

PRELIMINARY REPORT OF 051028

last update on Fri Oct 28 17:05:04 GMT 2005

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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 2005-10-27 00:00:00 to 2005-10-28 17:05:04

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	60	16	4	0
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	38	60	16	4	0
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	60	16	4	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	60	16	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	39	55	33	15	68
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	39	55	33	15	68
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	39	55	33	15	68
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	39	55	33	15	68

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	20051028 055516
H	20051027 062653

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	-3.527697	0.008831	0.036993
7	P1	-2.908325	0.011860	-0.084929
11	P1	-4.079979	0.016926	-0.096797
15	P1	-6.034815	0.014761	-0.046752
19	P1	-3.161771	0.005480	-0.040013
22	P1	-4.456146	0.013665	-0.069555
26	P1	-4.267205	0.014776	0.050876
30	P1	-5.713058	0.008790	-0.049933
3	P1	-15.364179	0.180573	0.281543
7	P1	-16.295799	0.117629	-0.174196
11	P1	-16.264496	0.300396	-0.355725
15	P1	-13.359321	0.110129	-0.119403
19	P1	-13.639220	0.044188	-0.178751
22	P1	-16.168009	0.476677	-0.364442
26	P1	-16.111908	0.255770	0.382781
30	P1	-16.433146	0.198761	-0.218634

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.864710	0.099016	-0.003267
7	P2	-22.690031	0.104738	0.083793
11	P2	-16.727913	0.114027	0.158395
15	P2	-7.227418	0.101624	-0.051544
19	P2	-9.181161	0.094013	-0.065220
22	P2	-17.741489	0.100369	-0.143468
26	P2	-16.114565	0.096069	-0.130580
30	P2	-19.626337	0.090604	-0.022894

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.195512	0.005931	-0.042880
7	P3	-8.195512	0.005931	-0.042880
11	P3	-8.195512	0.005931	-0.042880
15	P3	-8.195512	0.005931	-0.042880
19	P3	-8.195512	0.005931	-0.042880
22	P3	-8.195512	0.005931	-0.042880
26	P3	-8.195512	0.005931	-0.042880
30	P3	-8.195512	0.005931	-0.042880

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	-3.662460	0.007073	-0.005883
7	P1	-2.820282	0.011967	0.084405
11	P1	-2.852175	0.012427	0.000003
15	P1	-3.383464	0.018132	0.024967
19	P1	-3.352573	0.011089	-0.029293
22	P1	-5.138540	0.019488	0.050456
26	P1	-5.785242	0.017249	-0.048804
30	P1	-5.214895	0.026306	-0.034651
3	P1	-11.404399	0.033512	-0.013299
7	P1	-9.925056	0.040780	-0.001190
11	P1	-10.018053	0.057868	-0.024245
15	P1	-10.568650	0.092096	0.068690
19	P1	-15.468666	0.069376	-0.088041
22	P1	-20.519243	1.160097	-0.473171

26	P1	-17.122482	0.378901	-0.251677
30	P1	-18.698040	0.386871	0.597493

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.705933	0.037548	-0.001059
7	P2	-23.064249	0.089399	-0.099041
11	P2	-11.746473	0.026640	0.018434
15	P2	-4.904078	0.029441	-0.100933
19	P2	-6.907088	0.025347	-0.054912
22	P2	-8.115541	0.024867	-0.071499
26	P2	-23.879751	0.038727	-0.139813
30	P2	-22.066284	0.026939	-0.056519

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.039165	0.002813	-0.042514
7	P3	-8.039321	0.002823	-0.042430
11	P3	-8.039225	0.002820	-0.042548
15	P3	-8.039263	0.002815	-0.042506
19	P3	-8.039287	0.002830	-0.042641
22	P3	-8.039232	0.002832	-0.042784
26	P3	-8.039389	0.002834	-0.042387
30	P3	-8.039239	0.002824	-0.042599

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	0.000561363
	stdev	1.70095e-07
MEAN Q	mean	0.000543711
	stdev	2.14120e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137823
	stdev	0.00111756
STDEV Q	mean	0.138169
	stdev	0.00113395



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005102[678]

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_1PNPDE20051026_155415_000001532042_00025_19117_9386.N1	1	0
ASA_IMM_1PNPDE20051028_054402_000000352042_00048_19140_9592.N1	1	0
ASA_GM1_1PNPDK20051026_152007_000011362042_00025_19117_9646.N1	0	38





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)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

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

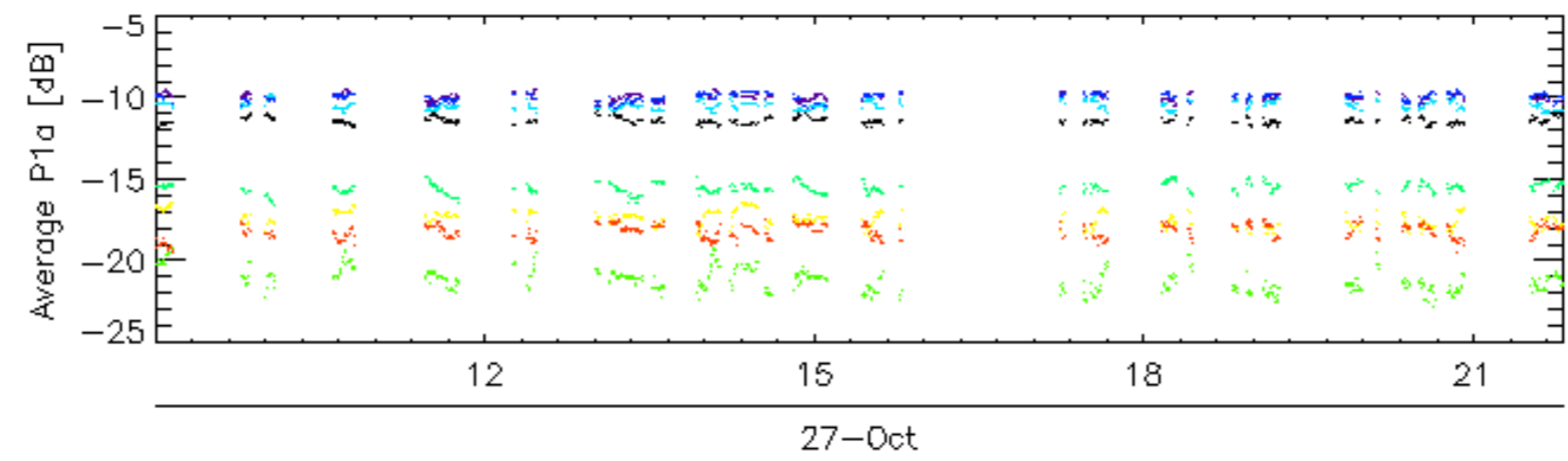
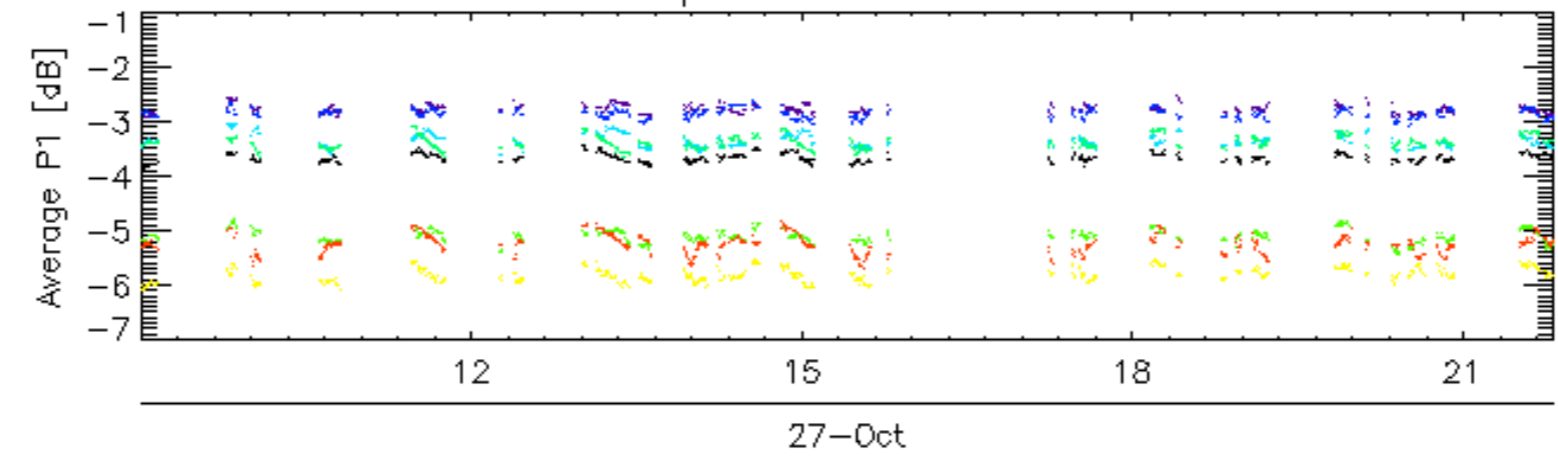
7.5 - Absolute Doppler for GM1

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

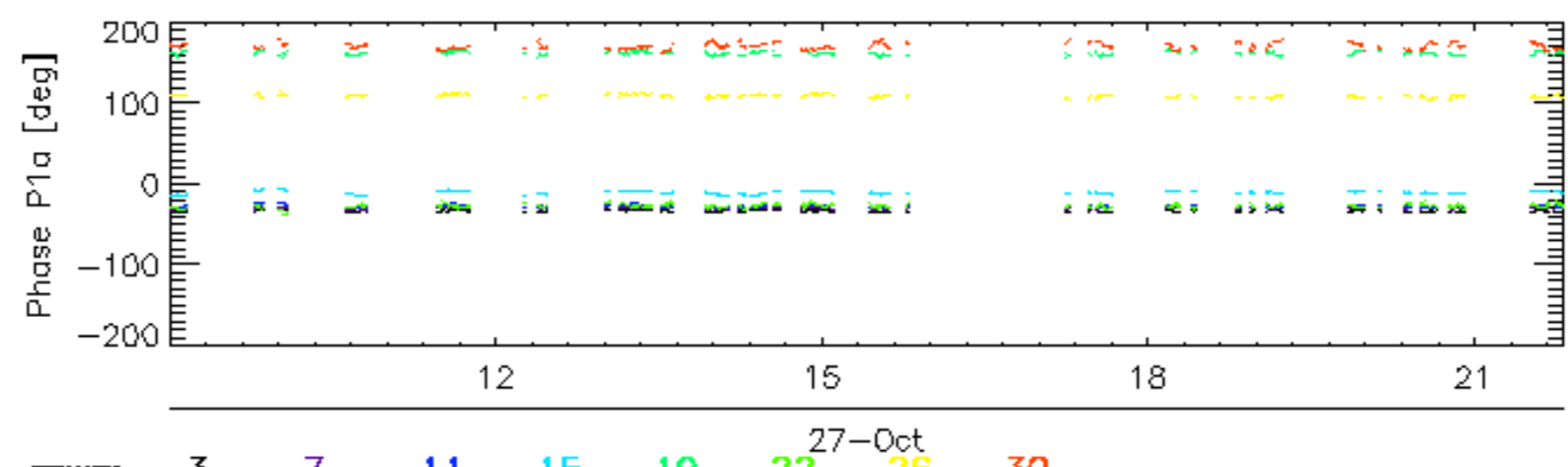
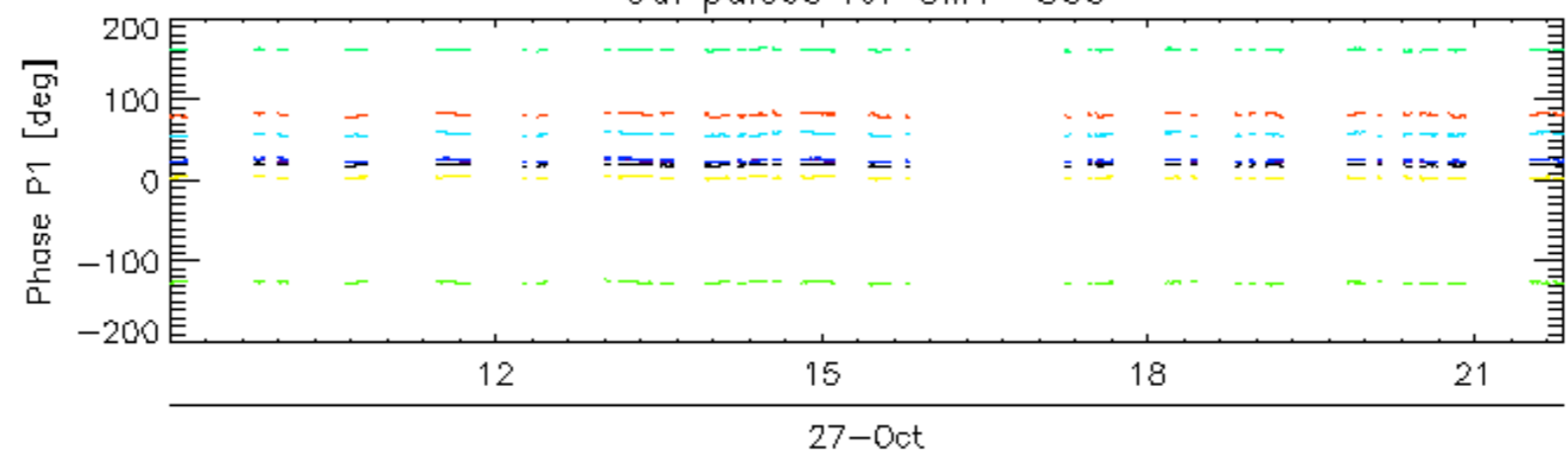
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

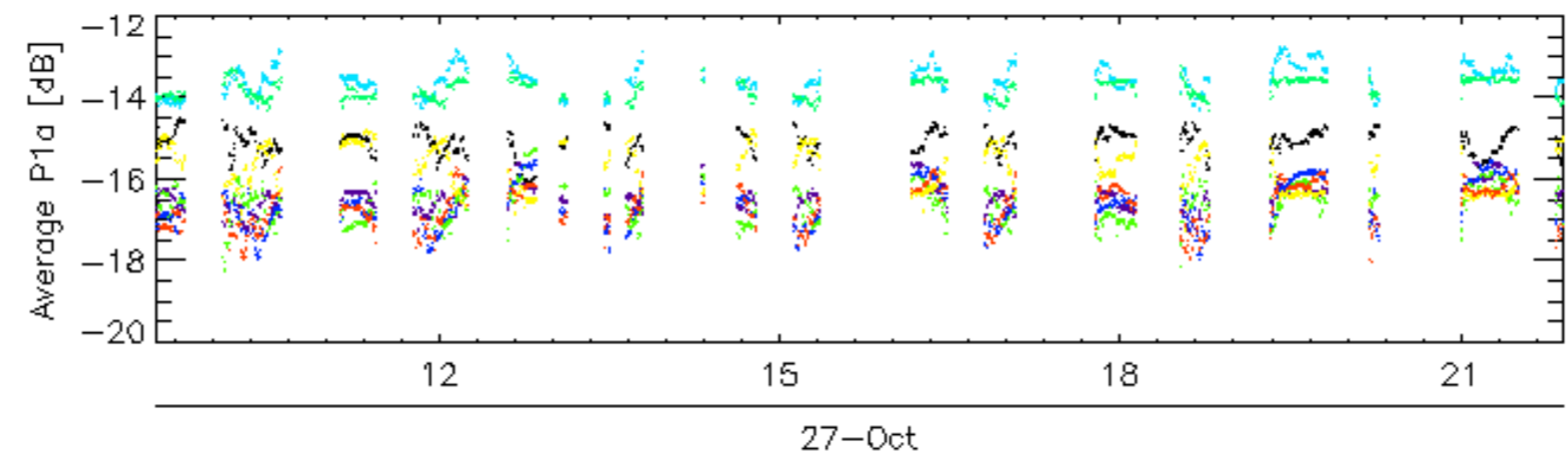
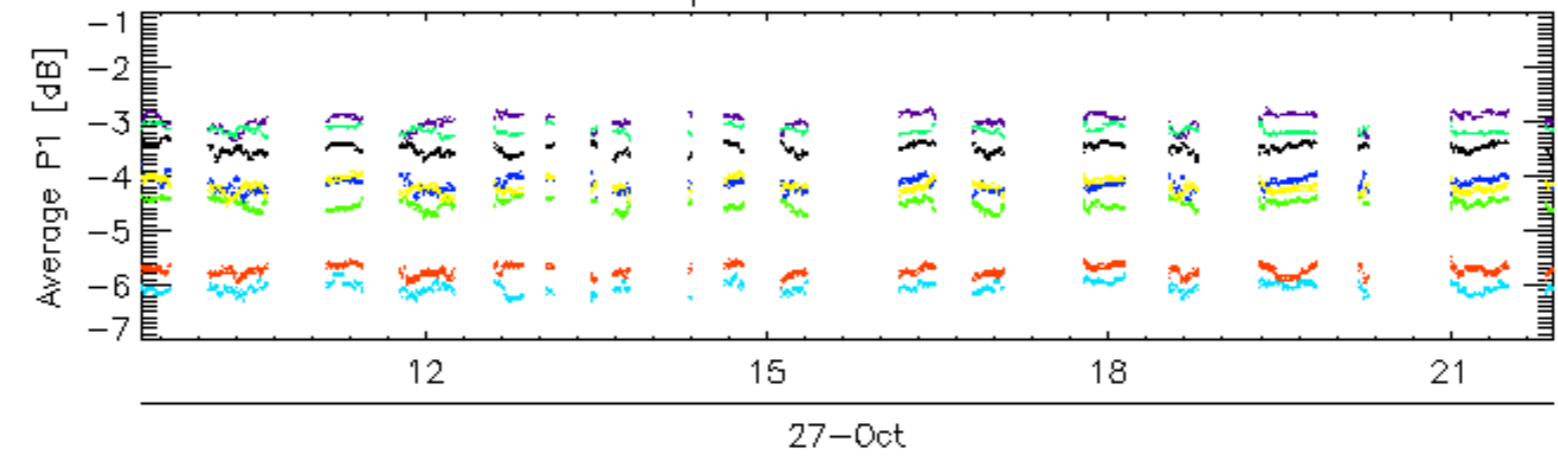


