

PRELIMINARY REPORT OF 060907

last update on Thu Sep 7 16:42:36 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 2006-09-06 00:00:00 to 2006-09-07 16:42:36

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	70	15	3	1
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	43	70	15	3	1
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	70	15	3	1
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	70	15	3	1

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	52	25	17	81
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	52	25	17	81
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	52	25	17	81
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	52	25	17	81

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	20060906 170159
H	20060907 062647

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	-3.942265	0.009728	0.002226
7	P1	-3.073703	0.051165	0.100997
11	P1	-4.078953	0.065163	0.106127
15	P1	-6.203576	0.094742	0.090533
19	P1	-3.495188	0.045023	-0.139097
22	P1	-4.564824	0.024452	0.005773
26	P1	-3.933572	0.020432	-0.039604
30	P1	-5.783126	0.129840	-0.097840
3	P1	-16.564409	0.263263	-0.121594
7	P1	-16.841492	0.632191	-0.089690
11	P1	-16.814247	0.315086	0.102600
15	P1	-12.942546	0.143613	0.063586
19	P1	-14.579712	0.395961	-0.274710
22	P1	-15.782726	0.554169	0.382115
26	P1	-15.188036	0.207663	-0.123696
30	P1	-16.971888	0.398914	0.215677

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.850668	0.083564	0.092784
7	P2	-21.861099	0.098159	-0.017964
11	P2	-15.750050	0.111326	0.002732
15	P2	-7.097641	0.097875	0.018094
19	P2	-9.114116	0.091035	-0.002363
22	P2	-18.129240	0.085097	0.028823
26	P2	-16.399452	0.092080	-0.013450
30	P2	-19.475227	0.090166	0.015466

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175285	0.004020	-0.011765
7	P3	-8.175285	0.004020	-0.011765
11	P3	-8.175285	0.004020	-0.011765
15	P3	-8.175285	0.004020	-0.011765
19	P3	-8.175285	0.004020	-0.011765
22	P3	-8.175285	0.004020	-0.011765
26	P3	-8.175330	0.004019	-0.011642
30	P3	-8.175330	0.004019	-0.011642

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	-3.837590	0.021347	-0.017865
7	P1	-2.497219	0.280495	0.156264
11	P1	-2.903632	0.140914	0.127723
15	P1	-3.668192	0.144110	0.084763
19	P1	-3.450482	0.073456	-0.106247
22	P1	-5.089254	0.034543	-0.026334
26	P1	-5.869308	0.028133	0.009739
30	P1	-5.196886	0.078653	-0.047424
3	P1	-11.629379	0.067475	-0.009230
7	P1	-9.924253	0.187900	0.009097
11	P1	-10.317941	0.084449	-0.041754
15	P1	-10.846189	0.176940	-0.098484
19	P1	-15.654957	3.213501	-0.600728
22	P1	-20.860500	1.705845	0.227307
26	P1	-16.038406	0.414696	0.304646
30	P1	-18.004099	0.783154	-0.098488

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.444002	0.080090	0.098607
7	P2	-22.230860	0.192280	0.096729
11	P2	-10.923962	0.055796	0.083543
15	P2	-4.872015	0.041054	0.036802
19	P2	-6.853370	0.040538	0.016817
22	P2	-8.172087	0.061453	0.048800
26	P2	-24.166620	0.126133	-0.003833
30	P2	-21.963663	0.077026	0.016280

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.017879	0.003644	-0.013538
7	P3	-8.017693	0.003643	-0.013225
11	P3	-8.017760	0.003648	-0.012837
15	P3	-8.017742	0.003657	-0.012854
19	P3	-8.017782	0.003666	-0.013251
22	P3	-8.017957	0.003632	-0.013280
26	P3	-8.017783	0.003649	-0.013564
30	P3	-8.017718	0.003646	-0.013220

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	0.000549560
	stdev	1.78132e-07
MEAN Q	mean	0.000529938
	stdev	2.16324e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136051
	stdev	0.00108404
STDEV Q	mean	0.136395
	stdev	0.00110019



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006090[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_1PNPDE20060906_004518_000001932051_00016_23617_5564.N1	1	0
ASA_IMM_1PNPDE20060906_010159_000000692051_00017_23618_5567.N1	1	0
ASA_GM1_1PNPDK20060906_174208_000007252051_00027_23628_4299.N1	0	8
ASA_WSM_1PNPDE20060905_162916_000001222051_00012_23613_1099.N1	0	57
ASA_WSM_1PNPDE20060905_231132_000000672051_00016_23617_1152.N1	0	16
ASA_WSM_1PNPDE20060905_231134_000001092051_00016_23617_1265.N1	0	16
ASA_WSM_1PNPDE20060906_131931_000001472051_00024_23625_1280.N1	0	33
ASA_WSM_1PNPDE20060906_155552_000000852051_00026_23627_1281.N1	0	65
ASA_WSM_1PNPDE20060907_010442_000002632051_00031_23632_1387.N1	0	36





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

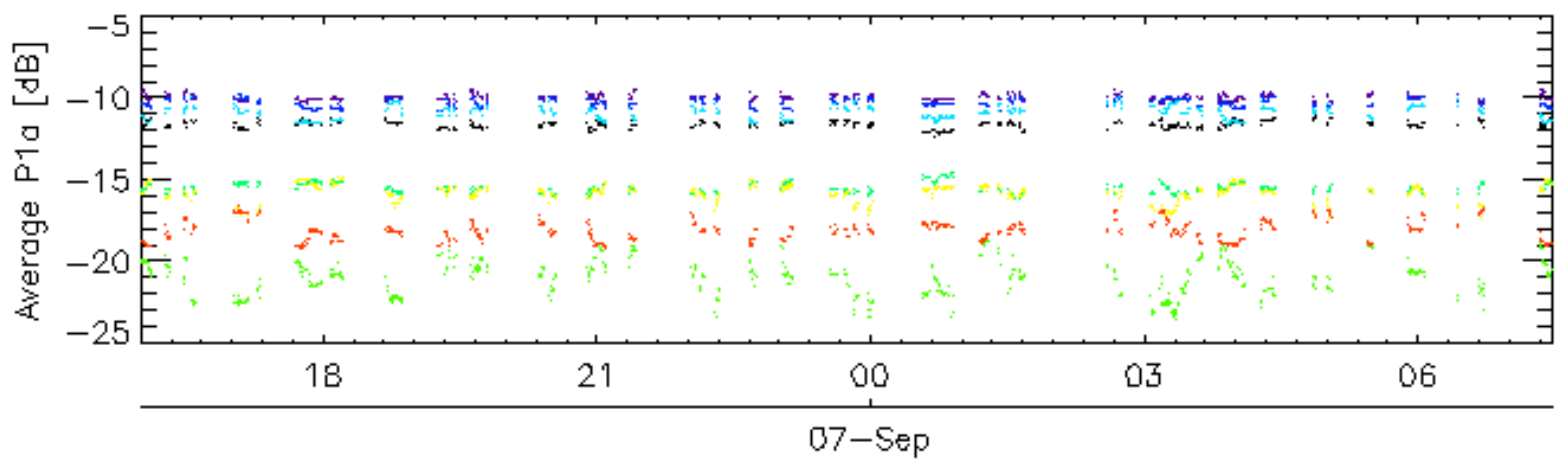
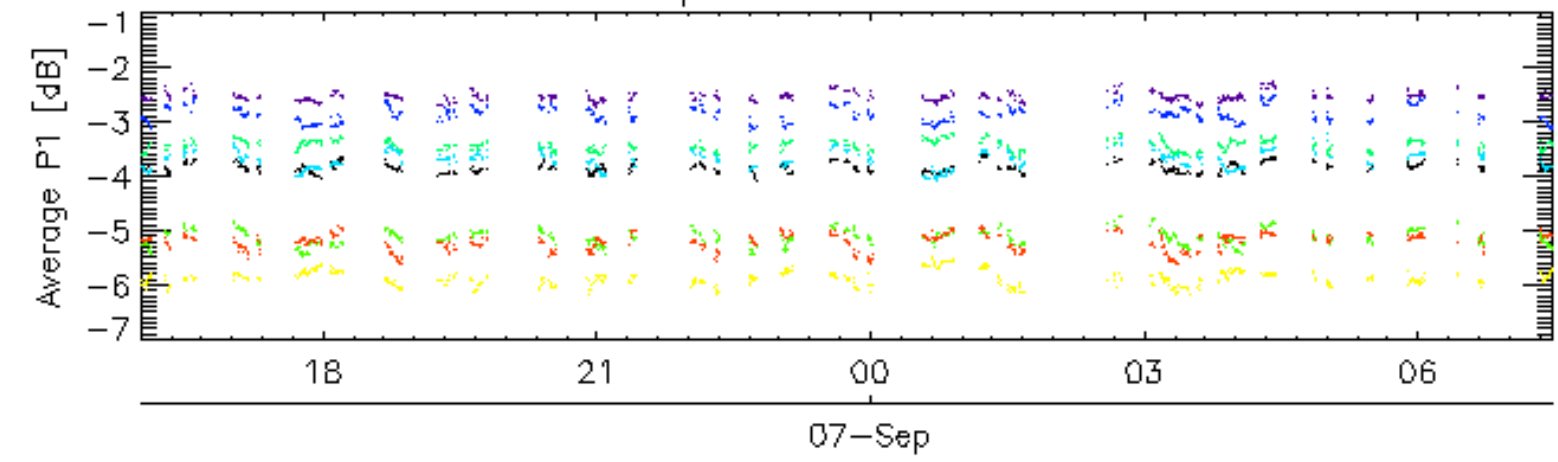
Ascending

Descending

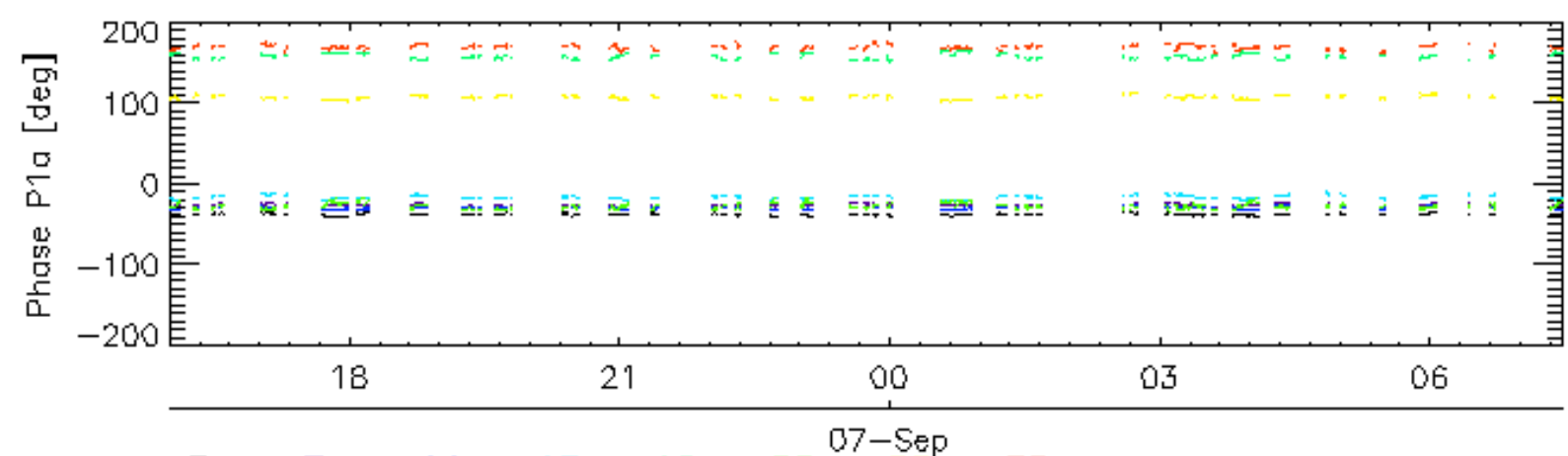
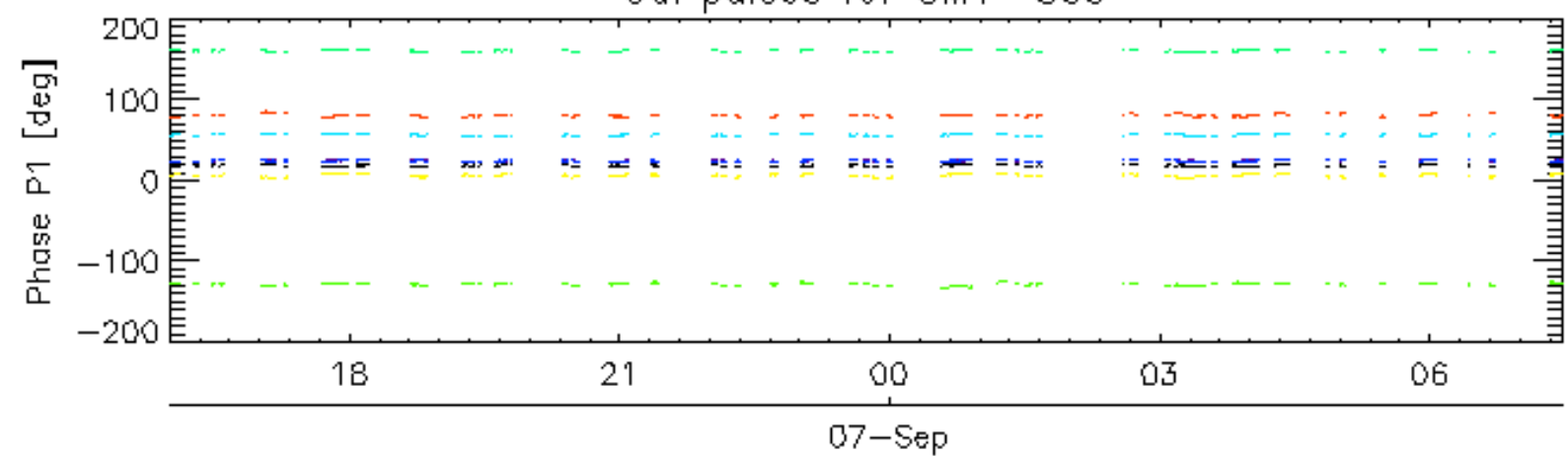
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

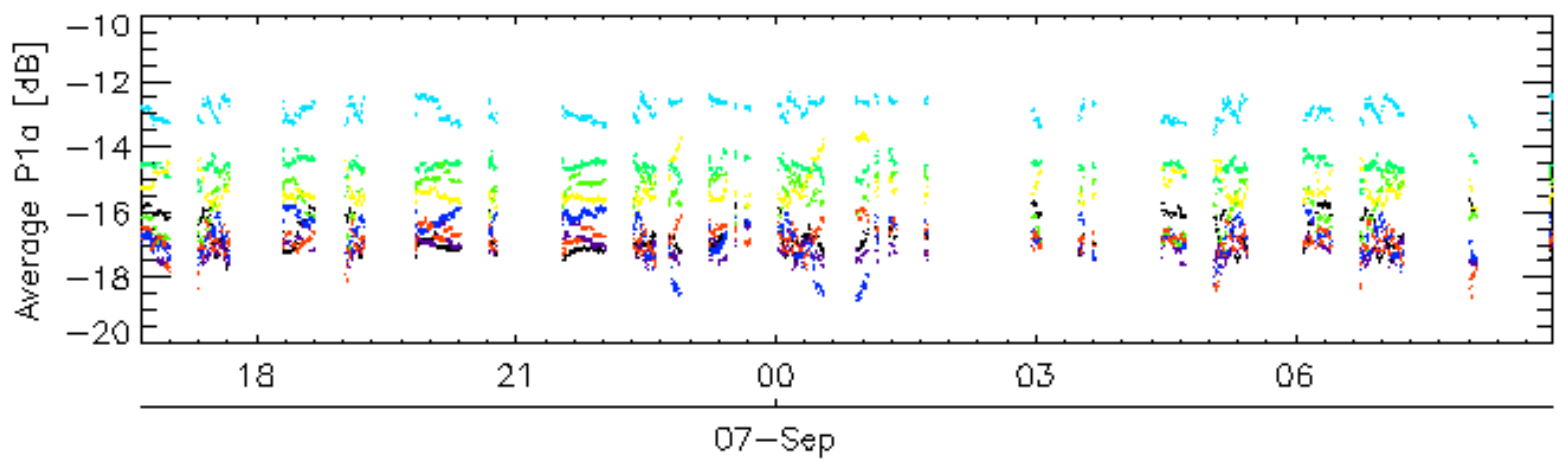
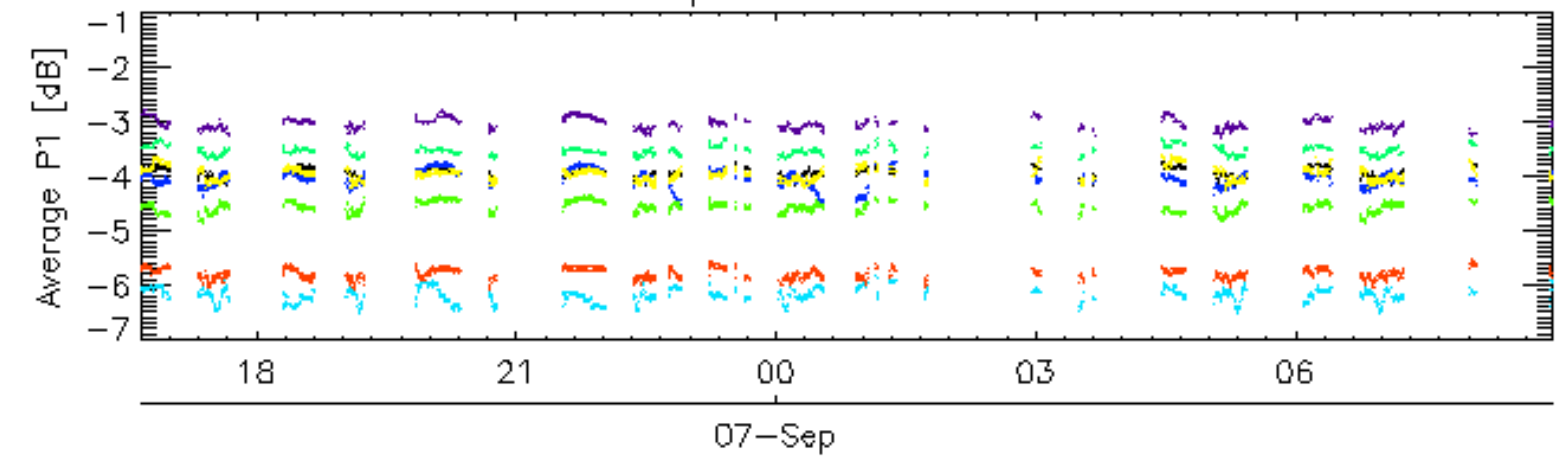


