

PRELIMINARY REPORT OF 050919

last update on Mon Sep 19 10:50:01 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 2005-09-18 00:00:00 to 2005-09-19 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	27	61	17	3	4
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	61	17	3	4
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	27	61	17	3	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	61	17	3	4

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	33	55	35	10	43
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	33	55	35	10	43
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	33	55	35	10	43
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	33	55	35	10	43

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	20050917 204908
H	20050918 183655

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
<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
<input type="checkbox"/>

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	-3.386991	0.088374	-0.473441
7	P1	-3.169433	0.020253	0.039615
11	P1	-4.701962	0.071814	0.166655
15	P1	-5.690566	0.060187	-0.306554
19	P1	-3.637649	0.218780	0.829813
22	P1	-4.612623	0.016943	0.034671
26	P1	-4.811672	0.053440	0.100971
30	P1	-6.989150	0.450404	1.305188
3	P1	-15.927562	1.894504	-1.670708
7	P1	-16.346924	5.754420	-3.392166
11	P1	-21.860640	6.068794	0.064868
15	P1	-12.521141	12.174374	-5.286327
19	P1	-14.324938	0.276465	0.932199
22	P1	-17.013004	26.484192	-6.727481
26	P1	-18.493492	22.104418	-5.522712
30	P1	-18.587652	8.208652	-3.028257

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.733055	0.095441	-0.097500
7	P2	-22.006330	0.258006	-0.785096
11	P2	-13.982117	1.994980	-2.732812
15	P2	-7.097290	0.124316	-0.293492
19	P2	-9.431559	0.238316	0.638480
22	P2	-16.885857	0.162852	-0.445568
26	P2	-16.465765	0.117051	0.158793
30	P2	-18.961313	0.224891	-0.745052

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.158488	0.004256	-0.025353
7	P3	-8.158488	0.004256	-0.025353
11	P3	-8.158488	0.004256	-0.025353
15	P3	-8.158488	0.004256	-0.025353
19	P3	-8.158488	0.004256	-0.025353
22	P3	-8.158488	0.004256	-0.025353
26	P3	-8.158494	0.004256	-0.025335
30	P3	-8.158494	0.004256	-0.025335

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	-2.778267	0.115096	-0.076915
7	P1	-3.015231	0.083434	-0.258314
11	P1	-3.939212	0.129074	0.504611
15	P1	-3.617040	0.029379	0.059291
19	P1	-3.524295	0.090289	0.497720
22	P1	-5.530856	0.249536	0.859513
26	P1	-6.952412	0.901668	1.853636
30	P1	-5.988482	0.548261	1.356895
3	P1	-11.233983	0.598532	-1.265211
7	P1	-11.907441	21.272326	-6.126327
11	P1	-14.333932	36.377411	-7.195653
15	P1	-13.431442	35.190567	-7.717929
19	P1	-15.319537	0.222903	0.591538
22	P1	-24.776327	3.710321	2.708494
26	P1	-16.114096	7.007639	-4.302649
30	P1	-20.236410	2.053766	-0.569712

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.438152	0.054495	-0.135186
7	P2	-22.161100	0.242397	-0.918229
11	P2	-9.815370	0.777831	-1.725681
15	P2	-5.056293	0.036790	0.059489
19	P2	-6.744682	0.130053	0.376366
22	P2	-7.114479	0.122334	-0.514625
26	P2	-23.946724	0.037548	-0.011141
30	P2	-21.994995	0.081018	-0.352129

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.002528	0.003702	-0.016549
7	P3	-8.002556	0.003712	-0.016295
11	P3	-8.002436	0.003709	-0.016136
15	P3	-8.002459	0.003715	-0.016335
19	P3	-8.002524	0.003708	-0.016692
22	P3	-8.002403	0.003703	-0.016158
26	P3	-8.002479	0.003708	-0.016704
30	P3	-8.002337	0.003713	-0.016819

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	0.000469010
	stdev	2.12024e-07
MEAN Q	mean	0.000498595
	stdev	2.25507e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129425
	stdev	0.000967718
STDEV Q	mean	0.129682
	stdev	0.000978242



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005091[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_1PNPDE20050918_141410_00000812040_00483_18573_5918.N1	1	0
ASA_IMM_1PNPDK20050918_124040_00000362040_00482_18572_4259.N1	1	0
ASA_WVS_1PNPDE20050918_003155_000000002040_00474_18564_1564.N1	1	0
ASA_WVS_1PNPDE20050918_032532_000000002040_00476_18566_1565.N1	1	0
ASA_WSM_1PNPDE20050917_194140_000003242040_00471_18561_9188.N1	0	1
ASA_WSM_1PNPDE20050918_012934_000004592040_00475_18565_9256.N1	0	58





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

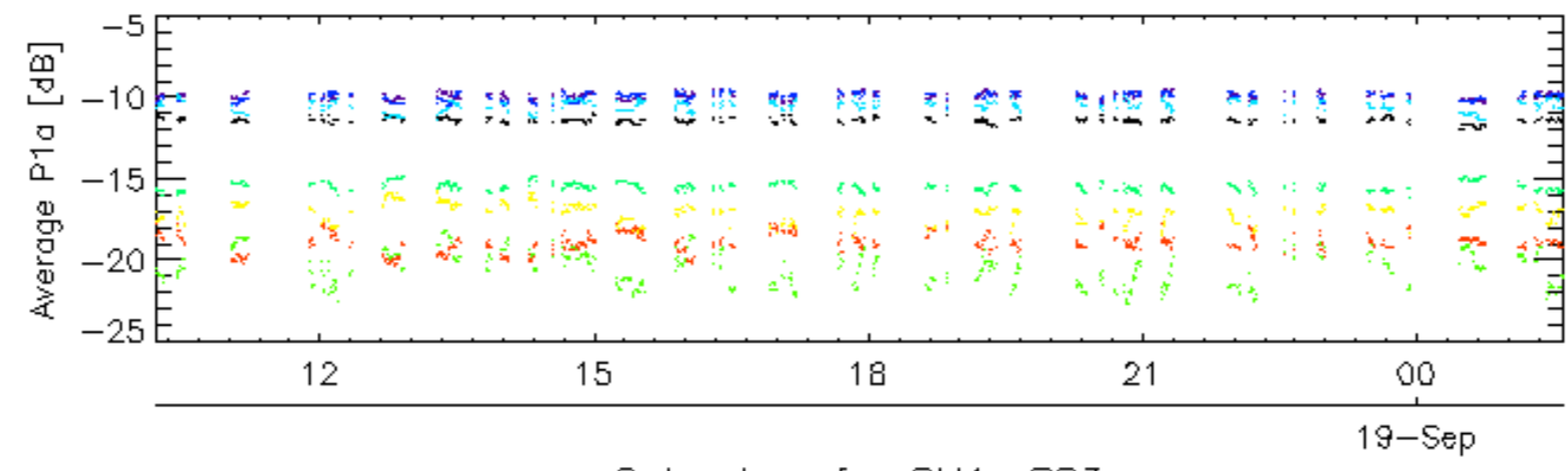
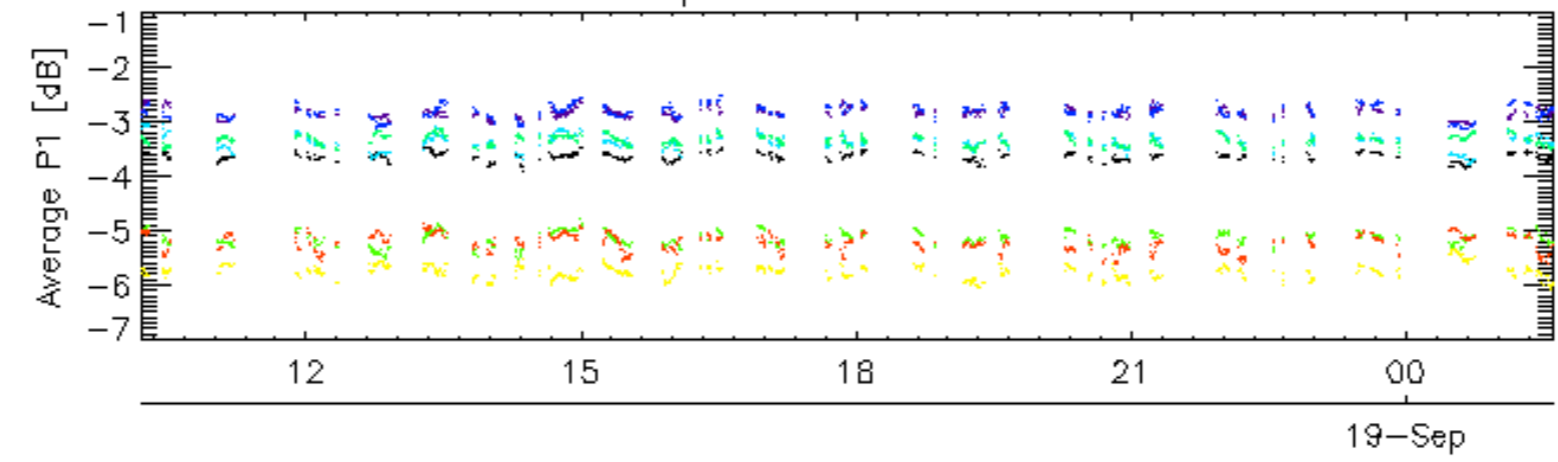
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

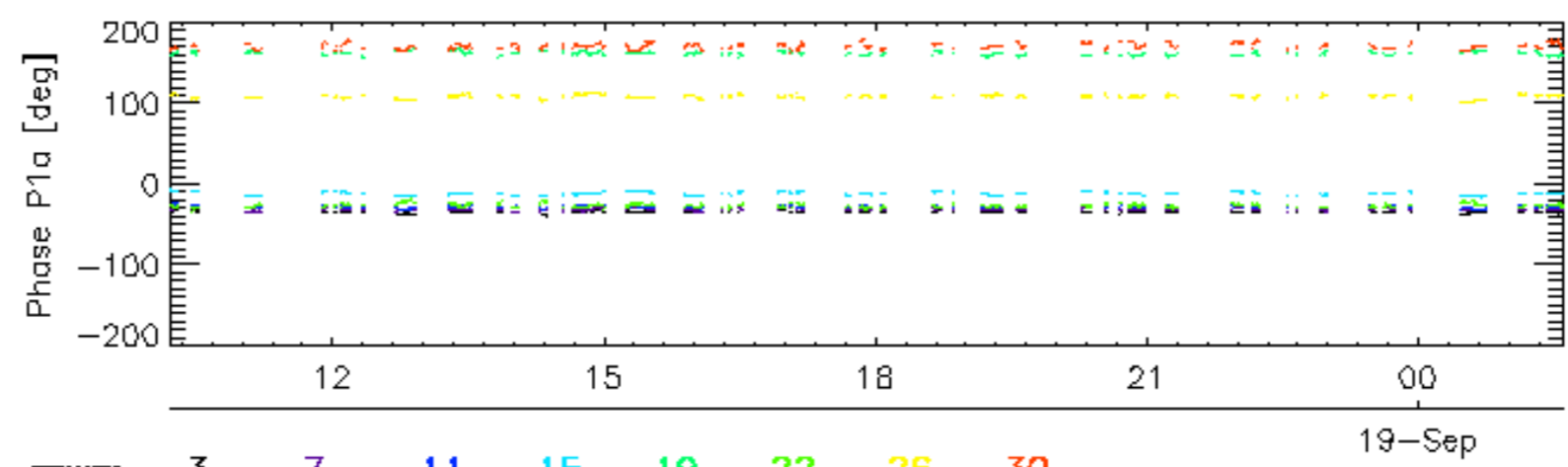
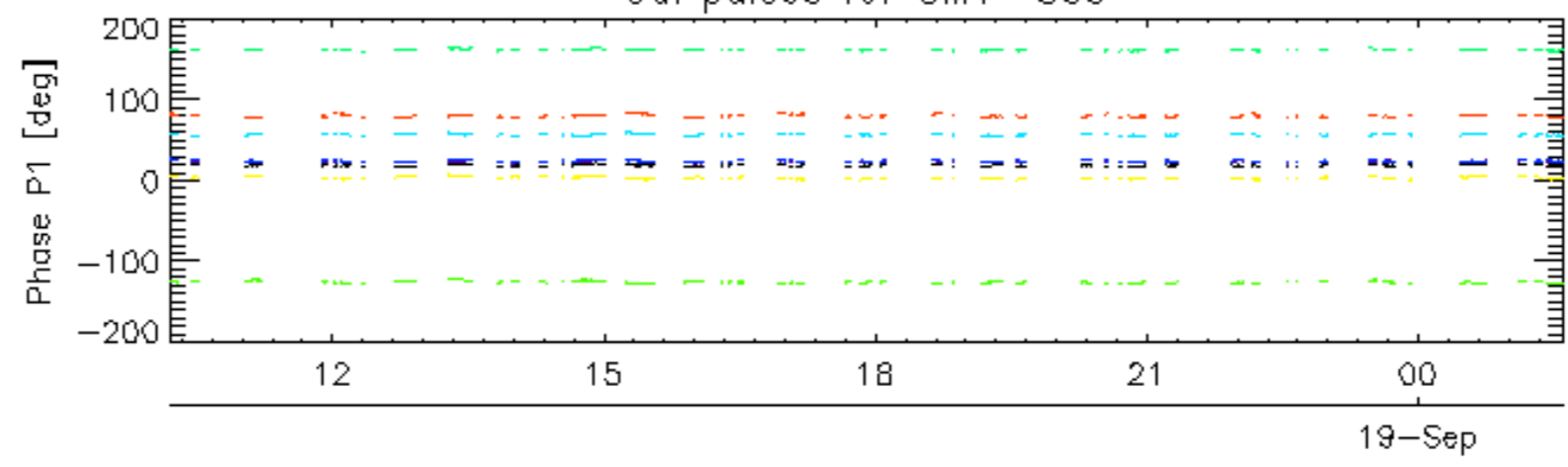
Evolution Doppler error versus ANX

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Cal pulses for GM1 SS3

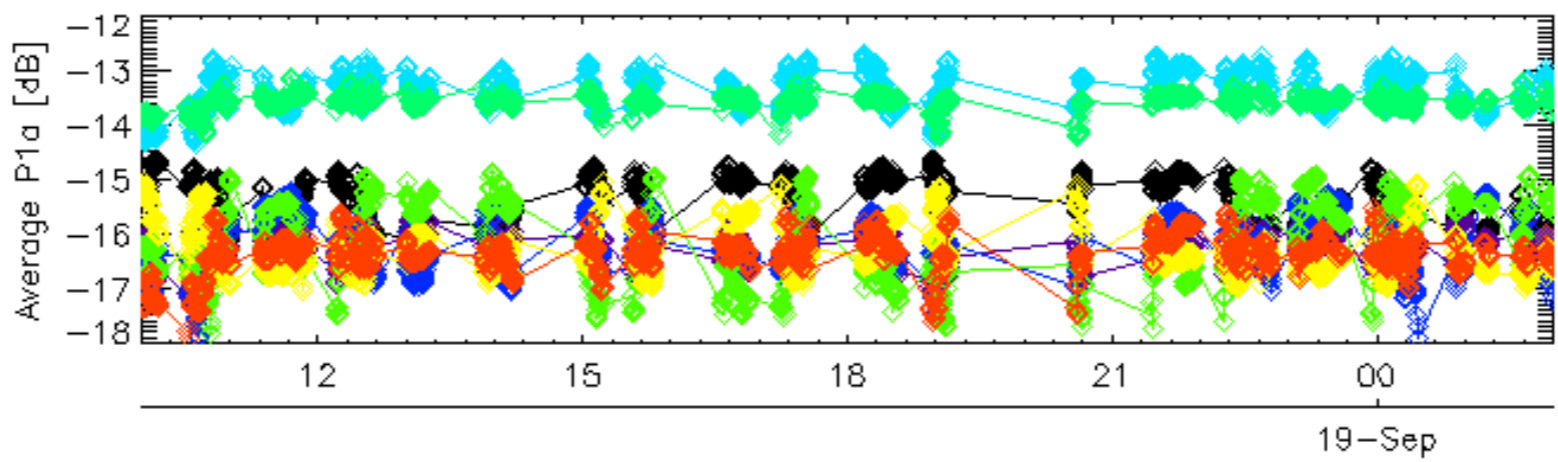
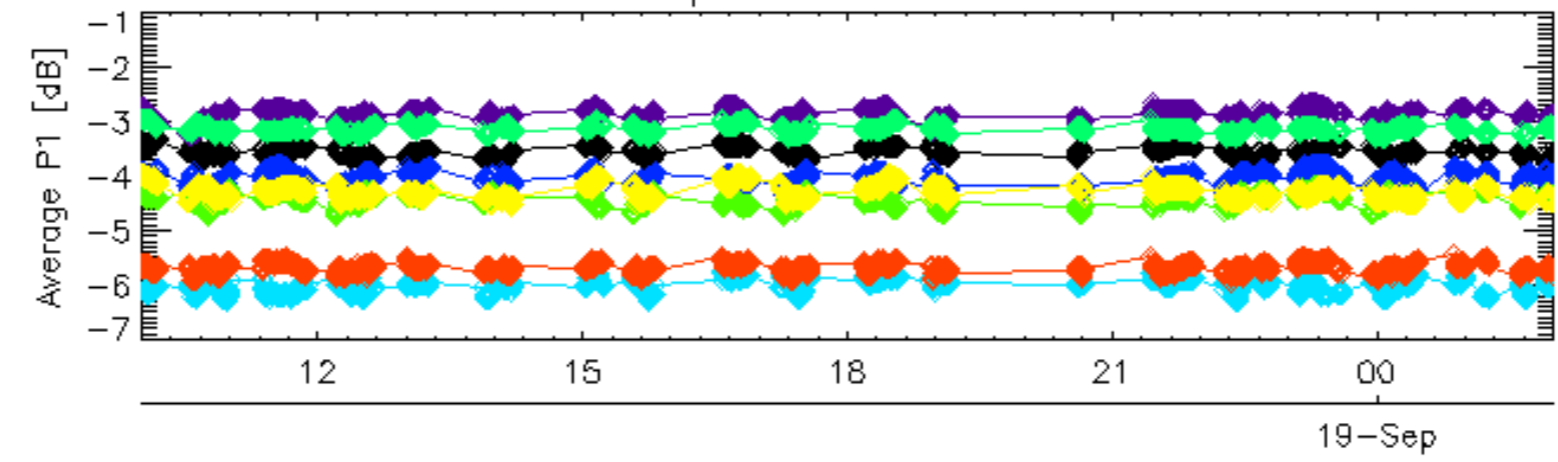


