

PRELIMINARY REPORT OF 070107

last update on Sun Jan 7 16:19:42 GMT 2007

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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 2007-01-06 00:00:00 to 2007-01-07 16:19:42

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	38	40	46	16	40
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	38	40	46	16	40
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	40	46	16	40
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	38	40	46	16	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	20070107 023104
H	20070106 040926

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"/>

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4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

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4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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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	-3.966749	0.007930	0.014117
7	P1	-3.138084	0.024778	0.062414
11	P1	-4.123100	0.025349	0.027911
15	P1	-6.340582	0.016423	0.024711
19	P1	-3.677365	0.004959	-0.023497
22	P1	-4.670274	0.014171	-0.019125
26	P1	-3.965764	0.008917	0.020867
30	P1	-5.910945	0.008610	-0.018738
3	P1	-16.551317	0.266338	0.007579
7	P1	-17.282194	0.194827	0.118894
11	P1	-17.199045	0.493210	-0.126061
15	P1	-13.047396	0.135447	0.102340
19	P1	-15.029261	0.098776	-0.108827
22	P1	-15.830315	0.522136	0.156102
26	P1	-15.082314	0.185358	0.128942
30	P1	-17.528917	0.485090	0.089730

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.807093	0.094117	0.030063
7	P2	-21.706562	0.093660	0.097750
11	P2	-15.566444	0.101884	0.047985
15	P2	-7.111429	0.108057	0.064890
19	P2	-9.192895	0.103921	0.060263
22	P2	-18.233072	0.097080	0.051015
26	P2	-16.604778	0.108756	0.027523
30	P2	-19.454084	0.090224	0.046277

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.243583	0.008902	0.031668
7	P3	-8.243583	0.008902	0.031668
11	P3	-8.243583	0.008902	0.031668

15	P3	-8.243583	0.008902	0.031668
19	P3	-8.243583	0.008902	0.031668
22	P3	-8.243583	0.008902	0.031668
26	P3	-8.243630	0.008901	0.031624
30	P3	-8.243630	0.008901	0.031624

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	-3.929383	0.015339	0.022532
7	P1	-2.471376	0.016278	0.041142
11	P1	-2.853730	0.016930	0.060821
15	P1	-3.701642	0.032178	-0.008159
19	P1	-3.557352	0.019350	0.017706
22	P1	-5.027788	0.023748	0.048133
26	P1	-6.048293	0.028588	0.031766
30	P1	-5.357988	0.037351	0.023046
3	P1	-11.744869	0.088003	0.057487
7	P1	-10.069469	0.095225	0.061037
11	P1	-10.361708	0.104011	0.014302
15	P1	-10.732485	0.125614	-0.009196
19	P1	-15.739390	0.126470	-0.000493
22	P1	-21.608604	1.393562	0.024993
26	P1	-16.064232	0.335336	0.108176
30	P1	-17.895029	0.378548	0.013040

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.478554	0.104510	0.070513
7	P2	-22.233604	0.271292	0.095208
11	P2	-10.872756	0.118886	0.071383
15	P2	-4.994506	0.167746	0.076579
19	P2	-6.976770	0.244146	0.061877
22	P2	-8.260768	0.099047	0.065822
26	P2	-24.348797	0.192424	-0.024753
30	P2	-21.954947	0.124270	0.094197

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.096699	0.004276	0.023365
7	P3	-8.096534	0.004260	0.023858
11	P3	-8.096674	0.004271	0.023541
15	P3	-8.096429	0.004261	0.023389
19	P3	-8.096522	0.004290	0.023524
22	P3	-8.096499	0.004274	0.023821
26	P3	-8.096695	0.004265	0.023075
30	P3	-8.096650	0.004231	0.023665

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	0.000559247
	stdev	1.67874e-07
MEAN Q	mean	0.000493819
	stdev	2.13239e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.140275
	stdev	0.00125421
STDEV Q	mean	0.140679
	stdev	0.00127534



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007010[567]

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_WSM_1PNPDE20070106_010151_000003232054_00260_25364_4939.N1	0	36
ASA_WSM_1PNPDE20070106_153705_000000672054_00269_25373_5965.N1	9	1257
ASA_WSM_1PNPDE20070107_003113_000001412054_00274_25378_6459.N1	0	36



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

7.2 - Absolute Doppler for WVS

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

7.3 - Doppler evolution versus ANX for WVS

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

7.4 - Unbiased Doppler Error for GM1

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

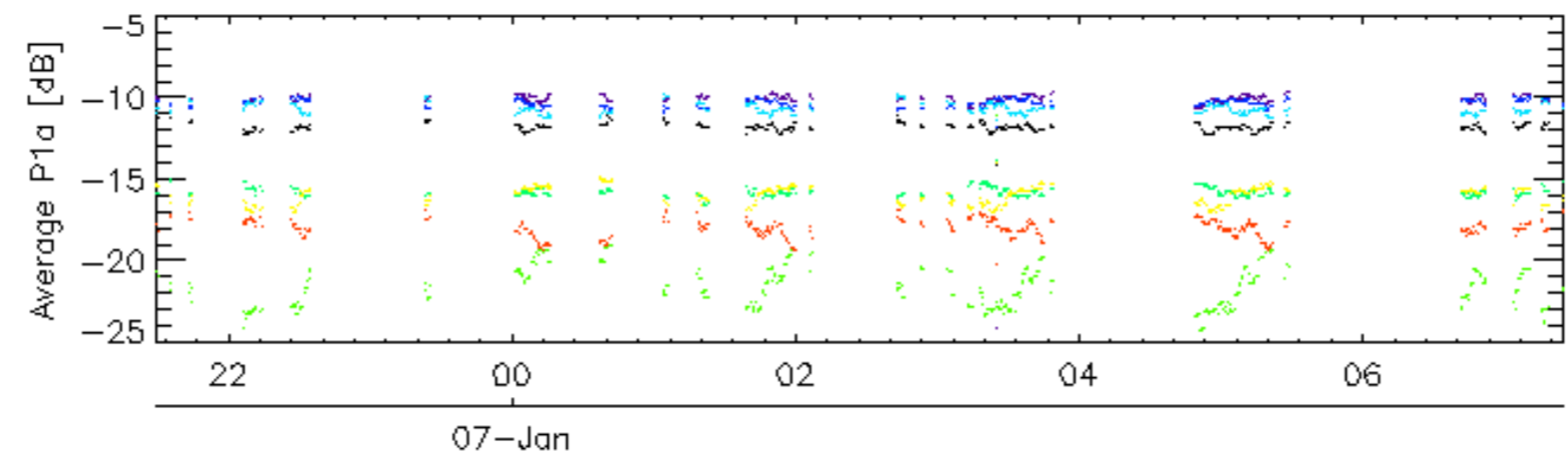
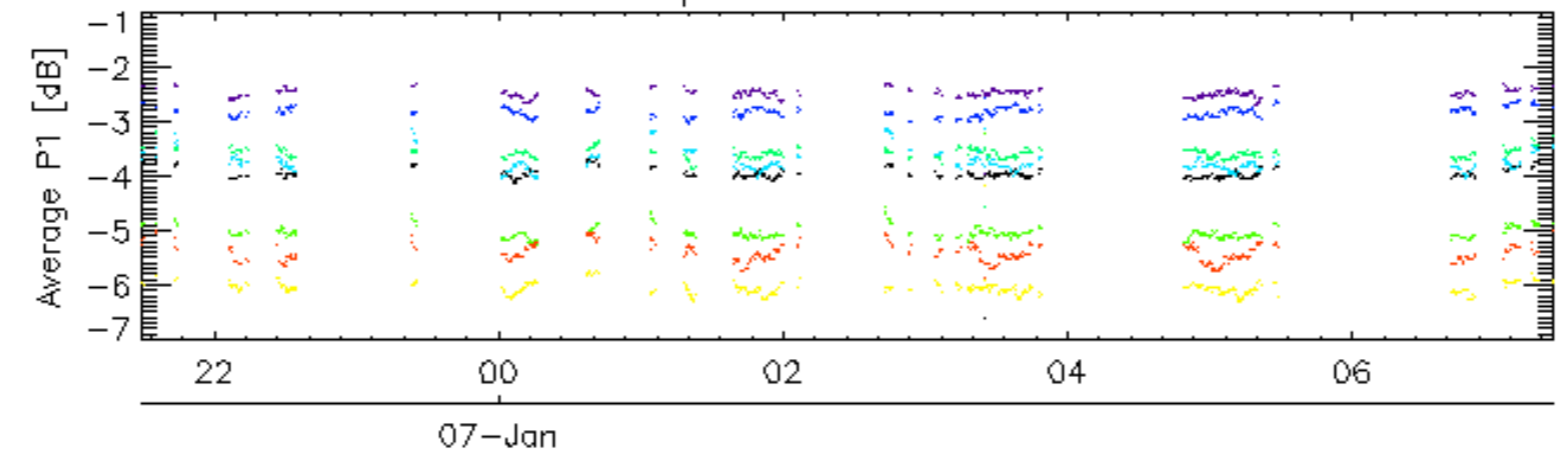
Ascending

Descending

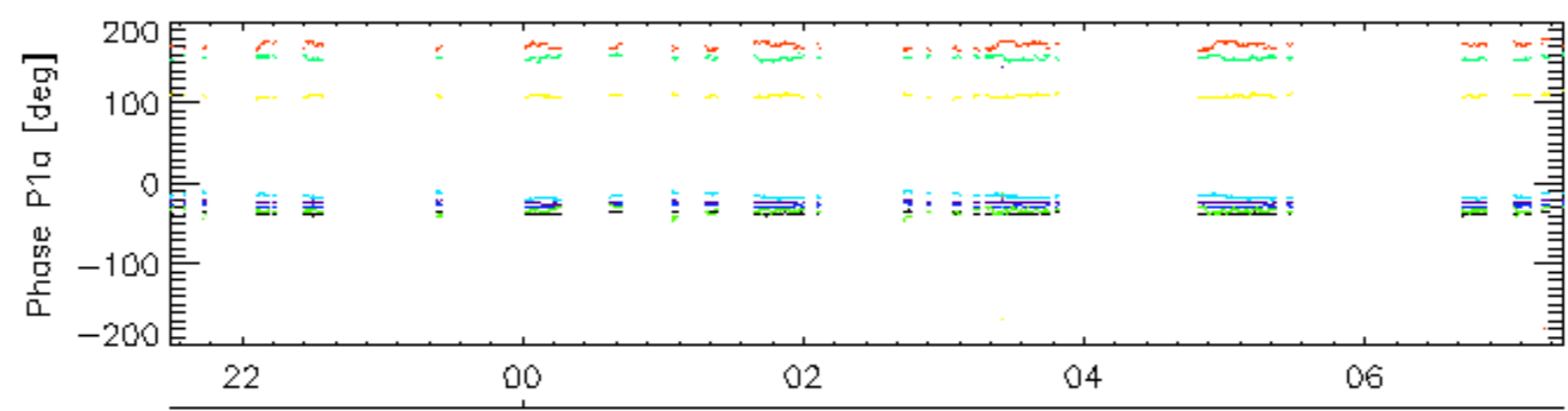
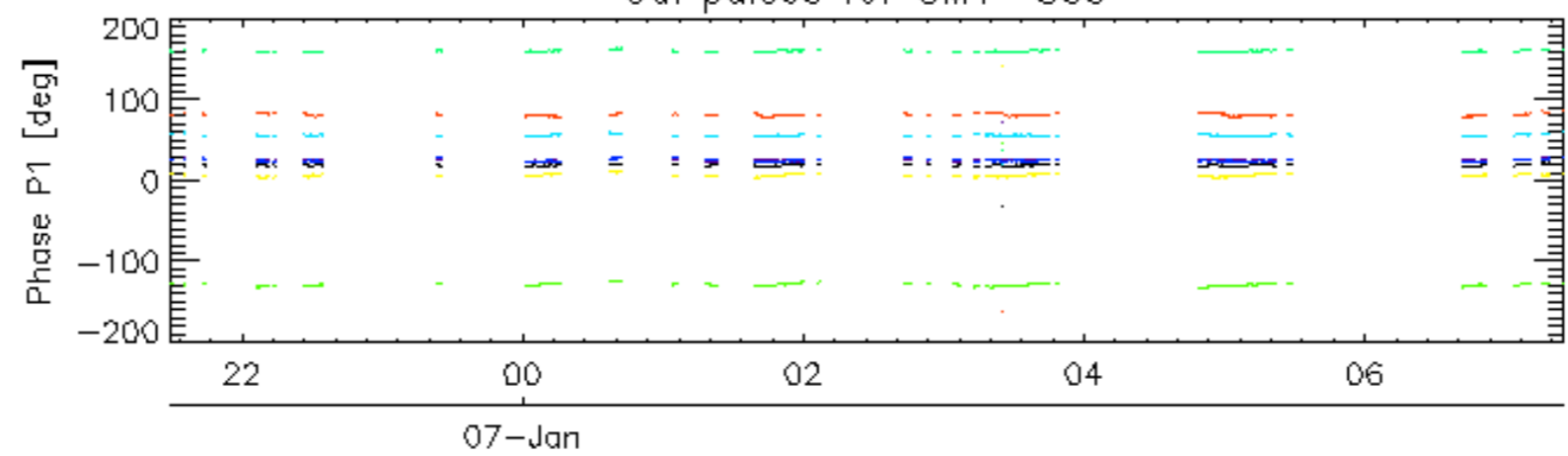
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

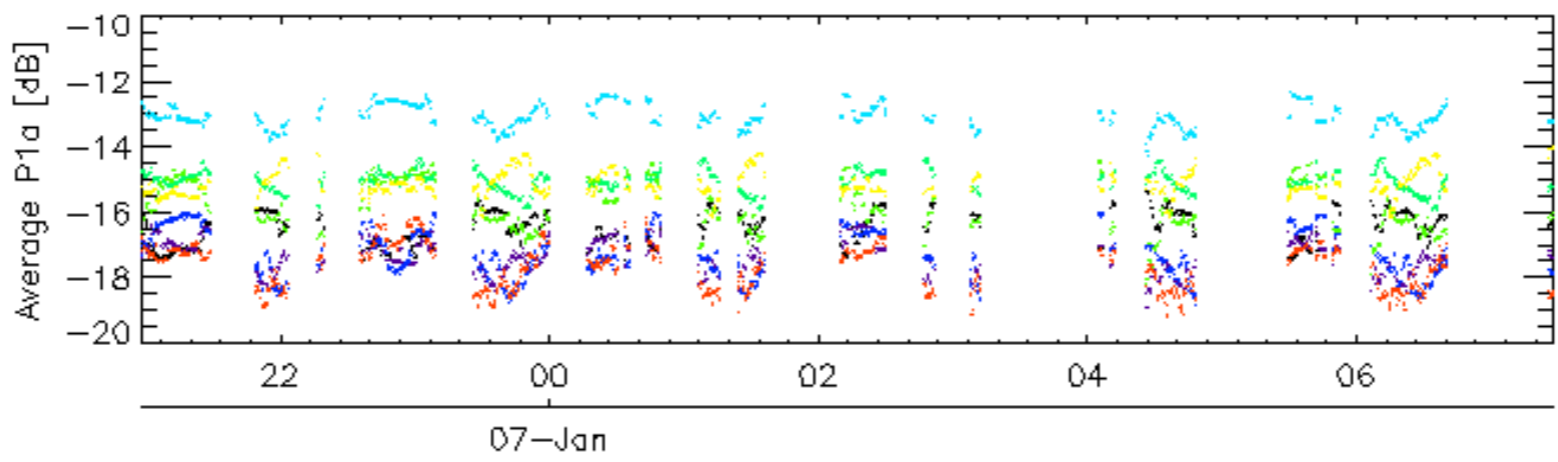
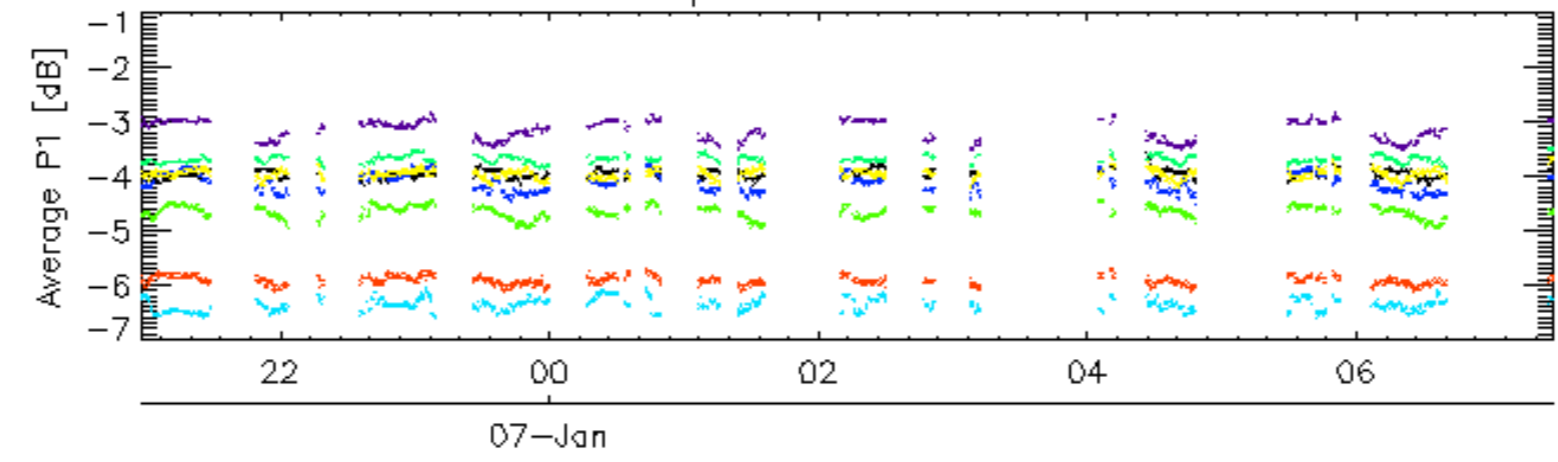


Cal pulses for GM1 SS3

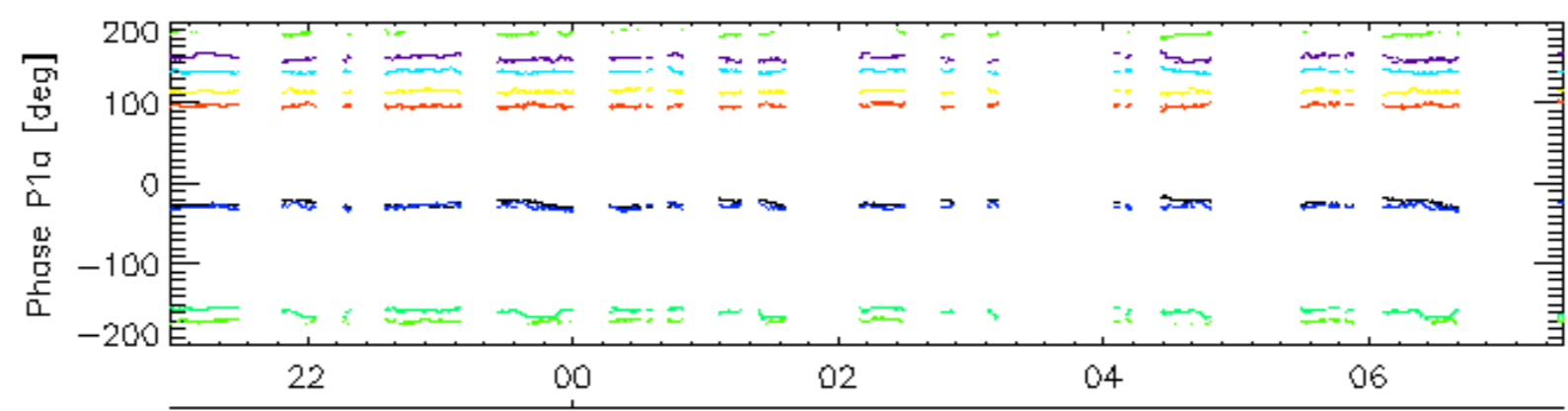
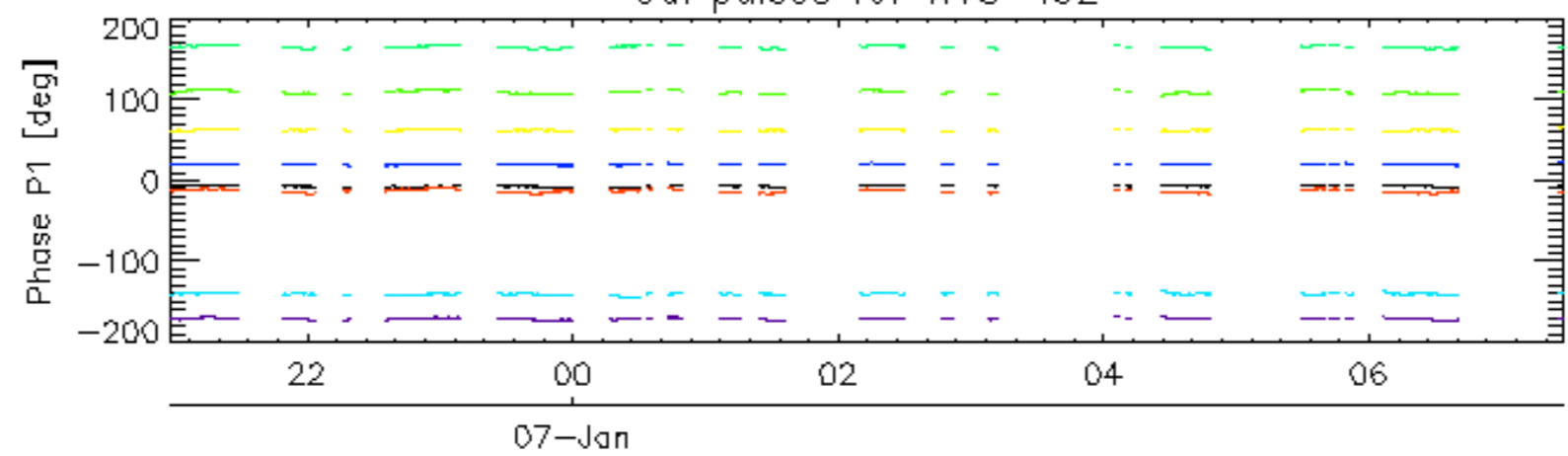


