

Spacecraft: Cassini

DSS: 25

Monitor File: S12SROC2005_177_1545_25_MON.ecsv

APPLICABLE_START_TIME = 2005-177T15:45:58.721;

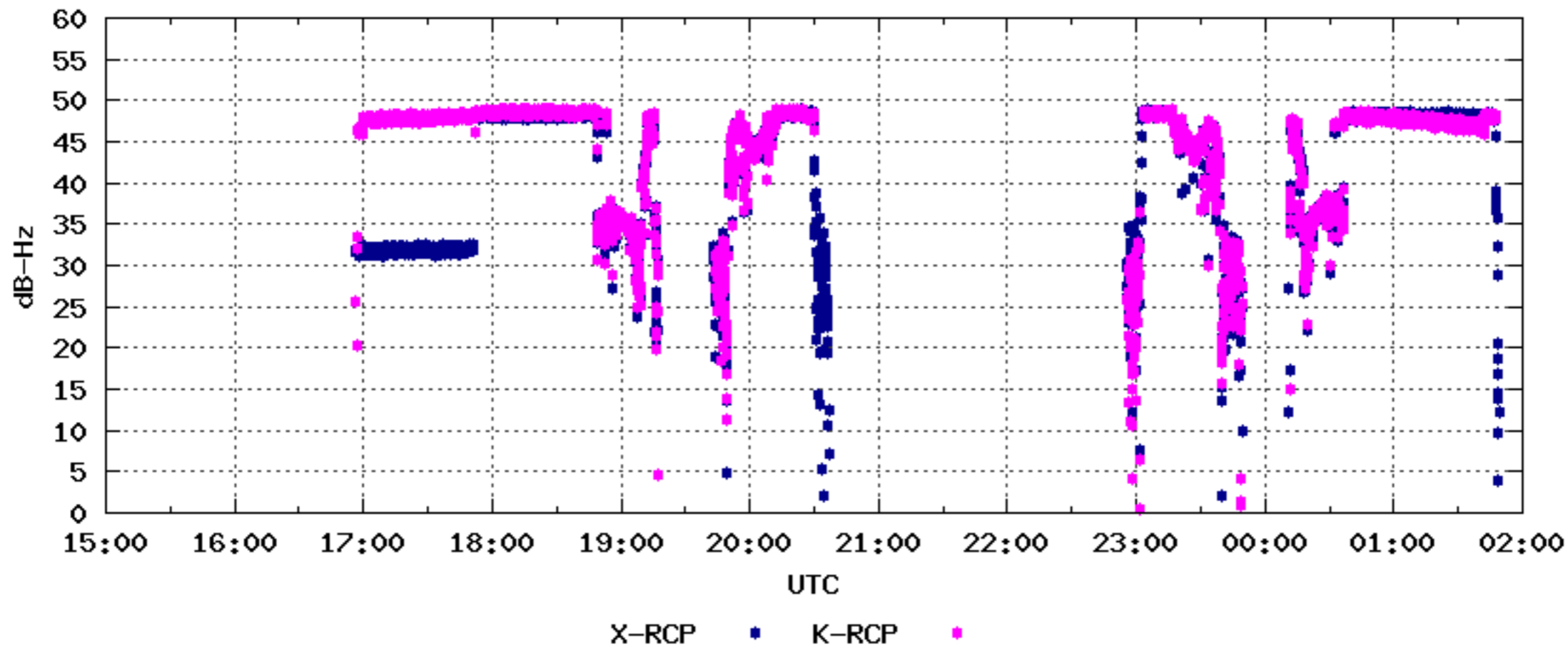
APPLICABLE_STOP_TIME = 2005-178T01:58:16.483;

60 minutes omitted from beginning of file

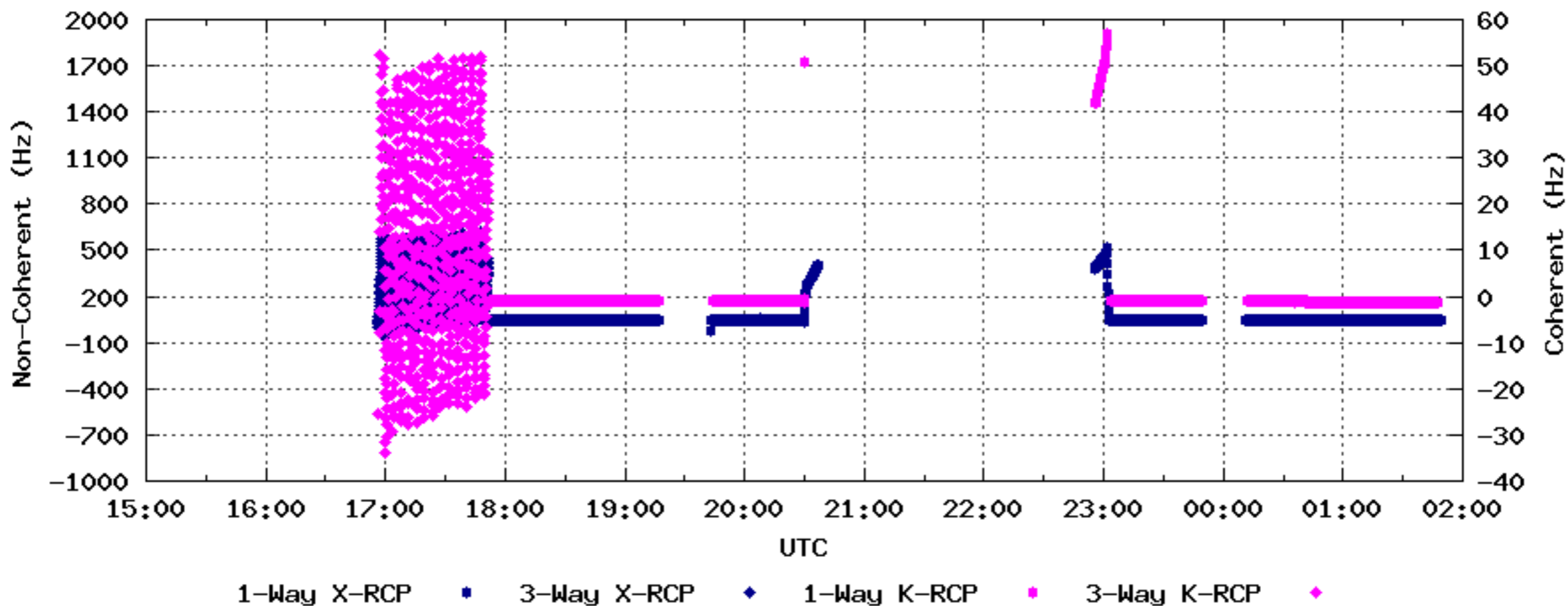
5 minutes omitted from end of file

02. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and Residual Frequency
03. X-Band Measured Carrier Frequency, Predicted Carrier Frequency, and Residual Frequency
04. Ka-Band Measured Carrier Frequency, Predicted Carrier Frequency, and Residual Frequency
05. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and Carrier Power
06. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and System Noise Temperature
07. Carrier Loop Tracking Bandwidth
08. Azimuth & Elevation
09. Conscan Drive Status
10. Azimuth & Elevation Monopulse Corrections
11. Azimuth & Elevation Residuals
12. System Noise Temperature, Elevation, Precipitation Rate, and Relative Humidity
13. Elevation & Azimuth, Elevation & Azimuth Corrections, and Wind Speed and Direction
14. Index

