

PRELIMINARY REPORT OF 060920

last update on Wed Sep 20 16:39:06 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 2006-09-19 00:00:00 to 2006-09-20 16:39:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	26	29	12	6	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	26	29	12	6	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	26	29	12	6	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	26	29	12	6	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	14	30	17	41
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	35	14	30	17	41
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	14	30	17	41
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	14	30	17	41

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	20060920 043733
H	20060919 050910

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

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	-3.940314	0.009818	-0.003696
7	P1	-3.048031	0.011597	-0.080576
11	P1	-4.055676	0.017993	-0.020882
15	P1	-6.181502	0.015503	-0.003472
19	P1	-3.520276	0.049895	-0.072903
22	P1	-4.570258	0.027470	-0.047638
26	P1	-3.948140	0.019425	-0.057175
30	P1	-5.796798	0.151272	-0.089210
3	P1	-16.593019	0.254691	-0.144491
7	P1	-16.776714	0.670165	-1.402090
11	P1	-16.794394	0.342795	-0.031689
15	P1	-12.905740	0.104733	0.177273
19	P1	-14.625290	0.454095	-0.158424
22	P1	-15.702377	0.559874	0.165235
26	P1	-15.216371	0.204401	-0.061565
30	P1	-16.936731	0.394862	0.019447

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.822636	0.082660	0.048504
7	P2	-21.858713	0.095302	0.039201
11	P2	-15.746123	0.106458	-0.016603
15	P2	-7.090273	0.098425	0.000397
19	P2	-9.116785	0.090841	-0.025575
22	P2	-18.121771	0.086093	0.005080
26	P2	-16.406250	0.093294	-0.040074
30	P2	-19.470118	0.089626	-0.006507

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.177996	0.004854	-0.018112
7	P3	-8.177996	0.004854	-0.018112
11	P3	-8.177996	0.004854	-0.018112
15	P3	-8.177996	0.004854	-0.018112
19	P3	-8.177996	0.004854	-0.018112
22	P3	-8.177996	0.004854	-0.018112
26	P3	-8.177996	0.004854	-0.018112
30	P3	-8.177996	0.004854	-0.018112

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-3.845369	0.009065	-0.040289
7	P1	-2.437875	0.073085	-0.481434
11	P1	-2.879108	0.022422	-0.049367
15	P1	-3.651820	0.028898	-0.039123
19	P1	-3.462238	0.078853	-0.040509
22	P1	-5.096870	0.036093	-0.054595
26	P1	-5.867953	0.023783	0.006699
30	P1	-5.199856	0.077934	-0.039457
3	P1	-11.634139	0.046684	-0.026900
7	P1	-9.911794	0.082623	-0.425984
11	P1	-10.340581	0.062633	-0.119945
15	P1	-10.856936	0.151900	-0.013781
19	P1	-15.684712	3.607713	-0.111468
22	P1	-20.802183	1.718169	-0.046923

26	P1	-15.949965	0.397241	0.247425
30	P1	-18.051664	0.814809	-0.326024

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.412945	0.056958	0.093706
7	P2	-22.194551	0.088452	0.088093
11	P2	-10.897723	0.043117	0.038252
15	P2	-4.858728	0.038082	0.028502
19	P2	-6.846182	0.038724	0.017099
22	P2	-8.155893	0.033141	0.031226
26	P2	-24.167856	0.052902	0.010391
30	P2	-21.960546	0.042955	0.003430

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.022971	0.003795	-0.023579
7	P3	-8.022848	0.003797	-0.023744
11	P3	-8.022868	0.003798	-0.023412
15	P3	-8.022888	0.003817	-0.023354
19	P3	-8.022924	0.003818	-0.023240
22	P3	-8.022978	0.003789	-0.023334
26	P3	-8.023032	0.003808	-0.023270
30	P3	-8.022867	0.003797	-0.023523

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	0.000544984
	stdev	1.80140e-07
MEAN Q	mean	0.000519949
	stdev	2.19359e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135873
	stdev	0.00113753
STDEV Q	mean	0.136221
	stdev	0.00115474



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006091[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_1PNPDE20060918_012434_000000802051_00189_23790_5910.N1	1	0
ASA_IMM_1PNPDE20060919_004855_000001852051_00203_23804_5979.N1	1	0
ASA_GM1_1PNPDK20060918_154300_000006402051_00197_23798_4732.N1	0	7
ASA_WSM_1PNPDE20060918_034044_000000852051_00190_23791_2633.N1	0	6
ASA_WSM_1PNPDE20060918_034046_000000852051_00190_23791_2718.N1	0	6

ASA_WSM_1PNPDE20060918_180337_000001712051_00199_23800_2739.N1	0	8
ASA_WSM_1PNPDE20060919_112933_000000852051_00209_23810_2895.N1	0	27



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

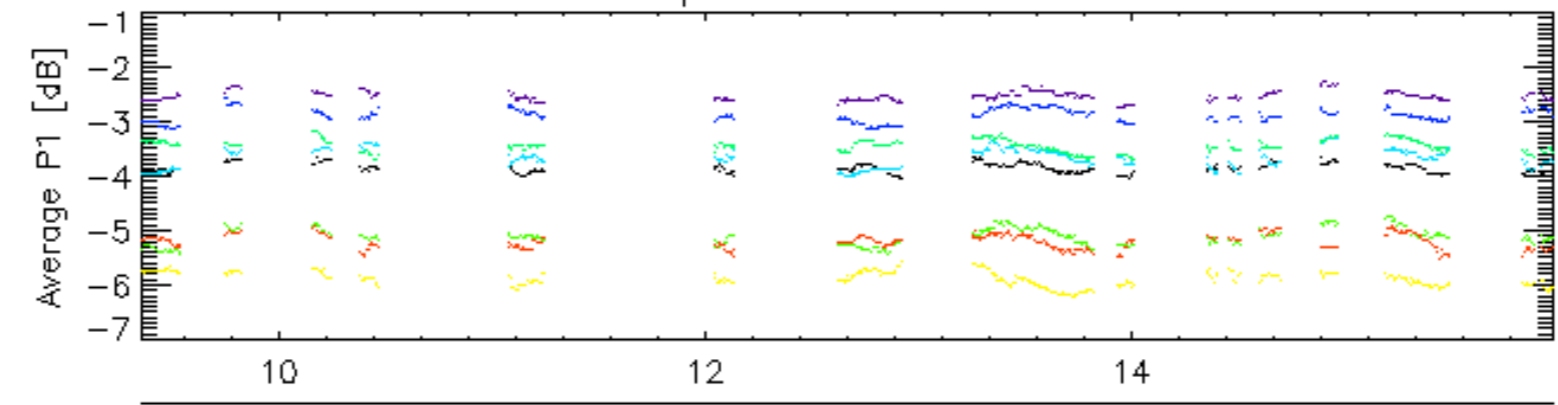
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

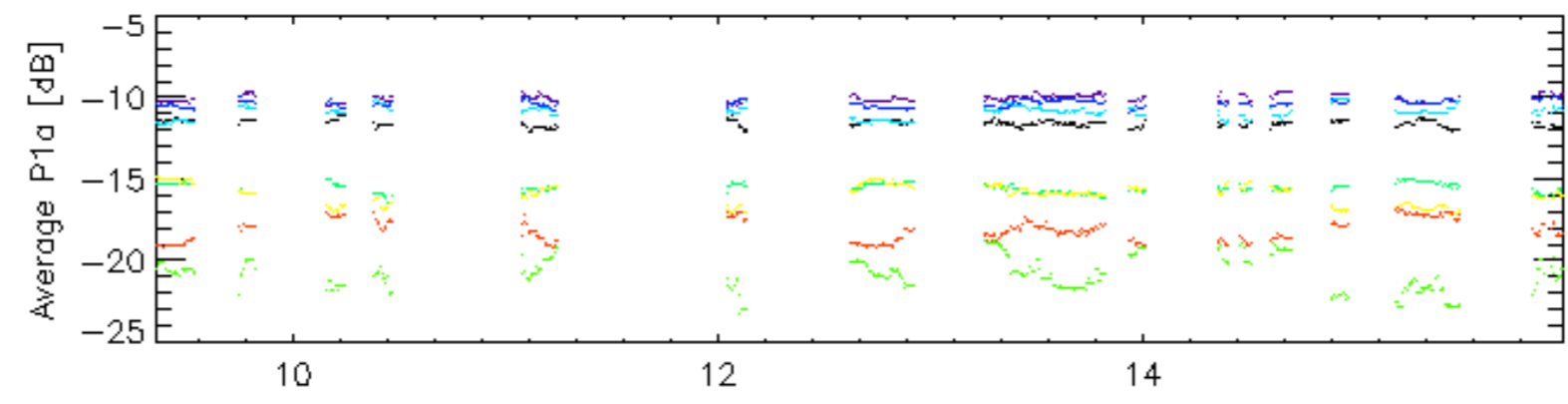
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

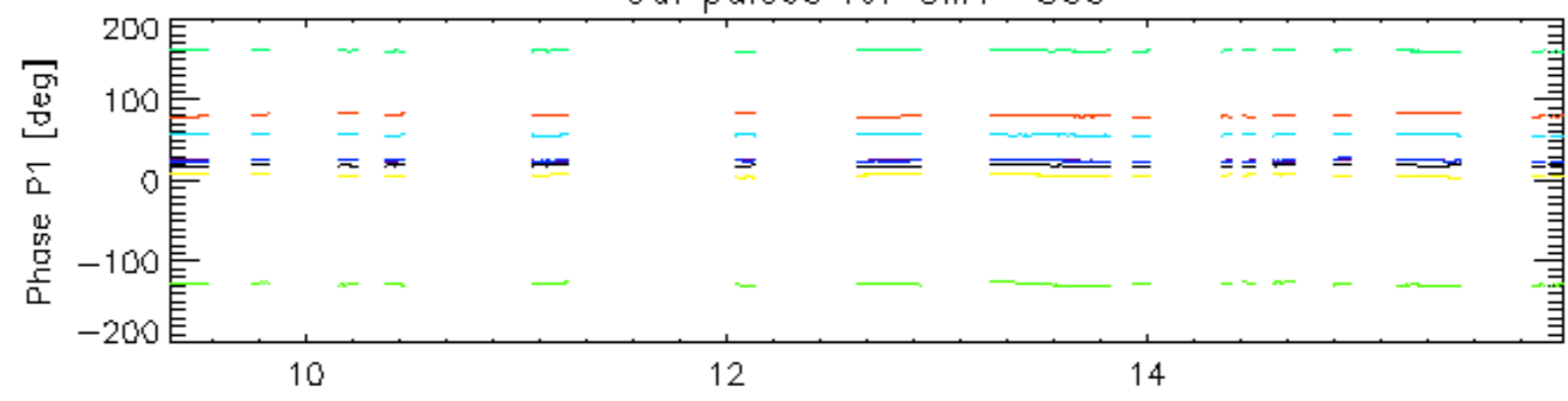


19-Sep

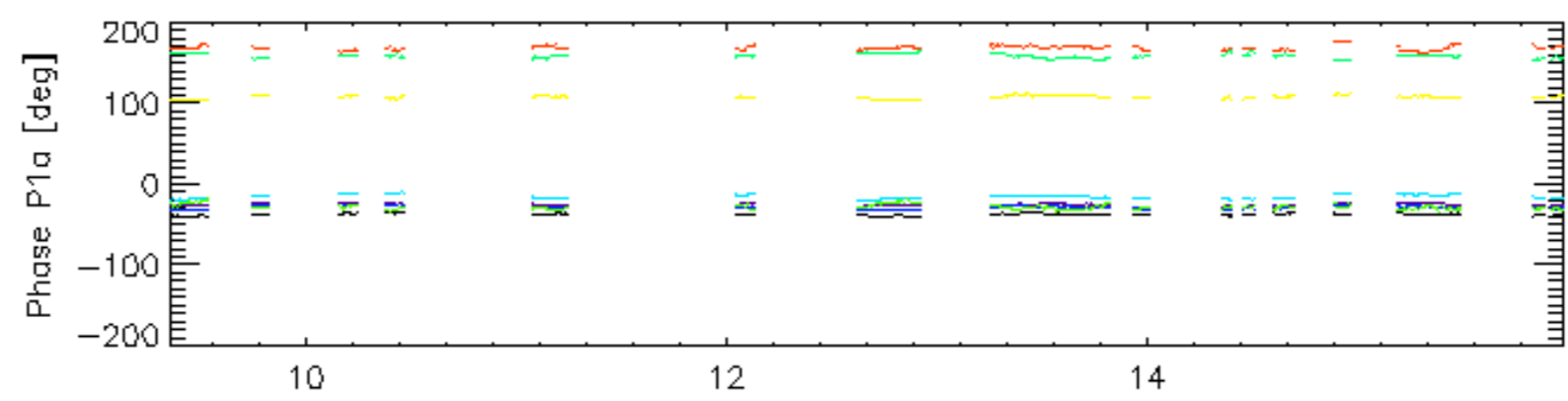


19-Sep

Cal pulses for GM1 SS3

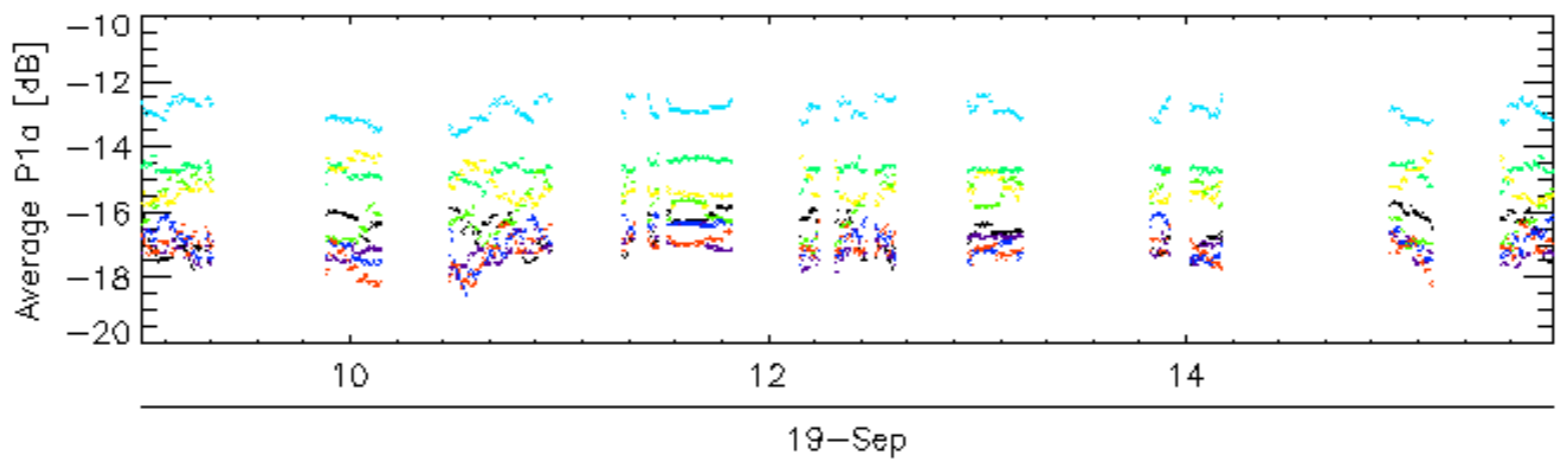
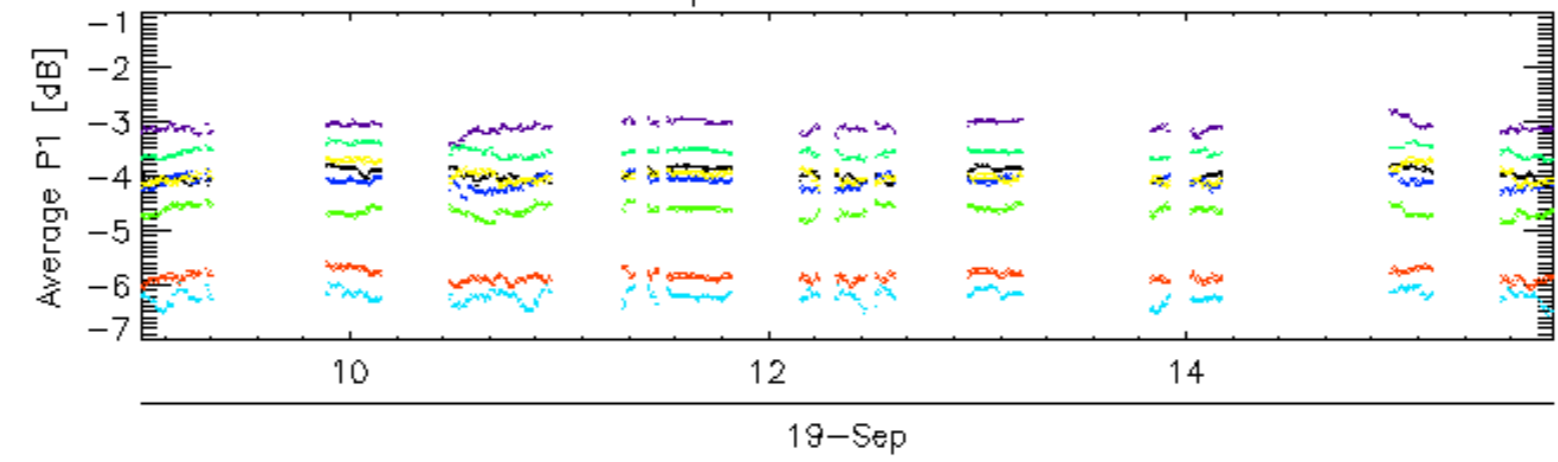


