

PRELIMINARY REPORT OF 050711

last update on Mon Jul 11 10:54:24 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 2005-07-10 00:00:00 to 2005-07-11 10:54:24

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	8	12	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	8	12	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	8	12	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	8	12	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	42	50	25	9	69
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	42	50	25	9	69
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	42	50	25	9	69
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	42	50	25	9	69

2.3 - Browse Visual Inspection

No anomalies

2.4 - Data Analysis

All Data acquired from 10-JUL-2005 08:07:10 till 11:15:25 (time of the antenna reset) is affected by a corruption of the P1 pulses, rows (5, 6, 7, 8) in H and V pol.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20050709 204913
H	20050708 143827

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

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	-3.325596	0.007246	0.020321
7	P1	-3.140341	0.014821	0.006655
11	P1	-4.655005	0.033348	-0.062073
15	P1	-5.522459	0.044674	-0.069130
19	P1	-3.776371	0.045931	-0.089364
22	P1	-4.607284	0.067366	-0.059653
26	P1	-4.854843	0.069858	-0.033869
30	P1	-7.188570	0.159443	-0.152440
3	P1	-15.563602	0.097113	-0.014732
7	P1	-15.565441	0.107333	0.071612
11	P1	-21.510550	0.281292	-0.239390
15	P1	-11.286334	0.047340	0.005609
19	P1	-14.477653	0.257969	-0.174786
22	P1	-15.849822	0.351862	0.234912
26	P1	-17.589180	0.285462	0.317432
30	P1	-17.768105	0.350982	0.131353

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.922993	0.082042	0.141135
7	P2	-22.110226	0.103772	0.196130
11	P2	-13.802224	0.099048	0.252028
15	P2	-7.119156	0.091509	0.065854
19	P2	-9.605166	0.090695	0.022398
22	P2	-16.868008	0.091420	0.029942
26	P2	-16.507915	0.092322	0.015596
30	P2	-18.789486	0.078934	-0.007199

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-8.159921	0.002922	0.009949
7	P3	-8.159921	0.002922	0.009949
11	P3	-8.159921	0.002922	0.009949
15	P3	-8.159921	0.002922	0.009949
19	P3	-8.159921	0.002922	0.009949
22	P3	-8.159921	0.002922	0.009949
26	P3	-8.159921	0.002922	0.009949
30	P3	-8.159921	0.002922	0.009949

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	-2.791178	0.015773	0.016566
7	P1	-2.951090	0.032682	-0.016510
11	P1	-3.981752	0.017963	-0.044165
15	P1	-3.546891	0.025071	-0.045600
19	P1	-3.673207	0.122829	-0.120335
22	P1	-5.667321	0.117610	-0.124420
26	P1	-7.367145	0.207616	-0.184549
30	P1	-6.313184	0.115411	-0.082616
3	P1	-10.829372	0.048726	0.004227
7	P1	-10.423790	0.164736	-0.069911
11	P1	-12.583649	0.117642	-0.047140
15	P1	-11.618923	0.089434	-0.004185
19	P1	-15.704189	1.429498	-0.325875
22	P1	-25.936161	3.809376	0.531168
26	P1	-15.498311	0.453625	0.282959
30	P1	-20.181805	1.303841	0.097317

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.670513	0.052017	0.149031
7	P2	-22.083796	0.063106	0.077786
11	P2	-9.783015	0.063160	0.169094
15	P2	-5.130804	0.046429	-0.006792
19	P2	-6.910904	0.060692	0.011321
22	P2	-7.095270	0.049473	0.016422
26	P2	-23.963453	0.057704	-0.032794
30	P2	-21.959246	0.040117	0.003168

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.996456	0.004217	-0.005615
7	P3	-7.996503	0.004211	-0.005819
11	P3	-7.996605	0.004195	-0.005326
15	P3	-7.996574	0.004207	-0.005588
19	P3	-7.996541	0.004215	-0.005632
22	P3	-7.996562	0.004204	-0.005809
26	P3	-7.996708	0.004202	-0.005420
30	P3	-7.996568	0.004203	-0.005514

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	0.000461021
	stdev	2.16265e-07
MEAN Q	mean	0.000501038
	stdev	2.29707e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127584
	stdev	0.000953616
STDEV Q	mean	0.127812
	stdev	0.000963914



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005071[901]

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_WSM_1PNPDE20050710_141215_000000672038_00483_17571_3333.N1	0	39



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

7.2 - Absolute Doppler for WVS

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

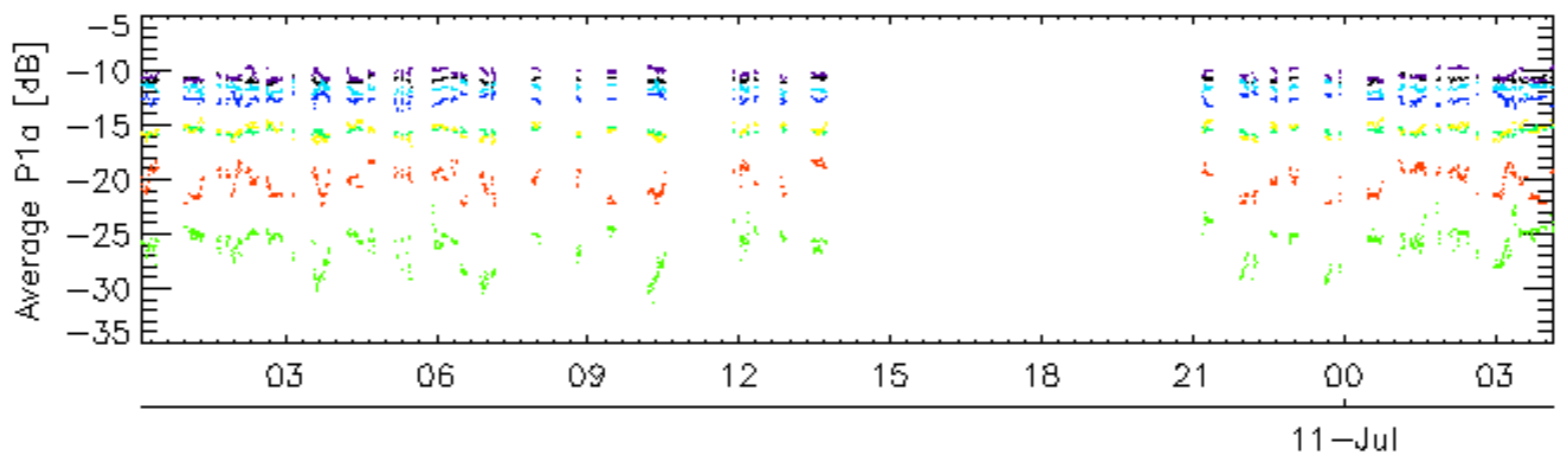
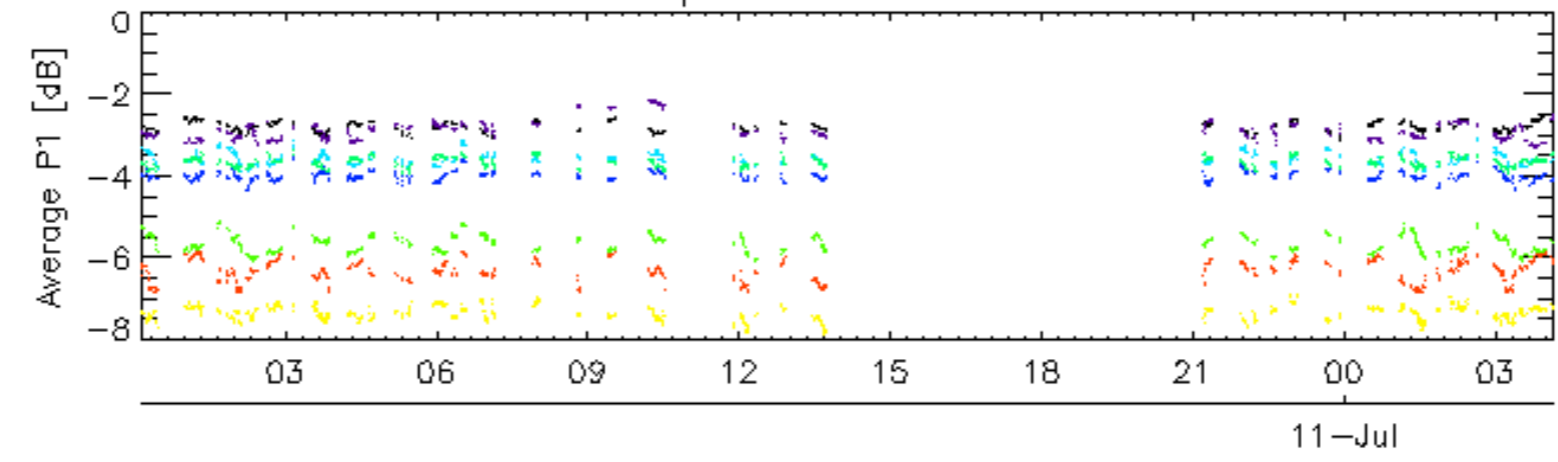
7.5 - Absolute Doppler for GM1

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

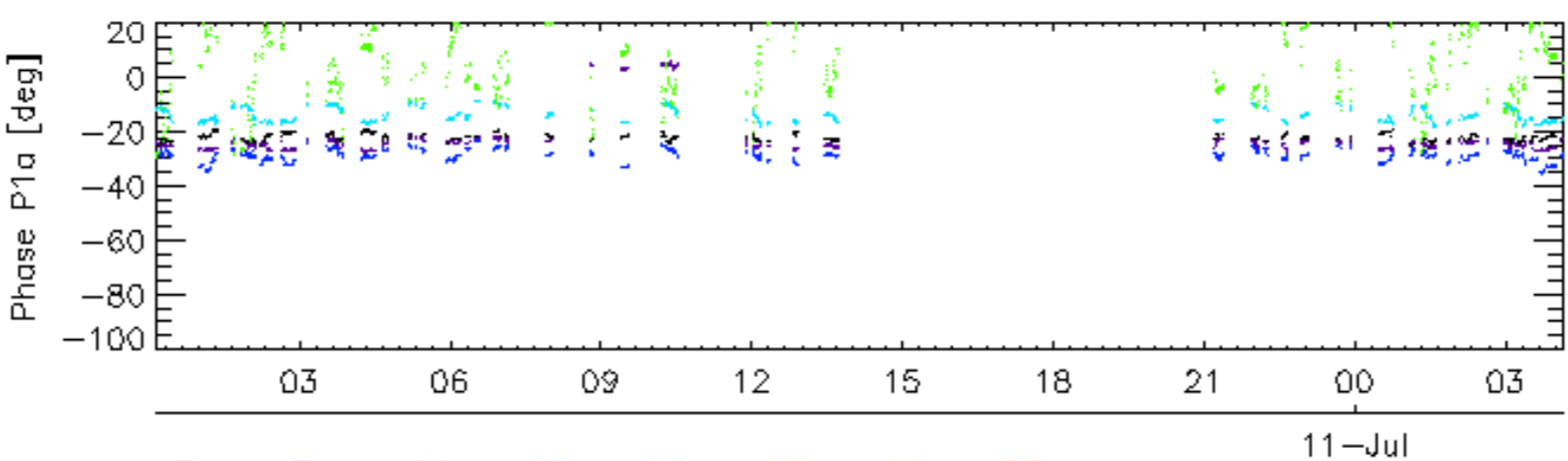
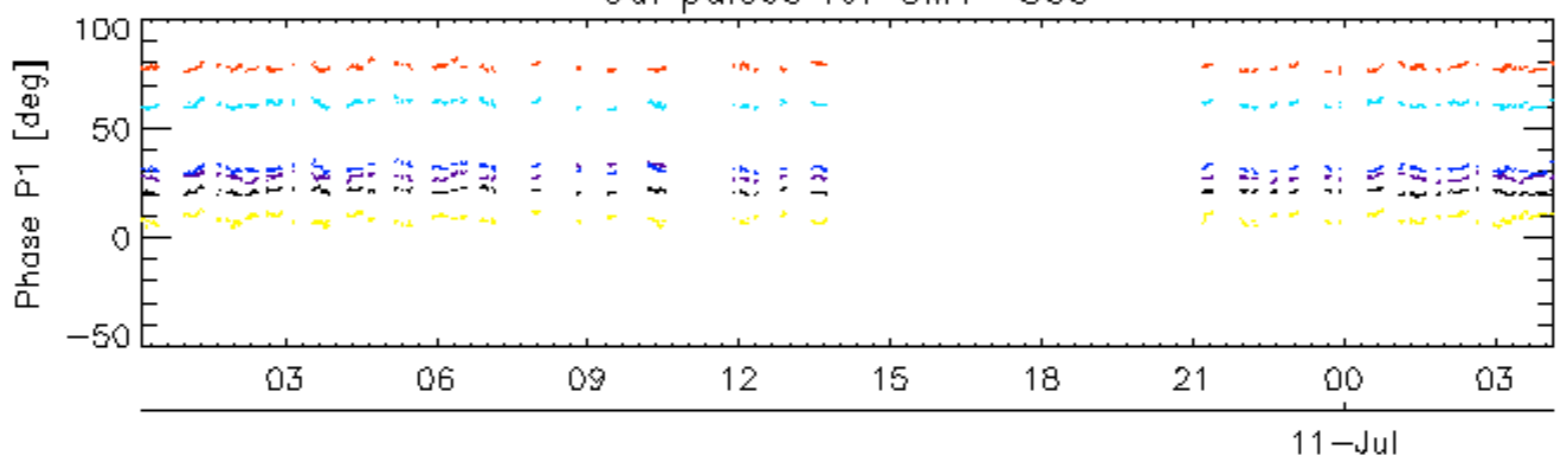
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

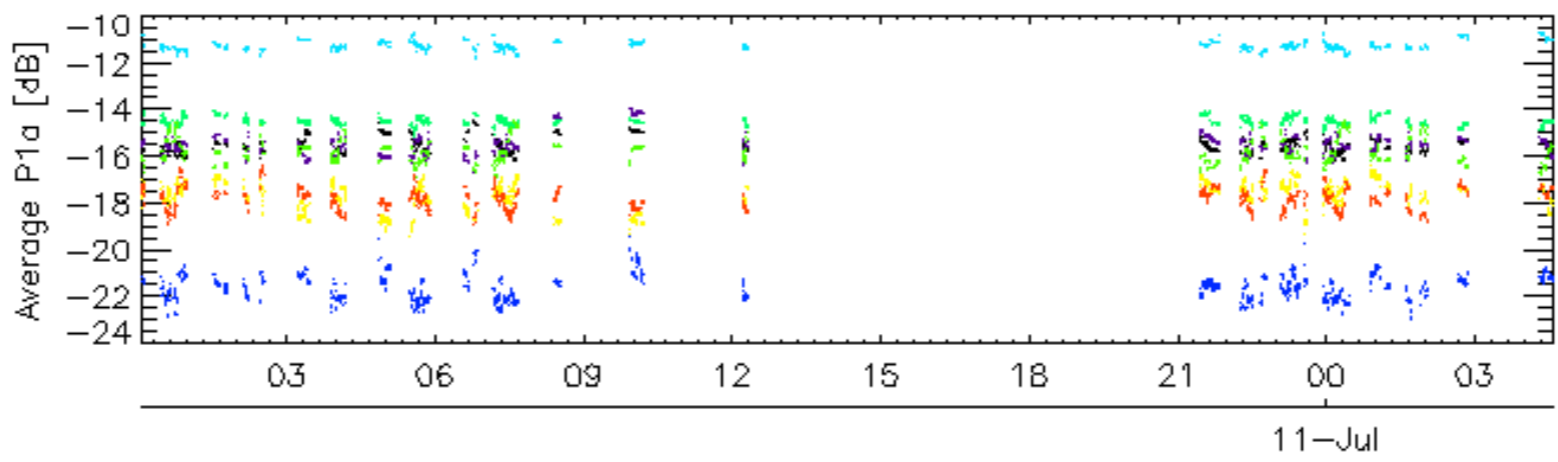
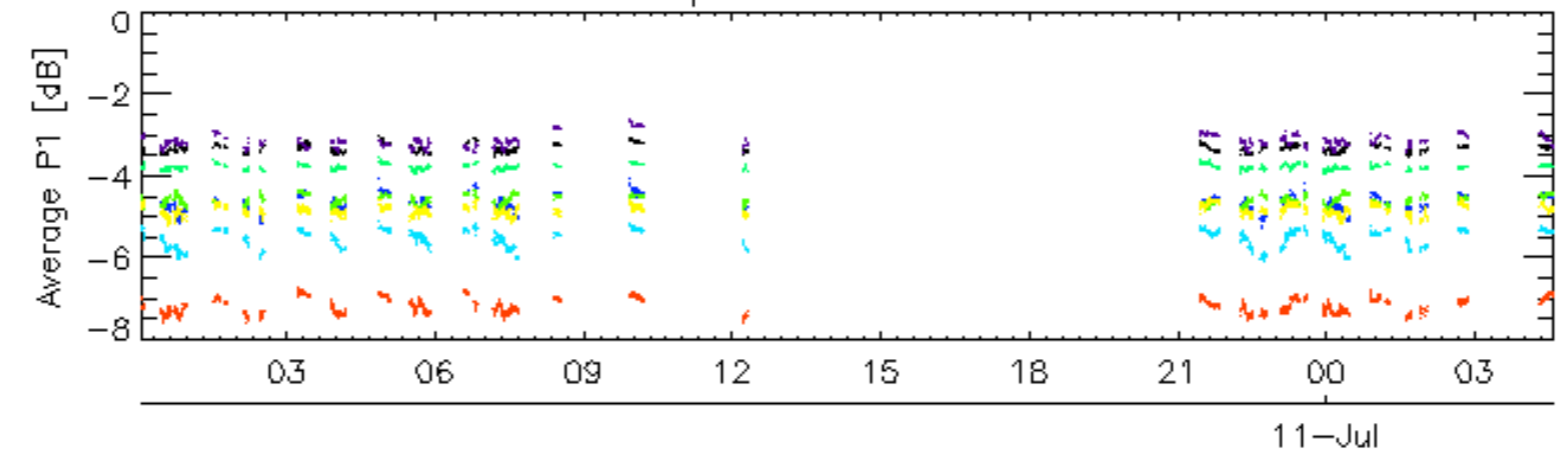


