

Spacecraft: Cassini

DSS: 63

Monitor File: S12SAGS2005\_177\_0534\_63\_MON.ecsv

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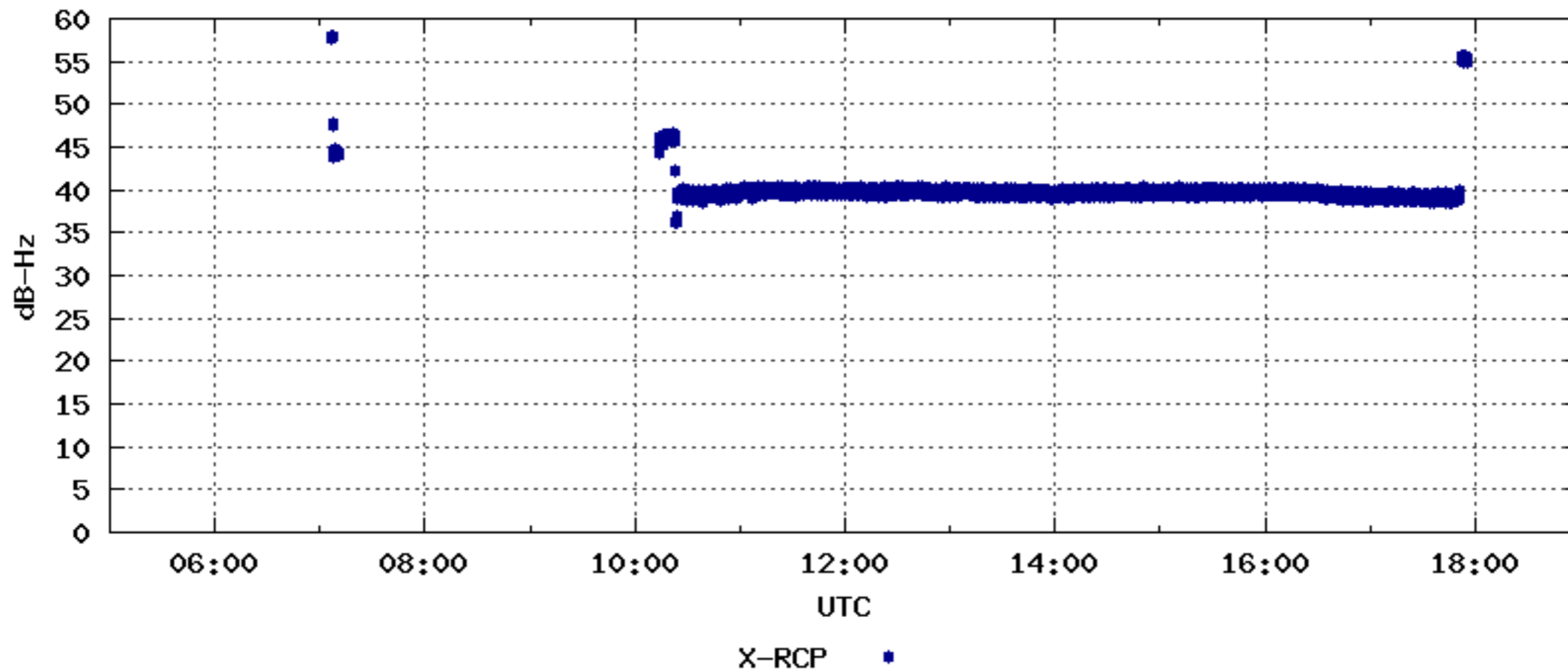
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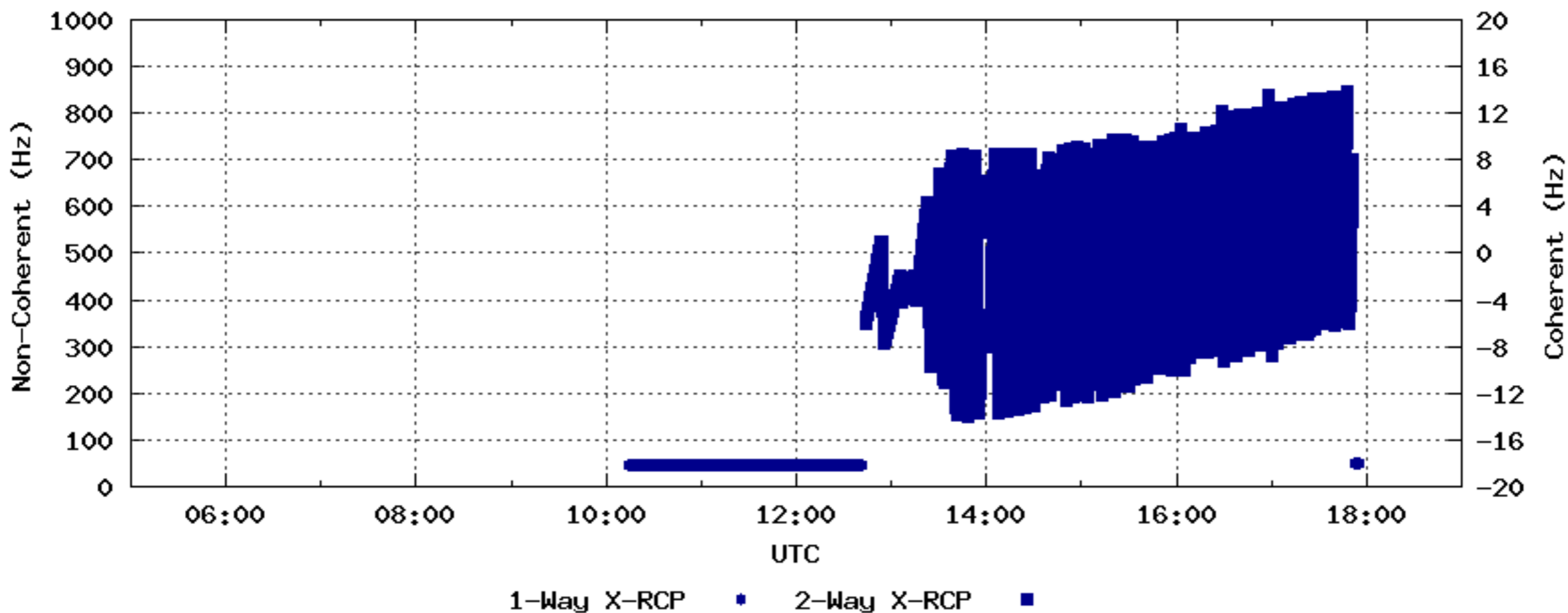
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02. Carrier Power to Noise Spectral Density Ratio ( $P_c/N_o$ ) and Residual Frequency
03. X-Band Measured Carrier Frequency, Predicted Carrier Frequency, and Residual Frequency
04. Uplink Frequency and Power
05. Carrier Power to Noise Spectral Density 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. Conscan Drive Status
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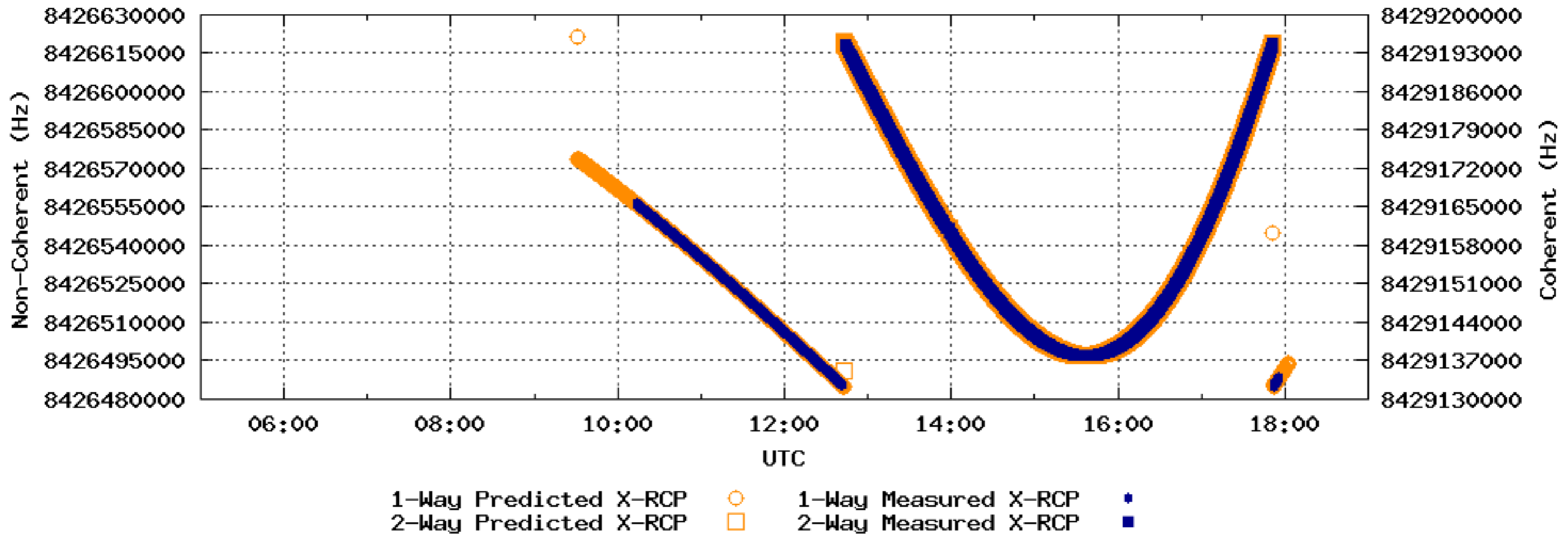
2005/177 D55-63 Carrier Power to Noise Spectral Density Ratio (Pc/No)



