

PRELIMINARY REPORT OF 060929

last update on Fri Sep 29 16:38:14 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 2006-09-28 00:00:00 to 2006-09-29 16:38:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	61	12	4	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	61	12	4	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	61	12	4	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	61	12	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

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	20060929 063526
H	20060928 070703

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

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

<input type="checkbox"/>

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	-3.944380	0.010091	-0.023049
7	P1	-3.071927	0.011040	-0.024765
11	P1	-4.069062	0.019604	-0.051911
15	P1	-6.189387	0.015630	-0.042064
19	P1	-3.540222	0.052148	-0.024234
22	P1	-4.592372	0.011106	-0.067006
26	P1	-3.958073	0.018994	-0.037703
30	P1	-5.824523	0.140239	-0.008694
3	P1	-16.598782	0.253029	0.058734
7	P1	-17.118282	0.111041	-0.035399
11	P1	-16.819761	0.343464	-0.111283
15	P1	-12.889894	0.104828	0.009641
19	P1	-14.666501	0.480882	-0.030368
22	P1	-15.724200	0.488569	-0.181719
26	P1	-15.220151	0.203501	0.012992
30	P1	-16.968859	0.375426	-0.182213

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.818546	0.085049	-0.011450
7	P2	-21.835602	0.096518	0.091329
11	P2	-15.744580	0.108334	0.013840
15	P2	-7.096323	0.101465	-0.032407
19	P2	-9.128222	0.093254	-0.060378
22	P2	-18.132040	0.089860	-0.072429
26	P2	-16.424023	0.097083	-0.084213
30	P2	-19.472553	0.090848	-0.023574

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.188478	0.005780	-0.047097

7	P3	-8.188478	0.005780	-0.047097
11	P3	-8.188478	0.005780	-0.047097
15	P3	-8.188478	0.005780	-0.047097
19	P3	-8.188478	0.005780	-0.047097
22	P3	-8.188478	0.005780	-0.047097
26	P3	-8.188451	0.005779	-0.047015
30	P3	-8.188451	0.005779	-0.047015

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

<input type="checkbox"/>

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	-3.857458	0.010248	-0.039832
7	P1	-2.541911	0.019450	0.010050
11	P1	-2.885161	0.018616	-0.007561
15	P1	-3.657673	0.029829	-0.016737
19	P1	-3.475617	0.080879	0.008945
22	P1	-5.106067	0.020478	0.027694
26	P1	-5.880441	0.025781	-0.075483
30	P1	-5.220182	0.074648	-0.023318
3	P1	-11.650232	0.049120	-0.024031
7	P1	-10.004580	0.057016	-0.069765
11	P1	-10.352789	0.061776	-0.020601
15	P1	-10.844966	0.145988	0.057566
19	P1	-15.712510	3.736007	0.335028
22	P1	-20.898054	1.256255	-0.314182
26	P1	-15.936585	0.375153	-0.098285
30	P1	-18.105709	0.472213	0.119836

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.406332	0.053259	-0.019925
7	P2	-22.187309	0.088283	0.006303
11	P2	-10.906668	0.042261	-0.050129
15	P2	-4.866012	0.036485	-0.061010
19	P2	-6.854130	0.037306	-0.063852
22	P2	-8.165581	0.032509	-0.064098
26	P2	-24.181589	0.060779	-0.094652
30	P2	-21.965641	0.047237	-0.033722

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.036011	0.004093	-0.062327
7	P3	-8.035877	0.004094	-0.062619
11	P3	-8.035826	0.004114	-0.063294
15	P3	-8.035760	0.004123	-0.063159
19	P3	-8.035853	0.004128	-0.062915
22	P3	-8.036020	0.004101	-0.062872
26	P3	-8.036003	0.004121	-0.062830
30	P3	-8.035965	0.004098	-0.062986

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	0.000557860
	stdev	1.71298e-07
MEAN Q	mean	0.000525003
	stdev	2.17824e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137488
	stdev	0.00114458
STDEV Q	mean	0.137853
	stdev	0.00116253



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006092[789]

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_1PNPDK20060927_082513_000001912051_00322_23923_2143.N1	1	0



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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
<input type="checkbox"/>	
	Acsending
<input type="checkbox"/>	
	Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
<input type="checkbox"/>	

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

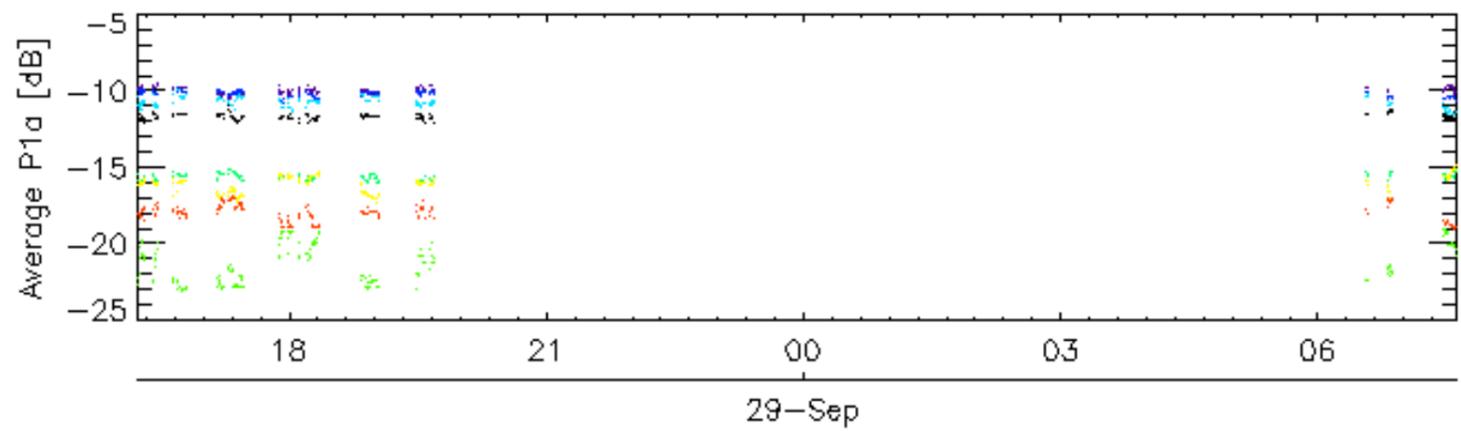
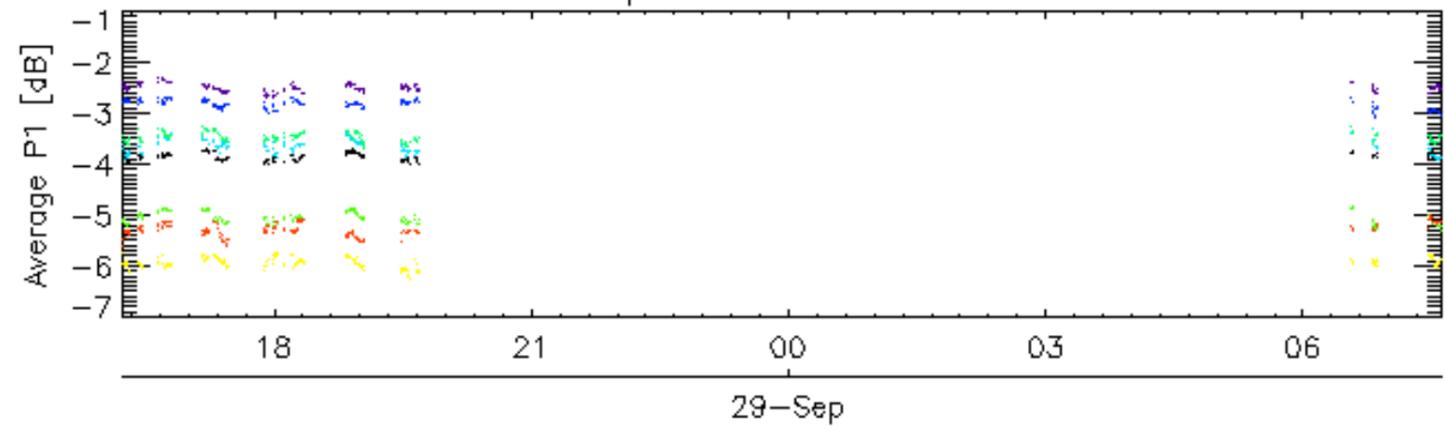
Ascending

Descending

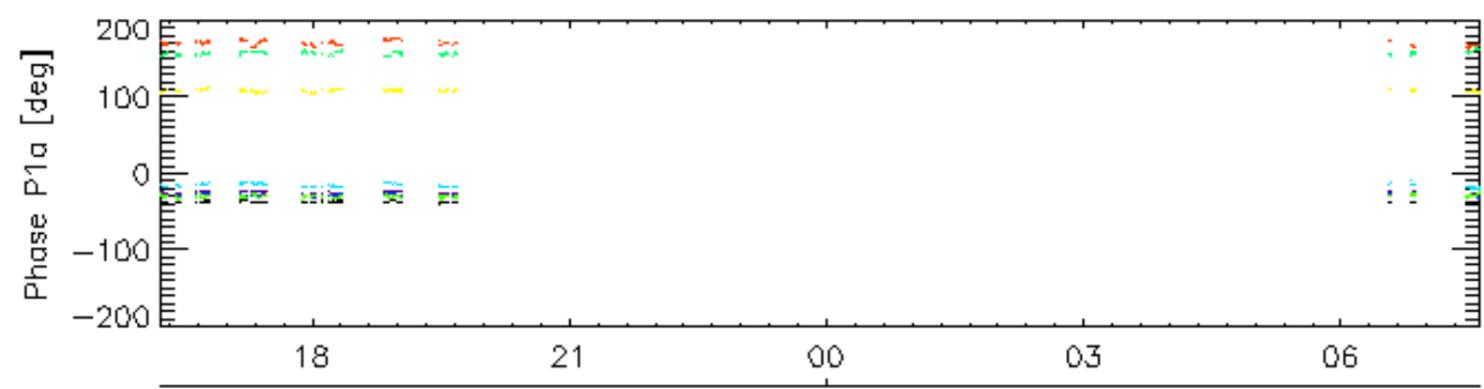
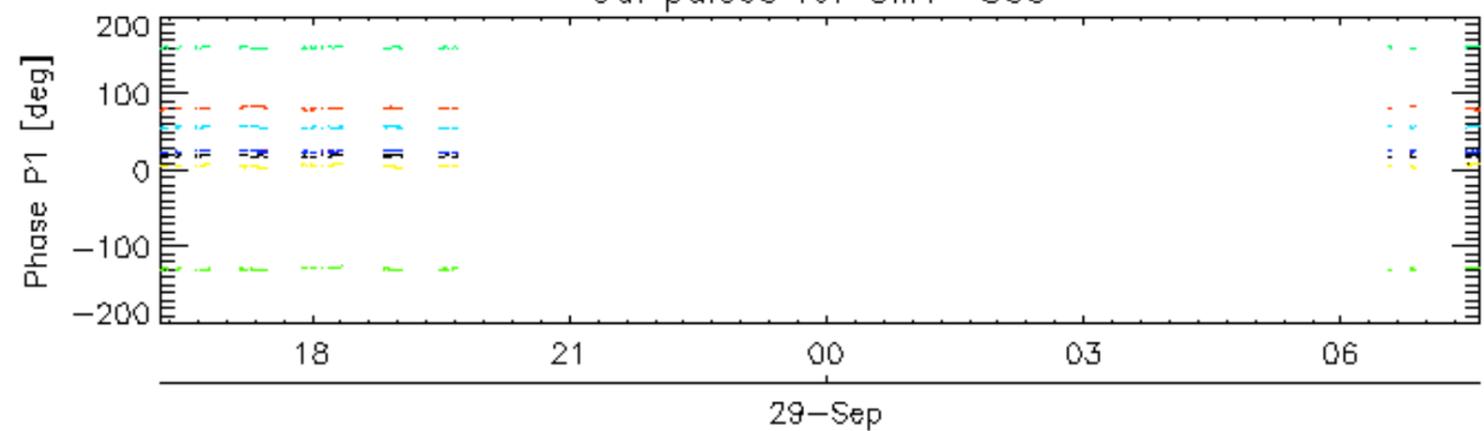
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

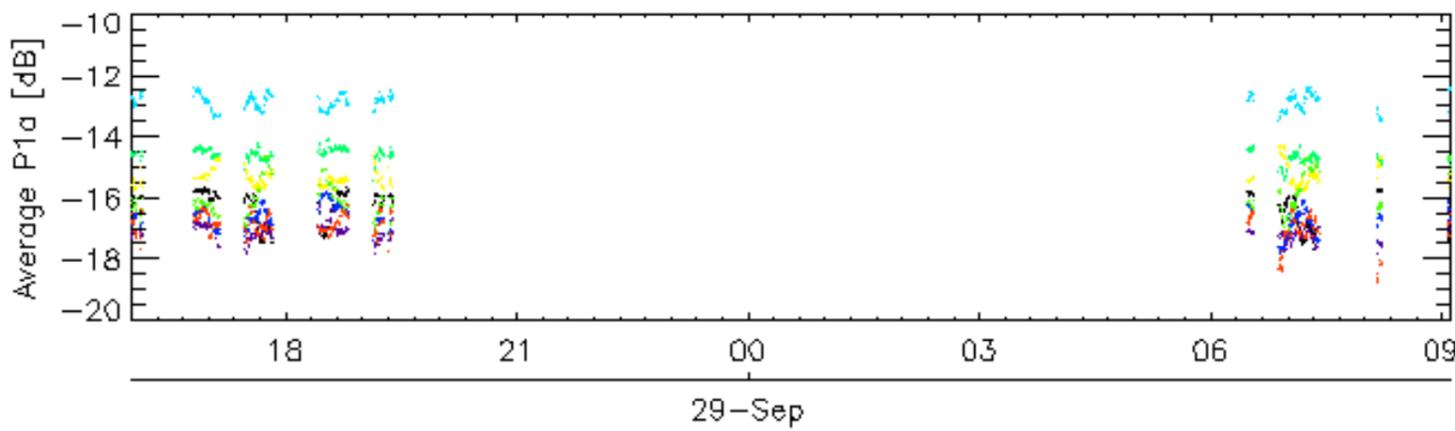
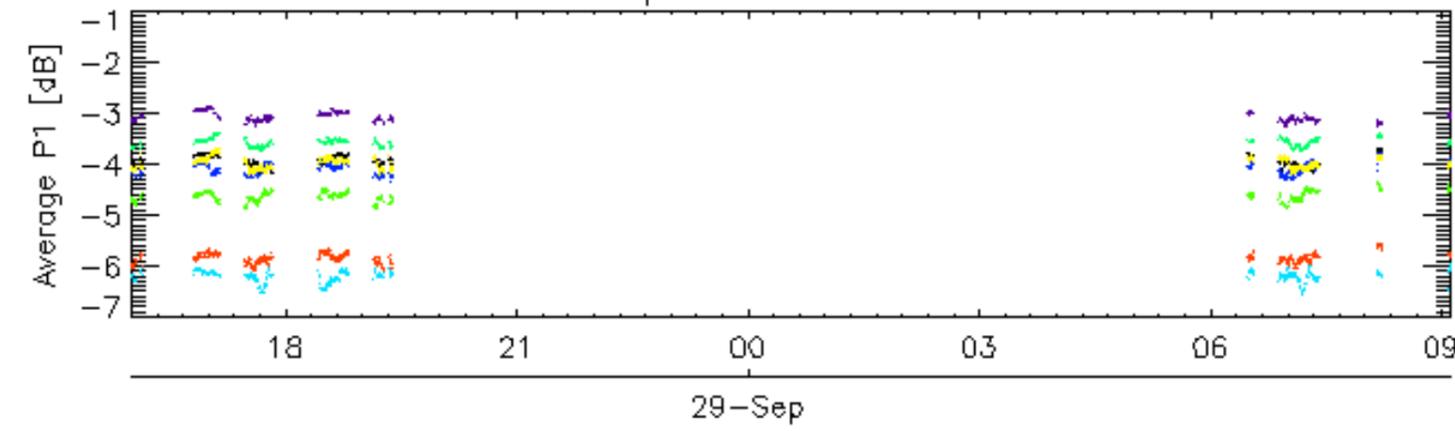


Cal pulses for GM1 SS3

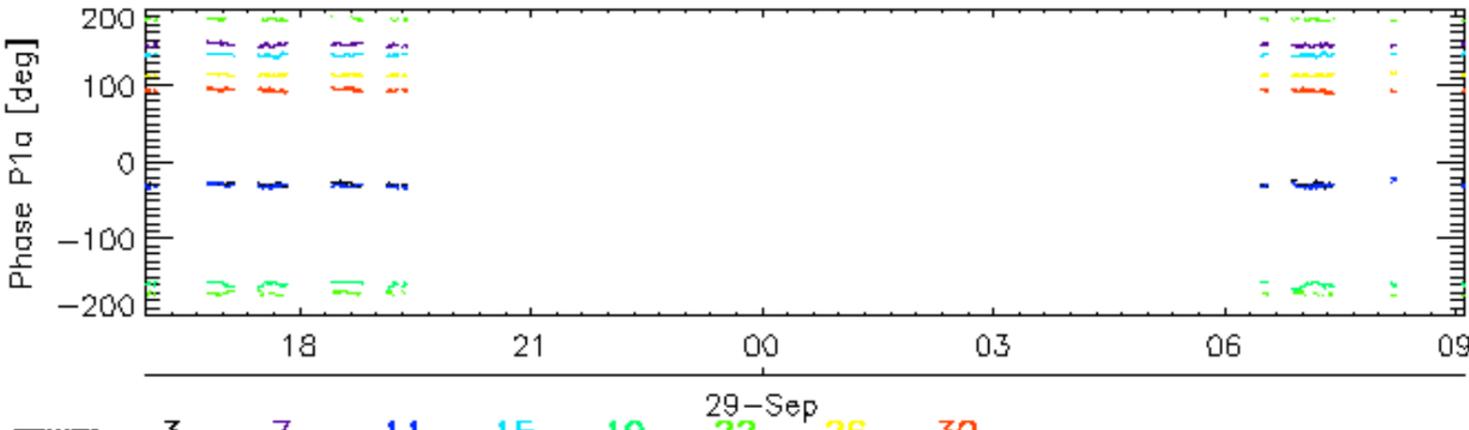
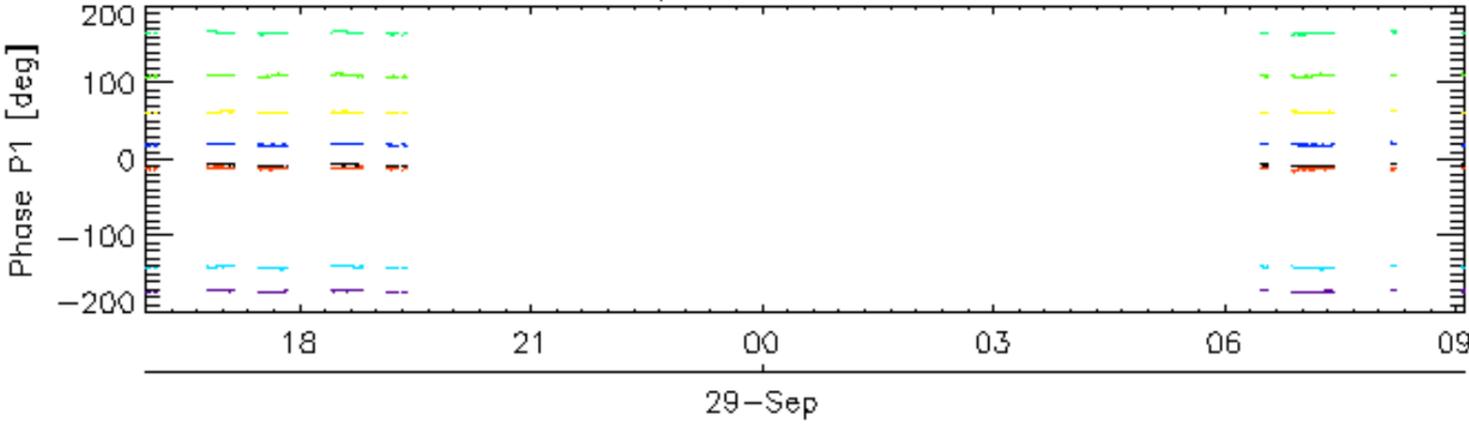


