Spacecraft: Cassini
DSS: 34
Monitor File: S79SROC2013_175_0312_34_MON.ecsv
APPLICABLE_START_TIME = 2013-175T03:12:43.406;
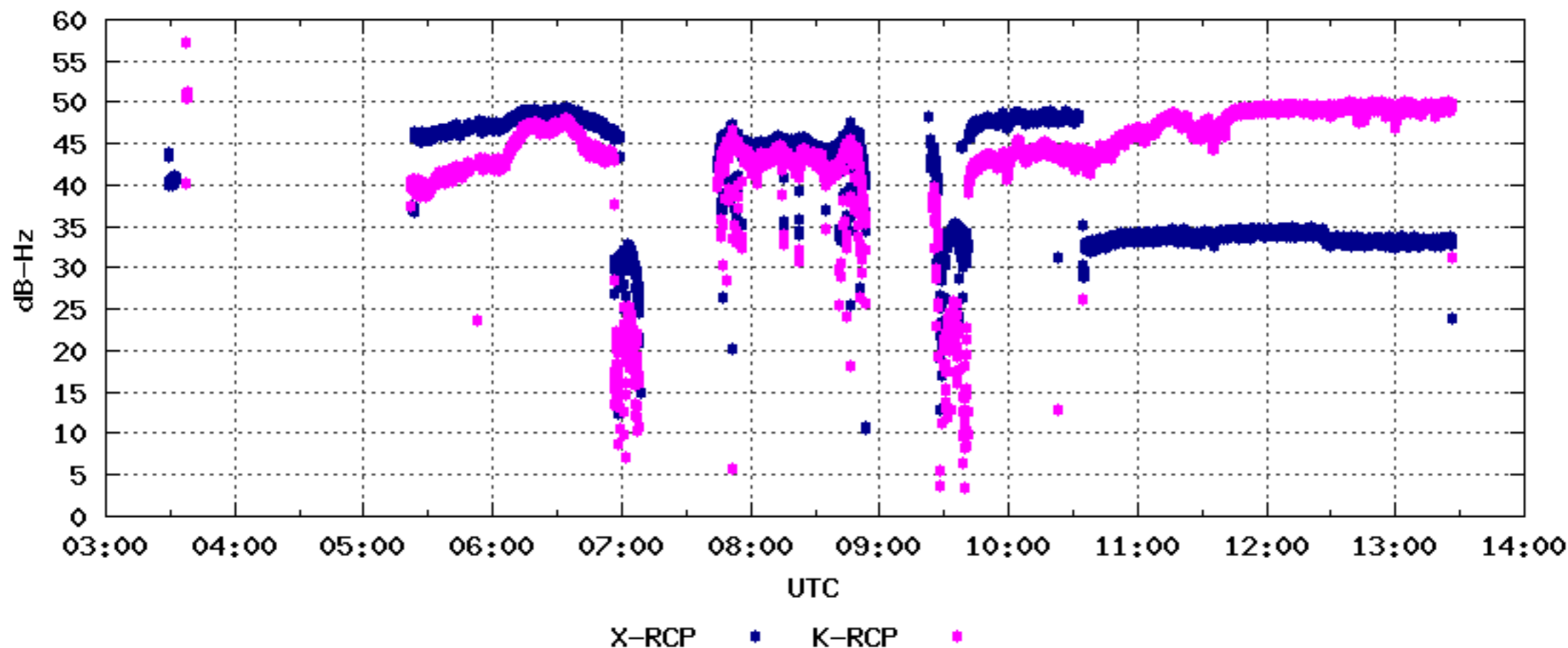APPLICABLE_STOP_TIME = 2013-175T13:32:57.137;
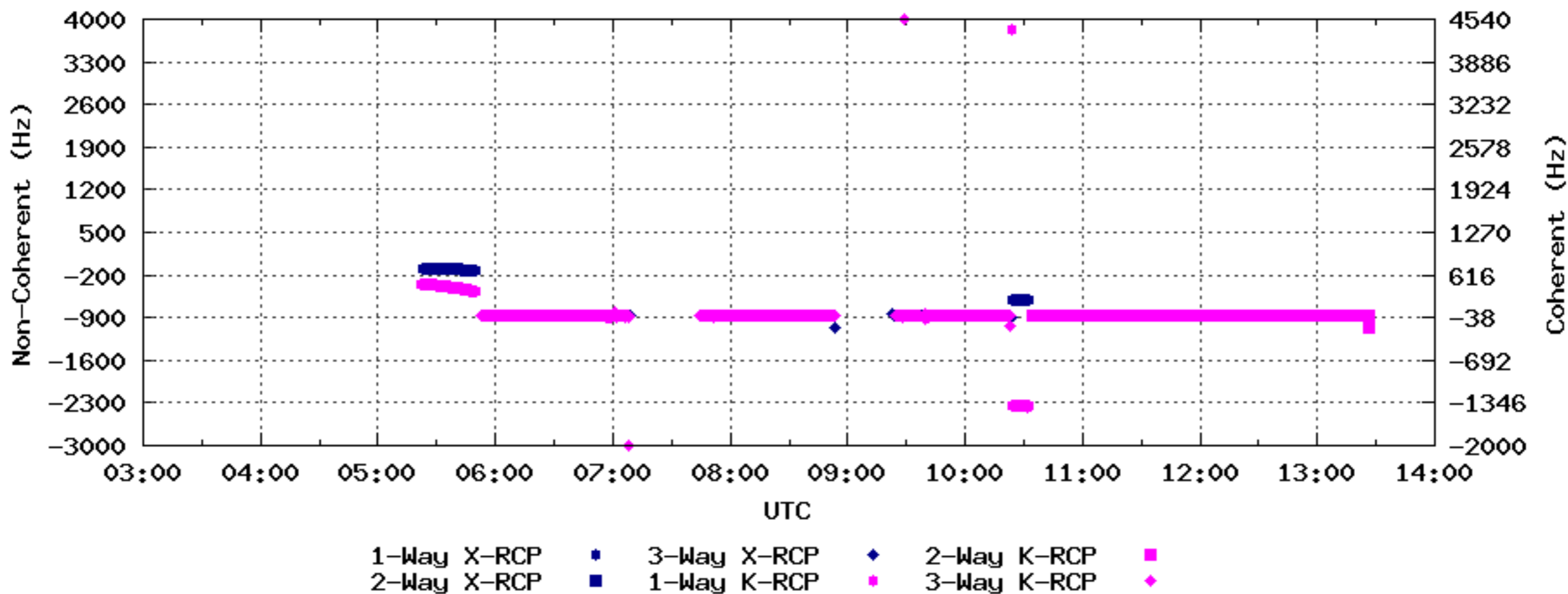60 minutes omitted from beginning of file
5 minutes omitted from end of file

2013/175 DSS-34 Carrier Power to Noise Spectral Density Ratio (Pc/No)

X-RCP   K-RCP

2013/175 DSS-34 Carrier Frequency Residual (Measured - Predicted)

1-Way X-RCP   3-Way X-RCP   2-Way K-RCP
2-Way X-RCP   1-Way K-RCP   3-Way K-RCP

2013/175 DSS-34 X-Band Measured and Predicted Carrier Frequency

1-Way Predicted X-RCP ○   1-Way Measured X-RCP ▪
2-Way Predicted X-RCP □   2-Way Measured X-RCP ■
3-Way Predicted X-RCP ◇   3-Way Measured X-RCP ◆

2013/175 DSS-34 X-Band Residual Frequency (Measured − Predicted)

1-Way X-RCP ▪   2-Way X-RCP ■   3-Way X-RCP ◆

2013/175 DSS-34 K-Band Measured and Predicted Carrier Frequency

1-Way Predicted K-RCP	○	1-Way Measured K-RCP	▪
2-Way Predicted K-RCP	□	2-Way Measured K-RCP	■
3-Way Predicted K-RCP	◇	3-Way Measured K-RCP	◆

