



AvnFPS Version 3 Support Training

**Meteorological Development Lab
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Overview

- **User Interface Changes**
- **Server Changes**
- **Support Tools**
- **Directory Trees**
- **Logs**
- **Climatology Download**

Avnmonitor Changes

- **New Column “llws”**
 - ✓ Monitors Low-level Wind Shear.
 - ✓ Vertical wind profiles inferred from radar and/or NOAA wind profiler network.
- **Changes to server status indicators**

TAF Editor Changes

- **“Eta-profile” guidance**
- **“Flavors” of Quality Control (QC)**
 - ✓ Syntax QC (old)
 - ✓ Weather Check
 - ✓ Climatology QC
- **TAF Tools**

Climatology Tools

- **METAR Tool**

- ✓ Renders observation history in METAR format.

- **Climatology Statistics Viewer**

- ✓ Forecaster sets filter.

- ✓ Displays histograms of climatological frequency.

- ✓ Creates guidance TAF too.

Servers

- **Names**

- ✓ Avnserver—Name and event service

- ✓ Avninit—Timing and restart

- ✓ Avndis—Data ingest

- ✓ Avndrs—Data requests

- ✓ Avnxs—Transmit server

- **Launch order and time significant**

- **Processes vs. threads**

Servers and Hosts

Server	avnserver	avni ni t	avndi s	avndrs	avnxs
OB4, no NAS	px1	px1	px1	px1/px2	px1
OB4, wi th NAS	px1	px1	px1	px1	px1

Server Tools and Techniques

- **Using ps command effectively**

`ps -efwH | grep avnpython`

Organizes parent/child processes

Approximates thread structure

- **Avnkill command**

Stops all avnpython processes on host.

Using kill can be awkward.

- **Avninit**

Persistent process.

Starts servers in correct order on correct hosts.

Detects and restarts failed servers.

Directory Tree

- **Shared**

- /awips/adapt/avnfps/3.0

- Bulk of directory tree.

- **Local**

- /data/local/adapt/avnfps

- Log files from clients running on local host.

Shared Directory Tree

bin	Shell utilities and start/stop scripts
data	Decoded data in type-specific directories (more...)
etc	Configuration data
logs	Log files
py	Python source code modules
tmp	Temporary files, mostly editor sessions
tool py	Locally-developed TAF tools
xmit	Products waiting for transmission

New Directories Beneath Data

bad	Files that cannot be decoded
cl i mate	Present in AvnFPS2, but used at few WFOs
eta	yymmddhhmm. data, raw; yymmddhhmm. tabl e, decoded
l l ws	Observed low-level wind shear
mosavn	Avn MOS in . data/. tabl e files
mosngm	NGM MOS
rl tg	Rename of mostlg
text	Destination for database triggers

Log Files

- **Named by application and day of week.**
- **Self-purging.**
- **Contents similar to AvnFPS2.**
- **Logs break on first write of the day.**

Climatology Download

- **The data**

- ✓ Surface weather observations
- ✓ Hourly & “Special”
- ✓ Up to 30-years
- ✓ One TAF site per file

- **The format**

- ✓ Binary files
- ✓ Gzip'ed and tar'ed
- ✓ CCCC. gz. tar

- **Location**

- ✓ Worldwide Web, not AWIPS WAN
- ✓ <http://www.mdl.nws.noaa.gov/~avnfps/data>

Climatology Install

1. Download files and move them to data/climate.
2. Run `tar xvf CCCC.gz.tar`
3. Run `gunzip CCCC.gz`
4. Run `bin/avnstart.sh avnqcstats CCCC month` for each station/month
5. Creates files with names of the form `CCCC.mm.nc`