

PRELIMINARY REPORT OF 060719

last update on Wed Jul 19 16:26:02 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 2006-07-18 00:00:00 to 2006-07-19 16:26:03

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	64	18	7	11
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	42	64	18	7	11
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	64	18	7	11
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	64	18	7	11

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	39	56	48	12	40
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	1	0	0	0	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	56	48	12	40
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	39	56	48	12	40
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	56	48	12	40

2.3 - Browse Visual Inspection

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	20060719 073844
H	20060718 081021

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	-3.930674	0.012589	-0.018903
7	P1	-3.103072	0.010239	-0.010987
11	P1	-4.086923	0.013678	-0.006138
15	P1	-6.172997	0.011546	-0.010506
19	P1	-3.396005	0.009326	-0.056830
22	P1	-4.545882	0.010270	-0.030225
26	P1	-3.932304	0.019748	0.027176
30	P1	-5.762406	0.008051	-0.004978
3	P1	-16.506031	0.339096	-0.029098
7	P1	-17.194098	0.101724	-0.082889
11	P1	-16.985106	0.276453	-0.050309
15	P1	-13.116213	0.151761	0.014828
19	P1	-14.444577	0.048425	-0.147071
22	P1	-16.027044	0.418339	-0.064153
26	P1	-15.131529	0.237895	0.088606
30	P1	-17.097614	0.345272	-0.057361

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.992098	0.087810	0.127087
7	P2	-21.923965	0.105959	0.077272
11	P2	-15.799324	0.122544	0.068643
15	P2	-7.133106	0.101787	0.015254
19	P2	-9.135998	0.091825	-0.004136
22	P2	-18.150320	0.086734	-0.002996
26	P2	-16.399466	0.094384	-0.036439
30	P2	-19.526278	0.093908	0.040548

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175306	0.002952	0.001325
7	P3	-8.175306	0.002952	0.001325
11	P3	-8.175306	0.002952	0.001325
15	P3	-8.175306	0.002952	0.001325
19	P3	-8.175306	0.002952	0.001325
22	P3	-8.175306	0.002952	0.001325
26	P3	-8.175306	0.002952	0.001325
30	P3	-8.175306	0.002952	0.001325

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	-3.801224	0.029474	-0.115530
7	P1	-2.561895	0.007992	0.018394
11	P1	-2.859220	0.014525	0.020069
15	P1	-3.565732	0.028738	-0.042496
19	P1	-3.417760	0.013453	-0.018597
22	P1	-5.090302	0.020138	0.035754
26	P1	-5.858525	0.015753	-0.015951
30	P1	-5.193863	0.026605	-0.027347
3	P1	-11.587654	0.096437	-0.179435
7	P1	-9.971933	0.034241	0.032757
11	P1	-10.247631	0.058014	0.014349
15	P1	-10.754145	0.142451	-0.002624
19	P1	-15.531610	0.074826	-0.038623
22	P1	-20.914364	1.229465	-0.018639

26	P1	-16.321850	0.377971	0.166984
30	P1	-17.896156	0.408775	-0.120277

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.638062	0.071329	0.215437
7	P2	-22.411043	0.127641	0.129994
11	P2	-11.056568	0.042523	0.090340
15	P2	-4.915400	0.045871	0.031536
19	P2	-6.875929	0.041964	0.038023
22	P2	-8.198159	0.037334	0.022369
26	P2	-24.184807	0.063273	0.034805
30	P2	-22.017809	0.049853	0.058625

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.014733	0.003744	0.013642
7	P3	-8.014682	0.003742	0.014362
11	P3	-8.014540	0.003755	0.013794
15	P3	-8.014705	0.003749	0.013940
19	P3	-8.014665	0.003746	0.014280
22	P3	-8.014729	0.003738	0.013758
26	P3	-8.014694	0.003740	0.013569
30	P3	-8.014670	0.003736	0.014229

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	0.000567975
	stdev	1.65296e-07
MEAN Q	mean	0.000545835
	stdev	2.11203e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137946
	stdev	0.00107672
STDEV Q	mean	0.138300
	stdev	0.00109463



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006071[789]

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_1PNPDE20060717_004744_000002292049_00288_22887_1022.N1	1	0
ASA_IMM_1PNPDE20060717_155733_000002182049_00298_22897_1101.N1	1	0
ASA_IMM_1PNPDE20060718_010021_000000822049_00303_22902_1205.N1	1	0
ASA_GM1_1PNPDK20060717_152259_000005982049_00297_22896_1183.N1	0	15
ASA_GM1_1PNPDK20060717_192314_000004532049_00300_22899_1194.N1	0	23

ASA_WSM_1PNPDE20060717_142239_000000852049_00297_22896_3436.N1	0	7
ASA_WSM_1PNPDE20060719_003803_000000672049_00317_22916_3537.N1	0	34
ASA_WSM_1PNPDE20060719_021639_000001462049_00318_22917_3556.N1	0	33





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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

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

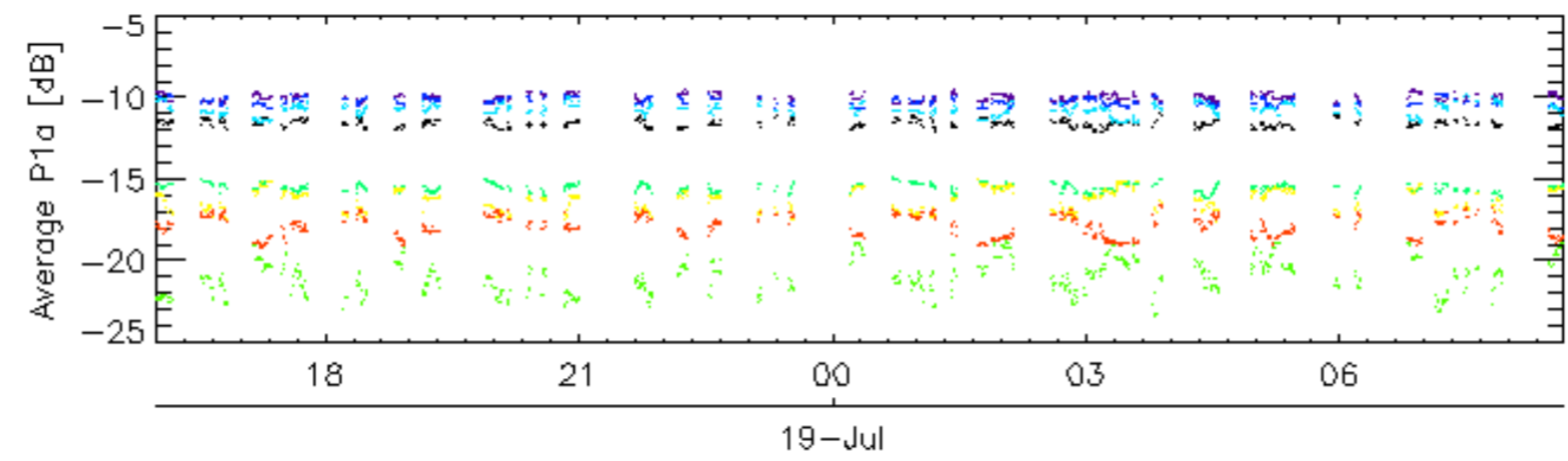
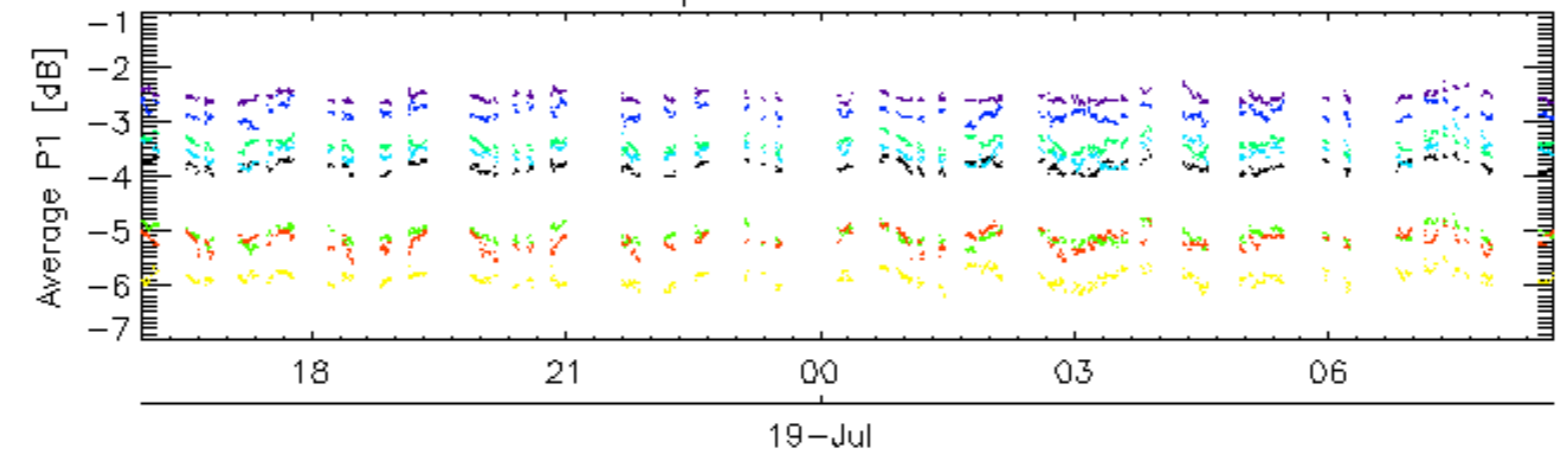
7.5 - Absolute Doppler for GM1

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

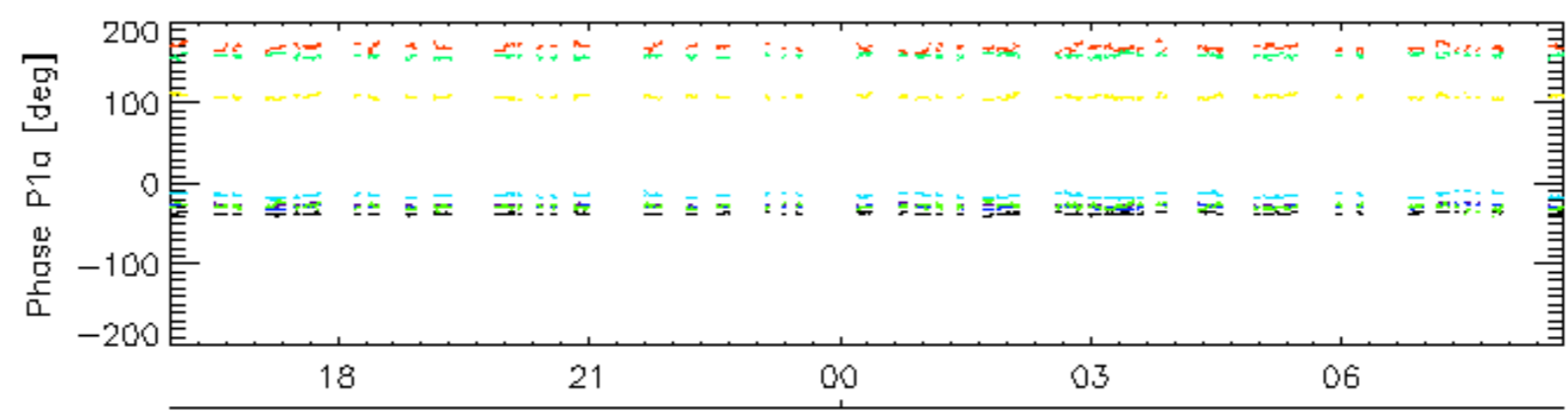
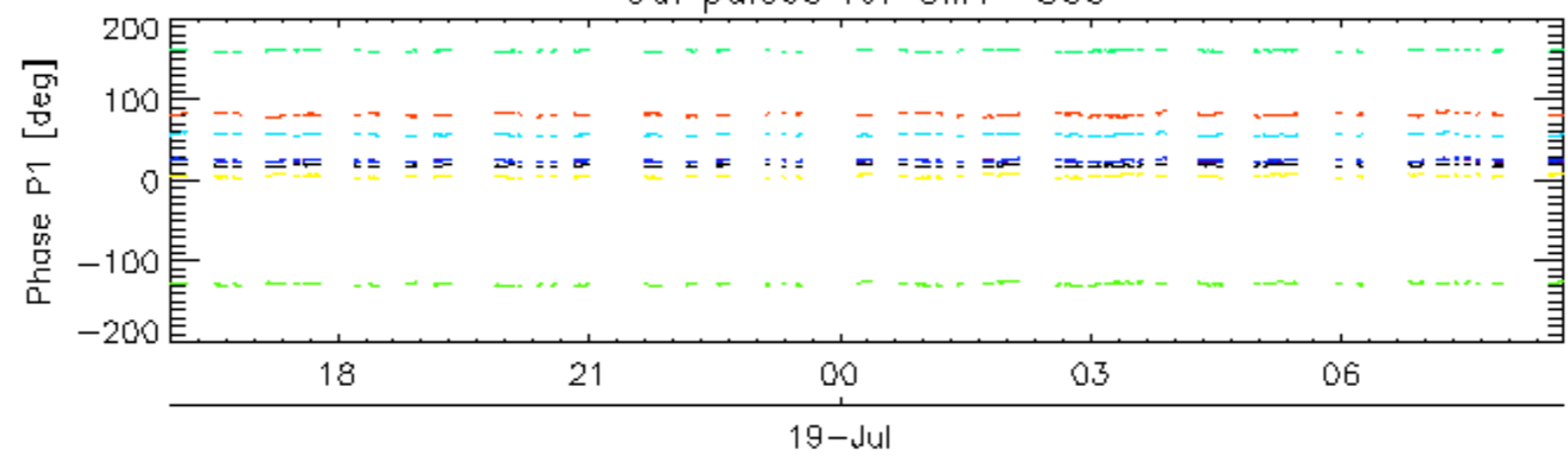
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

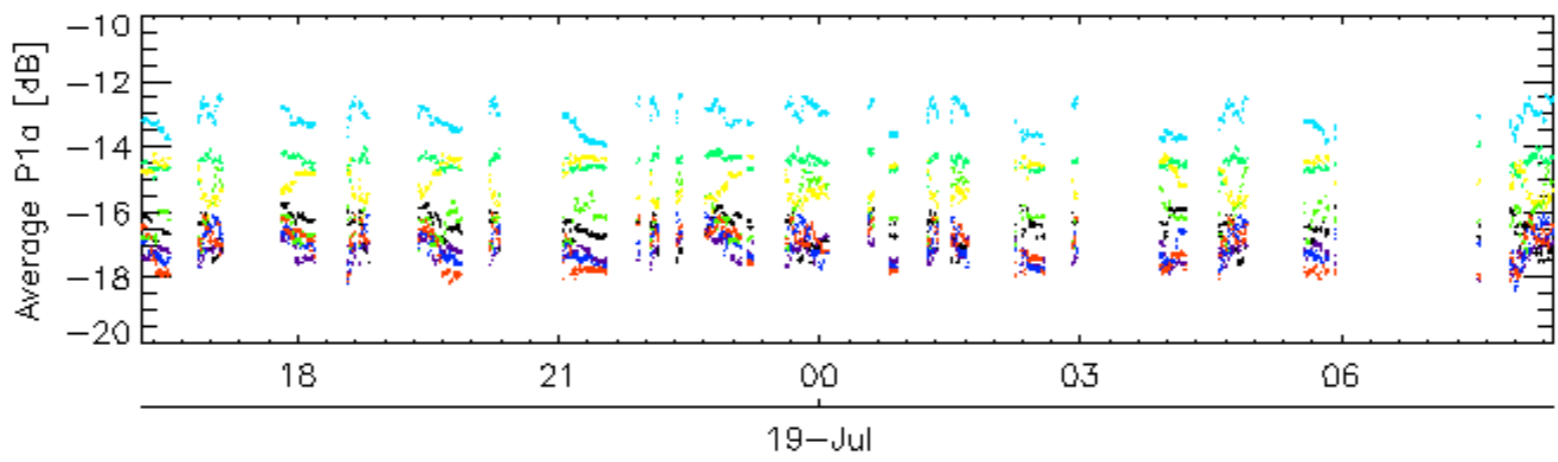
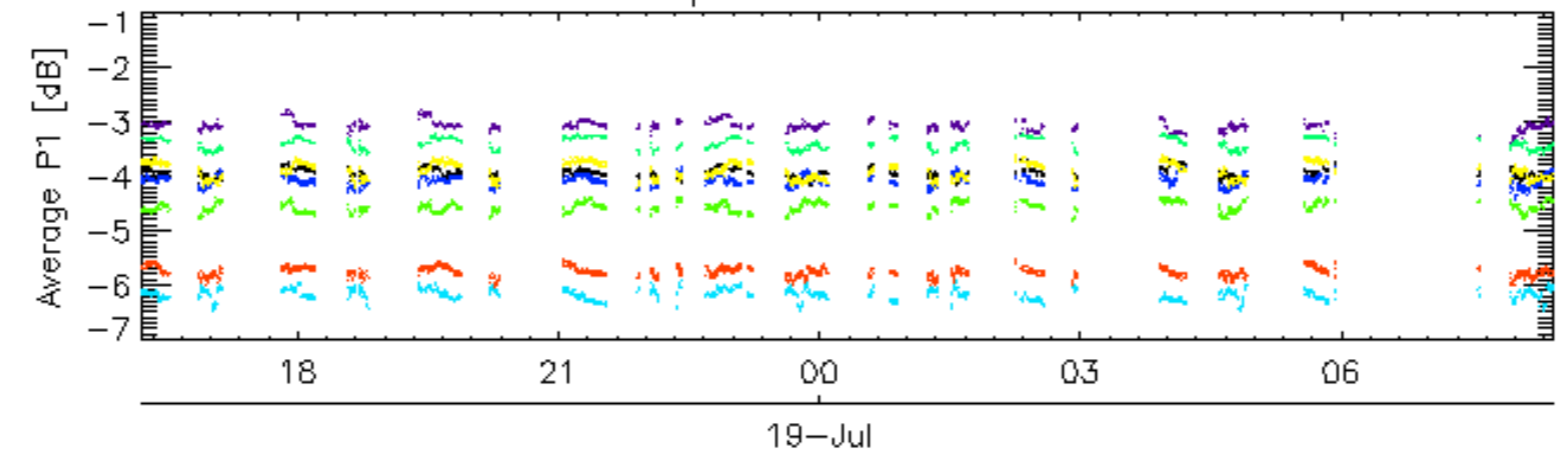


