

PRELIMINARY REPORT OF 060705

last update on Wed Jul 5 16:49:36 GMT 2006

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-07-04 00:00:00 to 2006-07-05 16:49:36

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	69	14	4	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	42	69	14	4	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	69	14	4	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	69	14	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	55	22	19	69
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	37	55	22	19	69
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	55	22	19	69
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	55	22	19	69

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20060704 085035
H	20060705 081858

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.938198	0.046976	-0.022254
7	P1	-3.131952	0.012298	0.050891
11	P1	-4.100248	0.016233	0.029458
15	P1	-6.163880	0.011400	-0.021084
19	P1	-3.370924	0.008690	-0.038402
22	P1	-4.529787	0.011155	-0.040373
26	P1	-3.957469	0.017974	0.045433
30	P1	-5.757385	0.008692	-0.015392
3	P1	-16.532555	0.630036	-0.035043
7	P1	-17.236074	0.108926	0.098738
11	P1	-16.981058	0.278972	-0.006828
15	P1	-13.168929	0.160171	0.071943
19	P1	-14.385324	0.049232	-0.100041
22	P1	-16.127611	0.387384	0.163268
26	P1	-15.173063	0.230595	0.070271
30	P1	-17.142700	0.400957	0.068238

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.082869	0.084764	0.163415
7	P2	-21.982639	0.101036	0.110266
11	P2	-15.832132	0.114709	0.088741
15	P2	-7.153179	0.097906	0.039124
19	P2	-9.161824	0.089536	0.061579
22	P2	-18.168451	0.084869	0.025959
26	P2	-16.410330	0.091242	0.020872
30	P2	-19.550341	0.090279	0.031134

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.185248	0.003640	0.014076
7	P3	-8.185248	0.003640	0.014076
11	P3	-8.185248	0.003640	0.014076
15	P3	-8.185248	0.003640	0.014076
19	P3	-8.185248	0.003640	0.014076
22	P3	-8.185248	0.003640	0.014076
26	P3	-8.185248	0.003640	0.014076
30	P3	-8.185248	0.003640	0.014076

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

✕

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.807523	0.064582	0.002680
7	P1	-2.575330	0.008422	0.039681
11	P1	-2.858182	0.013713	0.003284
15	P1	-3.535138	0.027939	-0.056174
19	P1	-3.415360	0.014189	-0.004116
22	P1	-5.087839	0.020025	-0.010460
26	P1	-5.860041	0.016246	-0.006234
30	P1	-5.192353	0.026232	0.009924
3	P1	-11.621009	0.173402	0.052706
7	P1	-9.983866	0.033204	0.027942
11	P1	-10.239441	0.058937	-0.004701
15	P1	-10.708981	0.131732	-0.097753
19	P1	-15.538899	0.077555	0.019914
22	P1	-20.949240	1.150901	0.105888

26	P1	-16.422960	0.347136	0.183075
30	P1	-17.871031	0.382101	0.004395

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.750811	0.075980	0.216836
7	P2	-22.457718	0.133067	0.084677
11	P2	-11.110570	0.048417	0.114541
15	P2	-4.923582	0.048799	0.009420
19	P2	-6.883752	0.053170	0.015638
22	P2	-8.208030	0.042778	0.014451
26	P2	-24.170992	0.069224	-0.043137
30	P2	-22.046812	0.055576	0.061127

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.021433	0.004351	0.011964
7	P3	-8.021544	0.004338	0.011906
11	P3	-8.021456	0.004365	0.012028
15	P3	-8.021381	0.004359	0.011902
19	P3	-8.021394	0.004358	0.012151
22	P3	-8.021553	0.004346	0.012227
26	P3	-8.021581	0.004354	0.012100
30	P3	-8.021432	0.004333	0.012119

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000565319
	stdev	1.68172e-07
MEAN Q	mean	0.000528367
	stdev	2.18242e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137599
	stdev	0.00115682
STDEV Q	mean	0.137961
	stdev	0.00117475



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006070[345]

The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems



Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060703_002903_000000512049_00088_22687_0280.N1	1	0
ASA_IMM_1PNPDE20060704_192324_000000532049_00113_22712_0345.N1	1	0
ASA_IMM_1PNPDK20060704_124504_000000372049_00110_22709_0163.N1	1	0
ASA_WSM_1PNPDE20060703_182248_000002442049_00099_22698_1105.N1	0	17





7 - Doppler Analysis

Preliminary report. The data is not yet controlled


7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)	
	
	Ascending
	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
	

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

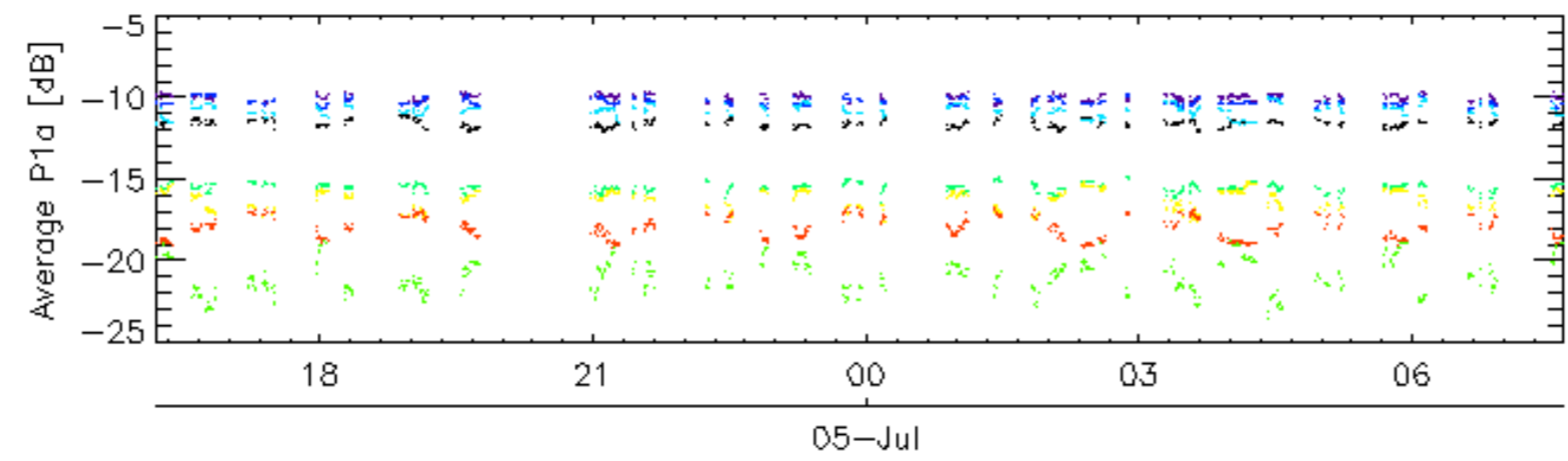
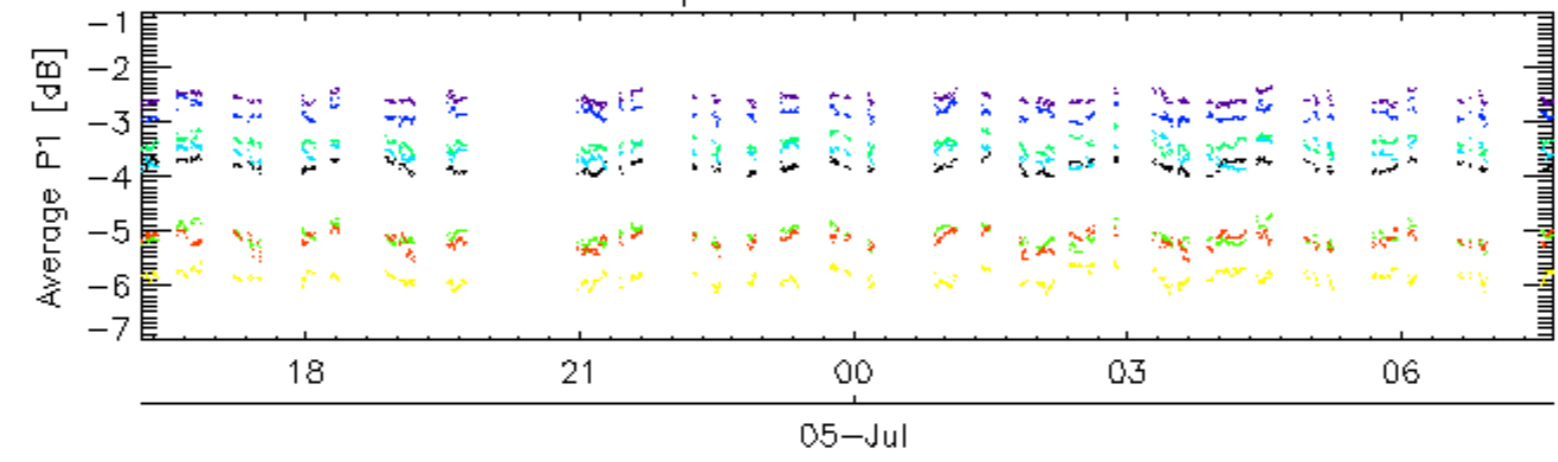
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

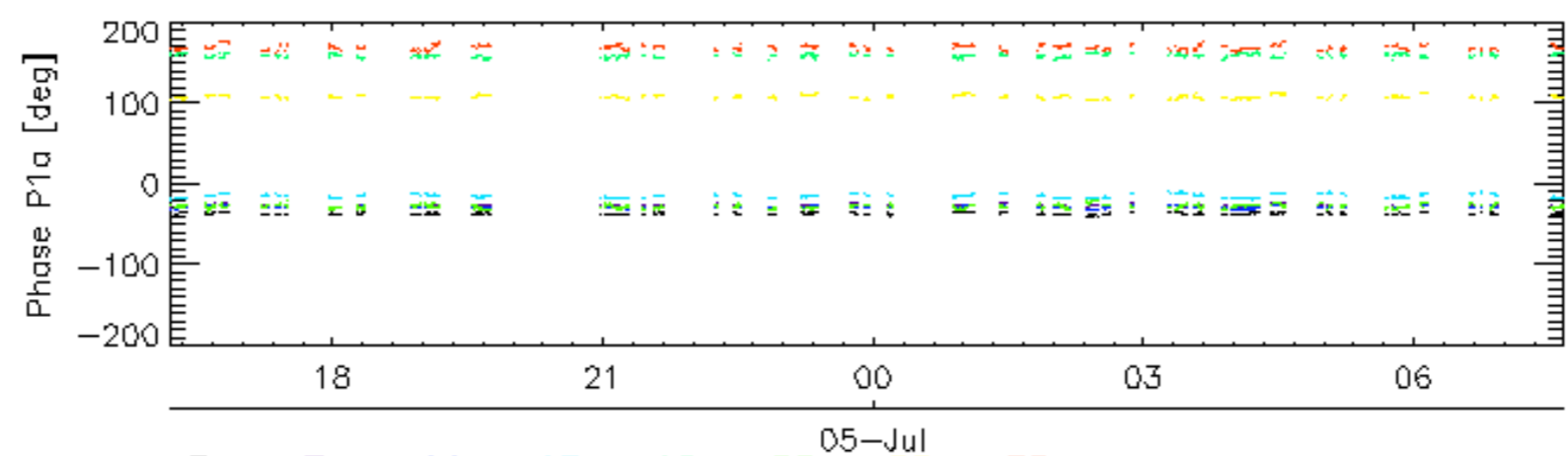
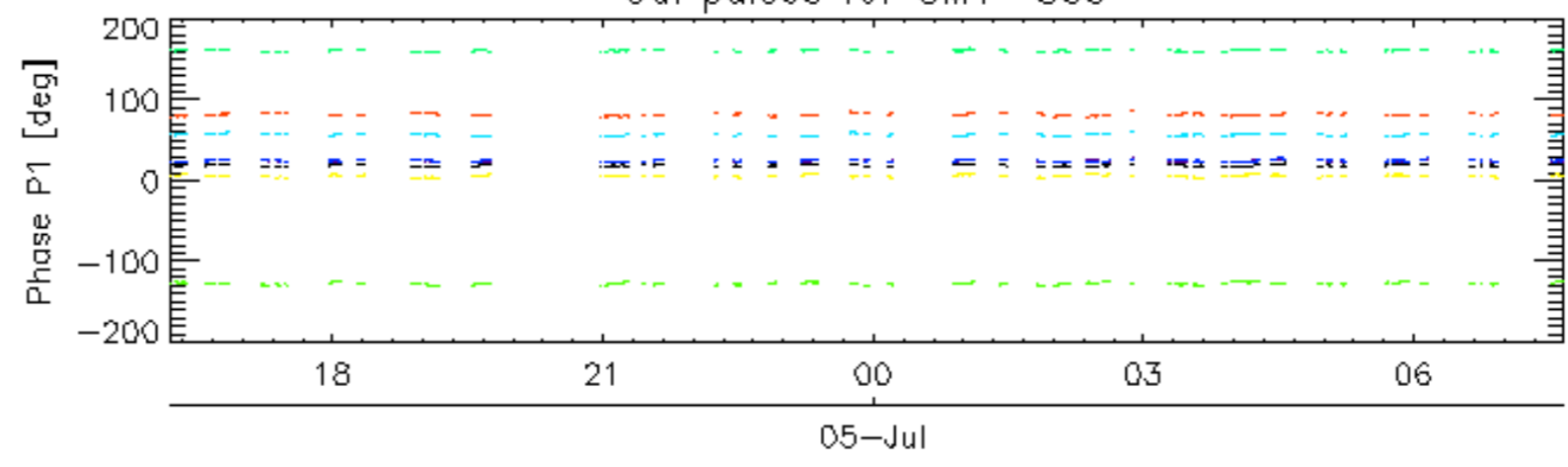
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

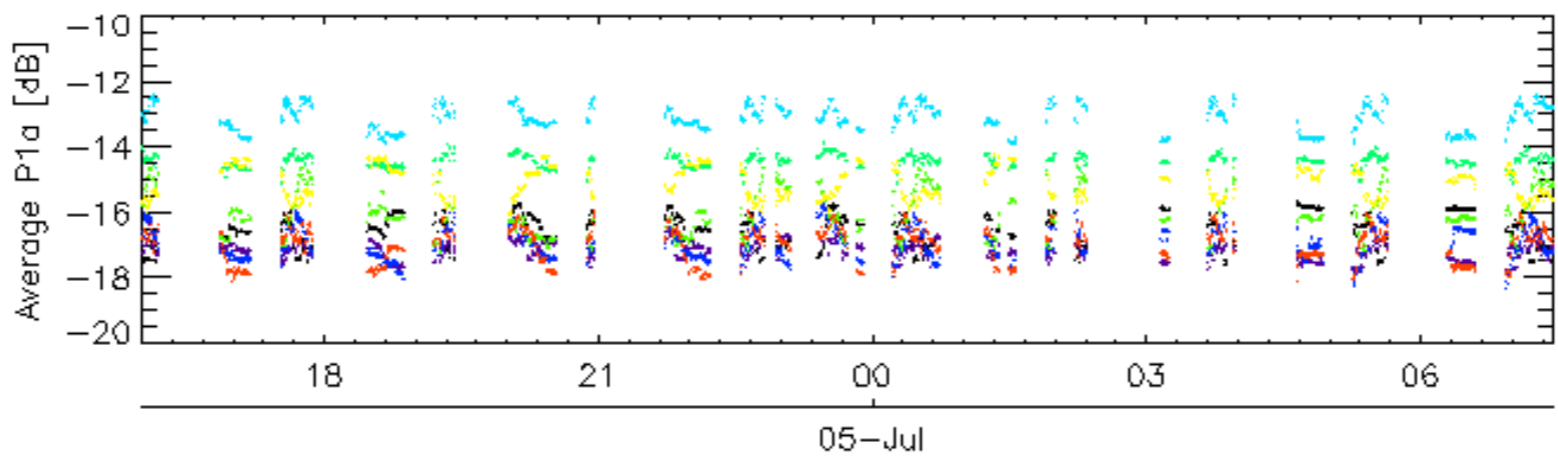
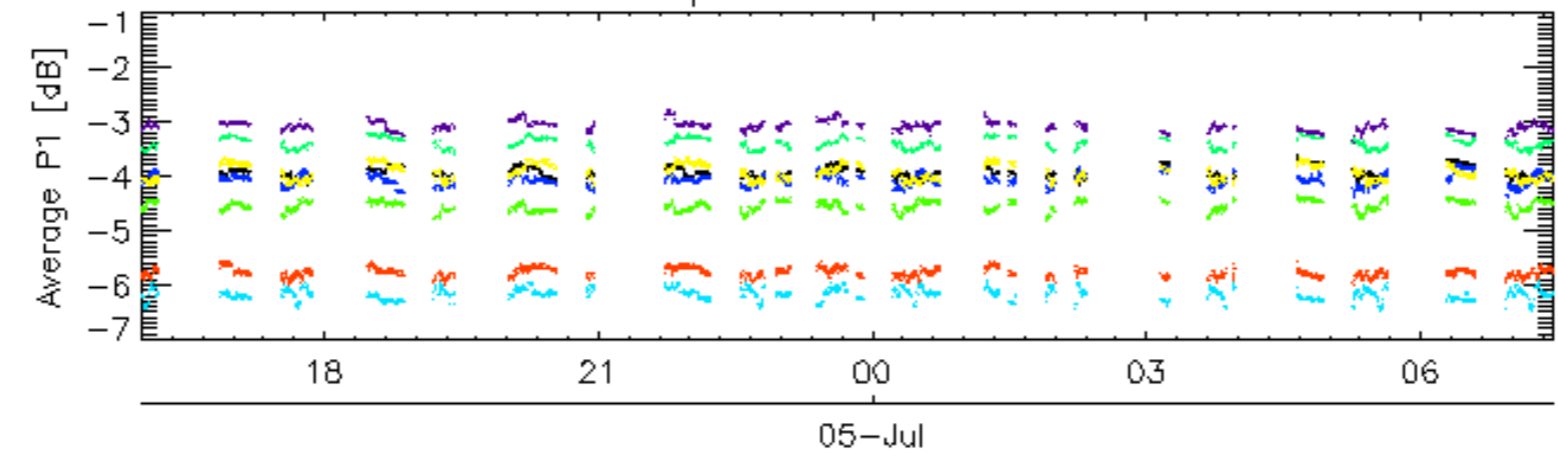