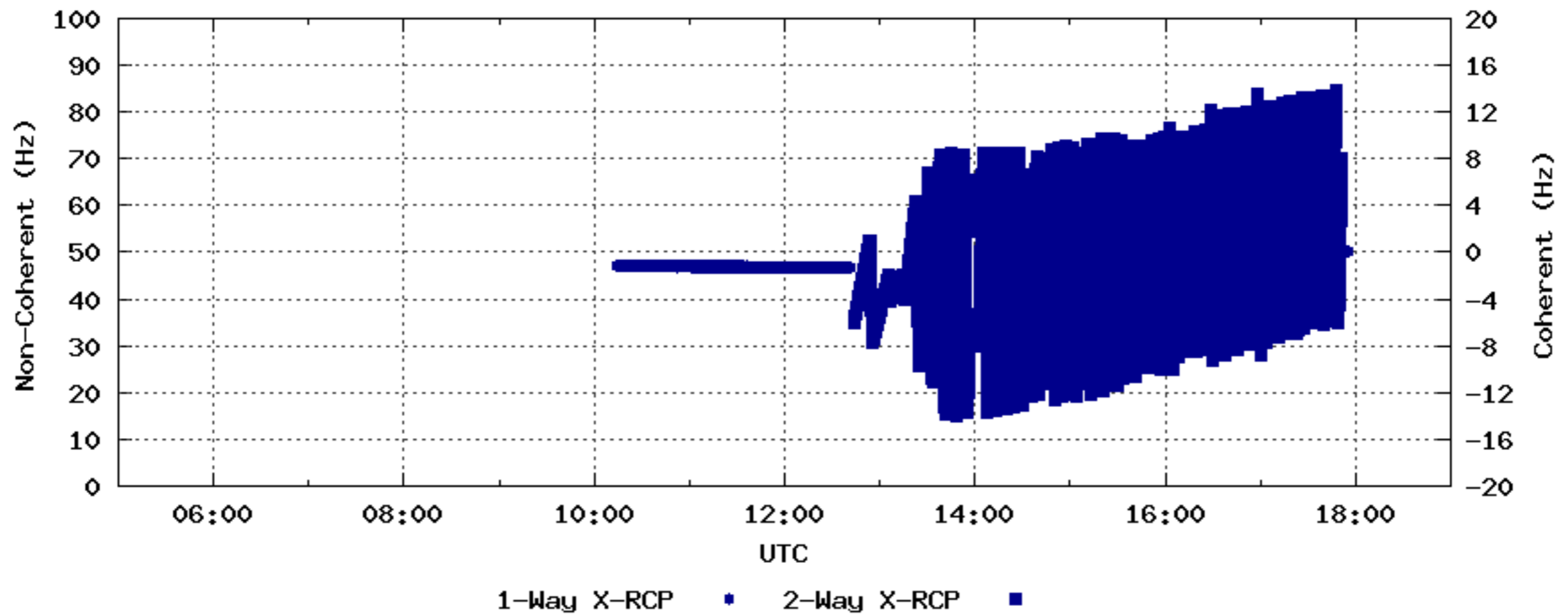
2005/177 D55-63 Carrier Frequency Residual (Measured - Predicted)