Cal pulses for GM1 SS3

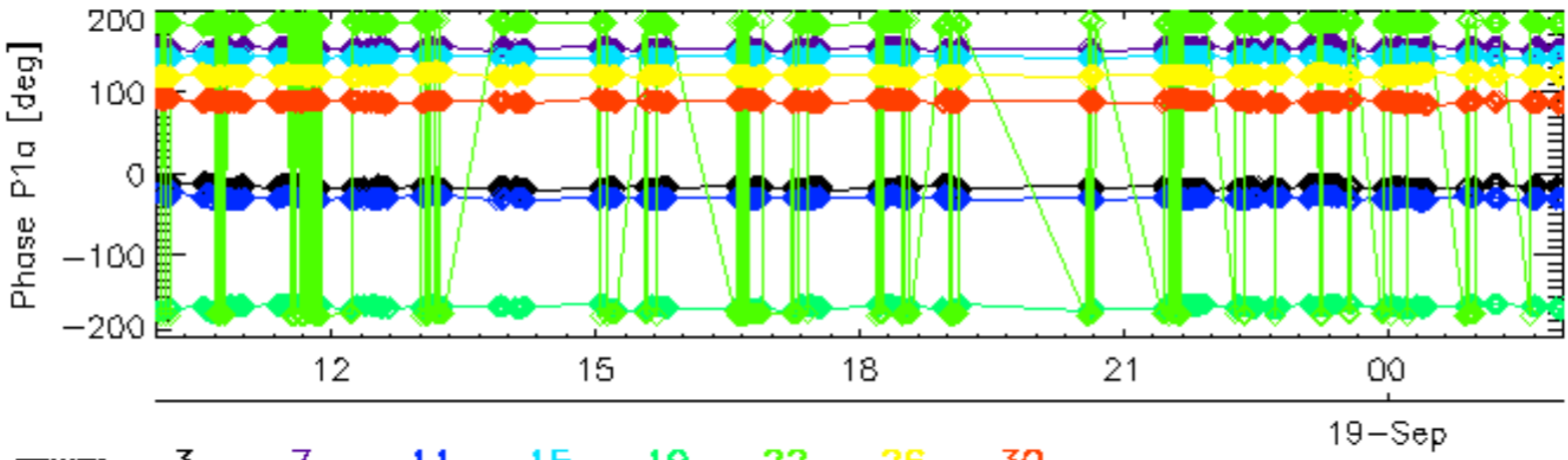
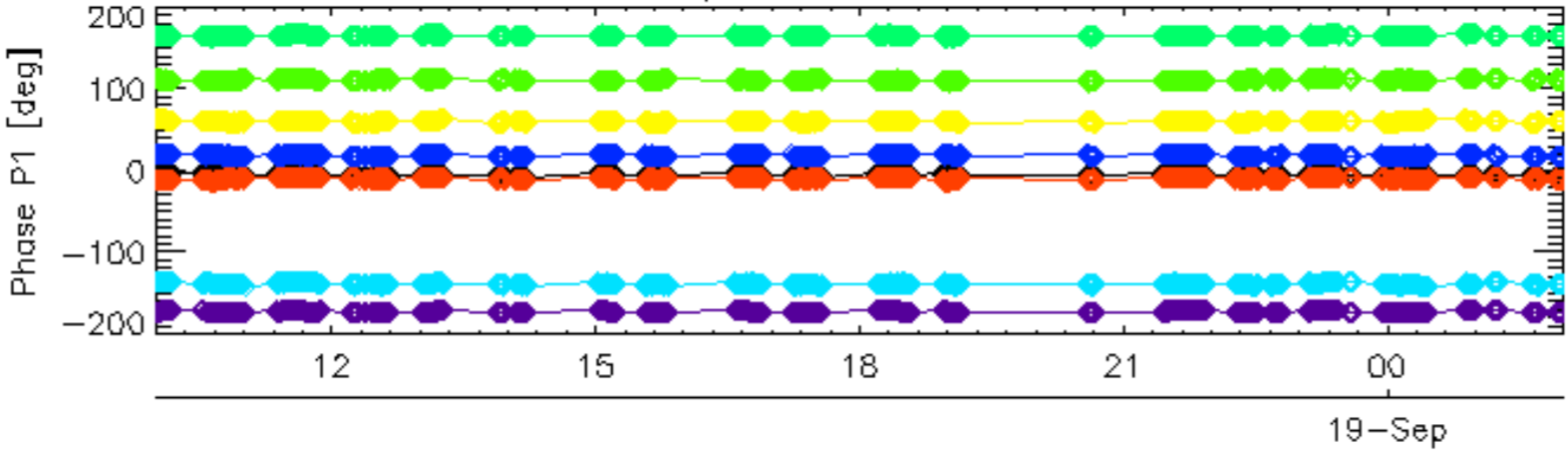


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

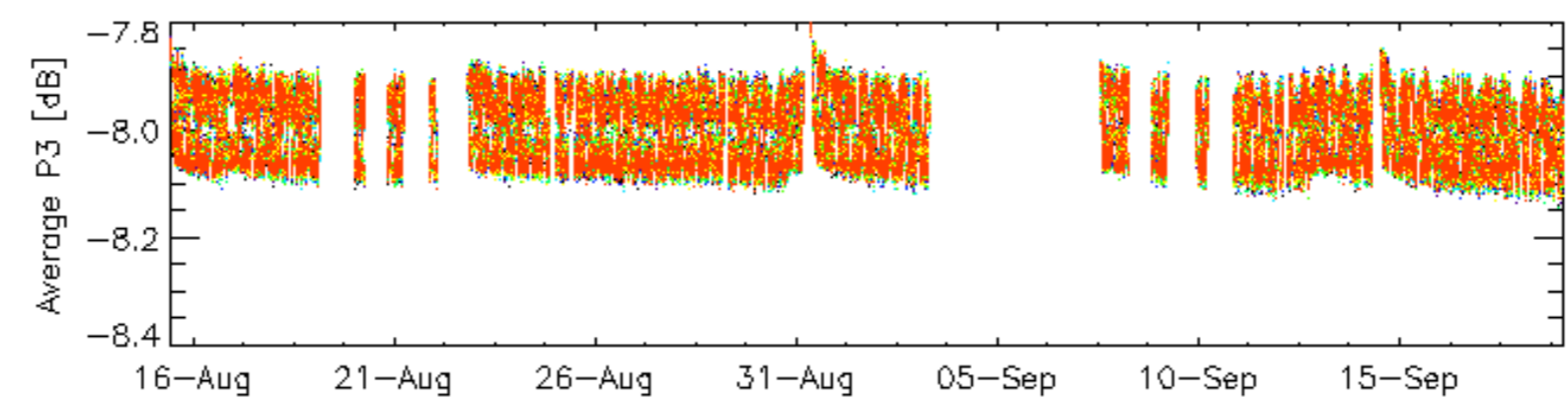
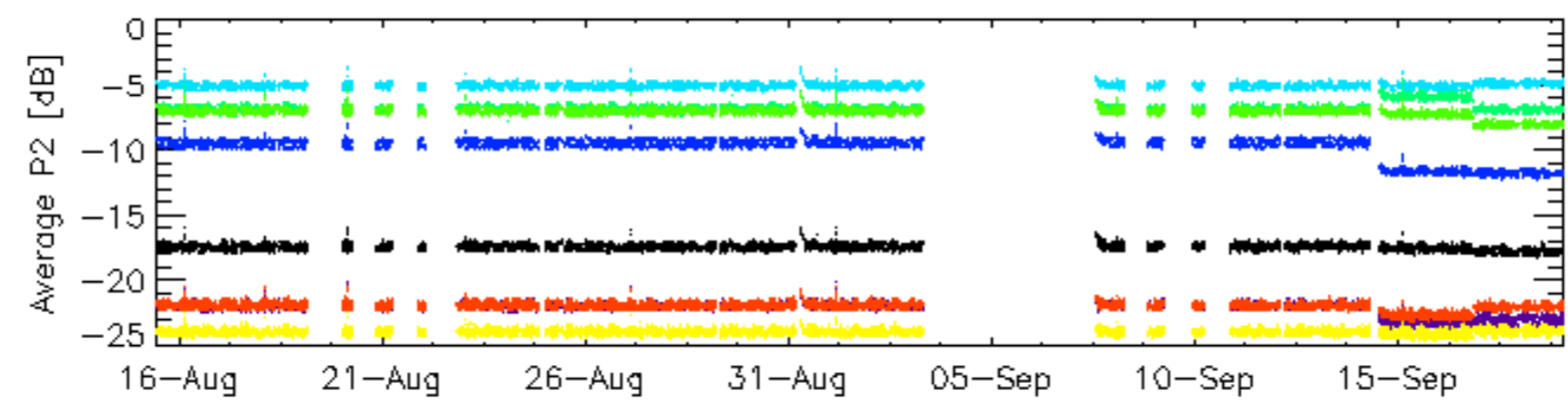
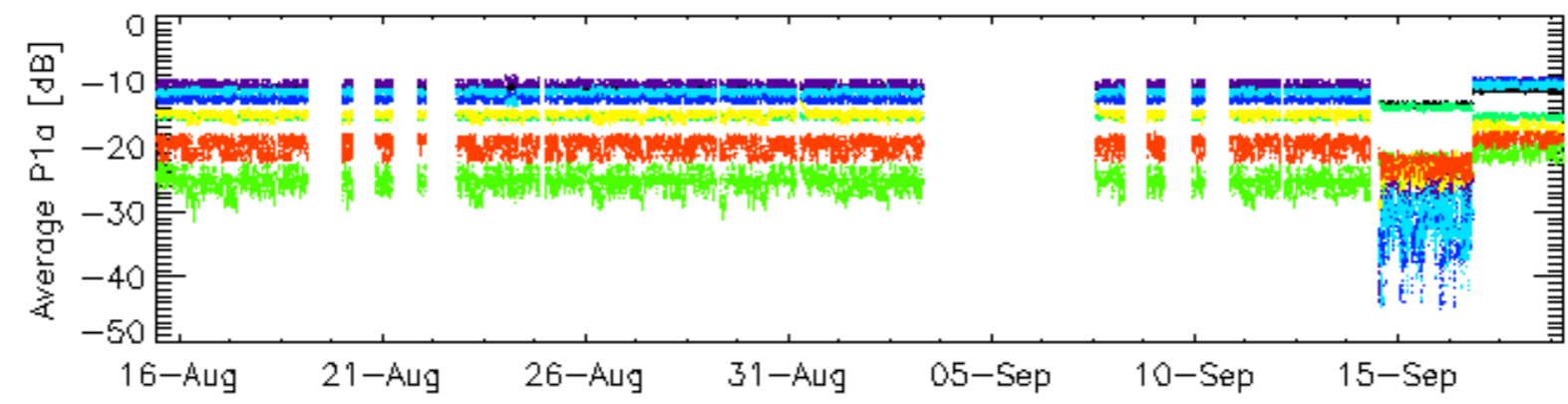
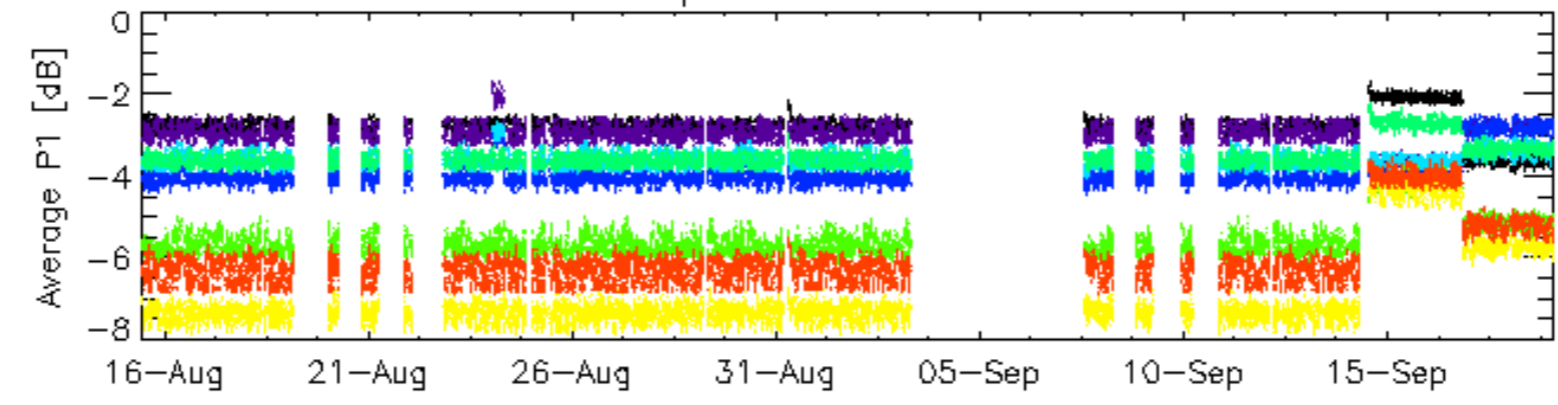


Cal pulses for WVS IS2



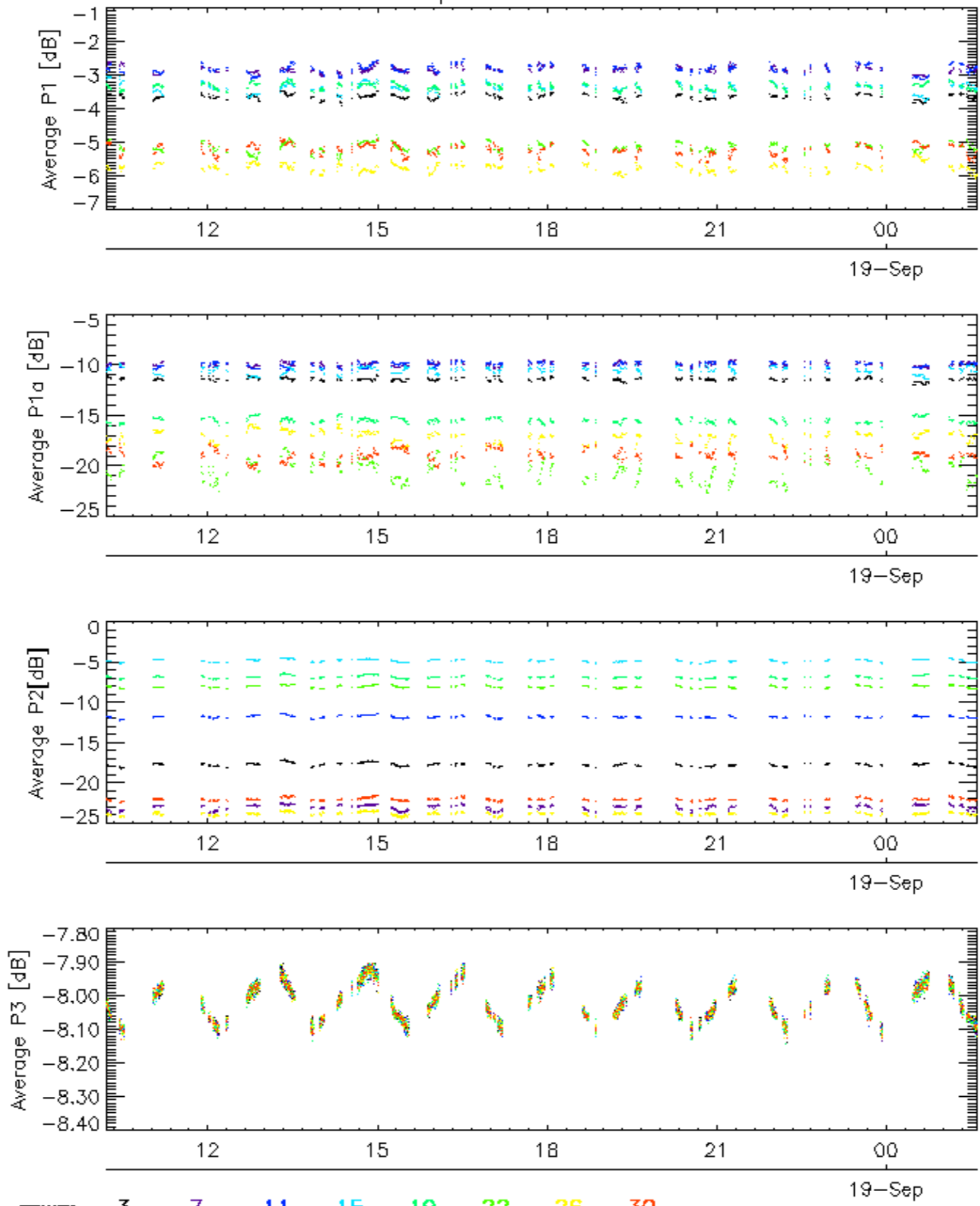
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

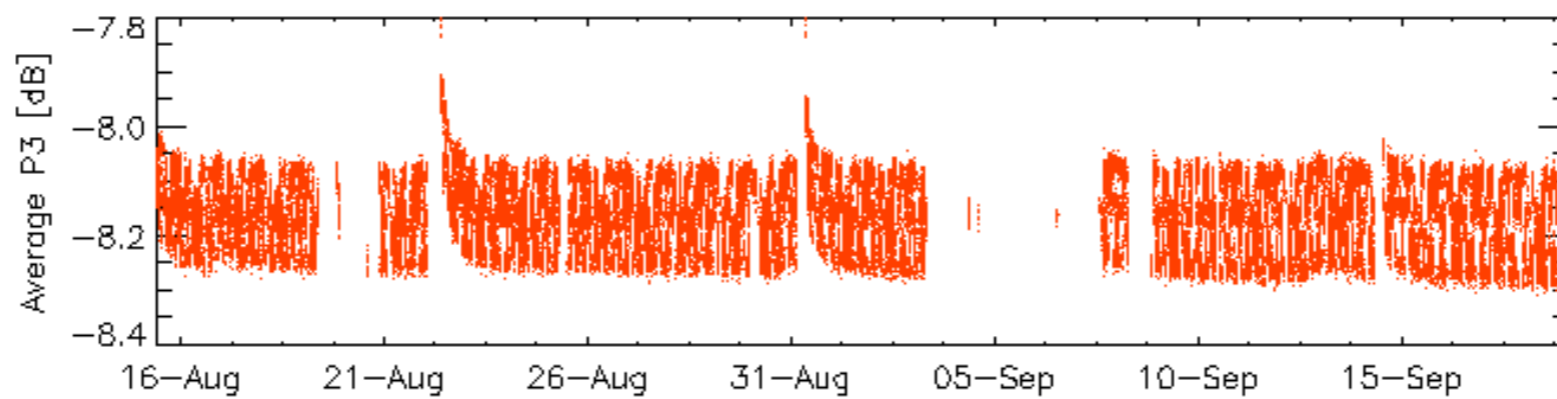
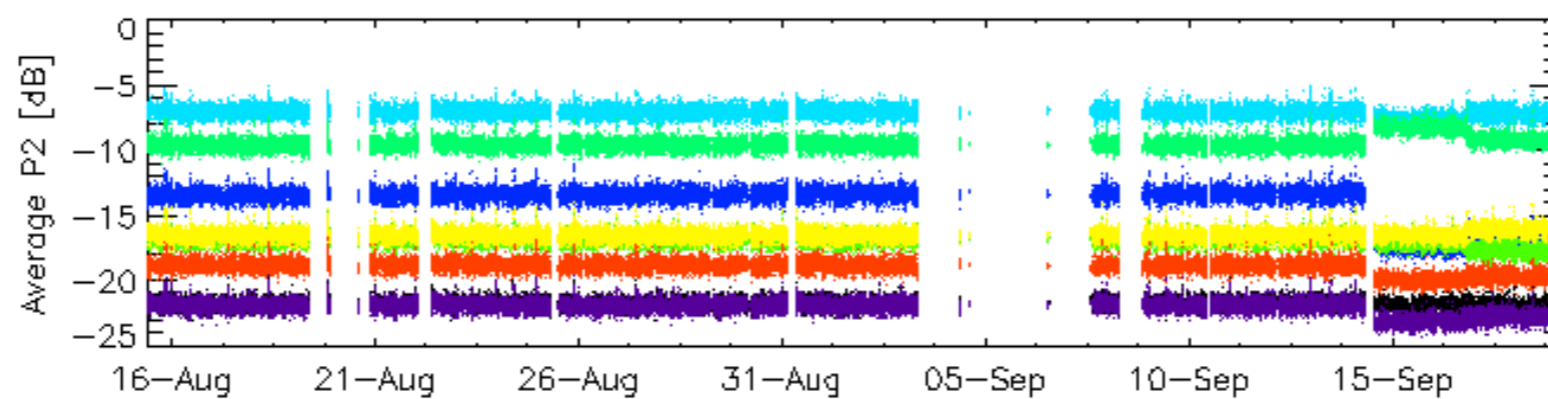
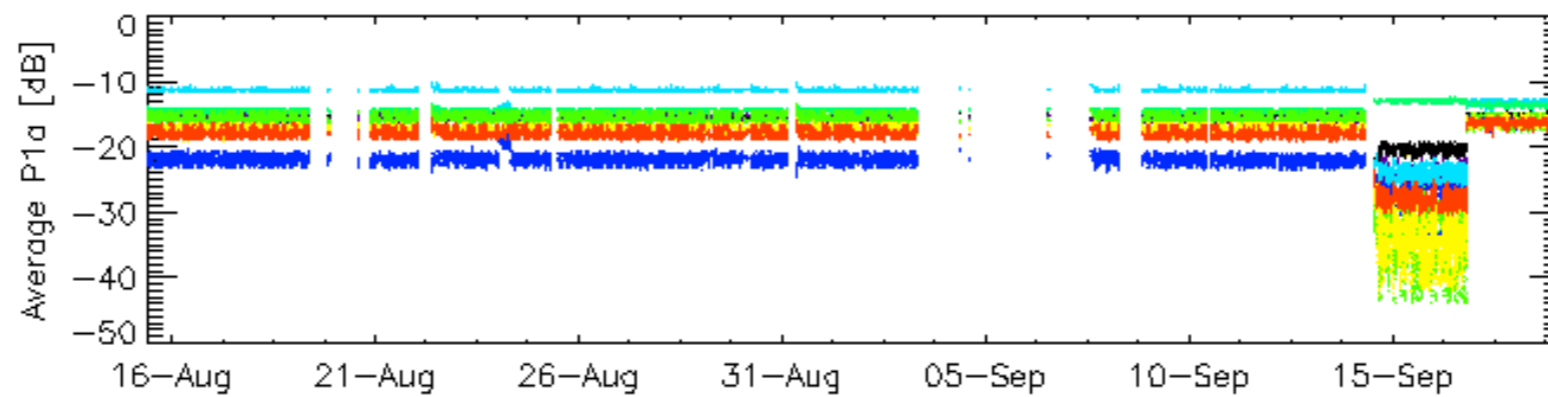
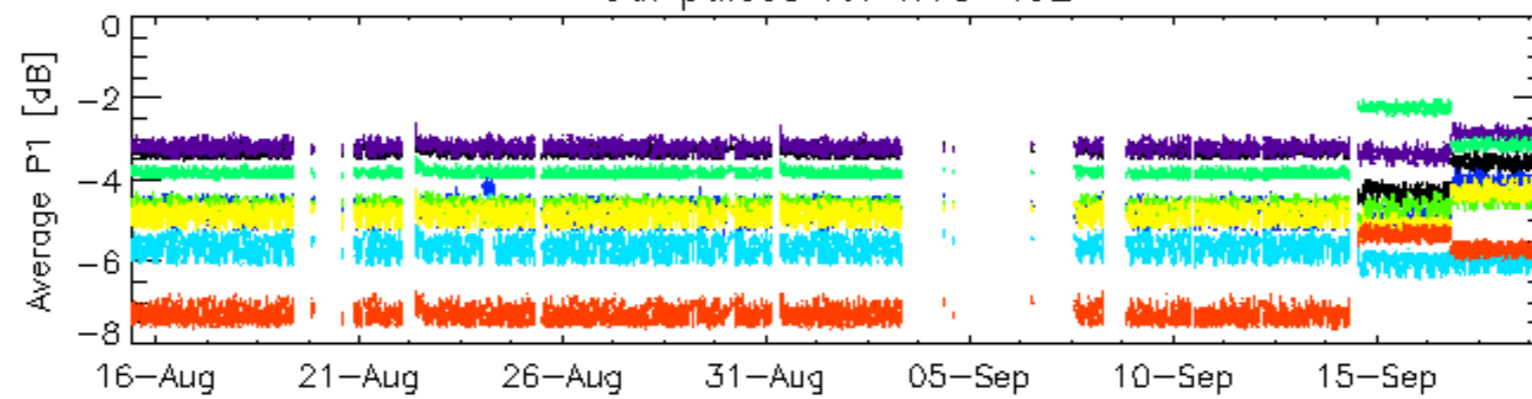


