

PRELIMINARY REPORT OF 060924

last update on Sun Sep 24 11:00:01 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 2006-09-23 00:00:00 to 2006-09-24 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	23	45	10	3	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	23	45	10	3	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	23	45	10	3	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	23	45	10	3	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	32	44	34	16	41
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	32	44	34	16	41
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	32	44	34	16	41
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	32	44	34	16	41

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	20060922 033419
H	20060923 030243

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	-3.941989	0.009968	-0.011839
7	P1	-3.062503	0.010546	-0.031193
11	P1	-4.060120	0.018644	-0.024320
15	P1	-6.184958	0.015686	-0.017106
19	P1	-3.529458	0.049860	-0.049686
22	P1	-4.574142	0.028081	-0.078652
26	P1	-3.953895	0.019058	-0.047880
30	P1	-5.803270	0.152485	-0.078787
3	P1	-16.606794	0.252107	-0.086311
7	P1	-17.005457	0.299308	-0.494726
11	P1	-16.801546	0.341522	-0.052228
15	P1	-12.892557	0.104982	0.125694
19	P1	-14.641201	0.456229	-0.095843
22	P1	-15.684680	0.559787	0.007510
26	P1	-15.221832	0.204260	-0.034666
30	P1	-16.937836	0.392579	-0.053743

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.819462	0.084208	0.027270
7	P2	-21.848829	0.096667	0.057571
11	P2	-15.746753	0.107653	-0.003539
15	P2	-7.092004	0.100563	-0.003638
19	P2	-9.120820	0.092573	-0.027035
22	P2	-18.123550	0.088419	-0.017330
26	P2	-16.411274	0.095523	-0.042271
30	P2	-19.471384	0.090718	-0.017126

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.182125	0.005309	-0.028899
7	P3	-8.182125	0.005309	-0.028899
11	P3	-8.182125	0.005309	-0.028899
15	P3	-8.182125	0.005309	-0.028899
19	P3	-8.182125	0.005309	-0.028899
22	P3	-8.182125	0.005309	-0.028899
26	P3	-8.182125	0.005309	-0.028899
30	P3	-8.182125	0.005309	-0.028899

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	-3.850719	0.009177	-0.045083
7	P1	-2.512701	0.029171	-0.152042
11	P1	-2.879306	0.022775	-0.054993
15	P1	-3.655770	0.028906	-0.035589
19	P1	-3.467111	0.077645	-0.016265
22	P1	-5.097176	0.035898	-0.048497
26	P1	-5.872374	0.024199	-0.015202
30	P1	-5.203682	0.076656	-0.049831
3	P1	-11.638870	0.047159	-0.038697
7	P1	-9.975054	0.057600	-0.190875
11	P1	-10.346070	0.062716	-0.084103
15	P1	-10.857591	0.149437	0.009779
19	P1	-15.691224	3.554358	0.083091
22	P1	-20.814869	1.694266	-0.390909
26	P1	-15.937662	0.388184	0.068597
30	P1	-18.054314	0.805543	-0.275732

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.408846	0.054905	0.041985
7	P2	-22.191263	0.089998	0.067158
11	P2	-10.899814	0.042545	0.005278
15	P2	-4.861070	0.037149	-0.004540
19	P2	-6.848890	0.038148	-0.019219
22	P2	-8.158136	0.032830	-0.005891
26	P2	-24.173916	0.052277	-0.038394
30	P2	-21.962643	0.041903	-0.013934

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.028766	0.003984	-0.044305
7	P3	-8.028593	0.003982	-0.044290
11	P3	-8.028617	0.003995	-0.044461
15	P3	-8.028647	0.004008	-0.044408
19	P3	-8.028721	0.004009	-0.044098
22	P3	-8.028790	0.003975	-0.044219
26	P3	-8.028816	0.003998	-0.044110
30	P3	-8.028612	0.003984	-0.044513

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	0.000549313
	stdev	1.77621e-07
MEAN Q	mean	0.000521480
	stdev	2.18848e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136403
	stdev	0.00113933
STDEV Q	mean	0.136758
	stdev	0.00115660



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006092[234]

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_1PNPDE20060922_155111_000001142051_00254_23855_6240.N1	1	0
ASA_IMM_1PNPDE20060923_002304_000002162051_00260_23861_6274.N1	1	0
ASA_WSM_1PNPDE20060923_015903_000001462051_00261_23862_3490.N1	0	76
ASA_WSM_1PNPDE20060923_170154_000002452051_00270_23871_3584.N1	0	9
ASA_WSM_1PNPDE20060923_184505_000003062051_00271_23872_3602.N1	0	60







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)



Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

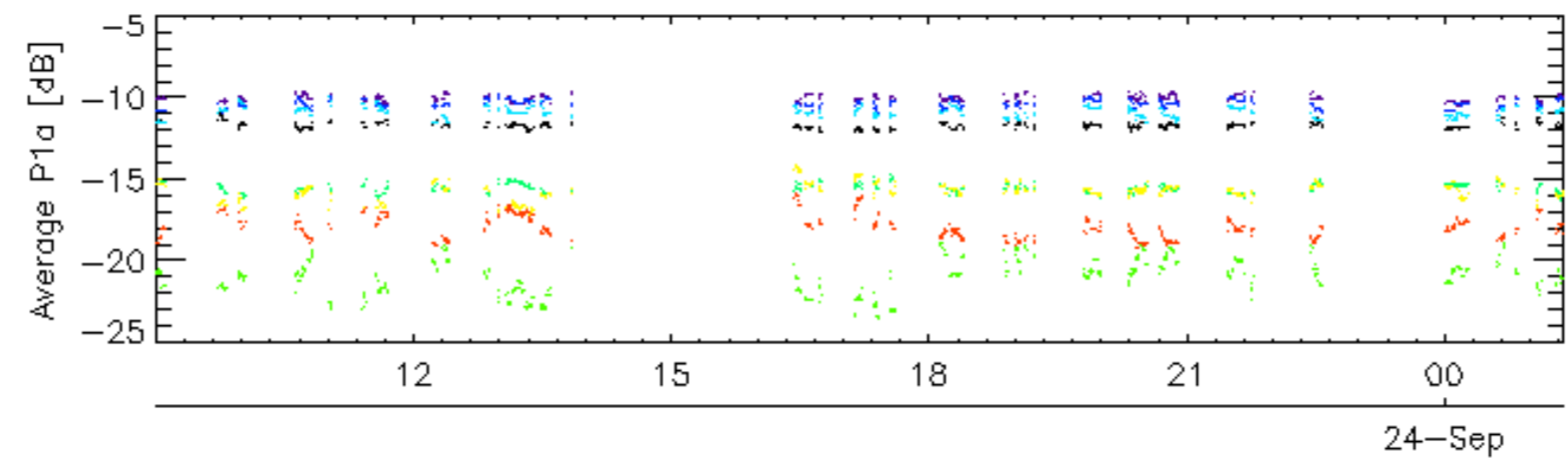
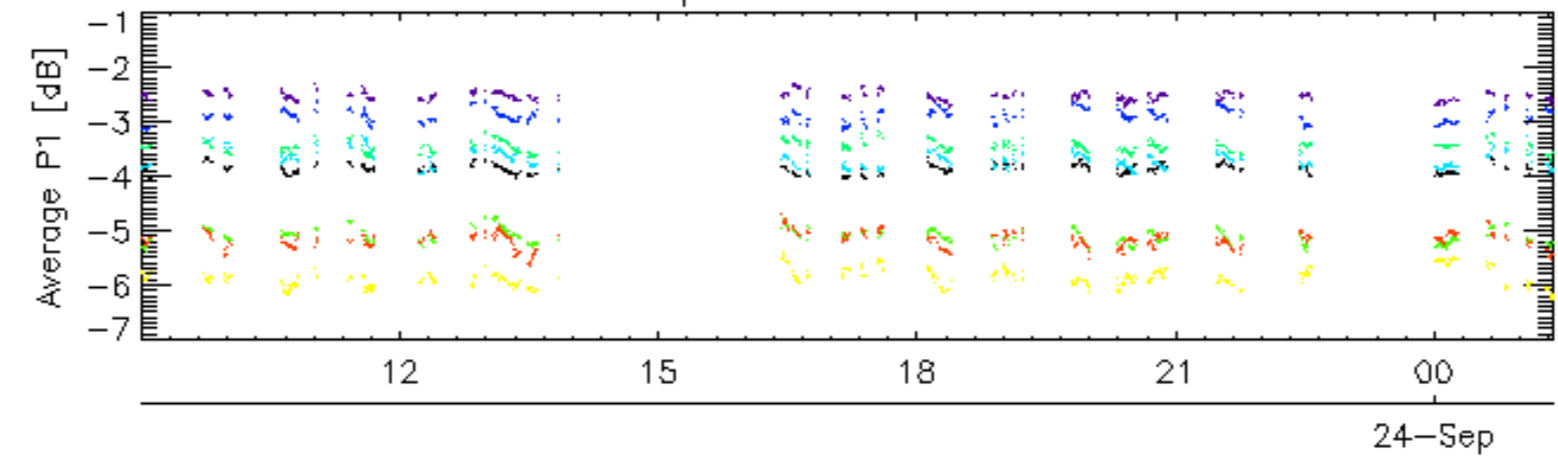
Ascending

Descending

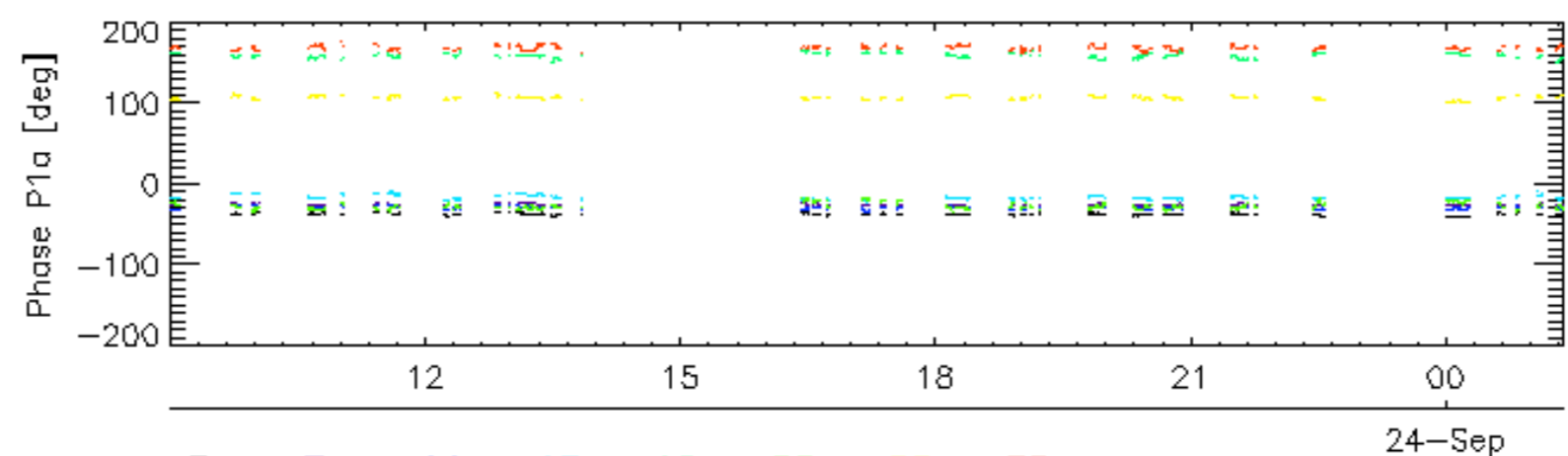
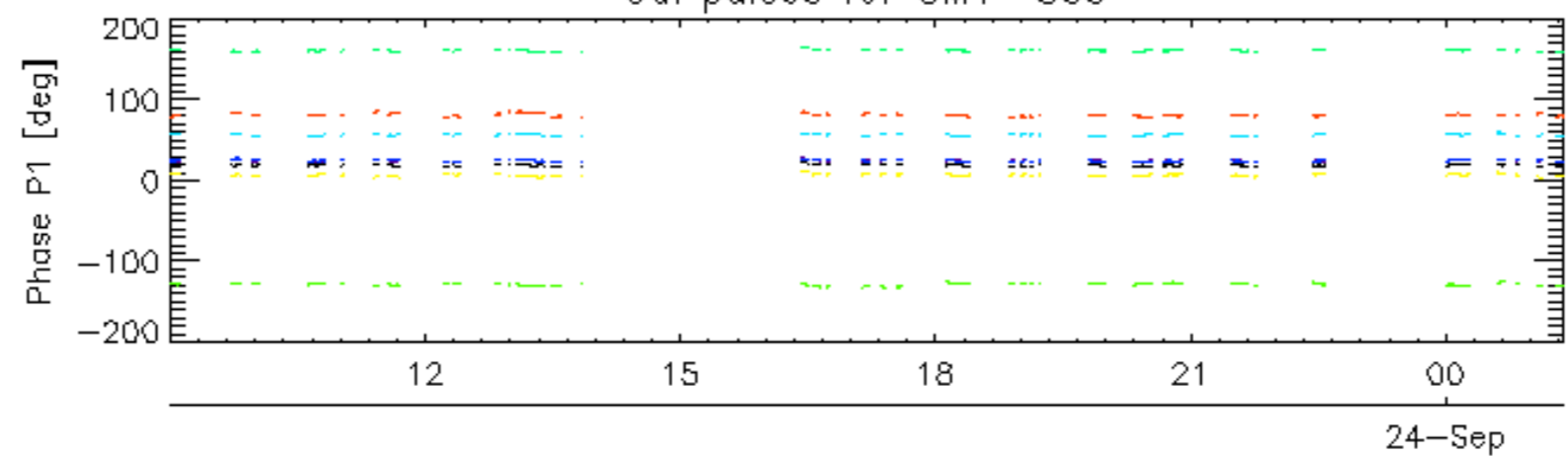
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

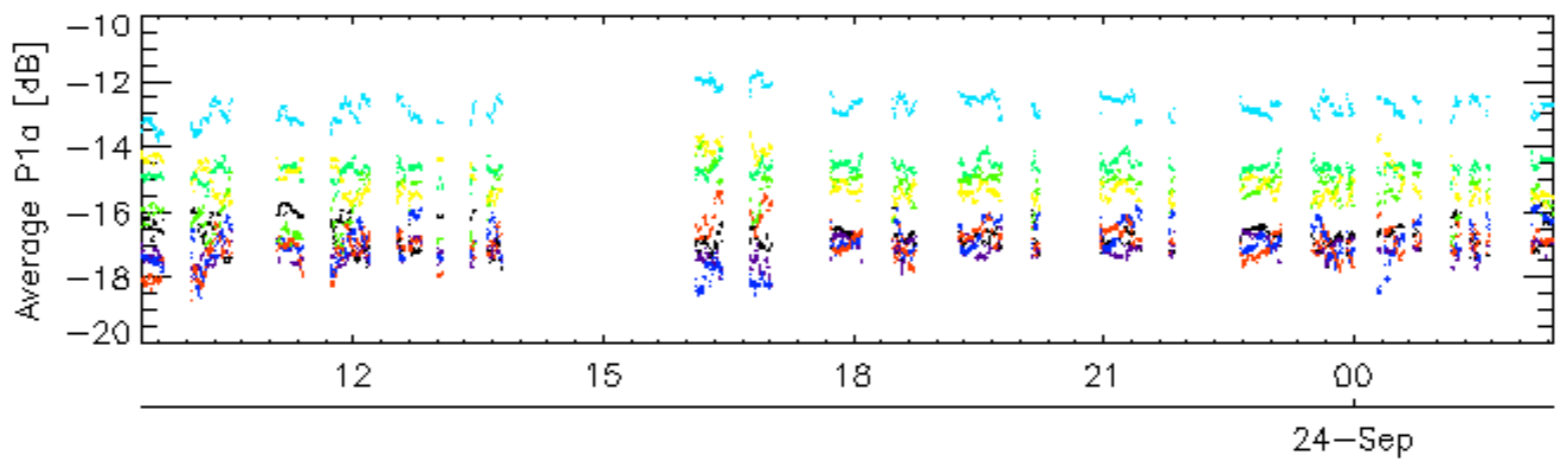
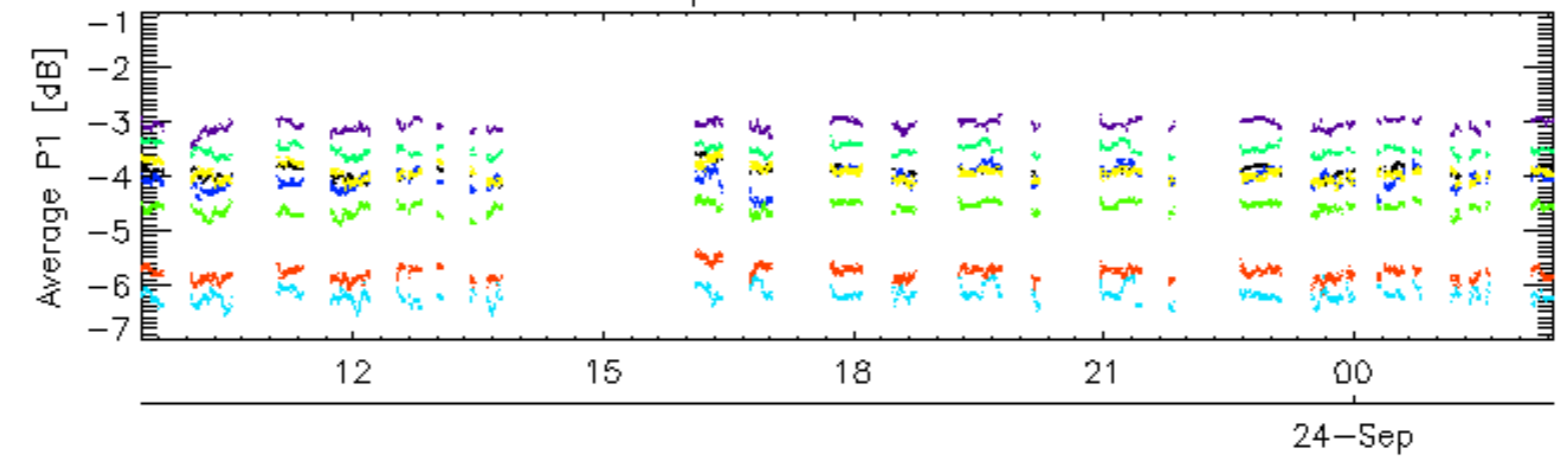


