

PRELIMINARY REPORT OF 050920

last update on Tue Sep 20 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 2005-09-19 00:00:00 to 2005-09-20 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	28	54	13	2	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	28	54	13	2	0
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	28	54	13	2	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	28	54	13	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	37	65	54	17	56
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	37	65	54	17	56
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	37	65	54	17	56
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	37	65	54	17	56

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	20050919 180518
H	20050918 183655

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	-3.397903	0.088774	-0.480752
7	P1	-3.155703	0.024217	0.104243
11	P1	-4.671638	0.089692	0.305516
15	P1	-5.705289	0.062766	-0.358356
19	P1	-3.609160	0.227736	0.902193
22	P1	-4.604583	0.018419	0.076998
26	P1	-4.787584	0.065259	0.213038
30	P1	-6.922182	0.515704	1.529811
3	P1	-15.922770	1.901463	-1.489235
7	P1	-16.371647	5.724871	-3.192434
11	P1	-21.619421	7.404731	1.333230
15	P1	-12.605800	12.123607	-5.186133
19	P1	-14.285069	0.298121	1.058516
22	P1	-17.034817	26.409269	-6.185419
26	P1	-18.447588	22.227636	-4.763219
30	P1	-18.523895	8.378017	-2.349559

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.738873	0.096495	-0.125108
7	P2	-22.044033	0.275562	-0.890533
11	P2	-14.123342	2.293952	-3.216772
15	P2	-7.103881	0.124353	-0.291343
19	P2	-9.412786	0.240172	0.669202
22	P2	-16.921944	0.186078	-0.594054
26	P2	-16.446630	0.123033	0.243623
30	P2	-18.994461	0.239889	-0.850991

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.159538	0.004304	-0.023486
7	P3	-8.159538	0.004304	-0.023486
11	P3	-8.159538	0.004304	-0.023486
15	P3	-8.159538	0.004304	-0.023486
19	P3	-8.159538	0.004304	-0.023486
22	P3	-8.159538	0.004304	-0.023486
26	P3	-8.159547	0.004304	-0.023465
30	P3	-8.159547	0.004304	-0.023465

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	-2.820729	0.148473	-0.280950
7	P1	-3.009562	0.083092	-0.205625
11	P1	-3.883087	0.180932	0.733720
15	P1	-3.606004	0.031401	0.109855
19	P1	-3.511590	0.090436	0.511427
22	P1	-5.505967	0.251568	0.895139
26	P1	-6.880317	0.949557	2.024661
30	P1	-5.940220	0.565556	1.461569
3	P1	-11.253914	0.590107	-1.218932
7	P1	-11.867252	21.196381	-5.247328
11	P1	-14.195286	36.817116	-5.680647
15	P1	-13.368177	35.134838	-6.534447
19	P1	-15.318674	0.221939	0.528712
22	P1	-24.550804	4.519765	3.636861
26	P1	-16.193480	6.953802	-4.237948
30	P1	-20.184753	2.062644	-0.250642

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.451920	0.056752	-0.188906
7	P2	-22.209917	0.274719	-1.067327
11	P2	-9.920633	0.933792	-2.092776
15	P2	-5.047293	0.037923	0.106331
19	P2	-6.748049	0.128587	0.327300
22	P2	-7.165595	0.162135	-0.712557
26	P2	-23.940401	0.038269	0.023081
30	P2	-22.002052	0.079123	-0.333854

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.003913	0.003628	-0.015606
7	P3	-8.003928	0.003635	-0.015072
11	P3	-8.003785	0.003634	-0.015158
15	P3	-8.003799	0.003636	-0.015292
19	P3	-8.003885	0.003630	-0.015747
22	P3	-8.003779	0.003628	-0.015156
26	P3	-8.003842	0.003633	-0.015624
30	P3	-8.003712	0.003640	-0.015811

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	0.000471510
	stdev	2.10857e-07
MEAN Q	mean	0.000499636
	stdev	2.25150e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129653
	stdev	0.000974948
STDEV Q	mean	0.129913
	stdev	0.000985648



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005091[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_1PNPDE20050918_141410_00000812040_00483_18573_5918.N1	1	0
ASA_IMM_1PNPDE20050919_120805_00000722040_00496_18586_5989.N1	1	0
ASA_IMM_1PNPDK20050918_124040_00000362040_00482_18572_4259.N1	1	0
ASA_WVS_1PNPDE20050918_003155_000000002040_00474_18564_1564.N1	1	0
ASA_WVS_1PNPDE20050918_032532_000000002040_00476_18566_1565.N1	1	0
ASA_GM1_1PNPDE20050910_202146_000006702040_00372_18462_3674.N1	0	59
ASA_WSM_1PNPDE20050910_022331_000002872040_00361_18451_8096.N1	0	65
ASA_WSM_1PNPDE20050918_012934_000004592040_00475_18565_9256.N1	0	58
ASA_WSM_1PNPDK20050910_052636_00000672040_00363_18453_3839.N1	0	31



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

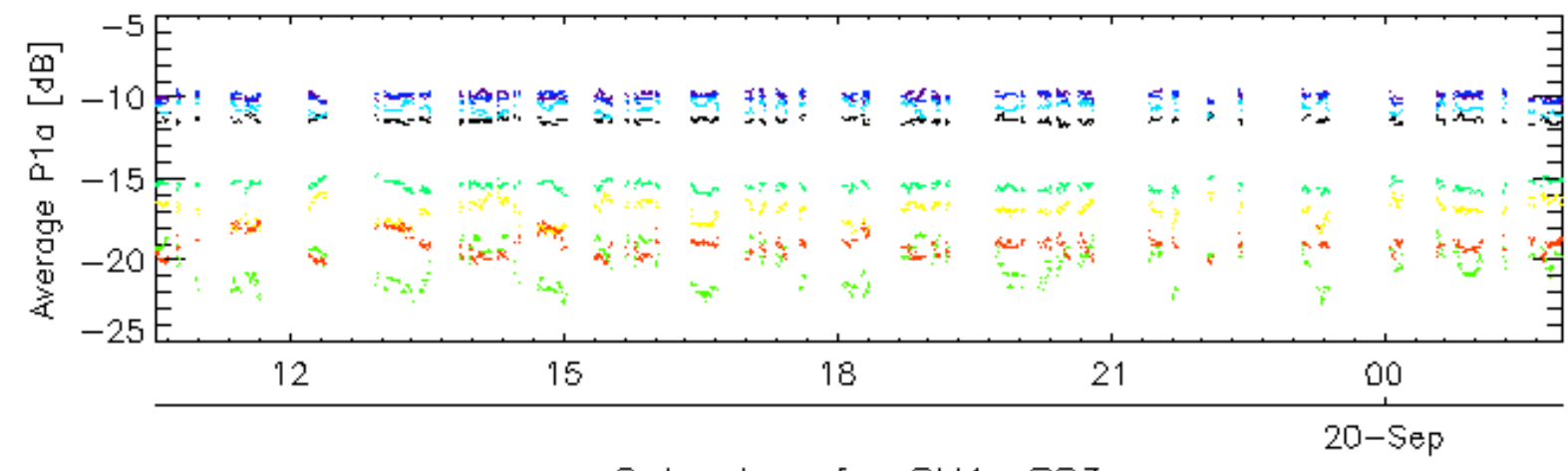
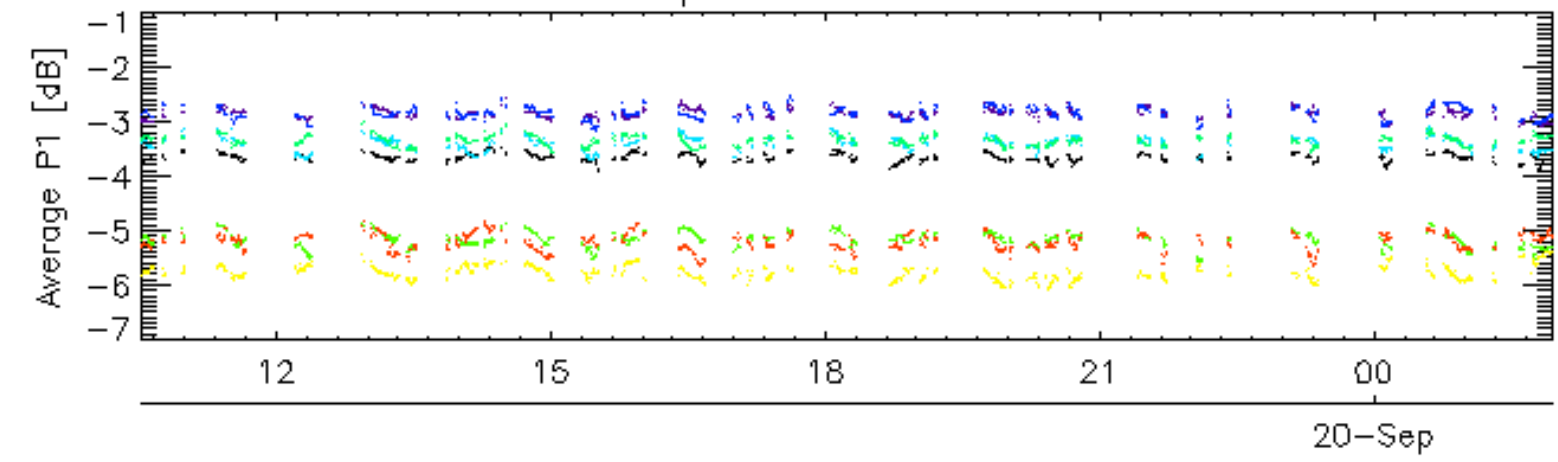
Ascending

Descending

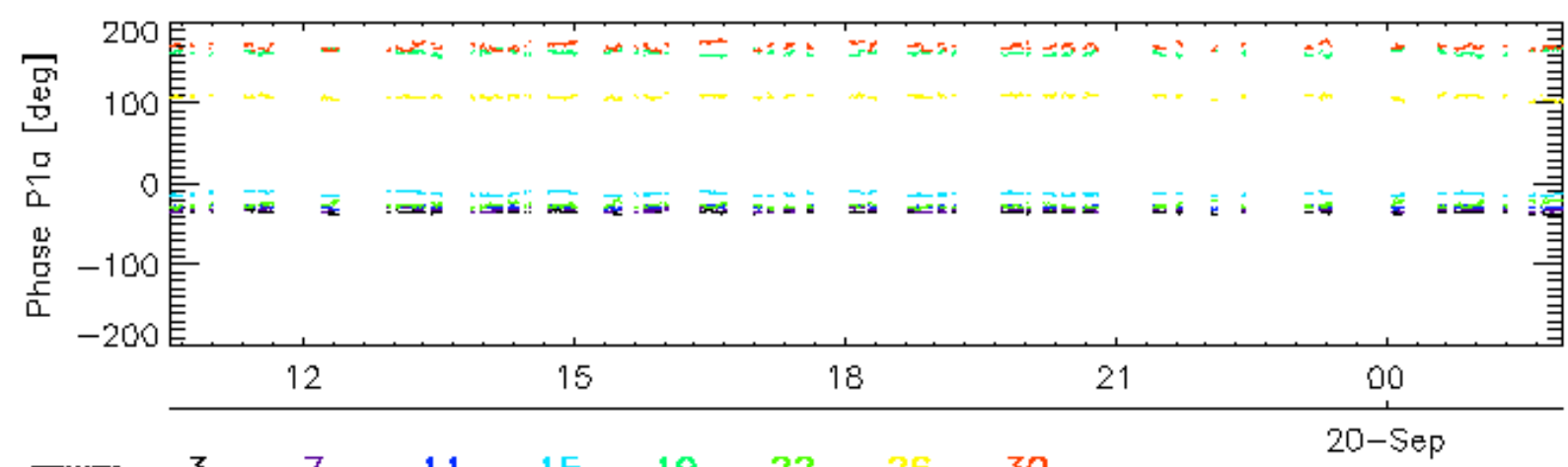
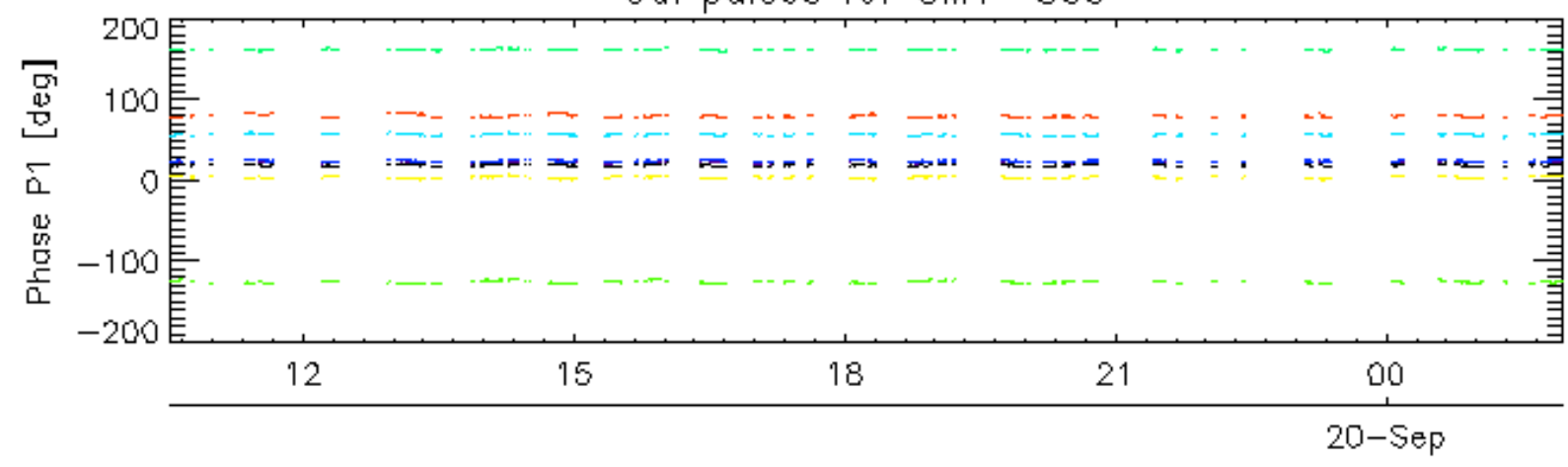
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

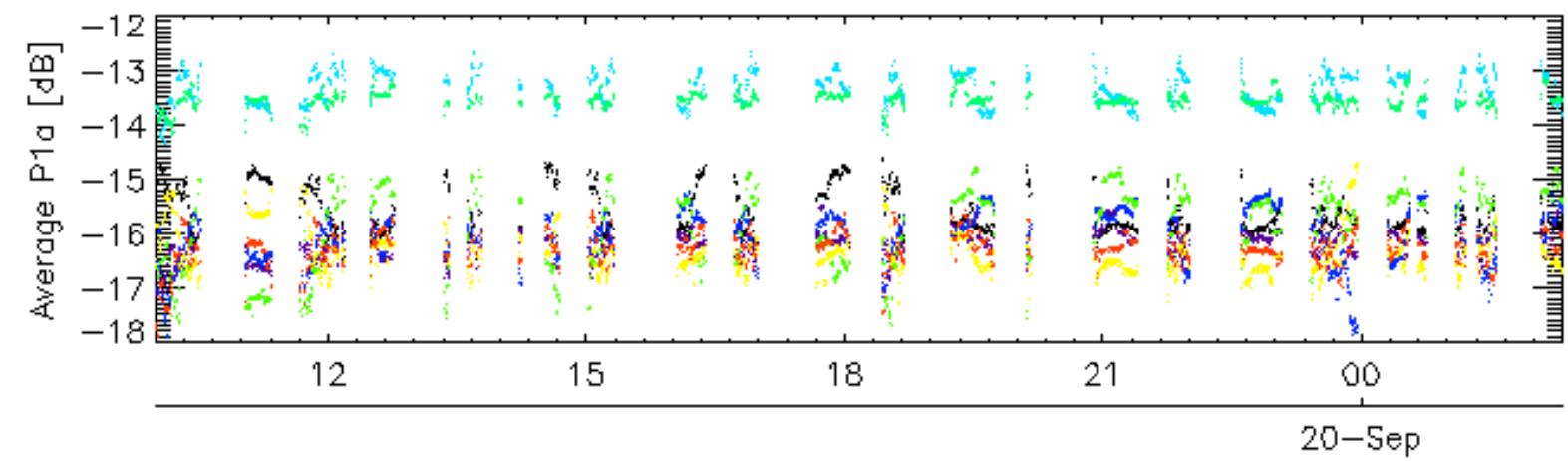
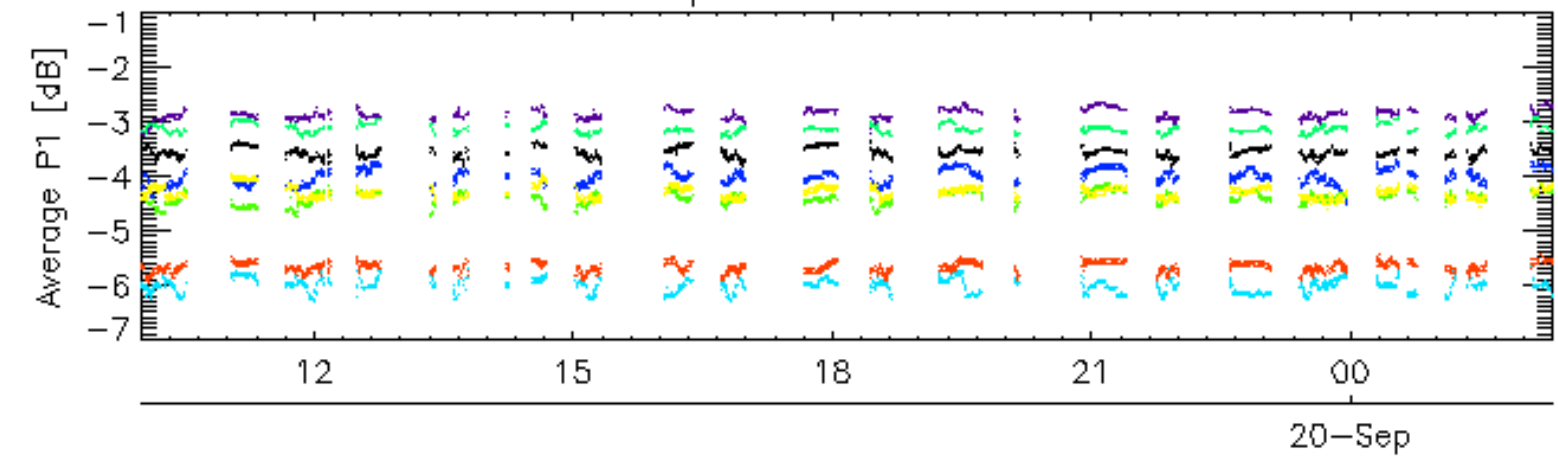


