

PRELIMINARY REPORT OF 060703

last update on Mon Jul 3 16:50:25 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 2006-07-02 00:00:00 to 2006-07-03 16:50:25

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	83	14	1	19
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	42	83	14	1	19
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	83	14	1	19
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	83	14	1	19

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	28	44	21	18	63
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	28	44	21	18	63
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	28	44	21	18	63
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	28	44	21	18	63

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	20060702 095348
H	20060703 092211

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

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	-3.939842	0.047966	-0.026291
7	P1	-3.134636	0.012444	0.041636
11	P1	-4.102164	0.016363	0.024782
15	P1	-6.163086	0.011405	-0.025893
19	P1	-3.369712	0.008577	-0.038109
22	P1	-4.528502	0.011250	-0.041163
26	P1	-3.960379	0.017699	0.045715
30	P1	-5.757143	0.008743	-0.017732
3	P1	-16.535601	0.633840	-0.041833
7	P1	-17.239670	0.110145	0.077102
11	P1	-16.978760	0.280483	-0.025297
15	P1	-13.171374	0.159334	0.046879
19	P1	-14.380113	0.049854	-0.111036
22	P1	-16.135456	0.383891	0.142494
26	P1	-15.179732	0.230390	0.084635
30	P1	-17.146408	0.405523	0.030441

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.091684	0.084090	0.164542
7	P2	-21.989067	0.099986	0.112942
11	P2	-15.837423	0.113936	0.097091
15	P2	-7.156423	0.096819	0.033411
19	P2	-9.166164	0.088554	0.055710
22	P2	-18.171068	0.084331	0.021831
26	P2	-16.412649	0.090103	0.010087
30	P2	-19.552664	0.089710	0.029118

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.186538	0.003649	0.010807
7	P3	-8.186538	0.003649	0.010807
11	P3	-8.186538	0.003649	0.010807
15	P3	-8.186538	0.003649	0.010807
19	P3	-8.186538	0.003649	0.010807
22	P3	-8.186538	0.003649	0.010807
26	P3	-8.186538	0.003649	0.010807
30	P3	-8.186538	0.003649	0.010807

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	-3.806911	0.066272	0.001578
7	P1	-2.575519	0.008537	0.042985
11	P1	-2.858105	0.013643	0.007647
15	P1	-3.531970	0.027870	-0.054468
19	P1	-3.415236	0.014321	-0.006391
22	P1	-5.086997	0.019947	-0.008774
26	P1	-5.858950	0.016273	-0.008455
30	P1	-5.192302	0.026398	0.006813
3	P1	-11.623782	0.176979	0.052999
7	P1	-9.983317	0.033059	0.026977
11	P1	-10.238450	0.059017	0.002358
15	P1	-10.704375	0.130963	-0.091060
19	P1	-15.540885	0.078429	0.009468
22	P1	-20.949684	1.151986	0.045110

26	P1	-16.431223	0.342528	0.151136
30	P1	-17.868874	0.379738	0.044820

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.761454	0.075386	0.215005
7	P2	-22.462740	0.132157	0.080719
11	P2	-11.116058	0.048282	0.115415
15	P2	-4.924387	0.048768	0.005461
19	P2	-6.884998	0.053008	0.010180
22	P2	-8.208852	0.042786	0.016207
26	P2	-24.170248	0.068999	-0.053659
30	P2	-22.049969	0.055556	0.062742

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.021919	0.004390	0.010109
7	P3	-8.022036	0.004376	0.009859
11	P3	-8.021925	0.004398	0.009967
15	P3	-8.021900	0.004398	0.009959
19	P3	-8.021918	0.004396	0.010012
22	P3	-8.022038	0.004381	0.010226
26	P3	-8.022031	0.004395	0.010121
30	P3	-8.021945	0.004369	0.010060

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	0.000566781
	stdev	1.67791e-07
MEAN Q	mean	0.000527914
	stdev	2.19108e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137666
	stdev	0.00116871
STDEV Q	mean	0.138029
	stdev	0.00118674



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006070[123]

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_1PNPDE20060701_005030_000002372049_00059_22658_0198.N1	1	0
ASA_IMM_1PNPDE20060701_065011_000000362049_00063_22662_0225.N1	1	0
ASA_IMM_1PNPDE20060701_111215_000000512049_00066_22665_0227.N1	1	0
ASA_IMM_1PNPDE20060702_125758_000000512049_00081_22680_0270.N1	1	0
ASA_IMM_1PNPDE20060703_002903_000000512049_00088_22687_0280.N1	1	0



ASA_WSM_1PNPDE20060702_010810_000001092049_00074_22673_0824.N1	0	64
ASA_WSM_1PNPDE20060702_171036_000002382049_00084_22683_0923.N1	0	6





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)	
	
	Ascending
	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	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)
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

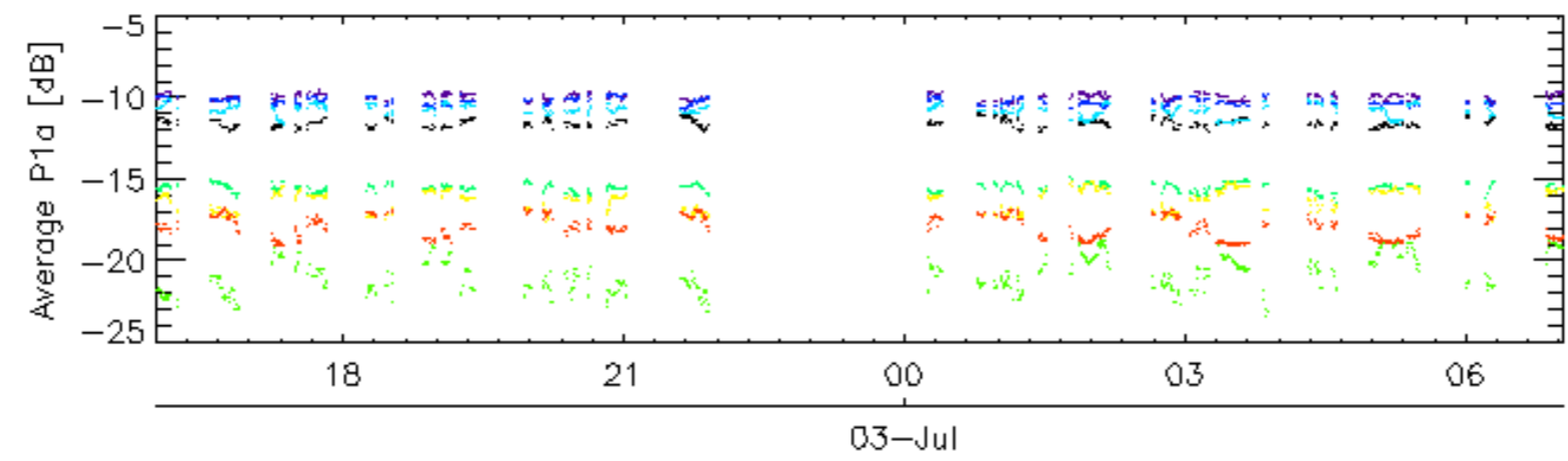
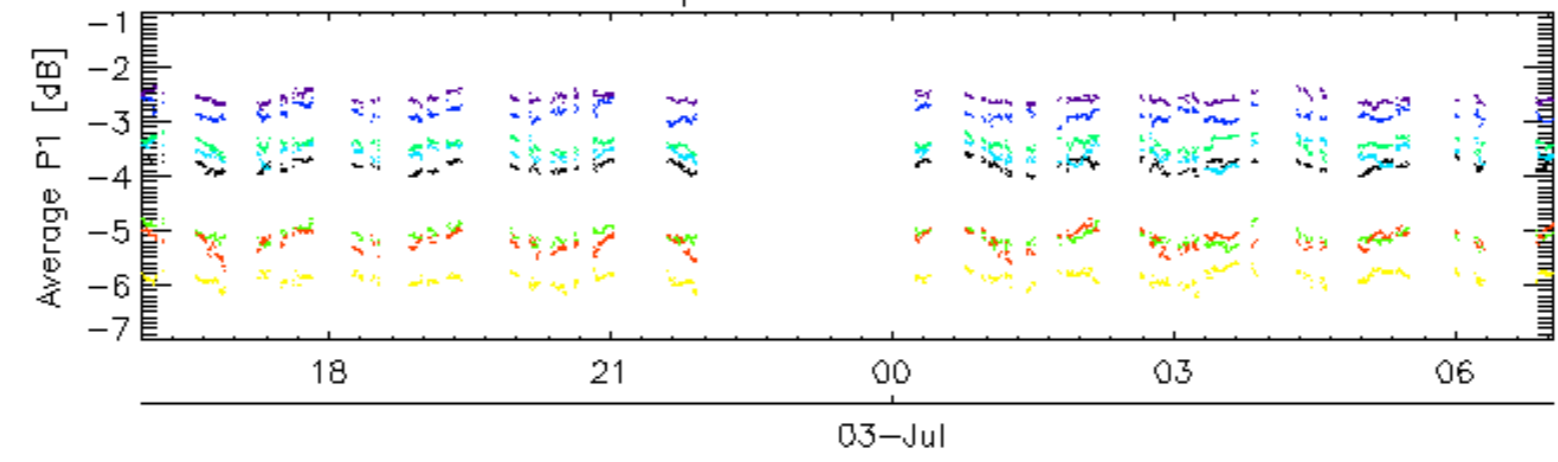
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
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Ascending
<input type="checkbox"/>
Descending

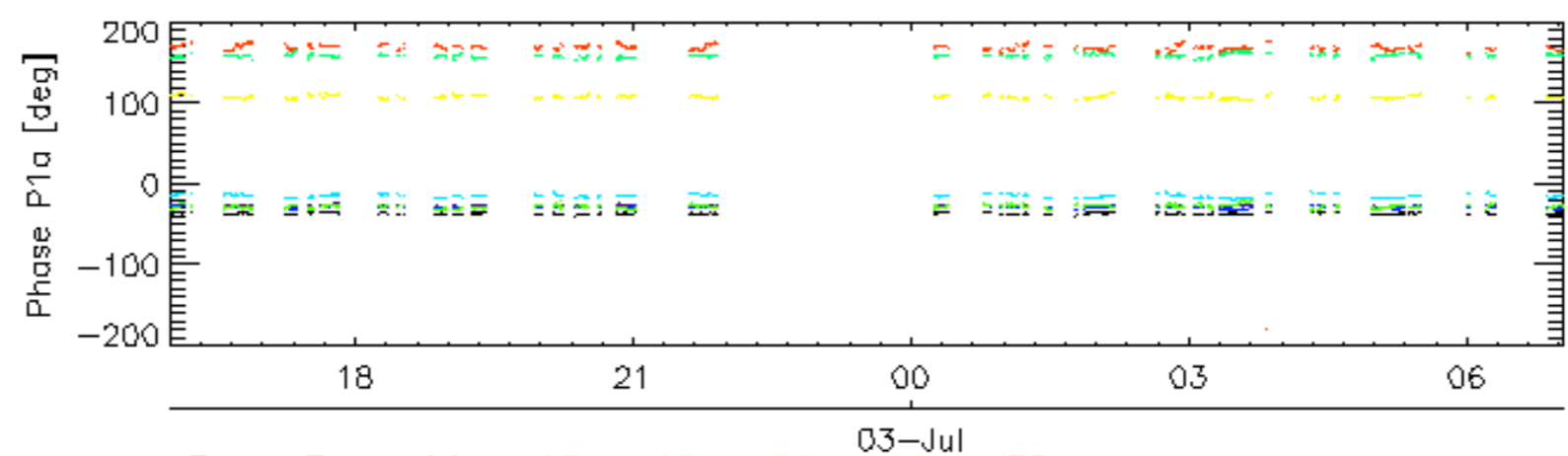
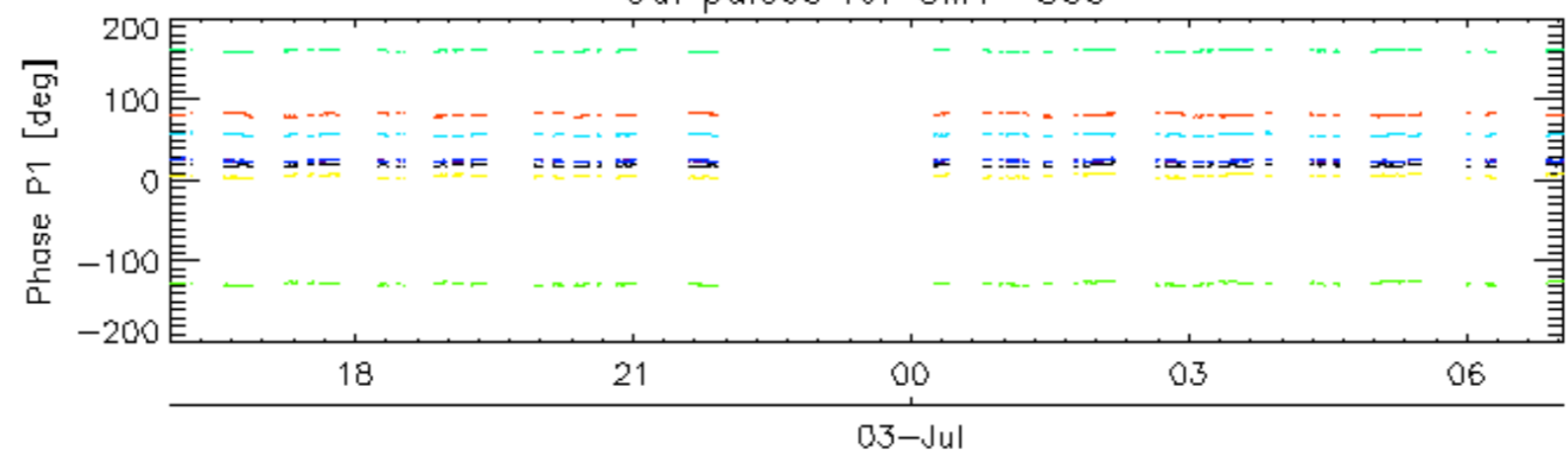
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

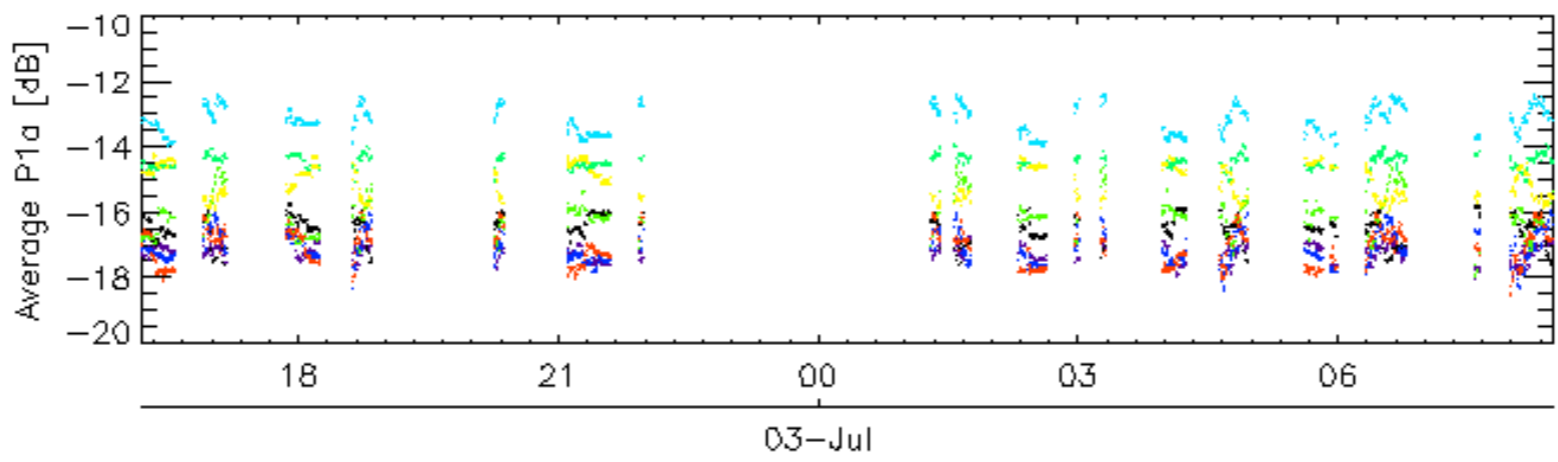
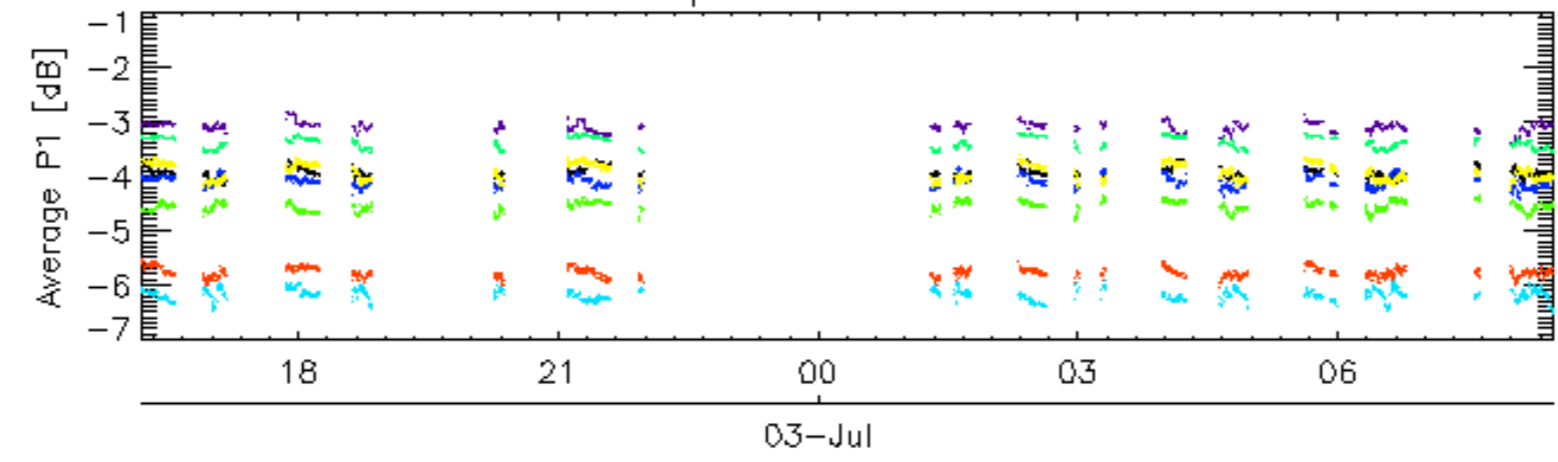


