

PRELIMINARY REPORT OF 060918

last update on Mon Sep 18 16:37:05 GMT 2006

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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 2006-09-17 00:00:00 to 2006-09-18 16:37:05

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	67	7	1	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	35	67	7	1	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	67	7	1	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	67	7	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	31	36	25	24	78
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	31	36	25	24	78
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	31	36	25	24	78
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	31	36	25	24	78

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	20060916 064400
H	20060917 061223

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	-3.939787	0.009789	0.007903
7	P1	-3.046694	0.011459	-0.067282
11	P1	-4.054526	0.017764	-0.005772
15	P1	-6.180357	0.015331	0.007130
19	P1	-3.515808	0.050052	-0.082412
22	P1	-4.567410	0.027245	-0.027747
26	P1	-3.945711	0.019487	-0.055016
30	P1	-5.792858	0.151332	-0.092808
3	P1	-16.591562	0.255551	-0.160493
7	P1	-16.774630	0.668995	-1.237632
11	P1	-16.795696	0.342220	-0.025464
15	P1	-12.910132	0.105937	0.207055
19	P1	-14.615987	0.454370	-0.189818
22	P1	-15.702741	0.561345	0.263308
26	P1	-15.212782	0.206238	-0.057428
30	P1	-16.933920	0.398227	0.087189

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.825438	0.082865	0.069652
7	P2	-21.861509	0.095832	0.025948
11	P2	-15.746523	0.106784	-0.013256
15	P2	-7.090029	0.098393	0.017795
19	P2	-9.113695	0.091034	-0.008107
22	P2	-18.119602	0.085746	0.031473
26	P2	-16.401751	0.092933	-0.020581
30	P2	-19.469145	0.089725	0.005988

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175716	0.004680	-0.005376
7	P3	-8.175716	0.004680	-0.005376
11	P3	-8.175716	0.004680	-0.005376
15	P3	-8.175716	0.004680	-0.005376
19	P3	-8.175716	0.004680	-0.005376
22	P3	-8.175716	0.004680	-0.005376
26	P3	-8.175716	0.004680	-0.005376
30	P3	-8.175716	0.004680	-0.005376

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	-3.842083	0.009005	-0.038845
7	P1	-2.436729	0.073544	-0.435698
11	P1	-2.877467	0.022668	-0.046789
15	P1	-3.649954	0.028842	-0.047520
19	P1	-3.459531	0.079737	-0.056473
22	P1	-5.097454	0.036298	-0.059863
26	P1	-5.865640	0.023419	0.027732
30	P1	-5.196882	0.078495	-0.035139
3	P1	-11.628894	0.046166	-0.032400
7	P1	-9.907856	0.082438	-0.384039
11	P1	-10.334430	0.063149	-0.132810
15	P1	-10.858108	0.152157	-0.020234
19	P1	-15.680032	3.648198	-0.240537
22	P1	-20.807787	1.710249	0.140843

26	P1	-15.957630	0.401670	0.322304
30	P1	-18.039967	0.824348	-0.328821

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.416698	0.058004	0.113912
7	P2	-22.199430	0.090822	0.116407
11	P2	-10.899205	0.043385	0.060946
15	P2	-4.858870	0.038572	0.053665
19	P2	-6.845933	0.039071	0.032032
22	P2	-8.154786	0.033169	0.048553
26	P2	-24.166157	0.053603	0.032729
30	P2	-21.960014	0.043417	0.018314

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.020308	0.003723	-0.010826
7	P3	-8.020182	0.003725	-0.010458
11	P3	-8.020198	0.003727	-0.010600
15	P3	-8.020144	0.003747	-0.010307
19	P3	-8.020256	0.003748	-0.010270
22	P3	-8.020346	0.003716	-0.010406
26	P3	-8.020323	0.003734	-0.010460
30	P3	-8.020195	0.003724	-0.010520

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	0.000546002
	stdev	1.79376e-07
MEAN Q	mean	0.000523069
	stdev	2.17873e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135807
	stdev	0.00111925
STDEV Q	mean	0.136152
	stdev	0.00113616



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006091[678]

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_1PNPDE20060918_012434_000000802051_00189_23790_5910.N1	1	0
ASA_IMM_1PNPDK20060916_140527_000000392051_00168_23769_1904.N1	1	0
ASA_WSM_1PNPDE20060917_005119_000001462051_00174_23775_2423.N1	0	34
ASA_WSM_1PNPDE20060918_034044_000000852051_00190_23791_2633.N1	0	6





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

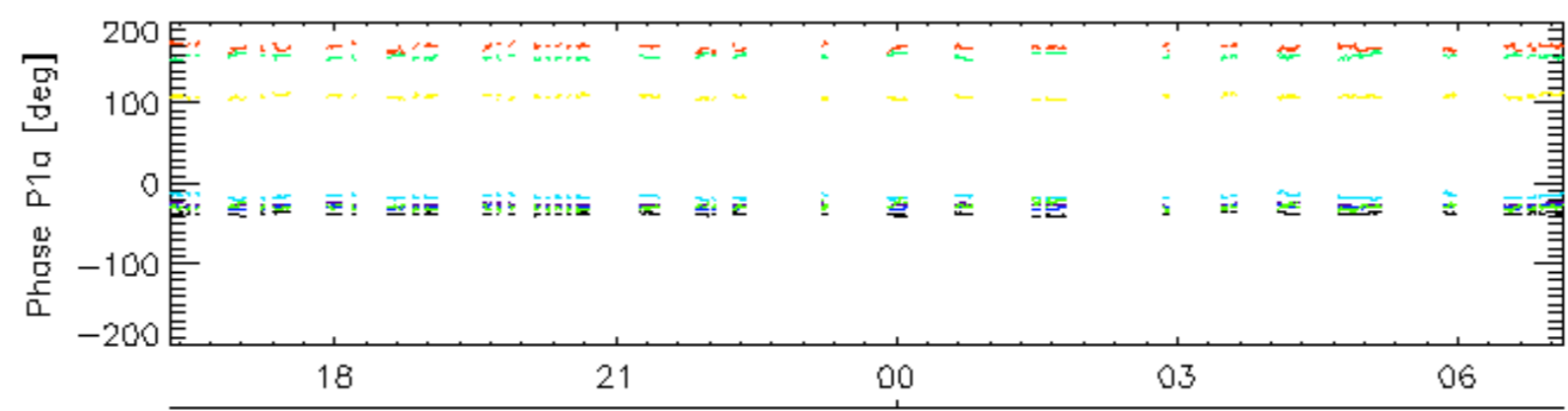
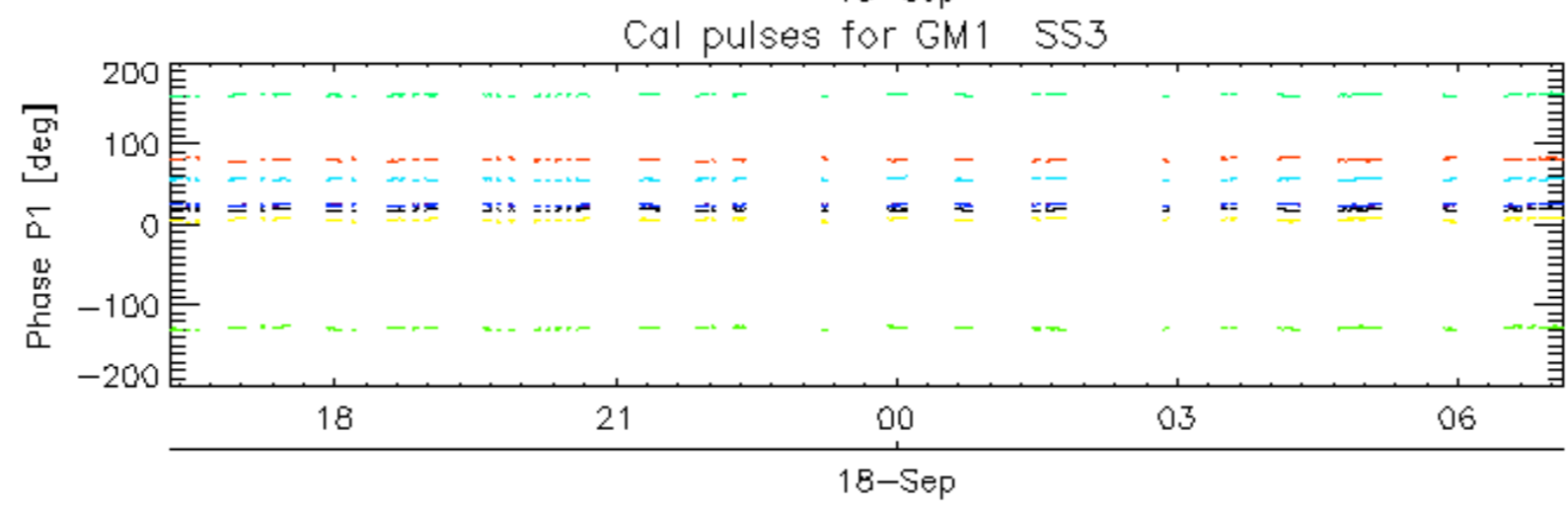
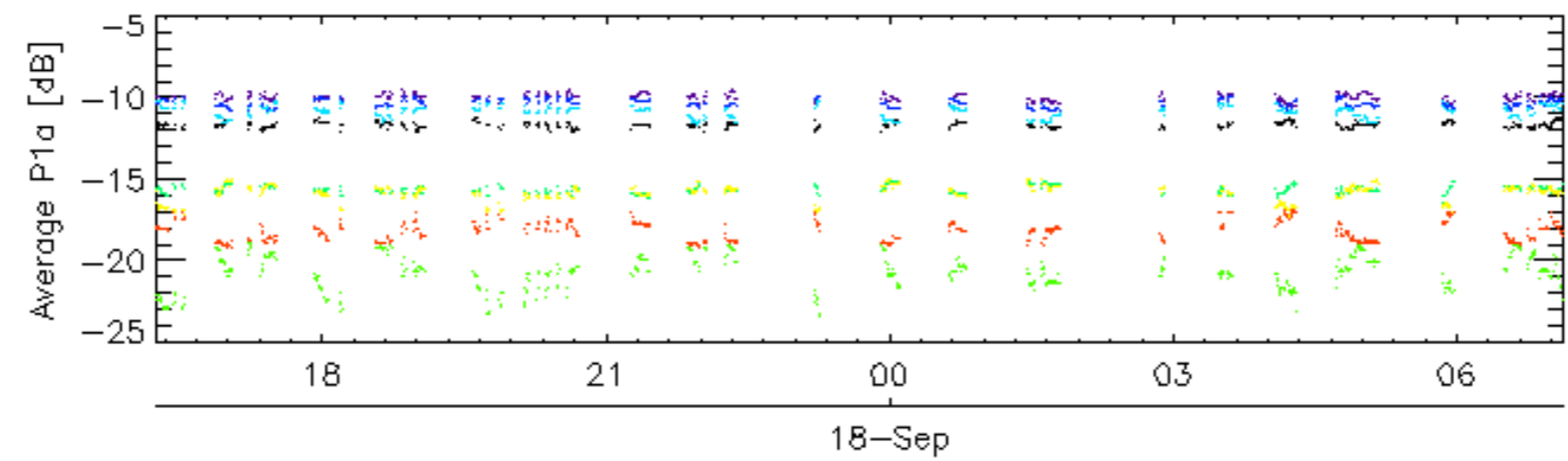
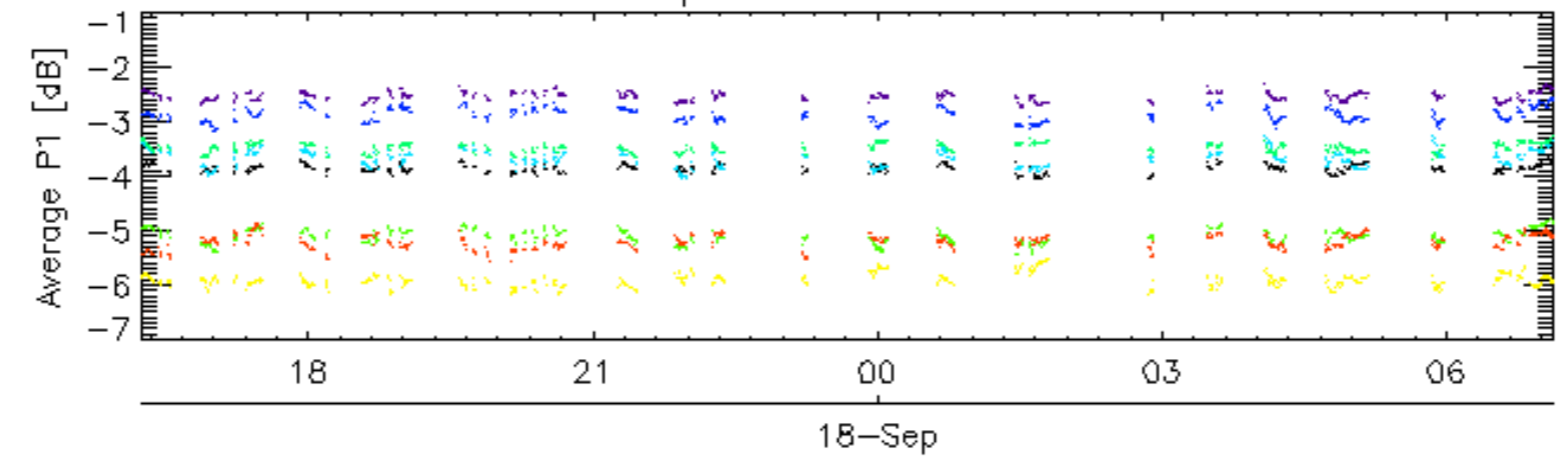
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

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

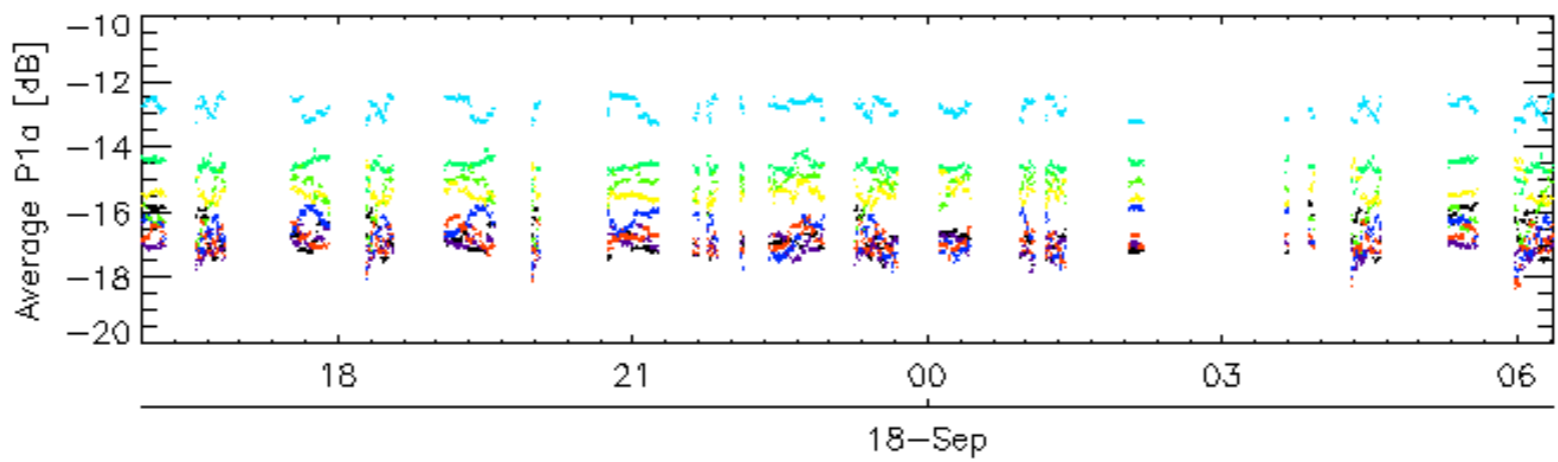
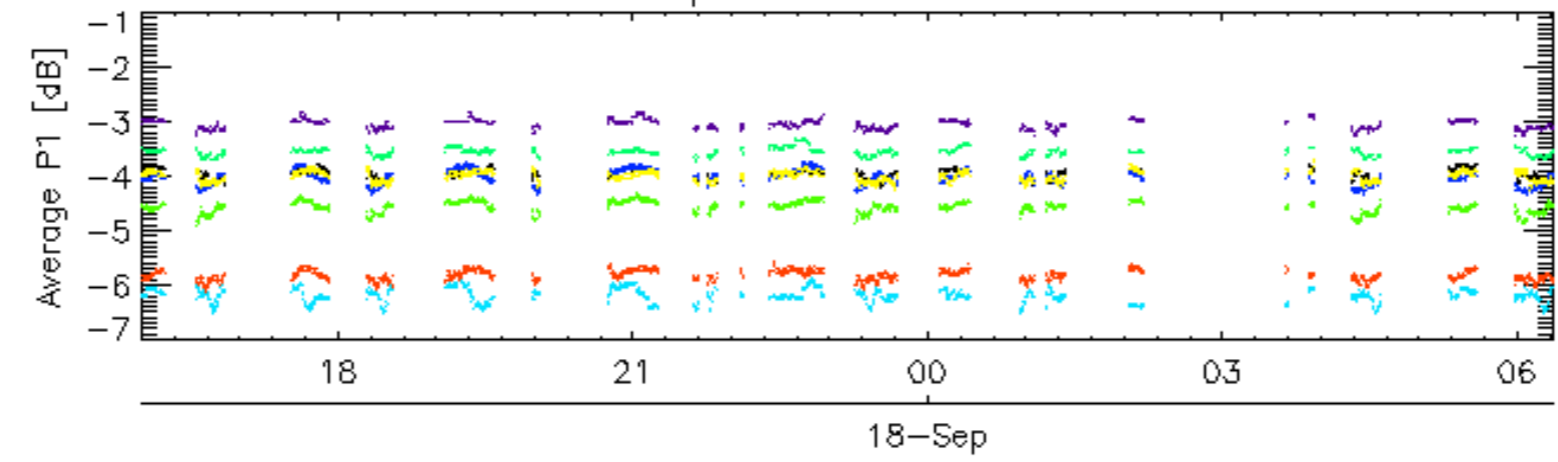
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Cal pulses for GM1 SS3