Cal pulses for GM1 SS3

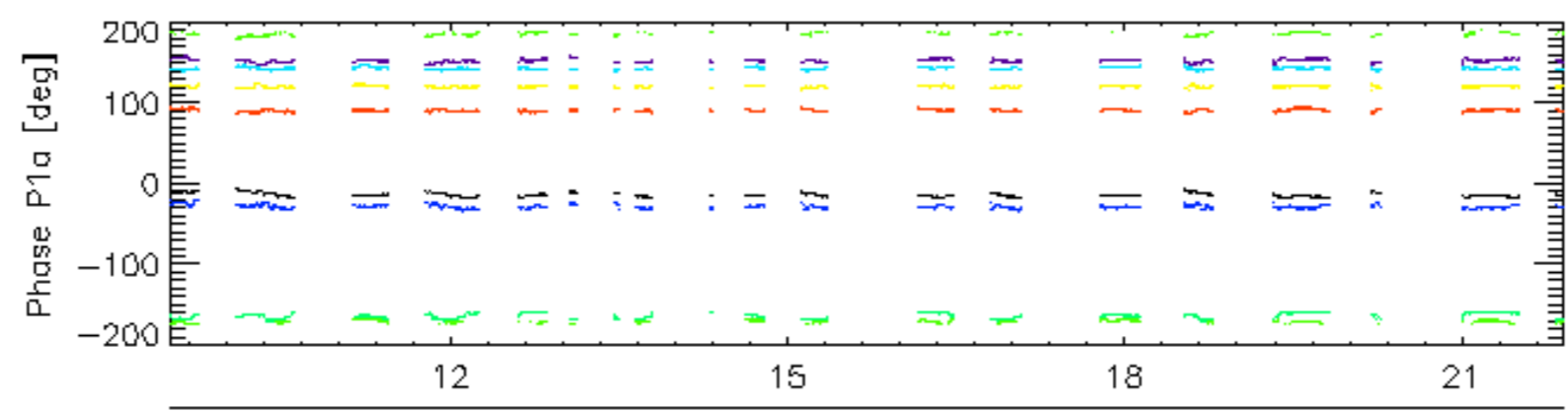
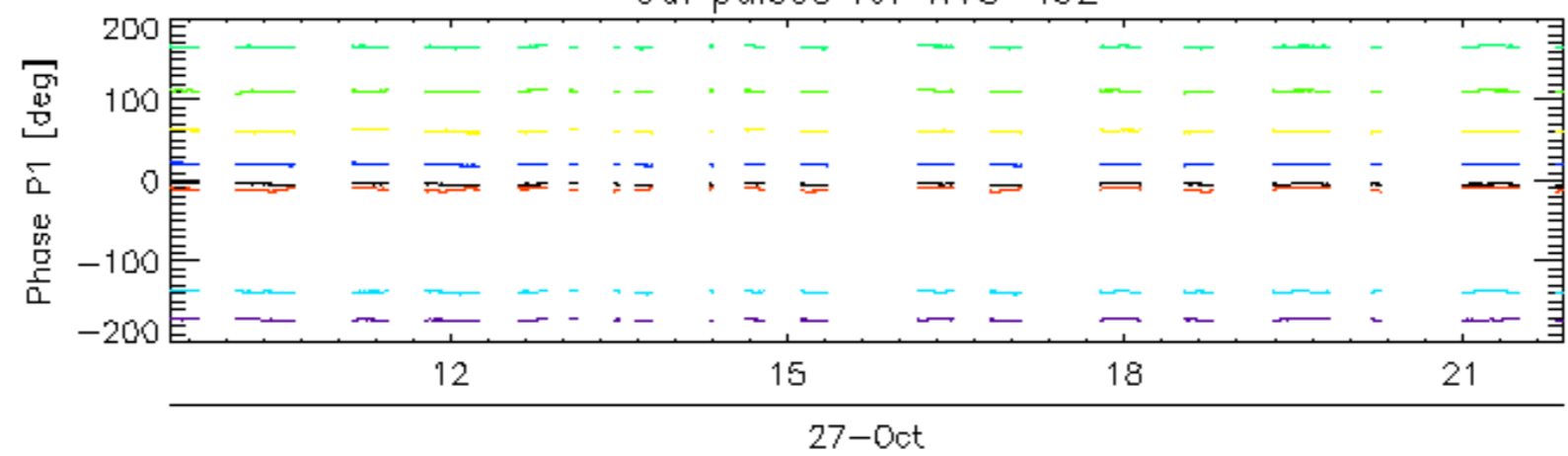


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

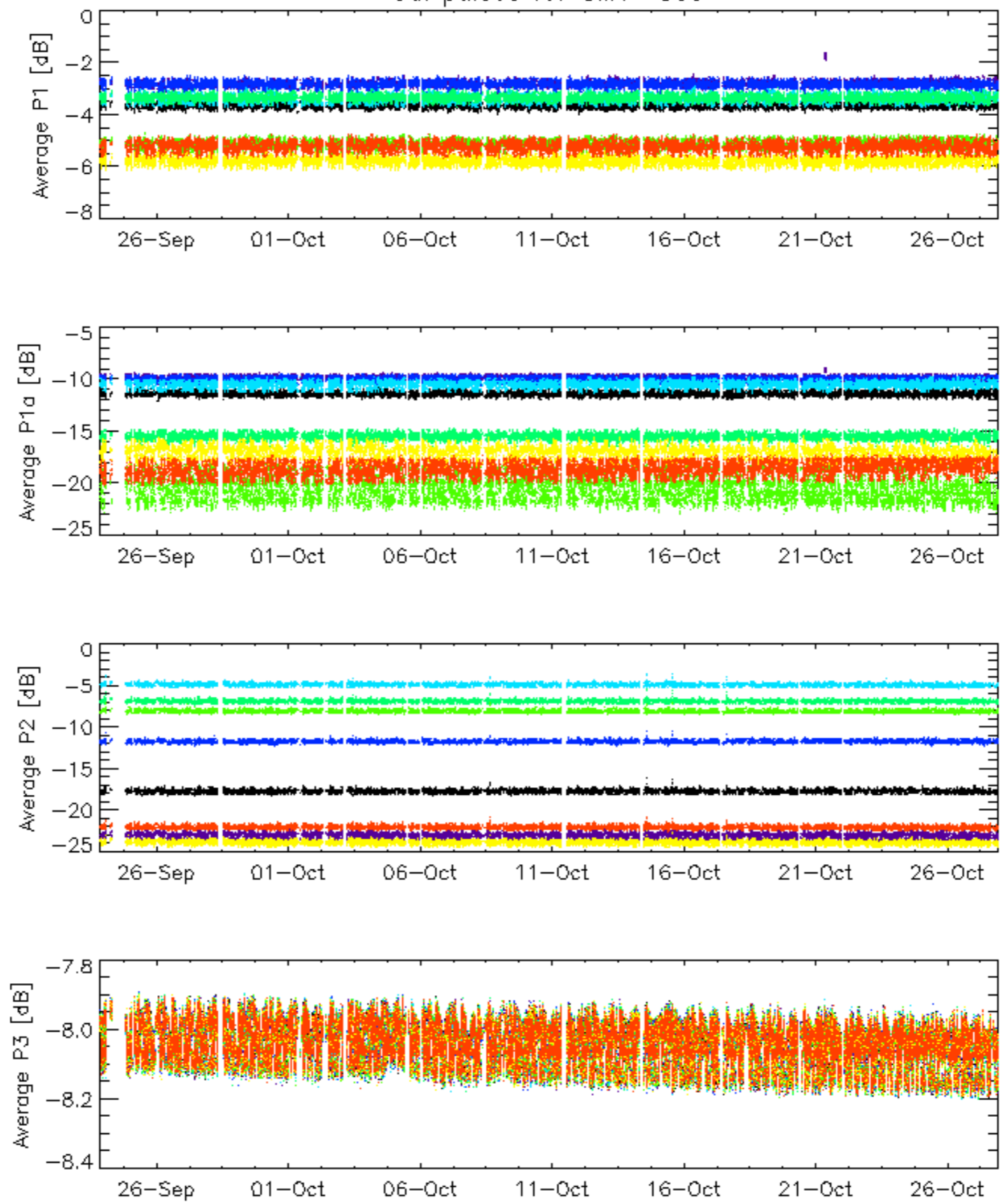


Cal pulses for WVS IS2



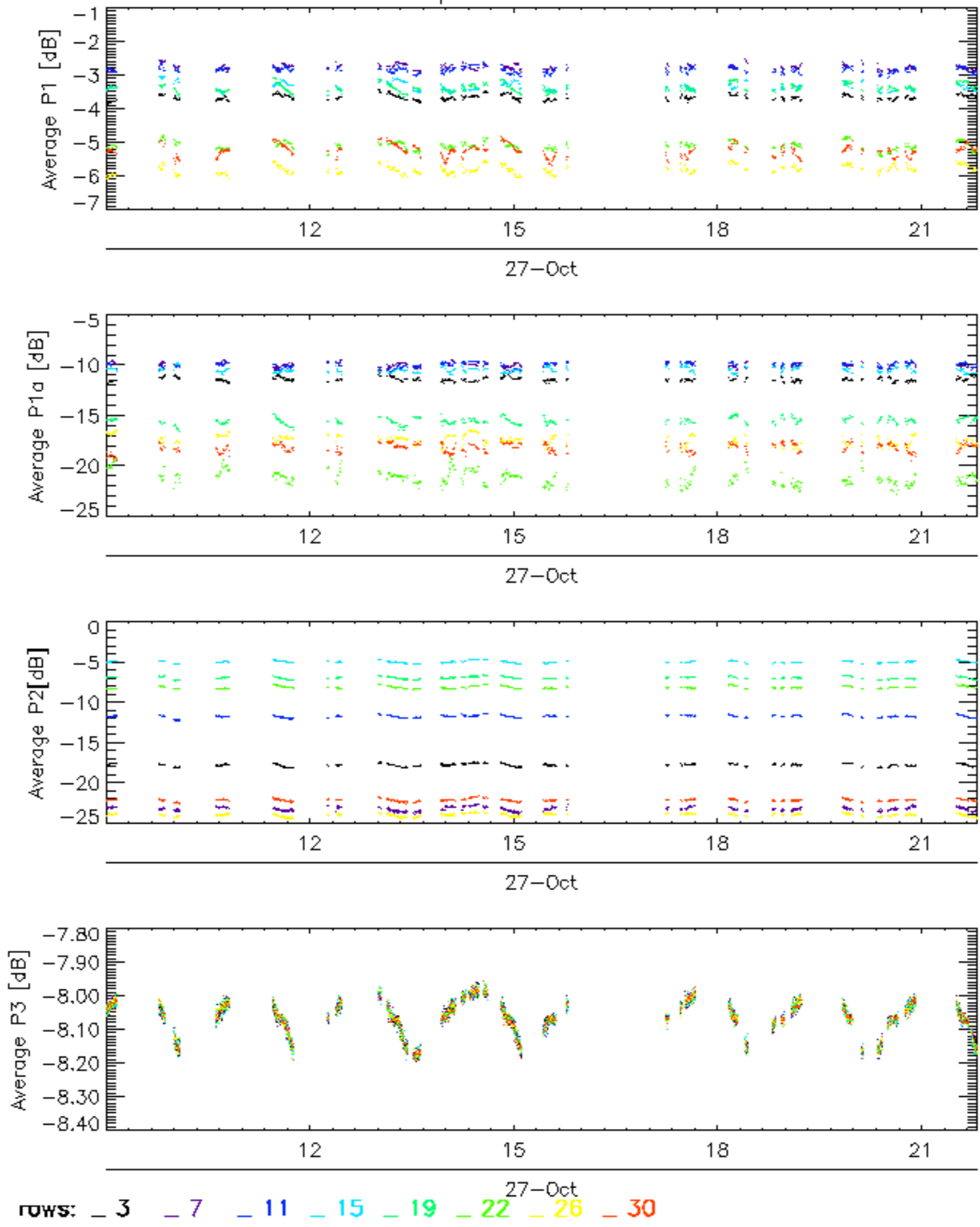
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

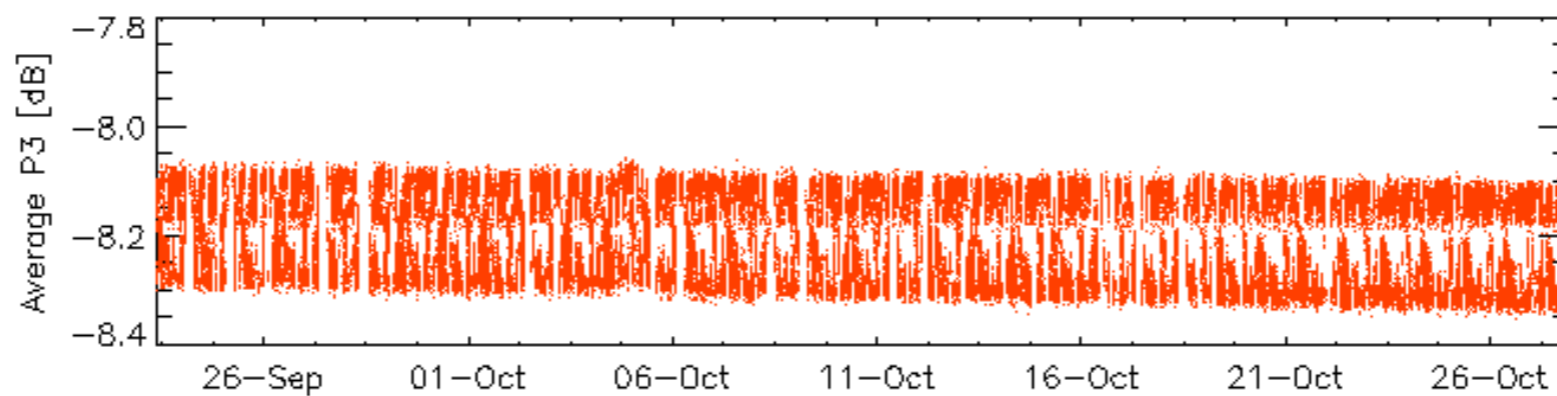
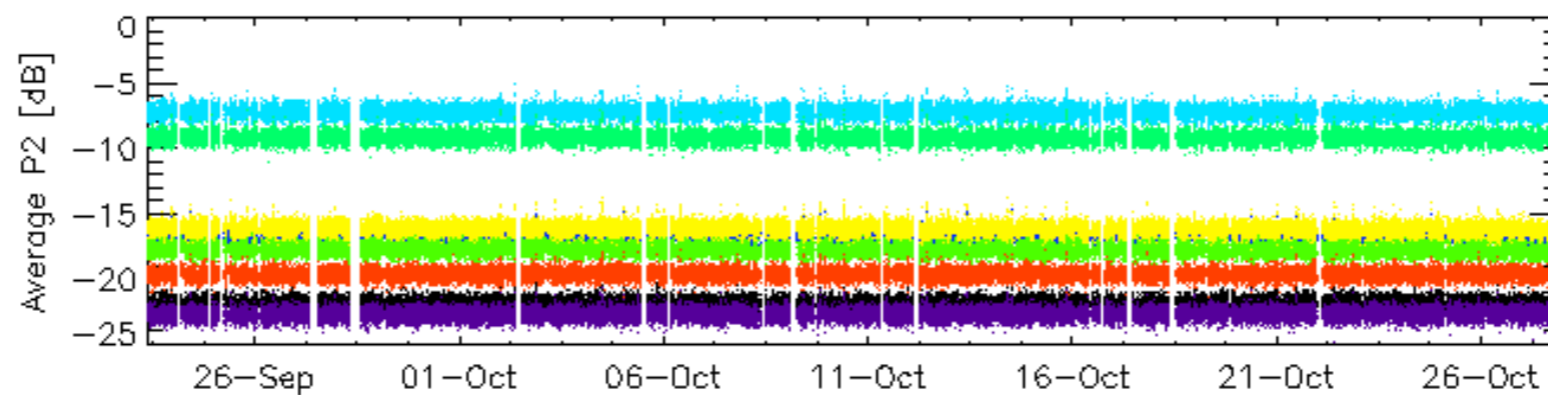
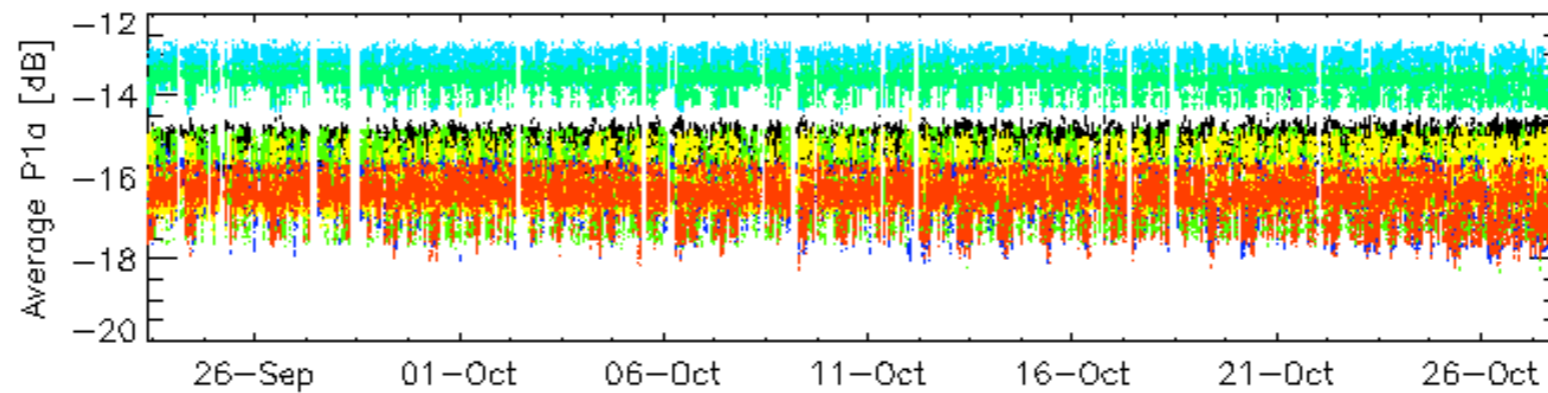
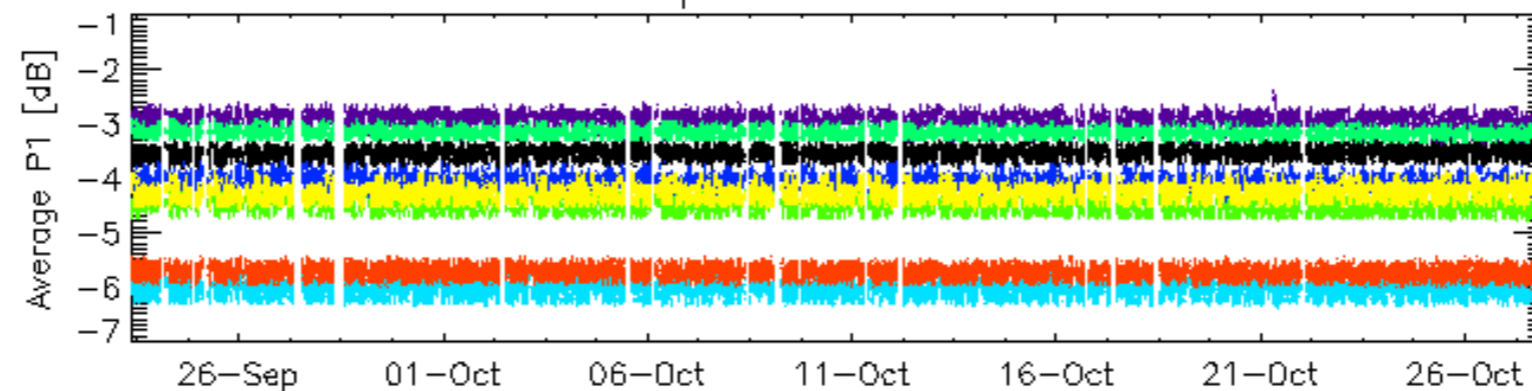