Cal pulses for GM1 SS3

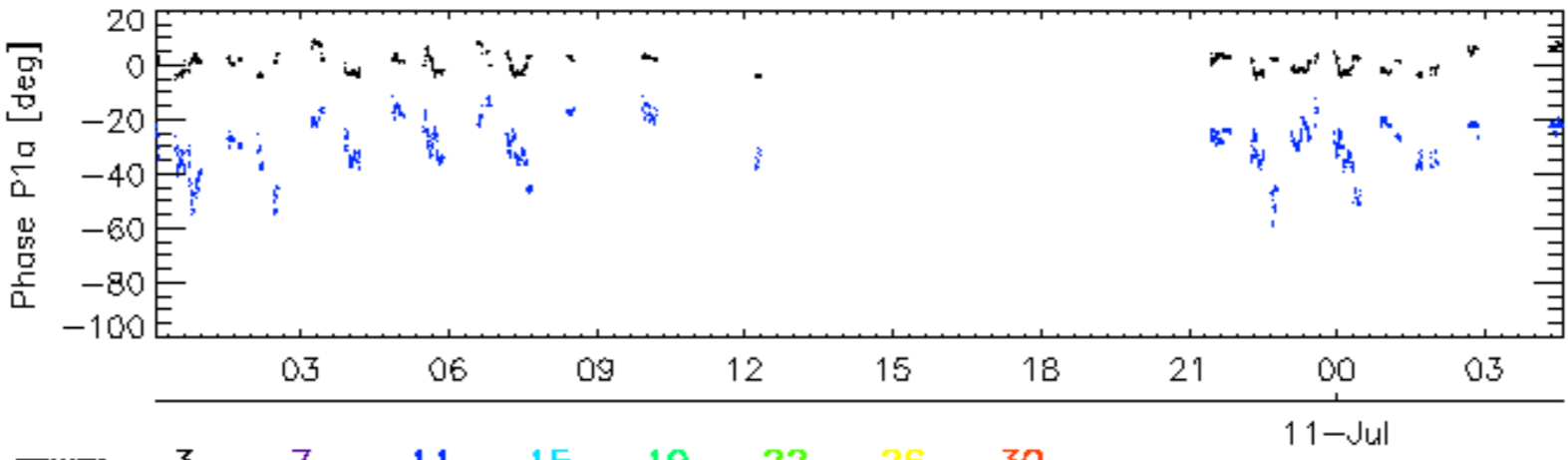
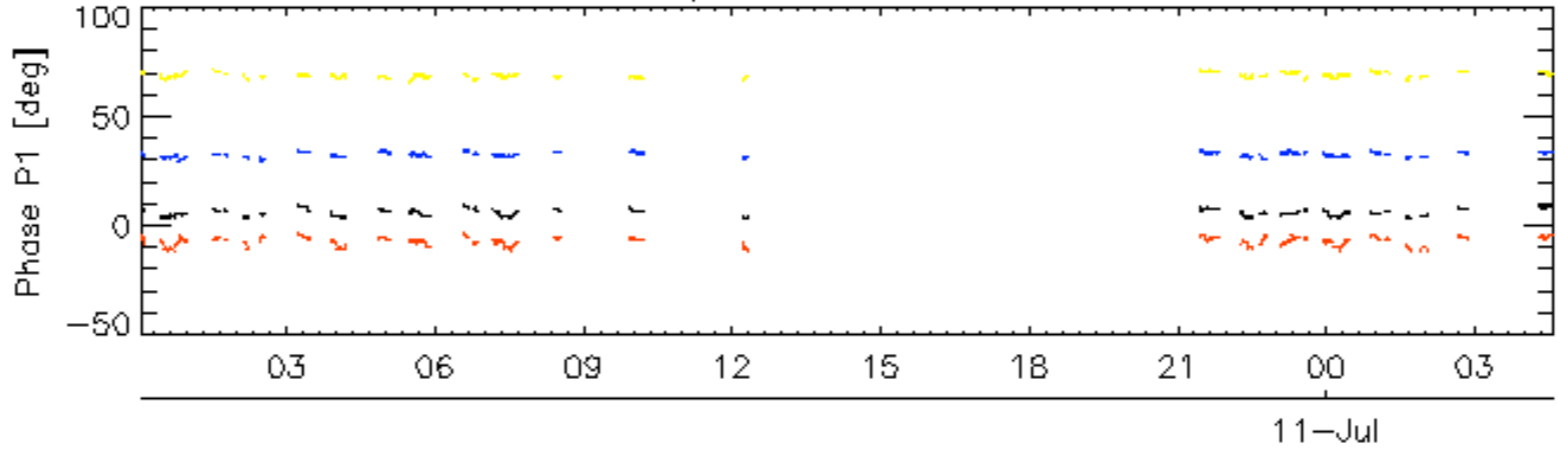


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

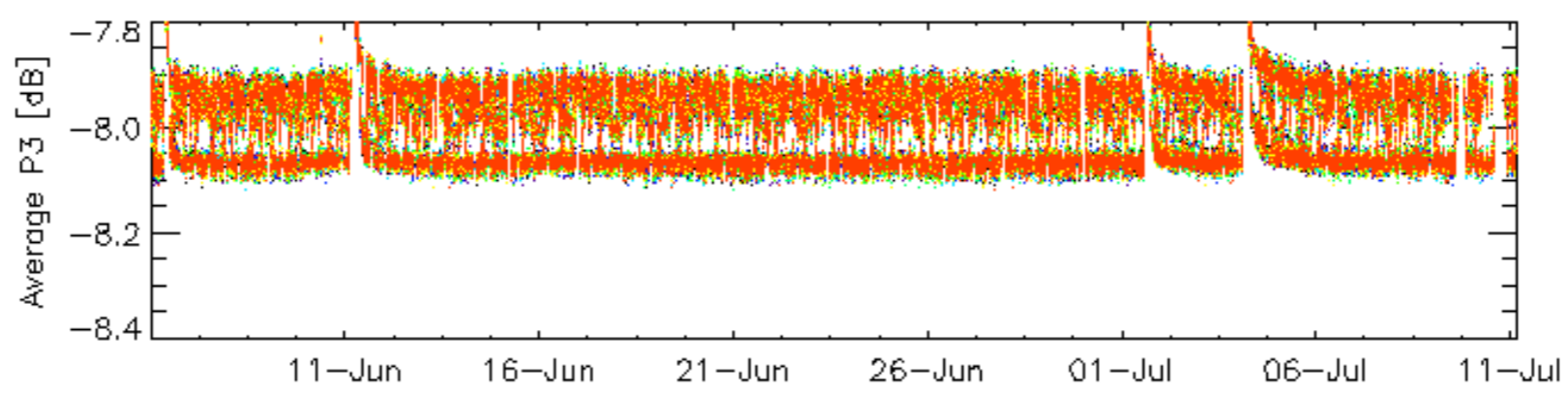
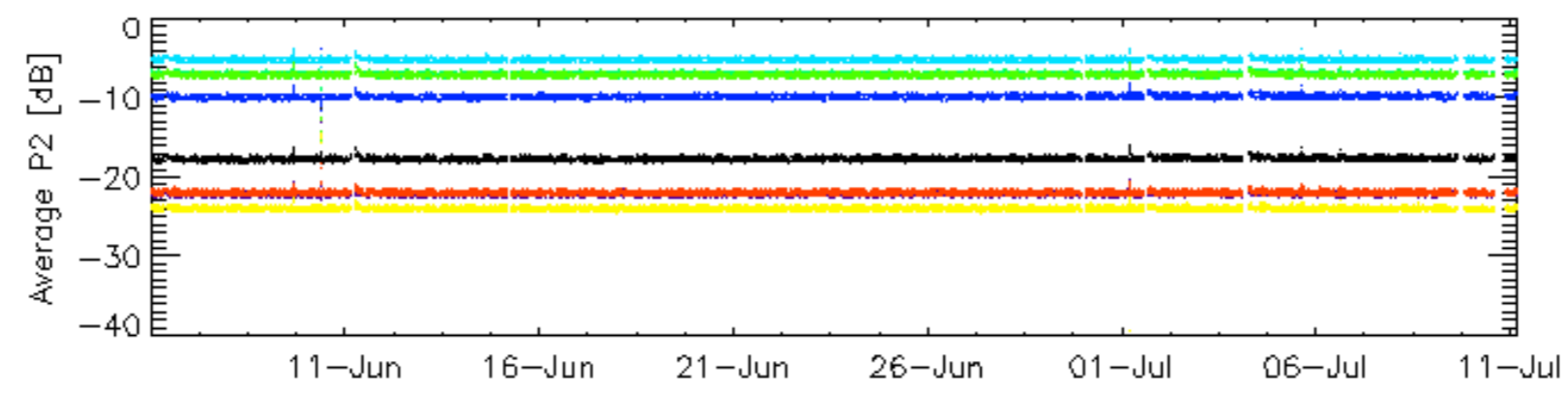
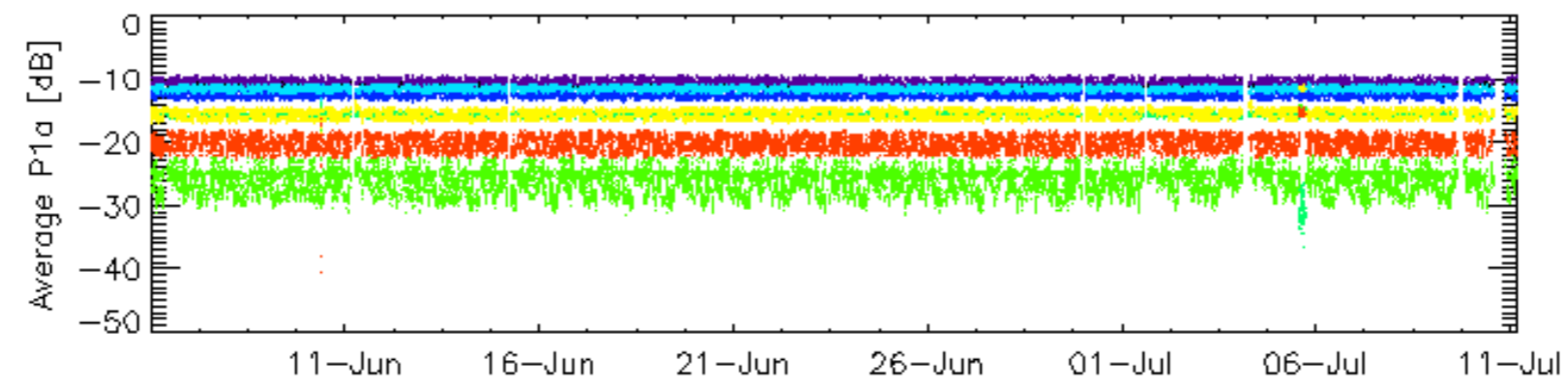
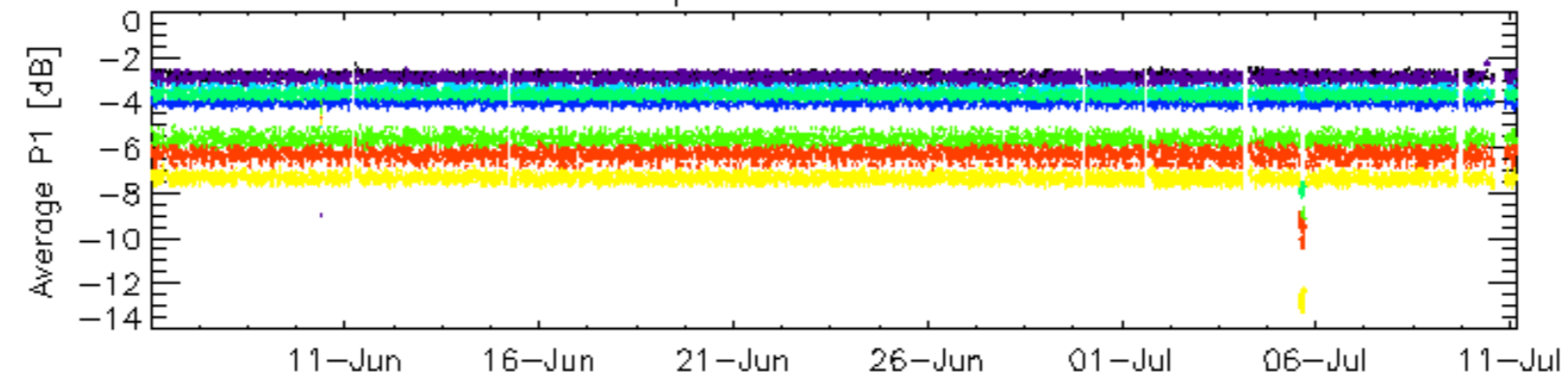


Cal pulses for WVS IS2



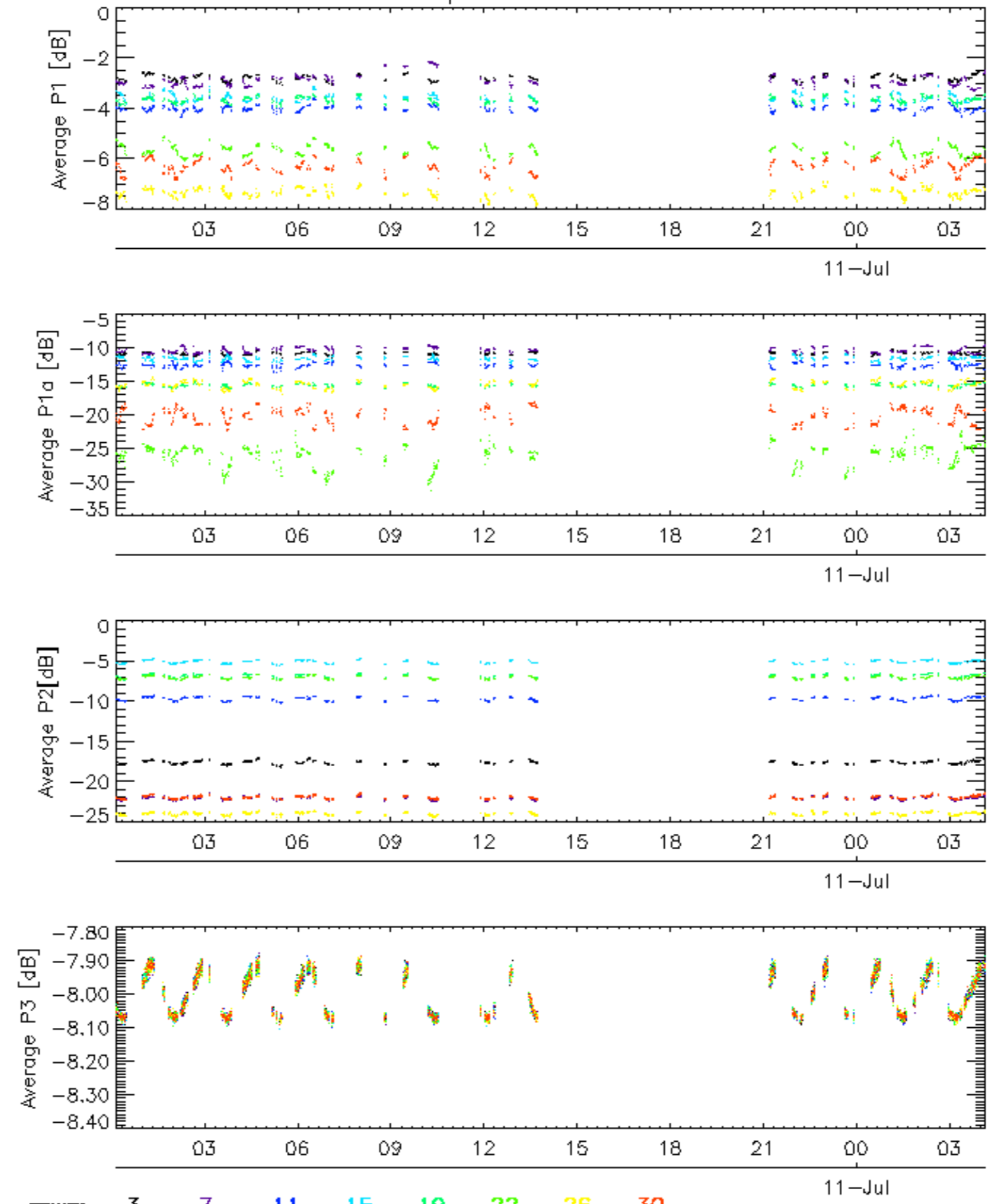
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