19-Sep

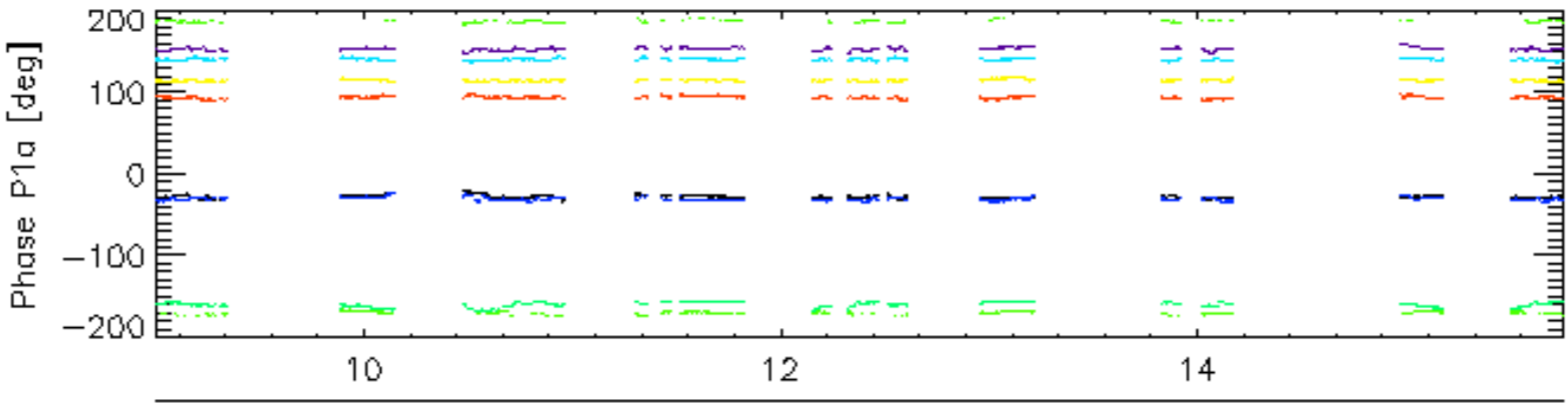
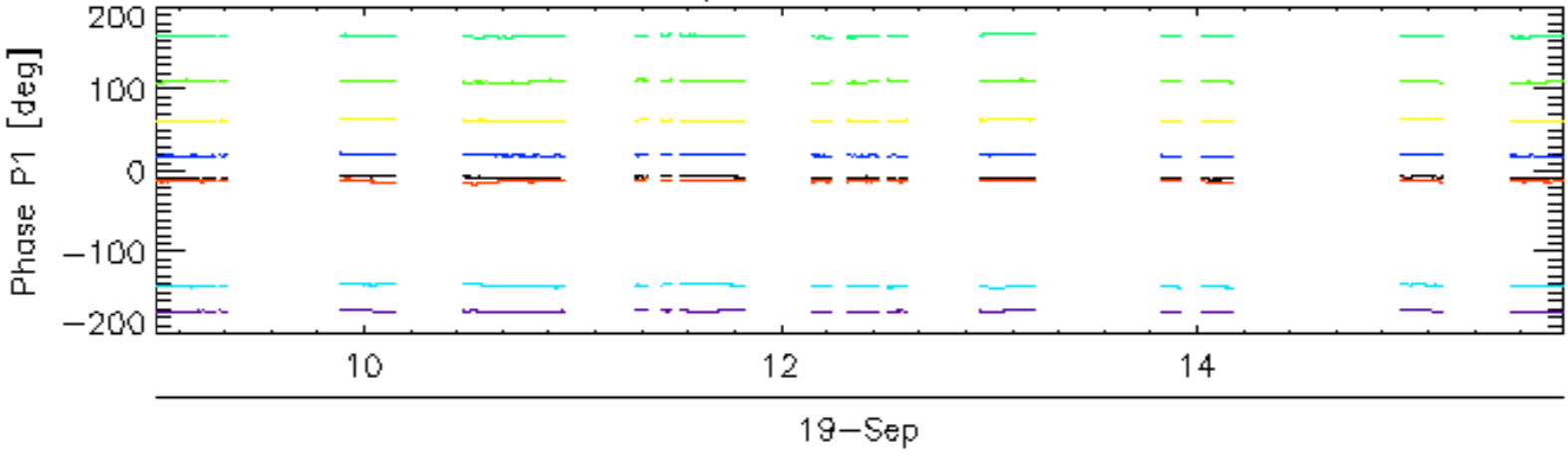


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

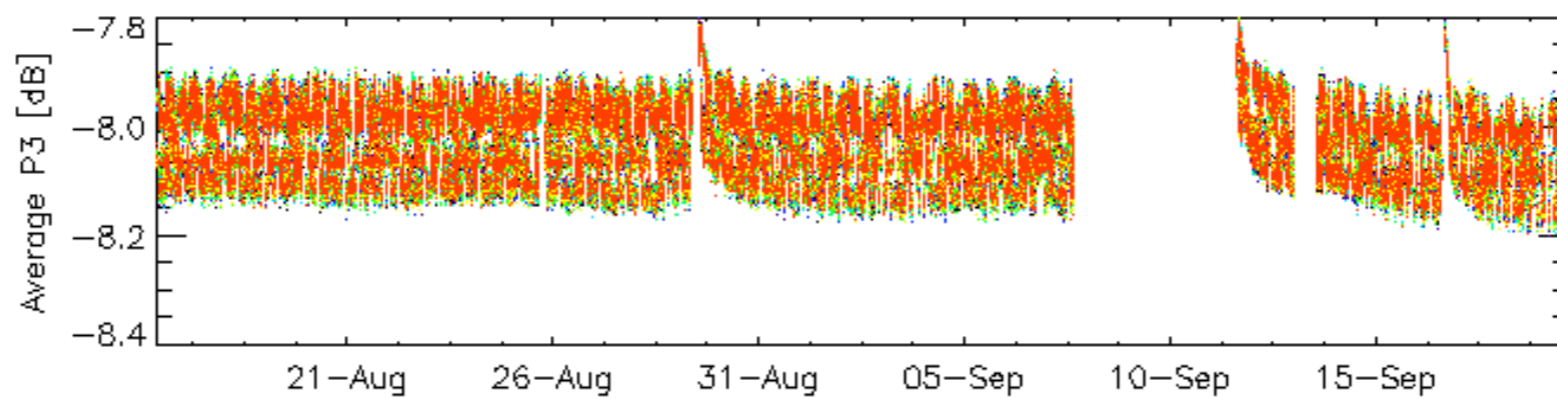
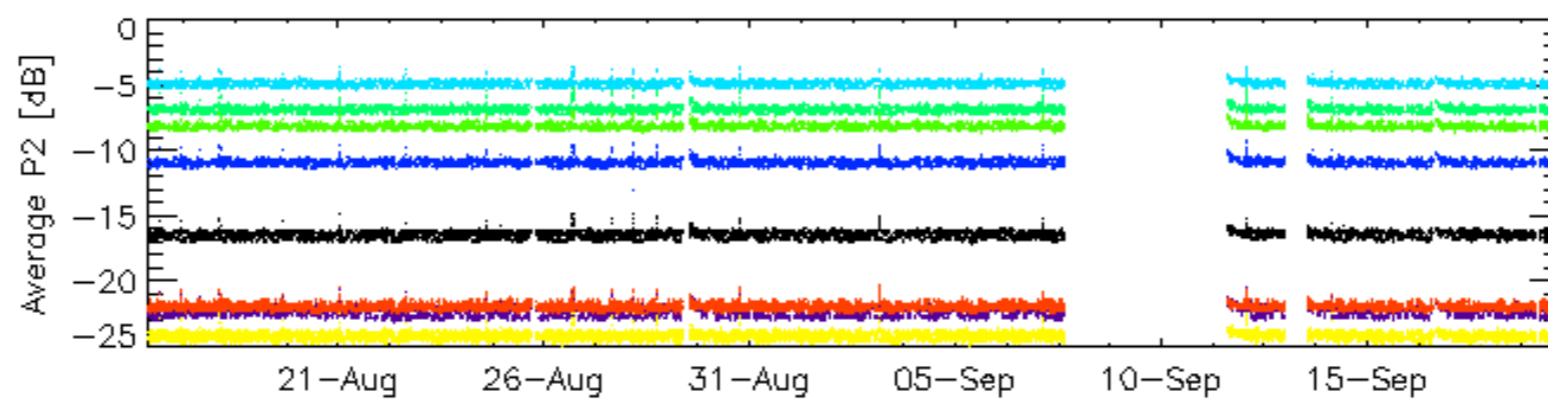
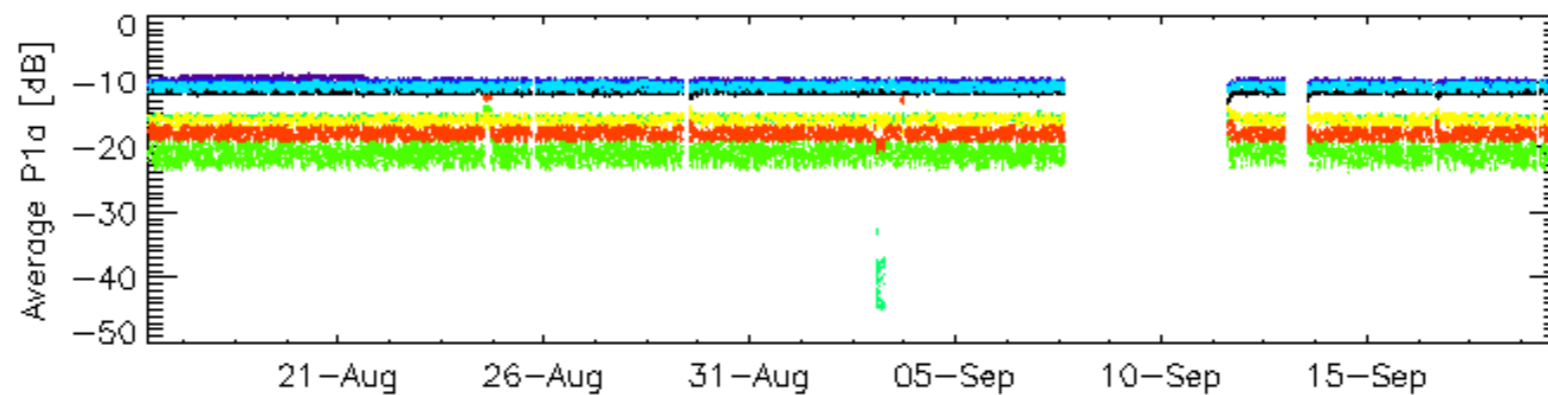
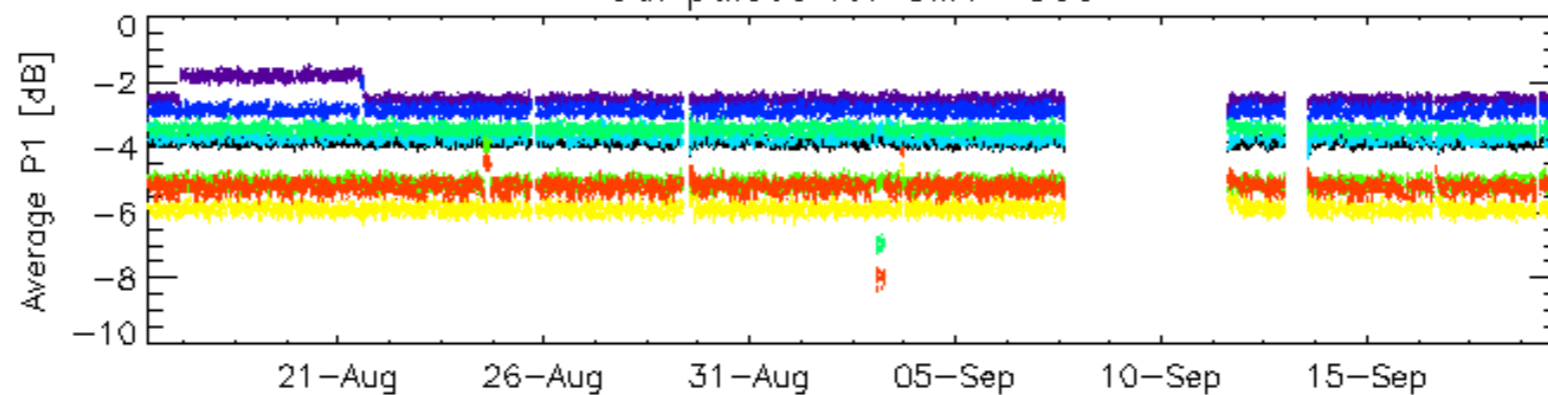


Cal pulses for WVS IS2



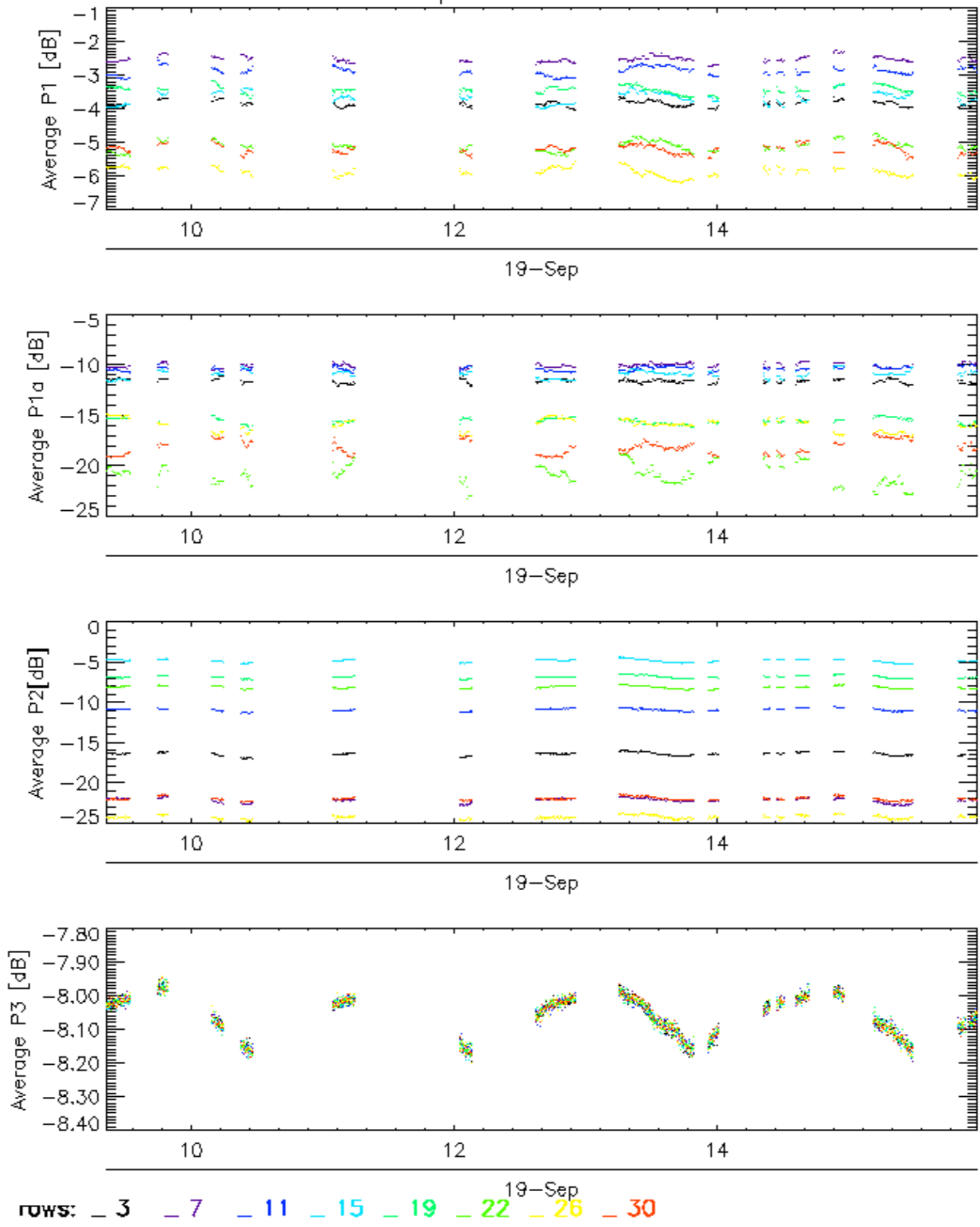
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

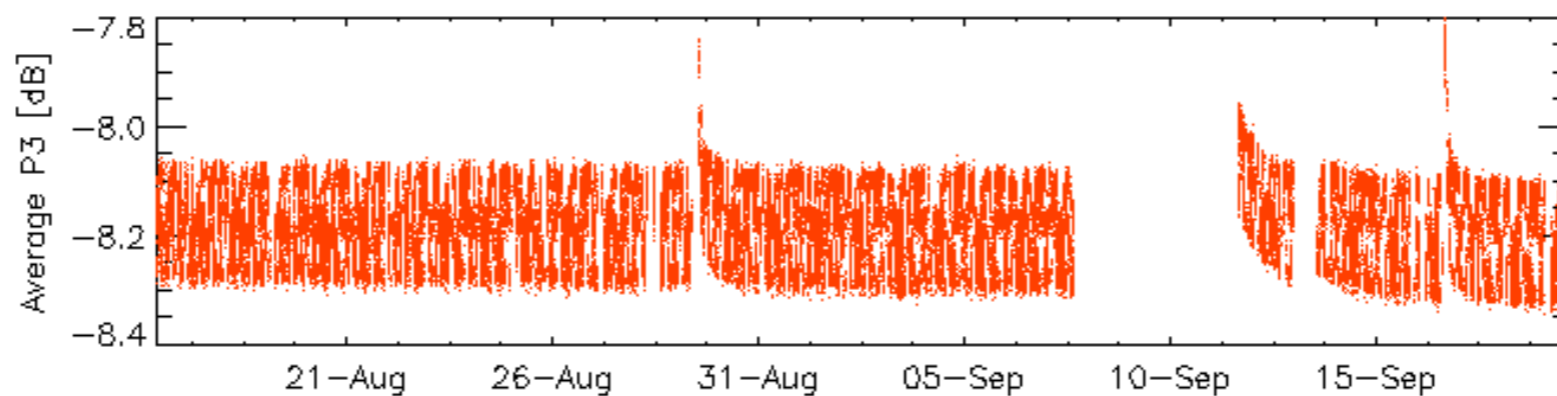
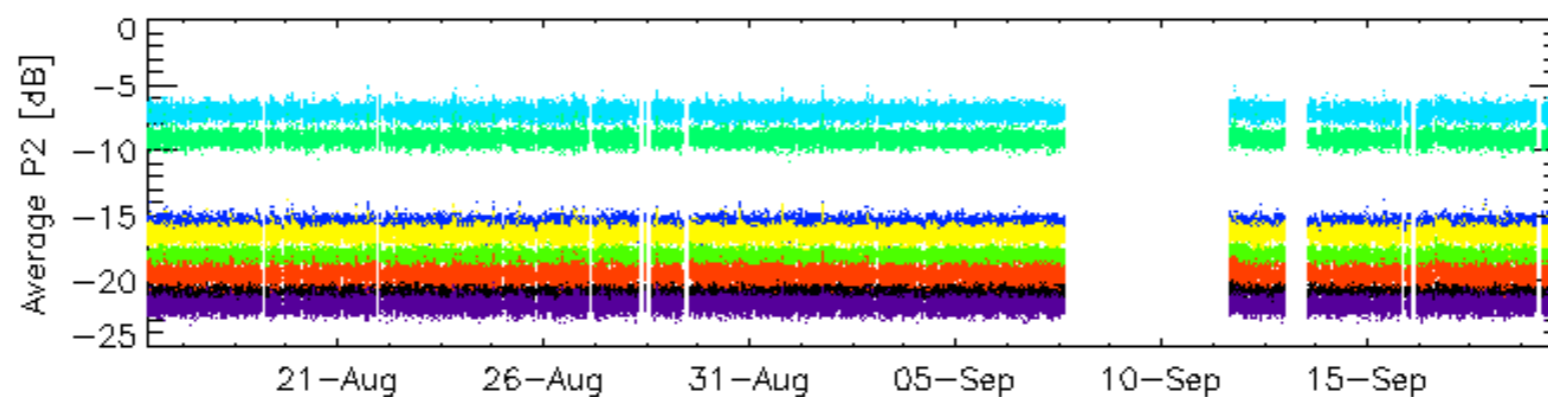
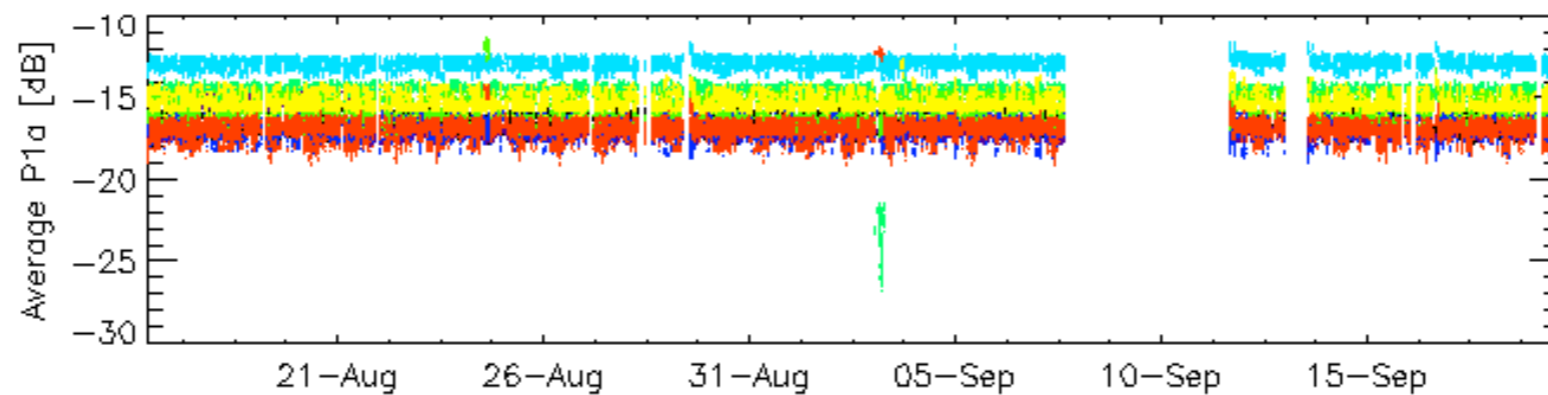
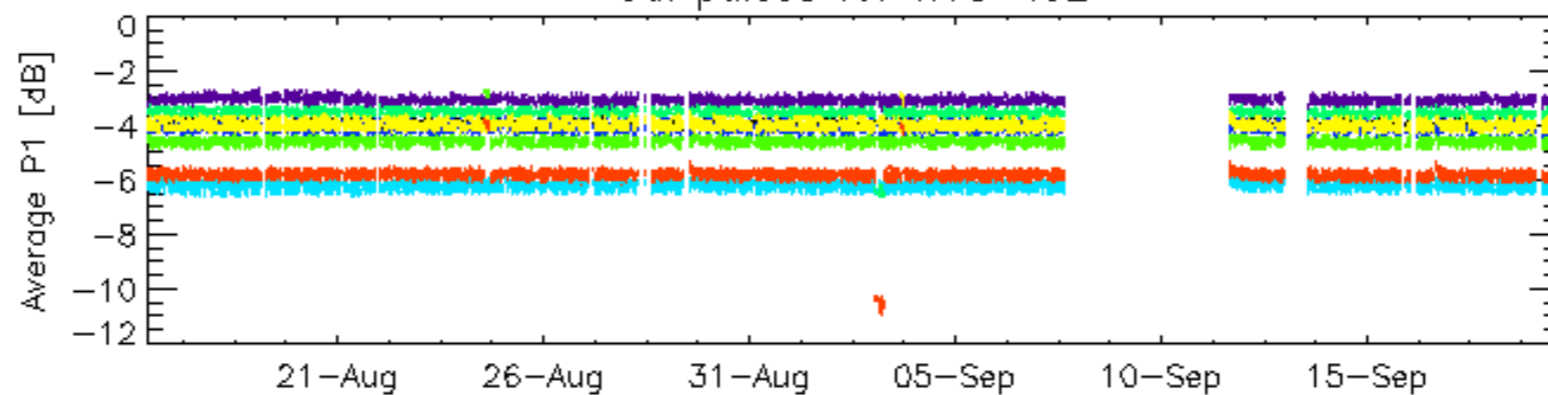