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

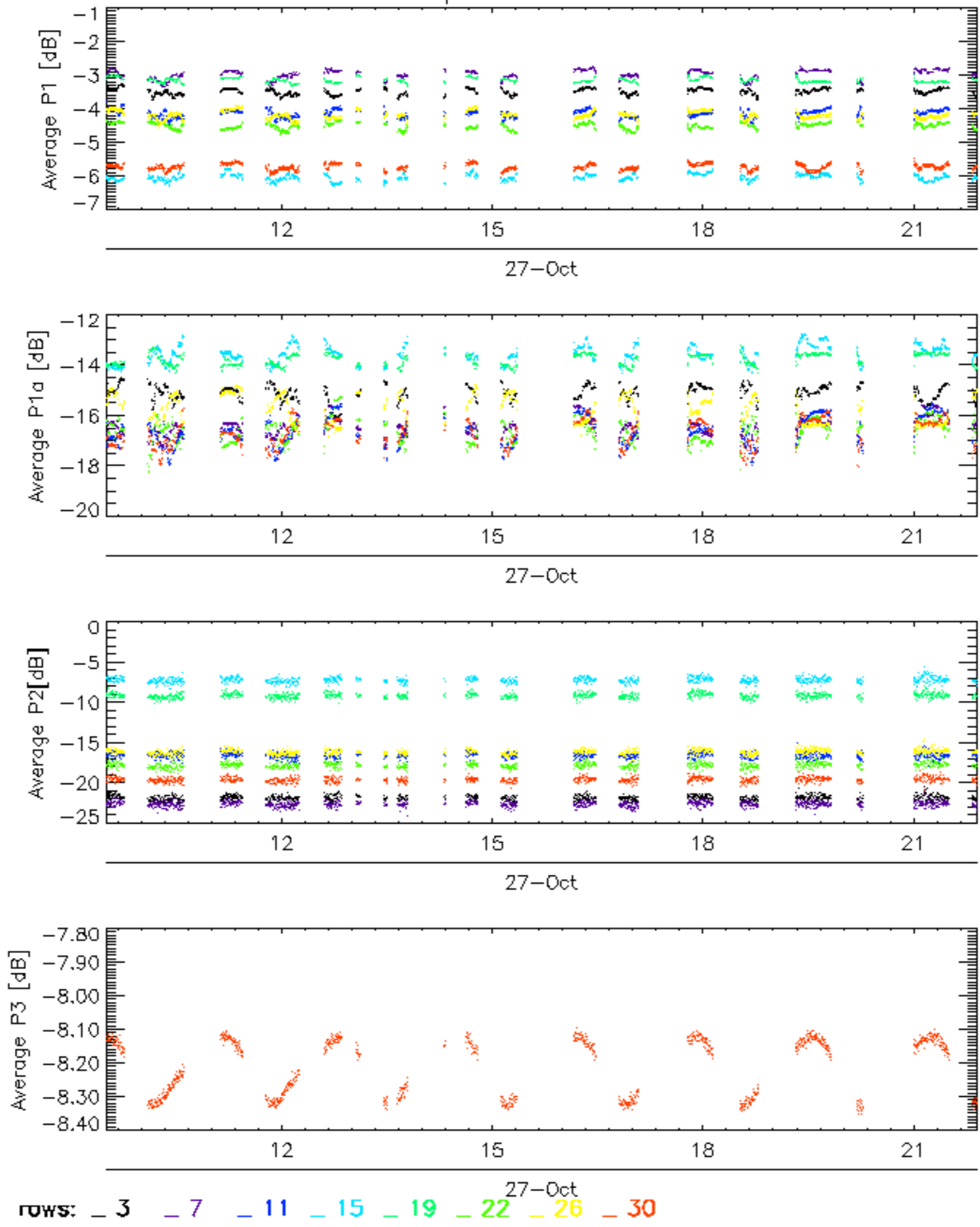


Cal pulses for WVS IS2



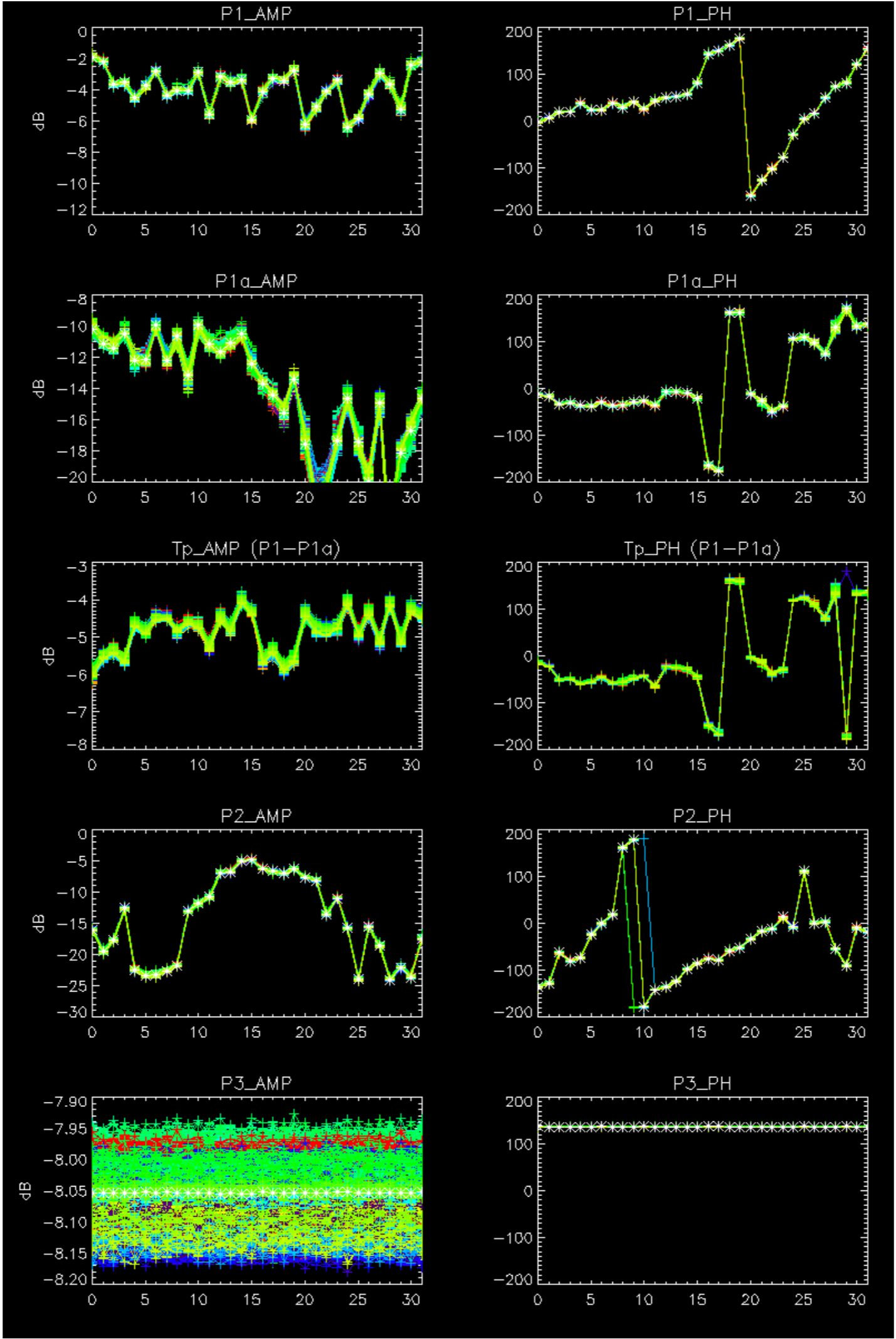
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

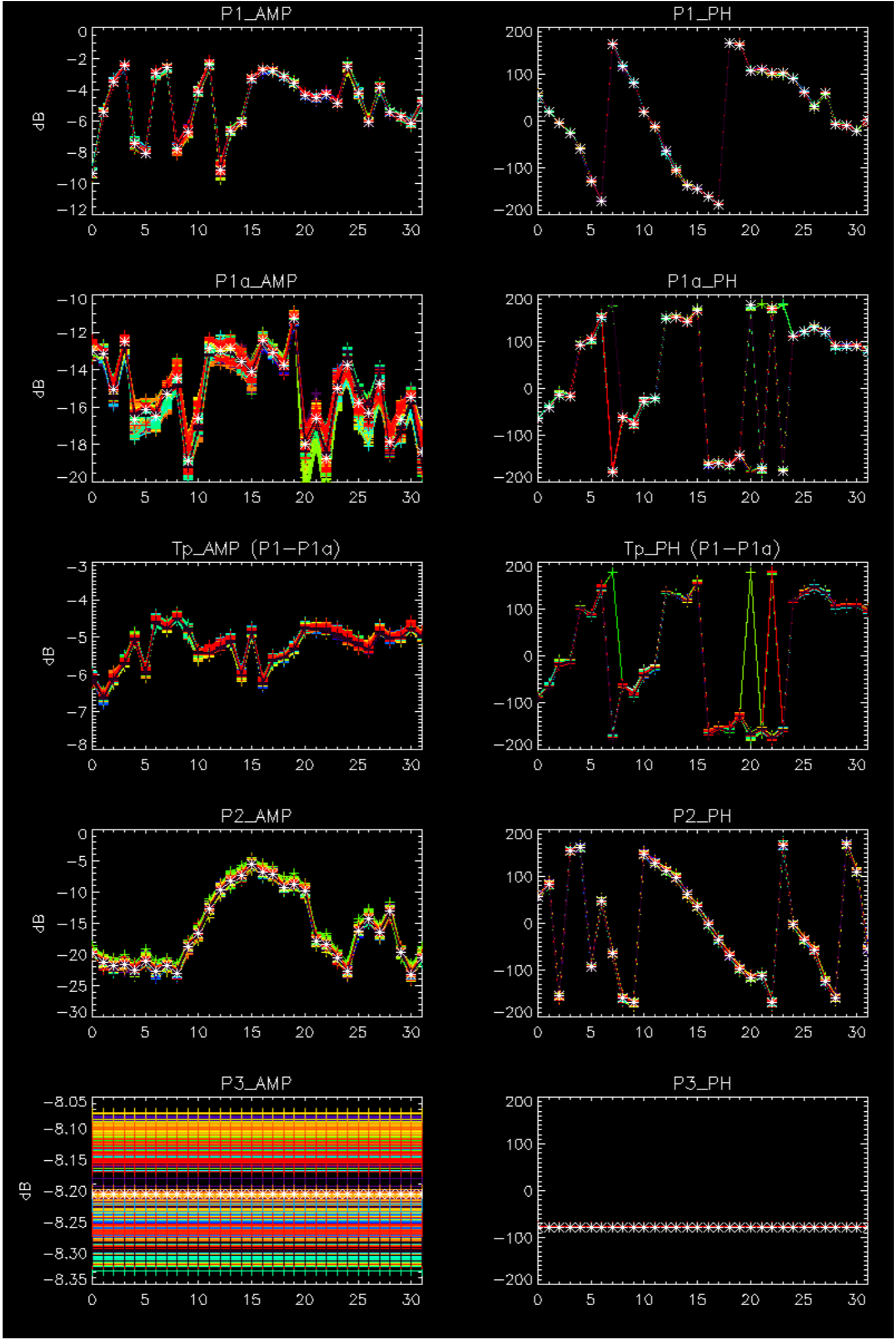
Cal pulses for WVS IS2



No anomalies observed on available browse products

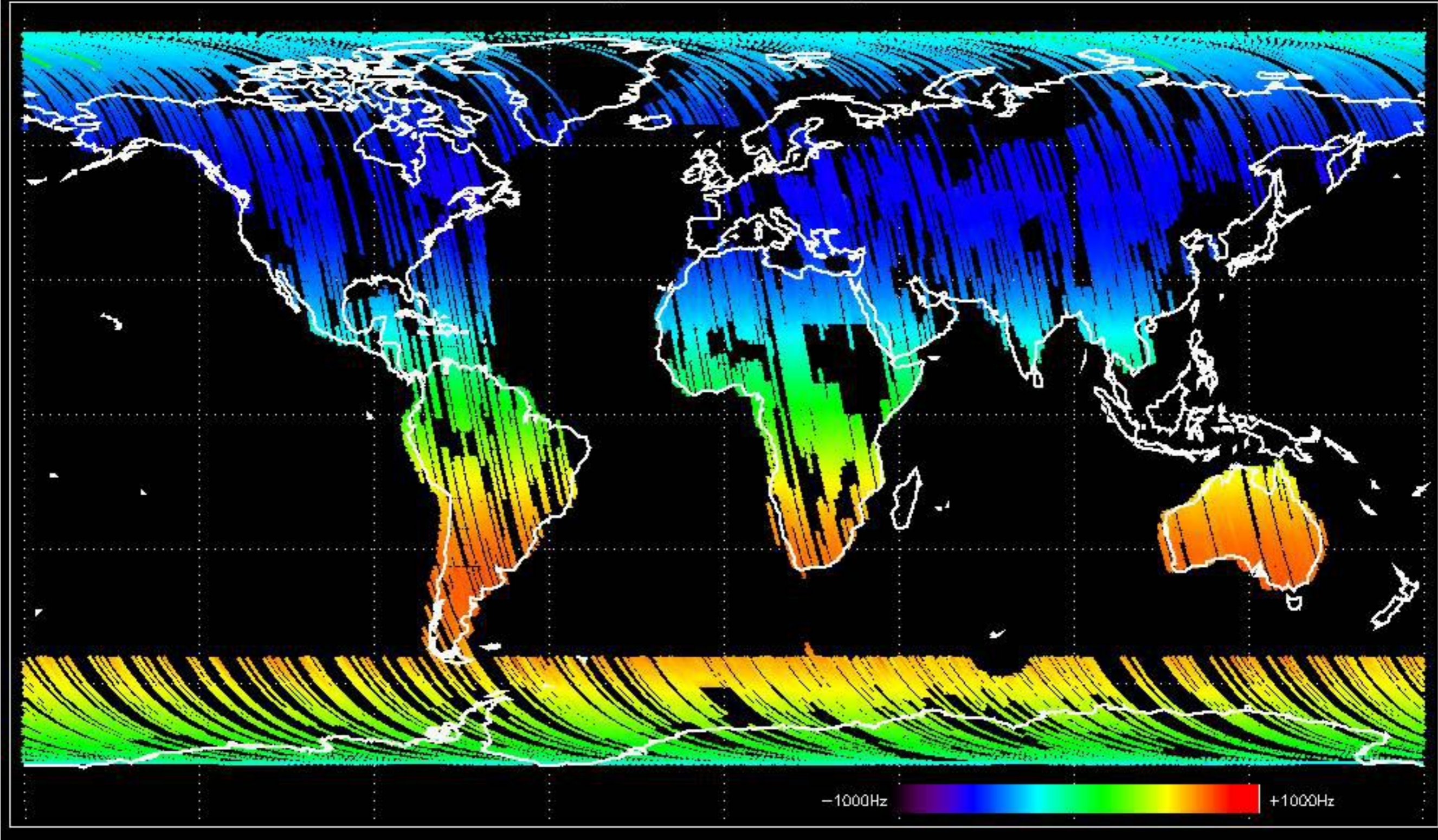
No anomalies observed.