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

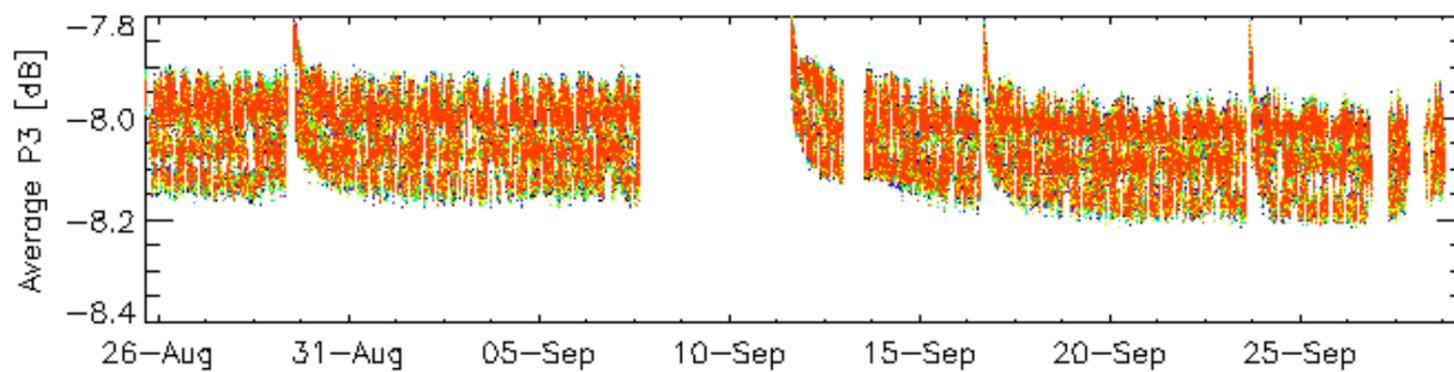
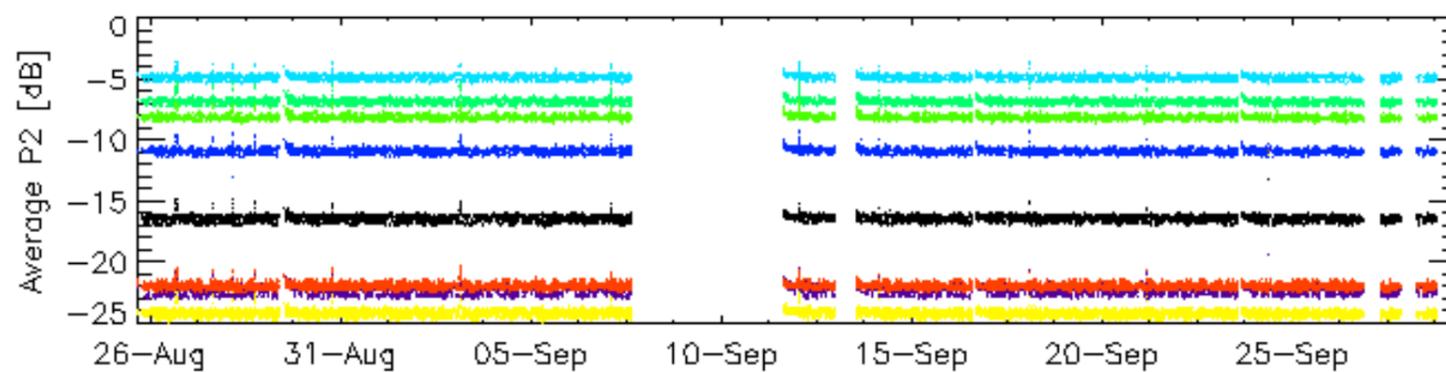
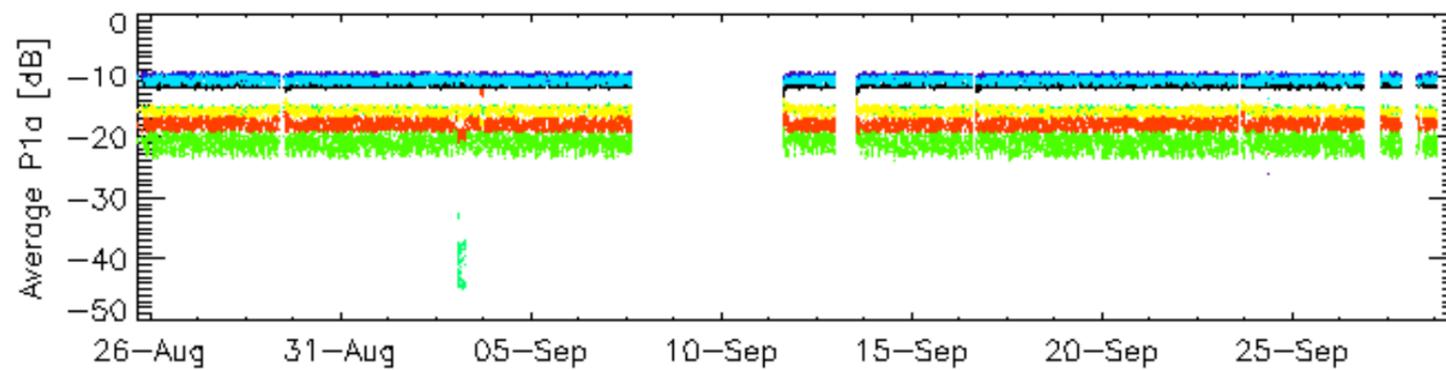
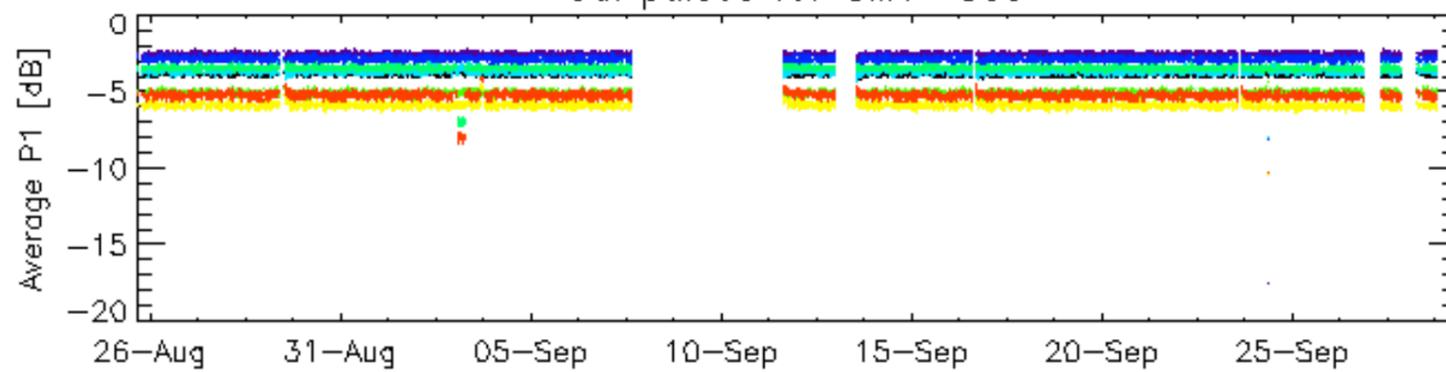


Cal pulses for WVS IS2



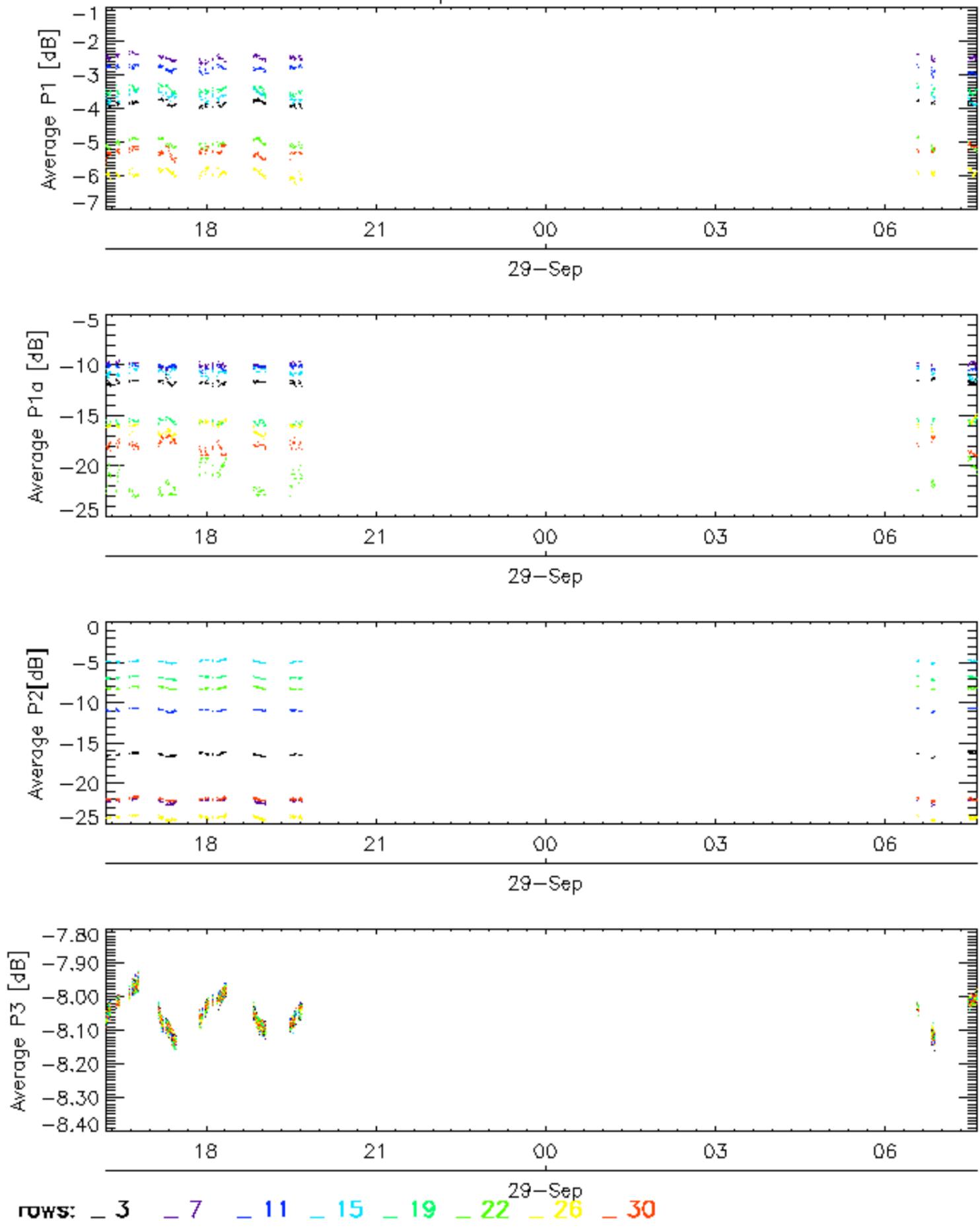
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

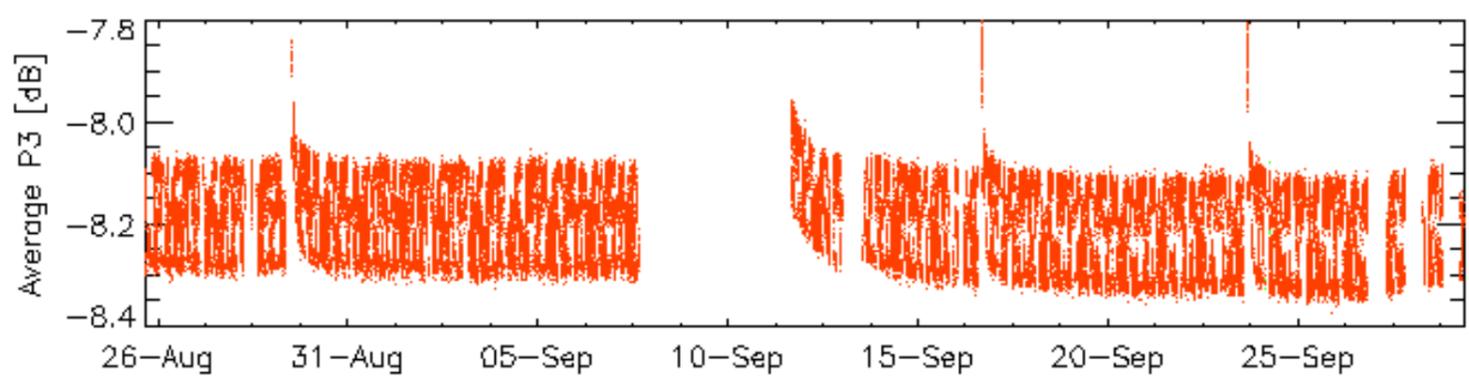
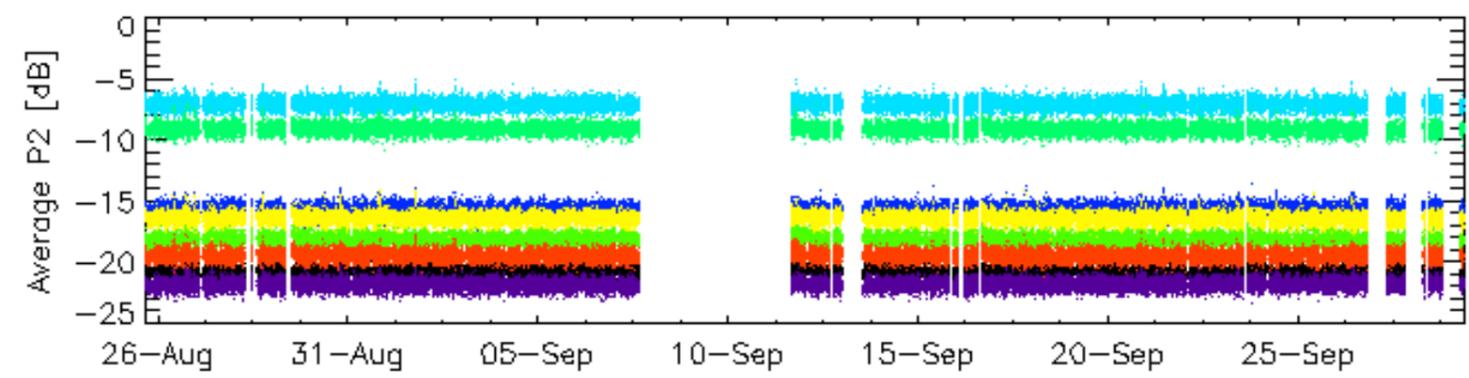
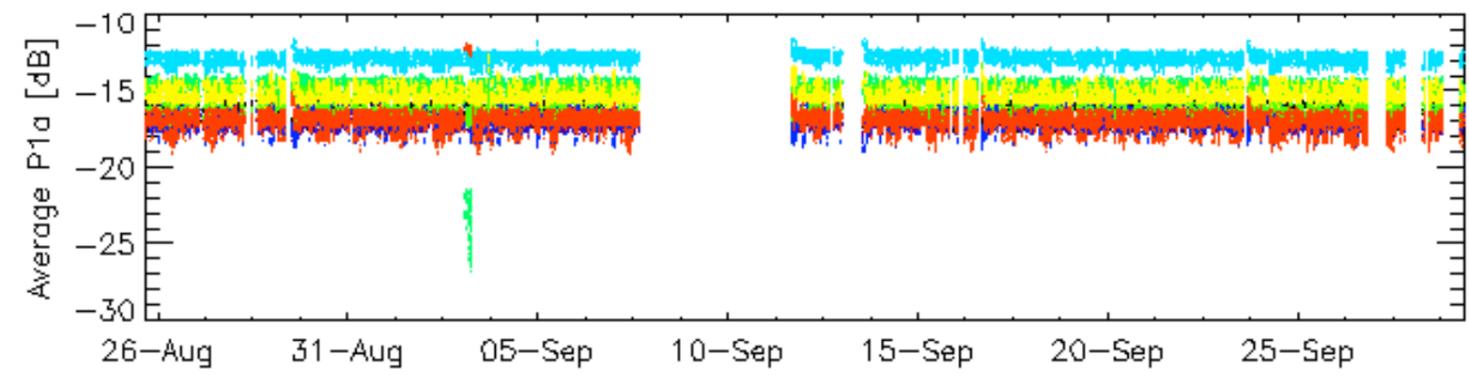
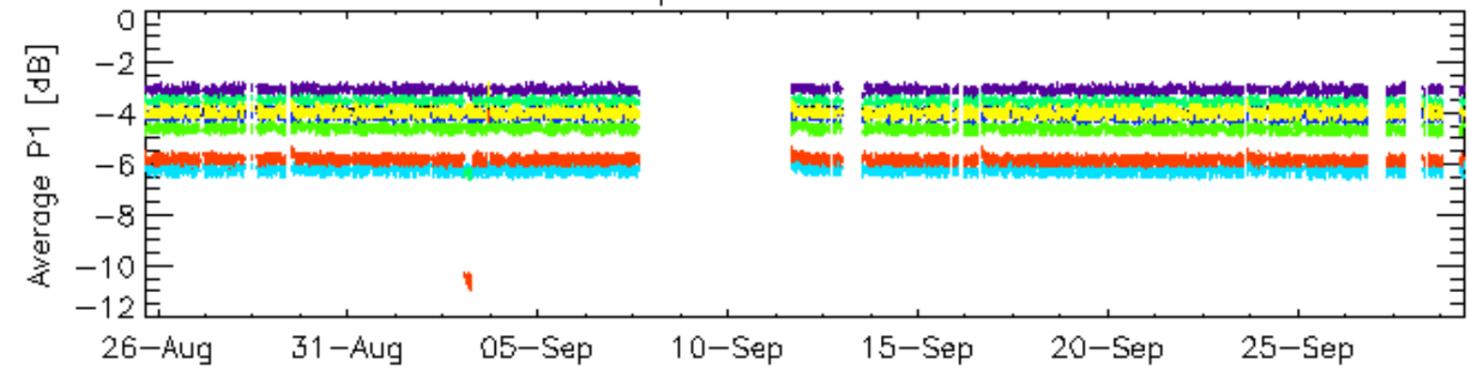


