

PRELIMINARY REPORT OF 060730

last update on Sun Jul 30 16:34:36 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 2006-07-29 00:00:00 to 2006-07-30 16:34:36

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	70	18	7	21
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	70	18	7	21
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	70	18	7	21
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	70	18	7	21

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	36	62	61	27	38
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	36	62	61	27	38
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	62	61	27	38
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	62	61	27	38

2.3 - Browse Visual Inspection

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	20060729 204909
H	20060728 143822

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
<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	-3.935239	0.011660	-0.025212
7	P1	-3.100062	0.010303	0.009579
11	P1	-4.085282	0.013708	0.004369
15	P1	-6.173833	0.011463	-0.008190
19	P1	-3.403731	0.009915	-0.052525
22	P1	-4.550380	0.010230	-0.029686
26	P1	-3.927354	0.020082	0.030743
30	P1	-5.762888	0.009386	-0.004157
3	P1	-16.518179	0.306326	-0.055896
7	P1	-17.193260	0.102770	-0.024304
11	P1	-16.980732	0.277917	0.002742
15	P1	-13.105300	0.148338	0.048513
19	P1	-14.460932	0.054008	-0.119511
22	P1	-16.013597	0.426854	0.032087
26	P1	-15.119356	0.238354	0.083324
30	P1	-17.102226	0.347662	-0.039296

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.968740	0.087611	0.140780
7	P2	-21.911095	0.104667	0.082416
11	P2	-15.790549	0.121141	0.060779
15	P2	-7.128491	0.099930	0.023146
19	P2	-9.132957	0.091150	0.010725
22	P2	-18.149252	0.086122	0.002596
26	P2	-16.400278	0.092954	-0.016385
30	P2	-19.519611	0.092685	0.042548

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.174597	0.003016	0.002473
7	P3	-8.174597	0.003016	0.002473
11	P3	-8.174597	0.003016	0.002473
15	P3	-8.174597	0.003016	0.002473
19	P3	-8.174597	0.003016	0.002473
22	P3	-8.174597	0.003016	0.002473
26	P3	-8.174597	0.003016	0.002473
30	P3	-8.174597	0.003016	0.002473

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	-3.810427	0.022944	-0.075688
7	P1	-2.557932	0.007979	0.025418
11	P1	-2.856757	0.014321	0.018205
15	P1	-3.570475	0.029116	-0.031343
19	P1	-3.422446	0.025149	-0.029346
22	P1	-5.088384	0.019894	0.021024
26	P1	-5.860745	0.015945	-0.016494
30	P1	-5.195321	0.033301	-0.017474
3	P1	-11.596611	0.079266	-0.096100
7	P1	-9.967744	0.034334	0.028582
11	P1	-10.248840	0.056345	-0.001829
15	P1	-10.752963	0.143563	0.011544
19	P1	-15.554597	0.520875	-0.129262
22	P1	-20.910664	1.236942	0.012406
26	P1	-16.286882	0.381514	0.202179
30	P1	-17.920000	0.410759	-0.139506

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.608658	0.071413	0.198220
7	P2	-22.388659	0.125273	0.141070
11	P2	-11.045485	0.041756	0.075385
15	P2	-4.909705	0.045720	0.033271
19	P2	-6.872369	0.041207	0.028395
22	P2	-8.195321	0.036744	0.017828
26	P2	-24.181705	0.061498	0.025621
30	P2	-22.010593	0.049632	0.049581

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013474	0.003757	0.009891
7	P3	-8.013493	0.003754	0.010056
11	P3	-8.013342	0.003766	0.009705
15	P3	-8.013405	0.003763	0.009952
19	P3	-8.013462	0.003761	0.009945
22	P3	-8.013541	0.003751	0.009582
26	P3	-8.013466	0.003755	0.009755
30	P3	-8.013453	0.003756	0.009947

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	0.000562967
	stdev	1.69442e-07
MEAN Q	mean	0.000537328
	stdev	2.14713e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137705
	stdev	0.00110137
STDEV Q	mean	0.138064
	stdev	0.00111927



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[890]

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_1PNPDE20060720_200916_000000372049_00343_22942_1445.N1	0	28
ASA_IMM_1PNPDE20060729_015644_000000792049_00461_23060_2471.N1	1	0
ASA_IMM_1PNPDE20060729_015644_000000802049_00461_23060_2372.N1	1	0
ASA_IMM_1PNPDK20060728_083400_000000372049_00451_23050_1001.N1	0	20
ASA_WSM_1PNPDE20060720_142714_000000852049_00340_22939_3788.N1	0	60
ASA_WSM_1PNPDE20060720_233449_000003302049_00345_22944_3858.N1	0	34
ASA_WSM_1PNPDE20060728_183647_000002932049_00457_23056_4791.N1	0	65
ASA_WSM_1PNPDE20060729_180625_000001702049_00471_23070_4887.N1	0	66
ASA_WSM_1PNPDE20060729_230555_000001092049_00474_23073_4911.N1	0	2



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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

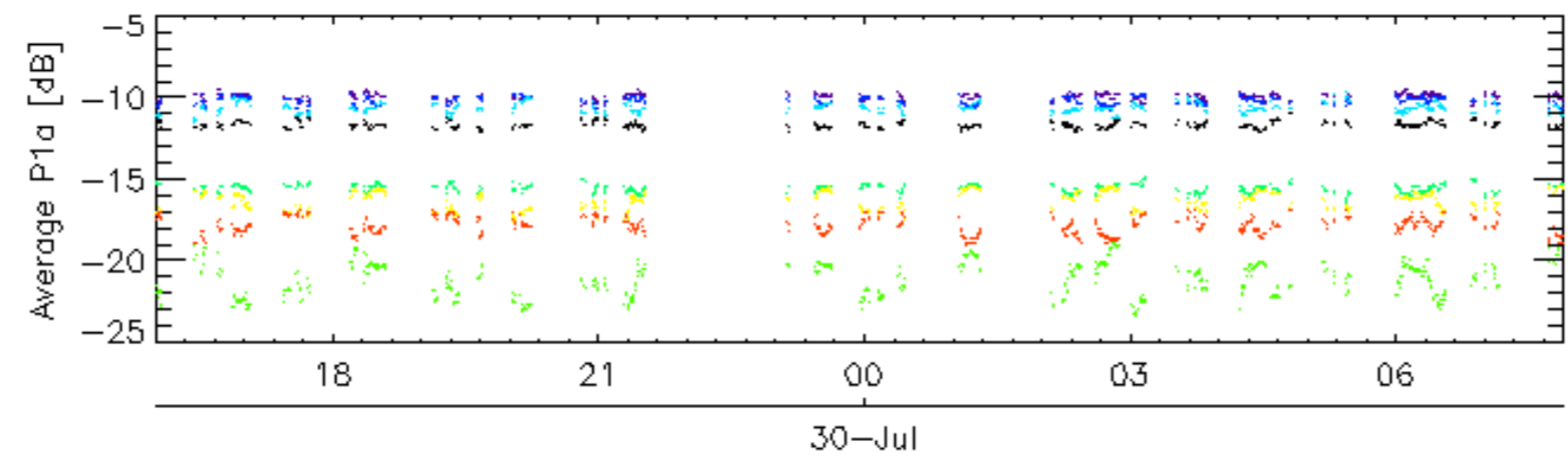
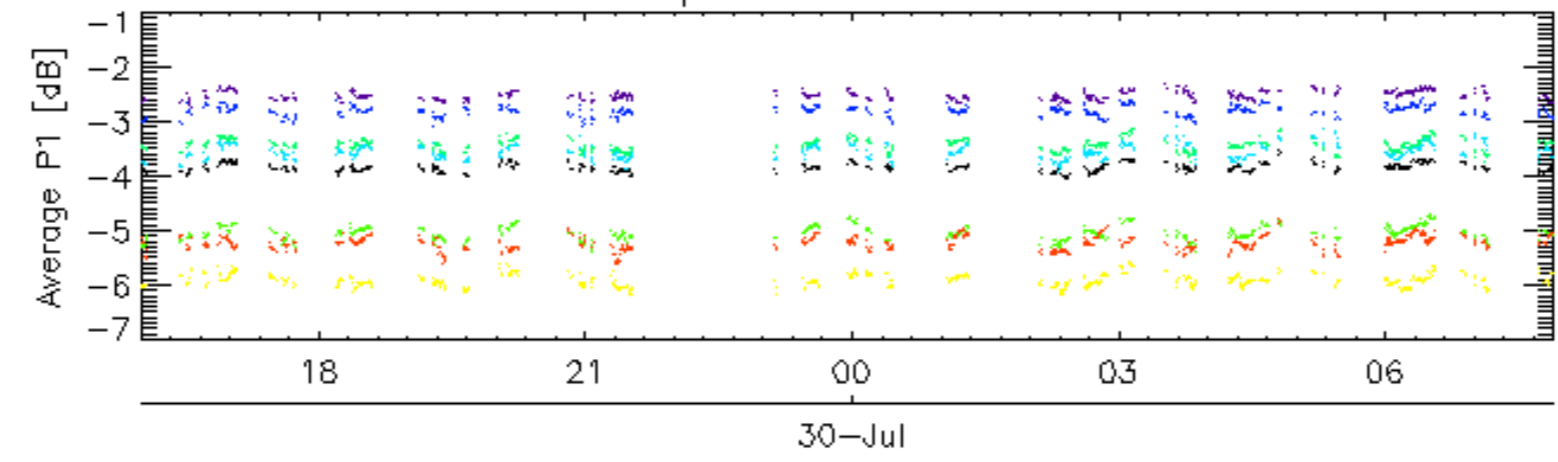
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

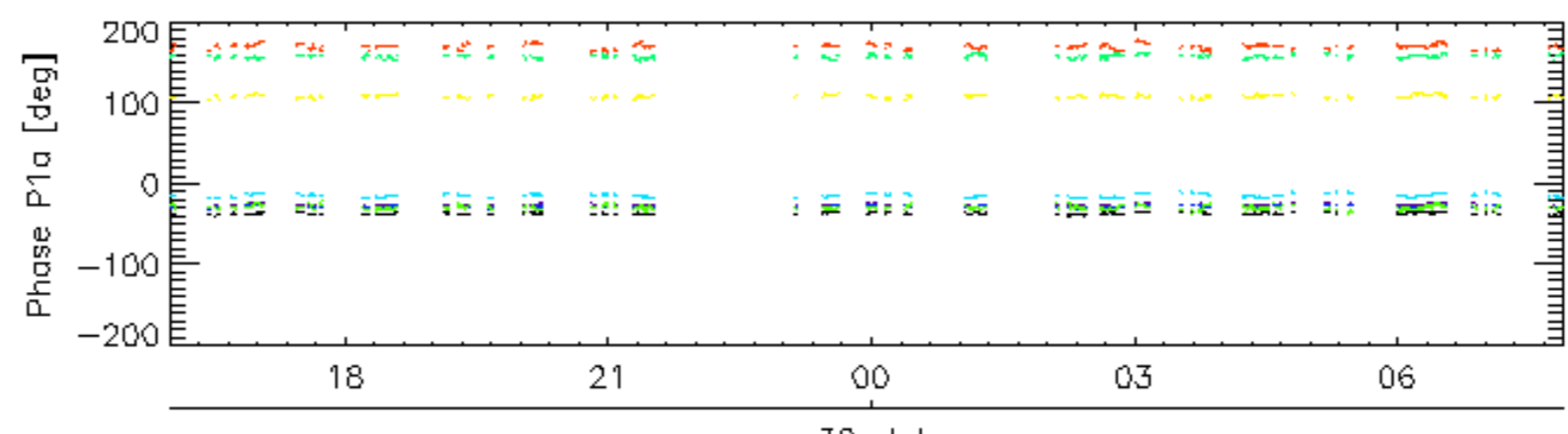
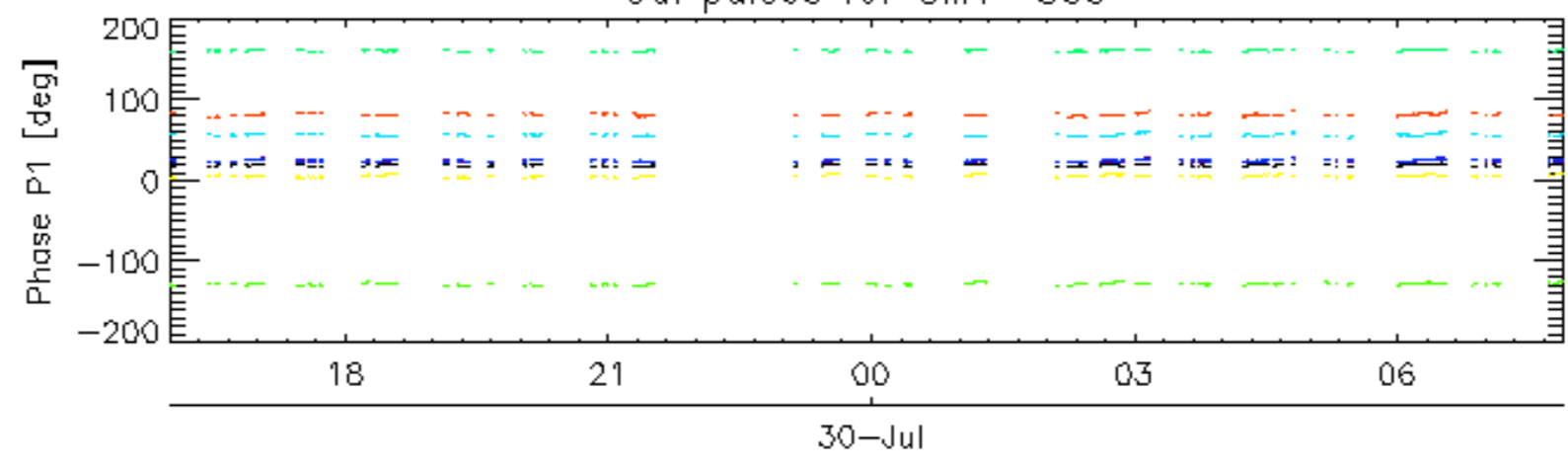
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

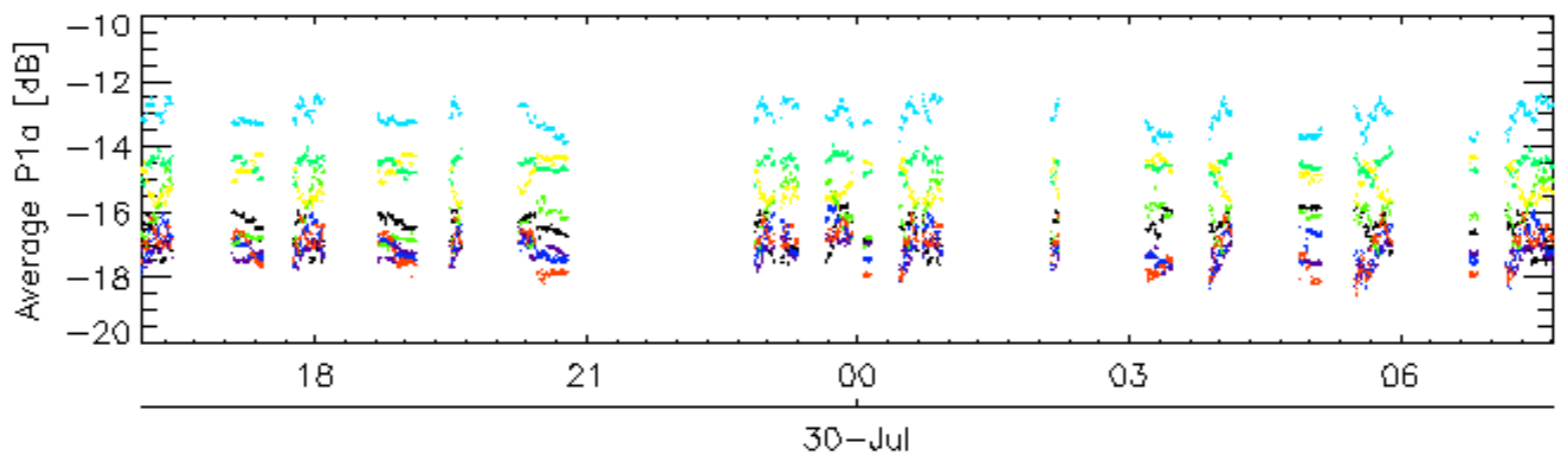
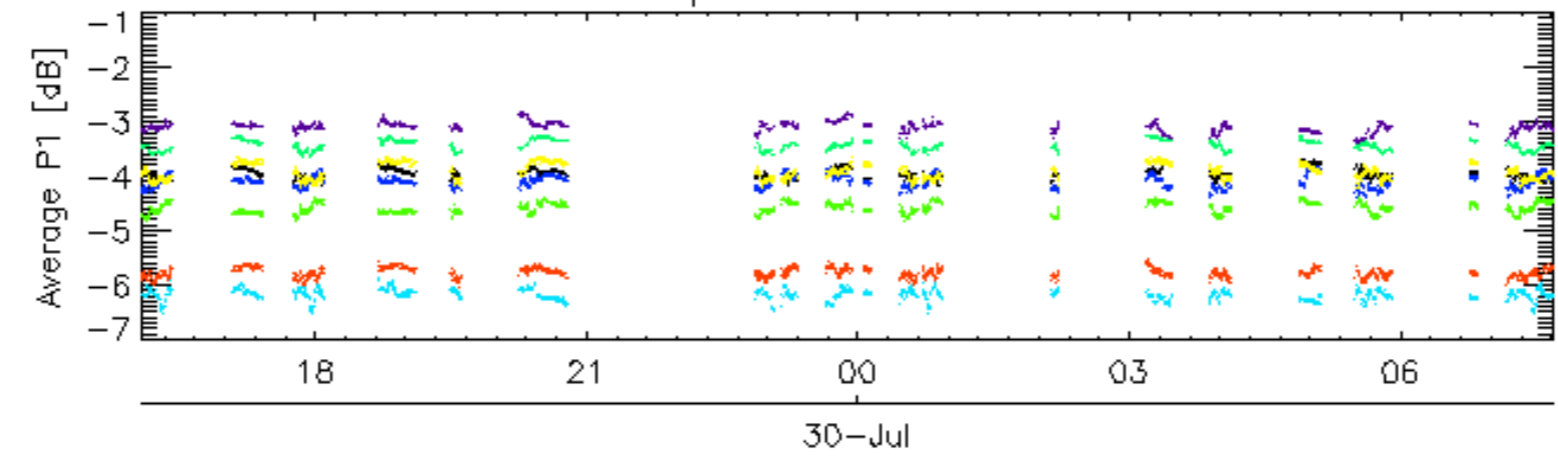


