

PRELIMINARY REPORT OF 060728

last update on Fri Jul 28 16:30:58 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 2006-07-27 00:00:00 to 2006-07-28 16:30:58

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	64	17	7	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	64	17	7	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	64	17	7	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	64	17	7	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	55	45	24	35
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	55	45	24	35
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	55	45	24	35
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	55	45	24	35

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	20060727 100811
H	20060726 071837

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	-3.935027	0.011712	-0.028633
7	P1	-3.099809	0.010181	0.013488
11	P1	-4.084940	0.013603	0.007911
15	P1	-6.173687	0.011517	-0.008680
19	P1	-3.402031	0.009916	-0.050694
22	P1	-4.549460	0.010207	-0.028841
26	P1	-3.927929	0.020123	0.032556
30	P1	-5.762540	0.009467	-0.002312
3	P1	-16.521046	0.310198	-0.087696
7	P1	-17.190992	0.101645	-0.012310
11	P1	-16.983274	0.278164	-0.014113
15	P1	-13.106025	0.149006	0.053172
19	P1	-14.459107	0.053870	-0.129749
22	P1	-16.009609	0.428012	0.067955
26	P1	-15.120343	0.239597	0.092562
30	P1	-17.100925	0.346098	-0.037362

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.971437	0.087949	0.149156
7	P2	-21.913488	0.104954	0.081718
11	P2	-15.792451	0.121706	0.059293
15	P2	-7.128345	0.100440	0.028945
19	P2	-9.132589	0.091491	0.015503
22	P2	-18.148554	0.086288	0.008250
26	P2	-16.399225	0.093090	-0.012190
30	P2	-19.520903	0.092955	0.041951

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.174604	0.003005	0.003511
7	P3	-8.174604	0.003005	0.003511
11	P3	-8.174604	0.003005	0.003511
15	P3	-8.174604	0.003005	0.003511
19	P3	-8.174604	0.003005	0.003511
22	P3	-8.174604	0.003005	0.003511
26	P3	-8.174604	0.003005	0.003511
30	P3	-8.174604	0.003005	0.003511

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	-3.809199	0.023837	-0.082276
7	P1	-2.559476	0.007981	0.019242
11	P1	-2.858367	0.014424	0.009947
15	P1	-3.571567	0.029207	-0.045809
19	P1	-3.421870	0.025871	-0.031137
22	P1	-5.090030	0.020039	0.013129
26	P1	-5.858689	0.015913	-0.004779
30	P1	-5.194554	0.033950	-0.015359
3	P1	-11.594551	0.081190	-0.100569
7	P1	-9.968227	0.034367	0.030574
11	P1	-10.249754	0.056545	-0.009037
15	P1	-10.758445	0.144448	-0.026462
19	P1	-15.553290	0.548895	-0.145677
22	P1	-20.907892	1.243060	0.035213

26	P1	-16.287397	0.384597	0.239522
30	P1	-17.923485	0.414093	-0.193329

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.612673	0.071576	0.209259
7	P2	-22.390211	0.126015	0.158175
11	P2	-11.045386	0.042030	0.091715
15	P2	-4.908857	0.045678	0.046085
19	P2	-6.872465	0.041362	0.033472
22	P2	-8.194244	0.036740	0.029263
26	P2	-24.181980	0.061987	0.028259
30	P2	-22.011091	0.049375	0.055959

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013574	0.003743	0.011147
7	P3	-8.013554	0.003745	0.011533
11	P3	-8.013398	0.003757	0.011132
15	P3	-8.013495	0.003751	0.011280
19	P3	-8.013520	0.003746	0.011392
22	P3	-8.013596	0.003734	0.010984
26	P3	-8.013530	0.003742	0.011110
30	P3	-8.013536	0.003742	0.011308

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	0.000563856
	stdev	1.68555e-07
MEAN Q	mean	0.000538942
	stdev	2.14455e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137761
	stdev	0.00109789
STDEV Q	mean	0.138120
	stdev	0.00111578



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[678]

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_1PNPDE20060726_012209_000000622049_00418_23017_2072.N1	1	0
ASA_IMM_1PNPDE20060726_144003_000000822049_00426_23025_2069.N1	1	0
ASA_IMM_1PNPDE20060727_003438_000001152049_00431_23030_2088.N1	1	0
ASA_IMM_1PNPDE20060727_223929_000000352049_00445_23044_2153.N1	1	0
ASA_WSM_1PNPDE20060726_180100_000000852049_00428_23027_4568.N1	0	39

ASA_WSM_1PNPDE20060727_112619_000001282049_00438_23037_4683.N1	0	13
ASA_WSM_1PNPDE20060727_172658_000001032049_00442_23041_4706.N1	0	13



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

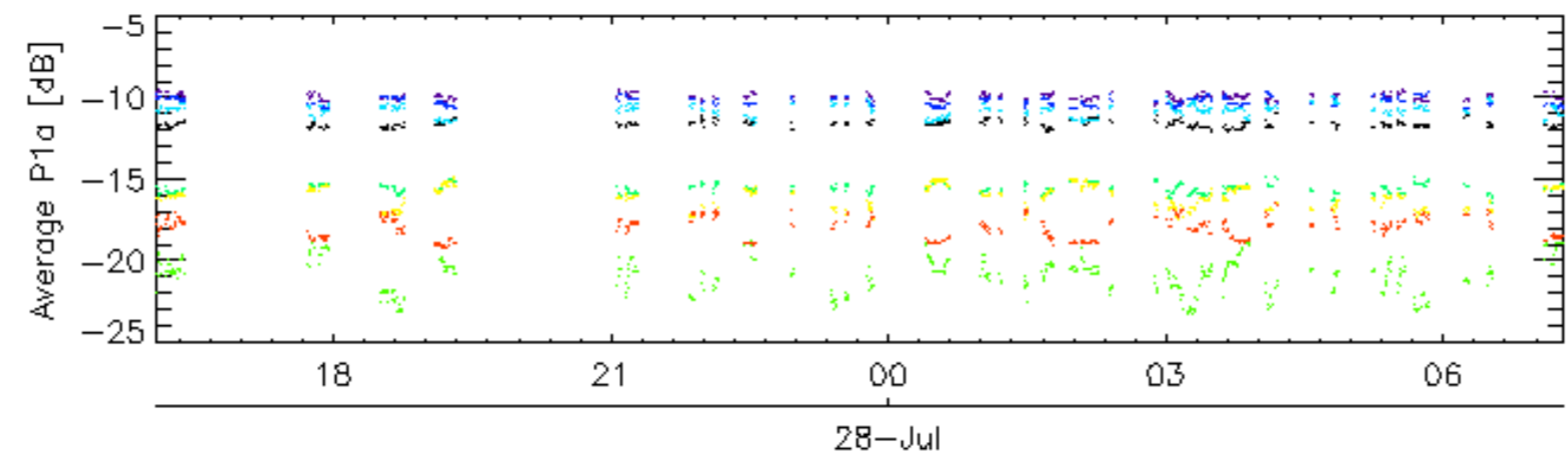
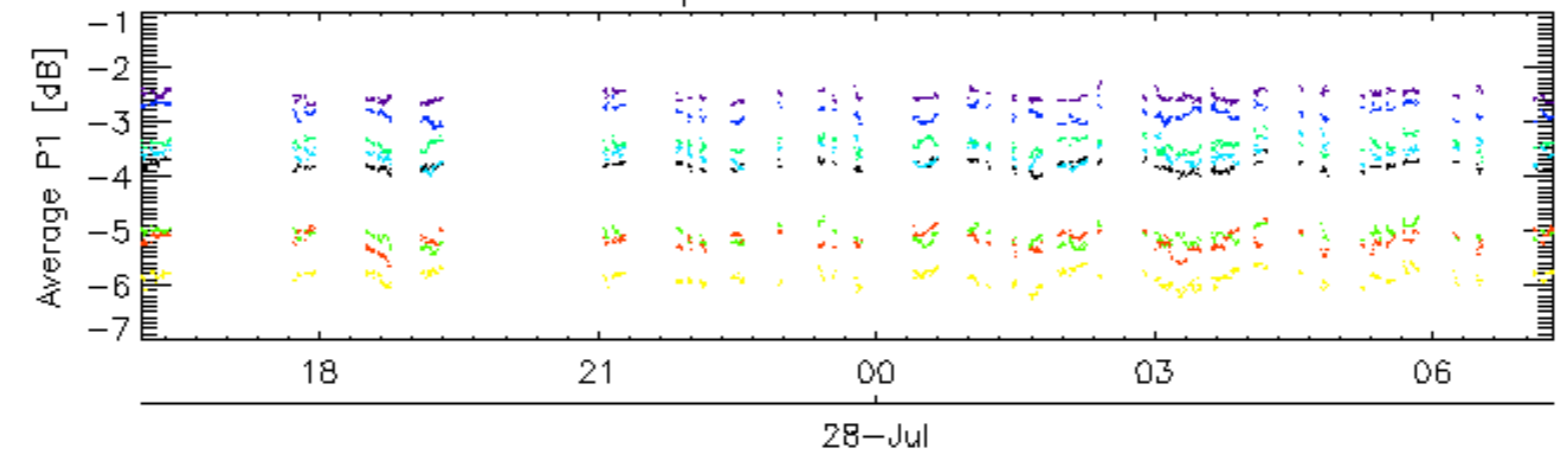
7.5 - Absolute Doppler for GM1

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

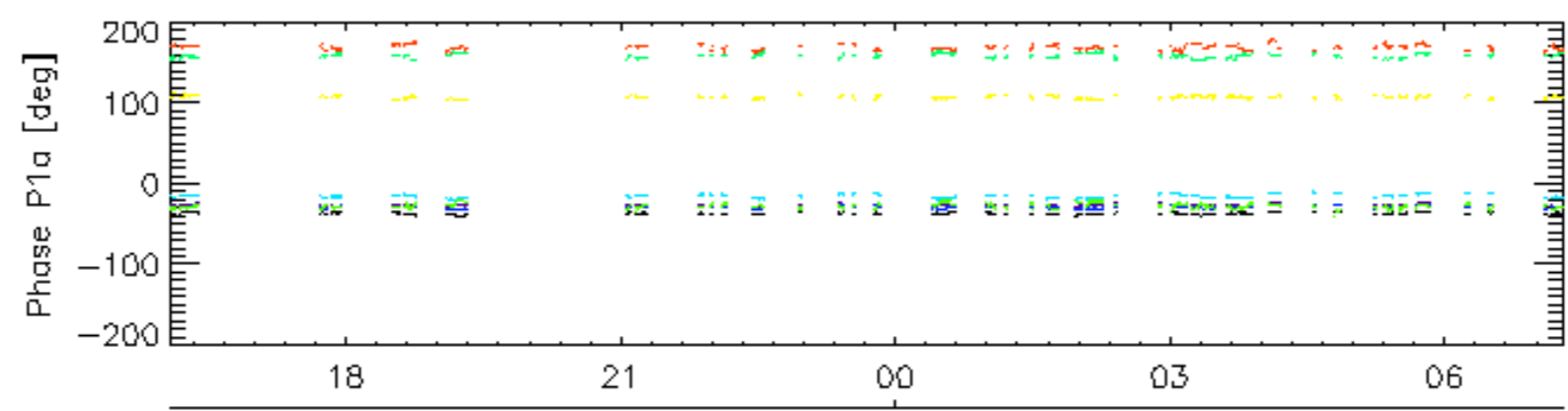
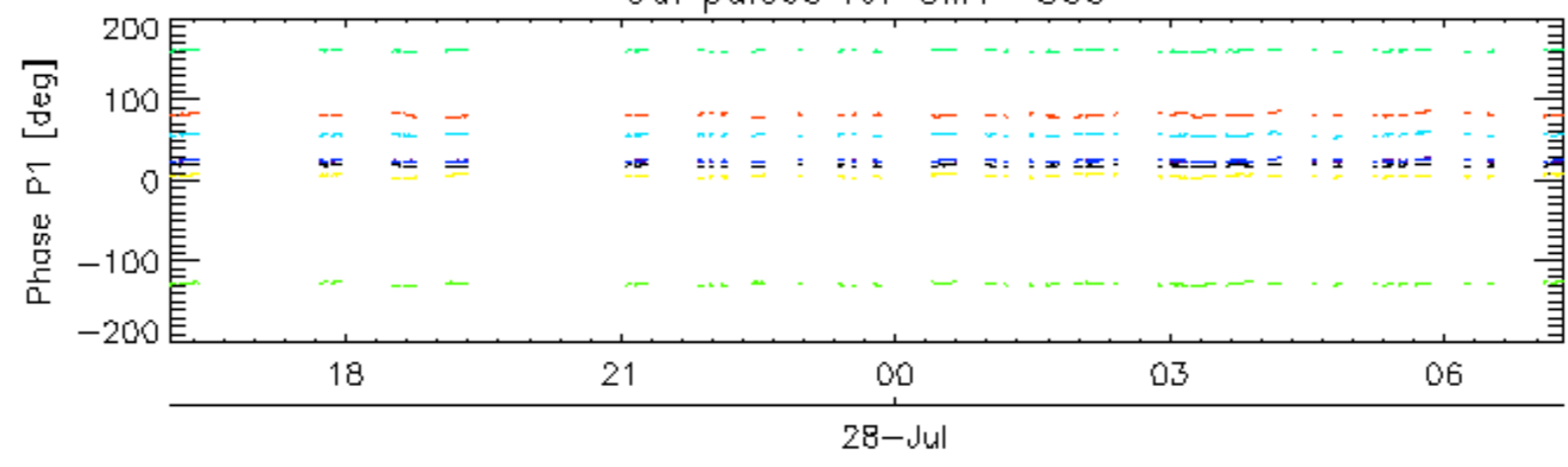
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

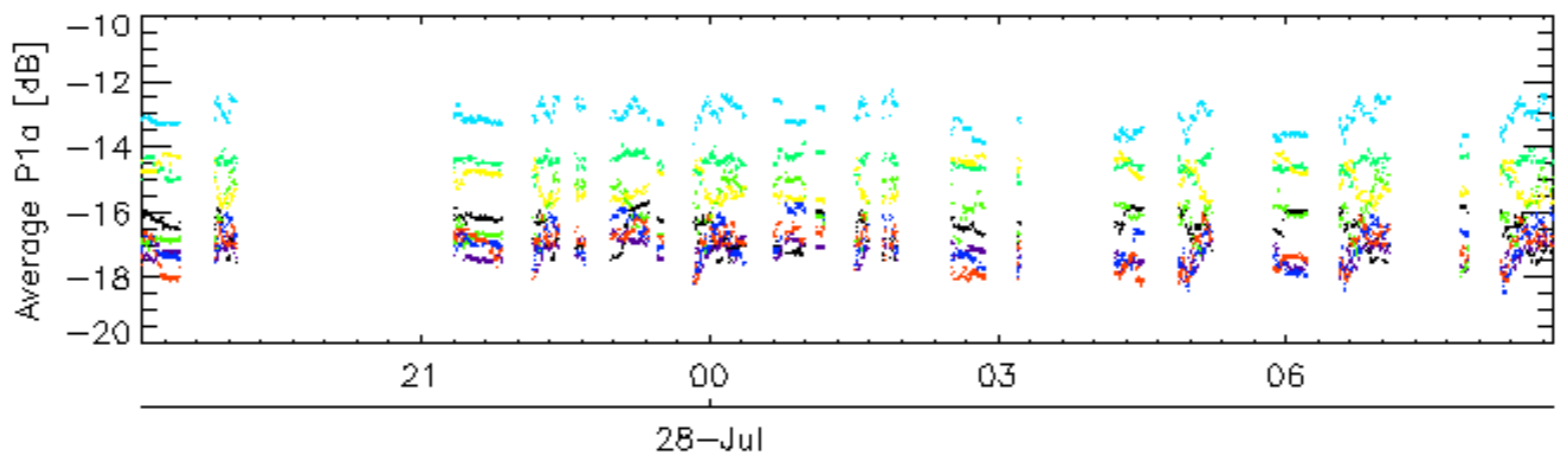
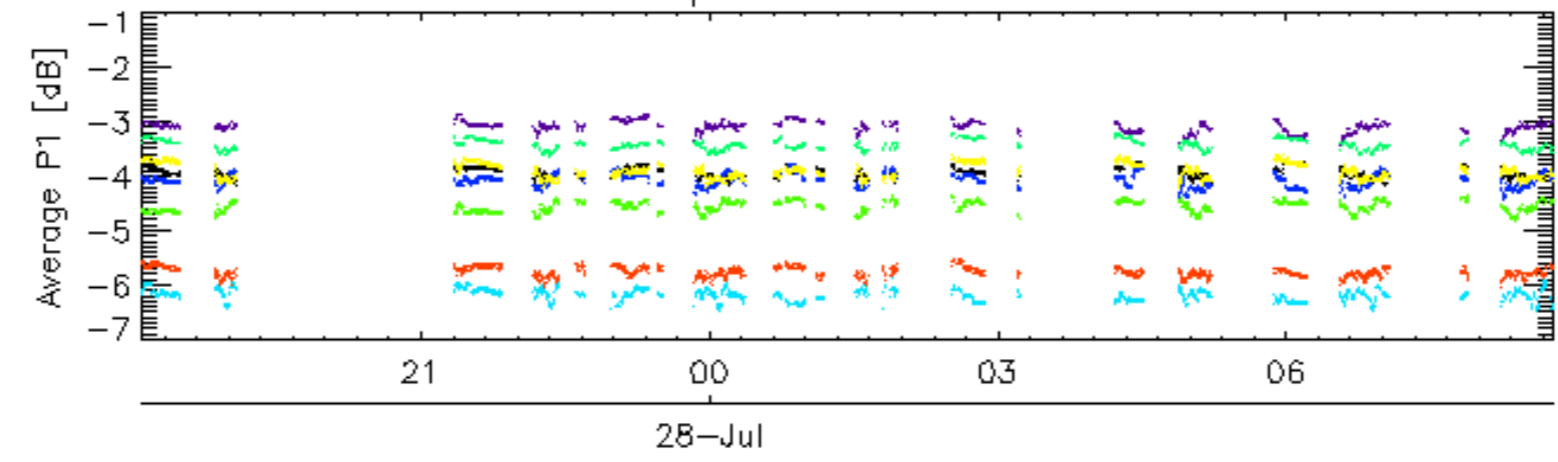