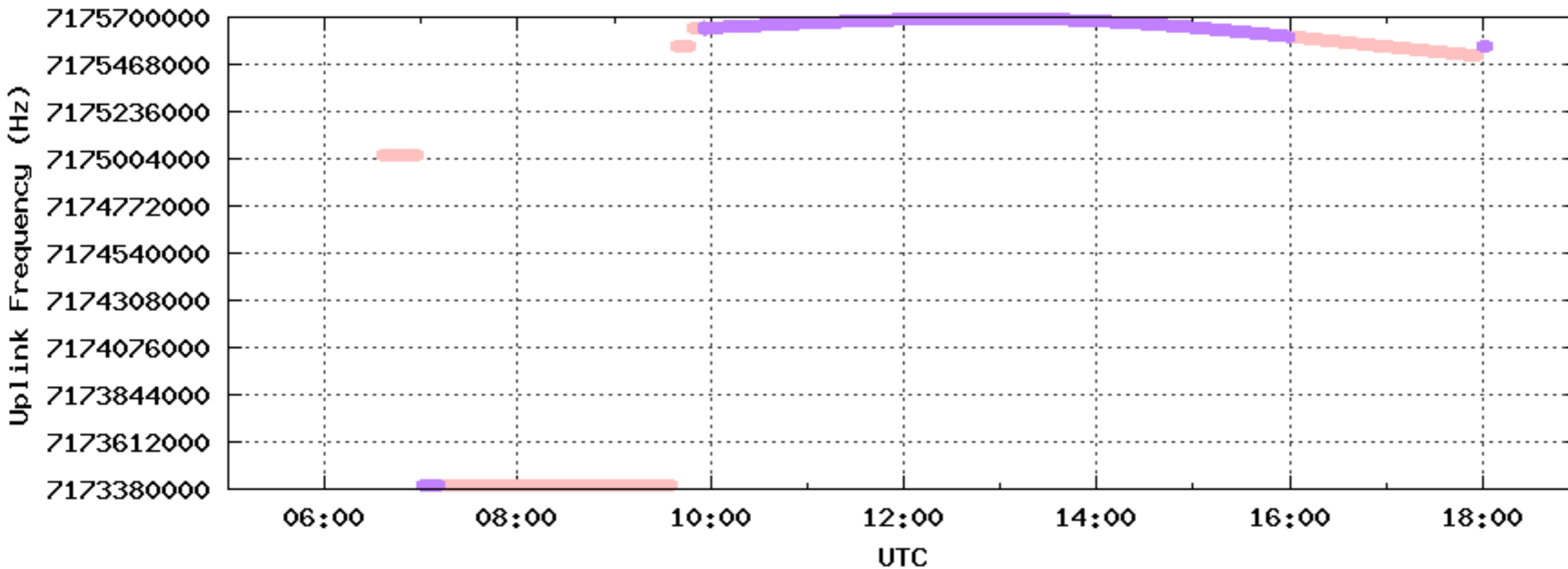
2005/177 DSS-63 X-Band Measured and Predicted Carrier Frequency