Cal pulses for GM1 SS3

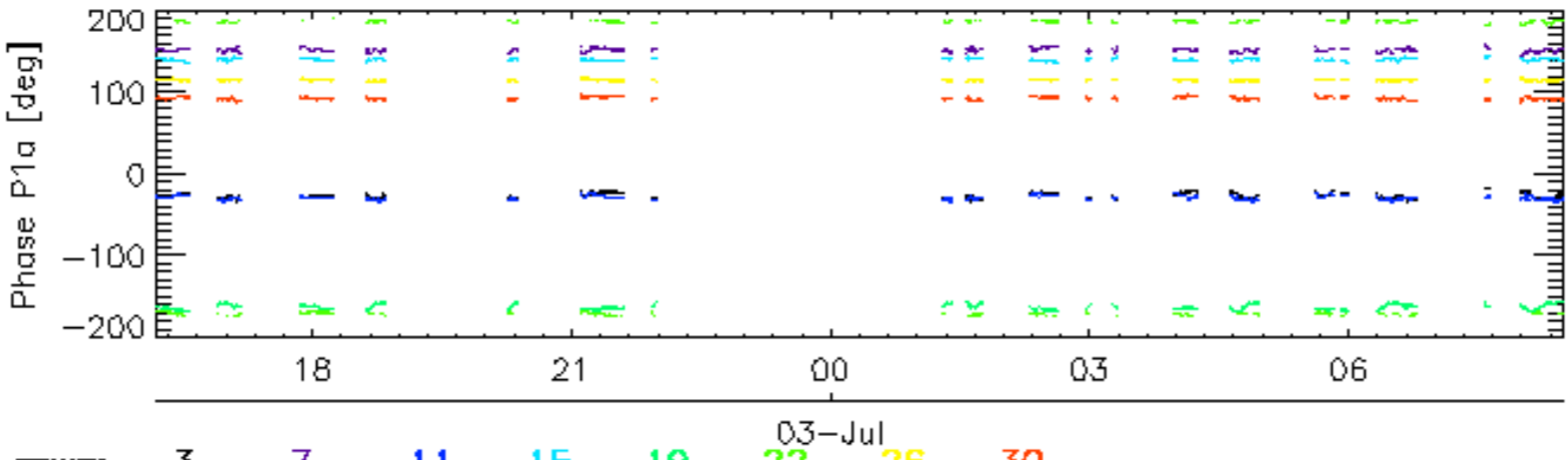
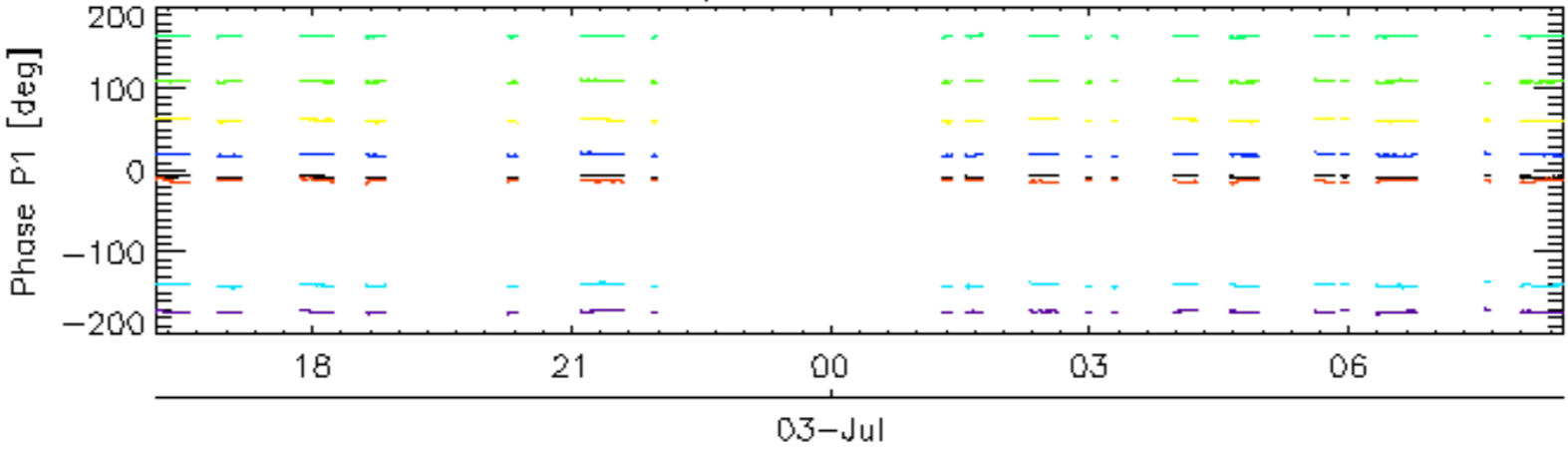


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

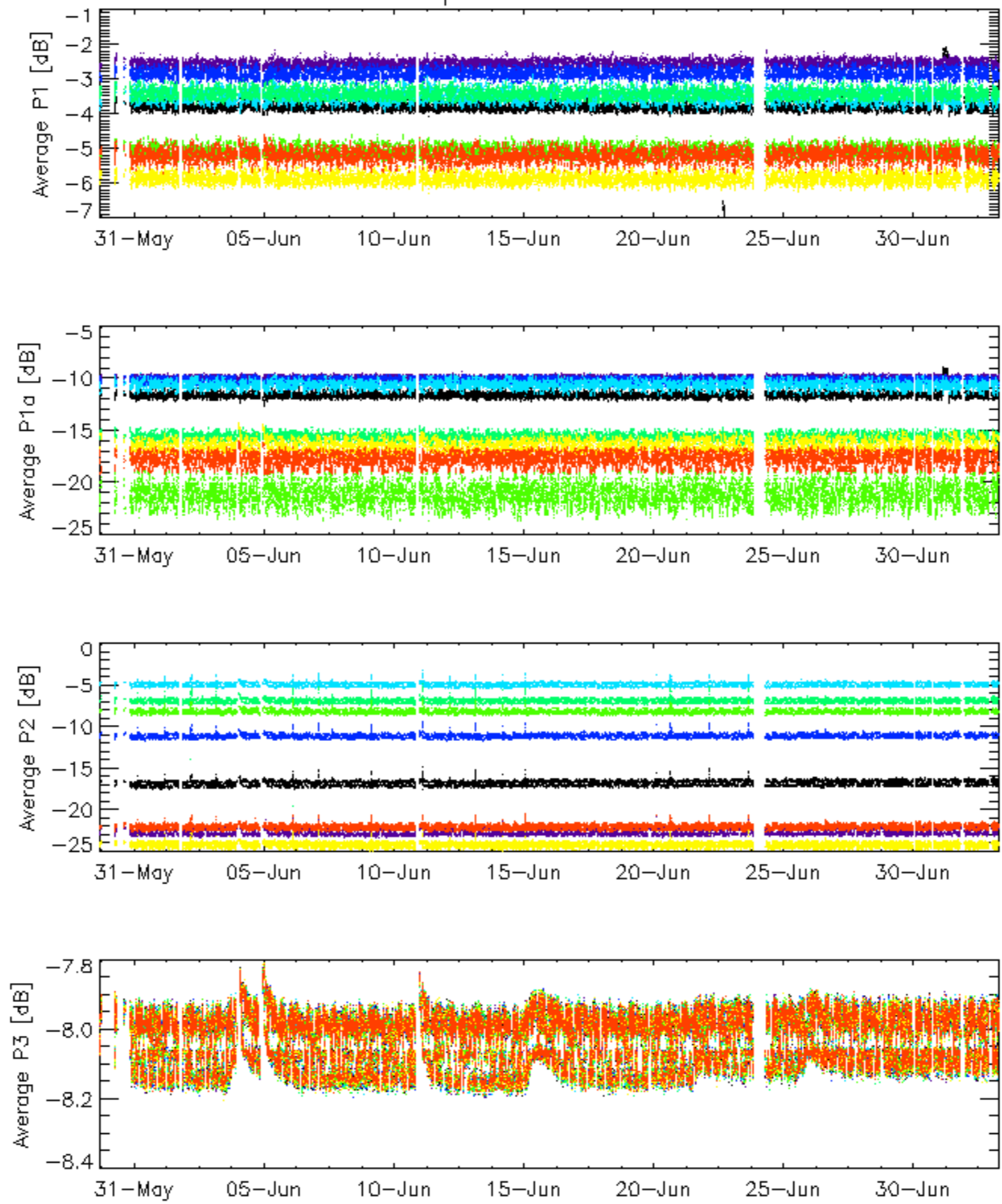


Cal pulses for WVS IS2



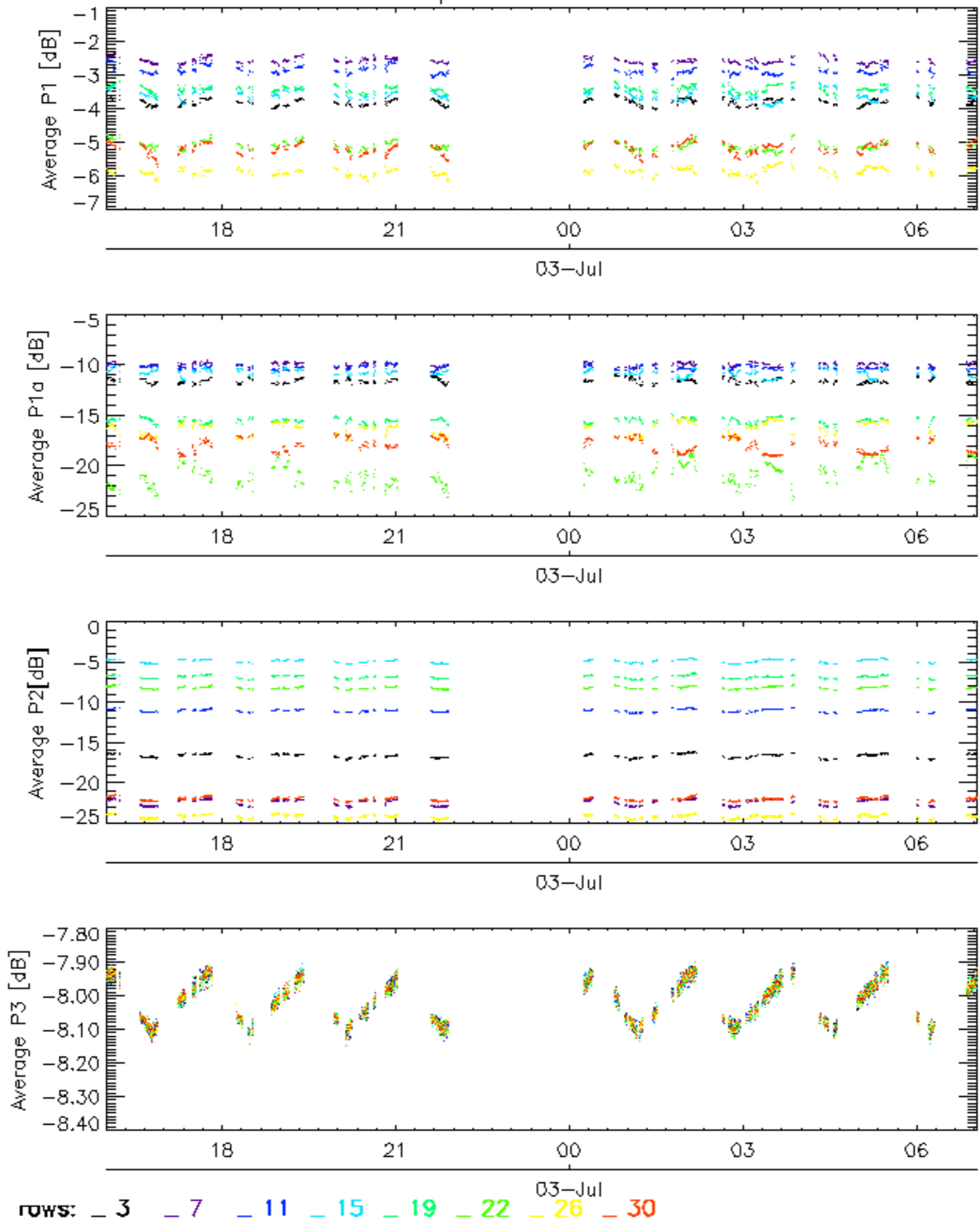
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