Cal pulses for GM1 SS3

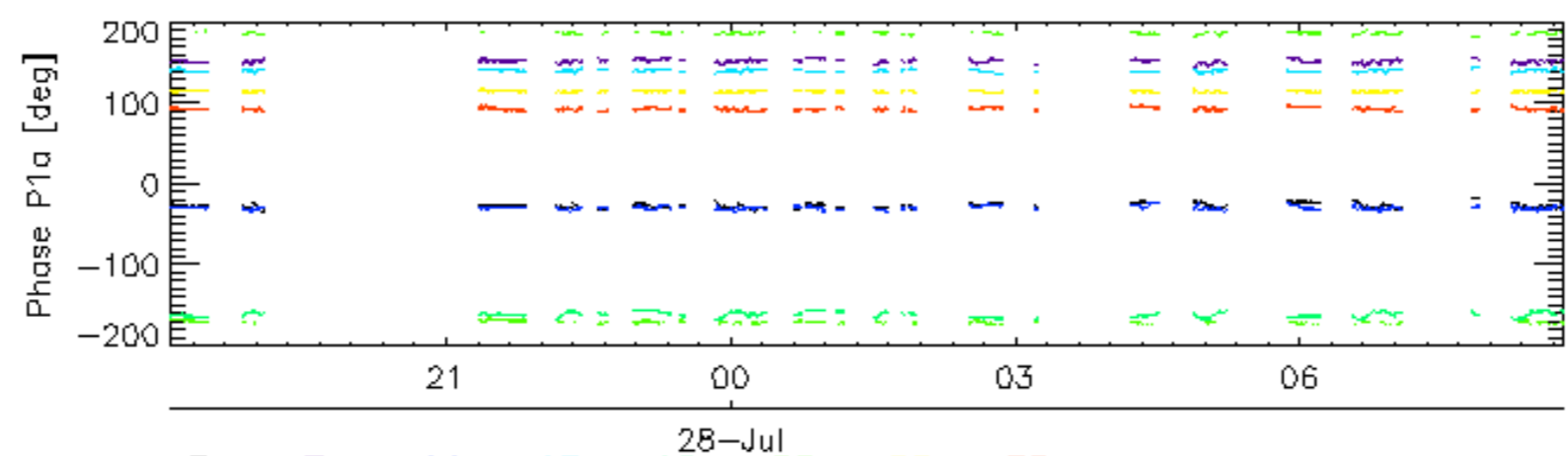
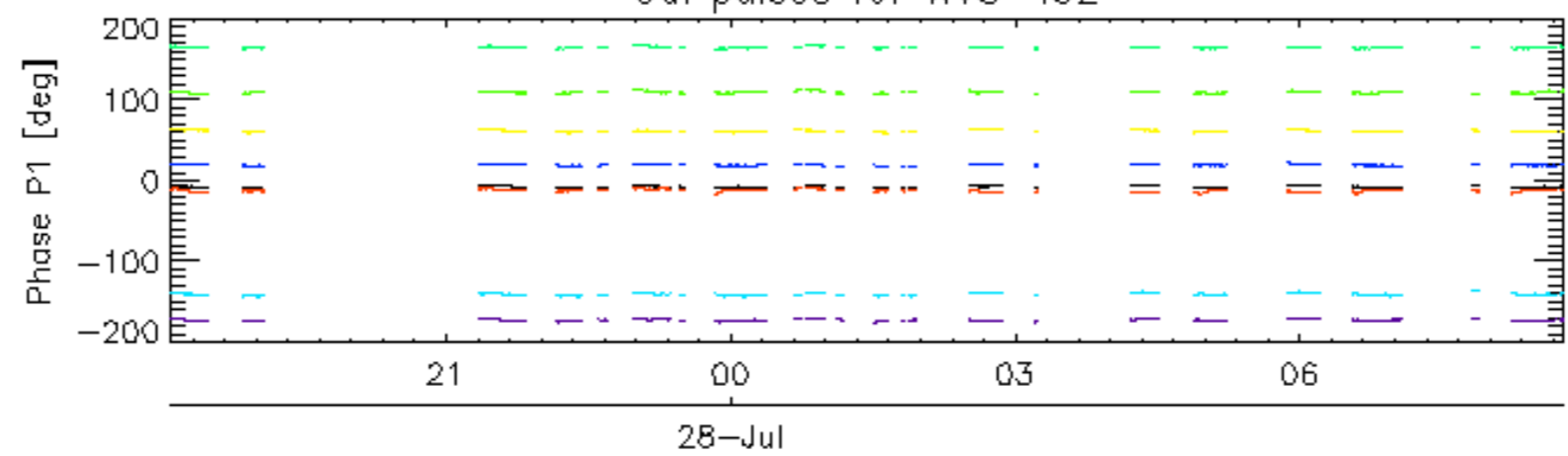


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

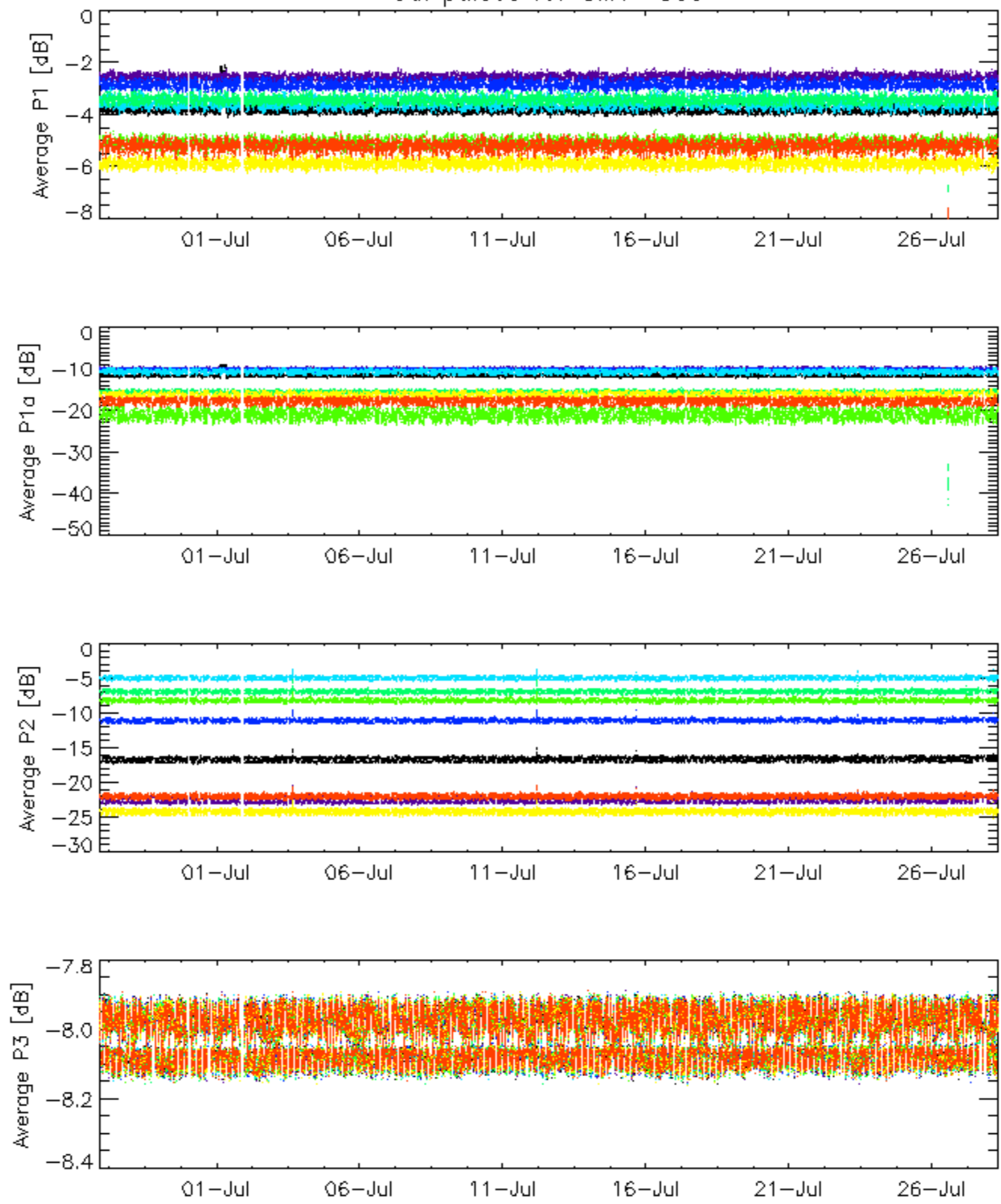


Cal pulses for WVS IS2



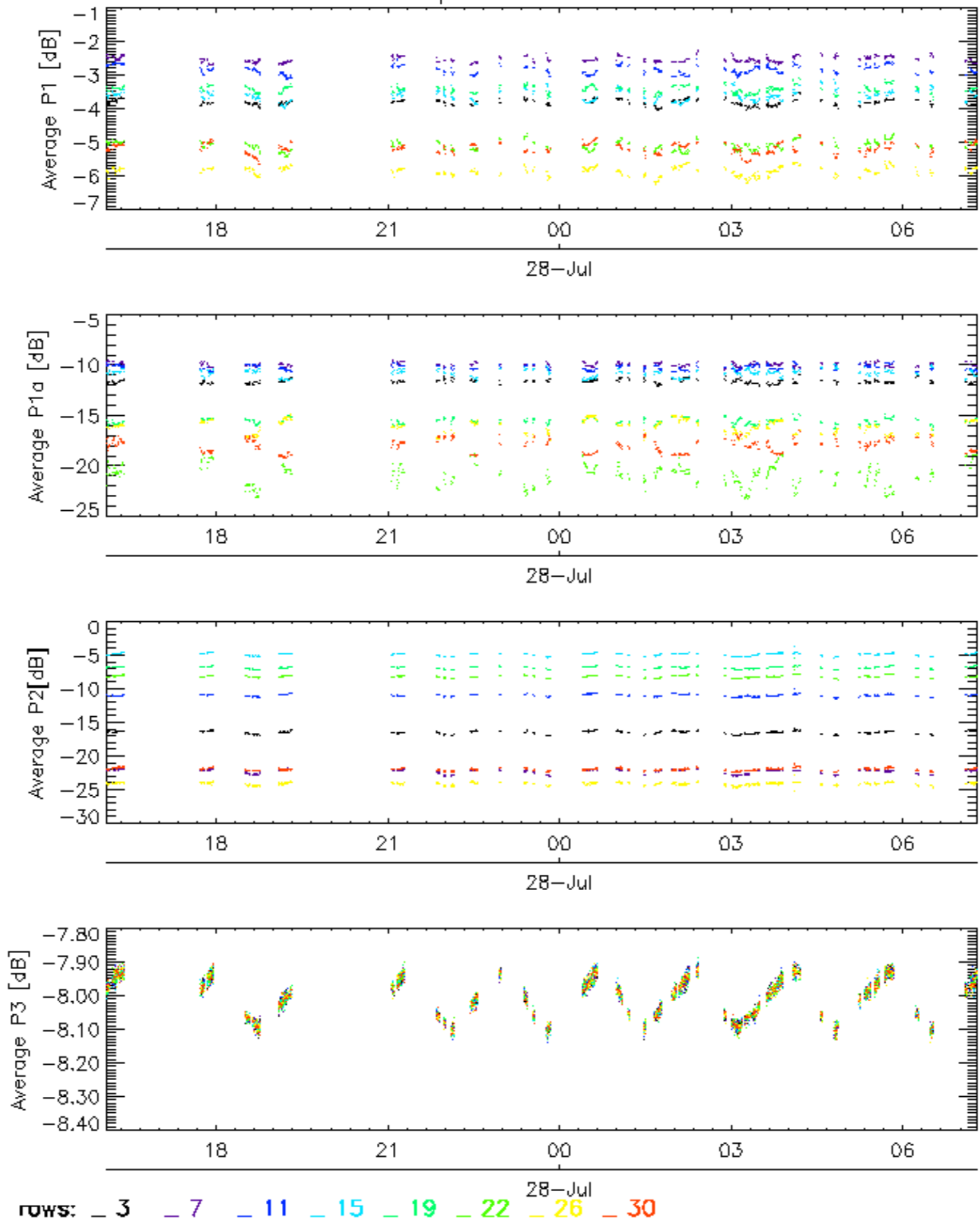
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

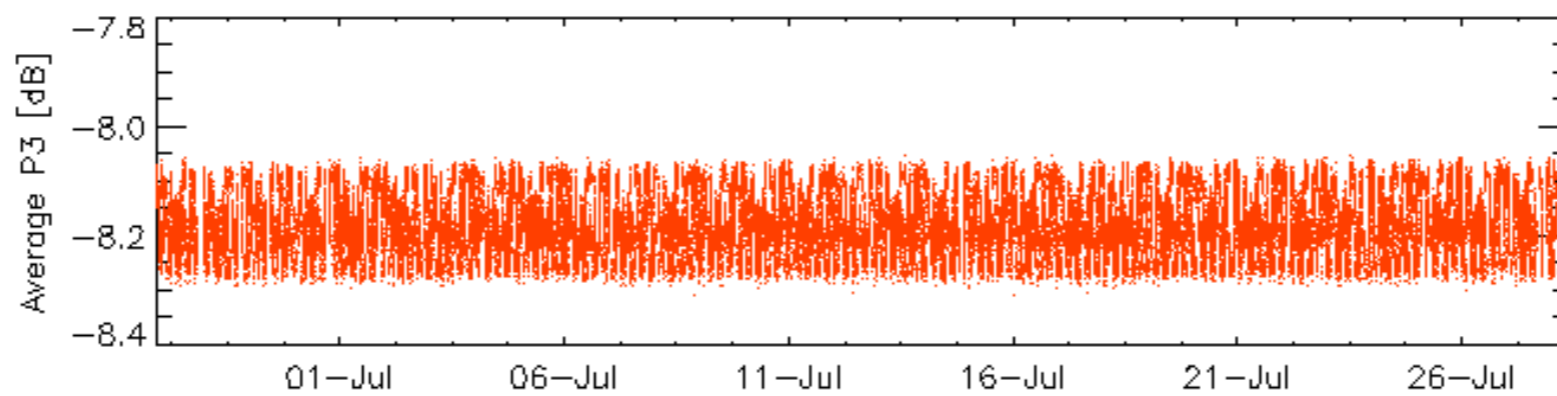
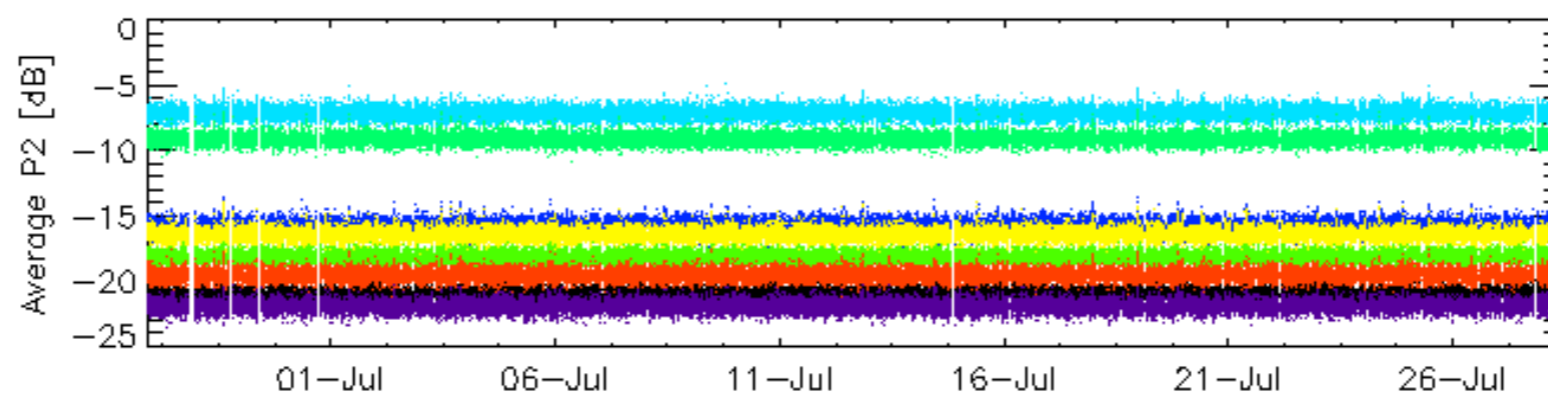
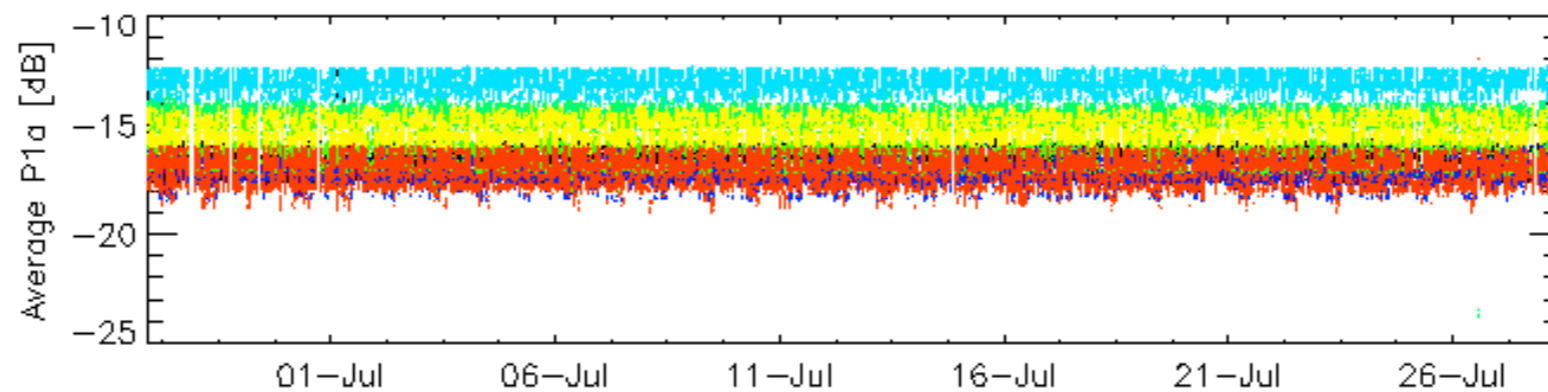
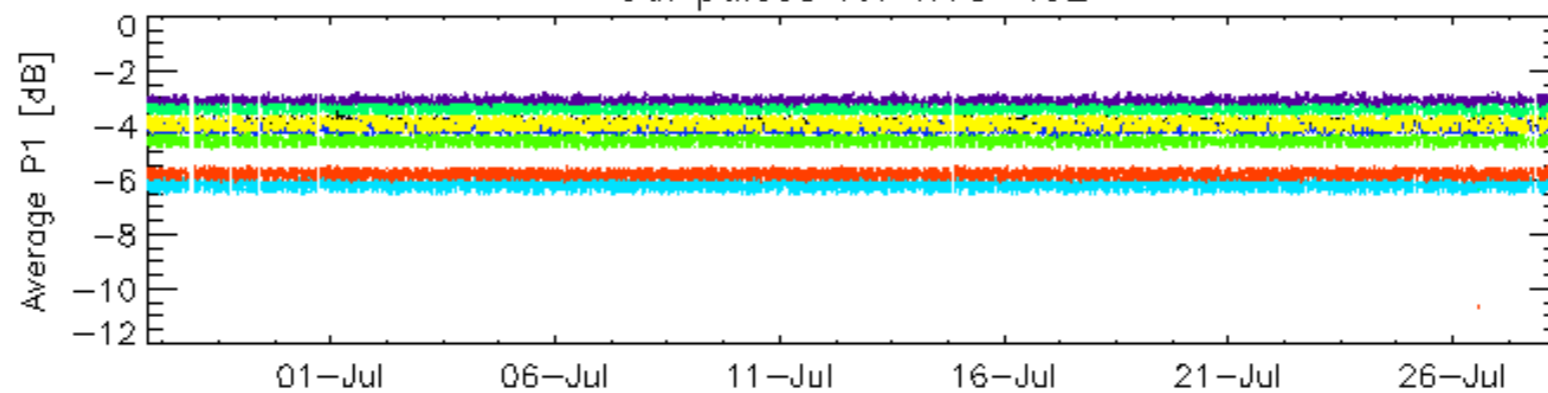


