

PRELIMINARY REPORT OF 061120

last update on Mon Nov 20 16:45:27 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 2006-11-19 00:00:00 to 2006-11-20 16:45:27

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	45	76	9	4	27
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	45	76	9	4	27
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	76	9	4	27
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	76	9	4	27

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	39	62	26	9	69
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	39	62	26	9	69
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	39	62	26	9	69
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	62	26	9	69

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	20061119 095346
H	20061120 092210

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

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
☒
☒

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	-3.957274	0.008799	-0.009513
7	P1	-3.143738	0.023322	-0.058269
11	P1	-4.130667	0.024155	-0.020975
15	P1	-6.282402	0.014557	-0.079189
19	P1	-3.615283	0.063966	0.005647
22	P1	-4.668104	0.129340	0.063320
26	P1	-3.973047	0.086909	0.088800
30	P1	-5.887286	0.166930	0.066233
3	P1	-16.507010	0.234799	-0.016167
7	P1	-17.250137	0.206983	-0.166926
11	P1	-17.143688	0.450967	-0.118554
15	P1	-13.046376	0.129168	-0.125920
19	P1	-14.904083	0.372437	-0.041764
22	P1	-15.854743	0.507340	-0.106425
26	P1	-15.064325	0.207190	0.067164
30	P1	-17.388397	0.603748	-0.437595

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.846012	0.090462	0.010665
7	P2	-21.731628	0.093877	0.011090
11	P2	-15.661656	0.103374	0.040257
15	P2	-7.117488	0.106623	-0.029983
19	P2	-9.184774	0.104053	-0.038137
22	P2	-18.222055	0.096293	-0.059412
26	P2	-16.533092	0.110353	-0.097632
30	P2	-19.473825	0.089133	-0.004808

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.233657	0.008240	-0.036107
7	P3	-8.233657	0.008240	-0.036107
11	P3	-8.233657	0.008240	-0.036107
15	P3	-8.233657	0.008240	-0.036107
19	P3	-8.233657	0.008240	-0.036107
22	P3	-8.233657	0.008240	-0.036107
26	P3	-8.233640	0.008252	-0.036180
30	P3	-8.233640	0.008252	-0.036180

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	-3.906033	0.054611	-0.020134
7	P1	-2.523128	0.325408	0.026278
11	P1	-2.866704	0.049377	0.027444
15	P1	-3.678831	0.057536	-0.019311
19	P1	-3.535974	0.110826	0.034948
22	P1	-5.063451	0.086459	0.085469
26	P1	-6.016088	0.182333	0.032651
30	P1	-5.321556	0.110019	-0.000946
3	P1	-11.712224	0.132821	-0.042770
7	P1	-10.053480	0.417157	-0.047170
11	P1	-10.339863	0.144032	0.037603
15	P1	-10.773156	0.216184	0.085370
19	P1	-15.780176	2.097808	0.293017
22	P1	-21.325640	1.538984	-0.462748

26	P1	-16.026276	0.396508	-0.119092
30	P1	-17.927595	0.417702	0.125464

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.447571	0.115190	-0.065519
7	P2	-22.200420	0.435506	-0.090556
11	P2	-10.930926	0.110426	-0.058120
15	P2	-4.951925	0.116318	-0.077745
19	P2	-6.934046	0.169926	-0.087711
22	P2	-8.251767	0.183156	-0.045563
26	P2	-24.298098	0.310473	-0.107496
30	P2	-21.945807	0.184111	-0.032766

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.080251	0.003266	-0.031219
7	P3	-8.080194	0.003245	-0.031635
11	P3	-8.080258	0.003247	-0.031784
15	P3	-8.080151	0.003245	-0.031403
19	P3	-8.080226	0.003257	-0.031528
22	P3	-8.080159	0.003252	-0.031474
26	P3	-8.080153	0.003248	-0.031294
30	P3	-8.080140	0.003256	-0.031547

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	0.000544709
	stdev	1.78064e-07
MEAN Q	mean	0.000519644
	stdev	2.20383e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136170
	stdev	0.00111230
STDEV Q	mean	0.136529
	stdev	0.00112919



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006111[890]

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_1PNPDE20061118_200624_000000352053_00071_24674_9859.N1	0	20
ASA_IMM_1PNPDK20061110_062233_000000592052_00449_24551_3724.N1	0	1
ASA_GM1_1PNPDK20061110_150123_000001872052_00454_24556_8390.N1	0	30
ASA_GM1_1PNPDK20061110_152402_000006522052_00455_24557_8387.N1	0	28
ASA_GM1_1PNPDK20061118_121112_000001992053_00066_24669_8898.N1	0	15

ASA_GM1_1PNPDK20061118_152718_000004472053_00068_24671_8911.N1	0	15
ASA_WSM_1PNPDE20061110_005418_000002632052_00446_24548_0001.N1	0	29
ASA_WSM_1PNPDE20061118_042105_000001842053_00062_24665_0001.N1	0	34
ASA_WSM_1PNPDE20061118_142442_000000852053_00068_24671_0001.N1	0	29
ASA_WSM_1PNPDK20061110_141658_000003302052_00454_24556_9834.N1	0	60
ASA_WSM_1PNPDK20061110_142505_000000672052_00454_24556_9836.N1	0	18
ASA_WSM_1PNPDK20061110_165310_000000852052_00456_24558_9847.N1	0	59
ASA_WSM_1PNPDK20061119_135303_000000852053_00082_24685_0402.N1	0	29



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

7.2 - Absolute Doppler for WVS

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

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

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7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

✕

Acsending

✕

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

✕

Acsending

✕

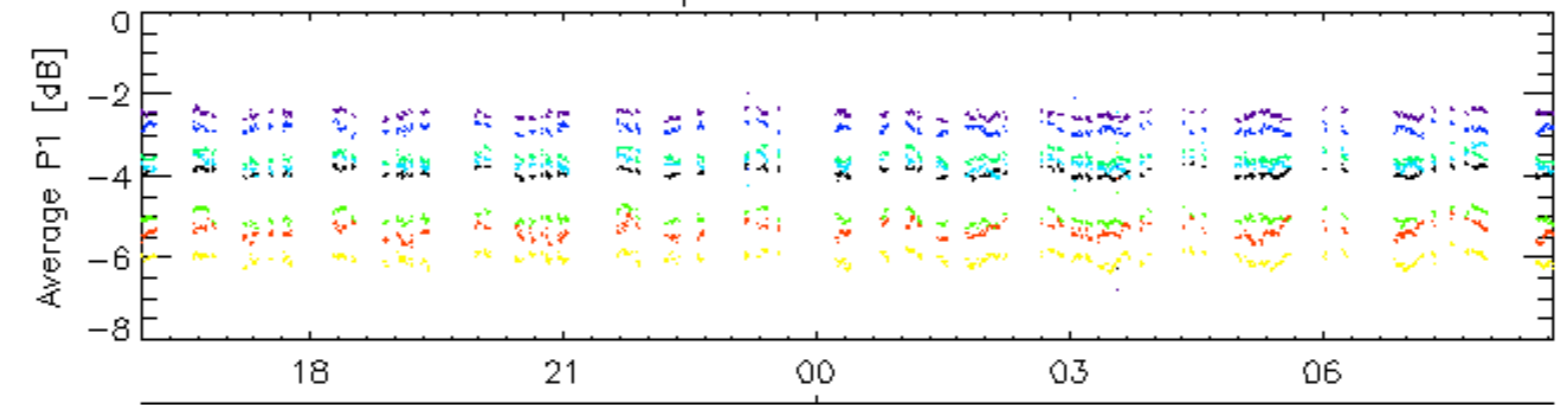
Descending

7.6 - Doppler evolution versus ANX for GM1

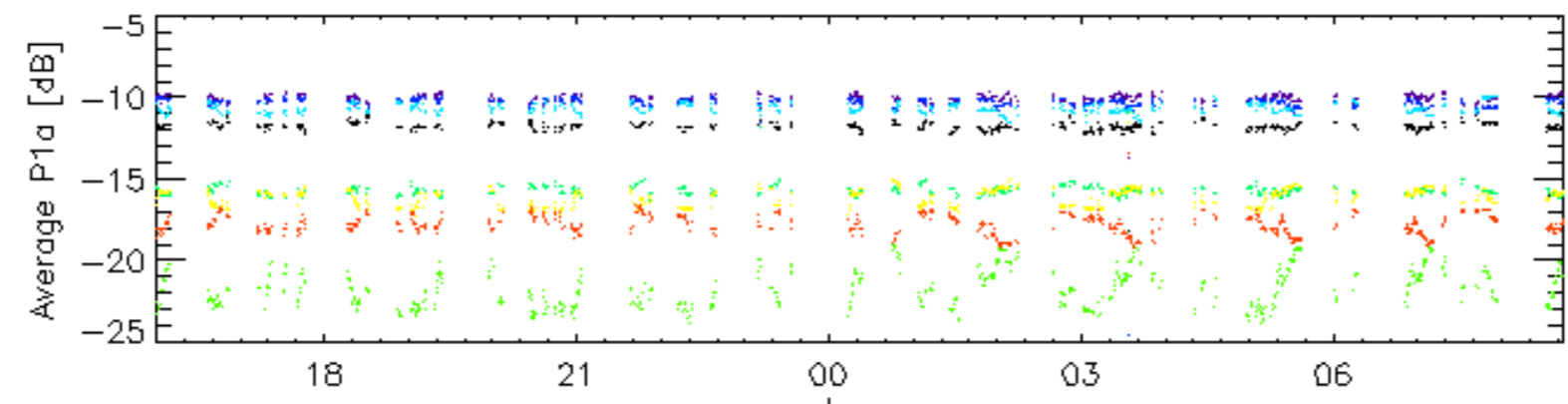
Evolution Doppler error versus ANX

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Cal pulses for GM1 SS3

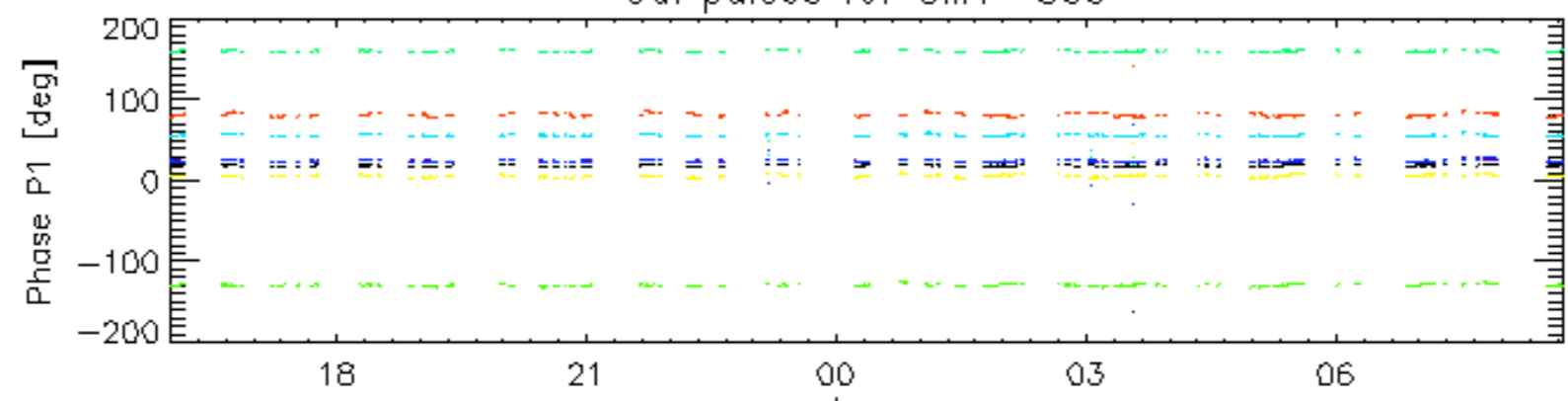


20-Nov

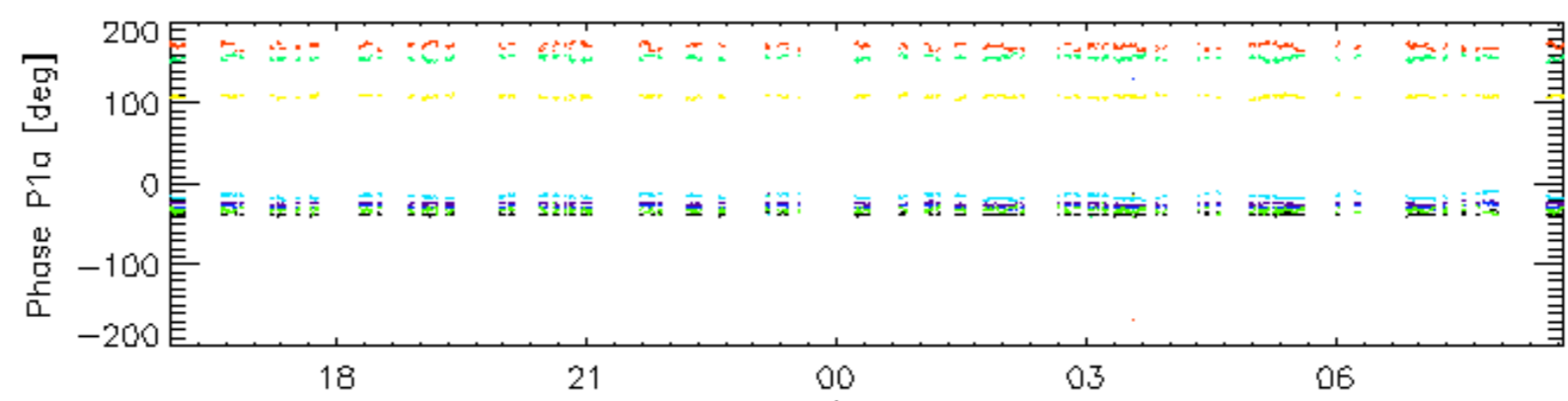


20-Nov

Cal pulses for GM1 SS3

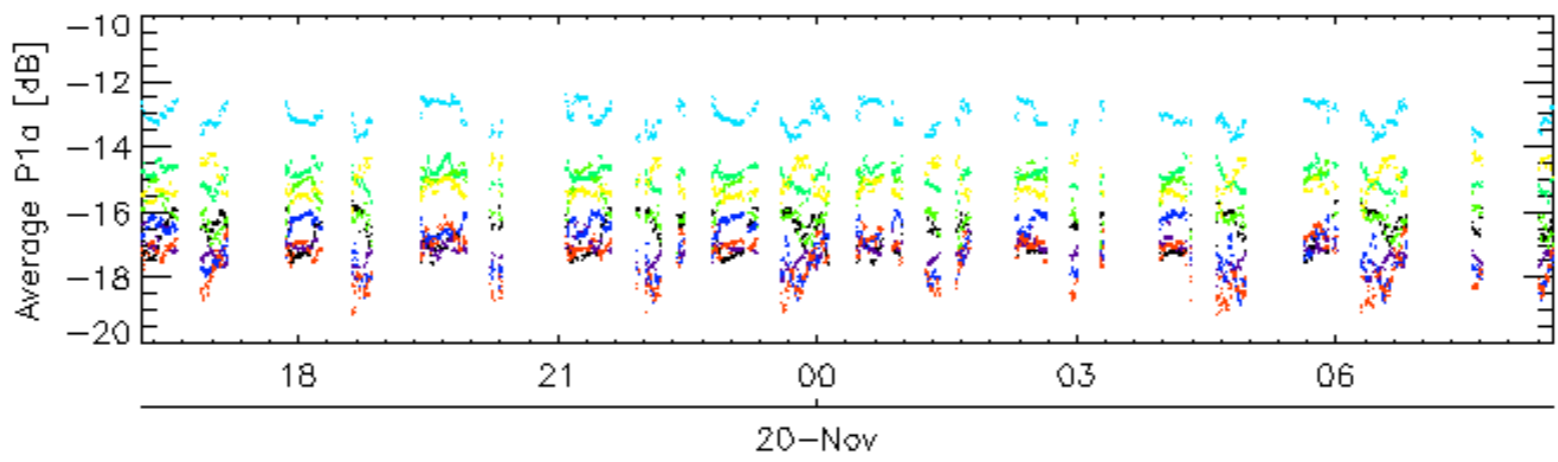
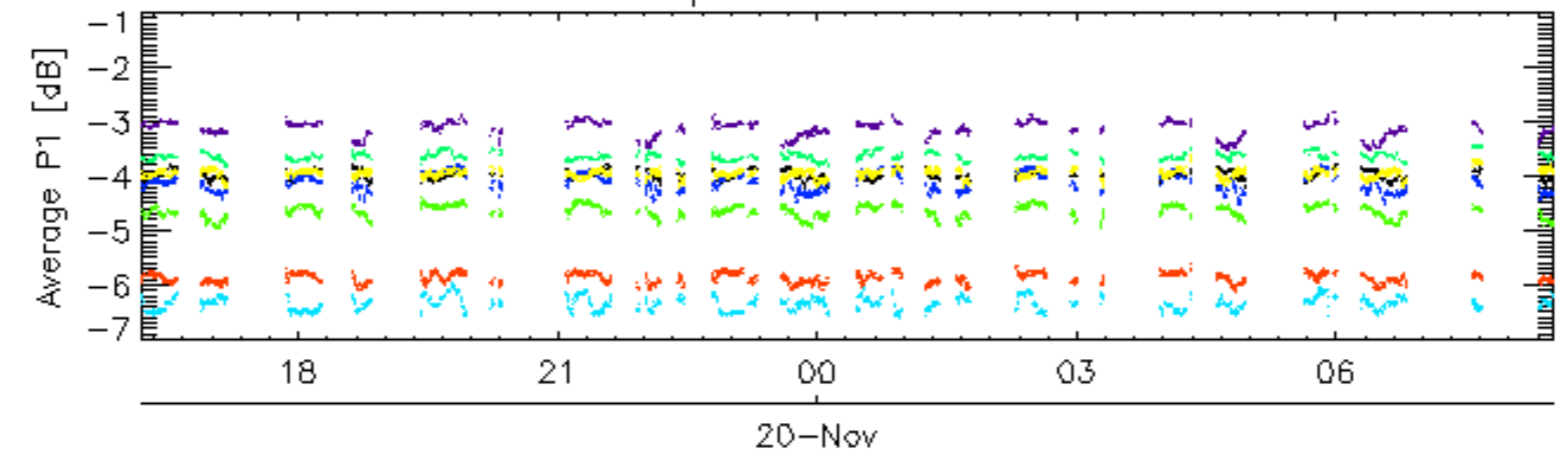


