ASOS 07/93	03/95	01/95		06/95	01/94	06/95	
•WSO Meridian, MS		ASOS 08/93	*	01/95		*	01/94	*	
•WSO Montgomery, AL		ASOS 08/93	*	01/95		*	01/94	*	
•WSMO Centreville, AL			03/95			06/95			

1. WFO Birmingham will also use, by means of an associated PUP (APUP), data from the DOD East Alabama WSR-88D.

STATE OF ALABAMA (Page 2 of 2)

OFFICES	PROPOSED ACTION						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
MOBILE, AL (WSO to WFO).	11/93	88D 09/95 ASOS 07/94	09/95[1]	09/95	08/94				
•WSO Meridian, MS		ASOS 08/93	*	09/95		*	01/94	*	
•WSO Montgomery, AL		ASOS 08/93	*	09/95		*	01/94	*	
•WSO Pensacola, FL			*	09/95		*		*	
WFOs Out of State:									
TALLAHASSEE, FL (WSO to WFO)	09/94	88D 09/95 ASOS 07/94		09/95	08/94				
•WSO Montgomery, AL		ASOS 08/93	*	09/95		*	01/94	*	

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF ALASKA (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Alaska will result in services being provided by three in-state WFOs (Anchorage, Fairbanks and Juneau).

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ANCHORAGE, AK (WSFO to WFO)	03/95[1]	First APUP 7/94[2] Remaining APUP*		*	02/95				
•WSO Bethel, AK (WSO to DCO)[3]		ASOS 11/94		*					
•WSO Cold Bay, AK (WSO to DCO)		ASOS 10/93		*		*[4]	*	*	
•WSO Homer, AK		ASOS 10/93		*		*[4]	*	*	

1. The entire WSFO will move to the facility of the future WFO located in the WSFO's current commuting and service areas.
2. There will be four associated PUPs (APUPs) at Anchorage, one each connected to FAA WSR-88Ds at Anchorage, Bethel, King Salmon, and Middleton. Assuming that the FAA commissions its Anchorage WSR-88D in May 1994, NWS will commission its corresponding APUP in July 1994. The FAA will commission its remaining WSR-88Ds after fiscal year 1995.
3. No change in staffing will occur at this office.
4. No change in staffing will occur at these offices until the commissioning of an AWIPS at the Anchorage WFO.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
ANCHORAGE, AK (cont.)									
•WSO King Salmon, AK[1] (WSO to DCO)		ASOS 10/93		*					
•WSO Kodiak, AK (WSO to DCO)		ASOS 09/93		*		*[2]	*	*	
•WSO McGrath, AK (WSO to DCO)		ASOS 11/93		*		*[2]	*	*	
•WSO St. Paul Island, AK (WSO to DCO)		ASOS 10/93		*		*[2]	*	*	
•WSO Valdez, AK				*		*[2]		*	
•WSCMO Anchorage, AK		ASOS 11/93							
•WSCMO Talkeetna, AK		ASOS 12/93							
ANCHORAGE, AK Alaska RFC	03/95	NPUP 08/94			02/95				

1. No change in staffing will occur at this office.
2. No change in staffing will occur until the commissioning of an AWIPS at the Anchorage WFO.

STATE OF ALASKA (Page 3 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
FAIRBANKS, AK (WSFO to WFO)	05/95[1]	First APUP 07/94[2] Remaining APUP*			05/95				
•WSO Barrow, AK (WSO to DCO)		ASOS 11/94		*		*[4]	02/95	*	
•WSO Fairbanks, AK		ASOS 11/93		*		*[4]	*		
•WSO Kotzebue, AK (WSO to DCO)[3]		ASOS 11/94		*			02/95	*	
•WSO Nome, AK (WSO to DCO)		ASOS 11/94		*		*[4]	02/95	*	
•WSO Unalakleet, AK				*		*[4]		*	
JUNEAU, AK (WSFO to WFO)	*[1]	APUP *[5]			04/95				
•WSO Annette, AK (WSO to DCO)		ASOS 11/93		*		*[6]	*	*	
•WSO Yakutat, AK (WSO to DCO)		ASOS 11/93		*		*[6]	*	*	

1. The entire WSFO will move to the facility of the future WFO located in the WSFO's current commuting and service areas.
2. There will be two associated PUPs (APUPs) at Fairbanks, one each connected to FAA WSR-88Ds at Fairbanks and Nome. Assuming that the FAA commissions its Fairbanks WSR-88D in May 1994, NWS will commission its corresponding APUP in July 1994. The FAA will commission its remaining WSR-88D in Nome after fiscal year 1995.
3. No change in staffing will occur at this office.
4. There will be no change in staffing until the commissioning of an AWIPS at the Fairbanks WFO.
5. There will be one associated PUP (APUP) at Juneau connected to an FAA WSR-88D in Sitka.
6. There will be no change in staffing until the commissioning of an AWIPS at the Juneau WFO.

STATE OF ARIZONA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Arizona will result in services being provided by three in-state WFOs (Flagstaff, Phoenix and Tuscon) and one WFO in Las Vegas, Nevada. WFO Las Vegas will provide services to one county in northwestern Arizona. WFO Phoenix will also provide services to two counties in California.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
FLAGSTAFF, AZ (New WFO)	02/95	88D *		*	04/95				
•WSO Flagstaff, AZ		ASOS 07/94		*		*	10/94	*	
•WSO Palmdale, CA				*		*		*	
•WSO Winslow, AZ[1]		ASOS 07/94		*		*		*	

1. No surface observations currently taken at this site.

STATE OF ARIZONA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
PHOENIX, AZ (WSFO to WFO)	04/91	88D 10/93 88D*[1]		10/93	09/92				
•WSO Phoenix, AZ		ASOS 10/93	12/93			02/94	02/94	03/94	
•WSO Palmdale, CA				*[2]		*		*	
•WSO Riverside (AG & FW), CA				*[3]		*		*	
•WSO Yuma, AZ				*[2]		*		*	
TUCSON, AZ (New WFO)	09/94	88D *	*	*	12/94				
•WSO Tucson, AZ		ASOS 08/95		*		*	*	*	
WFOs Out of State:									
LAS VEGAS, NV (New WFO)	12/94	88D *		*	03/95				

1. A second WSR-88D, located in the vicinity of Yuma, AZ, will be operated out of the Phoenix WFO.
2. Service transfer dependent on commissioning of Yuma WSR-88D.
3. Service transfer will take place upon the commissioning of an AWIPS at WFO Phoenix.

STATE OF ARKANSAS (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Arkansas will result in services being provided by one in-state WFO (Little Rock) and WFOs located in Jackson, Mississippi; Memphis, Tennessee; Shreveport, Louisiana; and Tulsa, Oklahoma. WFO Shreveport will provide services to nine counties in Arkansas; WFO Jackson will provide services to two counties in Arkansas; WFO Memphis will provide services to 12 counties in northeastern Arkansas; and WFO Tulsa will provide services to six counties in northwestern Arkansas.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
LITTLE ROCK, AR (WSFO to WFO)	12/92	88D 10/93	12/93	10/93	09/92				
•WSO Fort Smith, AR		ASOS 08/93	02/94	10/93		05/94	01/94	05/94	
WFOs Out of State:									
JACKSON, MS (WSFO to WFO)	02/93	88D 11/93 ASOS 05/93	11/93[1]	11/93	10/92				

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF ARKANSAS (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
MEMPHIS, TN (WSFO to WFO)	06/93	88D 06/94	08/94	06/94	05/93				
SHREVEPORT, LA (WSO to WFO)	11/94	88D * ASOS 10/93	*	*	10/94				
TULSA, OK (WSO to WFO)	02/92	88D 12/93		12/93	12/92				
•WSO Fort Smith, AR		ASOS 08/93	02/94	12/93		05/94	01/94	05/94	

STATE OF CALIFORNIA (Page 1 of 5)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in California will result in services being provided by six in-state WFOs (Eureka, Los Angeles, Sacramento, San Diego, San Francisco Bay Area and San Joaquin Valley) and out-of-state WFOs located in Las Vegas, Nevada; Medford, Oregon; Phoenix, Arizona; and Reno, Nevada. WFO Las Vegas will provide services to two counties in southern California; WFO Phoenix, to two counties in California; WFO Reno, eight counties in eastern California, and WFO Medford, two counties in northern California.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
EUREKA, CA (WSO to WFO)	09/94	88D 08/95		08/95	07/94				
•WSO Redding (FW), CA				08/95		*		*	

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
LOS ANGELES, CA (WSFO to WFO)	09/93[2]	88D 10/94 APUP 10/93[3]		09/93[2] 10/94	09/93[1]	09/93[2]			
•Residual WSO Los Angeles, CA[2]			12/94			03/95		03/95	
•WSO Los Angeles (AV), CA		ASOS 01/95				03/95	03/95		
•WSO Palmdale, CA				10/94		*		*	
•WSO Riverside (AG & FW), CA				*[4]		*		*	
•WSO Santa Maria, CA		ASOS 08/93		10/94[5]		01/95	01/94	01/95	
•WSCMO Long Beach, CA		ASOS 12/93							

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Radar observation function retained at original WSFO location and office redesignated a residual WSO.
3. WFO Los Angeles also will use, by means of an associated PUP (APUP), data from the DOD WSR-88D at Vandenberg AFB.
4. Service transfer will take place upon commissioning of an AWIPS at WFO Los Angeles.
5. Agricultural forecast service will transition upon the commissioning of an AWIPS at WFO Los Angeles.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
SACRAMENTO, CA (WSO to WFO)	05/94	88D 10/94 APUP 08/95[1]	12/94	10/94	09/93				
•WSO Redding (FW), CA				10/94		*		*	
•WSO Stockton, CA		ASOS 07/93							
•WSCMO Blue Canyon, CA		ASOS 01/93							
SACRAMENTO, CA California-Nevada RFC	05/94	NPUP 12/94			06/94				
SAN DIEGO, CA (New WFO)	02/95	88D *		*	02/95				
•WSO Palmdale, CA				*		*		*	
•WSO Riverside (AG & FW) , CA				*[2]		*		*	
•WSO San Diego, CA		ASOS 01/95		*		04/95	04/95	*	
•WSCMO San Diego, CA									

1. WFO Sacramento also will use, by means of an associated PUP (APUP), data from the DOD WSR-88D at Beale AFB.
2. Service will be transferred upon the commissioning of an AWIPS at WFO San Diego.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
SAN FRANCISCO BAY AREA, CA (WSFO to WFO)	01/94	88D 11/94		11/94	10/93				01/94
•WSO Riverside (AG & FW), CA				*[1]		*		*	
•WSO San Francisco (AV), CA		ASOS 01/95				04/95	04/95		
•WSO Palmdale, CA				11/94		*		*	
•WSO Santa Maria, CA		ASOS 08/93		11/94[2]		01/95	01/94	01/95	
•WSCMO Oakland, CA									
SAN JOAQUIN VALLEY, CA (New WFO)	10/94	88D *		*	10/94				
•WSO Bakersfield, CA		ASOS 07/93		*		01/94	01/94	*	
•WSO Fresno, CA		ASOS 12/94		*		*	03/95	*	
•WSO Palmdale, CA				*		*		*	
•WSO Riverside (AG & FW), CA				*[3]		*		*	

1. Service will be transferred upon commissioning of an AWIPS at WFO San Francisco.
2. Agricultural forecast service will be transferred upon the commissioning of an AWIPS at WFO San Francisco.
3. Agricultural forecast service will be transferred upon the commissioning of an AWIPS at WFO San Joaquin Valley.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
LAS VEGAS, NV (New WFO)	12/94	88D *		*	12/94				
•WSO Palmdale, CA				*		*		*	
•WSO Riverside (AG & FW), CA				*[1]		*		*	
MEDFORD, OR (WSO to WFO)	11/94	88D * ASOS 10/94	*[2]	*	04/95				
•WSO Redding (FW), CA				*		*		*	
PHOENIX, AZ (WSFO to WFO)	04/91	88D 10/93		10/93	09/92				
•WSO Palmdale, CA				10/93		*		*	
•WSO Riverside (AG & FW), CA				*[3]		*		*	
RENO, NV (WSFO to WFO)	07/94	88D 05/95		05/95	04/94				
•WSO Redding (FW), CA				05/95		*		*	

1. Service transfer will take place upon the commissioning of an AWIPS at WFO Las Vegas.
2. The current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.
3. Service will be transferred upon the commissioning of an AWIPS at WFO Phoenix.

STATE OF COLORADO (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Colorado will result in services being provided by three in-state WFOs (Denver/Boulder, Grand Junction and Pueblo) and one WFO in Goodland, Kansas. WFO Goodland will provide services to three counties in eastern Colorado. WFO Grand Junction will also provide services to two counties in eastern Utah.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
DENVER/BOULDER, CO (WSFO to WFO)	03/95[2]	88D 01/94		03/95[2] 01/94	12/90[1]	03/95[2]			
•Residual WSO Denver, CO[2]		ASOS 10/93				01/94	01/94		
•WSO Colorado Springs, CO		ASOS 11/92		01/94		*	01/94	*	
•WSMO Limon, CO		ASOS 12/94	09/95			*			

1. Meteorologists positions for WSR-88D operation filled; training begun.
2. Forecast and warning services of the transitioning WSFO transferred to facility of future WFO. Surface observation functions retained at original WSFO location and office redesignated a residual WSO.

STATE OF COLORADO (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
GRAND JUNCTION, CO (WSO to WFO)	05/95	88D * ASOS 12/94		*	05/95				
•WSO Alamosa, CO		ASOS 09/92		*		*	01/94	*	
PUEBLO, CO (WSO to WFO)	07/94	88D 07/95 ASOS 10/92		07/95	06/94				
•WSO Alamosa, CO		ASOS 09/92		07/95		*	01/94	*	
•WSO Colorado Springs, CO		ASOS 11/92		07/95		*	01/94	*	
•WSMO Limon, CO		ASOS 12/94	09/95			*			
WFOs Out of State:									
GOODLAND, KS (WSO to WFO)	11/89	88D 10/93 ASOS 09/92	12/93	10/93	05/92				
•WSO Colorado Springs, CO		ASOS 11/92		10/93		*	01/94	*	

STATE OF CONNECTICUT (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Connecticut will result in services being provided by WFOs located in Albany, New York; Boston, Massachussetts and New York City, New York. WFO Boston will provide services to four counties in Connecticut; WFO Albany, one county in Connecticut and one in Massachusetts and two counties in Vermont; and WFO New York to four counties in southern Connecticut.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
NONE									
WFOs Out of State:									
ALBANY, NY (WSFO to WFO)	06/93	88D 06/94		06/94	05/93				
•WSO Hartford, CT		ASOS 10/93	08/94	06/94		11/94	01/94	11/94	
BOSTON, MA (WSFO to WFO)	05/93	88D 06/94		06/94	05/93				
•WSO Hartford, CT		ASOS 10/93	08/94	06/94		11/94	01/94	11/94	

STATE OF CONNECTICUT (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
NEW YORK CITY, NY (WSFO to WFO)	06/93	88D 05/94		05/94	04/93				
•WSO Bridgeport, CT		ASOS 04/95		05/94		07/95	07/95	08/94	
•WSO Hartford, CT		ASOS 10/93	08/94	05/94		11/94	01/94	11/94	

STATE OF DELAWARE (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Delaware will result in services being provided by one WFO located in Philadelphia, Pennsylvania.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
NONE									
WFOs Out of State:									
PHILADELPHIA, PA (WSFO to WFO)	06/93	88D 05/94		05/94	04/93				
•WSO Wilmington, DE		ASOS 10/93		05/94		08/94	01/94	08/94	

DISTRICT OF COLUMBIA (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services will result in services for the District of Columbia provided by the Baltimore, MD/Washington, DC, WFO located in Sterling, Virginia.

Notifiable actions projected to occur in fiscal years 1993 through 1995 are indicated below.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs out of District of Columbia:									
BALTIMORE, MD/ WASHINGTON, DC (WSFO to WFO)	12/89	88D 06/93		06/93	03/91				

STATE OF FLORIDA (Page 1 of 4)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Florida will result in services being provided by five in-state WFOs (Jacksonville, Melbourne, Miami, Tallahassee and Tampa Bay Area) and one WFO located in Mobile, Alabama. WFO Mobile will provide services to three counties in western Florida. WFO Jacksonville will also provide services to 14 counties in southeastern Georgia; WFO Tallahassee, 25 counties in southeastern Georgia and five counties in southeastern Alabama.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs in State:									
JACKSONVILLE, FL (WSO to WFO)	09/94	88D 09/95 ASOS 07/94		09/95	08/94				
•WSO Daytona Beach, FL		ASOS 07/93	*	09/95		01/94	01/94	*	
•WSO Savannah, GA		ASOS 07/94	*	09/95		*	10/94	*	
•WSMO Waycross, GA			*			*			

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
MELBOURNE, FL (New WFO)	01/89	88D 06/93		06/93	05/91				
•WSO Daytona Beach, FL		ASOS 07/93	*	06/93		01/94	01/94	*	
•WSO Orlando, FL									
•WSO West Palm Beach, FL		ASOS 04/93	01/94	06/93		01/94	01/94	04/94	
•WSCMO Orlando, FL		ASOS 07/93							
MIAMI, FL (WSFO to WFO)	12/94[1]	88D 11/93 88D*[2]	Destroyed[3]	11/93	10/92				
•WSO Key West, FL		ASOS 07/94	*[4]	*		*	*	*	
•WSO West Palm Beach, FL		ASOS 04/93	01/94	11/93		01/94	01/94	04/94	
•WSCMO Miami, FL		ASOS 01/95							

1. The entire WSFO will move to the facility of the future WFO located in the WSFO's current commuting and service areas.
2. This radar, located at Key West, FL, will be operated out of the Miami WFO.
3. Radar was blown down during Hurricane Andrew, August 1992.
4. Current radar will be dismantled upon delivery of the WSR-88D at Key West to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF FLORIDA (Page 3 of 4)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
TALLAHASSEE, FL (New WFO)	09/94	88D 09/95 APUP 09/93[1]		09/95	08/94				
•WSO Tallahassee		ASOS 07/94				10/94	10/94		
•WSO Apalachicola, FL			*	09/95		*		*	
•WSO Columbus, GA		ASOS 06/93	*	09/95		01/94	01/94	*	
•WSO Macon, GA		ASOS 06/93	*	09/95		*	01/94	*	
•WSO Montgomery, AL		ASOS 08/93	*	09/95		*	01/94	*	
•WSO Pensacola, FL			*	09/95		*		*	
•WSO Savannah, GA		ASOS 07/94	*	09/95		*	10/94	*	
•WSMO Waycross, GA			*			*			
TAMPA BAY AREA, FL (WSO to WFO)	11/94	88D *	*[2]	*	10/94				
•WSCMO Tampa, FL		ASOS *							

1. WFO Tallahassee also will use data, by means of an associated PUP (APUP), from the DOD WSR-88D at Elgin AFB.
2. Current radar will be dismantled upon delivery of the WSR-88D at to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF FLORIDA (Page 4 of 4)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
MOBILE, AL (WSO to WFO).	11/93	88D 09/95 ASOS 07/94	09/95[1]	09/95	08/94				
•WSO Pensacola, FL			*	09/95		*		*	

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF GEORGIA (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Georgia will result in services being provided by one in-state WFO (Atlanta) and WFOs located in Birmingham, Alabama; Jacksonville, Florida; Columbia and Charleston, South Carolina; and Tallahassee, Florida. WFO Birmingham will provide services to four counties in Georgia. WFO Columbia will provide services to five counties in Georgia and WFO Charleston to 12 counties in northeast Georgia. WFO Jacksonville to 14 counties in southeast Georgia and WFO Tallahassee to 25 counties in southeast Georgia.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ATLANTA, GA (WSFO to WFO)	01/94[2]	88D 01/95 APUP 07/94[3]		01/94[2] 01/95	12/93[1]	01/94			
•Residual WSO Atlanta, GA[2]		ASOS 04/94	03/95			07/94	07/94	06/95	
•WSO Augusta, GA		ASOS 06/93	08/95	01/95		*	01/94	*	
•WSO Athens, GA		ASOS 06/93	03/95	01/95		01/94	01/94	06/95	
•WSO Chattanooga, TN		ASOS 12/93	09/95	01/95		03/94	03/94	*	

1. Meteorologists positions for WSR-88D operation filled; training begun.
2. Forecast and warning service of the transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.
3. WFO Atlanta also will use, by means of an associated PUP (APUP), data from the DOD WSR-88D at Robins AFB.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
ATLANTA, GA (cont.)									
•WSO Columbus, GA		ASOS 06/93	*	01/95		01/94	01/94	*	
•WSO Macon, GA		ASOS 06/93	*	01/95		*	01/94	*	
•WSO Savannah, GA		ASOS 07/94	*	01/95		*	10/94	*	
ATLANTA, GA Southeast RFC	01/94	NPUP 05/94			11/93				
WFOs Out of State:									
BIRMINGHAM, AL (WSFO to WFO)	10/93	88D 01/95		01/95	12/93				
•WSO Columbus, GA		ASOS 06/93	*	01/95		01/94	01/94	*	
CHARLESTON, SC (WSO to WFO)	08/94	88D 06/95 ASOS 12/94	08/95	06/95	09/94				
•WSO Augusta, GA		ASOS 06/93	08/95	06/95		*	01/94	*	
•WSO Savannah, GA		ASOS 07/94	*	06/95		*	10/94	*	
•WSMO Waycross, GA			*			*			

STATE OF GEORGIA (Page 3 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
COLUMBIA, SC (WSFO to WFO)	08/93	88D 08/94 ASOS 01/94	10/94	08/94	07/93				
•WSO Augusta, GA		ASOS 06/93	08/95	08/94		*	01/94	*	
JACKSONVILLE, FL (WSO to WFO)	09/94	88D 09/95 ASOS 07/94		09/95	08/94				
•WSO Savannah, GA		ASOS 07/94	*	09/95		*	10/94	*	
•WSMO Waycross, GA			*			*			
TALLAHASSEE, FL (WSO to WFO)	09/94	88D 09/95 ASOS 07/94		09/95	08/94				
•WSO Columbus, GA		ASOS 06/93	*	09/95		01/94	01/94	*	
•WSO Macon, GA		ASOS 06/93	*	09/95		*	01/94	*	
•WSO Savannah, GA		ASOS 07/94	*	09/95		*	10/94	*	
•WSMO Waycross, GA			*			*			

STATE OF HAWAII (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Hawaii will result in services being provided by one in-state WFO in Honolulu.[1]

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions, projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
HONOLULU, HI (WSFO to WFO)	11/94[3]	First APUP 09/94[4] Remaining APUPs*		11/94[3] 09/94 *	12/94[2]	11/94[3]			
•Residual WSO Honolulu, HI[3]		ASOS 01/94				11/94	04/94		

1. NWS will make no changes to its other Pacific Region offices: WSMO Aguna, Guam; WSO Chuuk; WSO Koror; WSO Majuno, Marshall Islands; WSO Pago Pago, American Samoa; WSO Pohnpei; WSO Wake Island; WSO Yap.
2. Meteorologists positions for WSR-88D operation filled; training begun.
3. Forecast and warning service of the transitioning WSFO transferred to facility of future WFO. Surface observation functions retained at original WSFO location and office redesignated a residual WSO.
4. There will be four associated PUPs (APUPs) at Honolulu, one each connected to FAA WSR-88Ds at Molokai, Kamuela, South Hawaii and South Kauai. Assuming that the FAA commissions its Molokai WSR-88D in July 1994, NWS will commission its corresponding APUP in September 1994. The FAA will commission its remaining three WSR-88Ds after fiscal year 1995.

