

PRELIMINARY REPORT OF 060627

last update on Tue Jun 27 16:48:16 GMT 2006

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2006-06-26 00:00:00 to 2006-06-27 16:48:17

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	72	13	0	24
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	72	13	0	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	72	13	0	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	72	13	0	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	49	27	19	55
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	49	27	19	55
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	49	27	19	55
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	49	27	19	55

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	20060626 180518
H	20060625 183654

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
☒	☒
☒	☒
☒	☒
☒	☒

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
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☒

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	-3.941021	0.046381	-0.046264
7	P1	-3.135745	0.012823	-0.016227
11	P1	-4.102430	0.016577	-0.003063
15	P1	-6.150878	0.019453	-0.078697
19	P1	-3.359083	0.008554	-0.056361
22	P1	-4.520997	0.011649	-0.044940
26	P1	-3.964936	0.017064	0.030985
30	P1	-5.752470	0.008928	-0.033603
3	P1	-16.542622	0.569853	-0.149912
7	P1	-17.231371	0.136372	-0.092546
11	P1	-16.971004	0.281392	-0.076591
15	P1	-13.199425	0.197426	0.092440
19	P1	-14.356315	0.051934	-0.153909
22	P1	-16.155754	0.371541	0.052180
26	P1	-15.198384	0.227321	0.127364
30	P1	-17.150690	0.412166	-0.033370

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.114168	0.082055	0.137360
7	P2	-22.004364	0.098609	0.104627
11	P2	-15.847548	0.111752	0.103142
15	P2	-7.154795	0.095198	-0.004270
19	P2	-9.167756	0.086970	0.009813
22	P2	-18.167788	0.083687	-0.033334
26	P2	-16.407150	0.089128	-0.049792
30	P2	-19.553698	0.088103	0.001052

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184292	0.003934	-0.014503
7	P3	-8.184292	0.003934	-0.014503
11	P3	-8.184292	0.003934	-0.014503
15	P3	-8.184292	0.003934	-0.014503
19	P3	-8.184292	0.003934	-0.014503
22	P3	-8.184292	0.003934	-0.014503
26	P3	-8.184292	0.003934	-0.014503
30	P3	-8.184292	0.003934	-0.014503

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	-3.811171	0.052066	-0.098537
7	P1	-2.574022	0.012482	0.003250
11	P1	-2.855336	0.013371	0.005414
15	P1	-3.514780	0.032343	-0.083015
19	P1	-3.412251	0.014378	-0.018965
22	P1	-5.082992	0.019614	0.001234
26	P1	-5.856979	0.016120	-0.026904
30	P1	-5.190512	0.026319	-0.011673
3	P1	-11.644104	0.141160	-0.090647
7	P1	-9.976467	0.034985	-0.022899
11	P1	-10.233123	0.059274	-0.010138
15	P1	-10.693545	0.134343	-0.016294
19	P1	-15.540998	0.076958	-0.014110
22	P1	-20.944788	1.166935	-0.022039

26	P1	-16.449440	0.331133	0.093369
30	P1	-17.879801	0.371443	0.086924

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.792730	0.075656	0.213946
7	P2	-22.474512	0.132226	0.097629
11	P2	-11.129920	0.049001	0.103305
15	P2	-4.919994	0.049501	-0.012253
19	P2	-6.881476	0.054207	0.007548
22	P2	-8.208360	0.043437	0.005364
26	P2	-24.156425	0.069600	-0.062738
30	P2	-22.054167	0.056866	0.047986

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018942	0.004863	-0.009044
7	P3	-8.018987	0.004845	-0.008951
11	P3	-8.018922	0.004855	-0.009250
15	P3	-8.018854	0.004859	-0.008916
19	P3	-8.018833	0.004856	-0.008557
22	P3	-8.019042	0.004843	-0.008948
26	P3	-8.019072	0.004858	-0.008812
30	P3	-8.018909	0.004840	-0.008820

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	0.000563787
	stdev	1.68594e-07
MEAN Q	mean	0.000528428
	stdev	2.18869e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137320
	stdev	0.00115788
STDEV Q	mean	0.137678
	stdev	0.00117568



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006062[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_1PNPDE20060625_003958_000001552048_00474_22572_8683.N1	1	0
ASA_IMM_1PNPDE20060625_005615_000000362048_00475_22573_8684.N1	1	0
ASA_IMM_1PNPDE20060625_022556_000000362048_00476_22574_8697.N1	1	0
ASA_IMM_1PNPDE20060625_063915_000001102048_00478_22576_8747.N1	1	0
ASA_WSM_1PNPDE20060625_113214_000001292048_00481_22579_5331.N1	0	26

ASA_WSM_1PNPDE20060625_141258_000000912048_00483_22581_5337.N1	0	17
ASA_WSM_1PNPDE20060626_033514_000000862048_00491_22589_5429.N1	0	22
ASA_WSM_1PNPDK20060626_134018_000003002048_00497_22595_8394.N1	0	32



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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>
Acsending
<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

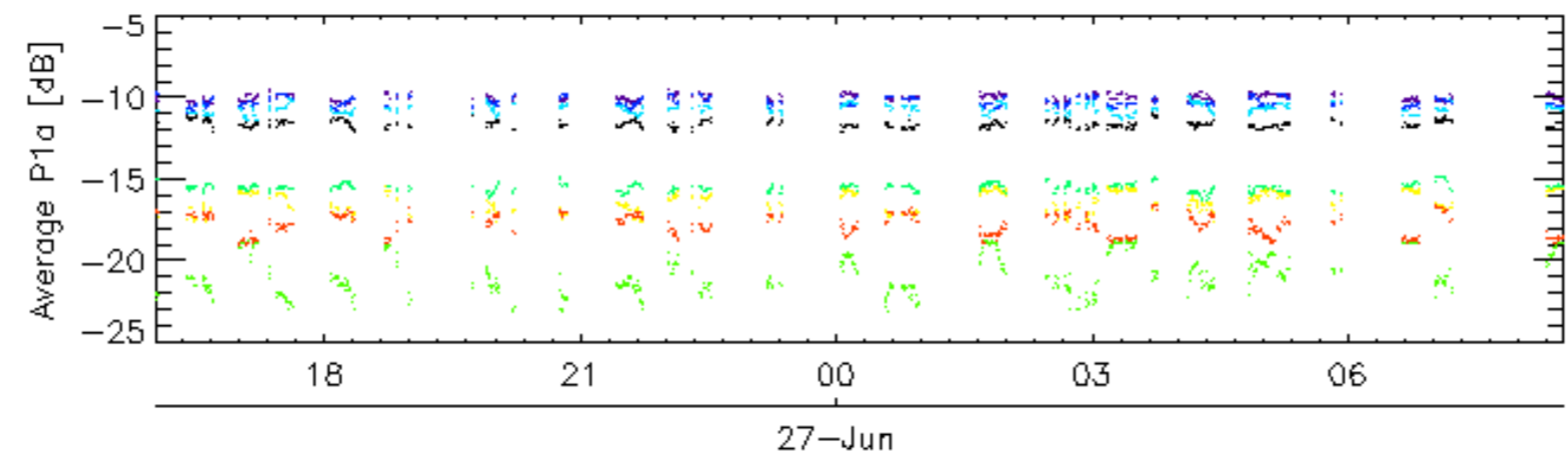
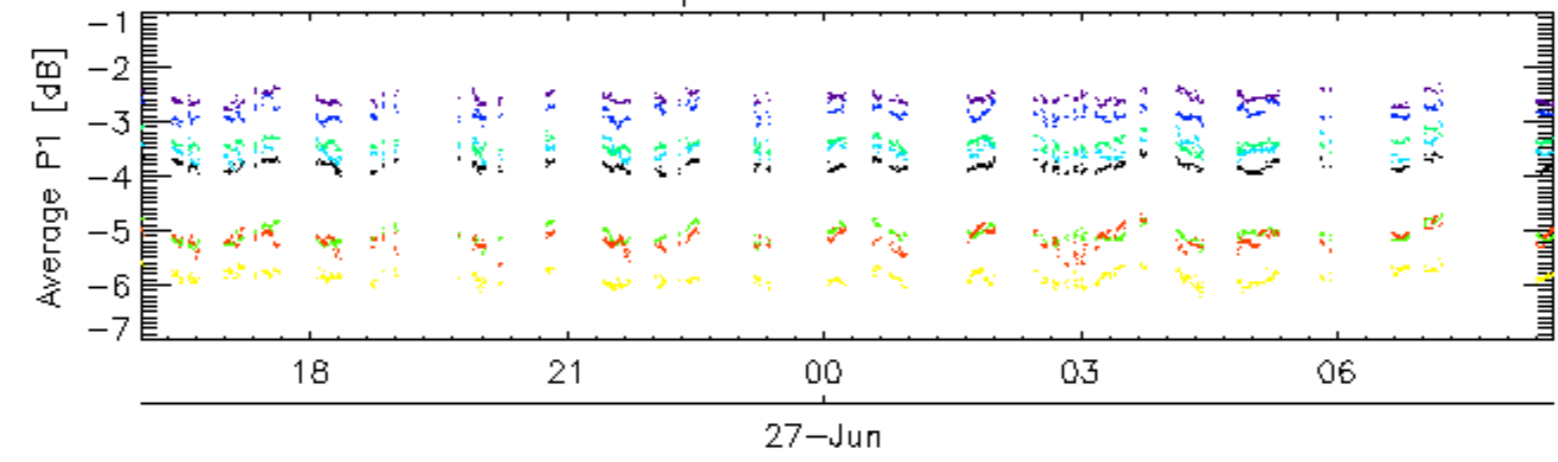
7.5 - Absolute Doppler for GM1

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

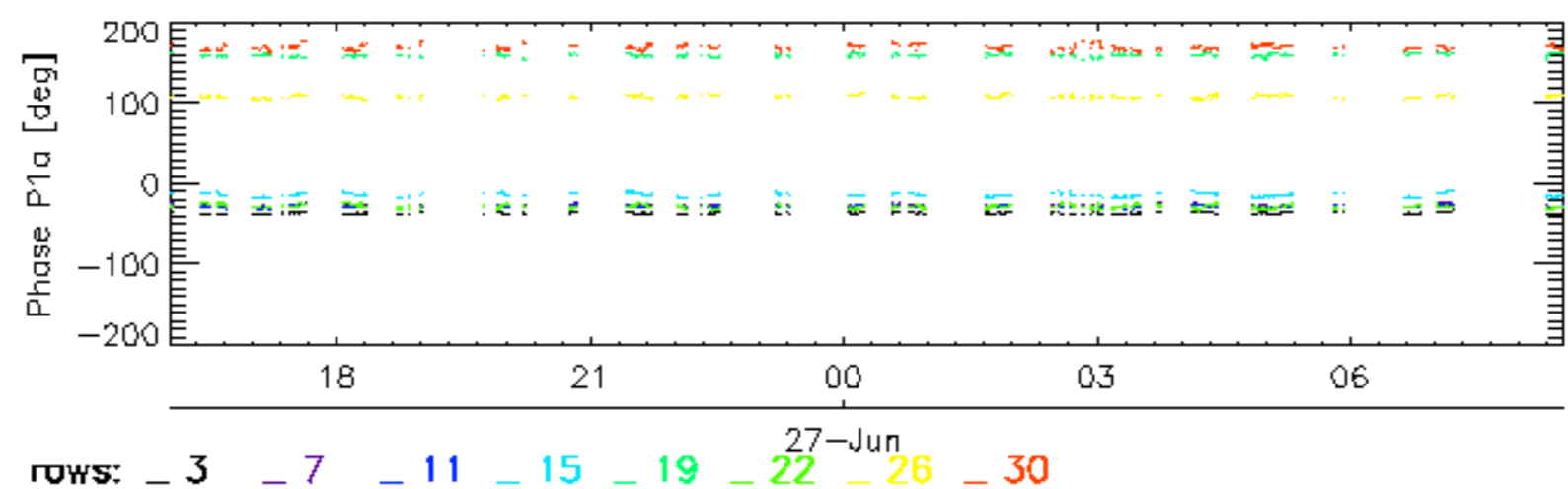
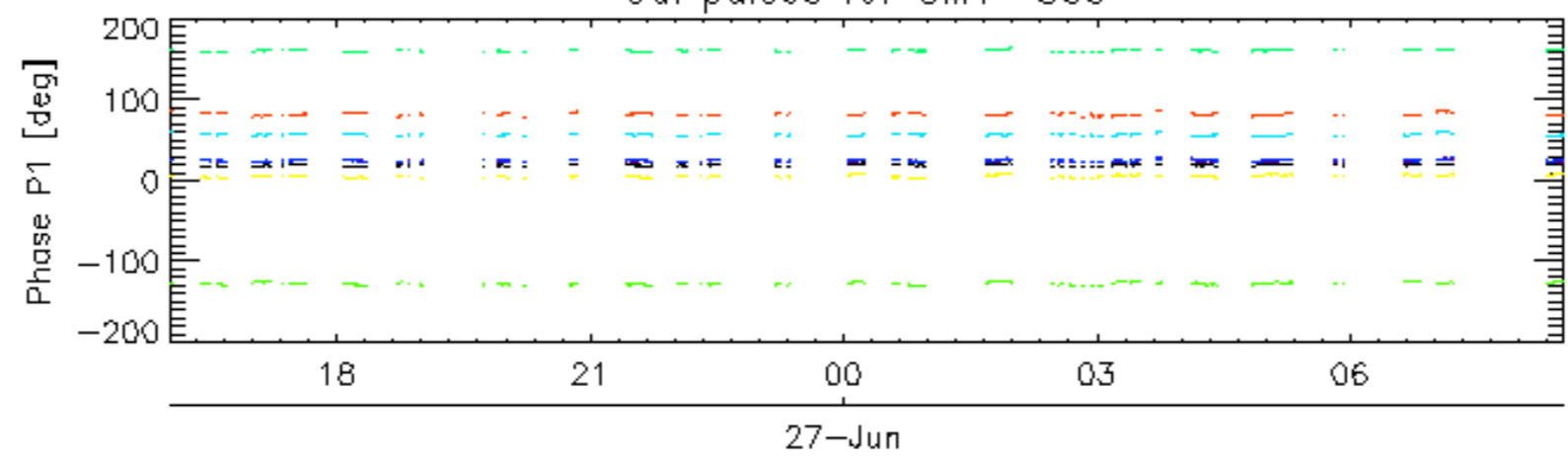
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

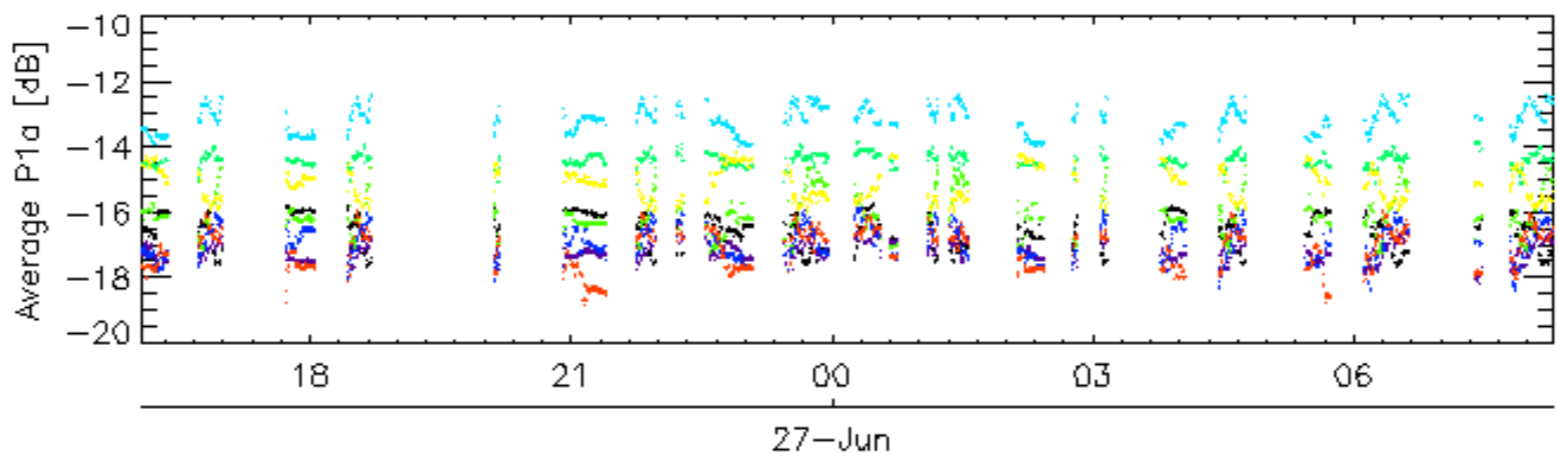
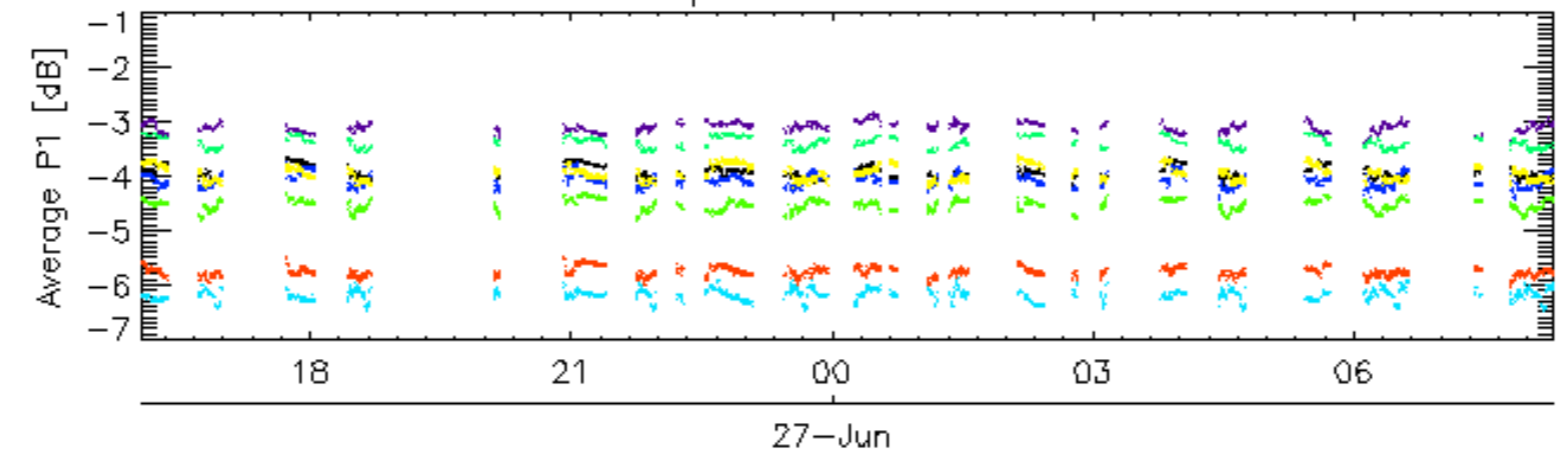