Cal pulses for GM1 SS3

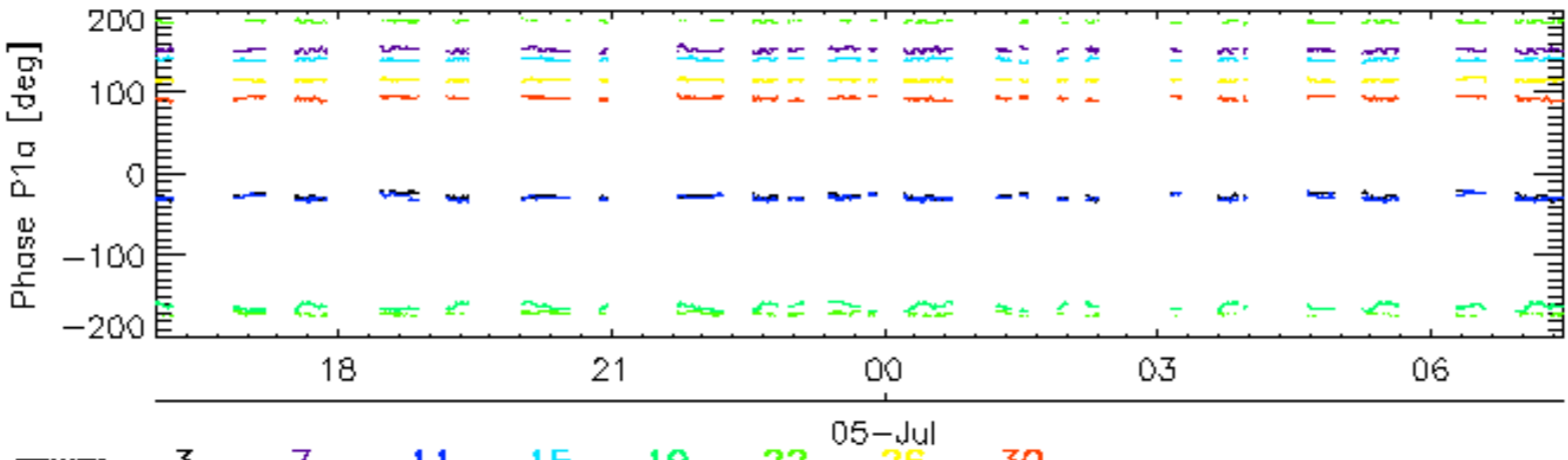
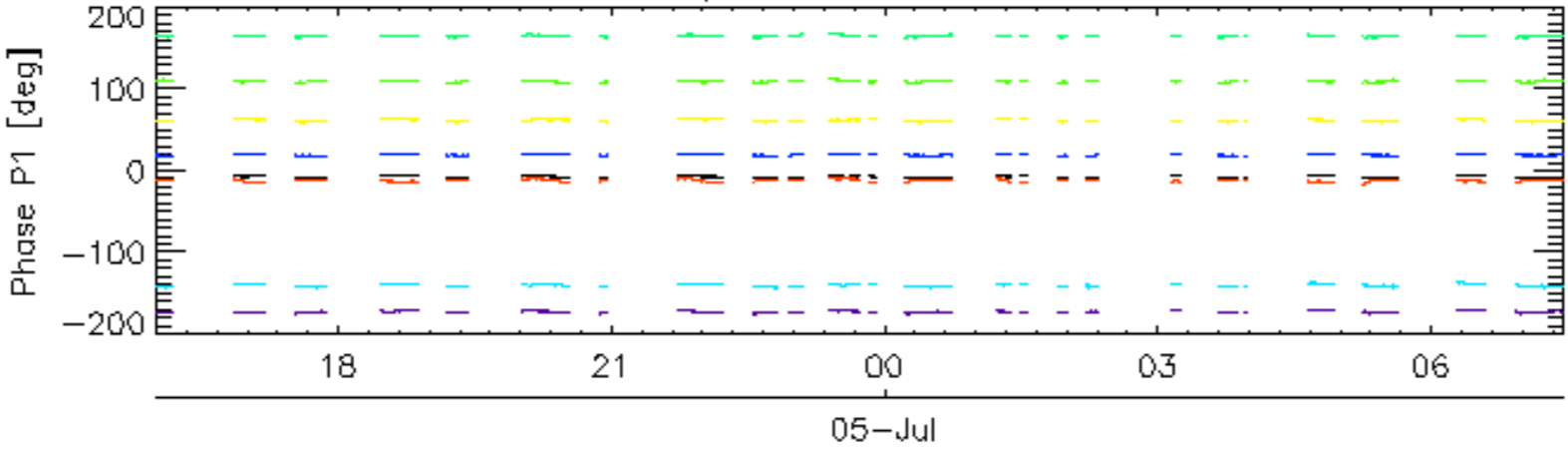


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

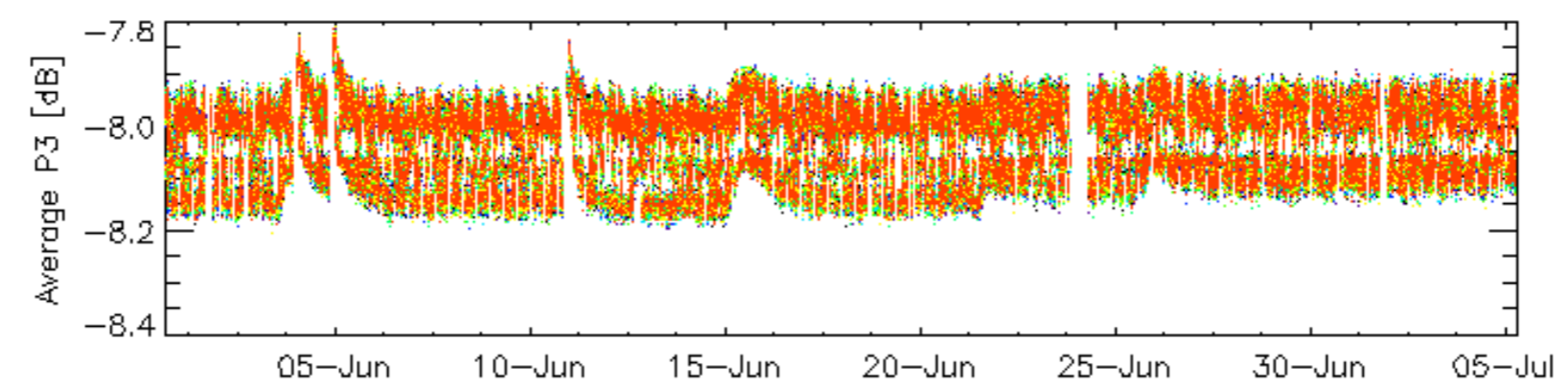
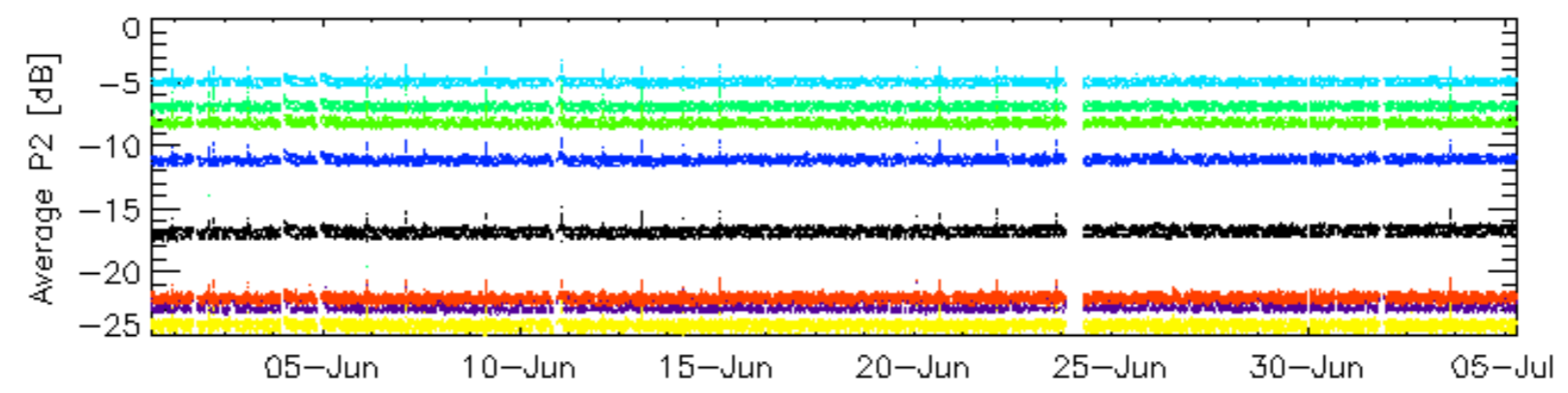
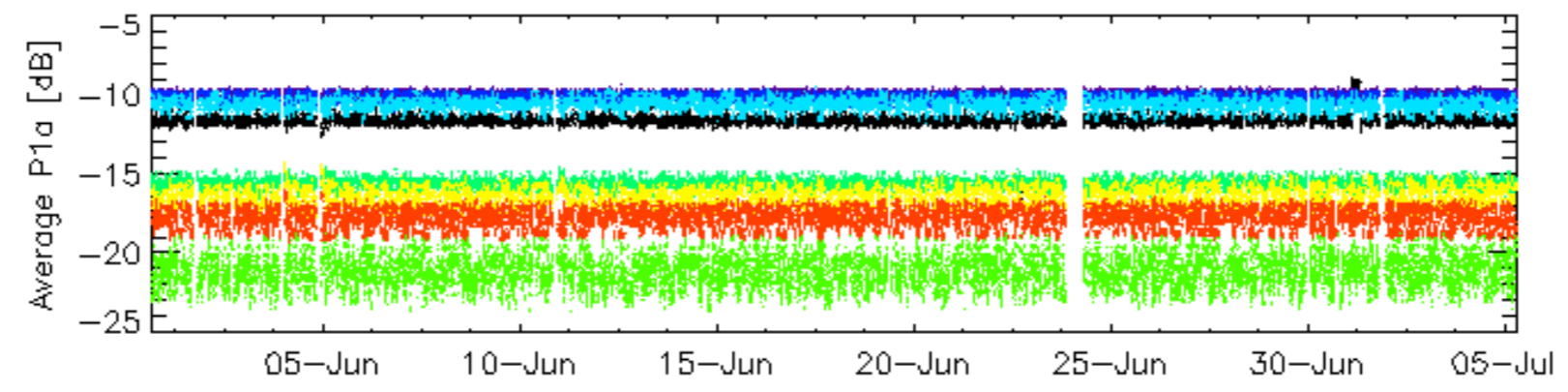
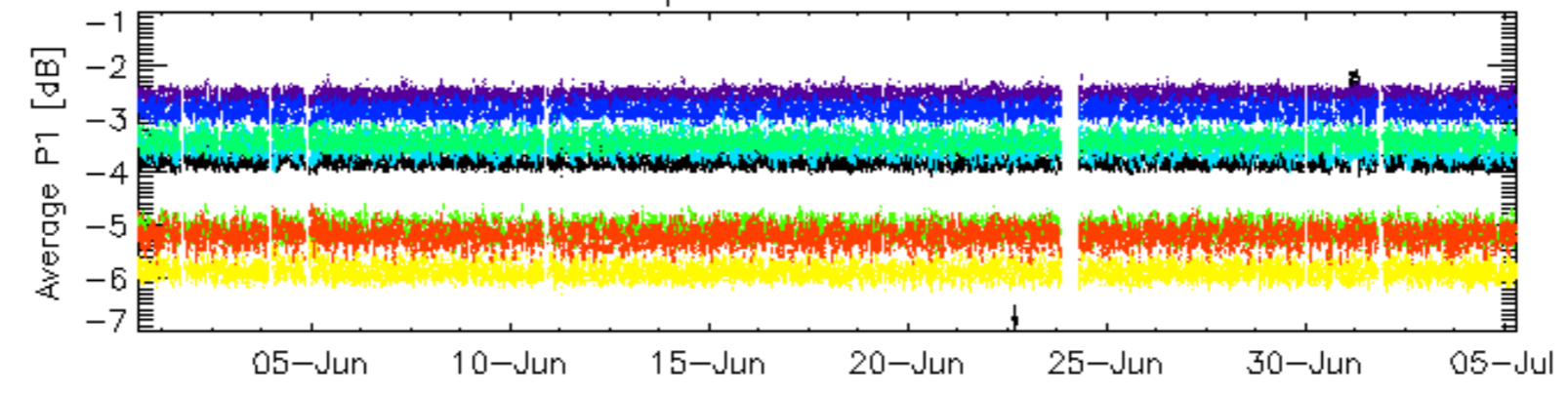


Cal pulses for WVS IS2



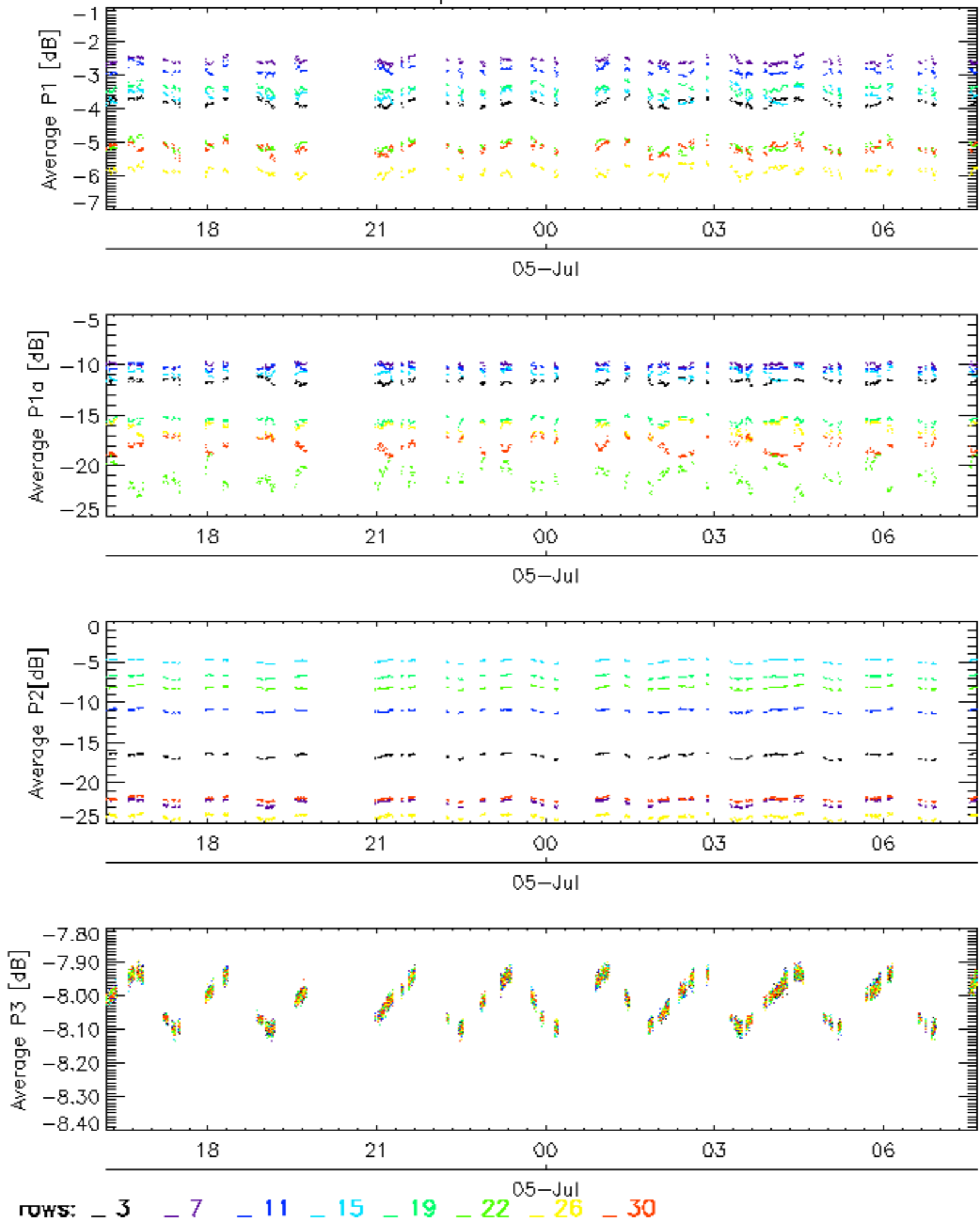
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

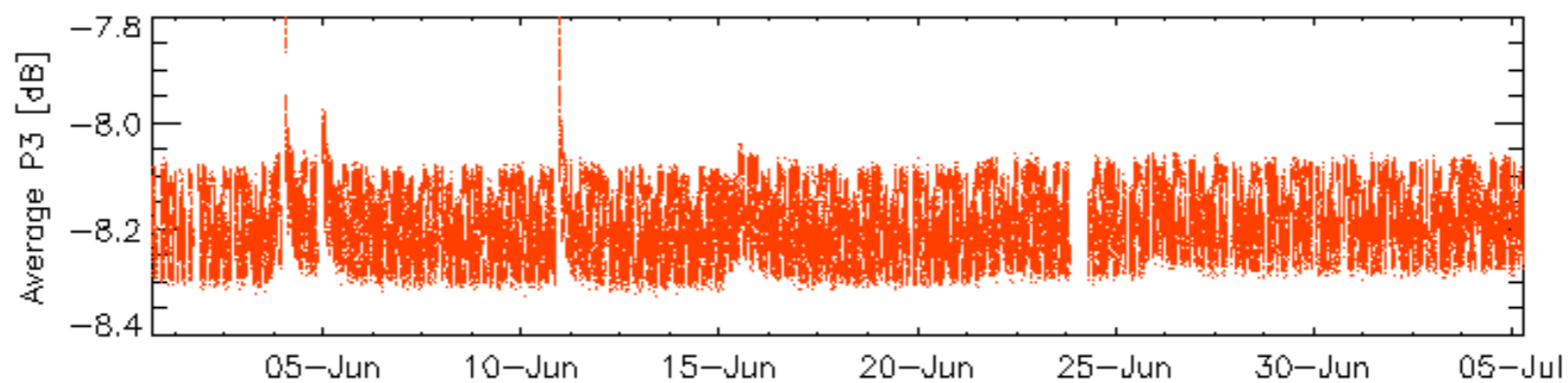
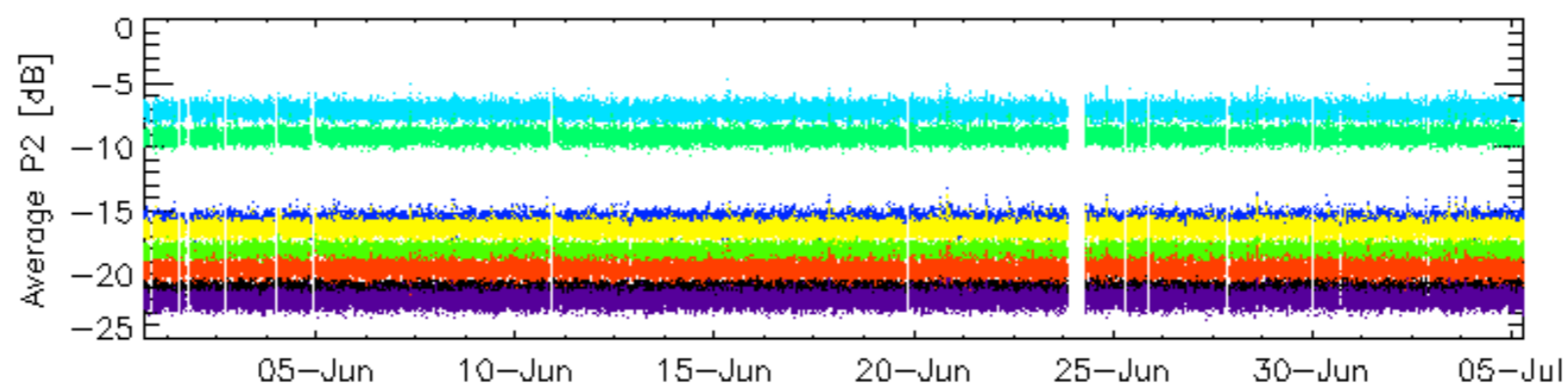
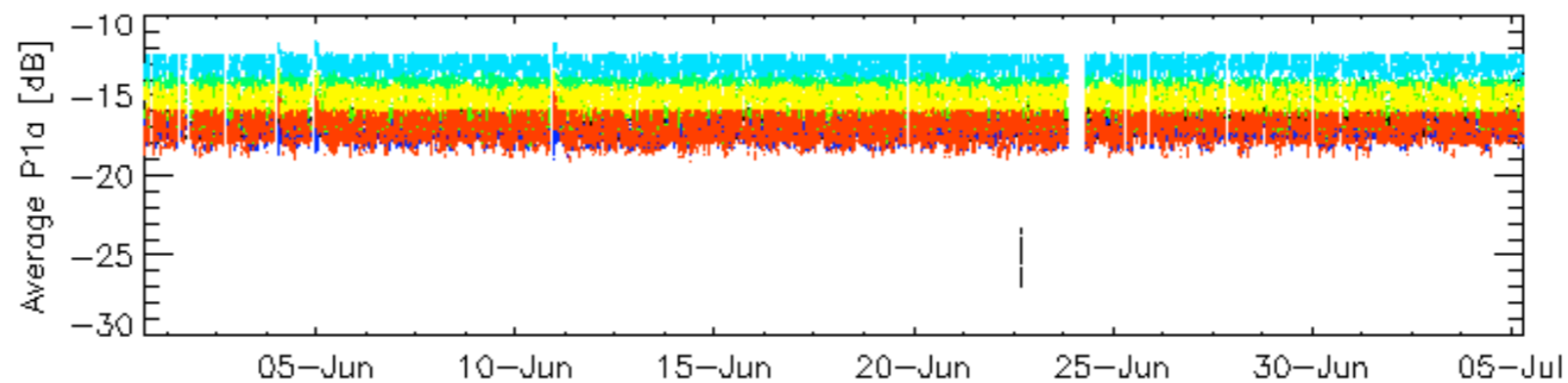
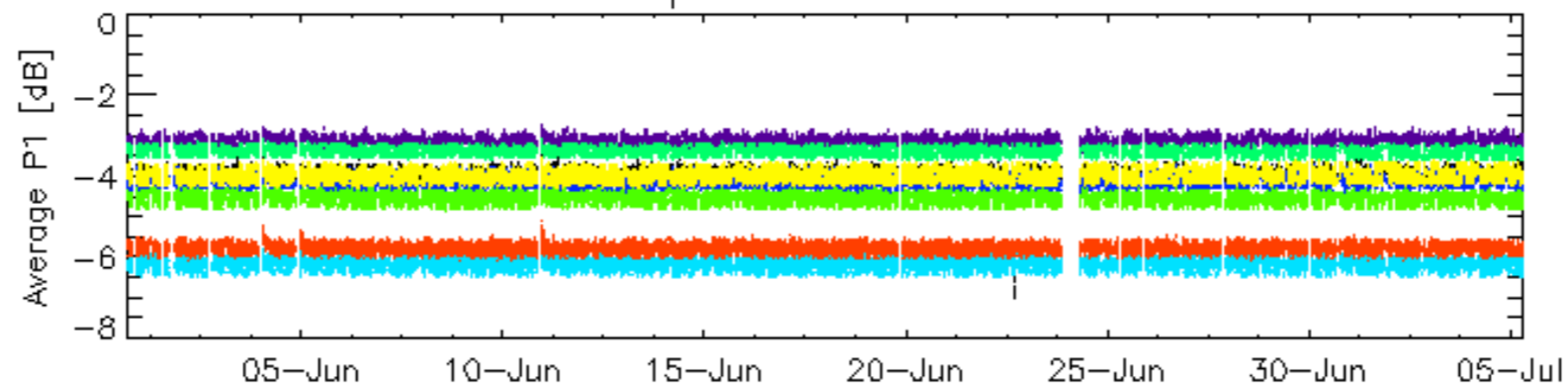