20-Nov

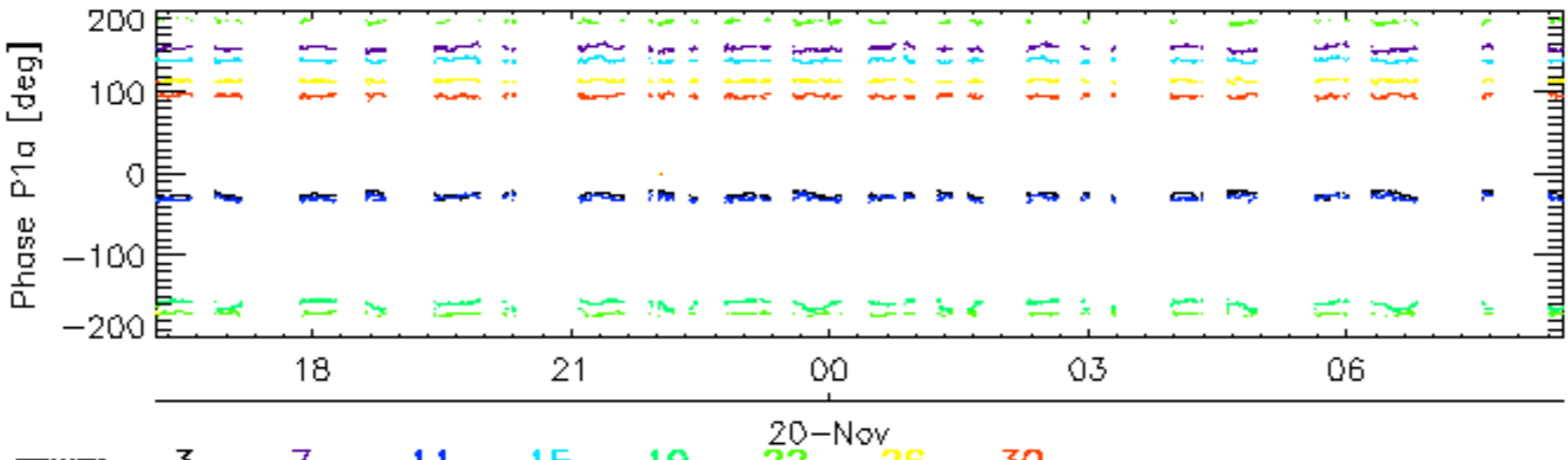
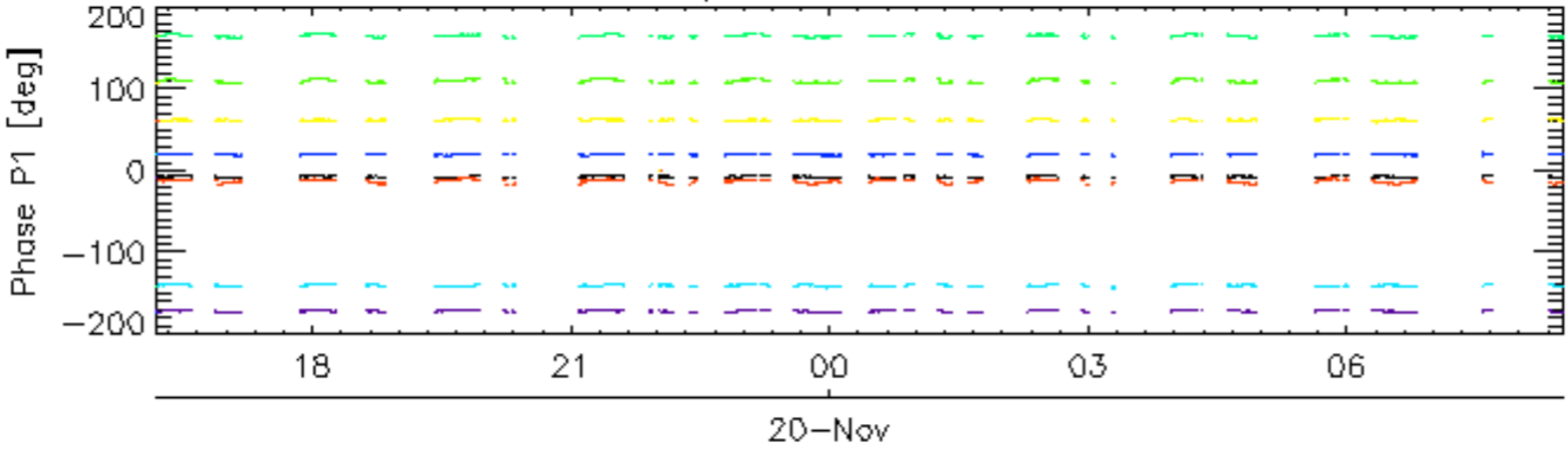


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

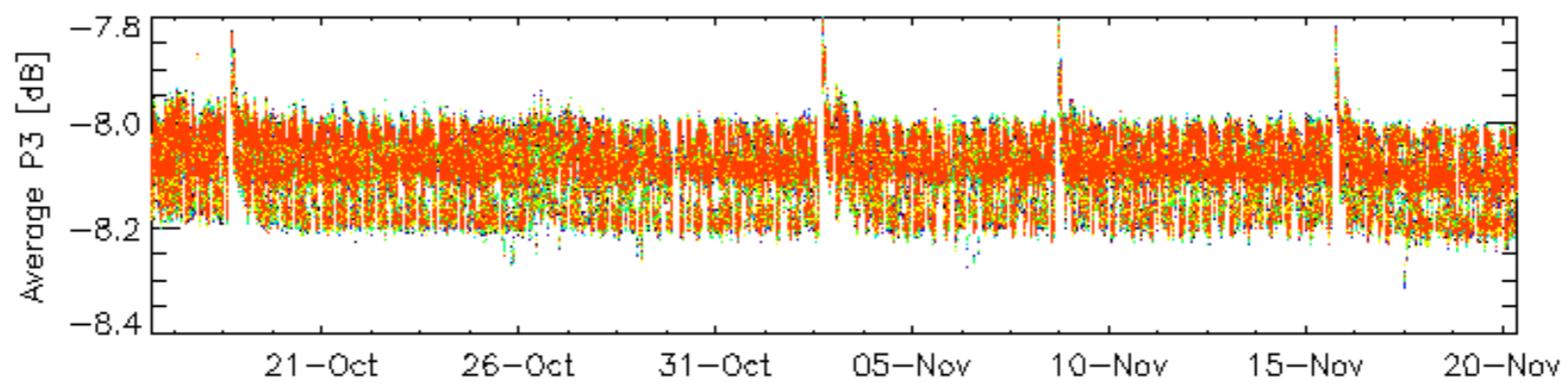
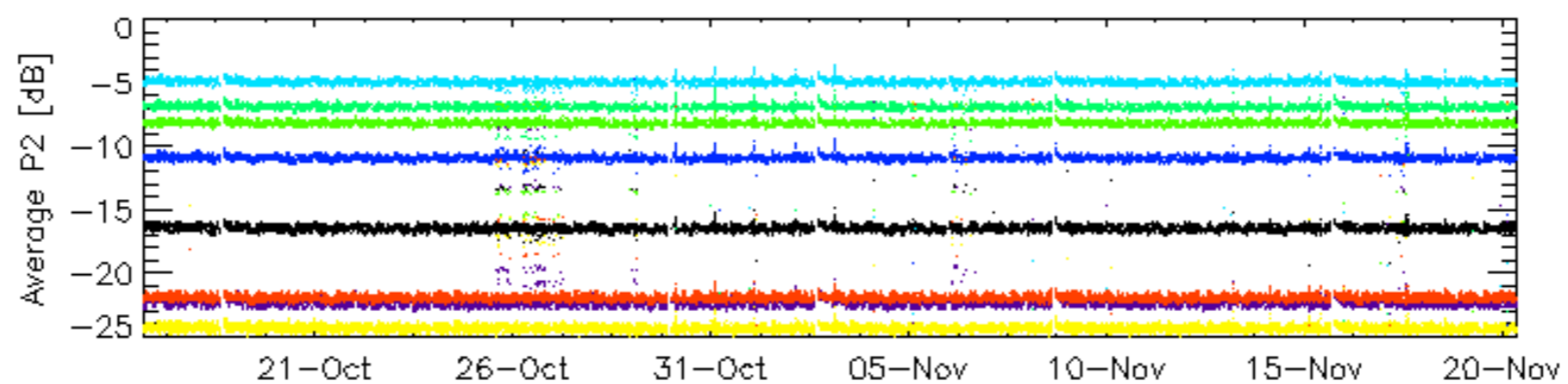
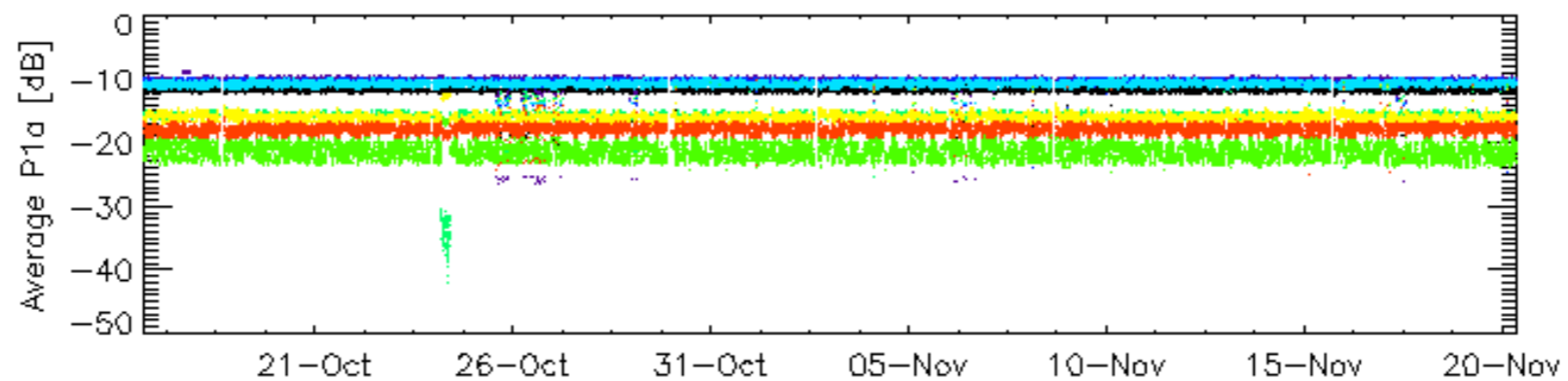
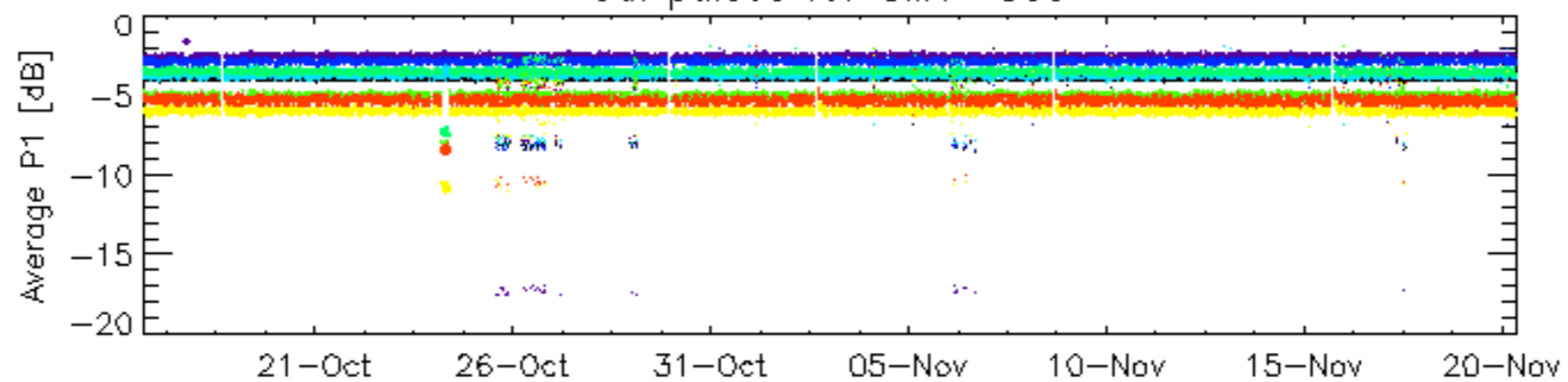


Cal pulses for WVS IS2



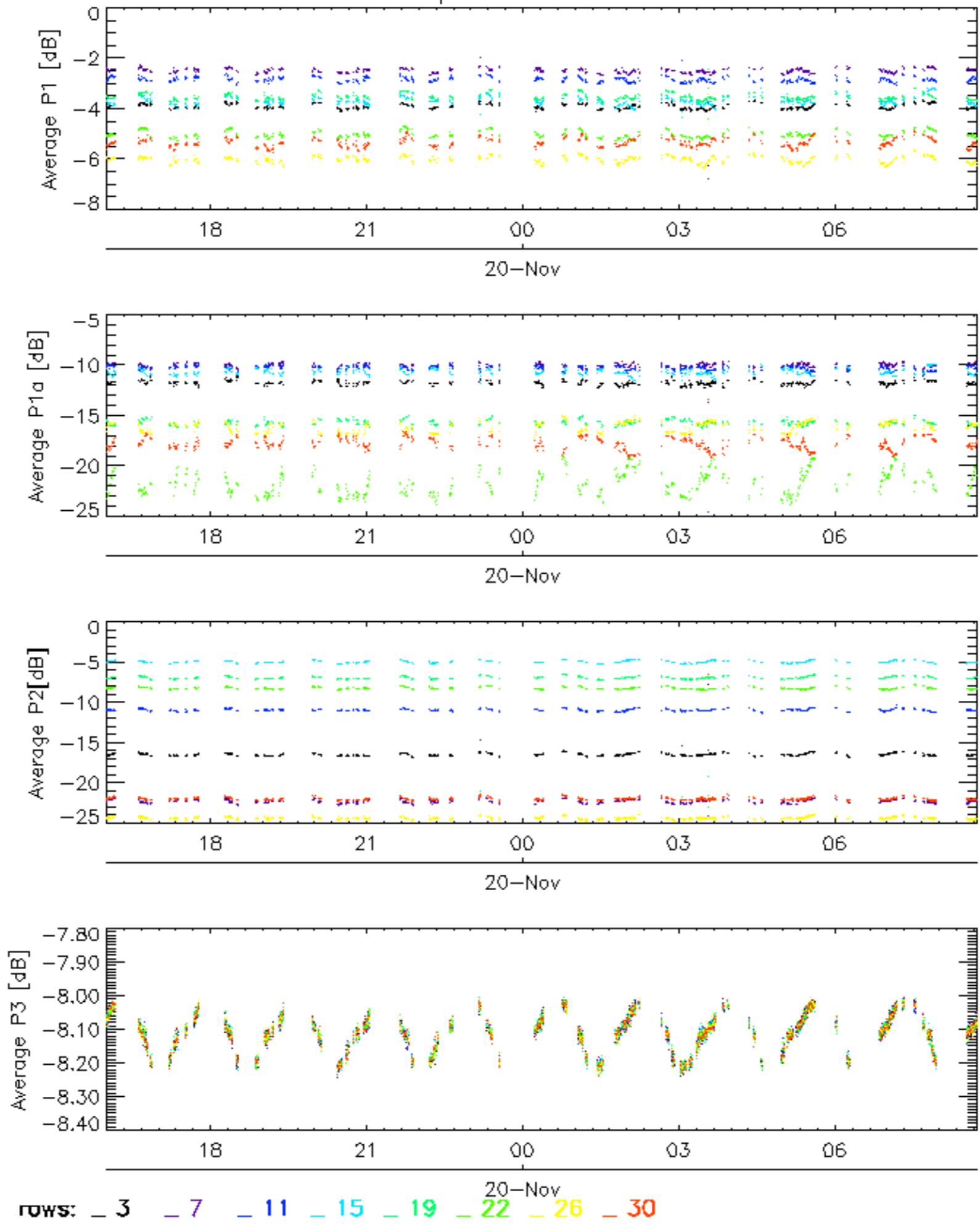
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

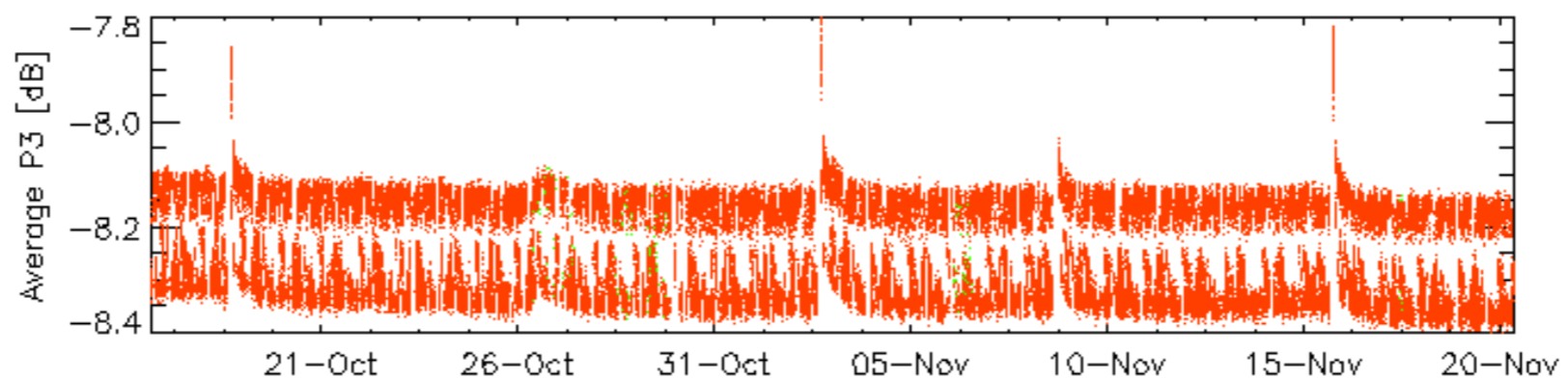
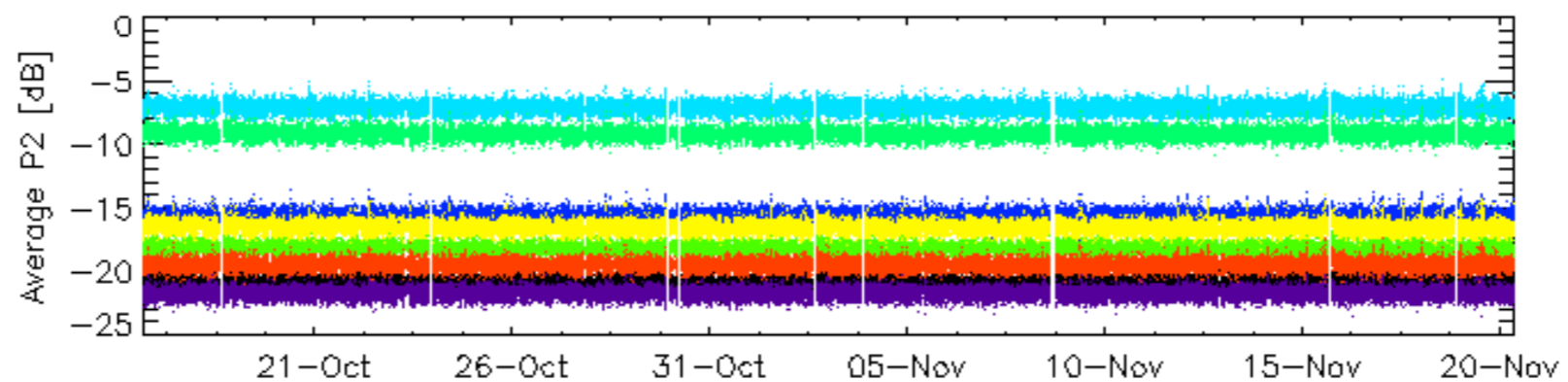
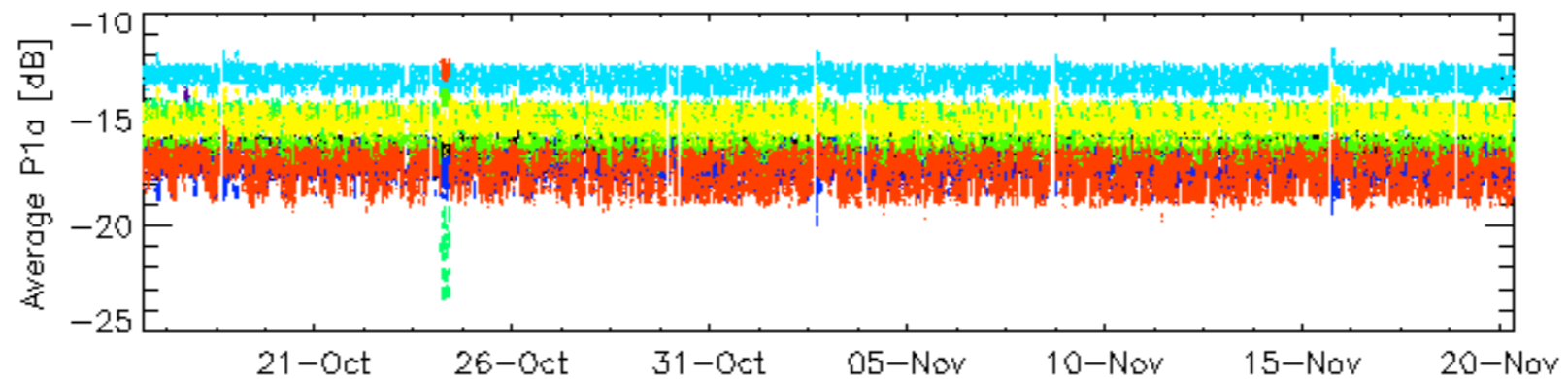
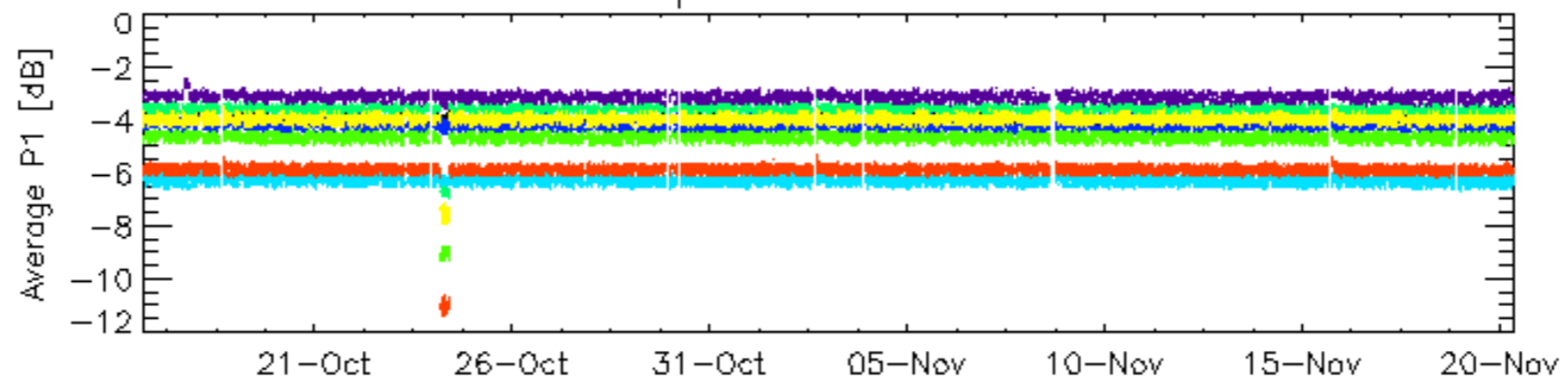