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

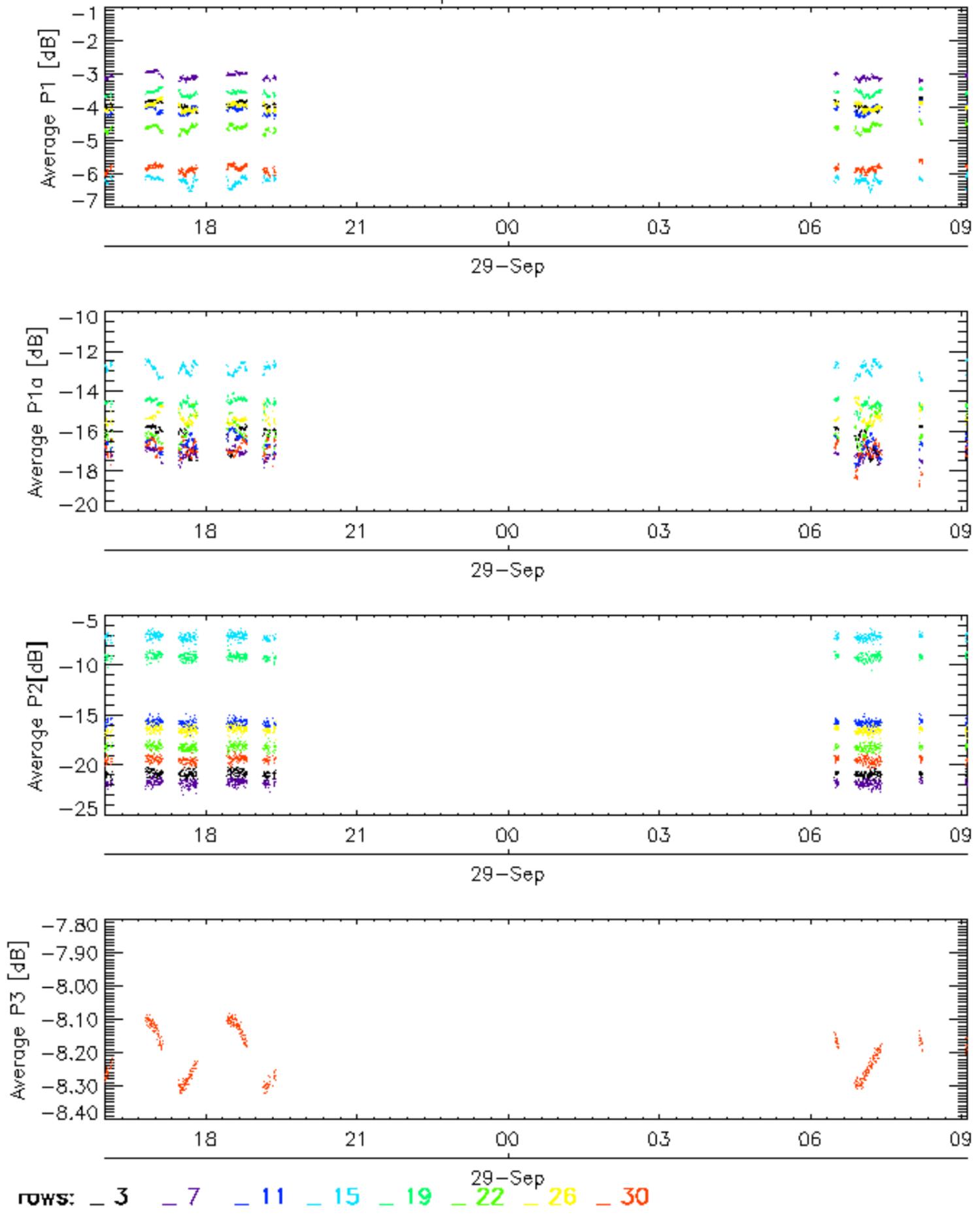


Cal pulses for WVS IS2



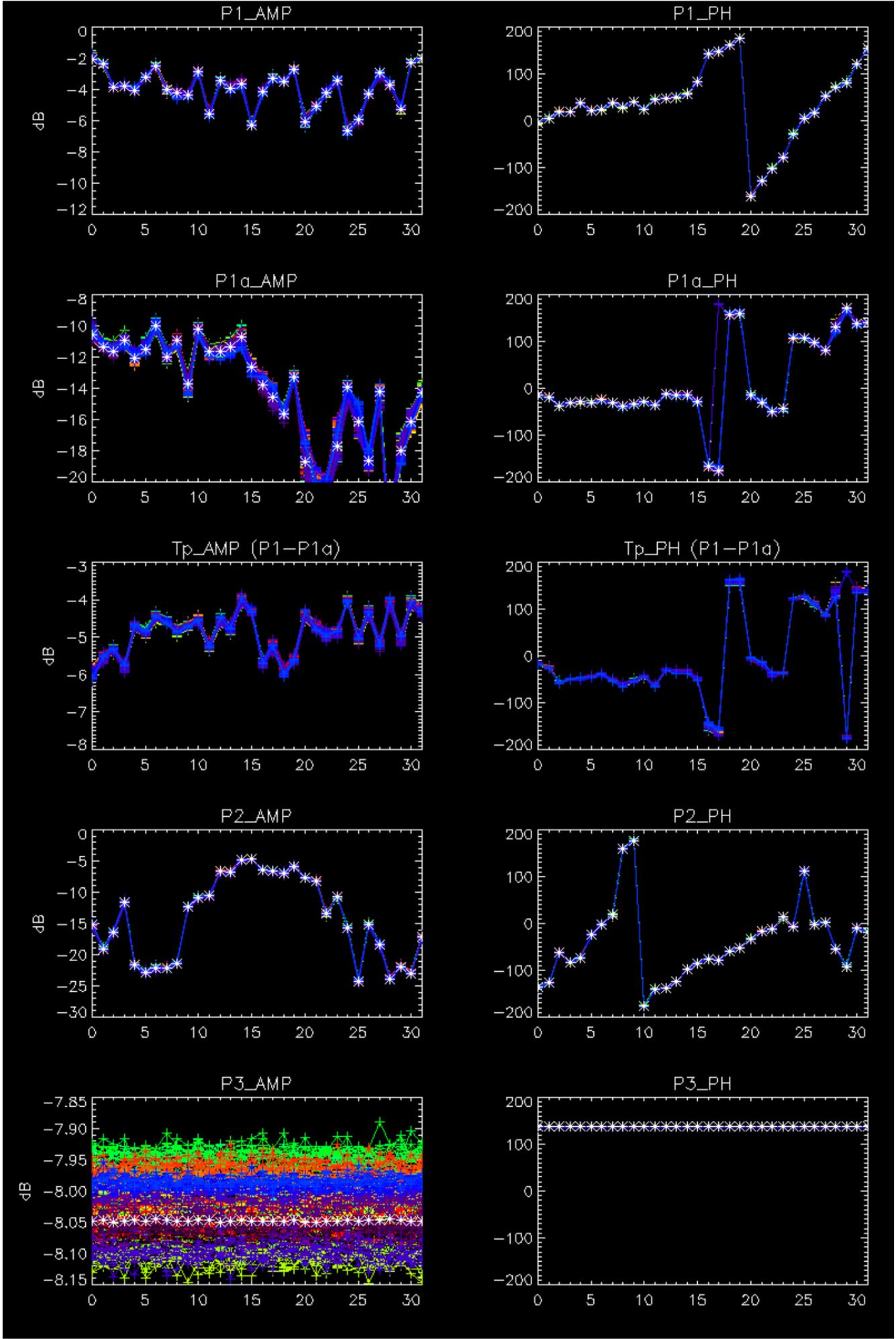
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

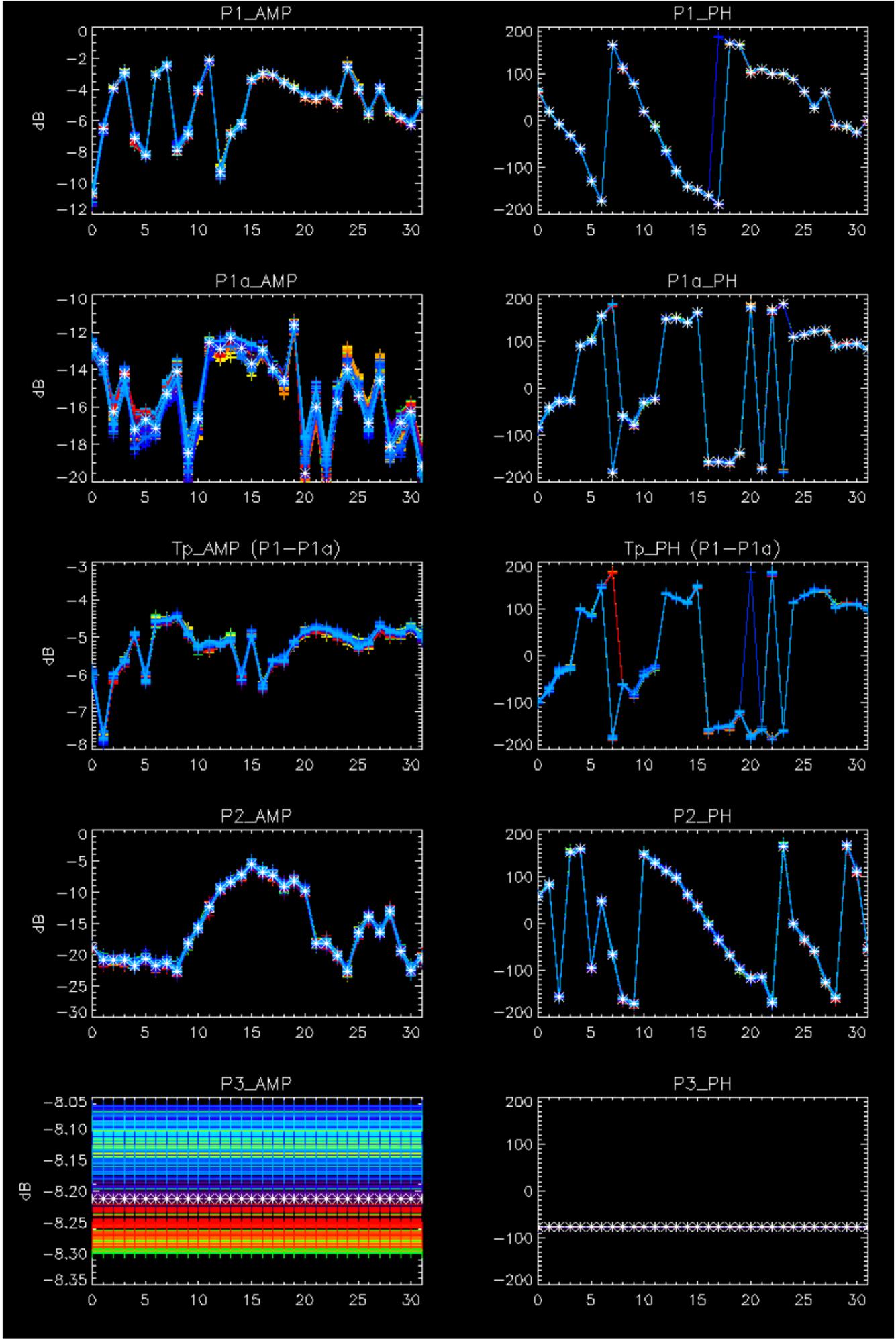
Cal pulses for WVS IS2



No anomalies observed on available browse products

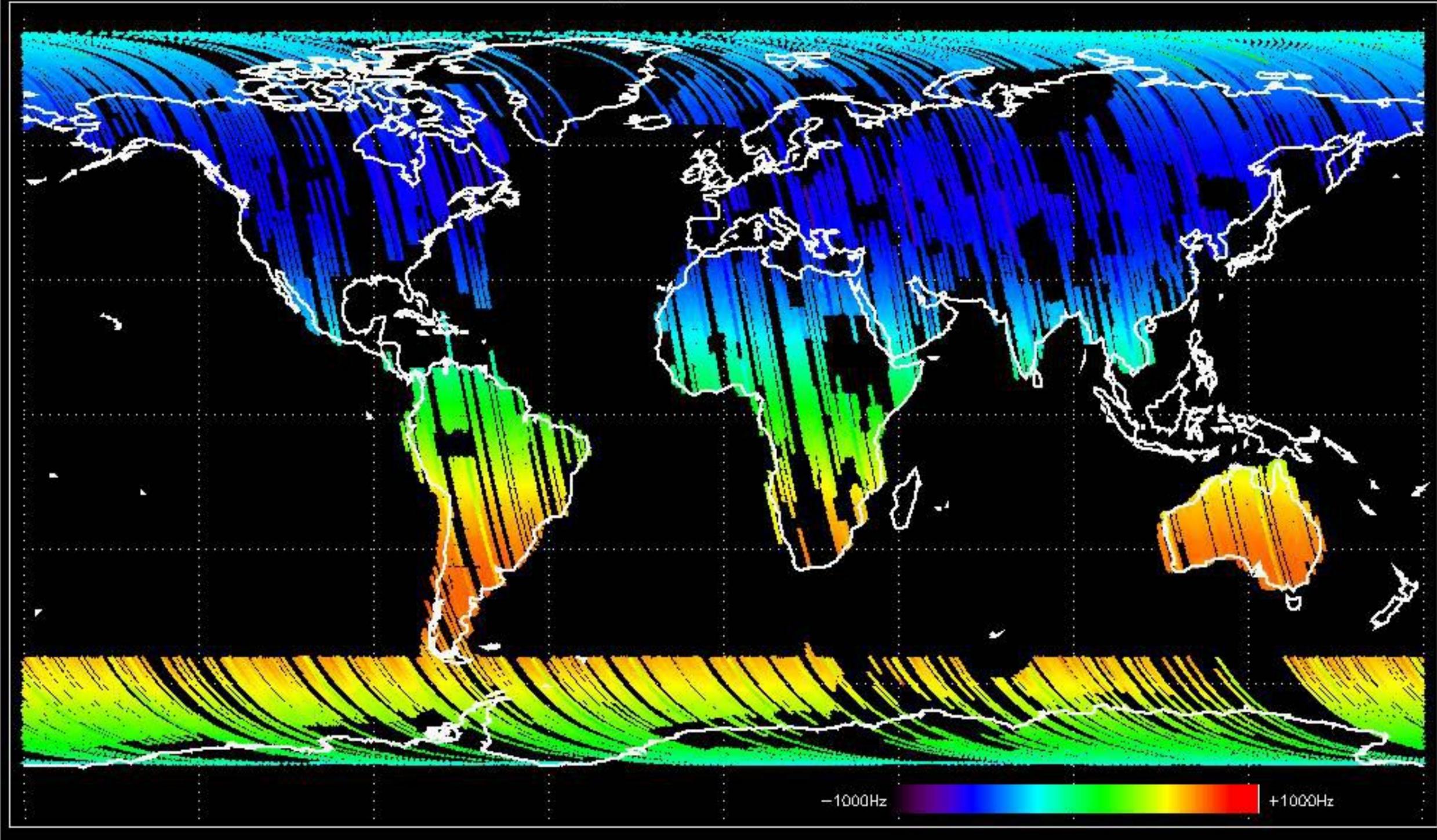
No anomalies observed.