Cal pulses for GM1 SS3

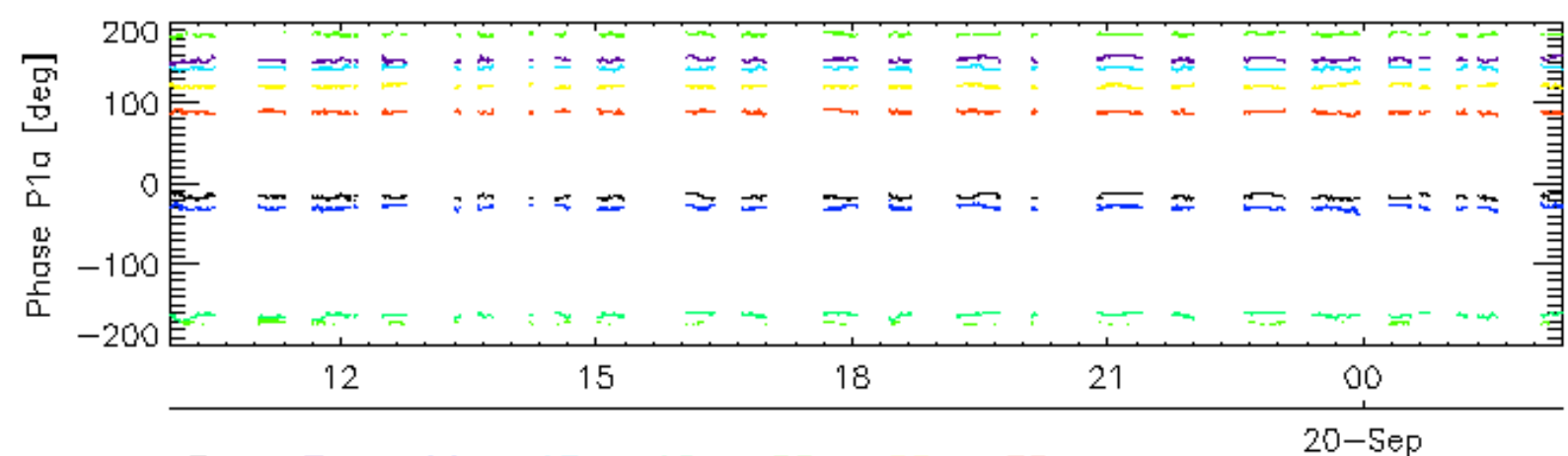
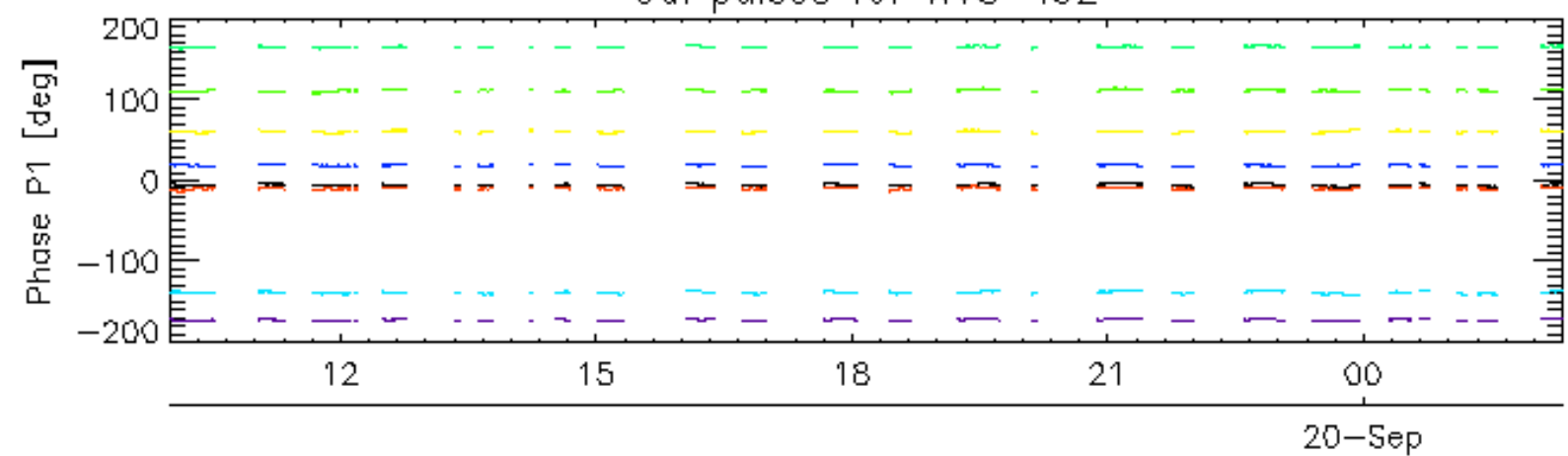


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

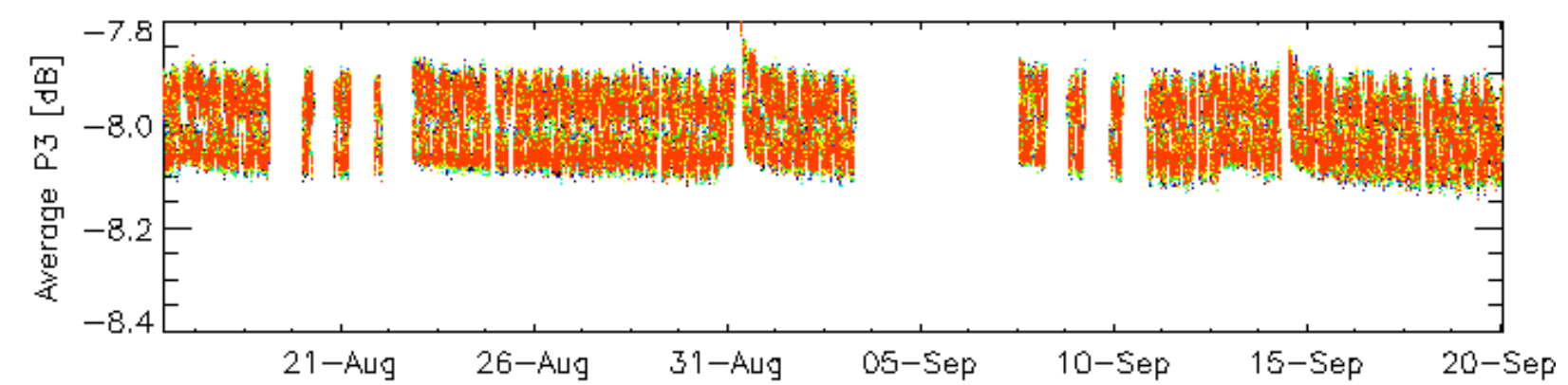
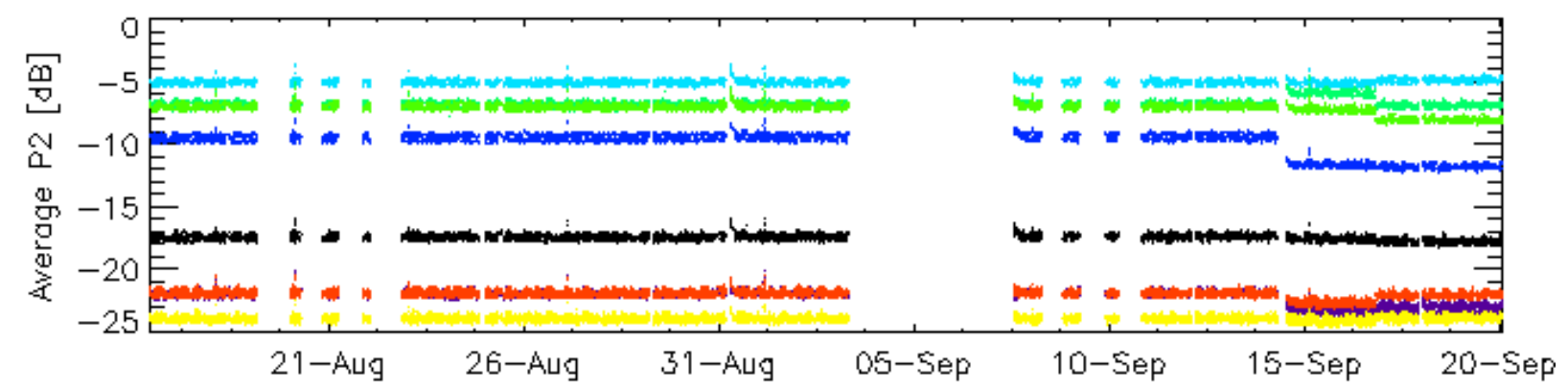
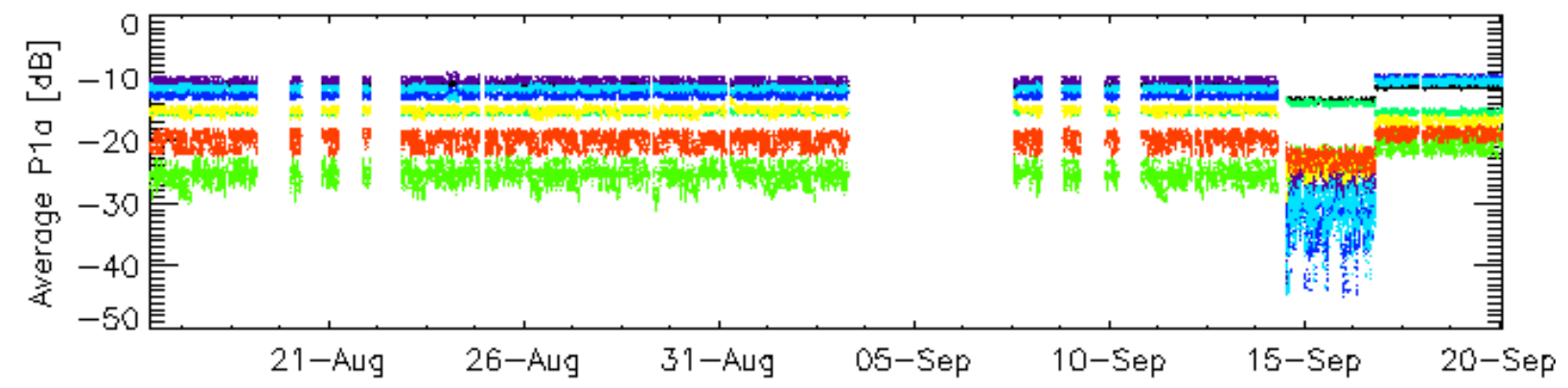
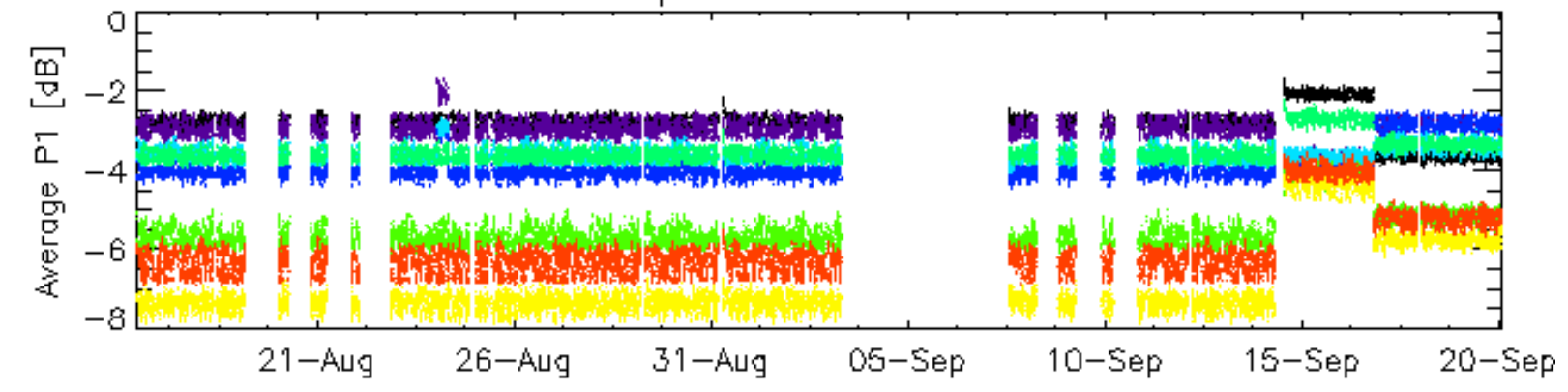


Cal pulses for WVS IS2



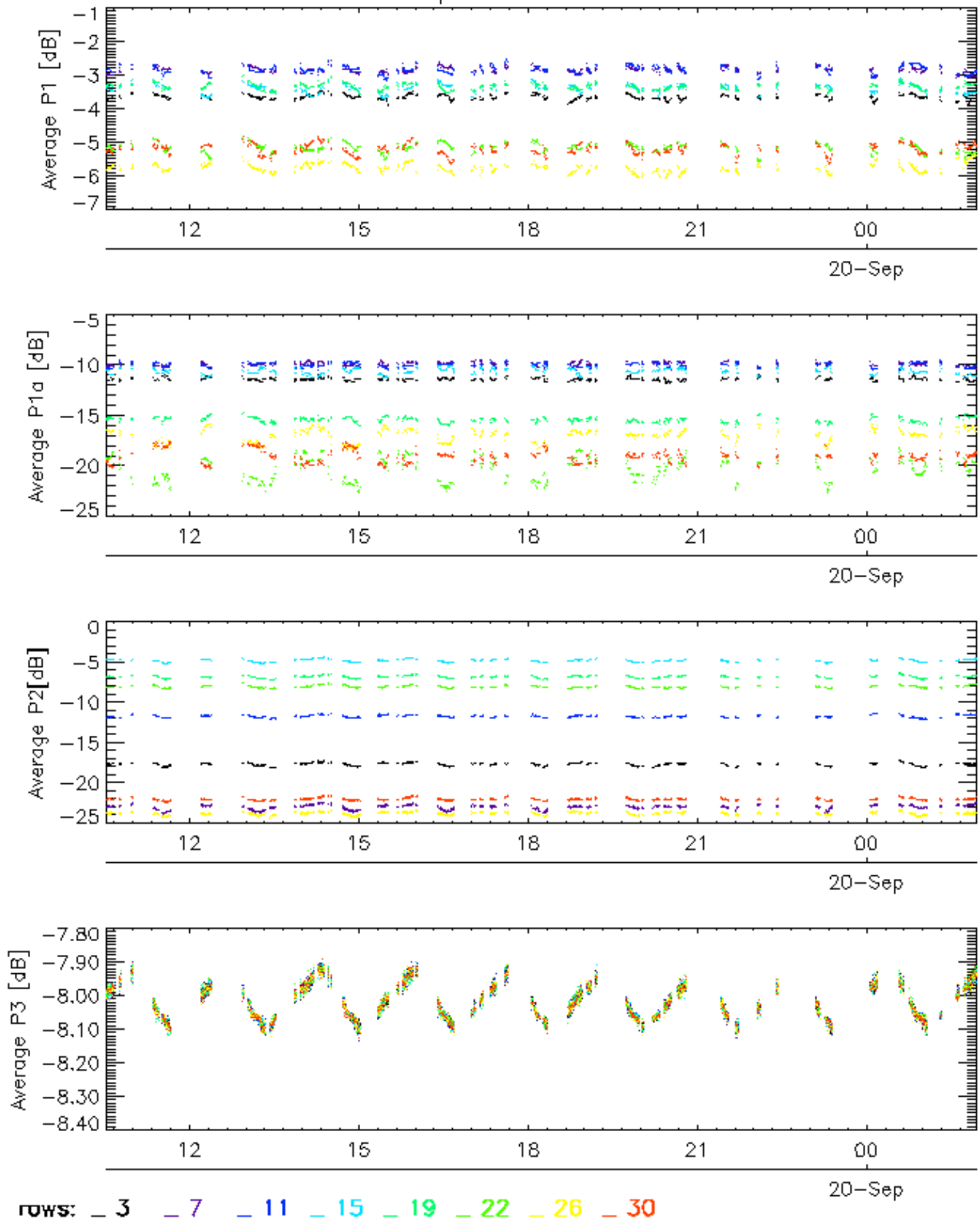
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

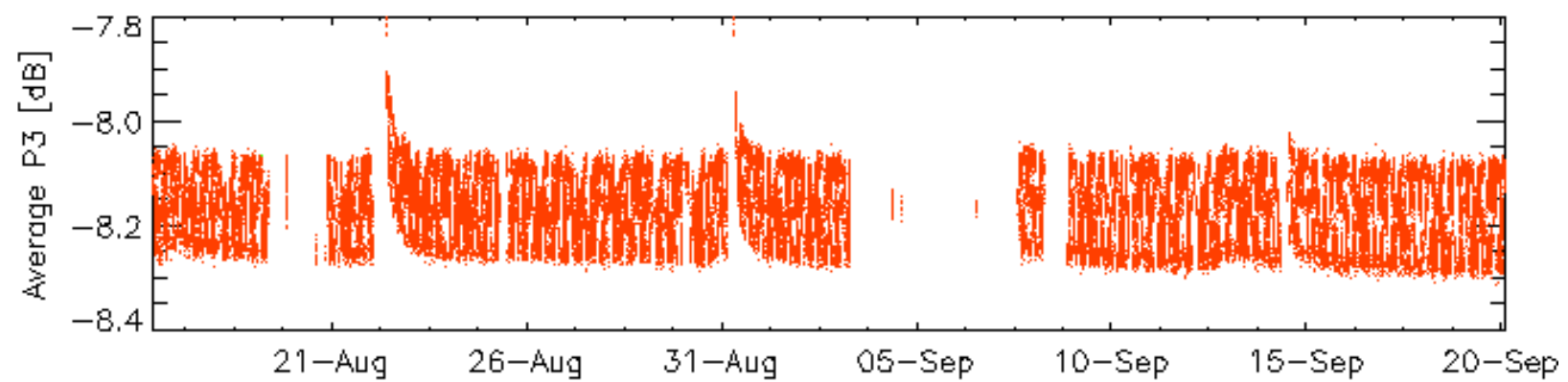
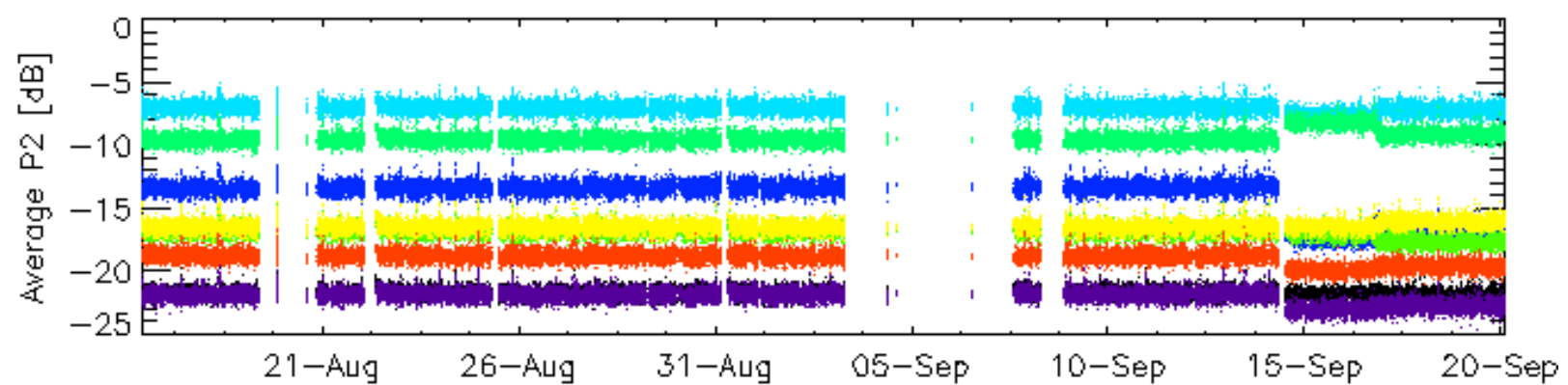
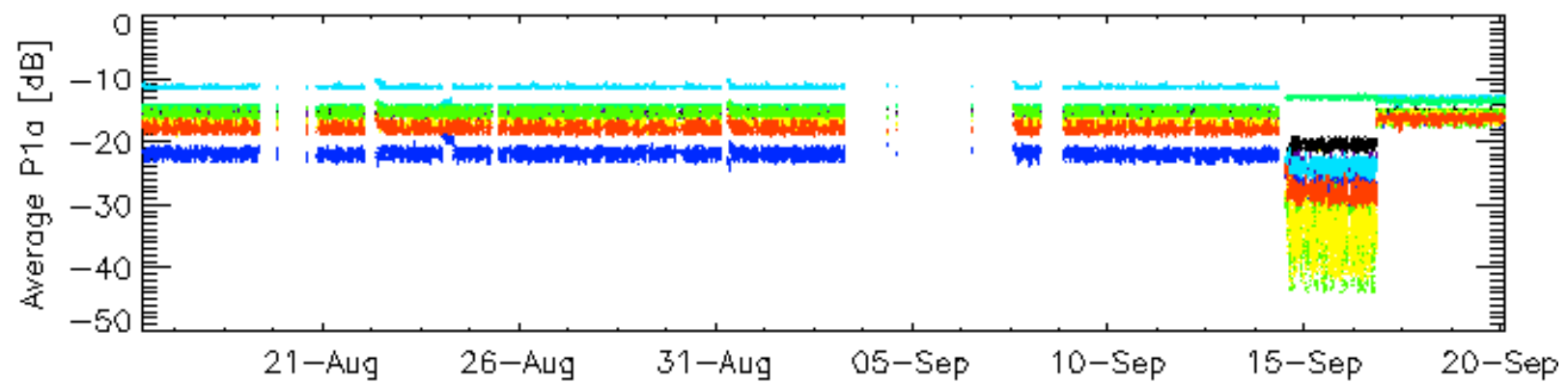
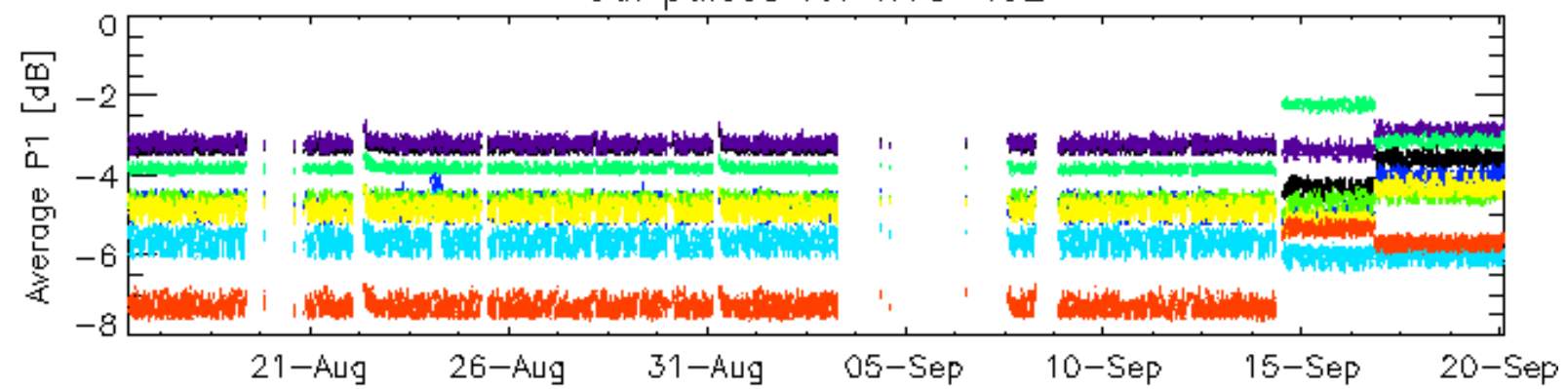


