

REPORT OF 060622

last update on Fri Jun 23 08:08:30 GMT 2006

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1 - Introduction

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

The following ASAR instrument anomaly is occurred:

Ref : EN-UNA-2006/0200

Date : 22 June 2006

ASAR Antenna Reset in accordance with procedure CRP_SYS_5041 due to TILE (E3) current lower than expected

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-06-22 00:00:00 to 2006-06-23 08:08:30

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	27	49	5	1	22
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	27	49	5	1	22
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	27	49	5	1	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	27	49	5	1	22

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	43	33	17	36
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	35	43	33	17	36
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	43	33	17	36
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	43	33	17	36

2.3 - Browse Visual Inspection

2.2 - Browse Visual Inspection

No anomalies observed on available browse products

2.4 - Data Analysis

2.3 - 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	20060622 100809
H	20060621 071834

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	-3.933883	0.018353	0.026991
7	P1	-3.137281	0.015530	-0.022882
11	P1	-4.106882	0.019499	0.014422
15	P1	-6.150249	0.020229	-0.050988
19	P1	-3.351366	0.008714	-0.068479
22	P1	-4.517608	0.011633	-0.032070
26	P1	-3.968704	0.017031	0.014635
30	P1	-5.751781	0.008963	-0.024206
3	P1	-16.505989	0.248270	0.020180
7	P1	-17.227995	0.148346	-0.098476
11	P1	-16.962172	0.306886	-0.059990
15	P1	-13.206101	0.216646	0.079861
19	P1	-14.339107	0.051900	-0.152106
22	P1	-16.167078	0.367730	0.048548
26	P1	-15.210282	0.228172	0.106285
30	P1	-17.138908	0.409245	-0.104397

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.134914	0.080996	0.127493
7	P2	-22.020836	0.097351	0.097231
11	P2	-15.863267	0.110941	0.108466
15	P2	-7.158514	0.094180	-0.004673

19	P2	-9.171824	0.085658	-0.005133
22	P2	-18.164141	0.083021	-0.056118
26	P2	-16.403605	0.087393	-0.060983
30	P2	-19.557949	0.086841	0.001133

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.185431	0.004004	-0.016208
7	P3	-8.185431	0.004004	-0.016208
11	P3	-8.185431	0.004004	-0.016208
15	P3	-8.185431	0.004004	-0.016208
19	P3	-8.185431	0.004004	-0.016208
22	P3	-8.185431	0.004004	-0.016208
26	P3	-8.185431	0.004004	-0.016208
30	P3	-8.185431	0.004004	-0.016208

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	-3.804136	0.050697	0.015156
7	P1	-2.587290	0.030287	0.045487
11	P1	-2.861701	0.022860	0.024824
15	P1	-3.515474	0.051450	-0.037817
19	P1	-3.410947	0.014371	-0.027193
22	P1	-5.081688	0.019733	-0.007987
26	P1	-5.855089	0.015712	-0.029709
30	P1	-5.191344	0.026557	-0.023720

3	P1	-11.620554	0.053281	-0.015545
7	P1	-9.968337	0.048754	-0.060362
11	P1	-10.219126	0.085949	-0.069341
15	P1	-10.666801	0.160370	-0.112638
19	P1	-15.540876	0.076588	-0.038416
22	P1	-20.937357	1.167902	-0.079135
26	P1	-16.467094	0.328866	0.091467
30	P1	-17.899752	0.370279	0.120434

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.819889	0.074356	0.184376
7	P2	-22.486532	0.131298	0.086621
11	P2	-11.144392	0.049693	0.094130
15	P2	-4.919881	0.049678	-0.019558
19	P2	-6.882141	0.054425	-0.004299
22	P2	-8.209237	0.043656	-0.012627
26	P2	-24.144243	0.070268	-0.086176
30	P2	-22.061071	0.057184	0.029543

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019751	0.004938	-0.016250
7	P3	-8.019839	0.004917	-0.016427
11	P3	-8.019855	0.004920	-0.016329
15	P3	-8.019821	0.004918	-0.016165
19	P3	-8.019828	0.004923	-0.016107
22	P3	-8.019971	0.004913	-0.016421
26	P3	-8.019977	0.004922	-0.016207
30	P3	-8.019958	0.004914	-0.016183

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	0.000555547
	stdev	1.73953e-07
MEAN Q	mean	0.000525486
	stdev	2.20668e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136648
	stdev	0.00115067
STDEV Q	mean	0.137002
	stdev	0.00116796



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006062[012]

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
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ASA_IMM_1PNPDE20060620_115627_000000512048_00410_22508_8157.N1	1	0
ASA_IMM_1PNPDE20060622_003435_000001162048_00431_22529_8242.N1	1	0
ASA_WSM_1PNPDE20060621_015620_000000972048_00418_22516_4911.N1	0	2
ASA_WSM_1PNPDE20060621_043526_000001832048_00420_22518_4929.N1	0	32
ASA_WSM_1PNPDE20060621_202015_000000852048_00429_22527_5013.N1	0	54
ASA_WSM_1PNPDE20060621_234617_000003302048_00431_22529_5042.N1	0	27
ASA_WSM_1PNPDE20060622_040158_000001462048_00434_22532_5069.N1	0	63
ASA_WSM_1PNPDK20060620_082754_000000862048_00408_22506_7972.N1	0	58



7 - Doppler Analysis

Preliminary report. The data is not yet controlled

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)	
<input type="checkbox"/>	
	Acsending
<input type="checkbox"/>	
	Descending

6.2 - Absolute Doppler for WVS

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

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

✕

6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

✕

Acsending

✕

Descending

6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

✕

Acsending

✕

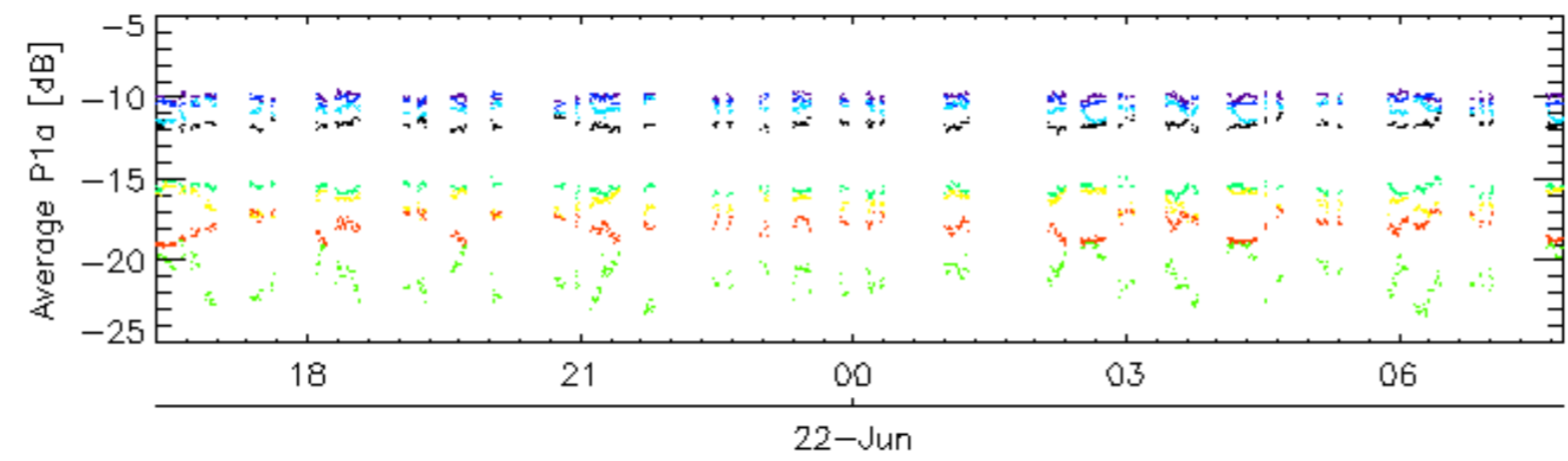
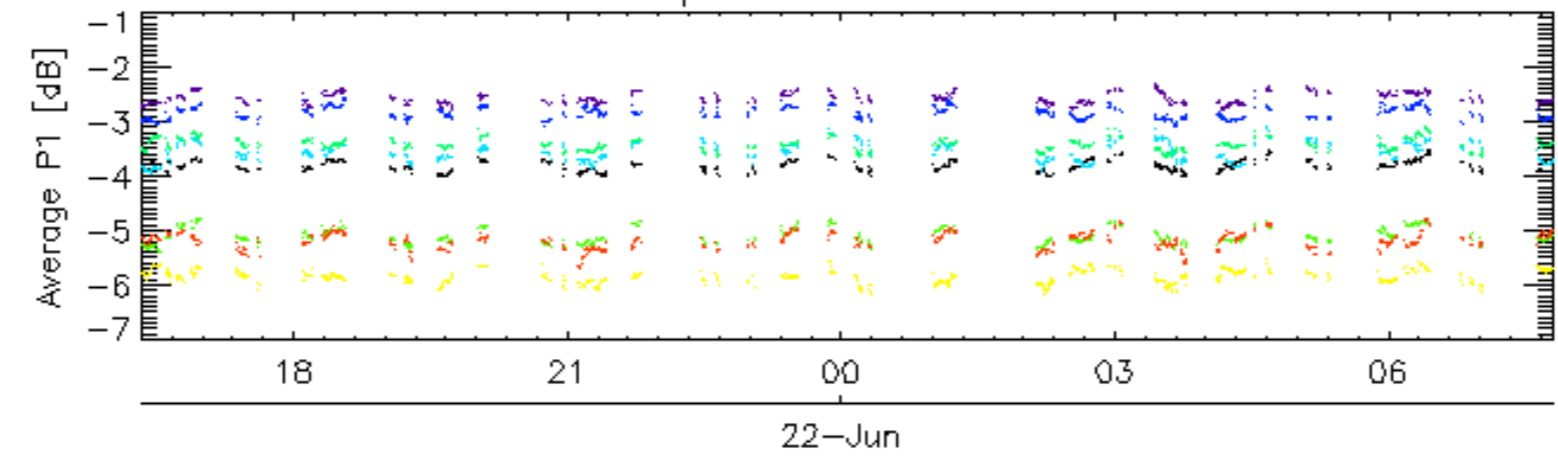
Descending

6.6 - Doppler evolution versus ANX for GM1

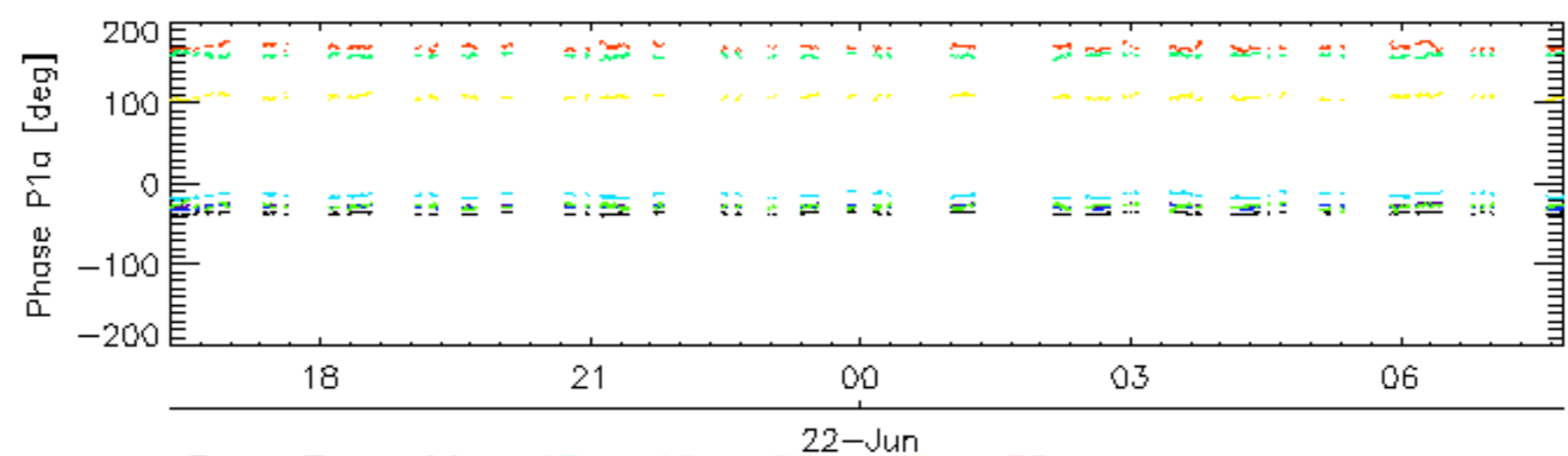
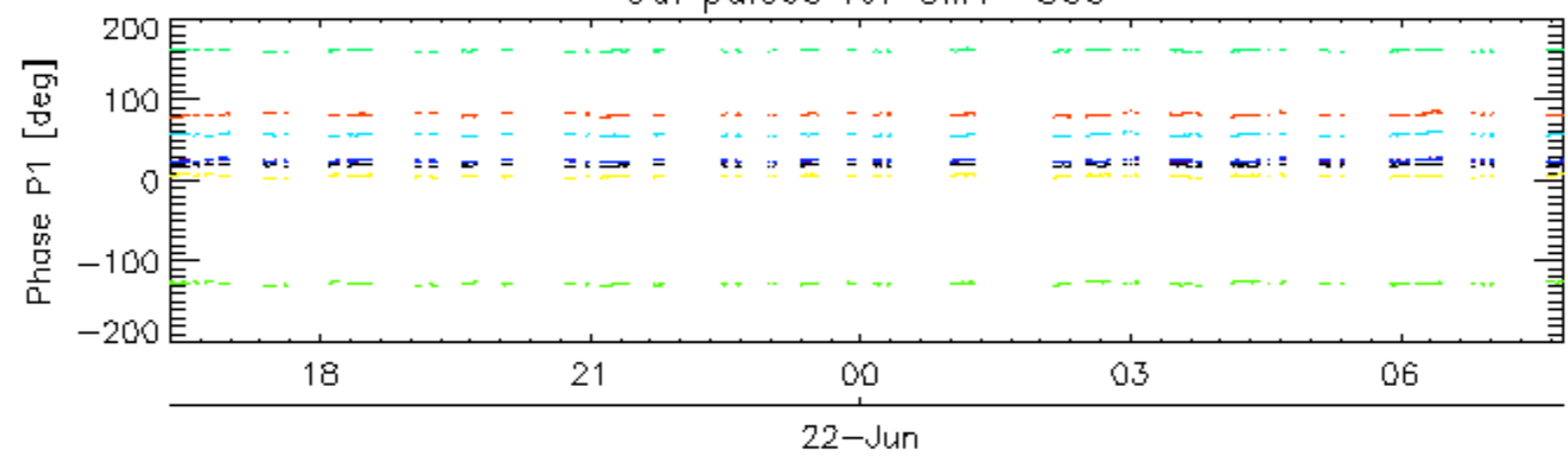
Evolution Doppler error versus ANX

✕

Cal pulses for GM1 SS3

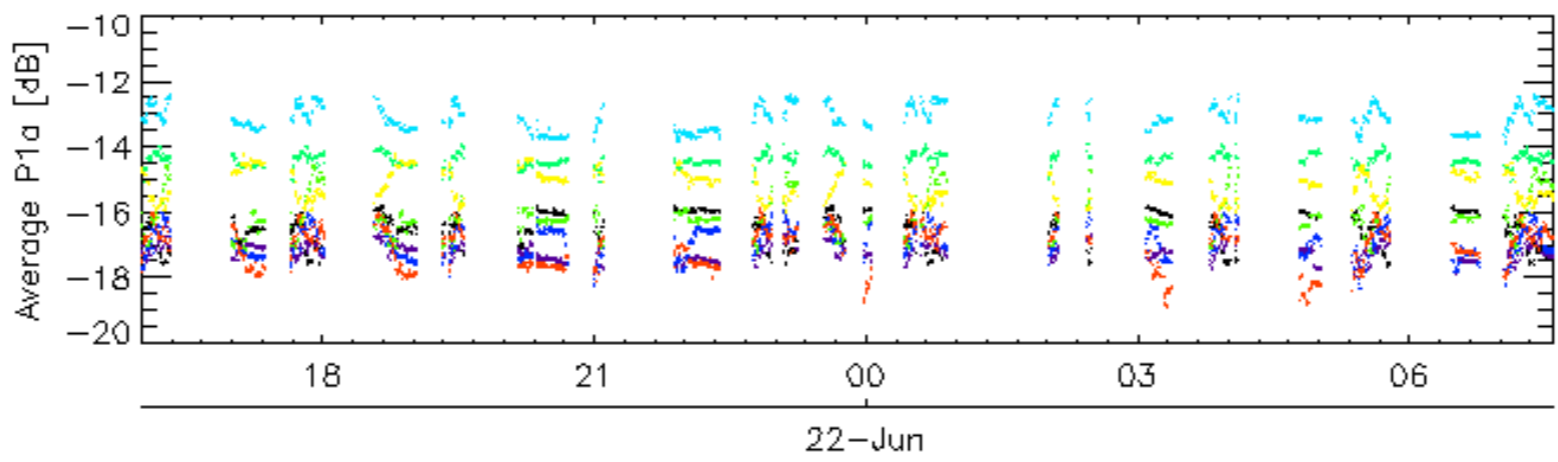
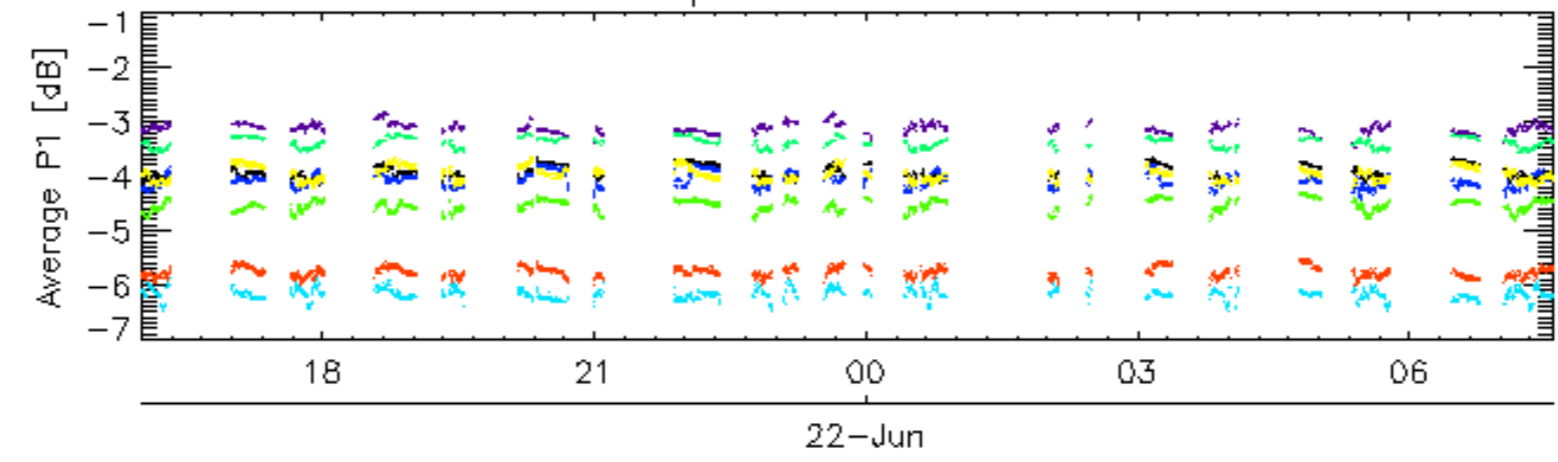