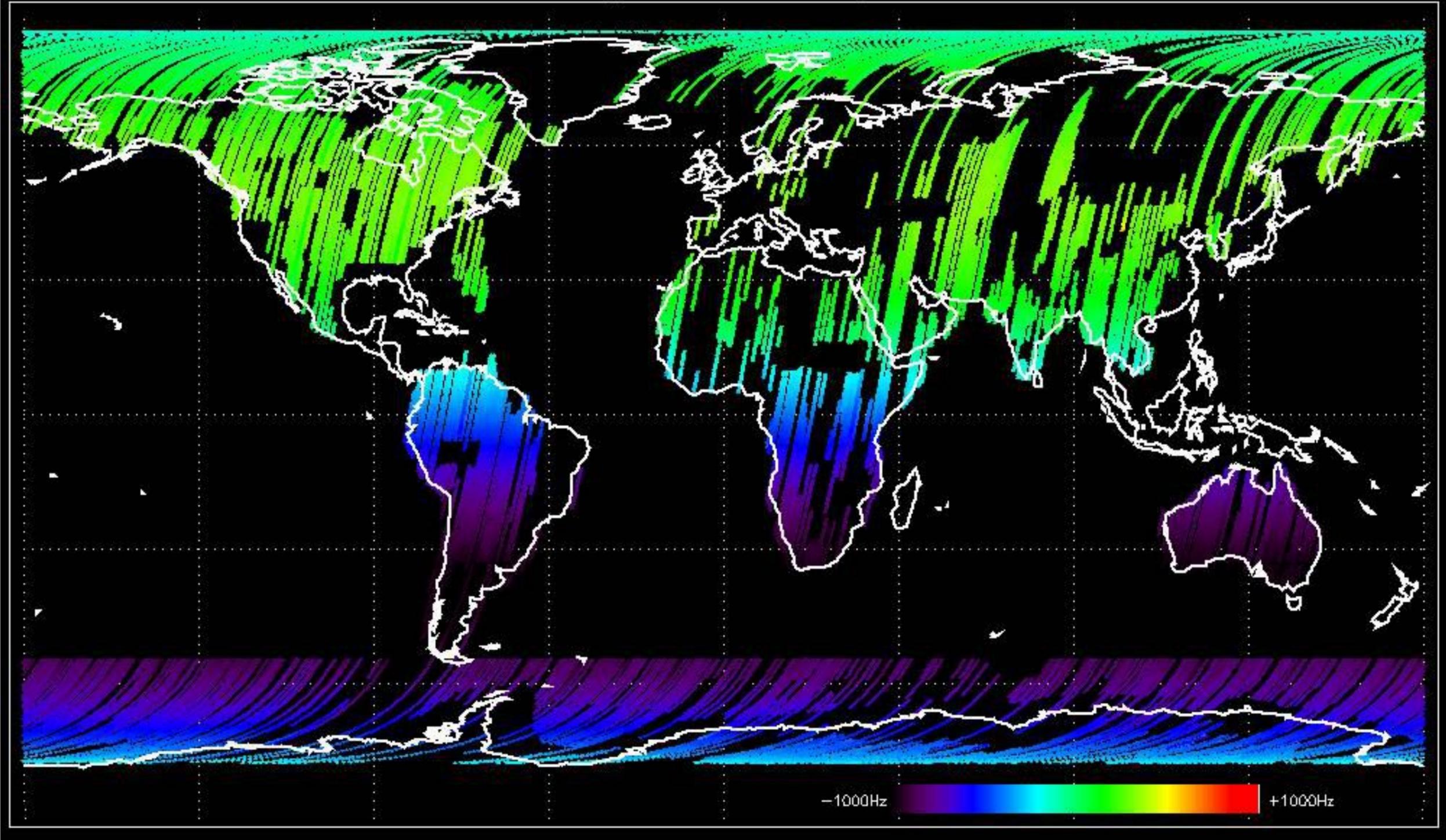


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

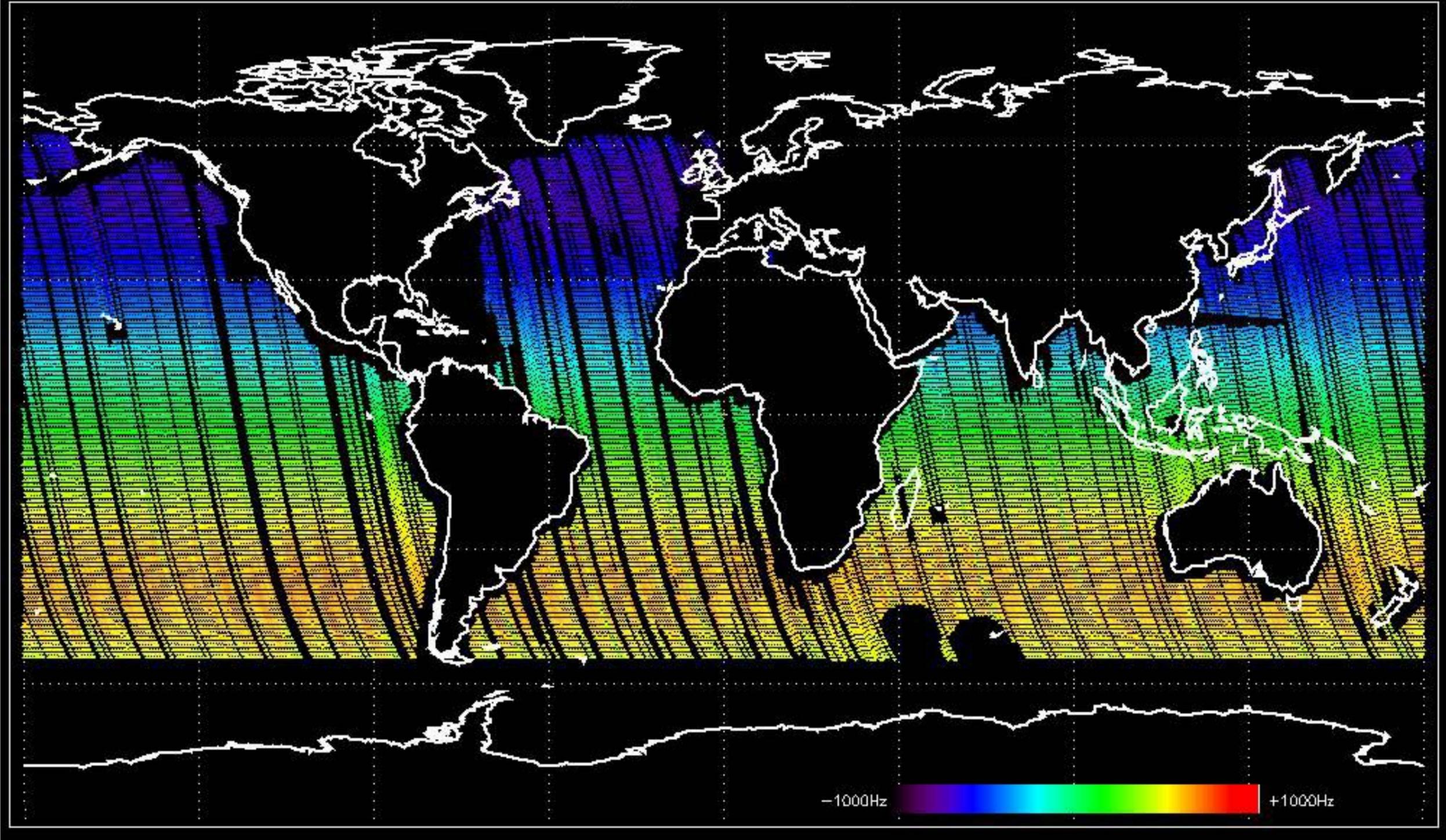
Doppler 'GM1' 'SS1' ascending



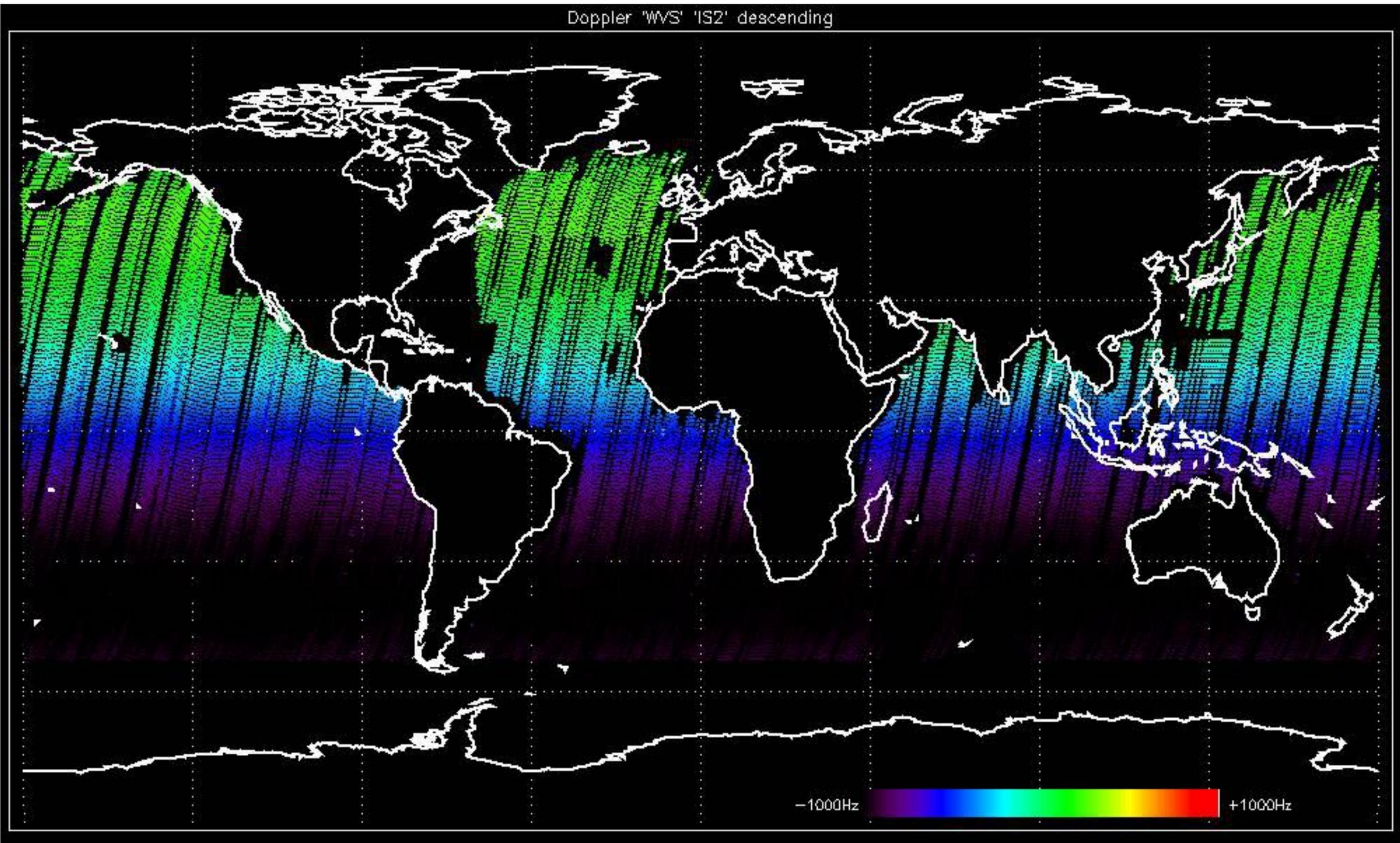
Doppler 'GM1' 'SS1' descending



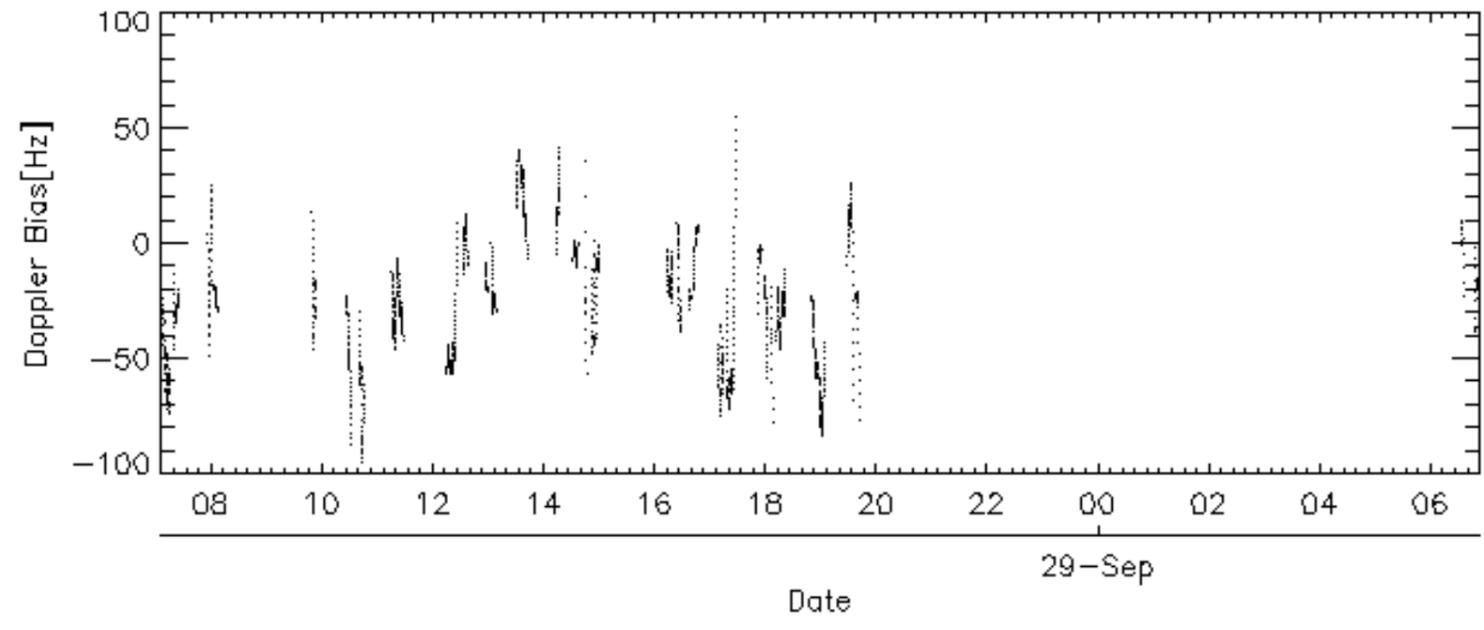
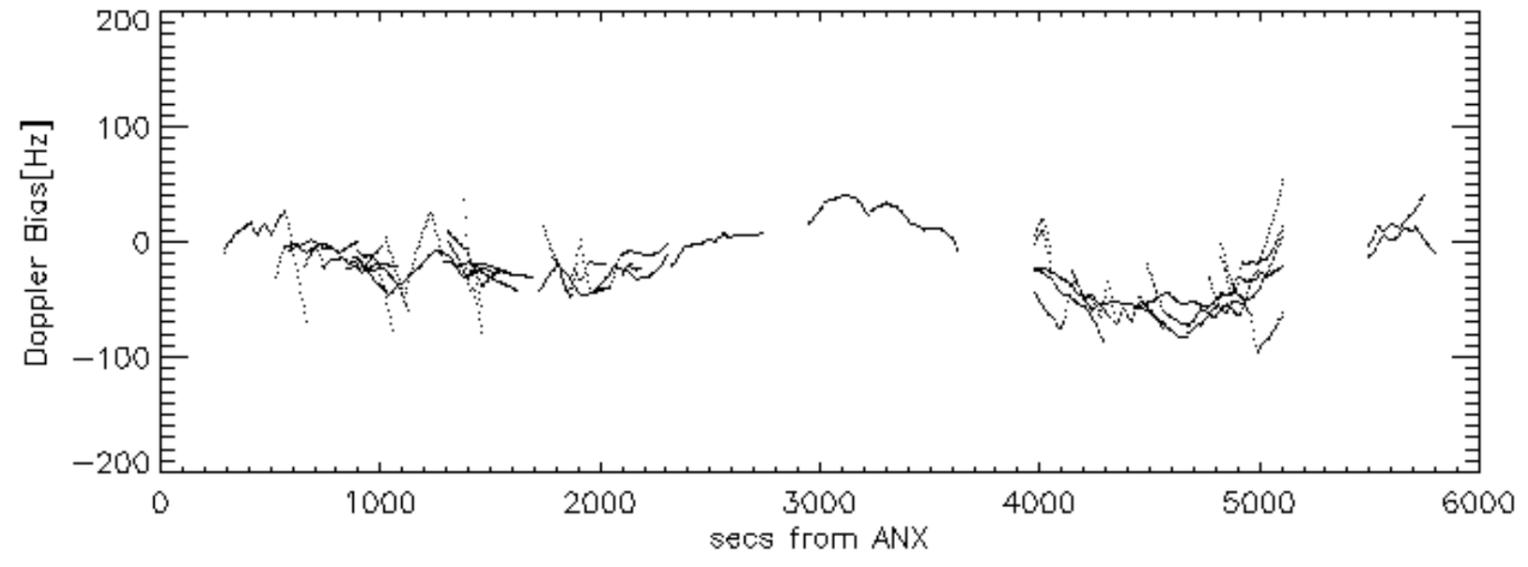
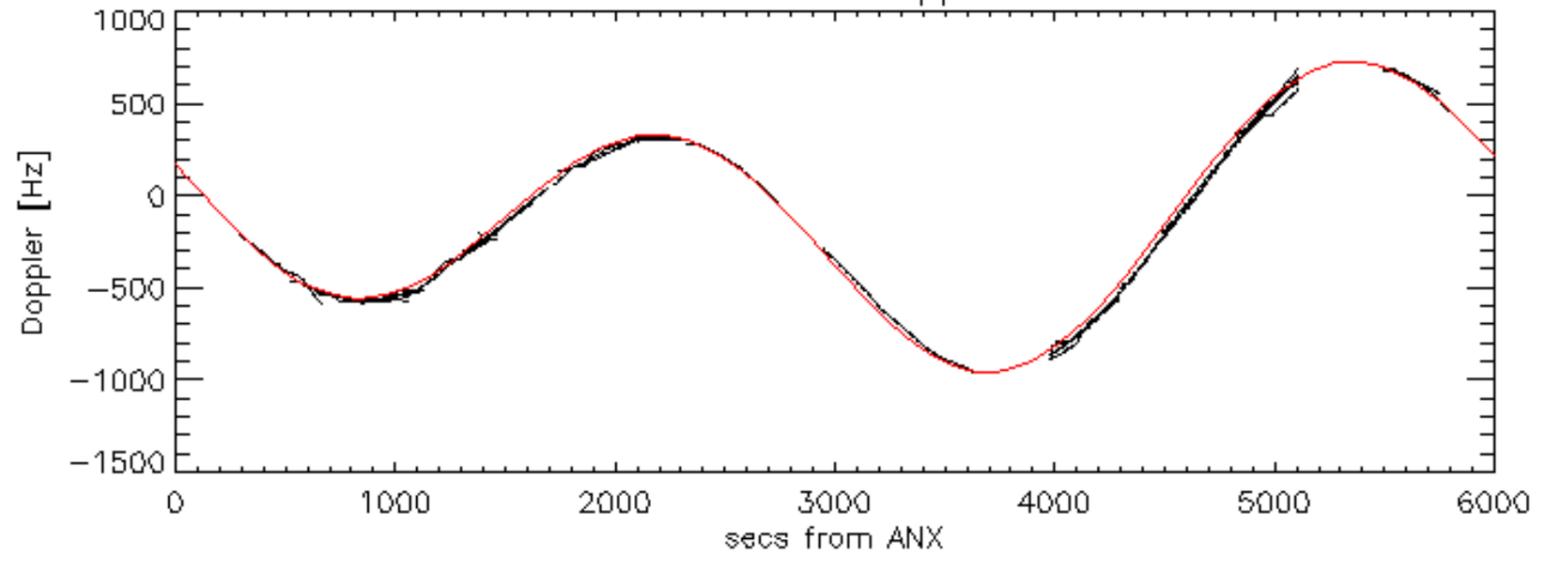
Doppler 'WVS' 'IS2' ascending