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

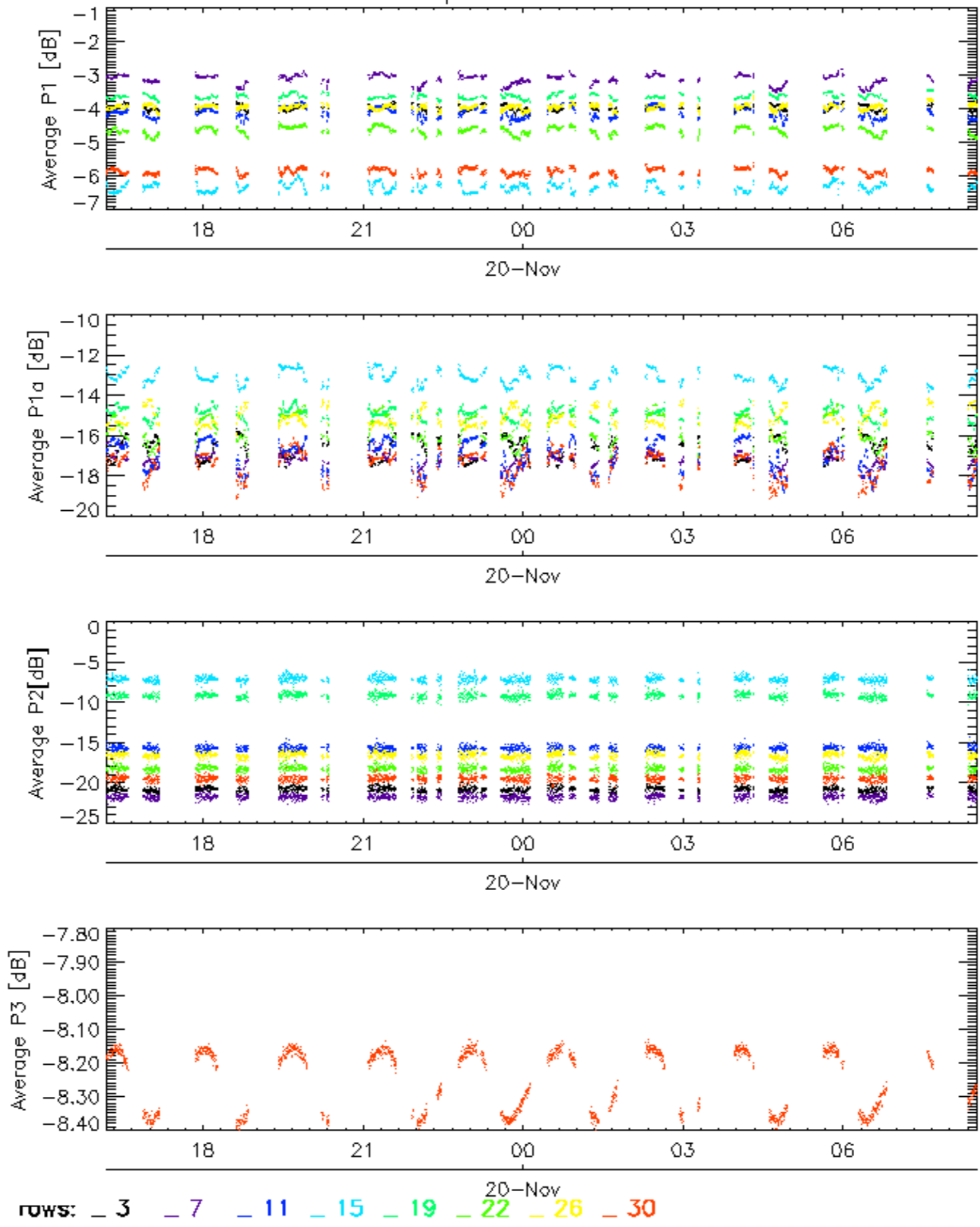


Cal pulses for WVS IS2



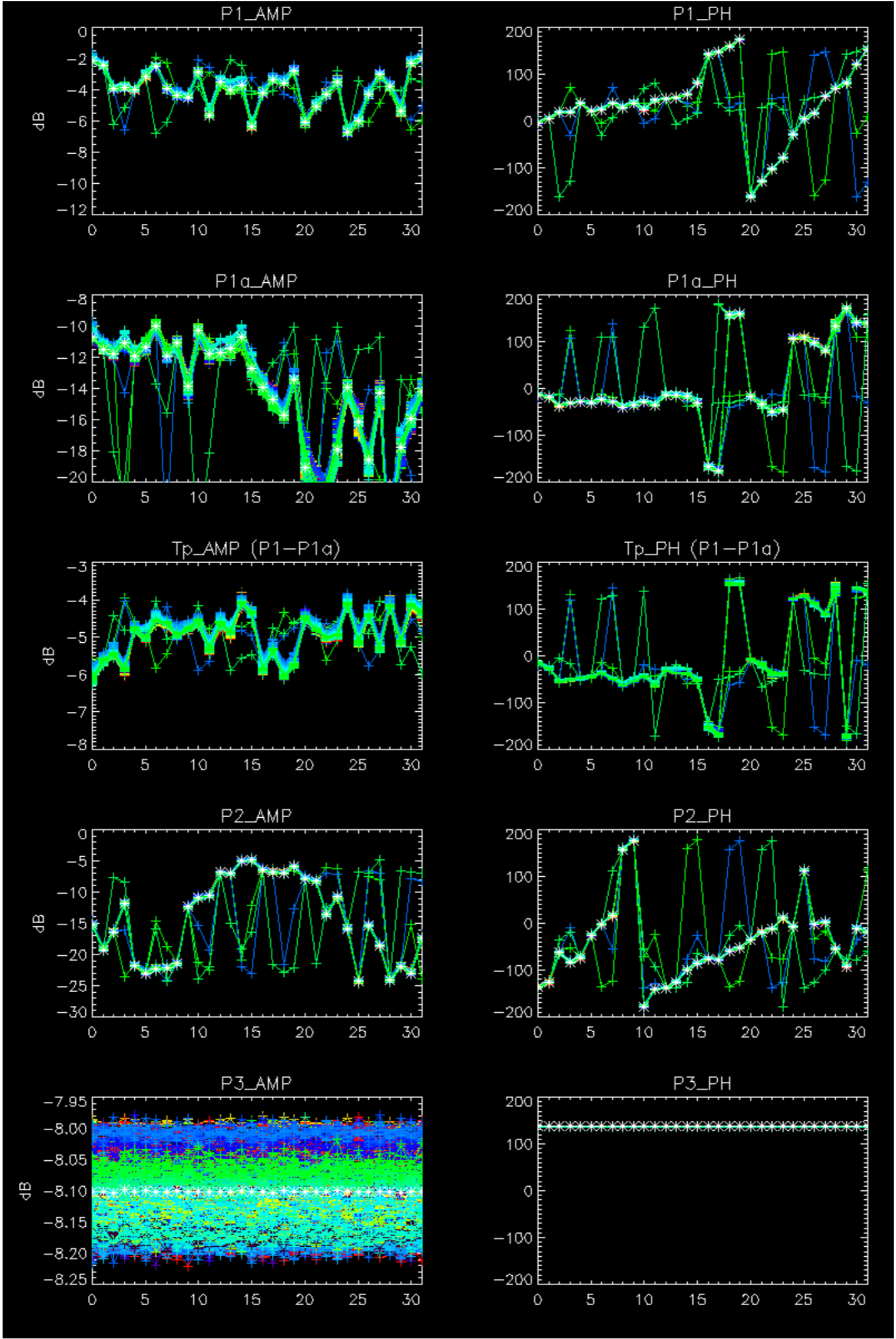
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

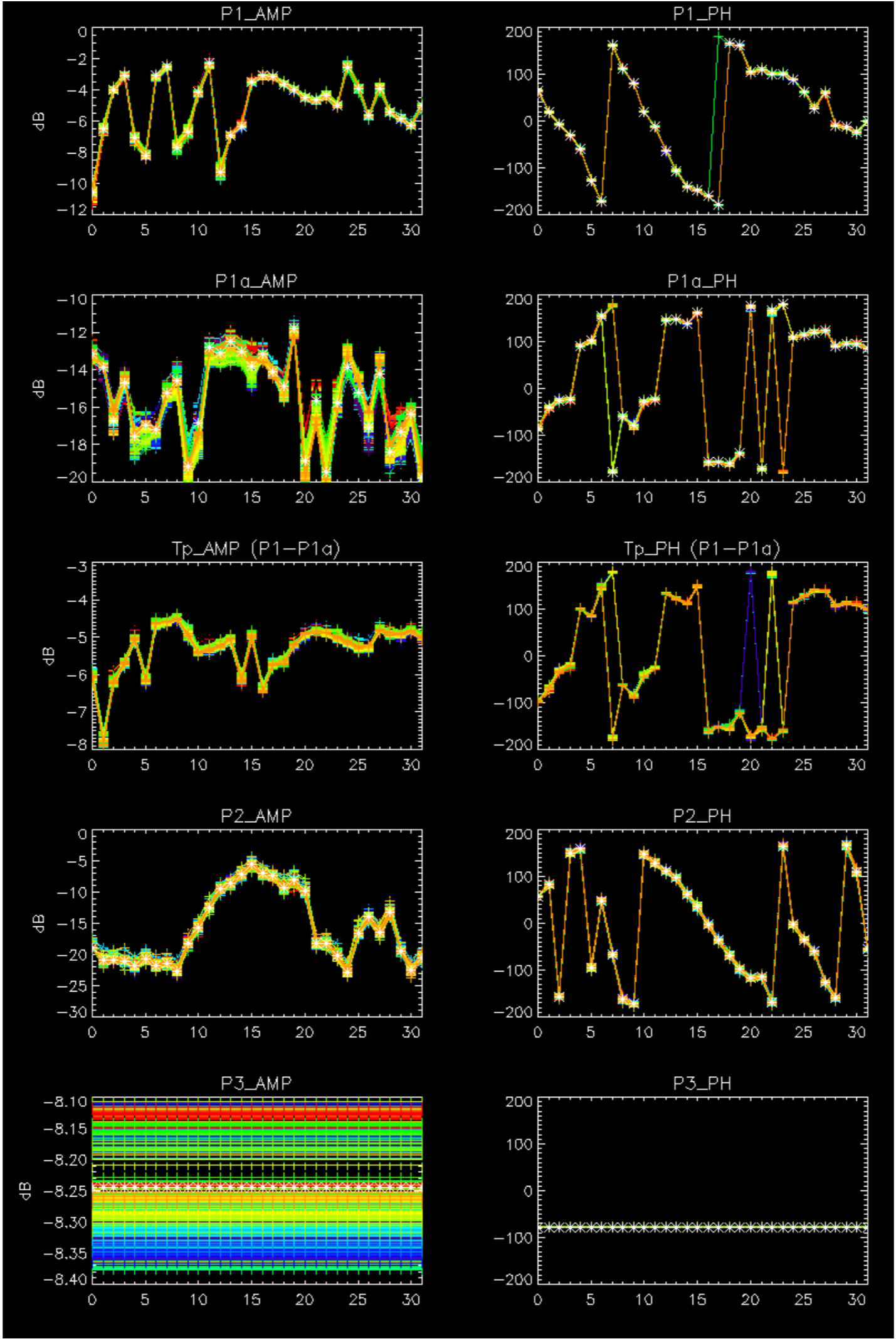
Cal pulses for WVS IS2



No anomalies observed on available browse products

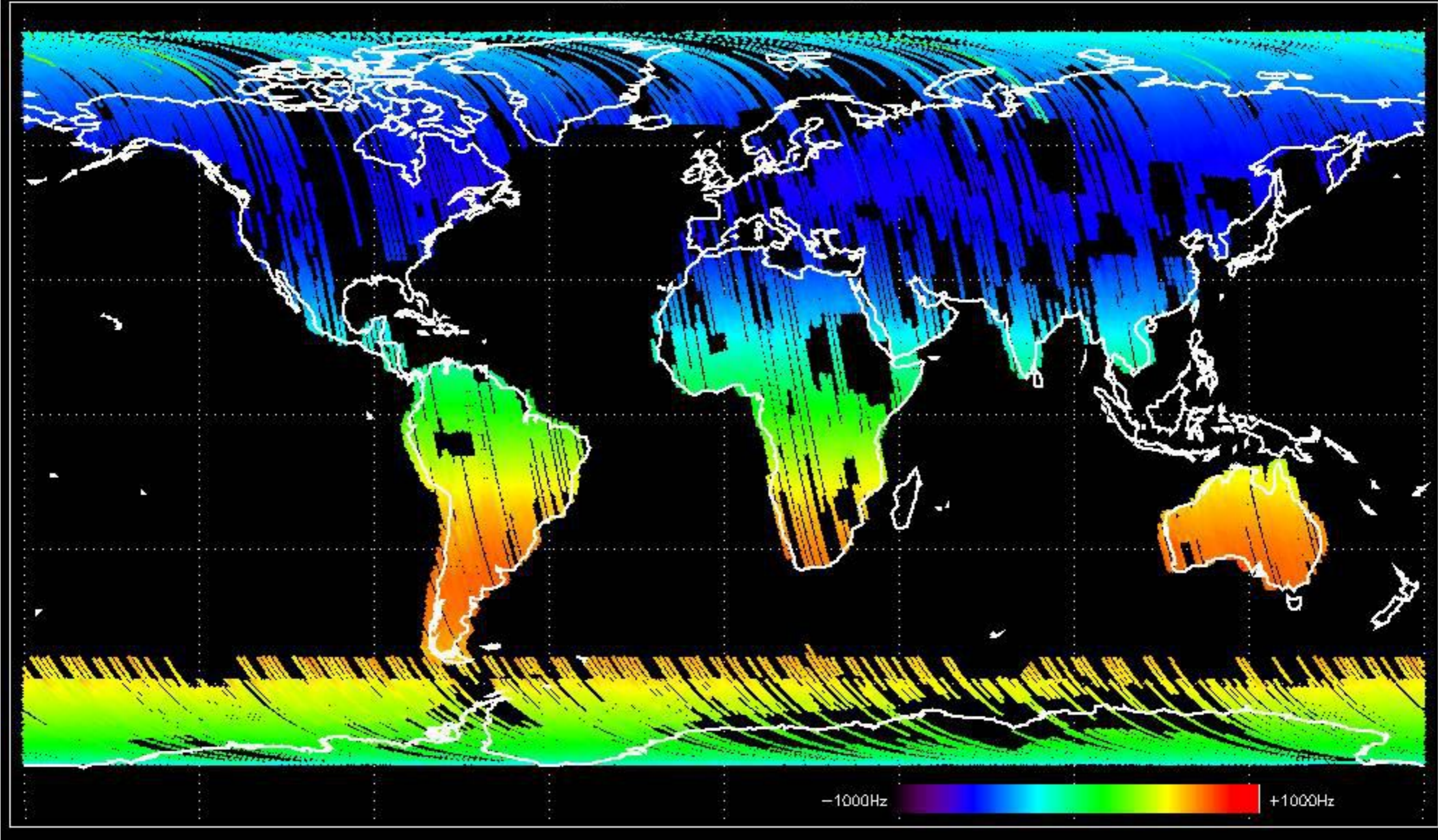
No anomalies observed.