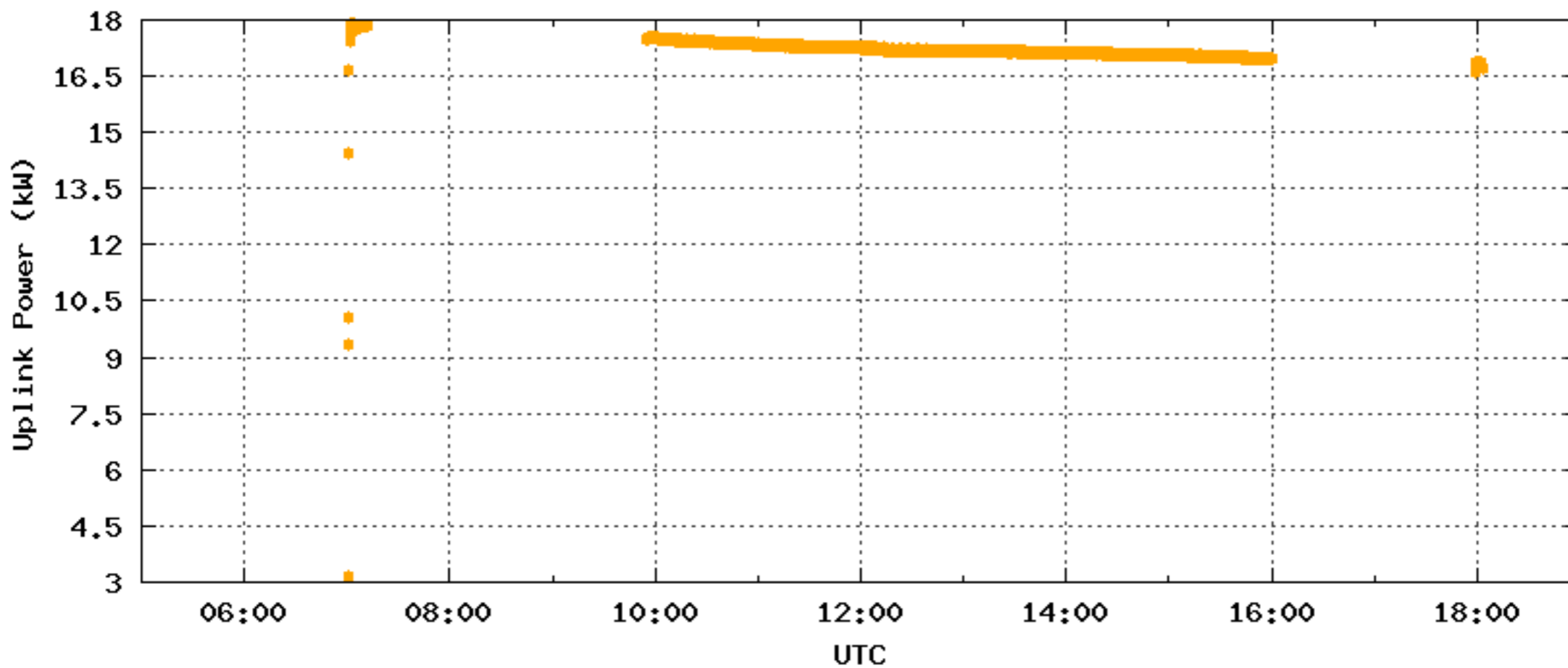
2005/177 DSS-63 X-Band Residual Frequency (Measured - Predicted)