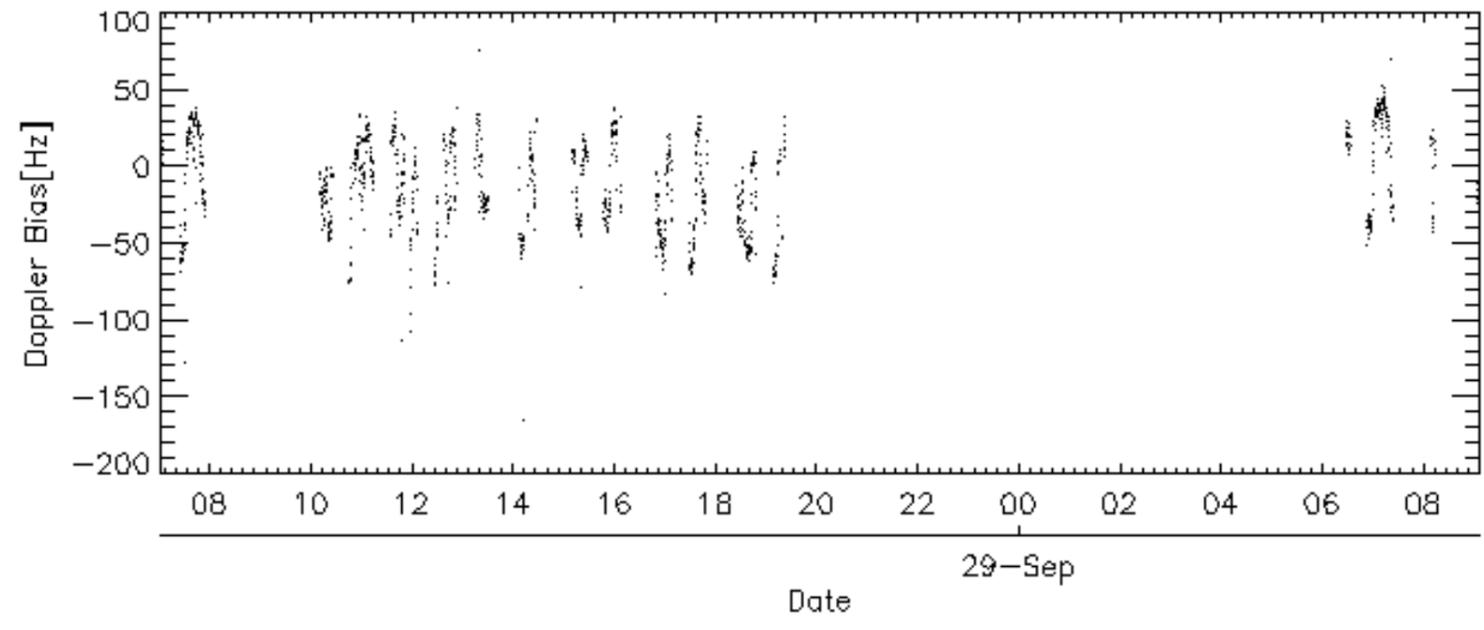
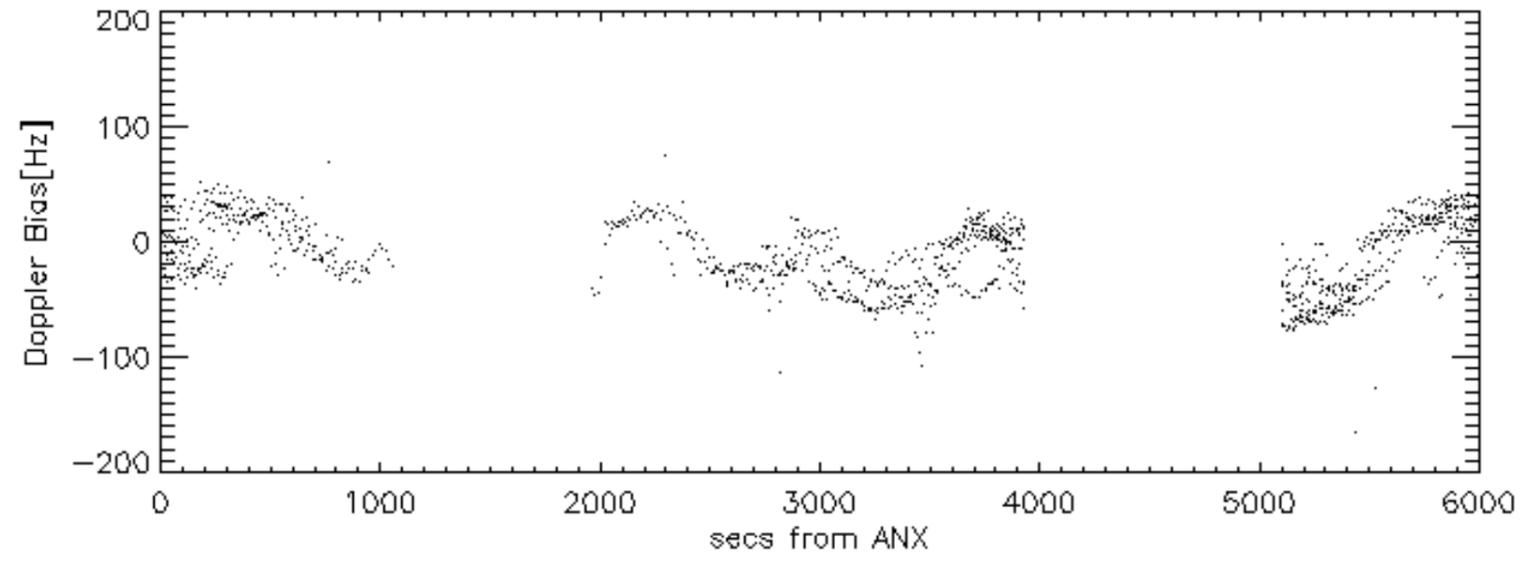
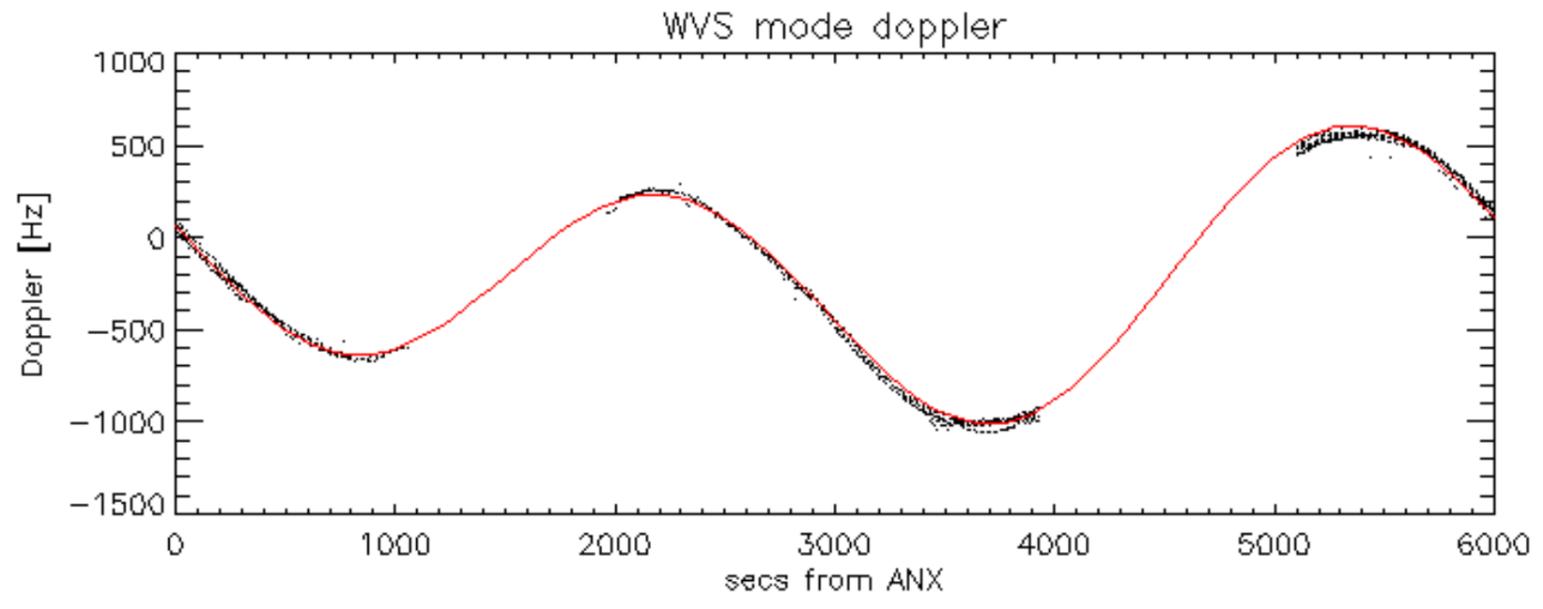


Doppler 'WVS' 'IS2' descending

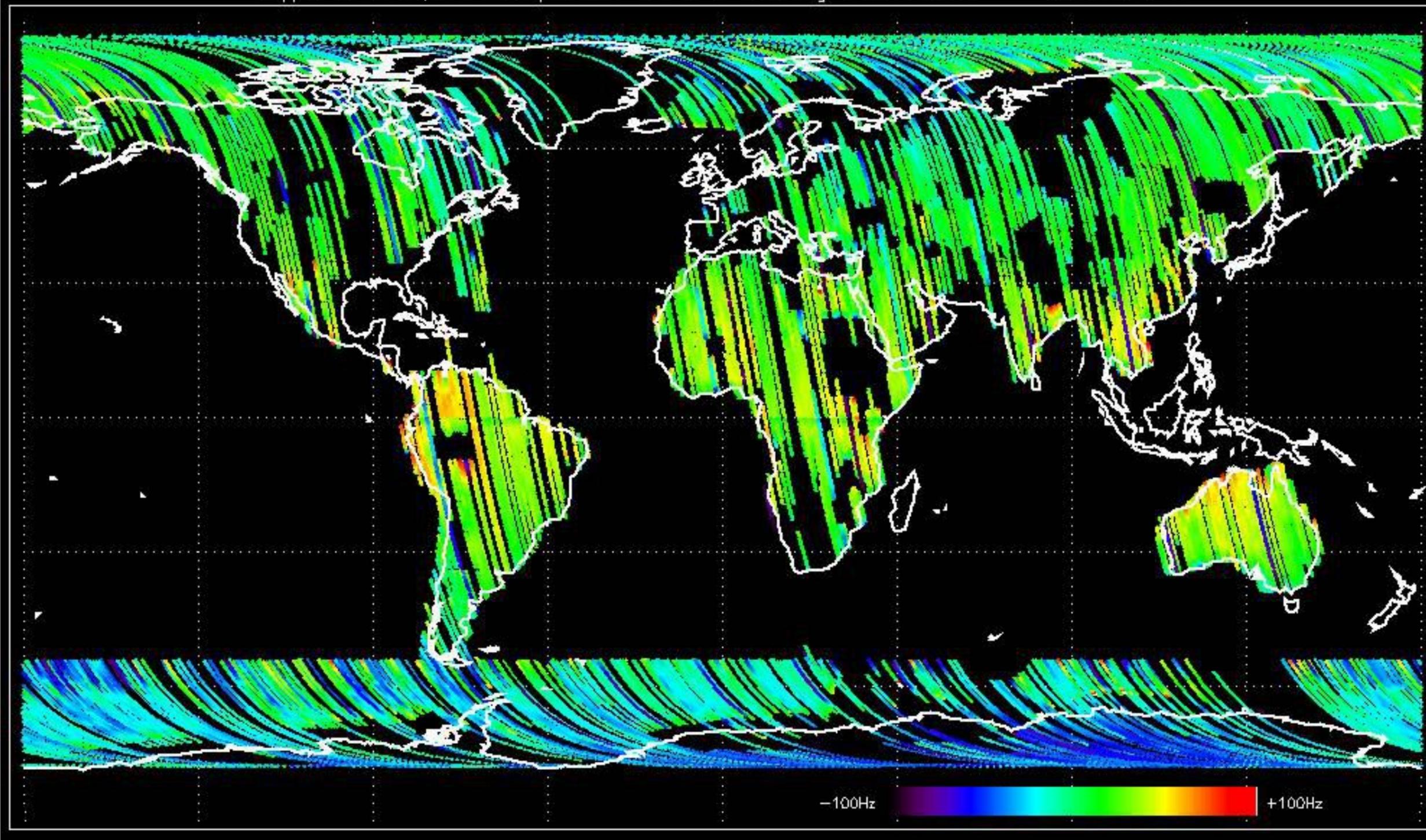


GM1 mode doppler

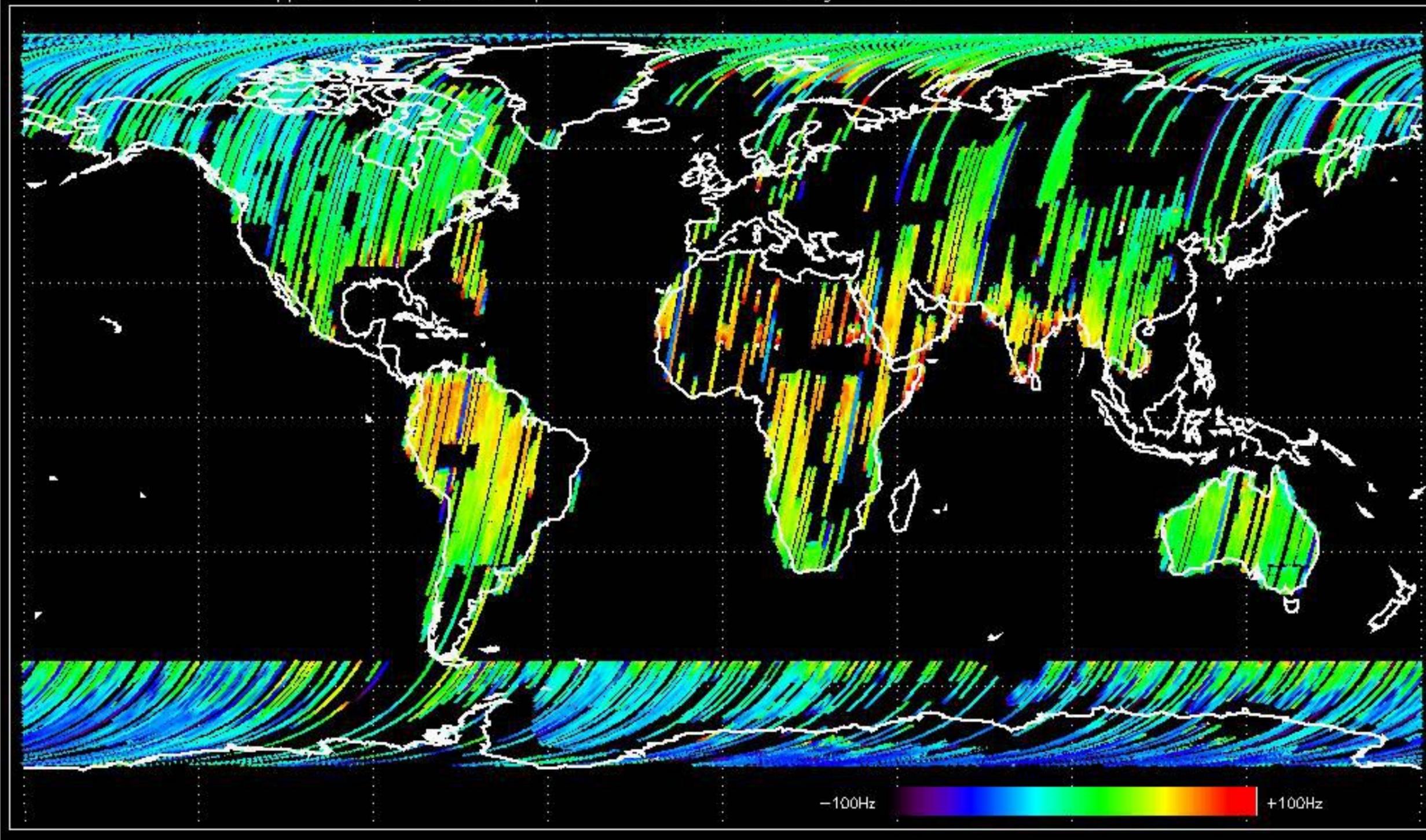




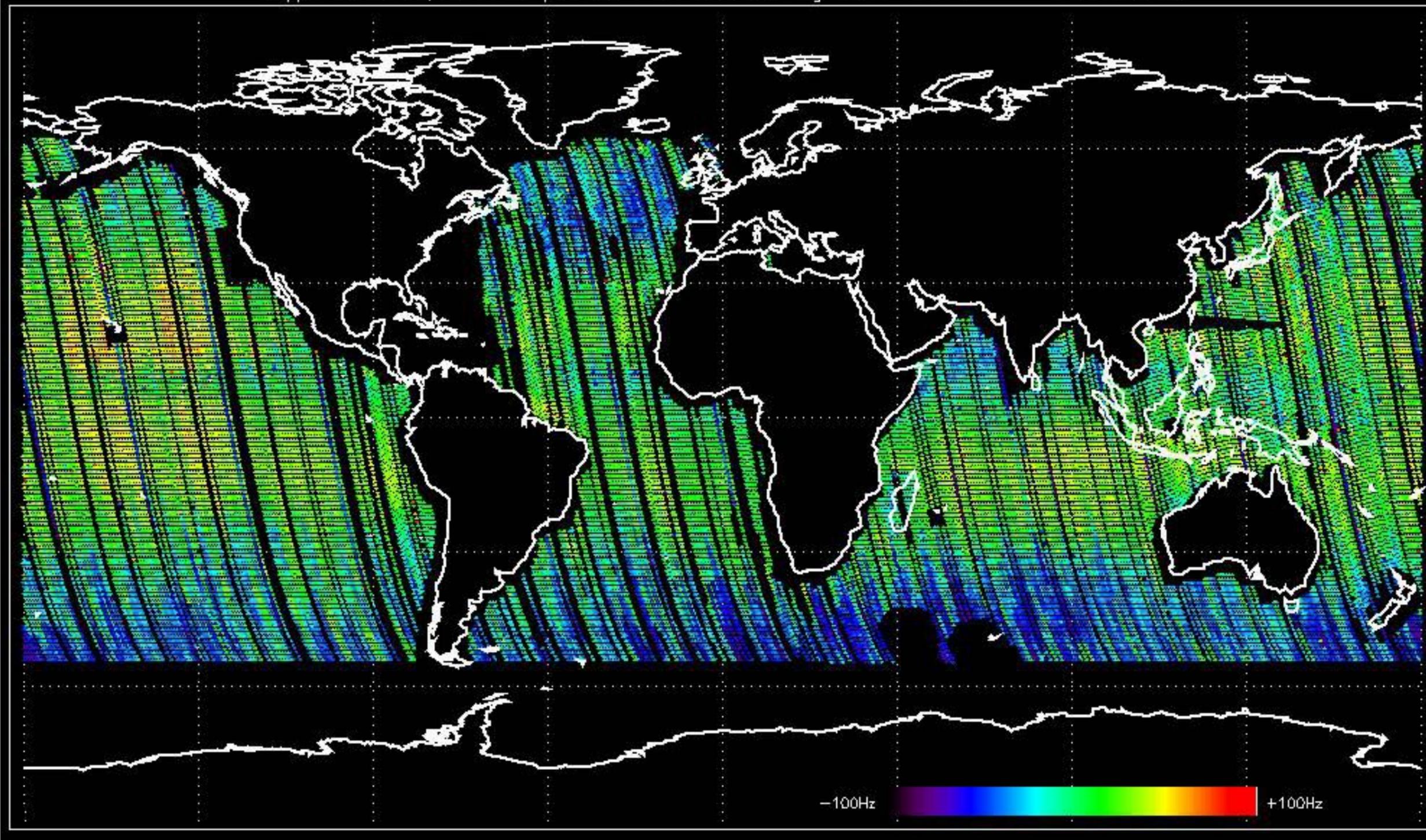
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.099171 Hz