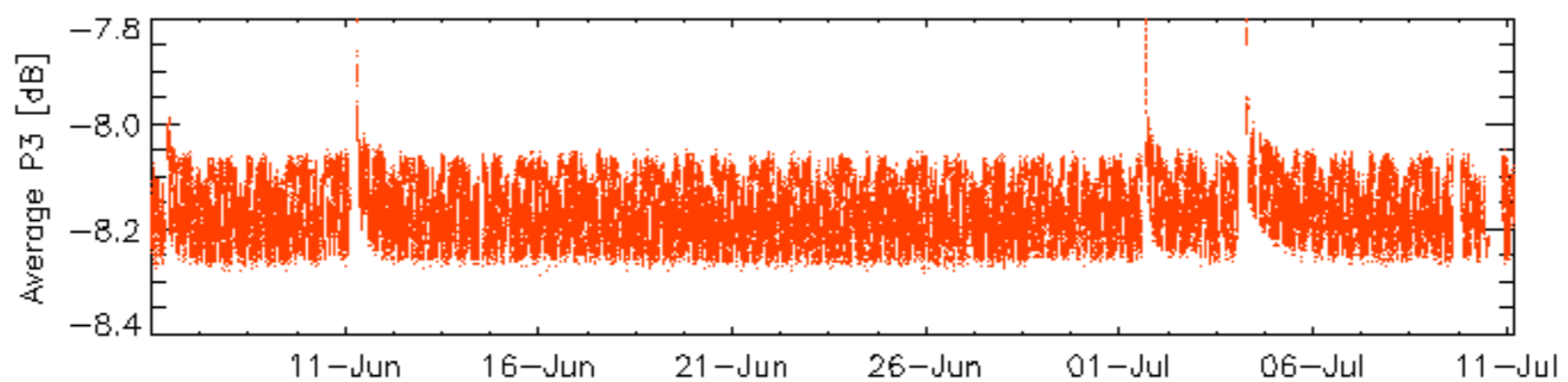
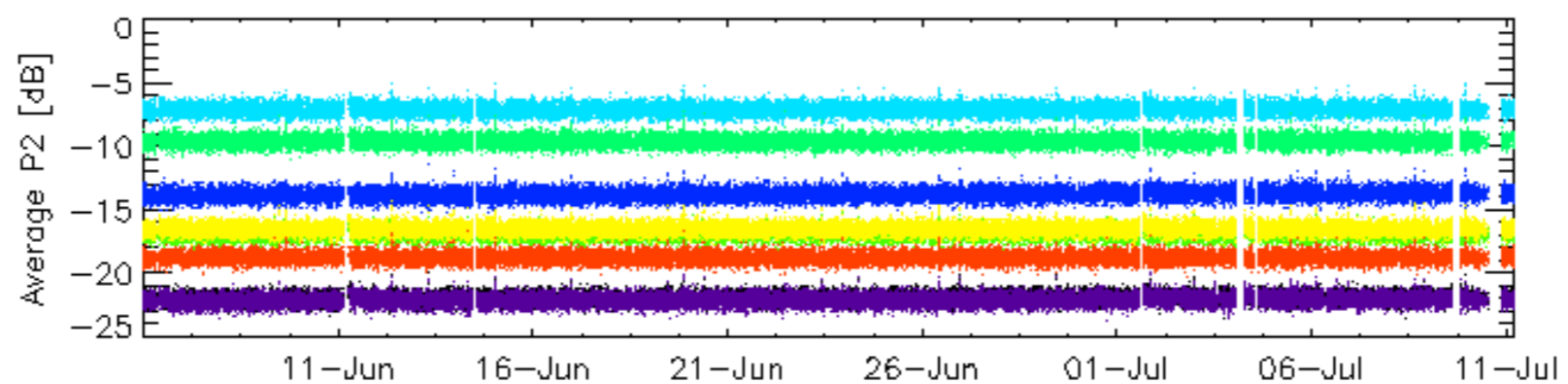
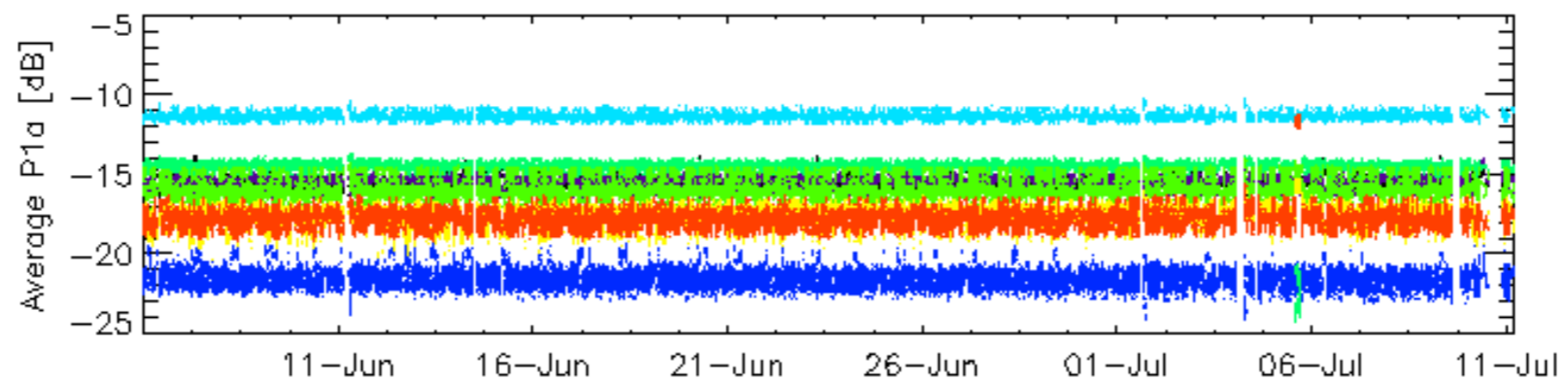
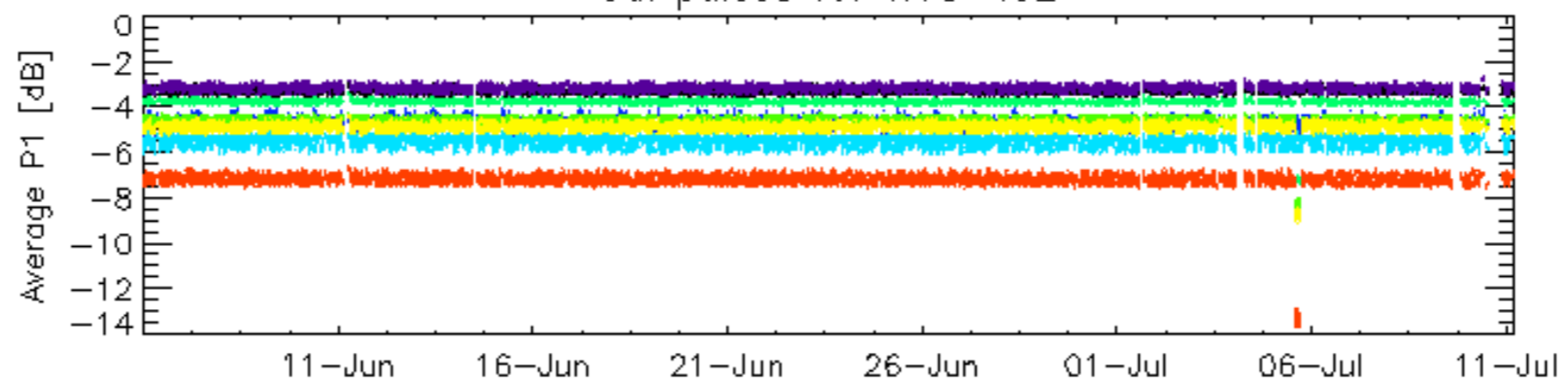
rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

Cal pulses for GM1 SS3



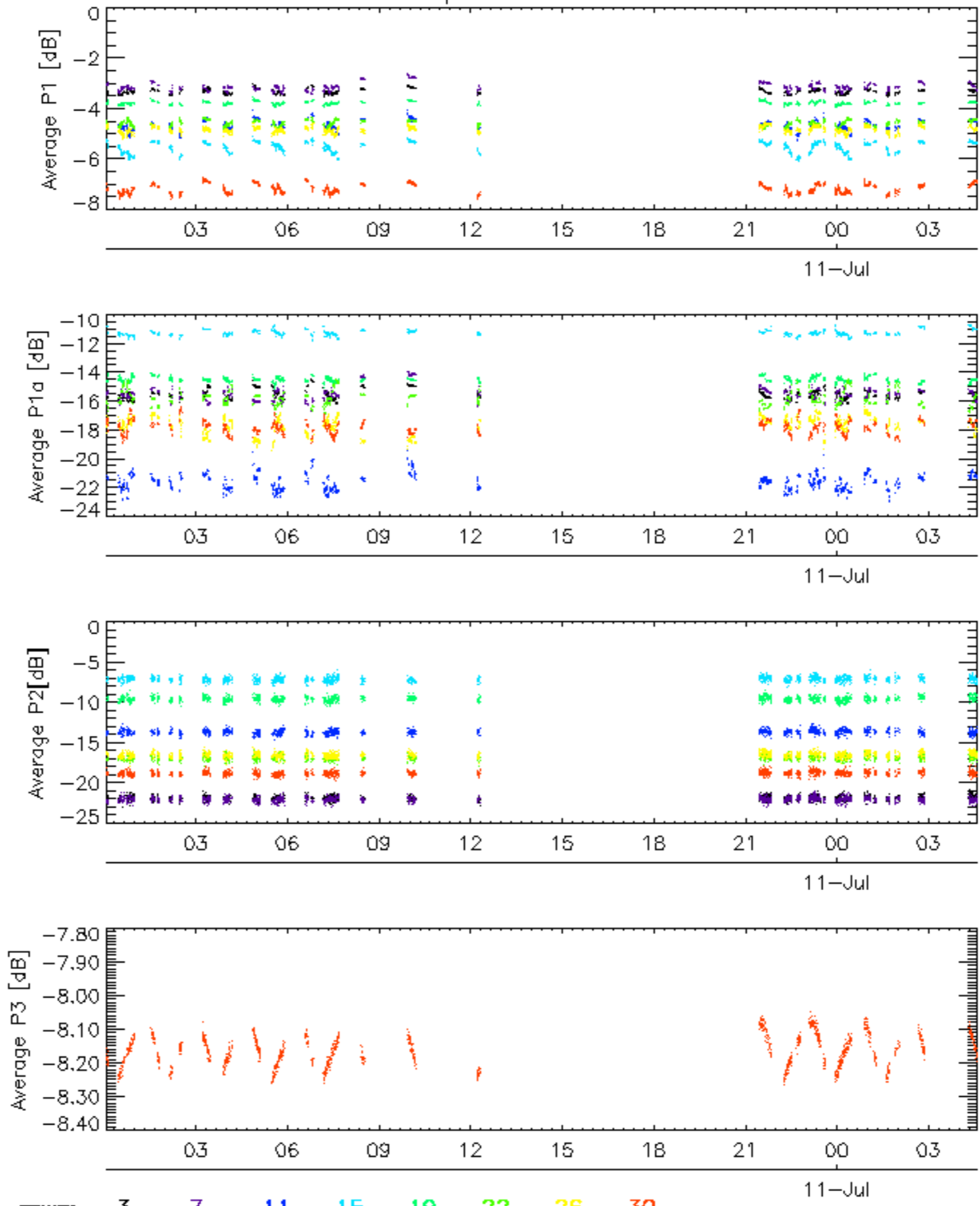
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



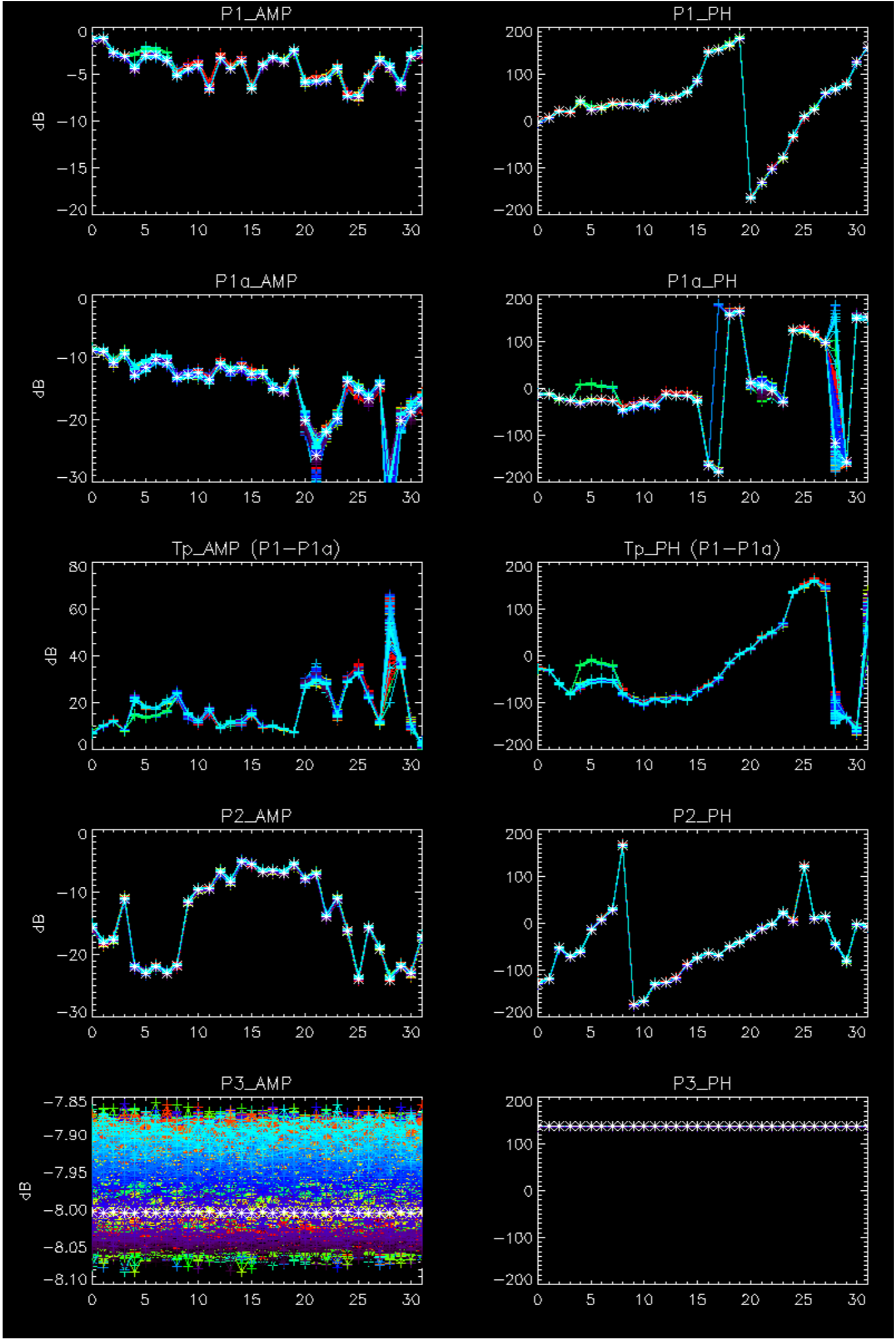
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

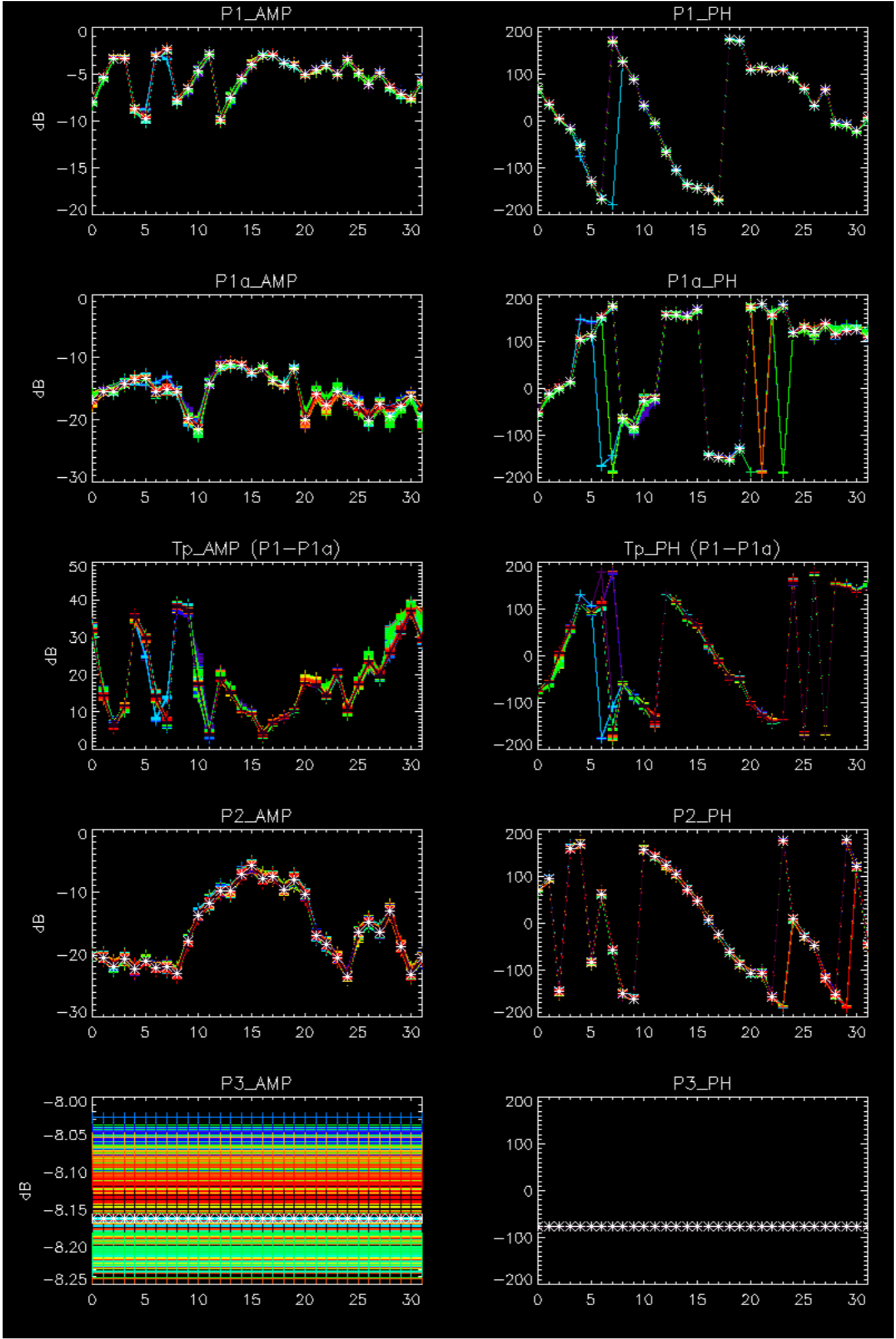
Cal pulses for WVS IS2



No anomalies

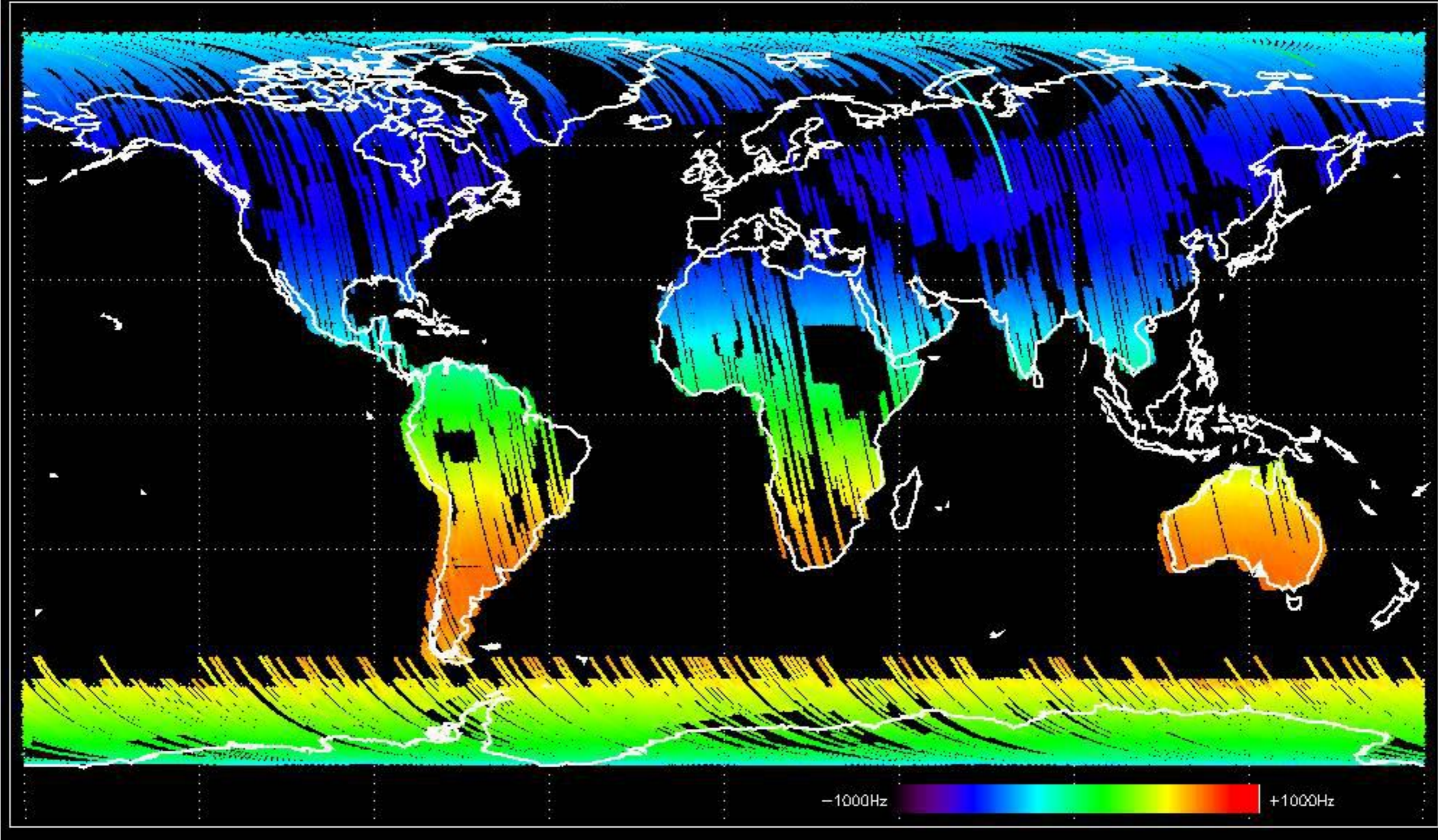
No anomalies observed.