Cal pulses for GM1 SS3

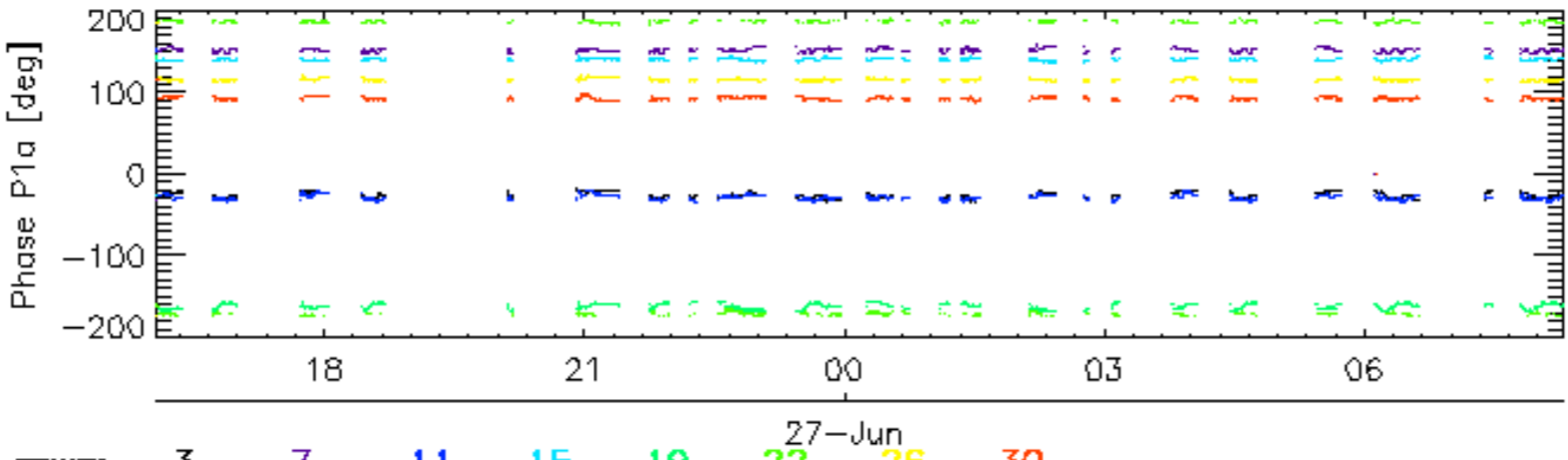
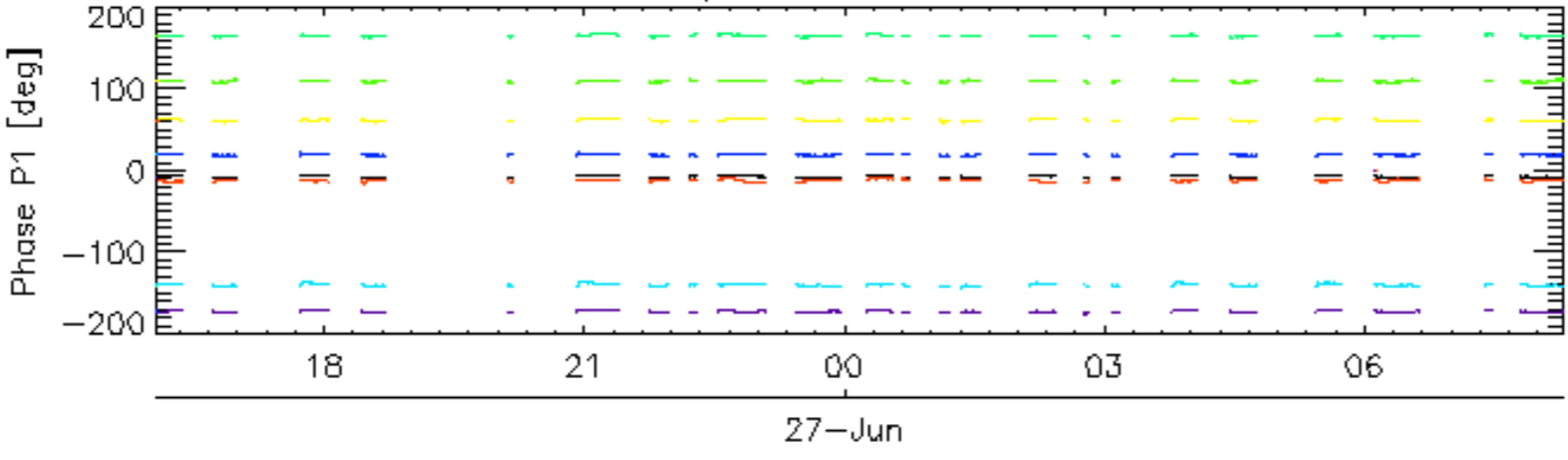


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

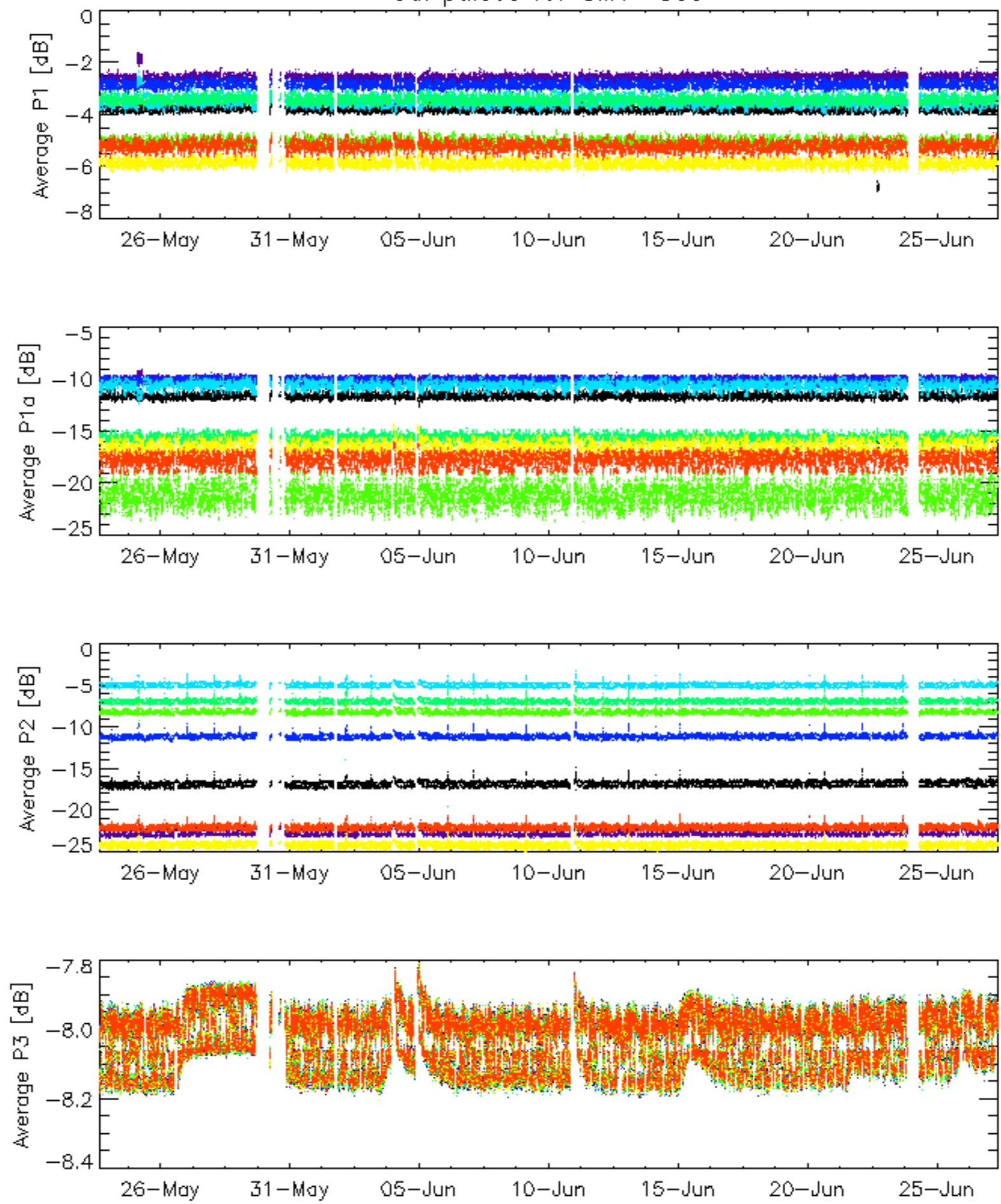


Cal pulses for WVS IS2



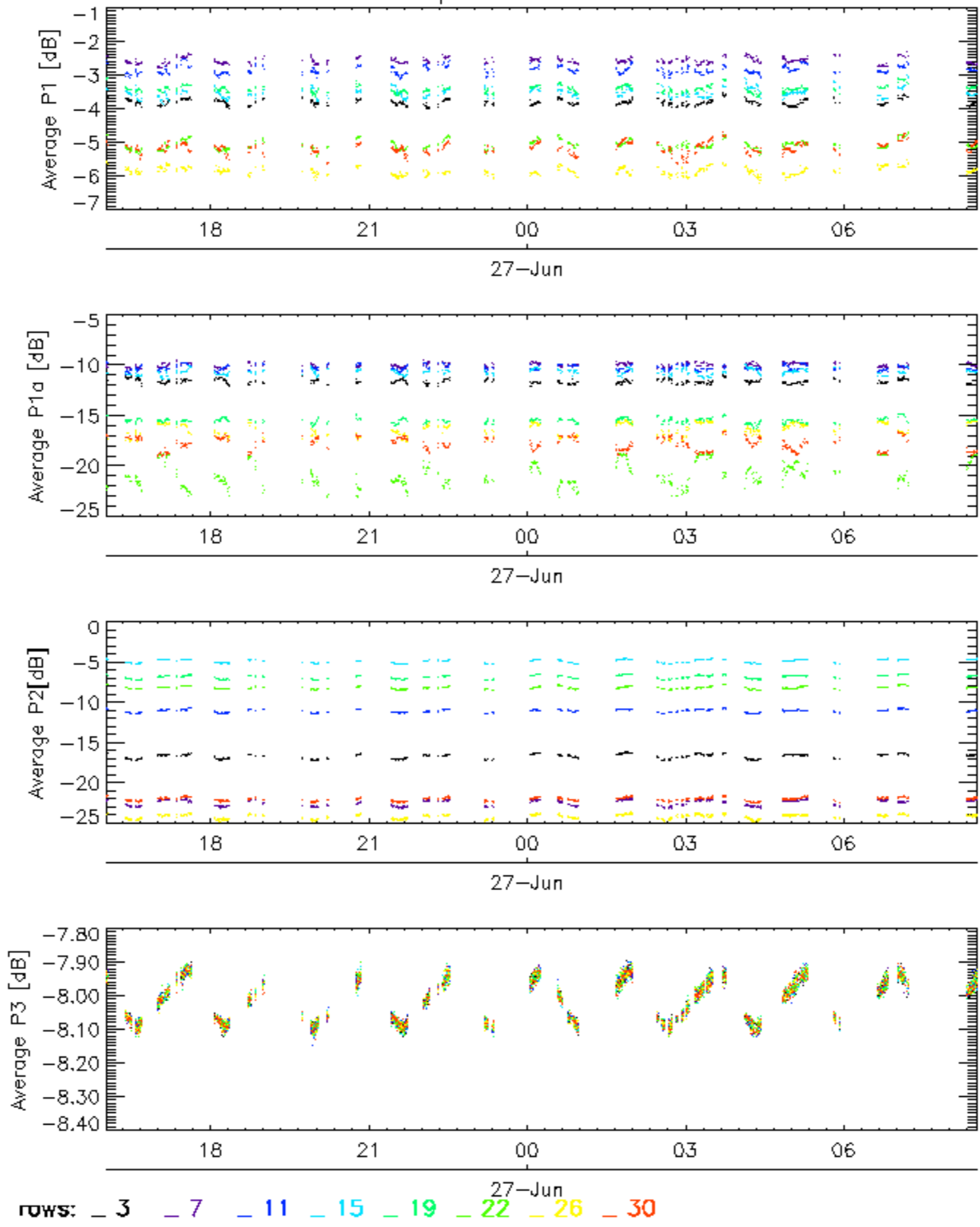
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