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

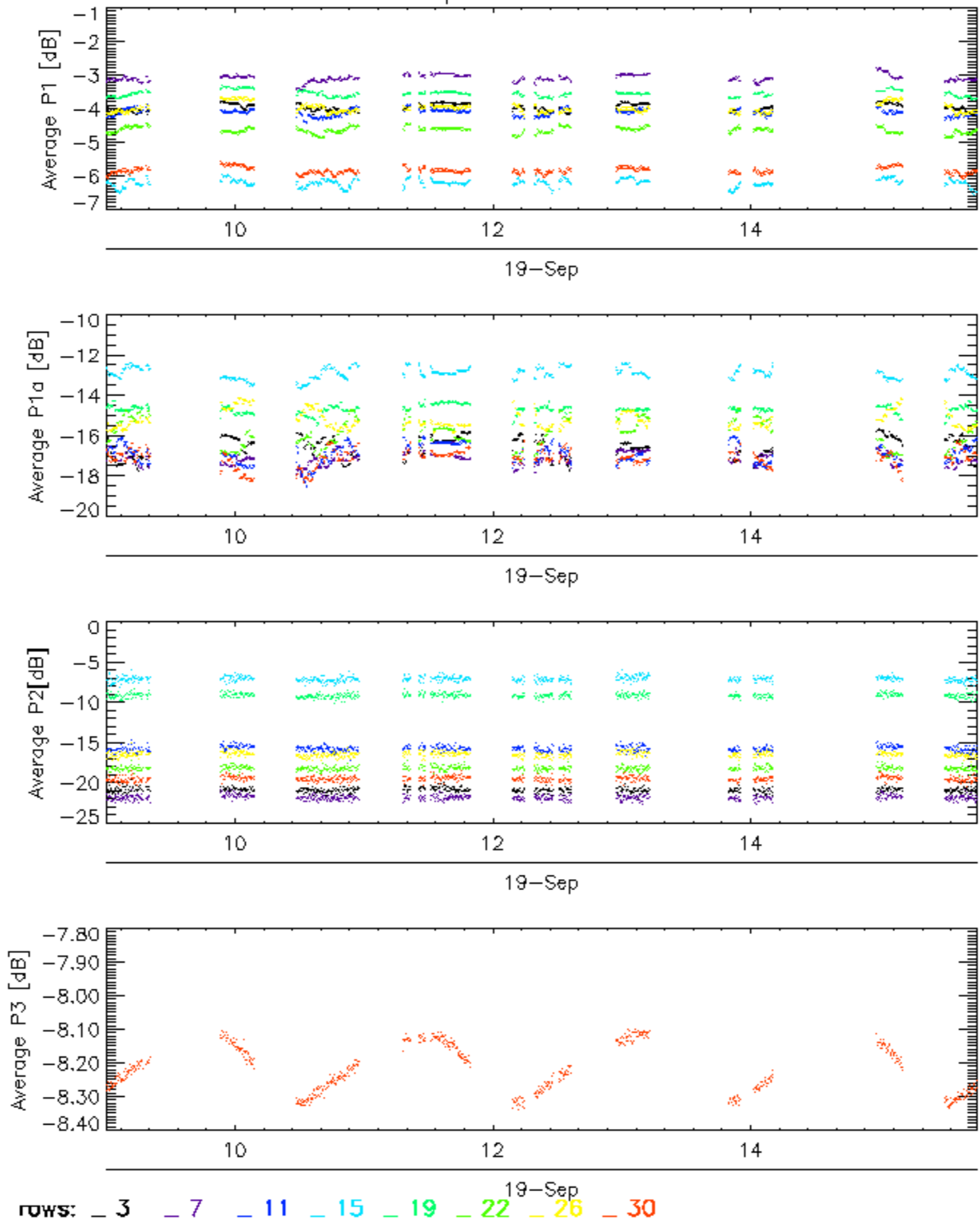


Cal pulses for WVS IS2



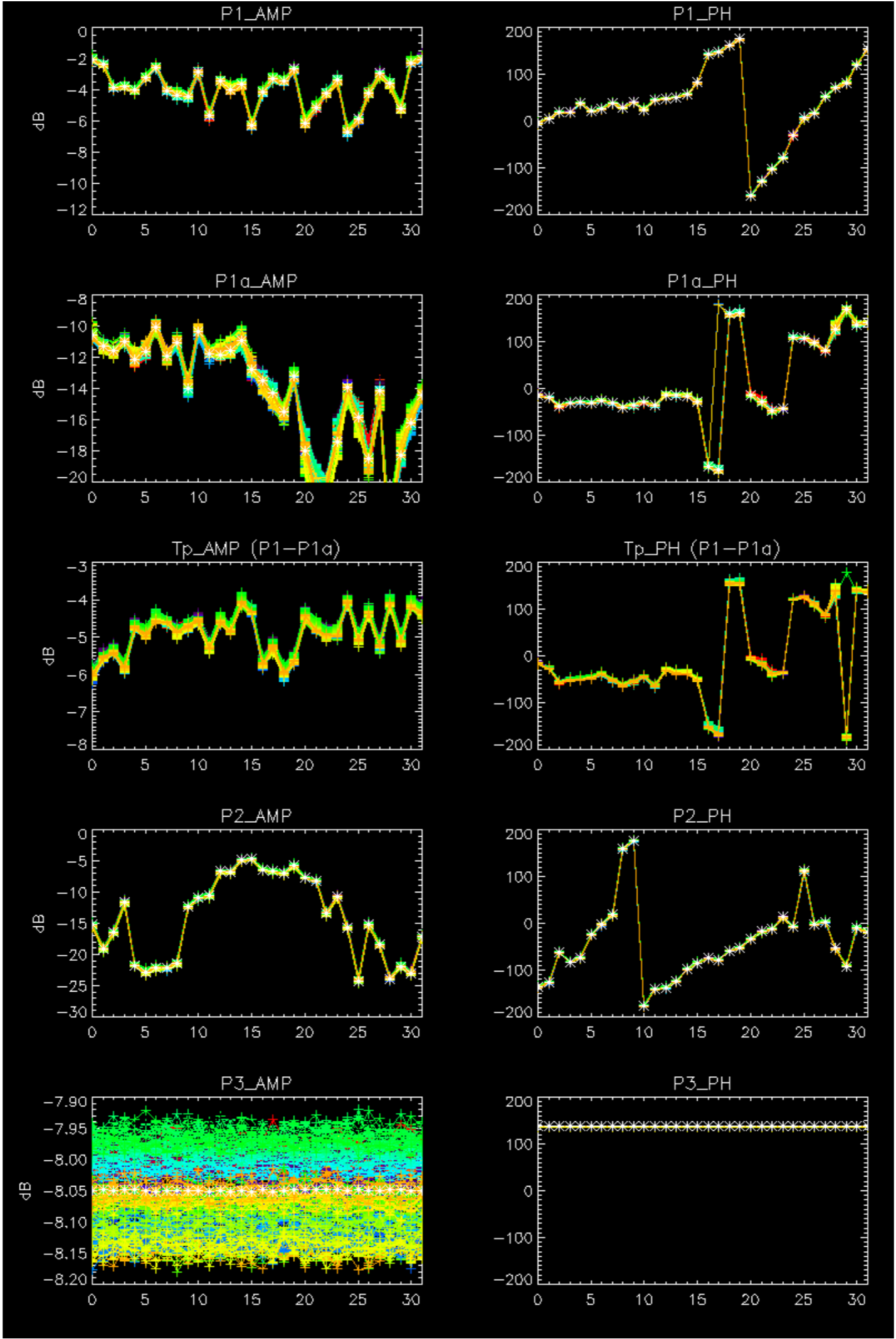
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

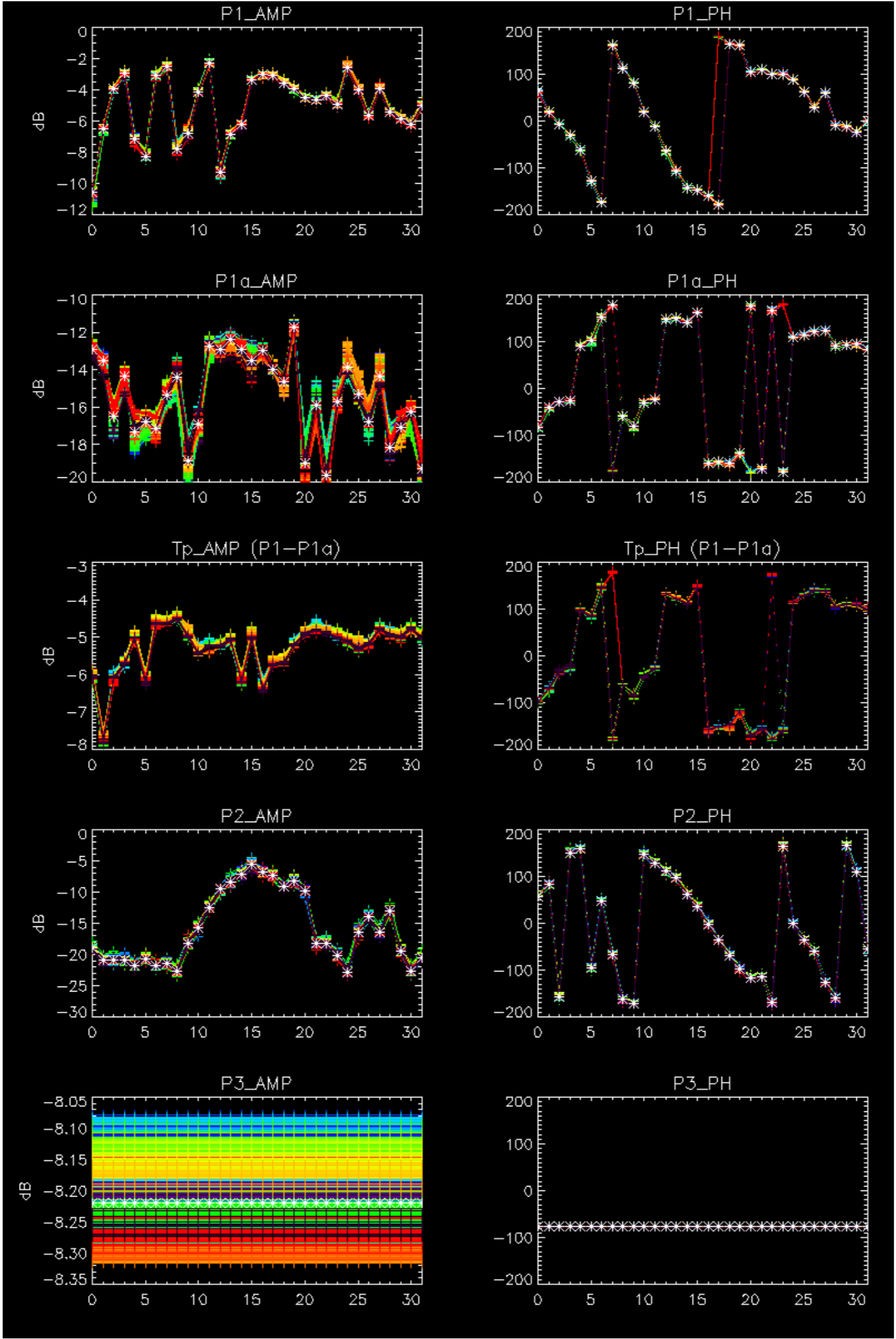
Cal pulses for WVS IS2



No anomalies observed on available browse products

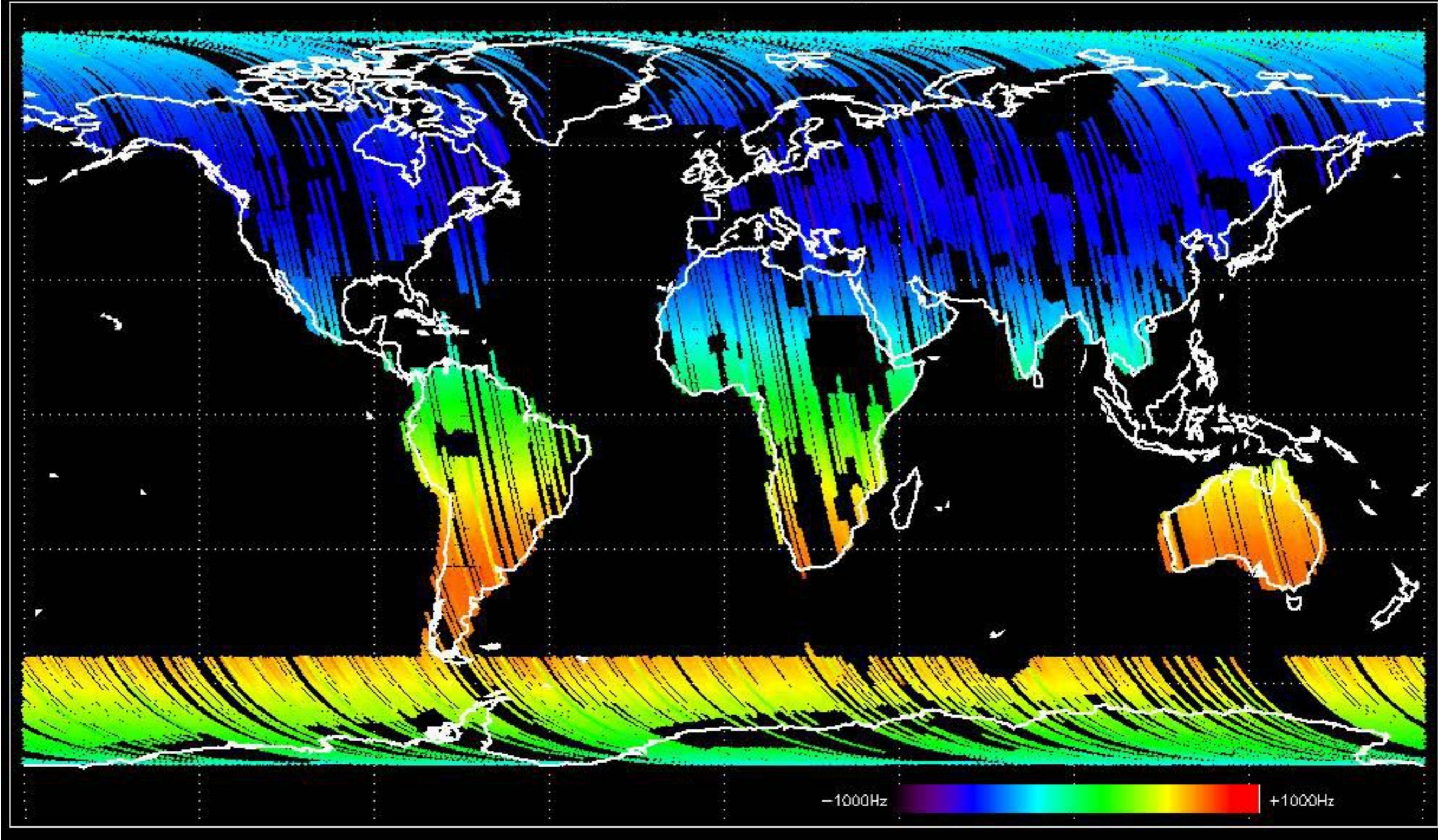
No anomalies observed.