Cal pulses for GM1 SS3

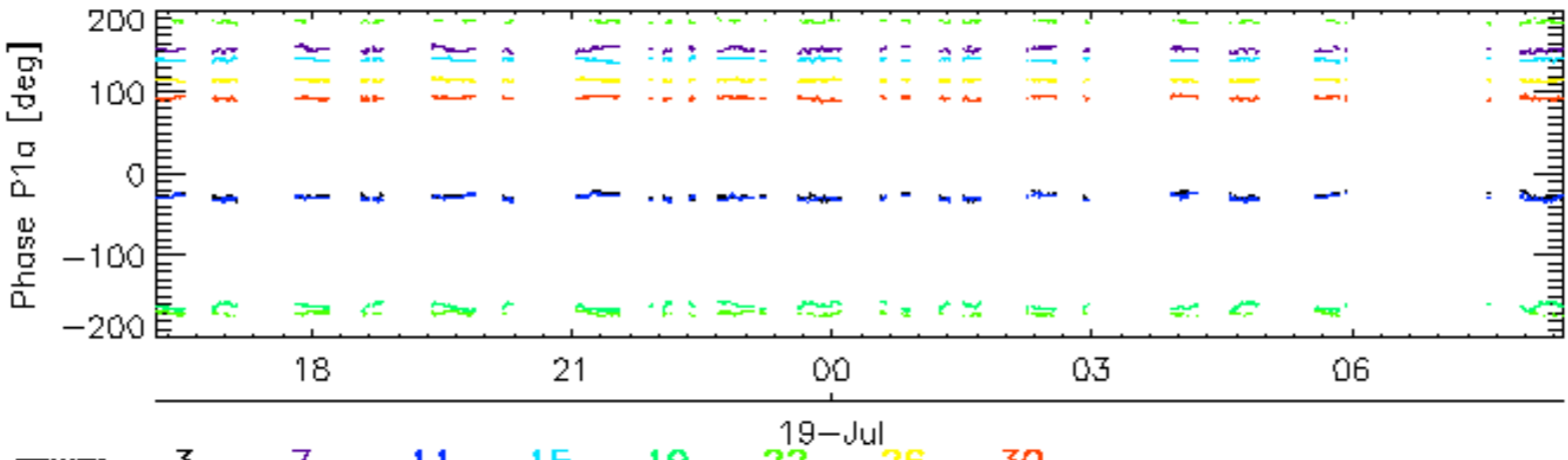
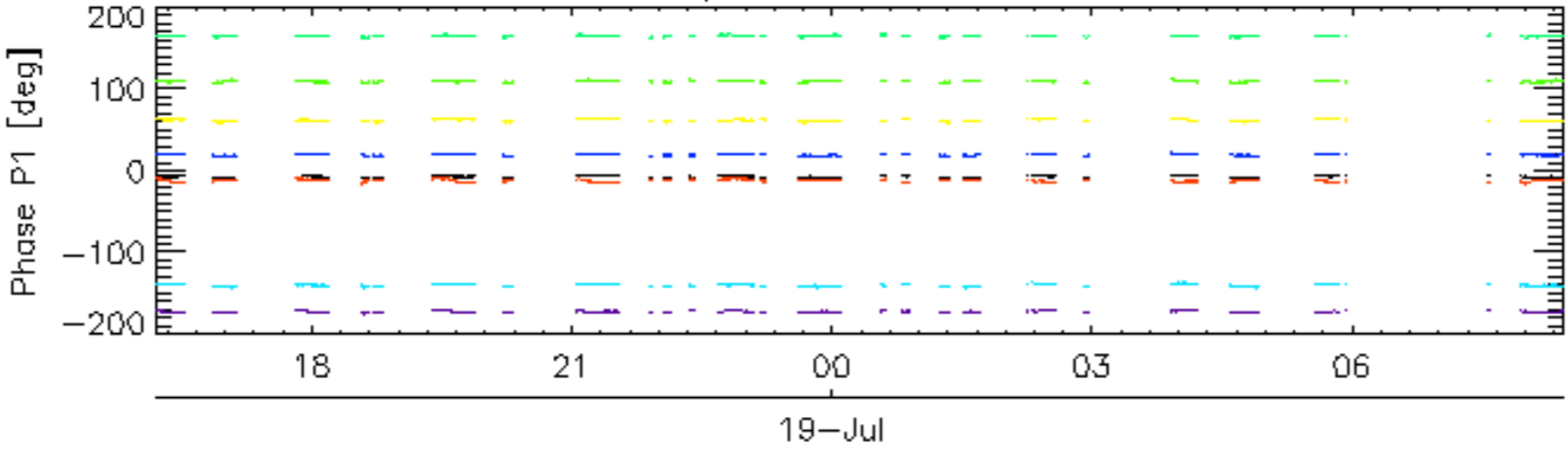


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

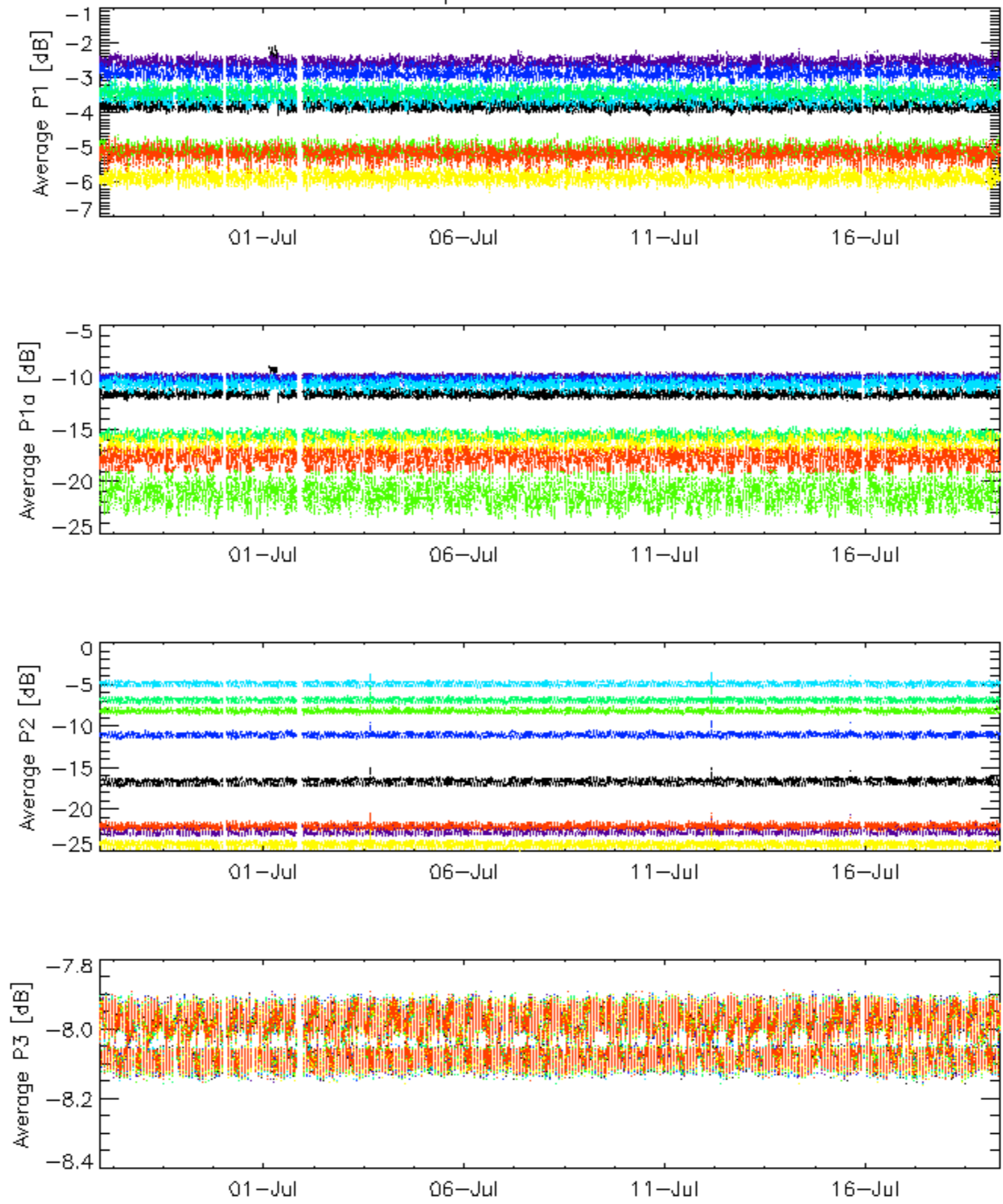


Cal pulses for WVS IS2



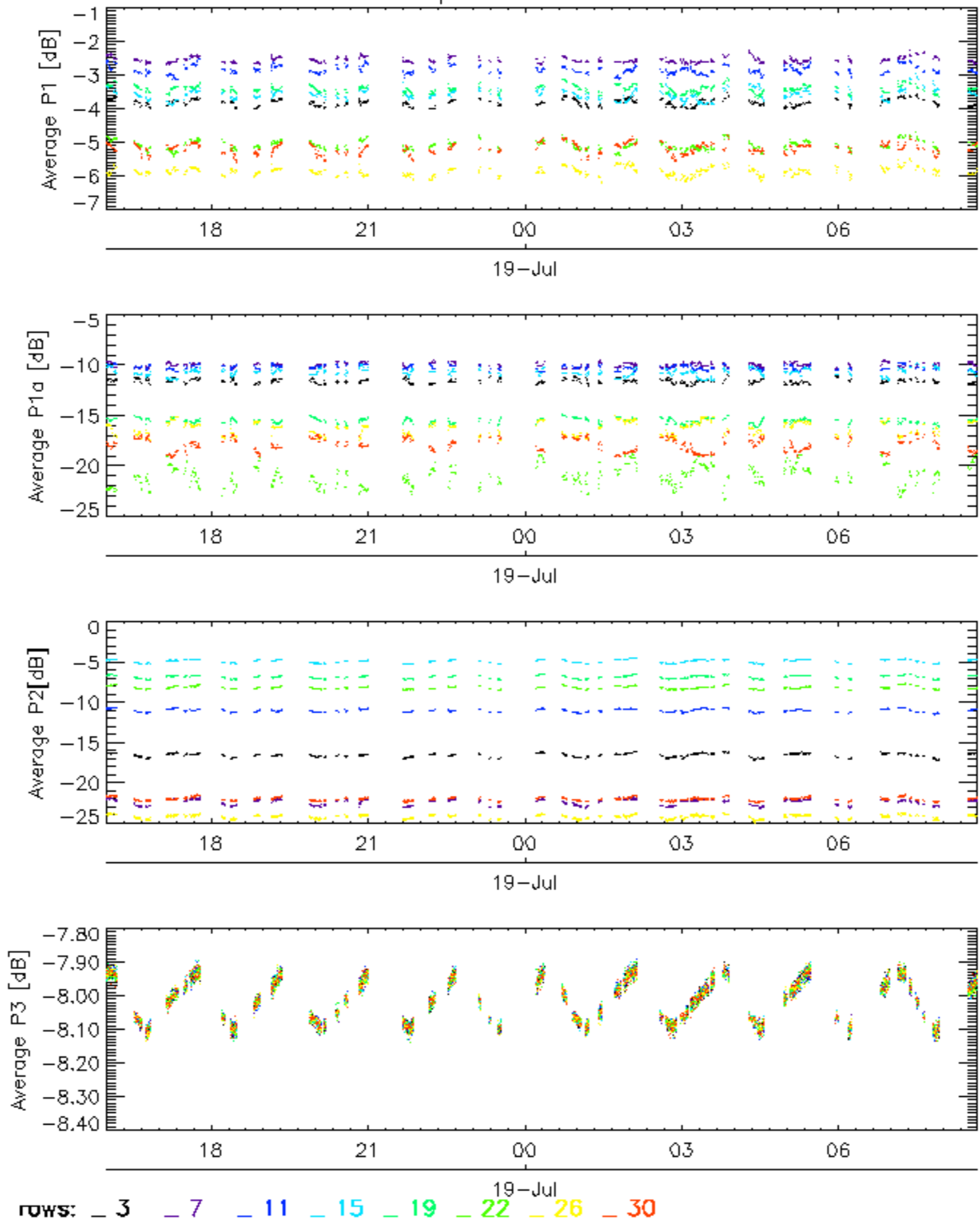
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

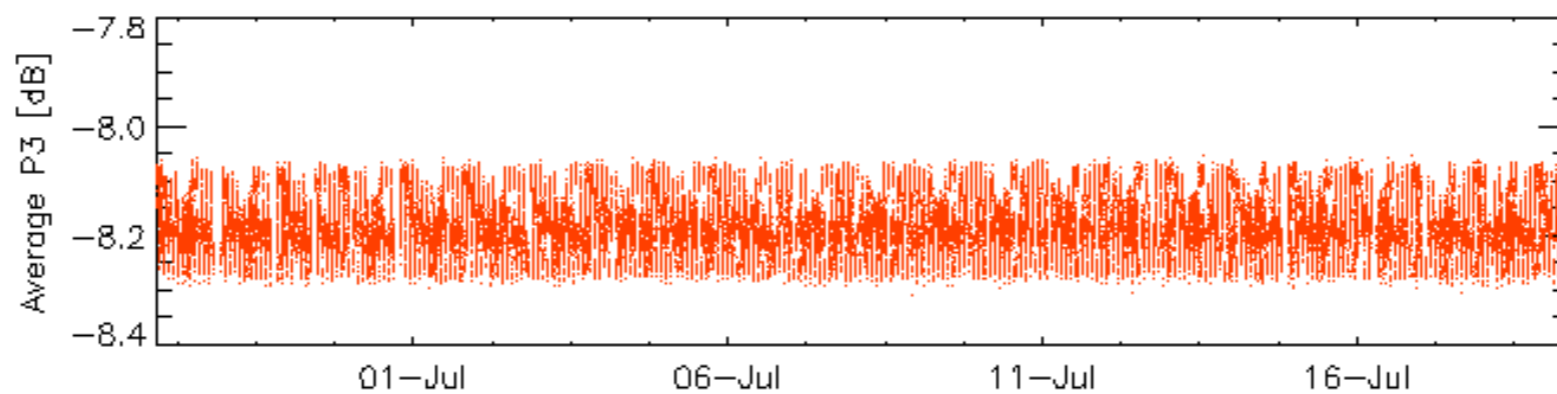
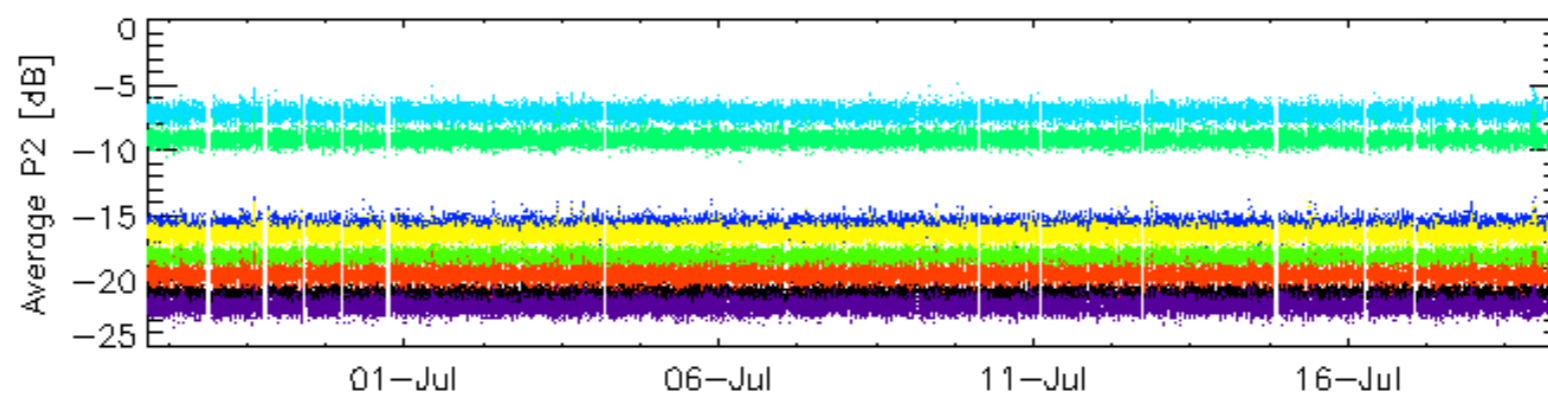
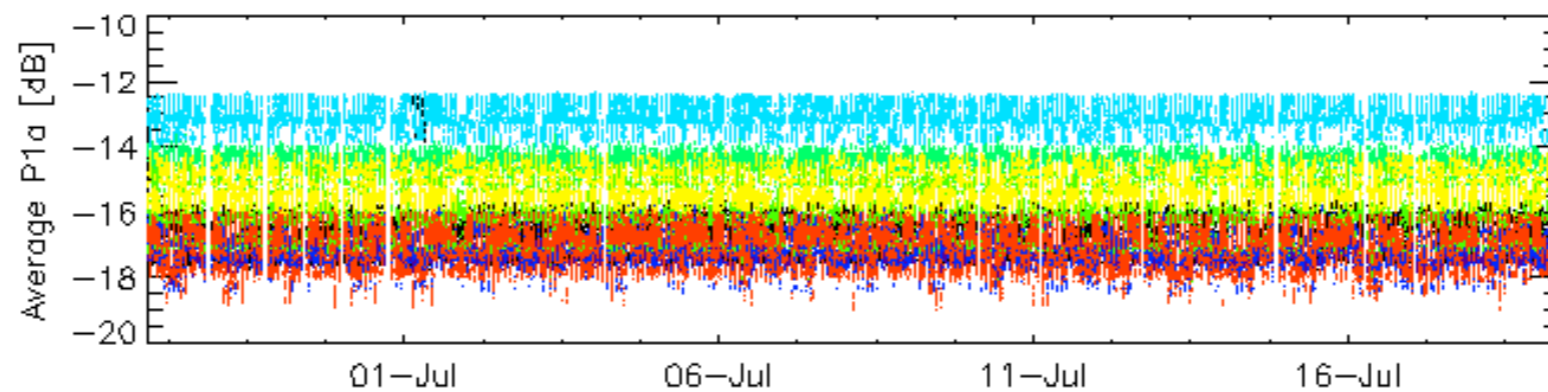
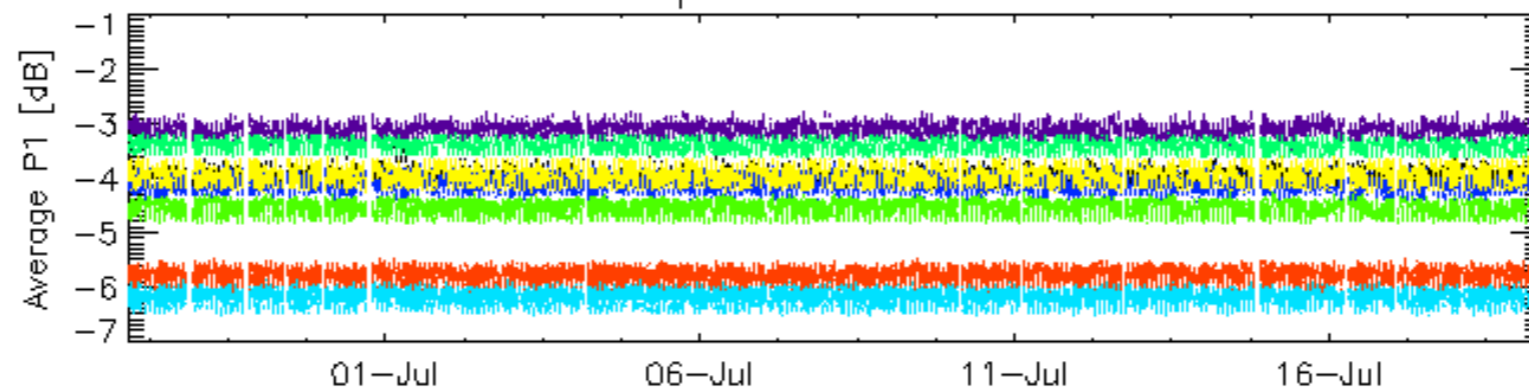