Cal pulses for GM1 SS3

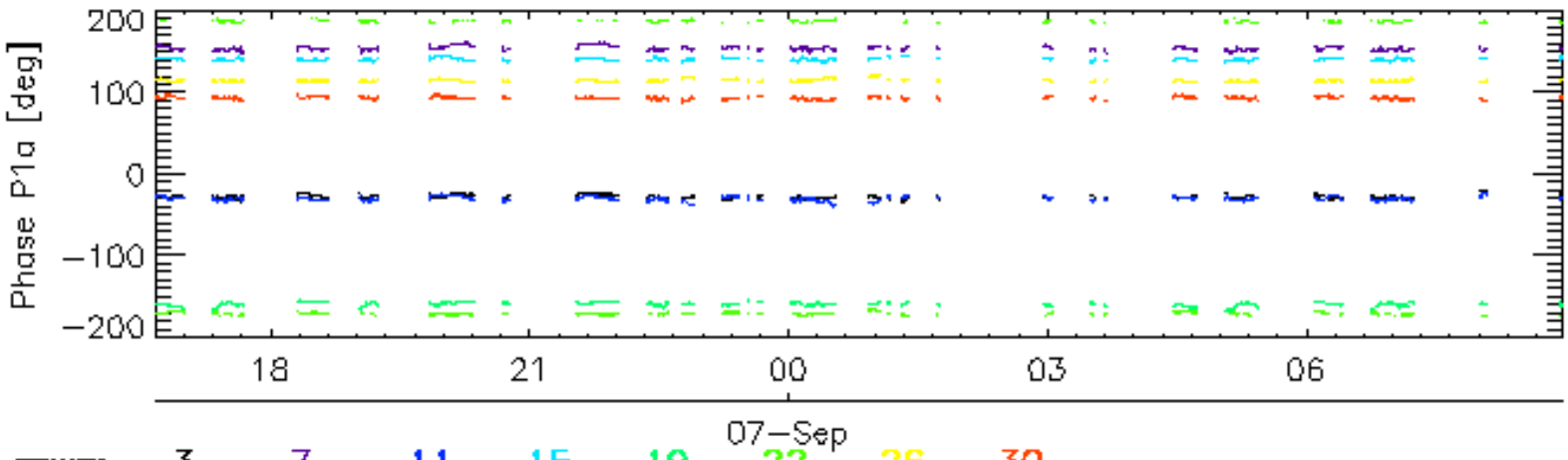
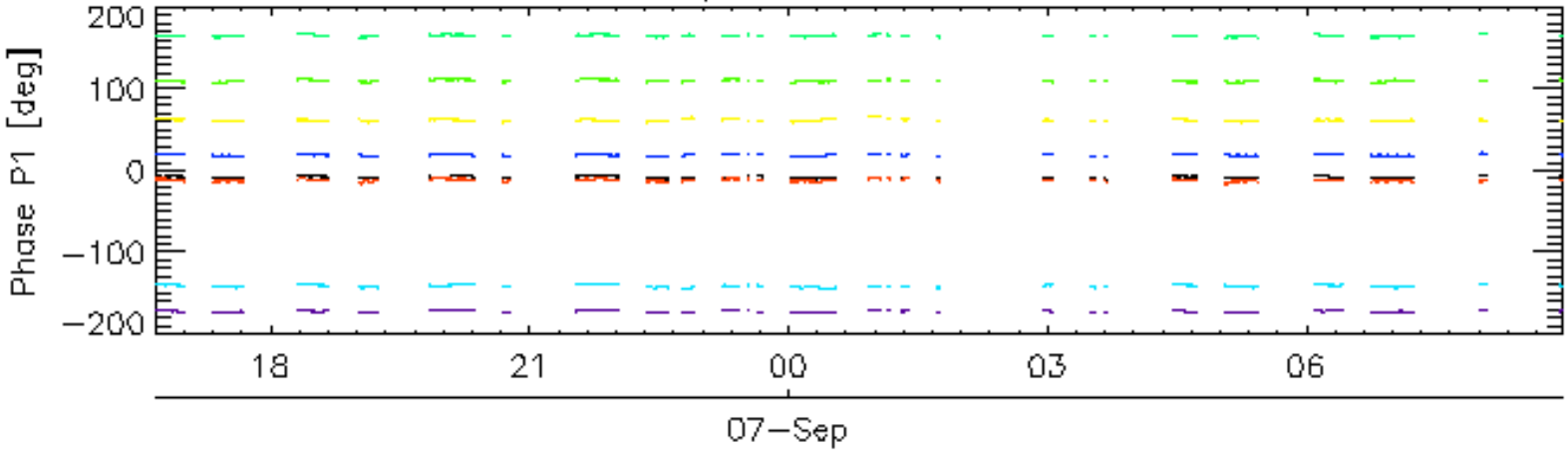


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

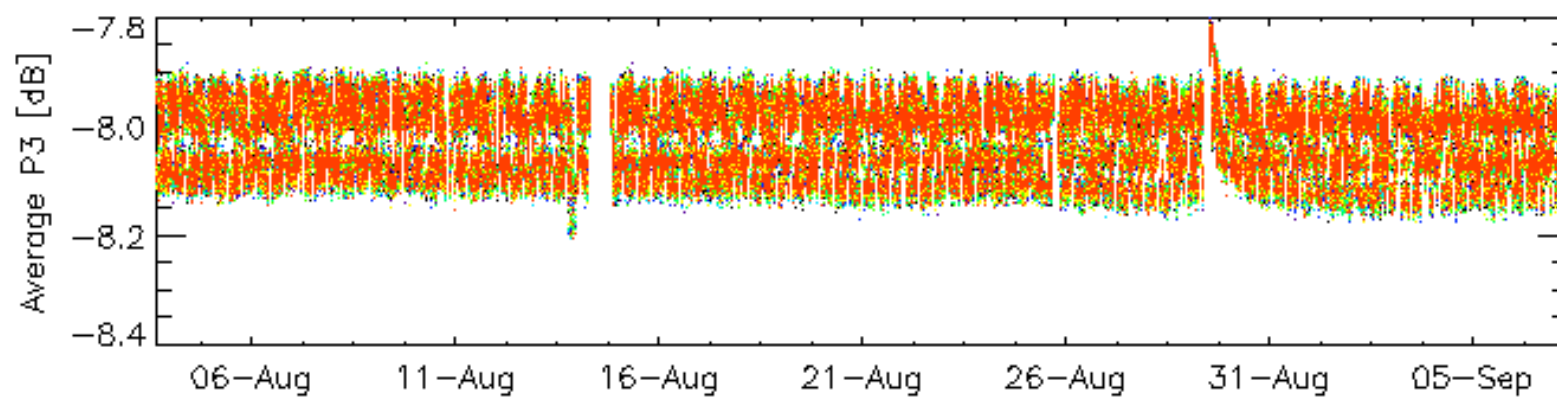
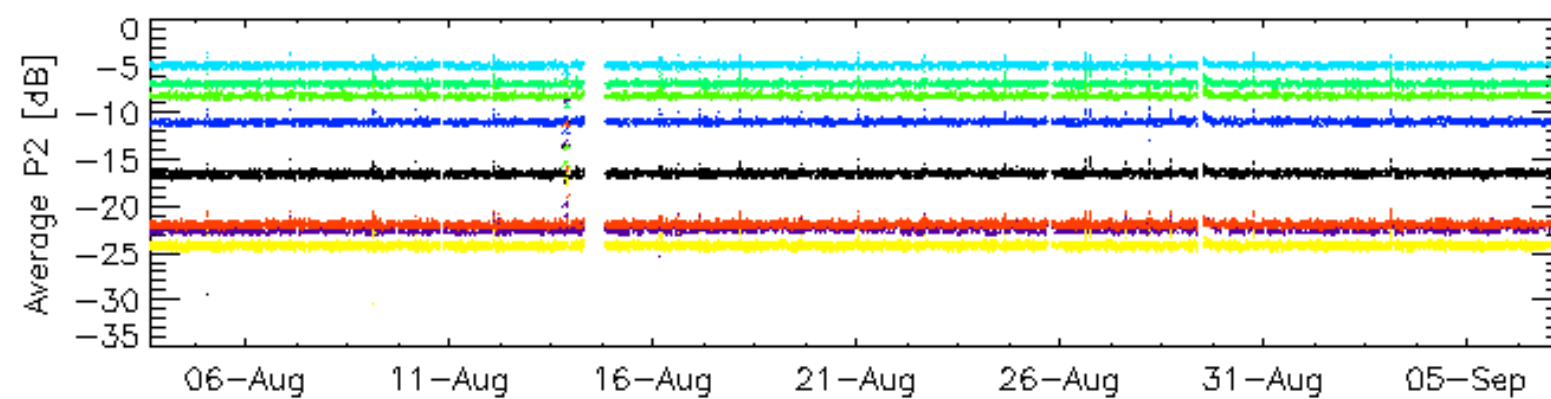
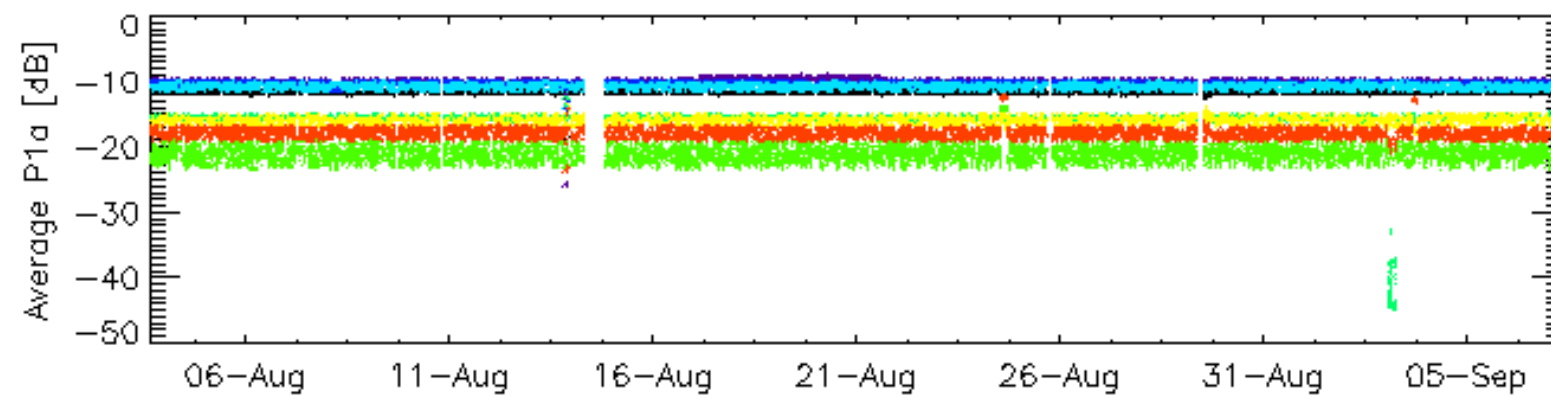
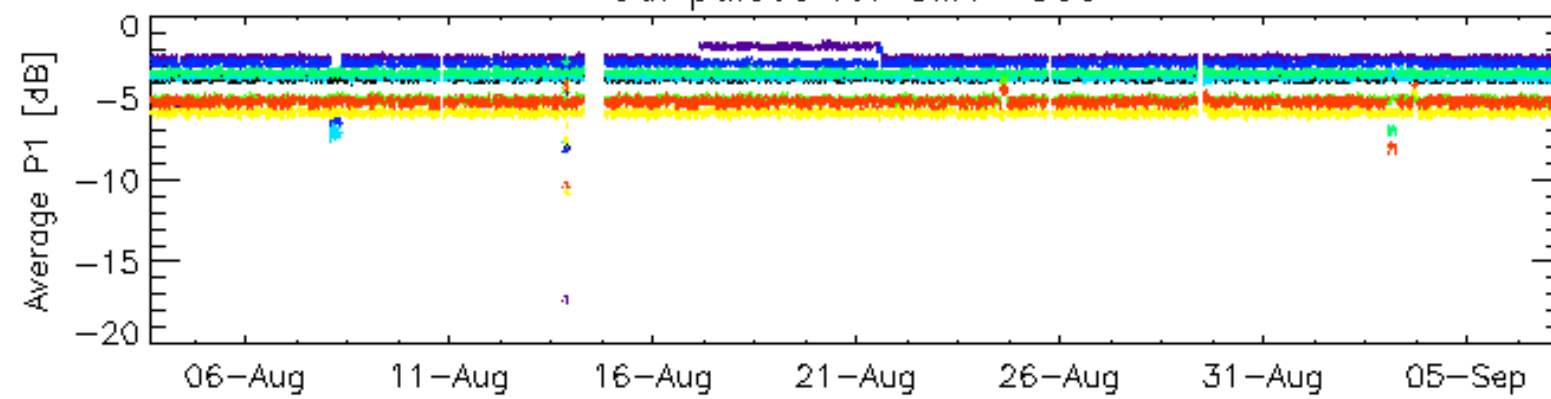


Cal pulses for WVS IS2



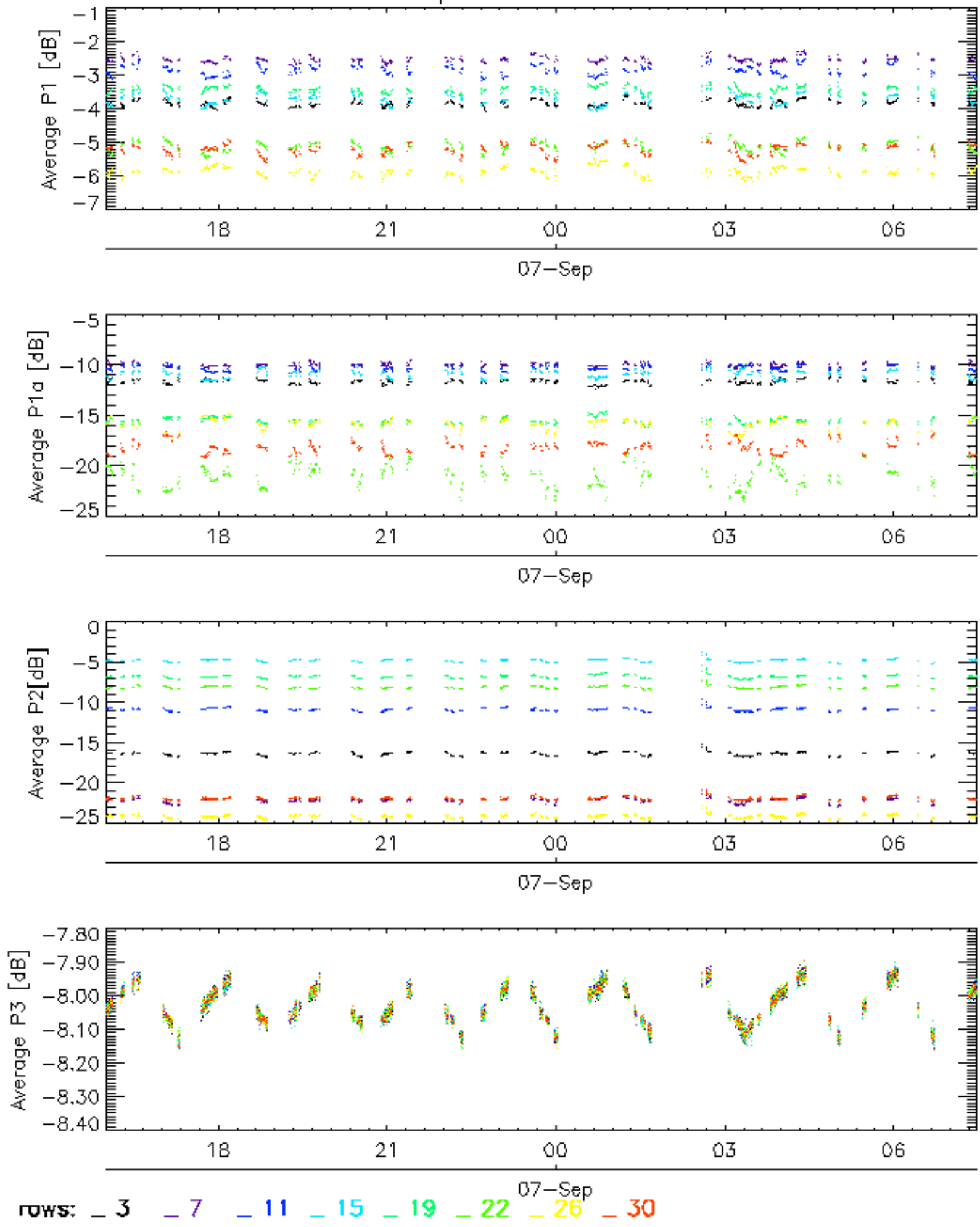
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