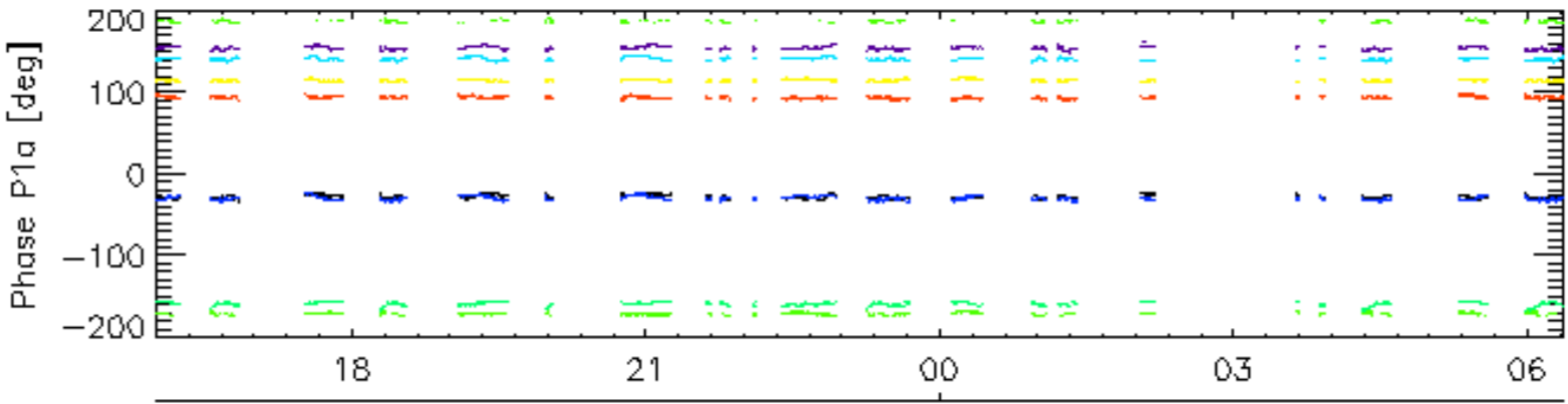
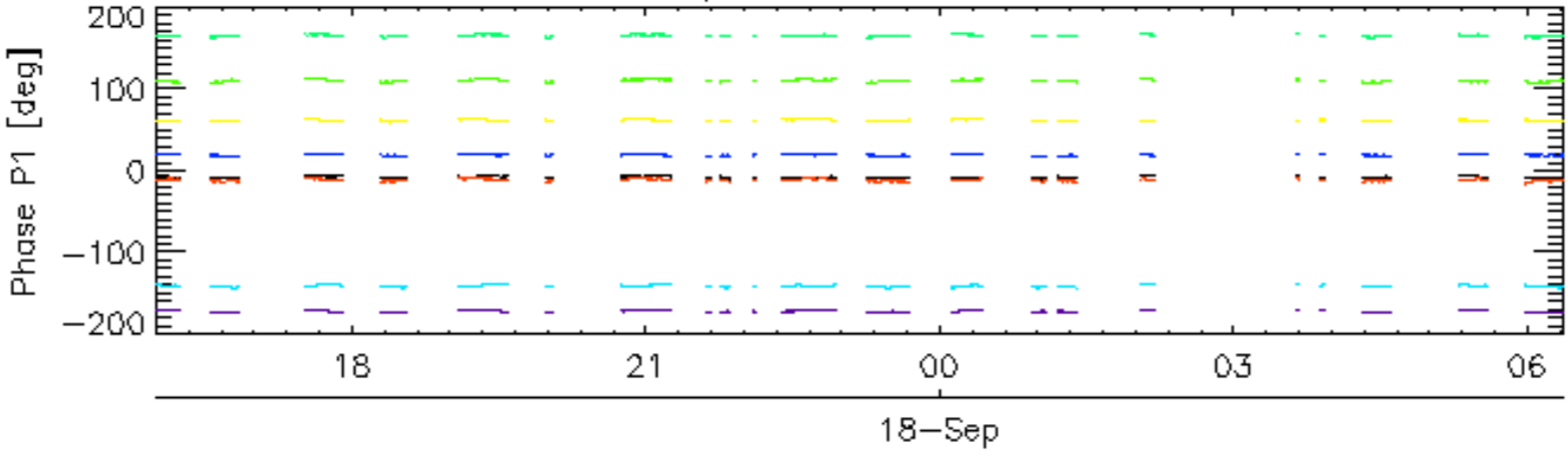


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 18-Sep

Cal pulses for WVS IS2

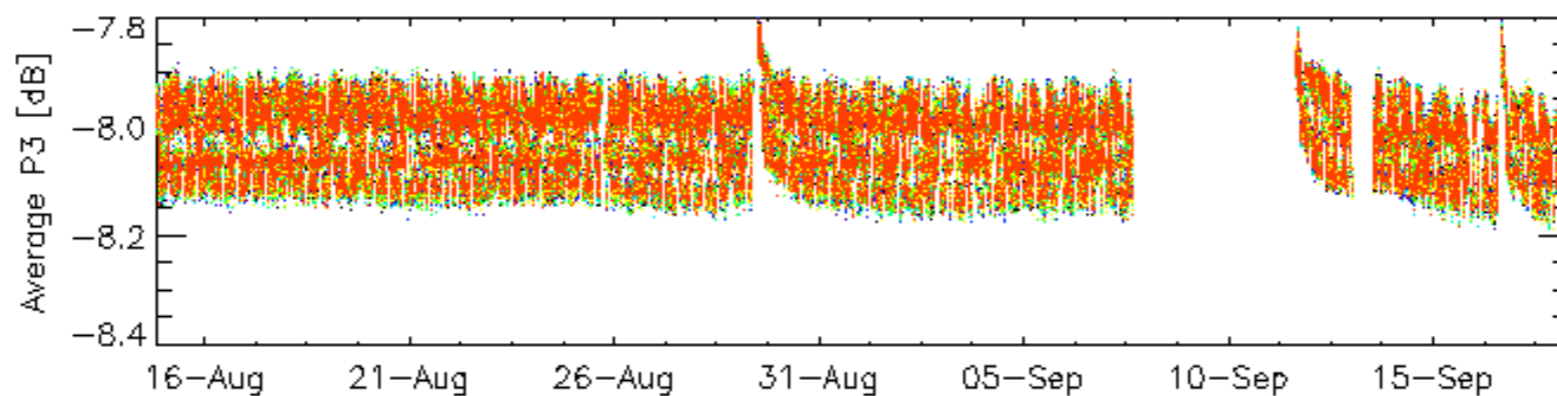
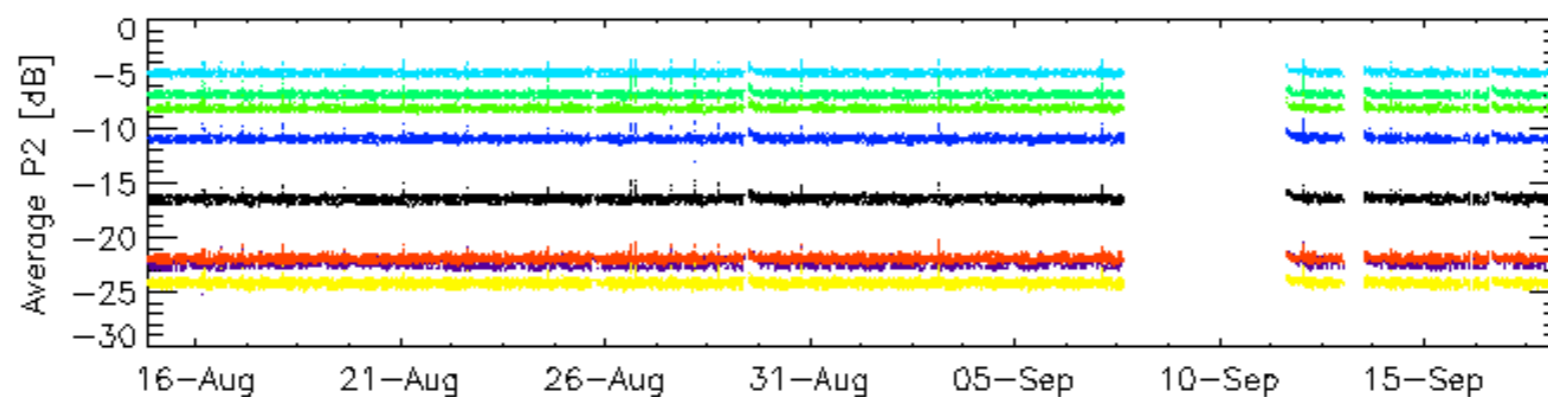
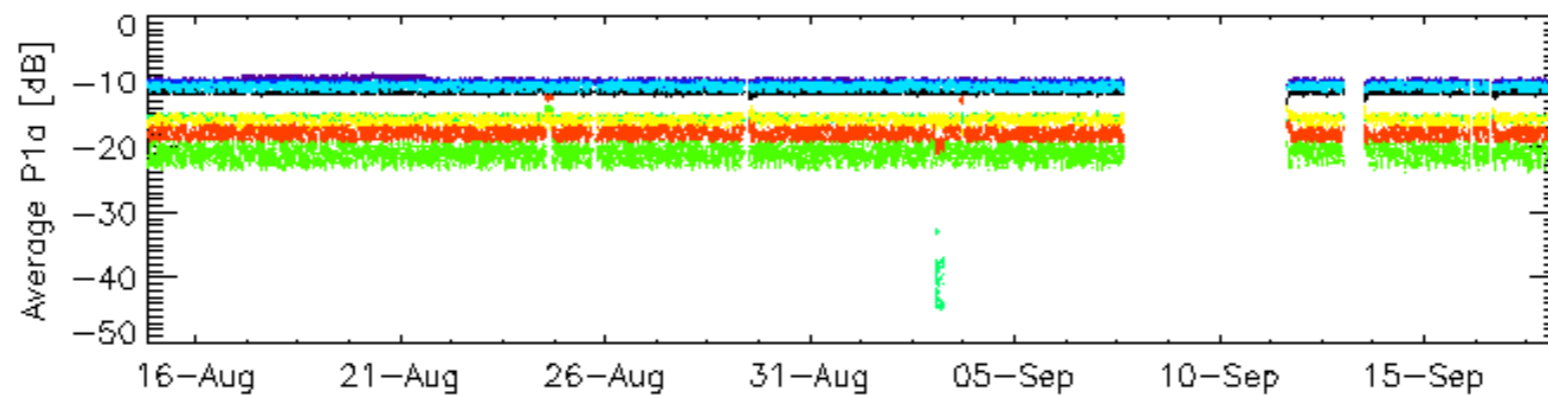
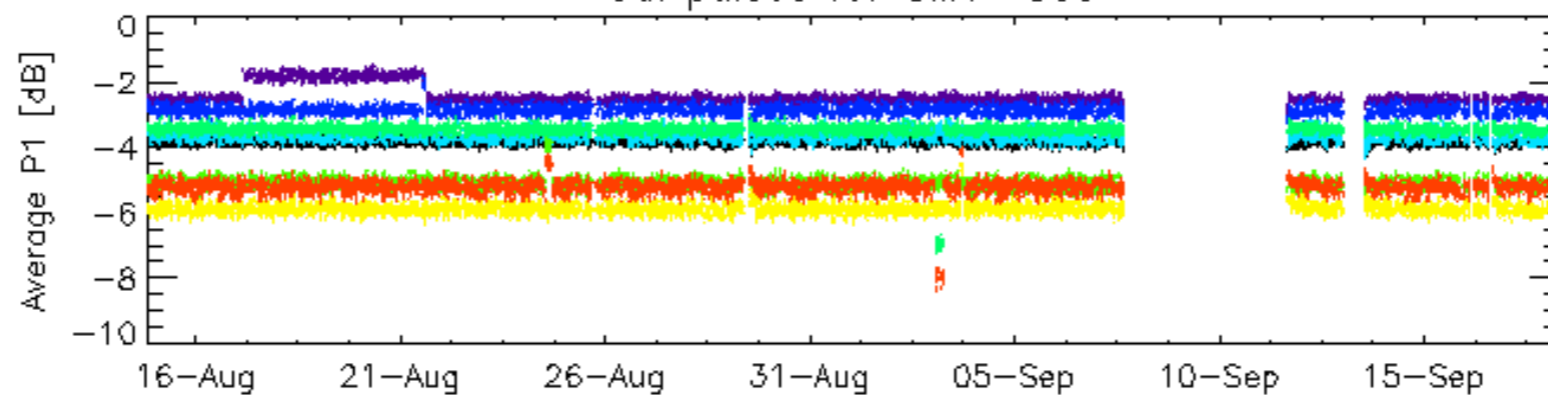


Cal pulses for WVS IS2



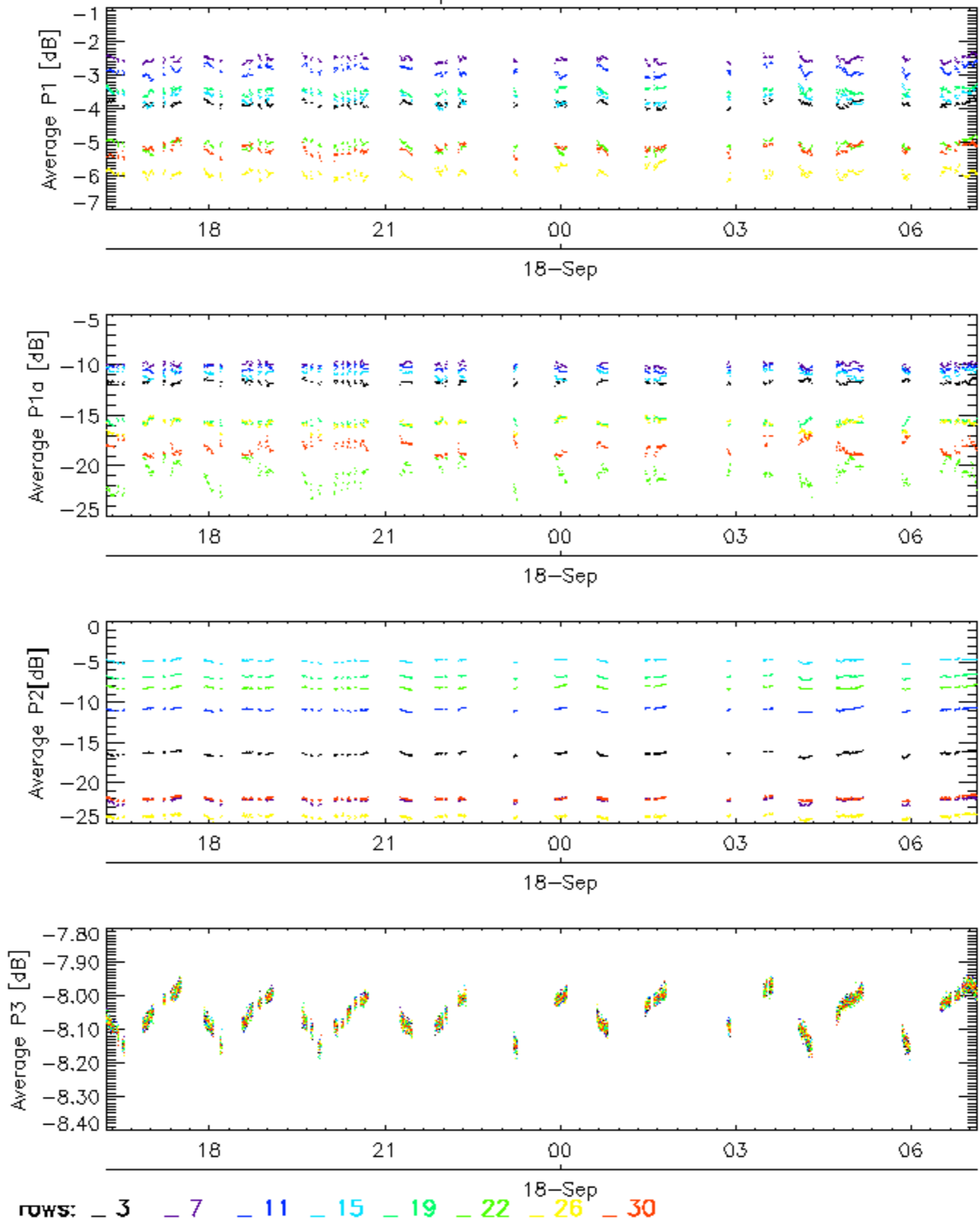
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 18-Sep