2013/175 DSS-34 K-Band Residual Frequency (Measured - Predicted)

| 1-Way K-RCP | ▪ | 2-Way K-RCP | ■ | 3-Way K-RCP | ◆ |

2013/175 DSS-34 Uplink Frequency

2013/175 DSS-34 Uplink Power (with TXR ON and when > 1)
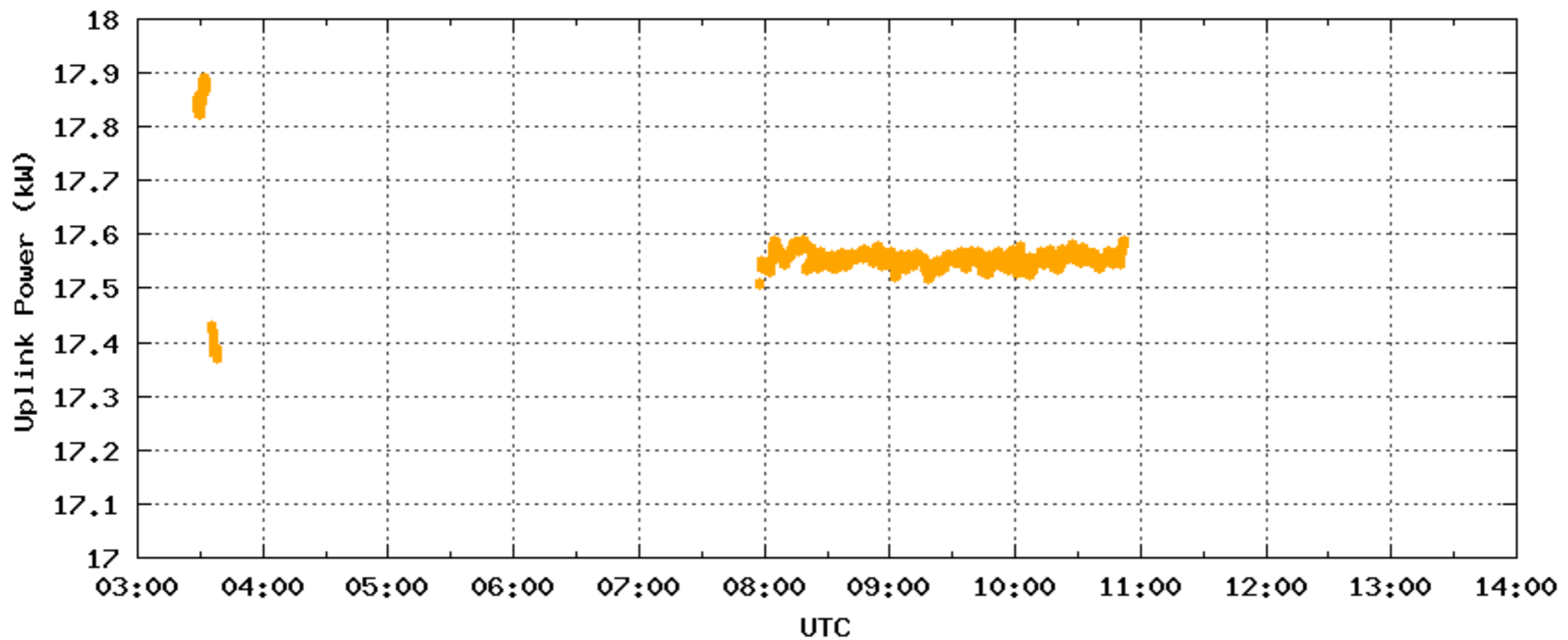
2013/175 DSS-34 Carrier Power to Noise Spectral Density Ratio (Pc/No)

X-RCP   K-RCP

2013/175 DSS-34 Carrier Power
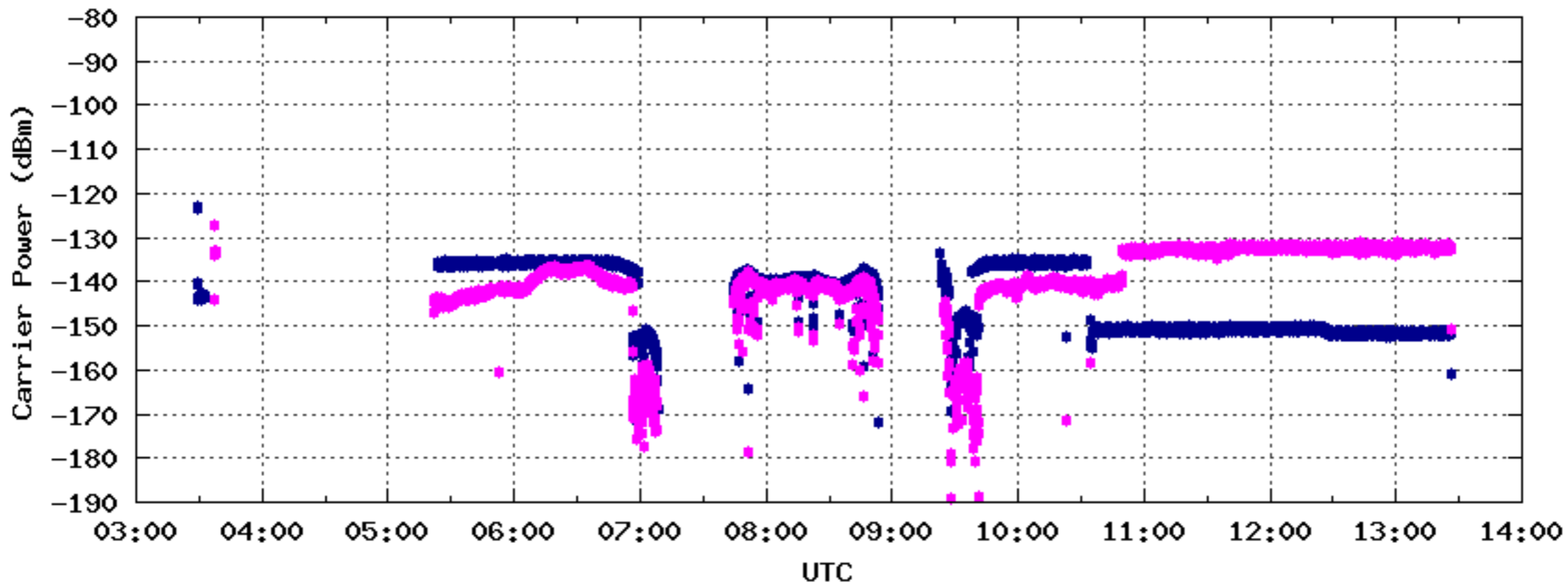
X-RCP   K-RCP