Cal pulses for GM1 SS3

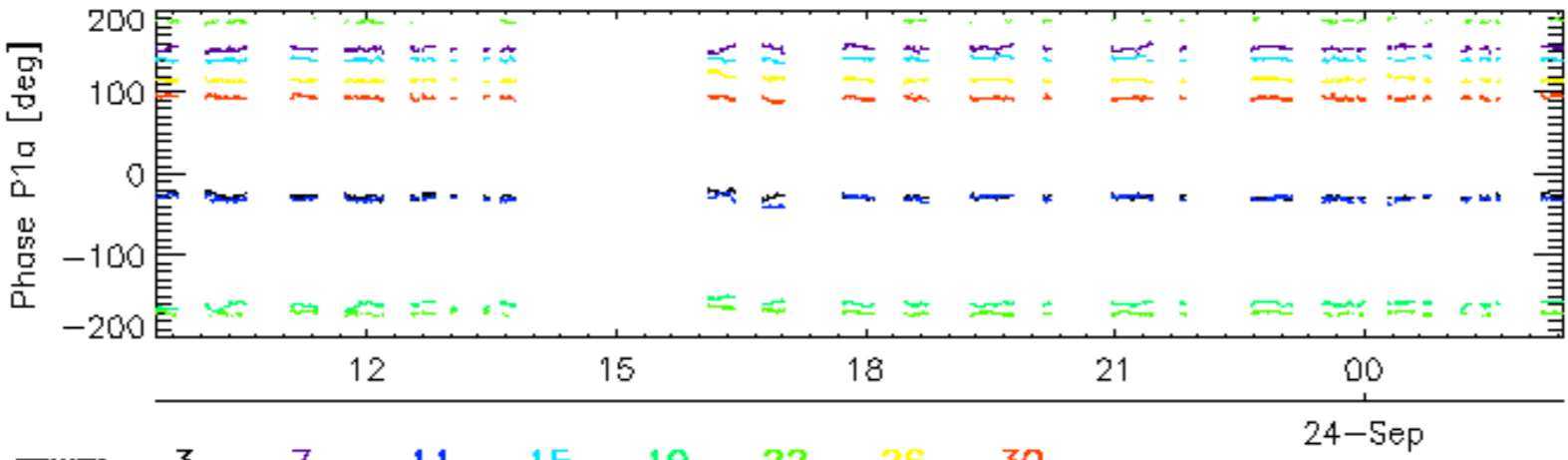
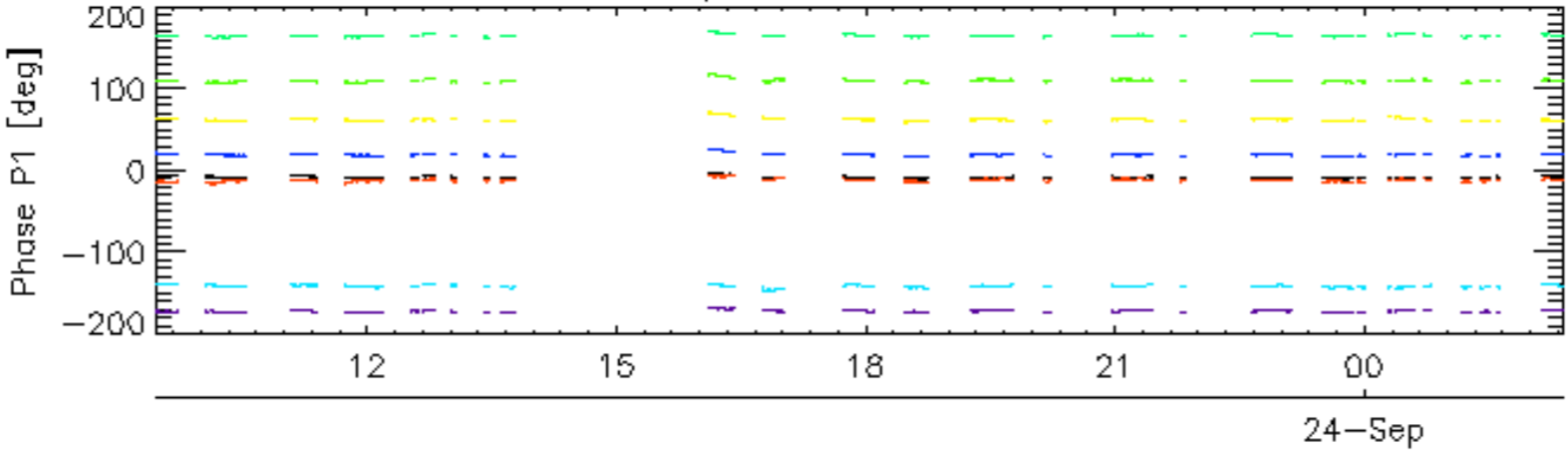


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

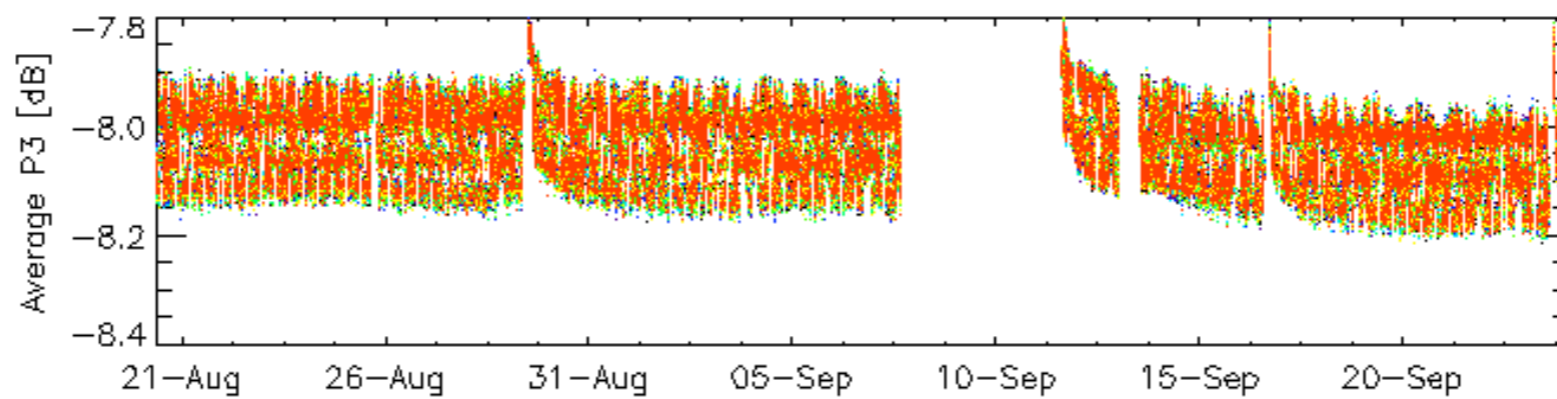
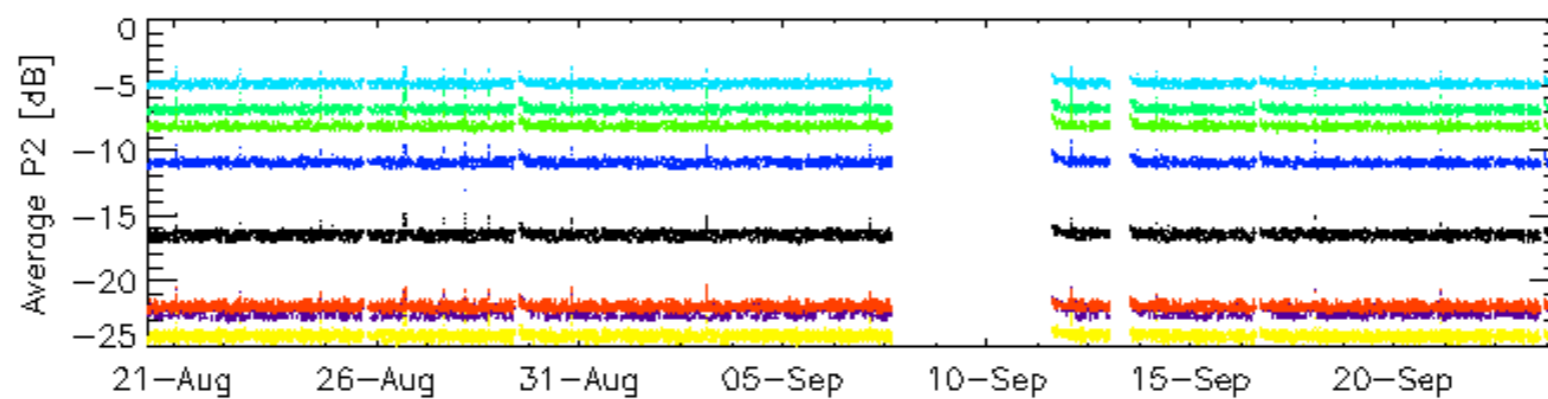
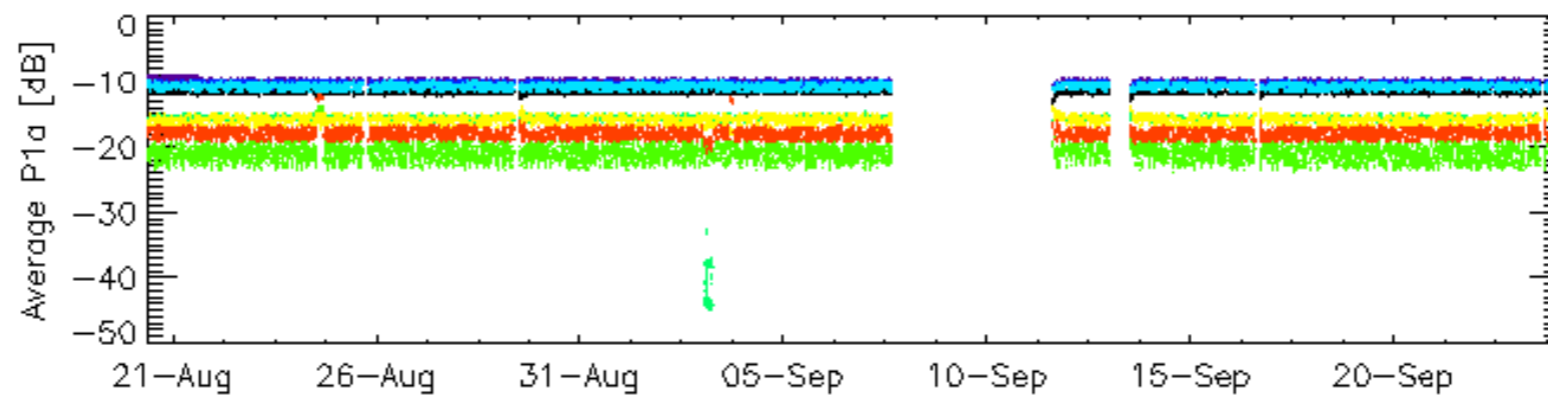
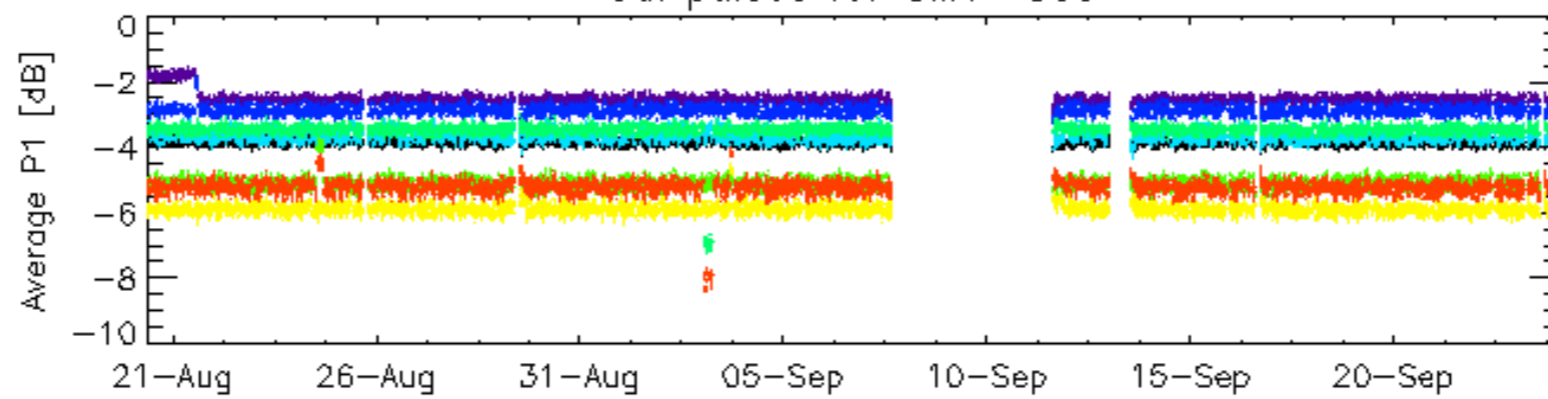


Cal pulses for WVS IS2



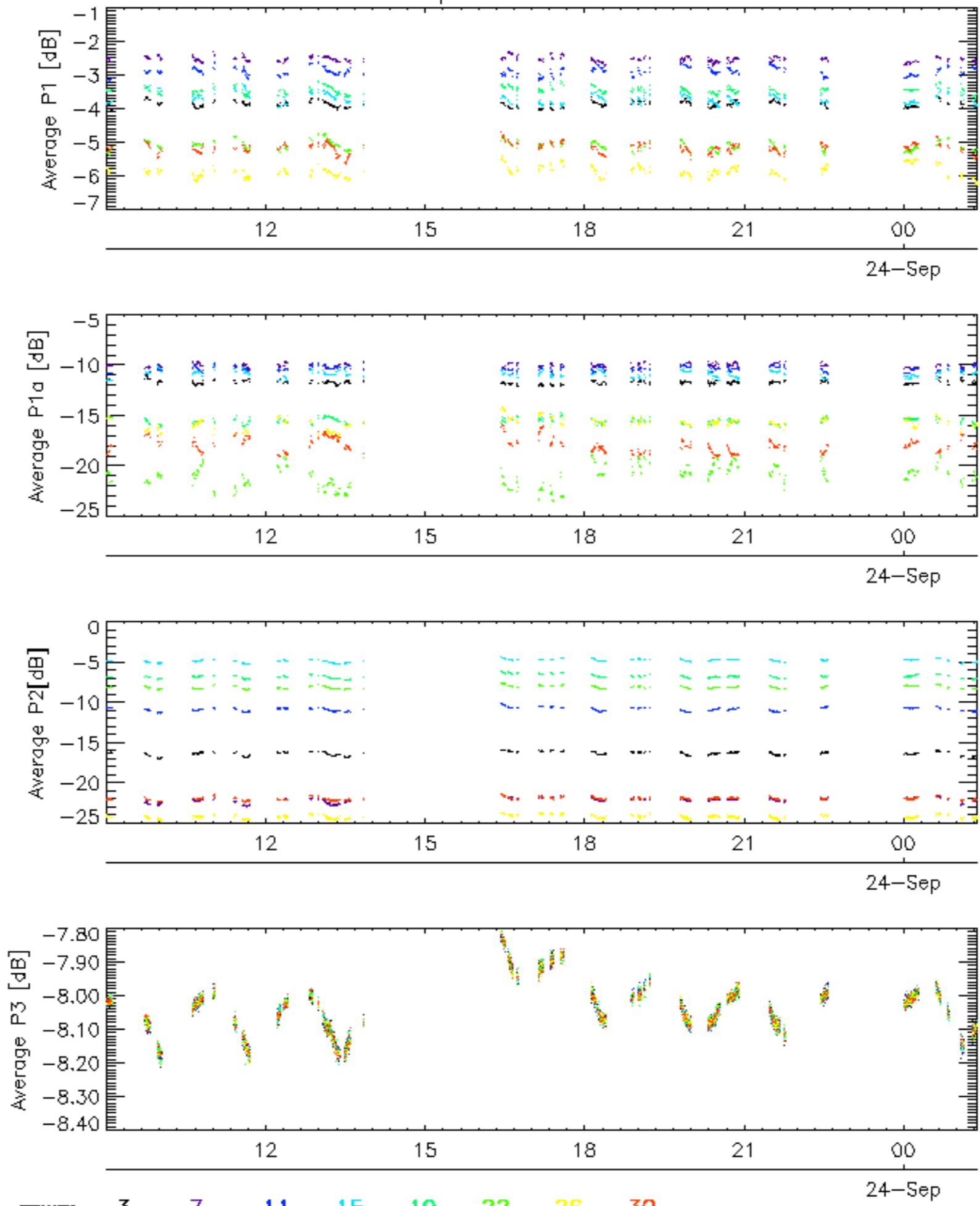
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

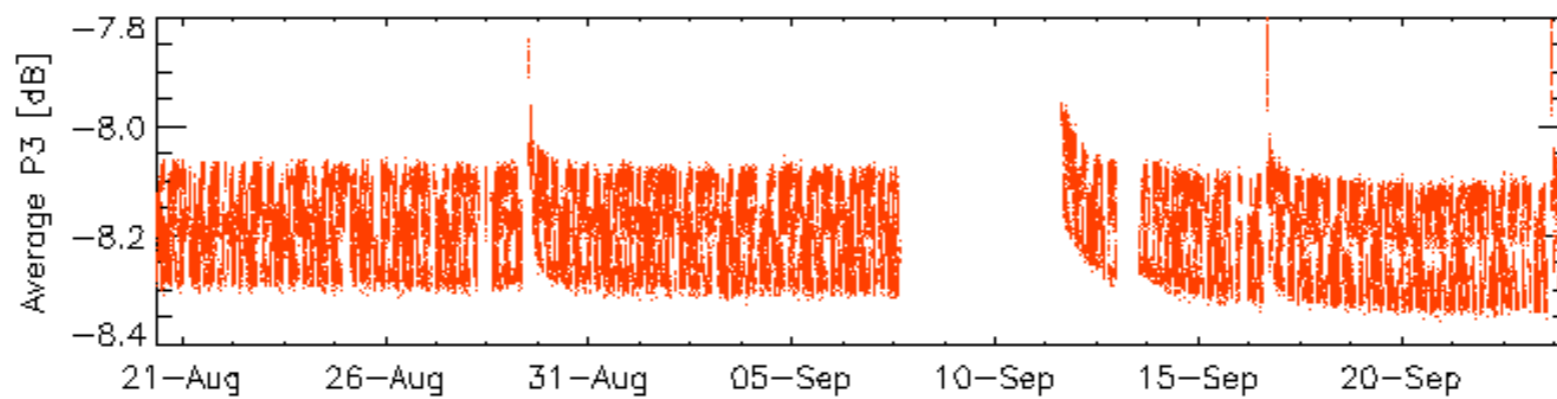
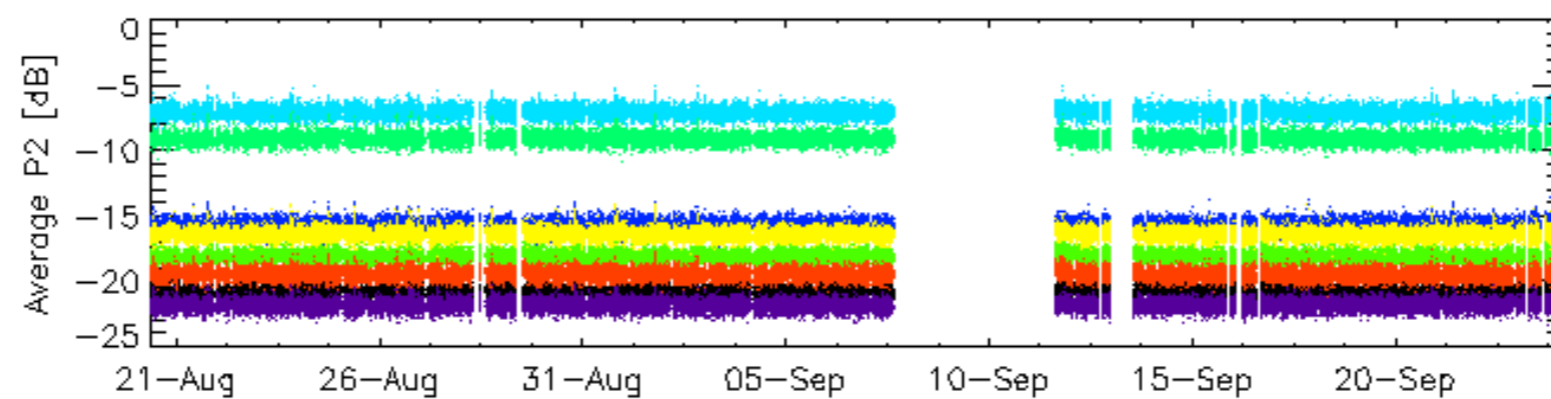
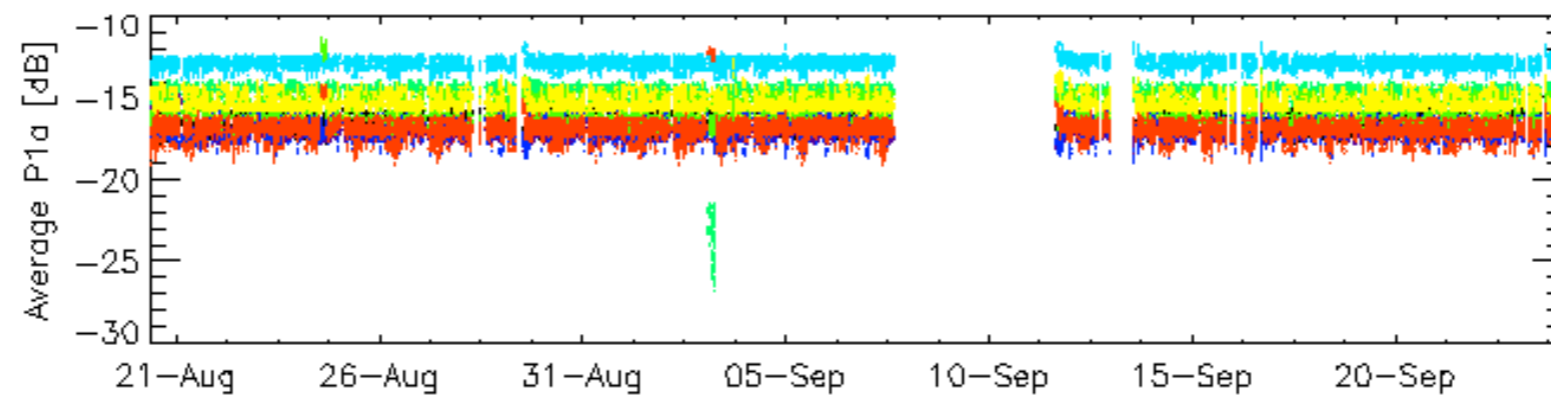
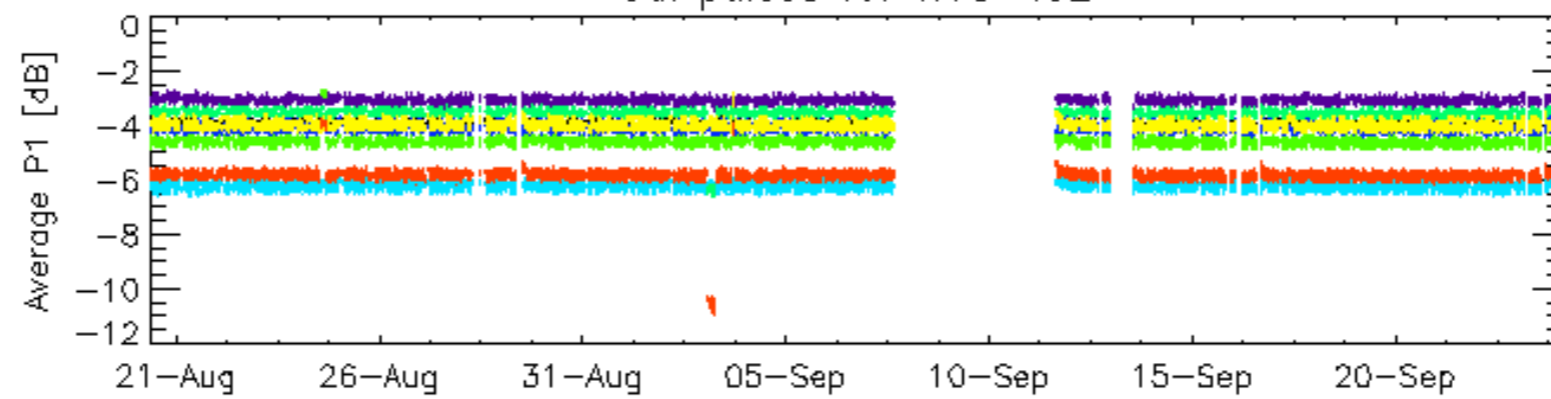