Cal pulses for GM1 SS3

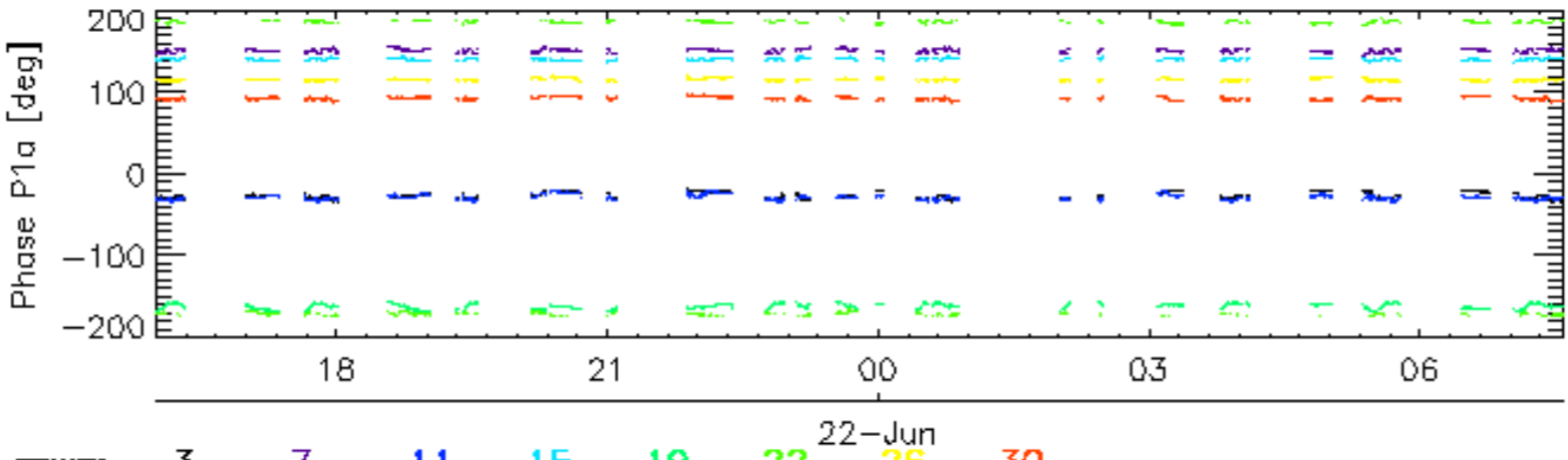
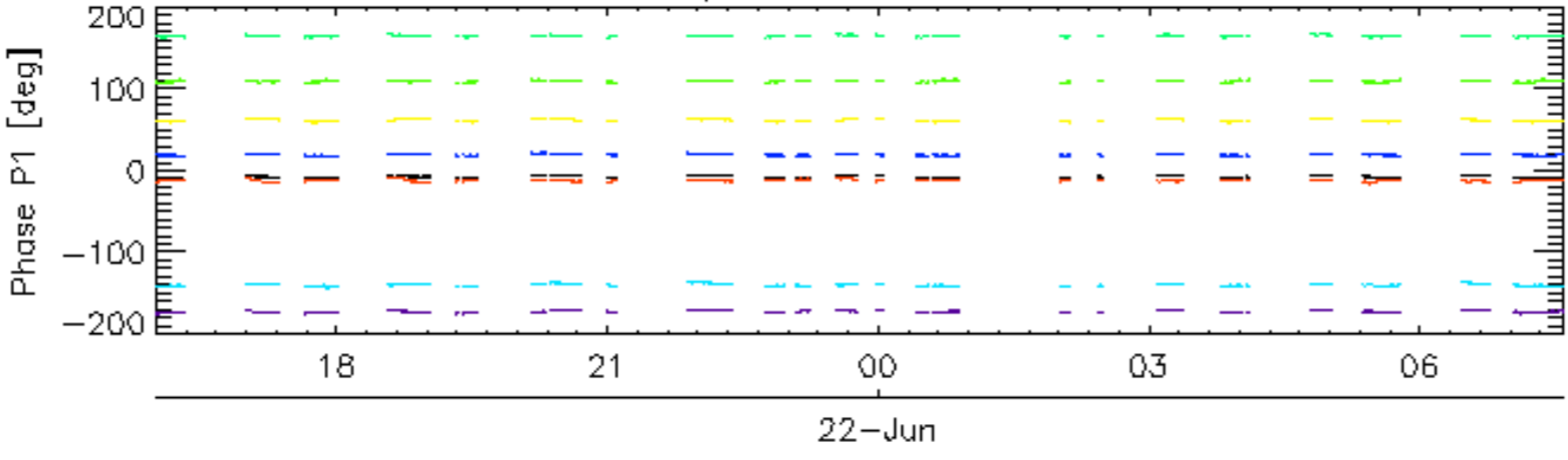


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

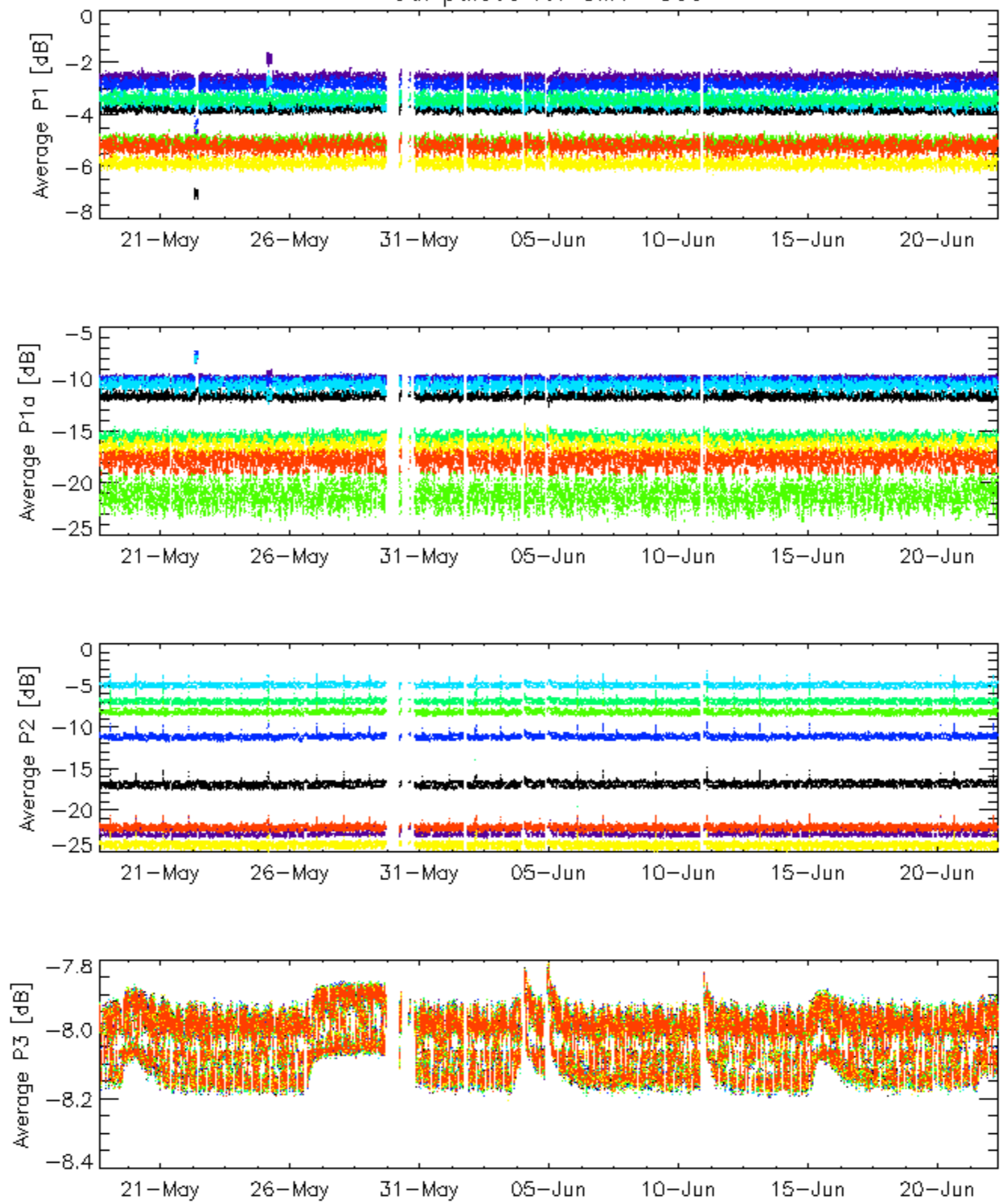


Cal pulses for WVS IS2



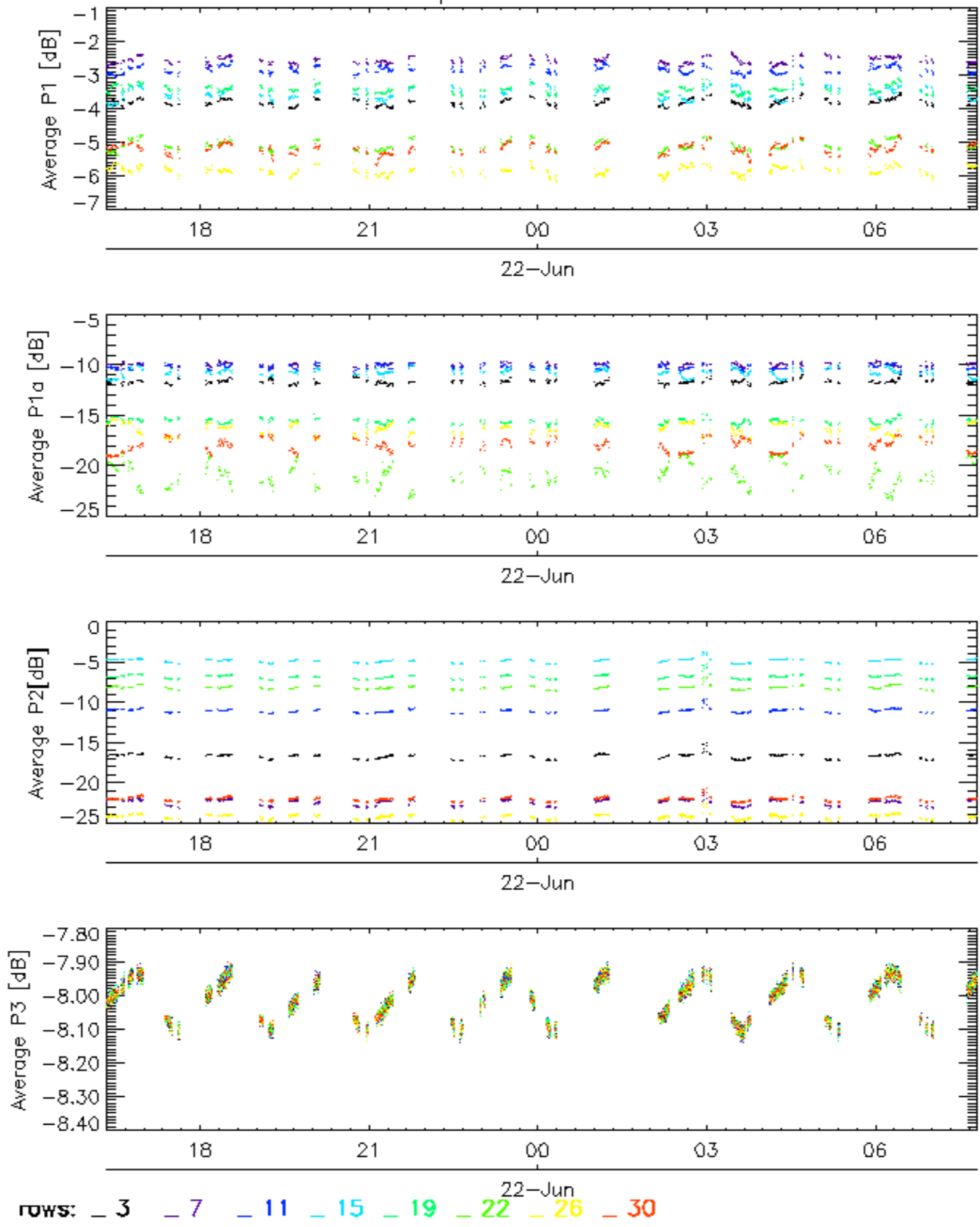
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