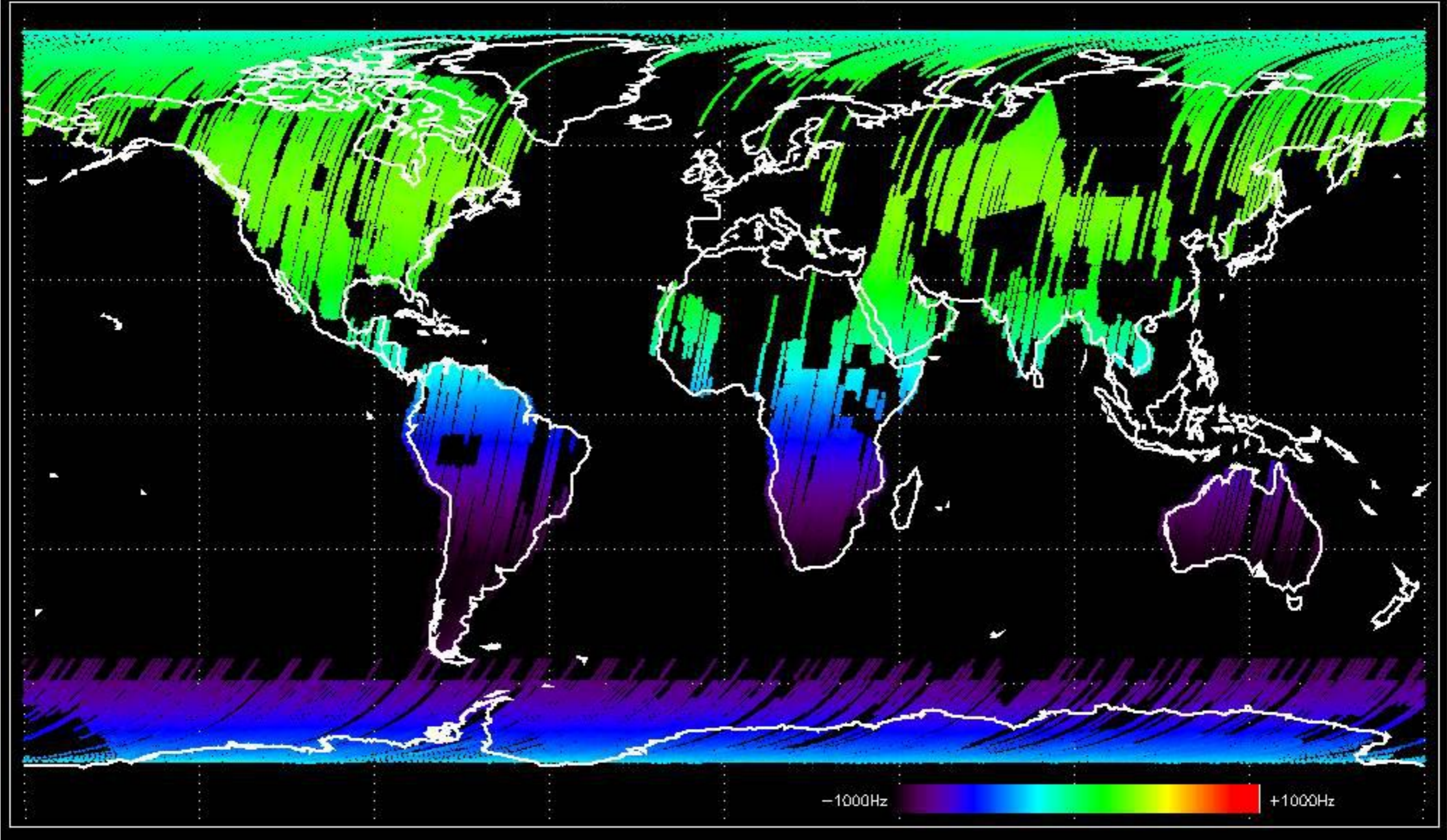


All Data acaquired from 10-JUL-2005 08:07:10 till 11:15:25 (time of the antenna reset) is affected by a corruption of the P1 pulses, rows (5, 6, 7, 8)in H and V pol.

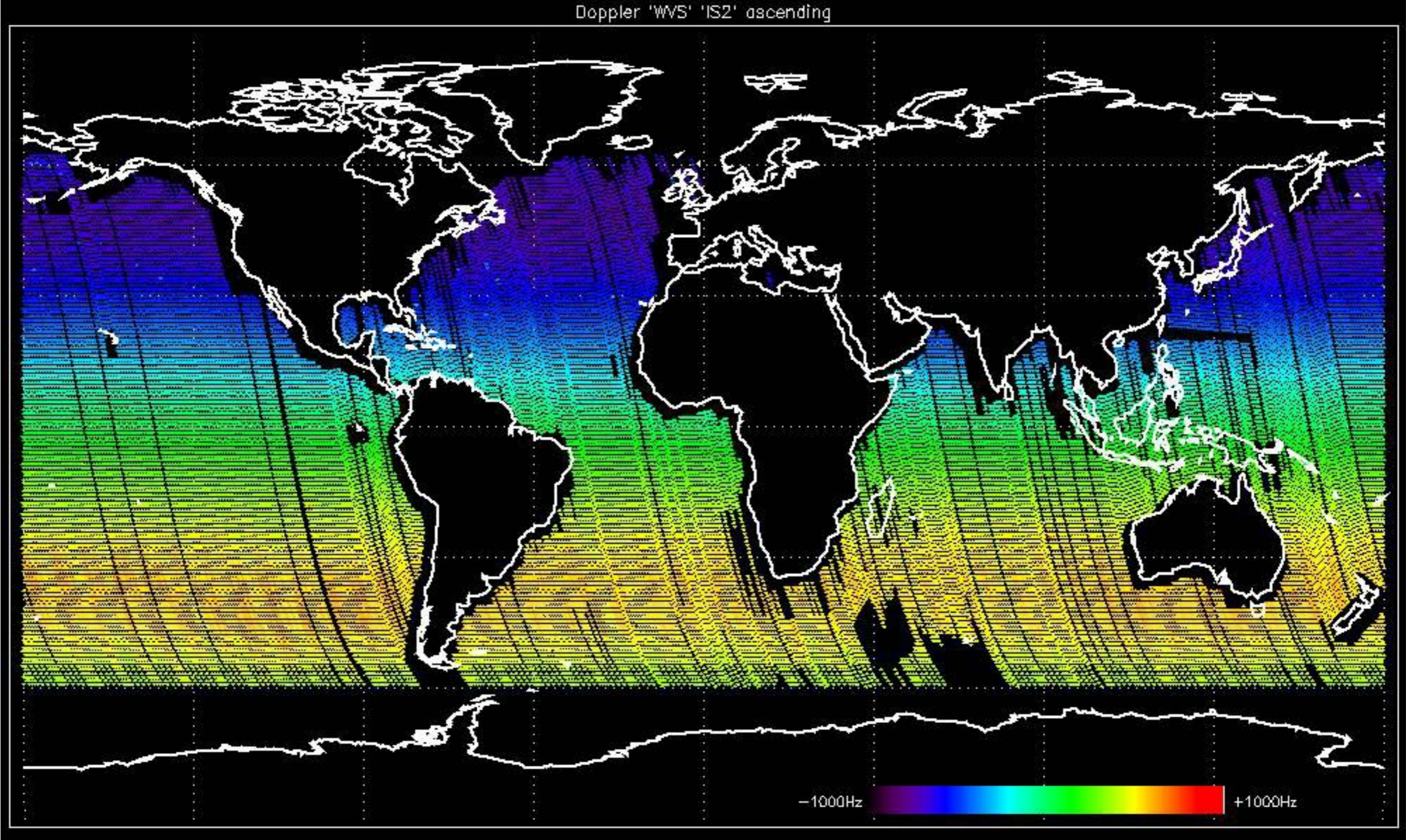
Doppler 'GM1' 'SS1' ascending



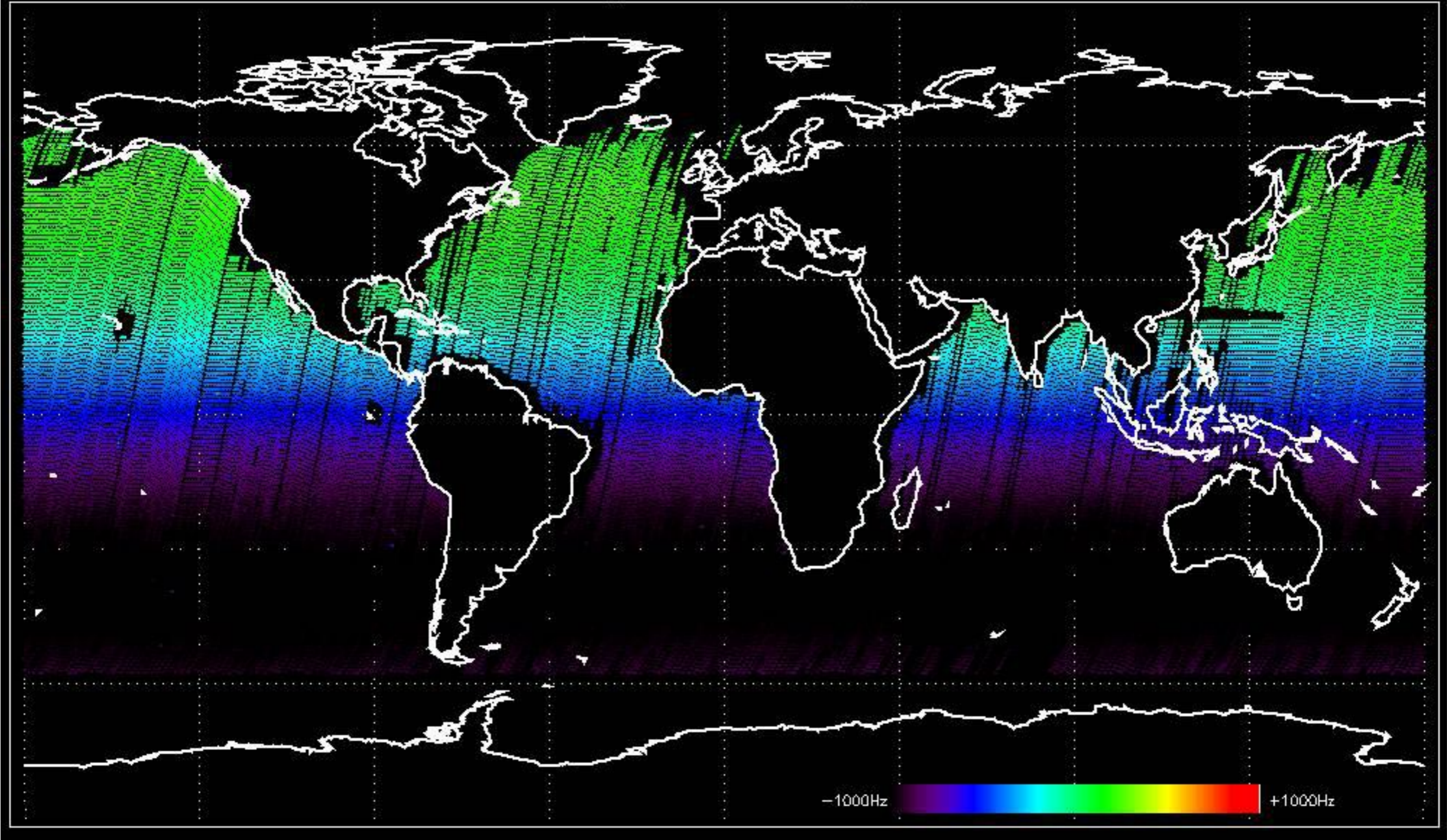
Doppler 'GM1' 'SS1' descending

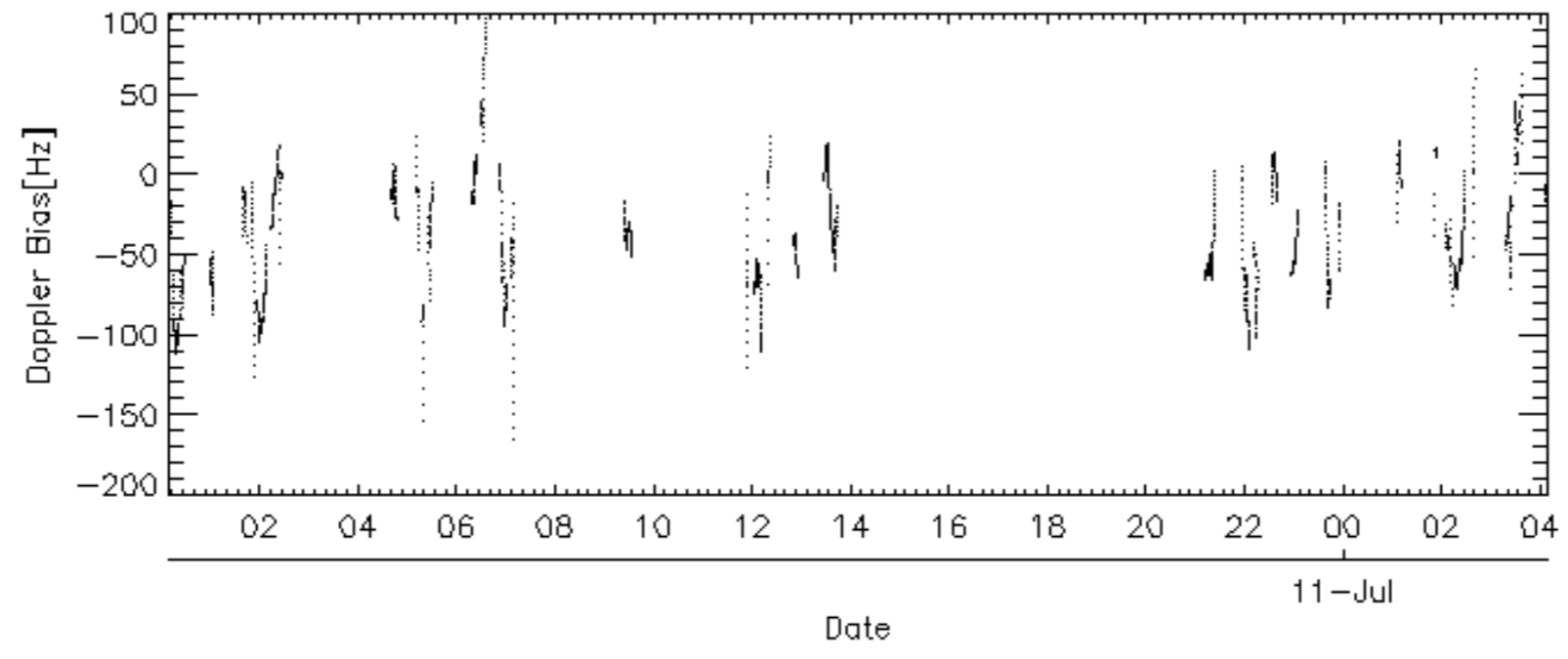
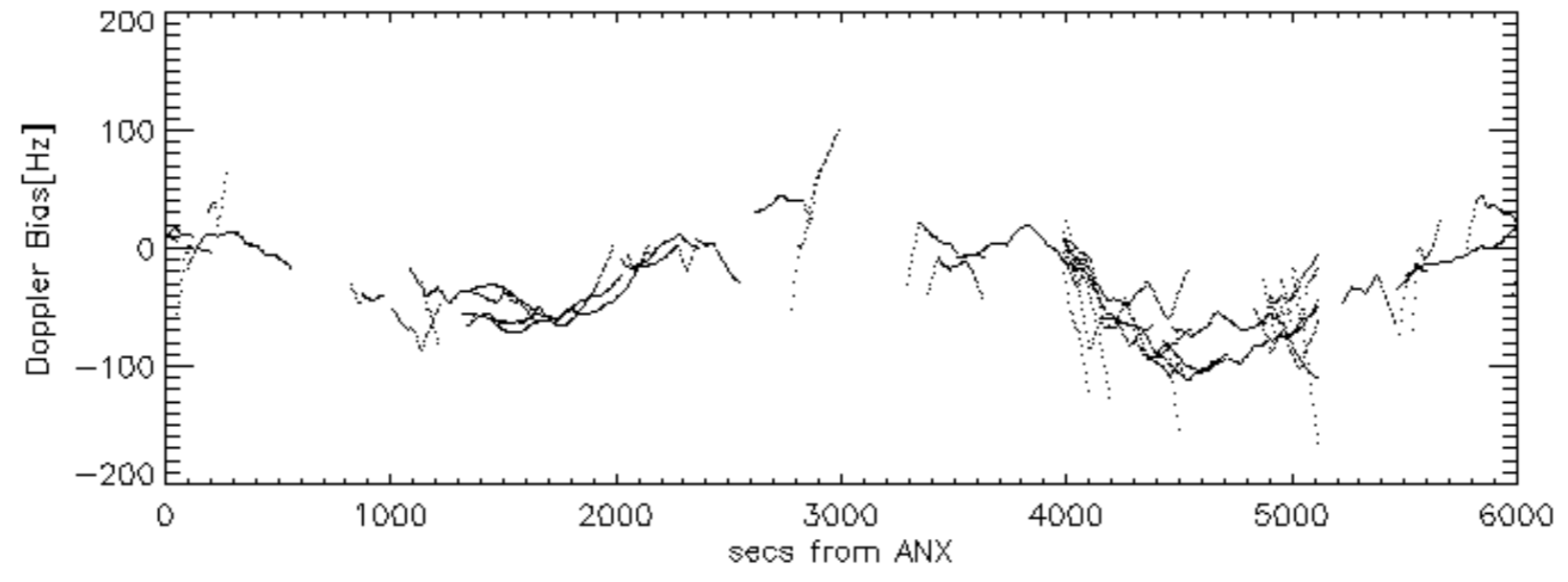
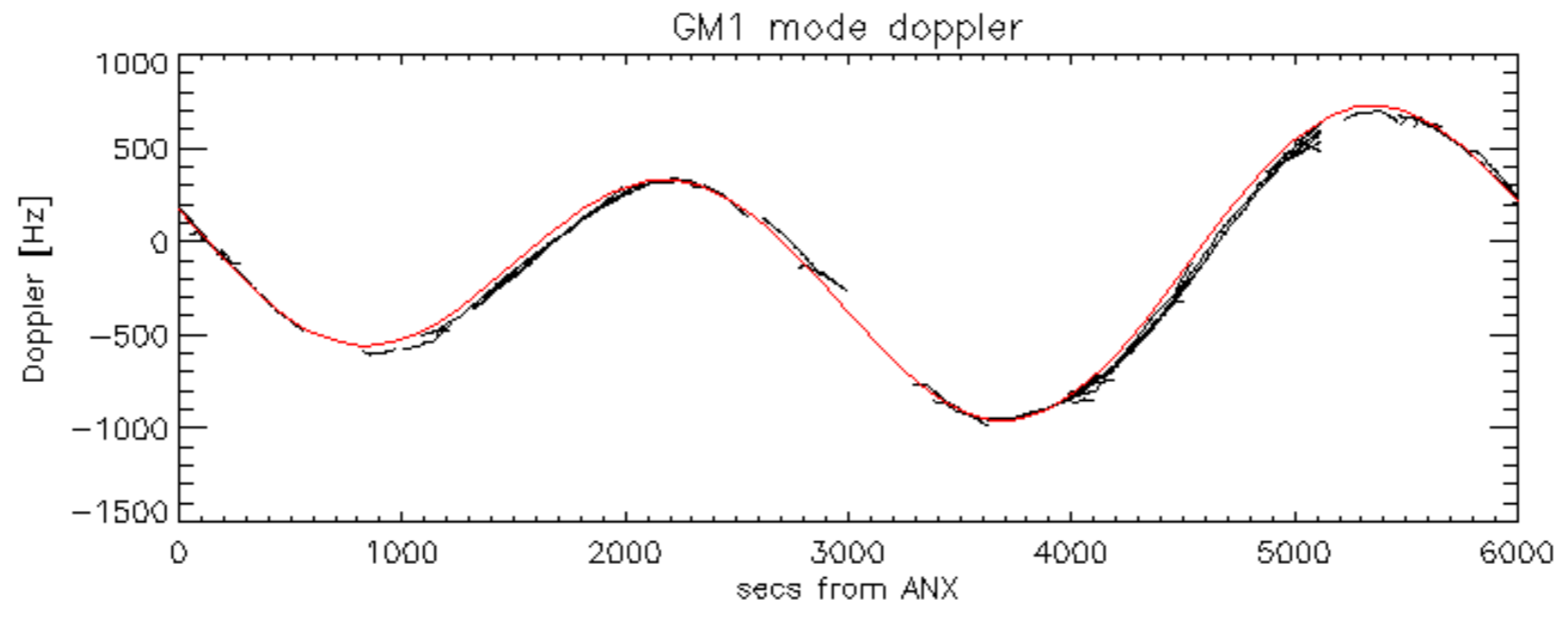