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

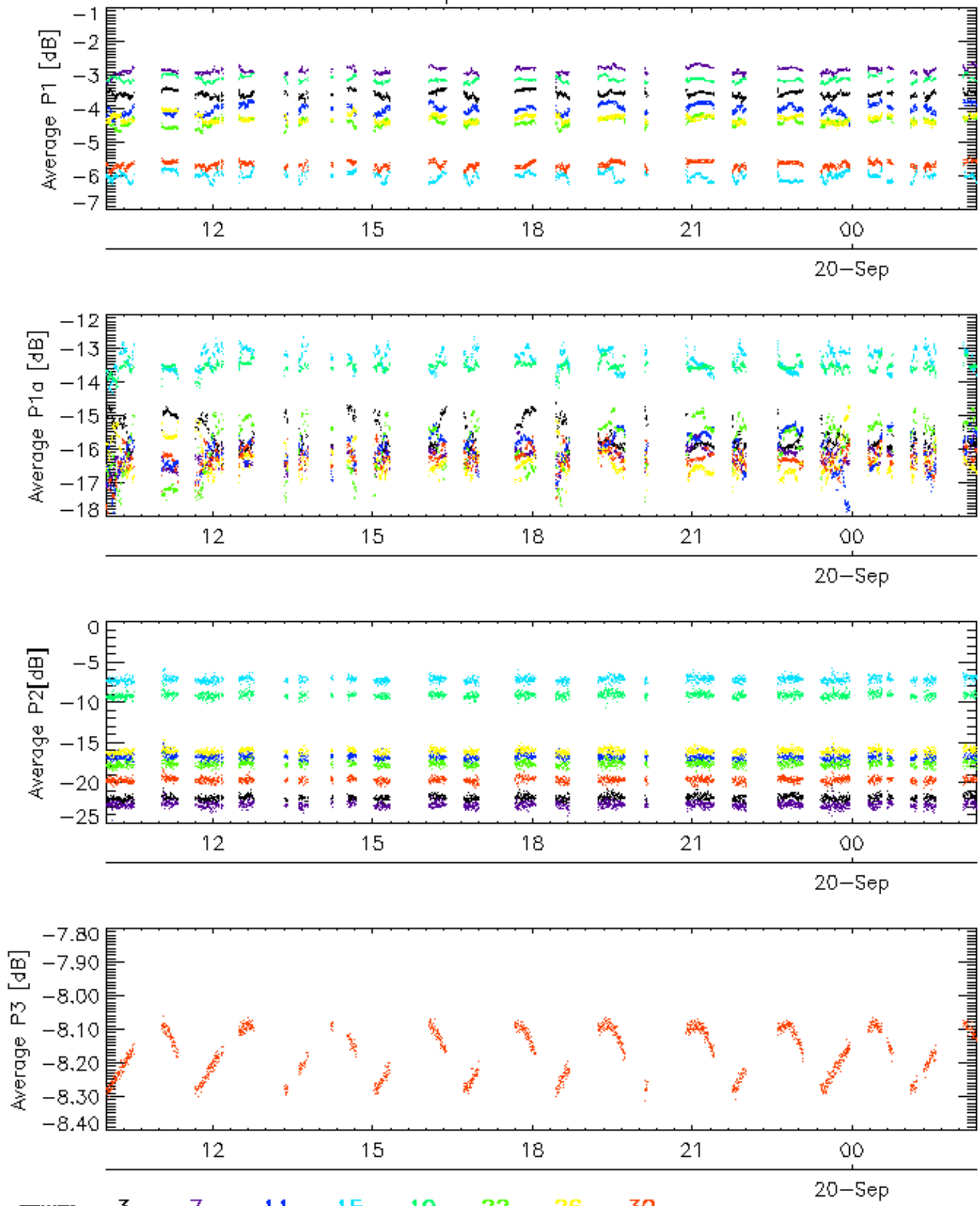


Cal pulses for WVS IS2

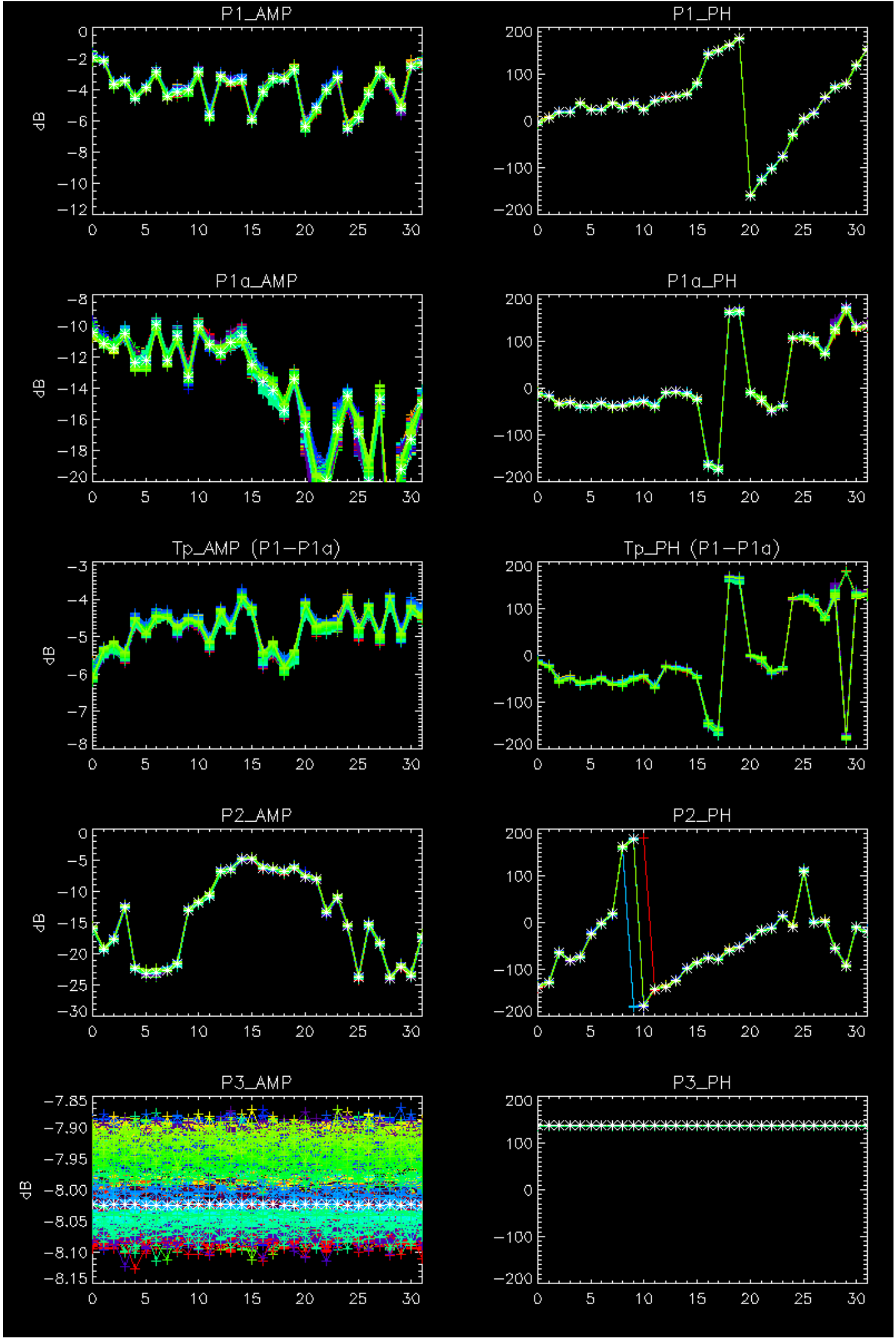


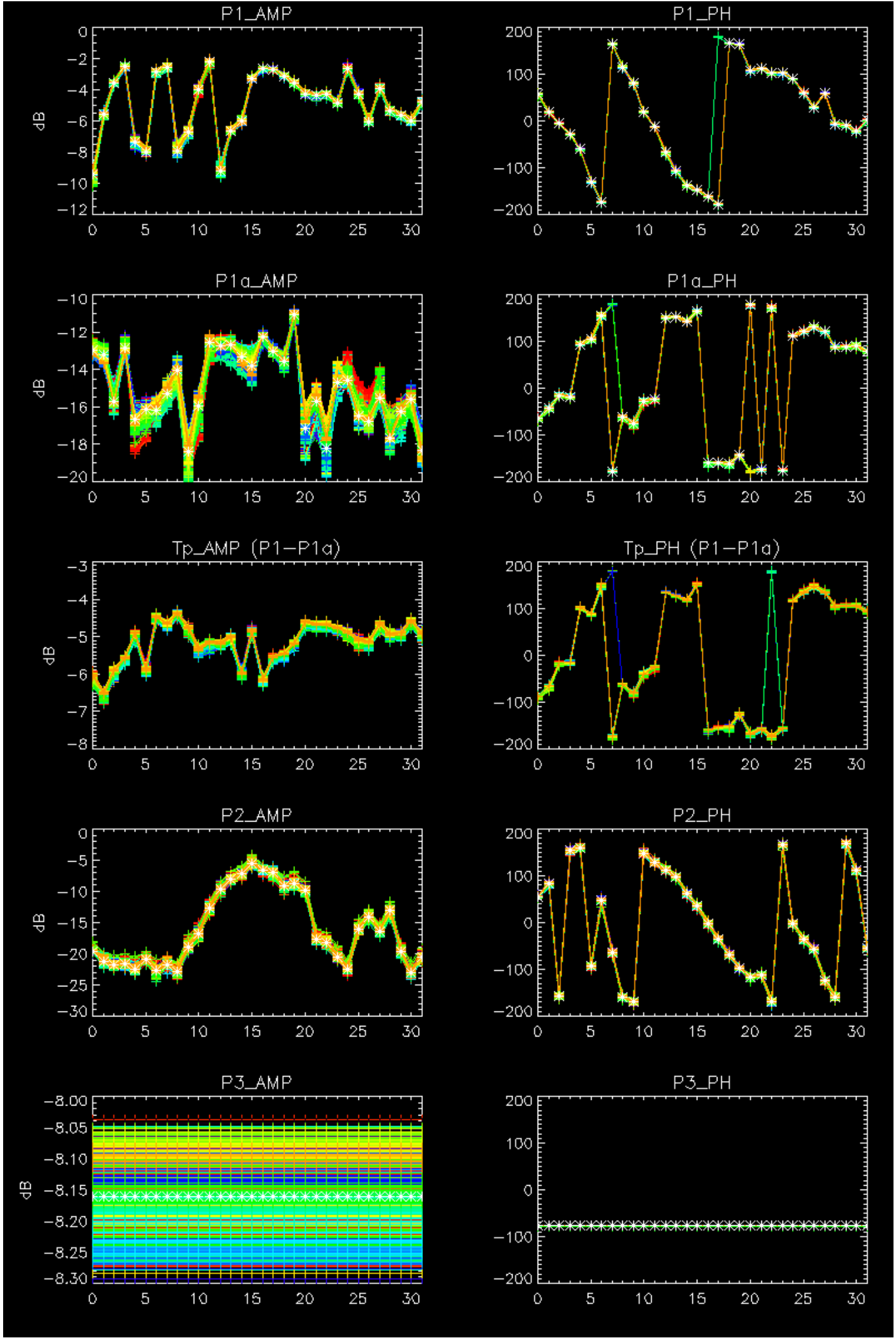
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



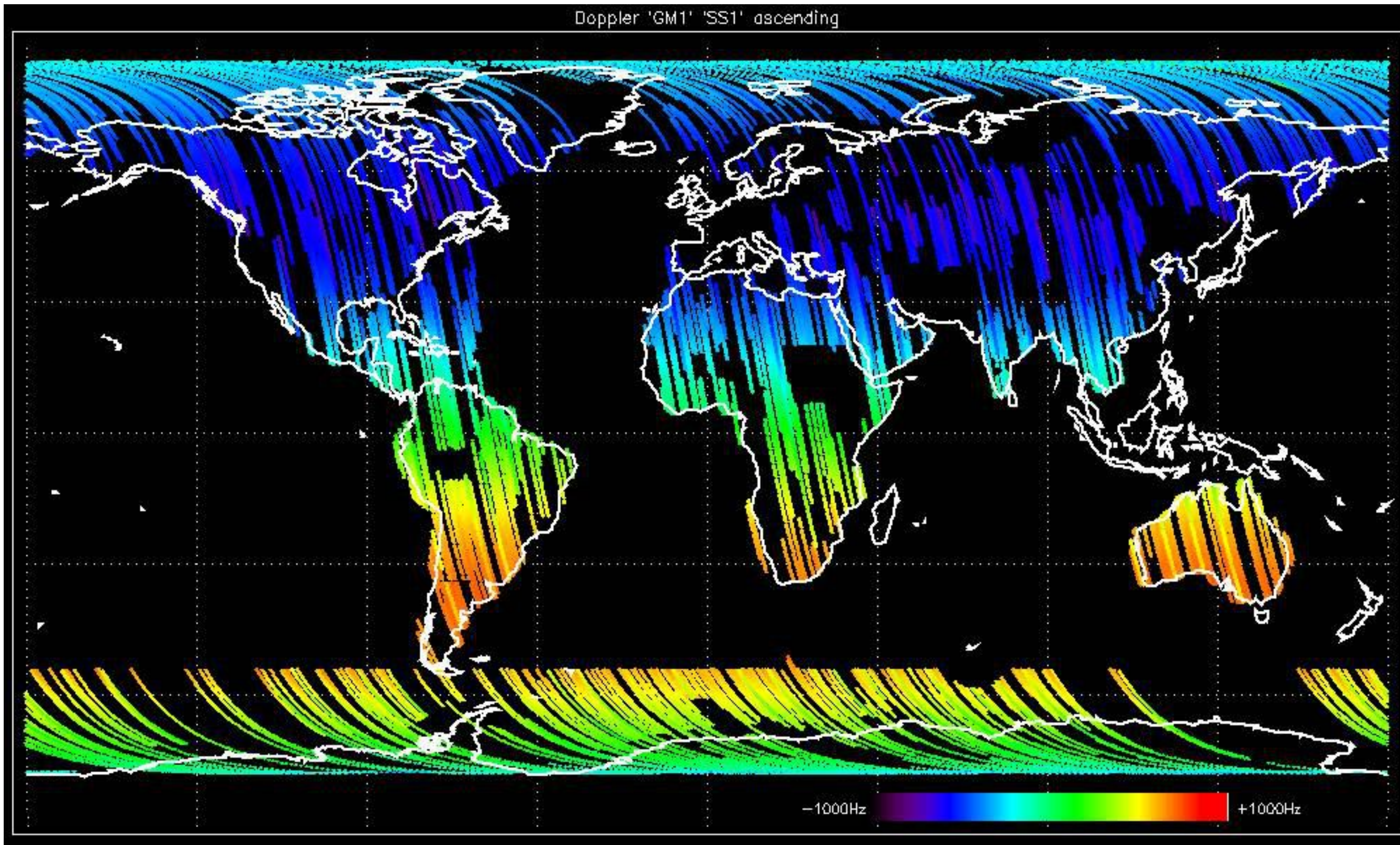
No anomalies observed.