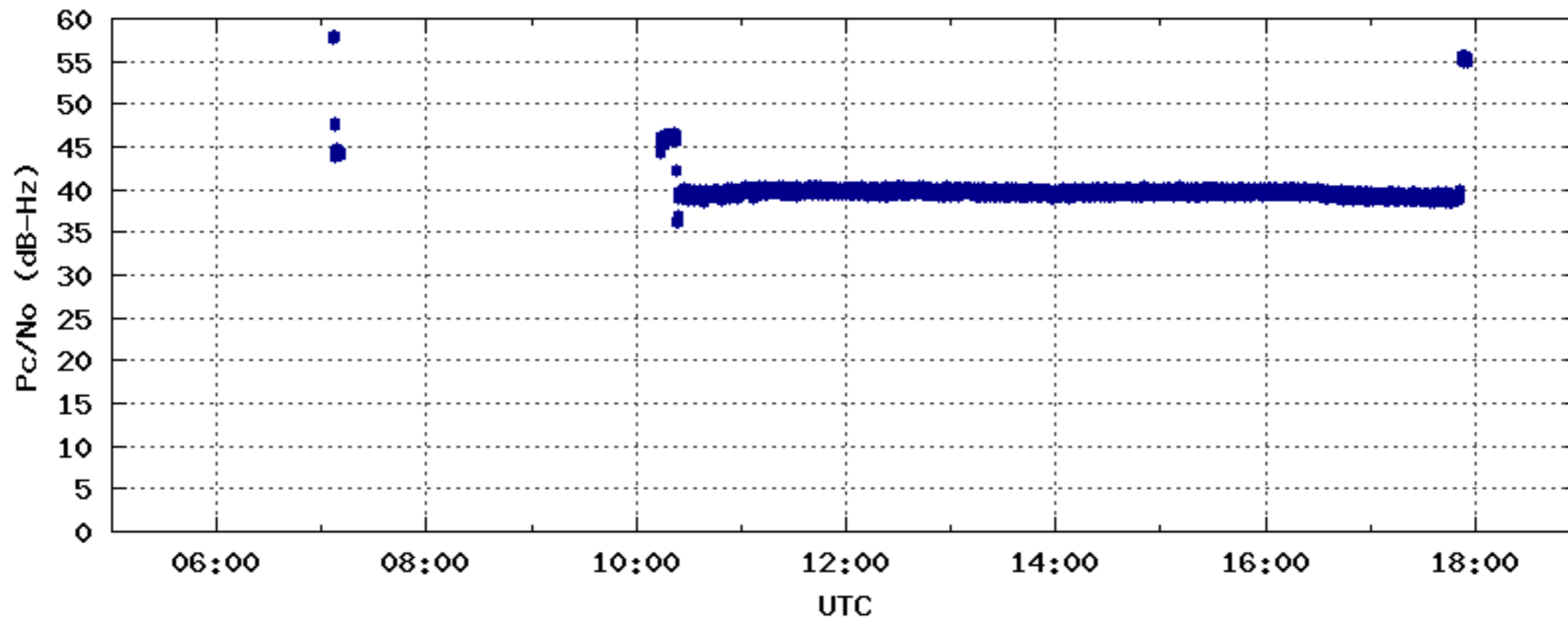
2005/177 DSS-63 Uplink Frequency



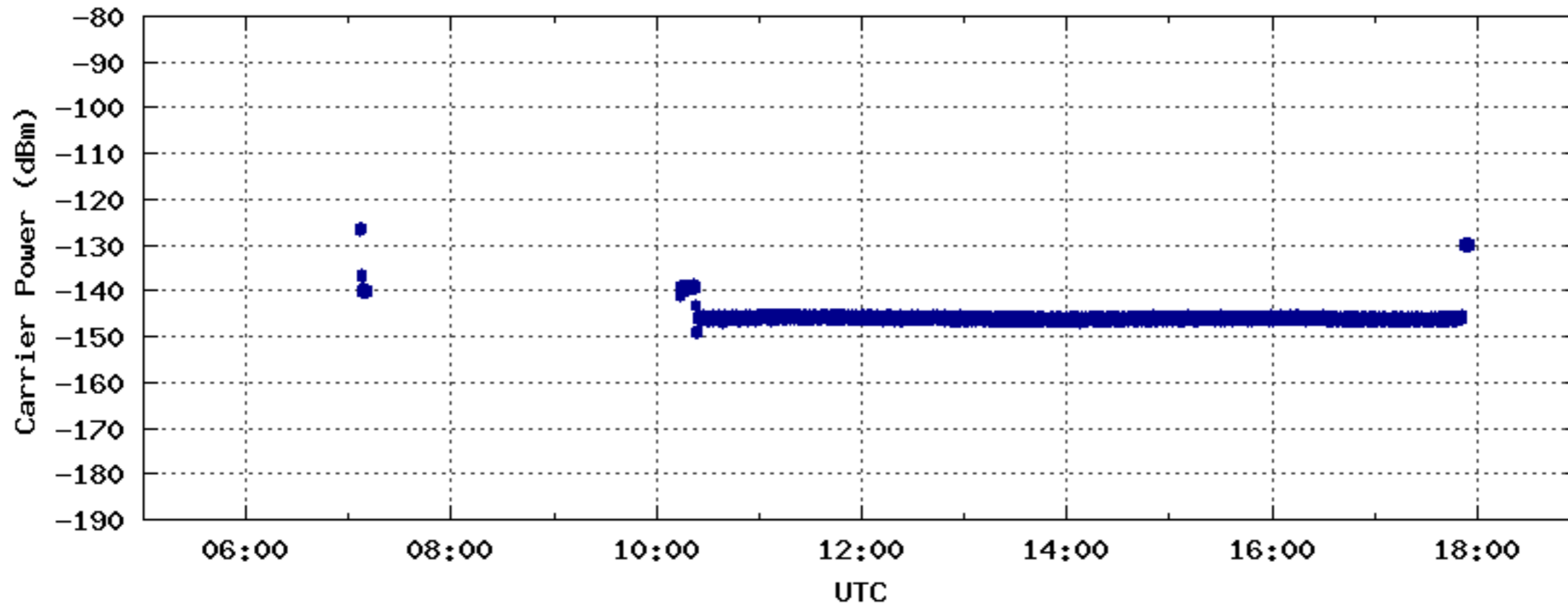
2005/177 DSS-63 Uplink Power (with TXR ON and when > 1)