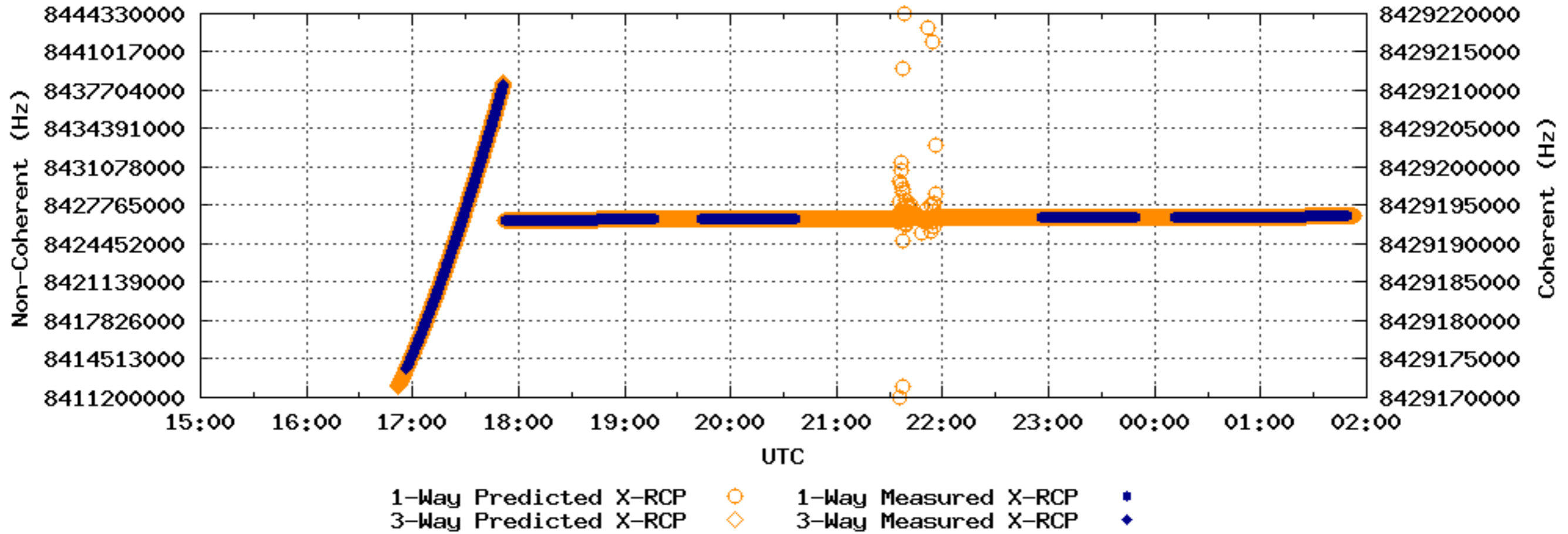
2005/177 D55-25 Carrier Power to Noise Spectral Density Ratio (Pc/No)



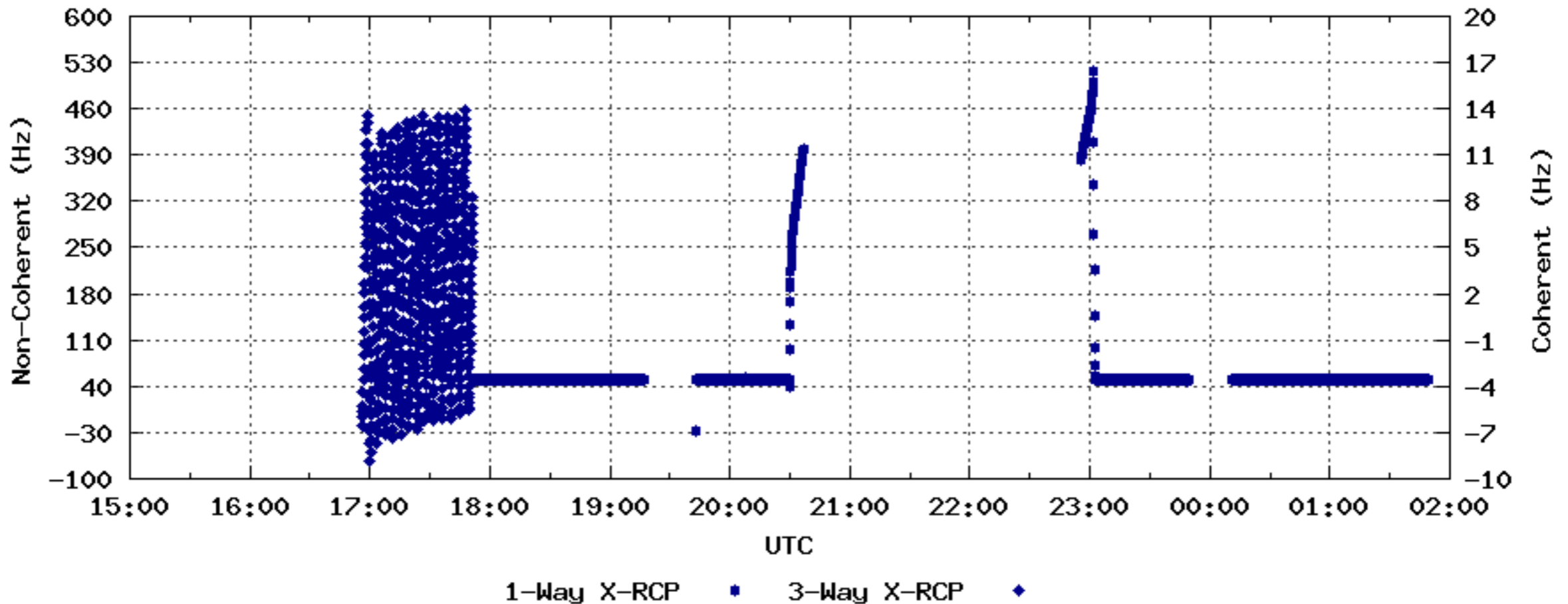
2005/177 D55-25 Carrier Frequency Residual (Measured - Predicted)