2013/175 DSS-34 Carrier Power to Noise Spectral Density Ratio and System Noise Temperature
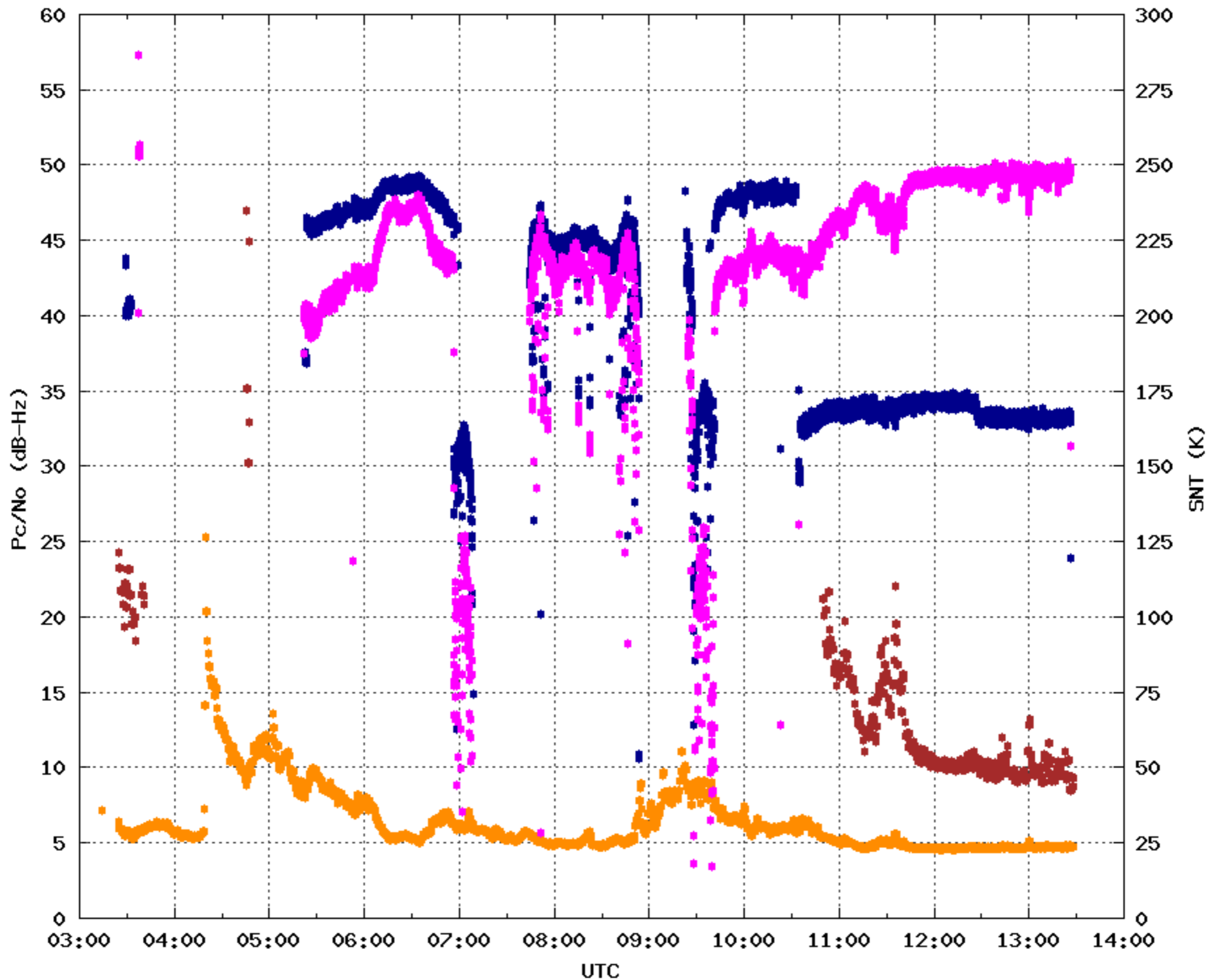
2013/175 DSS-34 Carrier Loop Tracking Bandwidth
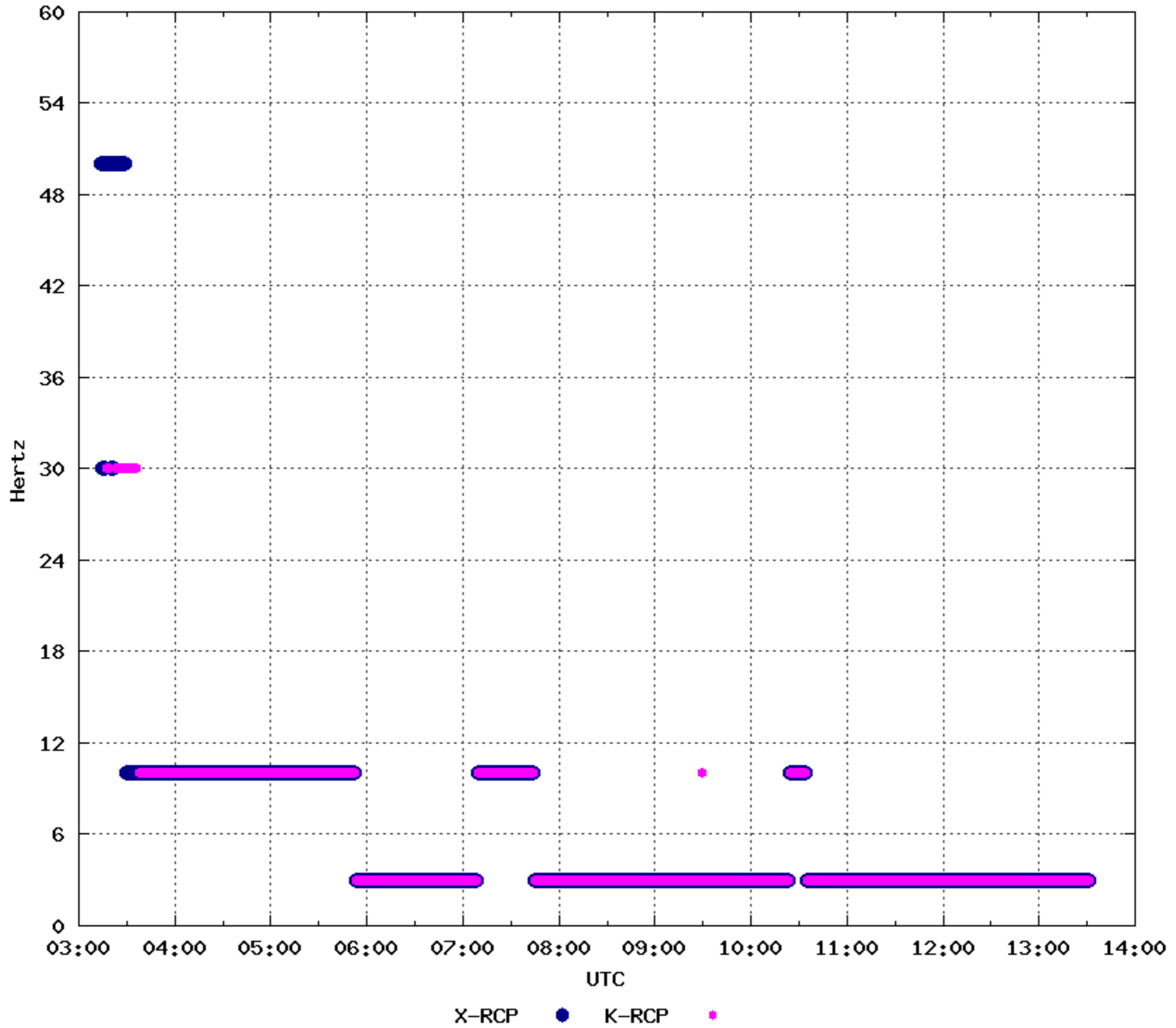
2013/175 DSS-34 Elevation & Azimuth
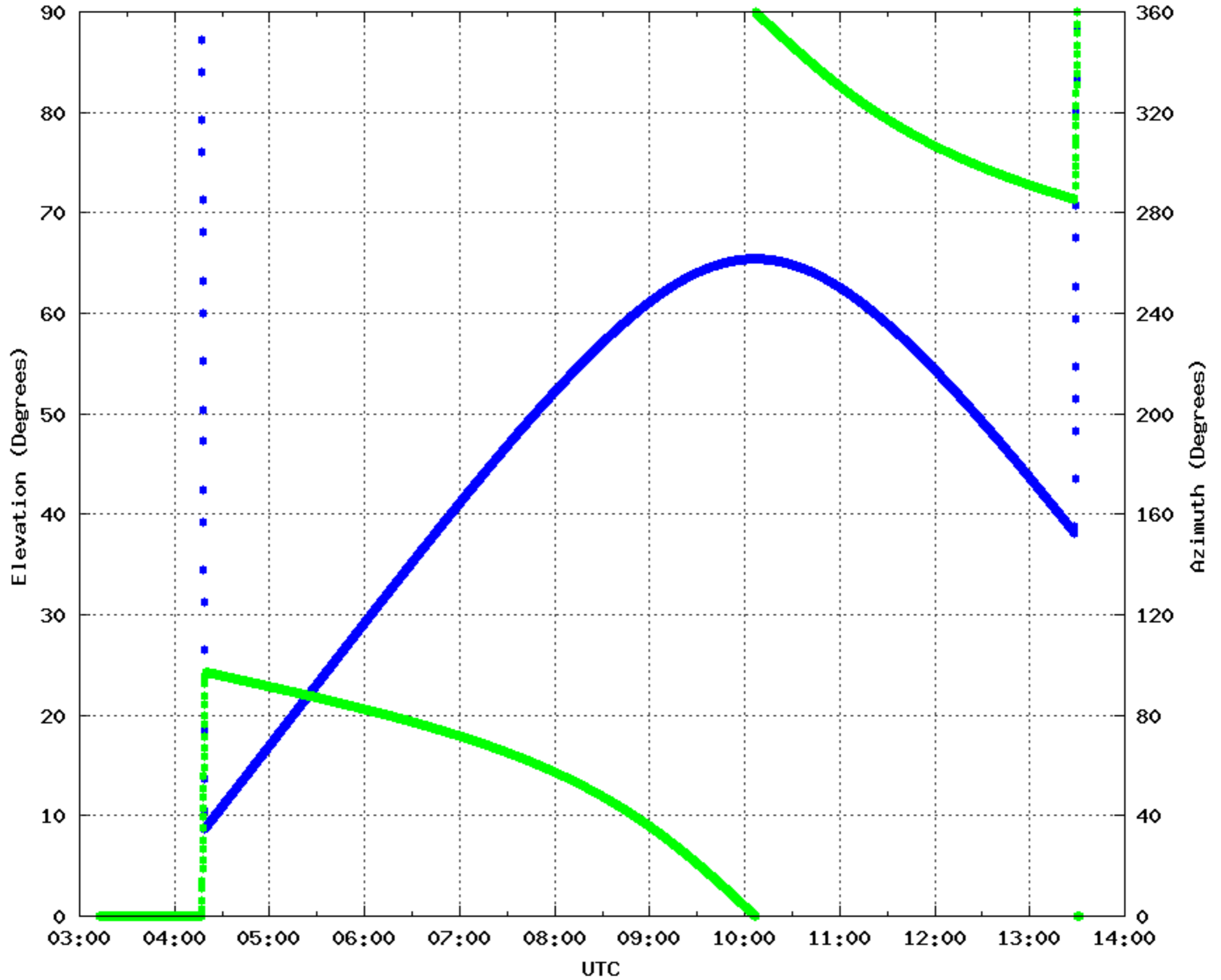
Elevation ■   Azimuth ■