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

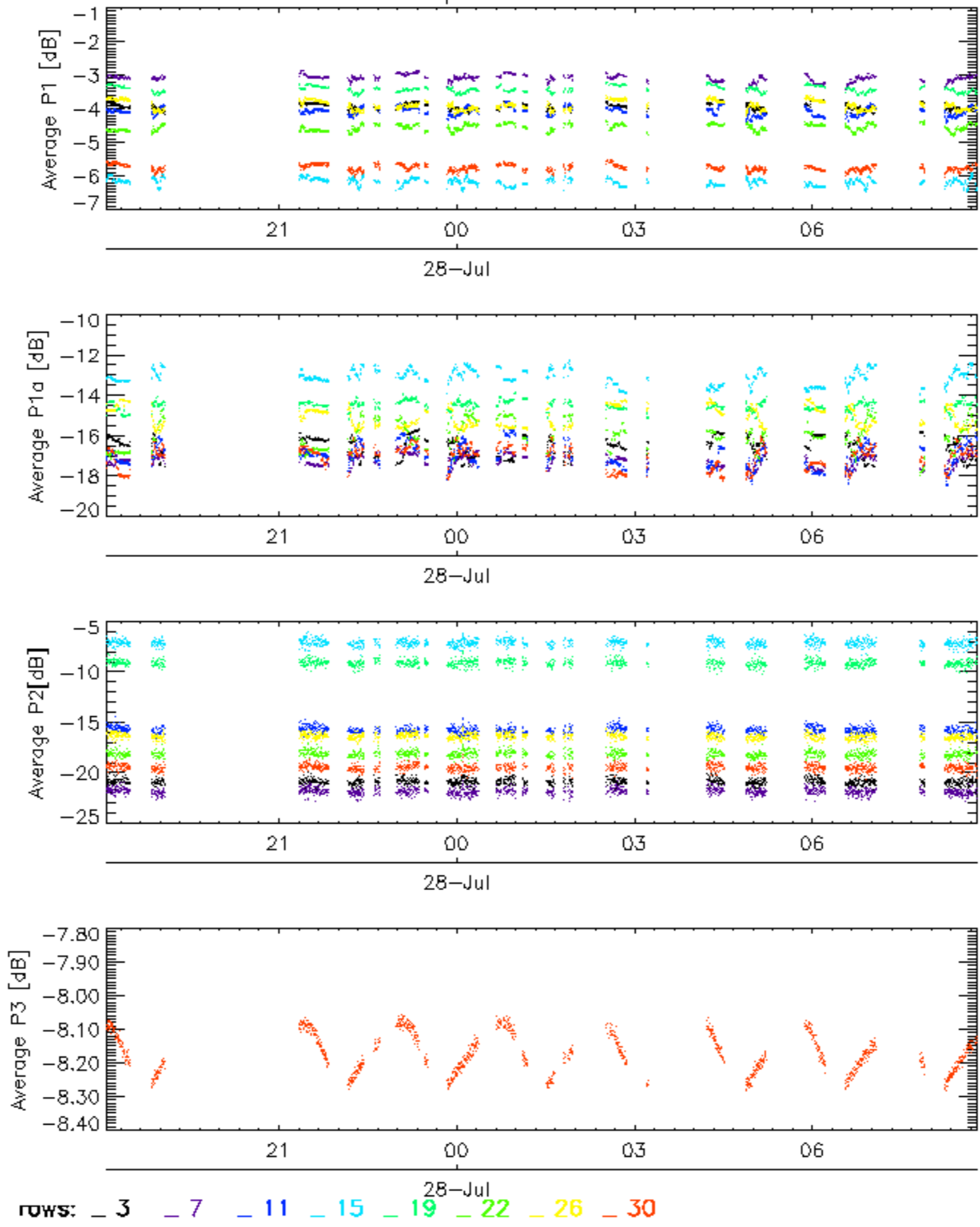


Cal pulses for WVS IS2



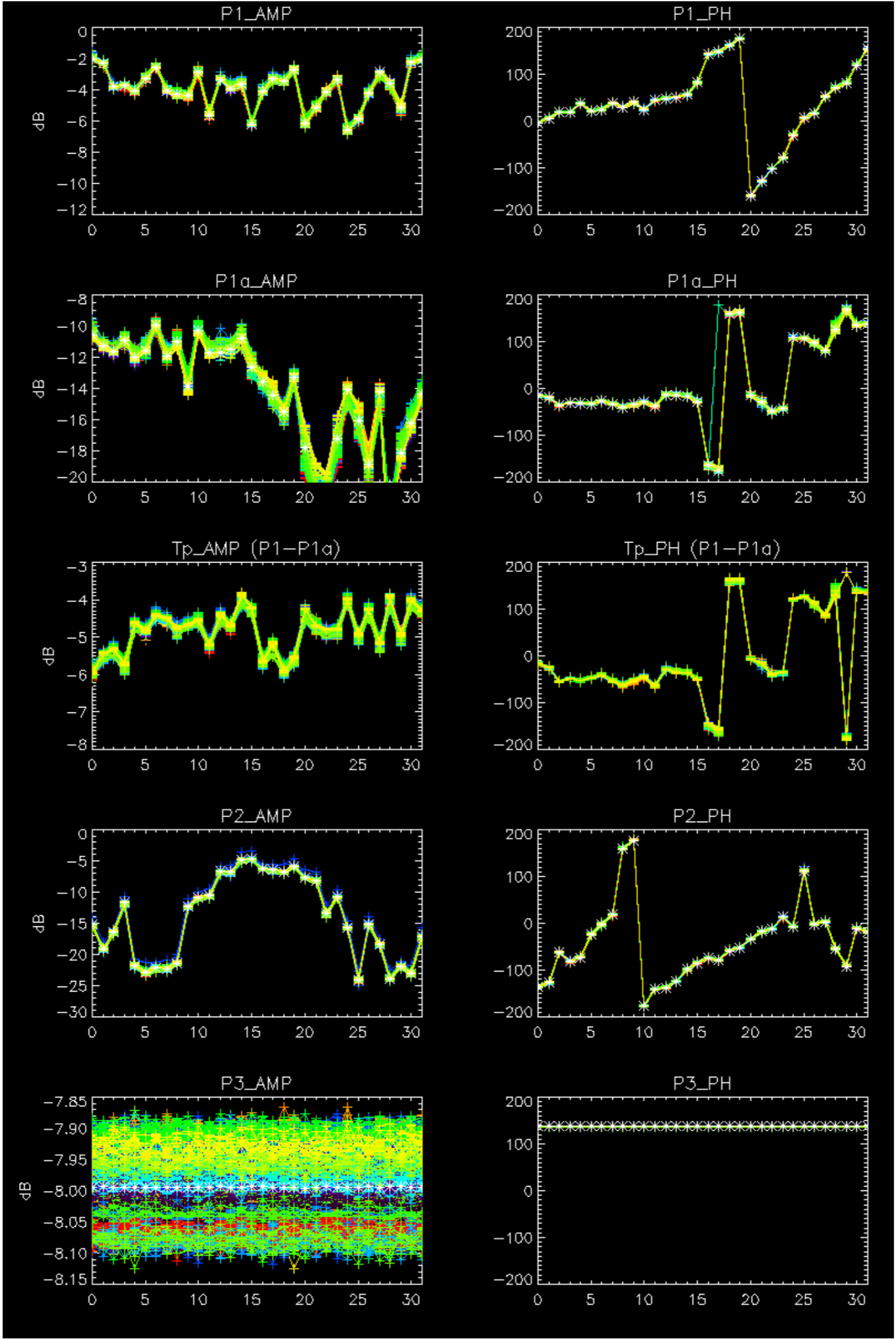
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

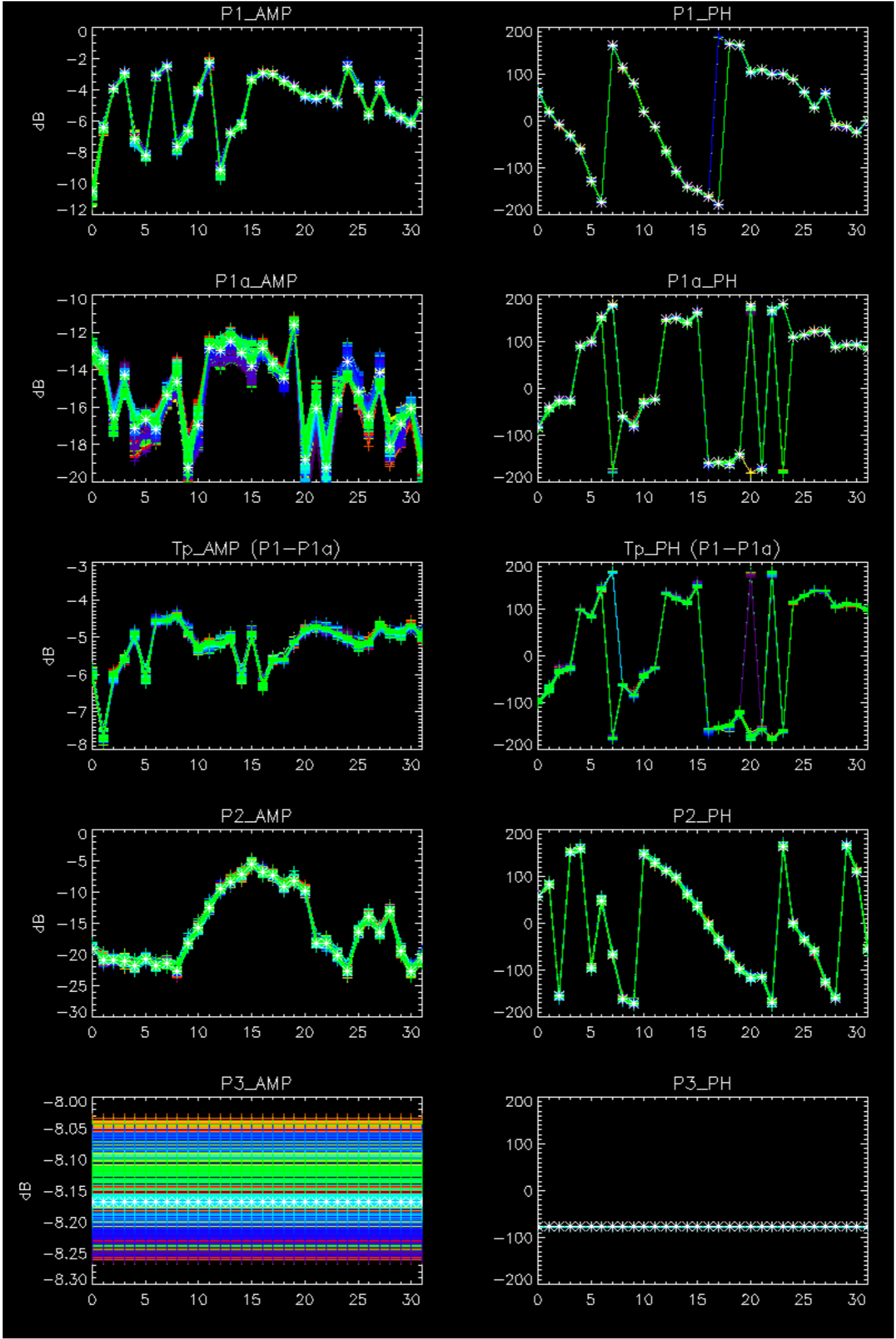
Cal pulses for WVS IS2



No anomalies observed on available browse products

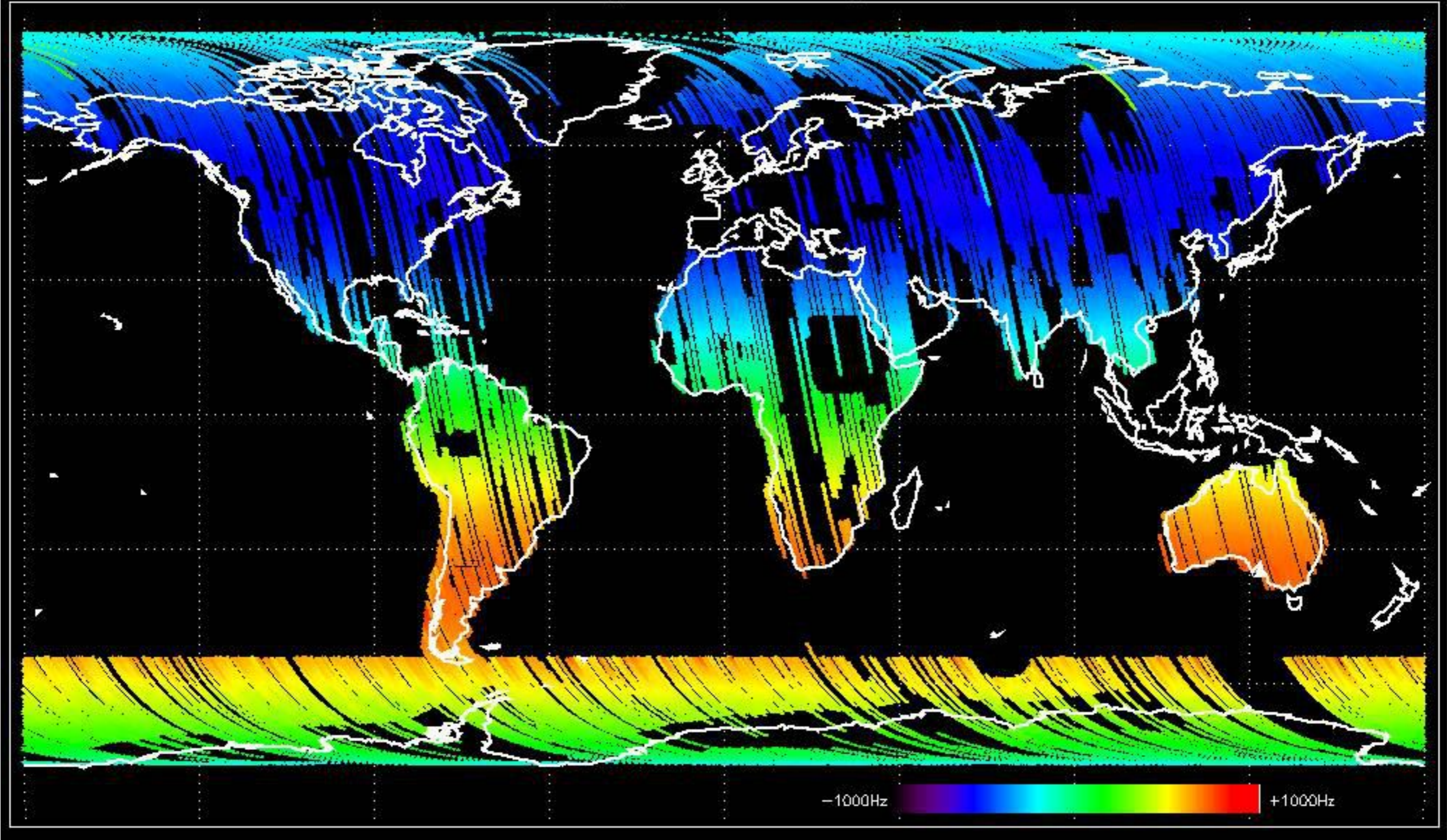
No anomalies observed.



