

PRELIMINARY REPORT OF 050917

last update on Sat Sep 17 10:50:01 GMT 2005

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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 2005-09-16 00:00:00 to 2005-09-17 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	28	52	15	2	11
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	28	52	15	2	11
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	28	52	15	2	11
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	28	52	15	2	11

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	38	60	28	16	46
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	60	28	16	46
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	38	60	28	16	46
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	60	28	16	46

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	20050915 100810
H	20050916 143821

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	-3.368904	0.086189	-0.445986
7	P1	-3.189992	0.014109	-0.076412
11	P1	-4.748454	0.041006	-0.092115
15	P1	-5.665284	0.055538	-0.210577
19	P1	-3.685318	0.200454	0.694786
22	P1	-4.624531	0.014637	-0.038034
26	P1	-4.847628	0.033407	-0.113218
30	P1	-7.097095	0.326550	0.873643
3	P1	-15.934634	1.867939	-2.017568
7	P1	-16.300789	5.755900	-3.705852
11	P1	-22.251711	3.693888	-2.241293
15	P1	-12.373943	12.144670	-5.414732
19	P1	-14.389826	0.236803	0.705548
22	P1	-16.958637	26.485357	-7.629867
26	P1	-18.549026	21.674173	-6.902835
30	P1	-18.678873	7.852530	-4.223056

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.720457	0.092766	-0.028171
7	P2	-21.948580	0.220483	-0.545389
11	P2	-13.749833	1.404930	-1.785015
15	P2	-7.083790	0.123069	-0.273065
19	P2	-9.459482	0.235003	0.587092
22	P2	-16.823746	0.115973	-0.155015
26	P2	-16.494179	0.106866	0.006073
30	P2	-18.903374	0.192854	-0.539431

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.156330	0.004226	-0.019382
7	P3	-8.156330	0.004226	-0.019382
11	P3	-8.156330	0.004226	-0.019382
15	P3	-8.156330	0.004226	-0.019382
19	P3	-8.156330	0.004226	-0.019382
22	P3	-8.156330	0.004226	-0.019382
26	P3	-8.156337	0.004227	-0.019366
30	P3	-8.156337	0.004227	-0.019366

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	-2.719653	0.059317	0.274996
7	P1	-3.021778	0.081781	-0.341982
11	P1	-4.022918	0.040315	0.096963
15	P1	-3.635335	0.025405	-0.027183
19	P1	-3.546020	0.087520	0.454816
22	P1	-5.572387	0.237689	0.758203
26	P1	-7.073306	0.787321	1.499026
30	P1	-6.070439	0.501635	1.133330
3	P1	-11.199215	0.592135	-1.295403
7	P1	-11.913476	20.762213	-7.339838
11	P1	-14.482250	34.666569	-9.453669
15	P1	-13.467192	34.180943	-9.377004
19	P1	-15.325460	0.220522	0.682712
22	P1	-25.120758	2.405952	1.152876
26	P1	-15.956040	6.853874	-4.183609
30	P1	-20.302624	1.971597	-1.177656

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.416824	0.050497	-0.003941
7	P2	-22.082890	0.172460	-0.594226
11	P2	-9.652106	0.483881	-1.012471
15	P2	-5.069452	0.036462	-0.001616
19	P2	-6.742939	0.132434	0.465974
22	P2	-7.040578	0.055242	-0.145102
26	P2	-23.953249	0.036847	-0.048421
30	P2	-21.984627	0.081529	-0.341530

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.000643	0.004098	-0.013010
7	P3	-8.000671	0.004113	-0.012913
11	P3	-8.000531	0.004096	-0.012849
15	P3	-8.000571	0.004110	-0.012862
19	P3	-8.000695	0.004095	-0.013106
22	P3	-8.000548	0.004098	-0.012907
26	P3	-8.000542	0.004108	-0.013440
30	P3	-8.000484	0.004111	-0.013329

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	0.000459178
	stdev	2.16182e-07
MEAN Q	mean	0.000493352
	stdev	2.27248e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128472
	stdev	0.000956341
STDEV Q	mean	0.128721
	stdev	0.000966073



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005091[567]

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_1PNPDE20050916_004346_000001222040_00446_18536_5720.N1	1	0
ASA_IMM_1PNPDK20050915_092744_000000132040_00437_18527_4038.N1	0	96
ASA_IMM_1PNPDK20050915_092757_000000222040_00437_18527_4093.N1	0	162
ASA_IMM_1PNPDK20050915_092929_000000192040_00437_18527_4037.N1	0	112
ASA_IMM_1PNPDK20050915_093616_000000622040_00437_18527_4035.N1	0	17
ASA_IMM_1PNPDK20050916_083400_000000352040_00451_18541_4097.N1	0	18
ASA_IMM_1PNPDK20050916_185109_000000602040_00457_18547_4120.N1	0	1
ASA_GM1_1PNPDK20050915_074128_000005072040_00436_18526_5453.N1	0	14
ASA_GM1_1PNPDK20050915_080751_000005732040_00436_18526_5450.N1	0	197

ASA_GM1_1PNPDK20050915_081727_000001142040_00436_18526_5525.N1	0	41
ASA_GM1_1PNPDK20050915_082612_000011352040_00436_18526_5449.N1	0	286
ASA_GM1_1PNPDK20050915_091833_000005192040_00437_18527_5451.N1	0	120
ASA_GM1_1PNPDK20050915_150835_000011362040_00440_18530_5490.N1	0	7
ASA_WSM_1PNPDE20050915_012427_000004282040_00432_18522_8770.N1	0	16
ASA_WSM_1PNPDE20050916_005515_000002792040_00446_18536_8936.N1	0	46
ASA_WSM_1PNPDK20050915_122838_000003972040_00439_18529_4159.N1	0	21





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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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)**

Acsending

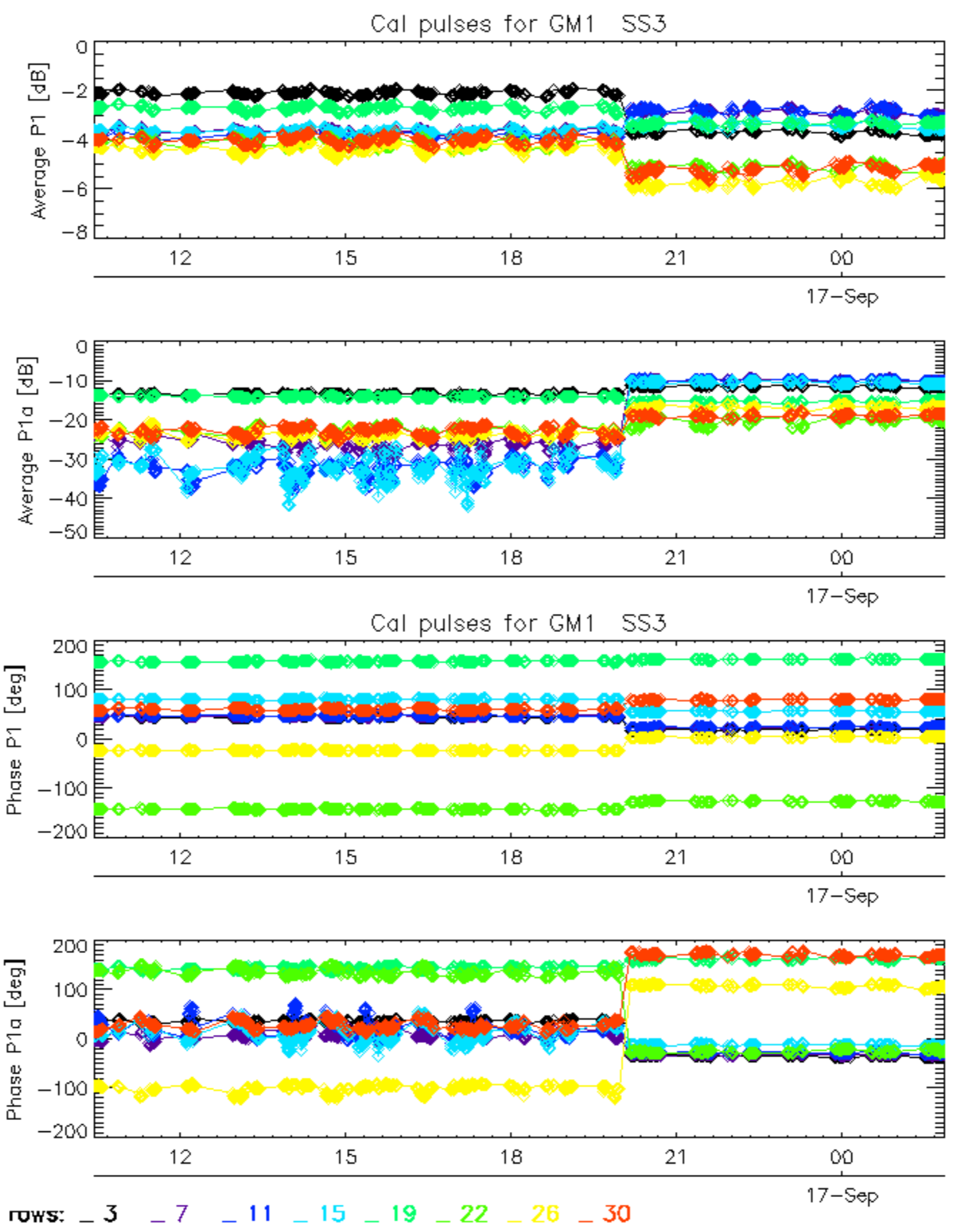
Descending

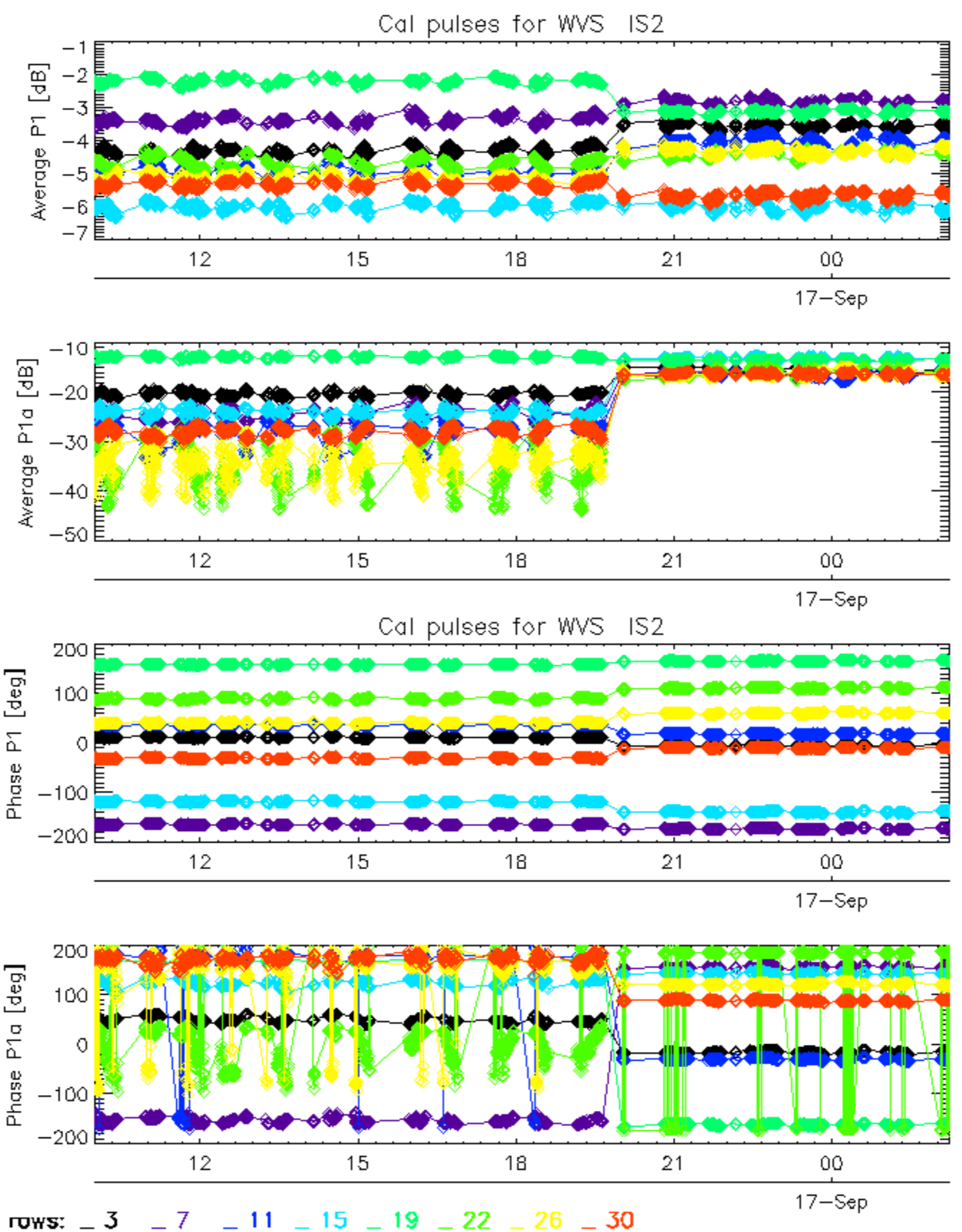
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

