

PRELIMINARY REPORT OF 060215

last update on Wed Feb 15 16:43:55 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 2006-02-14 00:00:00 to 2006-02-15 16:43:55

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	0	14	0	29
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	0	14	0	29
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	0	14	0	29
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	0	14	0	29

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	47	52	41	5	43
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	47	52	41	5	43
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	47	52	41	5	43
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	52	41	5	43

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	20060214 085025
H	20060215 081848

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	-4.012259	0.008435	0.033739
7	P1	-3.002408	0.012357	0.009713
11	P1	-4.092397	0.021431	0.025074
15	P1	-6.062727	0.018430	-0.001814
19	P1	-3.261167	0.006607	-0.025495
22	P1	-4.474357	0.018042	0.030053
26	P1	-4.193854	0.013120	0.033990
30	P1	-5.773824	0.010203	0.007184
3	P1	-16.906607	0.265801	-0.049495
7	P1	-16.652426	0.122712	-0.071501
11	P1	-16.585840	0.301560	0.106942
15	P1	-13.167698	0.109047	0.180724
19	P1	-13.894469	0.069156	-0.012399
22	P1	-15.785091	0.551559	0.307654
26	P1	-15.768227	0.247442	-0.011653
30	P1	-16.575994	0.298044	0.119468

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.538471	0.091875	0.177144
7	P2	-22.430861	0.095782	0.084211
11	P2	-16.266577	0.102189	0.067268
15	P2	-7.193736	0.102958	0.052857
19	P2	-9.159485	0.096290	0.037551
22	P2	-17.943077	0.092953	0.009650
26	P2	-16.215139	0.100195	0.020263
30	P2	-19.642736	0.084617	0.018081

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.203228	0.007208	0.026607
7	P3	-8.203228	0.007208	0.026607
11	P3	-8.203228	0.007208	0.026607
15	P3	-8.203228	0.007208	0.026607
19	P3	-8.203228	0.007208	0.026607
22	P3	-8.203228	0.007208	0.026607
26	P3	-8.203228	0.007208	0.026607
30	P3	-8.203228	0.007208	0.026607

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	-3.737050	0.011259	-0.031606
7	P1	-2.744223	0.007639	-0.015286
11	P1	-2.886420	0.013690	-0.070667
15	P1	-3.501337	0.021015	-0.098261
19	P1	-3.379884	0.011681	0.003321
22	P1	-5.145303	0.022163	-0.062470
26	P1	-5.844063	0.018413	0.058206
30	P1	-5.229003	0.026960	0.049411
3	P1	-11.546722	0.042092	-0.030546
7	P1	-9.926041	0.048525	-0.054176
11	P1	-10.138930	0.057245	-0.175692
15	P1	-10.678853	0.101017	-0.168279
19	P1	-15.450089	0.063187	0.073294
22	P1	-20.426580	1.221380	0.425336

26	P1	-16.606333	0.358807	0.481323
30	P1	-18.222273	0.326298	-0.227786

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.310604	0.039350	0.262714
7	P2	-22.751623	0.072693	0.274139
11	P2	-11.362288	0.026908	0.173065
15	P2	-4.881537	0.027734	0.094310
19	P2	-6.892720	0.025110	0.065155
22	P2	-8.180410	0.026024	0.051038
26	P2	-23.954329	0.025827	0.036369
30	P2	-22.087219	0.018663	0.020958

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.037636	0.002618	0.034523
7	P3	-8.037535	0.002625	0.034394
11	P3	-8.037494	0.002622	0.034411
15	P3	-8.037592	0.002628	0.034175
19	P3	-8.037712	0.002629	0.034374
22	P3	-8.037666	0.002631	0.035042
26	P3	-8.037752	0.002625	0.034304
30	P3	-8.037601	0.002637	0.034678

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	0.000563033
	stdev	1.66595e-07
MEAN Q	mean	0.000521829
	stdev	2.11415e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139823
	stdev	0.00116694
STDEV Q	mean	0.140186
	stdev	0.00118650



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006021[345]

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_1PNPDE20060214_061558_000002202045_00106_20701_3109.N1	1	0







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)


Acsending

<input type="checkbox"/>
Descending

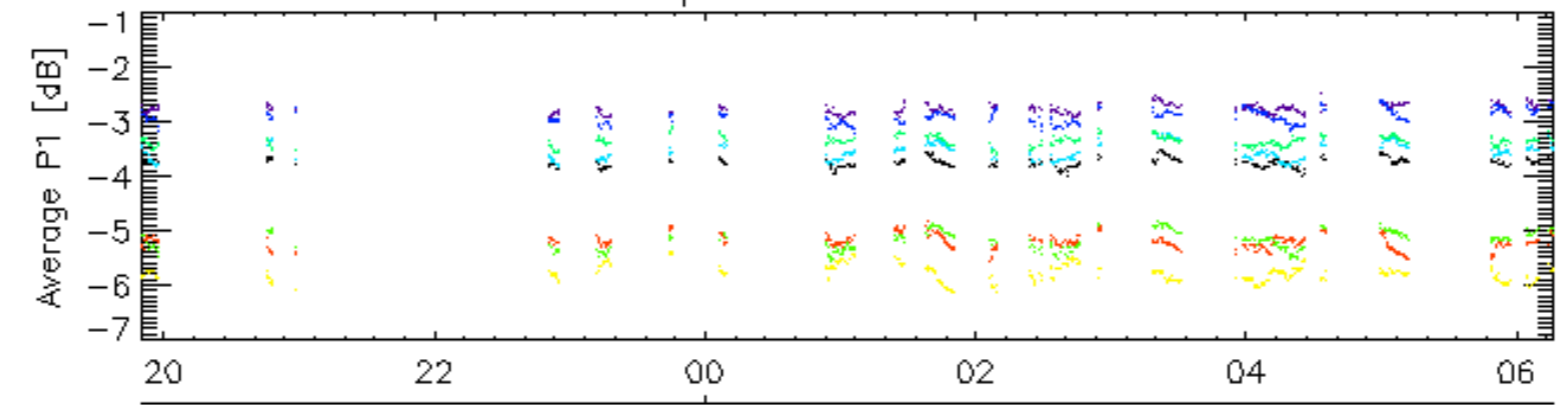
7.5 - Absolute Doppler for GM1

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

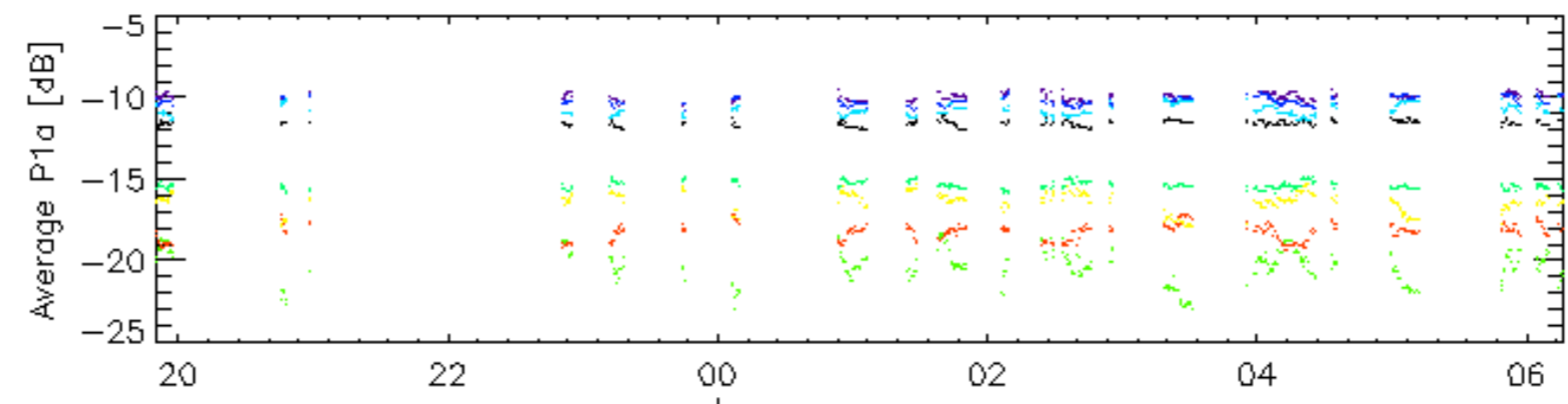
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

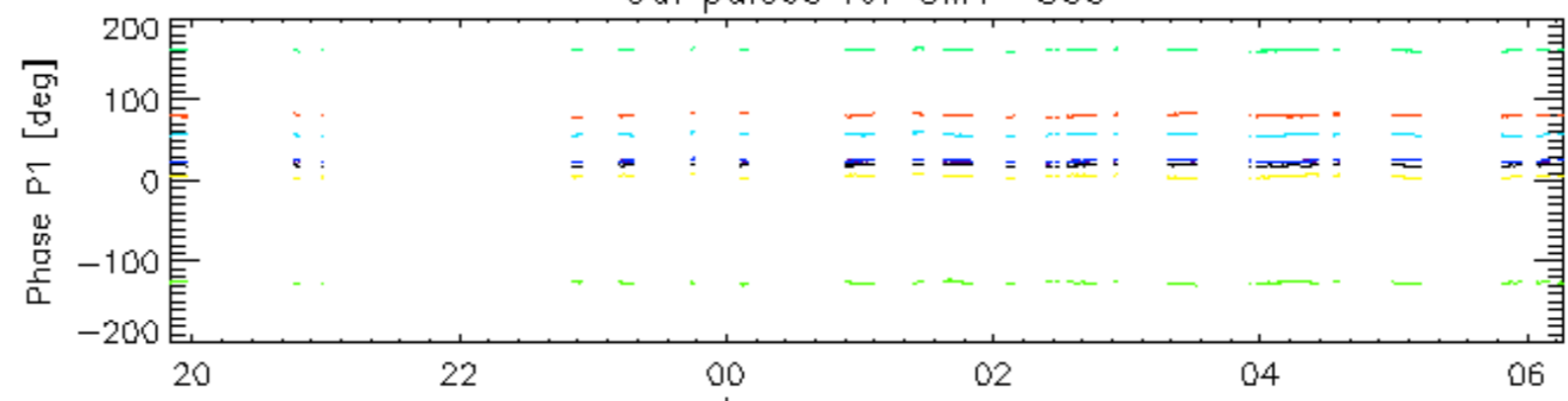


15-Feb

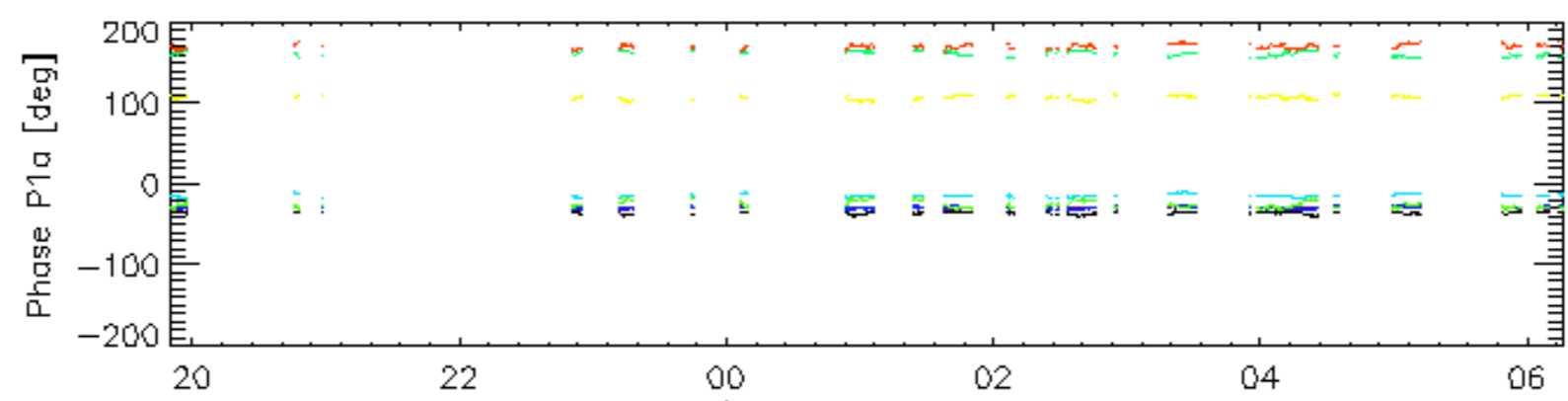


15-Feb

Cal pulses for GM1 SS3

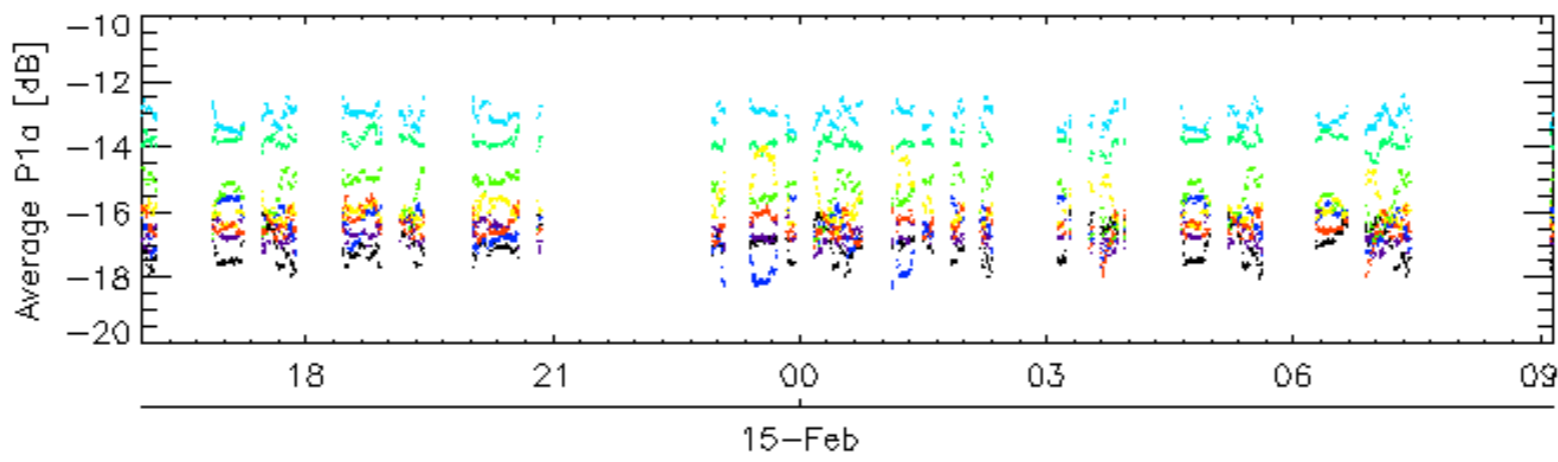
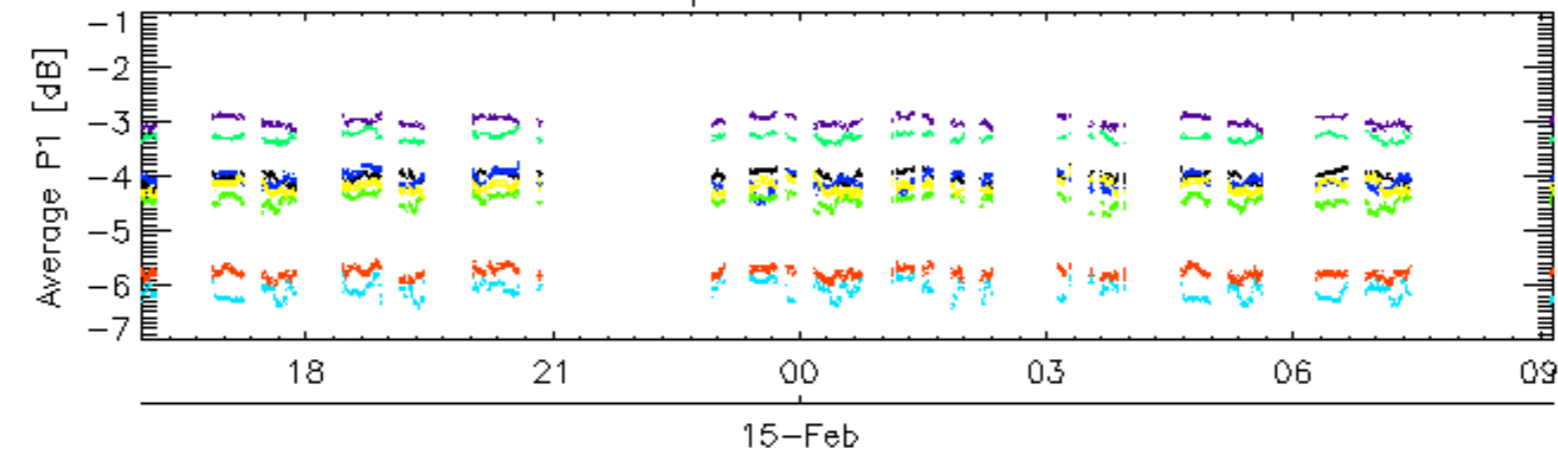