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

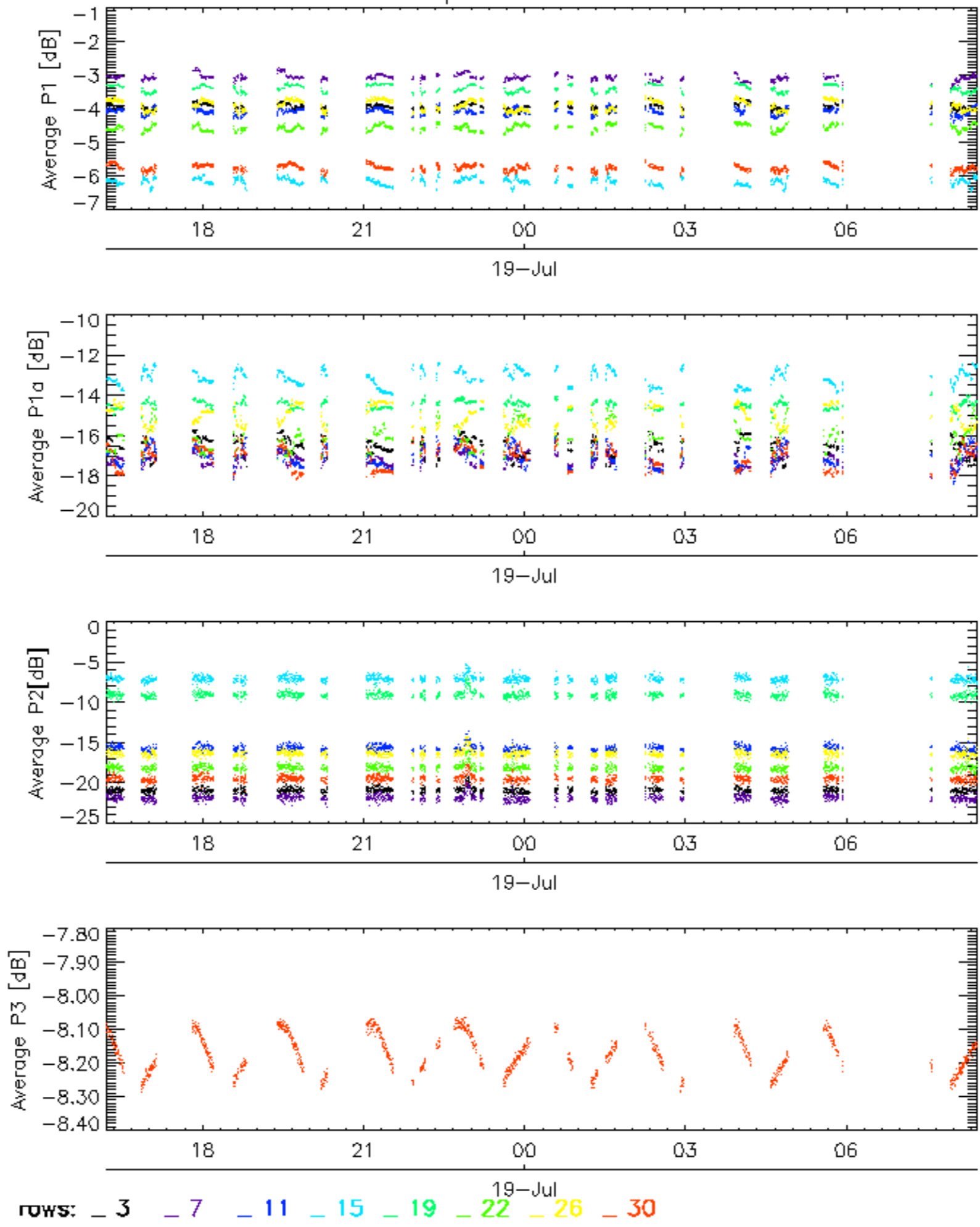


Cal pulses for WVS IS2

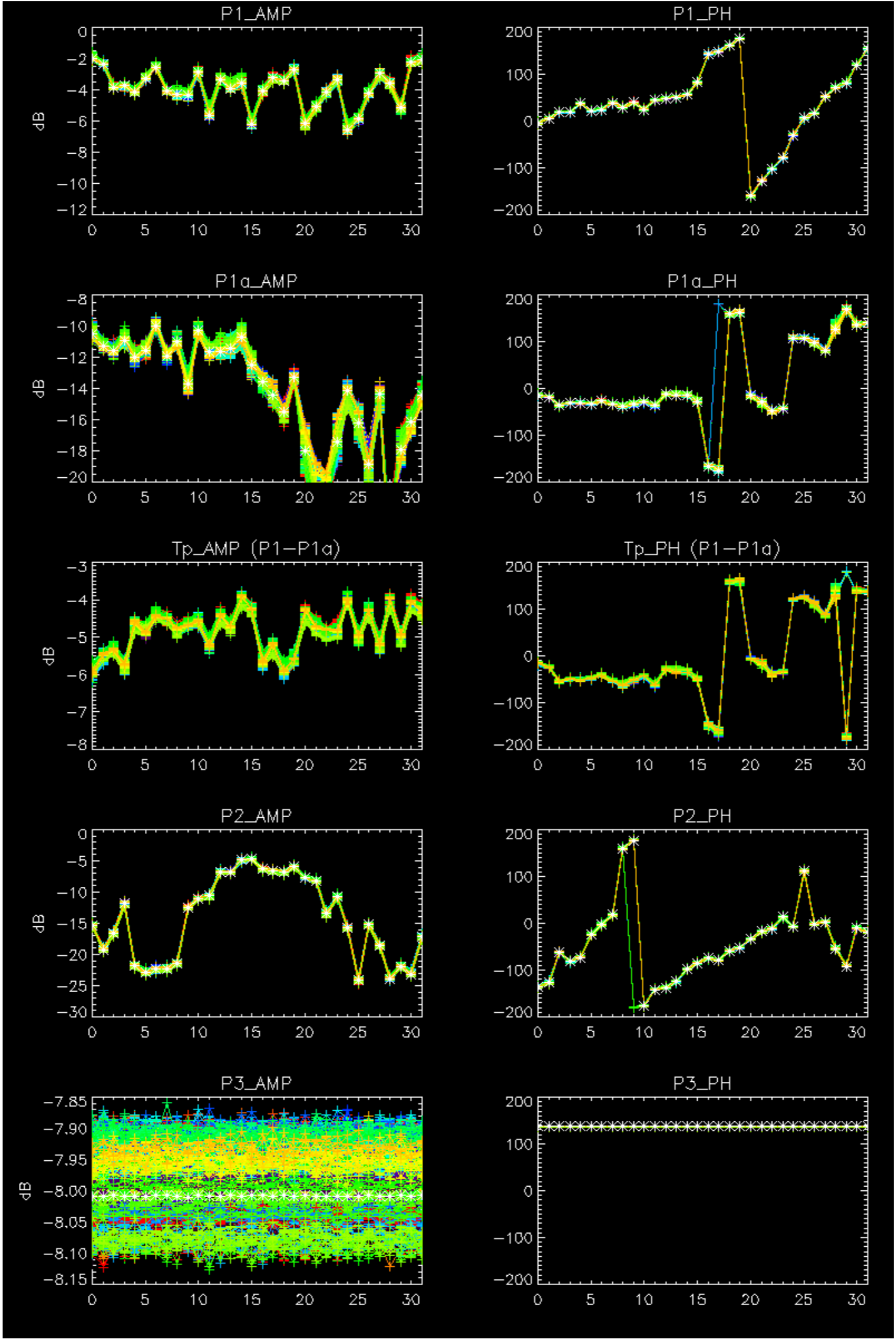


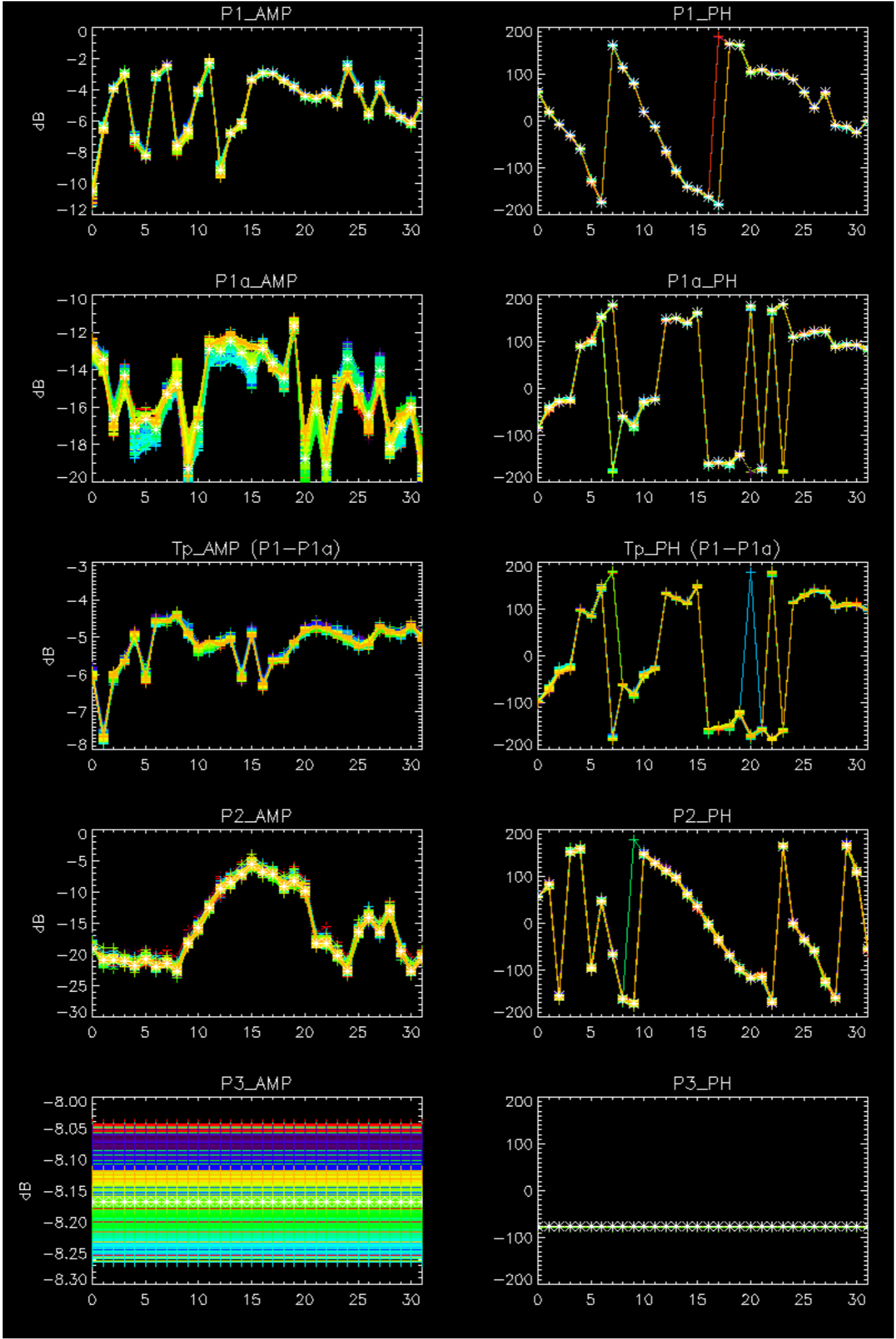
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



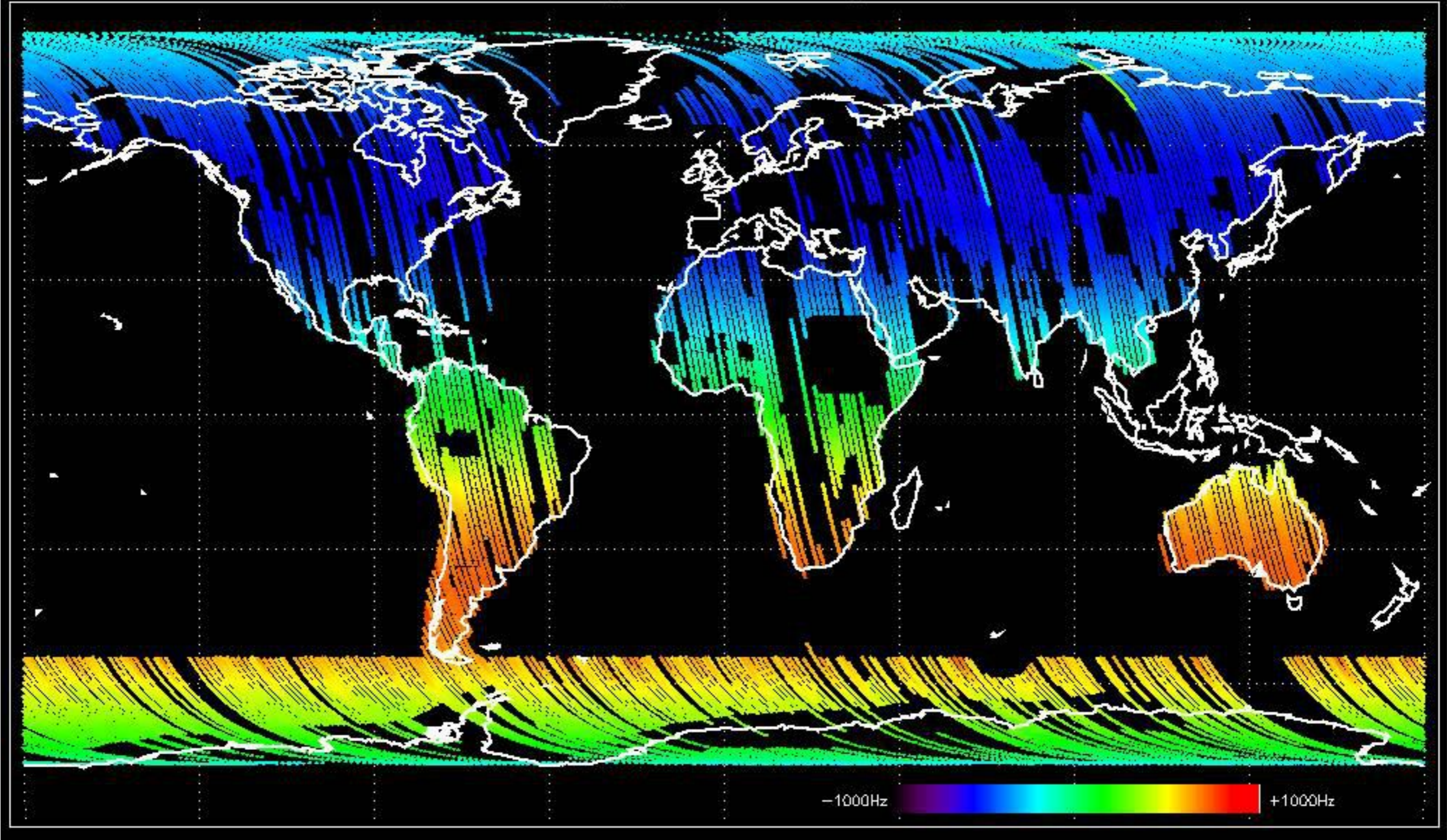
No anomalies observed.