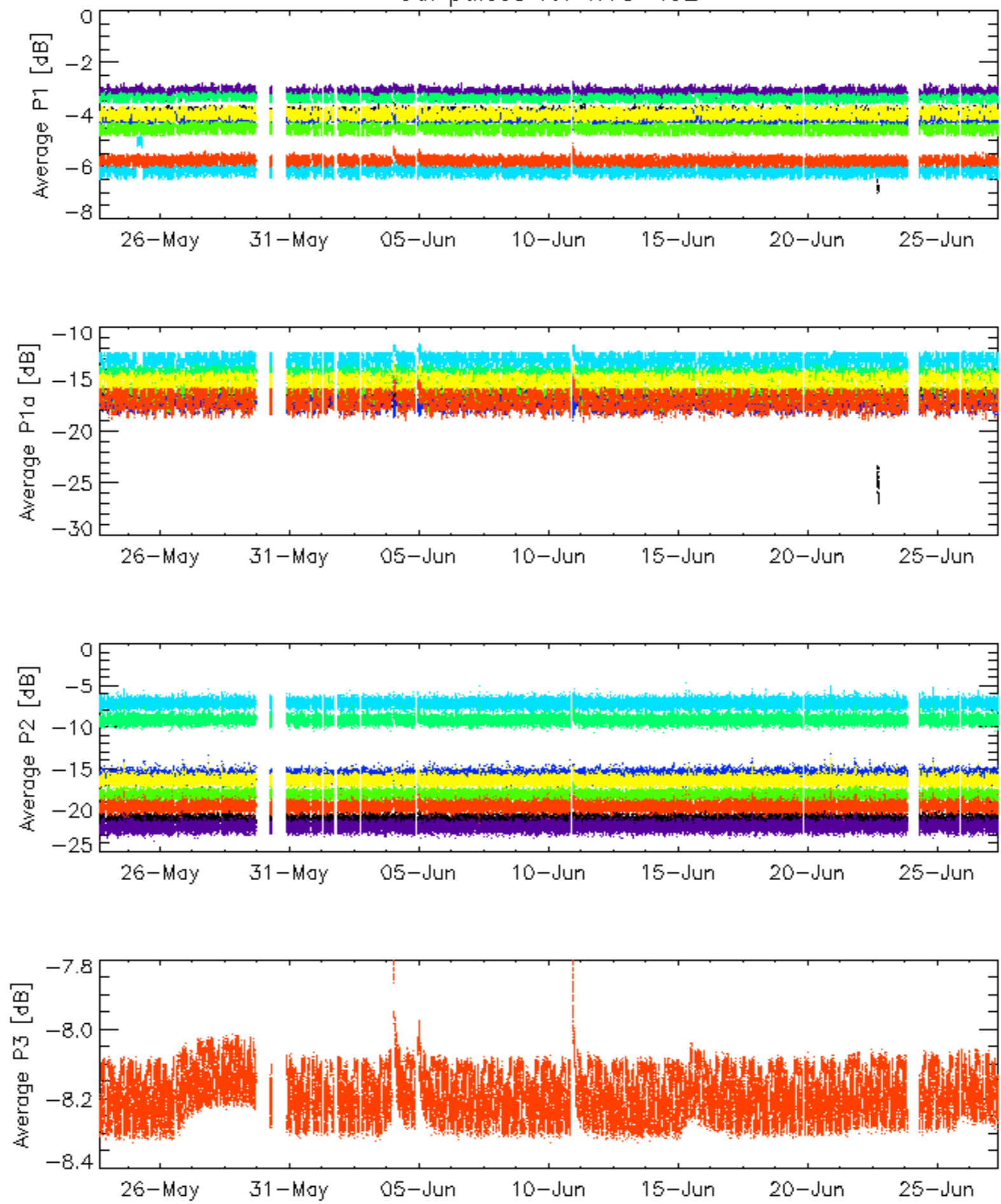


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

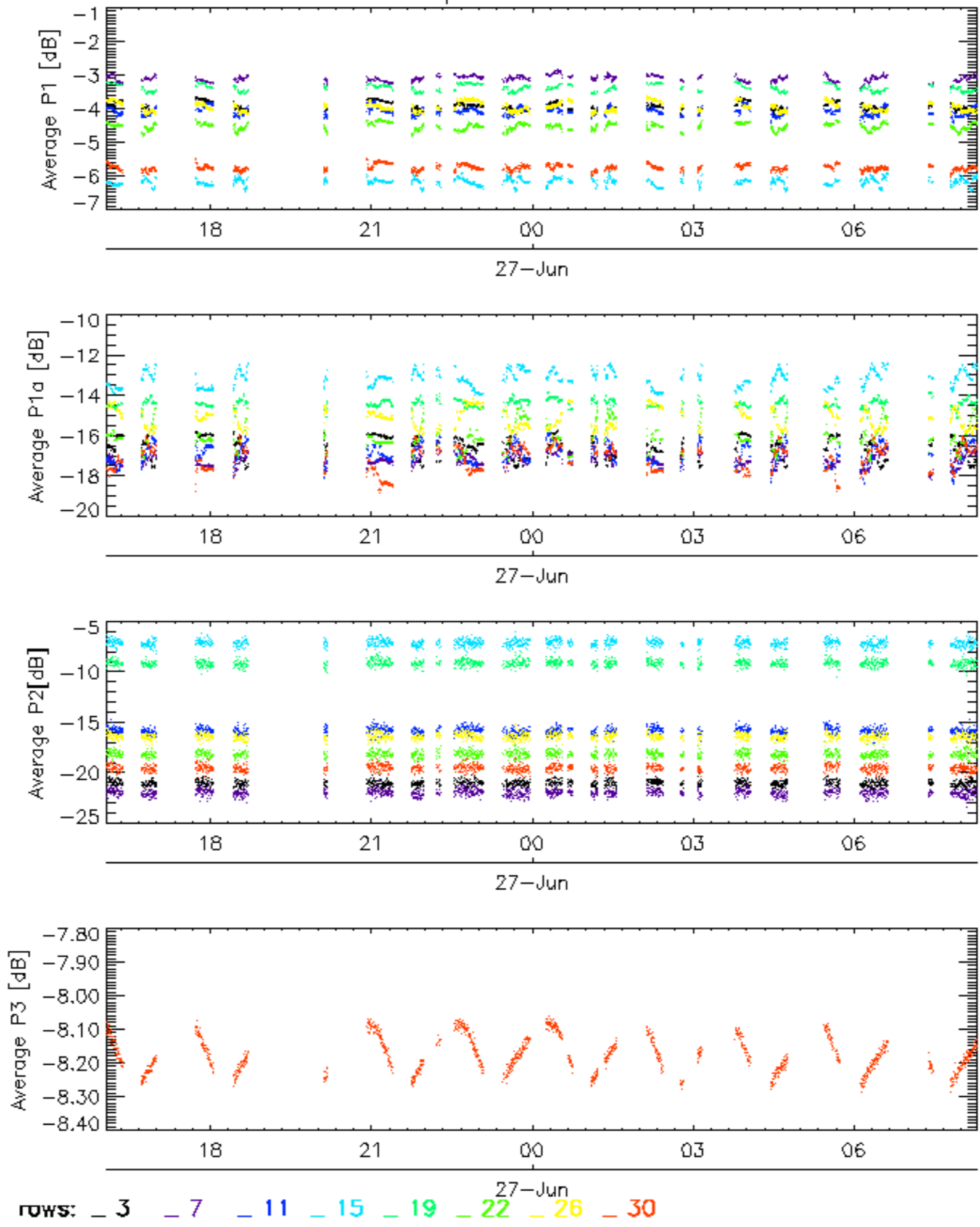


Cal pulses for WVS IS2



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

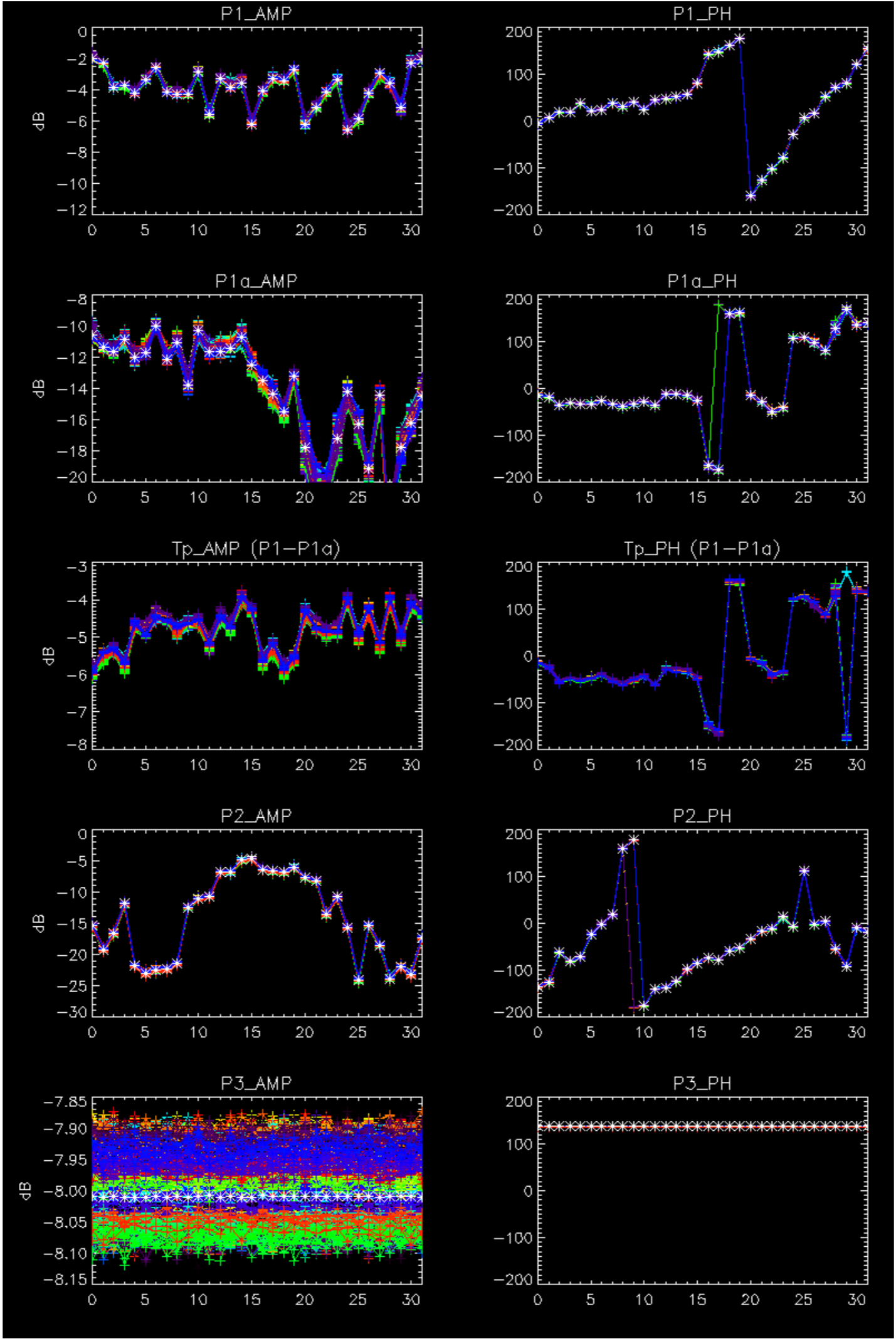
Cal pulses for WVS IS2

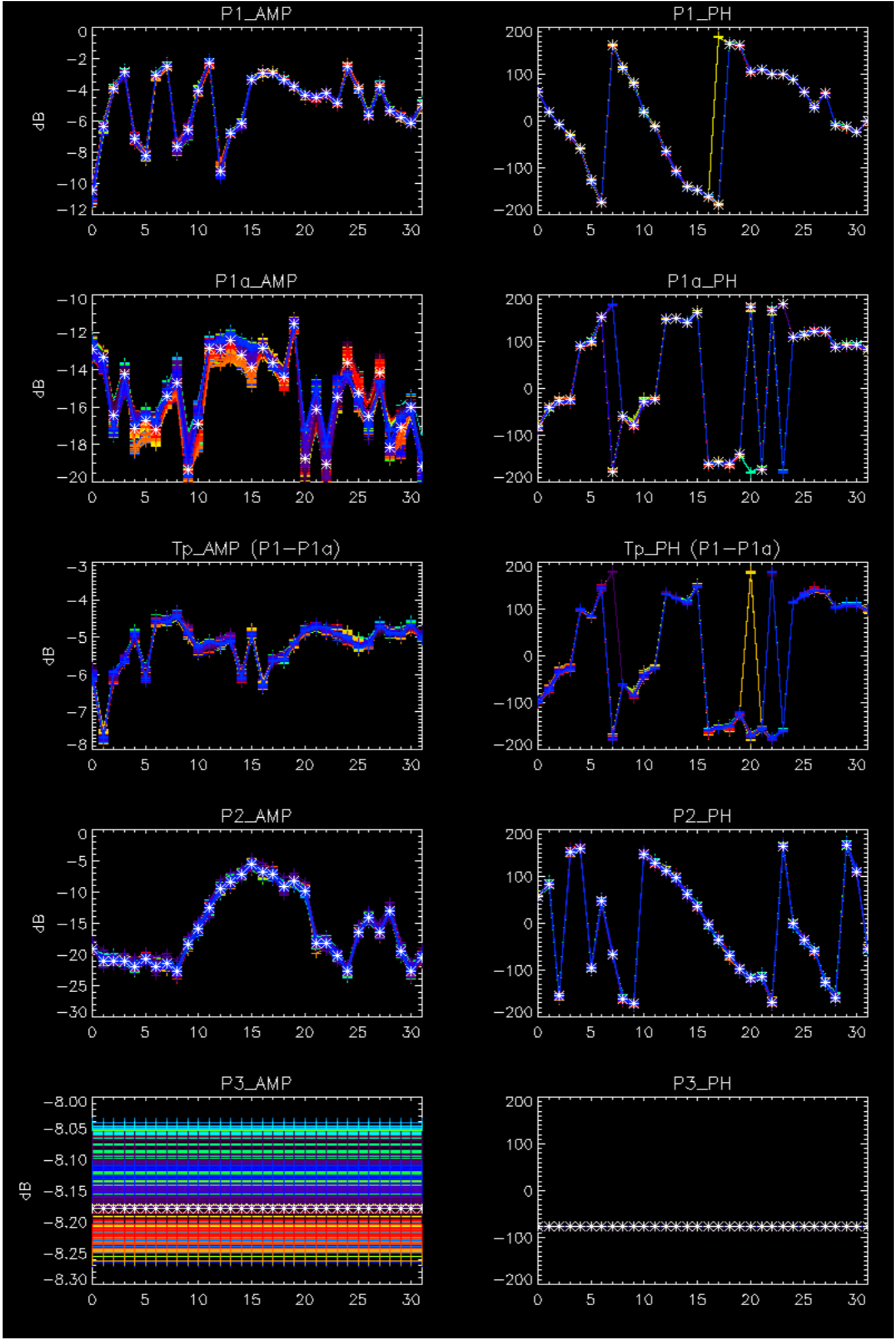


rows: 3 7 11 15 19 22 26 30

No anomalies observed on available browse products

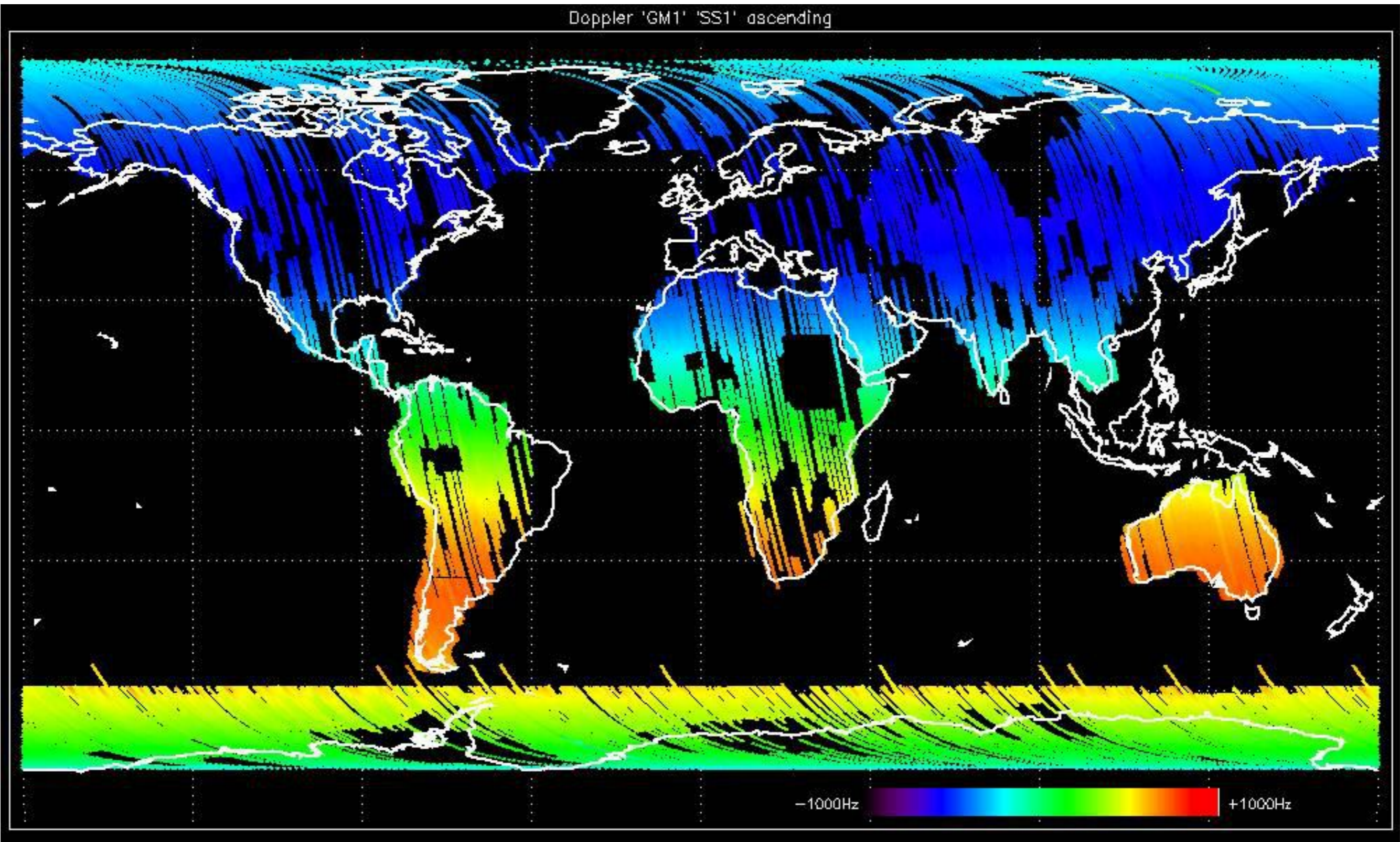
No anomalies observed.