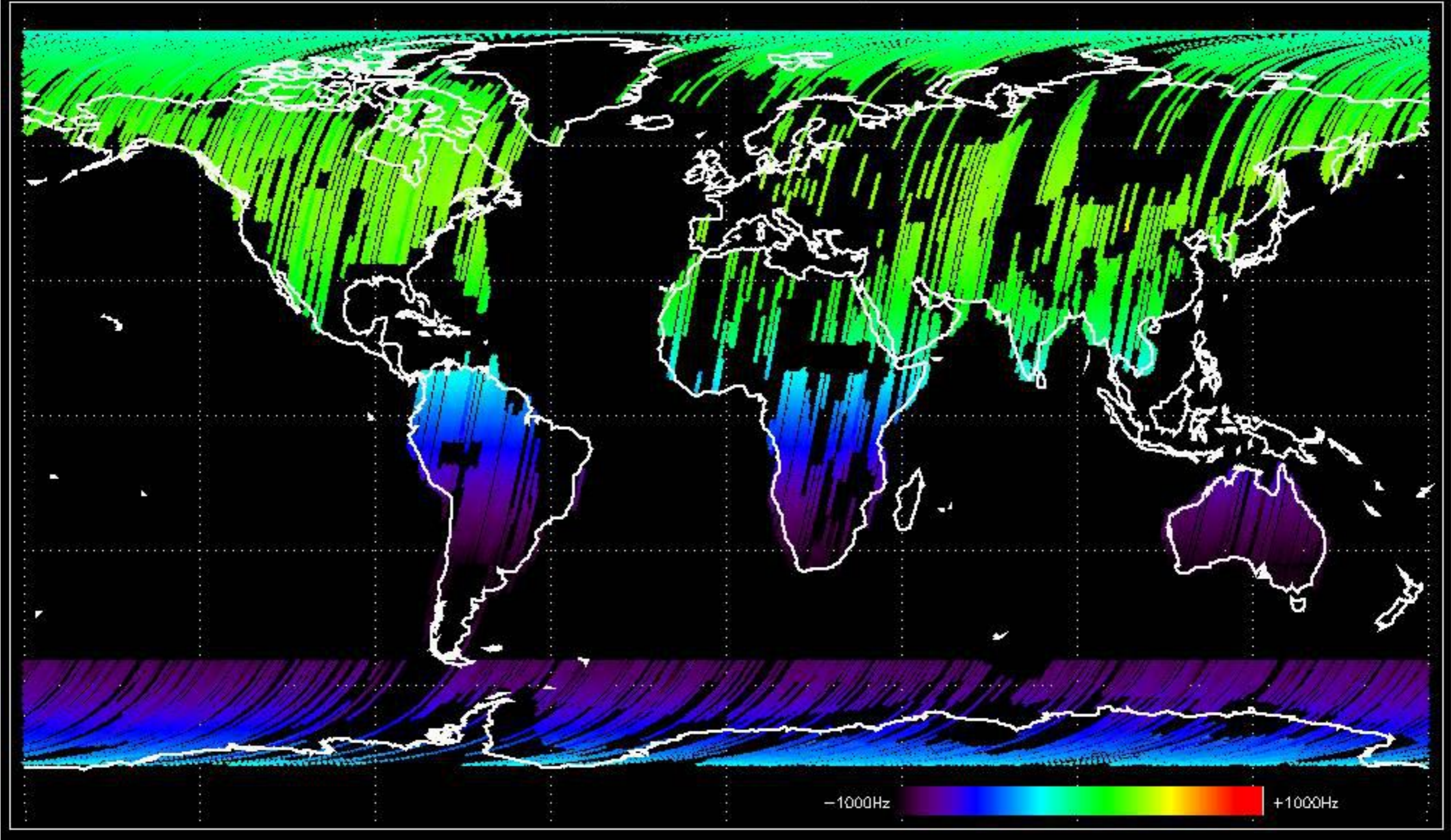


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

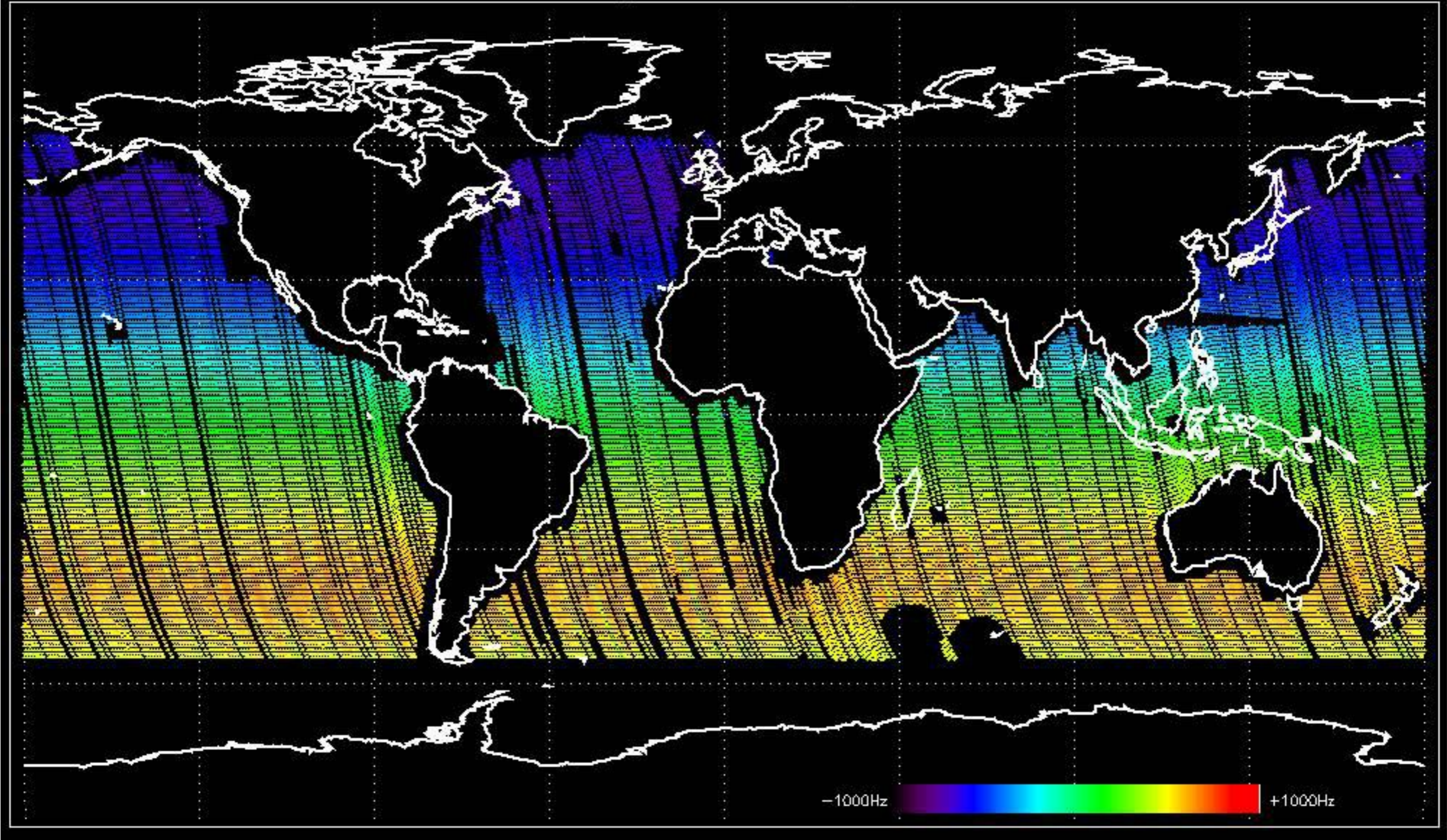
Doppler 'GM1' 'SS1' ascending



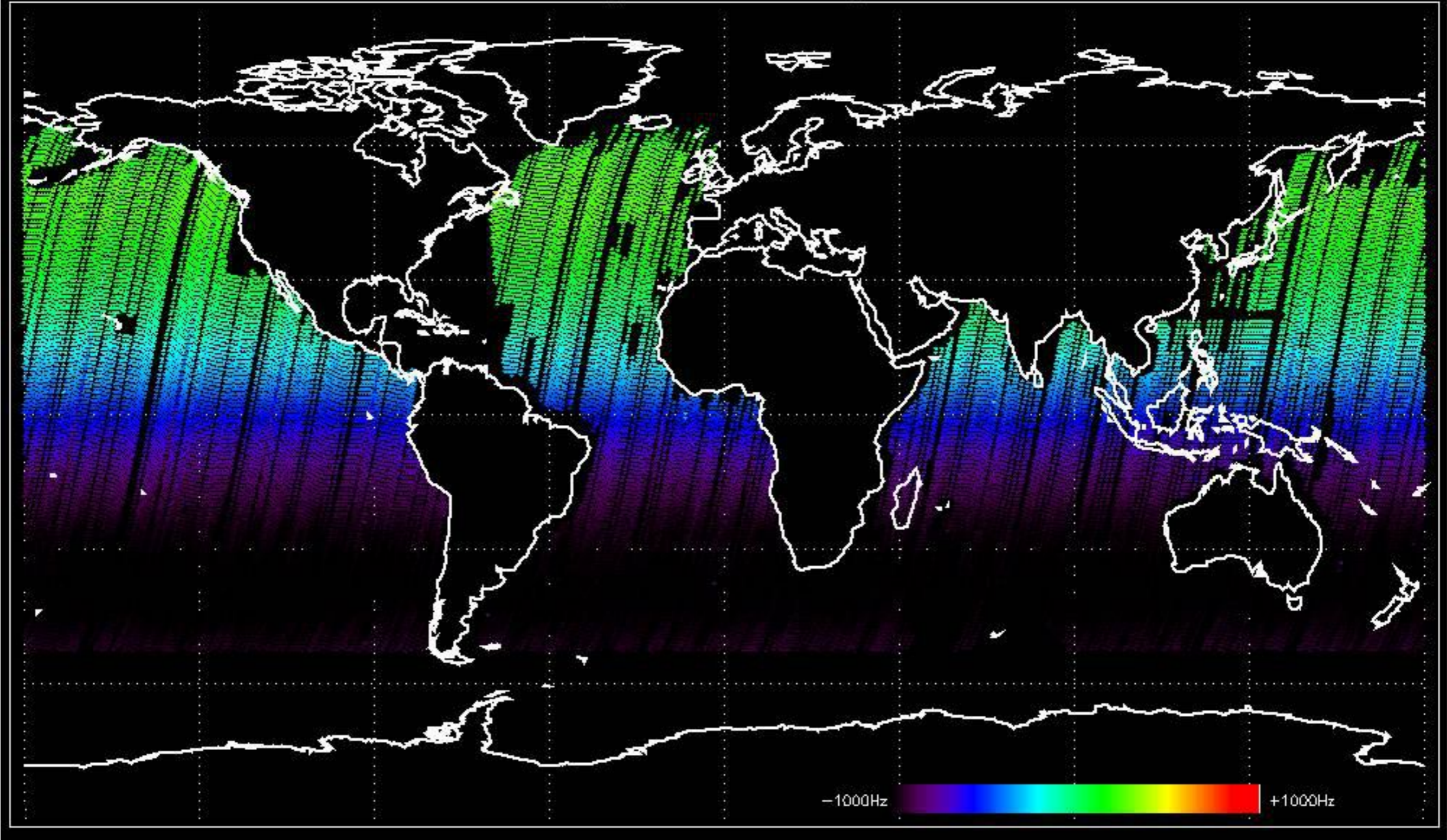
Doppler 'GM1' 'SS1' descending



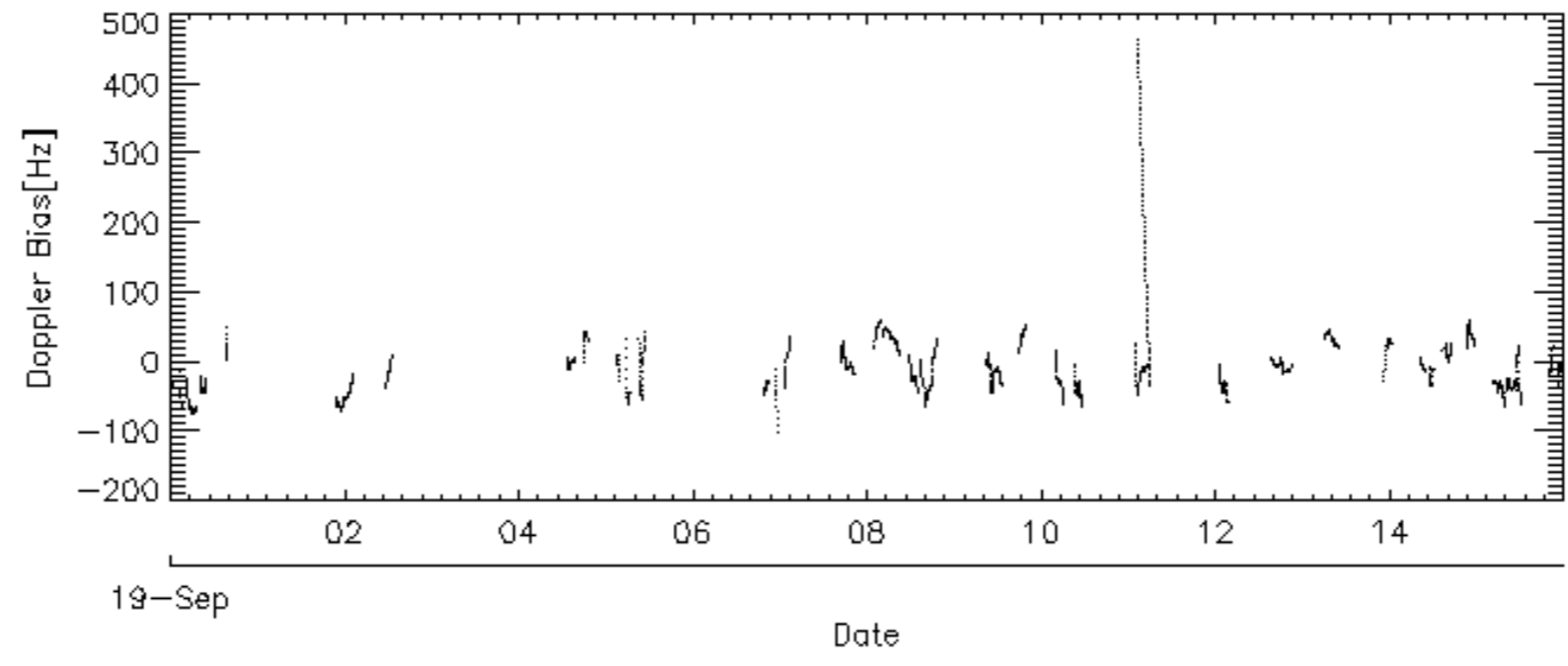
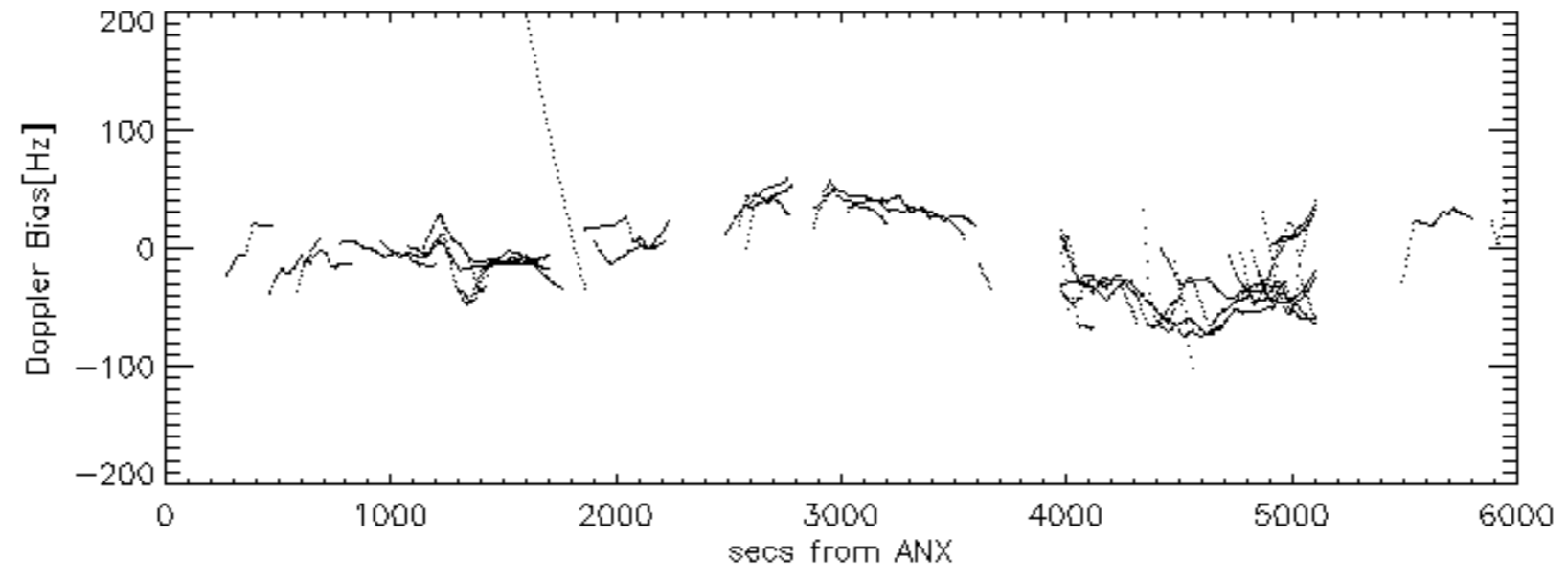
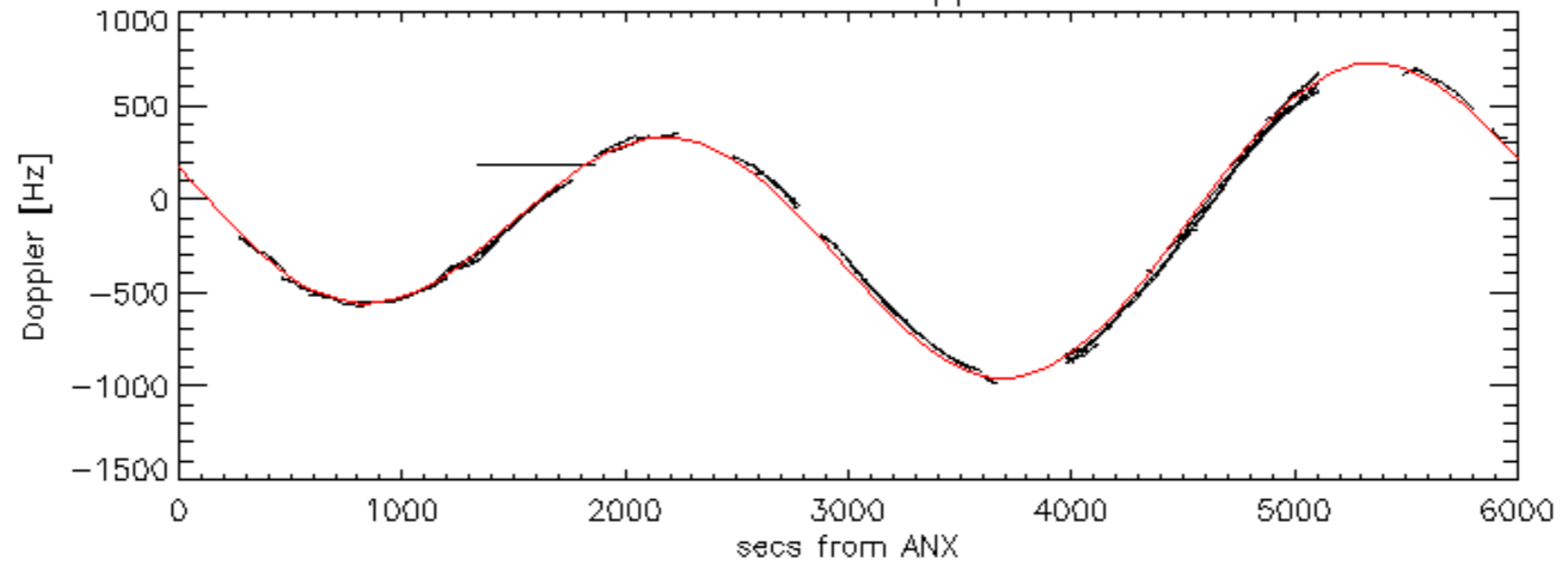
Doppler 'WVS' 'IS2' ascending