15-Feb

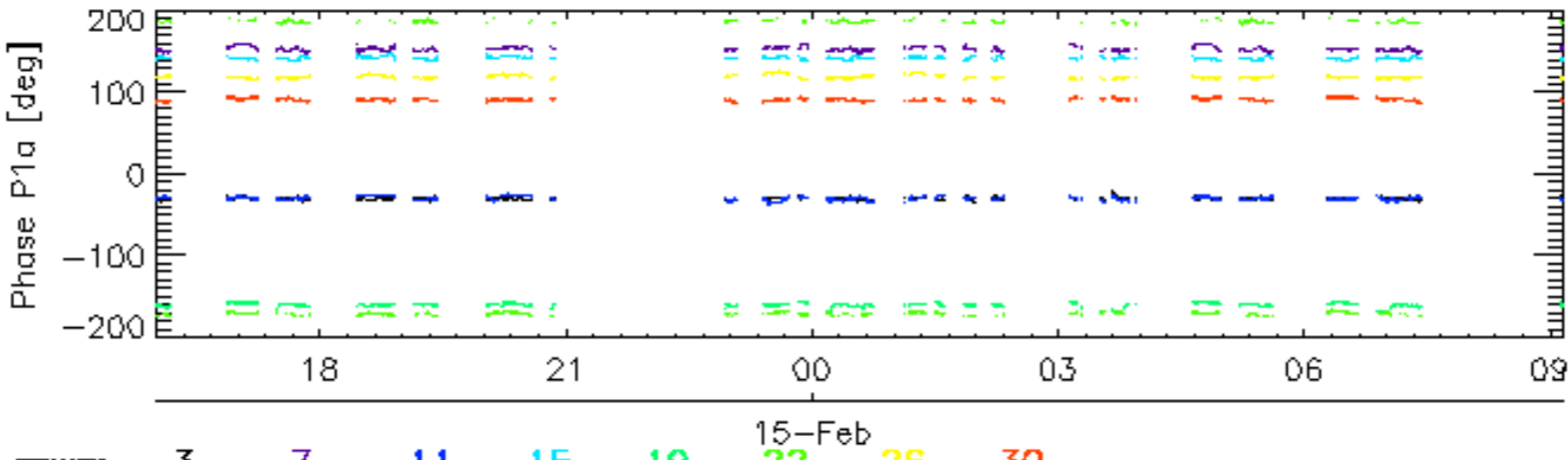
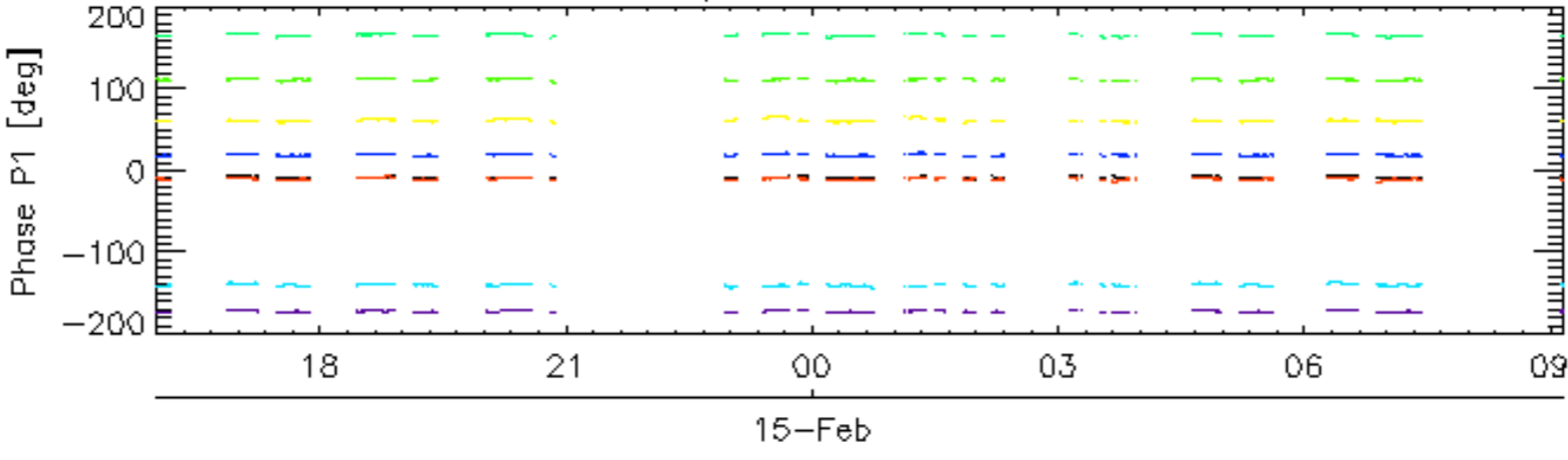


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

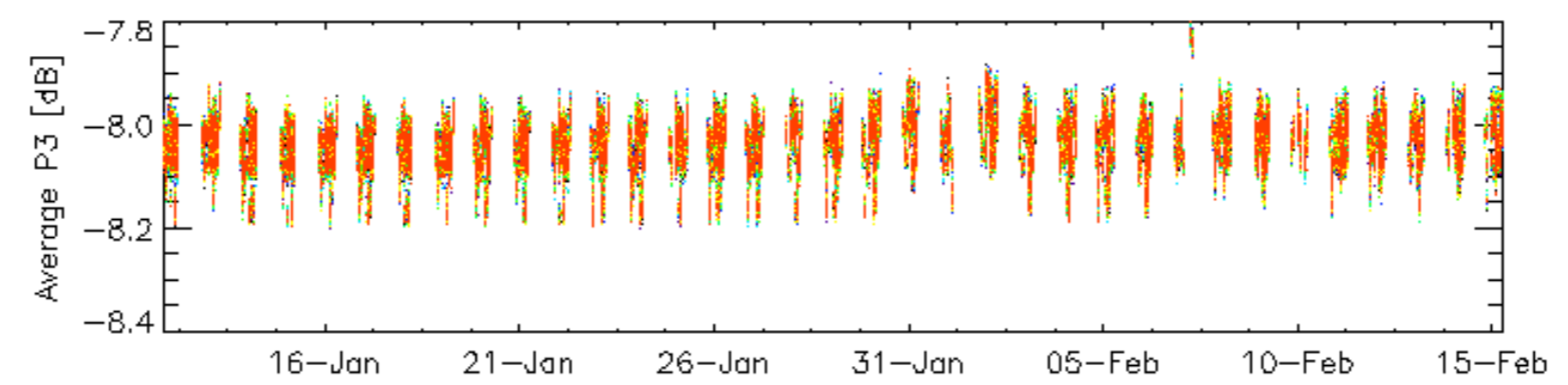
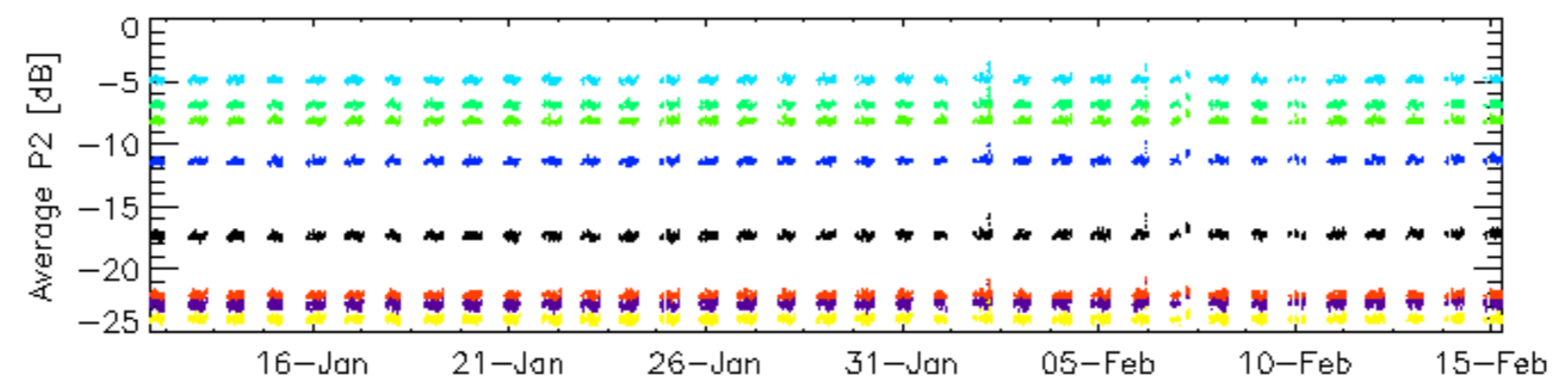
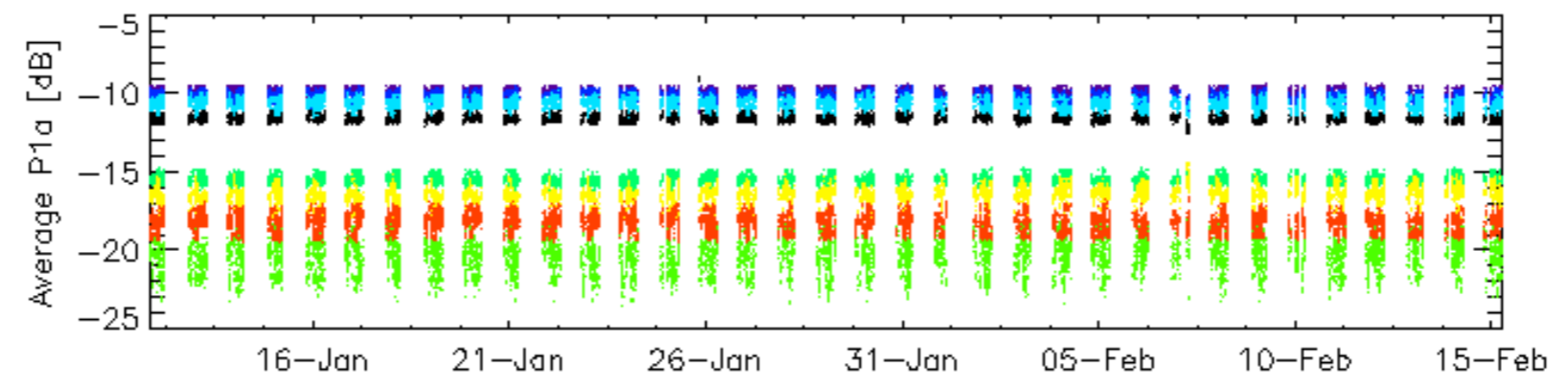
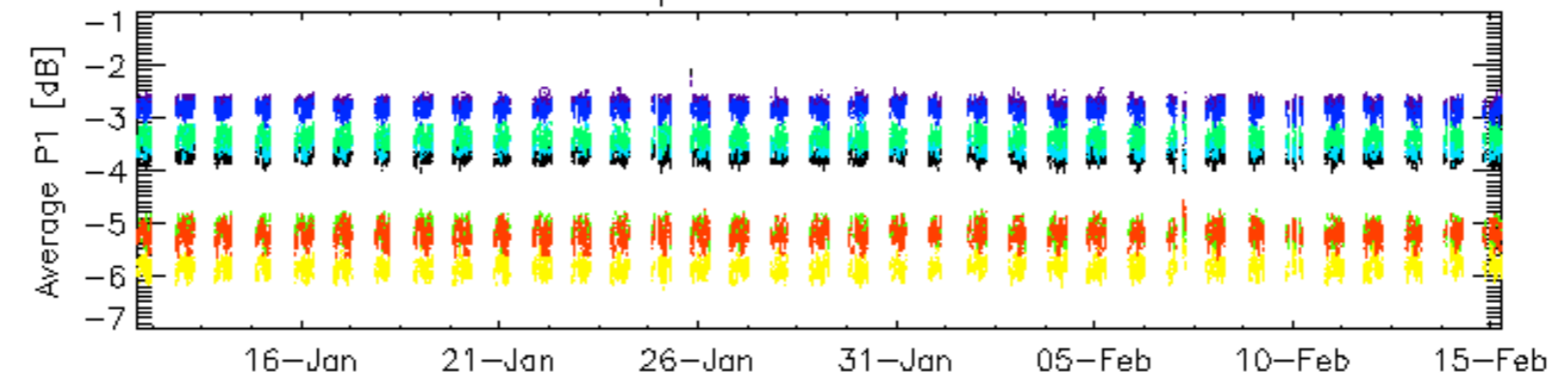


Cal pulses for WVS IS2



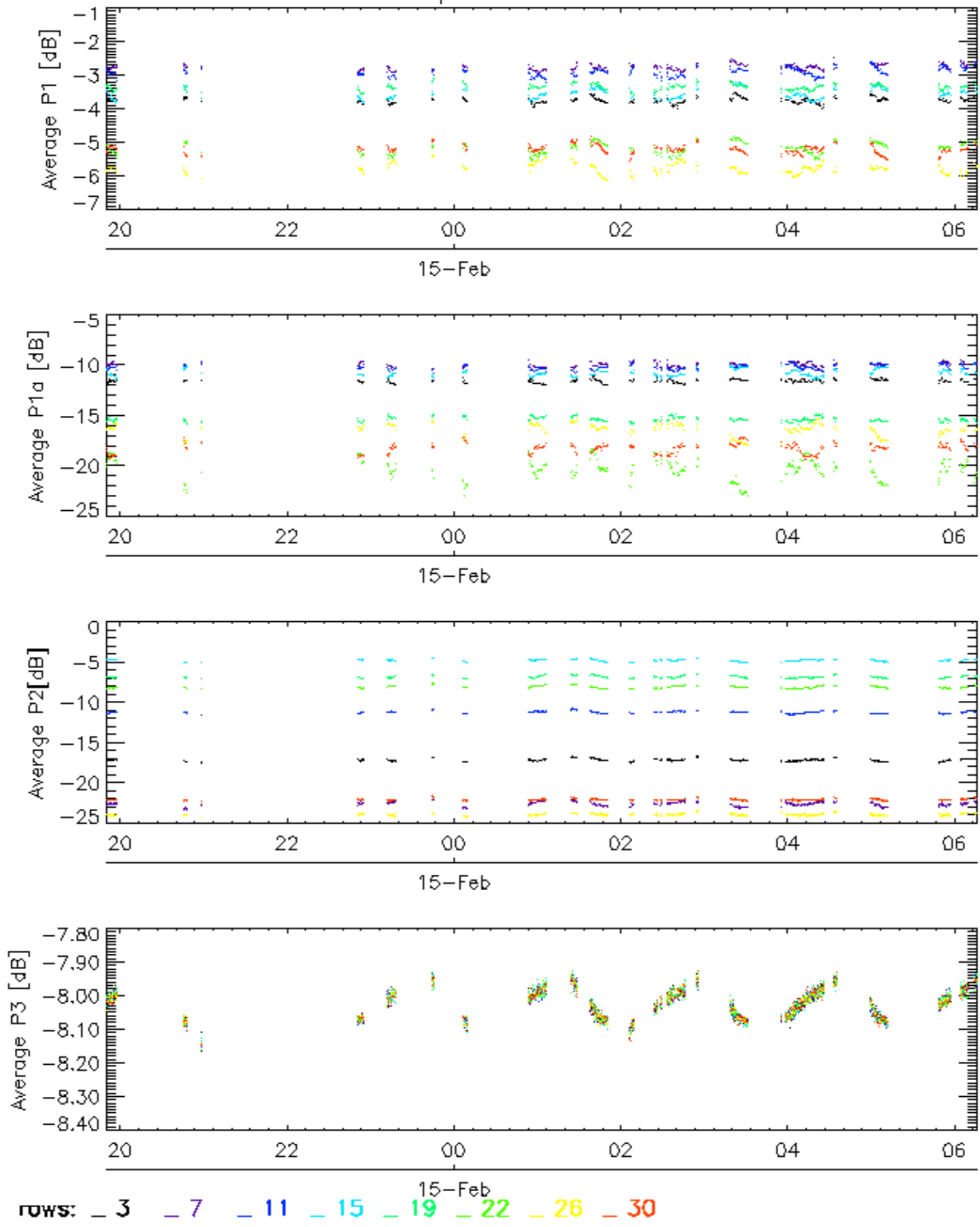
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

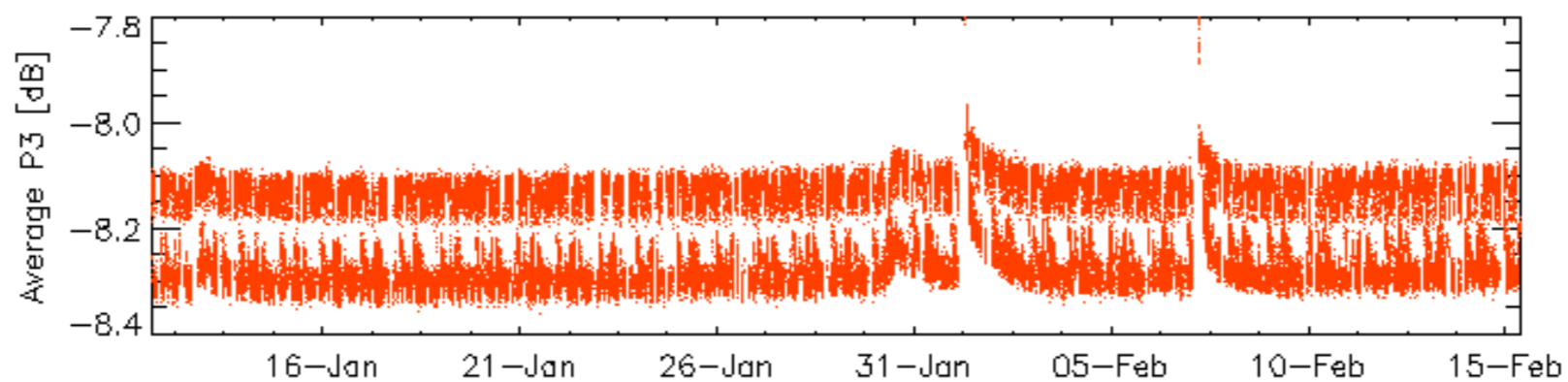
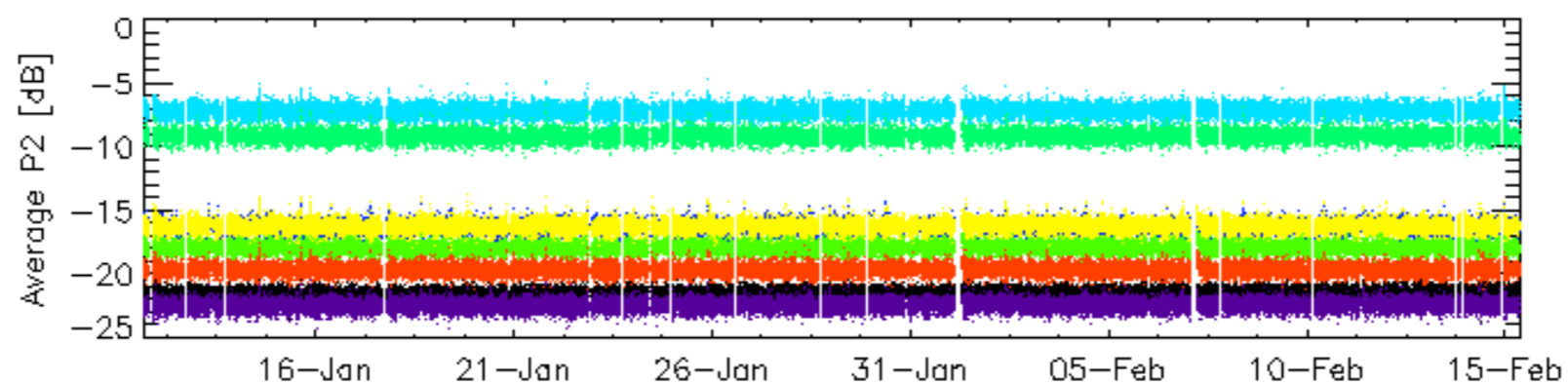
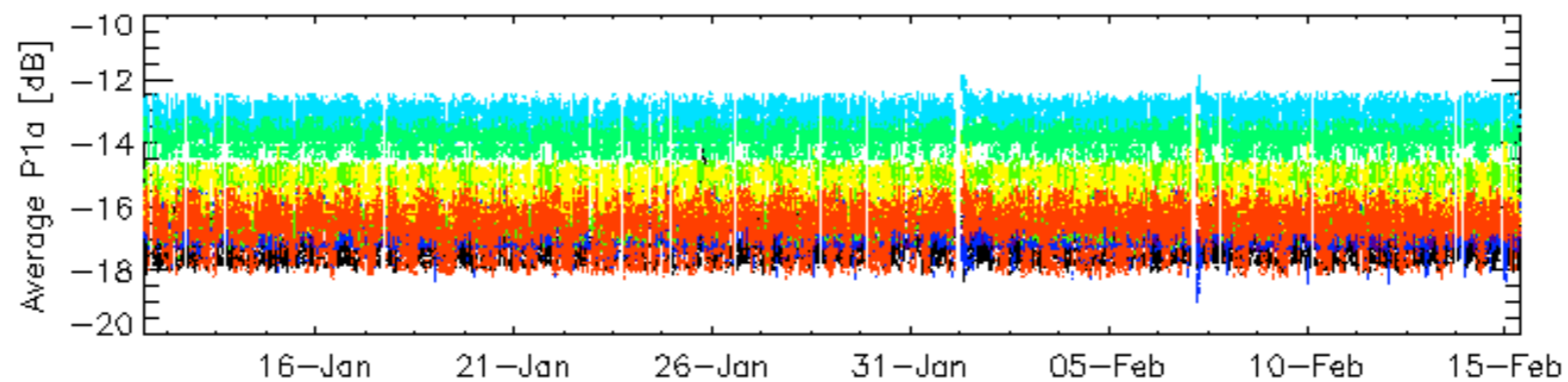
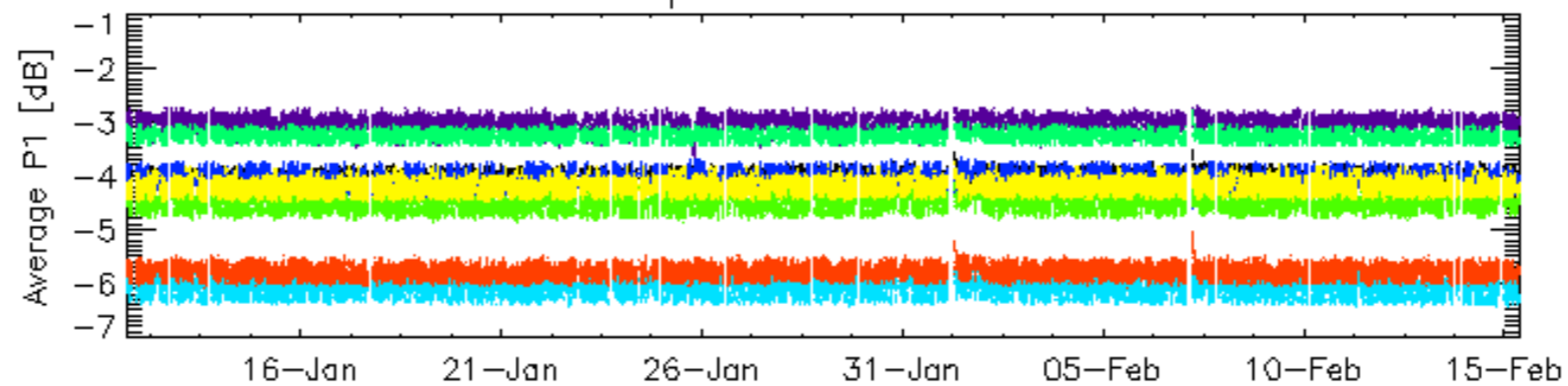