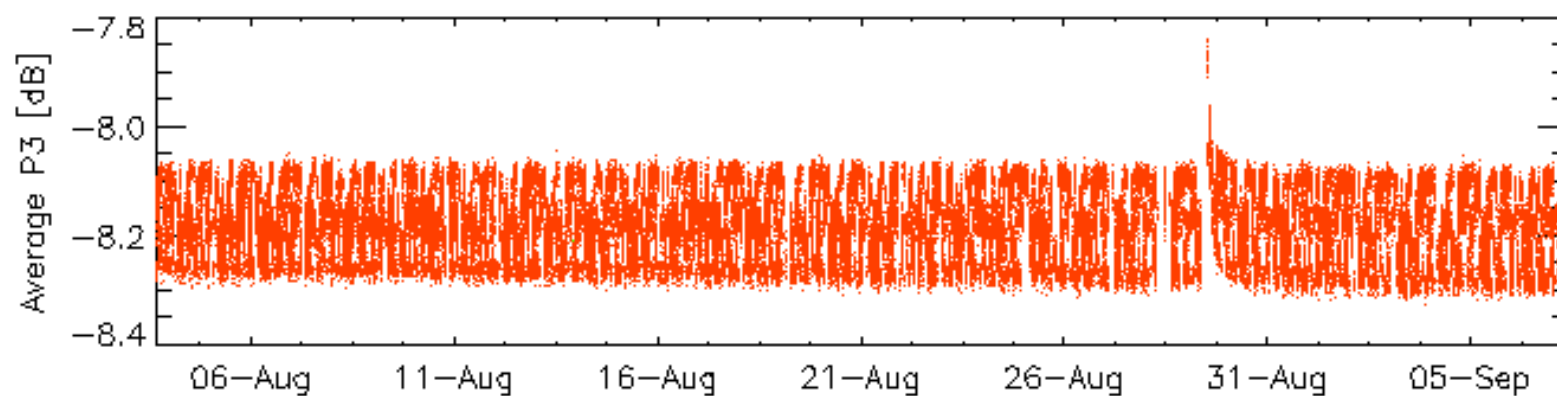
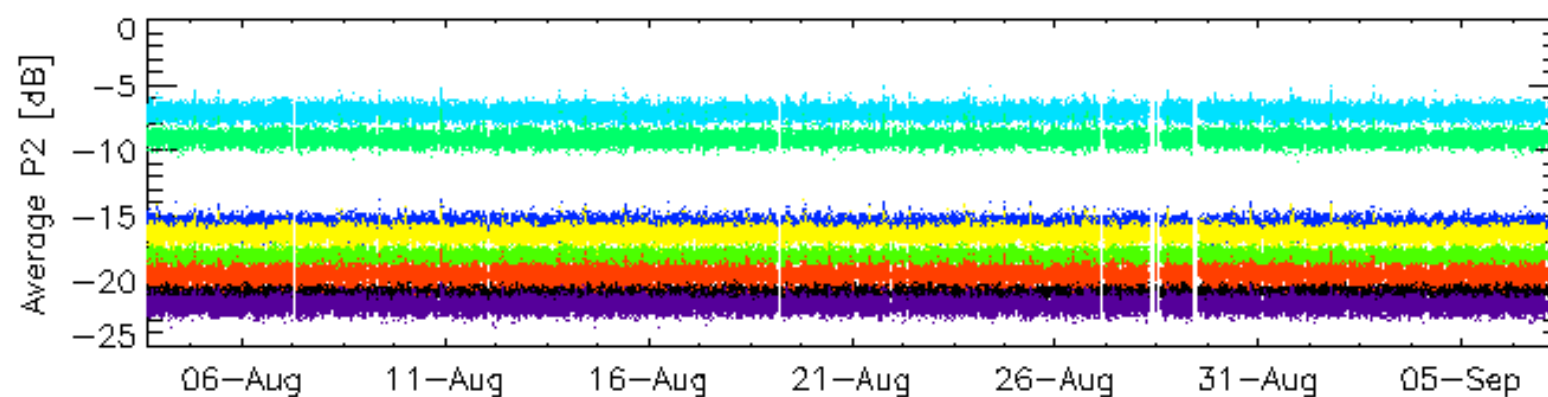
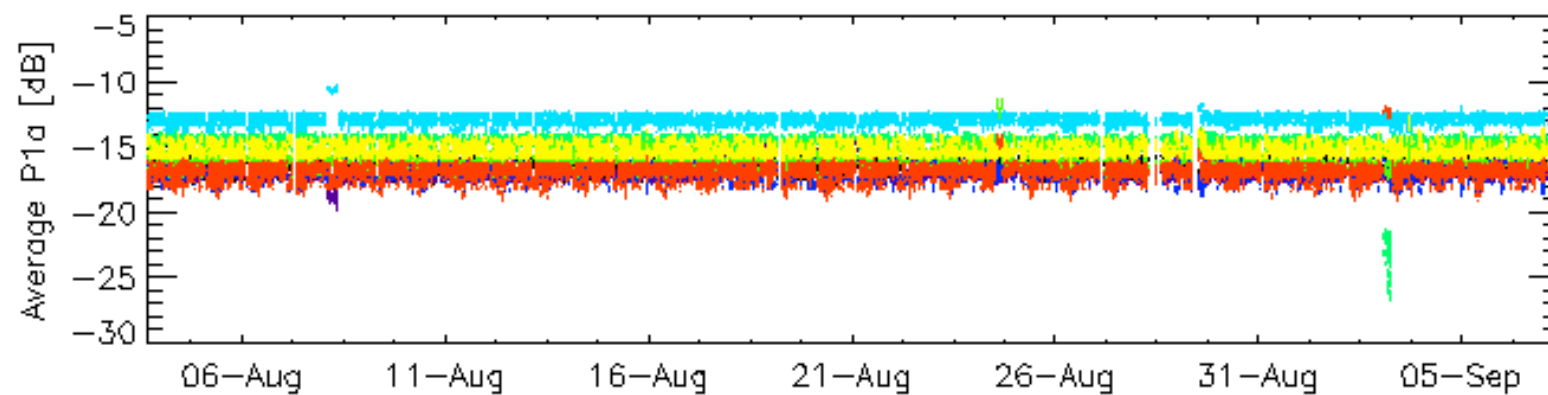
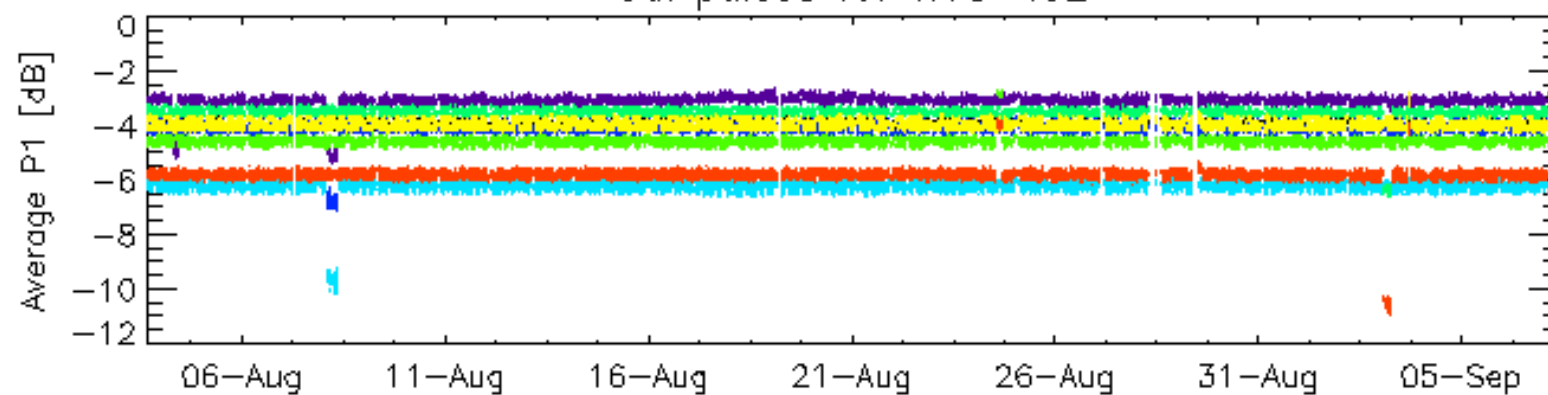


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

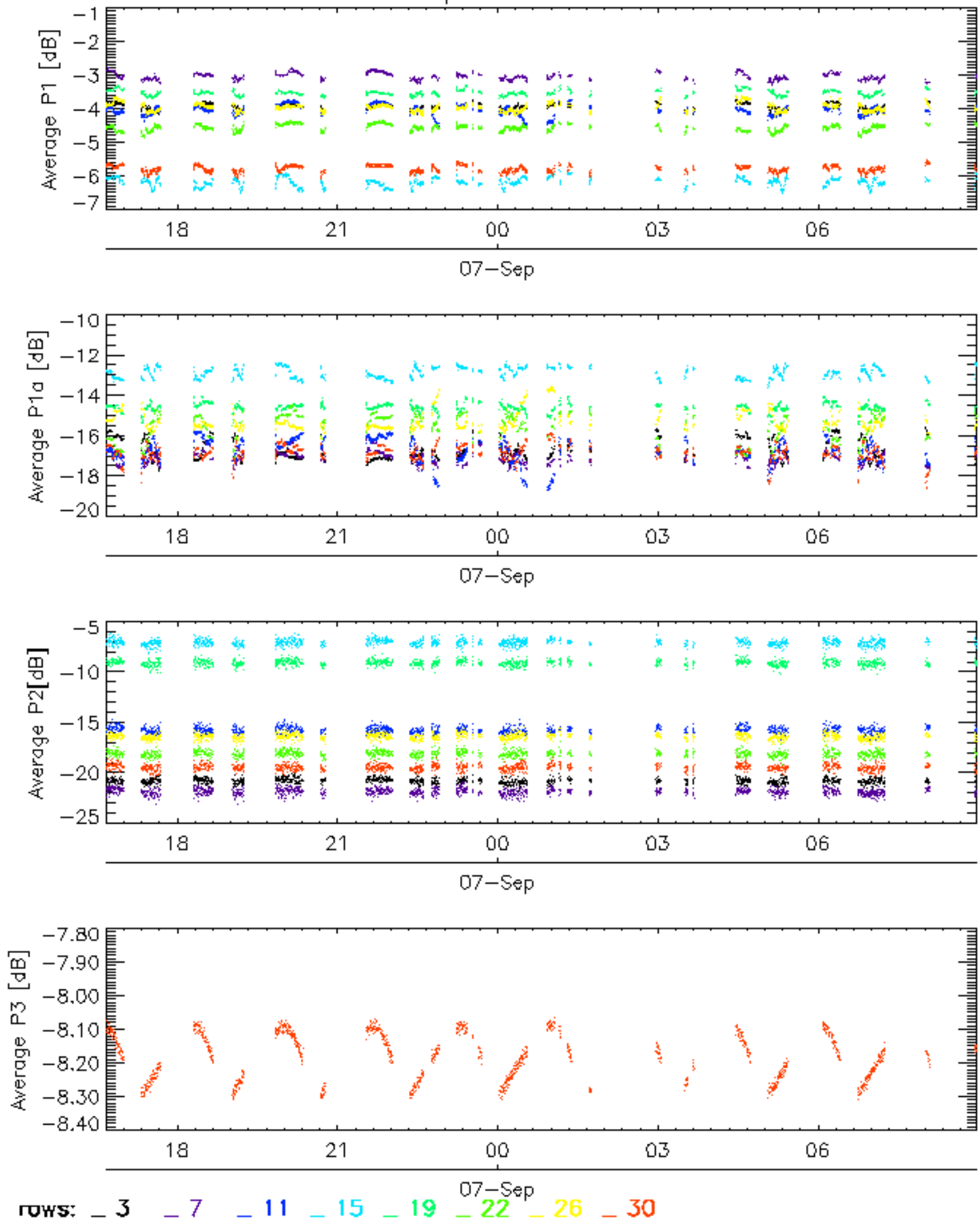


Cal pulses for WVS IS2

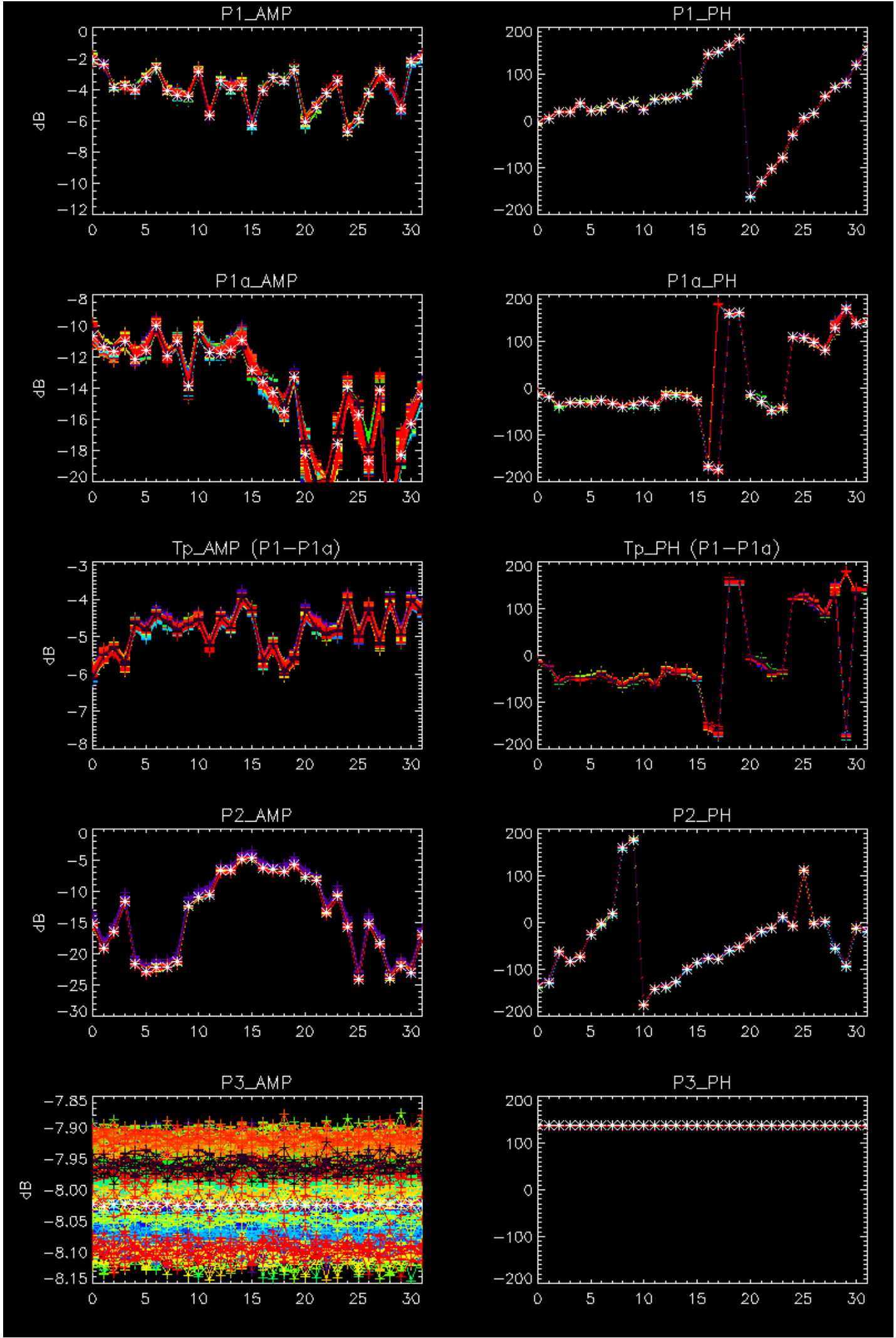


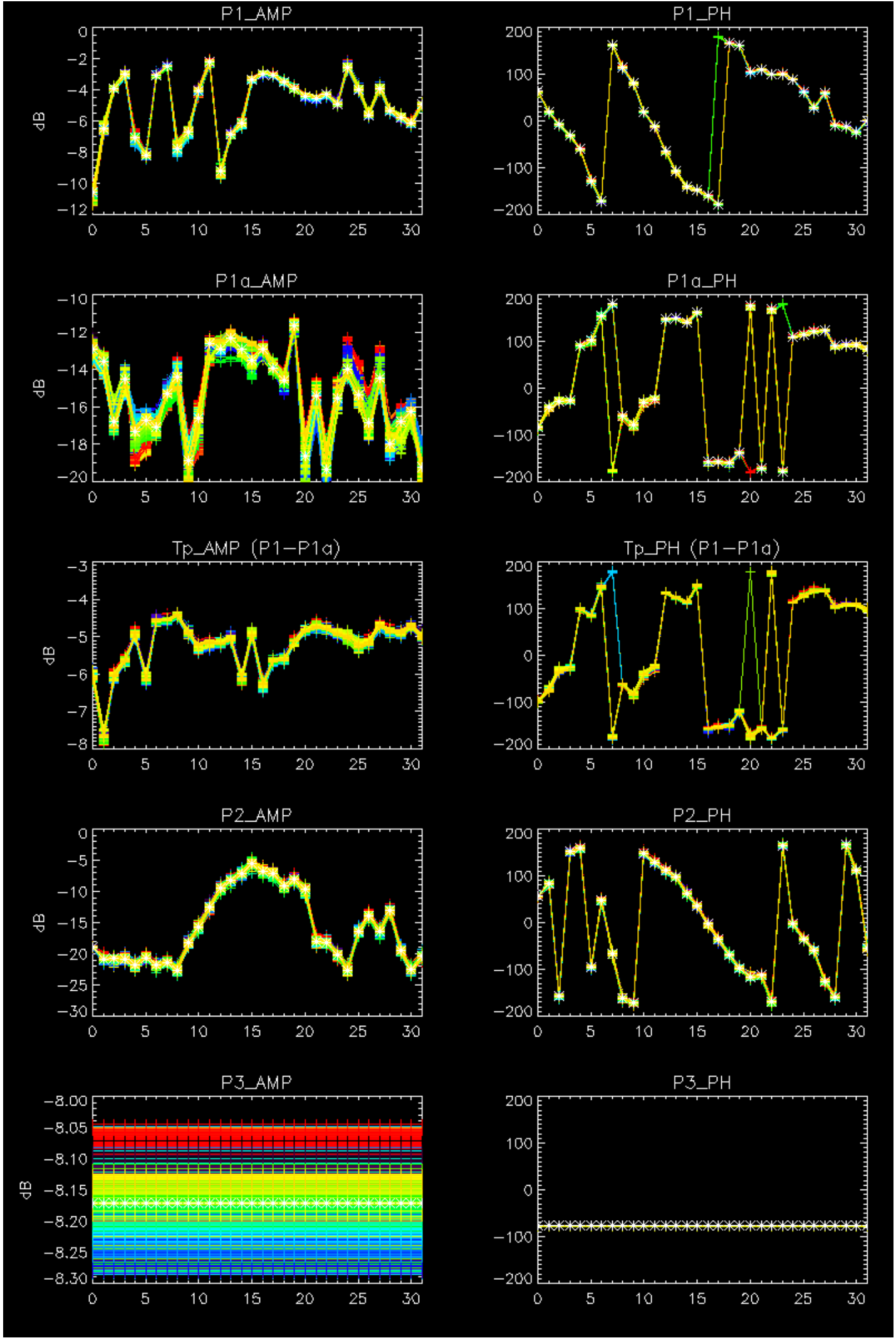
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



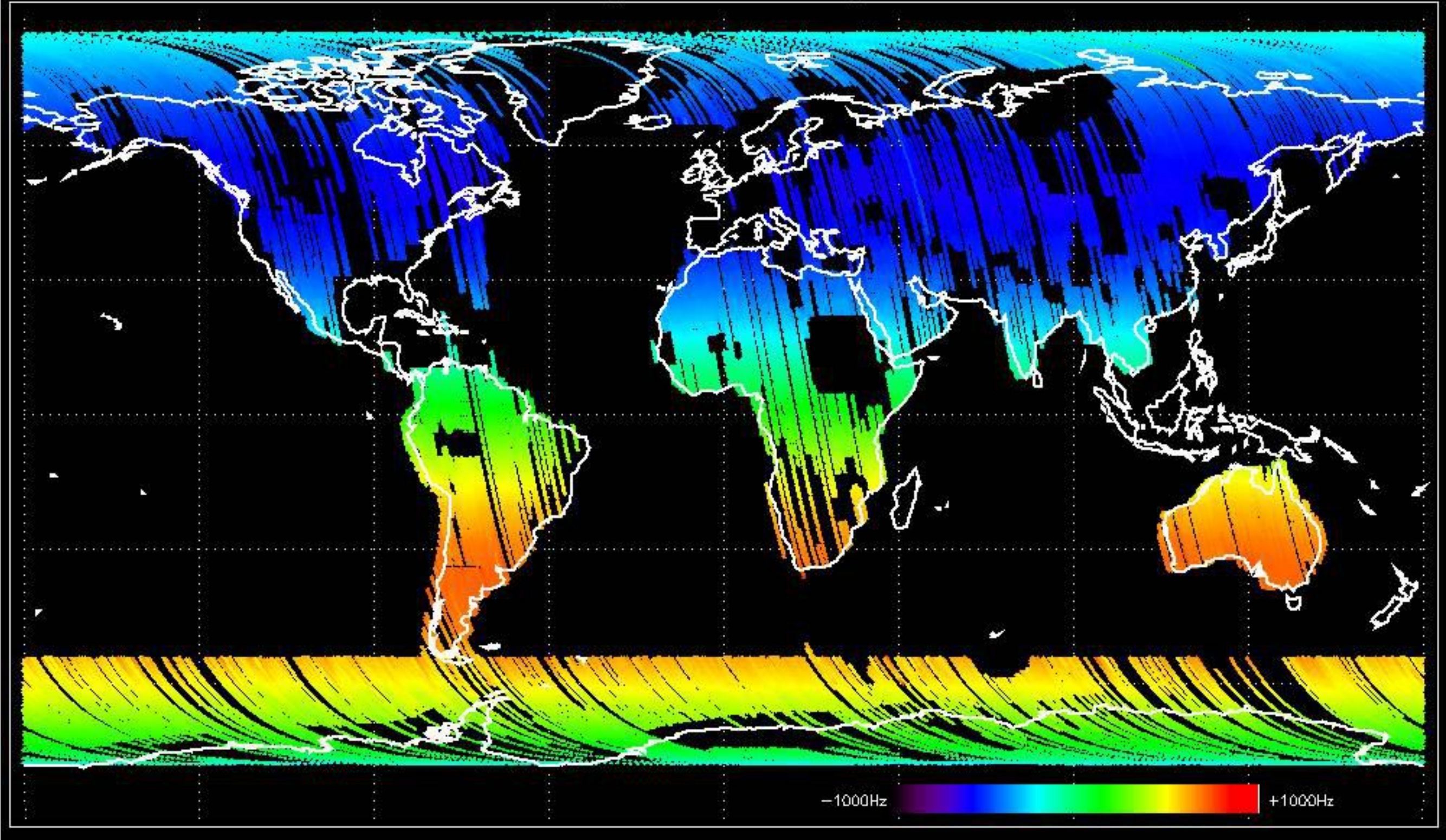
No anomalies observed.



