

Spacecraft: Cassini

DSS: 43

Monitor File: S95SROC2016_206_0310_43_MON.ecsv

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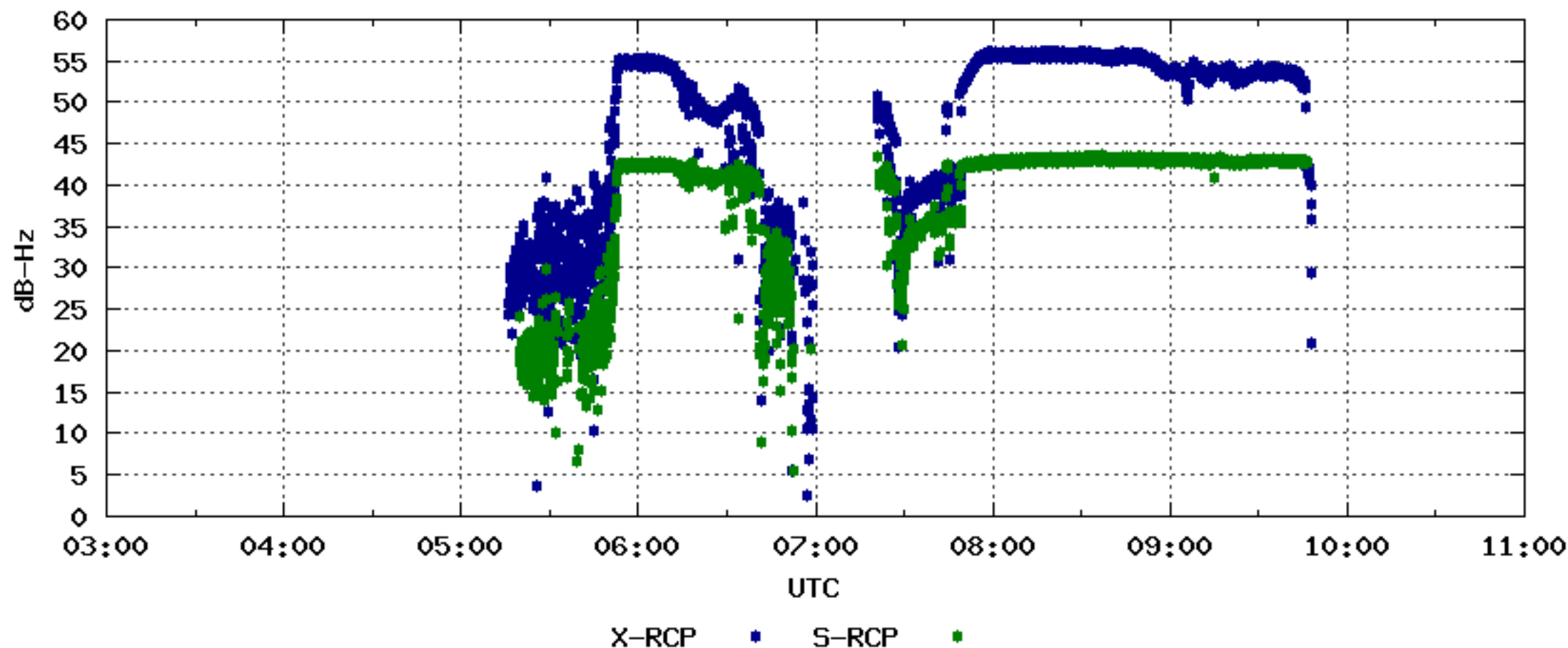
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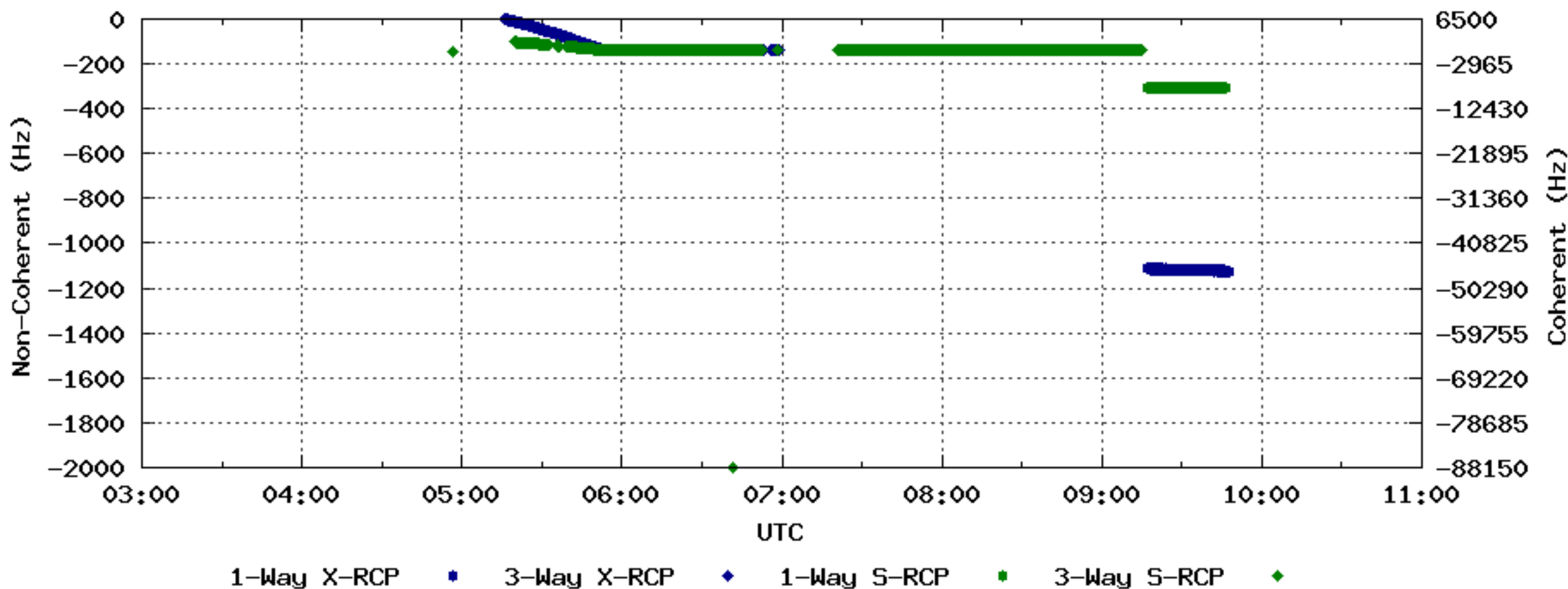
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02. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and Residual Frequency
03. X-Band Measured Carrier Frequency, Predicted Carrier Frequency, and Residual Frequency
04. S-Band Measured Carrier Frequency, Predicted Carrier Frequency, and Residual Frequency
05. Carrier Power to Noise Spectral Density Ratio (P_c/N_o) and Carrier Power
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12. Wind Speed and Direction
13. Conscan Drive Status
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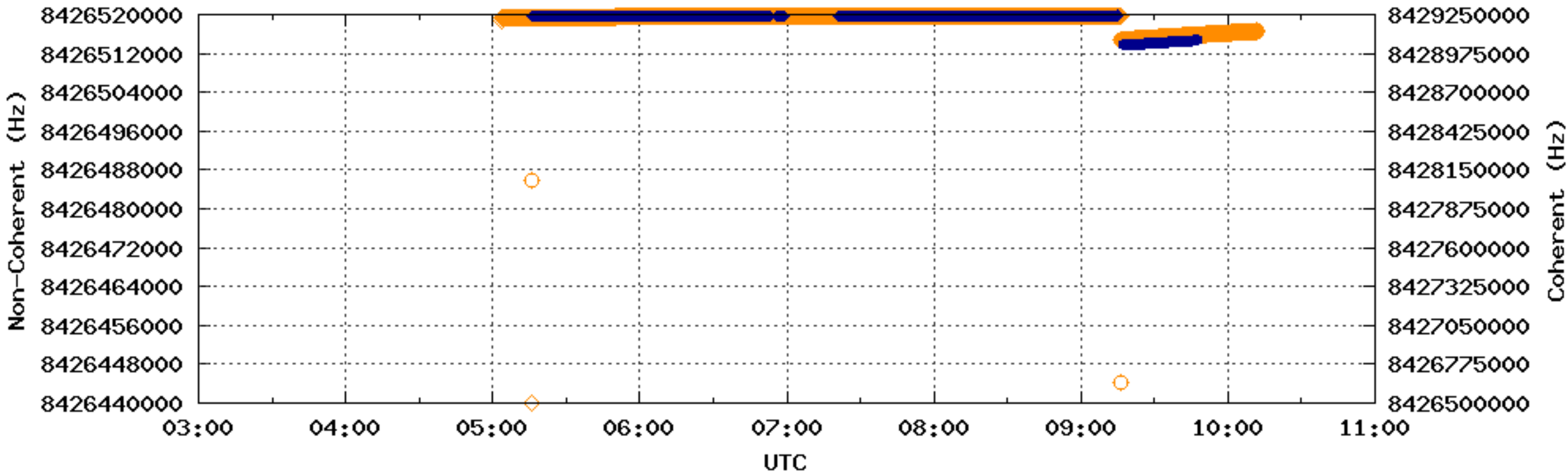
2016/206 D55-43 Carrier Power to Noise Spectral Density Ratio (Pc/No)