2013/175 DSS-34 Air Temperature, Dew Point Temperature, and Relative Humidity

Air Temperature (degrees Celsius)
Dew Point Temperature (degrees Celsius)
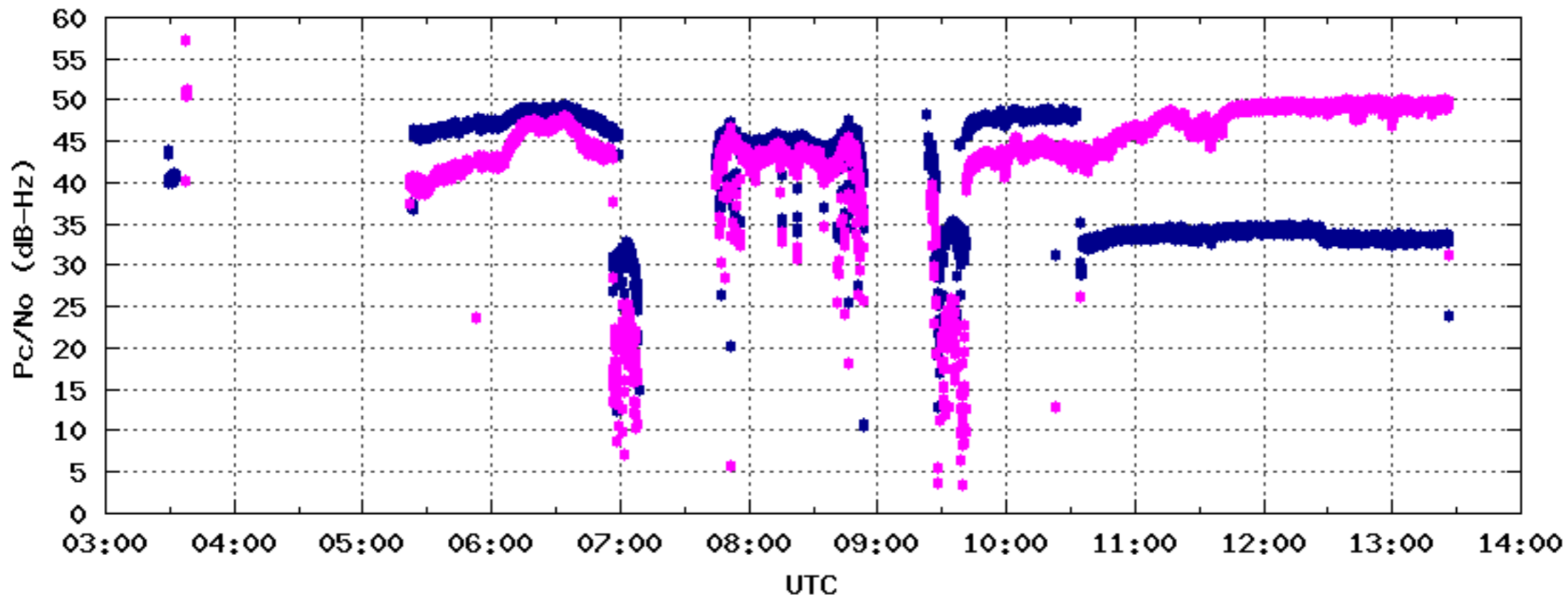Relative Humidity (%)
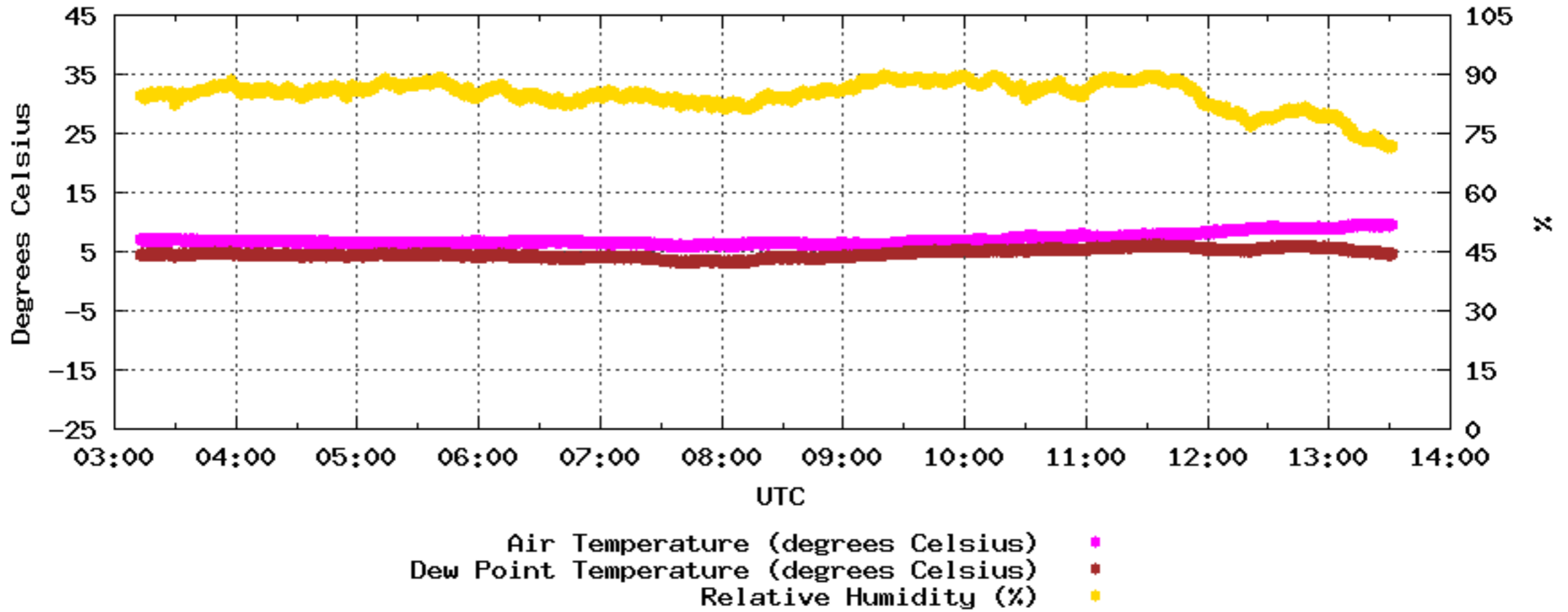
2013/175 DSS-34 Barometric Pressure and Precipitation Rate