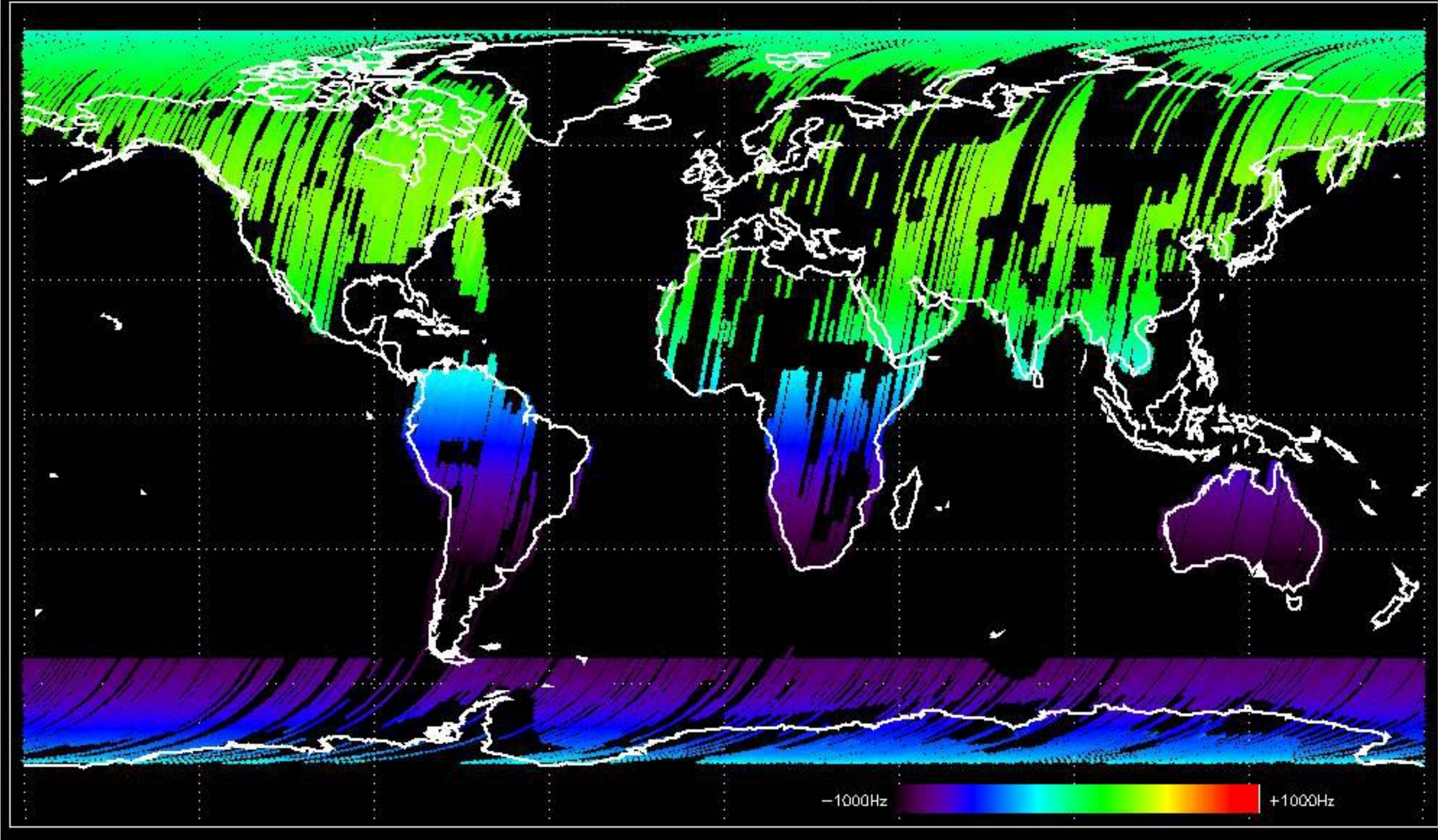


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

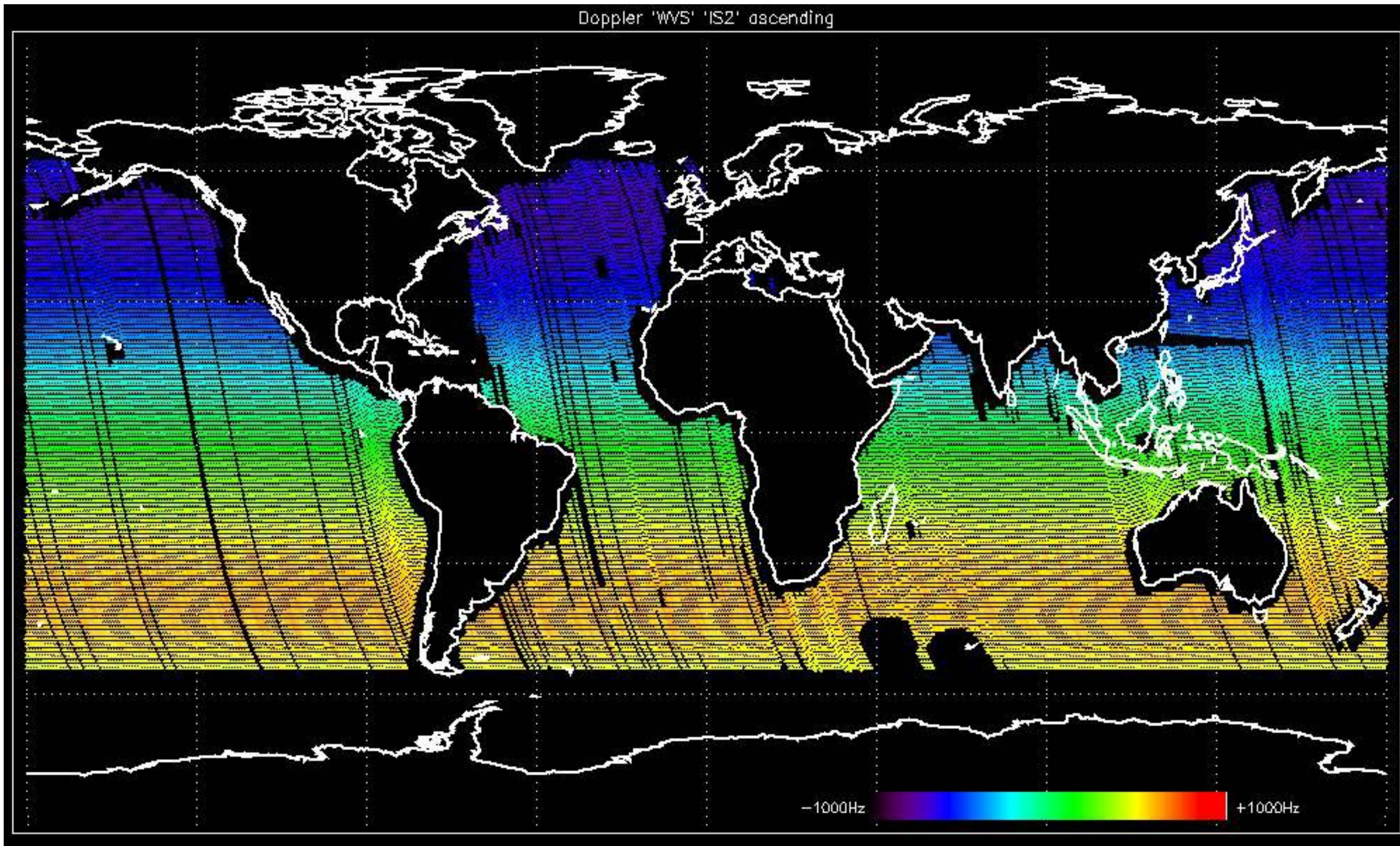
Doppler 'GM1' 'SS1' ascending



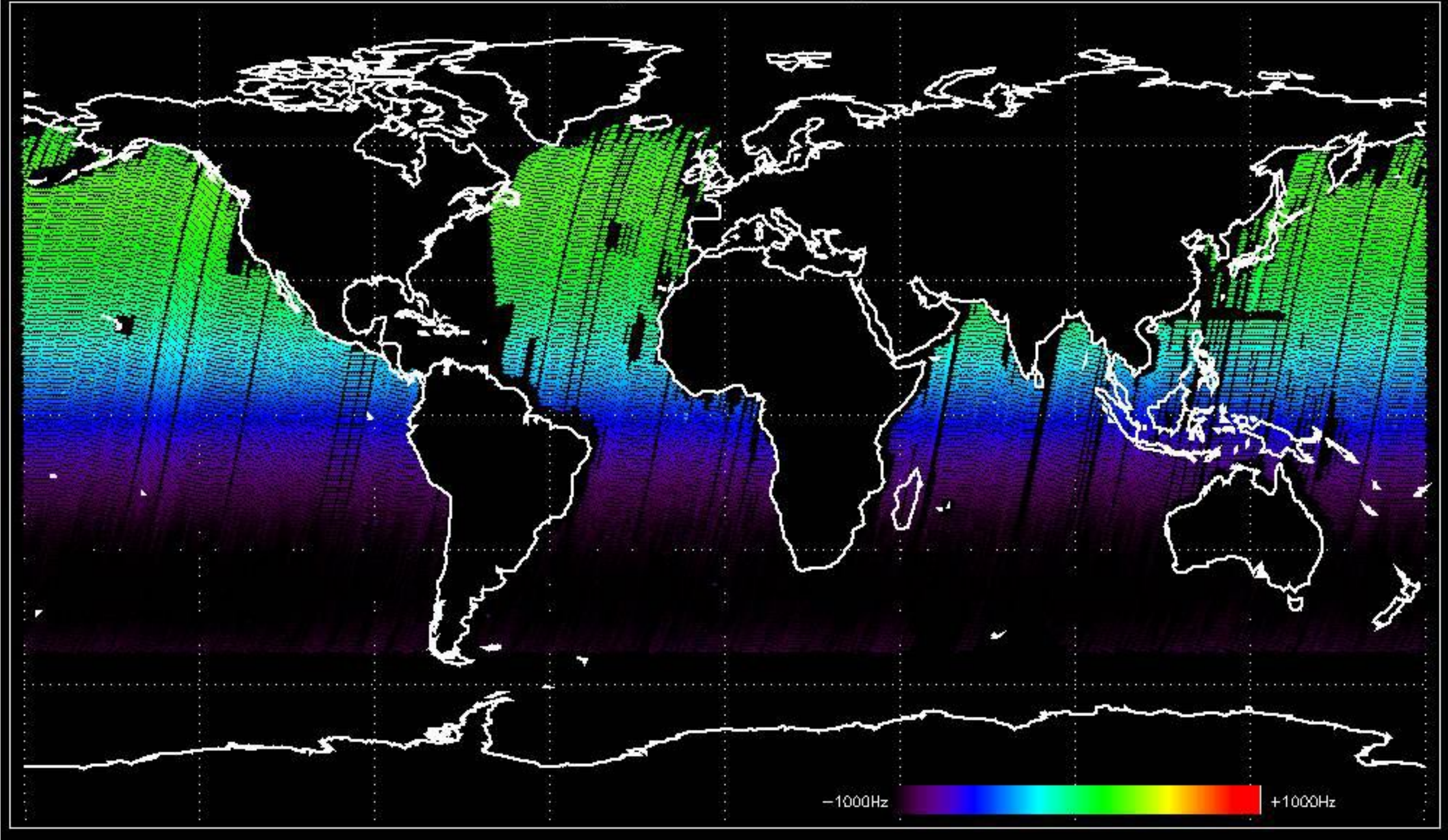
Doppler 'GM1' 'SS1' descending



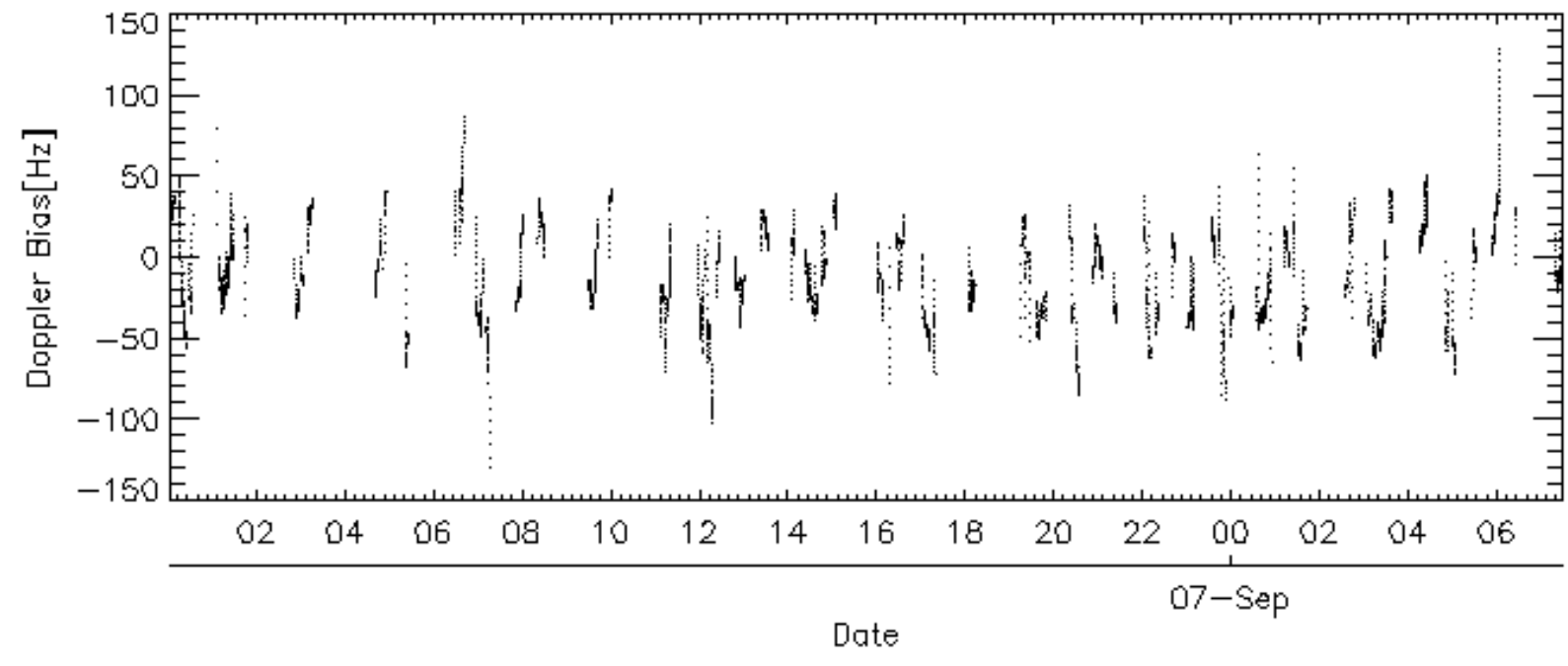
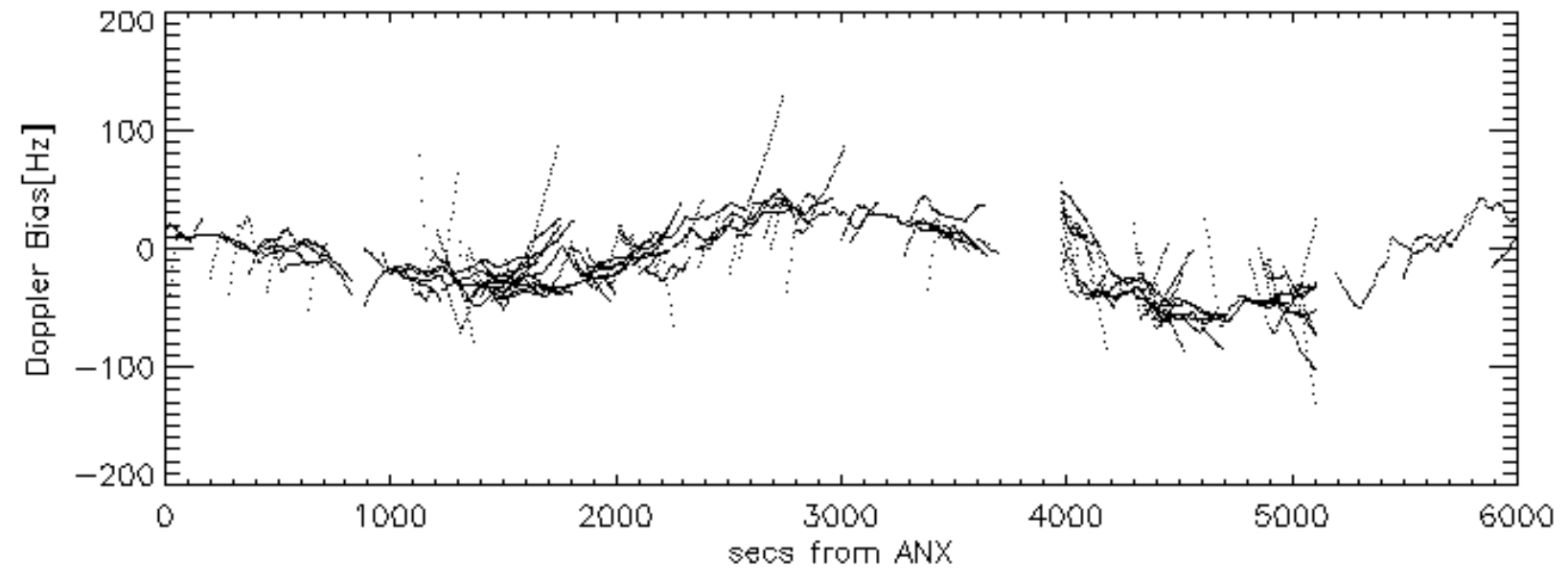
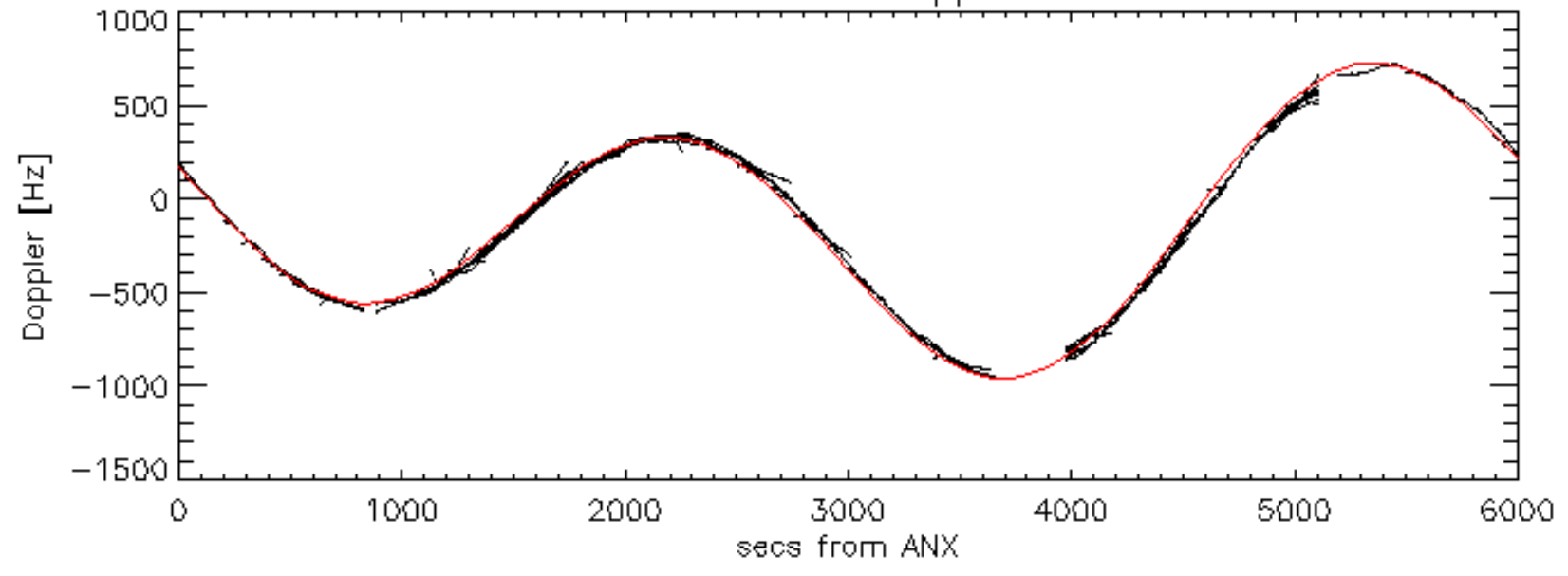
Doppler 'WVS' 'IS2' ascending

