

REPORT OF 060522

last update on Tue May 23 16:51:42 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

Ref : EN-UNA-2006/0167

ASAR Antenna Reset in accordance with procedure CRP_SYS_5041 due to TILE B3 current lower than expected

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-05-22 00:00:00 to 2006-05-23 16:51:42

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	51	100	11	0	16
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	51	100	11	0	16
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	51	100	11	0	16
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	51	100	11	0	16

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	51	36	25	61
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	51	36	25	61
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	51	36	25	61
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	51	36	25	61

2.3 - Browse Visual Inspection

2.2 - Browse Visual Inspection

The following browse products show processing anomalies:

ASA_WS_BPZPDK20060519_070430_000001282047_00450_22047_5548.N1
 ASA_WS_BPZPDK20060519_202842_000002392047_00458_22055_5540.N1

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	20060520 204903
H	20060521 183650

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	-3.965081	0.011709	0.025647
7	P1	-3.081205	0.014043	-0.088308
11	P1	-4.102398	0.015213	-0.034349
15	P1	-6.123068	0.011610	-0.069097
19	P1	-3.312496	0.008186	-0.020213
22	P1	-4.523936	0.010826	0.007058
26	P1	-4.006944	0.020266	0.085509
30	P1	-5.741646	0.019437	-0.035182
3	P1	-16.621798	0.297517	0.183865
7	P1	-17.066145	0.153314	-0.338972
11	P1	-16.855312	0.313054	-0.346683
15	P1	-13.169425	0.146084	-0.201766
19	P1	-14.214339	0.048200	-0.200834
22	P1	-16.126549	0.421005	-0.170121
26	P1	-15.330702	0.266420	0.276785
30	P1	-16.911150	0.337772	-0.359246

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.251322	0.083590	0.127323
7	P2	-22.142597	0.100651	0.175337
11	P2	-15.984590	0.111631	0.147807
15	P2	-7.167291	0.093737	-0.004055

19	P2	-9.158710	0.086662	-0.028305
22	P2	-18.090710	0.085204	-0.112261
26	P2	-16.341793	0.090338	-0.105724
30	P2	-19.596766	0.085705	0.037974

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.189923	0.003914	0.002940
7	P3	-8.189923	0.003914	0.002940
11	P3	-8.189923	0.003914	0.002940
15	P3	-8.189923	0.003914	0.002940
19	P3	-8.189923	0.003914	0.002940
22	P3	-8.189923	0.003914	0.002940
26	P3	-8.189935	0.003915	0.003009
30	P3	-8.189935	0.003915	0.003009

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	-3.749876	0.038511	-0.020782
7	P1	-2.629450	0.100271	0.115286
11	P1	-2.865672	0.029991	0.043795
15	P1	-3.498453	0.029268	0.062992
19	P1	-3.388797	0.014367	-0.021670
22	P1	-5.097928	0.022065	0.058907
26	P1	-5.829530	0.021274	-0.042688
30	P1	-5.182982	0.043832	-0.036192

3	P1	-11.604046	0.135959	-0.032977
7	P1	-9.973514	0.151846	0.007933
11	P1	-10.207034	0.082271	0.035934
15	P1	-10.634485	0.126365	0.187597
19	P1	-15.480919	0.087292	-0.101952
22	P1	-20.810915	1.272291	-0.329280
26	P1	-16.450741	0.382628	-0.192944
30	P1	-18.114319	0.481425	0.335431

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.921690	0.070854	0.083604
7	P2	-22.514435	0.176281	-0.015657
11	P2	-11.188987	0.050581	-0.000198
15	P2	-4.887881	0.042784	-0.067186
19	P2	-6.867964	0.042487	-0.028530
22	P2	-8.176211	0.053806	-0.055493
26	P2	-24.071535	0.126108	-0.094257
30	P2	-22.054510	0.087773	-0.026121

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.022429	0.003762	0.006893
7	P3	-8.022477	0.003773	0.006556
11	P3	-8.022544	0.003744	0.006485
15	P3	-8.022316	0.003764	0.006929
19	P3	-8.022519	0.003761	0.007101
22	P3	-8.022554	0.003757	0.006504
26	P3	-8.022358	0.003748	0.006522
30	P3	-8.022435	0.003753	0.006807

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	0.000535802
	stdev	1.88920e-07
MEAN Q	mean	0.000515175
	stdev	2.26692e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.134909
	stdev	0.00117145
STDEV Q	mean	0.135252
	stdev	0.00118833



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006052[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_1PNPDE20060521_004019_000001342047_00474_22071_5837.N1	1	0
ASA_IMM_1PNPDE20060521_022552_000000362047_00476_22073_5844.N1	1	0
ASA_WSM_1PNPDE20060520_083606_000000852047_00465_22062_9979.N1	0	1
ASA_WSM_1PNPDE20060520_083607_000000852047_00465_22062_9998.N1	0	1
ASA_WSM_1PNPDE20060520_230542_000001222047_00474_22071_0064.N1	0	35
ASA_WSM_1PNPDE20060521_113142_000001652047_00481_22078_0109.N1	0	14



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

6.2 - Absolute Doppler for WVS

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

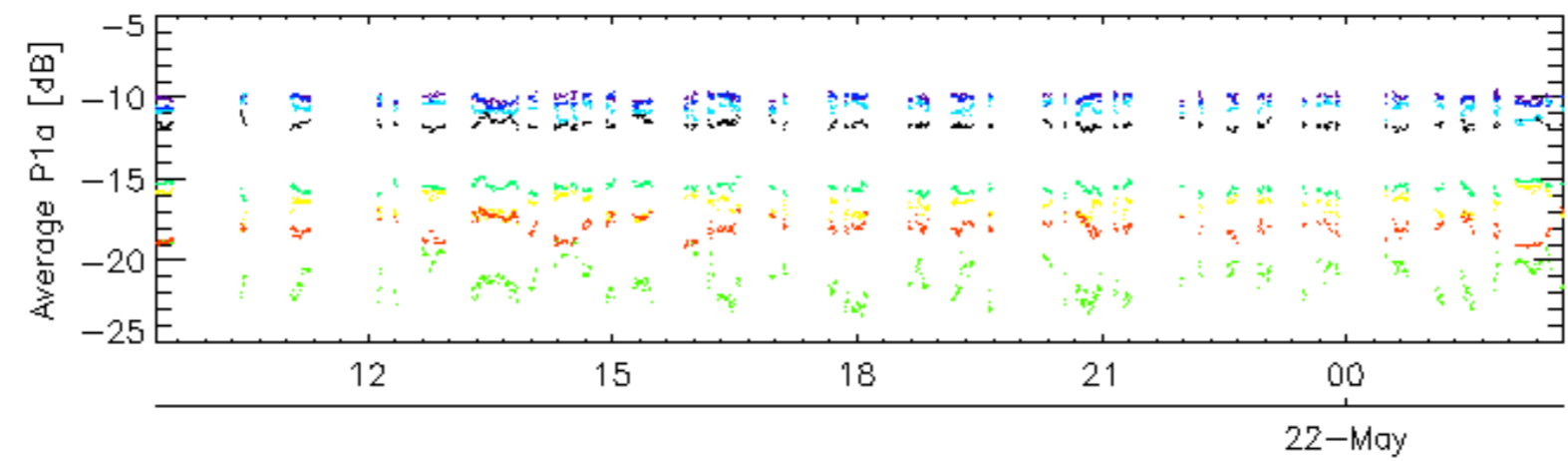
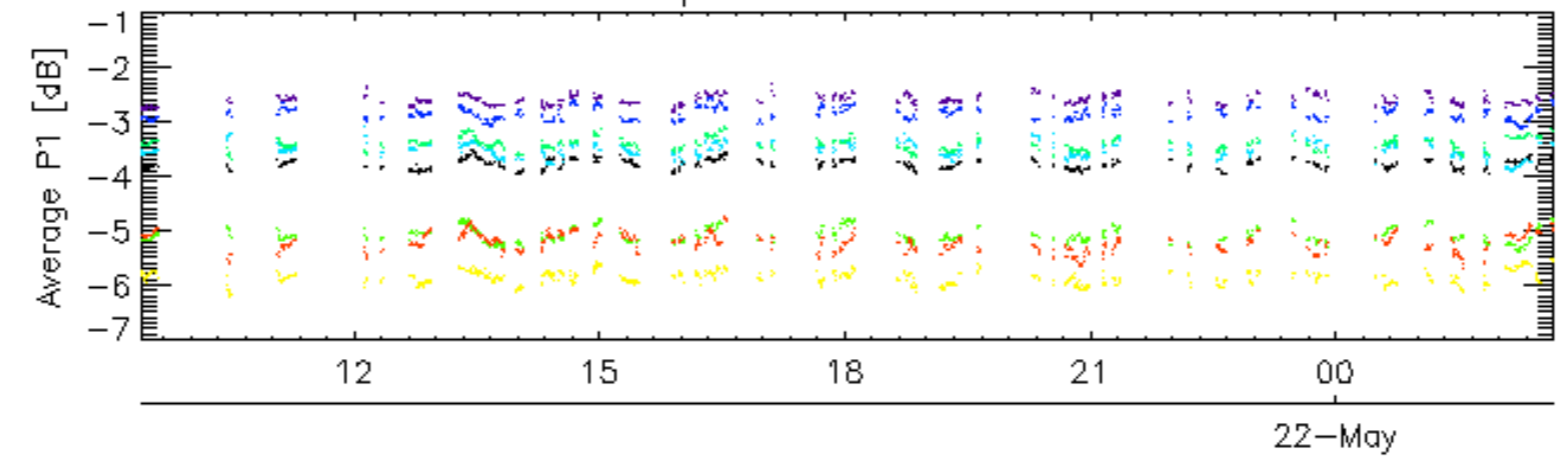
6.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

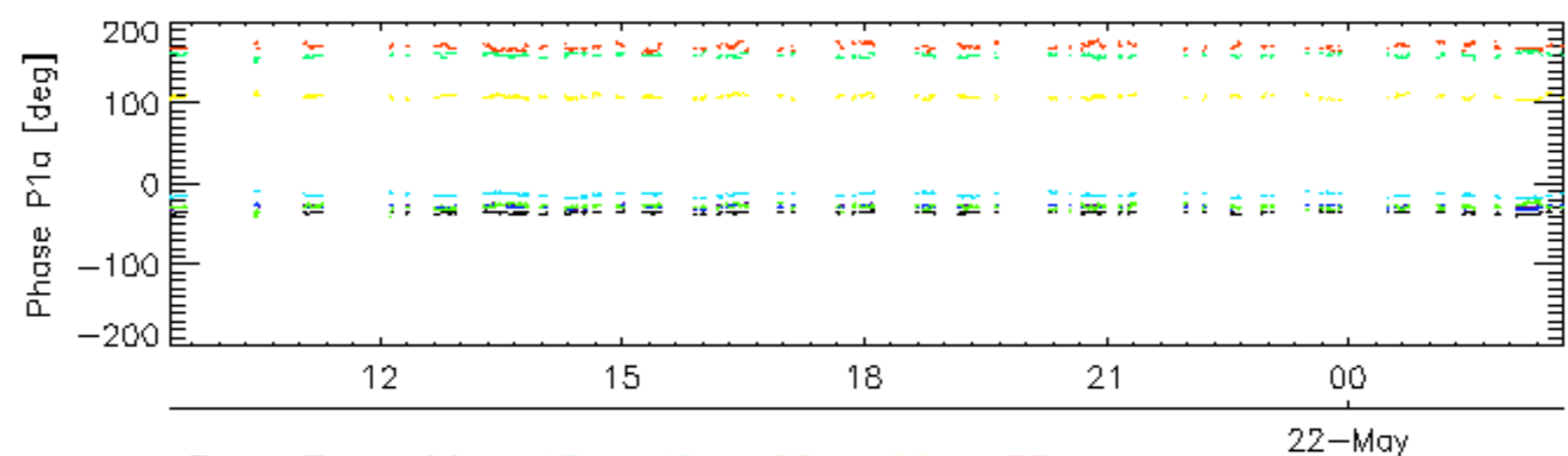
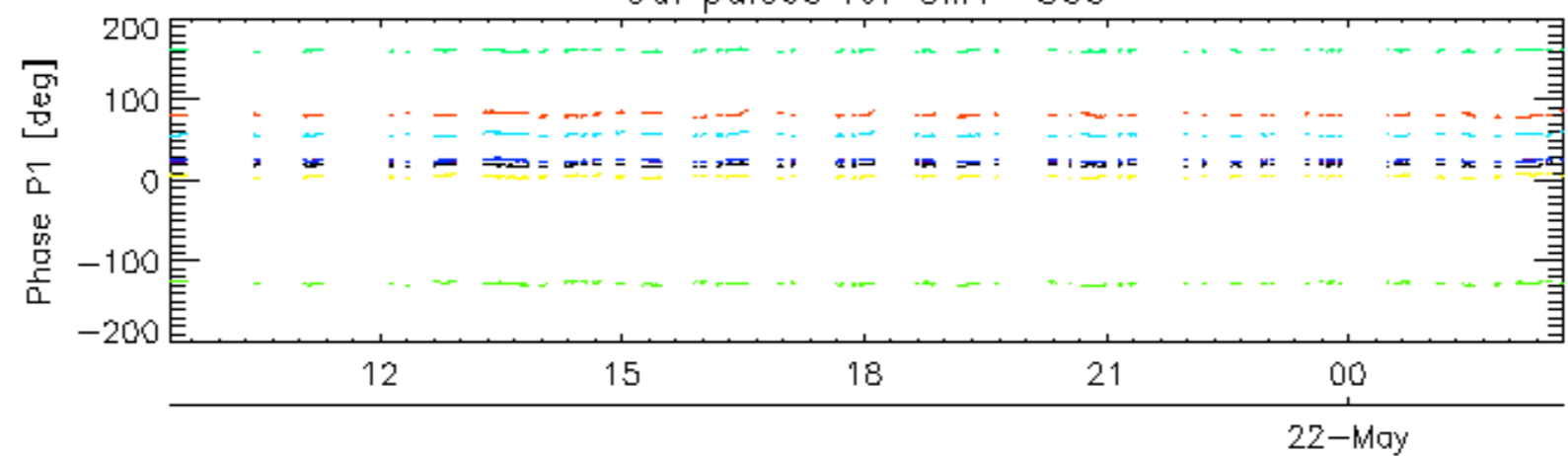
Descending

6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

Cal pulses for GM1 SS3

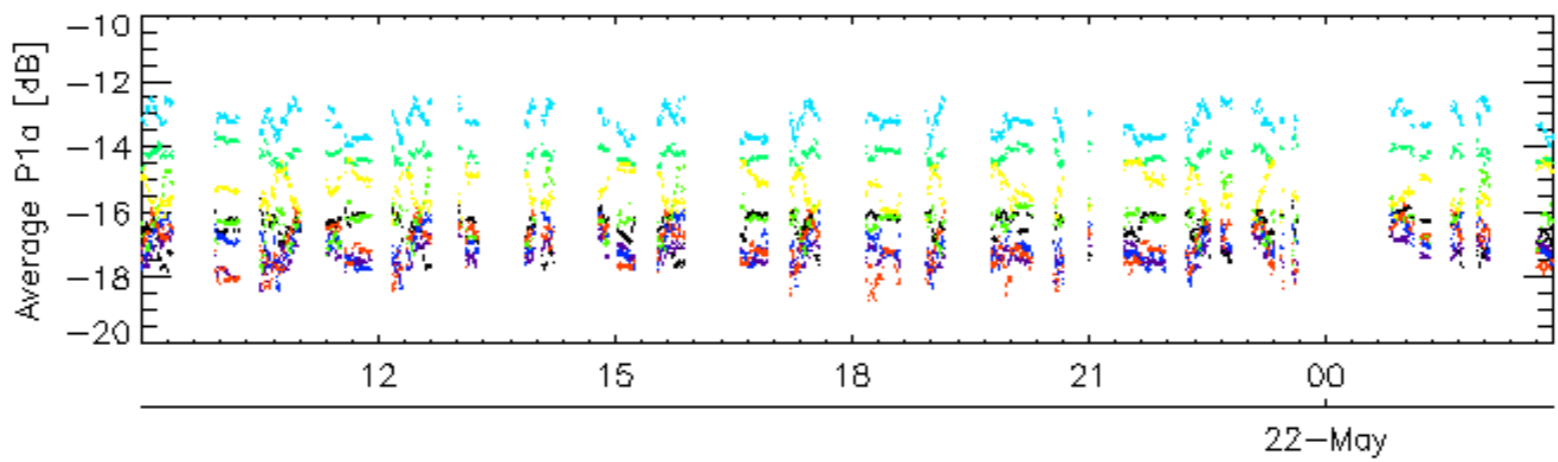
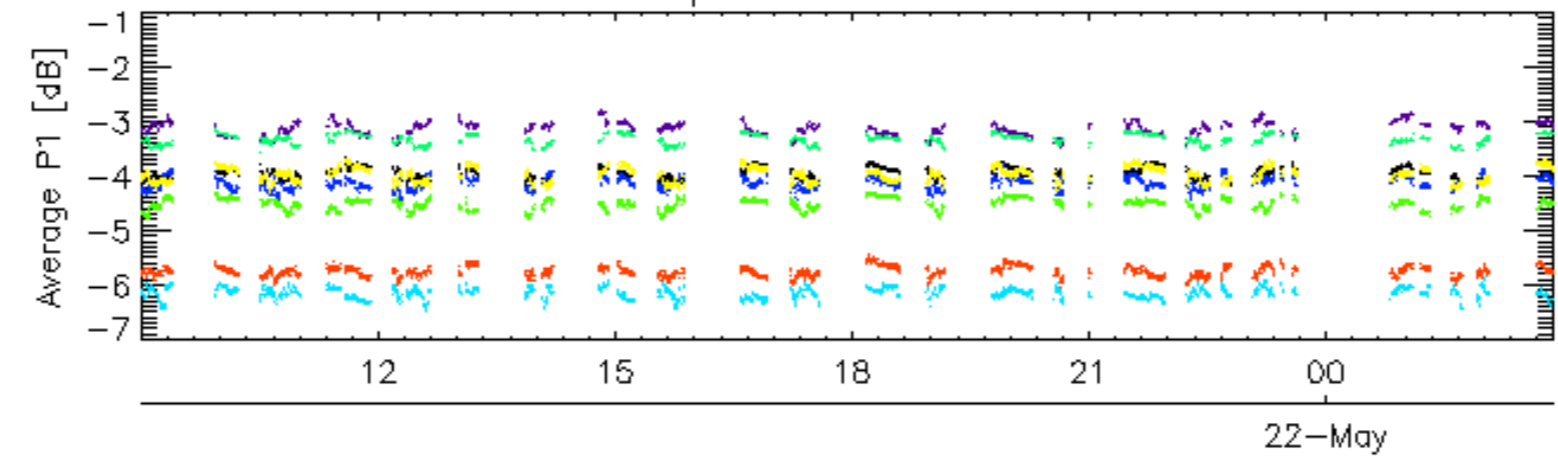


