



**National Weather Service
Electronic Maintenance Program
Sterling, VA**



Purpose

- Make sure all electronics & mechanical equipment is operational & performing at optimal levels.
- Maintain – Repair – Calibrate – Install
- Communications integrity and local networks are maintained.
- Investigate and diagnose any reported abnormal equipment operation.



Staffing

The National Weather Service Sterling VA Electronic staff is comprised of:

- 1 **Electronic Systems Analyst**
- 3 **Electronic Technicians.**

Electronic Systems Analyst (ESA) - The ESA is responsible for the oversight and management of all electronics, facilities, and communication in our office. This person ensures that all the technology we use functions properly and is current.

Electronic Technicians (ETs or El Techs) - The Electronic Technician is responsible for the day to day maintenance and repair of all the equipment used by the office. This includes multiple computer systems, automated observing systems, our upper air program, NOAA Weather Radio transmission, and a wide range of electronic equipment.

Major Equipment



NWS Weather Surveillance Radar Doppler Radar (WSR-88D)

Last major system change was
2011 with Dual Polarization.

Automated Surface Observing System (ASOS) 8 Sites

ASOS detects significant changes,
disseminating hourly and special
observations via the network,
24 hours per day, every day.



Advanced Weather Interactive Processing System (AWIPS) is a technologically-advanced information processing, display, and telecommunications system that is the cornerstone of the United States National Weather Service's (NWS) operations.

AWIPS Display

- * 3 Graphics Displays
- * 1 Text Terminal

Major Upgrade

- OS and Application changes in spring of 2015



Upper Air Program (Weather Balloons)

There are 3 major components:

- Radiosonde (Sonde) - GPS Radiosonde (tied to the balloon)
- Receiver (TRS) - Telemetry Receiver System
- Computer data processor (RWS) - RRS Work Station





NOAA Weather Radio

NWS has 4 types of Weather Radios:

CWA has 8 transmitters but we feed broadcast audio to 9 locations.

Armstrong NWR →

← Crown NWR

Nautel NWR --- Newest of the transmitters →



Scientific Radio System (SRS) --- Phasing out →

Hydrologic Program

Approximately 45 gauges in the CWA maintained by Electronic Staff

River Gage



Precipitation Gage



- Network/LAN
- Workstation and Desktop Maintenance
- Phone System
- Safety and Environmental
- Facility Maintenance
- Vehicle
- Others



Engineering Management Reporting System (EMRS)

- Report All Maintenance Activity
- Schedule Preventative Maintenance
- View Equipment Activity

USOS Status

WFO/Office: LWX
LWX: Sterling, VA

Program	System Status
ASOS	Available
AWIPS	Available
AWIPS COMMS	Available
CRS	Available
NWR	Available
WSR88D	Available

Enter USOS

Scheduled Maintenance Events

WFO/Office: LWX Program: All Programs & Personal Tasks
LWX, STERLING, VA

Day of Week	Scheduled Task
Sun. 10/05/2014	
Mon. 10/06/2014	AWIPS: Weekly PM: AWIPS Weekly checks and tape backup heading cleaning and tape swap. (LWX, AWIPS, 001) IT SYSTEMS: Weekly PM: IT SYSTEMS: As Required PM: Monday and Wednesday PM: check of the conference room wireless keyboard/mouse/projector/computer and the operation video/audio/tv and switch check. (LWX, PCSA, 001) MISC: Monthly PM: MISC: Special Activity or Sampling: Perform monthly checks of AED using "Monthly AED Inspection Checklist" in the Safety Folder on the "T" drive. (LWX, SAFEN, 001) HYDRO: Semi-Annual PM: HYDRO: Semi-Annual PM: Perform semi-annual PM on Fisher-Porter rain gauge. (STDV2, FNP, STDV2) HYDRO: Semi-Annual PM: HYDRO: Semi-Annual PM: Perform semi-annual PM on Fisher-Porter rain gauge. (STAV2, FNP, STAV2) HYDRO: Semi-Annual PM: HYDRO: Semi-Annual PM: Perform semi-annual PM on Fisher-Porter rain gauge. (ORGV2, FNP, ORGV2)

View Calendar Print Weekly List

Maintenance Request Summary

WFO/Office: LWX
Sterling, VA

Program	Maintenance Requests
ASOS	0
AWIPS	0
COMMUNICATIONS	0
COOP	0
CRS	0
FACILITIES	0
HYDRO	0
IT SYSTEMS	0
MISC	0
NWR	0

Maintenance Request Maintenance Reporting

Maintenance Activity

WFO/Office: LWX Month: Aug. 2014

Equipment Maintenance Activity

Sterling, VA (LWX) 08/2014

Program	Percentage
ASOS	66.631%
RADAR, WSR-88D	13.366%
NWR	12.452%
UPPER AIR	9.934%
AWIPS	3.943%
IT SYSTEMS	5.604%
MISC	6.538%
HYDRO	0.623%
FACILITIES	0.266%
CRS	0.623%



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A Fun Place To Work