2016/206 D55-43 Carrier Frequency Residual (Measured - Predicted)

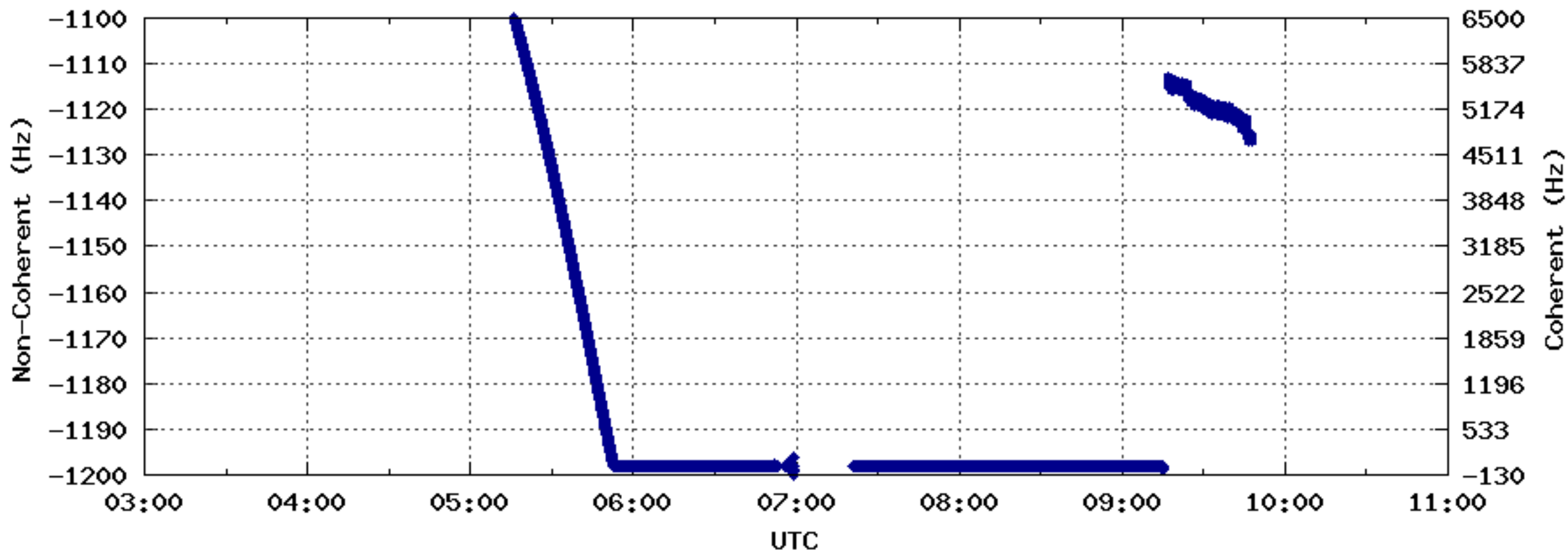


2016/206 D55-43 X-Band Measured and Predicted Carrier Frequency



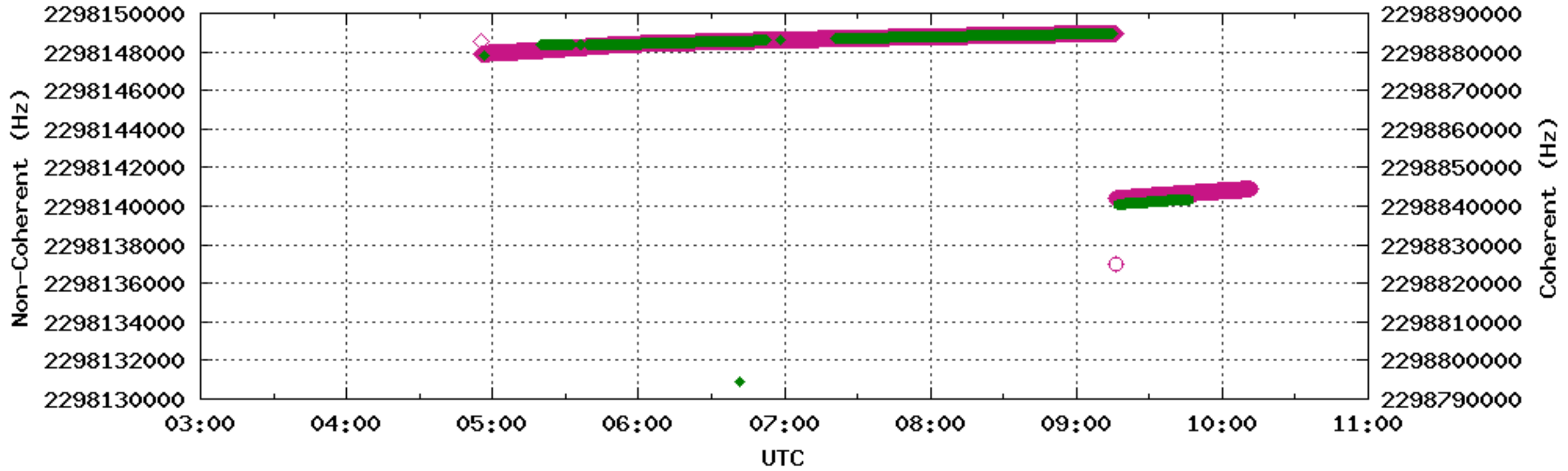
1-Way Predicted X-RCP ○ 1-Way Measured X-RCP ◆
 3-Way Predicted X-RCP ◇ 3-Way Measured X-RCP ◆

2016/206 D55-43 X-Band Residual Frequency (Measured - Predicted)