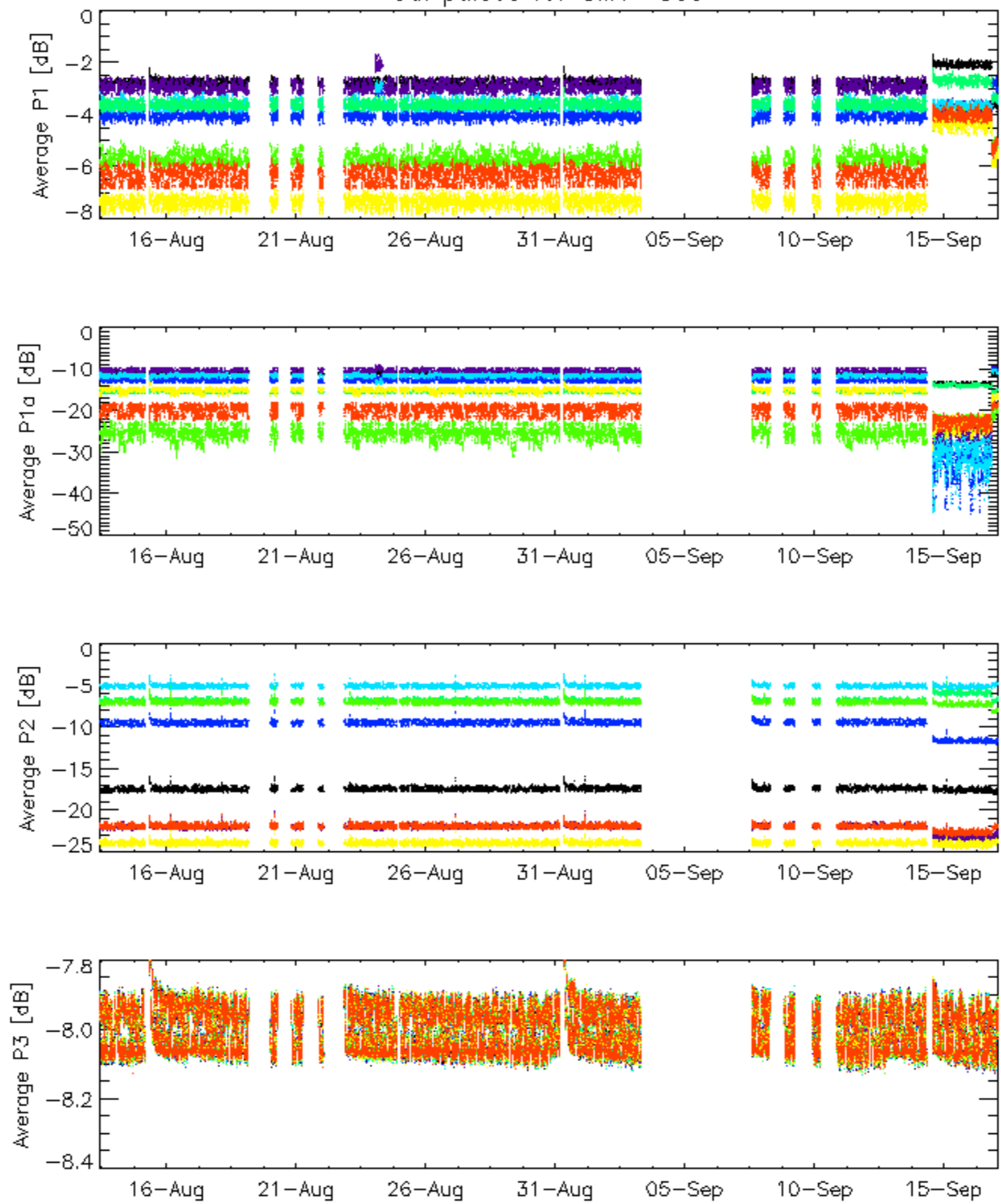
Descending

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



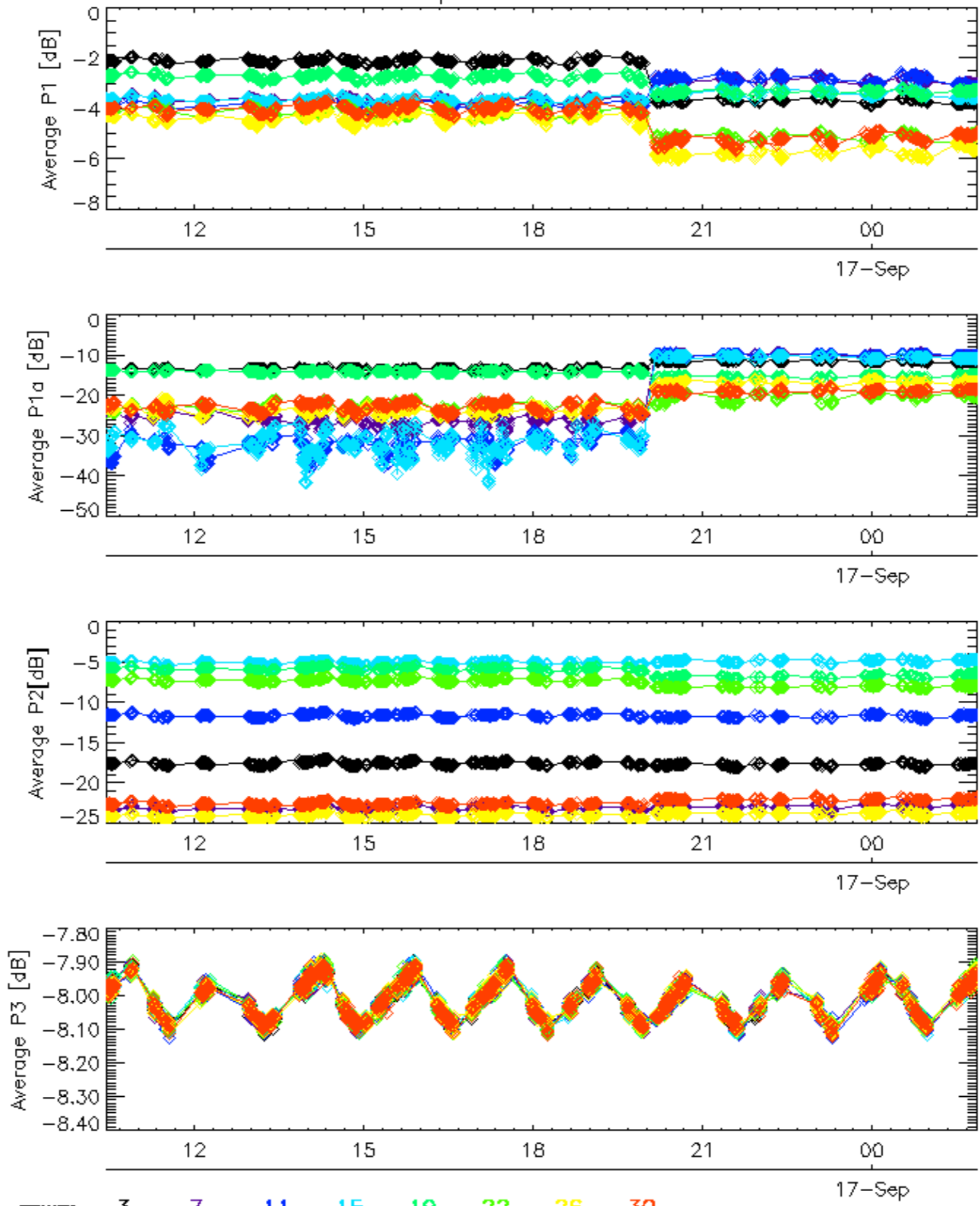


Cal pulses for GM1 SS3



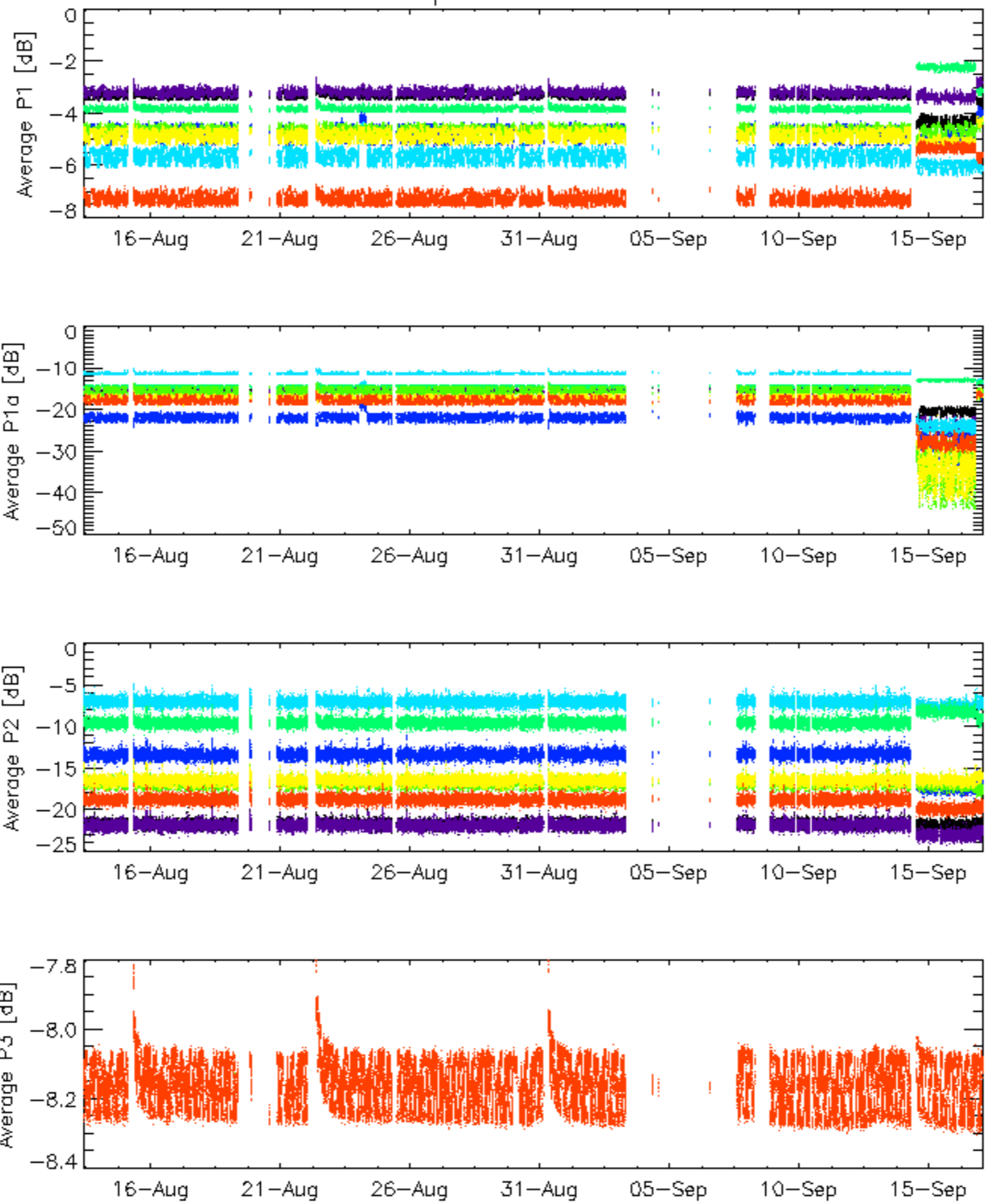
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



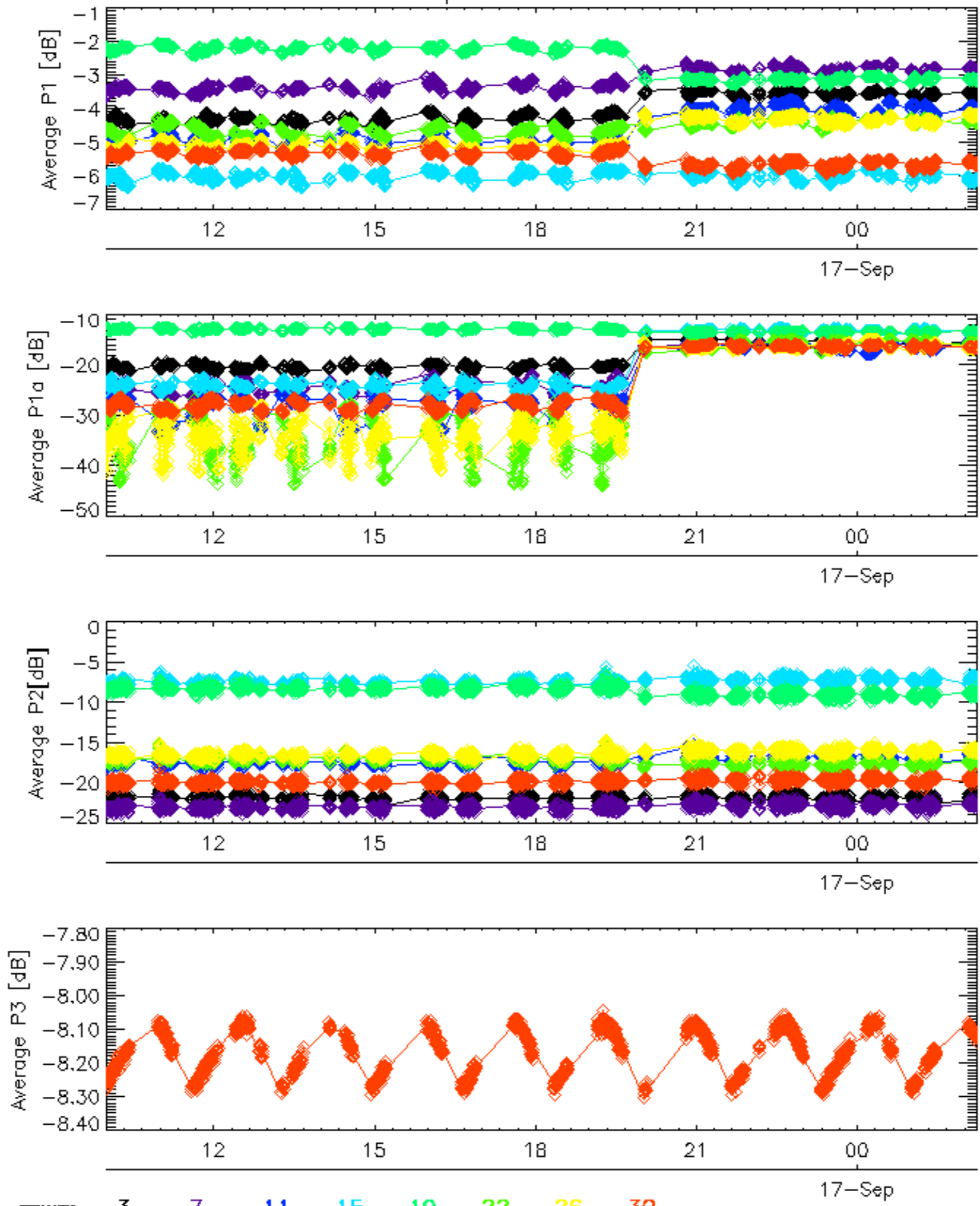
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Cal pulses for WVS IS2



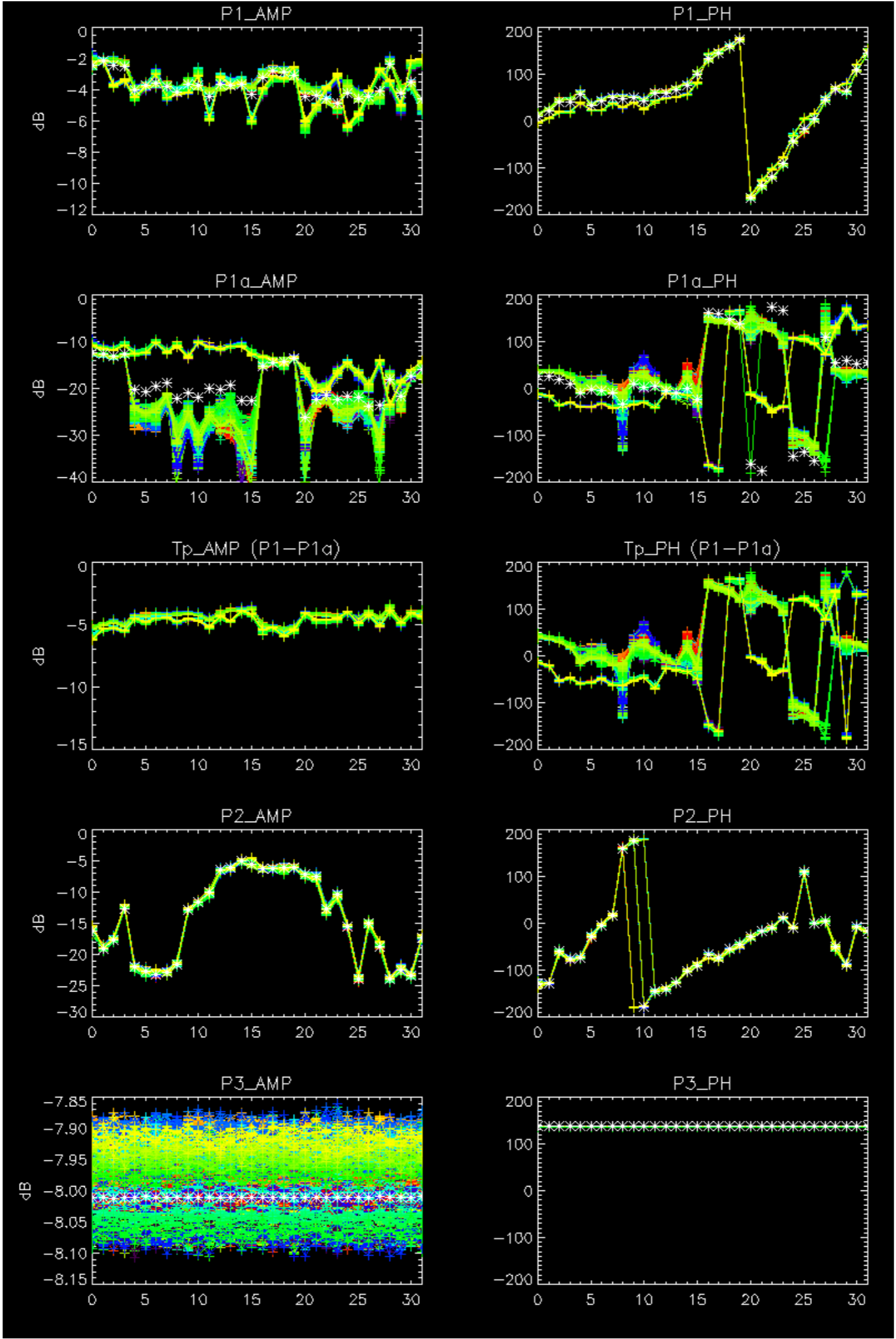
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

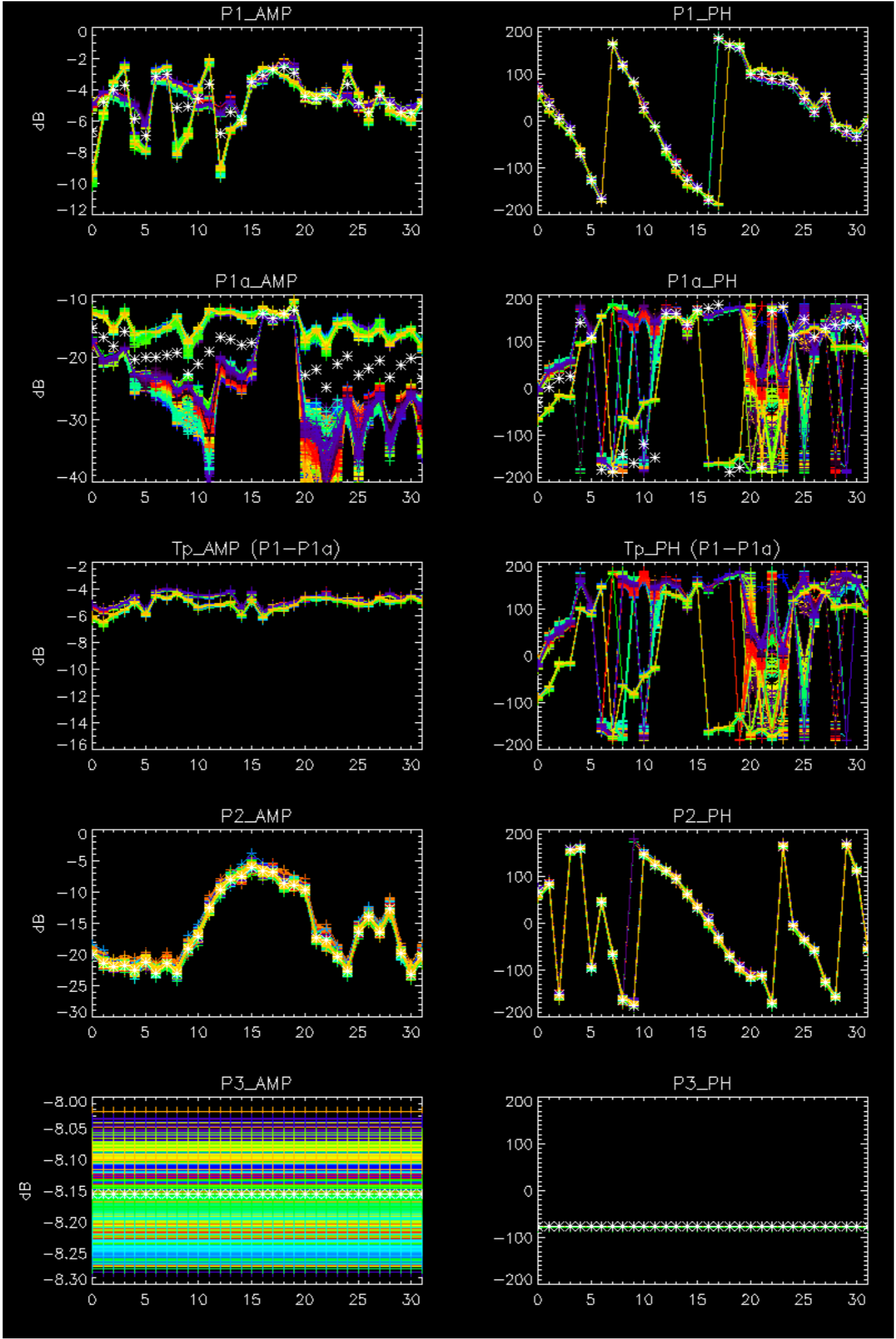
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