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

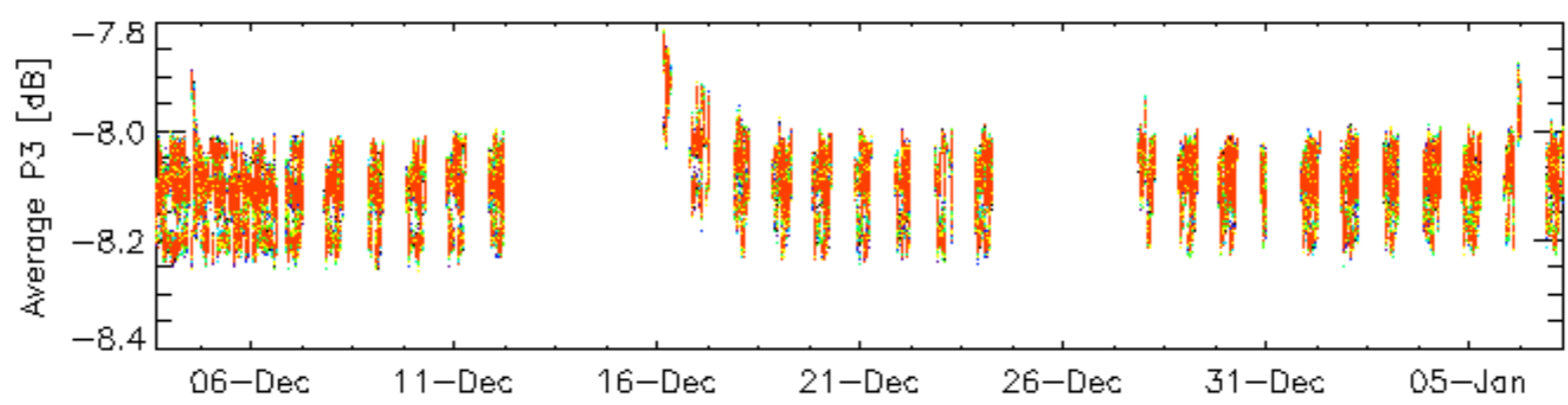
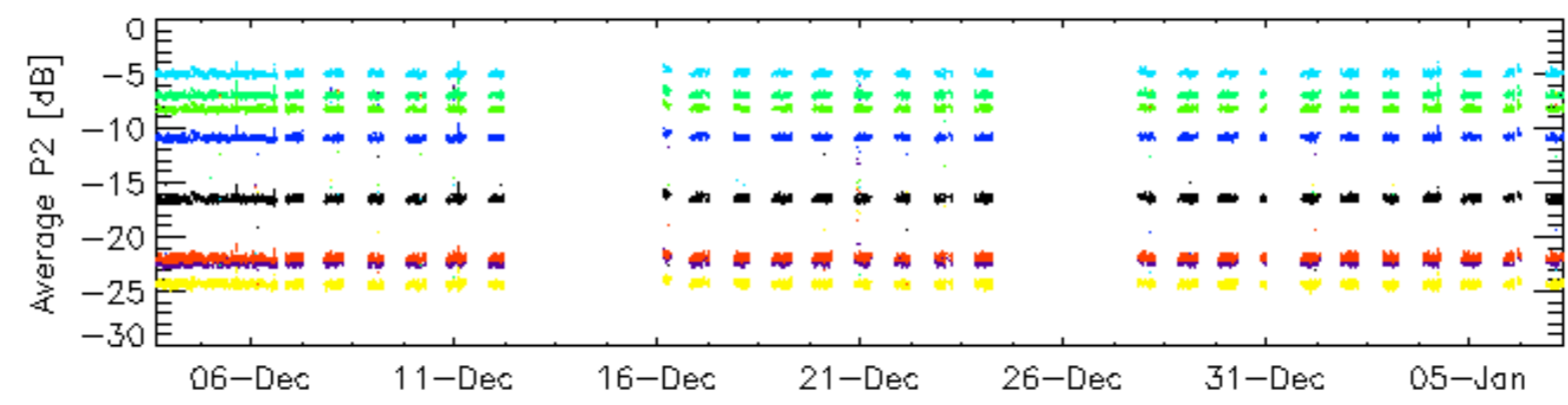
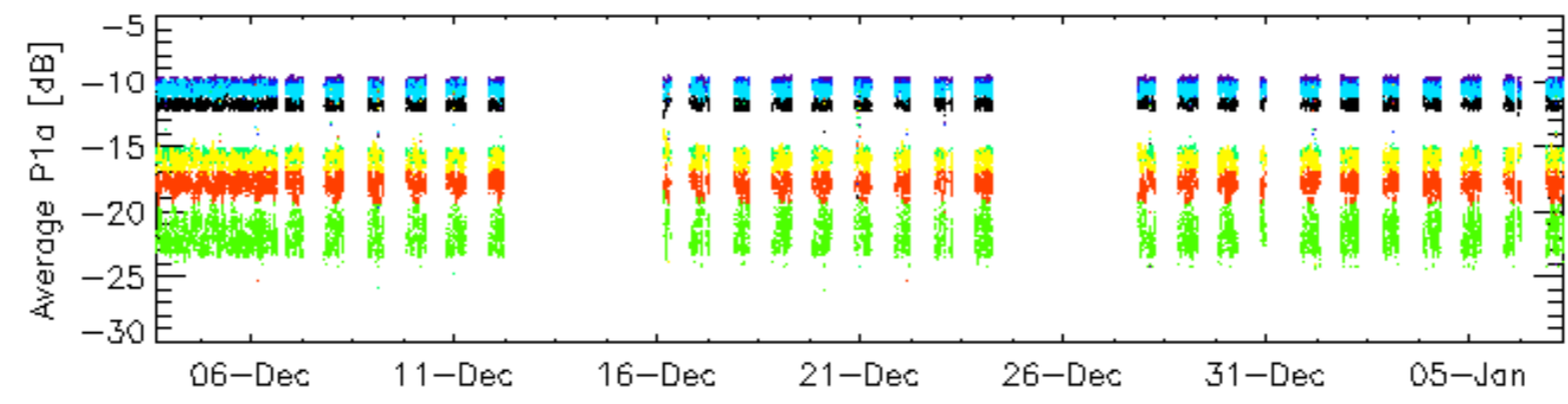
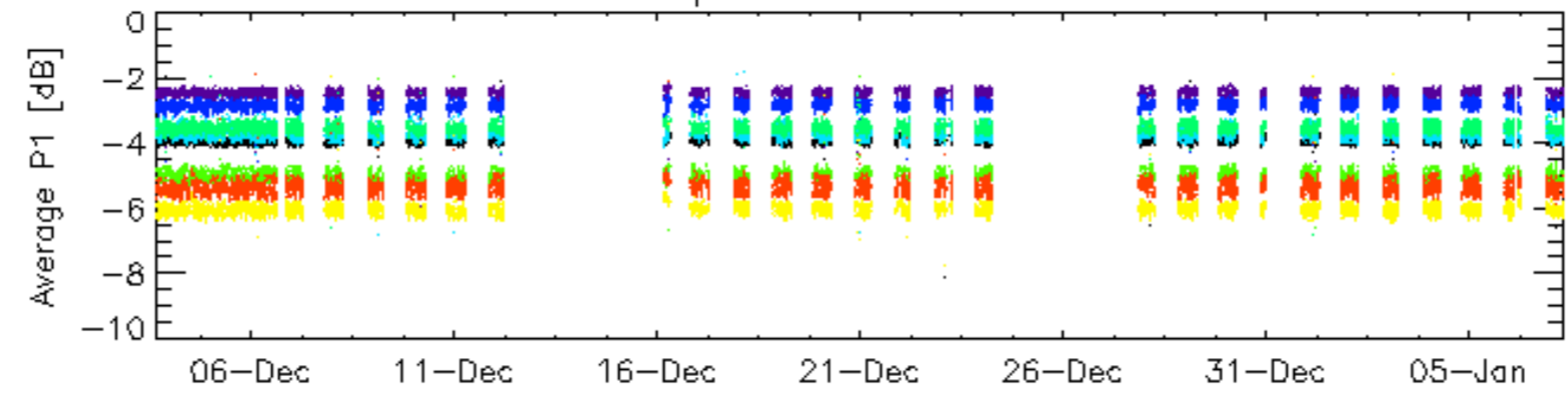


Cal pulses for WVS IS2



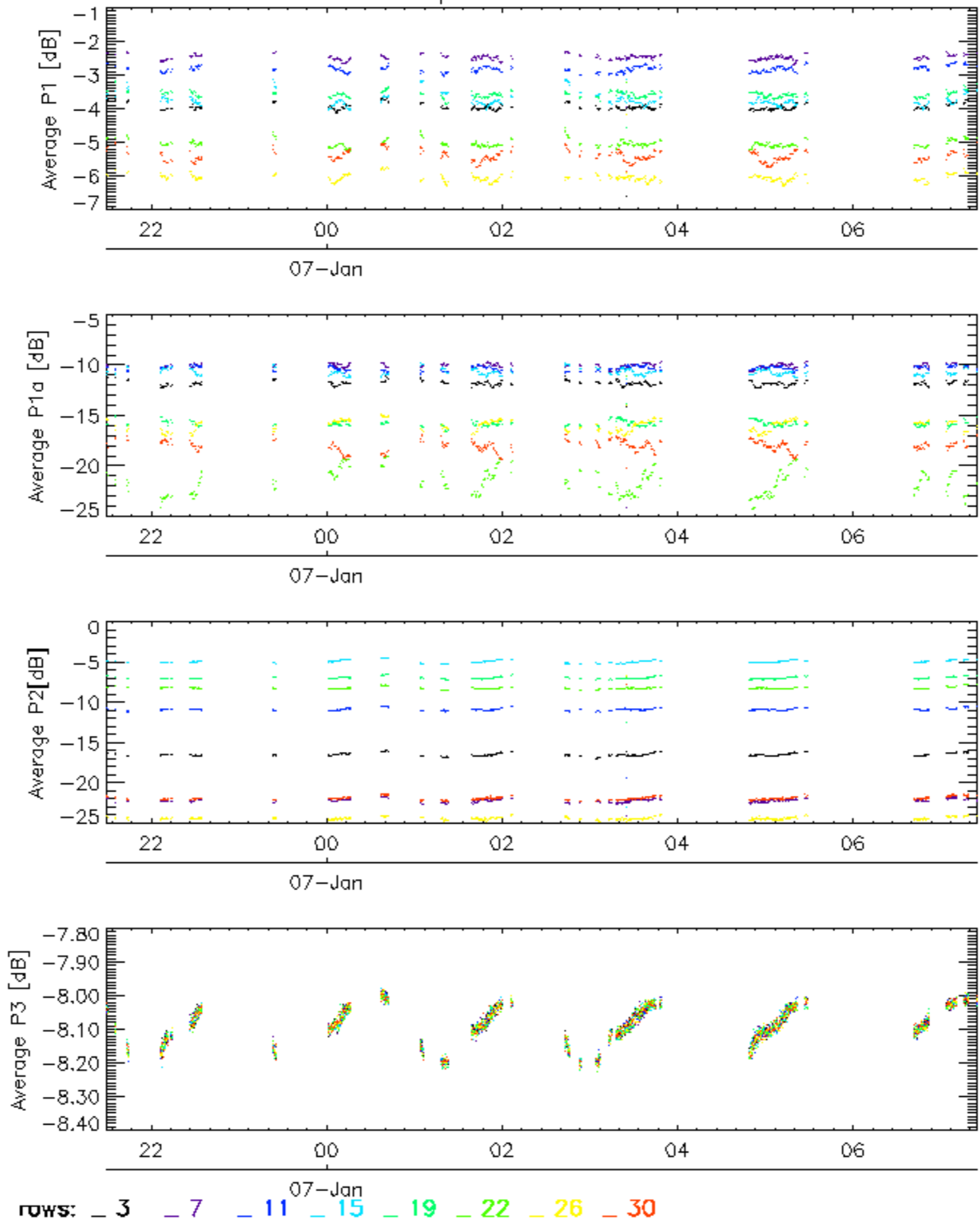
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

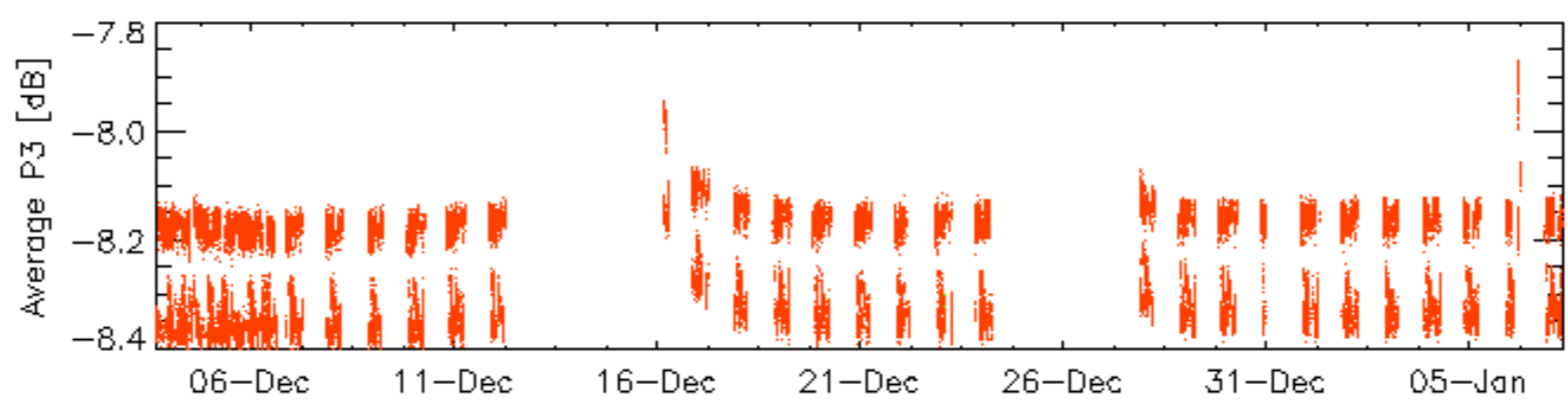
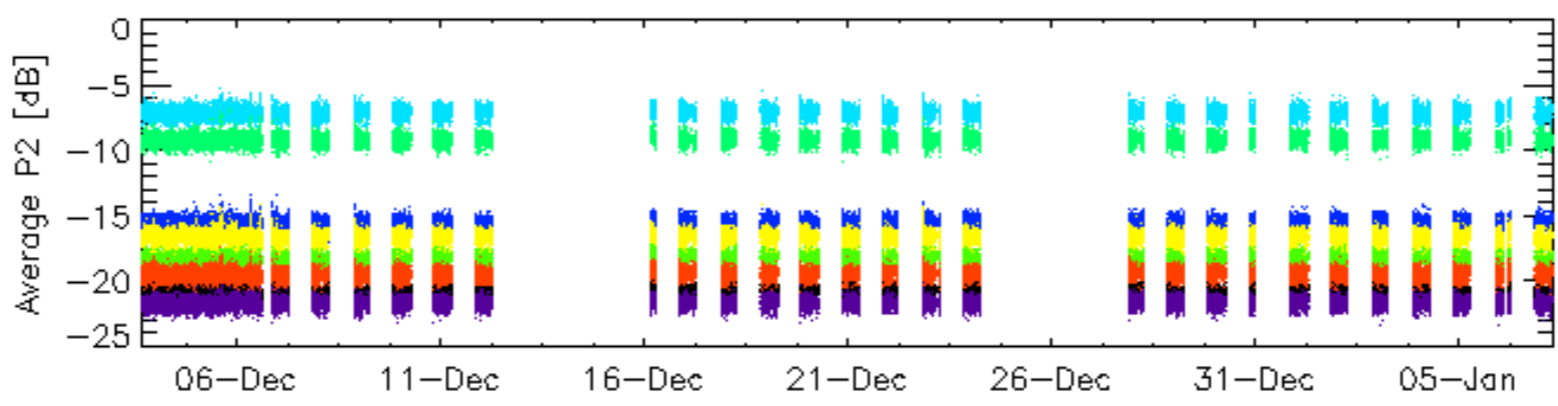
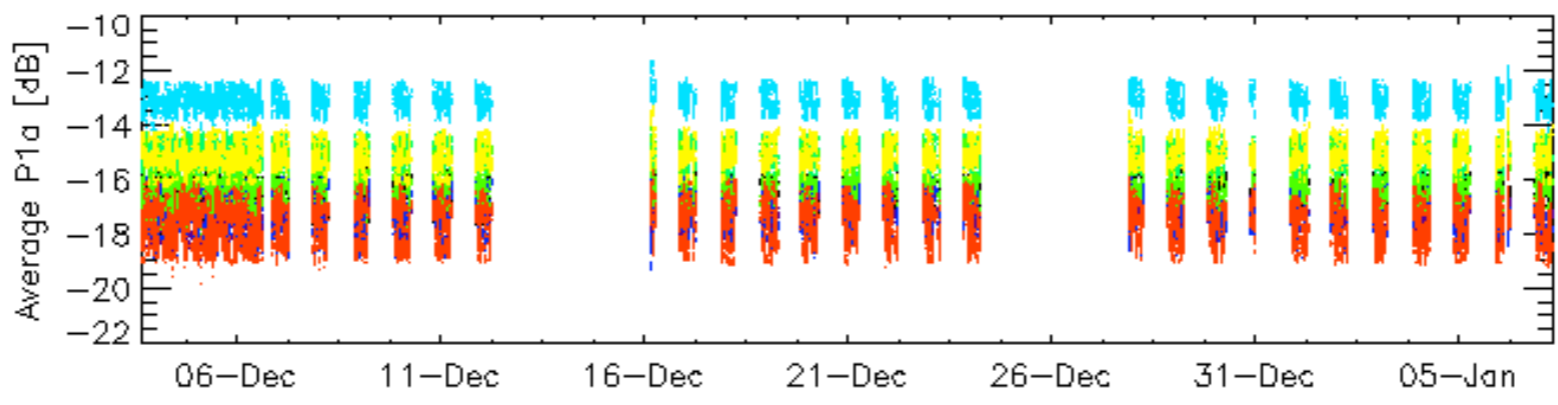
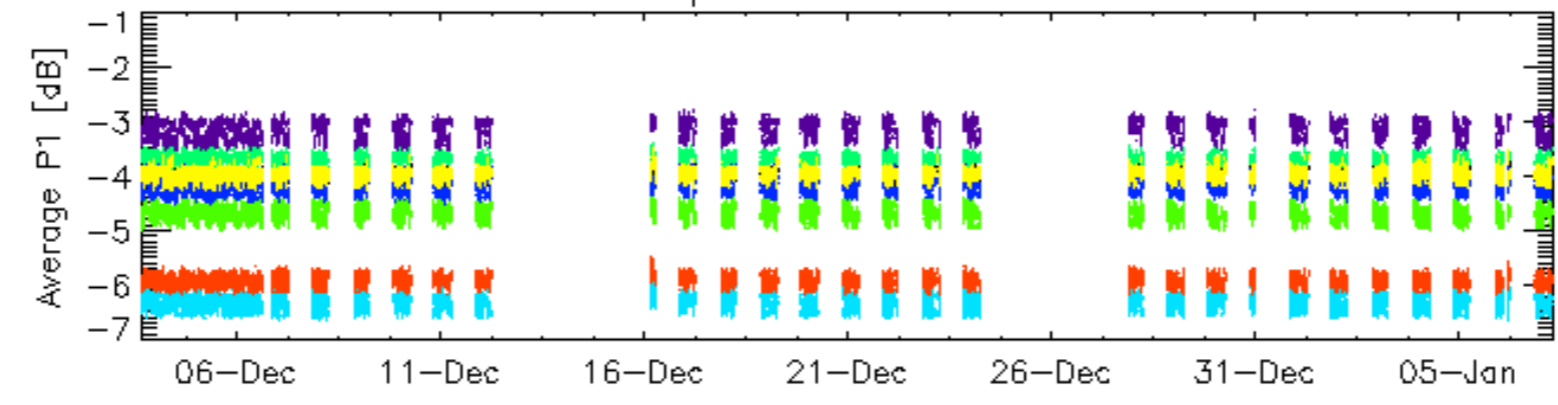