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

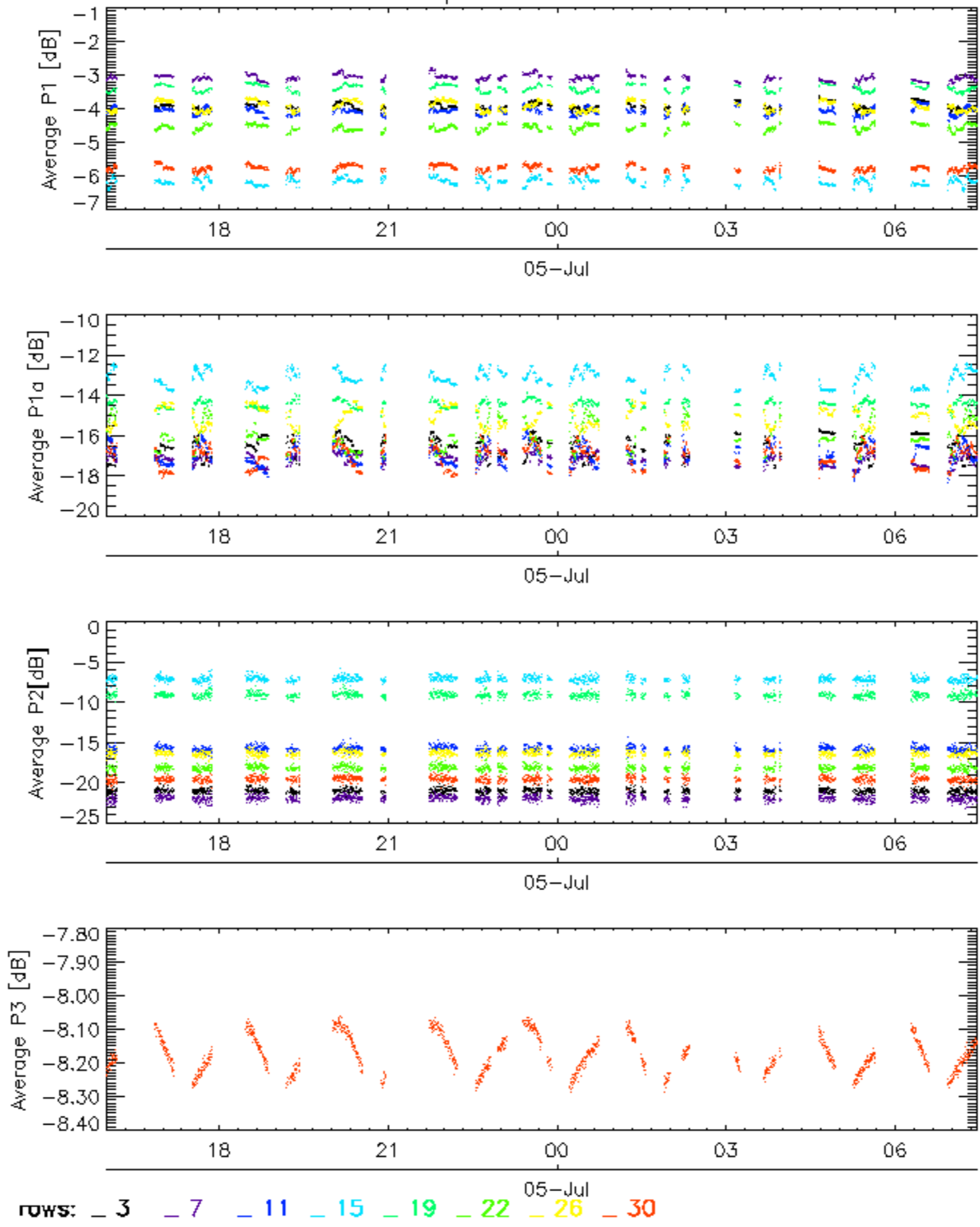


Cal pulses for WVS IS2



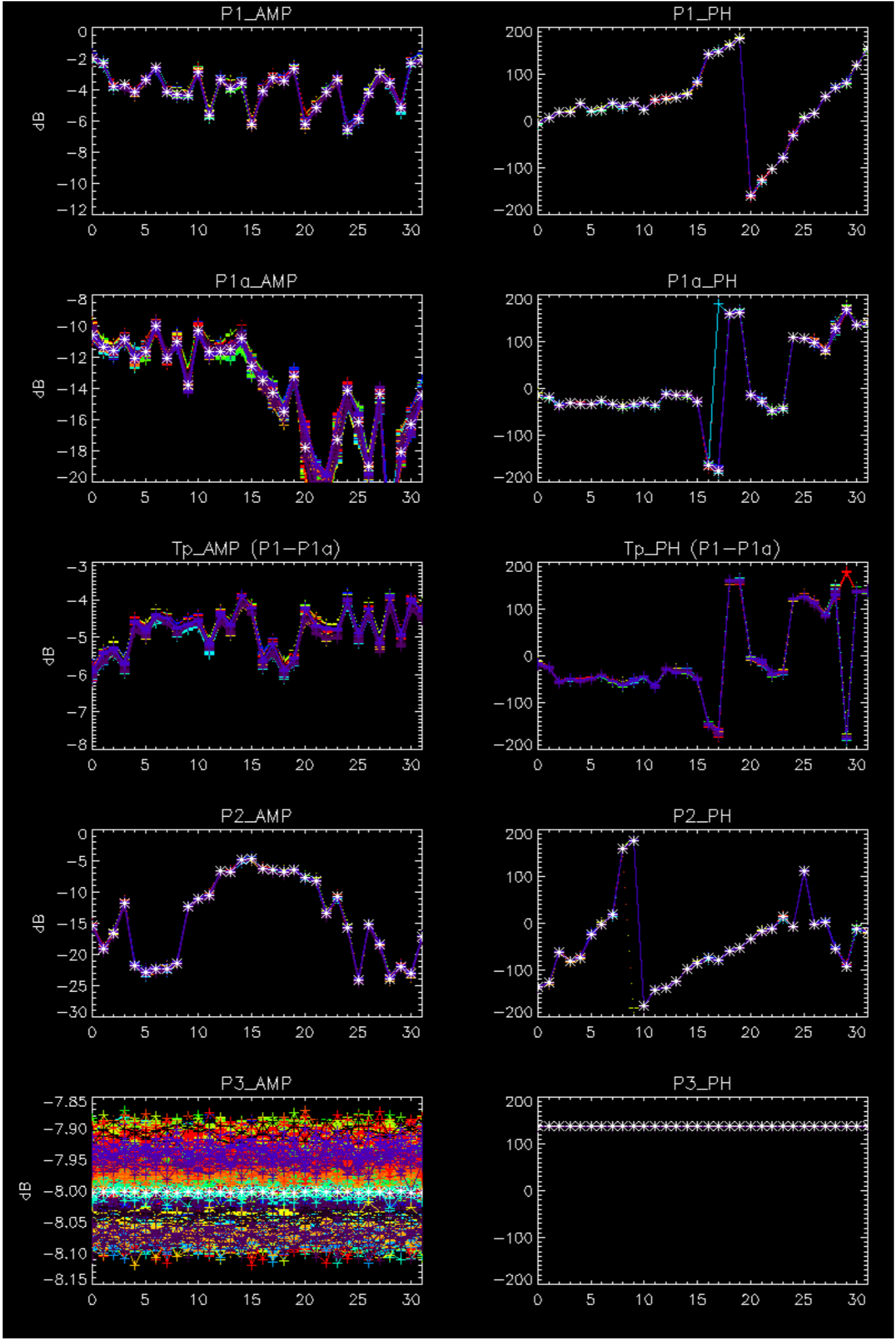
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

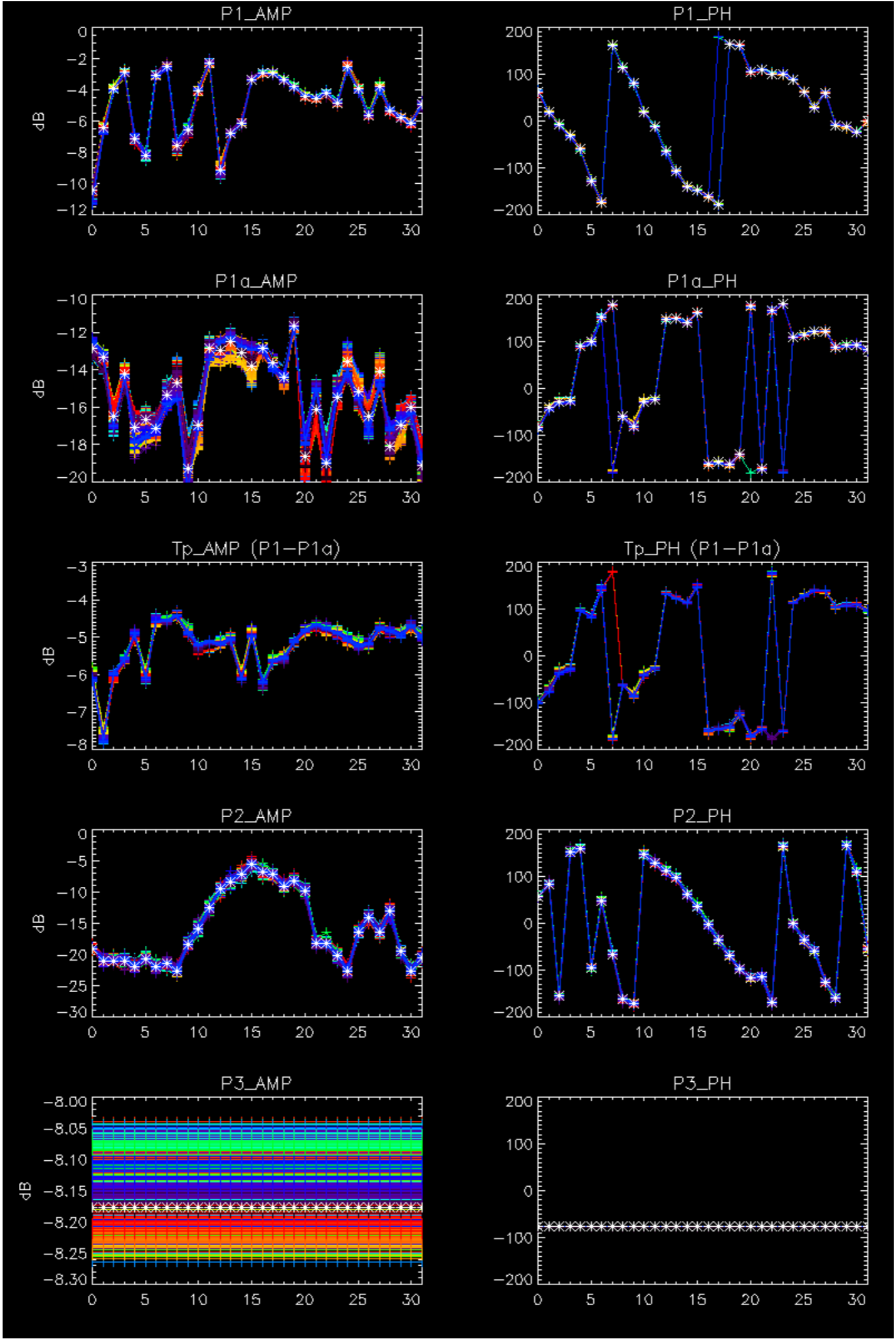
Cal pulses for WVS IS2



No anomalies observed on available browse products

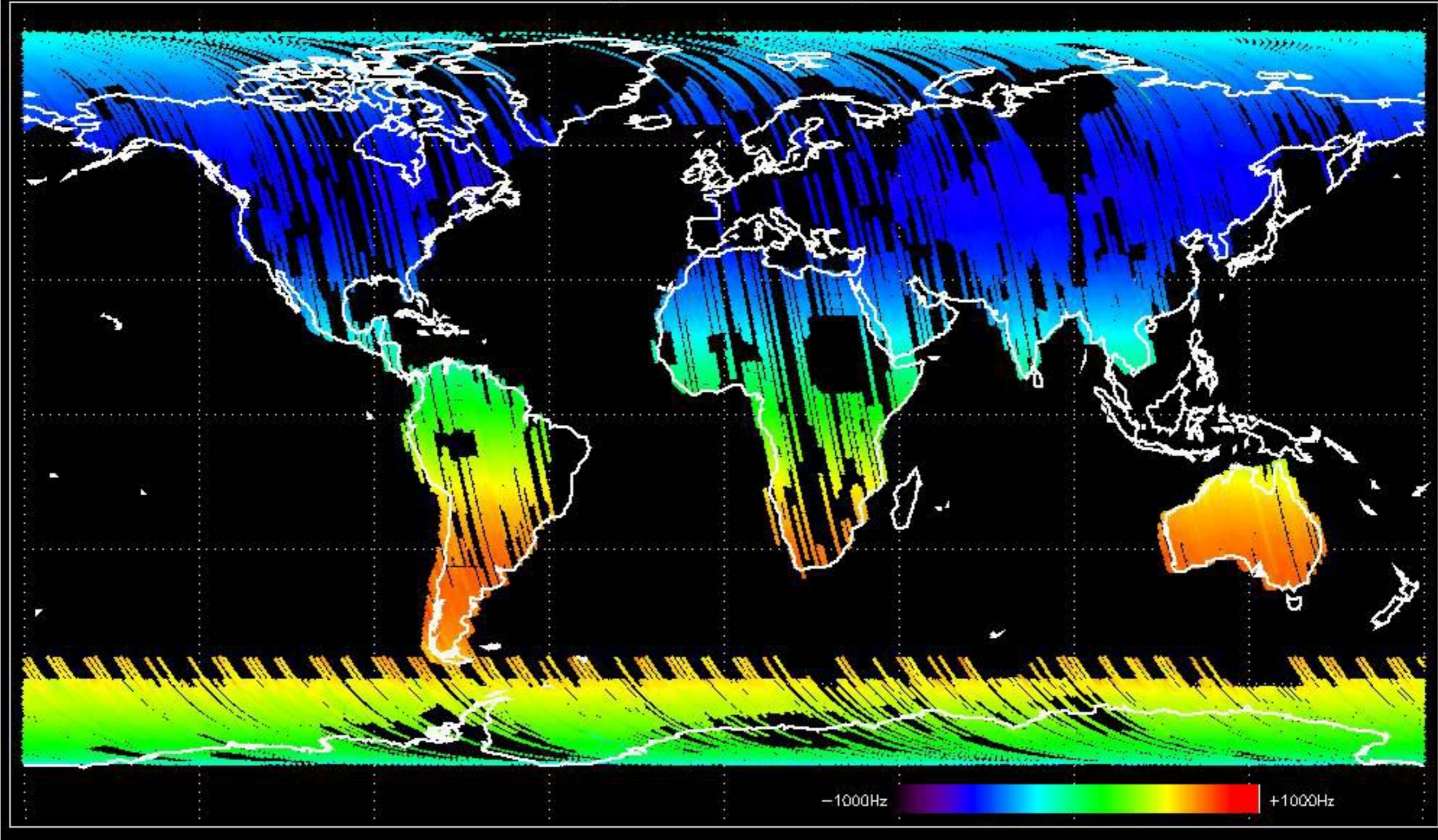
No anomalies observed.