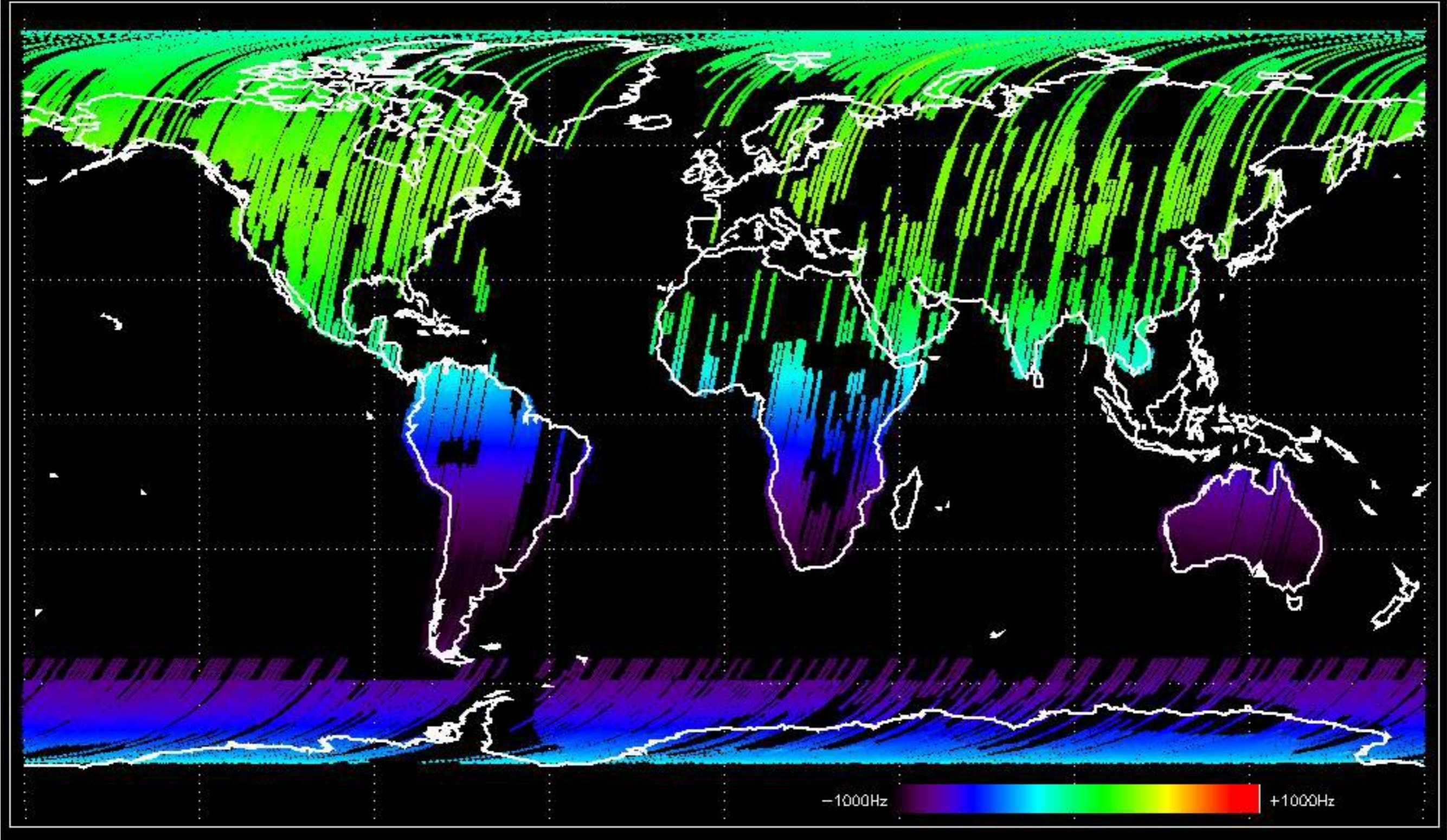


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

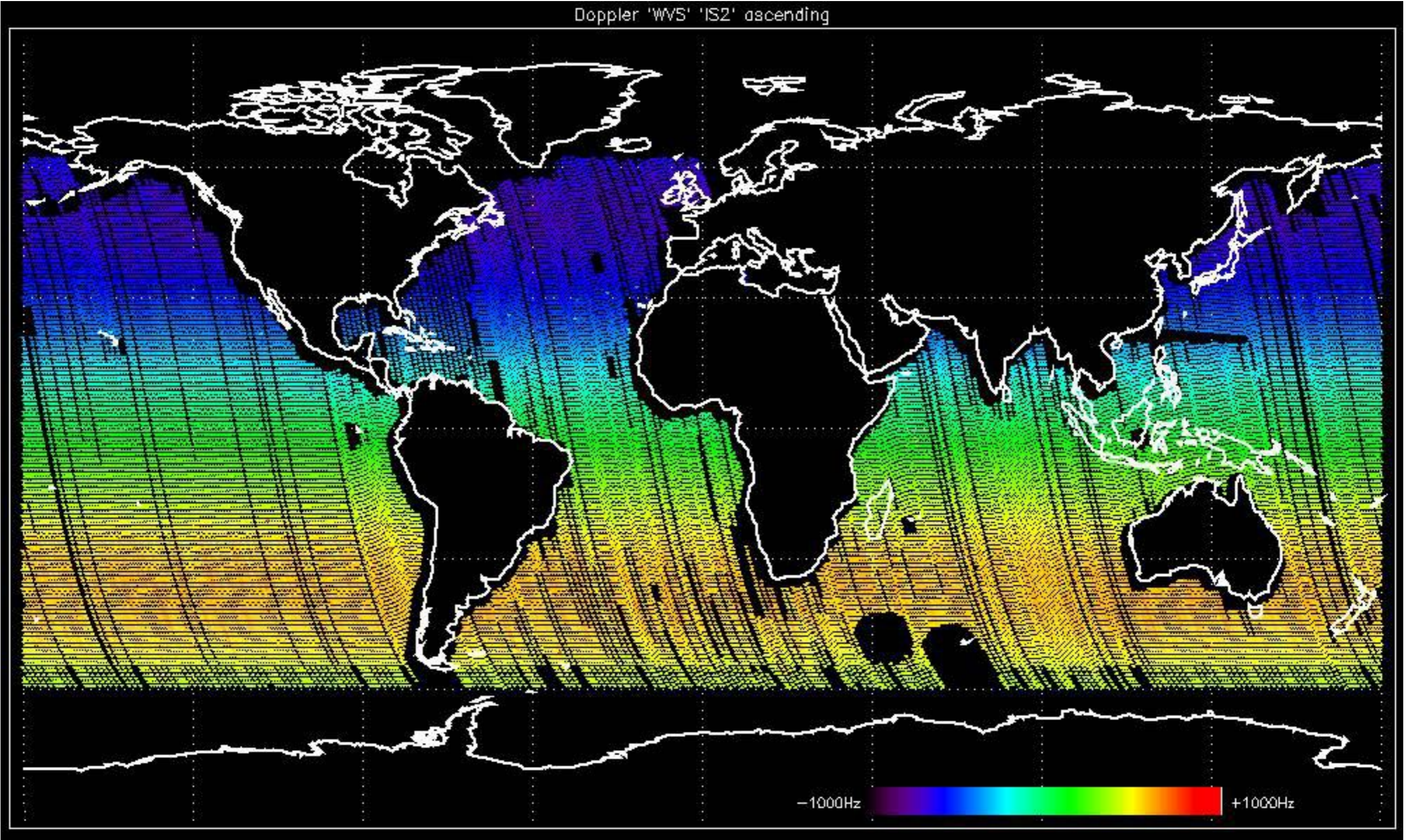
Doppler 'GM1' 'SS1' ascending



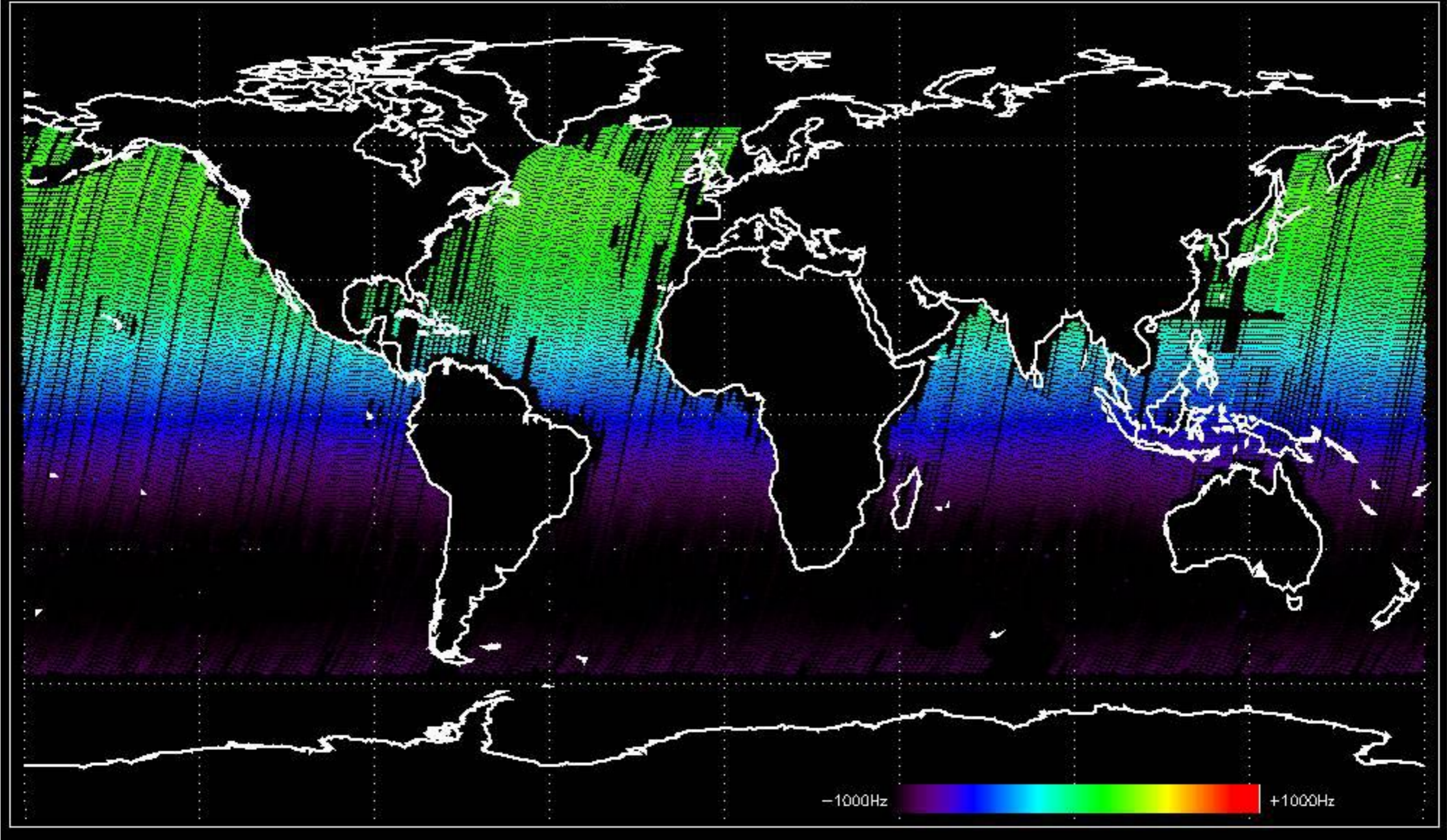
Doppler 'GM1' 'SS1' descending



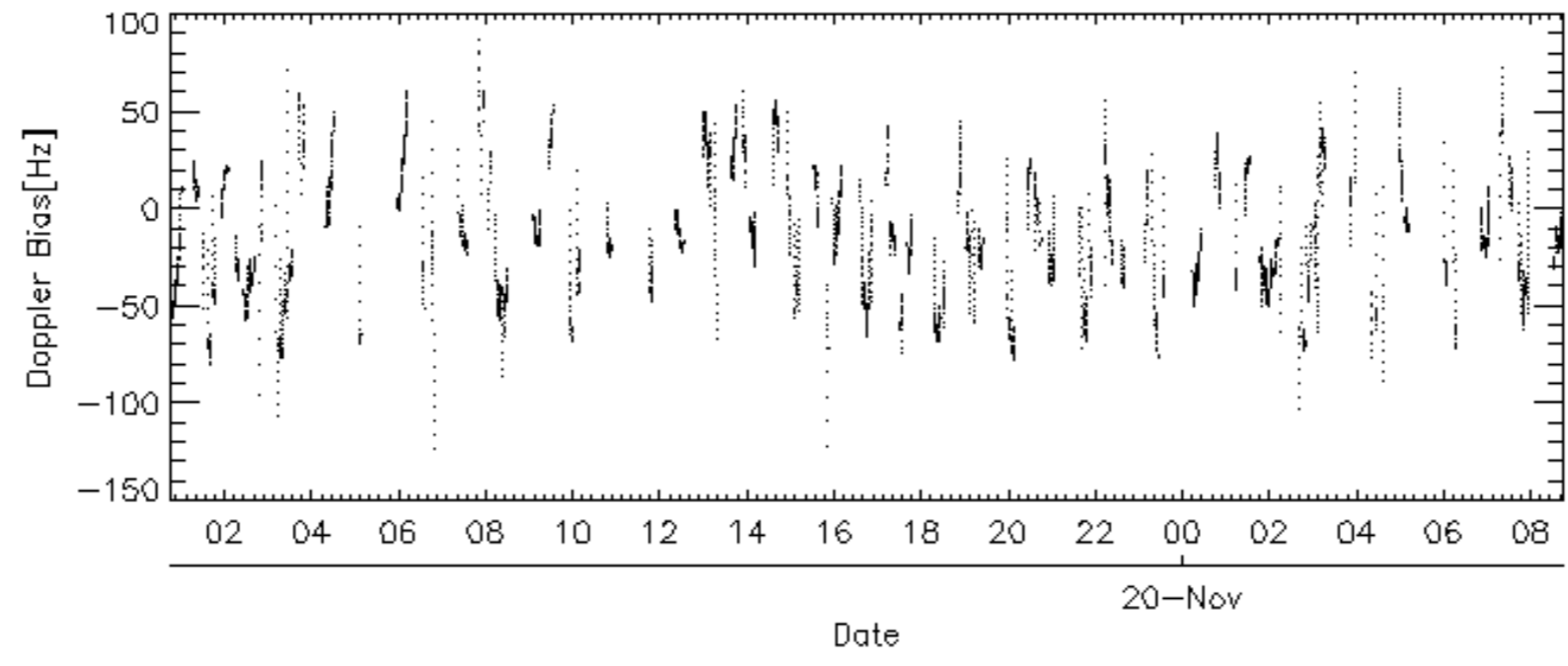
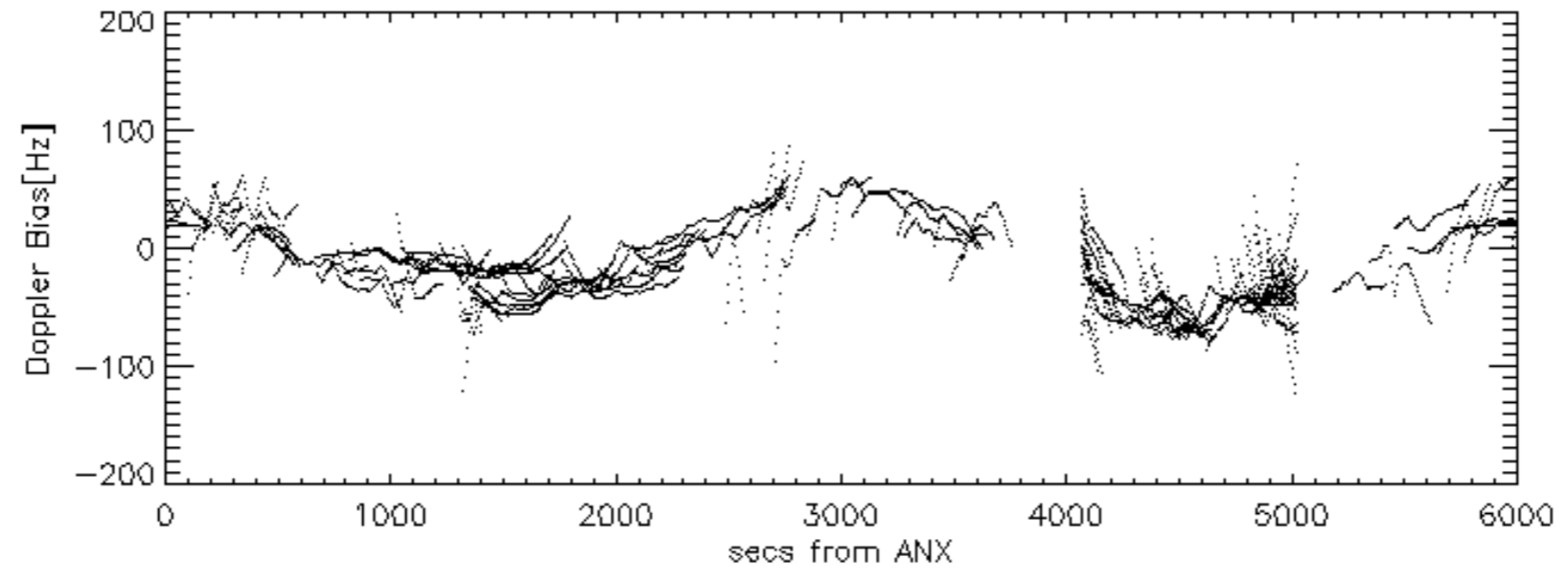
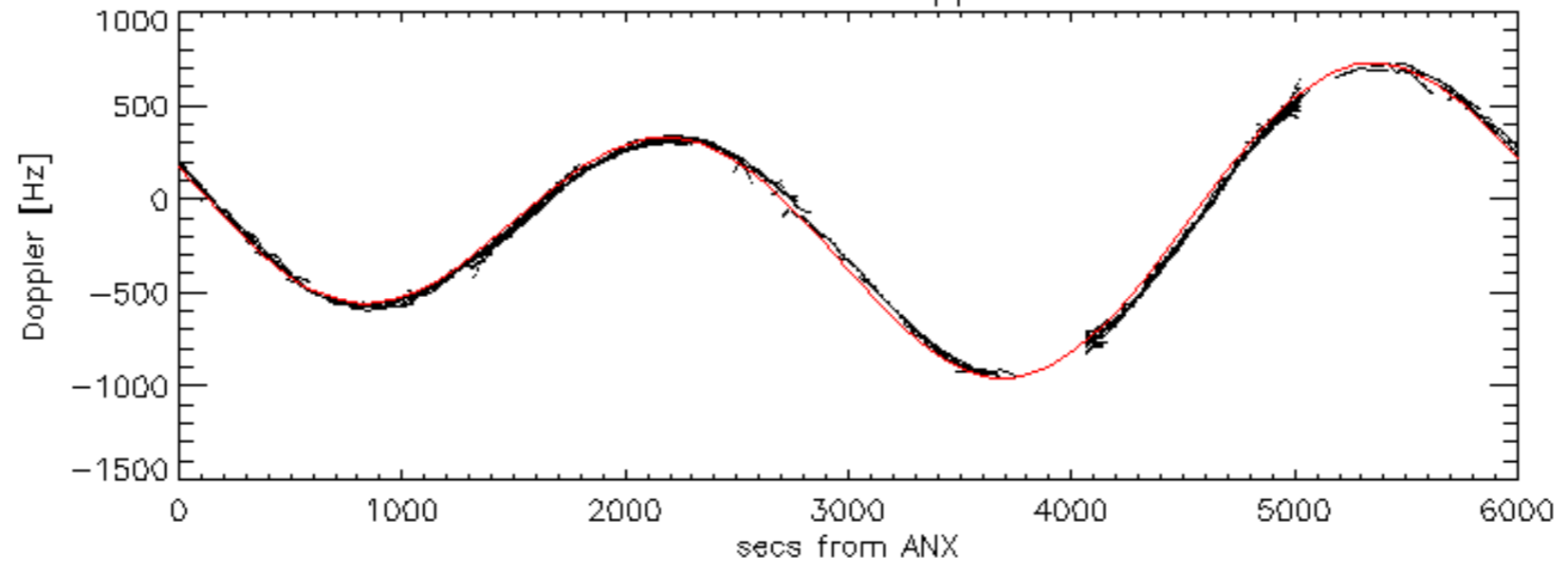
Doppler 'WVS' 'IS2' ascending