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

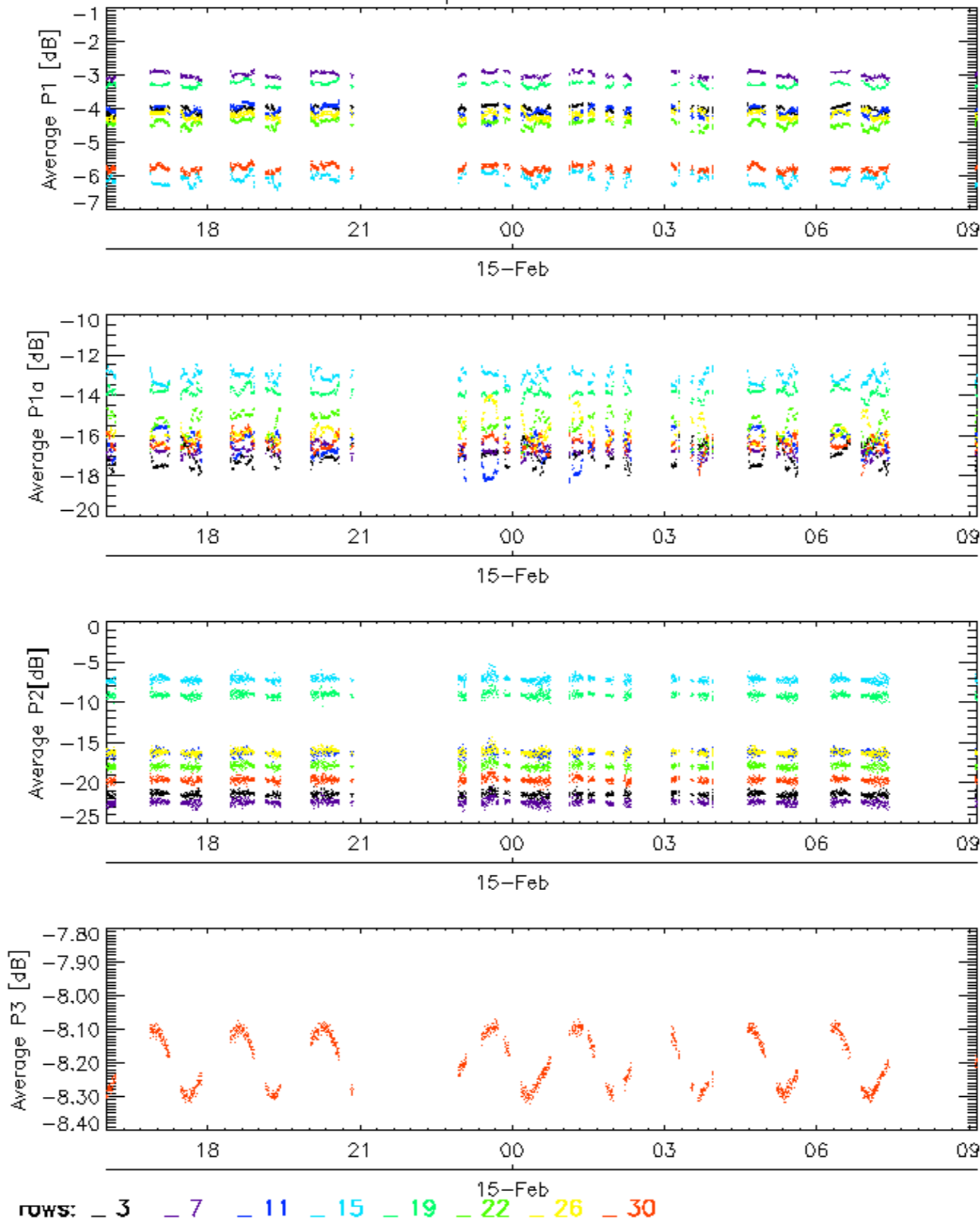


Cal pulses for WVS IS2



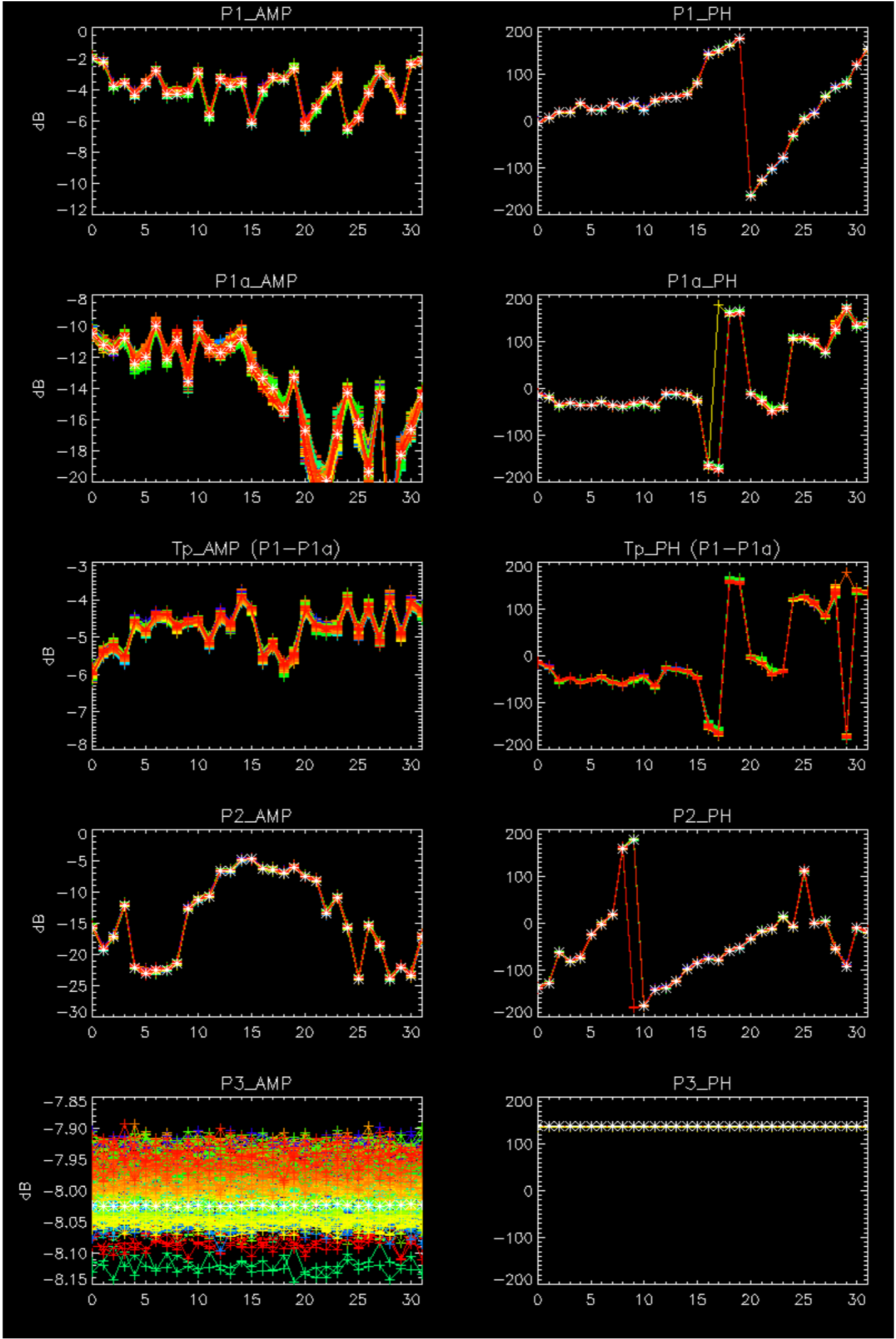
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

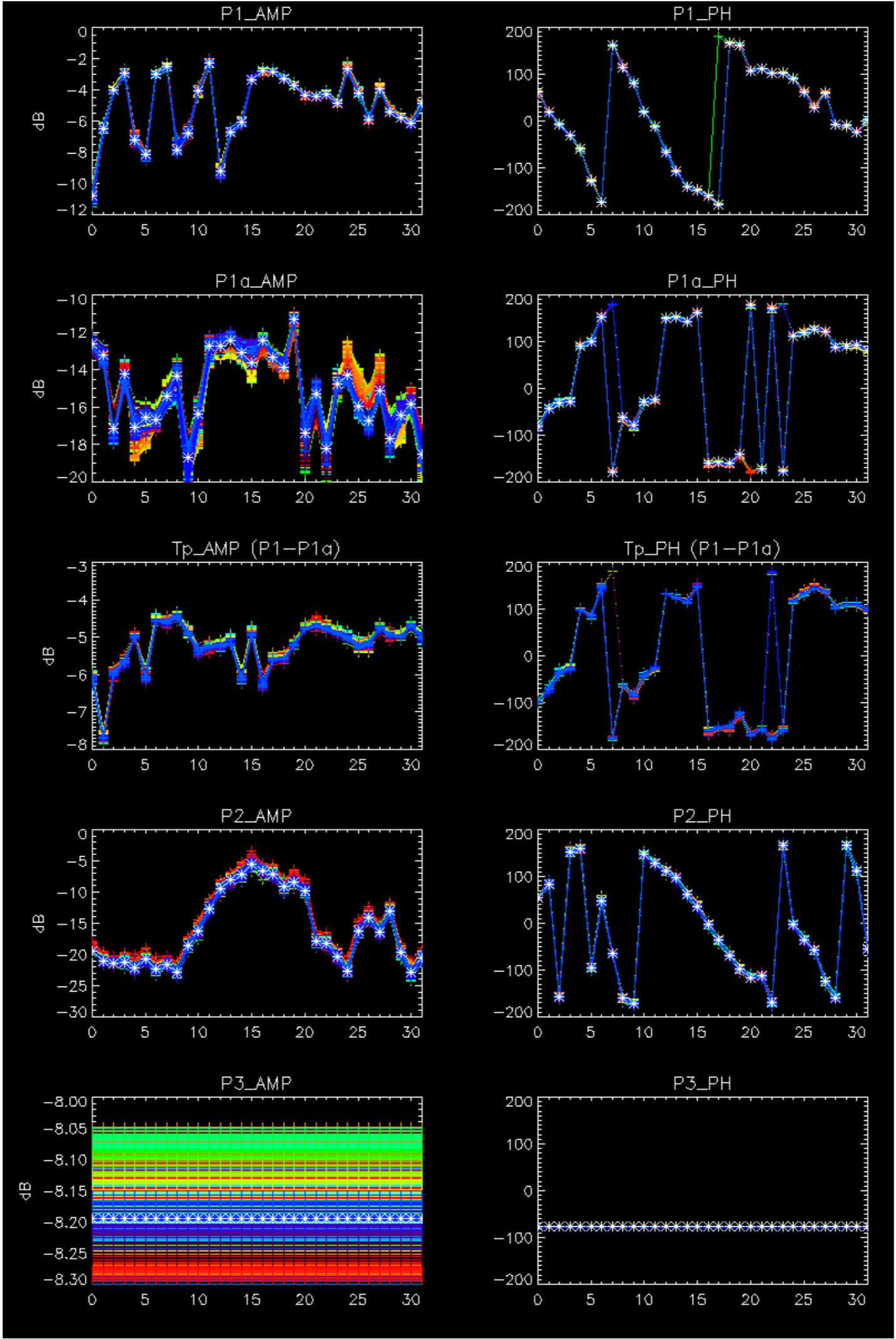
Cal pulses for WVS IS2



No anomalies observed on available browse products

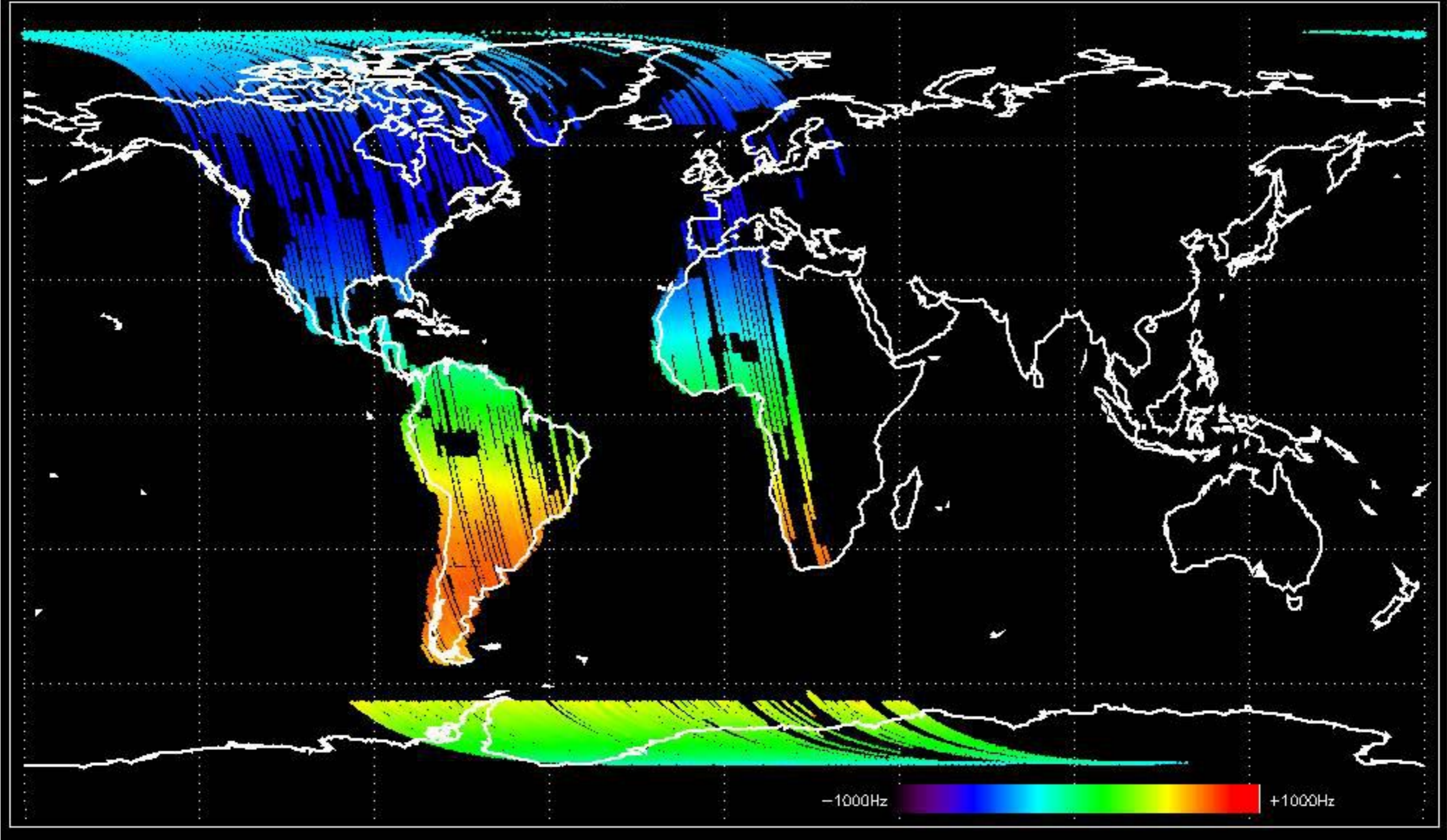
No anomalies observed.