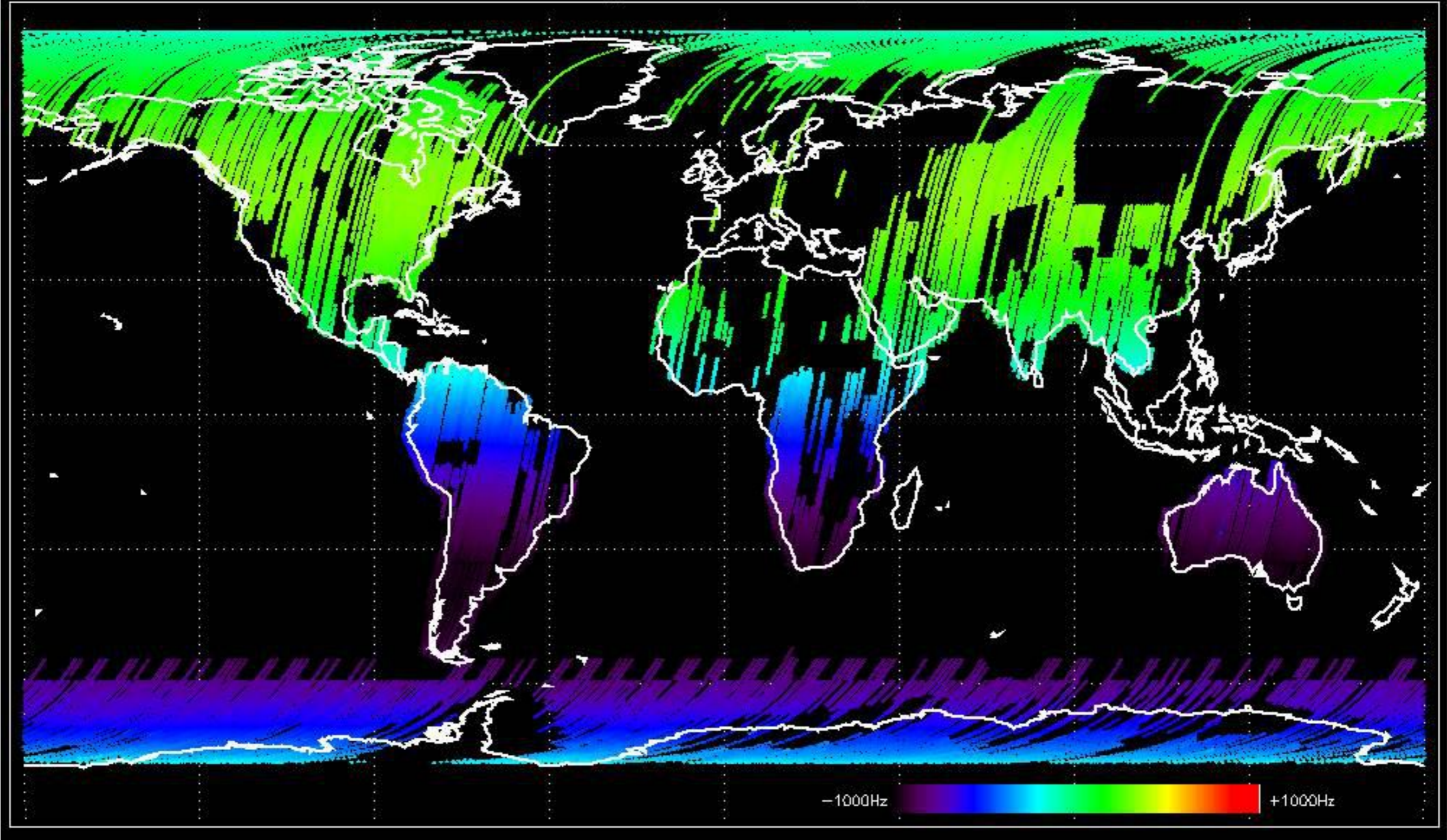


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

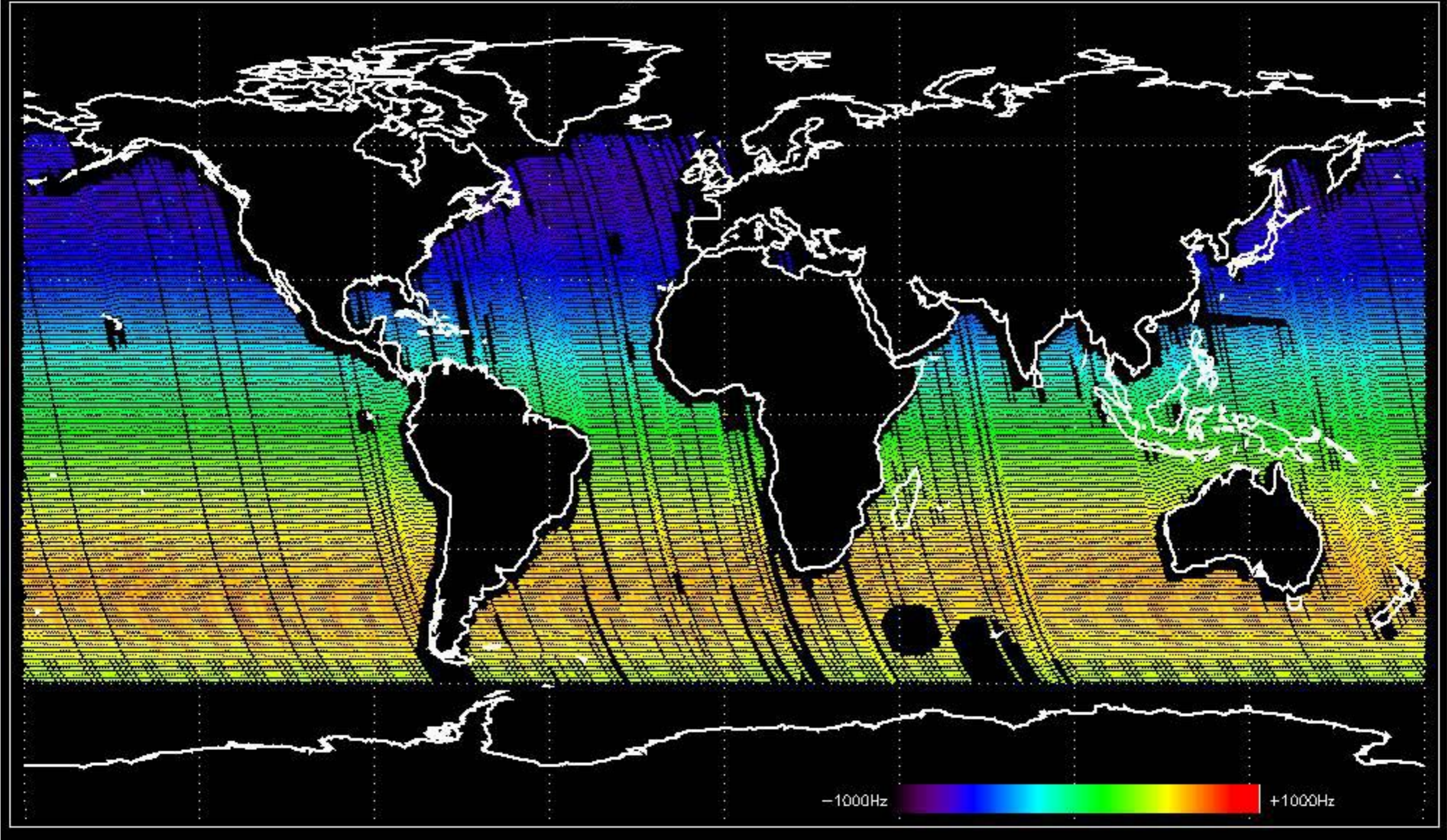
Doppler 'GM1' 'SS1' ascending



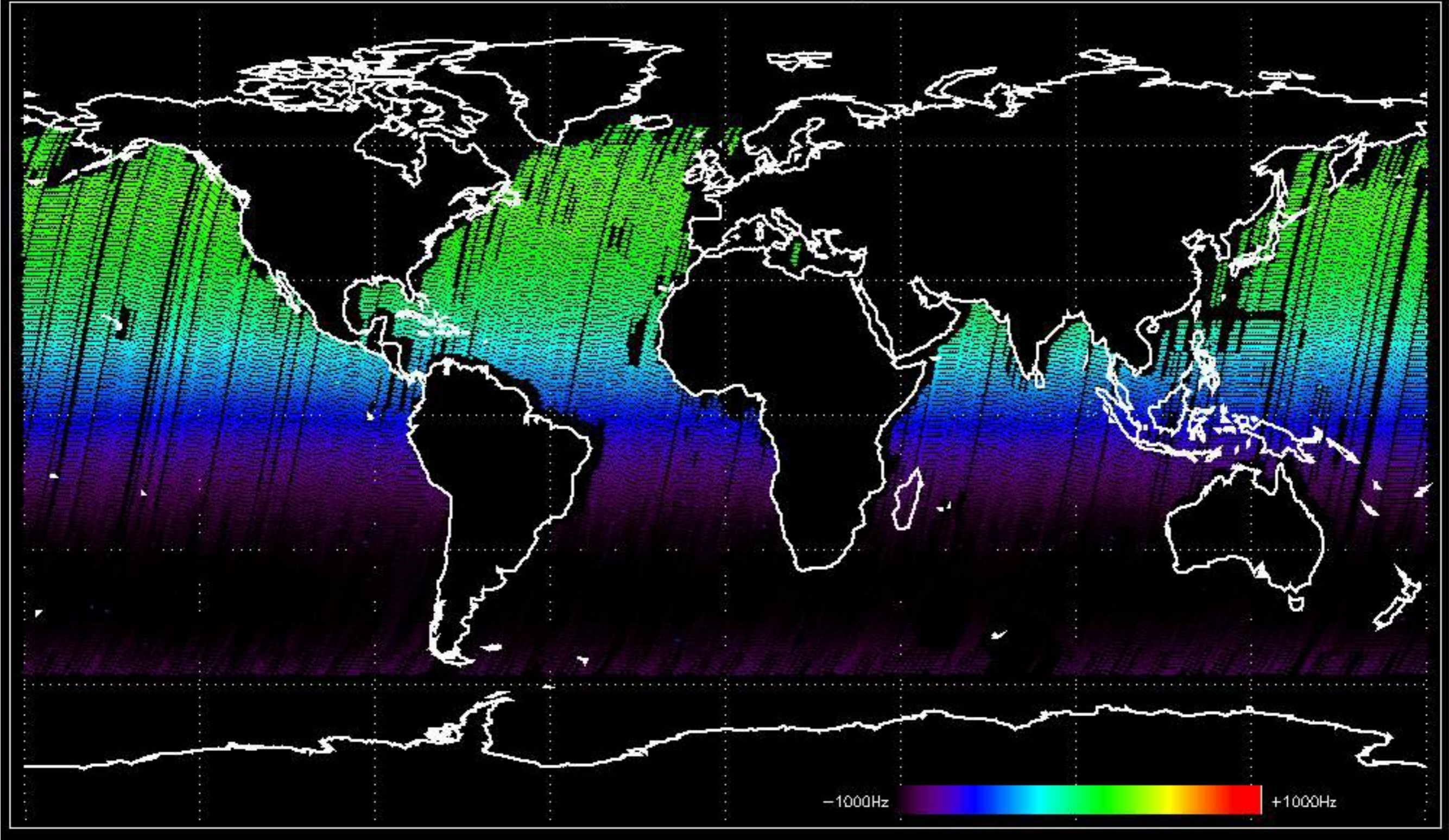
Doppler 'GM1' 'SS1' descending

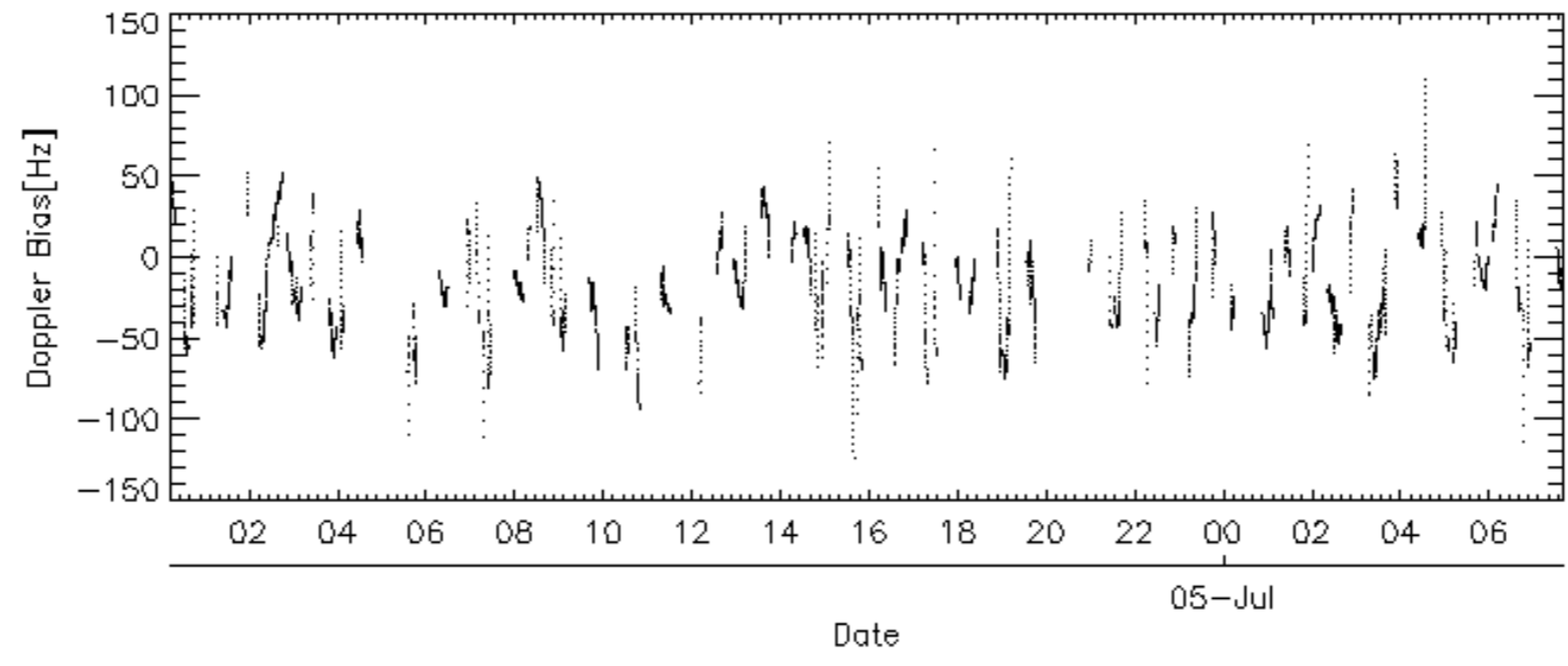
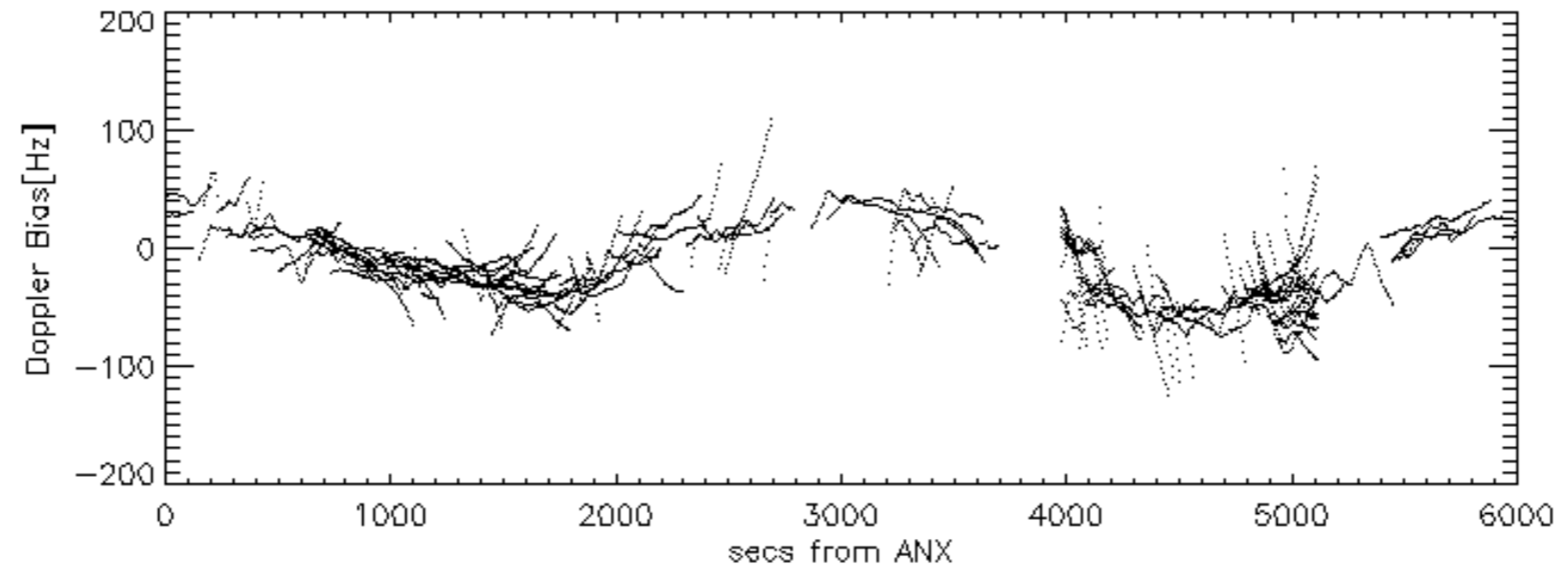
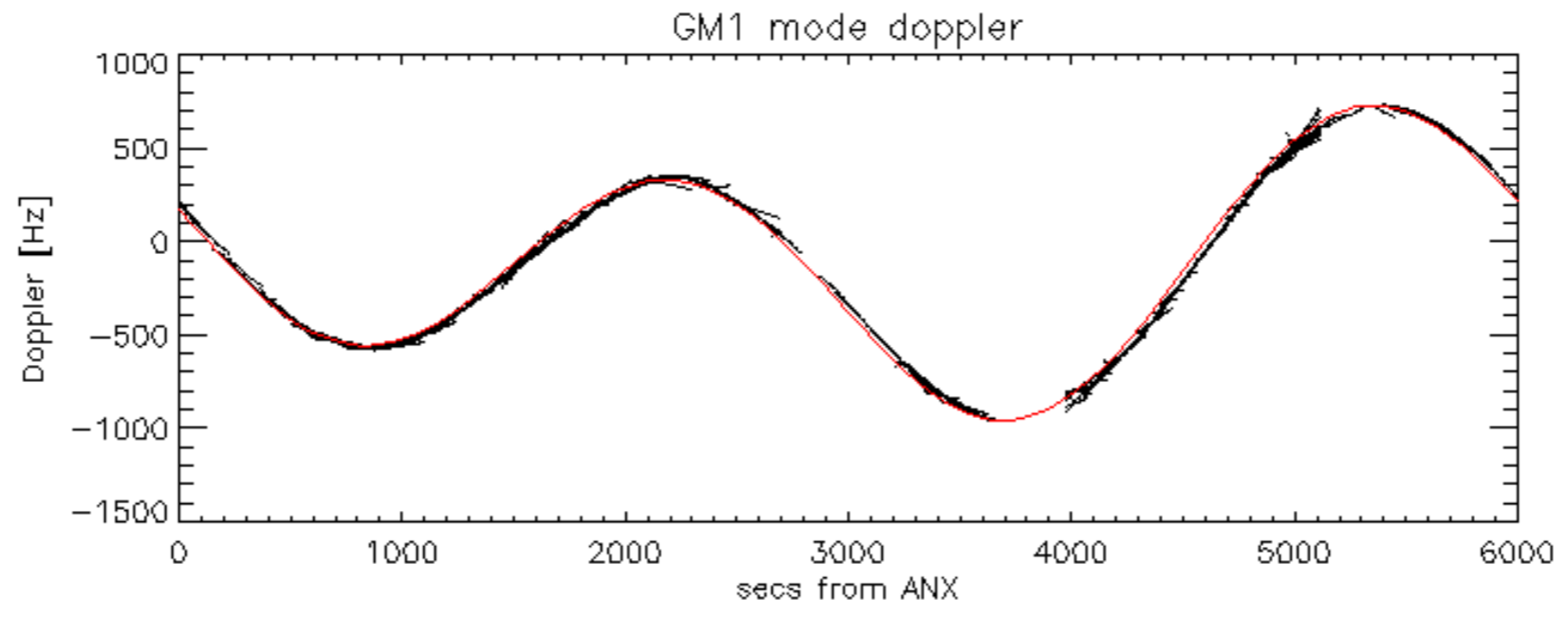