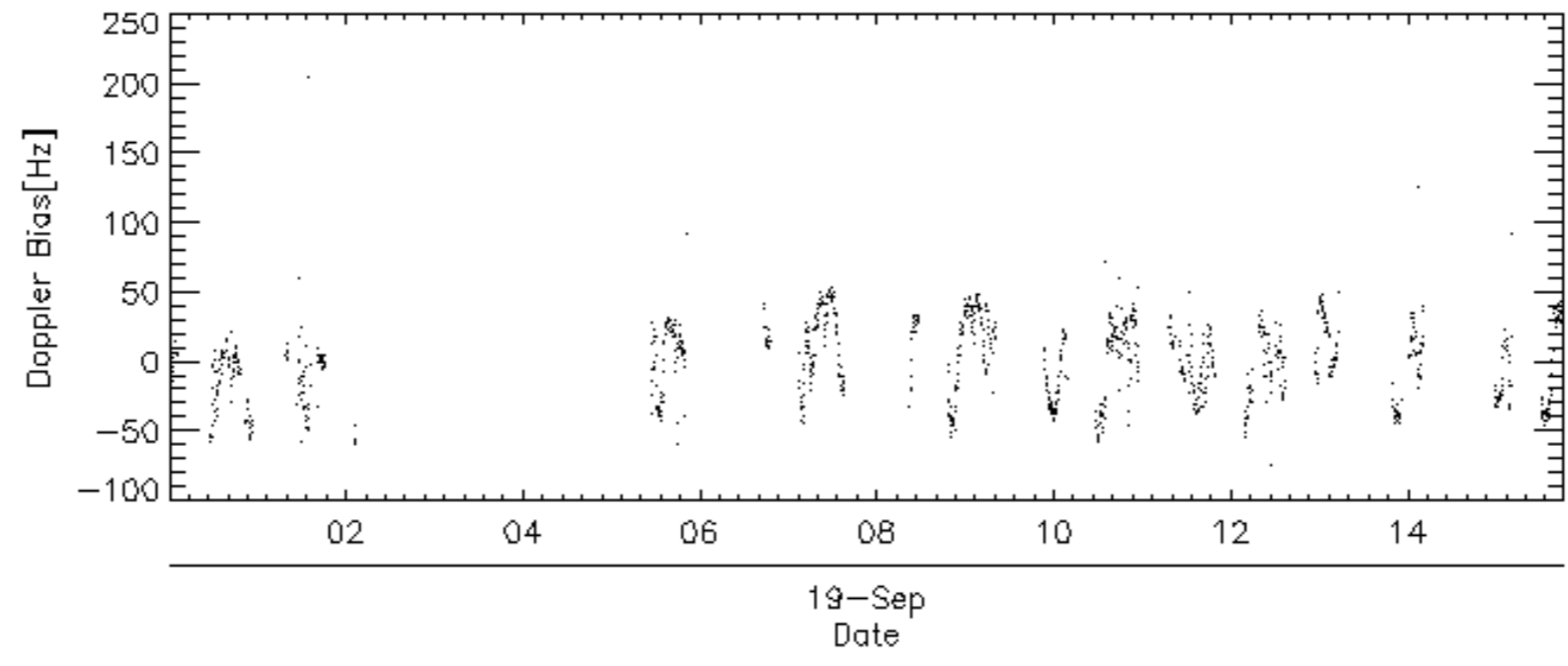
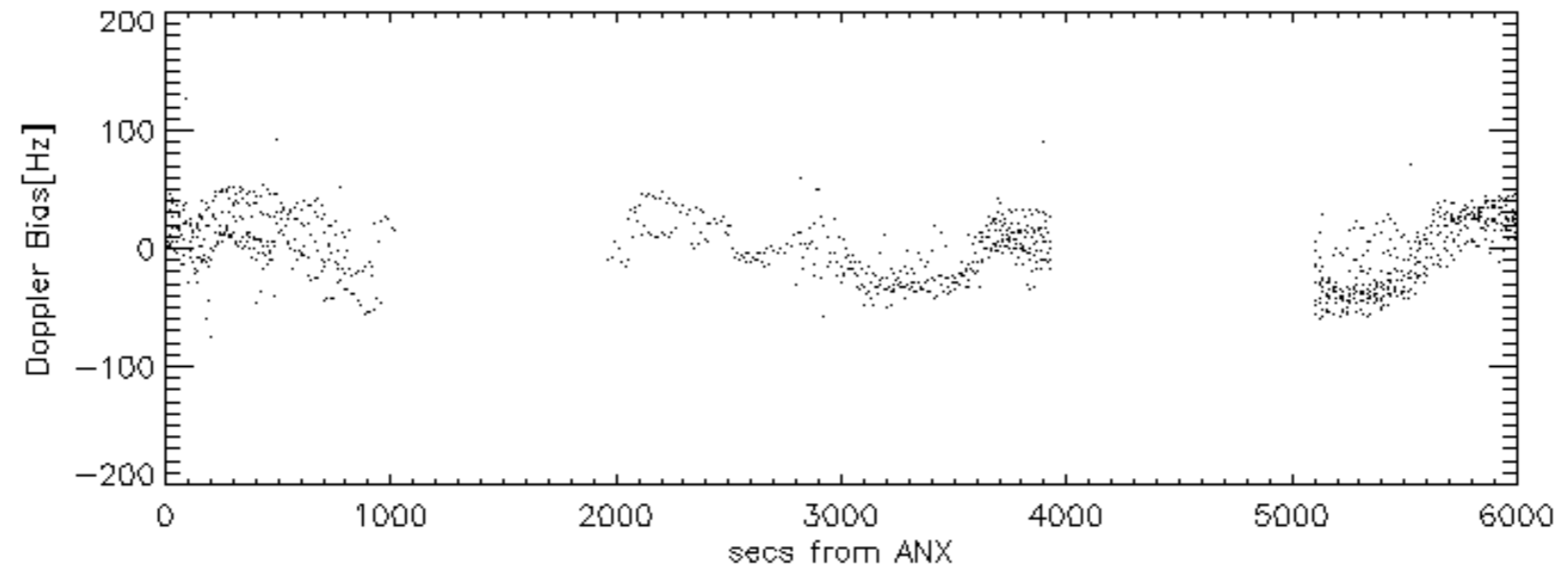
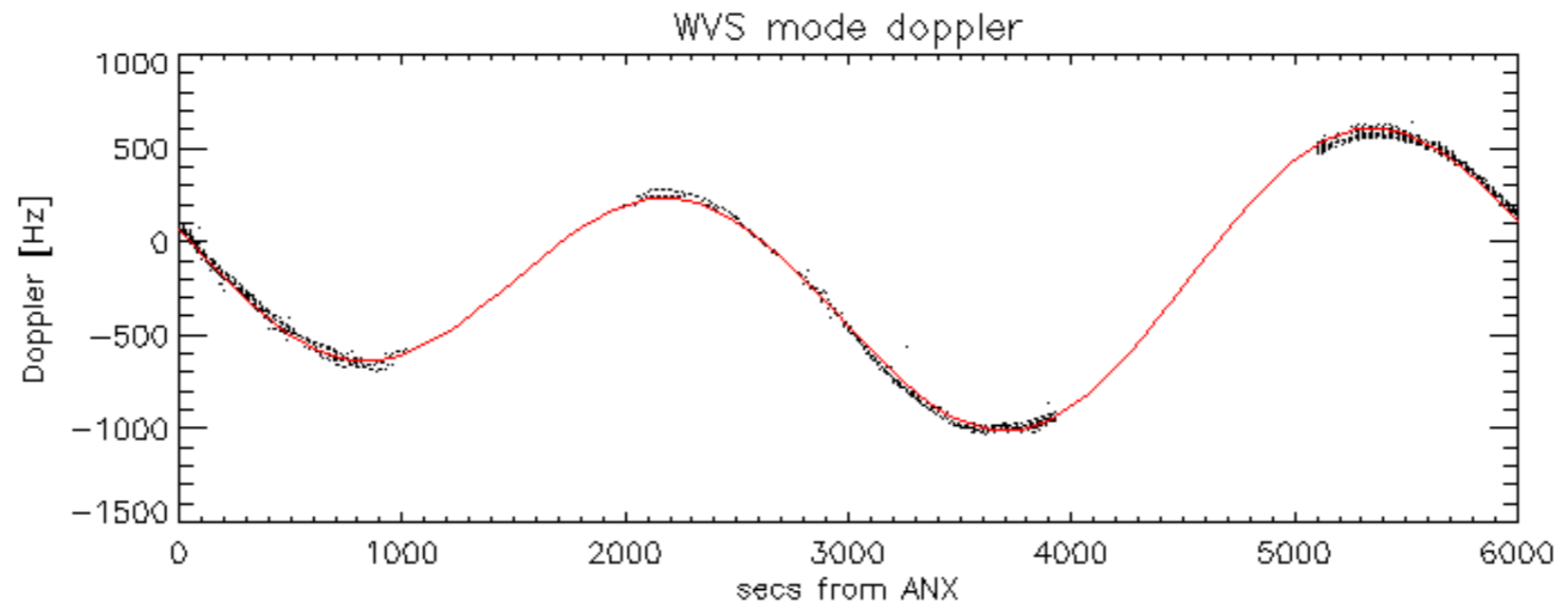