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

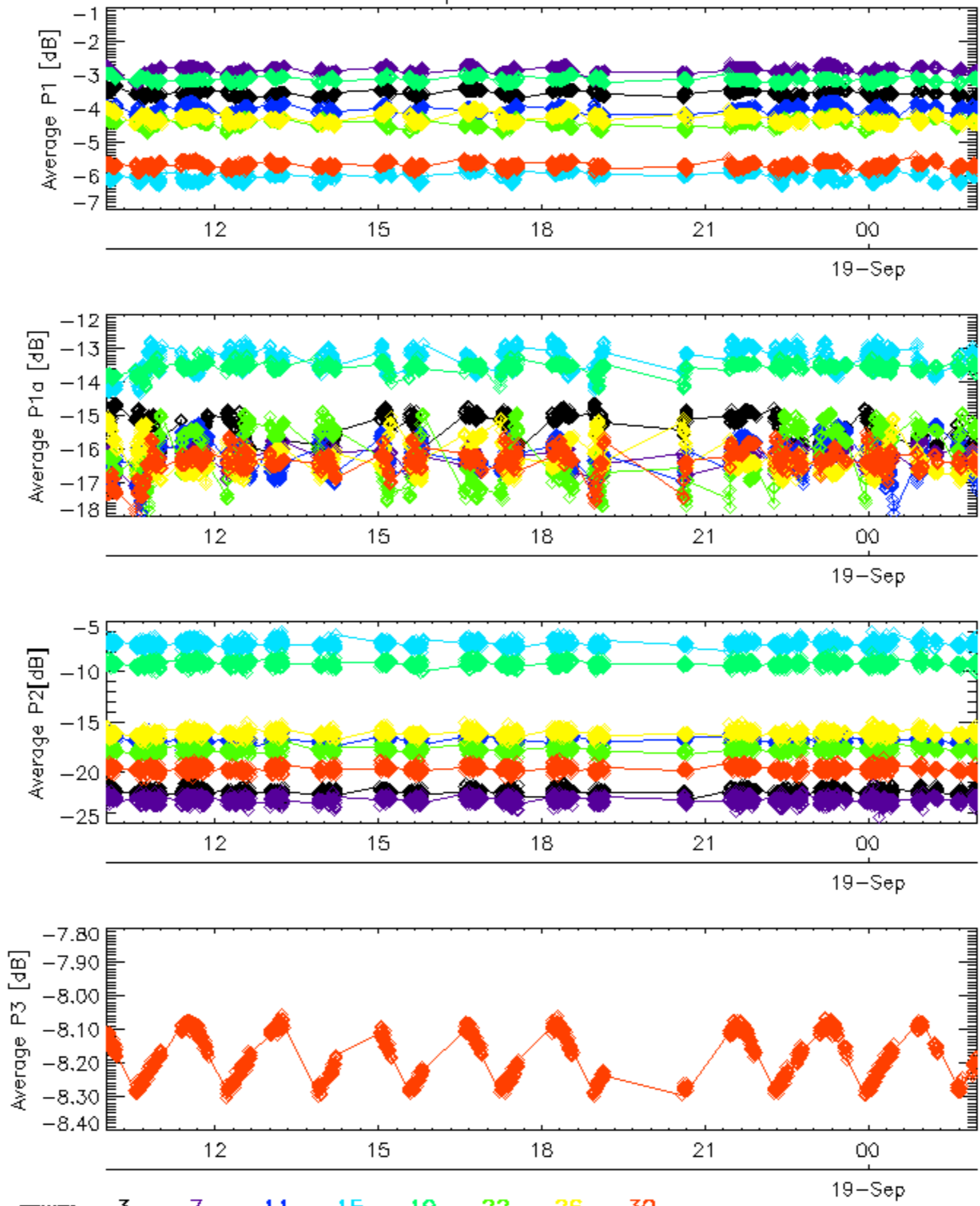


Cal pulses for WVS IS2

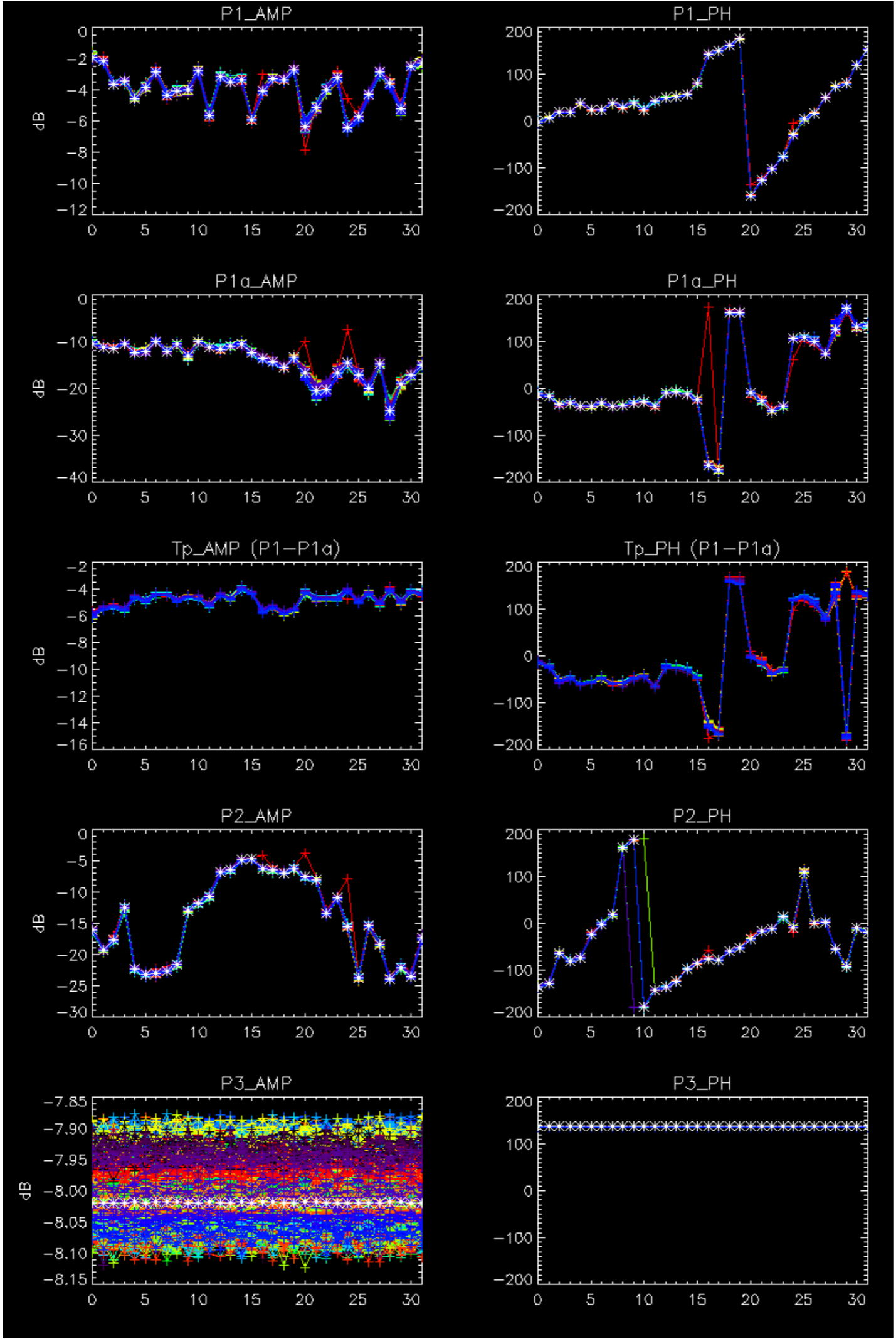


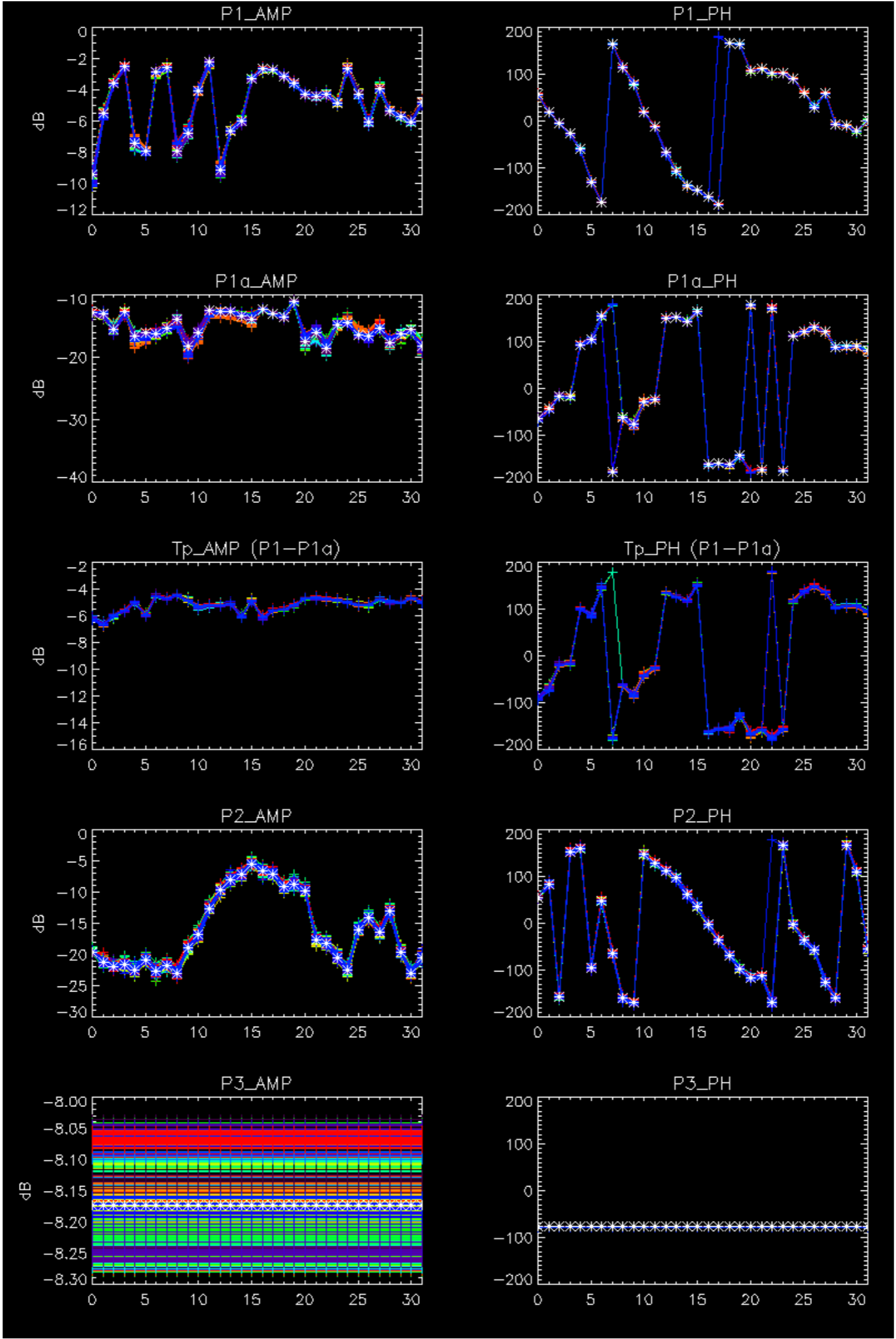
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



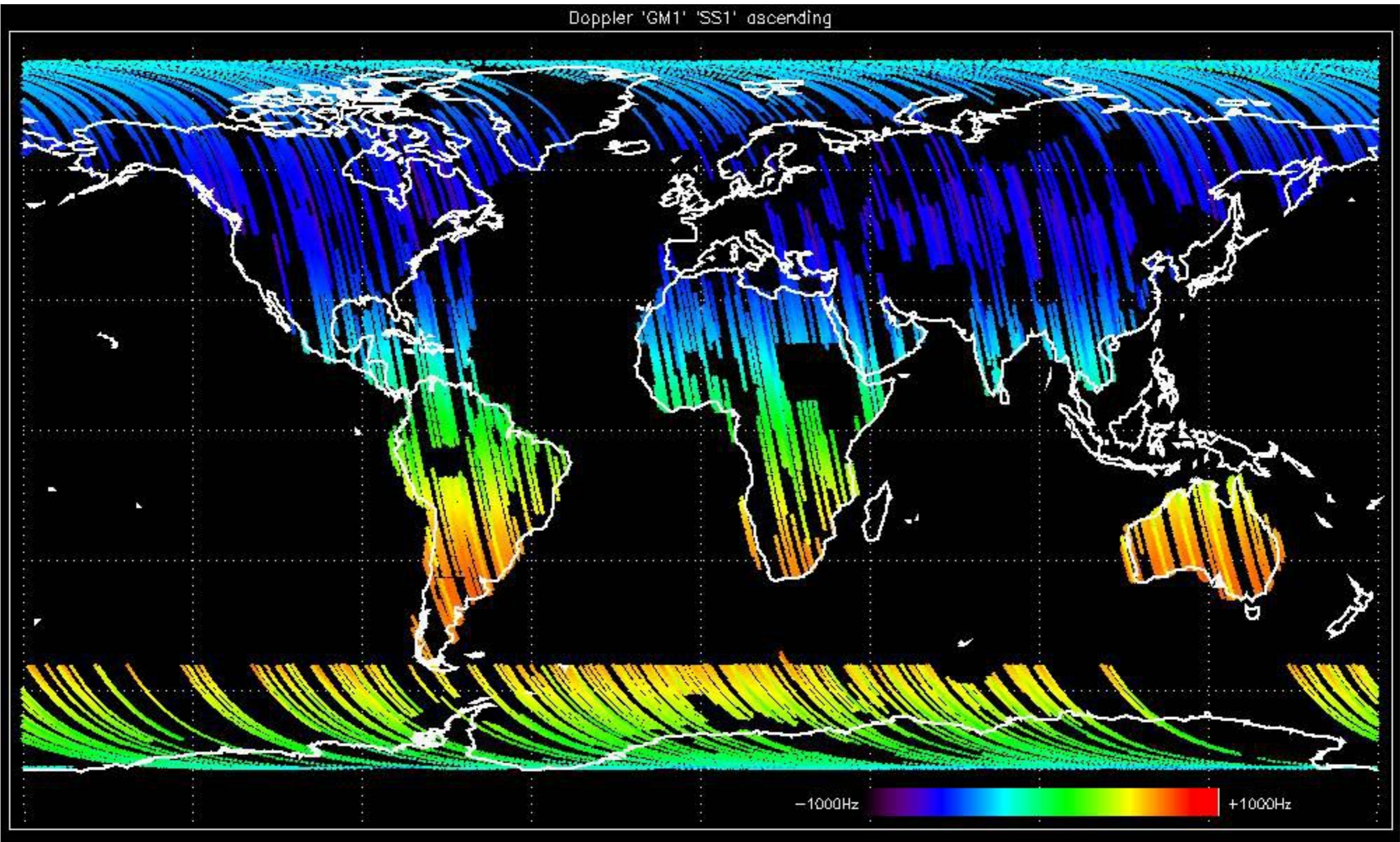
No anomalies observed.