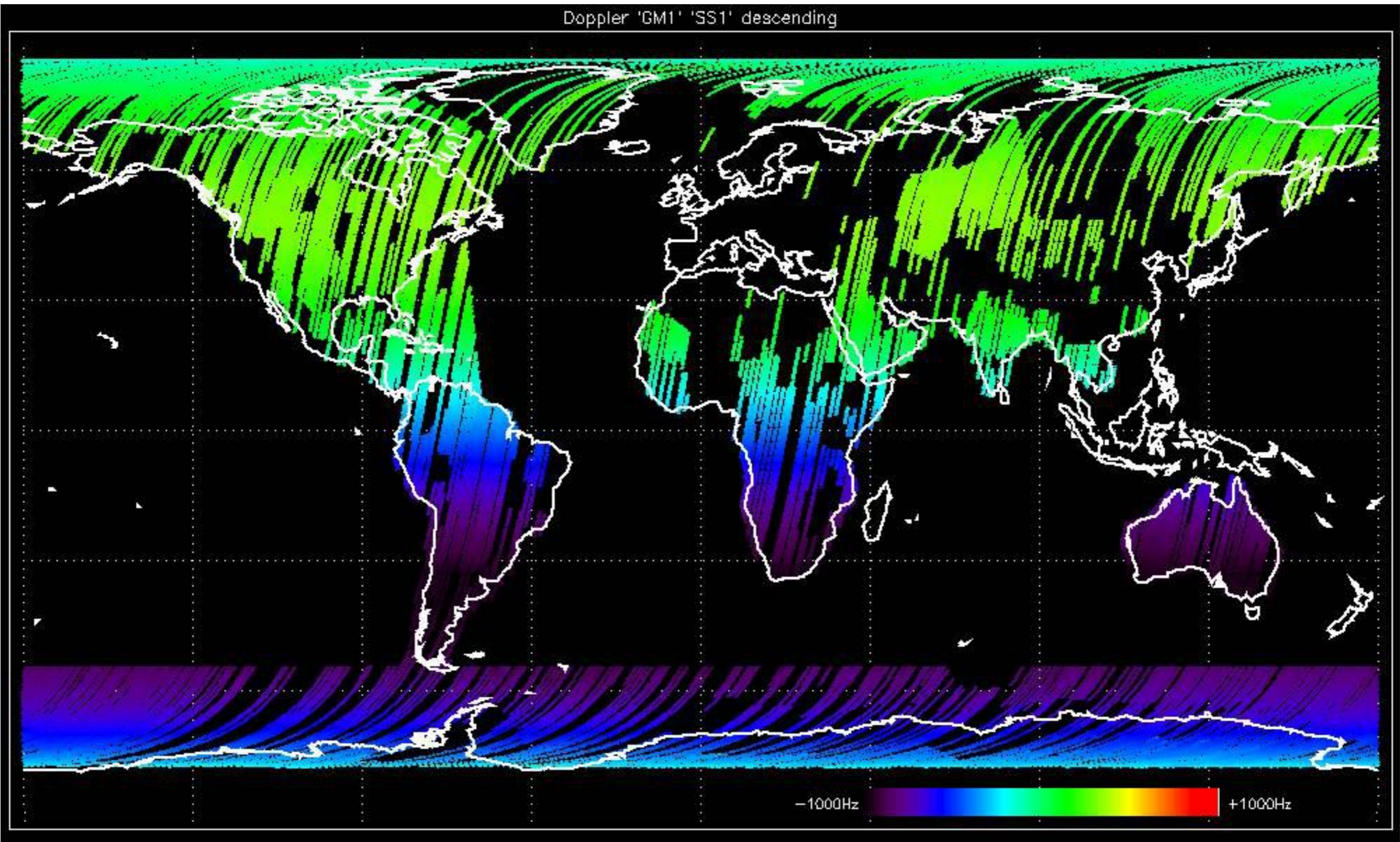


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

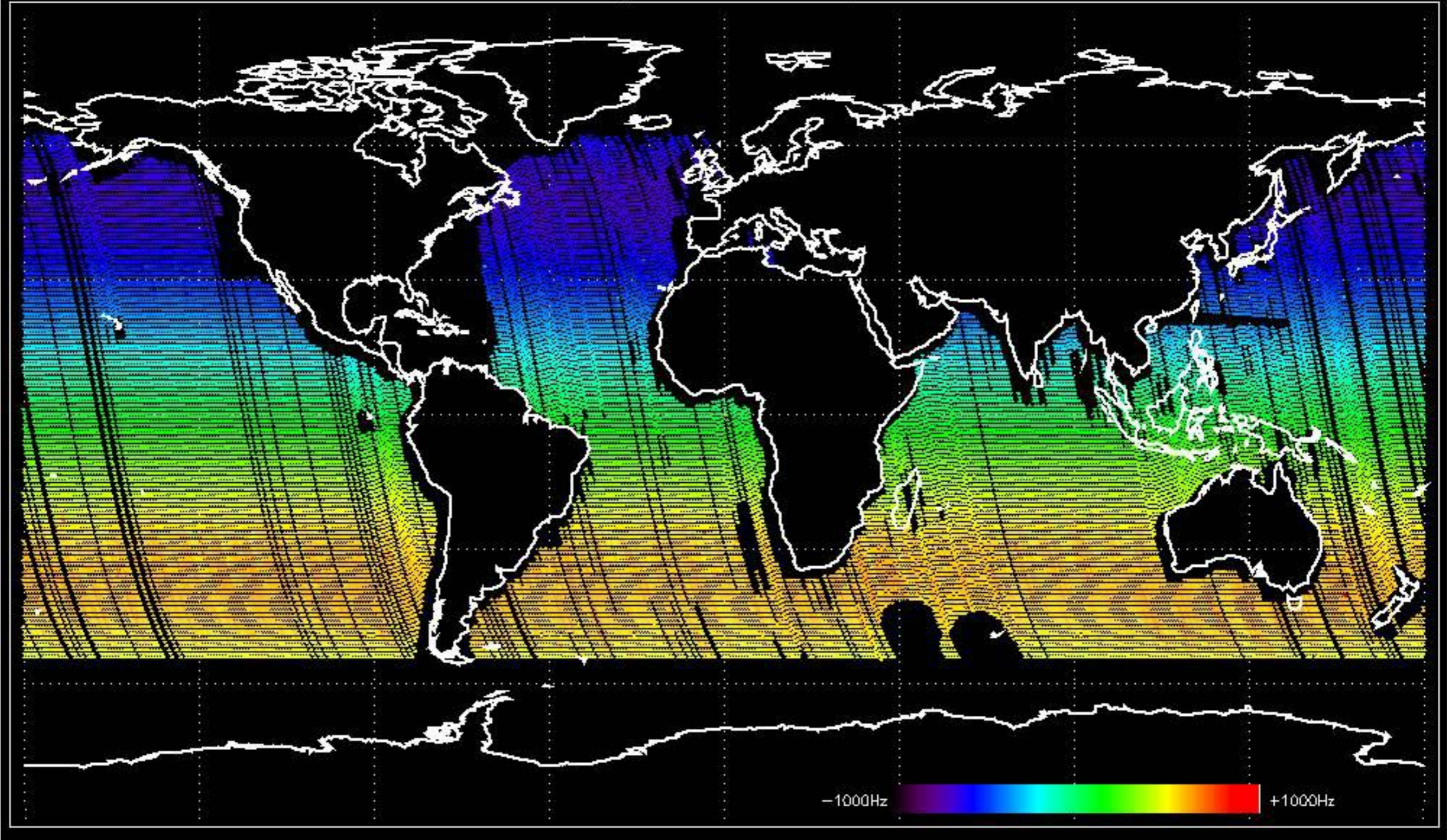
Doppler 'GM1' 'SS1' ascending



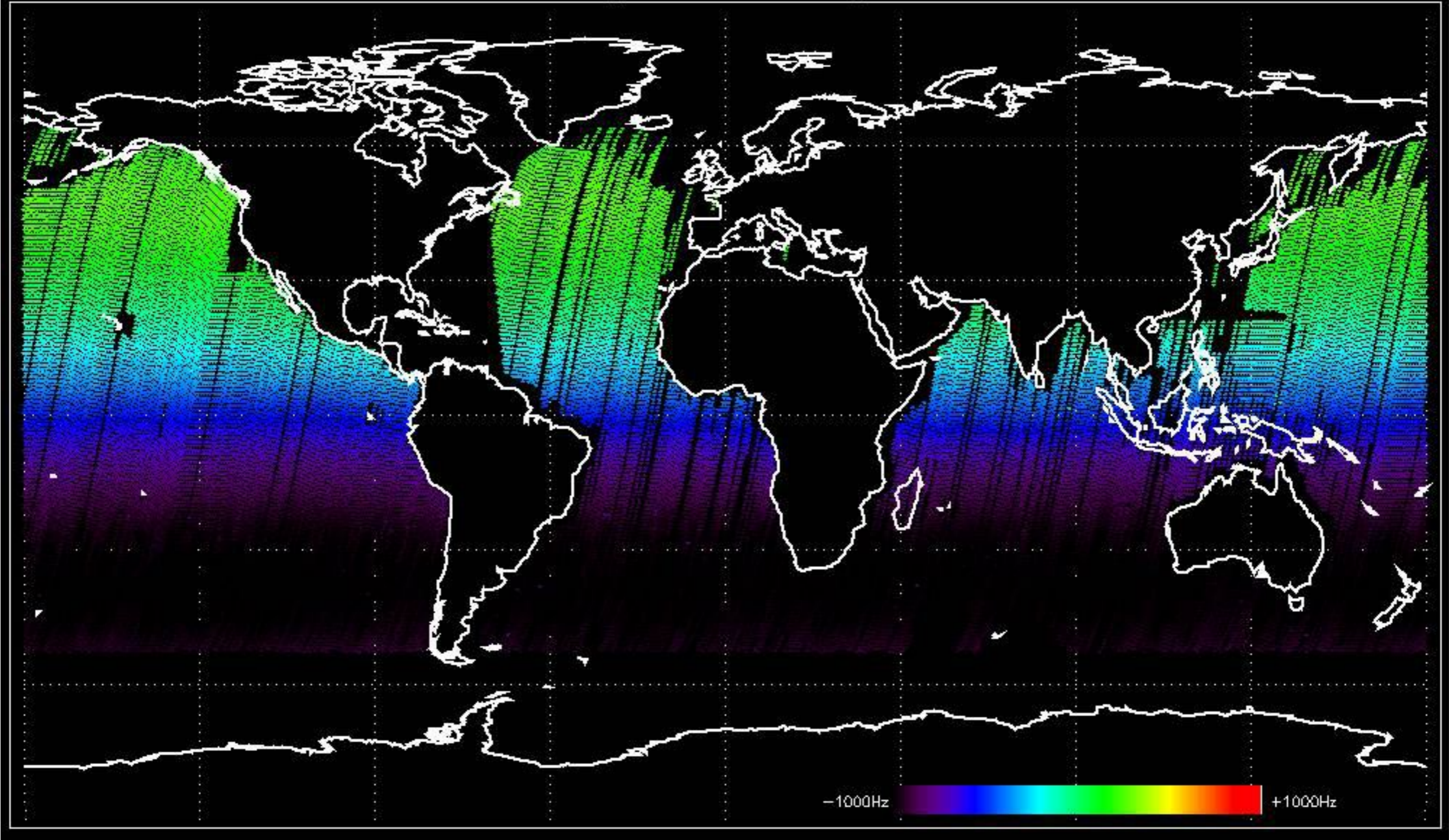
Doppler 'GM1' 'SS1' descending

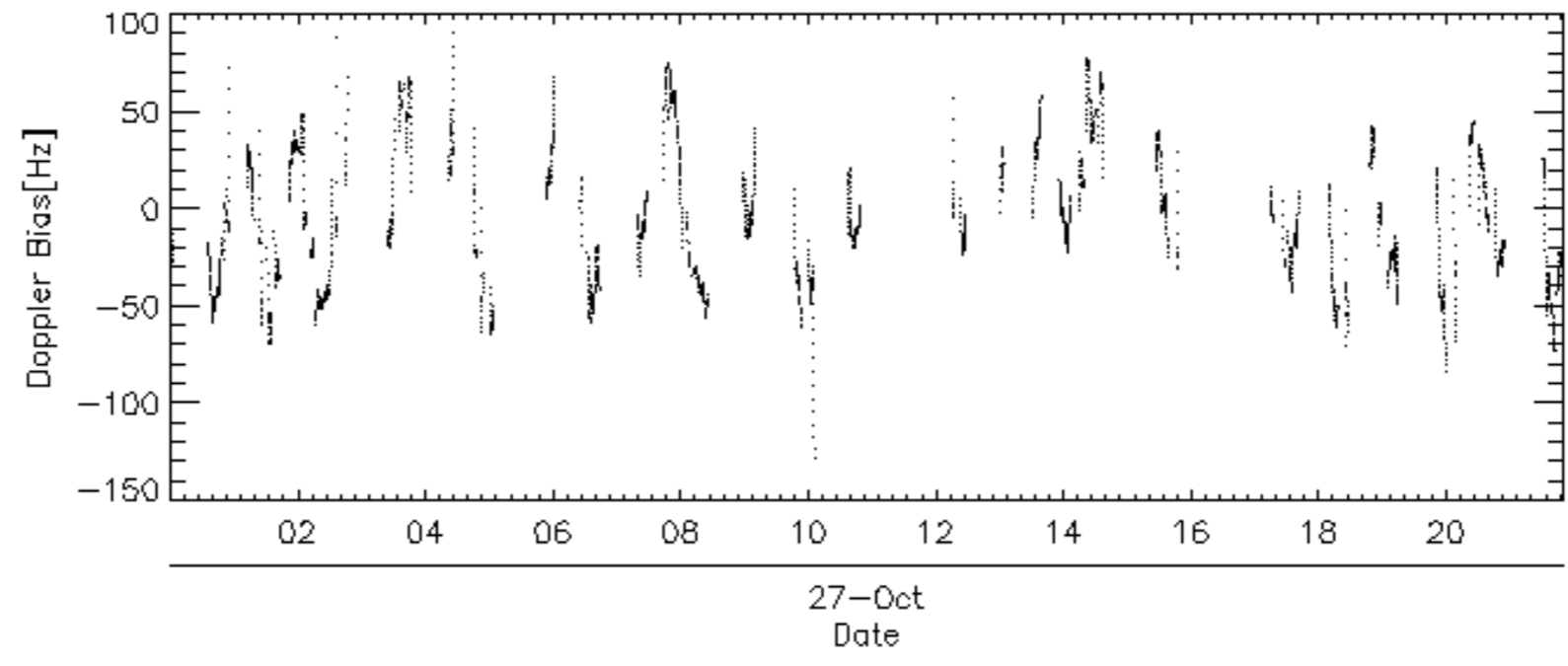
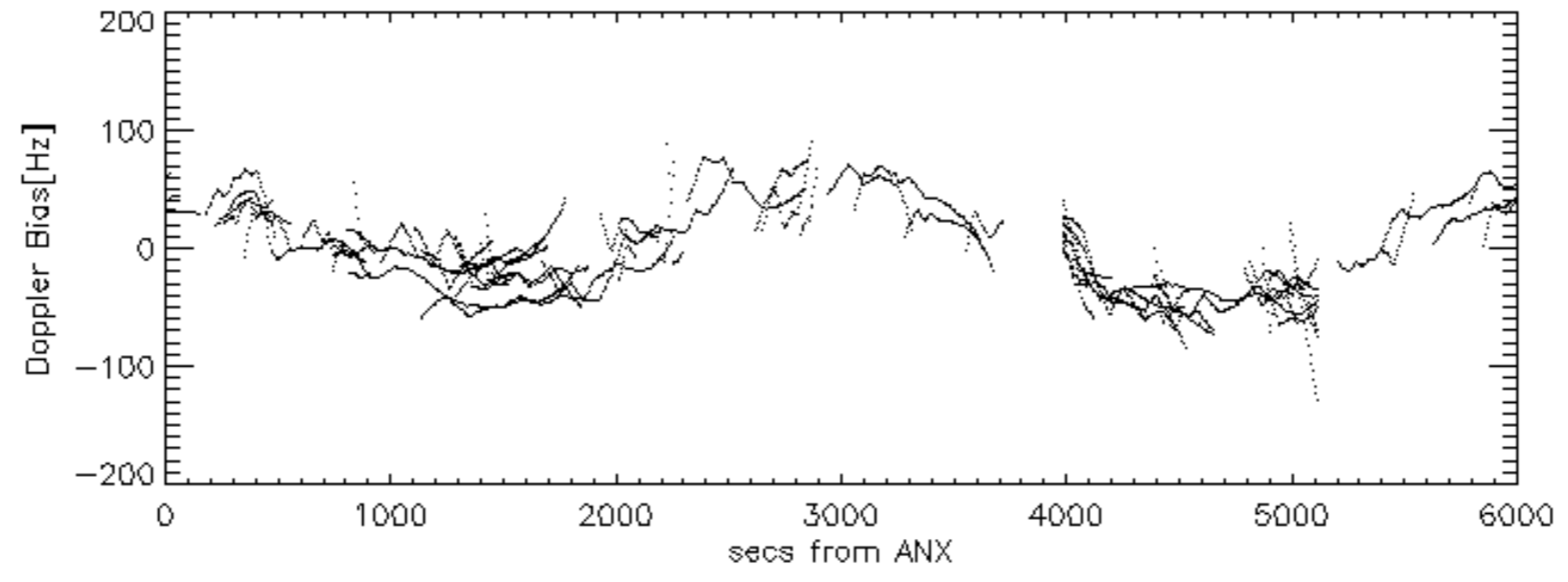
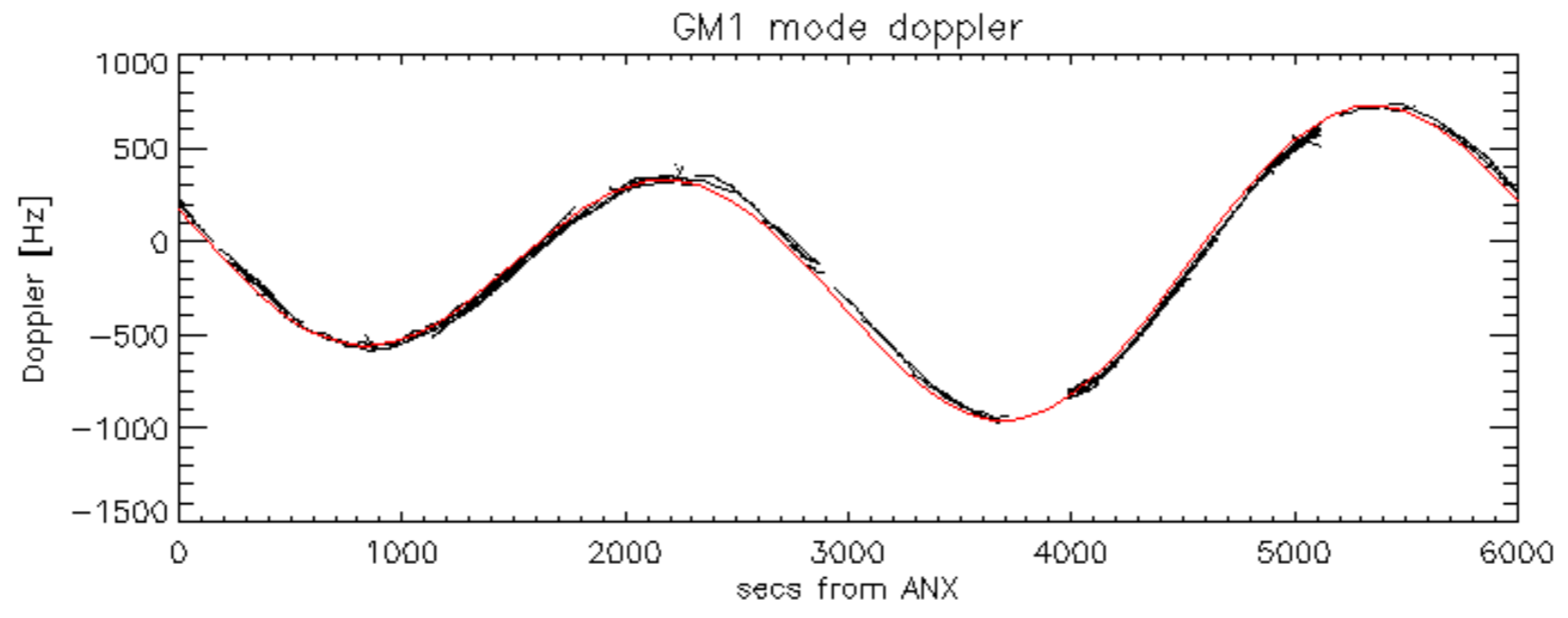