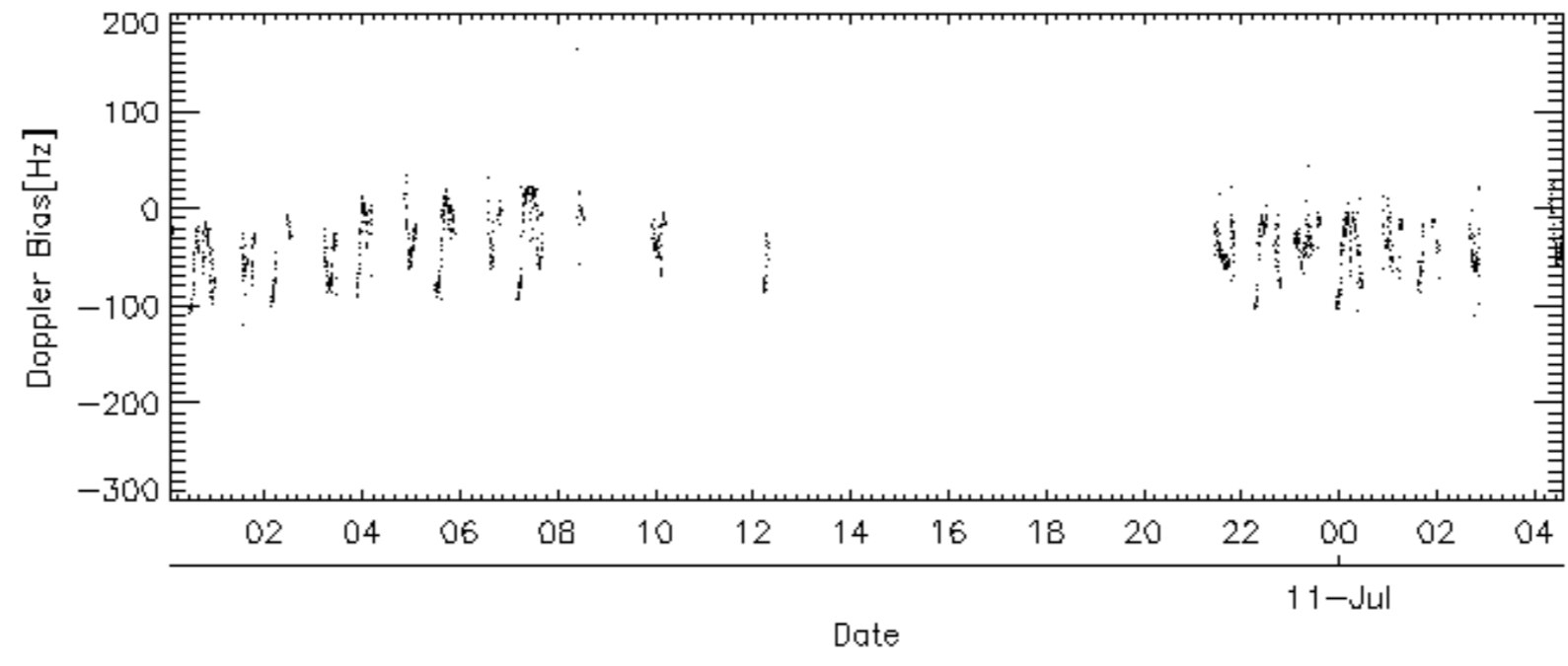
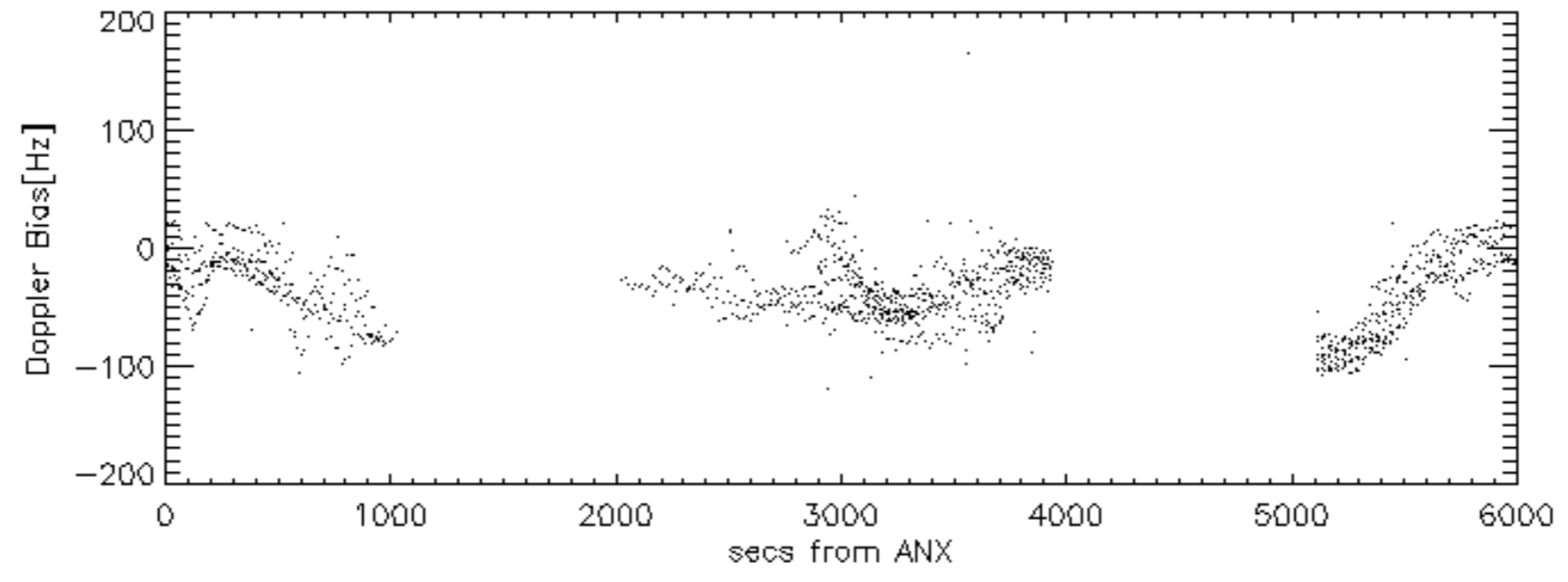
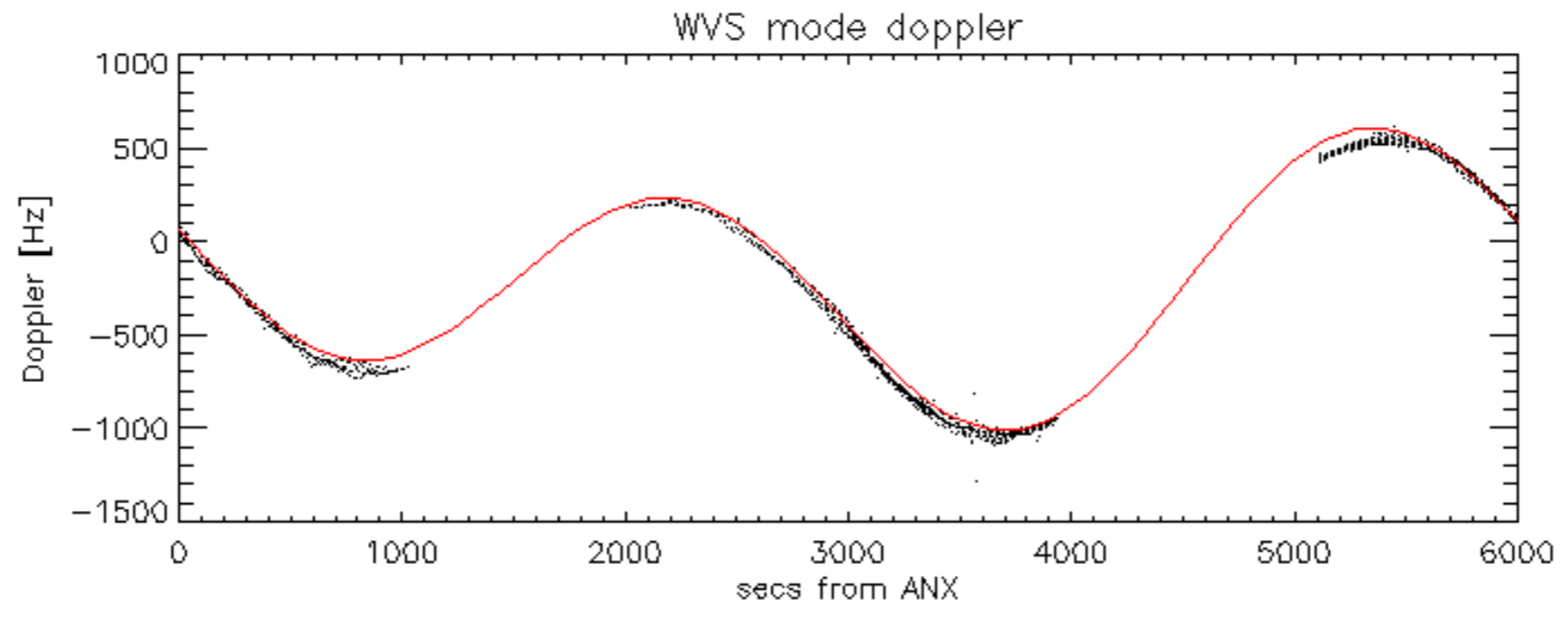
Doppler 'WVS' 'IS2' ascending