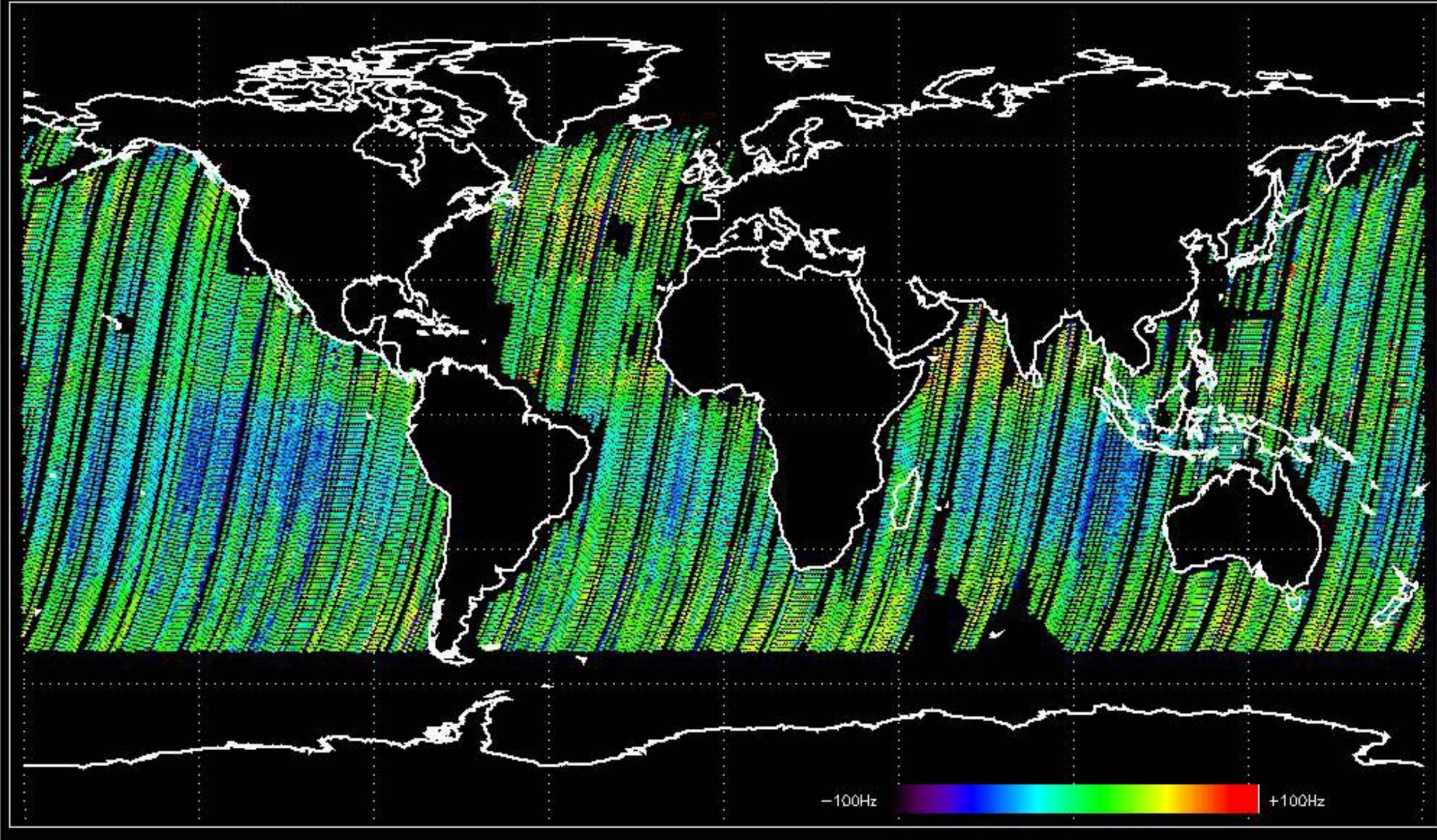
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.114077 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.593882 Hz

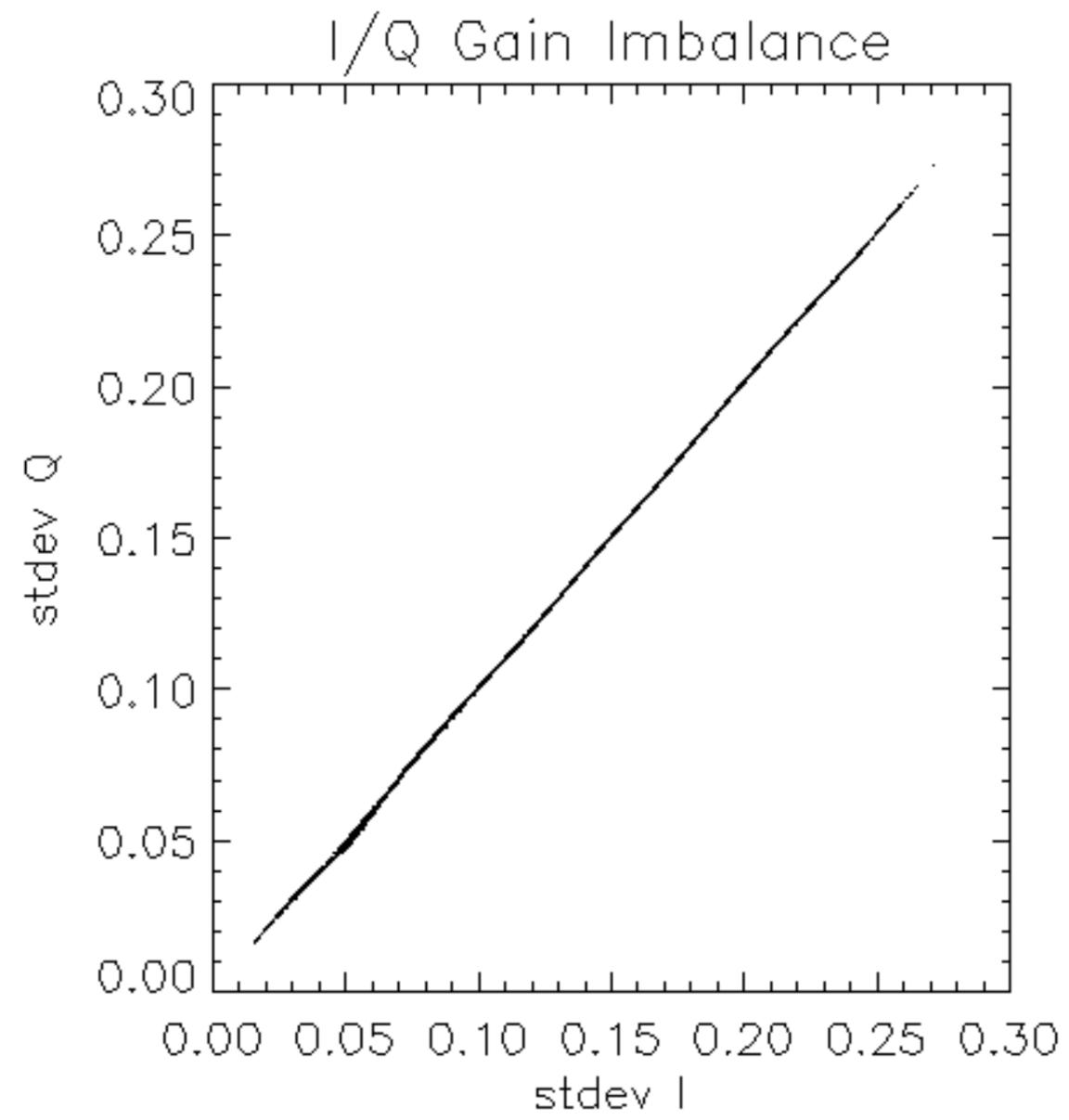


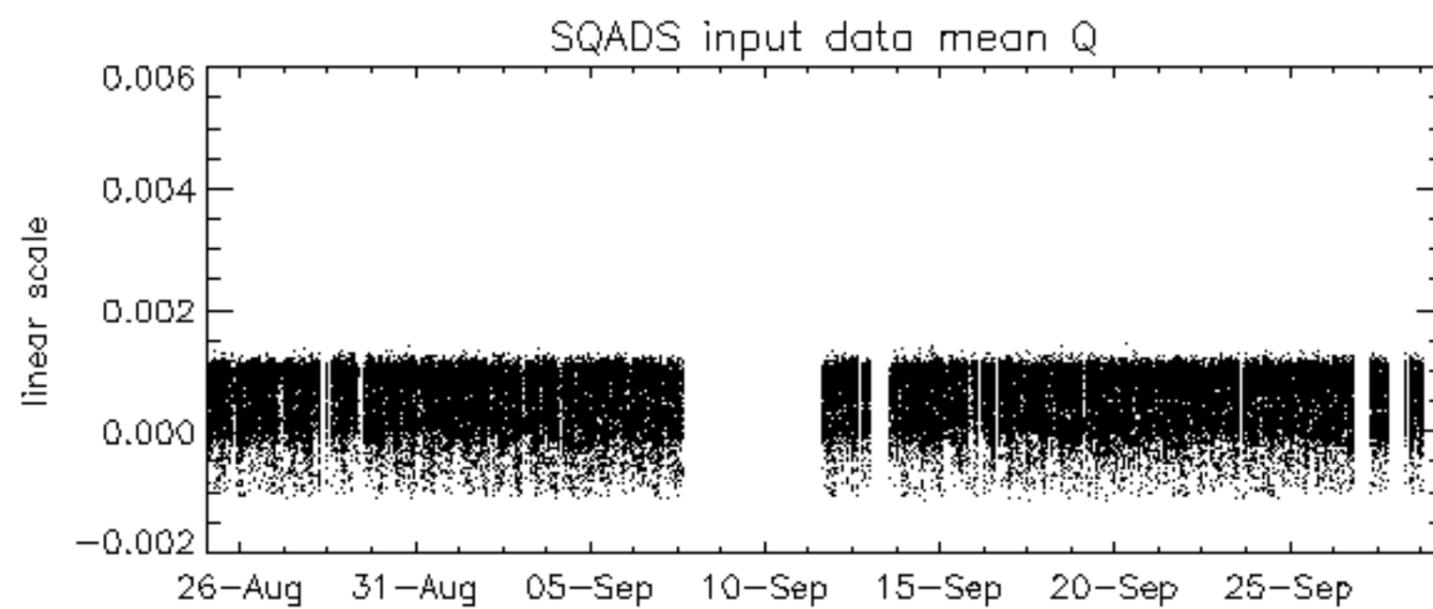
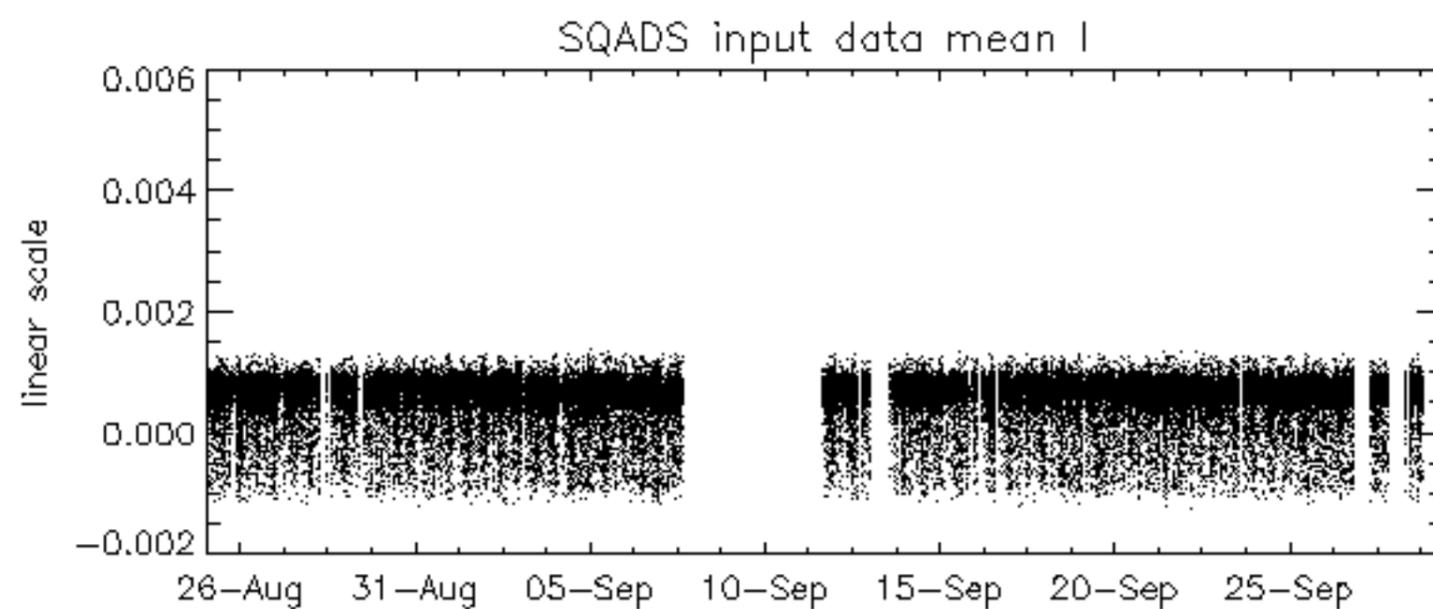
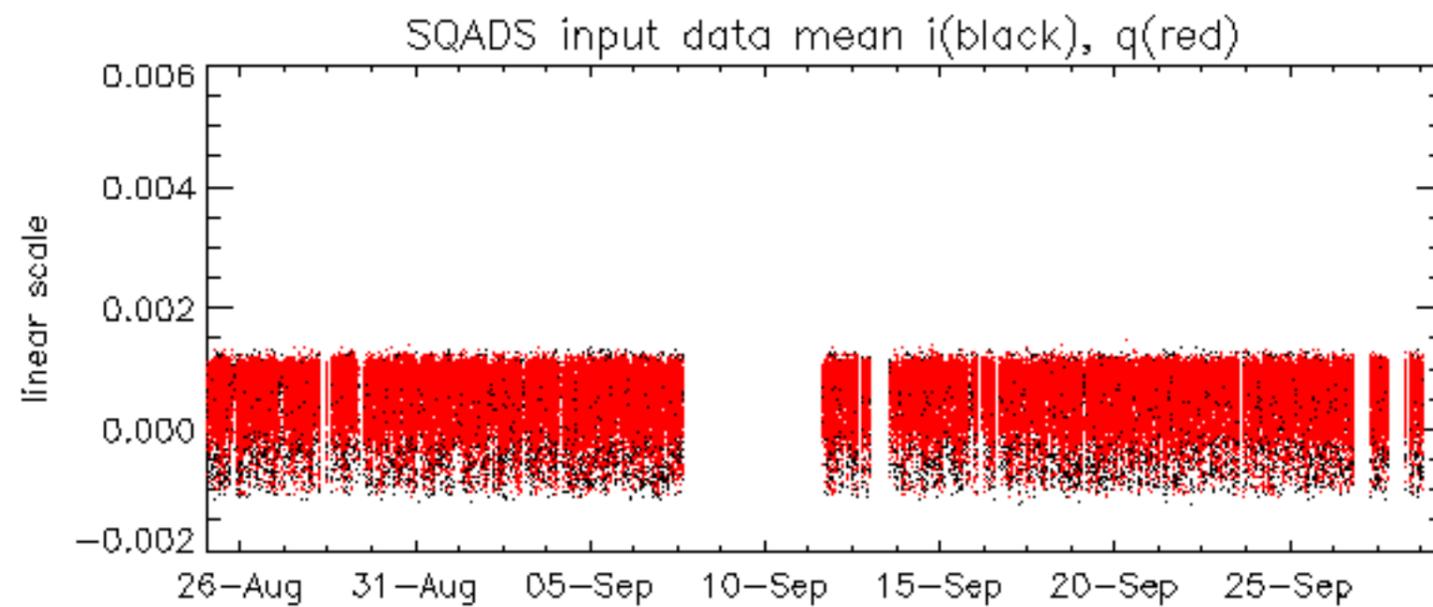
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -15.448213 Hz