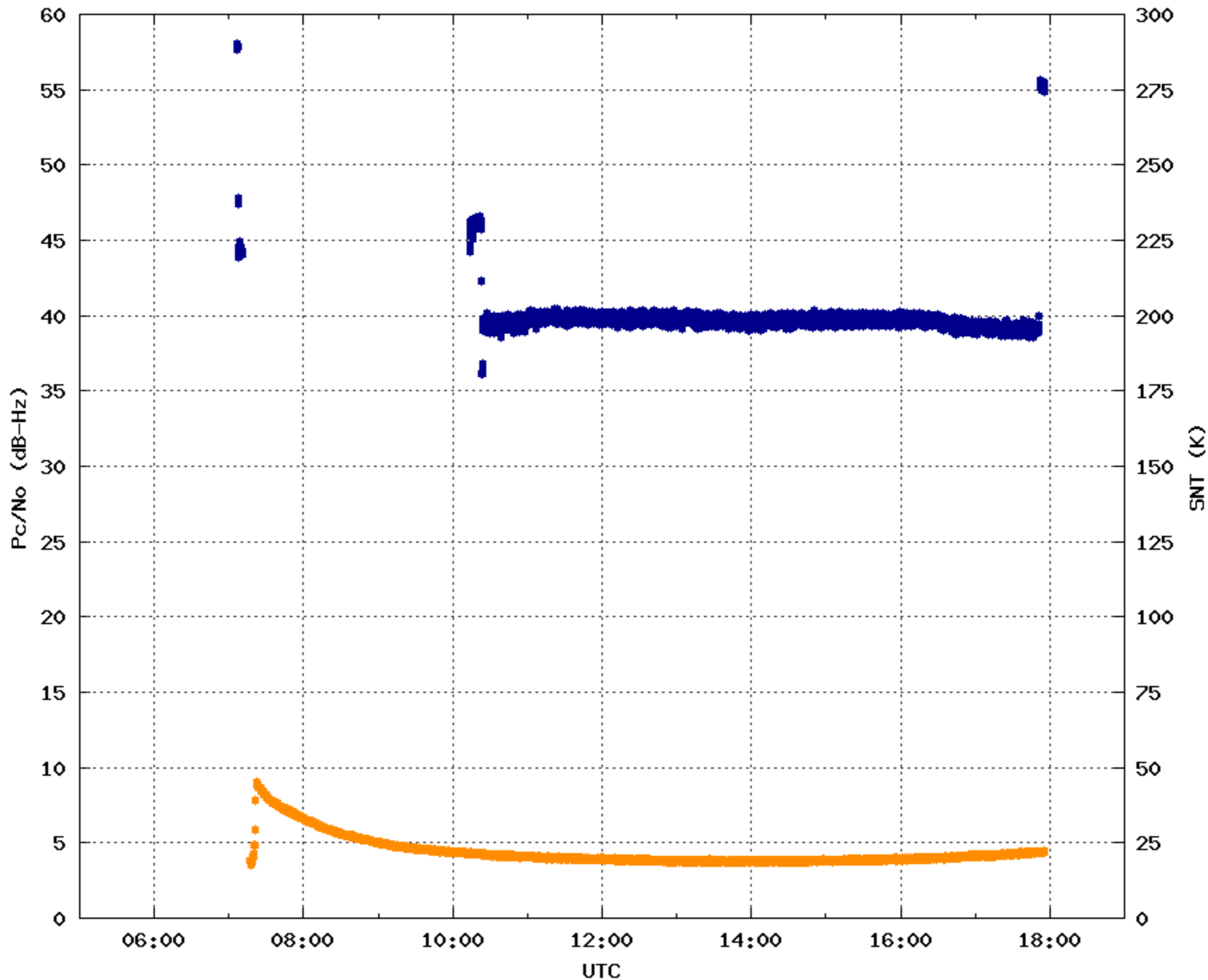
2005/177 D55-63 Carrier Power to Noise Spectral Density Ratio (Pc/No)