Cal pulses for GM1 SS3

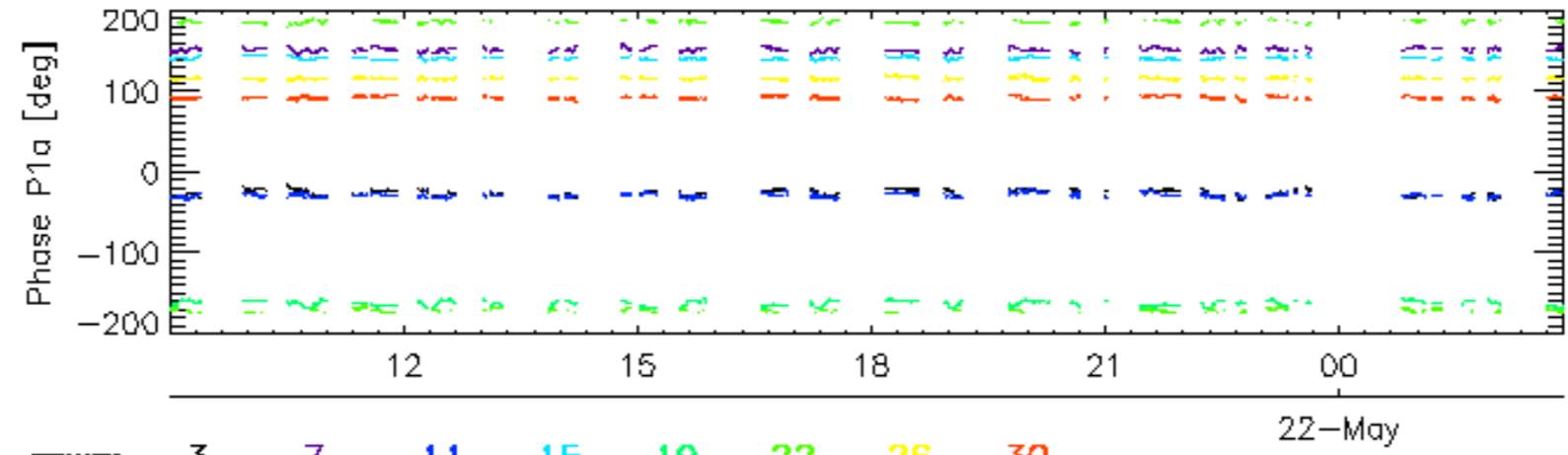
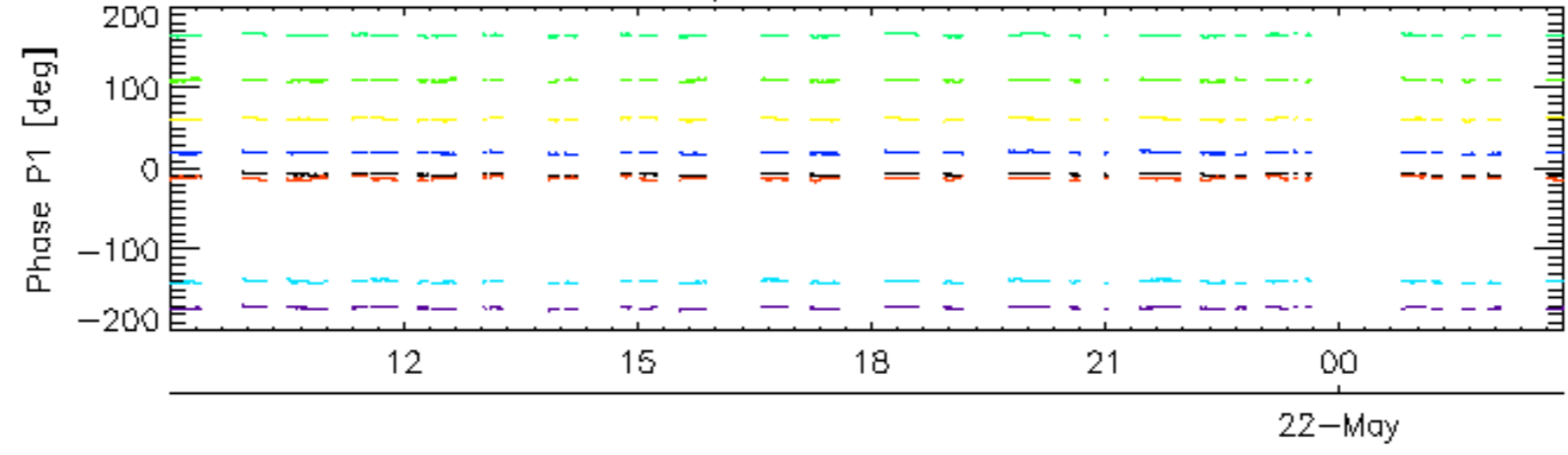


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

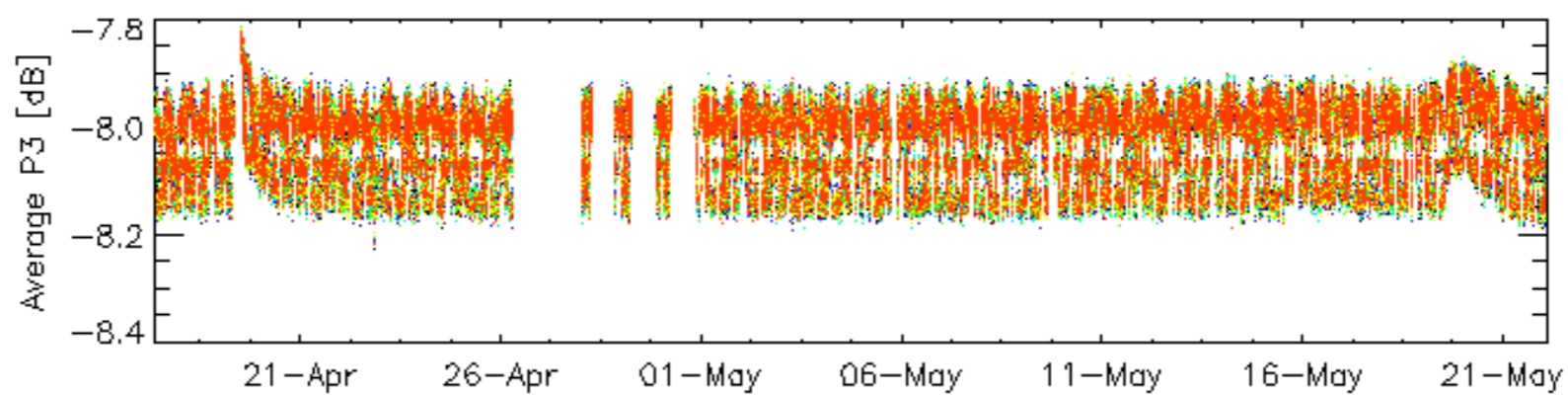
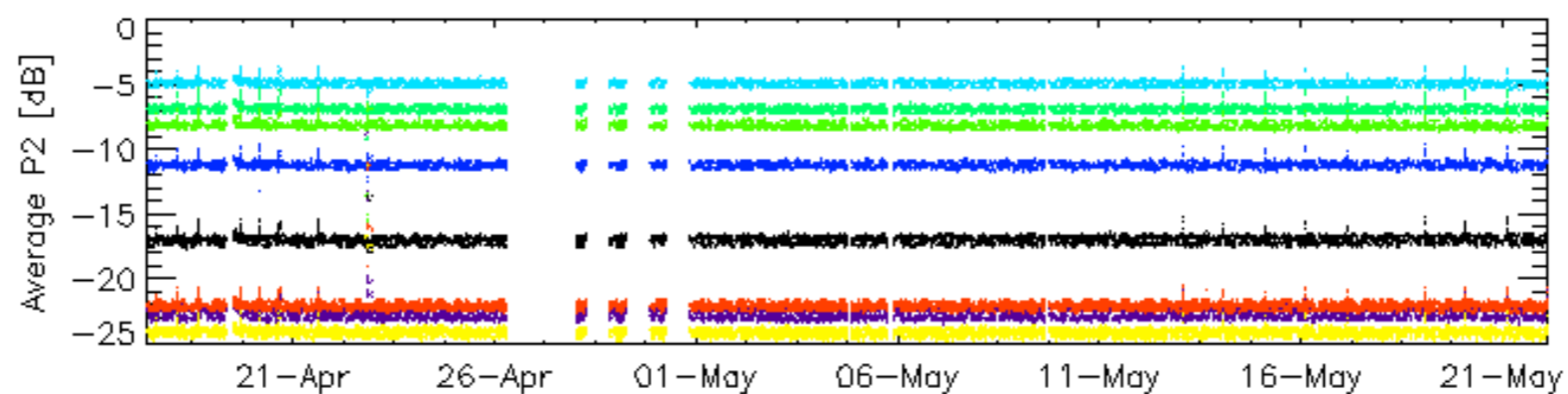
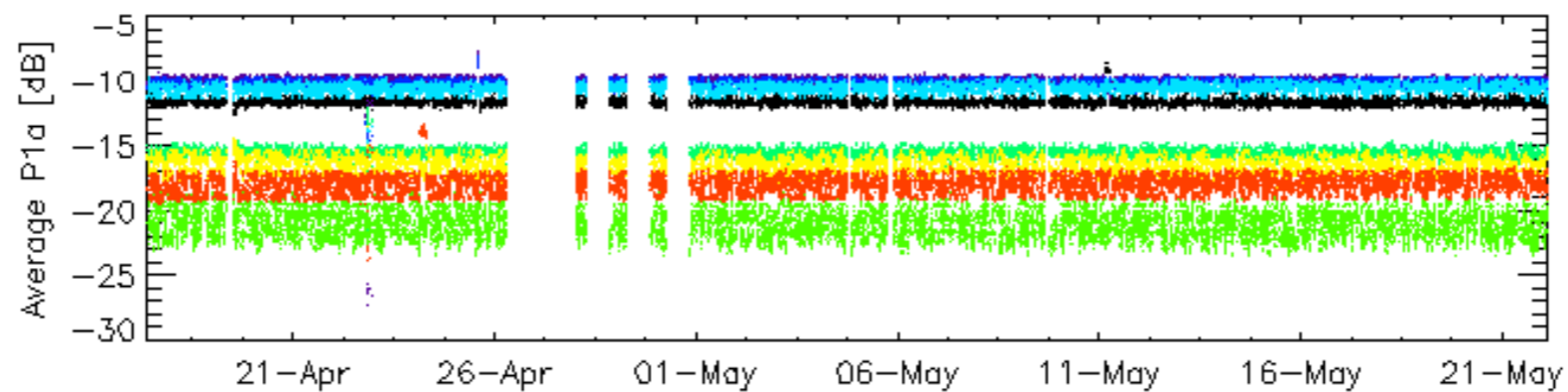
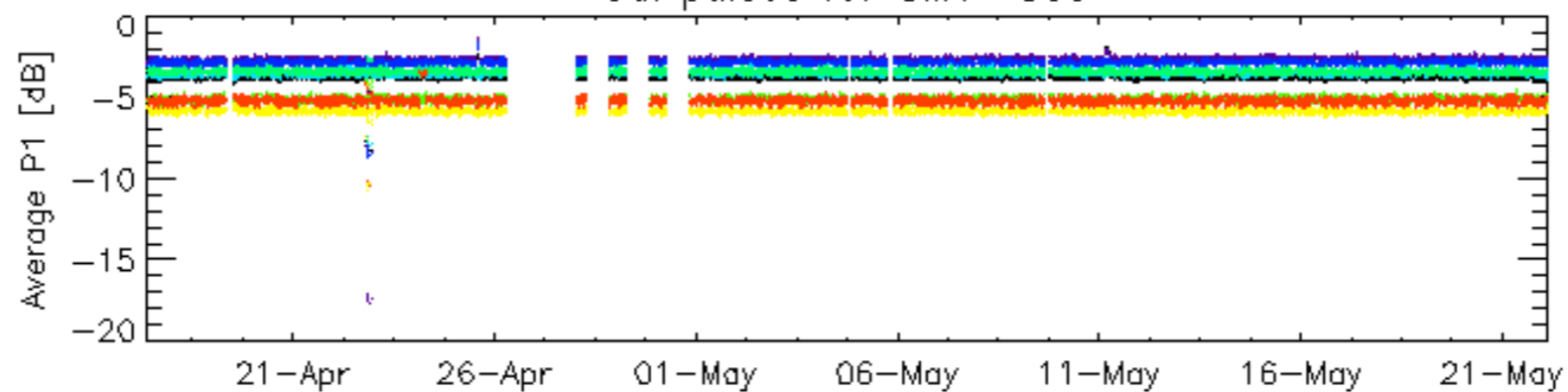


Cal pulses for WVS IS2



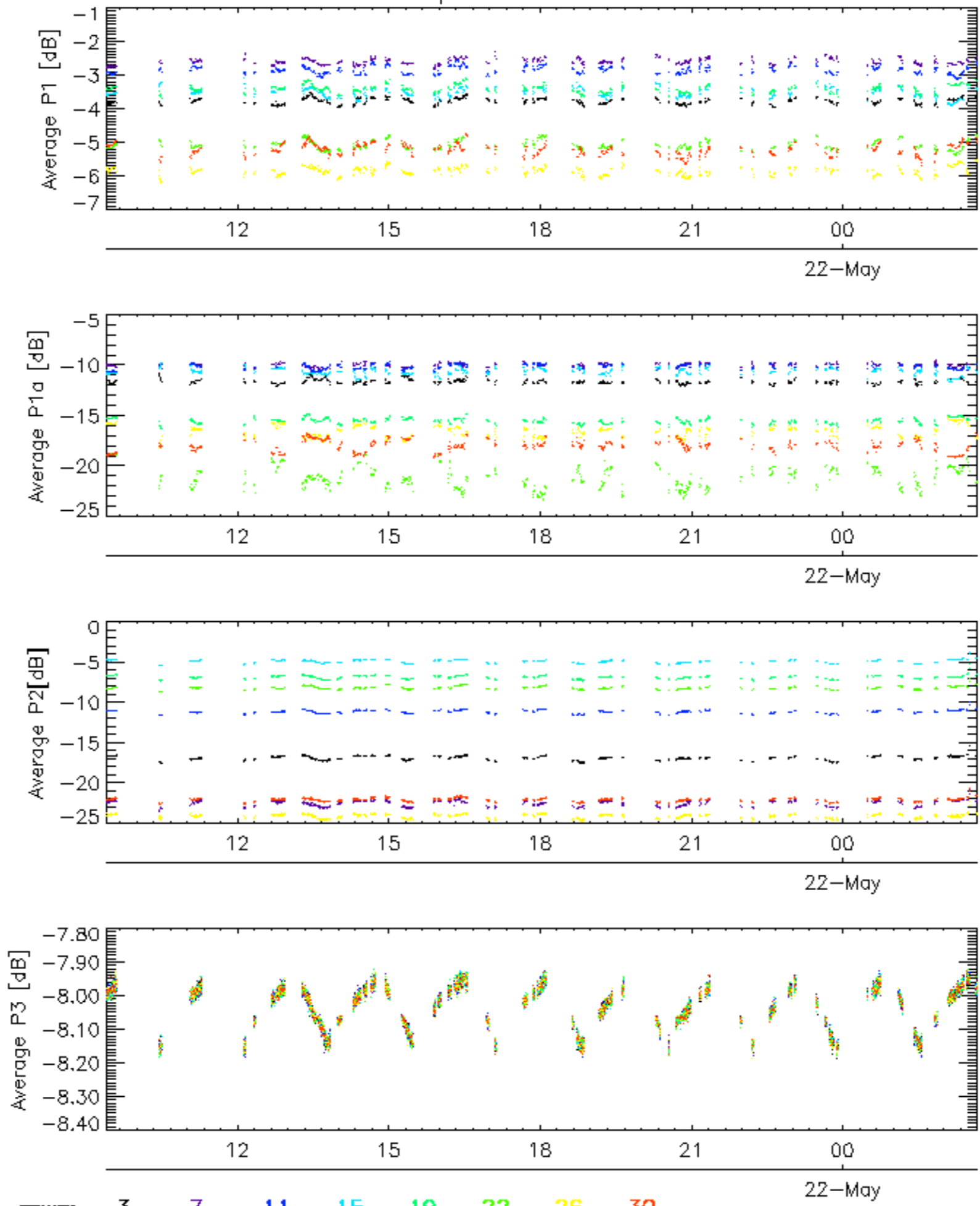
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

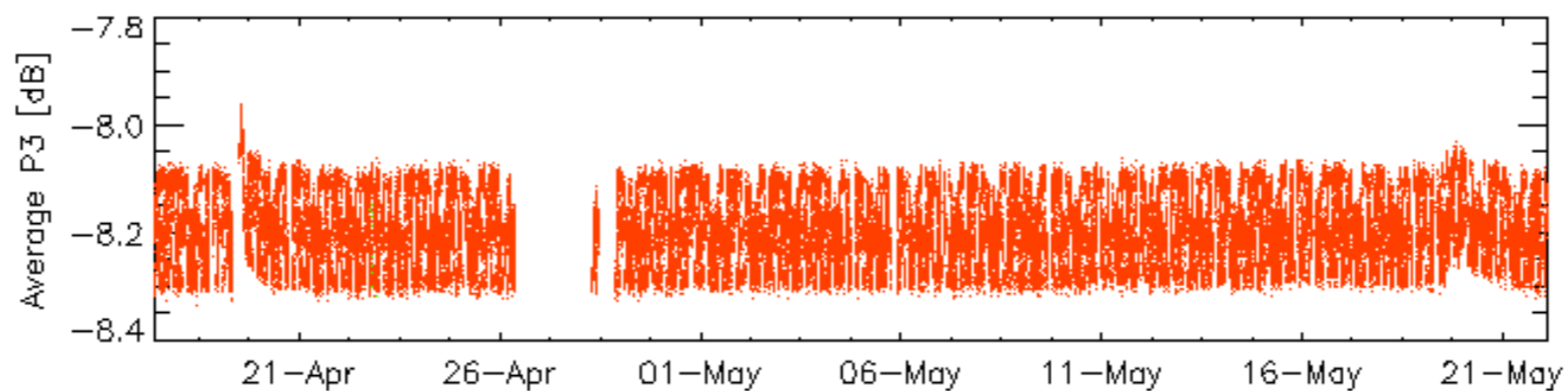
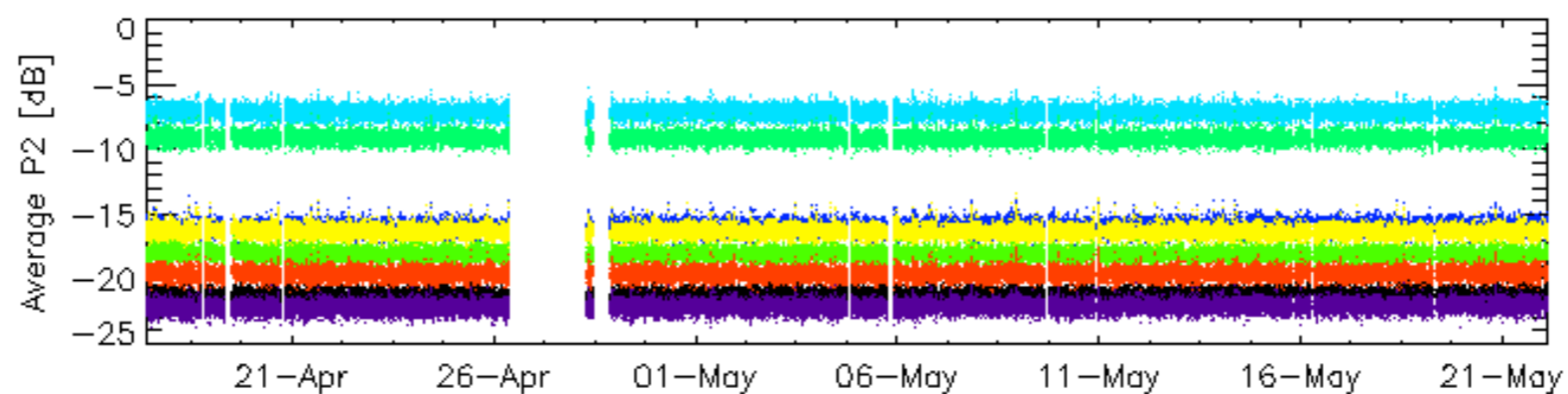
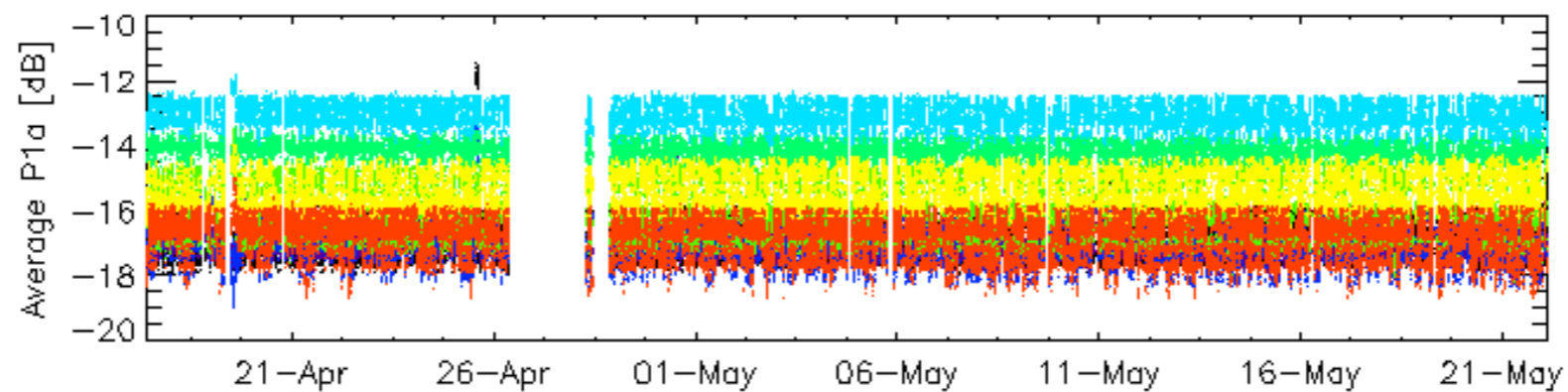
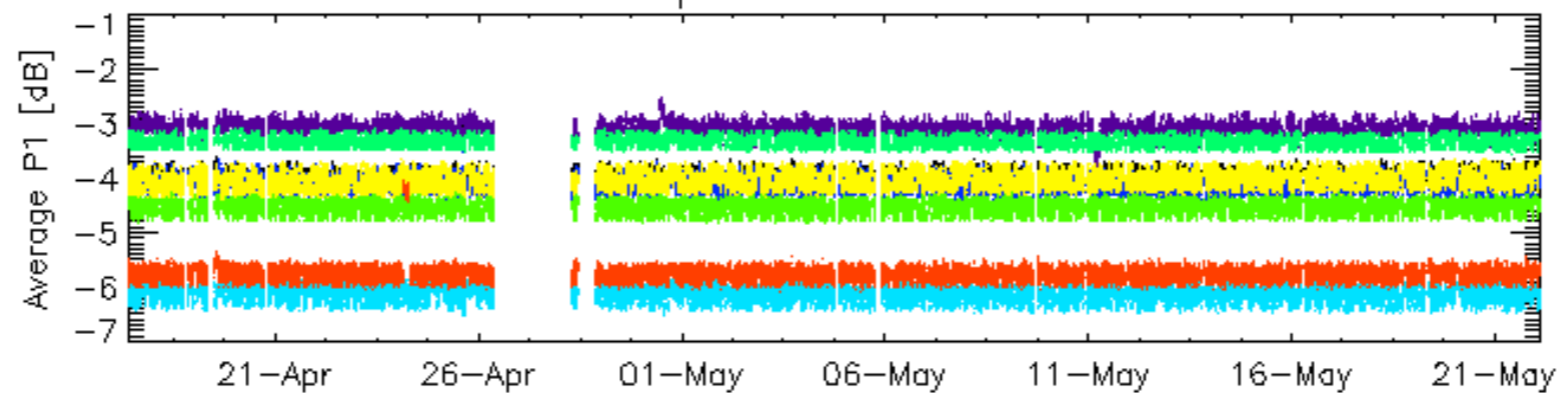