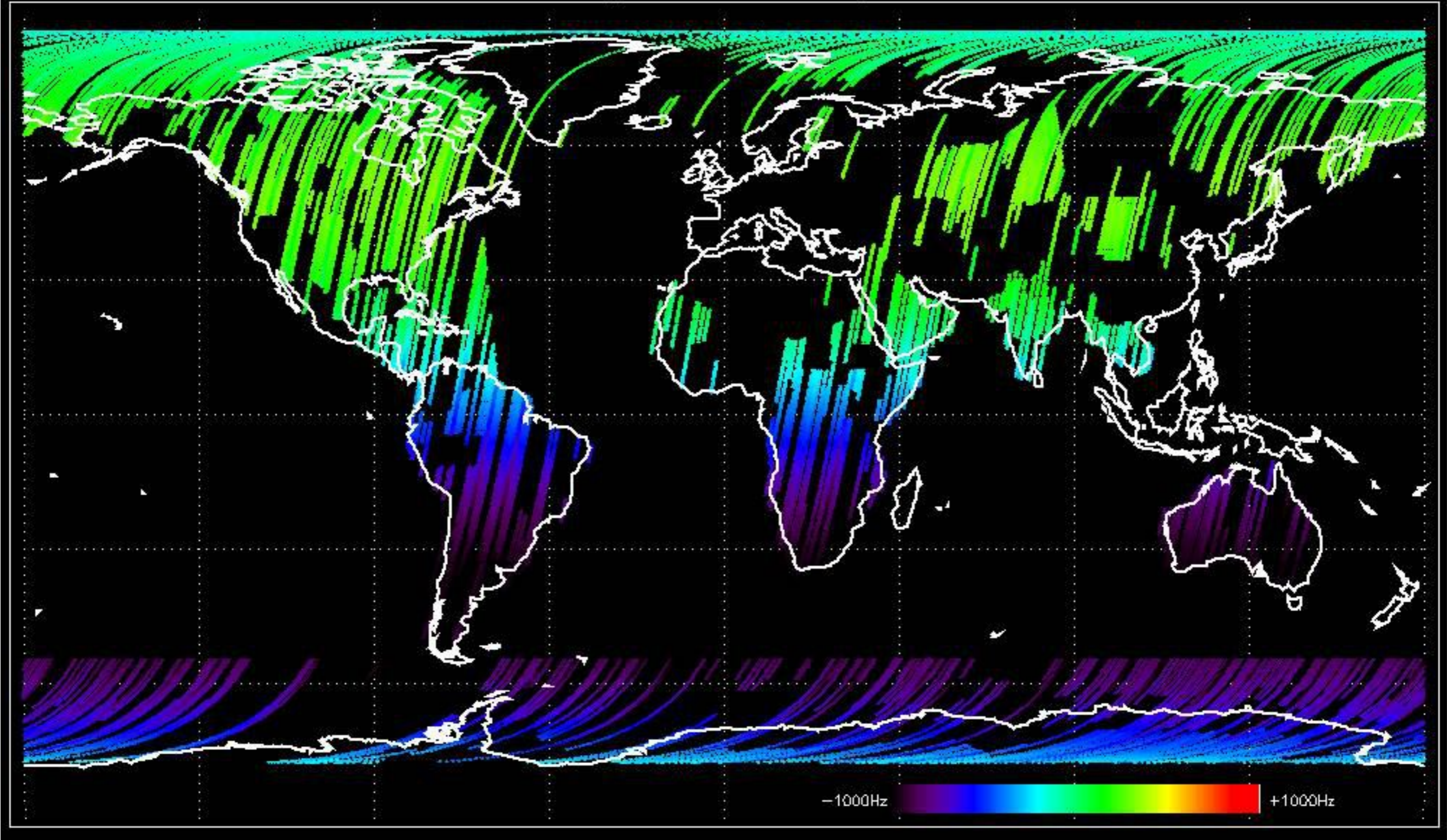


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

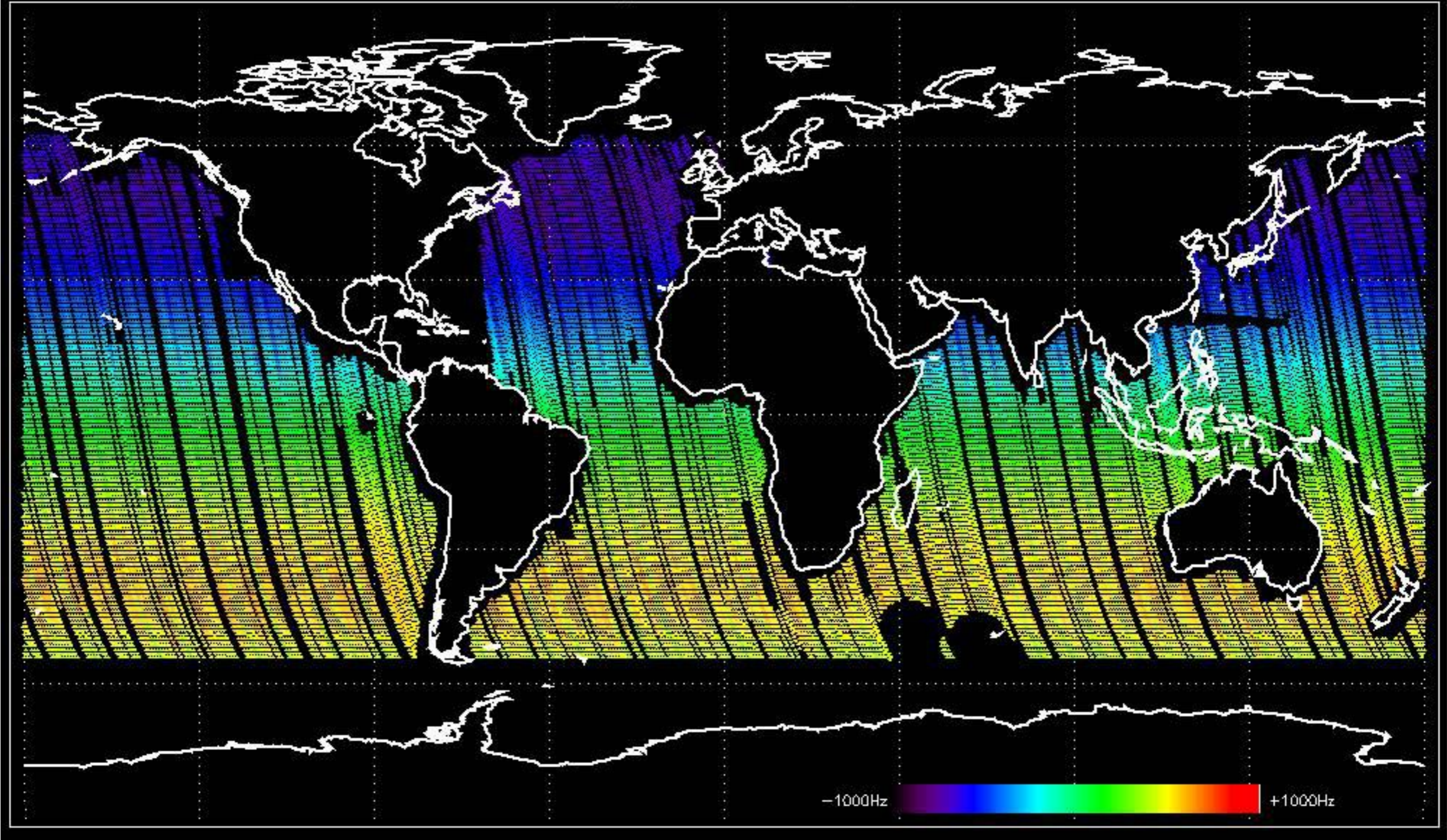
Doppler 'GM1' 'SS1' ascending



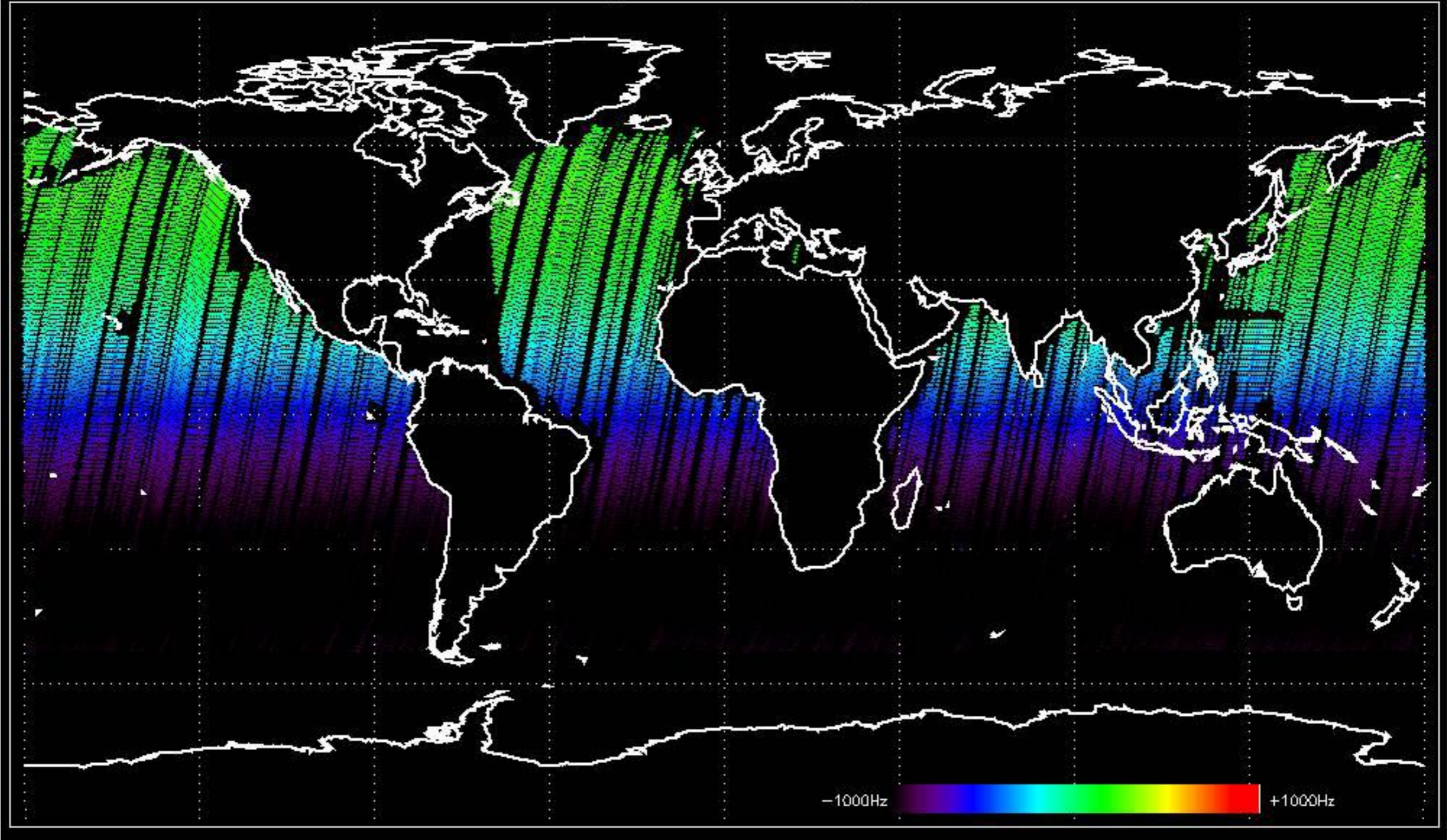
Doppler 'GM1' 'SS1' descending



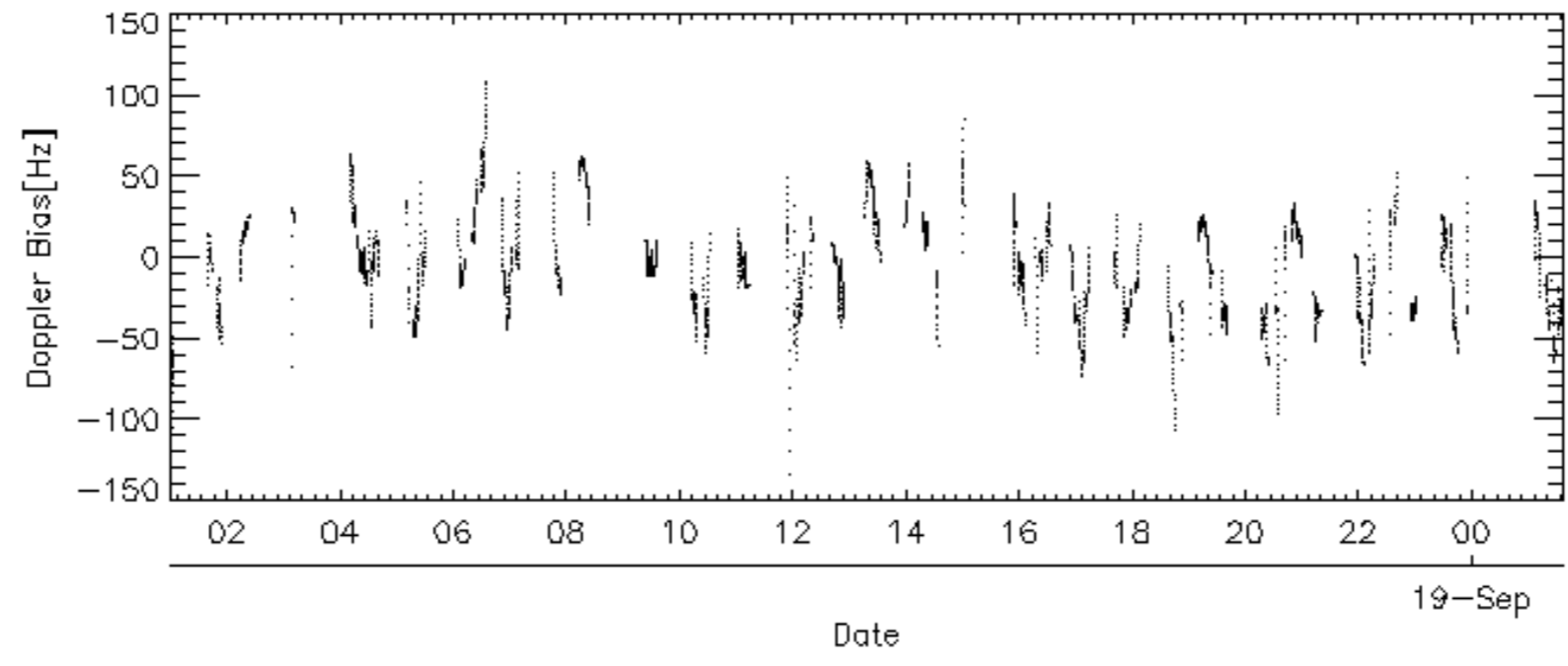
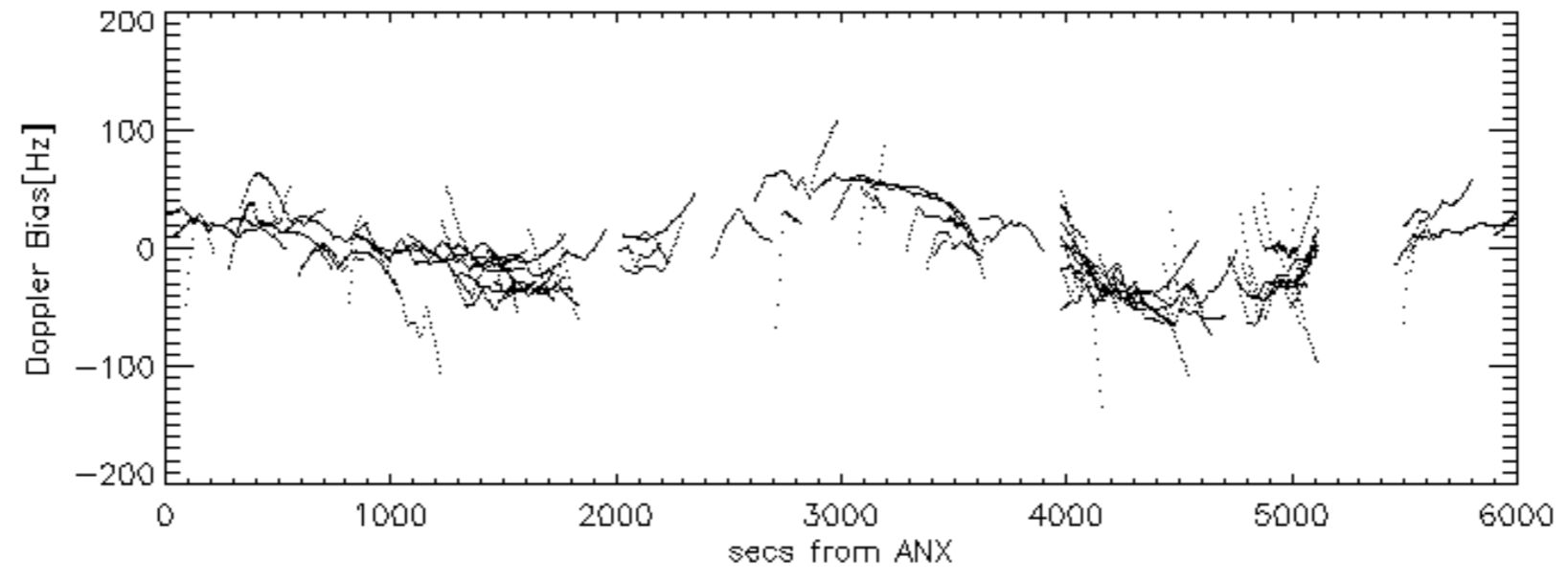
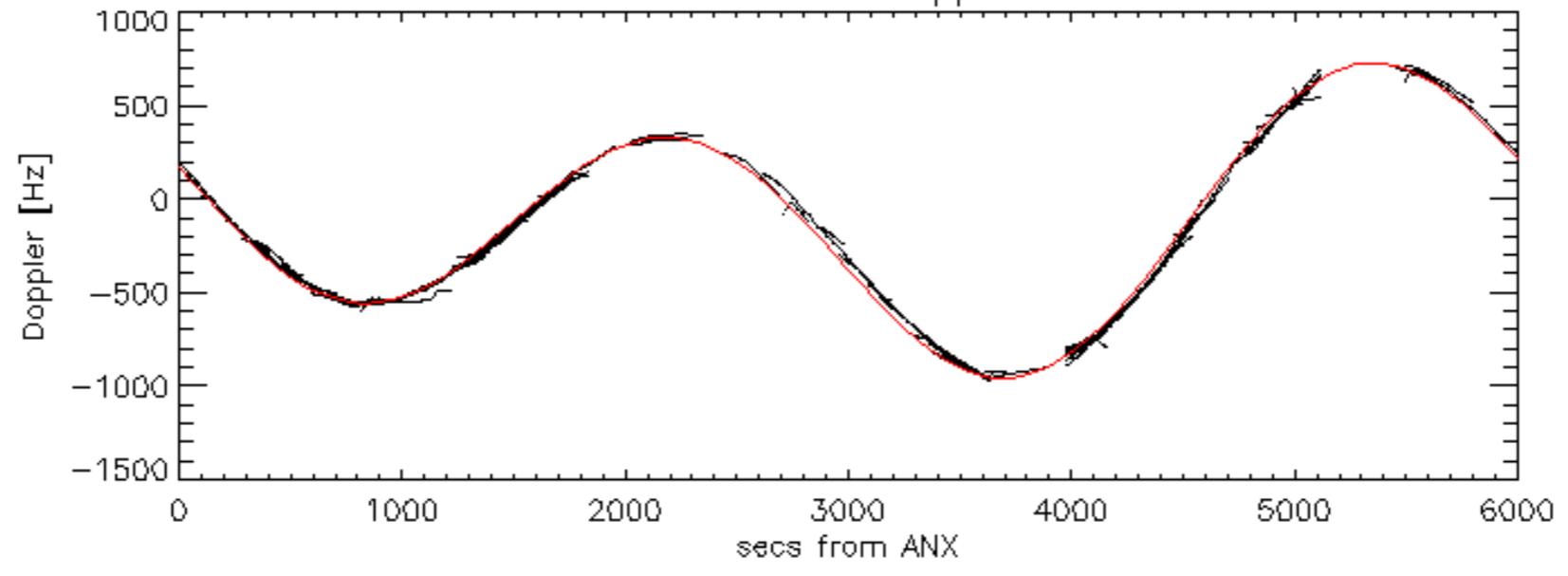
Doppler 'WVS' 'IS2' ascending