Doppler 'WVS' 'IS2' descending

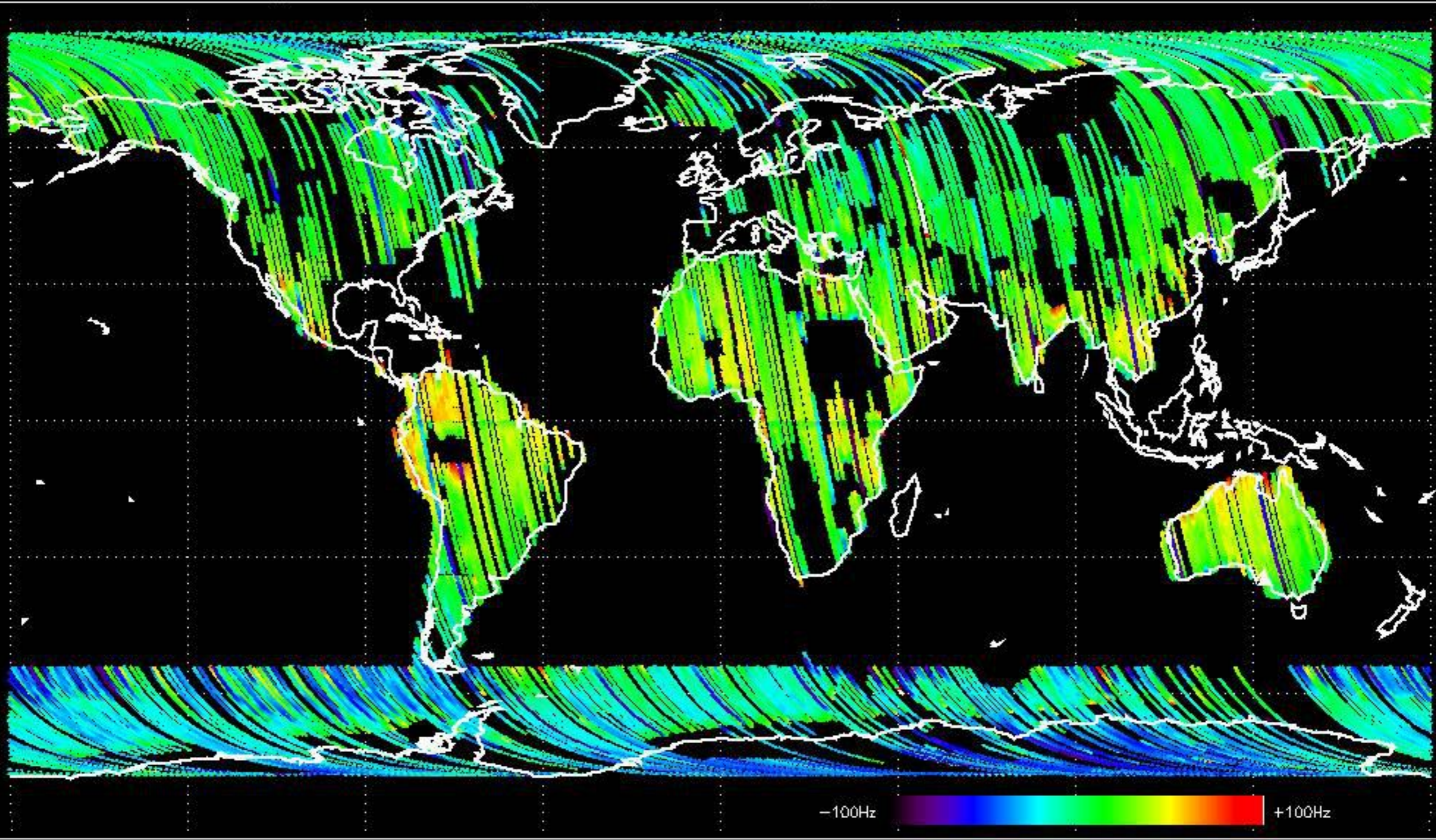


GM1 mode doppler

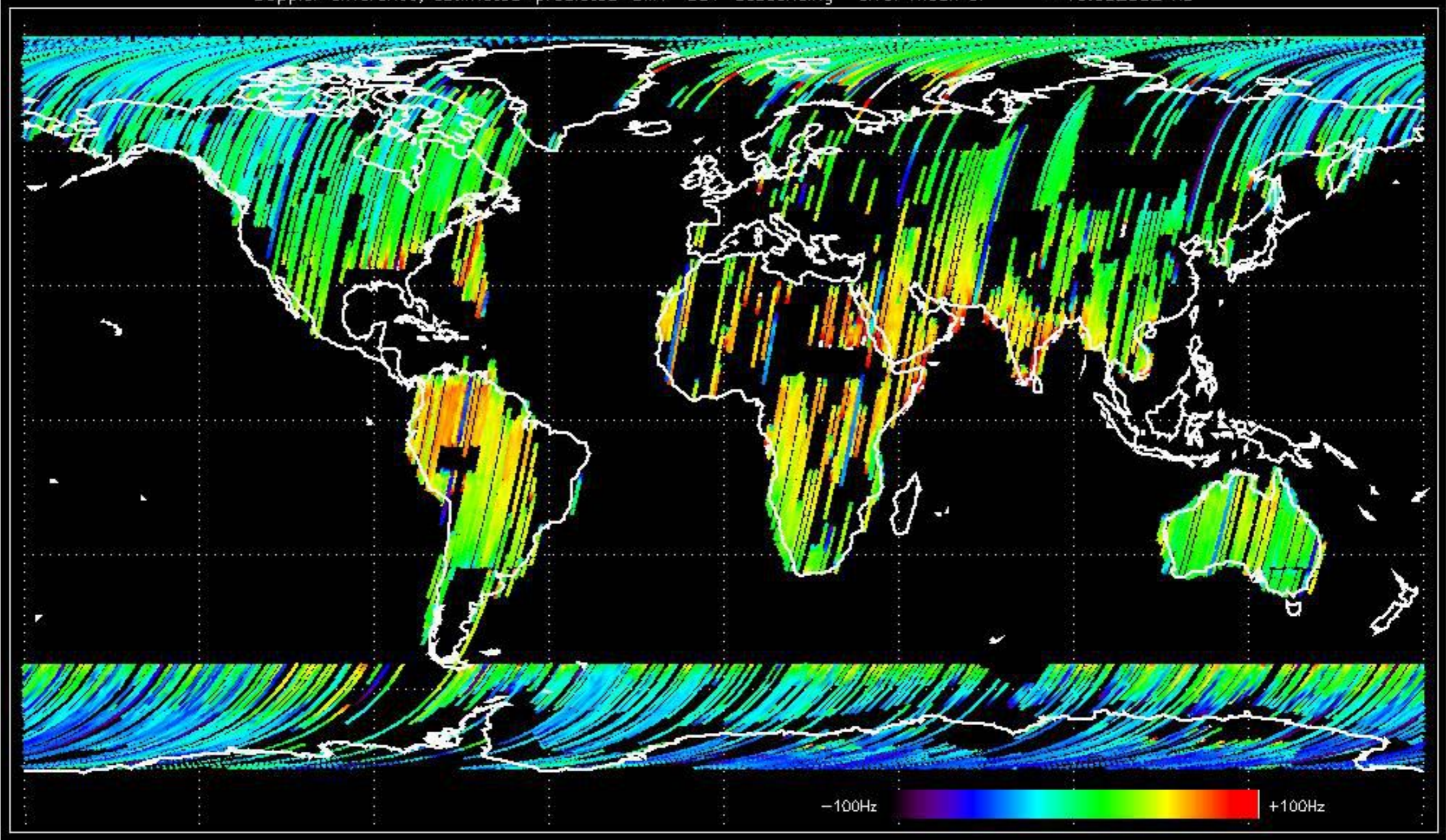




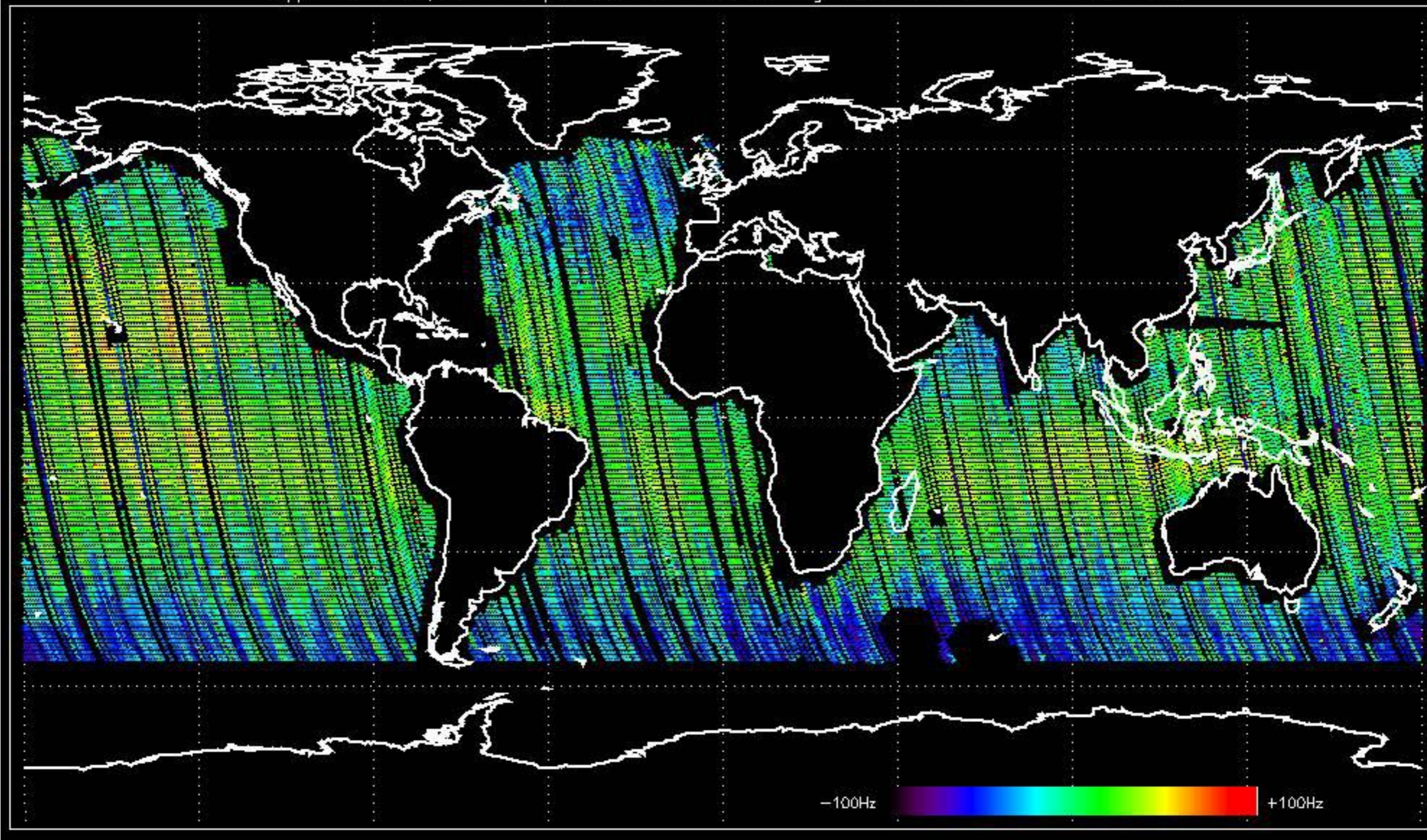
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.285308 Hz



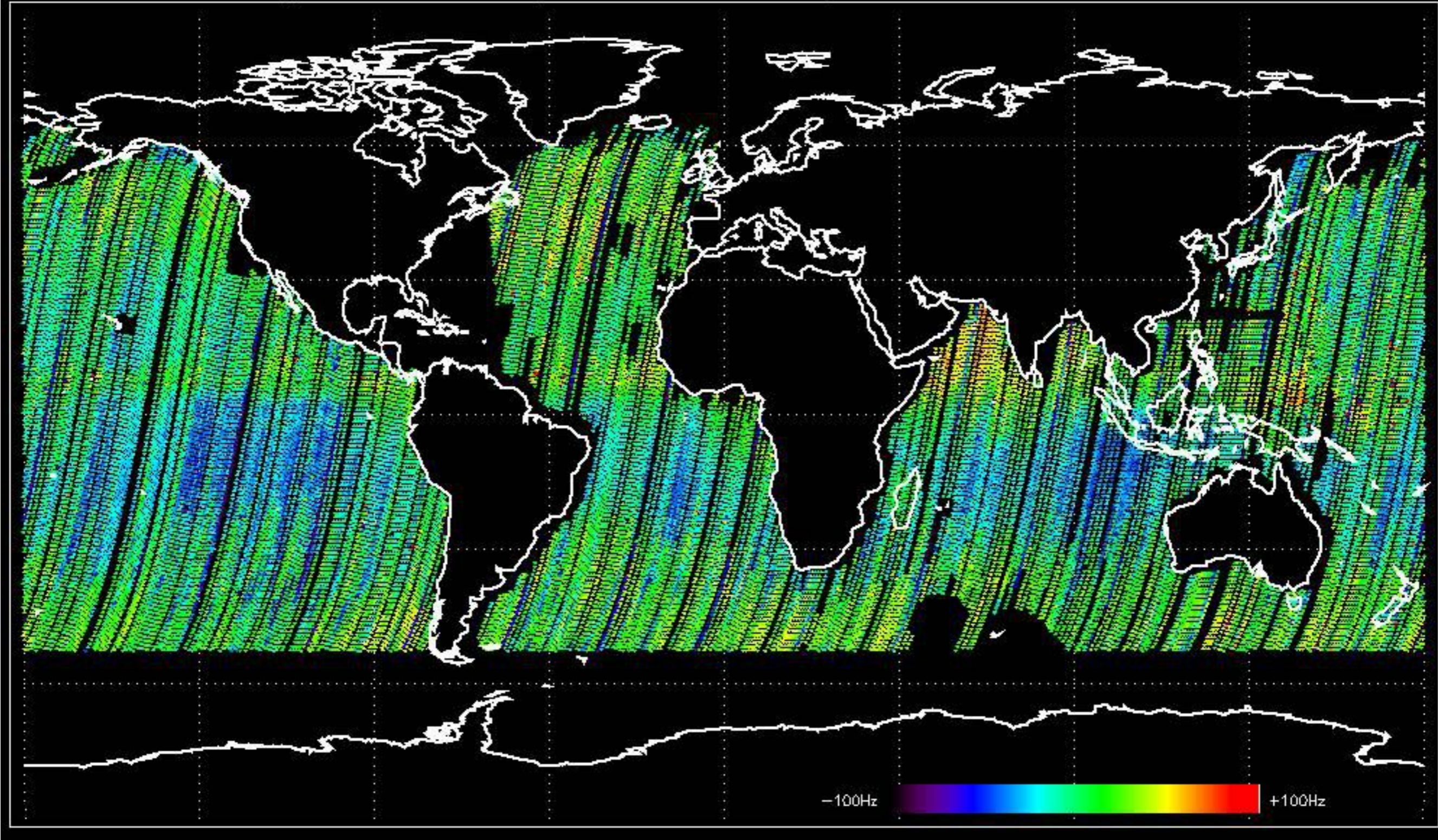
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.652052 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.916470 Hz

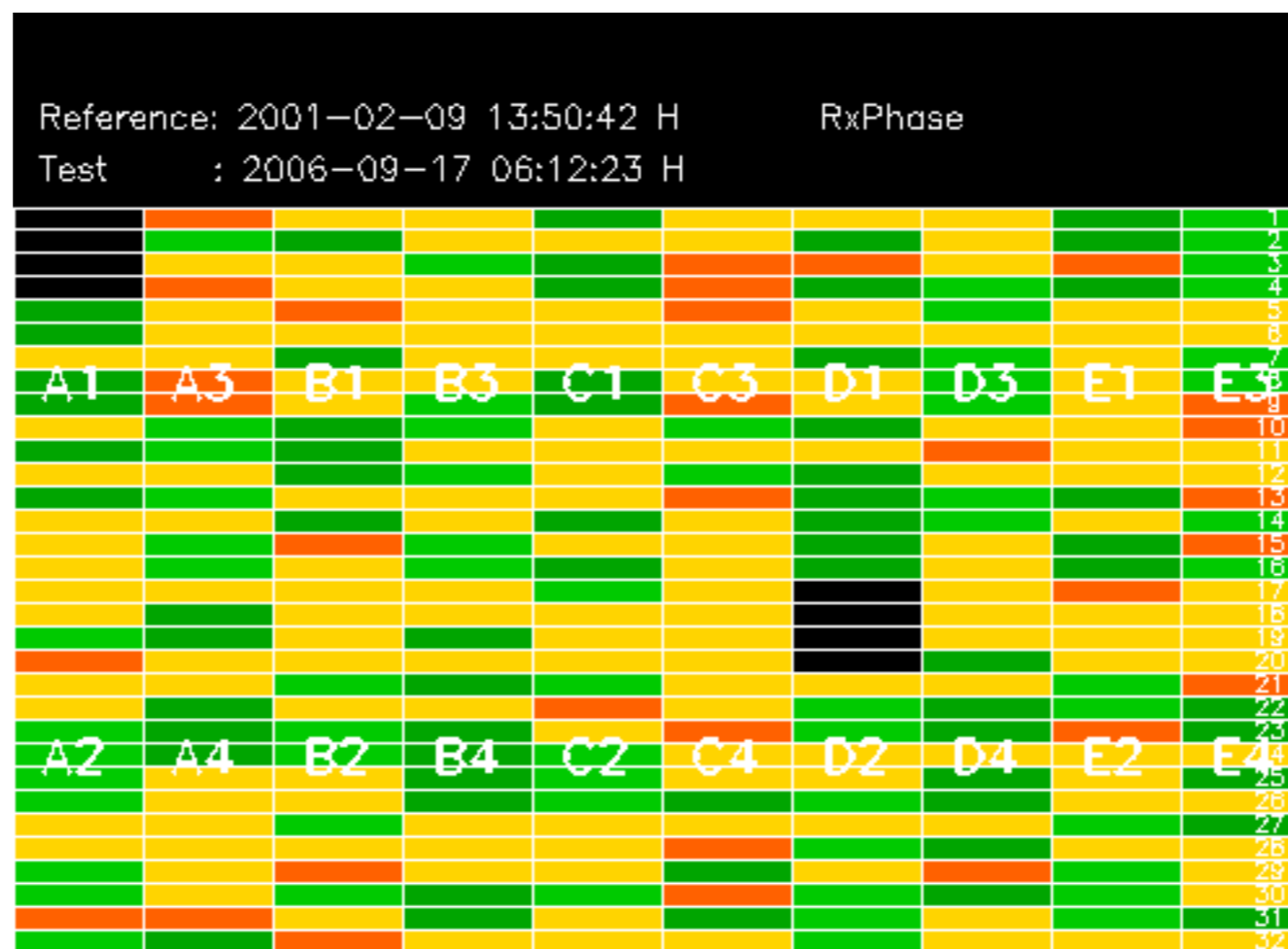


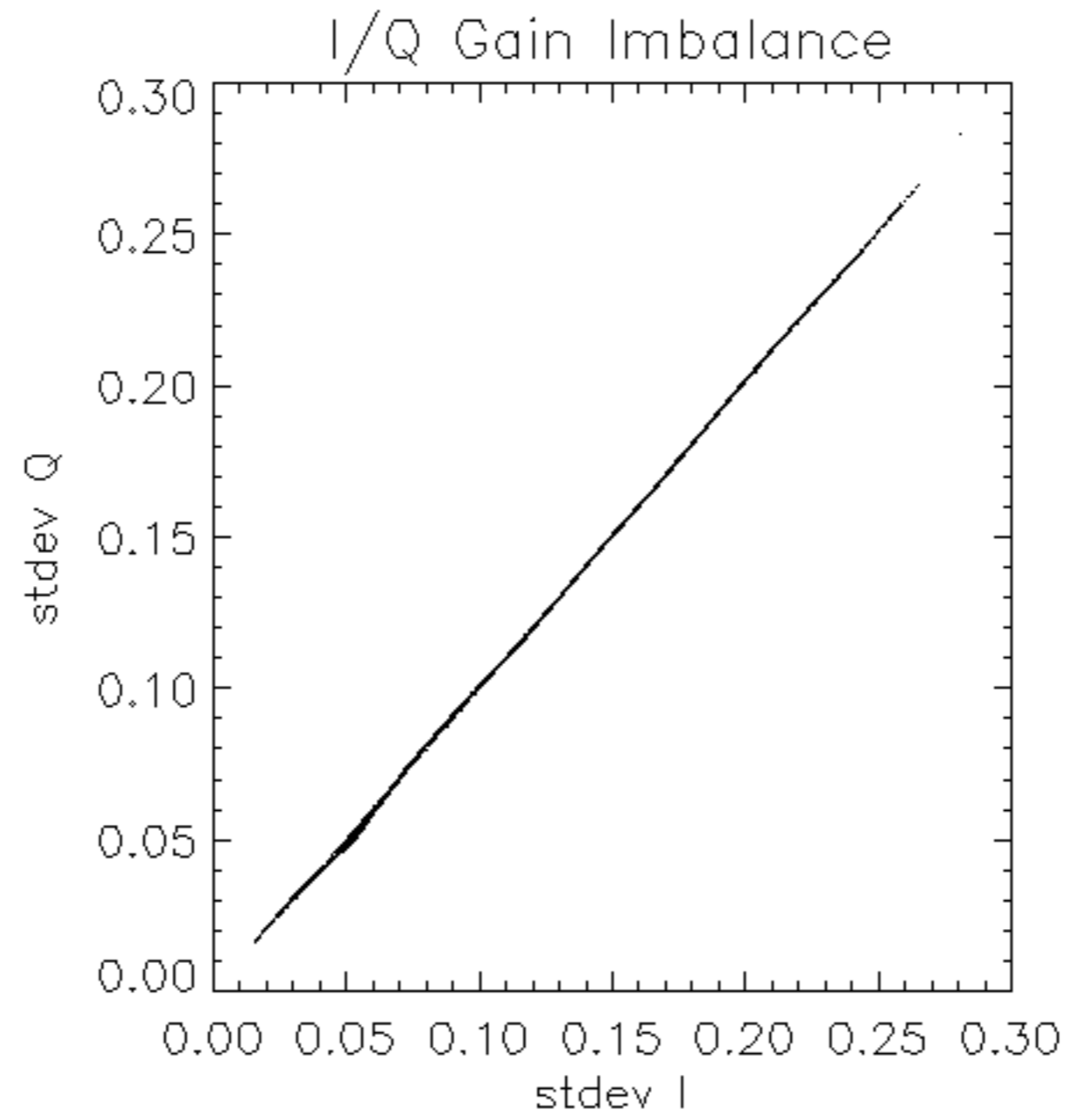
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.237490 Hz