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

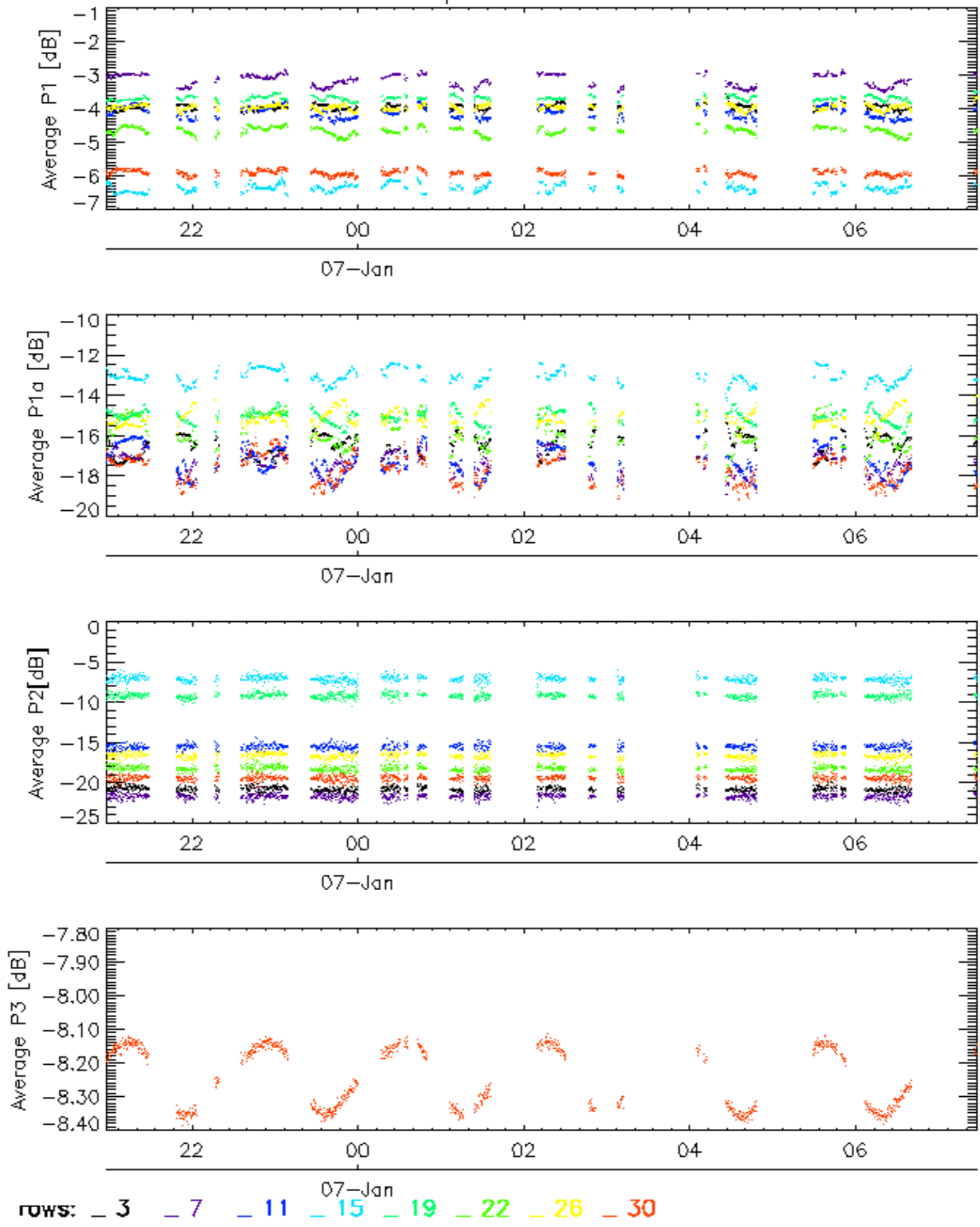


Cal pulses for WVS IS2

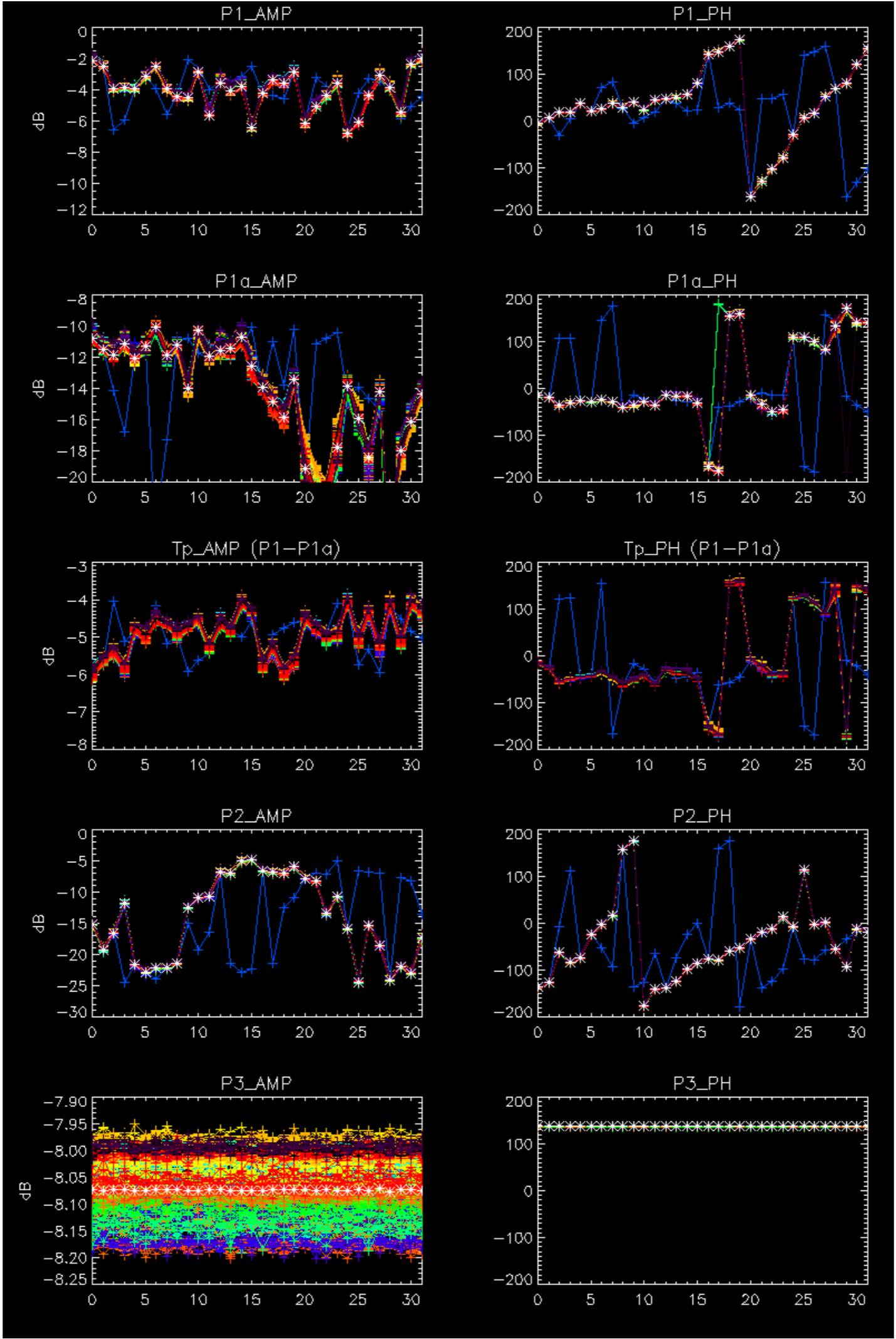


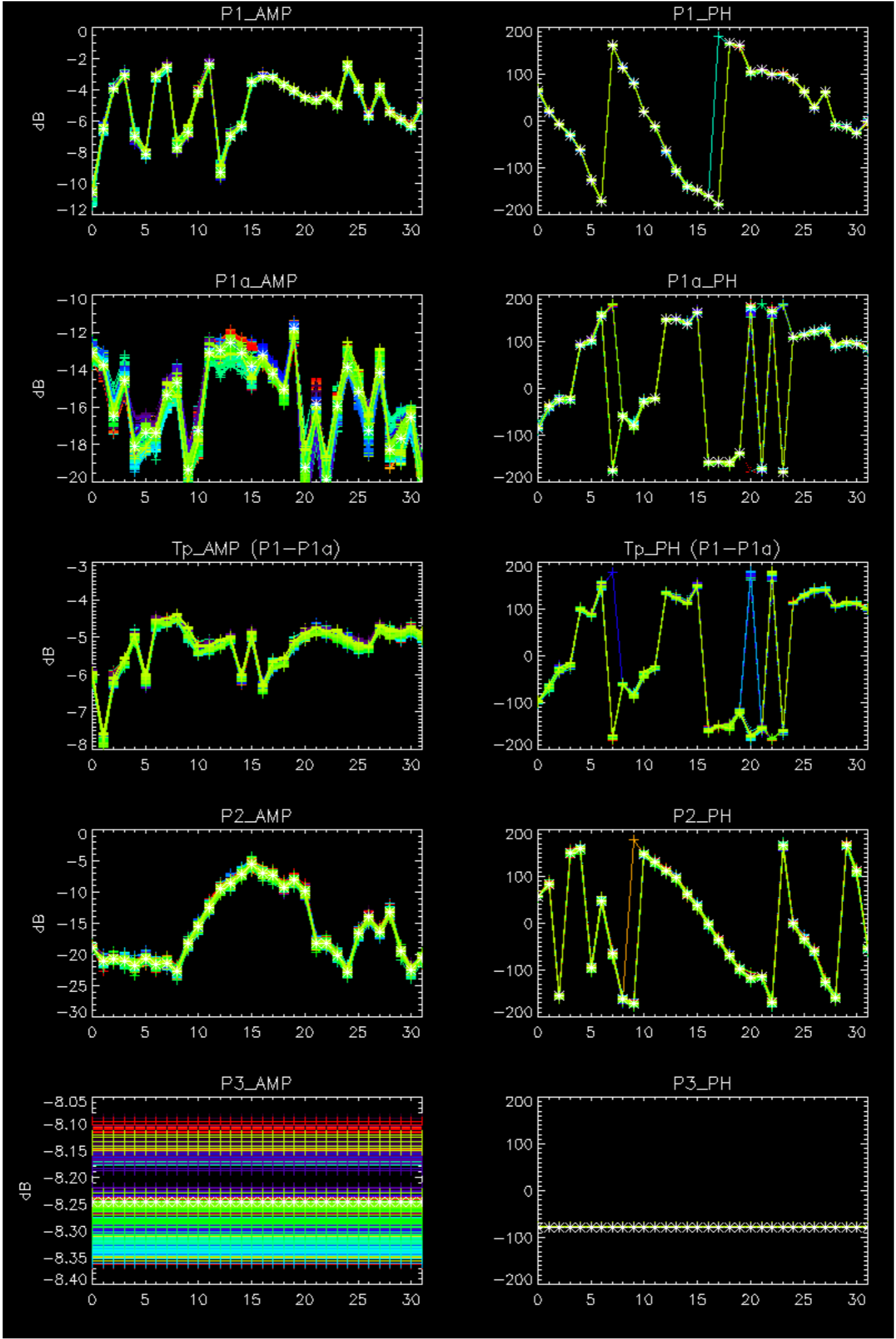
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



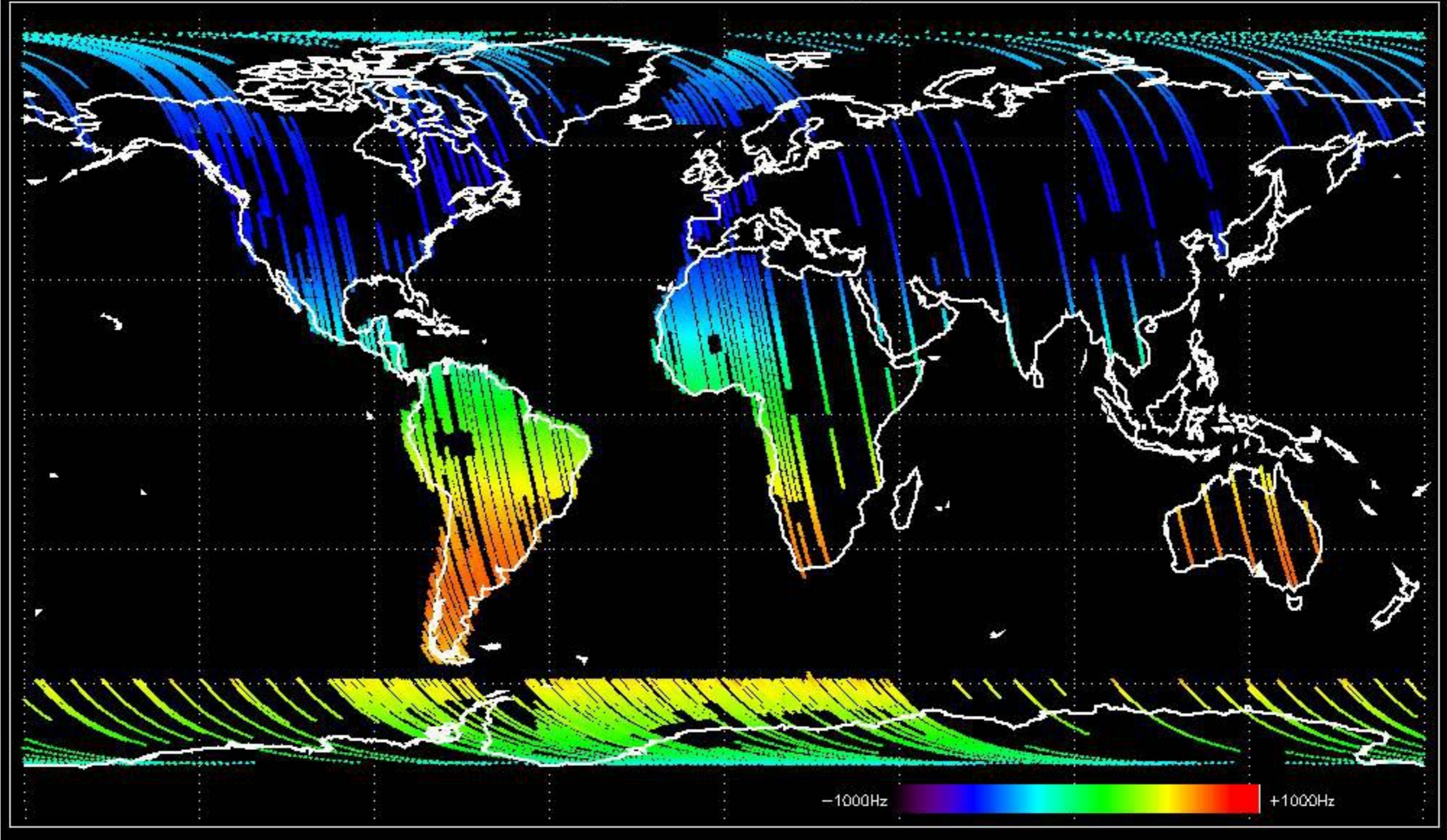
No anomalies observed.