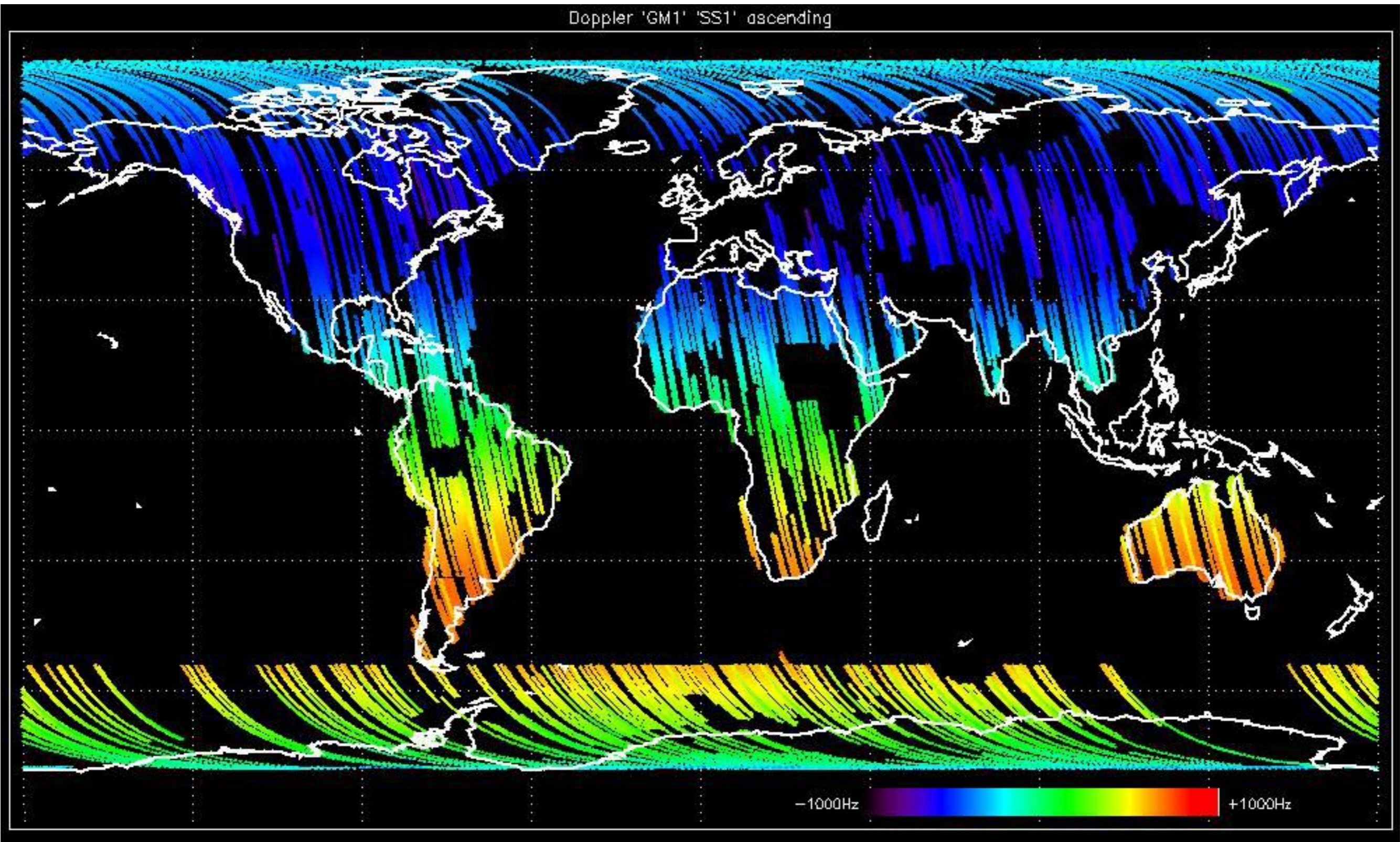
No anomalies observed.