Barometric Pressure (Millibars)
Precipitation Rate (Millimeters per Hour)
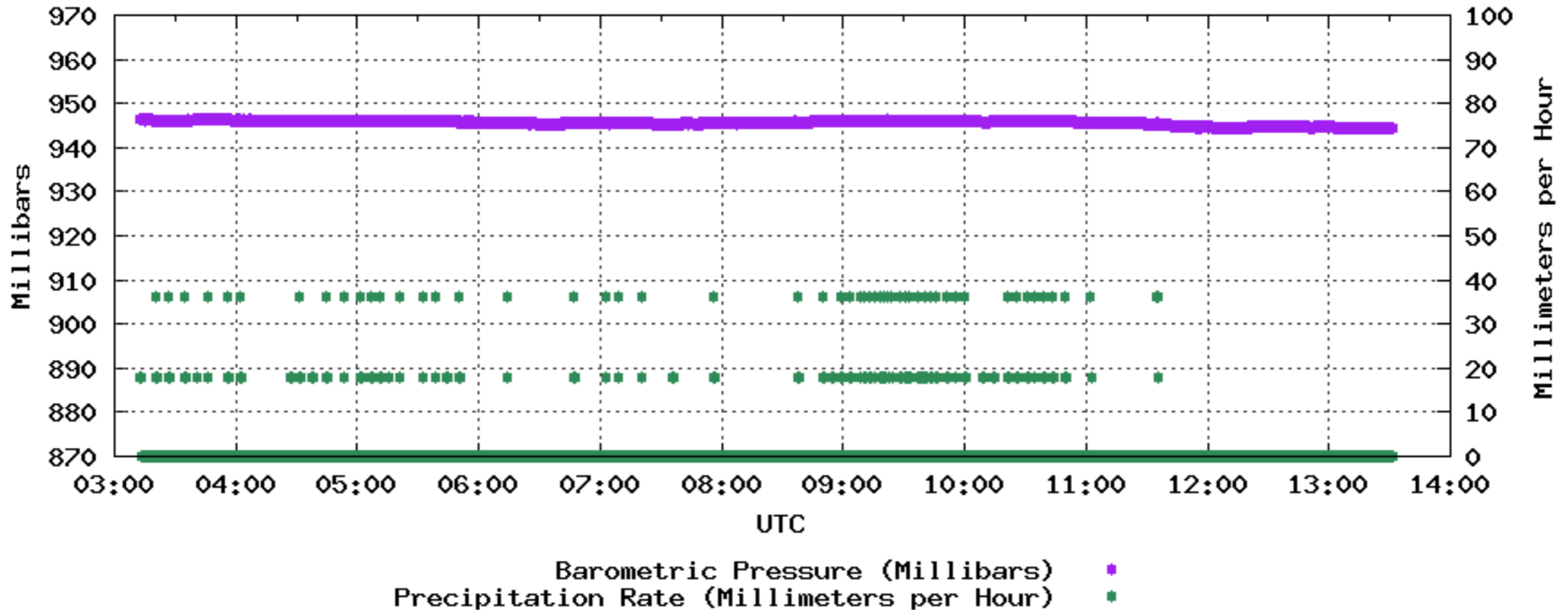
2013/175 DSS-34 Wind Speed
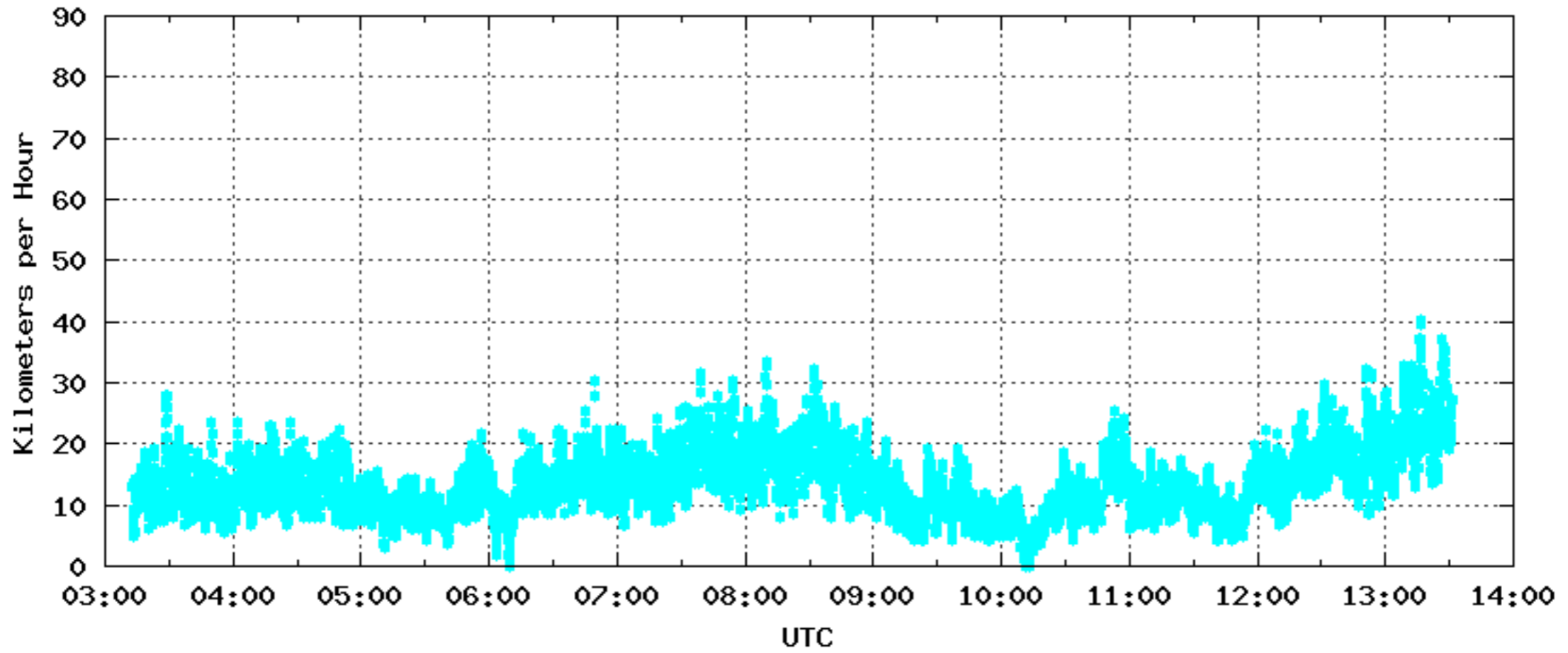
2013/175 DSS-34 Wind Direction
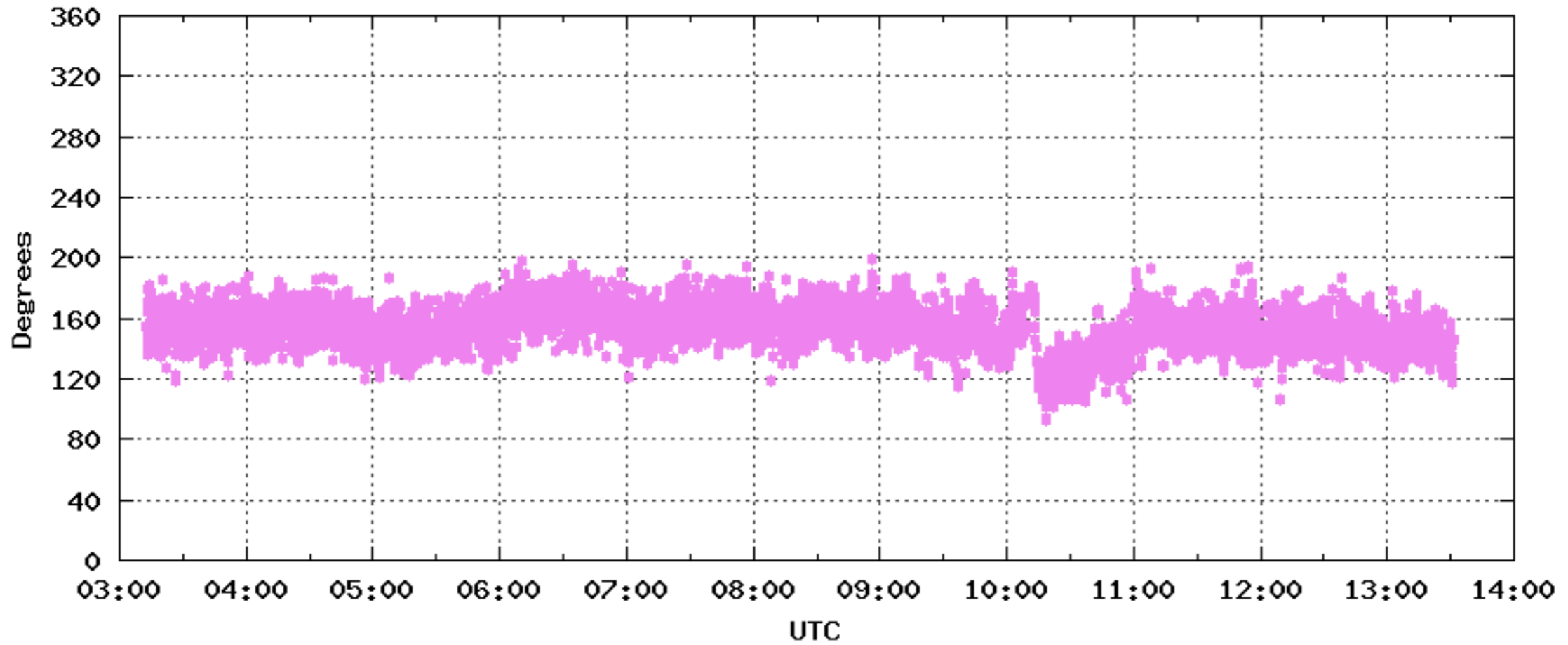
2013/175 DSS-34 Conscan Drive Status (ON = 1; OFF = 0)