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

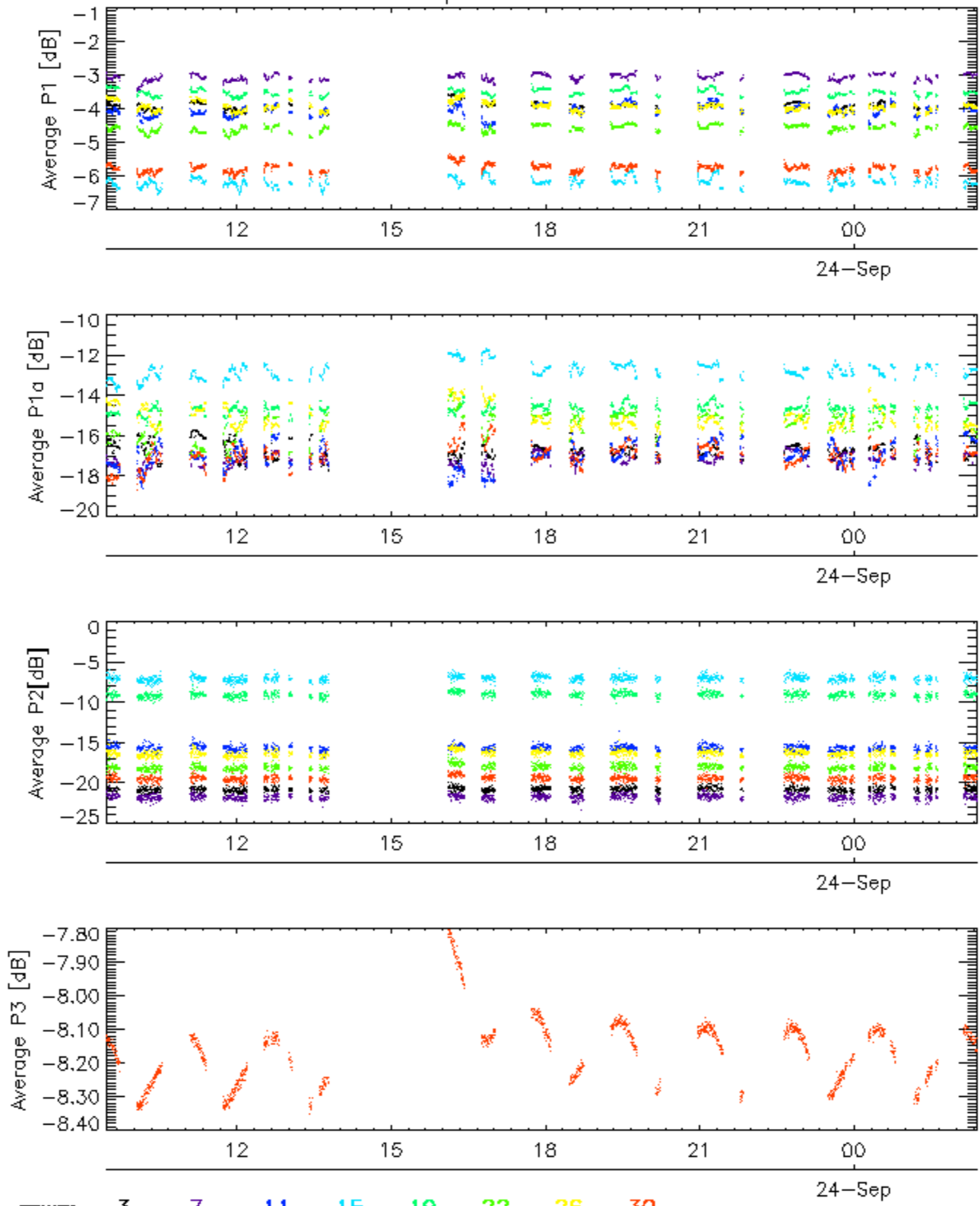


Cal pulses for WVS IS2



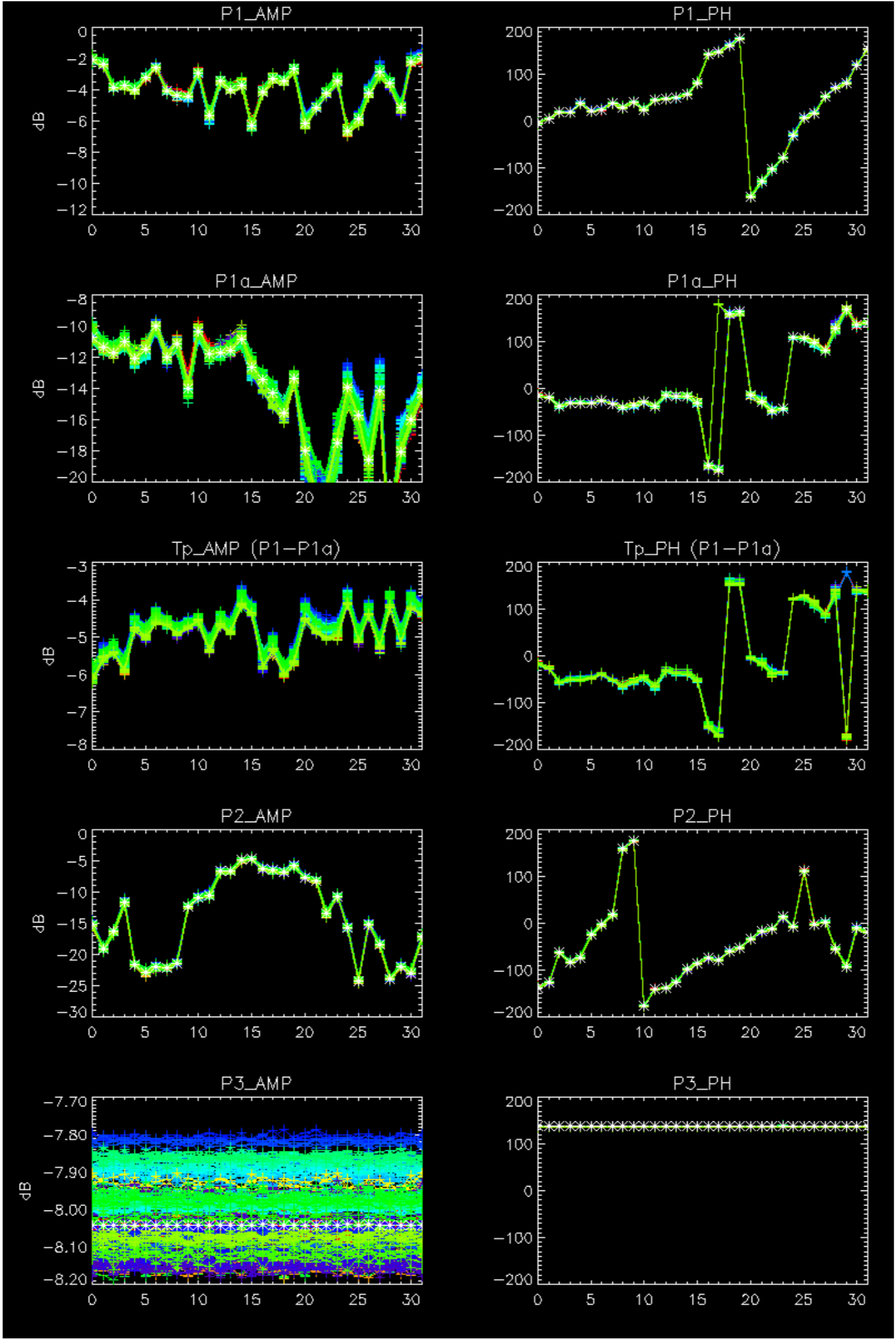
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

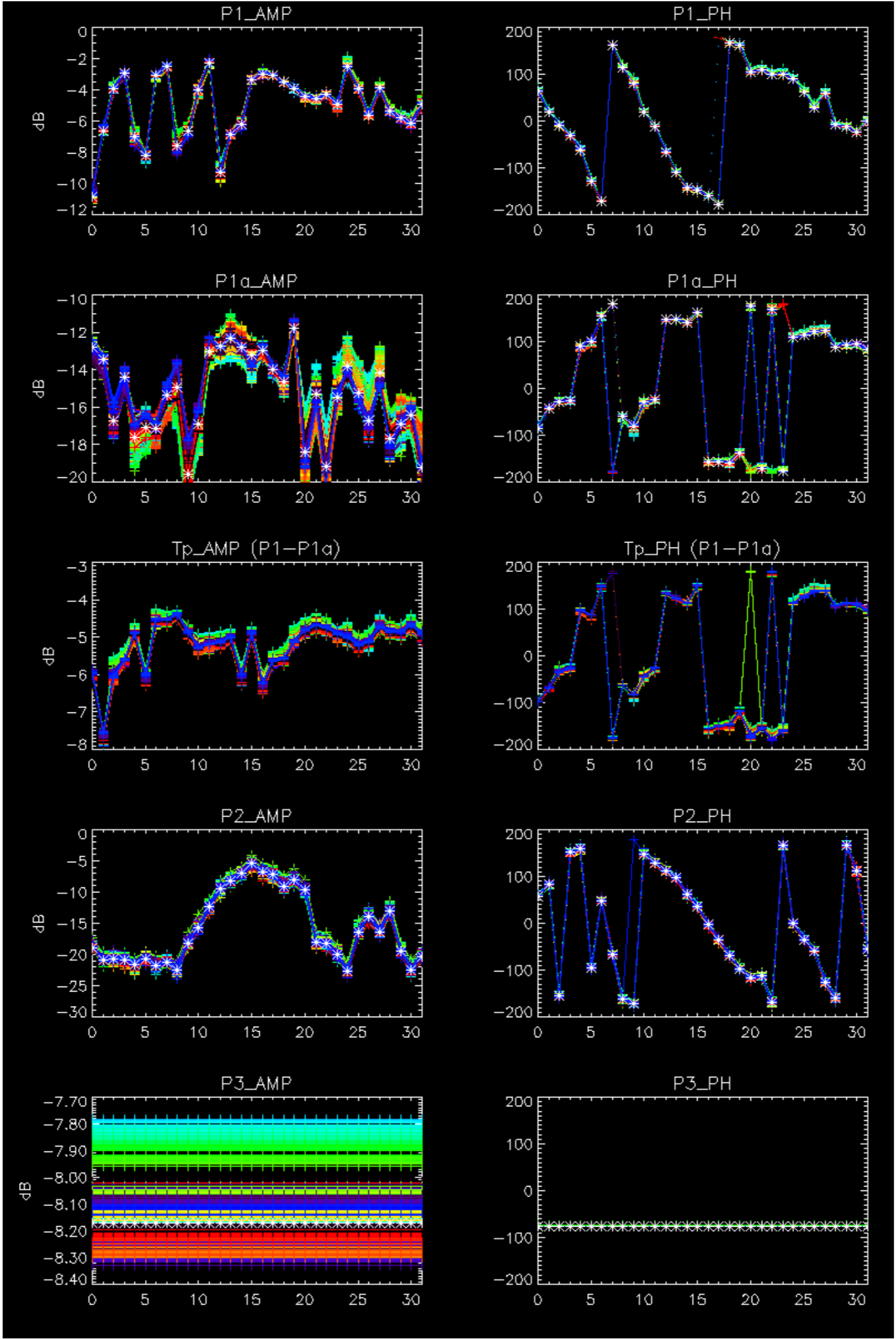
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

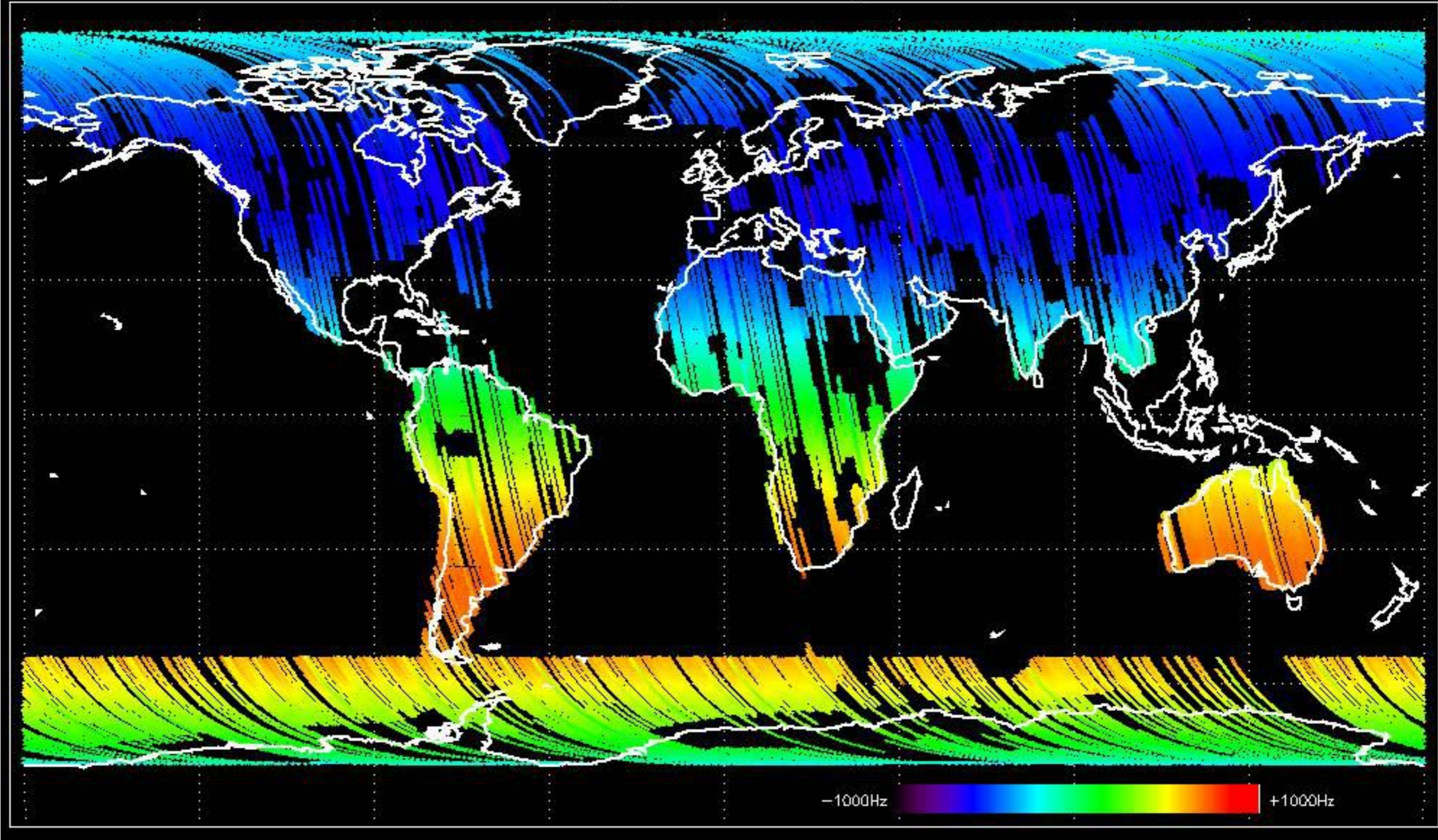
No anomalies observed.