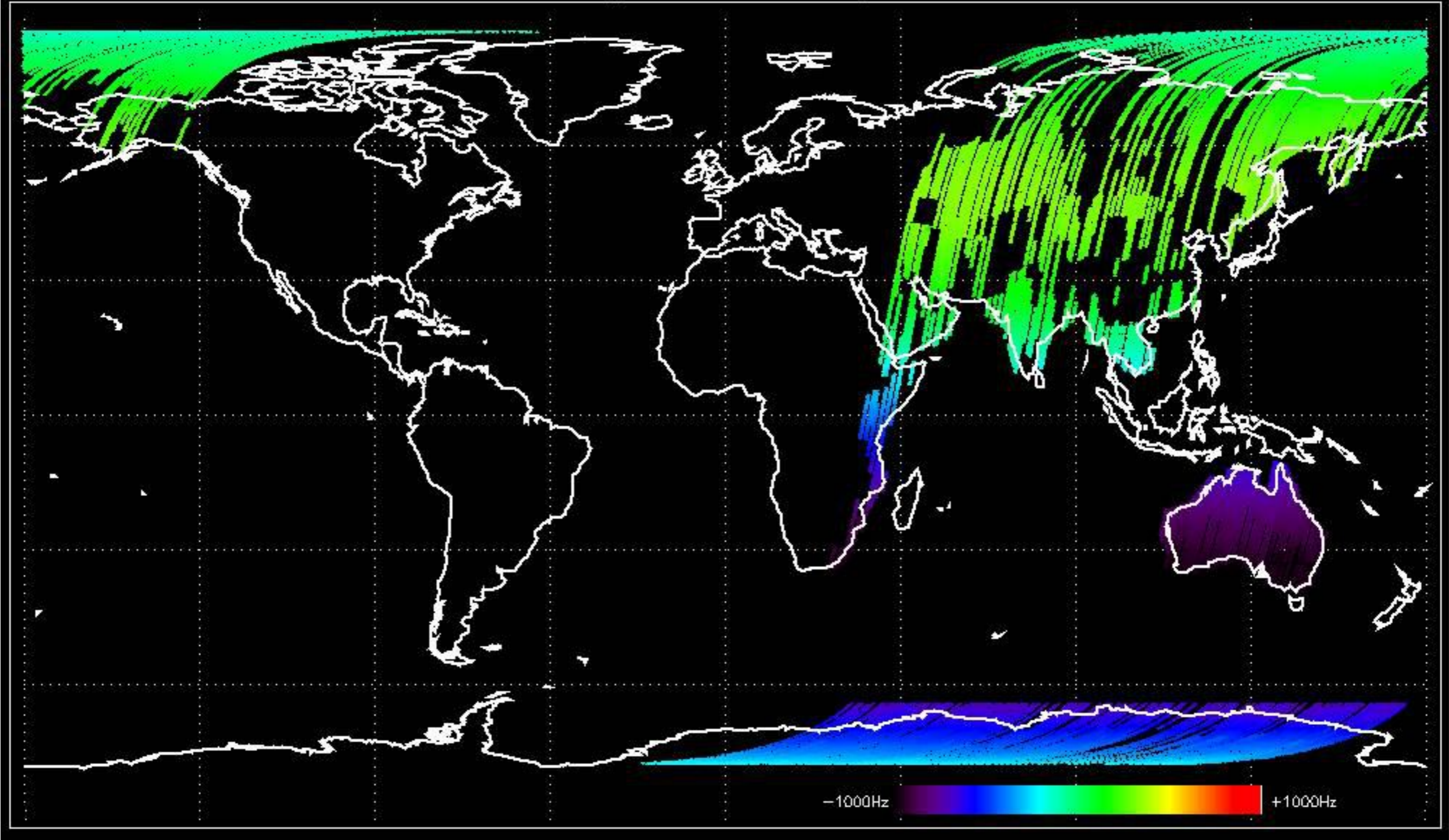


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

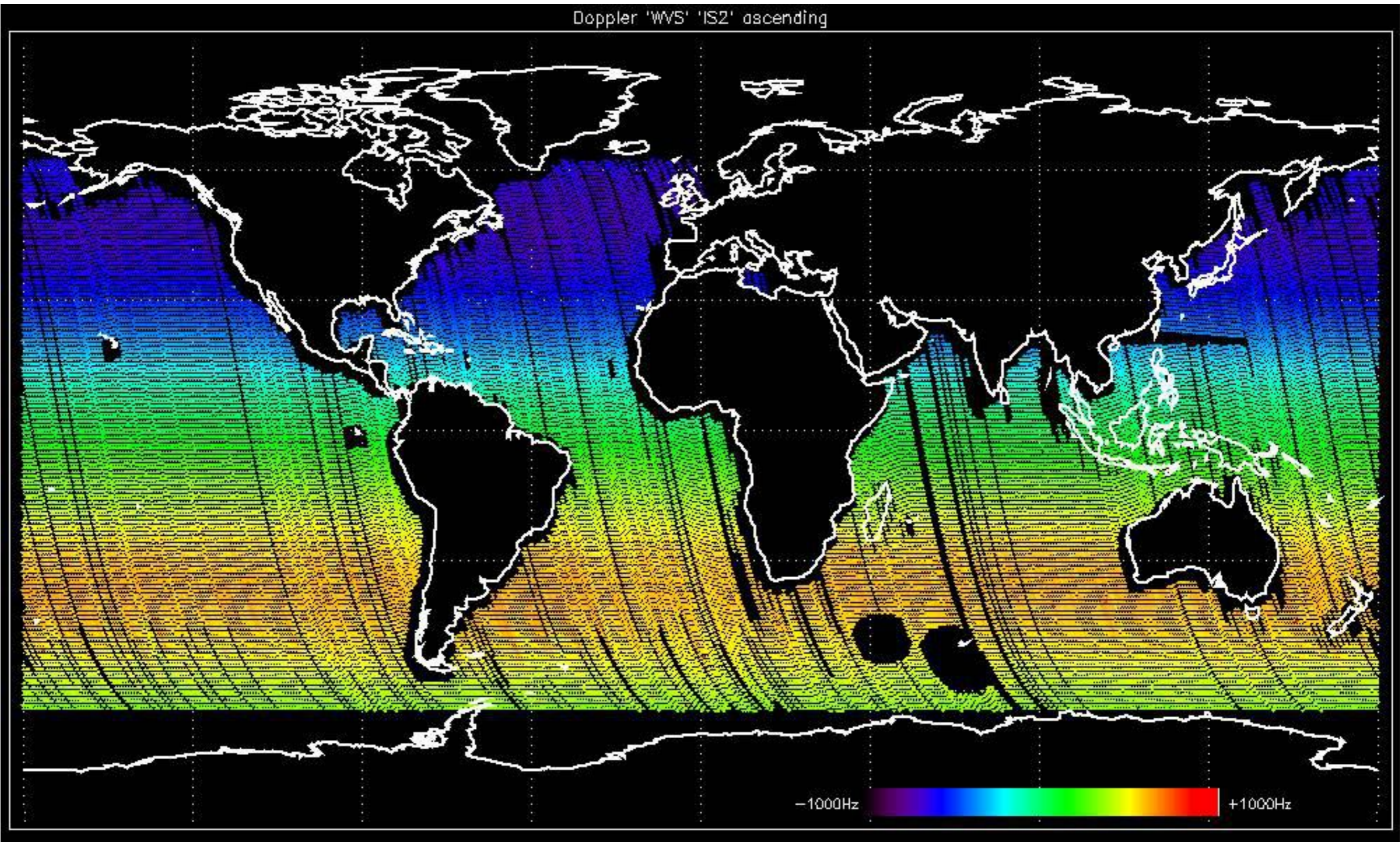
Doppler 'GM1' 'SS1' ascending



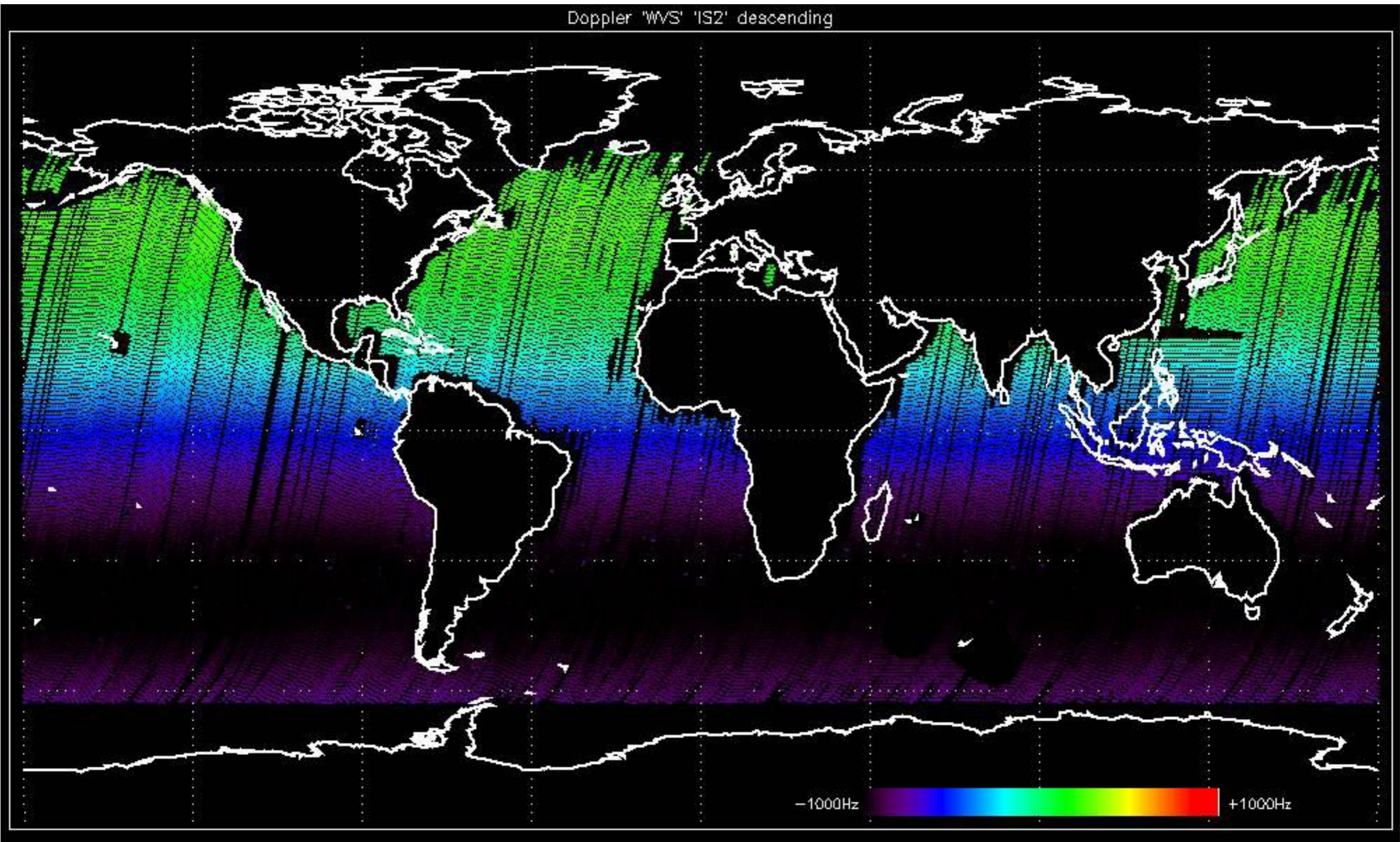
Doppler 'GM1' 'SS1' descending

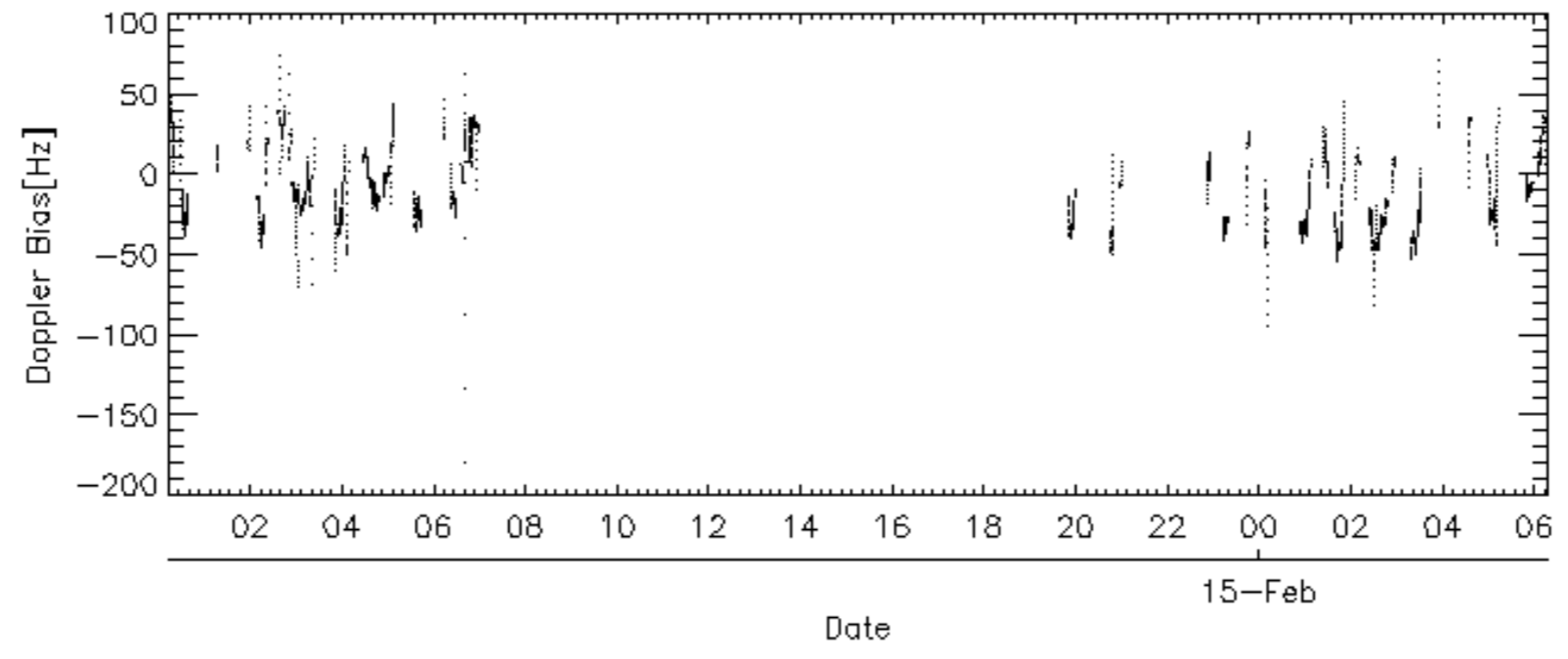
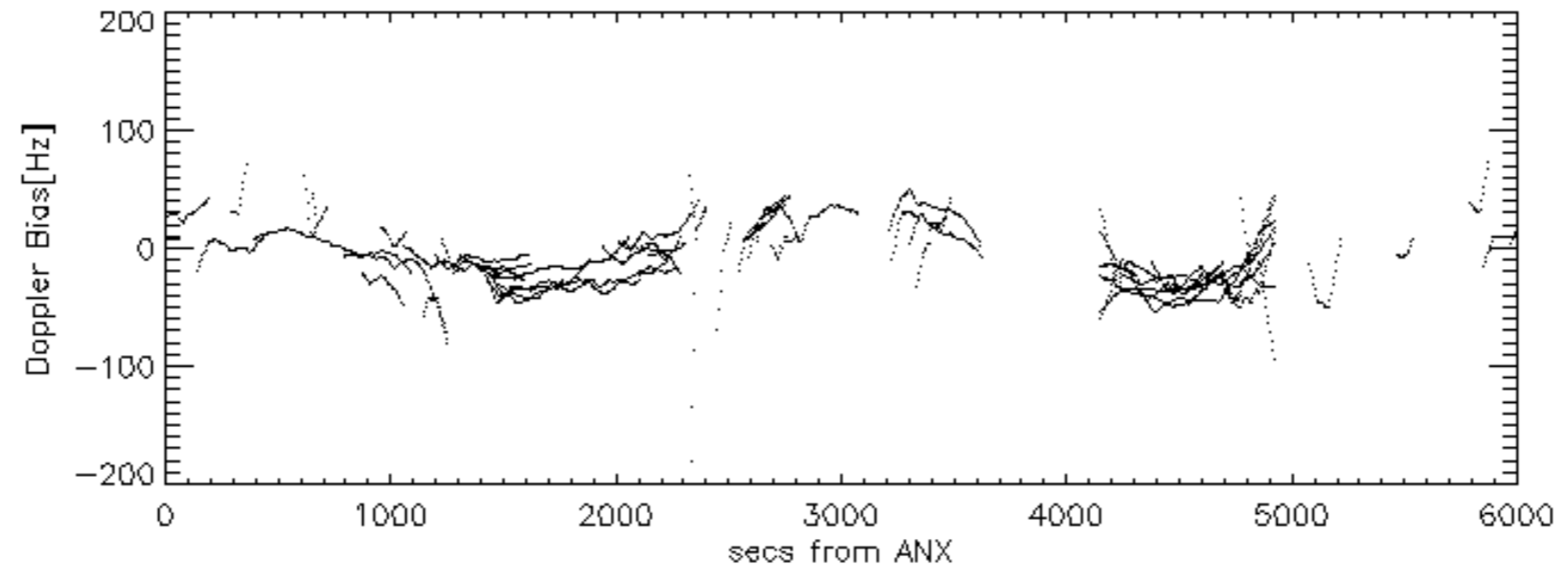
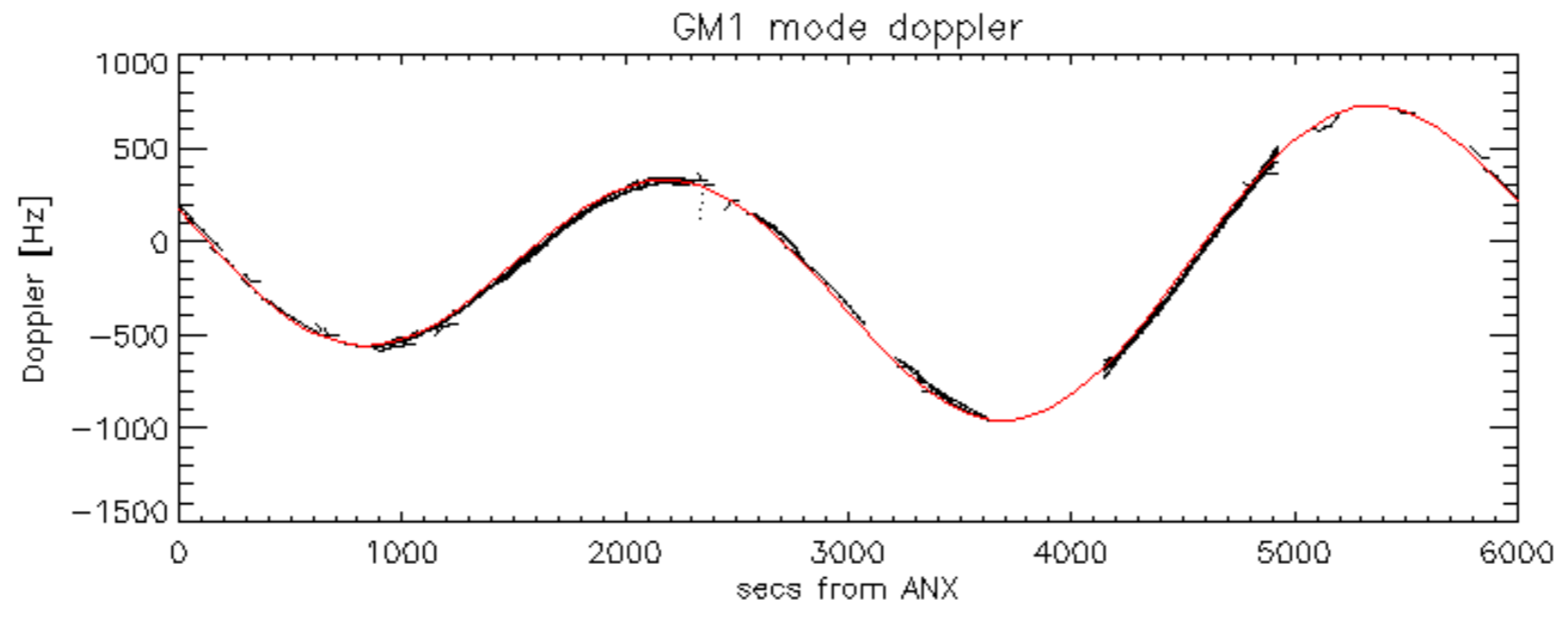