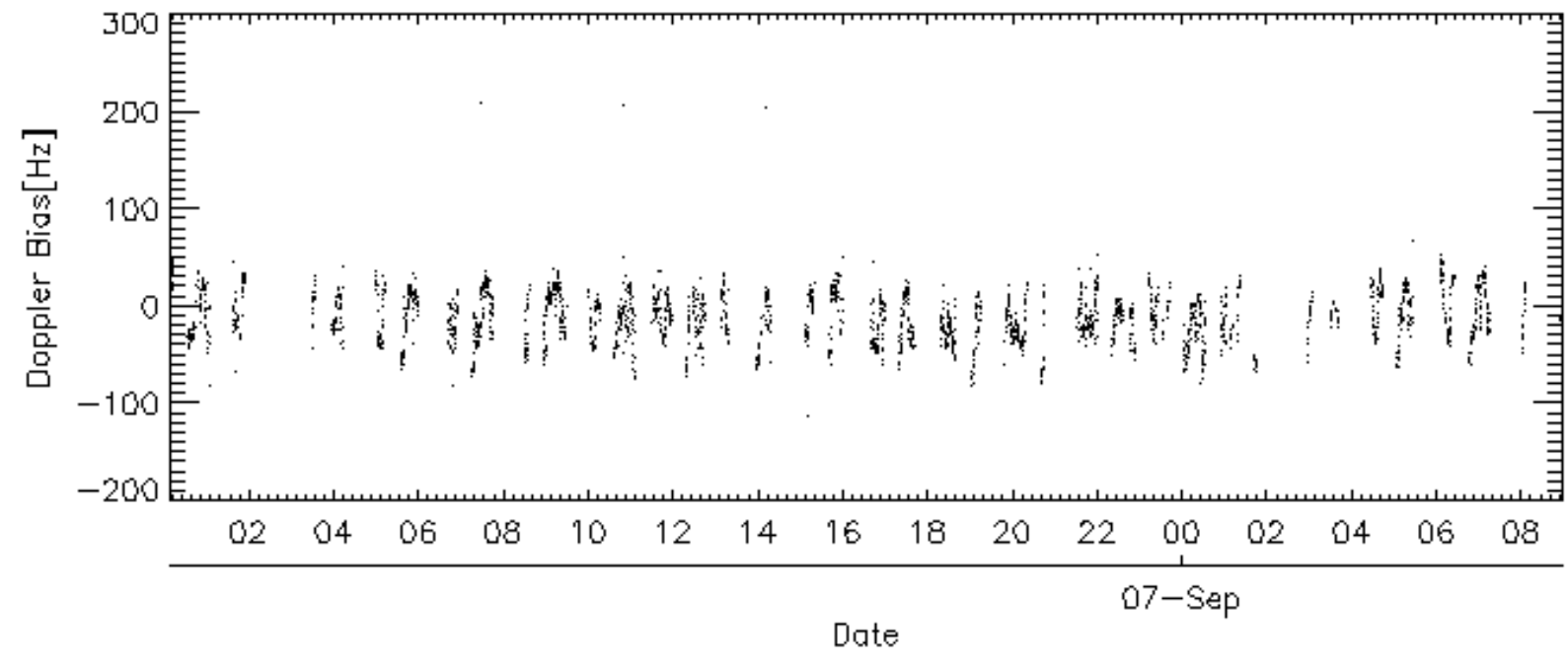
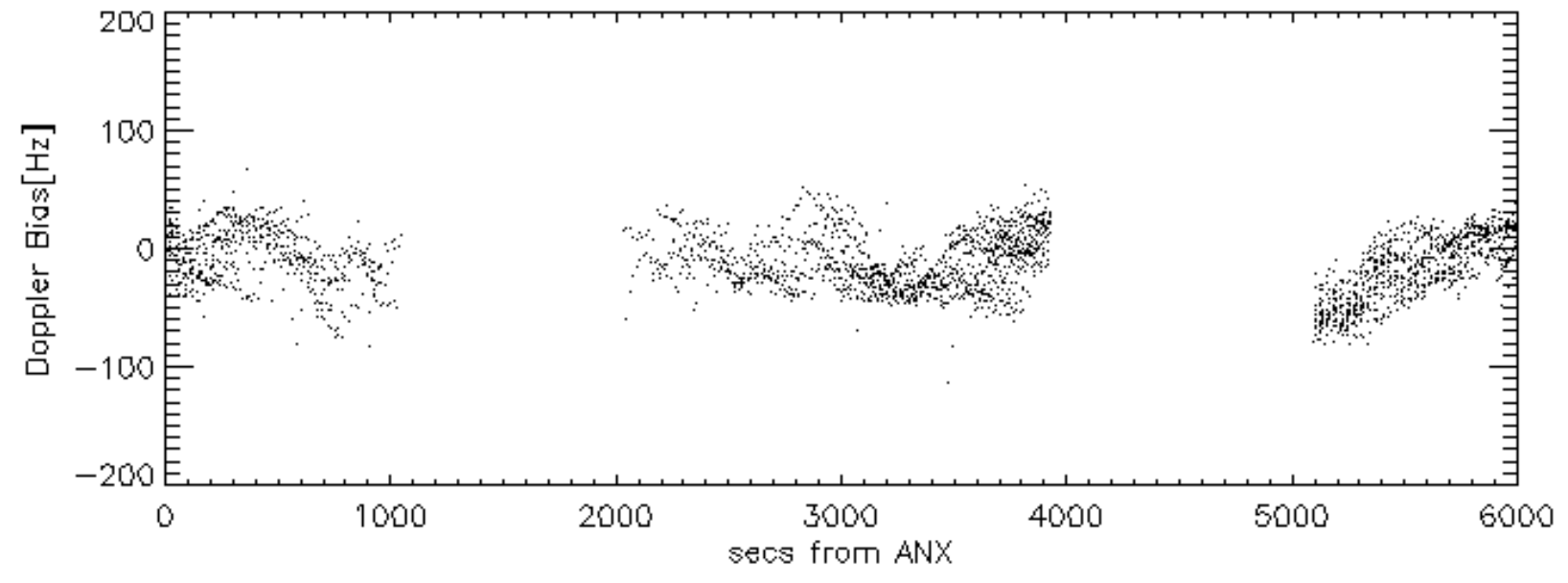
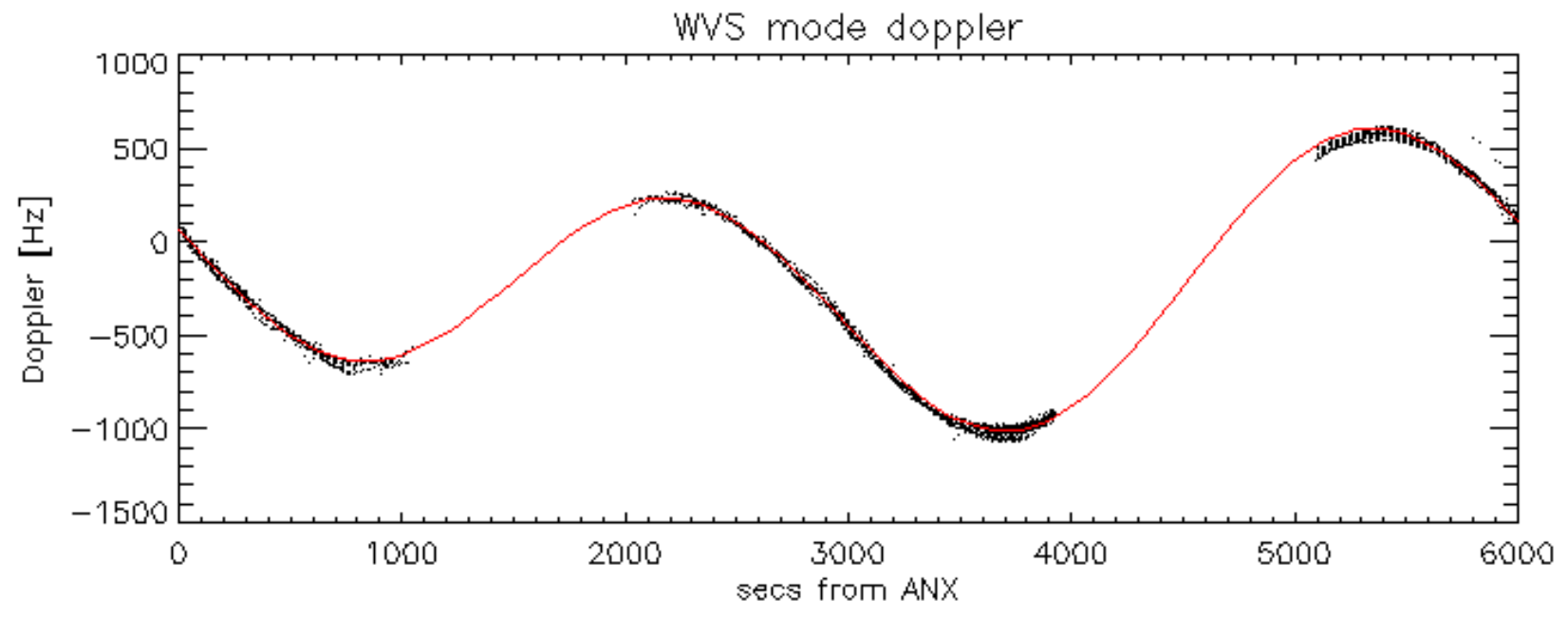