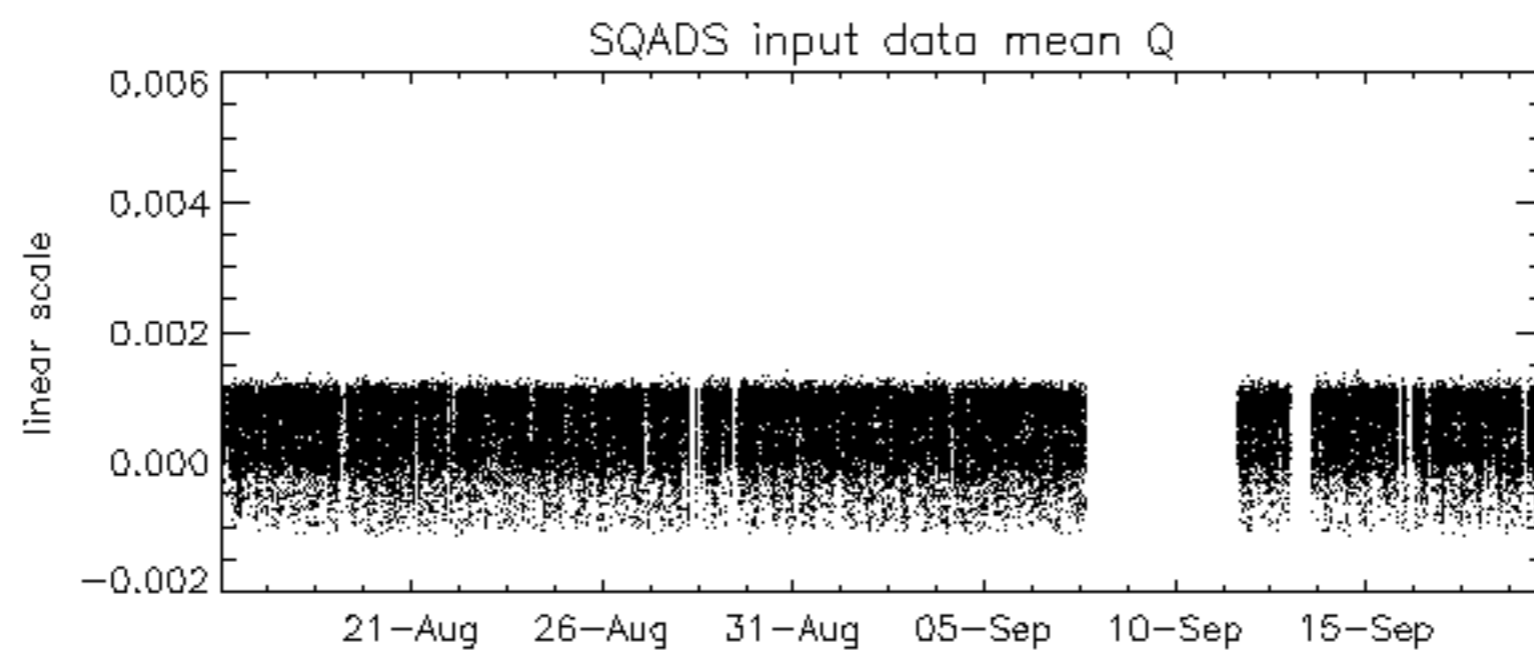
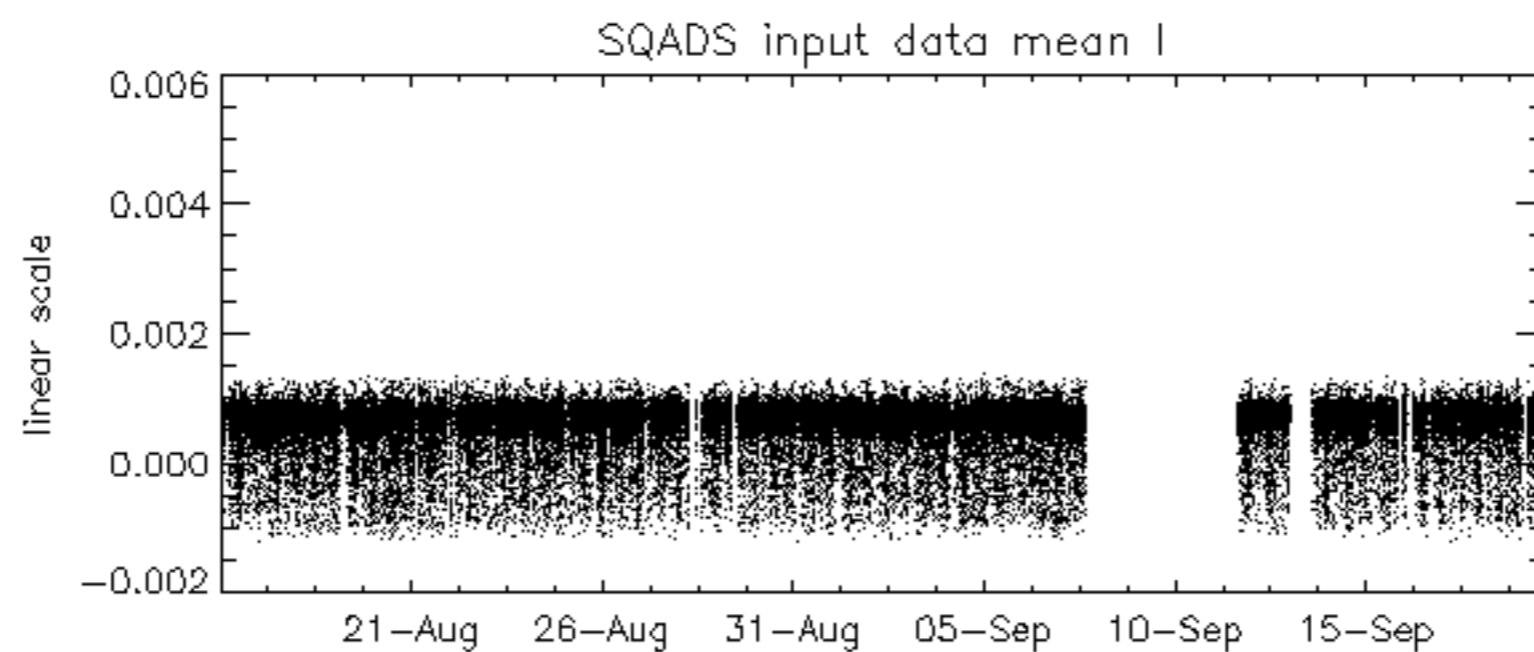
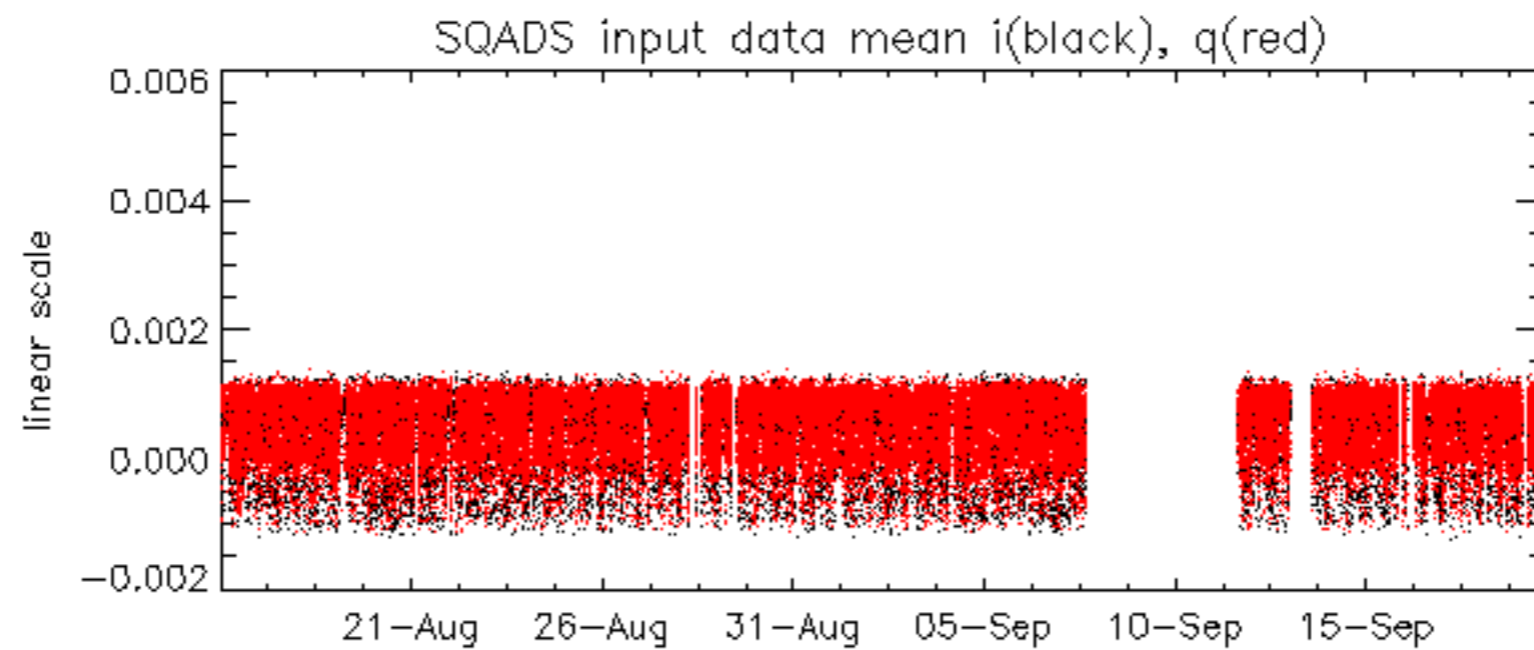


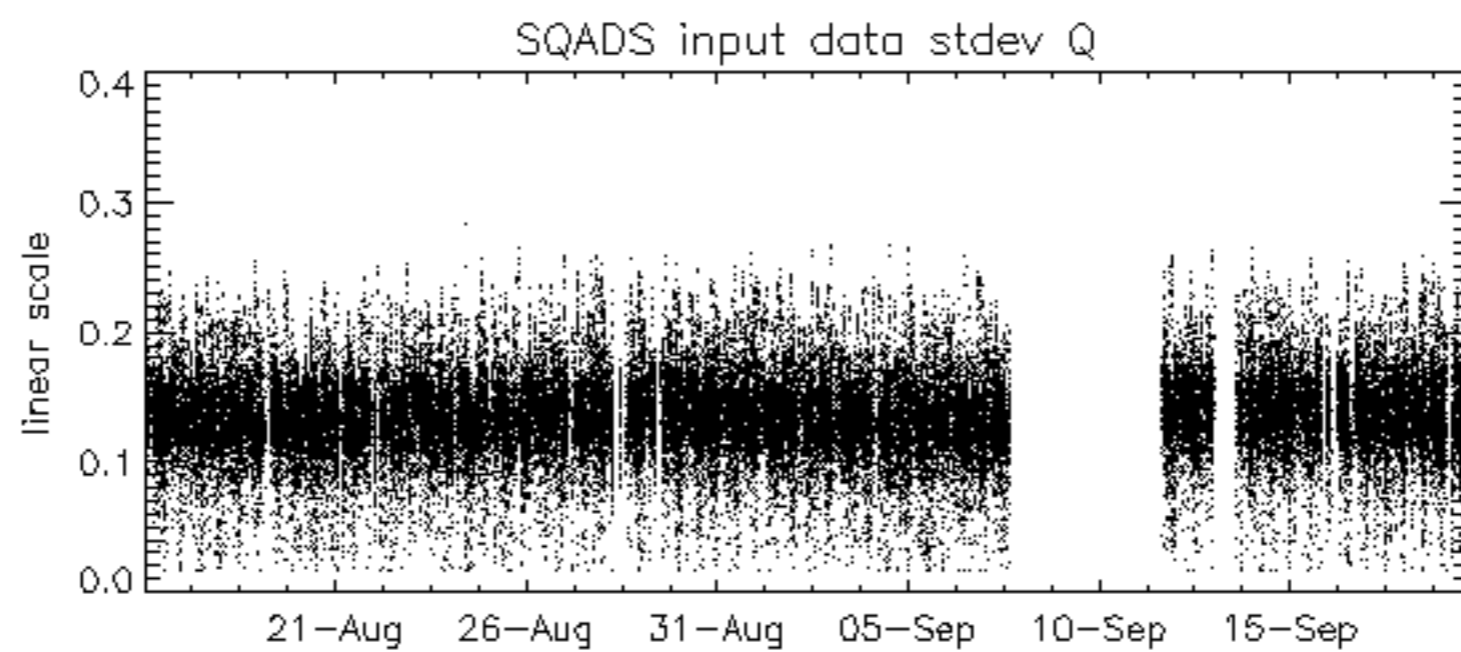
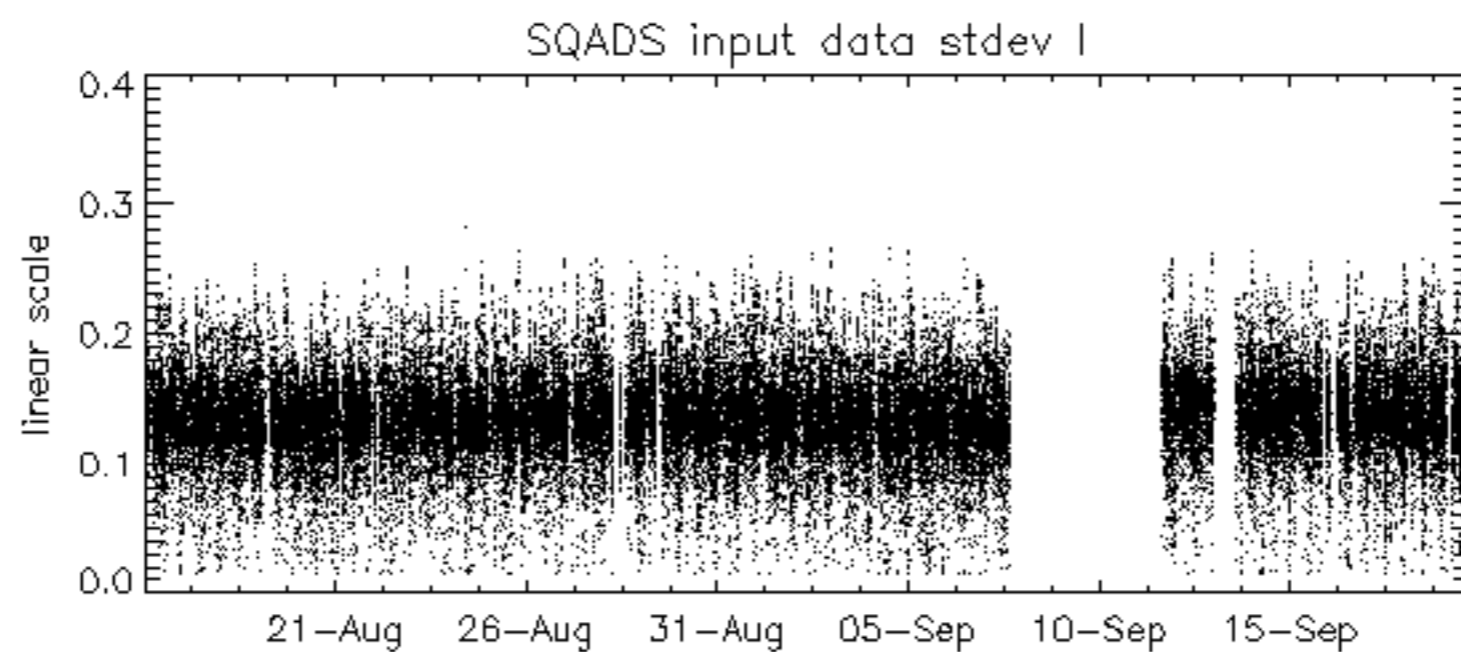
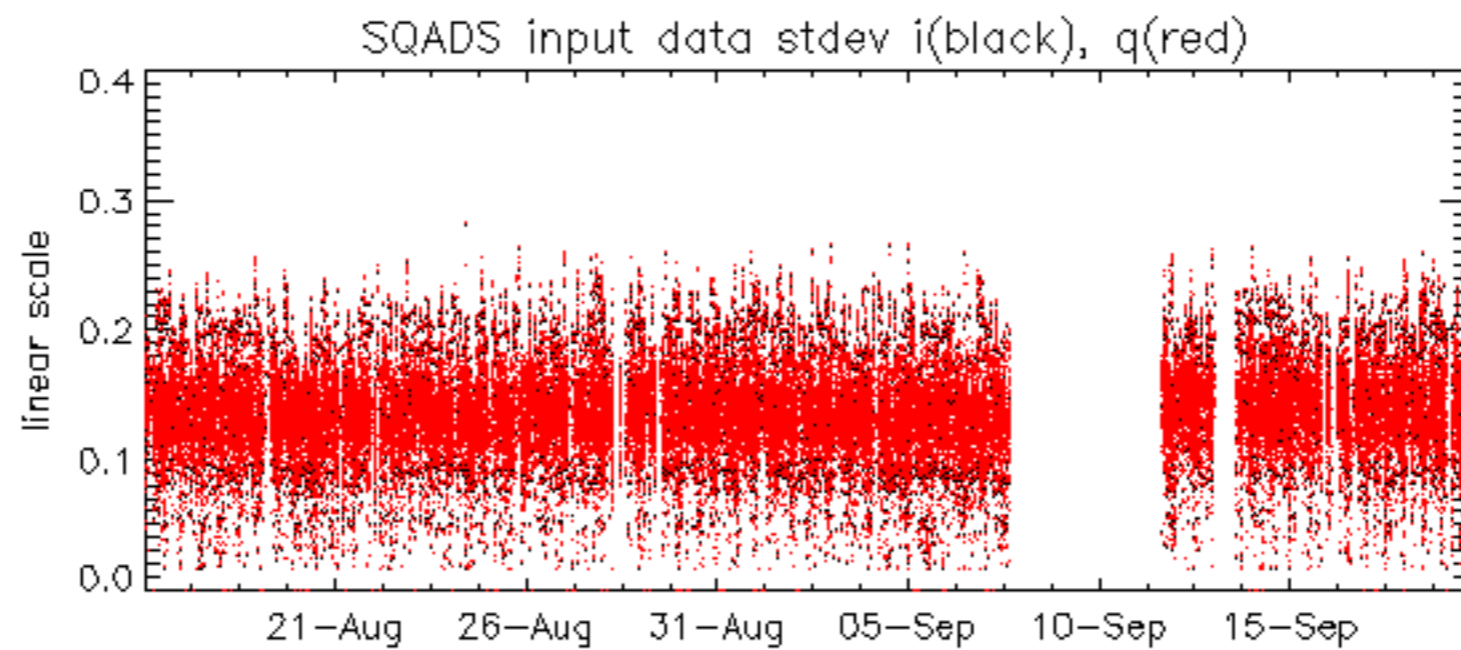
No anomalies observed on available MS products:

No anomalies observed.