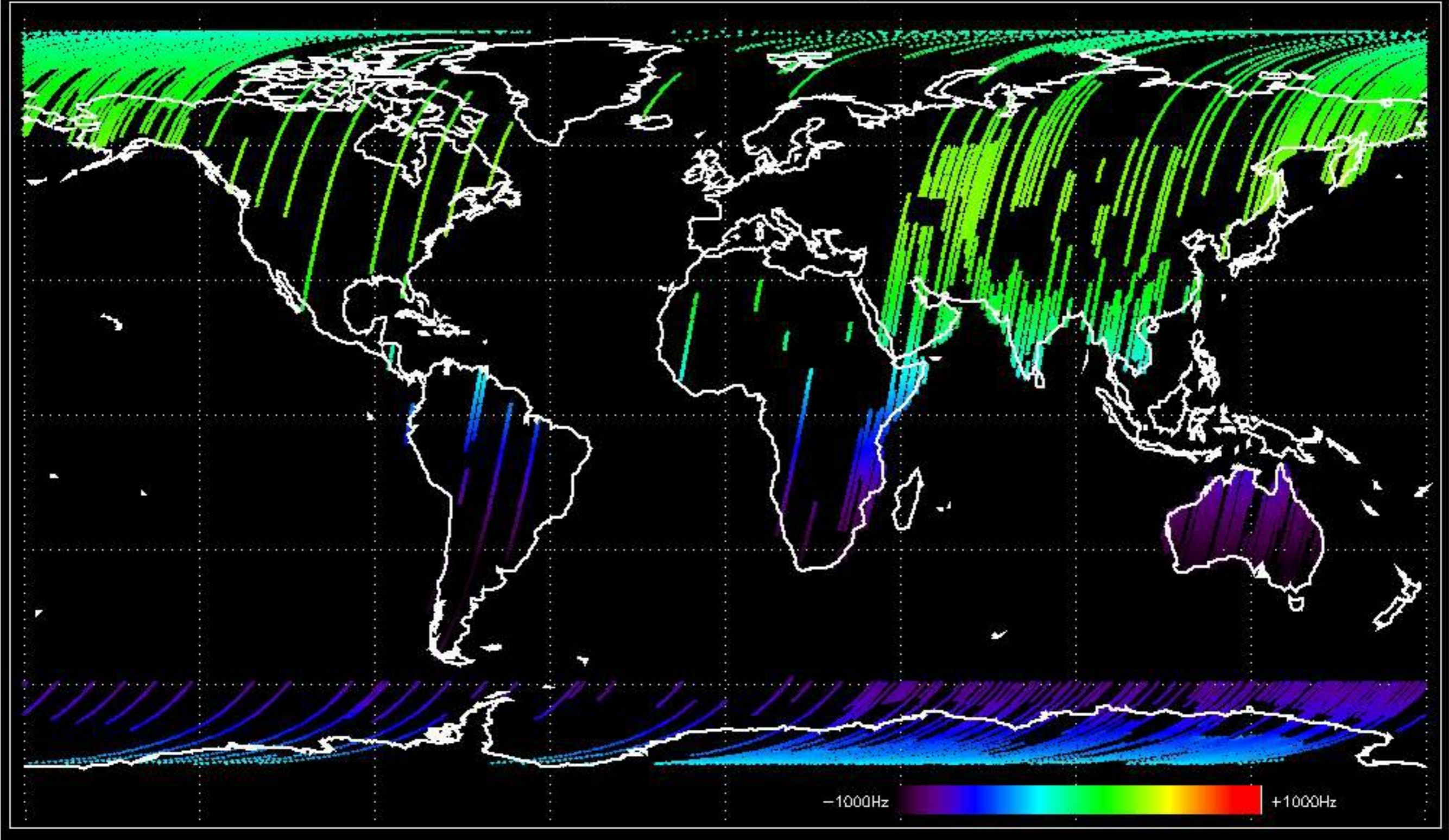


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

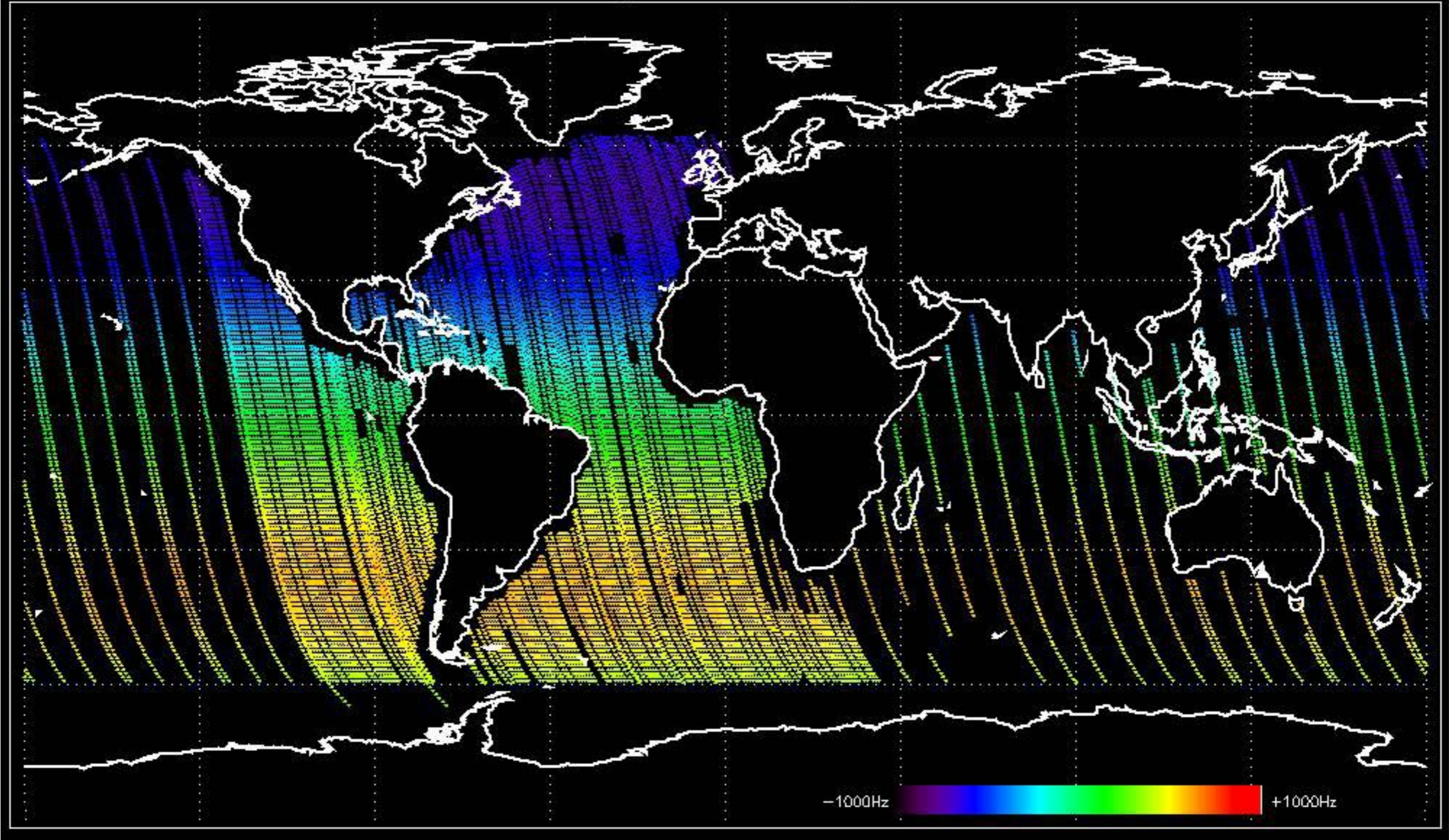
Doppler 'GM1' 'SS1' ascending



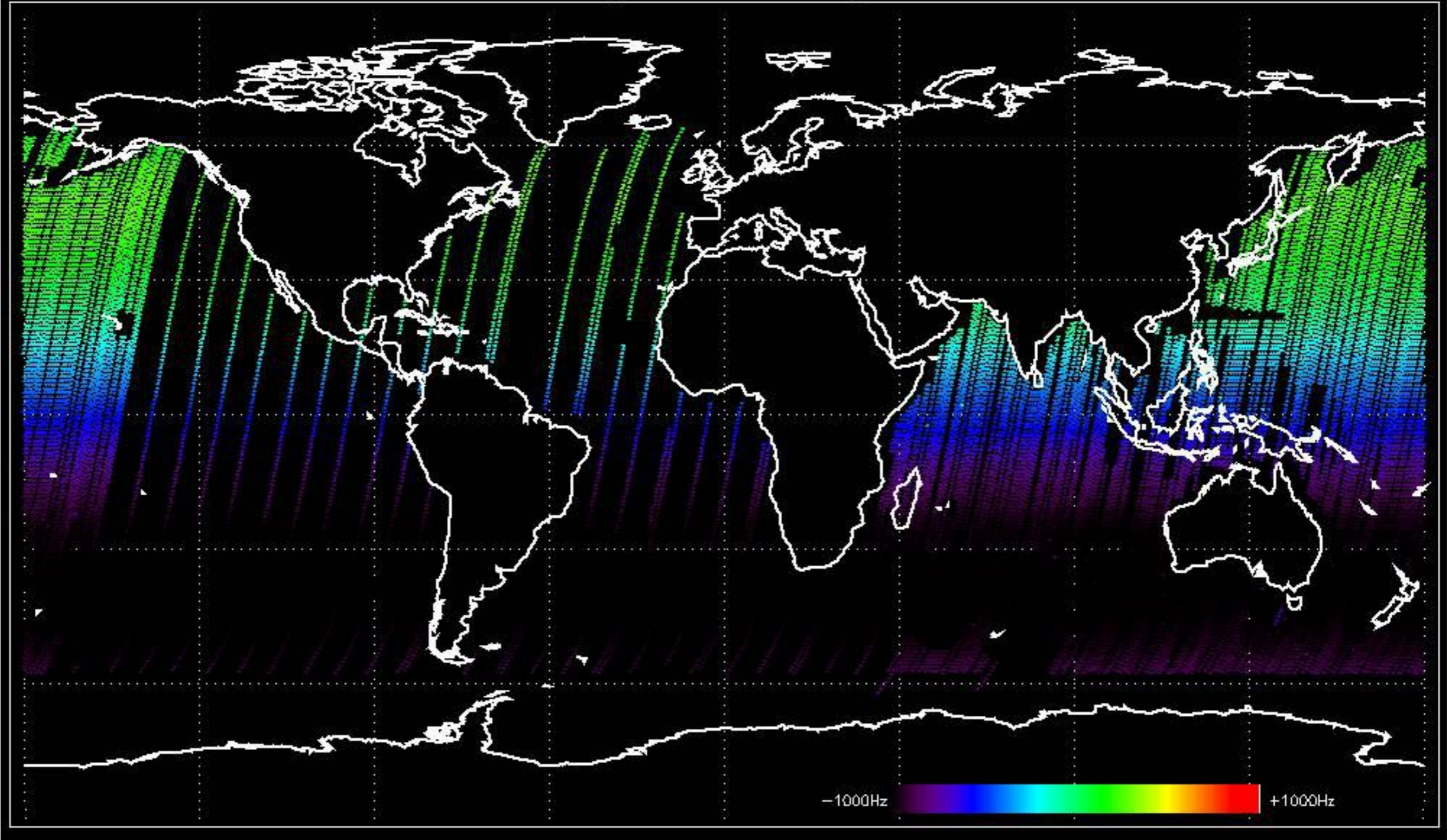
Doppler 'GM1' 'SS1' descending



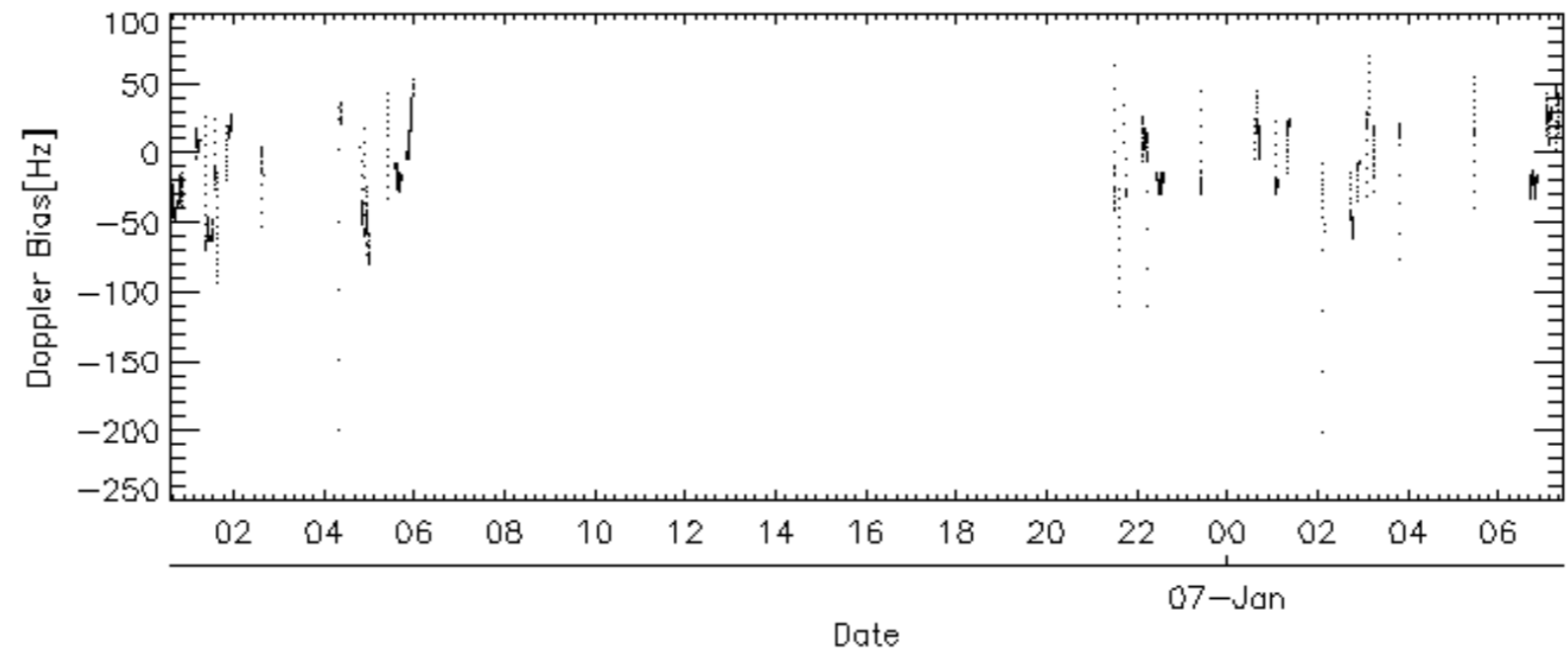
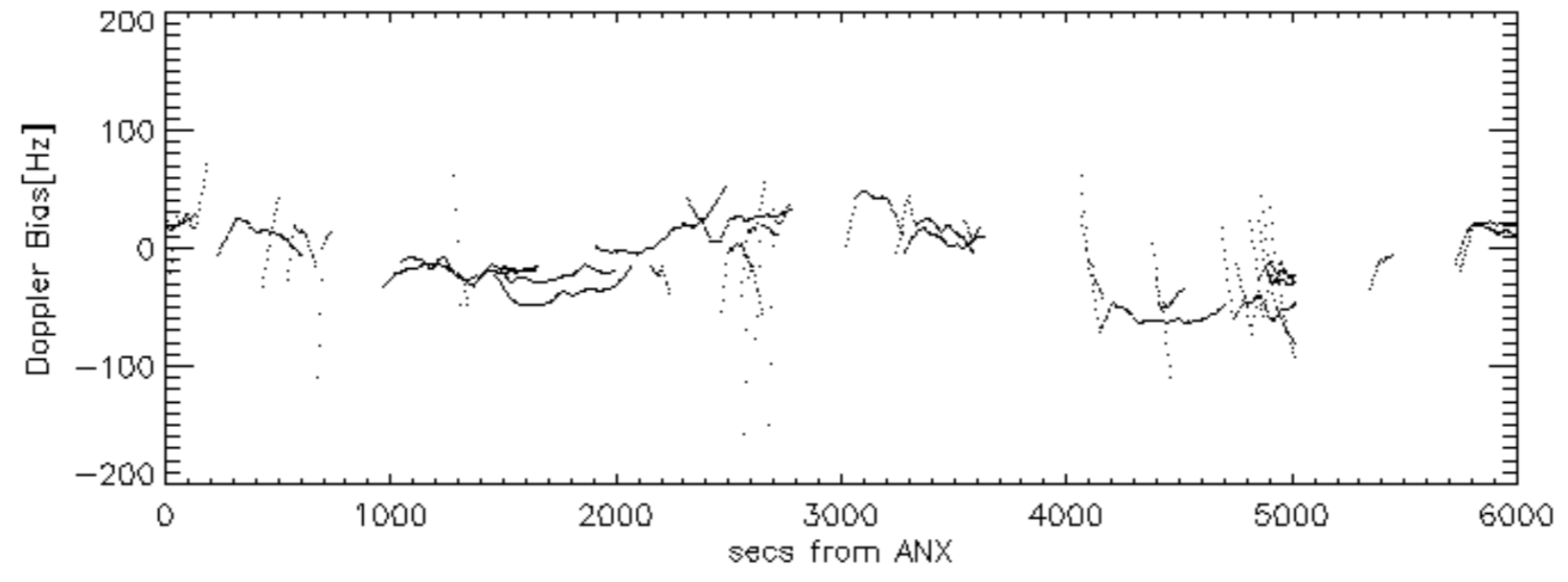
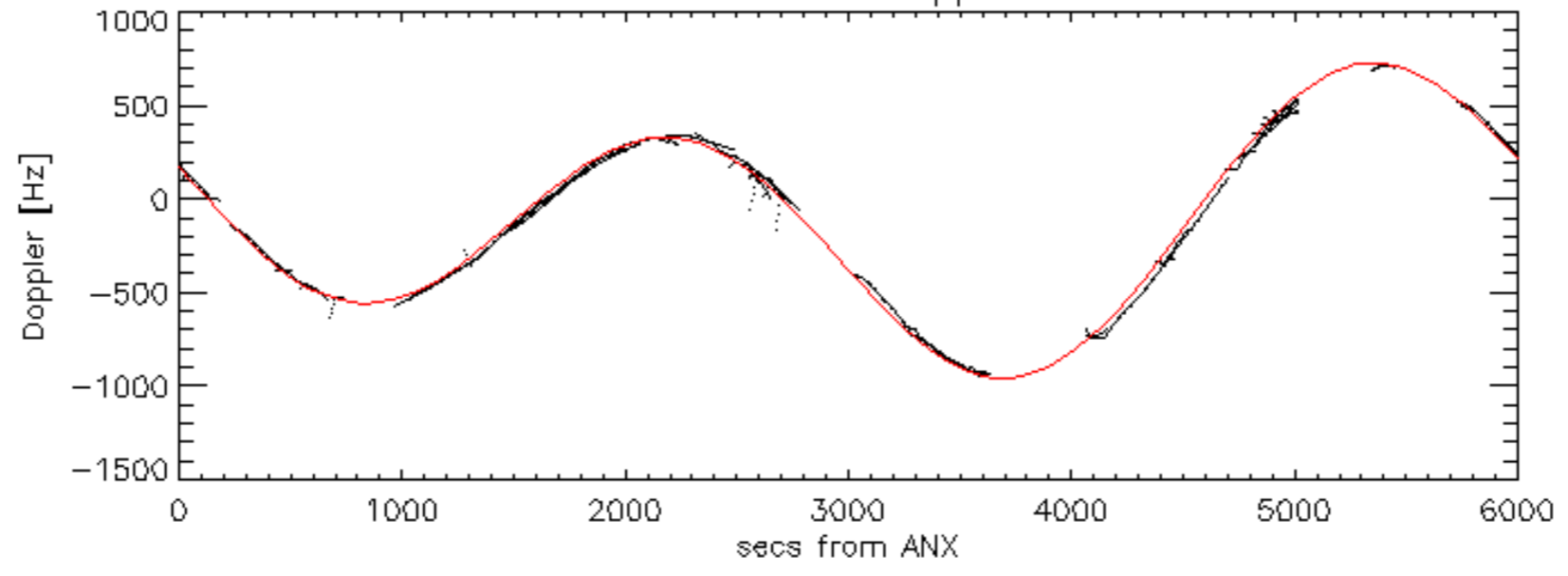
Doppler 'WVS' 'IS2' ascending