STATE OF HAWAII (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
HONOLULU, HI (cont.)									
•WSO Hilo, HI (WSO to DCO)		ASOS 02/94		*		*[1]	05/94	*	
•WSO Kahului, HI		ASOS 02/94		*		*[1]	05/94	*	
•WSO Lihue, Kauai, HI (WSO to DCO)		ASOS 01/94		*		*[1]	04/94	*	
WFOs Out of State:									
NONE									

1. No decrease in staff will occur until the commissioning of the AWIPS at WFO Honolulu.

STATE OF IDAHO (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Idaho will result in services being provided by two in-state WFOs (Boise and Pocatello/Idaho Falls) and WFOs located in Missoula, Montana; Salt Lake City, Utah; and Spokane, Washington. WFO Missoula will provide service to four counties in western Idaho; WFO Salt Lake City to three counties in southern Idaho, and WFO Spokane to seven northern Idaho counties. WFO Boise also will provide services to three counties in Oregon.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BOISE, ID (WSFO to WFO)	07/93	88D 07/94 ASOS 11/94		07/94	06/93				
•WSO Twin Falls (AG), ID				*[1]		*		*	
•WSMO Burns, OR		ASOS 10/93				01/94			
POCATELLO/IDAHO FALLS, ID (WSO to WFO)	02/95	88D * ASOS 11/94		*	03/95				

1. Service will be transferred upon commissioning of the Boise WFO's AWIPS.

STATE OF IDAHO (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
MISSOULA, MT (WSO to WFO)	02/94	88D 05/95 ASOS 10/93	05/95[1]	05/95	04/94				
•WSO Lewiston, ID		ASOS 10/93		05/95		01/94	01/94	*	
SALT LAKE CITY, UT (WSFO to WFO)	04/94	88D 05/95 ASOS 11/94		05/95	04/94				
SPOKANE, WA (New WFO)	05/95	88D *		*	07/95				
•WSO Lewiston, ID		ASOS 10/93		*		01/94	01/94	*	

1. The current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF ILLINOIS (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Illinois will result in services being provided by two in-state WFOs (Central Illinois and Chicago) and WFOs located in Paducah, Kentucky; Quad Cities, Iowa; and St. Louis, Missouri. WFO St. Louis will provide service to 17 counties in southwest Illinois; WFO Moline and WFO Paducah will provide service to 15 counties in northwest Illinois and 18 counties in southern Illinois, respectively. WFO Chicago will also provide service to 14 counties in northwest Indiana.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
CENTRAL ILLINOIS, IL (New WFO)	01/95	88D 09/95		09/95	08/94				
•WSO Evansville, IN		ASOS 09/94	*	09/95		12/94	12/94	*	
•WSO Peoria, IL		ASOS 05/93		09/95		*	01/94	*	
•WSO Springfield, IL		ASOS 06/93	*	09/95		*	01/94	*	

STATE OF ILLINOIS (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
CHICAGO, IL (WSFO to WFO)	02/92	88D 02/94		02/94	01/93				
•WSO Chicago-O'Hare (AV), IL		ASOS 10/93		02/94		01/94	01/94	05/94	
•WSO Rockford, IL		ASOS 04/93		02/94		*	01/94	*	
•WSO South Bend, IN		ASOS 02/94	*	02/94		*	05/94	*	
•WSMO Marseilles, IL			04/94			07/94			
WFOs Out of State:									
PADUCAH, KY (WSO to WFO)	08/94	88D* ASOS 11/93	*	*	09/94				
QUAD CITIES, IA (WSO to WFO)	09/94	88D 08/95 ASOS 07/94	*	08/95	07/94				
•WSO Peoria, IL		ASOS 05/93		08/95		*	01/94	*	
•WSO Rockford, IL		ASOS 04/93		08/95		*	01/94	*	
ST. LOUIS, MO (WSFO to WFO)	02/90	88D 06/93		06/93	02/92				
•WSO Springfield, IL		ASOS 06/93	*	06/93		*	01/94	*	

STATE OF INDIANA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Indiana will result in services being provided by one in-state WFO (Indianapolis) and WFOs located in Chicago, Illinois; Cincinnati, Ohio; Grand Rapids, Michigan; Louisville, Kentucky; and Paducah, Kentucky. WFO Chicago will provide services to 11 counties in northwestern Indiana while WFOs Cincinnati, Louisville and Paducah will provide services to five counties in southeast Indiana, 10 counties in southern Indiana, and six counties in southern Indiana, respectively. WFO Indianapolis will also provide services to four counties in northwest Ohio.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
INDIANAPOLIS, IN (WSFO to WFO)	05/93	88D 03/94 ASOS 10/93	05/94	03/94	02/93				
•WSO Dayton, OH		ASOS 10/94		03/94		04/95	01/95	04/95	
•WSO Fort Wayne, IN		ASOS 02/94	*	03/94		*	05/94	*	
•WSO Evansville, IN		ASOS 09/94	*	03/94		12/94	12/94	*	
WFOs Out of State:									
CHICAGO, IL (WSO to WFO)	02/92	88D 02/94		02/94	01/93				
•WSO South Bend, IN		ASOS 02/94	*	02/94		*	05/94	*	

STATE OF INDIANA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
CINCINNATI, OH (WSO to WFO)	11/93	88D 01/95		01/95	09/93				
GRAND RAPIDS, MI (WSO to WFO)	02/95	88D * ASOS 12/93		*	01/95				
•WSO Fort Wayne, IN		ASOS 02/94	*	*		*	05/94	*	
•WSO South Bend, IN		ASOS 02/94	*	*		*	05/94	*	
LOUISVILLE, KY (WSFO to WFO)	02/93	88D 05/94		05/94	04/93				
•WSO Evansville, IN		ASOS 09/94	*	05/94		12/94	12/94	*	
PADUCAH, KY (WSO to WFO)	08/94	88D * ASOS 11/93	*	*	09/94				
•WSO Evansville, IN		ASOS 09/94	*	*		12/94	12/94	*	

STATE OF IOWA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Iowa will result in services being provided by two in-state WFOs (Des Moines and Quad Cities) and WFOs in La Crosse, Wisconsin; Omaha, Nebraska; and Sioux Falls, South Dakota. WFO Sioux Falls will provide services to 11 counties in Iowa; WFO Omaha, eight counties in southwest Iowa; and WFO La Crosse, eight counties in northwest Iowa. WFO Quad Cities will also provide services to 15 counties in eastern Iowa.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
DES MOINES, IA (WSFO to WFO)	06/93[2]	88D 07/94		06/93[2] 07/94	06/93[1]	06/93[2]			
•Residual WSO Des Moines, IA[2]		ASOS 08/93	09/94			12/94	01/94	12/94	
•WSO Waterloo, IA		ASOS 08/94	*	07/94		*	11/94	*	
QUAD CITIES, IA (WSO to WFO)	09/94	88D 08/95 ASOS 07/94	*	08/95	07/94				
•WSO Dubuque, IA		ASOS 07/94		08/95		*	10/94	*	

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of futureWFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.

STATE OF IOWA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
QUAD CITIES, IA (cont.)									
•WSO Peoria, IL		ASOS 05/93		08/95		*	01/94	*	
•WSO Rockford, IL		ASOS 04/93		08/95		*	01/94	*	
•WSO Waterloo, IA		ASOS 08/94	*	08/95		*	11/94	*	
WFOs Out of State:									
LA CROSSE, WI (New WFO)	07/95	88D *		*	06/95				
•WSO Dubuque, IA		ASOS 07/94		*		*	10/94	*	
•WSO Waterloo, IA		ASOS 08/94	*	*		*	11/94	*	
OMAHA, NE (WSFO to WFO)	03/94	88D 02/95		02/95	01/94				
•WSO Sioux City, IA		ASOS 05/93		02/95		05/95	01/94	05/95	
SIOUX FALLS, SD (WSFO to WFO)	09/93	88D 08/94 ASOS 10/93	10/94	08/94	07/93				
•WSO Sioux City, IA		ASOS 05/93		08/94		05/95	01/94	05/95	

STATE OF KANSAS (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Kansas will result in services being provided by five in-state WFOs (Dodge City, Goodland, Topeka and Wichita). WFO Kansas City/Pleasant Hill, Missouri will provide service to seven counties in Kansas. WFO Goodland will also provide services to three counties in Colorado.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
DODGE CITY, KS (WSO to WFO)	11/89	88D 06/93 ASOS 09/92		06/93	06/91				
•WSMO Garden City, KS			01/94			04/94			
GOODLAND, KS (WSO to WFO)	11/89	88D 10/93 ASOS 09/92	12/93	10/93	05/92				
•WSO Colorado Springs, CO		ASOS 11/92		10/93		*	01/94	*	
TOPEKA, KS (WSFO to WFO)	03/90	88D 01/94 ASOS 12/92	03/94	01/94	12/91				
•WSO Concordia, KS		ASOS 09/92	04/94	01/94		07/94	01/94	07/94	

STATE OF KANSAS (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WICHITA, KS (WSO to WFO)	10/91	88D 06/93 ASOS 11/92	06/93[1]	06/93	02/92				
•WSO Concordia, KS		ASOS 09/92	04/94	06/93		07/94	01/94	07/94	
WFOs Out of State:									
KANSAS CITY/PLEASANT HILL, MO (New WFO)	09/91	88D 10/93		10/93	06/92				

1. Current radar was dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Backup sites are providing radar observations until the commissioning of the WSR-88D.

STATE OF KENTUCKY (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Kentucky will result in services being provided by two in-state WFOs (Louisville and Paducah) and WFOs located in Charleston, West Virginia; Cincinnati, Ohio; and Knoxville/Tri-Cities, Tennessee. WFO Cincinnati will provide services to 12 counties in northern Kentucky and WFO Charleston will provide services to 21 counties in eastern Kentucky. WFO Paducah will also provide services to 11 counties in southeast Missouri, 18 counties in southern Illinois, and six counties in southern Indiana, and WFO Louisville, to 10 counties in southern Indiana. By law WSO Jackson, Kentucky will remain unchanged by modernization. An ASOS, however, will be installed at this location and be commissioned approximately October 1993.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
LOUISVILLE, KY (WSFO to WFO)	02/93[2]	88D 05/94		02/93[2] 05/94	04/93[1]	02/93[2]			
•Residual WSO Louisville, KY[2]		ASOS 06/93	07/94			10/94	01/94	10/94	
•WSO Lexington, KY		ASOS 10/93		05/94		04/95	01/94	04/95	
•WSO Evansville, IN		ASOS 09/94	*	05/94		12/94	12/94	*	

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.

STATE OF KENTUCKY (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
PADUCAH, KY (WSO to WFO)	08/94	88D * ASOS 11/93	*	*	09/94				
•WSO Evansville, IN		ASOS 09/94	*	*		12/94	12/94	*	
WFOs Out of State:									
CHARLESTON, WV (WSFO to WFO)	03/94	88D 04/95		04/95	03/94				
CINCINNATI, OH (New WFO)	11/93	88D 01/95		01/95	09/93				
KNOXVILLE/TRI-CITIES, TN (New WFO)	04/94	88D 04/95		04/95	03/94				

STATE OF LOUISIANA (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS AND INTENT TO CERTIFY
FY 1993-1995

The modernization of weather services in Louisiana will result in services being provided by three in-state WFOs (Lake Charles, New Orleans/Baton Rouge and Shreveport) and one WFO located in Jackson, Mississippi. WFO Jackson will provide services to nine counties in Louisiana. WFO Shreveport will also provide services to nine counties in southwest Arkansas, 21 counties in northeast Texas, and one county in southeast Oklahoma; WFO Lake Charles will also provide services to six counties in southeast Texas.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
LAKE CHARLES, LA (WSO to WFO)	10/94	88D 12/94 ASOS 11/93	12/94[1]	12/94	11/93				
•WSO Port Arthur, TX		ASOS 11/93		12/94		02/94	02/94	*	
•WSO Baton Rouge, LA		ASOS 05/93	02/95	12/94		05/95	01/94	05/95	

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF LOUISIANA (Page 2 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
NEW ORLEANS/BATON ROUGE, LA (WSFO to WFO)	10/93[2]	88D 12/94		10/93[2] 12/94	11/93[1]	10/93[2]			
•Residual WSO New Orleans, LA[2]			02/95			05/95		05/95	
•WSO Baton Rouge, LA		ASOS 05/93	02/95	12/94		05/95	01/94	05/95	
•WSCMO New Orleans, LA		ASOS 07/95							
NEW ORLEANS/ BATON ROUGE, LA Lower Mississippi RFC	10/93	NPUP 07/94			01/94				
SHREVEPORT, LA (WSO to WFO)	11/94	88D * ASOS 10/93	*	*	10/94				
•WSO Port Arthur, TX		ASOS 11/93		*		02/94	02/94	*	
•WSMO Longview, TX			*			*			

1. Meteorologists positions for WSR-88D operation filled; training begun.
2. Forecast and warning service of the transitioning WSFO transferred to facility of future WFO. Radar observation function retained at original WSFO location and office redesignated a residual WSO.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
JACKSON, MS (WSFO to WFO)	02/93	88D 11/93 ASOS 05/93	11/93[1]	11/93	10/92				
•WSO Baton Rouge, LA		ASOS 05/93	02/95	11/93		05/95	01/94	05/95	

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF MAINE (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Maine will result in services being provided by one in-state WFO (Portland). WFO Portland will also provide services to eight counties in New Hampshire.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
PORTLAND, ME (WSFO to WFO)	06/93[2]	88D 07/94 88D *[3]		06/93[2] 07/94	03/93[1]	06/93[2]			
•Residual WSO Portland, ME[2]		ASOS 05/93	09/94			12/94	01/94	12/94	
•WSO Caribou, ME		ASOS 07/94		07/94		*	10/94	*[4]	
•WSO Concord, NH		ASOS 07/94		07/94		10/94	10/94	10/94	
WFOs Out of State:									
NONE									

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.
3. This WSR-88D, located in the vicinity of Caribou, ME, also will be operated by the Portland WFO.
4. Consolidation dependent upon commissioning of Caribou WSR-88D.

STATE OF MARYLAND (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Maryland will result in services being provided by WFO Baltimore, MD/Washington, DC; WFO Norfolk/Richmond, Virginia; WFO Philadelphia, Pennsylvania; and WFO Pittsburgh, Pennsylvania. WFO Philadelphia will provide service to five counties on the Eastern Shore of Maryland; WFO Pittsburgh, one county in western Maryland; WFO Norfolk/Richmond to four counties in southern Maryland; and WFO Washington, DC, to 14 counties in central Maryland.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
NONE									
WFOs Out of State:									
BALTIMORE, MD/ WASHINGTON, DC (WSFO to WFO)	12/89	88D 06/93		06/93	03/91				
•WSO Baltimore, MD		ASOS 10/93		06/93		06/95	01/94	06/95	
•WSMO Patuxent River, MD			05/95			08/95			

STATE OF MARYLAND (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
NORFOLK/RICHMOND, VA (New WFO)	09/93	88D 03/95		03/95	02/94				
•WSO Baltimore, MD		ASOS 10/93		03/95		06/95	01/94	06/95	
PHILADELPHIA, PA (WSFO to WFO)	06/93	88D 05/94		05/94	04/93				
•WSO Baltimore, MD		ASOS 10/93		05/94		06/95	01/94	06/95	
PITTSBURGH, PA (WSFO to WFO)	04/93	88D 03/94		03/94	02/93				

STATE OF MASSACHUSETTS (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Massachusetts will result in services being provided by one in-state WFO in Boston and by WFO Albany, New York. WFO Boston will also provide services to two counties in southern New Hampshire, three counties in Connecticut, and five counties in Rhode Island.

Notifiable actions and office certifications projected to occur infiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated with an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BOSTON, MA (WSFO to WFO)	05/93[2]	88D 06/94		05/93[2] 06/94	05/93[1]	05/93[2]			
•Residual WSO Boston, MA[2]		ASOS 10/93				01/94	01/94		
•WSO Concord, NH		ASOS 07/94		06/94		10/94	10/94	10/94	
•WSO Hartford, CT		ASOS 10/93	08/94	06/94		11/94	01/94	11/94	
•WSO Providence, RI		ASOS 10/93		06/94		09/94	01/94	09/94	
•WSO Worcester, MA		ASOS 07/94	08/94	06/94		11/94	10/94	11/94	
•WSMO Chatham, MA			08/94	06/94		11/94			

1. Meteorologists positions for WSR-88D operation filled; training begun.
2. Forecast and warning service of the transitioning WSFO transferred to facility of future WFO. Surface observation function retained at original WSFO location and office redesignated a residual WSO.

STATE OF MASSACHUSETTS (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
BOSTON, MA Northeast RFC	05/93	NPUP 10/94			04/94				
WFOs Out of State:									
ALBANY, NY (WSFO to WFO)	06/93	88D 06/94		06/94	05/93				

STATE OF MICHIGAN (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Michigan will result in services being provided by four in-state WFOs (Alpena, Detroit, Grand Rapids and Marquette). WFO Grand Rapids also will provide services to four counties in Indiana and two counties in Ohio.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated with an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ALPENA, MI (New WFO)	04/95	88D *		*	01/95				
•WSO Alpena, MI		ASOS 09/94	*	*		*	12/94	*	
•WSO Houghton Lake, MI		ASOS 11/93	*	*		*	02/94	*	
•WSO Muskegon, MI		ASOS 12/93	*	*		*	03/94	*	
•WSO Sault Ste. Marie, MI				*		*	*	*	
DETROIT, MI (WSFO to WFO)	10/92	88D 01/94		01/94	12/92				
•WSO Detroit, MI		ASOS 05/93	03/94	01/94		06/94	01/94	06/94	
•WSO Flint, MI		ASOS 06/93		01/94		06/94	01/94	06/94	

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
GRAND RAPIDS, MI (WSO to WFO)	02/95	88D * ASOS 12/93		*	01/95				
•WSO Fort Wayne, IN		ASOS 02/94	*	*		*	05/94	*	
•WSO Houghton Lake, MI		ASOS 11/93	*	*		*	02/94	*	
•WSO Lansing, MI		ASOS 12/93	*	*		*	03/94	*	
•WSO Muskegon, MI		ASOS 12/93	*	*		*	03/94	*	
•WSO South Bend, IN		ASOS 02/94	*	*		*	05/94	*	
MARQUETTE, MI (WSO to WFO)	12/94	88D *	*	*	12/94				
•WSO Sault Ste. Marie, MI				*		*	*	*	
WFOs Out of State:									
NONE									

STATE OF MINNESOTA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Minnesota will result in services being provided by two in-state WFOs (Duluth and Minneapolis) and WFOs Eastern North Dakota, North Dakota; La Crosse, Wisconsin; and Sioux Falls, South Dakota. WFO Eastern North Dakota will provide services to 20 counties in western Minnesota; WFO La Crosse, to seven counties in southeast Minnesota; and WFO Sioux Falls to eight counties in southwest Minnesota. WFO Duluth will also provide services to 10 counties in northwest Wisconsin and WFO Minneapolis will provide services to nine counties in western Wisconsin.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
DULUTH, MN (WSO to WFO)	04/95	88D * ASOS 09/94	*	*	02/95				
•WSO International Falls, MN		ASOS 09/94		*		*	12/94	*	
MINNEAPOLIS, MN (WSFO to WFO)	06/94[2]	88D 04/95		06/94[2] 04/95	03/94[1]	06/94[2]			
•Residual WSO Minneapolis, MN[2]		ASOS 10/93	06/95			09/95	01/94	09/95	

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.

STATE OF MINNESOTA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
MINNEAPOLIS, MN (cont.)									
•WSO Fargo, ND		ASOS 09/94	*	04/95		*	12/94	*	
•WSO Rochester, MN		ASOS 01/95	*	04/95		*	04/95	*	
•WSO St. Cloud, MN		ASOS 10/93		04/95		07/95	01/94	07/95	
MINNEAPOLIS, MN (North Central RFC)	06/94	NPUP 06/94			12/93				
WFOs Out of State:									
EASTERN NORTH DAKOTA (New WFO)	07/95	88D *		*	07/95				
•WSO International Falls, MN		ASOS 09/94		*		*	12/94	*	
LA CROSSE, WI (New WFO)	07/95	88D *		*	06/95				
•WSO Rochester, MN		ASOS 01/95	*	*		*	04/95	*	
SIOUX FALLS, SD (WSFO to WFO)	09/93	88D 8/94 ASOS 10/93	10/94	08/94	07/93				

STATE OF MISSISSIPPI (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Mississippi will result in services being provided by one in-state WFO (Jackson) and WFOs Memphis, Tennessee; Mobile, Alabama; and New Orleans/Baton Rouge, Louisiana. WFO Memphis will provide services to 24 counties in northern Mississippi; WFO Mobile to five counties in southeast Mississippi; and WFO New Orleans/Baton Rouge to eight counties. WFO Jackson will also provide services to nine parishes in Louisiana and two counties in Arkansas.

Notifiable actions and office certifications projected proposed to occur in fiscal years 1993 through 1995, are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
JACKSON, MS (WSFO to WFO)	02/93	88D 11/93 ASOS 05/93	11/93[1]	11/93	10/92				
•WSO Baton Rouge, LA		ASOS 05/93	02/95	11/93		05/95	01/94	05/95	
•WSO Meridian, MS		ASOS 08/93	*	11/93		*	01/94	*	
•WSO Tupelo, MS		ASOS 05/93	08/94	11/93		11/94	01/94	11/94	
•WSO Vicksburg, MS									

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF MISSISSIPPI (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
MEMPHIS, TN (WSFO to WFO)	06/93	88D 6/94	08/94	06/94	05/93				
•WSO Tupelo, MS		ASOS 05/93	08/94	06/94		11/94	01/94	11/94	
MOBILE, AL (WSO to WFO)	11/93	88D 9/95 ASOS 07/94	09/95[1]	09/95	08/94				
•WSO Meridian, MS		ASOS 08/93	*	09/95		*	01/94	*	
NEW ORLEANS/BATON ROUGE, LA (WSFO to WFO)	10/93	88D 12/94		12/94	11/93				

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF MISSOURI (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Missouri will result in services being provided by three in-state WFOs (Kansas City/Pleasant Hill, Springfield, and St. Louis) and one WFO in Paducah, Kentucky. WFO Paducah will provide services to 11 counties in southeast Missouri. WFO St. Louis will also provide services to 17 counties in southwest Illinois; and WFO Kansas City/Pleasant Hill to seven counties in Kansas.

Notifiable actions and office certifications projected proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
KANSAS CITY/ PLEASANT HILL, MO (New WFO)	09/91	88D 10/93		10/93	06/92				
•WSO Columbia, MO		ASOS 03/95	*	10/93		*	06/95	*	
•WSO Kansas City, MO		ASOS 12/93	12/93	10/93		03/94	03/94	03/94	
KANSAS CITY/PLEASANT HILL, MO Missouri Basin RFC	09/91	NPUP 01/94			07/93				

STATE OF MISSOURI (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
SPRINGFIELD, MO (WSO to WFO)	12/94	88D 08/95 ASOS 03/93		08/95	07/94				
•WSO Columbia, MO		ASOS 03/95	*	08/95		*	06/95	*	
•WSMO Monett, MO			*			*			
ST. LOUIS, MO (WSFO to WFO)	02/90	88D 06/93		06/93	02/92				
•WSO St. Louis, MO			12/93	06/93		03/94		03/94	
•WSO Columbia, MO		ASOS 03/95	*	06/93		*	06/95	*	
•WSO Springfield, IL		ASOS 06/93	*	06/93		*	01/94	*	
•WSCMO St. Louis, MO		ASOS 02/95							
WFOs Out of State:									
PADUCAH, KY (WSO to WFO)	08/94	88D * ASOS 11/93	*	*	09/94				

STATE OF MONTANA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Montana will result in services being provided by four in-state WFOs (Billings, Glasgow, Great Falls and Missoula). WFO Missoula will also provide services to four counties in northern Idaho.

Notifiable actions and office certifications projected proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BILLINGS, MT (WSO to WFO)	05/95	88D * ASOS 10/93	*	*	07/95				
GLASGOW, MT (WSO to WFO)	06/95	88D * ASOS 10/93		*	08/95				
GREAT FALLS, MT (WSFO to WFO)	02/94	88D 03/95		03/95	02/94				
•WSO Havre, MT		ASOS 10/93		03/95		01/94	01/94	06/95	
•WSO Helena, MT		ASOS 10/93		03/95		01/94	01/94	08/95	
•WSCMO Great Falls, MT		ASOS 10/93							

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
MISSOULA, MT (WSO to WFO)	02/94	88D 05/95 ASOS 10/93	05/95[1]	05/95	04/94				
•WSO Helena, MT		ASOS 10/93		05/95		01/94	01/94	08/95	
•WSO Kalispell, MT		ASOS 10/93		05/95		01/94	01/94	08/95	
•WSO Lewiston, ID		ASOS 10/93		05/95		01/94	01/94	*	
WFOs Out of State:									
NONE									

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF NEBRASKA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Nebraska will result in services being provided by three in-state WFOs (Hastings, North Platte and Omaha) and the WFO in Cheyenne, Wyoming. WFO Cheyenne will provide services to eight counties in western Nebraska. WFO Omaha will also provide services for eight counties in southwest Iowa.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
HASTINGS, NE (New WFO)	01/93	88D 02/94		02/94	01/93				
•WSO Concordia, KS		ASOS 09/92	04/94	02/94		07/94	01/94	07/94	
•WSO Grand Island, NE		ASOS 10/92	04/94	02/94		01/94	01/94	07/94	
NORTH PLATTE, NE (WSO to WSO)	04/95	88D * ASOS 10/94	*	*	02/95				
•WSO Norfolk, NE		ASOS 10/93	*	*		*	01/94	*	
•WSO Scottsbluff, NE		ASOS 10/93		*		*	01/94	*	
•WSO Valentine, NE		ASOS 10/94		*		*	01/95	*	

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
OMAHA, NE (WSFO to WFO)	03/94[2]	88D 02/95		03/94[2] 02/95	01/94[1]	03/94[2]			
•Residual WSO Omaha, NE[2]			04/95			07/95		07/95	
•WSO Lincoln, NE		ASOS 11/92		02/95		05/95	01/94	05/95	
•WSO Norfolk, NE		ASOS 10/93	*	02/95		*	01/94	*	
•WSO Sioux City, IA		ASOS 05/93		02/95		05/95	01/94	05/95	
WFOs Out of State:									
CHEYENNE, WY (WSFO to WFO)	09/93	88D 05/95 ASOS 10/93	07/95	05/95	04/94				
•WSO Scottsbluff, NE		ASOS 10/93		05/95		*	01/94	*	
•WSMO Alliance, NE			*			*			

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Radar observation function retained at original WSFO location and office redesignated a residual WSO.