2005/177 D55-63 Carrier Power

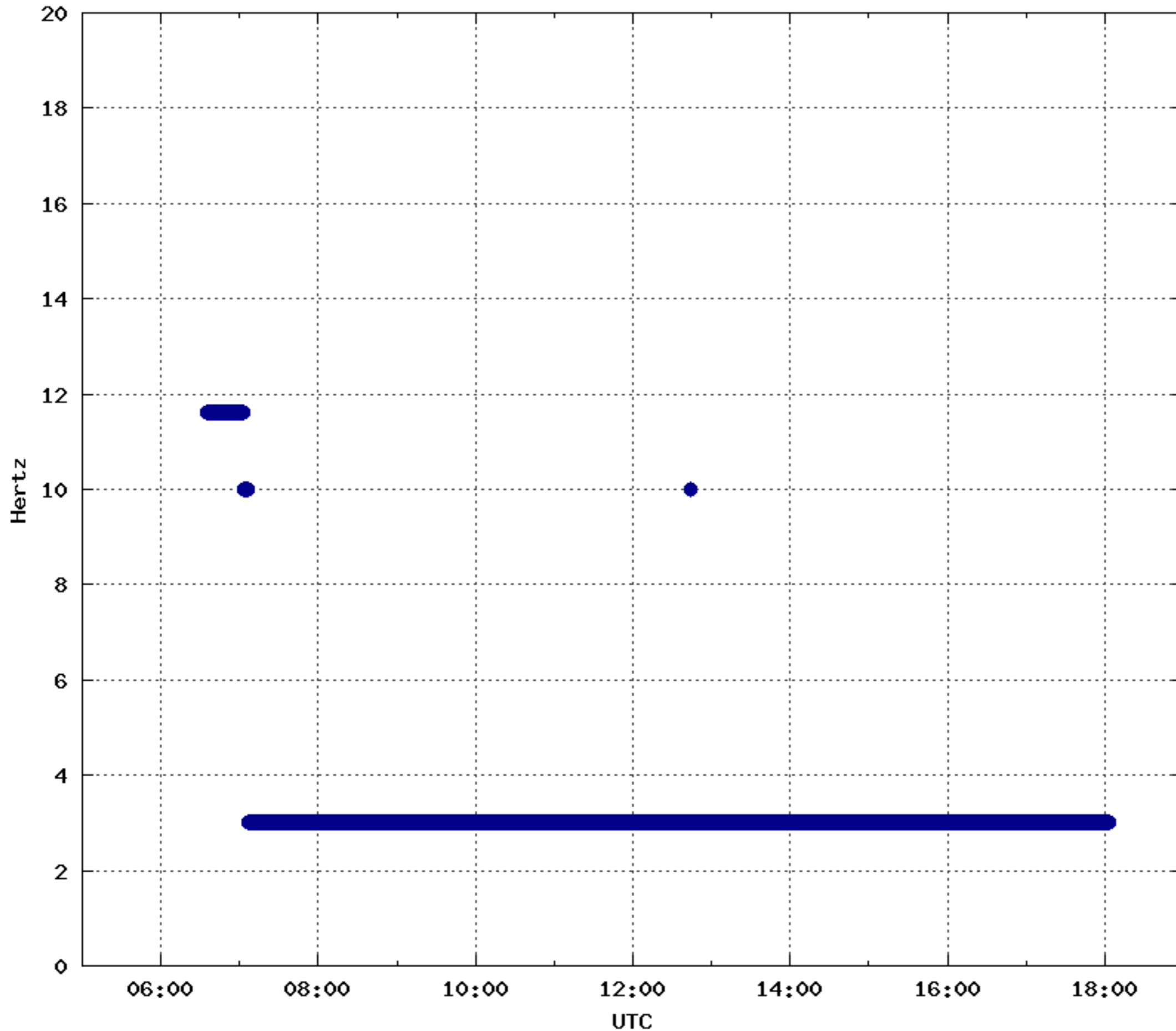


2005/177 D55-63 Carrier Power to Noise Spectral Density Ratio and System Noise Temperature