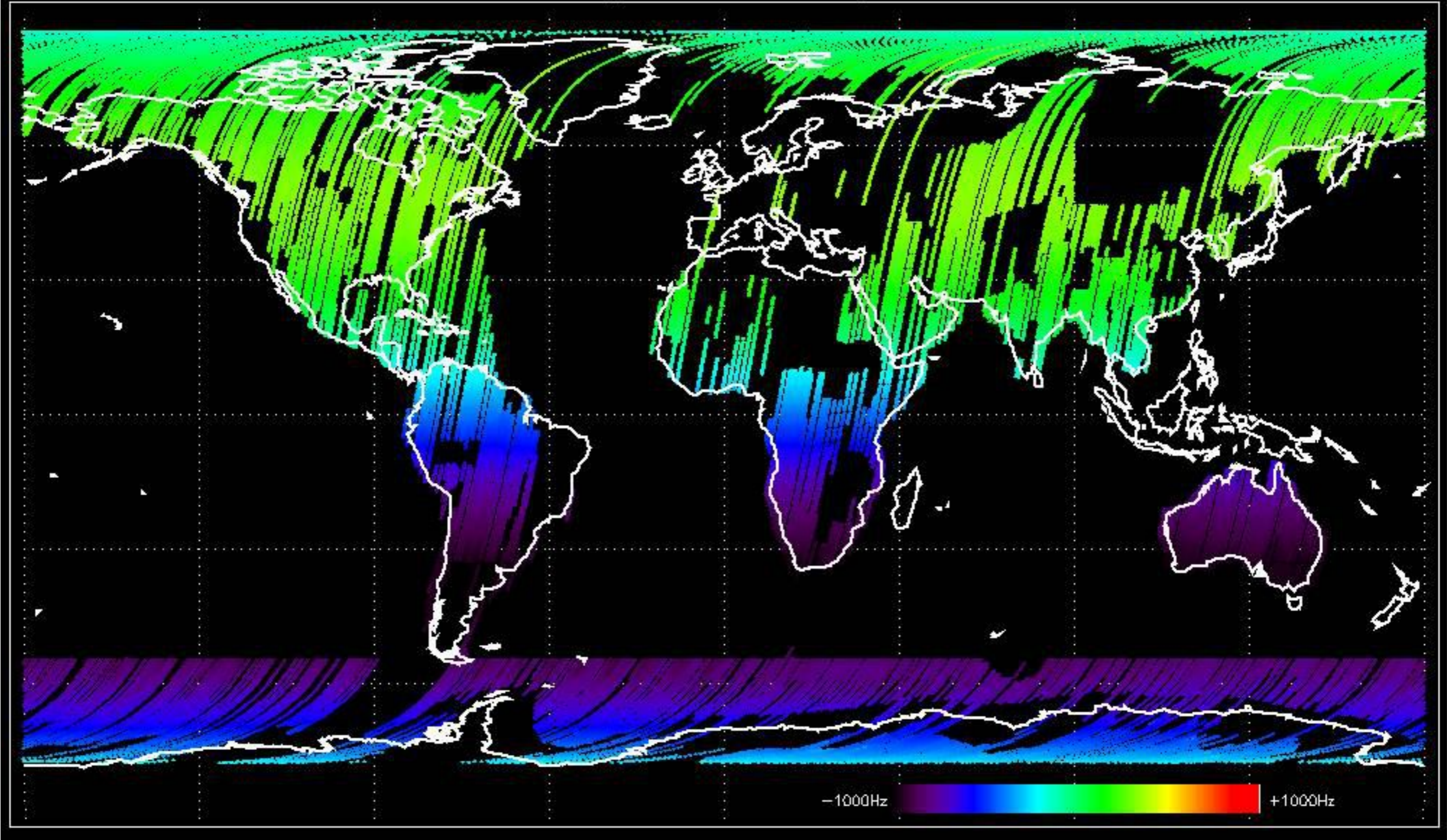


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

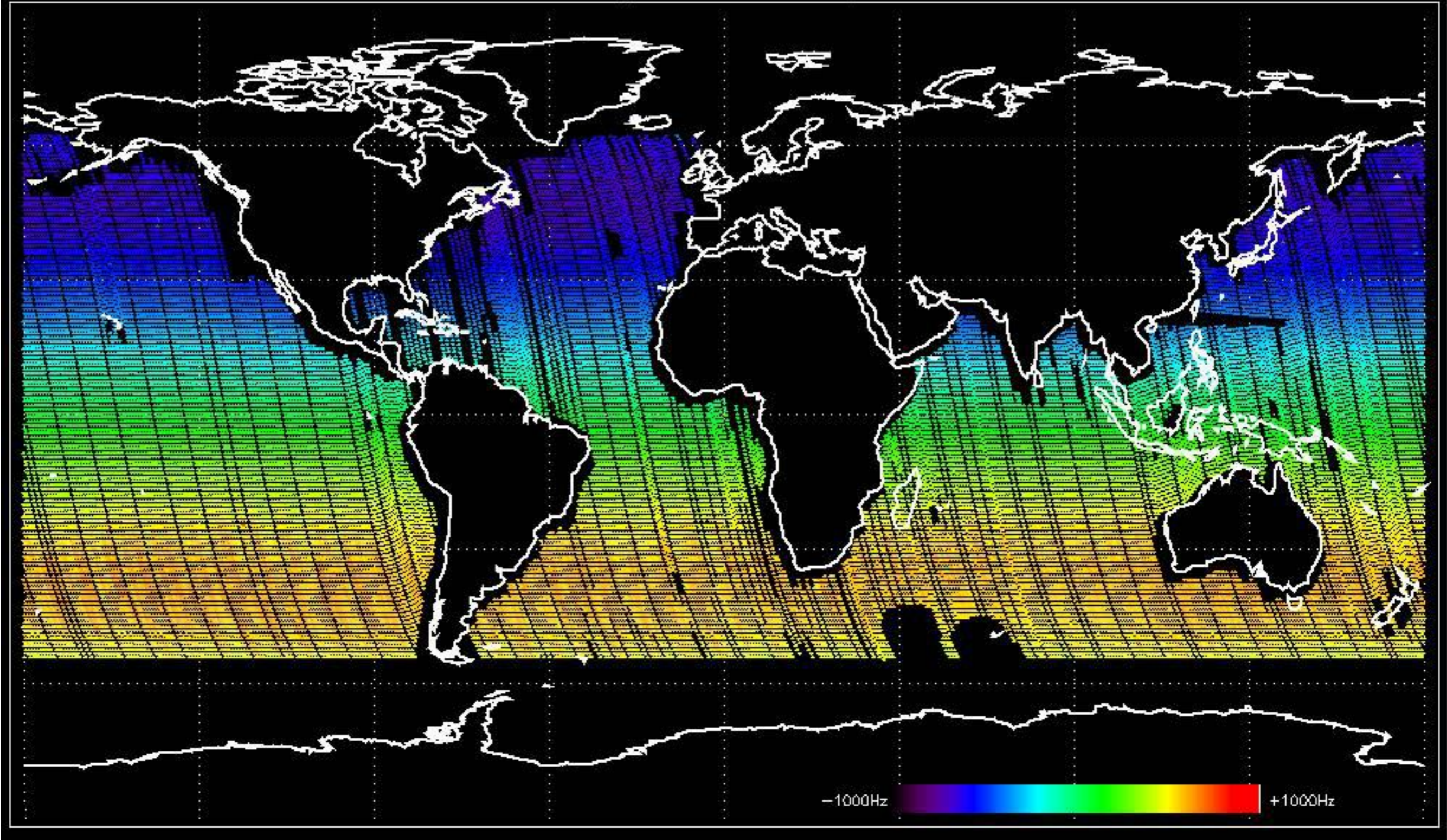
Doppler 'GM1' 'SS1' ascending



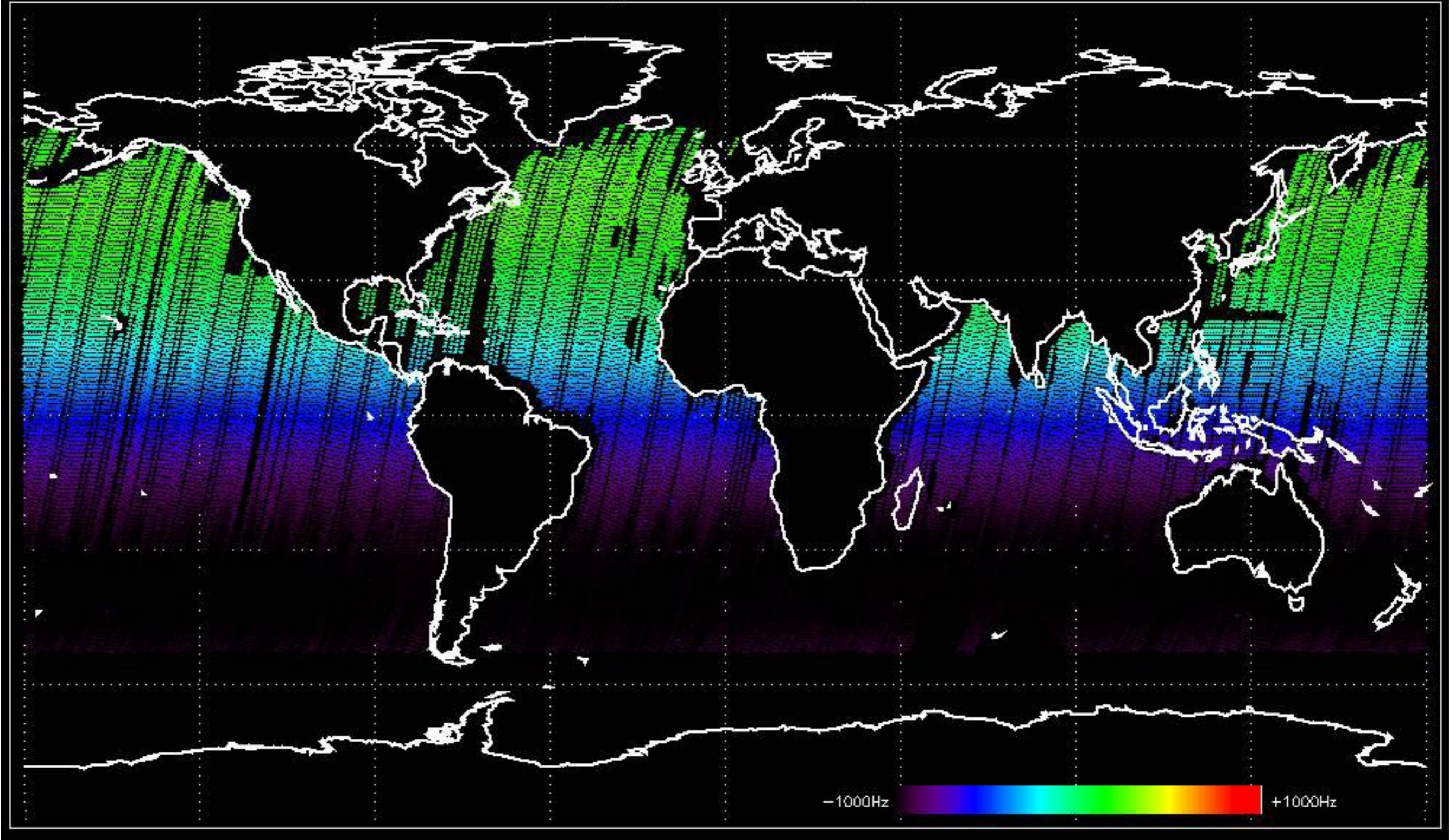
Doppler 'GM1' 'SS1' descending



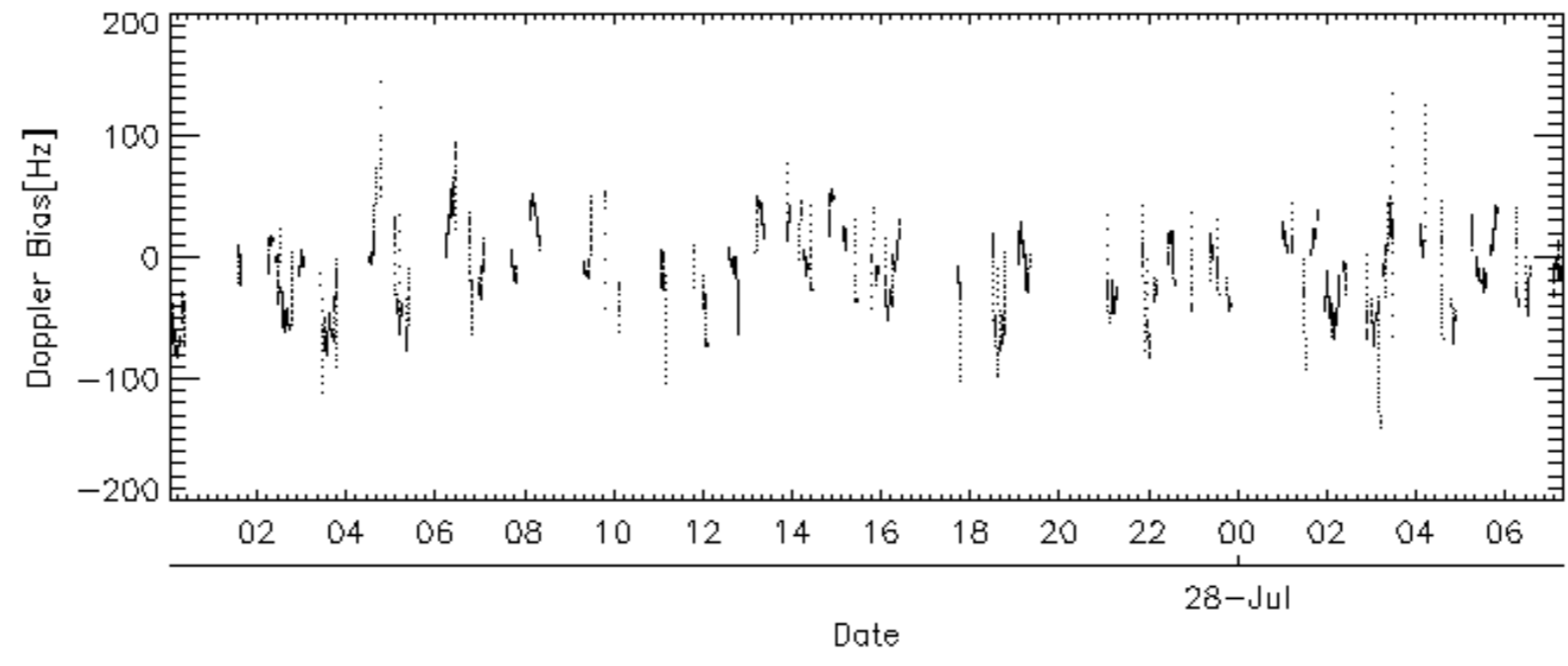
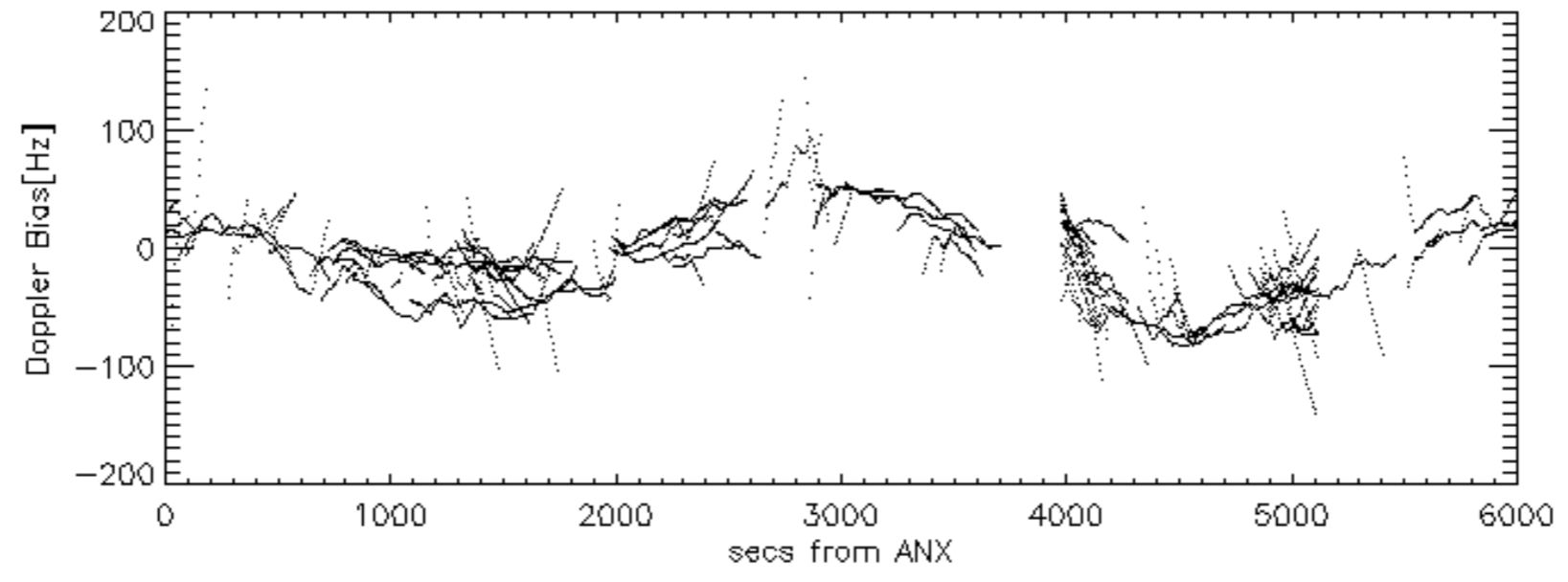
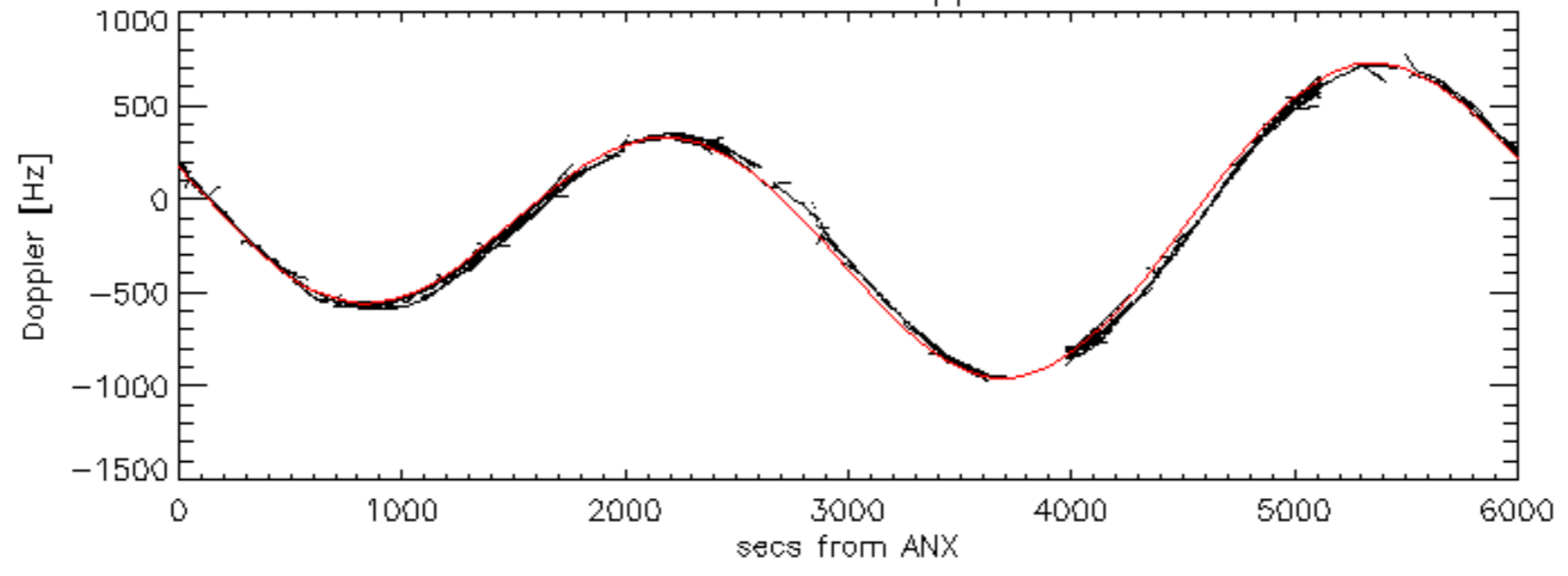
Doppler 'WVS' 'IS2' ascending