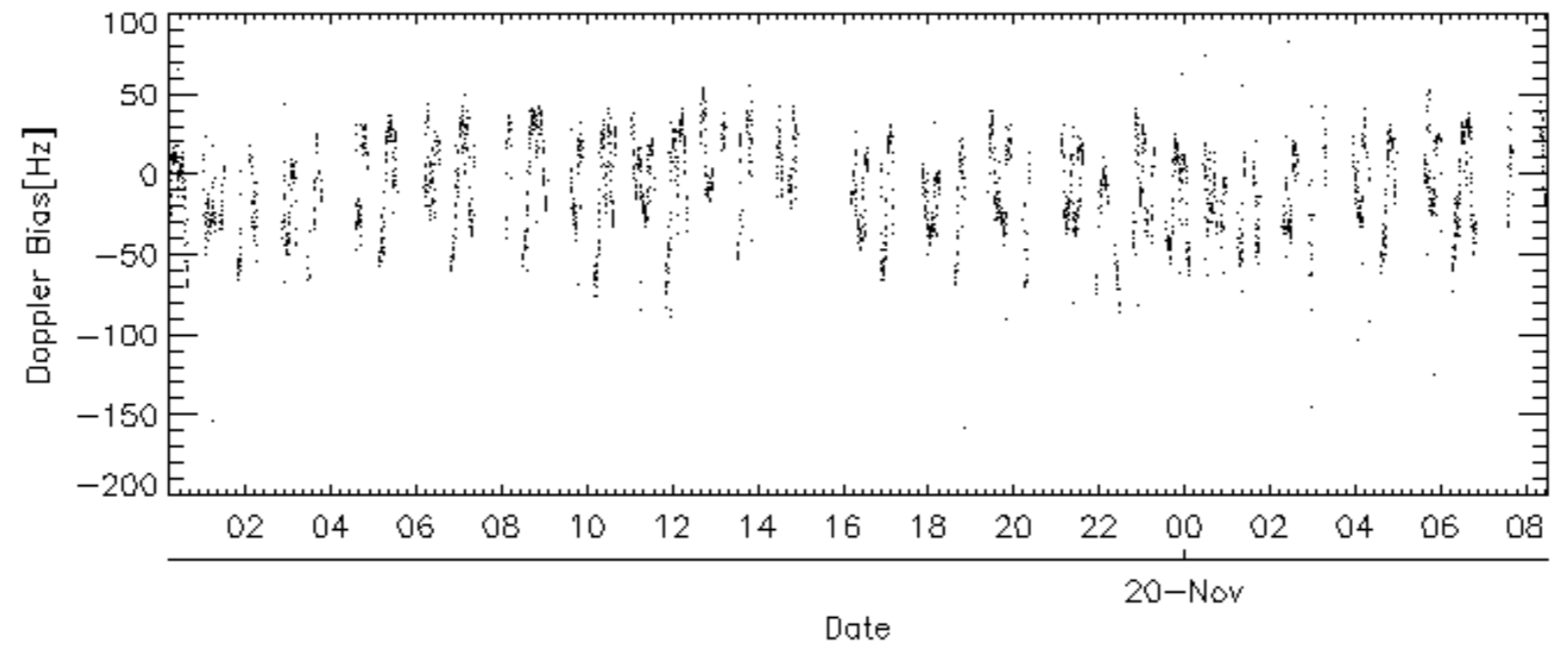
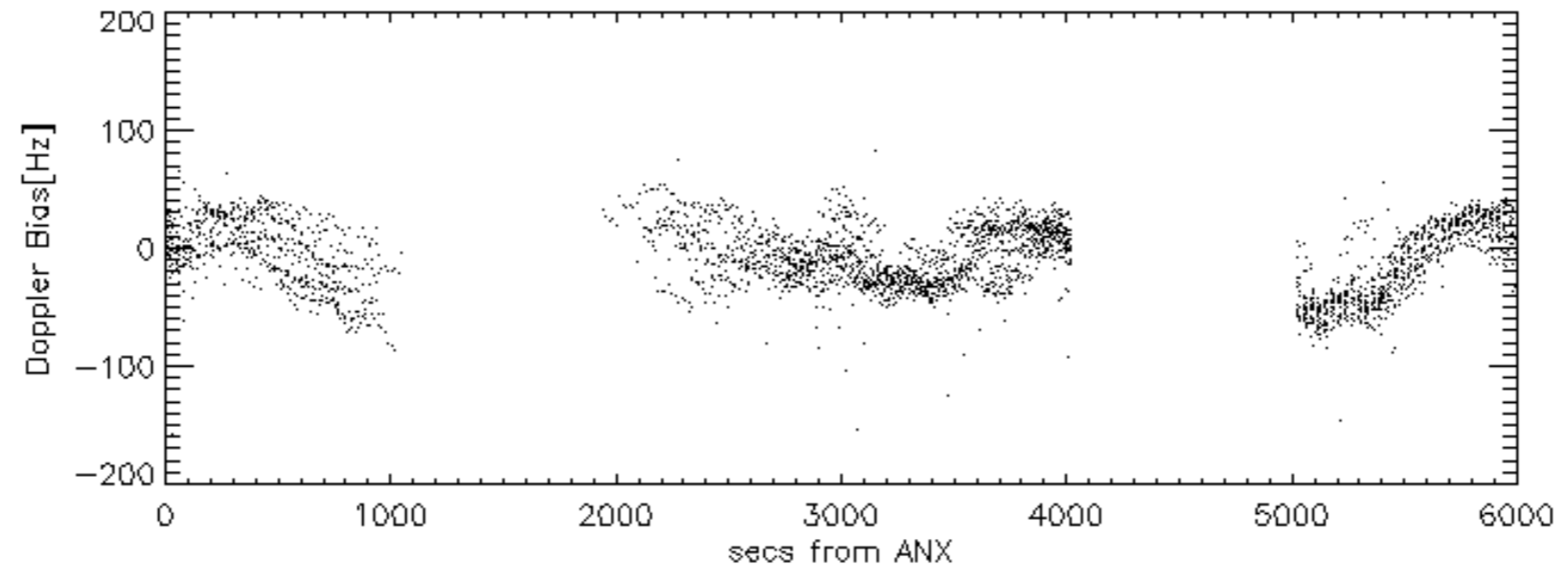
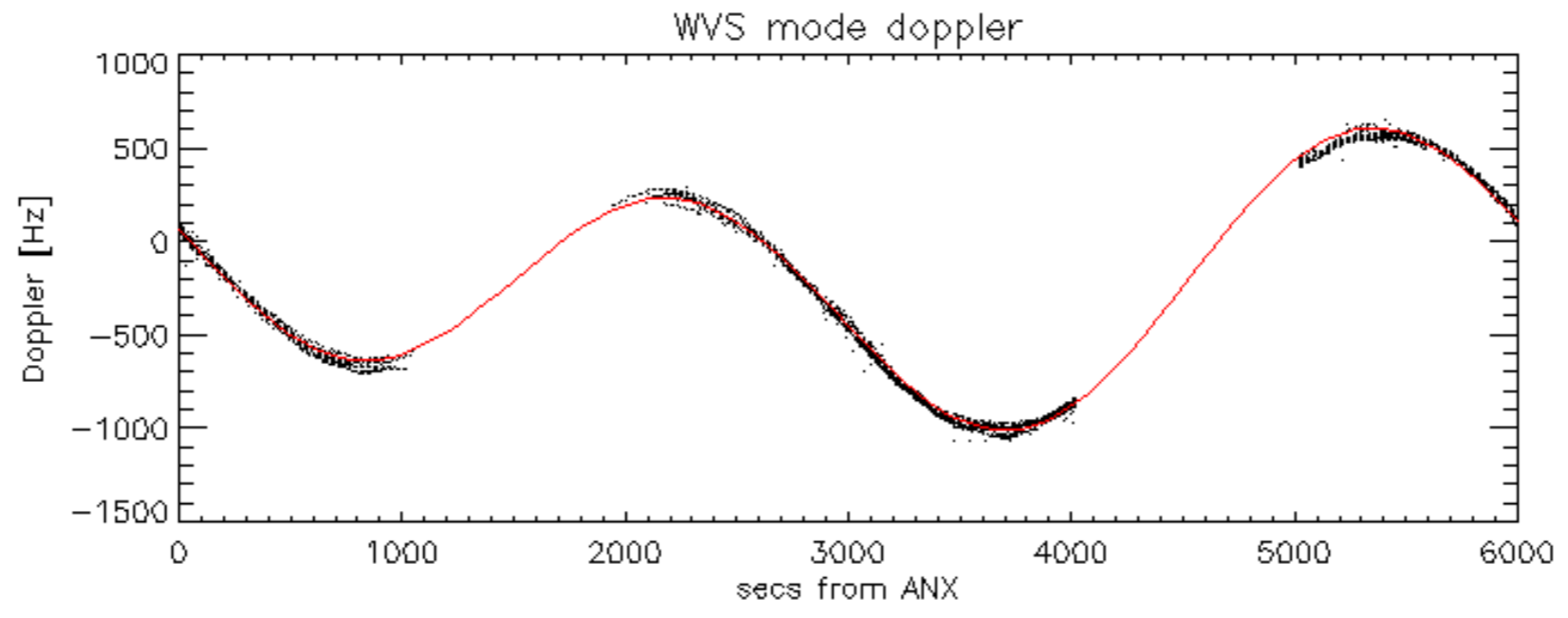


Doppler 'WVS' 'IS2' descending

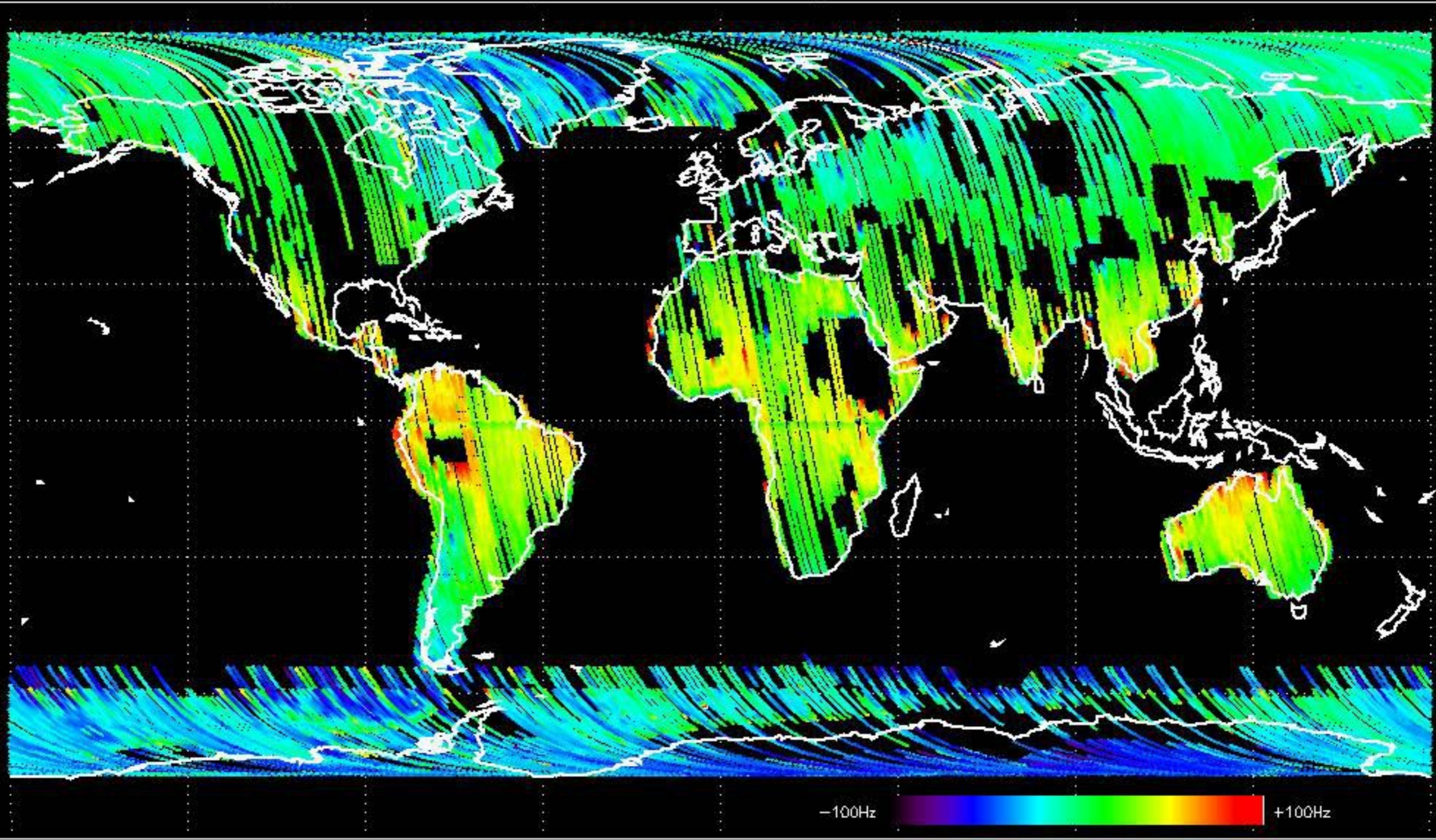


GM1 mode doppler

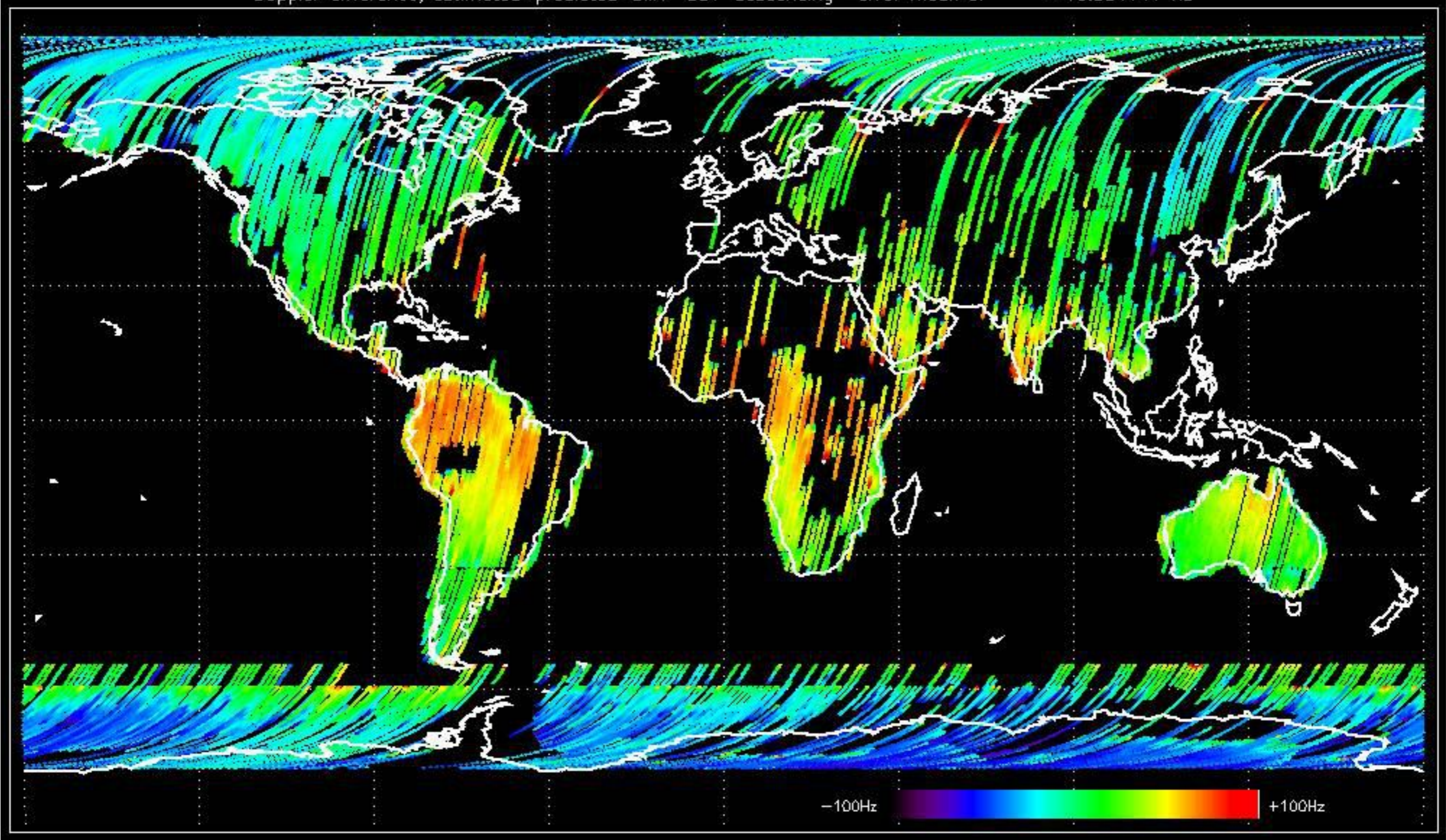




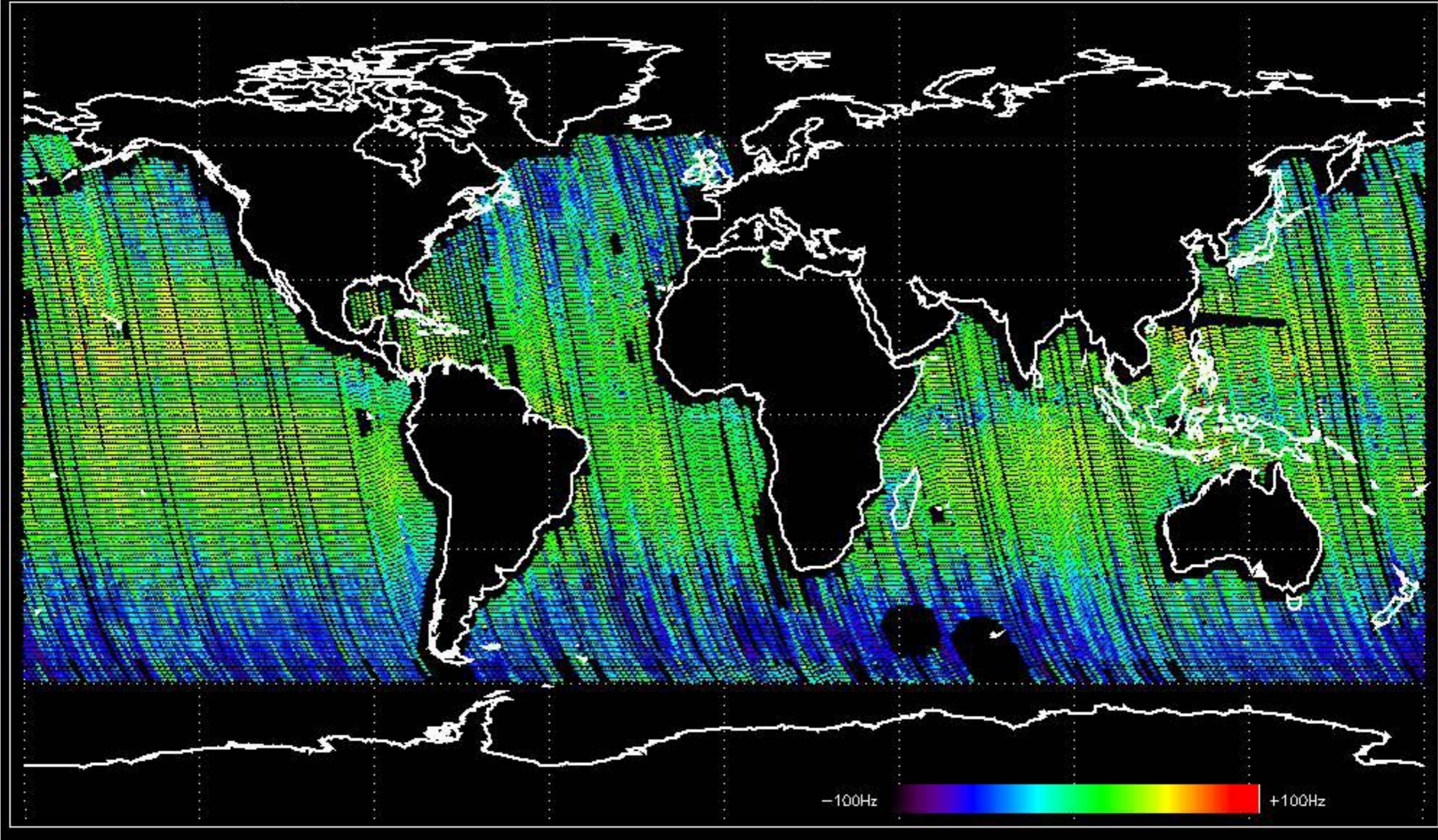
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.390827 Hz