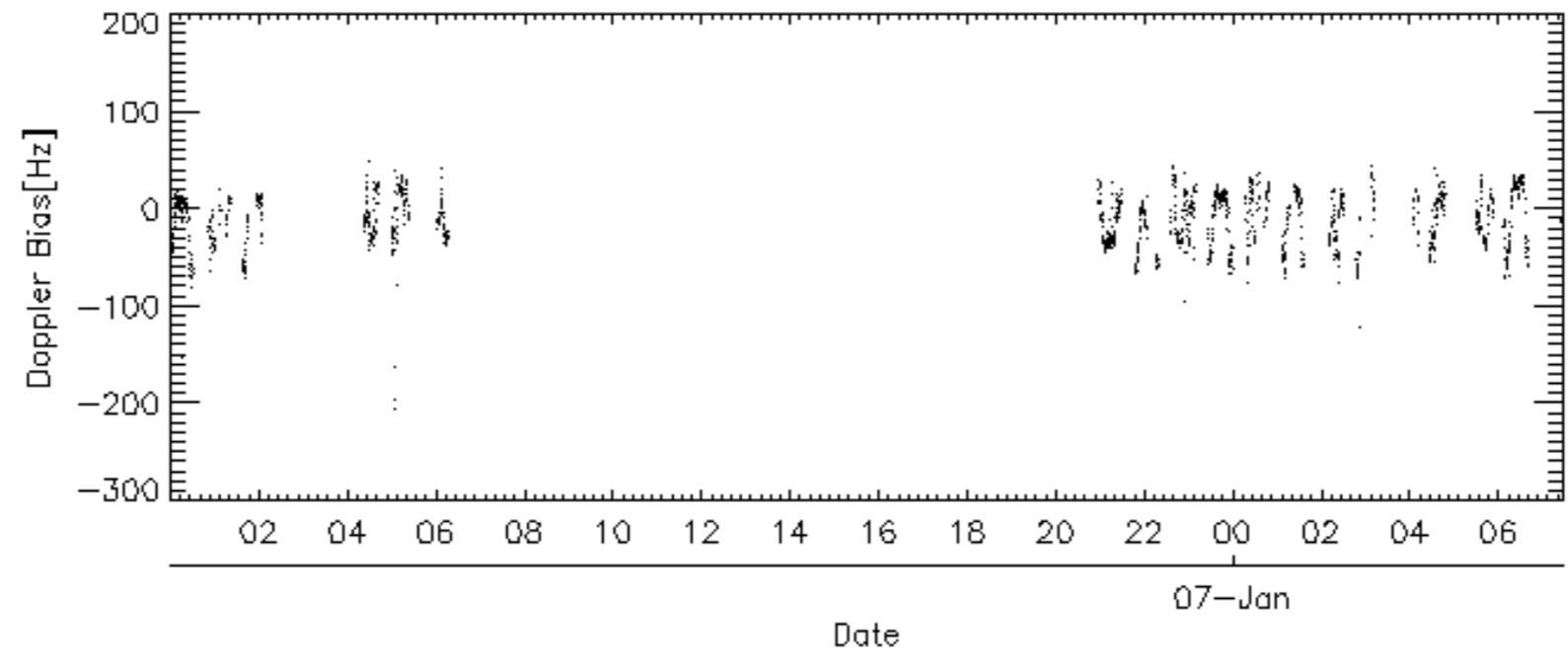
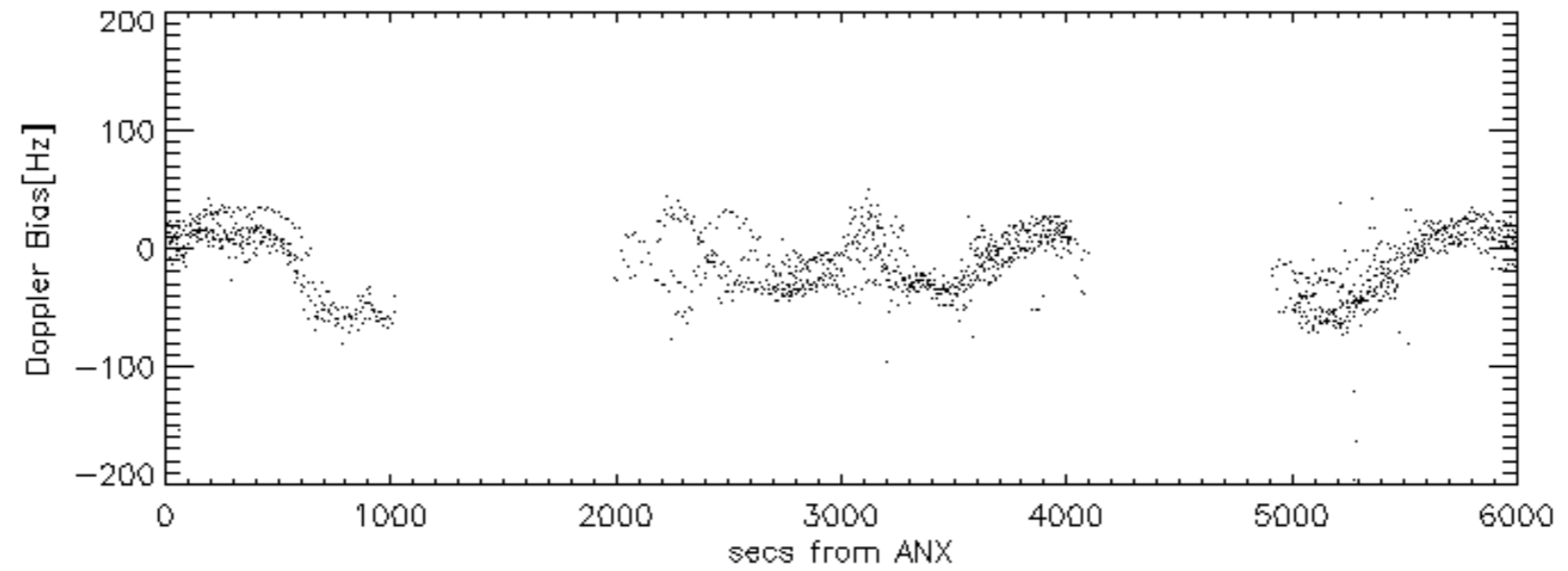
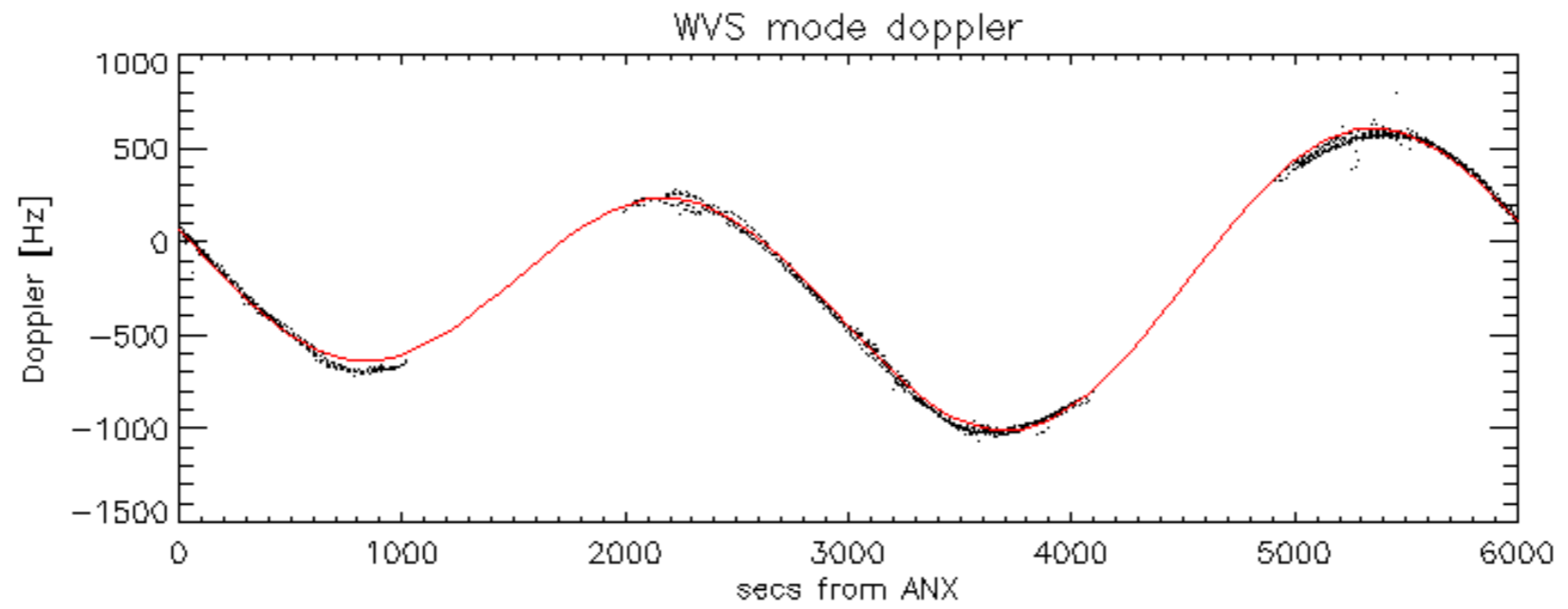


Doppler 'WVS' 'IS2' descending

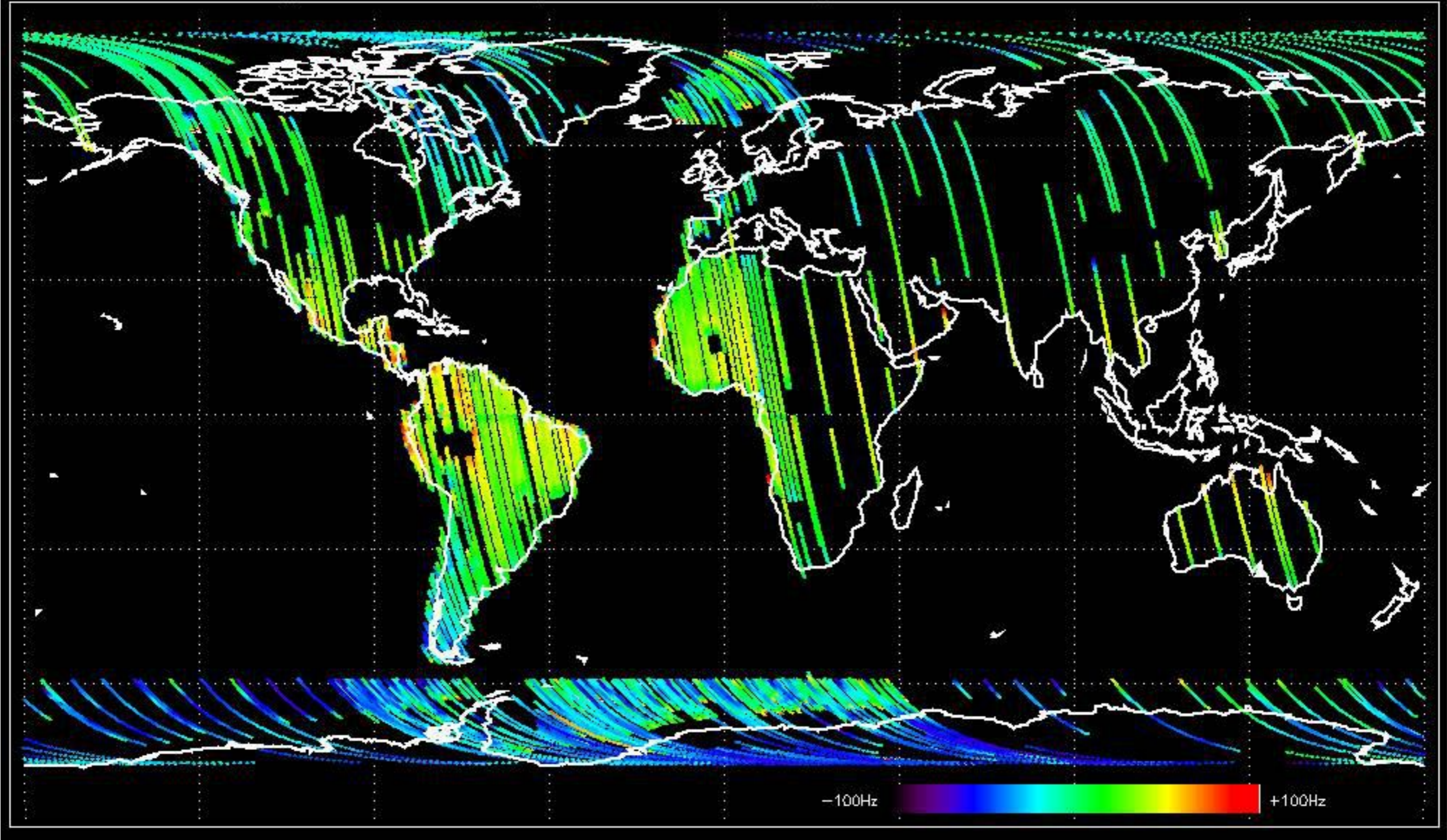


GM1 mode doppler

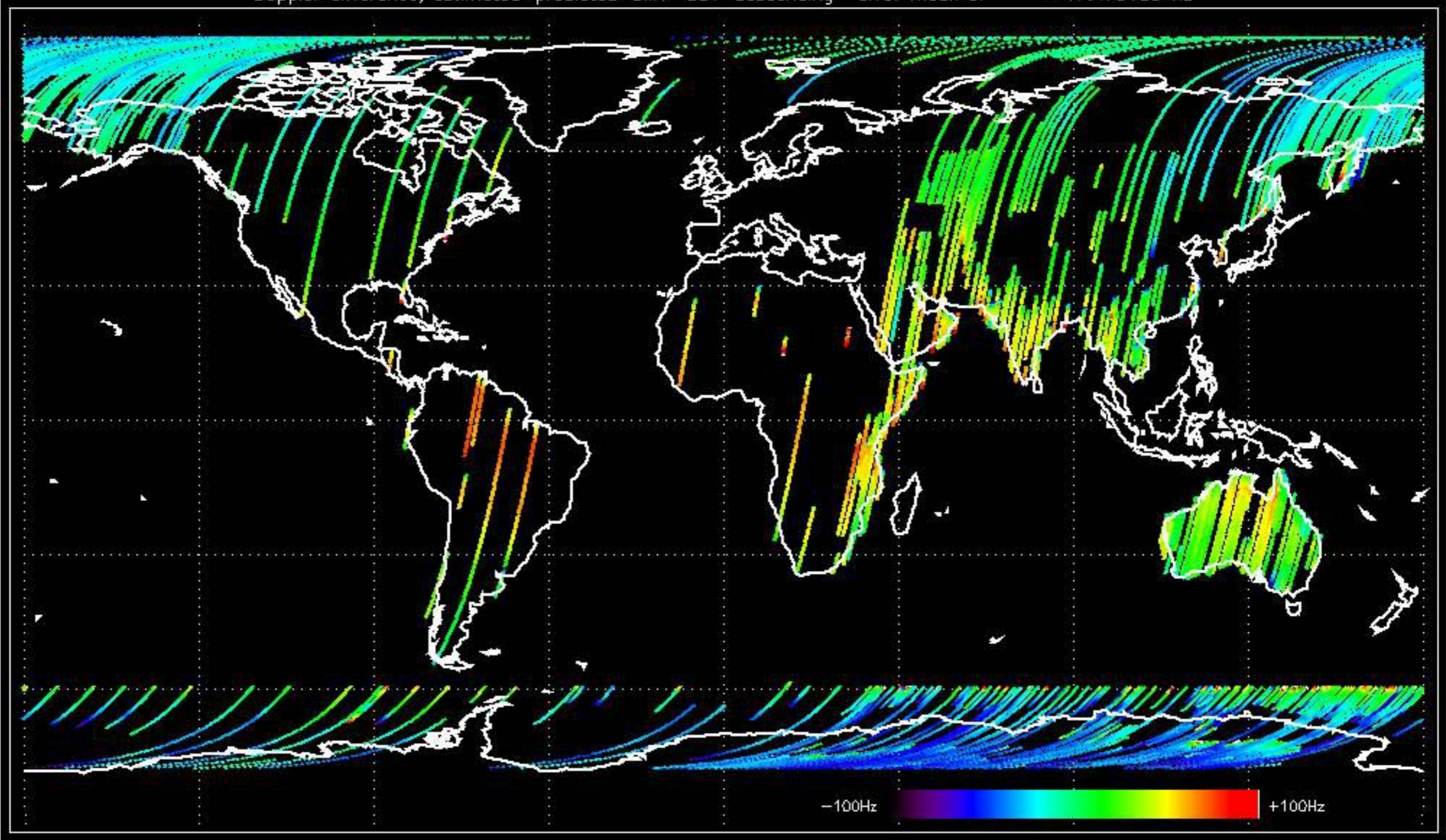




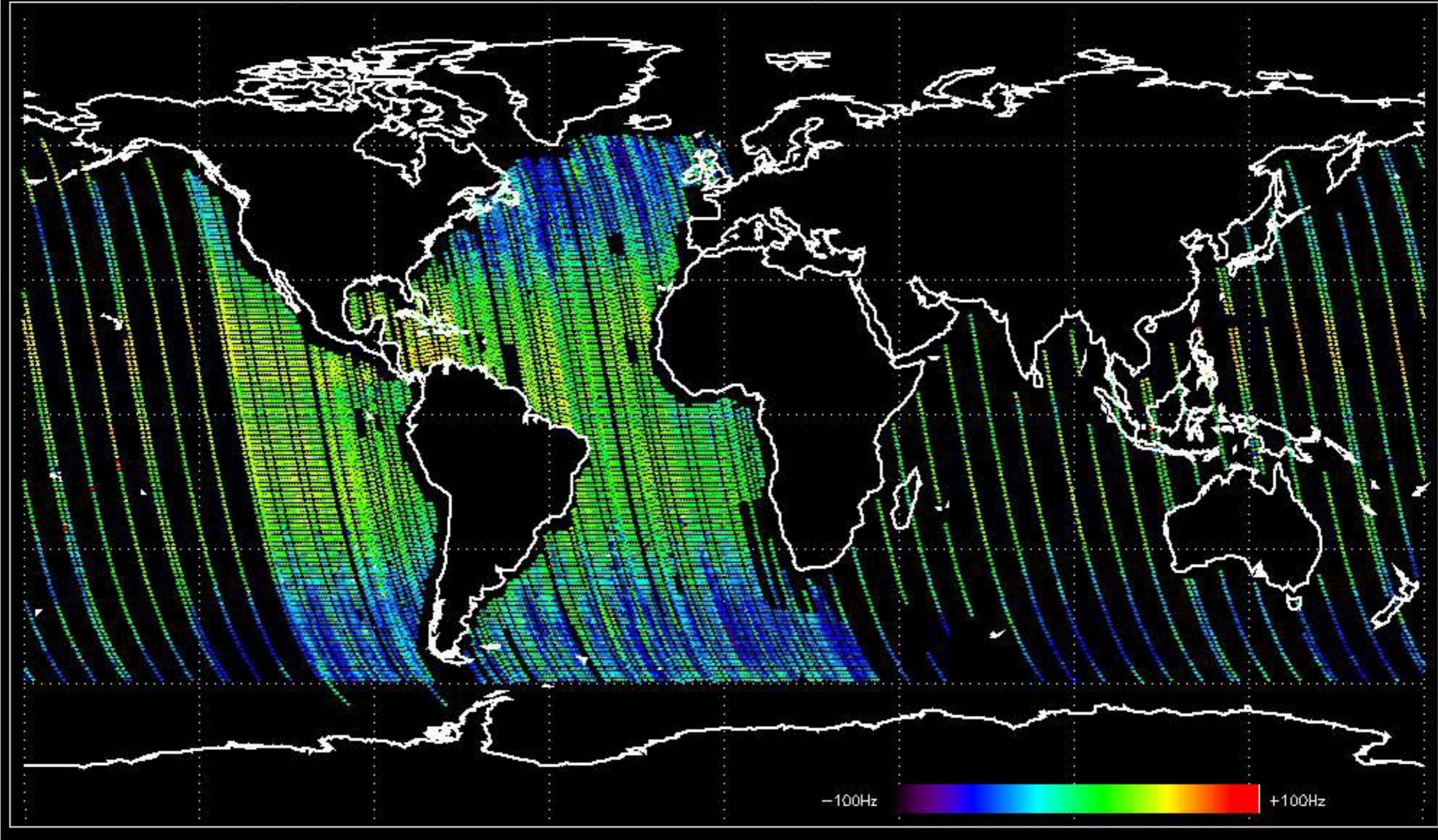
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.162380 Hz



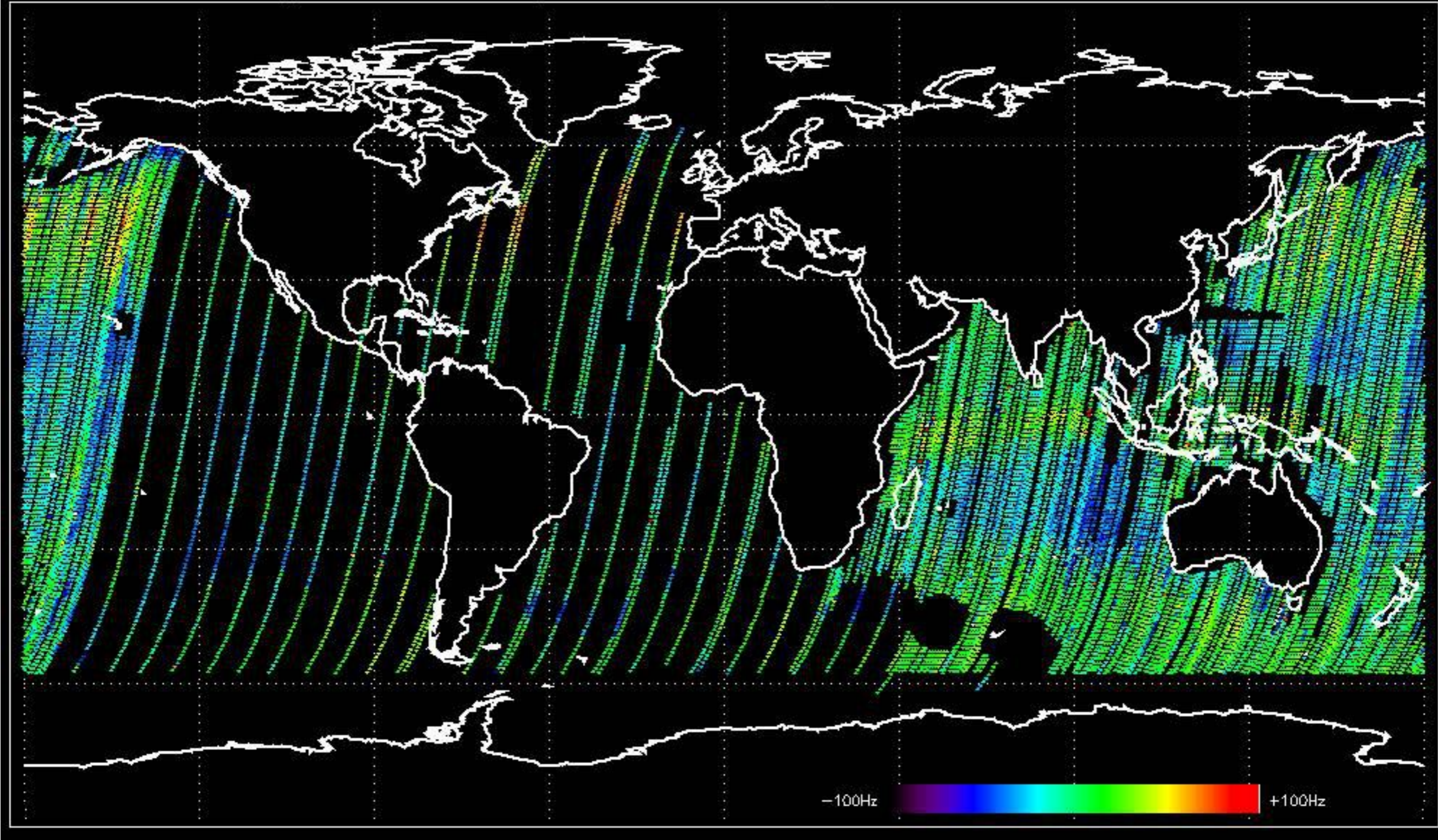
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -17.479139 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -14.696046 Hz