Cal pulses for GM1 SS3

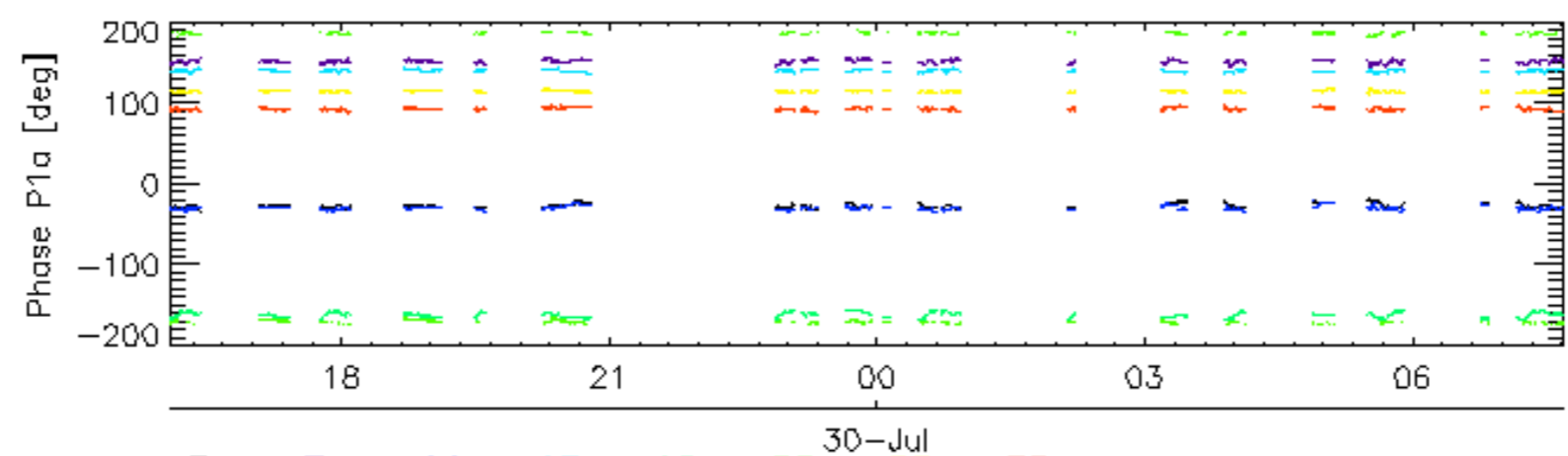
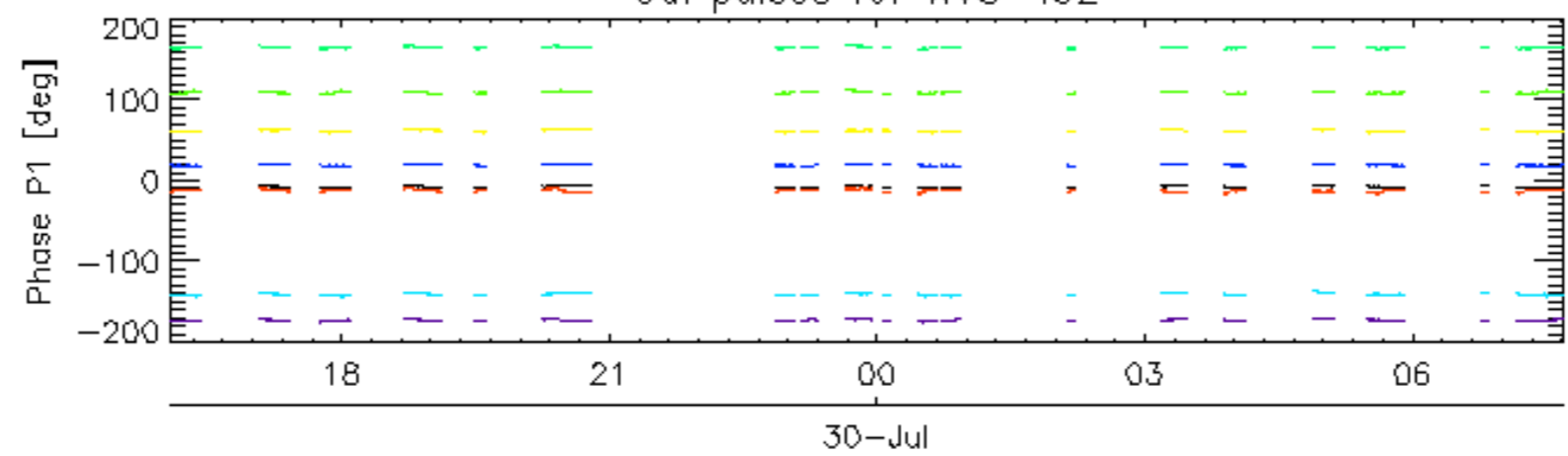


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

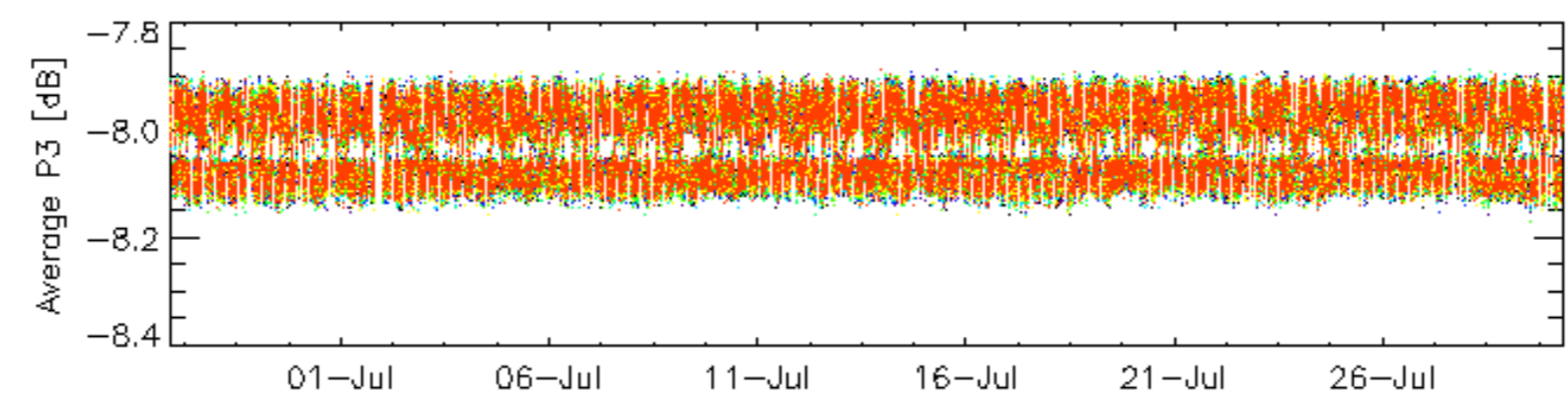
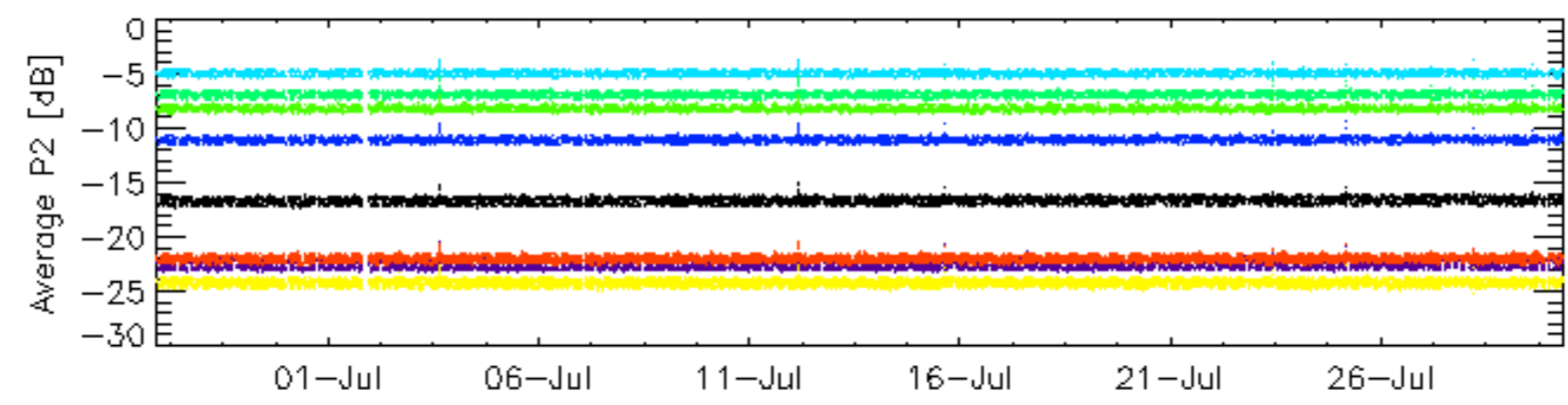
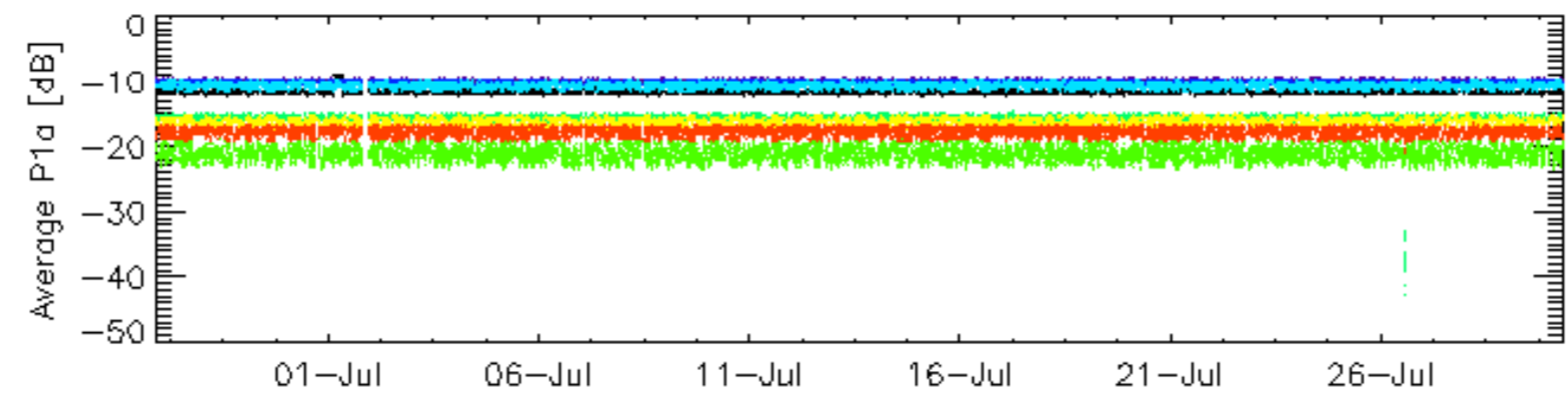
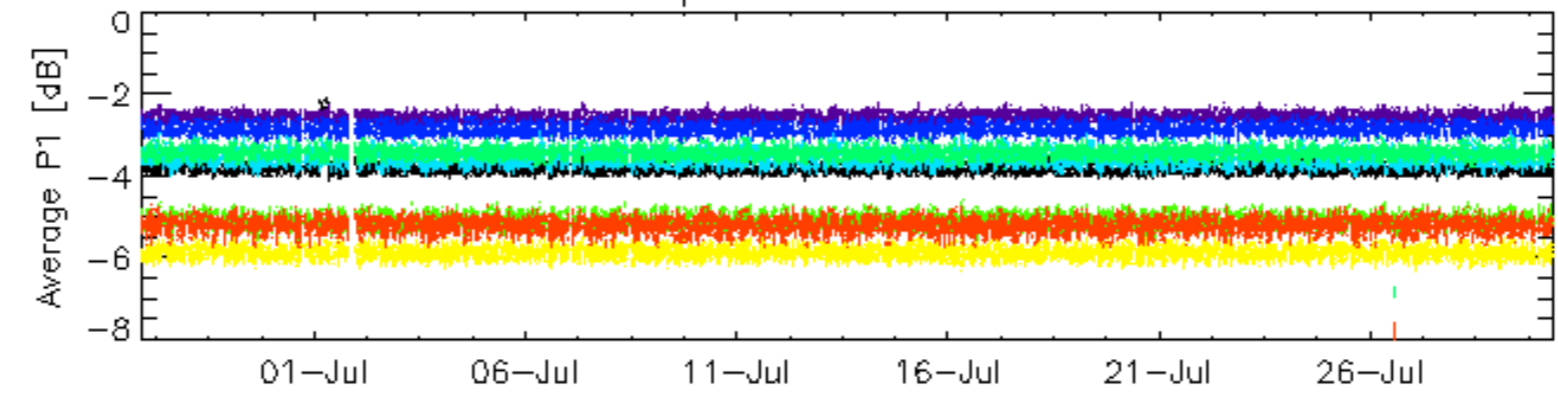


Cal pulses for WVS IS2



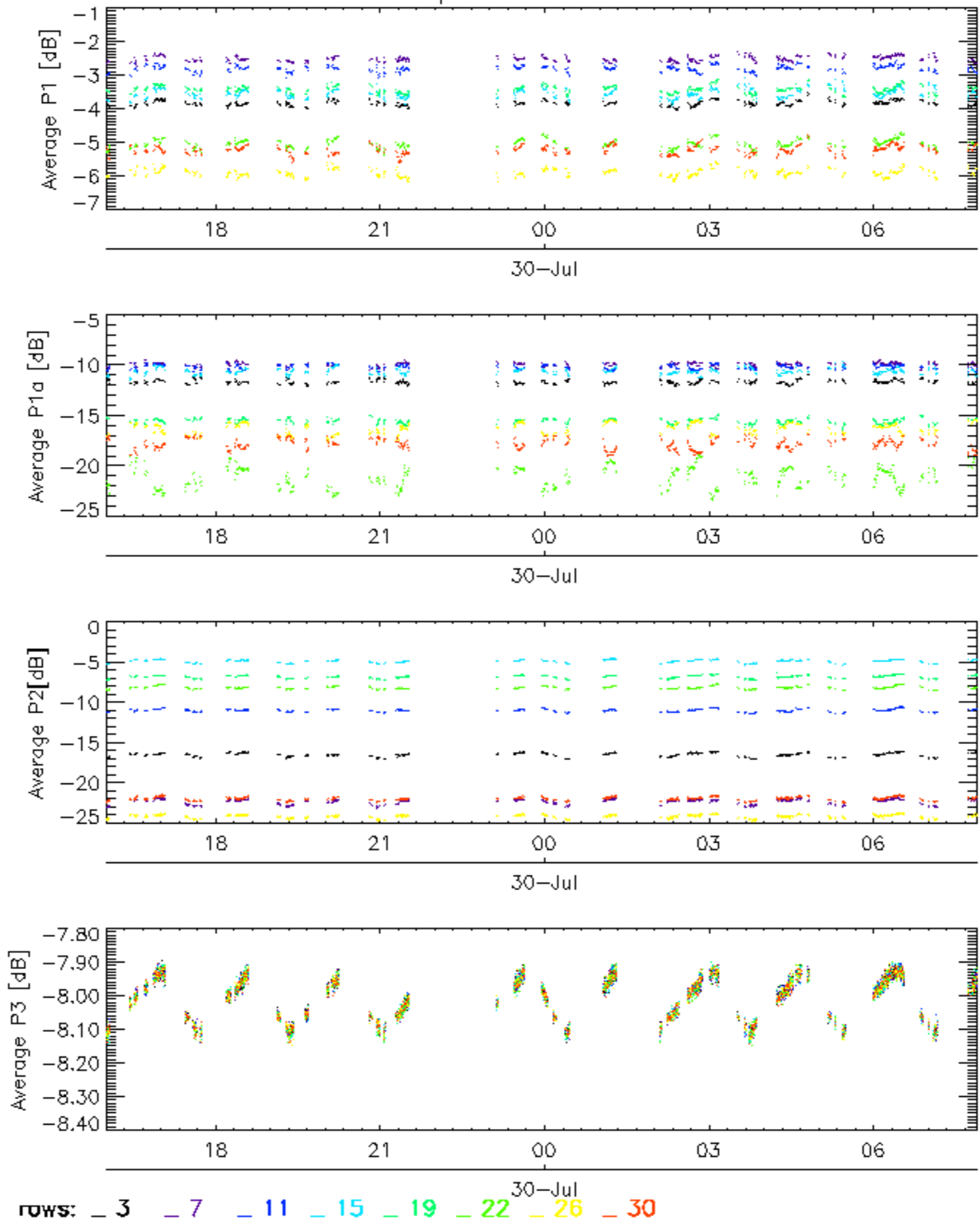
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