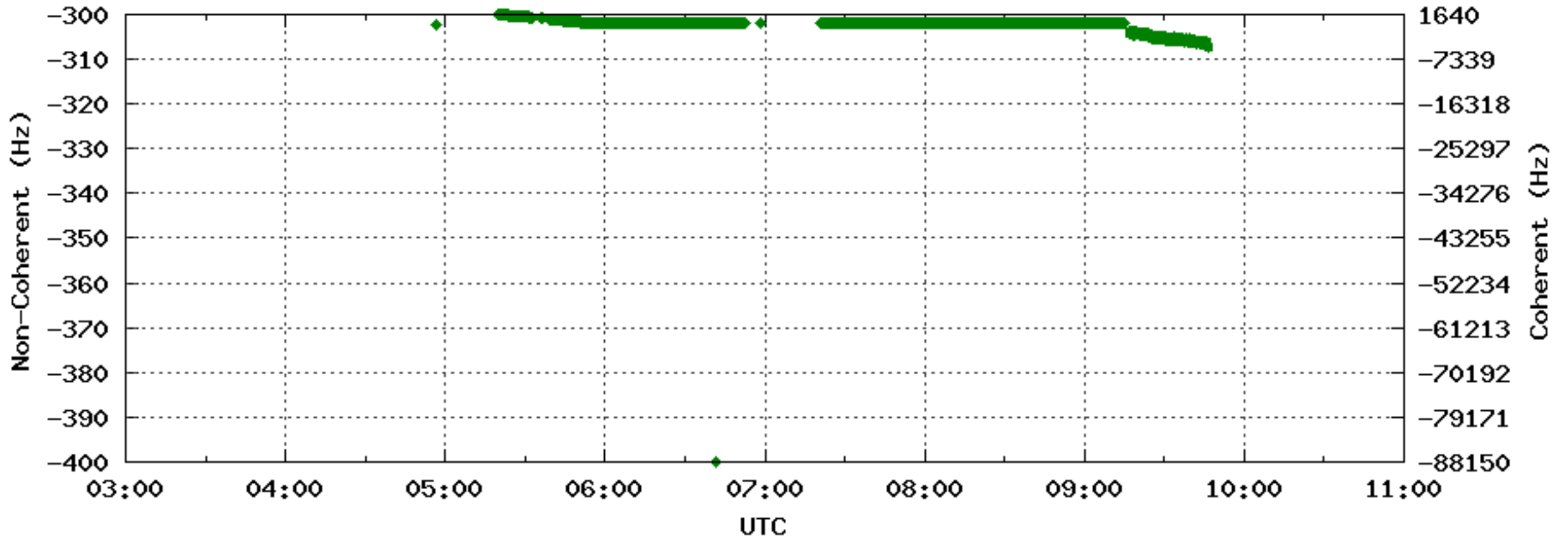


1-Way X-RCP ◆ 3-Way X-RCP ◆

2016/206 D55-43 S-Band Measured and Predicted Carrier Frequency

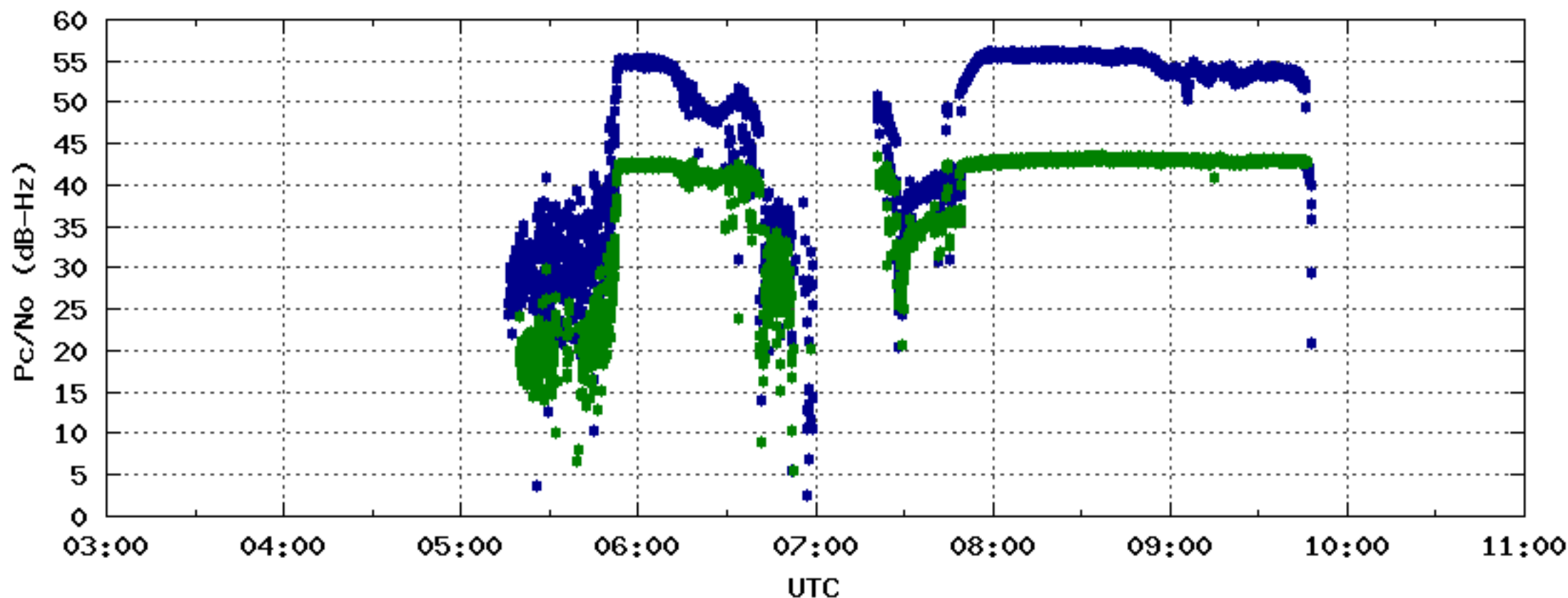


2016/206 D55-43 S-Band Residual Frequency (Measured - Predicted)



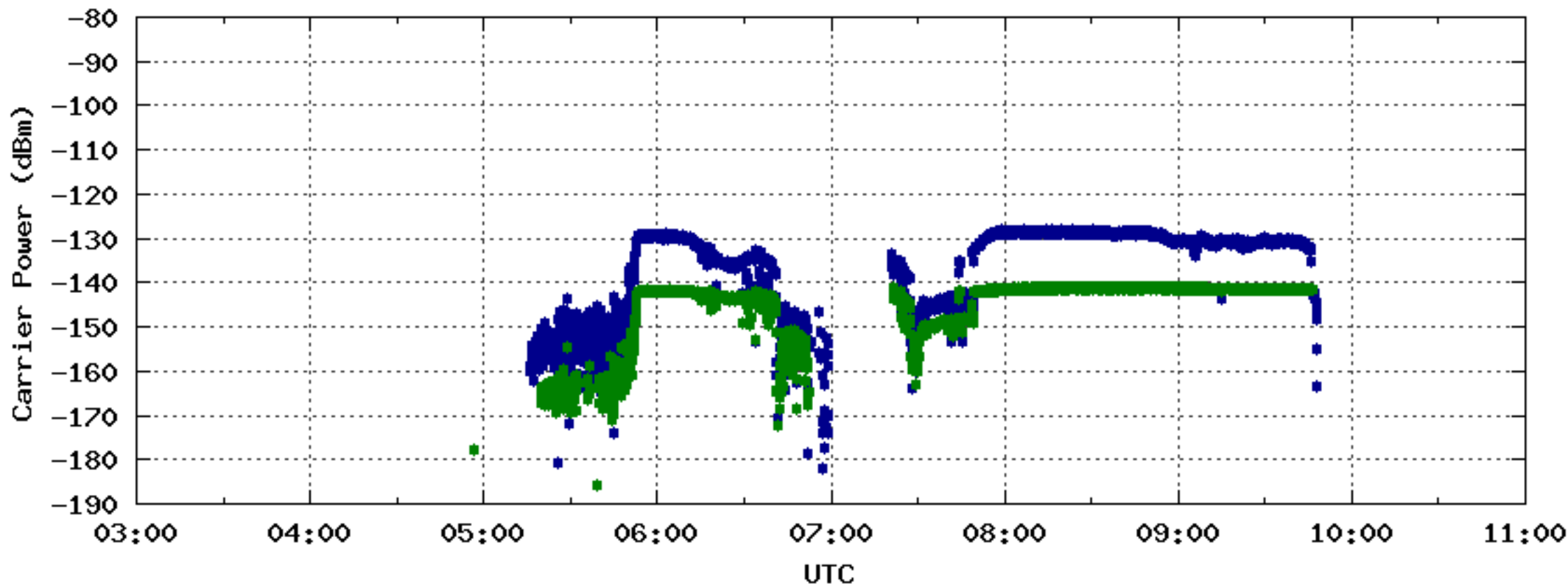
1-Way S-RCP (green square) 3-Way S-RCP (green diamond)

2016/206 D55-43 Carrier Power to Noise Spectral Density Ratio (Pc/No)