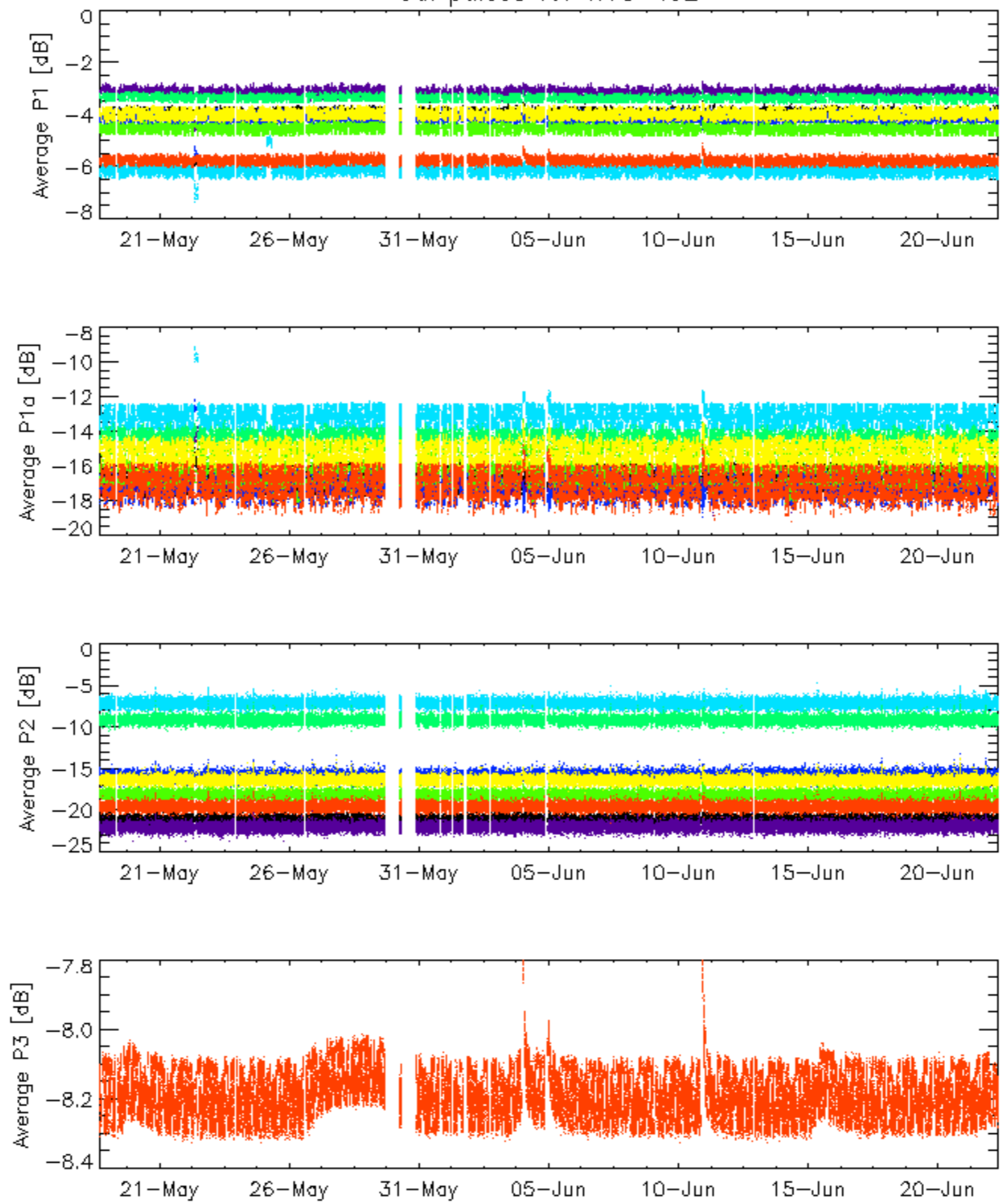


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

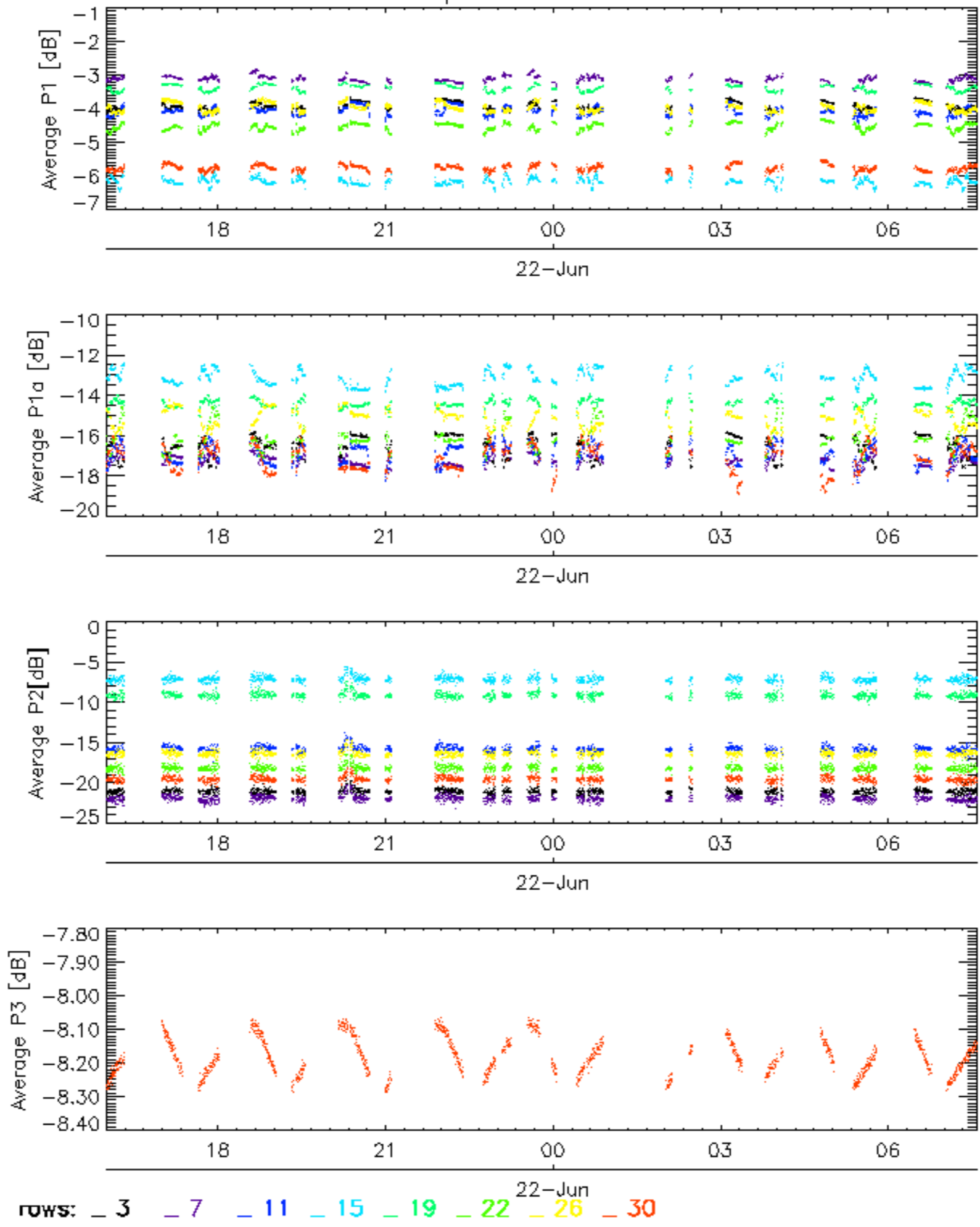


Cal pulses for WVS IS2



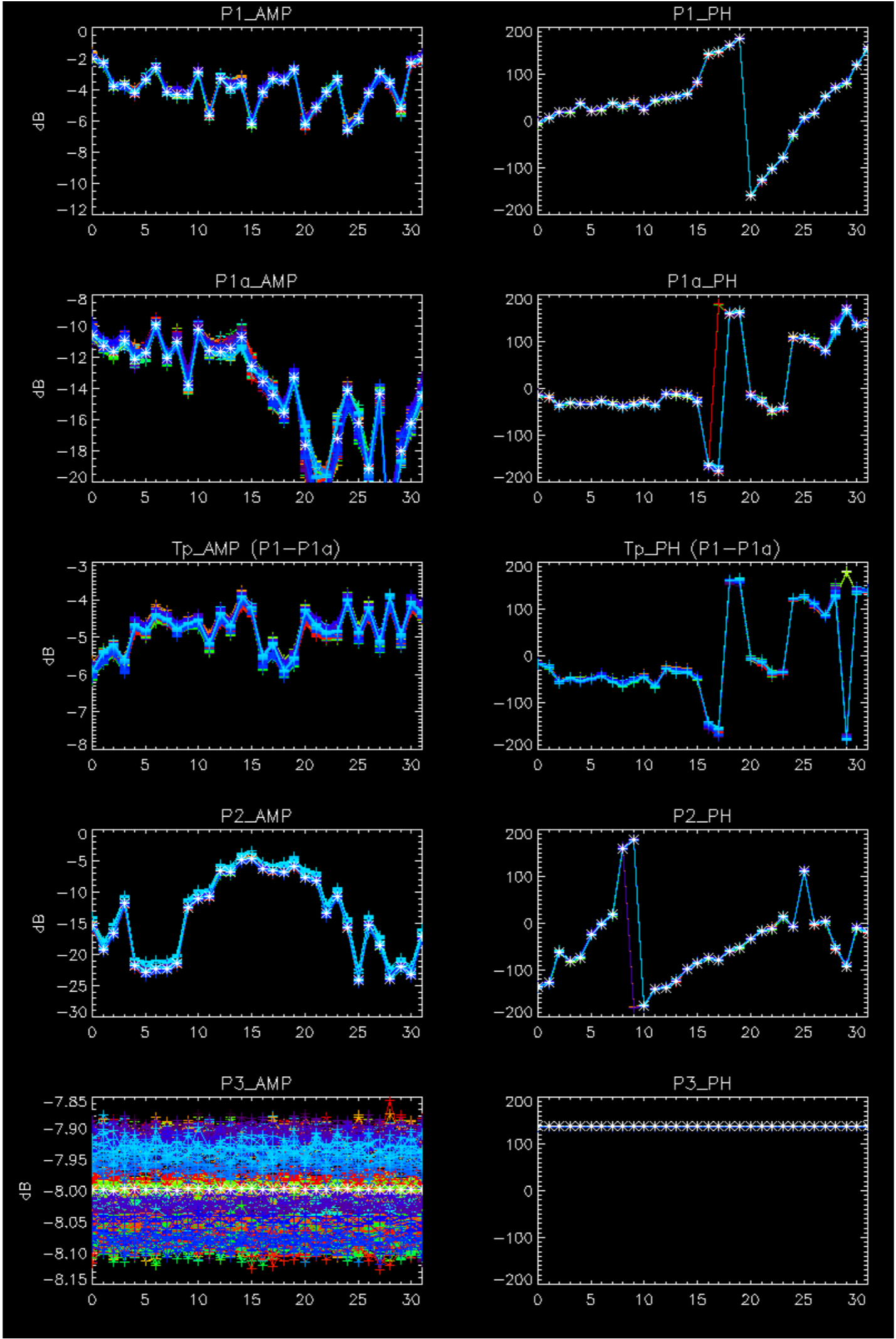
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

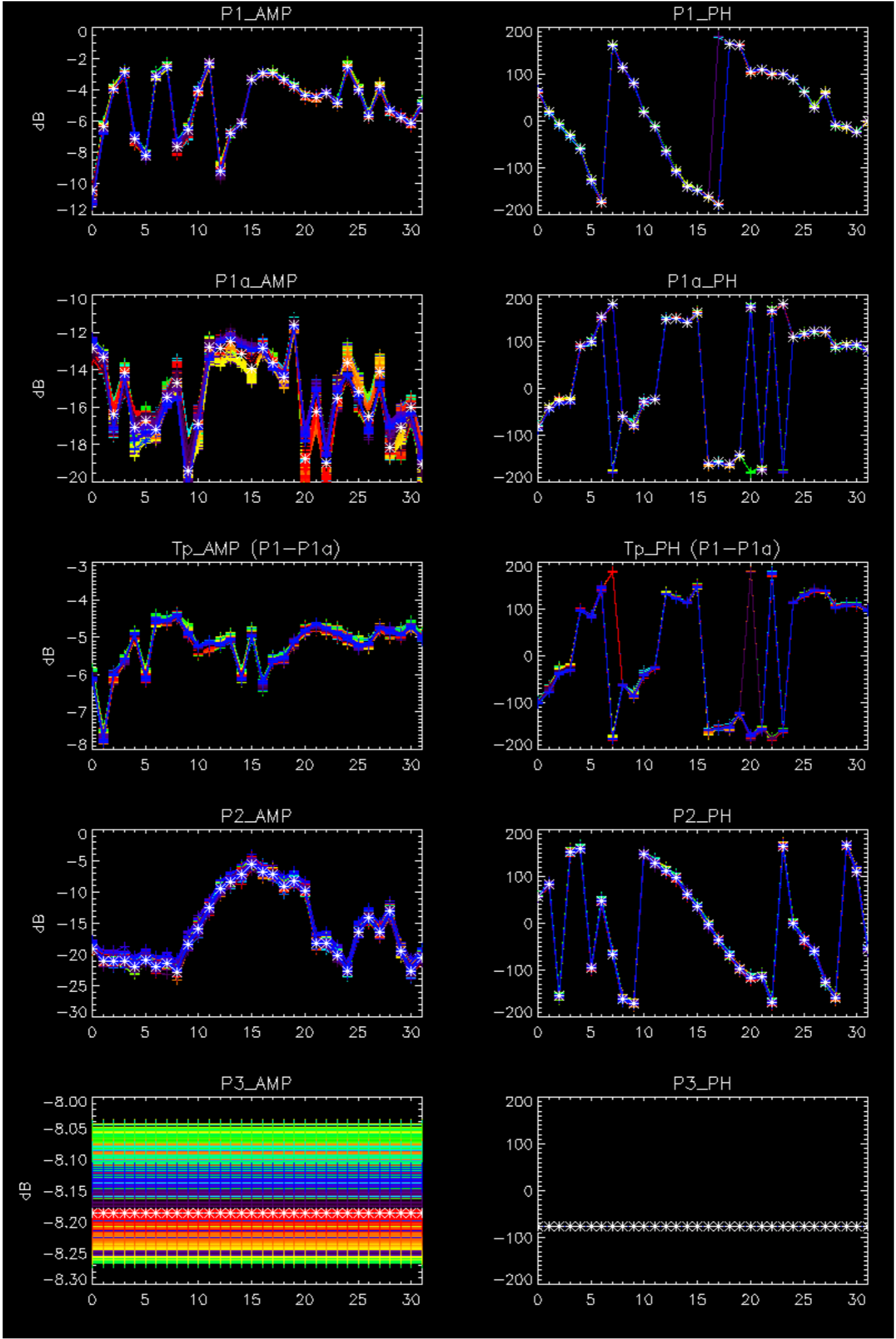
Cal pulses for WVS IS2



No anomalies observed on available browse products

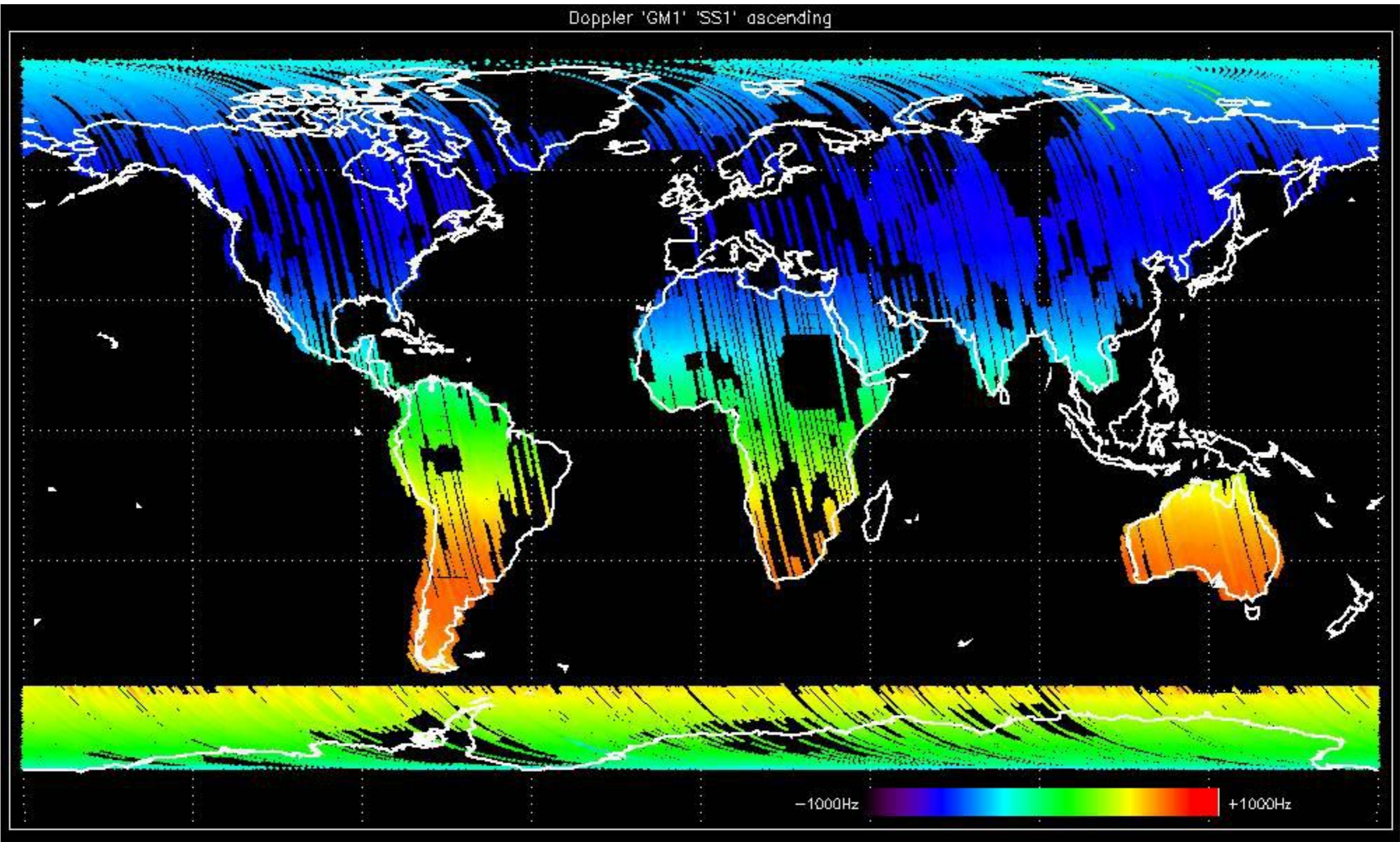
No anomalies observed.