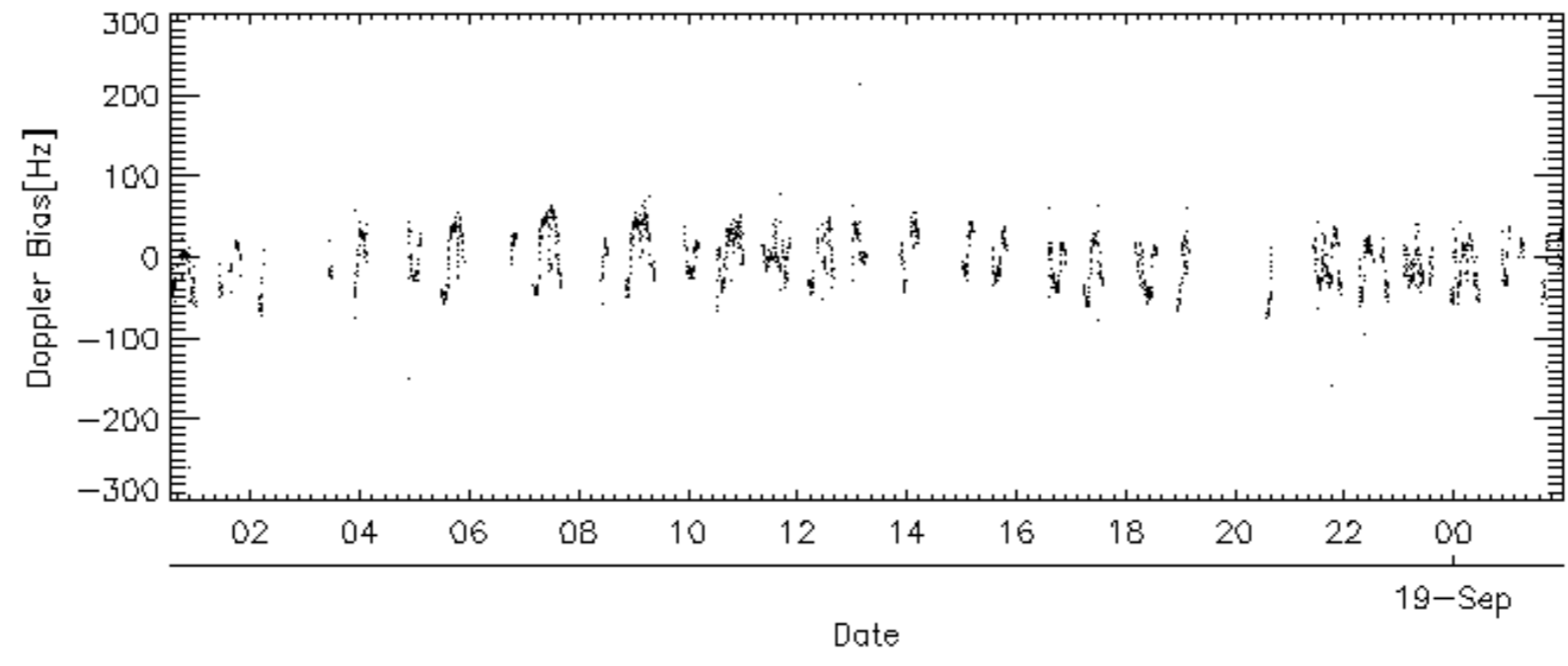
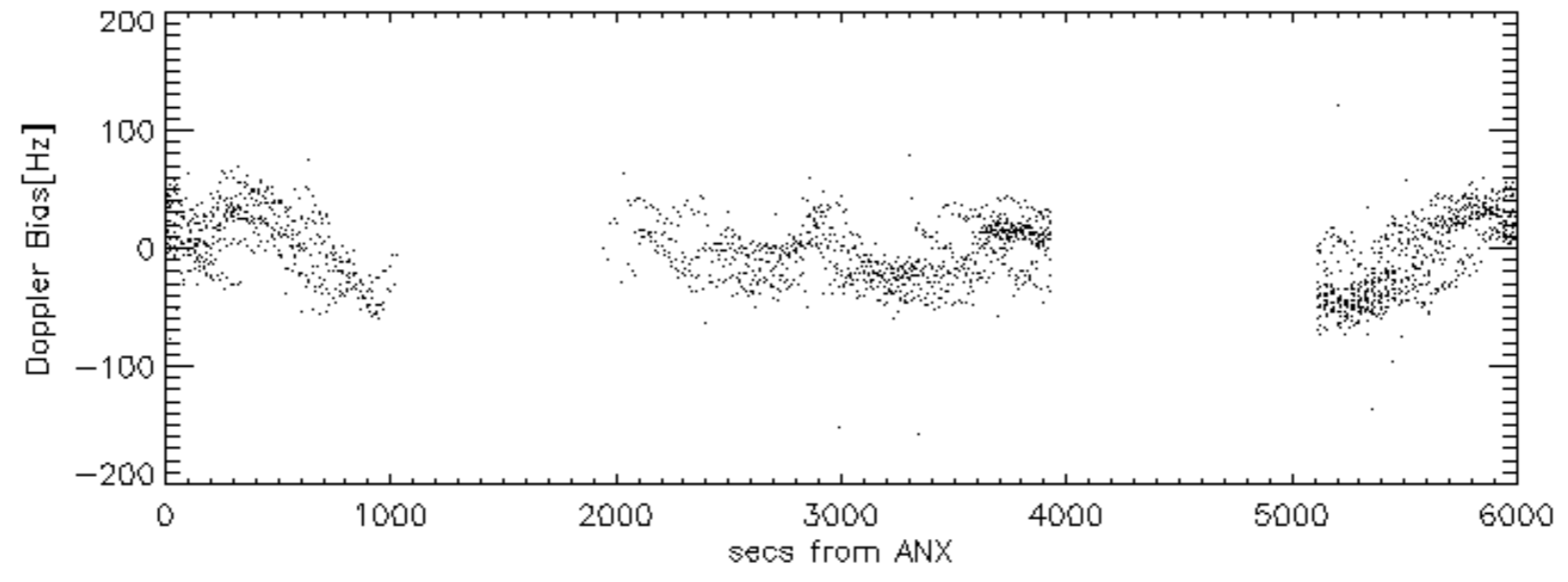
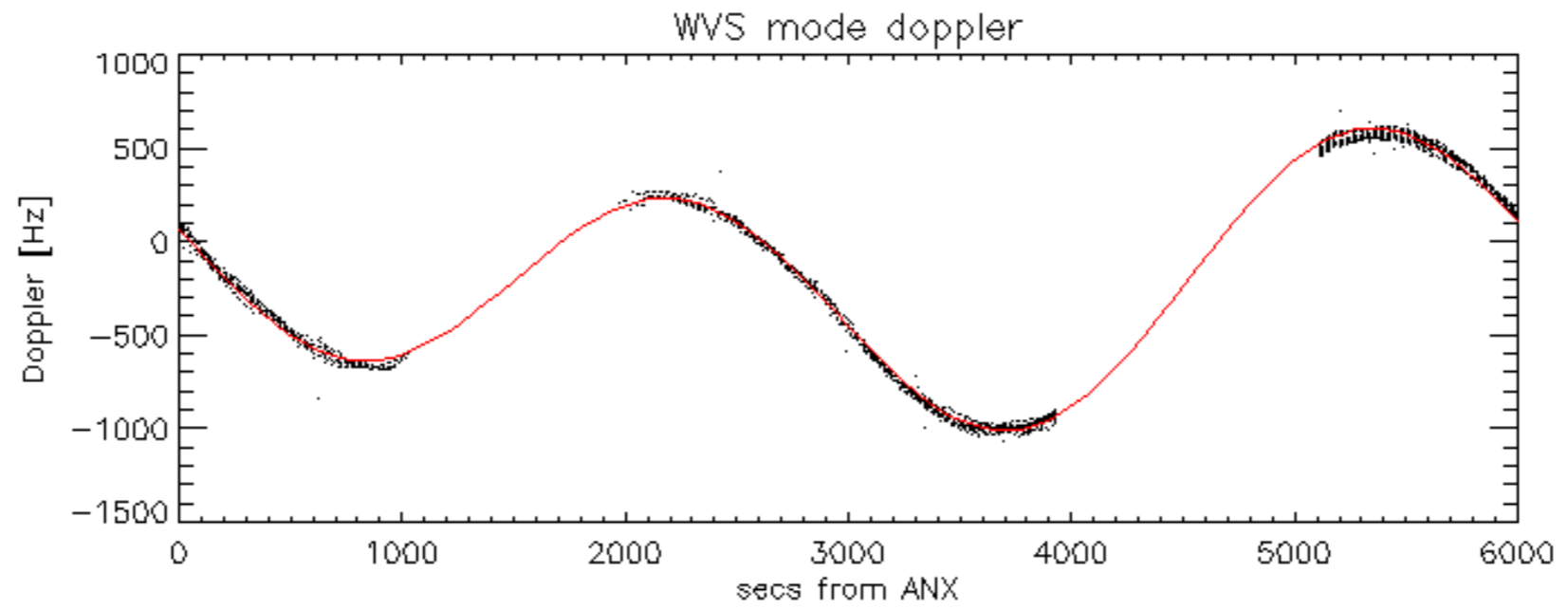


Doppler 'WVS' 'IS2' descending

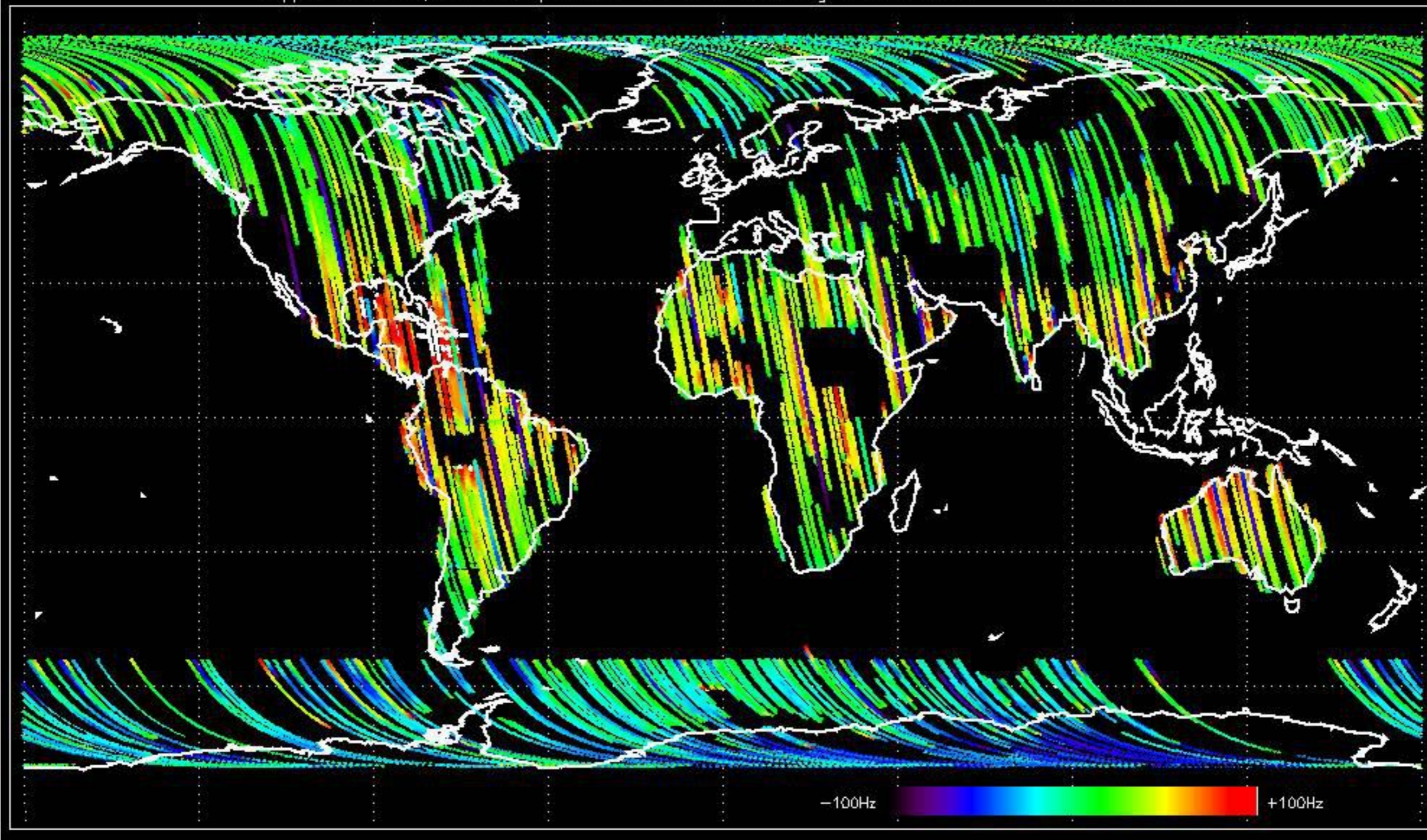


GM1 mode doppler

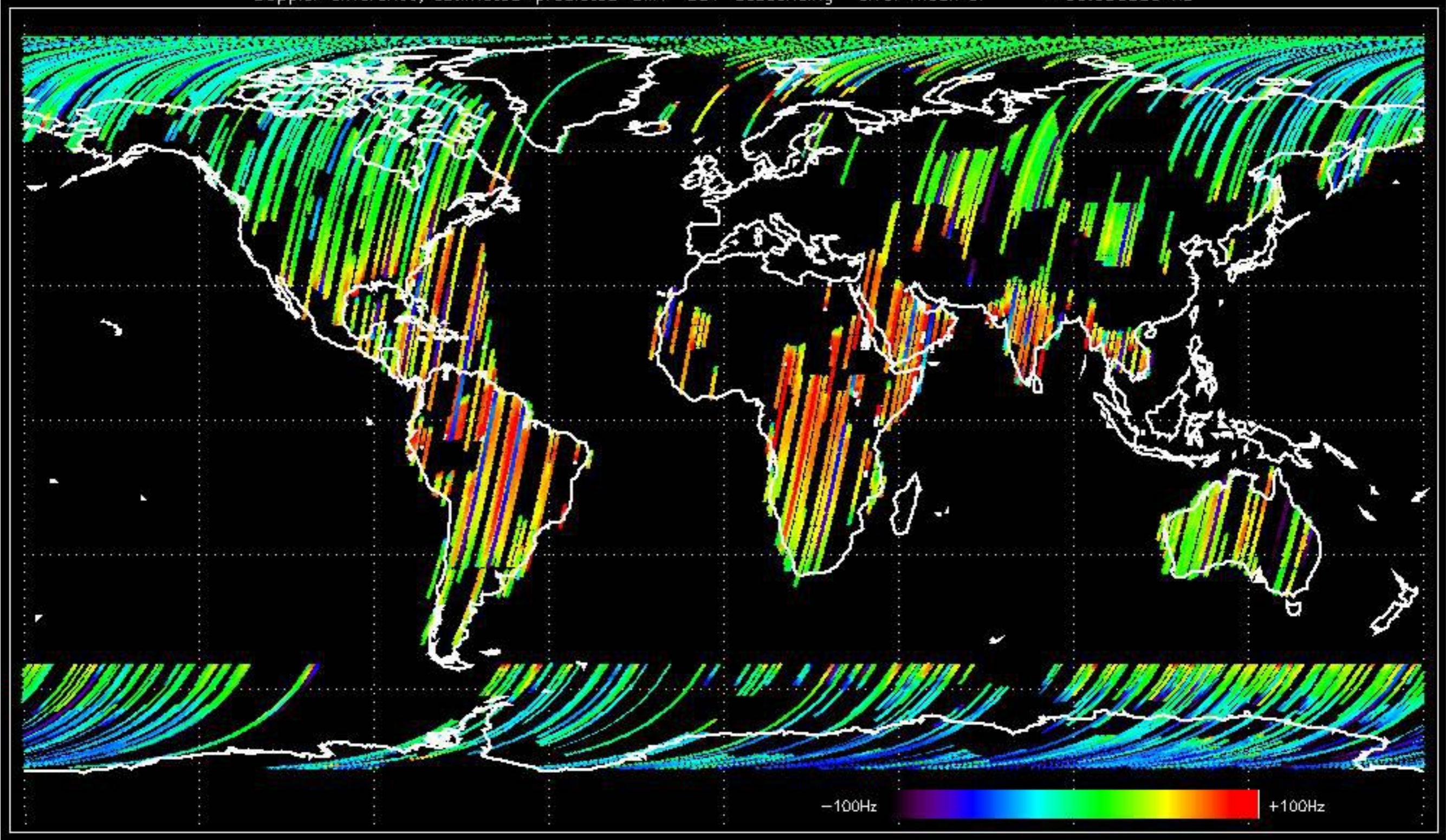




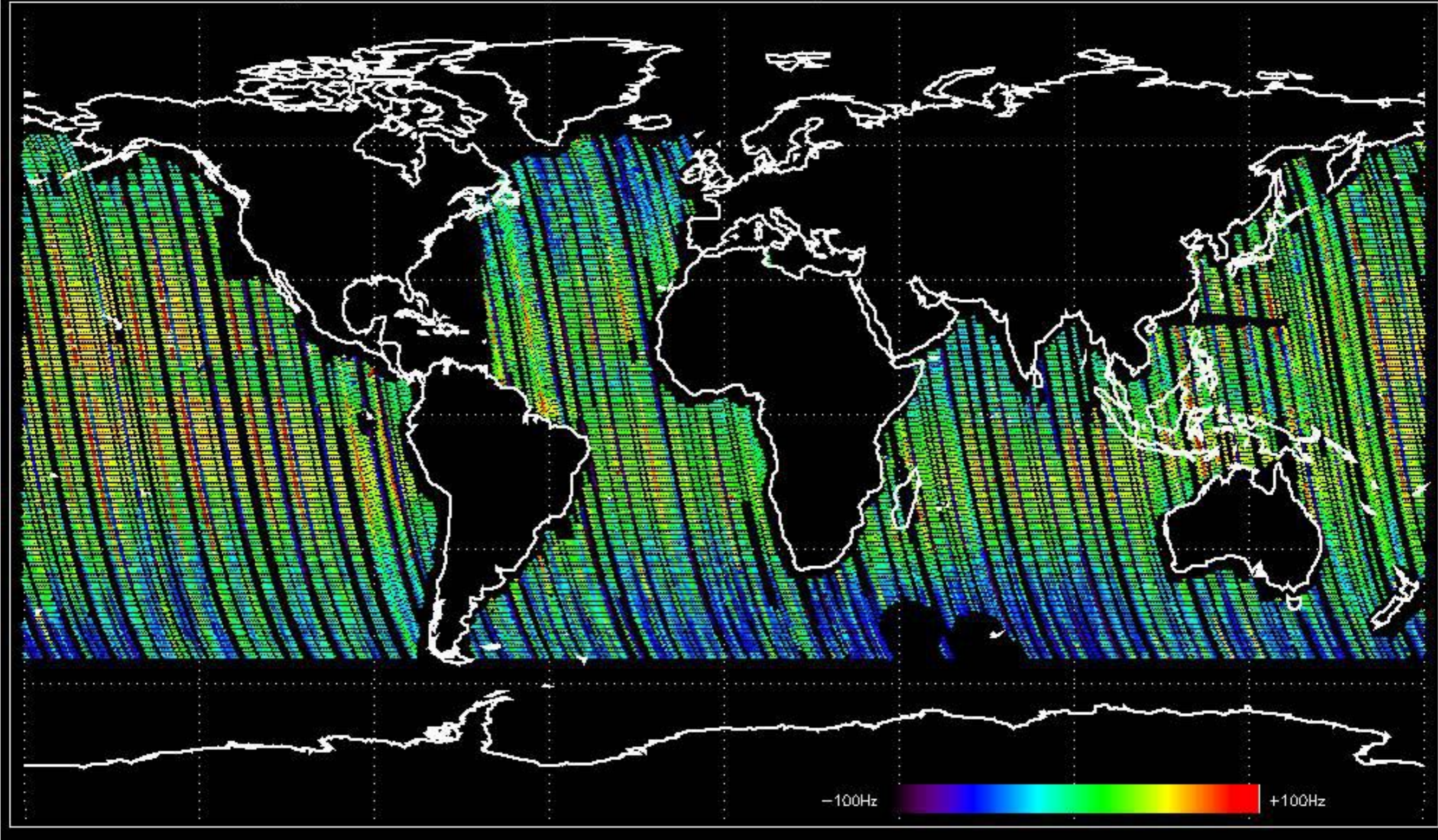
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -41.701480 Hz