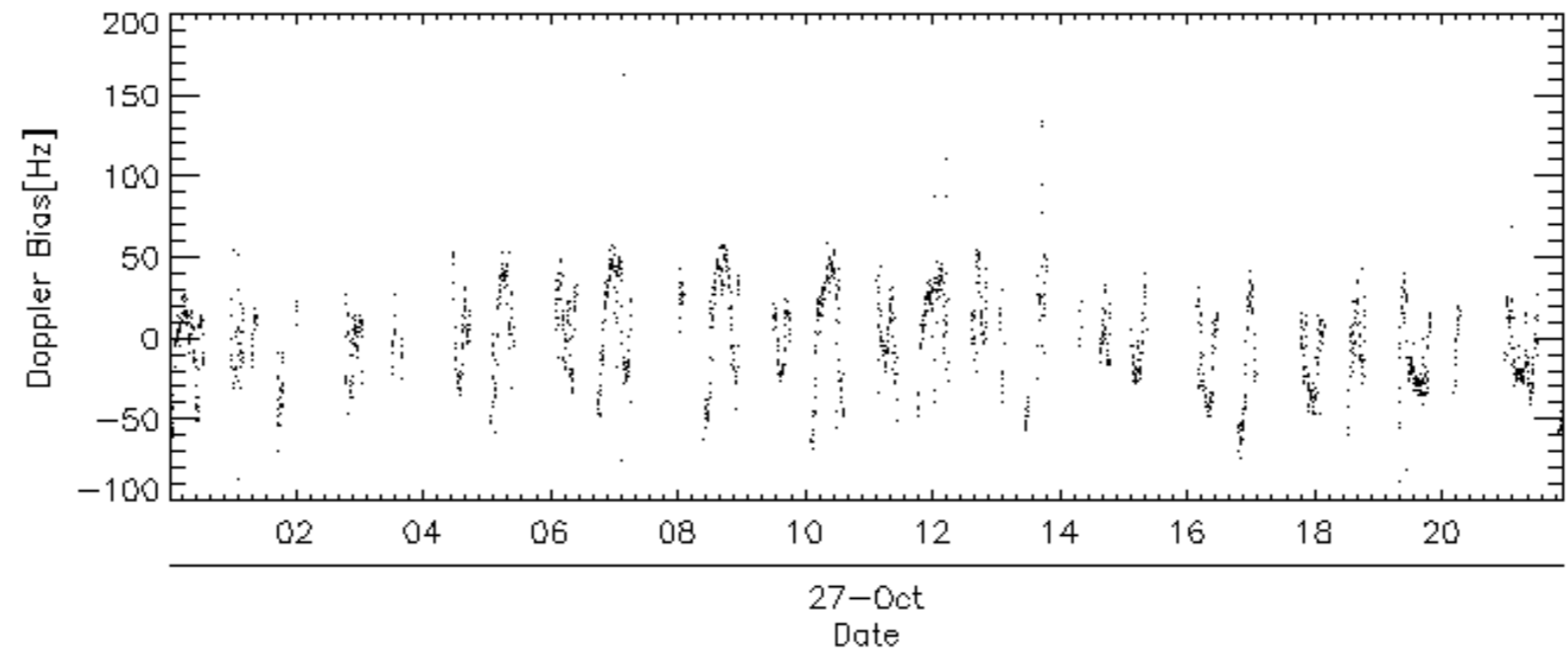
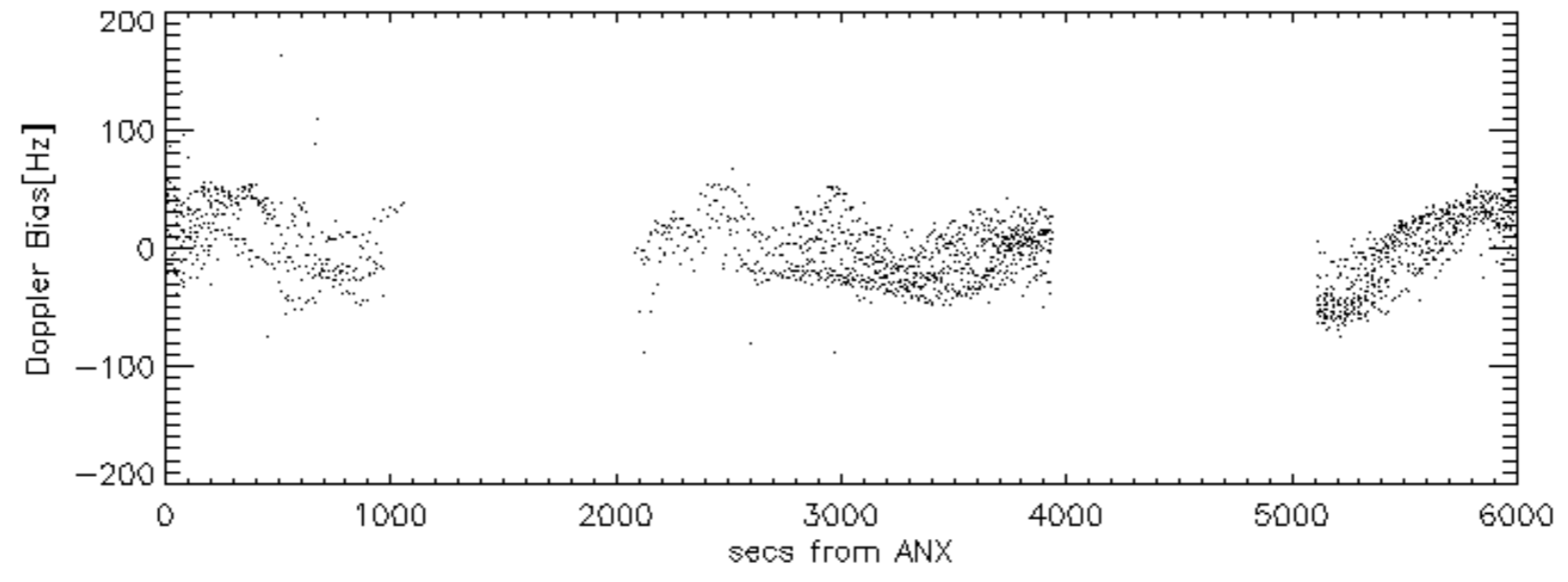
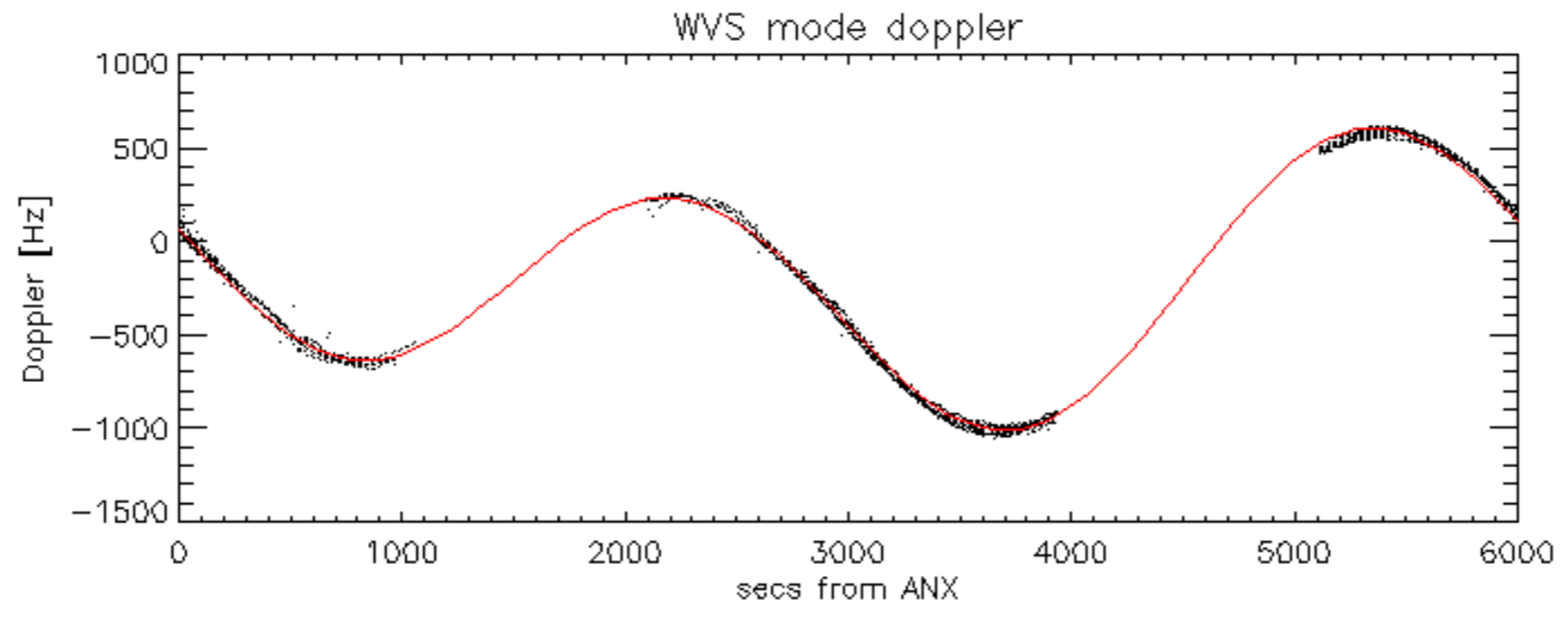
Doppler 'WVS' 'IS2' ascending



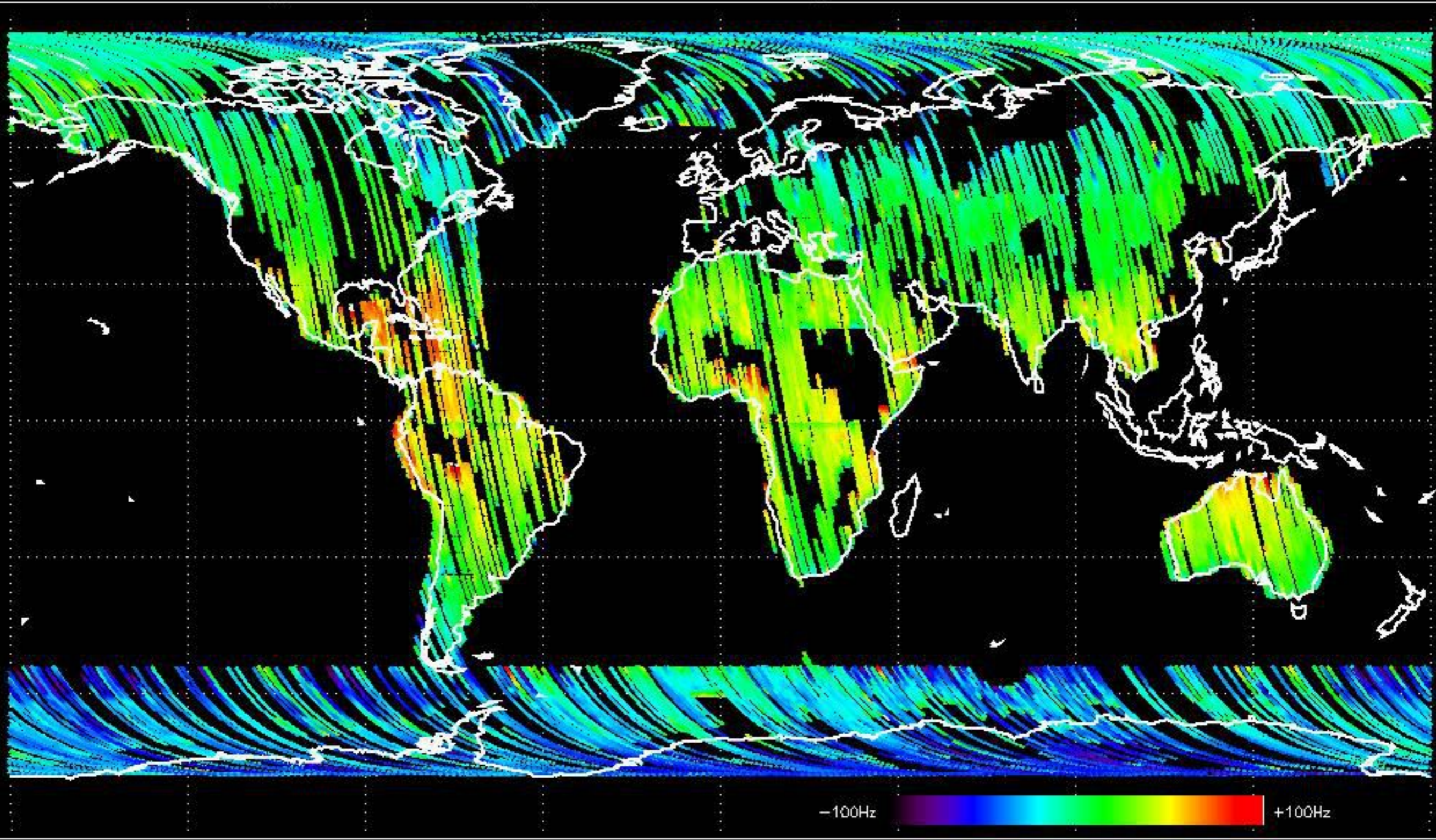
Doppler 'WVS' 'IS2' descending



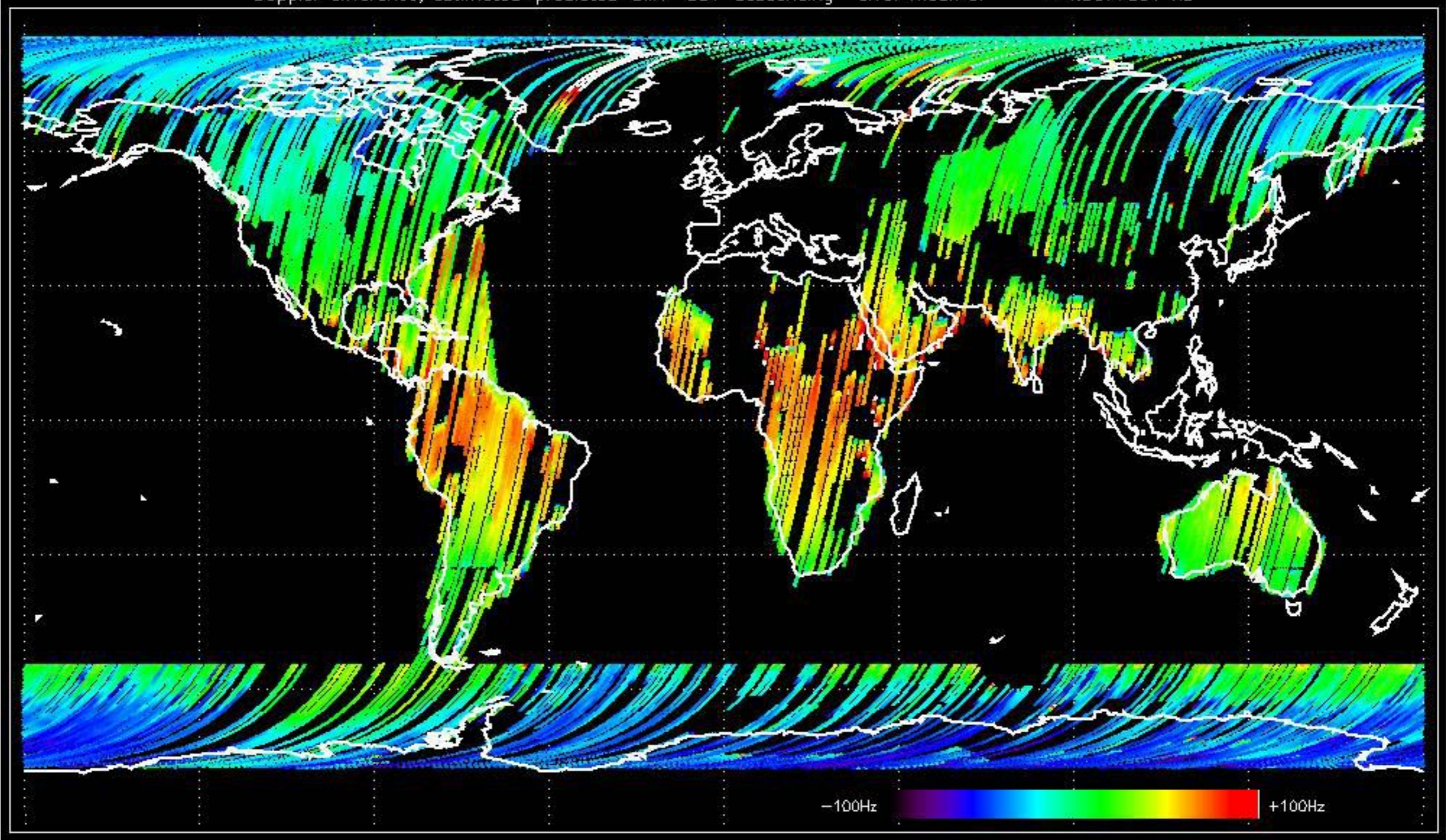




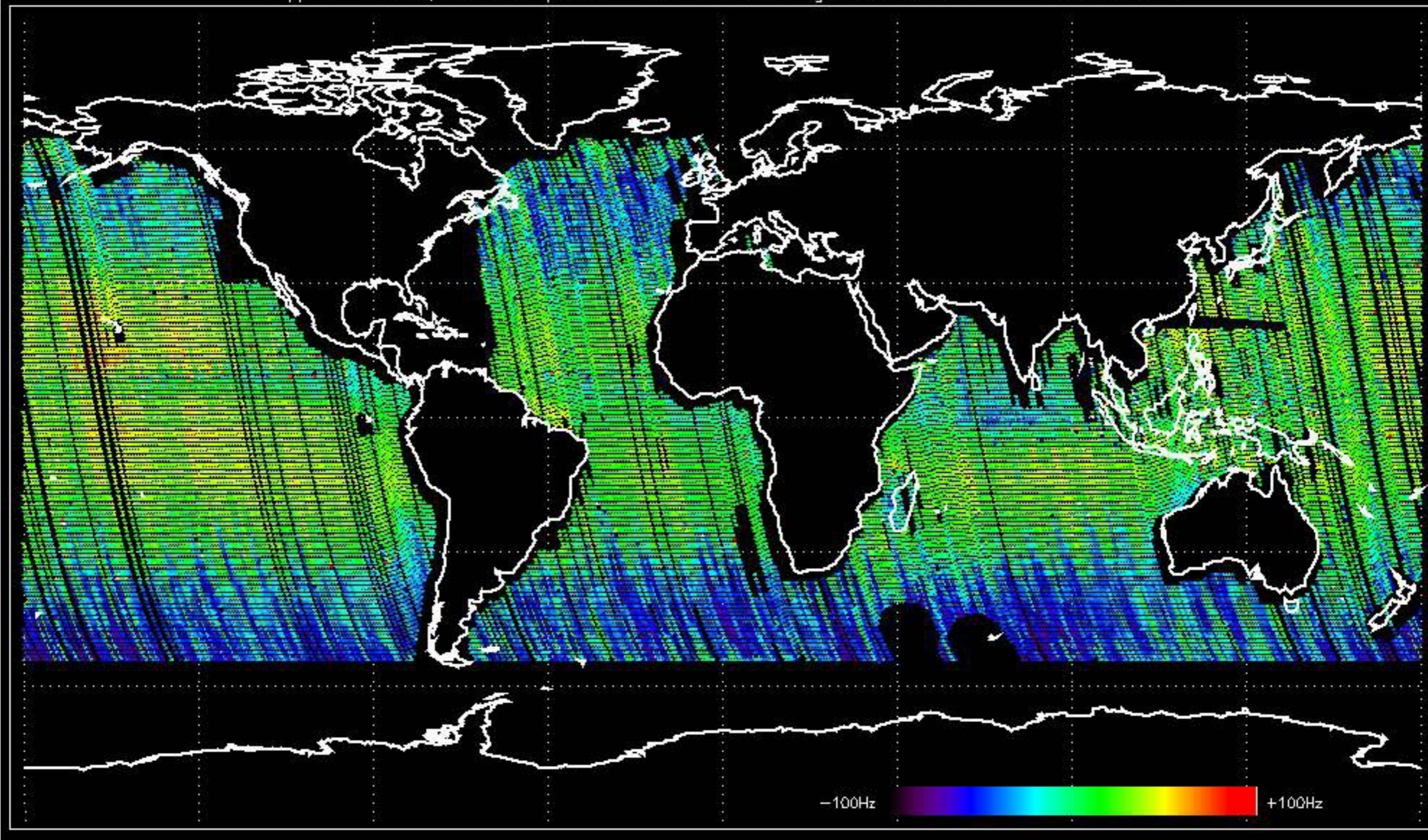
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.6061239 Hz