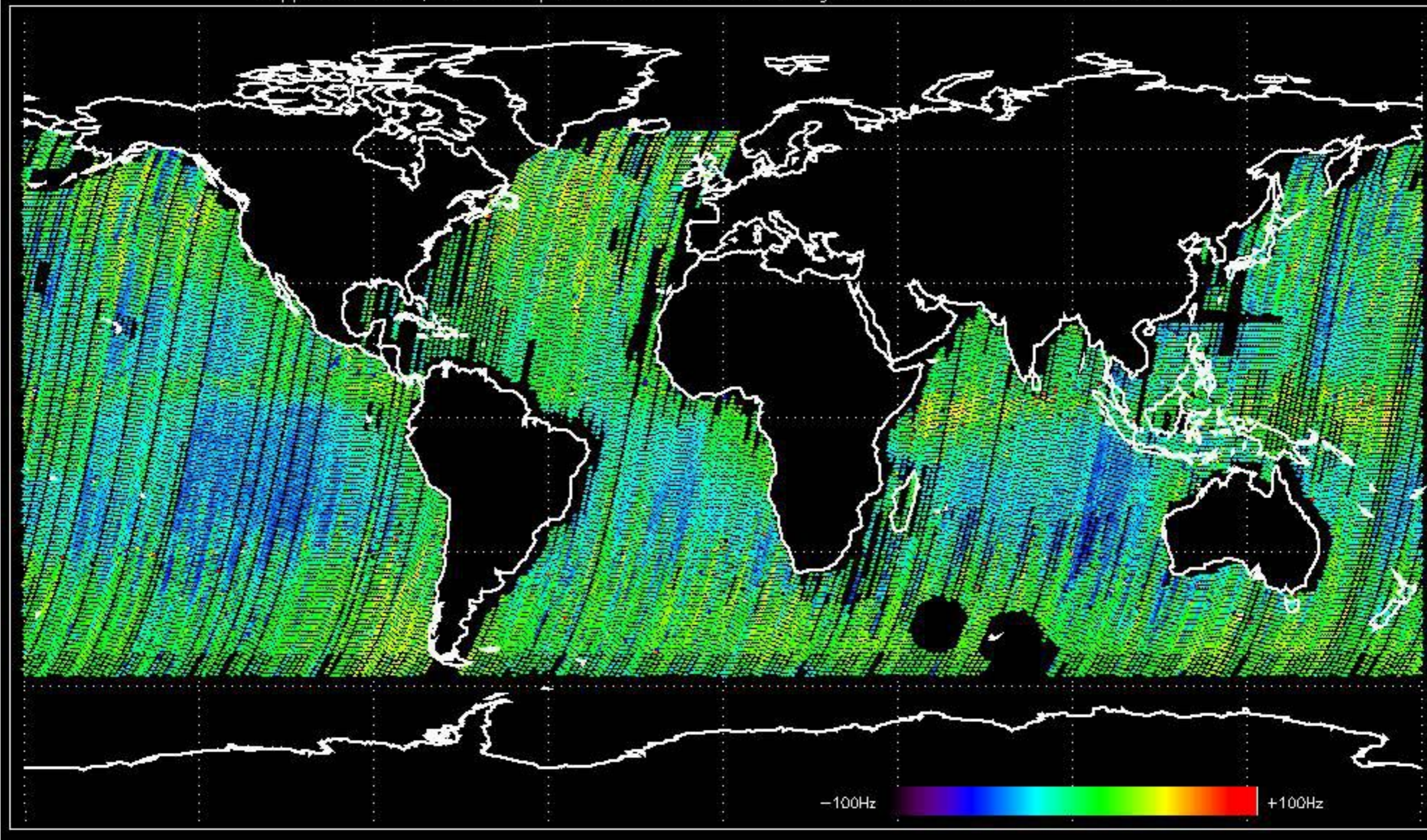
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.554141 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.0860539 Hz

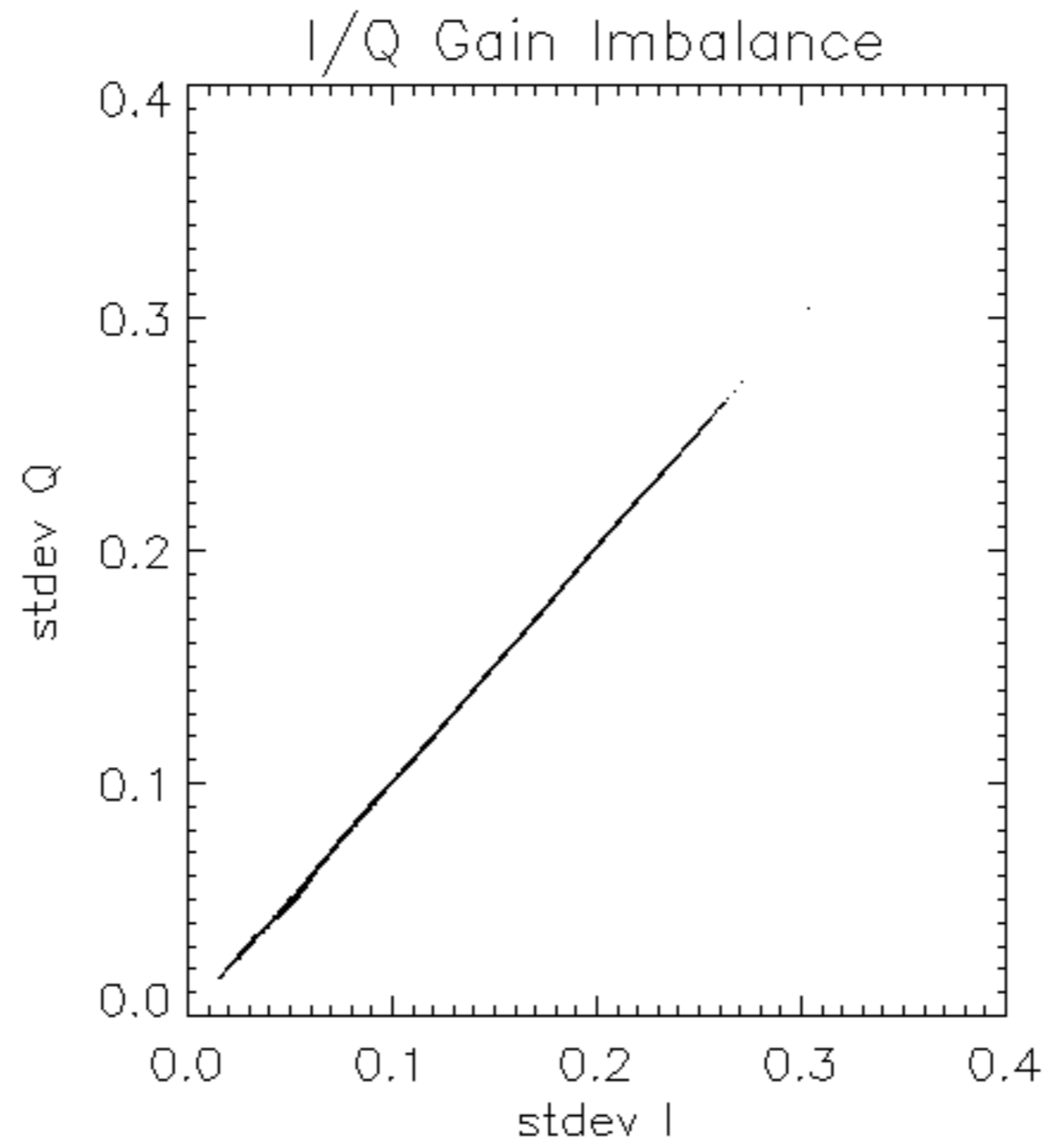


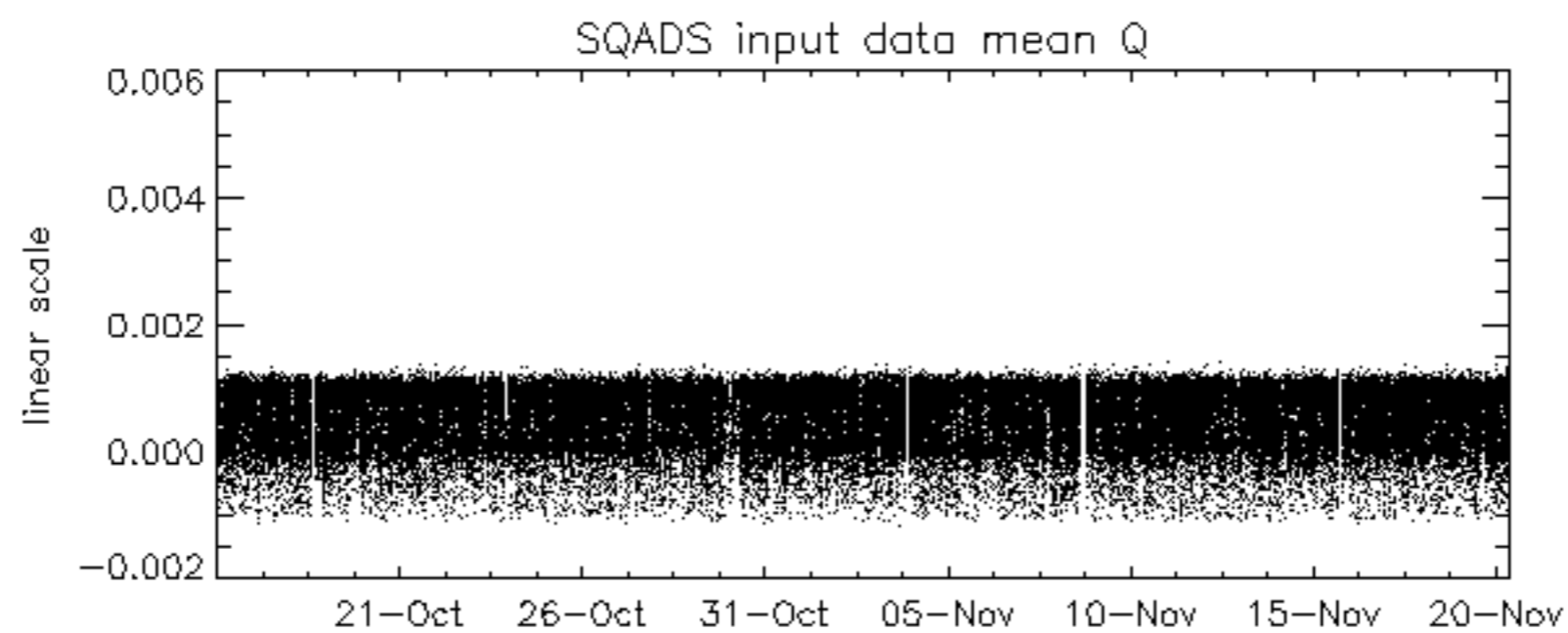
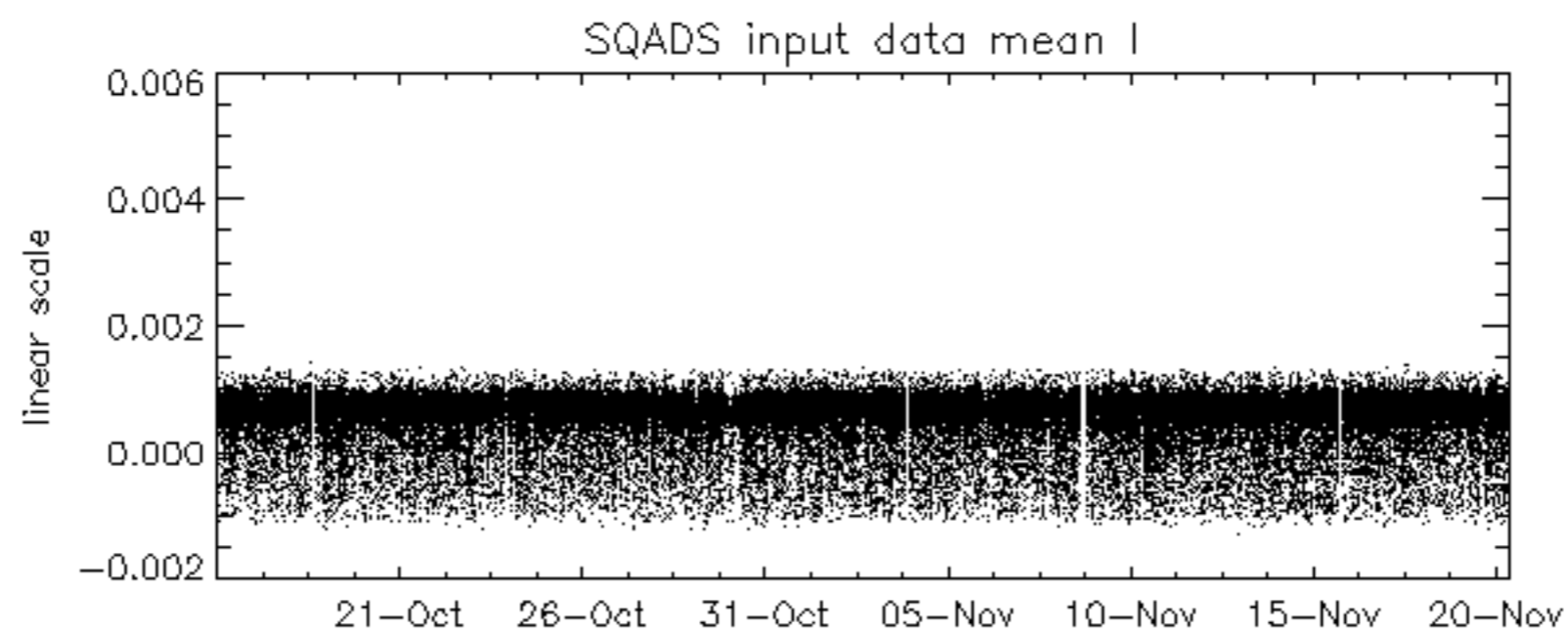
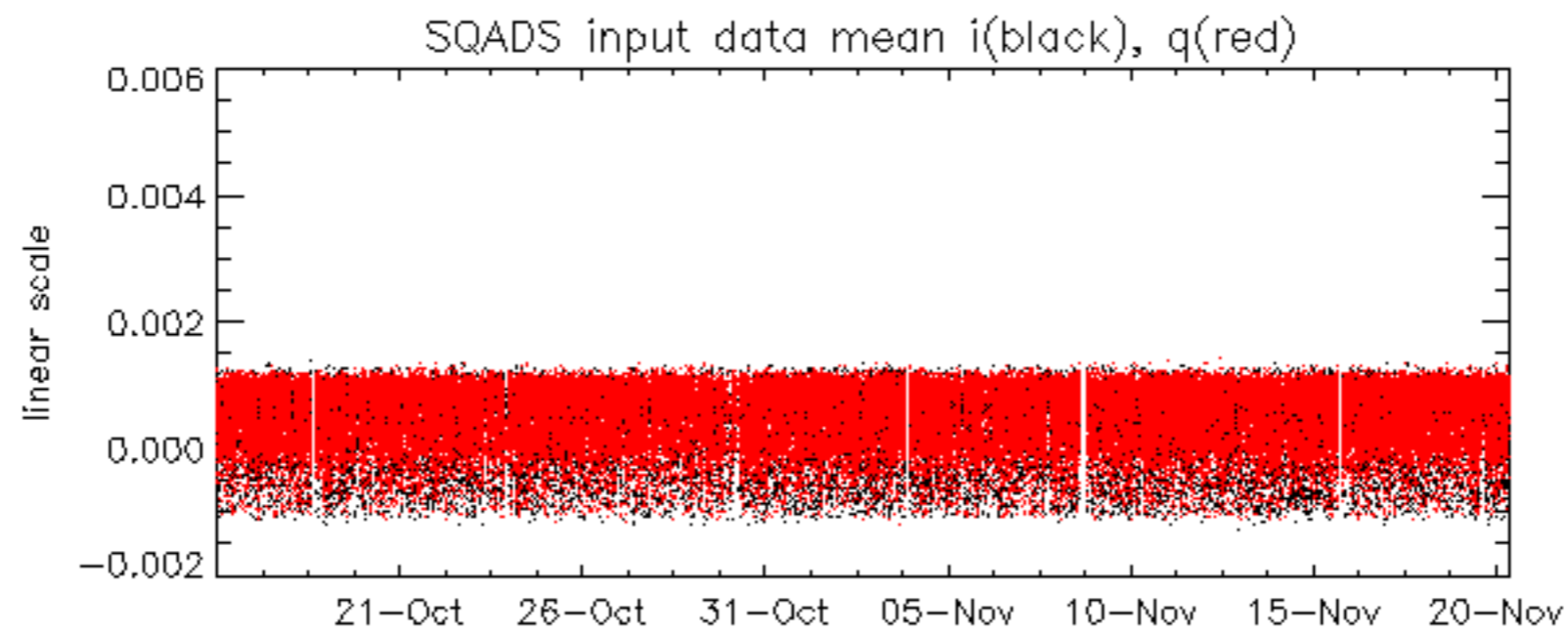
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.4710283 Hz

