

## WMO Headers for (HRRR) AWIPS sub-hourly grid products

The following WMO headers information is for HRRR sub-hourly data on AWIPS.

2.54 km NDFD grid over CONUS (Lambert Conformal)

### 1. Forecast hours

The forecast hours start from 00 and go to 18 at every hour. See below:

00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18

This covers the sub-hourly (15 minute) data. The file labeled as f00 contains data only at f00. The file labeled as f01 contains data at 15, 30, 45, and 60 minutes. The file labeled as f02 contains data at 75, 90, 105, and 120 minutes. And so on....

### 2. The HRRR model runs at every hour (00Z - 23Z)

**3. WMO Headers** WMO Header template: **T1 T2 A1 A2 ii cccc**  
cccc is **KWBY** where Y is High Resolution Rapid Refresh (HRRR)

All WMO headers have **KWBY**

- **T1 = Z** for forecast hours: 00, 01, 02, 03, 04, 05, 06, 07, 08, 09  
10, 11, 12, 13, 14, 15, 16, 17, 18

- **T2** specifies parameter as follows:

U - U-component of wind (UGRD)

V - V-component of wind (UGRD)

Z (Refer to GRIB PDS)

- Radar Reflectivity (REFD)

- Composite Radar Reflectivity (REFC)

- Echo Top (RETOP)

- Radar Vertically-Integrated Liquid Water (VIL)

- Updraft helicity over Layer 2 to 5km AGL (MXUPHL)

- **A1** specifies the grid id as follows:

**C** - 2.5 km NDFD grid over CONUS (Lambert Conformal)

- **A2** specifies the forecast hours as follows:

A = 00; B=01; C=02; D=03; E=04; F=05; G=06; H=07; I=08; J=09; K=10;

L=11; M=12; Z=13; Z=14; Z=15; Z=16; Z=17; Z=18

- **ii** specifies level as follows:

00 = Entire Atmosphere

86 = Boundary Layer (SPDY)

98 = 10 m above ground

01 = Refer to GRIB PDS

74 = Cloud top level

**4. Total volume of data per day**

New .033 GB (19 files/cycle) x 24 = 15.0 GB per day

**5. HRRR Sample test files and WMO headers are on Tide or Gyre:**

- HRRR sample test files in the directory:

    /pcom2/para/hrrr (only on production - not mirrored to /dev)

- WMO headers for HRRR in the directory:

    /meso/save/Geoffrey.Manikin/nwprod/hrrr.v2.0.0/util/parm/wmoheaders\_hrrrsubhourly.txt