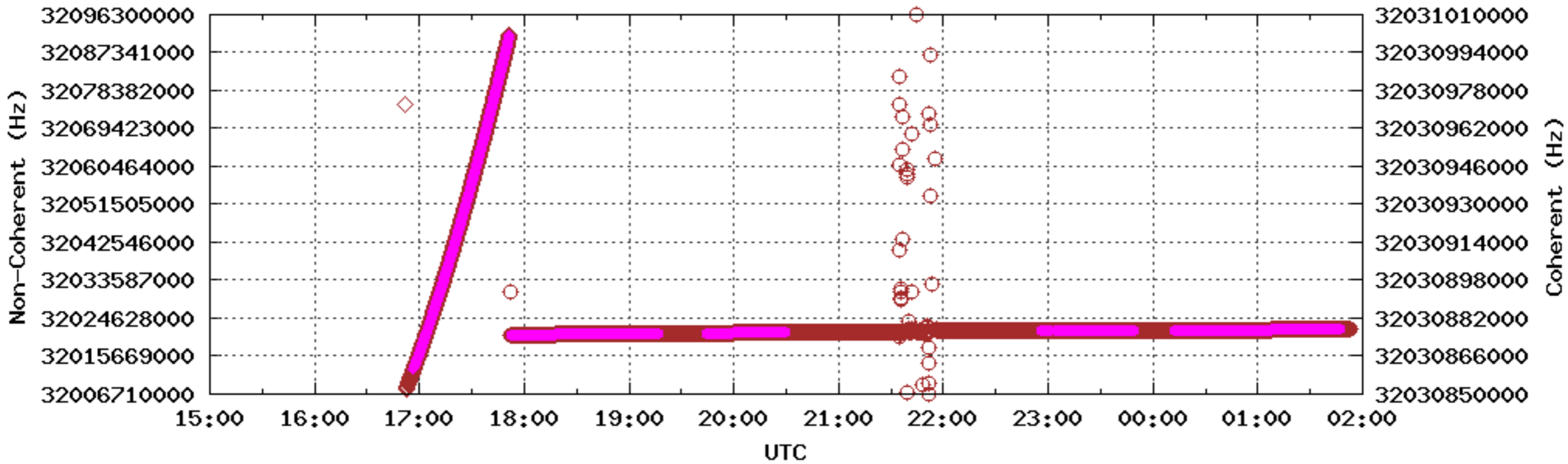
2005/177 DSS-25 X-Band Measured and Predicted Carrier Frequency



2005/177 DSS-25 X-Band Residual Frequency (Measured - Predicted)

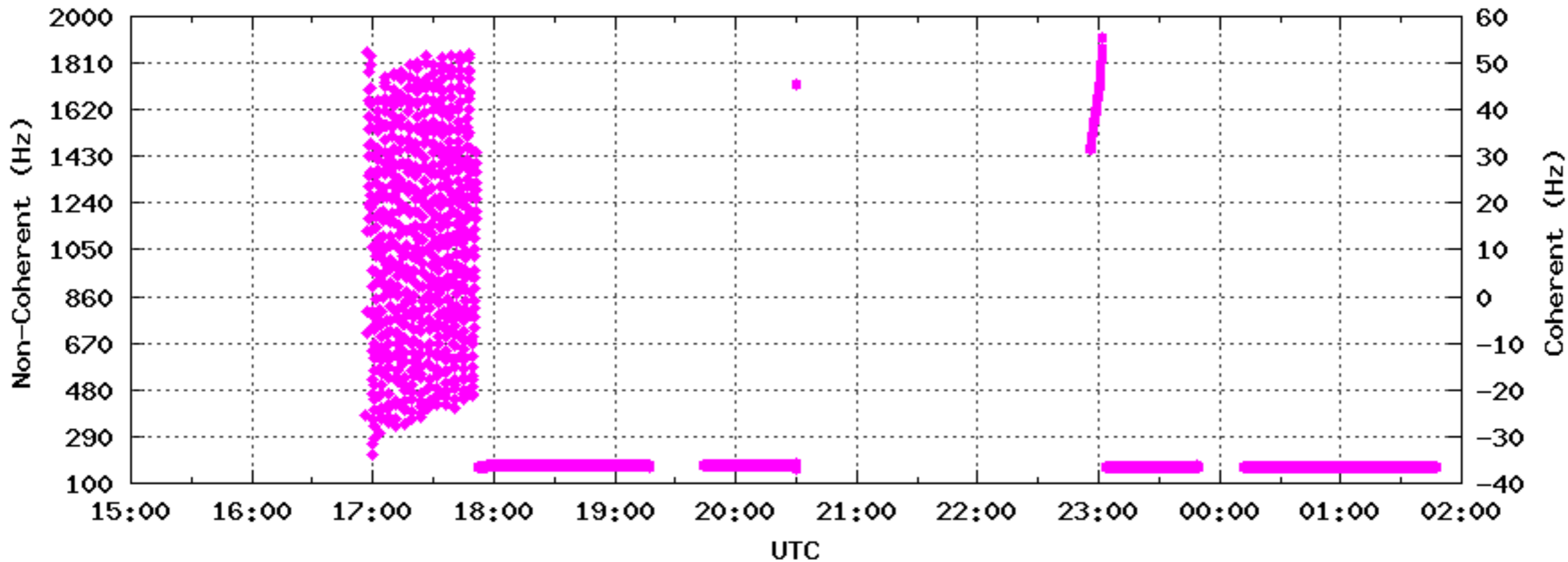


2005/177 DSS-25 K-Band Measured and Predicted Carrier Frequency



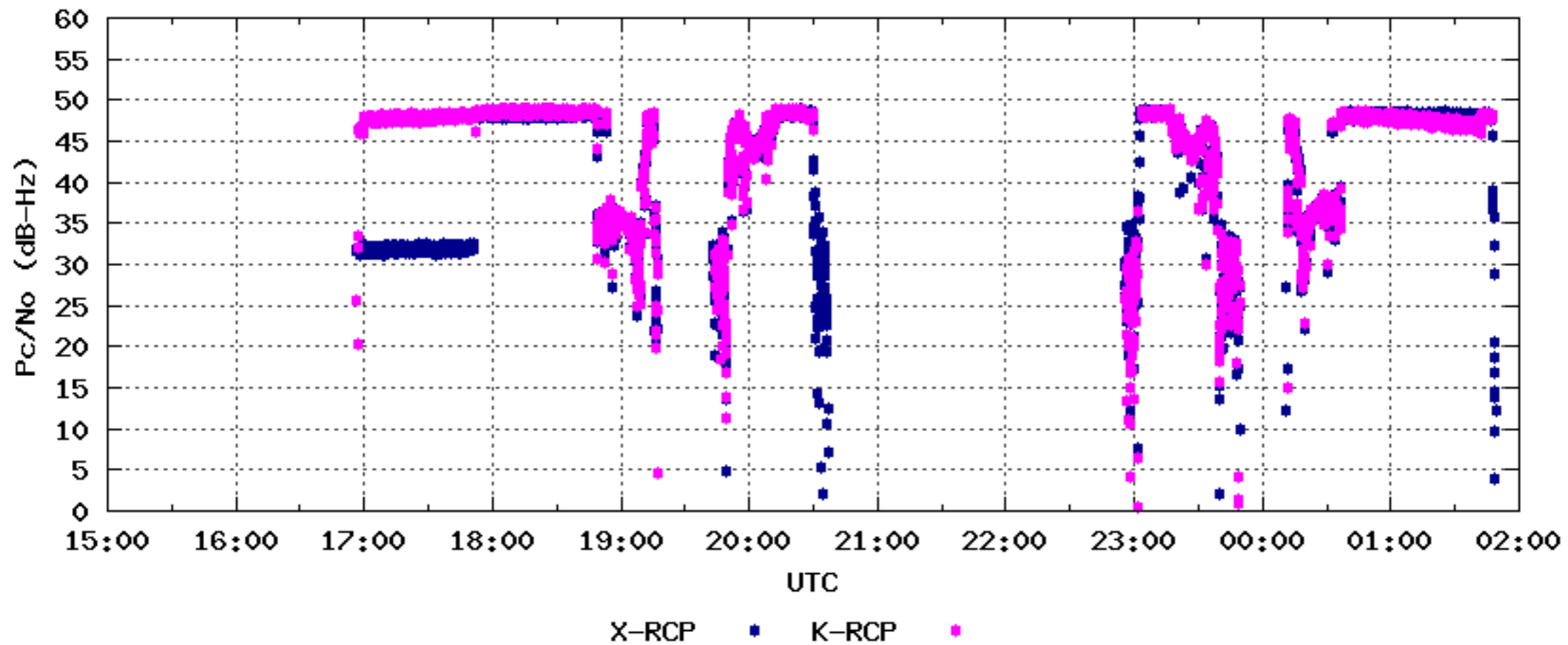
1-Way Predicted K-RCP ○ 1-Way Measured K-RCP ◆
 3-Way Predicted K-RCP ◇ 3-Way Measured K-RCP ◆