STATE OF NEVADA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Nevada will result in services being provided by three in-state WFOs (Elko, Las Vegas and Reno). WFO Reno will also provide services to eight counties in eastern California and Las Vegas, to two counties in southern California and one county in northwest Arizona.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ELKO, NV (WSO to WFO)	02/95	88D *		*	03/95				
•WSO Ely, NV		ASOS 11/93		*		*	02/94	*	
•WSO Winnemucca, NV		ASOS 10/93		*		*	01/94	*	
LAS VEGAS, NV (New WFO)	12/94	88D *		*	12/94				
•WSO Las Vegas, NV		ASOS 12/93	*	*		*	03/94	*	
•WSO Palmdale, CA				*		*		*	
•WSO Riverside (AG & FW), CA				*[1]		*		*	

1. Service will be transferred upon the commissioning of an AWIPS at WFO Las Vegas.

STATE OF NEVADA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
RENO, NV (WSFO to WFO)	07/94[2]	88D 05/95		07/94[2] 05/95	04/94[1]	07/94[2]			
•Residual WSO Reno, NV[2]		ASOS 11/93				02/94	02/94		
•WSO Redding (FW), CA				05/95		*		*	
•WSO Winnemucca, NV		ASOS 10/93		05/95		*	01/94	*	
WFOs Out of State:									
NONE									

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning service of the transitioning WSFO transferred to facility of future WFO. Surface observation functions retained at original WSFO location and office redesignated a residual WSO.

STATE OF NEW HAMPSHIRE (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in New Hampshire will result in services being provided by WFOs Portland, Maine and Boston, Massachussetts. WFO Boston will provide services to two counties in southern New Hampshire and WFO Portland will provide services to the remaining eight counties in New Hampshire.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs in-State:									
NONE									
WFOs Out of State:									
BOSTON, MA (WSFO to WFO)	05/93	88D 06/94		06/94	05/93				
•WSO Concord, NH		ASOS 07/94		06/94		10/94	10/94	10/94	
PORTLAND, ME (WSFO to WFO)	06/93	88D 07/94		07/94	06/93				
•WSO Concord, NH		ASOS 07/94		07/94		10/94	10/94	10/94	

STATE OF NEW JERSEY (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in New Jersey will result in services being provided by WFOs New York City, NY and Philadelphia, PA. WFO New York will provide services for northern New Jersey while WFO Philadelphia will provide services for southern New Jersey.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
NONE									
WFOs Out of State:									
NEW YORK CITY, NY (WSFO to WFO)	06/93	88D 05/94		05/94	04/93				
•WSO Newark, NJ		ASOS 11/94				02/95	02/95		
PHILADELPHIA, PA (WSFO to WFO)	06/93	88D 05/94		05/94	04/93				
•WSO Atlantic City, NJ		ASOS 06/93	07/94	05/94		10/94	01/94	10/94	

STATE OF NEW MEXICO (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in New Mexico will result in services being provided by one in-state WFO (Albuquerque) and WFOs El Paso, Texas and Midland/Odessa, Texas. WFO Midland will provide services to two counties in eastern New Mexico and WFO El Paso will provide services to six counties in southern New Mexico.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ALBUQUERQUE, NM (WSFO to WFO)	02/94	88D 02/95 APUP 11/94[1] ASOS 07/95		02/95	01/94				
•WSO Roswell, NM		ASOS 12/94		11/94[2]					

1. Albuquerque will also use, by means of an associated PUP (APUP), data from the DOD WSR-88D at Cannon AFB.
2. Service transfer to occur when APUP associated with Cannon AFB WSR-88D is commissioned. APUP commissioning assumes a commissioned DOD radar.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
EL PASO, TX (WSO to WFO)	09/95	88D *		*	08/95				
MIDLAND/ODESSA, TX (WSO to WFO)	10/94	88D * ASOS 12/94	*[1]	*	09/94				

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF NEW YORK (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in New York will result in services being provided by four in-state WFOs (Albany, Binghamton, Buffalo and New York) and WFO Burlington, Vermont. WFO Albany will also provide services to two counties in southern Vermont, one county in Connecticut and one county in Massachusetts; Binghamton, to eight counties in northeast Pennsylvania; and New York City to four counties in southern Connecticut and five counties in northern New Jersey. WFO Burlington, Vermont, will provide service to four counties in New York.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ALBANY, NY (WSFO to WFO)	06/93[2]	88D 06/94		06/93[2] 06/94	05/93[1]	06/93[2]			
•Residual WSO Albany[2]		ASOS 07/94	08/94			11/94	10/94	11/94	
•WSO Hartford, CT		ASOS 10/93	08/94	06/94		11/94	01/94	11/94	

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
BINGHAMTON, NY (WSO to WFO)	07/92	88D 04/94 ASOS 05/93	04/94[1]	04/94	03/93				
•WSO Allentown, PA		ASOS 10/93		04/94		08/94	01/94	08/94	
•WSO Rochester, NY		ASOS 07/94		04/94		*	10/94	*	
•WSO Syracuse, NY		ASOS 04/93		04/94		*	01/94	*	
•WSO Wilkes-Barre, PA		ASOS 09/94		04/94		12/94	12/94	08/94	
•WSO Williamsport, PA		ASOS 10/93		04/94		08/94	01/94	08/94	
BUFFALO, NY (WSFO to WFO)	10/94	88D *	*	*	09/94				
•WSO Rochester, NY		ASOS 07/94		*		*	10/94	*	
•WSO Syracuse, NY		ASOS 04/93		*		*	01/94	*	
•WSCMO Buffalo, NY		ASOS 09/94							

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

.STATE OF NEW YORK (Page 3 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
NEW YORK CITY, NY (WSFO to WFO)	06/93[2]	88D 05/94		06/93[2] 05/94	04/93[1]	06/93[2]			
•Residual WSO New York[2]			07/94			10/94		10/94	
•WSO Bridgeport, CT		ASOS 04/95		05/94		07/95	07/95	08/94	
•WSO Hartford, CT		ASOS 10/93	08/94	05/94		11/94	01/94	11/94	
•WSO Newark, NJ		ASOS 11/94				02/95	02/95		
•WSCMO New York/Kennedy		ASOS 02/95							
•WSCMO New York/Laguardia		ASOS 02/95							
WFOs Out of State:									
BURLINGTON, VT (WSO to WFO)	04/95	88D * ASOS 07/94	*[3]	*	04/95				
•WSO Syracuse, NY		ASOS 04/93		*		*	01/94	*	

1. Meteorologist positions for WSR-88D operation filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Radar observation function retained at original WSFO location and office redesignated a residual WSO.
3. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to appropriate backup sites until the commissioning of the WSR-88D.

STATE OF NORTH CAROLINA (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in North Carolina will result in services being provided by three in-state WFOs (Morehead City, Raleigh/Durham and Wilmington) and WFOs Columbia, South Carolina; Norfolk/Richmond, Virginia; Knoxville/Tri-Cities, Tennessee; and Roanoke, Virginia. WFO Columbia will provide services to 16 counties in southwest North Carolina; WFO Norfolk/Richmond to nine counties in northeast North Carolina; WFO Roanoke, to nine counties in northwest North Carolina and WFO Knowxville/Tri-Cities, to 15 counties. WFO Wilmington will also provide services to eight counties in South Carolina.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
MOREHEAD CITY, NC (New WFO)	07/93	88D 08/94		08/94	07/93				
•WSO Cape Hatteras, NC		ASOS 05/95	05/95	08/94		08/95	08/95	08/95	
•WSMO Patuxent River, MD			05/95			08/95			
RALEIGH/DURHAM, NC (WSFO to WFO)	11/93[2]	88D 11/94		11/93[2] 11/94	10/93[1]	11/93[2]			
•Residual WSO Raleigh, NC[2]		ASOS 01/94	01/95	11/94		04/95	04/94	04/95	

1. Meteorologist positions for WSR-88D operation filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
RALEIGH/DURHAM, NC (cont.)									
•WSO Asheville, NC		ASOS 05/95		11/94		*	08/95	*	
•WSO Charlotte, NC		ASOS 10/94	06/95	11/94		09/95	01/95	09/95	
•WSO Greensboro, NC		ASOS 12/94		11/94		*	03/95	*	
WILMINGTON, NC (WSO to WFO)	08/94	88D 06/95 ASOS 11/94	08/95	06/95	05/94				
WFOs Out of State:									
COLUMBIA, SC (WSFO to WFO)	08/93	88D 08/94 ASOS 01/94	10/94	08/94	07/93				
•WSO Asheville, NC		ASOS 05/95		08/94		*	08/95	*	
•WSO Charlotte, NC		ASOS 10/94	06/95	08/94		09/95	01/95	09/95	
•WSO Greensboro, NC		ASOS 12/94		08/94		*	03/95	*	

STATE OF NORTH CAROLINA (Page 3 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
KNOXVILLE/TRI-CITIES, TN (New WFO)	04/94	88D 04/95		04/95	03/94				
•WSO Asheville, NC		ASOS 05/95		04/95		*	08/95	*	
NORFOLK/RICHMOND, VA (New WFO)	09/93	88D 03/95		03/95	02/94				
ROANOKE, VA (New WFO)	08/94	88D 07/95		07/95	06/94				
•WSO Asheville, NC		ASOS 05/95		07/95		*	08/95	*	
•WSO Greensboro, NC		ASOS 12/94		07/95		*	03/95	*	

STATE OF NORTH DAKOTA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in North Dakota will result in services being provided by two in-state WFOs (Bismarck and Eastern North Dakota). WFO Eastern North Dakota will also provide services to 20 counties in western Minnesota.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BISMARCK, ND (WSFO to WFO)	06/94	88D 06/95 APUP 01/95[1] ASOS 10/93	08/95	06/95	05/94				
•WSO Williston, ND		ASOS 01/95	08/95	06/95		*	04/95	*	
EASTERN NORTH DAKOTA (New WFO)	07/95	88D *		*	07/95				
•WSO Fargo, ND		ASOS 09/94	*	*		*	12/94	*	
•WSO International Falls, MN		ASOS 09/94		*		*	12/94	*	

[1]WSO Bismarck will also use, by means of an associated PUP (APUP), data from the DOD WSR-88D located at Minot AFB.

STATE OF NORTH DAKOTA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
NONE									

STATE OF OHIO (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Ohio will result in services being provided by two in-state WFOs (Cincinnati and Cleveland) and WFOs Indianapolis, Indiana; Pittsburgh, Pennsylvania; and Charleston, West Virginia. WFO Indianapolis will provide services to four counties in northwest Ohio; WFO Pittsburgh, to 11 counties in southcentral Ohio; and WFO Charleston, to nine counties in southeast Ohio. WFO Cincinnati will also provide services to 12 counties in northern Kentucky and eight counties in southeast Indiana; WFO Cleveland to two counties in northwest Pennsylvania.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995, are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
CINCINNATI, OH (New WFO)	11/93	88D 01/95		01/95	09/93				
•WSO Cincinnati, OH		ASOS 10/94	03/95	01/95		06/95	01/95	06/95	
•WSO Columbus, OH		ASOS 09/94	03/95	01/95		06/95	12/94	06/95	
•WSO Dayton, OH		ASOS 10/94		01/95		04/95	01/95	04/95	
•WSO Huntington, WV		ASOS 10/94		01/95		07/95	01/95	07/95	

STATE OF OHIO (Page 2 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
CINCINNATI, OH (cont.)									
•WSO Lexington, KY		ASOS 10/93		01/95		04/95	01/94	04/95	
•WSO Toledo, OH		ASOS 10/93		01/95		04/95	01/94	04/95	
•WSCMO Dayton, OH									
CINCINNATI, OH Ohio RFC	11/93	NPUP 08/94			02/94				
CLEVELAND, OH (WSFO to WFO)	04/93	88D 03/94 ASOS 10/93	05/94	03/94	02/93				
•WSO Akron, OH		ASOS 10/93	05/94	03/94		08/94	01/94	08/94	
•WSO Columbus, OH		ASOS 09/94	03/95	03/94		06/95	12/94	06/95	
•WSO Erie, PA		ASOS 10/93	*	03/94		*	01/94	*	
•WSO Mansfield, OH		ASOS 11/93		03/94		06/94	02/94	06/94	
•WSO Toledo, OH		ASOS 10/93		03/94		04/95	01/94	04/95	
•WSO Youngstown, OH		ASOS 10/93		03/94		06/94	01/94	06/94	

STATE OF OHIO (Page 3 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
CHARLESTON, WV (WSFO to WFO)	03/94	88D 04/95		04/95	03/94				
INDIANAPOLIS, IN (WSFO to WFO)	05/93	88D 03/94 ASOS 10/93	05/94	03/94	02/93				
•WSO Dayton, OH		ASOS 10/94		03/94		04/95	01/95	04/95	
PITTSBURGH, PA (WSFO to WFO)	04/93	88D 03/94		03/94	02/93				
•WSO Akron, OH		ASOS 10/93	05/94	03/94		08/94	01/94	08/94	
•WSO Columbus, OH		ASOS 09/94	03/95	03/94		06/95	12/94	06/95	
•WSO Youngstown, OH		ASOS 10/93		03/94		06/94	01/94	06/94	

STATE OF OKLAHOMA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Oklahoma will result in services being provided by two in-state WFOs (Oklahoma City and Tulsa) and WFOs Amarillo, Texas and Shreveport, Louisiana. WFO Amarillo will provide services to three counties in Oklahoma and WFO Shreveport to one county in southeast Oklahoma. WFO Tulsa will also provide services to six counties in northwest Arkansas and WFO Oklahoma City to eight counties in Texas.

Notifiable actions proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
OKLAHOMA CITY, OK (WSFO to WFO)	01/89	88D 06/93		06/93	06/90				
•WSO Oklahoma City, OK		ASOS 10/92	12/93	06/93		03/94	01/94	03/94	
•WSO Wichita Falls, TX		ASOS 05/93	11/94	03/93[1]		01/94	01/94	02/95	

1. NWS has transferred eight of eleven counties comprising the WSO Wichita Falls county warning area to the future WFO Oklahoma City, currently WSFO Norman, Oklahoma, before commissioning the WSR-88D at Norman. This is an authorized deviation from the NWS transition policy of transferring county warning responsibilities at the time of the commissioning the receiving WSR-88D. The deviation supports risk reduction activities at Norman required to evaluate the operations proposed for WFOs.

STATE OF OKLAHOMA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
TULSA, OK (New WFO)	02/92	88D 12/93		12/93	12/92				
•WSO Fort Smith, AR		ASOS 08/93	02/94	12/93		05/94	01/94	05/94	
•WSO Tulsa, OK		ASOS 10/92	02/94	12/93		05/94	01/94	05/94	
TULSA, OK Arkansas-Red Basin RFC	02/92	NPUP 05/93			03/91				
WFOs Out of State:									
AMARILLO, TX (WSO to WFO)	11/89	88D 10/93 ASOS 11/92	10/93[1]	10/93	08/92				
SHREVEPORT, LA (WSO to WFO)	11/94	88D * ASOS 10/93	*	*	10/94				

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF OREGON (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Oregon will result in services being provided by three in-state WFOs (Medford, Pendleton and Portland) and WFO Boise, Idaho. WFO Boise will provide services to three counties in eastern Oregon. WFO Pendleton will also provide services to eight counties in southern Washington; WFO Portland to six counties in southern Washington; WFO Medford to two counties in northern California.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
MEDFORD, OR (WSO to WFO)	11/94	88D * ASOS 10/94	*[1]	*	04/95				
•WSO Eugene, OR		ASOS 10/94		*		01/95	01/95	*	
•WSO Klamath Falls, OR									
•WSO Redding (FW), CA				*		*		*	
•WSCMO Sexton Summit, OR		ASOS 12/92							

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF OREGON (Page 2 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
PENDLETON, OR (WSO to WFO)	04/95	88D * ASOS 10/93		*	06/95				
•WSO Lewiston, ID		ASOS 10/93		*		01/94	01/94	*	
•WSO Wenatchee (AG & FW), WA				*[1]		*		*	
•WSO Yakima, WA		ASOS 10/93		*		01/94	01/94	*	
PORTLAND, OR (WSFO to WFO)	08/94	88D 08/95 ASOS 01/95	*	08/95	07/94				
•WSO Astoria, OR		ASOS 03/93		08/95		01/94	01/94	*	
•WSO Eugene, OR		ASOS 10/94		08/95		01/95	01/95	*	
•WSO Olympia (FW), WA				08/95		*		*	
•WSO Salem, OR		ASOS 07/94		08/95		10/94	10/94	*	
•WSO Salem (FW), OR				08/95		*		*	

1. Service will be transferred upon the commissioning of an AWIPS at WFO Pendleton.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
PORTLAND, OR Northwest RFC	08/94	NPUP 10/94			04/94				
WFOs Out of State:									
BOISE, ID (WSFO to WFO)	07/93	88D 07/94 ASOS 11/94		07/94	06/93				
•WSMO Burns, OR		ASOS 10/93				01/94			

STATE OF PENNSYLVANIA (Page 1 of 4)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Pennsylvania will result in services being provided by three in-state WFOs (Central Pennsylvania, Philadelphia and Pittsburgh) and WFOs Binghamton, New York and Cleveland, Ohio. WFO Cleveland will provide services to two counties in northwestern Pennsylvania and WFO Binghamton to 10 counties in northeast Pennsylvania. WFO Pittsburgh will also provide services to 11 counties in southeast Ohio, nine counties in northern West Virginia and one county in western Maryland. WFO Philadelphia will provide services to 17 counties in southern New Jersey, three counties in southern Delaware and five counties in Maryland.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
CENTRAL PENNSYLVANIA (New WFO)	01/93	88D 04/94		04/94	03/93				
•WSO Allentown, PA		ASOS 10/93		04/94		08/94	01/94	08/94	
•WSO Erie, PA		ASOS 10/93	*	04/94		*	01/94	*	
•WSO Harrisburg, PA			07/94	04/94		10/94		10/94	
•WSO Wilkes-Barre, PA		ASOS 09/94		04/94		12/94	12/94	08/94	
•WSO Williamsport, PA		ASOS 10/93		04/94		08/94	01/94	08/94	

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
CENTRAL PENNSYLVANIA Middle Atlantic RFC	01/93	NPUP 09/93			03/93				
PHILADELPHIA, PA (WSFO to WFO)	06/93[1]	88D 05/94		05/94	04/93				
•WSO Allentown, PA		ASOS 10/93		05/94		08/94	01/94	08/94	
•WSO Atlantic City, NJ		ASOS 06/93	07/94	05/94		10/94	01/94	10/94	
•WSO Baltimore, MD		ASOS 10/93		05/94		06/95	01/94	06/95	
•WSO Harrisburg, PA			07/94	05/94		10/94		10/94	
•WSO Reading, PA				05/94		08/94		08/94	
•WSO Wilkes-Barre, PA		ASOS 09/94		05/94		12/94	12/94	08/94	
•WSO Williamsport, PA		ASOS 10/93		05/94		08/94	01/94	08/94	
•WSO Wilmington, DE		ASOS 10/93		05/94		08/94	01/94	08/94	
•WSCMO Philadelphia, PA		ASOS 12/94							

1. The entire WSFO will move to the facility of the future WFO located in the WSFO's current commuting and service areas.

STATE OF PENNSYLVANIA (Page 3 of 4)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
PITTSBURGH, PA (WSFO to WFO)	04/93	88D 03/94		03/94	02/93				
•WSO Akron, OH		ASOS 10/93	05/94	03/94		08/94	01/94	08/94	
•WSO Columbus, OH		ASOS 09/94	03/95	03/94		06/95	12/94	06/95	
•WSO Elkins, WV		ASOS 11/94		03/94		07/95	02/95	07/95	
•WSO Erie, PA		ASOS 10/93	*	03/94		*	01/94	*	
•WSO Youngstown, OH		ASOS 10/93		03/94		06/94	01/94	06/94	
•WSCMO Pittsburgh, PA		ASOS 09/94	03/94[1]						

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF PENNSYLVANIA (Page 4 of 4)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
BINGHAMTON, NY (WSO to WFO)	07/92	88D 03/94 ASOS 05/93	03/94[1]	03/94	03/93				
•WSO Allentown, PA		ASOS 10/93		03/94		08/94	01/94	08/94	
•WSO Wilkes-Barre, PA		ASOS 09/94		03/94		12/94	12/94	08/94	
•WSO Williamsport, PA		ASOS 10/93		03/94		08/94	01/94	08/94	
CLEVELAND, OH (WSFO to WFO)	04/93	88D 03/94 ASOS 10/93	05/94	03/94	02/93				
•WSO Erie, PA		ASOS 10/93	*	03/94		*	01/94	*	

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

PUERTO RICO (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Puerto Rico will result in service being provided by a WFO in San Juan.

Notifiable actions and office certifications projected to occur in fiscal years 1990 through 1995 are identified below.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
SAN JUAN, PR (WSFO to WFO)	03/94	APUP 03/95[1] ASOS 02/94	05/95	03/95	02/94				

1. The WFO will use, by means of an associated PUP (APUP), an FAA WSR-88D located in the vicinity of San Juan.

STATE OF RHODE ISLAND (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Rhode Island will result in services being provided by WFO Boston, Massachusetts.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
NONE									
WFOs Out of State:									
BOSTON, MA (WSFO to WFO)	05/93	88D 06/94		06/94	05/93				
•WSO Providence, RI		ASOS 10/93		06/94		09/94	01/94	09/94	

STATE OF SOUTH CAROLINA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in South Carolina will result in services being provided by three in-state WFOs (Charleston, Columbia and Greenville/Spartansburg) and by WFO Wilmington, North Carolina. WFO Wilmington will provide services to eight counties in northeast South Carolina. WFO Charleston will also provide services to 12 counties in Georgia while WFO Columbia will provide services to16 counties in southwest North Carolina and five counties in northeast Georgia. The service area for Greenville/Spartanburg will be determined during fiscal year 1993.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
CHARLESTON, SC (WSO to WFO)	08/94	88D 06/95 ASOS 12/94	08/95	06/95	09/94				
•WSO Augusta, GA		ASOS 06/93	08/95	06/95		*	01/94	*	
•WSO Savannah, GA		ASOS 07/94	*	06/95		10/94	10/94	*	
•WSMO Waycross, GA			*			*			
COLUMBIA, SC (WSFO to WFO)	08/93	88D 08/94 ASOS 01/94	10/94	08/94	07/93				
•WSO Asheville, NC		ASOS 05/95		08/94		*	08/95	*	
•WSO Augusta, GA		ASOS 06/93	08/95	08/94		*	01/94	*	

STATE OF SOUTH CAROLINA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
COLUMBIA, SC (cont.)									
•WSO Charlotte, NC		ASOS 10/94	06/95	08/94		09/95	01/95	09/95	
•WSO Greensboro, NC		ASOS 12/94		08/94		*	03/95	*	
GREENVILLE/SPARTANSBURG,[1] **SC** (WSO to WFO)	TBD	88D 09/95		TBD	TBD				
WFOs Out of State:									
WILMINGTON, NC (WSO to WFO)	08/94	88D 06/95 ASOS 11/94	08/95	06/95	05/94				

1. This is a newly defined WFO. Its location and service area will be determined during fiscal year 1993.

STATE OF SOUTH DAKOTA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in South Dakota will result in services being provided by three in-state WFOs (Aberdeen, Rapid City, and Sioux Falls). WFO Sioux Falls will also provide service to 11 counties in Iowa and eight counties in southwest Minnesota.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
ABERDEEN, SD (WSO to WFO)	05/94	88D 07/95 ASOS 10/94		07/95	06/94				
•WSO Huron, SD		ASOS 10/93	*	07/95		01/94	01/94	*	
RAPID CITY, SD (New WFO)	05/95	88D *		*	05/95				
•WSO Rapid City, SD		ASOS 10/94	*	*		01/95	01/95	*	
•WSMO Alliance, NE			*			*			

STATE OF SOUTH DAKOTA (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
SIOUX FALLS, SD (WSFO to WFO)	09/93	88D 08/94 ASOS 10/93	10/94	08/94	07/93				
•WSO Huron, SD		ASOS 10/93	*	08/94		01/94	01/94	*	
•WSO Sioux City, IA		ASOS 05/93		08/94		05/95	01/94	05/95	
WFOs Out of State:									
NONE									

STATE OF TENNESSEE (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Tennessee will result in services being provided by three in-state WFOs (Knoxville/Tri-Cities, Memphis, and Nashville). WFO Memphis will also provide service for 24 counties in northern Mississippi, 12 counties in northeast Arkansas and two counties in Missouri; and WFO Knoxville/Tri Cities to three counties in Kentucky, 15 counties in North Carolina, and five counties in Virginia.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
KNOXVILLE/TRI-CITIES, TN (New WFO)	04/94	88D 04/95		04/95	03/94				
•WSO Asheville, NC		ASOS 05/95		04/95		*	08/95	*	
•WSO Bristol, TN		ASOS 11/93	09/95	04/95		02/94	02/94	*	
•WSO Chattanooga, TN		ASOS 12/93	09/95	04/95		03/94	03/94	*	
•WSO Knoxville, TN		ASOS 11/93		04/95		07/95	02/94	07/95	

STATE OF TENNESSEE (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
MEMPHIS, TN (WSFO to WFO)	06/93	88D 06/94 APUP 10/94[1]	08/94	06/94	05/93				
•WSO Tupelo, MS		ASOS 05/93	08/94	06/94		11/94	01/94	11/94	
•WSMO Memphis, TN									
NASHVILLE, TN (WSO to WFO)	10/94	88D 07/95	07/95[2]	07/95	06/94				
•WSO Chattanooga, TN		ASOS 12/93	09/95	07/95		03/94	03/94	*	
•WSO Knoxville, TN		ASOS 11/93		07/95		02/94	02/94	07/95	
•WSCMO Nashville, TN		ASOS 09/94							
WFOs Out of State:									
NONE									

1. WFO Memphis will also use, by means of an associated PUP (APUP), data from the DOD WSR-88D at Columbus AFB.
2. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF TEXAS (Page 1 of 6)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Texas will result in services being provided by 10 in-state WFOs (Amarillo, Austin/San Antonio, Brownsville, Corpus Christi, Dallas/Fort Worth, El Paso, Houston/Galveston, Lubbock, Midland/Odessa and San Angelo.) and WFOs Lake Charles, Louisiana; Oklahoma City, Oklahoma; and Shreveport, Louisiana. WFO Shreveport will provide services to 21 counties in northeast Texas; WFO Lake Charles to six counties in southeast Texas and WFO Oklahoma City to eight counties. WFO Amarillo will also provide services to three counties in Oklahoma; WFO El Paso to six counties in southern New Mexico; and WFO Midland, to two counties in southeast New Mexico.