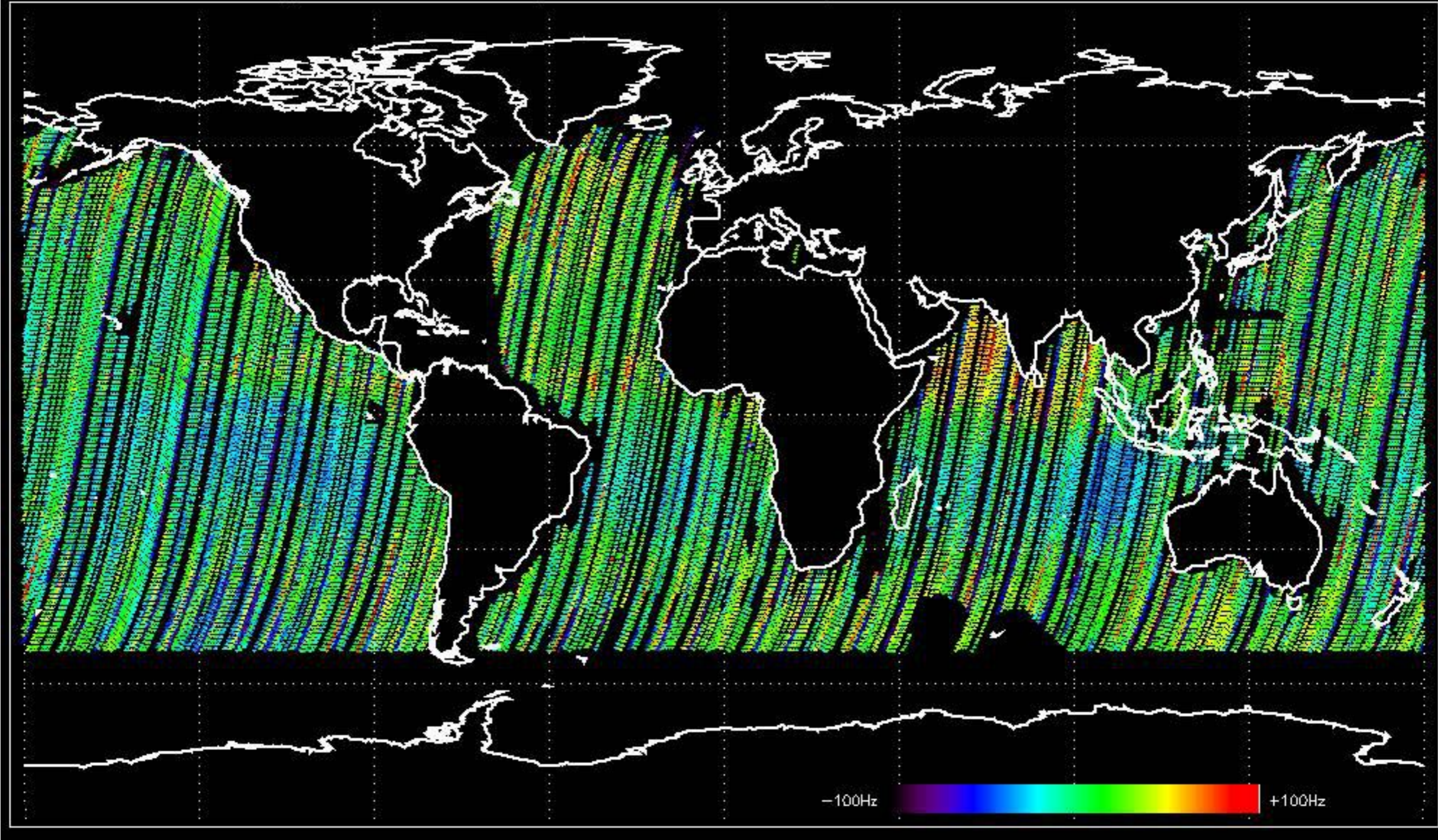
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -36.030089 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -41.053306 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -46.031603 Hz

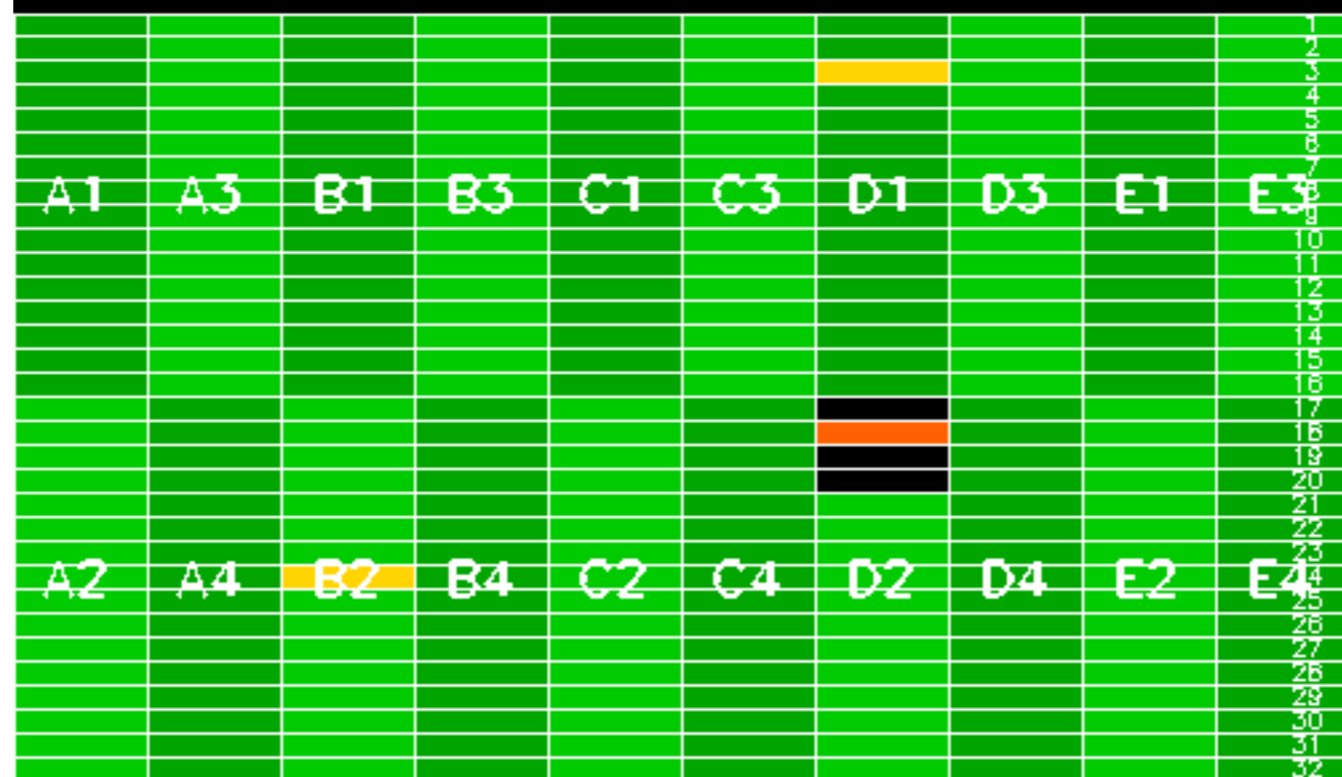


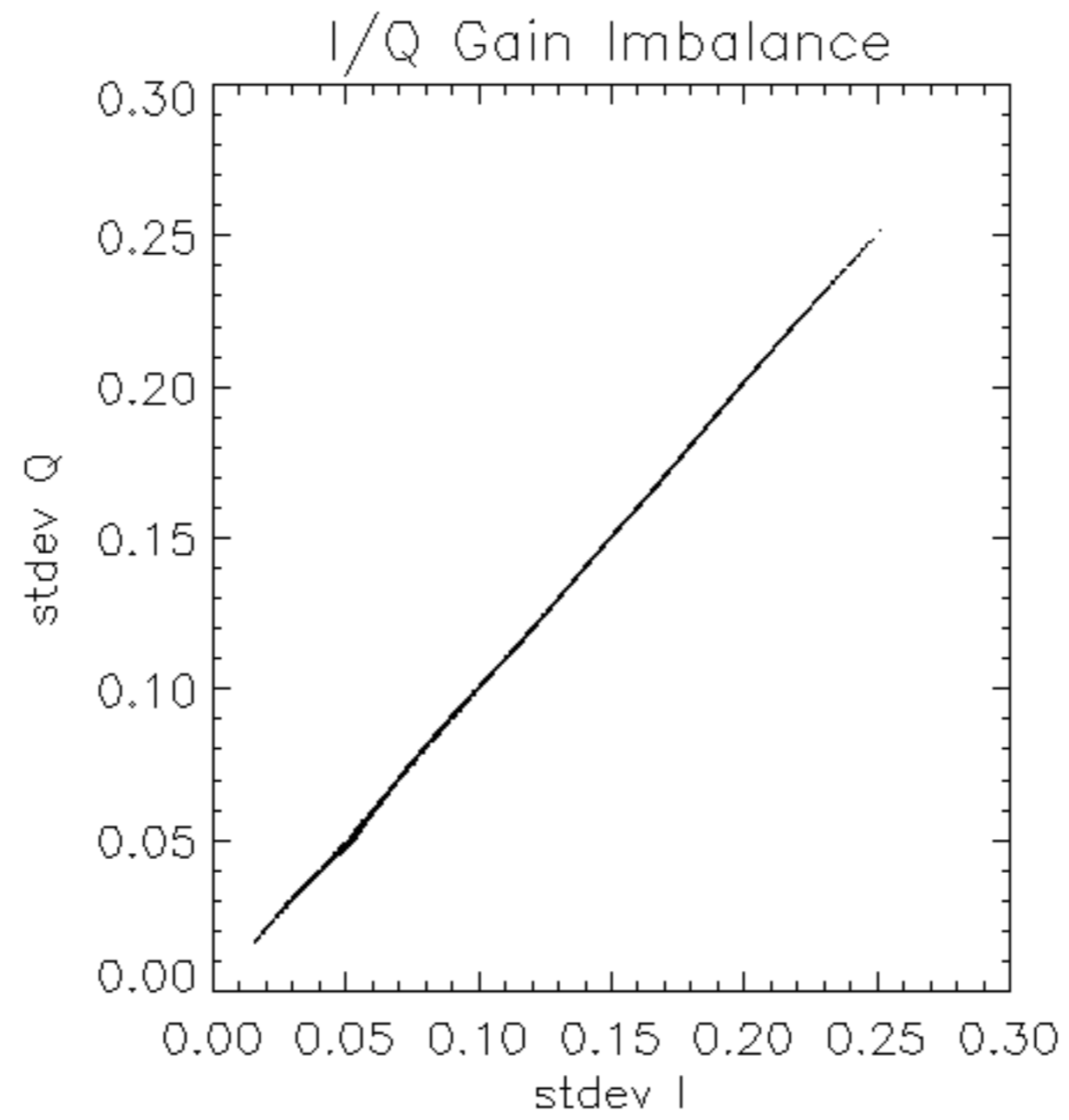
No anomalies observed on available MS products:

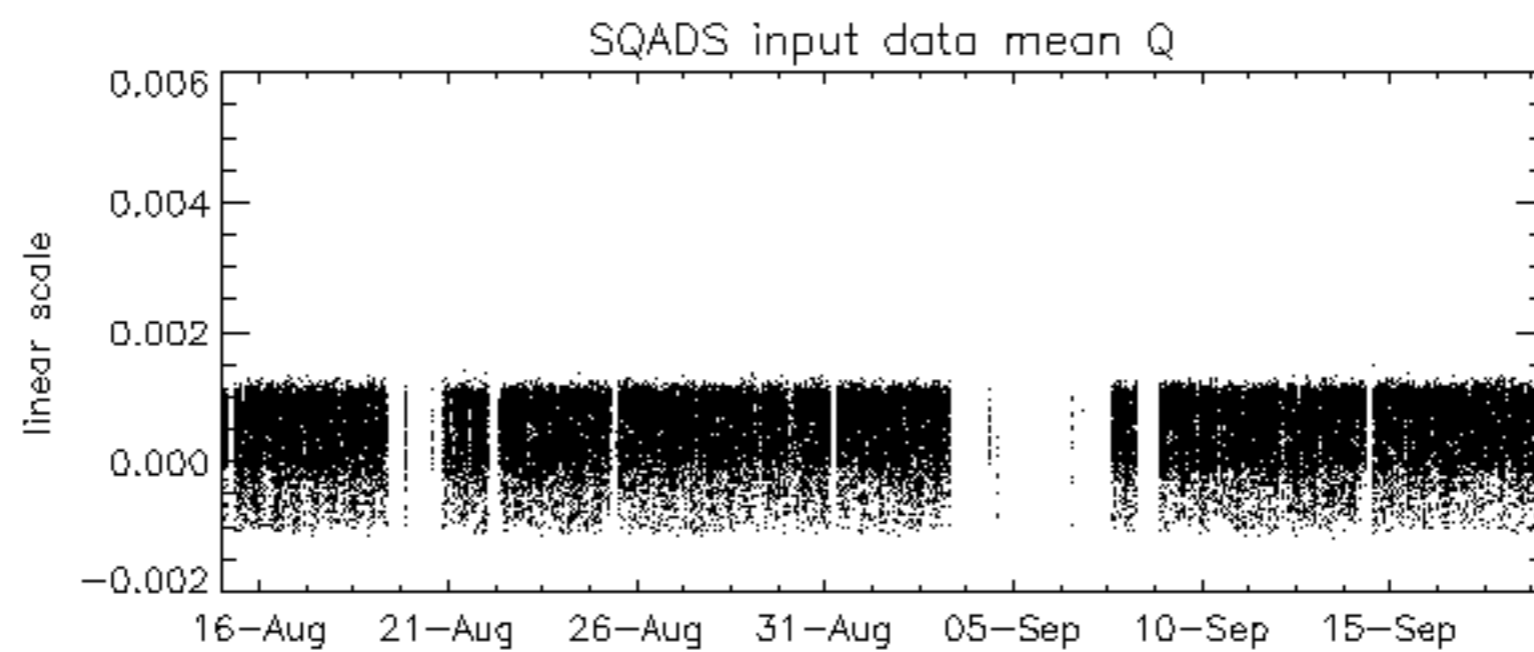
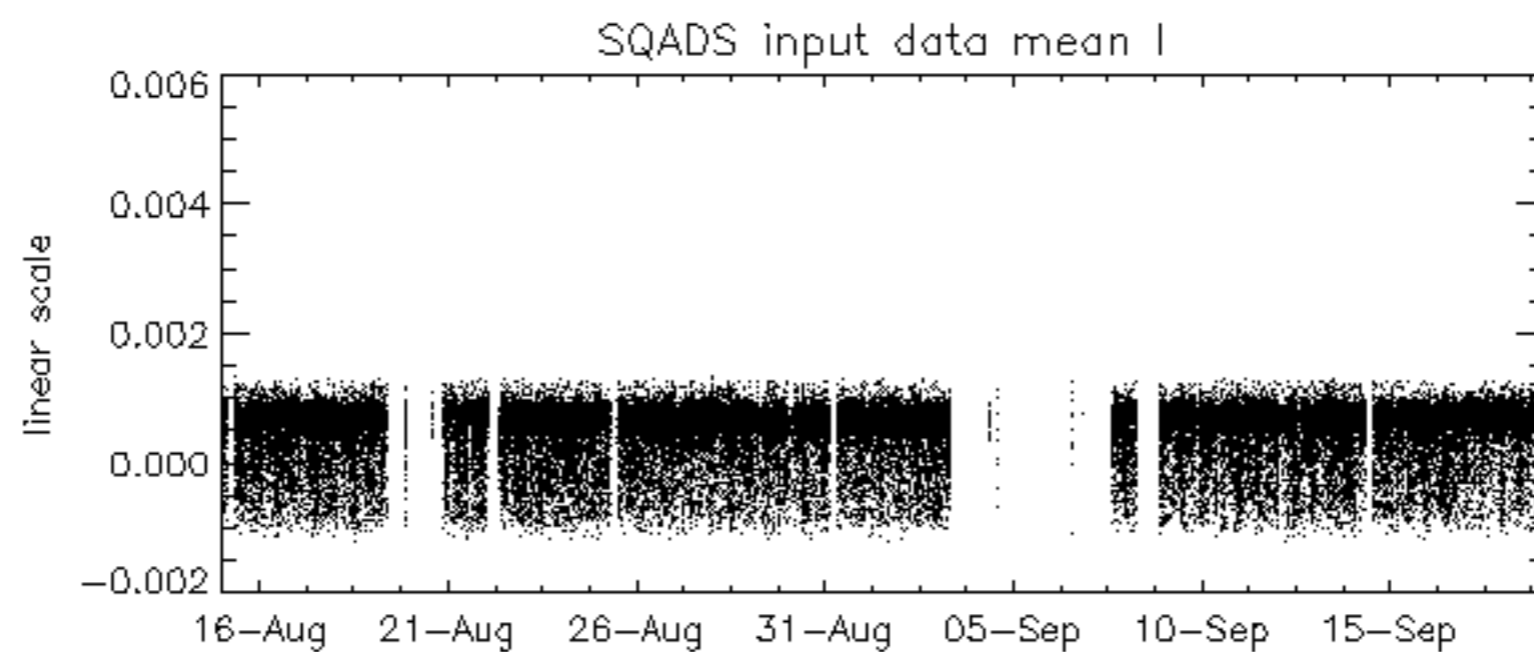
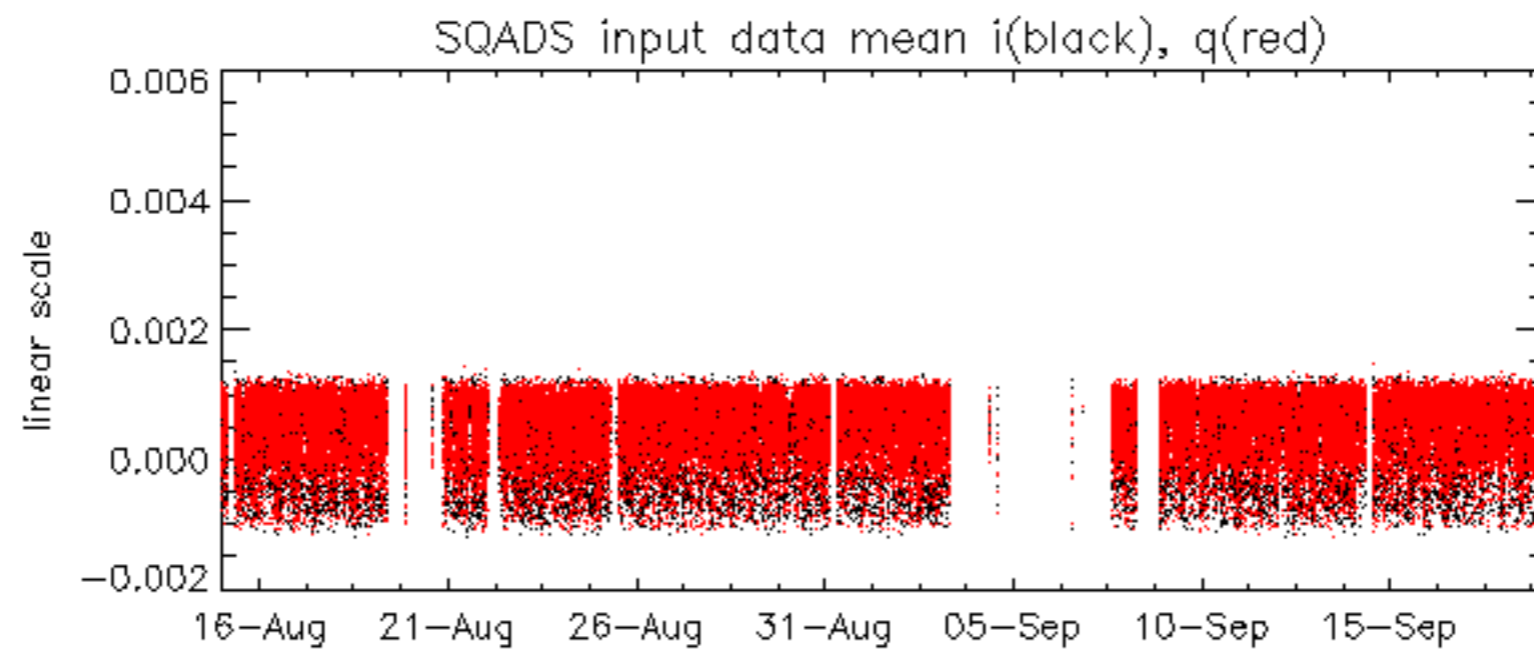
No anomalies observed.