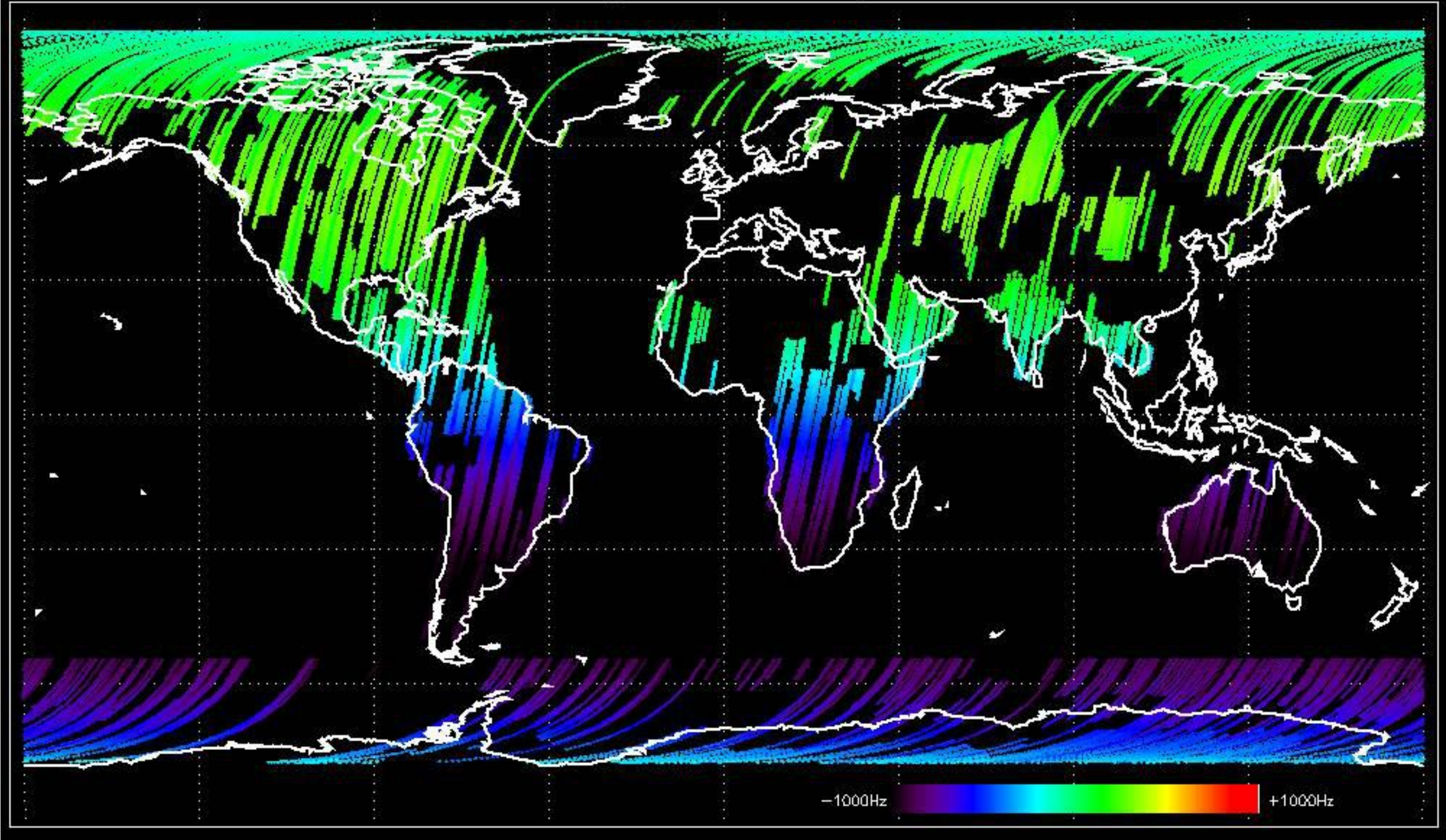


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

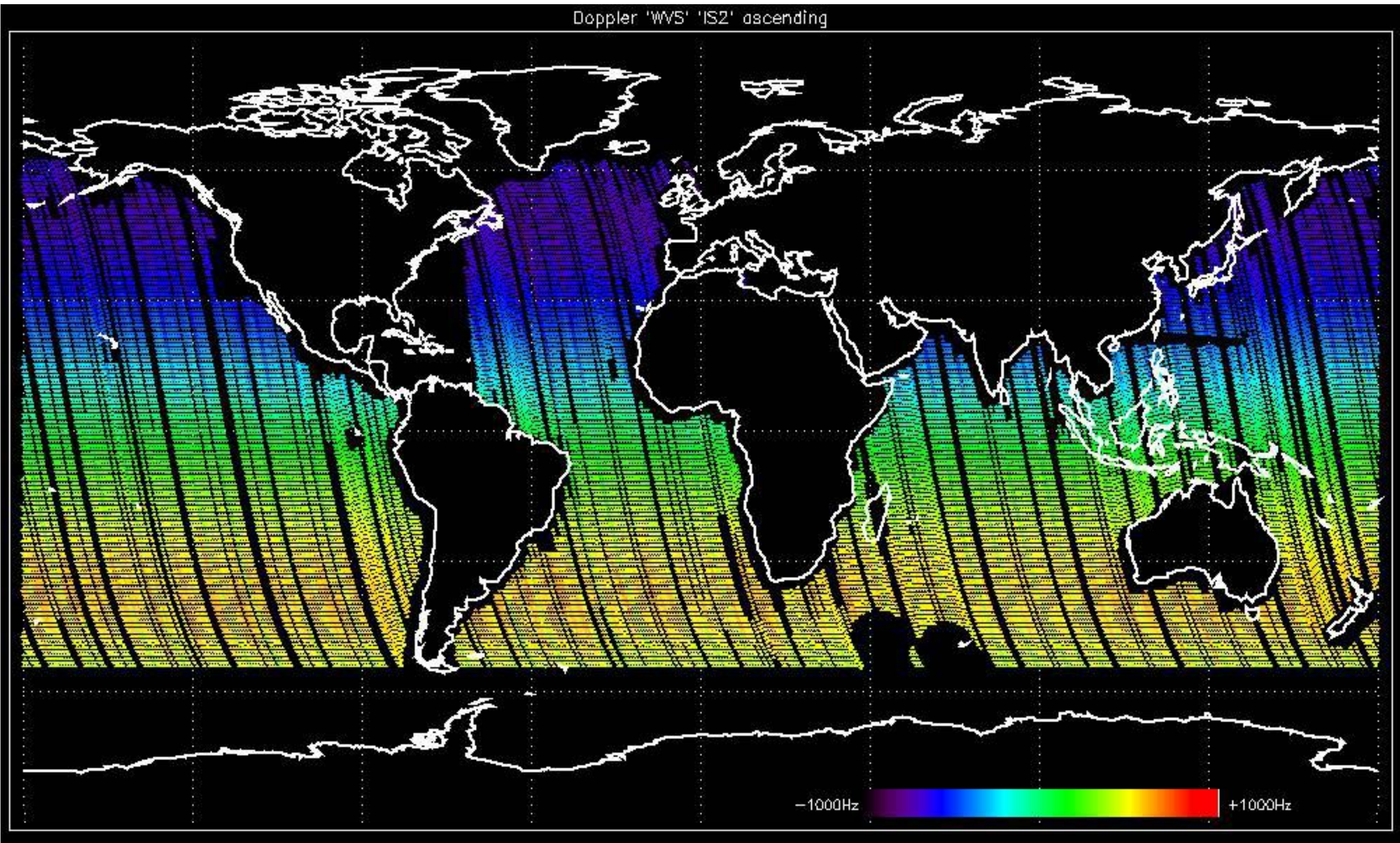
Doppler 'GM1' 'SS1' ascending



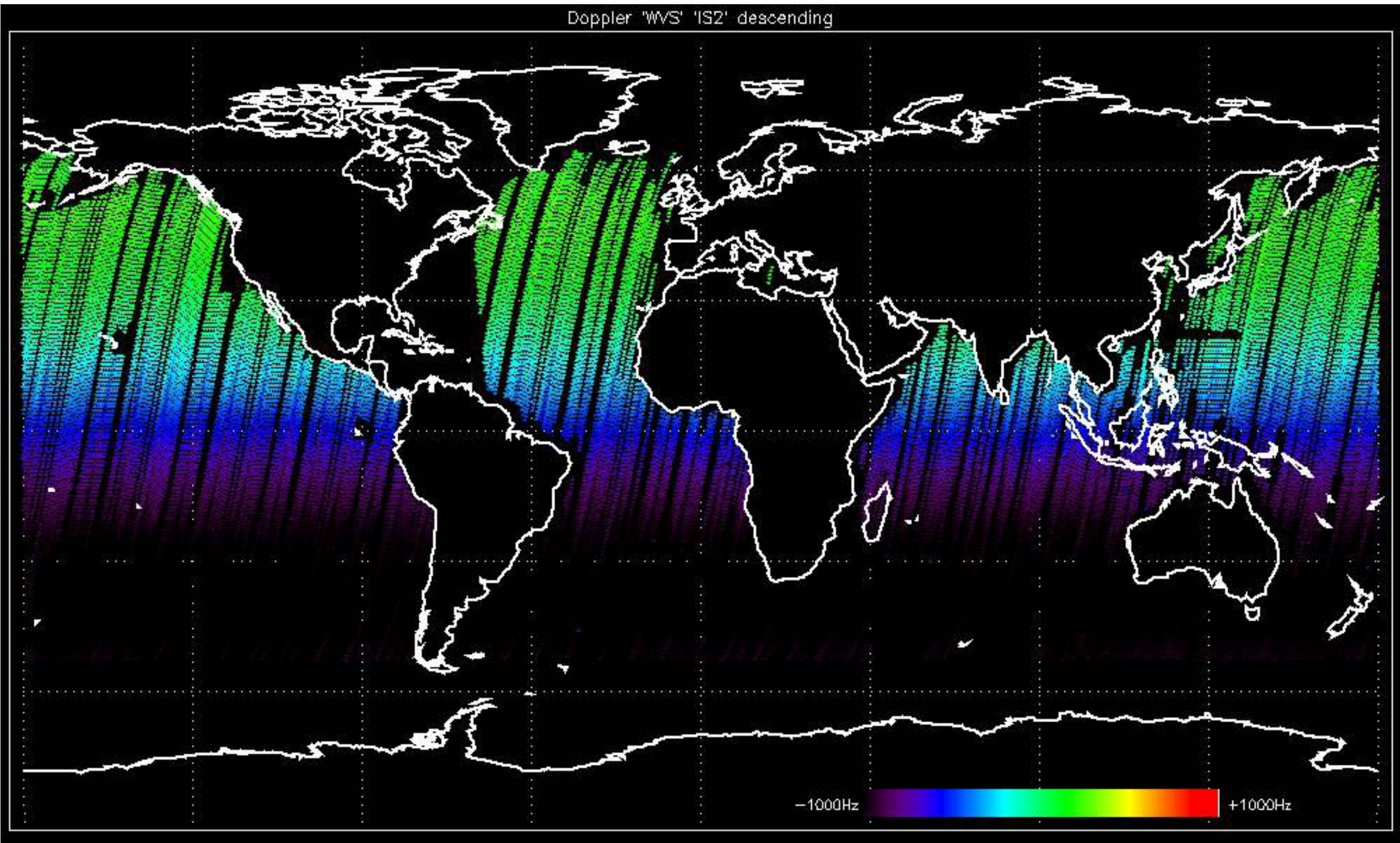
Doppler 'GM1' 'SS1' descending



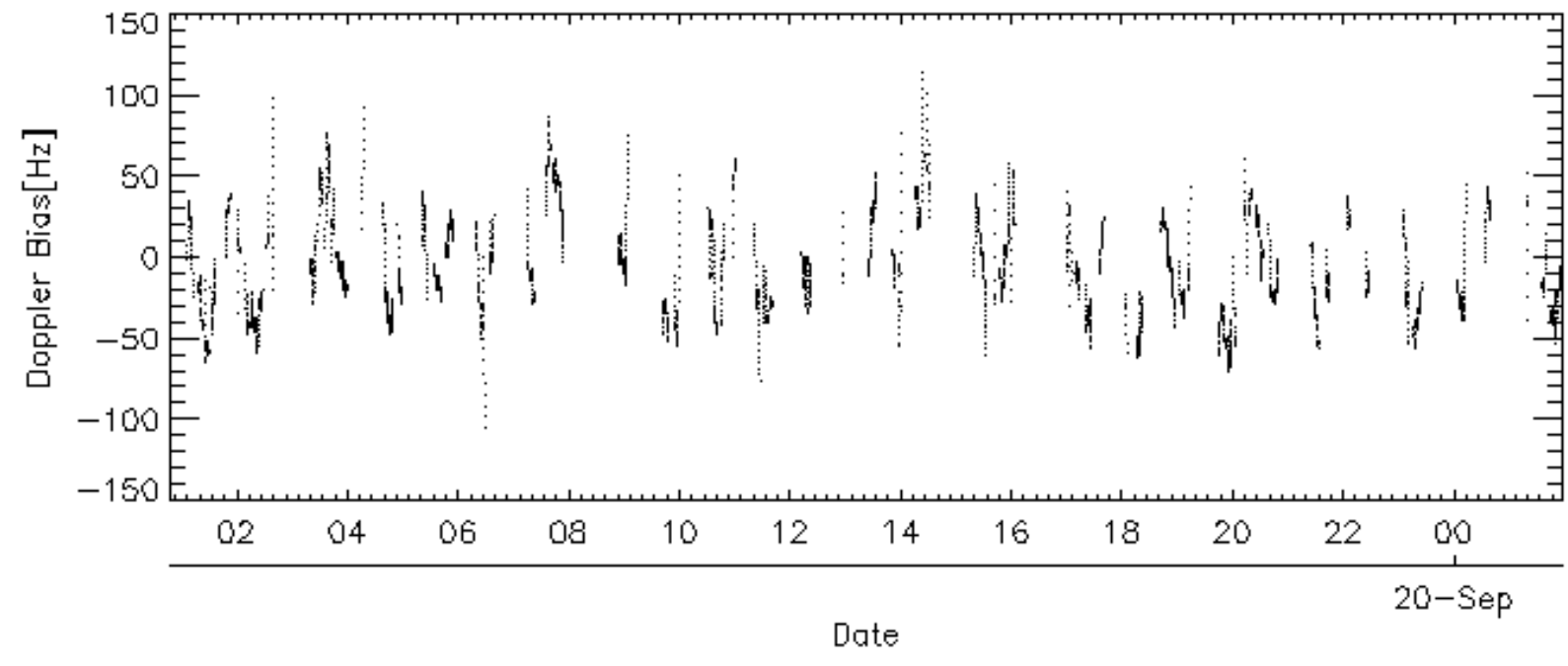
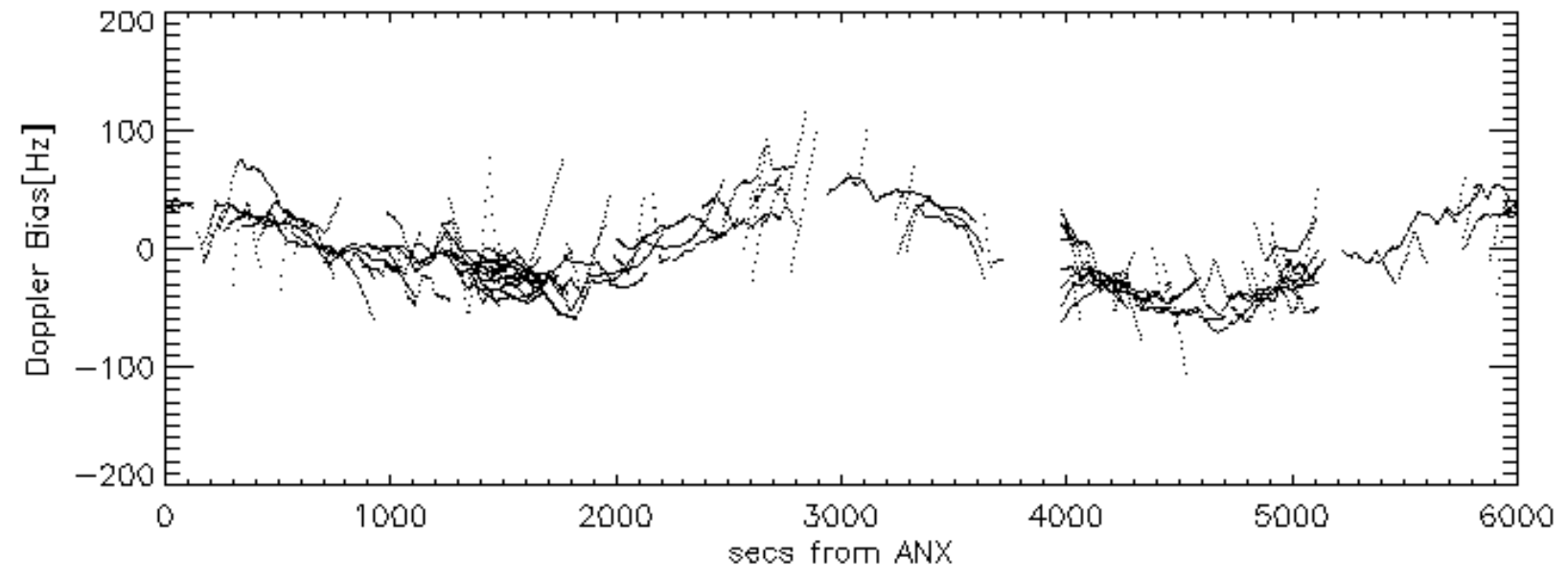
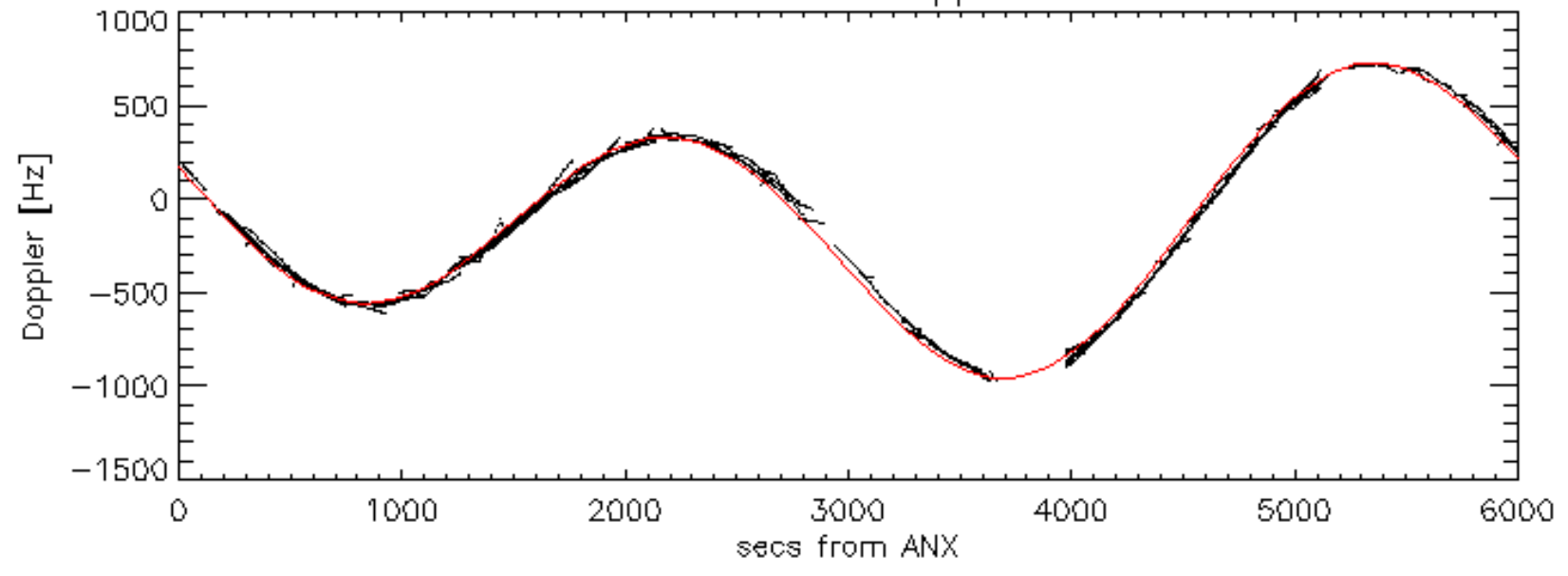
Doppler 'WVS' 'IS2' ascending