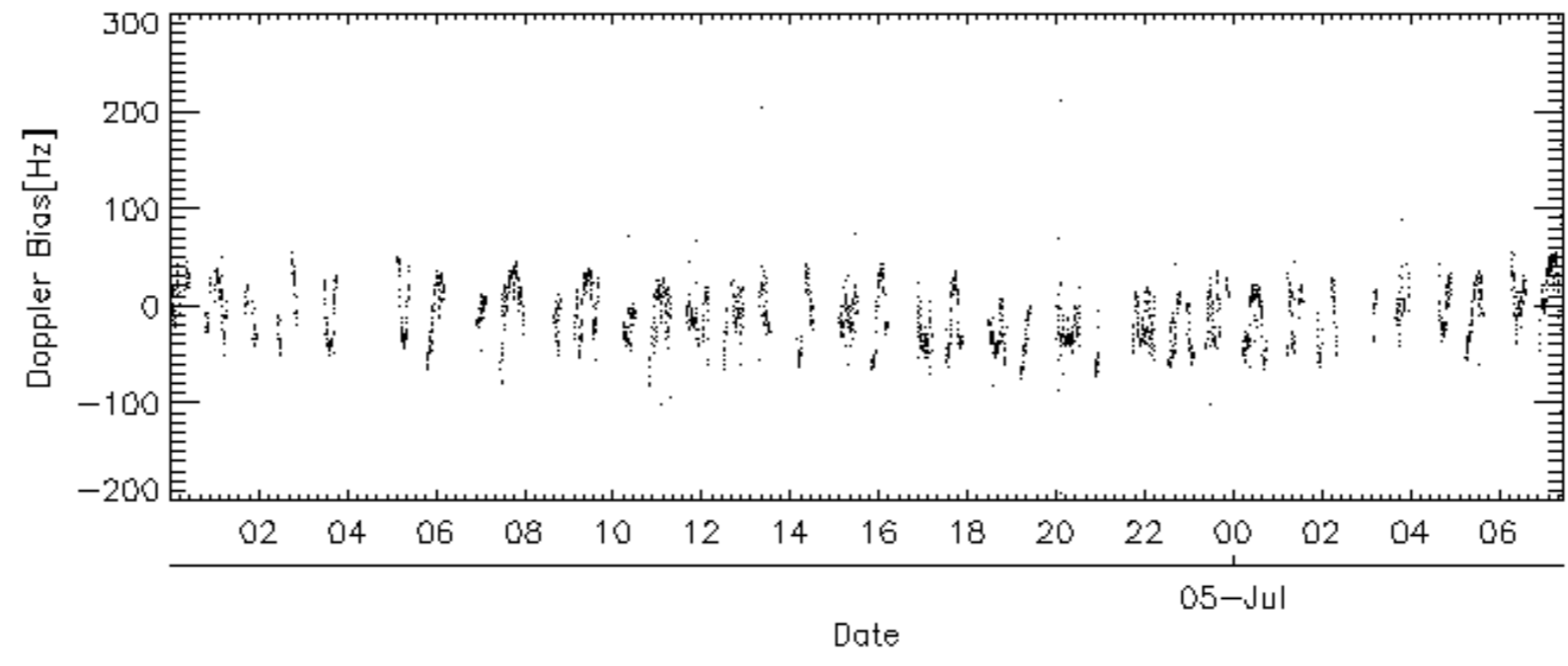
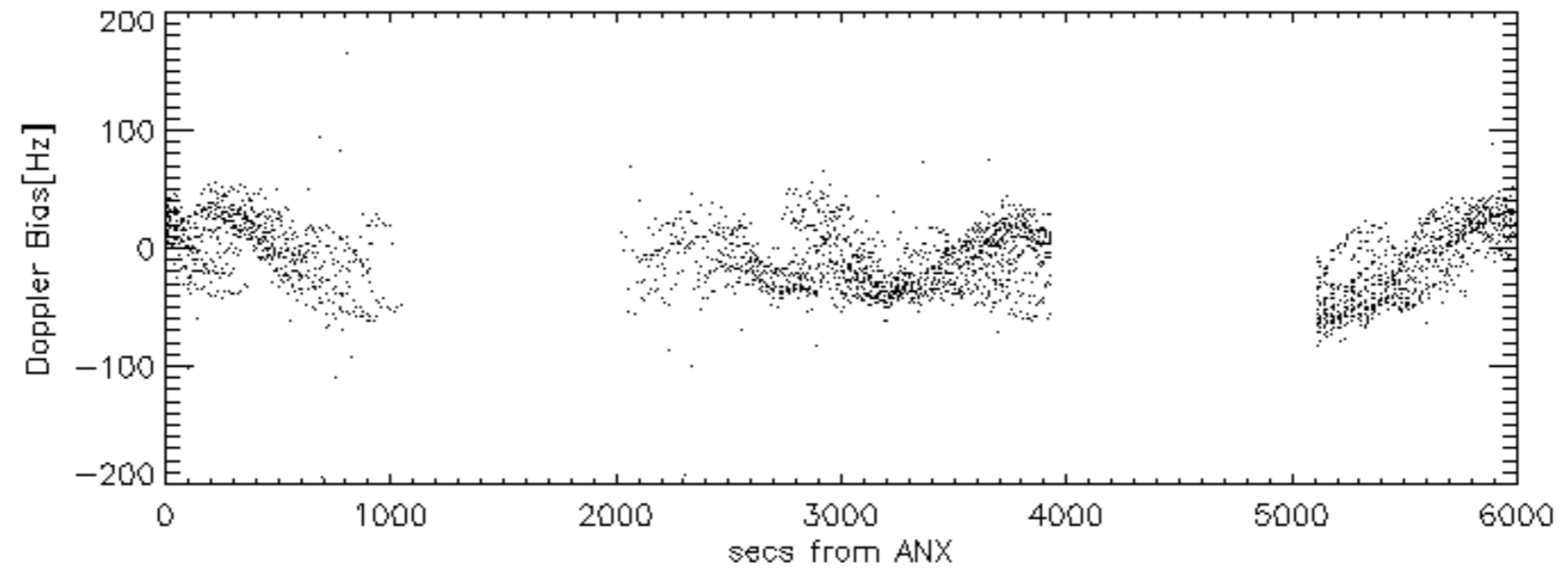
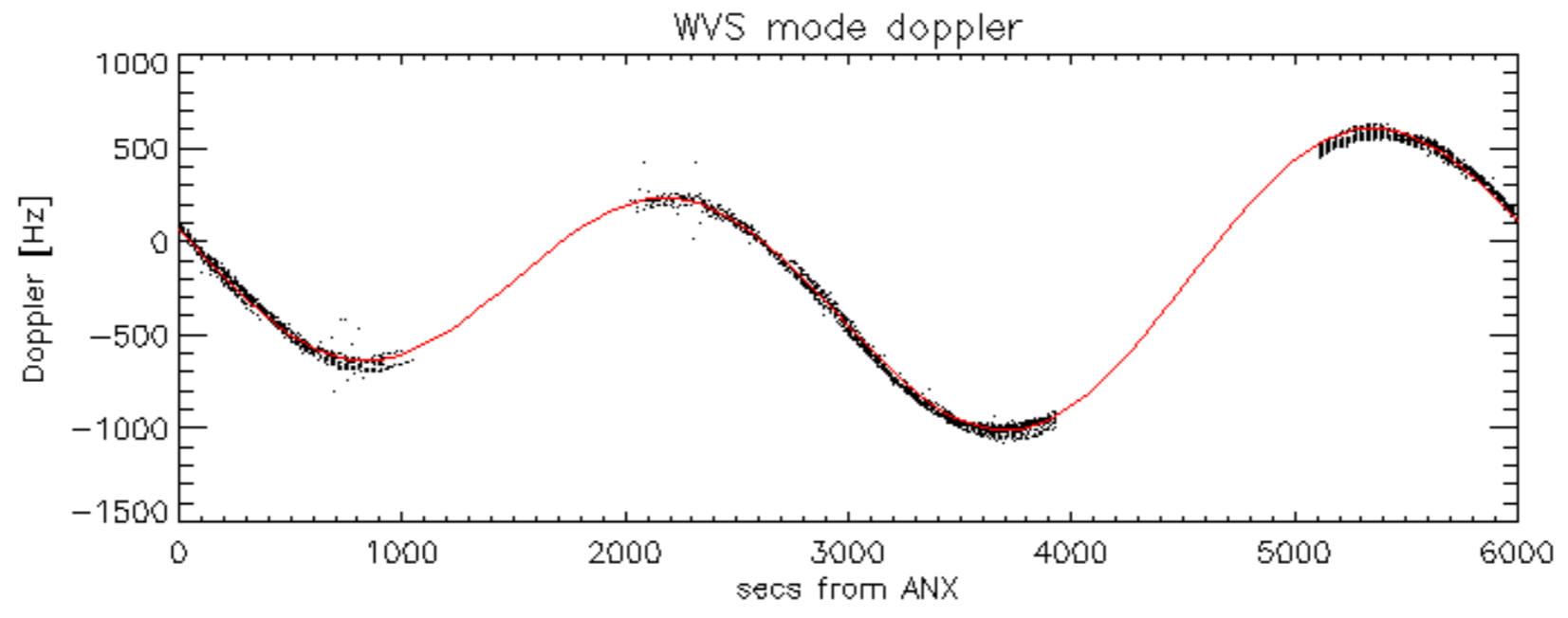
Doppler 'WVS' 'IS2' ascending



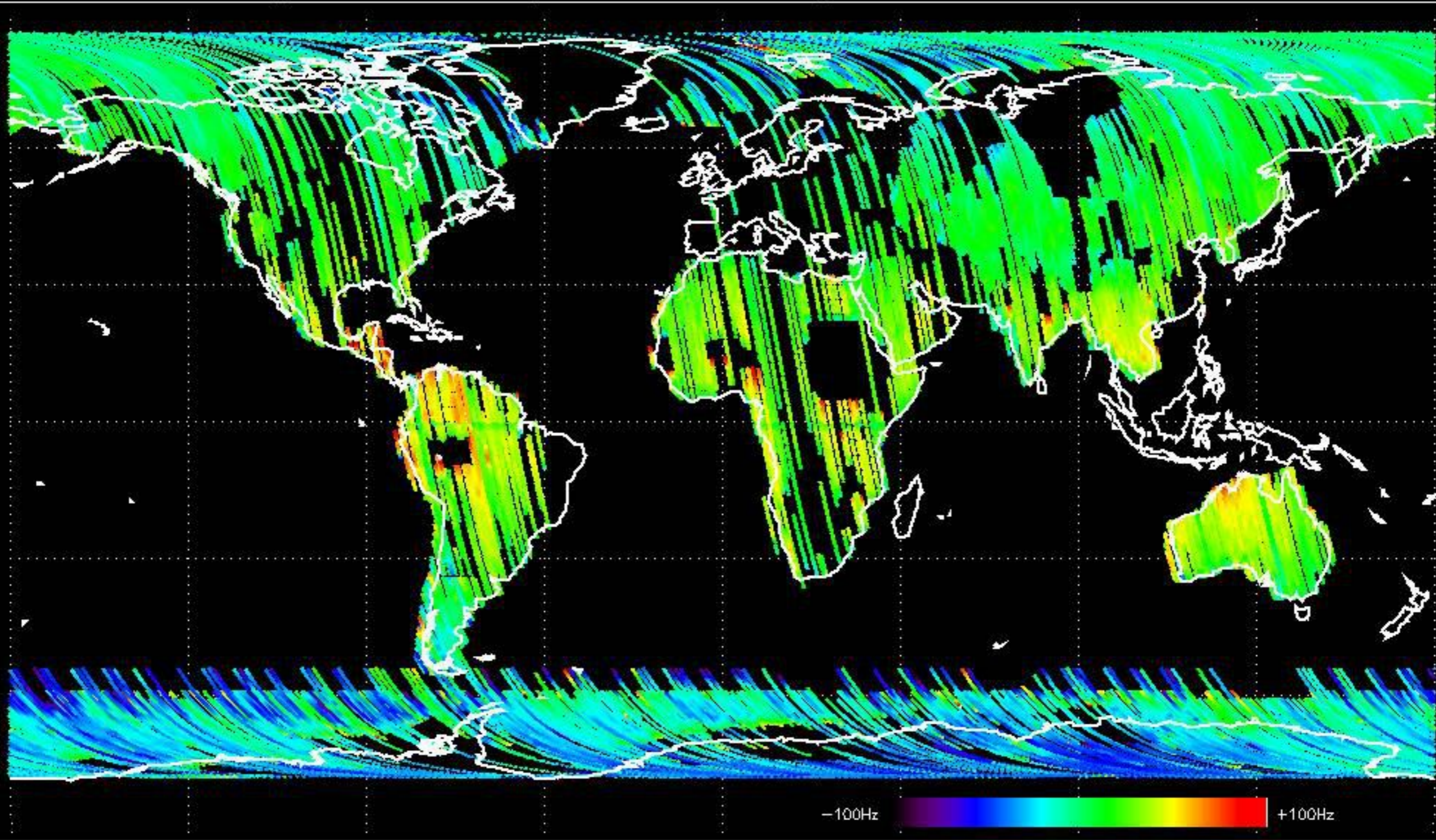
Doppler 'WVS' 'IS2' descending



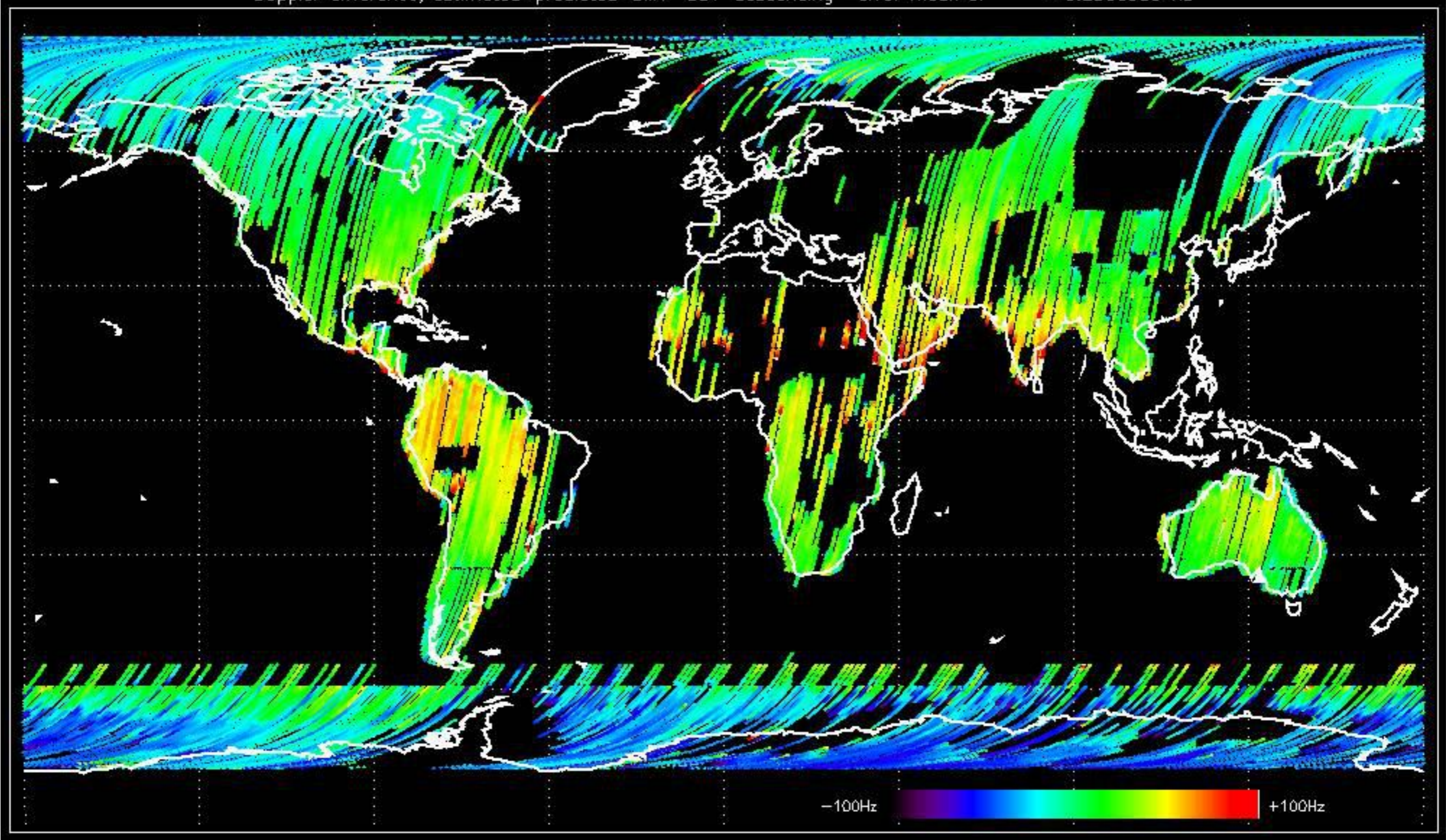




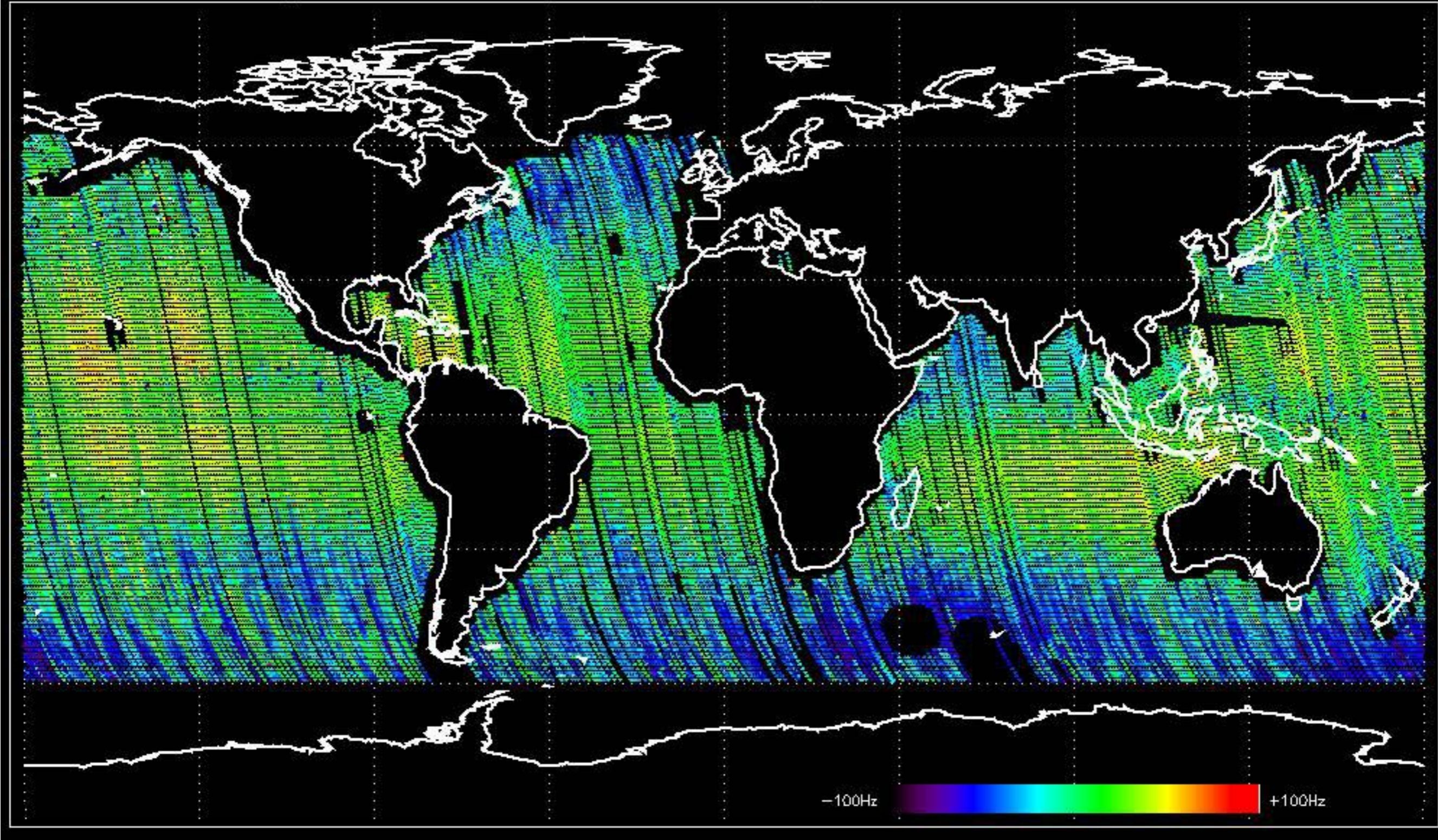
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.067339 Hz