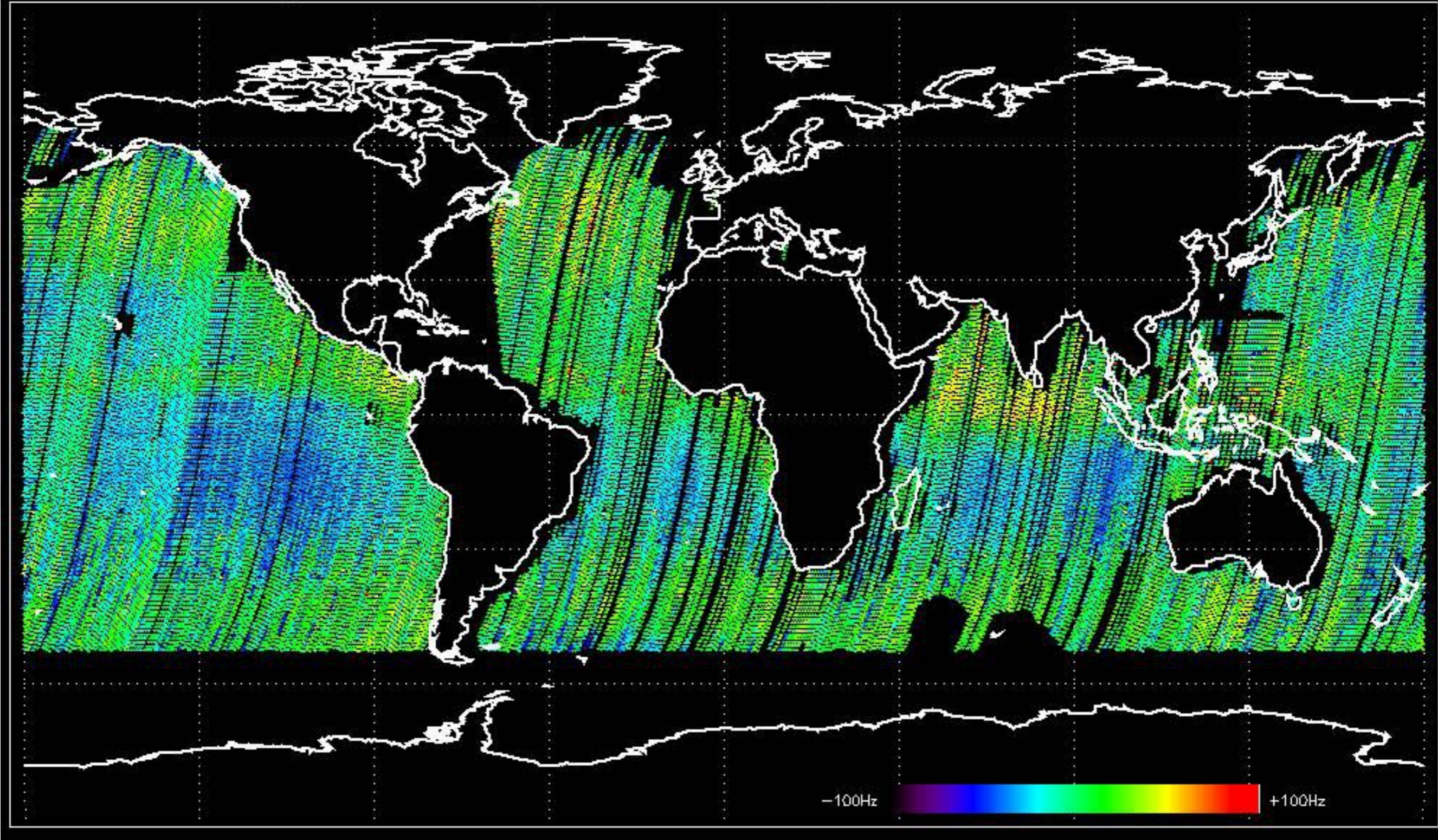
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.5677391 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of 0.33556542 Hz

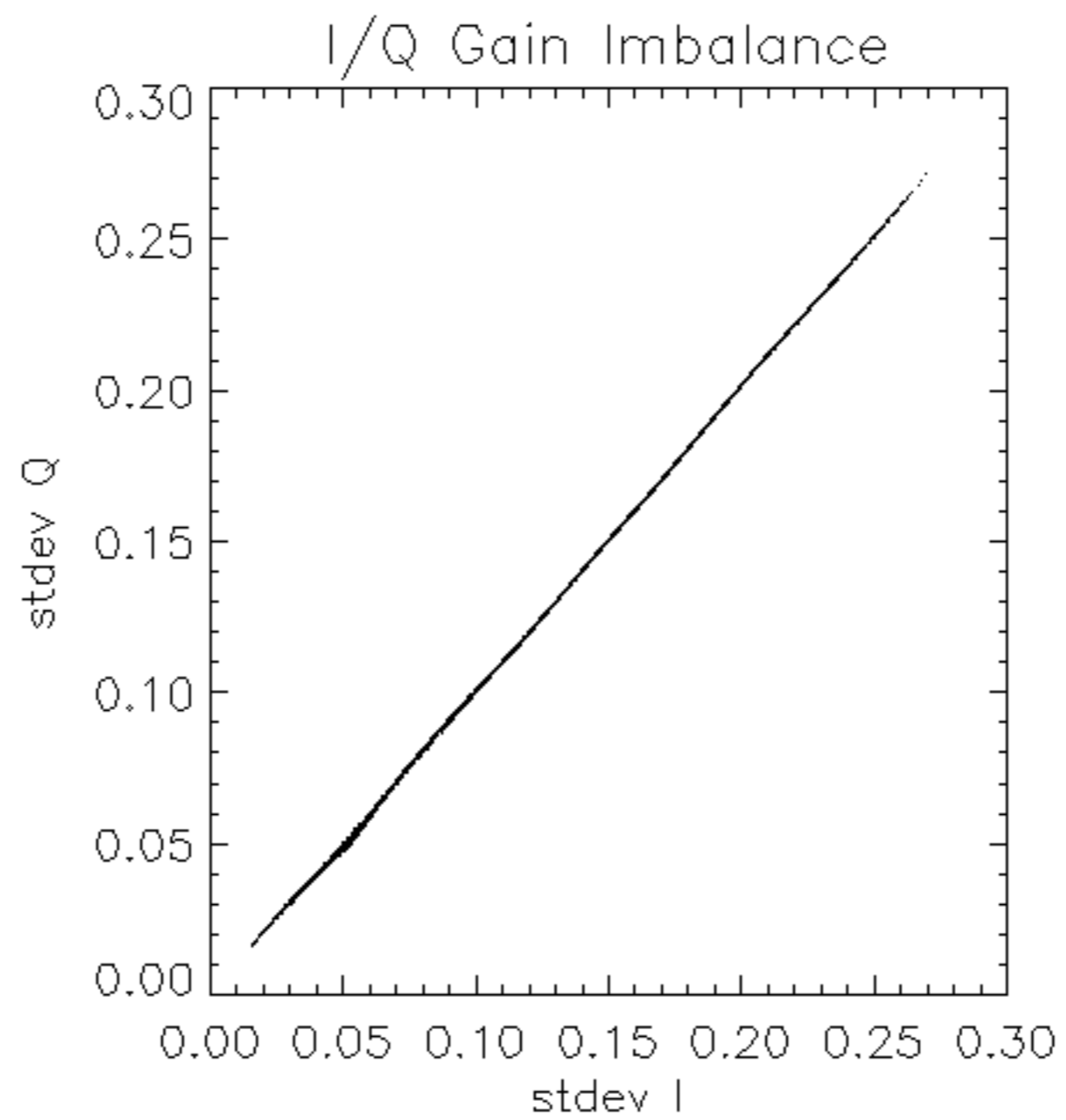


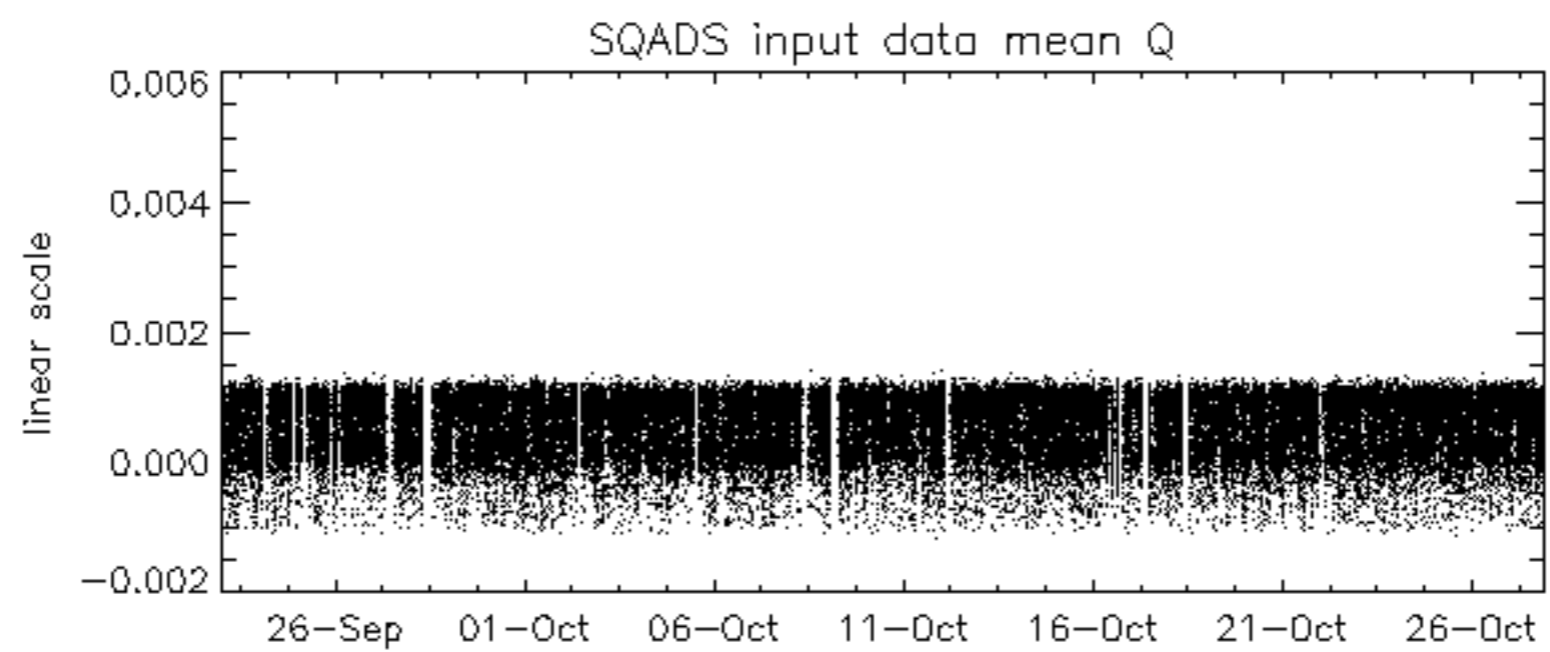
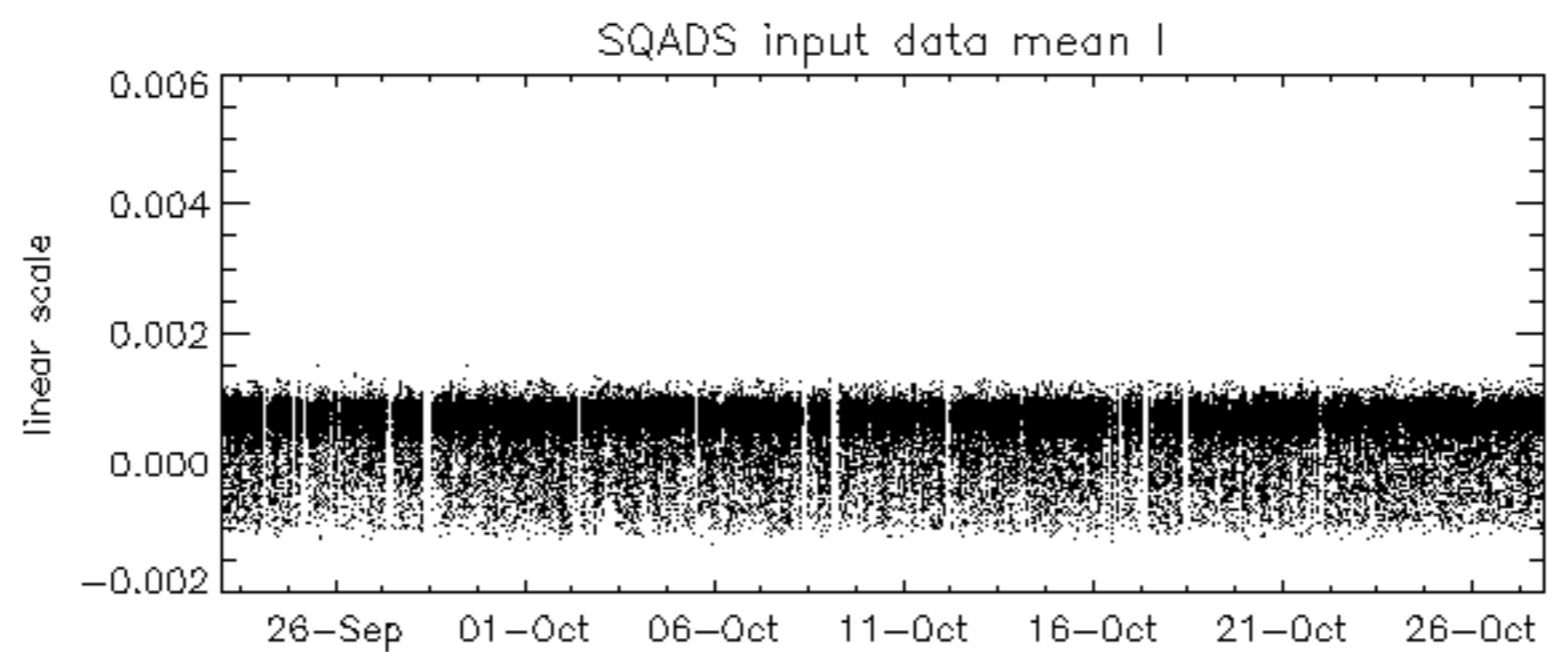
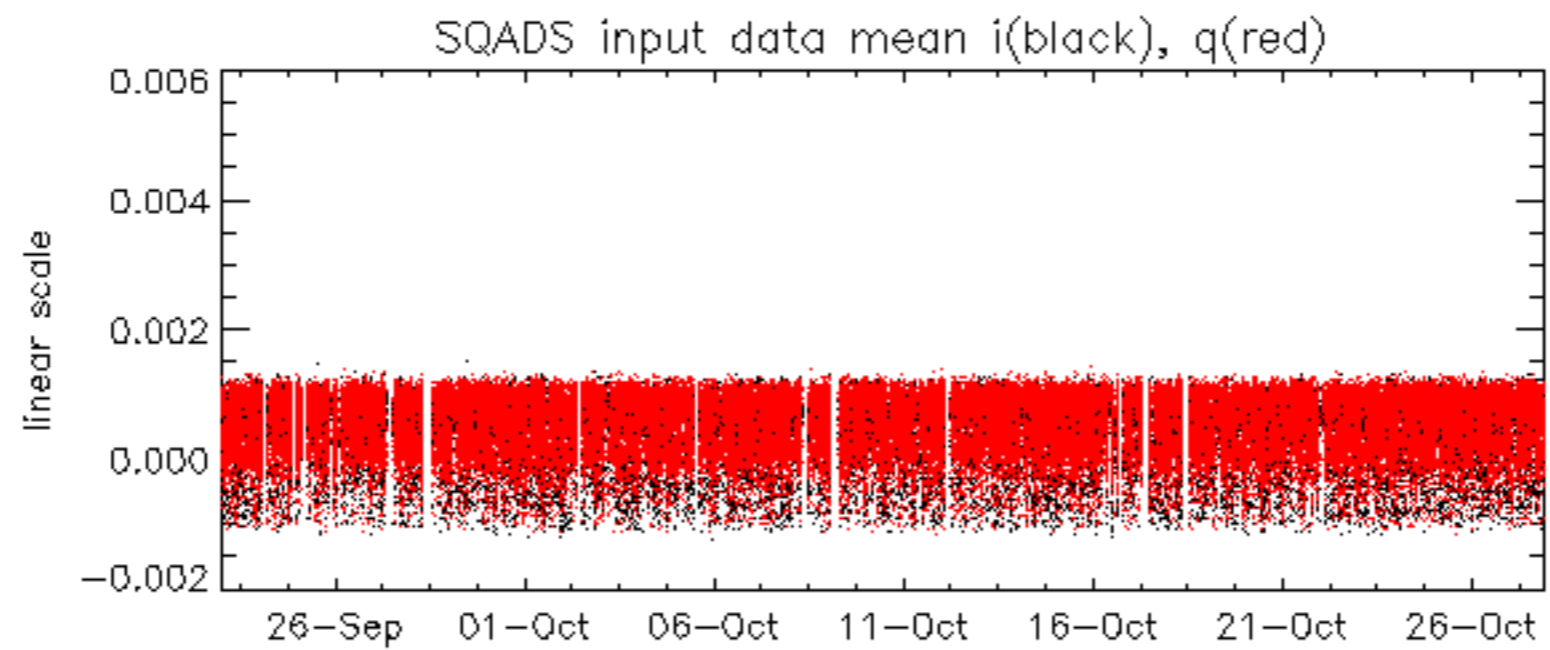
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -4.0592161 Hz