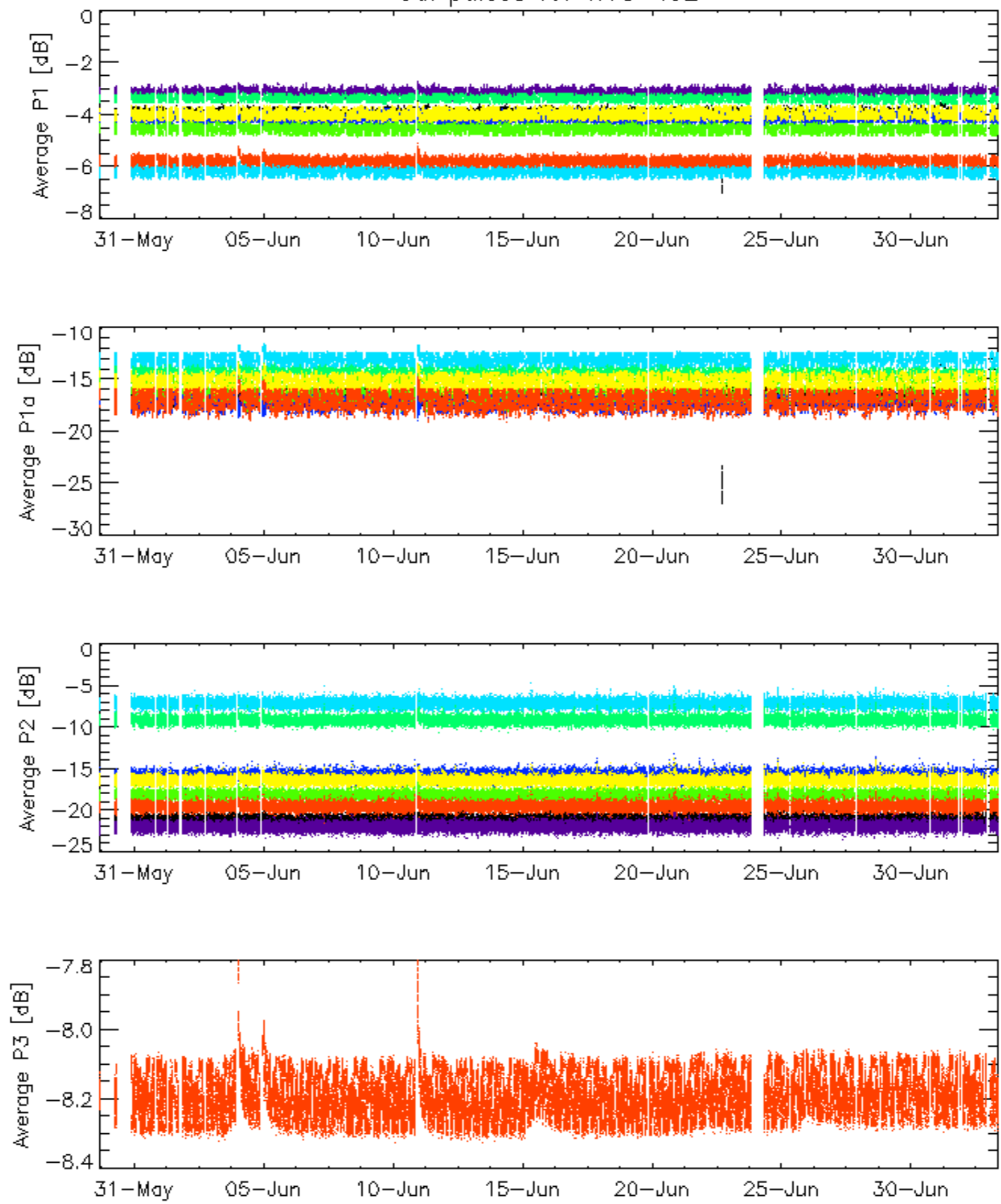


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

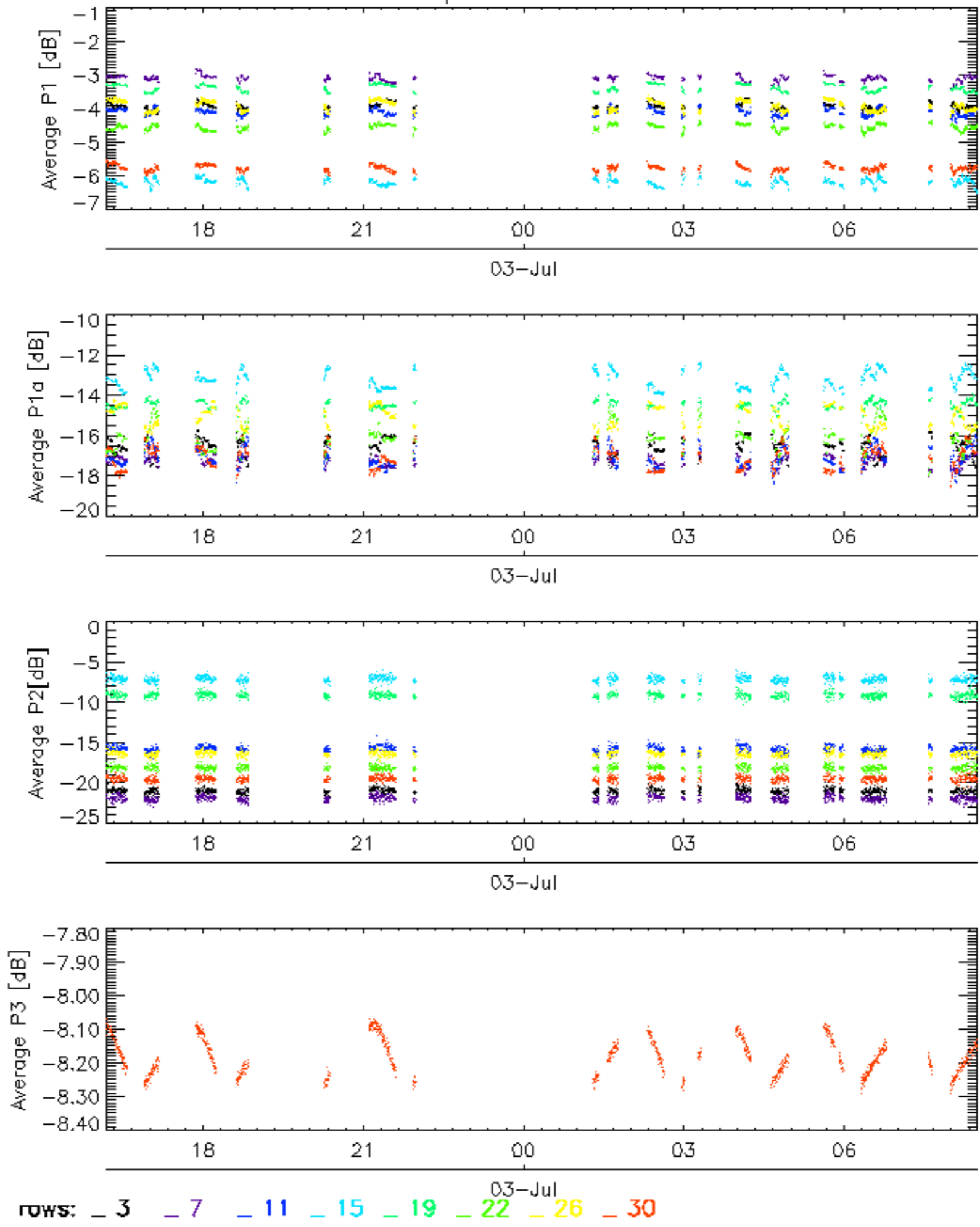


Cal pulses for WVS IS2



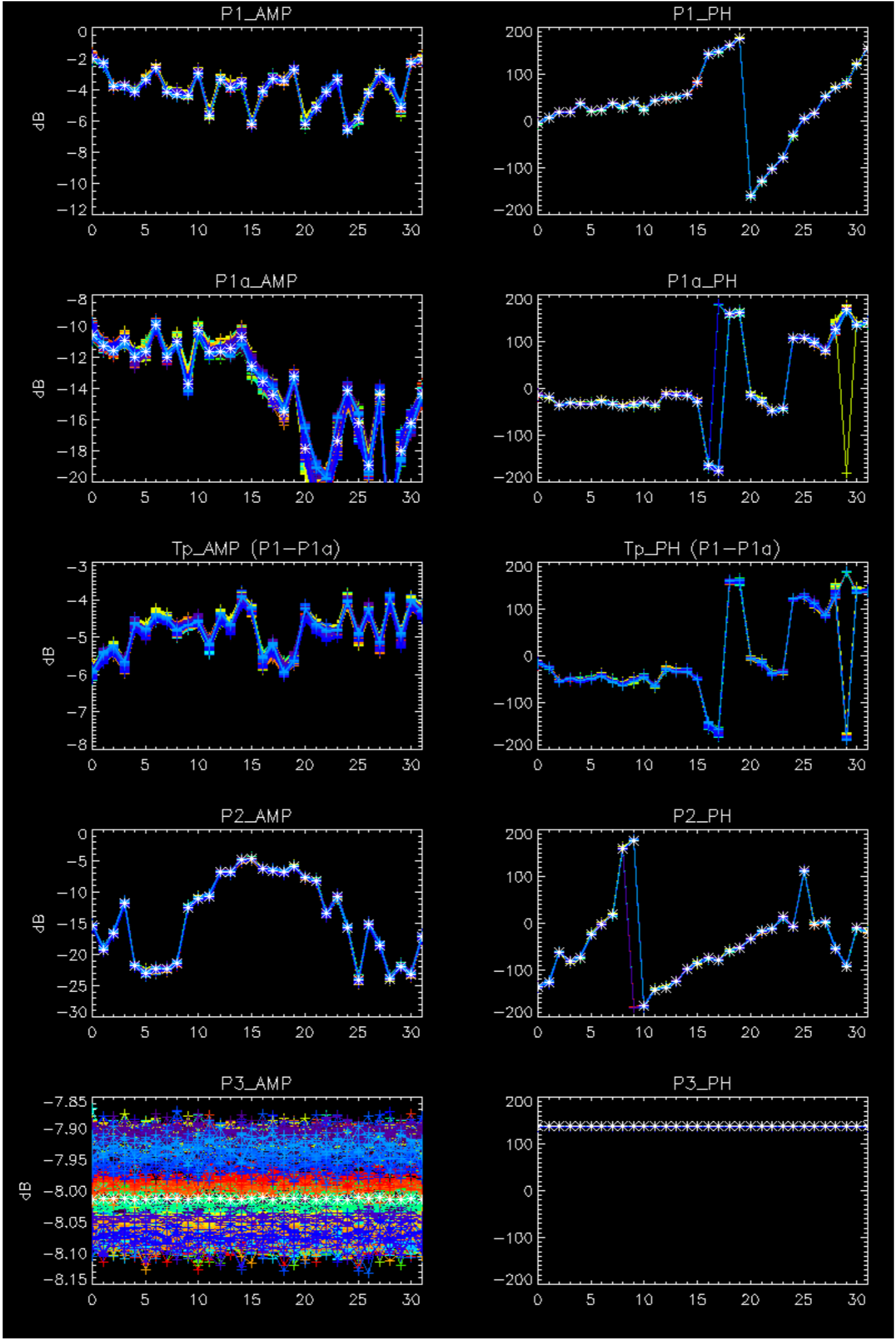
rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

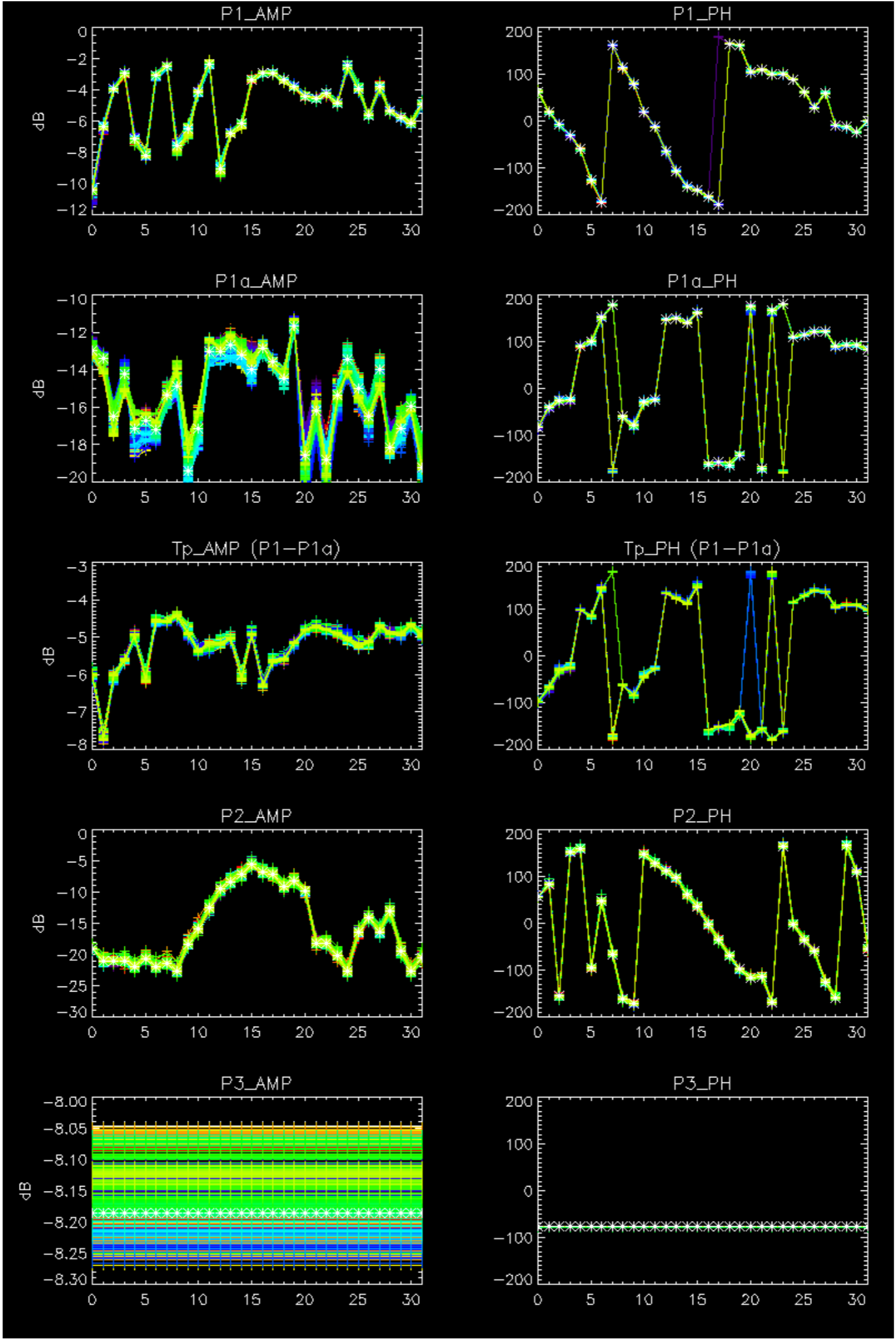
Cal pulses for WVS IS2



No anomalies observed on available browse products

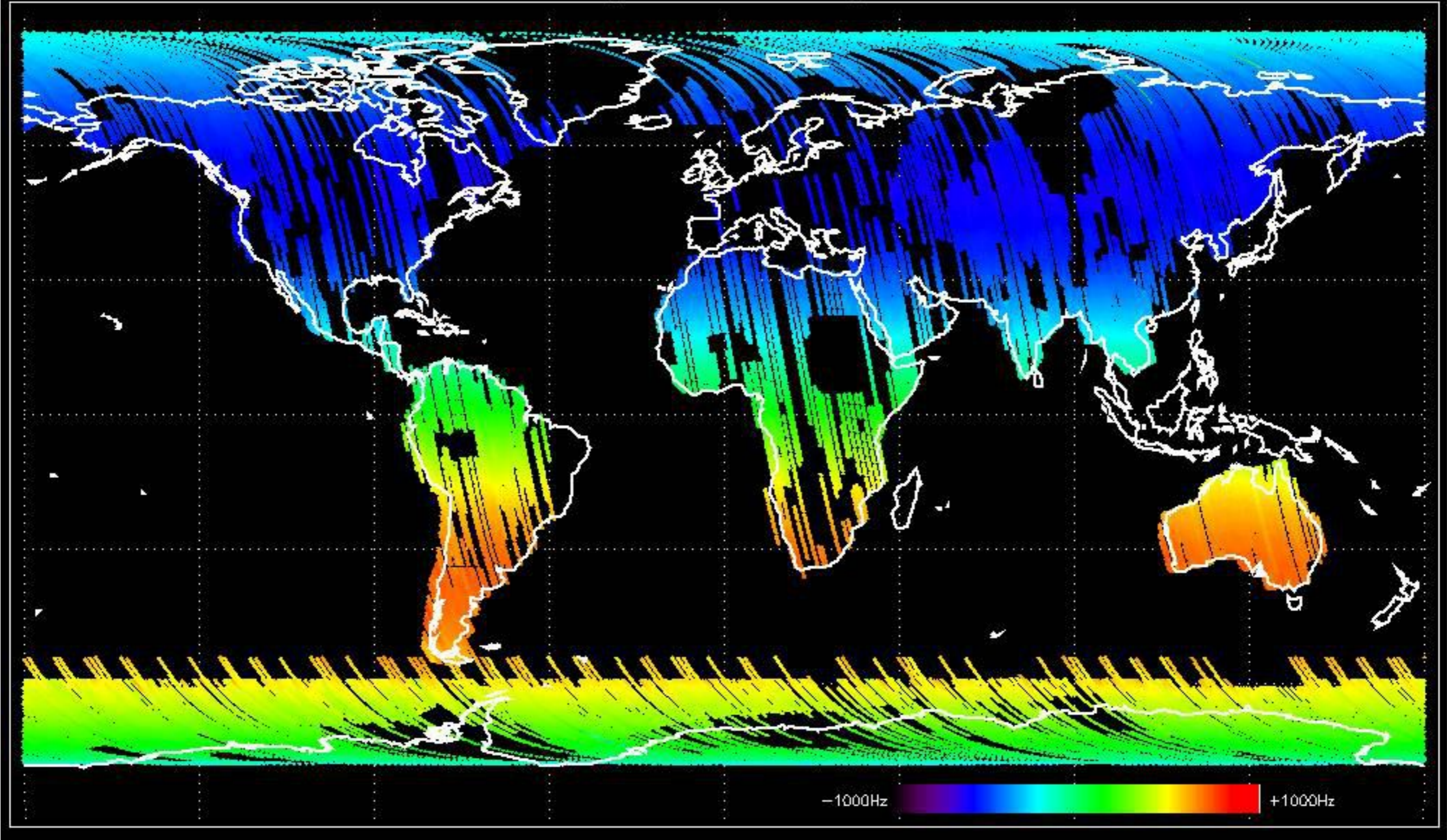
No anomalies observed.