2005/177 DSS-25 K-Band Residual Frequency (Measured - Predicted)

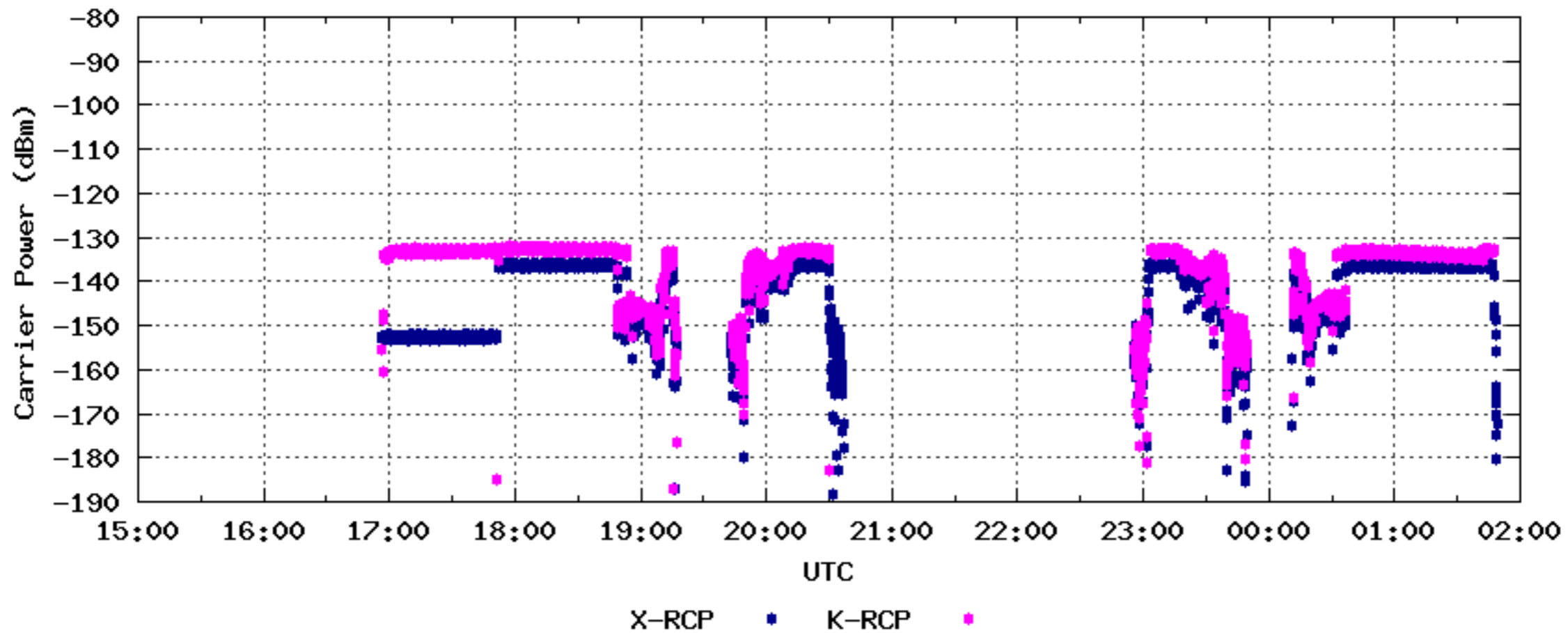


1-Way K-RCP ◆ 3-Way K-RCP ◆

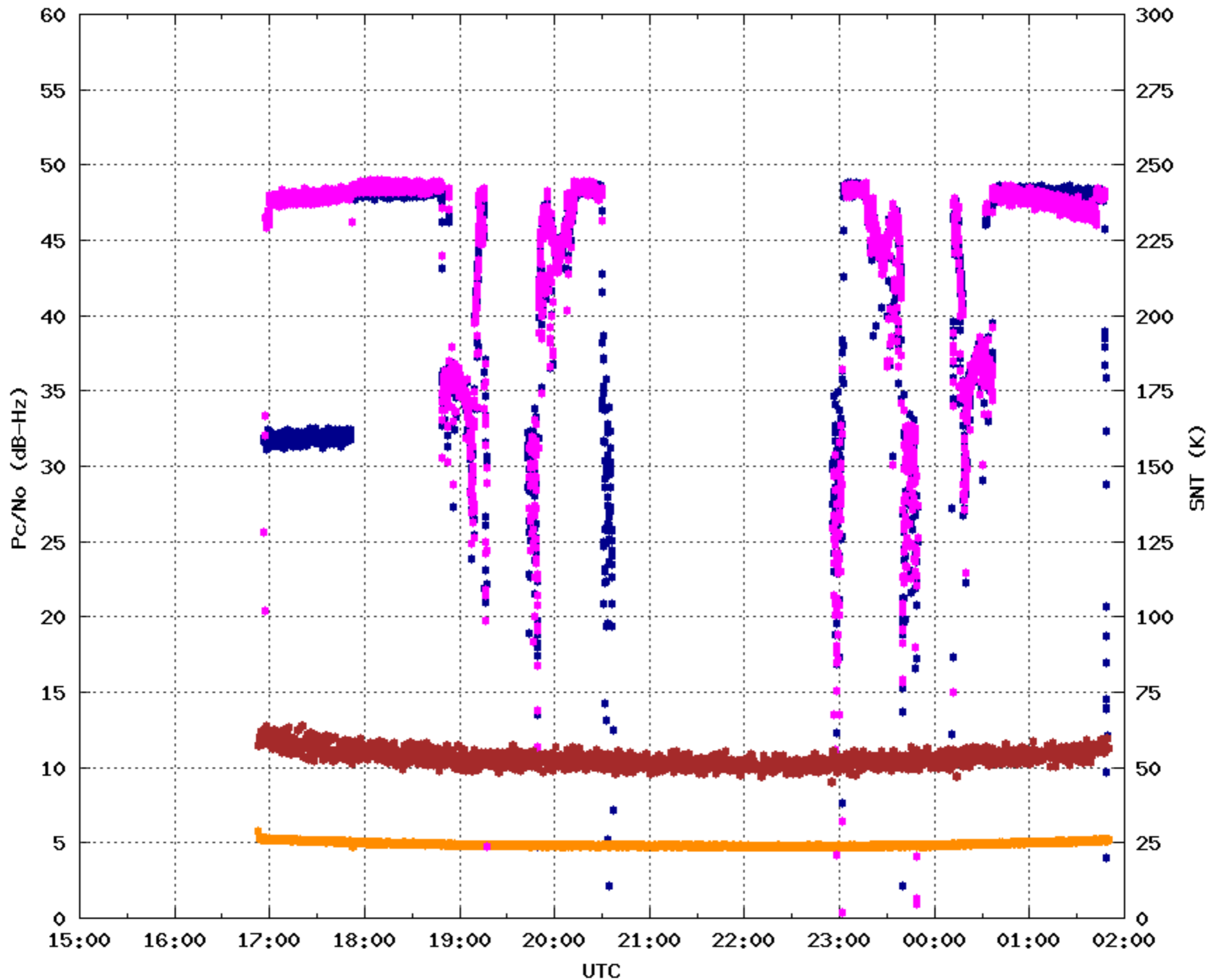
2005/177 DSS-25 Carrier Power to Noise Spectral Density Ratio (Pc/No)