Cal pulses for GM1 SS3

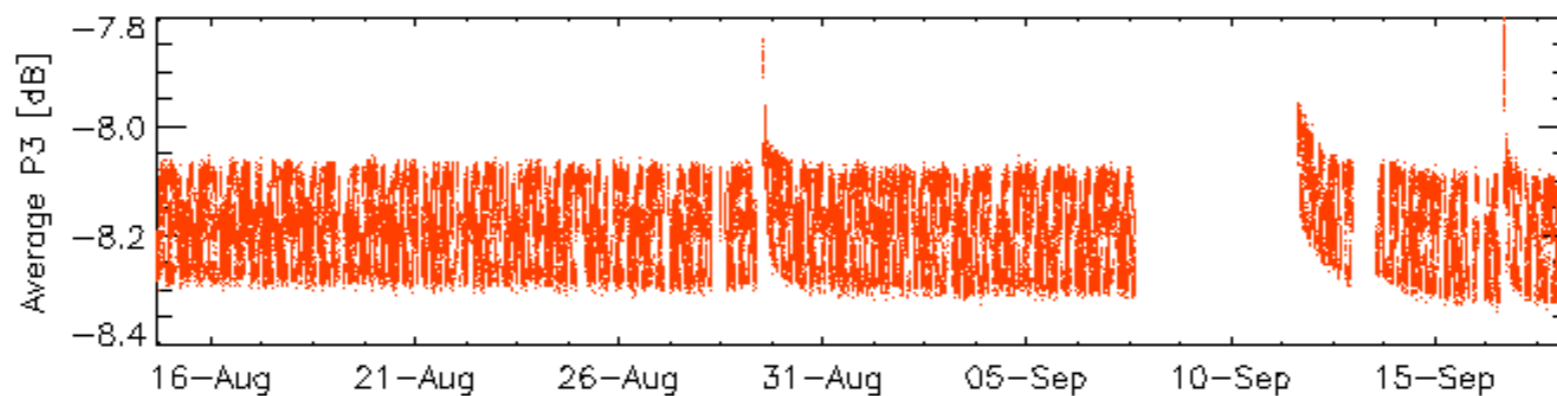
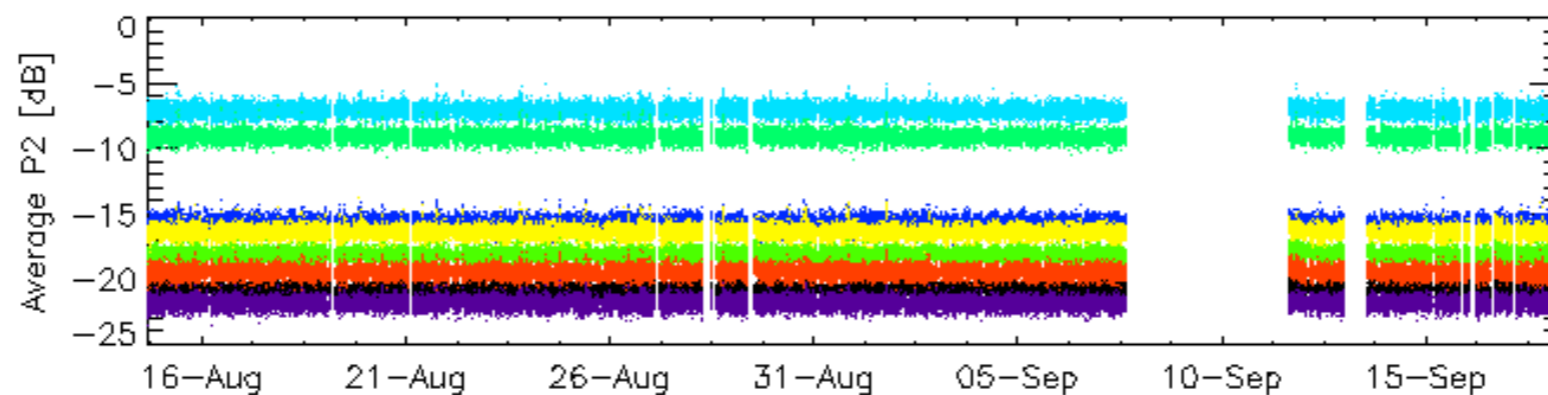
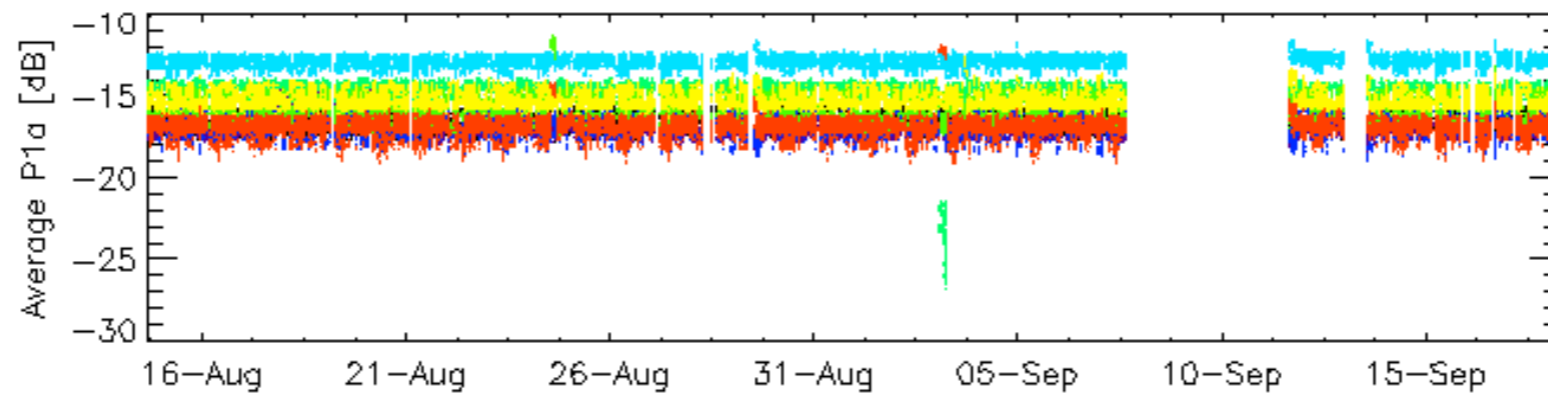
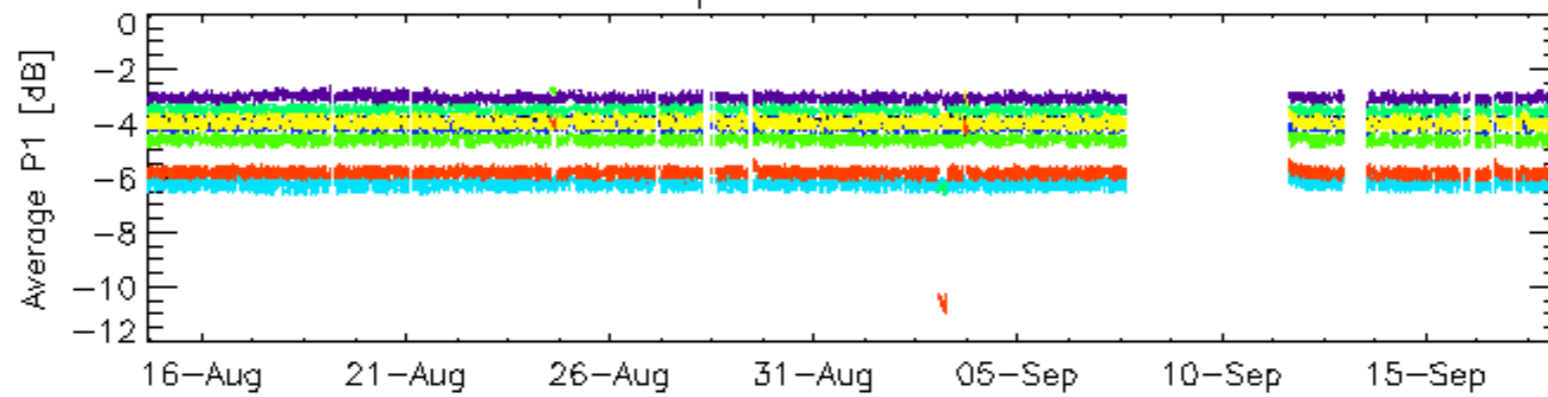


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

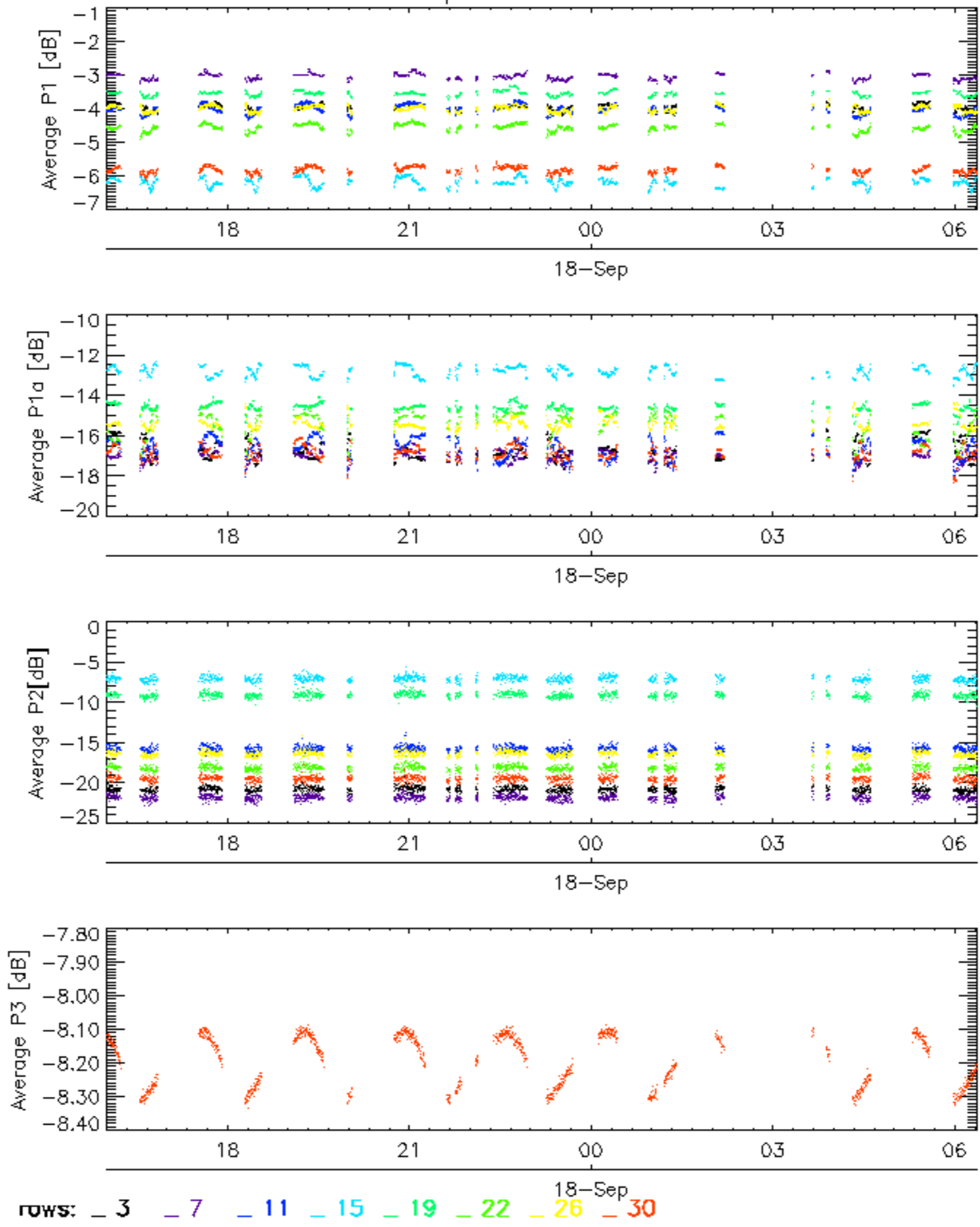


Cal pulses for WVS IS2



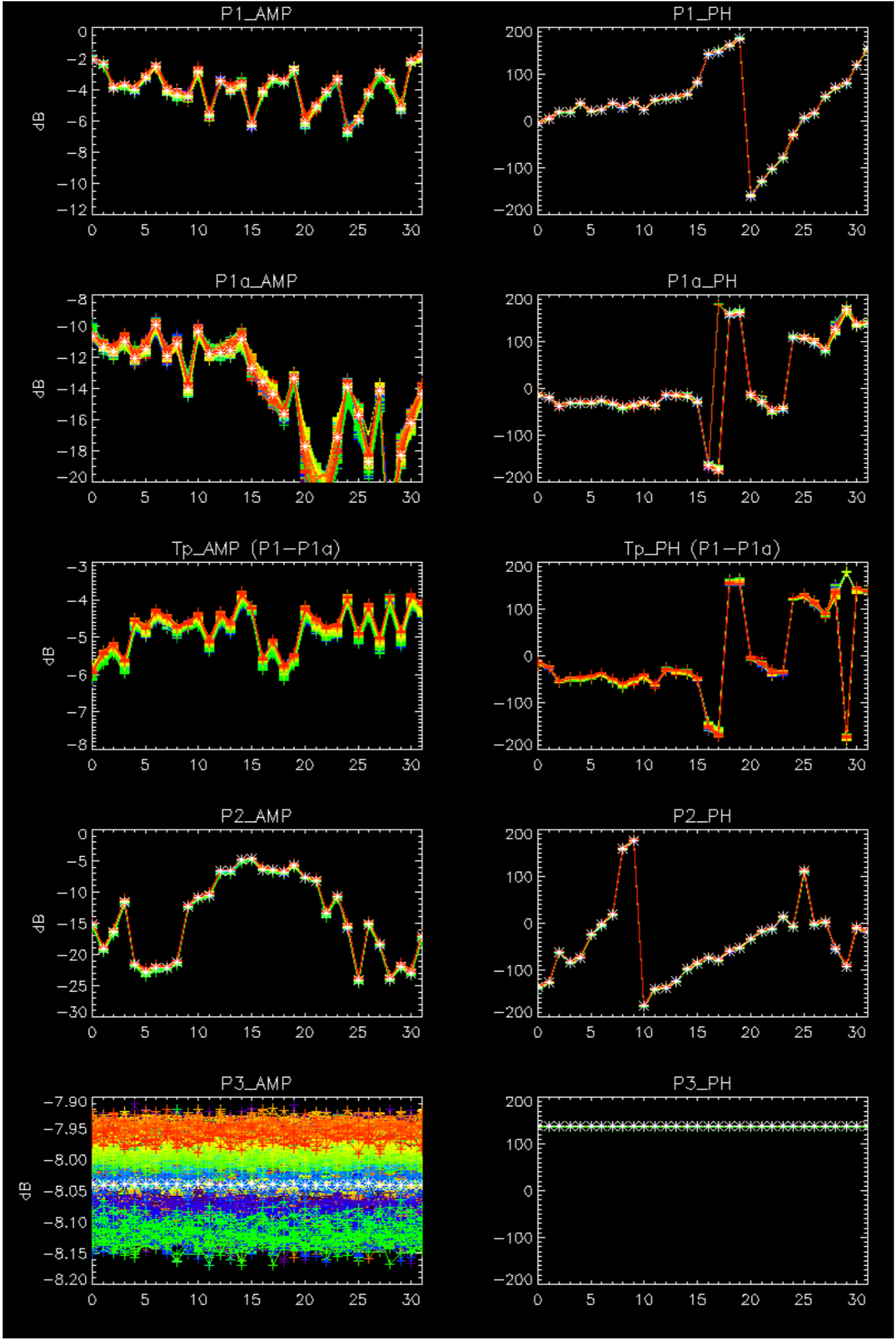
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

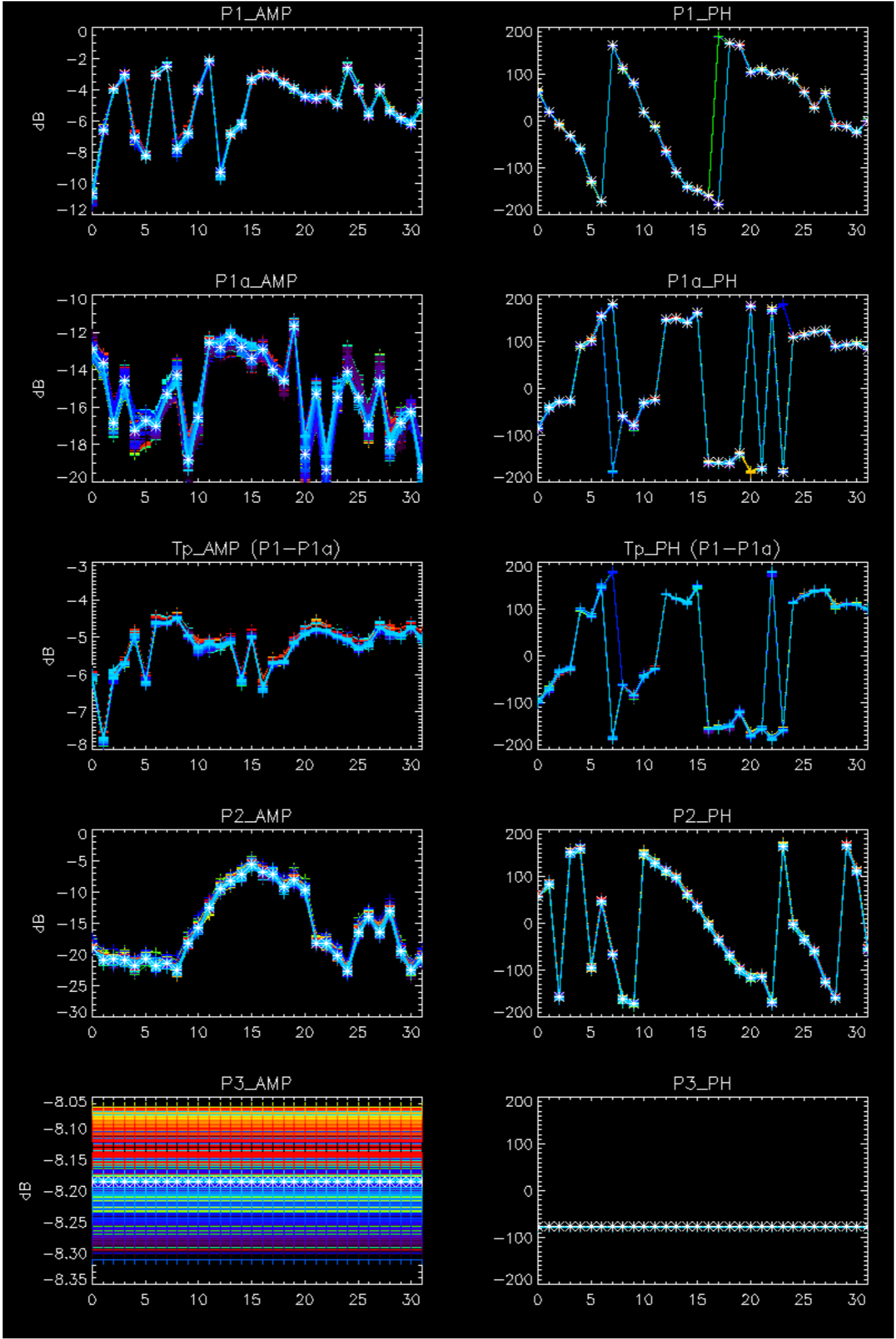
Cal pulses for WVS IS2



No anomalies observed on available browse products

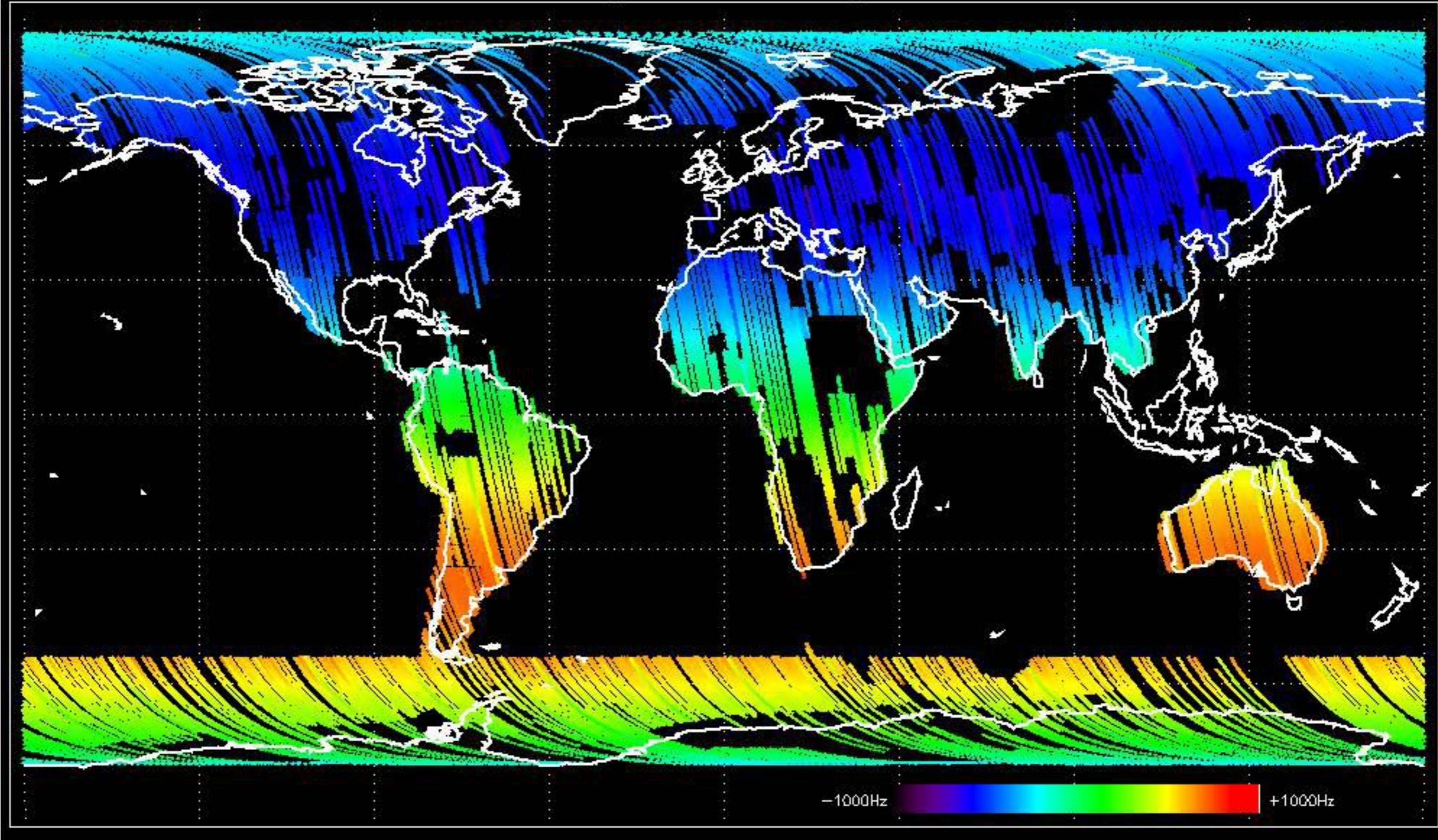
No anomalies observed.