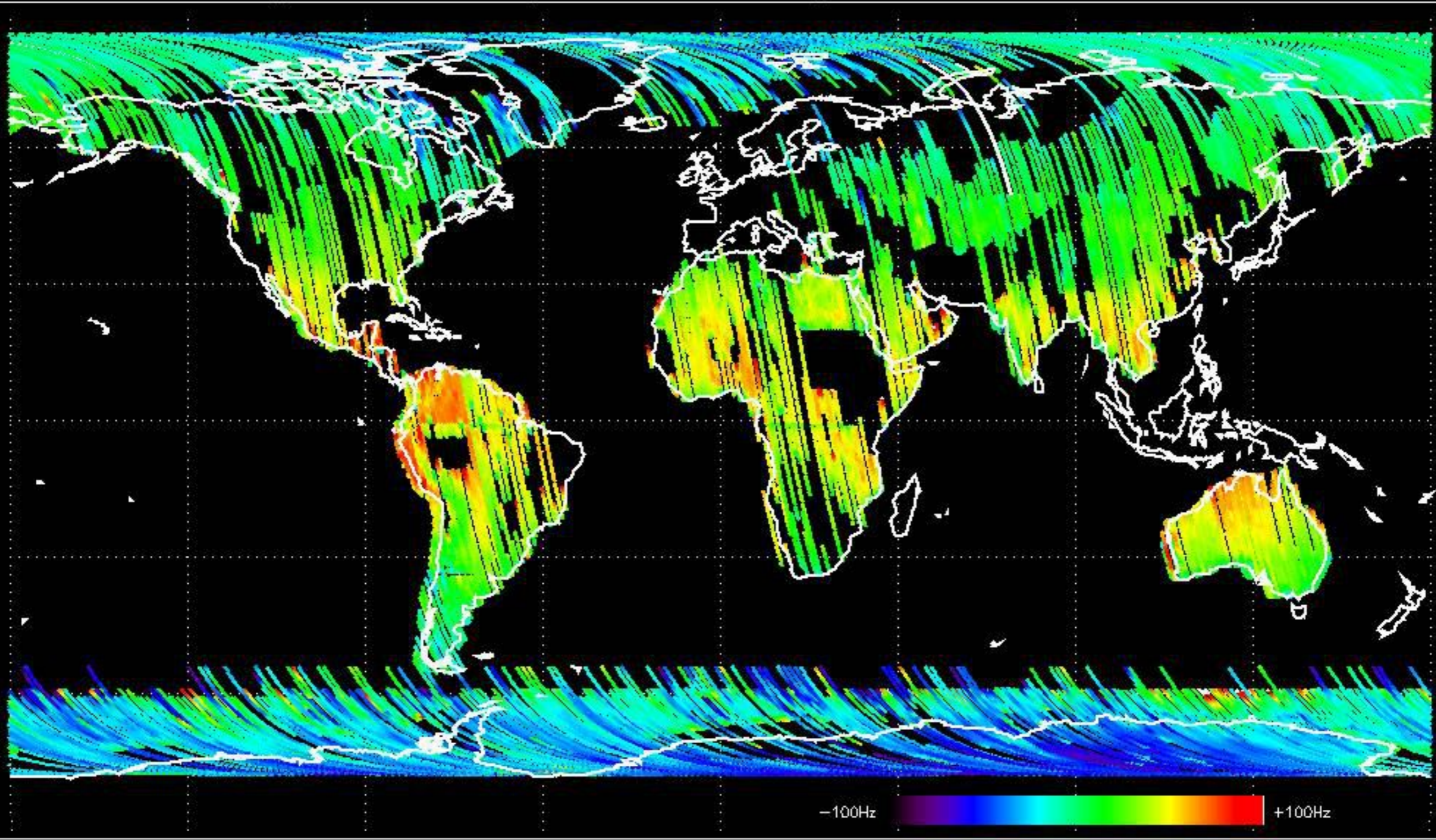
Doppler 'WVS' 'IS2' descending



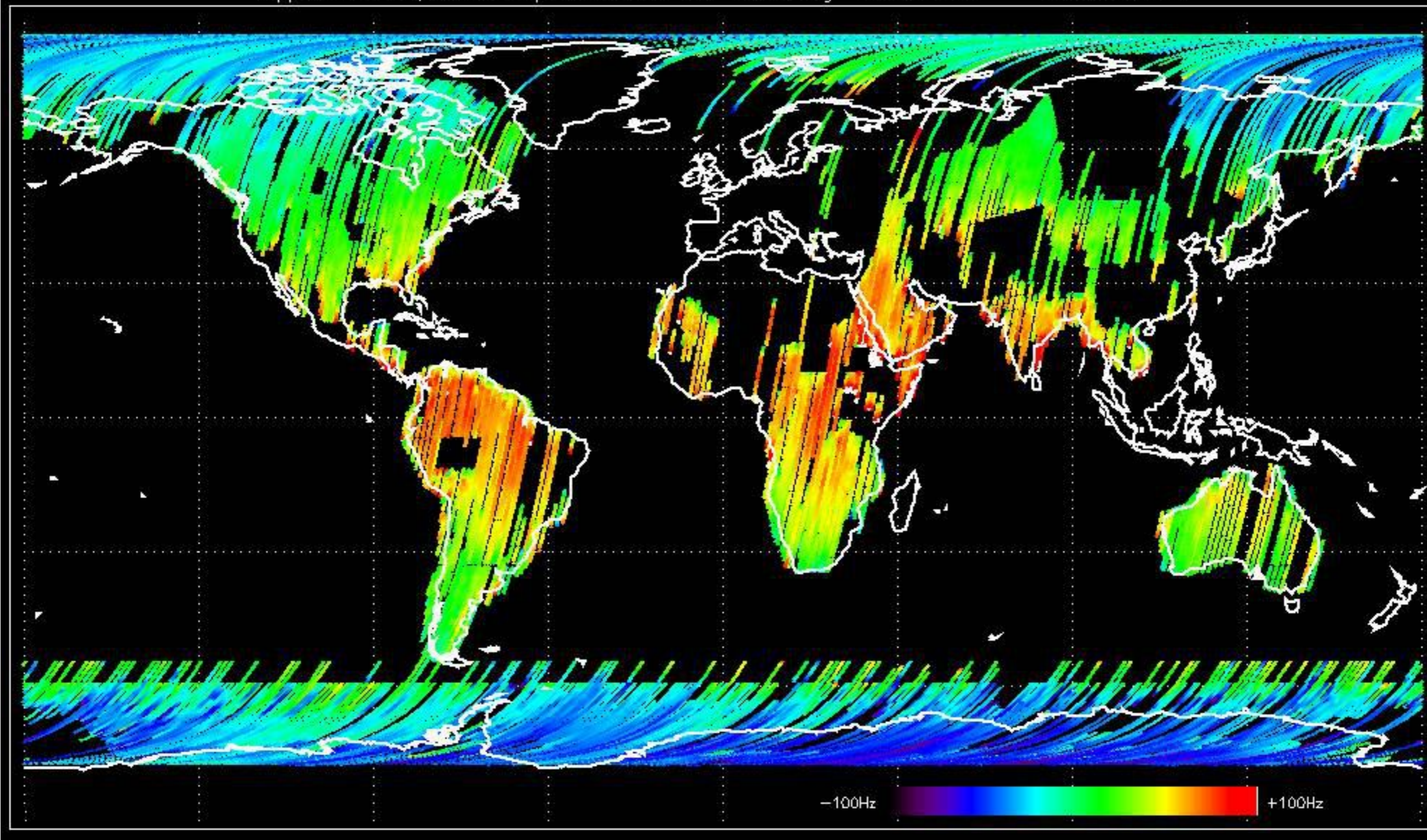




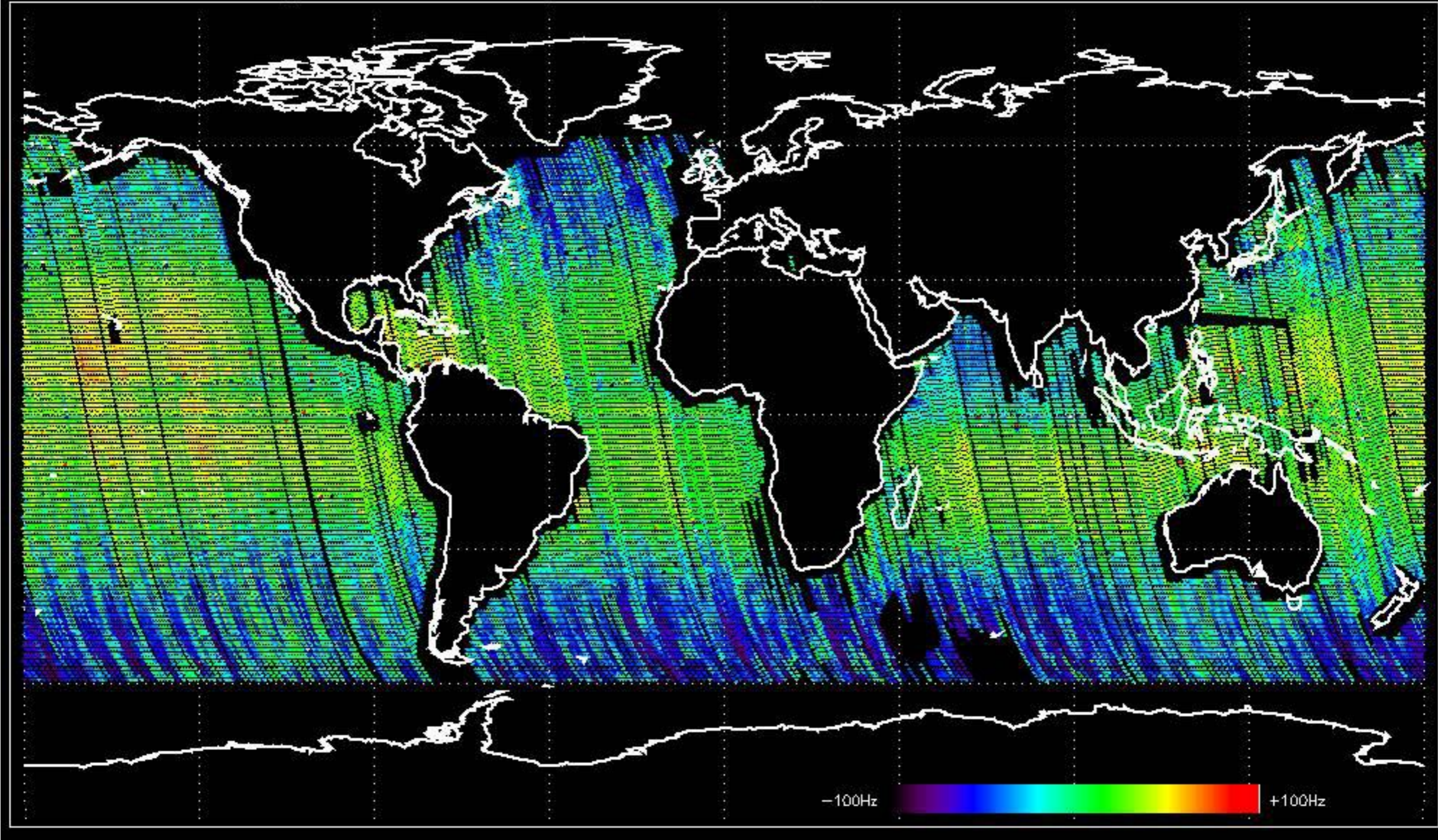
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.822146 Hz



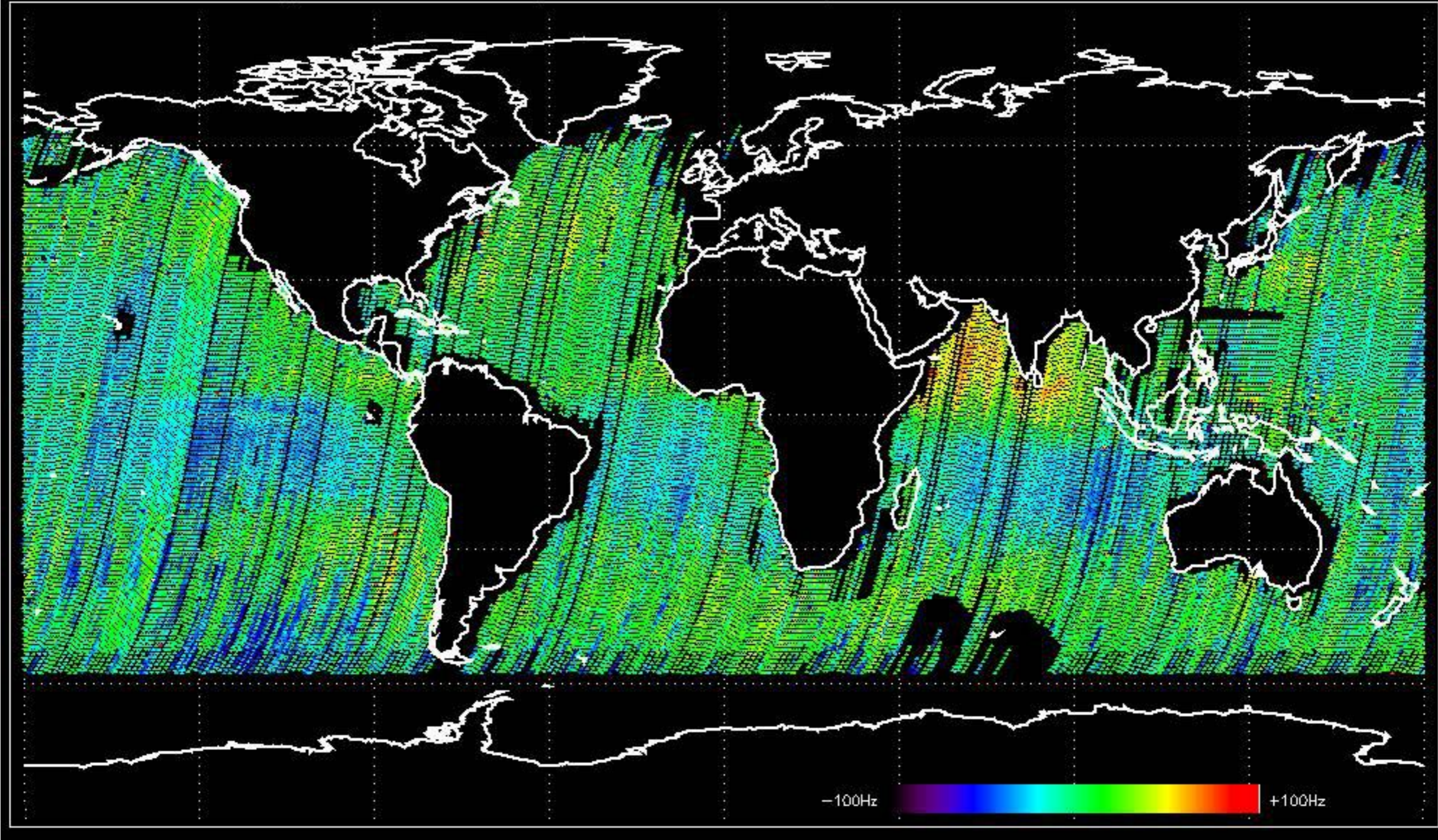
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.915224 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.262727 Hz

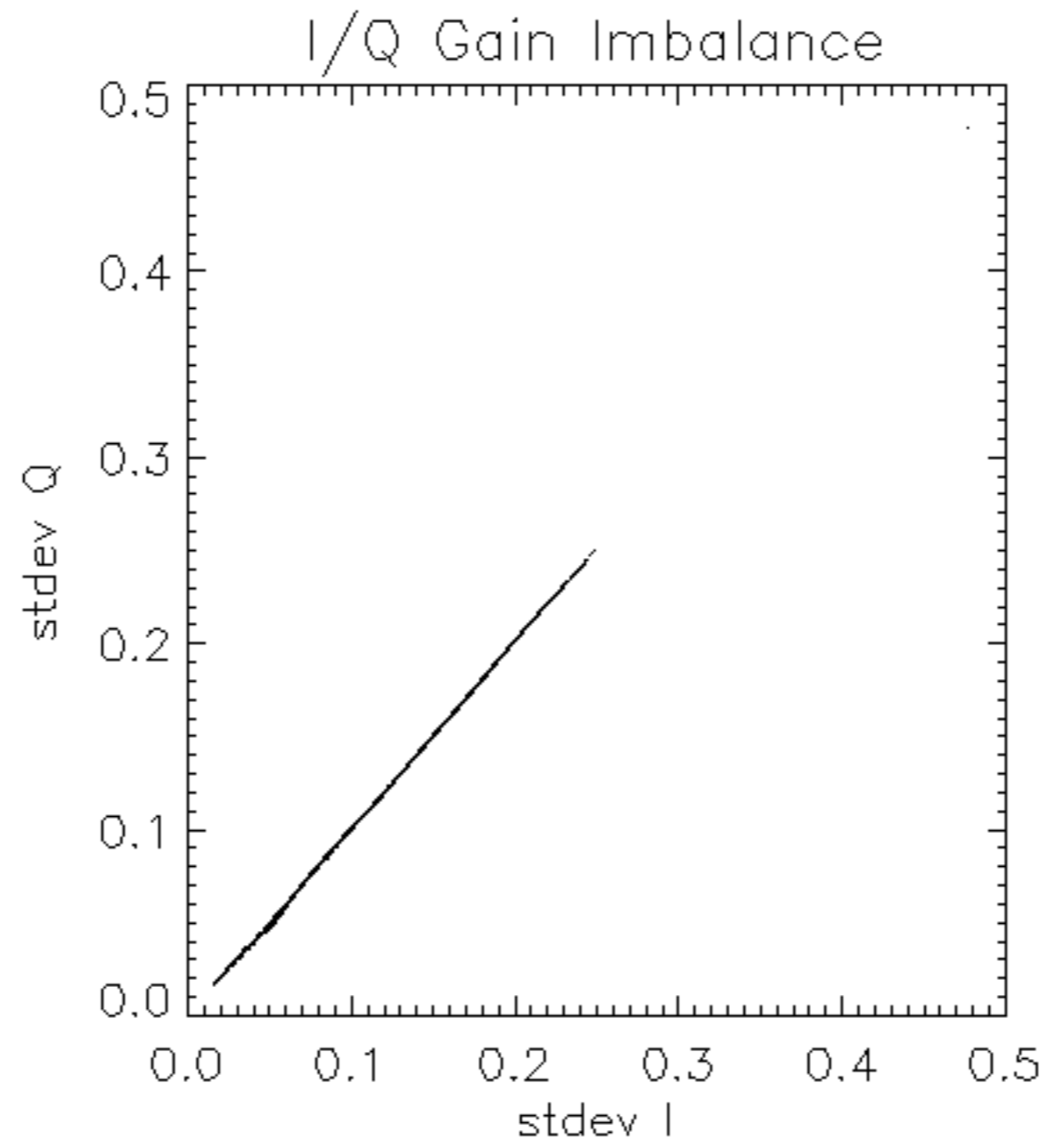


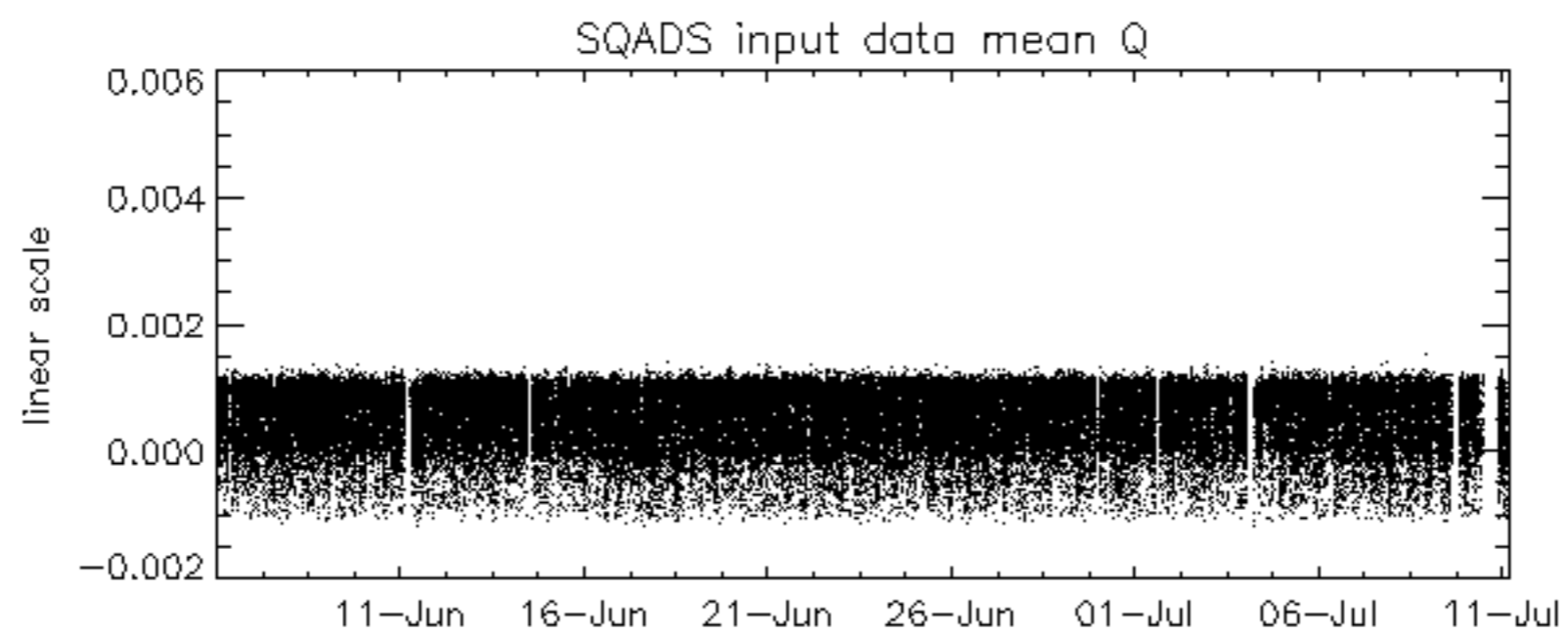
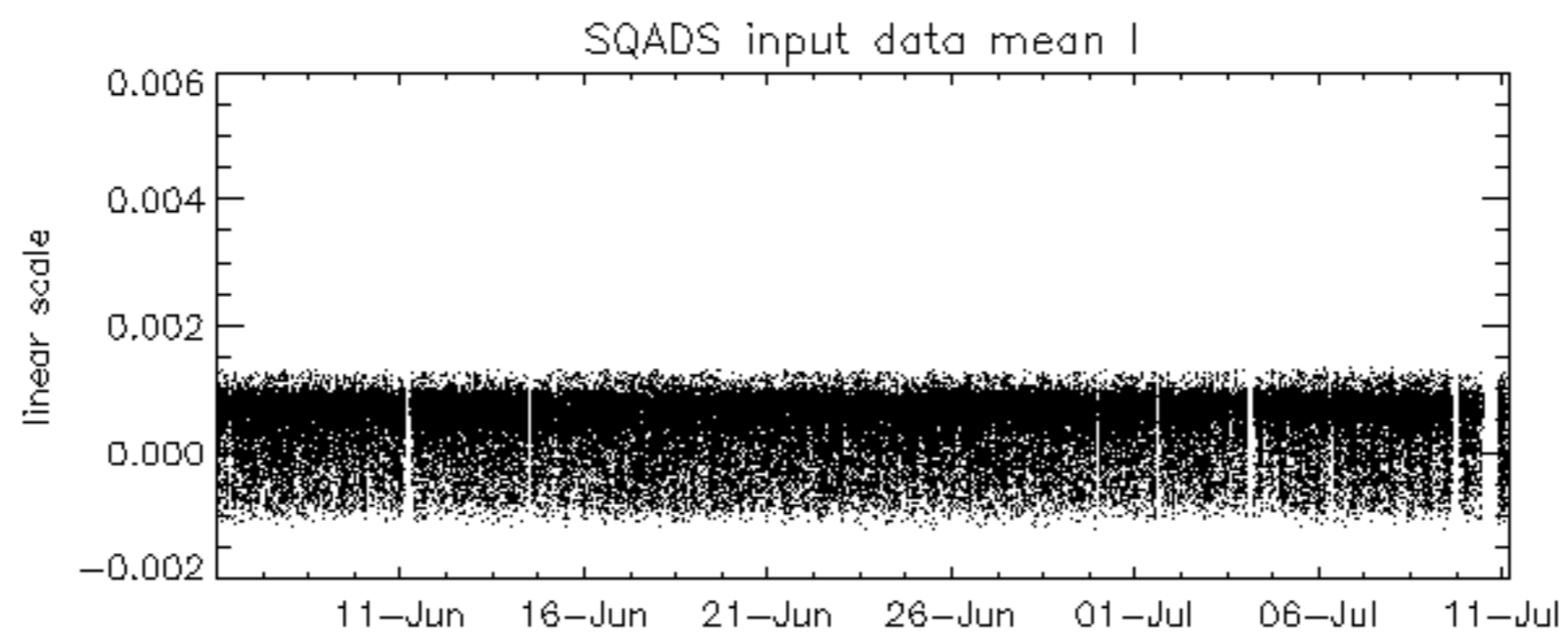
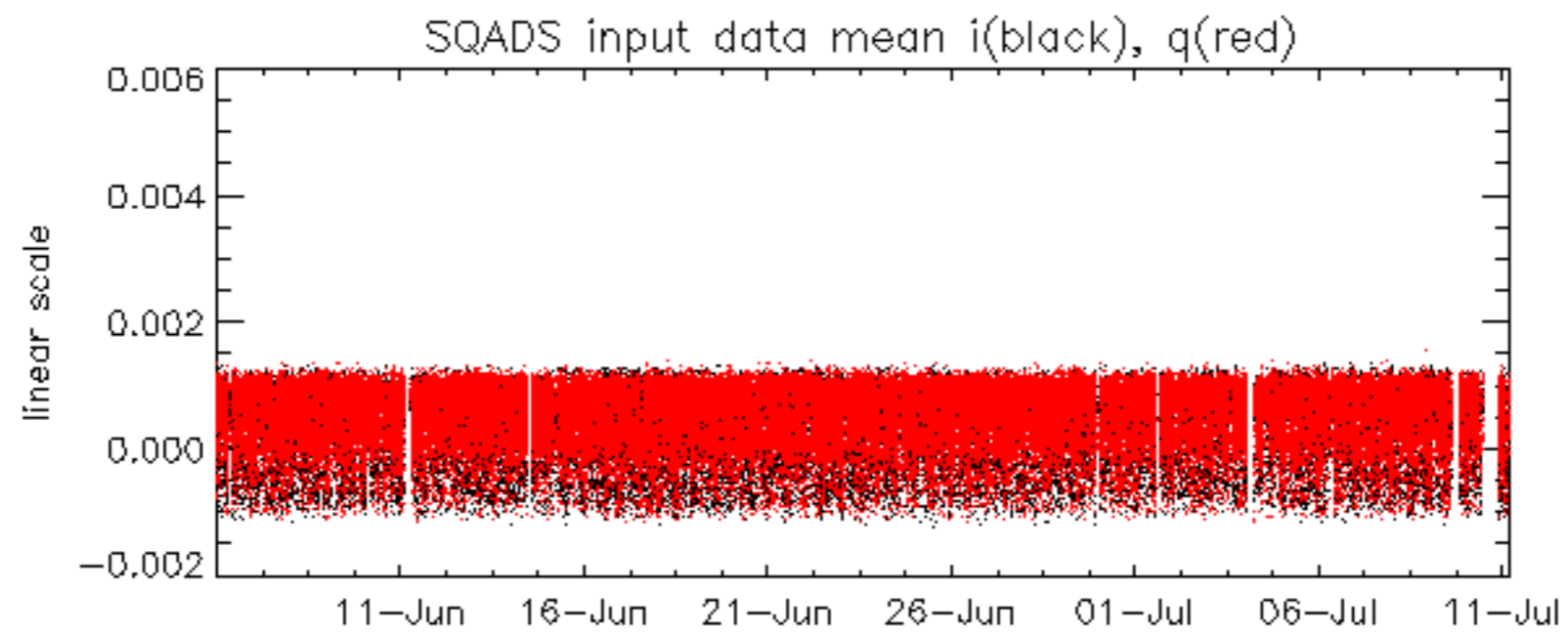
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -37.506022 Hz