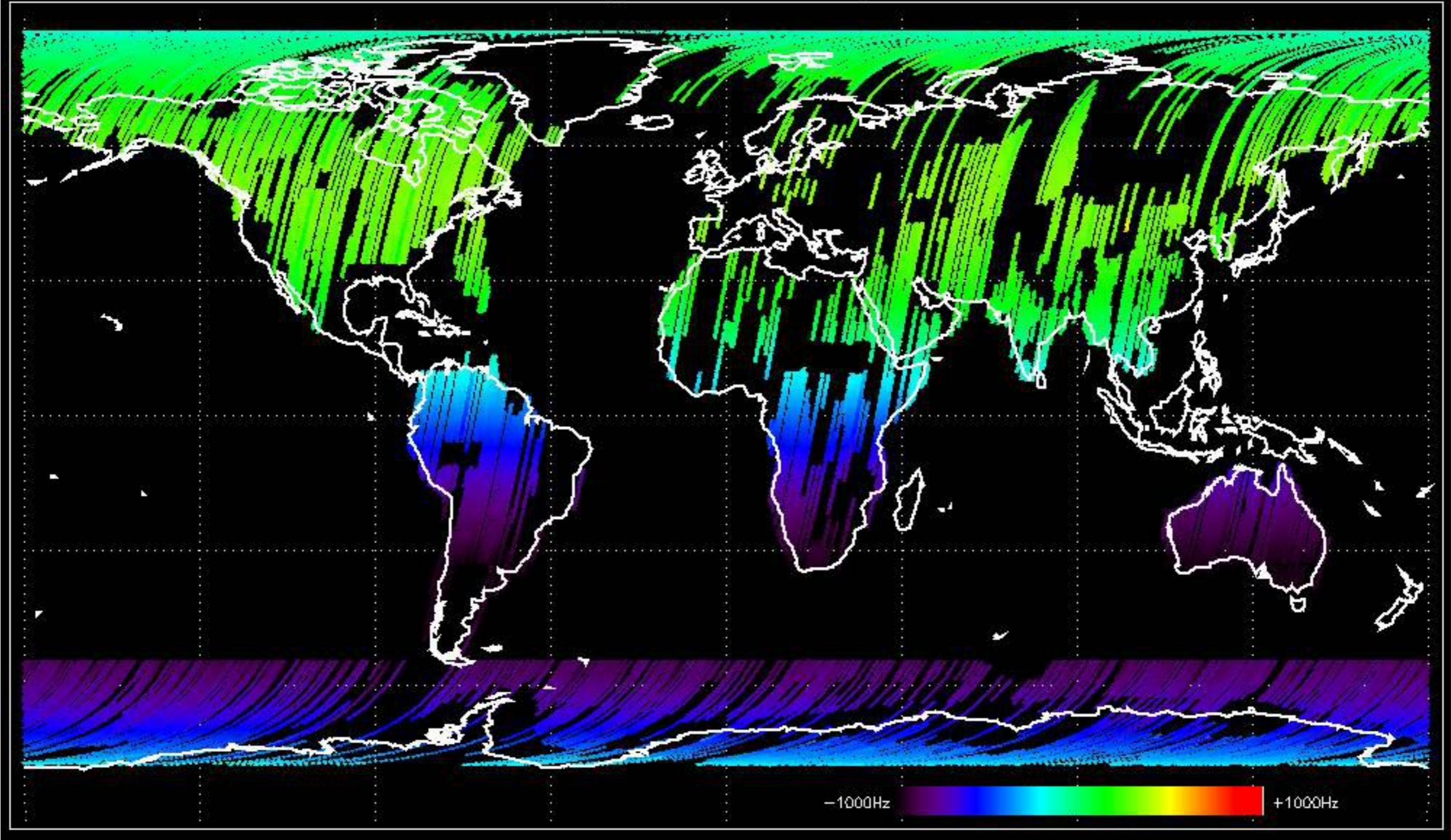


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

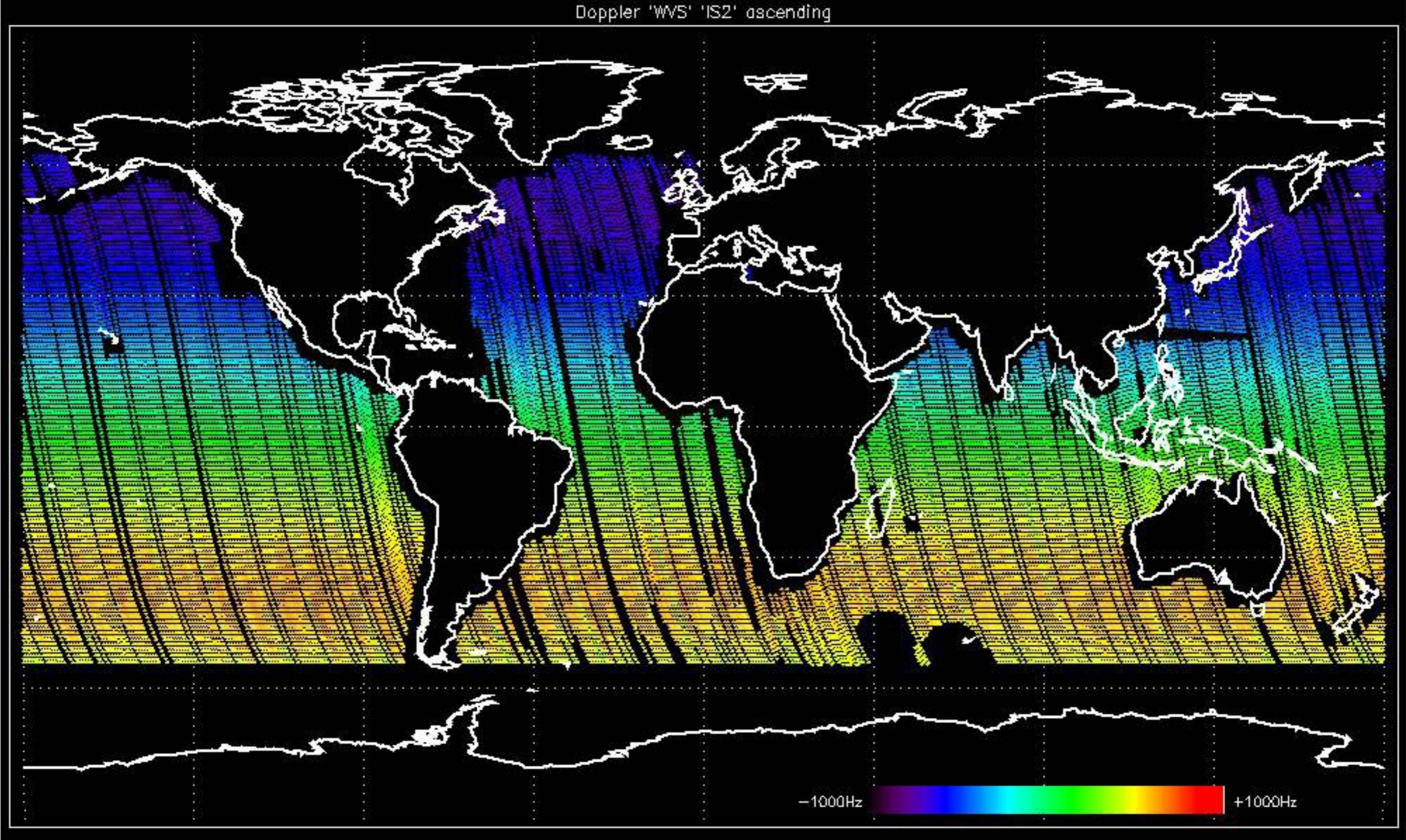
Doppler 'GM1' 'SS1' ascending



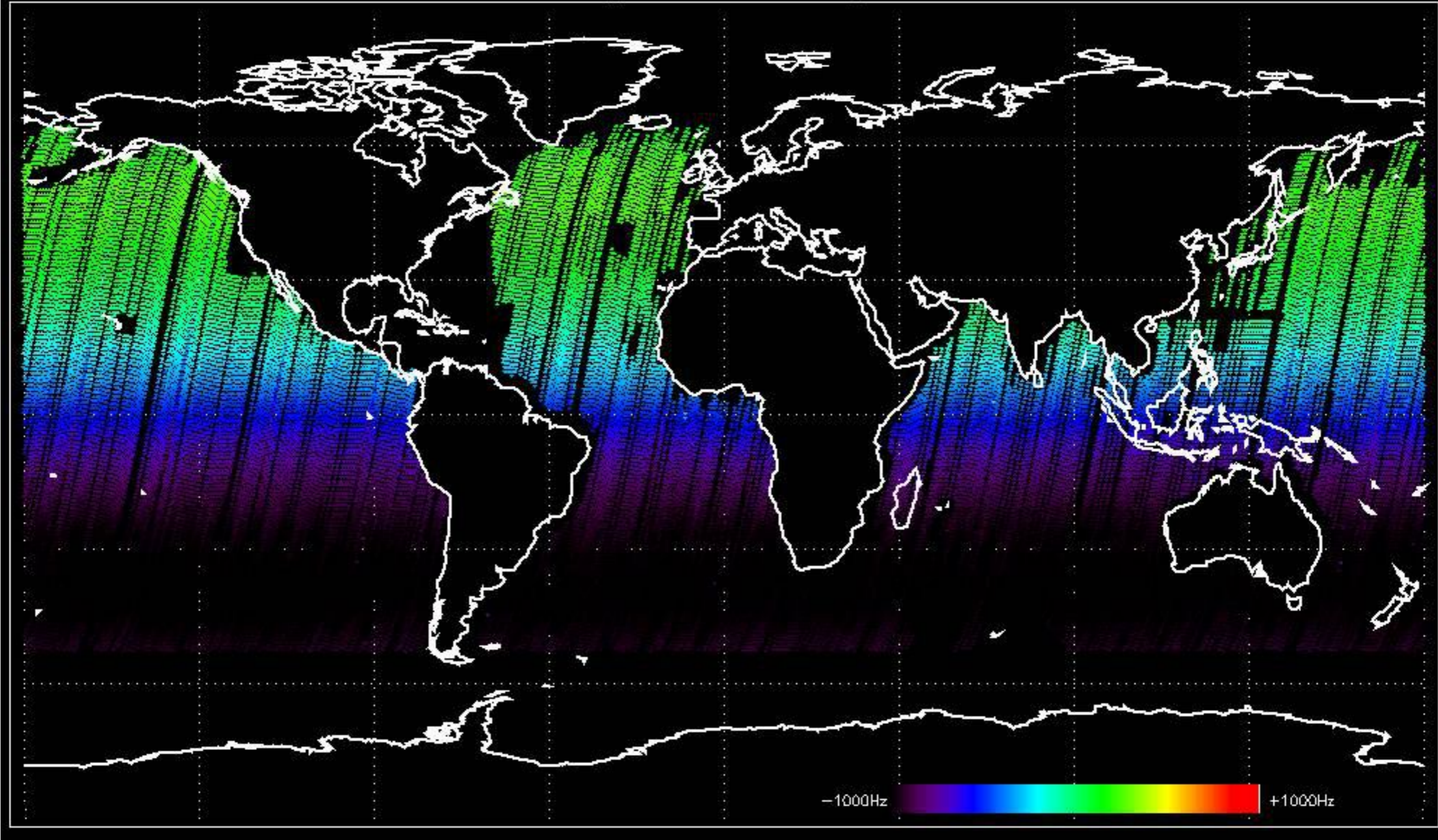
Doppler 'GM1' 'SS1' descending

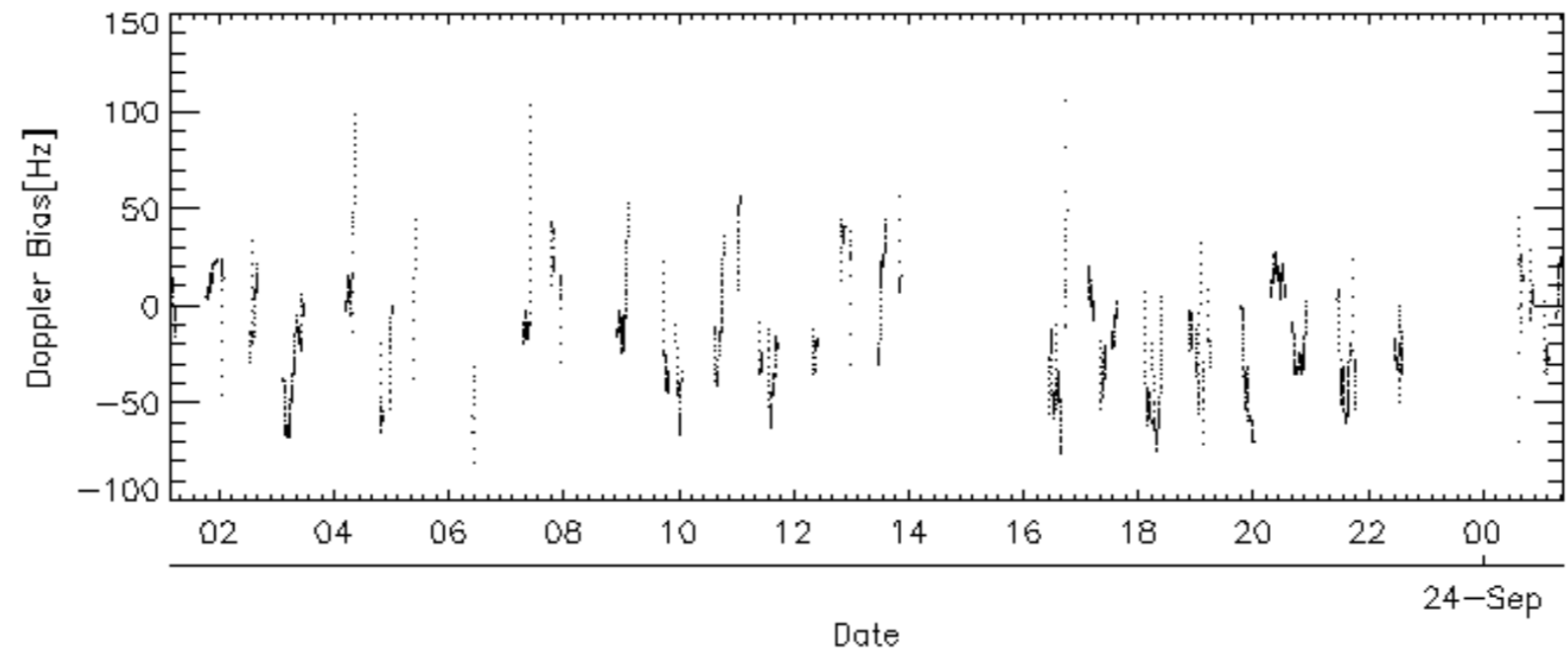
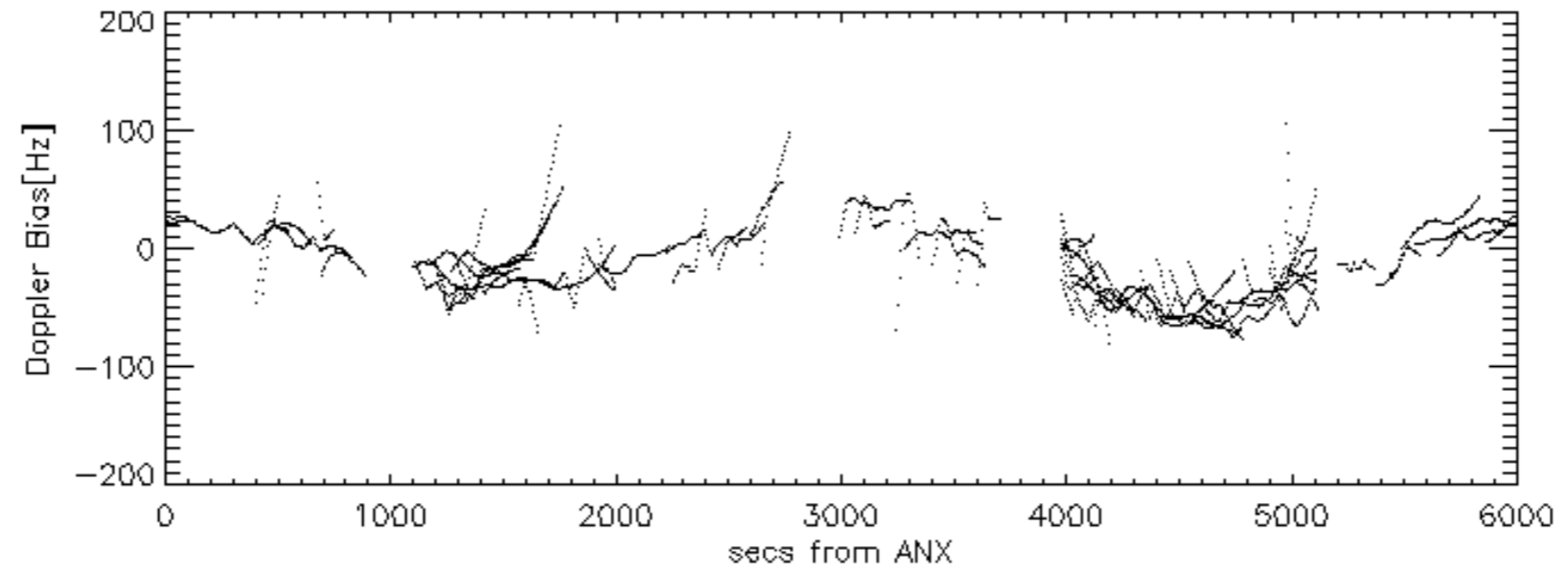
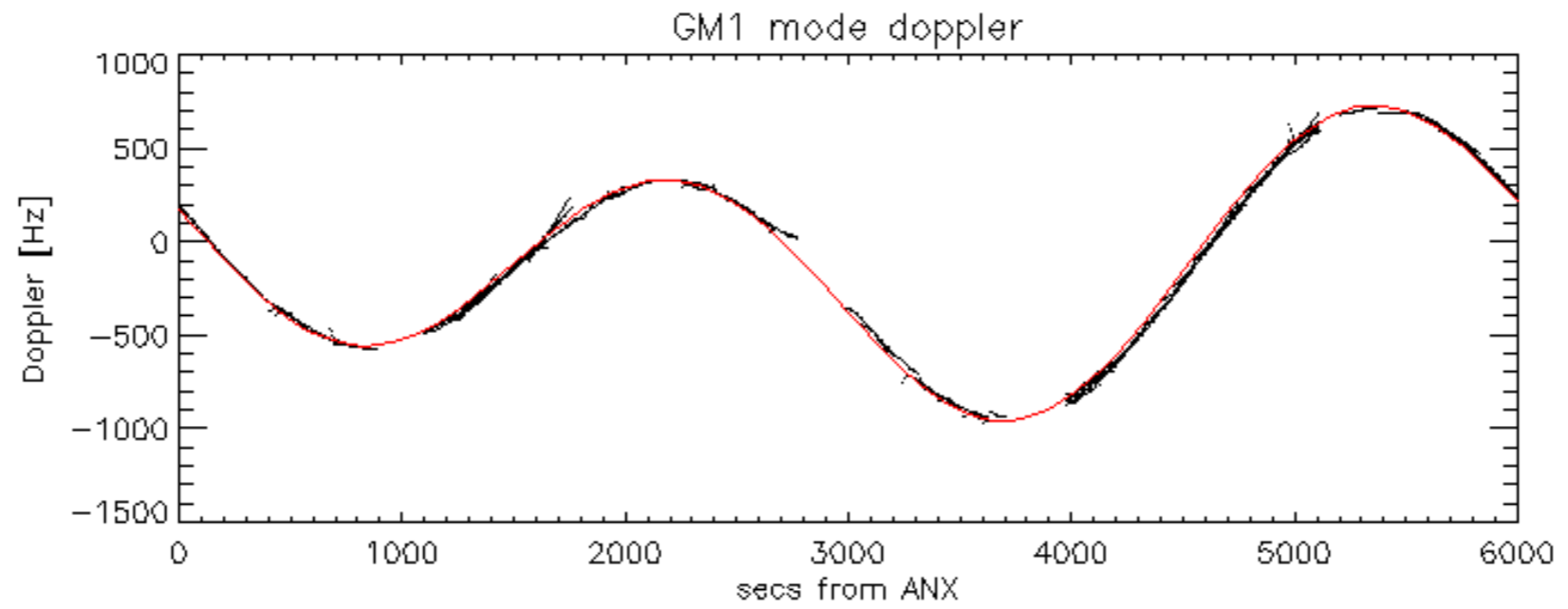