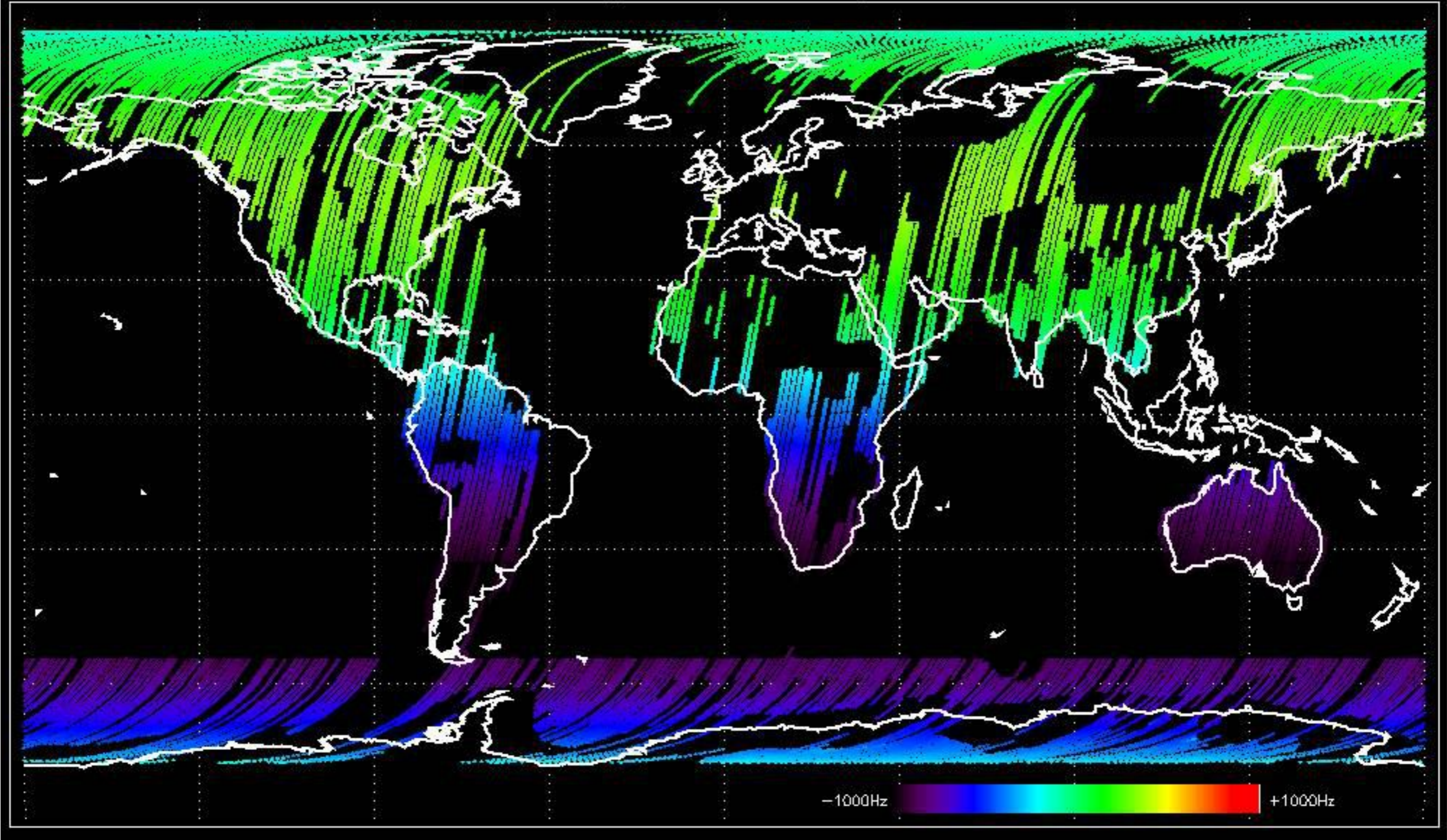


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

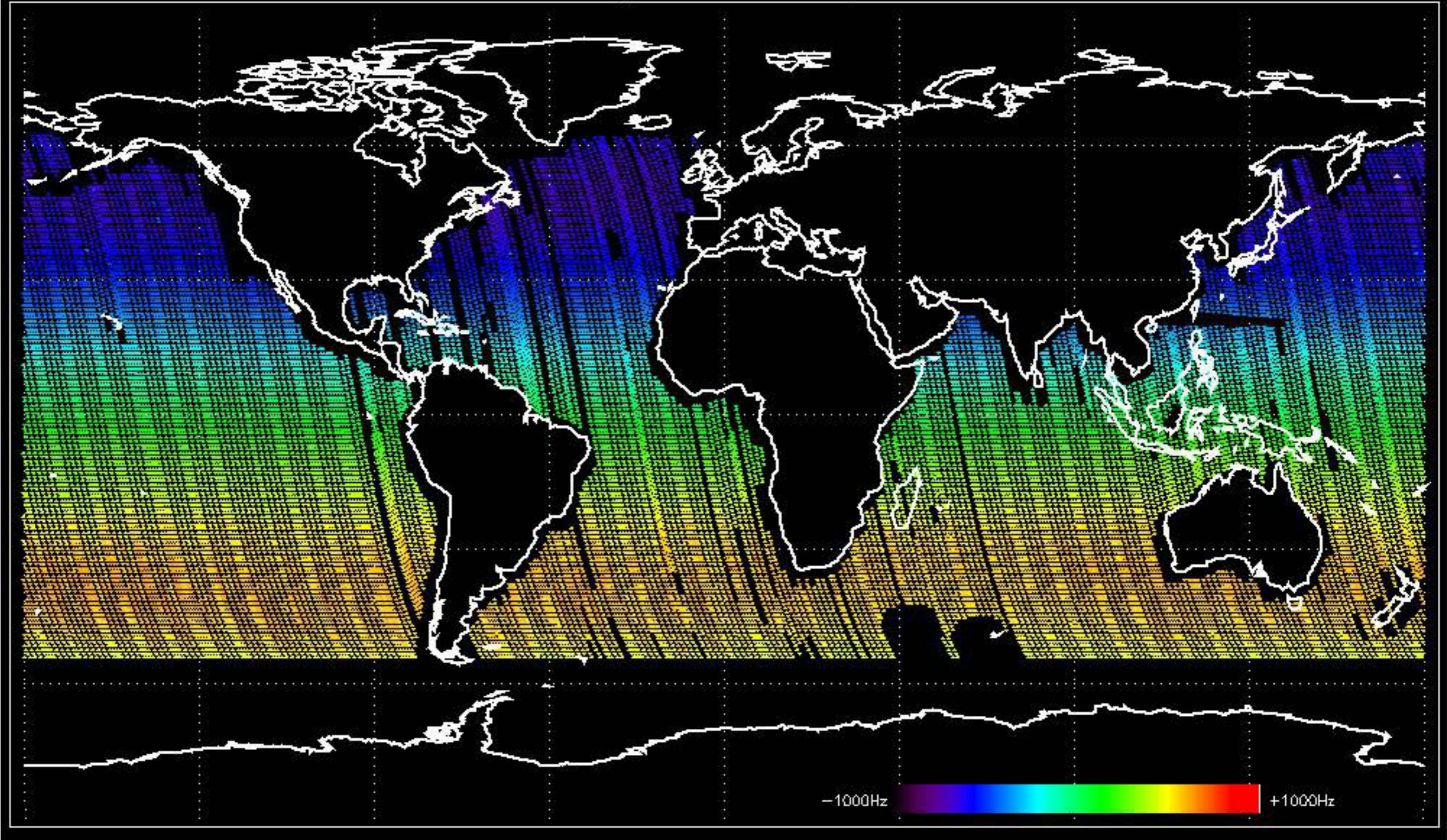
Doppler 'GM1' 'SS1' ascending



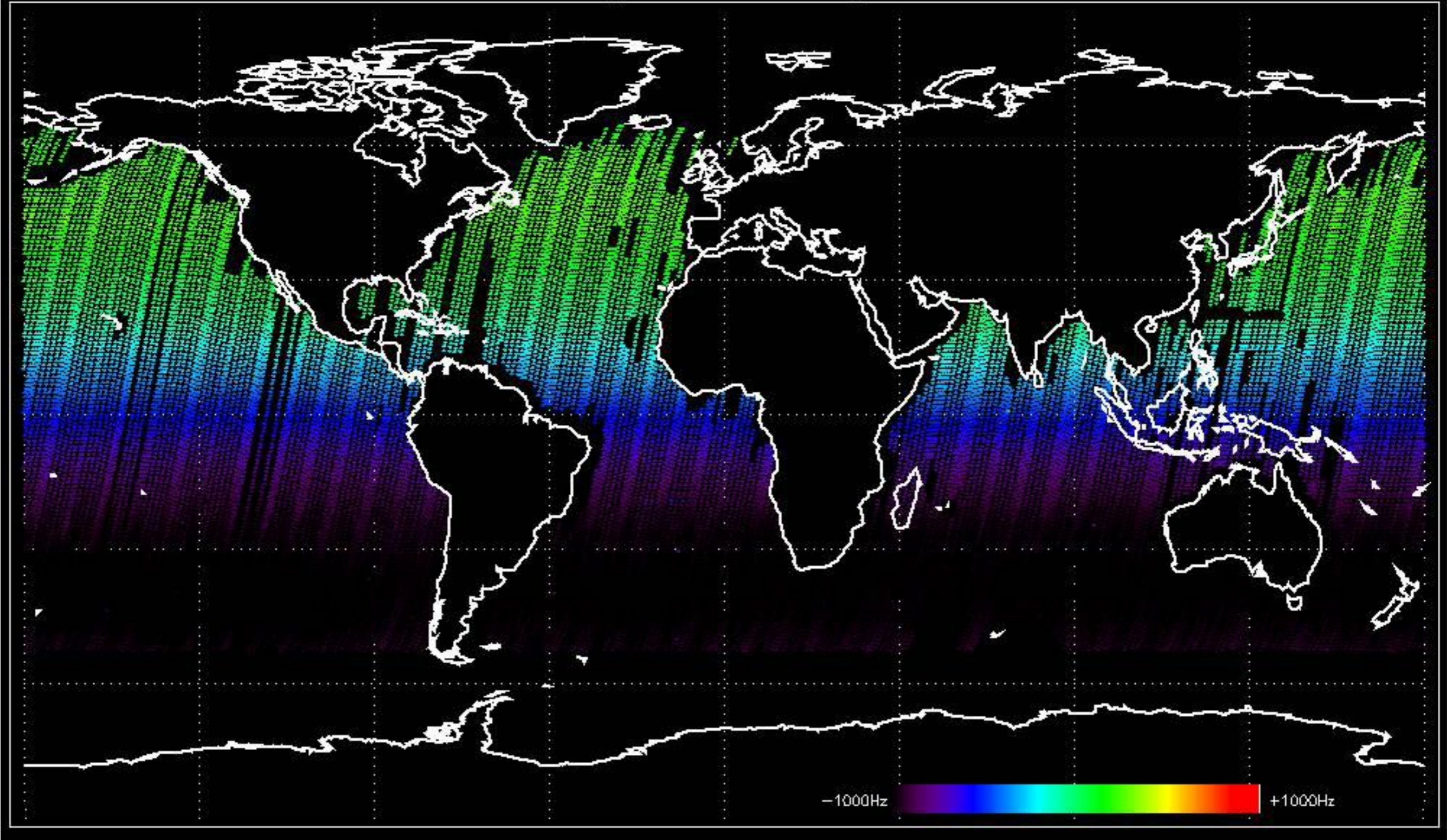
Doppler 'GM1' 'SS1' descending



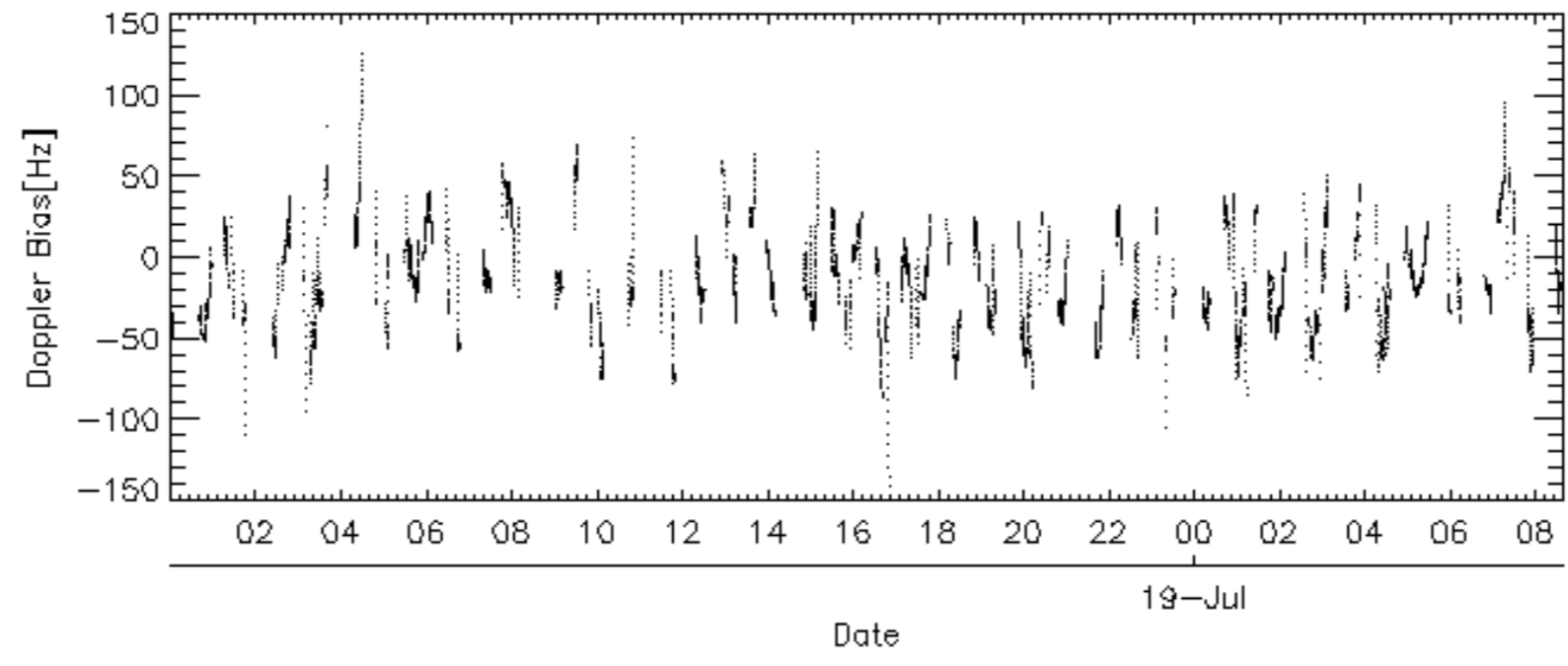
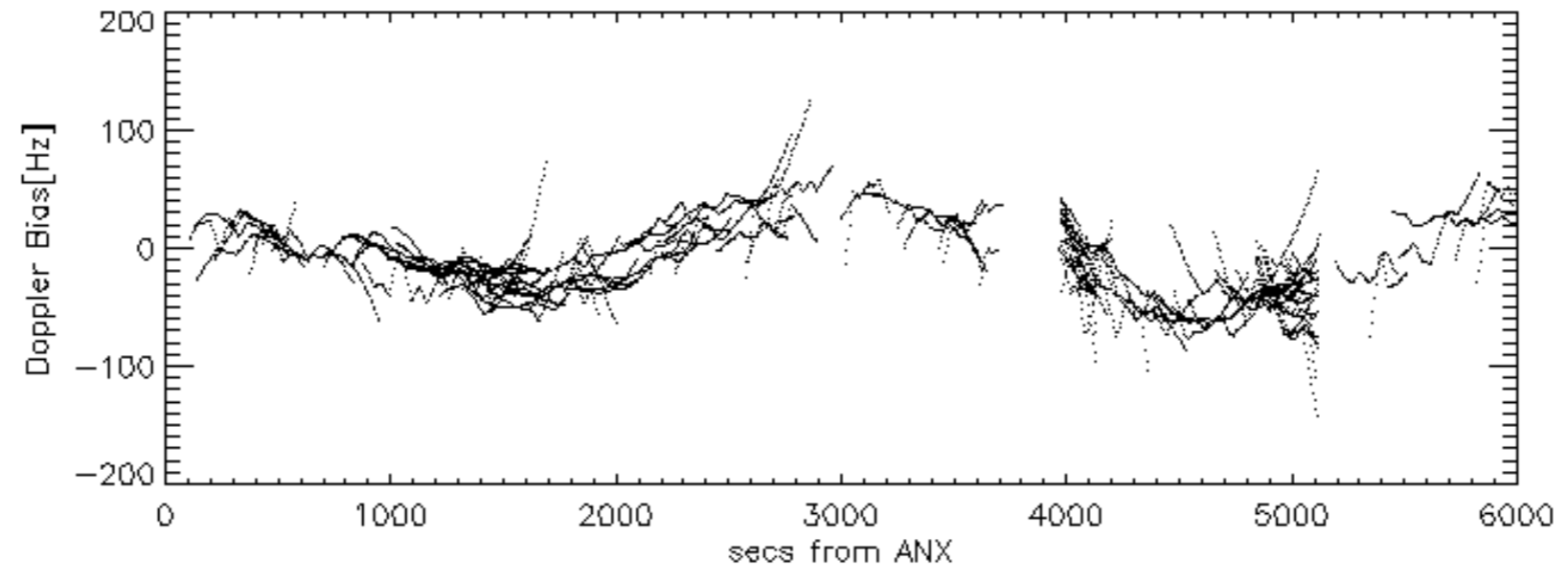
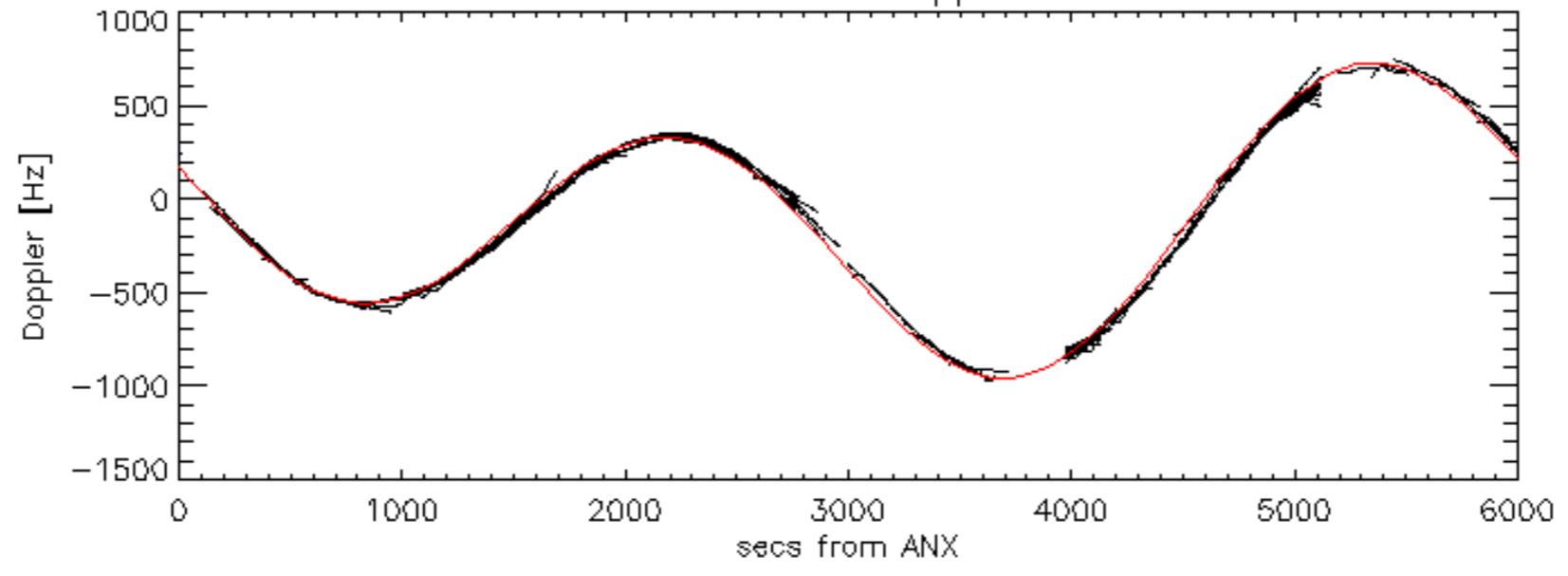
Doppler 'WVS' 'IS2' ascending