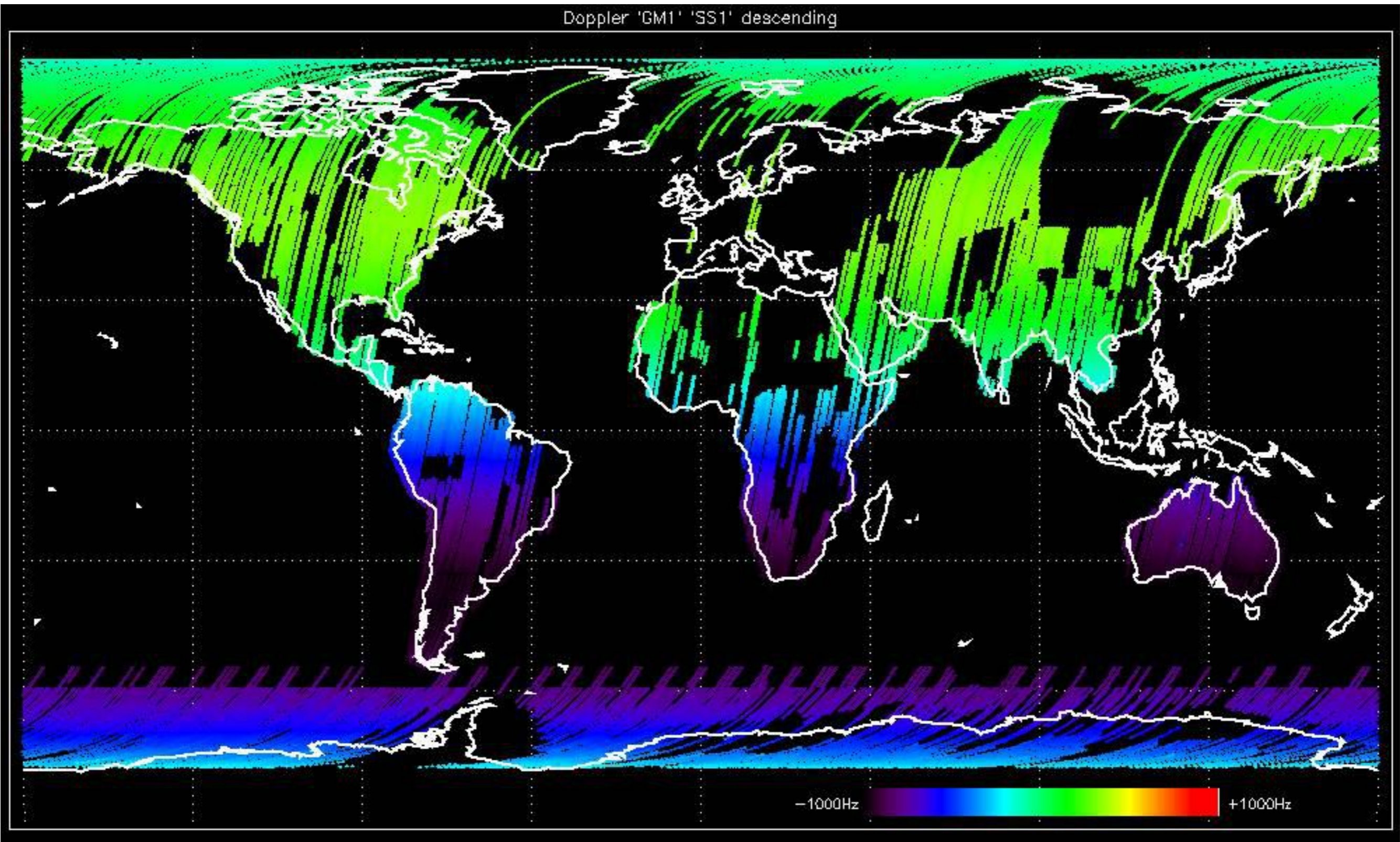


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

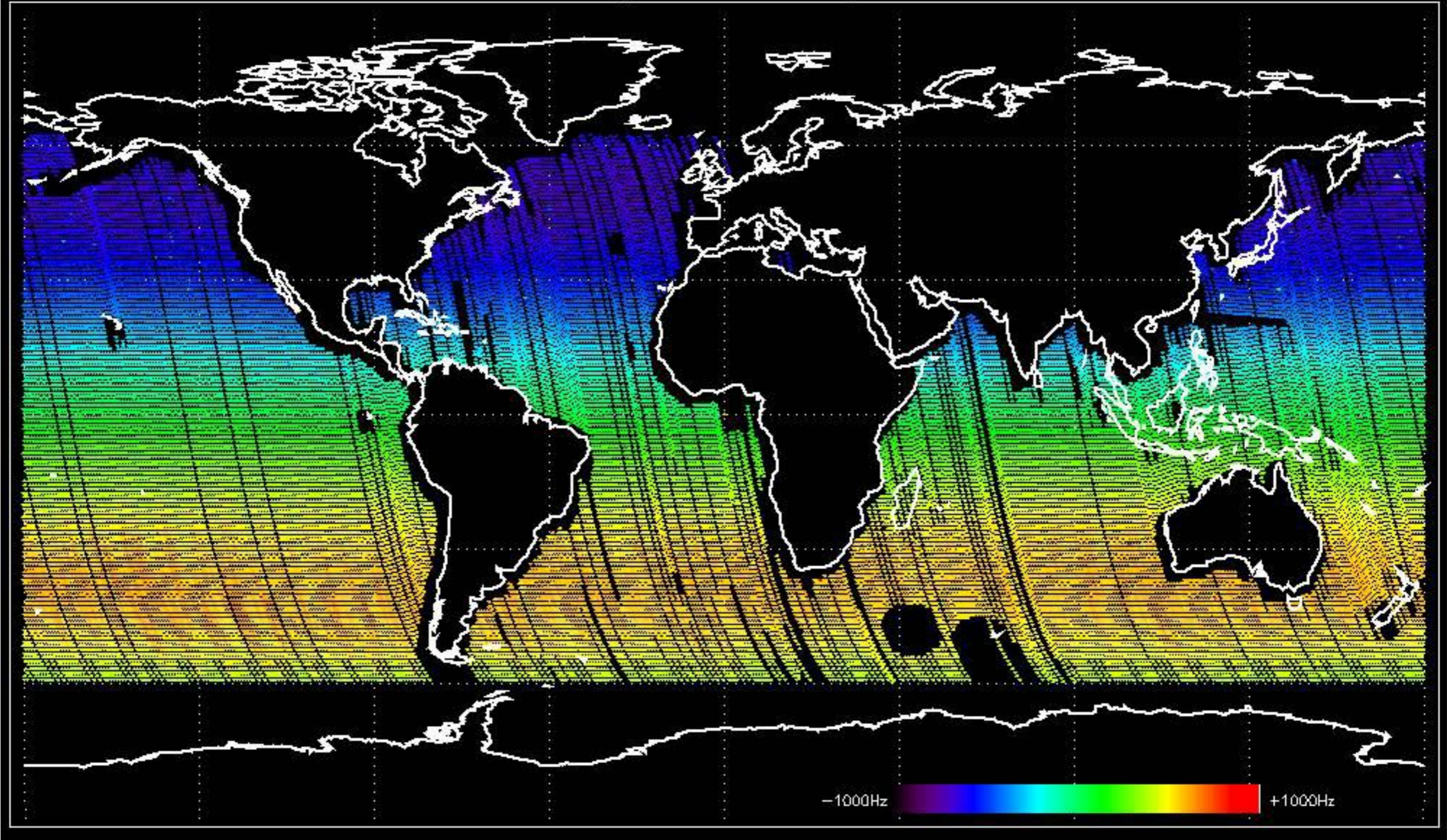
Doppler 'GM1' 'SS1' ascending



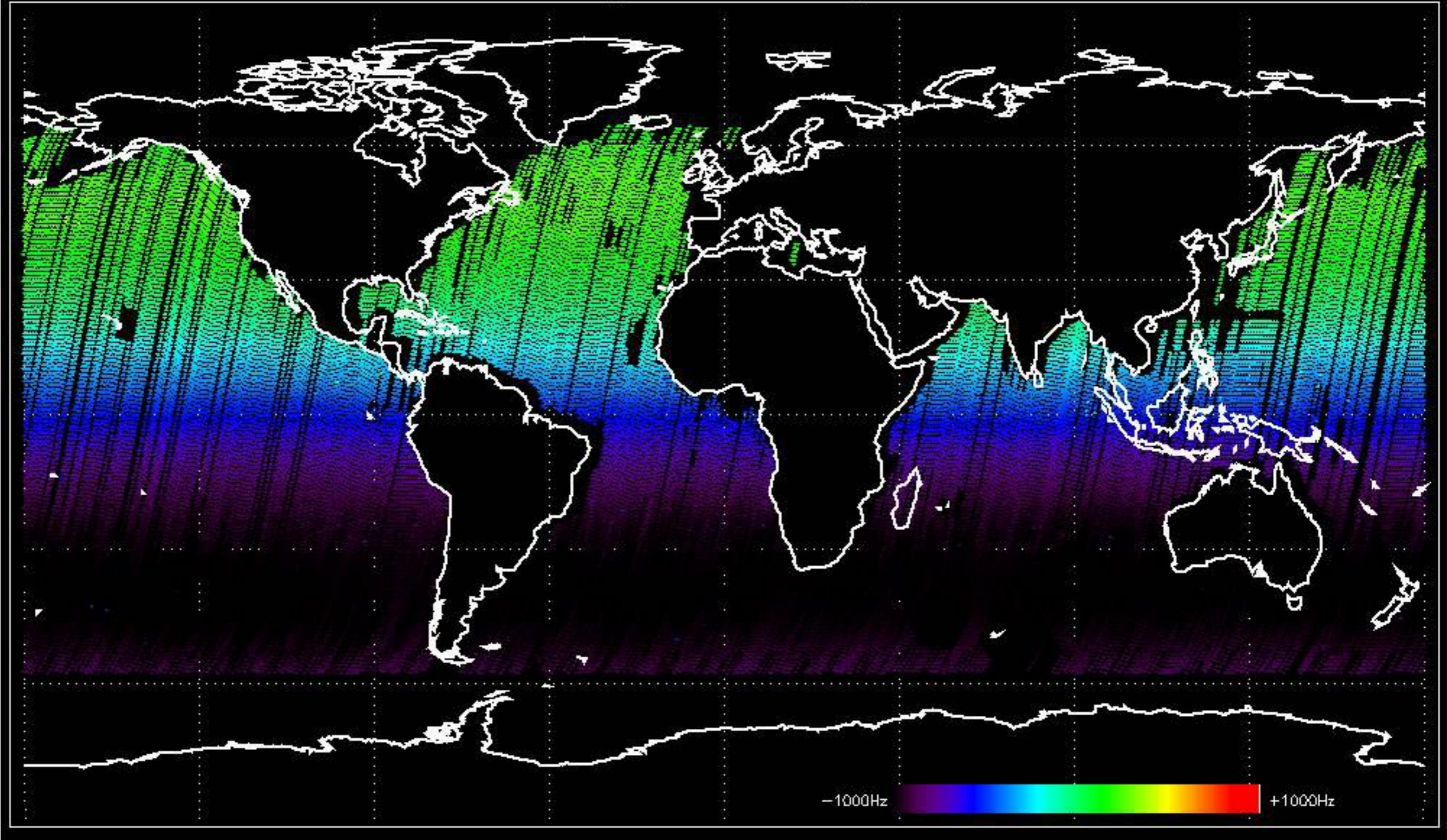
Doppler 'GM1' 'SS1' descending



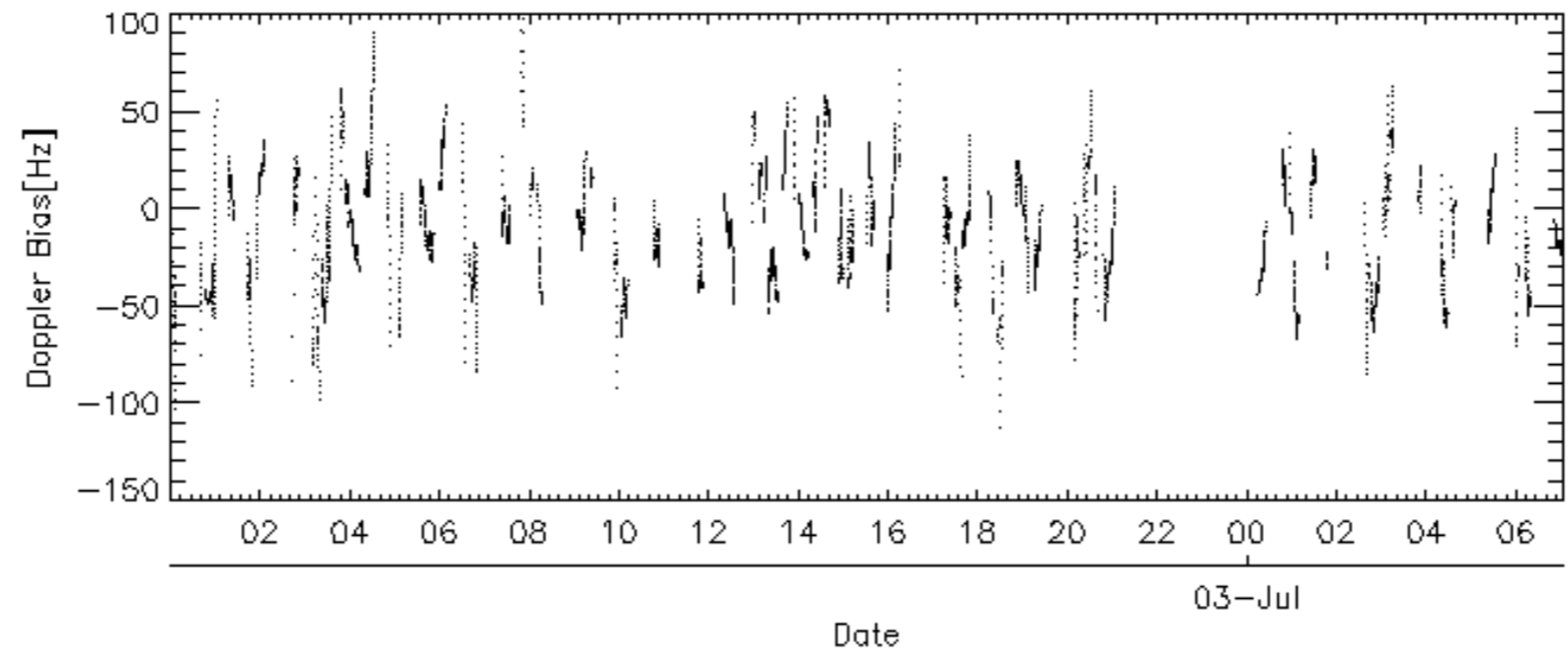
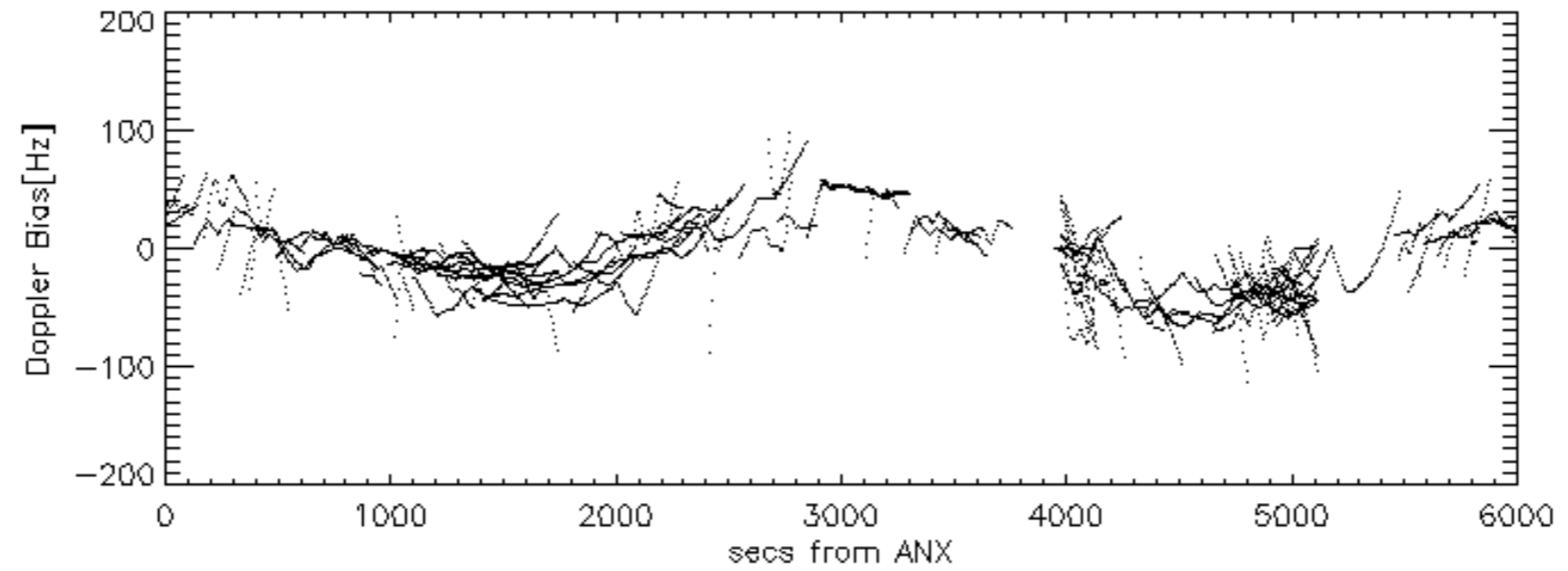
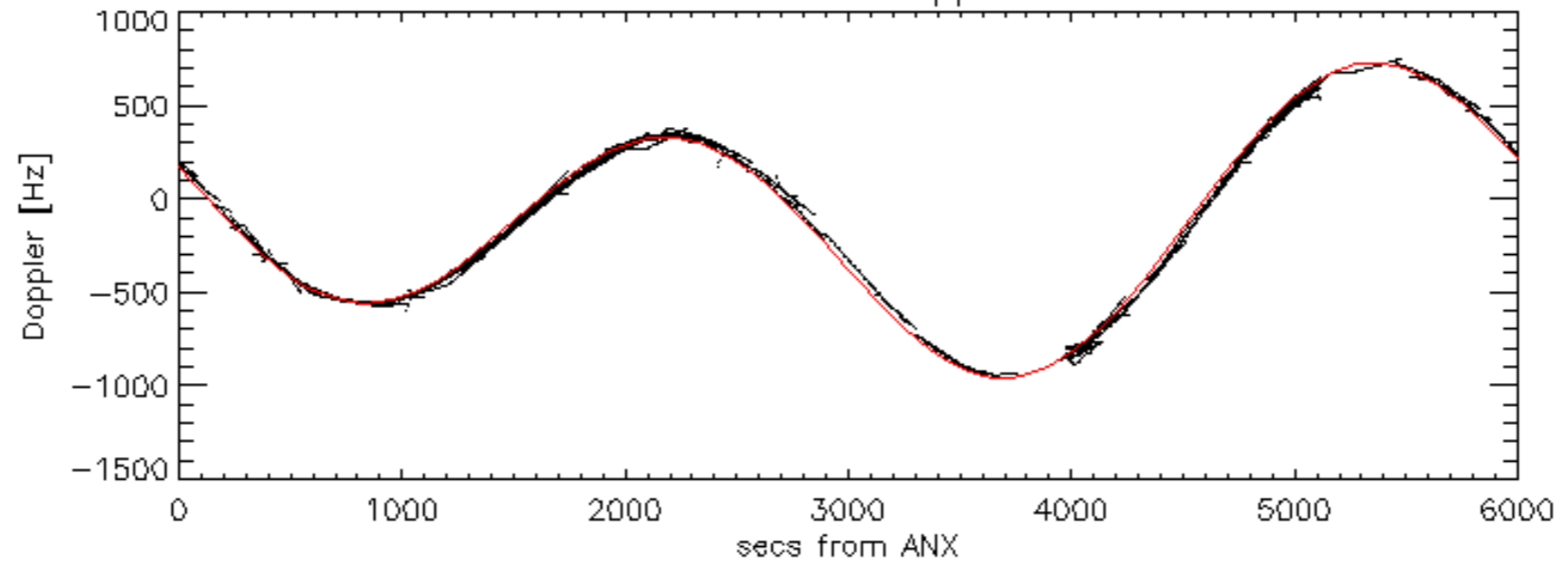
Doppler 'WVS' 'IS2' ascending