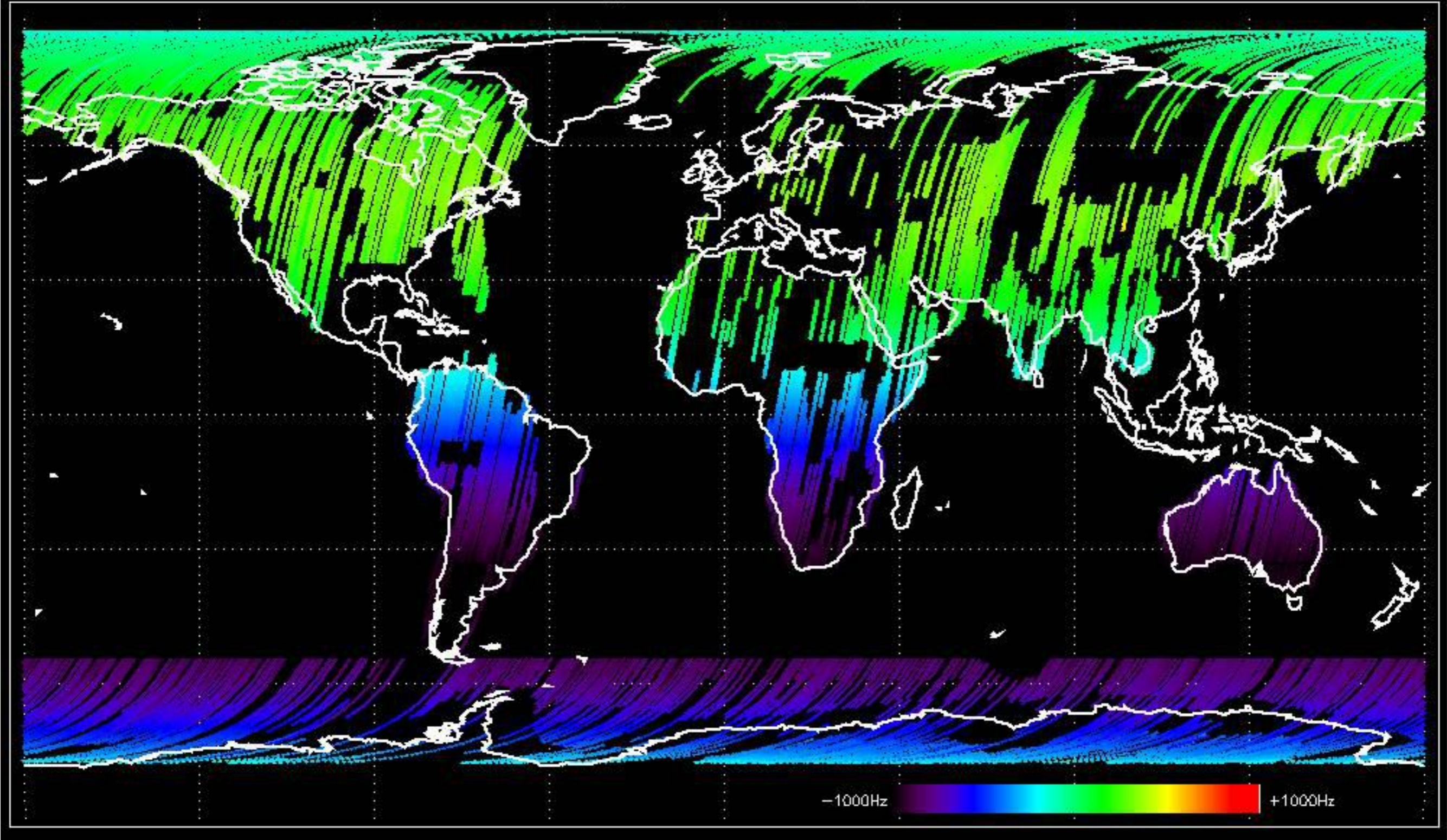


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

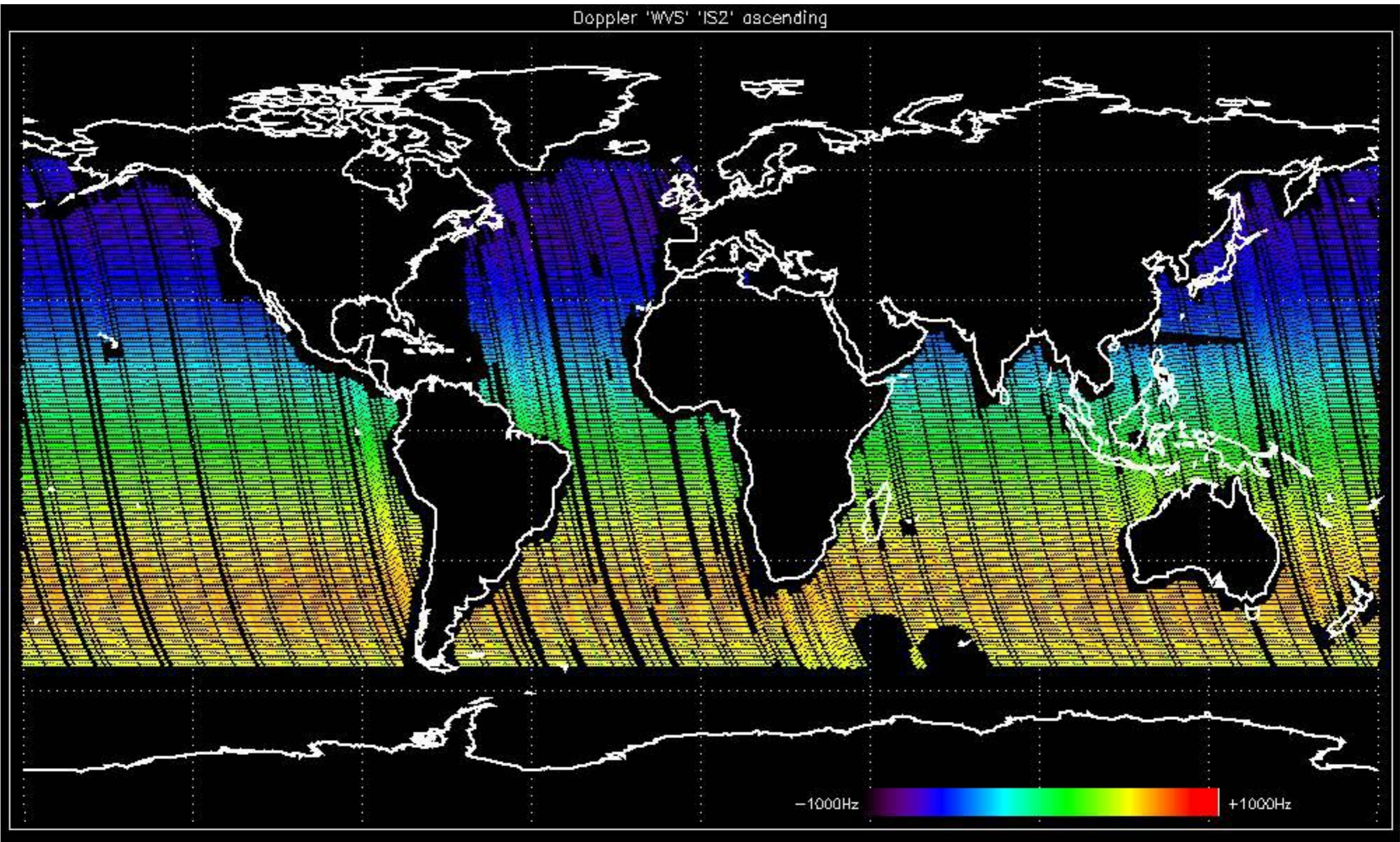
Doppler 'GM1' 'SS1' ascending



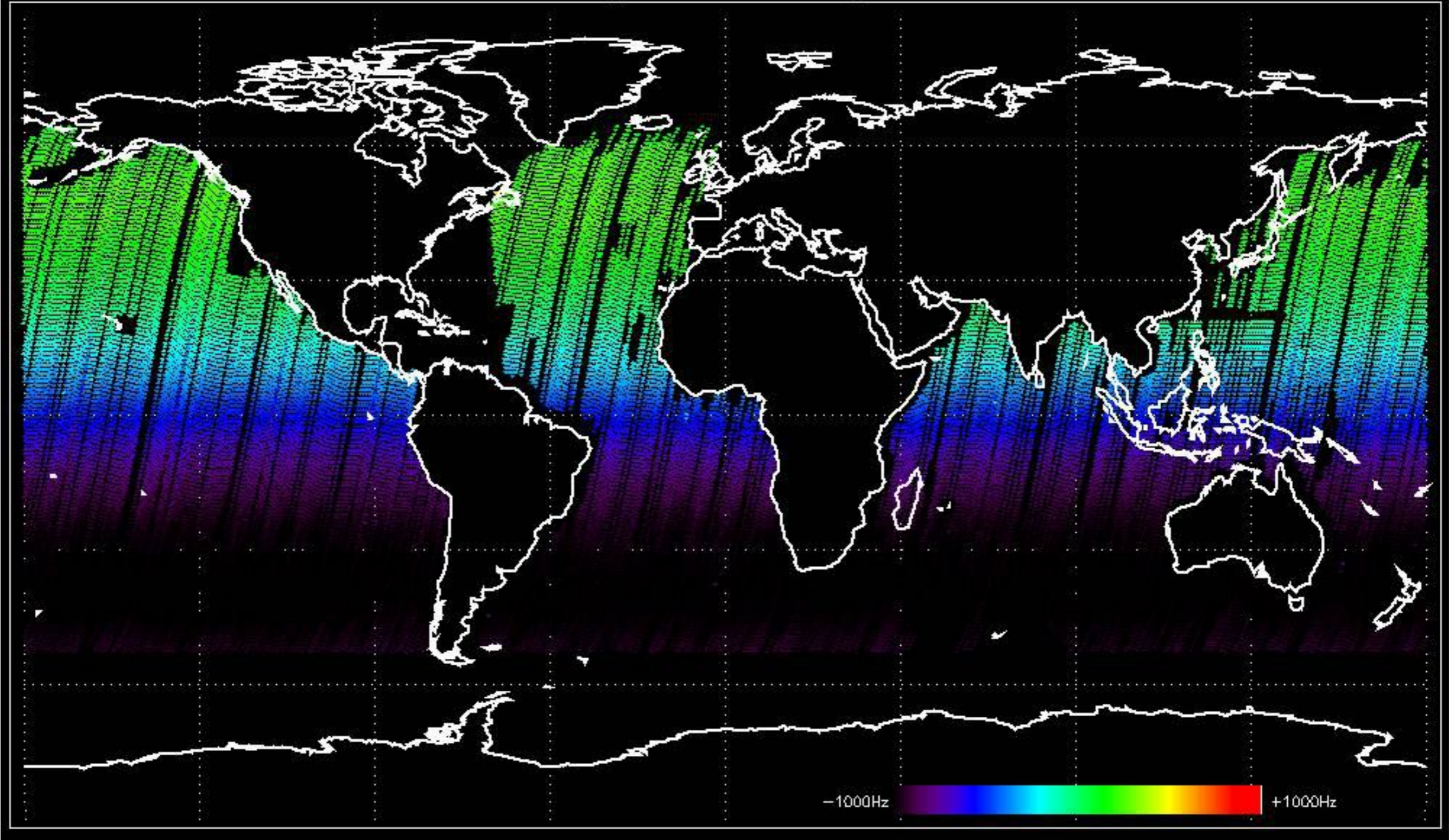
Doppler 'GM1' 'SS1' descending



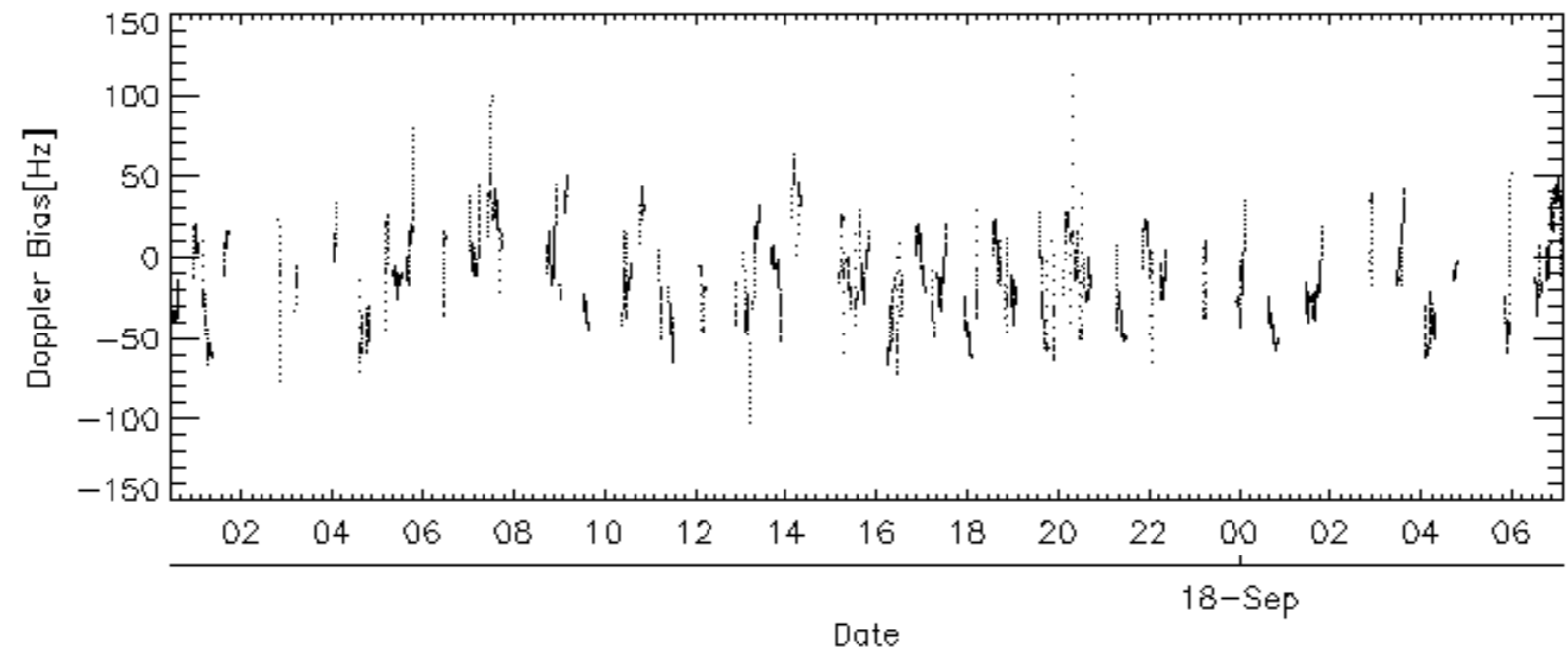
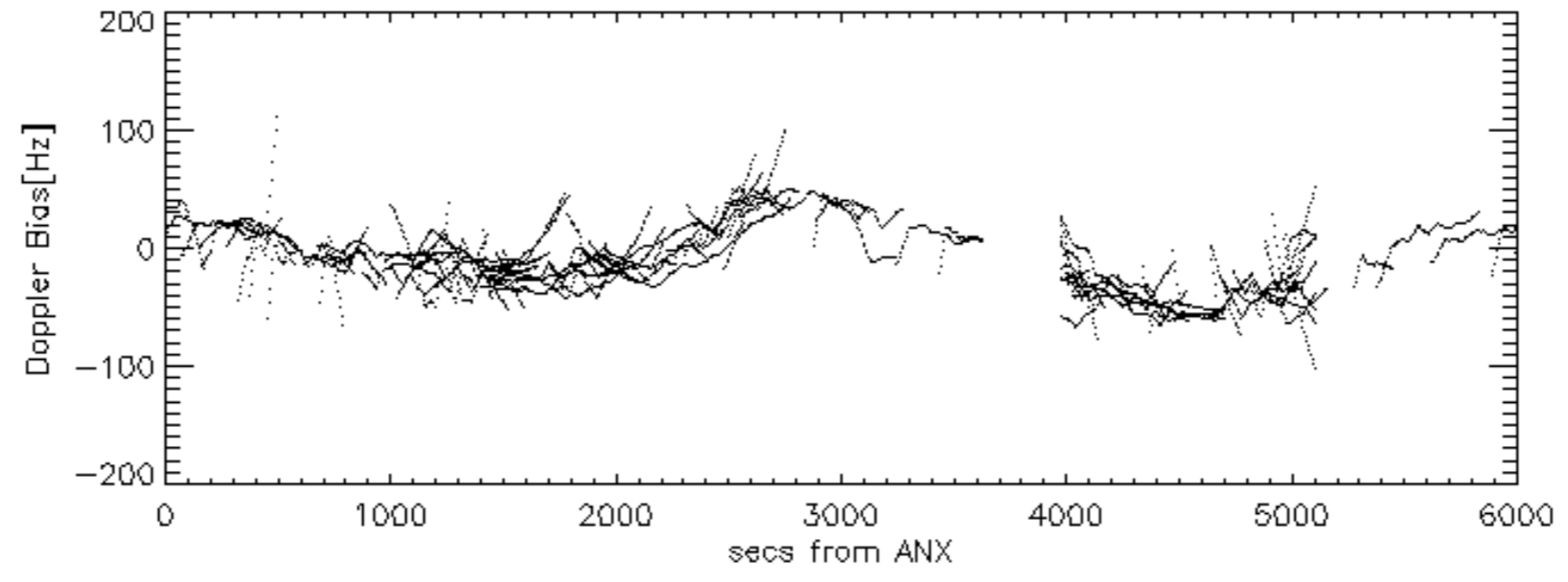
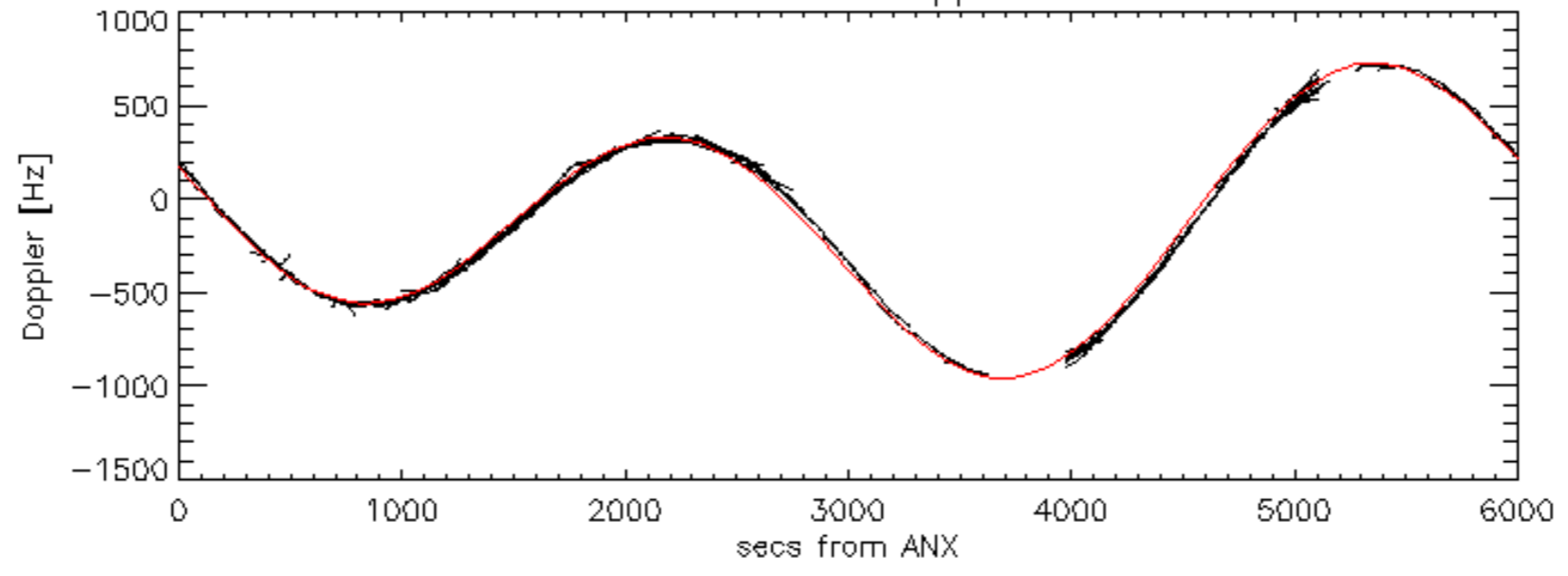
Doppler 'WVS' 'IS2' ascending