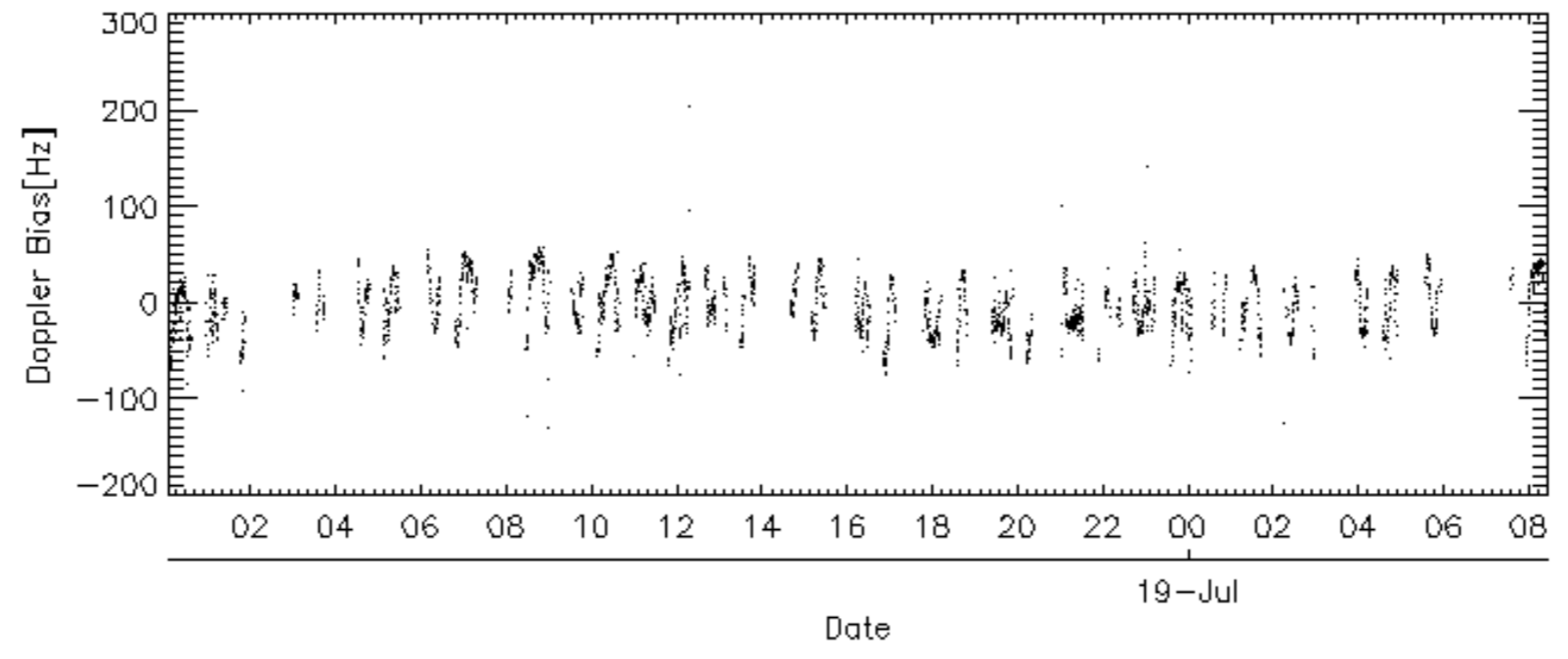
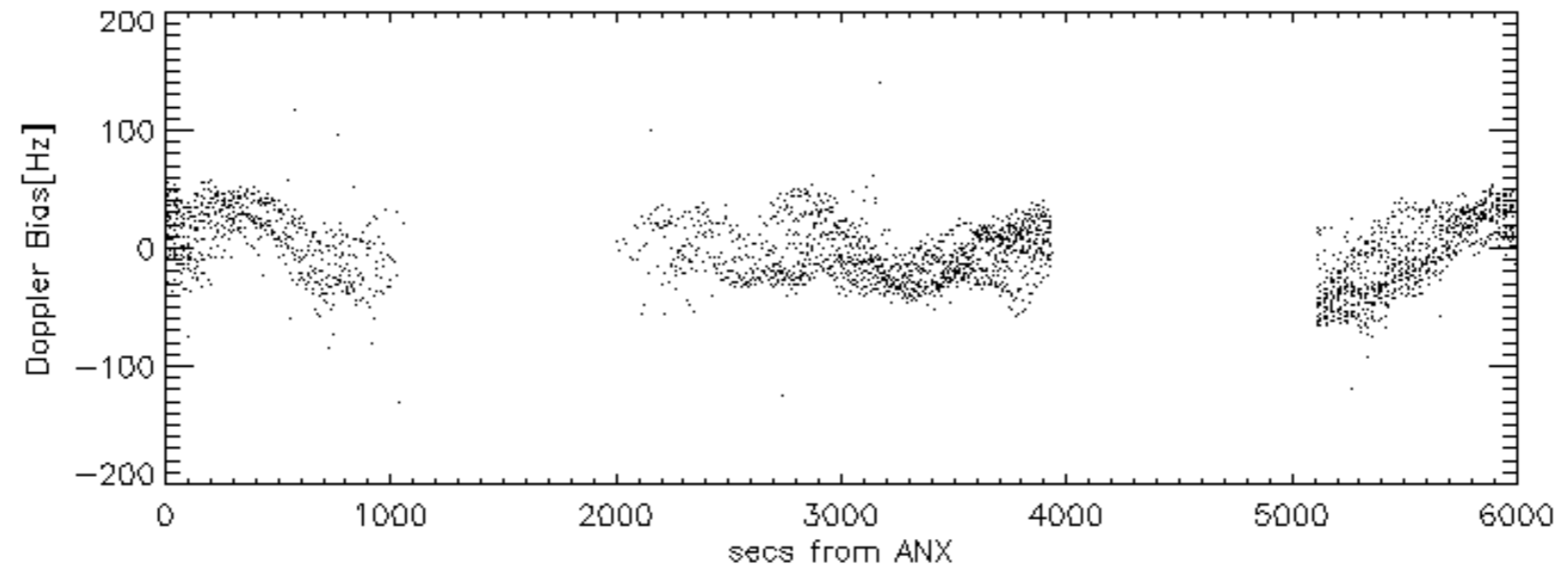
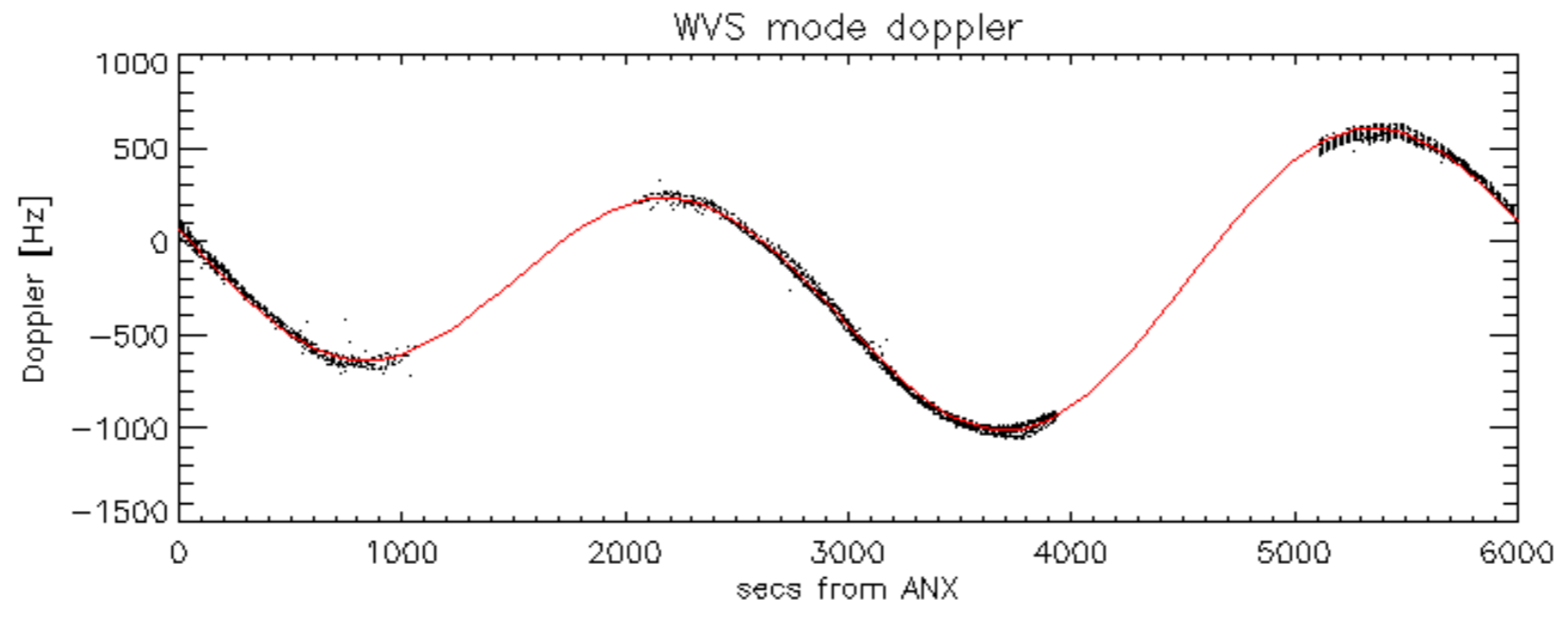


Doppler 'WVS' 'IS2' descending

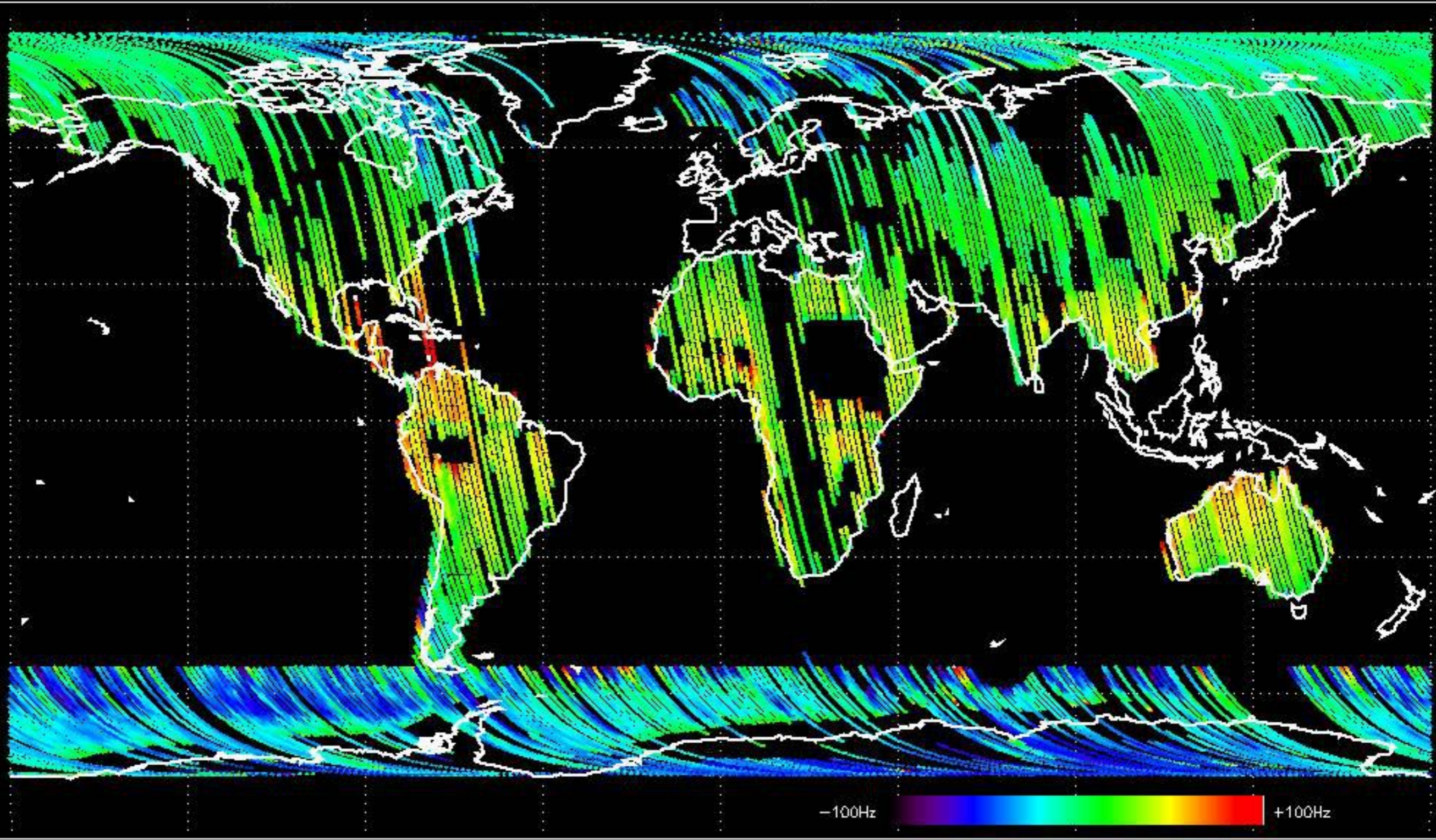


GM1 mode doppler

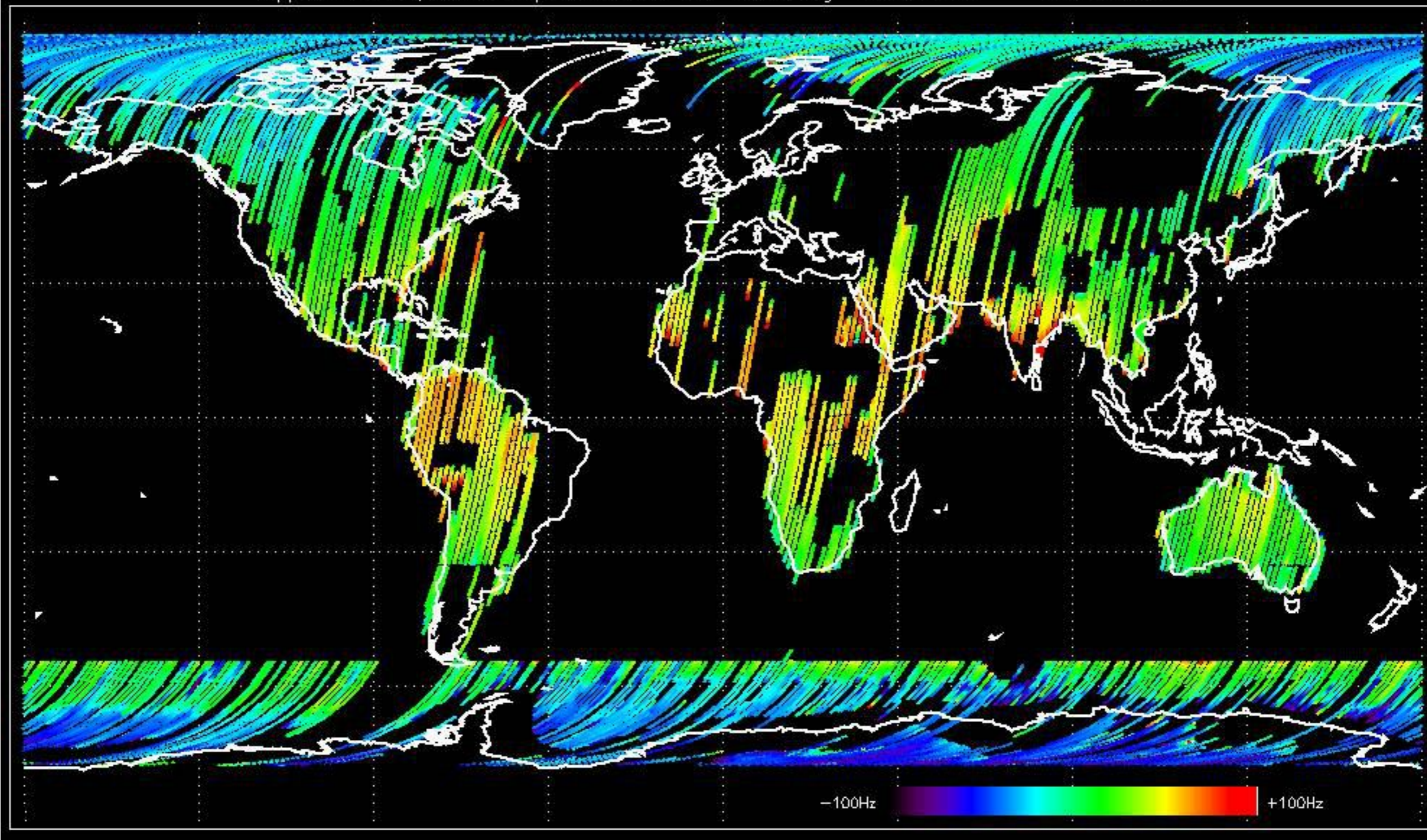




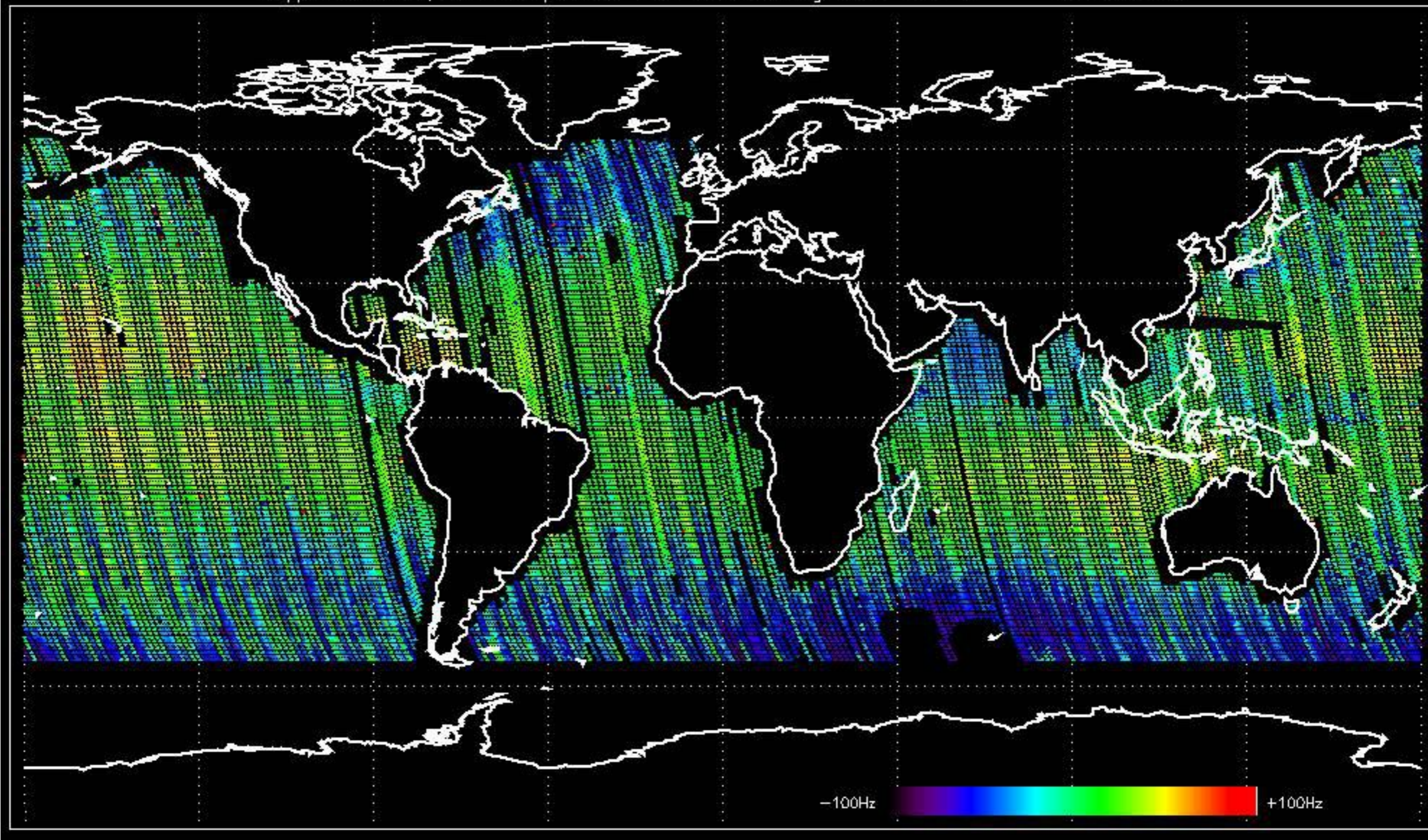
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.102278 Hz