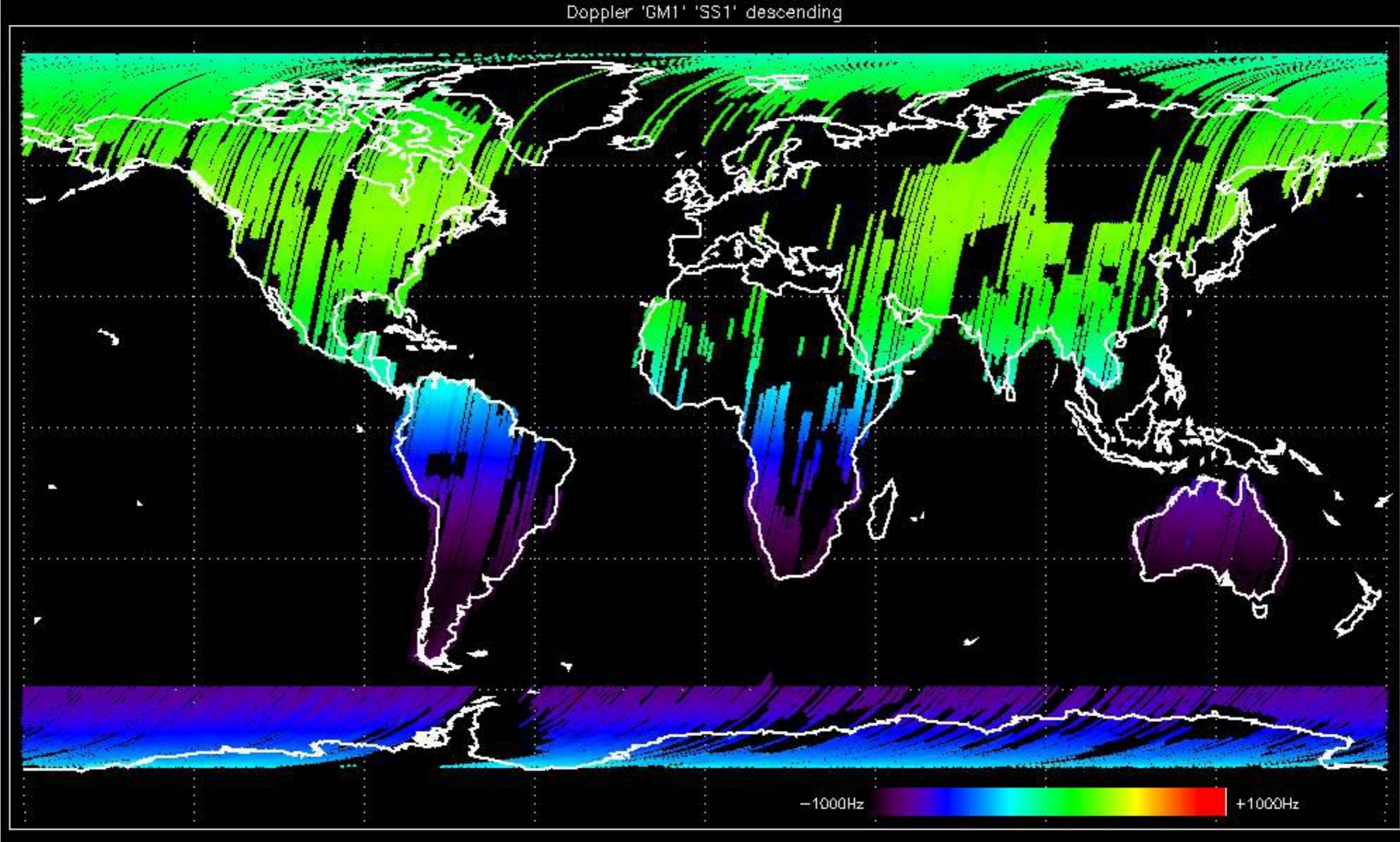


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

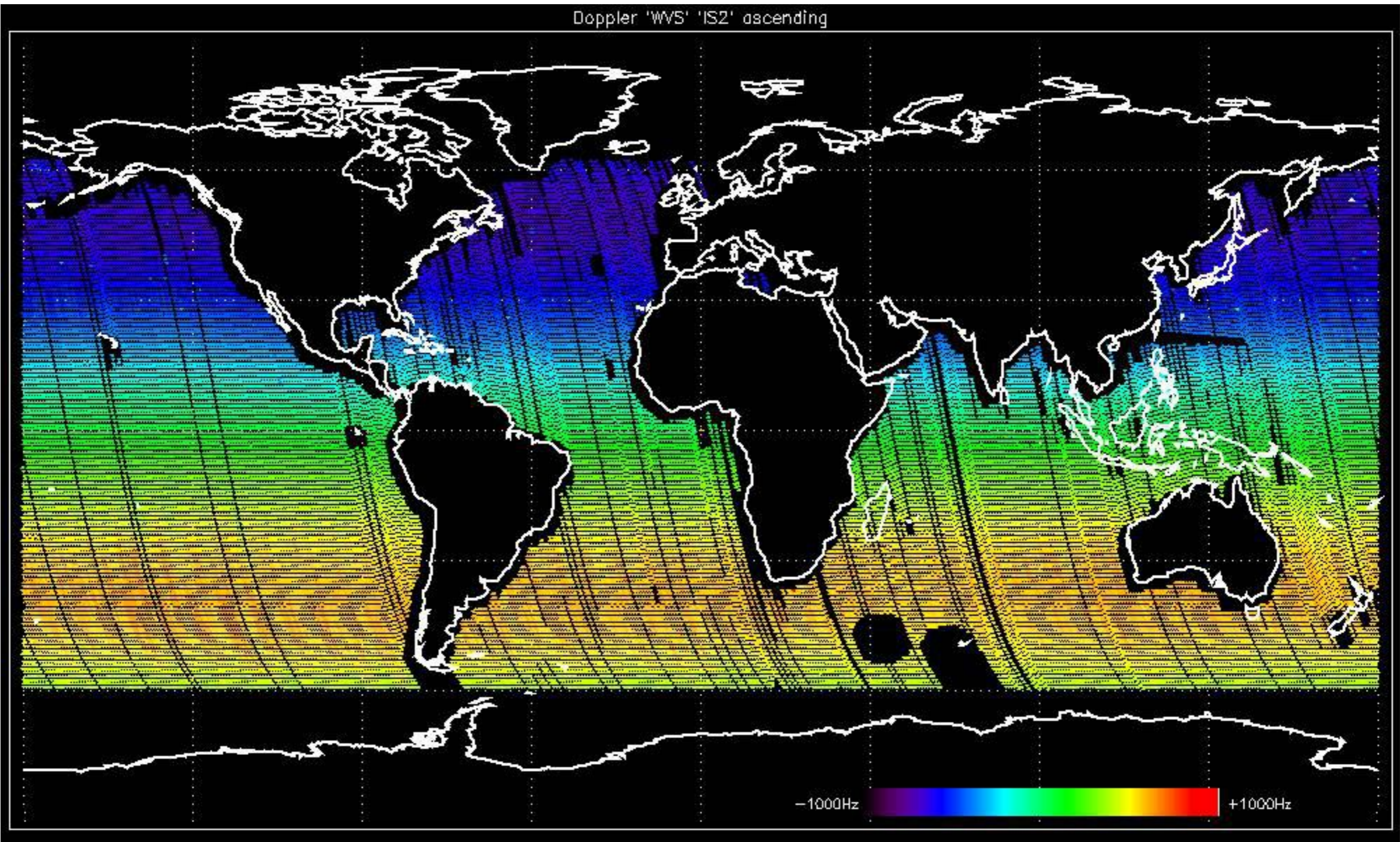
Doppler 'GM1' 'SS1' ascending



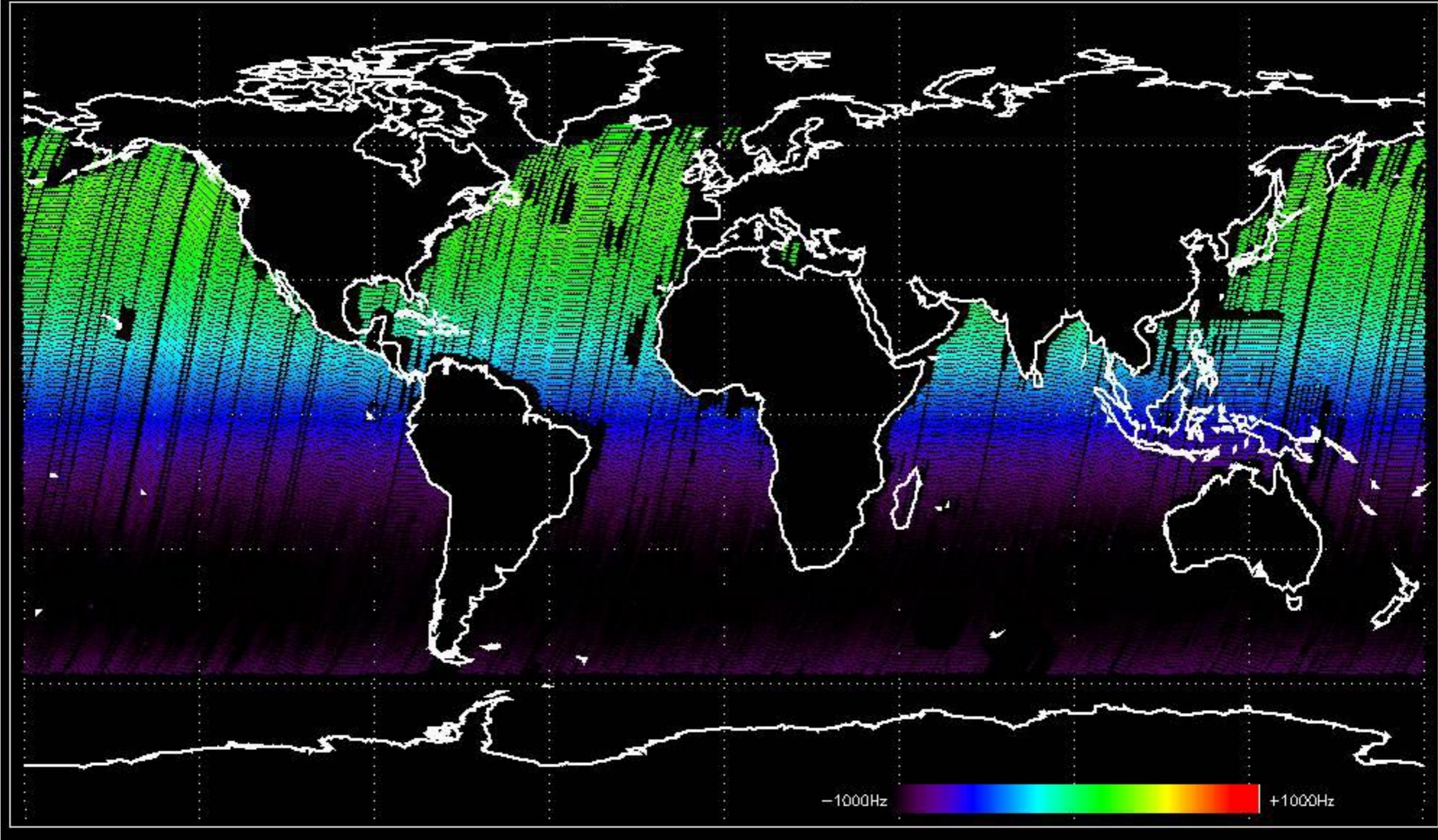
Doppler 'GM1' 'SS1' descending

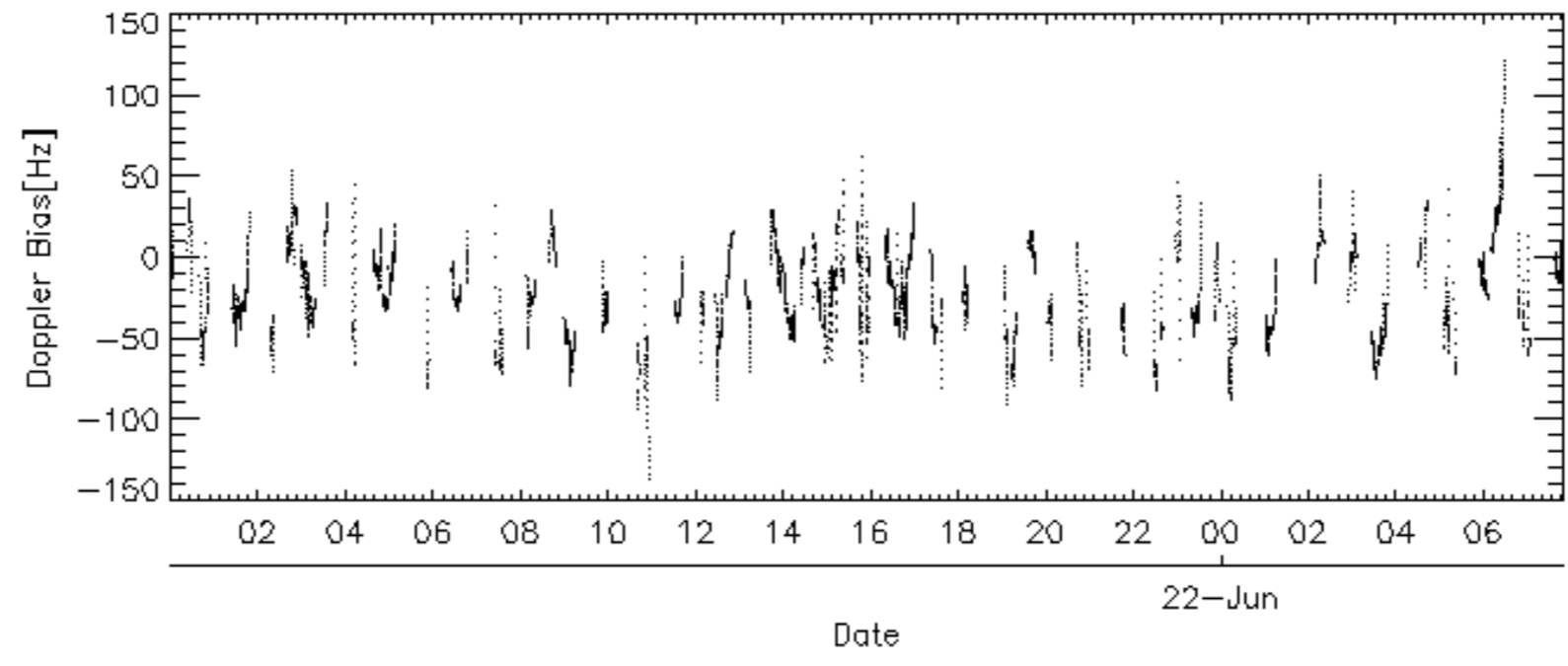
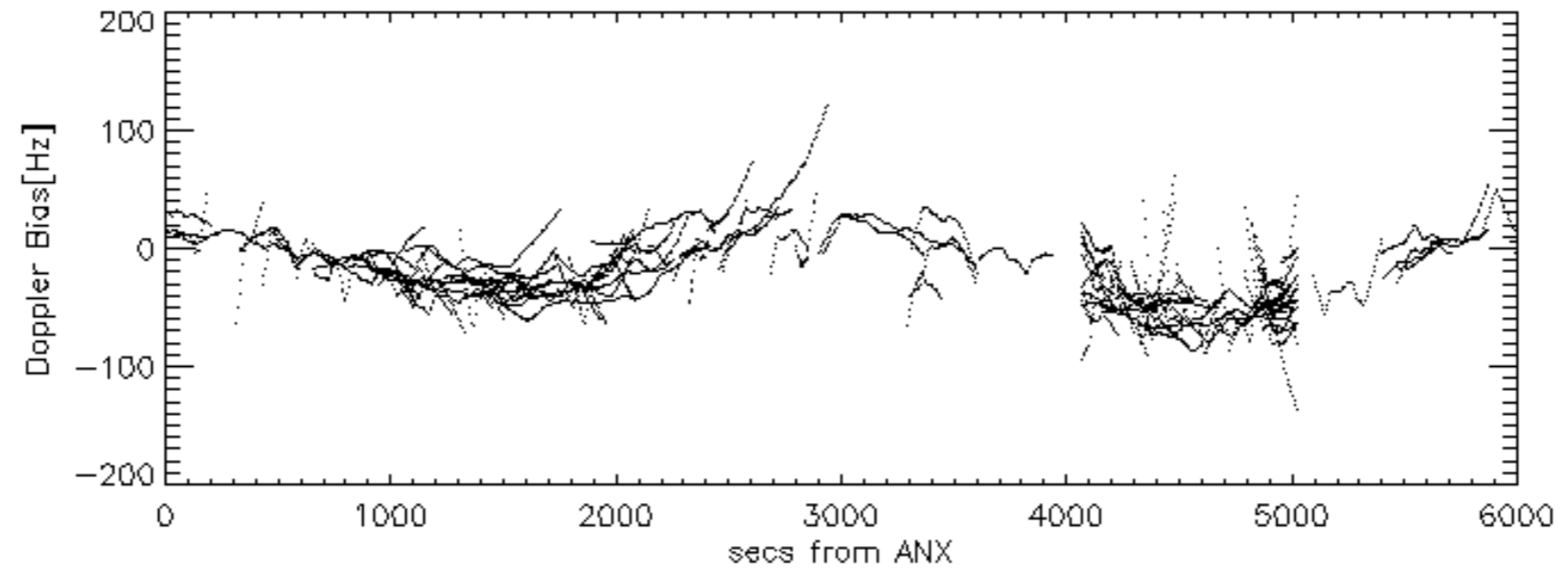
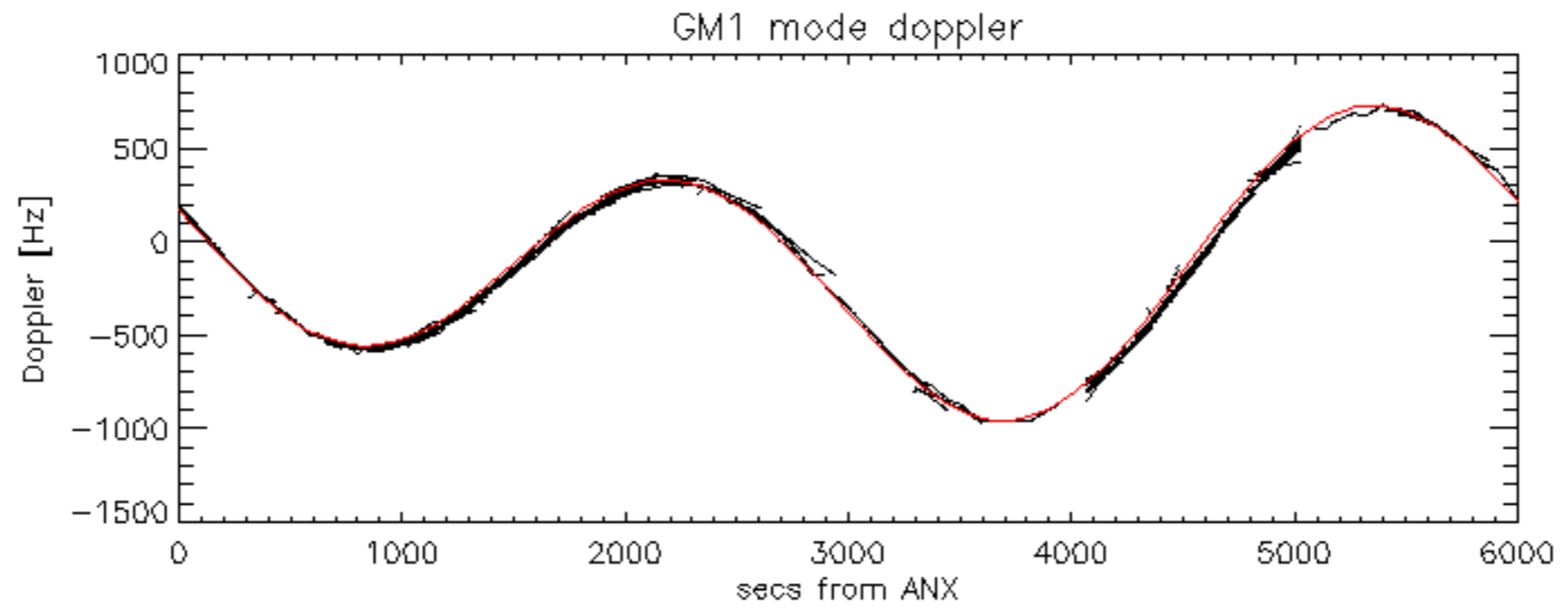