Notifiable actions and office certifications proposed to occur in fiscal years 1993 through 1995 are shown below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk(*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
AMARILLO, TX (WSO to WFO)	11/89	88D 10/93 ASOS 11/92	10/93[1]	10/93	08/92				

1. Current radar will be decommissioned upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
AUSTIN/SAN ANTONIO, TX (WSFO to WFO)	02/94[2]	88D 02/95 APUP 08/94[3]		02/94[2] 02/95	01/94[1]	02/94[2]			
•Residual WSO San Antonio, TX[2]		ASOS 01/94				04/94	04/94		
•WSO Austin, TX		ASOS 04/94	*	02/95		*	07/94	*	
•WSO Del Rio, TX		ASOS 01/94		08/94[4]		05/95	04/94	05/95	
•WSO Victoria, TX		ASOS 07/94	*	02/95		*	10/94	*	
•WSMO Hondo, TX			04/95			07/95			
BROWNSVILLE, TX (WSO to WFO)	11/94	88D * ASOS 07/94	*	*	10/94				

1. Meteorologists positions for WSR-88D operation filled; training begun.
2. Forecast and warning service of the transitioning WSFO transferred to facility of future WFO. Surface observation function retained at original WSFO location and office redesignated a residual WSO.
3. WFO Austin/San Antonio also will use, by means of an Associated PUP (APUP), data from the DOD Laughlin AFB WSR-88D.
4. Service will be transferred upon commissioning of the APUP associated with the Laughlin AFB WSR-88D. Commissioning of APUP assumes a commissioned DOD radar.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
CORPUS CHRISTI, TX (WSO to WFO)	09/95	88D* ASOS 07/94	*	*	08/95				
•WSO Victoria, TX		ASOS 07/94	*	*		*	10/94	*	
DALLAS/FORT WORTH, TX (WSFO to WFO)	08/93[1]	88D 09/94 APUP 9/93[2] ASOS 05/95		09/94	08/93				
•WSO Abilene, TX		ASOS 04/94	*	09/94		*	07/94	*	
•WSO Austin, TX		ASOS 04/94	*	09/94		*	07/94	*	
•WSO Waco, TX		ASOS 05/93	11/94	09/94		02/95	01/94	02/95	
•WSO Wichita Falls, TX		ASOS 05/93	11/94	03/93[3]		01/94	01/94	02/95	
•WSMO Stephenville, TX			11/94			02/95			
•WSMO Longview, TX			*			*			
•WSCMO Dallas/Fort Worth, TX		ASOS 01/95							

1. The entire WSFO will move to the facility of the future WFO located within the WSFO's current commuting and service areas.
2. WFO Dallas/Fort Worth also will use, by means of an associated PUP (APUP), the data from the DOD Central Texas WSR-88D.
3. NWS has transferred three of the eleven counties comprising the WSO Wichita Falls county warning area to the future WFO Dallas/Fort Worth, currently WSFO Dallas/Fort Worth, before the commissioning of the WSR-88D at Dallas/Fort Worth. This is an authorized deviation from the NWS transition policy of transferring county warning responsibilities at the time of commissioning the receiving WSR-88D. The deviation supports the risk reduction activities at WSFO Norman, Oklahoma, which are required to evaluate the operations proposed for WFOs.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
DALLAS/FORT WORTH, TX West Gulf RFC	08/93	NPUP 06/94			12/93				
EL PASO, TX (New WFO)	09/95	88D *		*	08/95				
•WSO El Paso, TX		ASOS 02/94		*		05/94	05/94	*	
HOUSTON/GALVESTON, TX (WSO to WFO)	07/90	88D 06/93		06/93	09/92				
•WSO Austin, TX		ASOS 04/94	*	06/93		*	07/94	*	
•WSO Galveston, TX			12/93	06/93		03/94		03/94	
•WSO Victoria, TX		ASOS 07/94	*	06/93		*	10/94	*	
•WSO Waco, TX		ASOS 05/93	11/94	06/93		02/95	01/94	02/95	
•WSCMO Houston, TX		ASOS 06/95							

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
LUBBOCK, TX (WSFO to WFO)	09/93[2]	88D 09/94		09/93[2] 09/94	08/93[1]	09/93[2]			
•Residual WSO Lubbock, TX[2]		ASOS 02/94	11/94			05/94	05/94	02/95	
•WSO Abilene, TX		ASOS 04/94	*	09/94		*	07/94	*	
MIDLAND/ODESSA, TX (WSO to WFO)	10/94	88D* ASOS 12/94	*[3]	*	09/94				
SAN ANGELO, TX (WSO to WFO)	10/95	88D* APUP 04/94[4] ASOS 03/95	*	*	09/95				
•WSO Abilene, TX		ASOS 04/94	*	*		*	07/94	*	
•WSO Austin, TX		ASOS 04/94	*	*		*	07/94	*	

1. Meteorologist positions for WSR-88D operation filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.
3. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.
4. WFO San Angelo will also use, by means of an associated PUP (APUP), data from the DOD WSR-88D at Dyess AFB.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
LAKE CHARLES, LA (WSO to WFO)	12/93	88D 12/94 ASOS 11/93	12/94[1]	12/94	11/93				
•WSO Port Arthur, TX		ASOS 11/93		12/94		02/94	02/94	*	
SHREVEPORT, LA (WSO to WFO)	11/94	88D * ASOS 10/93	*	*	10/94				
•WSO Port Arthur, TX		ASOS 11/93		*		02/94	02/94	*	
•WSMO Longview, TX			*			*			
OKLAHOMA CITY, OK (WSFO to WFO)	01/89	88D 06/93		06/93	06/90				
•WSO Wichita Falls, TX		ASOS 05/93	11/94	03/93[2]		01/94	01/94	02/95	

1. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.
2. NWS has transferred eight of 11 counties comprising the WSO Wichita Falls county warning area to the future WFO Oklahoma City, currently WSFO Norman, Oklahoma, before the commissioning of the WSR-88D at Norman. This is an authorized deviation from the NWS transition policy of transferring county warning responsibilities at the time of the commissioning the receiving WSR-88D. The deviation supports risk reduction activities at Norman required to evaluate the operations proposed for WFOs.

STATE OF UTAH (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Utah will result in services being provided by one in-state WFOS (Salt Lake City) and WFO Riverton, Wyoming and Grand Junction, Colorado. WFO Riverton will provide services to one county in Utah and WFO Grand Junction will provide services to three counties in eastern Utah. WFO Salt Lake City will also provide services to three counties in southeast Idaho.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions that are projected to take place after fiscal year 1995 are indicated by an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
SALT LAKE CITY, UT (WSFO to WFO)	04/94	88D 05/95 ASOS 11/94 88D *[1]		05/95	04/94				
SALT LAKE CITY, UT Colorado Basin RFC	04/94	NPUP 08/94			02/94				

1. A second WSR-88D, located at Cedar City, UT, is to be controlled and used by the Salt Lake City WFO.

STATE OF UTAH (Page 2 of 2)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs Out of State:									
GRAND JUNCTION, CO (WSO to WFO)	05/95	88D * ASOS 12/94		*	05/95				
RIVERTON, WY (WSO to WFO)	05/95	88D * ASOS 11/94		*	05/95				

STATE OF VERMONT (Page 1 of 1)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Vermont will result in services being provided by one in-state WFO (Burlington) and WFO Albany, New York. WFO Burlington will also provide services to four counties in New York. WFO Albany will provide service to two counties in Vermont.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANS.	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BURLINGTON, VT (WSO to WFO)	04/95	88D * APUP 09/93[1] ASOS 07/94	*[2]	*	04/95				
•WSO Syracuse, NY		ASOS 04/93		*		*	01/94	*	
WFOs Out of State:									
ALBANY, NY (WSFO to WFO)	06/93	88D 06/94		06/94	05/93				

1. WFO Burlington also will use, by means of an associated PUP (APUP), the data from the DOD WSR-88D at Griffiss AFB.
2. Current radar will be dismantled upon delivery of the WSR-88D to clear the area for the 88D's construction. Radar observation responsibility will be transferred to the appropriate backup sites until the commissioning of the WSR-88D.

STATE OF VIRGINIA (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Virginia will result in services being provided by three in-state WFOs (Baltimore, MD/Washington, DC, Norfolk/Richmond and Roanoke) and WFOs Charleston, West Virginia and Knoxville/Tri-Cities, Tennessee. WFO Knoxville/Tri-Cities will , provide services to five counties in southwest Virginia; and WFO Charleston, to two counties in Virginia. WFO Roanoke will also provide services to nine counties in northwest North Carolina and four counties in southeast West Virginia; WFO Norfolk/Richmond, to nine counties in northeast North Carolina and four counties in eastern Maryland; and WFO Baltimore, MD/Washington, DC, to the District of Columbia, 14 counties in Maryland and eight counties in West Virginia.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
BALTIMORE, MD/ WASHINGTON, DC (WSFO to WFO)	12/89	88D 06/93		06/93	03/91				
•WSO Baltimore, MD		ASOS 10/93		06/93		06/95	01/94	06/95	
•WSO Elkins, WV		ASOS 11/94		06/93		07/95	02/95	07/95	
•WSO Lynchburg, VA		ASOS 11/94		06/93		*	02/95	*	
•WSO Norfolk, VA		ASOS 01/95		06/93		06/95	04/95	06/95	
•WSO Richmond, VA		ASOS 01/95		06/93		*	04/95	*	

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISS.	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
BALTIMORE, MD/WASHINGTON, D.C. (cont.)									
•WSO Roanoke, VA		ASOS 12/94		06/93		03/95	03/95	*	
•WSO Wilmington, DE		ASOS 10/93		06/93		08/94	01/94	08/94	
•WSMO Patuxent River, MD			05/95			08/95			
•WSMO Volens, VA			09/95			*			
•WSCMO Wallops Island, VA		ASOS 01/95							
•WSCMO Washington-Dulles		ASOS 01/95							
•WSCMO Washington-National		ASOS 01/95							
NORFOLK/RICHMOND, VA (New WFO)	09/93	88D 03/95		03/95	02/94				
•WSO Baltimore, MD		ASOS 10/93		03/95		06/95	01/94	06/95	
•WSO Norfolk, VA		ASOS 01/95		03/95		06/95	04/95	06/95	
•WSO Richmond, VA		ASOS 01/95		03/95		*	04/95	*	
•WSO Cape Hatteras, NC		ASOS 05/95	05/95	03/95		08/95	08/95	08/95	
•WSMO Patuxent River, MD			05/95			08/95			

STATE OF VIRGINIA (Page 3 of 3)

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISS.	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
ROANOKE, VA (New WFO)	08/94	88D 07/95		07/95	06/94				
•WSO Asheville, NC		ASOS 05/95		07/95		*	08/95	*	
•WSO Beckley, WV		ASOS 10/94	09/95	07/95		*	01/95	*	
•WSO Bristol, TN		ASOS 11/93	09/95	07/95		02/94	02/94	*	
•WSO Greensboro, NC		ASOS 12/94		07/95		*	03/95	*	
•WSO Lynchburg, VA		ASOS 11/94		07/95		*	02/95	*	
•WSO Richmond, VA		ASOS 01/95		07/95		*	04/95	*	
•WSO Roanoke, VA		ASOS 12/94		07/95		03/95	03/95	*	
WFOs Out of State:									
CHARLESTON, WV (WSFO to WFO)	03/94	88D 04/95		04/95	03/94				
KNOXVILLE/TRI-CITIES, TN (New WFO)	06/94	88D 04/95		04/95	03/94				

STATE OF WASHINGTON (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Washington will result in services being provided by two in-state WFOs (Seattle/Tacoma and Spokane) and WFOs Pendleton and Portland, Oregon. WFO Portland will provide services to six counties in southern Washington; and WFO Pendleton will provide services to eight counties in southern Washington. WFO Spokane will also provide services to seven counties in northern Idaho.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
SEATTLE/TACOMA, WA (WSFO to WFO)	10/93	88D 11/94		11/94	10/93				
•WSO Olympia, WA		ASOS 10/93		11/94		01/94	01/94	*	
•WSO Olympia (FW), WA				01/94		*		*	
•WSCMO Quillayute, WA		ASOS 08/93							
•WSCMO Seattle/Tacoma, WA		ASOS 09/94							
•WSCMO Stampede Pass, WA		ASOS 05/93							

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
SPOKANE, WA (WSO to WFO)	05/95	88D * ASOS 10/93		*	07/95				
•WSO Lewiston, ID		ASOS 10/93		*		01/94	01/94	*	
•WSO Yakima, WA		ASOS 10/93		*		01/94	01/94	*	
•WSO Wenatchee (AG & FW), WA				*[1]		*		*	
WFOs Out of State:									
PENDLETON, OR (WSO to WFO)	04/95	88D* ASOS 10/93		*	06/95				
•WSO Yakima, WA		ASOS 10/93		*		01/94	01/94	*	
•WSO Wenatchee (AG & FW), WA				*[2]		*		*	
PORTLAND, OR (WSFO to WFO)	08/94	88D 08/95 ASOS 01/95	*	08/95	07/94				
•WSO Olympia (FW), WA				08/95		*		*	

1. Service will be transferred upon the commissioning of an AWIPS at WFO Spokane.
2. Service will be transferred upon the commissioning of an AWIPS at WFO Pendleton.

STATE OF WEST VIRGINIA (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in West Virginia will result in services being provided by one in-state WFO (Charleston) and WFOs Baltimore, MD/Washington, DC; Pittsburgh, Pennsylvania and Roanoke, Virginia. WFO Pittsburgh will provide services to nine counties in northern West Virginia; WFO Roanoke to four counties in southeast West Virginia; and WFO Baltimore, MD/Washington, DC to eight counties in eastern West Virginia. WFO Charleston will also provide services to two counties in Virginia, 20 counties in eastern Kentucky, and nine in southeast Ohio.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
CHARLESTON, WV (WSFO to WFO)	03/94[2]	88D 04/95		03/94[2] 04/95	03/94[1]	03/94[2]			
•Residual WSO Charleston, WV[2]		ASOS 10/93	06/95			09/95	01/94	09/95	
•WSO Beckley, WV		ASOS 10/94	09/95	04/95		*	01/95	*	
•WSO Bristol, TN		ASOS 11/93	09/95	04/95		02/94	02/94	*	

1. Meteorologist positions for operation of the WSR-88D filled; training begun.
2. Forecast and warning services of transitioning WSFO transferred to facility of future WFO. Surface and radar observation functions retained at original WSFO location and office redesignated a residual WSO.

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
CHARLESTON, WV (cont.)									
•WSO Elkins, WV		ASOS 11/94		04/95		07/95	02/95	07/95	
•WSO Huntington, WV		ASOS 10/94		04/95		07/95	01/95	07/95	
WFOs Out of State:									
BALTIMORE, MD/WASHINGTON, DC (WSFO to WFO)	12/89	88D 06/93		06/93	03/91				
•WSO Elkins, WV		ASOS 11/94		06/93		07/95	02/95	07/95	
PITTSBURGH, PA (WSFO to WFO)	04/93	88D 03/94		03/94	02/93				
•WSO Elkins, WV		ASOS 11/94		03/94		07/95	02/95	07/95	
ROANOKE, VA (New WFO)	08/94	88D 07/95		07/95	06/94				
•WSO Beckley, WV		ASOS 10/94	09/95	07/95		*	01/95	*	

STATE OF WISCONSIN (Page 1 of 3)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services in Wisconsin will result in services being provided by three in-state WFOs (Green Bay, La Crosse and Milwaukee) and WFOs located Minneapolis and Duluth Minnesota. WFO Minneapolis will provide services to 15 counties in western Wisconsin; WFO Duluth to 10 counties in northwestern Wisconsin. WFO La Crosse will also provide services to seven counties in southeastern Minnesota and eight counties in northwestern Iowa.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions projected to take place after fiscal year 1995 are indicated by an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
GREEN BAY, WI (WSO to WFO)	04/94	88D 06/95 ASOS 09/94		06/95	05/94				
•WSO Madison, WI		ASOS 07/94	08/95	06/95		*	10/94	*	
•WSMO Neenah, WI			08/95			*			

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
LA CROSSE, WI (New WFO)	07/95	88D *		*	06/95				
•WSO Dubuque, IA		ASOS 07/94		*		*	10/94	*	
•WSO La Crosse, WI				*		*		*	
•WSO Madison, WI		ASOS 07/94	*	*		*	10/94	*	
•WSO Rochester, MN		ASOS 01/95	*	*		*	04/95	*	
•WSO Waterloo, IA		ASOS 08/94	*	*		*	11/94	*	
MILWAUKEE, WI (WSFO to WFO)	11/89	88D 05/94		05/94	04/93				
•WSO Milwaukee, WI		ASOS 06/93				01/94	01/94		
•WSO Dubuque, IA		ASOS 07/94		05/94		*	10/94	*	
•WSO Madison, WI		ASOS 07/94		05/94		*	10/94	*	

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
Out of State:									
DULUTH, MN (WSO to WFO)	04/95	88D * ASOS 09/94	*	*	02/95				
MINNEAPOLIS, MN (WSFO to WFO)	06/94	88D 04/95		04/95	03/94				

STATE OF WYOMING (Page 1 of 2)

NOTIFICATION OF PROPOSED ACTIONS TO CHANGE OPERATIONS and INTENT TO CERTIFY
FY 1993 - 1995

The modernization of weather services will result in services being provided by two in-state WFOs (Cheyenne and Riverton). WFO Cheyenne will also provide services to eight counties in western Nebraska; WFO Riverton to one county in Utah and one in Montana.

Notifiable actions and office certifications projected to occur in fiscal years 1993 through 1995 are indicated below. Those actions that are projected to take place after fiscal year 1995 are indicated with an asterisk (*).

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANSFER	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
WFOs In-State:									
CHEYENNE, WY (WSFO TO WFO)	09/93	88D 05/95 ASOS 10/93	07/95	05/95	04/94				
•WSO Casper, WY		ASOS 12/94		05/95		*	03/95	*	
•WSO Scottsbluff, NE		ASOS 10/93		05/95		*	01/94	*	
•WSO Sheridan, WY		ASOS 10/93		05/95		*	01/94	*	
•WSMO Alliance, NE			*			*			

OFFICES	PROPOSED ACTIONS						CERTIFICATION		
	FACIL. OCCUP.	SYSTEMS COMMISSIONED	RADAR DECOMM.	SERVICE TRANS.	SIGNIFICANT STAFF CHANGE				
					Increase	Decrease	Automate	Consolid.	Relocate
RIVERTON, WY (New WFO)	05/95	88D * ASOS 11/94		*	05/95				
•WSO Casper, WY		ASOS 12/94		*		*	03/95	*	
•WSO Lander, WY				*		*	*	*	
•WSO Sheridan, WY		ASOS 10/93		*		*	01/94	*	
WFOs In-State:									
NONE									

Master Transition Schedule

The Master Transition Schedule (MTS) is the official document for review and evaluation of progress of the transition to the modernized NWS. It shows the schedules for major activities and events identified in the transition work breakdown structure, and their interdependencies. In addition to the major systems acquisition phases, such as the limited production and full scale production phases of NEXRAD and the development and production phases of ASOS, the MTS shows related activities in future operations and services, training and professional development, facilities preparation, implementation and phaseover, human resources, etc., as defined by the Work Breakdown Structure (WBS). Changes to the MTS will be controlled through the transition change management process.

The current approved MTS is attached. An explanation of the symbols used on the MTS and description of the activities depicted on the MTS follows.

Explanation of MTS Symbols

The MTS is a Program Evaluation and Review Technique chart, also called a PERT network, and shows the duration of various transition activities that must be accomplished against a time scale as well as the logical order in which these activities must occur.

The basic elements that comprise the MTS are shown in Figure A1. Each activity is shown as a horizontal rectangular box with an activity title below it. The vertical lines connecting activities together represent linkages, also called dependencies, between activities. In Figure A1, Activity B is dependent on Activity A. That is, Activity A must be completed before Activity B can start. This is called a "finish-to-start" type dependency. Activities may also be linked as "start-to-start" (which means that the start of one activity triggers the start of another) and "finish-to-finish" (which means that two activities must be completed at the same time). The numbers on the left and right side of Figure A1 are reference line numbers for locating activities.

Figure A2 illustrates the concept of float. The start of Activity B is dependent on completion of both Activity A and C. Since Activity C is scheduled to be completed before Activity A, the period of time between the scheduled completion of Activity C and the scheduled completion of Activity A is called "float." Float represents an allowance for slippage of scheduled completion of an activity that does not affect the overall time it takes to complete the set of activities. Thus in Figure A2, completion of Activity C could slip until the completion of Activity A without increasing the total time to complete all three activities.

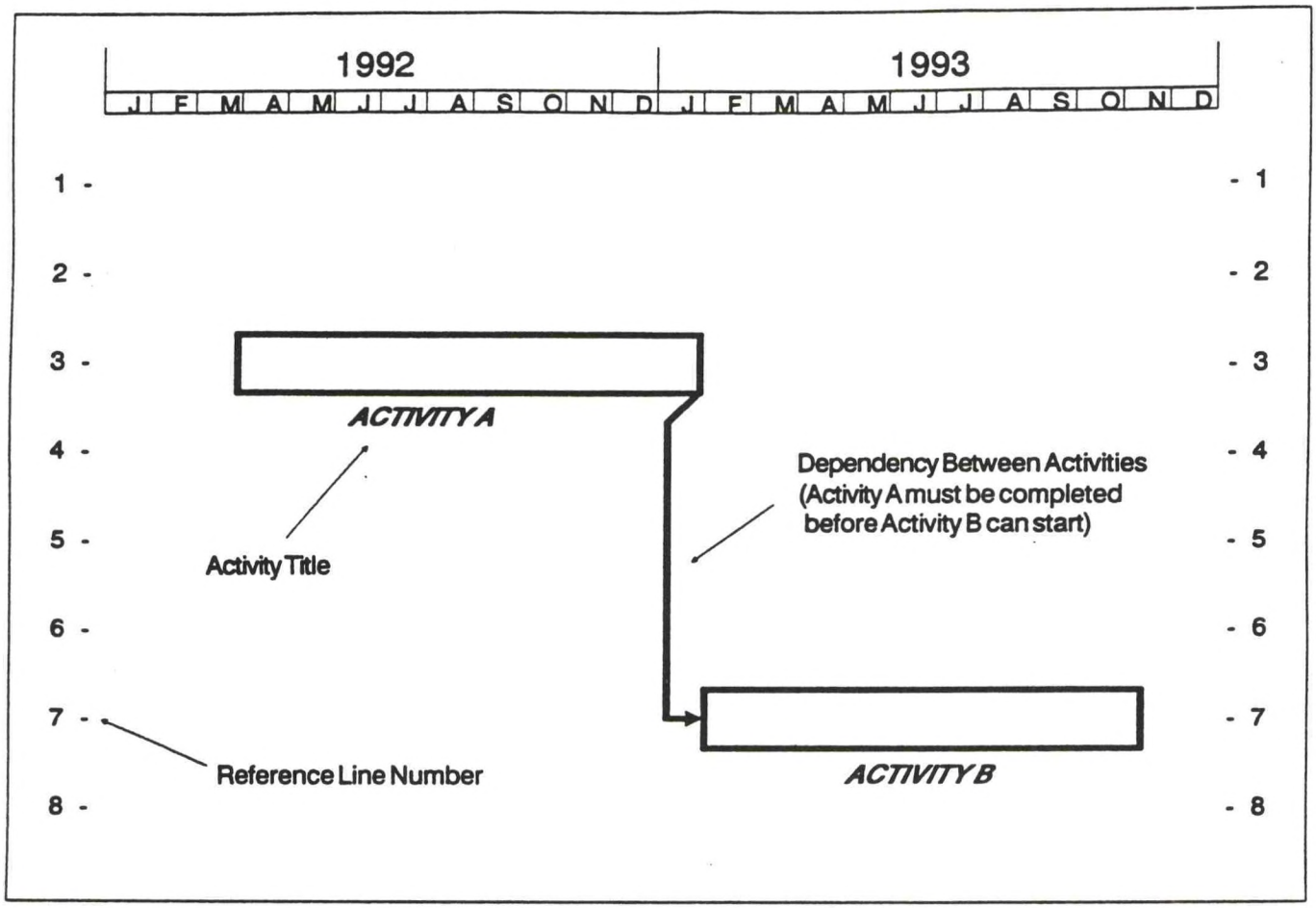


Figure A1

The longest path in time through all the activities in the network is called the "critical path" and represents the total time required to complete the entire project. Any schedule slippage in an activity on the critical path will delay completion of the overall project correspondingly. Description of the Activities Depicted on the MTS

The activities shown on the MTS comprise the major steps in transition to the modernized and restructured National Weather Service. These activities are described below. Reference line numbers are given to help locate the various activities on the MTS.