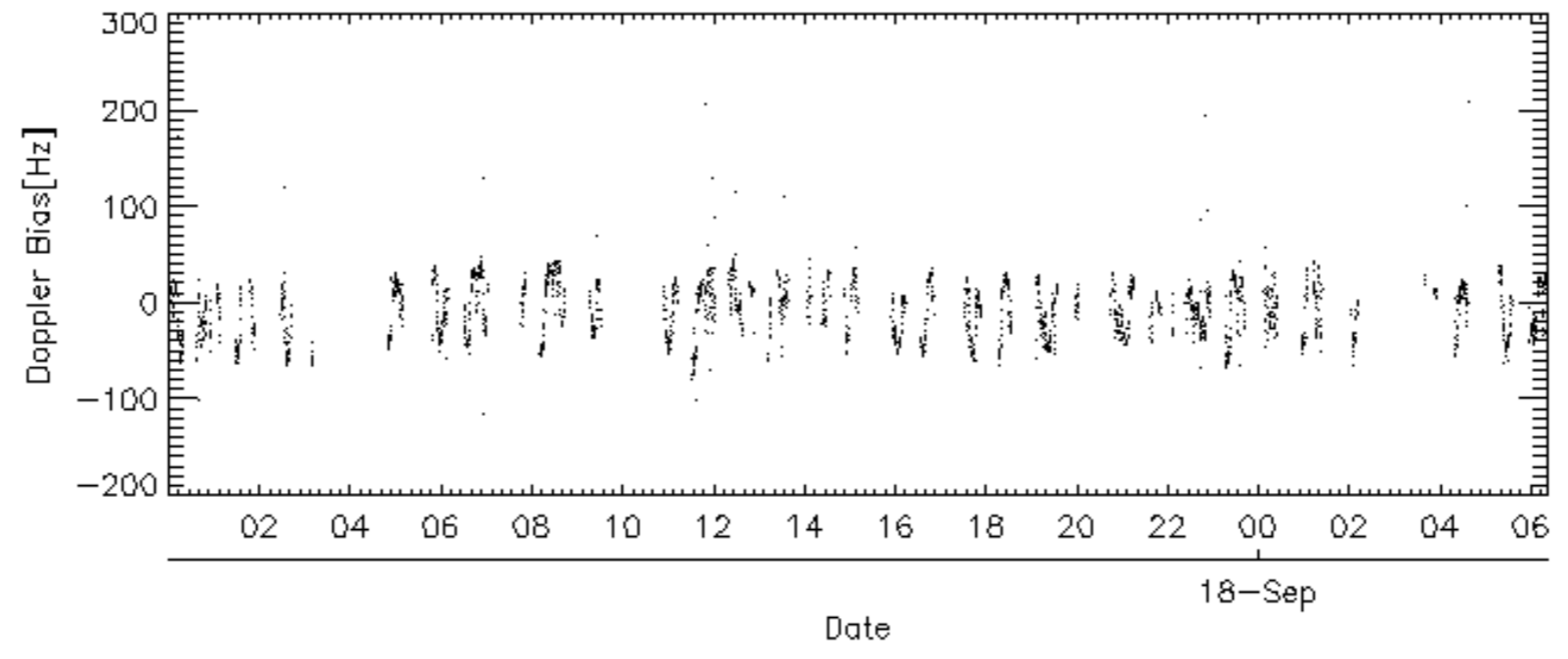
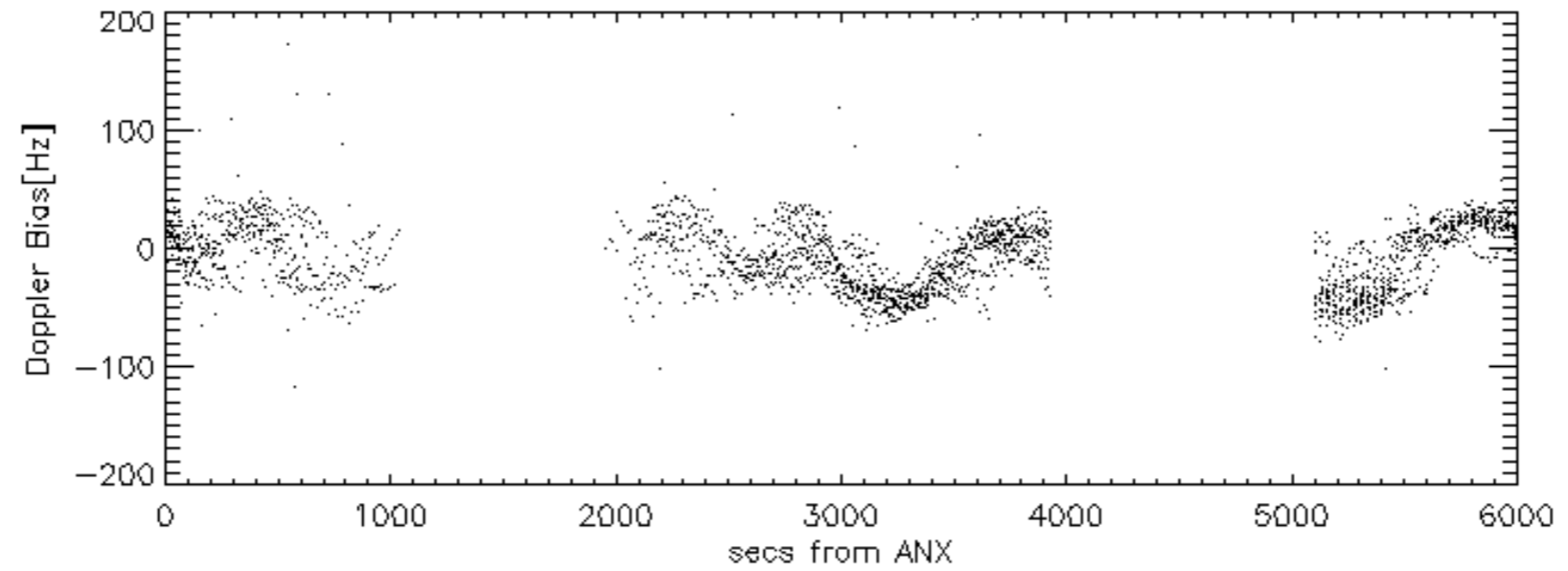
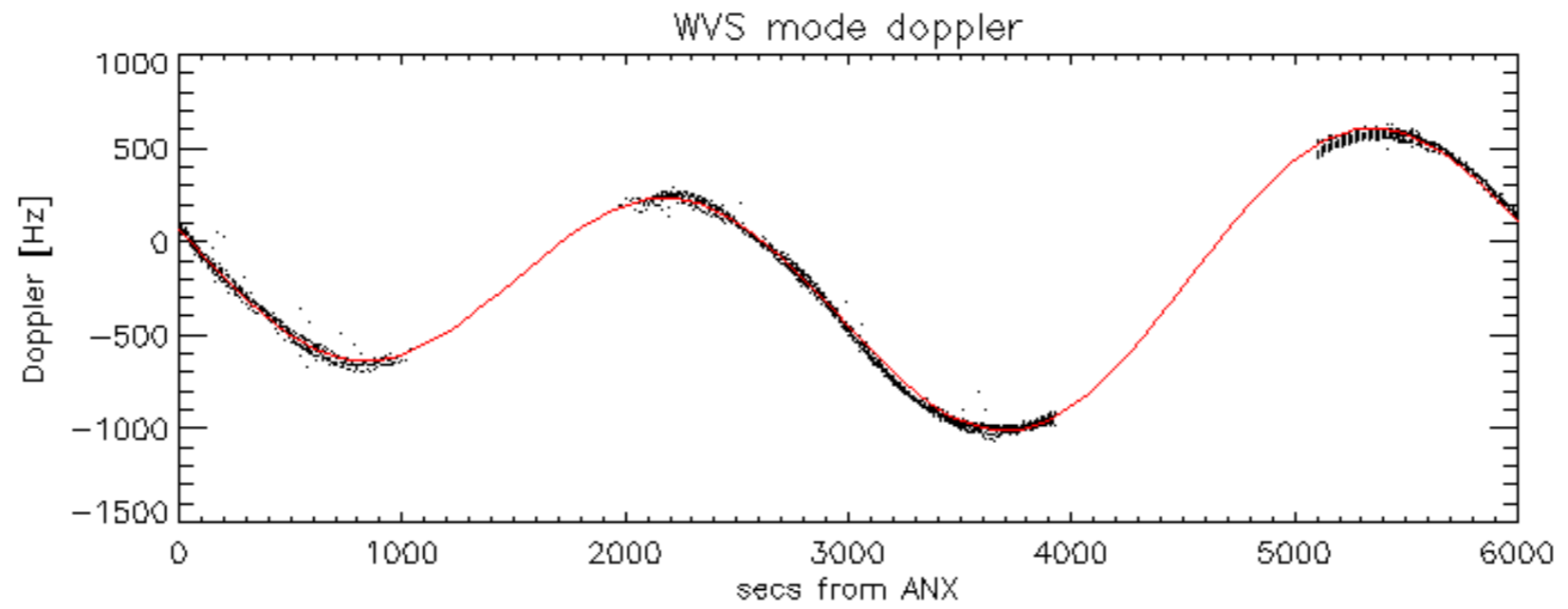