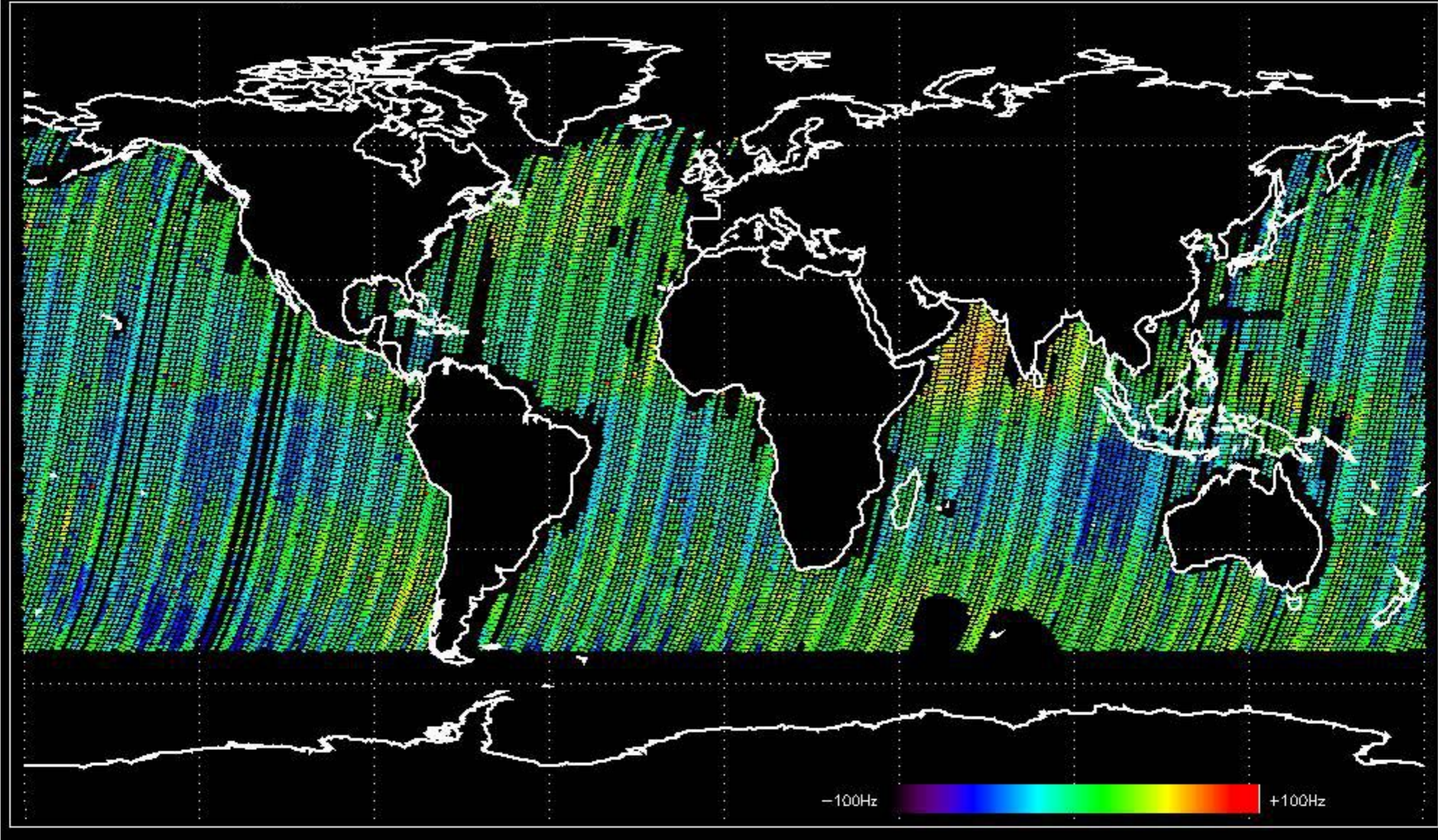
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.9247585 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.3099445 Hz

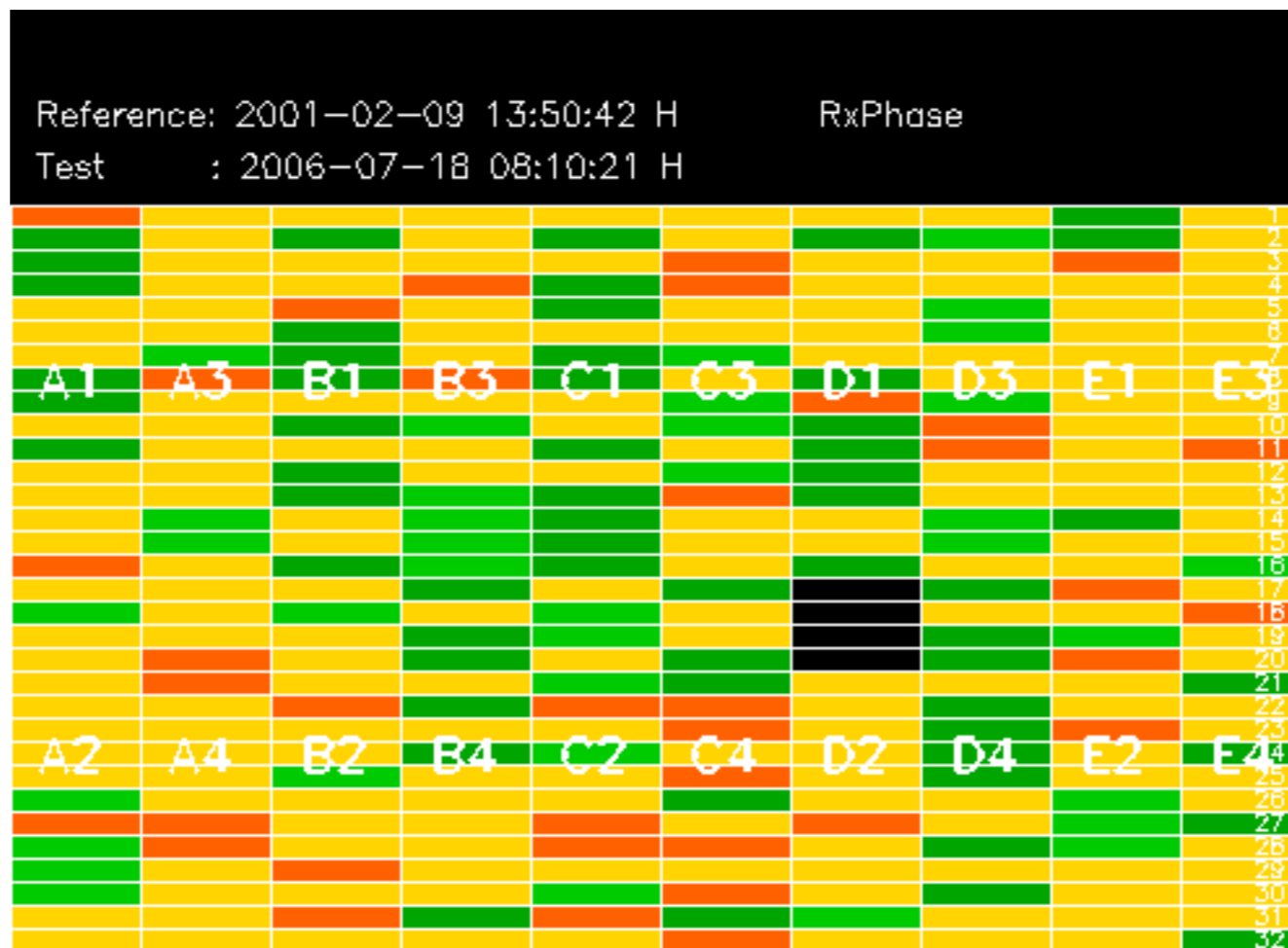


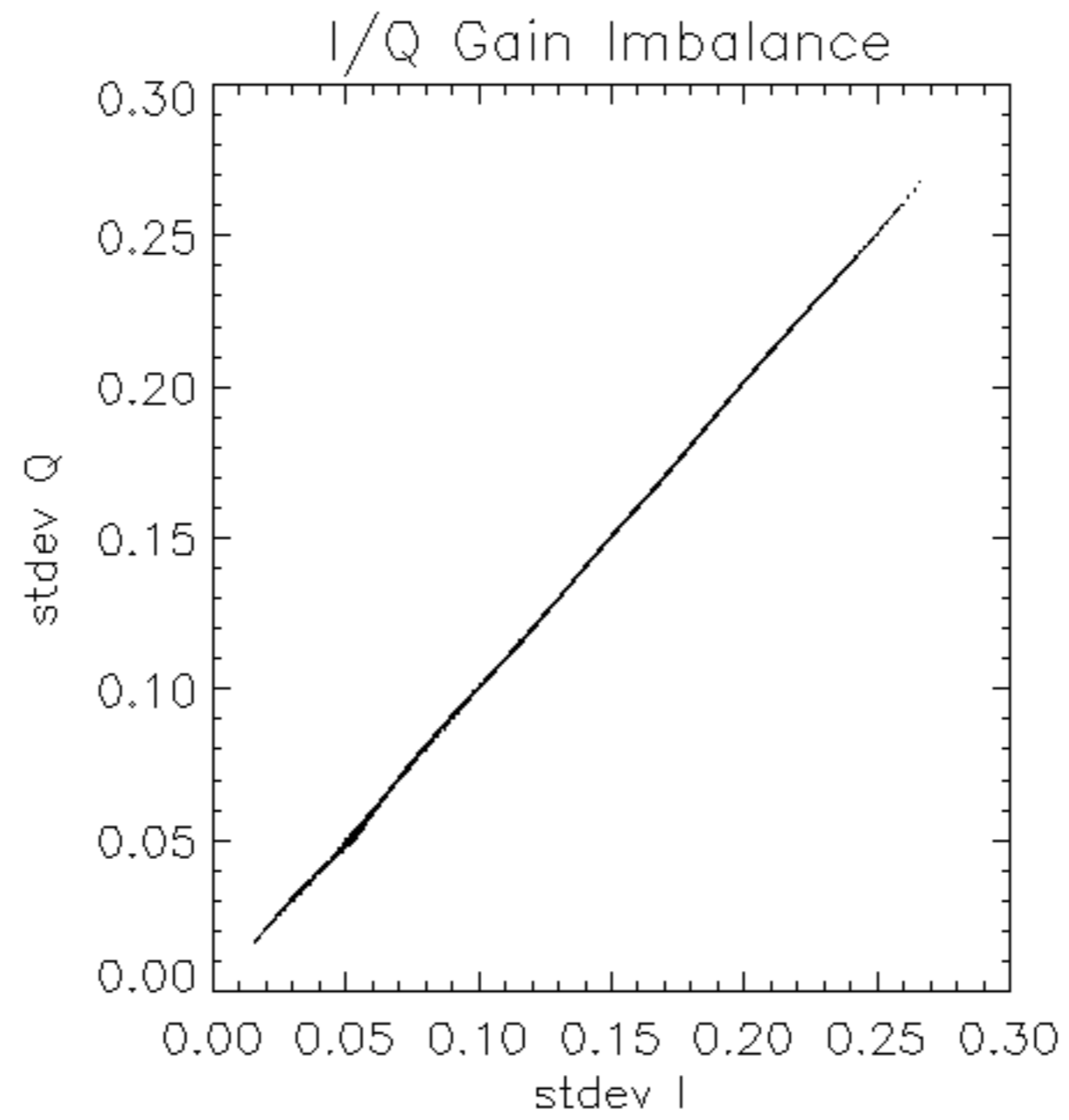
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.278120 Hz

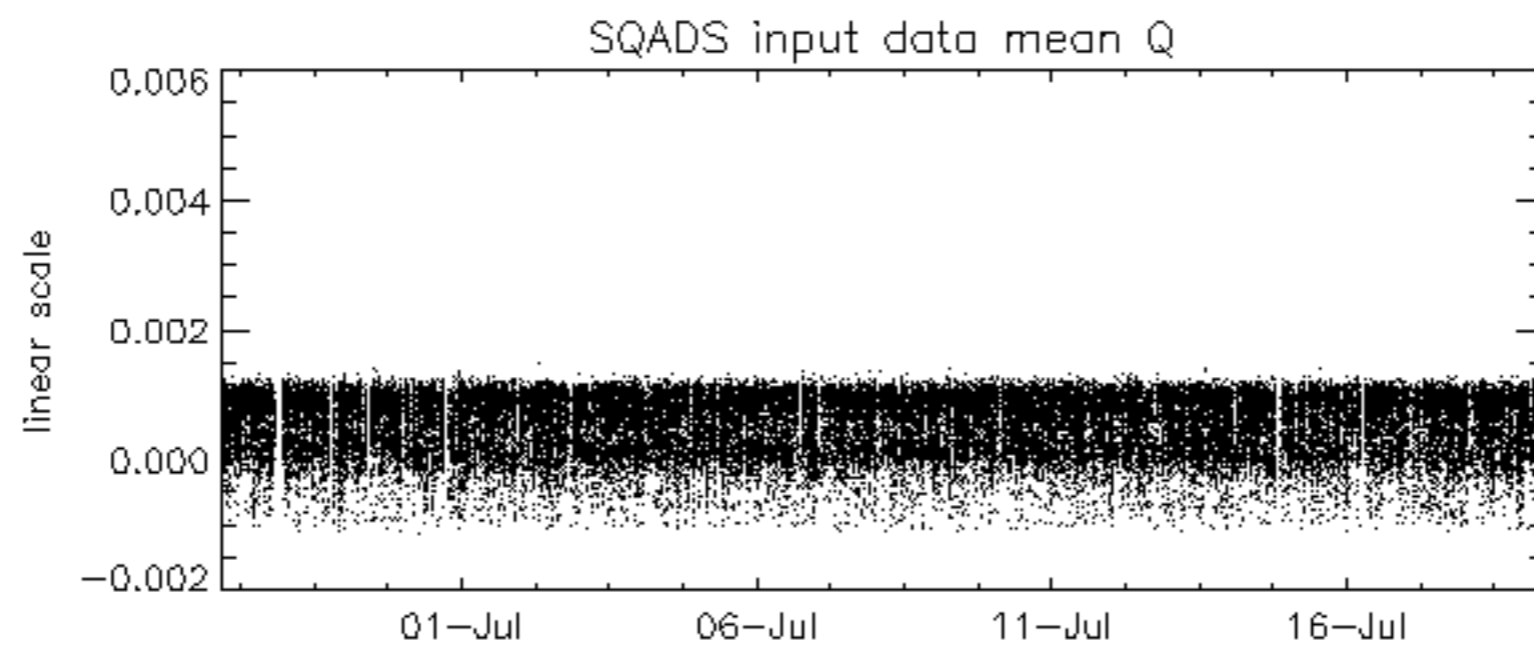
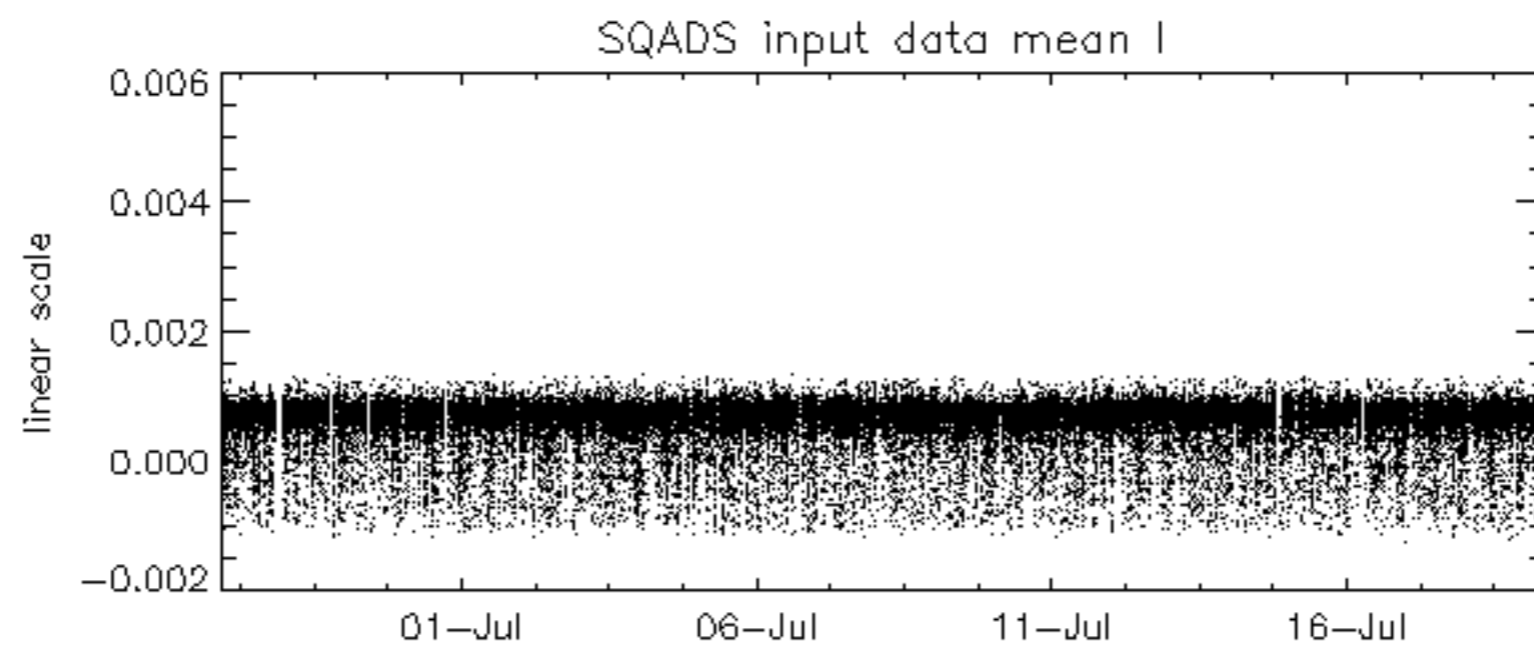
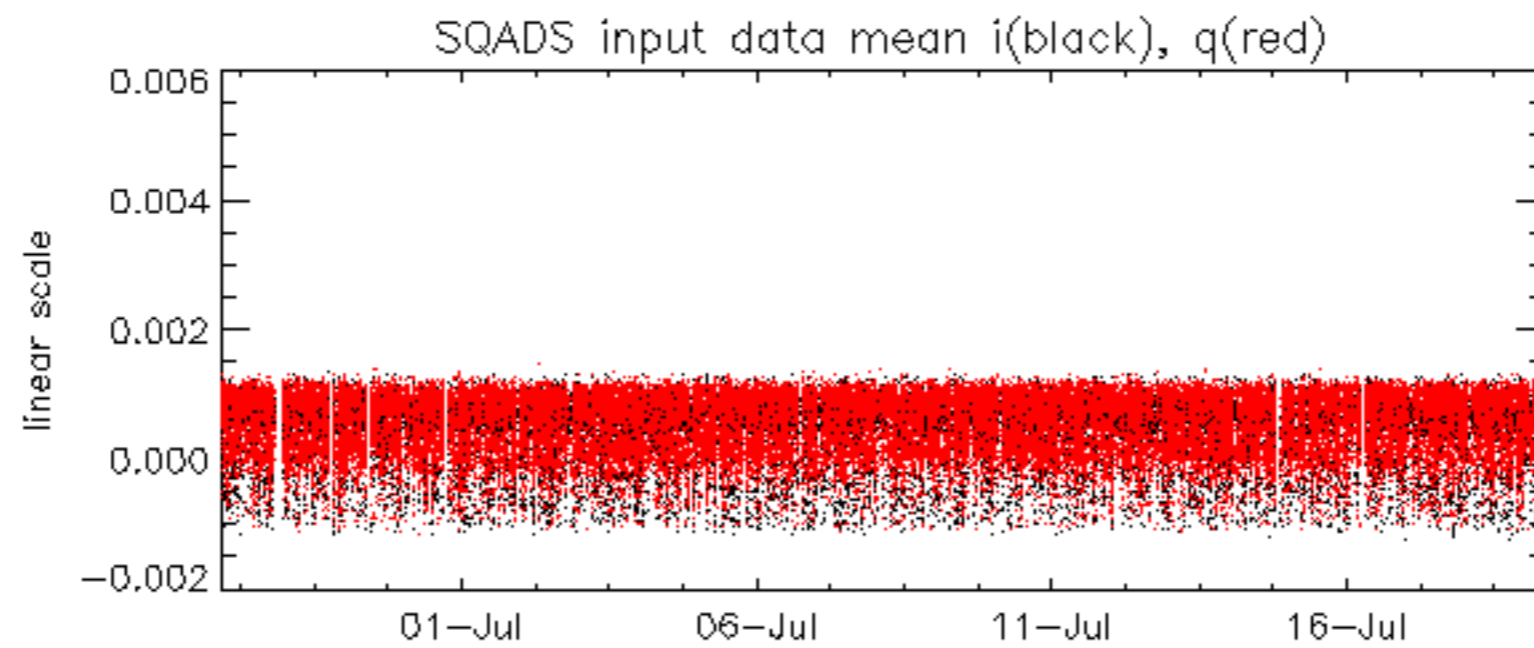