Principal Path—The Principal Path, described in Section 3.7 of this report, consists of Pre-MARD Risk Reduction Programs (reference line #3); an Office Transition & Evaluation period for MARD (reference line #3); the MARD —Modernization and Associated Restructuring Demonstration—(reference line #2); and Initial Stage 2 Service Implementation nationwide (reference line #4). At the end of the Office Transition & Evaluation period is a MARD Sites Stable Operations Period (reference line #6). A MARD Evaluation activity (reference line #3) runs in parallel with the MARD. The Principal Path activities are dependent on the other major sets of transition activities described below.

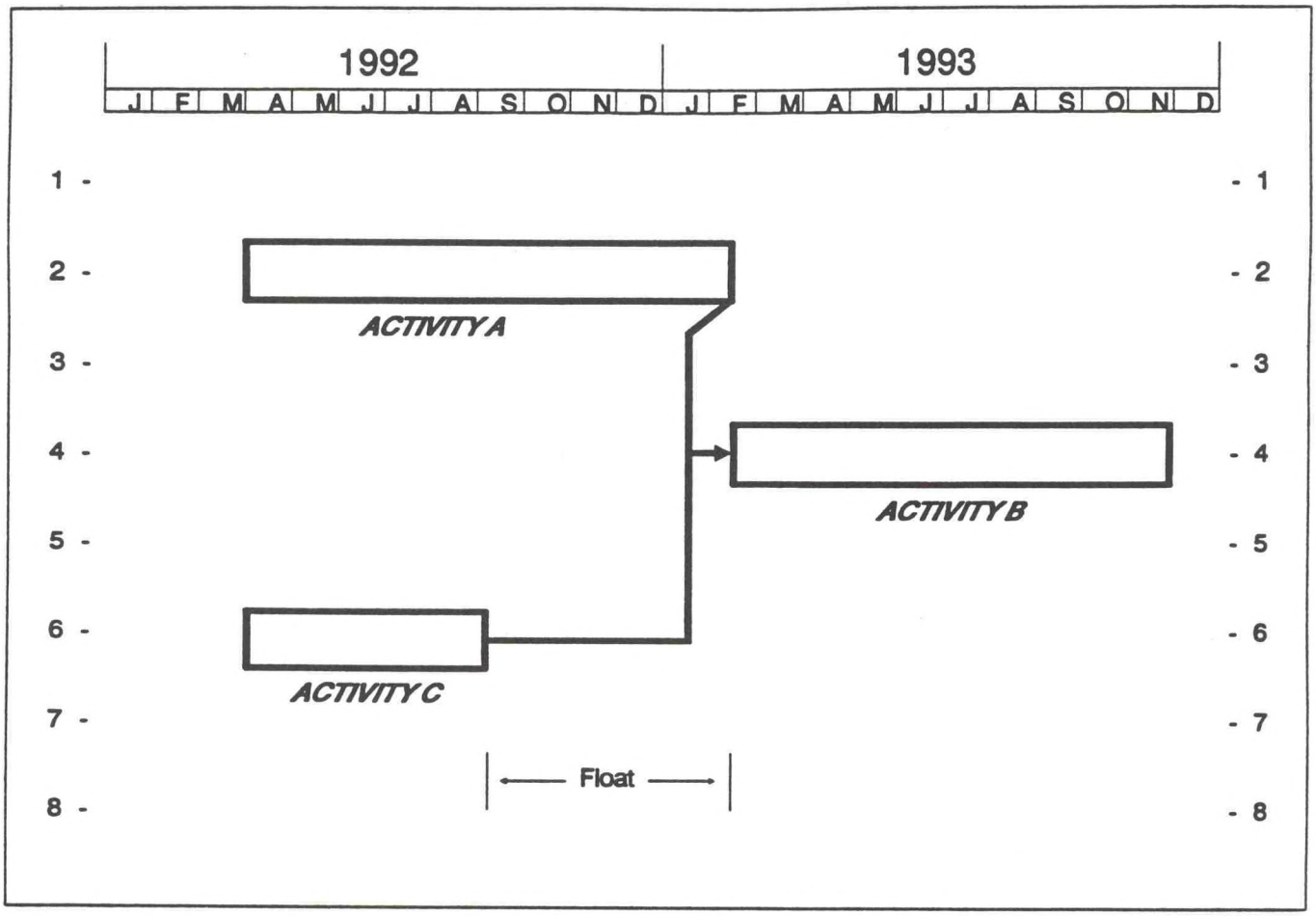


Figure A2

Transition Planning—Planning activities include completing the following: Strategic Plan (not shown) and initial National Implementation Plan (not shown), submitted to Congress in March 1989 and March 1990 respectively; next annual update to the National Implementation Plan (reference line #1); Regional Transition and Site Implementation Plans (reference line #1); certifications that services will not degrade (not shown); and the MARD Plan (reference line #2).

Facilities Preparation—Facilities activities in the first several years consist of designing sites for the MARD (completed, not shown), constructing the MARD offices (completed, not shown), and determining availability of the MARD site offices for occupancy (Office Beneficial Occupancy Date (BOD)) (reference line #11).

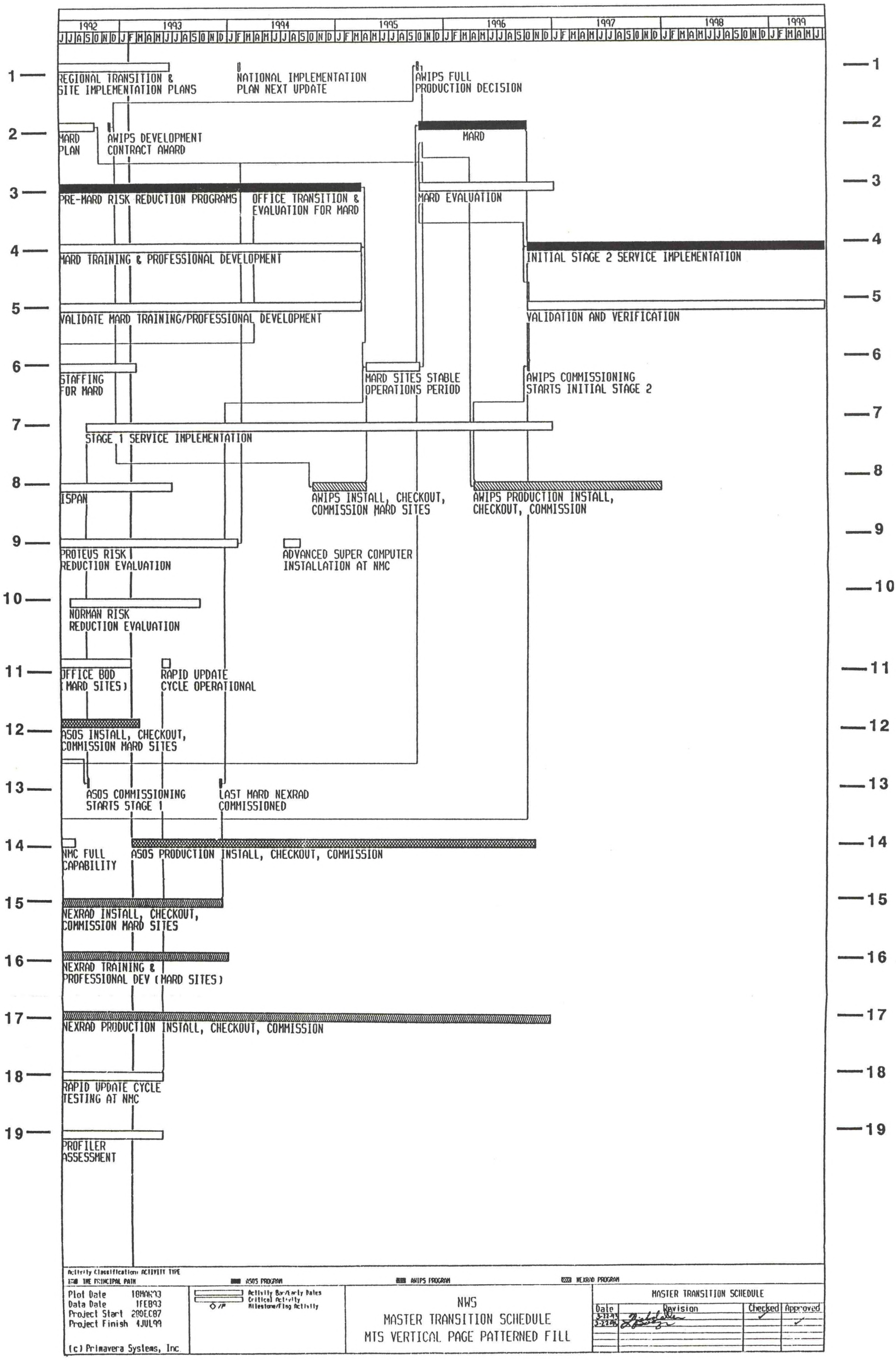
Risk Reduction—Risk reduction activities in the first several years include the DARE II project (completed, not shown), "ISPAN" (reference line #8), the PROTEUS project (reference line #9), and the Norman project (reference line #10).

Research Programs—Research activities shown include: Rapid Update Cycle Testing at NMC (reference line #18); and Profiler Production and Assessment Phase I (completed, not shown) and Assessment Phase II (reference line #19).

New Technologies—Activities associated with implementing and commissioning the various new technologies required for the MARD include ASOS installation, checkout and commissioning for the MARD sites (reference line #12); NEXRAD installation, checkout and commissioning for the MARD sites (reference line #15); AWIPS installation, checkout and commissioning for the MARD sites (reference line #8); and installation of the Cray YMP8 computer system (completed, not shown) and the advanced super computer system for NMC (reference line #9). Activities associated with implementation and commissioning of the various new technologies required for modernization nationwide include: ASOS installation, checkout and commissioning (reference line #14); NEXRAD installation, checkout and commissioning (reference line #17); and AWIPS installation, checkout and commissioning (reference line #8).

Staffing, Training and Professional Development—Staffing the MARD sites (reference line #6) is followed by MARD and NEXRAD Training and Professional Development (reference lines #4 and #16) for MARD site personnel, and Validation of the MARD Training and Professional Development (reference line #5).

Services—Activities associated with operational services include NMC Full Capability (reference line #14), providing centrally prepared guidance products to field offices; Stage 1 Service Implementation (reference line #7); Initial Stage 2 Service Implementation (reference line #4); and Validation and Verification (reference line #5) of services.


1992 1993 1994 1995 1996 1997 1998 1999
J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J
1 REGIONAL TRANSITION & SITE IMPLEMENTATION PLANS
NATIONAL IMPLEMENTATION PLAN NEXT UPDATE
AWIPS FULL PRODUCTION DECISION
2 MARD PLAN
AWIPS DEVELOPMENT CONTRACT AWARD
MARD
3 PRE-MARD RISK REDUCTION PROGRAMS
OFFICE TRANSITION & EVALUATION FOR MARD
MARD EVALUATION
4 MARD TRAINING & PROFESSIONAL DEVELOPMENT
INITIAL STAGE 2 SERVICE IMPLEMENTATION
5 VALIDATE MARD TRAINING/PROFESSIONAL DEVELOPMENT
VALIDATION AND VERIFICATION
6 STAFFING FOR MARD
MARD SITES STABLE OPERATIONS PERIOD
AWIPS COMMISSIONING STARTS INITIAL STAGE 2
7 STAGE 1 SERVICE IMPLEMENTATION
8 ISPAN
AWIPS INSTALL, CHECKOUT, COMMISSION MARD SITES
AWIPS PRODUCTION INSTALL, CHECKOUT, COMMISSION
9 PROTEUS RISK REDUCTION EVALUATION
ADVANCED SUPER COMPUTER INSTALLATION AT NMC
10 NORMAN RISK REDUCTION EVALUATION
11 OFFICE BOD (MARD SITES)
RAPID UPDATE CYCLE OPERATIONAL
12 ASOS INSTALL, CHECKOUT, COMMISSION MARD SITES
13 ASOS COMMISSIONING STARTS STAGE 1
LAST MARD NEXRAD COMMISSIONED
14 NMC FULL CAPABILITY
ASOS PRODUCTION INSTALL, CHECKOUT, COMMISSION
15 NEXRAD INSTALL, CHECKOUT, COMMISSION MARD SITES
16 NEXRAD TRAINING & PROFESSIONAL DEV (MARD SITES)
17 NEXRAD PRODUCTION INSTALL, CHECKOUT, COMMISSION
18 RAPID UPDATE CYCLE TESTING AT NMC
19 PROFILER ASSESSMENT
Activity Classification: ACTIVITY TYPE
THE PRINCIPAL PATH
ASOS PROGRAM
AWIPS PROGRAM
NEXRAD PROGRAM
Plot Date 18MAR93
Data Date 1FEB93
Project Start 28DEC87
Project Finish 4JUL99
(c) Primavera Systems, Inc.
Activity Bar/Early Dates
Critical Activity
Milestone/Flag Activity
NWS
MASTER TRANSITION SCHEDULE
MTS VERTICAL PAGE PATTERNED FILL
MASTER TRANSITION SCHEDULE
Date Revision Checked Approved
3-22-93

Appendix B

Outlines for Regional Transition And Site Implementation Plans

This appendix provides detailed outlines for use by the Regions in preparing Regional Transition Plans and Site Implementation Plans. Attached are the following:

Regional Transition Plan Outline

SECTION 1 INTRODUCTION

1.1 Purpose and Scope of RTP
1.2 Relationship of RTP to NIP and SIPs

SECTION 2 REGION LEVEL ACTIVITIES

2.1 Responsibility
2.1.1 Regional Transition Plan Updates
2.1.2 Site Implementation Plans and Updates
2.1.3 Internal and External Coordination
2.1.4 Establish Operational Readiness
2.1.5 Certification
2.2 Overview of Personnel Actions
2.3 Strategies
2.3.1 Office operations
2.3.2 Staffing
2.3.3 Technology
2.3.4 Programs
2.3.5 Internal & External Coordination
2.3.6 Establishing Operational Readiness
2.3.7 Certification Process
- Notification of Significant Events
- Notification of Intent to Certify
- Certification

2.4 Guidance
2.4.1 Stage 1 ROMLS For WSOM Chapter - When
2.4.2 Initial Stage 2 ROMLS For WSOM Chapter - When
2.4.3 Stage 2 ROMLS For WSOM Chapter - When

SECTION 3 OFFICE RESOURCES INVENTORY

3.1 Staff: Number/Title - Date/Update
3.2 Technology: Type - Date/Update
3.3 Programs: Type - Date/Update
3.4 Dissemination
3.5 Communications

SECTION 4 OFFICE SCHEDULES

4.1	Future Office Locations: Office name(s), city/town
4.2	Facility Schedules: Completion Date (Build/Renovate)
4.3	Technology Schedules
4.3.1	System Z: Delivery Date
4.3.2	ASOS: Implementation Schedule
4.3.3	NEXRAD: Delivery Date
4.3.4	Profiler: Delivery Date
4.3.5	AWIPS: Delivery Date
4.3.6	Other Technology
4.4	SIP Schedule: Due Date
4.5	Coordination schedule: Internal: Date required; External: Date required
4.6	Program Change Schedule:
4.6.1	Warnings: What - Where - When
4.6.2	Public: What - Where - When
4.6.3	Aviation: What - Where - When
4.6.4	Marine: What - Where - When
4.6.5	Applied Services: What - Where - When
4.6.6	Hydrology: What - Where - When

SECTION 5 OFFICE IMPLEMENTATION AND PHASEOVER

5.1	General Implementation and Phaseover Strategy
5.2	Risk Reduction: What/When
5.3	Stage 1 Activities
5.3.1	Staffing: Increase/Decrease - Who/When
5.3.2	Training: Type - Who/When
5.3.3	Technology: Type - Add/Transfer - From/To/When
5.3.4	Programs: Type - Add/Transfer - From/To/When
5.3.5	Stage 1: Commissioning/Decommissioning - When
5.4	Initial Stage 2 Activities
5.4.1	Staffing: Increase/Decrease - When
5.4.2	Training: Type - When
5.4.3	Technology: Type - Add/Transfer - From/To/When
5.4.4	Programs: Type - Add/Transfer - From/To/When
5.4.5	Initial Stage 2: WFO Commissioning - When
5.5	Stage 2 Activities
5.5.1	Staffing Changes - When
5.5.2	Training: Type - When
5.5.3	Technology: Type - Add/Transfer - From/To/When
5.5.4	Programs: Type - Add/Transfer - From/To/When

Site Implementation Plan Outline

SECTION 1 INTRODUCTION

1.1 Purpose of the Site Implementation Plan

The National Weather Service is engaged in the Modernization and Associated Restructuring (MAR) of the agency. The accomplishment of this goal requires a major transition from current to MAR operations while maintaining an adequate level of services. The bulk of this transition will occur at the NWS field offices. This document will identify the specific activities, schedules, and procedures required to accomplish transition at the NWS field offices in future WFO _____'s area of responsibility. This document will also provide site level information for the agency, new technology contractors, and Meteorologist-In-Charge for the no degradation of service certification.

1.2 Relationship of the Site Implementation Plan to the National Implementation Plan and the Regional Transition Plan

This plan employs the strategies developed in the National Implementation Plan and refined in the Regional Transition Plan to implement transition at the field offices which are located in WFO _____'s area of responsibility. Specific activities and schedules included in the plan are obtained from the Transition Work Breakdown Schedule, defined in the National Implementation Plan, the Regional Transition Plan, and from the actual field offices.

1.3 Scope of Site Implementation Plan

This document includes all the activities required to achieve full modernization and associated restructuring at the field offices which are located in WFO _____'s area of responsibility. These offices include;

WFO _____,
The _____ River Forecast Center (RFC),
(if the WFO is colocated with an RFC)
CWSU _____,
(if there is a CWSU in WFO's area of responsibility)
Other _____,
(if there is some "other" type office in WFOs area)
WSOs _____, _____, etc..,
WSMOs _____, _____, etc.., and
WSCMOs _____, _____, etc...

1.4 Major Site Transition Milestones

SECTION 2 OFFICE RESOURCES INVENTORY

2.1 WSFO/WSO (To Become WFO)
2.1.1 Staff
2.1.2 Technology
2.1.3 Programs
Warnings
Warning Preparedness
Public
Marine
Aviation
Observations
Surface
Synoptic
Upper air
Hydrologic
Radar
Climate
Other
NOAA Weather Radio
Air Pollution
Fire Weather
Agriculture
Hydrology
Hazardous Materials (spills, etc.)
Miscellaneous (Avalanche, etc.)
2.1.4 Dissemination
2.1.5 Communications
2.1.6 Applications Software
2.1.7 Miscellaneous Inventory
2.2 RFC
2.2.1 Staff
2.2.2 Technology
2.2.3 Programs
Short-Range Forecasting
Flash Flood Guidance
Extended-Range Forecasting
Observed Hydrometeorological Data Assimilation
Hydrometeorological Forecast Assimilation
Hydrometeorological Discussions
Intra-Agency Support Activities
Interagency Support Activities
2.2.4 Dissemination

2.2.5 Communications
2.2.6 Applications Software
2.3 CWSU
2.3.1 Staff
2.3.2 Technology
2.3.3 Programs
2.3.4 Dissemination
2.3.5 Communications
2.3.6 Applications Software
2.4 Other Offices (AWSC, NSO, TWS, Etc.)
2.4.1 Staff
2.4.2 Technology
2.4.3 Programs
2.4.4 Dissemination
2.4.5 Communications
2.4.6 Applications Software
2.5 Other Offices (WSO, WSMO, WSCMO - Continue With 2.6, 2.7, 2.8... 2.n to Account For All Other Offices in WFO area)
2.5.1 Staff
2.5.2 Technology
2.5.3 Programs
2.5.4 Dissemination
2.5.5 Communications

SECTION 3 OFFICE TRANSITION ACTIVITIES

3.1 Site (WSFO/WSO to NWSFO/NWSO to WFO)
3.1.1 Facility
3.1.1.1 Facility Preparation Activities For Stage 1

New Facility:
- Leave Old Facility/Terminate Lease
- Acquire Mailing Address
- Access
- Completion Date
- Acceptance Date
- Occupancy Date

Modify Existing Facility:
- Modifications Required
- Interim Furniture/Equipment Configuration
- Completion Date
- Acceptance Date
- Re-occupancy Date

Floor Plan Design
Office and Equipment Layout
Install and Accept Signal and Power Runs
Utility Requirements
- Water and Sewer
- Electric
- Auxiliary/Emergency Power

Furniture Acquisition
Facility Maintenance

3.1.1.2 Facility Preparation Activities For Initial Stage 2
AWIPS Installation

3.1.1.3 Upper Air Inflation Building
Design
Design Approval
Prepare SOW
Let Contract
Begin Construction
Acceptance

3.1.2 Staffing

3.1.2.1 Staff Changes For Stage 1
NWSFO
- MIC
- SOO
- WCM
- Meteorologists
- Service Hydrologists
- DAPM
- Hydromet Techs
- ESA
- Electronics Techs
- Other

NWSO
- MIC
- SOO
- WCM
- Meteorologists
- Service Hydrologists
- DAPM
- Hydromet Techs
- ESA
- Electronics Techs
- Other

3.1.2.2 Staff Changes For Initial Stage 2

NWSFO to WFO
- Meteorologists (+/-)
- Hydromet Techs (+/-)
- Electronics Techs(+/-)
- Other

NWSO to WFO
- Meteorologists (+)
- Hydromet Techs (+/-)
- Electronics Techs (+/-)
- Other

3.1.2.3 Staff Changes For Stage 2

3.1.3 Training and Professional Development (T & PD)

3.1.3.1 T & PD For Stage 1

NEXRAD

ASOS

Maintenance

Hydromet Tech.

Other

3.1.3.2 T & PD For Initial Stage 2

AWIPS

Other

3.1.3.3 T & PD For Stage 2

AWIPS Advanced Capabilities

Other

3.1.4 Technology

3.1.4.1a Pre-MAR Technology - Activities For Stage 1

Surface Observing Equipment
- HO-83
- F-420
- LBC
- Sunshine Switch & Recorder
- Special Use Equip (Solirad, etc)

Other Observing Systems

Radar

Upper Air
- Helium/Hydrogen Contracts

AFOS

ABT

SWIS/MicroSWIS

RADID/KAVOURIS/RAPID II/ICRAD

Other

3.1.4.1b Pre-MAR Technology - Activities For Initial Stage 2

AFOS

ABT
SWIS/MicroSWIS
Other

3.1.4.1c Pre-MAR Technology - Activities For Stage 2
Other

3.1.4.2a New MAR Technology - Activities For Stage 1
System Z
ASOS
Micro-ART
NEXRAD
LDADS
NWR Upgrade
Other

3.1.4.2b New MAR Technology - Activities For Initial Stage 2
AWIPS
Other

3.1.4.2c New MAR Technology - Upgrades For Stage 2

3.1.5 Programs

3.1.5.1 Program Changes For Stage 1
Warnings
    Warning Preparedness
Public
Marine
Aviation
Observations
    Surface
    Synoptic
    Upper air
    Hydrologic
    Radar
    Climate
    Other
NOAA Weather Radio
Air Pollution
Fire Weather
Agriculture
Hydrology
Hazardous Materials (spills, etc.)
Miscellaneous (Avalanche, etc.)

3.1.5.2 Program Changes For Initial Stage 2
Warnings
    Warning Preparedness
Public

Marine
Aviation
Observations
Surface
Synoptic
Upper air
Hydrologic
Radar
Climate
Other
NOAA Weather Radio
Air Pollution
Fire Weather
Agriculture
Hydrology
Hazardous Materials (spills, etc.)
Miscellaneous (Avalanche, etc.)