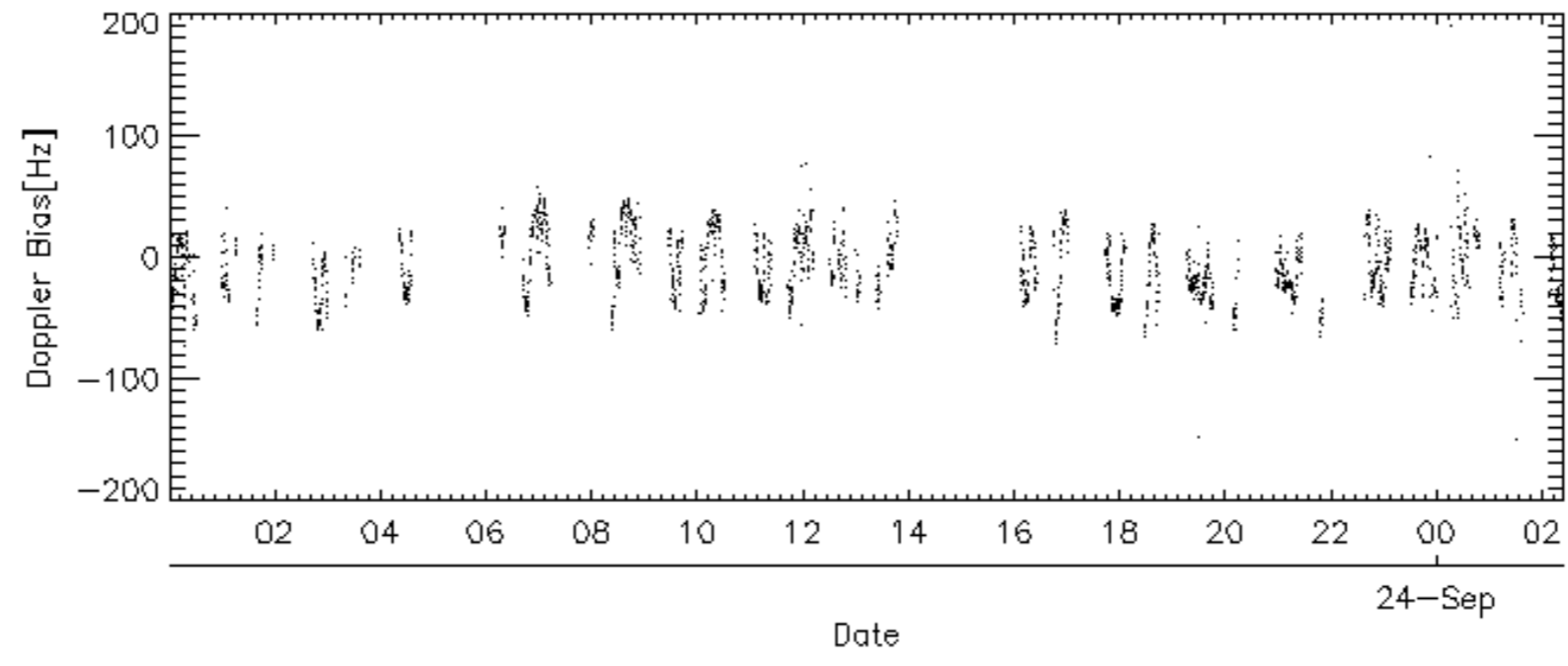
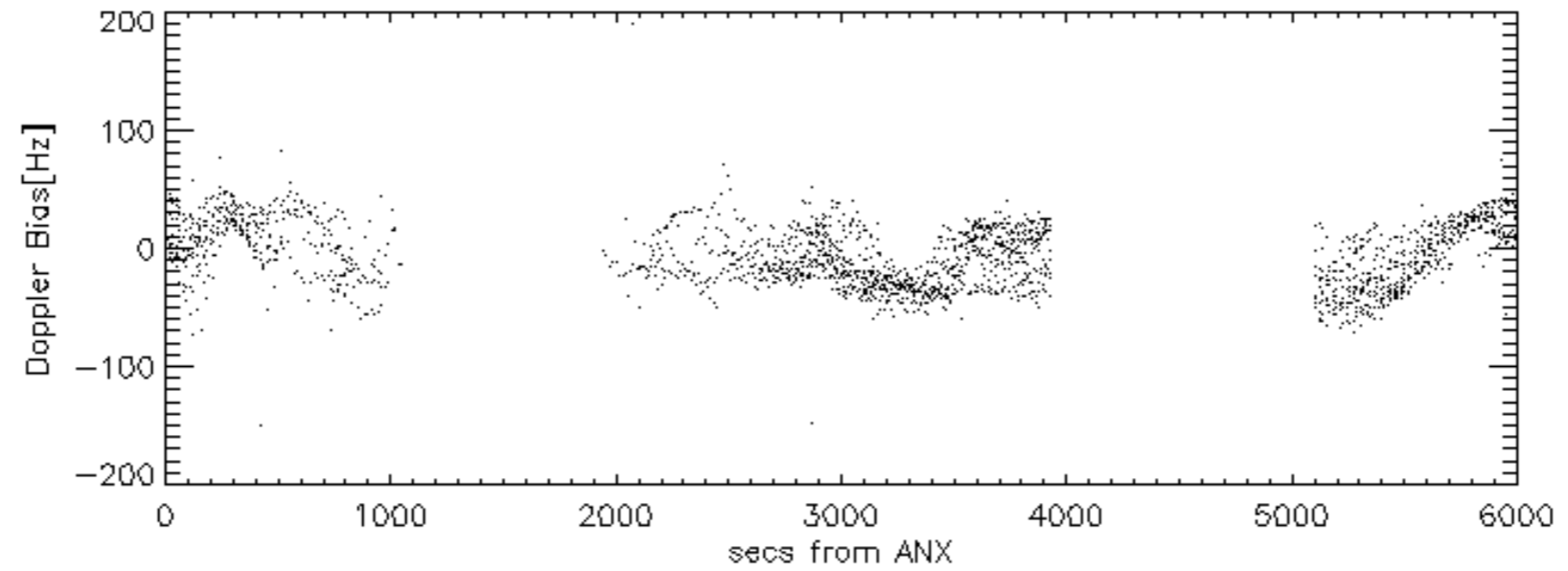
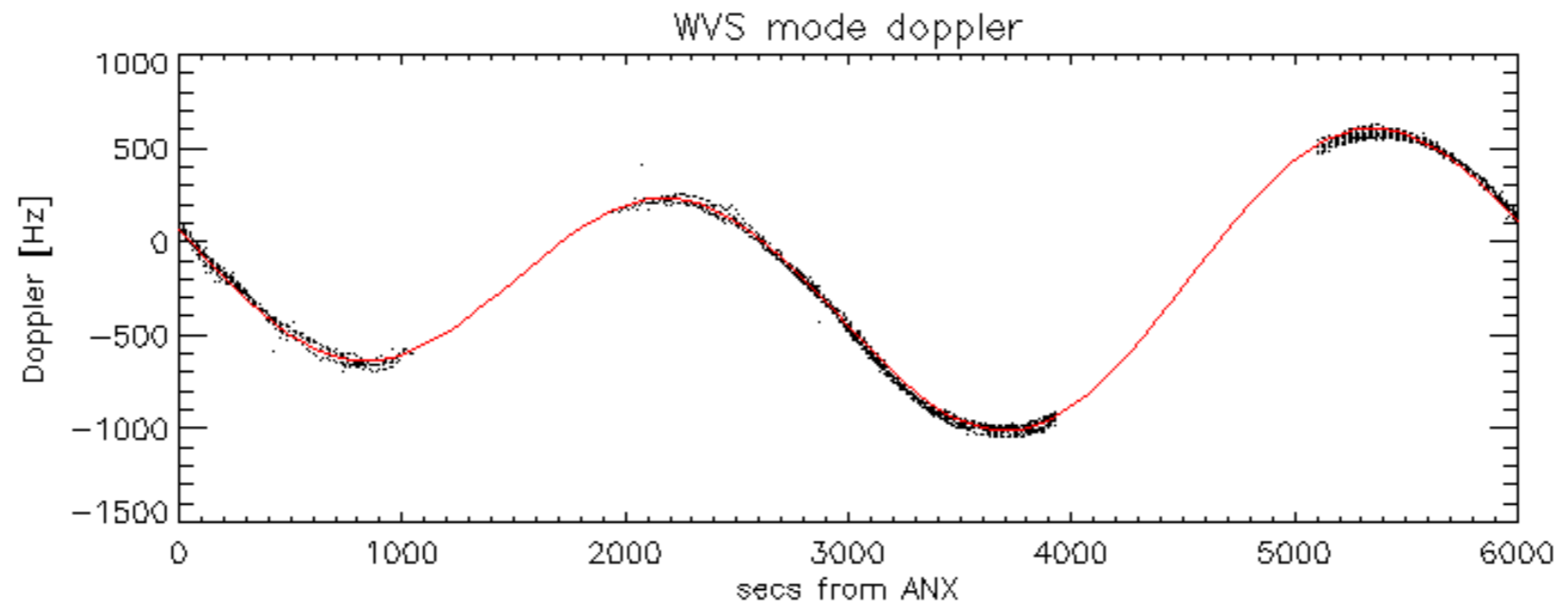
Doppler 'WVS' 'IS2' ascending



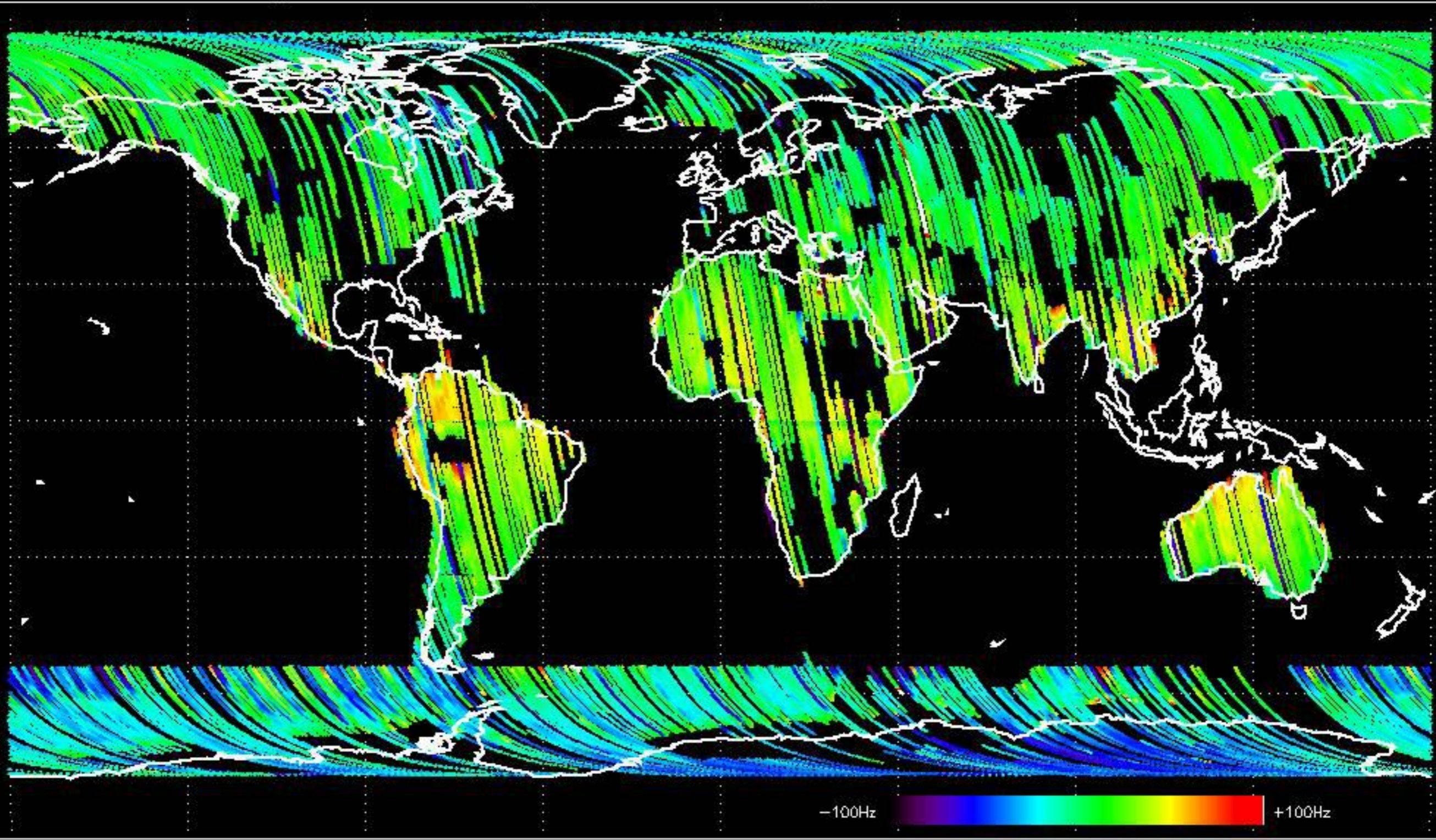
Doppler 'WVS' 'IS2' descending



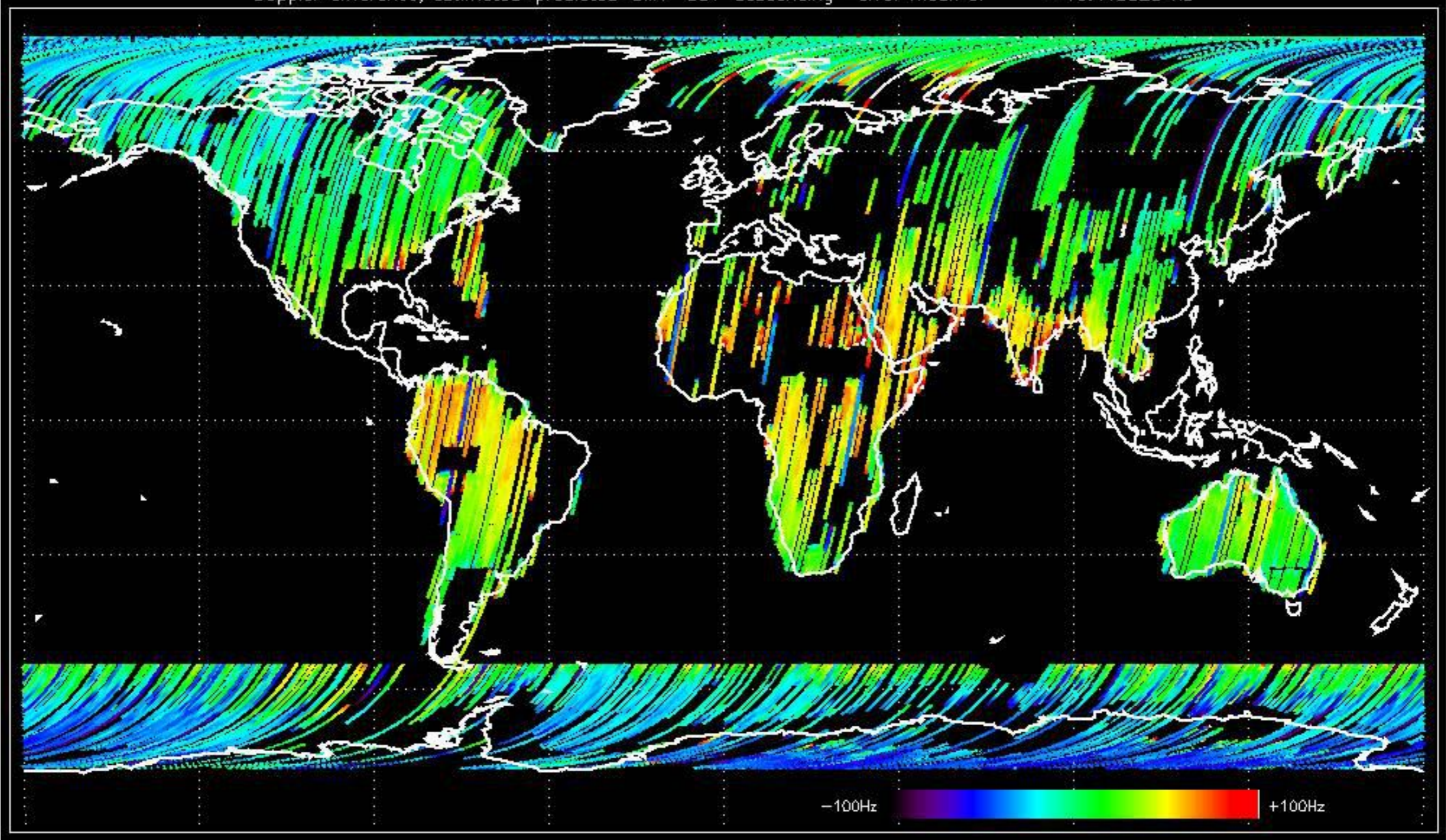




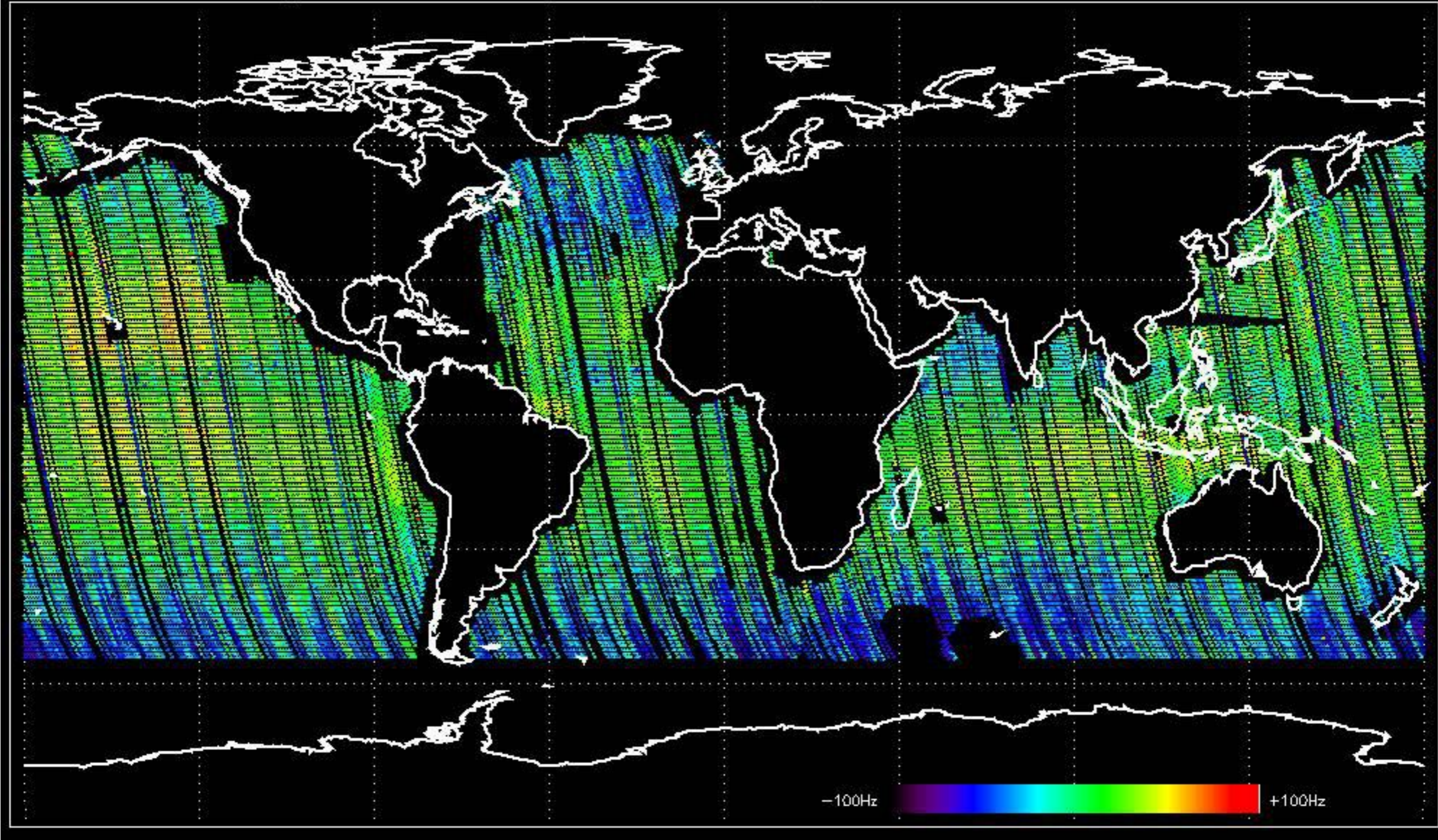
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.152249 Hz