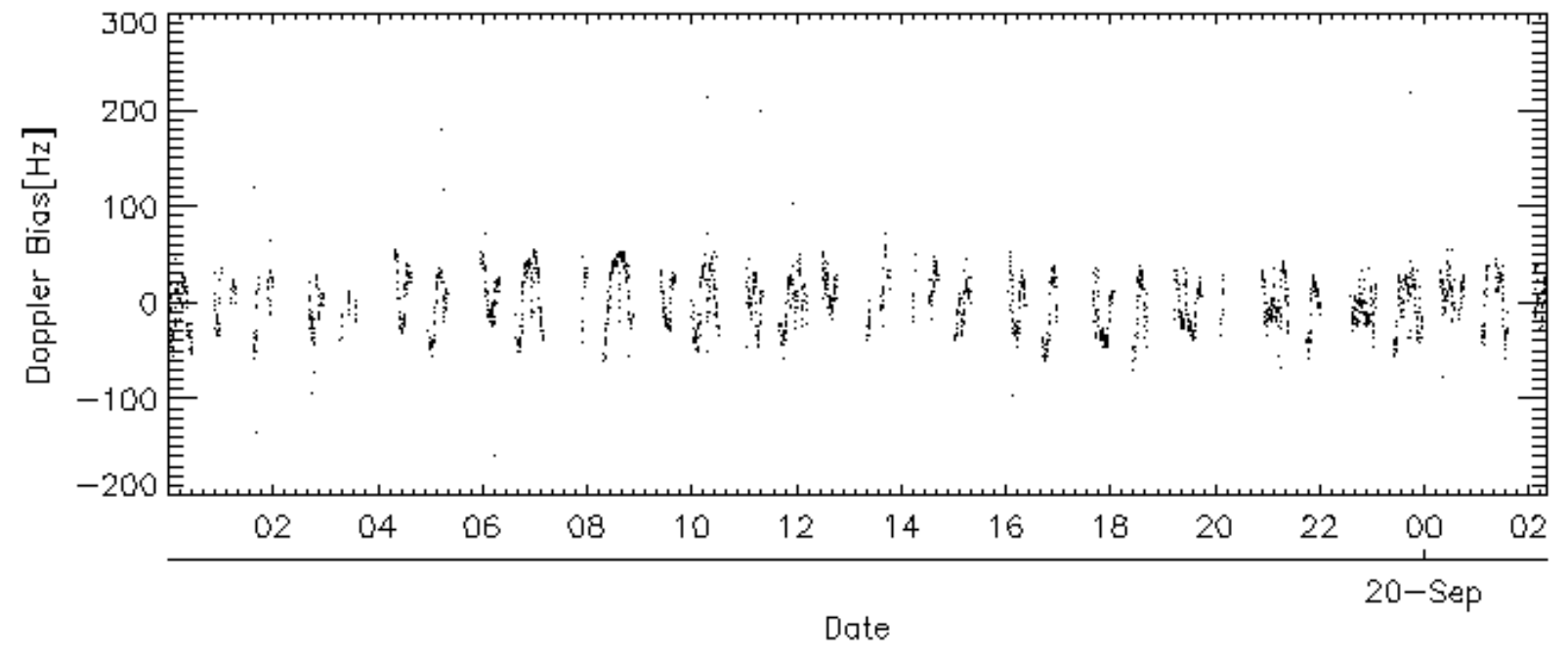
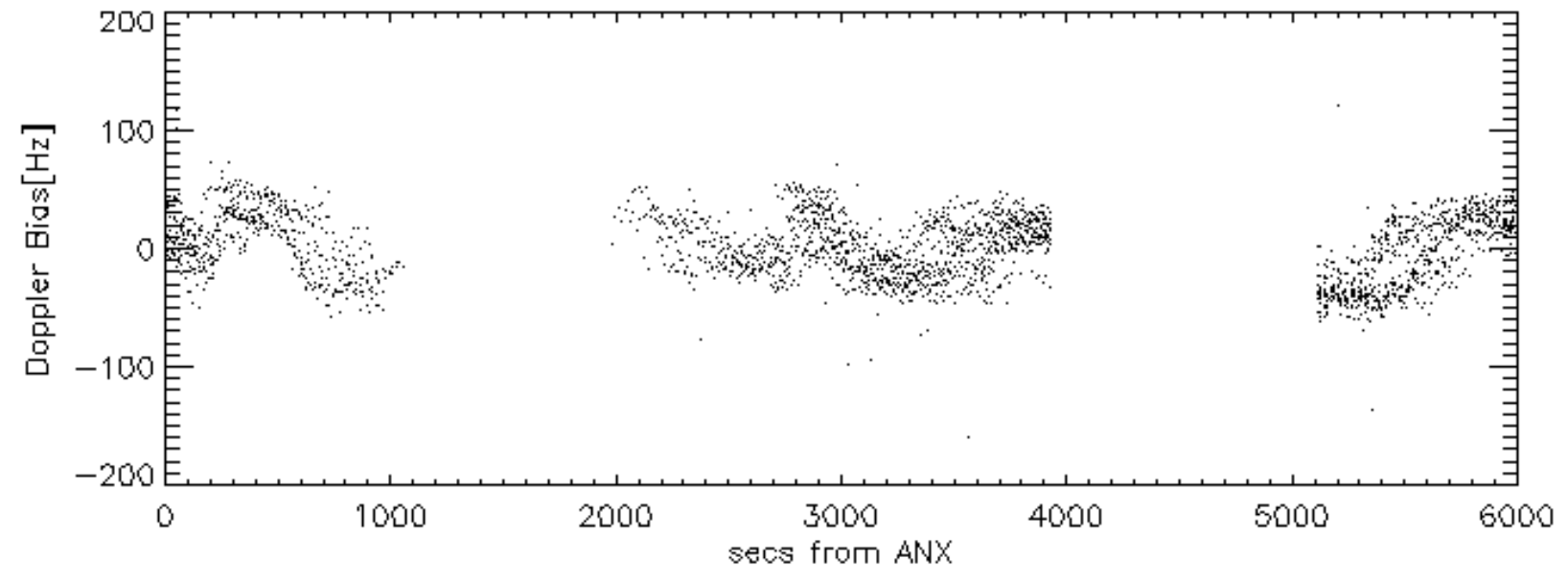
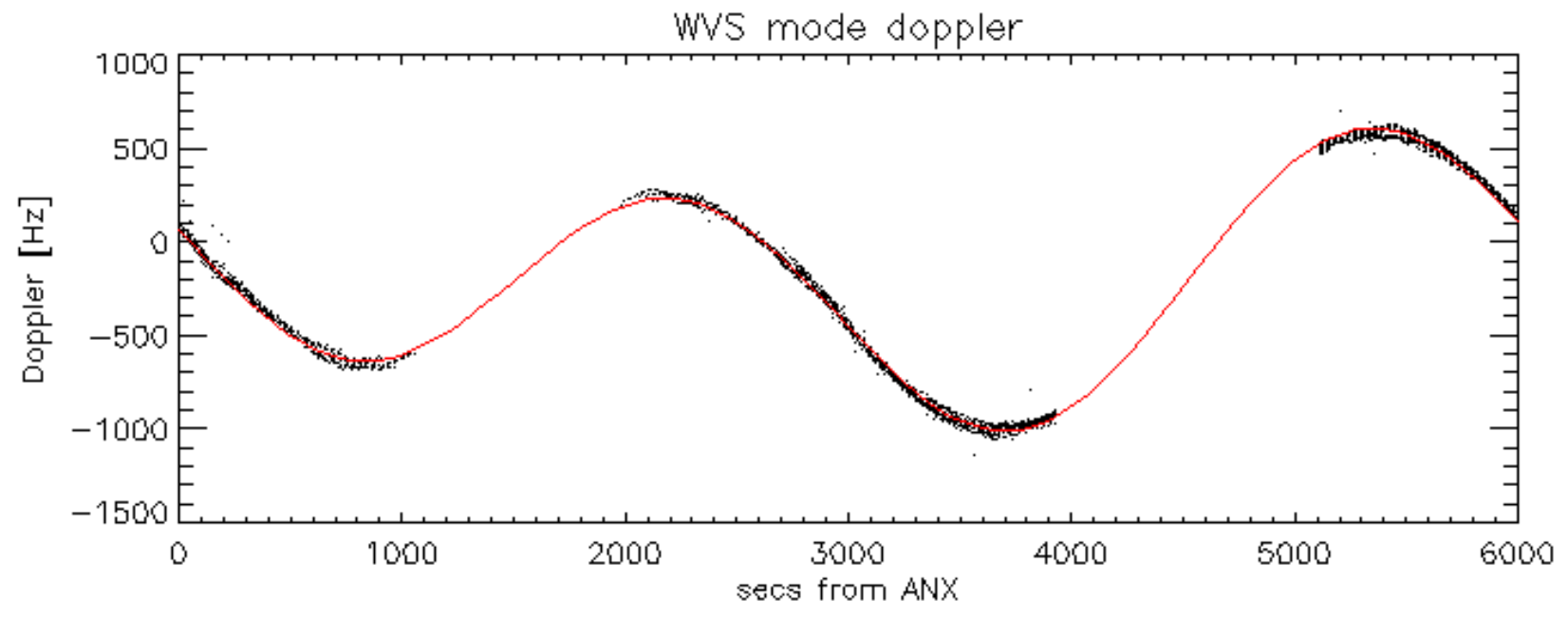


Doppler 'WVS' 'IS2' descending

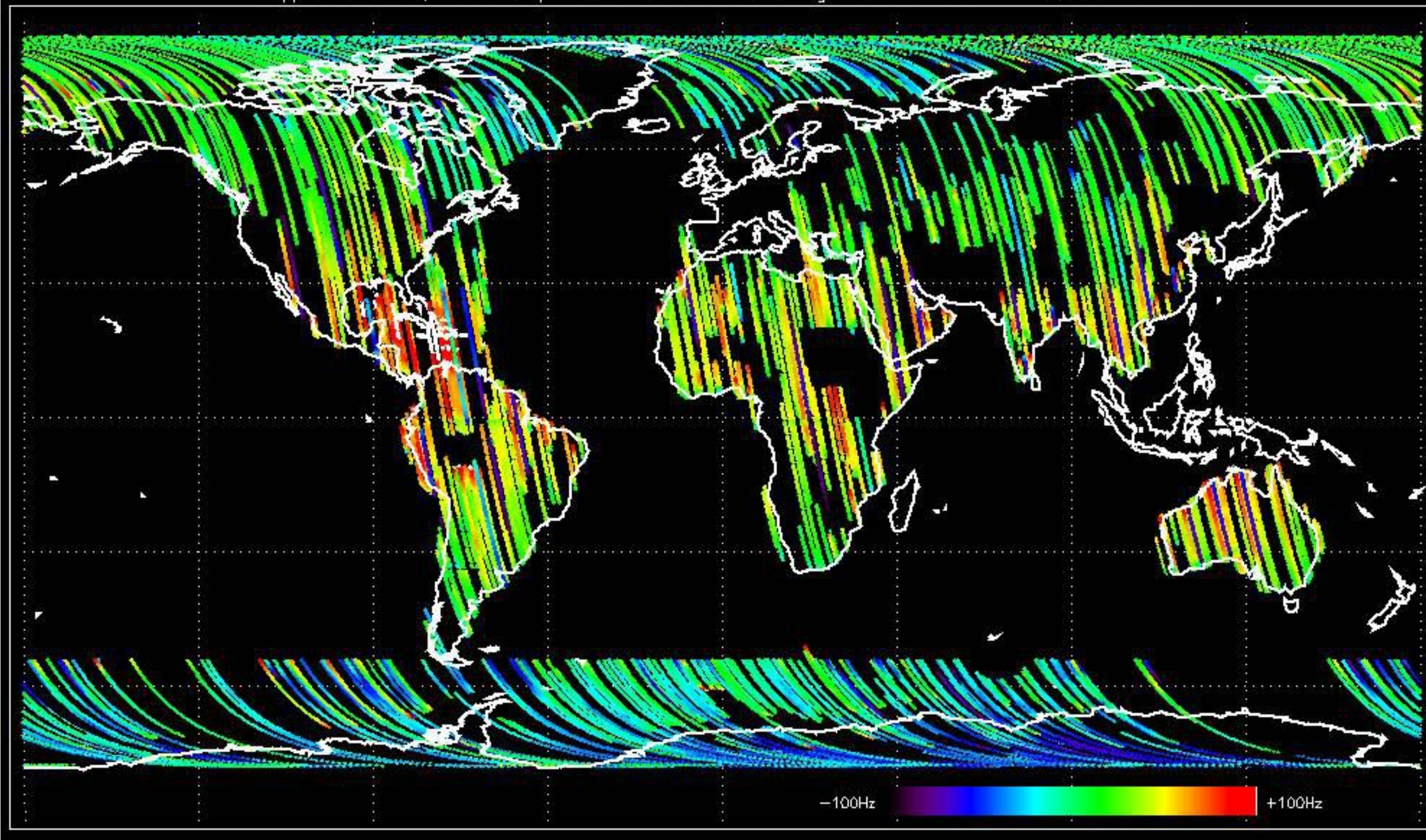


GM1 mode doppler

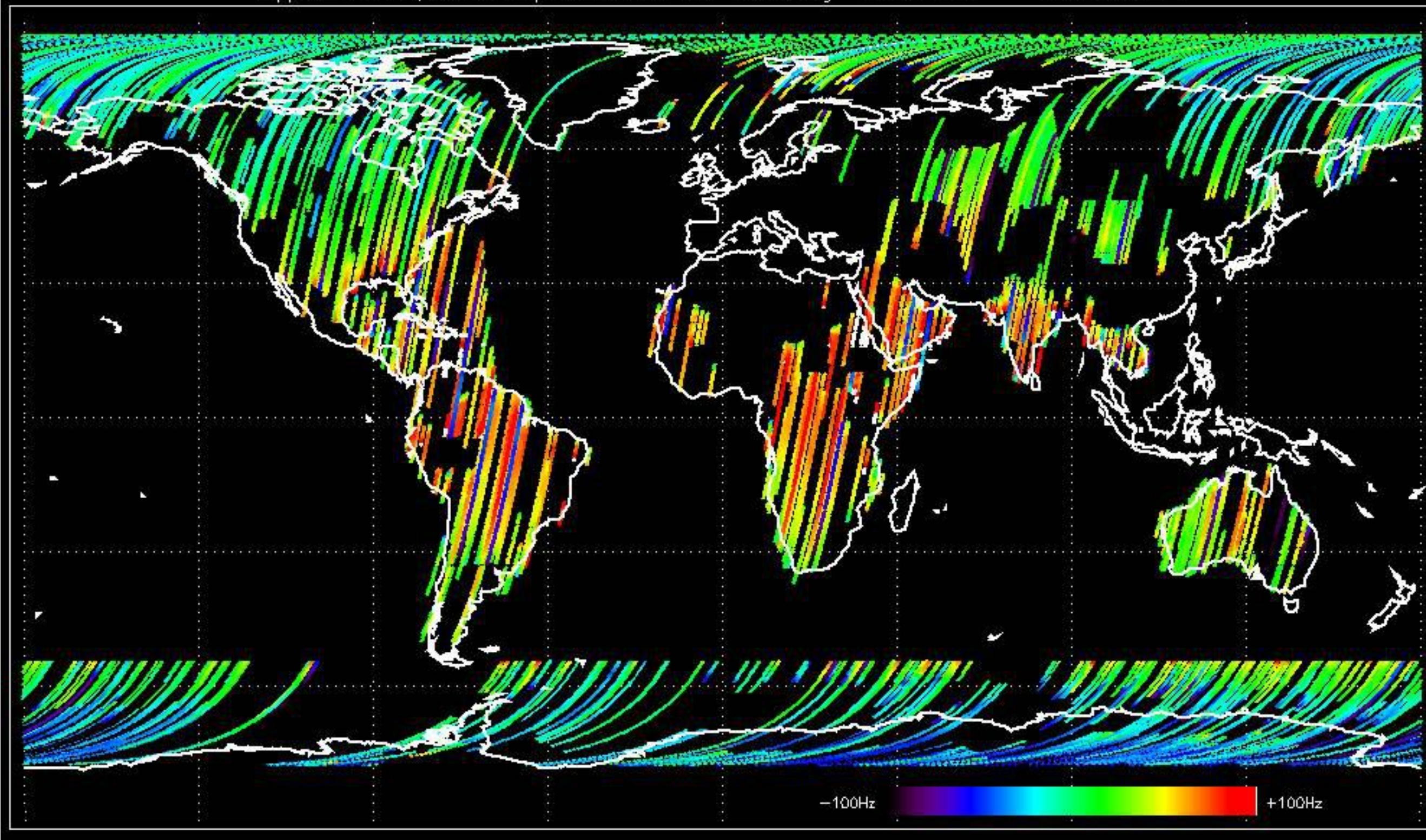




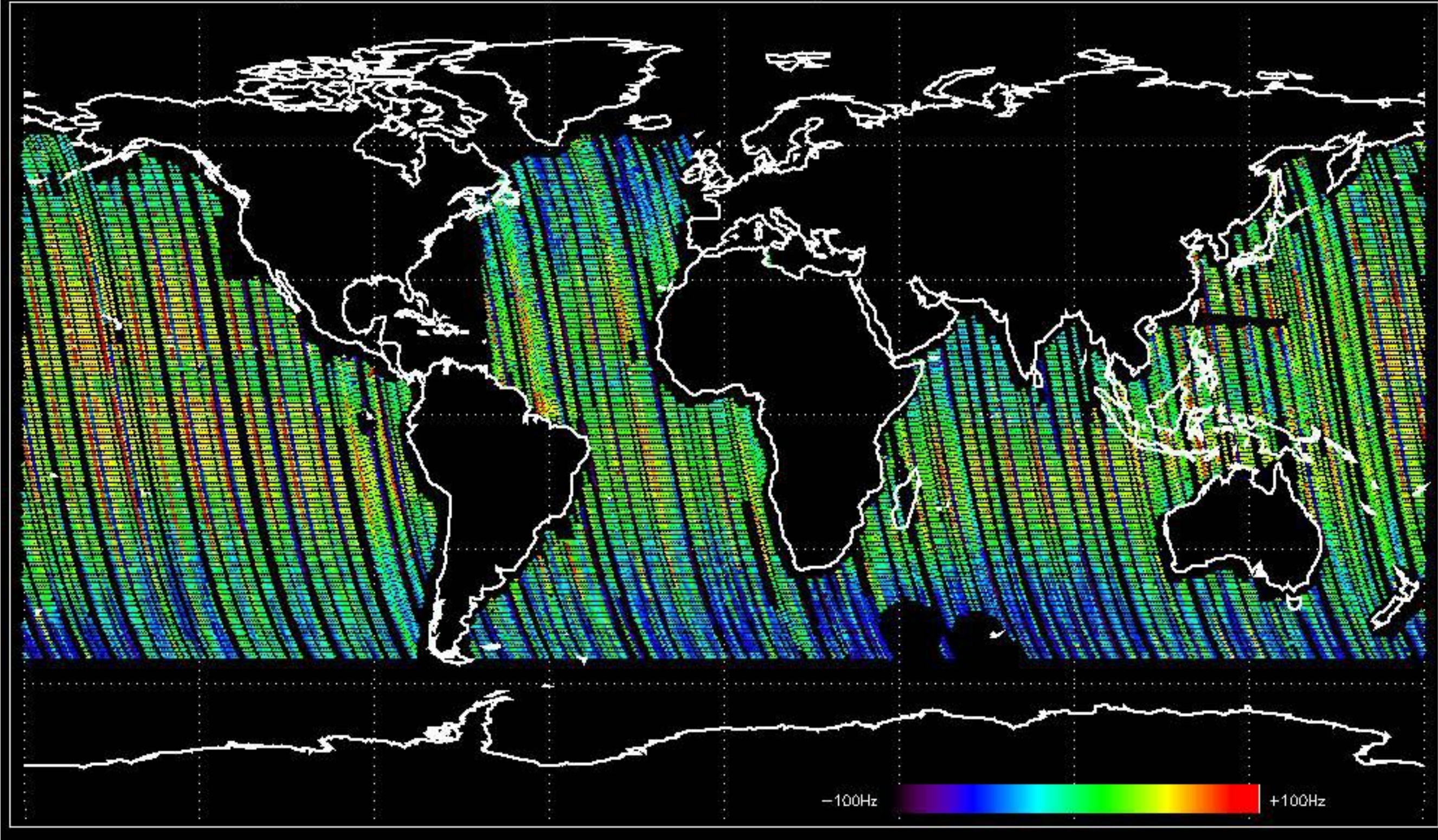
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.844464 Hz