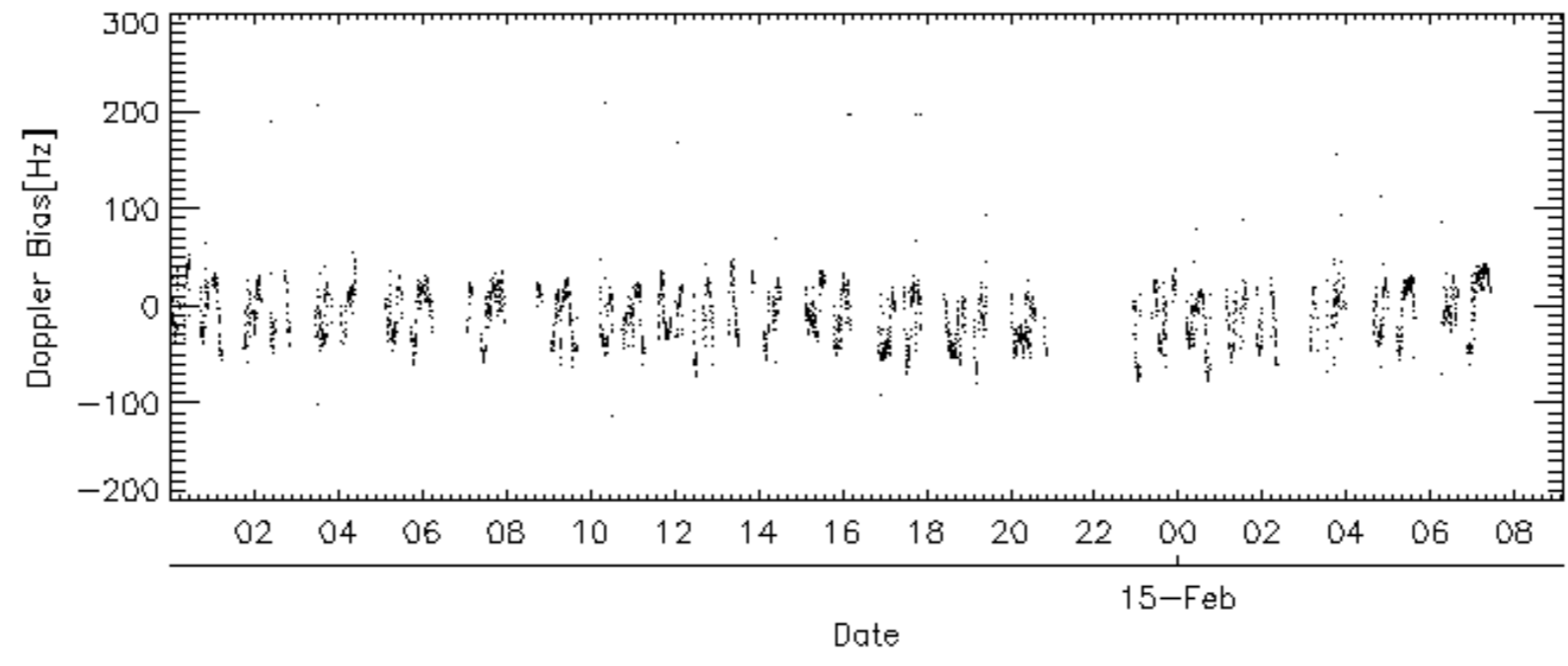
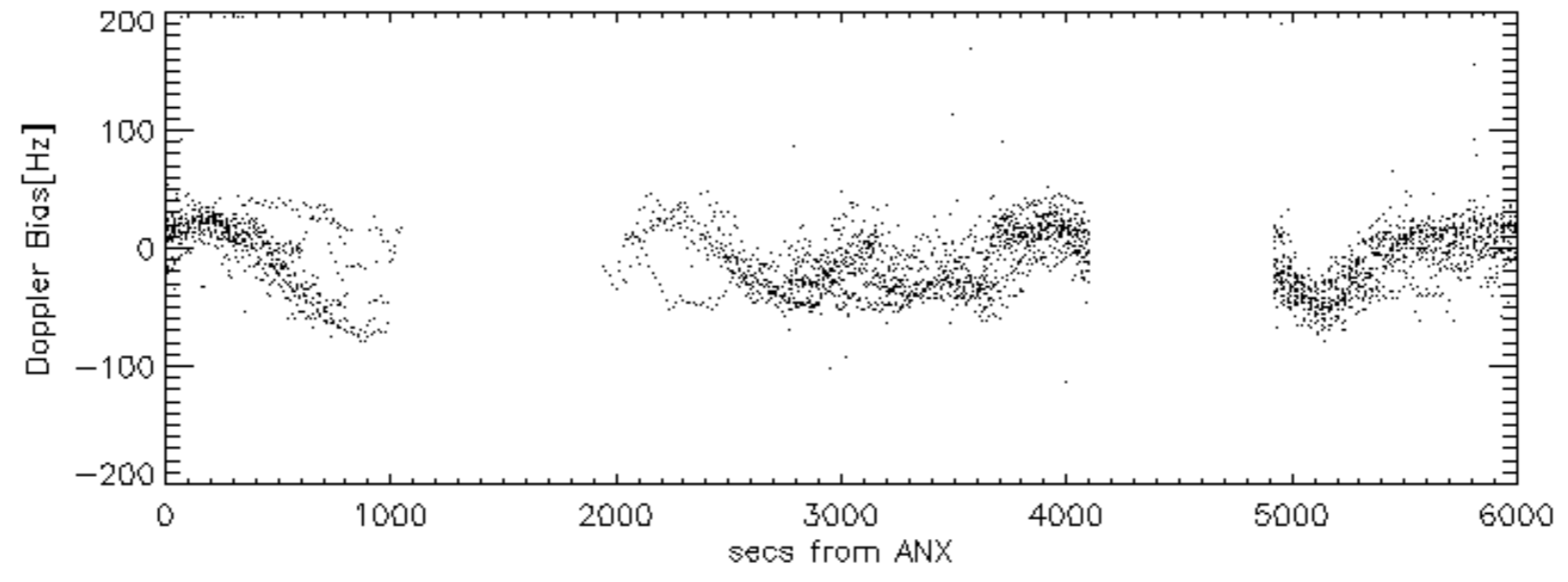
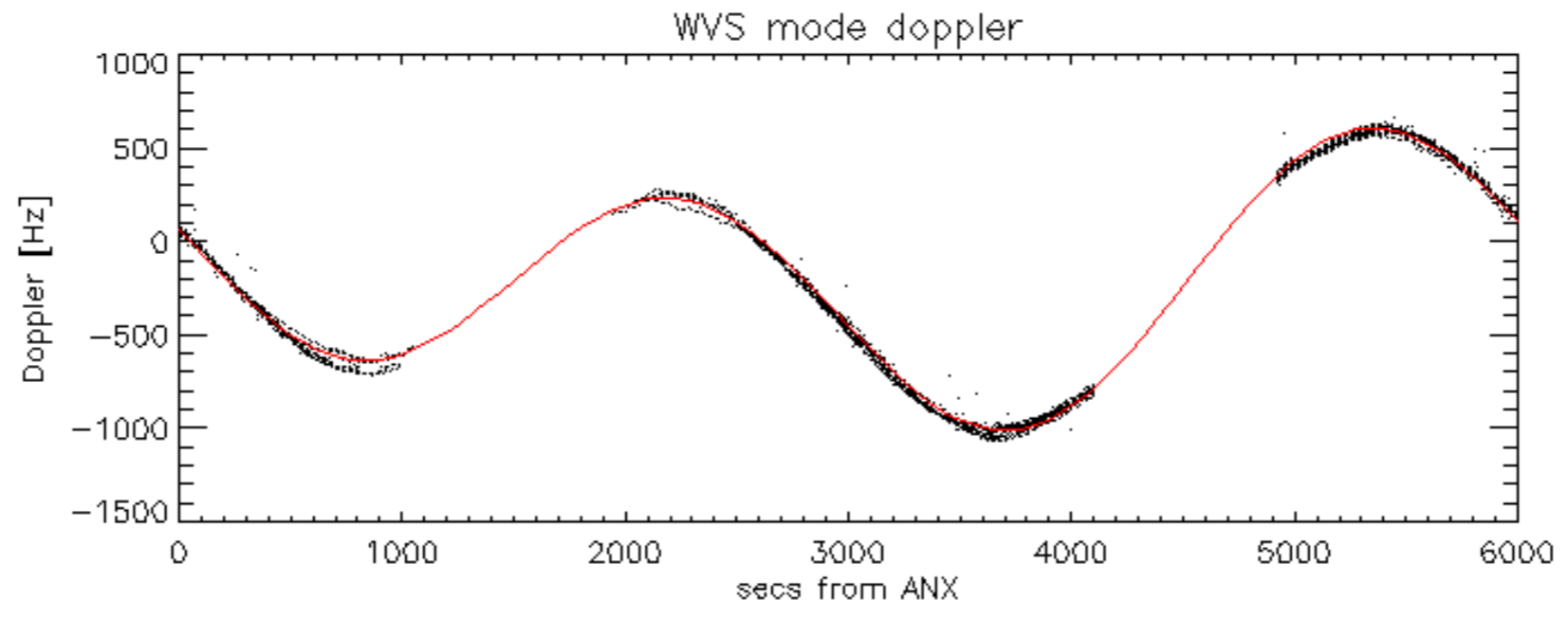
Doppler 'WVS' 'IS2' ascending