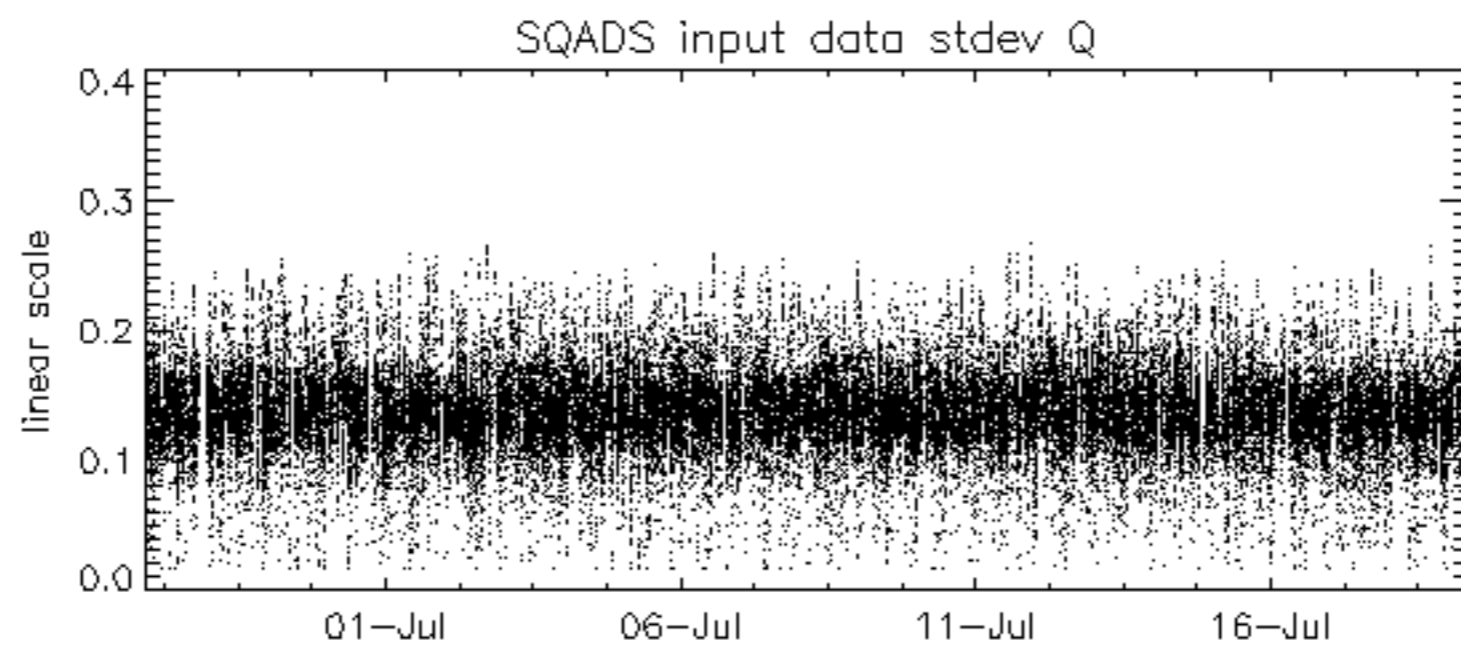
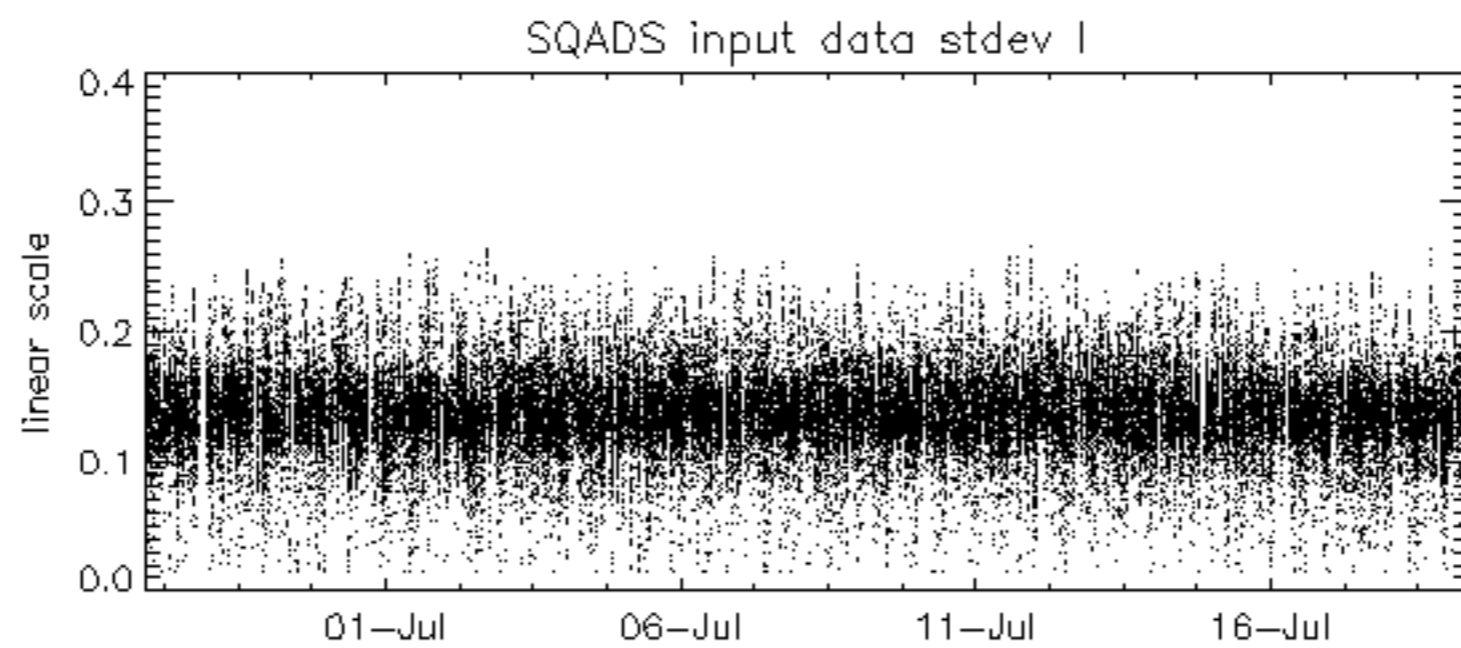
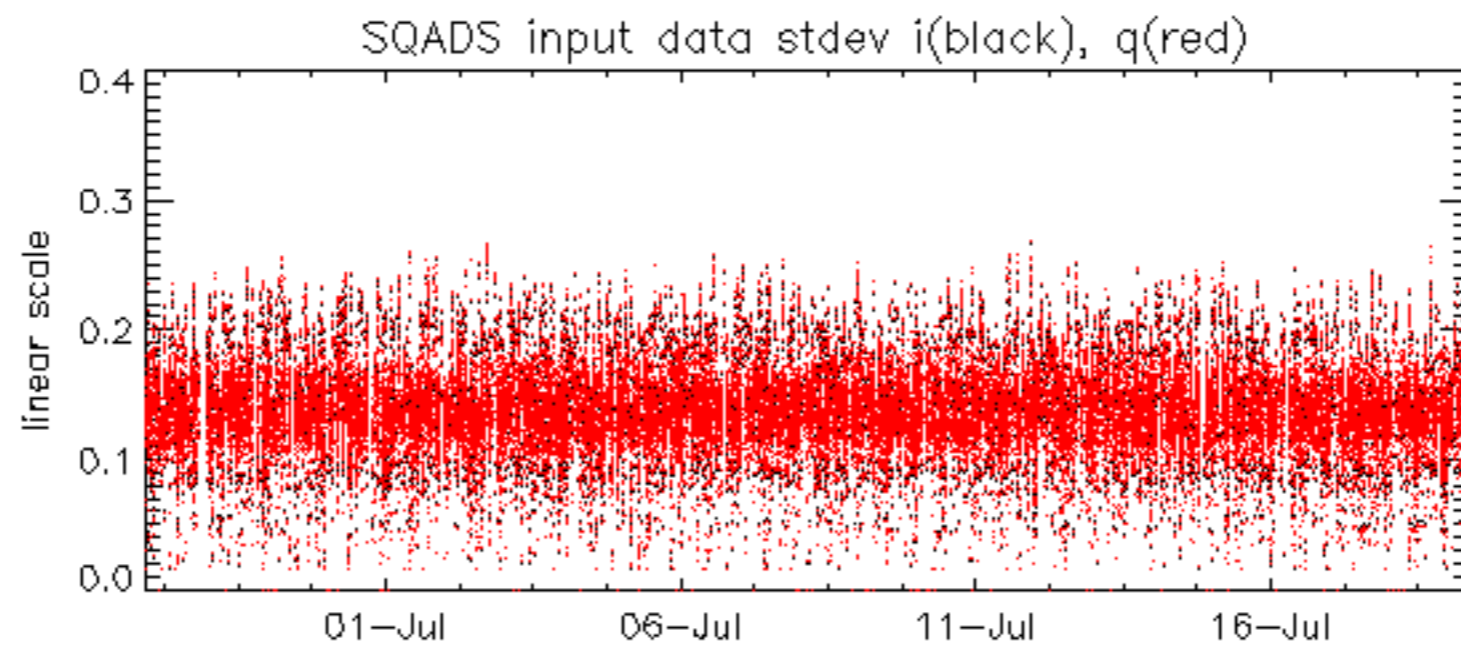
No anomalies observed on available MS products:

No anomalies observed.