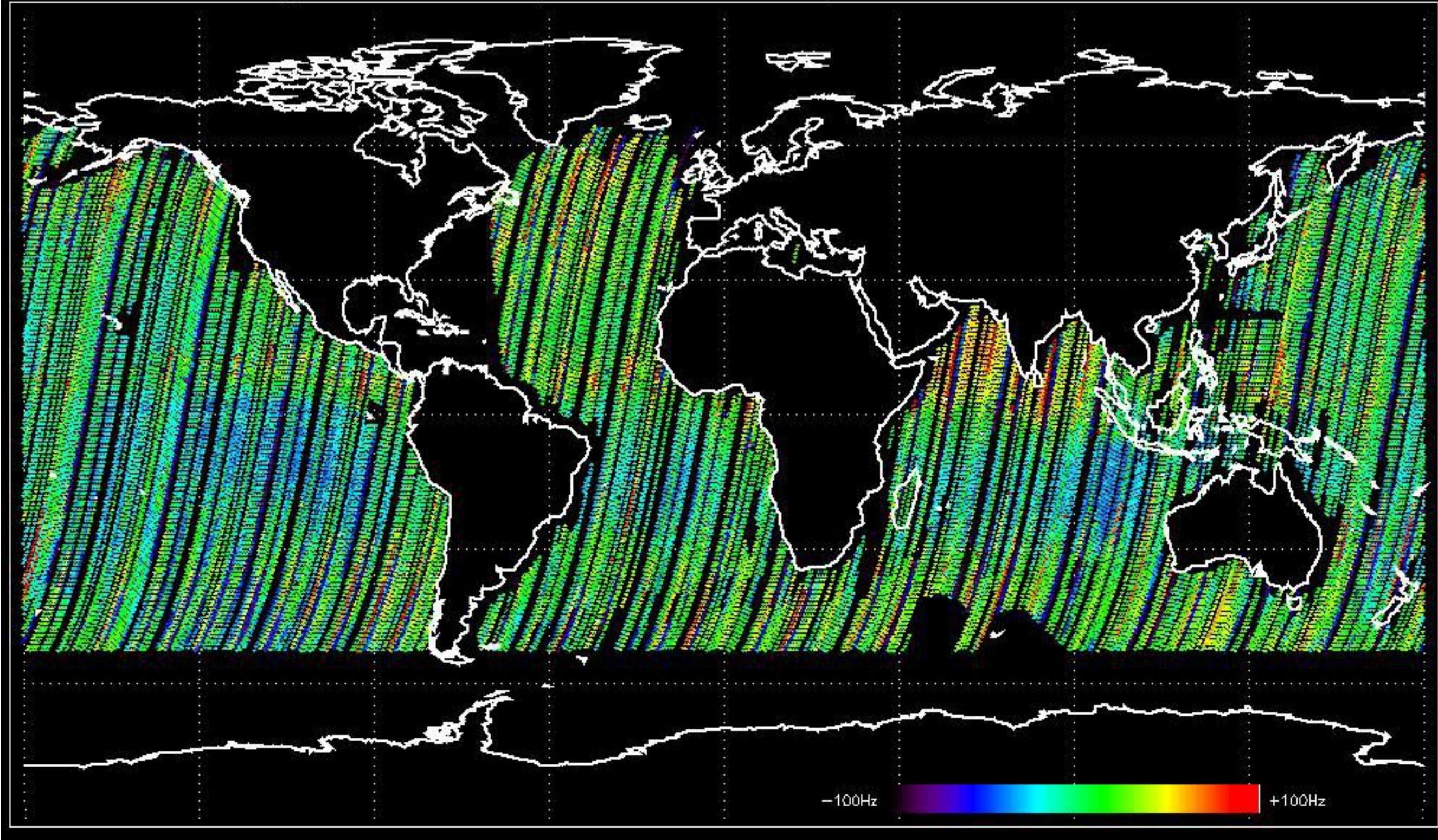
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -34.620077 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -39.676278 Hz

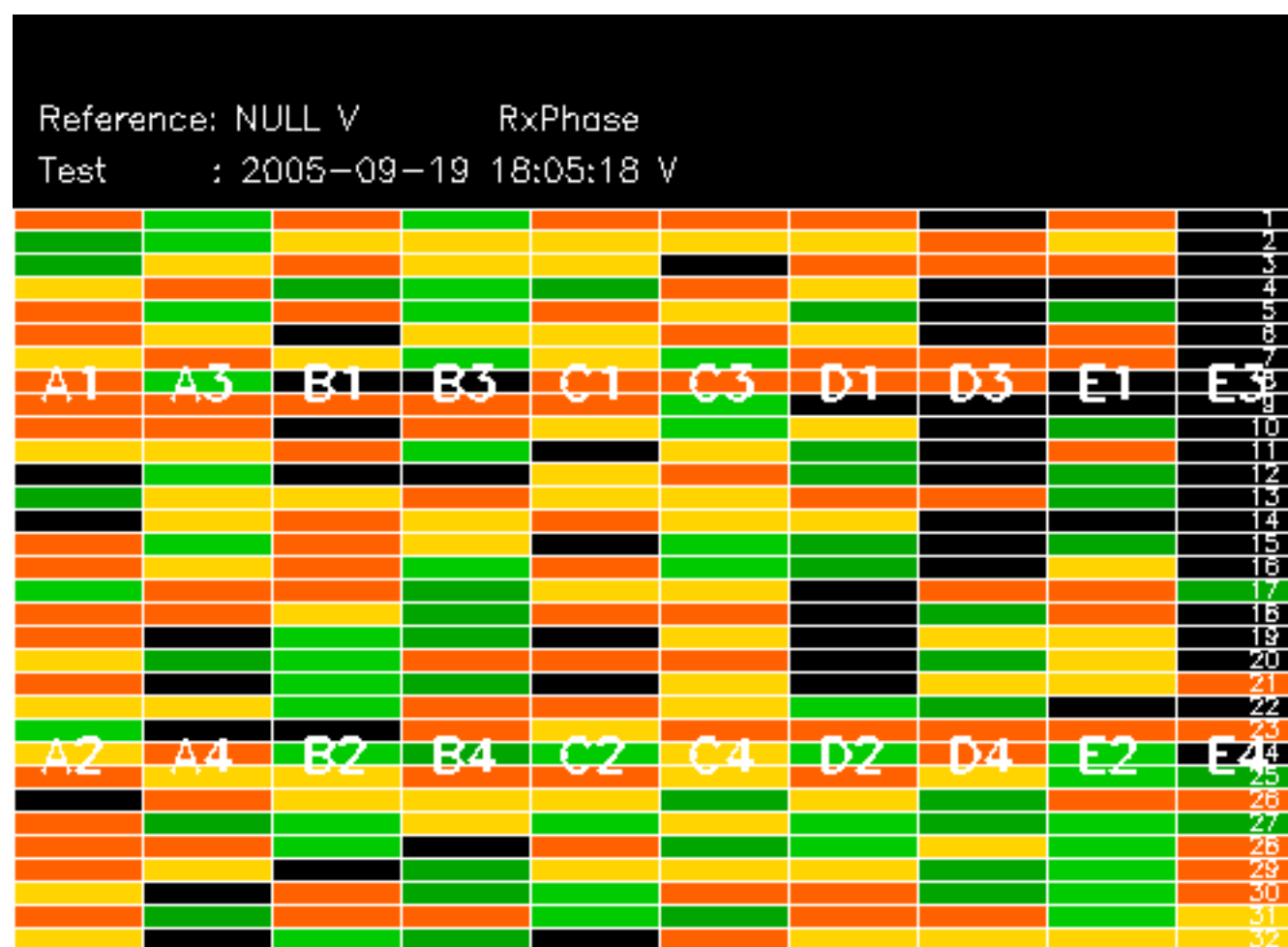


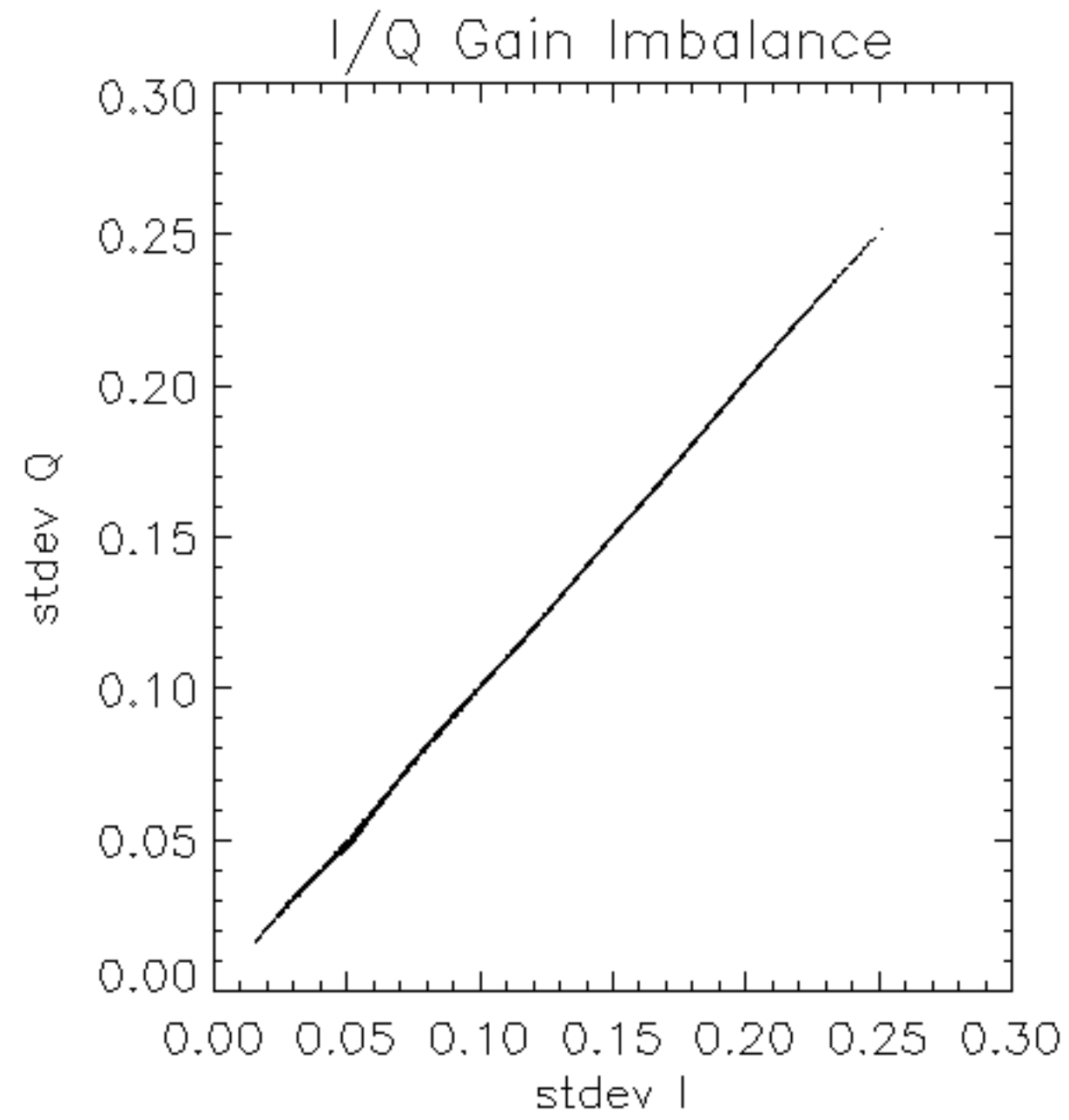
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -44.191270 Hz

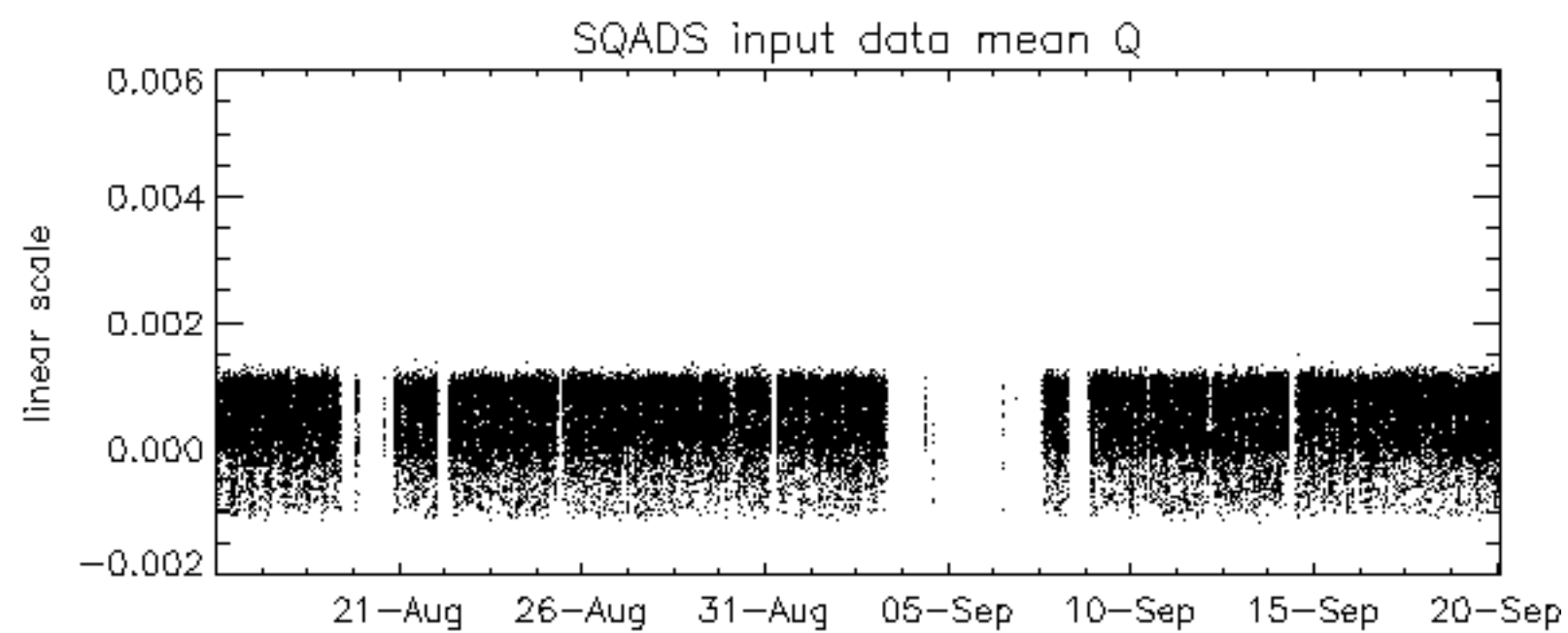
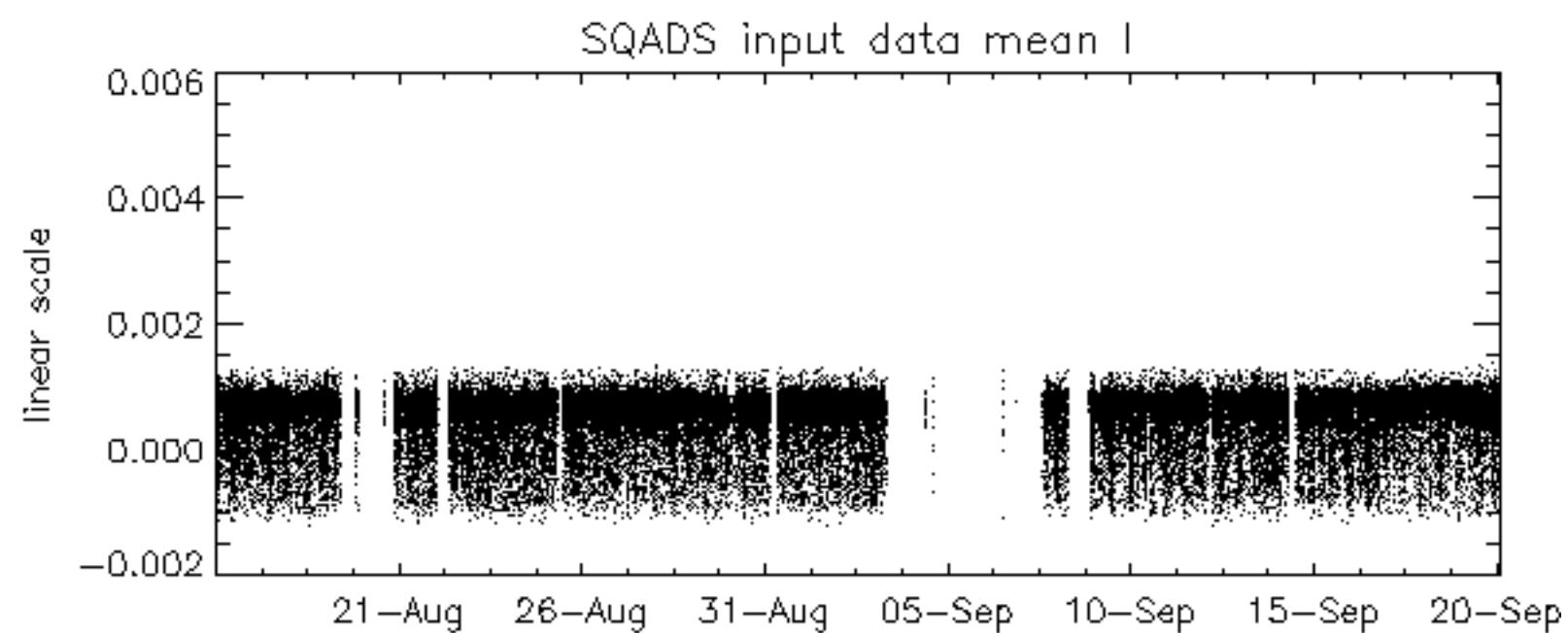
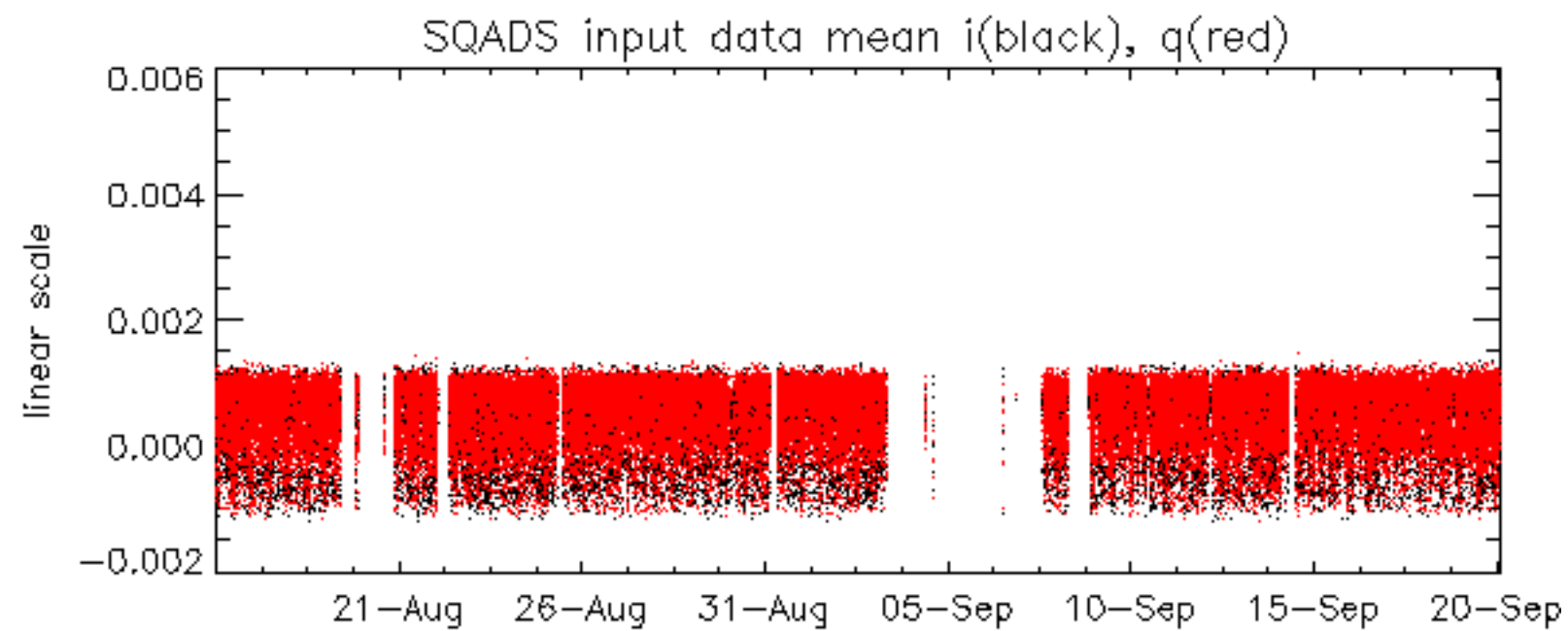