Doppler 'WVS' 'IS2' descending

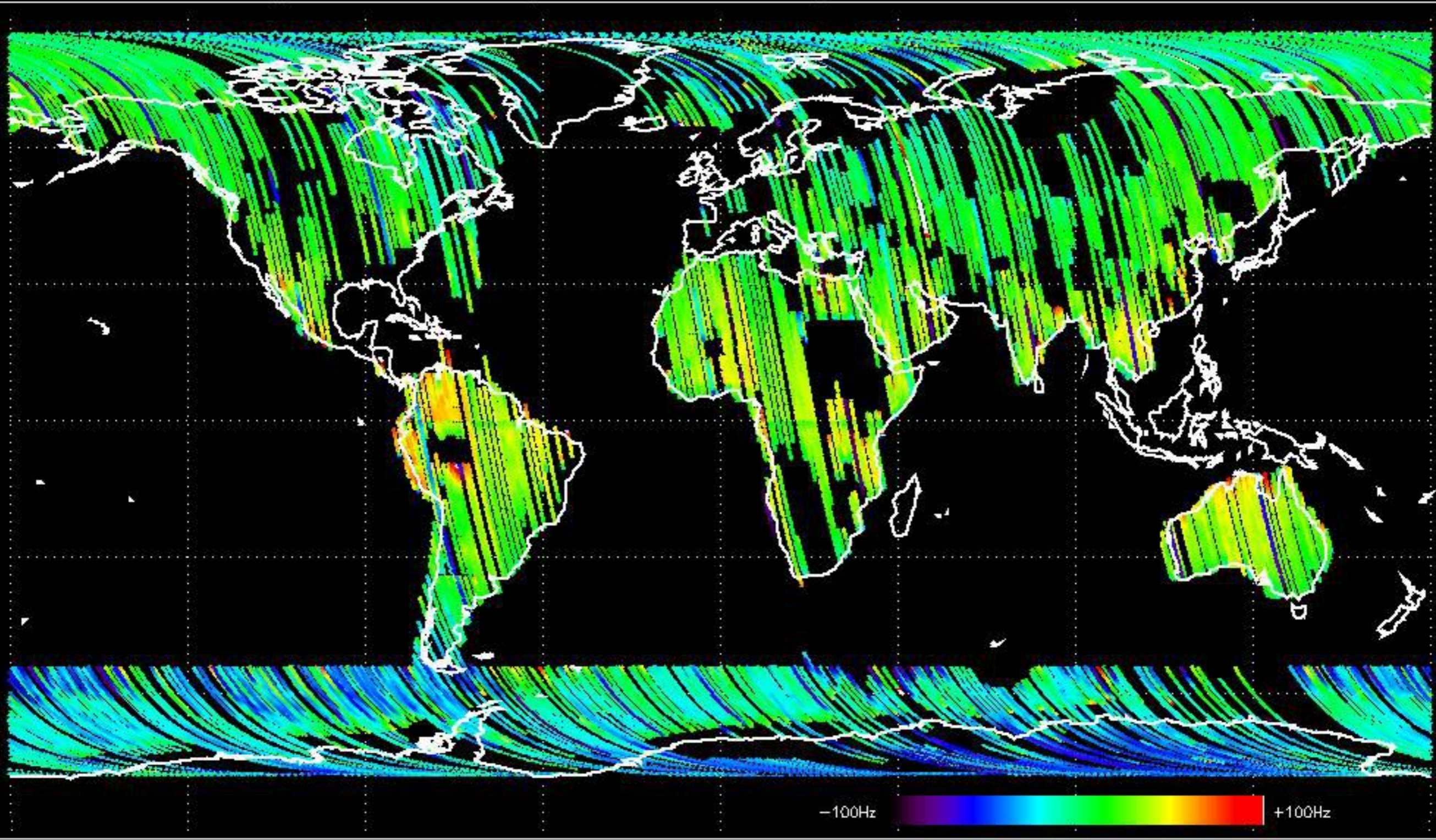


GM1 mode doppler

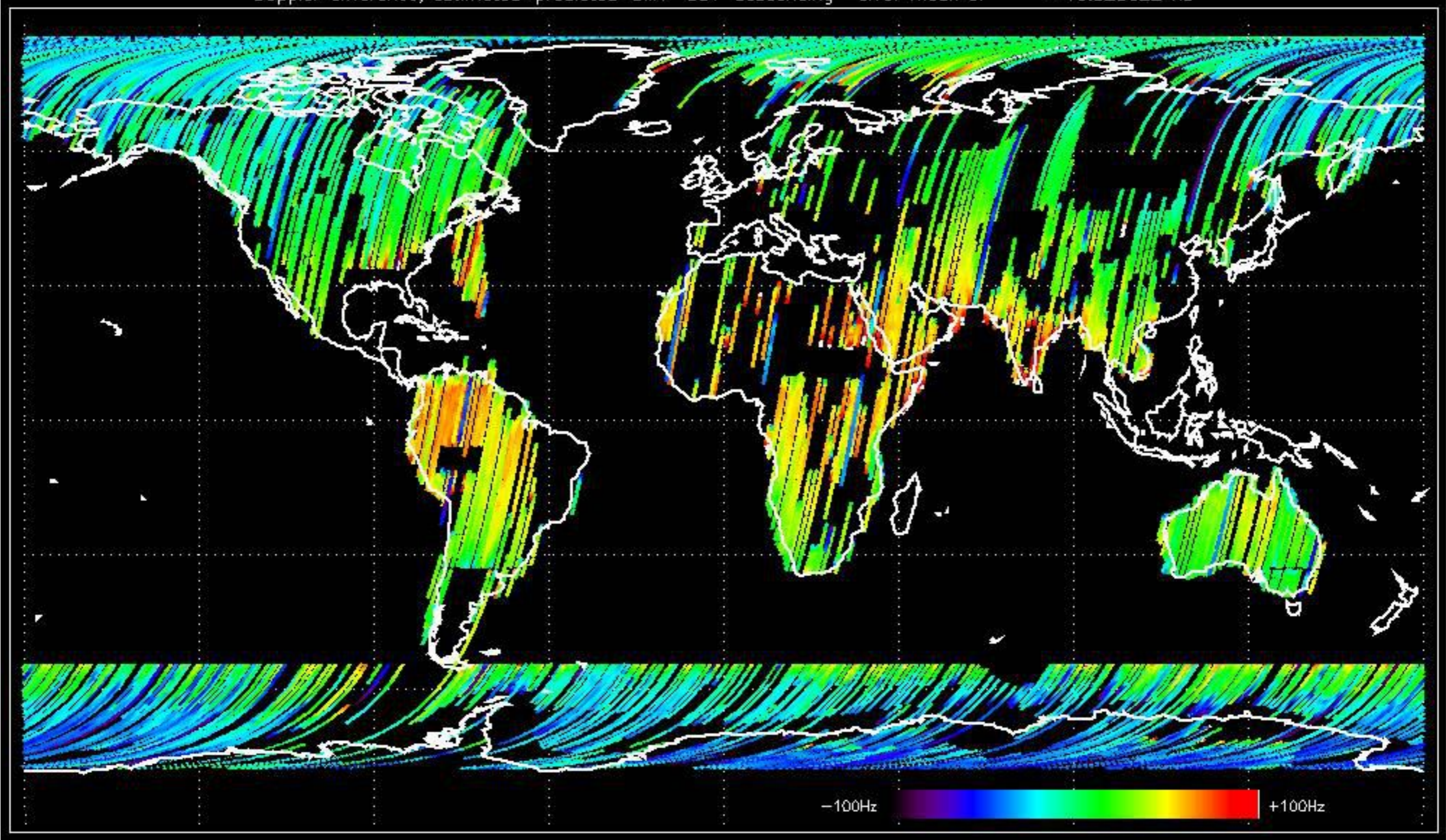




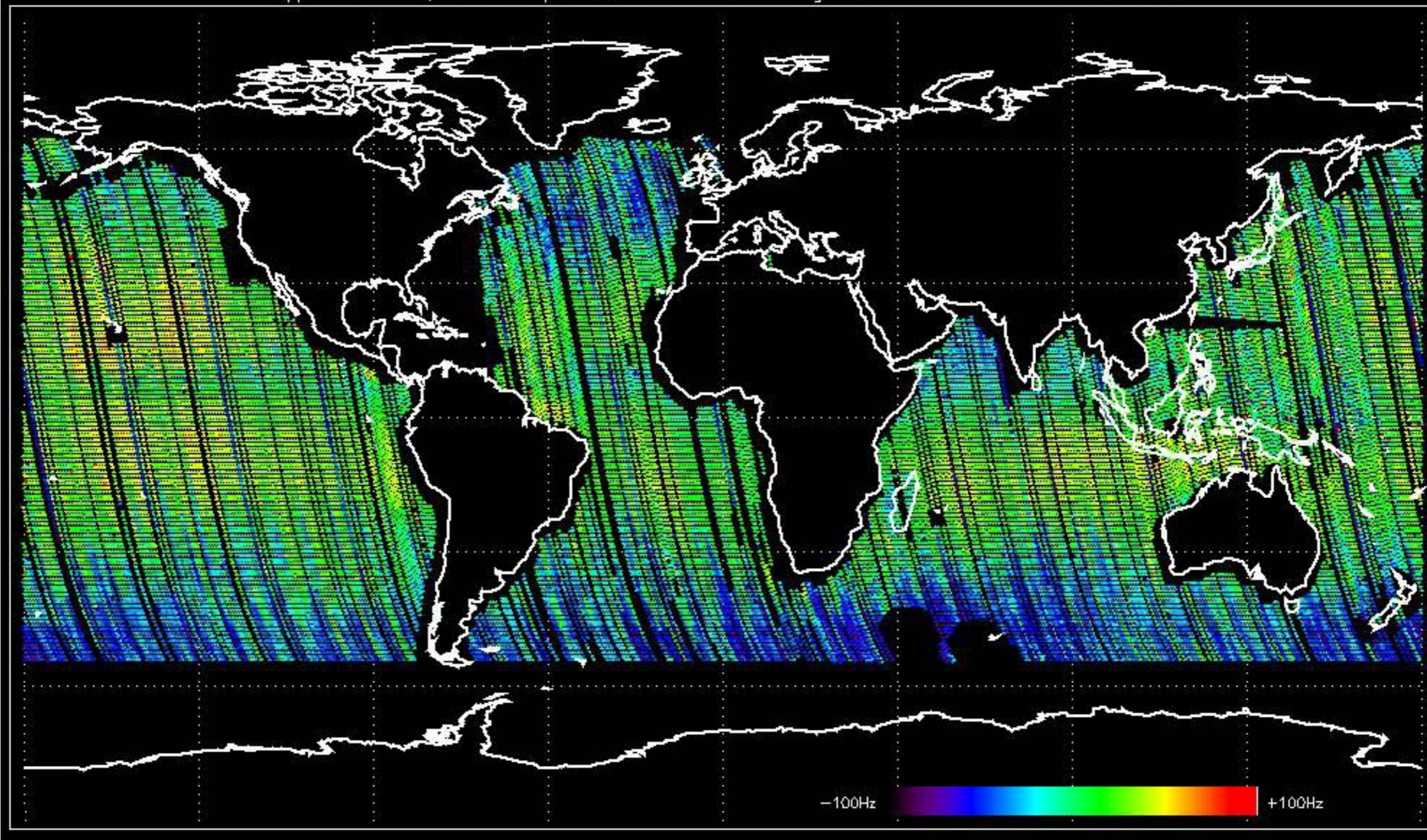
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.903594 Hz



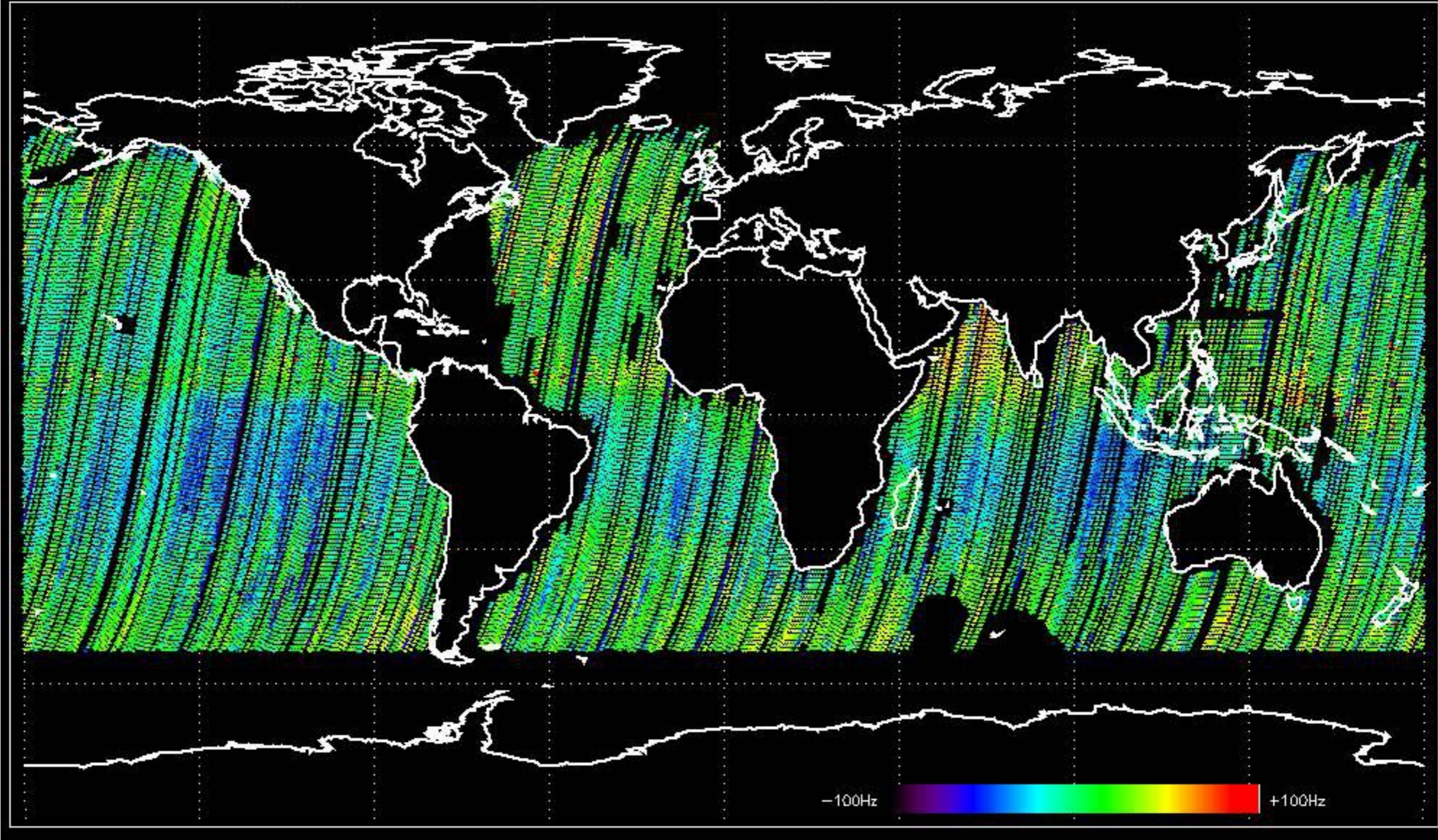
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.828622 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.912954 Hz

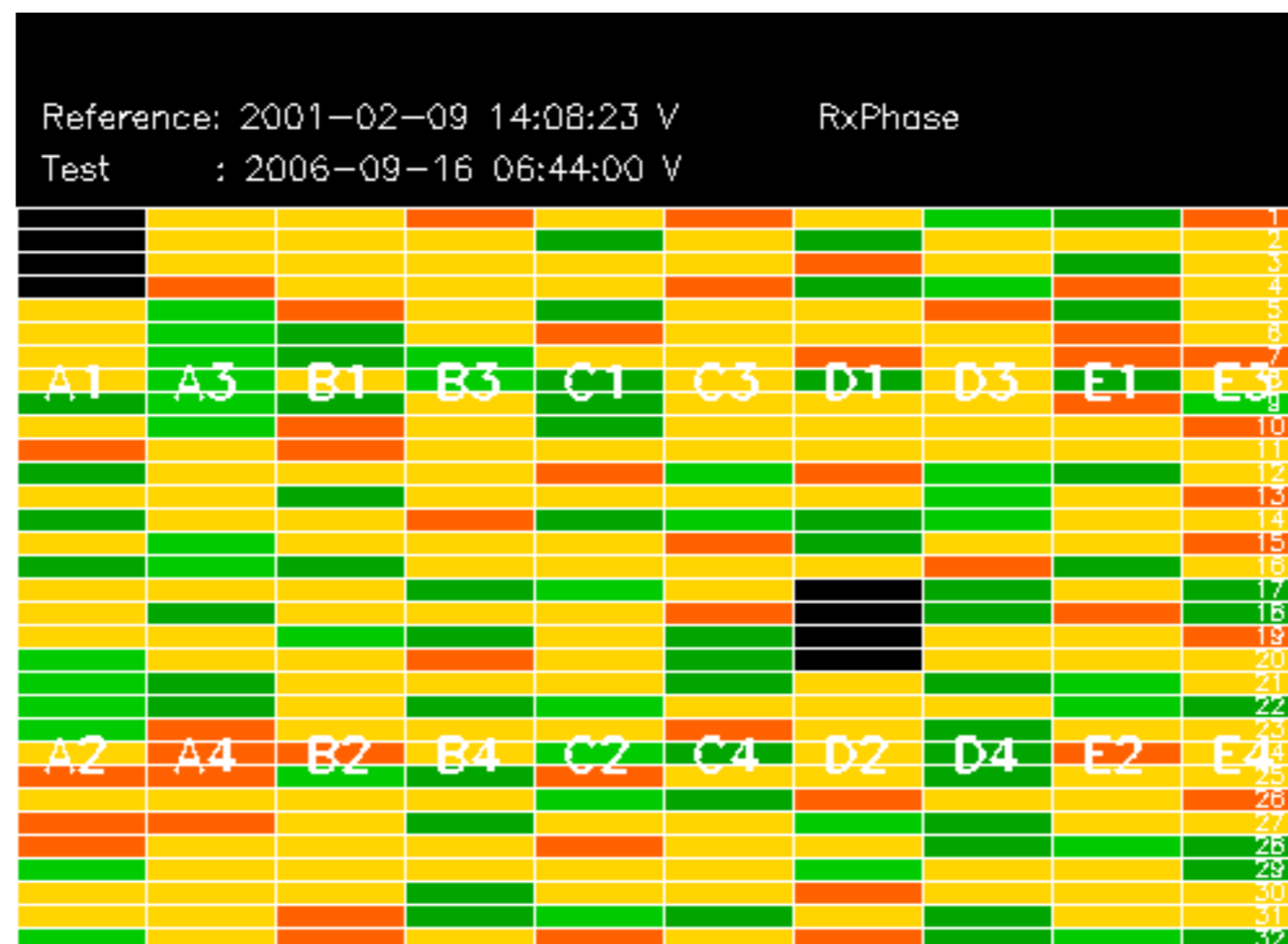


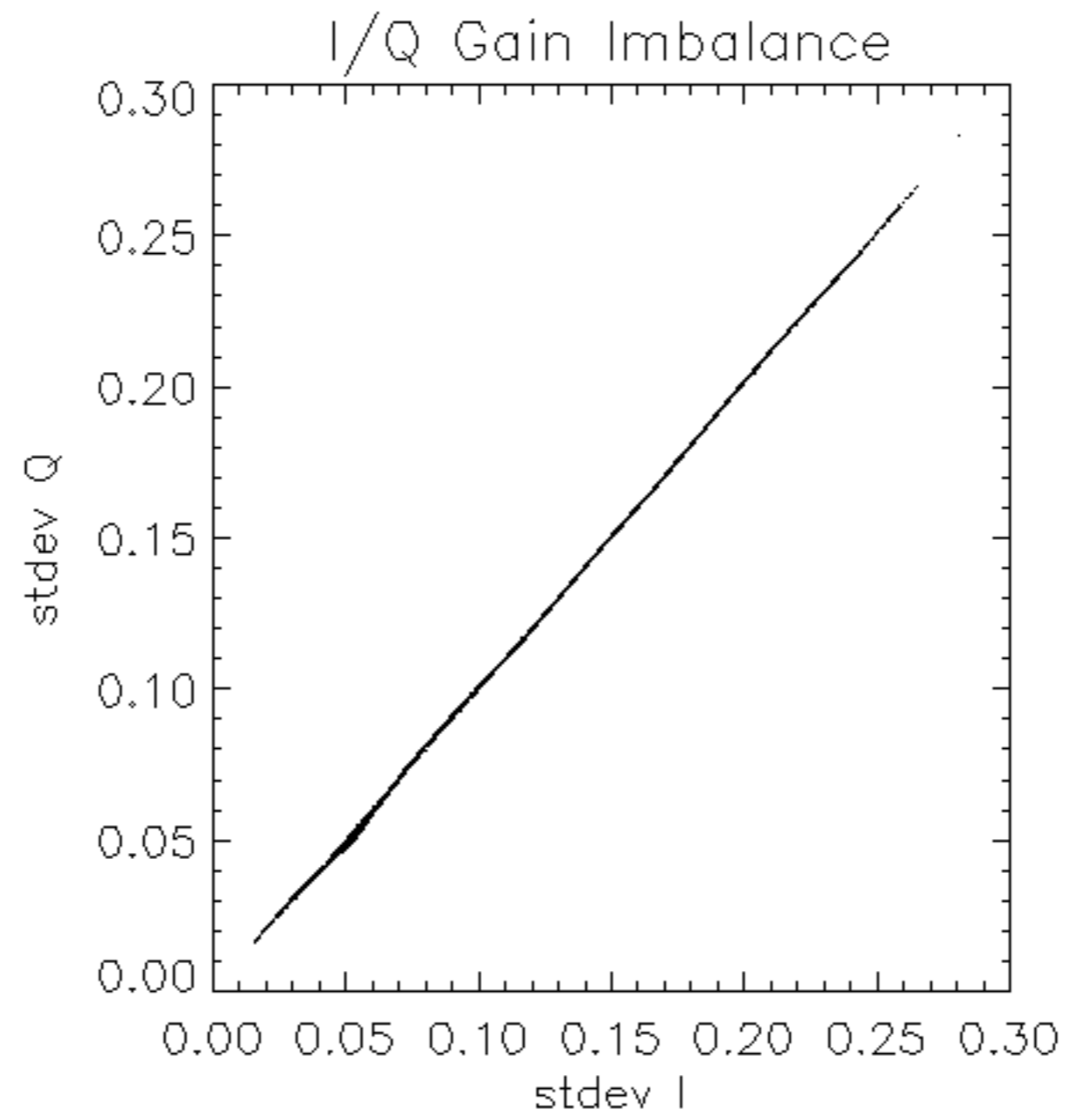
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.081213 Hz