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

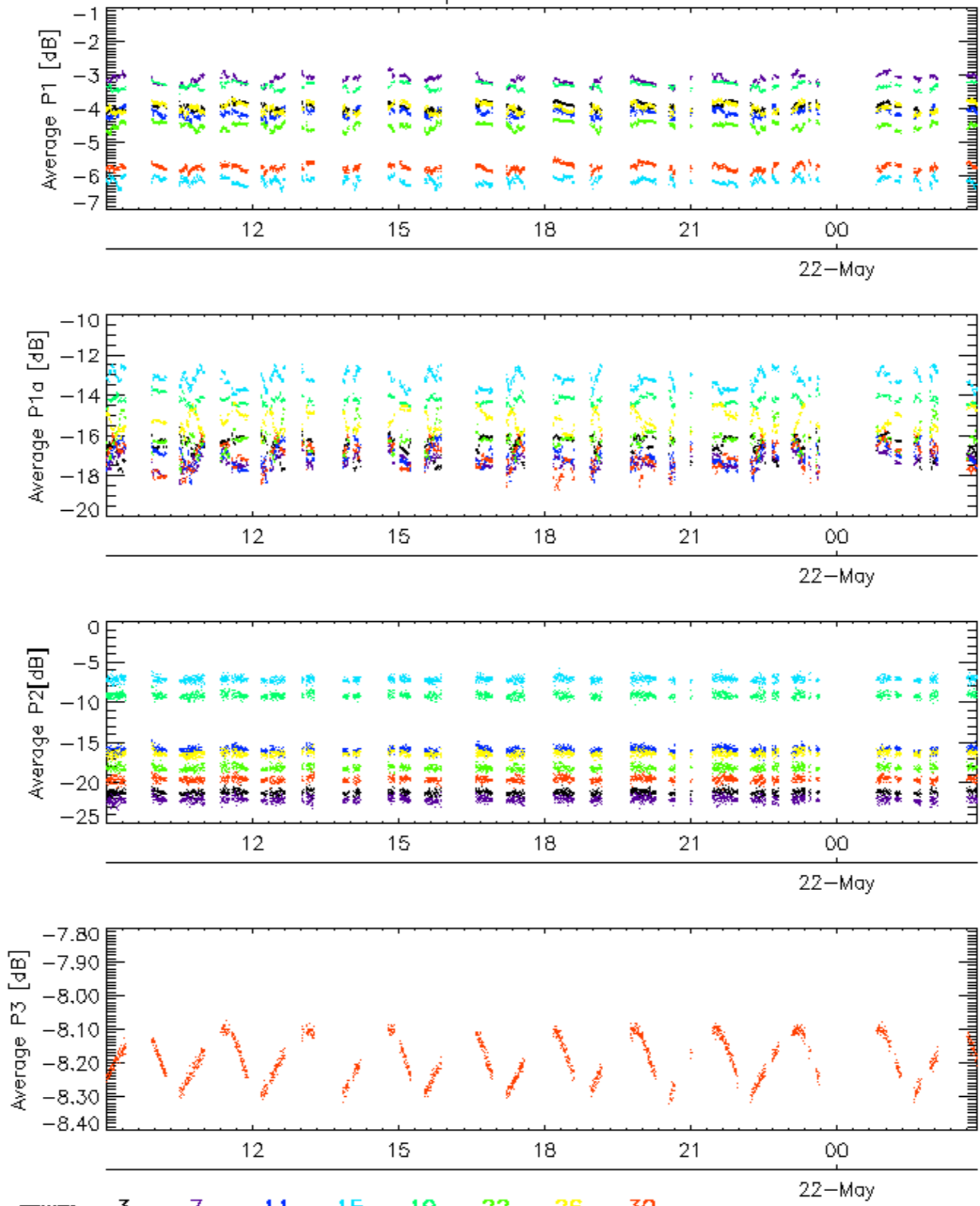


Cal pulses for WVS IS2



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

Cal pulses for WVS IS2



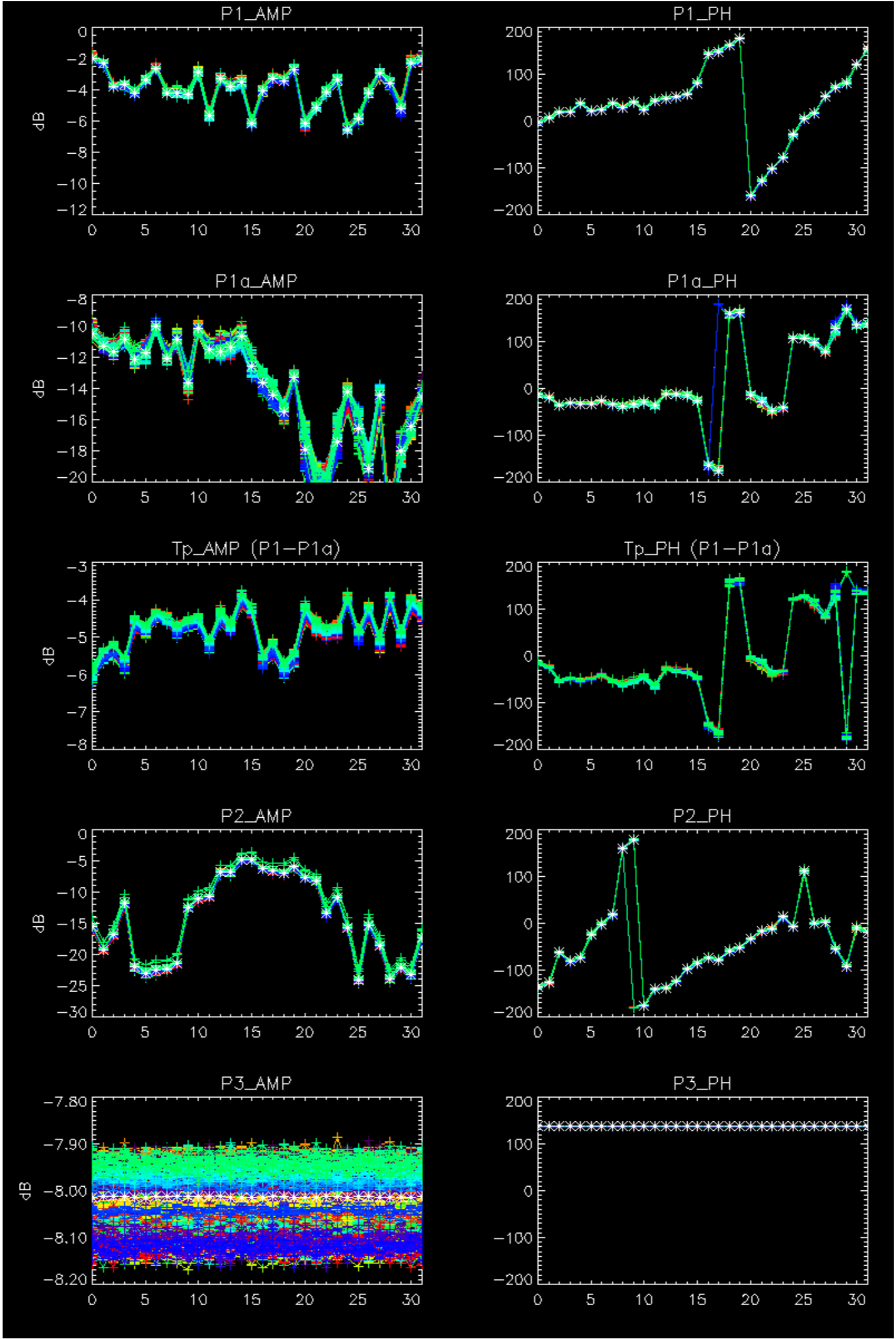
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

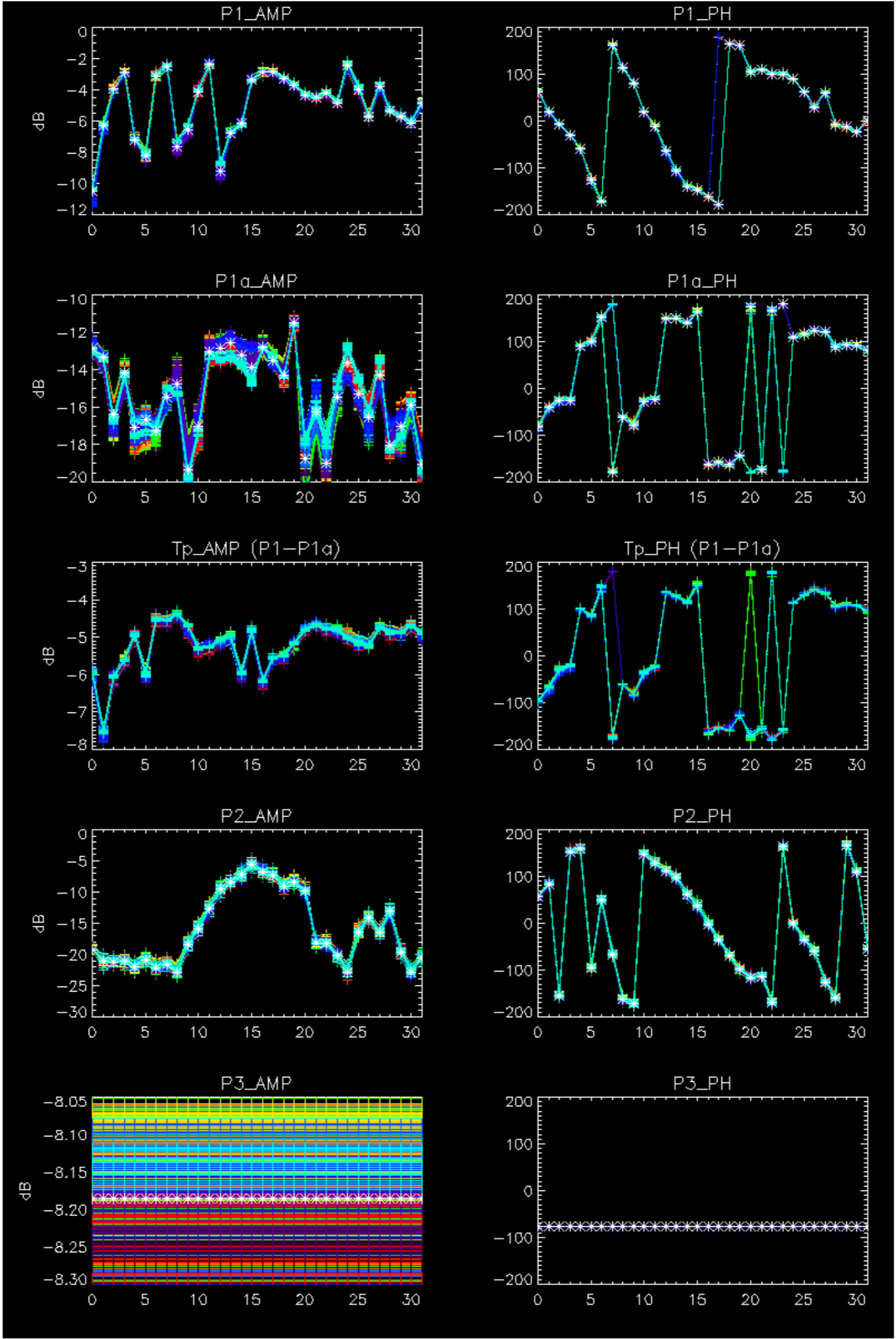
The following browse products show processing anomalies:

ASA_WS__BPZPDK20060519_070430_000001282047_00450_22047_5548.N1

ASA_WS__BPZPDK20060519_202842_000002392047_00458_22055_5540.N1

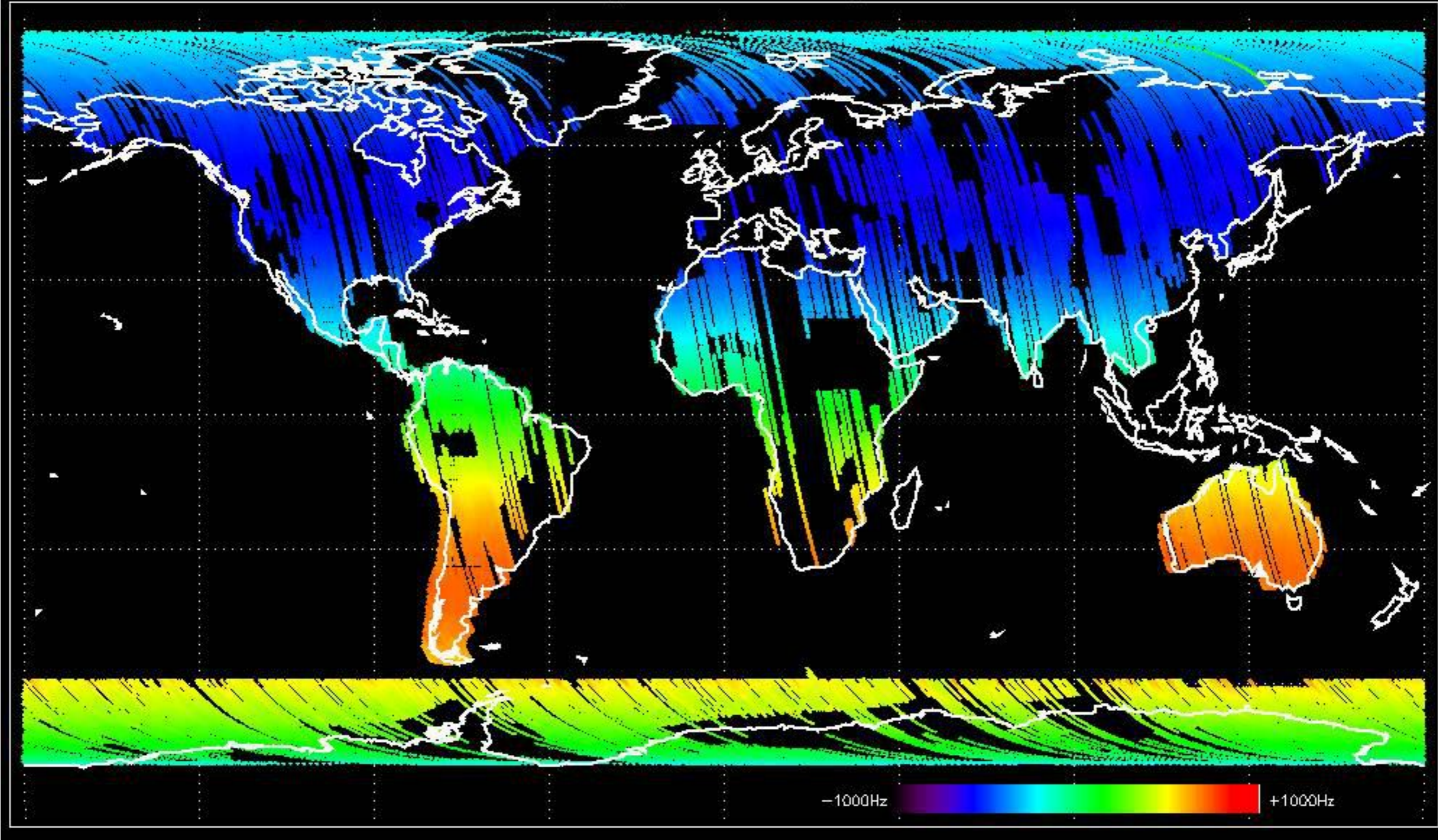
No anomalies observed.