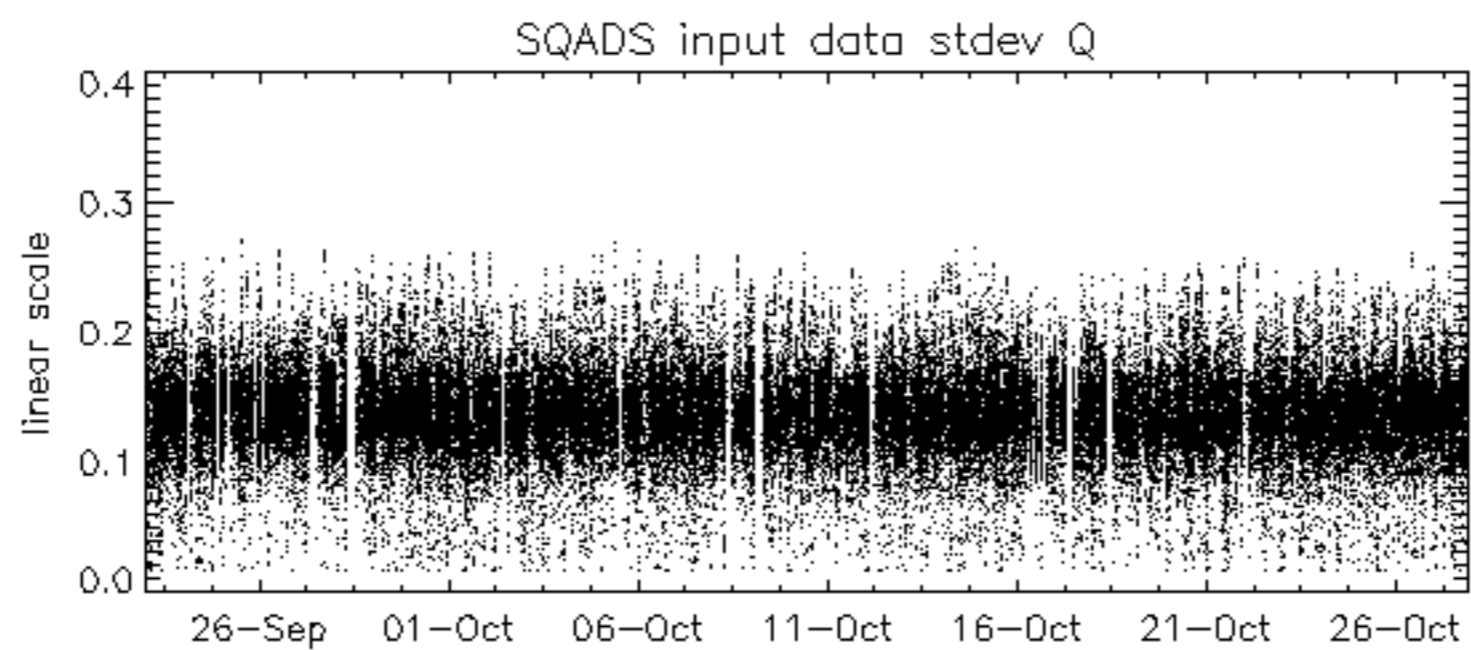
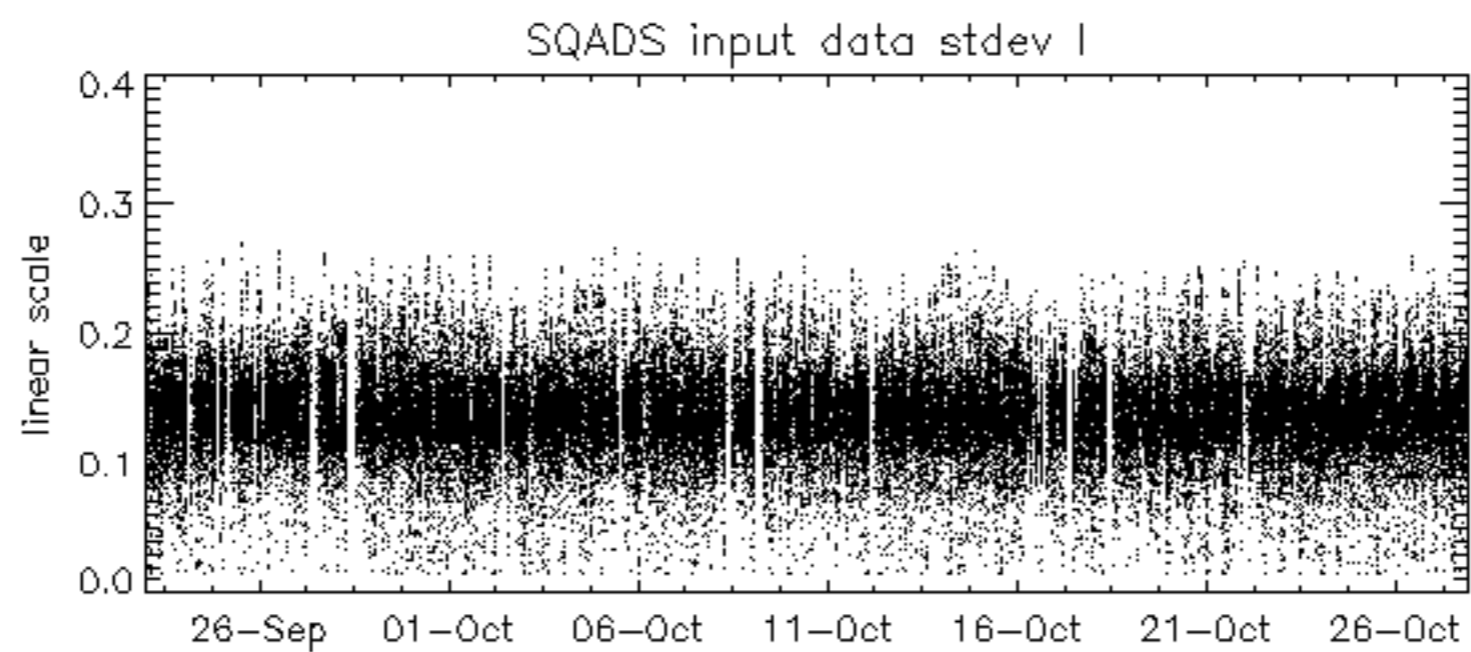
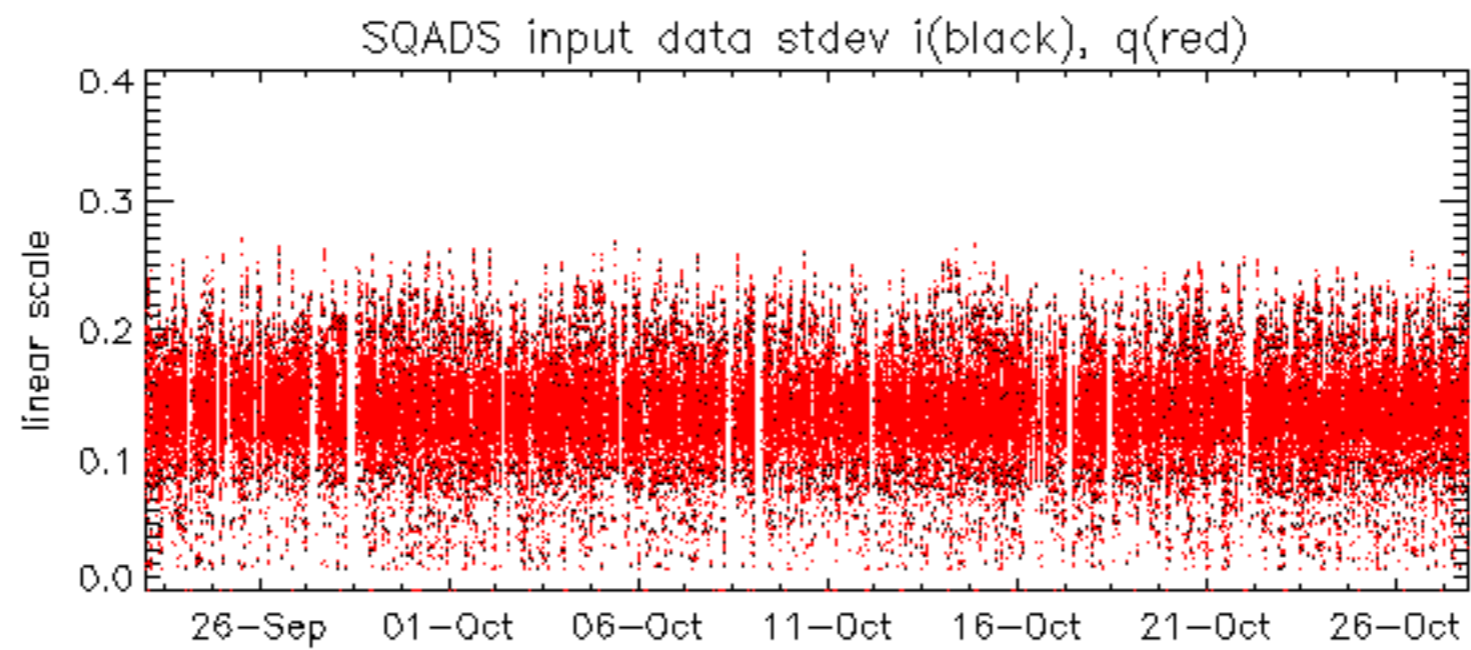


No anomalies observed on available MS products:

No anomalies observed.



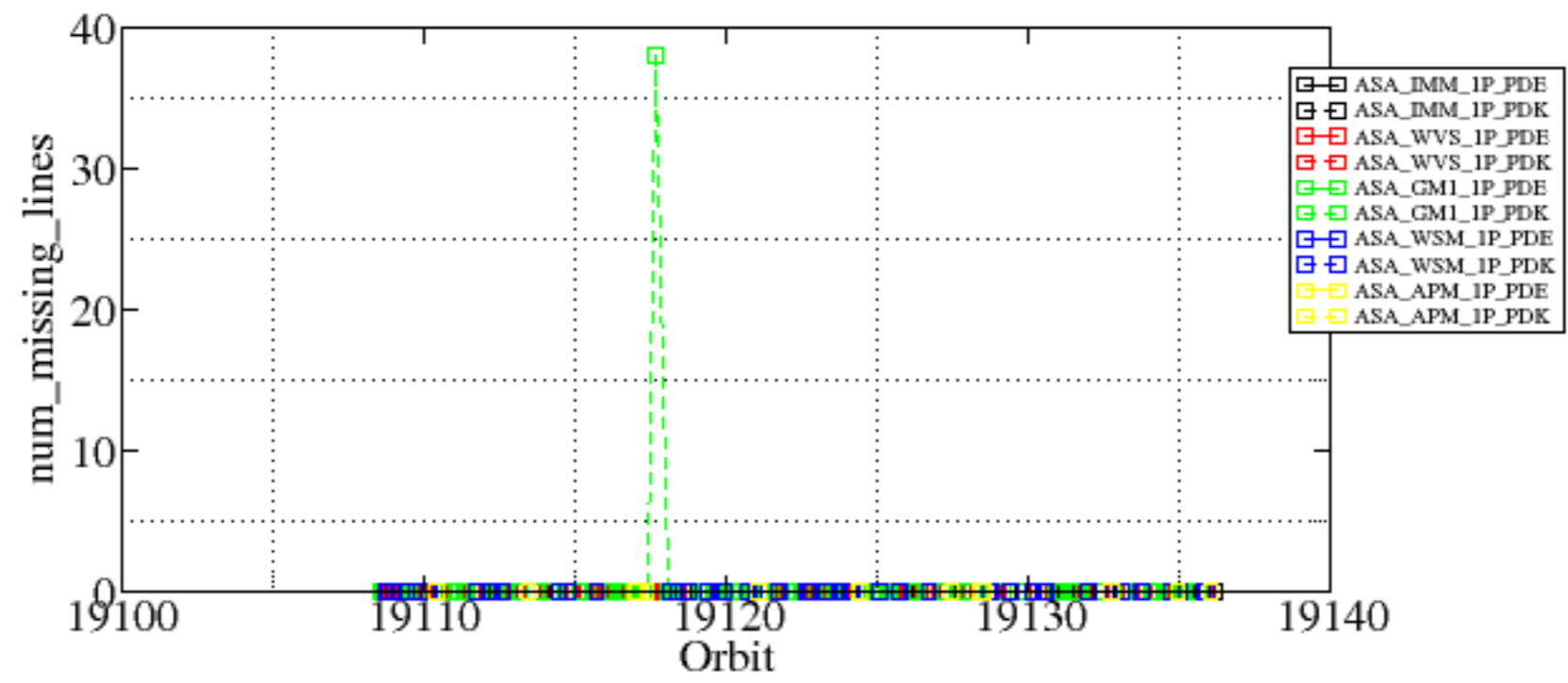




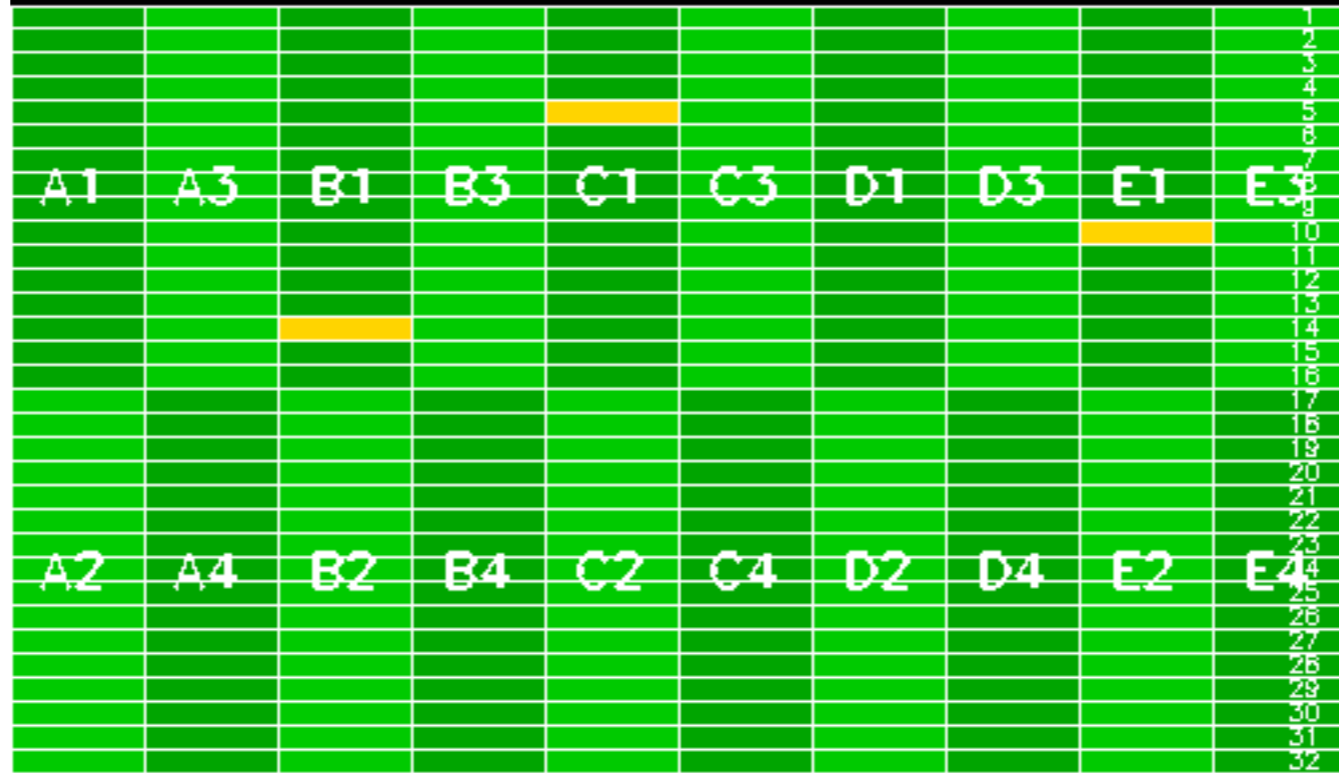
Summary of analysis for the last 3 days 2005102[678]

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

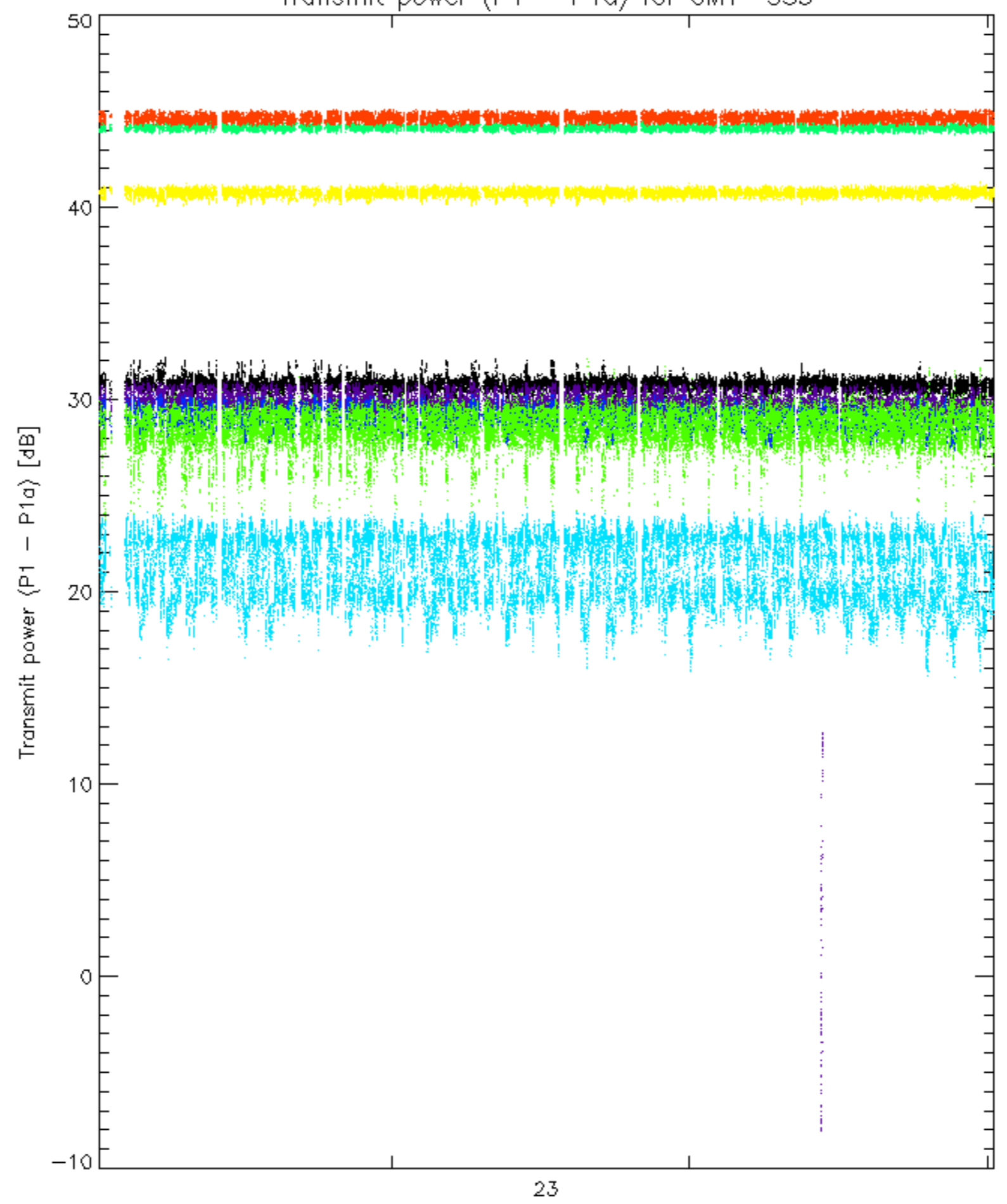
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051026_155415_000001532042_00025_19117_9386.N1	1	0
ASA_IMM_1PNPDE20051028_054402_000000352042_00048_19140_9592.N1	1	0
ASA_GM1_1PNPDK20051026_152007_000011362042_00025_19117_9646.N1	0	38