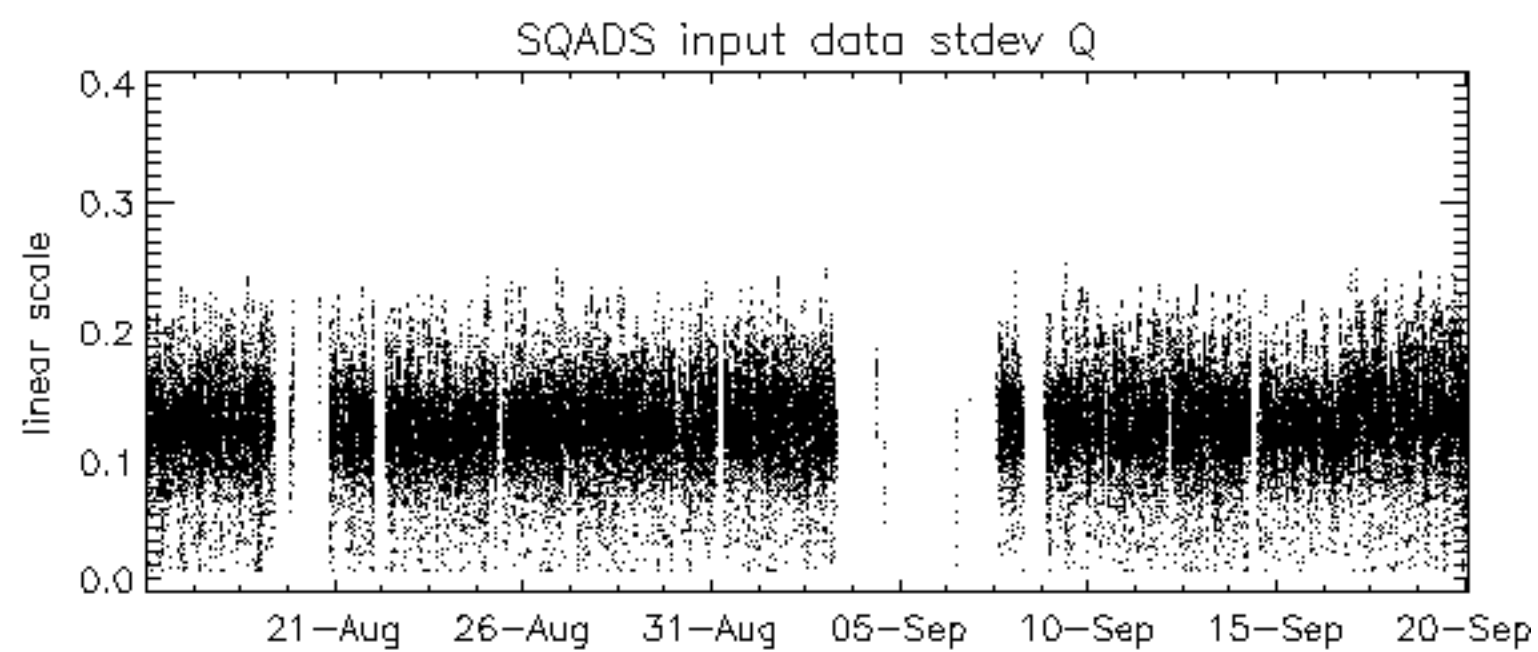
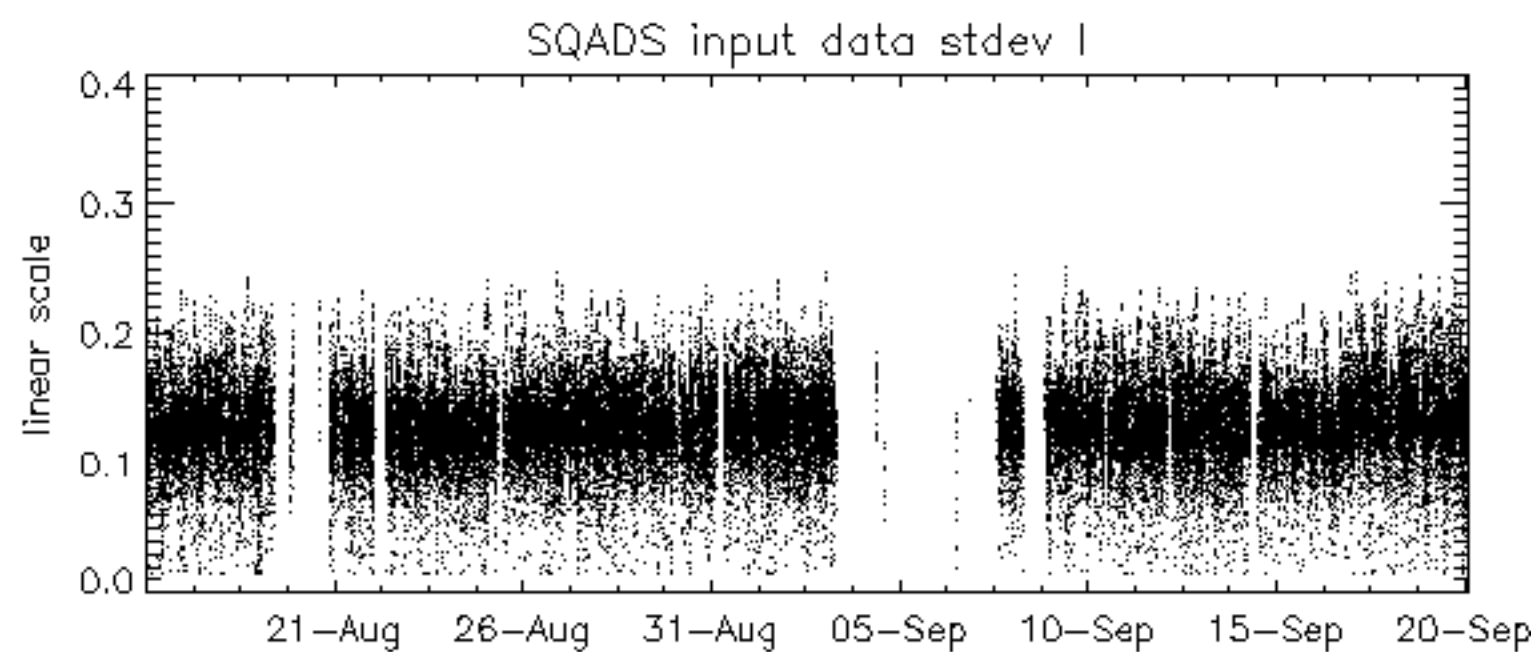
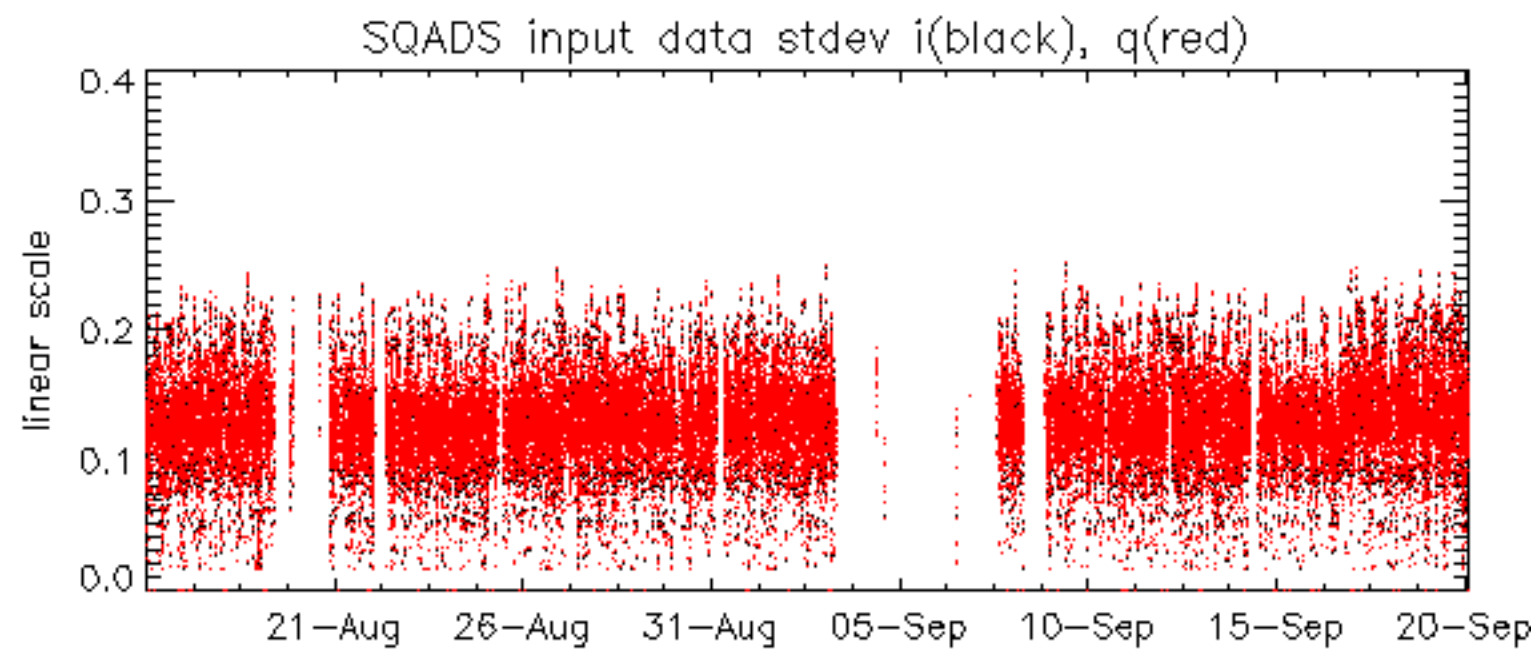
No anomalies observed on available MS products:

No anomalies observed.





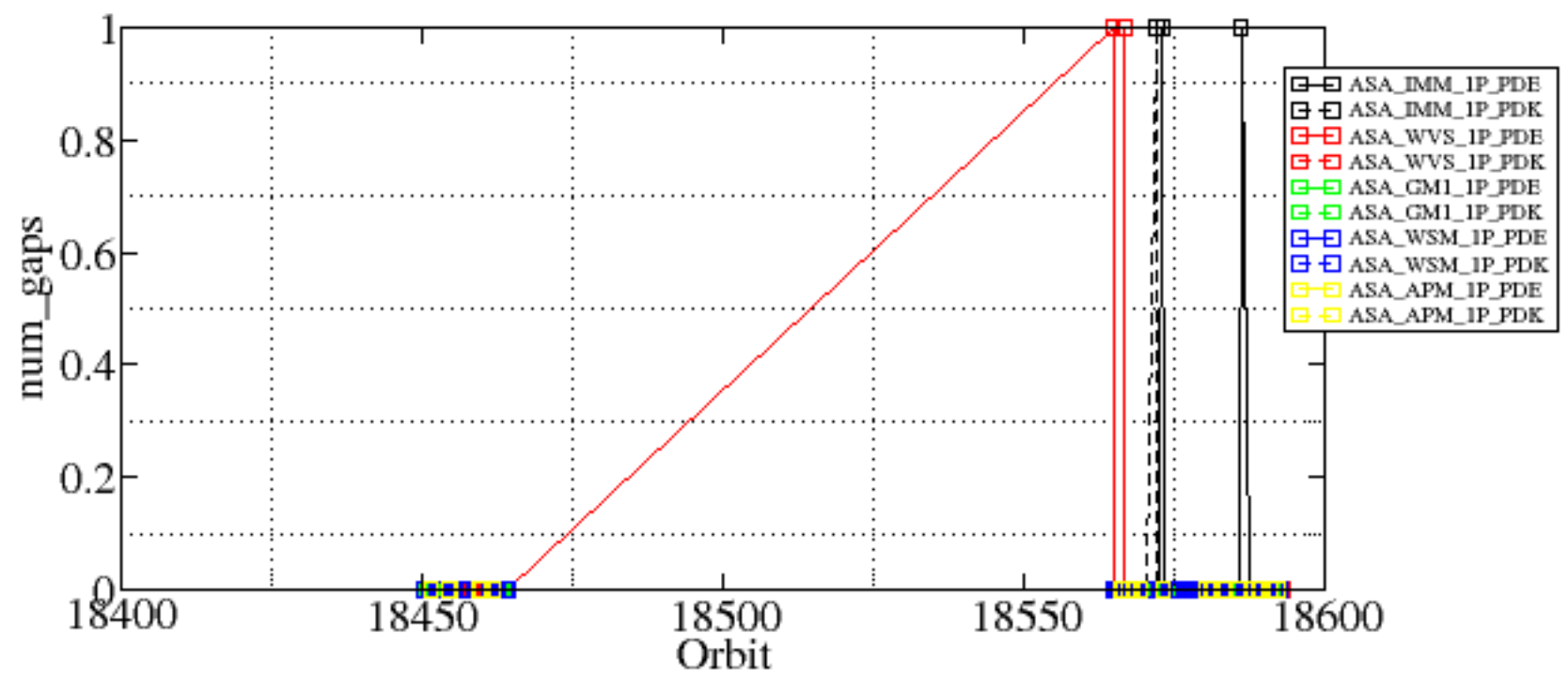


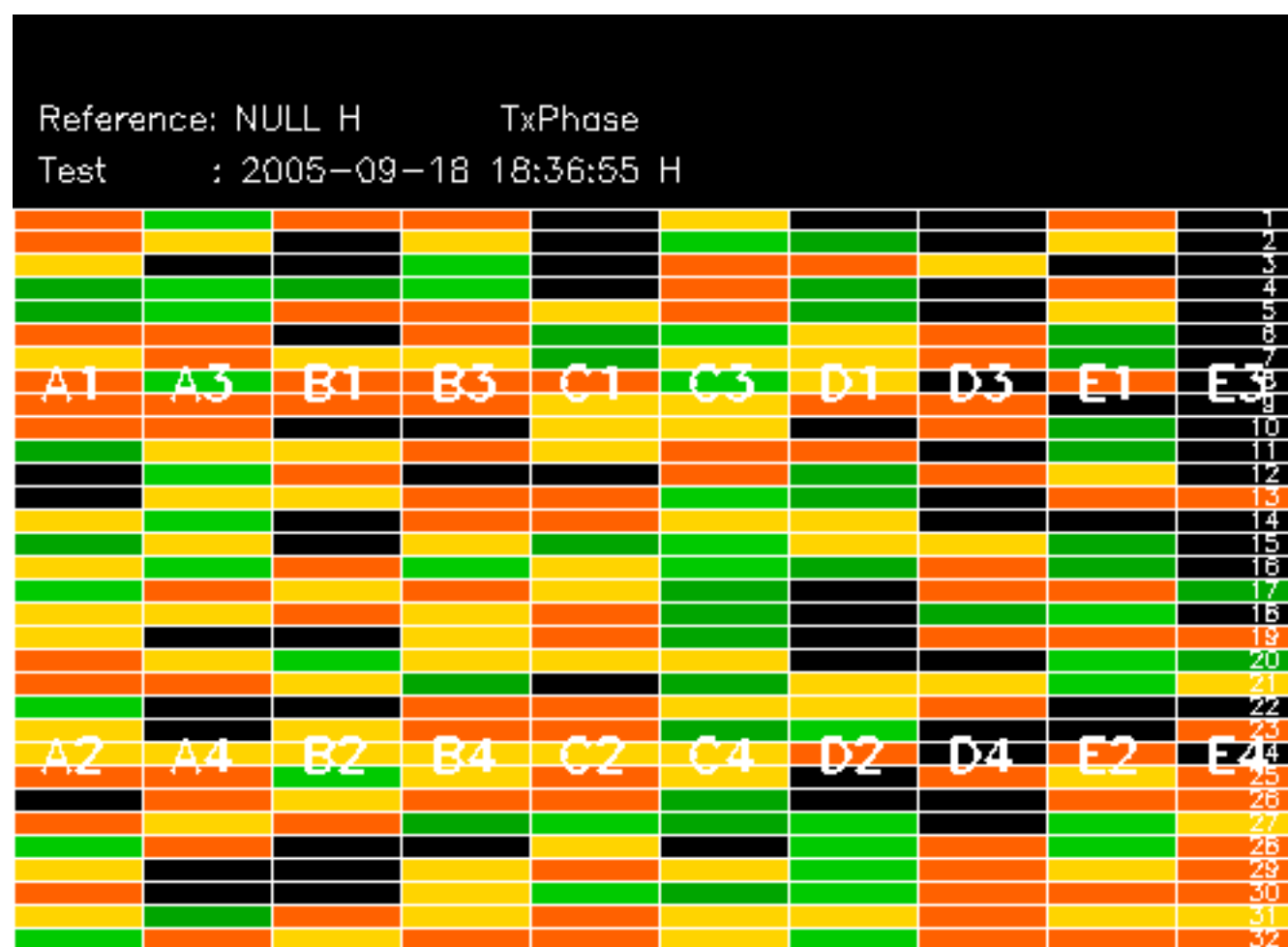


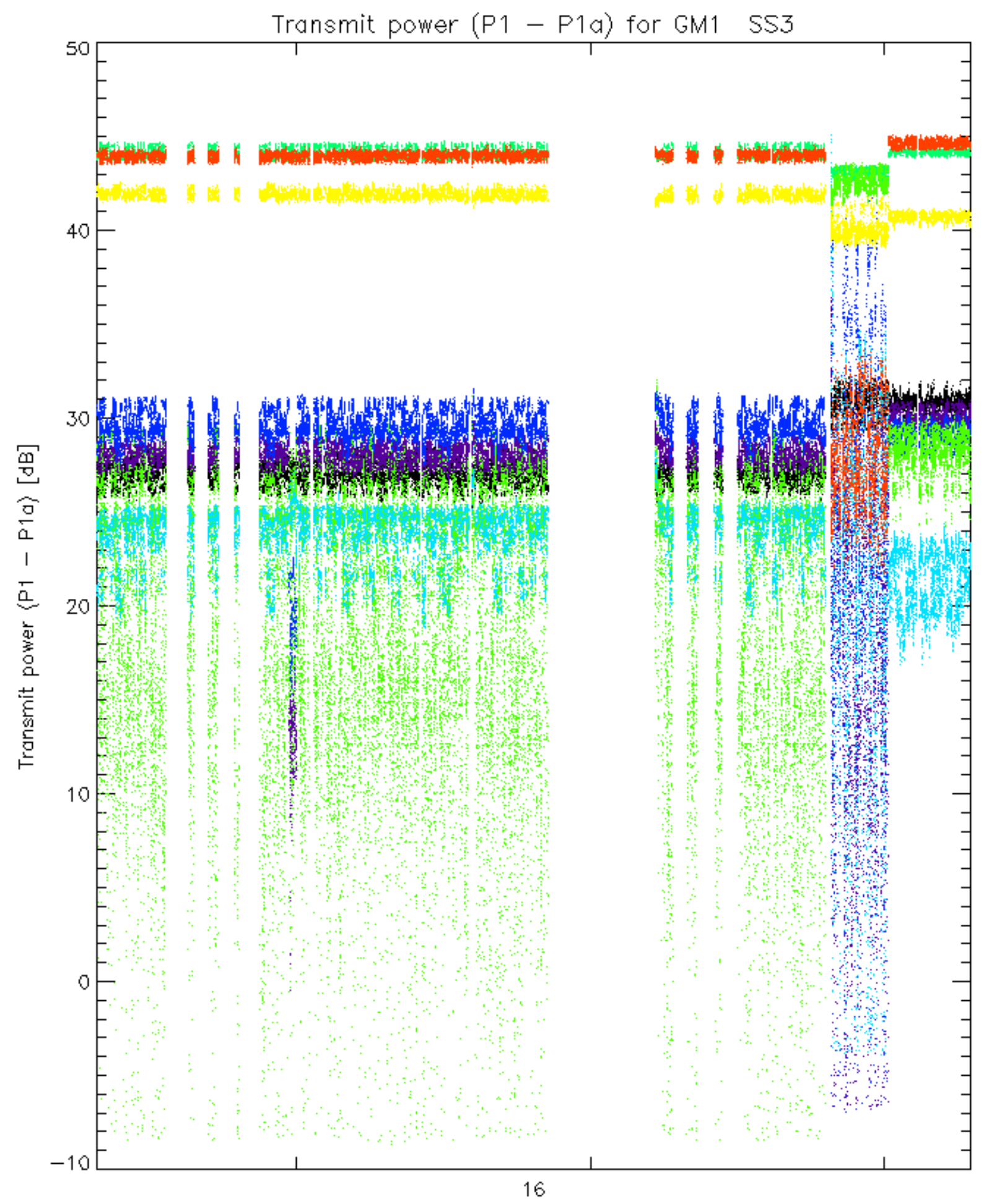
Summary of analysis for the last 3 days 2005091[890]