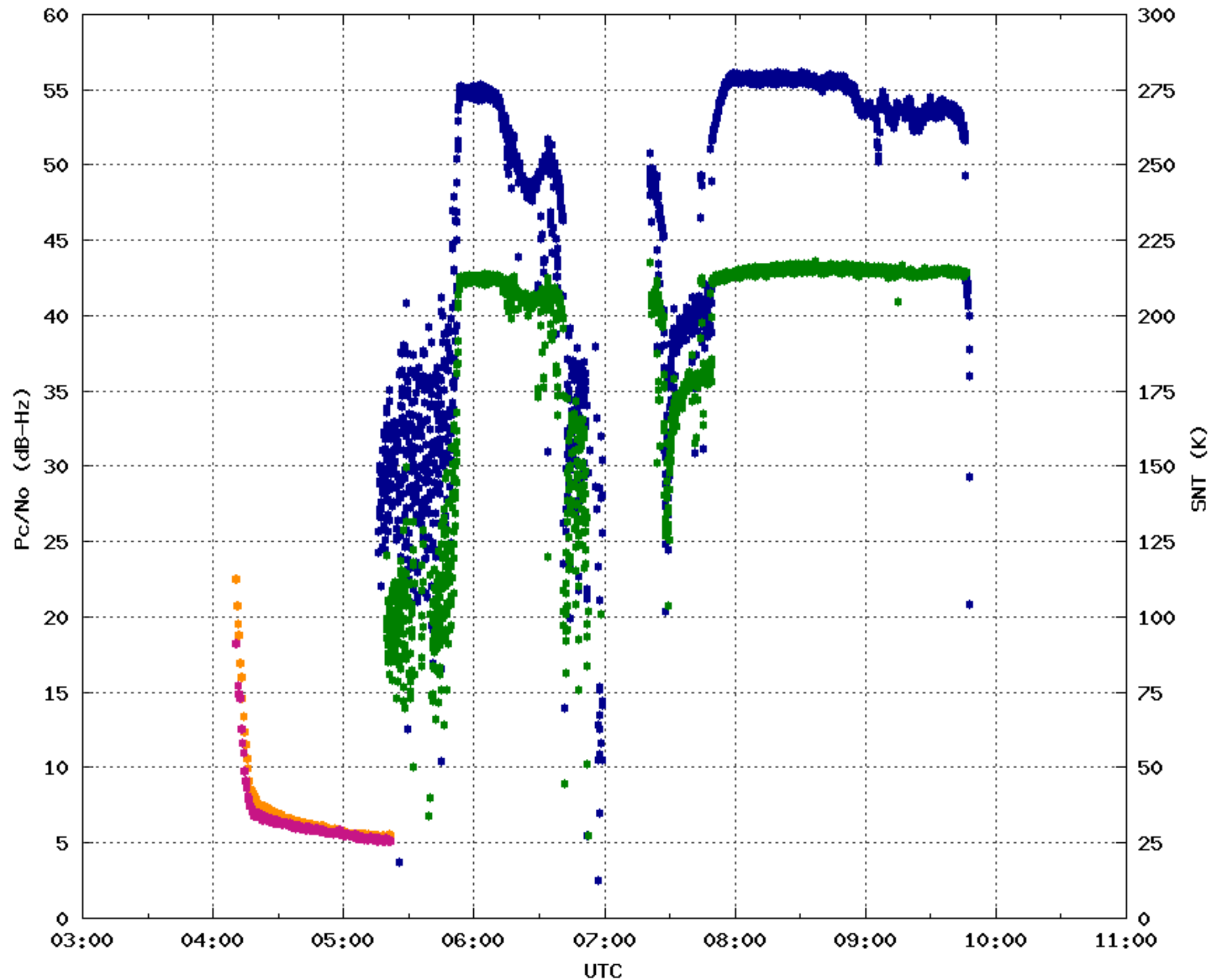
X-RCP S-RCP

2016/206 D55-43 Carrier Power

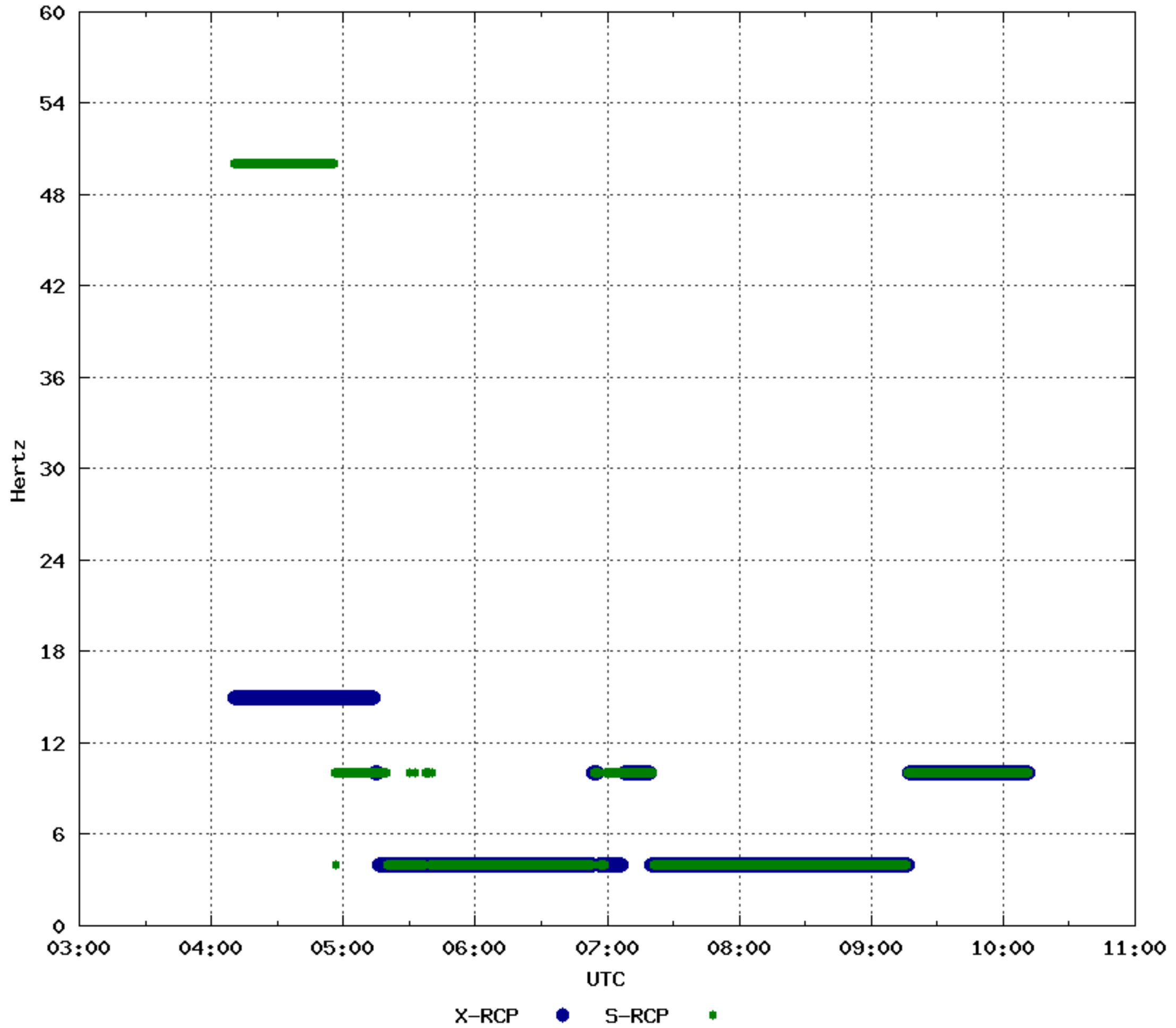


X-RCP S-RCP

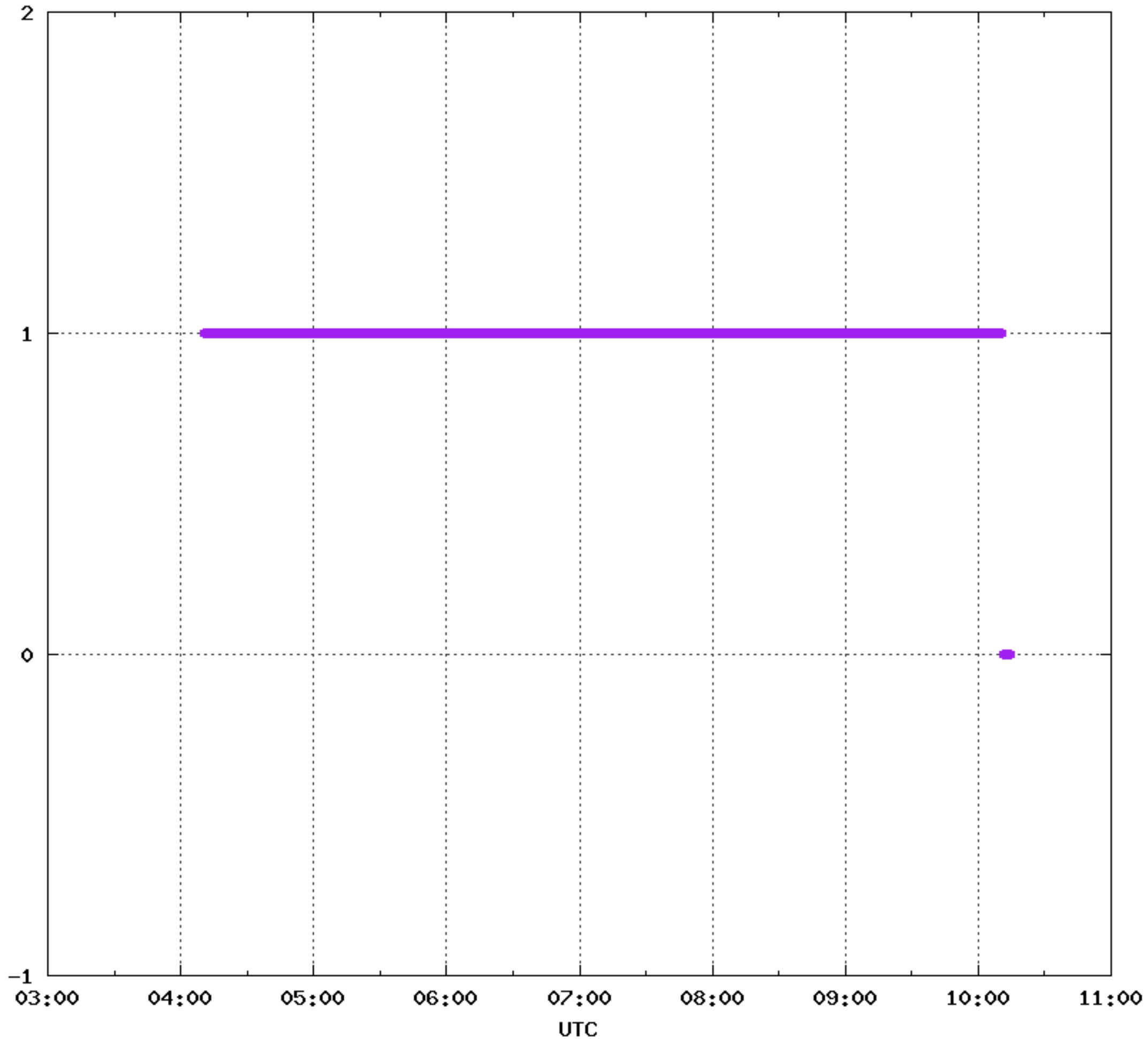
2016/206 D55-43 Carrier Power to Noise Spectral Density Ratio and System Noise Temperature