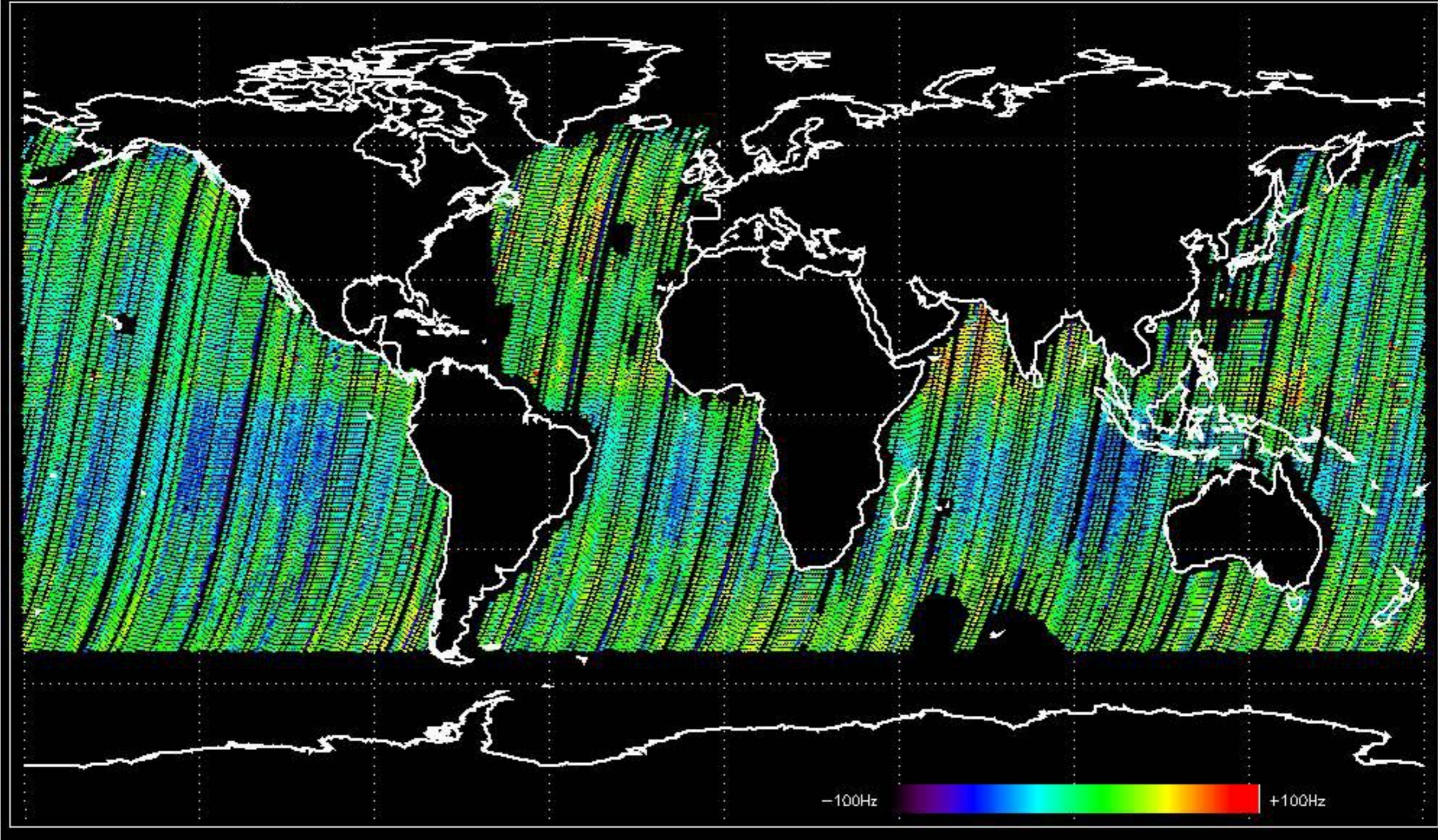
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.448328 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.754829 Hz

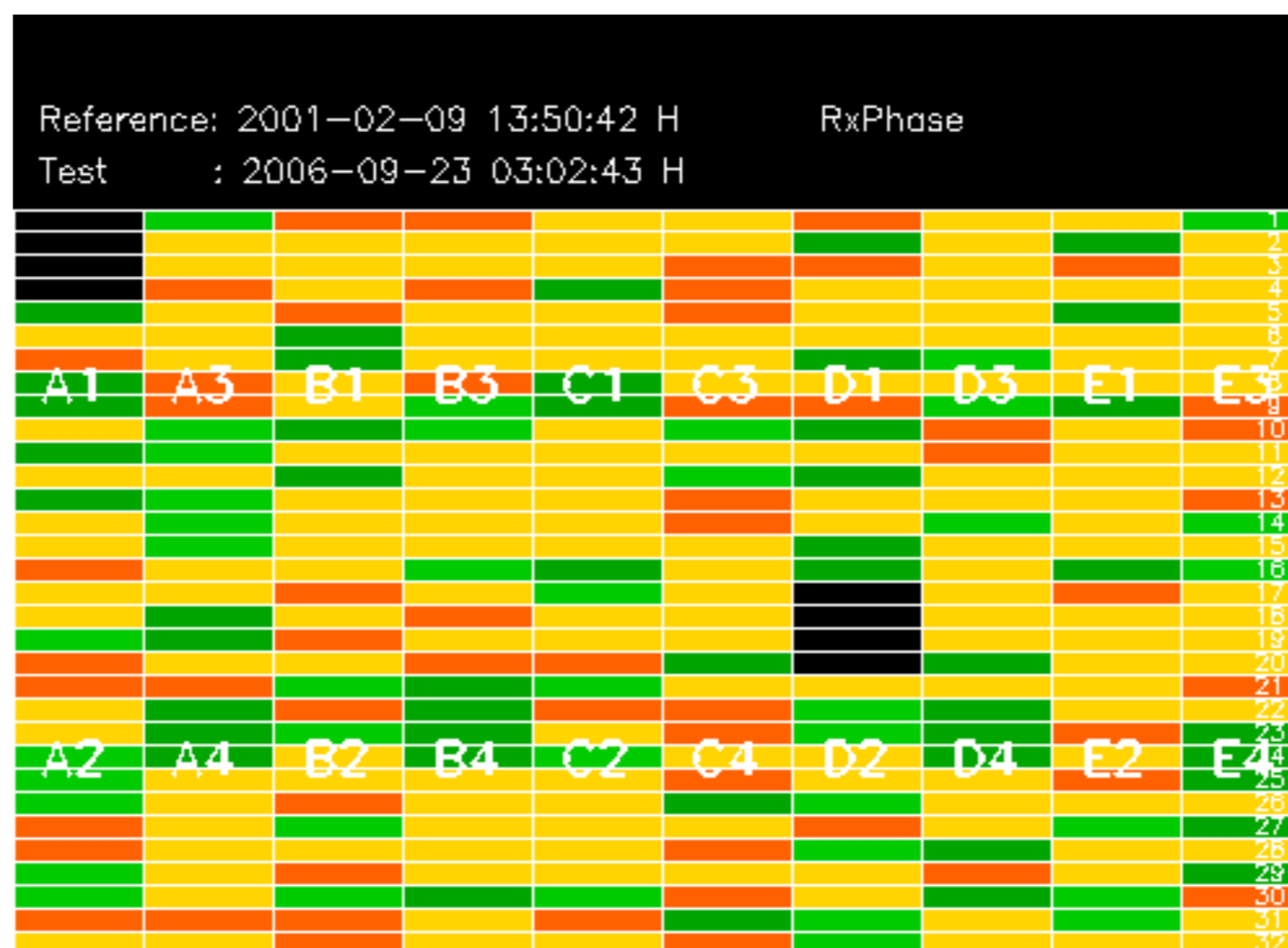


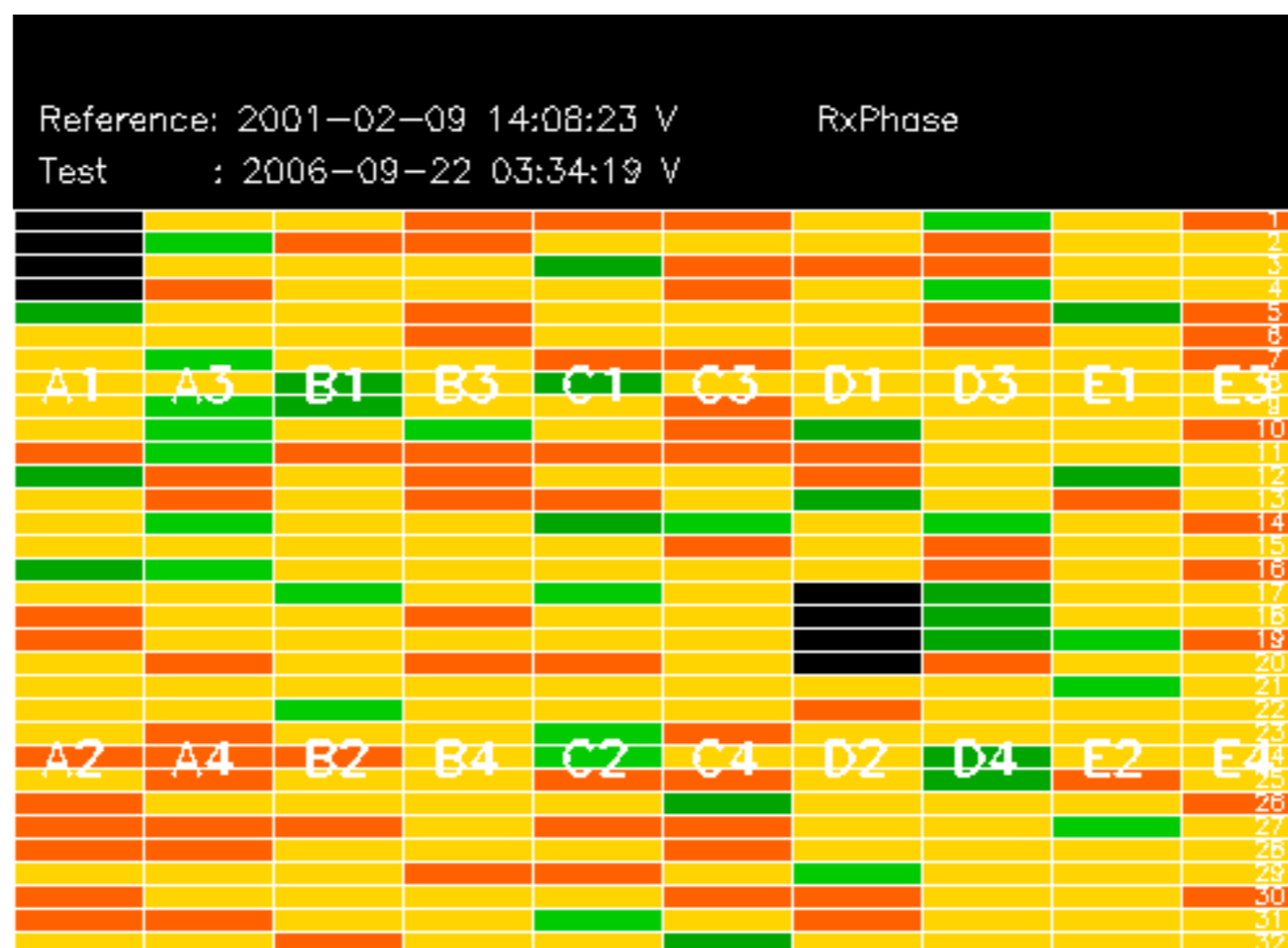
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.952915 Hz

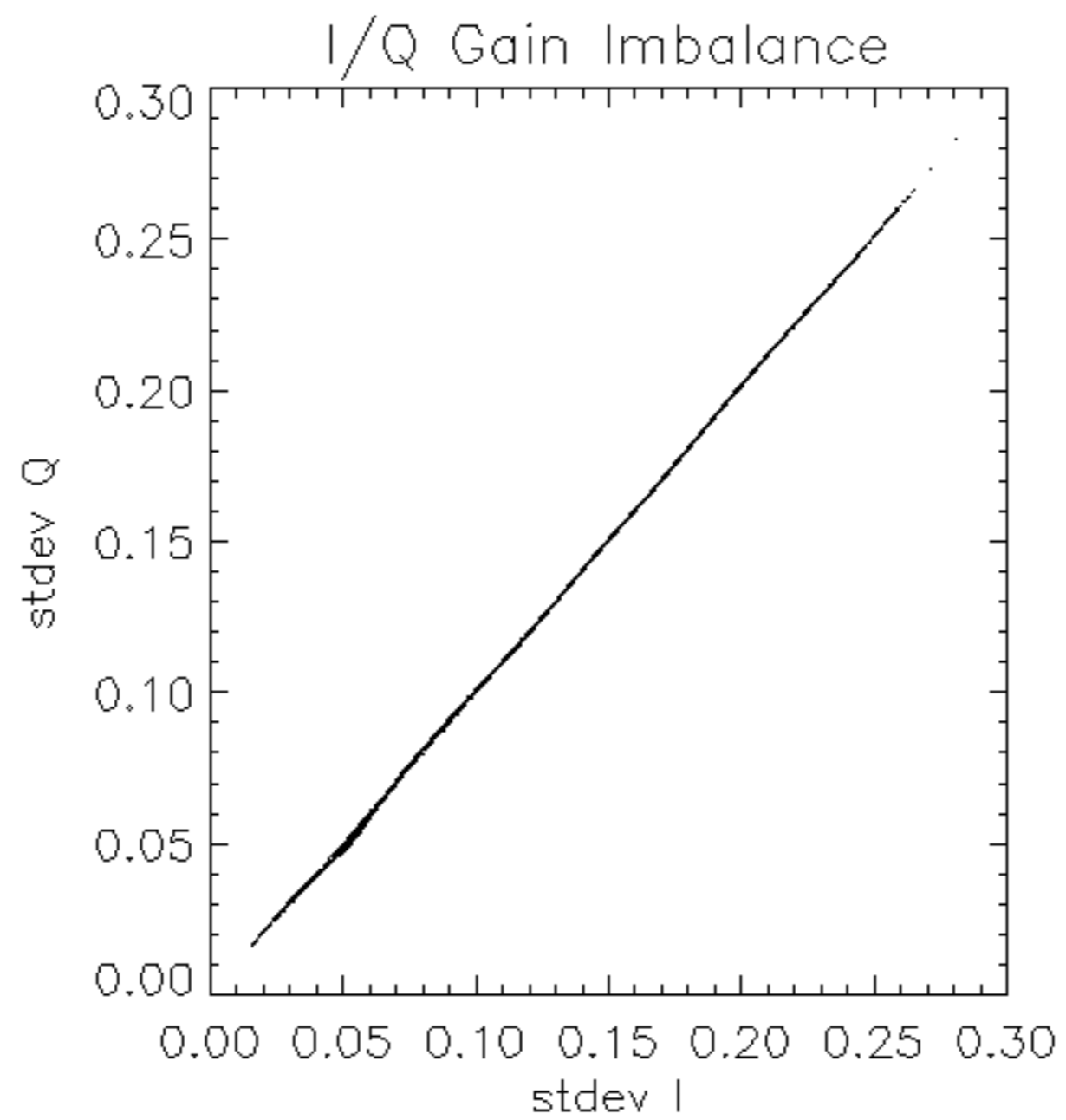


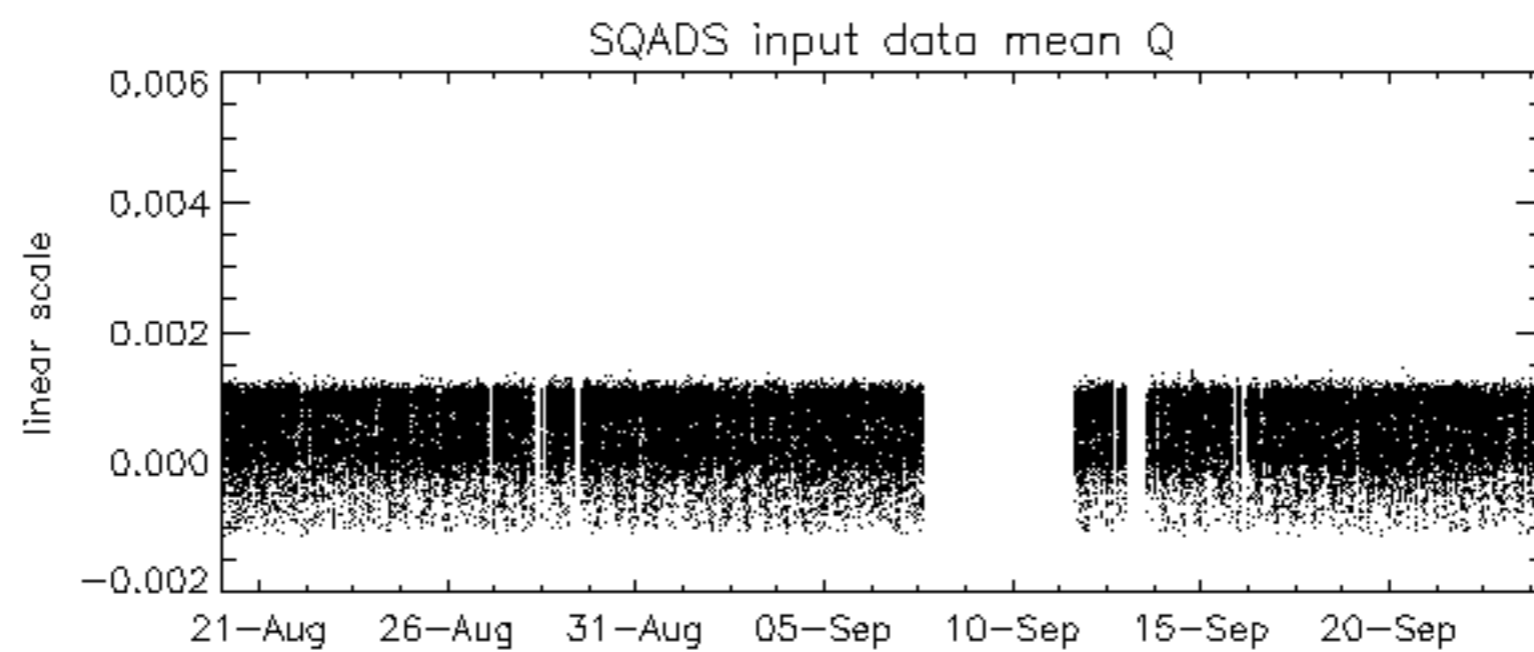
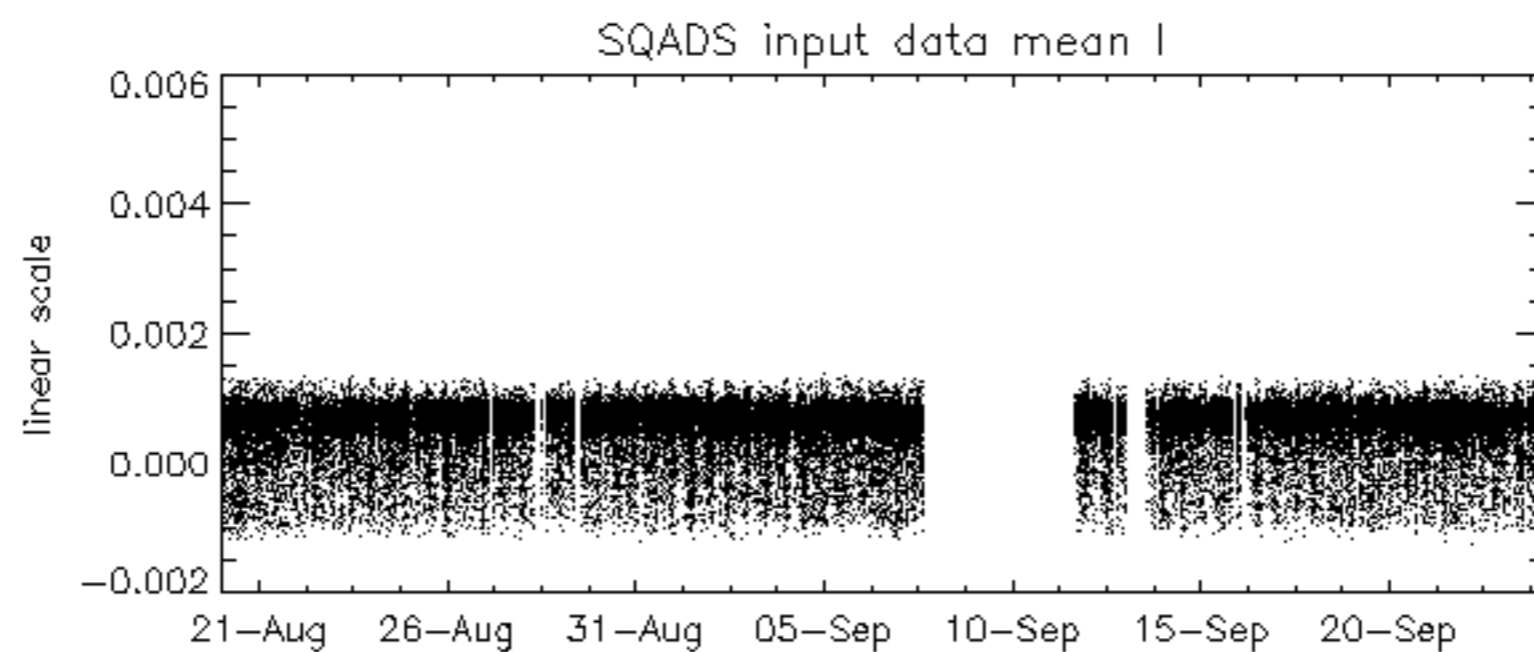
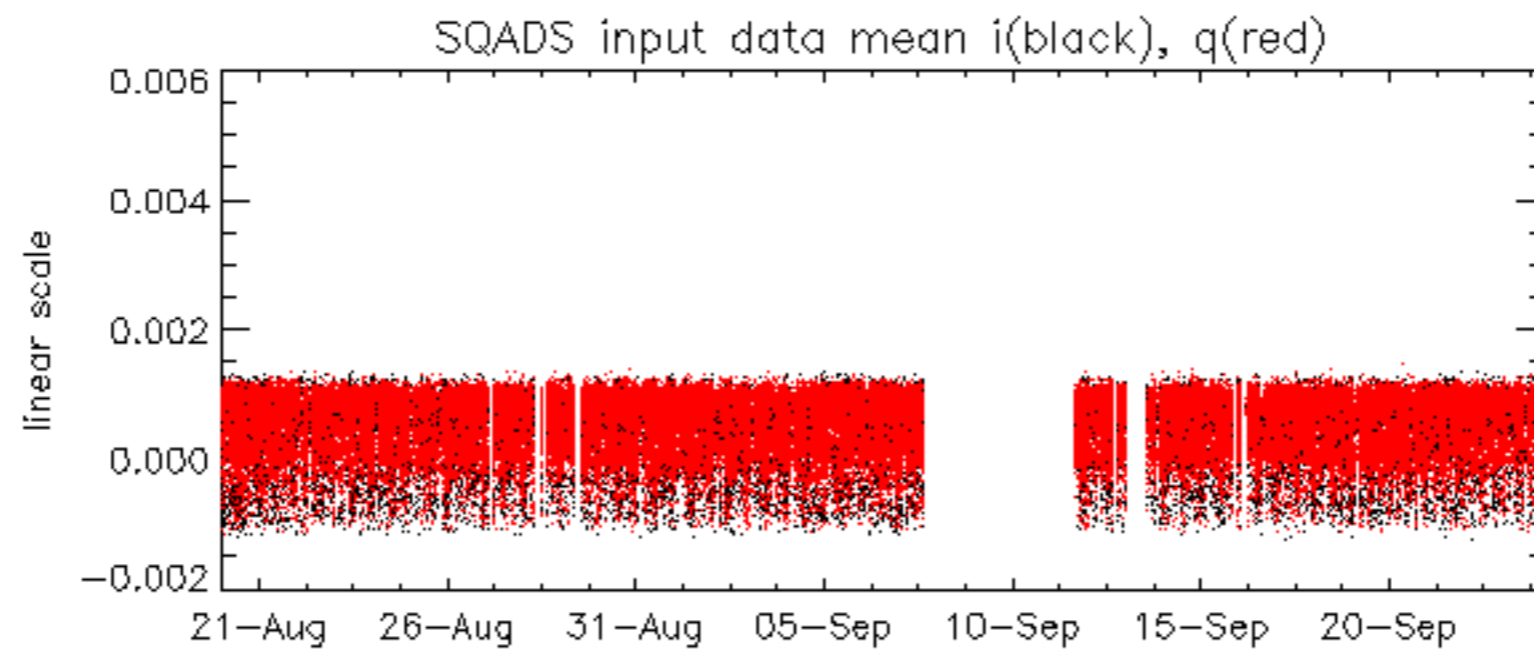
No anomalies observed on available MS products:

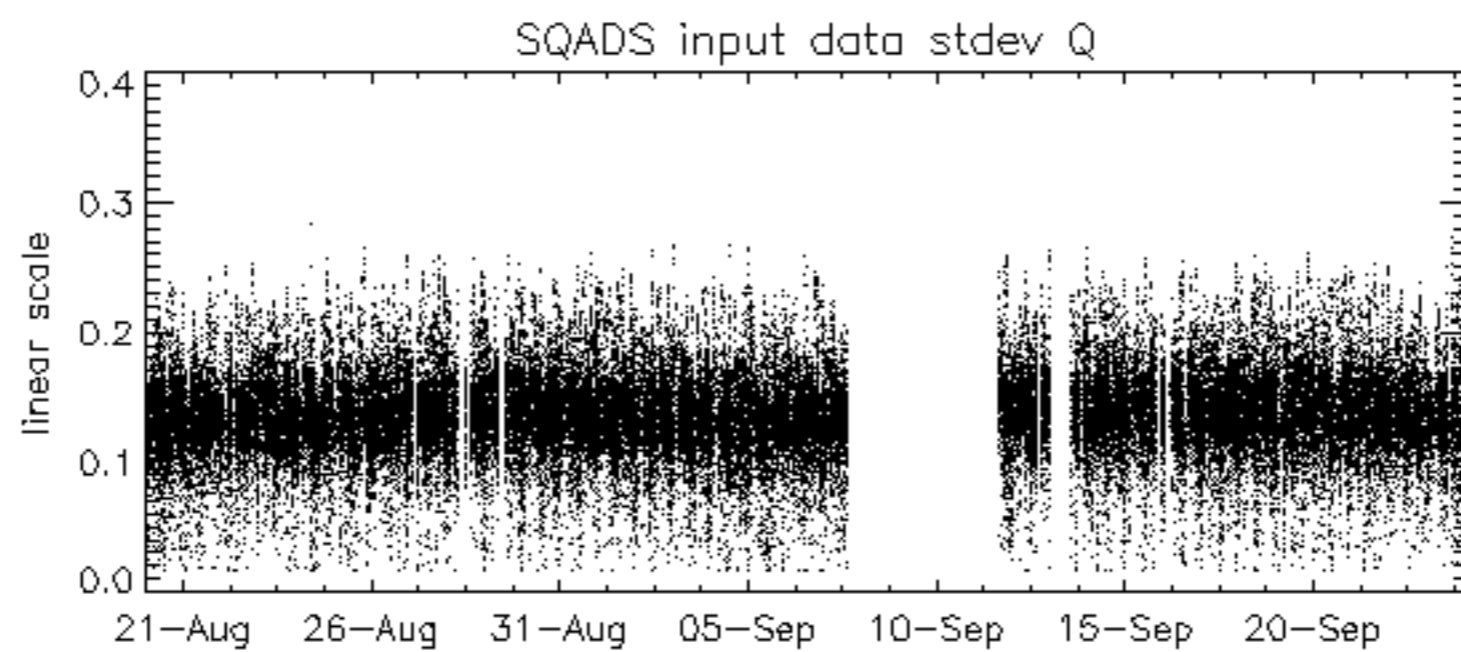
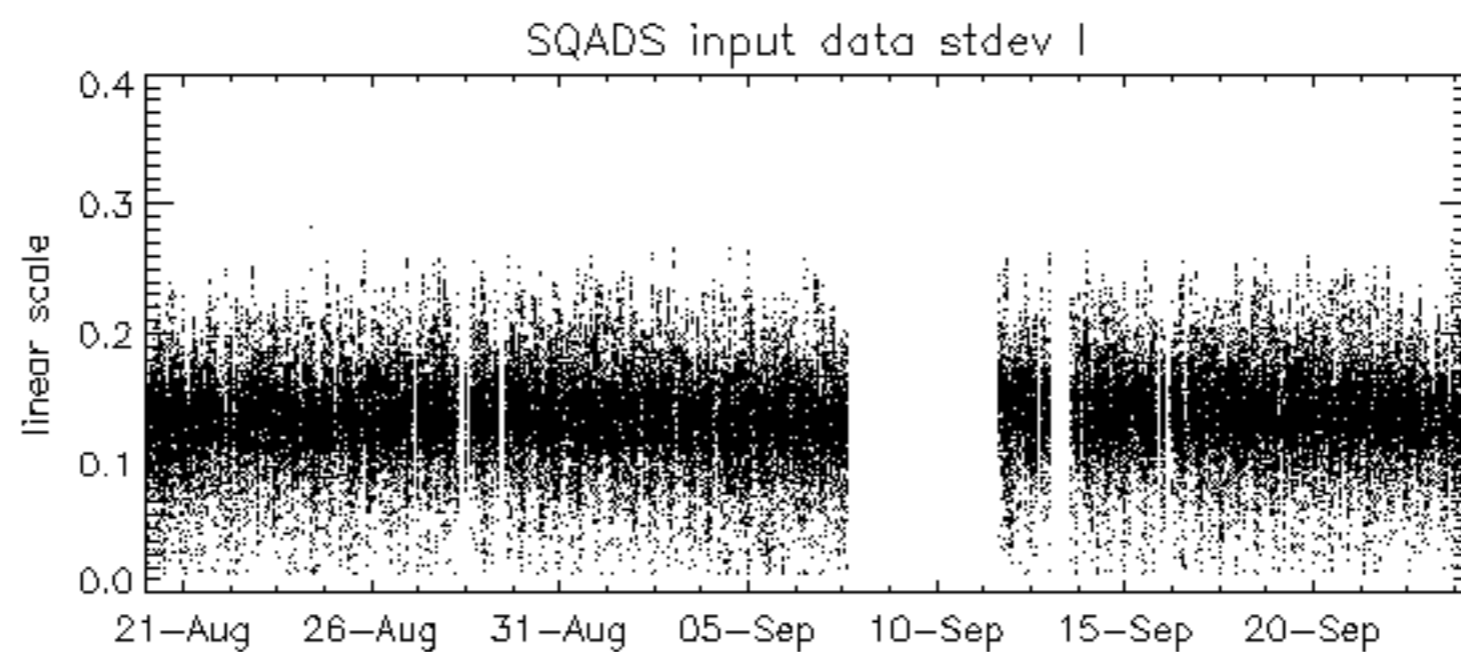
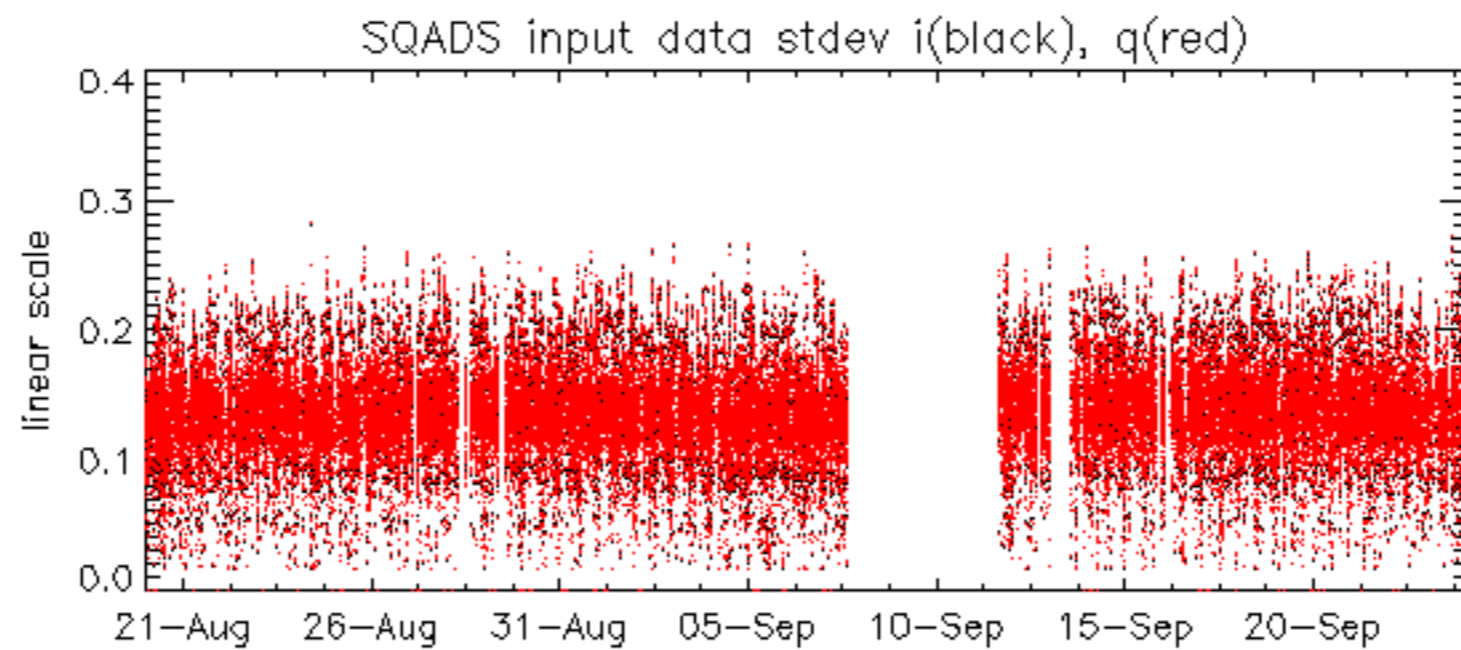
No anomalies observed.







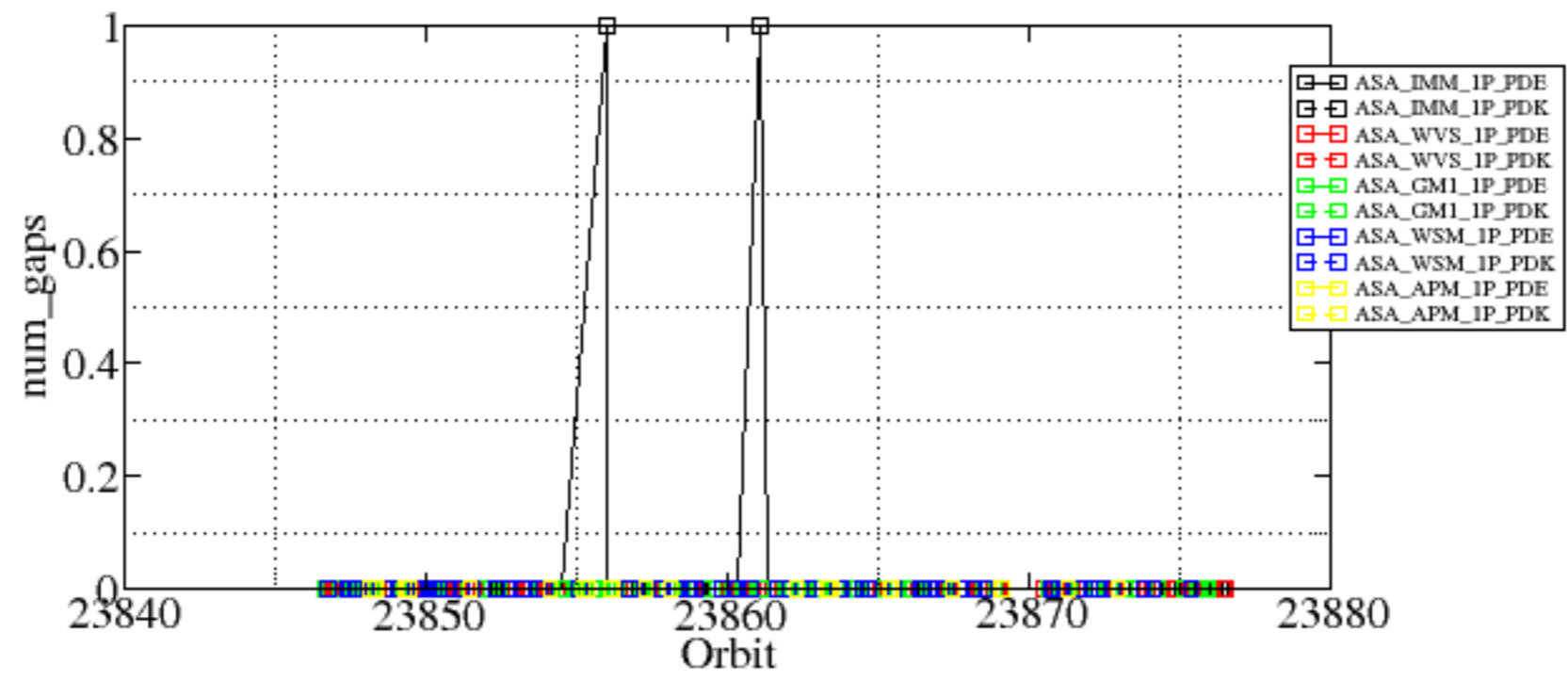


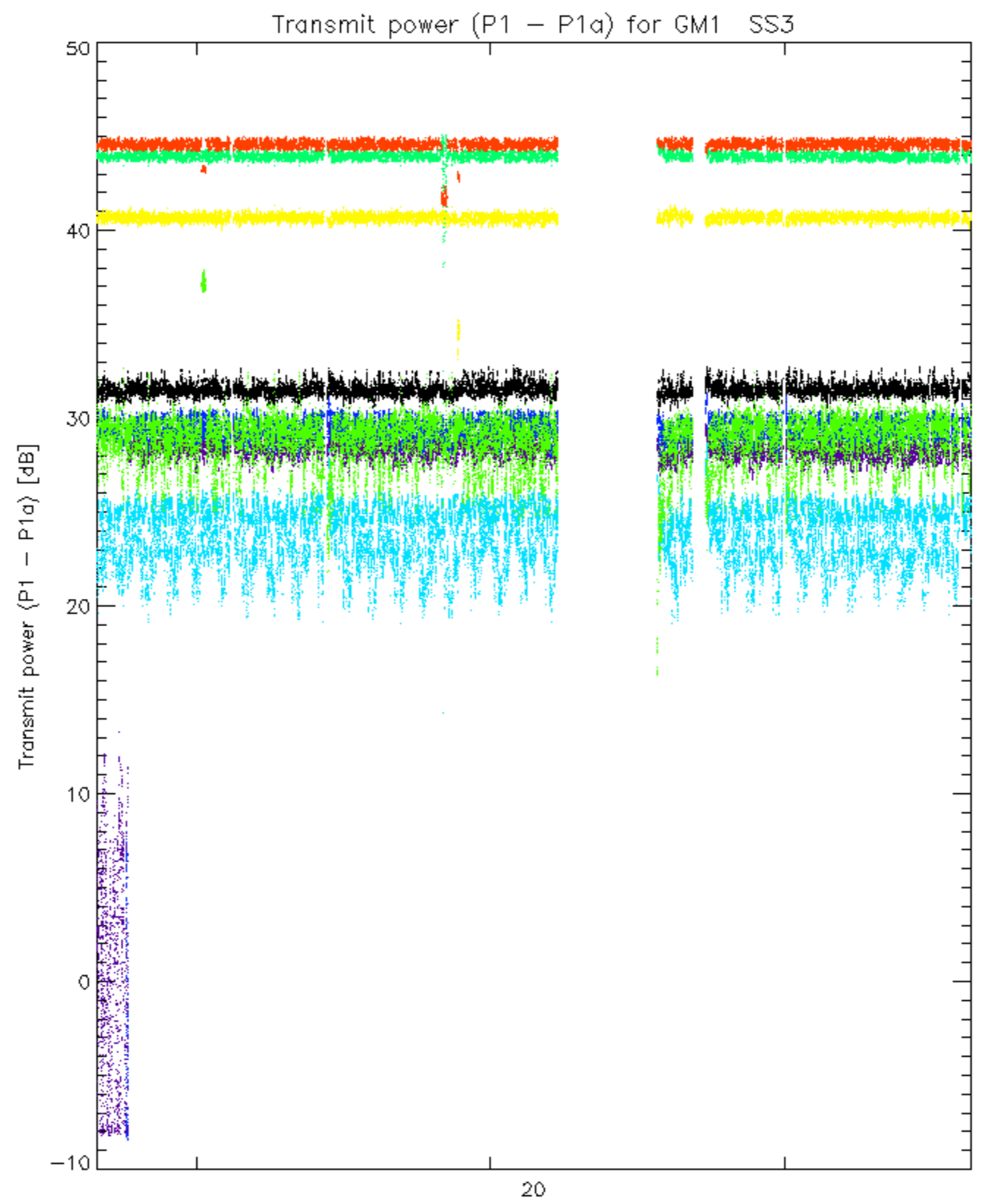


Summary of analysis for the last 3 days 2006092[234]