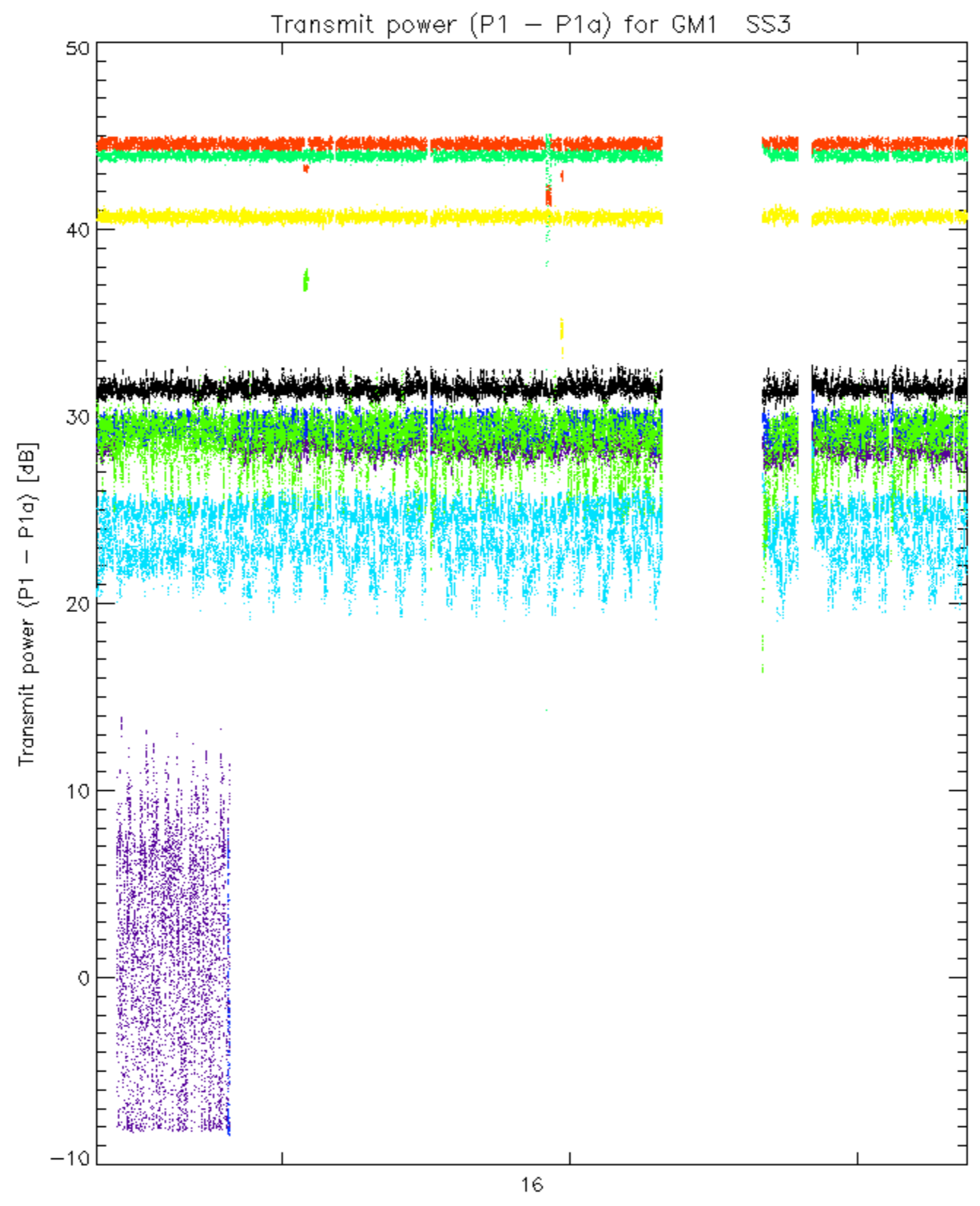




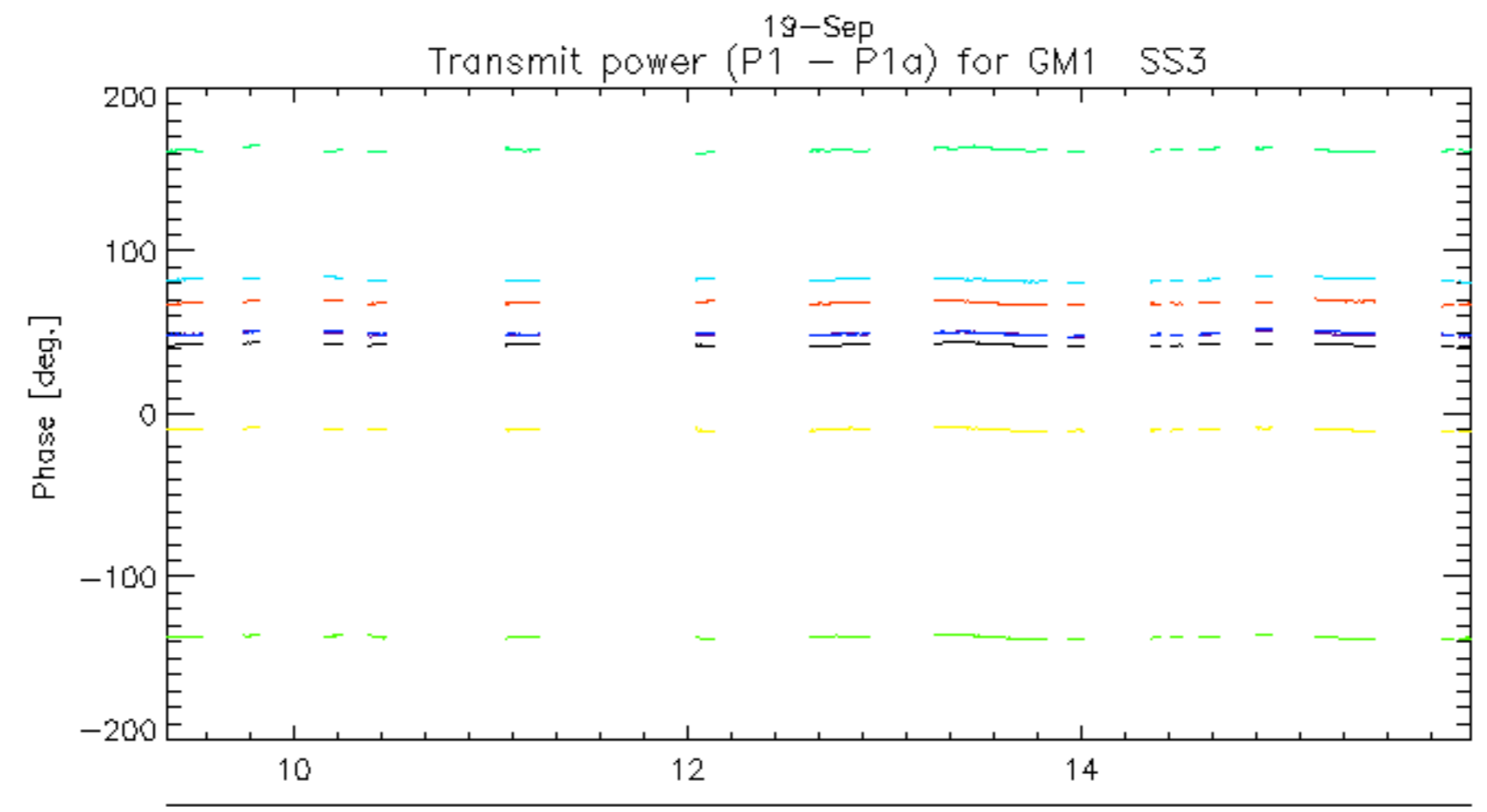
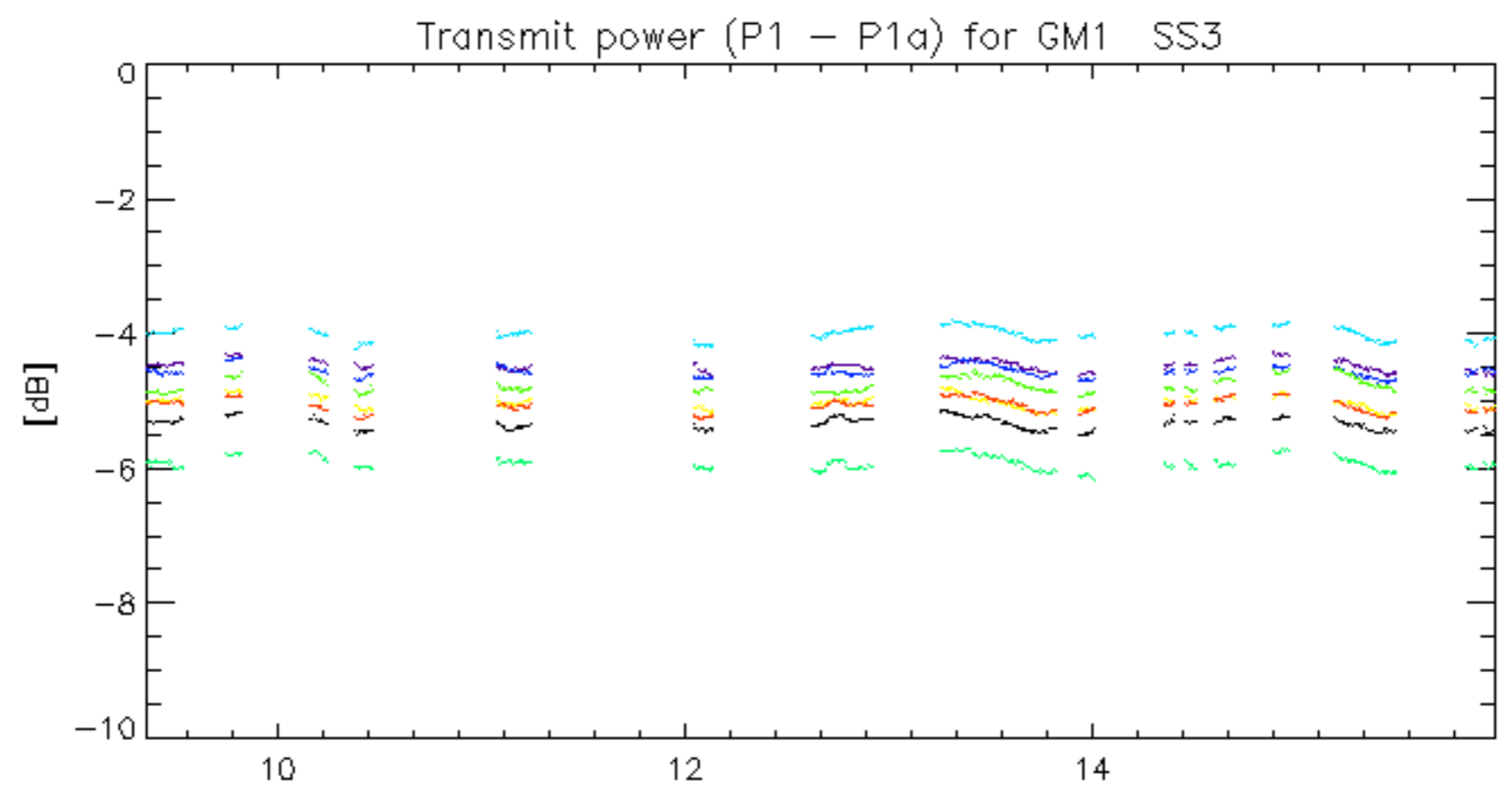
Summary of analysis for the last 3 days 2006091[890]

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

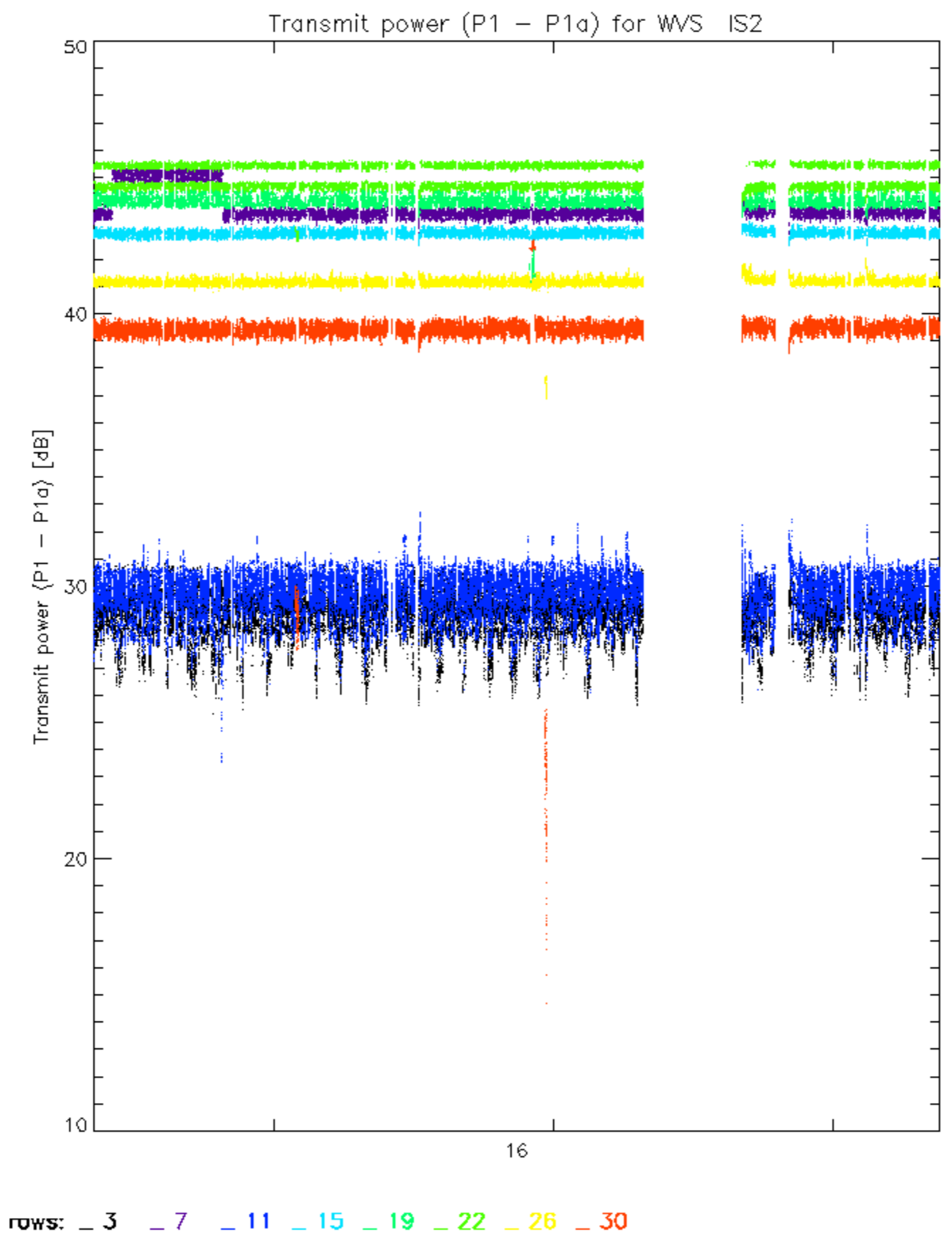
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060918_012434_00000802051_00189_23790_5910.N1	1	0
ASA_IMM_1PNPDE20060919_004855_000001852051_00203_23804_5979.N1	1	0
ASA_GM1_1PNPDK20060918_154300_000006402051_00197_23798_4732.N1	0	7
ASA_WSM_1PNPDE20060918_034044_00000852051_00190_23791_2633.N1	0	6
ASA_WSM_1PNPDE20060918_034046_00000852051_00190_23791_2718.N1	0	6
ASA_WSM_1PNPDE20060918_180337_000001712051_00199_23800_2739.N1	0	8
ASA_WSM_1PNPDE20060919_112933_00000852051_00209_23810_2895.N1	0	27

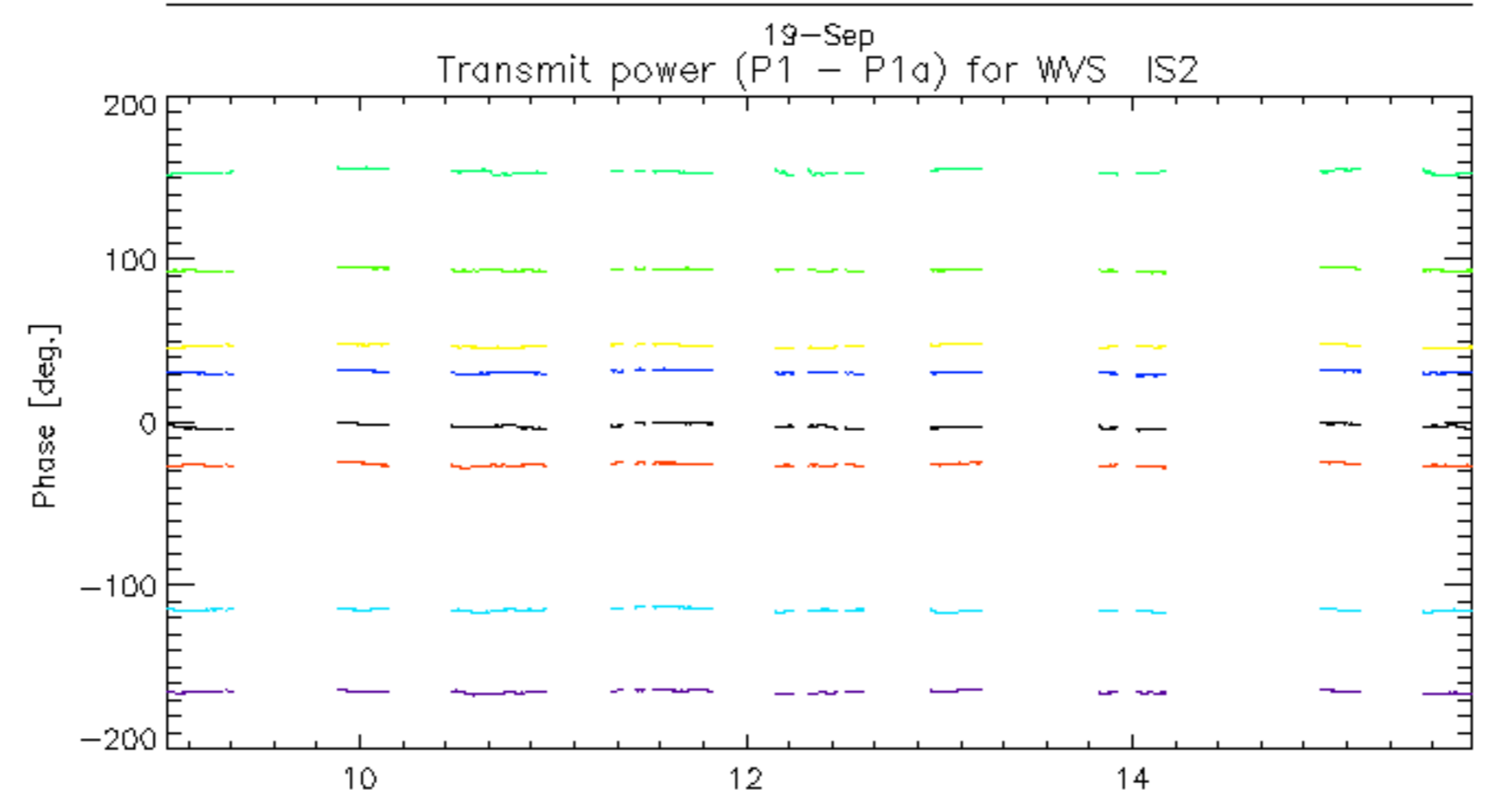
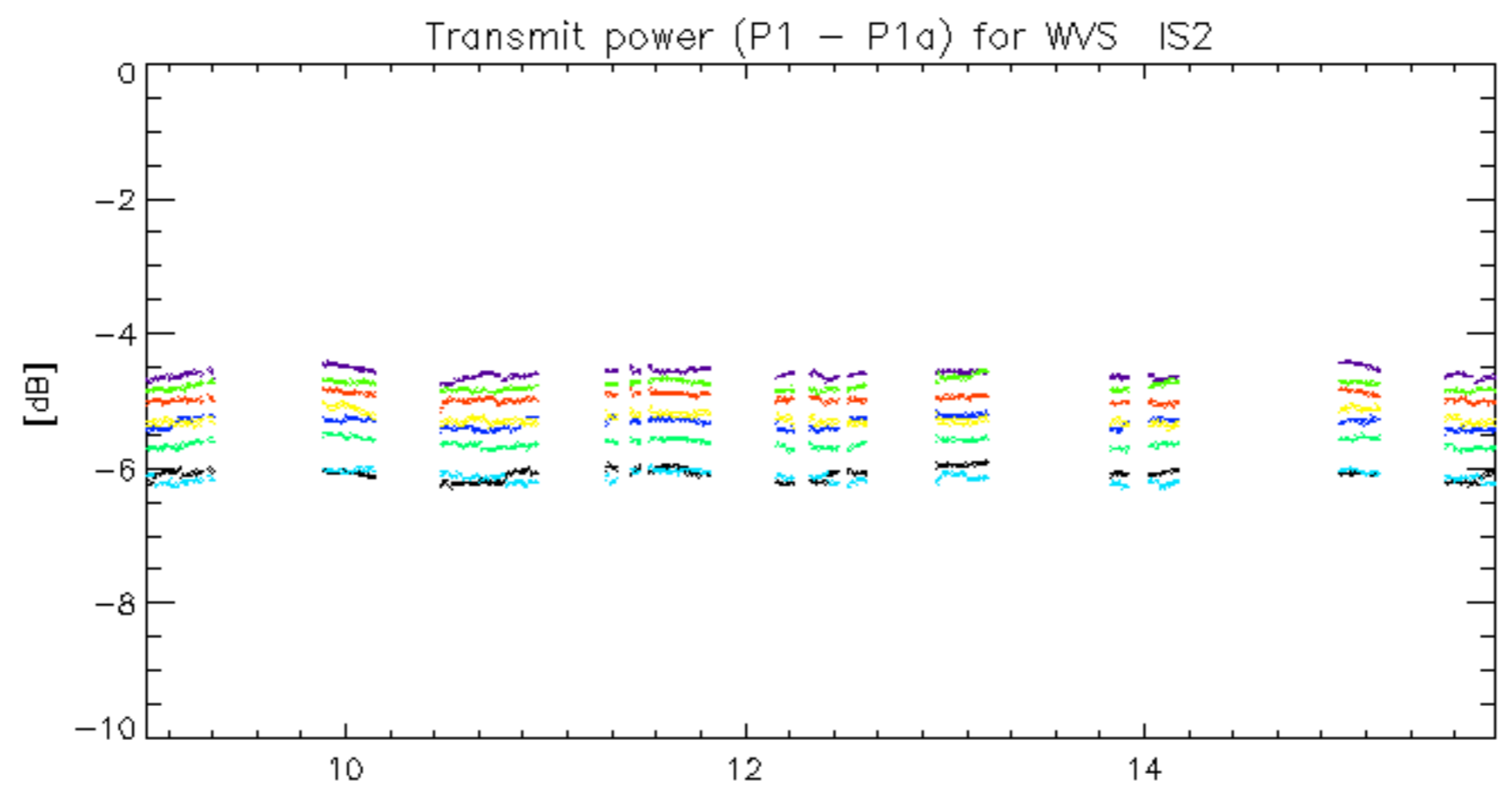


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.