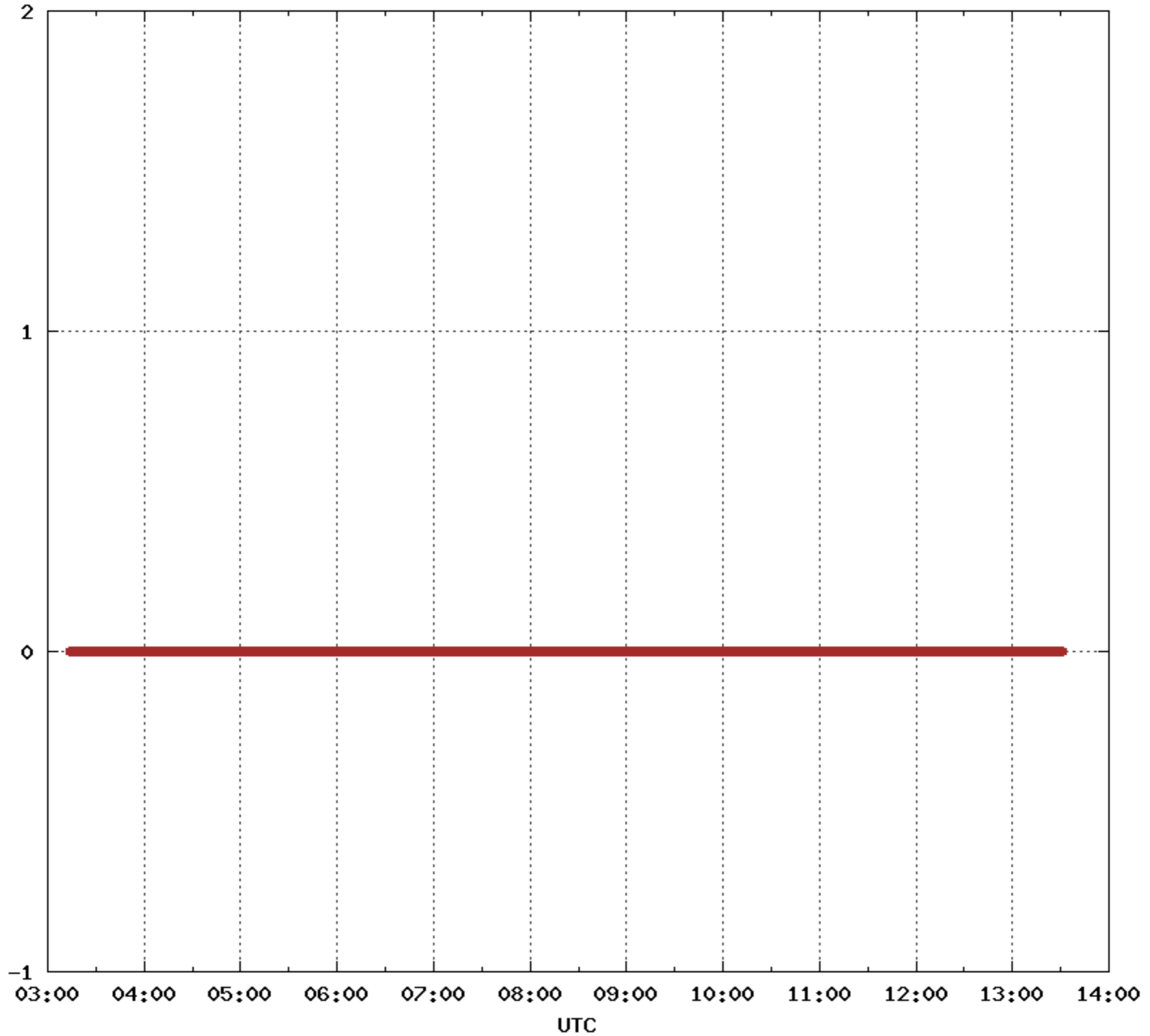
2013/175 DSS-34 Monopulse Elevation & Azimuth Corrections
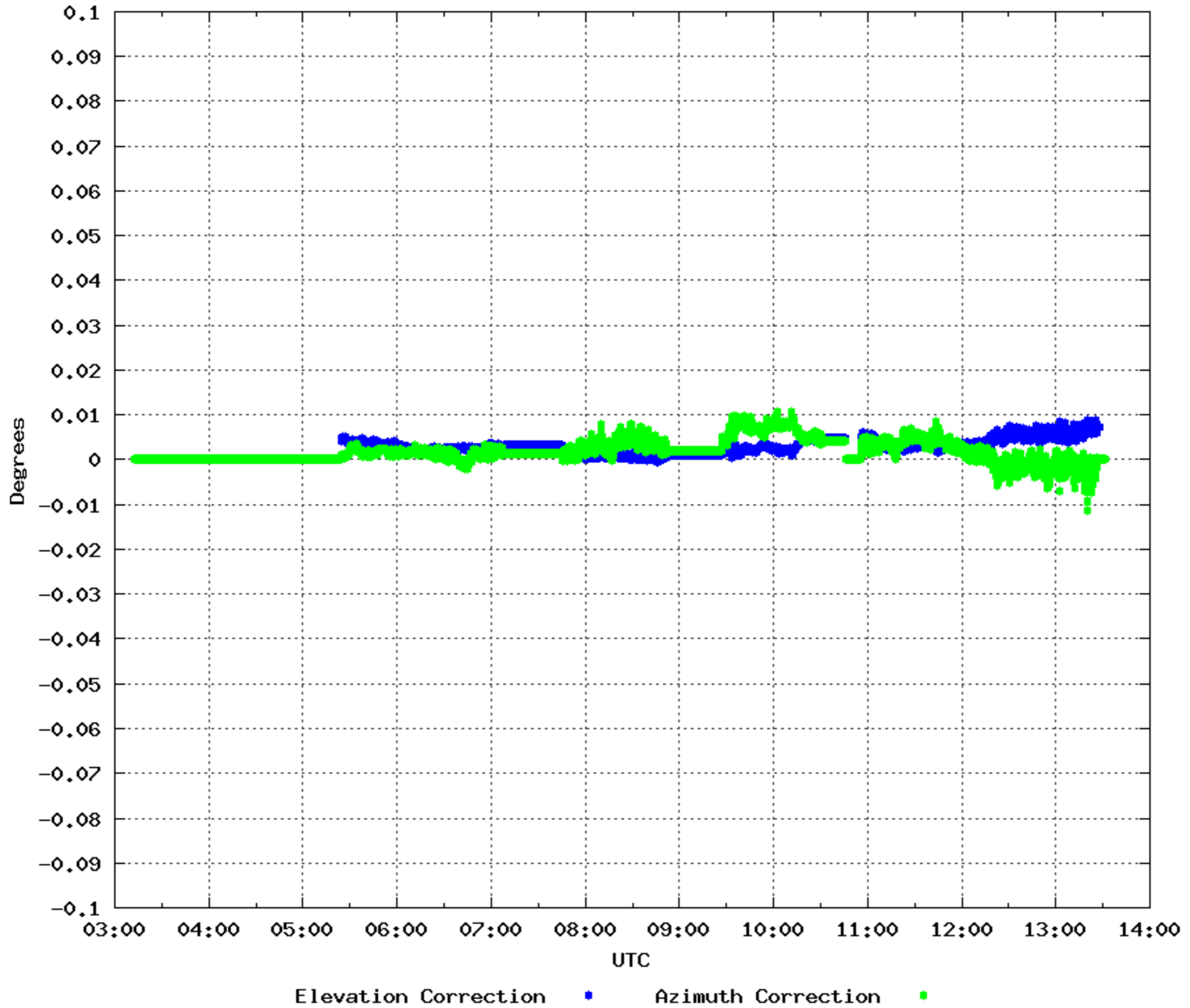
2013/175 DSS-34 Elevation & Azimuth Residuals
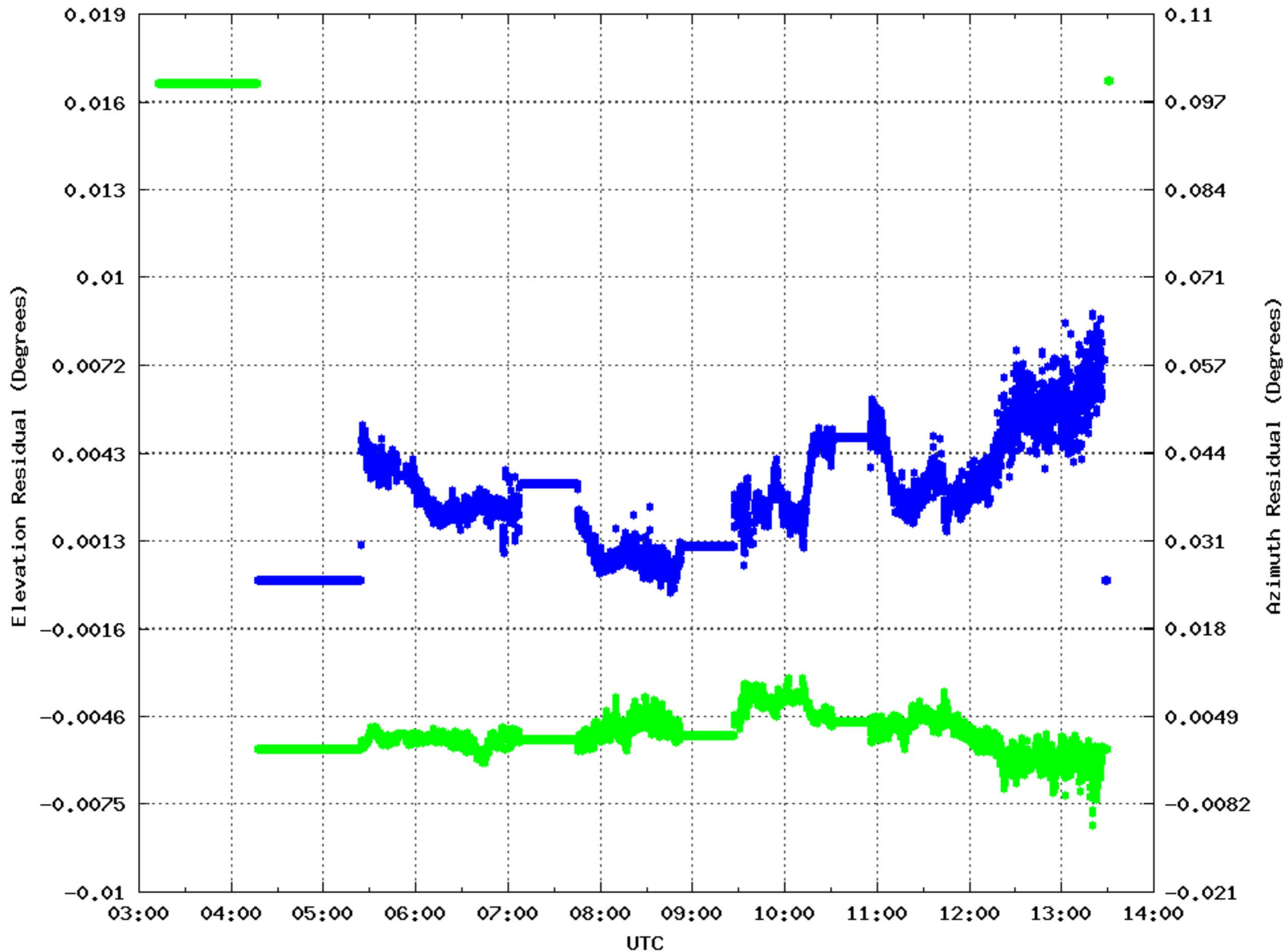
2013/175 DSS-34 System Noise Temperature