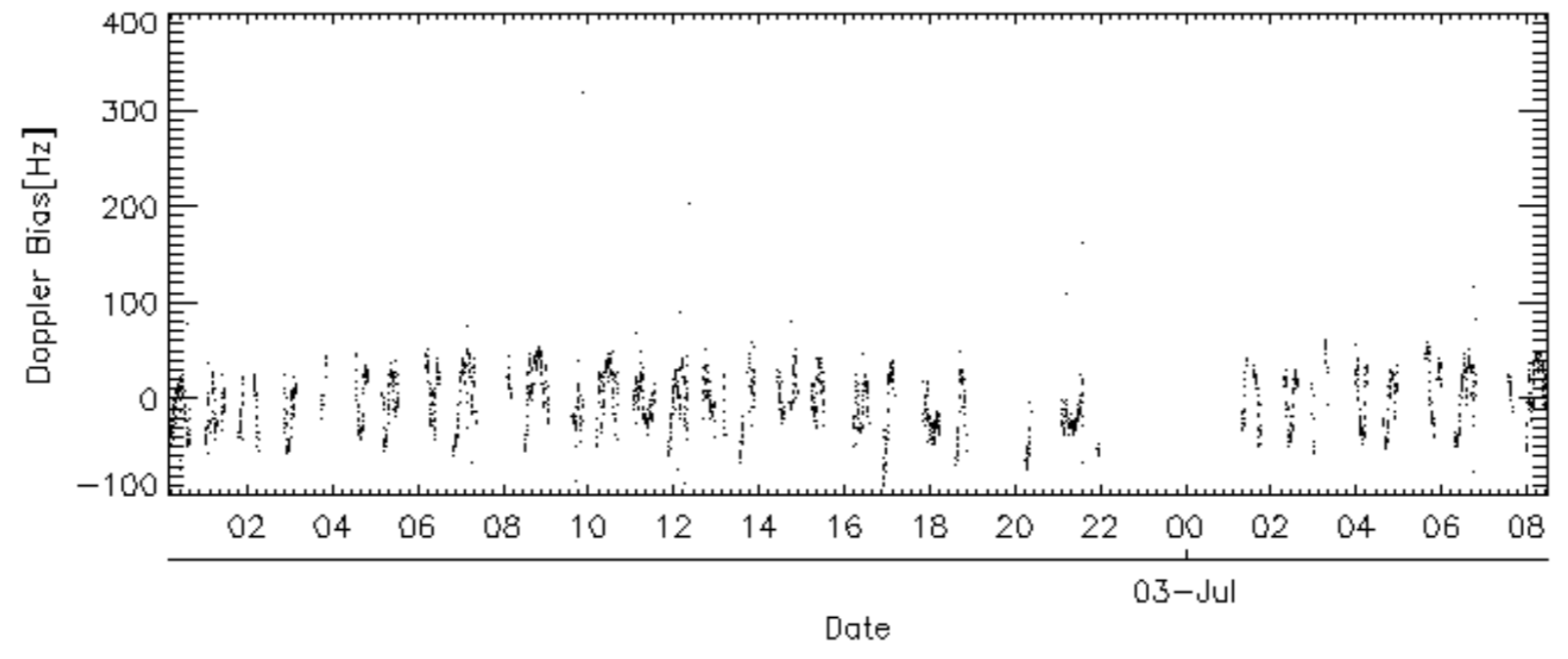
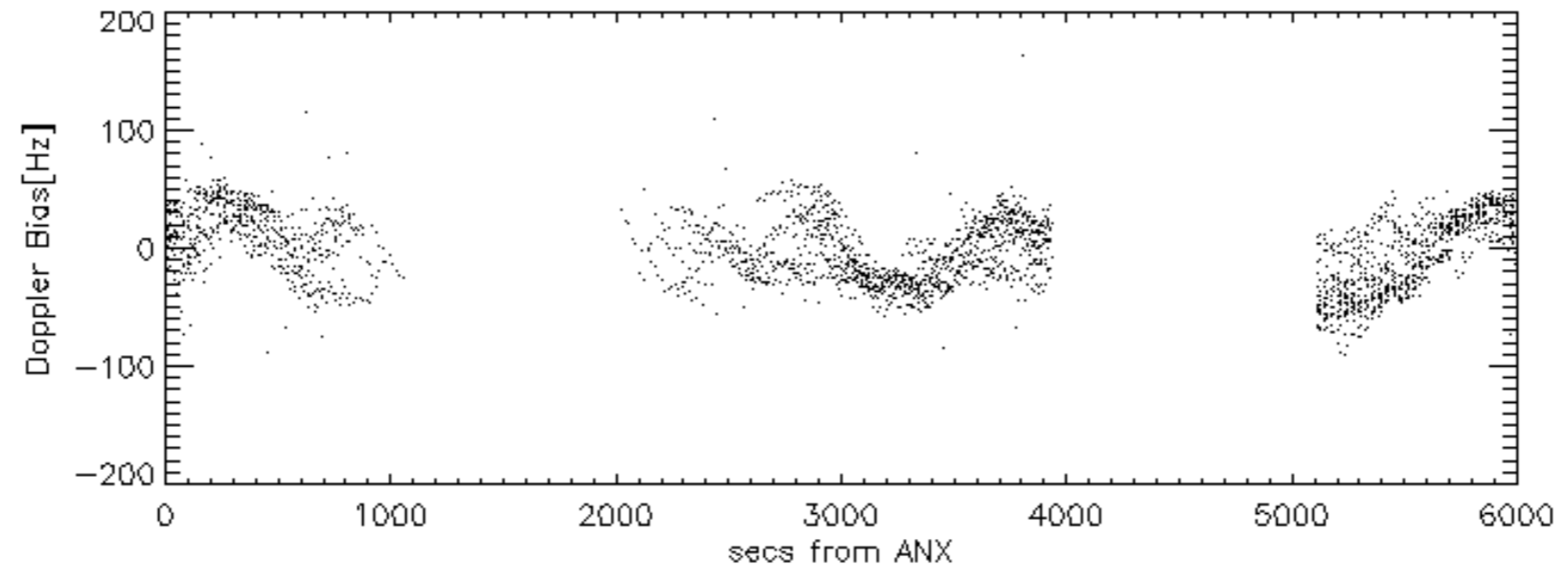
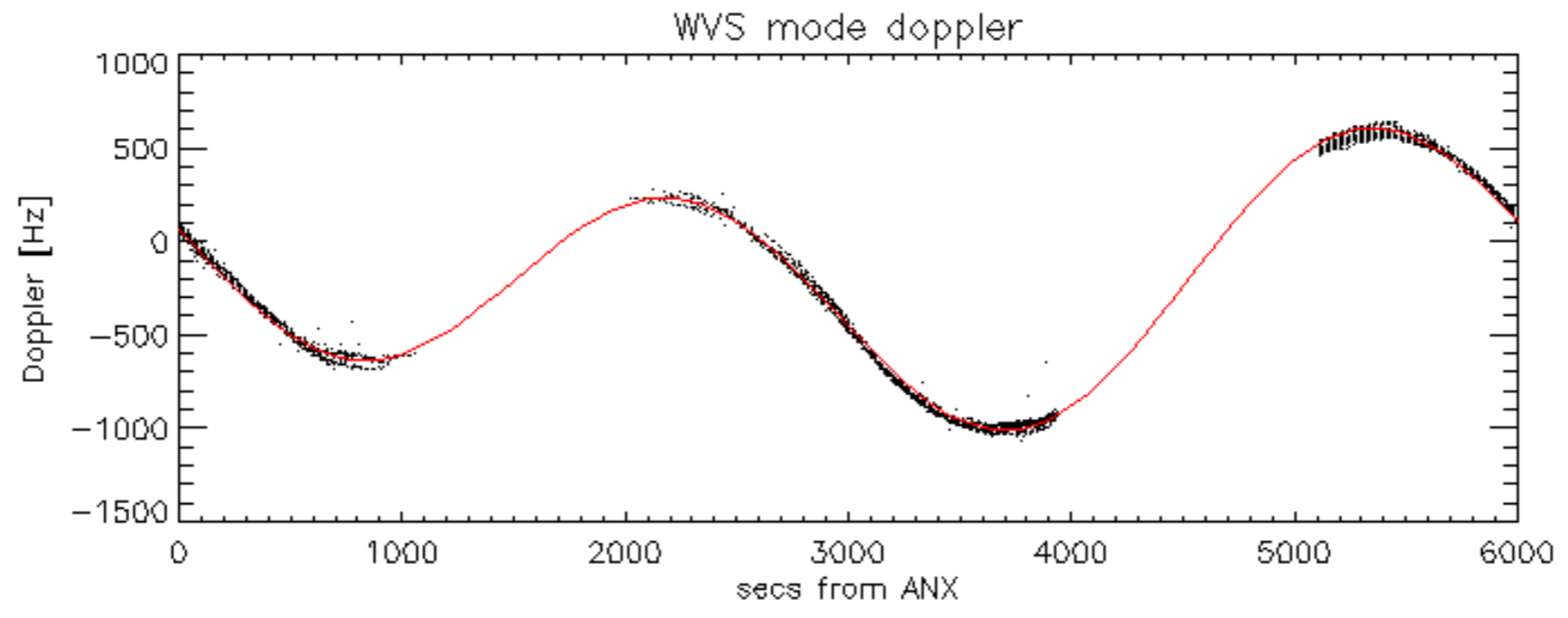


Doppler 'WVS' 'IS2' descending

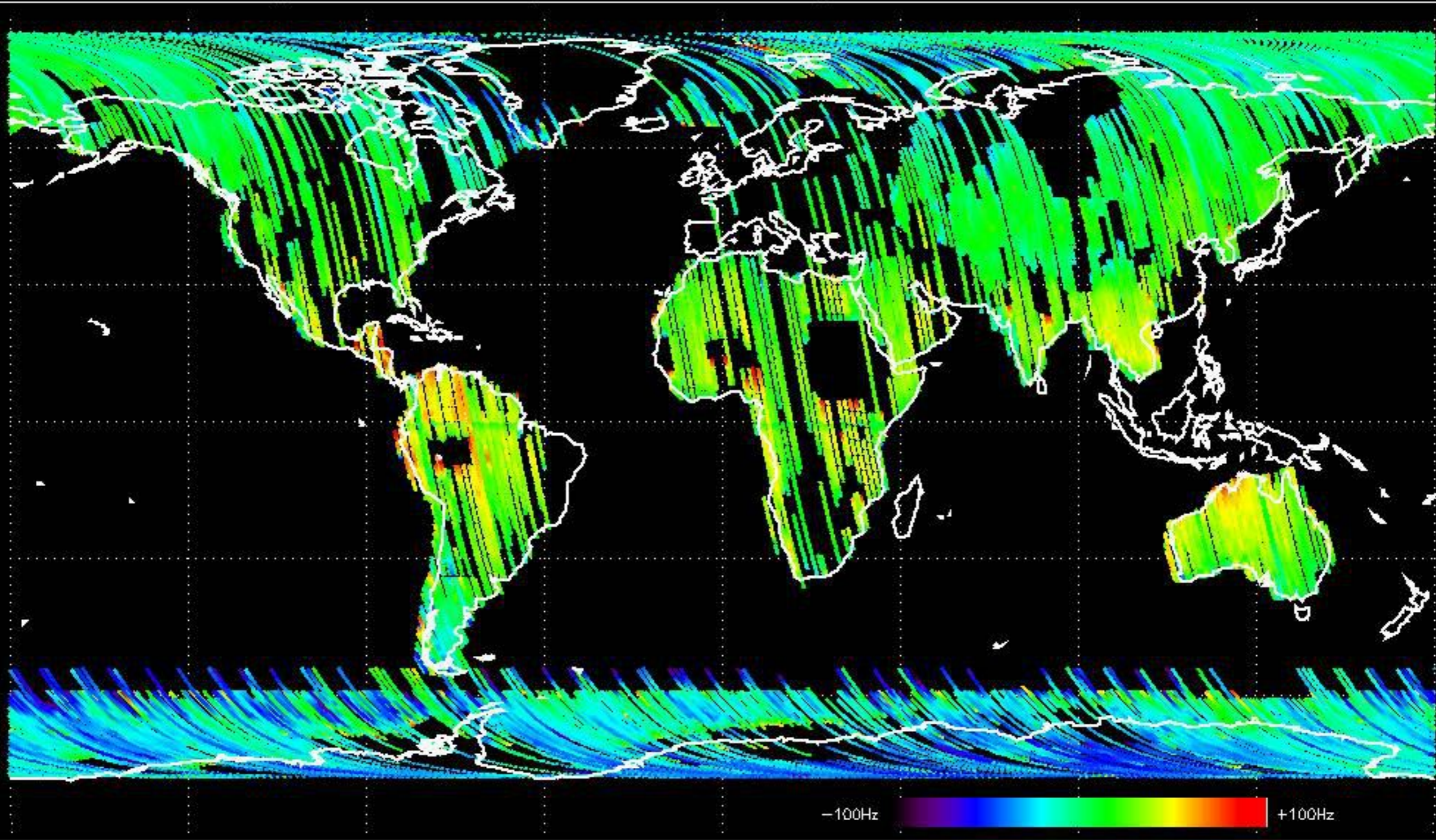


GM1 mode doppler

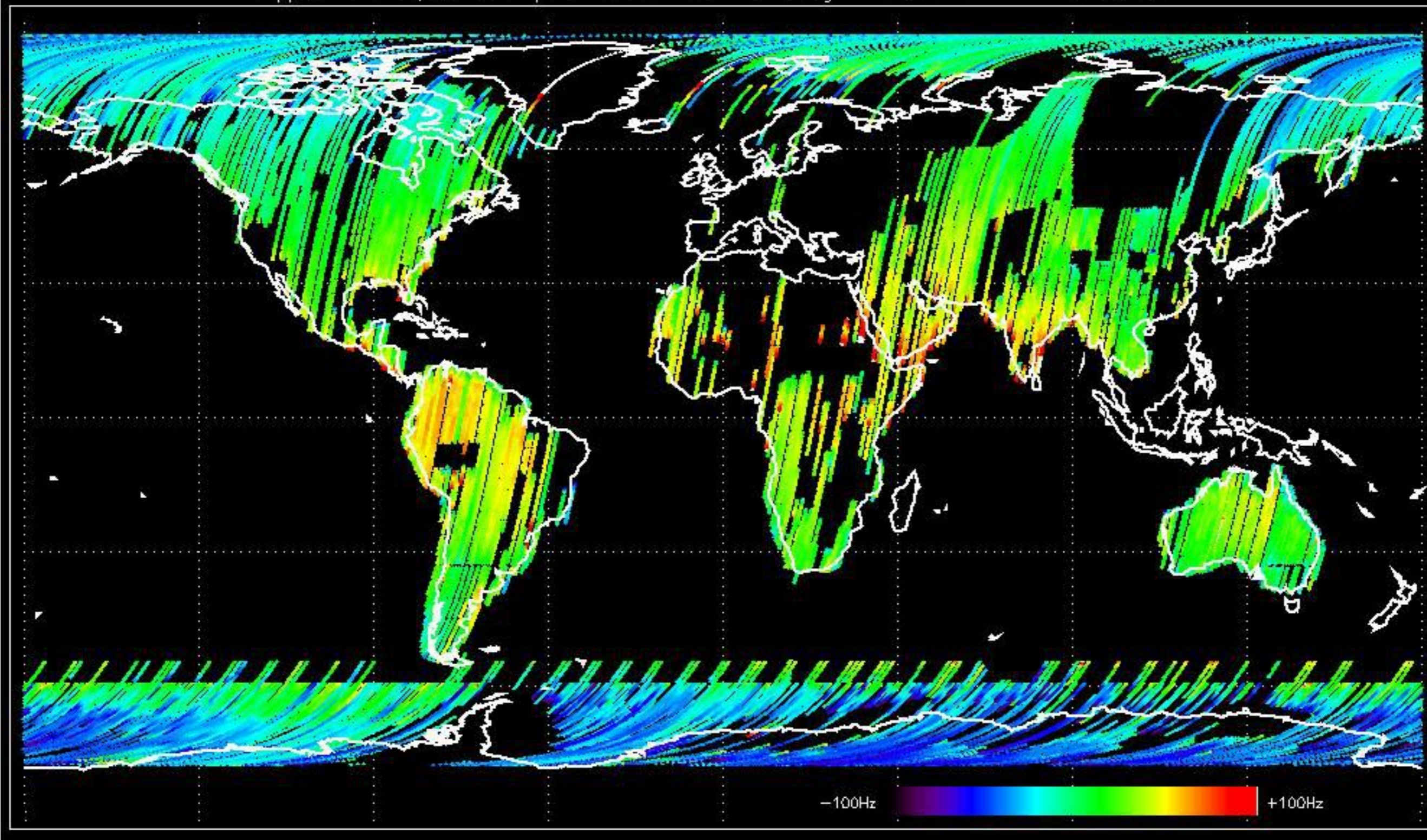




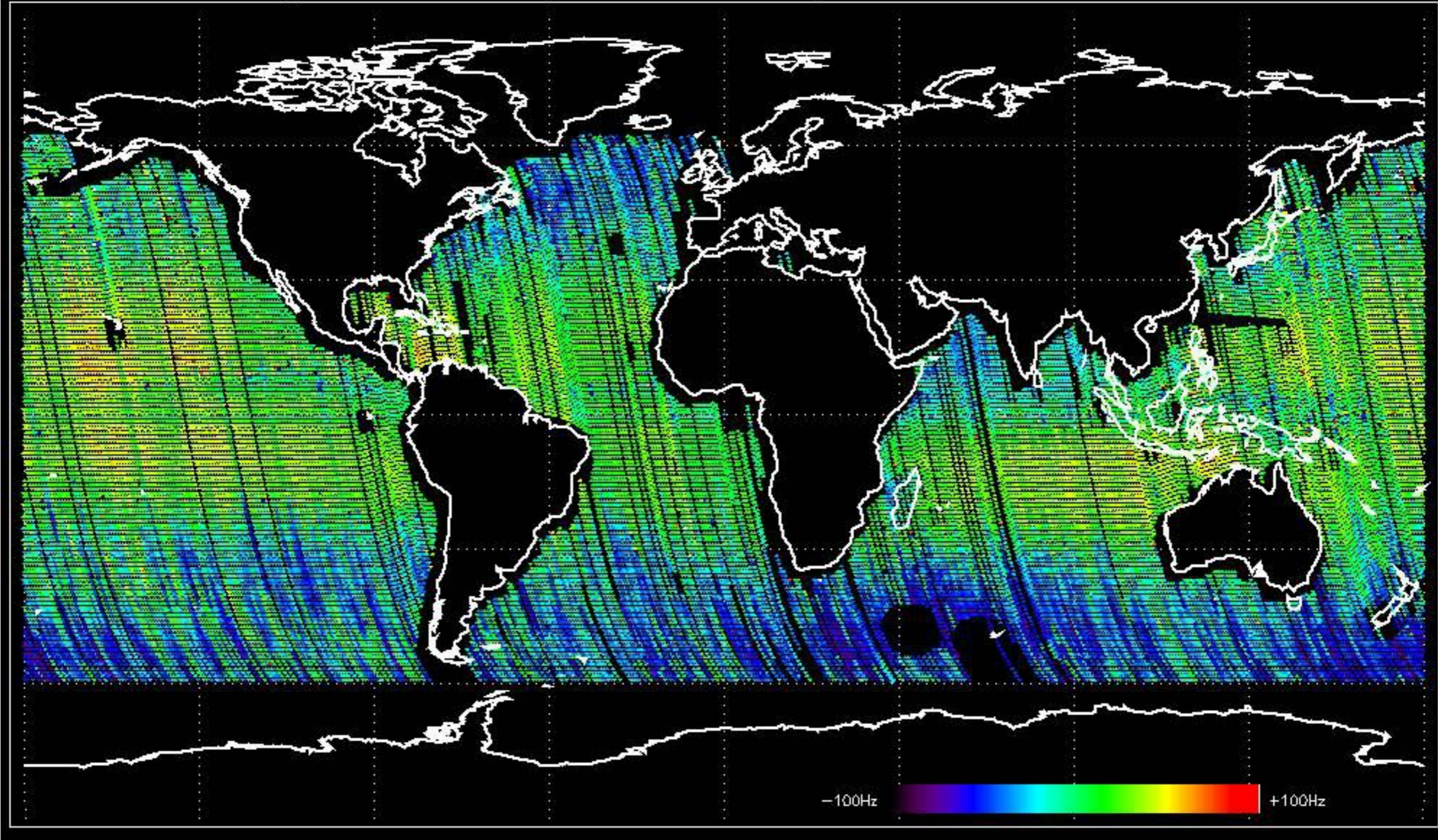
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.032503 Hz