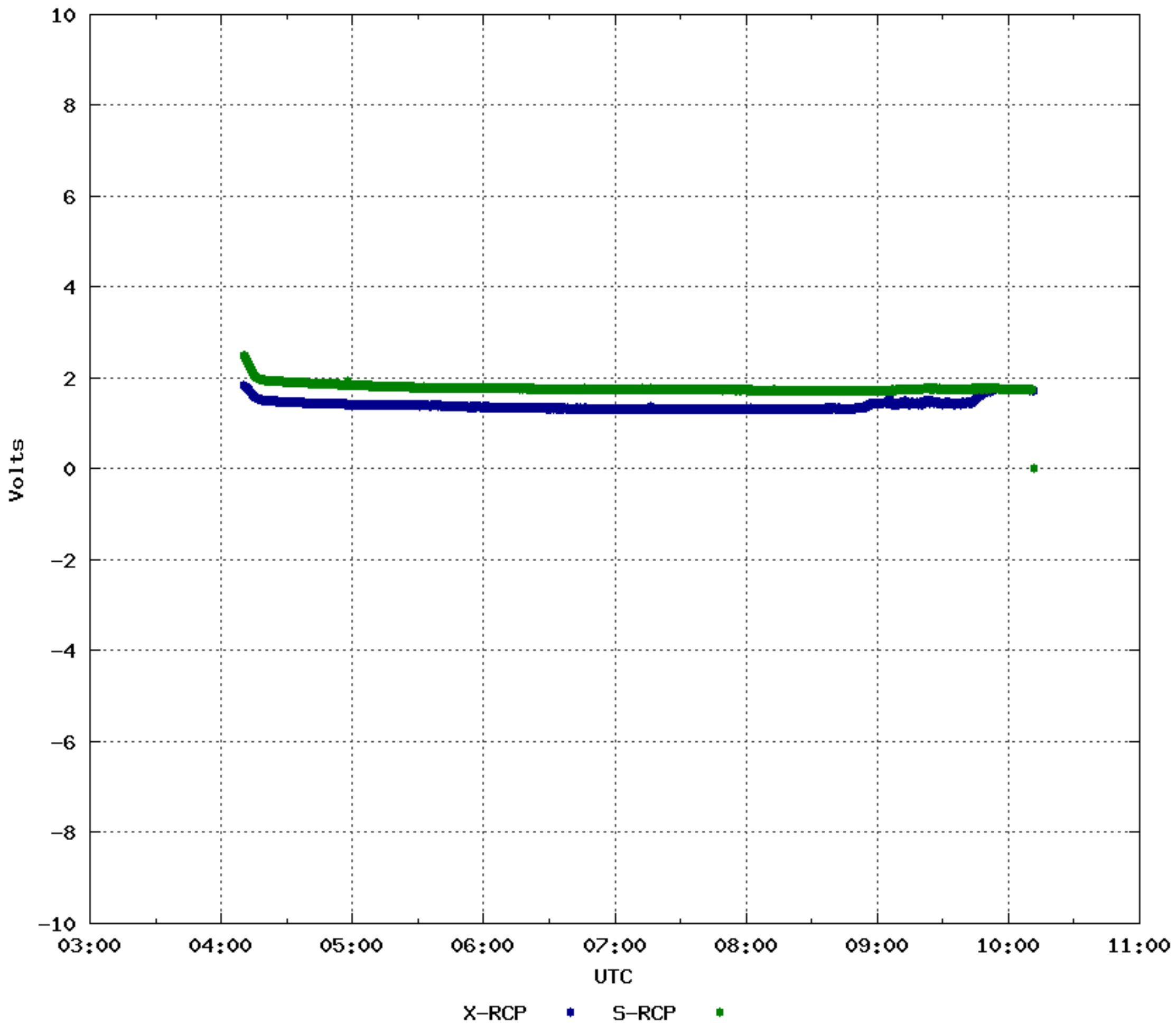
2016/206 D55-43 Carrier Loop Tracking Bandwidth



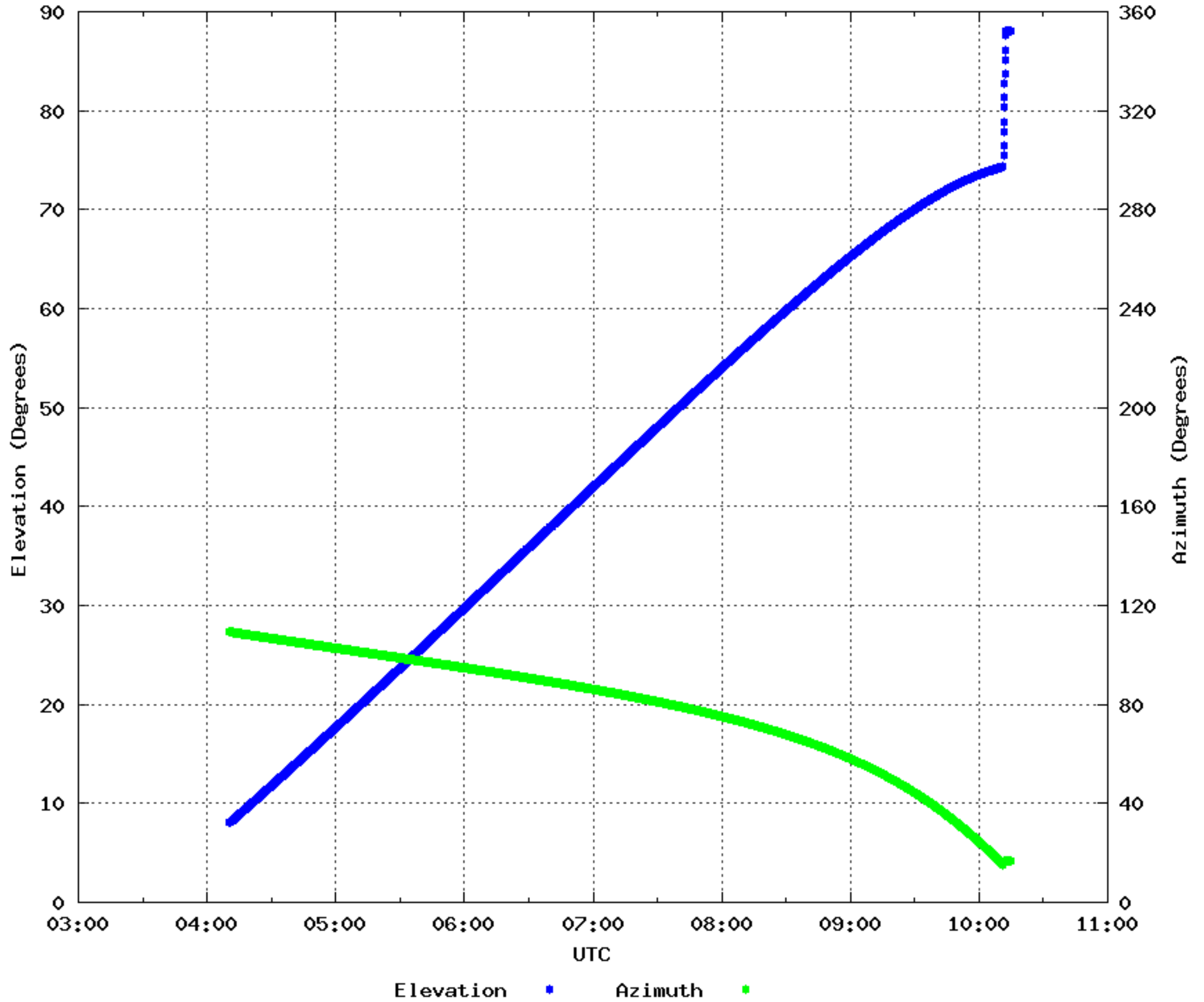
2016/206 D55-43 Subreflector Tracking Status (Tracking = 1; Not Tracking = 0)