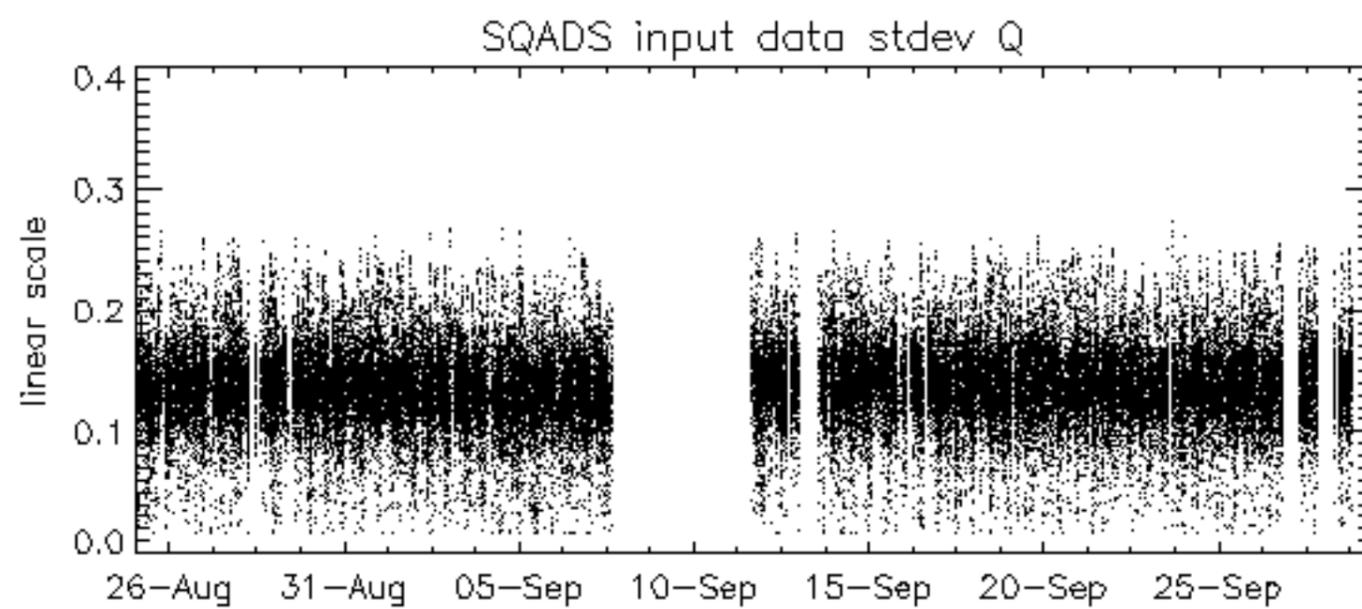
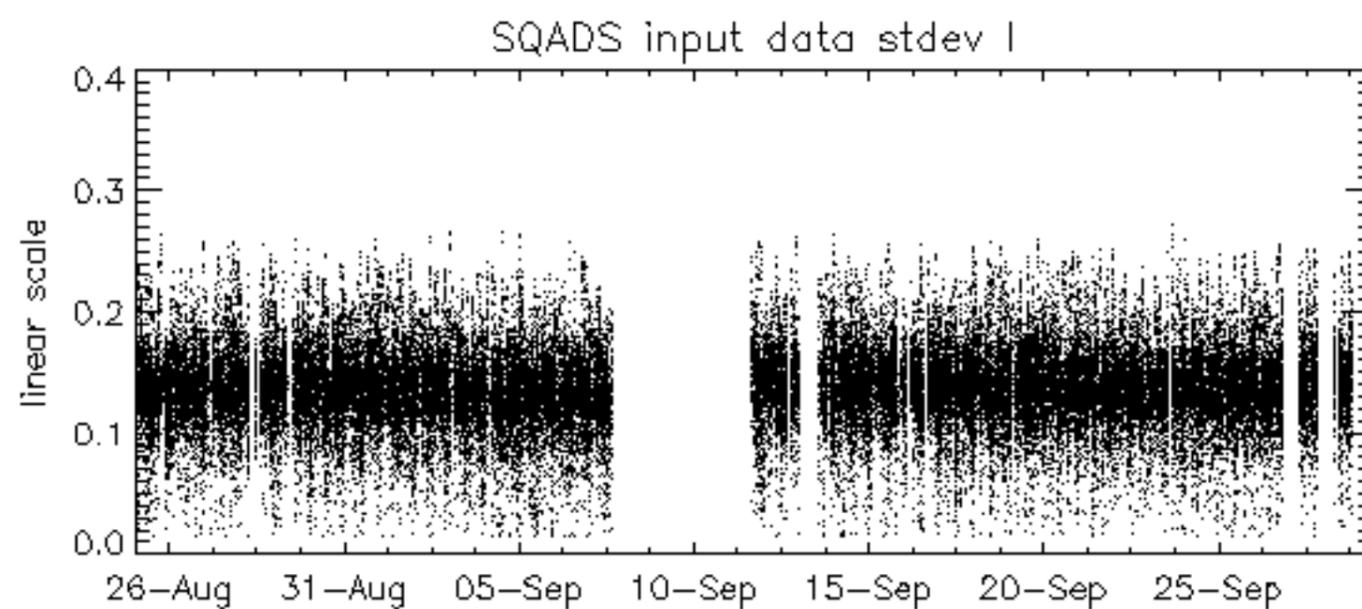
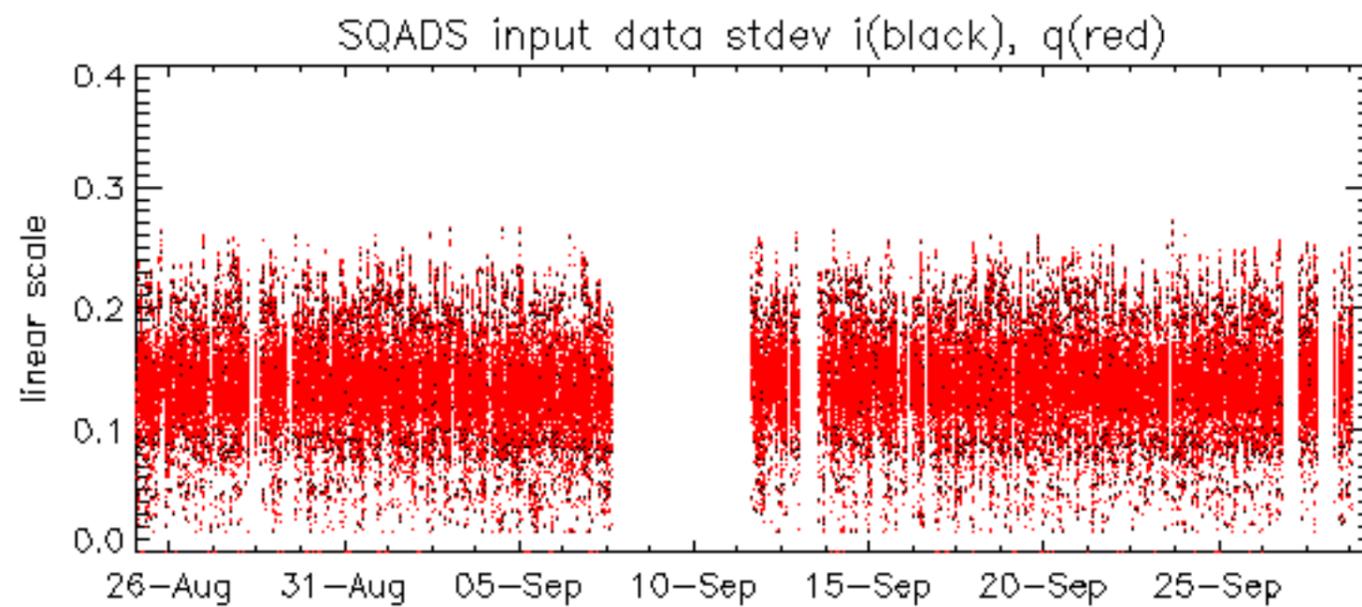


No anomalies observed on available MS products:

No anomalies observed.



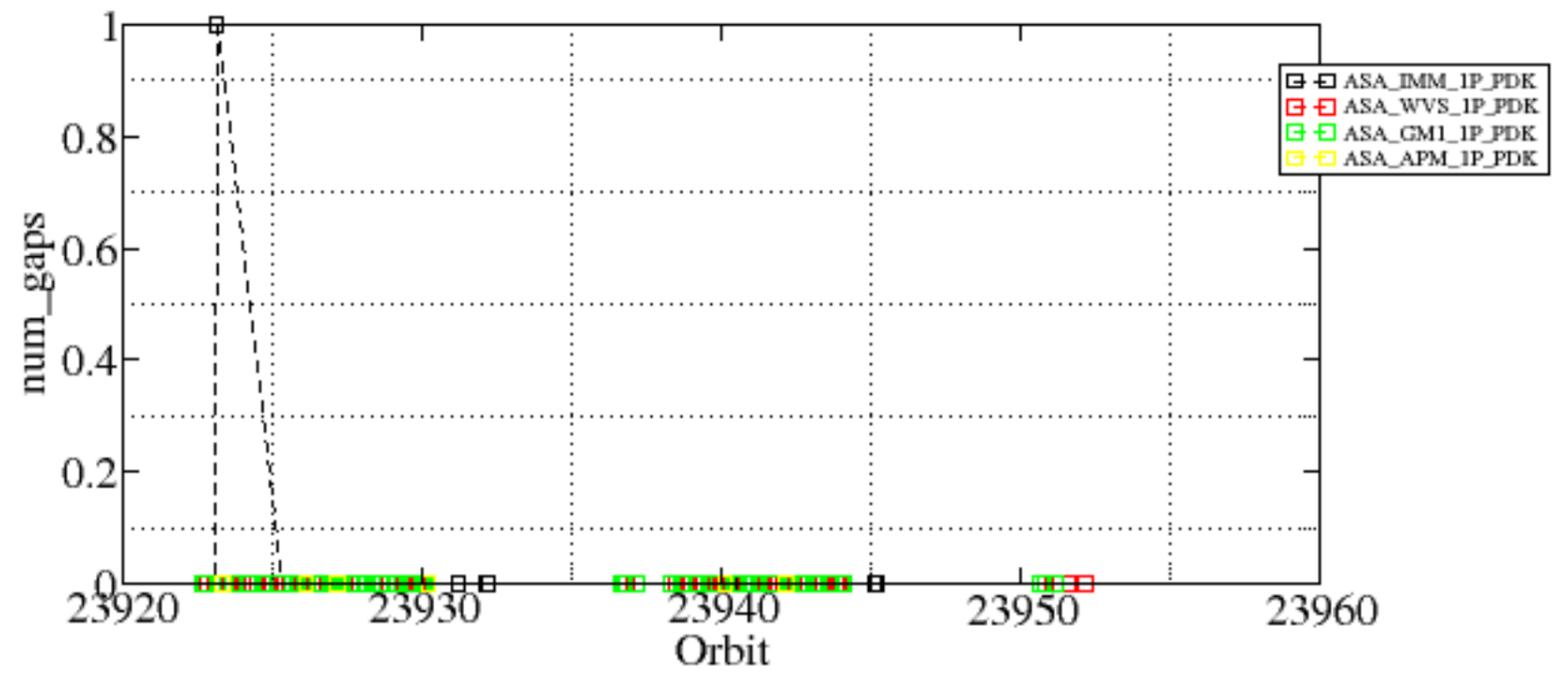


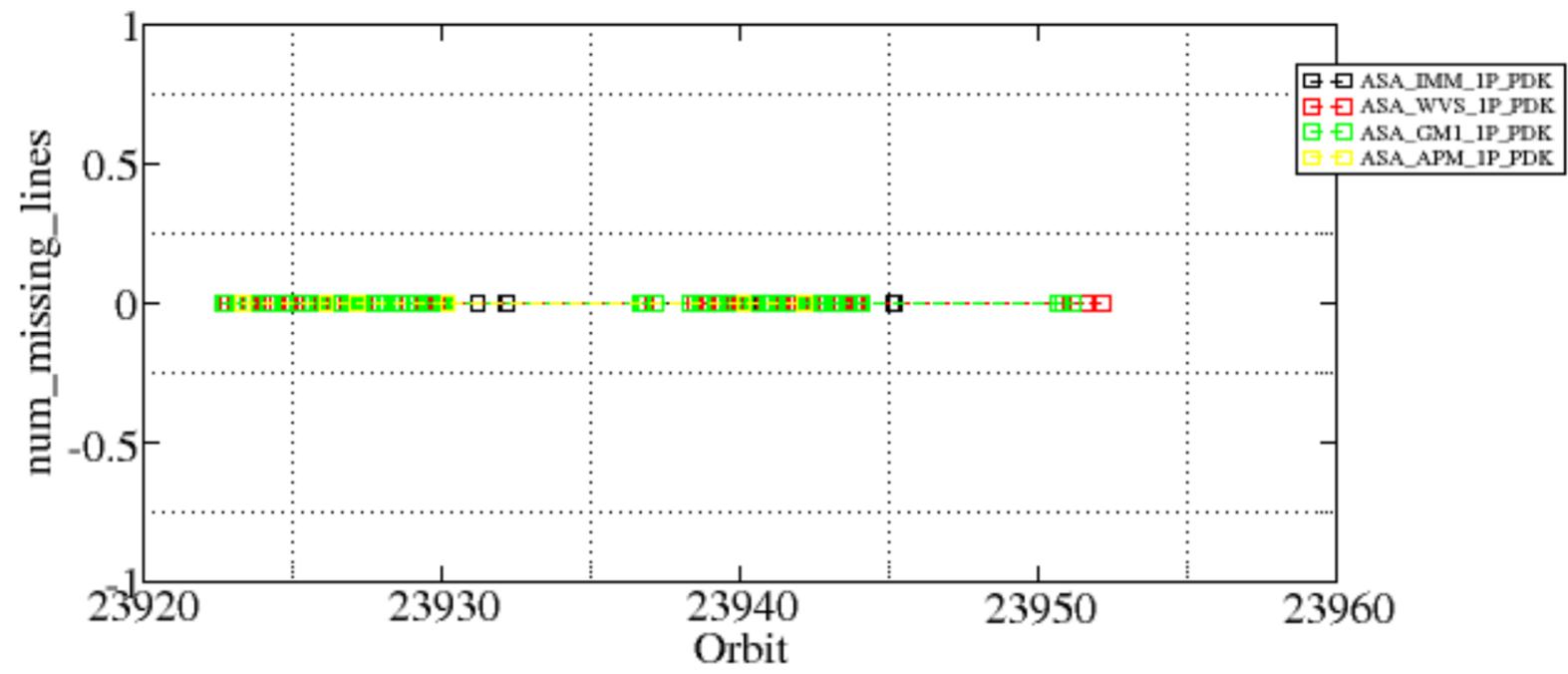


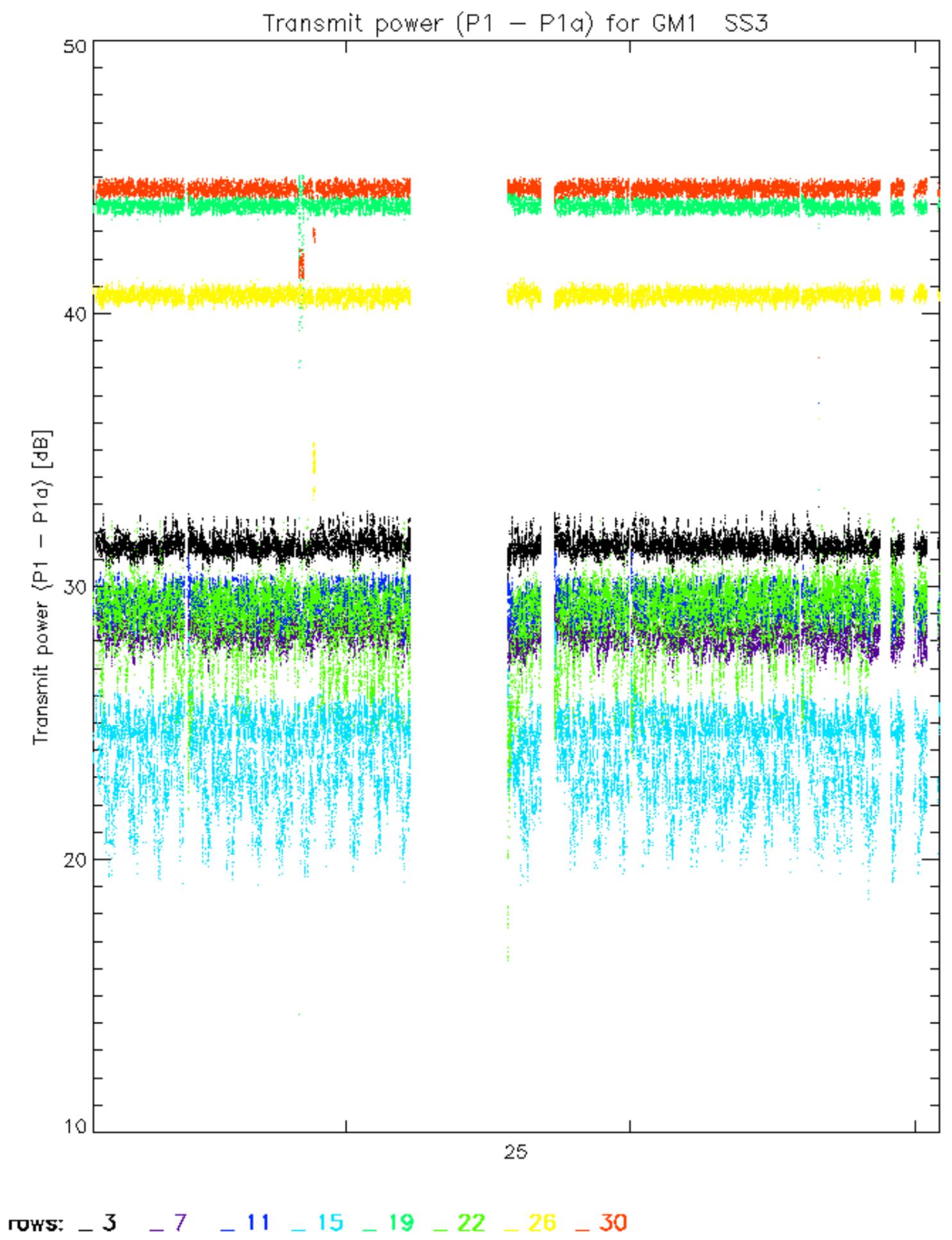
Summary of analysis for the last 3 days 2006092[789]