2005/177 DSS-25 Carrier Power



2005/177 D55-25 Carrier Power to Noise Spectral Density Ratio and System Noise Temperature



Pc/No X-RCP

■

SNT X-RCP

■

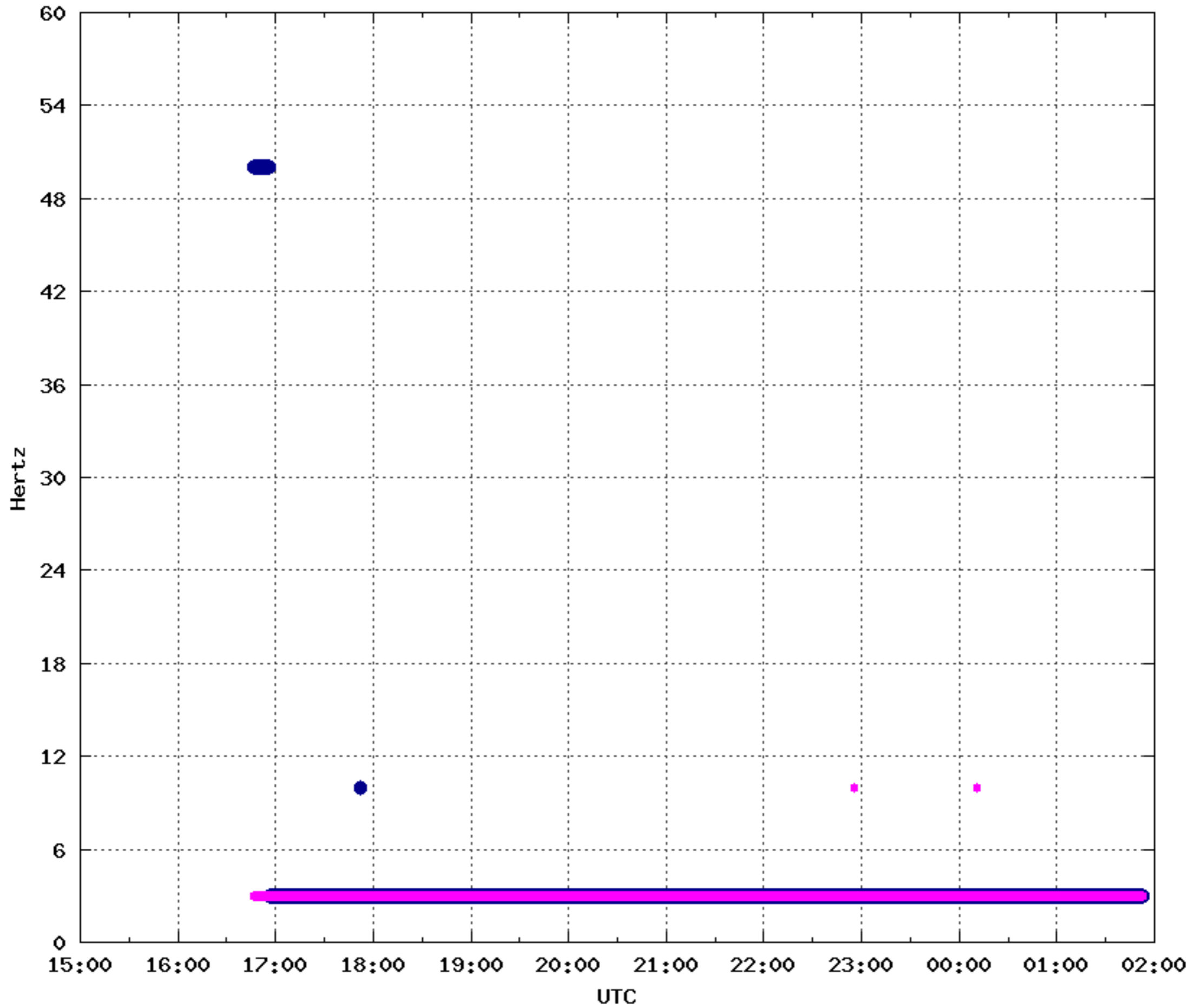