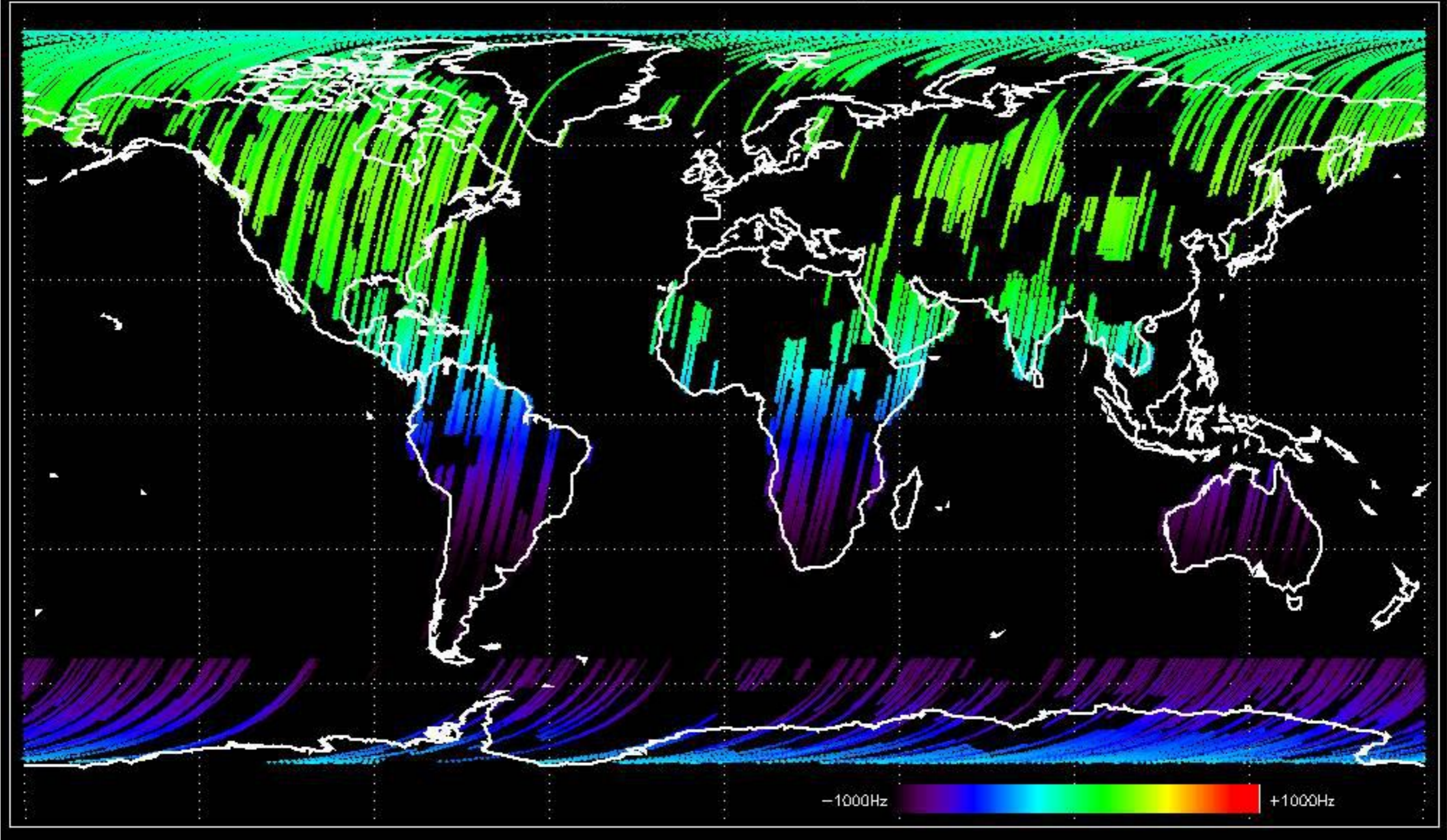


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

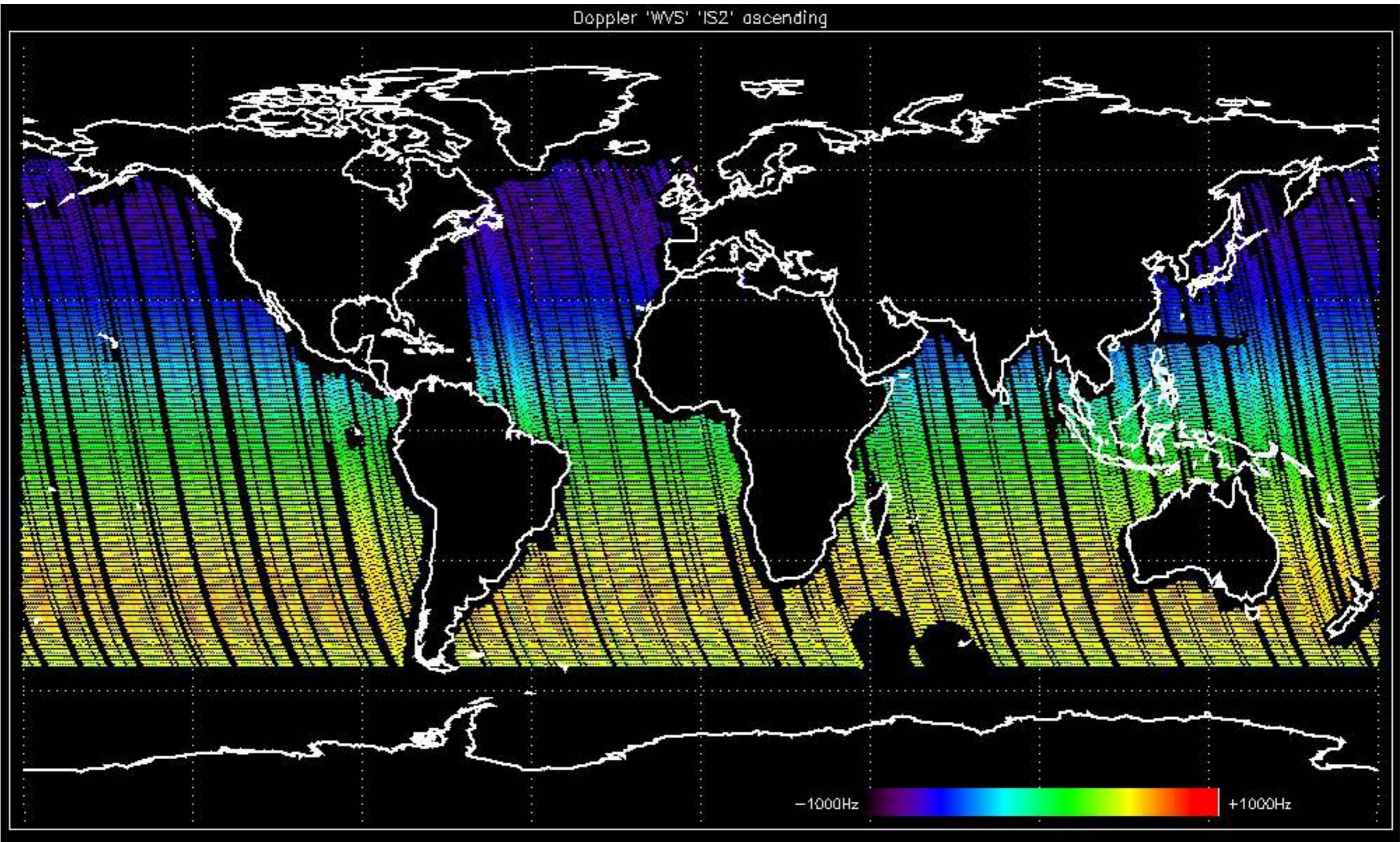
Doppler 'GM1' 'SS1' ascending



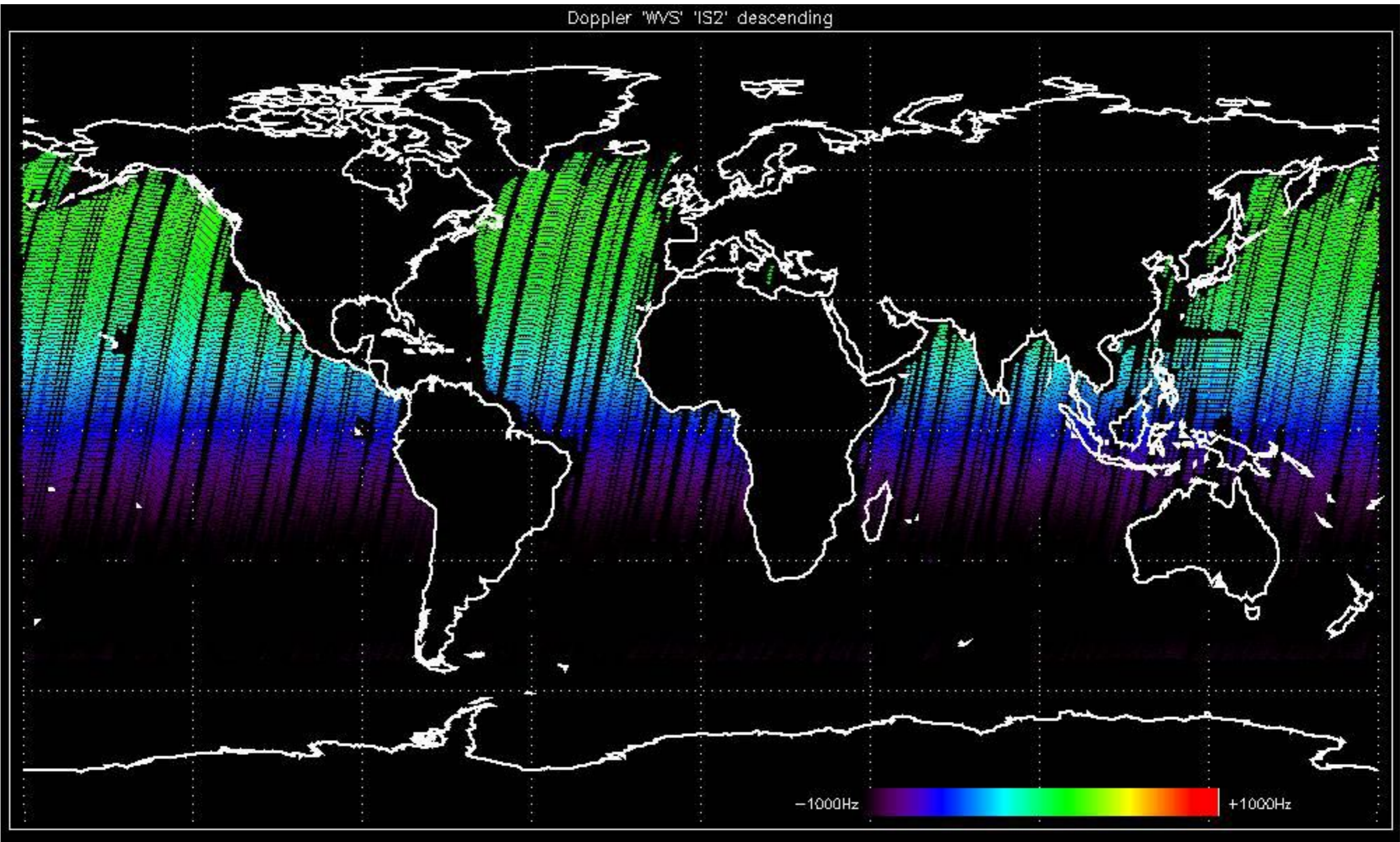
Doppler 'GM1' 'SS1' descending

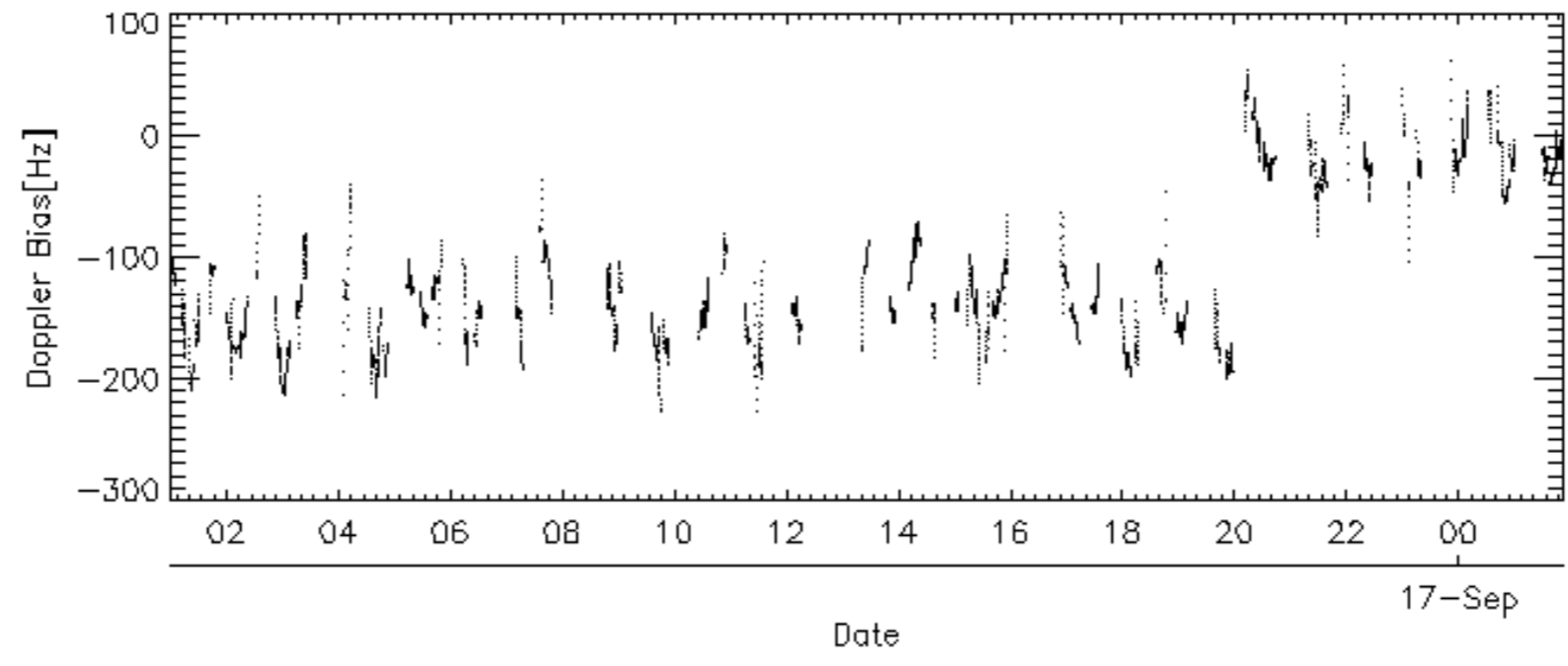
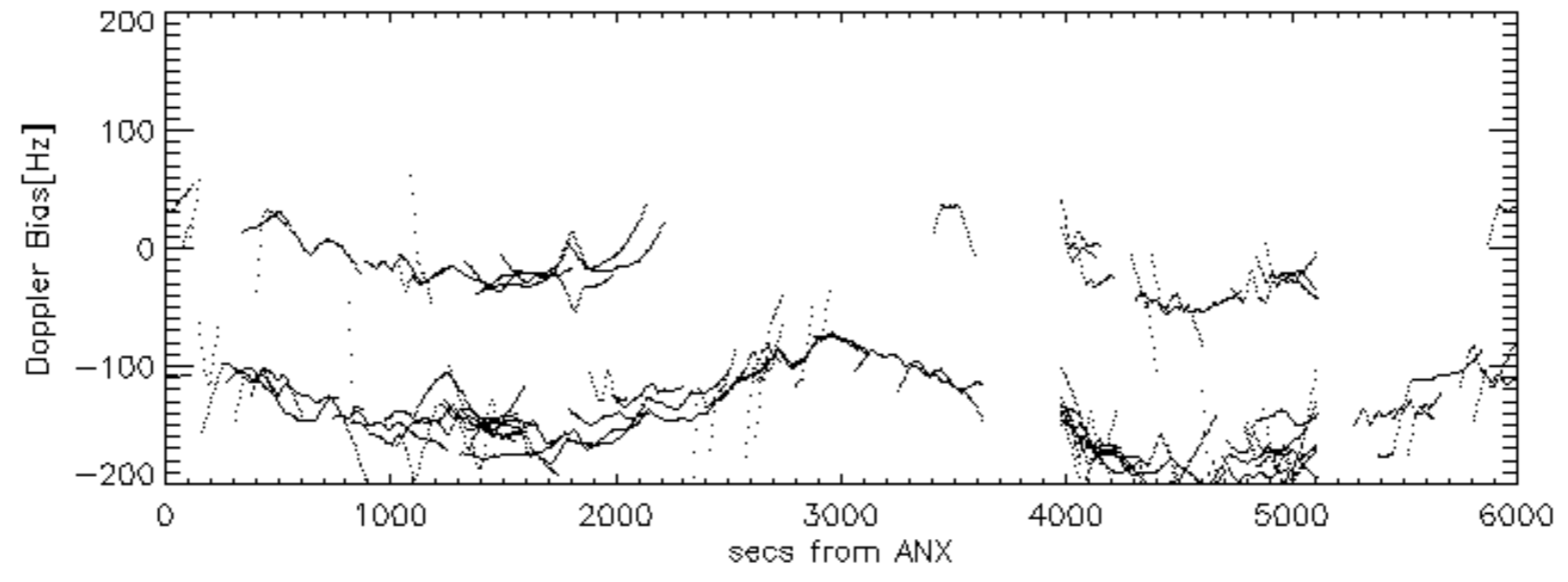
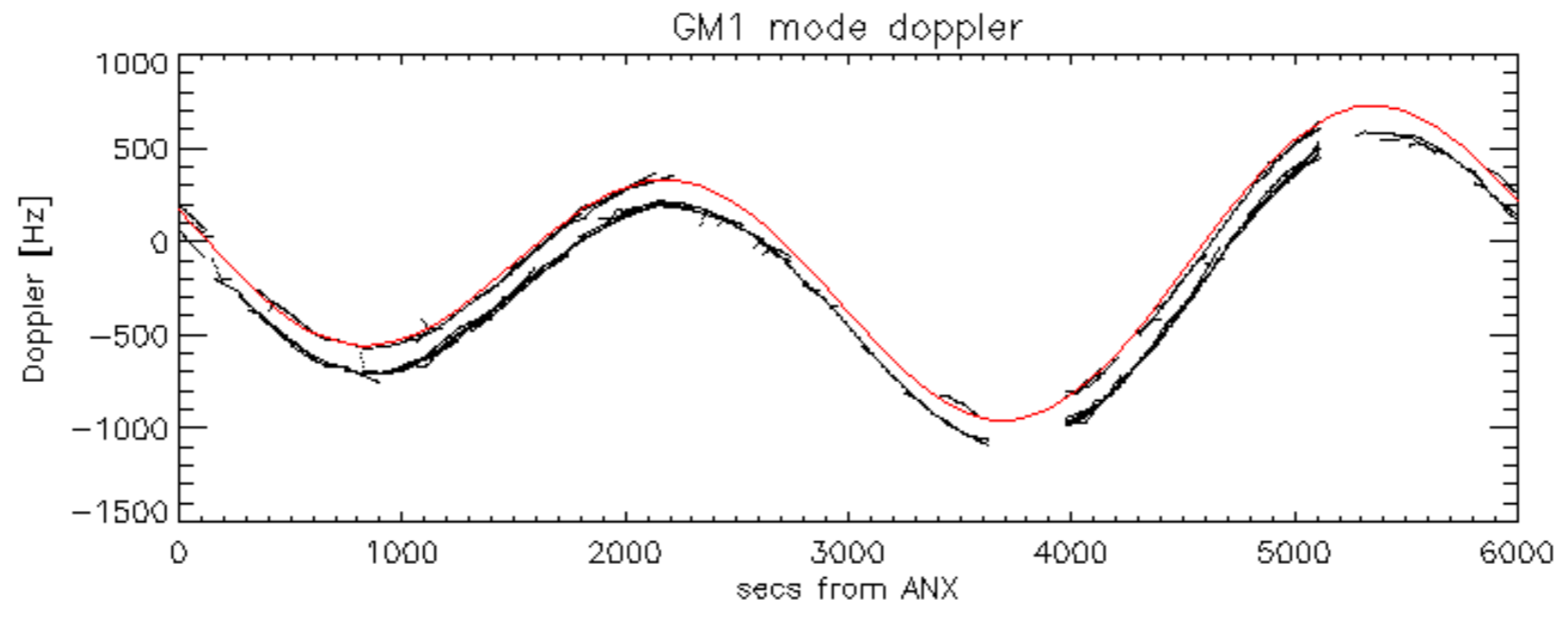


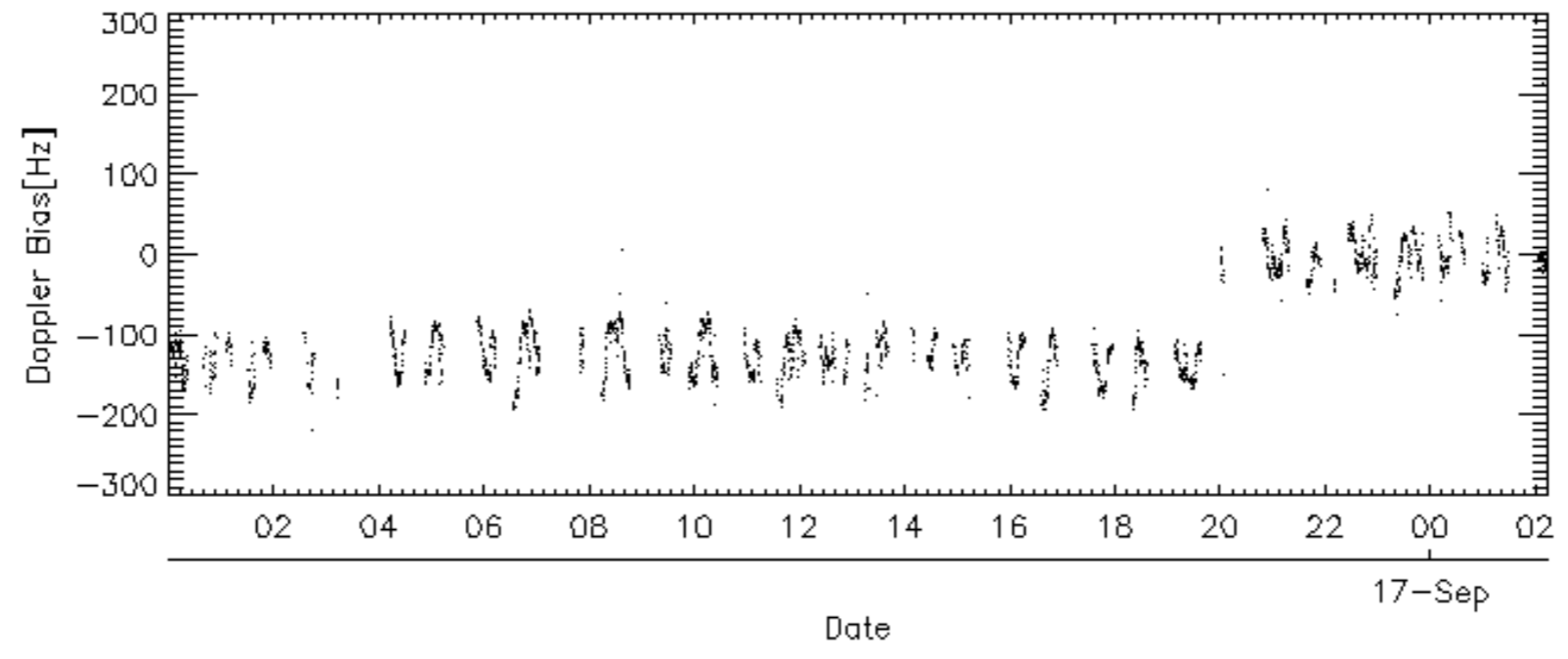
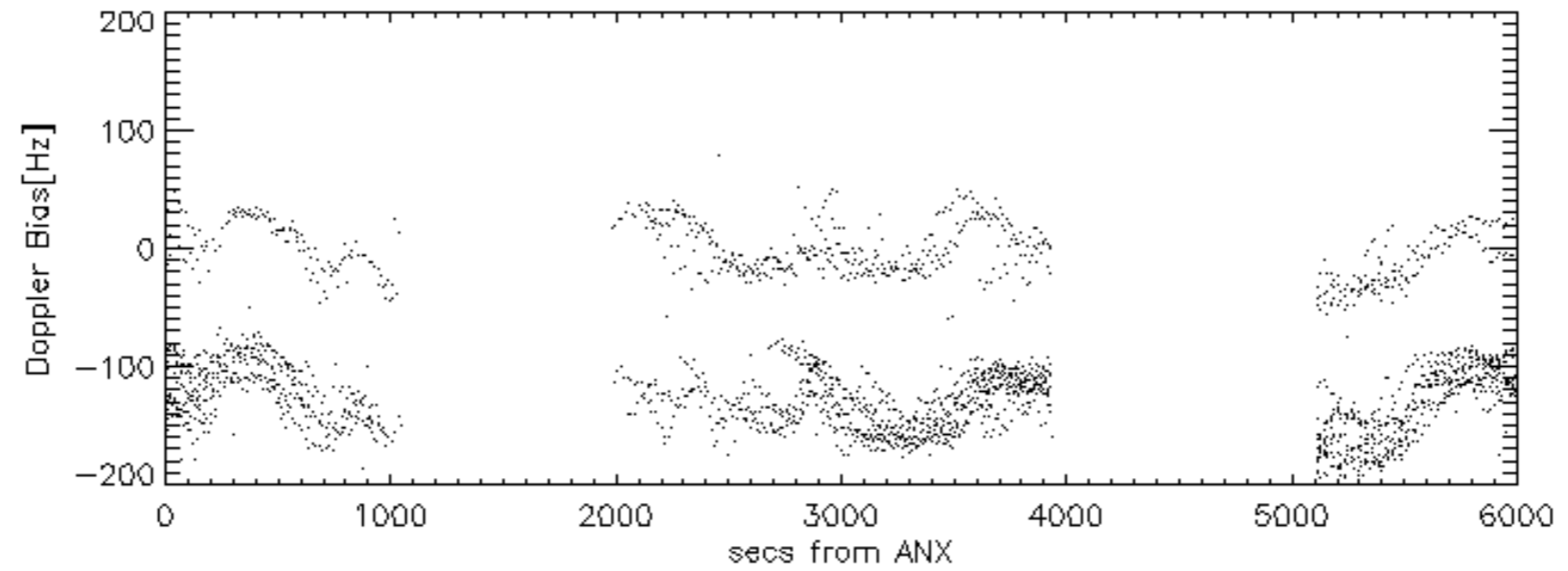
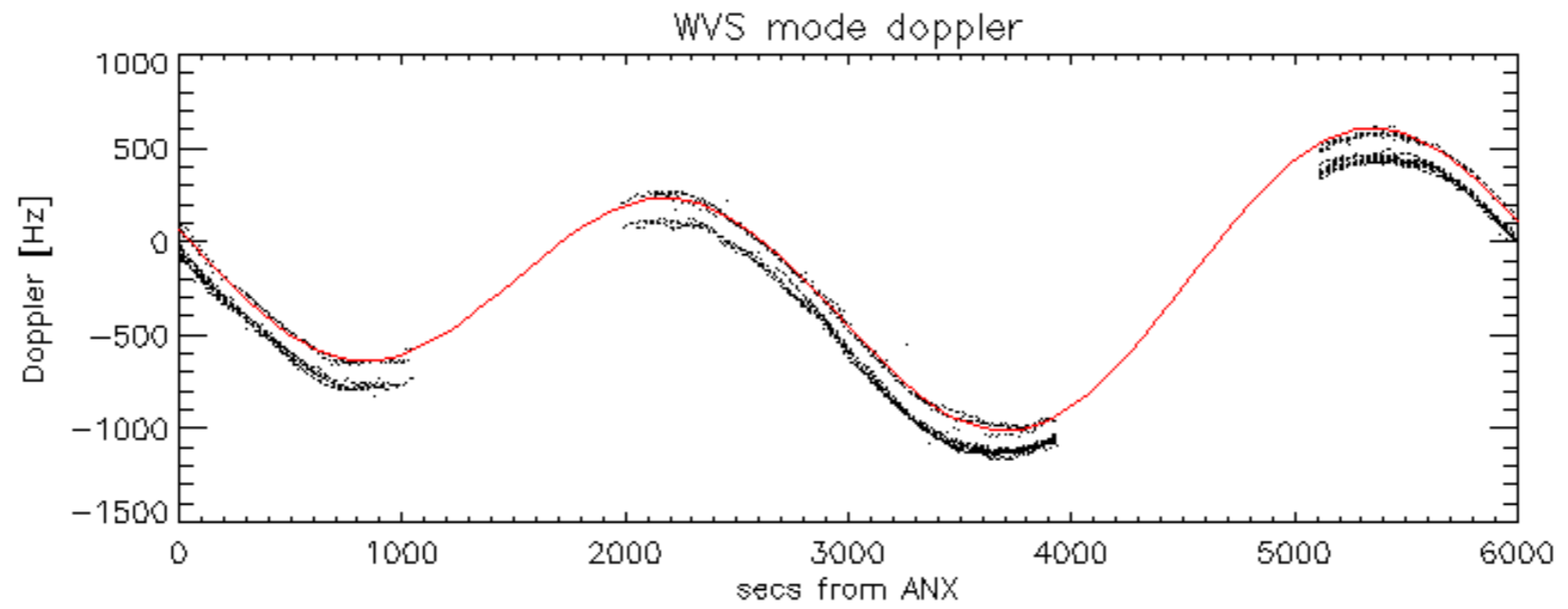
Doppler 'WVS' 'IS2' ascending