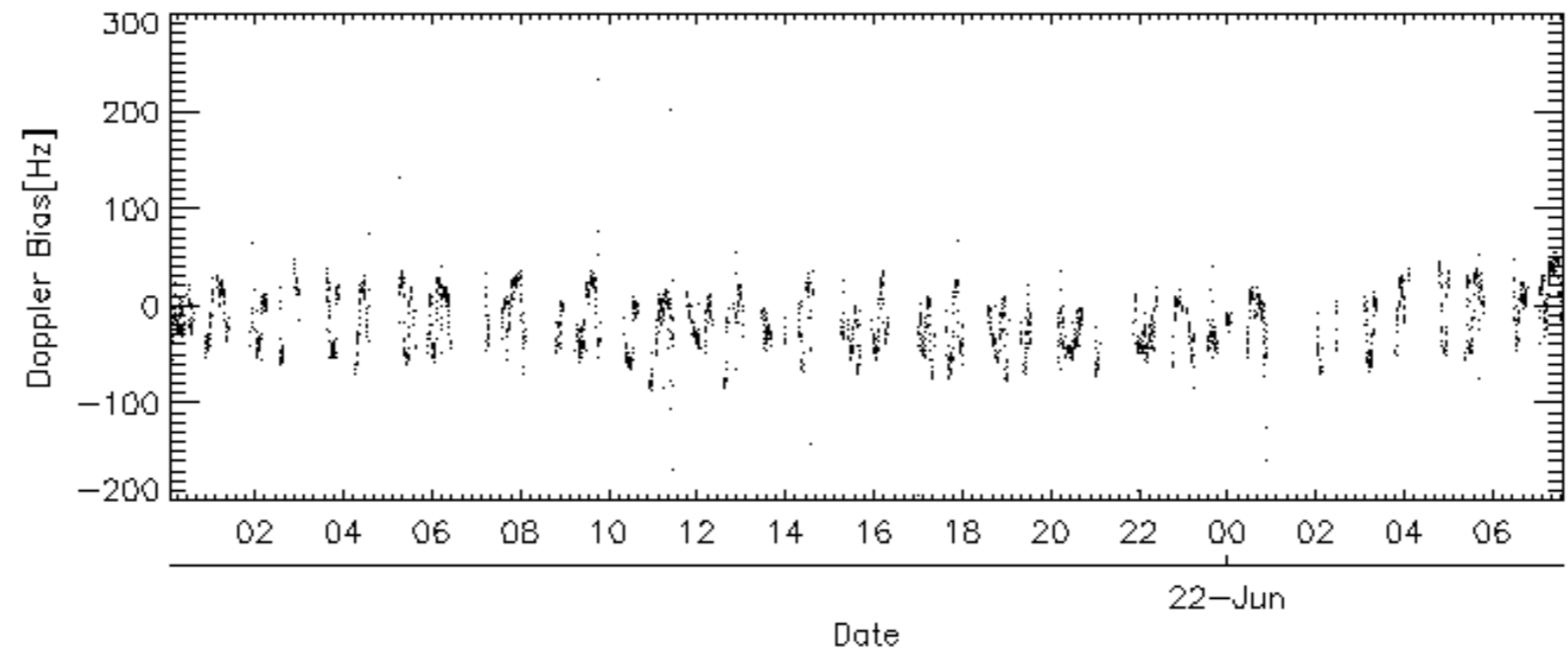
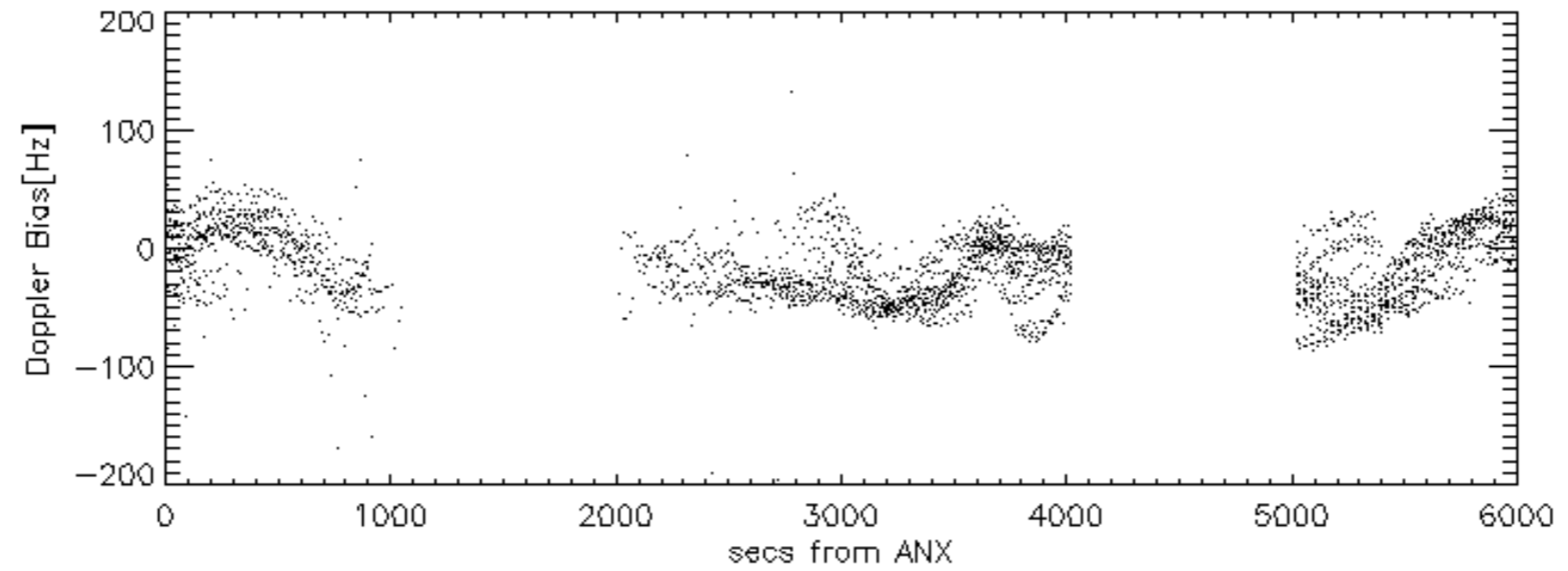
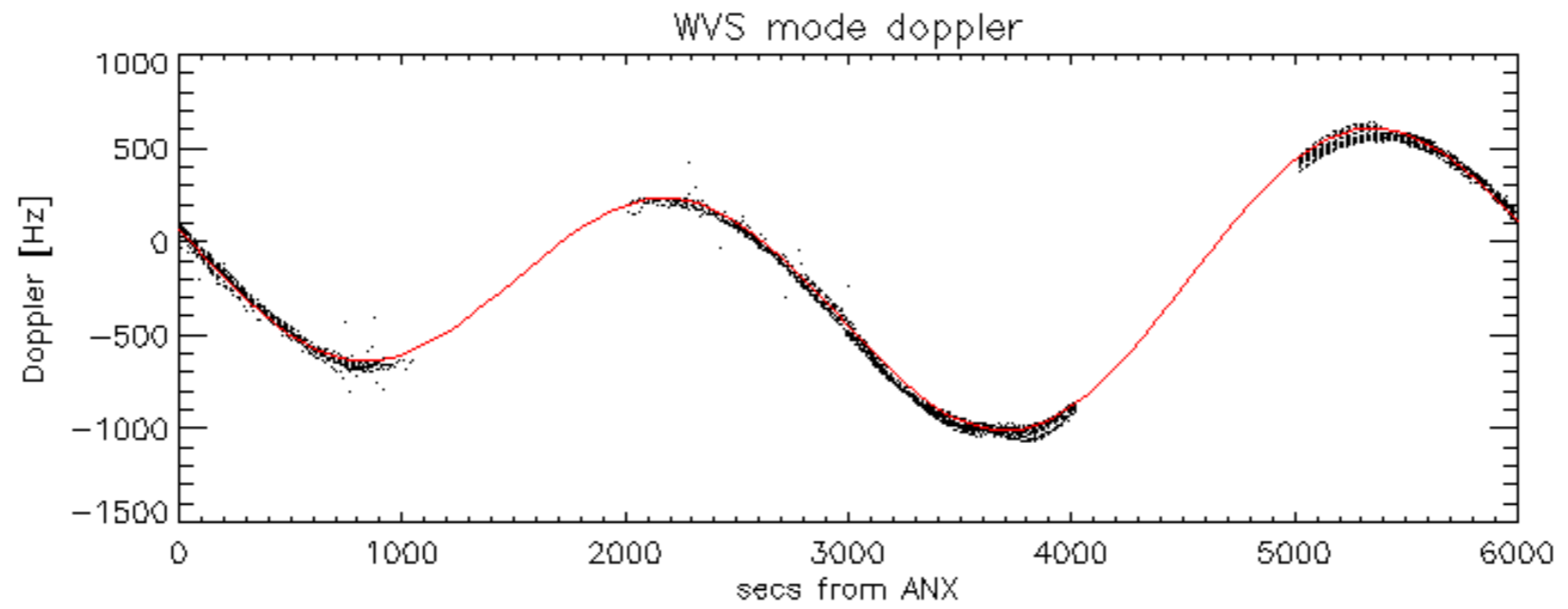
Doppler 'WVS' 'IS2' ascending



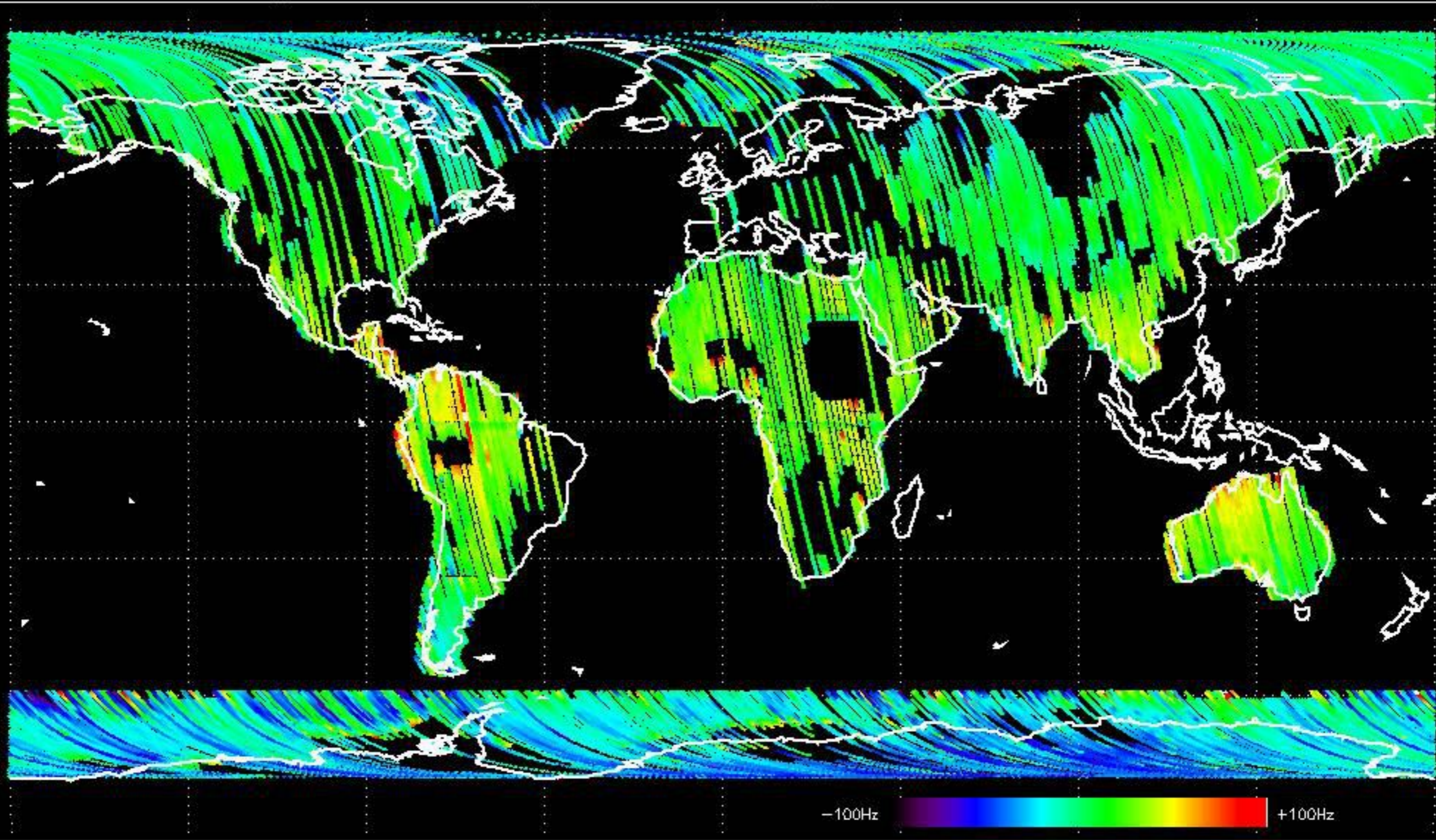
Doppler 'WVS' 'IS2' descending



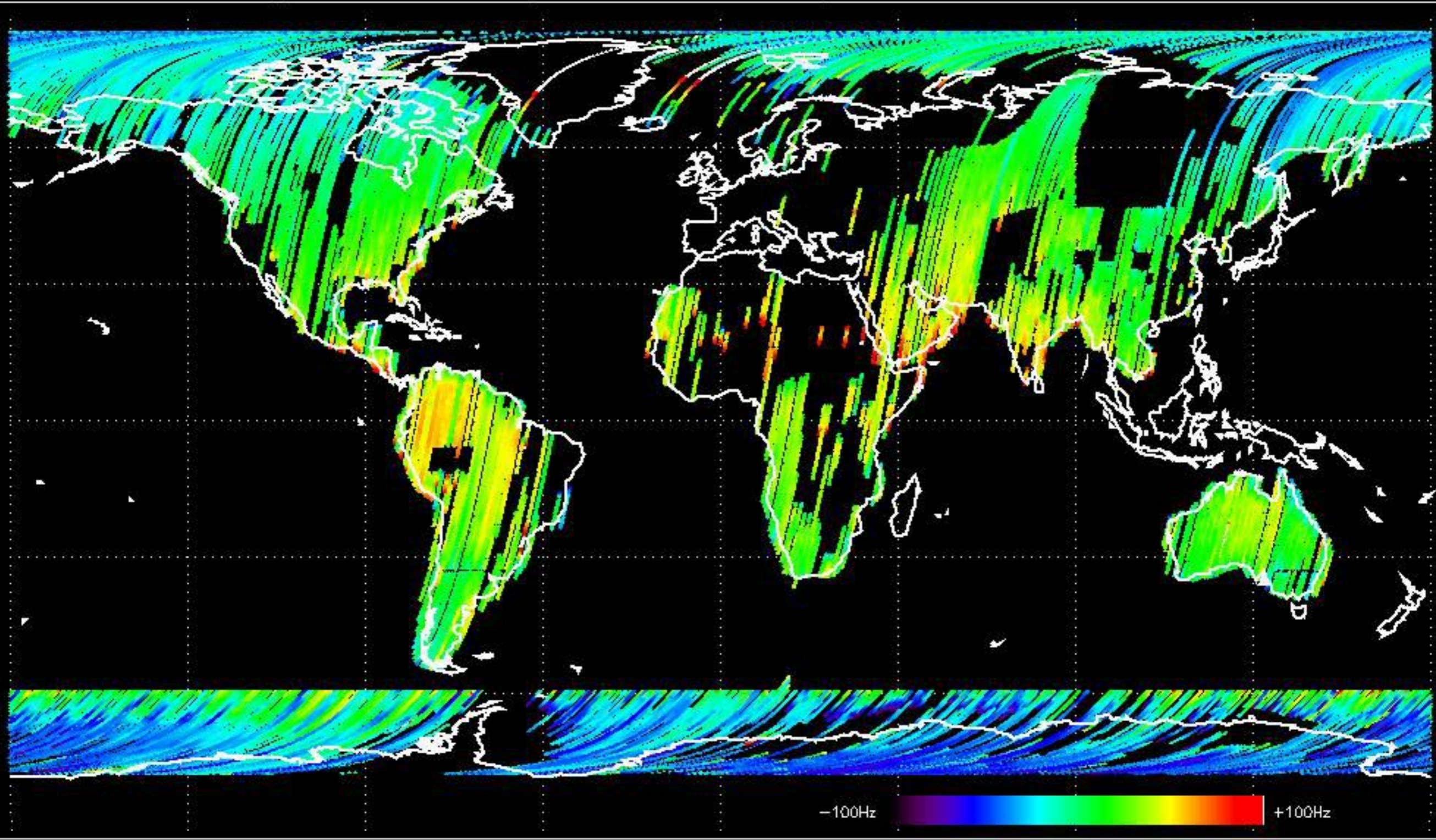




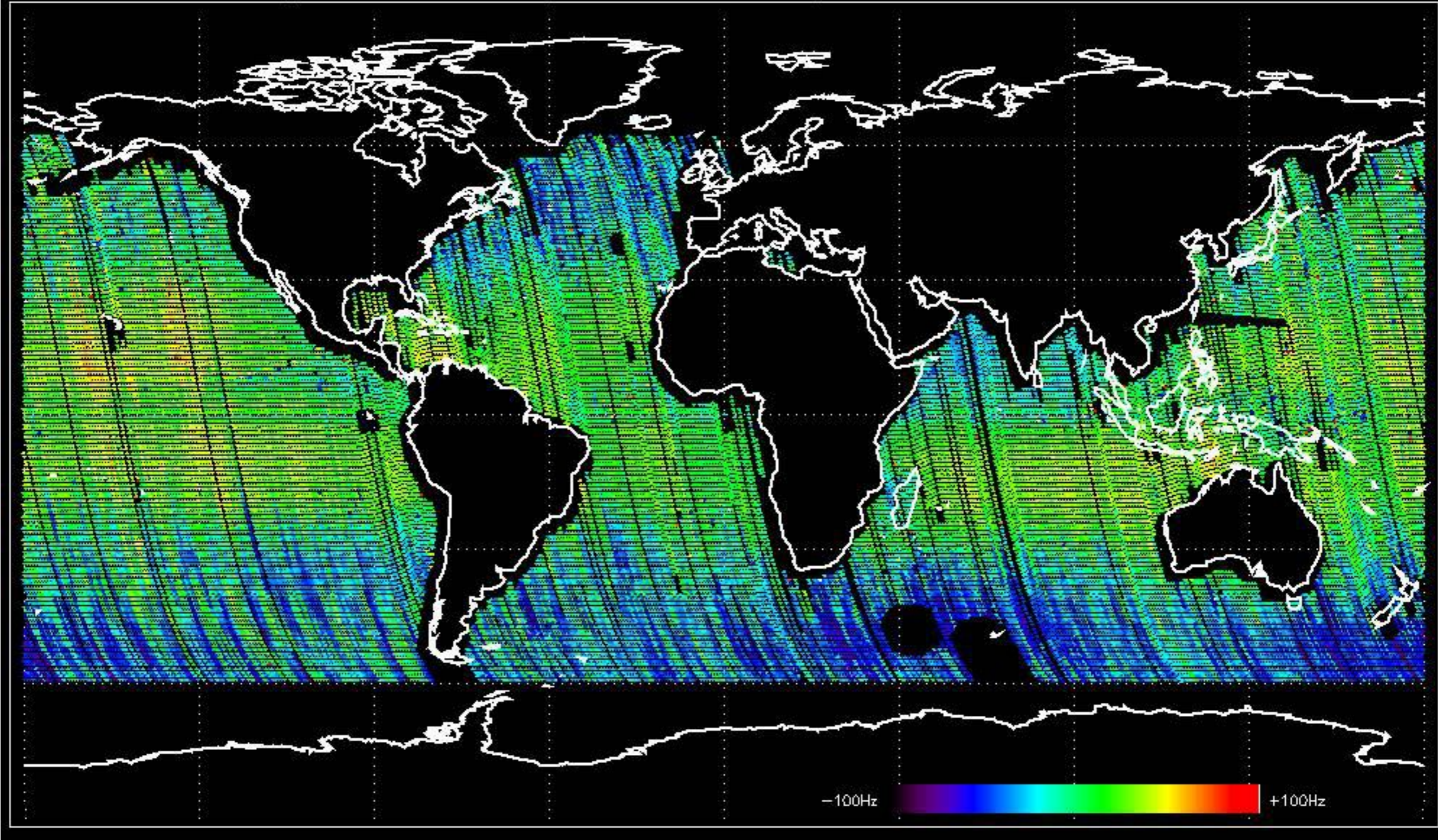
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.980270 Hz