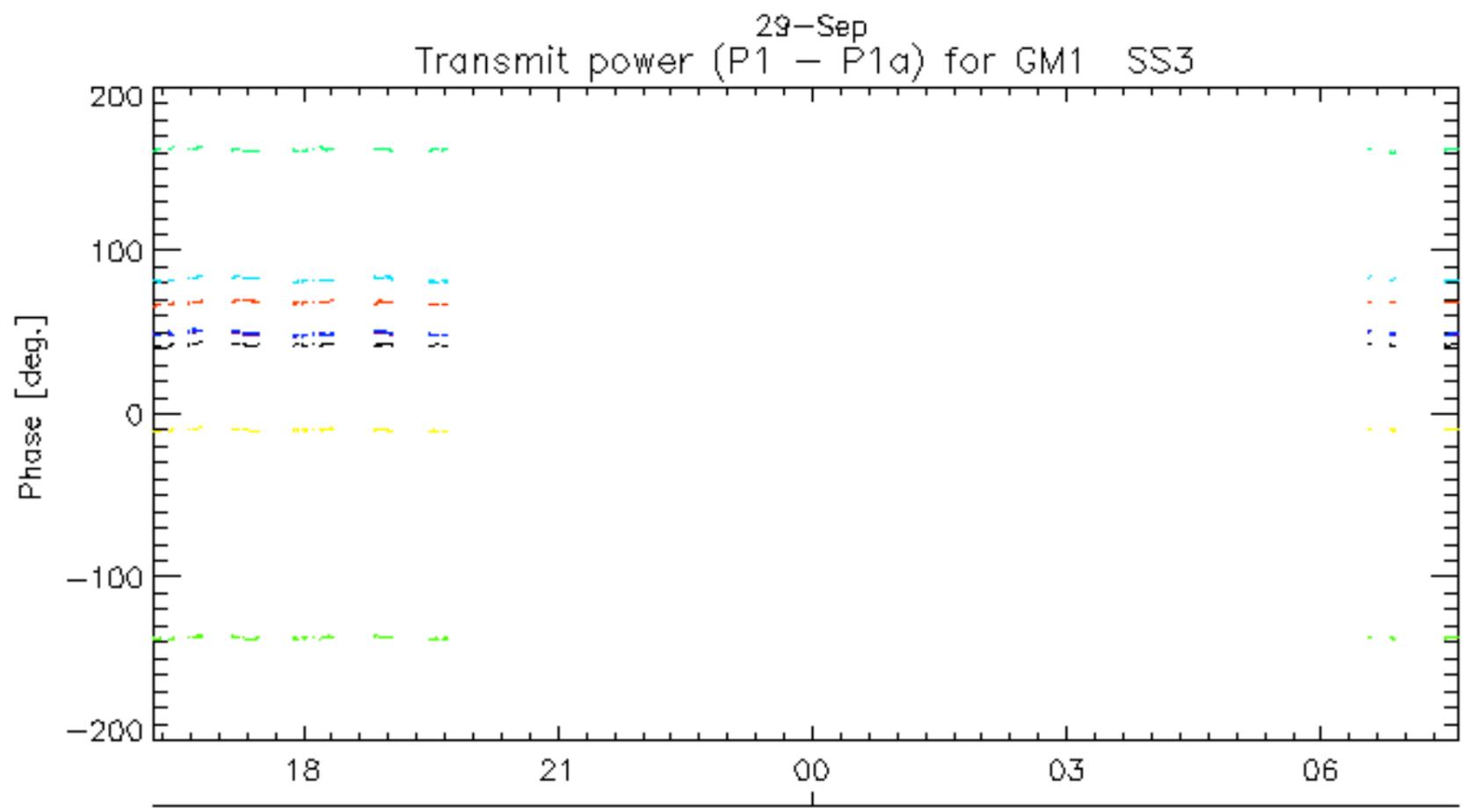
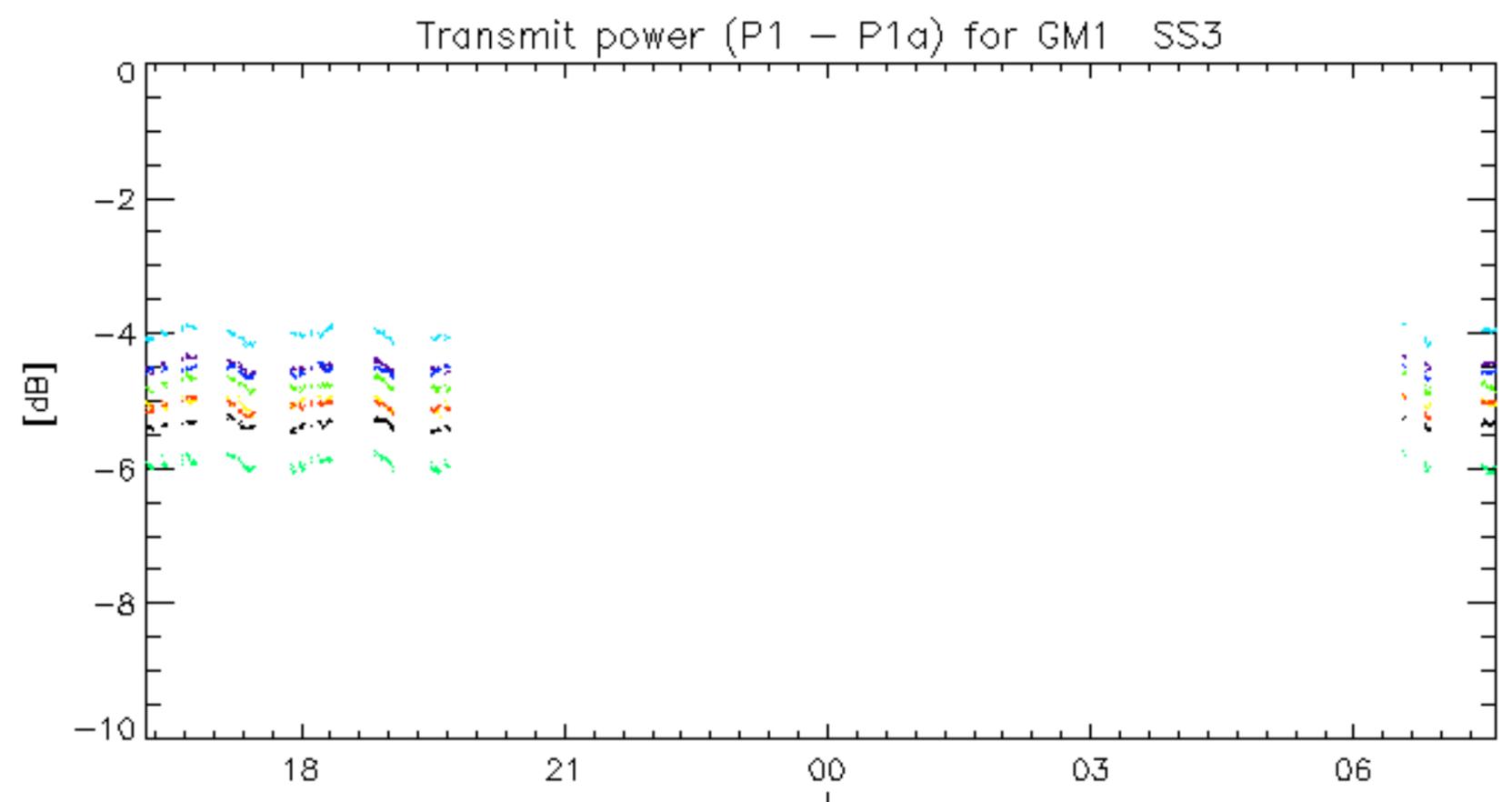
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20060927_082513_000001912051_00322_23923_2143.N1	1	0

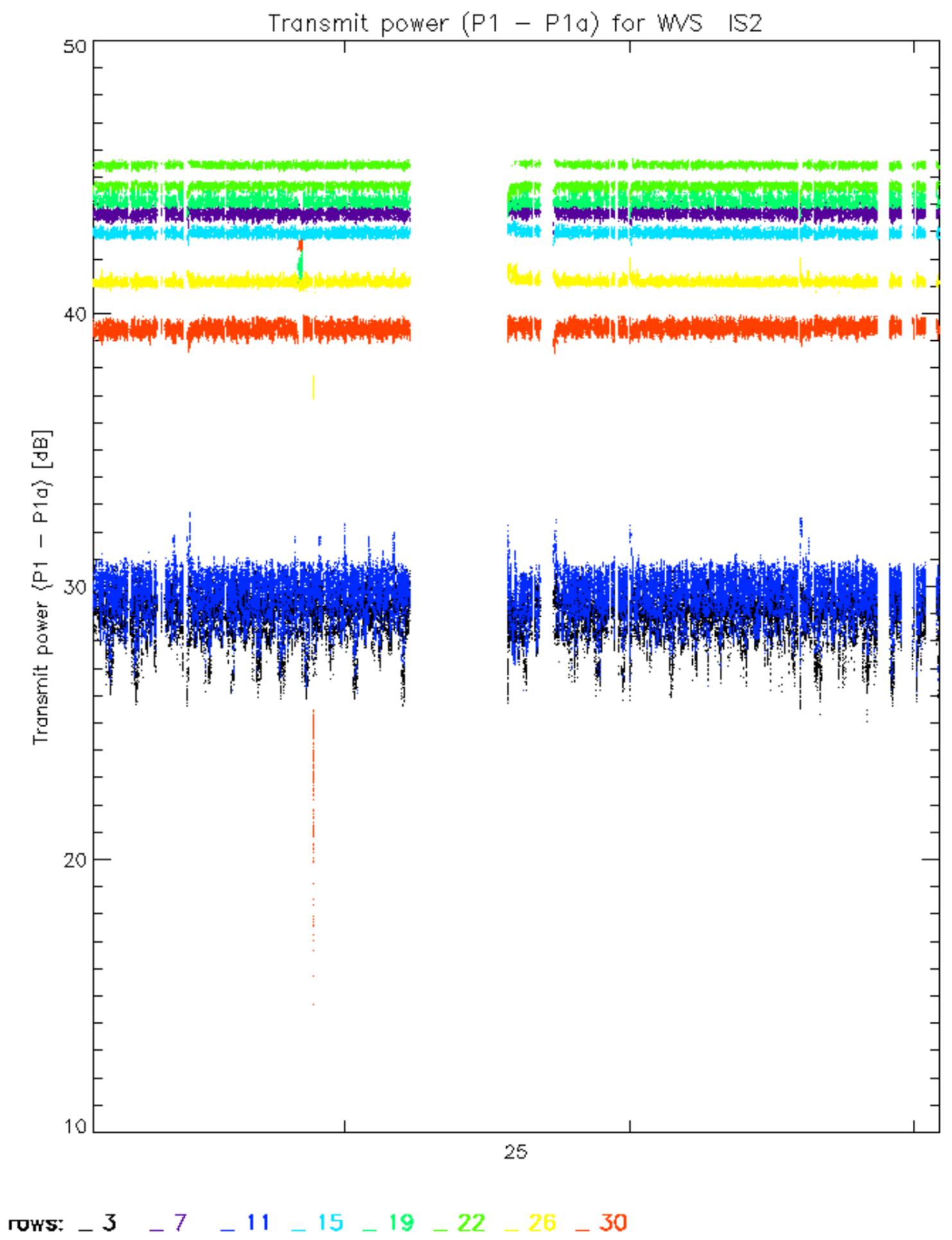


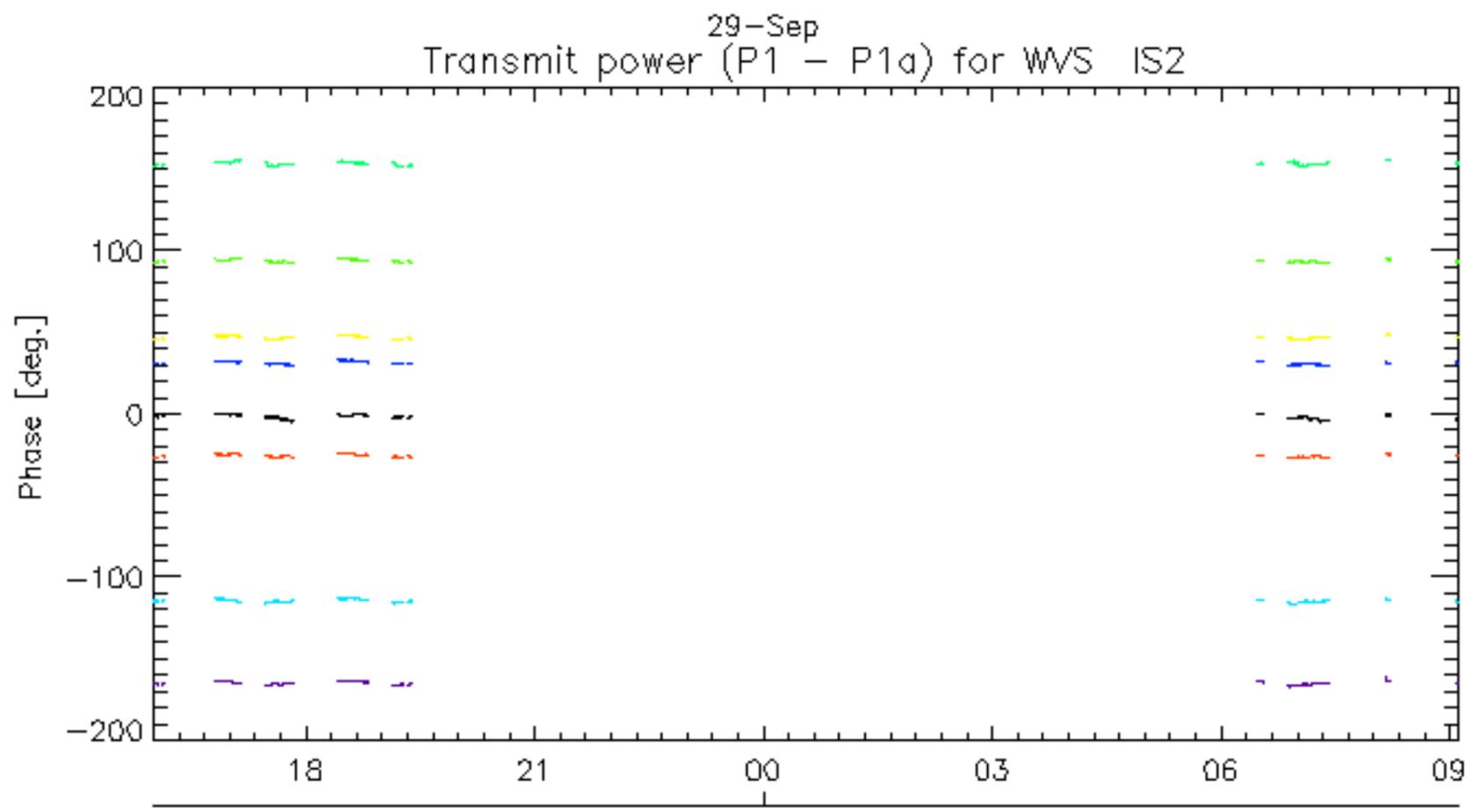
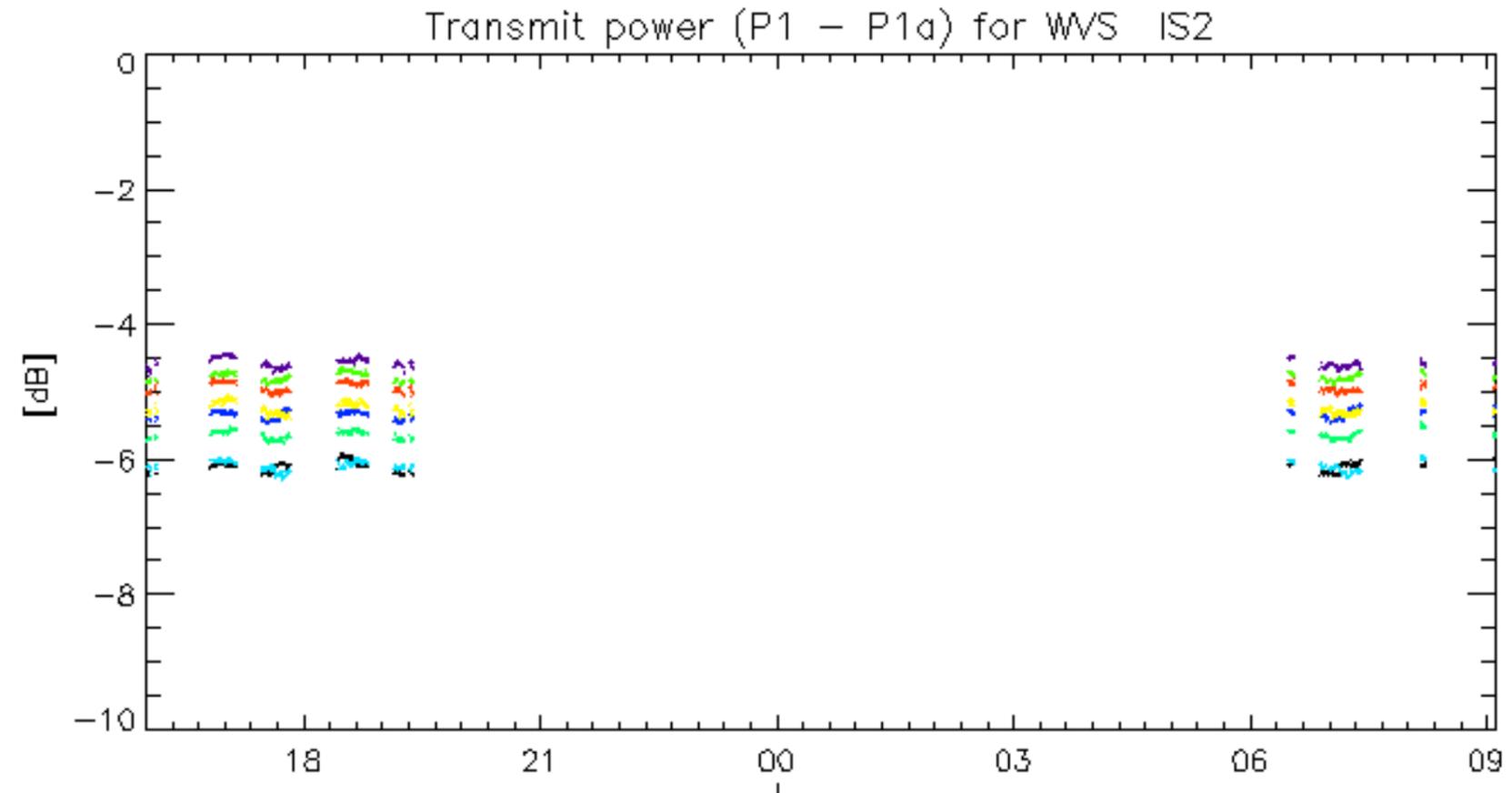






rows: **3** **7** **11** **15** **19** **22** **26** **30**





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

No unavailabilities during the reported period.