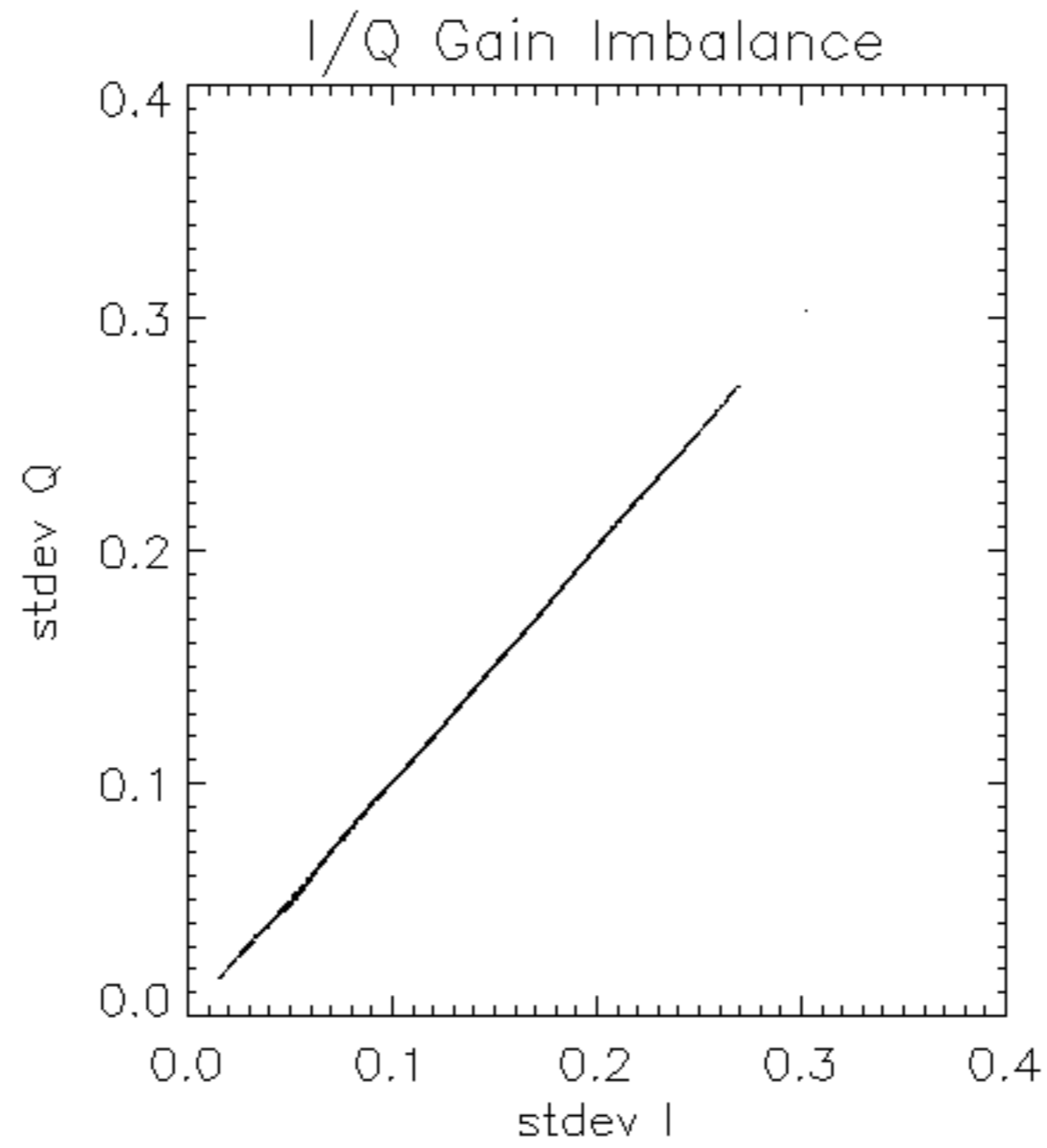


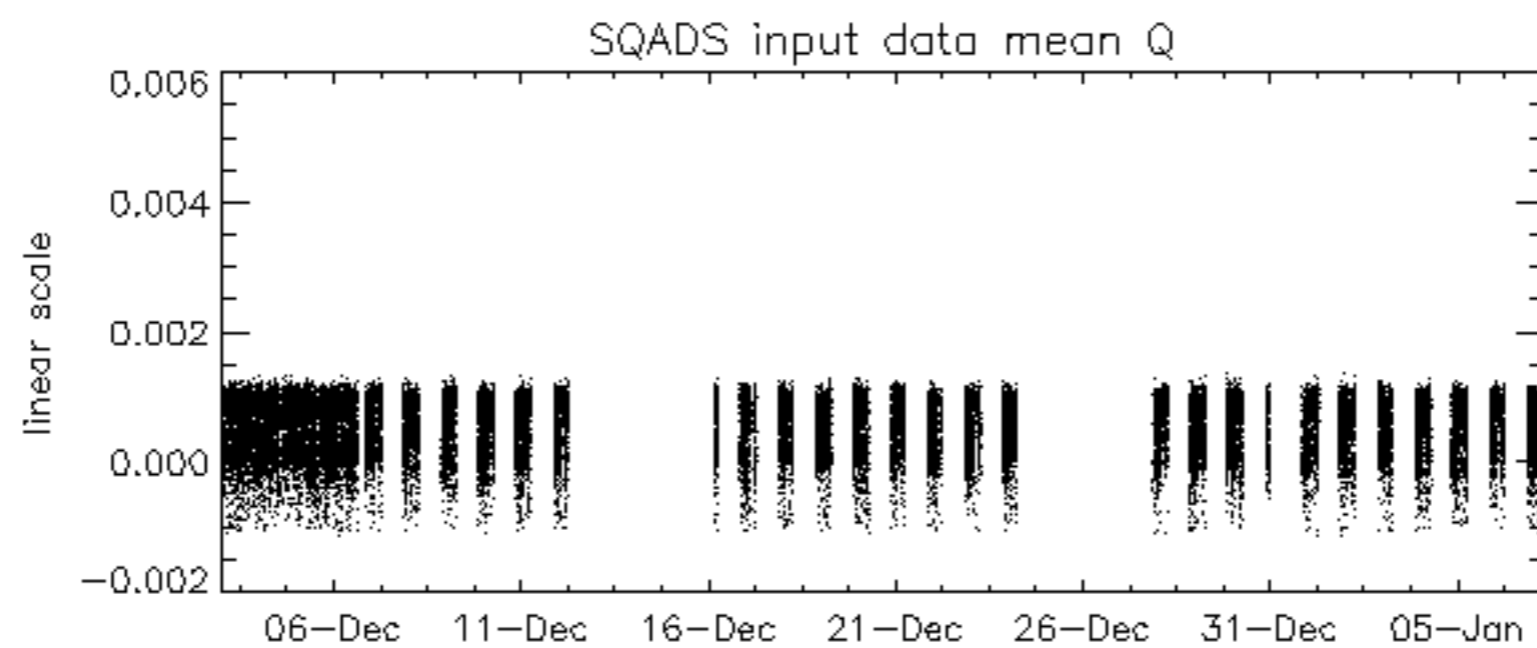
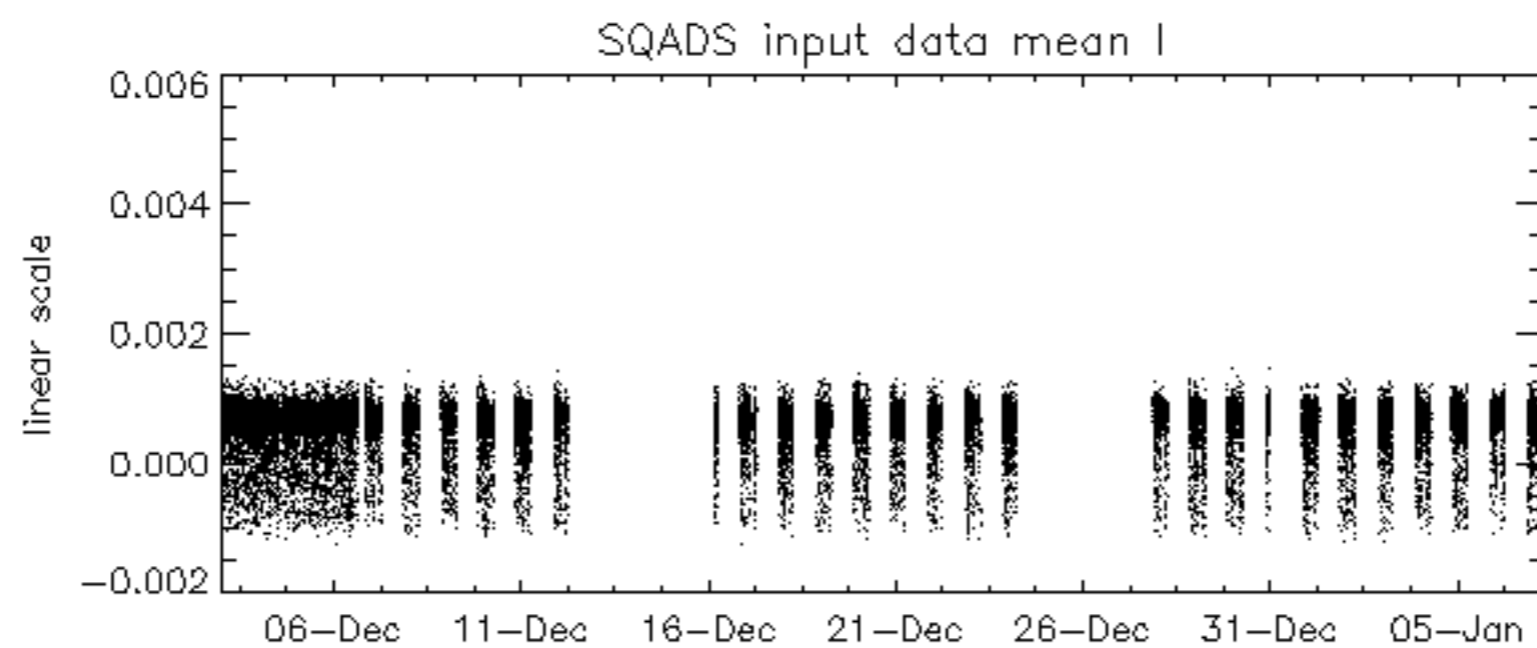
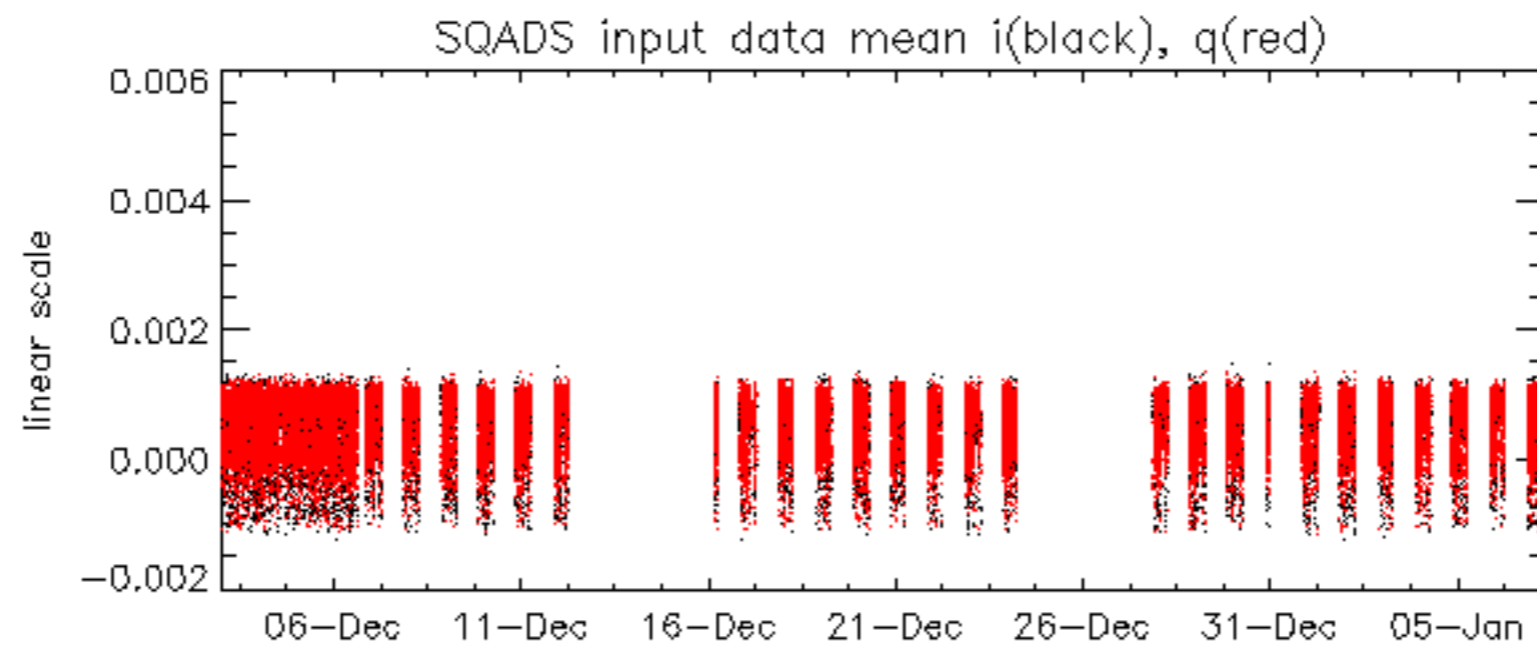
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.7362822 Hz

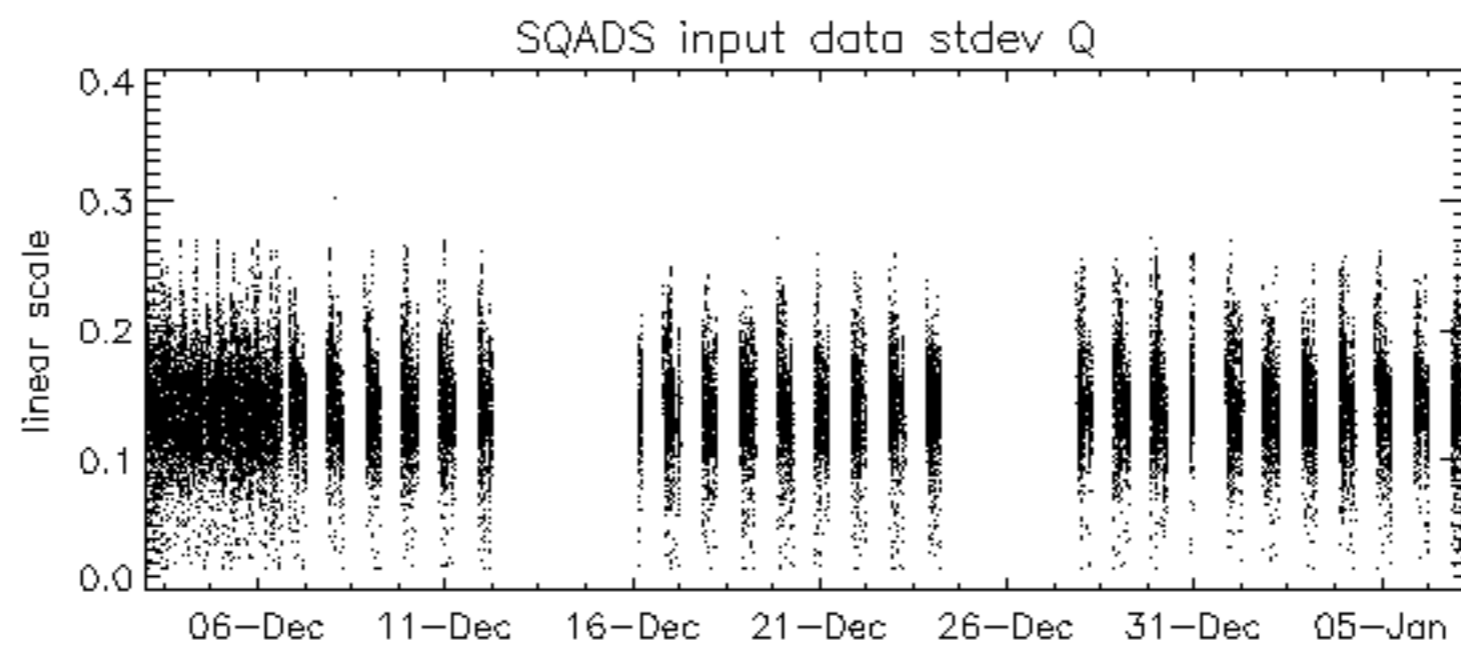
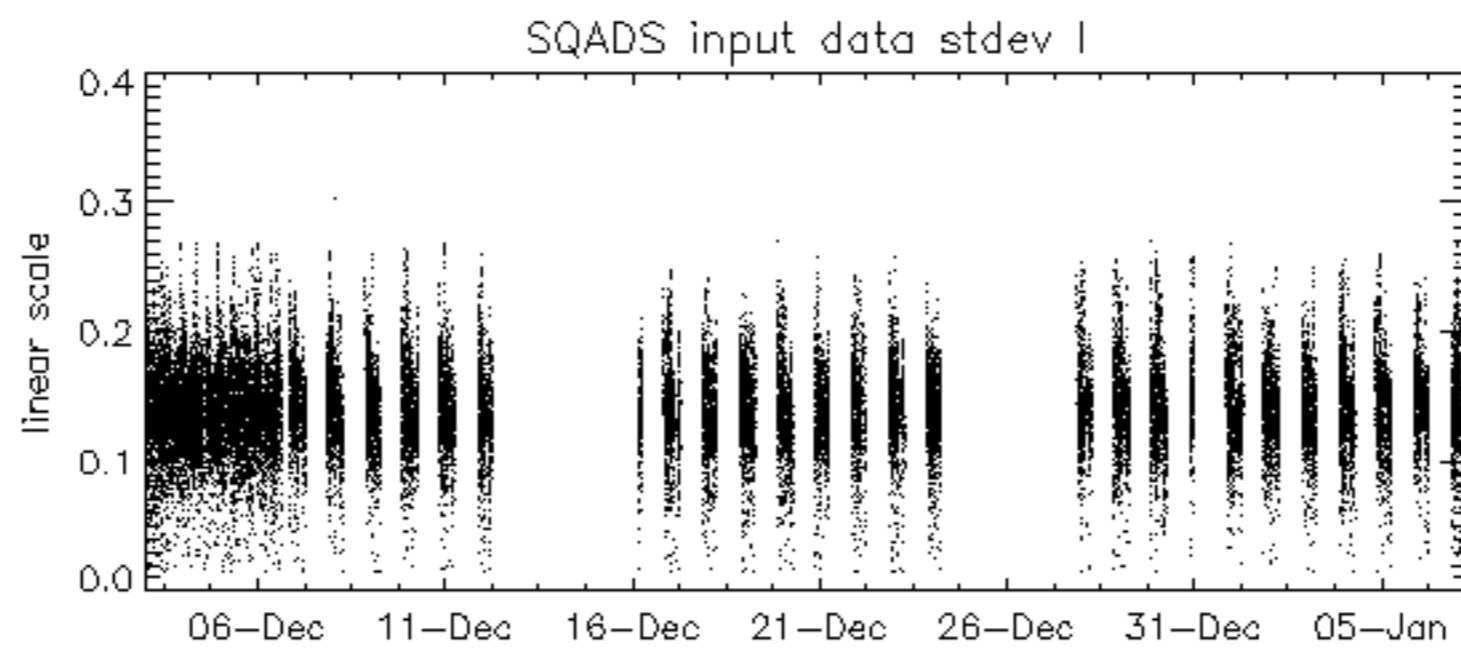
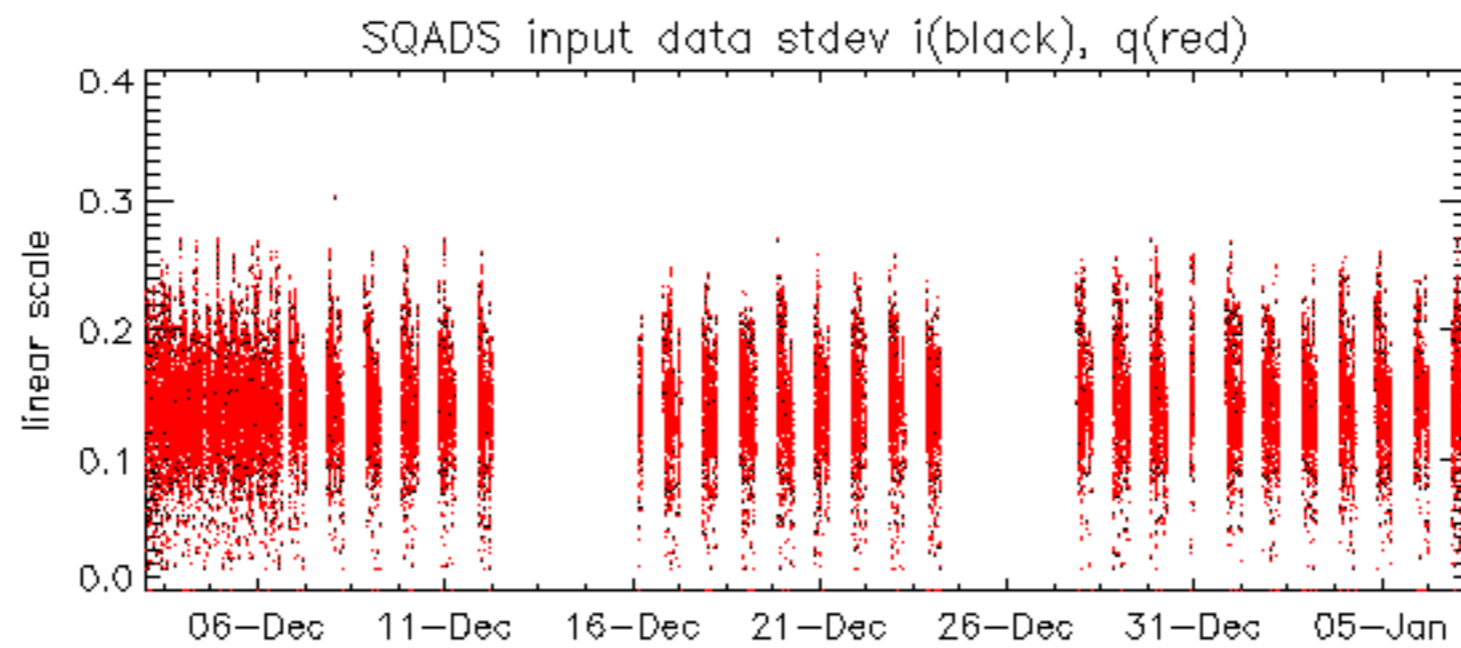