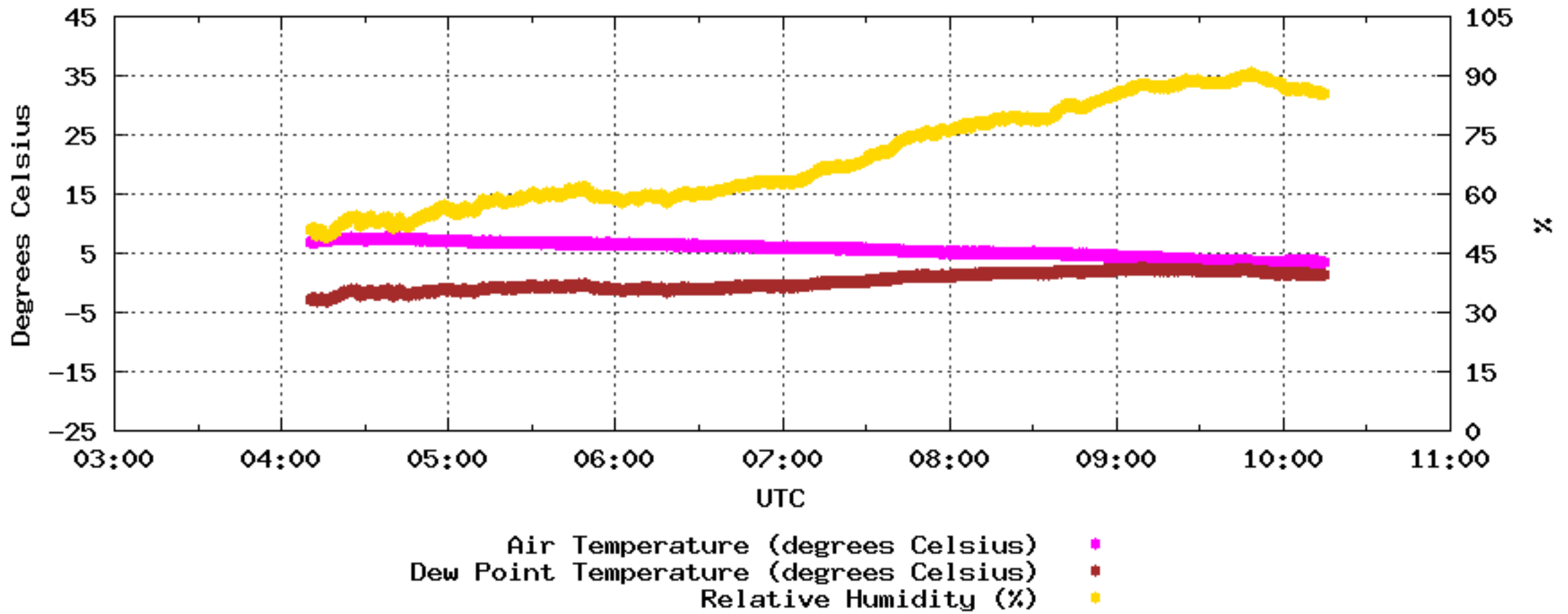
2016/206 DSS-43 Total Power Automatic Gain Control (AGC) Voltage



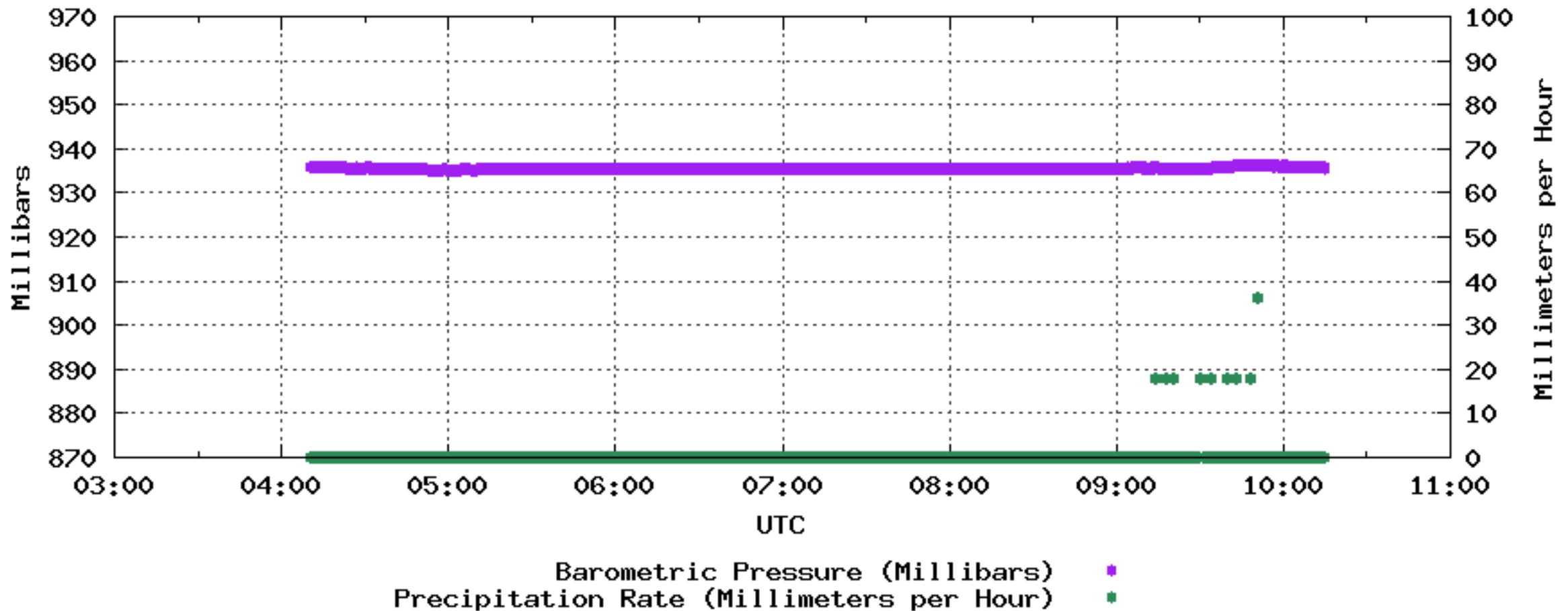
2016/206 DSS-43 Elevation & Azimuth



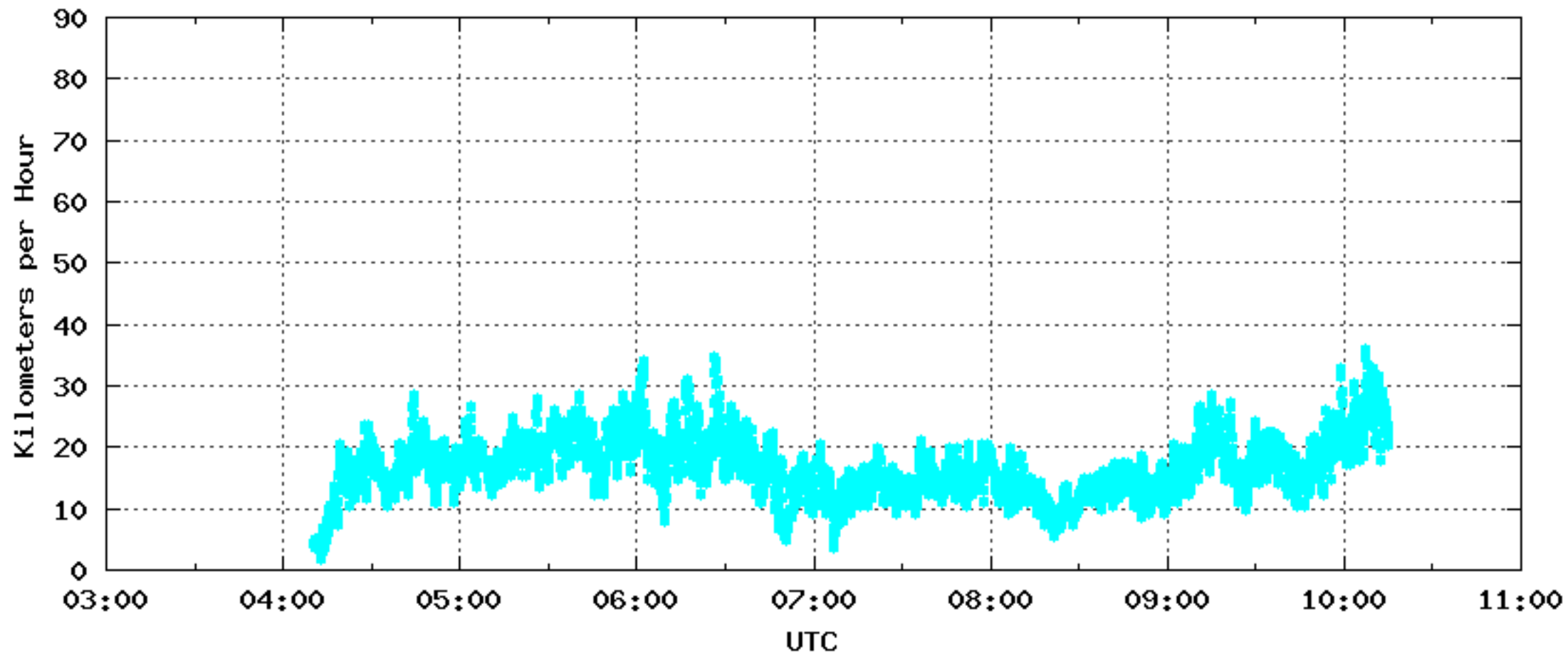
2016/206 D55-43 Air Temperature, Dew Point Temperature, and Relative Humidity