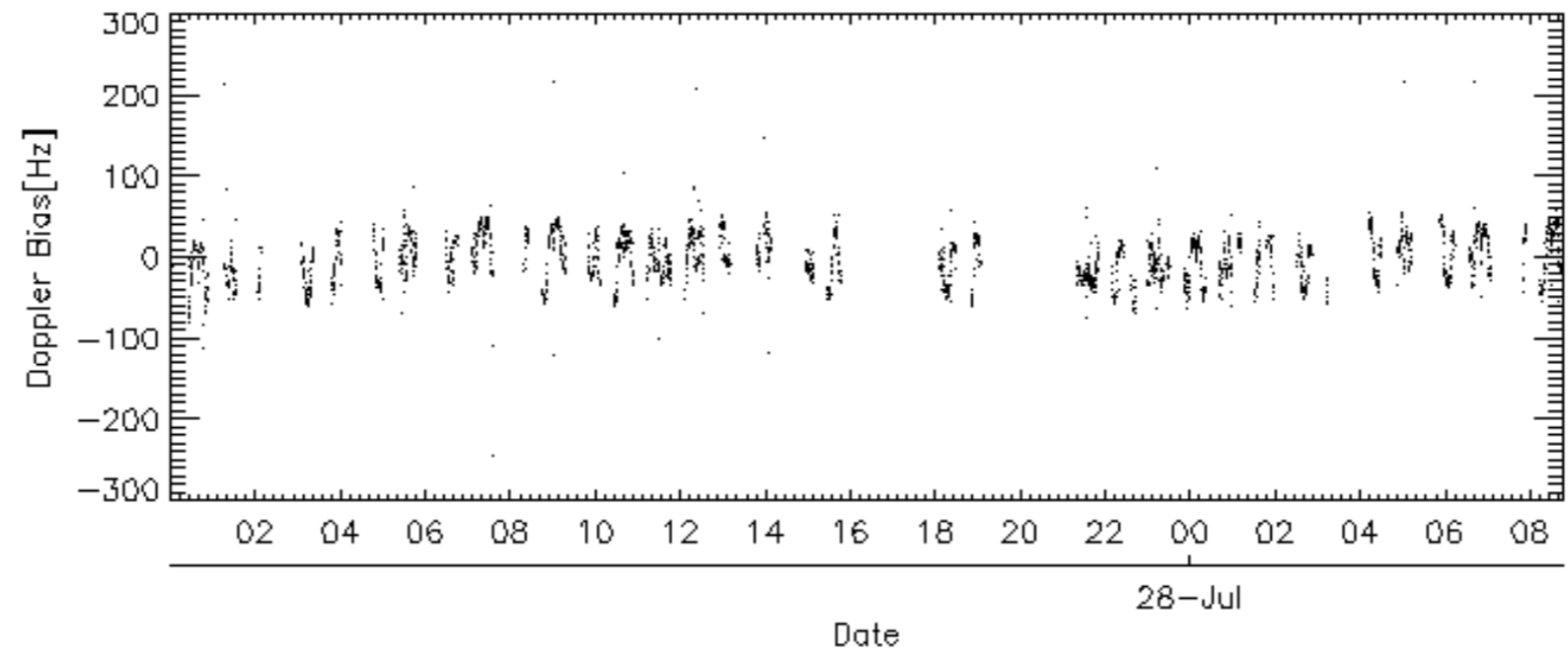
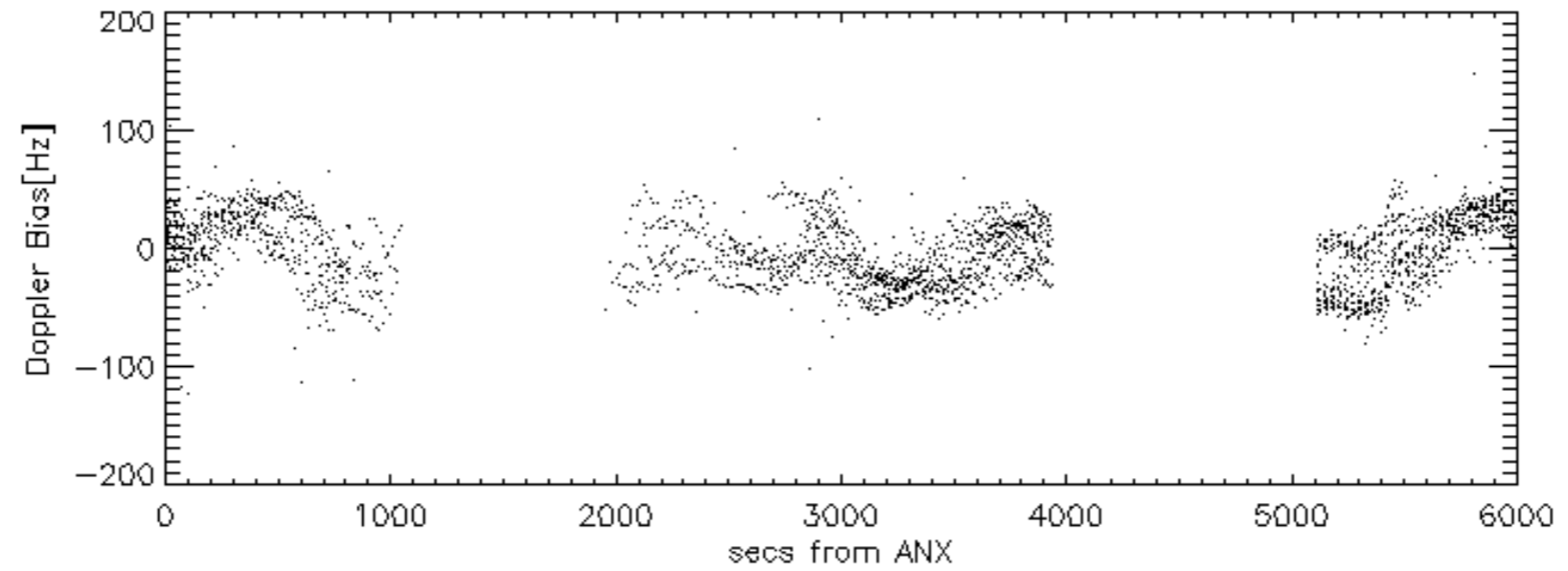
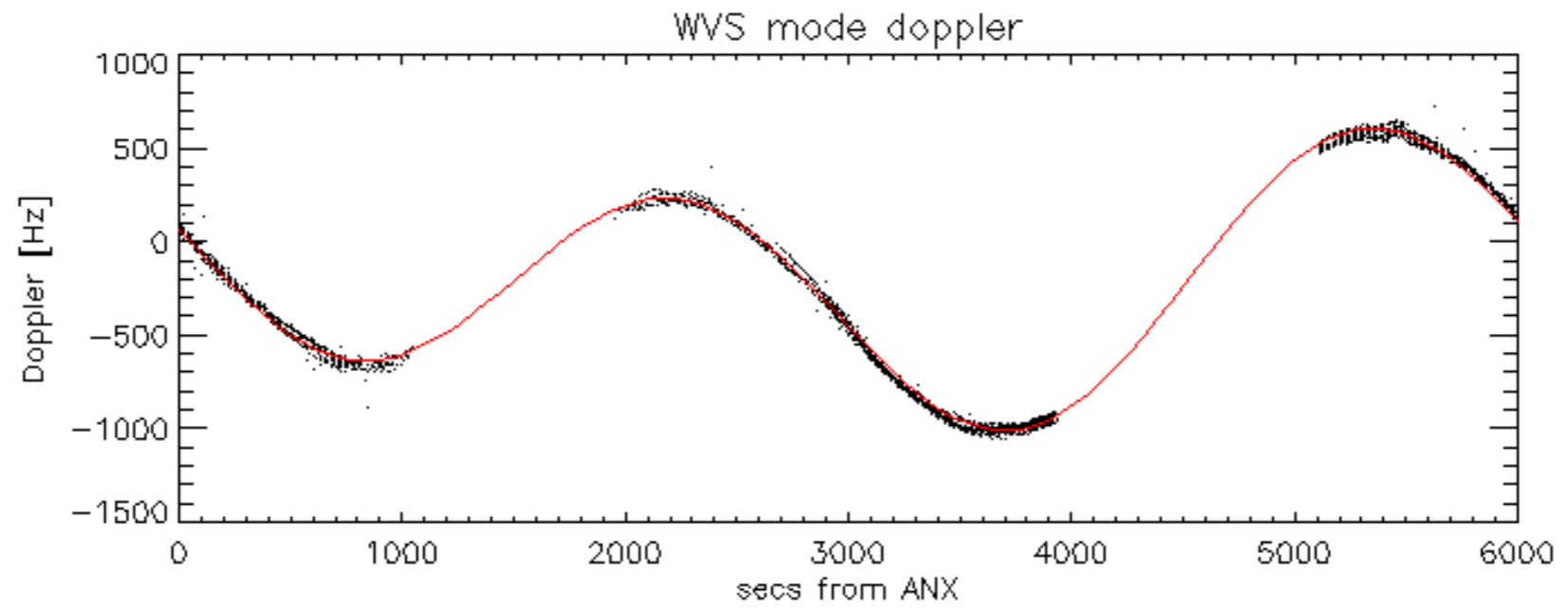


Doppler 'WVS' 'IS2' descending

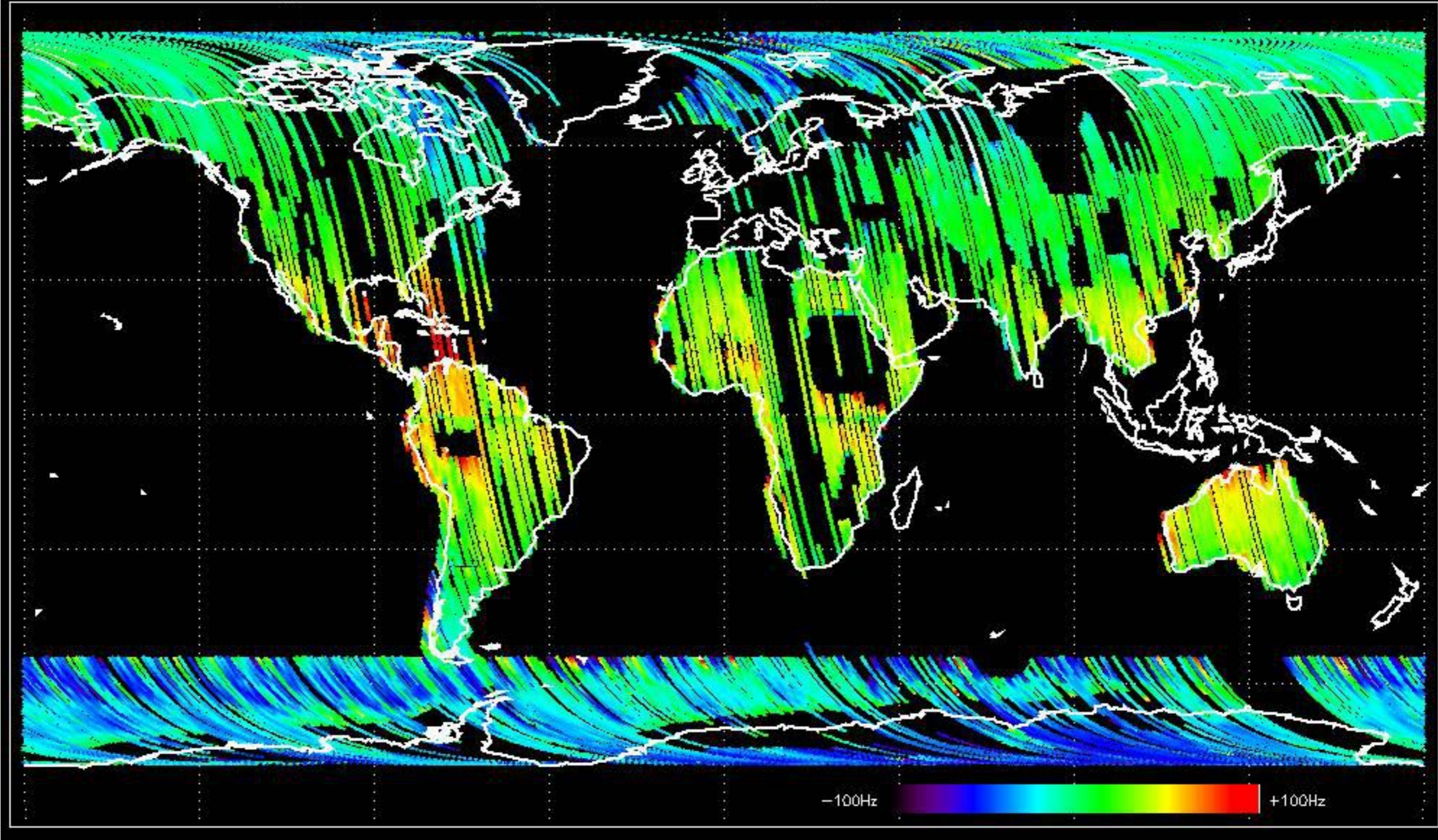


GM1 mode doppler

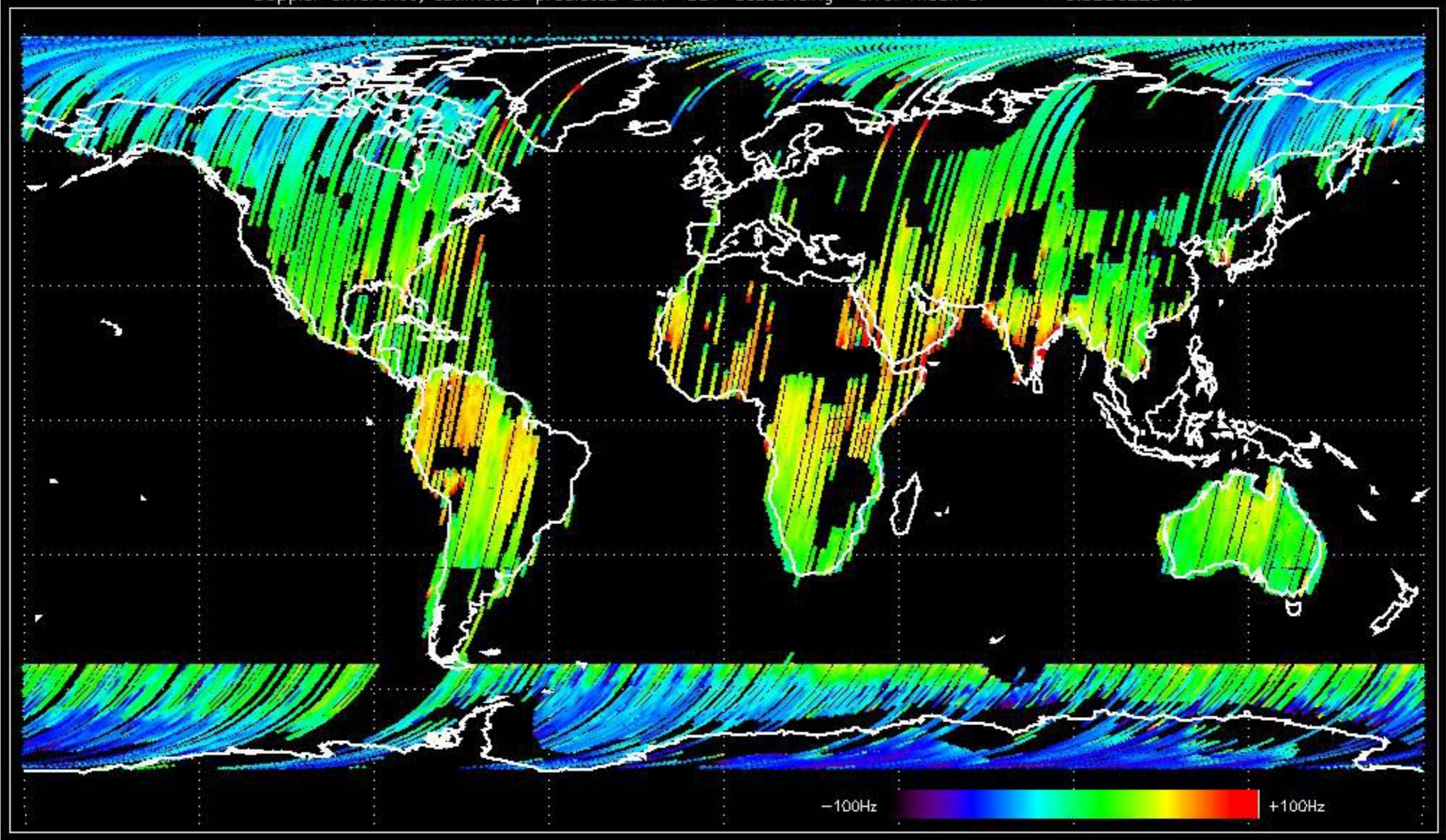




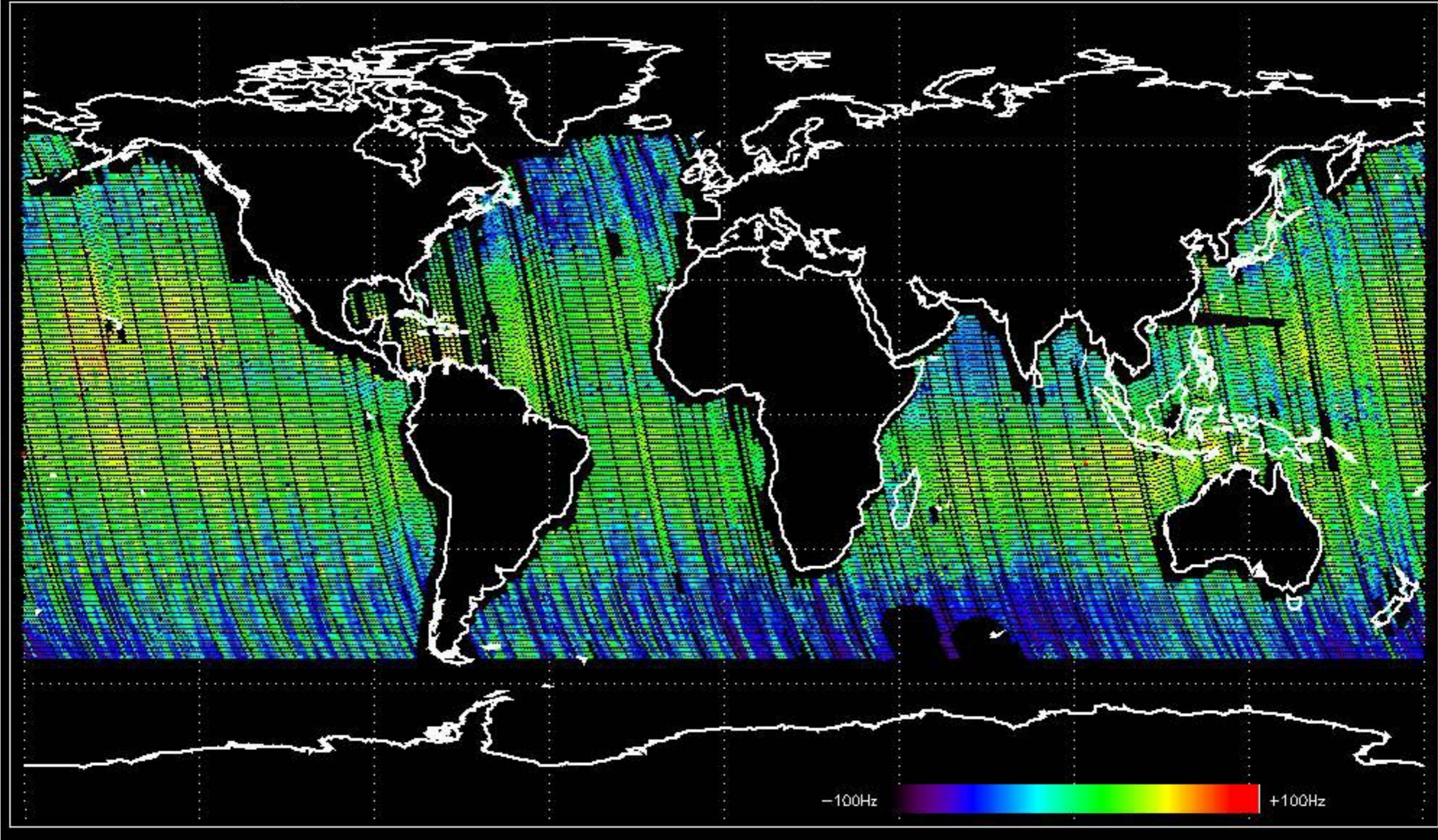
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.989625 Hz