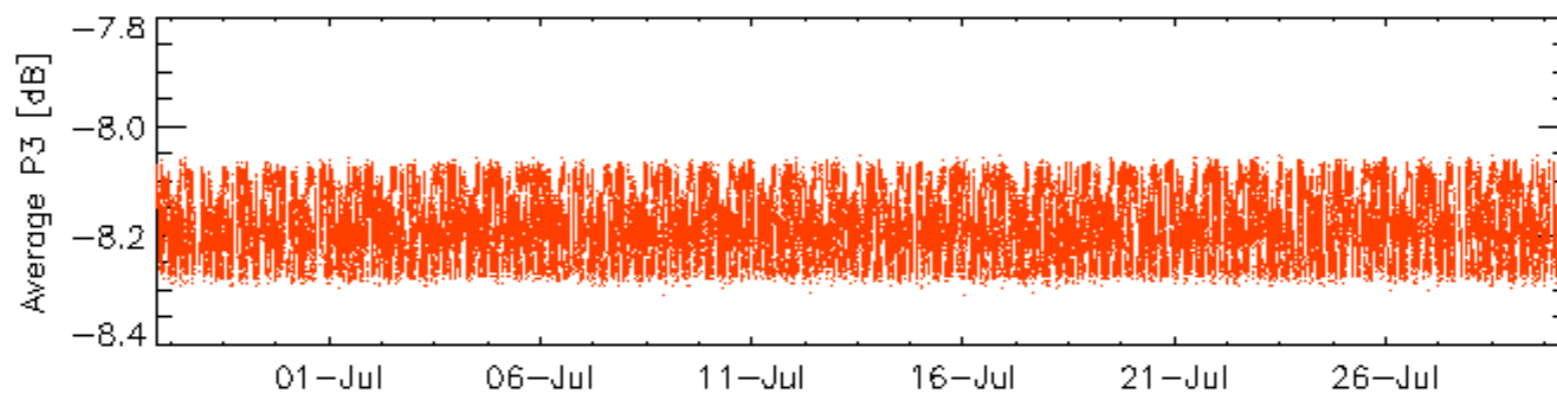
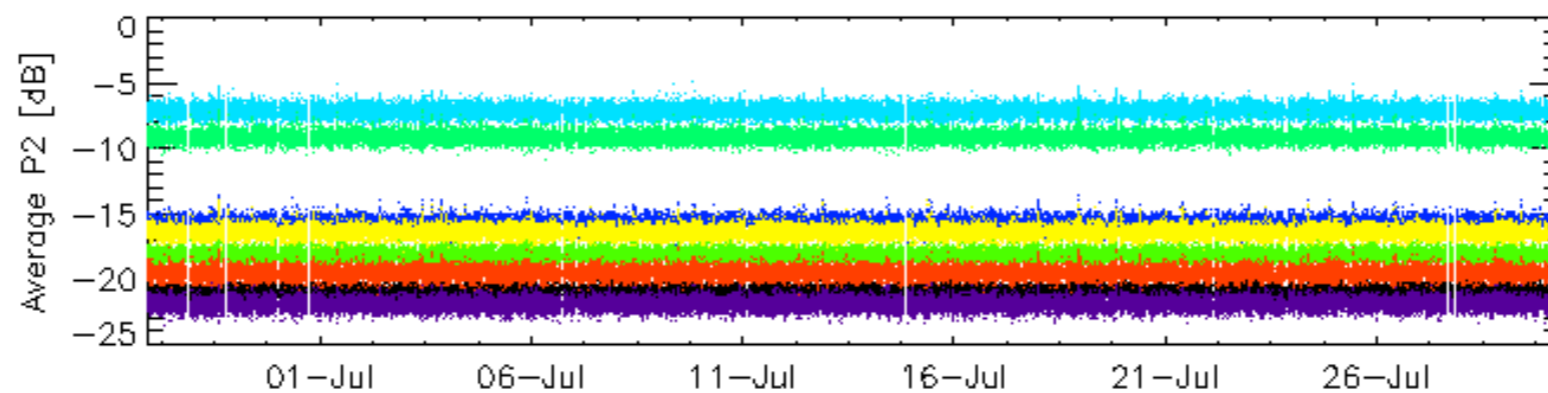
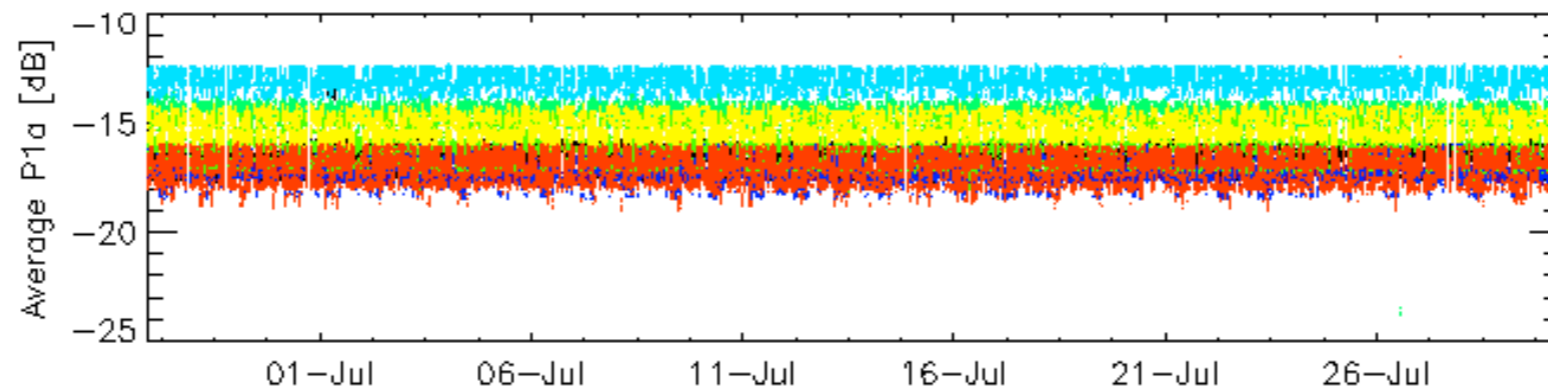
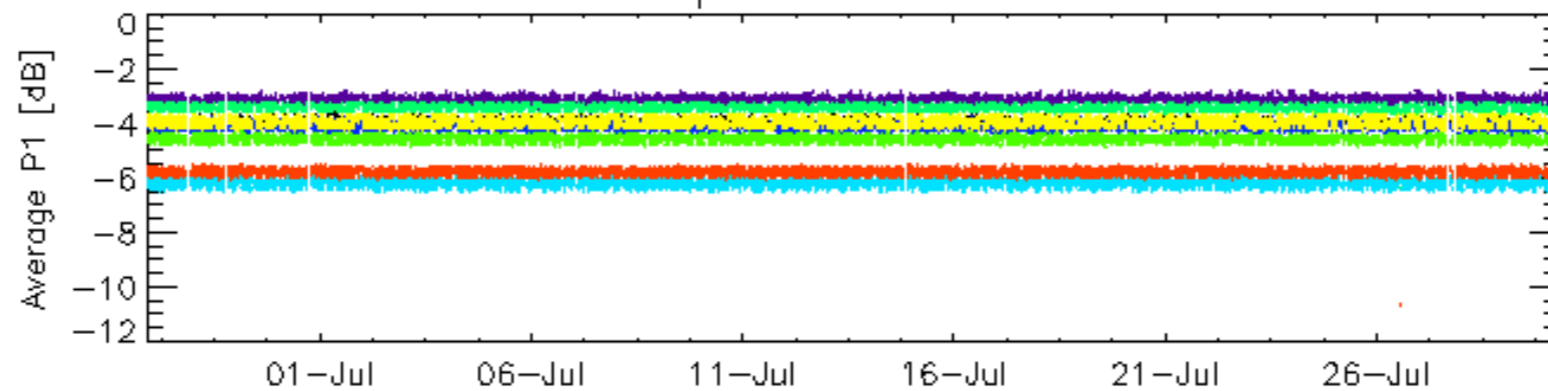


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

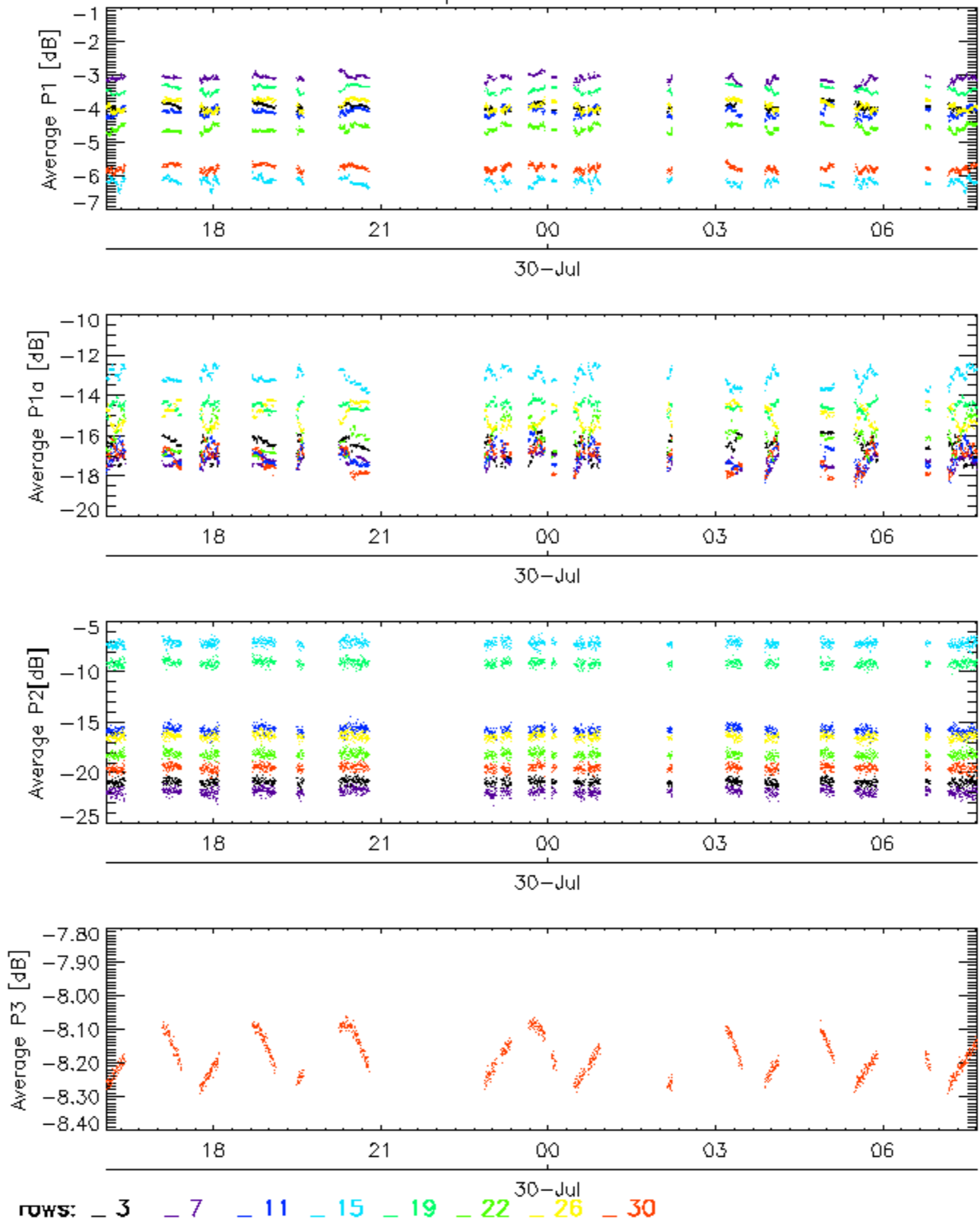


Cal pulses for WVS IS2

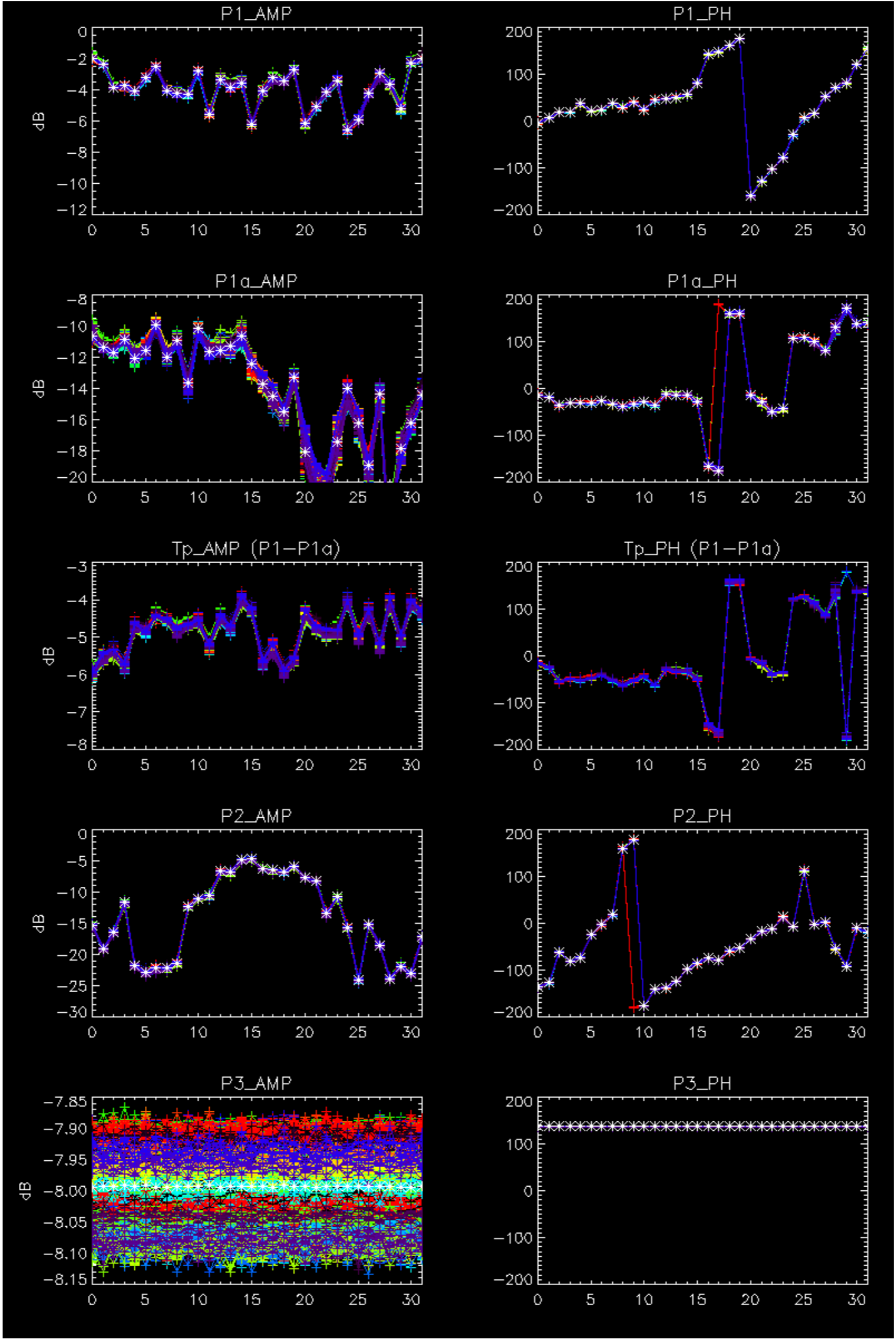


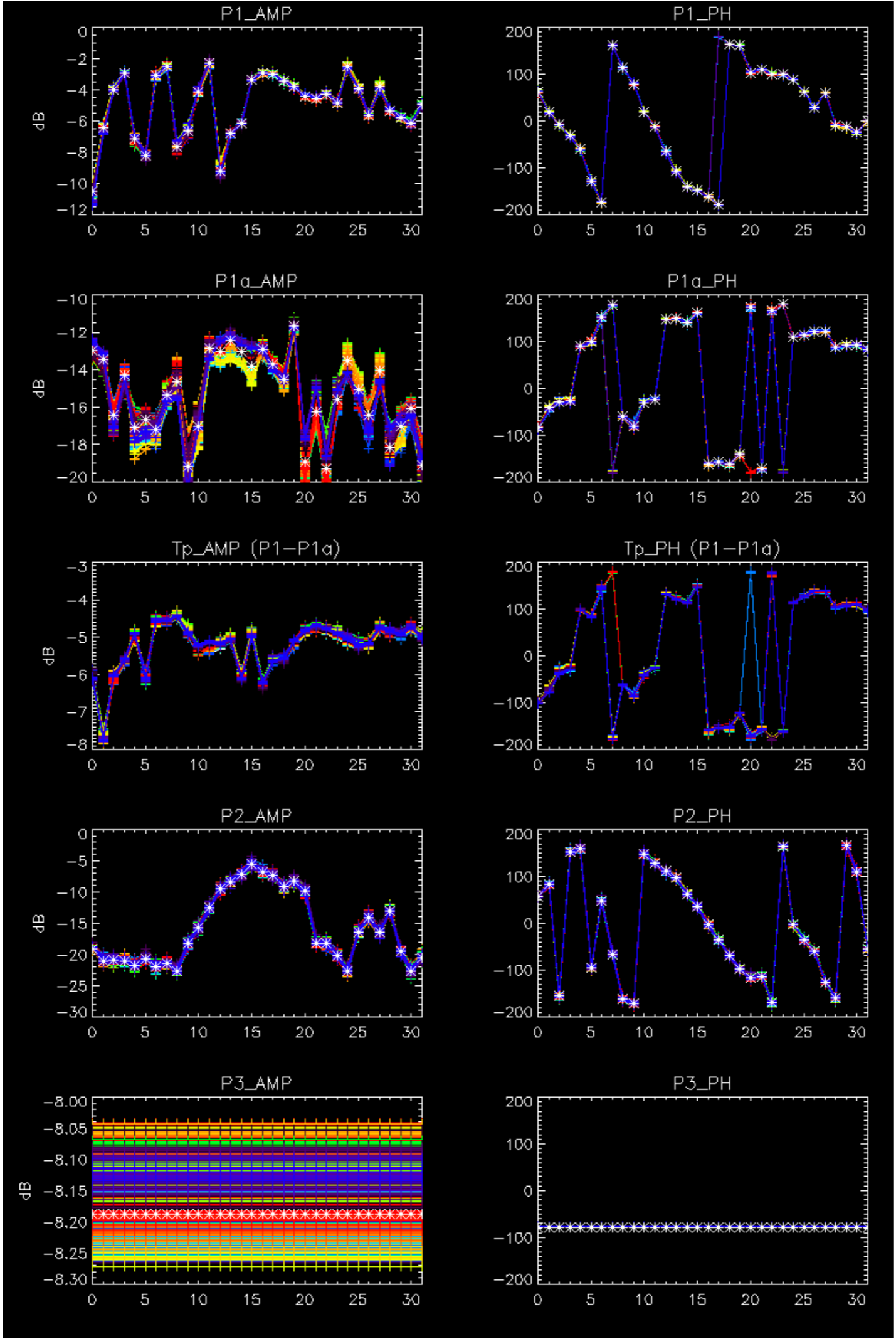
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



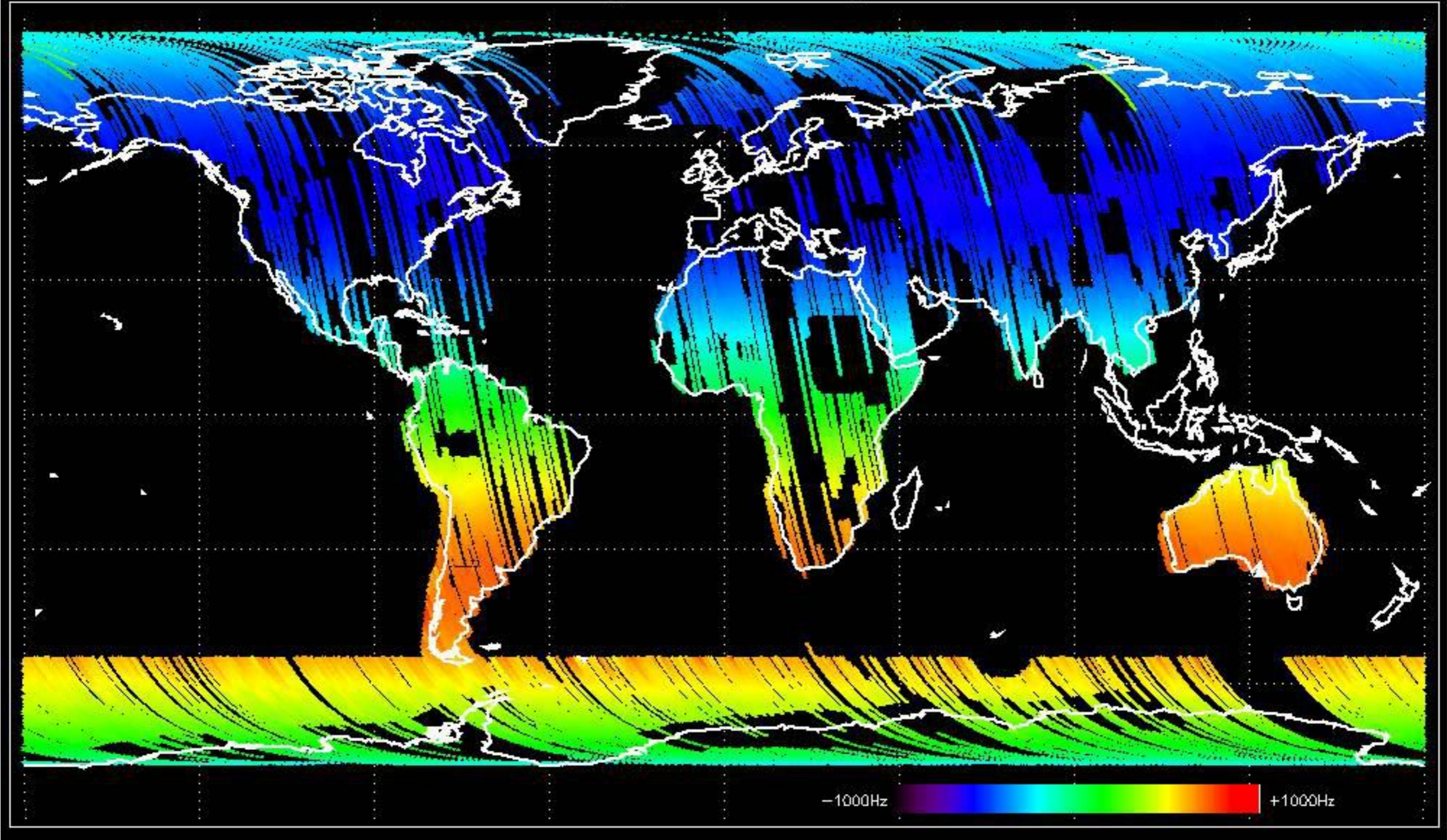
No anomalies observed.