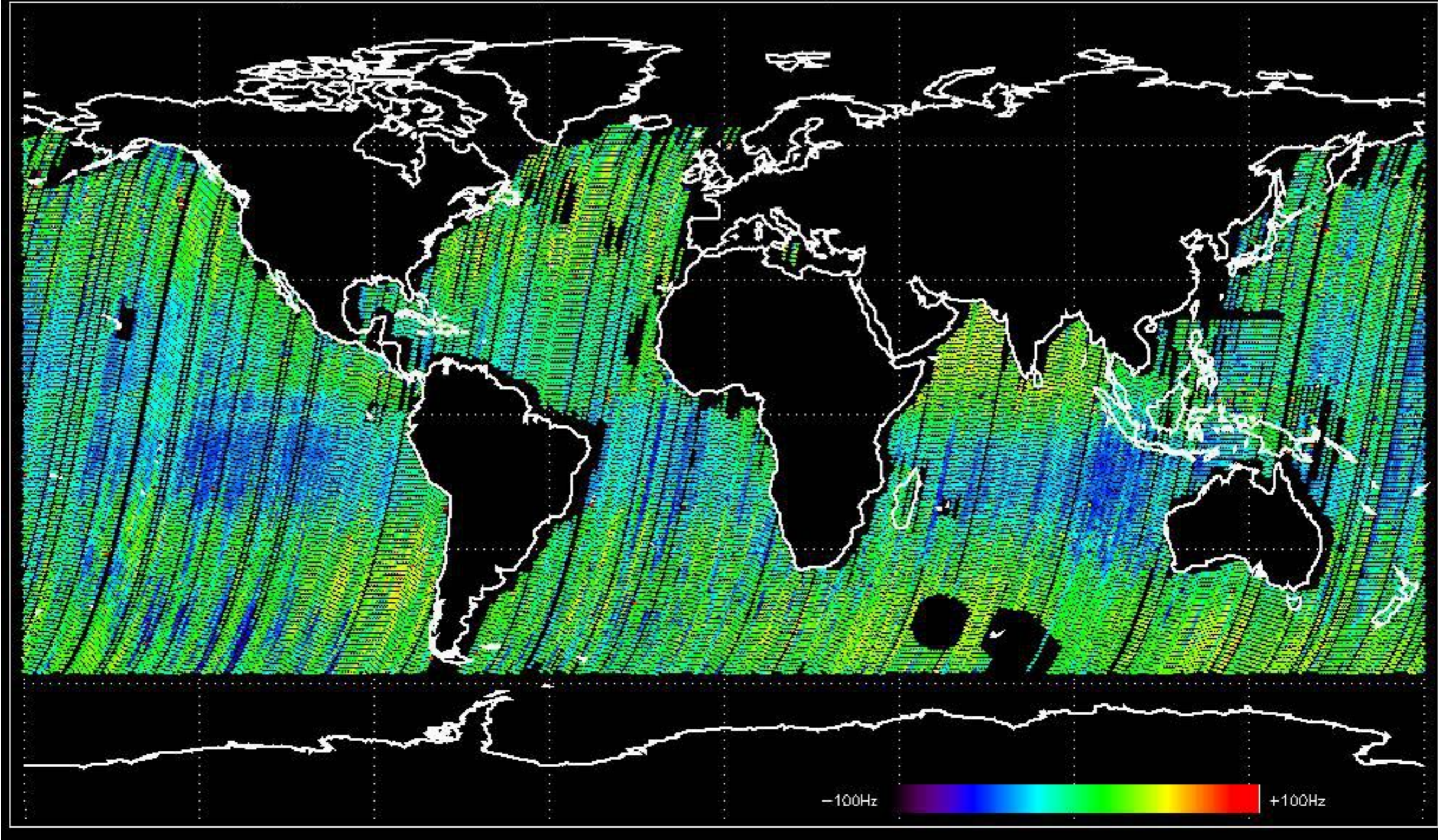
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.2908463 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.4398324 Hz

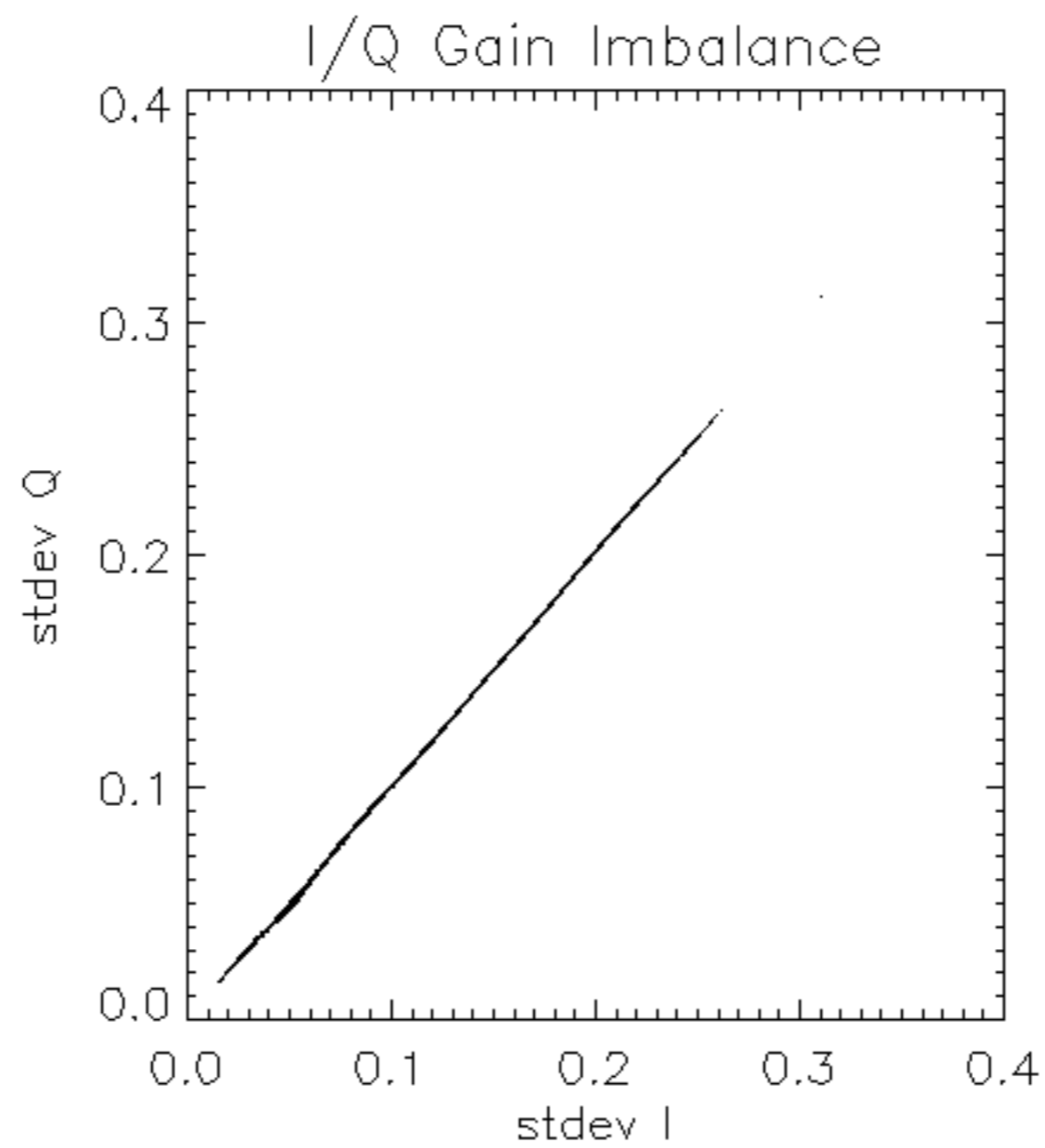


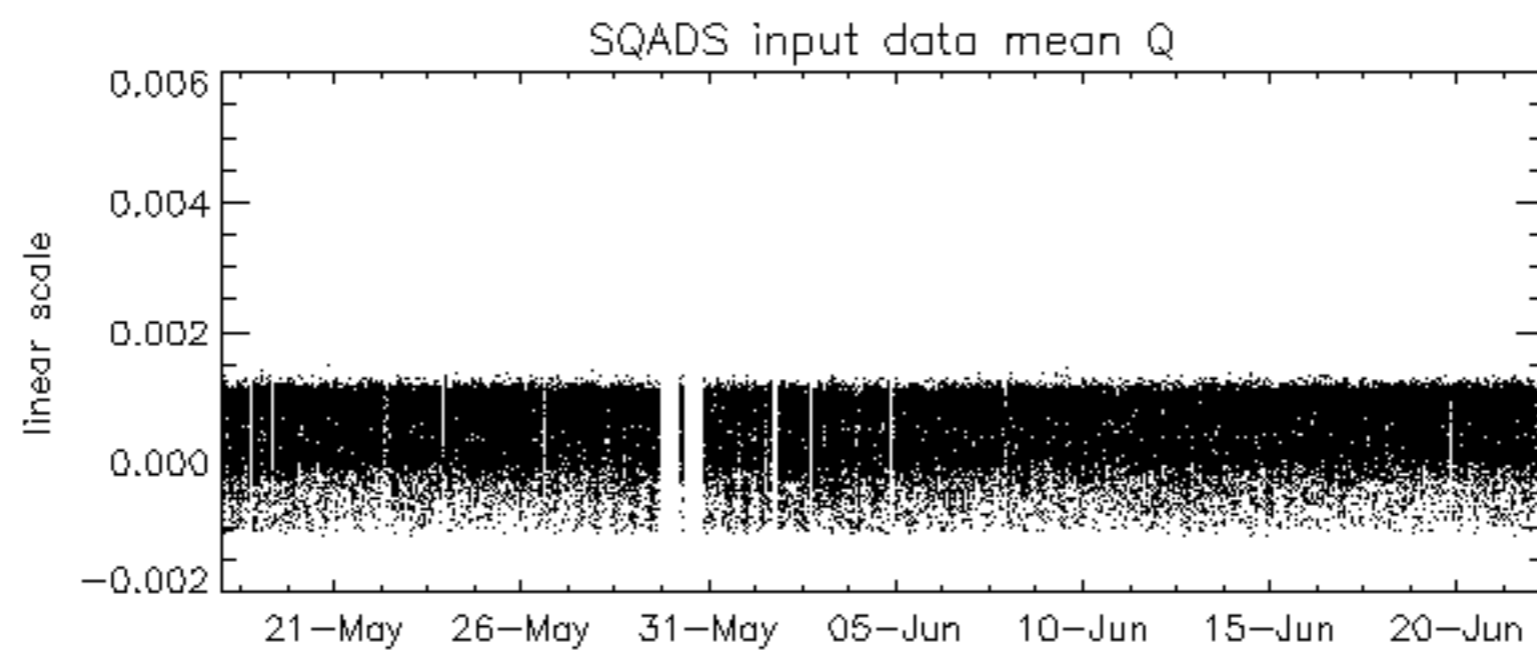
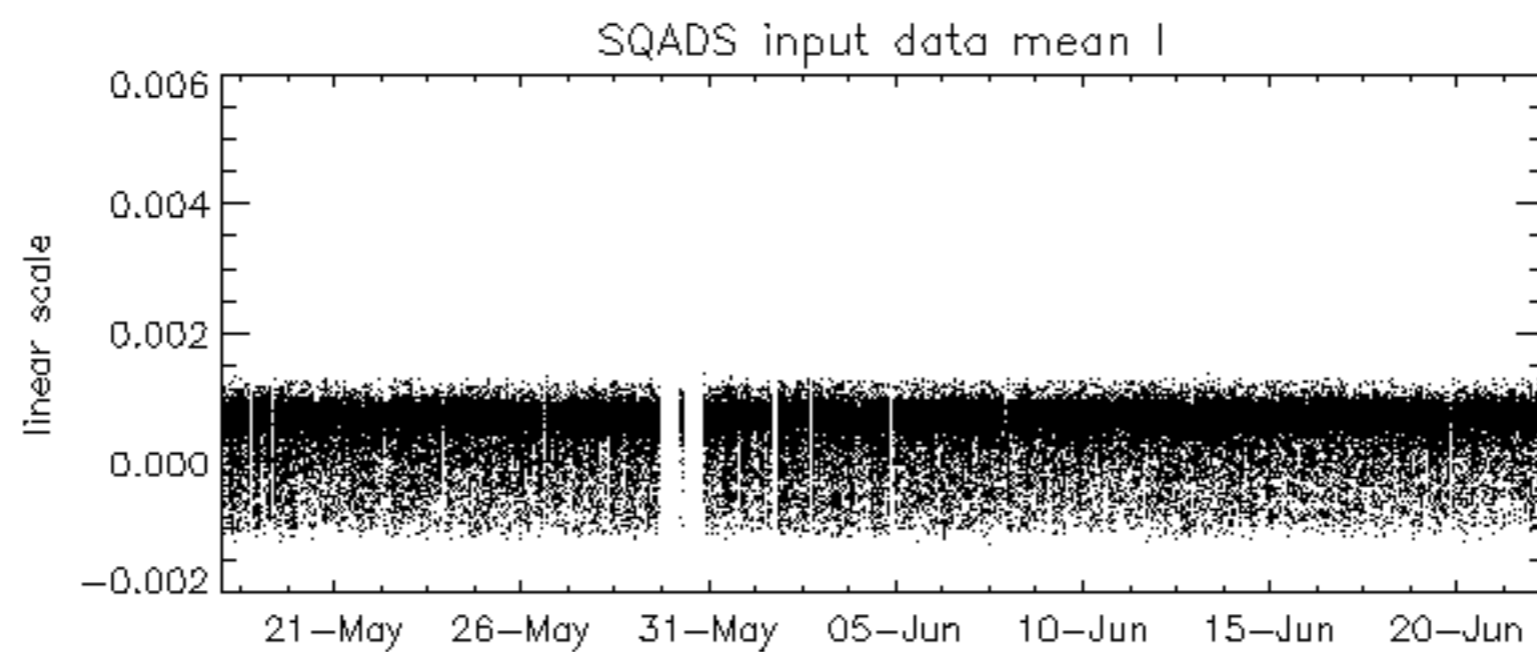
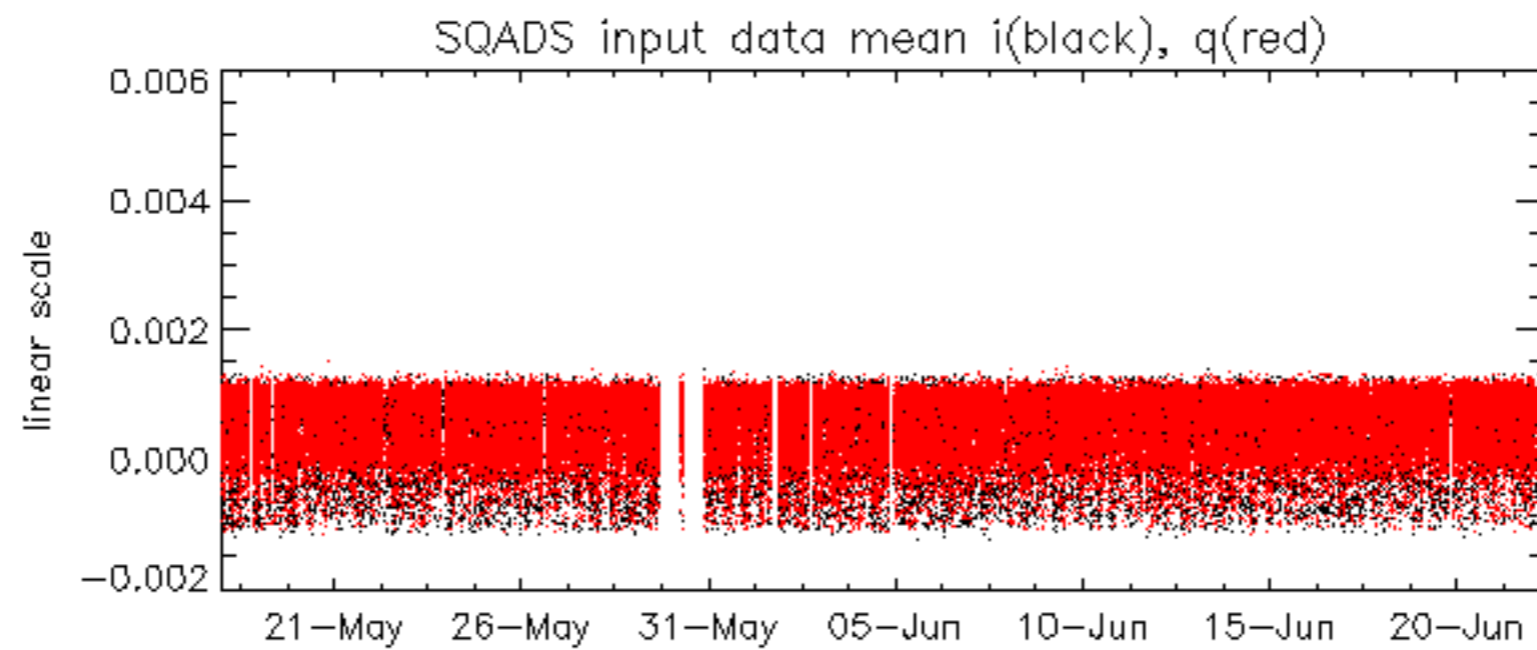
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.584694 Hz