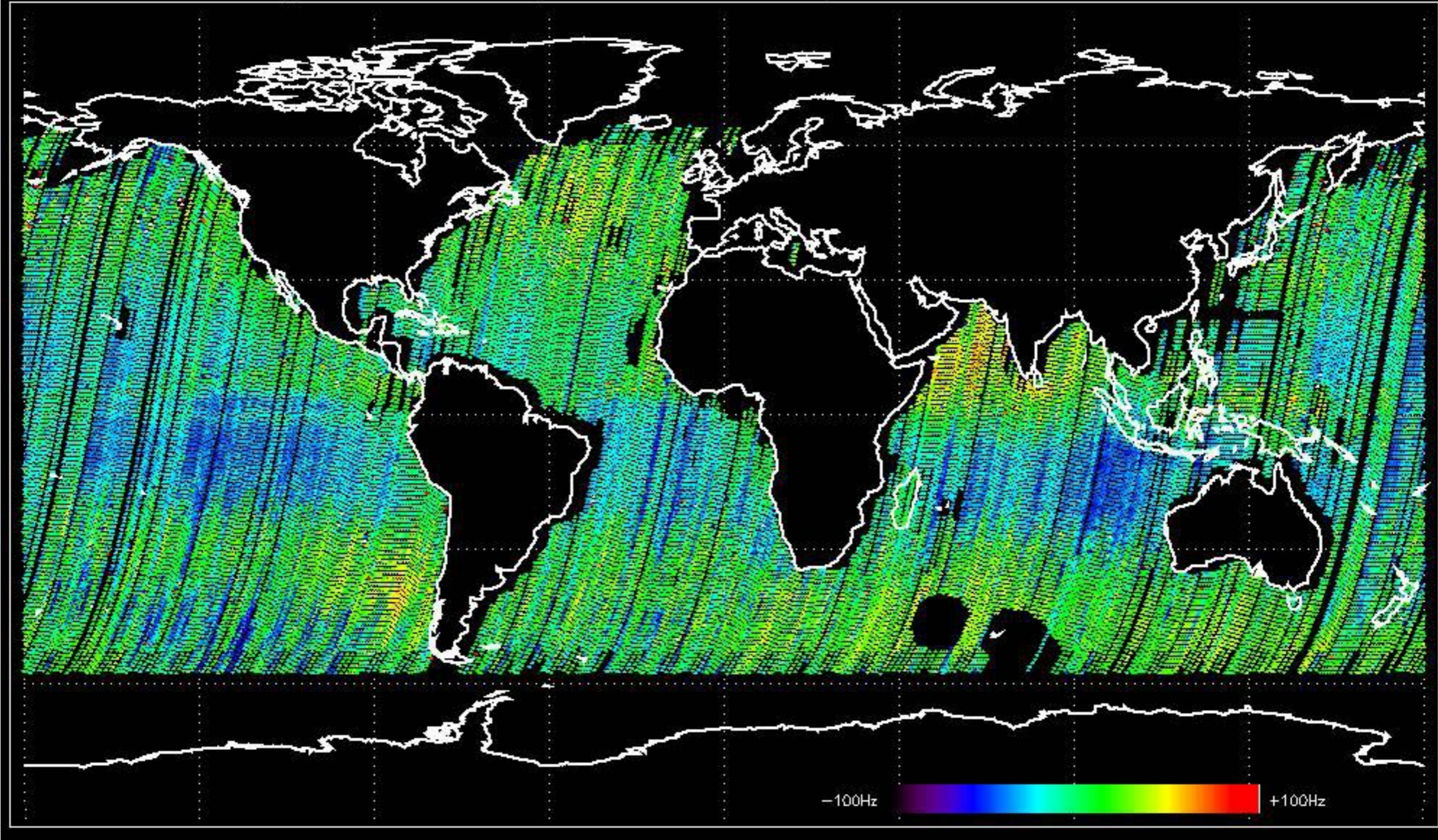
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.2300900 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.3604060 Hz

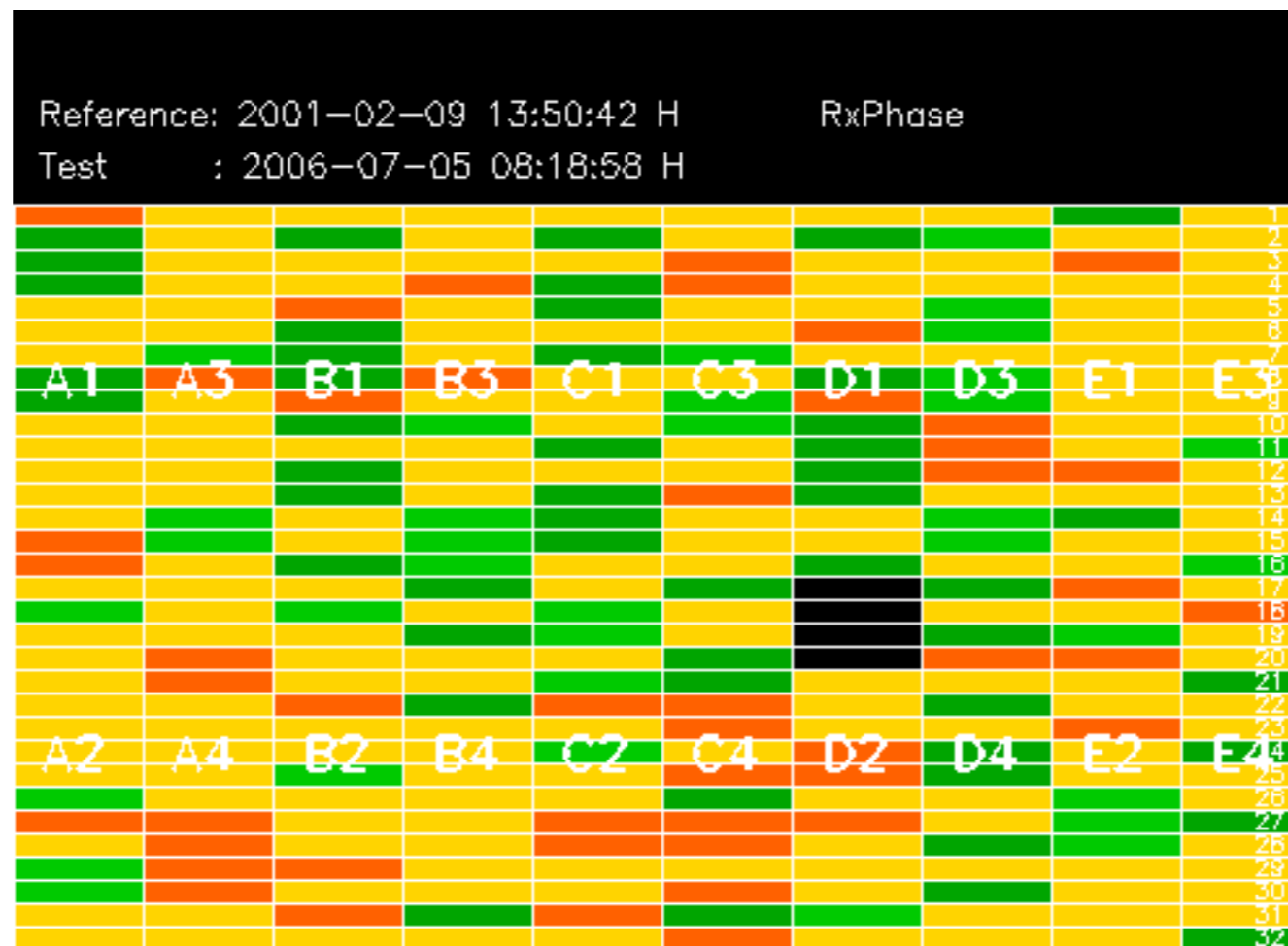


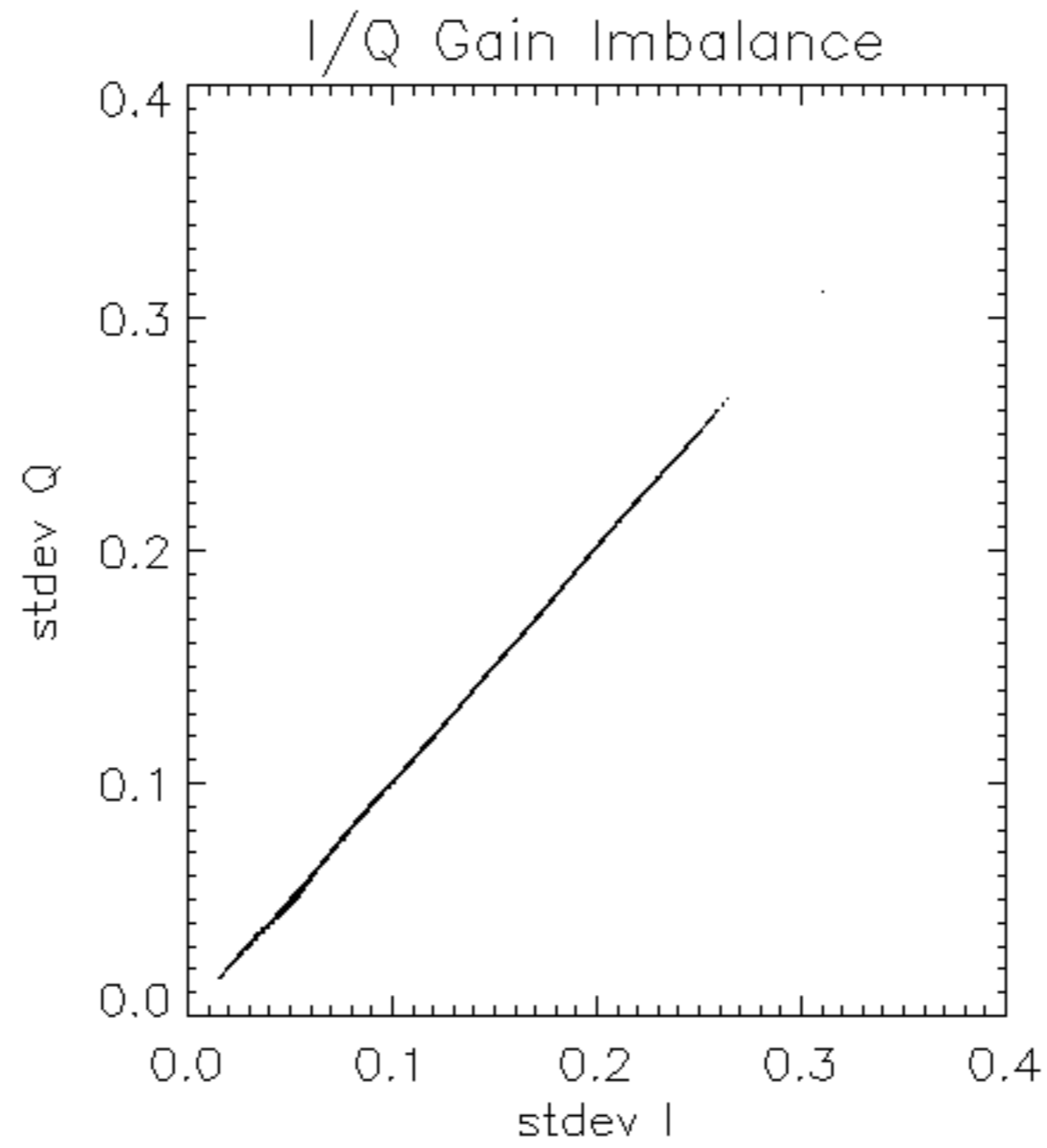
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.802986 Hz

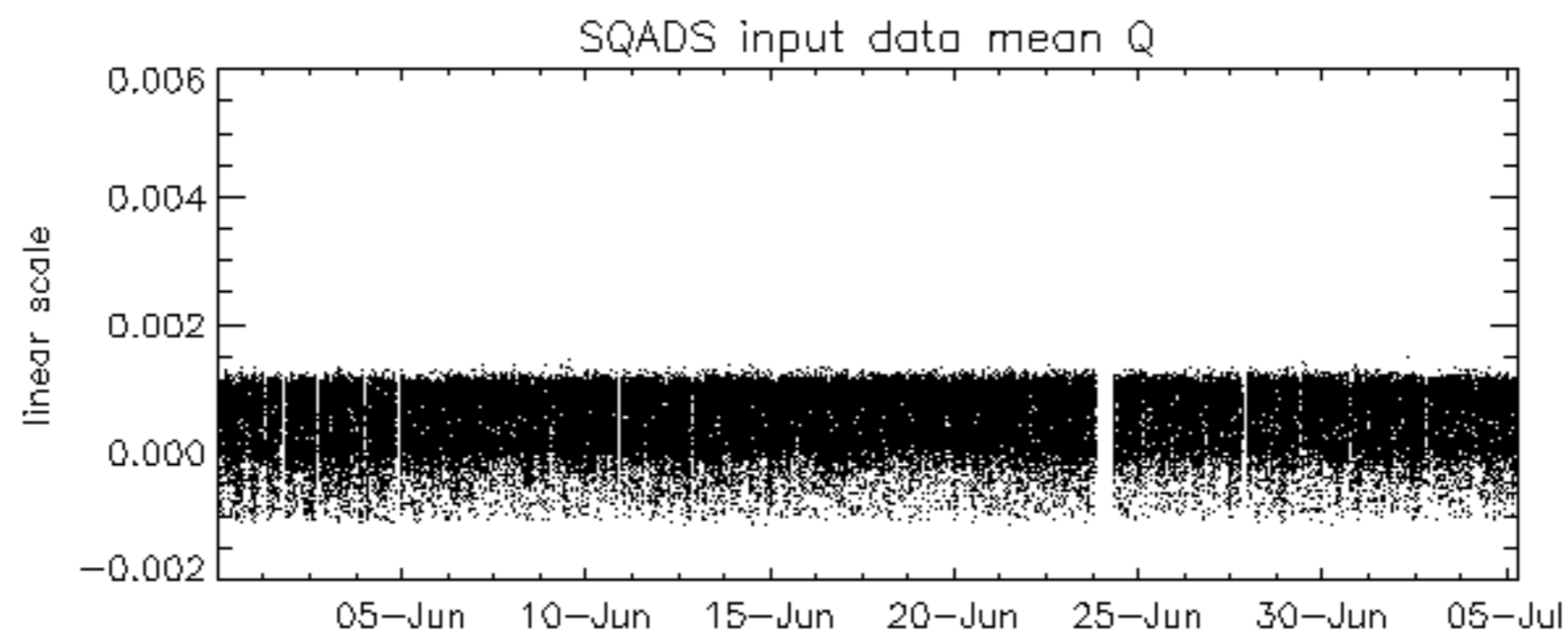
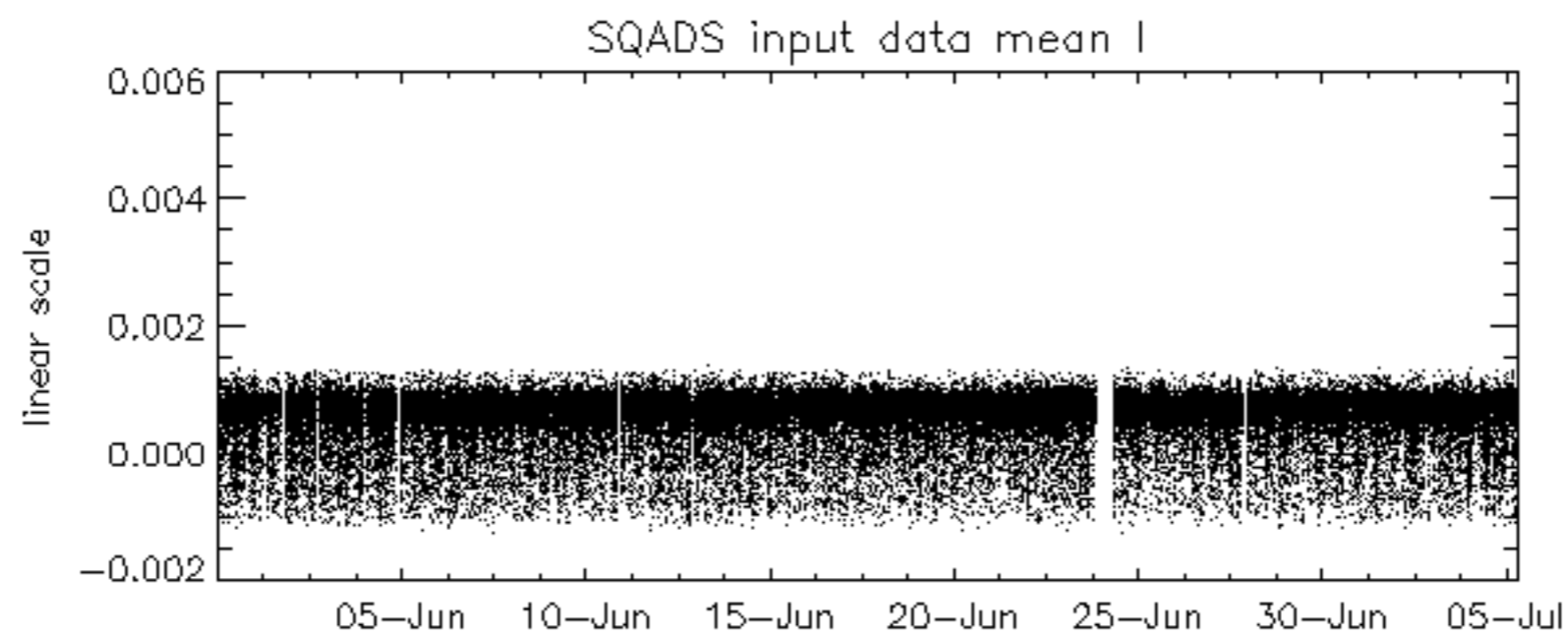
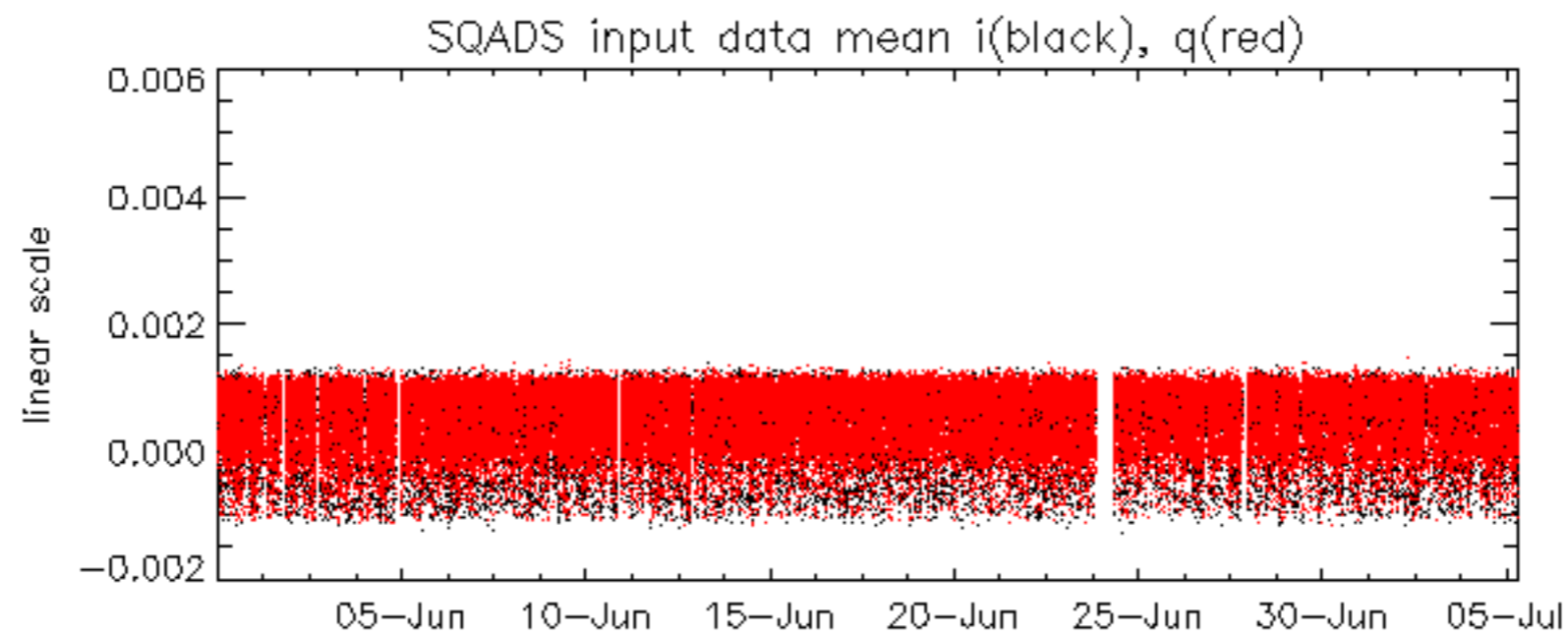