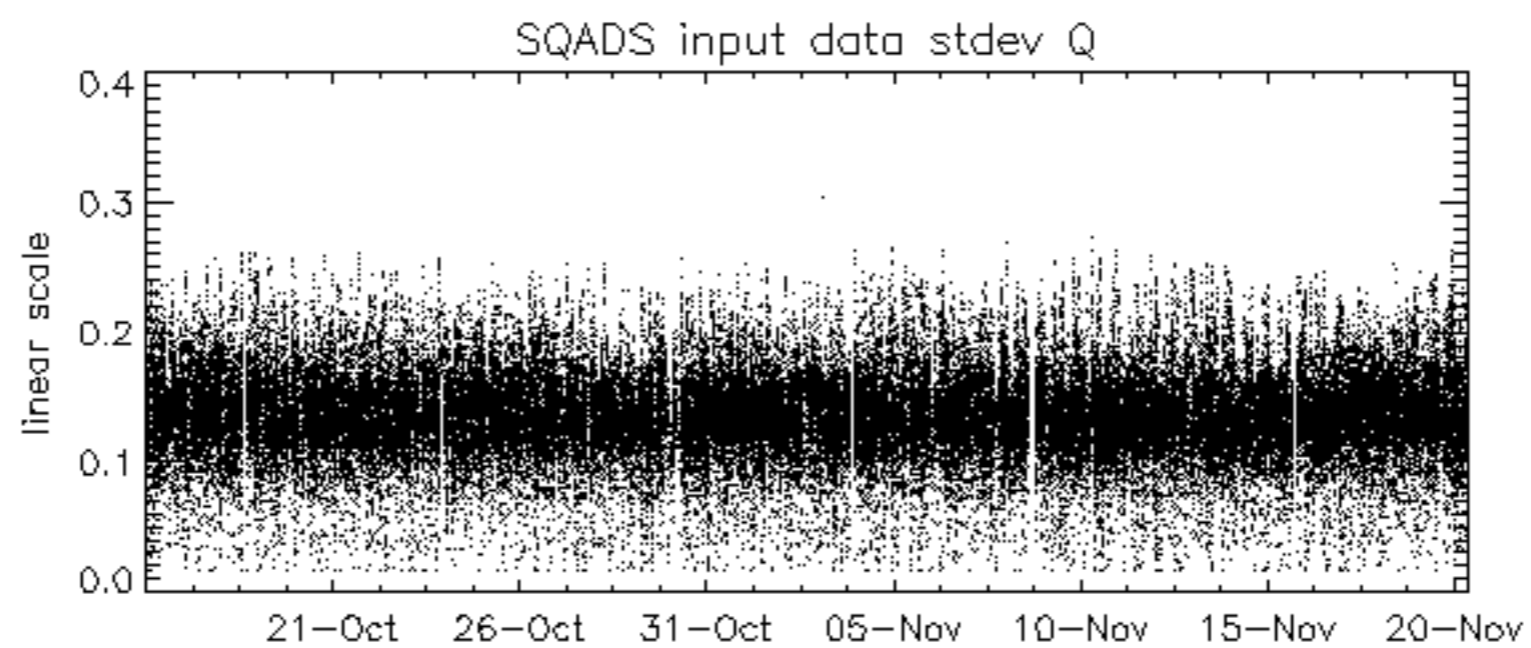
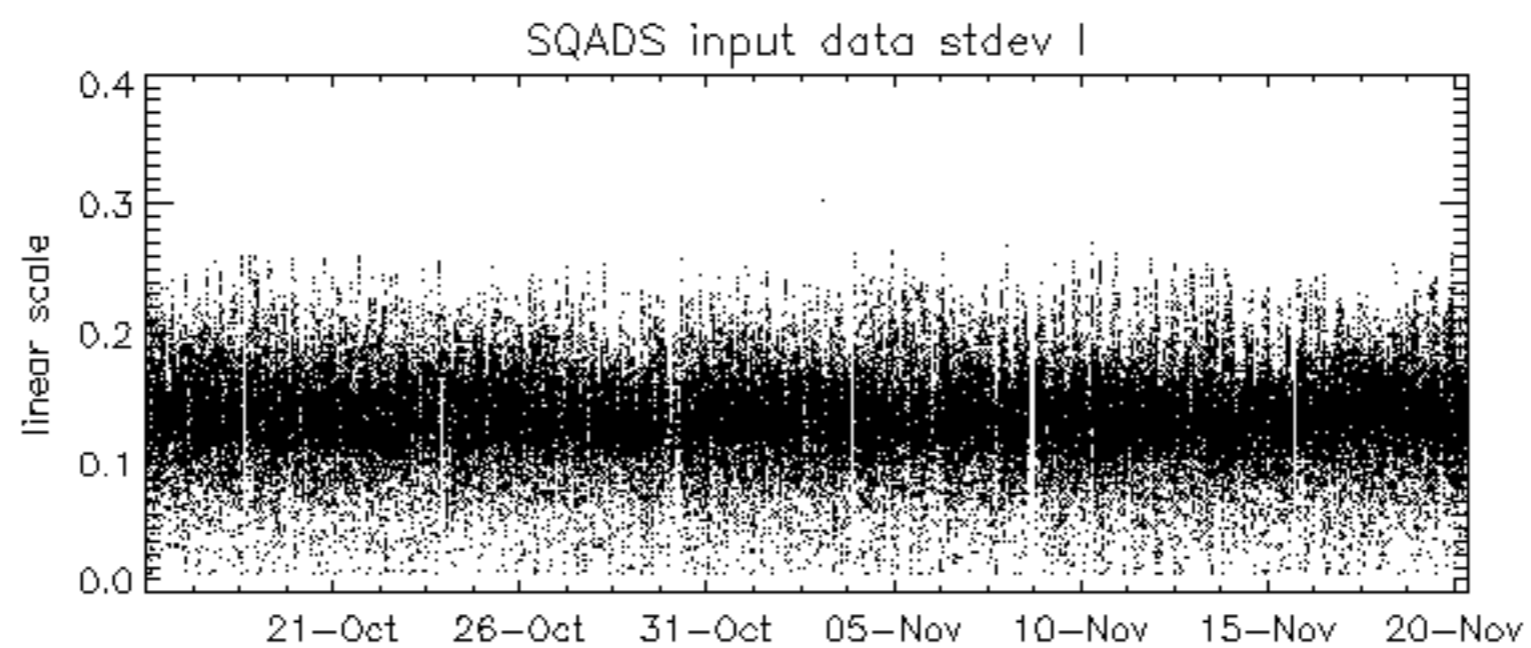
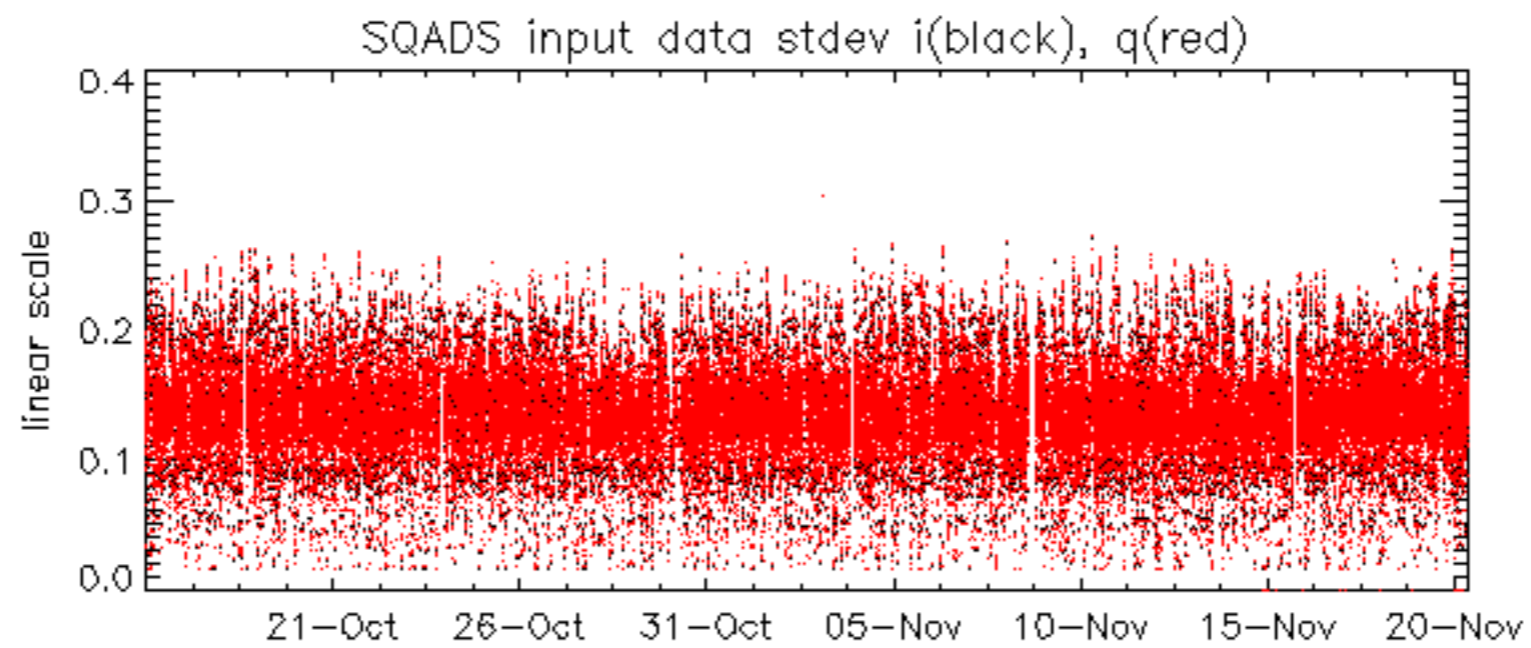


No anomalies observed on available MS products:

No anomalies observed.



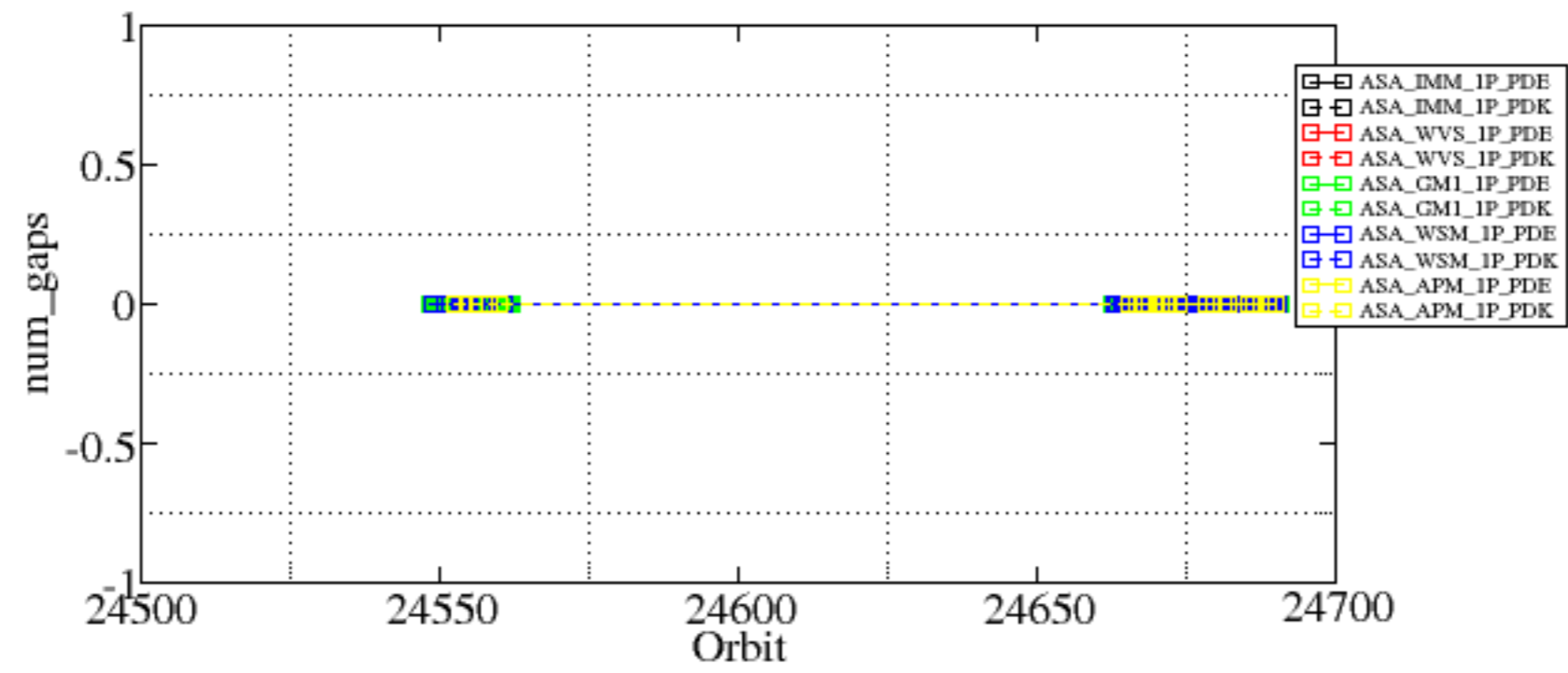


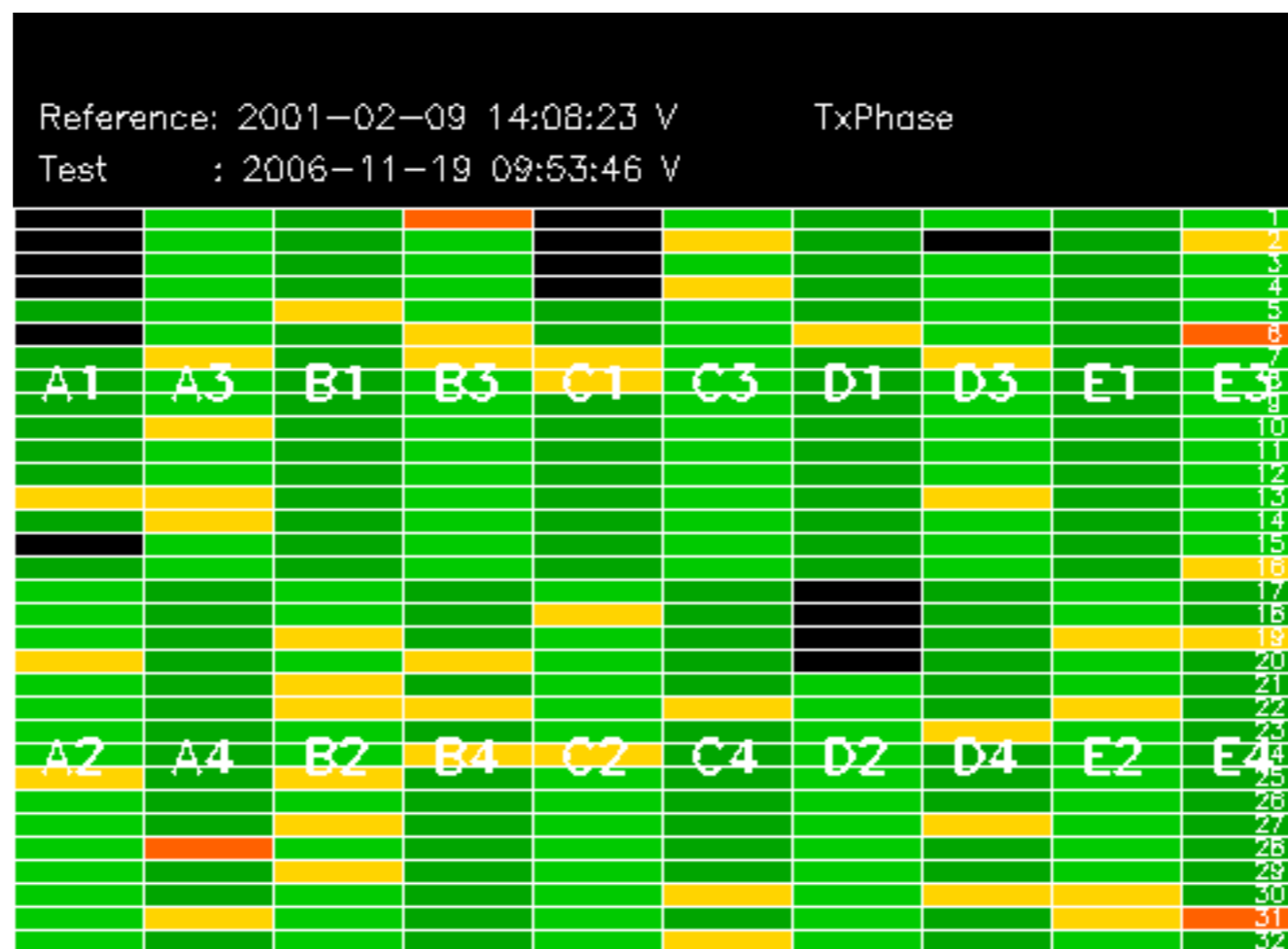


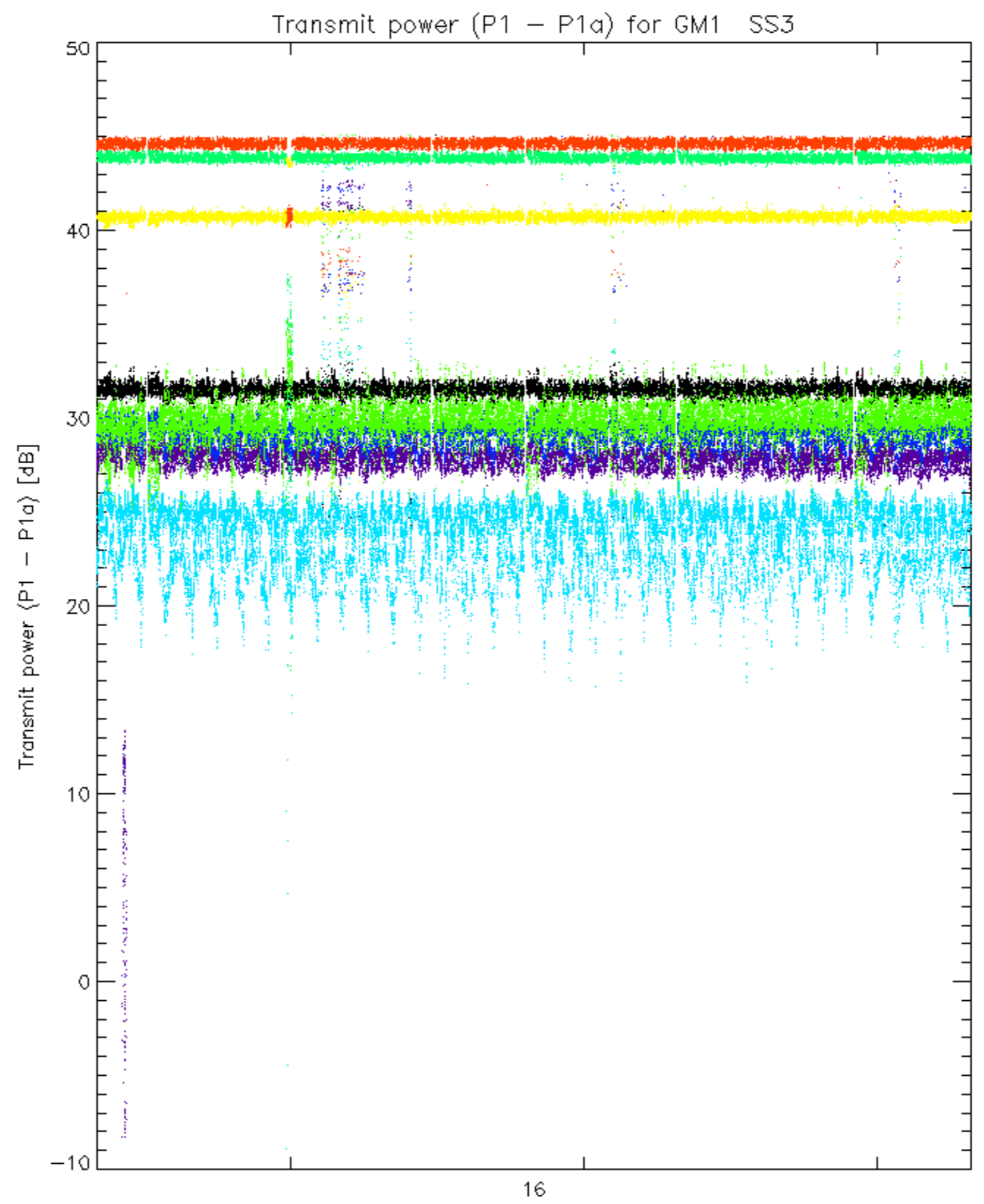
Summary of analysis for the last 3 days 2006111[890]