K

X-RCP   K-RCP
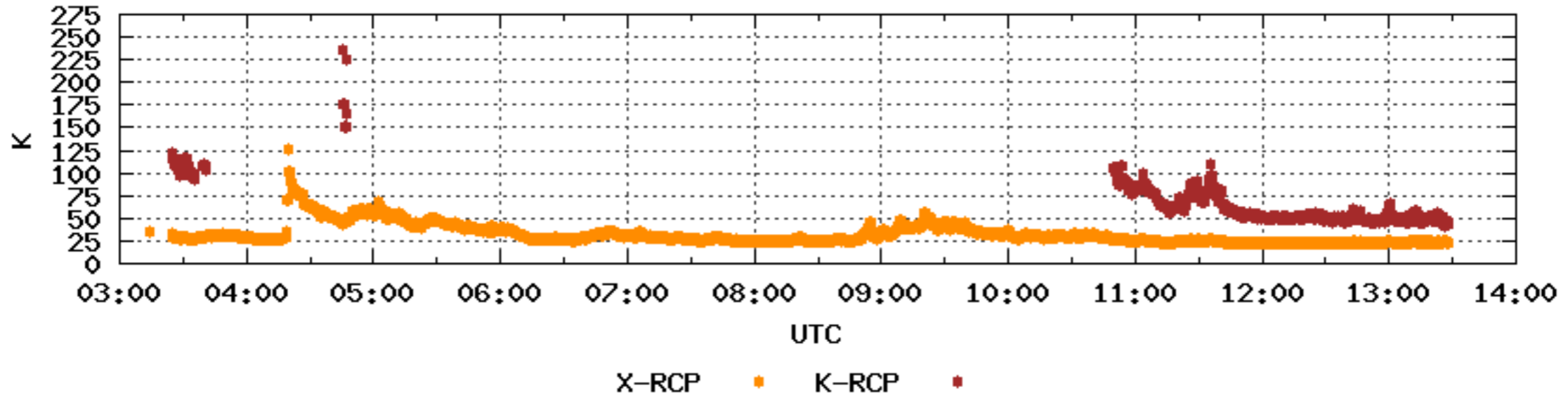
2013/175 DSS-34 Elevation Angle

Degrees
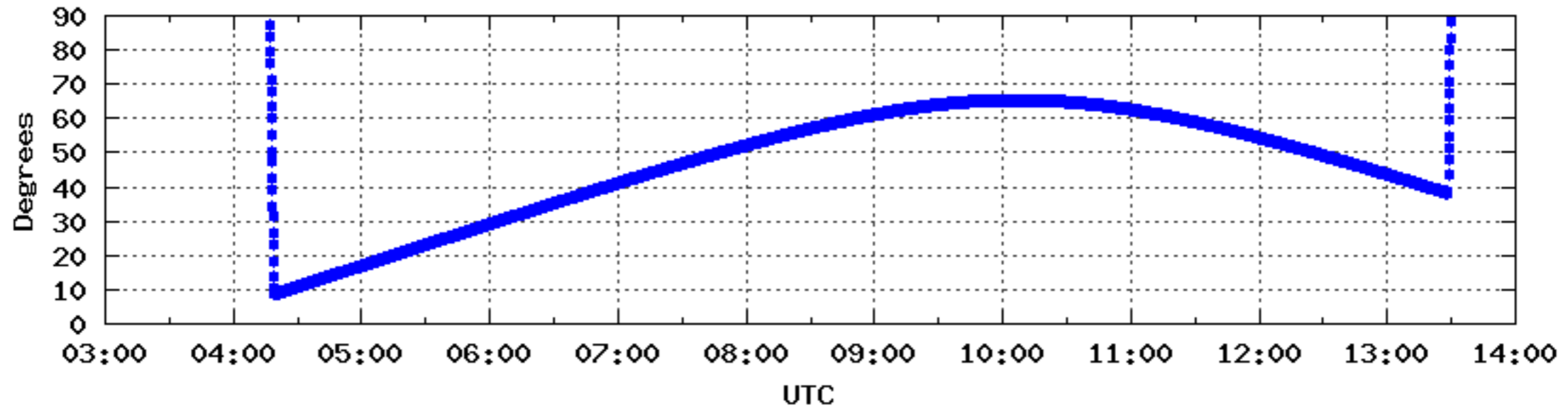
2013/175 DSS-34 Precipitation Rate and Relative Humidity

Millimeters per Hour

Precipitation Rate (Millimeters per Hour)
Relative Humidity (%)
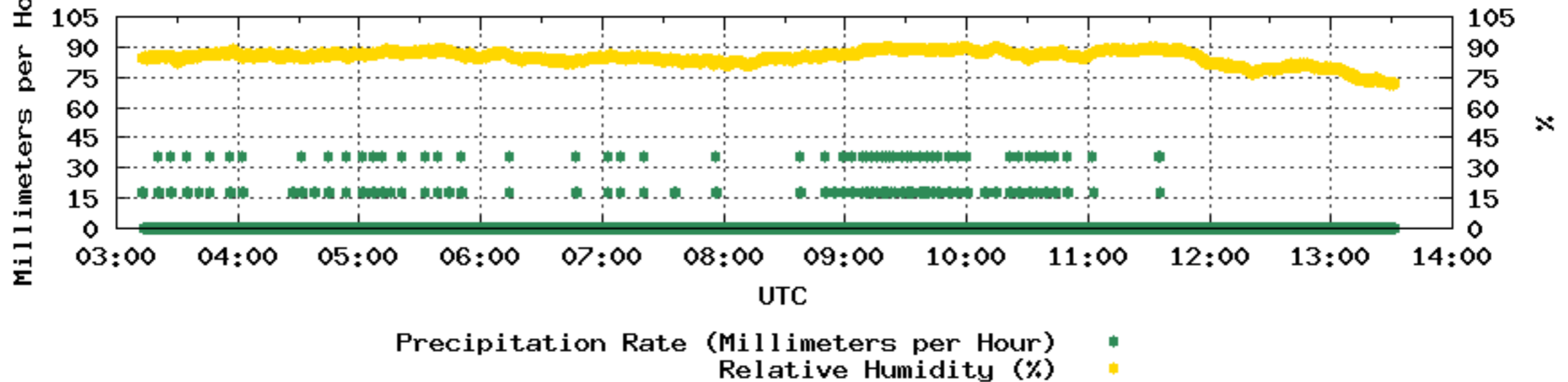
2013/175 DSS-34 Elevation & Azimuth
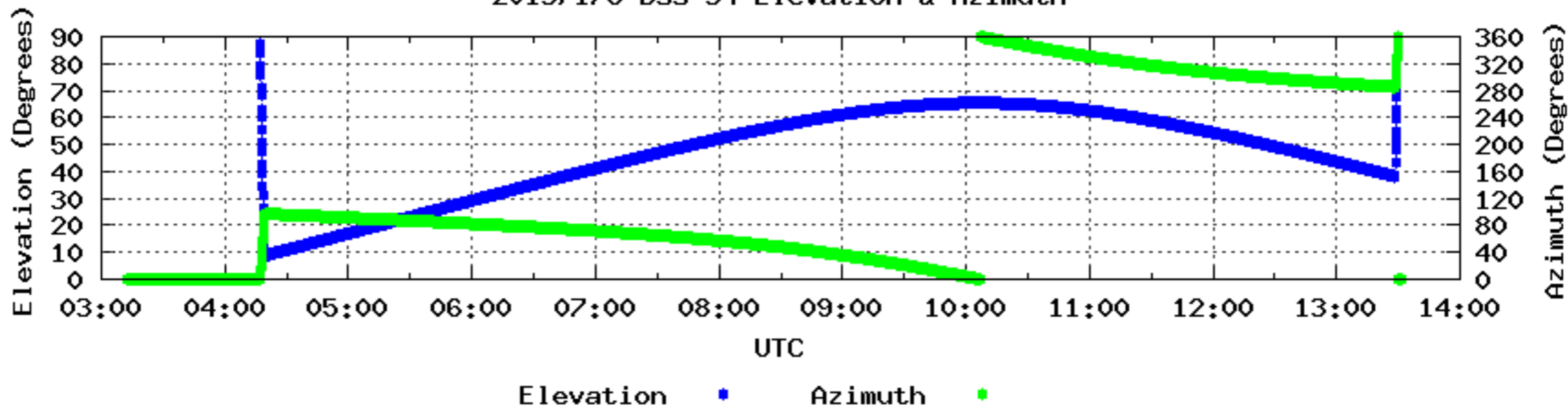
2013/175 DSS-34 Monopulse Elevation & Azimuth Corrections