Pc/No K-RCP

■

SNT K-RCP

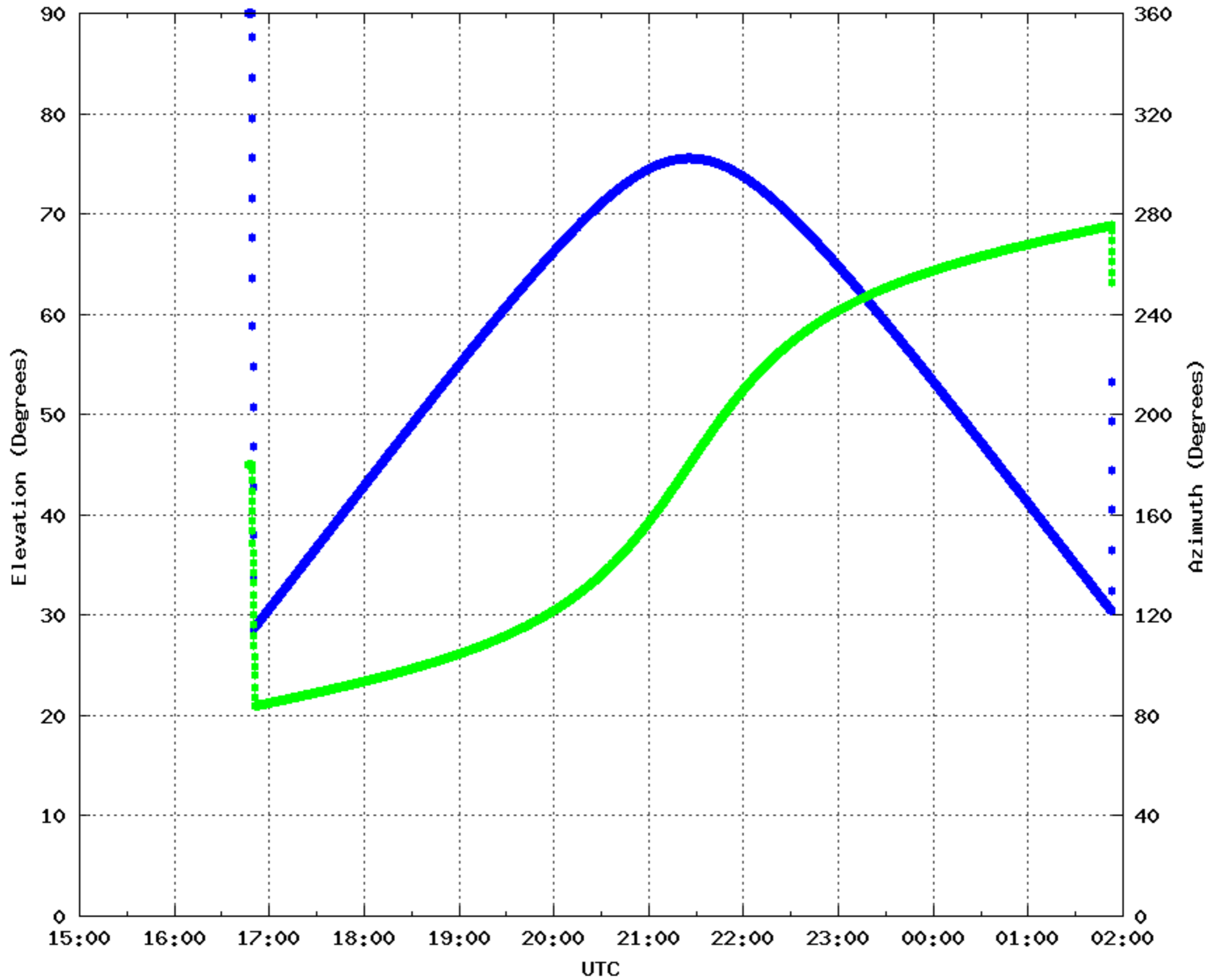
■

2005/177 DSS-25 Carrier Loop Tracking Bandwidth



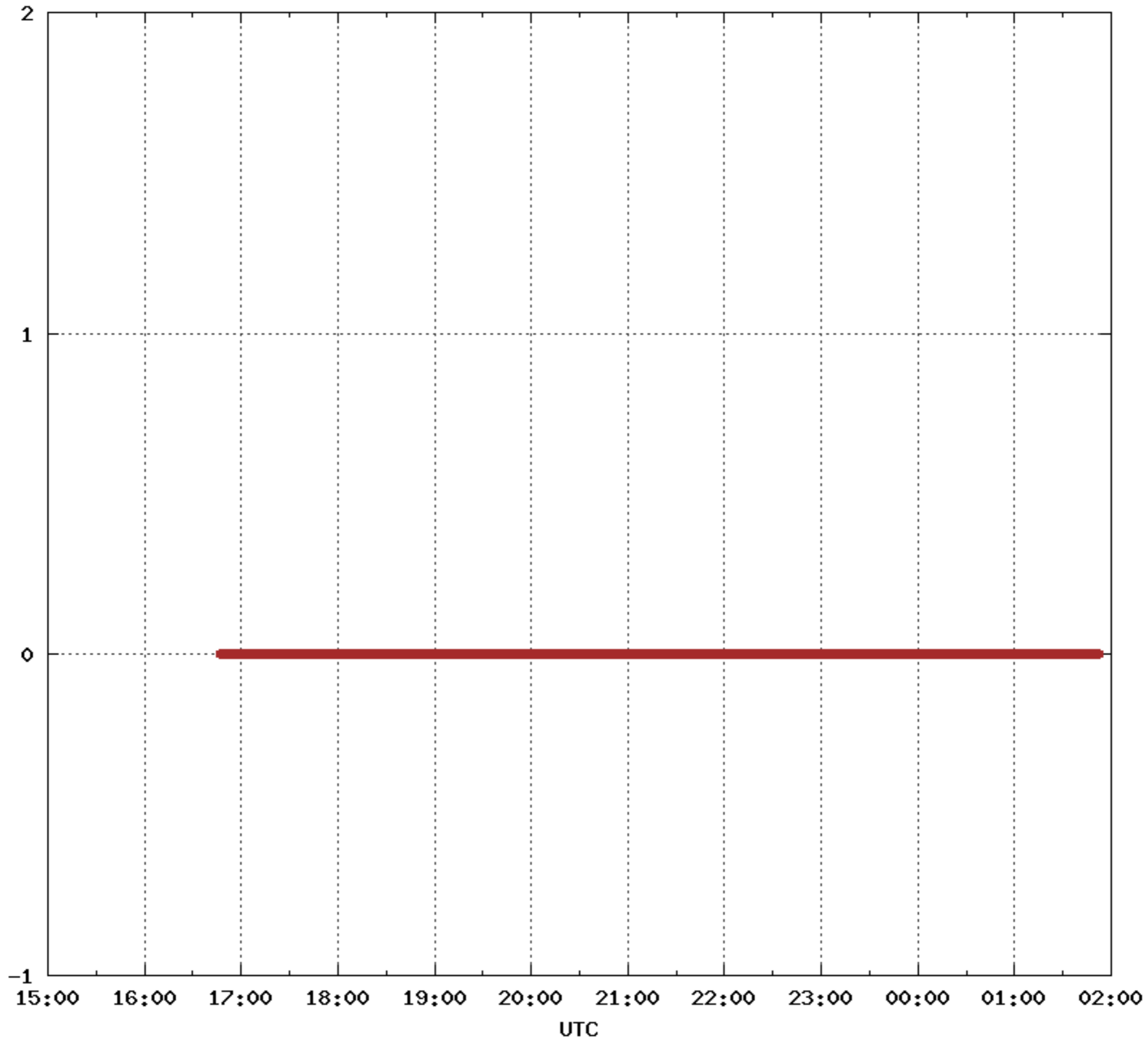
X-RCP ● K-RCP ●