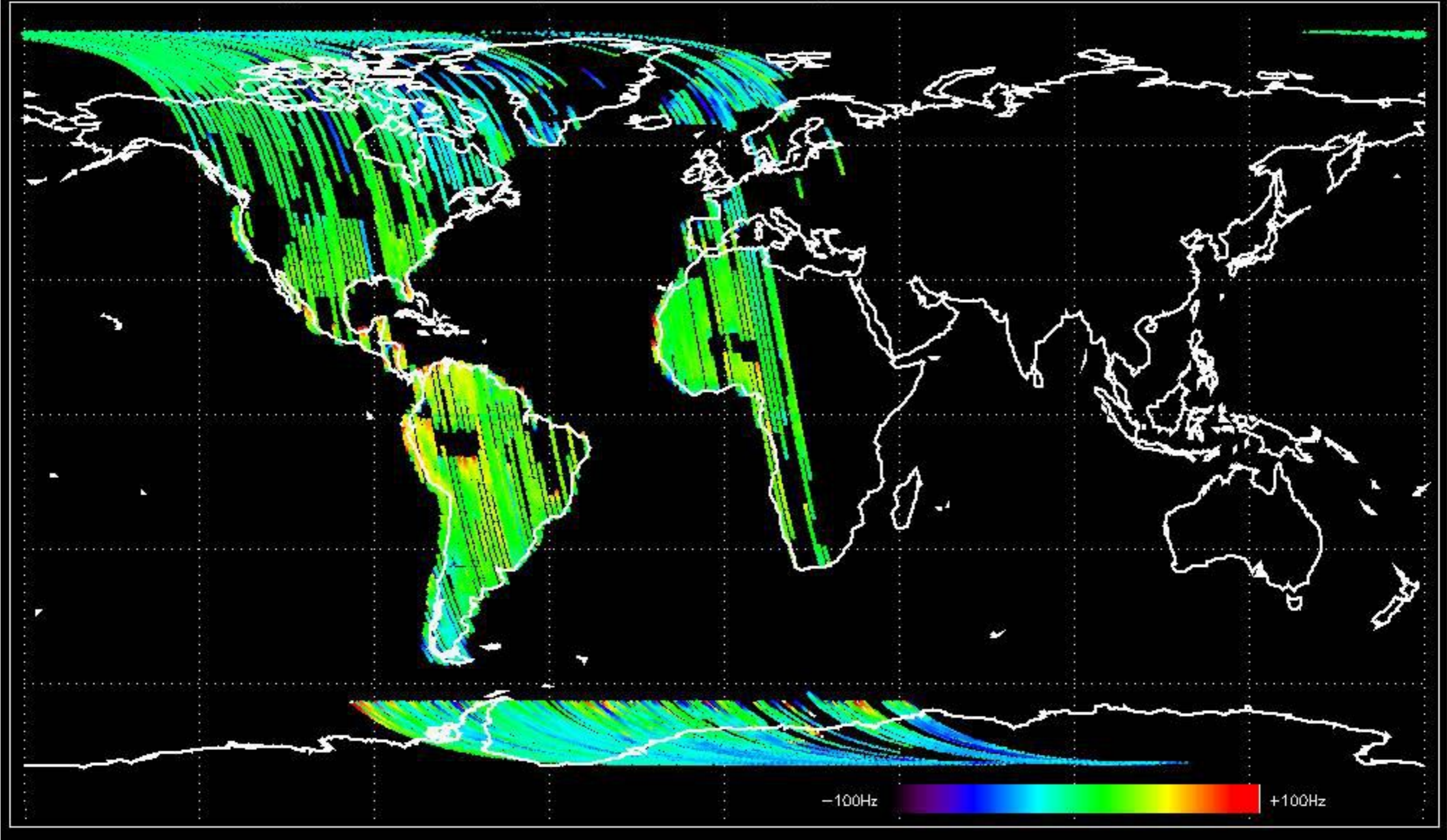
Doppler 'WVS' 'IS2' descending



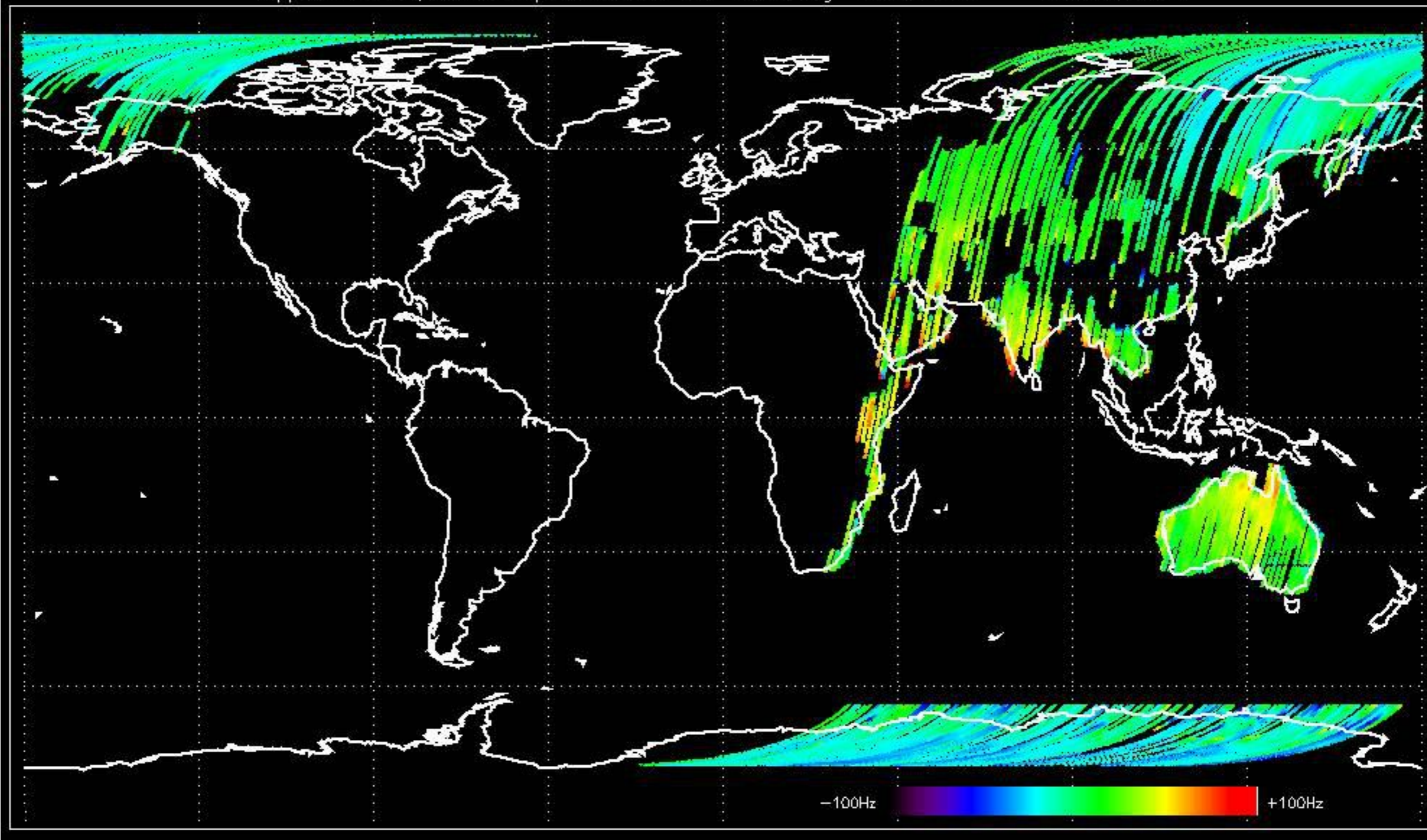




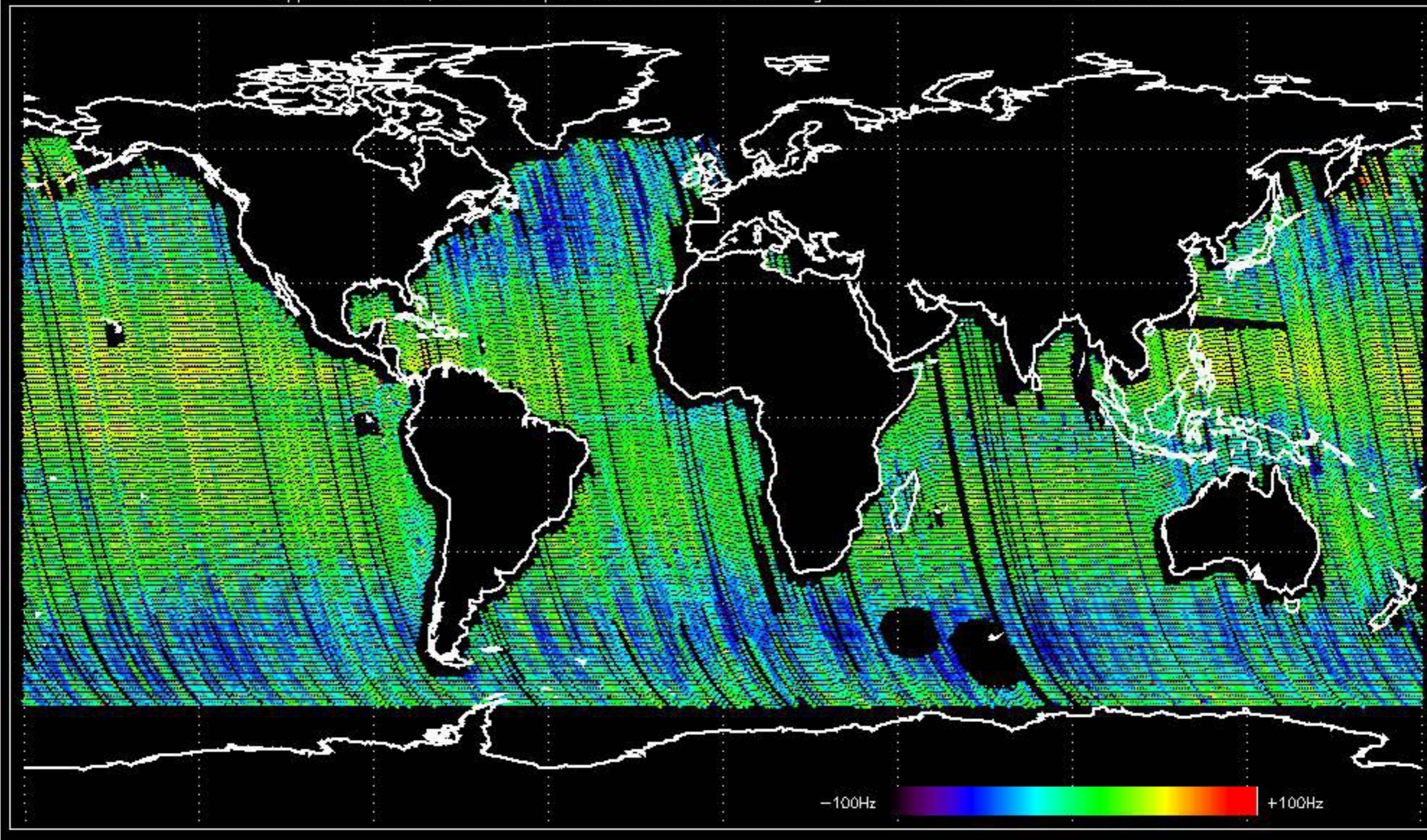
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -11.434348 Hz



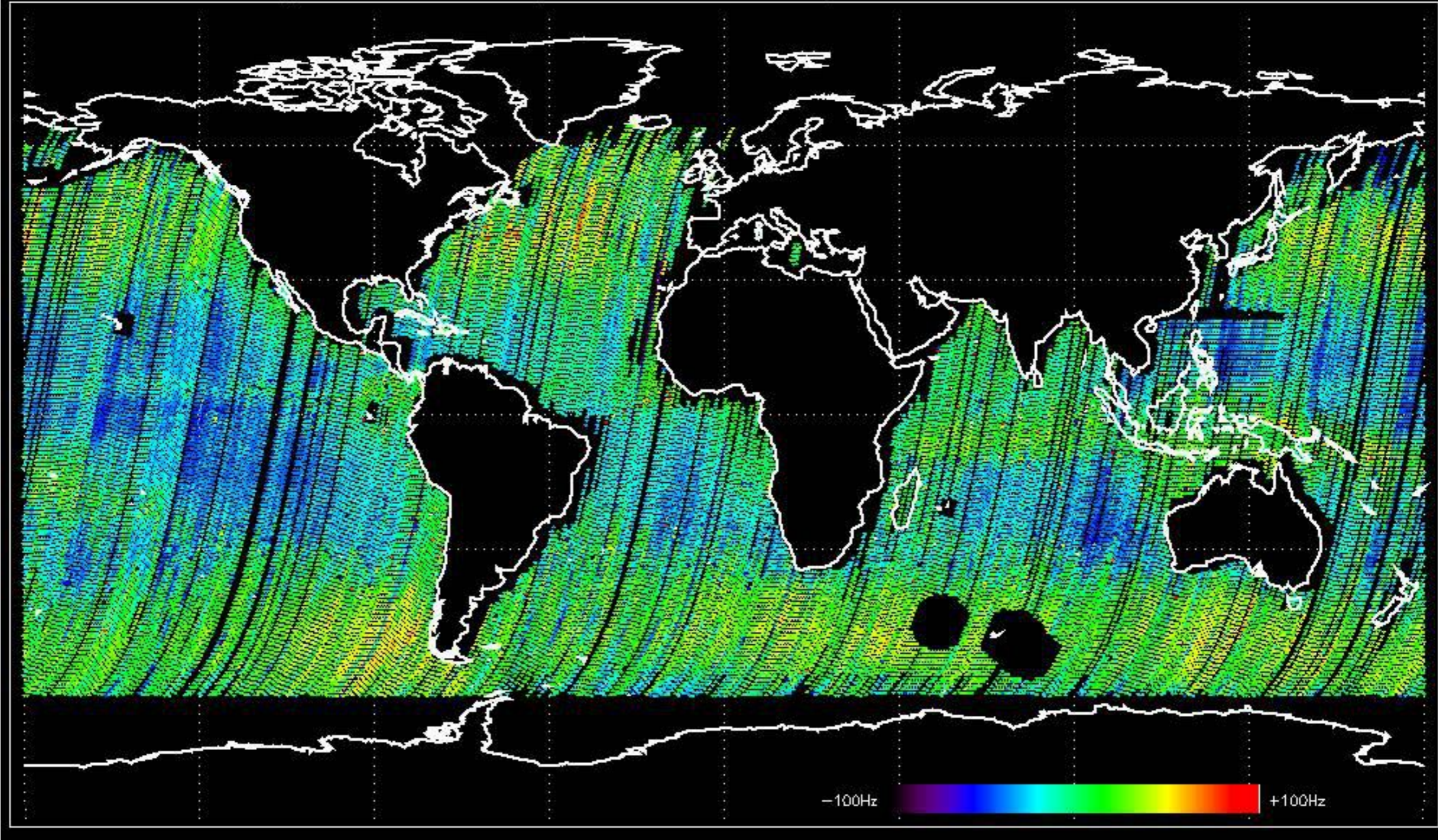
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.144678 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.1019647 Hz



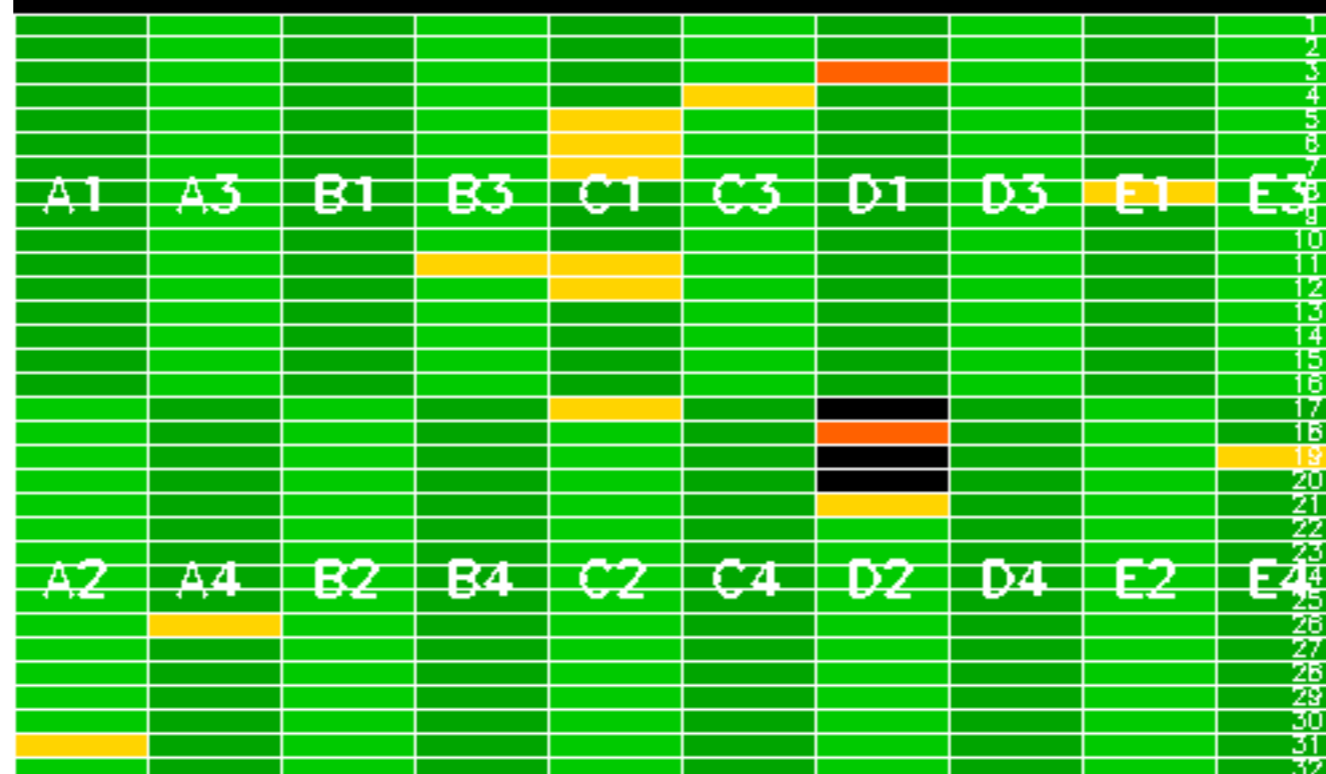
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.6185117 Hz