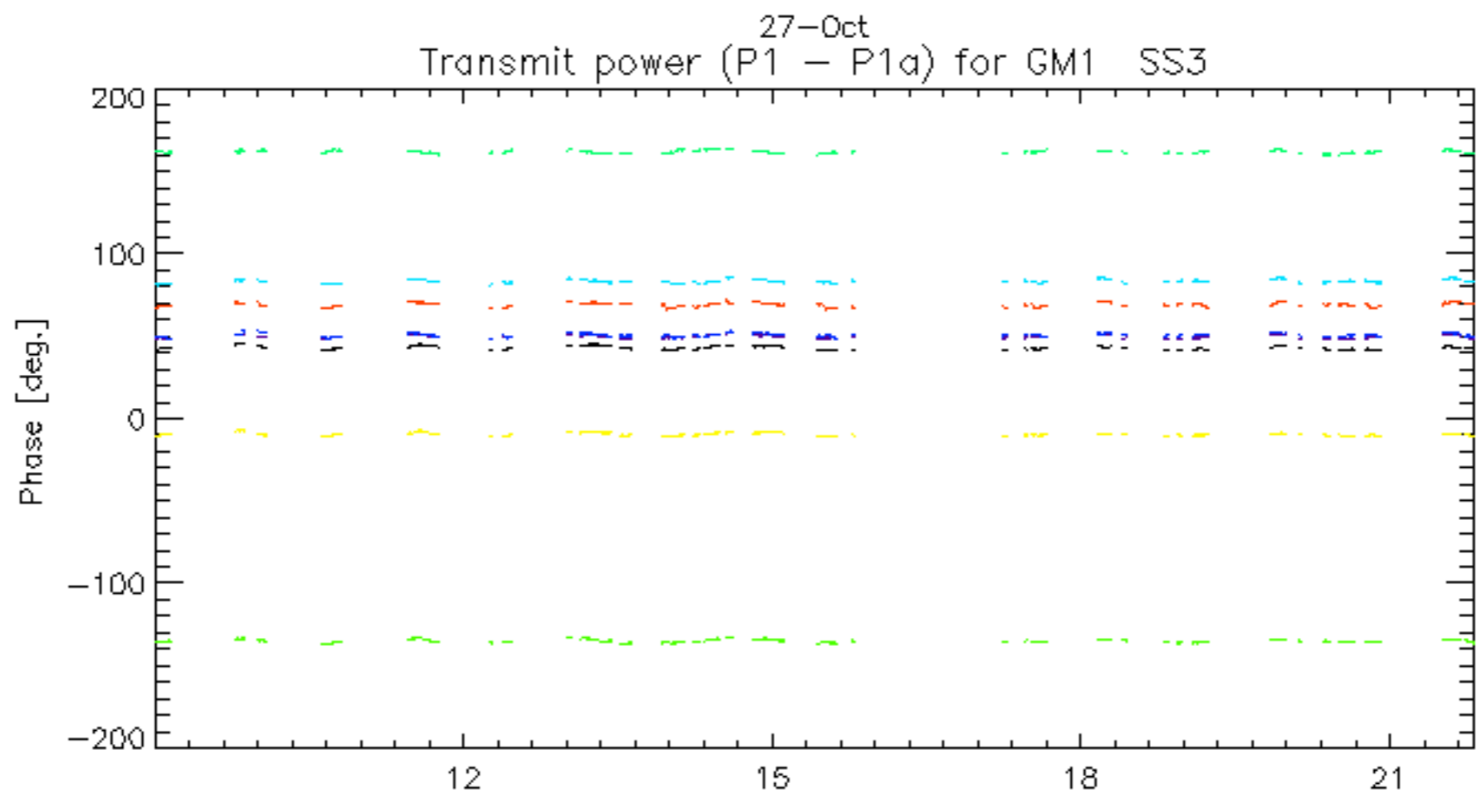
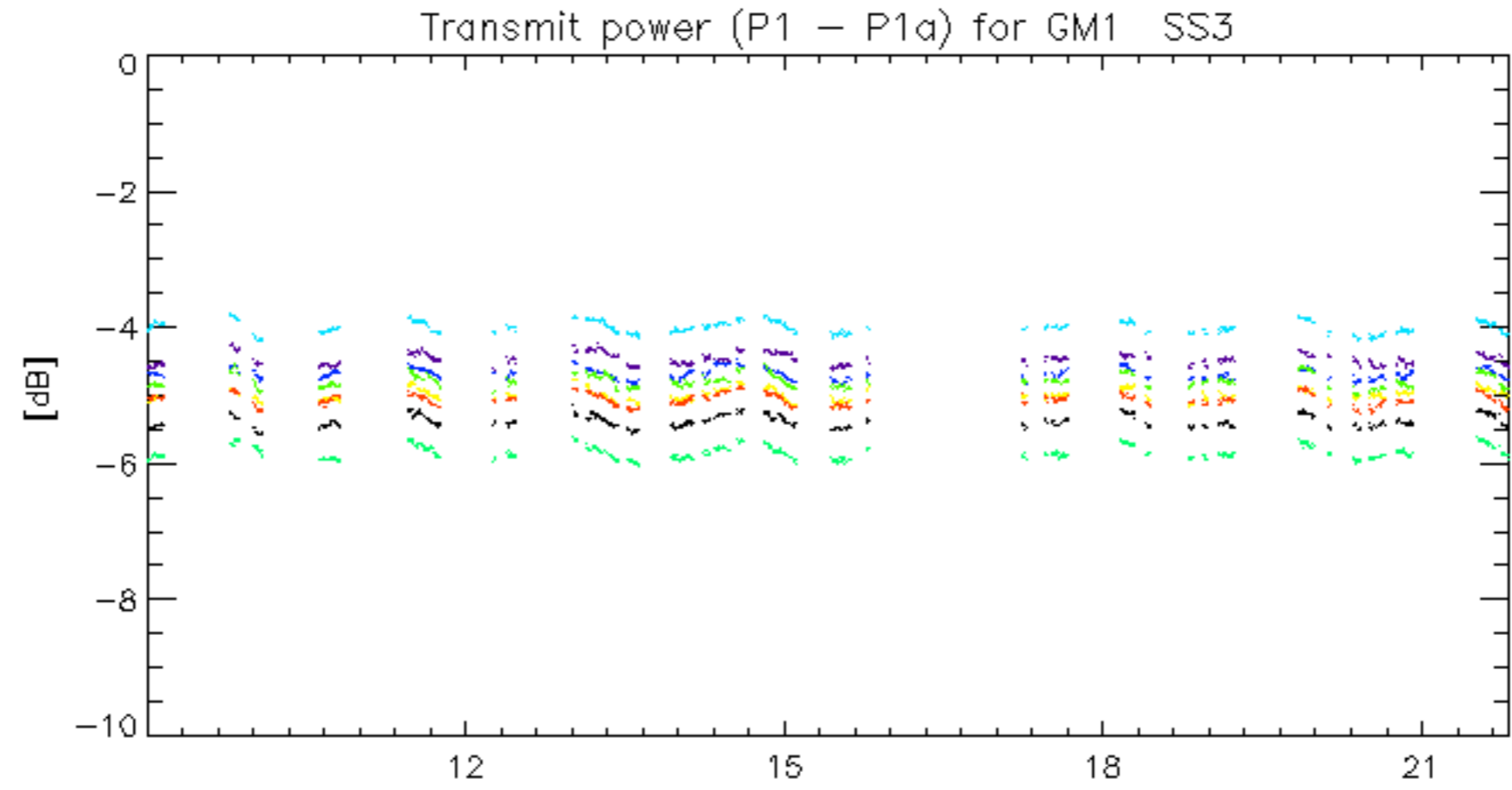
Reference: 2005-09-29 07:47:20 V TxPhase
Test : 2005-10-26 17:02:06 V



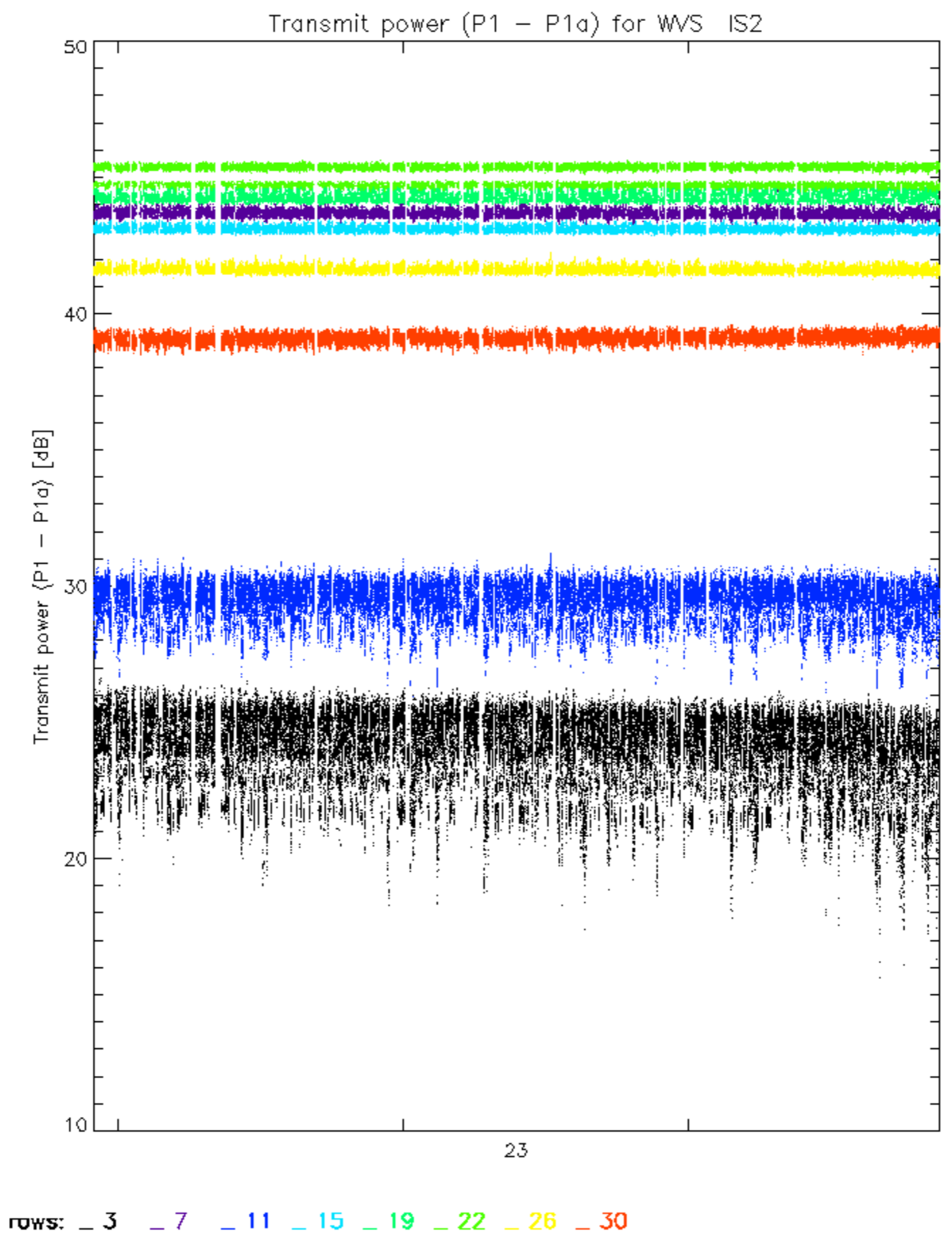
Transmit power (P1 - P1a) for GM1 SS3



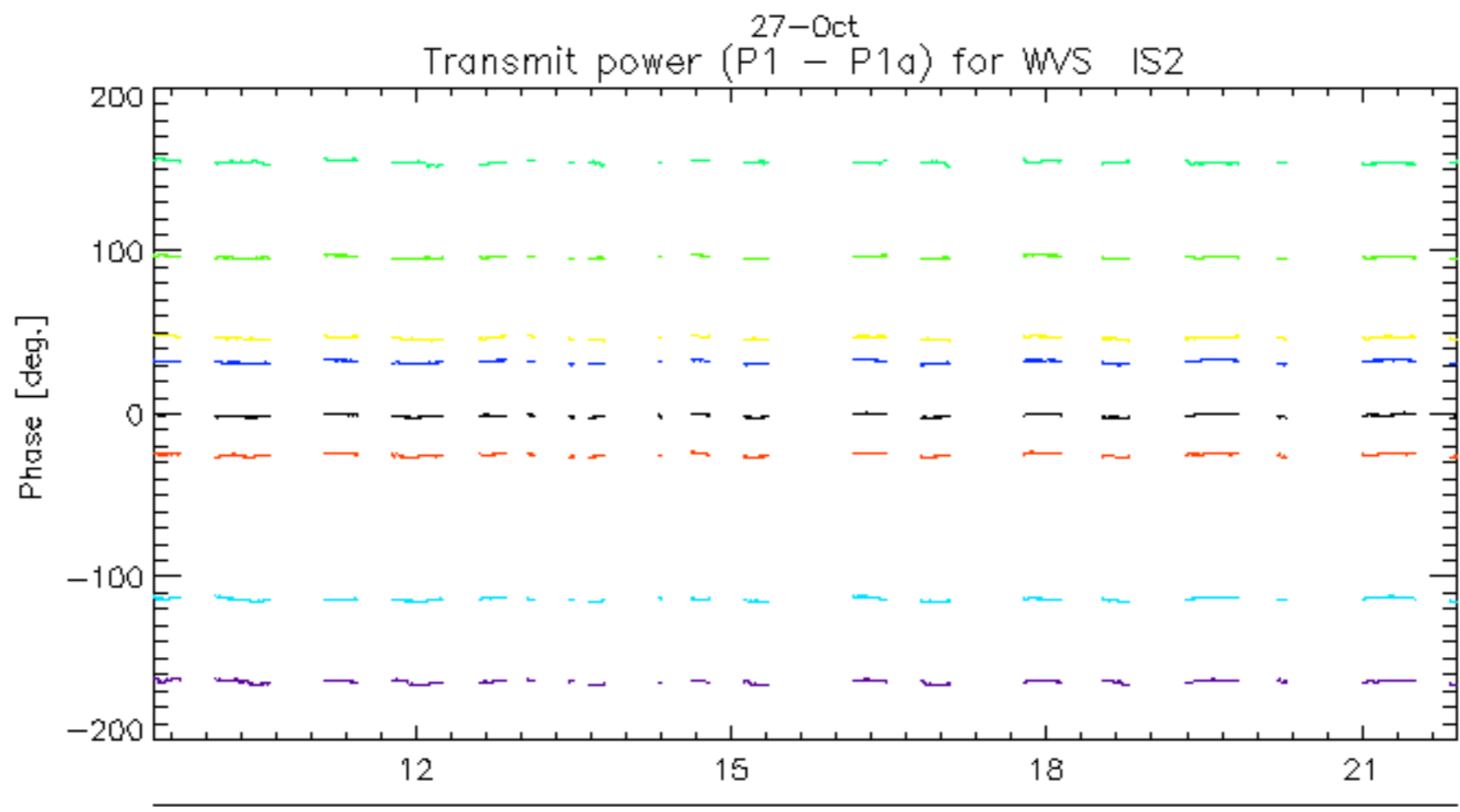
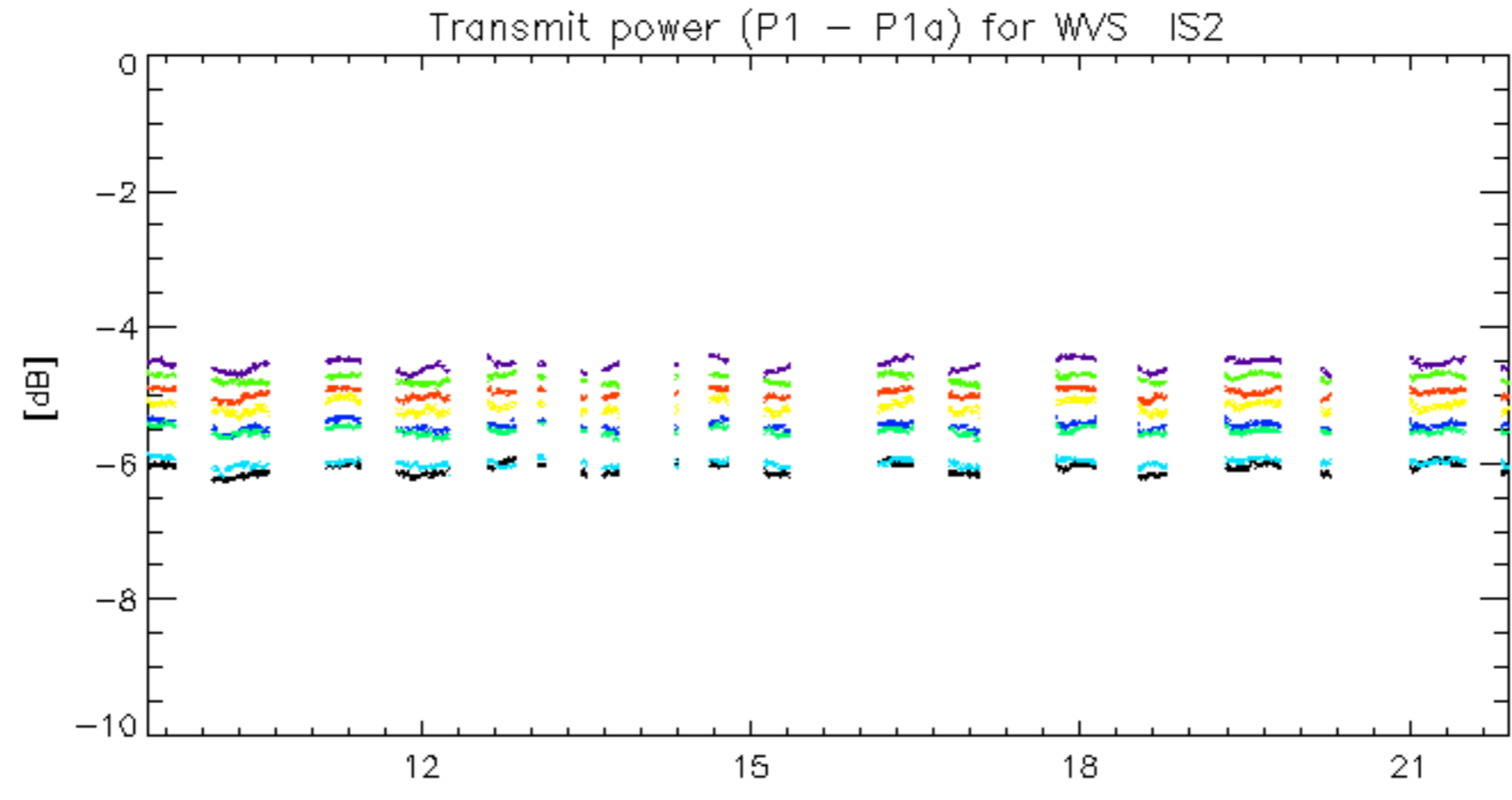
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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27-Oct
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No unavailabilities during the reported period.