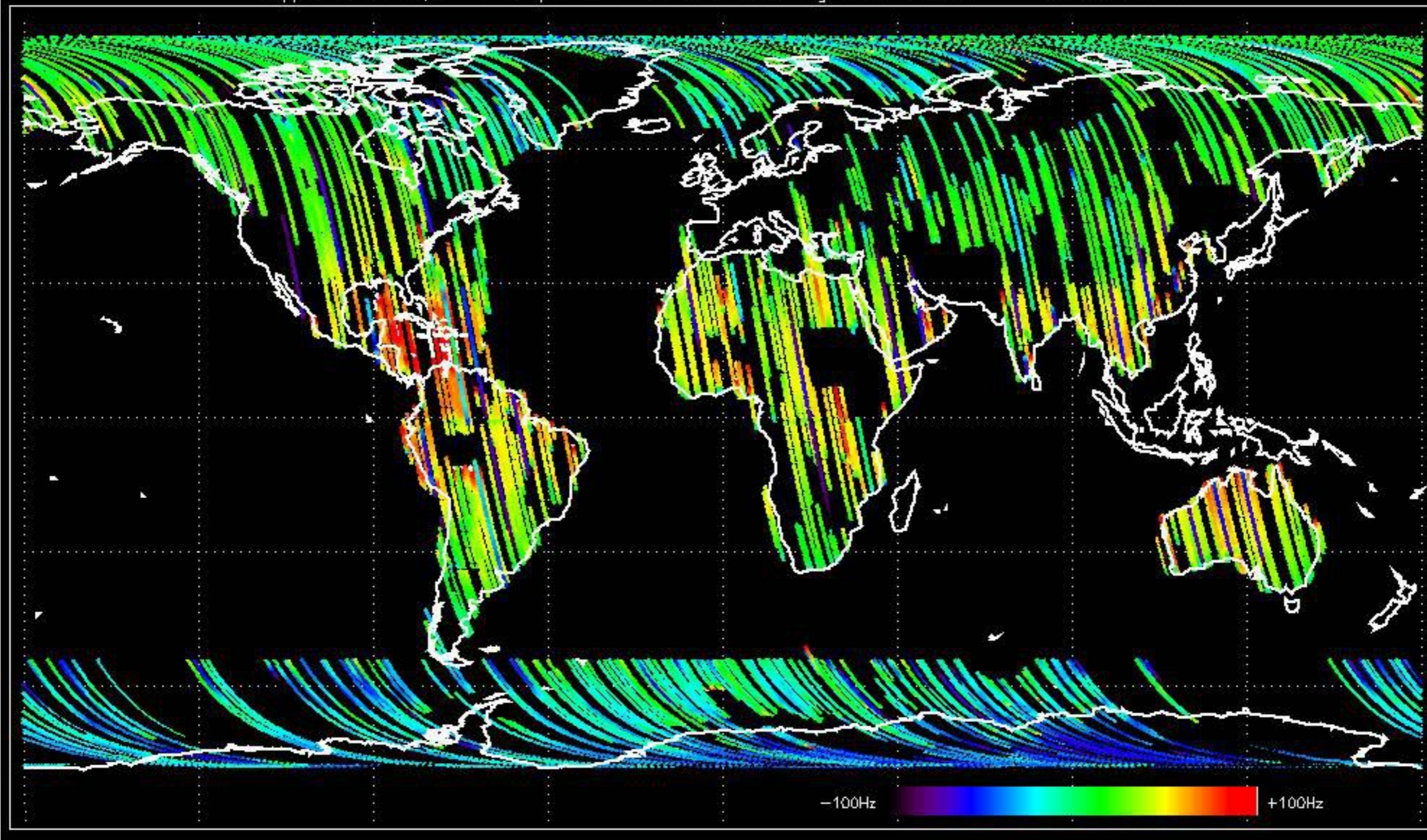
Doppler 'WVS' 'IS2' descending



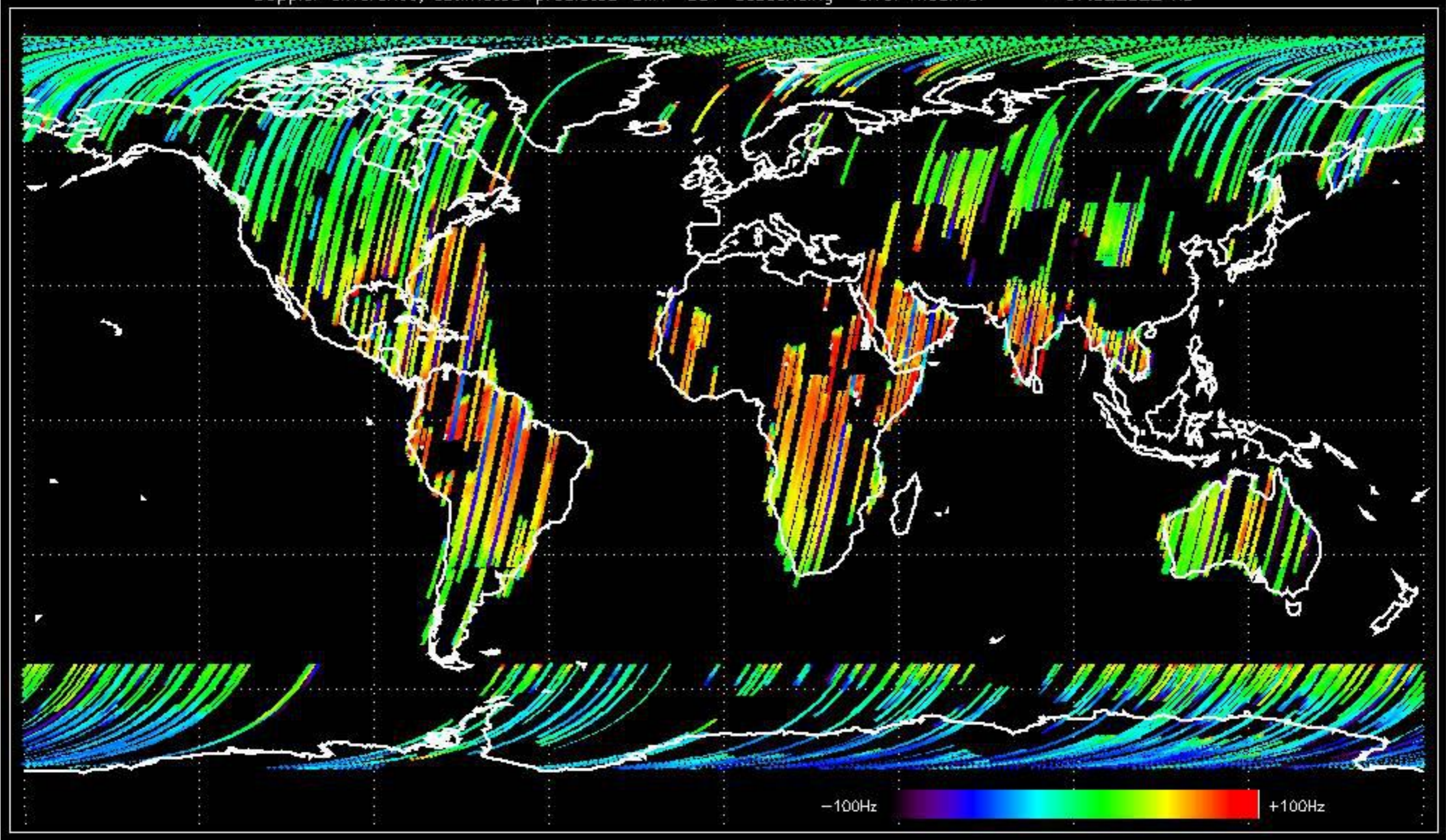




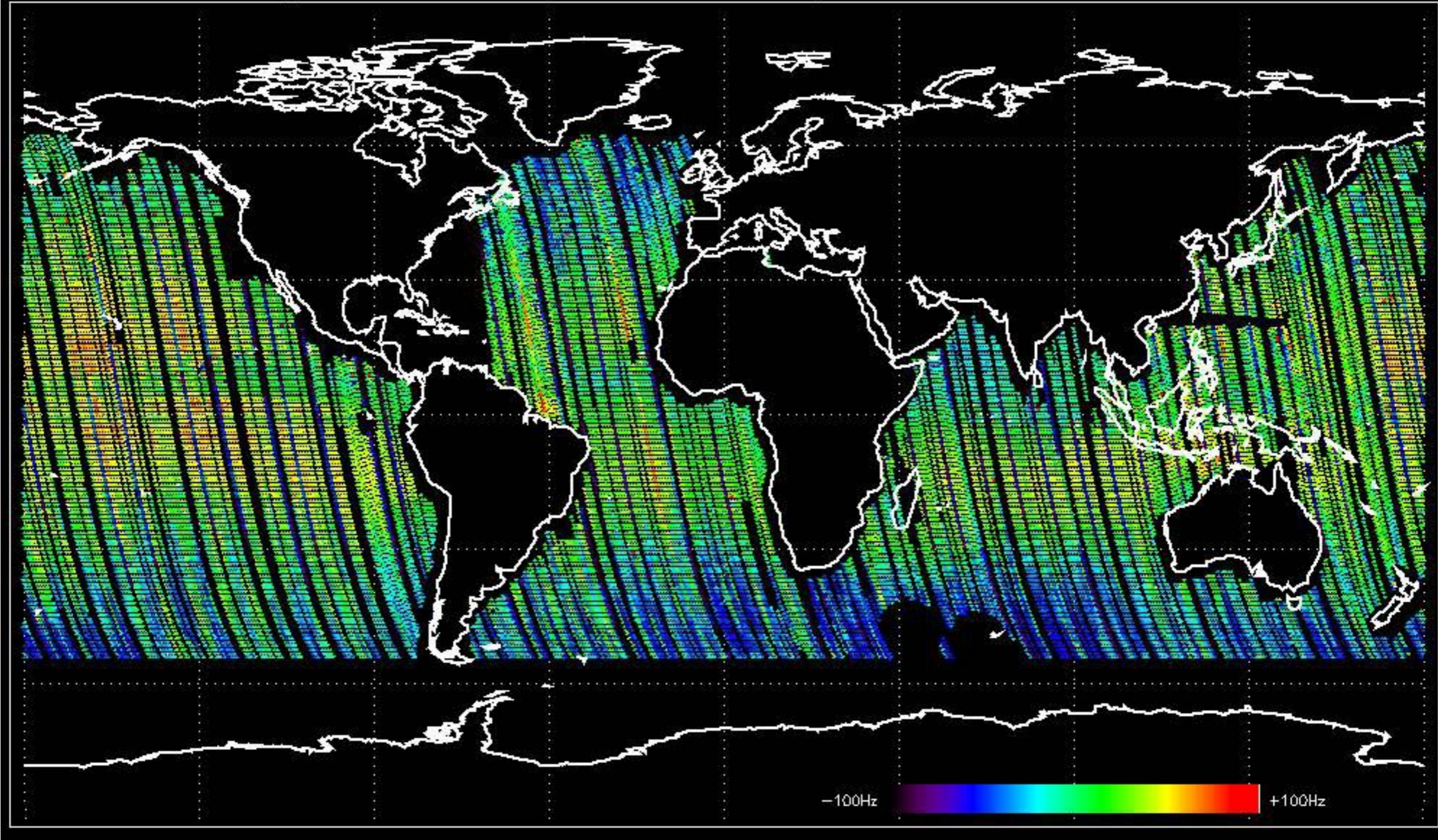
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -43.415283 Hz



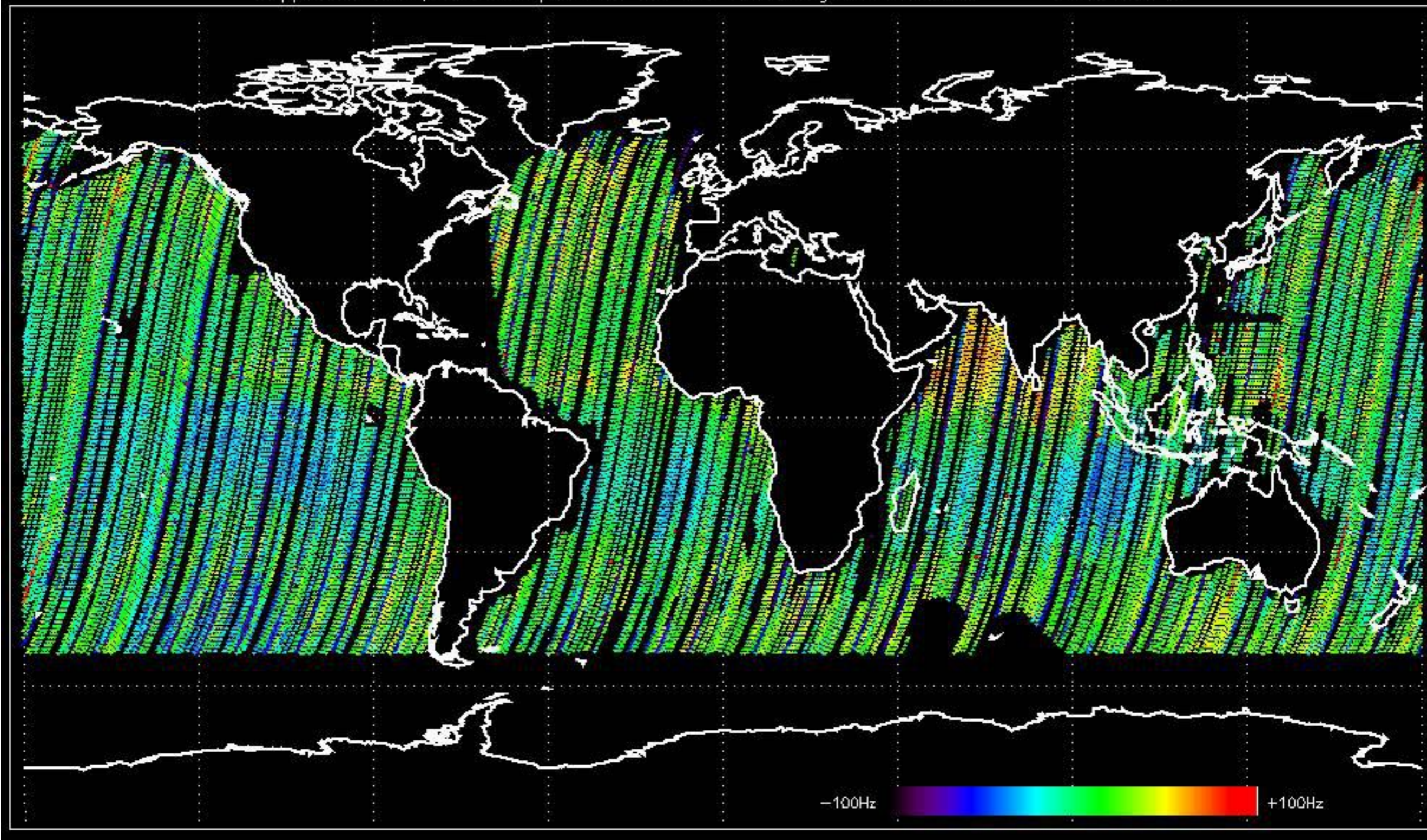
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -37.322322 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -43.560006 Hz