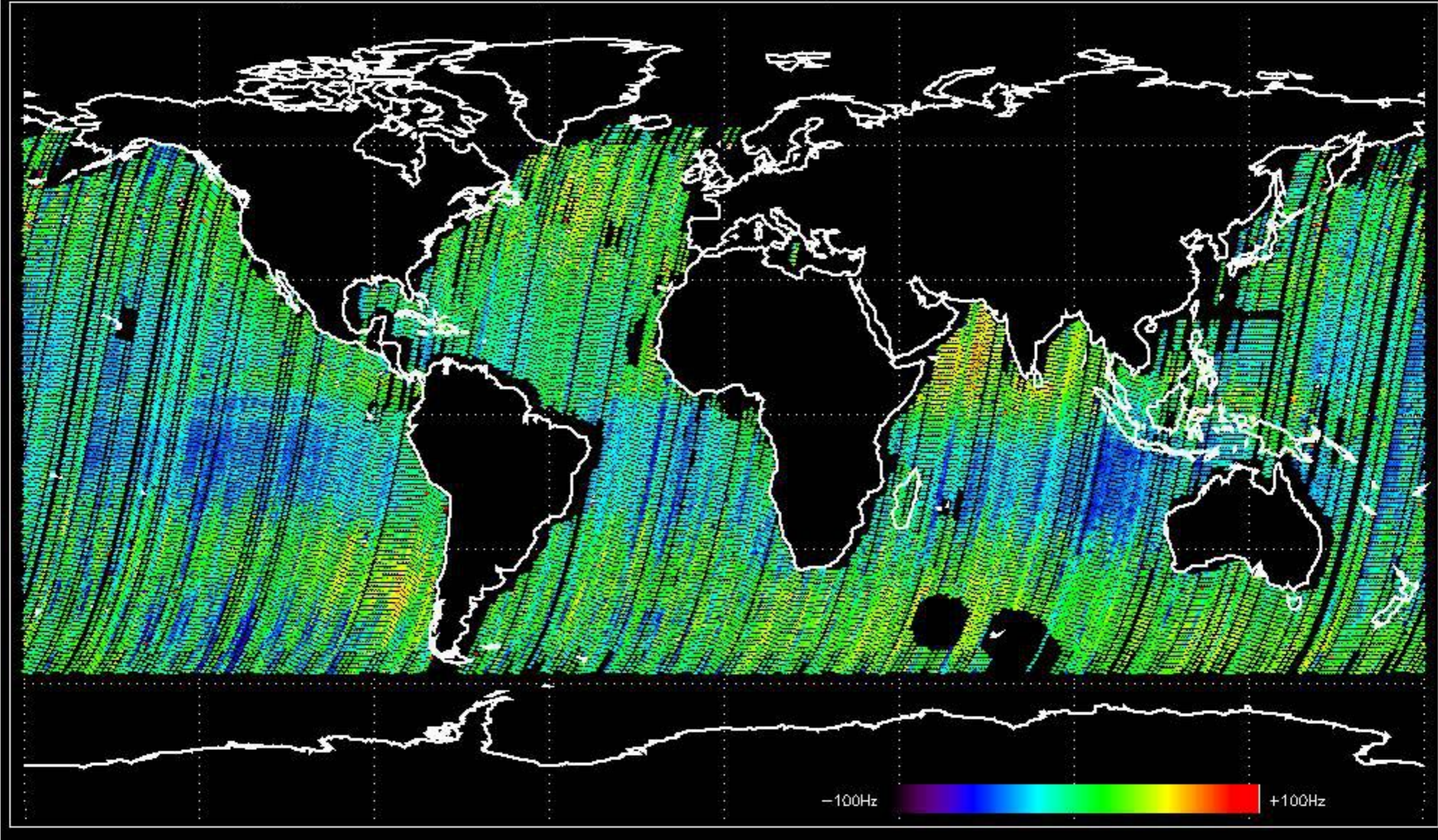
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.0275509 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.5077017 Hz

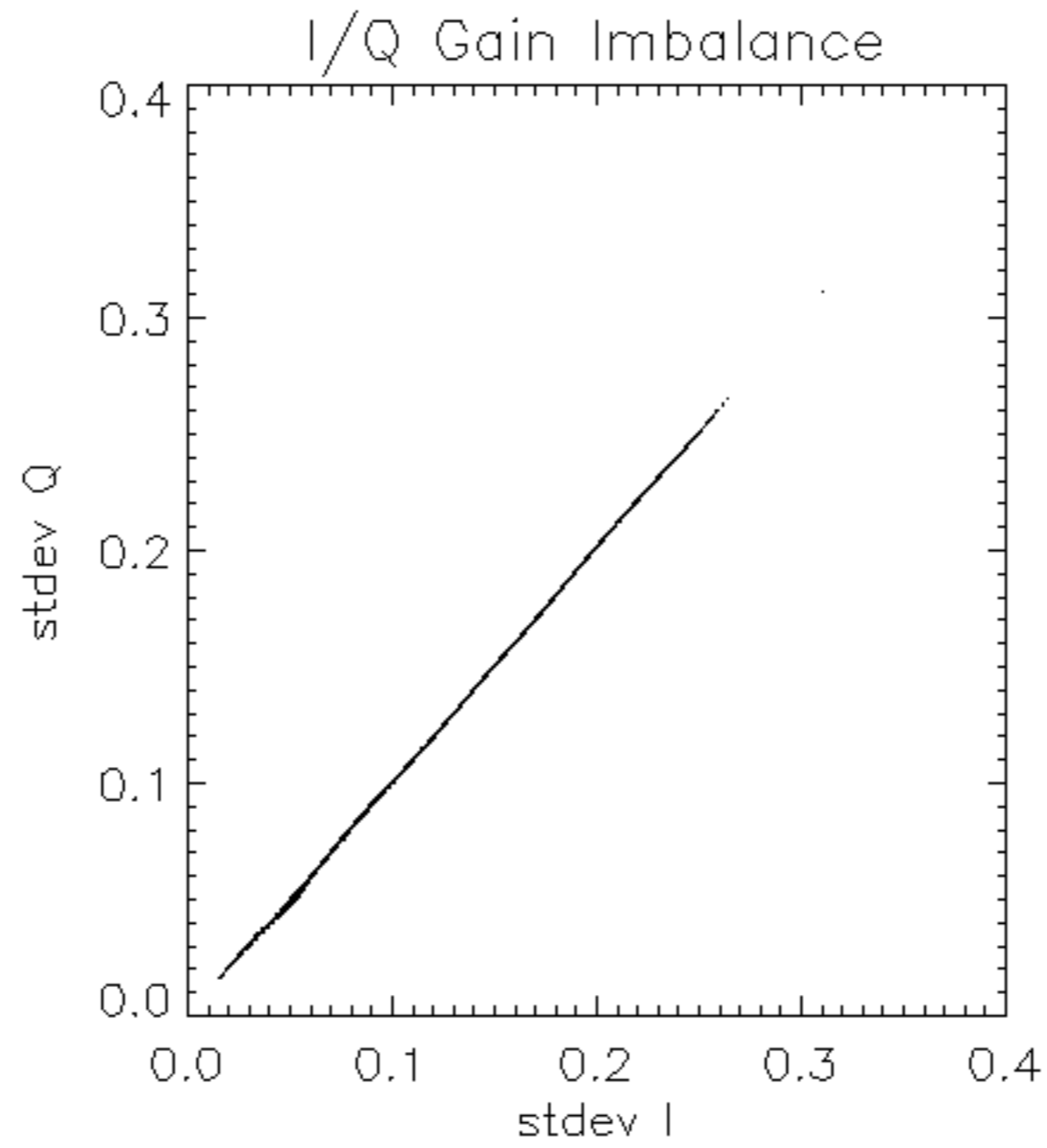


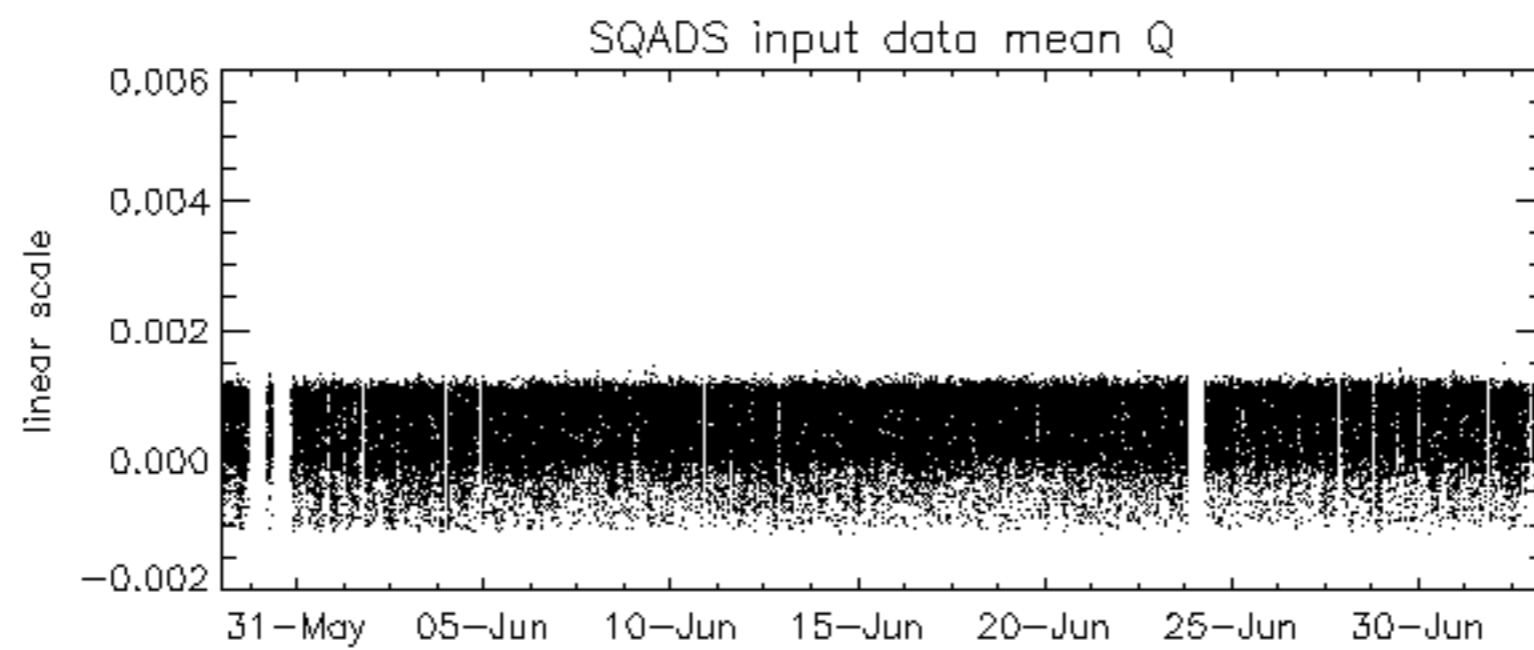
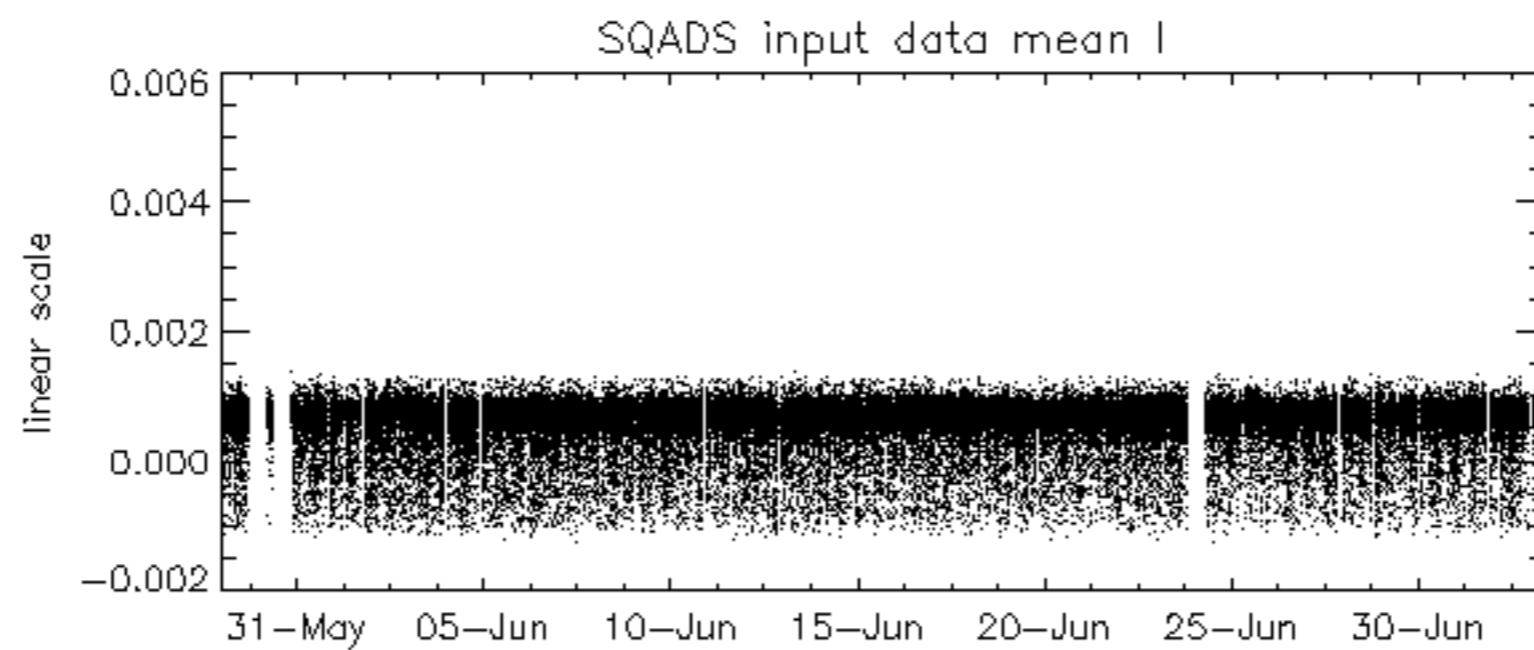
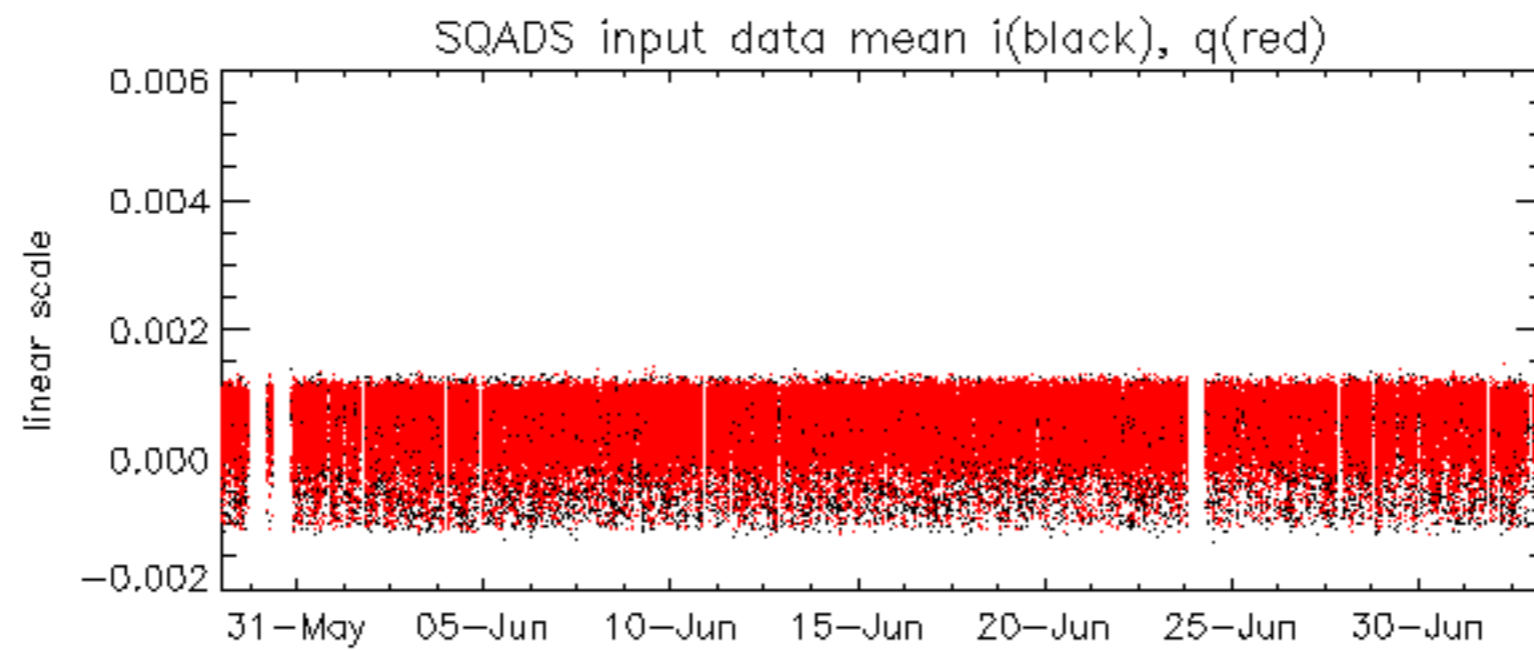
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.759737 Hz