3.1.5.3 Program Changes For Stage 2

Warnings
Warning Preparedness
Public
Marine
Aviation
Observations
Surface
Synoptic
Upper air
Hydrologic
Radar
Climate
Other
NOAA Weather Radio
Air Pollution
Fire Weather
Agriculture
Hydrology
Hazardous Materials (spills, etc.)
Miscellaneous (Avalanche, etc.)

3.1.6 Dissemination

3.1.6.1 Dissemination Activities For Stage 1

NWR Consoles
NWWS
Other

3.1.6.2 Dissemination Activities For Initial Stage 2
Additions
Changes
3.1.6.3 Dissemination Activities For Stage 2
Additions
Changes
3.1.7 Communications
3.1.7.1 Communications Activities For Stage 1
Telephone Systems
Office Phone System
Telephone Recording Devices
WATTS Lines
NAWAS
RDC/SDC Communications
S-140
Alert Systems
IFLOWS
ROSA
FAA Electrowriter
Communications Lines
Type
Disconnect/Connect/Transfer
3.1.7.2 Communications Activities For Initial Stage 2
Communications Lines
Type - Disconnect/Connect/Transfer
3.1.7.3 Communications Activities For Stage 2
Communications Lines
Type - Disconnect/Connect/Transfer
3.1.8 Maintenance
3.1.8.1 Maintenance Changes For Stage 1
3.1.8.2 Maintenance Changes For Initial Stage 2
3.1.8.3 Maintenance Changes For Stage 2
3.1.9 Coordination
3.1.9.1a Internal Coordination For Stage 1
Regional Headquarters
NWS Headquarters
Union
3.1.9.1b Internal Coordination For Initial Stage 2
Regional Headquarters
NWS Headquarters
Union
3.1.9.1c Internal Coordination For Stage 2
Regional Headquarters

	NWS Headquarters
	Union
3.1.9.2a	External Coordination For Stage 1
	Congressional
	State
	County
	Local Community
	Media
	Federal Agencies
	Federal Cooperators
	Private Meteorologists
3.1.9.2b	External Coordination For Initial Stage 2
	Congressional
	State
	County
	Local Community
	Media
	Federal Agencies
	Federal Cooperators
	Private Meteorologists
3.1.9.2c	External Coordination For Stage 2
	Congressional
	State
	County
	Local Community
	Media
	Federal Agencies
	Federal Cooperators
	Private Meteorologists
3.1.10	Other Changes
3.1.10.1	Other Changes For Stage 1
3.1.10.2	Other Changes For Initial Stage 2
3.1.10.3	Other Changes For Stage 2
3.1.11	Station Duty Manual
3.1.11.1	Stage 1 Station Duty Manual
3.1.11.2	Initial Stage 2 Station Duty Manual
3.1.11.3	Stage 2 Station Duty Manual
3.1.12	Site Operational Readiness
3.1.12.1	Establish Stage 1 Operational Readiness
3.1.12.2	Establish Initial Stage 2 Operational Readiness
3.1.12.3	Establish Stage 2 Operational Readiness
3.2	River Forecast Center (RFC)

3.2.1	Facility
3.2.1.1	Facility Preparation Activities For Stage 1
	Equipment Inventory
	Floor Plan Requirements -
	Coordinate With MIC/Regional/National HQ
	Office and Equipment Layout -
	Coordinate With MIC/Regional/National HQ
	Plan Furniture/Equipment to Dispose/Move
	Furniture Acquisition
	Utility Requirements - Coordinate with Region
	Facility Maintenance - Coordinate with MIC
	New Facility:
	Leave Old Facility - Terminate Lease, Utilities
	Occupancy Date
	Modify Existing Facility:
	Interim Furniture/Equipment Configuration
	Re-occupancy Date
3.2.1.2	Facility Preparation Activities For Initial Stage 2
	Modifications To Layout For AWIPS
3.2.2	Staffing
3.2.2.1	Staff Changes For Stage 1
	Hydrologist In Charge (HIC)
	Development and Operations Hydrologist (DOH)
	Senior HAS Forecaster
	HAS Forecasters (2)
	Other
3.2.2.2	Staff Changes For Initial Stage 2
	Senior Hydrologic Forecasters
	Hydrologic Forecasters
	Hydrologic Interns
	Other
3.2.3	Training and Professional Development (T & PD)
3.2.3.1	T & PD For Stage 1
	NEXRAD
	Other
3.2.3.2	T & PD For Initial Stage 2
	AWIPS
	Other
3.2.3.3	T & PD For Stage 2
	Upgraded Operational Capabilities
3.2.4	Technology
3.2.4.1a	Pre-MAR Technology - Activities For Stage 1
	AFOS

	RJE System
	RFC Gateway II
	Other
3.2.4.1b	Pre-MAR Technology - Activities For Initial Stage 2
	AFOS (decommission)
	RJE System (decommission)
	RFC Gateway II
	Other
3.2.4.1c	Pre-MAR Technology - Activities For Stage 2
	RFC Gateway II
	Other
3.2.4.2a	New MAR Technology - Activities For Stage 1
	NEXRAD PUP
	Other
3.2.4.2b	New MAR Technology - Activities For Initial Stage 2
	AWIPS
	Other
3.2.4.2c	New MAR Technology - Upgrades For Stage 2
	AWIPS Upgrade
	Other
3.2.4.3a	Operational Forecast System - Activities For Stage 1
	Conversion to NWSRFS
3.2.4.3b	Operational Forecast System - Activities For Initial Stage 2
	Input of Gridded Precipitation Estimates
	On Site, Interactive NWSRFS
3.2.4.3c	Operational Forecast System - Activities For Stage 2
	Forecast System Upgrades
3.2.5	Programs
3.2.5.1	Program Changes For Stage 1
3.2.5.1a	Short-Range Forecasting
3.2.5.1b	Flash Flood Guidance
3.2.5.1c	Extended-Range Forecasting
3.2.5.1d	Observed Hydrometeorological Data Assimilation
3.2.5.1e	Hydrometeorological Forecast Assimilation
3.2.5.1f	Hydrometeorological Discussions
3.2.5.1g	Intra-Agency Support Activities
3.2.5.1h	Interagency Support Activities
3.2.5.2	Program Changes For Initial Stage 2
3.2.5.2a	Short-Range Forecasting
3.2.5.2b	Flash Flood Guidance
3.2.5.2c	Extended-Range Forecasting
3.2.5.2d	Observed Hydrometeorological Data Assimilation
3.2.5.2e	Hydrometeorological Forecast Assimilation

3.2.5.2f	Hydrometeorological Discussions
3.2.5.2g	Intra-Agency Support Activities
3.2.5.2h	Interagency Support Activities
3.2.5.3	Program Changes For Stage 2
3.2.5.3a	Short-Range Forecasting
3.2.5.3b	Flash Flood Guidance
3.2.5.3c	Extended-Range Forecasting
3.2.5.3d	Observed Hydrometeorological Data Assimilation
3.2.5.3e	Hydrometeorological Forecast Assimilation
3.2.5.3f	Hydrometeorological Discussions
3.2.5.3g	Intra-Agency Support Activities
3.2.5.3h	Interagency Support Activities
3.2.6	Dissemination
3.2.6.1	Dissemination Changes For Stage 1
3.2.6.2	Dissemination Changes For Initial Stage 2
3.2.6.3	Dissemination Changes For Stage 2
3.2.7	Communications
3.2.7.1	Communications Activities For Stage 1
	Telephone Systems
	Communications Lines - Type
3.2.7.2	Communications Activities For Initial Stage 2
3.2.7.3	Communications Activities For Stage 2
3.2.8	Maintenance
3.2.8.1	Maintenance Changes For Stage 1
3.2.8.2	Maintenance Changes For Initial Stage 2
3.2.8.3	Maintenance Changes For Stage 2
3.2.9	Coordination
3.2.9.1a	Internal Coordination For Stage 1
	NWSFOs/NWSOs
	Regional Headquarters
	NWS Headquarters
	Union
3.2.9.1b	Internal Coordination For Initial Stage 2
	WFOs
	Regional Headquarters
	NWS Headquarters
	Union
3.2.9.1c	Internal Coordination For Stage 2
	WFOs
	Regional Headquarters
	NWS Headquarters
	Union
3.2.9.2a	External Coordination For Stage 1

	Congressional
	State
	County
	Media
	Water Resources Cooperators
	Other Federal Agencies
3.2.9.2b	External Coordination For Initial Stage 2
	Congressional
	State
	County
	Media
	Water Resources Cooperators
	Other Federal Agencies
3.2.9.2c	External coordination For Stage 2
	State
	County
	Media
	Water Resources Cooperators
	Other Federal Agencies
3.2.10	Other Changes
3.2.10.1	Other Changes For Stage 1
3.2.10.2	Other Changes For Initial Stage 2
3.2.10.3	Other Changes For Stage 2
3.2.11	Station Duty Manual
3.2.11.1	Stage 1 Station Duty Manual
3.2.11.2	Initial Stage 2 Station Duty Manual
3.2.11.3	Stage 2 Station Duty Manual
3.2.12	Site Operational Readiness
3.2.12.1	Establish Stage 1 Operational Readiness
3.2.12.2	Establish Initial Stage 2 Operational Readiness
3.2.12.3	Establish Stage 2 Operational Readiness
3.3	CWSU
3.3.1	Facility Changes
3.3.1a	Facility Changes For Stage 1
3.3.1b	Facility Changes For Initial Stage 2
3.3.1c	Facility Changes For Stage 2
3.3.2	Staffing
3.3.2a	Staffing Changes For Stage 1
3.3.2b	Staffing Changes For Initial Stage 2
3.3.2c	Staffing Changes For Stage 2
3.3.3	Training and Professional Development (T & PD)
3.3.3a	T & PD For Stage 1

	NEXRAD
	Other
3.3.3b	T & PD For Initial Stage 2
	CWSU Workstation
	Other
3.3.3c	T & PD For Stage 2
3.3.4	Technology
3.3.4.1a	Use of Pre-MAR Technology in Stage 1
	Decommission/Dispose
3.3.4.1b	Use of Pre-MAR Technology in Initial Stage 2
	Decommission/Dispose
3.3.4.1c	Use of Pre-MAR Technology in Stage 2
3.3.4.2a	New Stage 1 Technologies
3.3.4.2b	New Initial Stage 2 Technologies
	CWSU Workstation
	Other
3.3.4.2c	New Stage 2 Technologies
3.3.5	Programs
3.3.5.1	Program Changes For Stage 1
3.3.5.2	Program Changes For Initial Stage 2
3.3.5.3	Program Changes For Stage 2
3.3.6	Dissemination
3.3.6.1	Dissemination Changes For Stage 1
3.3.6.2	Dissemination Changes For Initial Stage 2
3.3.6.3	Dissemination Changes For Stage 2
3.3.7	Communications
3.3.7.1	Communications Changes For Stage 1
3.3.7.2	Communications Changes For Initial Stage 2
3.3.7.3	Communications Changes For Stage 2
3.3.8	Maintenance
3.3.8.1	Maintenance Changes For Stage 1
3.3.8.2	Maintenance Changes For Initial Stage 2
3.3.8.3	Maintenance Changes For Stage 2
3.3.9	Coordination
3.3.9.1a	Internal Coordination For Stage 1
	Regional Headquarters
	NWS Headquarters
	Union
3.3.9.1b	Internal Coordination For Initial Stage 2
	Regional Headquarters
	NWS Headquarters
	Union
3.3.9.1c	Internal Coordination For Stage 2

	Regional Headquarters
	NWS Headquarters
	Union
3.3.9.2a	External Coordination For Stage 1
	FAA
3.3.9.2b	External Coordination For Initial Stage 2
	FAA
3.3.9.2c	External Coordination For Stage 2
3.3.10	Other Changes
3.3.10.1	Other Changes For Stage 1
3.3.10.2	Other Changes For Initial Stage 2
3.3.10.3	Other Changes For Stage 2
3.3.11	Station Duty Manual
3.3.11.1	Stage 1 Station Duty Manual
3.3.11.2	Initial Stage 2 Station Duty Manual
3.3.11.3	Stage 2 Station Duty Manual
3.3.12	Site Operational Readiness
3.3.12.1	Establish Stage 1 Operational Readiness
3.3.12.2	Establish Initial Stage 2 Operational Readiness
3.3.12.3	Establish Stage 2 Operational Readiness
3.4	Other Offices (AWSC, NSO, TWS, Etc.)
3.4.1	Facility
3.4.1.1	Facility Changes For Stage 1
3.4.1.2	Facility Changes For Initial Stage 2
3.4.1.3	Facility Changes For Stage 2
3.4.2	Staffing
3.4.2.1	Staffing Changes For Stage 1
3.4.2.2	Staffing Changes For Initial Stage 2
3.4.3	Training and Professional Development
3.4.3.1	T & PD For Stage 1
3.4.3.2	T & PD For Initial Stage 2
3.4.3.3	T & PD For Stage 2
3.4.4	Technology
3.4.4.1a	Use of Pre-MAR Technology in Stage 1
3.4.4.1b	Use of Pre-MAR Technology in Initial Stage 2
3.4.4.1c	Use of Pre-MAR Technology in Stage 2
3.4.4.2a	New Stage 1 Technologies
3.4.4.2b	New Initial Stage 2 Technologies
3.4.4.2c	New Stage 2 Technologies
3.4.5	Programs
3.4.5.1	Program Changes For Stage 1
3.4.5.2	Program Changes For Initial Stage 2

3.4.5.3	Program Changes For Stage 2
3.4.6	Dissemination
3.4.6.1	Dissemination Changes For Stage 1
3.4.6.2	Dissemination Changes For Initial Stage 2
3.4.6.3	Dissemination Changes For Stage 2
3.4.7	Communications
3.4.7.1	Communications Changes For Stage 1
3.4.7.2	Communications Changes For Initial Stage 2
3.4.7.3	Communications Changes For Stage 2
3.4.8	Maintenance
3.4.8.1	Maintenance Changes For Stage 1
3.4.8.2	Maintenance Changes For Initial Stage 2
3.4.8.3	Maintenance Changes For Stage 2
3.4.9	Coordination
3.4.9.1a	Internal Coordination For Stage 1 Regional Headquarters NWS Headquarters Union
3.4.9.1b	Internal Coordination For Initial Stage 2 Regional Headquarters NWS Headquarters Union
3.4.9.1c	Internal Coordination For Stage 2 Regional Headquarters NWS Headquarters Union
3.4.9.2a	External Coordination For Stage 1
3.4.9.2b	External Coordination For Initial Stage 2
3.4.9.2c	External Coordination For Stage 2
3.4.10	Other Changes
3.4.11	Station Duty Manual
3.4.11.1	Stage 1 Station Duty Manual
3.4.11.2	Initial Stage 2 Station Duty Manual
3.4.11.3	Stage 2 Station Duty Manual
3.4.12	Site Operational Readiness
3.4.12.1	Establish Stage 1 Operational Readiness
3.4.12.2	Establish Initial Stage 2 Operational Readiness
3.4.12.3	Establish Stage 2 Operational Readiness
3.5	Office (WSO, WSMO, WSCMO - Continue With 3.6, 3.7, 3.8... 3.n to Account For All Offices in WFO area)
3.5.1	Facility
3.5.1.1	Facility Activities For Stage 1

Lease Termination/Modification
Office Furniture/Equipment
Utilities

3.5.1.2 Facility Activities For Initial Stage 2
Lease Termination/Modification
Office Furniture/Equipment
Utilities

3.5.2 Staffing

3.5.2.1 Staffing Changes For Stage 1
OIC/MIC
Met Techs
Interns
Electronics Techs
Other

3.5.2.2 Staffing Changes For Initial Stage 2
OIC/MIC
Met Techs
Interns
Electronics Techs
Other

3.5.3 Training and Professional Development (T & PD)

3.5.3.1 T & PD Enroute New Assignment For Stage 1

3.5.3.2 T & PD Enroute New Assignment For Initial Stage 2

3.5.4 Technology

3.5.4.1a Pre-MAR Technology - Activities For Stage 1
Surface Observing Equipment
HO-83
F-420
LBC
Sunshine Switch & Recorder
Special Use Equip (Solirad, etc)
Other Observing Systems
Radar
Upper Air
Helium/Hydrogen Contract
AFOS

3.5.4.1b Pre-MAR Technology - Activities For Initial Stage 2
AFOS

3.5.4.2a New Technology - Activities For Stage 1
ASOS

3.5.4.2b New Technology - Activities For Initial Stage 2

3.5.5 Programs

3.5.5.1 Program Changes For Stage 1

Observations
- Surface
- Radar
- Upper Air

Climatological Services

Warnings
- County
- Winter Storm

Public
- Local

Aviation
- PWB

Marine
- Coastal

Applied Services
- Agricultural
- Forestry

Hydrological
- Collect/Disseminate

Climatological Services

Other

3.5.5.2 Program Changes For Initial Stage 2

Observations
- Surface
- Radar
- Upper Air

Climatological Services

Warnings
- County
- Winter Storm

Public
- Local

Aviation
- PWB

Marine
- Coastal

Applied Services
- Agricultural
- Forestry

Hydrological
- Collect/Disseminate

Climatological Services

Other

3.5.6	Dissemination
3.5.6.1	Dissemination Activities For Stage 1
	NWR Consoles
	Remove/Transfer
3.5.6.2	Dissemination Activities For Initial Stage 2
	NWR Consoles
	Remove/Transfer
3.5.7	Communications
3.5.7.1	Communications Activities For Stage 1
	Telephone Systems
	Telephone Recording Devices
	Communications Lines
3.5.7.2	Communications Activities For Initial Stage 2
	Telephone Systems
	Telephone Recording Devices
	Communications Lines
3.5.8	Maintenance
3.5.8.1	Maintenance Changes For Stage 1
3.5.8.2	Maintenance Changes For Initial Stage 2
3.5.9	Coordination
3.5.9.1a	Internal Coordination For Stage 1
	Regional Headquarters
	NWS Headquarters
	Union
3.5.9.1b	Internal Coordination For Initial Stage 2
	Regional Headquarters
	NWS Headquarters
	Union
3.5.9.2a	External Coordination For Stage 1
	Congressional
	State
	County
	Local Community
	Media
	Federal Agencies
	Federal Cooperators
	Private Meteorologists
3.5.9.2b	External Coordination For Initial Stage 2
	Congressional
	State
	County
	Local Community
	Media

Federal Agencies
Federal Cooperators
Private Meteorologists

3.5.10 Other Changes
3.5.10.1 Other Changes For Stage 1
3.5.10.2 Other Changes For Initial Stage 2
3.5.11 Station Duty Manual
3.5.11.1 Stage 1 Station Duty Manual
3.5.11.2 Initial Stage 2 Station Duty Manual
3.5.12 Site Deactivation
3.5.12.1 Stage 1
3.5.12.2 Initial Stage 2

SECTION 4 RISK REDUCTION

4.1 Future WFO
4.2 Other Office (RFC, CWSU, WSO, etc.)

Appendices

Related Transition Planning Documents

To ensure an orderly transition to the modernized NWS, a number of transition planning documents and associated publications are required. Given below is the current list of related transition planning documents along with their effective date. A blank date indicates the plan or document is still under development.

Document Title	Effective Date
Public Law 102-567 Certification Regulations and Certification Plan (Proposed)	
Preliminary MARD Plan	Oct 92
Office Transition & Evaluation Plan	
Integrated Operations and Services Plan	
Stage 1 Operations Concept (Draft)	Dec 88
Stage 2 Operations Concept	Jan 90
Public Services Plan	Sep 91
Marine Services Plan	Oct 91
Aviation Plan	Dec 91
Fire Weather Operations and Services Plan	Sep 91
Agriculture Plan	
National Centers Transition Plan	Aug 90
Dissemination Transition Plan	
Quantitative Precipitation Forecasting Plan	
NMC Marine Support Plan	
Hydrologic Services Plan	
Manual Observations with ASOS Plan	
NEXRAD USERS Handbook	
System Development and Integration Plan	Apr 89
Integrated Systems Upgrade Plan	
ASOS Deployment Schedule	Jan 92
NEXRAD Deployment Schedule	Oct 91
AWIPS Deployment Schedule	
External and Internal Coordination Plan	Sep 92
Facilities Preparation Plan	

Integrated Training and Professional Development Plan	Jan 92
Implementation and Phase Over Plan	Nov 91
ASOS Systems Commissioning Plan	Aug 92
AWIPS Systems Commissioning Plan	
NEXRAD Systems Commissioning Plan	
Systems Decommissioning Plan	
Risk Reduction Plan	
Human Resources Plan (Draft)	Jan 92

Documents incorporated in NIP by reference:

WBS Description Document and Dictionary (Section 5.2)	Jan 89
Program Monitoring and Control System Description Document (Section 5.4)	Jul 88
Transition Change Management Policy Document (Section 5.5)	Mar 89

Other Specific Information

This appendix is intended to be an expandable appendix, and will be used to provide specific information concerning modernization and associated restructuring of NWS, as it becomes available for release. Attached are the following:

LOCATIONS OF THE WEATHER FORECAST OFFICES

Weather Forecast Office Locations

Metropolitan Area	Proposed Office Location
Aberdeen, SD	Aberdeen Regional Airport
Albany, NY	State University of New York, Albany
Albuquerque, NM	Albuquerque, NM
Alpena, MI	(not yet determined)
Amarillo, TX	Amarillo International Airport
Anchorage, AK	Anchorage, AK
Atlanta, GA	Falcon Field, Peachtree City
Austin/San Antonio, TX	New Braunfels Municipal Airport
Baltimore, MD/Washington, DC	Sterling, VA
Billings, MT	Billings-Logan International Airport
Binghamton, NY	Broome County Airport
Birmingham, AL	Shelby County Airport
Bismarck, ND	Bismarck Municipal Airport
Boise, ID	Boise Interagency Fire Center
Boston, MA	Taunton, MA
Brownsville, TX	Brownsville International Airport
Buffalo, NY	(not yet determined)
Burlington, VT	Burlington International Airport
Central Illinois, IL	Logan County Airport
Central Pennsylvania, PA	State College, PA
Charleston, SC	Charleston International Airport
Charleston, WV	Ruthdale, WV
Cheyenne, WY	Cheyenne Municipal Airport
Chicago, IL	Lewis University Airport
Cincinnati, OH	Wilmington, OH
Cleveland, OH	Cleveland-Hopkins International Airport
Columbia, SC	Columbia Metropolitan Airport
Corpus Christi, TX	Corpus Christi International Airport
Dallas/Fort Worth, TX	Fort Worth, TX
Denver/Boulder, CO	Boulder, CO
Des Moines, IA	Acorn Valley Recreation Area
Detroit, MI	Indian Springs Metropark, Pontiac
Dodge City, KS	Dodge City Municipal Airport
Duluth, MN	(not yet determined)
Eastern North Dakota, ND	(not yet determined)
El Paso, TX	Santa Teresa Airport, NM
Elko, NV	East Elko, NV
Eureka, CA	Eureka, CA
Fairbanks, AK	Fairbanks, AK
Flagstaff, AZ	(not yet determined)

Weather Forecast Office Locations
(continued)

Metropolitan Area	Proposed Office Location
Glasgow, MT	Glasgow International Airport
Goodland, KS	Goodland Municipal Airport
Grand Junction, CO	Walker Field
Grand Rapids, MI	Kent County International Airport
Great Falls, MT	near Great Falls Int'l Airport
Green Bay, WI	Austin-Straubel Field
Greenville/Spartanburg, SC	(at or near Greer, SC)
Hastings, NE	Hastings, NE
Honolulu, HI	Honolulu, HI
Houston/Galveston, TX	League City, TX
Indianapolis, IN	Indianapolis International Airport
Jackson, MS	Jackson Municipal Airport
Jacksonville, FL	Jacksonville International Airport
Juneau, AK	Juneau, AK
Kansas City/Pleasant Hill, MO	Pleasant Hill, MO
Knoxville/Tri Cities, TN	Morristown Airport Industrial District
La Crosse, WI	La Crosse Ridge, La Crosse County
Lake Charles, LA	Lake Charles Municipal Airport
Las Vegas, NV	Las Vegas, NV
Little Rock, AR	North Little Rock Airport
Los Angeles, CA	Oxnard, CA
Louisville, KY	Louisville, KY
Lubbock, TX	Lubbock, TX
Marquette, MI	Marquette County Airport
Medford, OR	Medford-Jackson County Airport
Melbourne, FL	Melbourne Regional Airport
Memphis, TN	Memphis Agricenter International Complex
Miami, FL	Miami, FL
Midland/Odessa, TX	Midland International Airport
Milwaukee, WI	Sullivan Township, Jefferson County
Minneapolis, MN	Chanhassen Township
Missoula, MT	near Missoula County Airport
Mobile, AL	Mobile Municipal Airport
Morehead City, NC	Newport, NC
Nashville, TN	Old Hickory Mountain, TN
New Orleans/Baton Rouge, LA	Slidell Airport
New York City, NY	Brookhaven National Lab, Upton, NY
Norfolk/Richmond, VA	Wakefield, VA
North Platte, NE	Lee Bird Airport