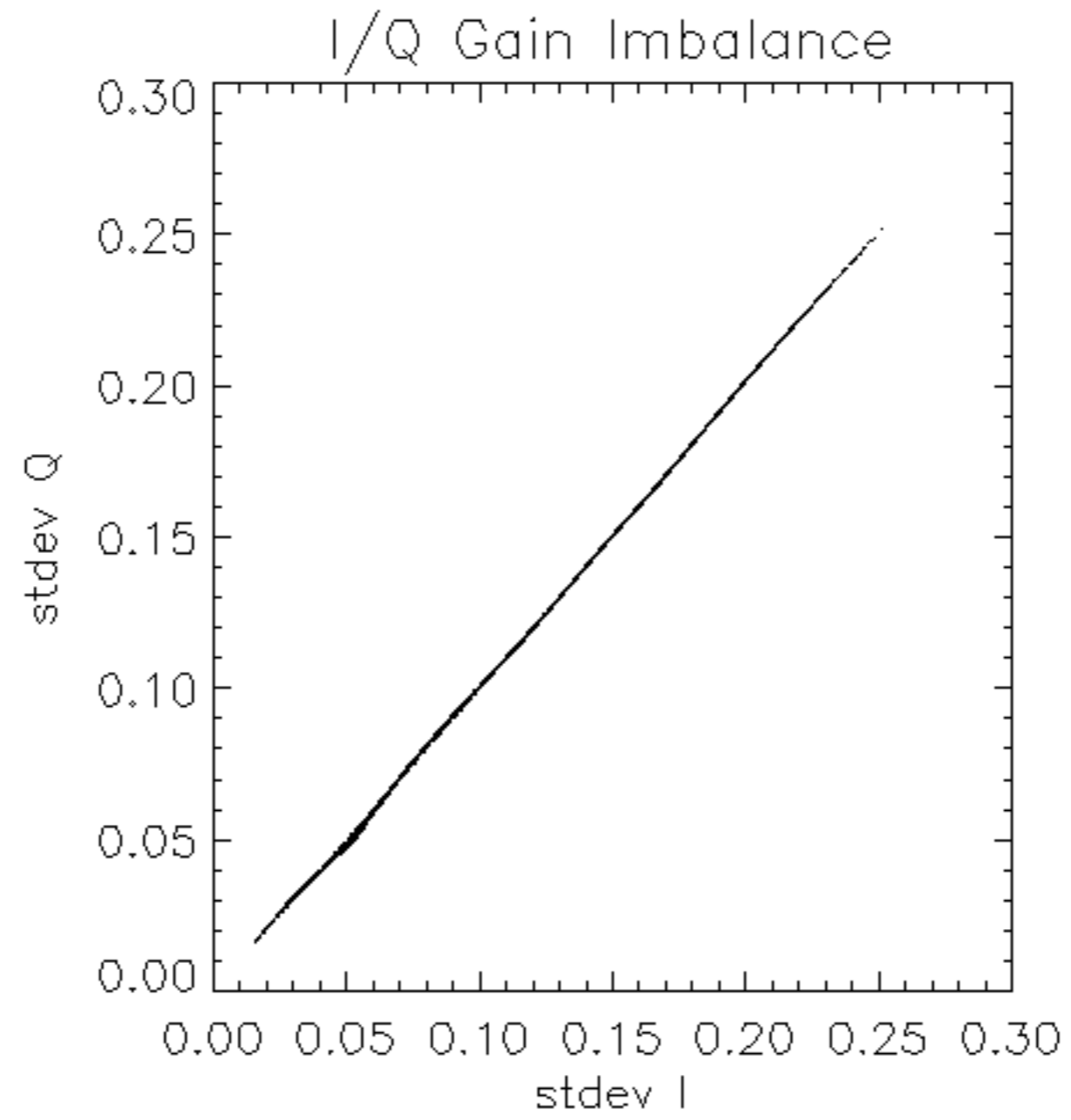


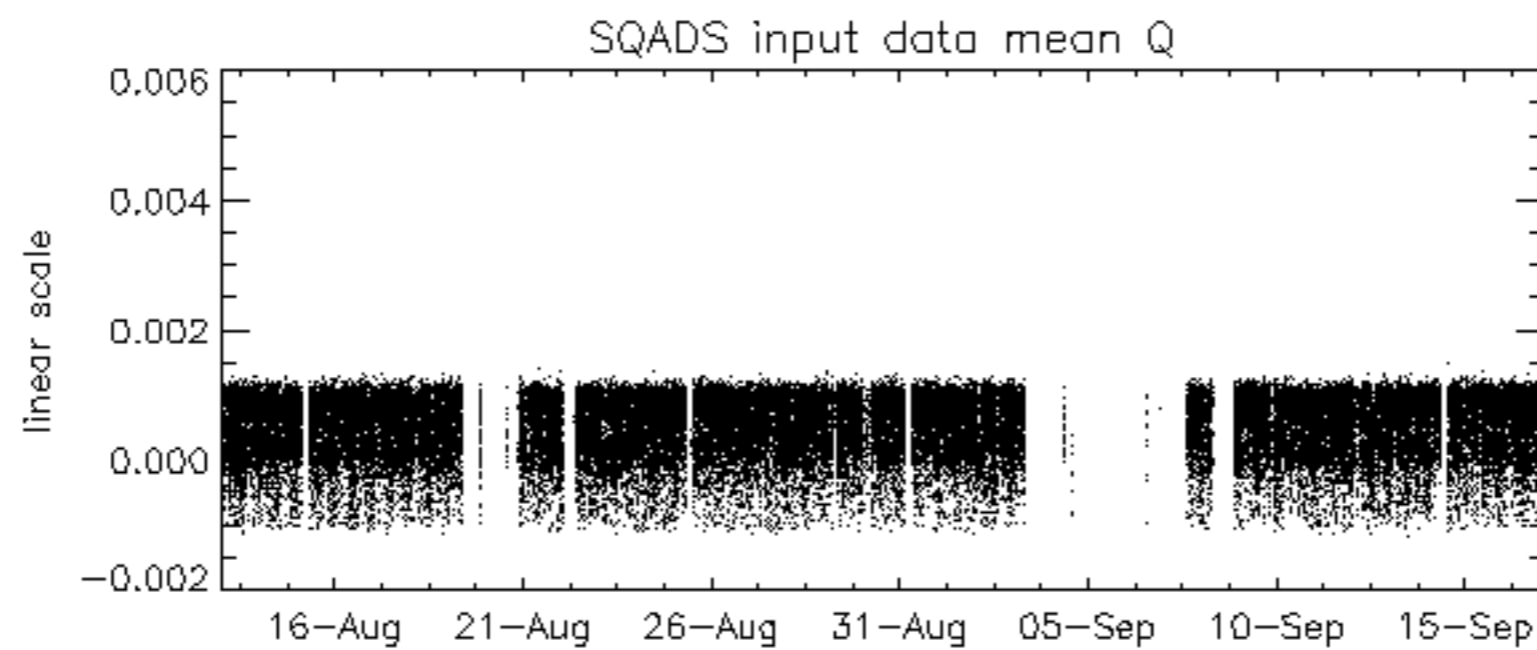
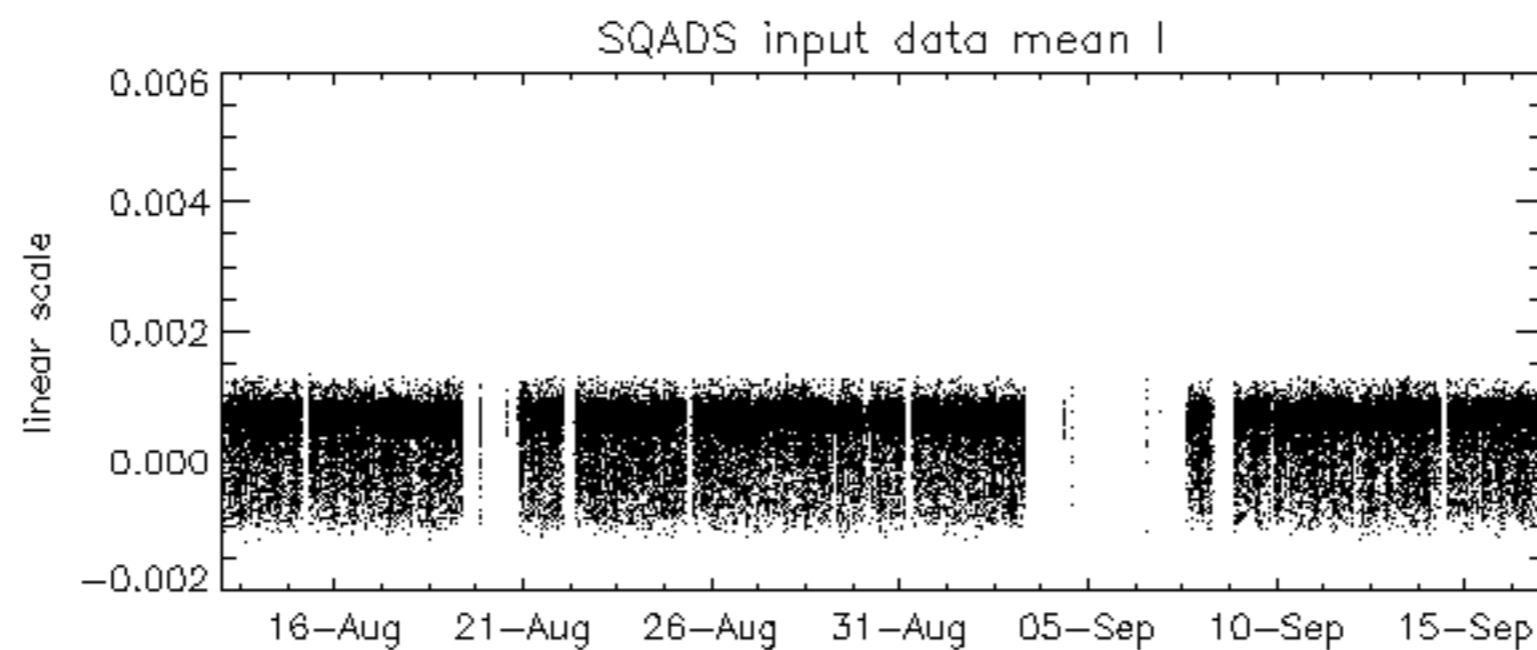
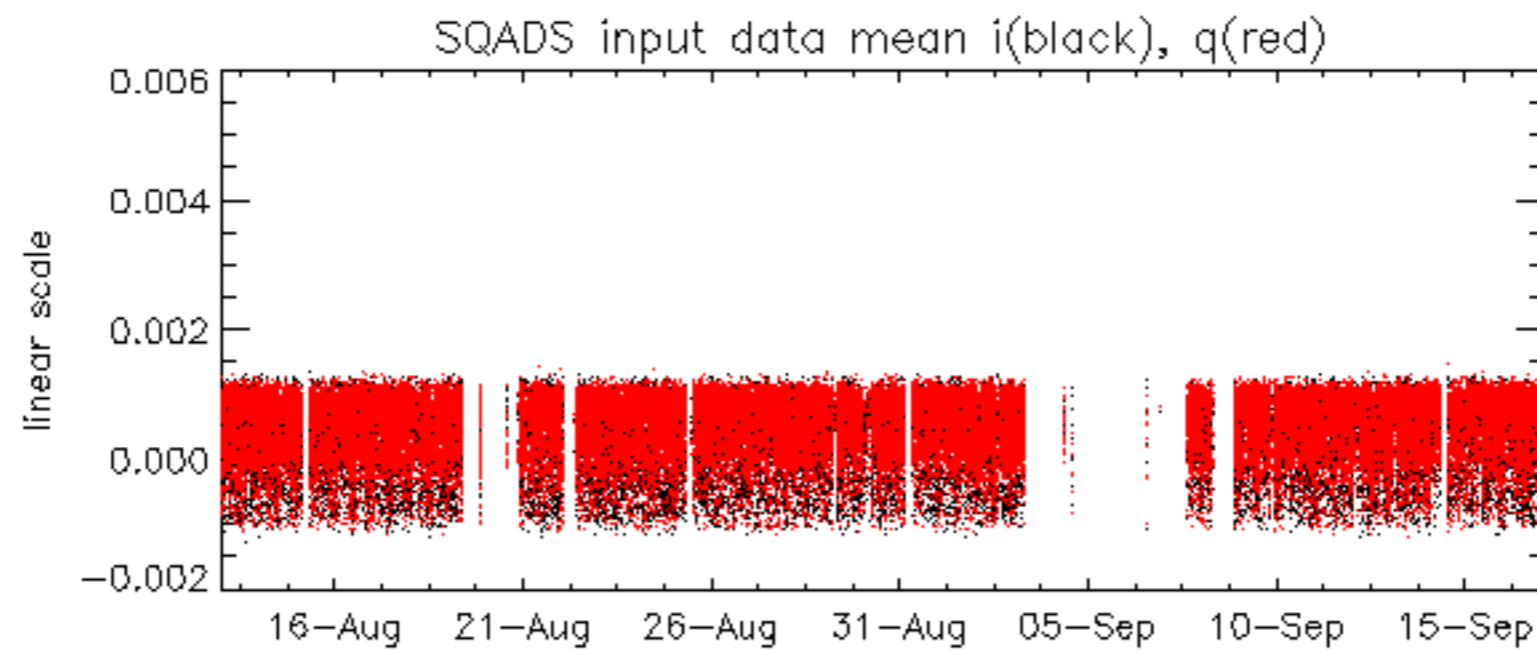
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -47.959431 Hz

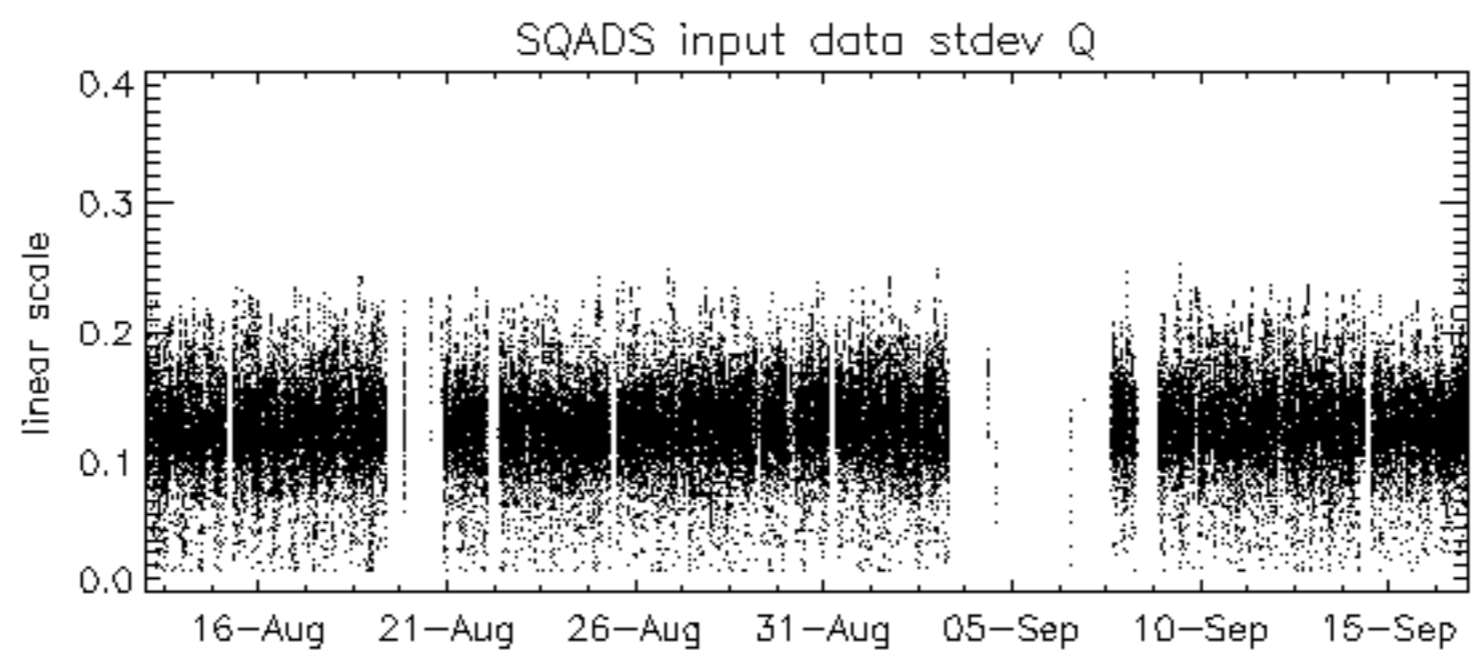
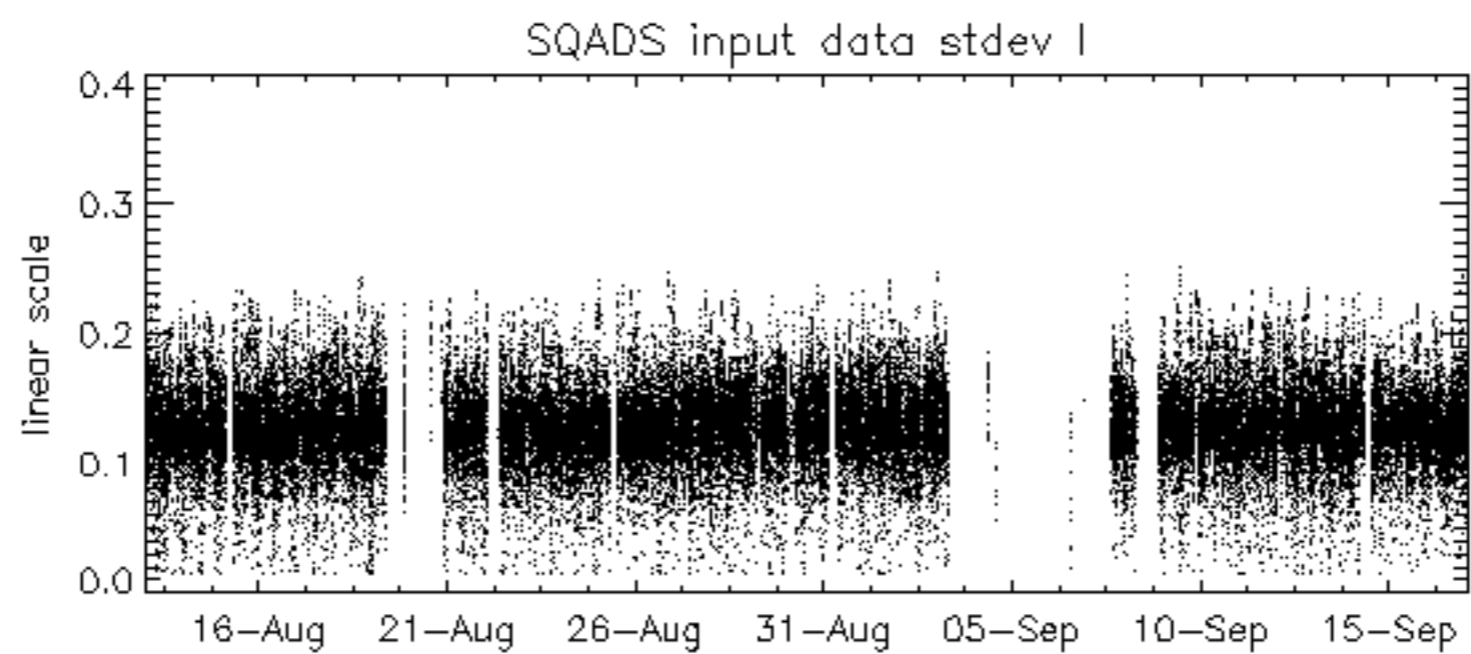
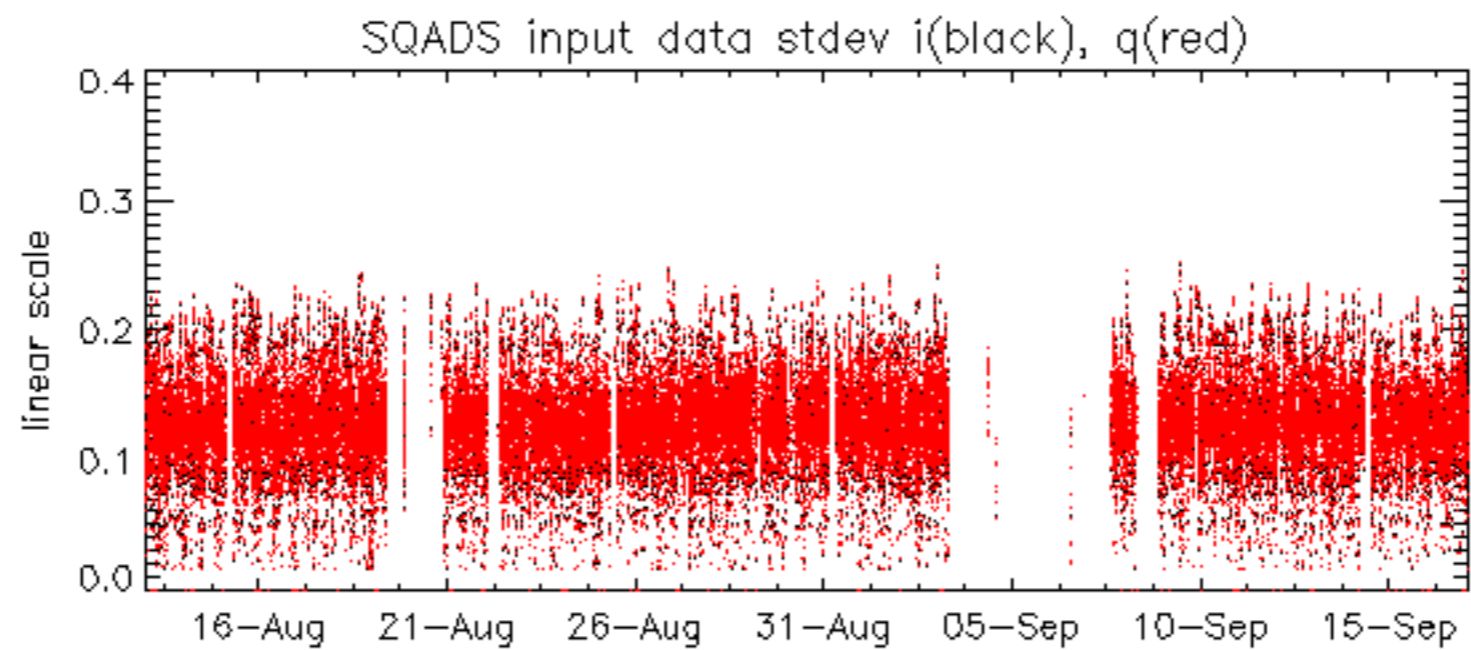