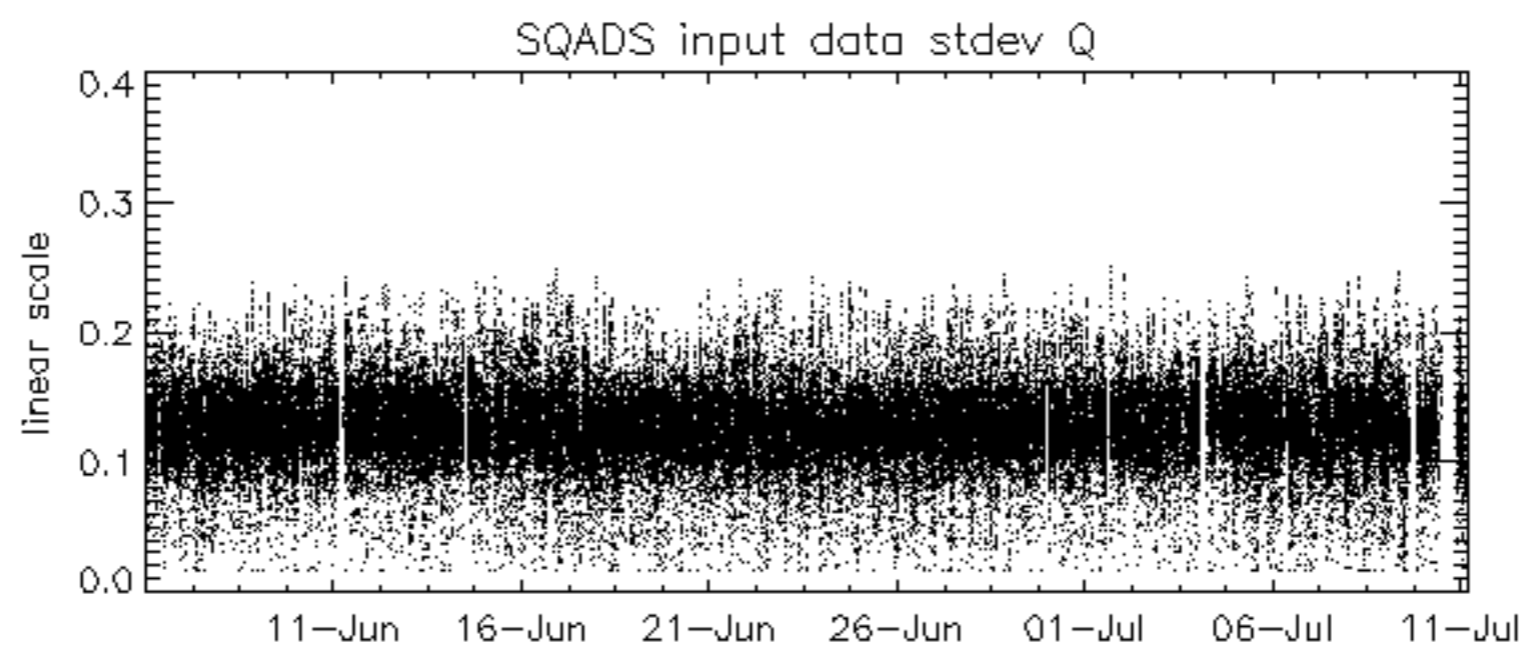
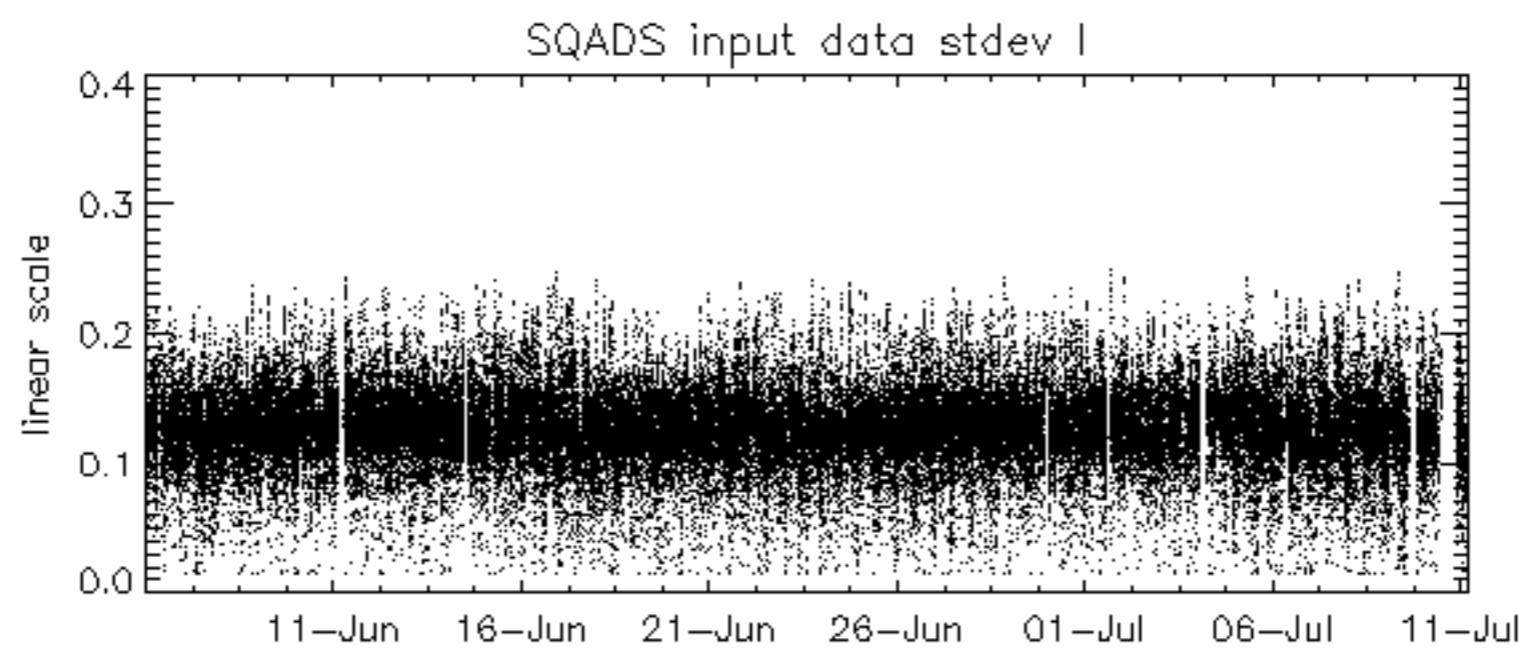
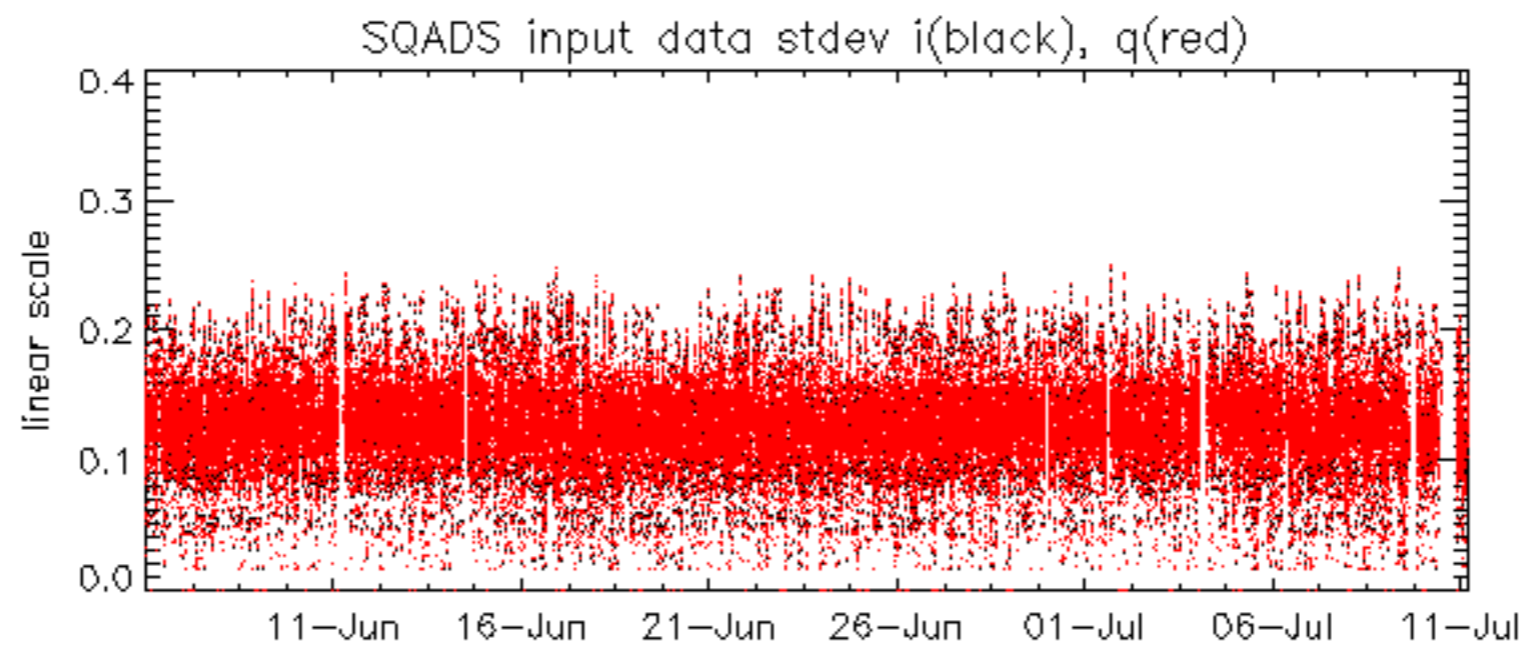


No anomalies observed on available MS products:

No anomalies observed.