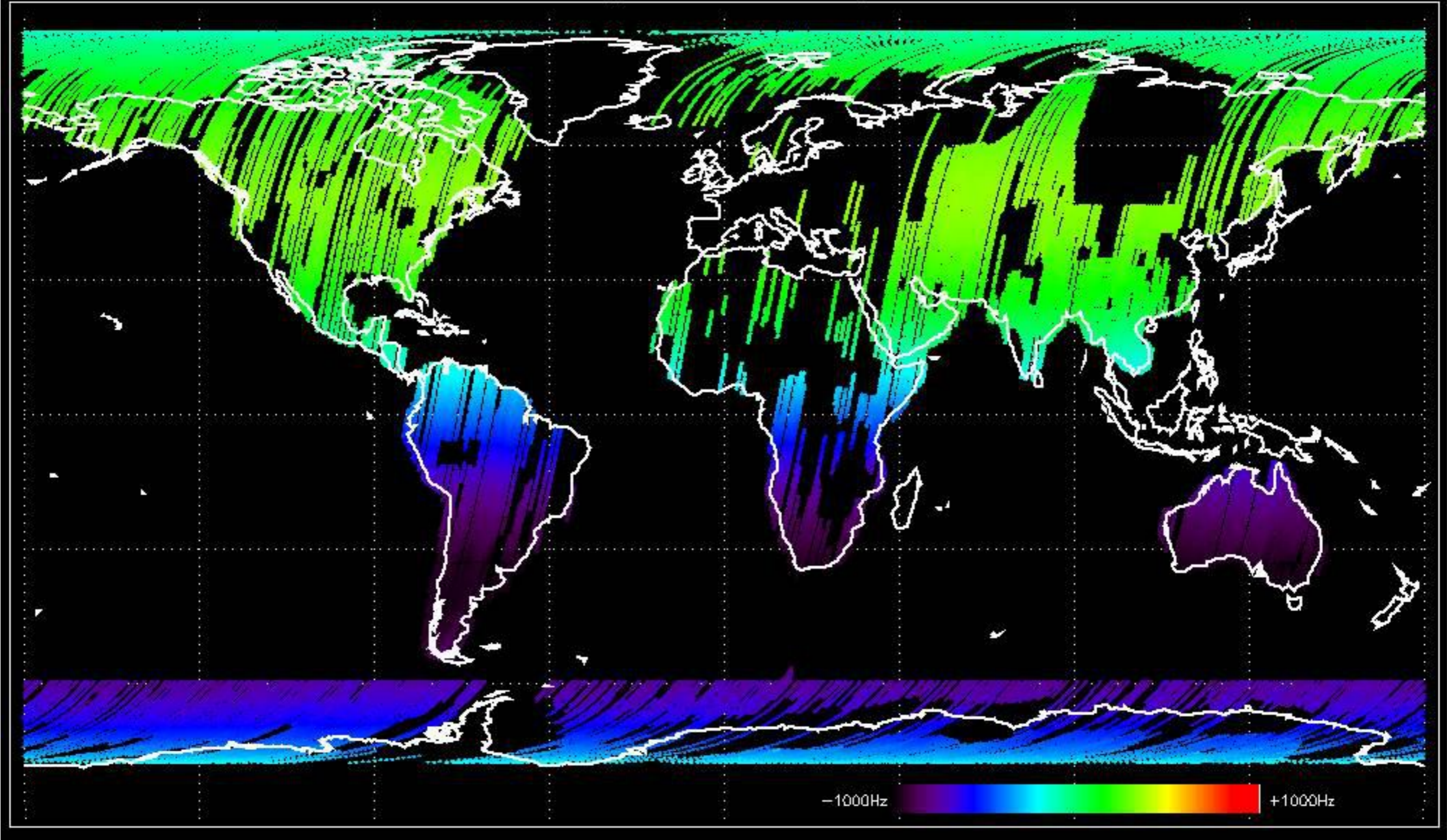


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

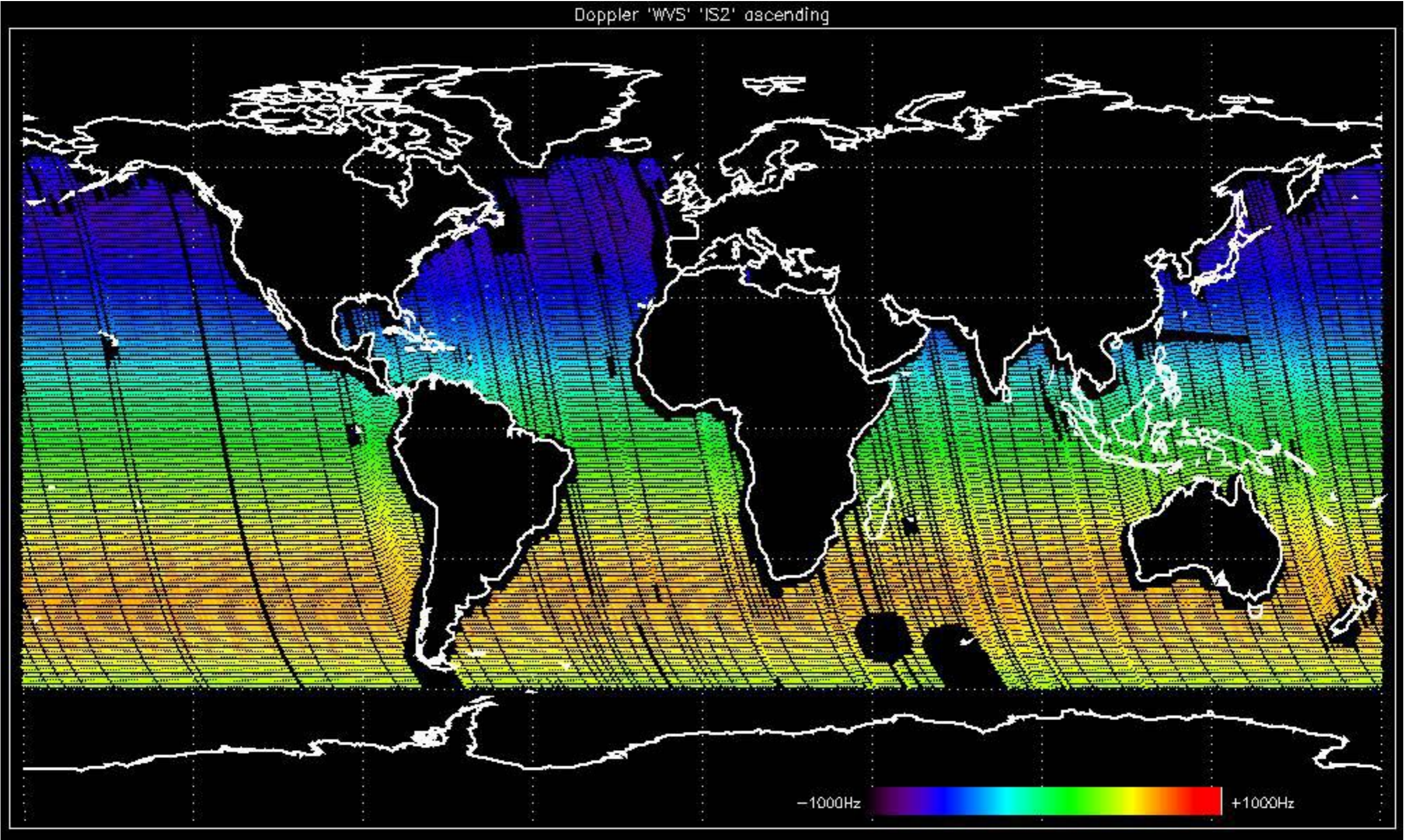
Doppler 'GM1' 'SS1' ascending



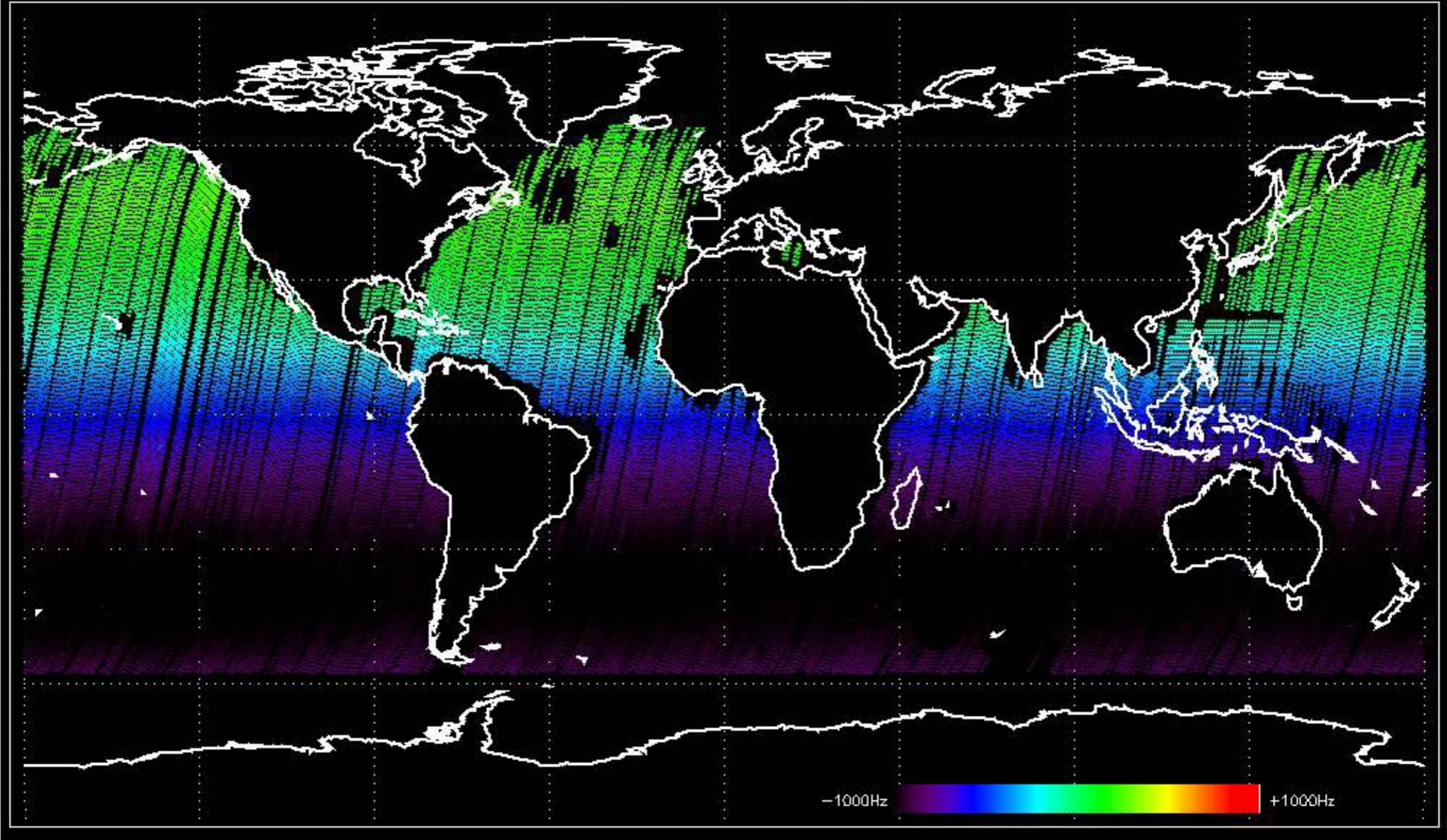
Doppler 'GM1' 'SS1' descending



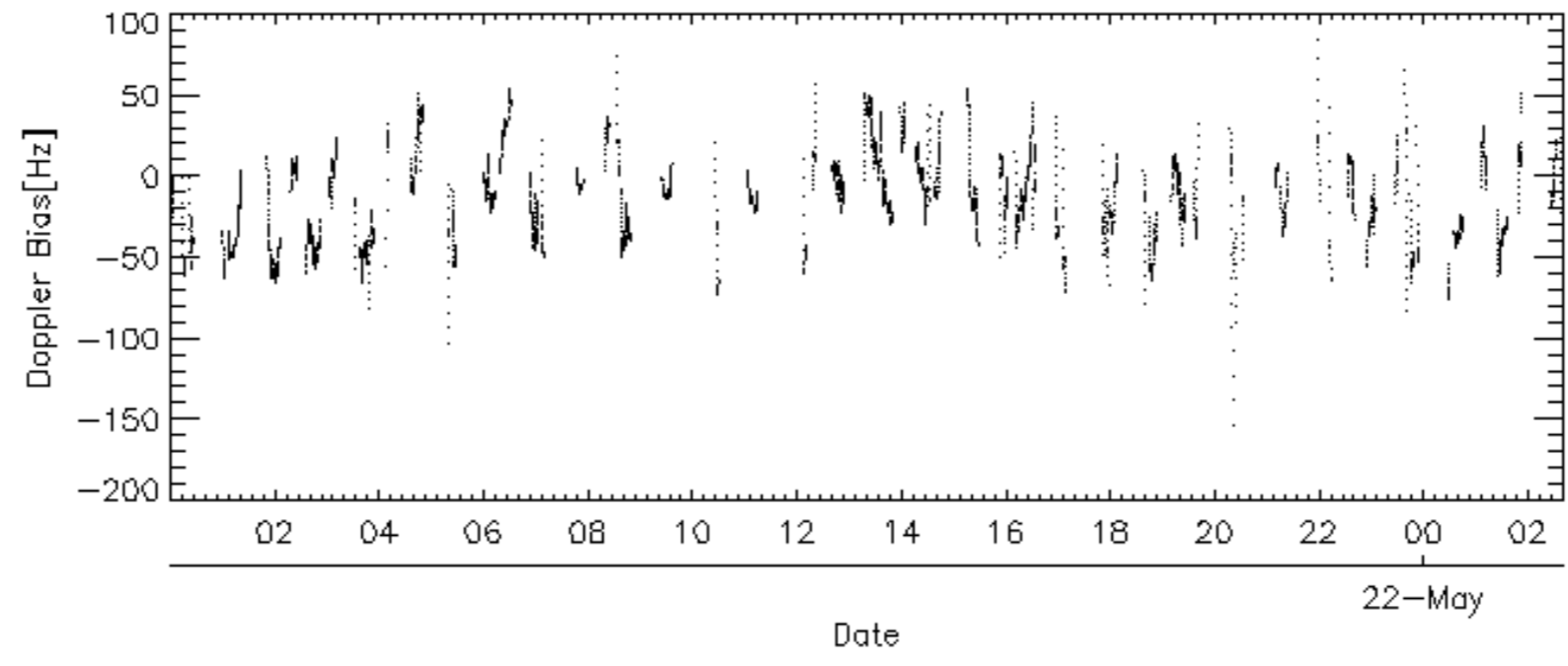
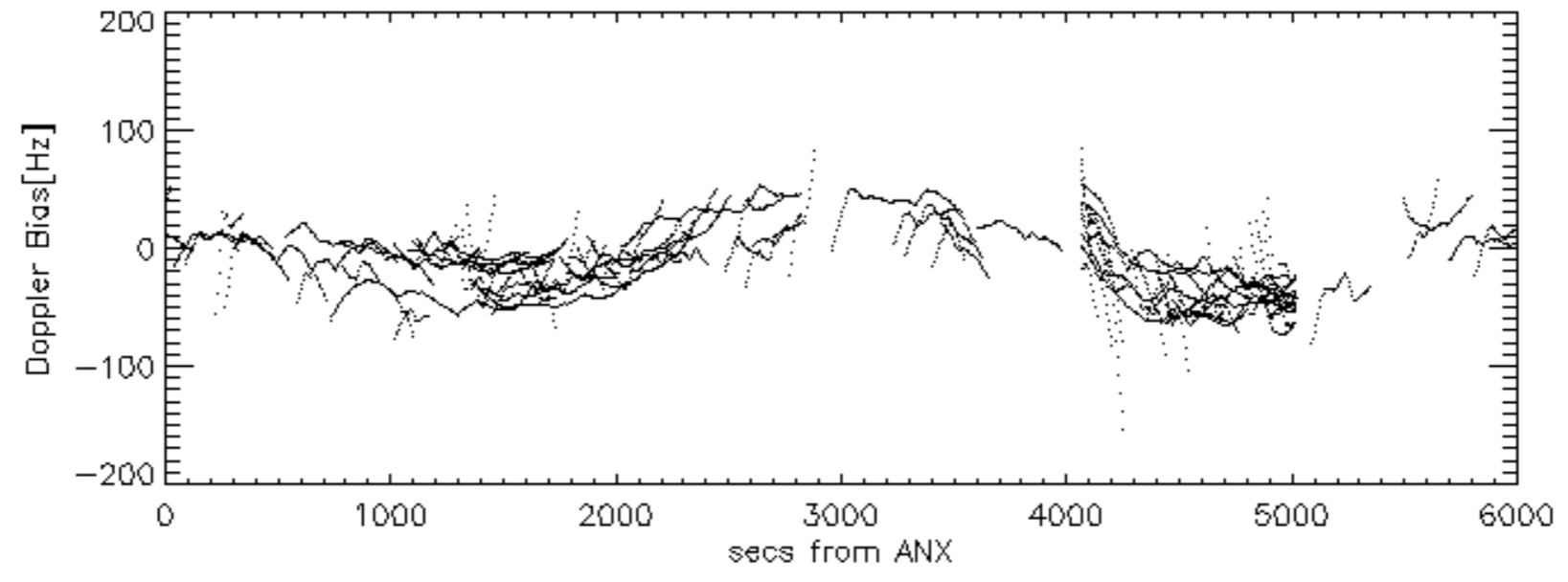
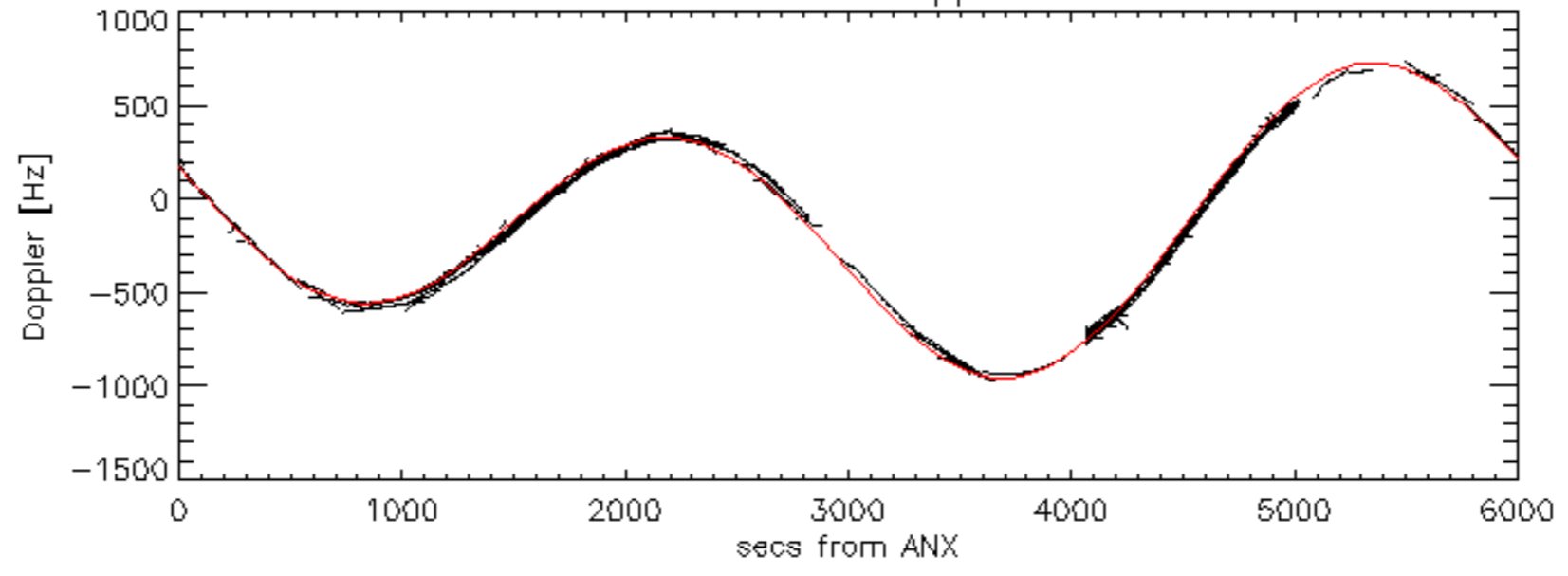
Doppler 'WVS' 'IS2' ascending