Weather Forecast Office Locations
(continued)

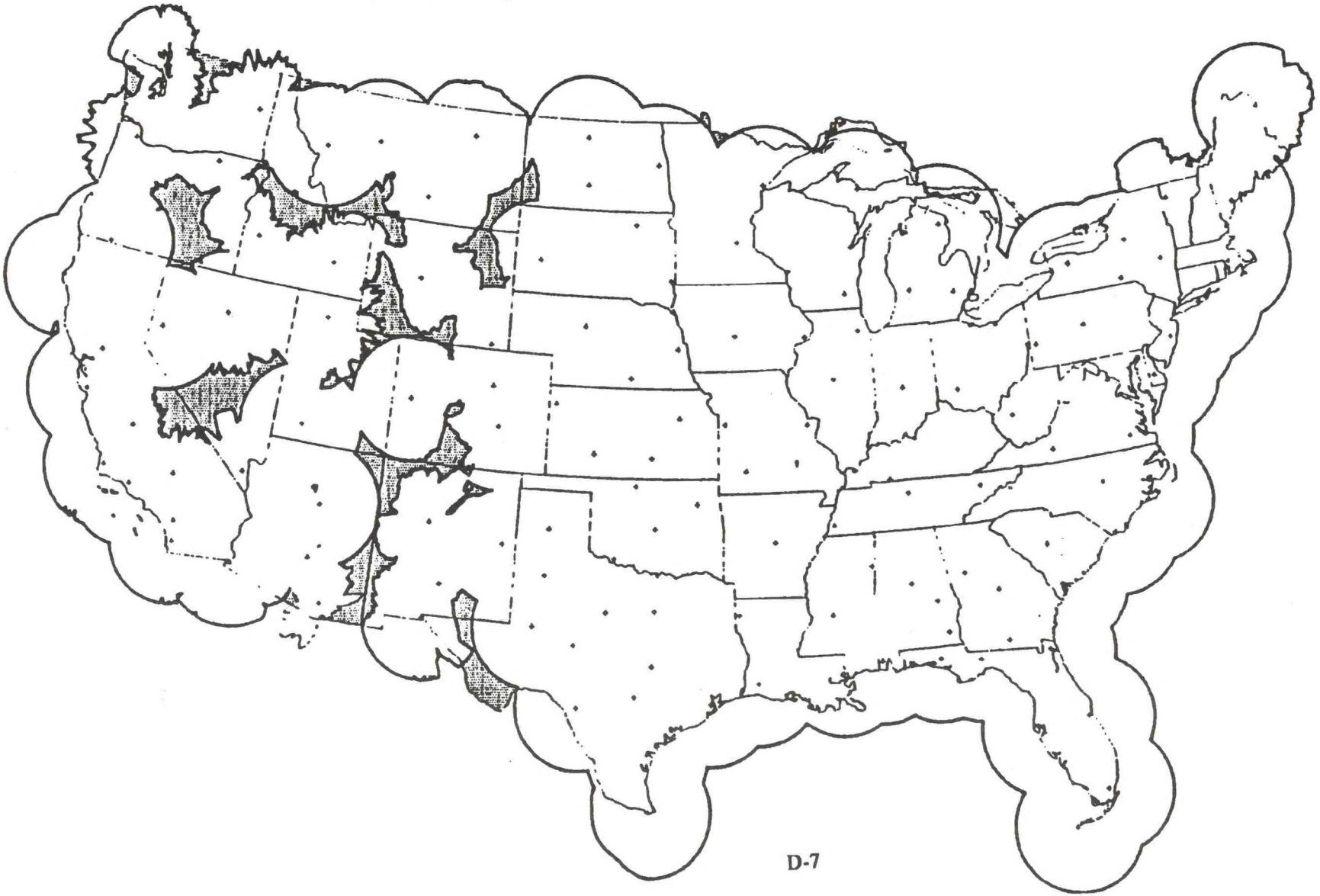
Metropolitan Area	Proposed Office Location
Oklahoma City, OK	Norman, OK
Omaha, NE	Valley, NE
Paducah, KY	Barkley Regional Airport
Pendleton, OR	Pendleton Municipal Airport
Philadelphia, PA	Mt. Holly, NJ
Phoenix, AZ	Phoenix, AZ
Pittsburgh, PA	Coraopolis, PA
Pocatello/Idaho Falls, ID	Pocatello Airport, ID
Portland, ME	Gray, ME
Portland, OR	Portland International Airport
Pueblo, CO	Pueblo Memorial Airport
Quad Cities, IA	(not yet determined)
Raleigh/Durham, NC	N.C. State Univ., Raleigh, NC
Rapid City, SD	Rapid City, SD
Reno, NV	Reno, NV
Riverton, WY	Riverton Regional Airport
Roanoke, VA	Blacksburg, VA
Sacramento, CA	Sacramento, CA
Salt Lake City, UT	Salt Lake City International Airport
San Angelo, TX	San Angelo Municipal Airport
San Diego, CA	Miramar Naval Air Station
San Francisco Bay Area, CA	Monterey, CA
San Joaquin Valley, CA	Hanford, CA
San Juan, PR	Luis Munoz Marin Int'l Airport
Seattle/Tacoma, WA	Sand Point, WA
Shreveport, LA	Shreveport Regional Airport
Sioux Falls, SD	Sioux Falls Municipal Airport
Spokane, WA	Rambo Road, Spokane, WA
Springfield, MO	Springfield Regional Airport
St. Louis, MO	Research Park, St. Charles County
Tallahassee, FL	Tallahassee, FL
Tampa Bay Area, FL	Ruskin, FL
Topeka, KS	Philip Billard Municipal Airport
Tucson, AZ	Tucson, AZ
Tulsa, OK	Tulsa International Airport
Wichita, KS	Wichita Mid-Continent Airport
Wilmington, NC	New Hanover County Airport

River Forecast Centers

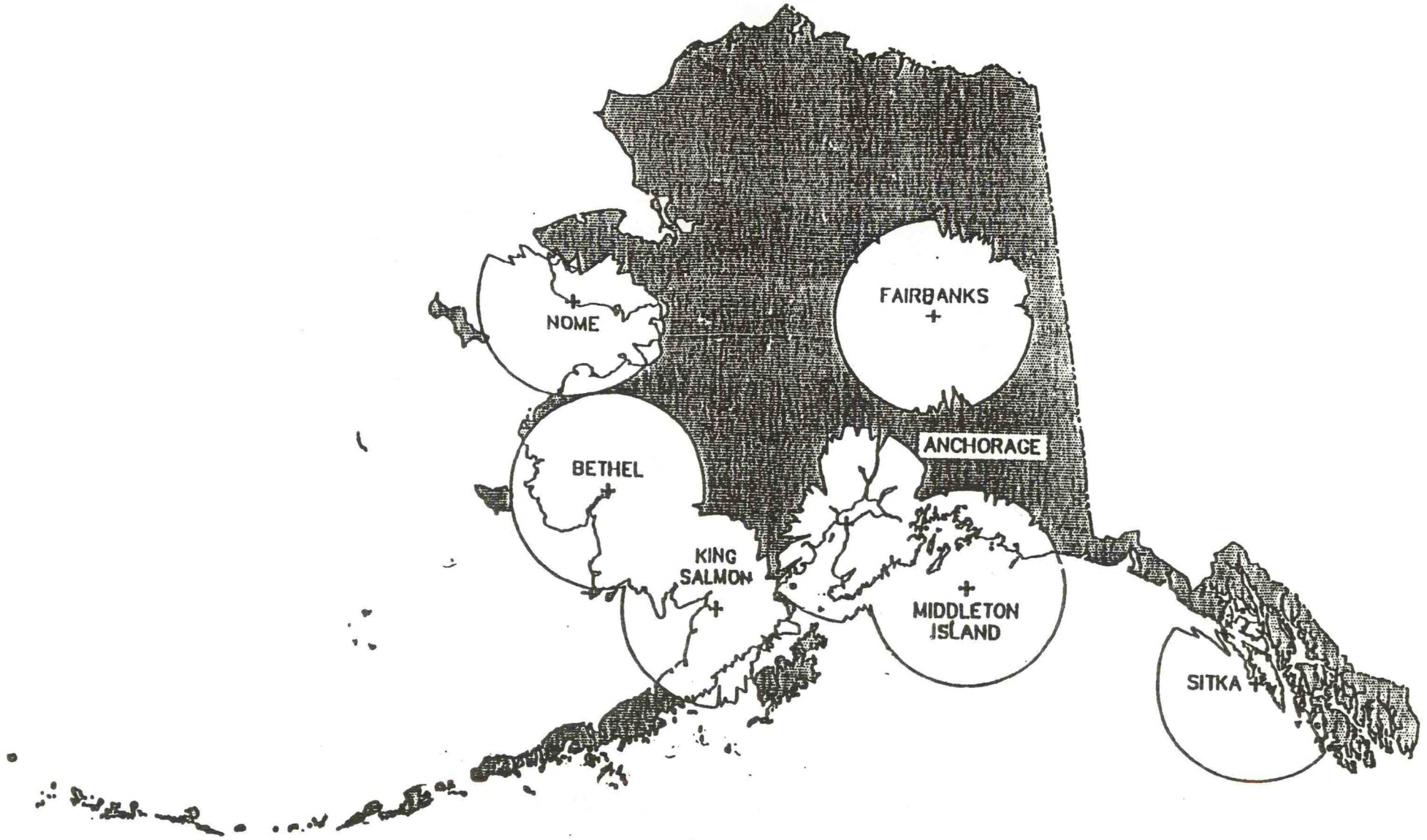
River Forecast Center Name	Co-located Weather Forecast Office
Southeast RFC	Atlanta, GA
Lower Mississippi RFC	New Orleans/Baton Rouge, LA
Arkansas-Red Basin RFC	Tulsa, OK
West Gulf RFC	Dallas/Fort Worth, TX
Ohio RFC	Wilmington, OH
Middle Atlantic RFC	State College, PA
Northeast RFC	Taunton, MA
Colorado Basin RFC	Salt Lake City, UT
California-Nevada RFC	Sacramento, CA
Northwest RFC	Portland, OR
North Central RFC	Minneapolis/St. Paul, MN
Missouri Basin RFC	Kansas City, MO
Alaska RFC	Anchorage, AK

Depiction of the Total Coverage (At 10,000 Feet Elevation) Provided by the Completed NEXRAD Network.

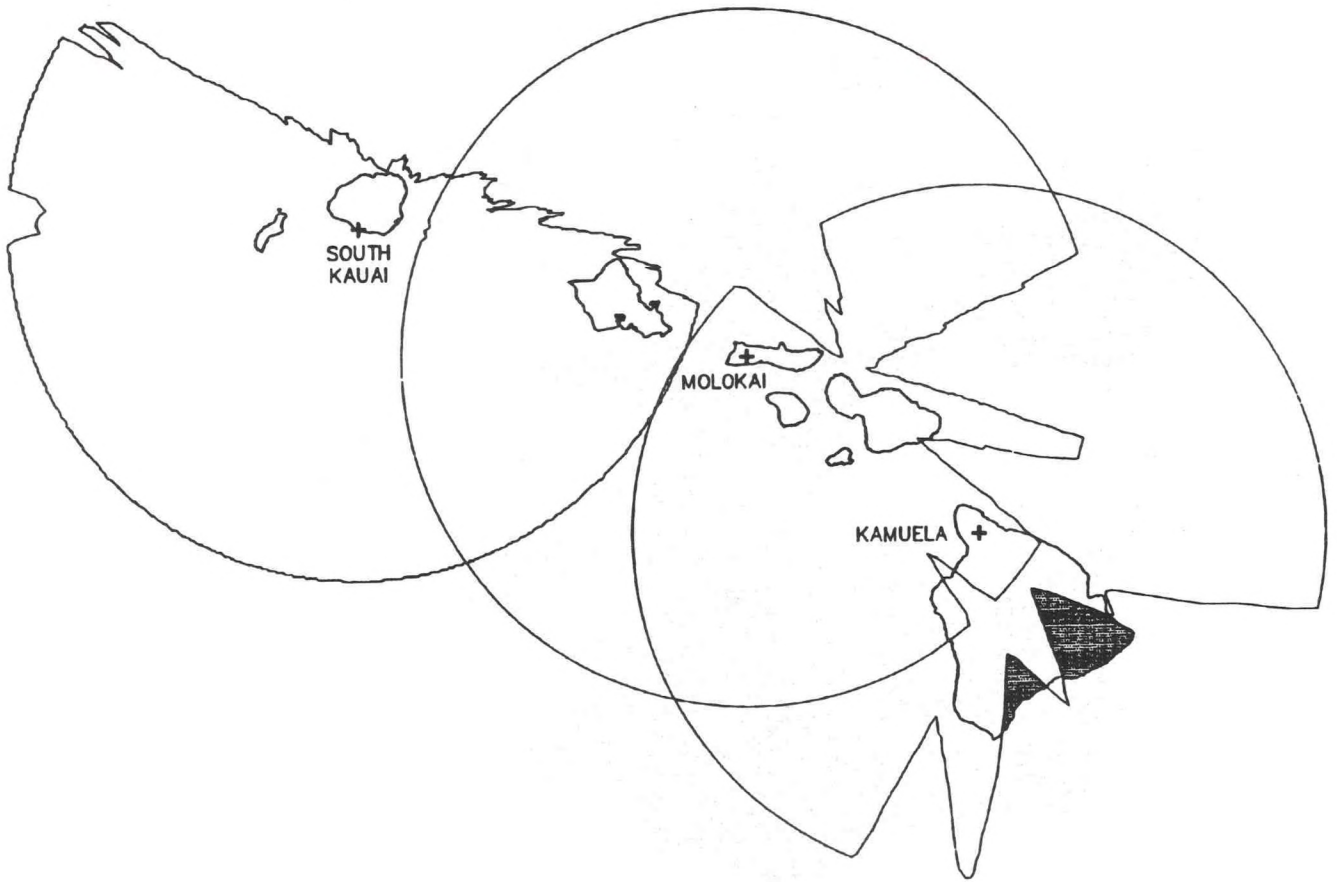
Darkened Areas Over the Rocky Mountains are Gaps In Coverage at 10,000 feet.



NEXRAD SITES AND ESTIMATED COVERAGE (AT 10,000 FT ELEVATION) FOR ALASKA.



NEXRAD SITES AND ESTIMATED COVERAGE (AT 10,000 FT ELEVATION) FOR HAWAII



Note: South Hawaii Site Not Shown

NEXRAD Locations

Metropolitan Area	Proposed NEXRAD Location
Aberdeen, SD	Aberdeen Regional Airport
Albany, NY	Berne, NY
Albuquerque, NM	Double Eagle Airport
Alpena, MI	Gaylord, Michigan
Amarillo, TX	Amarillo International Airport
Atlanta, GA	Falcon Field, Peachtree City
Austin/San Antonio, TX	New Braunfels Municipal Airport
Baltimore, MD/Washington, DC	Sterling, VA
Billings, MT	Alkali Creek Rd, Yellowstone County
Binghamton, NY	Broome County Airport
Birmingham, AL	near Shelby County Airport
Bismarck, ND	Bismarck Municipal Airport
Boise, ID	Wild Horse Corral, Ada County
Boston, MA	Taunton, MA
Brownsville, TX	Brownsville International Airport
Buffalo, NY	(not yet determined)
Burlington, VT	Burlington International Airport
Cedar City, UT	Blowhard Mountain, Iron County
Central Illinois, IL	Logan County Airport
Central Pennsylvania, PA	Moshannon State Forest
Charleston, SC	Sheldon, SC
Charleston, WV	Ruthdale, WV
Cheyenne, WY	Cheyenne Municipal Airport
Chicago, IL	Lewis University Airport
Cincinnati, OH	Wilmington, OH
Cleveland, OH	Cleveland-Hopkins Int'l Airport
Columbia, SC	Columbia Metropolitan Airport
Corpus Christi, TX	Corpus Christi Int'l Airport
Dallas/Fort Worth, TX	Fort Worth Spinks Airport
Denver/Boulder, CO	Front Range Airport
Des Moines, IA	Camp Dodge Mil Reserv, Polk County
Detroit, MI	Indian Springs Metropark
Dodge City, KS	Dodge City Municipal Airport
Duluth, MN	Duluth International Airport
Eastern North Dakota, ND	Lindas Township, Traill County
El Paso, TX	Santa Teresa Airport, NM
Elko, NV	Sheep Creek Mountain, Lander County
Eureka, CA	Bunker Hill, Humboldt County
Flagstaff, AZ	(not yet determined)
Glasgow, MT	Glasgow International Airport
Goodland, KS	Goodland Municipal Airport

NEXRAD Locations
(Continued)

Metropolitan Area	Proposed NEXRAD Location
Grand Junction, CO	Grand Mesa, Mesa County
Grand Rapids/Muskegon, MI	Kent County International Airport
Great Falls, MT	near Great Falls International Airport
Green Bay, WI	Austin-Straubel Field
Greenville/Spartanburg, SC	(at or near Greer, SC)
Hastings, NE	Blue Hill, NE
Houston/Galveston, TX	League City, TX
Indianapolis, IN	Indianapolis International Airport
Jackson, MS	Jackson Municipal Airport
Jacksonville, FL	Jacksonville International Airport
Kansas City/Pleasant Hill, MO	Pleasant Hill, MO
Key West, FL	Key West International Airport
Knoxville/Tri Cities, TN	Morristown Airport Indus. District
La Crosse, WI	La Crosse Ridge, La Crosse County
Lake Charles, LA	Lake Charles Municipal Airport
Las Vegas, NV	Opal Mountain, Nelson, NV
Little Rock, AR	near Camp Robinson, Pulaski County
Los Angeles, CA	Sulphur Mountain, Ventura County
Louisville, KY	Fort Knox Military Reservation
Lubbock, TX	Lubbock International Airport
Marquette, MI	Marquette County Airport
Medford, OR	Mount Ashland, Jackson County
Melbourne, FL	Melbourne Regional Airport
Memphis, TN	Millington Naval Air Station
Miami, FL	Richmond Heights
Midland/Odessa, TX	Midland International Airport
Milwaukee, WI	Sullivan Township, Jefferson County
Minneapolis, MN	Chanhassen Township
Missoula, MT	Pt. Six Mountain, Missoula County
Mobile, AL	Mobile Municipal Airport
Morehead City, NC	Newport, NC
Nashville, TN	Old Hickory Mountain, TN
New Orleans/Baton Rouge, LA	Slidell Airport
New York City, NY	Brookhaven National Lab, Upton, NY
Norfolk/Richmond, VA	Wakefield, VA
North Platte, NE	Thedford area, Thomas County
Oklahoma City, OK	Twin Lakes Airport
Omaha, NE	Valley, NE
Paducah, KY	Barkley Regional Airport
Pendleton, OR	Pendleton Municipal Airport
Philadelphia, PA	Fort Dix, NJ

NEXRAD Locations

(Continued)

Metropolitan Area	Proposed NEXRAD Location
Phoenix, AZ	Williams Air Force Base
Pittsburgh, PA	Coraopolis, PA
Pocatello/Idaho Falls, ID	Springfield, ID
Portland, ME	Gray, ME
Portland, OR	Dixie Mountain, Washington County
Pueblo, CO	Boone/Highland Roads, Pueblo County
Quad Cities, IA	Davenport Municipal Airport
Raleigh/Durham, NC	Clayton, NC
Rapid City, SD	New Underwood, SD
Reno, NV	Virginia Peak, Washoe County
Riverton, WY	Riverton Regional Airport
Roanoke, VA	Coles Knob, Floyd County
Sacramento, CA	USAF David Communications Site
Salt Lake City, UT	Promontory Point, Box Elder County
San Angelo, TX	San Angelo Municipal Airport
San Diego, CA	Miramar Naval Air Station
San Francisco Bay Area, CA	Mt. Umunhum, Santa Clara County
San Joaquin Valley, CA	Hanford Municipal Airport
Seattle/Tacoma, WA	South Camano Island, WA
Shreveport, LA	Shreveport Regional Airport
Sioux Falls, SD	Sioux Falls Municipal Airport
Spokane, WA	Rambo Road, Spokane, WA
Springfield, MO	Springfield Regional Airport
St. Louis, MO	Research Park, St. Charles County
Tallahassee, FL	Tallahassee Regional Airport
Tampa Bay Area, FL	Ruskin, FL
Topeka, KS	Wabaunsee County
Tucson, AZ	(not yet determined)
Tulsa, OK	Shreck Farm, Rogers County
Wichita, KS	Wichita Mid-Continent Airport
Wilmington, NC	Shallotte, NC
Yuma, AZ	near Yuma International Airport

NEXRAD Locations

NEXRADs in Alaska and Hawaii

Metropolitan Area	Proposed NEXRAD Location
Anchorage, AK	Kenai Peninsula
Bethel, AK	(not yet determined)
Fairbanks, AK	Pedro Dome
Kamuela, HI	Puu Lapalapa
King Salmon, AK	Airport site
Middleton Island, AK	FAA property
Molokai, HI	Mauna Loa Ridge, "B" site
Nome, AK	(not yet determined)
Sitka, AK	Biorka Island
South Hawaii, HI	(not yet determined)
South Kauai, HI	Mc Bryde Sugar Mill site

NOTE: Puerto Rico will have NEXRAD coverage.

Department of Defense Supplemental NEXRADs:

Beale Air Force Base, CA
Cannon Air Force Base, NM
Central Texas (Granger), TX
Columbus Air Force Base, MS
Dover Air Force Base, DE
Dyess Air Force Base, TX
East Alabama (Carrville), AL
Edwards Air Force Base, CA
Frederick, OK
Ft. Campbell, KY
Ft. Rucker, AL
Griffiss Air Force Base, NY
Holloman Air Force Base, NM
Laughlin Air Force Base, TX
Loring Air Force Base, ME*
March Air Force Base, CA
Minot Air Force Base, ND
Moody Air Force Base, GA
Northwest Florida (Red Bay), FL
Robins Air Force Base, GA
Vandenberg Air Force Base, CA
Vance Air Force Base, OK

* - Ownership of this NEXRAD will be transferred to the NWS.