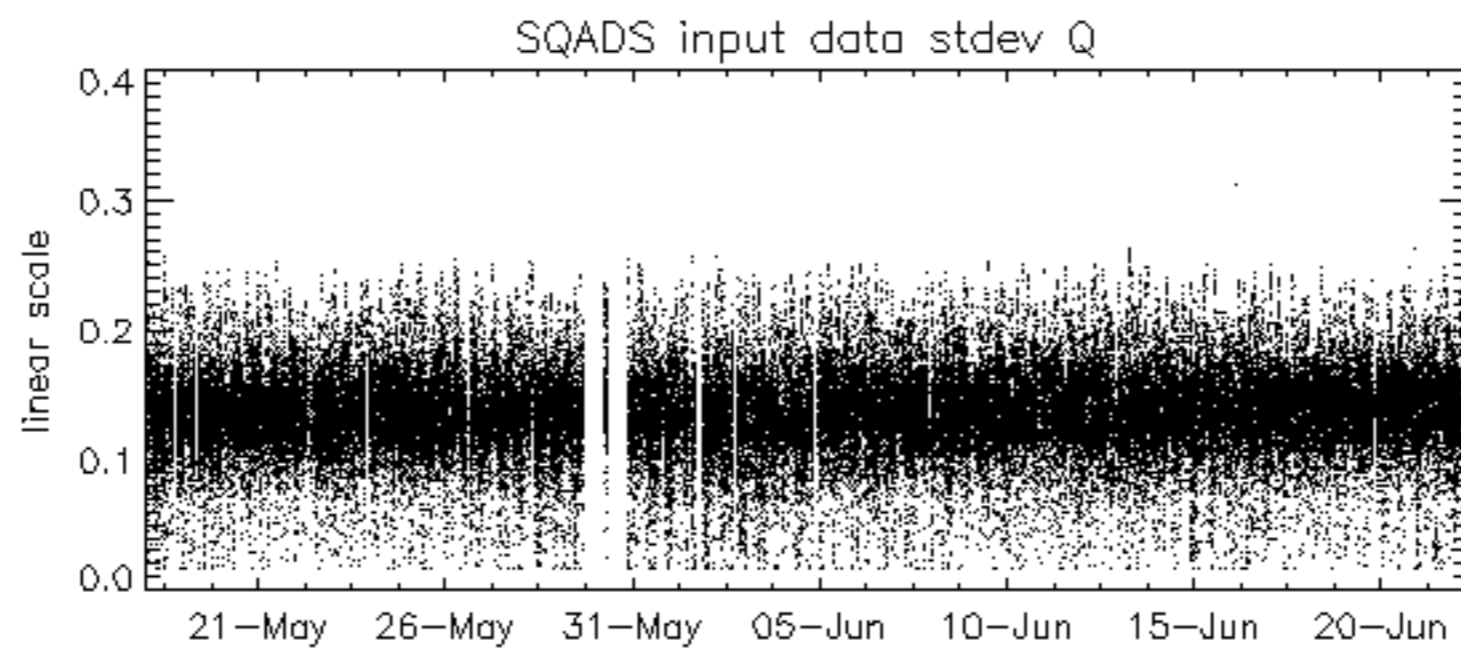
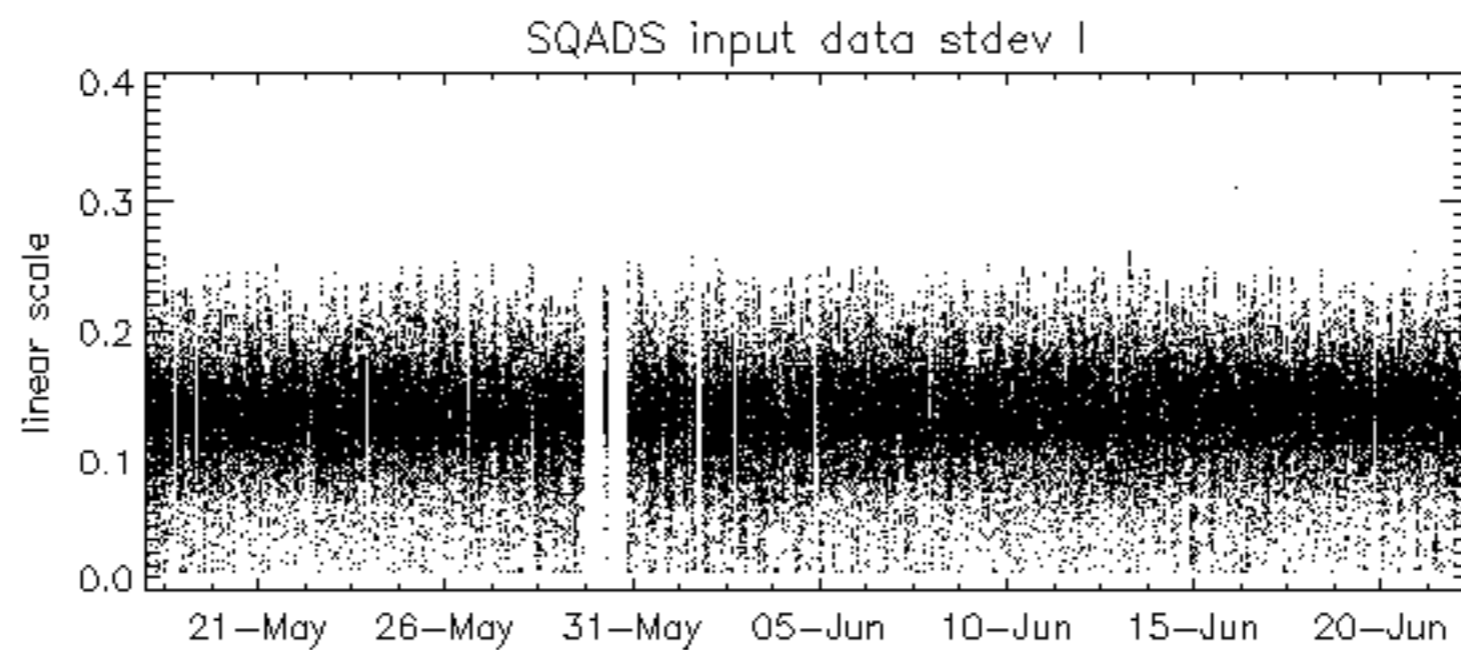
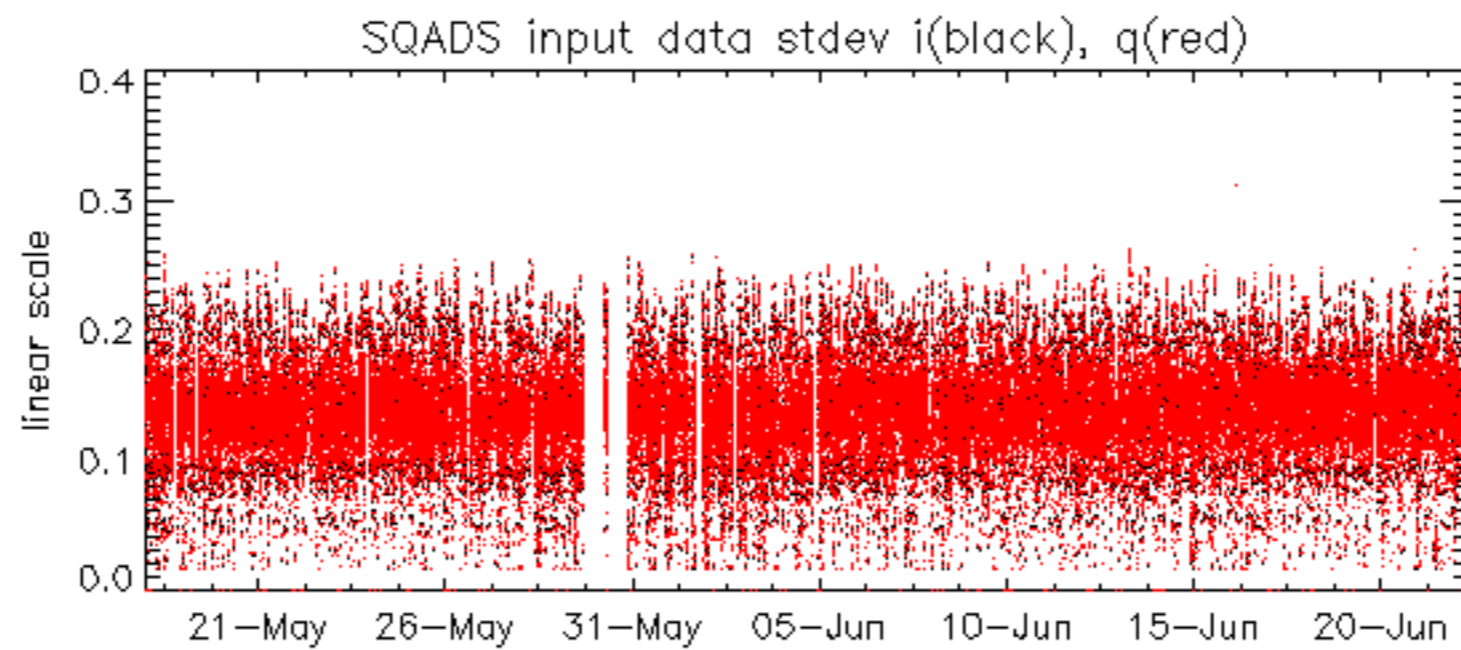


No anomalies observed on available MS products:

No anomalies observed.



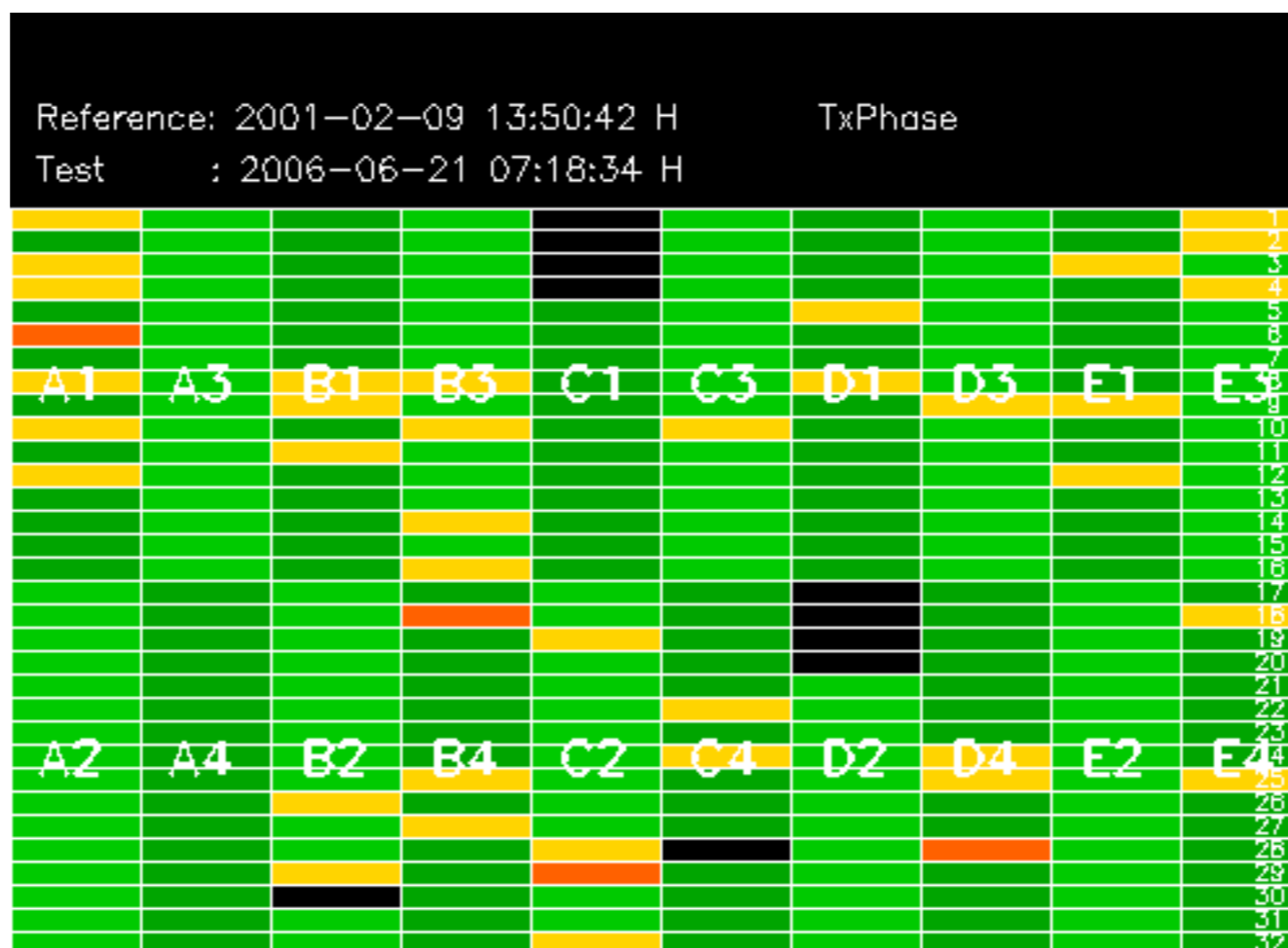


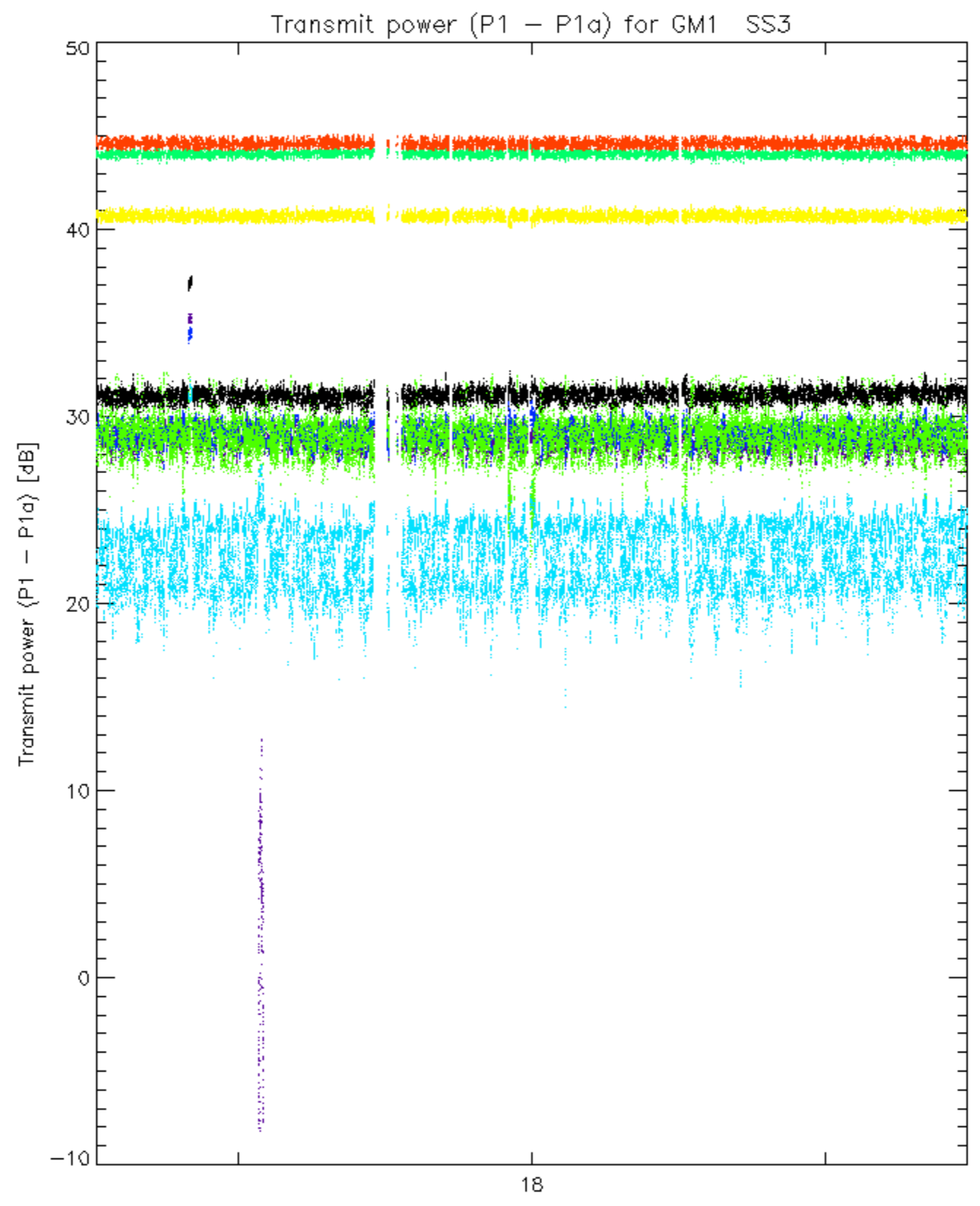


Summary of analysis for the last 3 days 2006062[012]