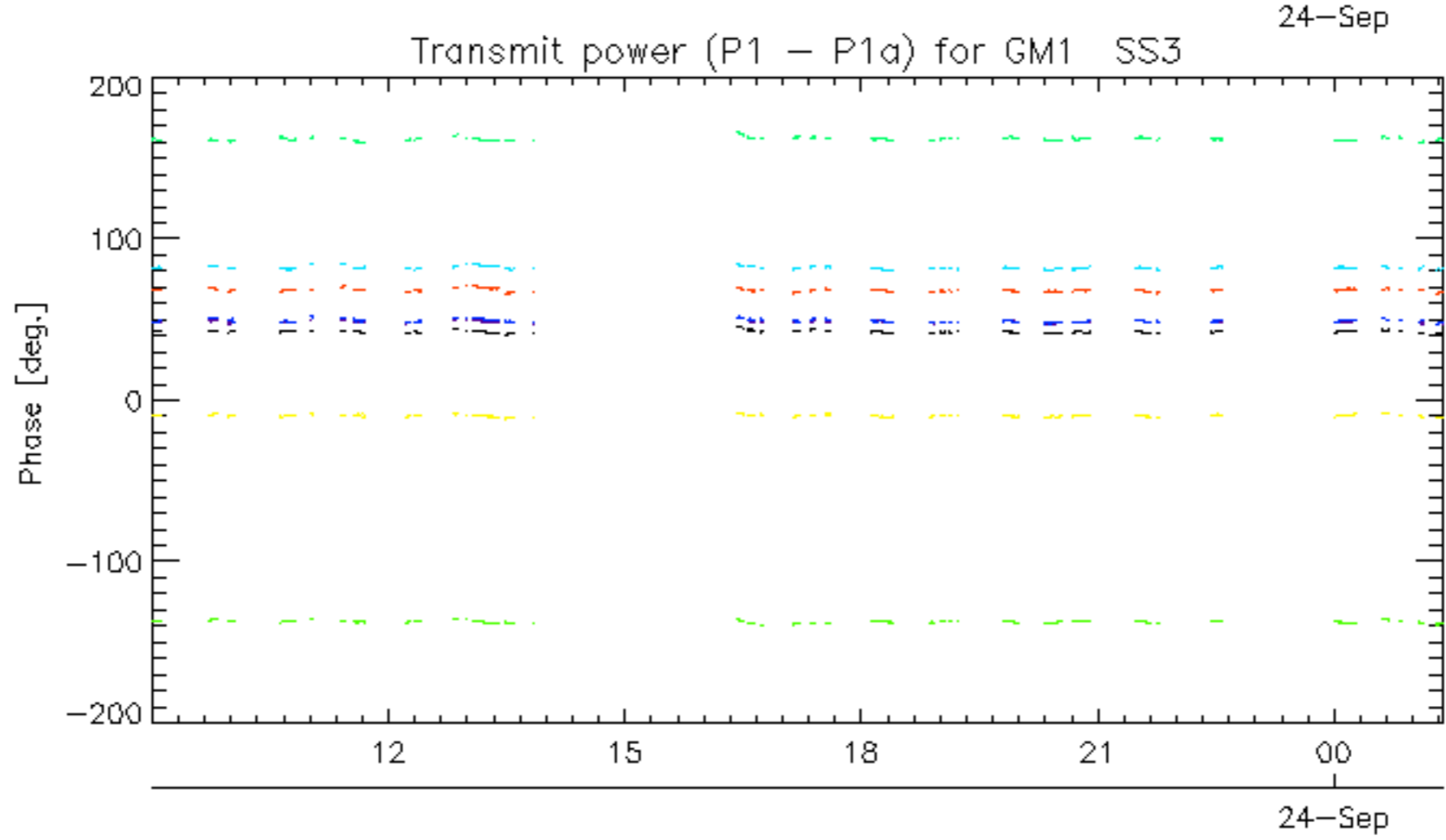
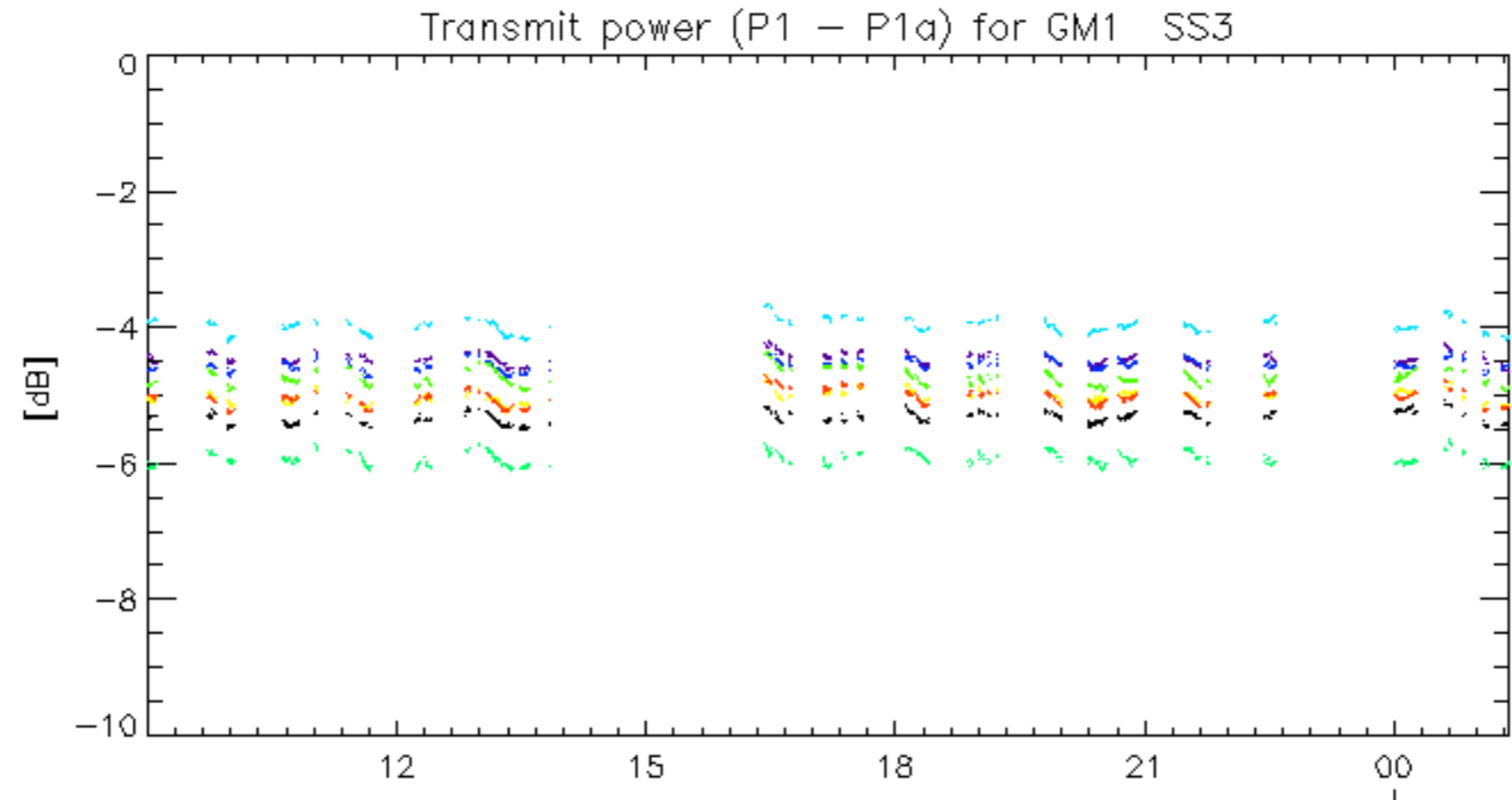
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060922_155111_000001142051_00254_23855_6240.N1	1	0
ASA_IMM_1PNPDE20060923_002304_000002162051_00260_23861_6274.N1	1	0
ASA_WSM_1PNPDE20060923_015903_000001462051_00261_23862_3490.N1	0	76
ASA_WSM_1PNPDE20060923_170154_000002452051_00270_23871_3584.N1	0	9
ASA_WSM_1PNPDE20060923_184505_000003062051_00271_23872_3602.N1	0	60

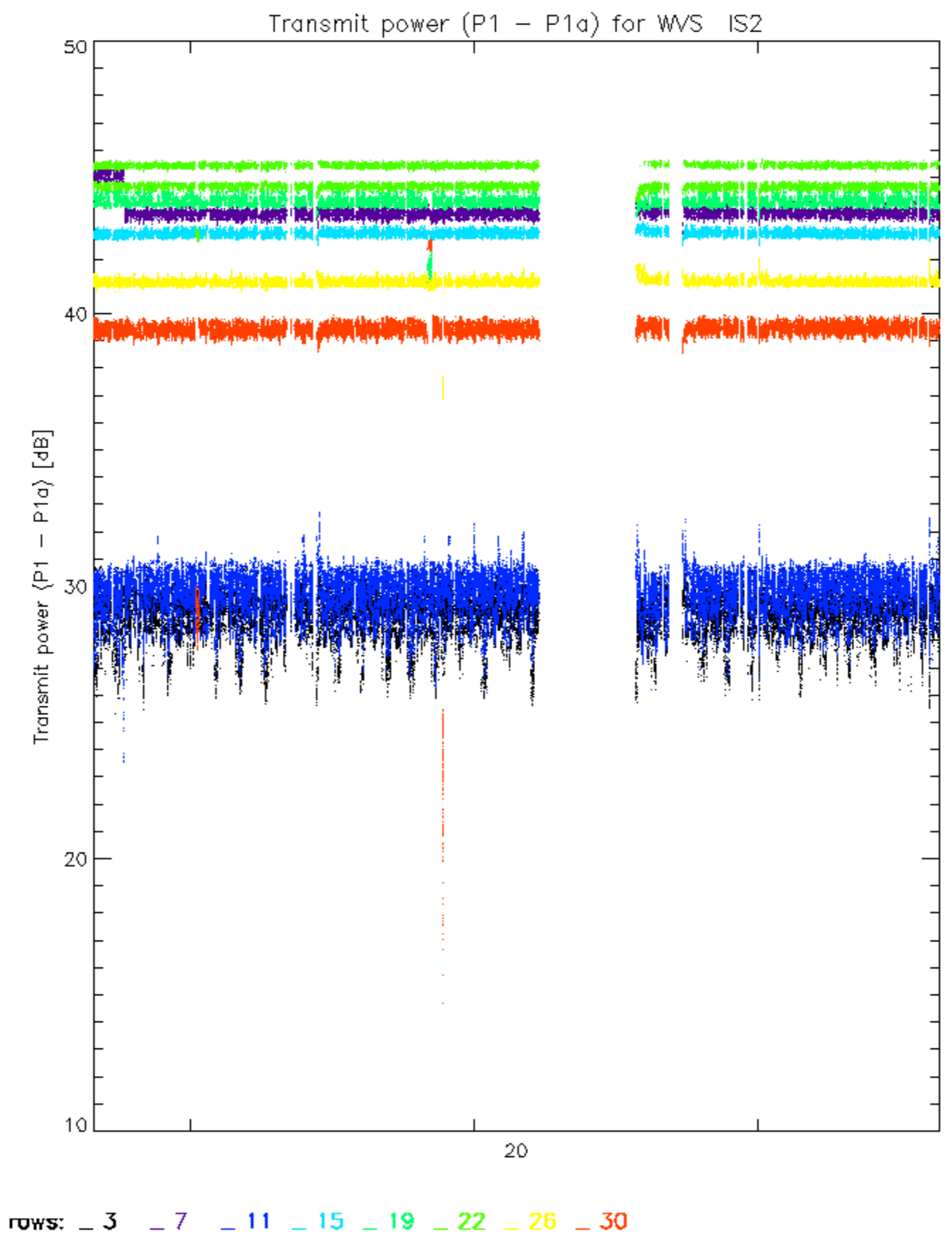


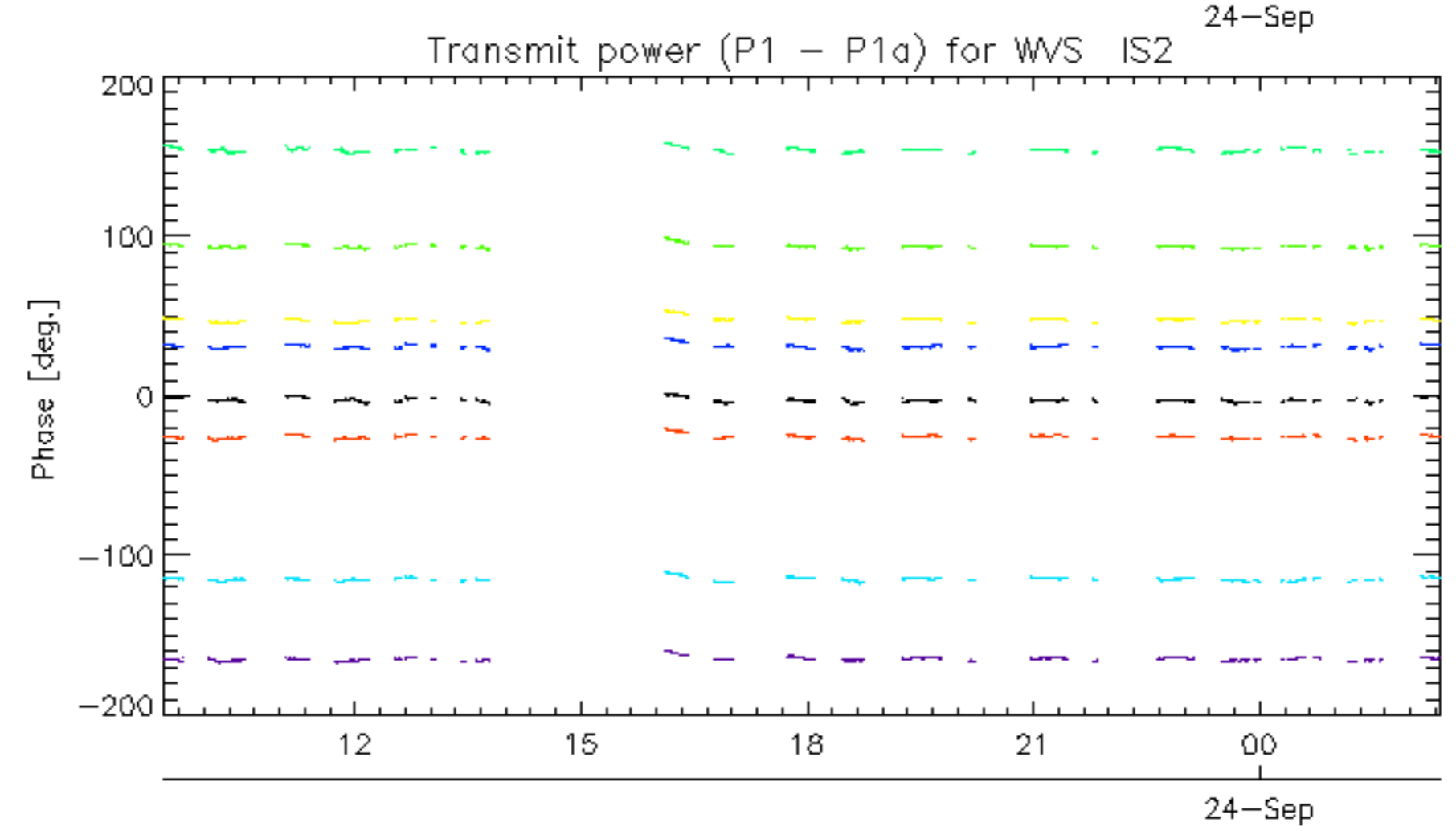
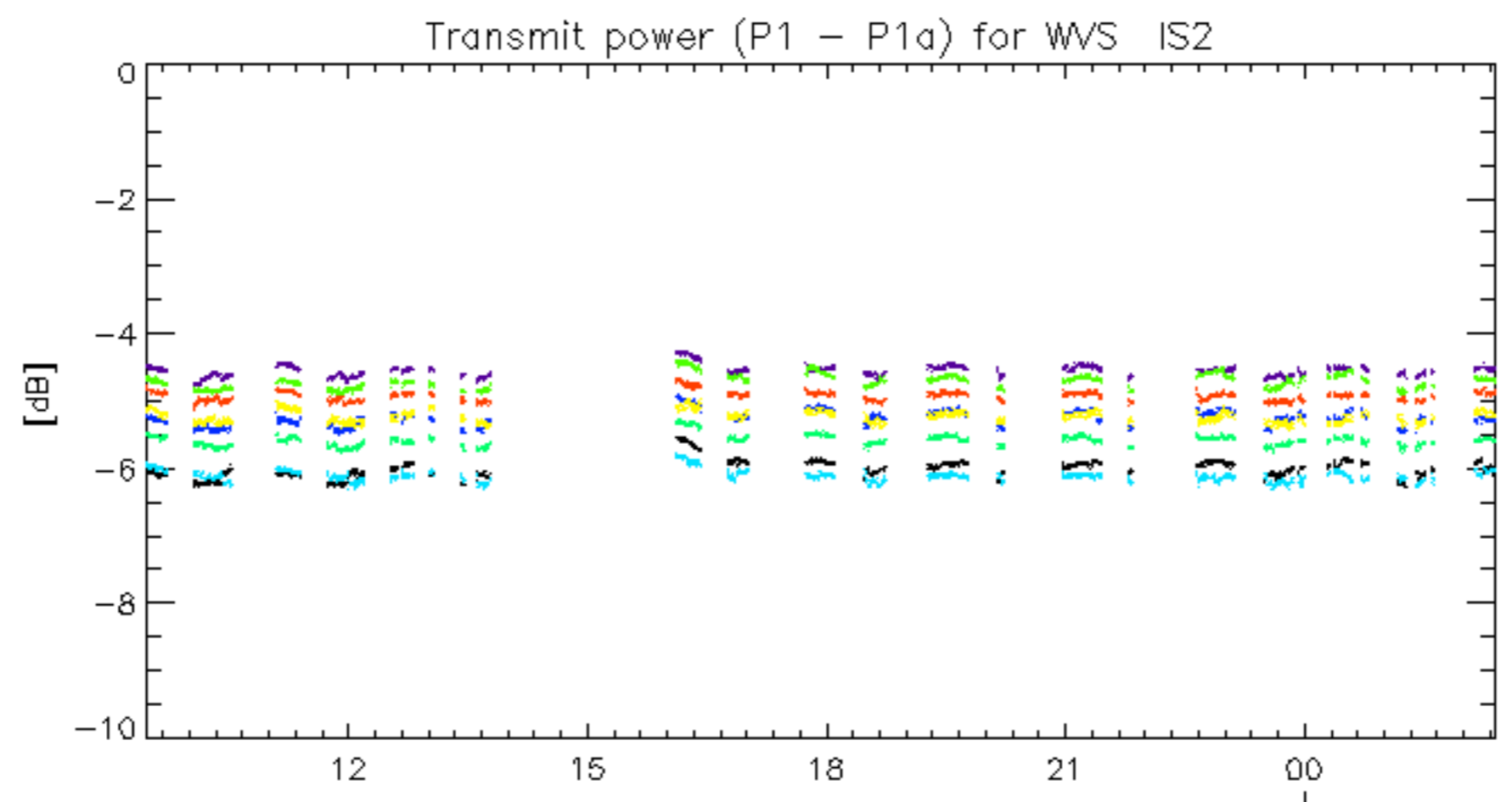


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.