Doppler 'WVS' 'IS2' descending

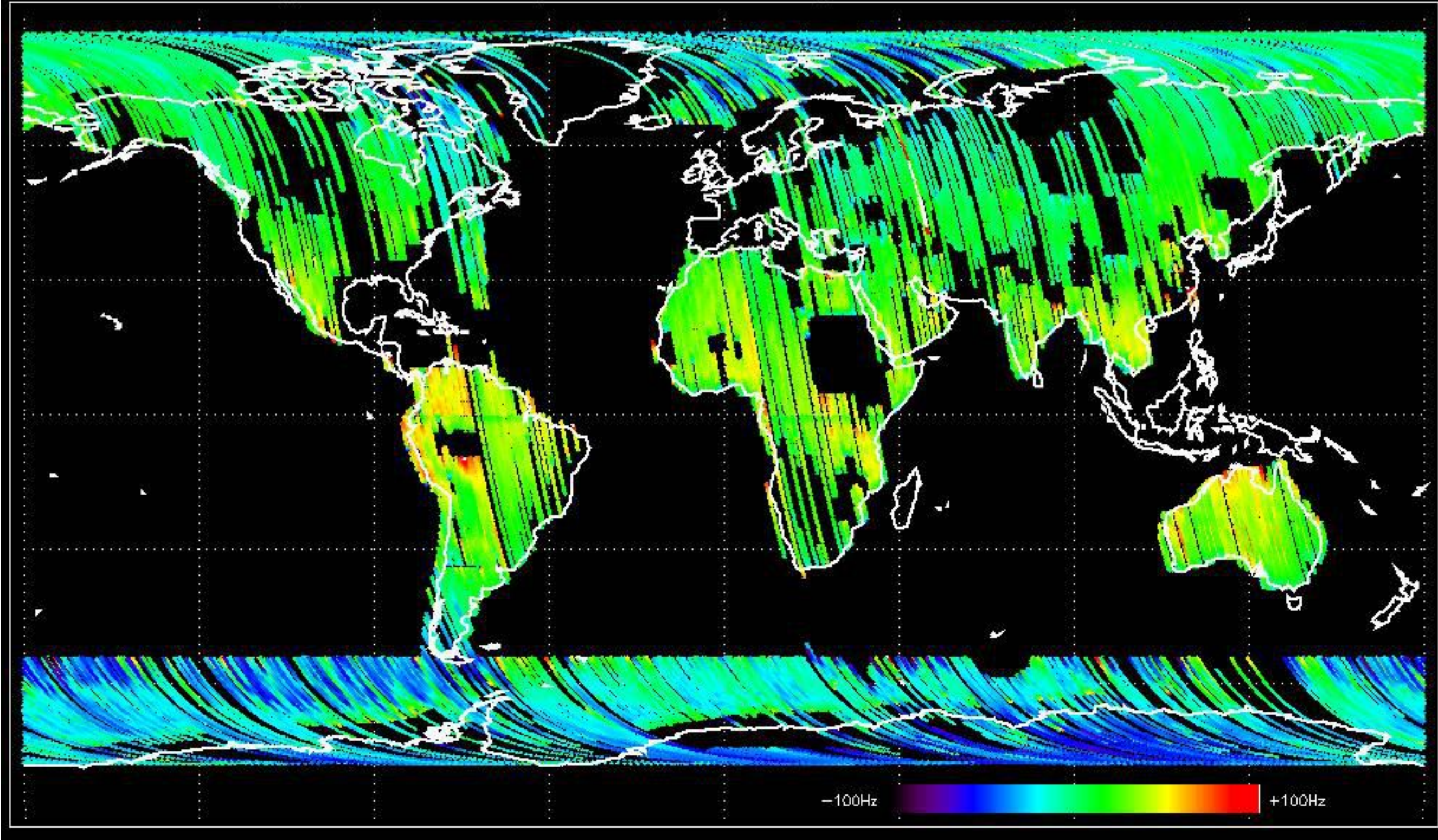


GM1 mode doppler

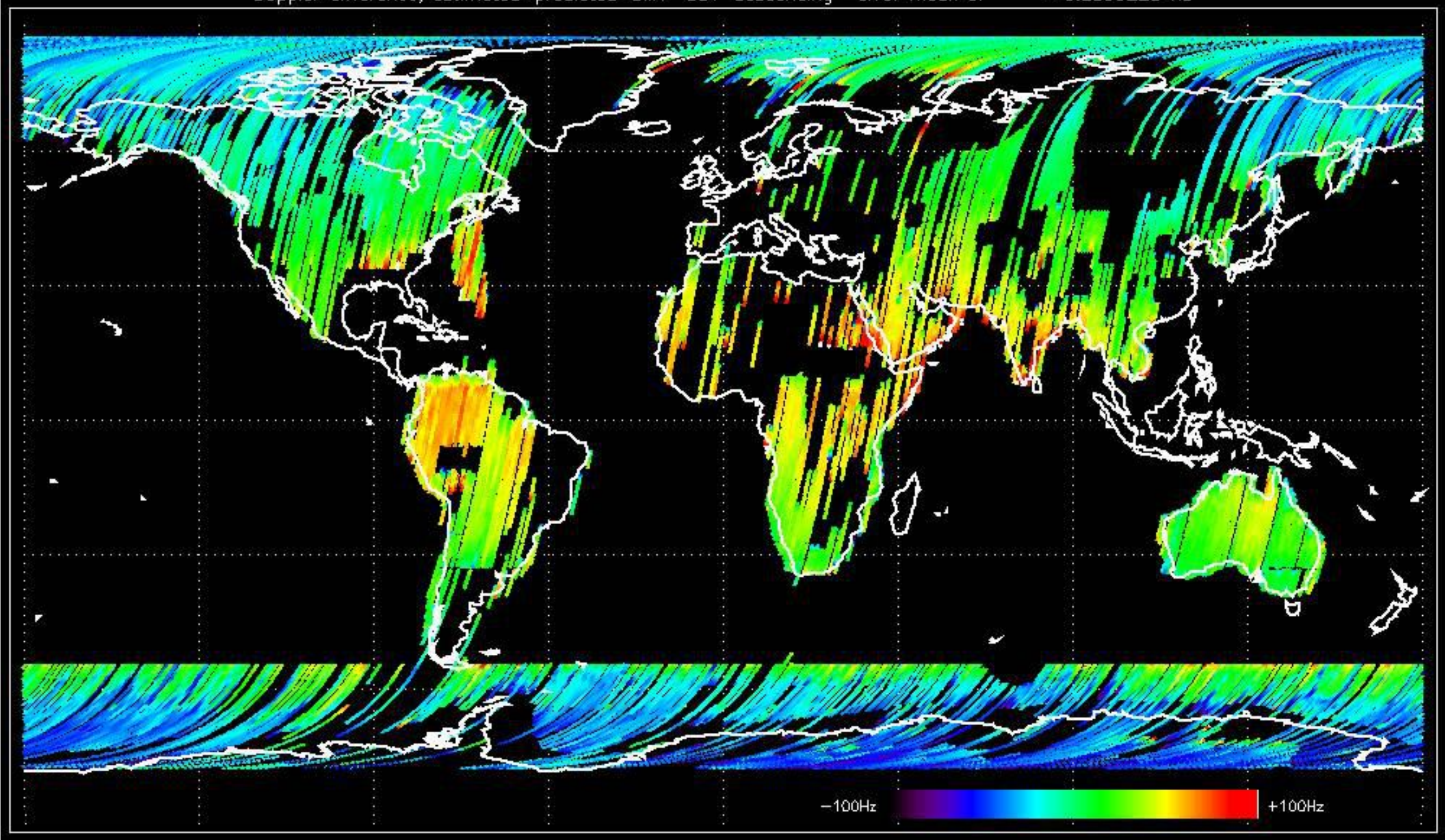




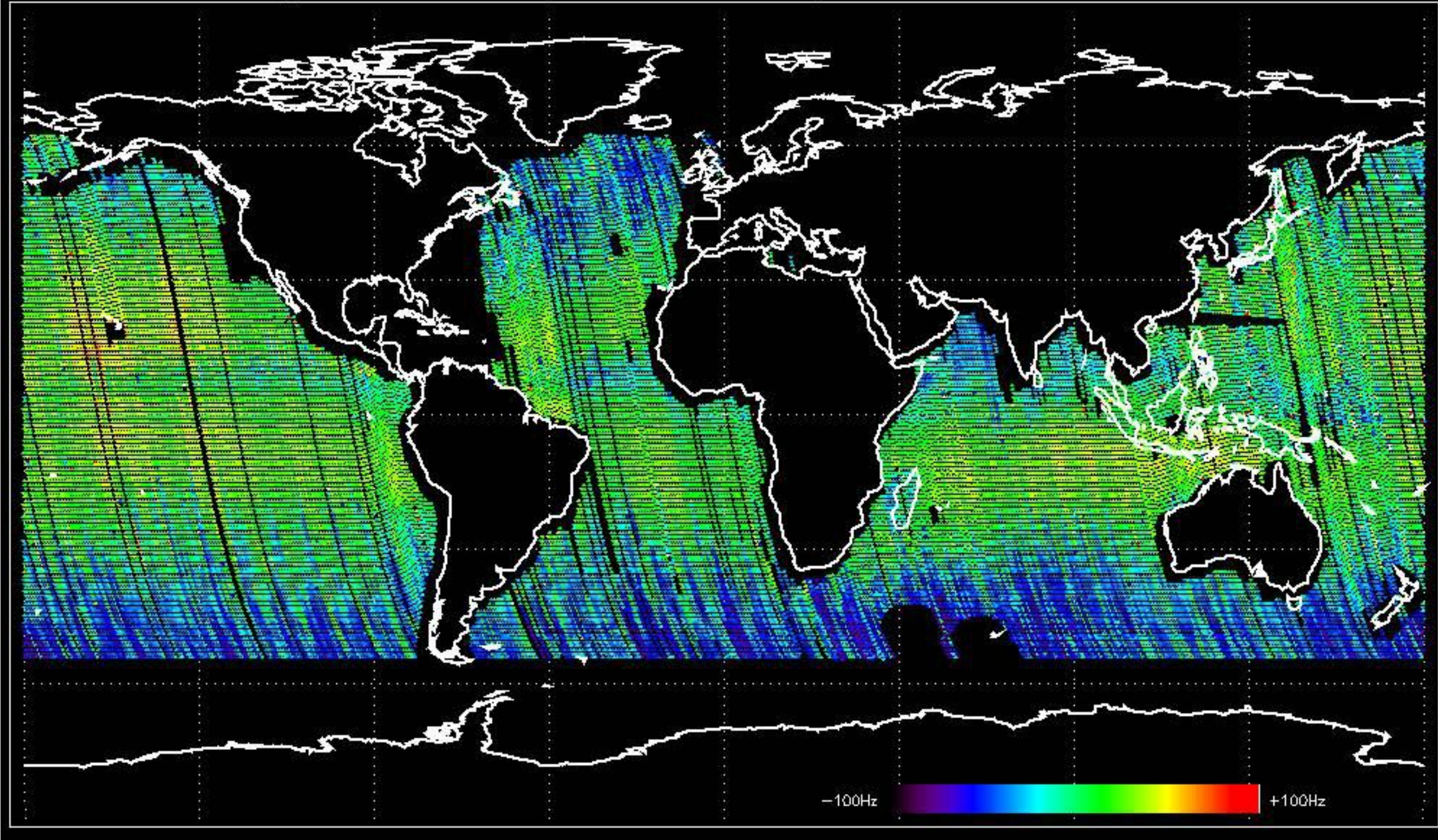
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.919068 Hz



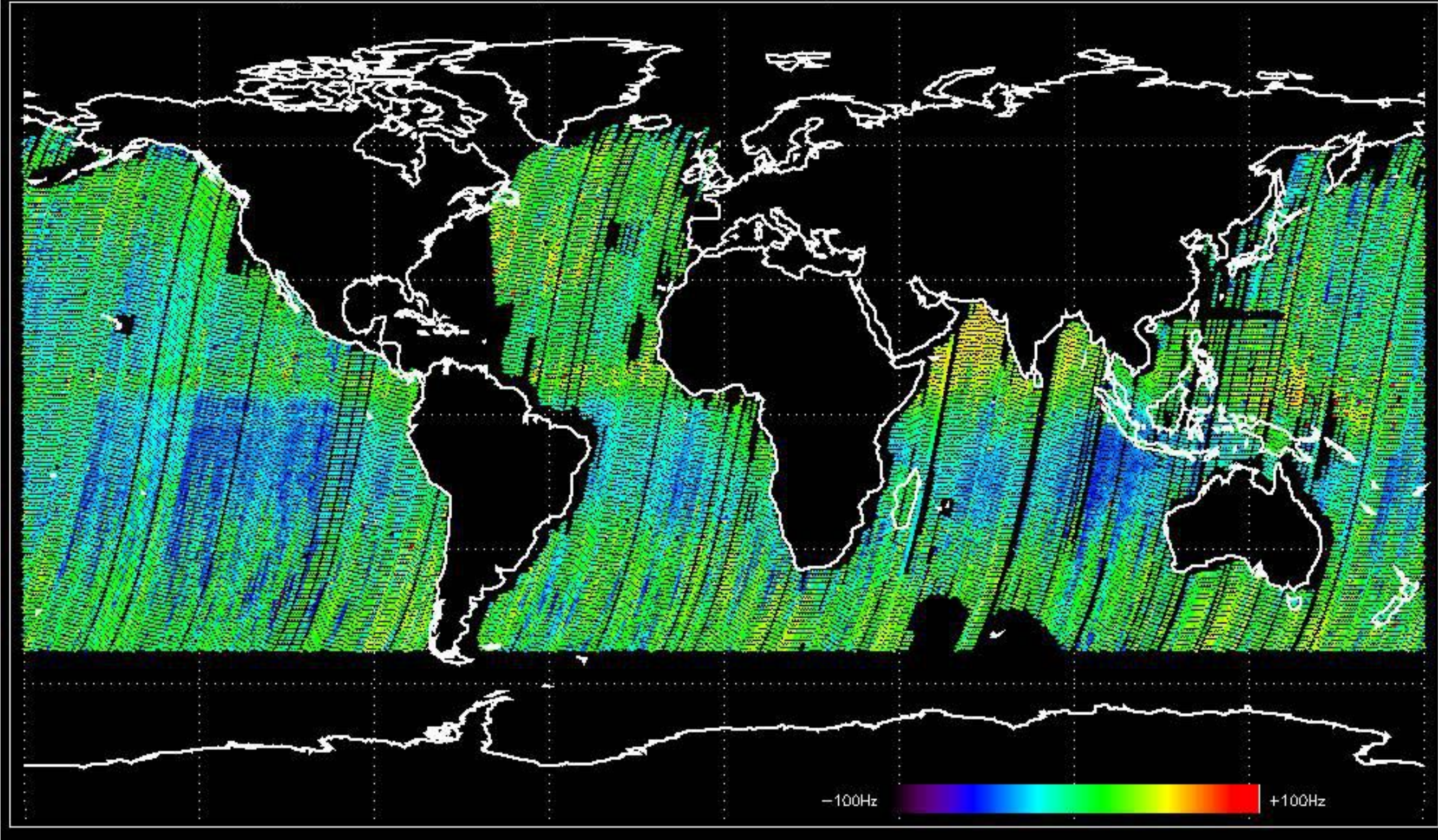
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.2999228 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.6059067 Hz

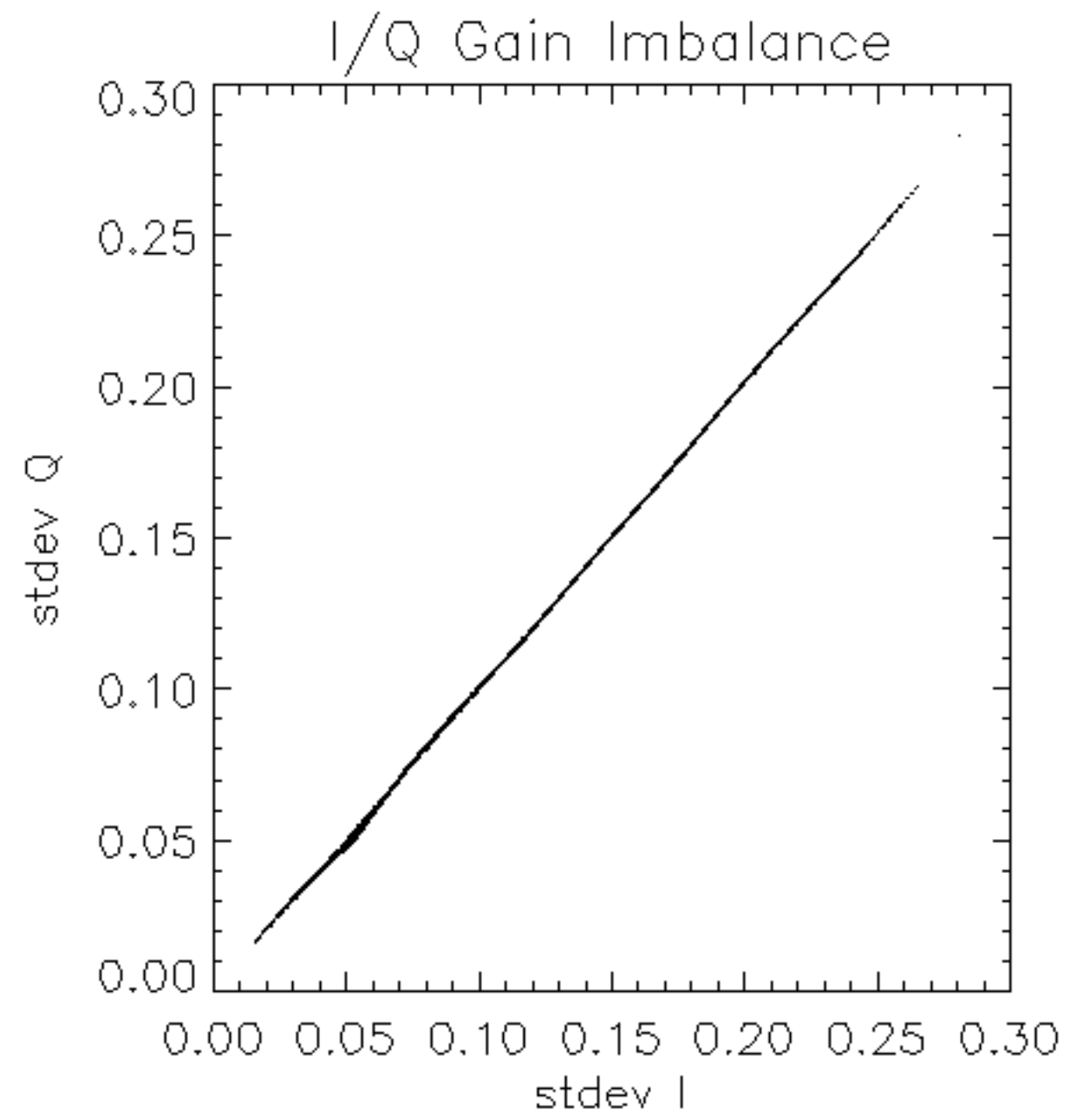


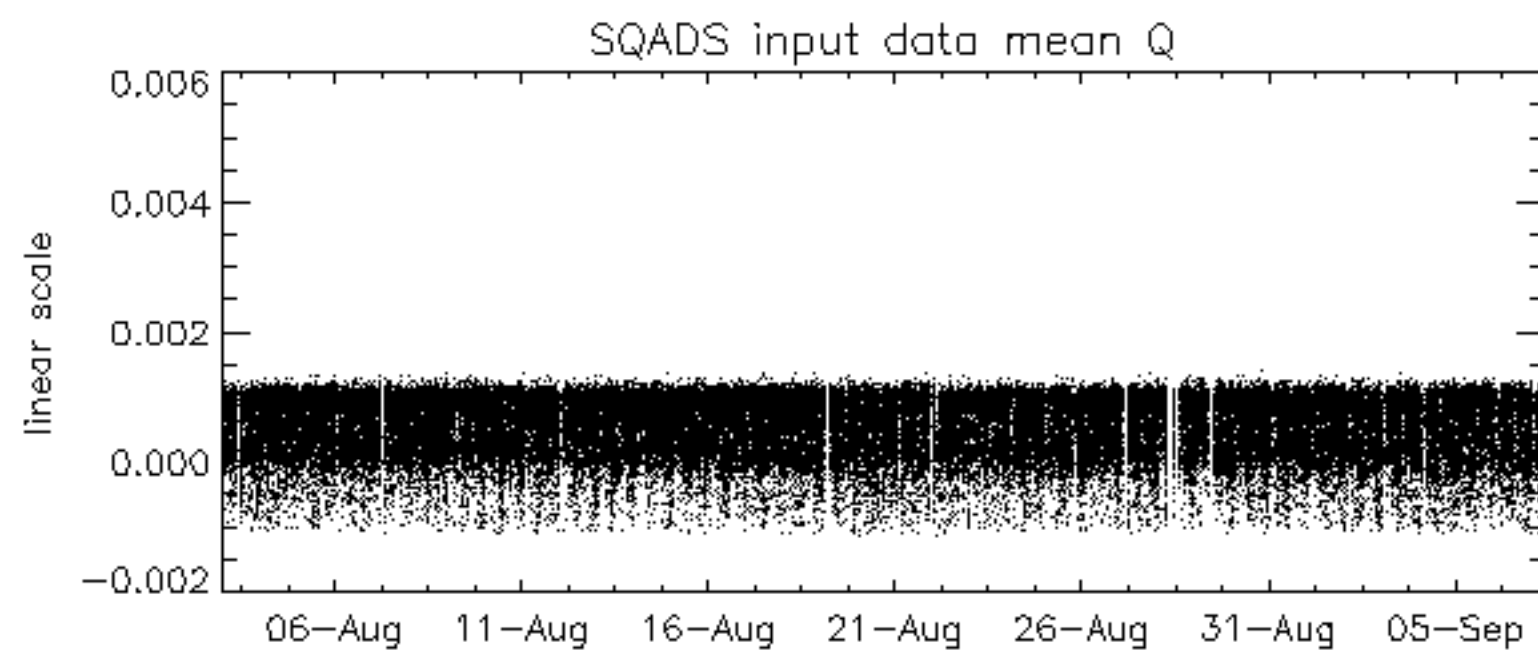
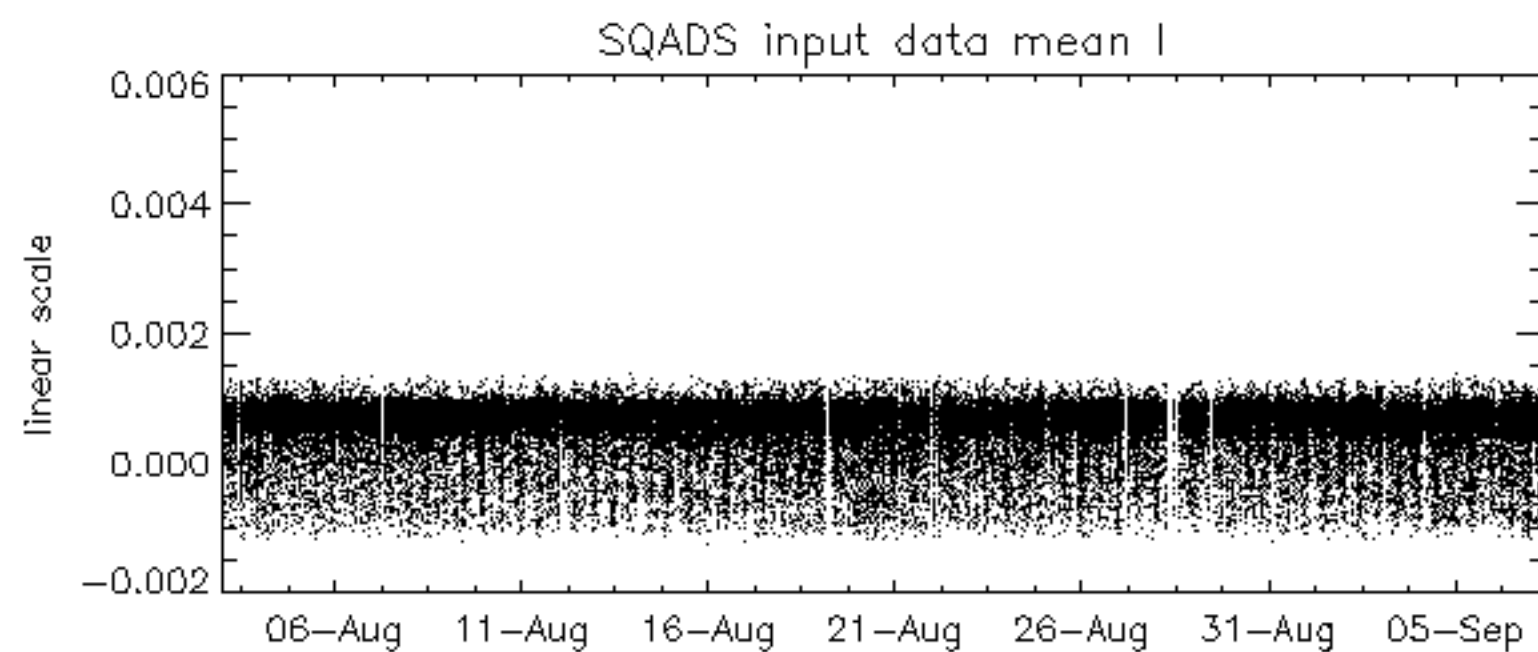
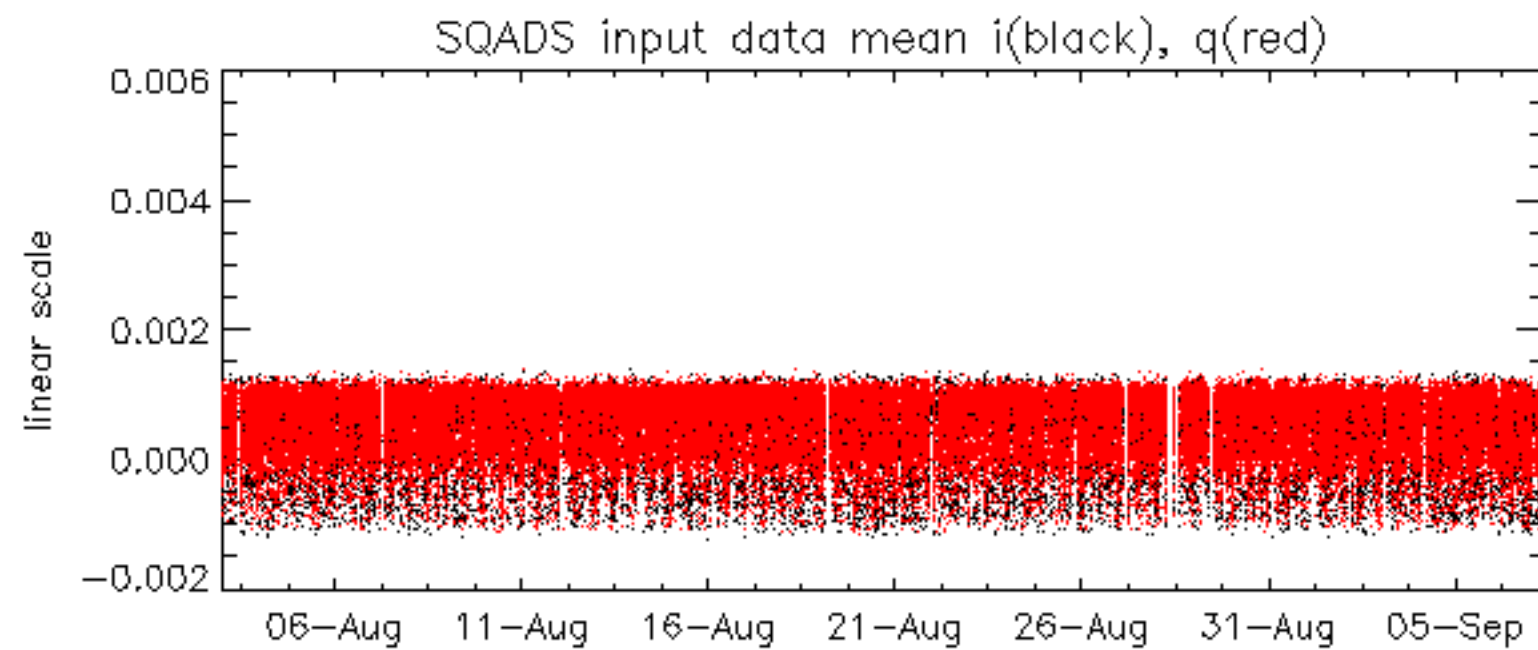
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.6484739 Hz