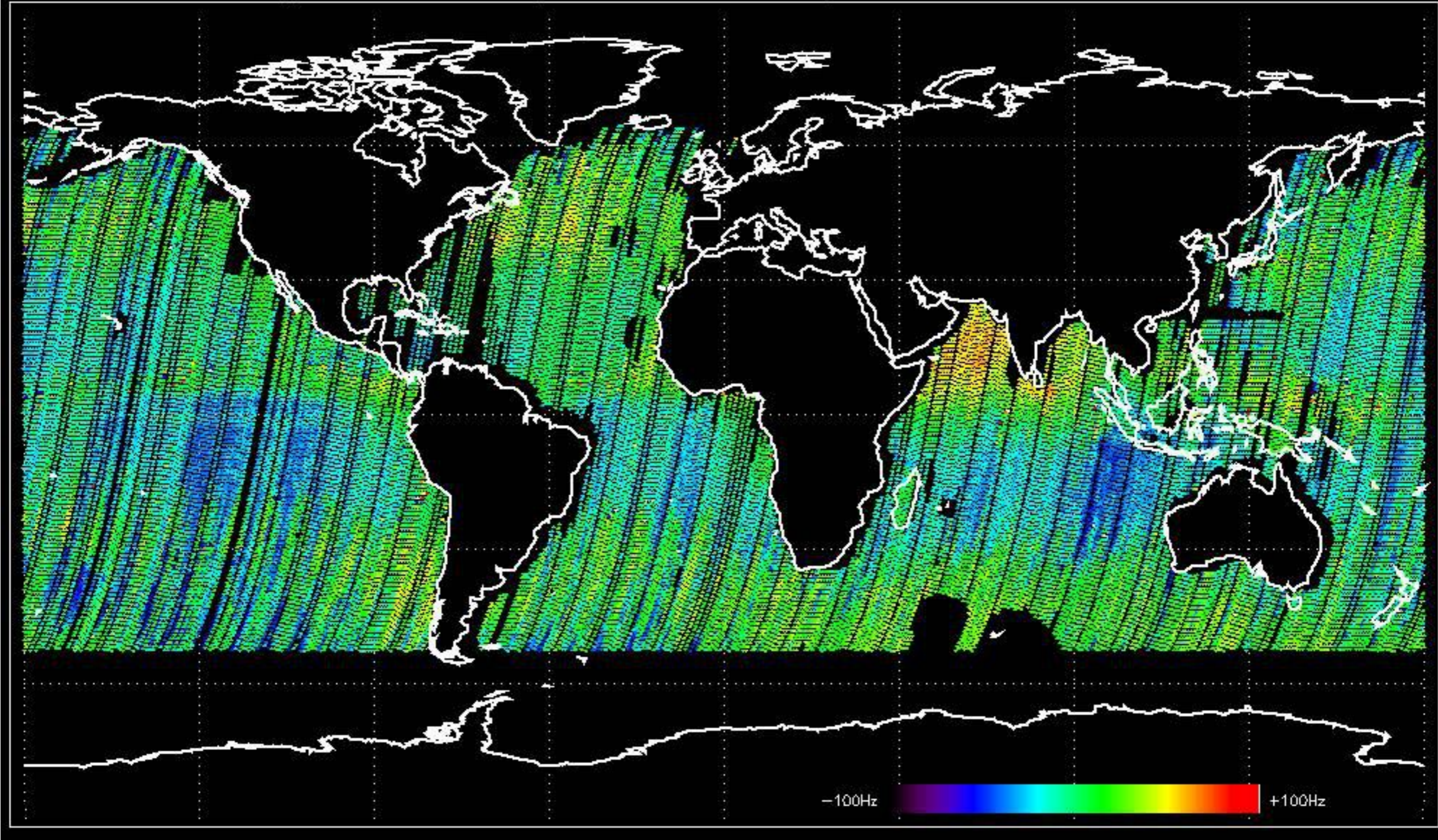
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.8936225 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.6053724 Hz

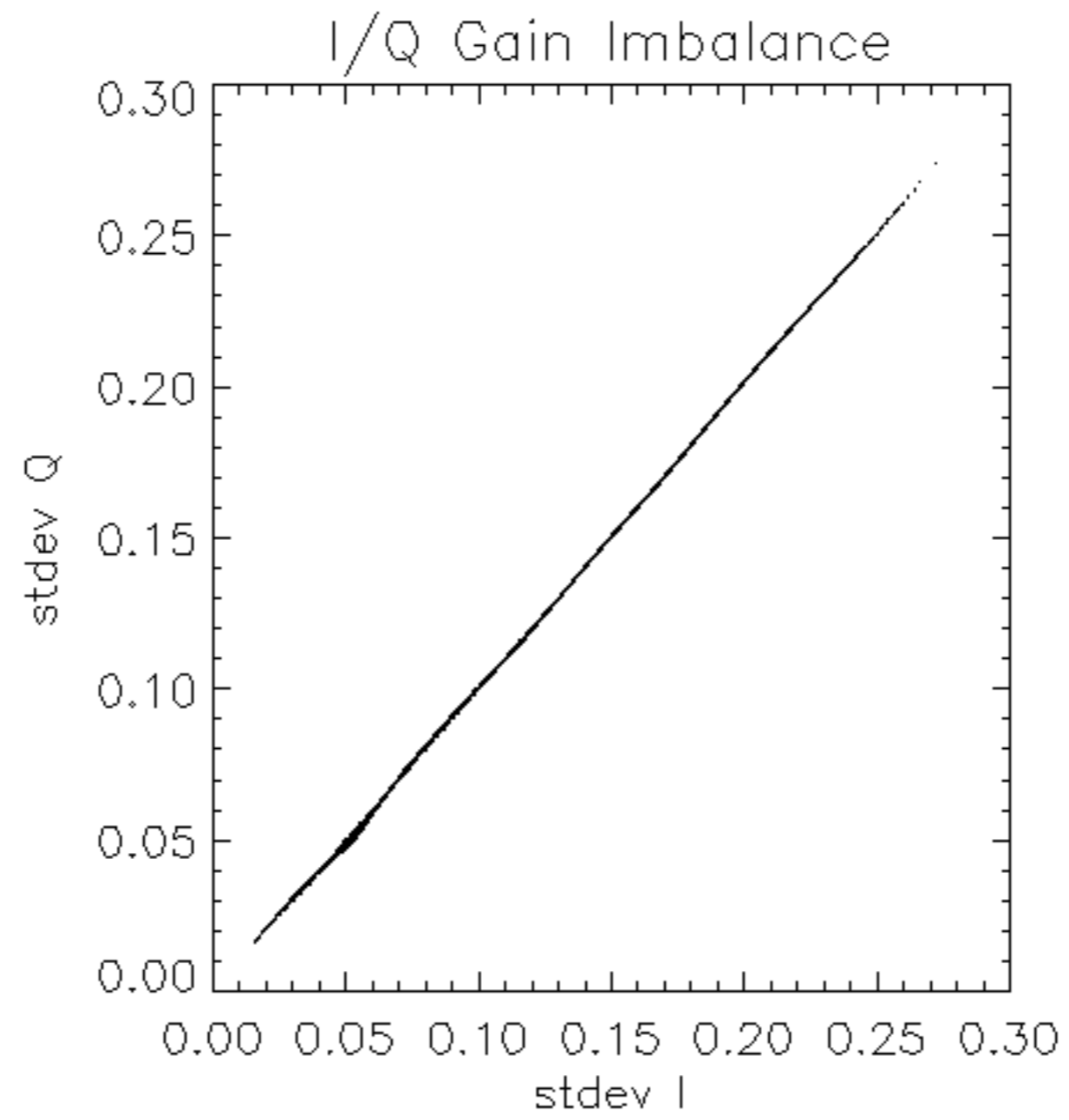


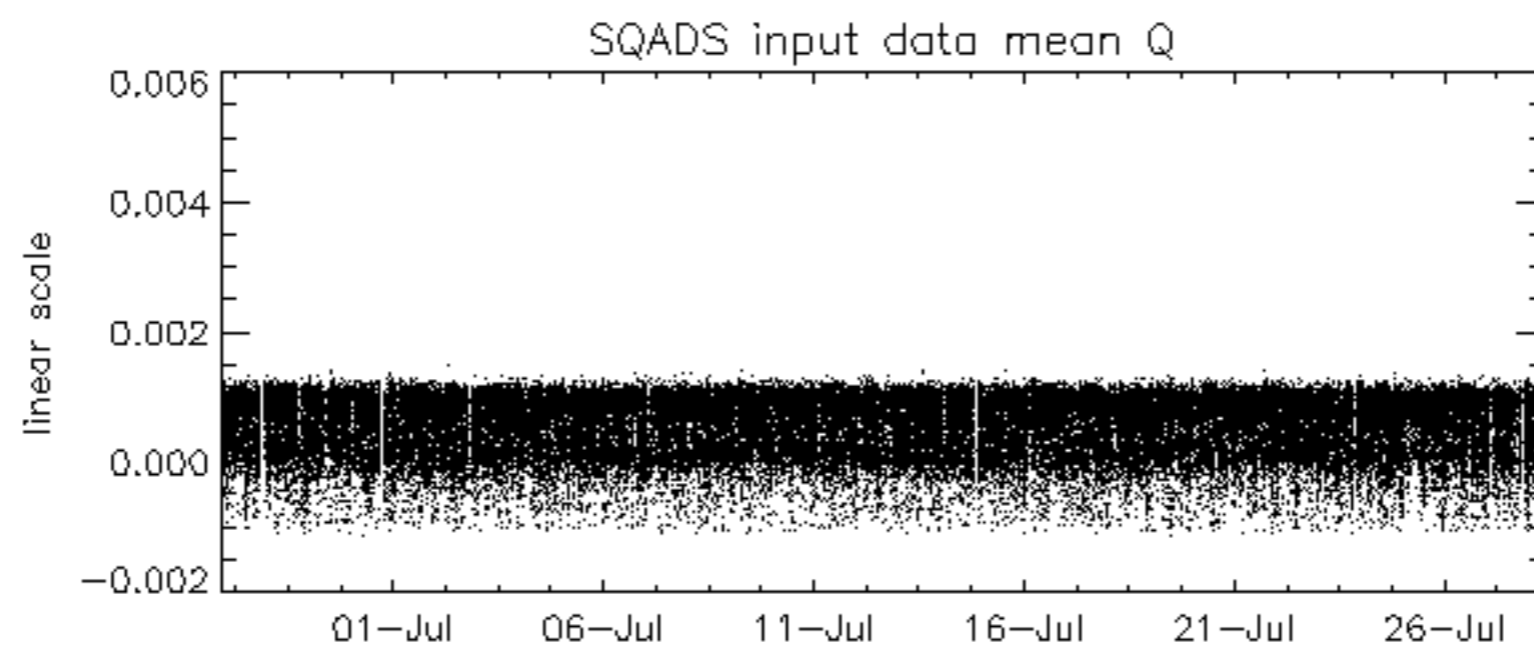
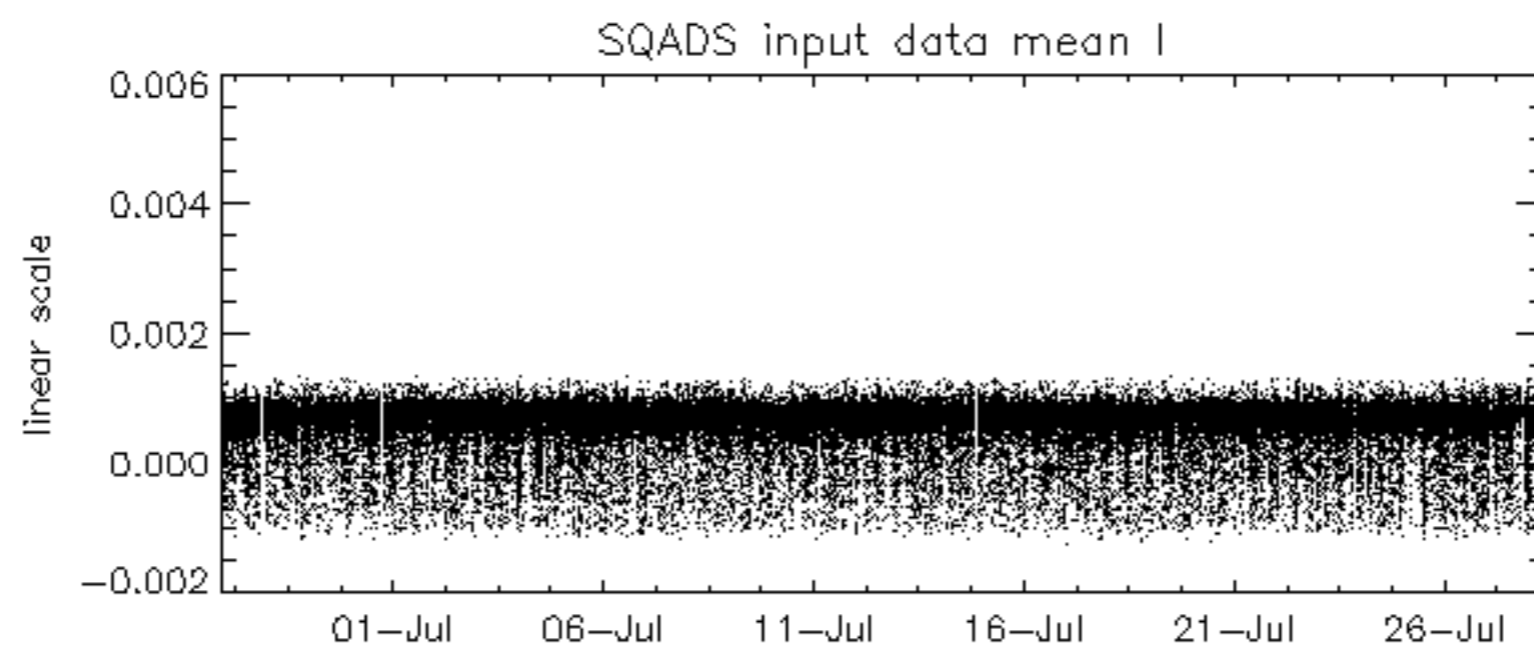
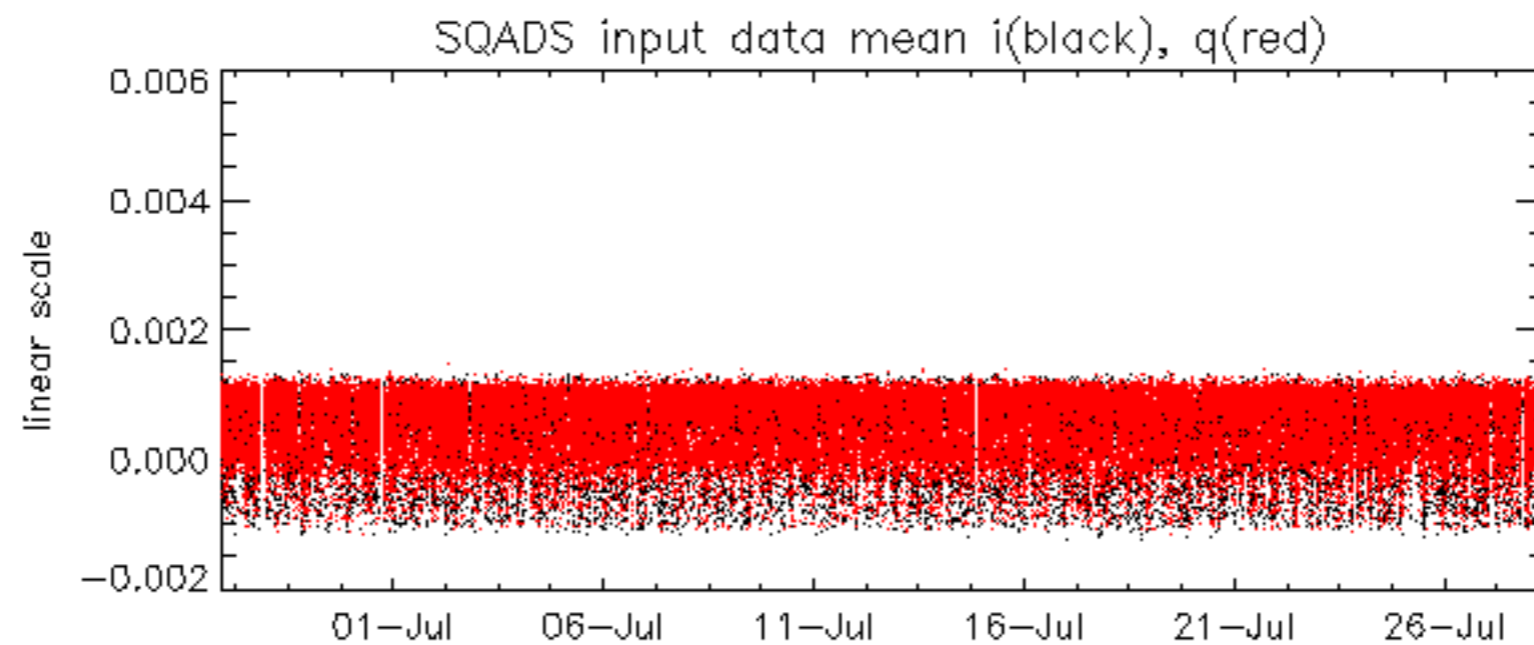
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.9199253 Hz