2005/177 DSS-25 Elevation & Azimuth

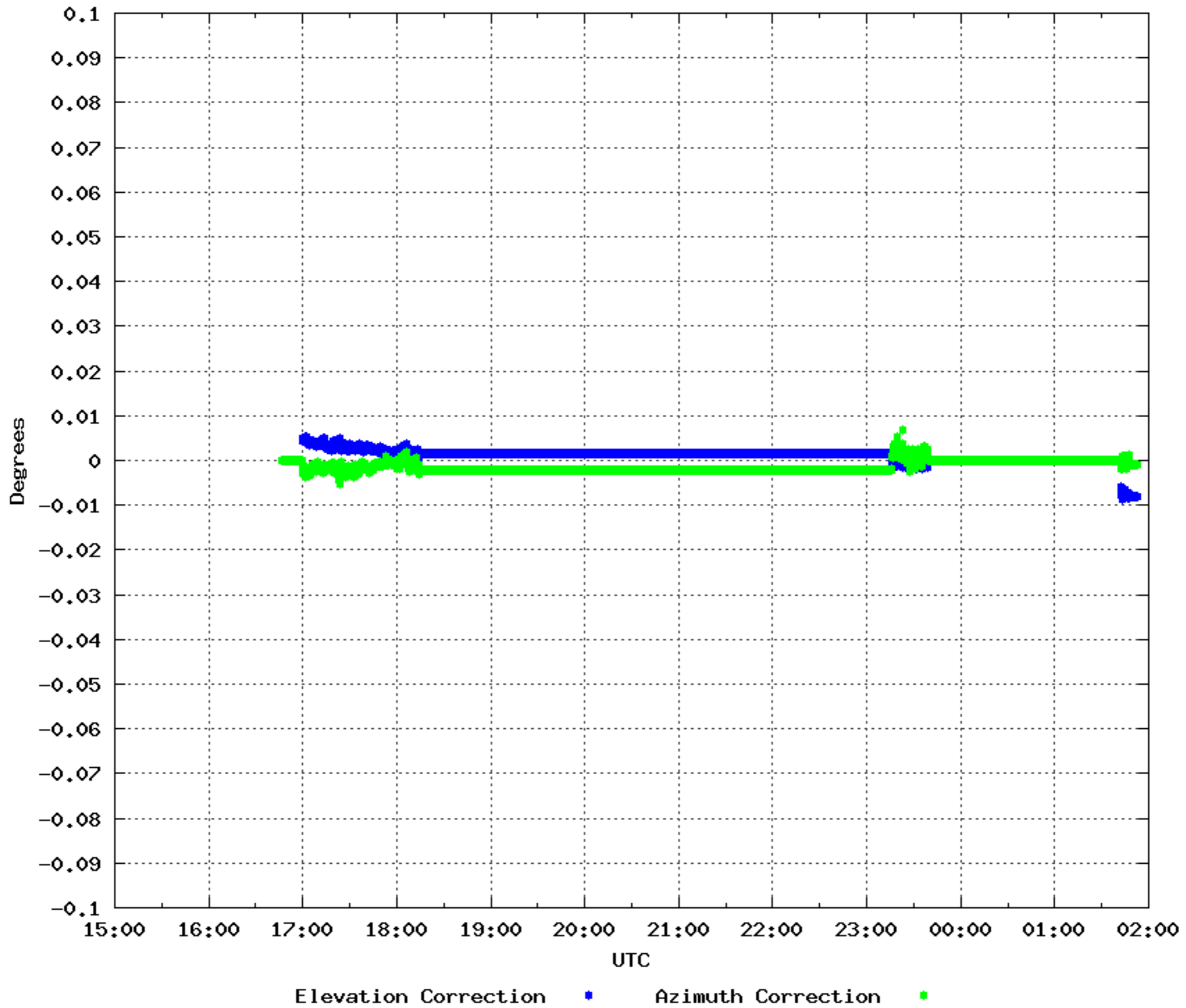


Elevation ■ Azimuth ■

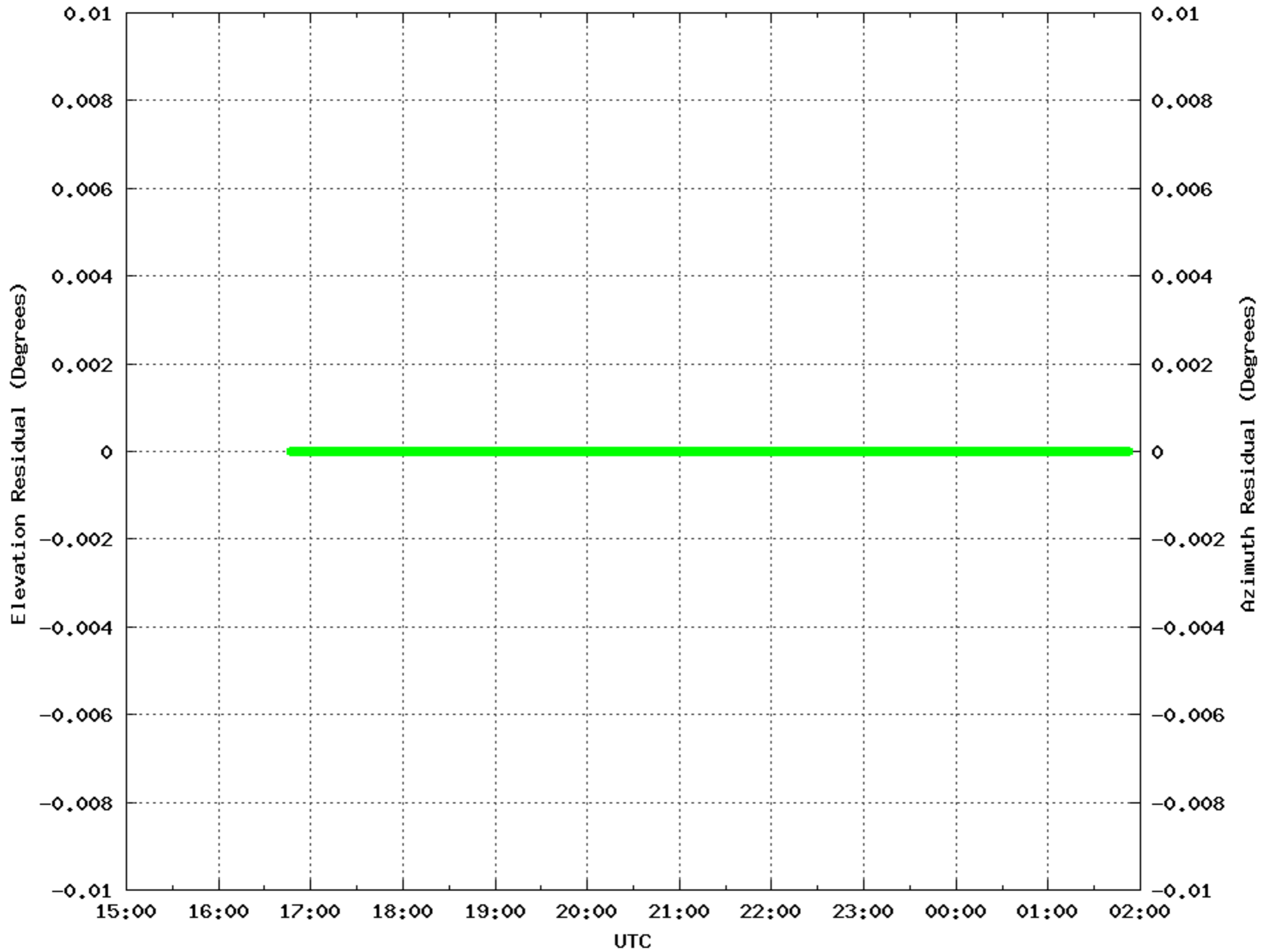
2005/177 DSS-25 Conscan Drive Status (ON = 1; OFF = 0)