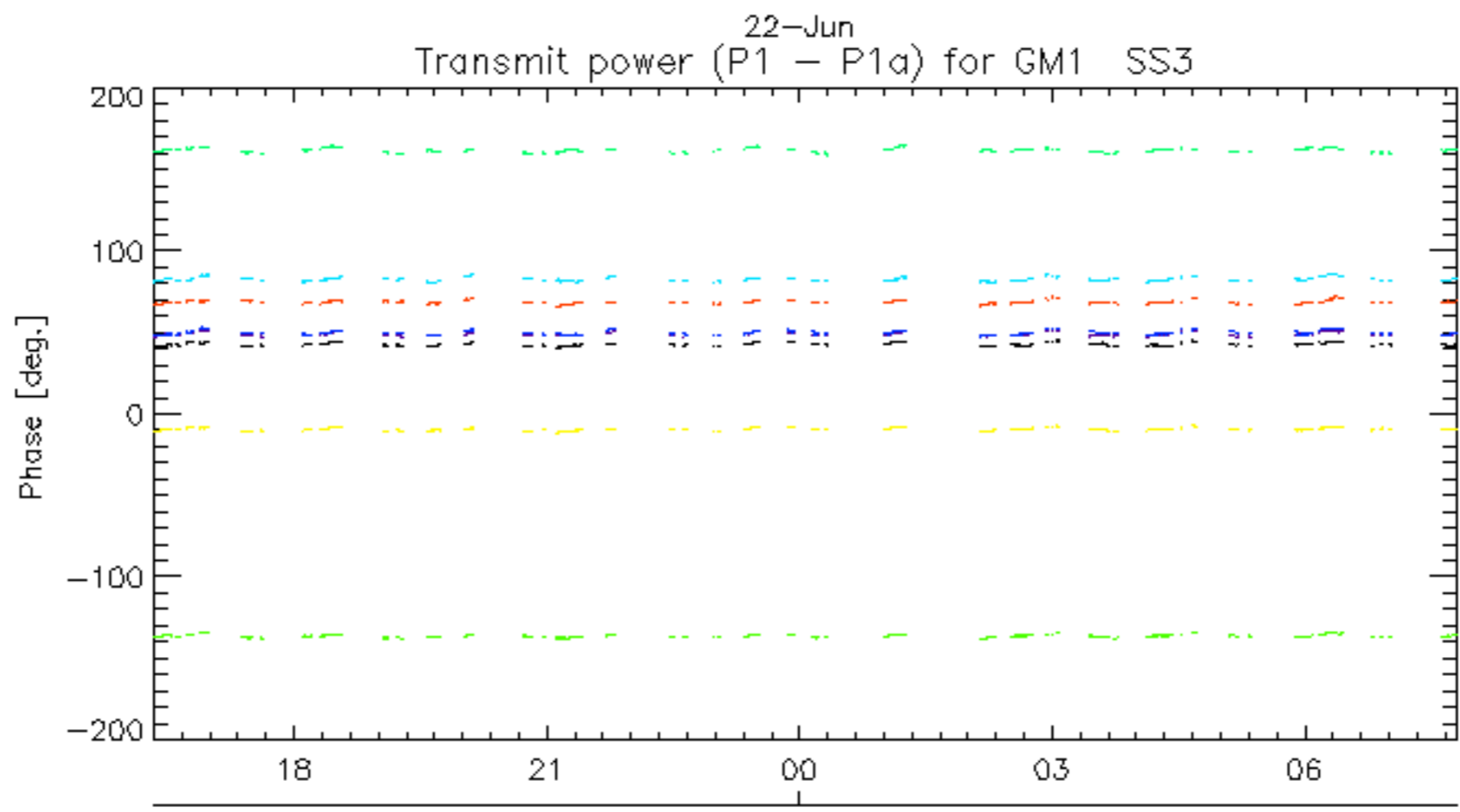
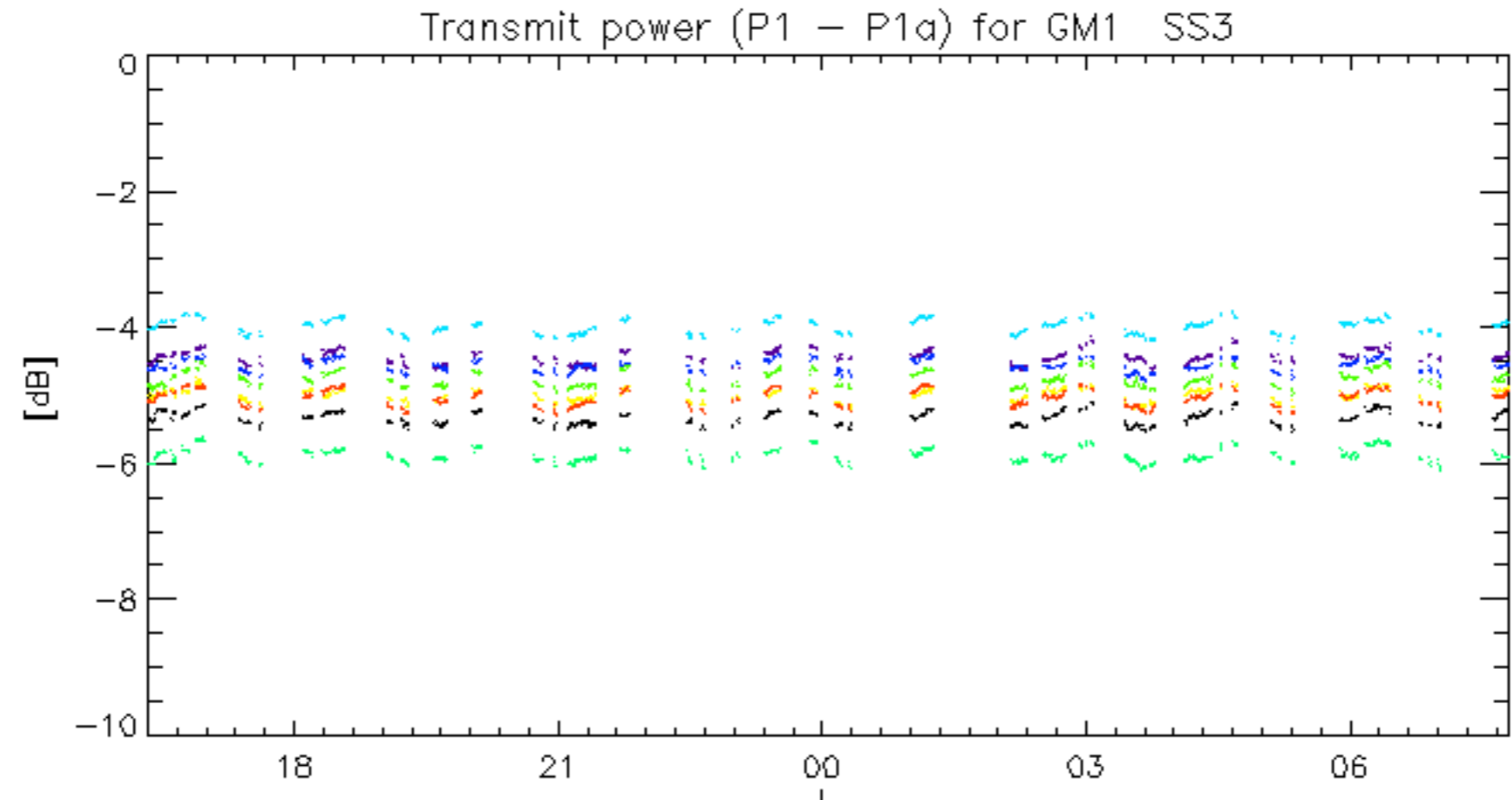
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060620_115627_000000512048_00410_22508_8157.N1	1	0
ASA_IMM_1PNPDE20060622_003435_000001162048_00431_22529_8242.N1	1	0
ASA_WSM_1PNPDE20060621_015620_000000972048_00418_22516_4911.N1	0	2
ASA_WSM_1PNPDE20060621_043526_000001832048_00420_22518_4929.N1	0	32
ASA_WSM_1PNPDE20060621_202015_000000852048_00429_22527_5013.N1	0	54
ASA_WSM_1PNPDE20060621_234617_000003302048_00431_22529_5042.N1	0	27
ASA_WSM_1PNPDE20060622_040158_000001462048_00434_22532_5069.N1	0	63
ASA_WSM_1PNPDK20060620_082754_000000862048_00408_22506_7972.N1	0	58

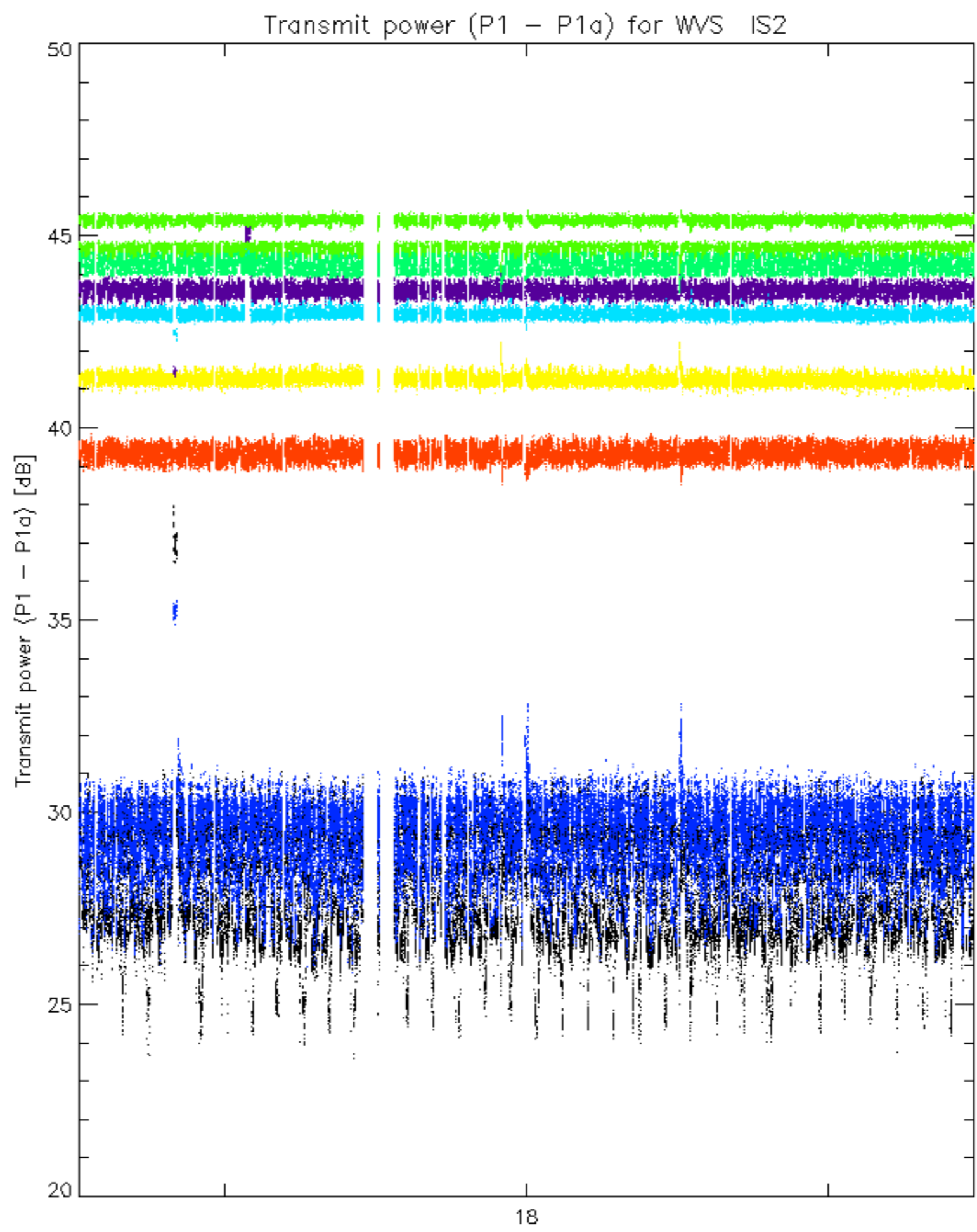




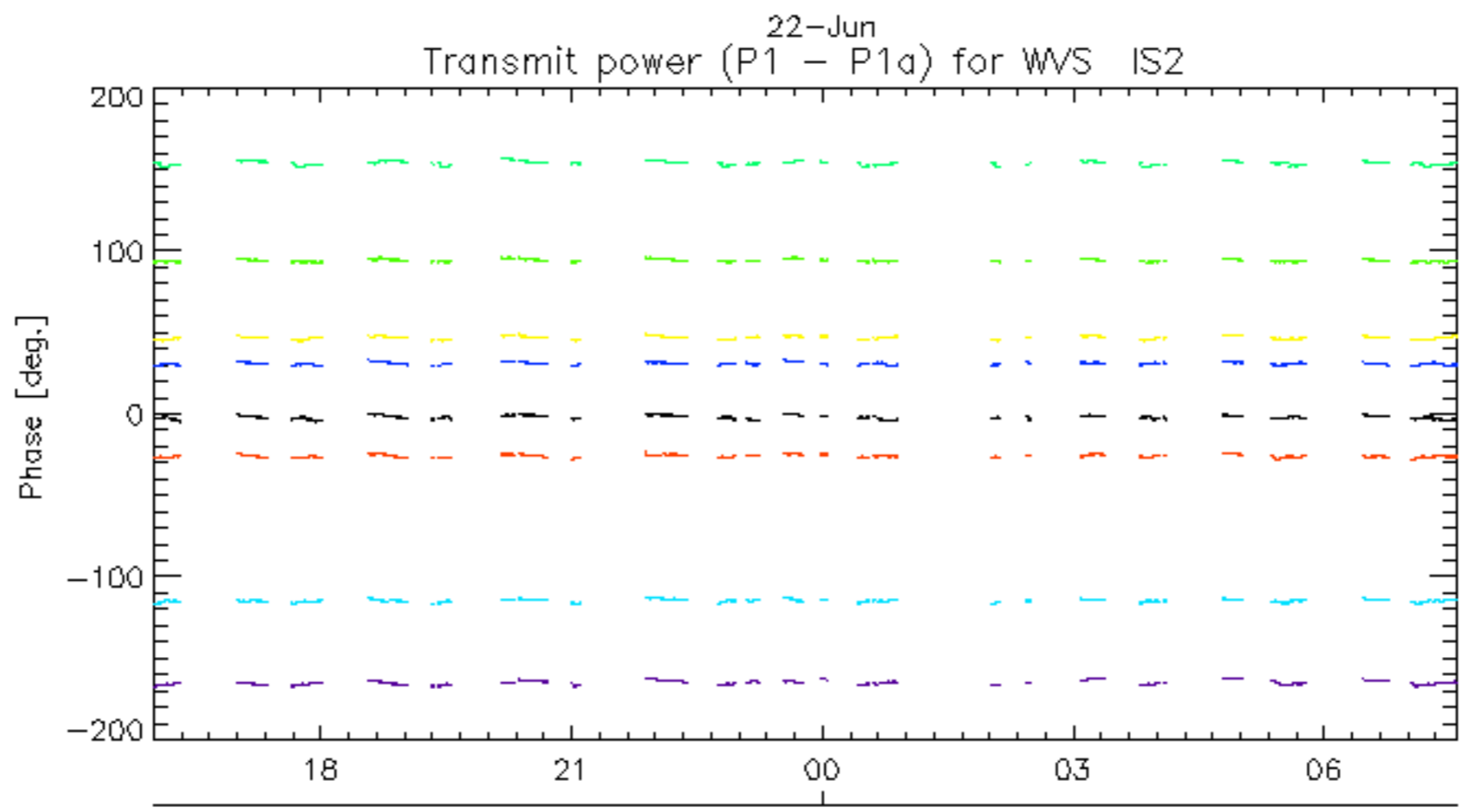
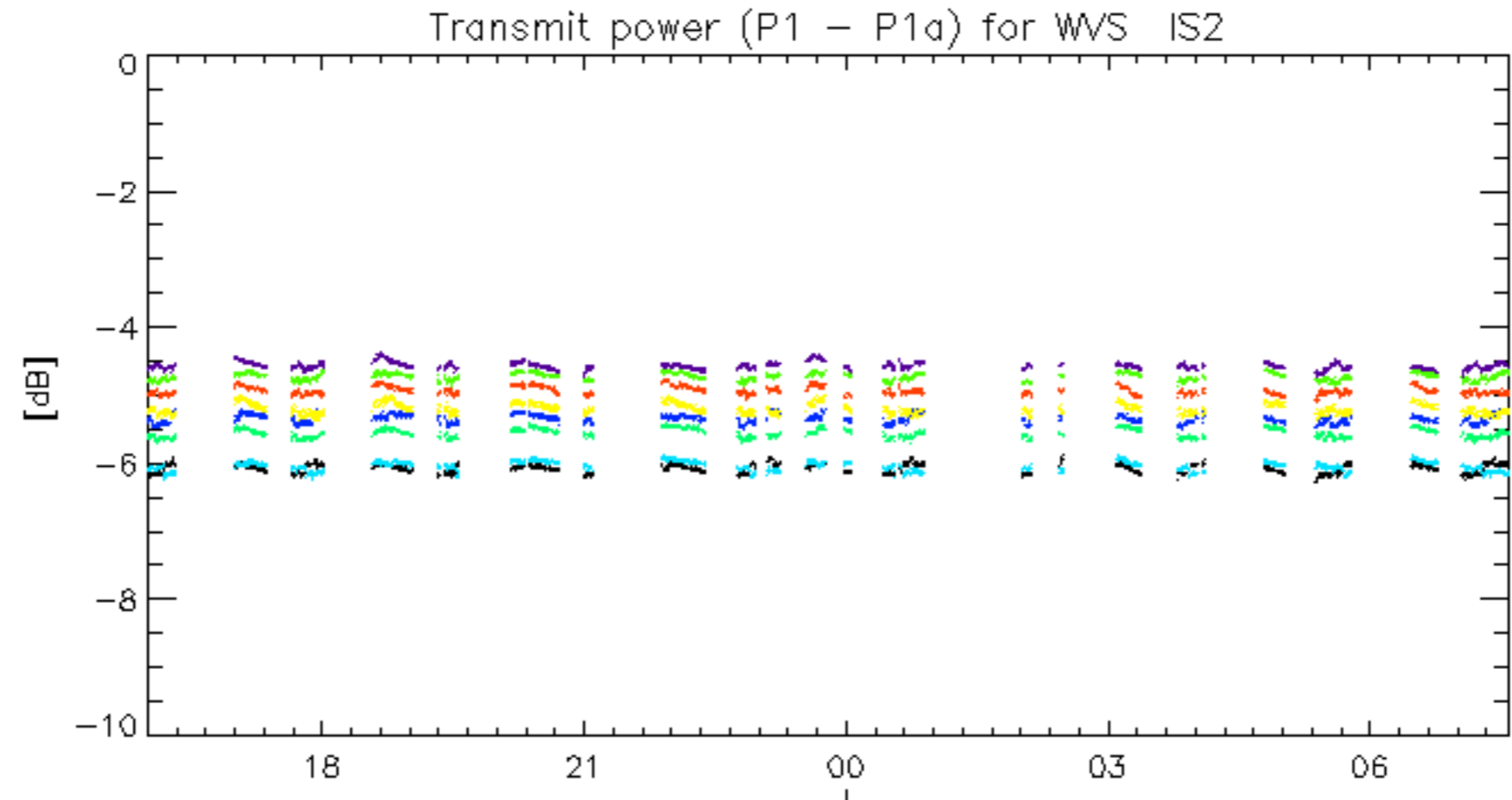
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

The following ASAR instrument anomaly is occurred:

Ref : EN-UNA-2006/0200

Date : 22 June 2006

ASAR Antenna Reset in accordance with procedure CRP_SYS_5041 due to TILE (E3) current lower than expected