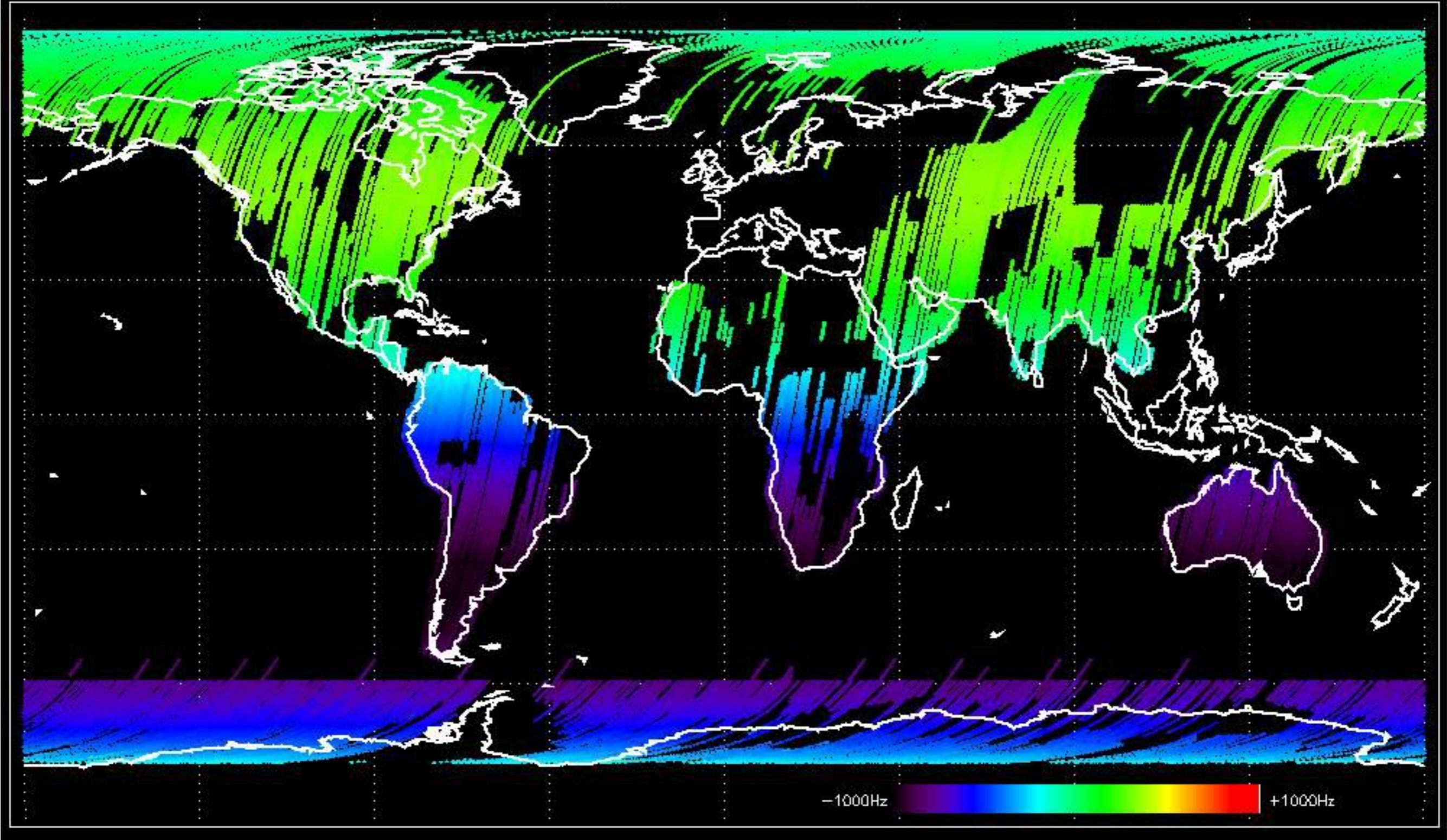


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

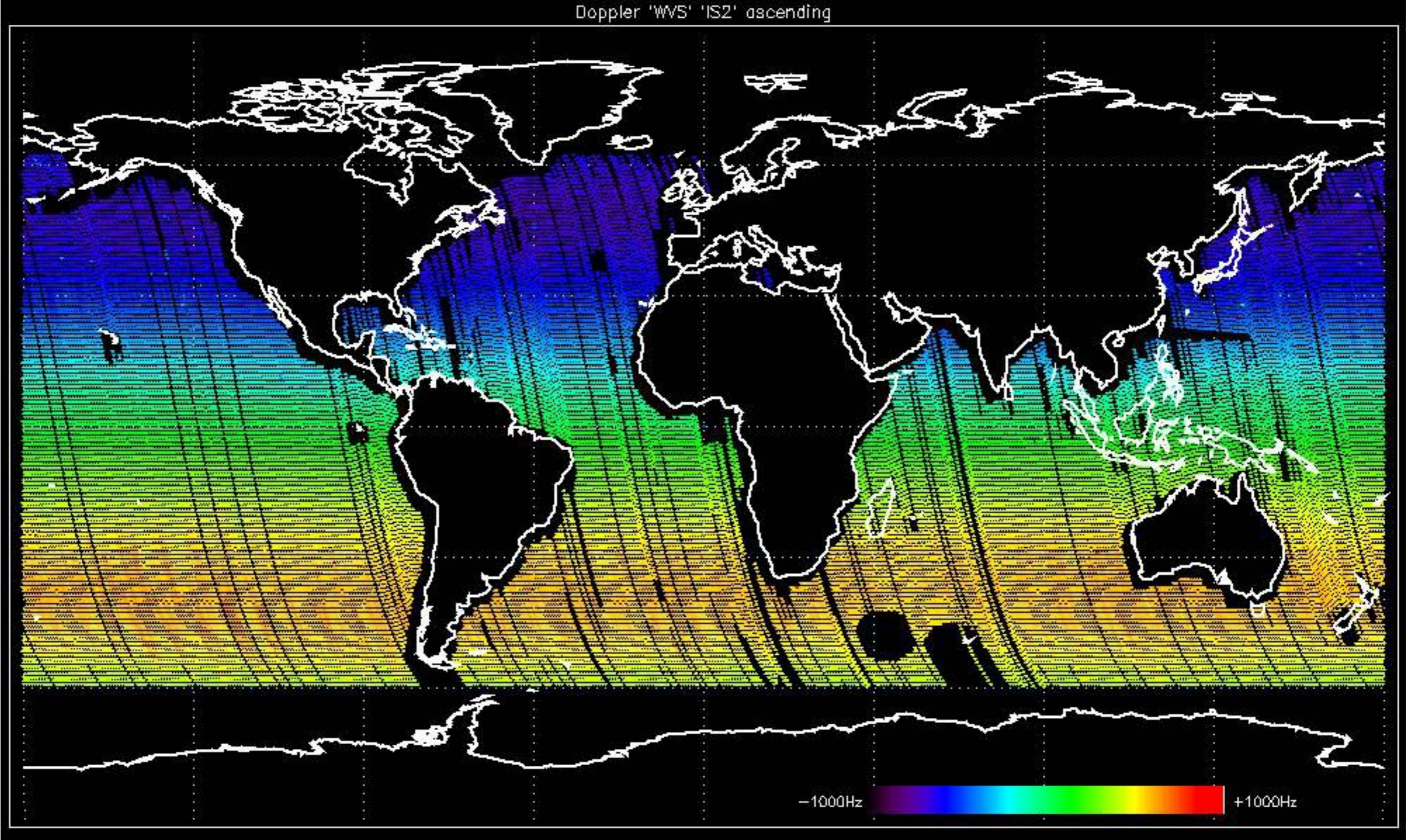
Doppler 'GM1' 'SS1' ascending



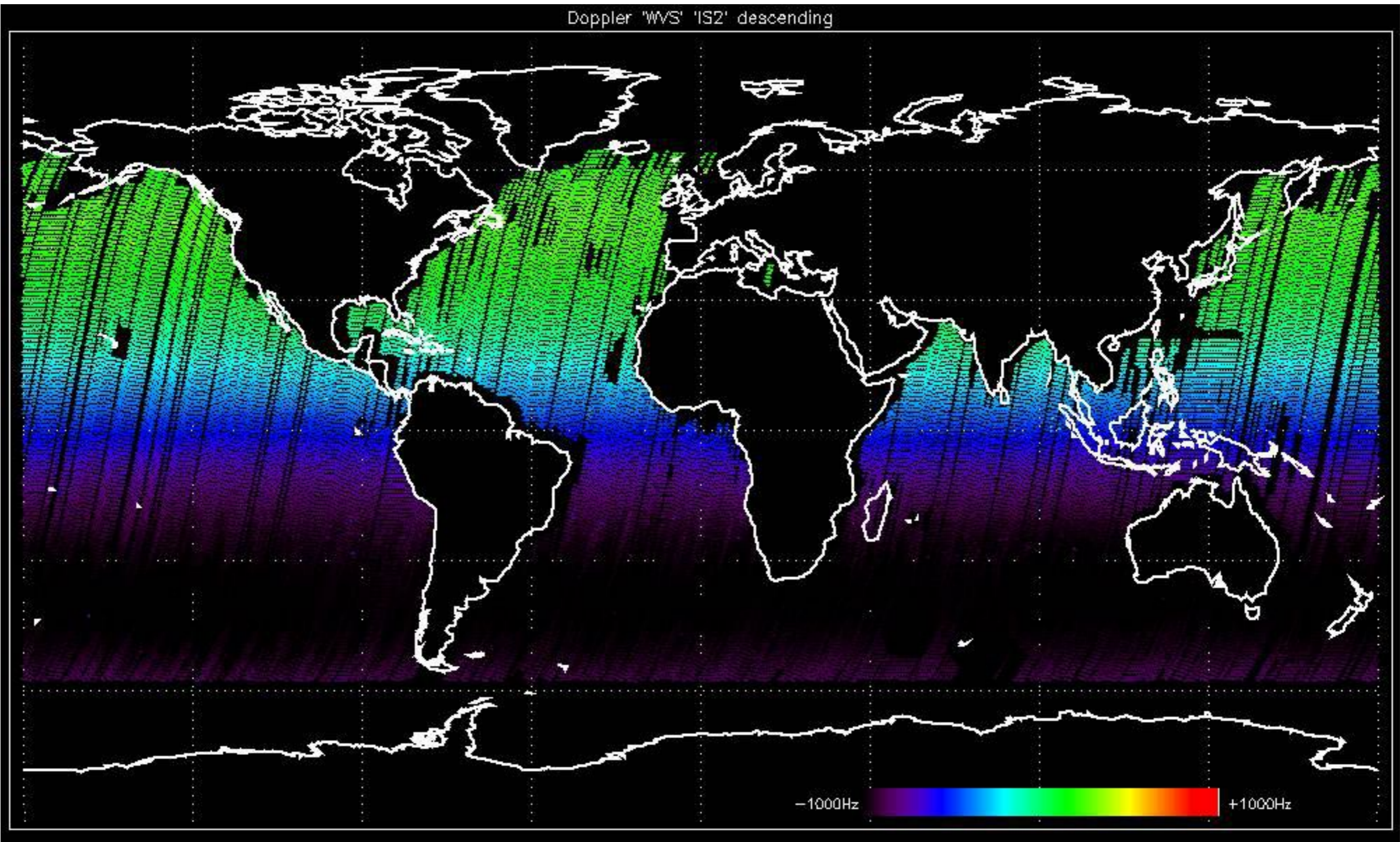
Doppler 'GM1' 'SS1' descending



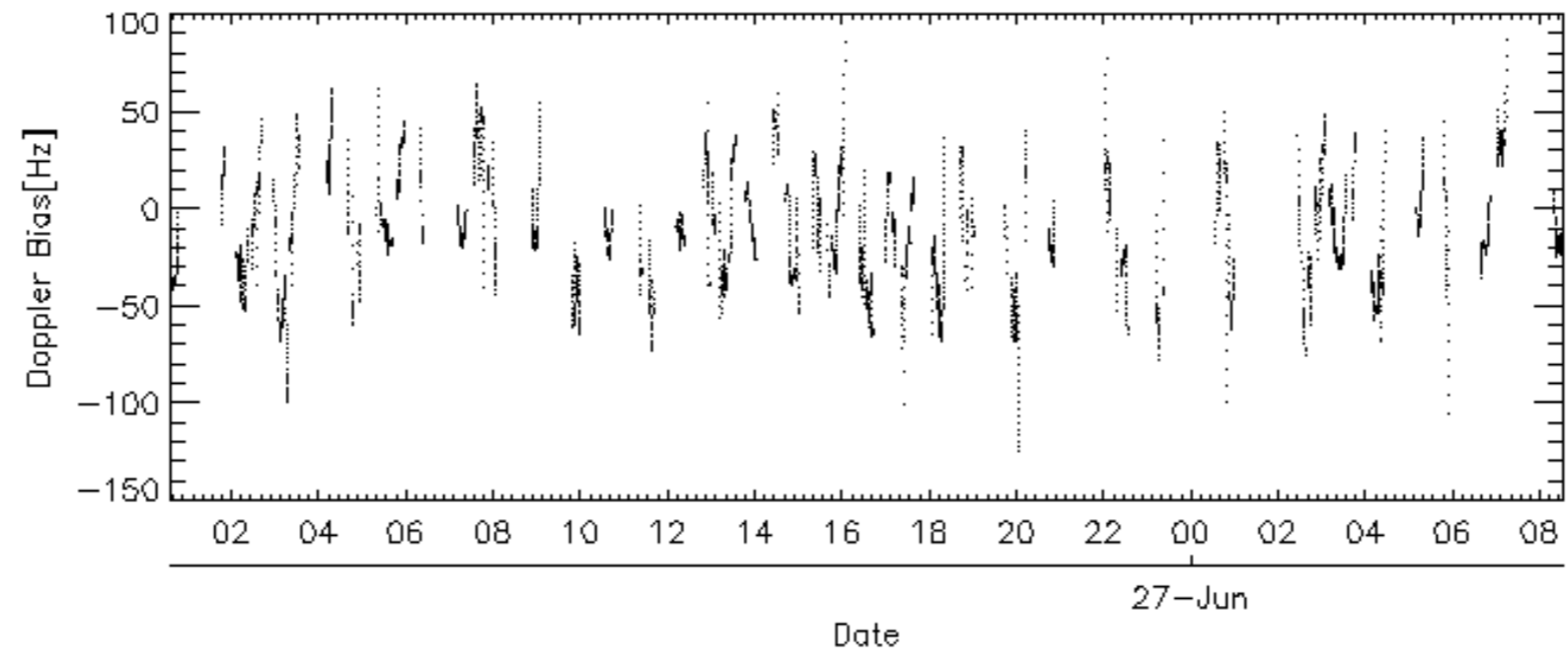
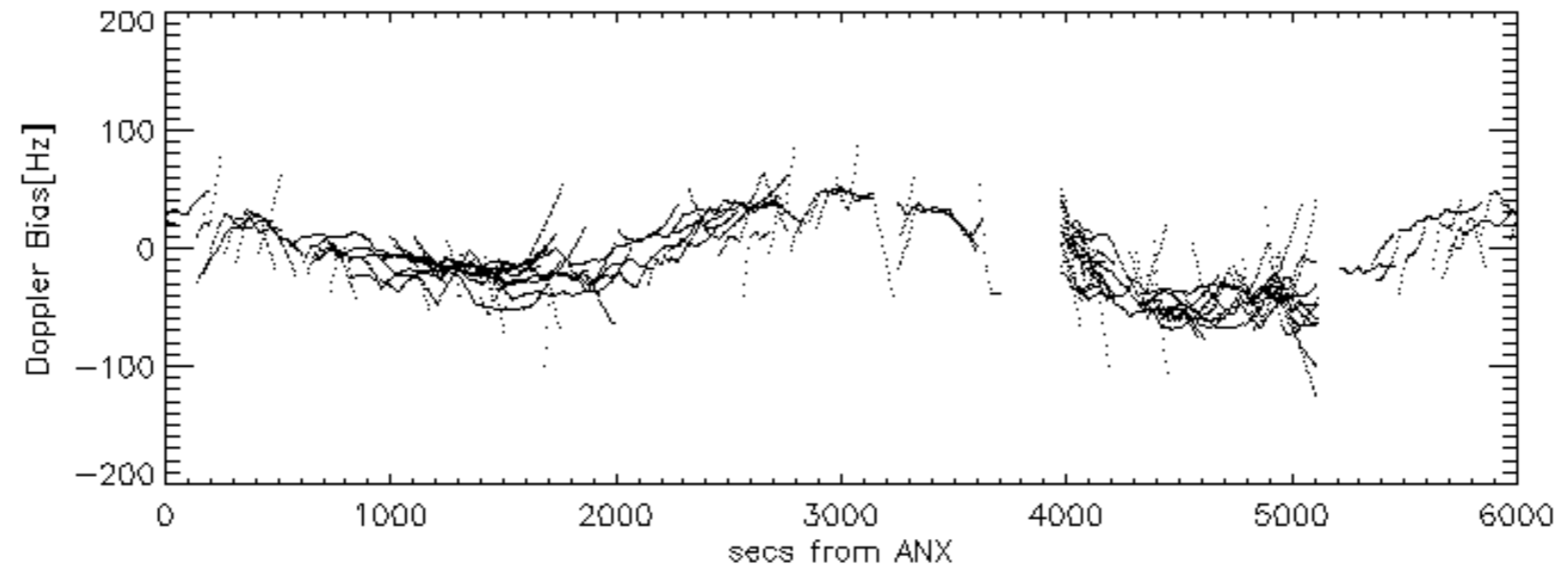
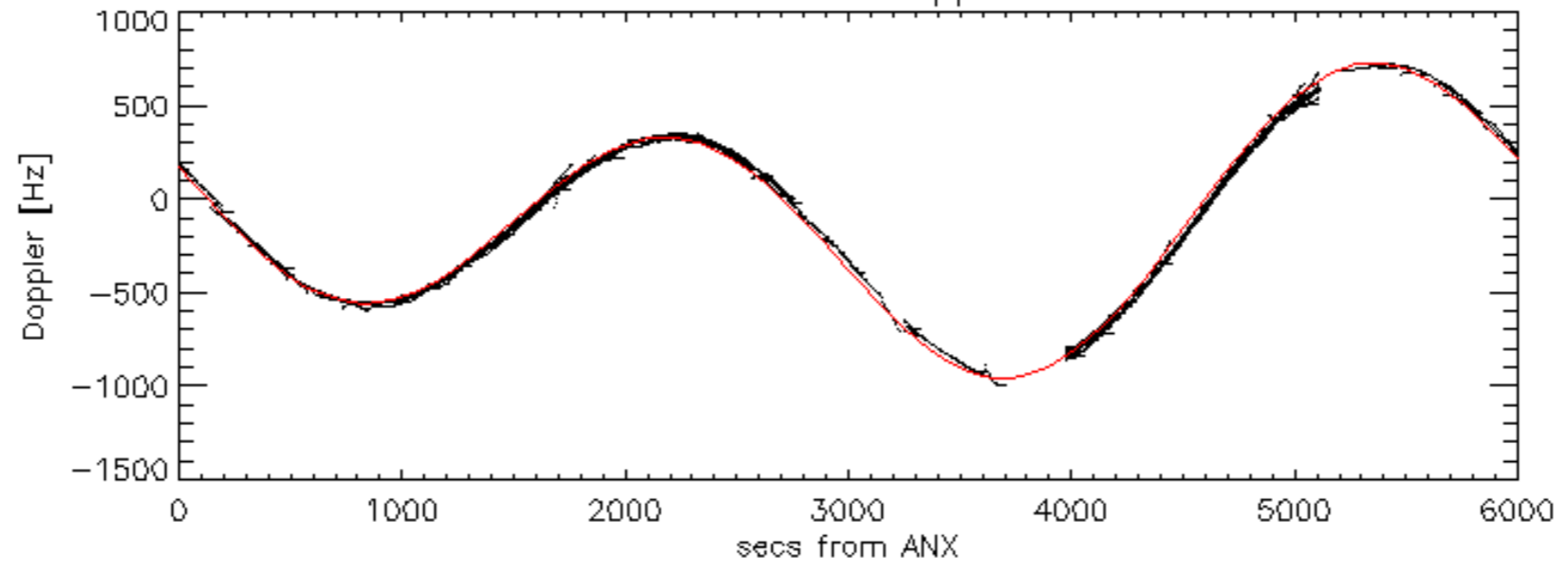
Doppler 'WVS' 'IS2' ascending