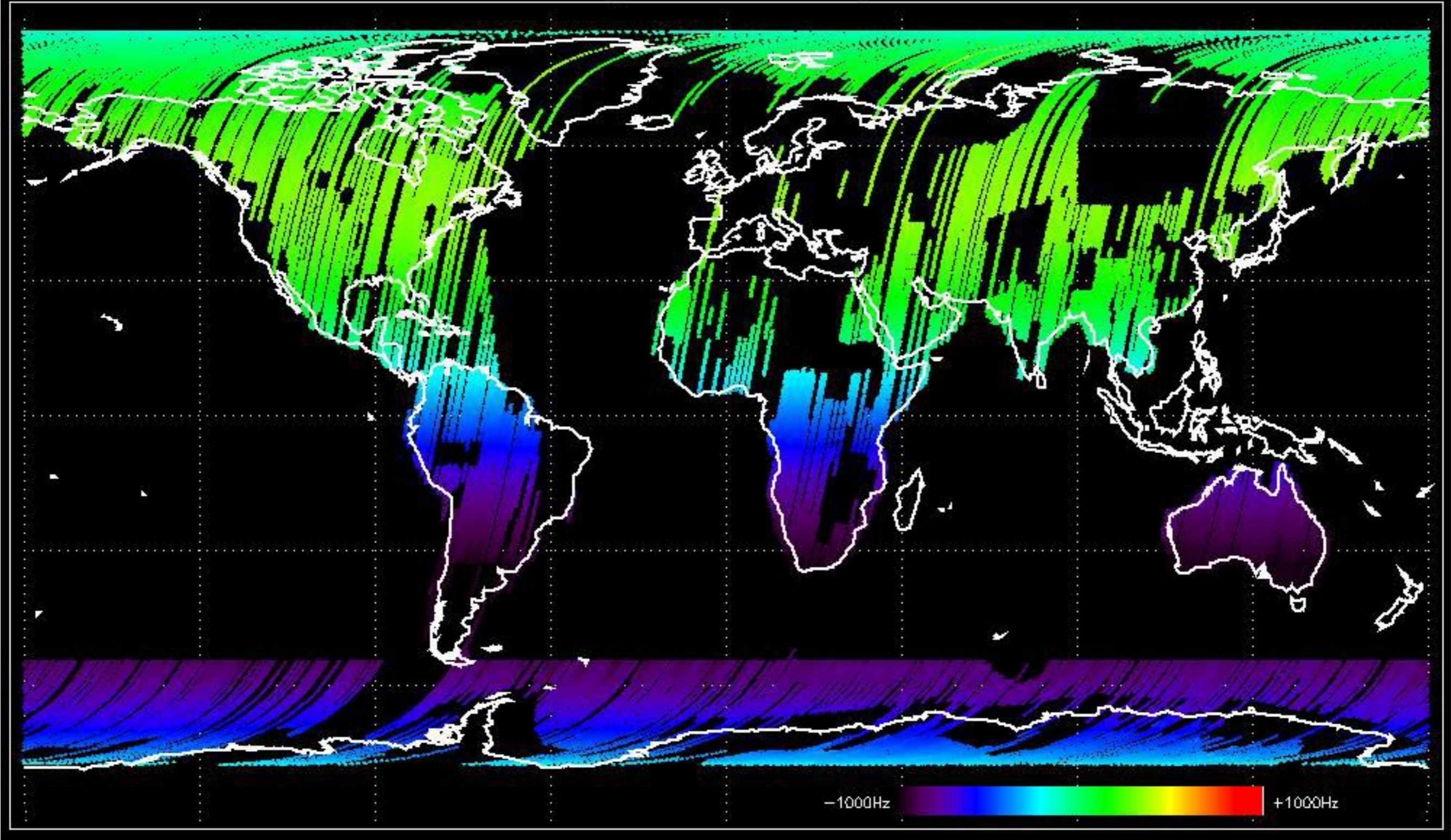


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

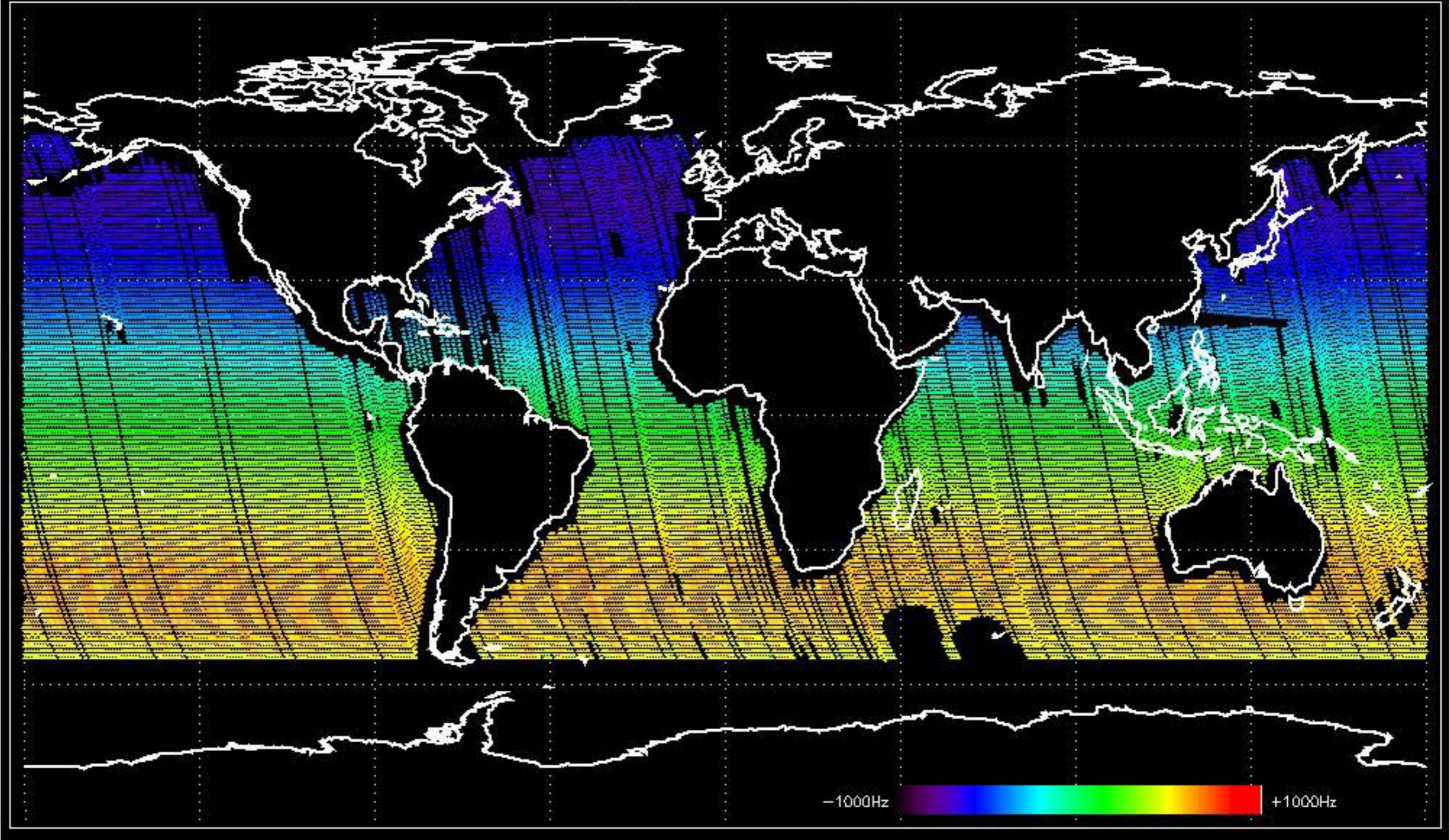
Doppler 'GM1' 'SS1' ascending



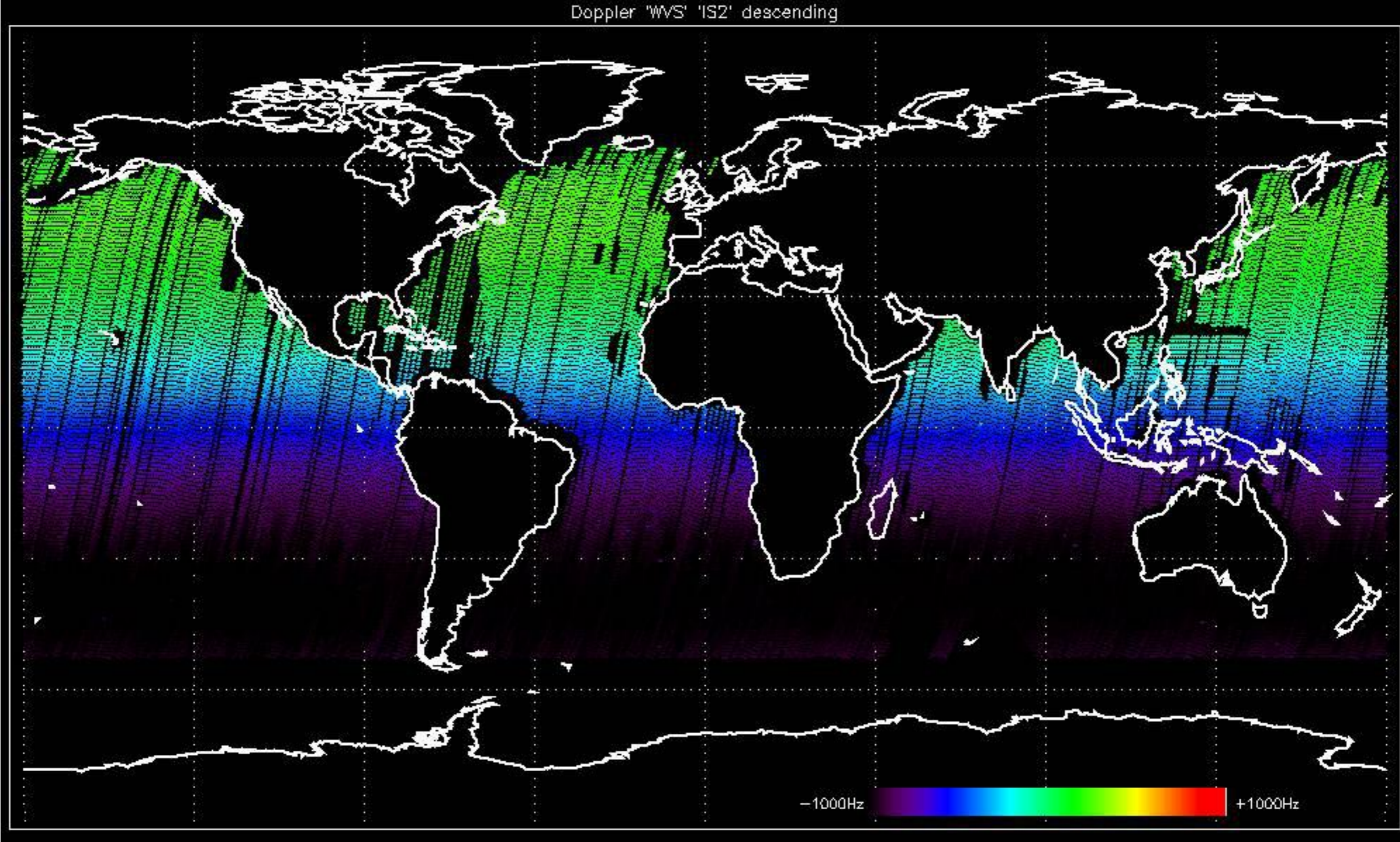
Doppler 'GM1' 'SS1' descending



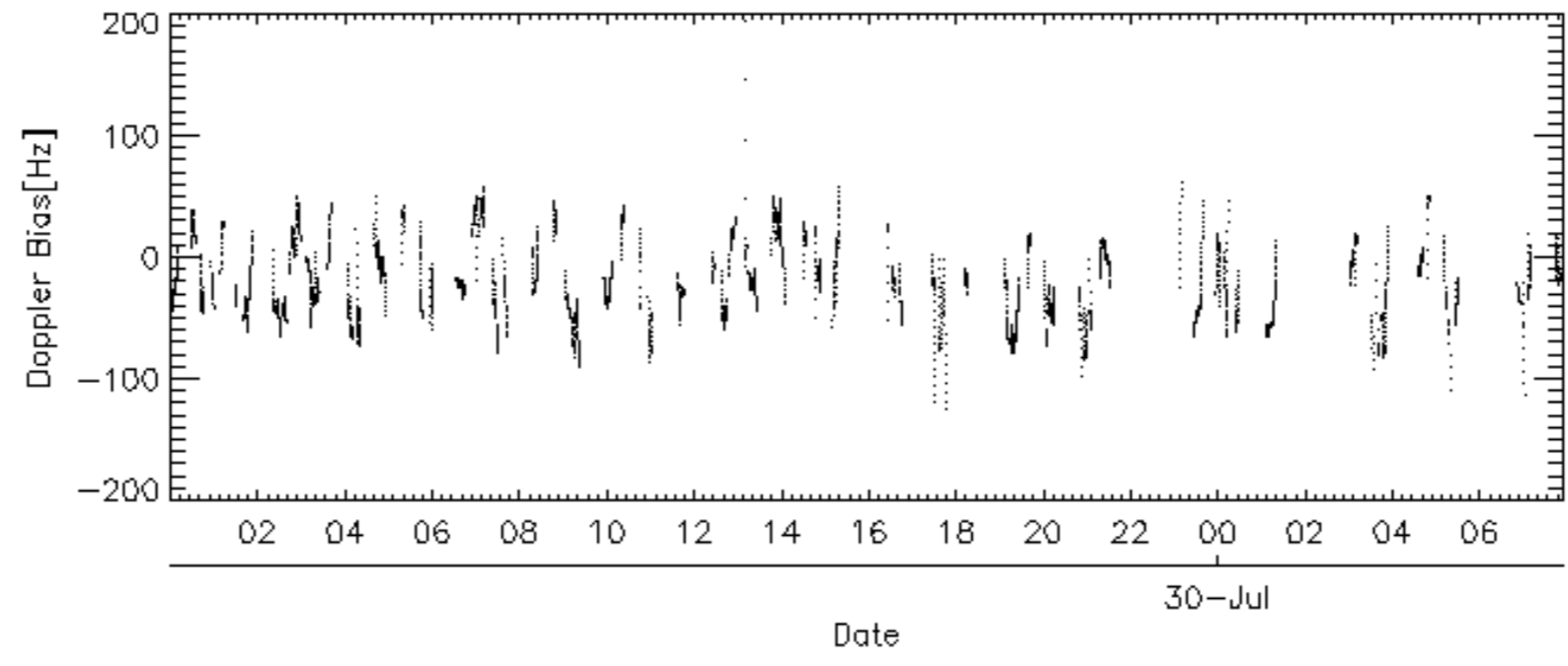
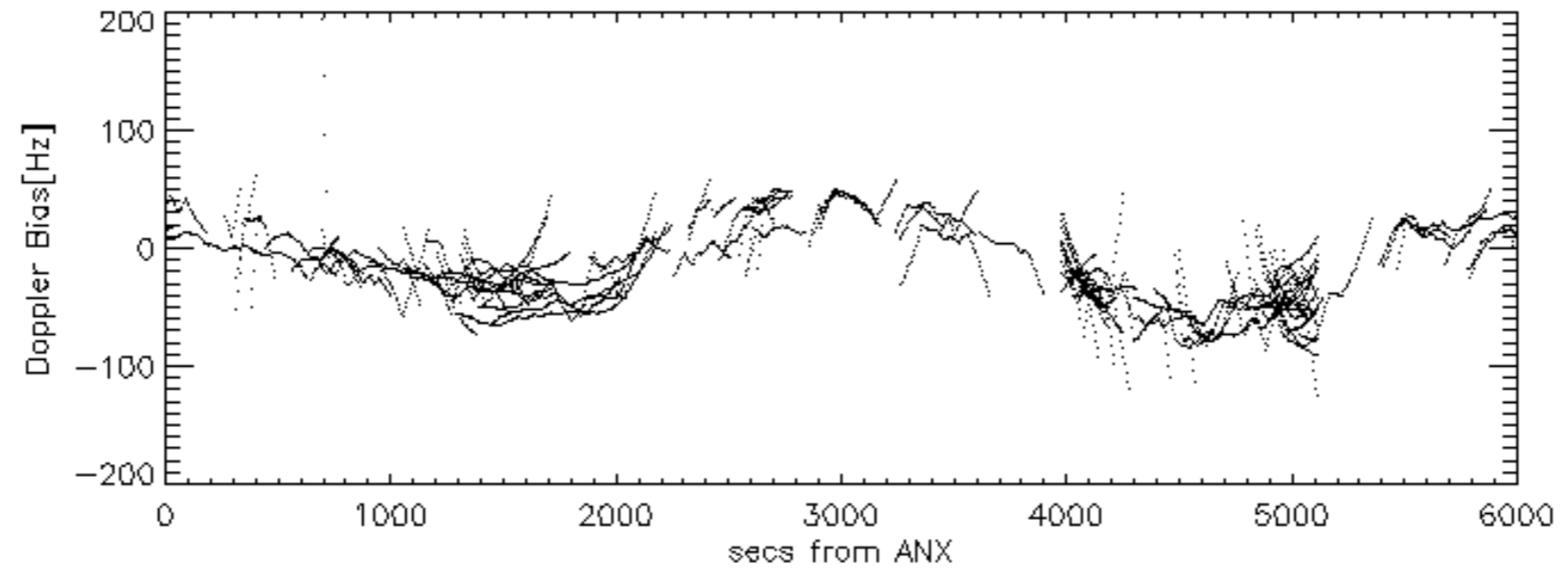
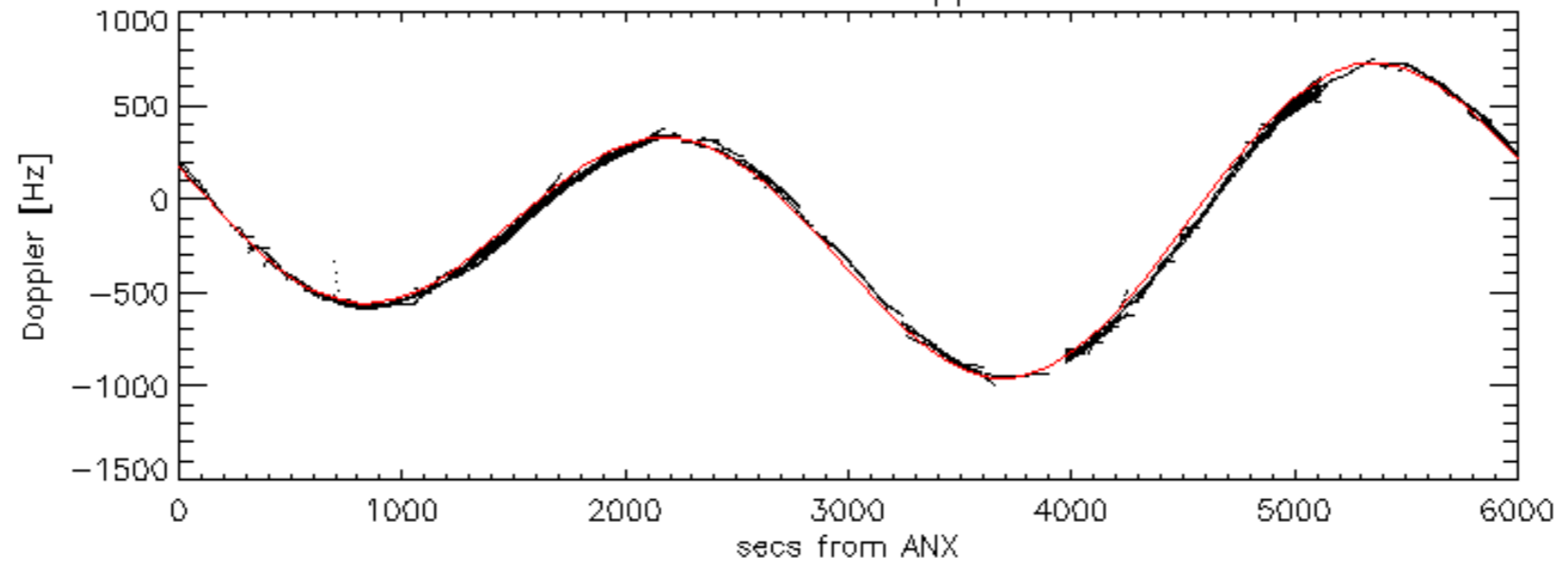
Doppler 'WVS' 'IS2' ascending