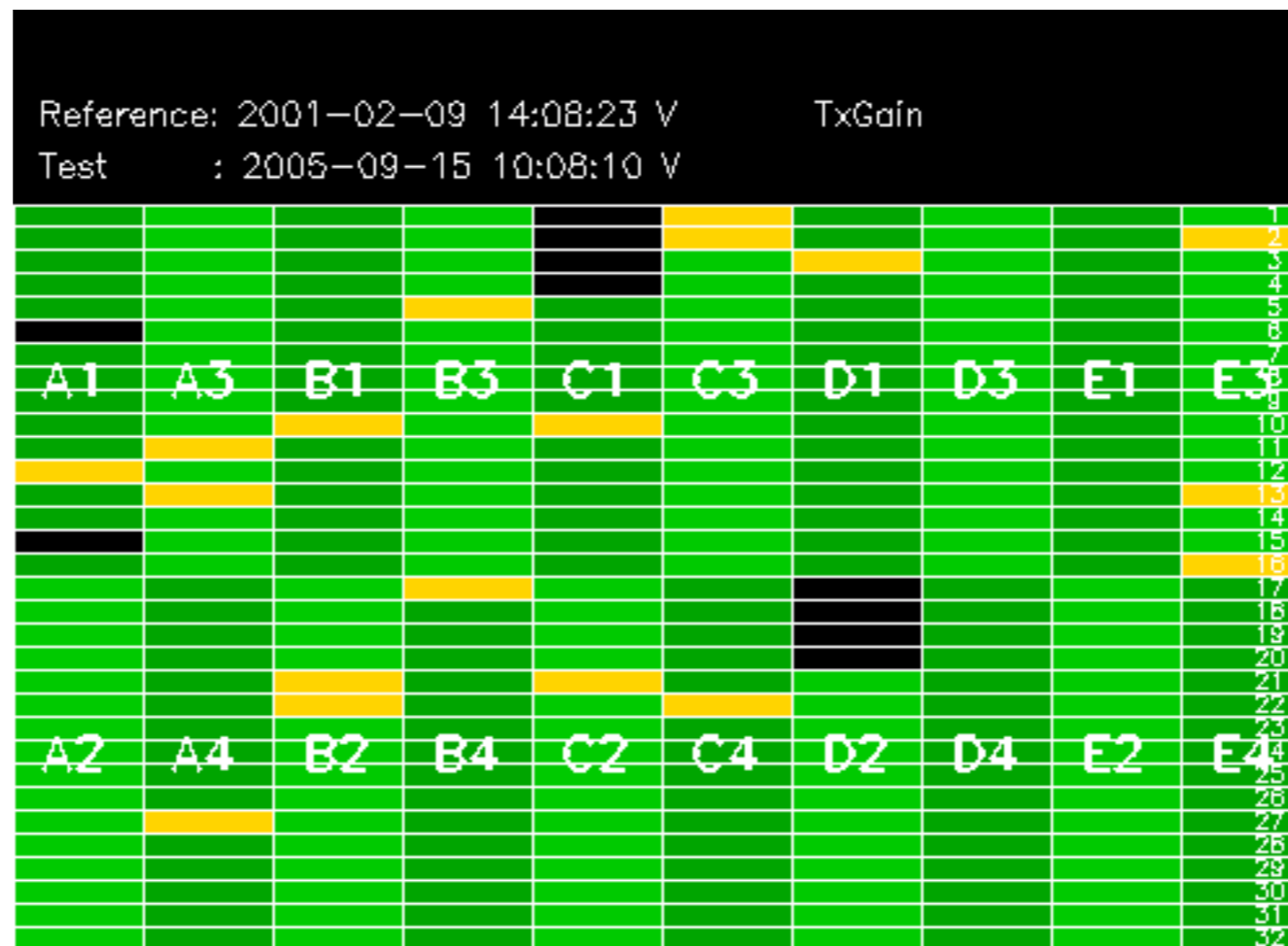
No anomalies observed on available MS products:

No anomalies observed.





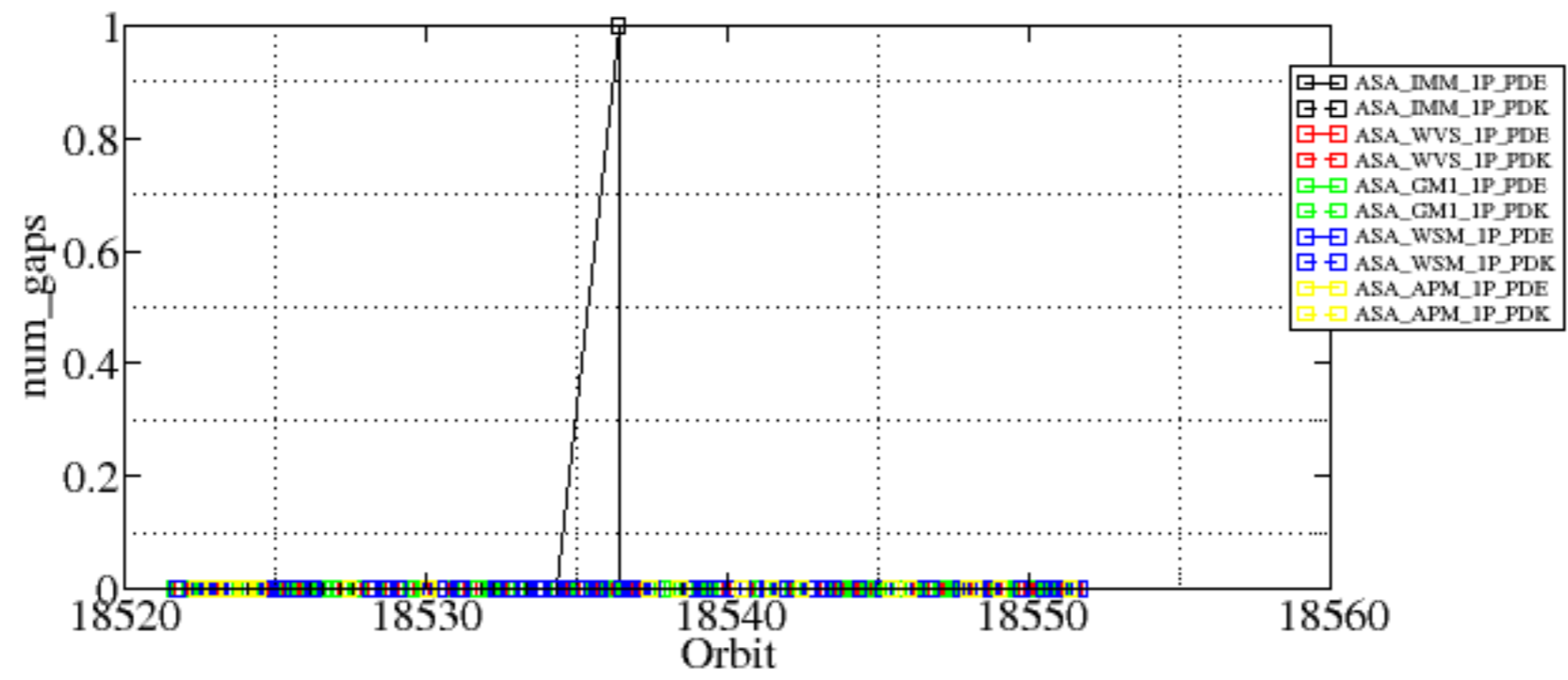


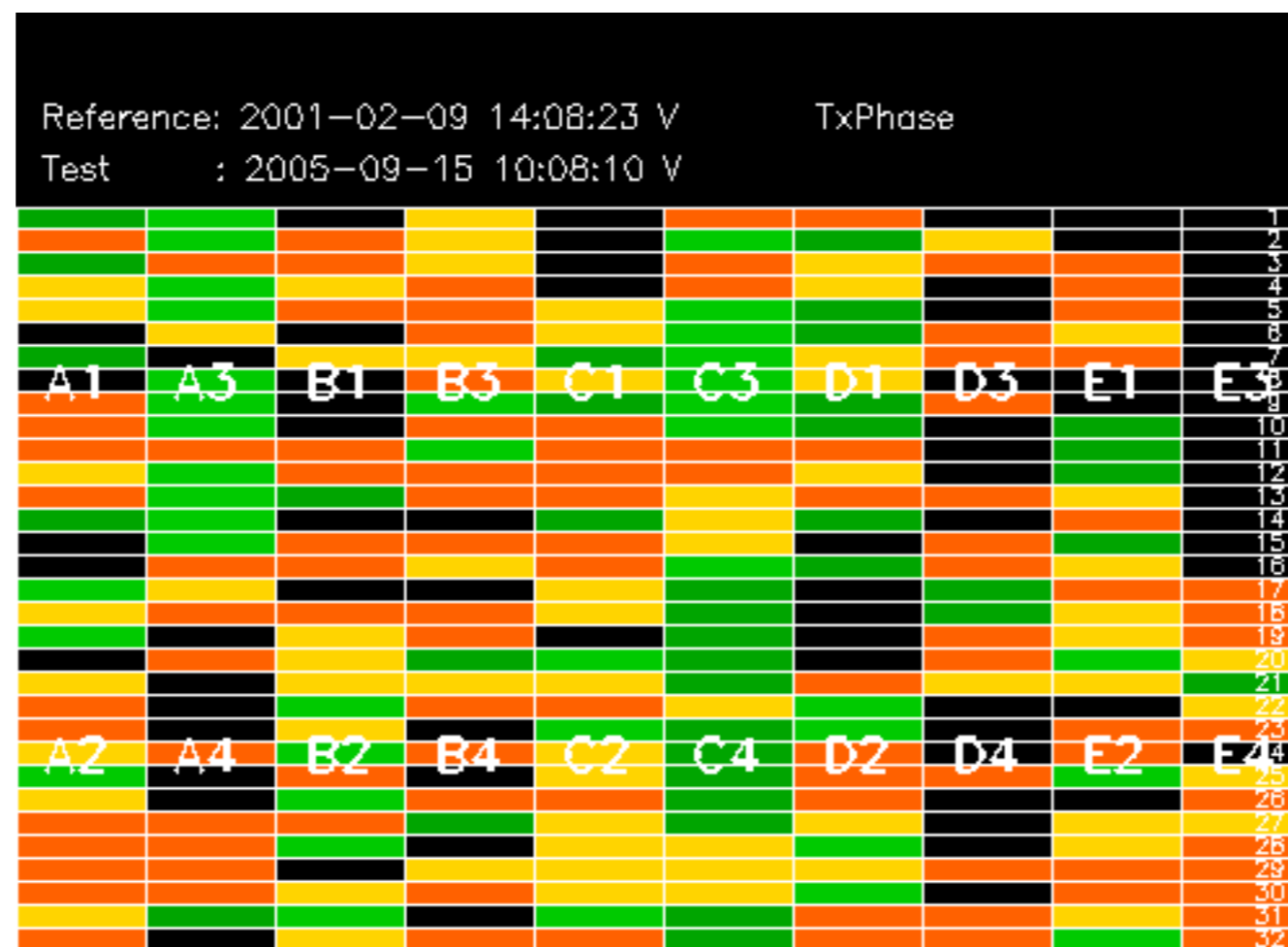


Summary of analysis for the last 3 days 2005091[567]