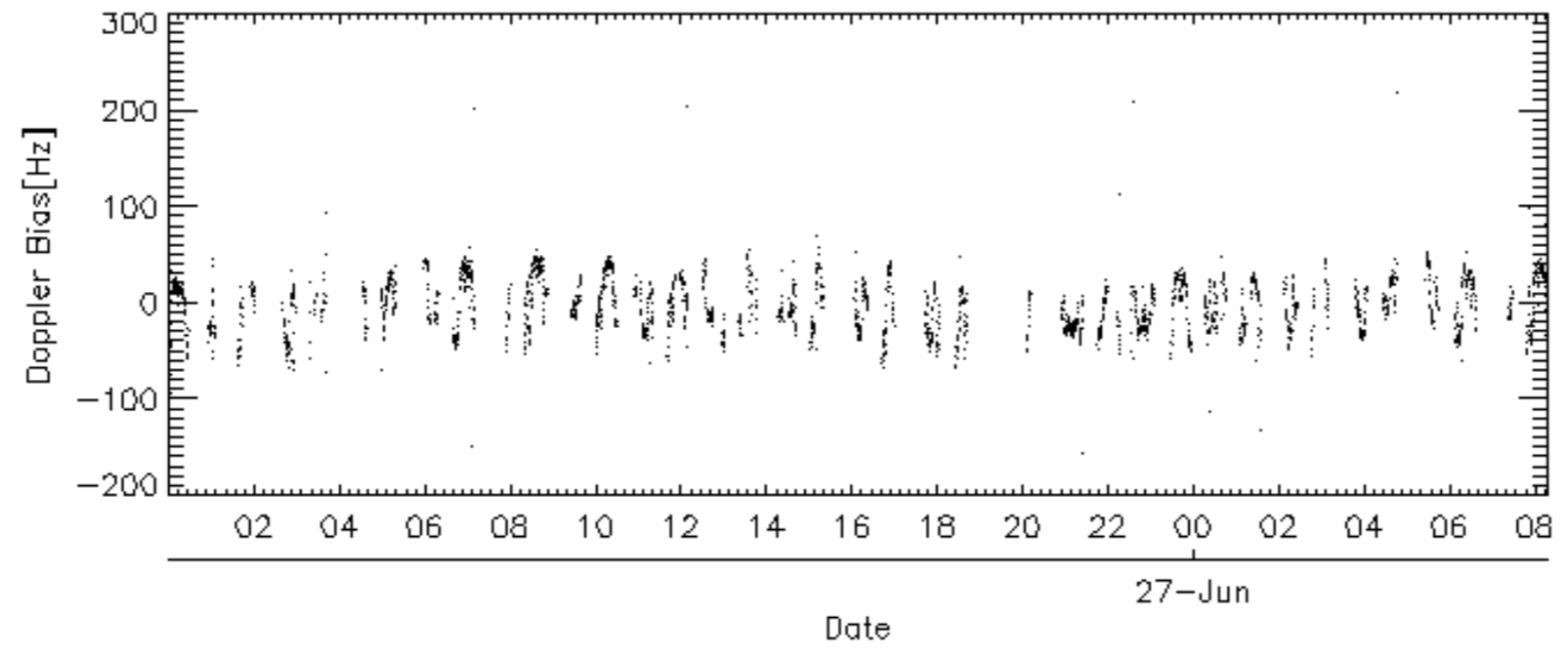
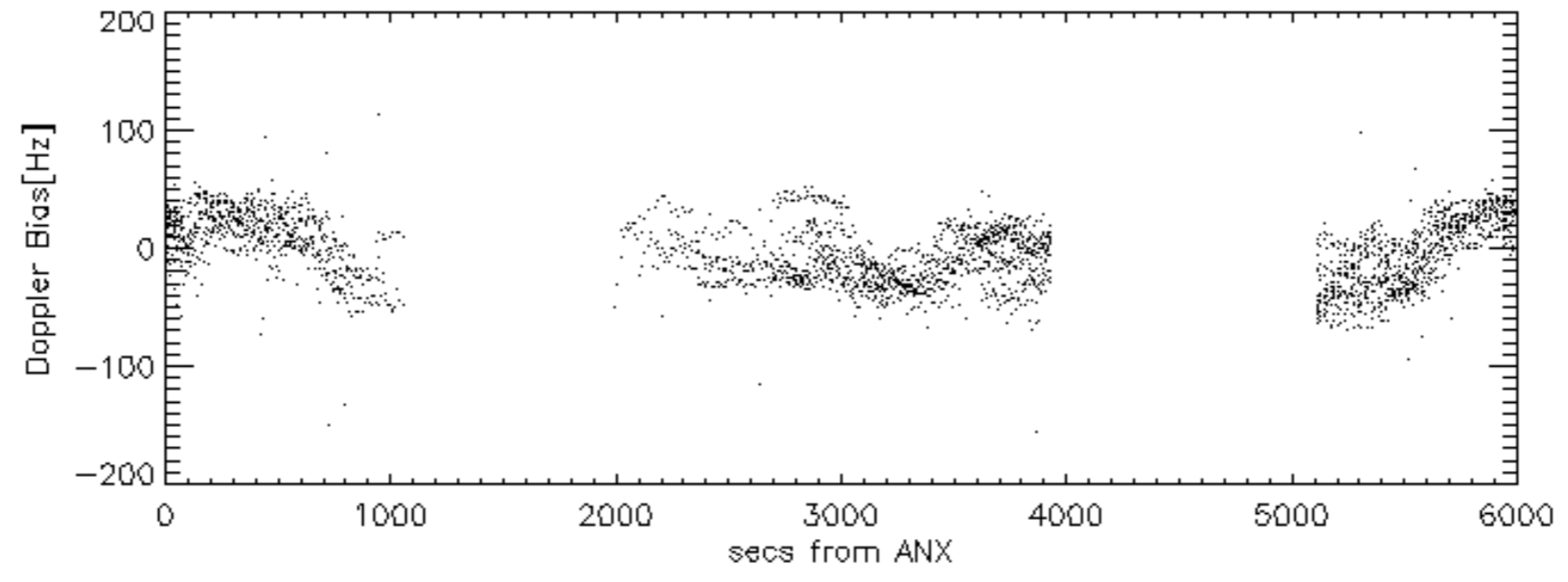
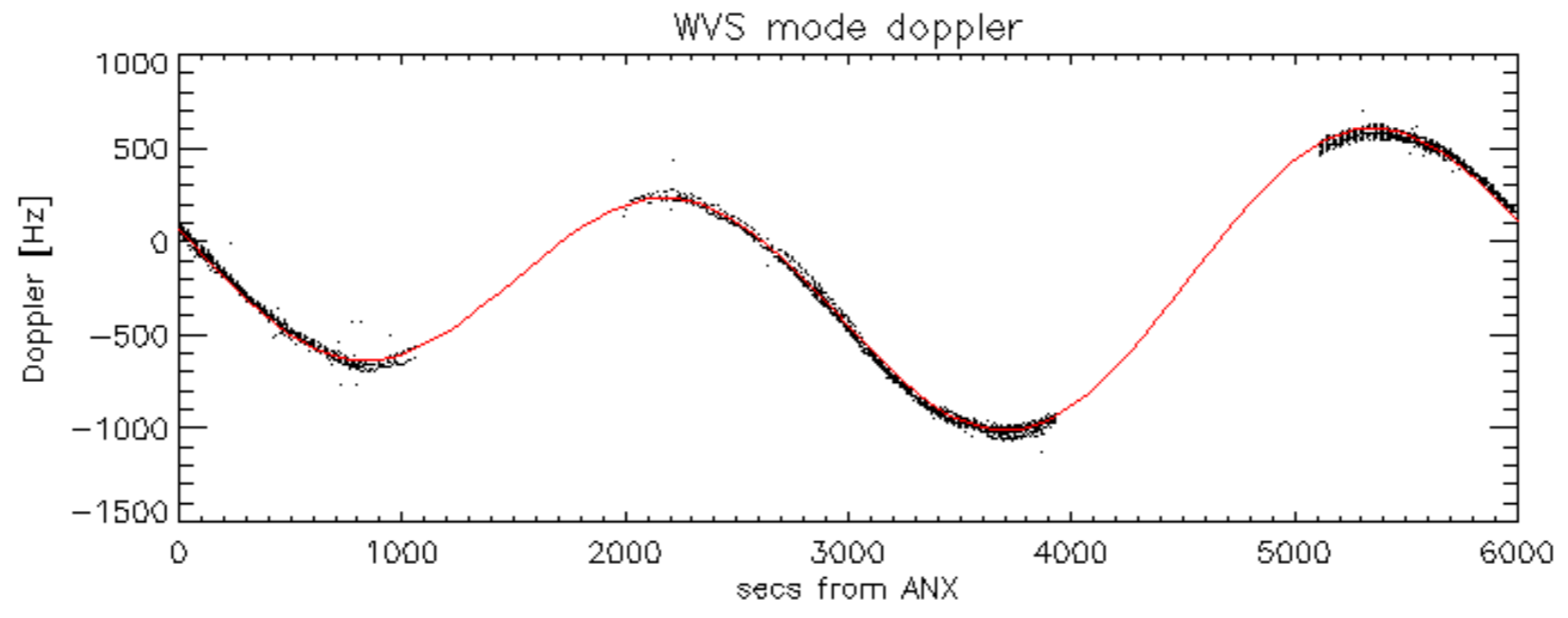


Doppler 'WVS' 'IS2' descending

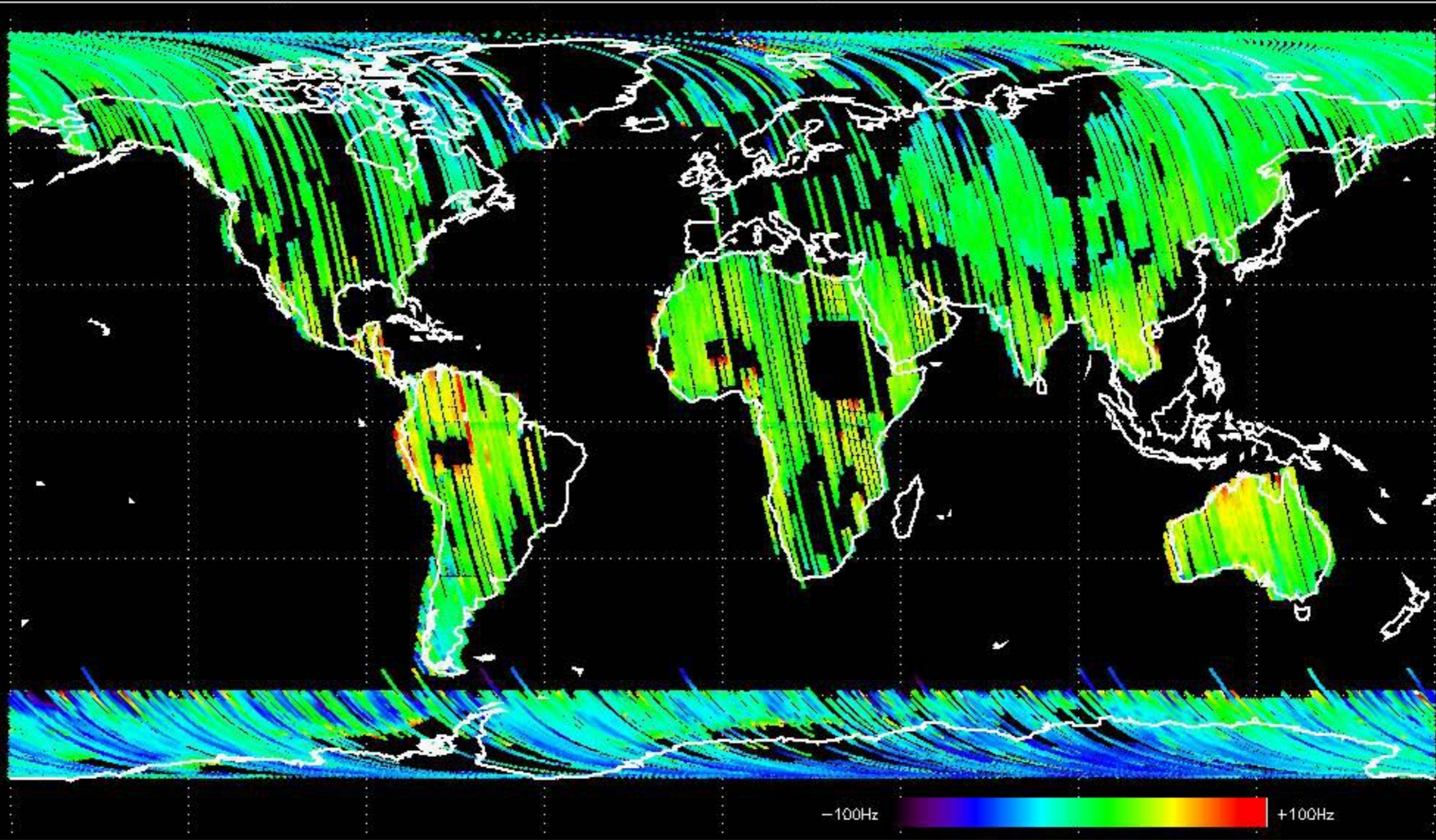


GM1 mode doppler

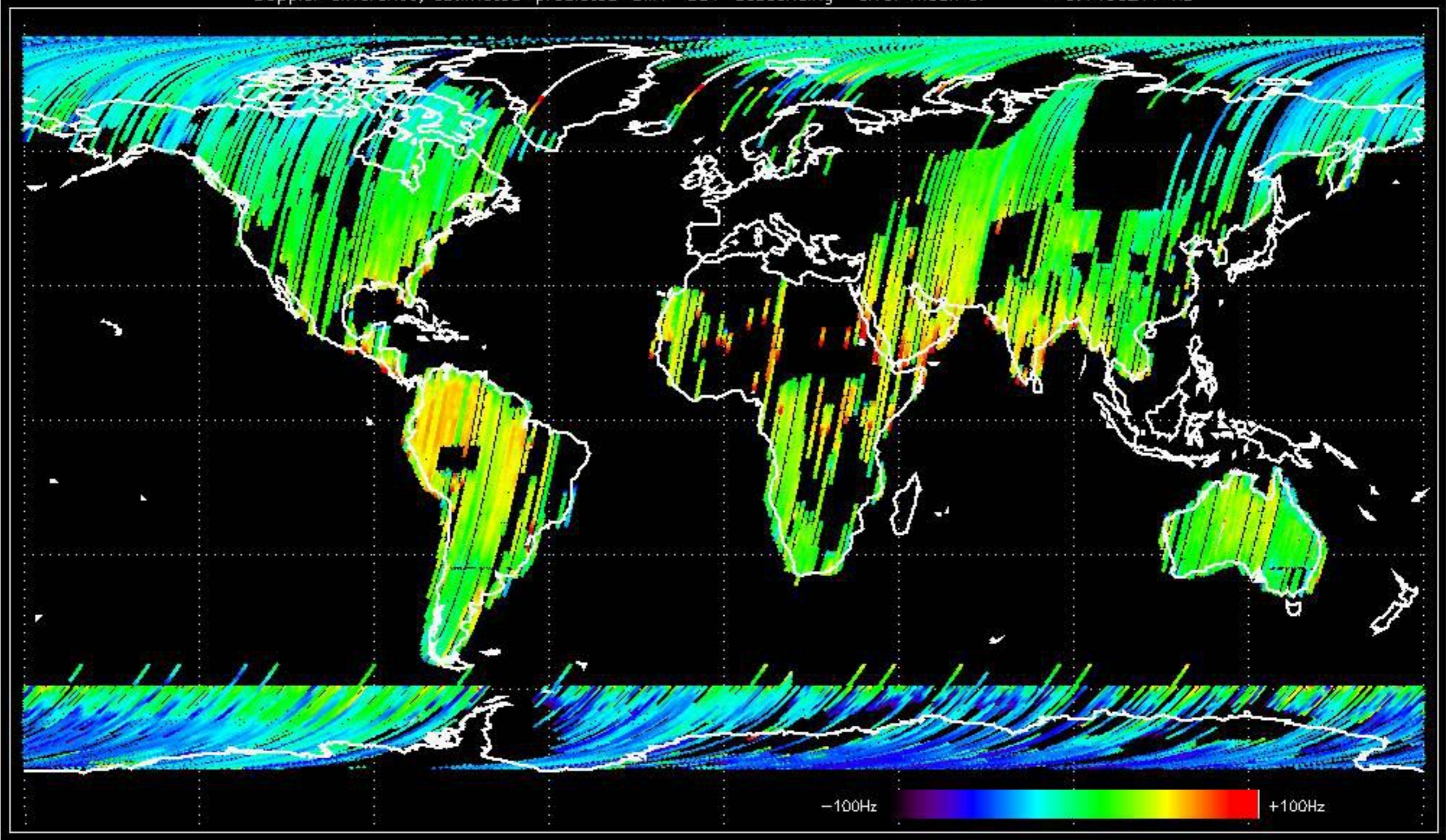




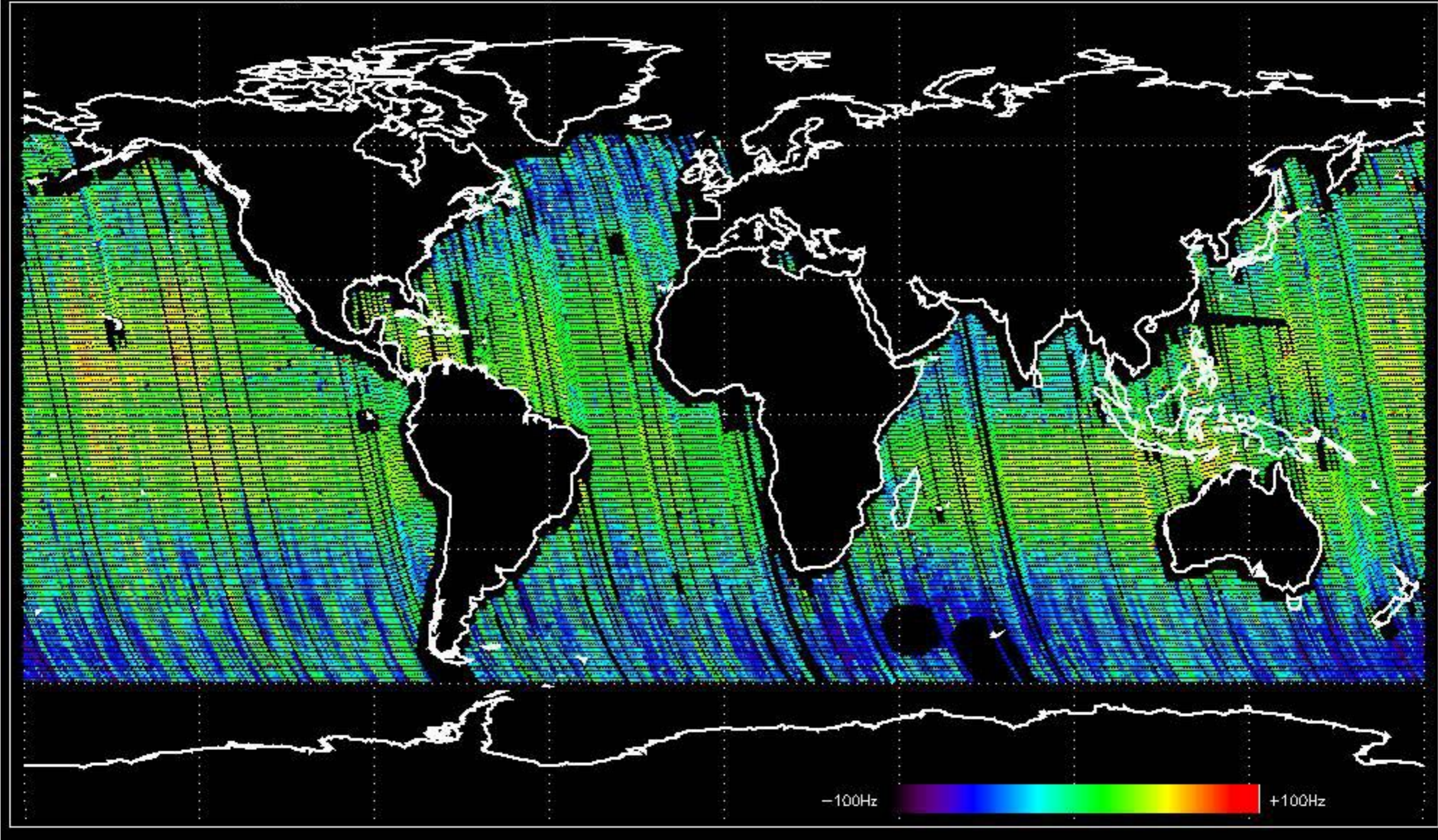
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.656366 Hz