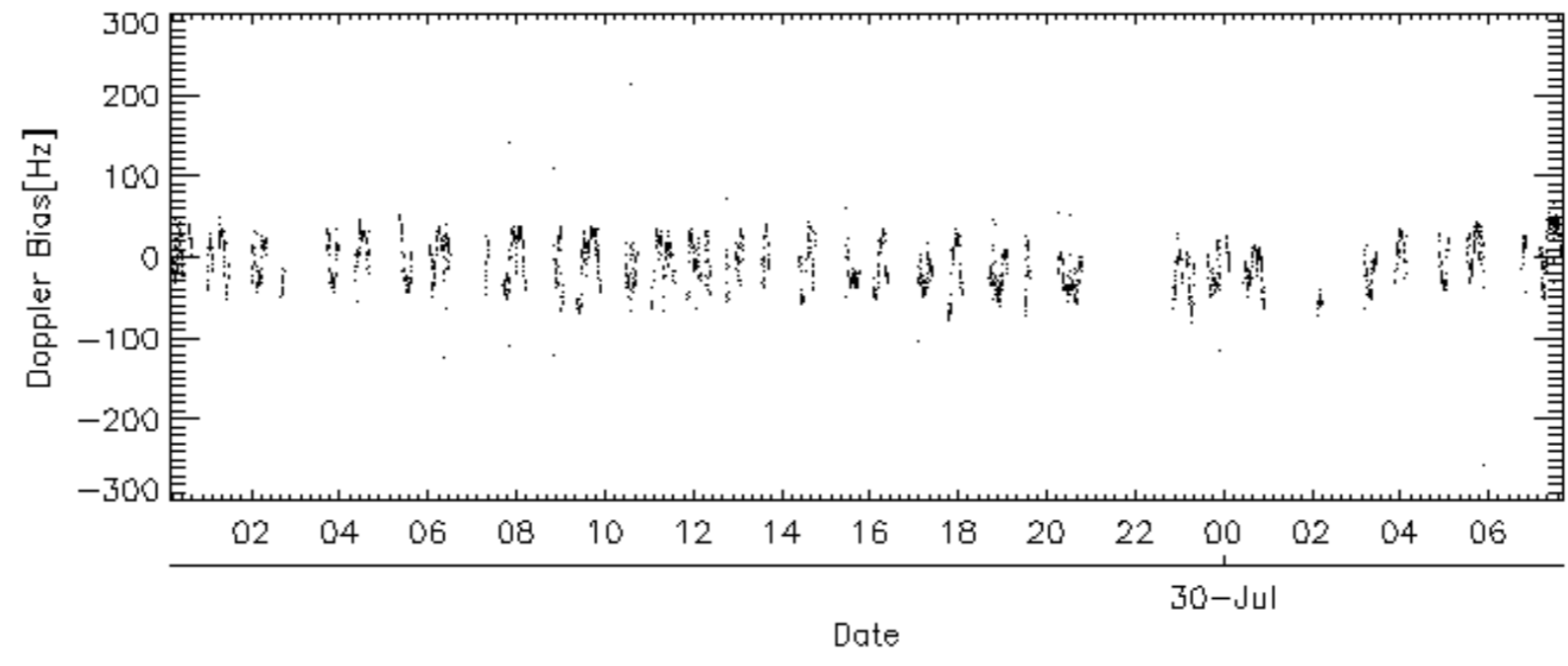
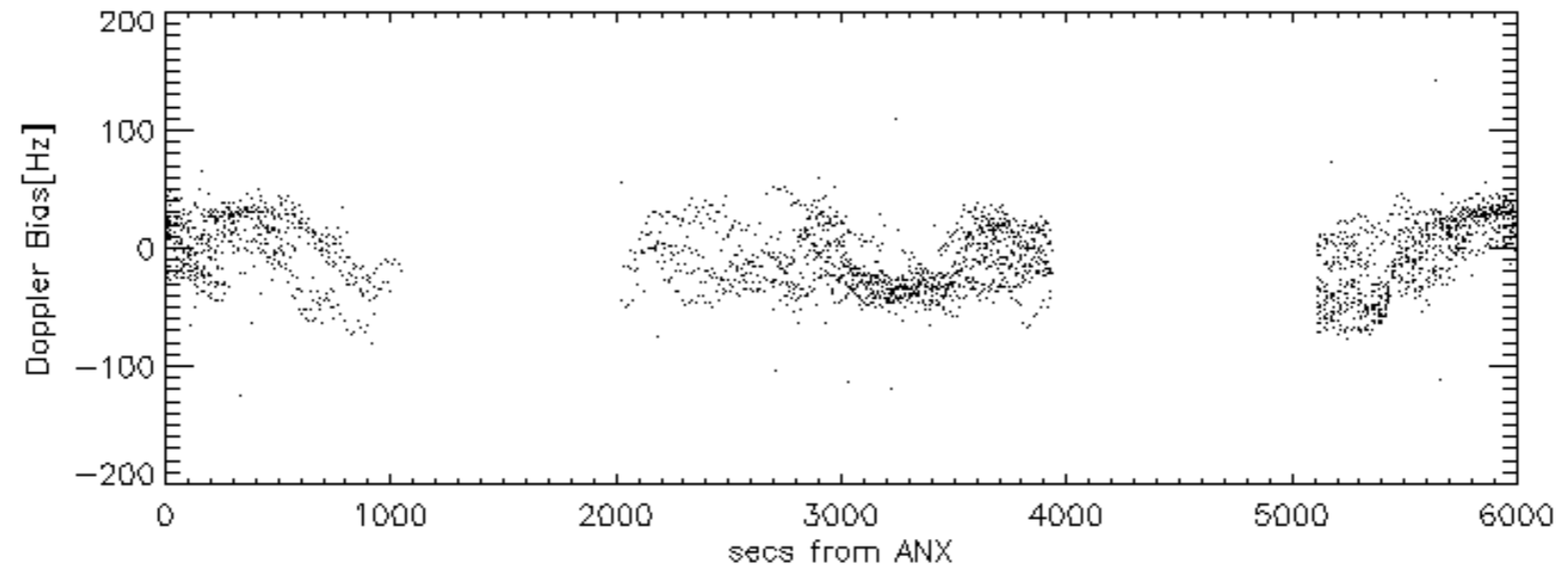
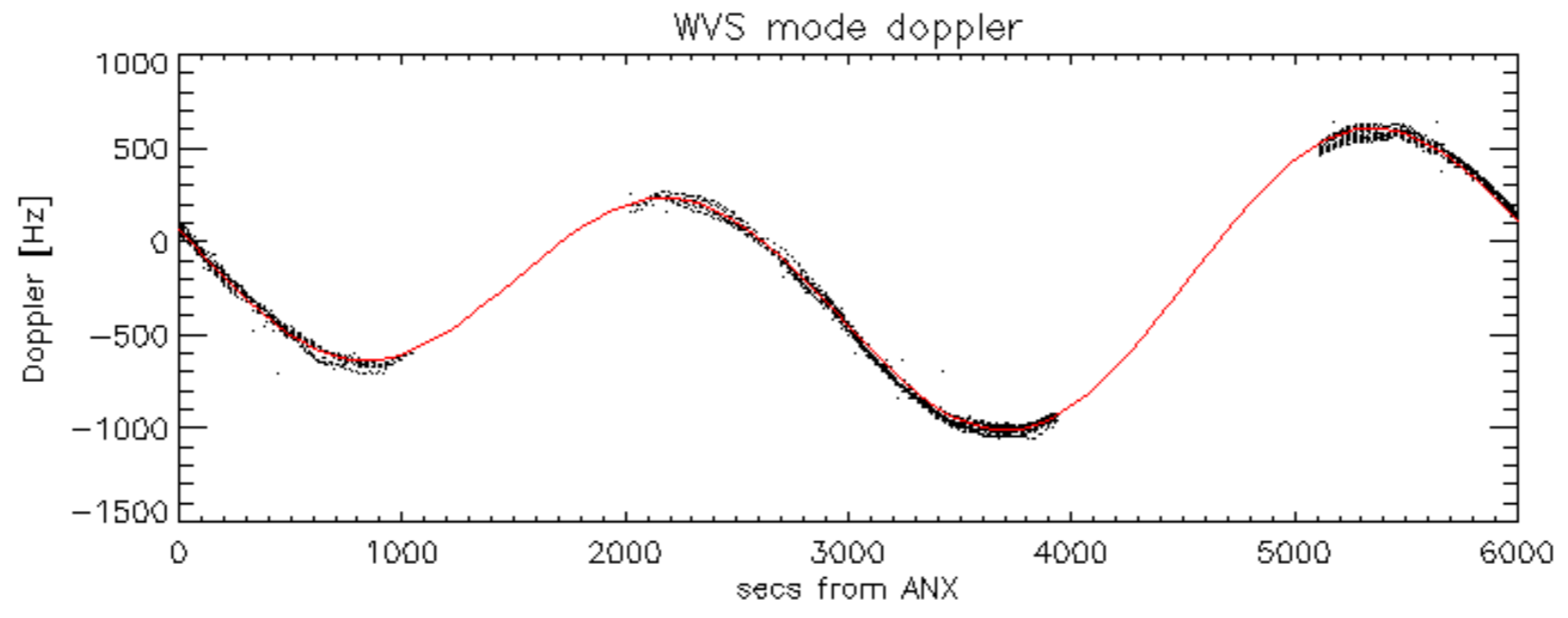