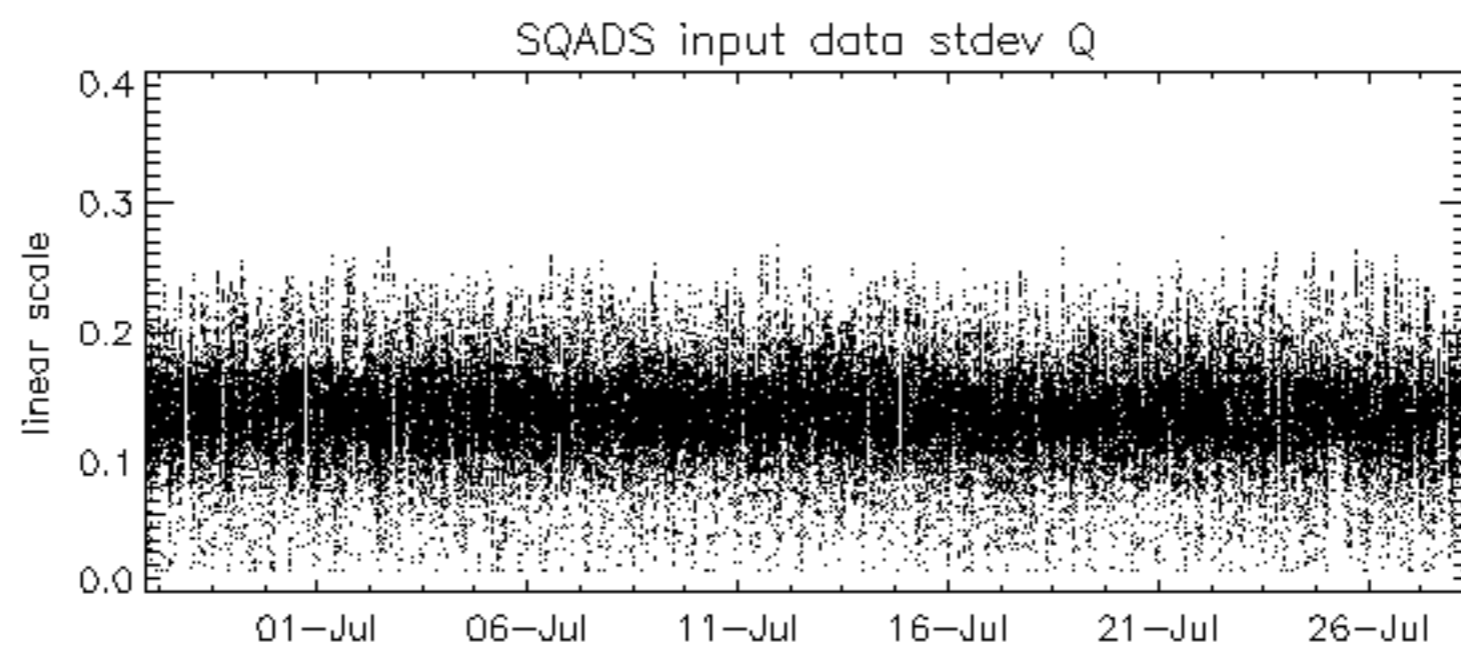
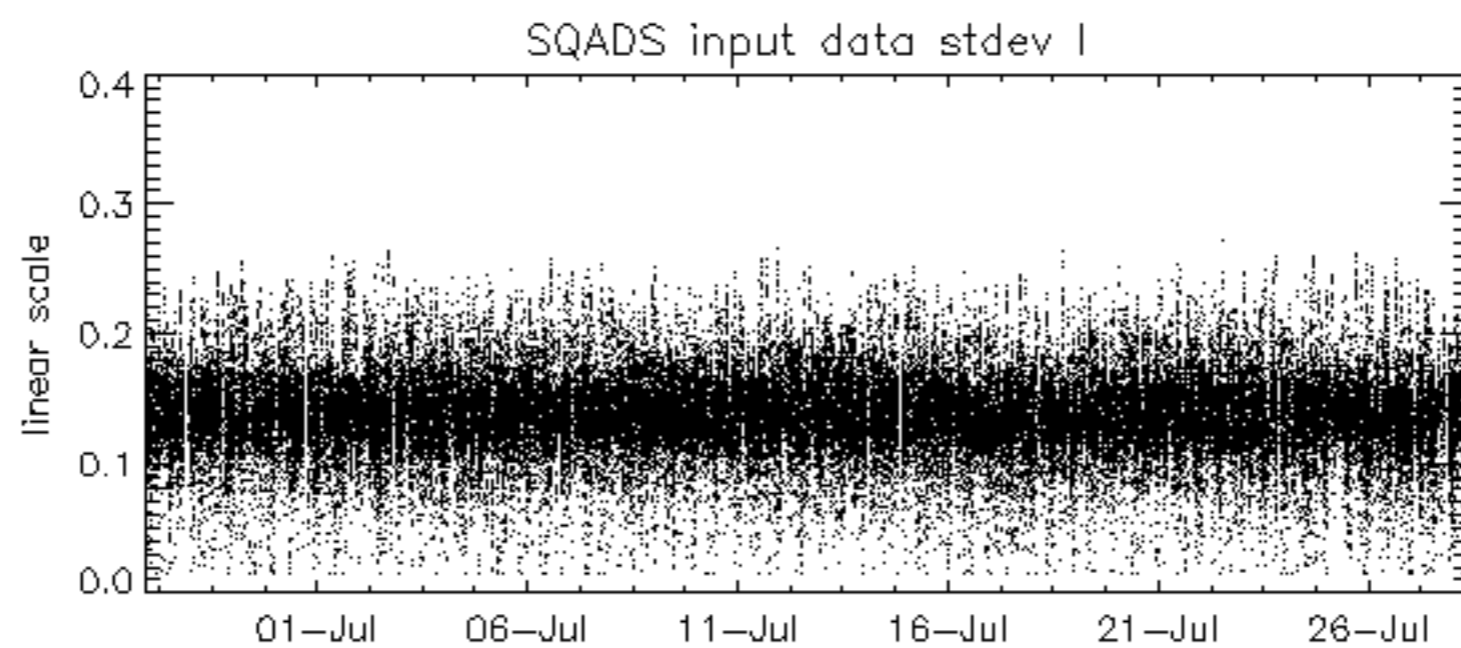
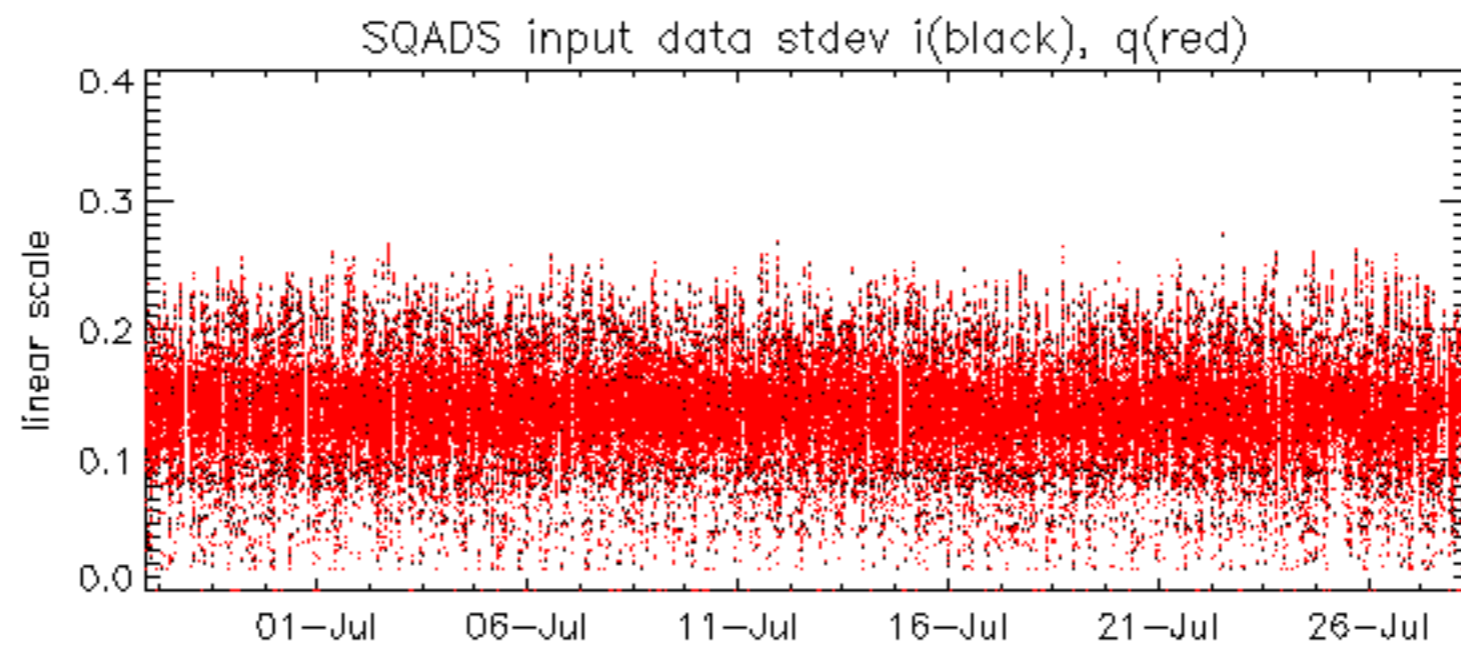


No anomalies observed on available MS products:

No anomalies observed.



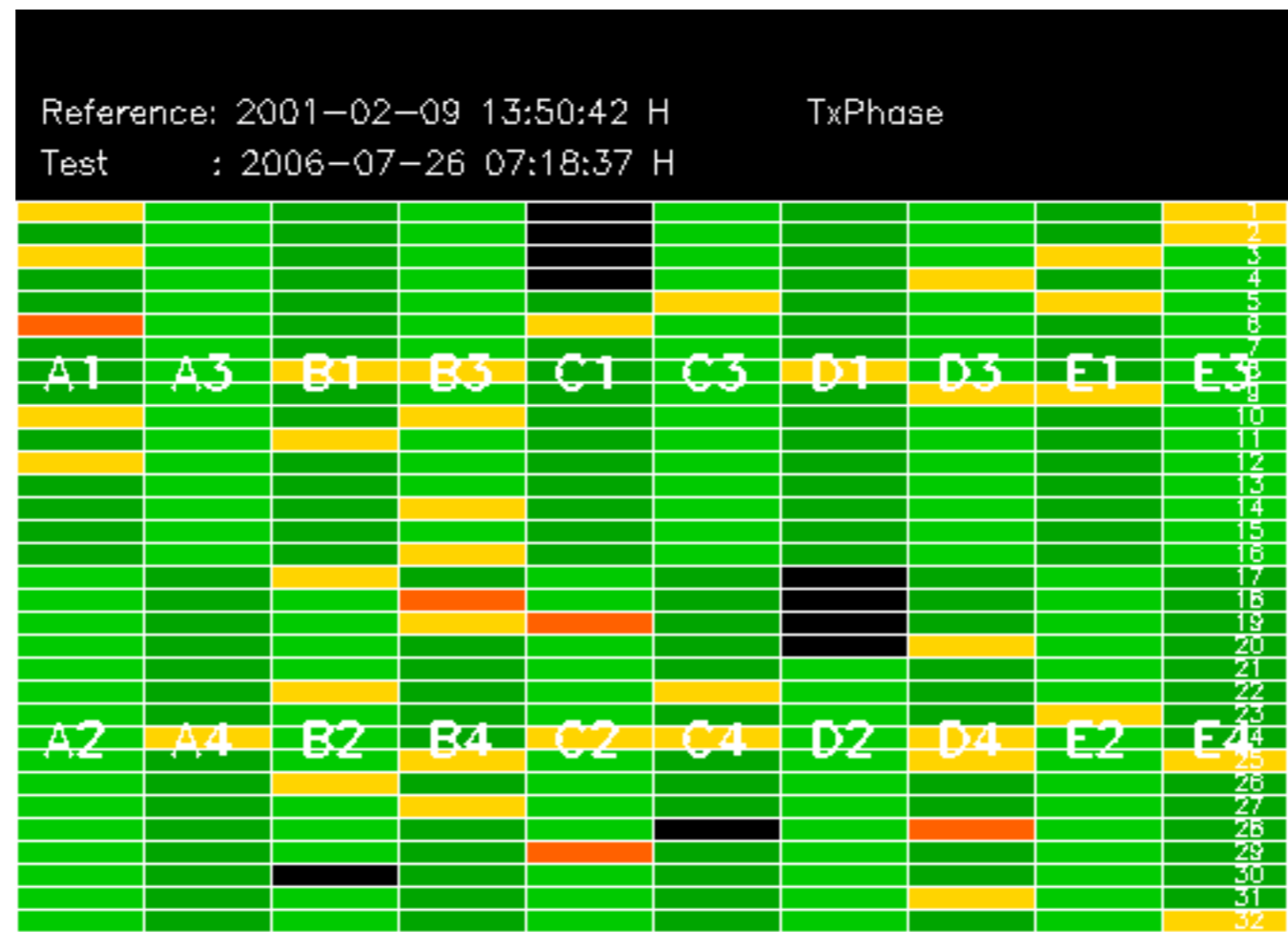




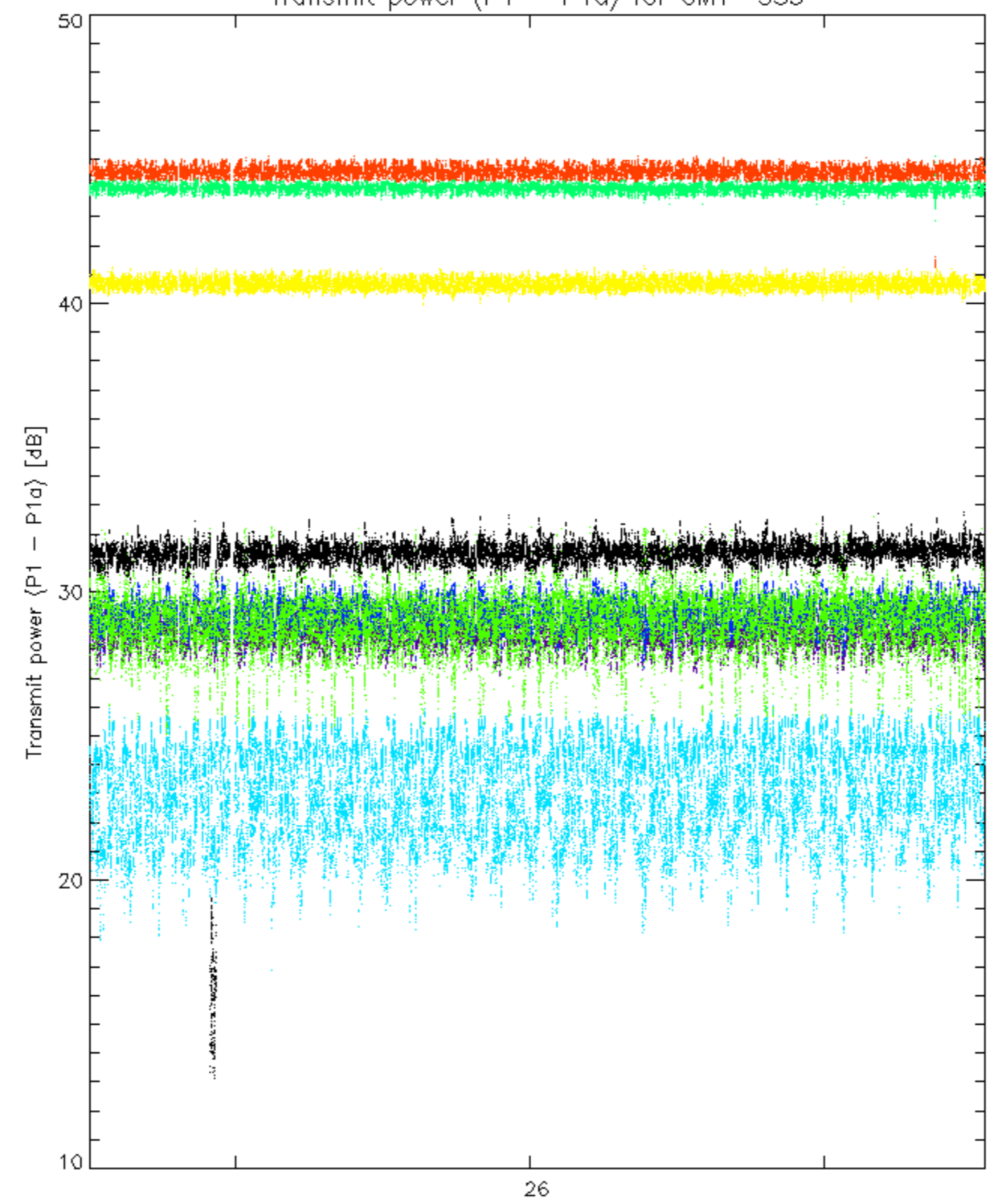
Summary of analysis for the last 3 days 2006072[678]