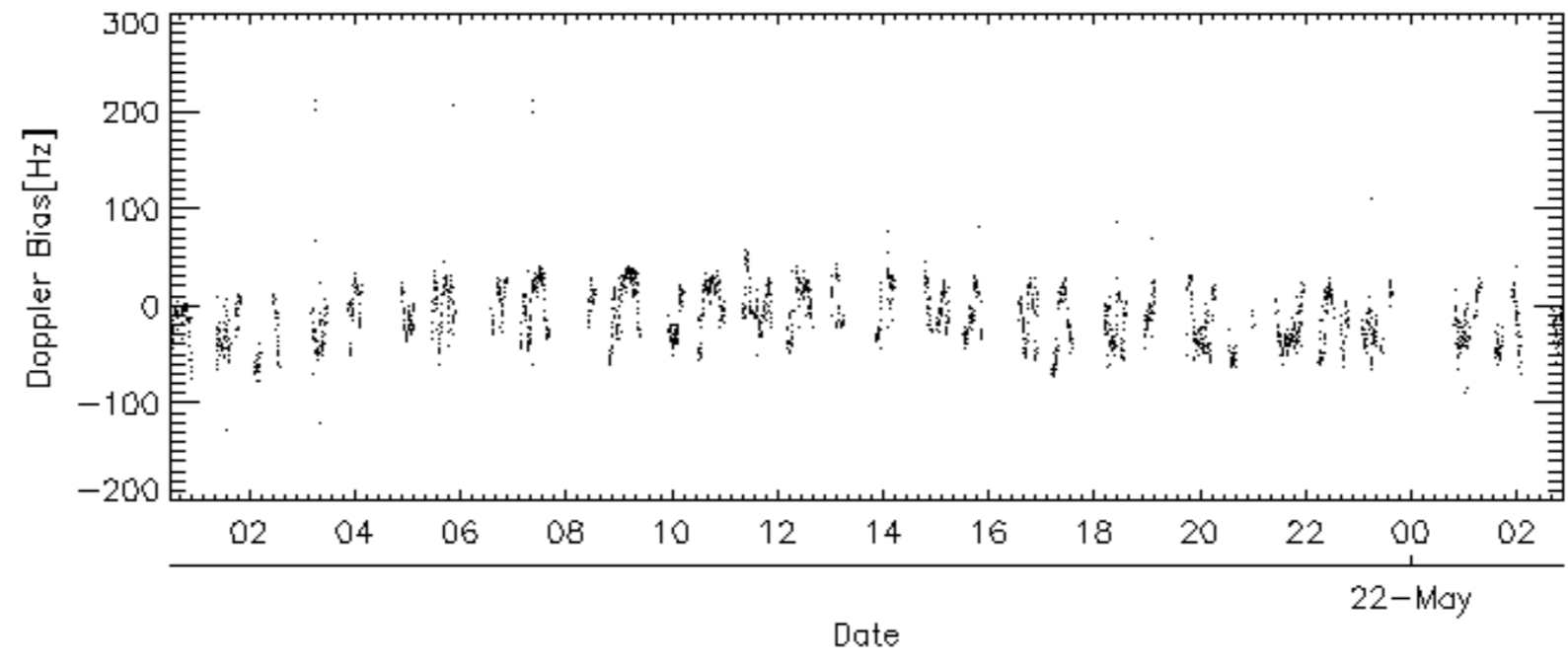
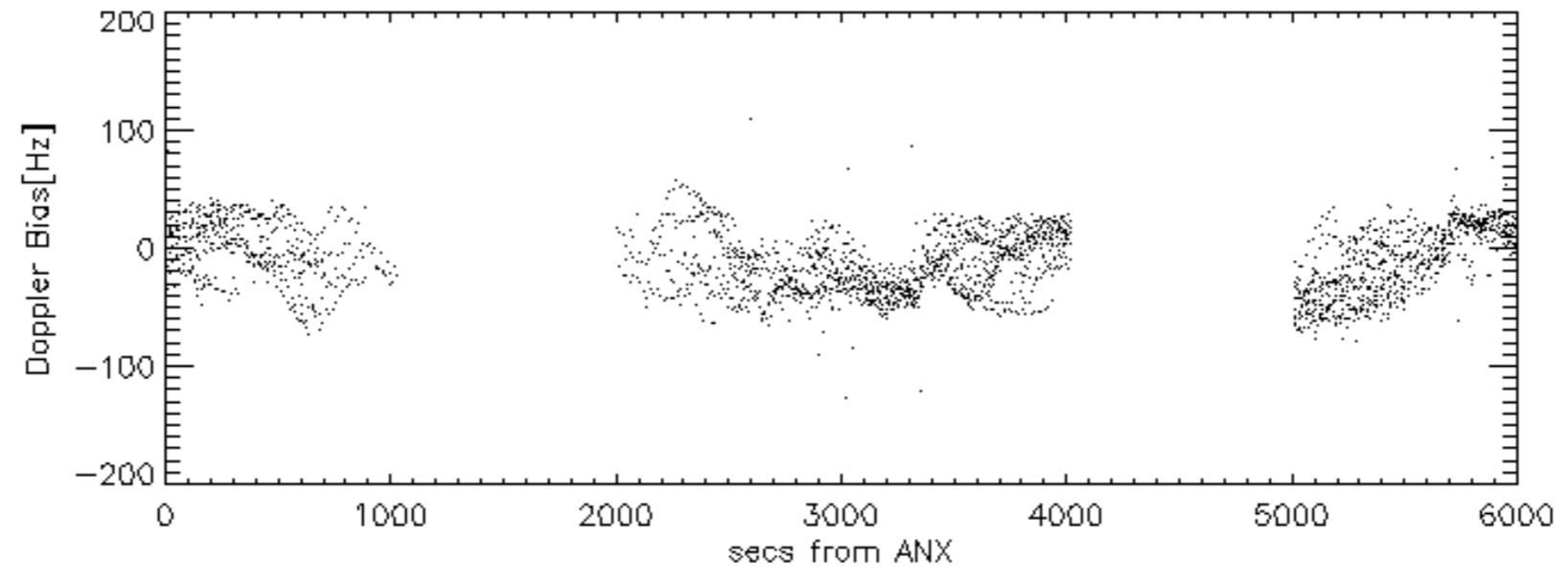
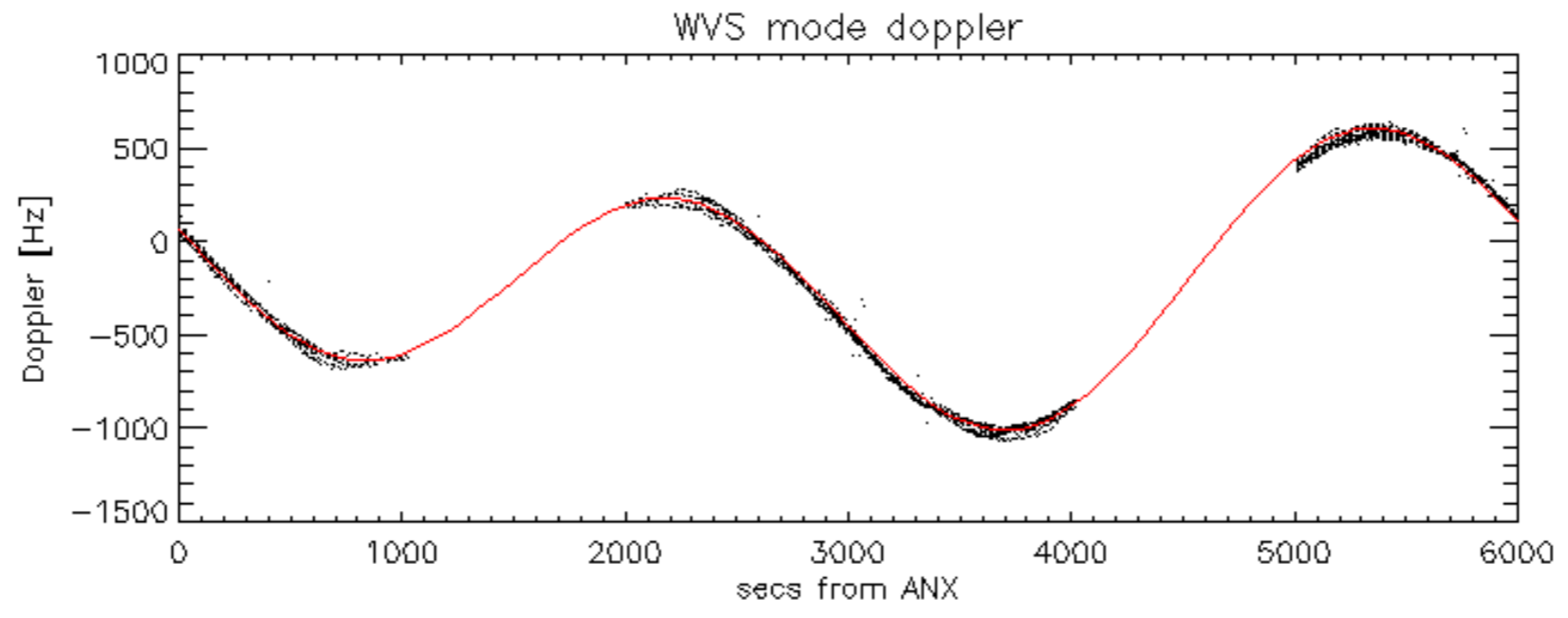


Doppler 'WVS' 'IS2' descending

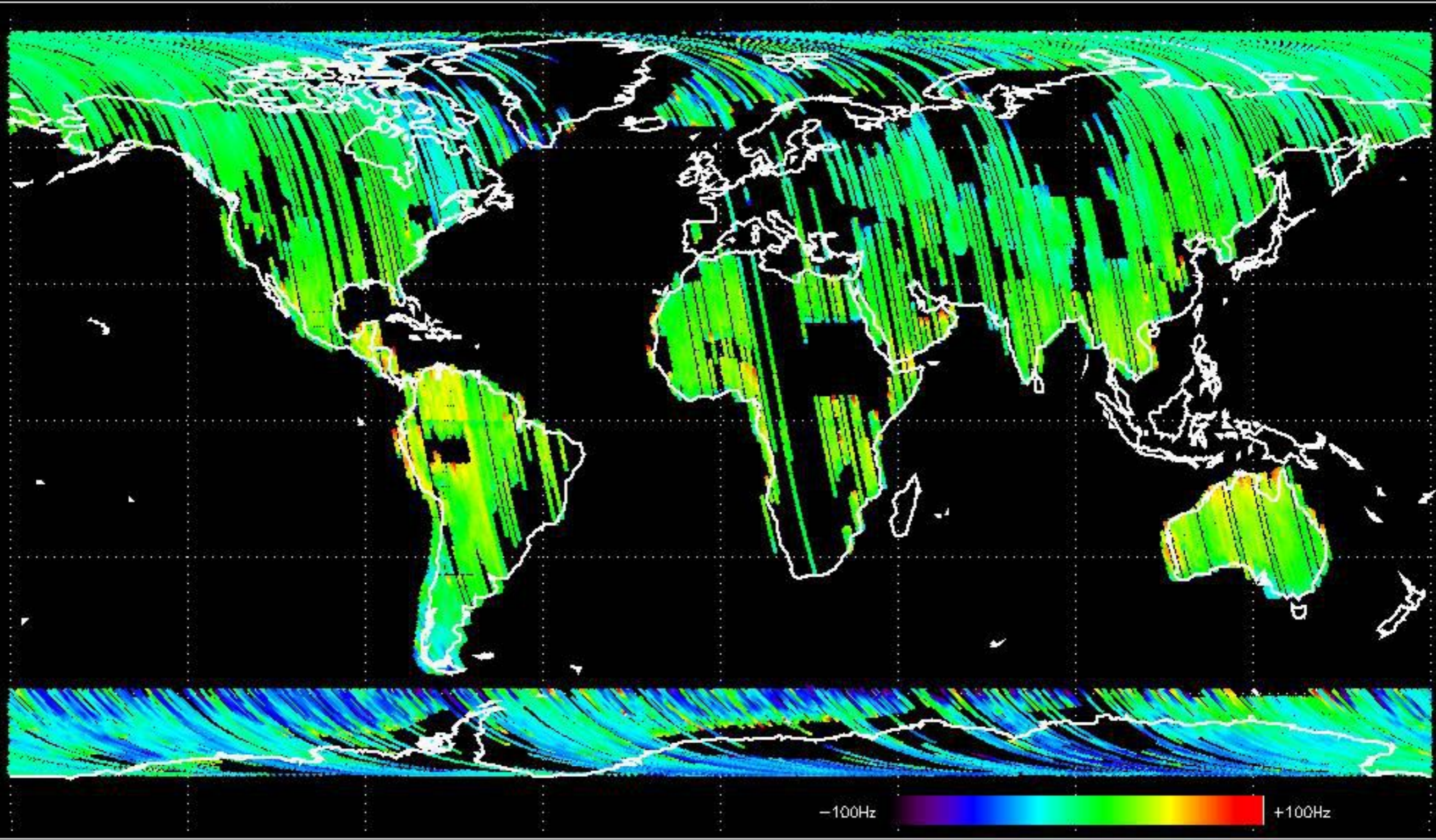


GM1 mode doppler

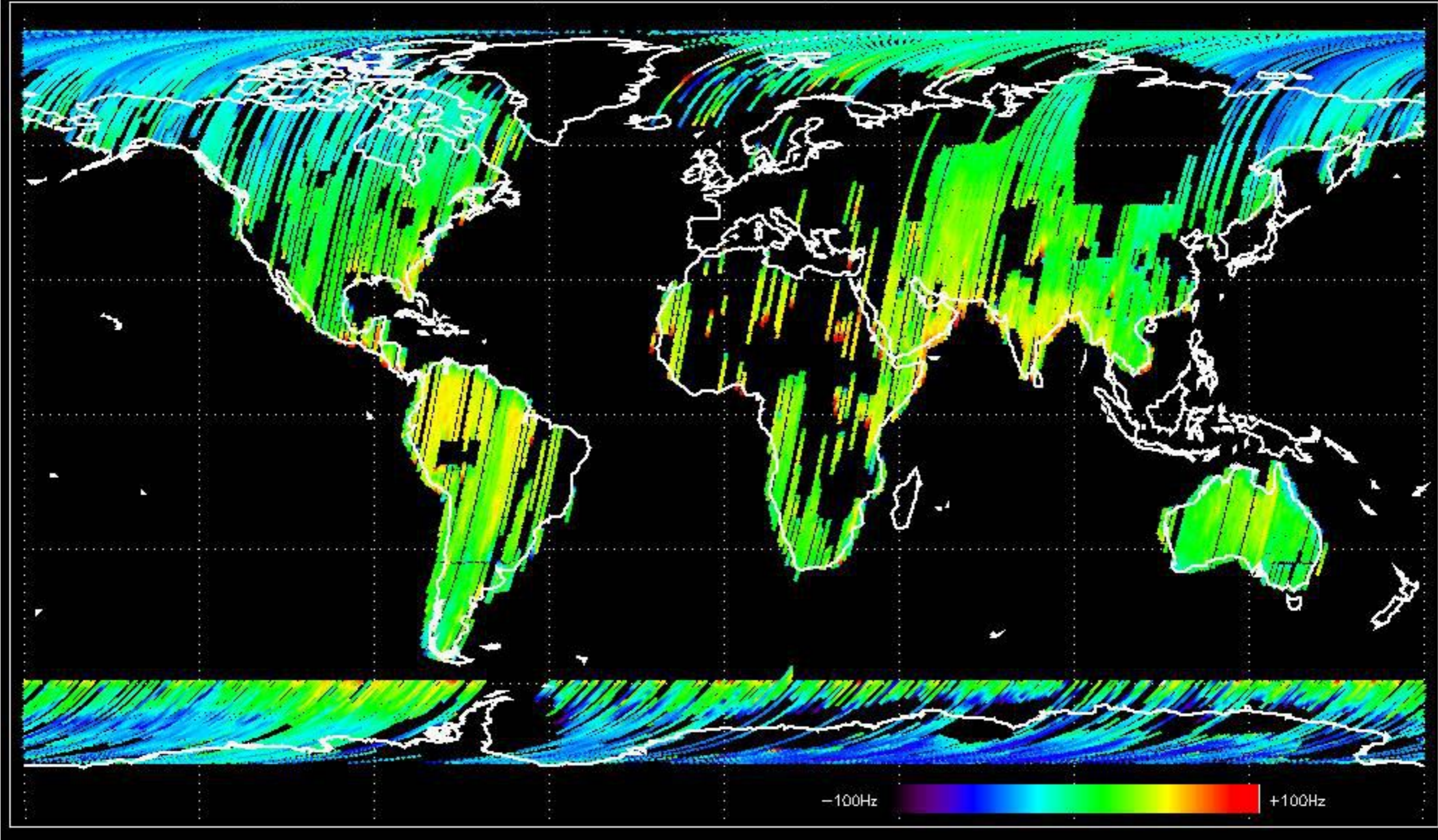




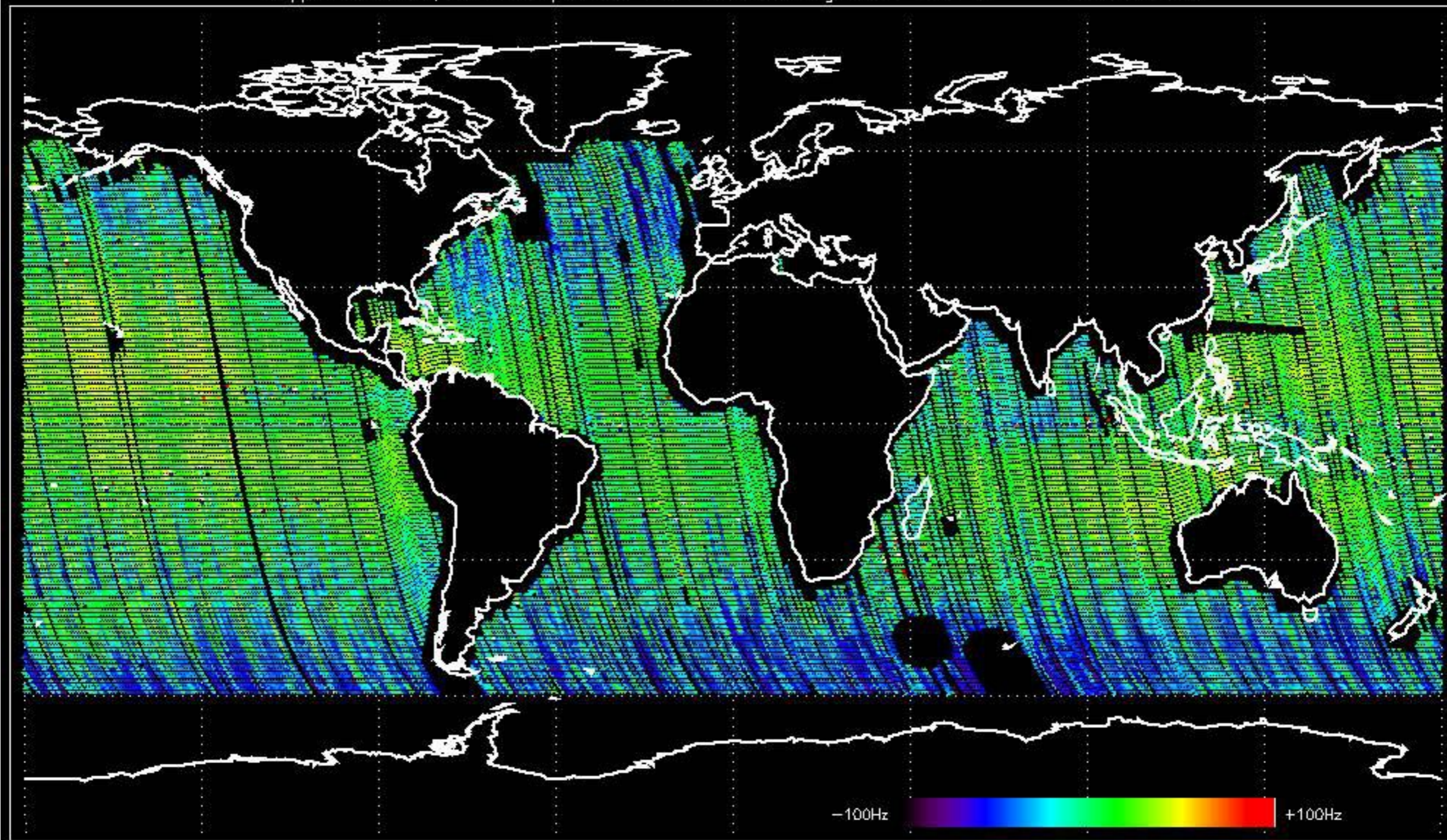
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -14.633725 Hz