Doppler 'WVS' 'IS2' descending

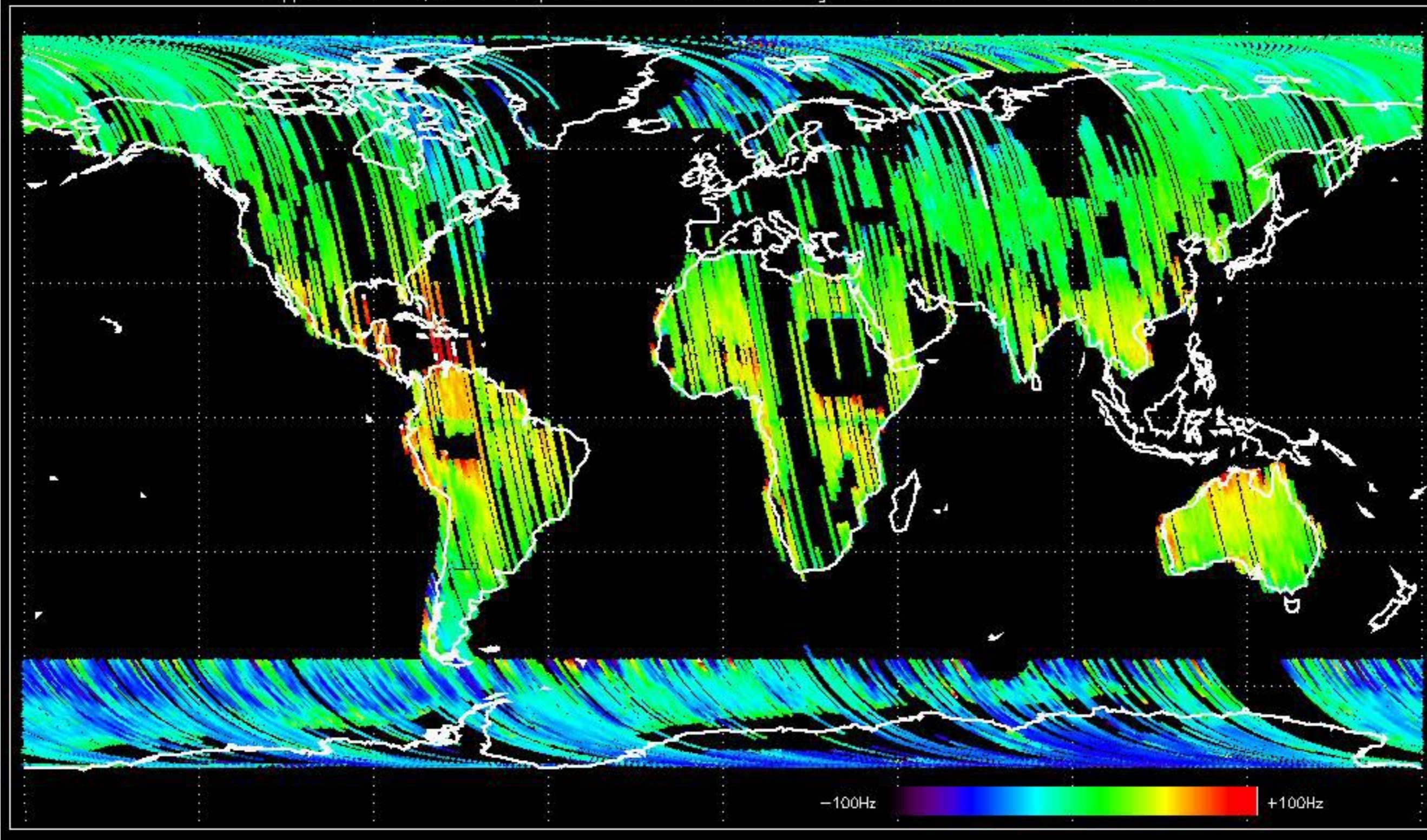


GM1 mode doppler

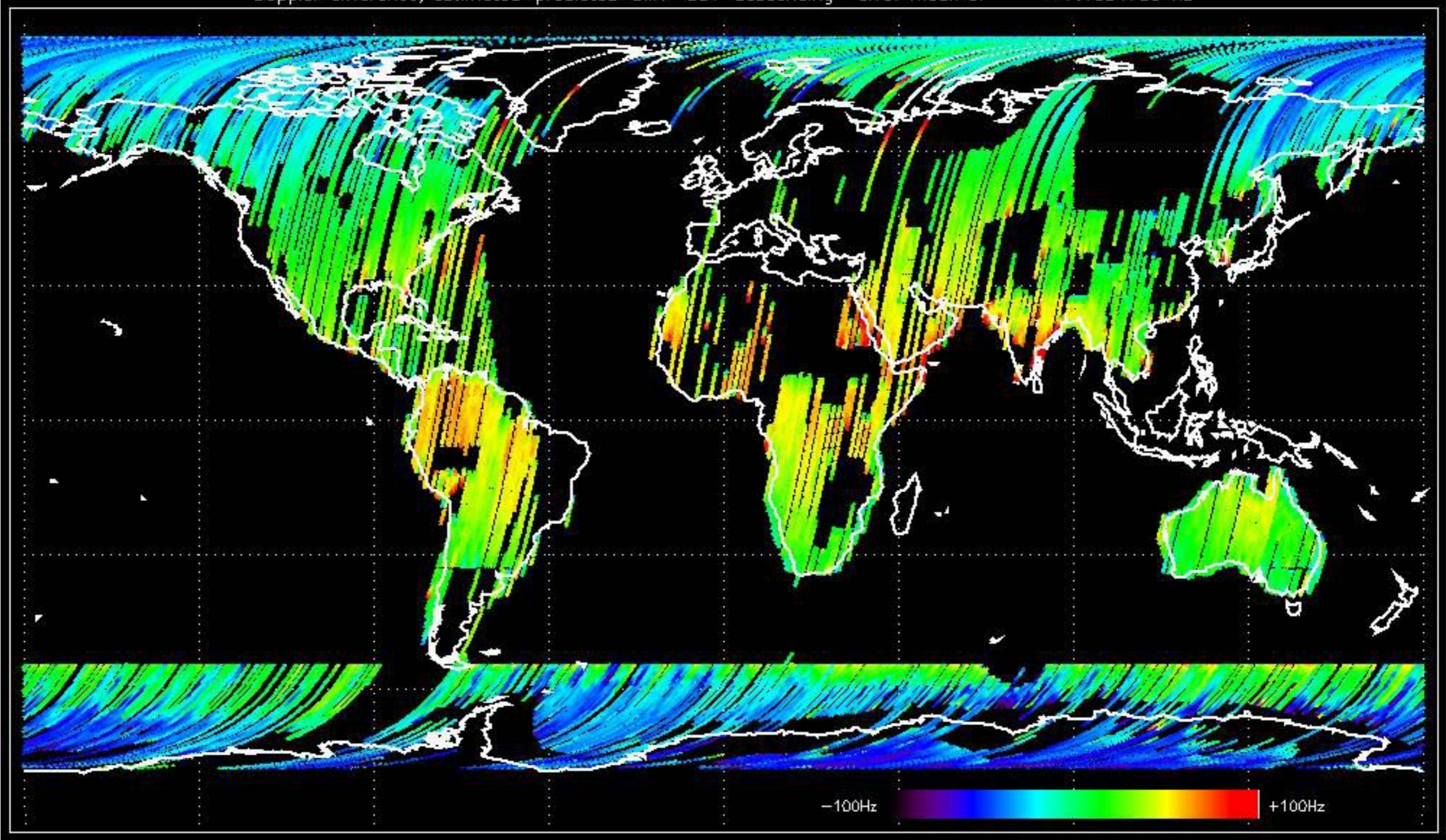




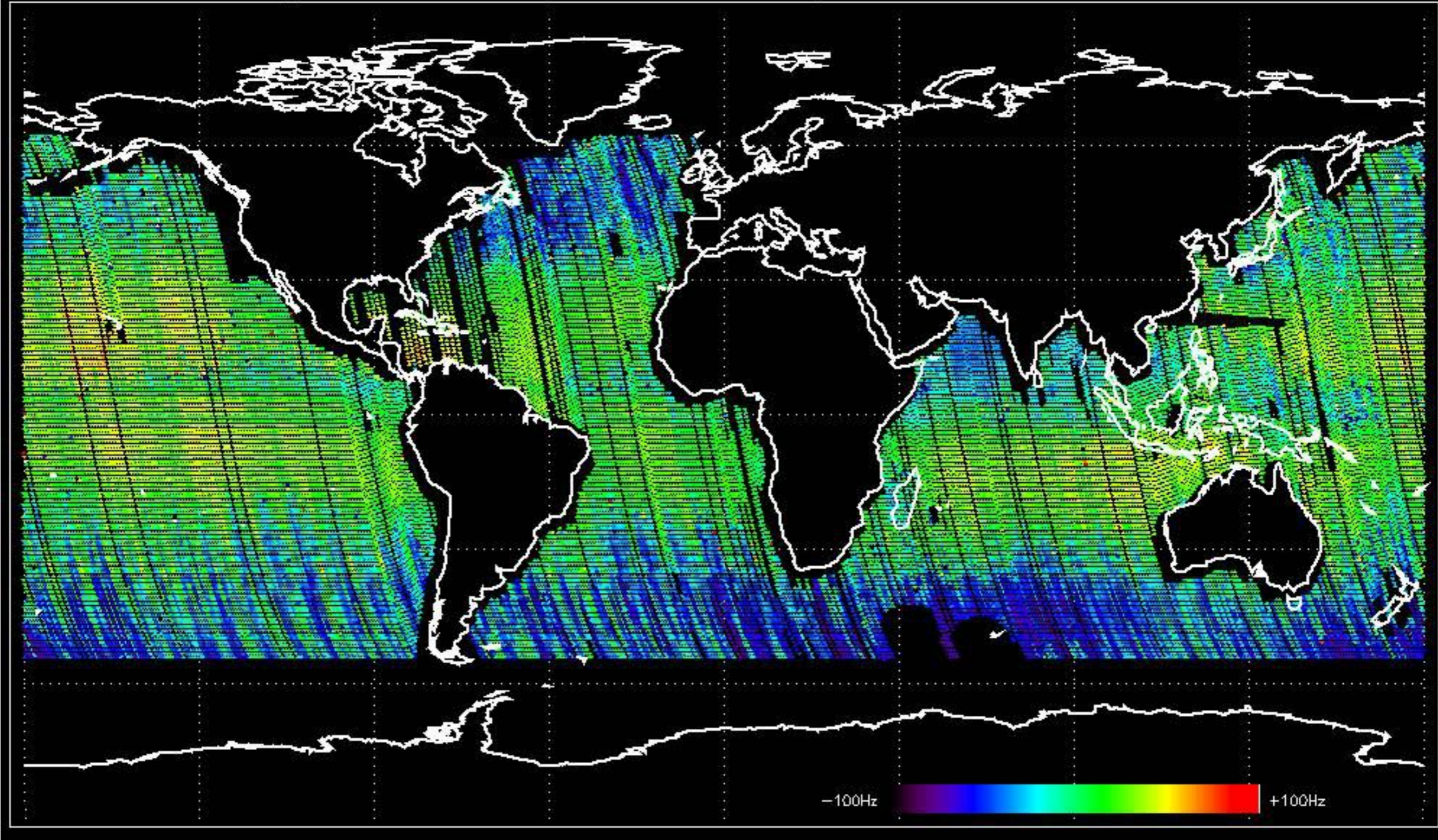
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.264625 Hz



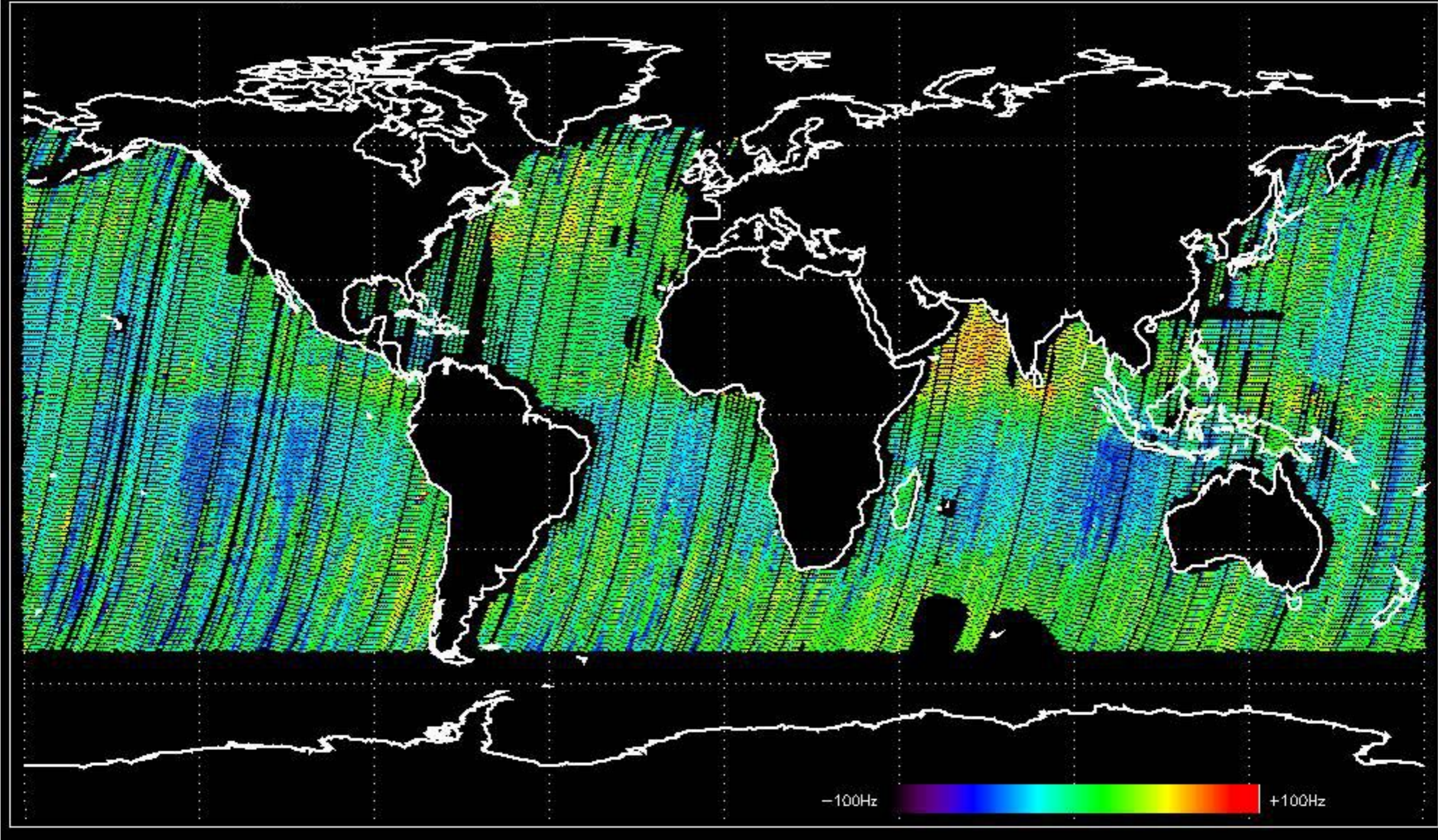
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.1684783 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.6204402 Hz

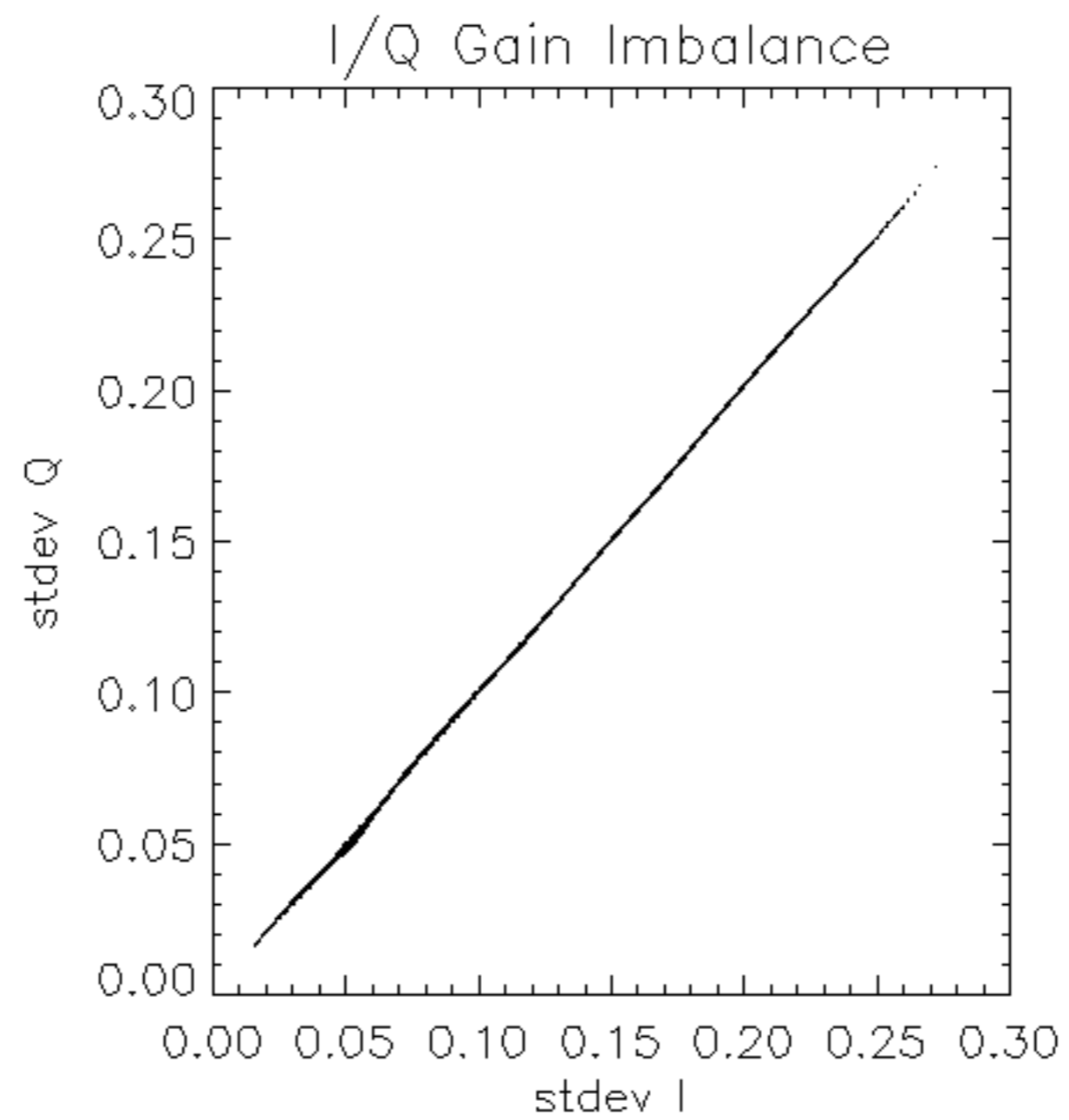


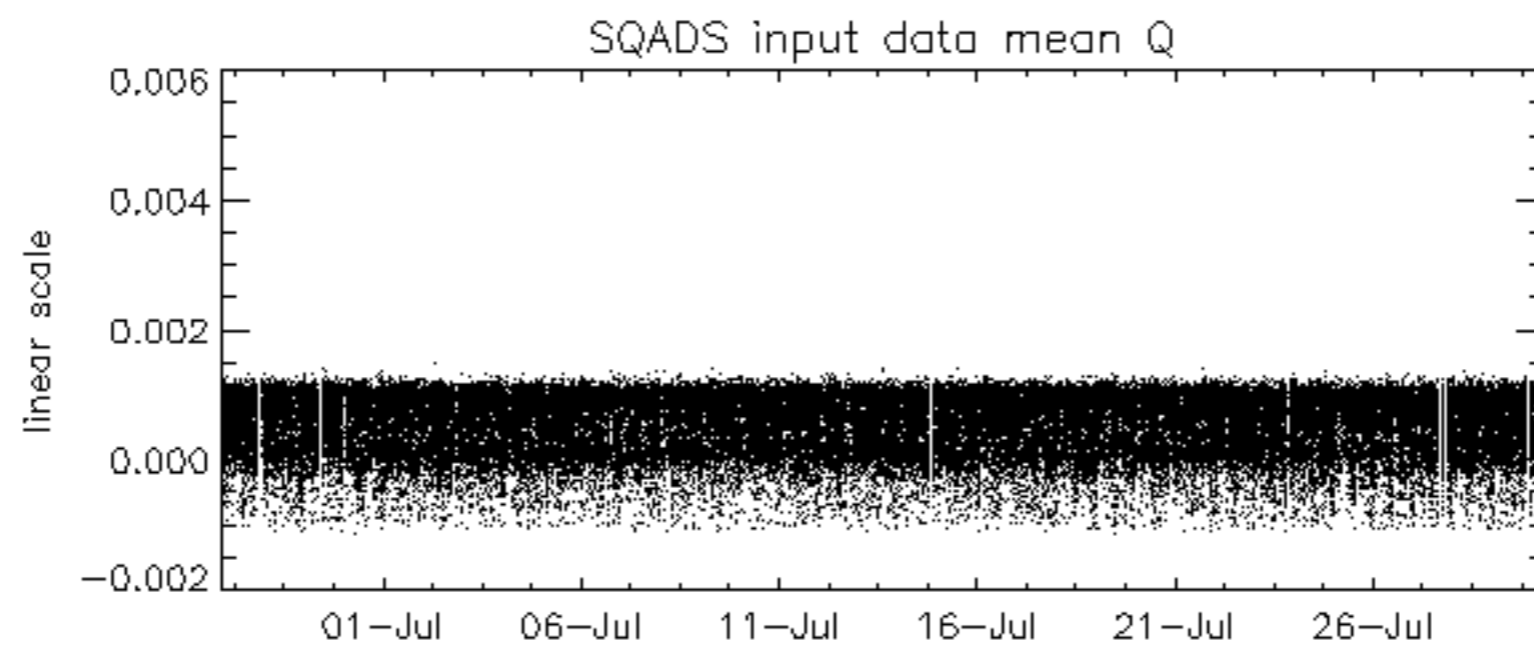
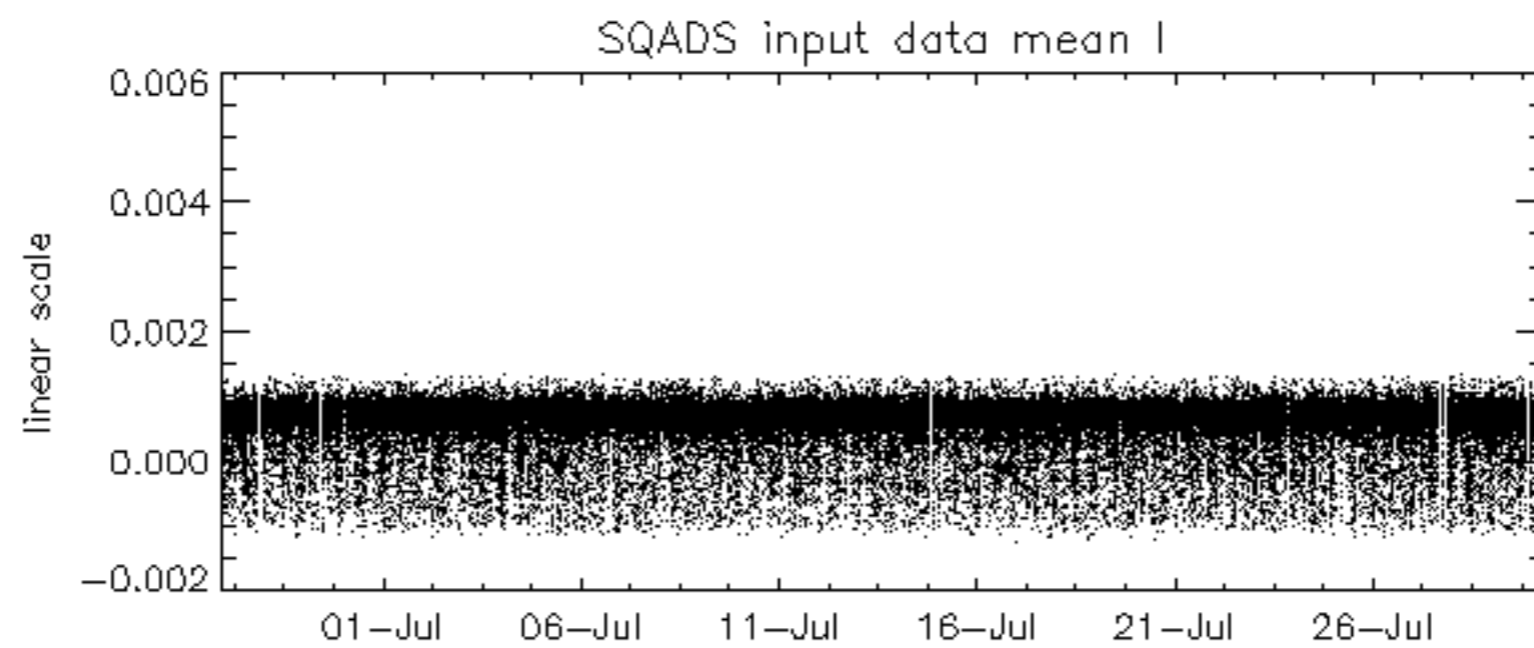
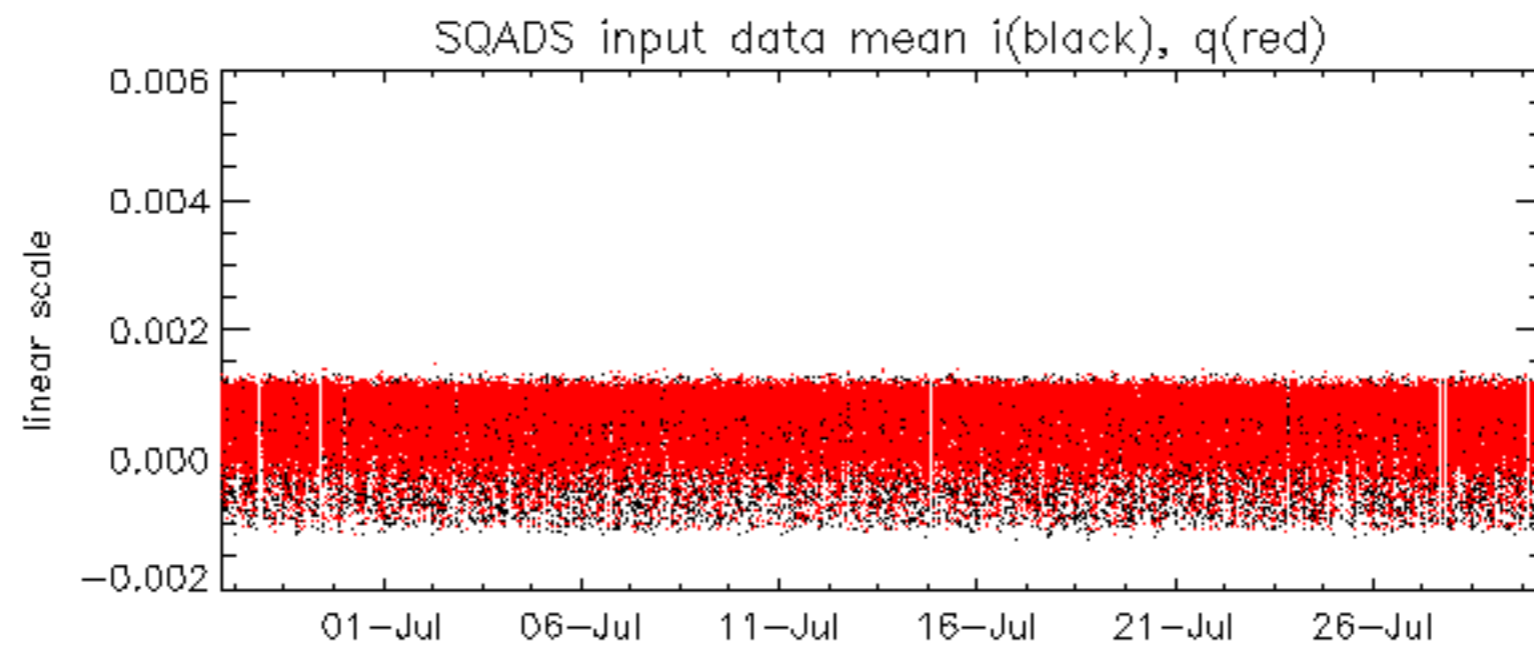
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.9477676 Hz