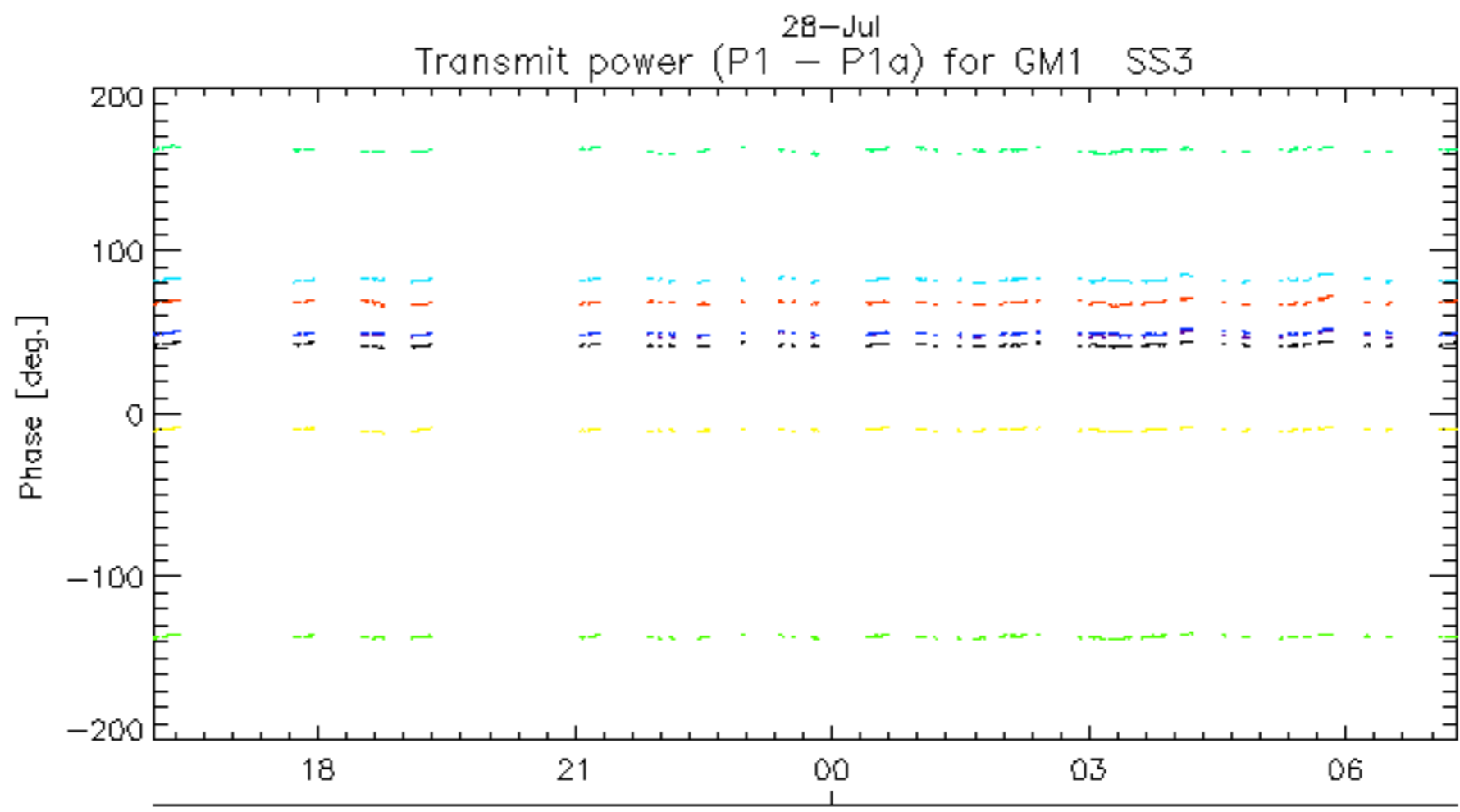
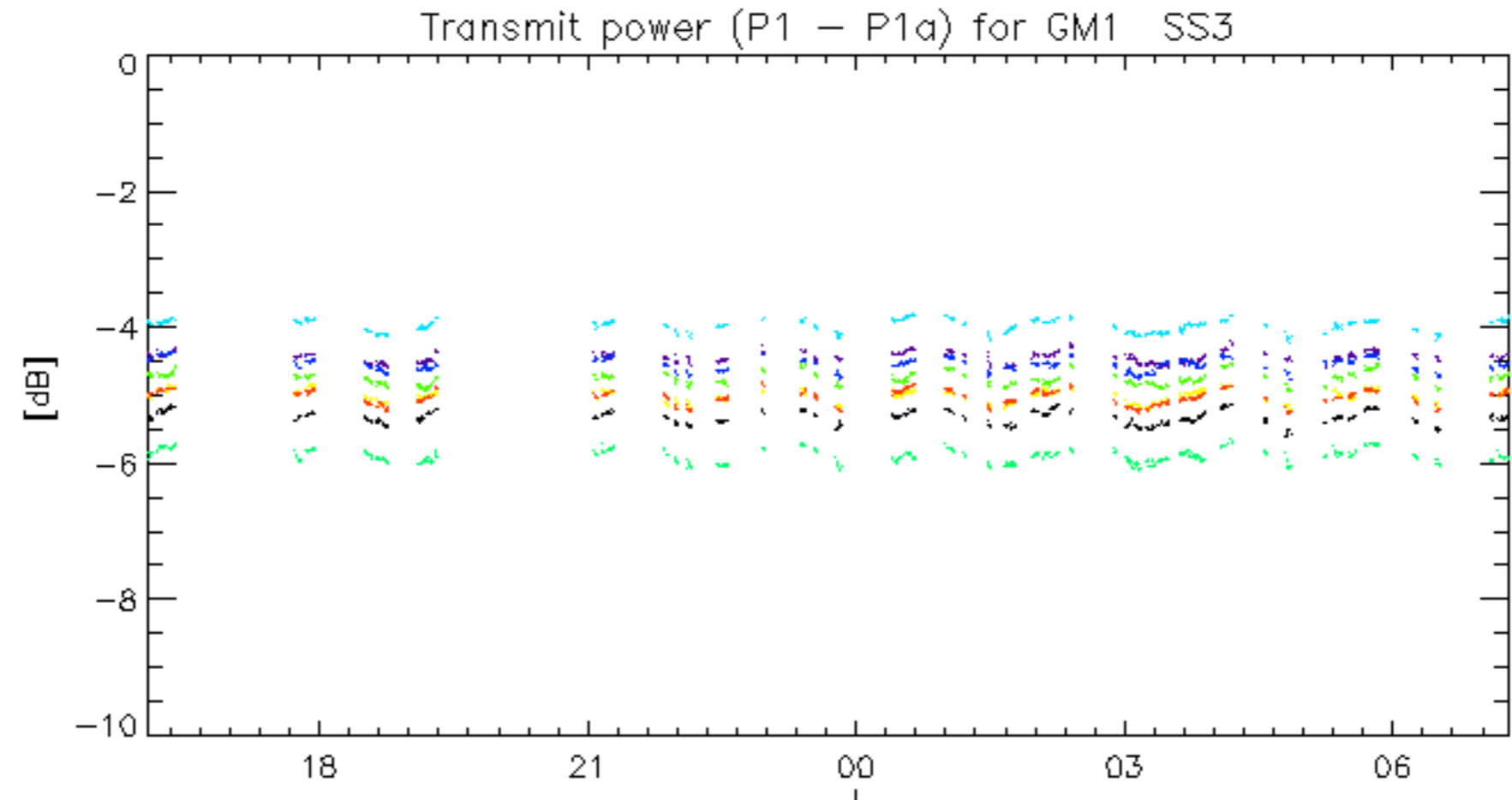
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060726_012209_00000622049_00418_23017_2072.N1	1	0
ASA_IMM_1PNPDE20060726_144003_00000822049_00426_23025_2069.N1	1	0
ASA_IMM_1PNPDE20060727_003438_000001152049_00431_23030_2088.N1	1	0
ASA_IMM_1PNPDE20060727_223929_000000352049_00445_23044_2153.N1	1	0
ASA_WSM_1PNPDE20060726_180100_000000852049_00428_23027_4568.N1	0	39
ASA_WSM_1PNPDE20060727_112619_000001282049_00438_23037_4683.N1	0	13
ASA_WSM_1PNPDE20060727_172658_000001032049_00442_23041_4706.N1	0	13

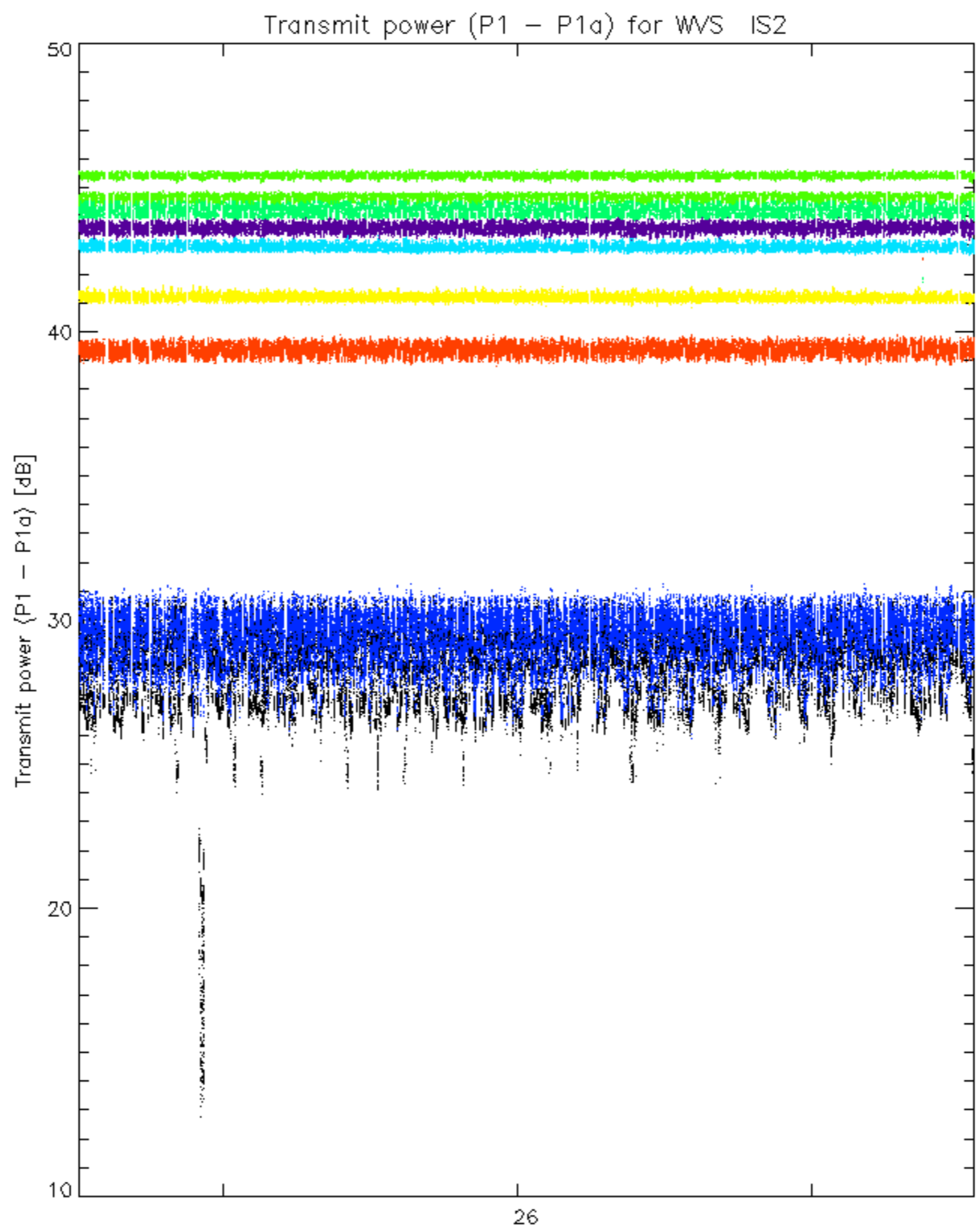


Transmit power (P1 - P1a) for GM1 SS3

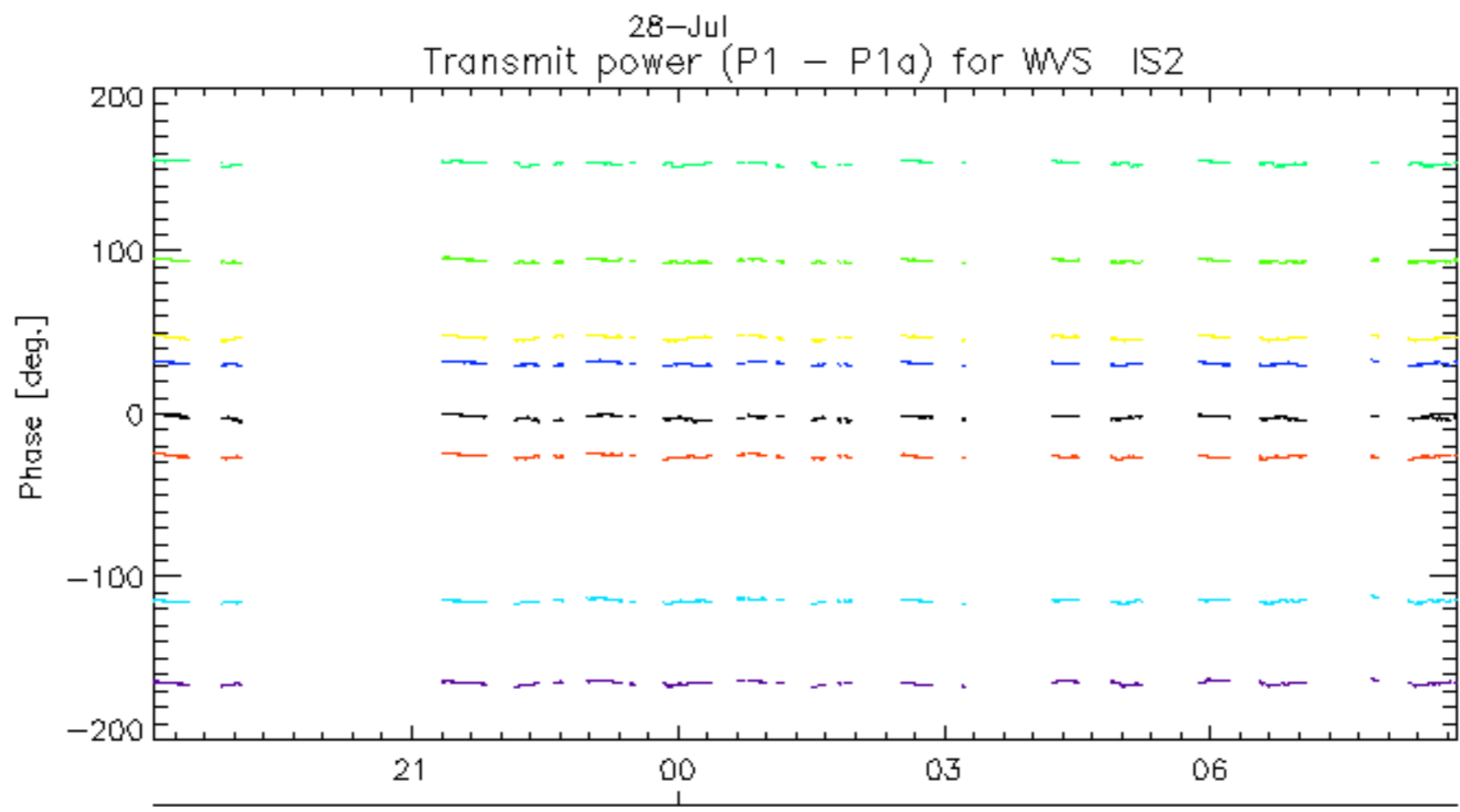
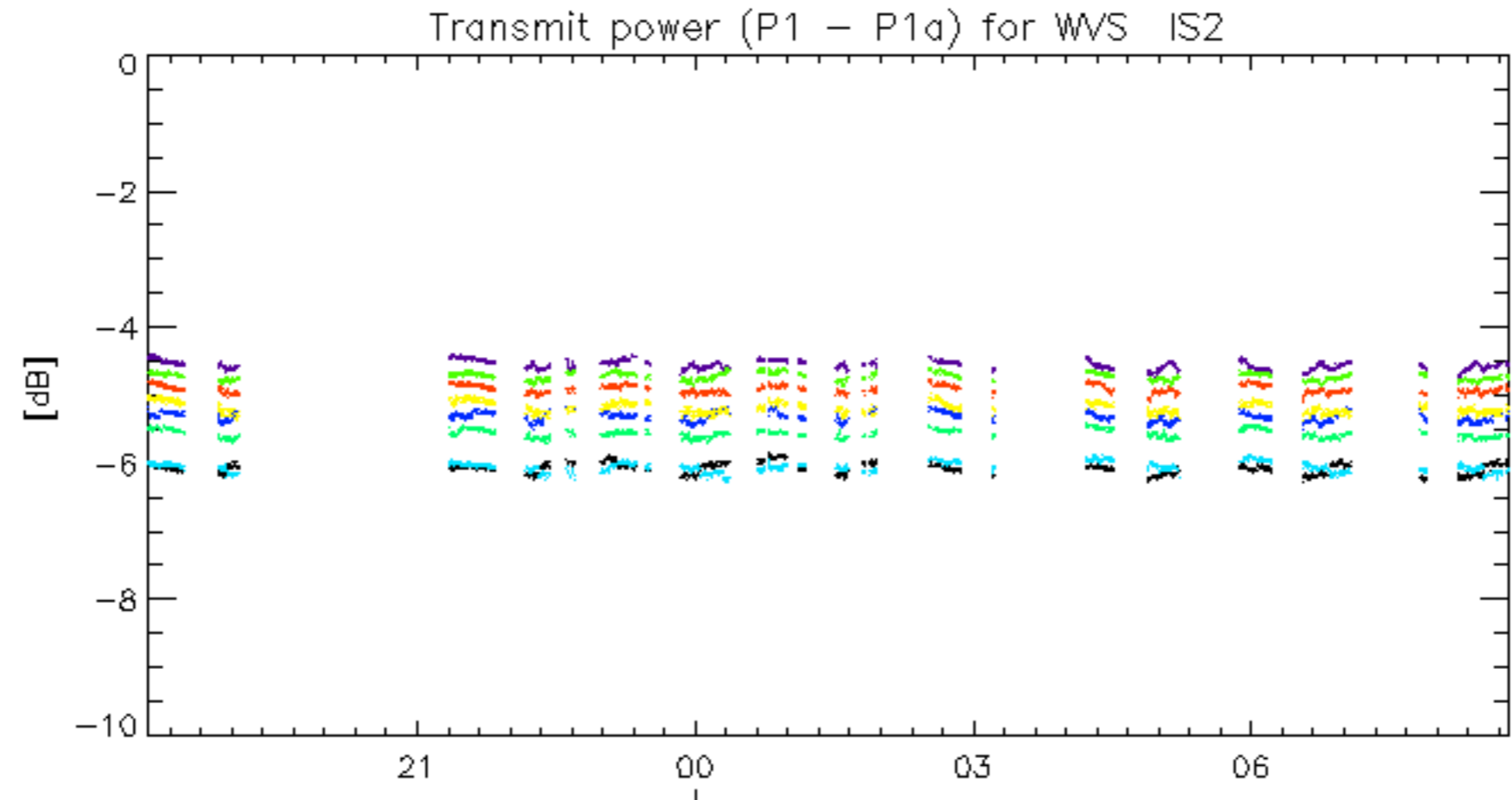




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.