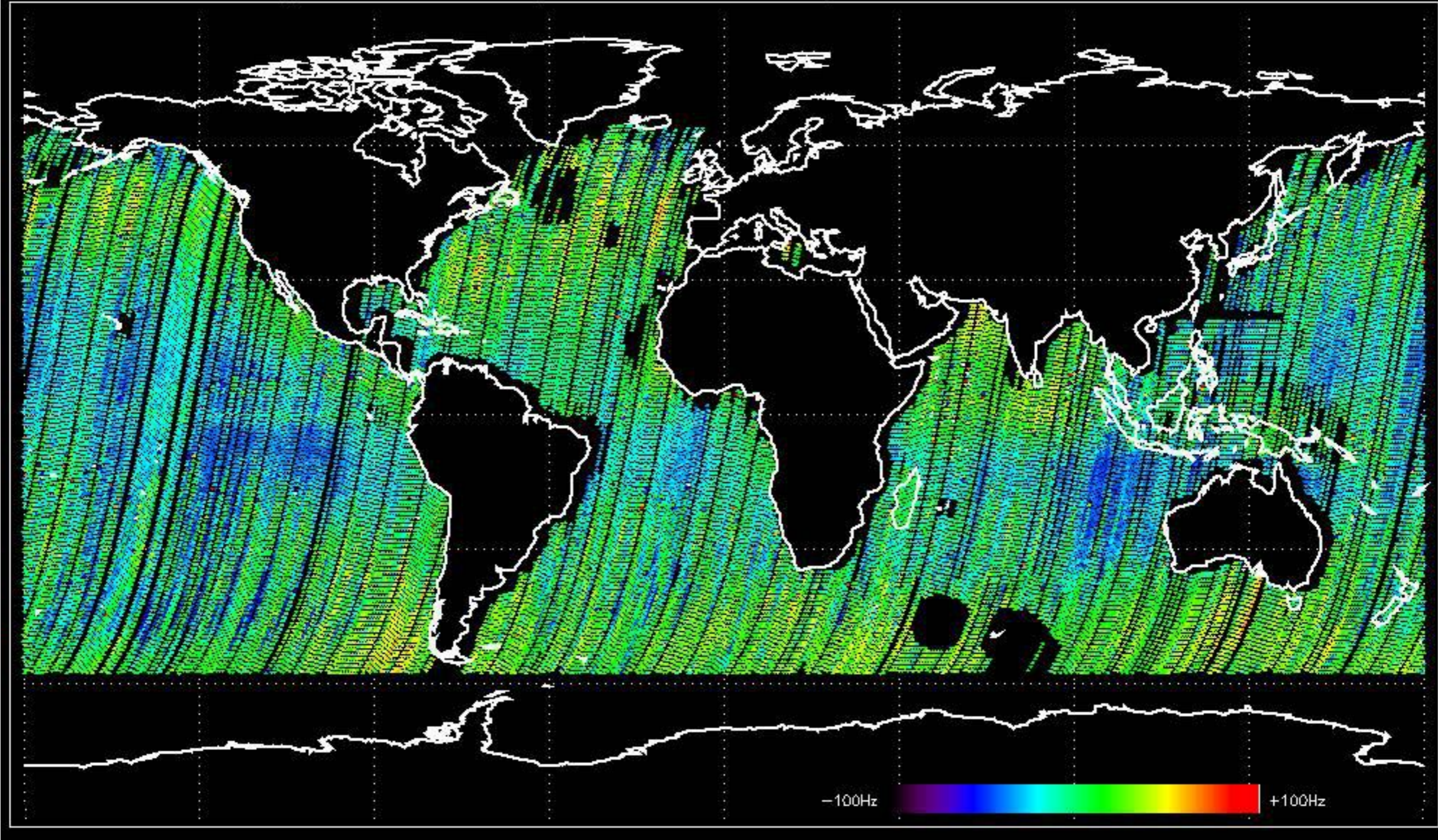
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.6052679 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.8230444 Hz

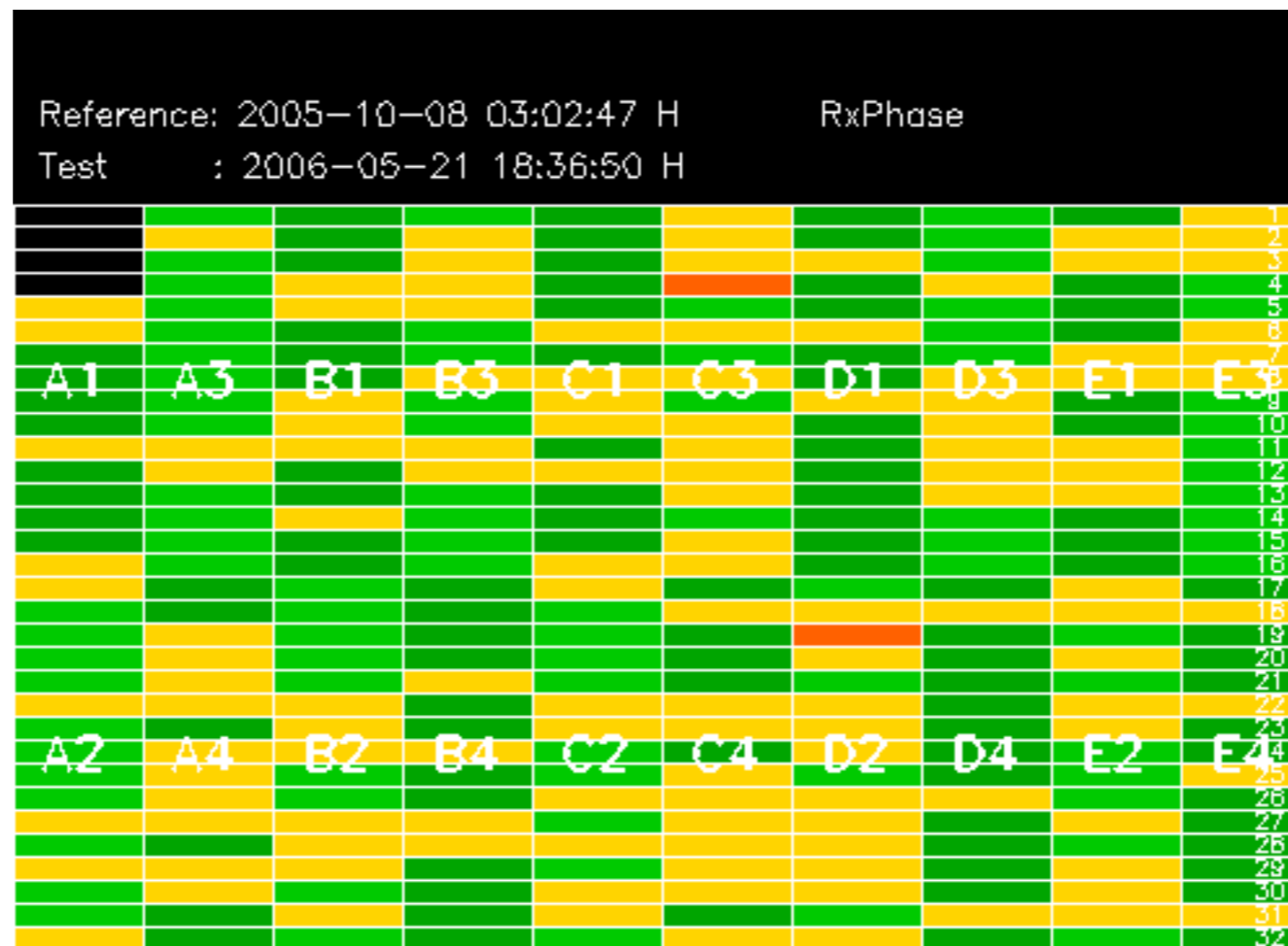


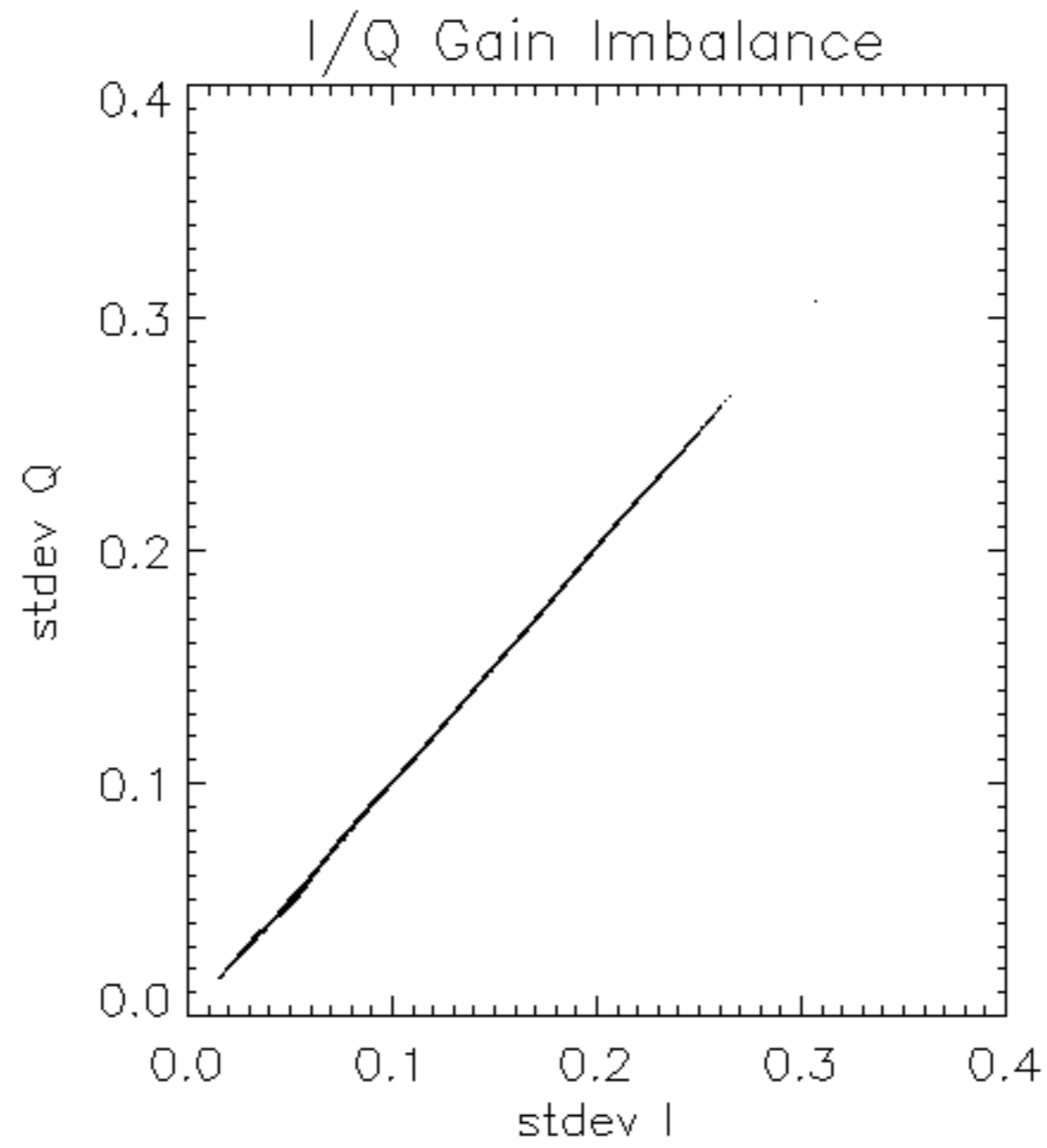
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.856953 Hz

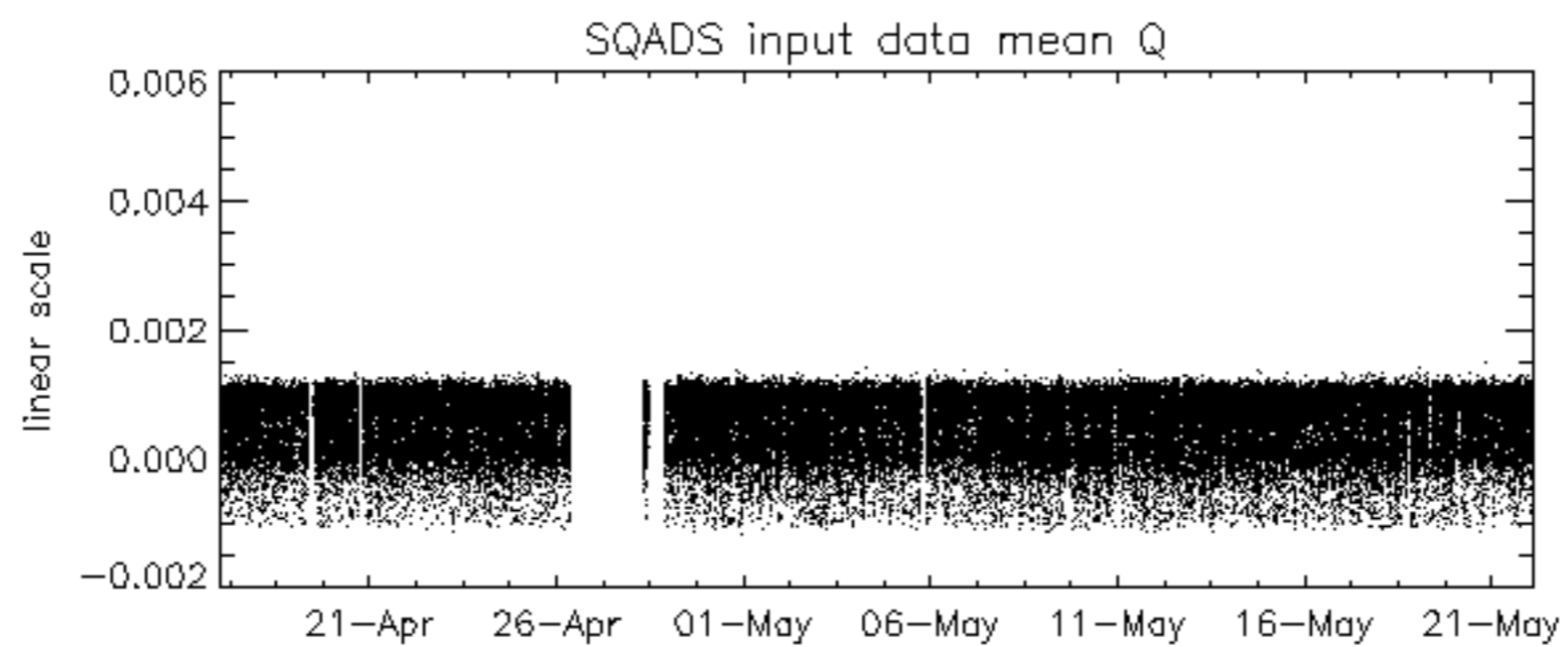
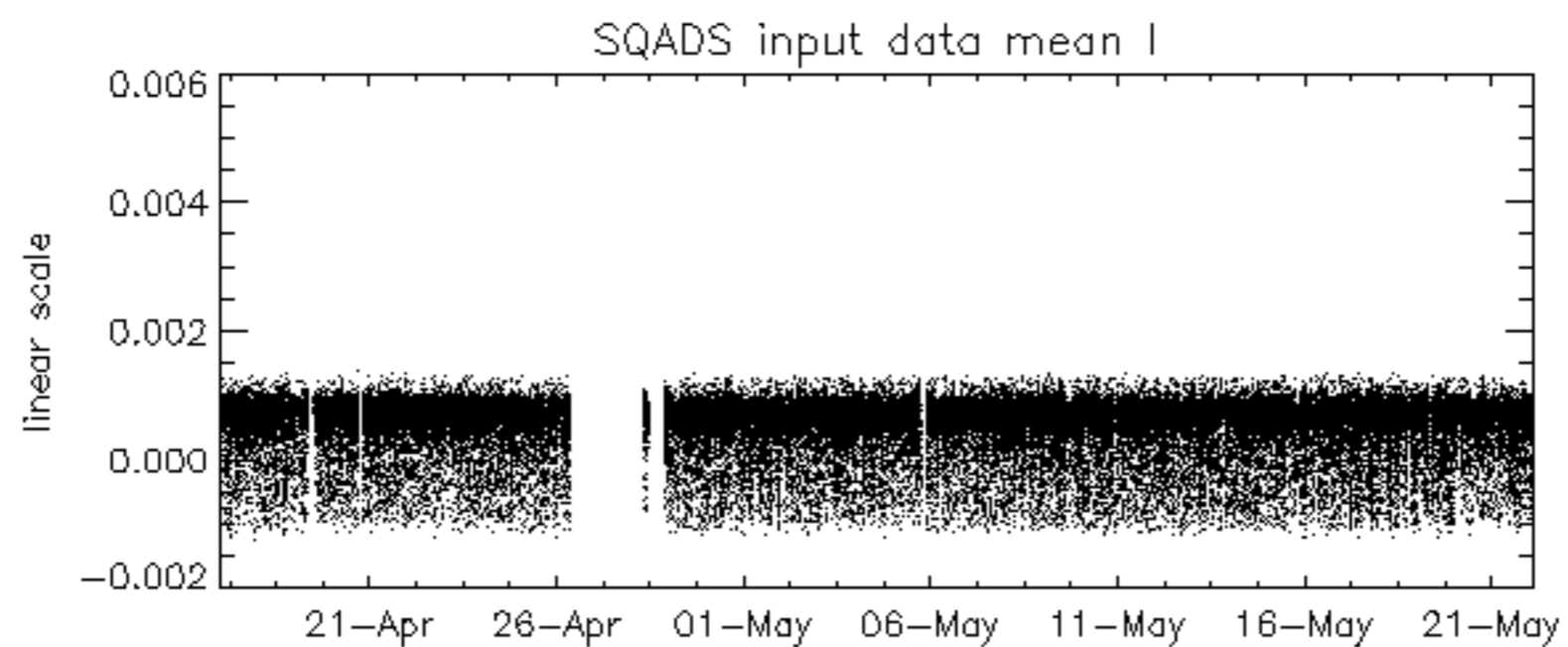
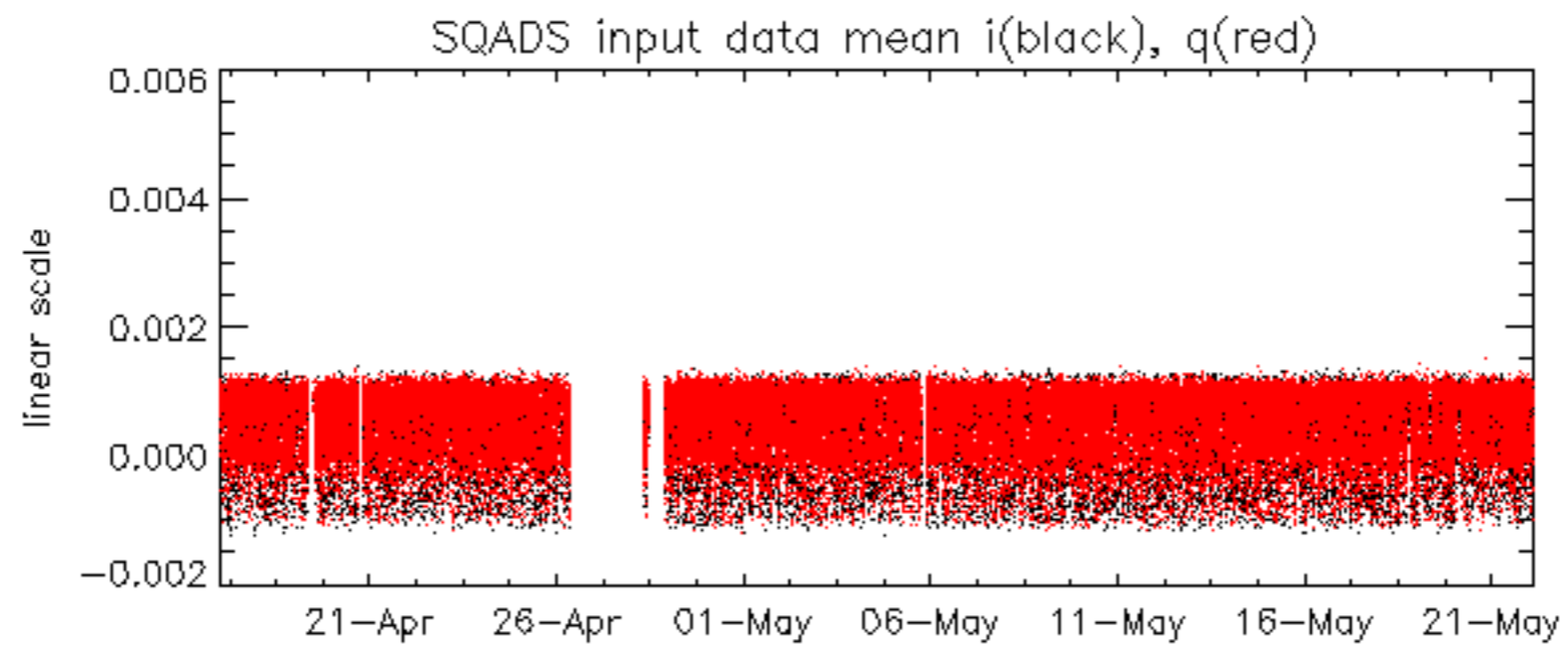