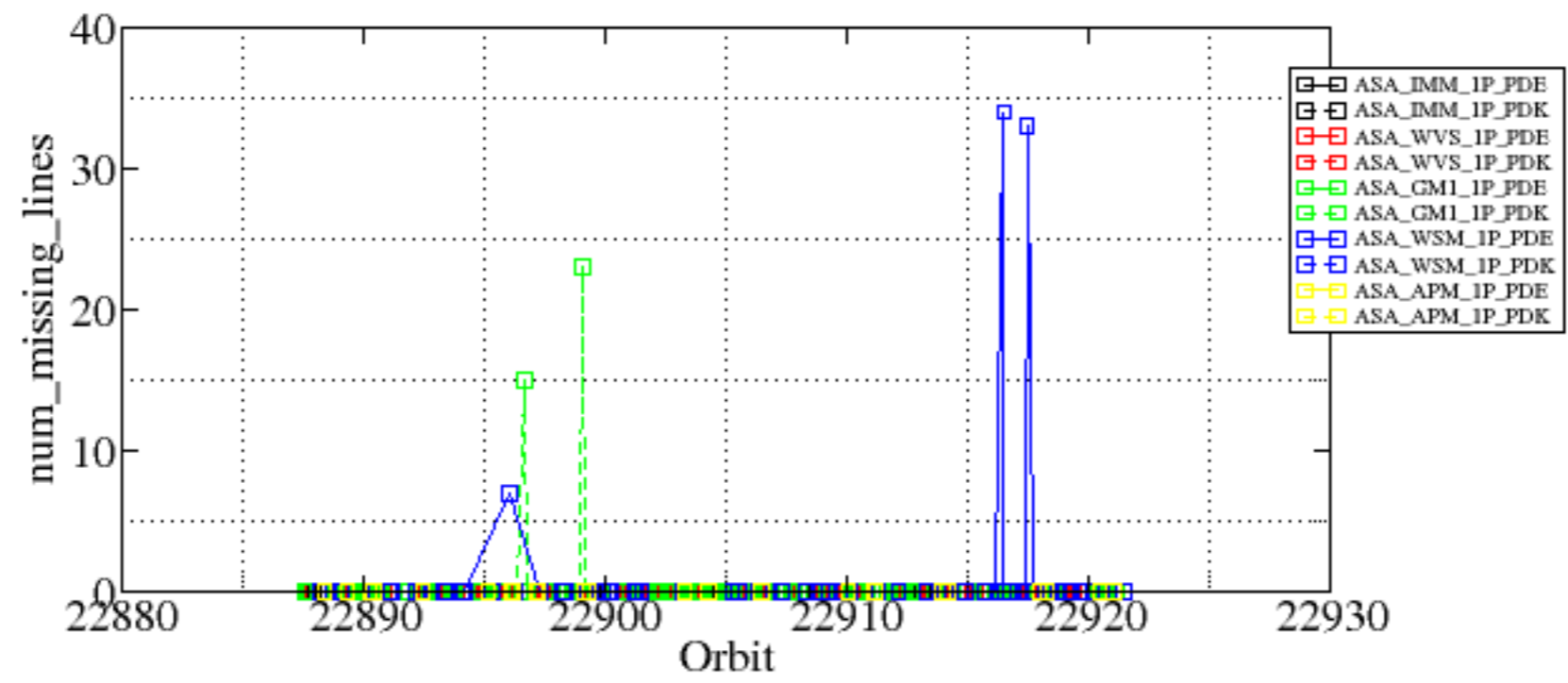


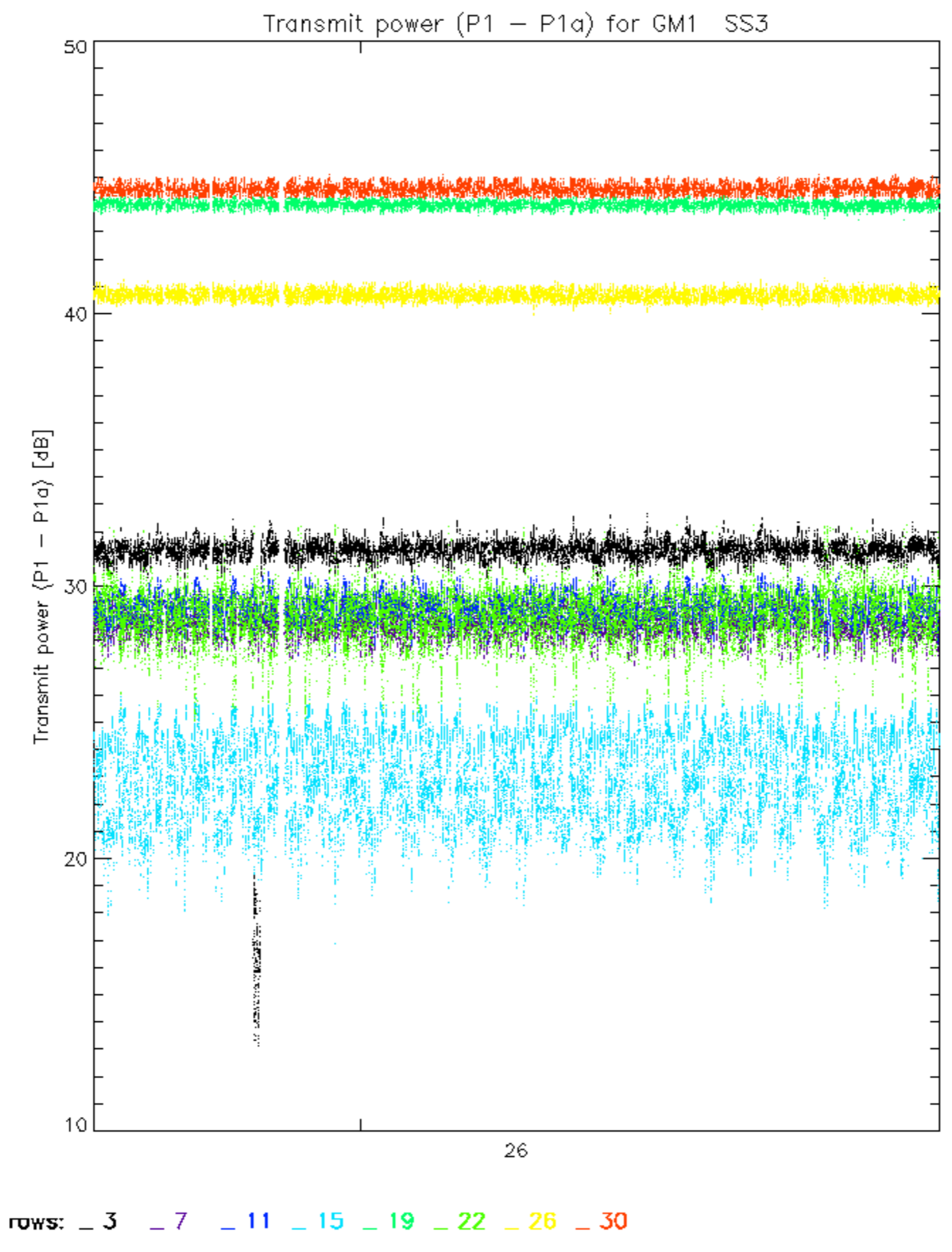


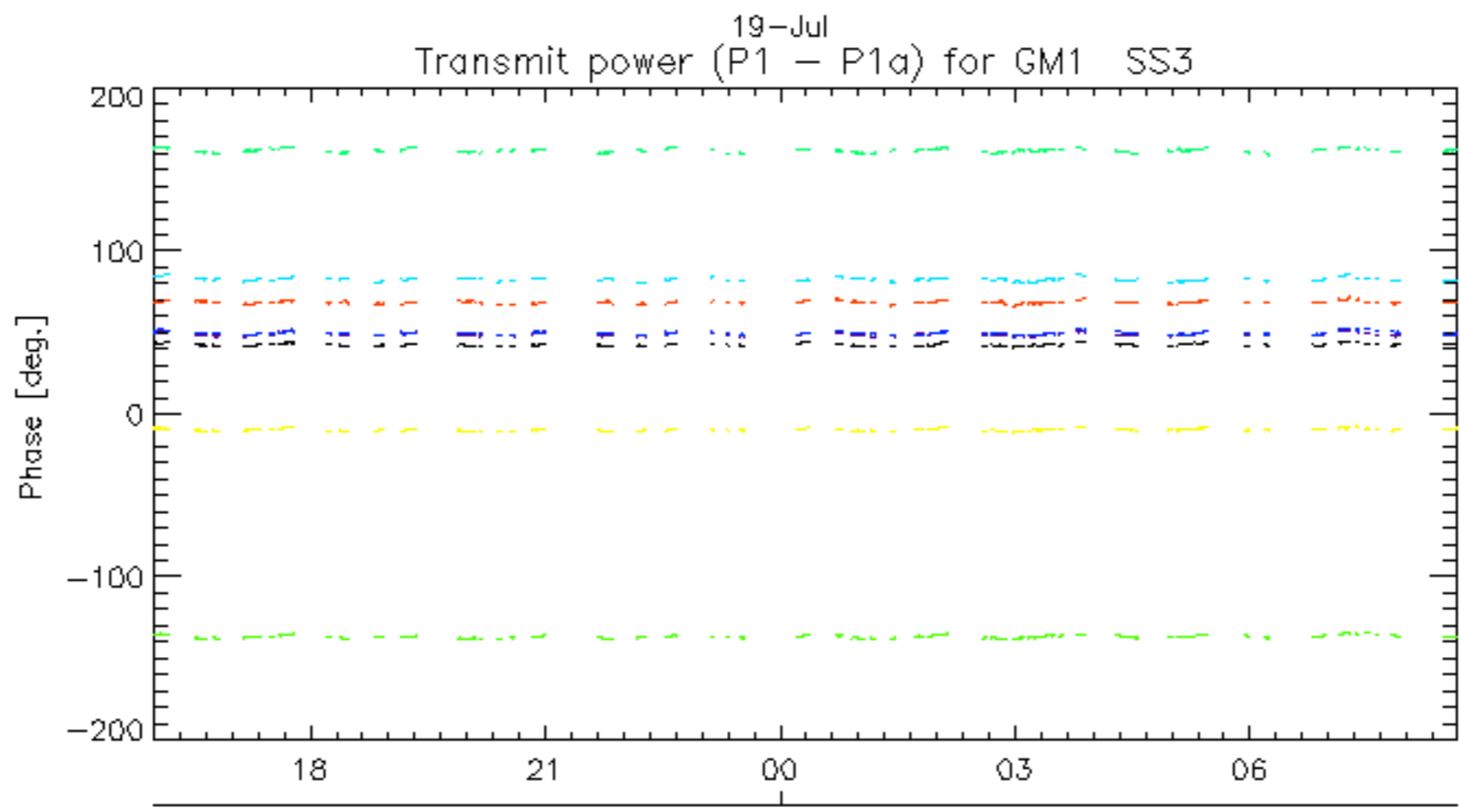
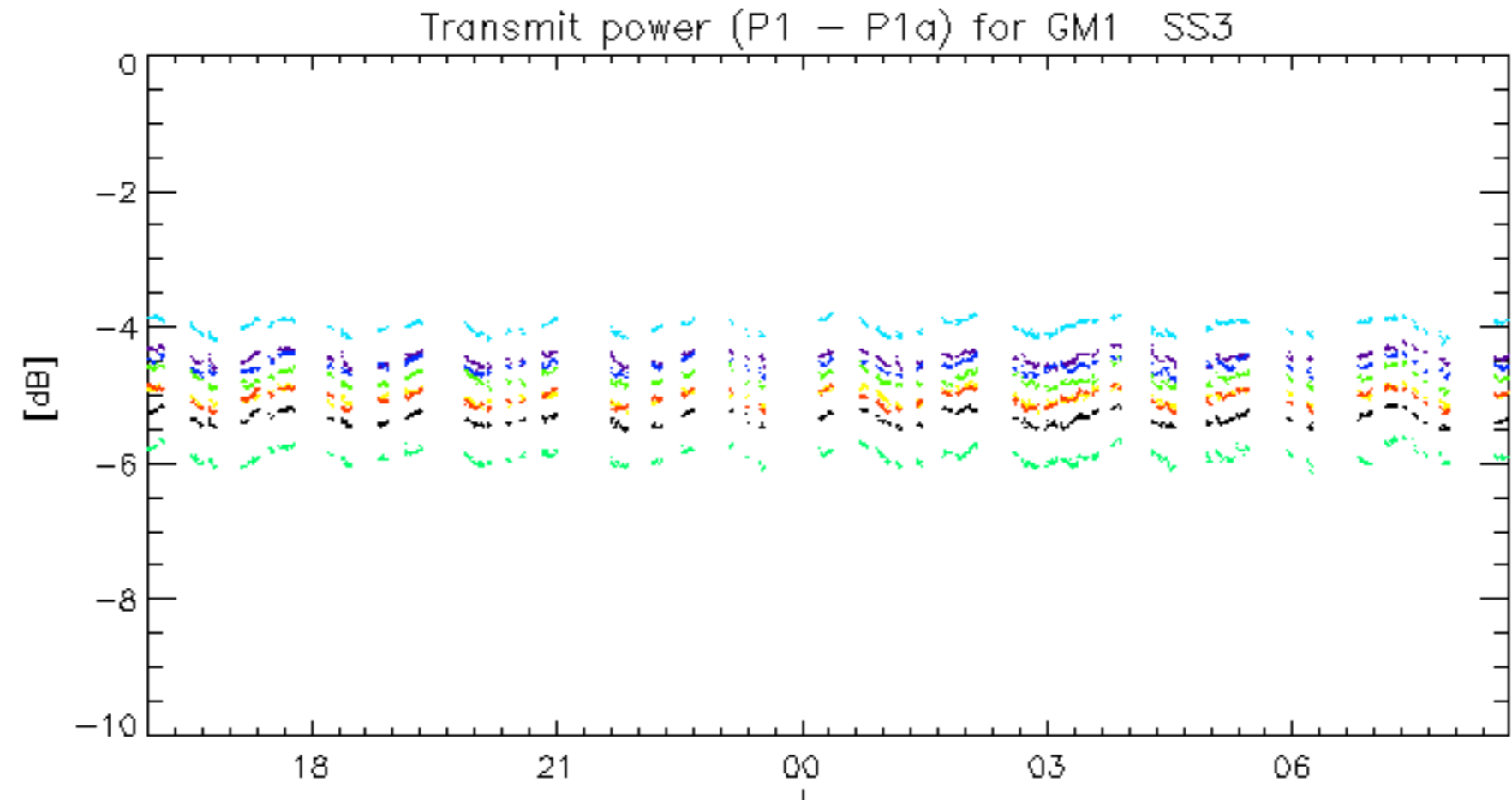
Summary of analysis for the last 3 days 2006071[789]

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

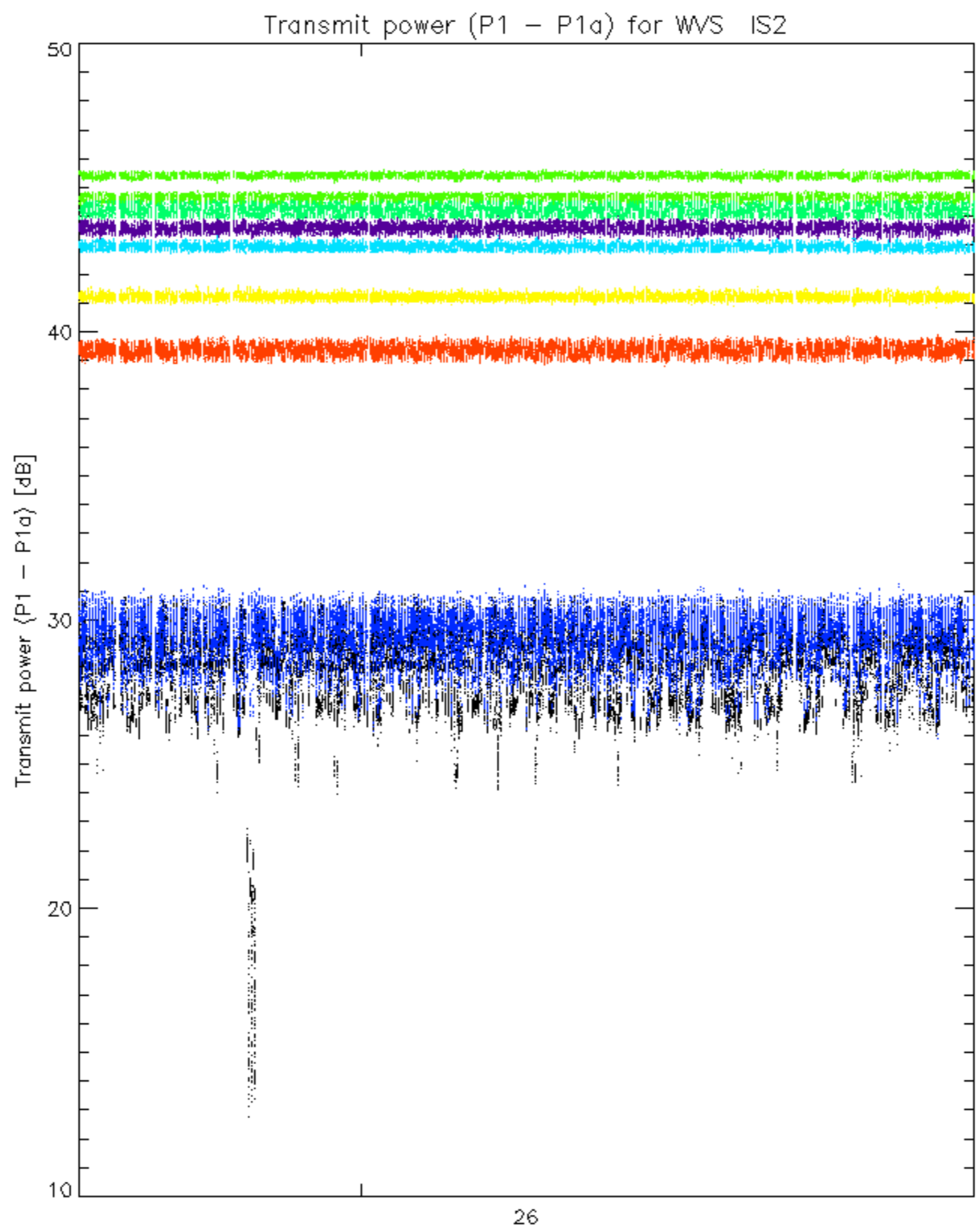
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060717_004744_000002292049_00288_22887_1022.N1	1	0
ASA_IMM_1PNPDE20060717_155733_000002182049_00298_22897_1101.N1	1	0
ASA_IMM_1PNPDE20060718_010021_000000822049_00303_22902_1205.N1	1	0
ASA_GM1_1PNPDK20060717_152259_000005982049_00297_22896_1183.N1	0	15
ASA_GM1_1PNPDK20060717_192314_000004532049_00300_22899_1194.N1	0	23
ASA_WSM_1PNPDE20060717_142239_000000852049_00297_22896_3436.N1	0	7
ASA_WSM_1PNPDE20060719_003803_000000672049_00317_22916_3537.N1	0	34
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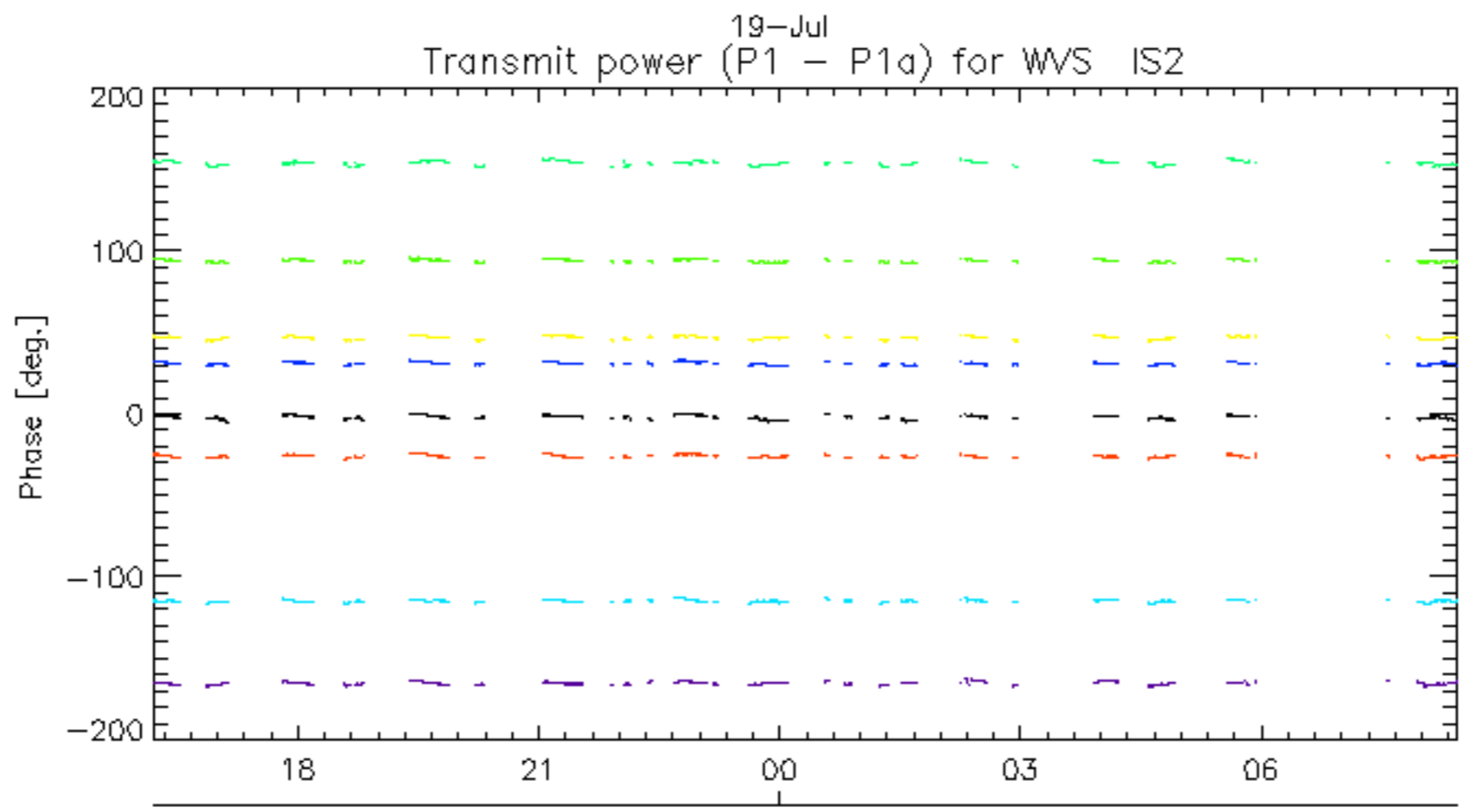
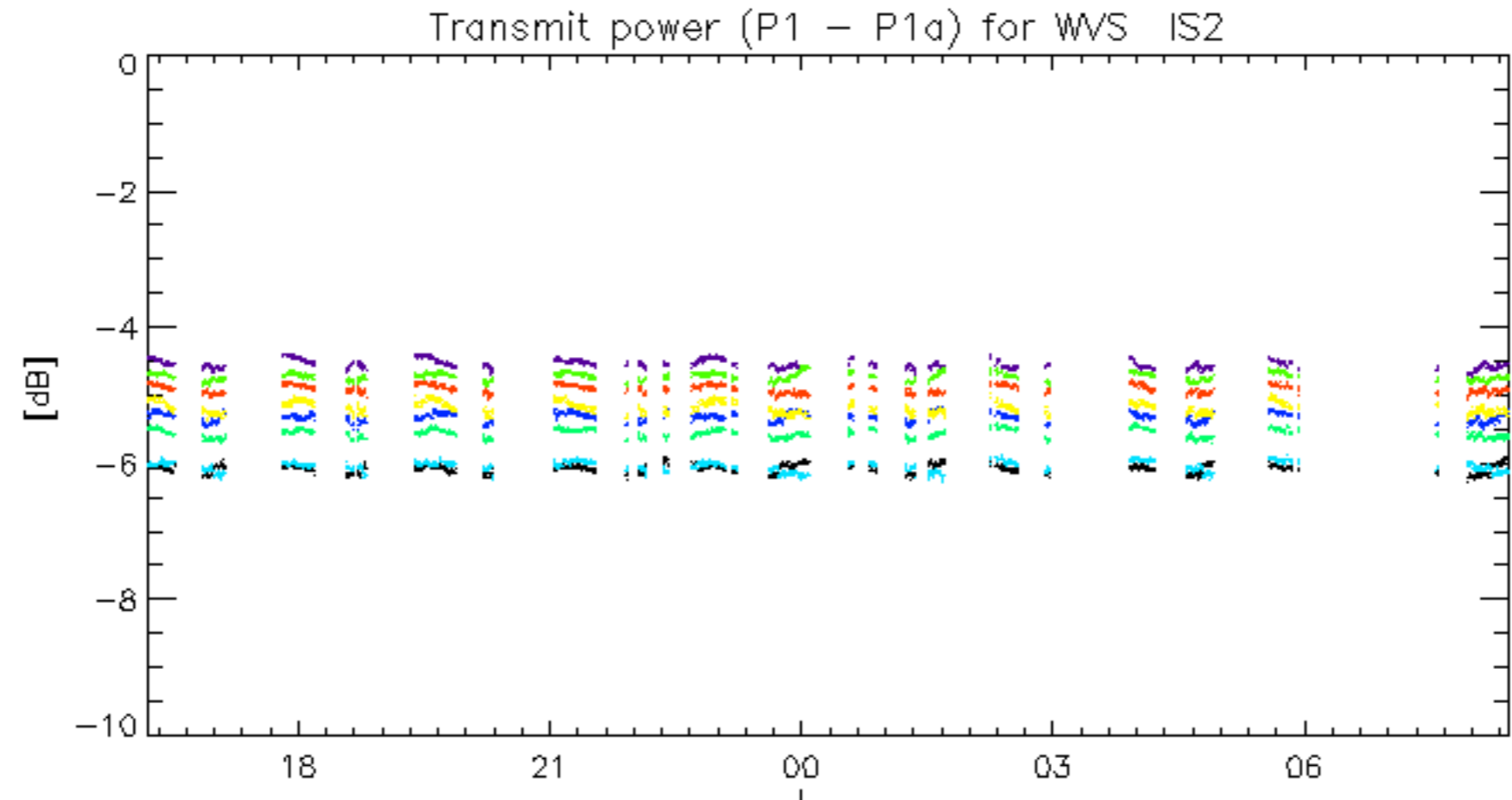




19-Jul
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.