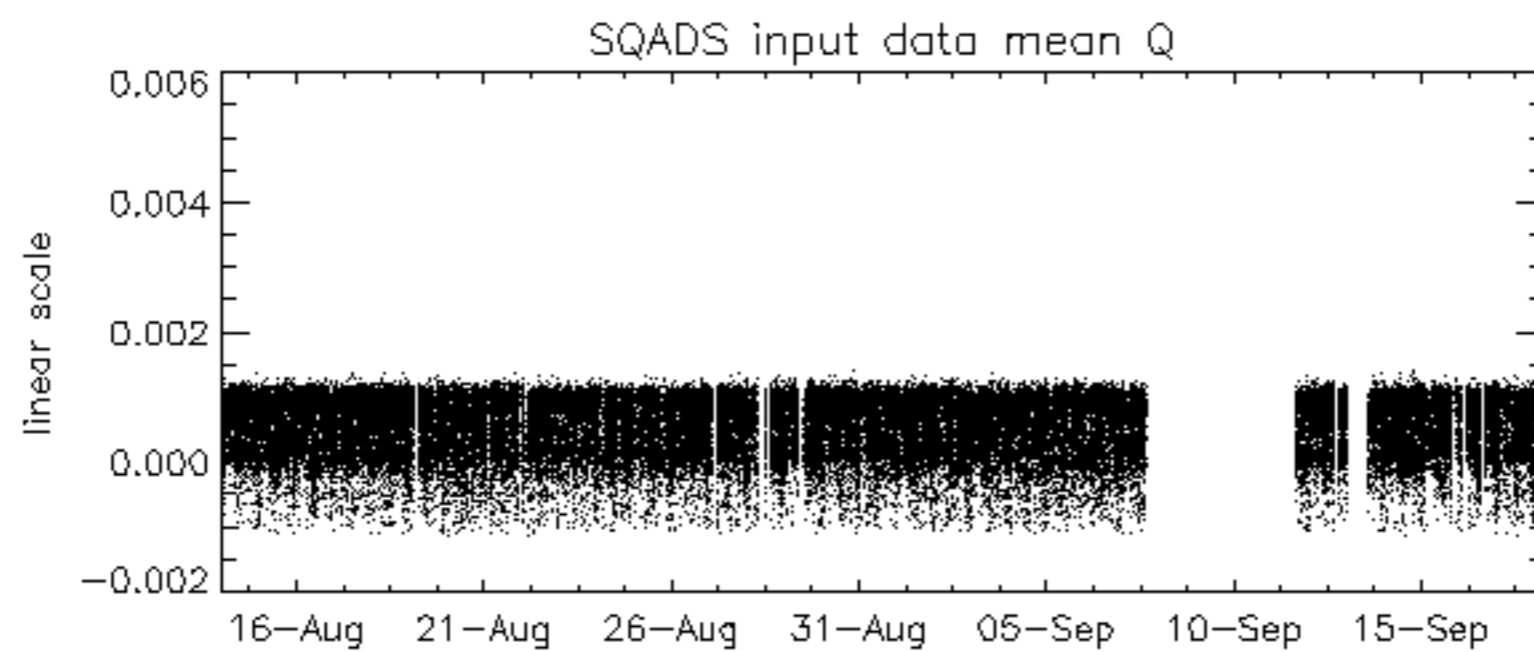
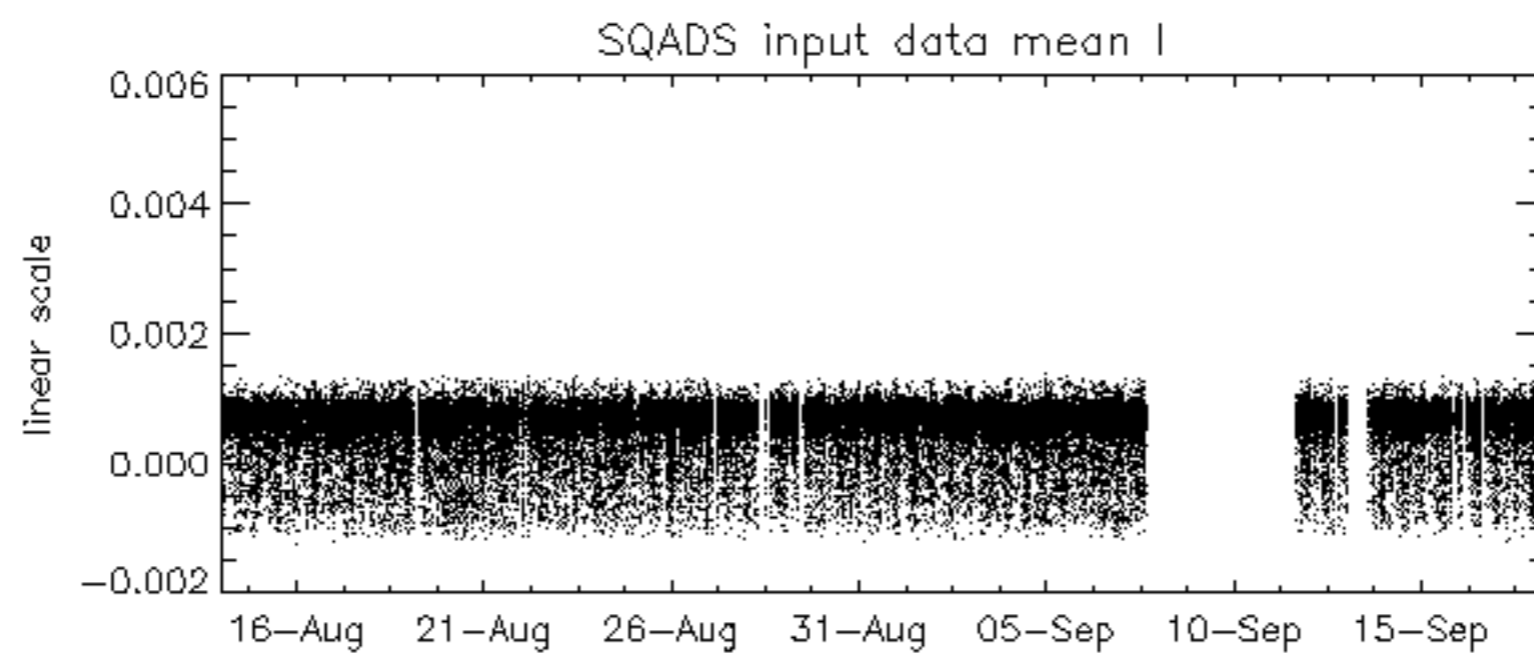
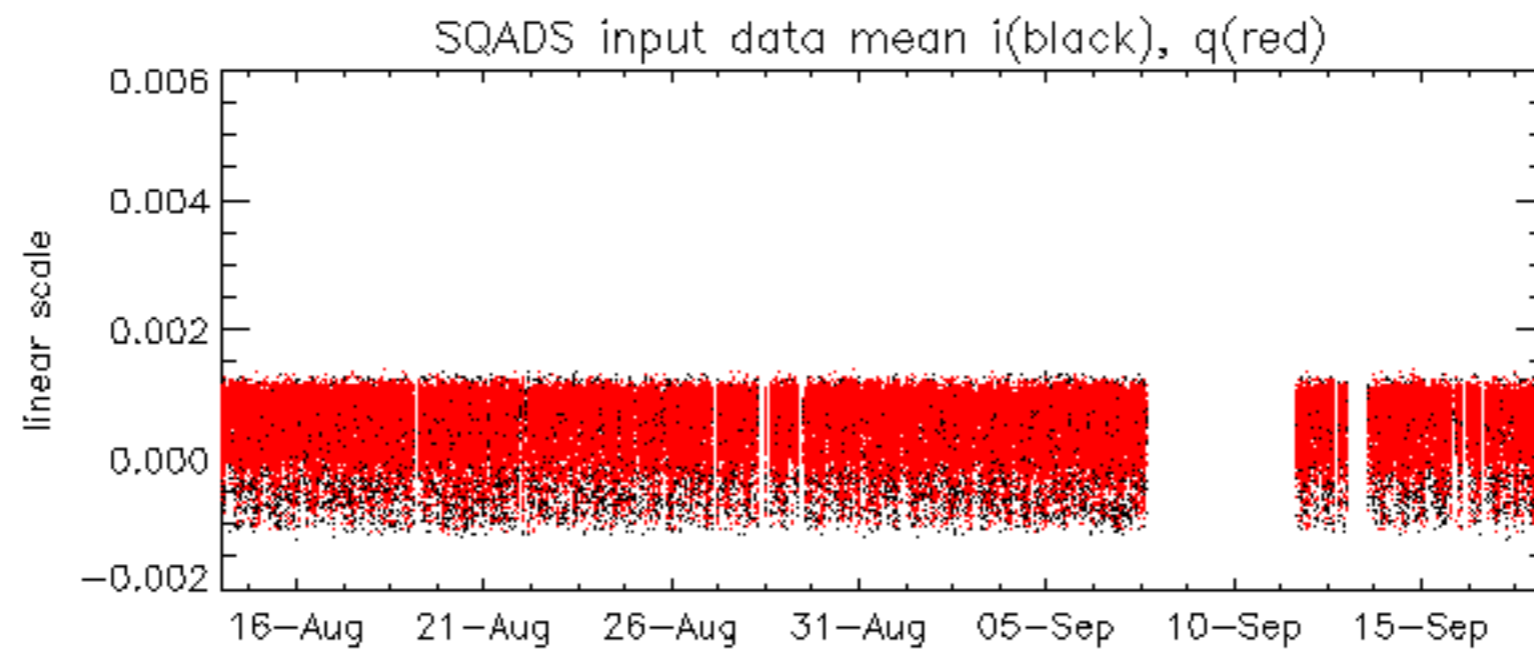


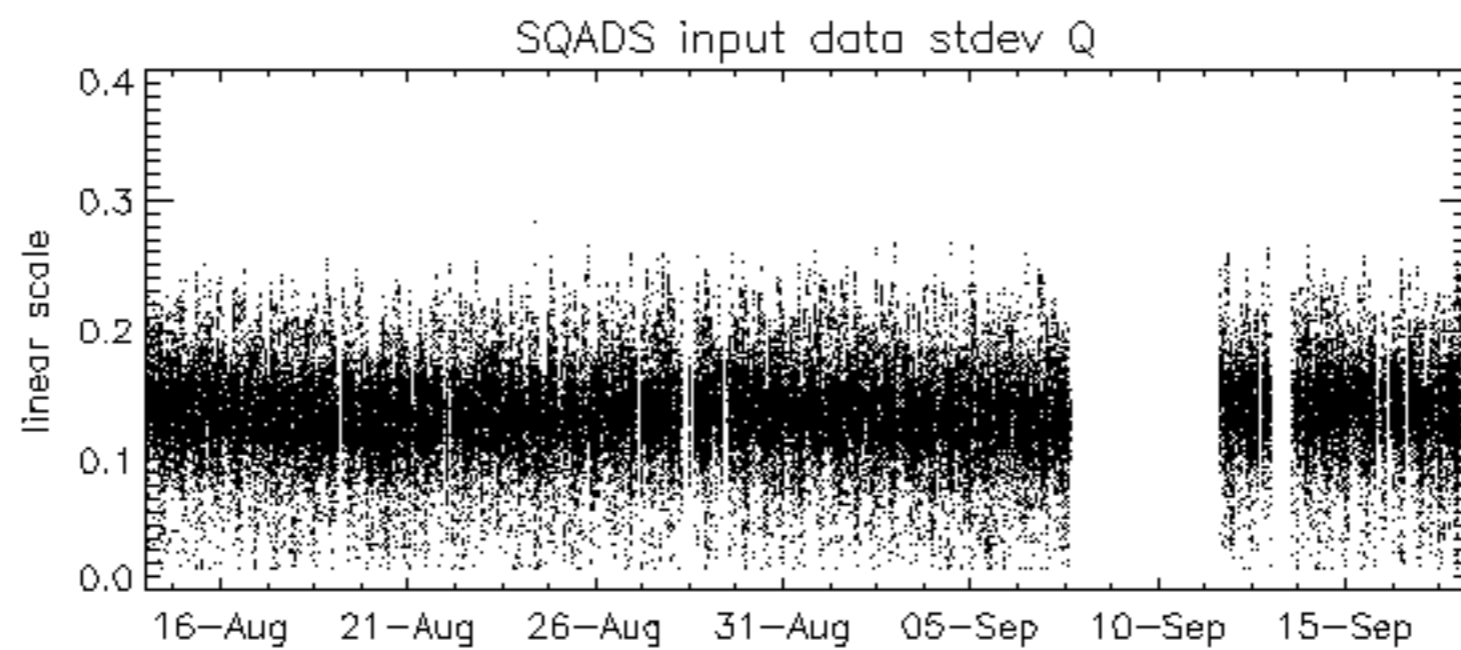
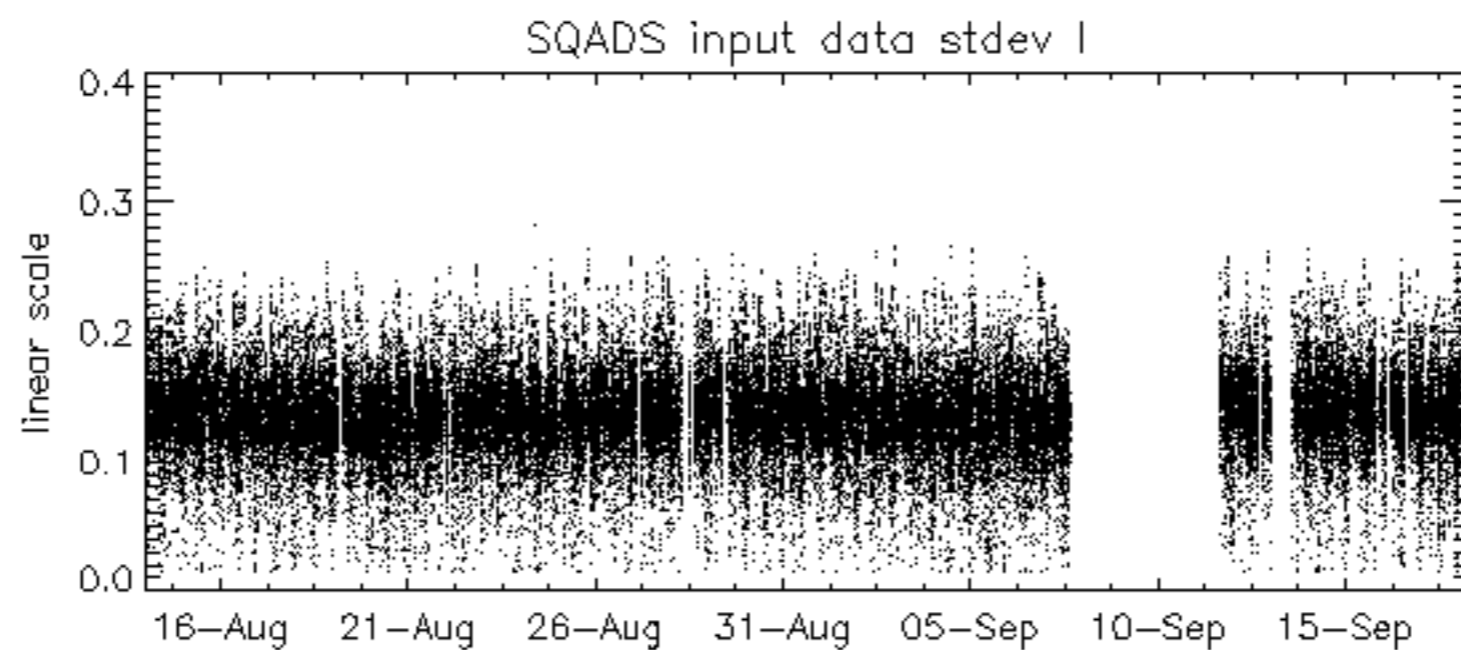
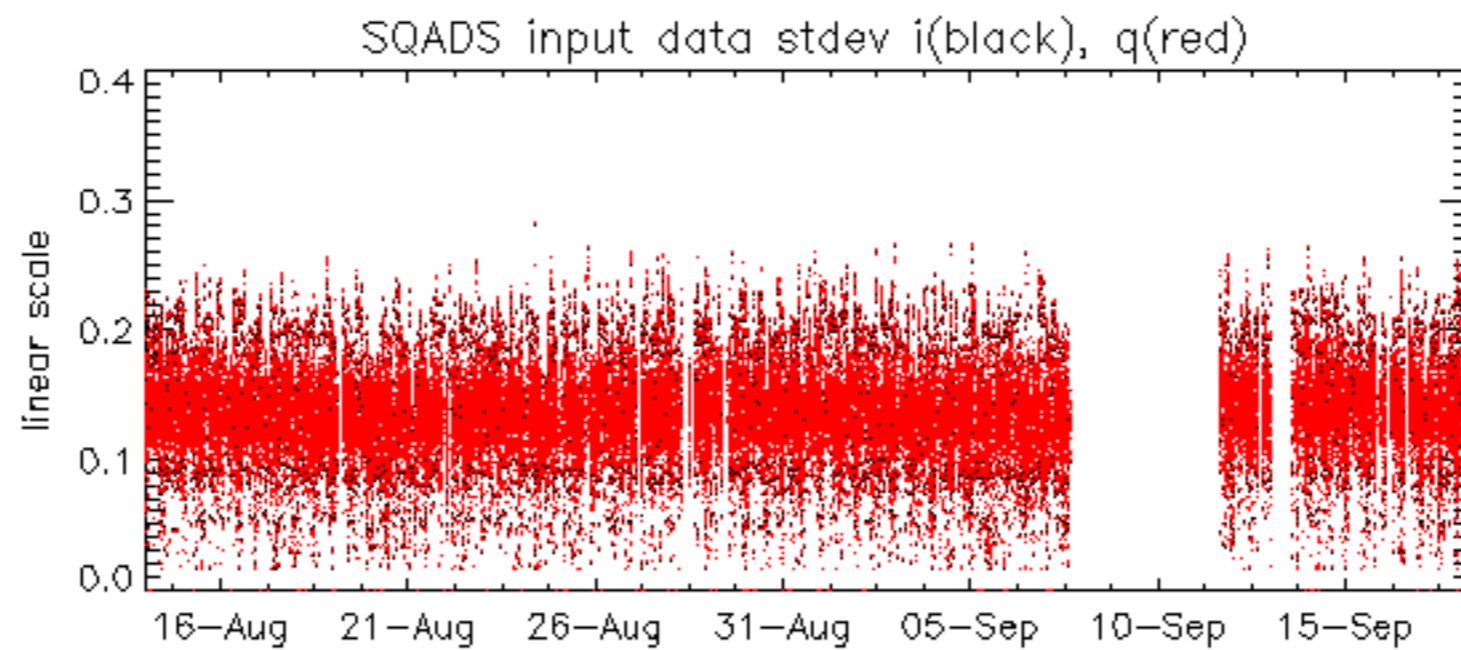
No anomalies observed on available MS products:

No anomalies observed.