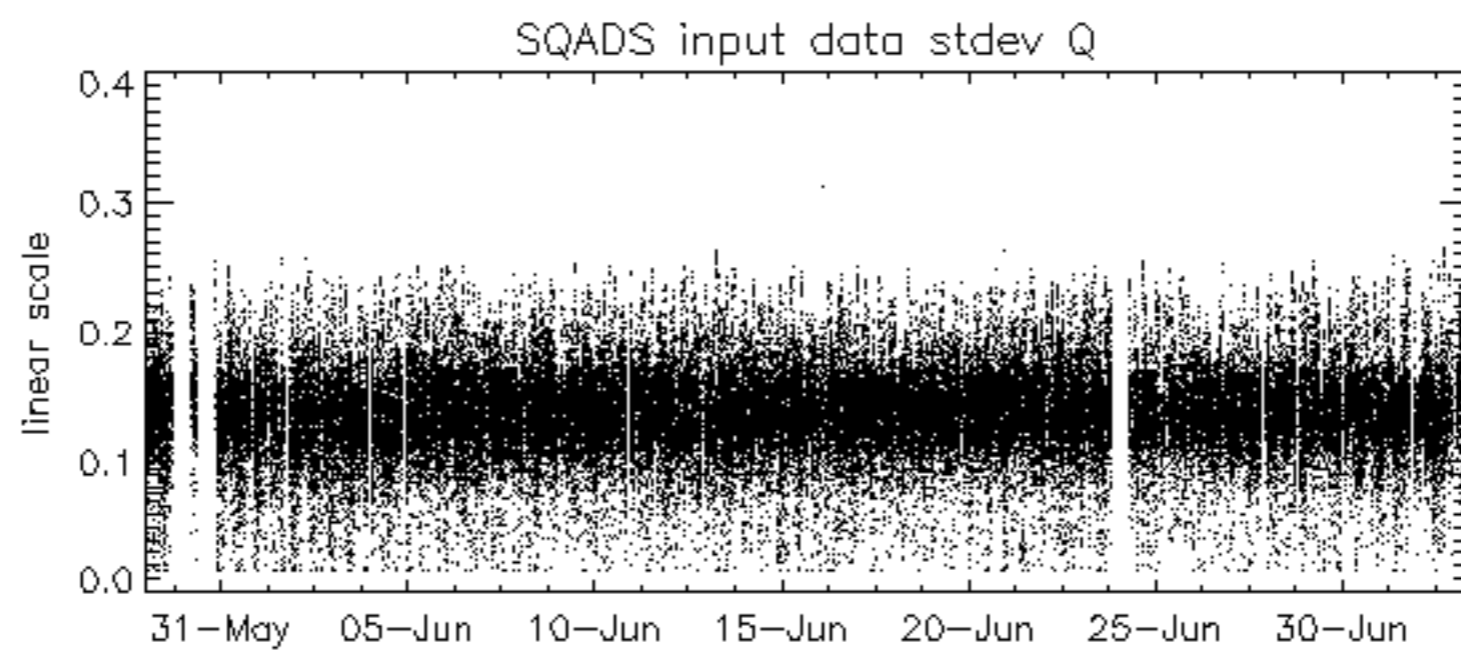
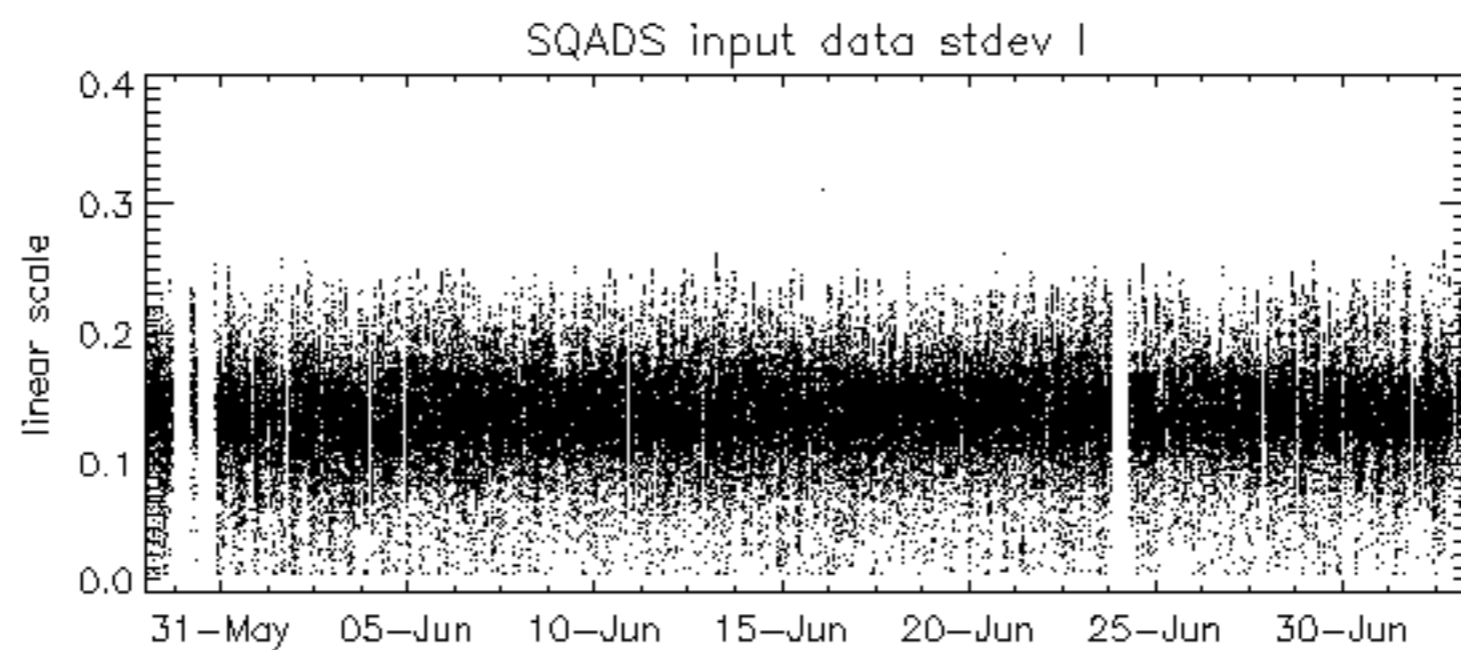
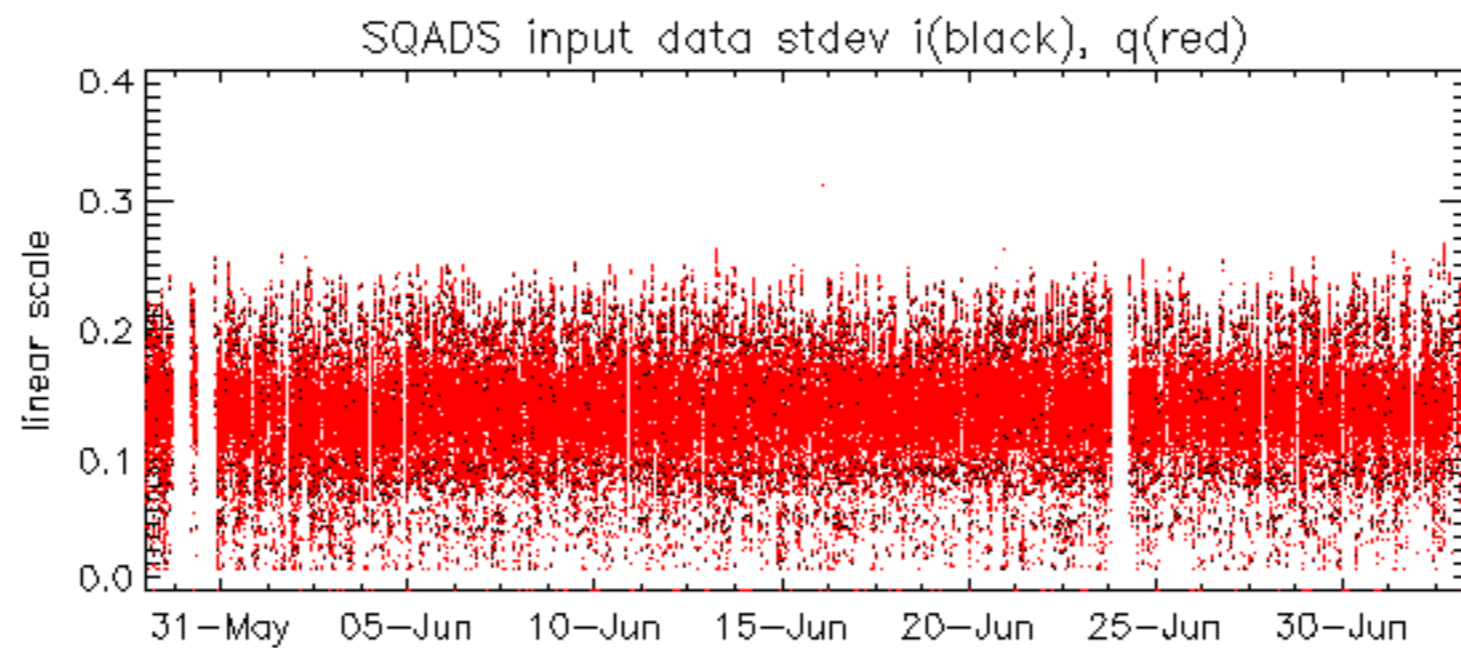


No anomalies observed on available MS products:

No anomalies observed.



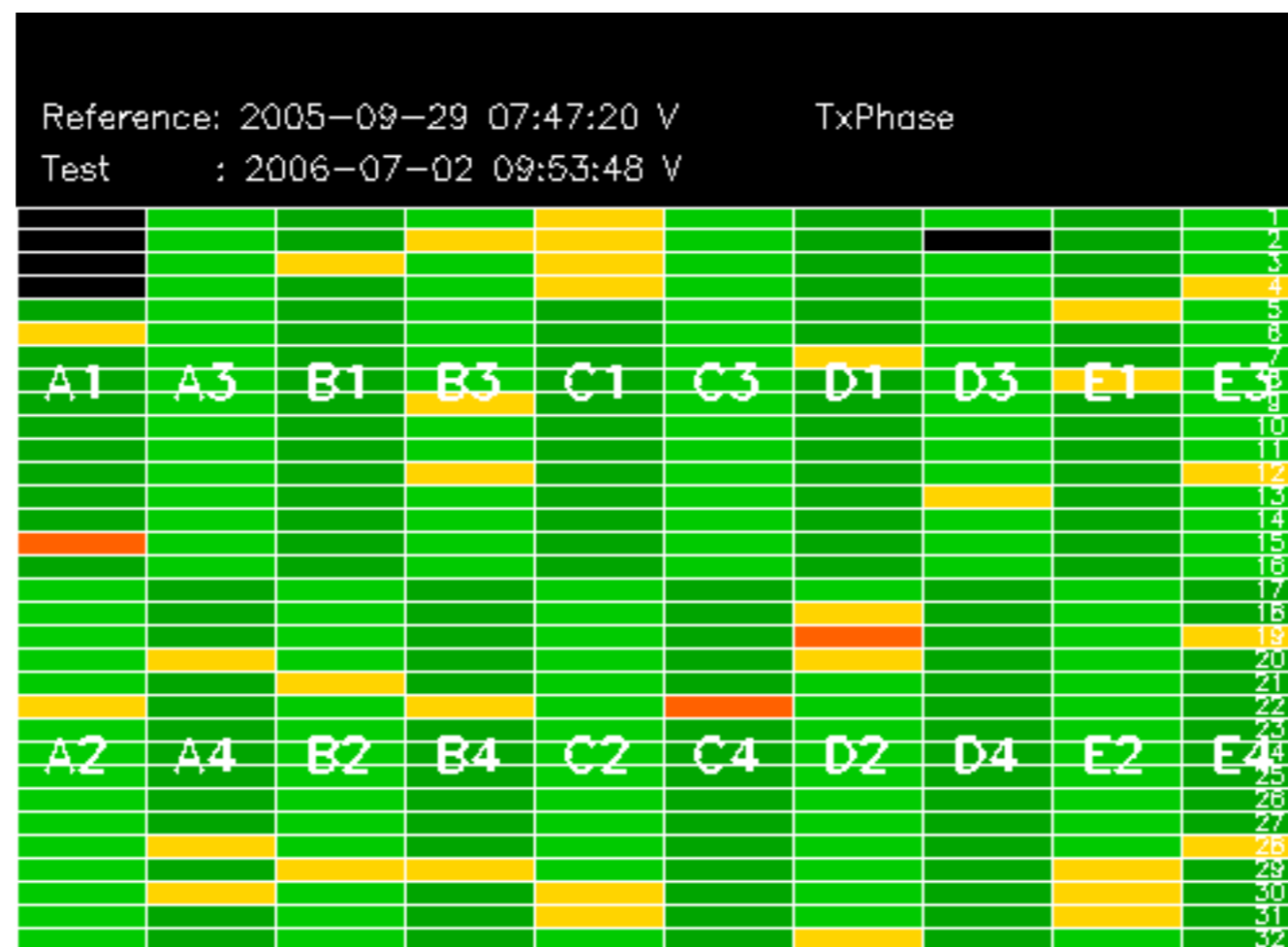


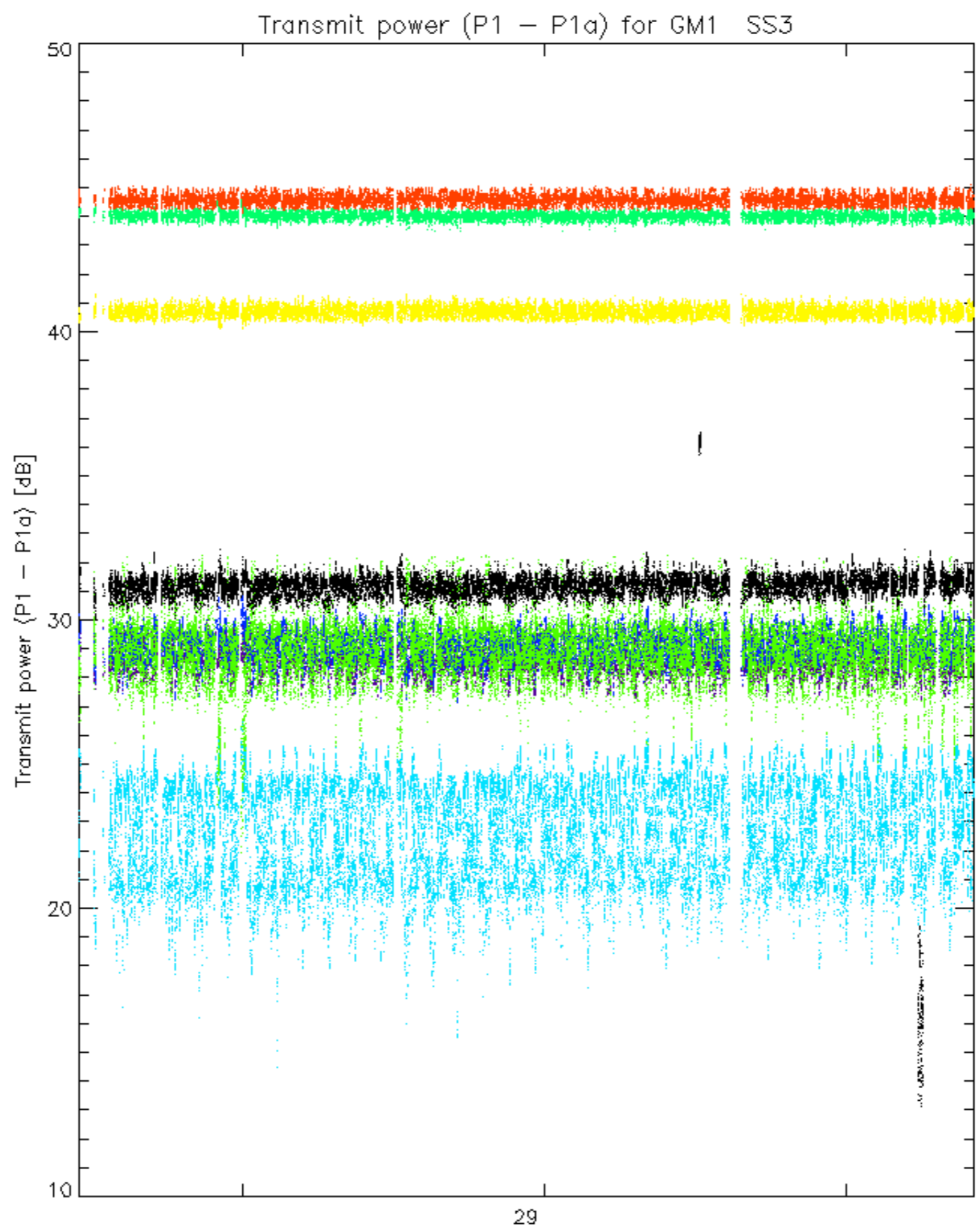


Summary of analysis for the last 3 days 2006070[123]