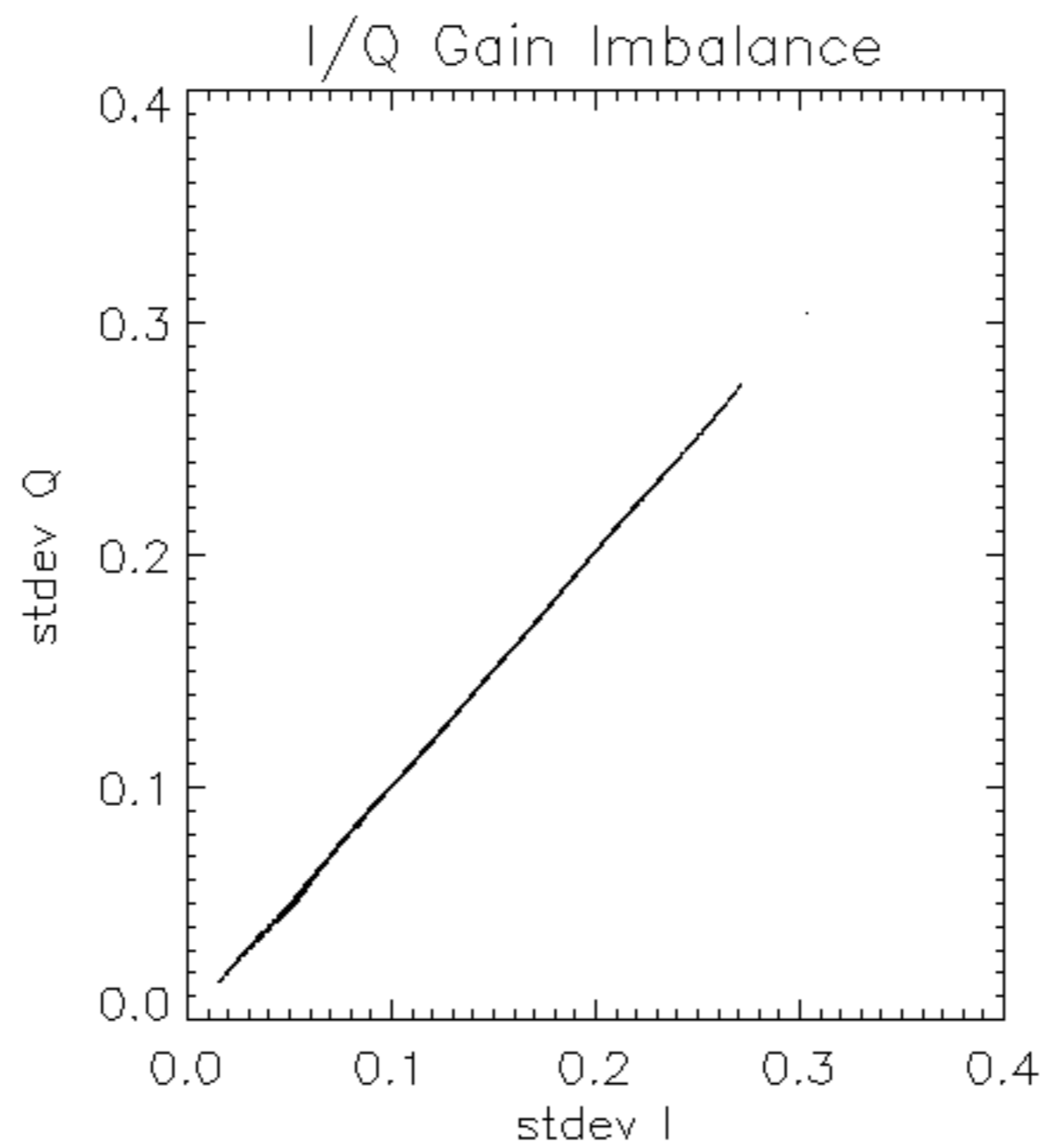


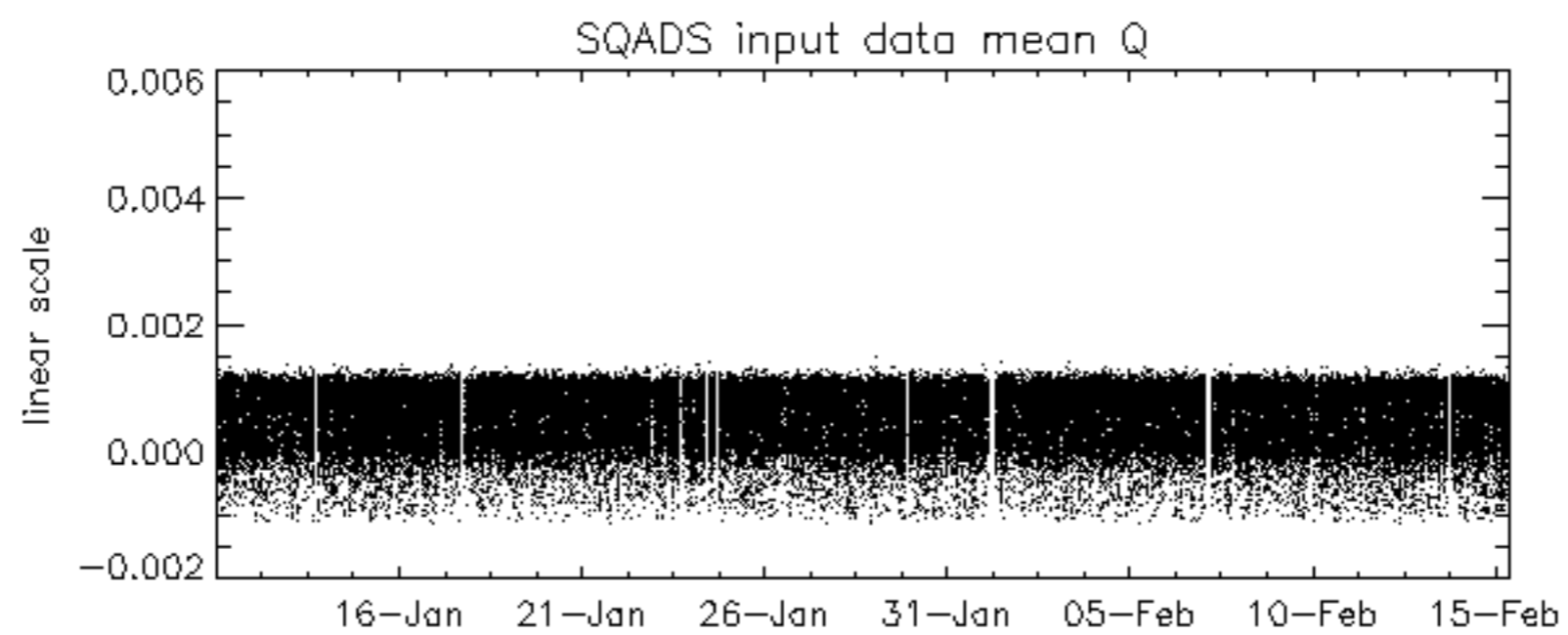
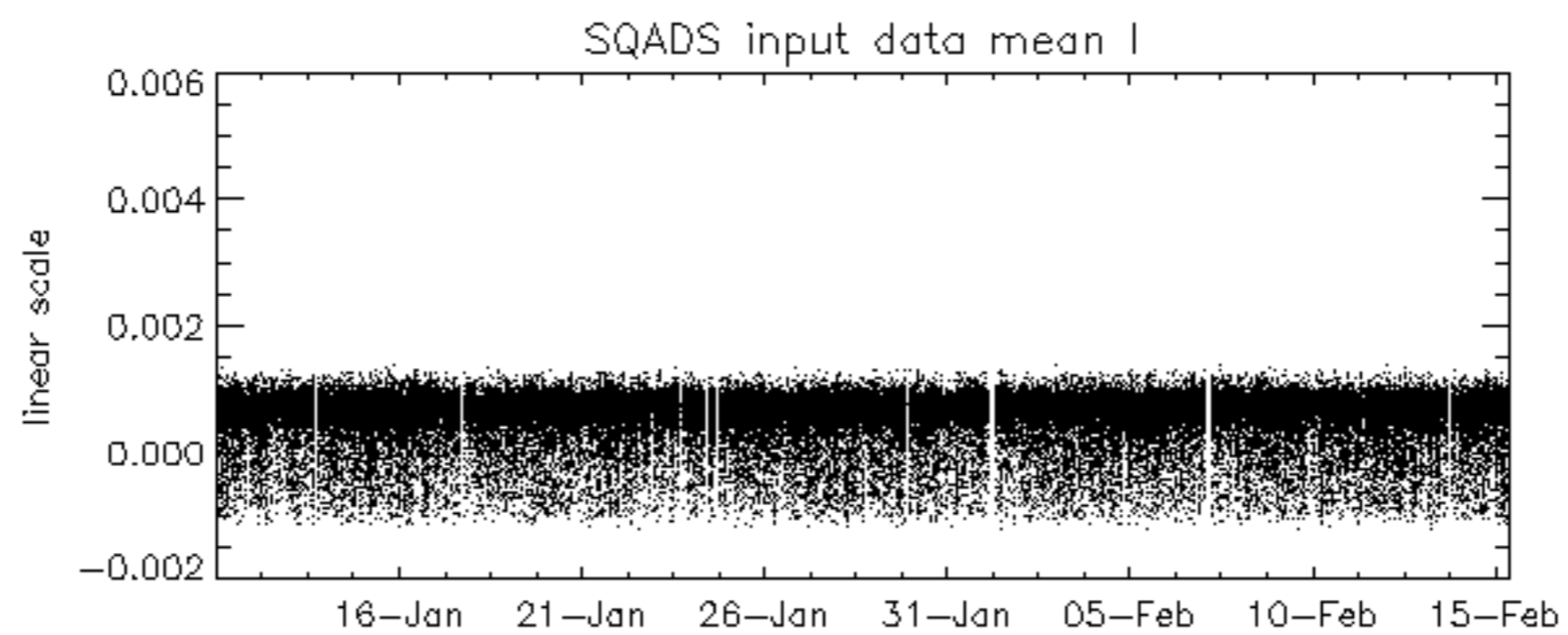
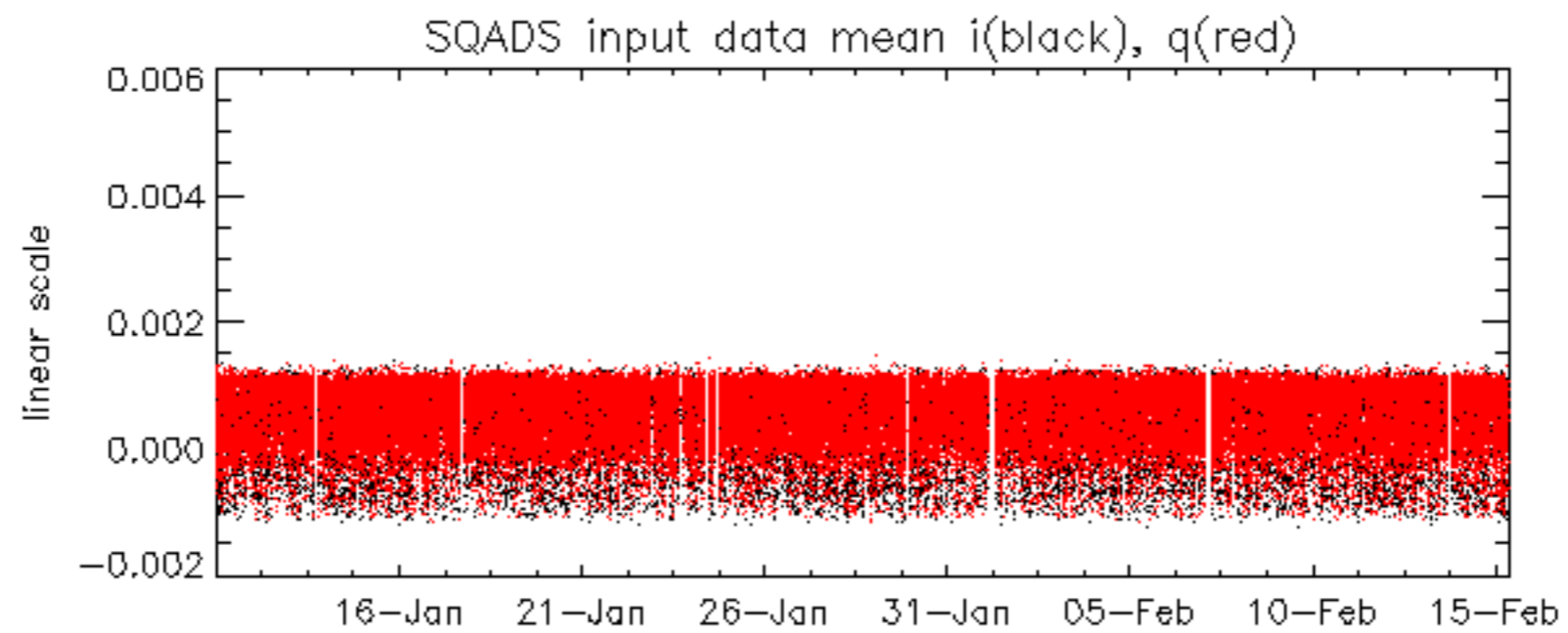
No anomalies observed on available MS products:

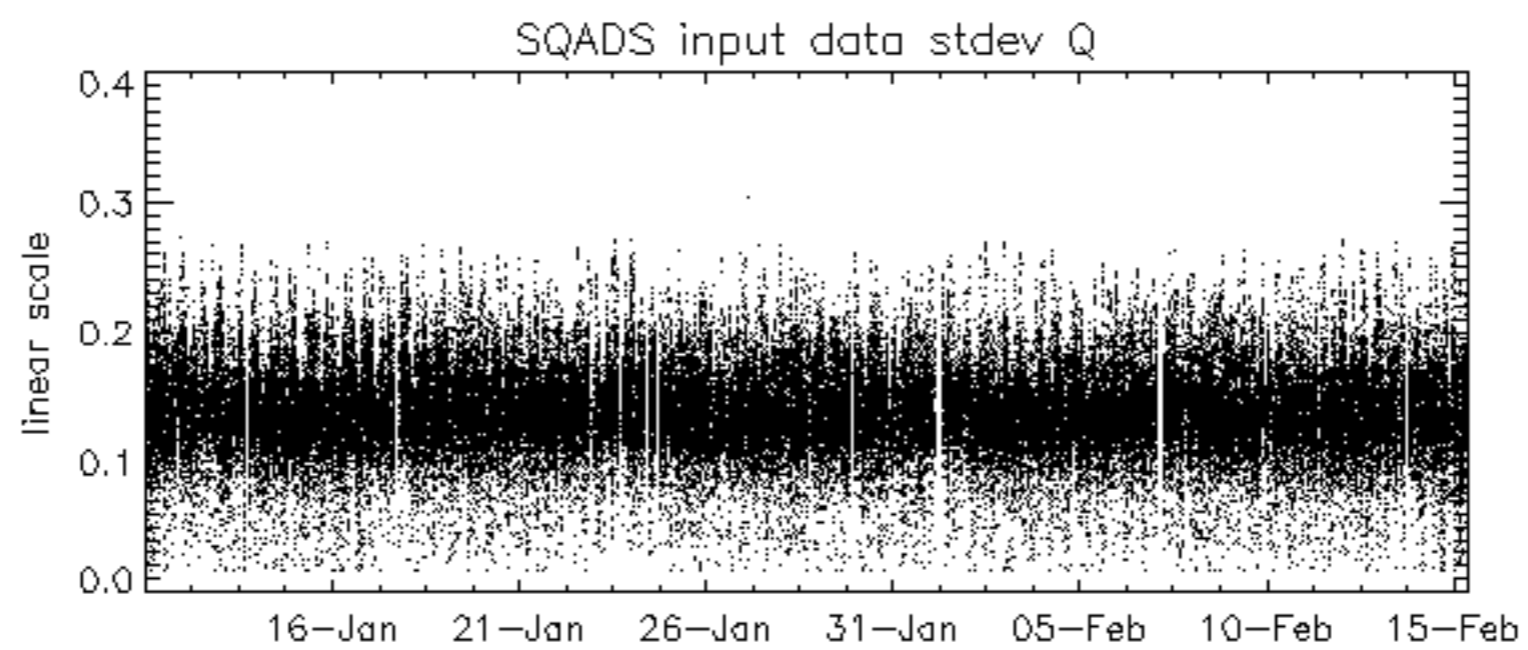
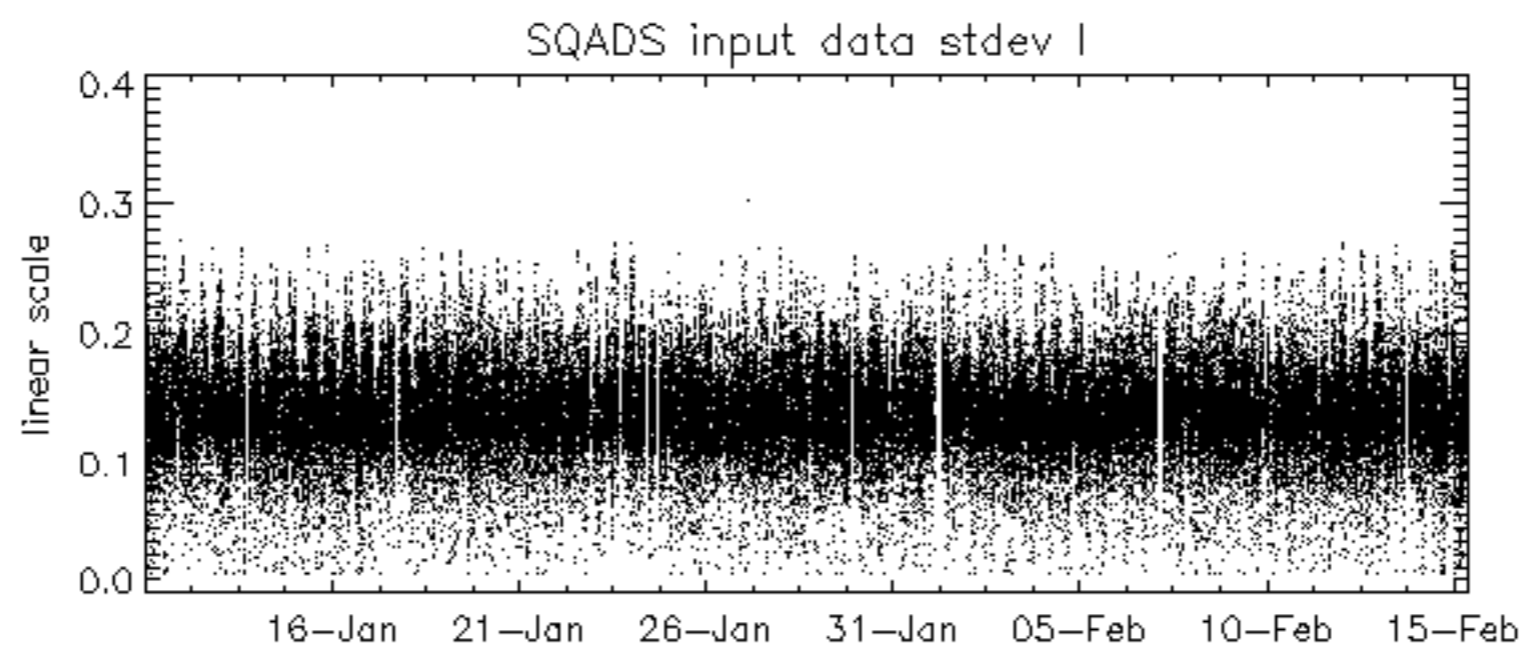
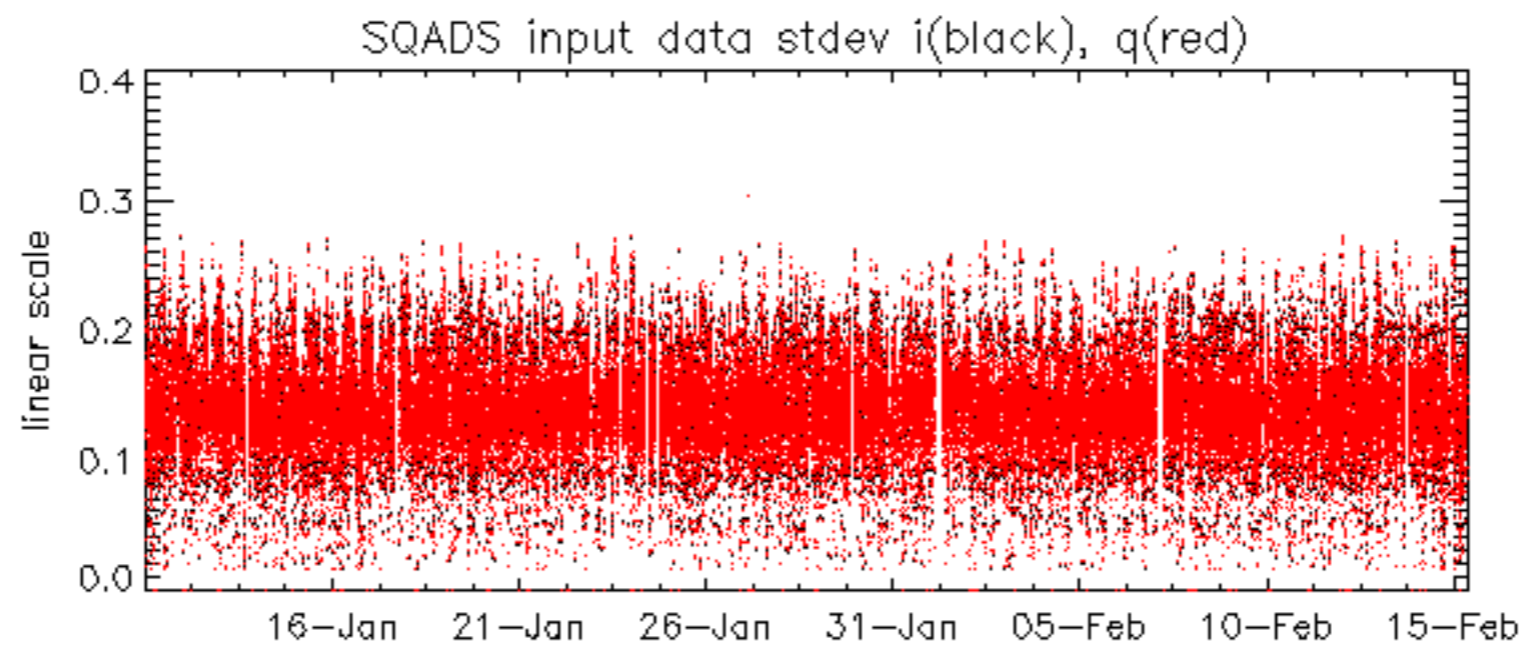
No anomalies observed.

Reference: 2001-02-09 14:08:23 V RxGain
 Test : 2006-02-14 08:50:25 V







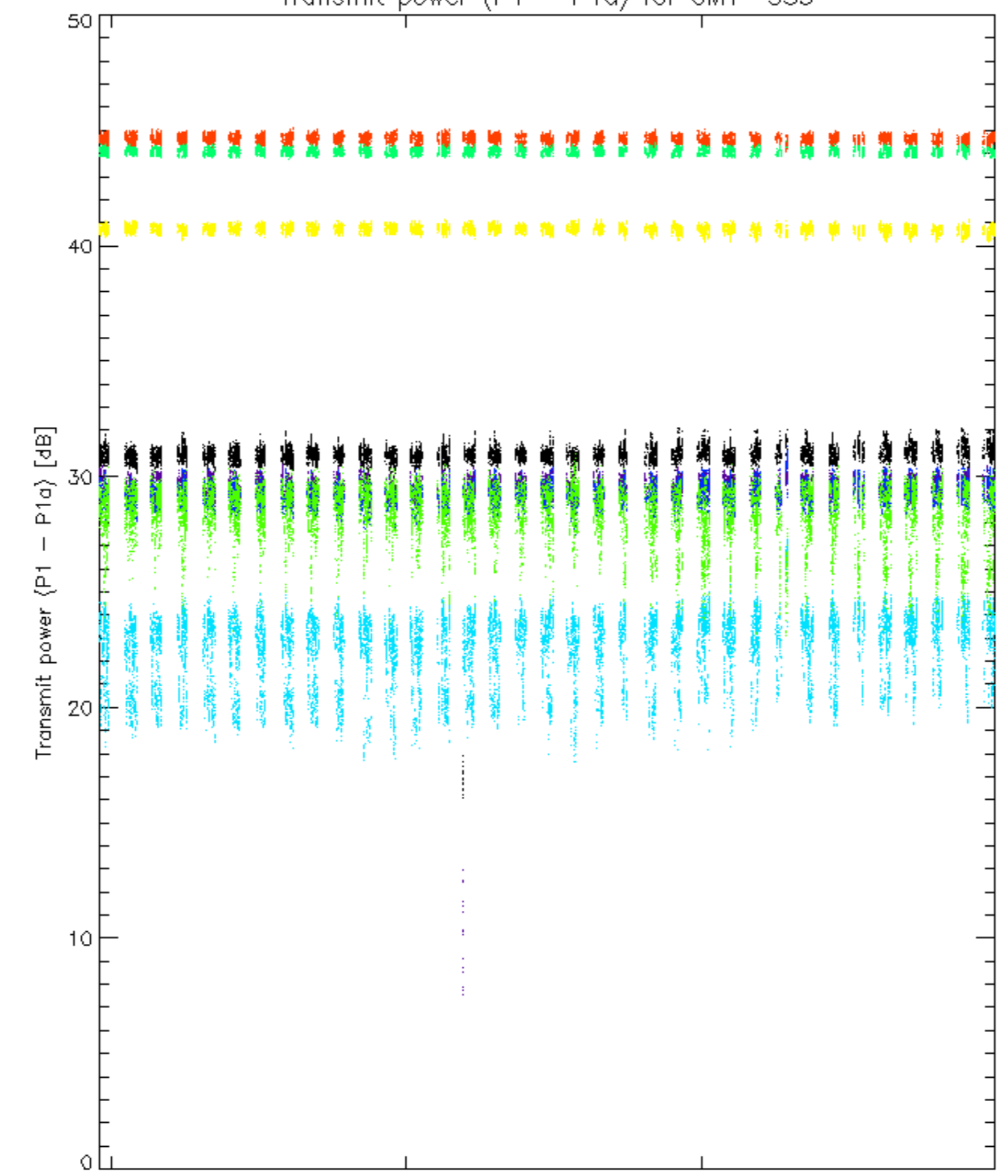


Summary of analysis for the last 3 days 2006021[345]