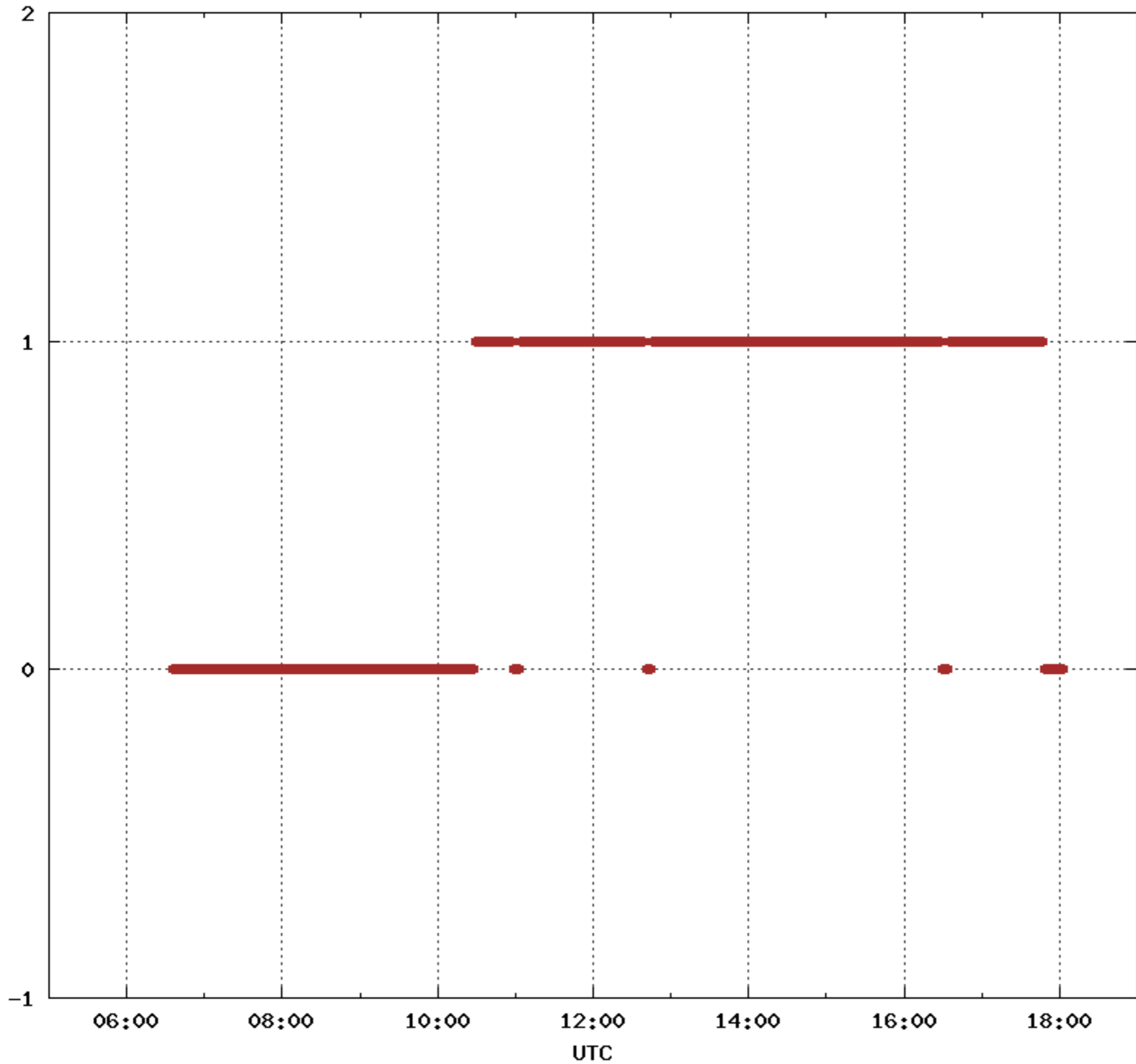
$P_c/N_o$  X-RCP     $\bullet$     SNT X-RCP     $\bullet$

# 2005/177 DSS-63 Carrier Loop Tracking Bandwidth



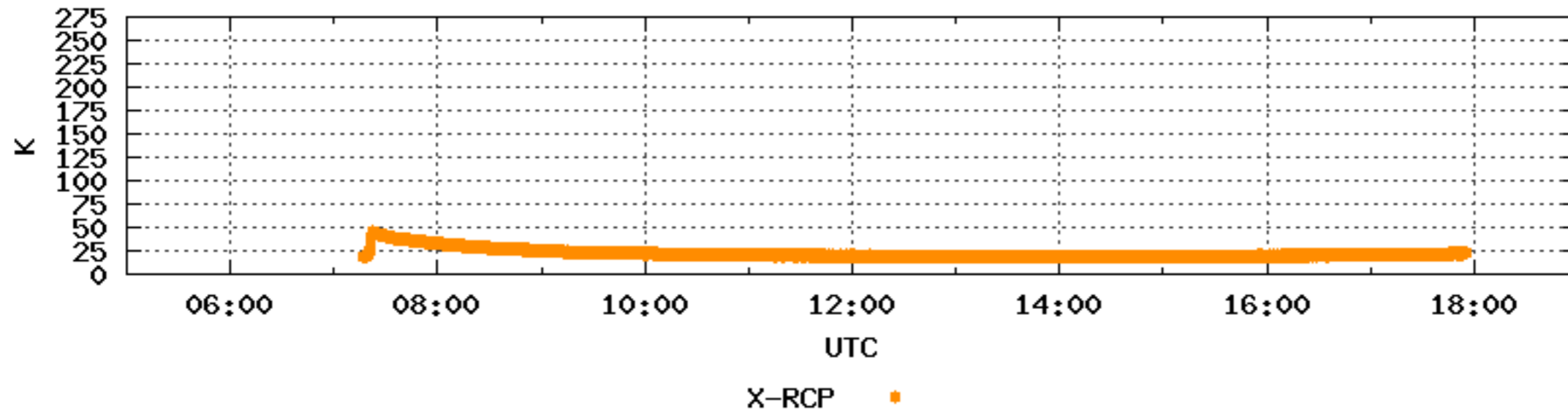
X-RCP ●

2005/177 D55-63 Conscan Drive Status (ON = 1; OFF = 0)





# 2005/177 D55-63 System Noise Temperature



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

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. Conscan Drive Status

Conscan Drive Status (M-0308)

09. 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)