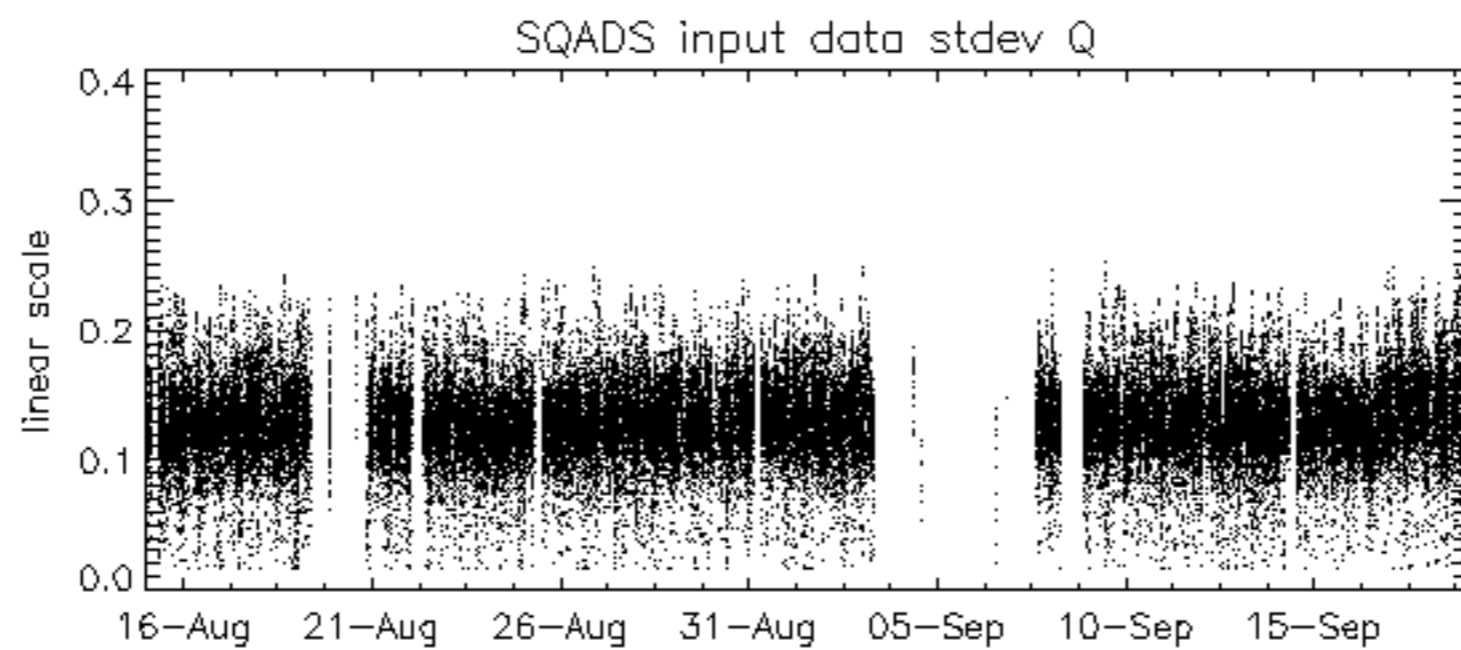
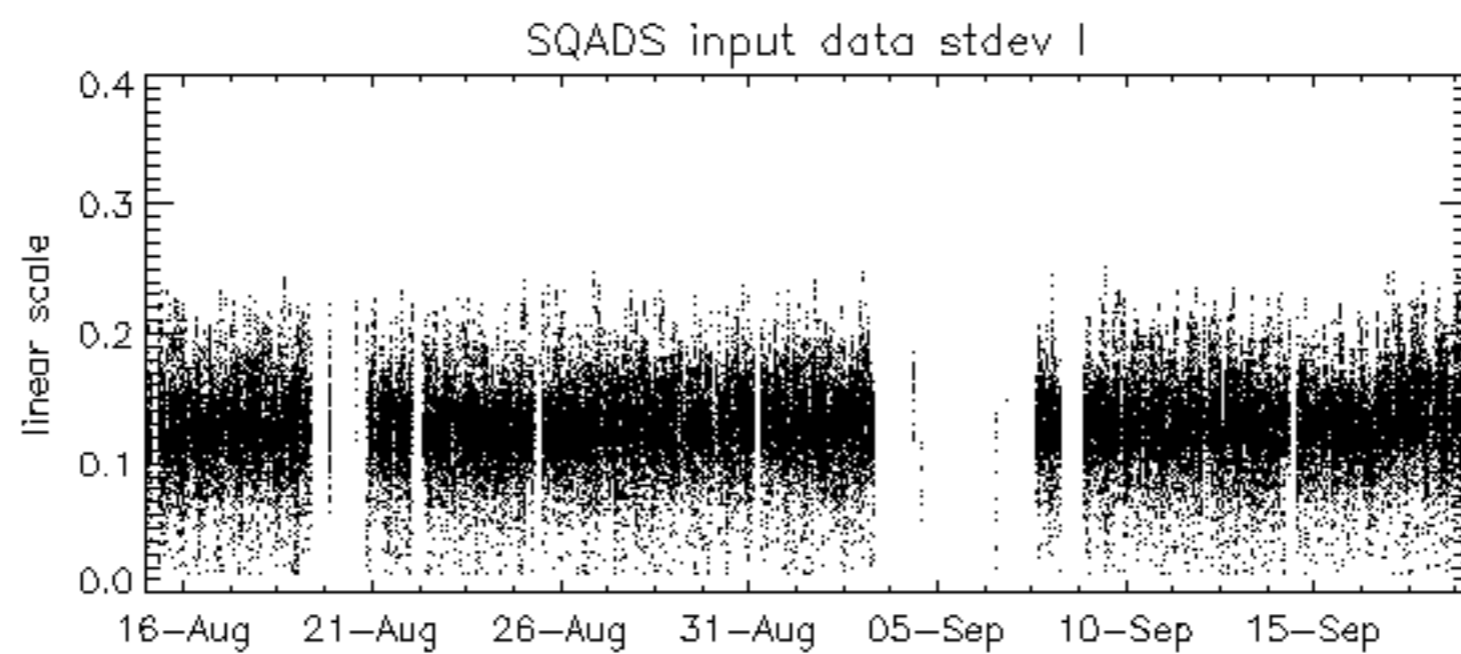
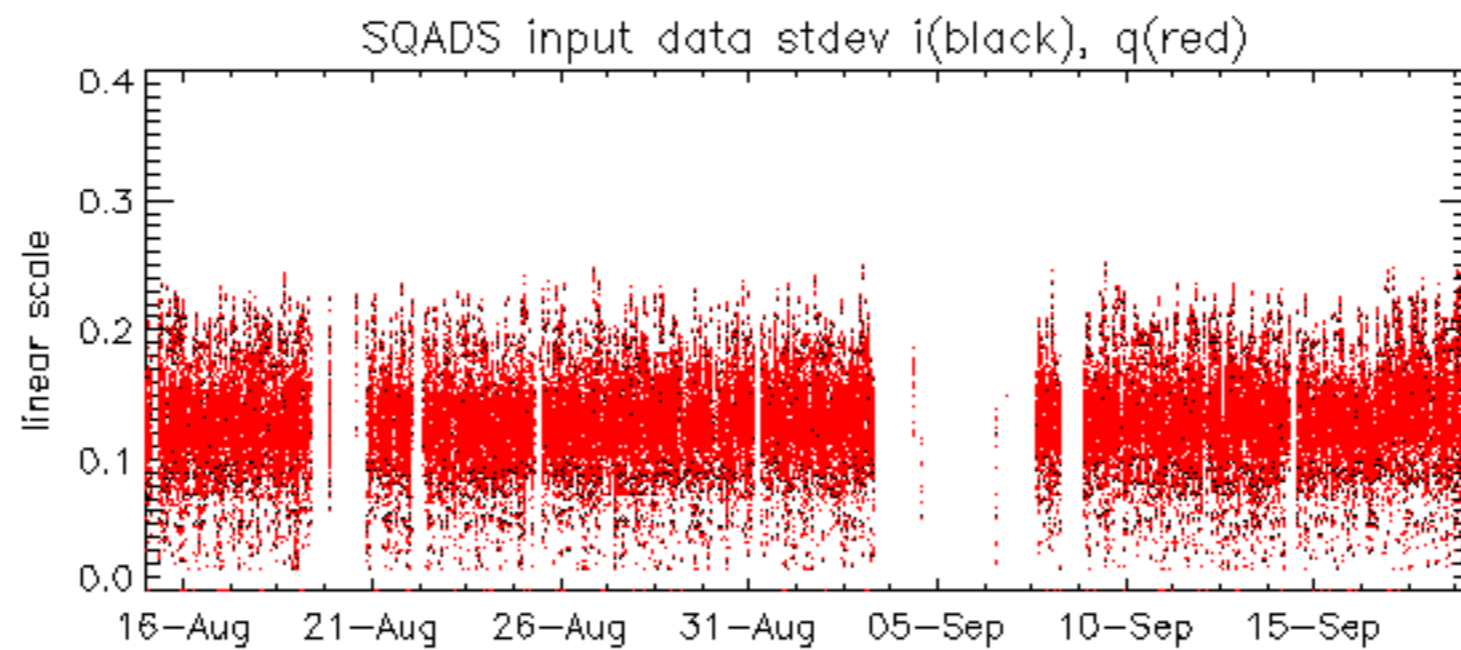
Reference: 2001-02-09 13:50:42 H RxGain

Test : 2005-09-18 18:36:55 H





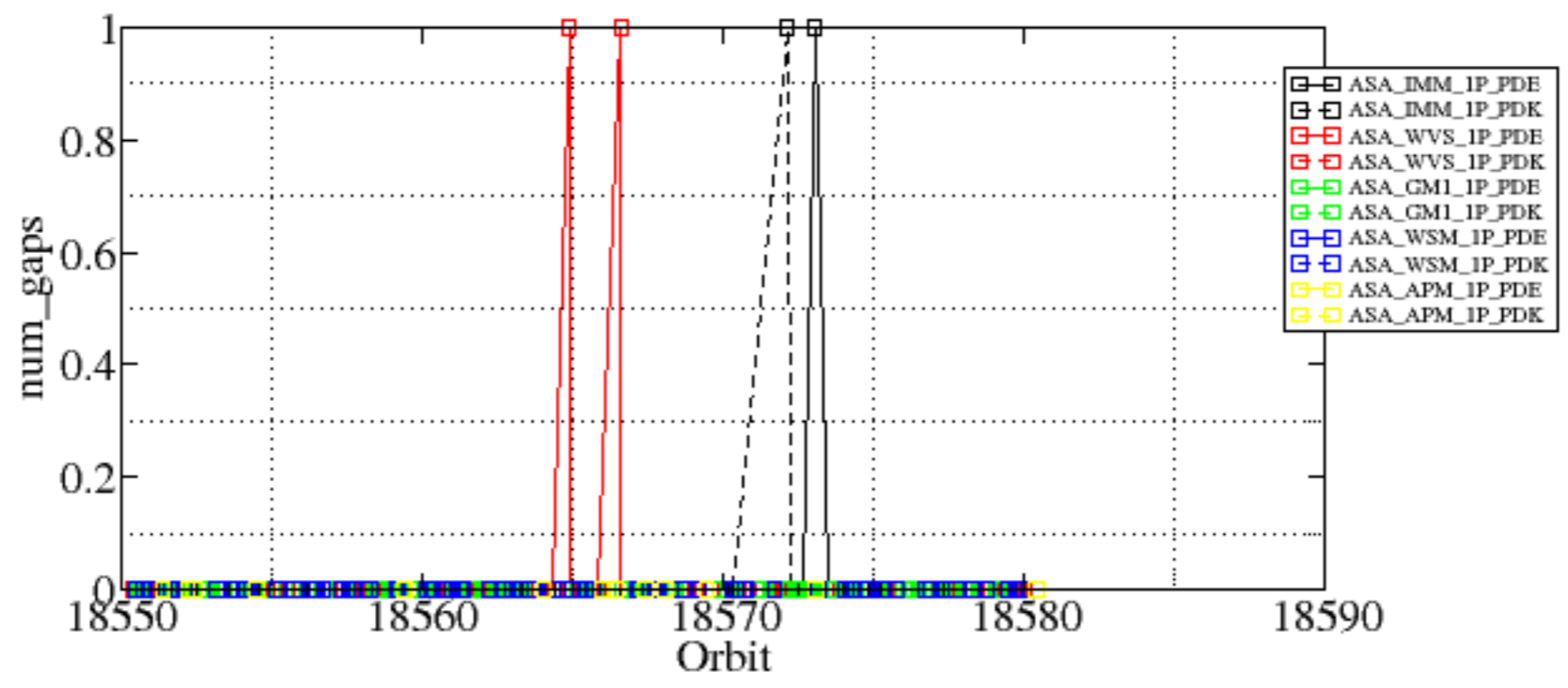


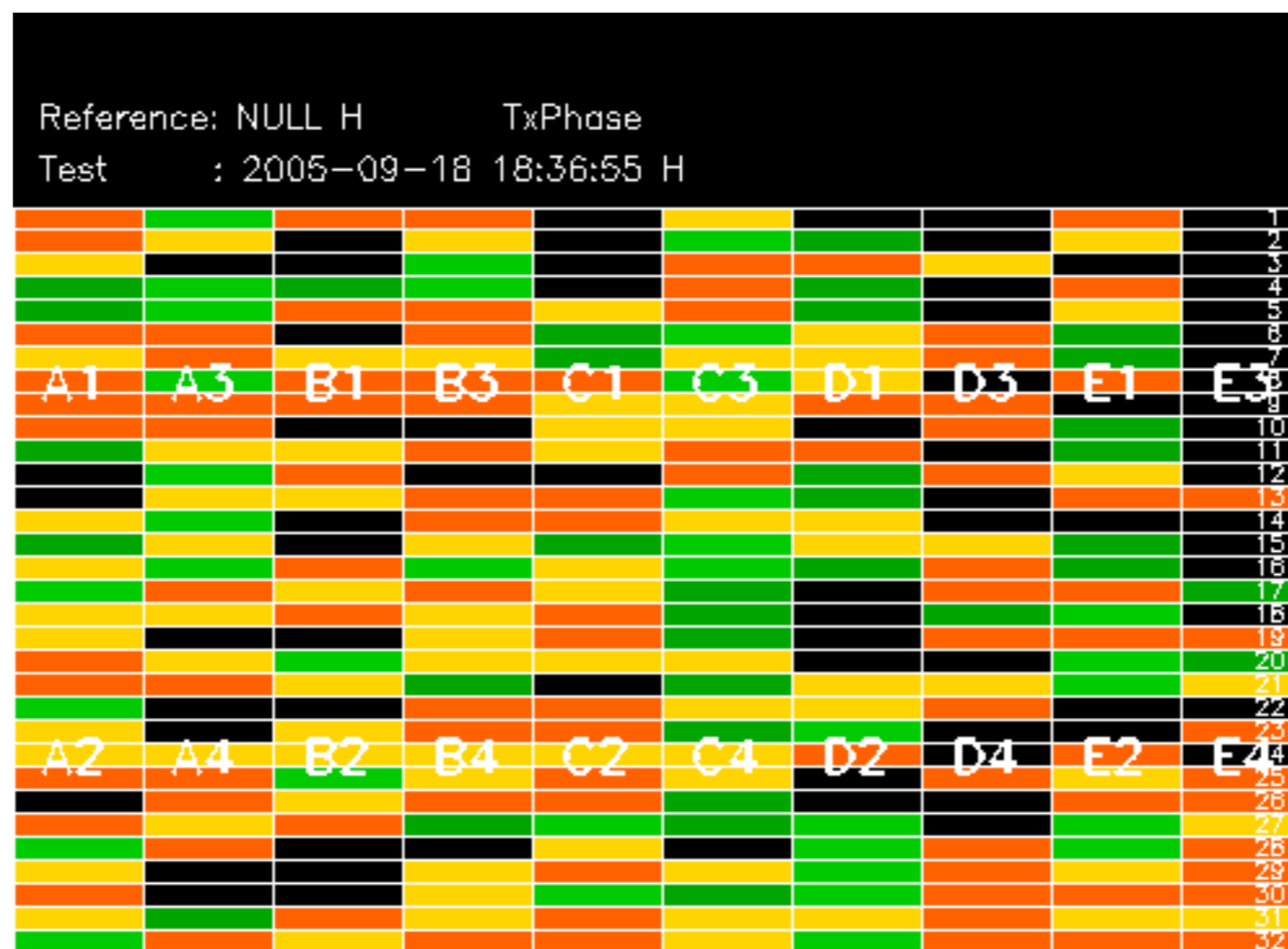


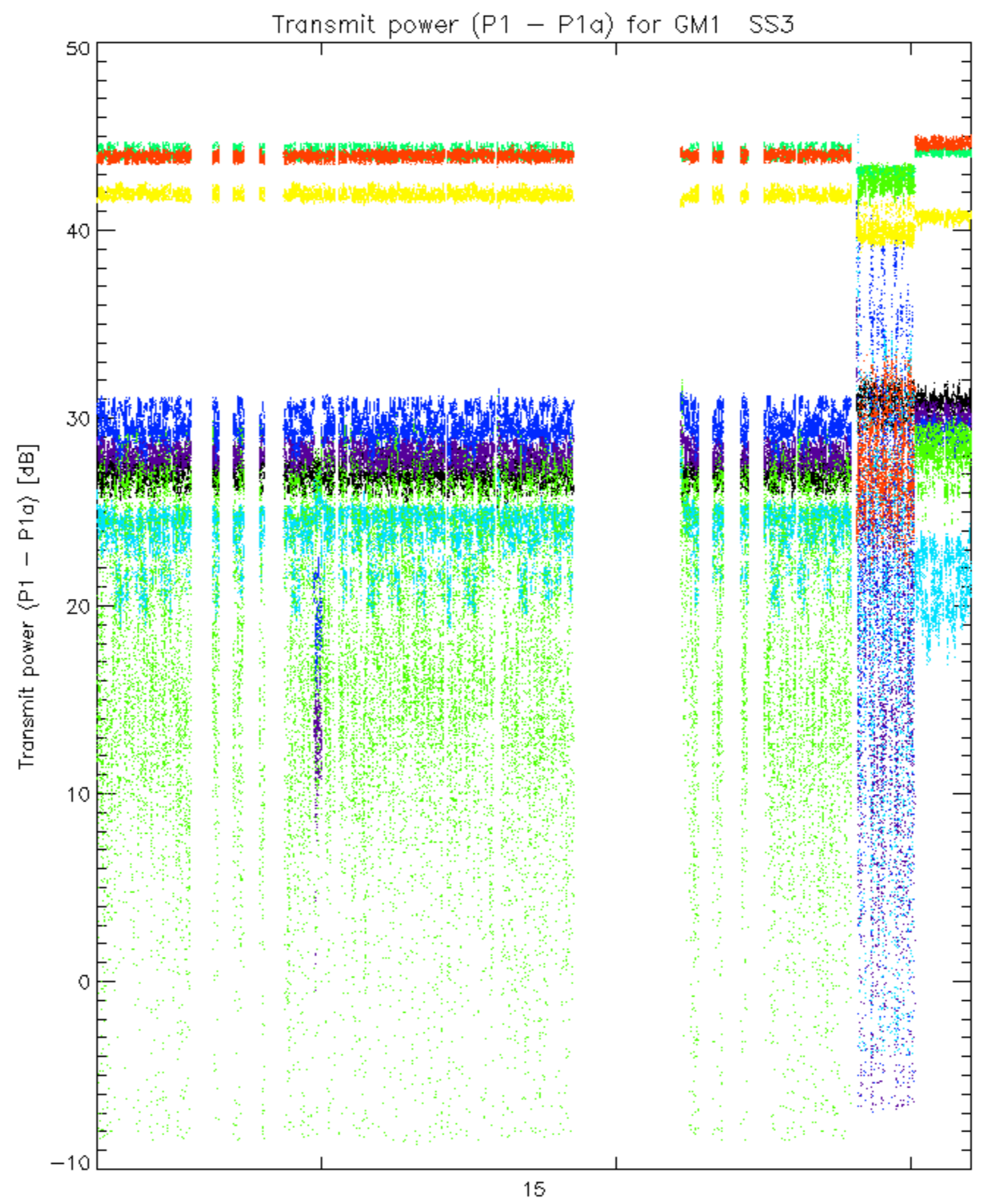
Summary of analysis for the last 3 days 2005091[789]