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

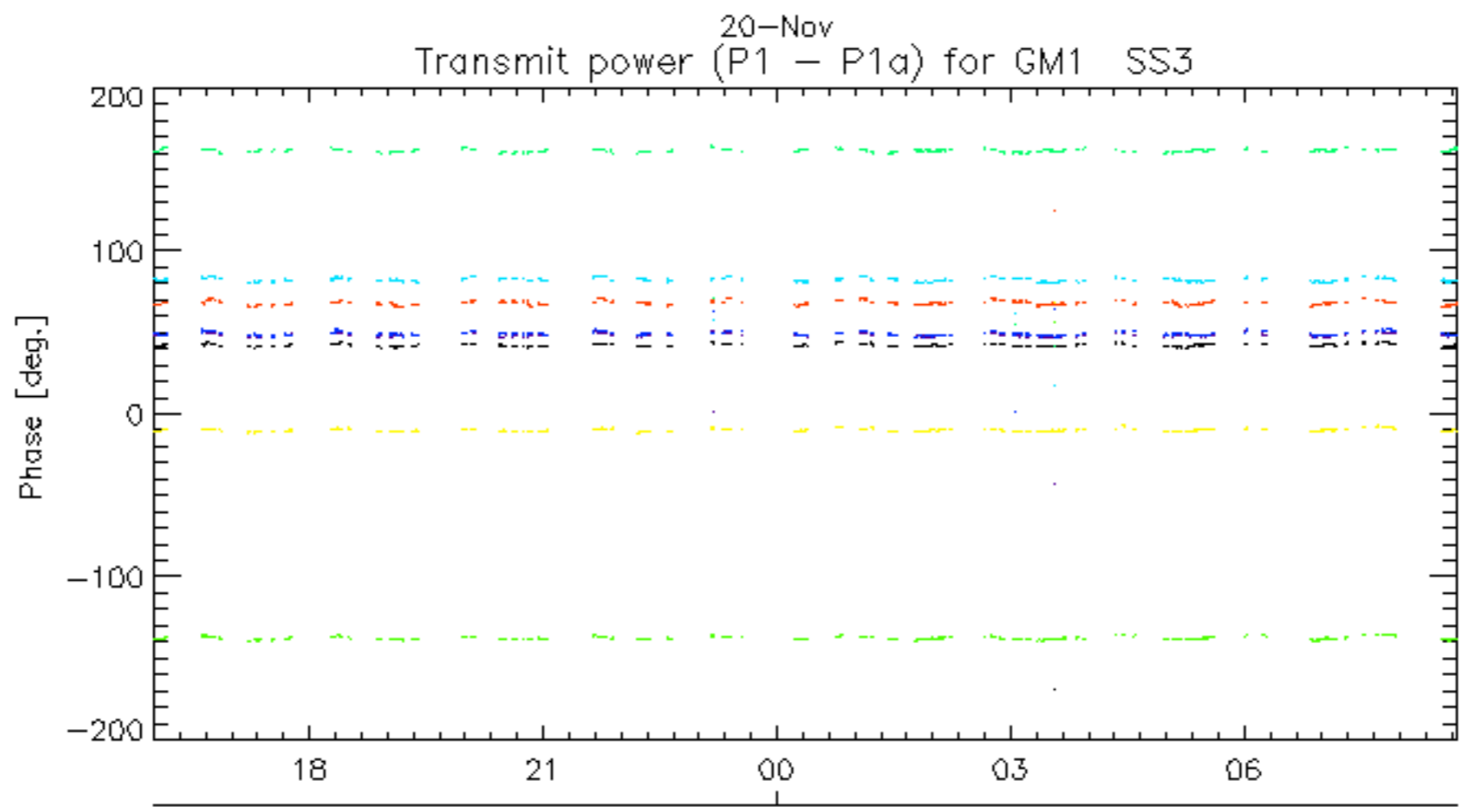
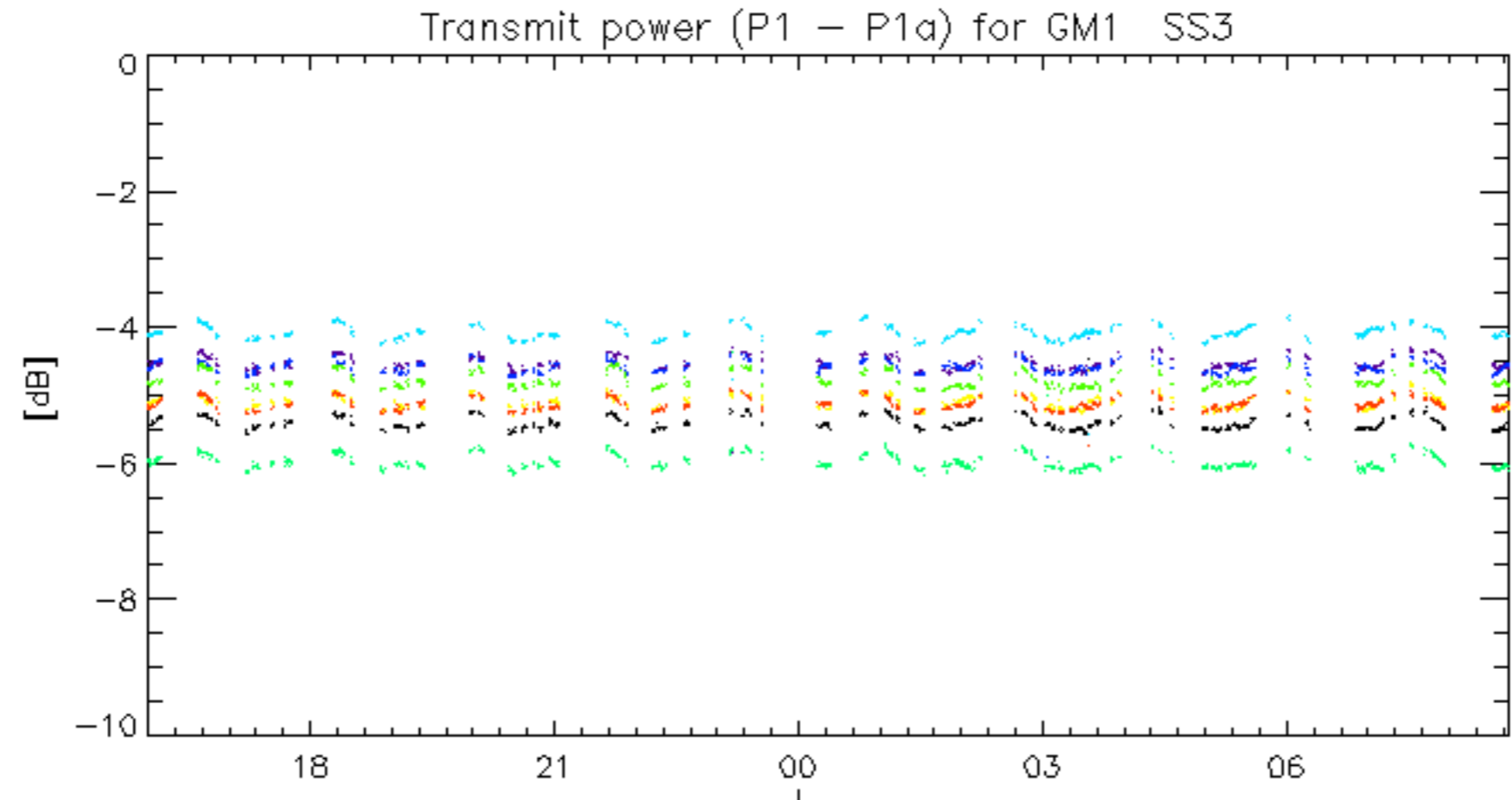
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061118_200624_000000352053_00071_24674_9859.N1	0	20
ASA_IMM_1PNPDK20061110_062233_000000592052_00449_24551_3724.N1	0	1
ASA_GM1_1PNPDK20061110_150123_000001872052_00454_24556_8390.N1	0	30
ASA_GM1_1PNPDK20061110_152402_000006522052_00455_24557_8387.N1	0	28
ASA_GM1_1PNPDK20061118_121112_000001992053_00066_24669_8898.N1	0	15
ASA_GM1_1PNPDK20061118_152718_000004472053_00068_24671_8911.N1	0	15
ASA_WSM_1PNPDE20061110_005418_000002632052_00446_24548_0001.N1	0	29
ASA_WSM_1PNPDE20061118_042105_000001842053_00062_24665_0001.N1	0	34
ASA_WSM_1PNPDE20061118_142442_000000852053_00068_24671_0001.N1	0	29
ASA_WSM_1PNPDK20061110_141658_000003302052_00454_24556_9834.N1	0	60
ASA_WSM_1PNPDK20061110_142505_000000672052_00454_24556_9836.N1	0	18
ASA_WSM_1PNPDK20061110_165310_000000852052_00456_24558_9847.N1	0	59
ASA_WSM_1PNPDK20061119_135303_000000852053_00082_24685_0402.N1	0	29



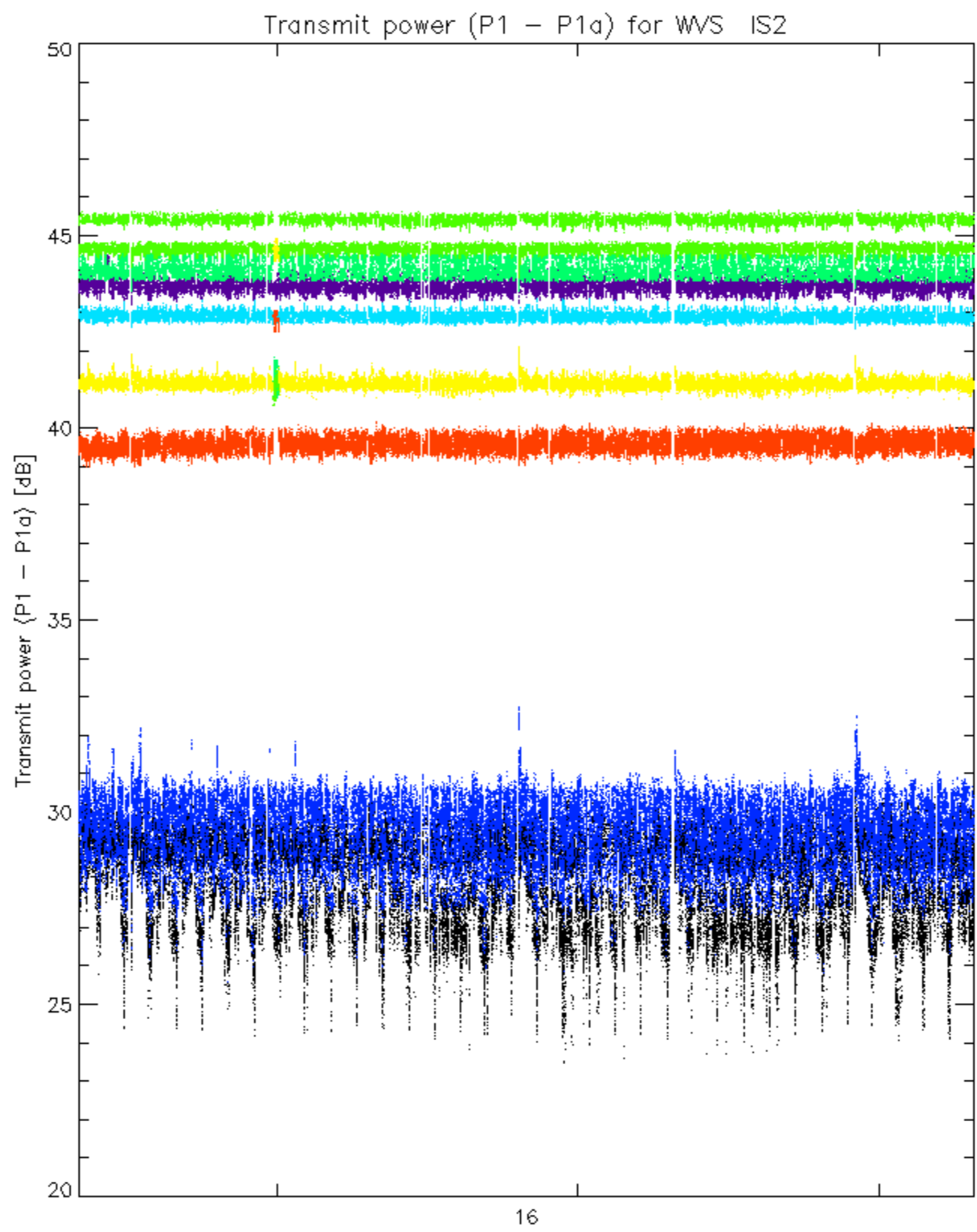


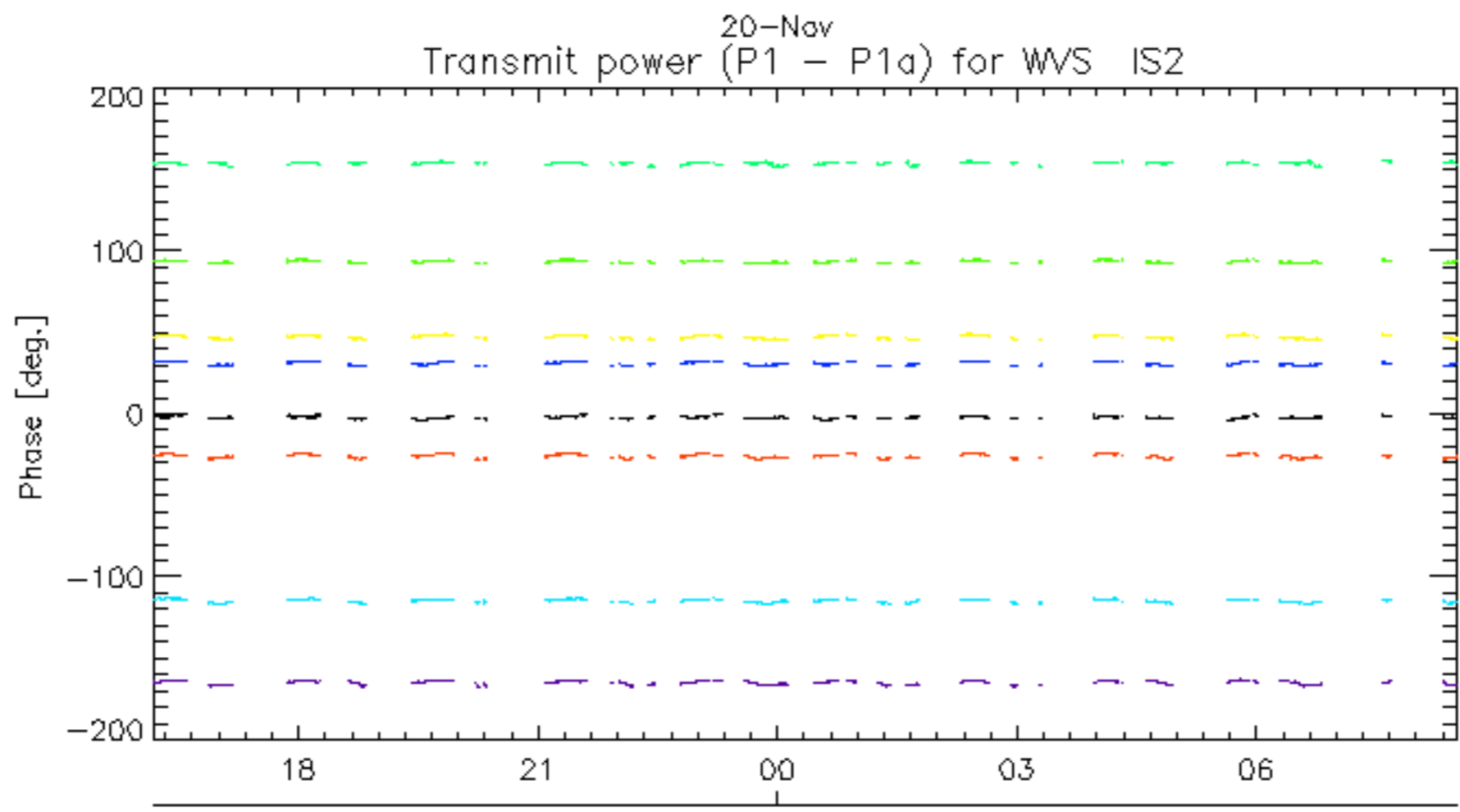
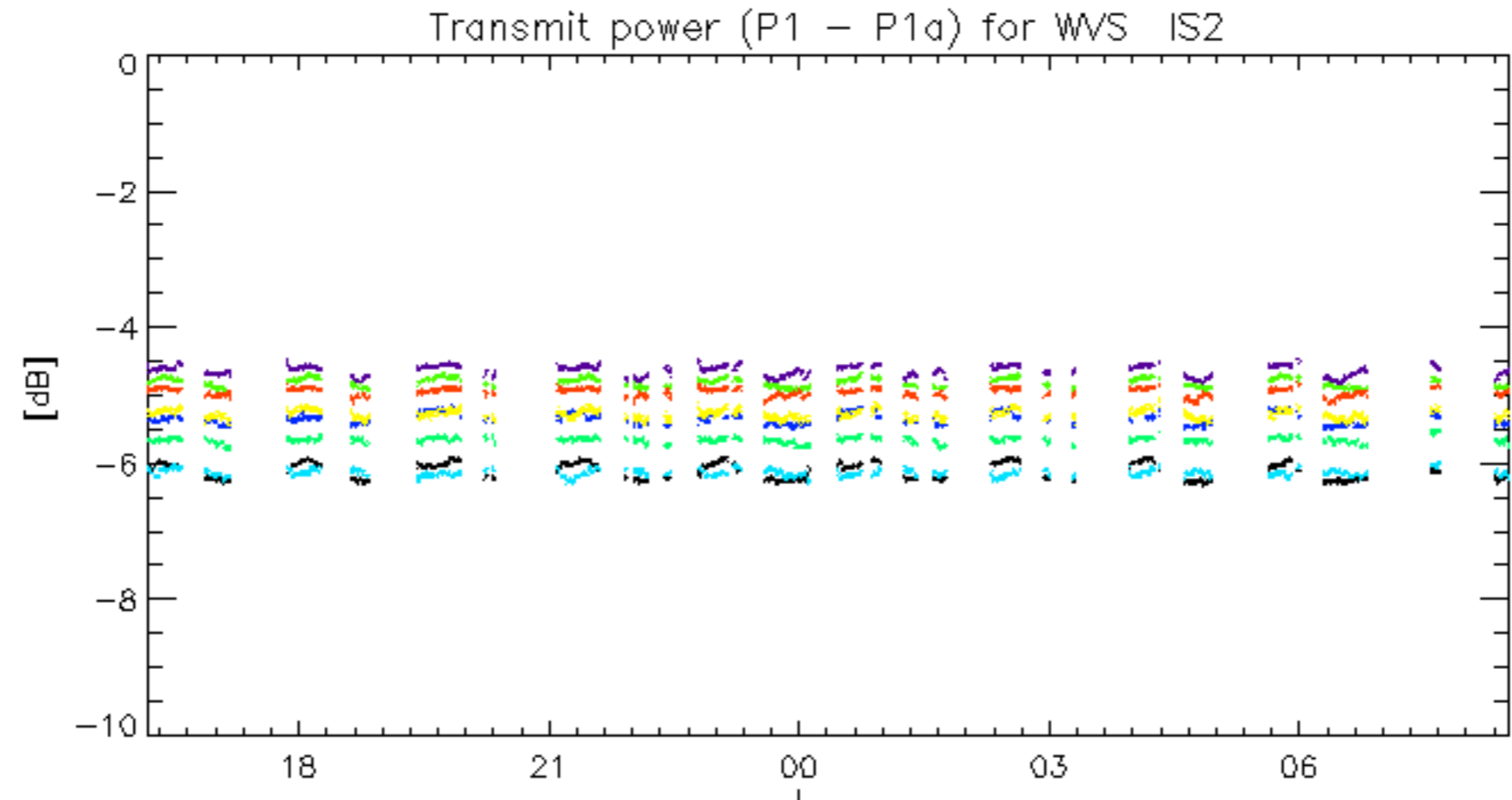


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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No unavailabilities during the reported period.