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

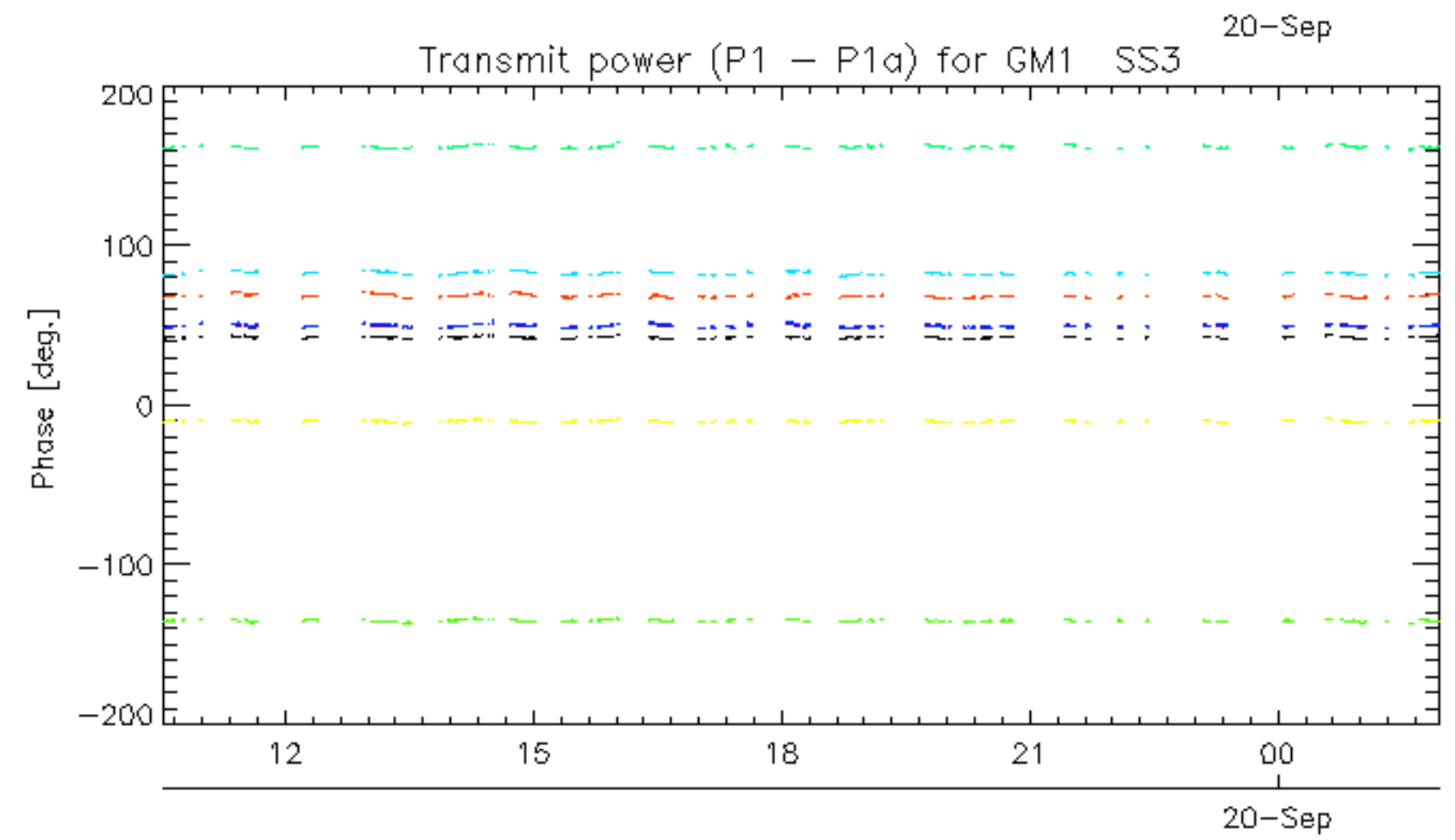
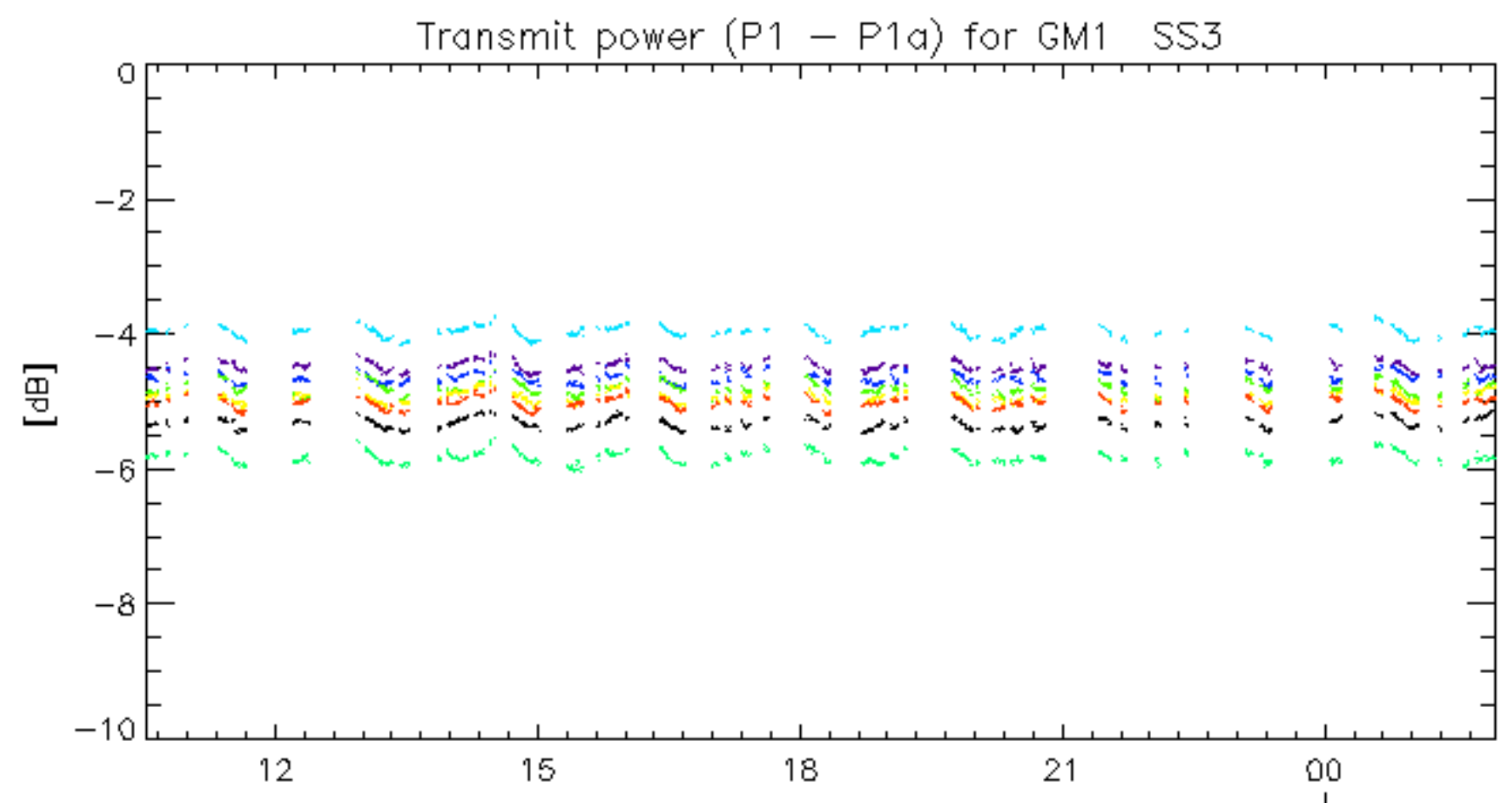
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050918_141410_000000812040_00483_18573_5918.N1	1	0
ASA_IMM_1PNPDE20050919_120805_000000722040_00496_18586_5989.N1	1	0
ASA_IMM_1PNPDK20050918_124040_000000362040_00482_18572_4259.N1	1	0
ASA_WVS_1PNPDE20050918_003155_000000002040_00474_18564_1564.N1	1	0
ASA_WVS_1PNPDE20050918_032532_000000002040_00476_18566_1565.N1	1	0
ASA_GM1_1PNPDE20050910_202146_0000006702040_00372_18462_3674.N1	0	59
ASA_WSM_1PNPDE20050910_022331_0000002872040_00361_18451_8096.N1	0	65
ASA_WSM_1PNPDE20050918_012934_0000004592040_00475_18565_9256.N1	0	58
ASA_WSM_1PNPDK20050910_052636_000000672040_00363_18453_3839.N1	0	31



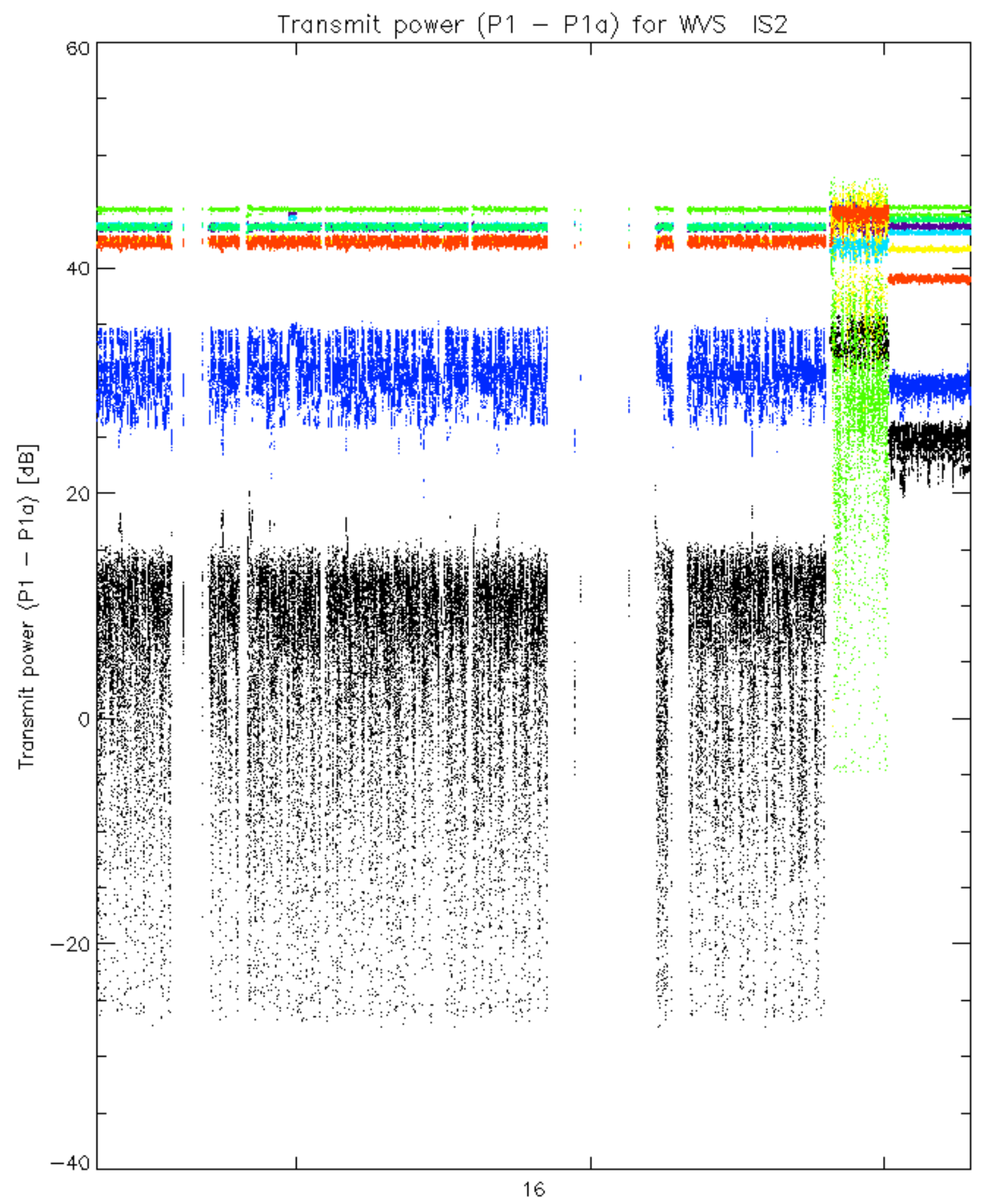


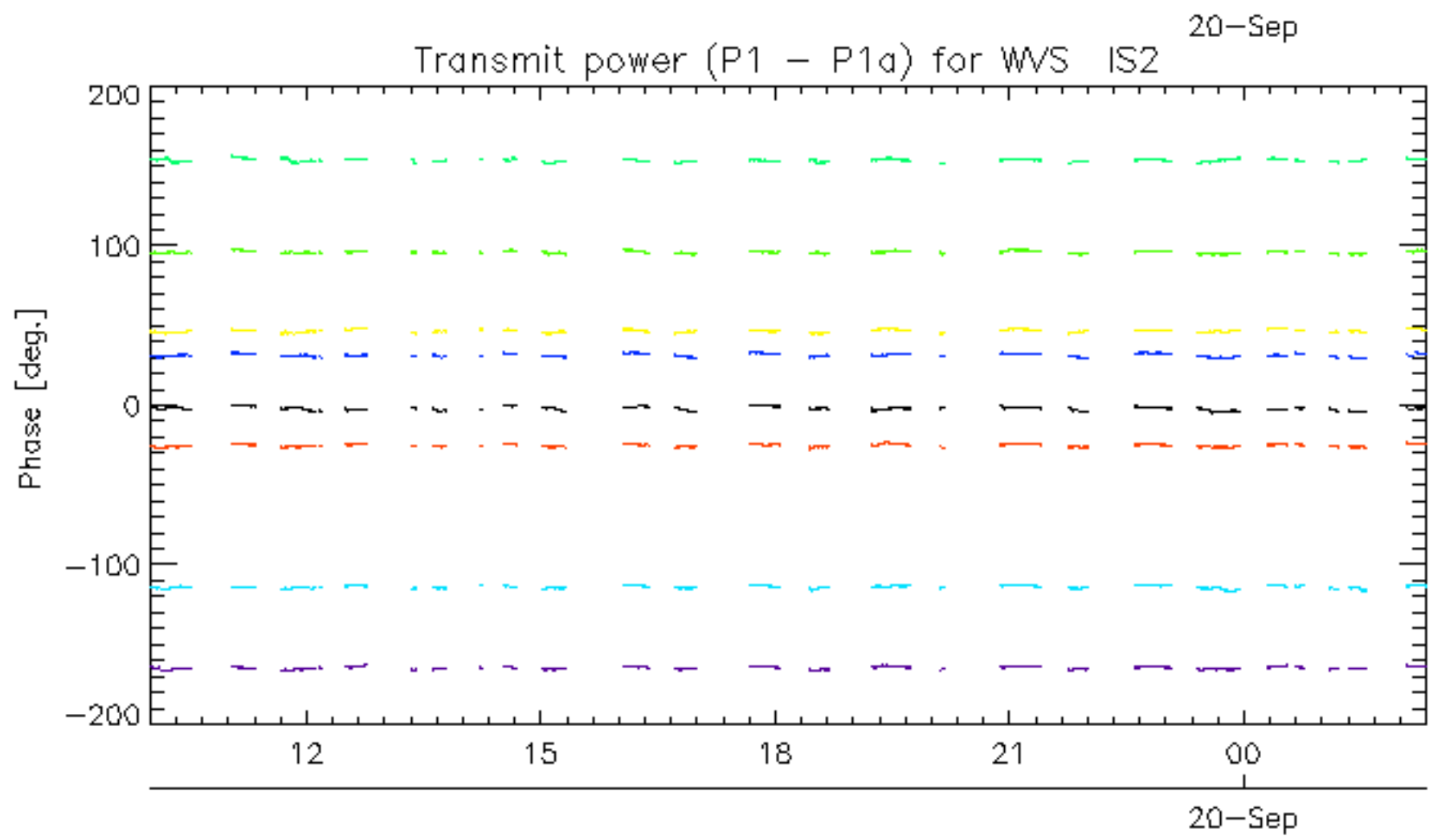
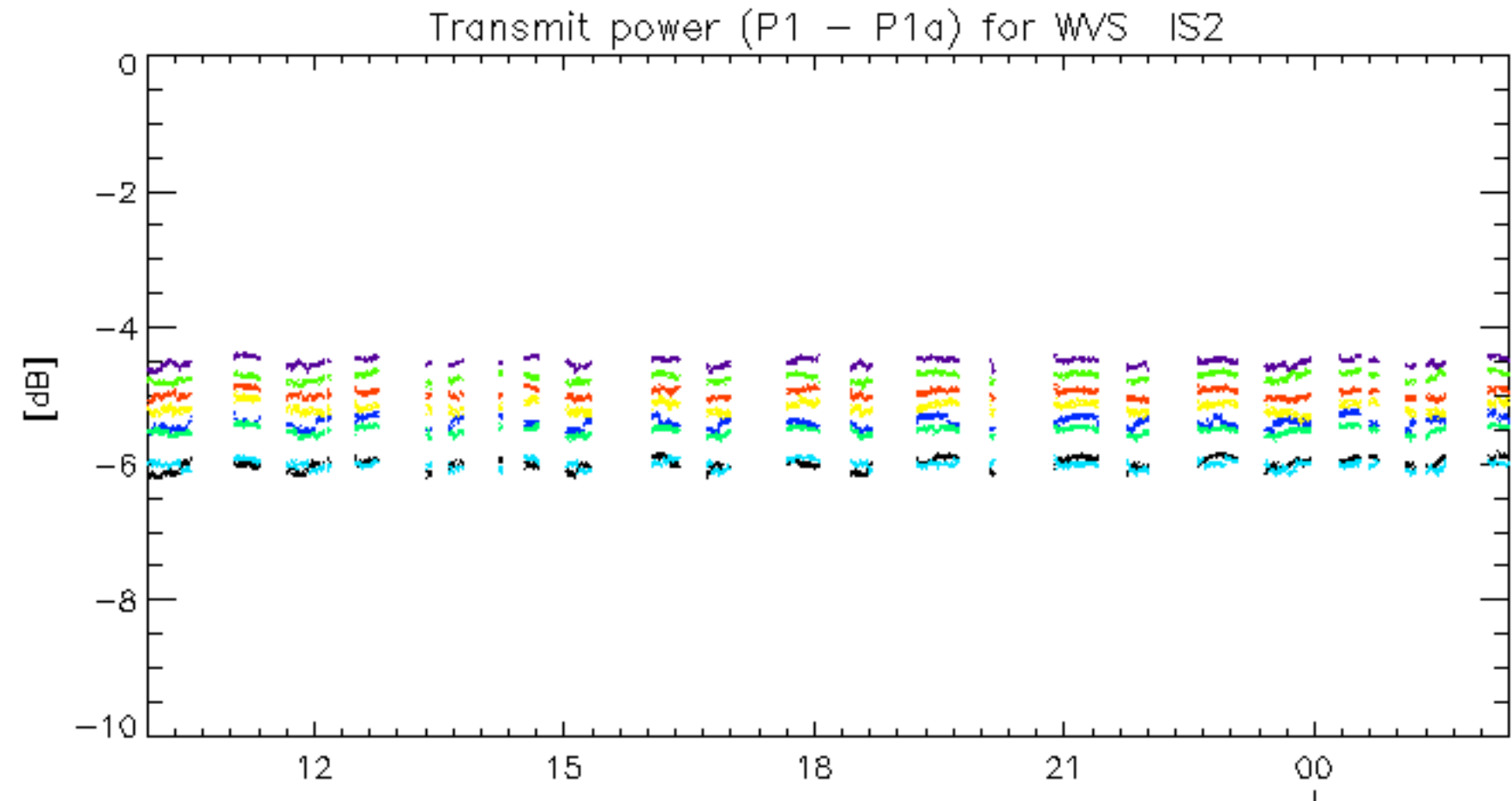


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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No unavailabilities during the reported period.