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

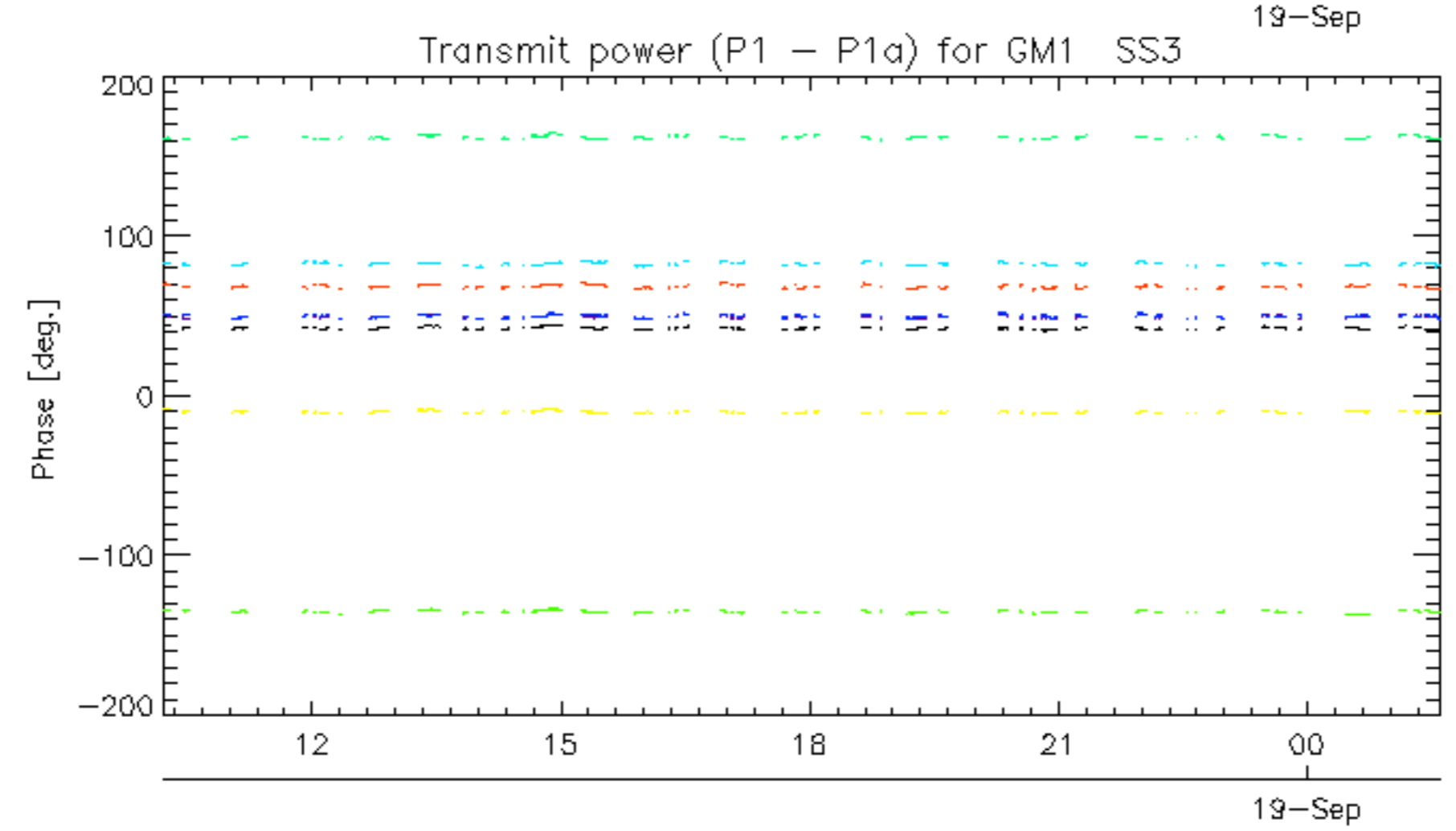
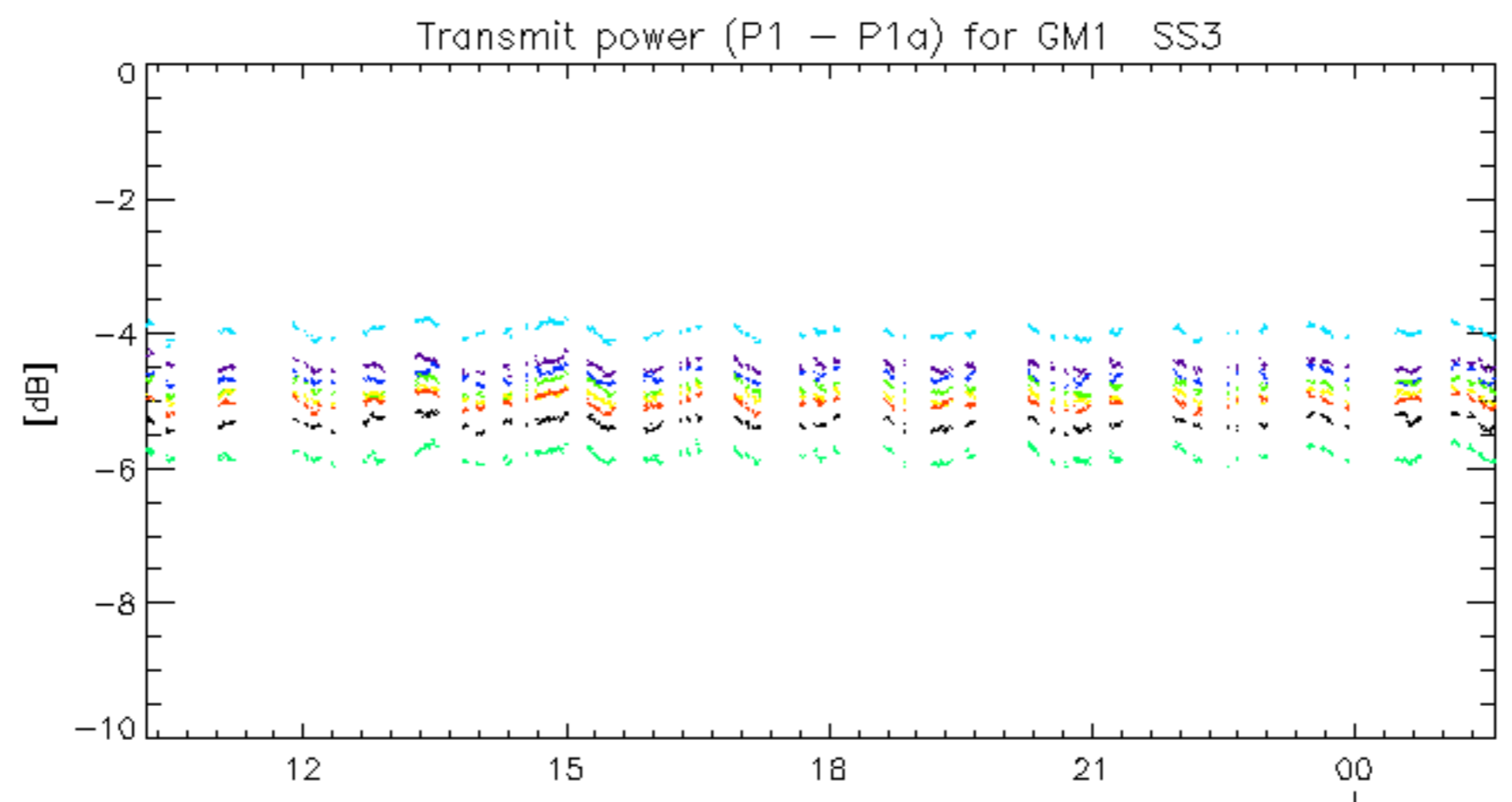
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050918_141410_000000812040_00483_18573_5918.N1	1	0
ASA_IMM_1PNPDK20050918_124040_000000362040_00482_18572_4259.N1	1	0
ASA_WVS_1PNPDE20050918_003155_000000002040_00474_18564_1564.N1	1	0
ASA_WVS_1PNPDE20050918_032532_000000002040_00476_18566_1565.N1	1	0
ASA_WSM_1PNPDE20050917_194140_000003242040_00471_18561_9188.N1	0	1
ASA_WSM_1PNPDE20050918_012934_000004592040_00475_18565_9256.N1	0	58





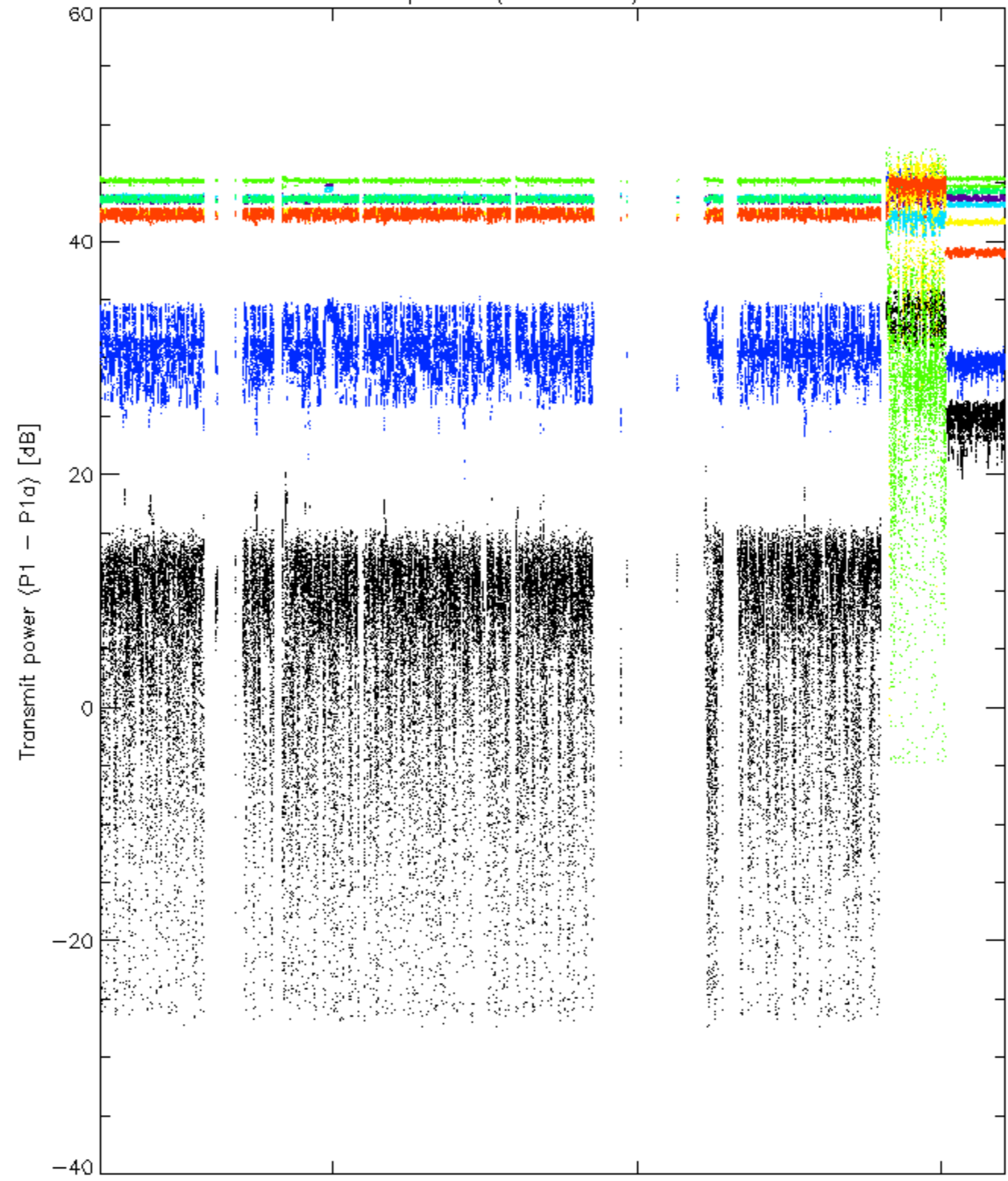


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

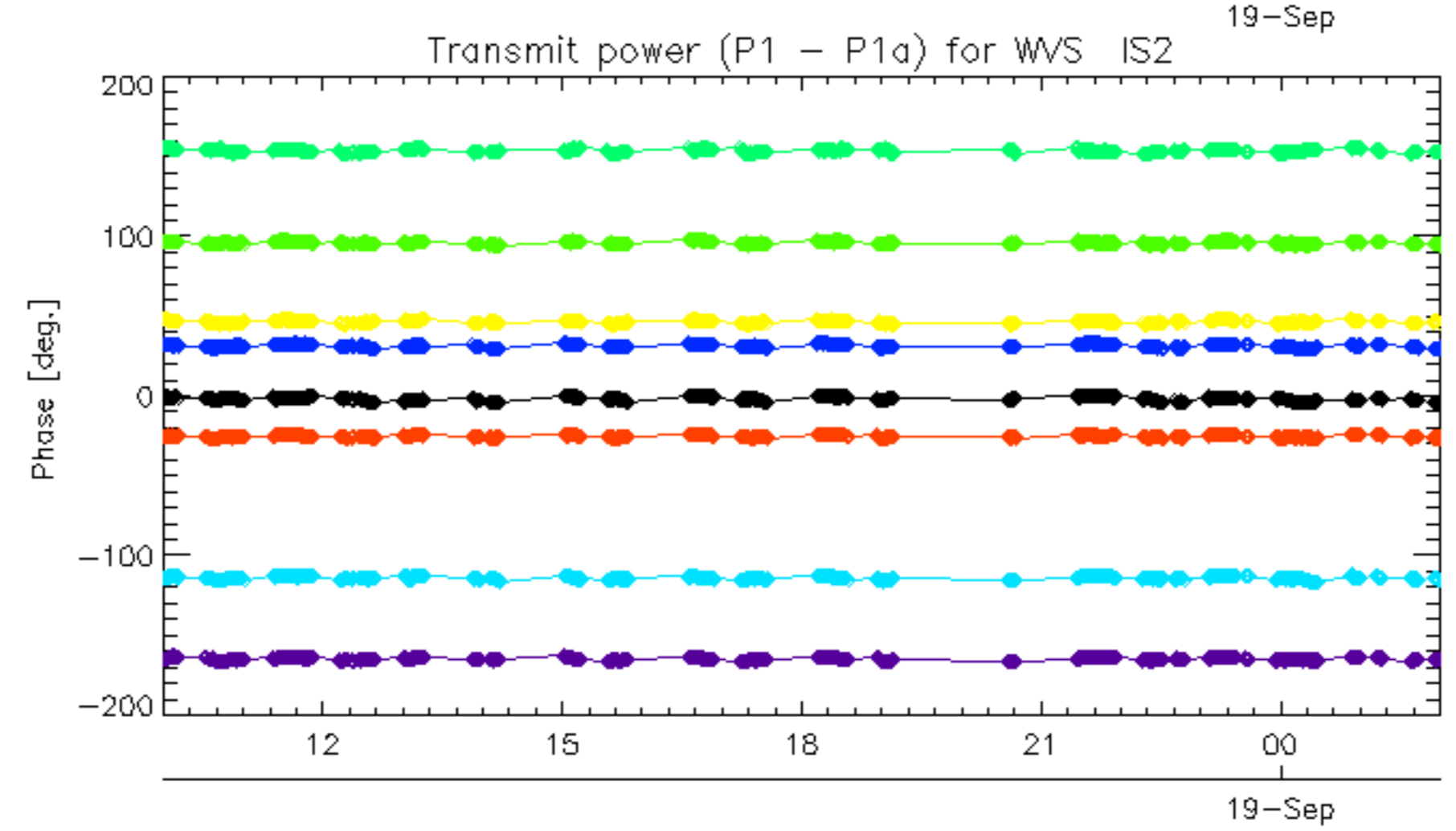
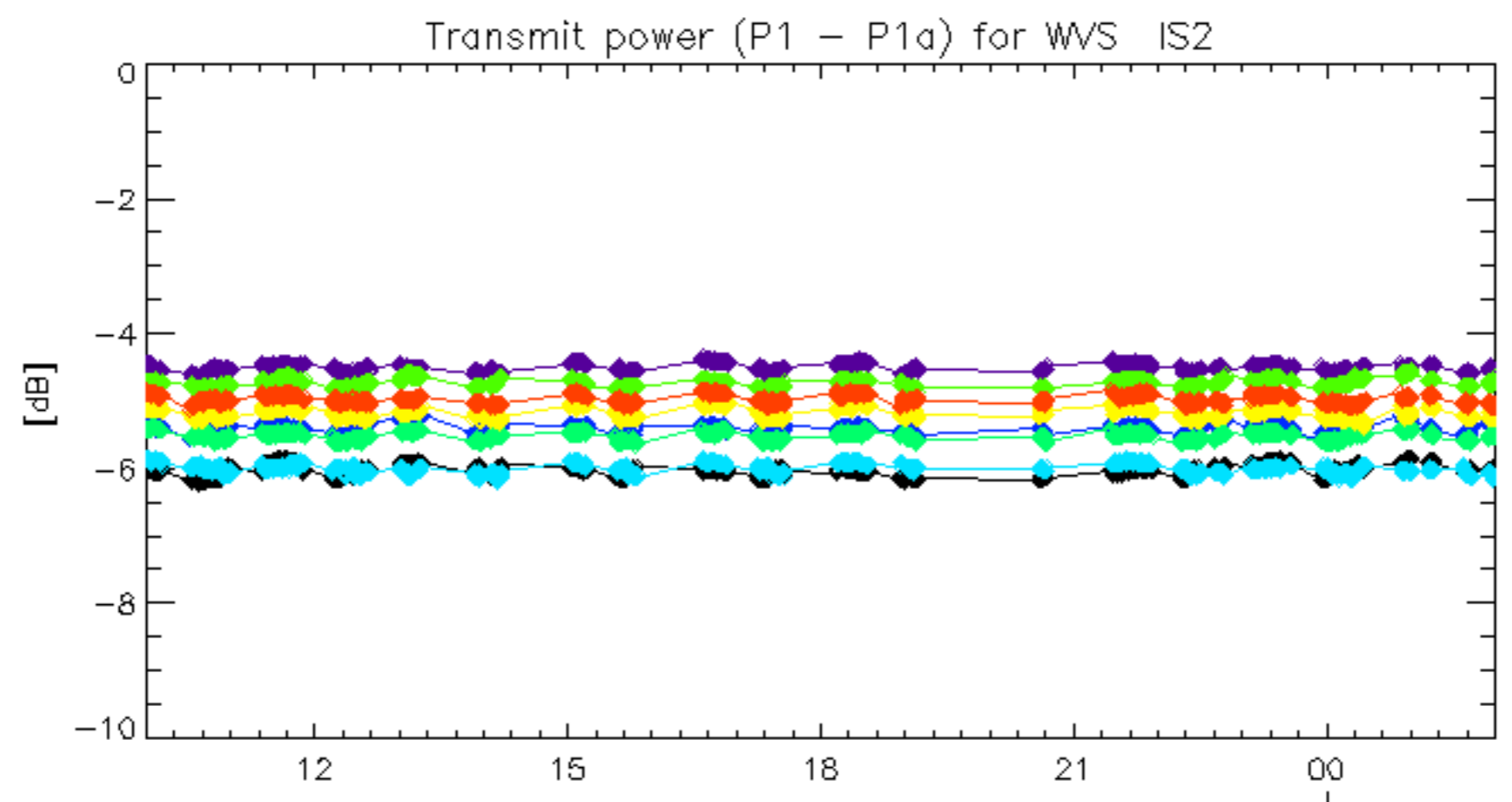


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.