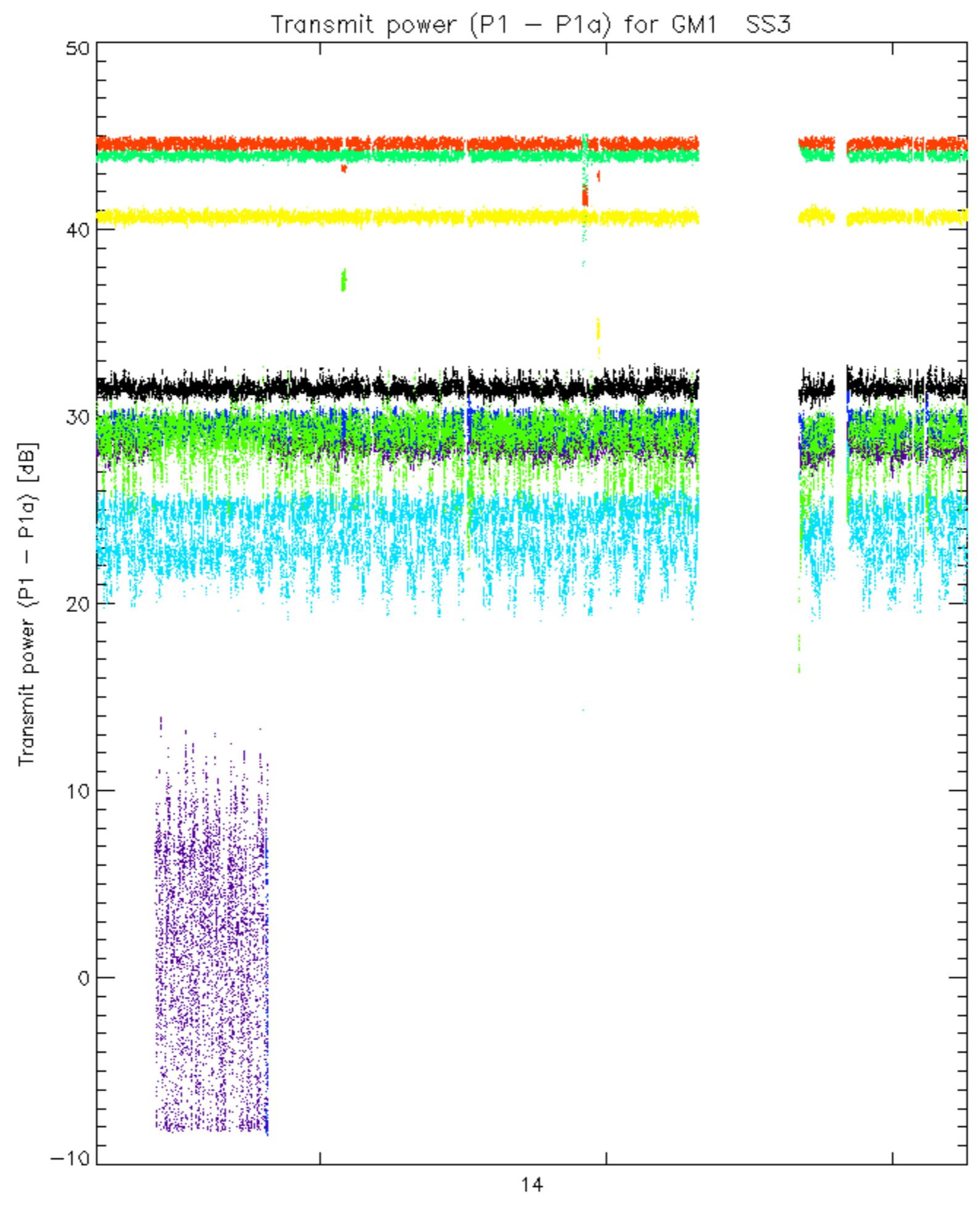




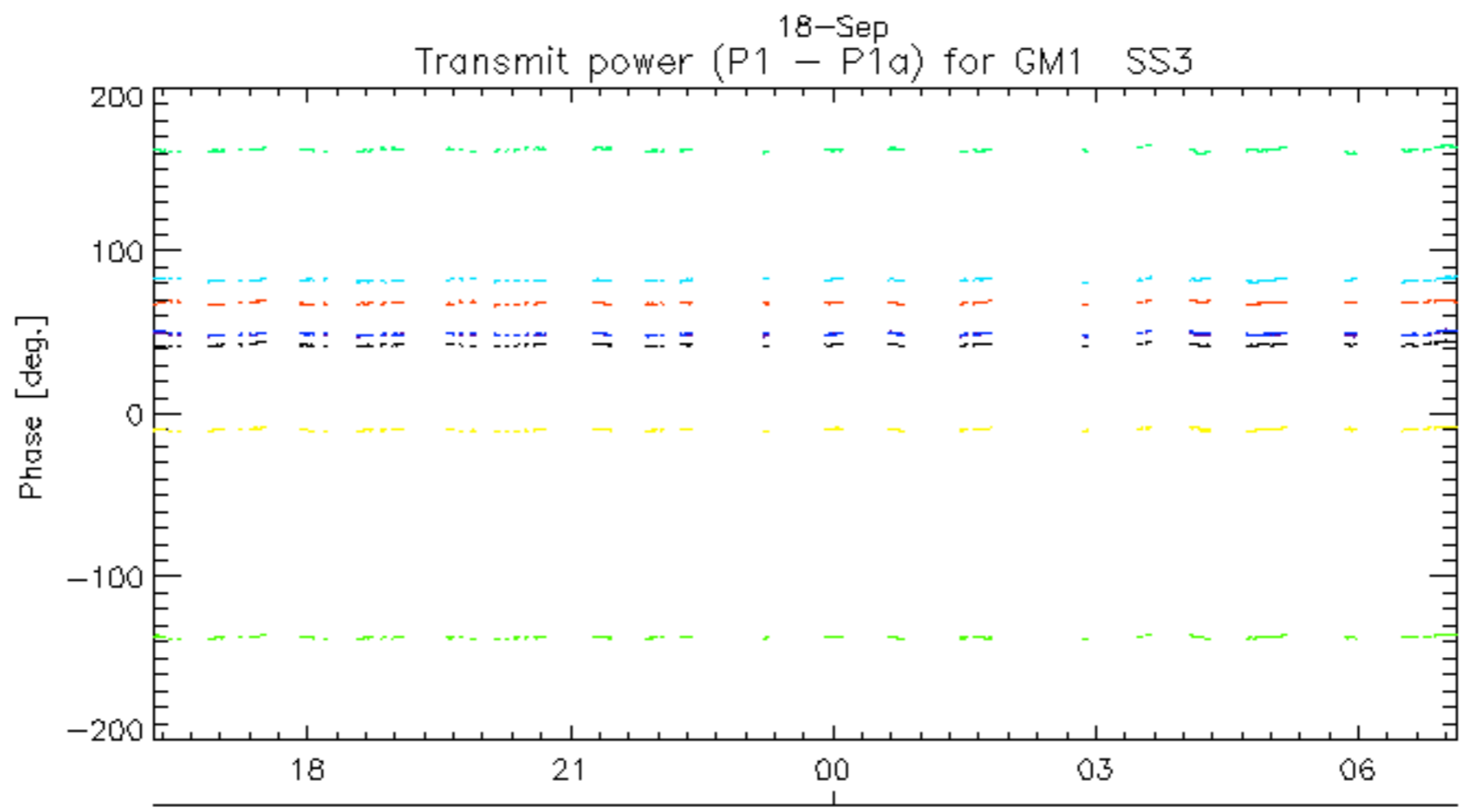
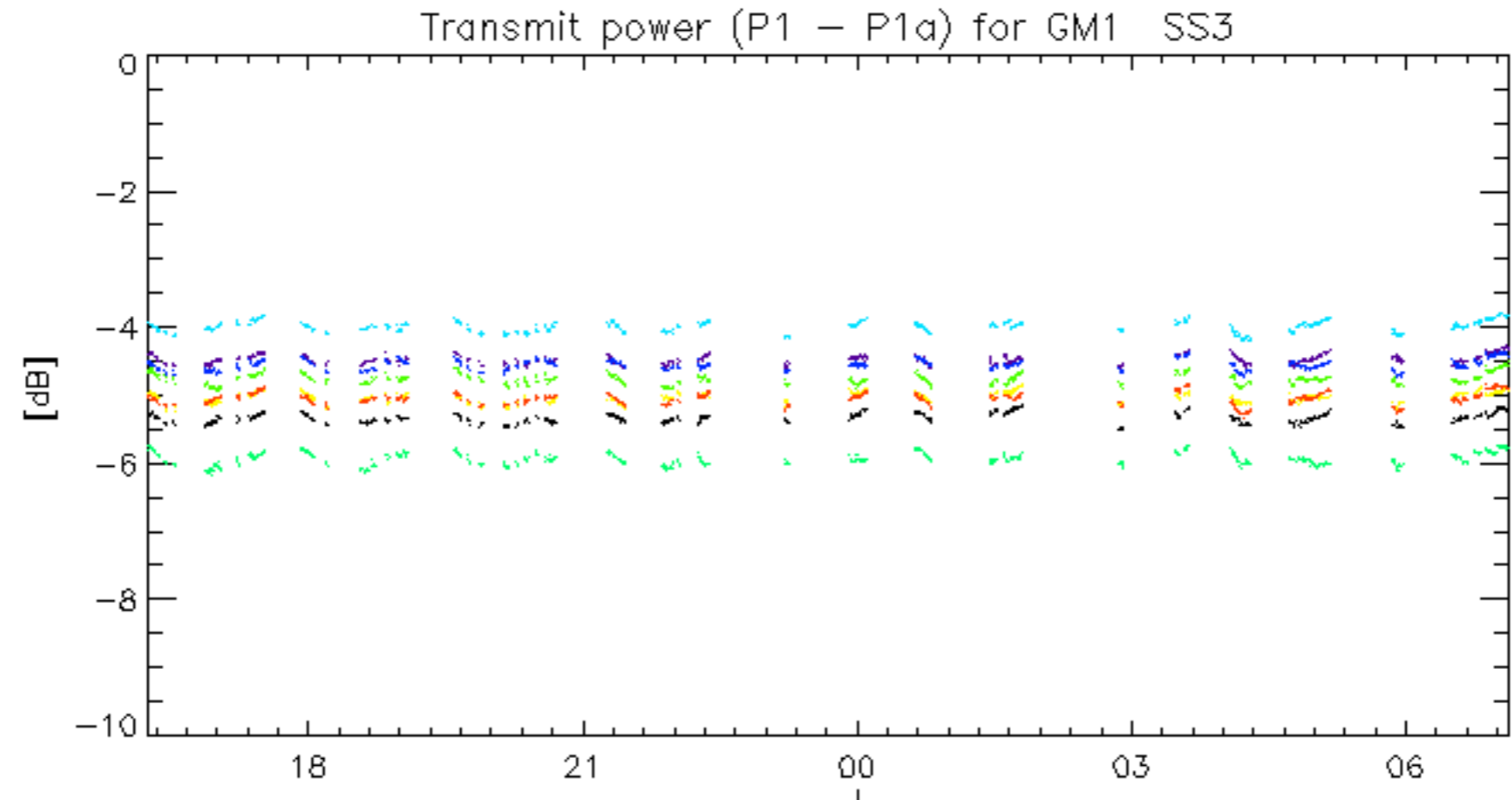
Summary of analysis for the last 3 days 2006091[678]

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

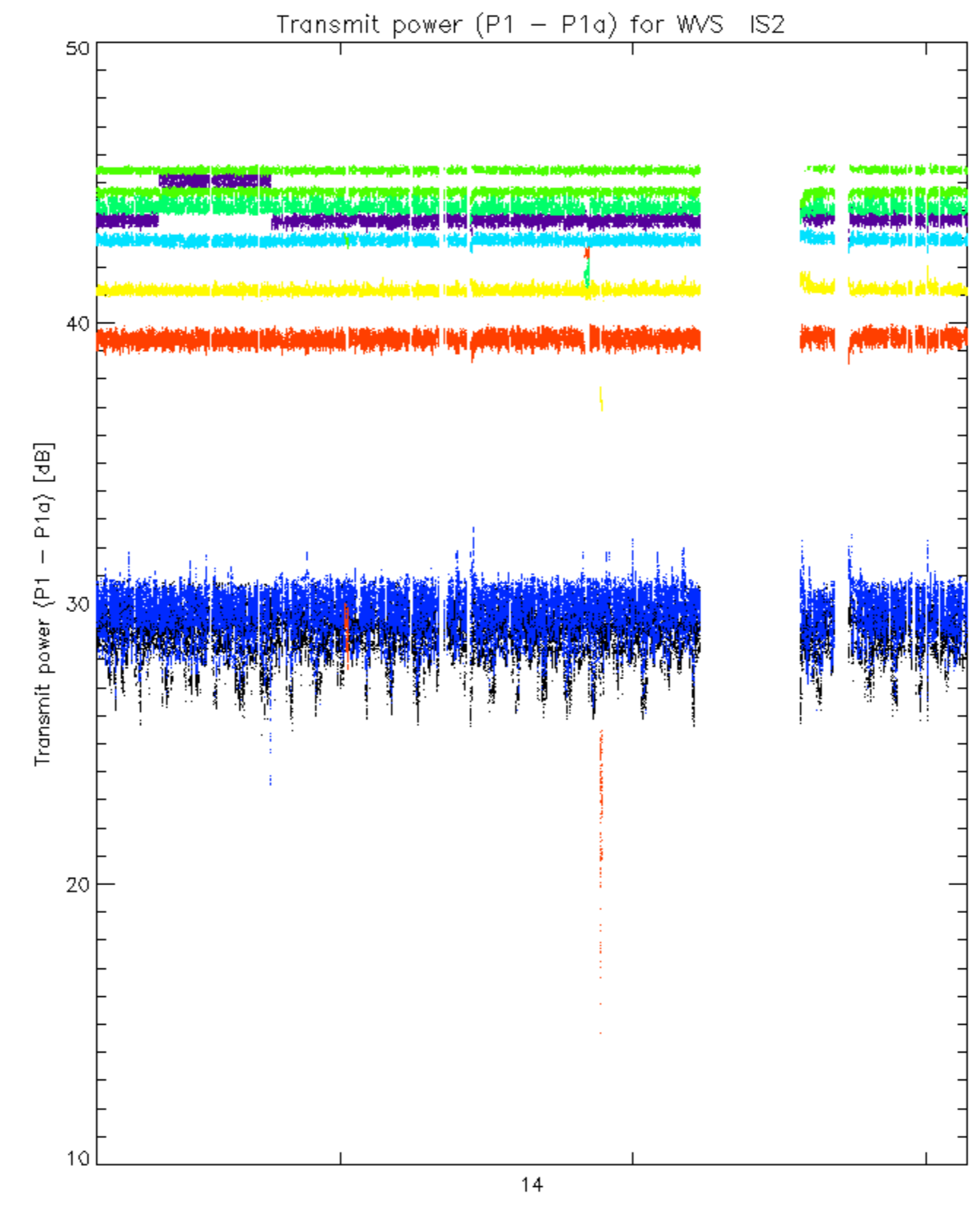
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060918_012434_00000802051_00189_23790_5910.N1	1	0
ASA_IMM_1PNPDK20060916_140527_00000392051_00168_23769_1904.N1	1	0
ASA_WSM_1PNPDE20060917_005119_000001462051_00174_23775_2423.N1	0	34
ASA_WSM_1PNPDE20060918_034044_00000852051_00190_23791_2633.N1	0	6



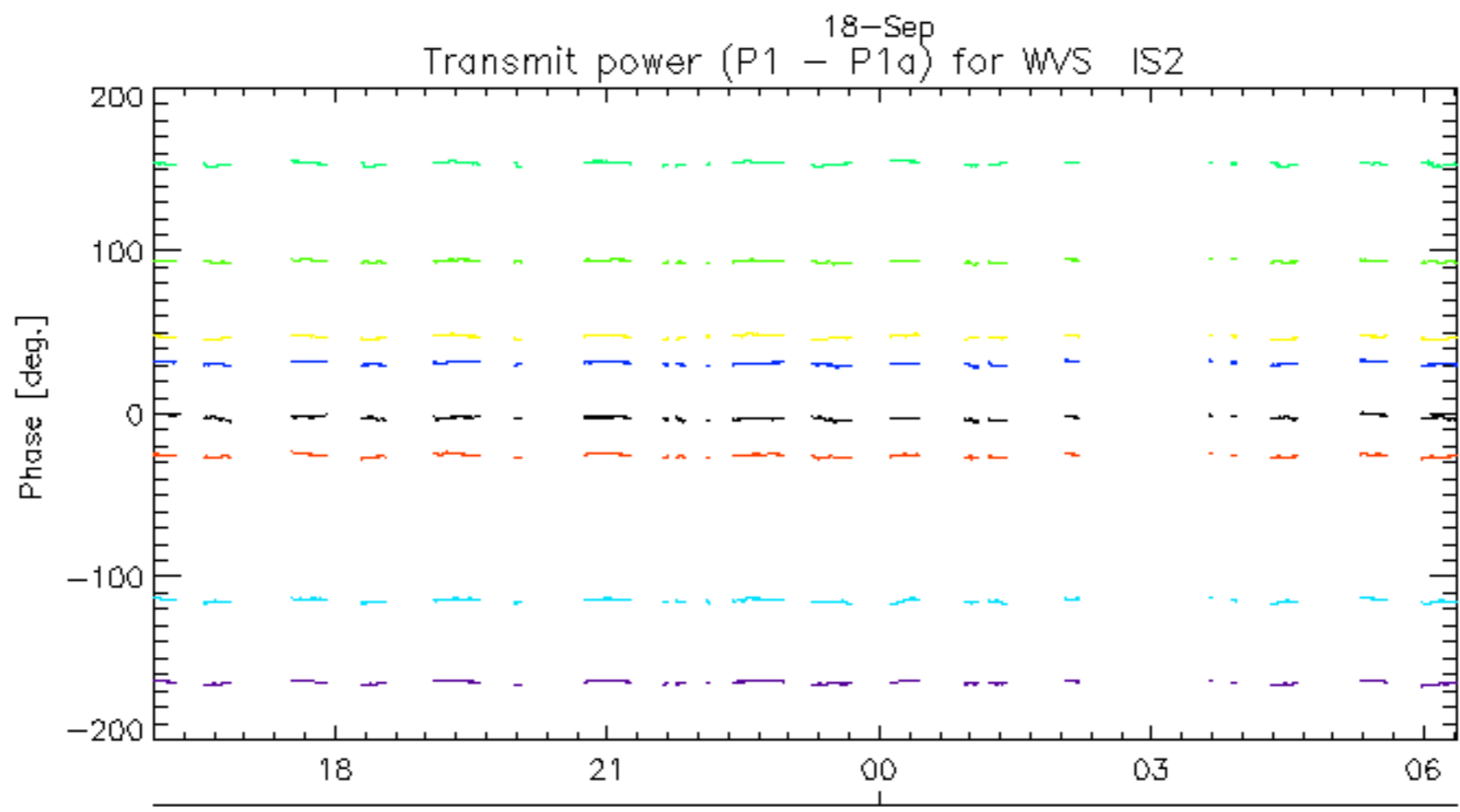
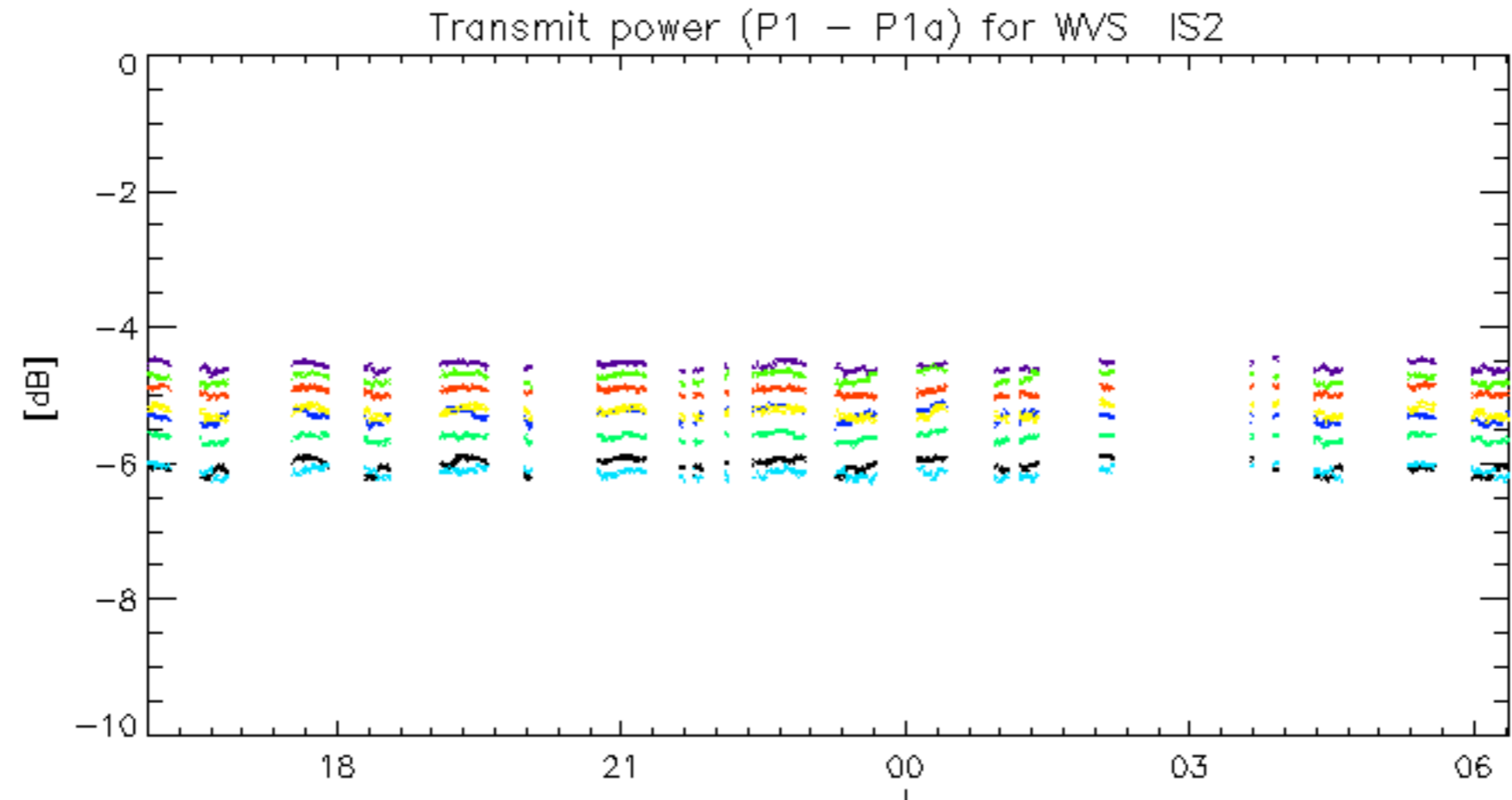
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



18-Sep
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18-Sep
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No unavailabilities during the reported period.