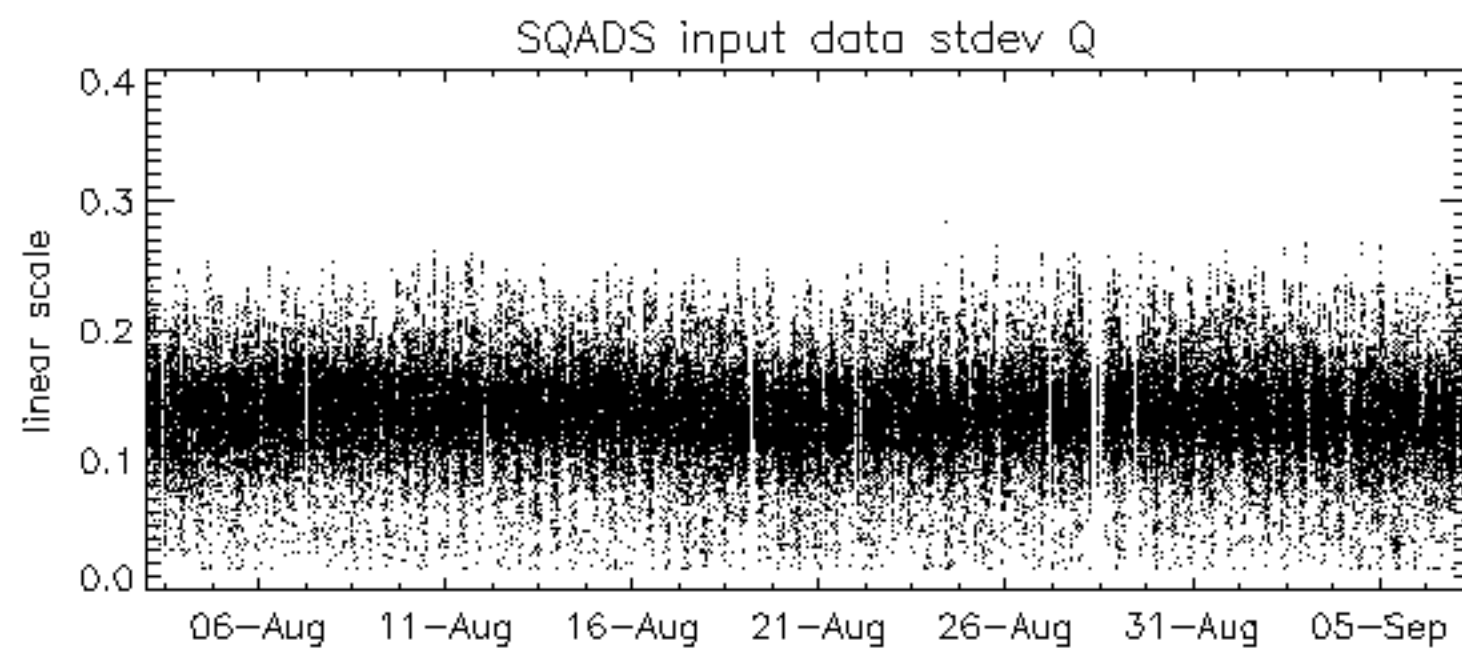
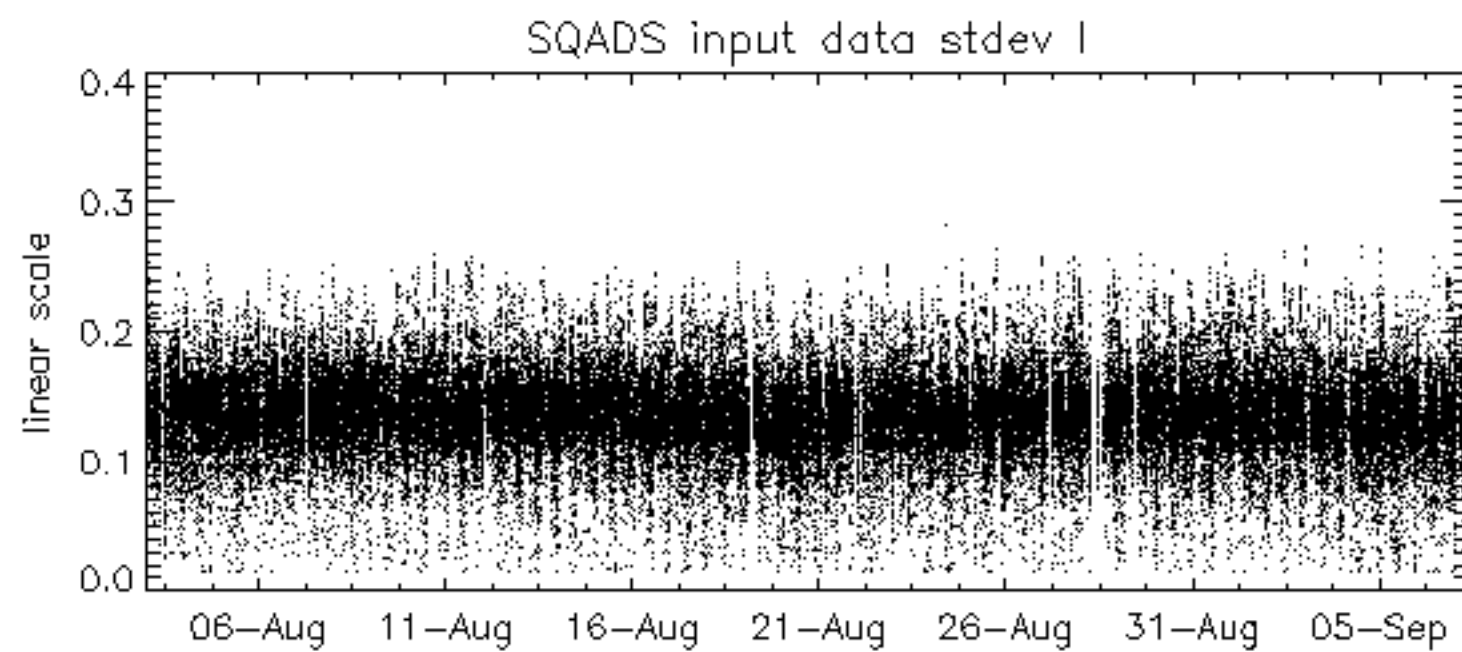
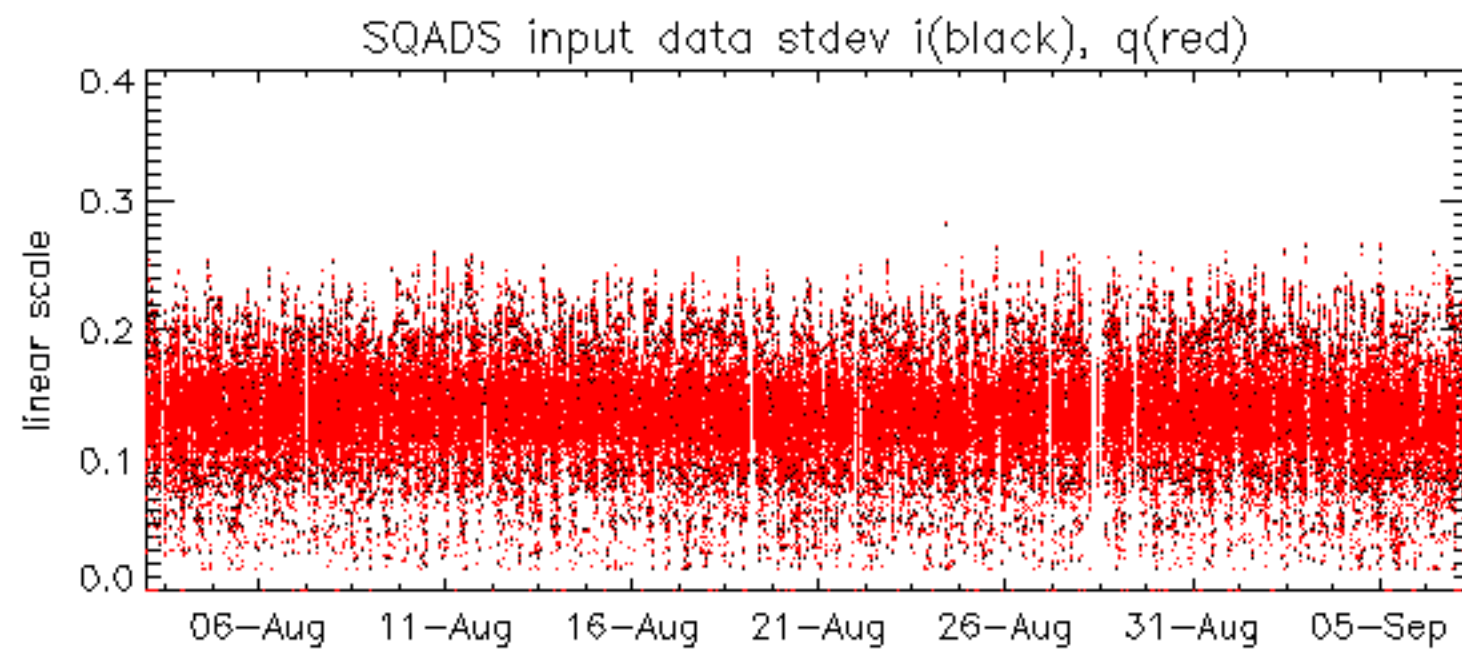


No anomalies observed on available MS products:

No anomalies observed.