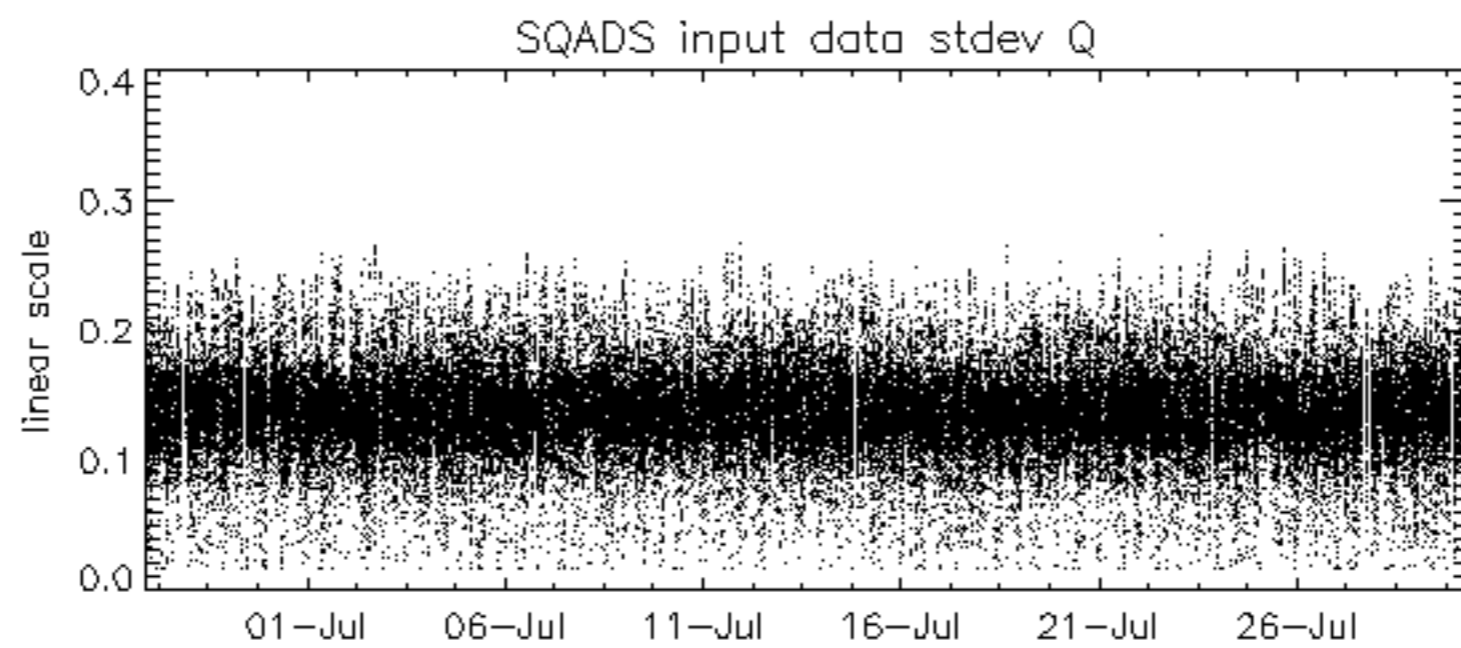
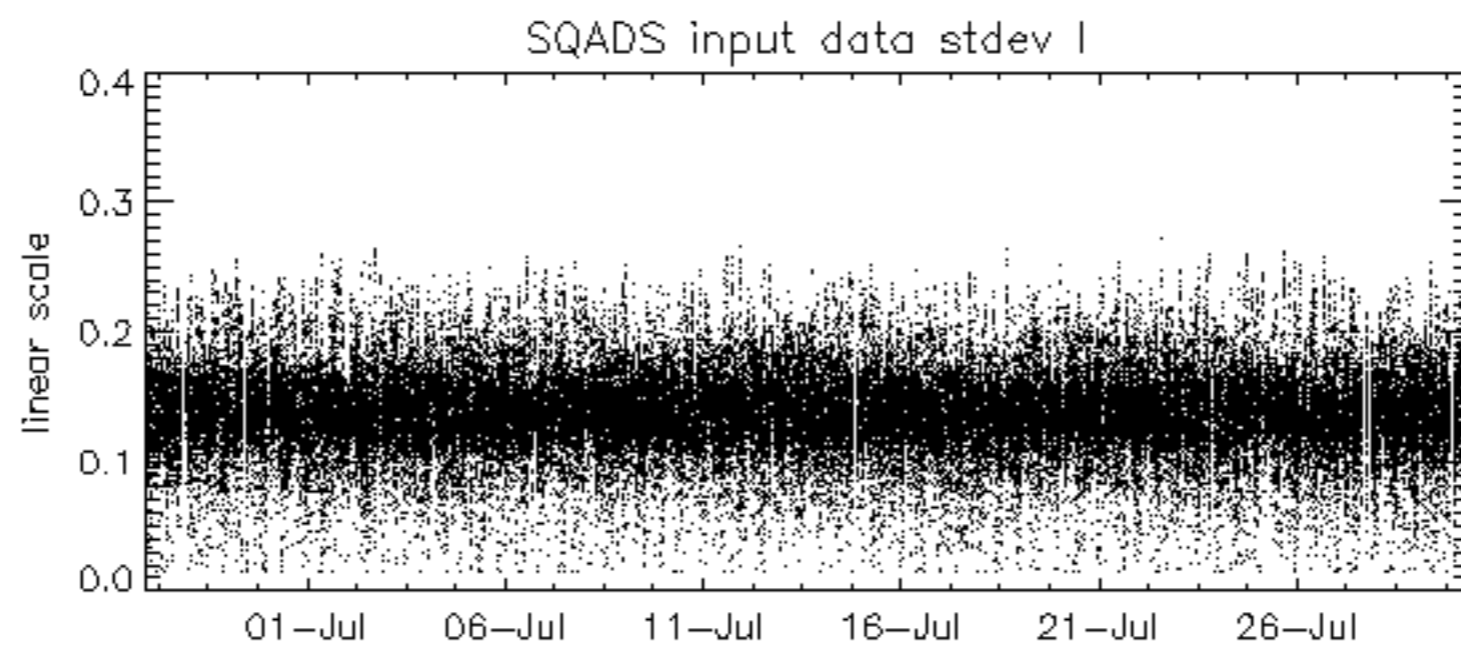
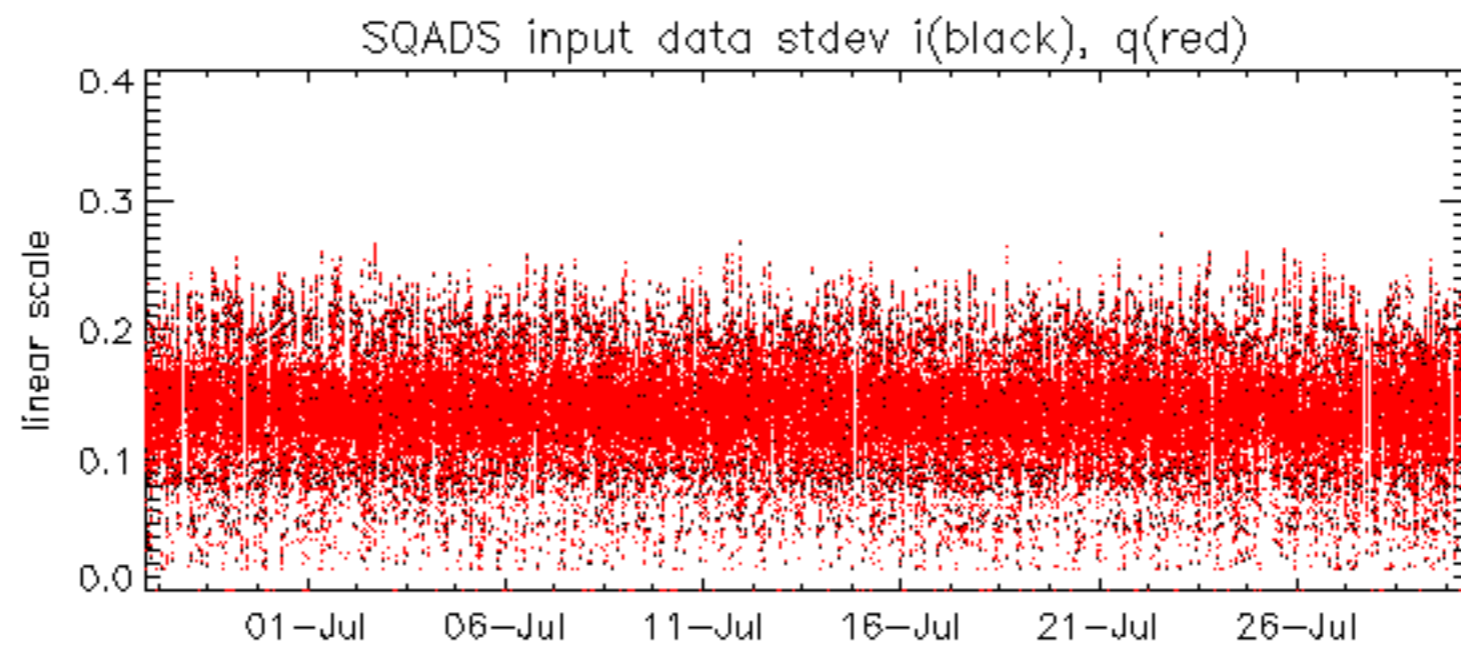


No anomalies observed on available MS products:

No anomalies observed.