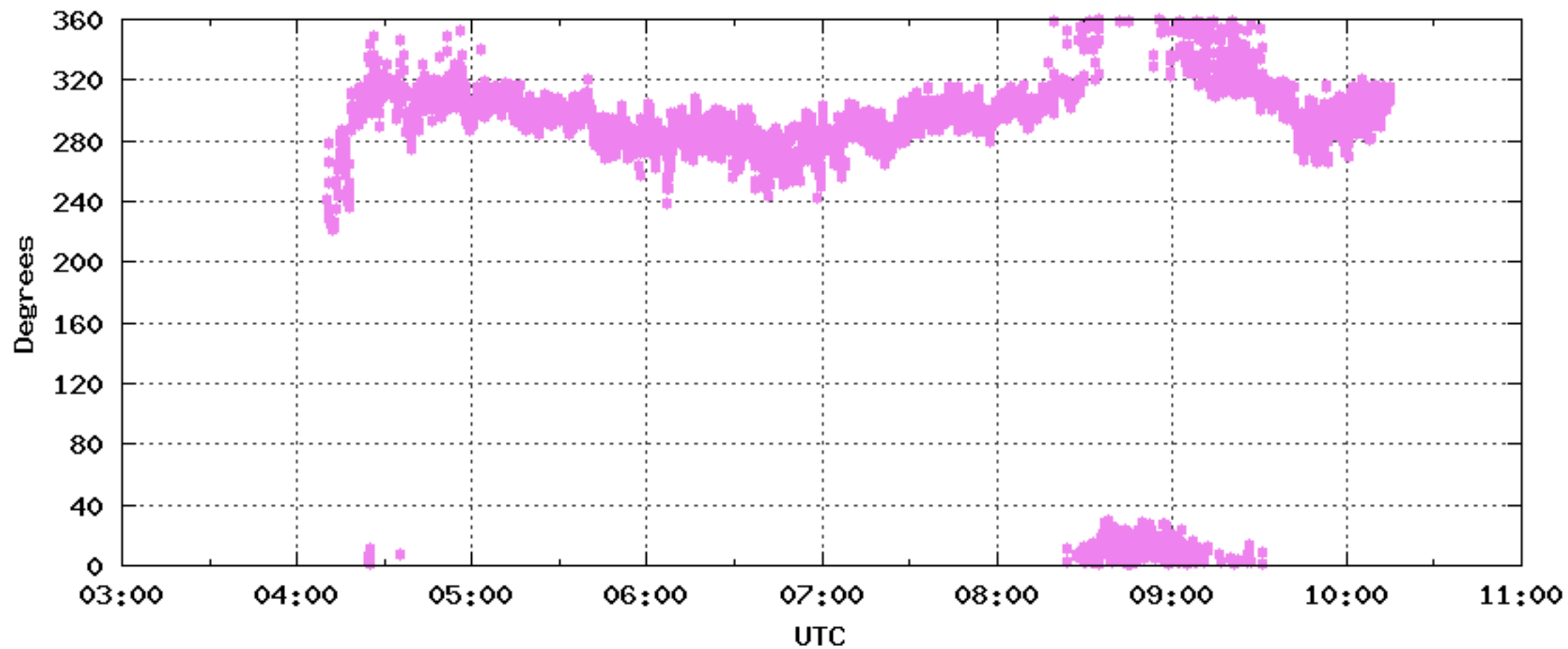
2016/206 D55-43 Barometric Pressure and Precipitation Rate