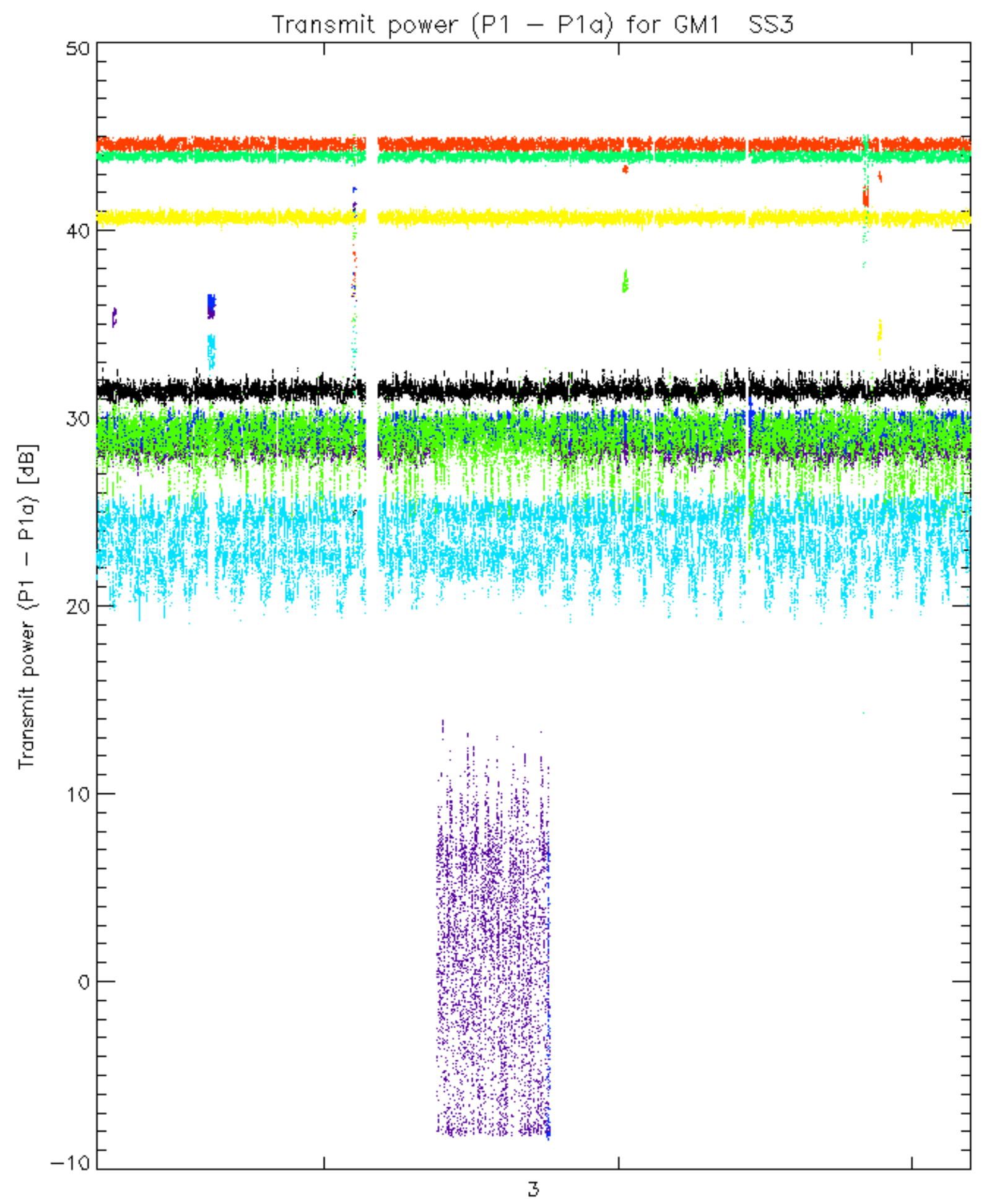




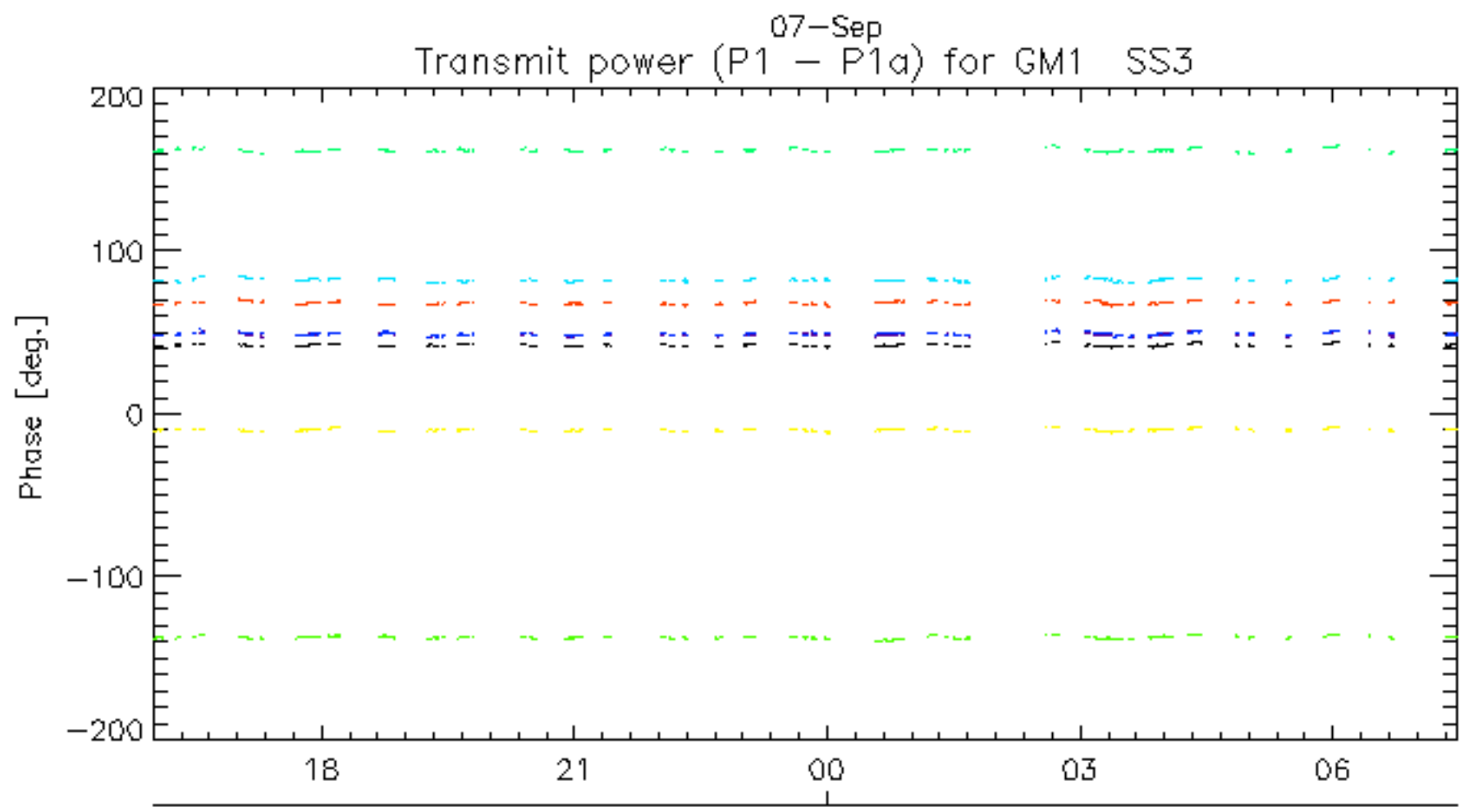
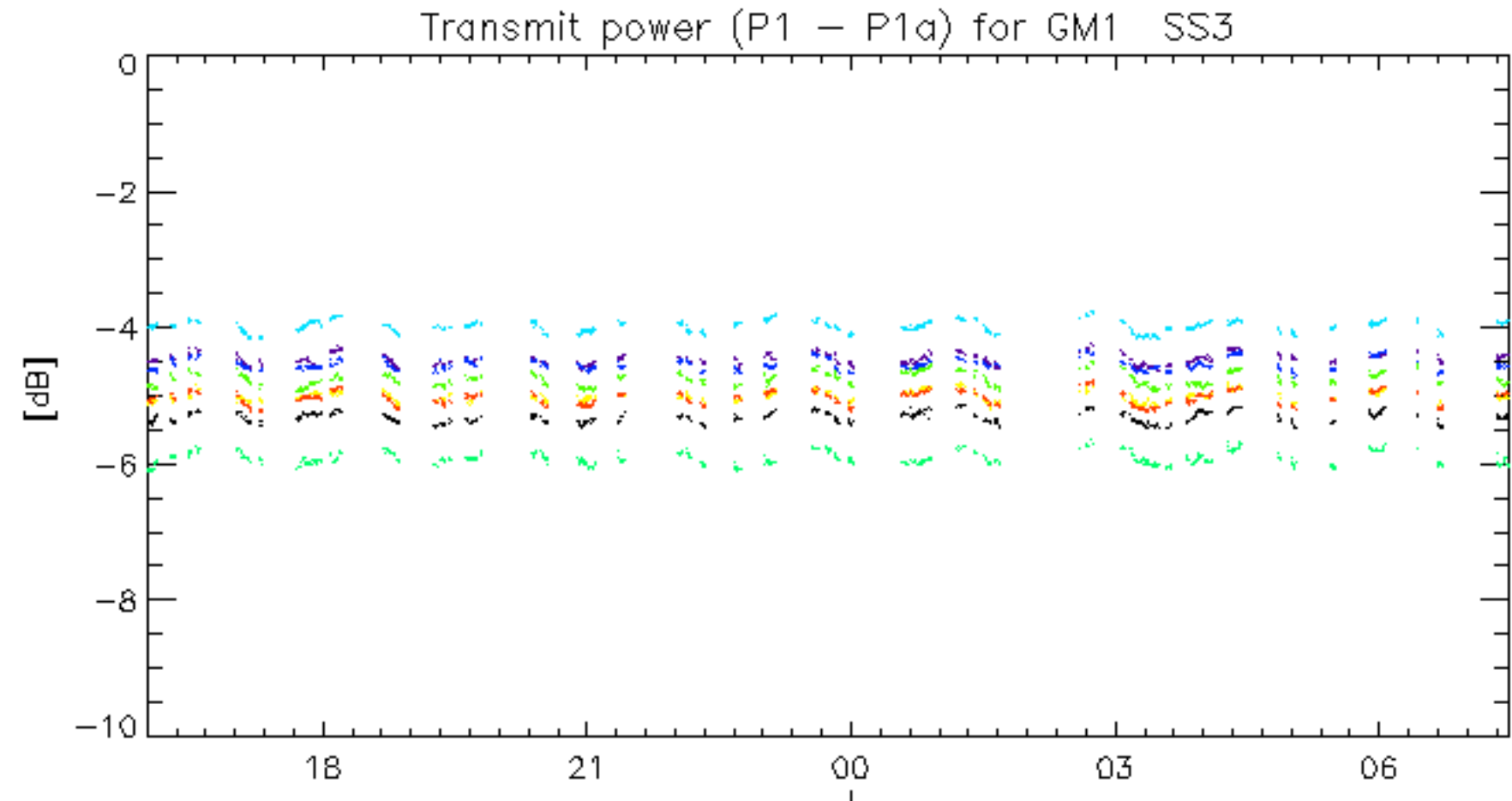
Summary of analysis for the last 3 days 2006090[567]

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

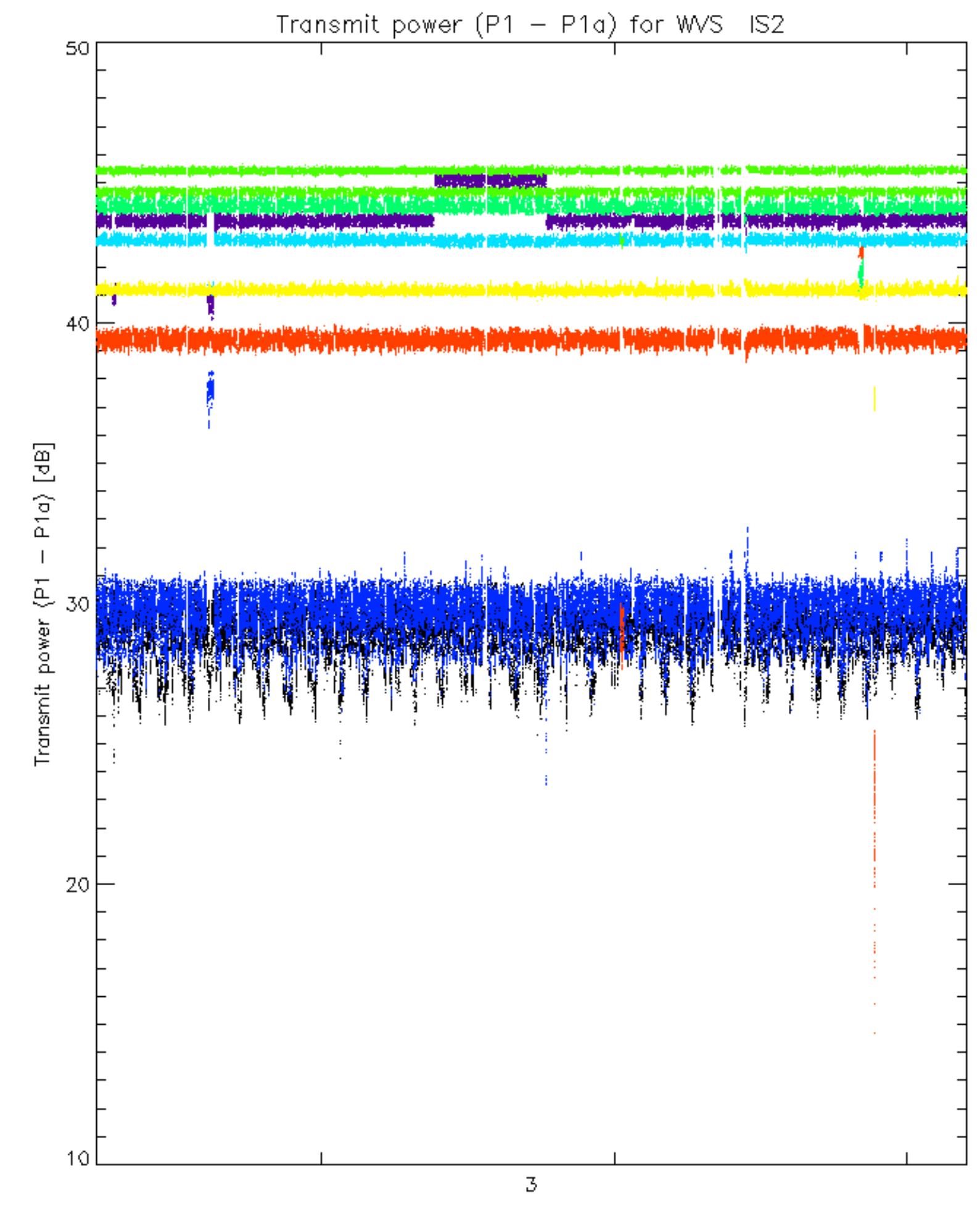
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060906_004518_000001932051_00016_23617_5564.N1	1	0
ASA_IMM_1PNPDE20060906_010159_000000692051_00017_23618_5567.N1	1	0
ASA_GM1_1PNPDK20060906_174208_000007252051_00027_23628_4299.N1	0	8
ASA_WSM_1PNPDE20060905_162916_000001222051_00012_23613_1099.N1	0	57
ASA_WSM_1PNPDE20060905_231132_000000672051_00016_23617_1152.N1	0	16
ASA_WSM_1PNPDE20060905_231134_000001092051_00016_23617_1265.N1	0	16
ASA_WSM_1PNPDE20060906_131931_000001472051_00024_23625_1280.N1	0	33
ASA_WSM_1PNPDE20060906_155552_000000852051_00026_23627_1281.N1	0	65
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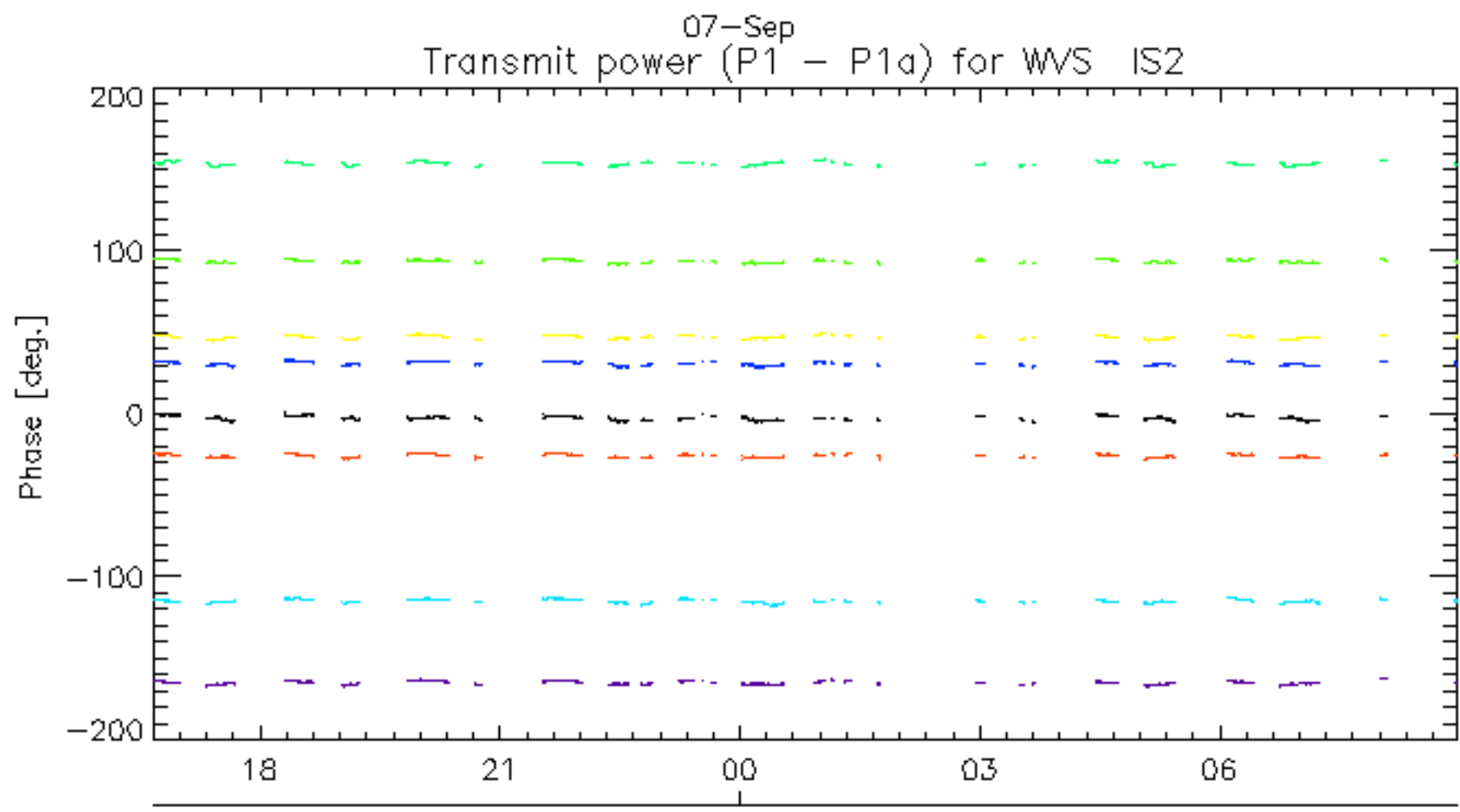
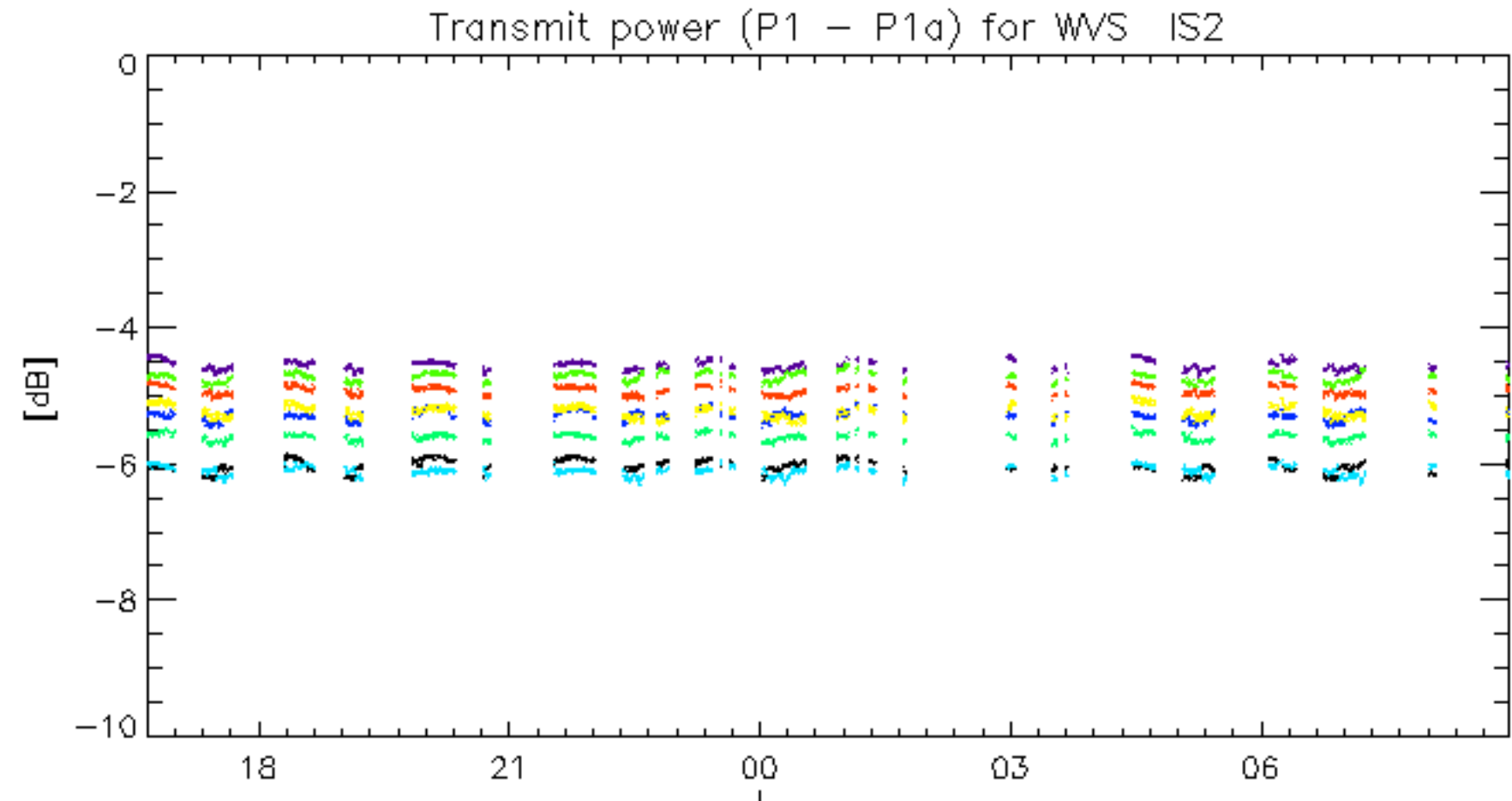
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No unavailabilities during the reported period.