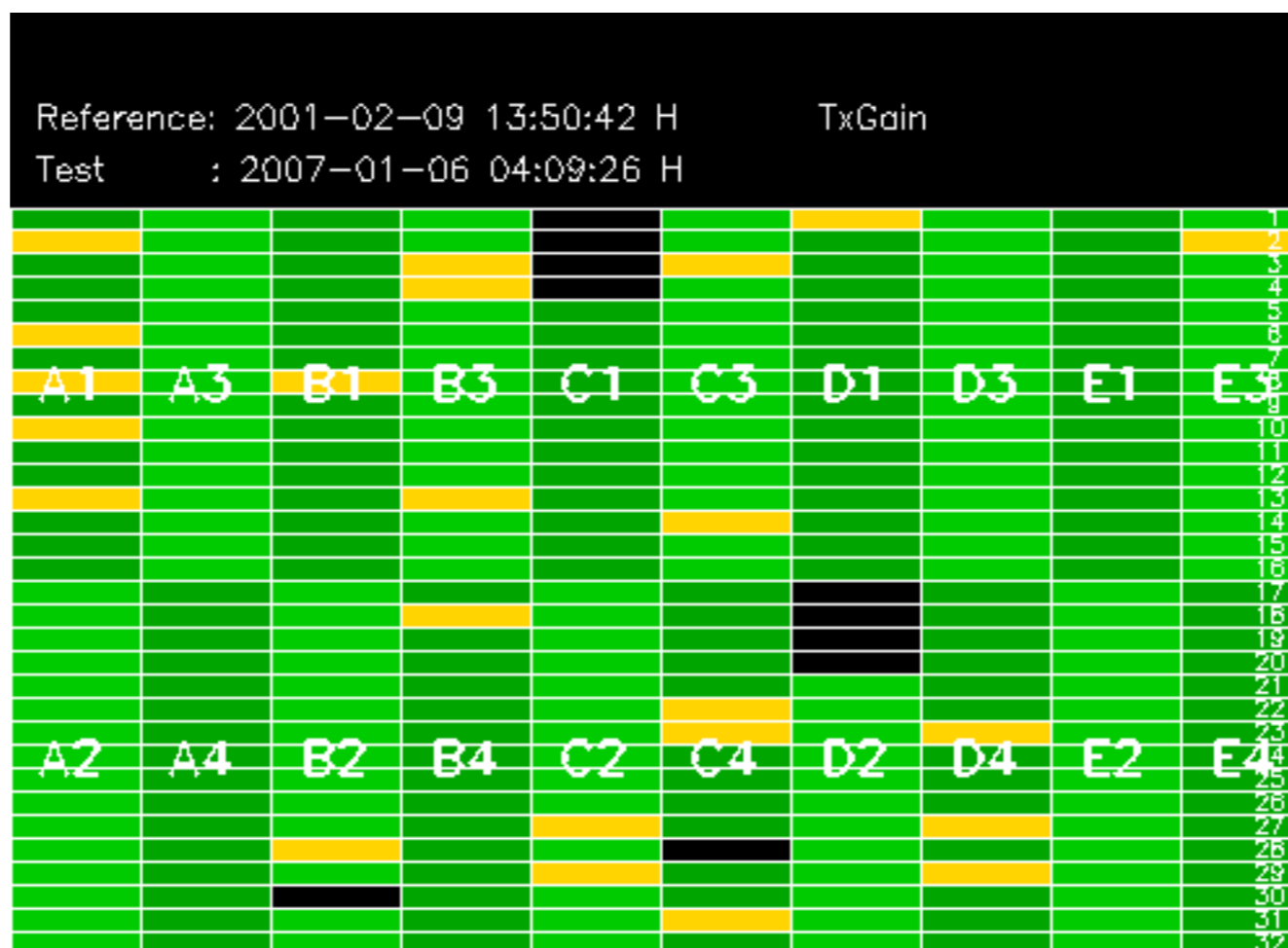
No anomalies observed on available MS products:

No anomalies observed.

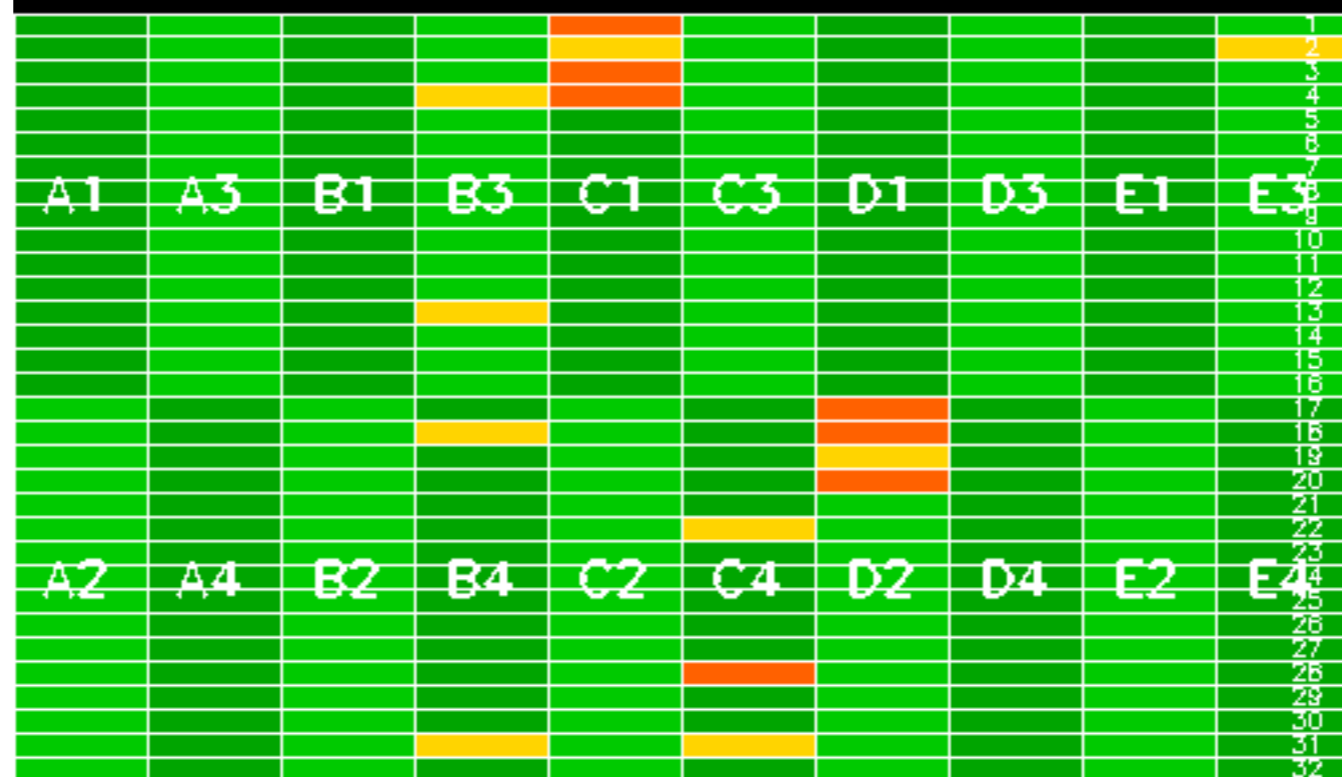








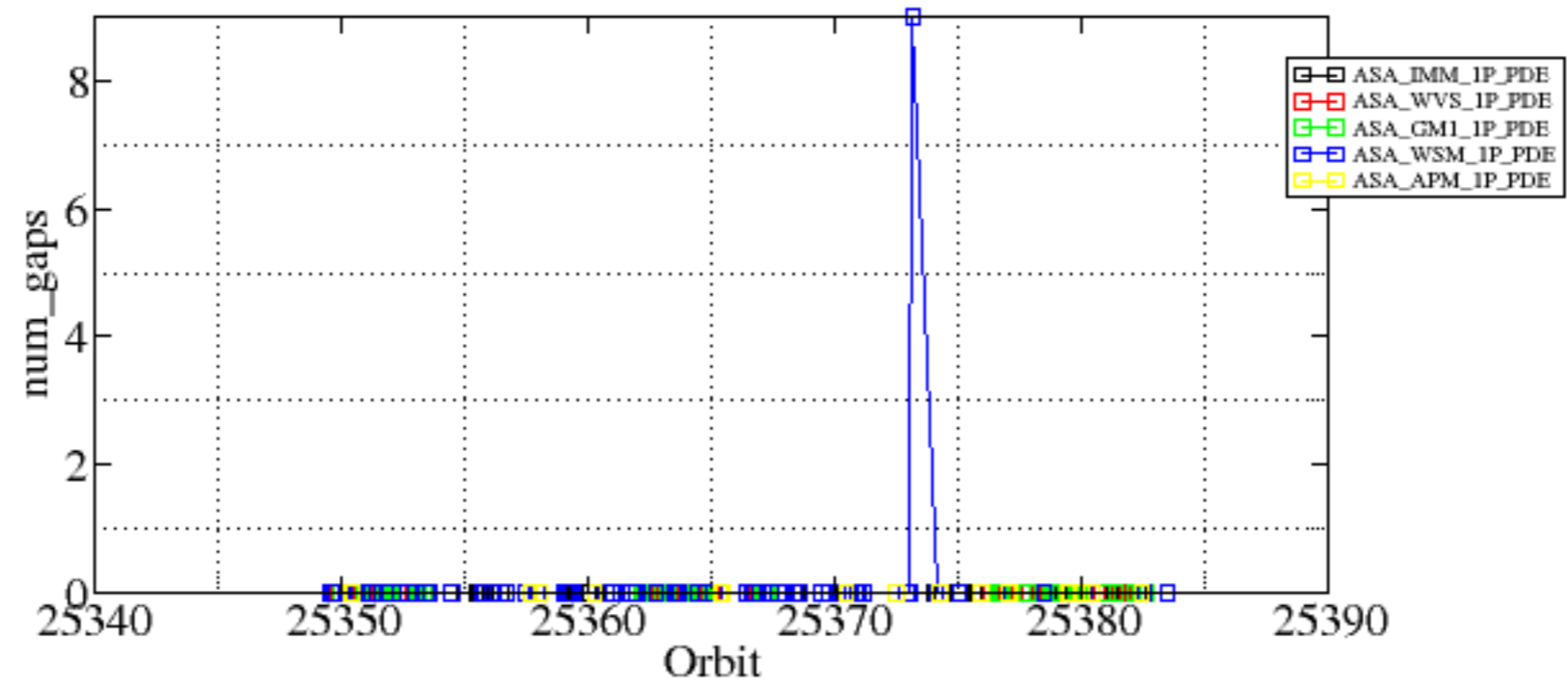
Reference: 2005-09-22 06:26:51 H TxGain
 Test : 2007-01-06 04:09:26 H

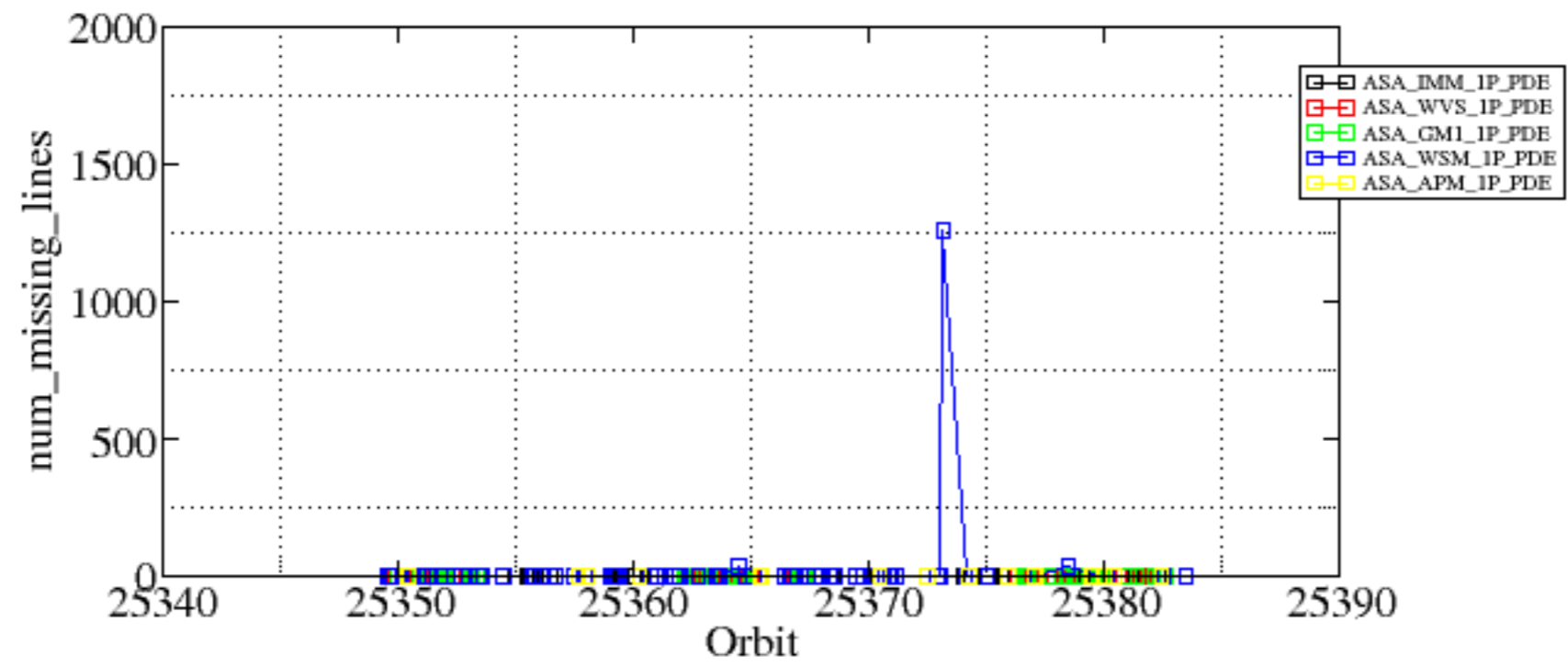


Summary of analysis for the last 3 days 2007010[567]

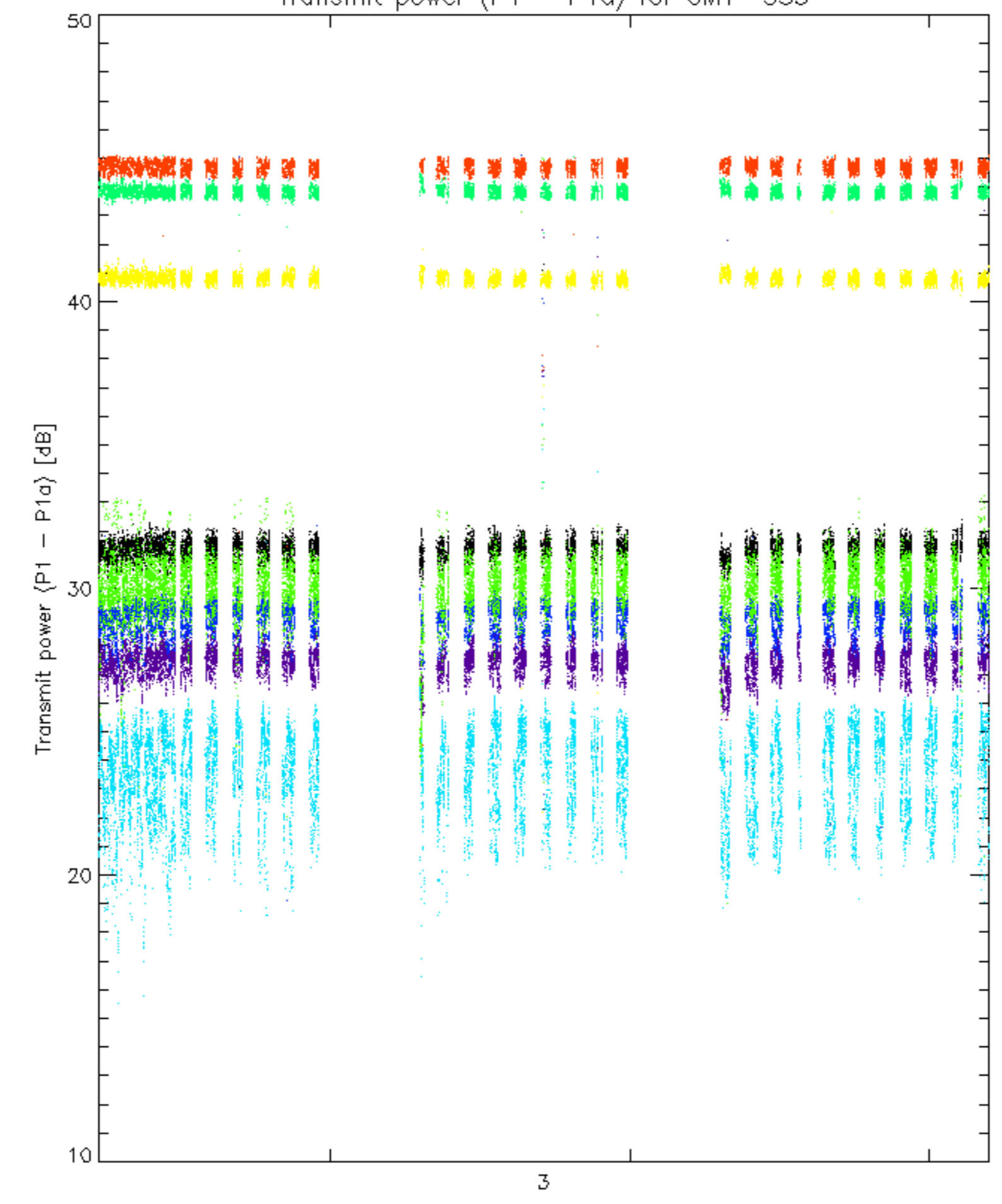
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20070106_010151_000003232054_00260_25364_4939.N1	0	36
ASA_WSM_1PNPDE20070106_153705_00000672054_00269_25373_5965.N1	9	1257
ASA_WSM_1PNPDE20070107_003113_000001412054_00274_25378_6459.N1	0	36