2005/177 D55-25 Monopulse Elevation & Azimuth Corrections

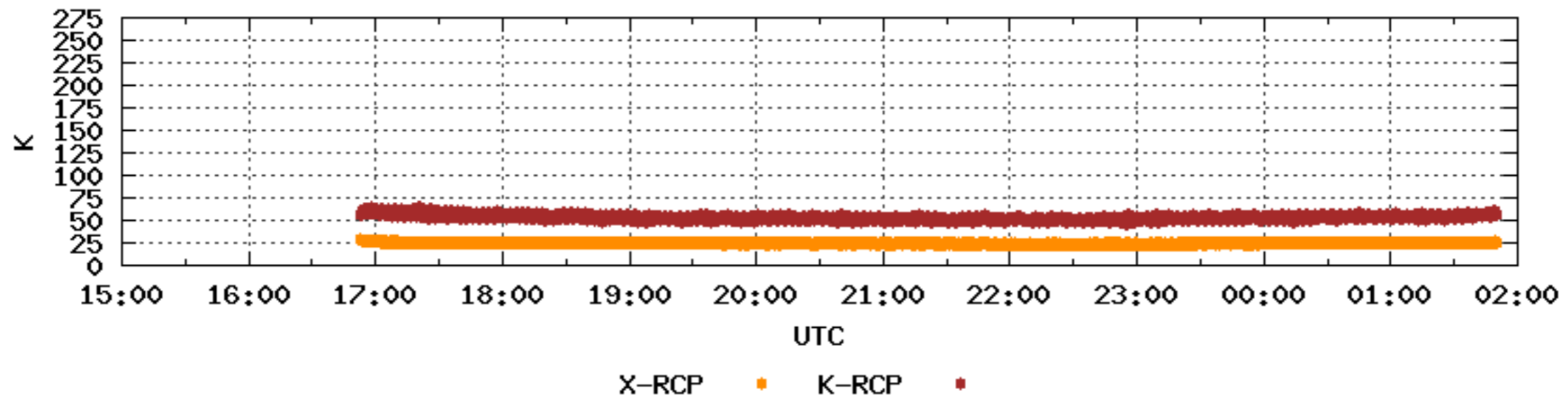


2005/177 DSS-25 Elevation & Azimuth Residuals

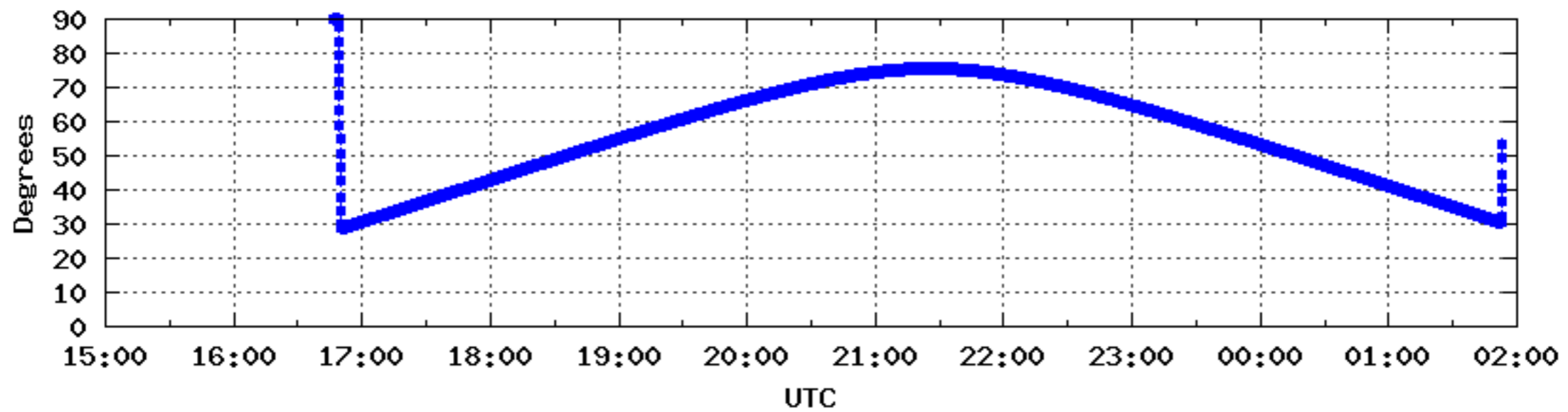


Elevation Residual ■ Azimuth Residual ■

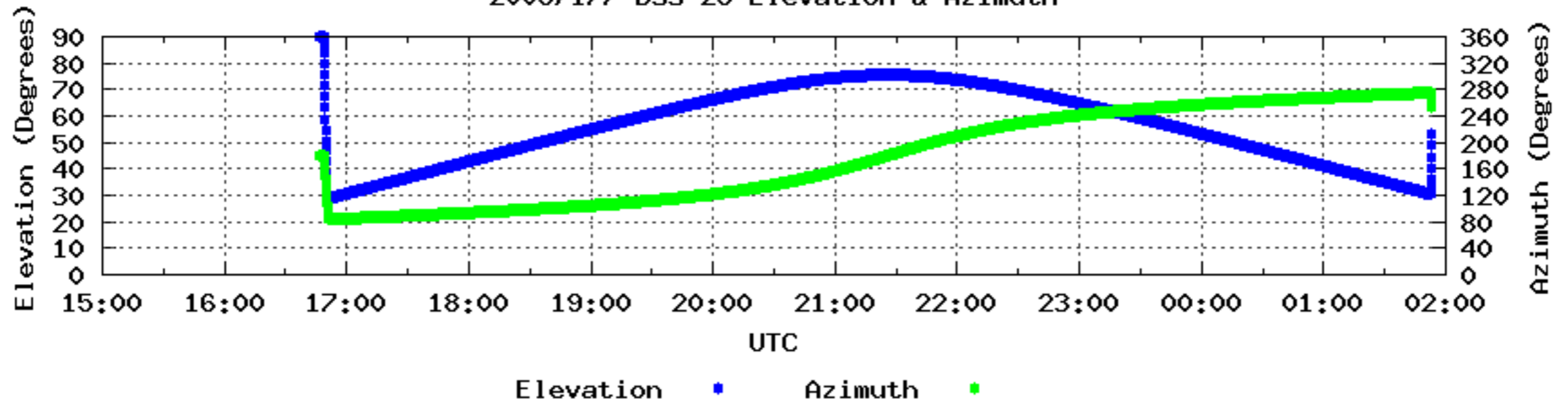
2005/177 DSS-25 System Noise Temperature



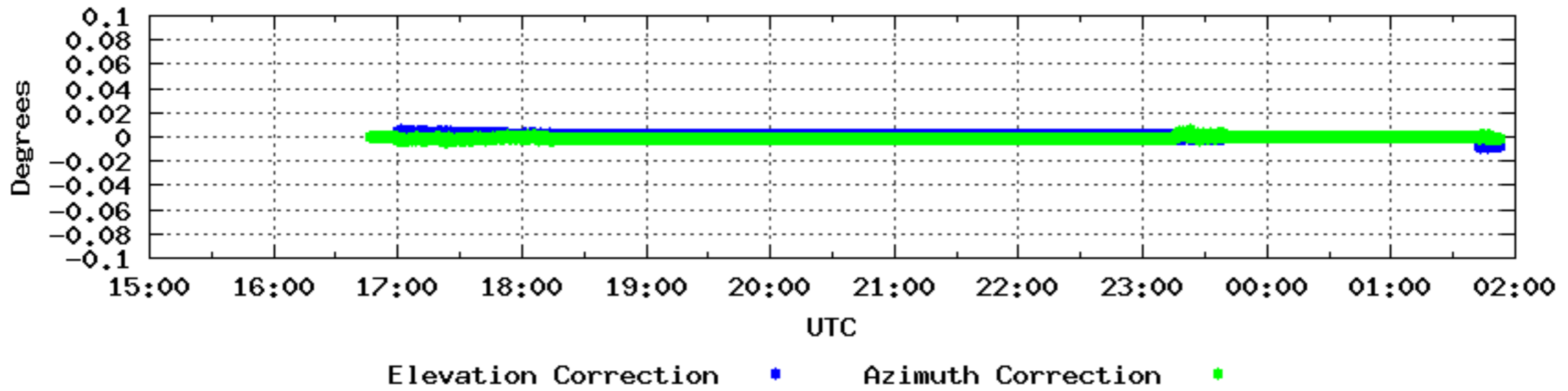
2005/177 DSS-25 Elevation Angle



2005/177 DSS-25 Elevation & Azimuth



2005/177 DSS-25 Monopulse Elevation & Azimuth Corrections



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

Top:

Carrier 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. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and Carrier Power

Top:

Carrier 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:

Carrier 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)

06. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and System Noise Temperature

Carrier 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)

07. 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)

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

09. Conscan Drive Status

Conscan Drive Status (M-0308)

10. Azimuth & Elevation Monopulse Corrections

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

11. Azimuth & Elevation Residuals

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

12. 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)

13. 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)