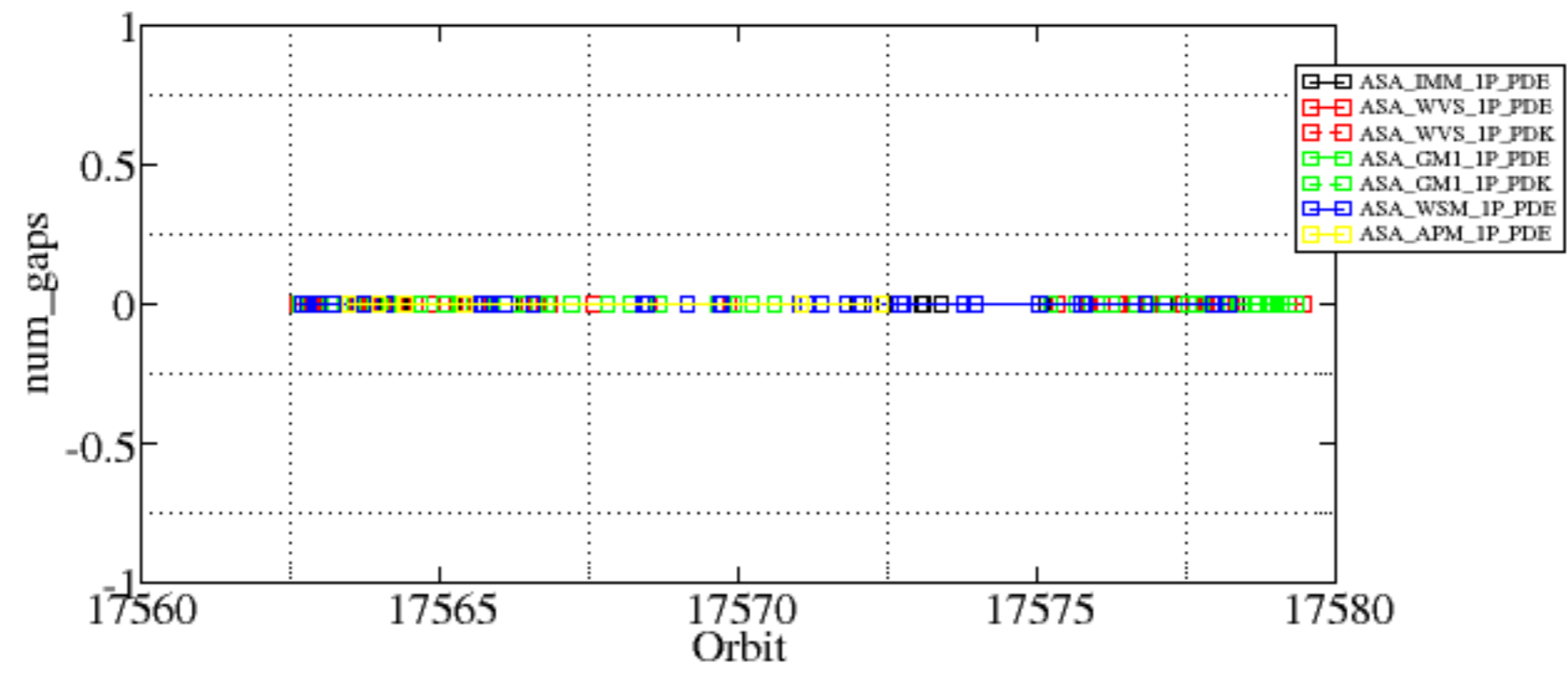


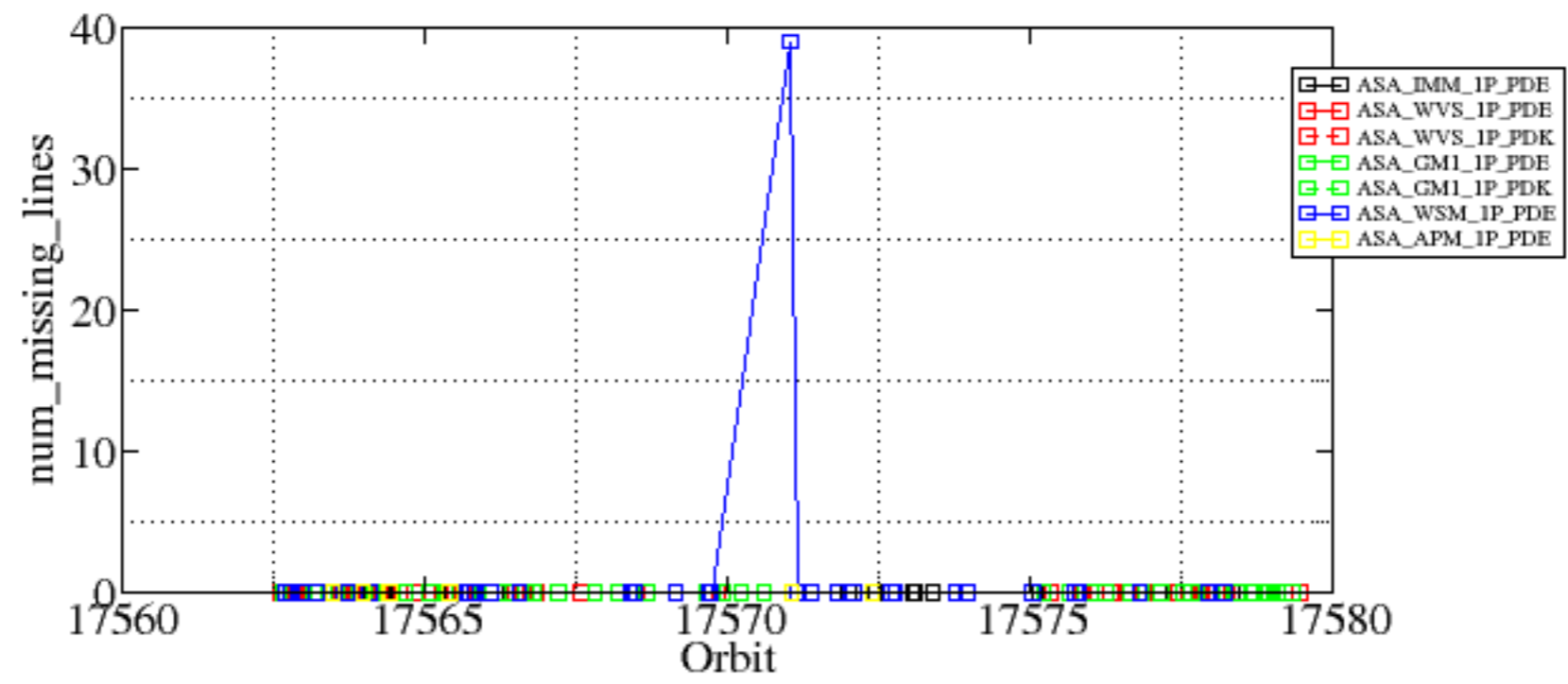


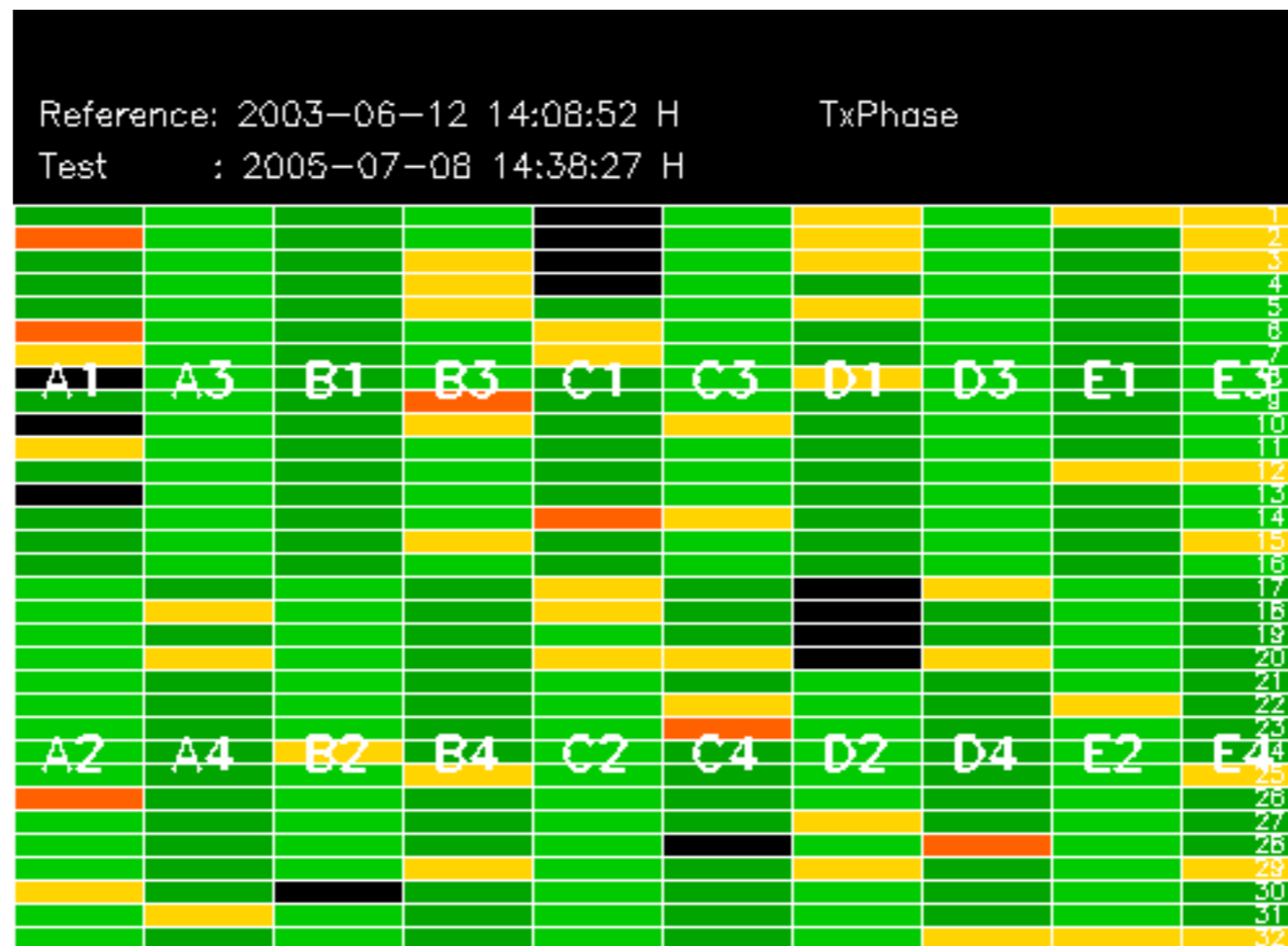
Summary of analysis for the last 3 days 2005071[901]

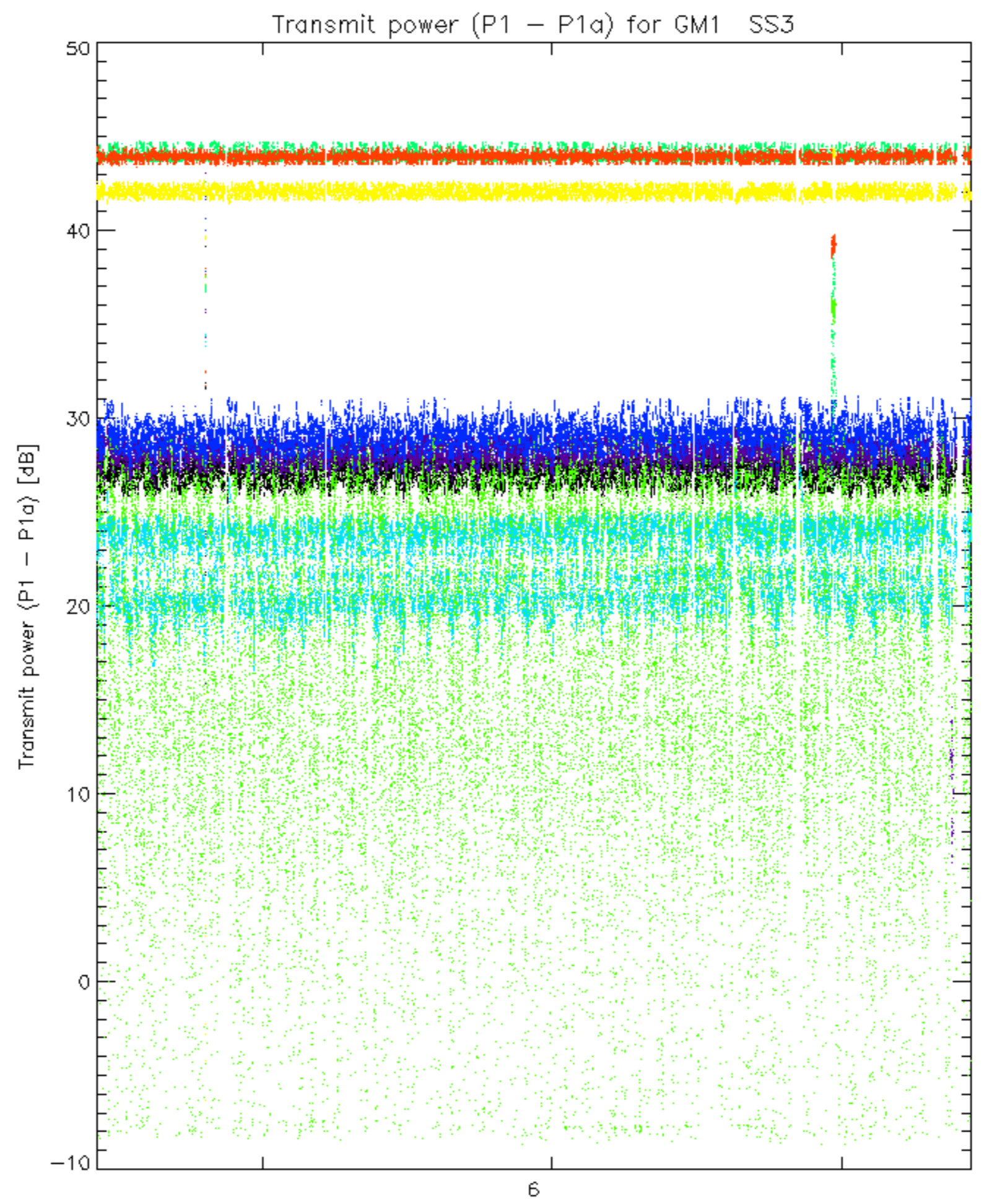
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050710_141215_00000672038_00483_17571_3333.N1	0	39

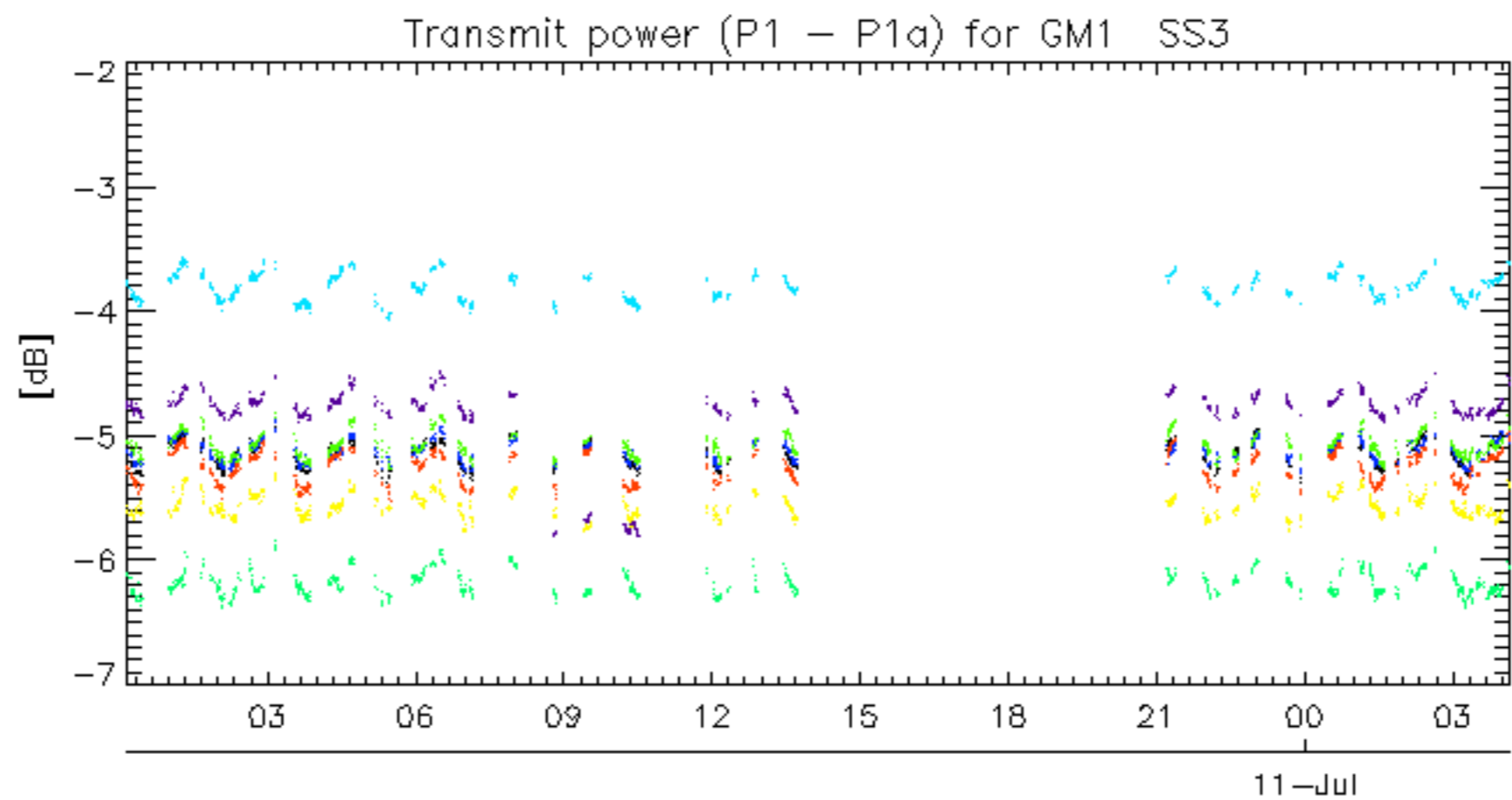




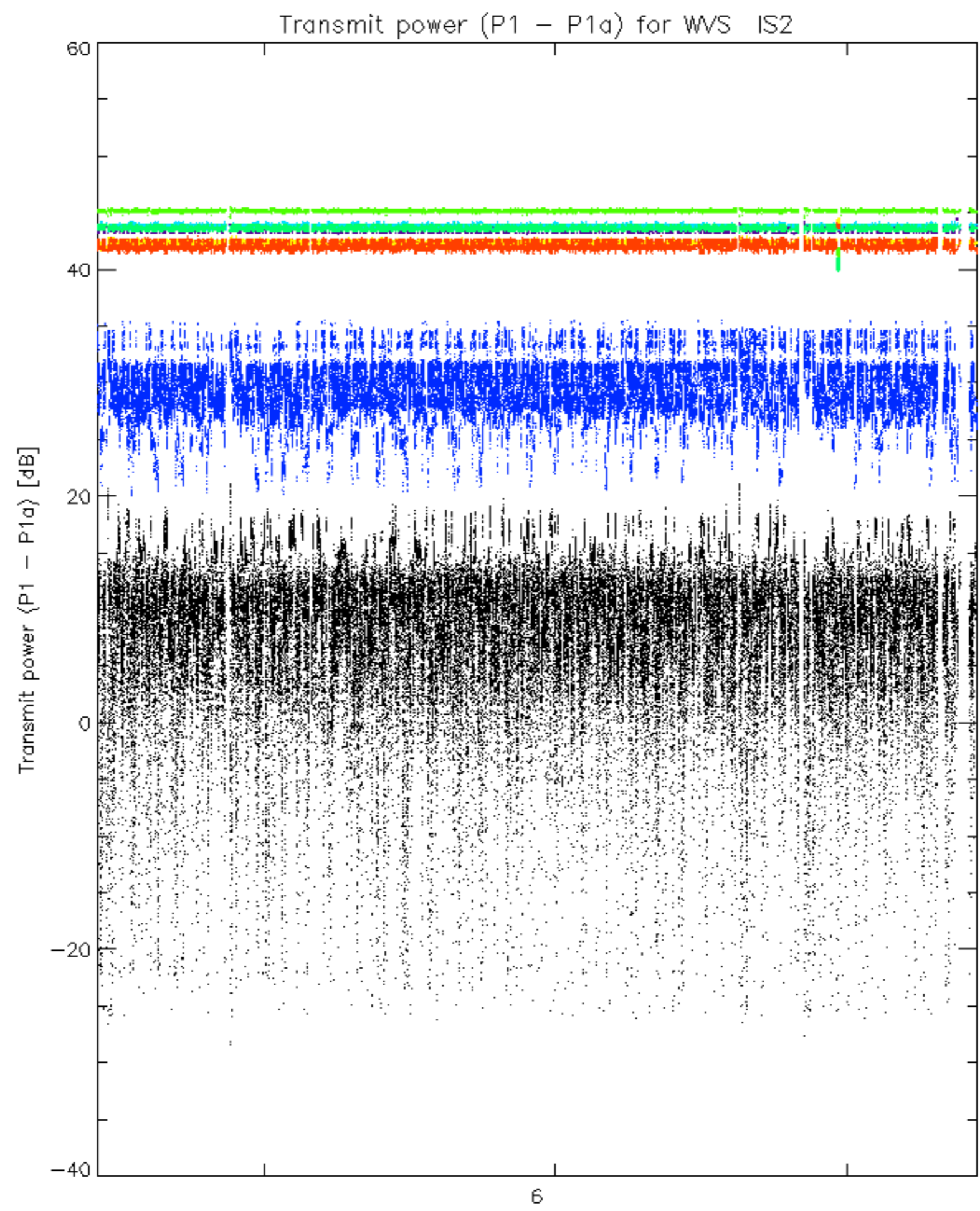




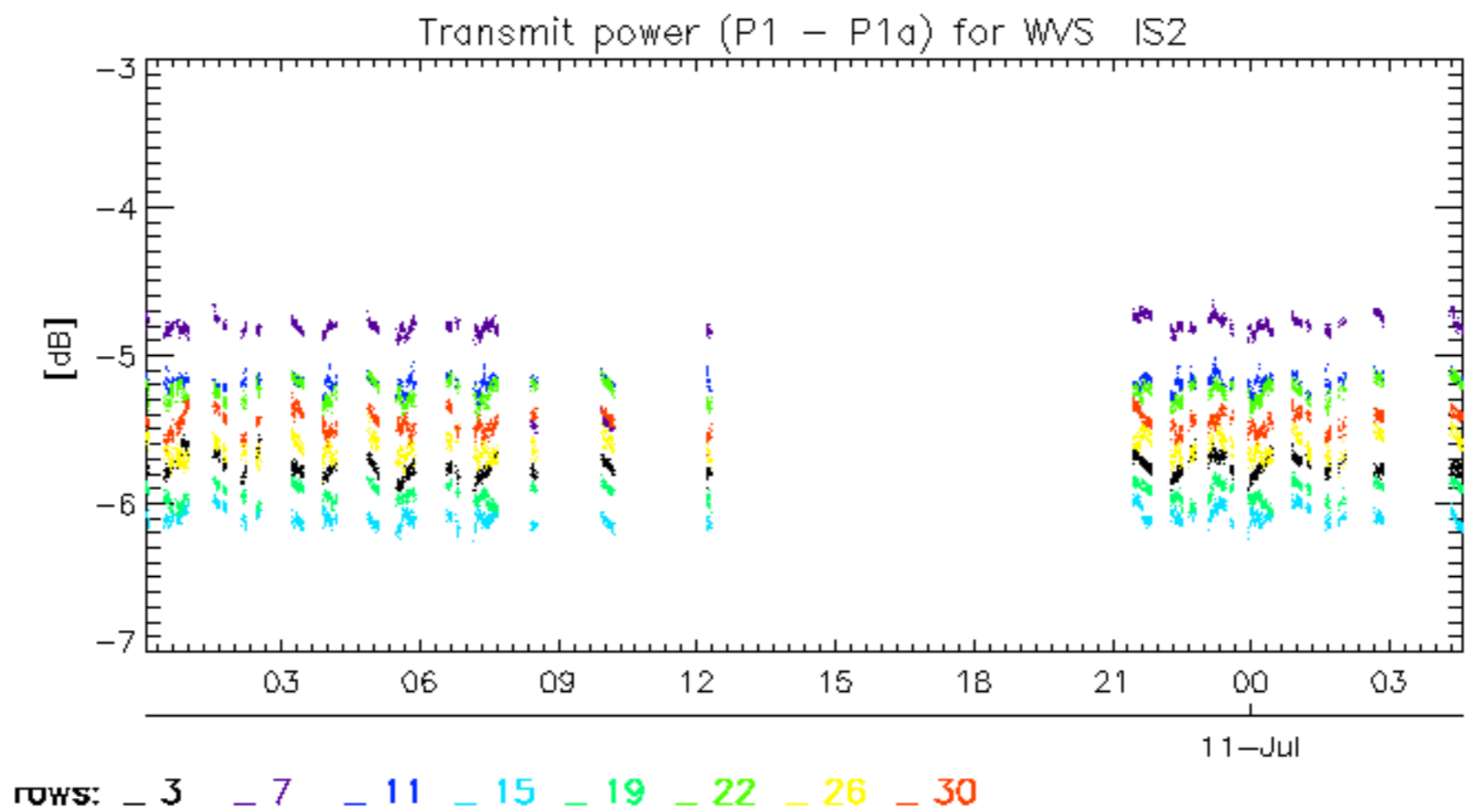
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



No unavailabilities during the reported period.