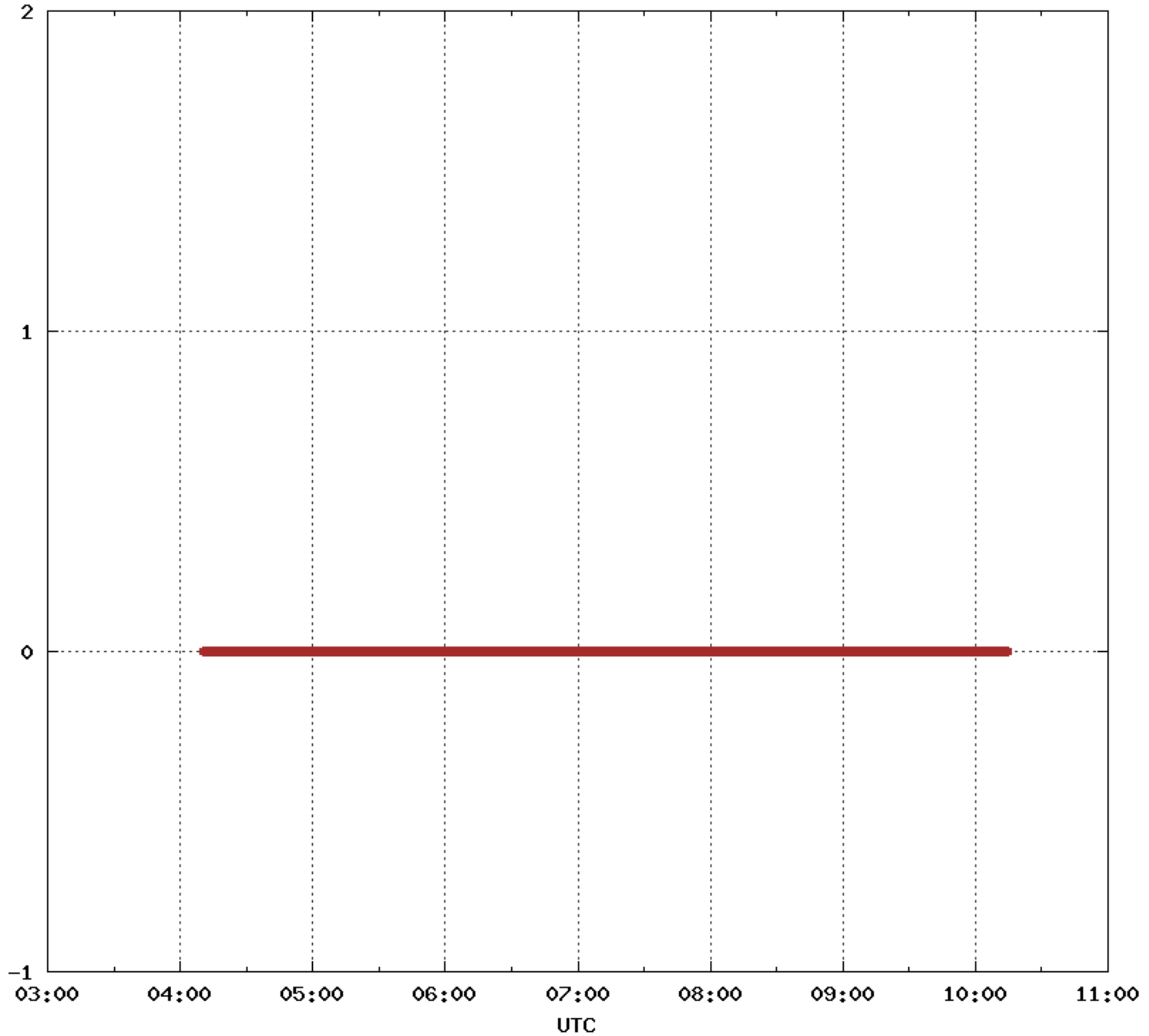
2016/206 D55-43 Wind Speed



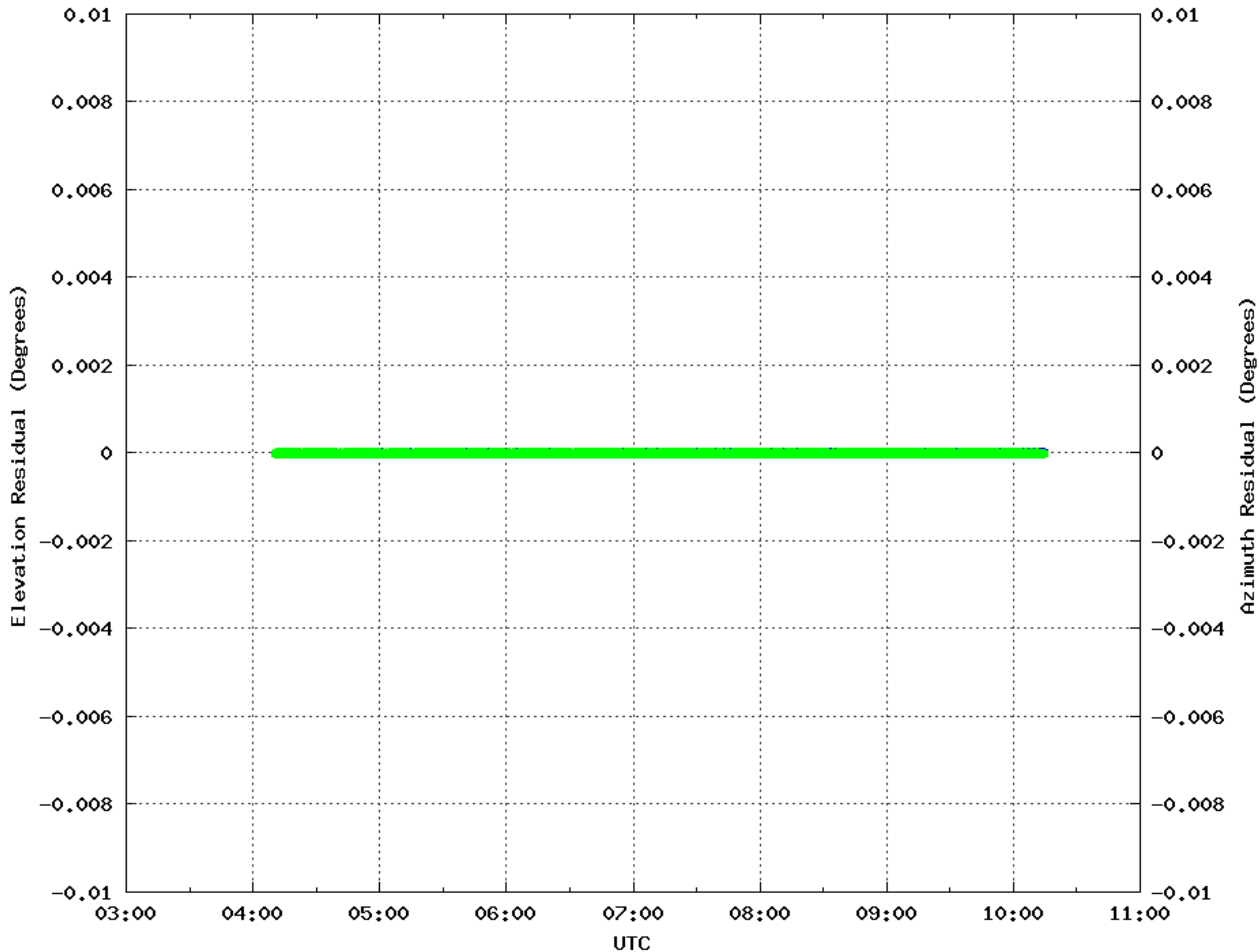
2016/206 D55-43 Wind Direction



2016/206 D55-43 Conscan Drive Status (ON = 1; OFF = 0)

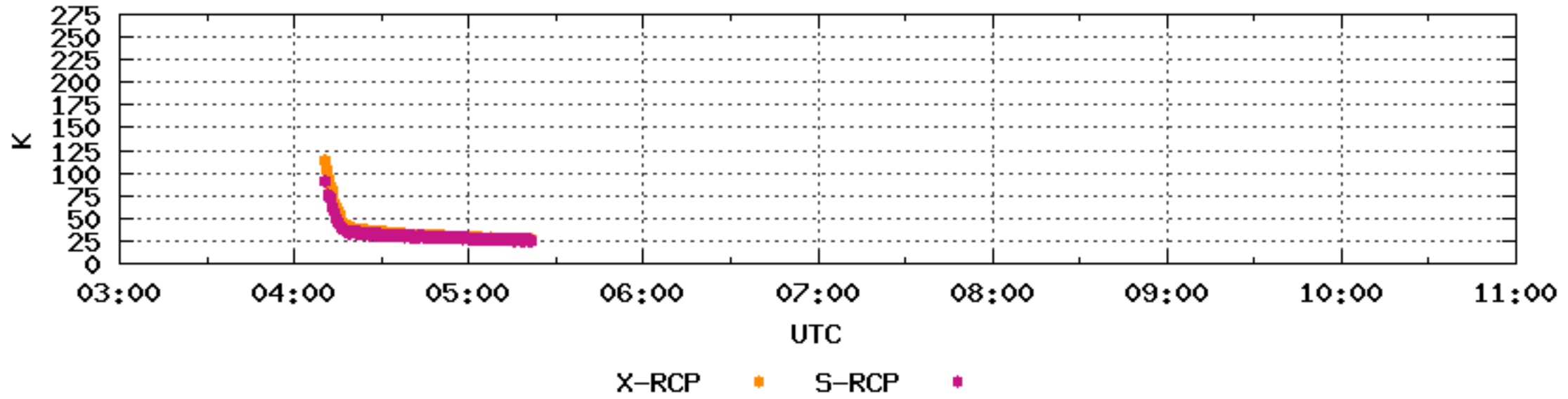


2016/206 D55-43 Elevation & Azimuth Residuals

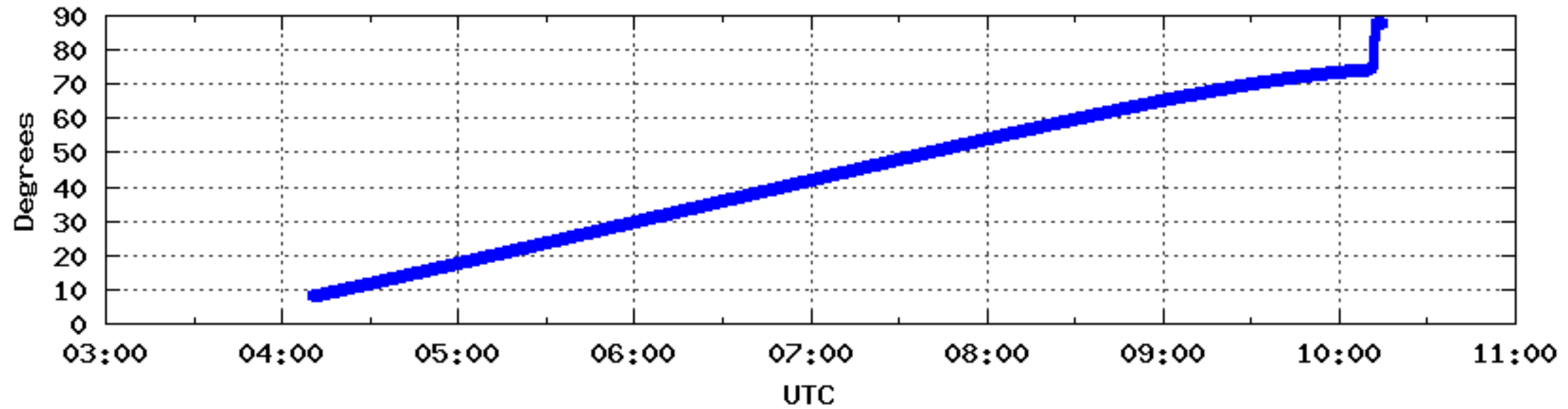


Elevation Residual ■ Azimuth Residual ■

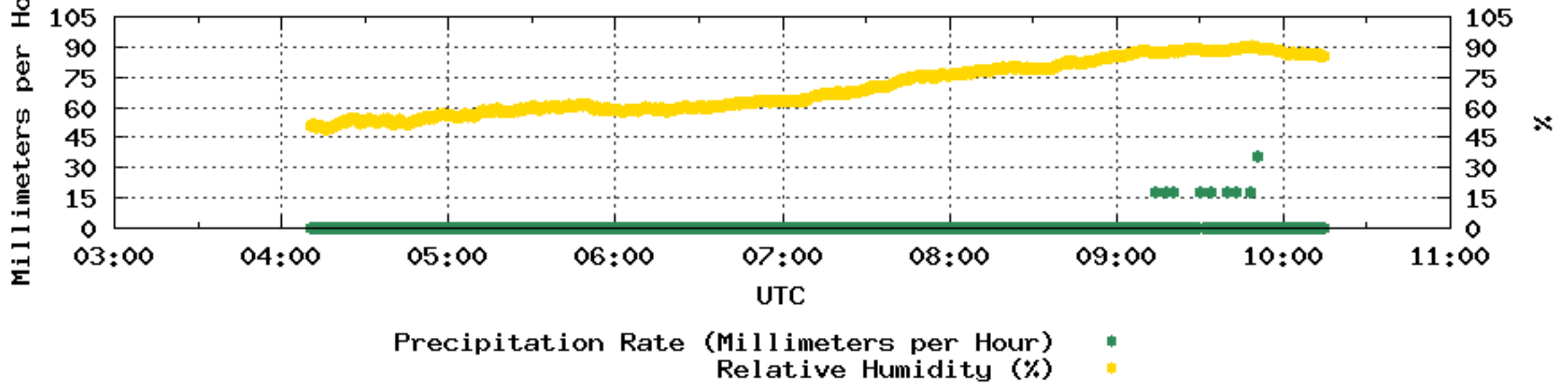
2016/206 DSS-43 System Noise Temperature



2016/206 DSS-43 Elevation Angle



2016/206 DSS-43 Precipitation Rate and Relative Humidity



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. S-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. Subreflector Tracking Status

Subreflector Tracking Status (M-0317)

09. AGC Voltage

AGC Voltage (M-1325, M-1825, M-2325, M-2825)
categorized by Downlink Band (M-1245, M-1745, M-2245, M-2745)
and Polarization (M-1267, M-1767, M-2267, M-2767)

10. Azimuth & Elevation

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

11. 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)

12. Wind Speed and Direction

Top:
Wind Speed (M-0388)

Bottom:
Wind Direction (M-0391)

13. Conscan Drive Status

Conscan Drive Status (M-0308)

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)