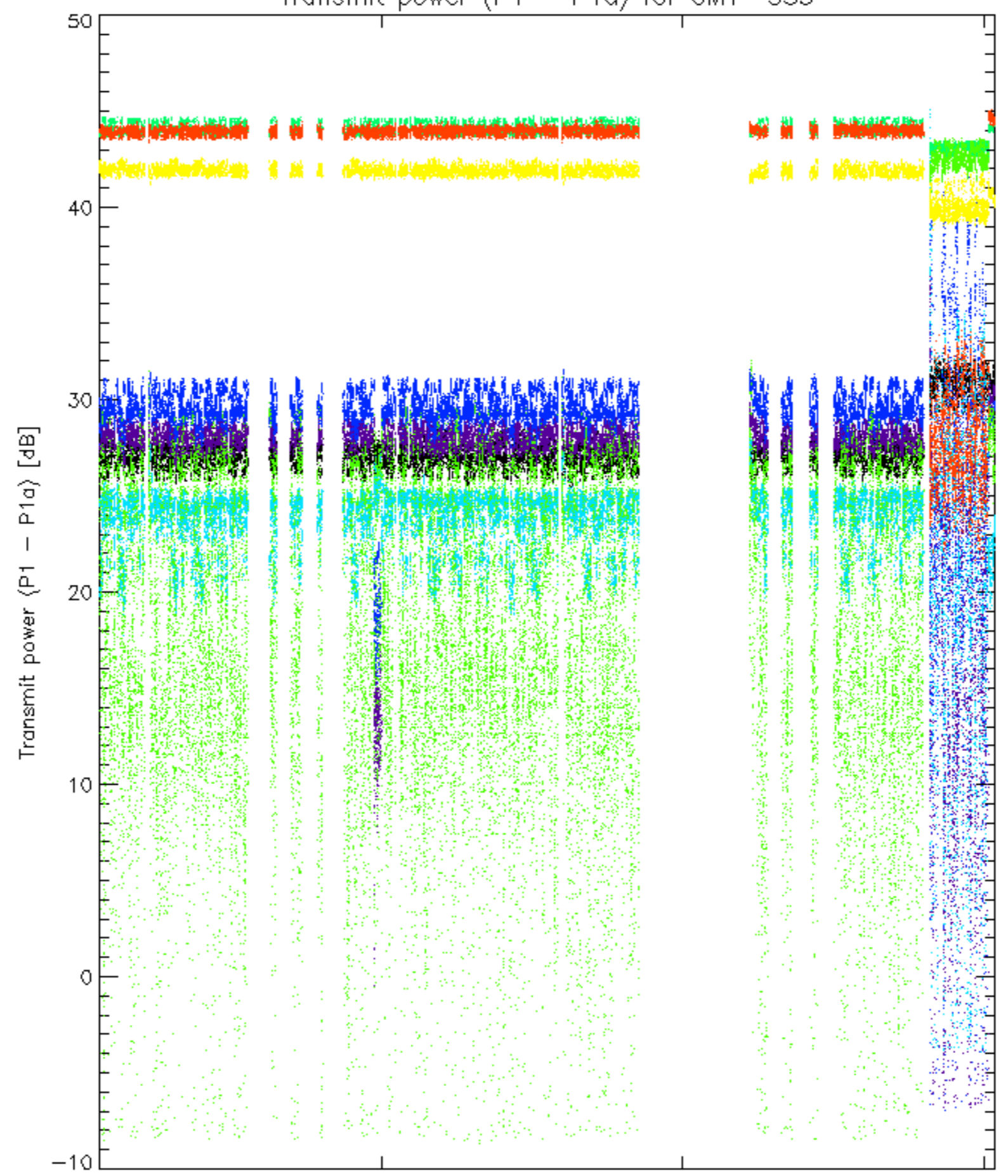
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050916_004346_000001222040_00446_18536_5720.N1	1	0
ASA_IMM_1PNPDK20050915_092744_000000132040_00437_18527_4038.N1	0	96
ASA_IMM_1PNPDK20050915_092757_000000222040_00437_18527_4093.N1	0	162
ASA_IMM_1PNPDK20050915_092929_000000192040_00437_18527_4037.N1	0	112
ASA_IMM_1PNPDK20050915_093616_000000622040_00437_18527_4035.N1	0	17
ASA_IMM_1PNPDK20050916_083400_000000352040_00451_18541_4097.N1	0	18
ASA_IMM_1PNPDK20050916_185109_000000602040_00457_18547_4120.N1	0	1
ASA_GM1_1PNPDK20050915_074128_000005072040_00436_18526_5453.N1	0	14
ASA_GM1_1PNPDK20050915_080751_000005732040_00436_18526_5450.N1	0	197
ASA_GM1_1PNPDK20050915_081727_000001142040_00436_18526_5525.N1	0	41
ASA_GM1_1PNPDK20050915_082612_000011352040_00436_18526_5449.N1	0	286
ASA_GM1_1PNPDK20050915_091833_000005192040_00437_18527_5451.N1	0	120
ASA_GM1_1PNPDK20050915_150835_000011362040_00440_18530_5490.N1	0	7
ASA_WSM_1PNPDE20050915_012427_000004282040_00432_18522_8770.N1	0	16
ASA_WSM_1PNPDE20050916_005515_000002792040_00446_18536_8936.N1	0	46
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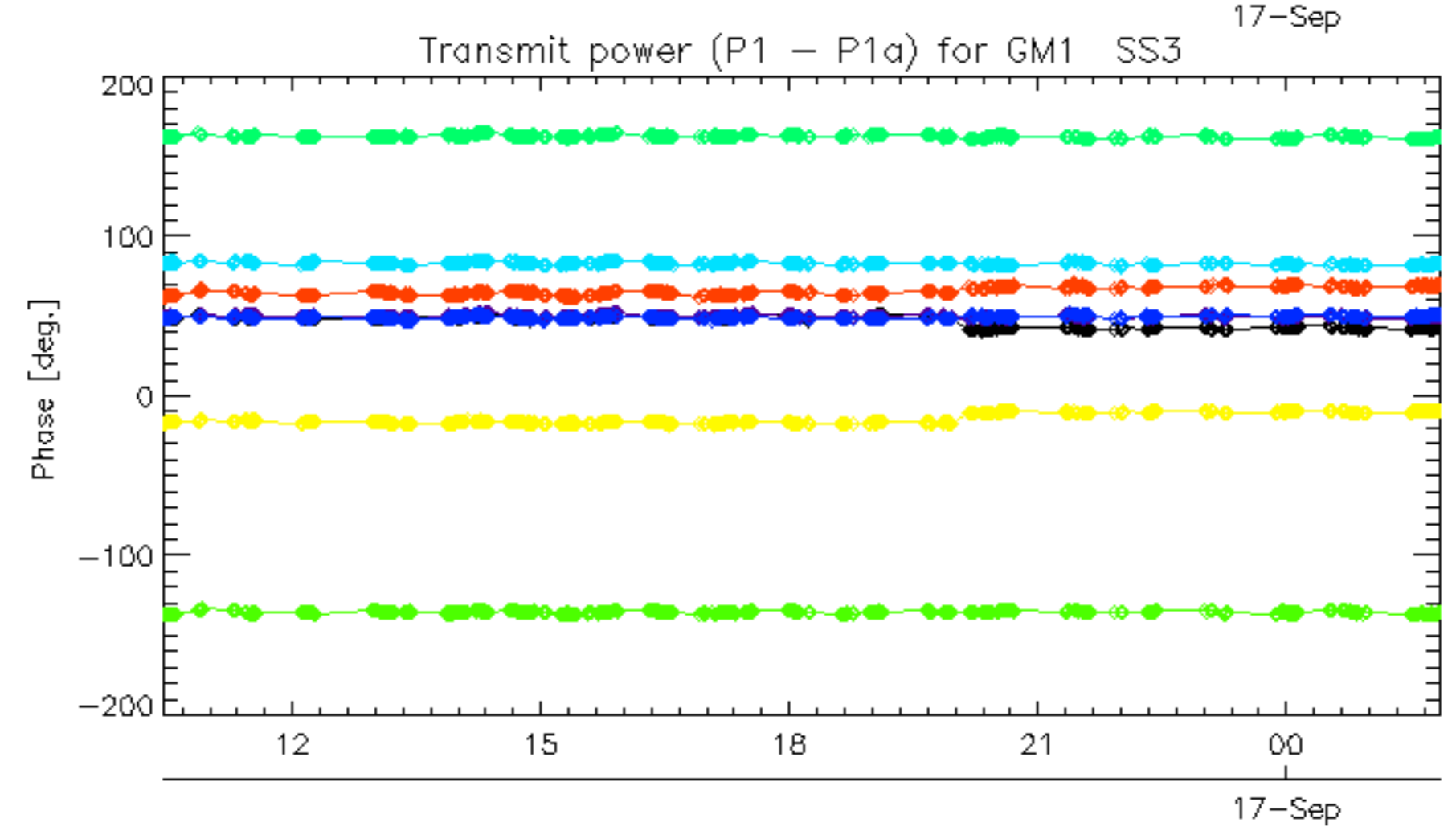
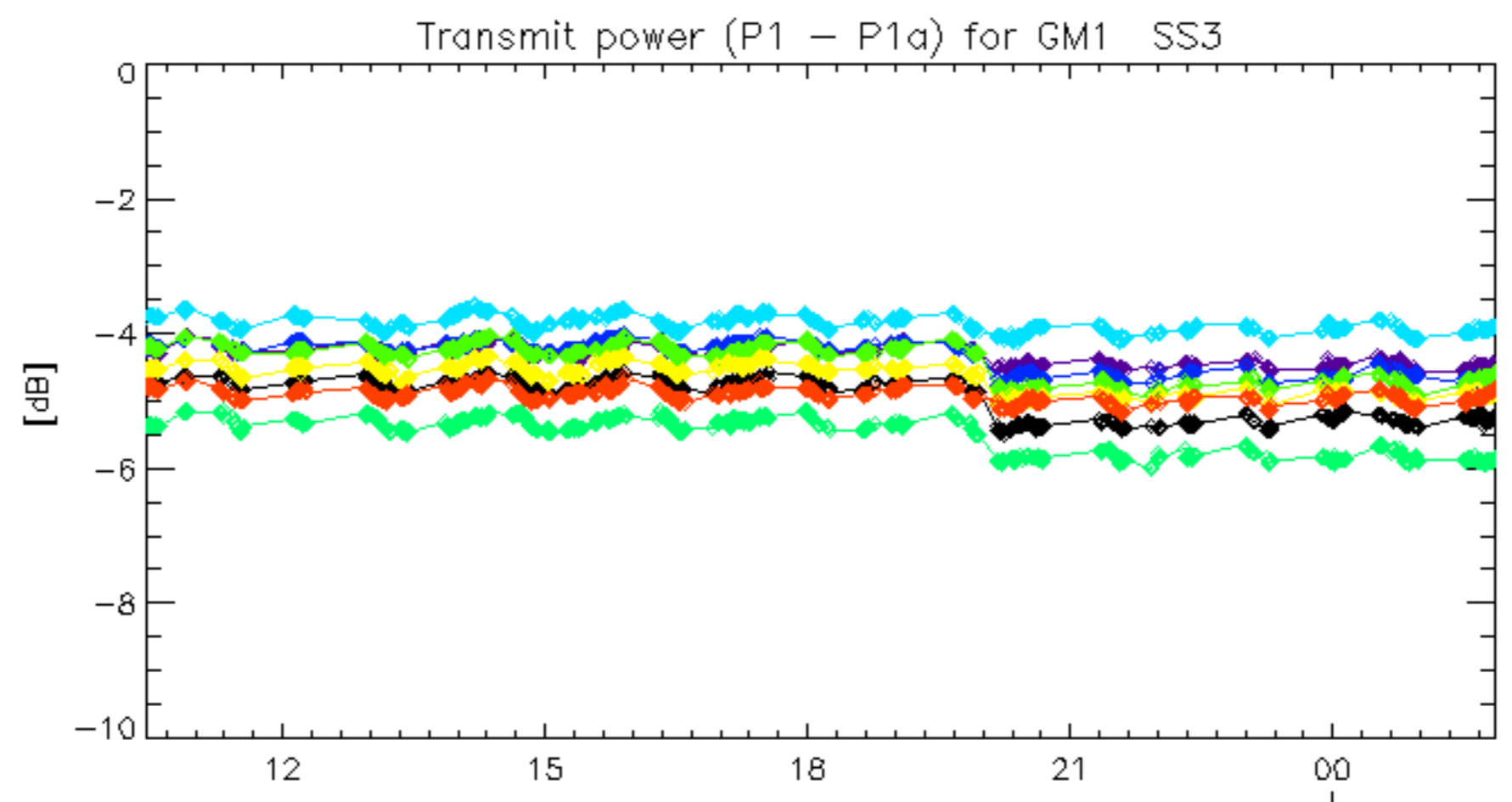




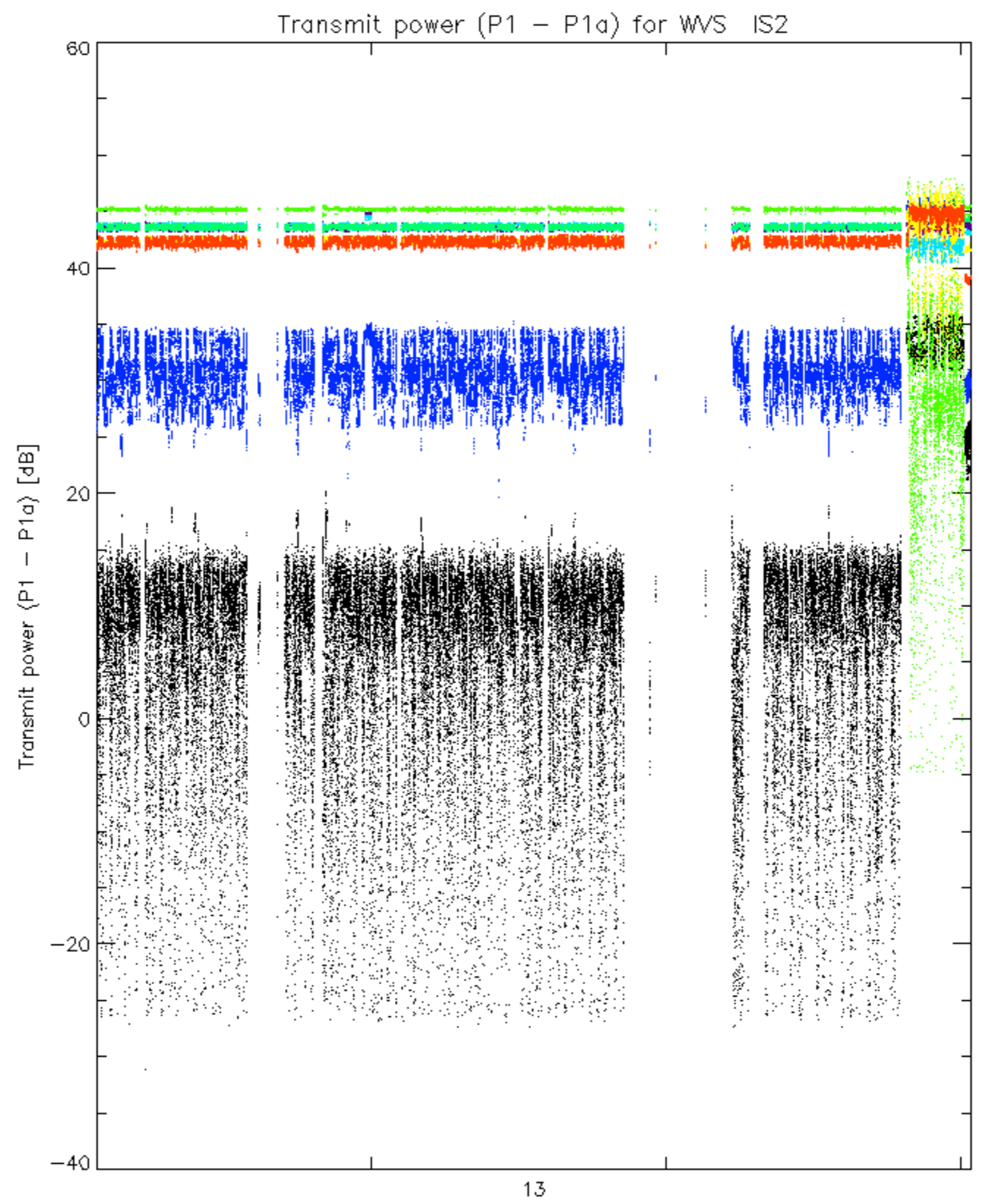
Transmit power (P1 - P1a) for GM1 SS3



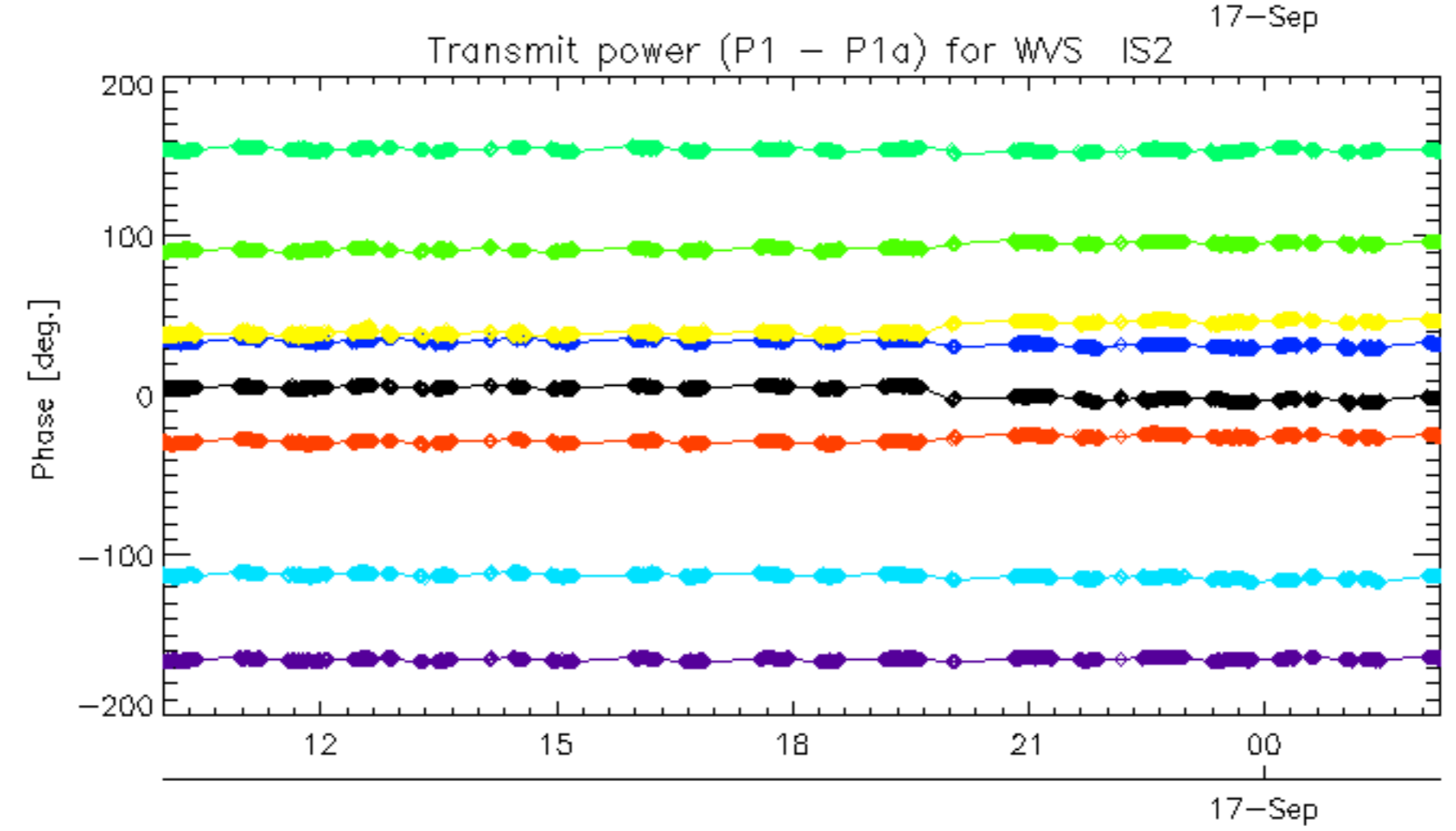
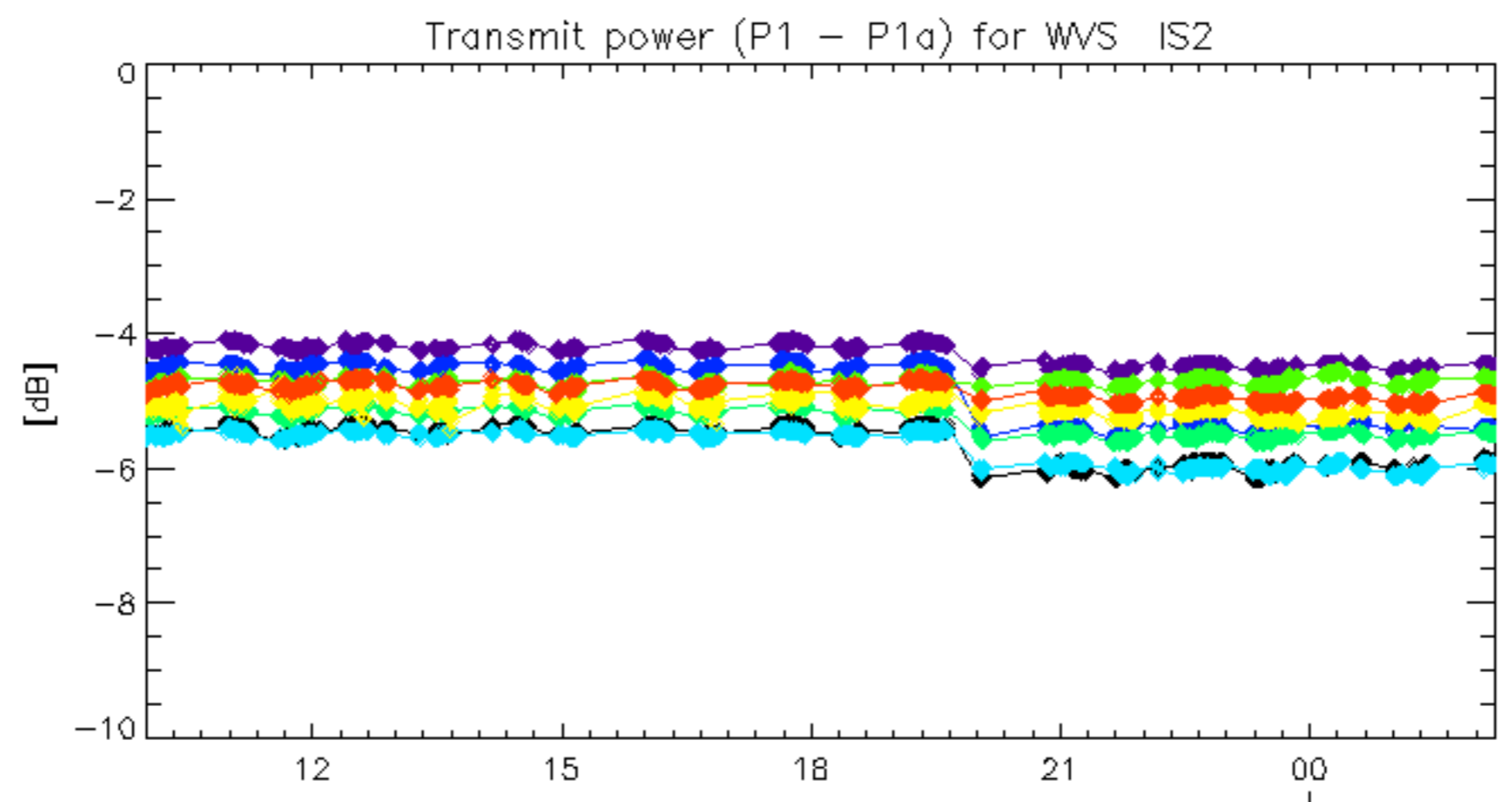
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.