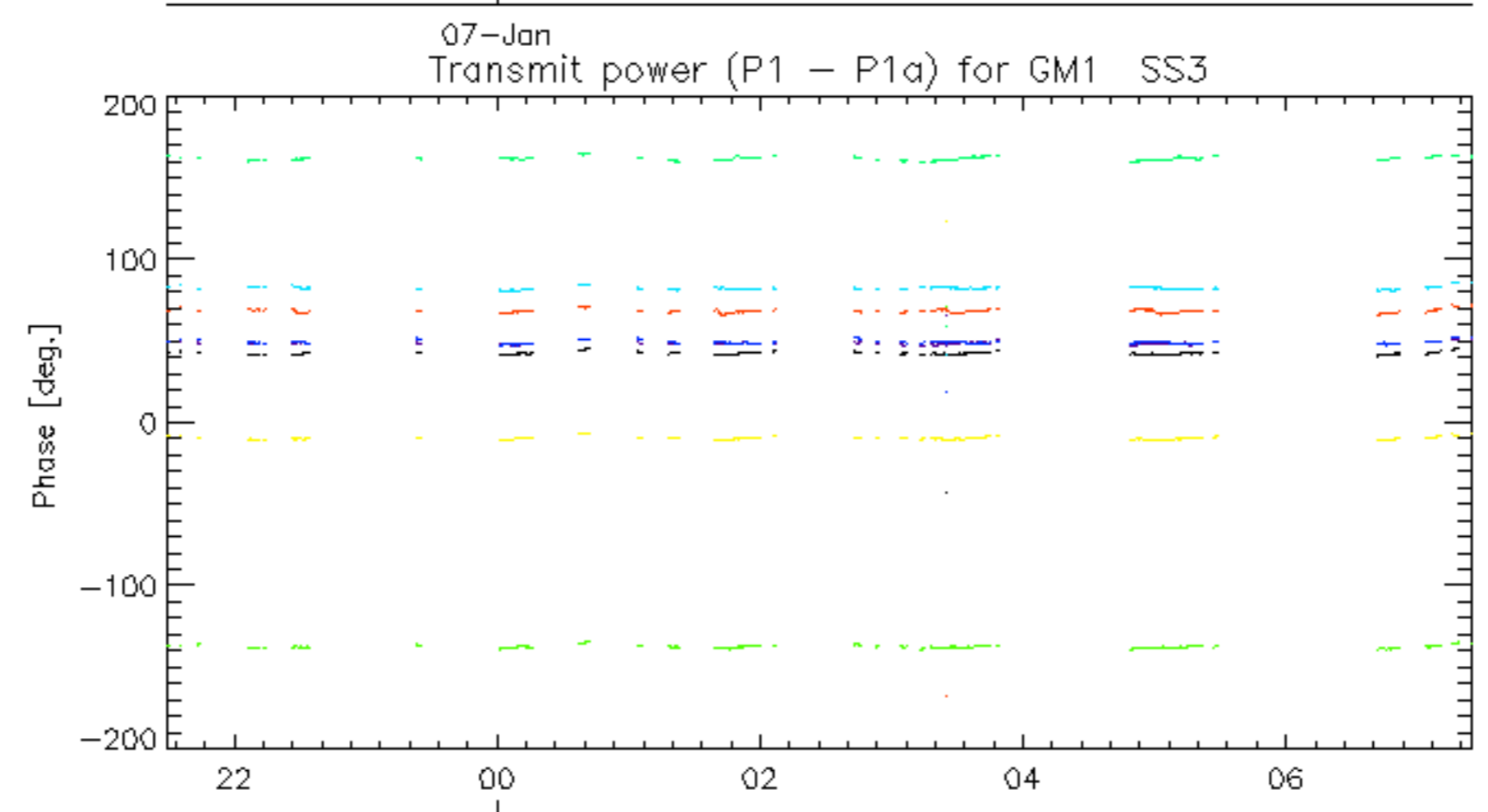
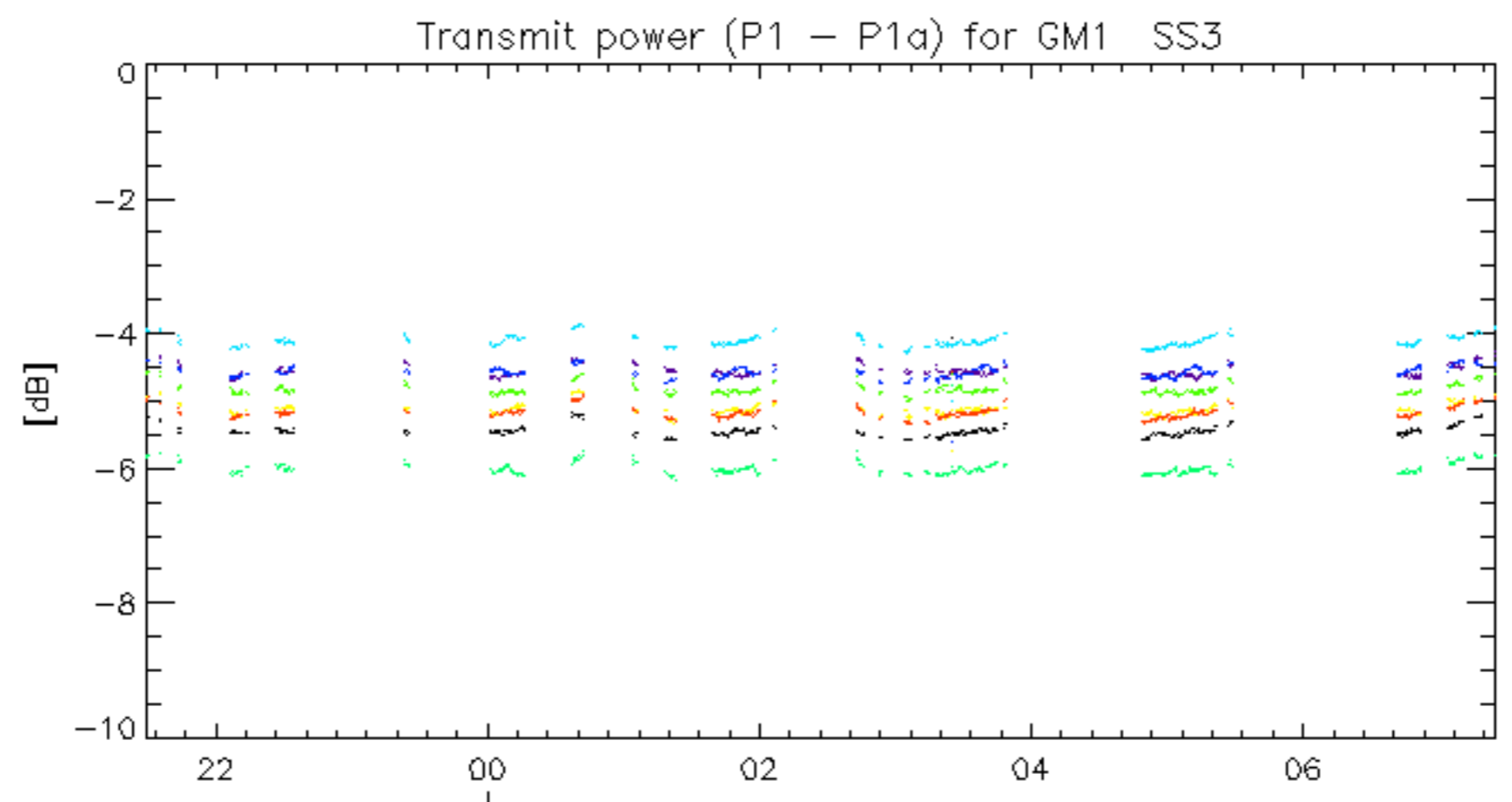




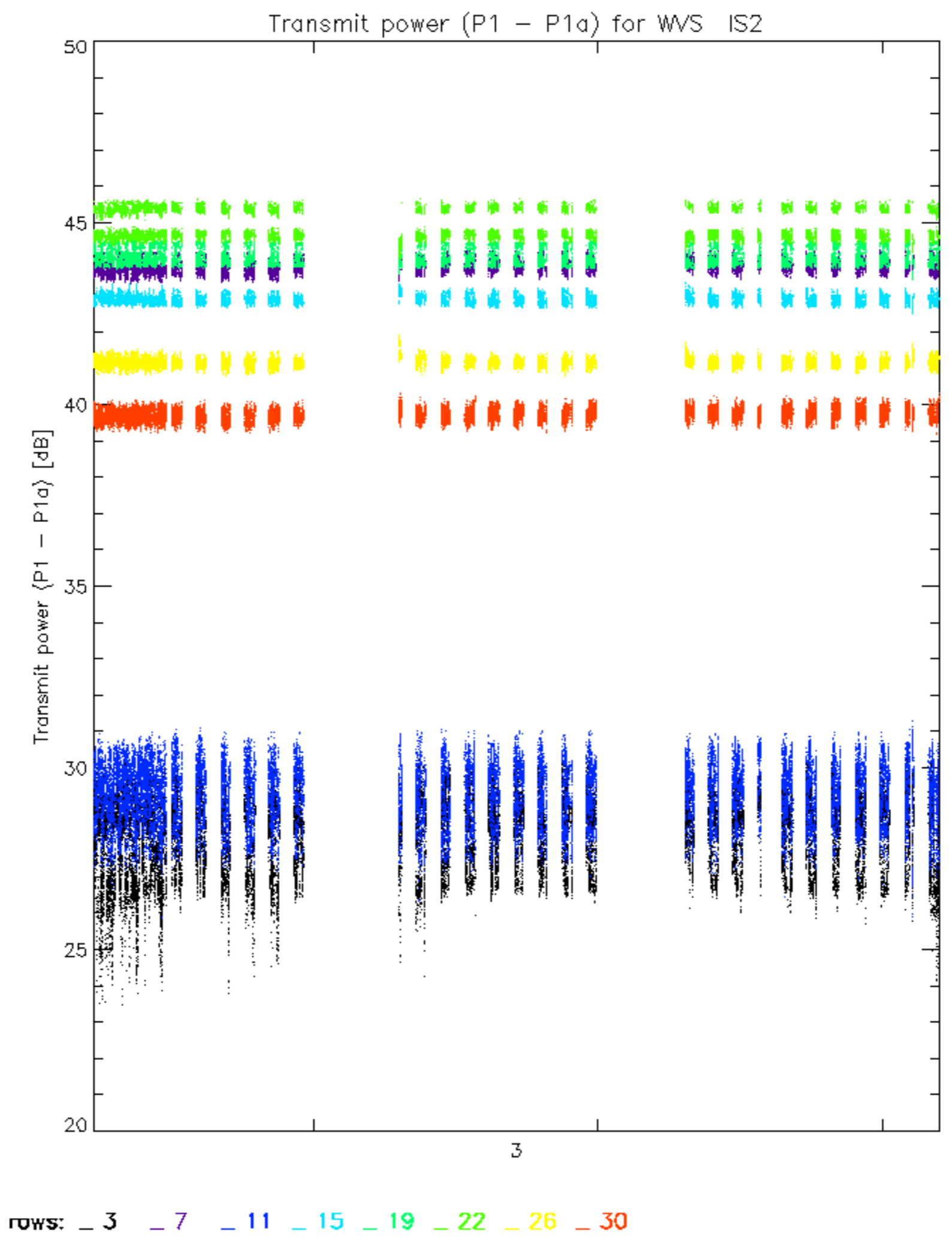
Transmit power (P1 - P1a) for GM1 SS3

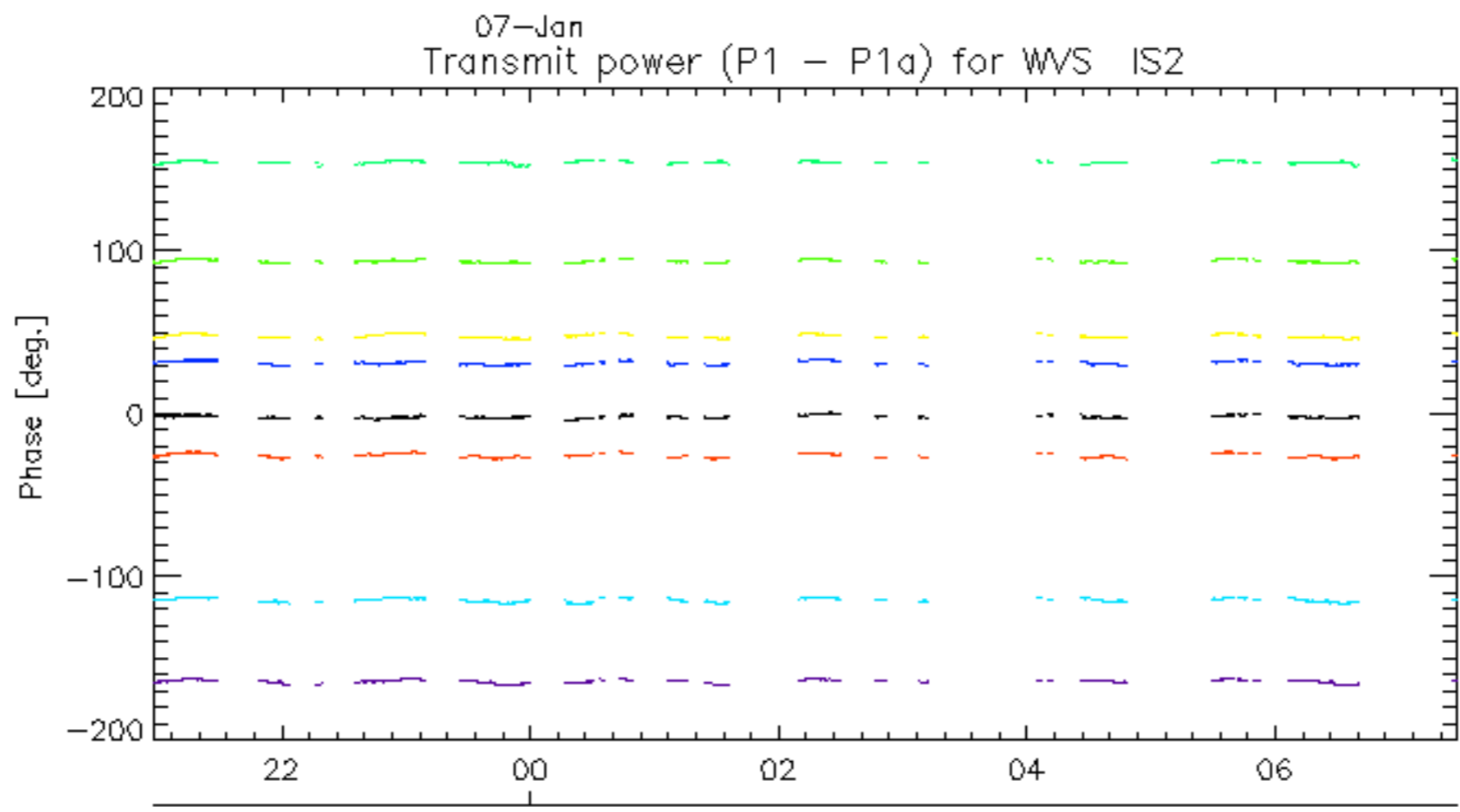
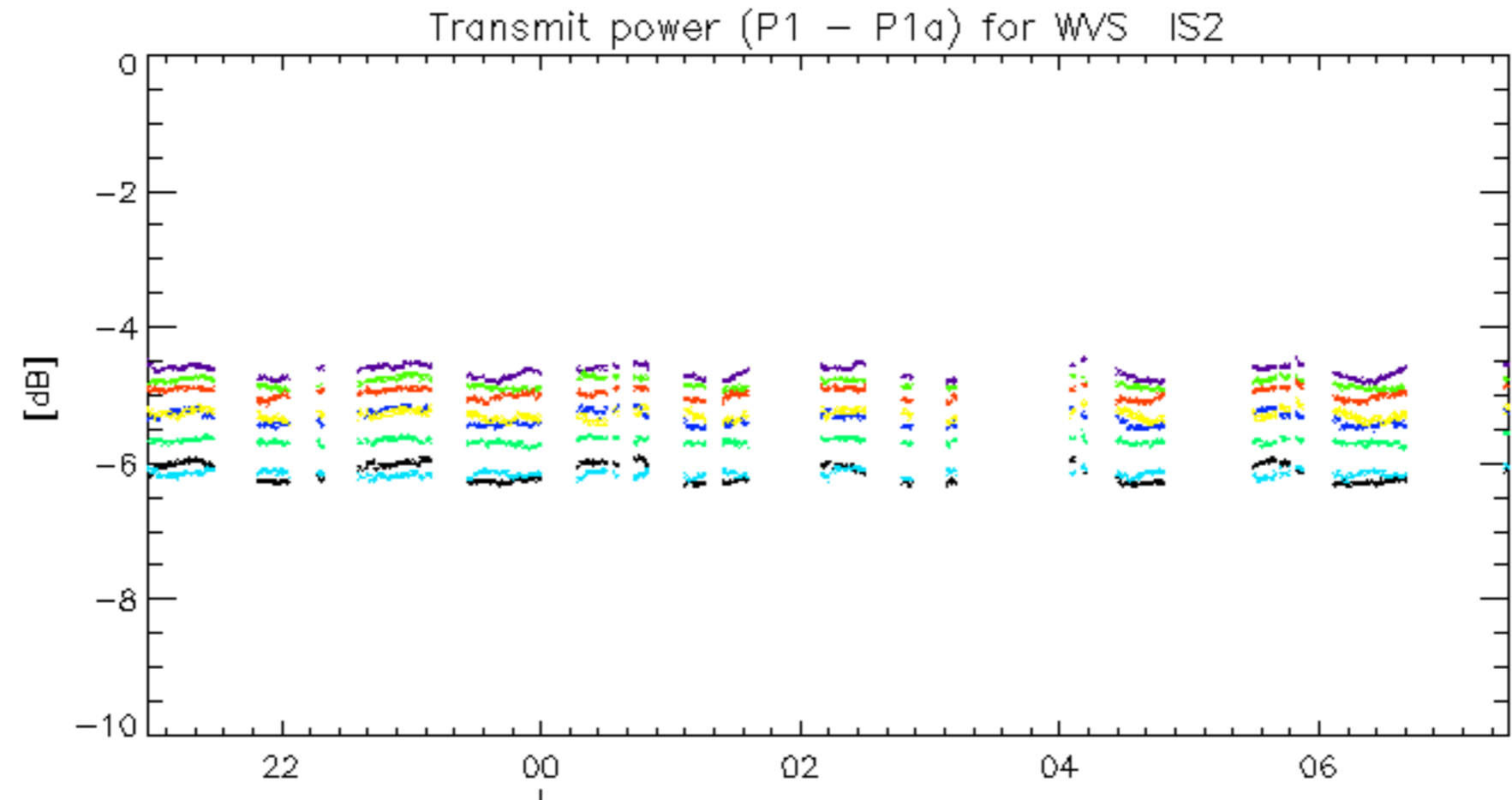


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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No unavailabilities during the reported period.