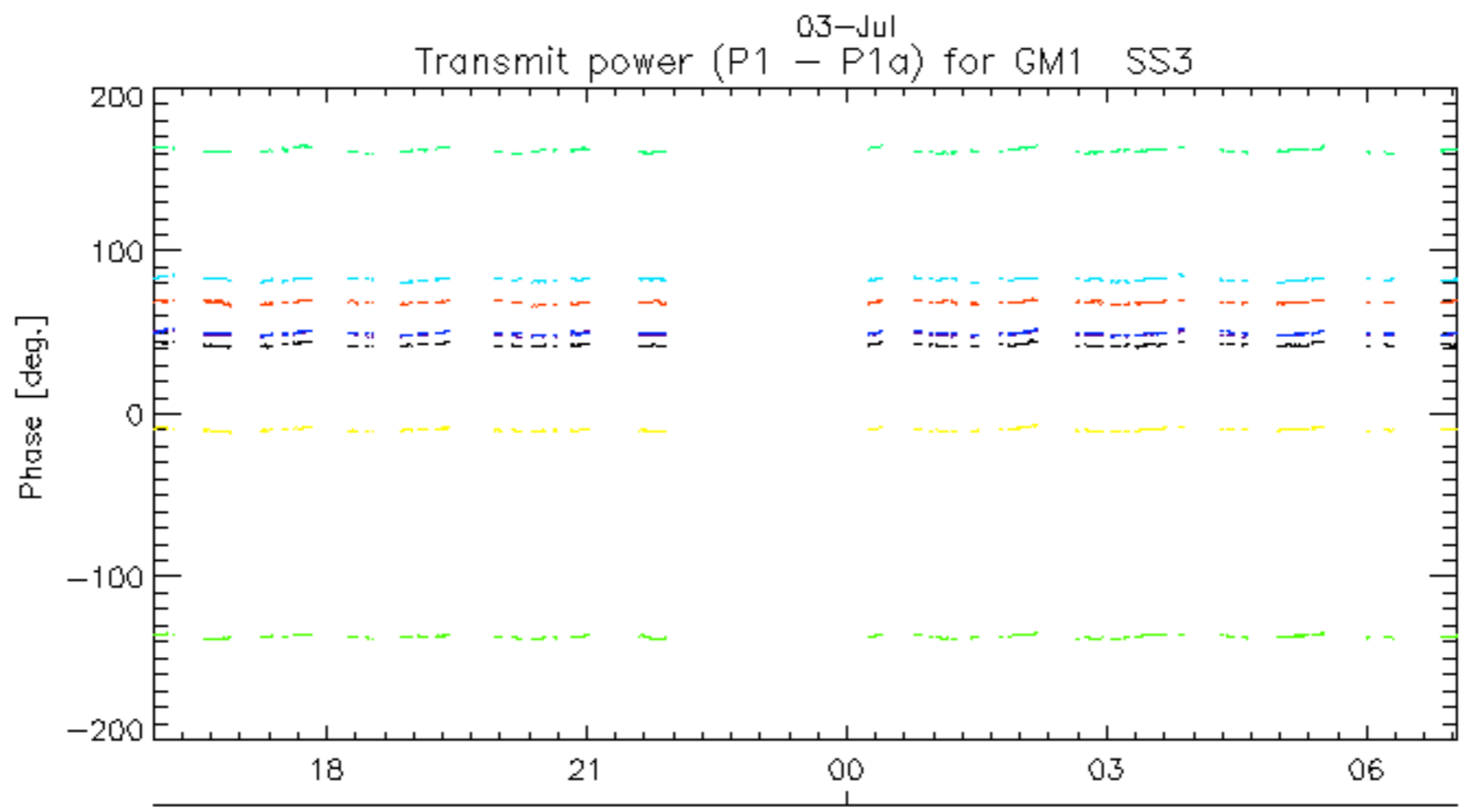
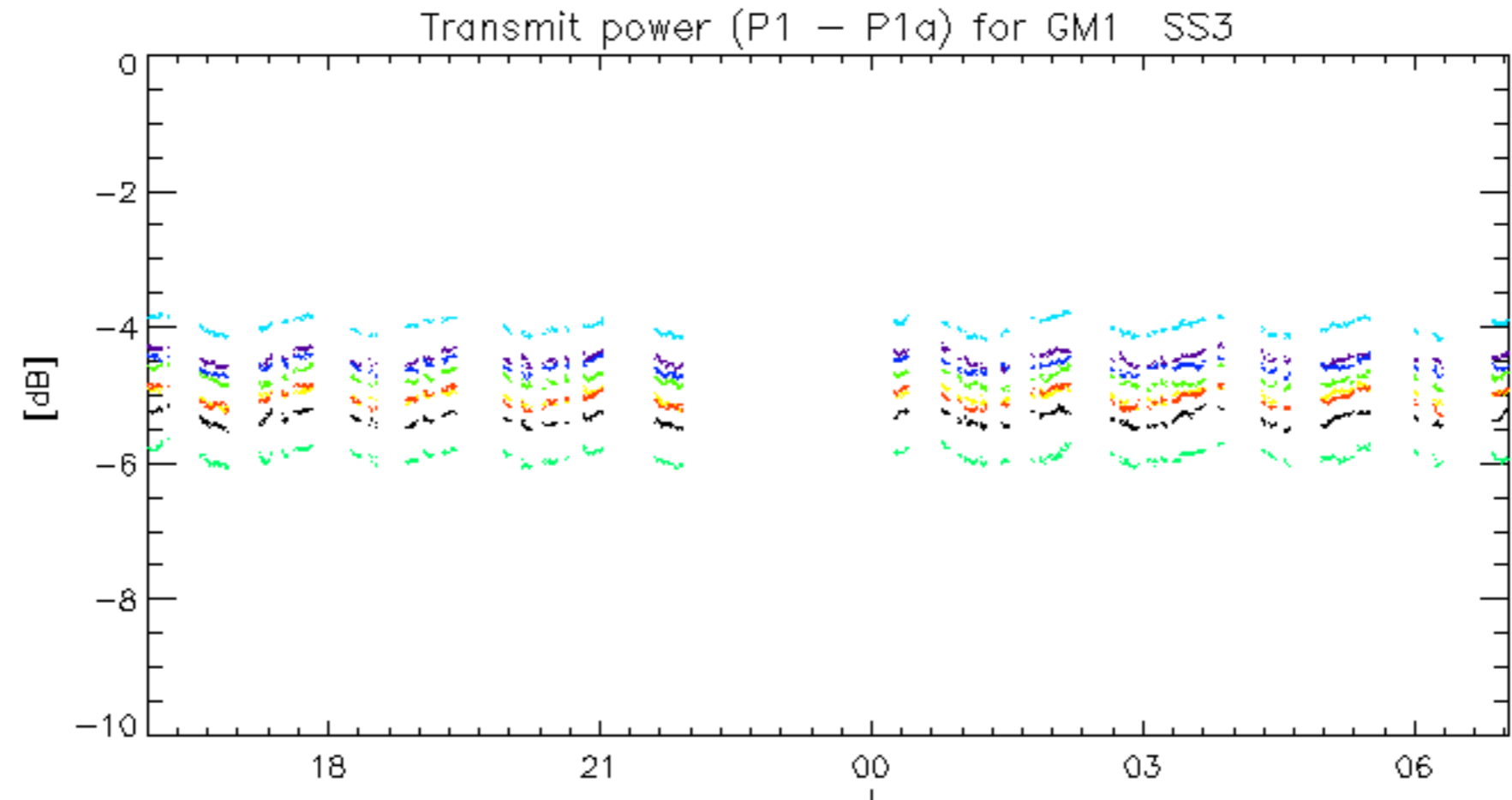
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060701_005030_000002372049_00059_22658_0198.N1	1	0
ASA_IMM_1PNPDE20060701_065011_000000362049_00063_22662_0225.N1	1	0
ASA_IMM_1PNPDE20060701_111215_000000512049_00066_22665_0227.N1	1	0
ASA_IMM_1PNPDE20060702_125758_000000512049_00081_22680_0270.N1	1	0
ASA_IMM_1PNPDE20060703_002903_000000512049_00088_22687_0280.N1	1	0
ASA_WSM_1PNPDE20060702_010810_000001092049_00074_22673_0824.N1	0	64
ASA_WSM_1PNPDE20060702_171036_000002382049_00084_22683_0923.N1	0	6

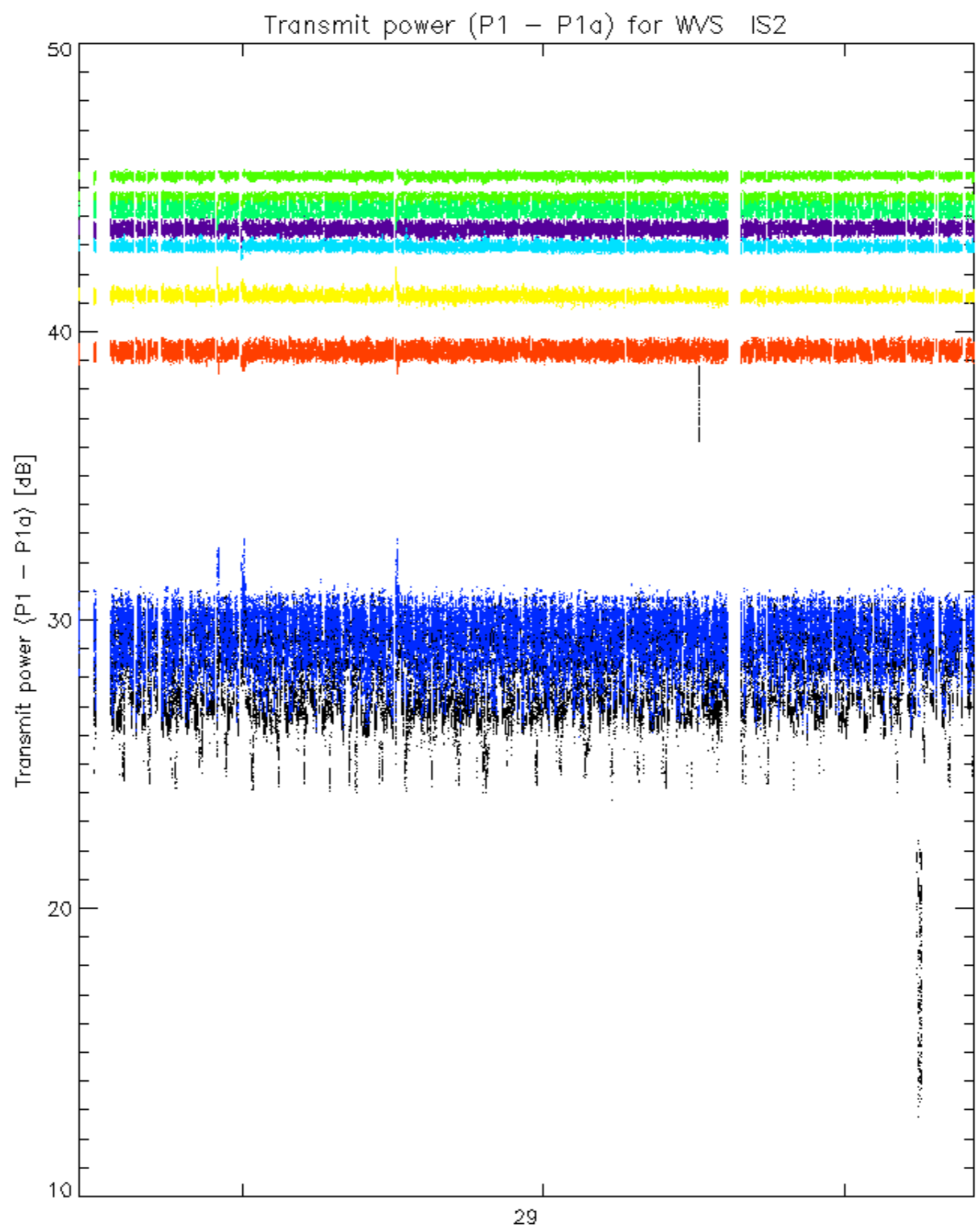




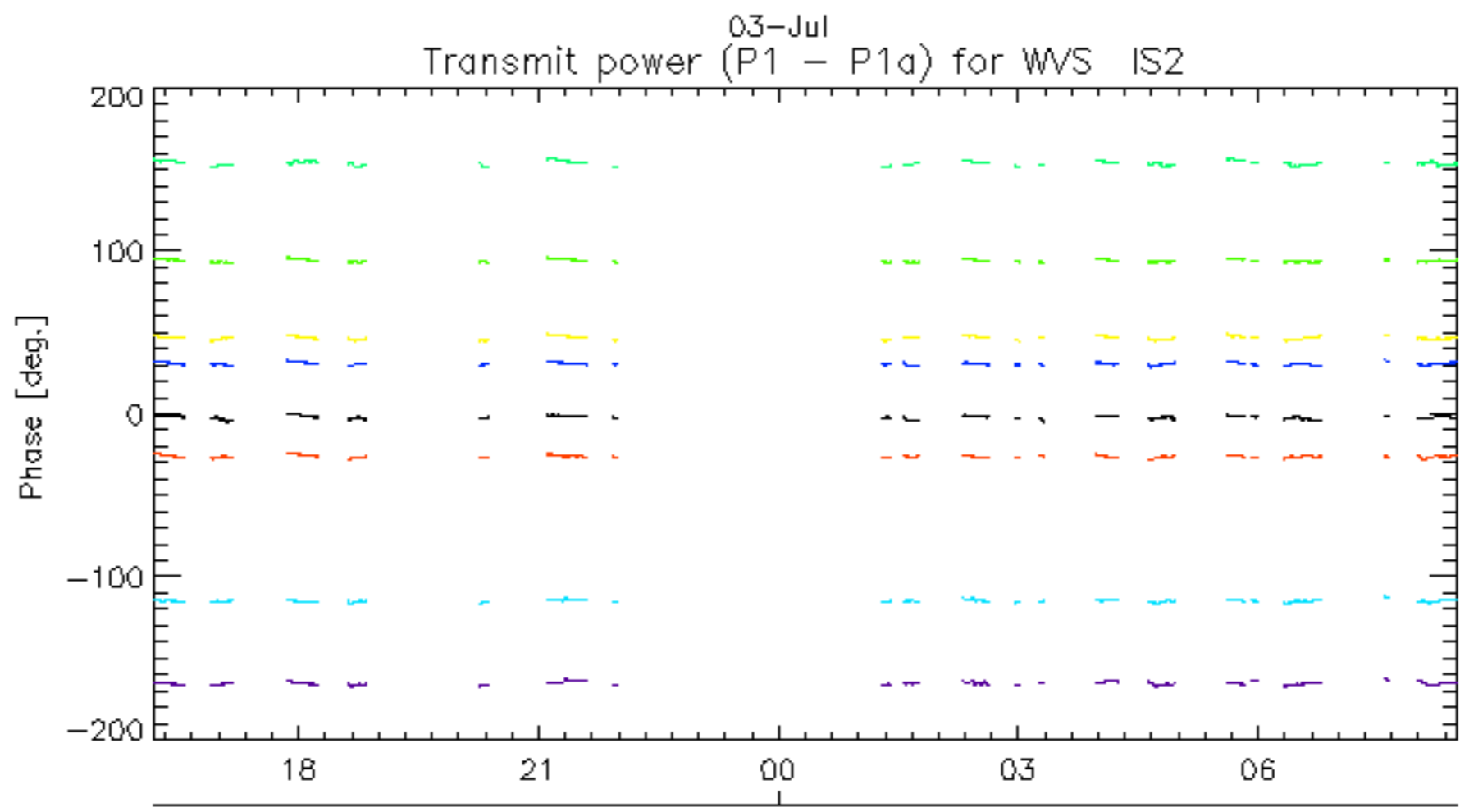
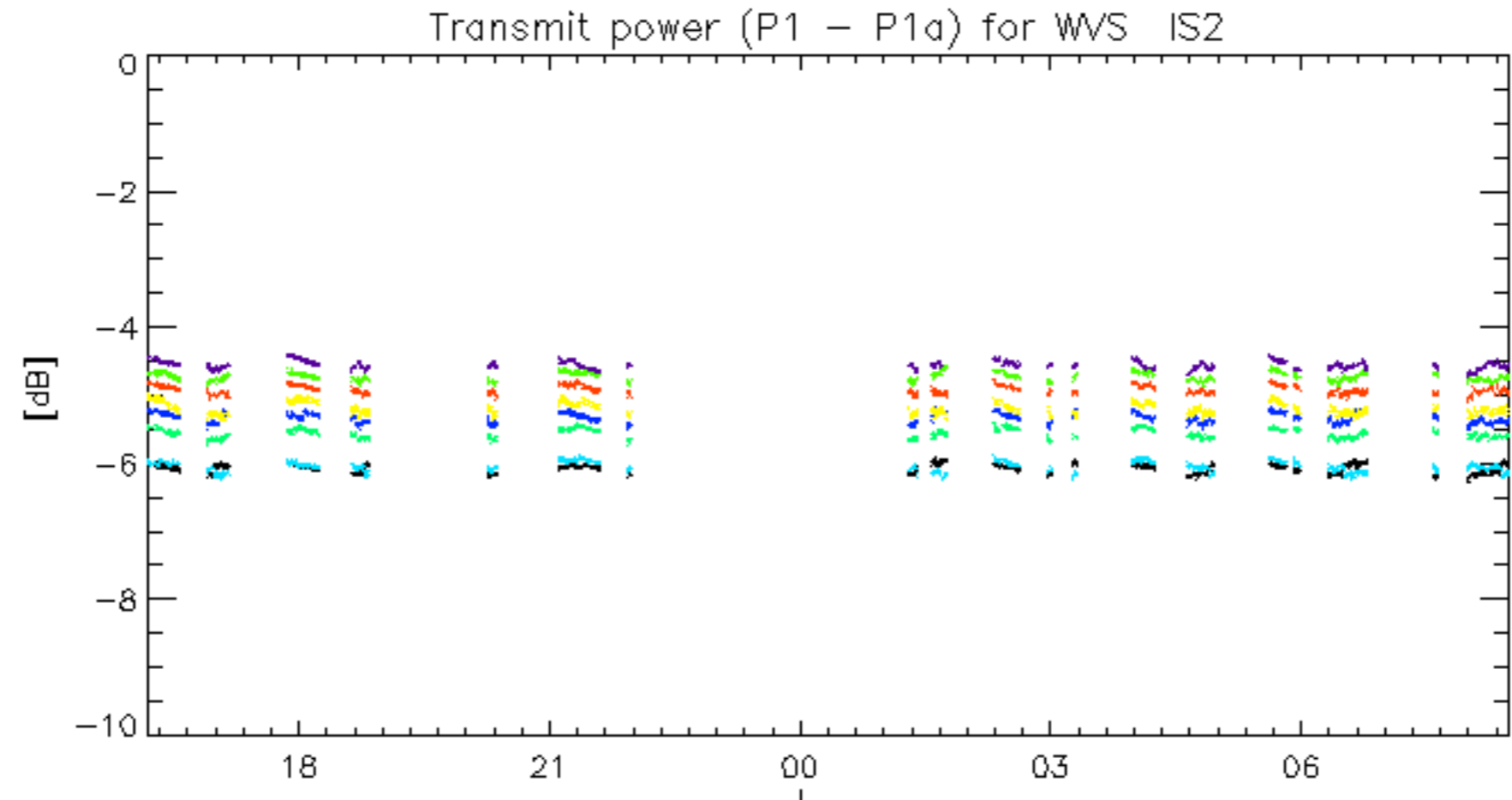
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: 3 7 11 15 19 22 26 30



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



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

No unavailabilities during the reported period.