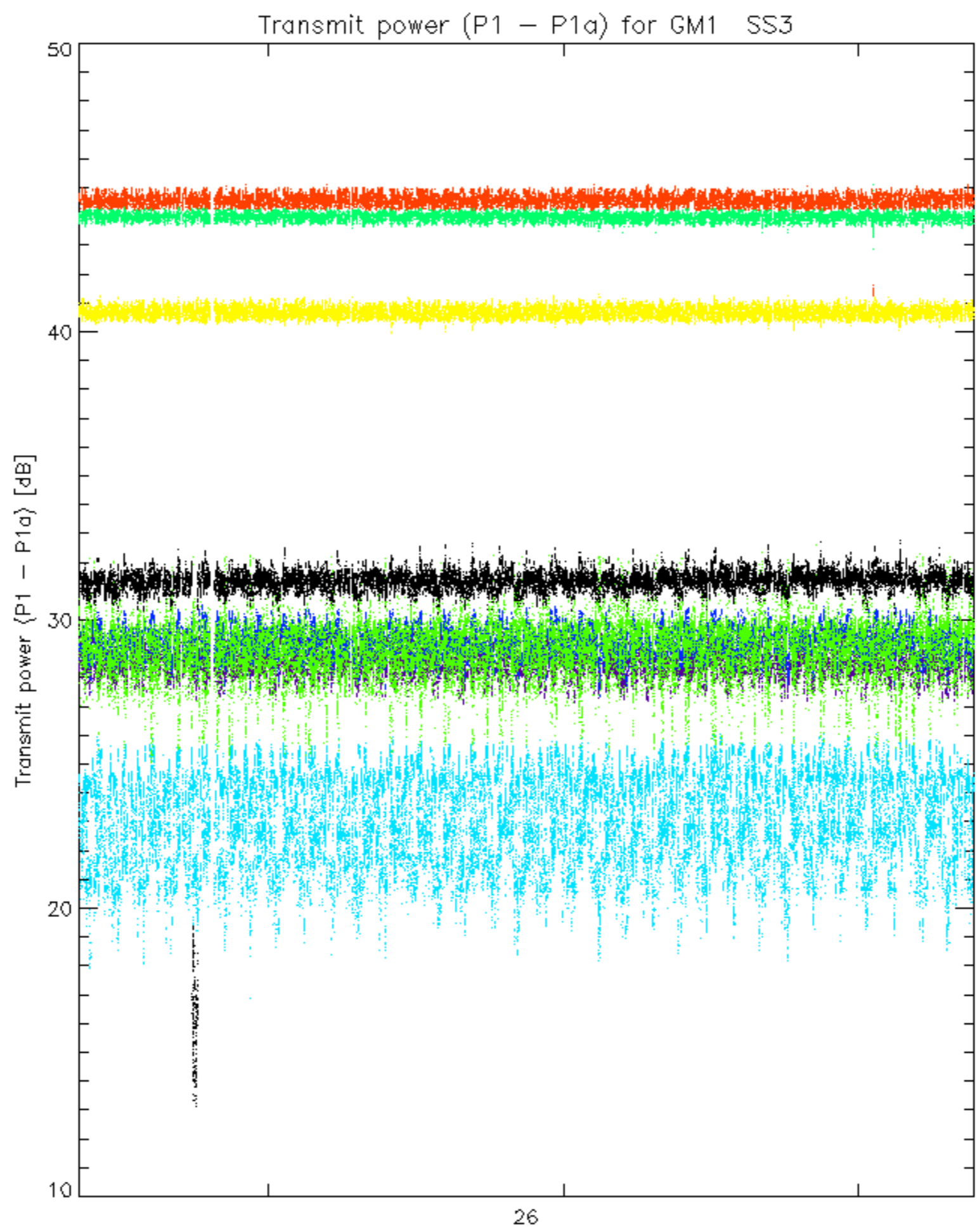


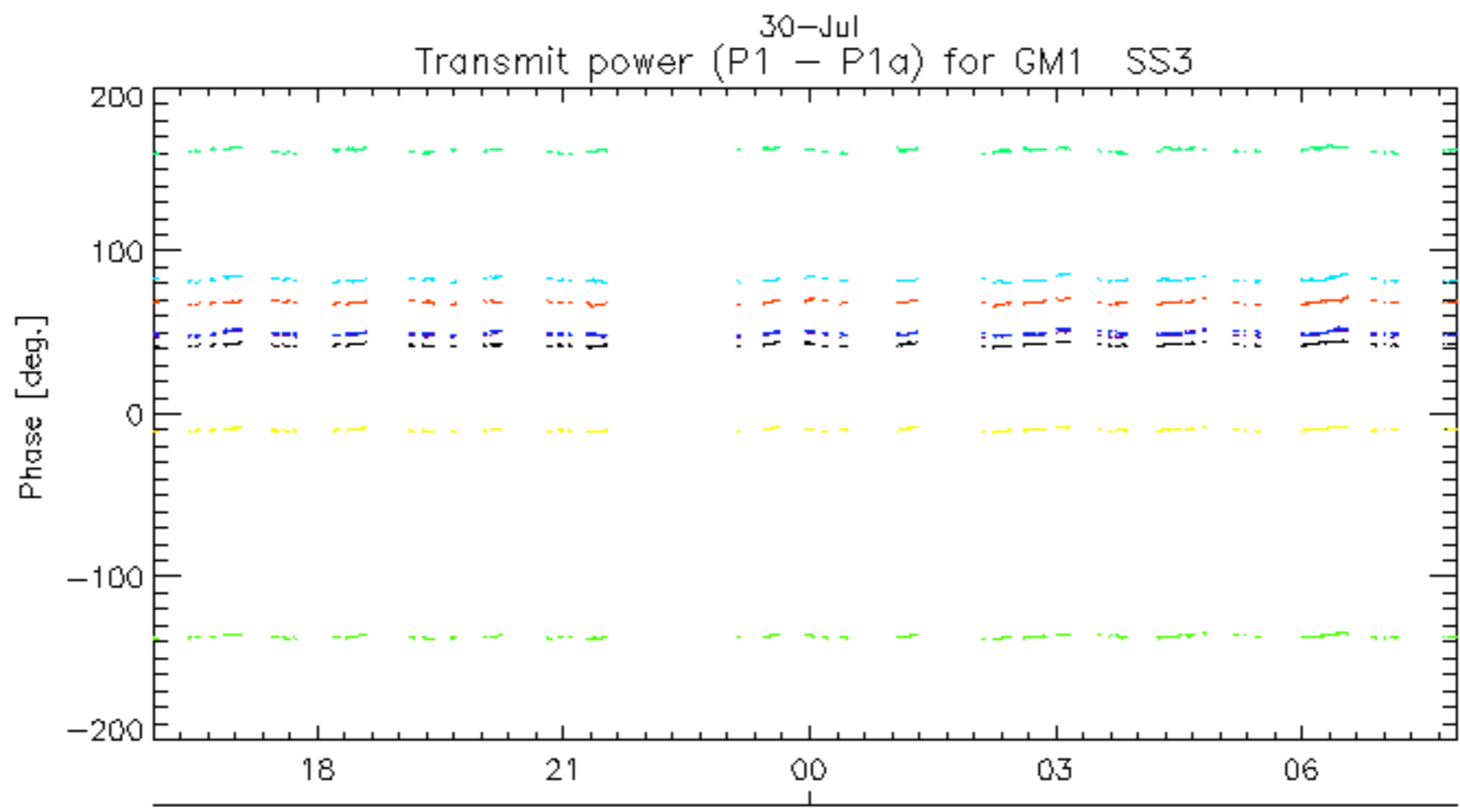
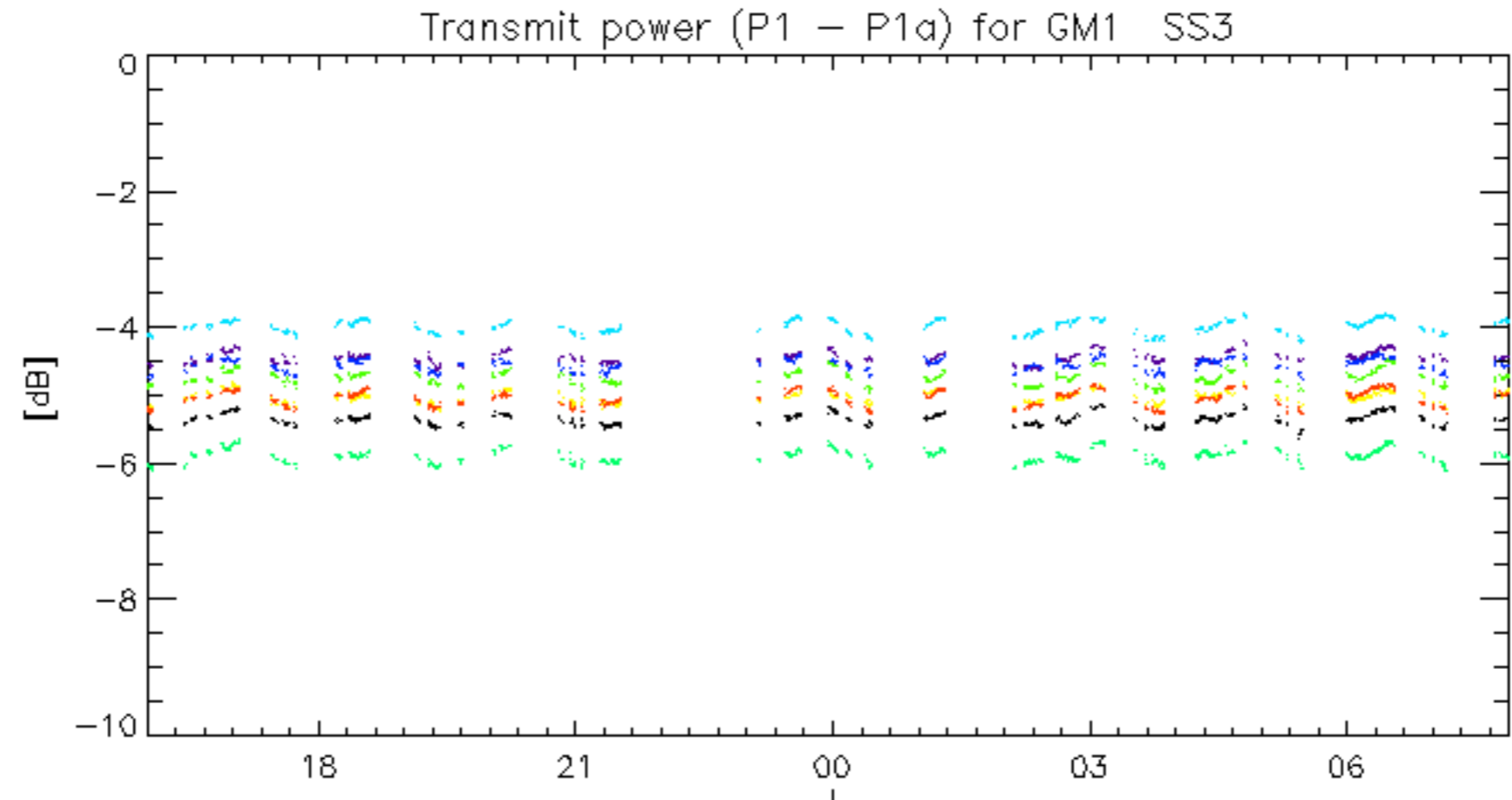


Summary of analysis for the last 3 days 2006072[890]

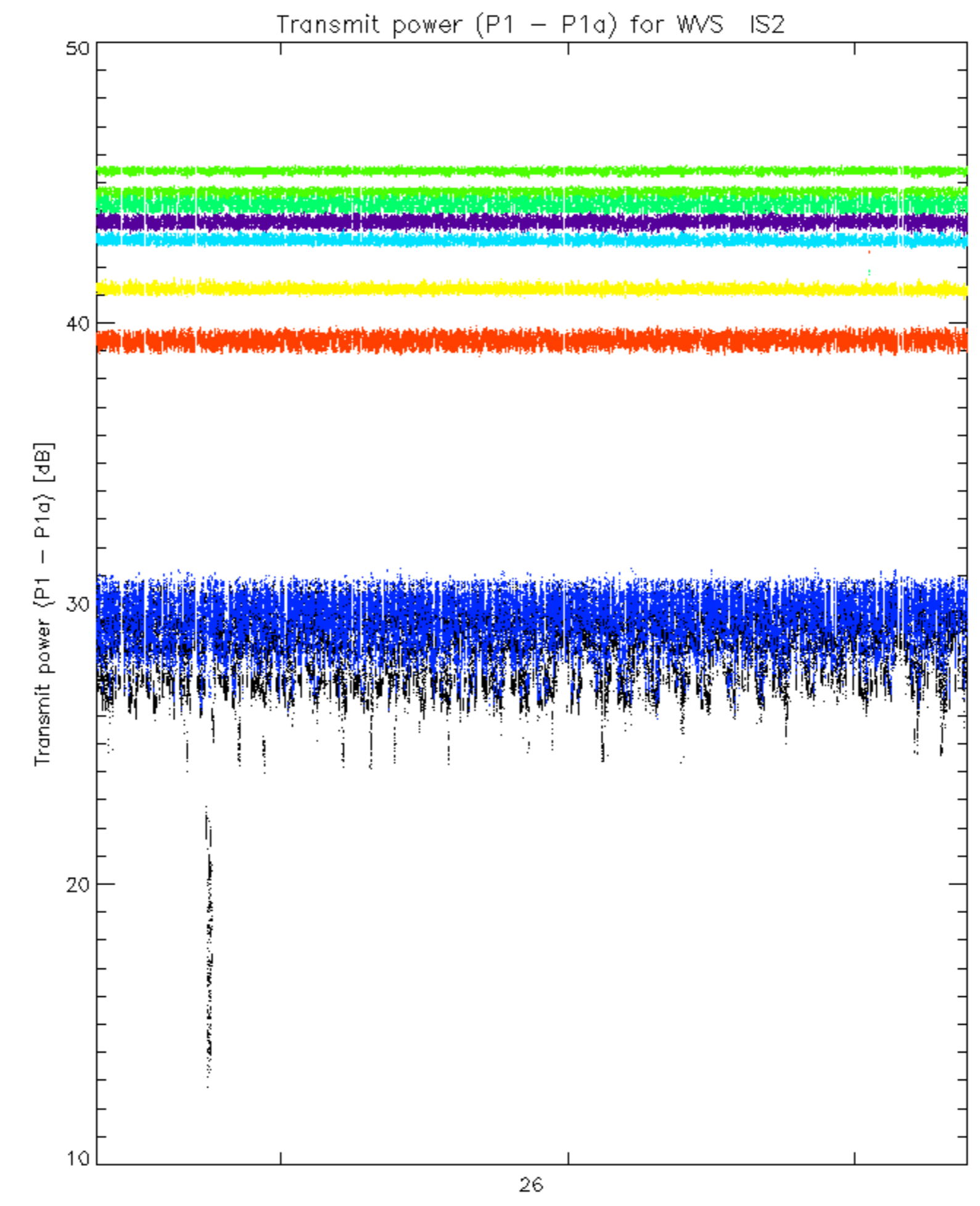
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060720_200916_000000372049_00343_22942_1445.N1	0	28
ASA_IMM_1PNPDE20060729_015644_000000792049_00461_23060_2471.N1	1	0
ASA_IMM_1PNPDE20060729_015644_000000802049_00461_23060_2372.N1	1	0
ASA_IMM_1PNPDK20060728_083400_000000372049_00451_23050_1001.N1	0	20
ASA_WSM_1PNPDE20060720_142714_000000852049_00340_22939_3788.N1	0	60
ASA_WSM_1PNPDE20060720_233449_0000003302049_00345_22944_3858.N1	0	34
ASA_WSM_1PNPDE20060728_183647_0000002932049_00457_23056_4791.N1	0	65
ASA_WSM_1PNPDE20060729_180625_0000001702049_00471_23070_4887.N1	0	66
ASA_WSM_1PNPDE20060729_230555_0000001092049_00474_23073_4911.N1	0	2

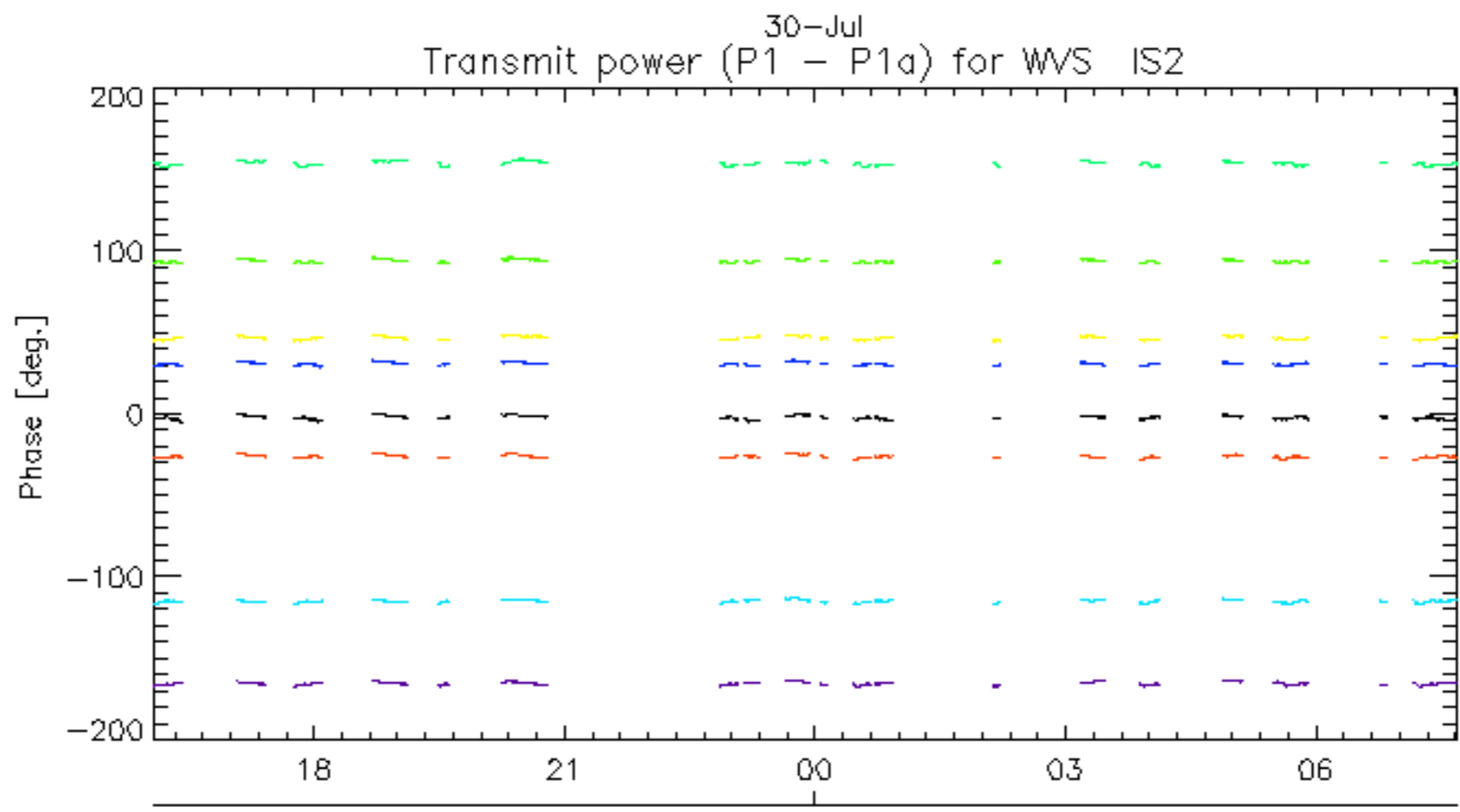
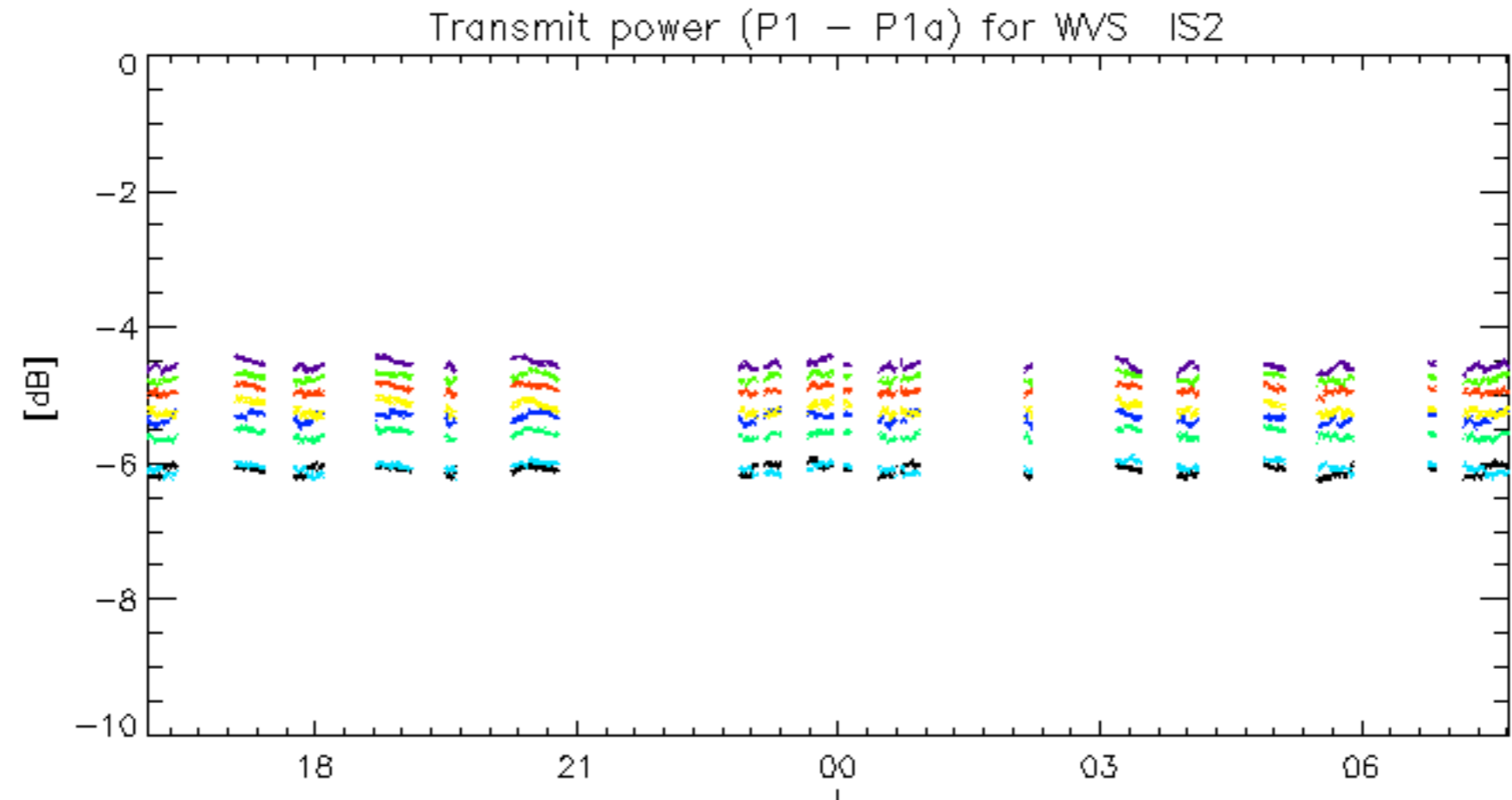




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.