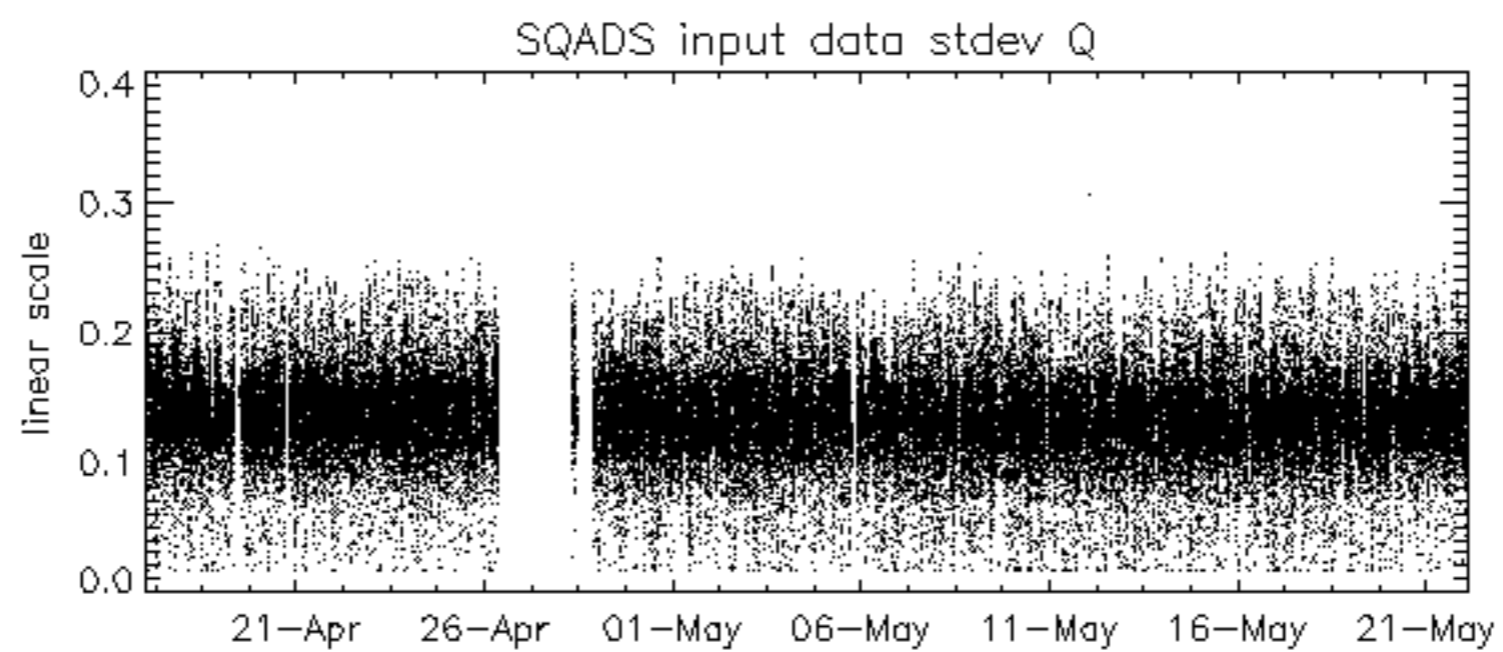
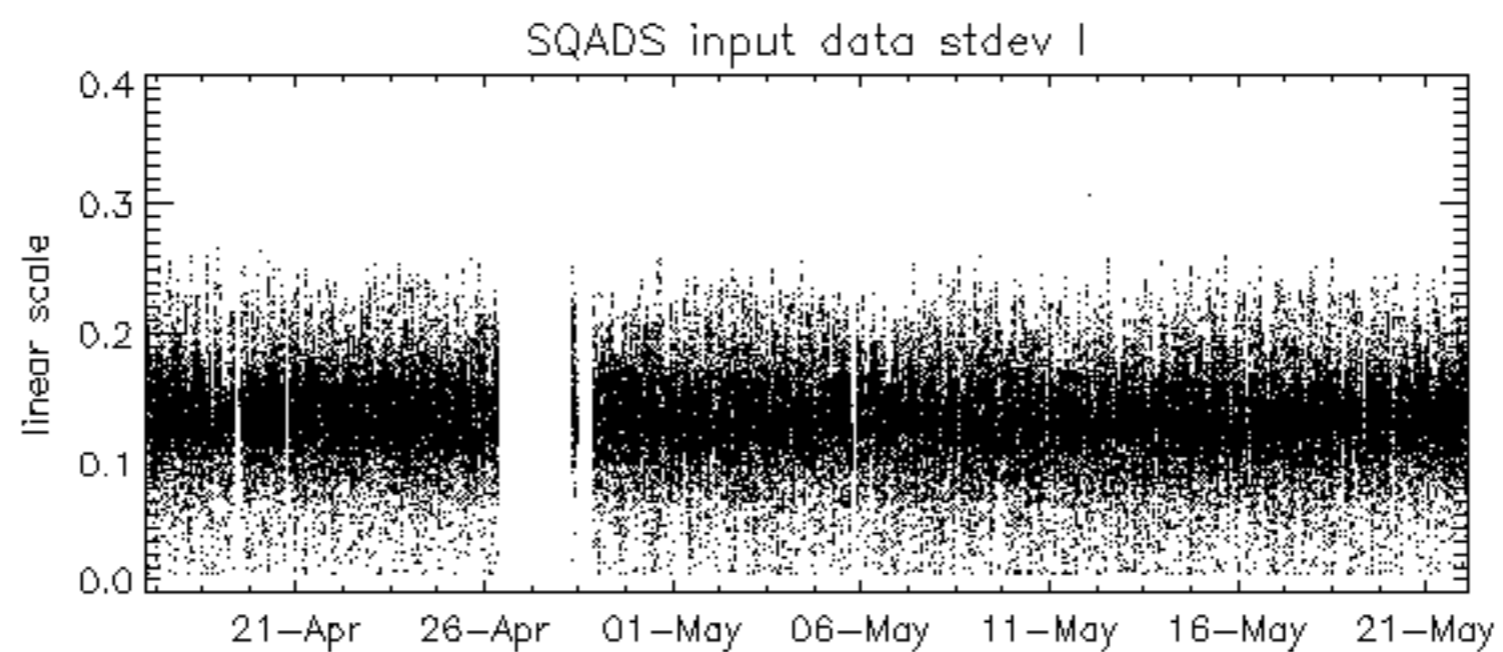
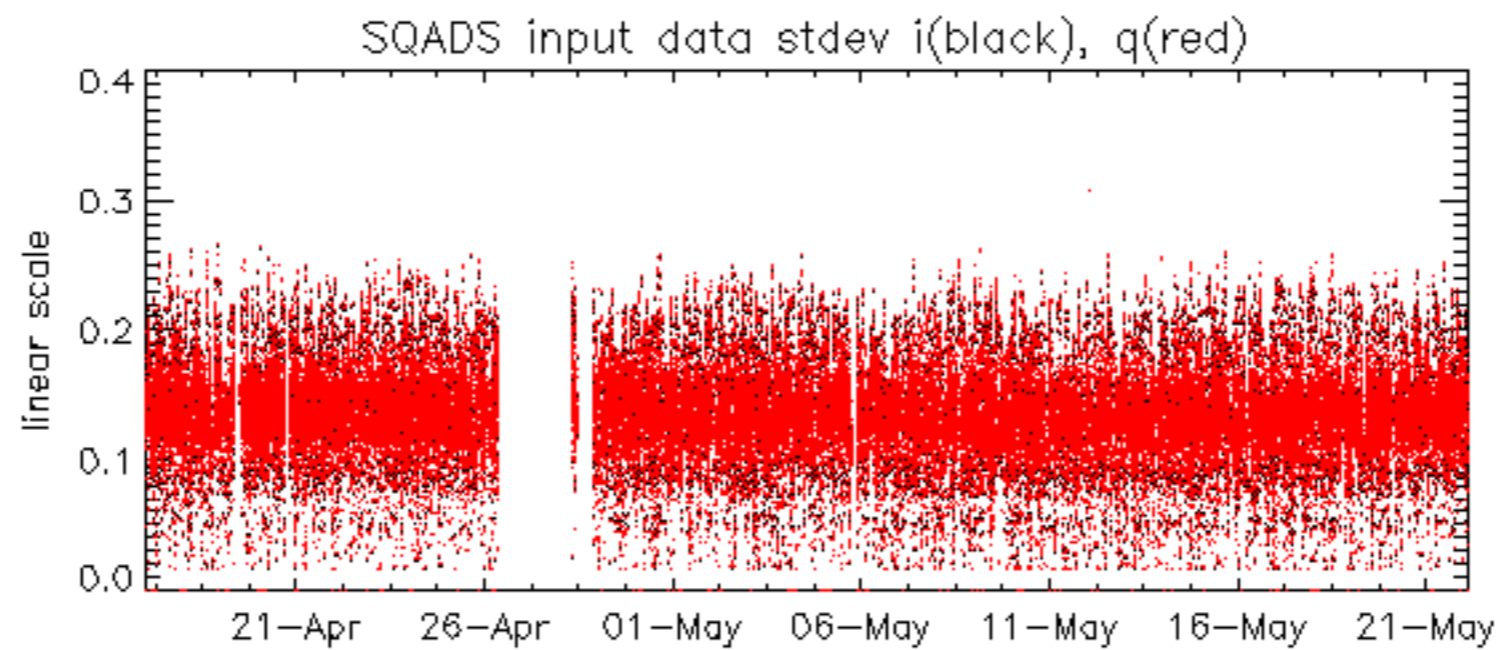
No anomalies observed on available MS products:

No anomalies observed.





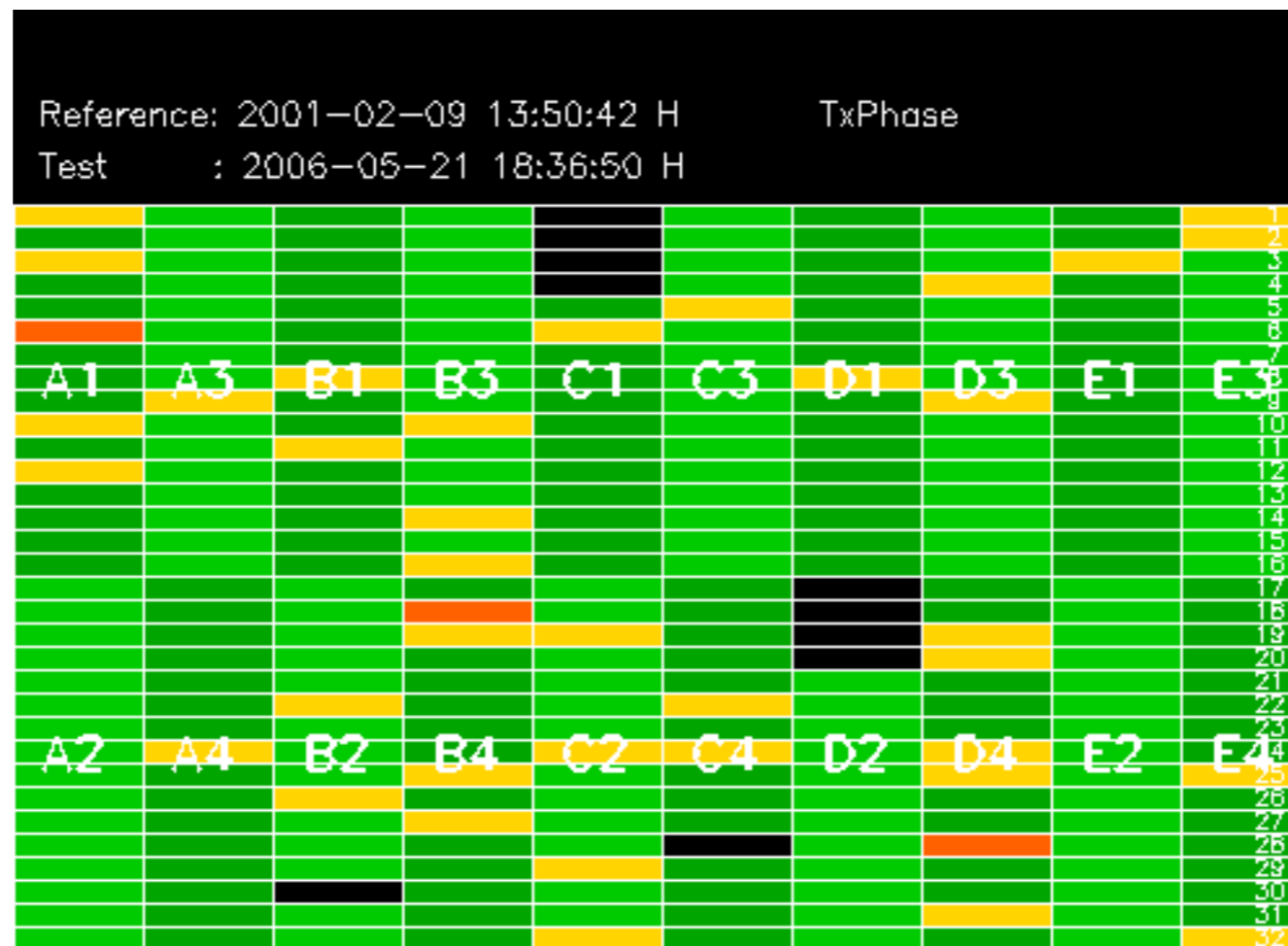


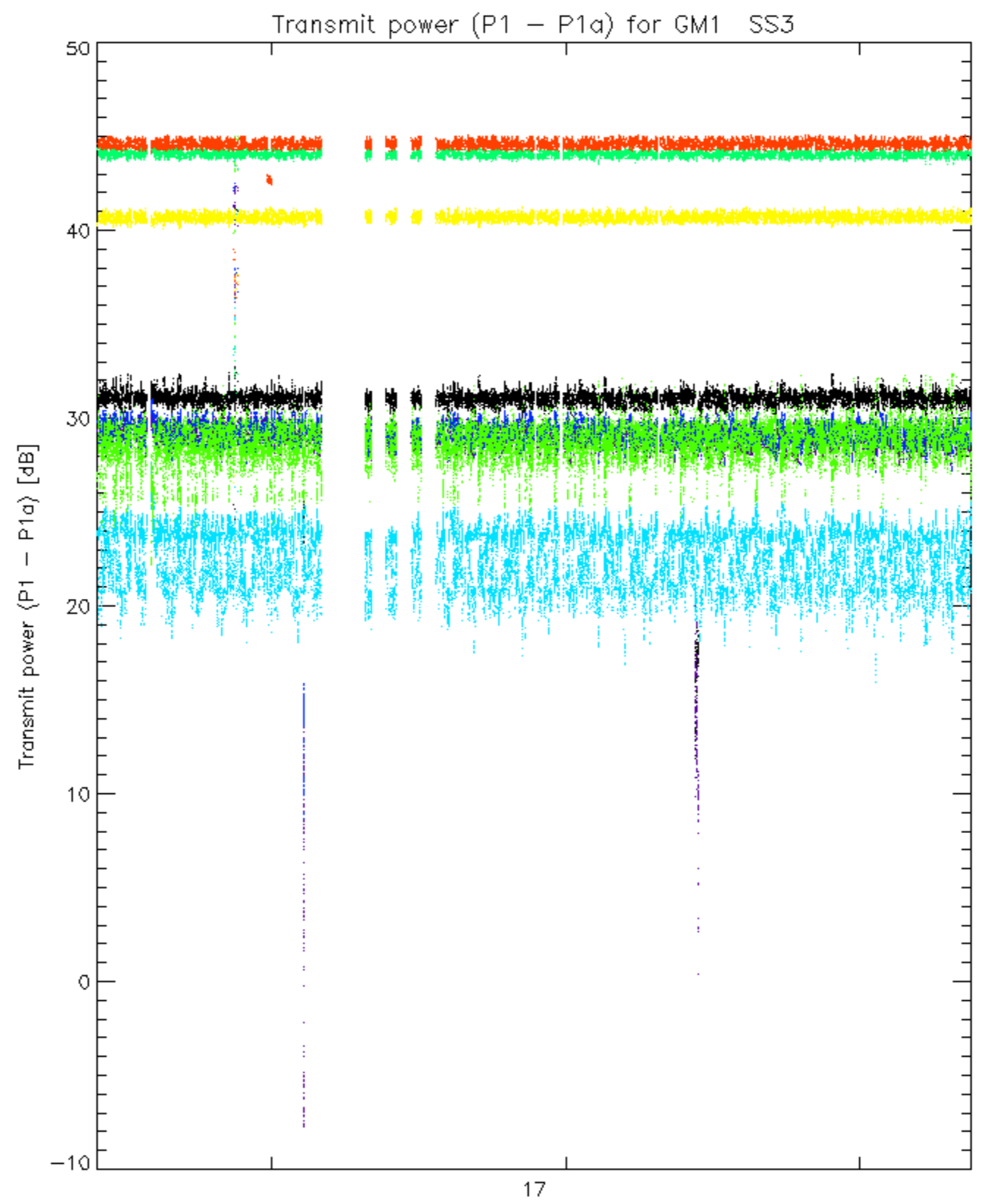


Summary of analysis for the last 3 days 2006052[012]