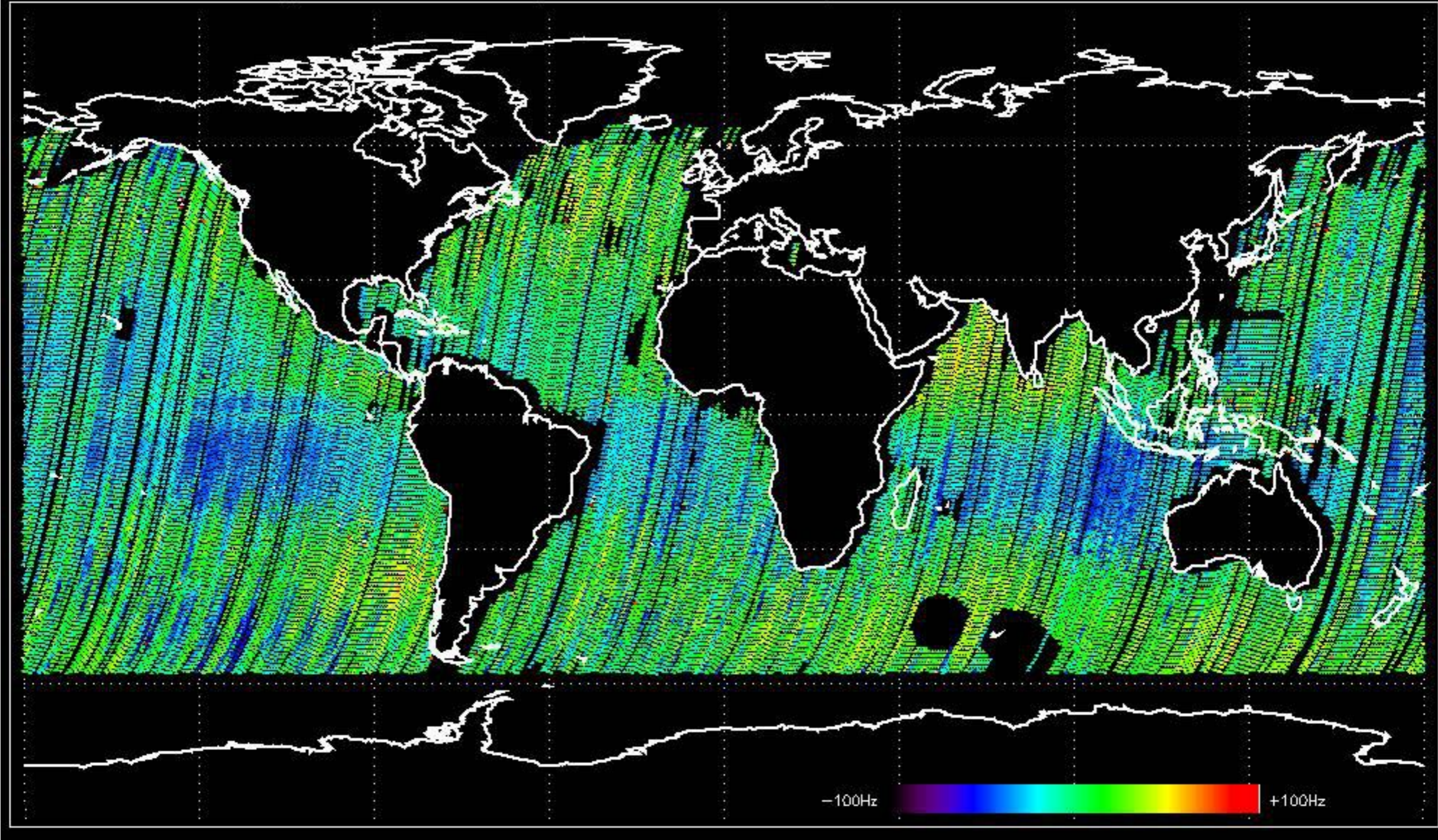
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.1466217 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.9172484 Hz

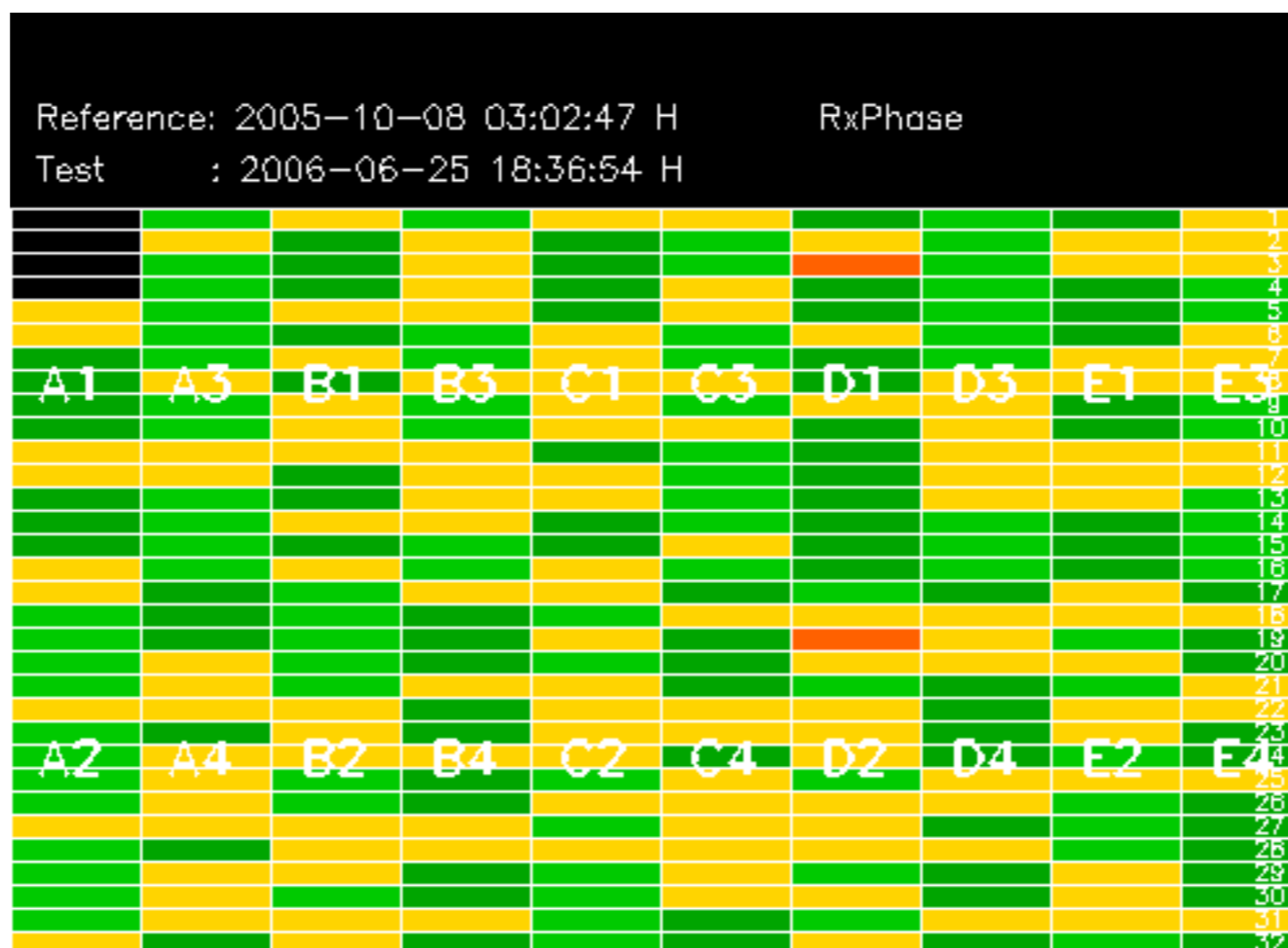


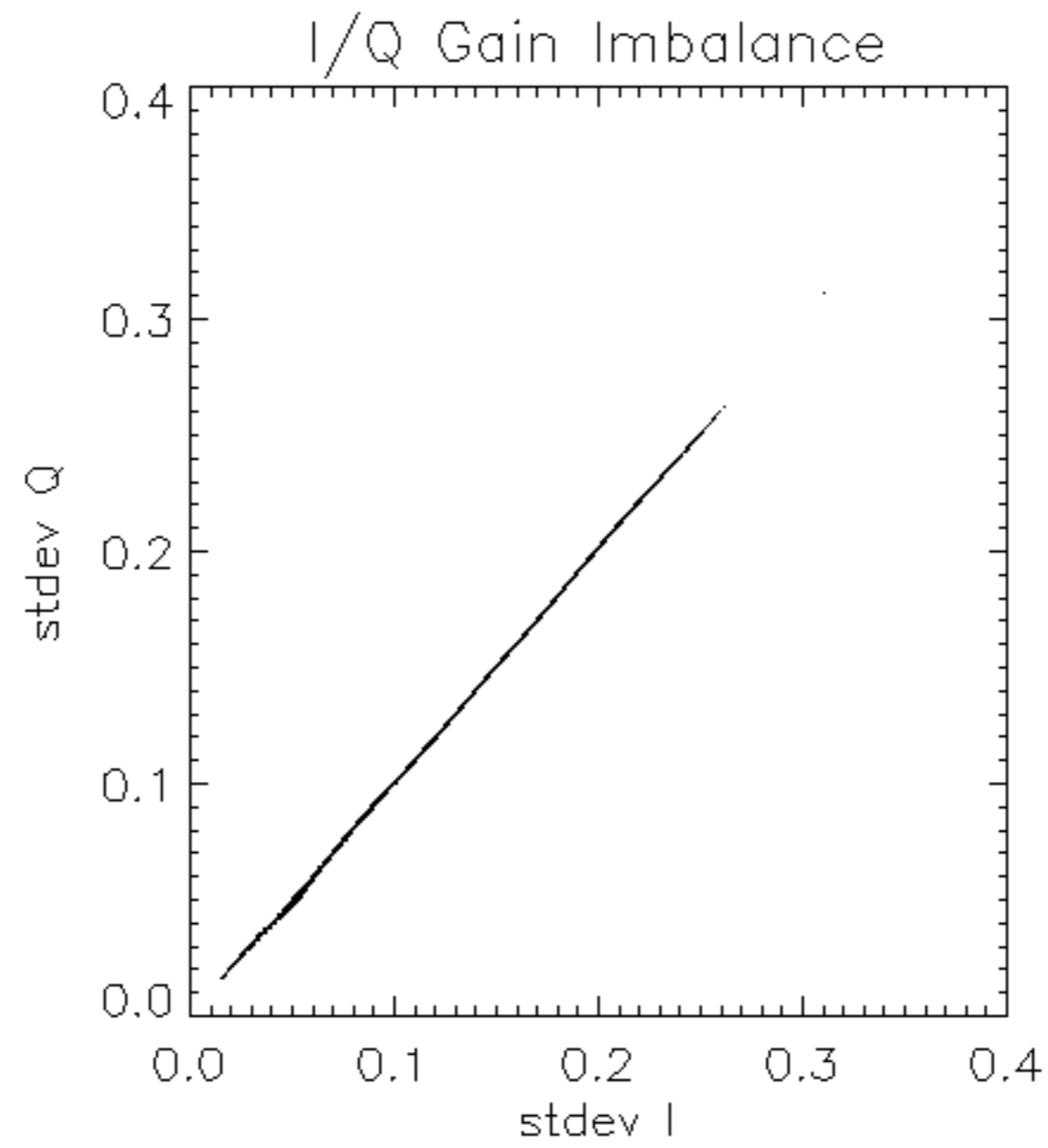
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.868213 Hz

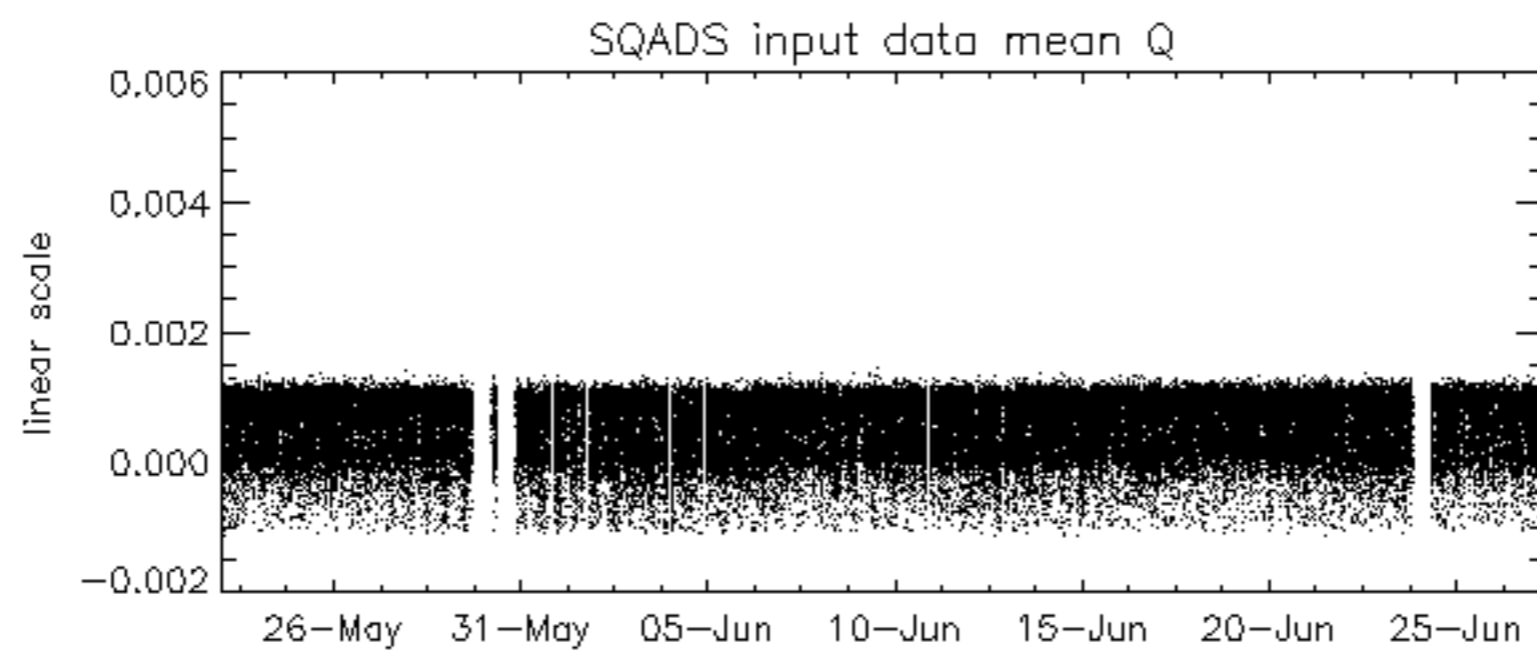
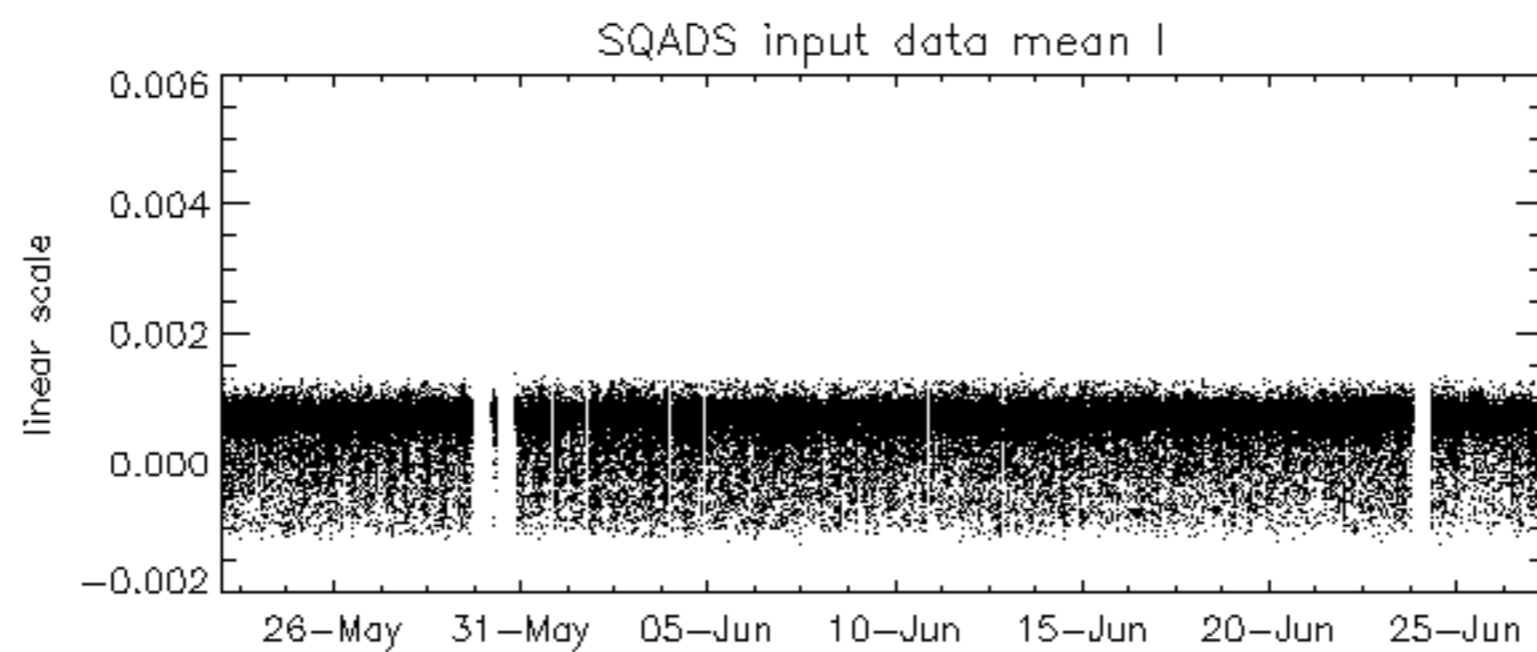
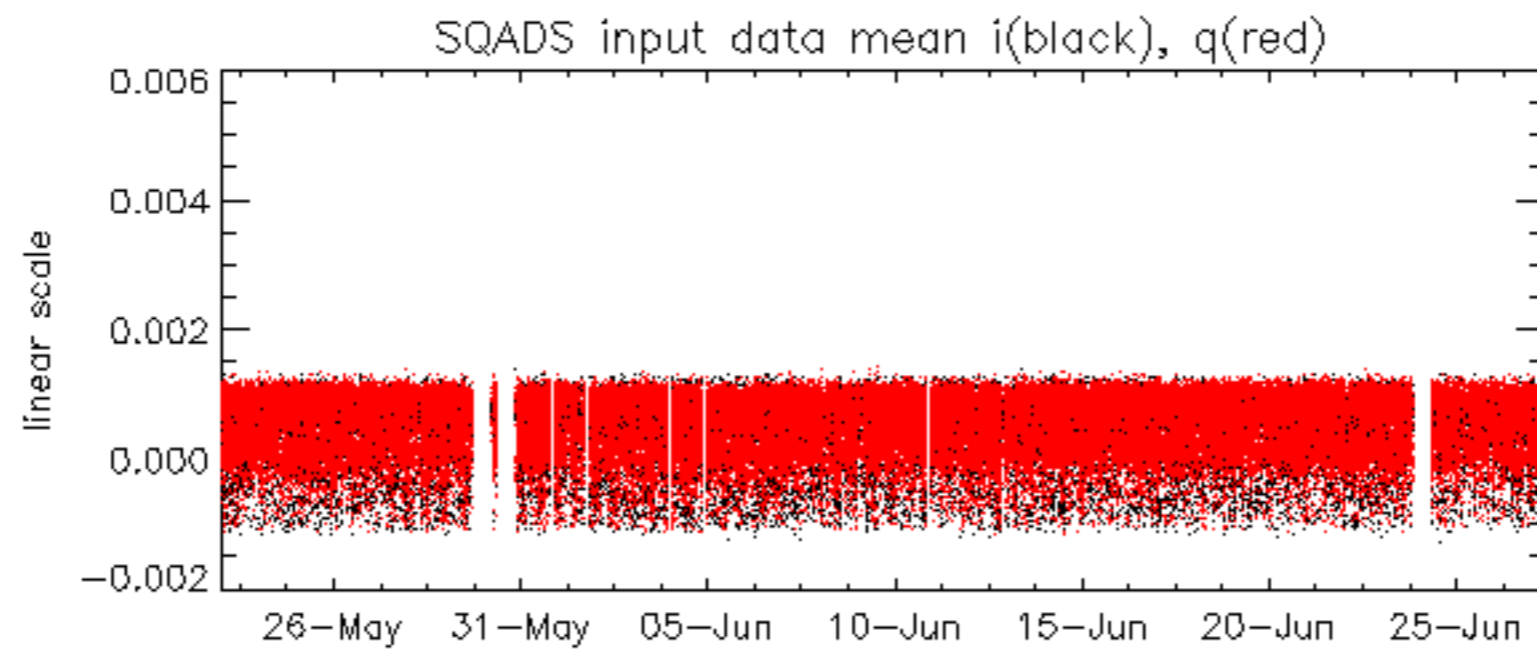