Candidate ASOS Locations (NWS and FAA)

AK	Anchorage	FAA
AK	Anchorage	FAA
AK	Anchorage	NWS
AK	Annette	NWS
AK	Barrow	NWS
AK	Bethel	NWS
AK	Bettles	FAA
AK	Cold Bay	NWS
AK	Cordova	FAA
AK	Deadhorse	FAA
AK	Deering	FAA
AK	Delta Jct/Ft Greely	FAA
AK	Eagle	FAA
AK	Fairbanks	NWS
AK	Gulkana	FAA
AK	Haines	FAA
AK	Homer	NWS
AK	Iliamna	FAA
AK	Juneau	FAA
AK	Kaltag	FAA
AK	Karluk	FAA
AK	Kenai	FAA
AK	Ketchikan	FAA
AK	King Salmon	NWS
AK	Kivalina	FAA
AK	Klawock	FAA
AK	Kodiak	NWS
AK	Kotzebue	NWS
AK	McGrath	NWS
AK	Nenana	NWS
AK	Nome	NWS
AK	Northway	FAA
AK	Nuiqsut	FAA
AK	Palmer	FAA
AK	Portage	FAA
AK	Seldovia	FAA
AK	Seward	FAA
AK	Sitka	FAA
AK	Skagway	FAA
AK	St George Island	FAA
AK	St Paul Island	NWS
AK	Talkeetna	NWS
AK	Tanana	FAA
AK	Wainwright	FAA
AK	Yakutat	NWS
AL	Alabaster	FAA
AL	Anniston	FAA
AL	Birmingham	FAA
AL	Decatur	FAA
AL	Dothan	FAA
AL	Evergreen	FAA
AL	Huntsville	NWS
AL	Mobile	FAA
AL	Mobile	NWS
AL	Montgomery	NWS
AL	Muscle Shoals	FAA
AL	Troy	FAA
AL	Tuscaloosa	FAA
AR	Blytheville	FAA
AR	De Queen	FAA
AR	El Dorado	FAA
AR	Fayetteville	FAA
AR	Fort Smith	NWS
AR	Harrison	FAA
AR	Hot Springs	FAA
AR	Jonesboro	FAA
AR	Little Rock	FAA
AR	Monticello	FAA
AR	Mountain Home	FAA
AR	Pine Bluff	FAA
AR	Russellville	FAA
AR	Texarkana	FAA
AZ	Flagstaff	NWS
AZ	Grand Canyon	FAA
AZ	Kayenta	FAA
AZ	Kingman	NWS
AZ	Nogales	FAA
AZ	Page	NWS
AZ	Phoenix	FAA
AZ	Phoenix	NWS
AZ	Prescott	FAA
AZ	Scottsdale	FAA
AZ	St Johns	FAA
AZ	Tucson	NWS
AZ	Winslow	NWS
CA	Arcata/Eureka	FAA
CA	Avalon	FAA
CA	Bakersfield	NWS
CA	Bishop	NWS
CA	Blythe	FAA
CA	Burbank	FAA
CA	Carlsbad	FAA
CA	Chino	FAA
CA	Concord	FAA

Candidate ASOS Locations (NWS and FAA)

(Continued)

CA	Daggett	FAA
CA	Emigrant Gap	NWS
CA	Fresno	NWS
CA	Fullerton	FAA
CA	Hanford	FAA
CA	Hawthorne	FAA
CA	Hayward	FAA
CA	Imperial	FAA
CA	Livermore	FAA
CA	Long Beach	NWS
CA	Los Angeles	NWS
CA	Madera	FAA
CA	Marysville	FAA
CA	Modesto	FAA
CA	Monterey	FAA
CA	Mt Shasta	NWS
CA	Napa	FAA
CA	Oakland	FAA
CA	Oceanside	FAA
CA	Ontario	FAA
CA	Oroville	FAA
CA	Oxnard	FAA
CA	Palm Springs	FAA
CA	Palmdale	FAA
CA	Palo Alto	FAA
CA	Paso Robles	FAA
CA	Red Bluff	NWS
CA	Redding	NWS
CA	Riverside	FAA
CA	Sacramento	FAA
CA	Sacramento	FAA
CA	Salinas	FAA
CA	San Diego	FAA
CA	San Diego	NWS
CA	San Diego	NWS
CA	San Francisco	NWS
CA	San Jose	FAA
CA	San Luis Obispo	FAA
CA	Sandberg	NWS
CA	Santa Ana	FAA
CA	Santa Barbara	FAA
CA	Santa Maria	NWS
CA	Santa Monica	FAA
CA	Santa Rosa	FAA
CA	South Lake Tahoe	FAA
CA	Stockton	NWS
CA	Vacaville	FAA
CA	Van Nuys	FAA
CA	Watsonville	FAA
CO	Akron	FAA
CO	Alamosa	NWS
CO	Aspen	FAA
CO	Burlington	FAA
CO	Colorado Springs	NWS
CO	Cortez	FAA
CO	Craig	FAA
CO	Denver	FAA
CO	Denver	NWS
CO	Durango	FAA
CO	Grand Junction	NWS
CO	La Junta	FAA
CO	Lamar	FAA
CO	Limon	NWS
CO	Meeker	FAA
CO	Montrose	FAA
CO	Pueblo	NWS
CO	Rifle	FAA
CT	Bridgeport	NWS
CT	Danbury	FAA
CT	Groton/New London	FAA
CT	Hartford	FAA
CT	Meriden	FAA
CT	New Haven	FAA
CT	Willimantic	FAA
CT	Windsor Locks	NWS
DC	Washington DC	NWS
DC	Washington DC	NWS
DE	Georgetown	FAA
DE	Wilmington	NWS
FL	Brooksville	FAA
FL	Crestview	FAA
FL	Daytona Beach	NWS
FL	Destin	FAA
FL	Fort Lauderdale	FAA
FL	Fort Lauderdale	FAA
FL	Fort Myers	FAA
FL	Fort Myers	FAA
FL	Fort Pierce	FAA
FL	Gainesville	FAA
FL	Hollywood	FAA
FL	Jacksonville	FAA
FL	Jacksonville	NWS
FL	Key West	NWS
FL	Leesburg	FAA

Candidate ASOS Locations (NWS and FAA)

(Continued)

FL	Marathon	FAA
FL	Marianna	FAA
FL	Melbourne	FAA
FL	Miami	FAA
FL	Miami	FAA
FL	Miami	NWS
FL	New Port Richey	FAA
FL	Orlando	FAA
FL	Orlando	NWS
FL	Panama City	FAA
FL	Pensacola	FAA
FL	Pompano Beach	FAA
FL	Punta Gorda	FAA
FL	Sarasota/Bradenton	FAA
FL	St Petersburg	FAA
FL	St Petersburg	FAA
FL	Tallahassee	NWS
FL	Tampa	NWS
FL	Vero Beach	FAA
FL	West Palm Beach	NWS
FL	Winter Haven	FAA
GA	Albany	FAA
GA	Alma	FAA
GA	Athens	NWS
GA	Atlanta	FAA
GA	Atlanta	FAA
GA	Atlanta	FAA
GA	Atlanta	NWS
GA	Augusta	FAA
GA	Augusta	NWS
GA	Brunswick	FAA
GA	Cartersville	FAA
GA	Columbus	NWS
GA	Gainesville	FAA
GA	Macon	NWS
GA	Savannah	NWS
HI	Hilo	NWS
HI	Honolulu	NWS
HI	Kahului	NWS
HI	Lanai City	FAA
HI	Lihue	NWS
IA	Ames	FAA
IA	Burlington	FAA
IA	Cedar Rapids	FAA
IA	Davenport	FAA
IA	Des Moines	NWS
IA	Dubuque	NWS
IA	Estherville	FAA
IA	Iowa City	FAA
IA	Marshalltown	FAA
IA	Mason City	FAA
IA	Ottumwa	FAA
IA	Sioux City	NWS
IA	Spencer	FAA
IA	Waterloo	NWS
ID	Boise	NWS
ID	Burley	FAA
ID	Idaho Falls	FAA
ID	Jerome	FAA
ID	Lewiston	NWS
ID	Mullan Pass	FAA
ID	Pocatello	NWS
ID	Rexburg	FAA
ID	Twin Falls	FAA
IL	Cahokia/St Louis	FAA
IL	Carbondale	FAA
IL	Champaign/Urbana	FAA
IL	Chicago	FAA
IL	Chicago	NWS
IL	Chicago/Aurora	FAA
IL	Chicago/West Chicago	FAA
IL	Chicago/Wheeling	FAA
IL	Decatur	FAA
IL	Lawrenceville	FAA
IL	Mattoon/Charleston	FAA
IL	Moline	NWS
IL	Peoria	NWS
IL	Rockford	NWS
IL	Springfield	NWS
IN	Bloomington	FAA
IN	Evansville	NWS
IN	Fort Wayne	NWS
IN	Goshen	FAA
IN	Indianapolis	FAA
IN	Indianapolis	NWS
IN	Lafayette	FAA
IN	Muncie	FAA
IN	Shelbyville	FAA
IN	South Bend	NWS
IN	Terre Haute	FAA
IN	Valparaiso	FAA
KS	Chanute	FAA
KS	Coffeyville	FAA
KS	Concordia	NWS

Candidate ASOS Locations (NWS and FAA)

(Continued)

KS	Dodge City	NWS
KS	Emporia	FAA
KS	Garden City	FAA
KS	Goodland	NWS
KS	Hill City	FAA
KS	Hutchinson	FAA
KS	Lawrence	FAA
KS	Manhattan	FAA
KS	Manhattan	FAA
KS	Olathe	FAA
KS	Olathe	FAA
KS	Parsons	FAA
KS	Russell	FAA
KS	Salina	FAA
KS	Topeka	FAA
KS	Topeka	NWS
KS	Wichita	FAA
KS	Wichita	NWS
KS	Winfield	FAA
KY	Bowling Green	FAA
KY	Covington/Cincinnati	NWS
KY	Frankfort	FAA
KY	Jackson	NWS
KY	Lexington	NWS
KY	London	FAA
KY	Louisville	FAA
KY	Louisville	NWS
KY	Paducah	NWS
LA	Alexandria	FAA
LA	Baton Rouge	NWS
LA	Lafayette	FAA
LA	Lake Charles	NWS
LA	Monroe	FAA
LA	New Iberia	FAA
LA	New Orleans	FAA
LA	New Orleans	NWS
LA	Shreveport	FAA
LA	Shreveport	NWS
LA	Slidell	FAA
MA	Bedford	FAA
MA	Beverly	FAA
MA	Boston	NWS
MA	Chatham	FAA
MA	Fitchburg	FAA
MA	Hyannis	FAA
MA	Lawrence	FAA
MA	Nantucket	FAA
MA	New Bedford	FAA
MA	North Adams	FAA
MA	Norwood	FAA
MA	Orange	FAA
MA	Pittsfield	FAA
MA	Plymouth	FAA
MA	Taunton	FAA
MA	Westfield	FAA
MA	Worcester	NWS
MD	Baltimore	NWS
MD	Hagerstown	FAA
MD	Ocean City	FAA
MD	Salisbury	FAA
ME	Augusta	FAA
ME	Bangor	FAA
ME	Caribou	NWS
ME	Frenchville	FAA
ME	Fryeburg	FAA
ME	Houlton	FAA
ME	Millinocket	FAA
ME	Portland	NWS
ME	Wiscasset	FAA
MI	Adrian	FAA
MI	Alpena	NWS
MI	Ann Arbor	FAA
MI	Battle Creek	FAA
MI	Benton Harbor	FAA
MI	Detroit	FAA
MI	Detroit	FAA
MI	Detroit	NWS
MI	Flint	NWS
MI	Gaylord	FAA
MI	Grand Rapids	NWS
MI	Hancock	FAA
MI	Holland	FAA
MI	Houghton Lake	NWS
MI	Iron Mountain	FAA
MI	Kalamazoo	FAA
MI	Lansing	NWS
MI	Muskegon	NWS
MI	Pellston	FAA
MI	Pontiac	FAA
MI	Saginaw	FAA
MI	Traverse City	FAA
MN	Alexandria	FAA
MN	Baudette	FAA
MN	Brainerd	FAA

Candidate ASOS Locations (NWS and FAA)

(Continued)

MN	Duluth	NWS
MN	Hibbing	FAA
MN	International Falls	NWS
MN	Minneapolis	FAA
MN	Minneapolis	FAA
MN	Minneapolis	NWS
MN	Park Rapids	FAA
MN	Redwood Falls	FAA
MN	Rochester	NWS
MN	St Cloud	NWS
MN	St Paul	FAA
MO	Cape Girardeau	FAA
MO	Columbia	NWS
MO	Jefferson City	FAA
MO	Joplin	FAA
MO	Kansas City	FAA
MO	Kansas City	NWS
MO	Rolla/Vichy	FAA
MO	Sedalia	FAA
MO	Springfield	NWS
MO	St Charles	FAA
MO	St Joseph	FAA
MO	St Louis	FAA
MO	St Louis	NWS
MO	West Plains	FAA
MS	Greenville	FAA
MS	Gulfport	FAA
MS	Hattiesburg	FAA
MS	Jackson	FAA
MS	Jackson	NWS
MS	McComb	FAA
MS	Meridian	NWS
MS	Pascagoula	FAA
MS	Tupelo	NWS
MS	Vicksburg	FAA
MT	Baker	FAA
MT	Billings	NWS
MT	Bozeman	FAA
MT	Butte	FAA
MT	Dillon	FAA
MT	Glasgow	NWS
MT	Great Falls	NWS
MT	Havre	NWS
MT	Helena	NWS
MT	Kalispell	NWS
MT	Livingston	FAA
MT	Miles City	FAA
MT	Missoula	NWS
MT	Wolf Point	FAA
NC	Asheville	NWS
NC	Beaufort	FAA
NC	Burlington	FAA
NC	Chapel Hill	FAA
NC	Charlotte	NWS
NC	Elizabeth City	FAA
NC	Fayetteville	FAA
NC	Gastonia	FAA
NC	Greensboro	NWS
NC	Hatteras	NWS
NC	Hickory	FAA
NC	Kinston	FAA
NC	Lumberton	FAA
NC	Maxton	FAA
NC	Monroe	FAA
NC	New Bern	FAA
NC	Raleigh/Durham	NWS
NC	Roanoke Rapids	FAA
NC	Rocky Mount	FAA
NC	Wilmington	NWS
NC	Winston Salem	FAA
ND	Bismarck	NWS
ND	Dickinson	FAA
ND	Fargo	NWS
ND	Grand Forks	FAA
ND	Hettinger	FAA
ND	Jamestown	FAA
ND	Minot	FAA
ND	Williston	NWS
NE	Alliance	FAA
NE	Chadron	FAA
NE	Grand Island	NWS
NE	Hastings	FAA
NE	Lincoln	NWS
NE	McCook	FAA
NE	Norfolk	NWS
NE	North Platte	NWS
NE	Omaha	FAA
NE	Scottsbluff	NWS
NE	Sidney	FAA
NE	Tekamah	FAA
NE	Valentine	NWS
NH	Berlin	FAA
NH	Concord	NWS
NH	Jaffrey	FAA

Candidate ASOS Locations (NWS and FAA)

(Continued)

NH	Lebanon	FAA
NH	Manchester	FAA
NH	Rochester	FAA
NH	Whitefield	FAA
NJ	Atlantic City	NWS
NJ	Caldwell	FAA
NJ	Lincoln Park	FAA
NJ	Millville	FAA
NJ	Morristown	FAA
NJ	Mount Holly	FAA
NJ	Newark	NWS
NJ	Robbinsville	FAA
NJ	Somerville	FAA
NJ	Sussex	FAA
NJ	Teterboro	NWS
NJ	Trenton	FAA
NM	Albuquerque	NWS
NM	Carlsbad	FAA
NM	Clayton	NWS
NM	Deming	FAA
NM	Gallup	FAA
NM	Las Vegas	FAA
NM	Roswell	NWS
NM	Santa Fe	FAA
NM	Truth or Consequence	NWS
NM	Tucumcari	FAA
NV	Ely	NWS
NV	Las Vegas	NWS
NV	Lovelock	FAA
NV	Mercury	NWS
NV	Reno	NWS
NV	Tonopah	FAA
NV	Winnemucca	NWS
NY	Albany	NWS
NY	Binghamton	NWS
NY	Buffalo	NWS
NY	Dansville	FAA
NY	Dunkirk	FAA
NY	Elmira	FAA
NY	Farmingdale	FAA
NY	Fulton	FAA
NY	Glens Falls	FAA
NY	Islip	FAA
NY	Massena	FAA
NY	Montgomery	FAA
NY	New York	NWS
NY	New York	NWS
NY	Penn Yan	FAA
NY	Plattsburgh	FAA
NY	Poughkeepsie	FAA
NY	Rochester	NWS
NY	Saranac Lake	FAA
NY	Shirley	FAA
NY	Syracuse	NWS
NY	Utica	FAA
NY	Watertown	FAA
NY	Wellsville	FAA
NY	Westhampton Beach	FAA
NY	White Plains	FAA
OH	Akron	FAA
OH	Akron	NWS
OH	Ashtabula	FAA
OH	Cincinnati	FAA
OH	Cleveland	FAA
OH	Cleveland	NWS
OH	Columbus	FAA
OH	Columbus	NWS
OH	Dayton	FAA
OH	Dayton	NWS
OH	Defiance	FAA
OH	Hamilton	FAA
OH	Lancaster	FAA
OH	Lima	FAA
OH	Lorain/Elyria	FAA
OH	Mansfield	NWS
OH	Marion	FAA
OH	New Philadelphia	FAA
OH	Newark	FAA
OH	Toledo	FAA
OH	Toledo	NWS
OH	Wooster	FAA
OH	Youngstown	NWS
OH	Zanesville	FAA
OK	Bartlesville	FAA
OK	Clinton	FAA
OK	Frederick	FAA
OK	Gage	FAA
OK	Guthrie	FAA
OK	Hobart	FAA
OK	Lawton	FAA
OK	Mc Alester	FAA
OK	Muskogee	FAA
OK	Oklahoma City	FAA
OK	Oklahoma City	NWS

Candidate ASOS Locations (NWS and FAA)
(Continued)

OK	Ponca City	FAA
OK	Stillwater	FAA
OK	Tulsa	FAA
OK	Tulsa	NWS
OR	Astoria	NWS
OR	Aurora	FAA
OR	Baker	FAA
OR	Burns	NWS
OR	Eugene	NWS
OR	Hermiston	FAA
OR	Klamath Falls	FAA
OR	McMinnville	FAA
OR	Medford	NWS
OR	Ontario	FAA
OR	Pendleton	NWS
OR	Portland	FAA
OR	Portland	FAA
OR	Portland	NWS
OR	Roseburg	FAA
OR	Salem	NWS
OR	Scappoose	FAA
OR	Sexton Summit	NWS
OR	The Dalles	FAA
PA	Allentown	NWS
PA	Altoona	FAA
PA	Bradford	FAA
PA	Clearfield	FAA
PA	Downingtown	FAA
PA	Doylestown	FAA
PA	Erie	NWS
PA	Harrisburg	FAA
PA	Harrisburg	FAA
PA	Johnstown	FAA
PA	Lancaster	FAA
PA	Meadville	FAA
PA	Monongahela	FAA
PA	Philadelphia	NWS
PA	Philadelphia	NWS
PA	Philipsburg	FAA
PA	Pittsburgh	FAA
PA	Pittsburgh	NWS
PA	Pottstown	FAA
PA	Reading	FAA
PA	Selinsgrove	FAA
PA	Wilkesbarre-Scranton	NWS
PA	Williamsport	NWS
PA	York	FAA
PR	San Juan	NWS
RI	Newport	FAA
RI	Providence	NWS
RI	Westerly	FAA
SC	Anderson	FAA
SC	Charleston	NWS
SC	Clemson	FAA
SC	Columbia	FAA
SC	Columbia	NWS
SC	Florence	FAA
SC	Greenville	FAA
SC	Greenwood	FAA
SC	Greer	NWS
SC	North Myrtle Beach	FAA
SC	Orangeburg	FAA
SC	Rock Hill	FAA
SD	Aberdeen	NWS
SD	Huron	NWS
SD	Pierre	FAA
SD	Pine Ridge	FAA
SD	Rapid City	NWS
SD	Sioux Falls	NWS
SD	Watertown	FAA
SD	Winner	FAA
TN	Bristol/Johnson	NWS
TN	Chattanooga	NWS
TN	Clarksville	FAA
TN	Crossville	FAA
TN	Jackson	FAA
TN	Knoxville	NWS
TN	Memphis	FAA
TN	Nashville	NWS
TX	Abilene	NWS
TX	Alice	FAA
TX	Amarillo	NWS
TX	Angleton/Lk Jackson	FAA
TX	Arlington	FAA
TX	Austin	NWS
TX	Beaumont/Port Arthur	NWS
TX	Borger	FAA
TX	Brownsville	NWS
TX	Burnet	FAA
TX	Childress	FAA
TX	College Station	FAA
TX	Conroe	FAA
TX	Corpus Christi	NWS
TX	Corsicana	FAA

Candidate ASOS Locations (NWS and FAA)

(Continued)

TX	Cotulla	FAA
TX	Dalhart	FAA
TX	Dallas	FAA
TX	Dallas	FAA
TX	Dallas/Fort Worth	NWS
TX	Del Rio	NWS
TX	Denton	FAA
TX	El Paso	NWS
TX	Fort Stockton	FAA
TX	Fort Worth	FAA
TX	Fort Worth	FAA
TX	Galveston	FAA
TX	Harlingen	FAA
TX	Hondo	FAA
TX	Houston	FAA
TX	Houston	FAA
TX	Houston	FAA
TX	Houston	NWS
TX	Huntsville	FAA
TX	Longview	FAA
TX	Lubbock	NWS
TX	Lufkin	FAA
TX	McAllen	FAA
TX	McKinney	FAA
TX	Midland	NWS
TX	Mineral Wells	FAA
TX	New Braunfels	FAA
TX	Odessa	FAA
TX	Port Isabel	FAA
TX	Rockport	FAA
TX	San Angelo	NWS
TX	San Antonio	FAA
TX	San Antonio	NWS
TX	Terrell	FAA
TX	Tyler	FAA
TX	Victoria	NWS
TX	Waco	NWS
TX	Wichita Falls	NWS
TX	Wink	FAA
UT	Bryce Canyon	FAA
UT	Cedar City	FAA
UT	Logan	FAA
UT	Milford	NWS
UT	Moab	FAA
UT	Price	FAA
UT	Salt Lake City	NWS
UT	Vernal	FAA
VA	Charlottesville	FAA
VA	Danville	FAA
VA	Lynchburg	NWS
VA	Newport News	FAA
VA	Norfolk	NWS
VA	Richmond	FAA
VA	Richmond	NWS
VA	Roanoke	NWS
VA	Wallops Island	NWS
VI	Charlotte Amalie	FAA
VI	Christiansted	FAA
VT	Barre-Montpelier	FAA
VT	Bennington	FAA
VT	Burlington	NWS
VT	Morrisville	FAA
VT	Springfield	FAA
WA	Deer Park	FAA
WA	Ellensburg	FAA
WA	Ephrata	FAA
WA	Everett	FAA
WA	Friday Harbor	FAA
WA	Hoquiam	FAA
WA	Moses Lake	FAA
WA	Olympia	NWS
WA	Omak	FAA
WA	Pasco	FAA
WA	Port Angeles	FAA
WA	Pullman/Moscow	FAA
WA	Quillayute	NWS
WA	Renton	FAA
WA	Seattle	FAA
WA	Seattle	NWS
WA	Spokane	FAA
WA	Spokane	NWS
WA	Stampede Pass	NWS
WA	Tacoma	FAA
WA	Toledo	FAA
WA	Walla Walla	FAA
WA	Yakima	NWS
WI	Ashland	FAA
WI	Boscobel	FAA
WI	Fond du Lac	FAA
WI	Green Bay	NWS
WI	Hayward	FAA
WI	Kenosha	FAA
WI	La Crosse	FAA
WI	Lone Rock	FAA

Candidate ASOS Locations (NWS and FAA)
(Continued)

WI	Madison	NWS
WI	Marshfield	FAA
WI	Milwaukee	NWS
WI	Oshkosh	FAA
WI	Racine	FAA
WI	Rhinelander	FAA
WI	Sheboygan	FAA
WI	Wausau	FAA
WI	Wisconsin Rapids	FAA
WV	Beckley	NWS
WV	Bluefield	FAA
WV	Charleston	NWS
WV	Clarksburg	FAA
WV	Elkins	NWS
WV	Huntington	NWS
WV	Martinsburg	FAA
WV	Morgantown	FAA
WV	Wheeling	FAA
WY	Big Piney	FAA
WY	Buffalo	FAA
WY	Casper	NWS
WY	Cheyenne	NWS
WY	Douglas	FAA
WY	Evanston	FAA
WY	Greybull	FAA
WY	Laramie	FAA
WY	Rawlins	FAA
WY	Riverton	NWS
WY	Sheridan	NWS
WY	Torrington	FAA
WY	Worland	FAA

Acronyms

ACAR	ARINC Communications Addressing and Reporting System
AOML	Atlantic Oceanographic and Meteorological Laboratory
ASOS	Automated Surface Observing System
AWIPS	Advanced Weather Interactive Processing System
COMAP	COMET Mesoscale Analysis and Prediction Course
COMET	Cooperative Program for Operational Meteorology Education and Training
CRS	Console Replacement System (NOAA Weather Radio)
CWSU	Center Weather Service Unit
DARE	Denver AWIPS Risk Reduction and Requirements Evaluation
DOC	Department of Commerce
DOD	Department of Defense
DOH	Development and Operations Hydrologist
ERL	Environmental Research Laboratory
FAA	Federal Aviation Administration
FSL	Forecast Systems Laboratory
GDP	Government Development Platform (AWIPS)
GFDL	Geophysical Fluid Dynamics Laboratory
GOES	Geostationary Operational Environmental Satellite
HAS	Hydrometeorological Analysis and Support
HRL	Hydrologic Research Laboratory
IDB	Initial Deployment Baseline (AWIPS)
ISPAN	Information Stream Project for AWIPS and NOAAPORT
LAPS	Local Analysis and Prediction System
MAPS	Mesoscale Analysis and Prediction System
MAR	Modernization and Associated Restructuring
MARD	Modernization and Associated Restructuring Demonstration
MTS	Master Transition Schedule
NCDC	National Climatic Data Center
NESDIS	National Environmental Satellite, Data and Information Service
NEXRAD	Next Generation Weather Radar
NHC	National Hurricane Center
NIP	National Implementation Plan
NMC	National Meteorological Center
NOAA	National Oceanic and Atmospheric Administration
NOAAPORT	Data transmission system in AWIPS environment
NSSFC	National Severe Storms Forecast Center
NSSL	National Severe Storms Laboratory
NWR	NOAA Weather Radio

NWS	National Weather Service
NWSFO	NEXRAD Weather Service Forecast Office
NWSO	NEXRAD Weather Service Office
NWSRFS	National Weather Service River Forecast System
OSD	Office of Systems Development
OSF	NEXRAD Operational Support Facility
OT&E	Office Transition and Evaluation
PERT	Program Evaluation and Review Technique
PROTEUS	Prototype RFC Operational Test, Evaluation and User Simulation
PUP	Principal User Processor (NEXRAD)
RFC	River Forecast Center
RTP	Regional Transition Plan
SIP	Site Implementation Plan
SOO	Systems and Operations Officer
SPO	Systems Program Office
TDL	Techniques Development Laboratory
TPO	Transition Program Office
WBS	Work Breakdown Structure
WFO	Weather Forecast Office
WSCMO	Weather Service Contract Meteorological Observatory
WSFO	Weather Service Forecast Office
WSMO	Weather Service Meteorological Observatory
WSO	Weather Service Office

*U.S. G.P.O.:1993-341-926:82659