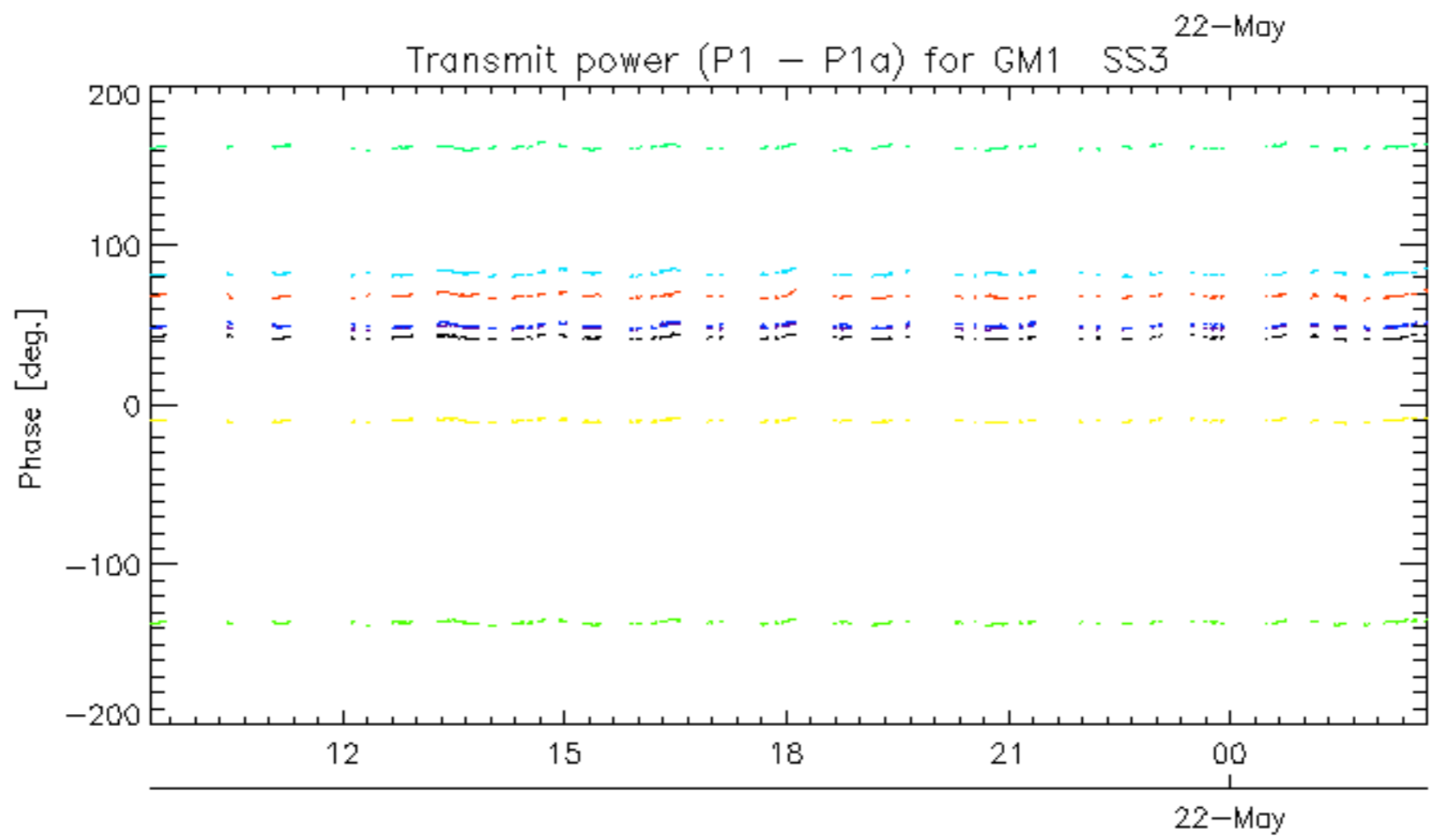
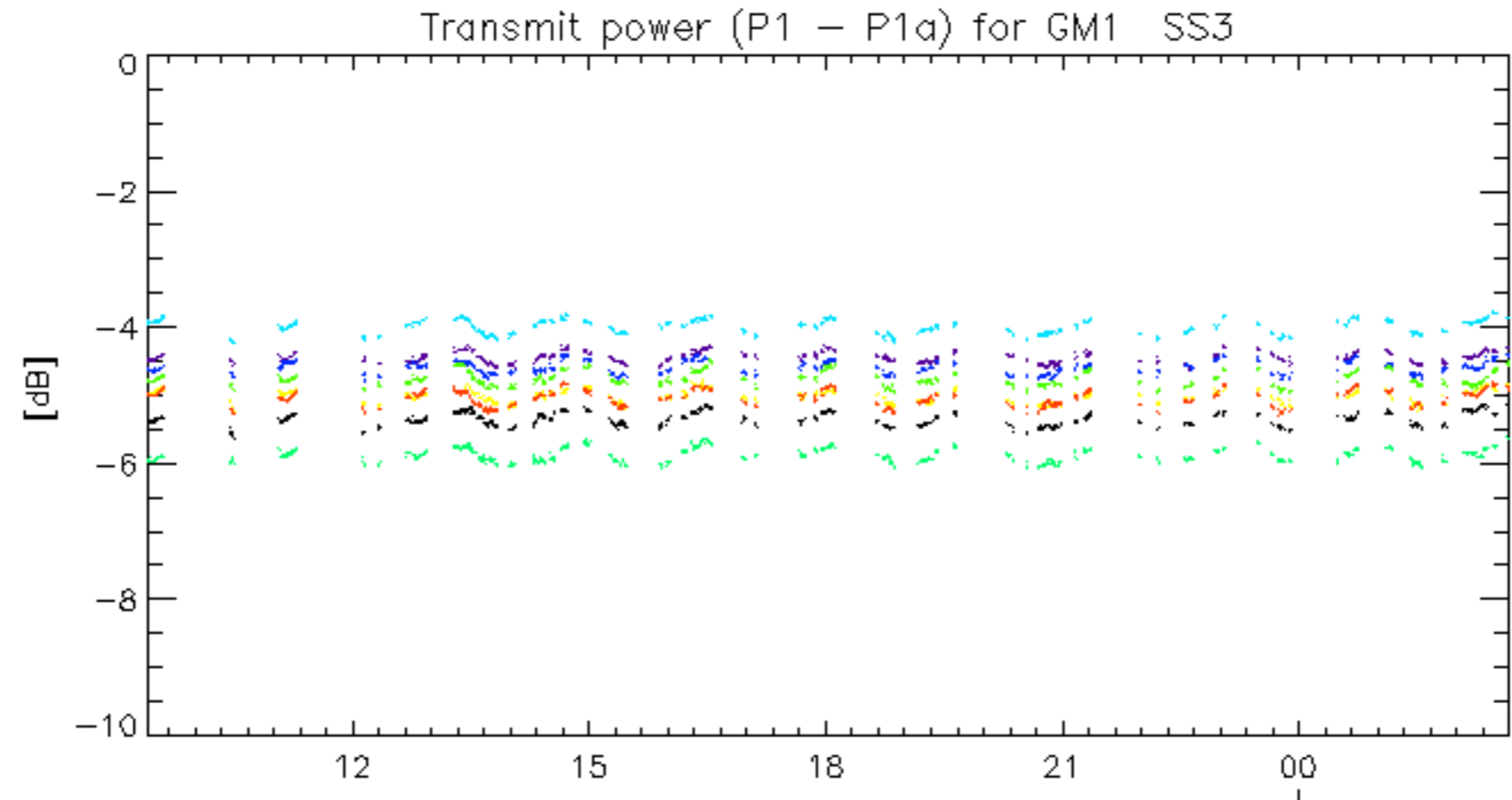
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060521_004019_000001342047_00474_22071_5837.N1	1	0
ASA_IMM_1PNPDE20060521_022552_000000362047_00476_22073_5844.N1	1	0
ASA_WSM_1PNPDE20060520_083606_000000852047_00465_22062_9979.N1	0	1
ASA_WSM_1PNPDE20060520_083607_000000852047_00465_22062_9998.N1	0	1
ASA_WSM_1PNPDE20060520_230542_000001222047_00474_22071_0064.N1	0	35
ASA_WSM_1PNPDE20060521_113142_000001652047_00481_22078_0109.N1	0	14

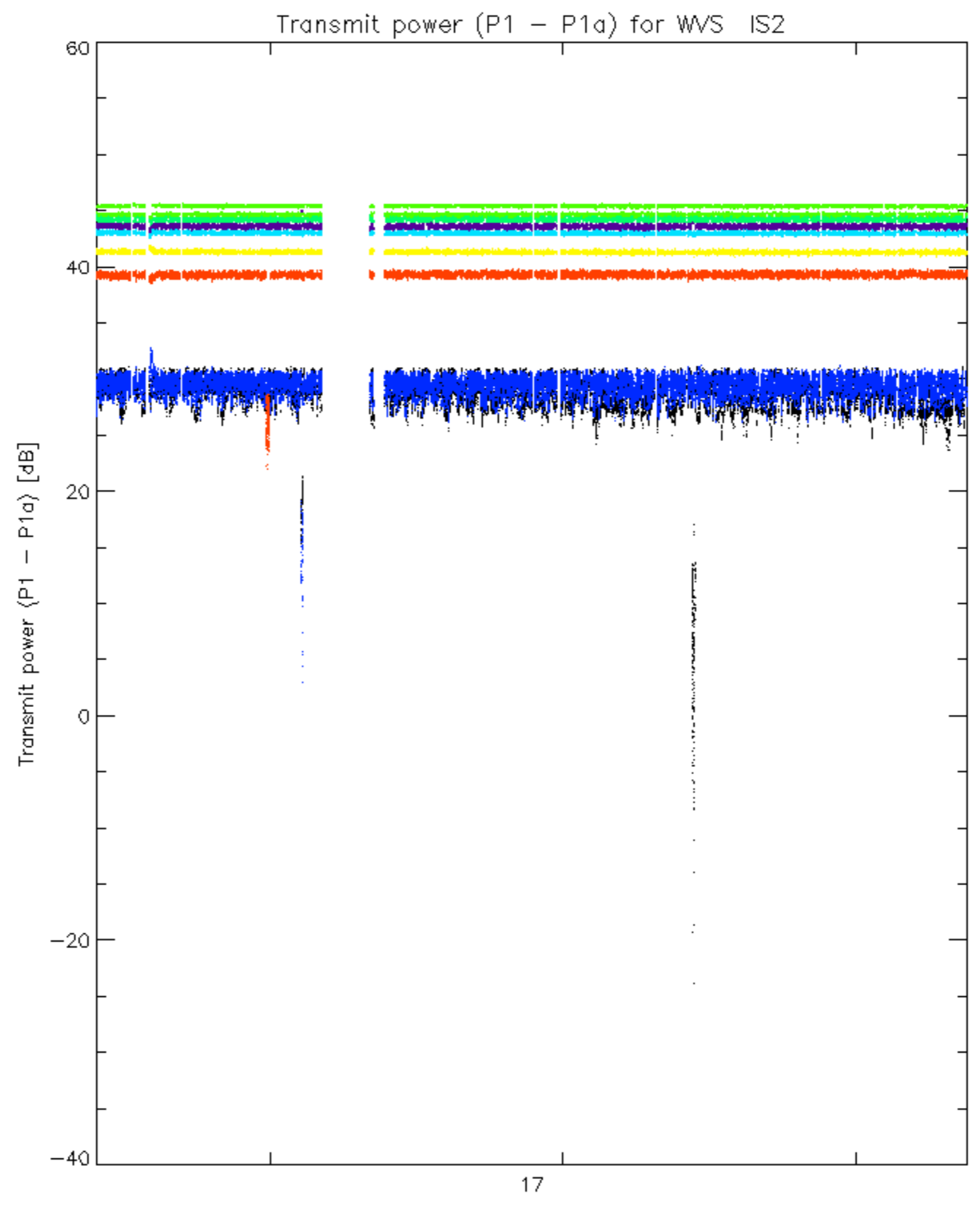




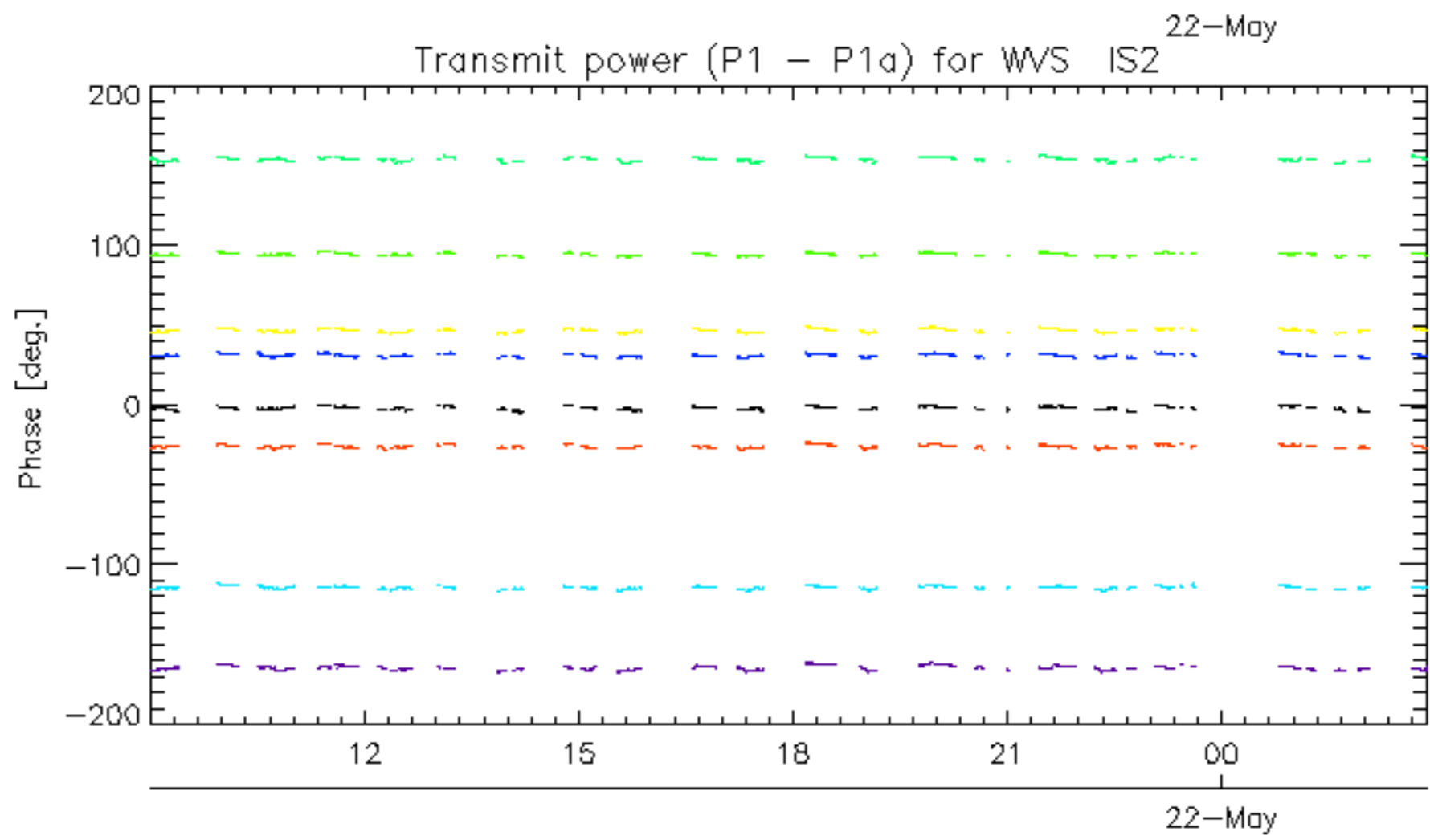
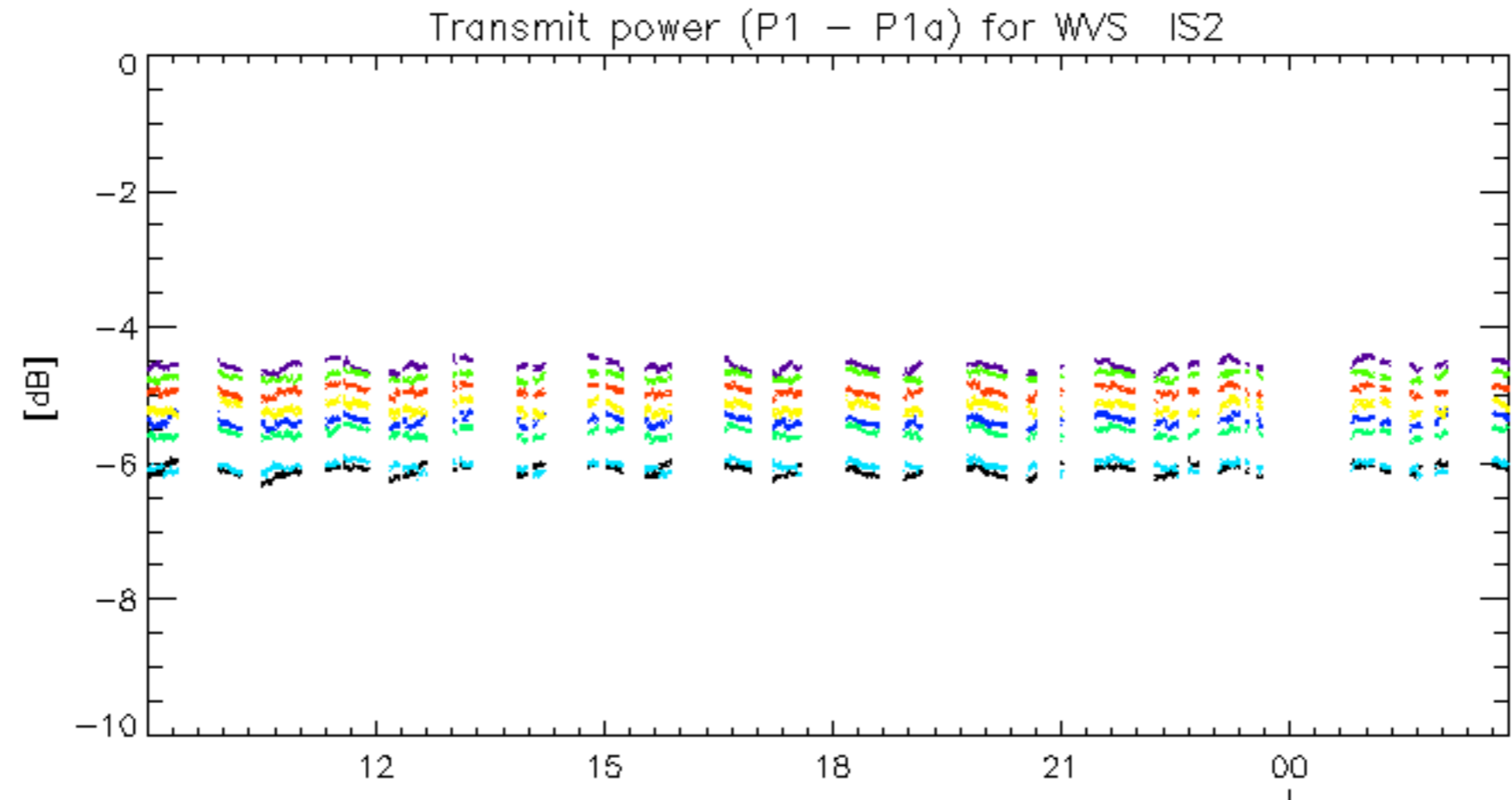
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

Ref : EN-UNA-2006/0167

ASAR Antenna Reset in accordance with procedure CRP_SYS_5041 due to TILE B3 current lower than expected