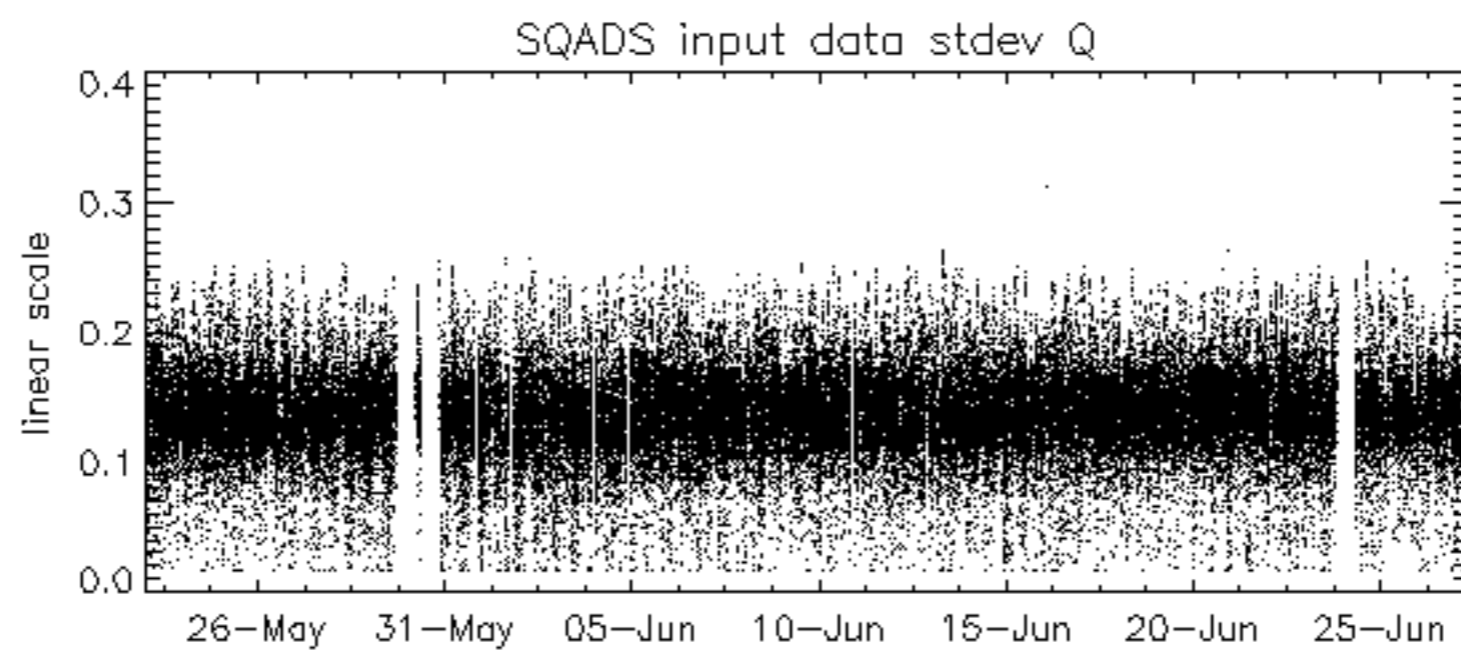
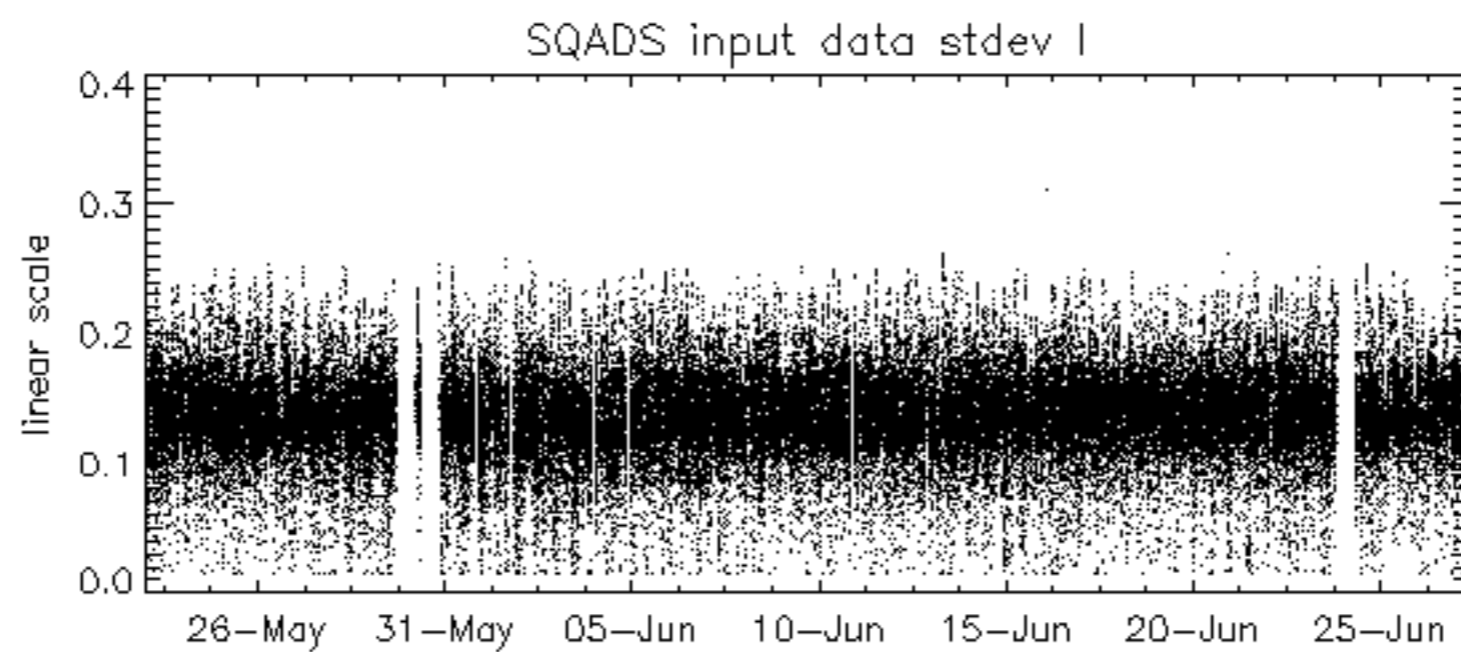
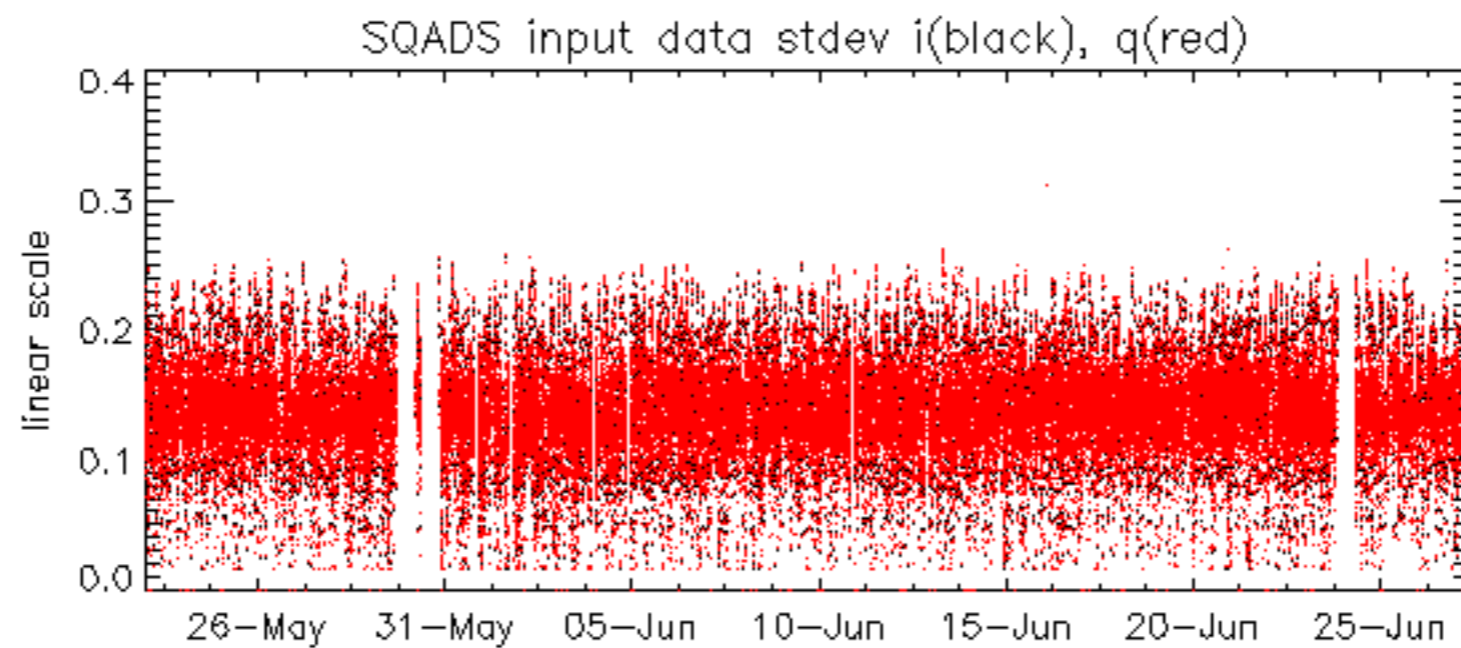
No anomalies observed on available MS products:

No anomalies observed.





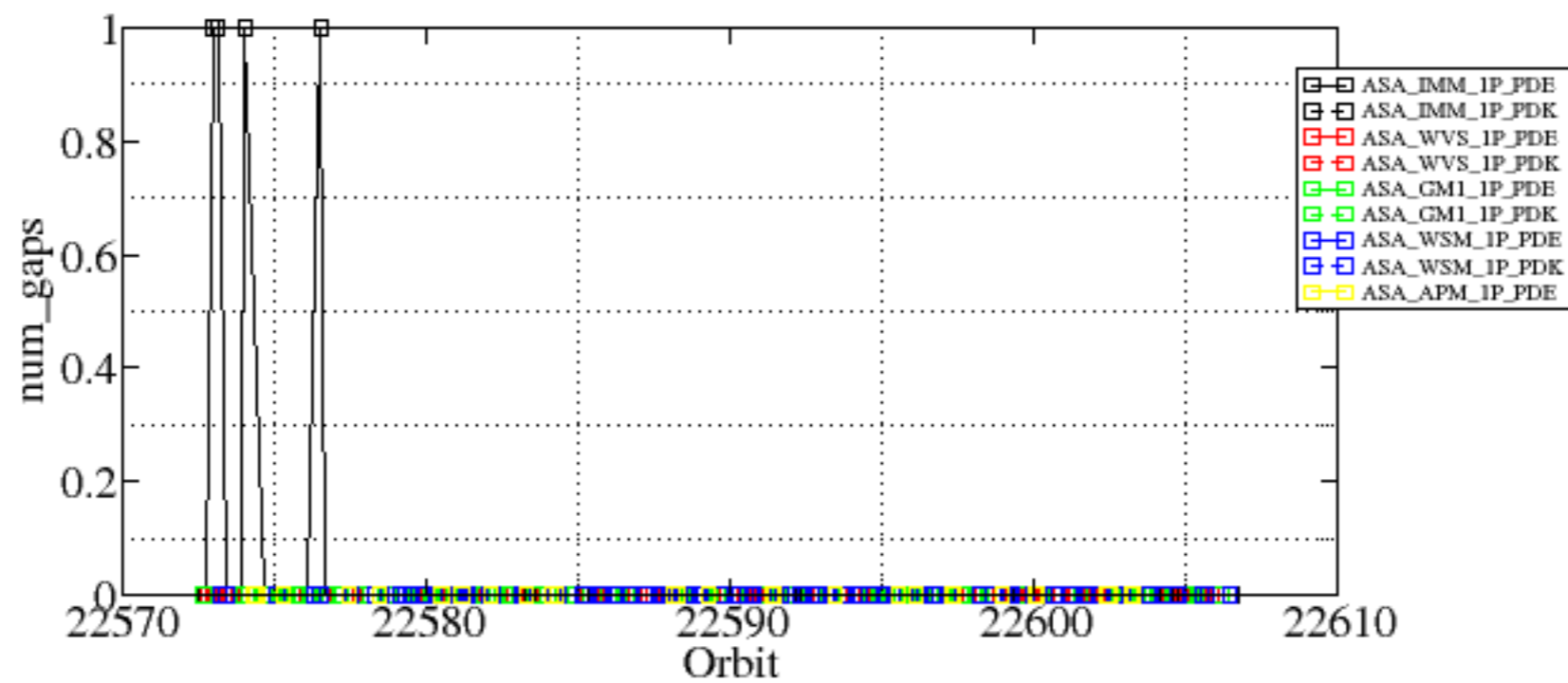




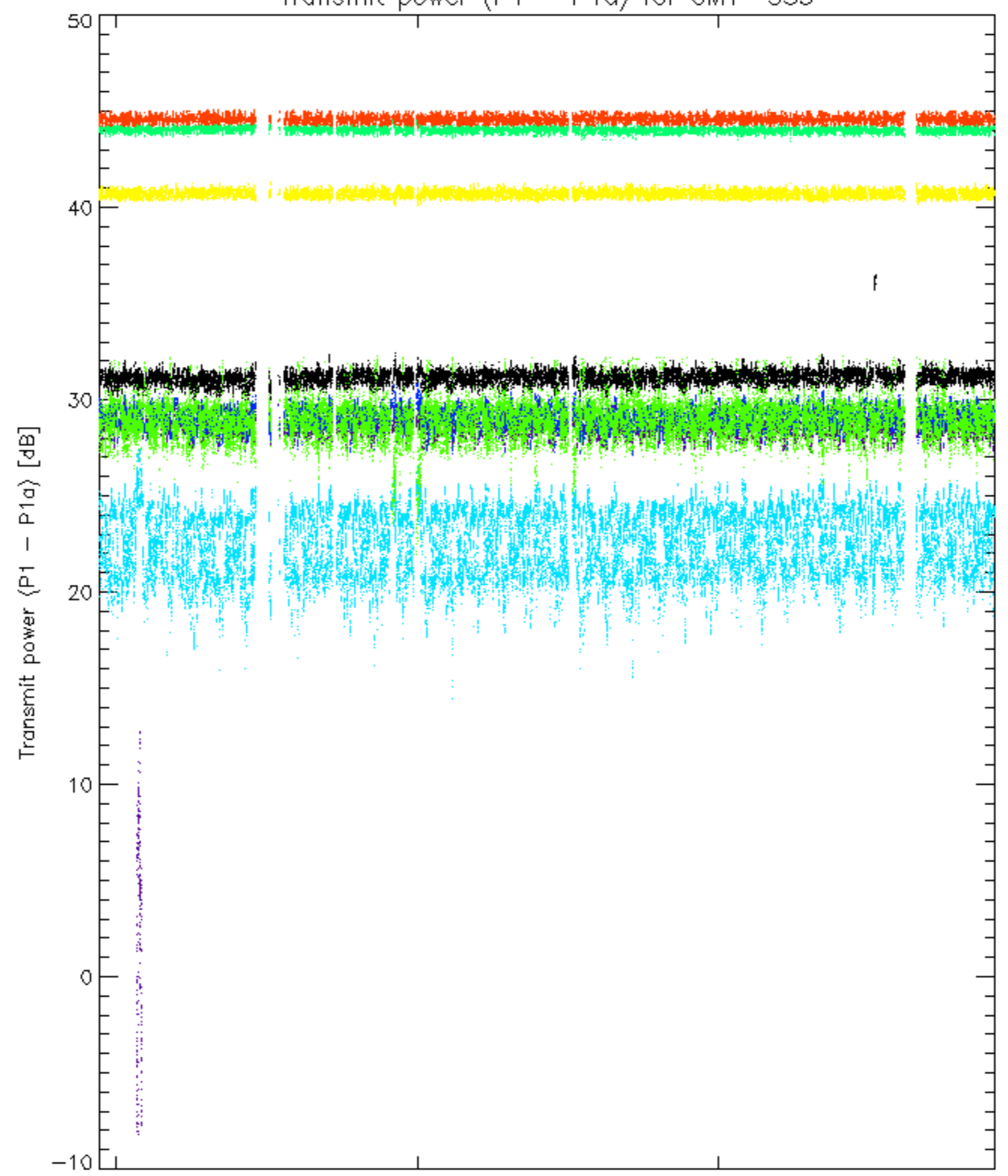
Summary of analysis for the last 3 days 2006062[567]