2013/175 DSS-34 Wind Speed & Direction

02. Carrier Power to Noise Spectral Density Ratio (Pc/No) and Residual
    Frequency

Top:
Carrer Power to Noise Spectral Density Ratio (M-1315, M-1815, M-2315, M-2815)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

Bottom:
Residual Frequency (M-1305, M-1805, M-2305, M-2805)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
    and by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

03. X-Band - Measured Carrier Frequency, Predicted Carrier Frequency,
     and Residual Frequency

Top:
Predicted Frequency including Doppler Shift (M-1320, M-1820, M-2320, M-2820)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
    and by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)
Measured Carrier Frequency (M-1304, M-1804, M-2304, M-2804)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
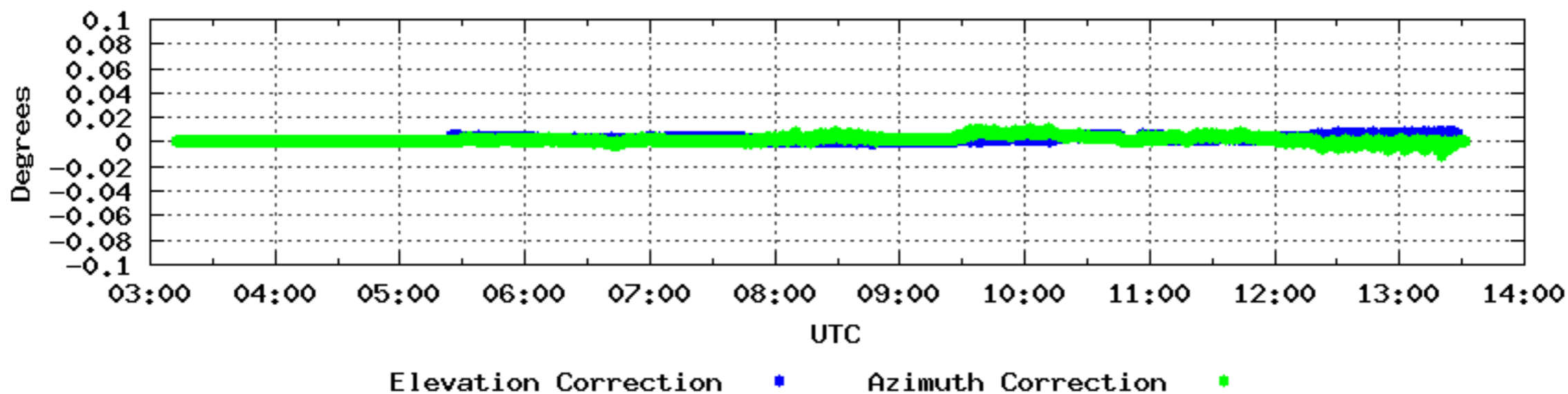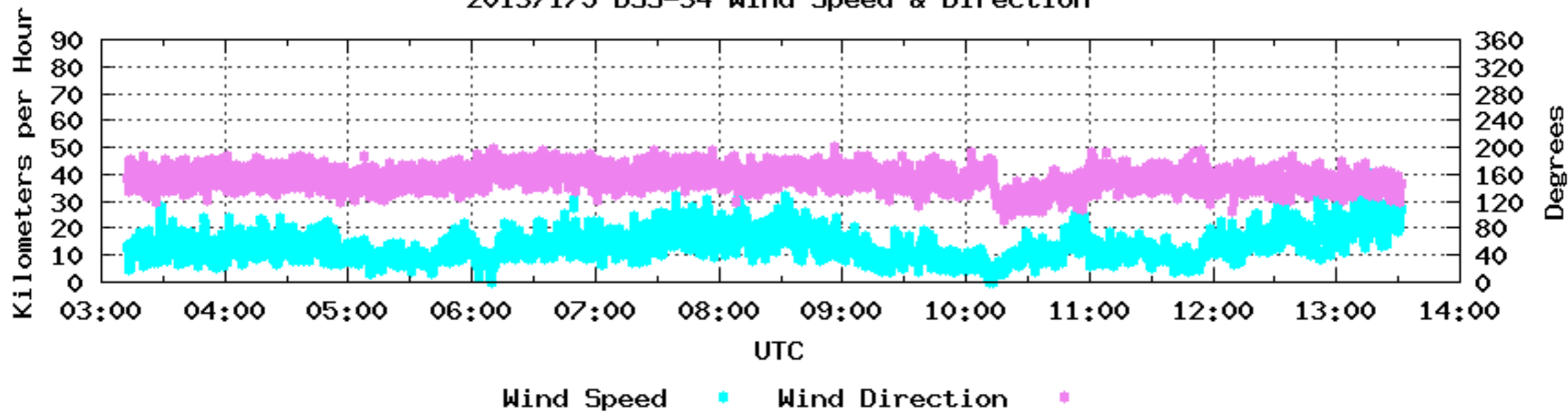   and by Downlink Band (M-1245,M-1745,M-2245,M-2745)
    and Polarization (M-1267,M-1767,M-2267,M-2767)

Bottom:
Residual Frequency (M-1305, M-1805, M-2305, M-2805)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
    and by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

04. Ka-Band - Measured Carrier Frequency, Predicted Carrier Frequency,
     and Residual Frequency

Top:
Predicted Frequency including Doppler Shift (M-1320, M-1820, M-2320, M-2820)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
    and by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)
Measured Carrier Frequency (M-1304, M-1804, M-2304, M-2804)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
    and by Downlink Band (M-1245,M-1745,M-2245,M-2745)
    and Polarization (M-1267,M-1767,M-2267,M-2767)

Bottom:
Residual Frequency (M-1305, M-1805, M-2305, M-2805)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Predicts Mode (M-1248, M-1748, M-2248, M-2748)
    and by Downlink Band (M-1245, M-1745, M-2245, M-2745)

and Polarization (M-1267, M-1767, M-2267, M-2767)

05. Uplink Frequency and Power

Top:
Uplink Frequency (M-1049)
    filtered by Transmitter Status (M-1070)

Bottom:
Uplink Power (M-1067)
    filtered by Transmitter Status (M-1070)

06. Carrier Power to Noise Spectral Density Ratio (Pc/No) and Carrier
    Power

Top:
Carrer Power to Noise Spectral Density Ratio (M-1315, M-1815, M-2315, M-2815)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

Bottom:
Carrer Power (M-1310, M-1810, M-2310, M-2810)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

07. Carrier Power to Noise Spectral Density Ratio (Pc/No) and System
    Noise Temperature

Carrer Power to Noise Spectral Density Ratio (M-1315, M-1815, M-2315, M-2815)
    filtered by Carrier Tracking Loop Status (M-1302, M-1802, M-2302, M-2802)
    categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)
System Noise Temperature (M-1318, M-1818, M-2318, M-2818)
    categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

08. Carrier Loop Tracking Bandwidth

Carrier Loop Tracking Bandwidth (M-1299, M-1799, M-2299, M-2799)
    categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
    and Polarization (M-1267, M-1767, M-2267, M-2767)

09. Azimuth & Elevation
Elevation Angle (M-0304)
Azimuth Angle (M-0305)

10. Weather: Air Temperature, Dew Point Temperature, Relative Humidity,
    Precipitation Rate, and Barometric Pressure

Top:
Air Temperature (M-0394)
Dew Point (M-0397)

Relative Humidity (M-0409)

Bottom:
Barometric Pressure (M-0400)
Precipitation Rate (M-0406)

11. Wind Speed and Direction

Top:
Wind Speed (M-0388)

Bottom:
Wind Direction (M-0391)

12. Conscan Drive Status

Conscan Drive Status (M-0308)

13. Azimuth & Elevation Monopulse Corrections

Elevation Corrections (M-0815)
Azimuth Corrections (M-0814)

14. Azimuth & Elevation Residuals

Elevation Residuals (M-0307)
Azimuth Residuals (M-0306)

15. System Noise Temperature, Elevation, Precipitation Rate, and
    Relative Humidity

Top:
System Noise Temperature (M-1318, M-1818, M-2318, M-2818)
   categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
   and Polarization (M-1267, M-1767, M-2267, M-2767)

Middle:
Elevation Angle (M-0304)

Bottom:
Precipitation Rate (M-0406)
Relative Humidity (M-0409)

16. Elevation & Azimuth, Elevation & Azimuth Corrections, and Wind
    Speed and Direction

Top:
Elevation Angle (M-0304)
Azimuth Angle (M-0305)

Middle:
Elevation Corrections (M-0815)
Azimuth Corrections (M-0814)

Bottom:
Wind Speed (M-0388)
Wind Direction (M-0391)