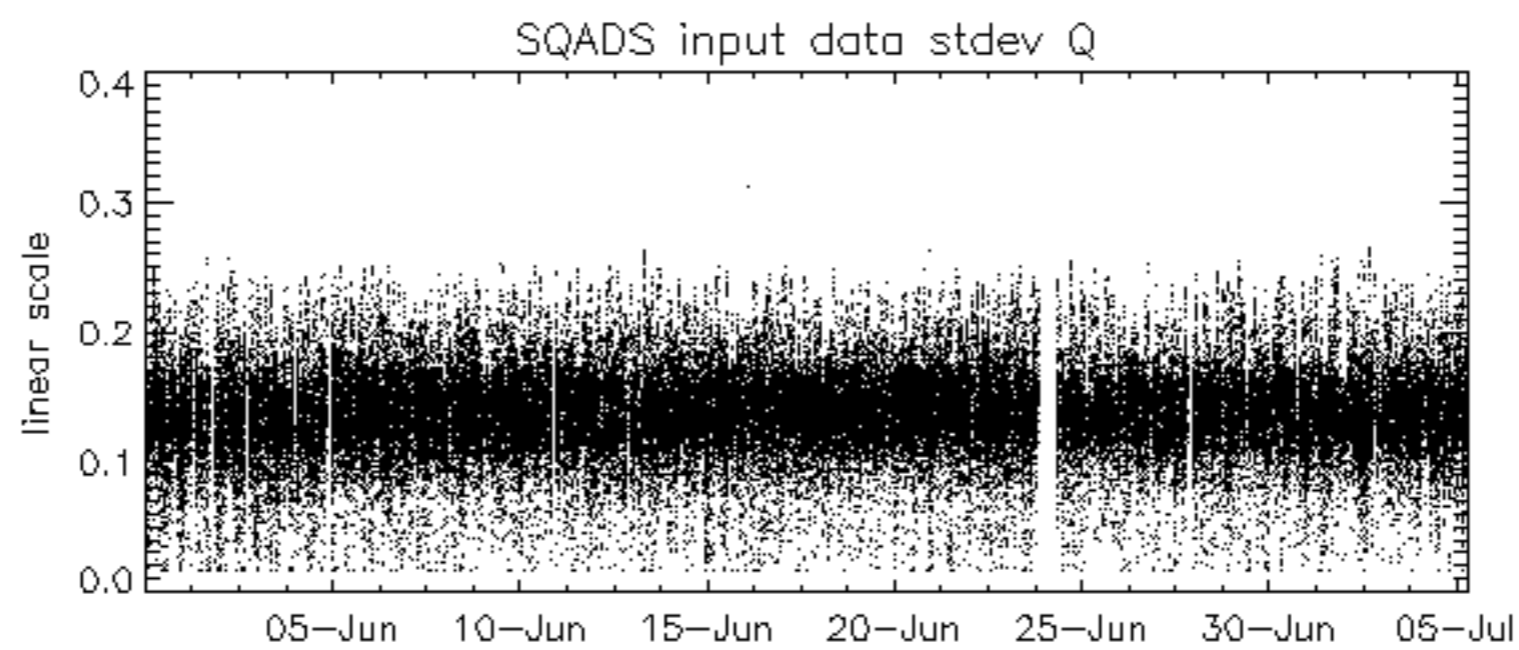
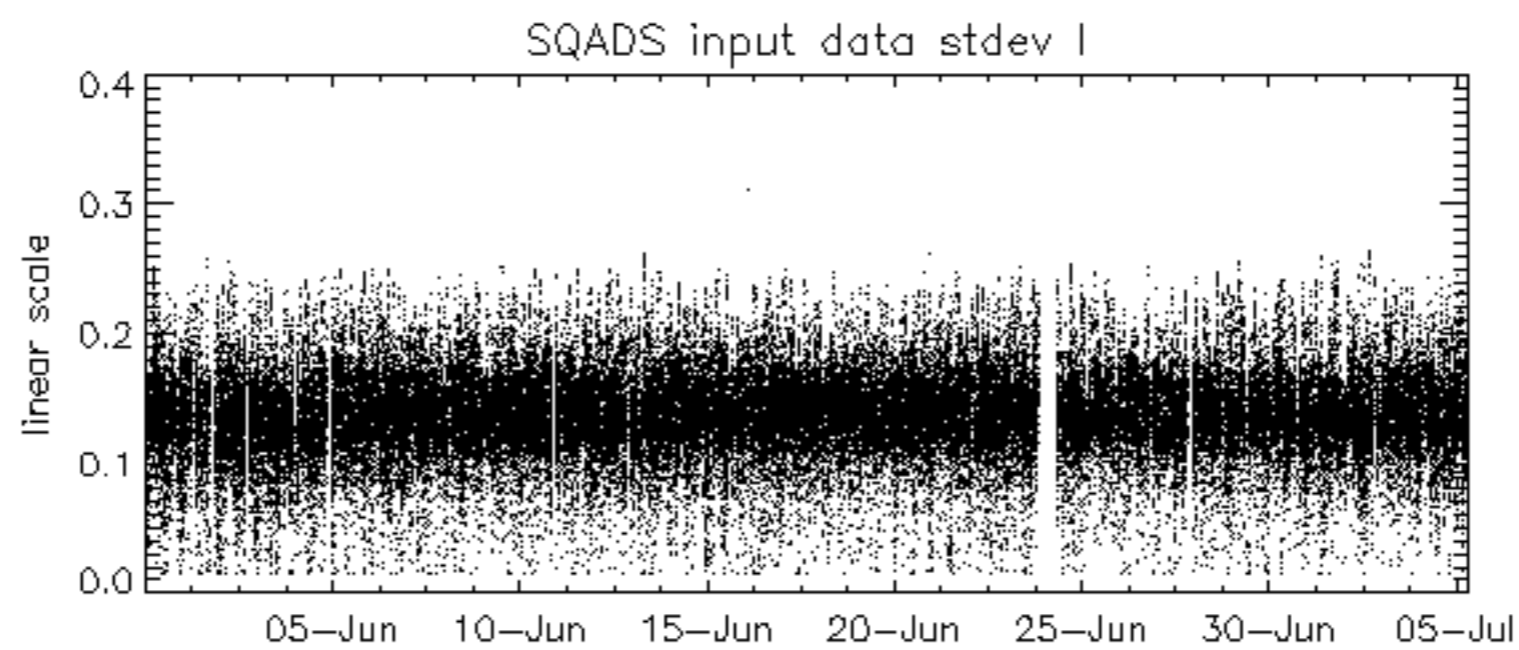
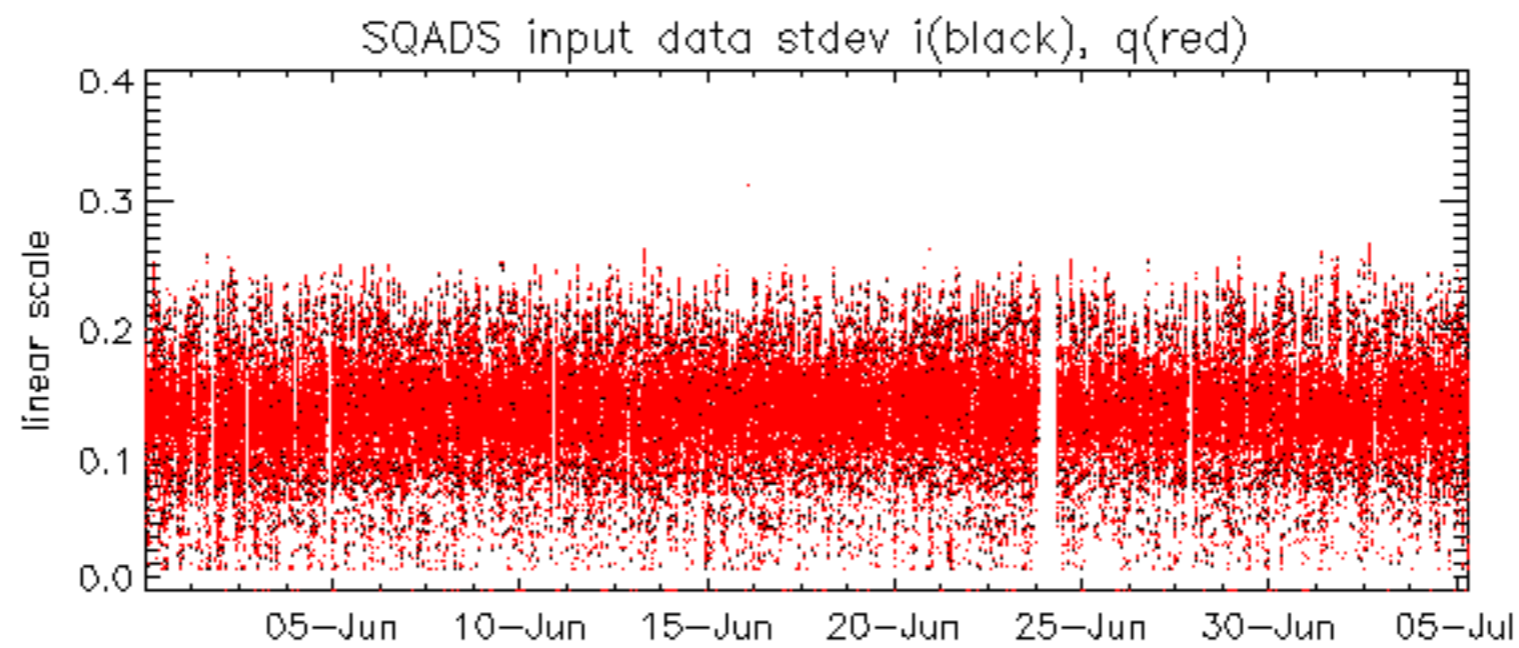
No anomalies observed on available MS products:

No anomalies observed.





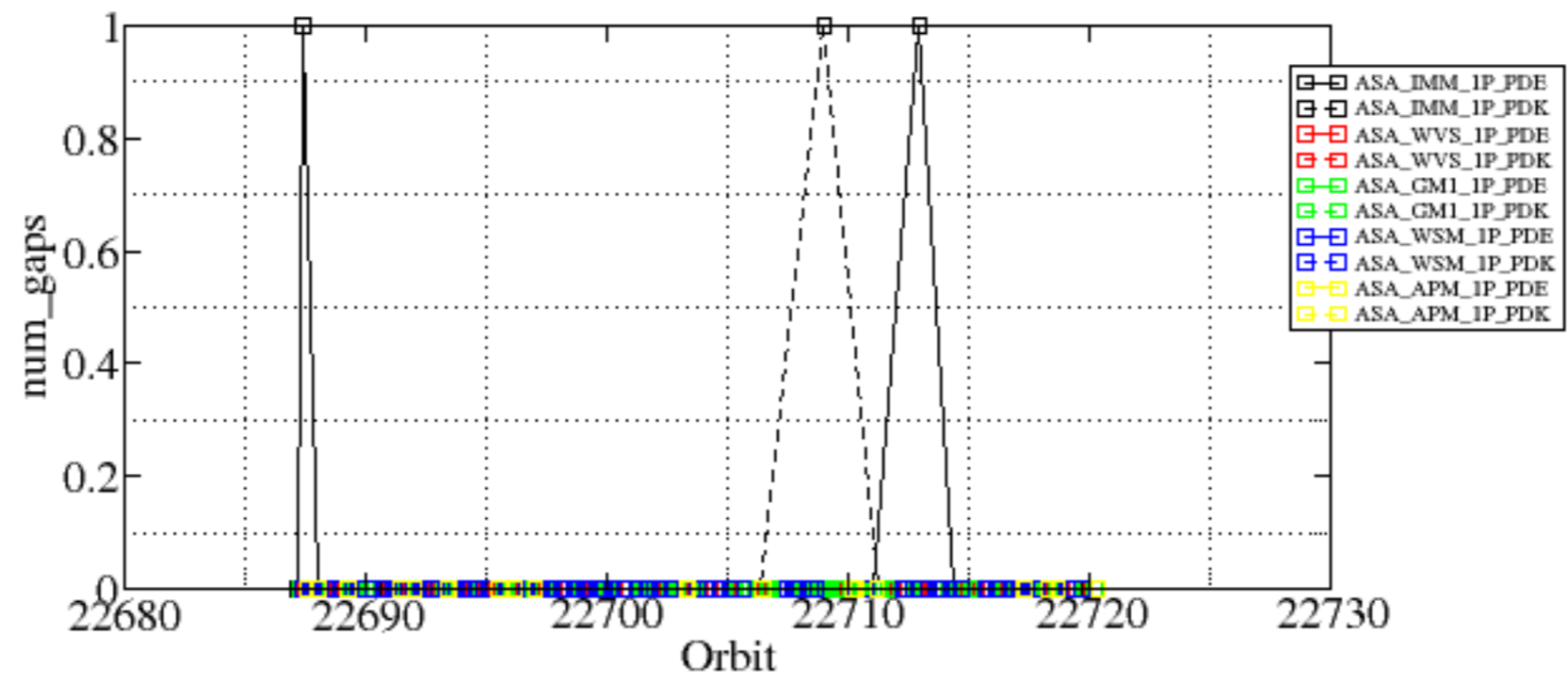


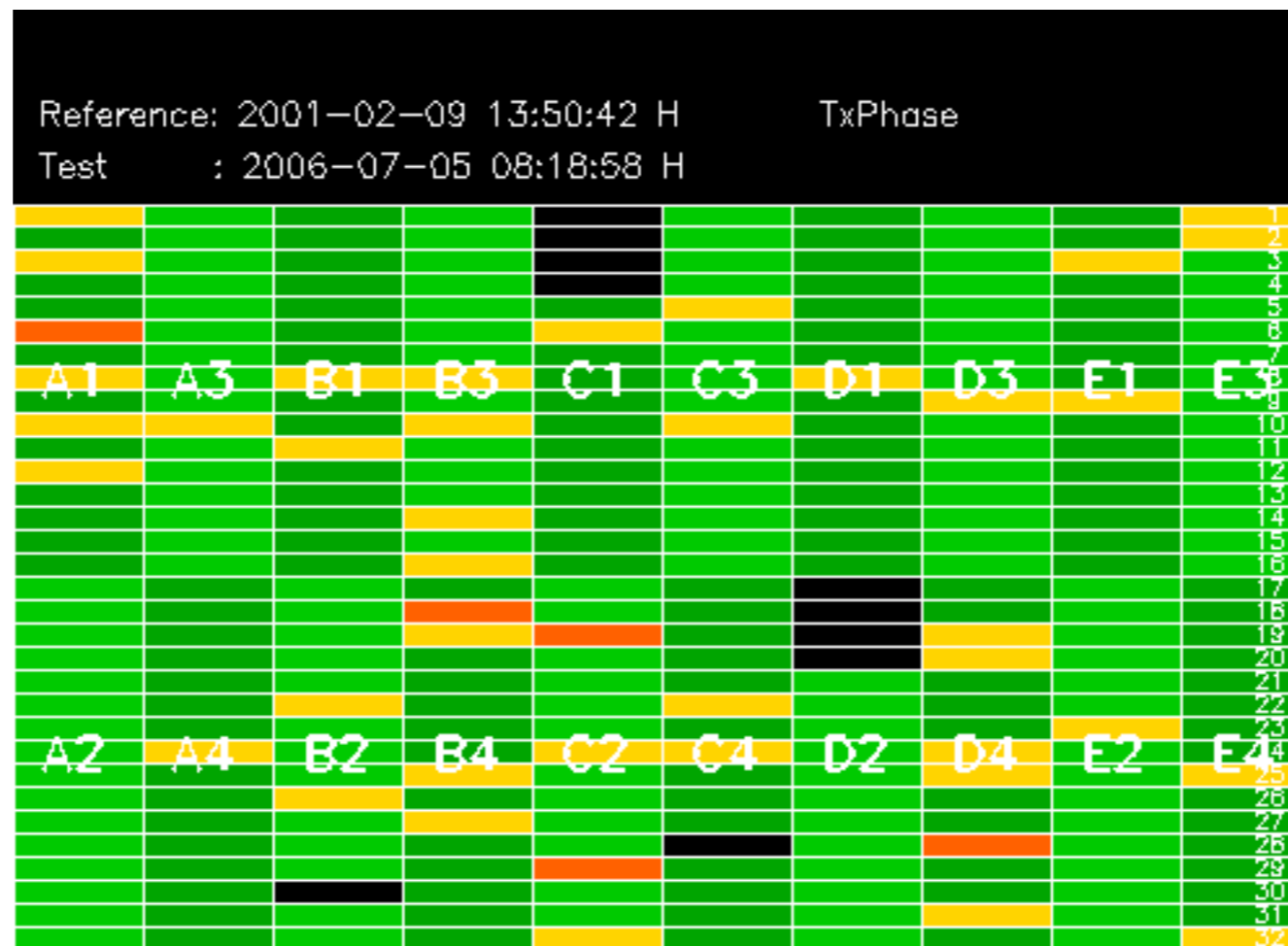


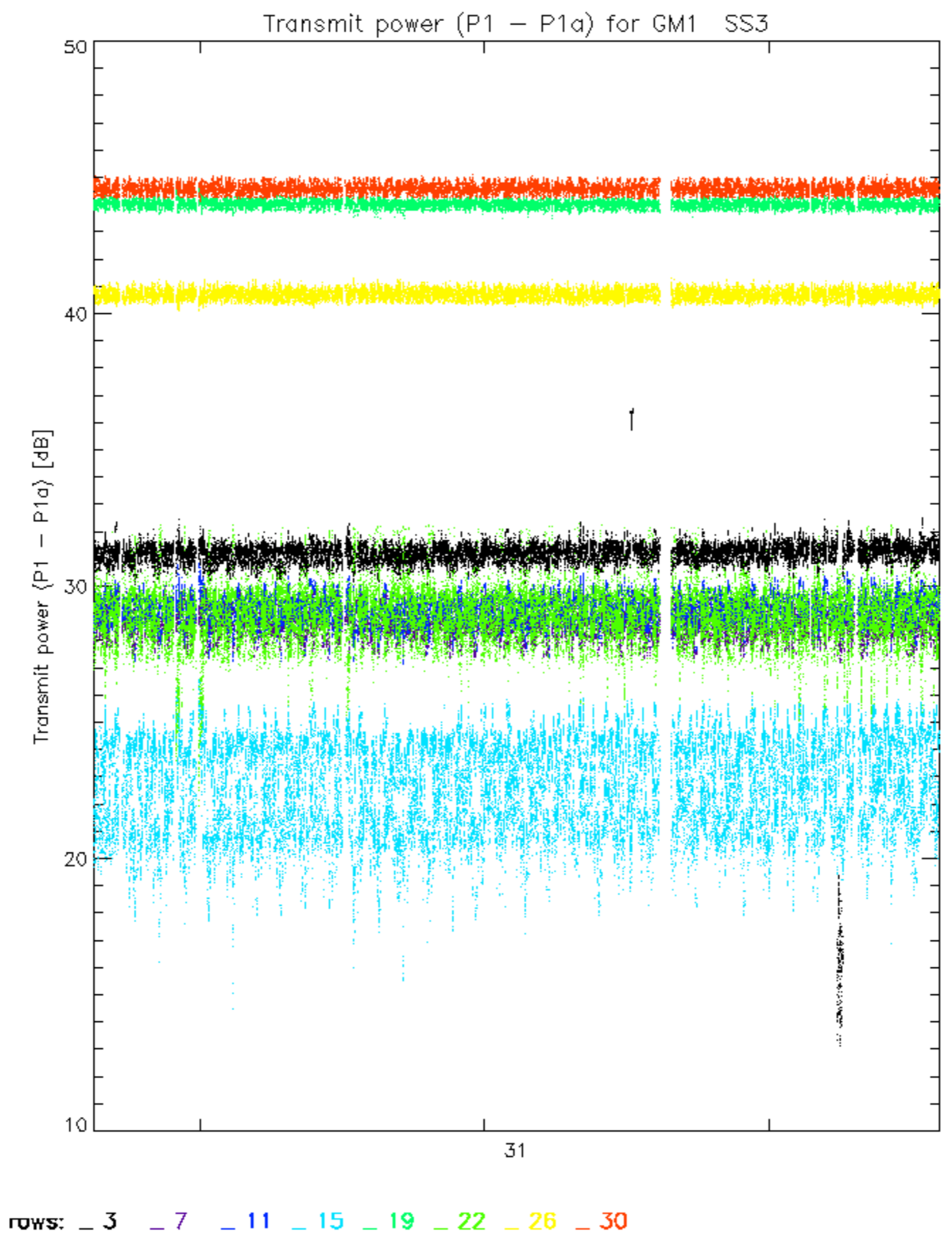
Summary of analysis for the last 3 days 2006070[345]