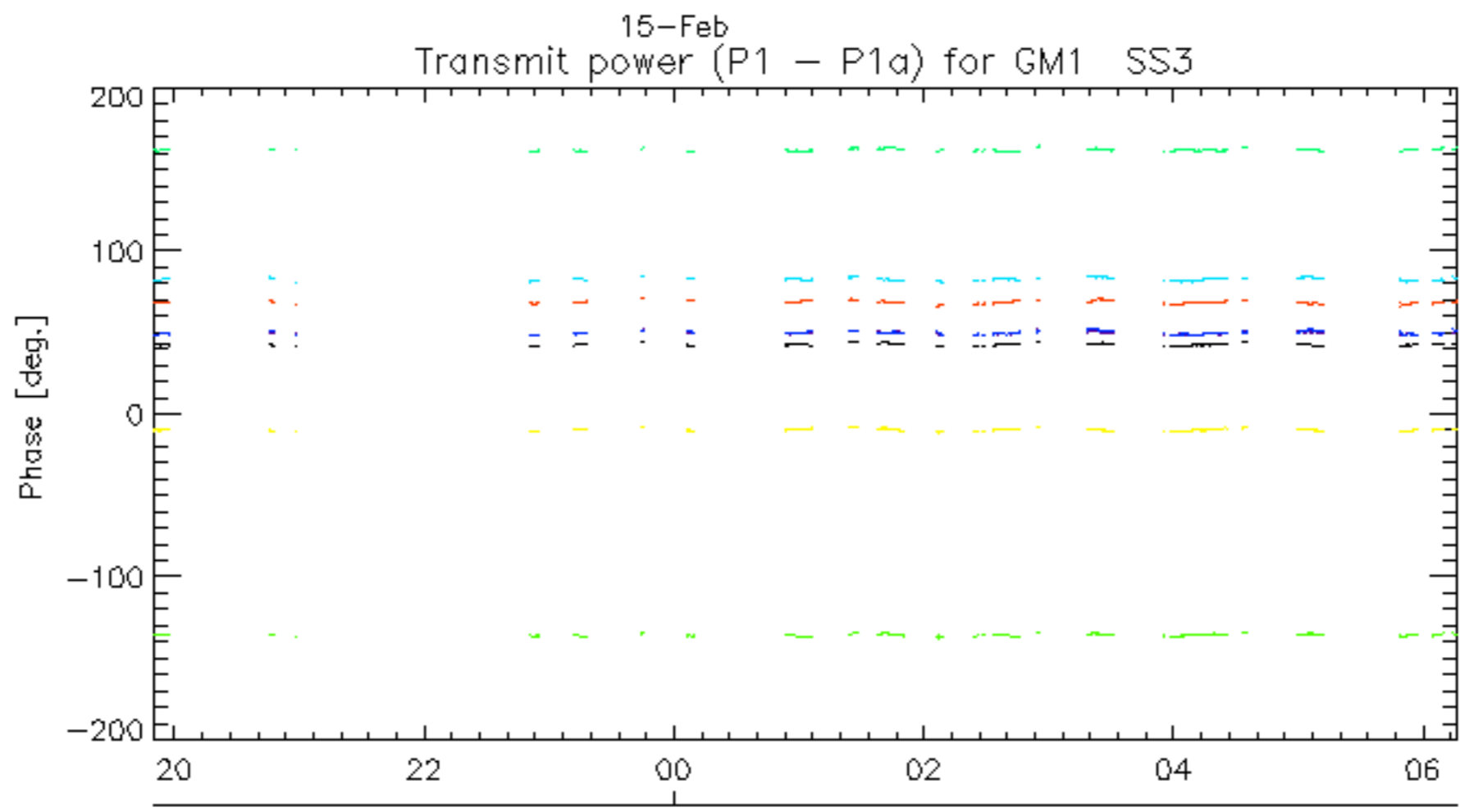
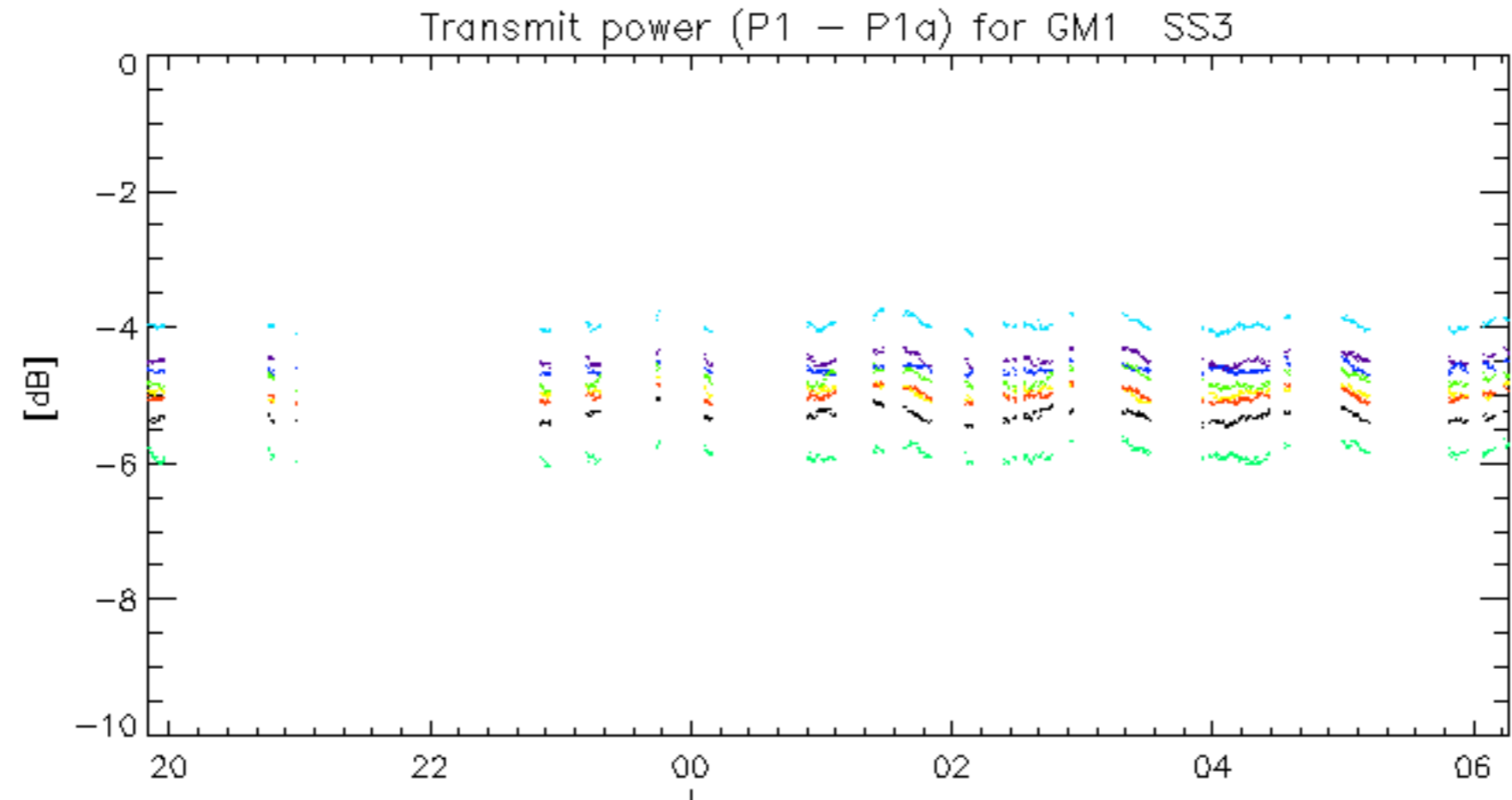
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060214_061558_000002202045_00106_20701_3109.N1	1	0

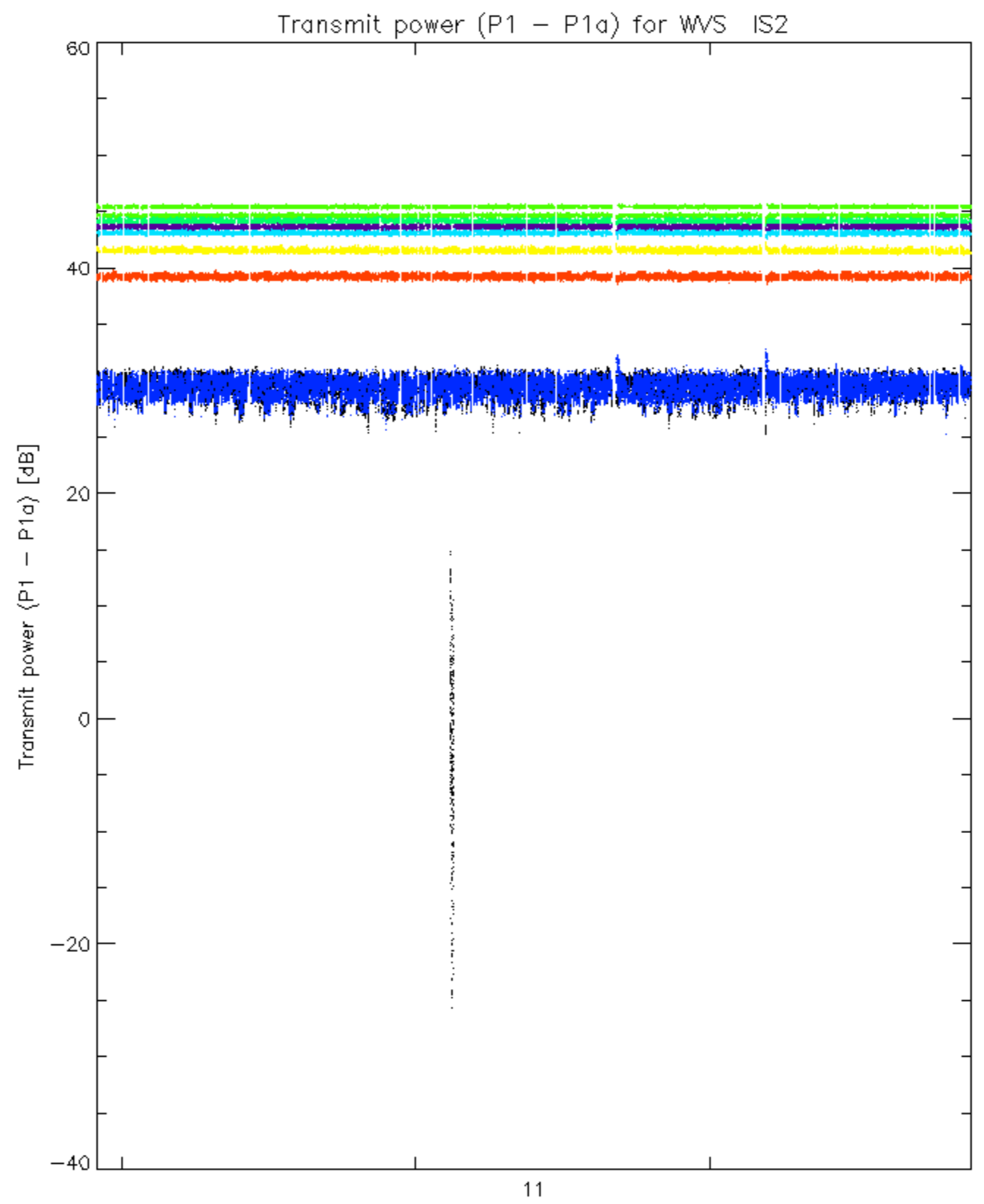
Transmit power (P1 - P1a) for GM1 SS3



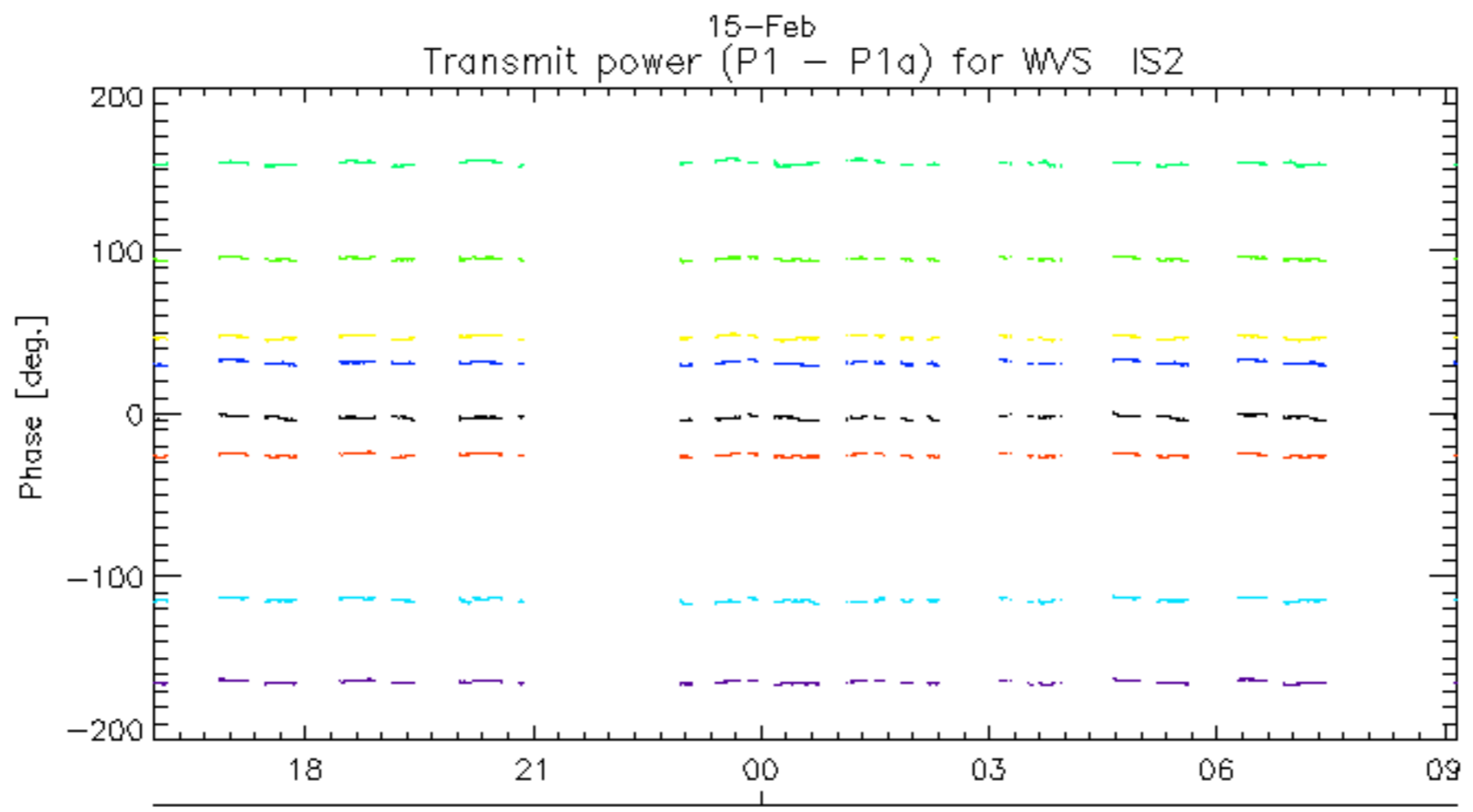
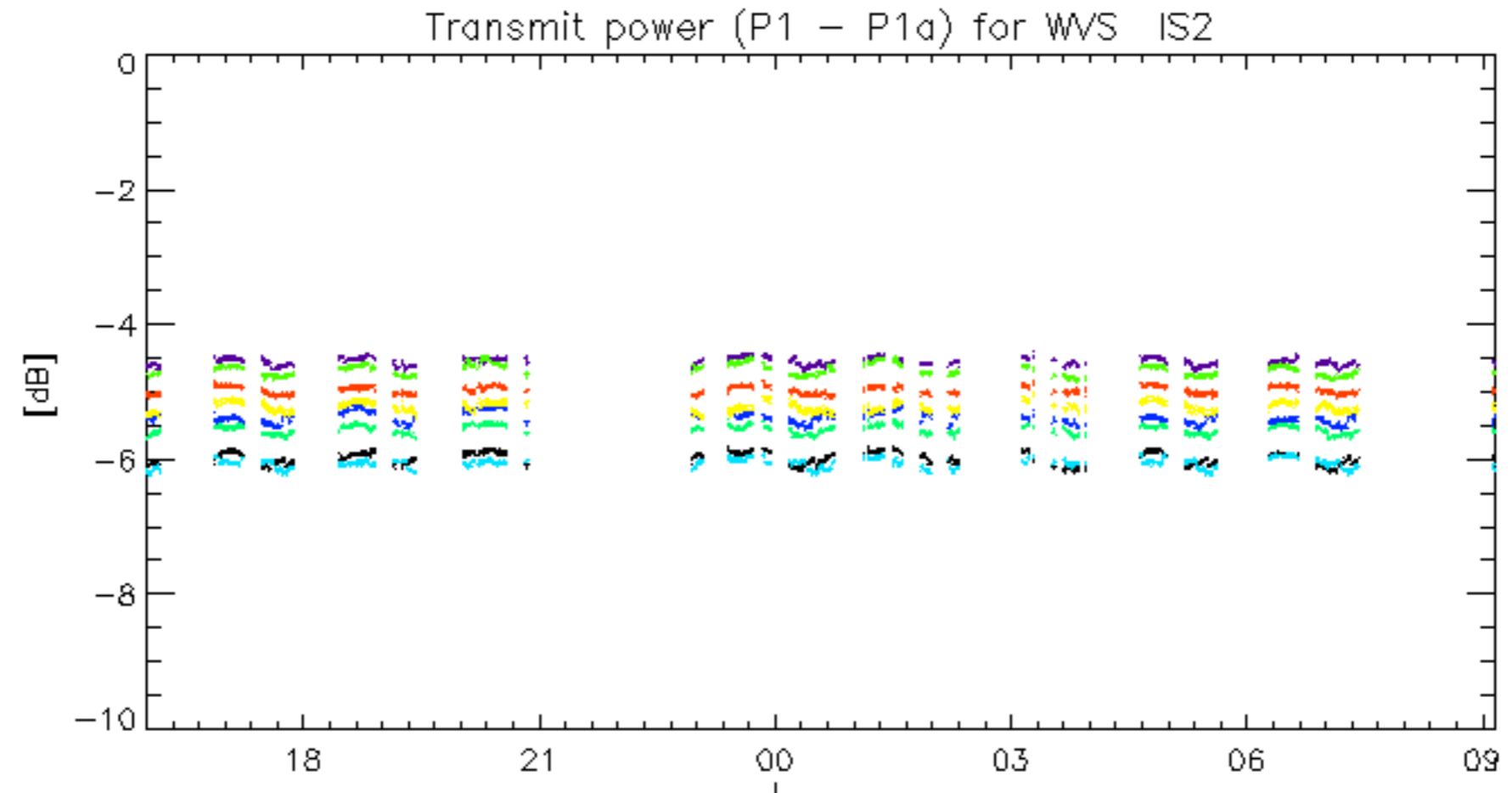
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.