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

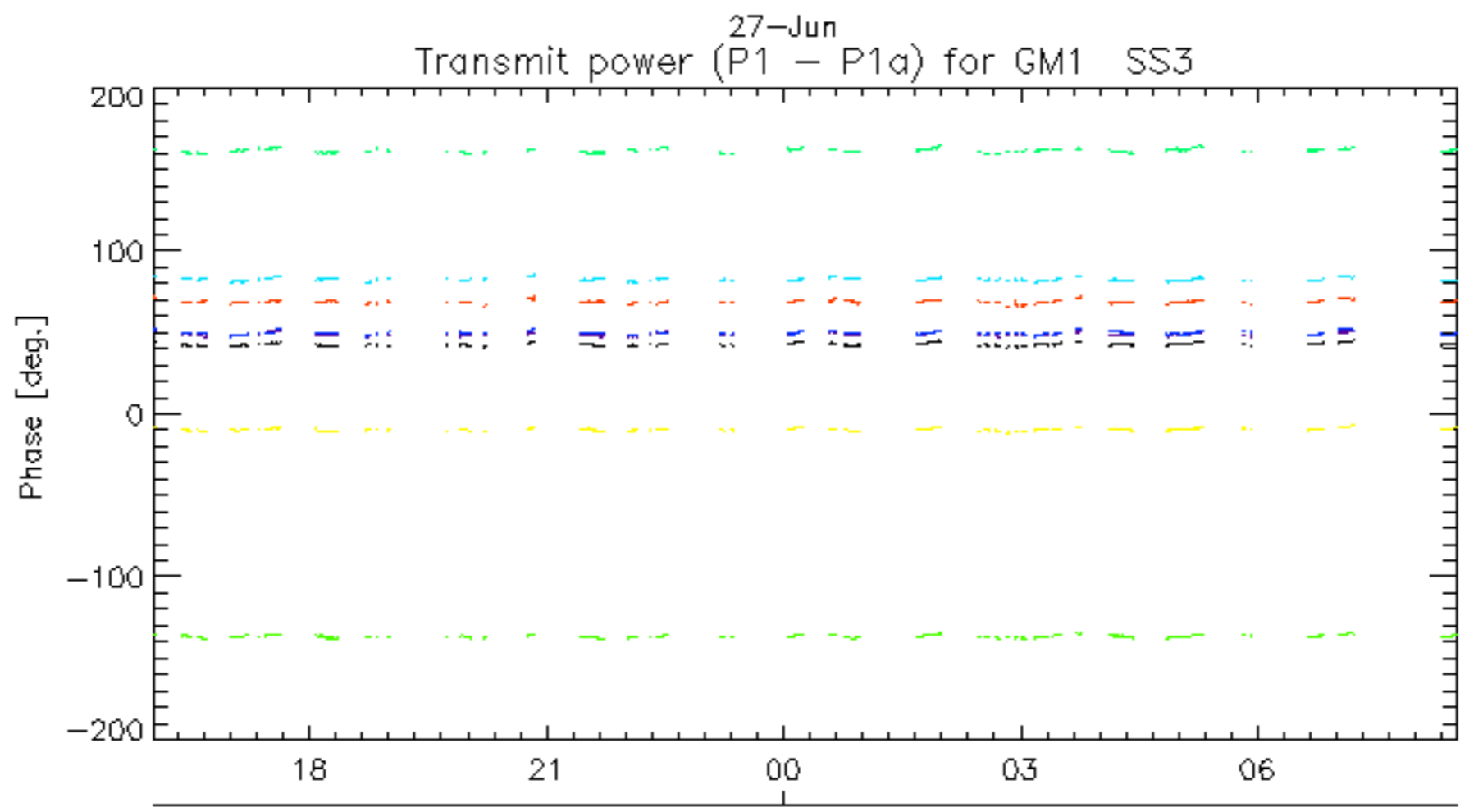
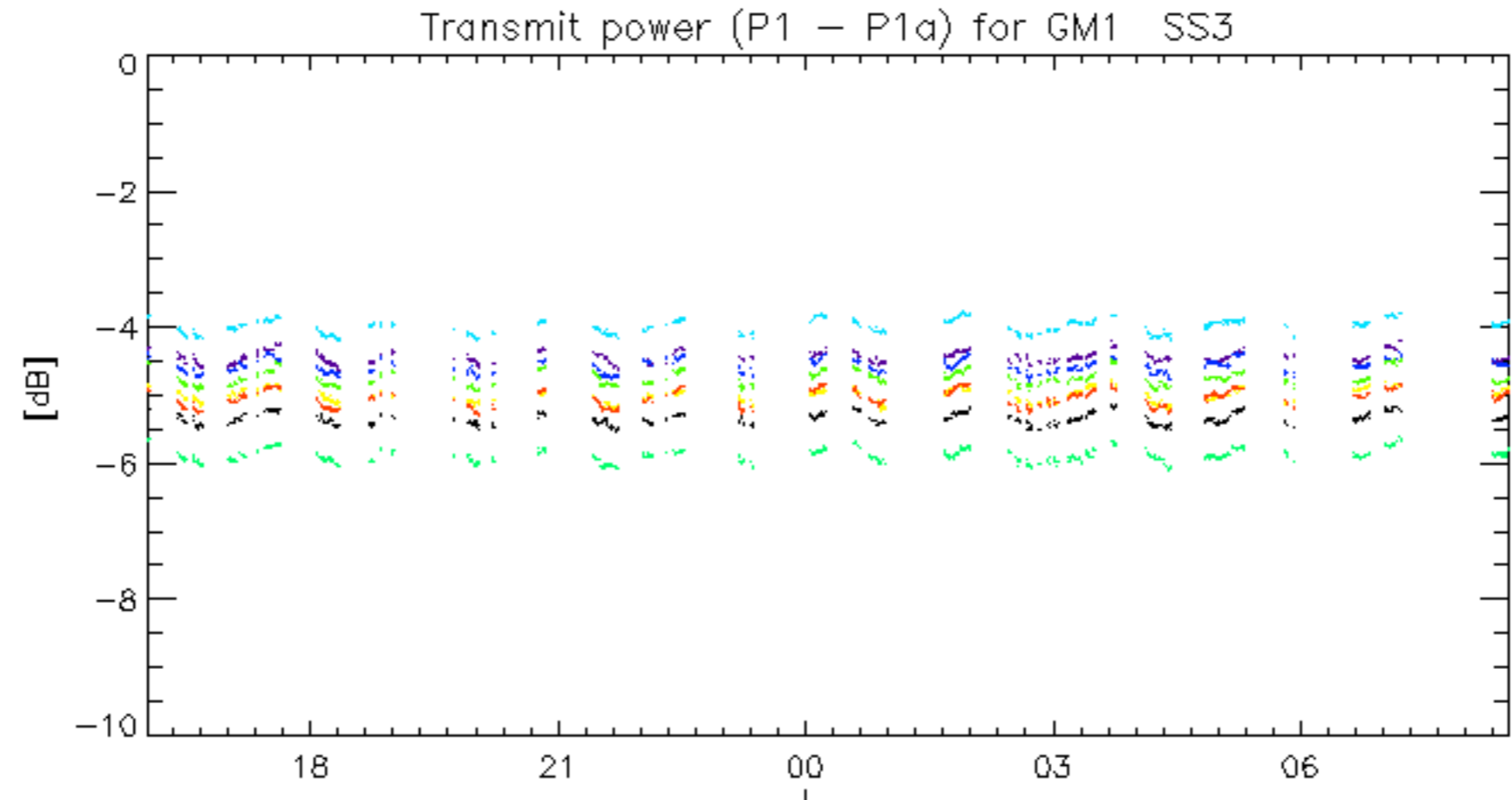
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060625_003958_000001552048_00474_22572_8683.N1	1	0
ASA_IMM_1PNPDE20060625_005615_000000362048_00475_22573_8684.N1	1	0
ASA_IMM_1PNPDE20060625_022556_000000362048_00476_22574_8697.N1	1	0
ASA_IMM_1PNPDE20060625_063915_000001102048_00478_22576_8747.N1	1	0
ASA_WSM_1PNPDE20060625_113214_000001292048_00481_22579_5331.N1	0	26
ASA_WSM_1PNPDE20060625_141258_000000912048_00483_22581_5337.N1	0	17
ASA_WSM_1PNPDE20060626_033514_000000862048_00491_22589_5429.N1	0	22
ASA_WSM_1PNPDK20060626_134018_000003002048_00497_22595_8394.N1	0	32



Transmit power (P1 - P1a) for GM1 SS3

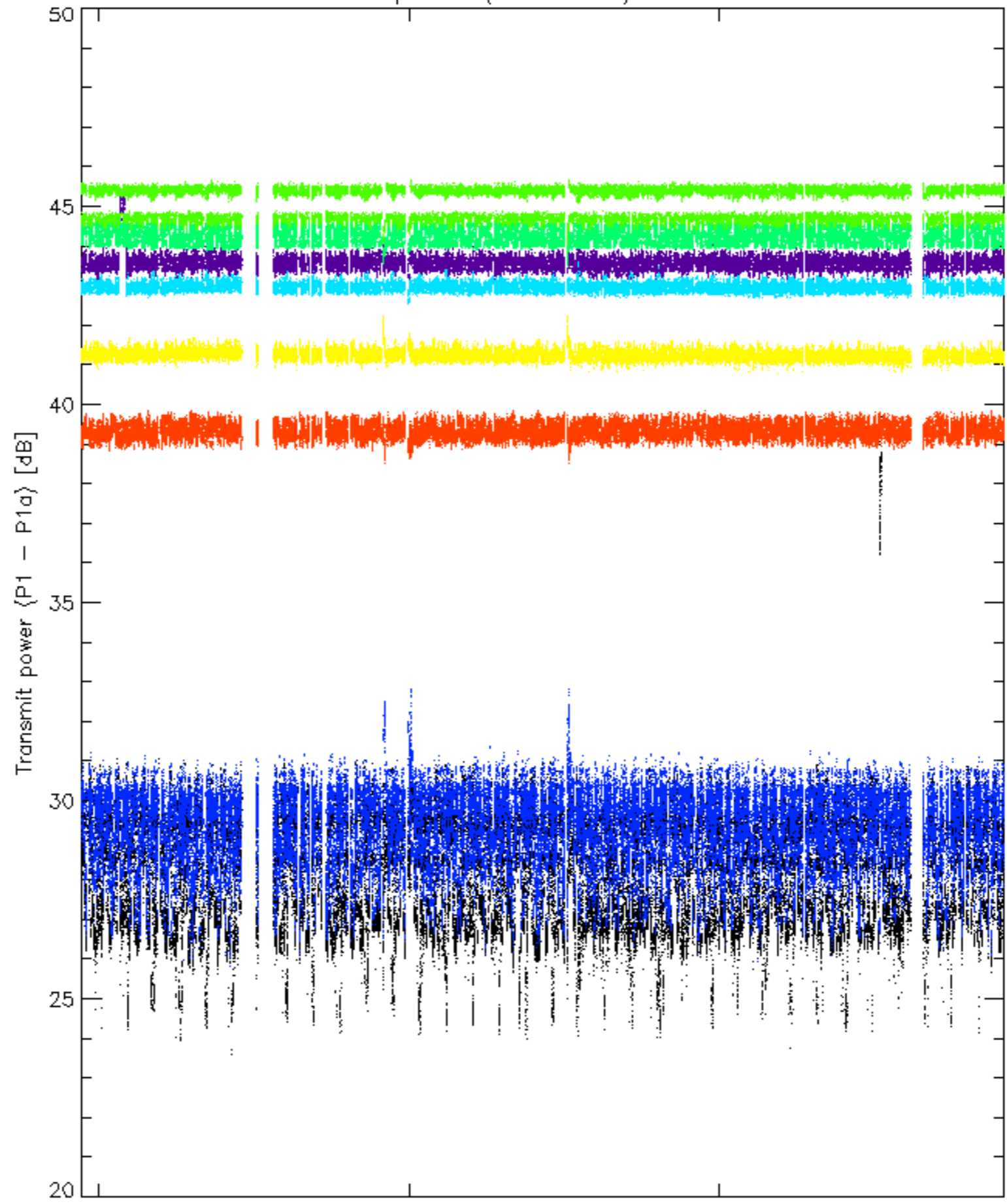


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

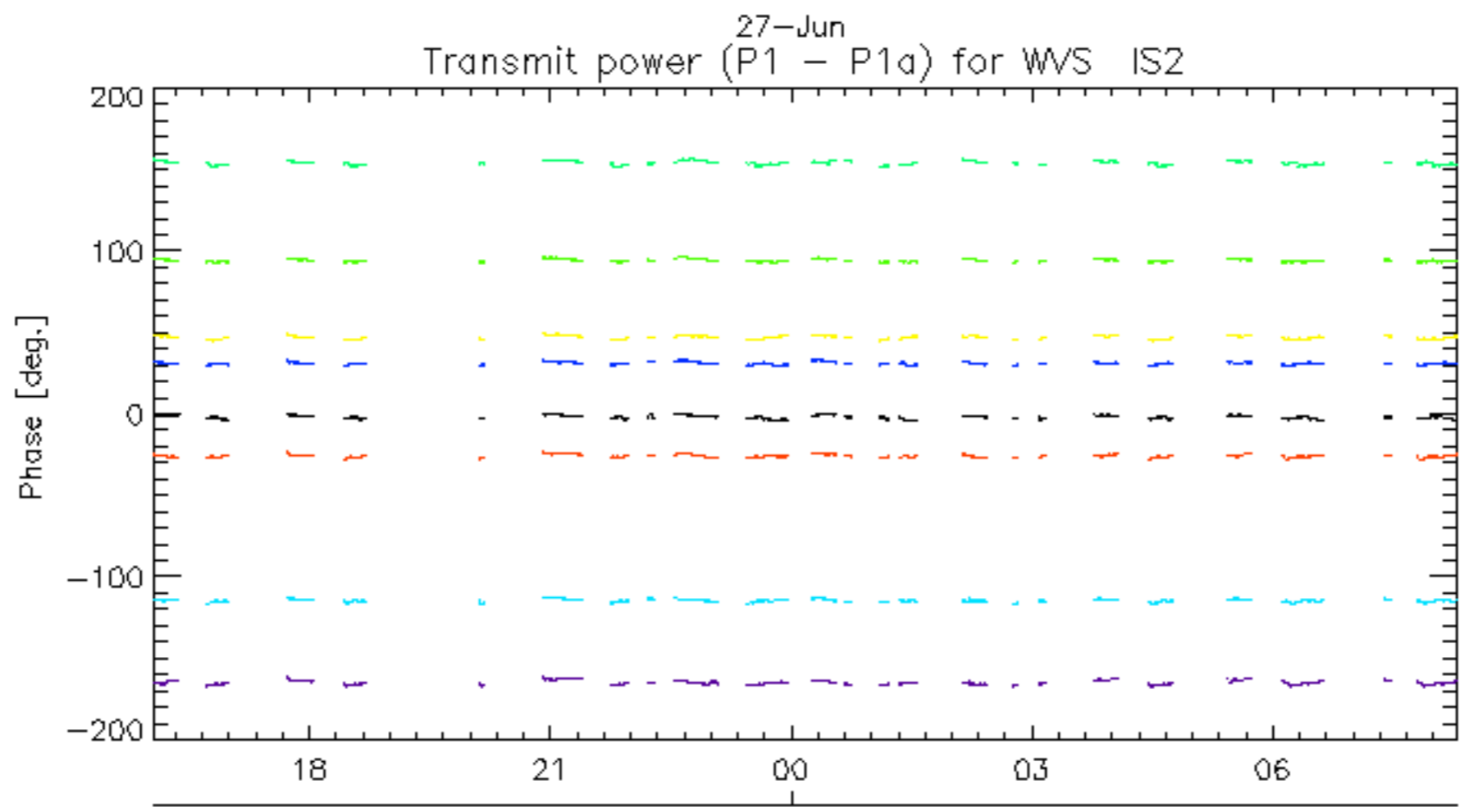
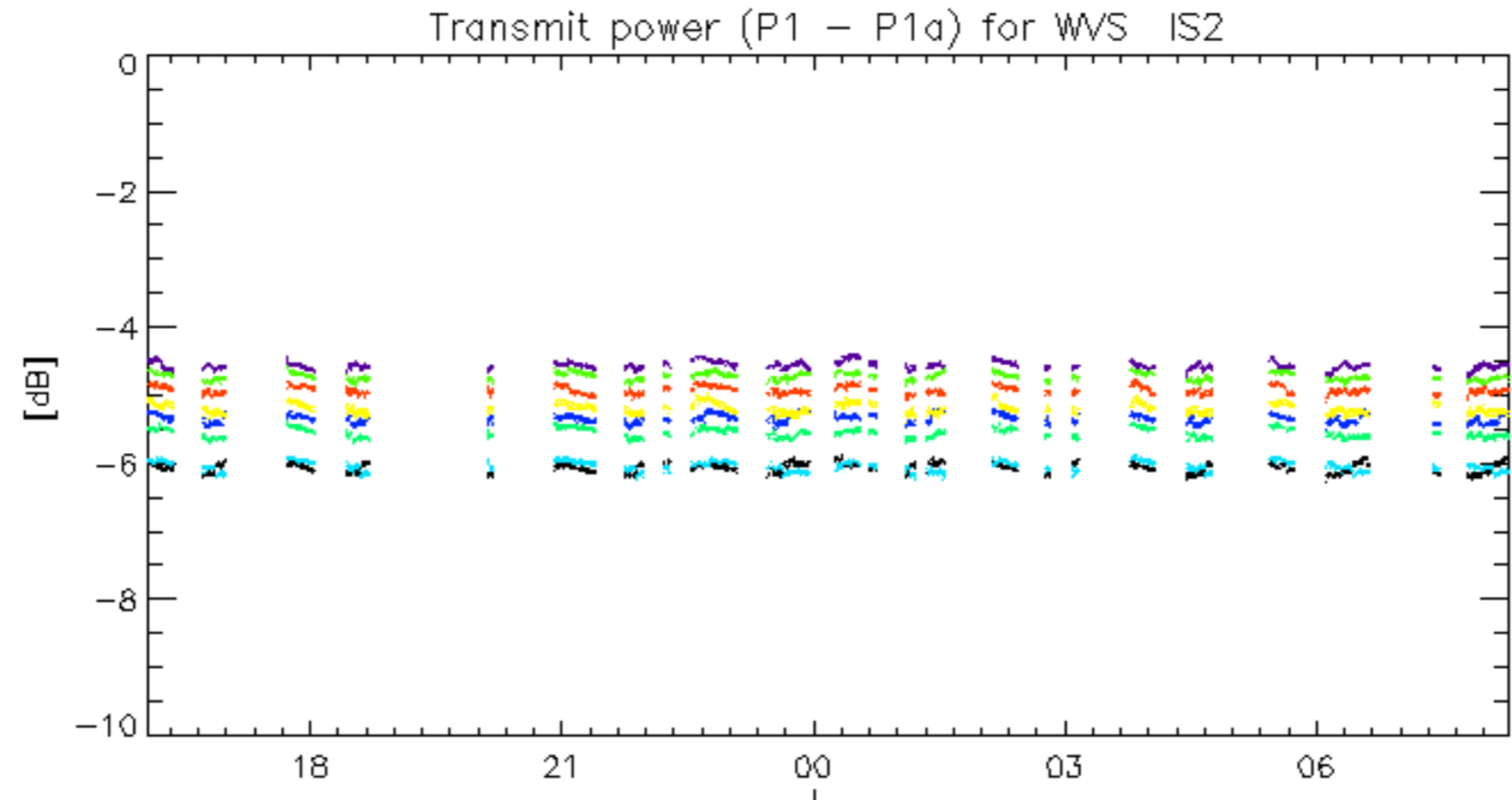


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.