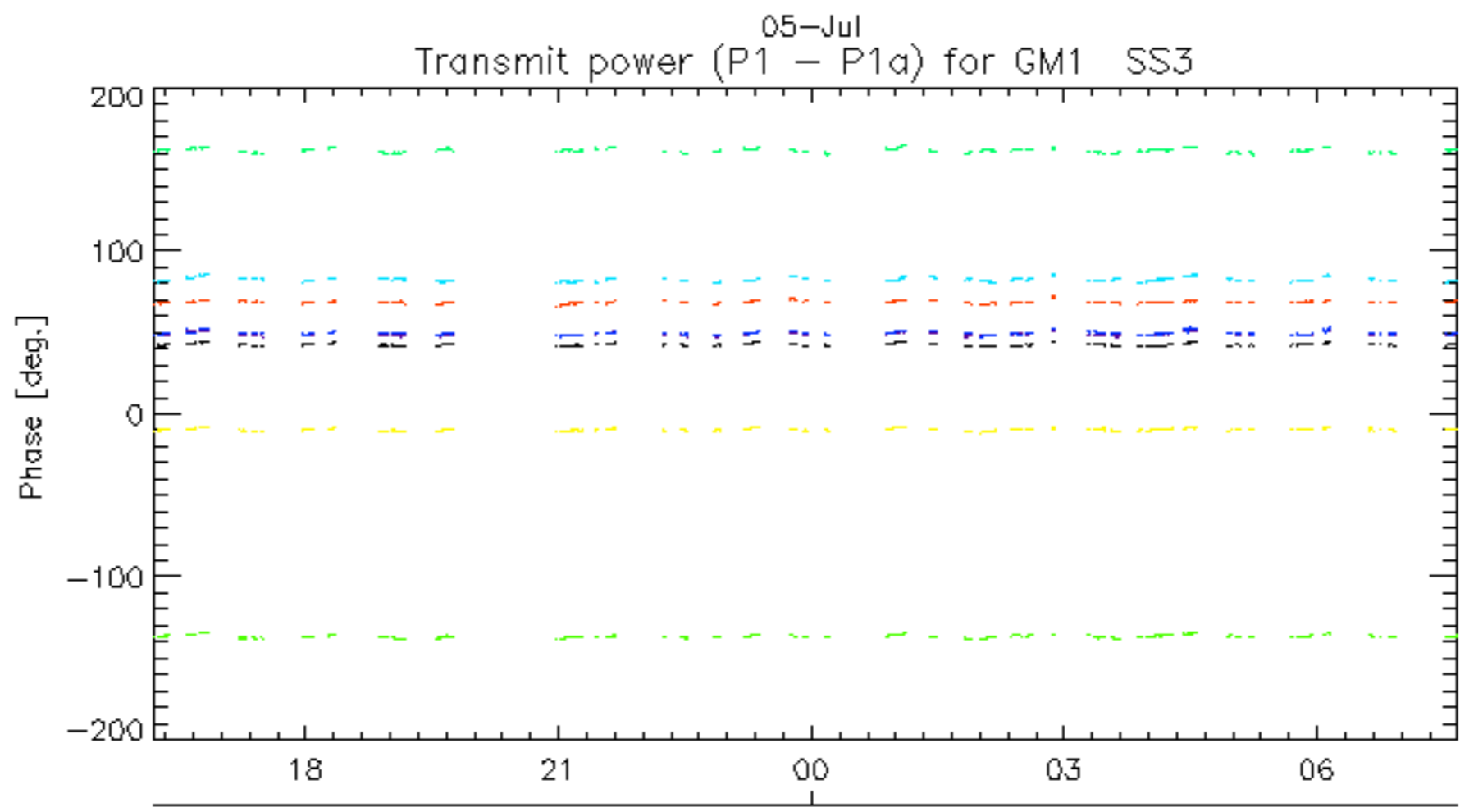
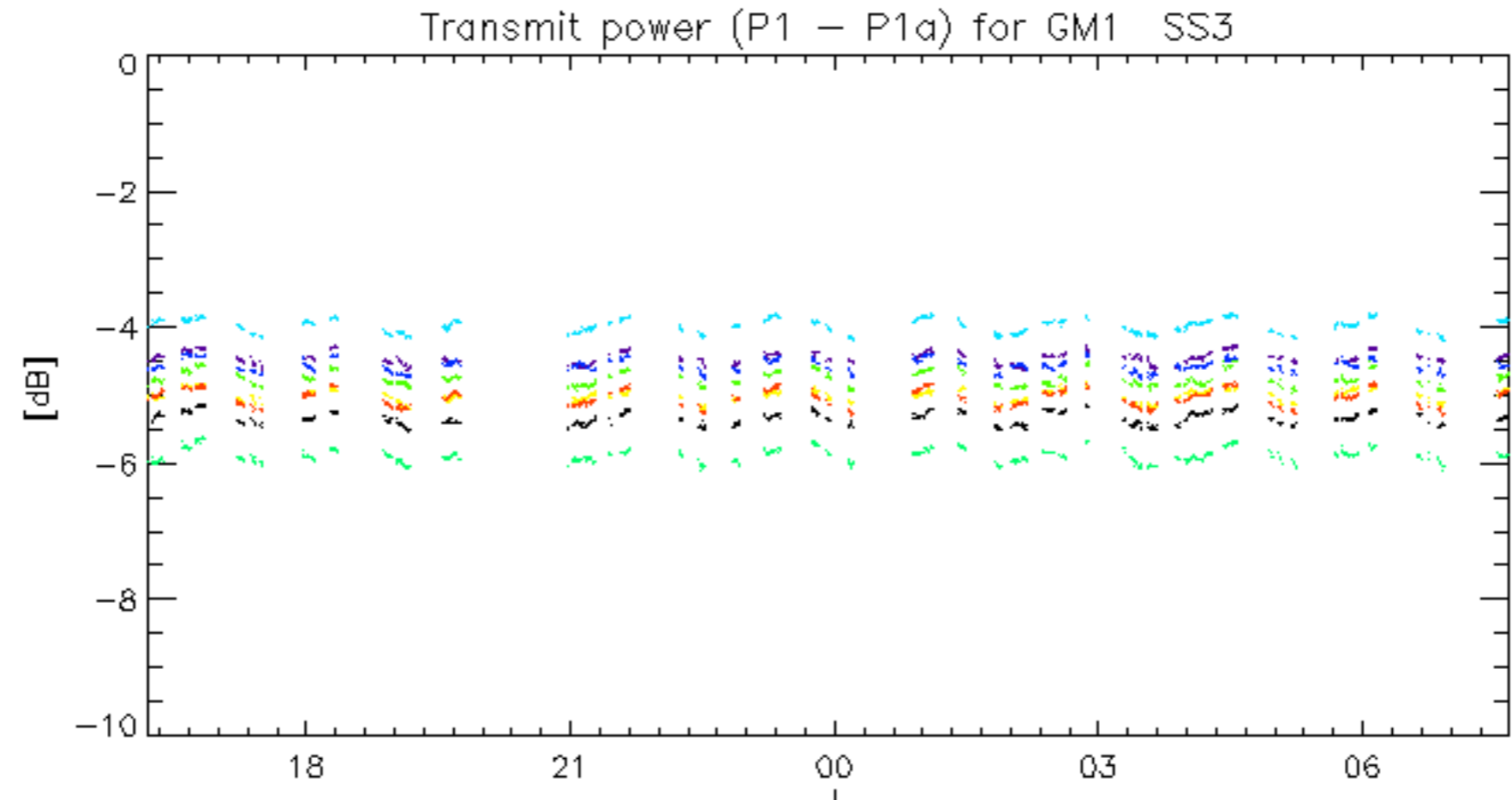
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060703_002903_000000512049_00088_22687_0280.N1	1	0
ASA_IMM_1PNPDE20060704_192324_000000532049_00113_22712_0345.N1	1	0
ASA_IMM_1PNPDK20060704_124504_000000372049_00110_22709_0163.N1	1	0
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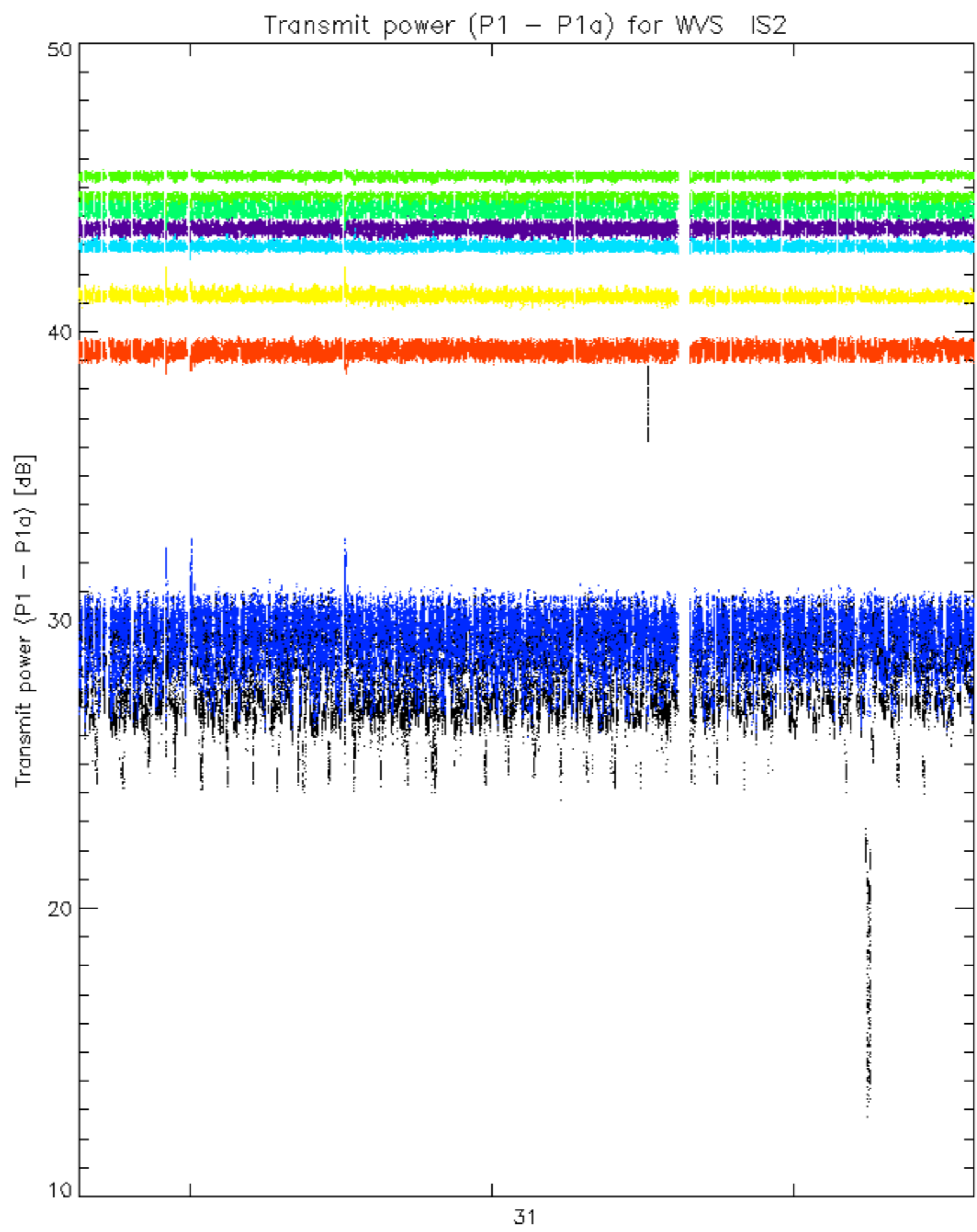




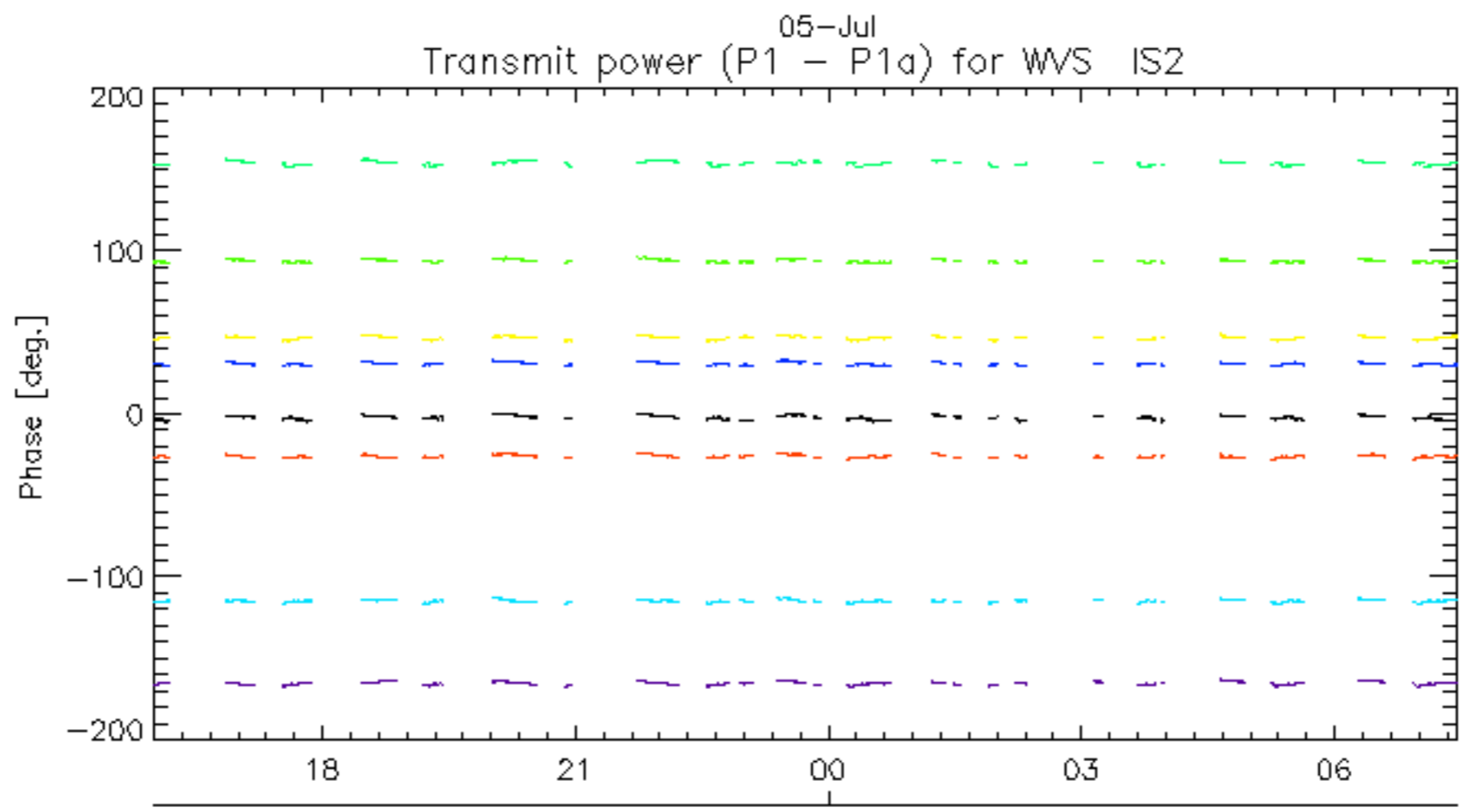
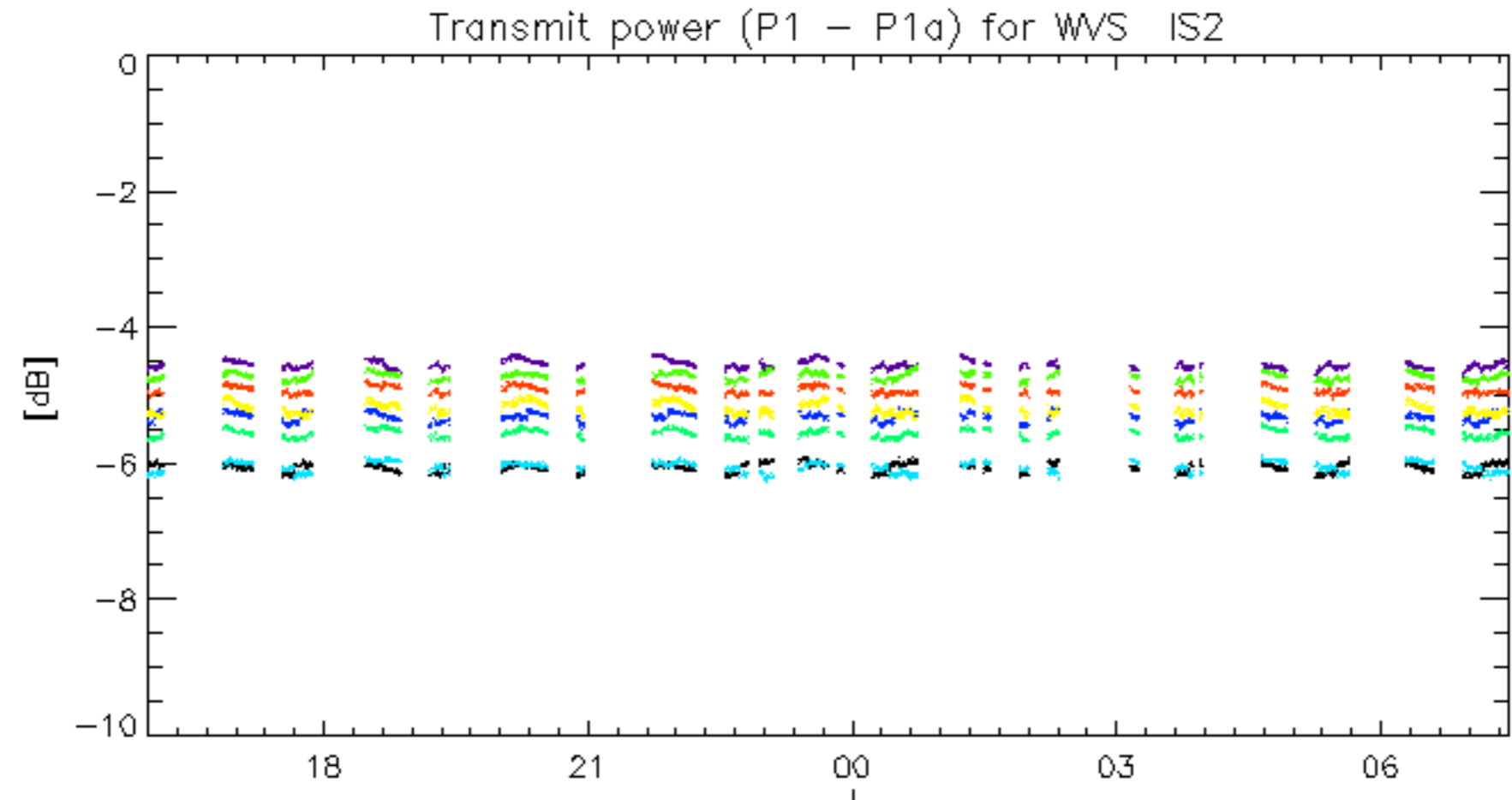




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No unavailabilities during the reported period.