

PRELIMINARY REPORT OF 050520

last update on Fri May 20 10:58:41 GMT 2005

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1 - Introduction

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2005-05-19 00:00:00 to 2005-05-20 10:58:41

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	0	0	16	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	0	0	16	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	0	0	16	0	0

ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	0	0	16	0	0
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	0	0	33	11	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	0	0	33	11	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	0	0	33	11	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	0	0	33	11	0

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	20050506 055519
H	20050505 062656

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for IMM

Evolution of cal pulses for IMM

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☒

4.1.2 - Evolution for WSM

Evolution of cal pulses for WSM

4.2 - Cyclic statistics

4.2.1 - Evolution for IMM

Evolution of cal pulses for IMM

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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	-3.06649	0.013303	0.034142
7	P1	-2.917894	0.030756	-0.035043
11	P1	-4.435621	0.097379	-0.024434
15	P1	-5.355900	0.096833	0.095420
19	P1	-3.446363	0.017555	0.005686
22	P1	-4.192814	0.029164	-0.083203
26	P1	-4.498779	0.032012	0.102261
30	P1	-6.710079	0.018617	0.066640
3	P1	-15.574553	0.189151	0.129361
7	P1	-15.356044	0.113247	0.020782
11	P1	-20.980227	0.712605	-0.155954
15	P1	-11.210535	0.139946	0.271535
19	P1	-13.934497	0.119859	0.035986
22	P1	-15.425888	0.446751	-0.271774
26	P1	-17.181335	0.426317	0.208474
30	P1	-17.745045	0.578399	0.387204

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.638889	0.120156	0.028415
7	P2	-21.814957	0.034038	0.134171
11	P2	-13.664416	0.647126	0.081293
15	P2	-6.283997	0.363902	-0.006693
19	P2	-8.701852	0.331362	0.036318
22	P2	-16.275436	0.194664	0.058385
26	P2	-15.857788	0.205501	0.009981
30	P2	-18.393850	0.012522	0.029753

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.920318	0.001568	0.018958
7	P3	-7.920206	0.001573	0.018755
11	P3	-7.920179	0.001578	0.018465
15	P3	-7.920245	0.001571	0.019263

19	P3	-7.920233	0.001573	0.019150
22	P3	-7.920345	0.001569	0.018864
26	P3	-7.920247	0.001581	0.019062
30	P3	-7.920344	0.001573	0.018890

4.2.2 - Evolution for WSM

Evolution of cal pulses for WSM



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	-2.938981	0.107302	0.043916
7	P1	-2.519429	0.206379	-0.129223
11	P1	-3.850390	0.045666	-0.099555
15	P1	-4.228297	1.028769	-0.052797
19	P1	-3.366540	0.038048	-0.015712
22	P1	-5.539780	0.063425	-0.089124
26	P1	-6.047225	1.049615	-0.024246
30	P1	-6.120216	0.093805	0.011304
3	P1	-10.807883	0.211764	-0.166116
7	P1	-9.609134	0.464157	-0.193055
11	P1	-12.051595	0.281198	-0.047793
15	P1	-11.915590	0.380411	-0.269198
19	P1	-14.891811	0.649457	-0.063599
22	P1	-22.146955	11.980974	-0.555606
26	P1	-16.730707	3.791044	0.936968
30	P1	-20.733692	3.788630	0.287185

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P2	-17.426992	0.118185	0.178580
7	P2	-21.988733	0.150106	0.166485
11	P2	-9.617677	0.226724	0.232717
15	P2	-4.885788	0.090395	0.145161
19	P2	-6.815560	0.066887	0.161678
22	P2	-6.860737	0.074596	0.266795
26	P2	-23.492138	0.215347	-0.013472
30	P2	-21.618847	0.171129	0.120131

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.958436	0.004138	0.012673
7	P3	-7.958454	0.004143	0.012176
11	P3	-7.958397	0.004136	0.012548
15	P3	-7.958444	0.004135	0.012543
19	P3	-7.958473	0.004132	0.012566
22	P3	-7.958444	0.004143	0.012485
26	P3	-7.958446	0.004144	0.012572
30	P3	-7.958439	0.004139	0.012413

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for IMM



4.3.2 - Evolution for WSM

5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000440496

	stdev	2.31206e-07
MEAN Q	mean	0.000467328
	stdev	2.41398e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125884
	stdev	0.00104502
STDEV Q	mean	0.126125
	stdev	0.00105522



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005051[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
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7 - Doppler Analysis

Preliminary report. The data is not yet controlled

7.1 - Unbiased Doppler Error for IMM

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

7.2 - Absolute Doppler for IMM

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

7.3 - Doppler evolution versus ANX for IMM

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

7.4 - Unbiased Doppler Error for WSM

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

7.5 - Absolute Doppler for WSM

Evolution of Absolute Doppler

<input type="checkbox"/>

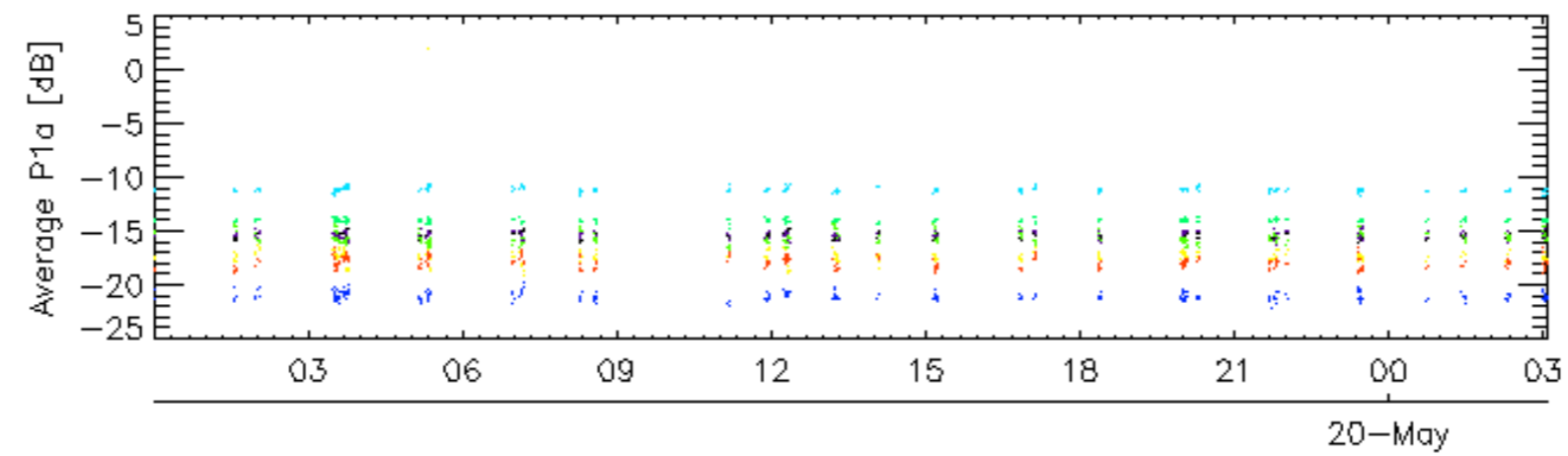
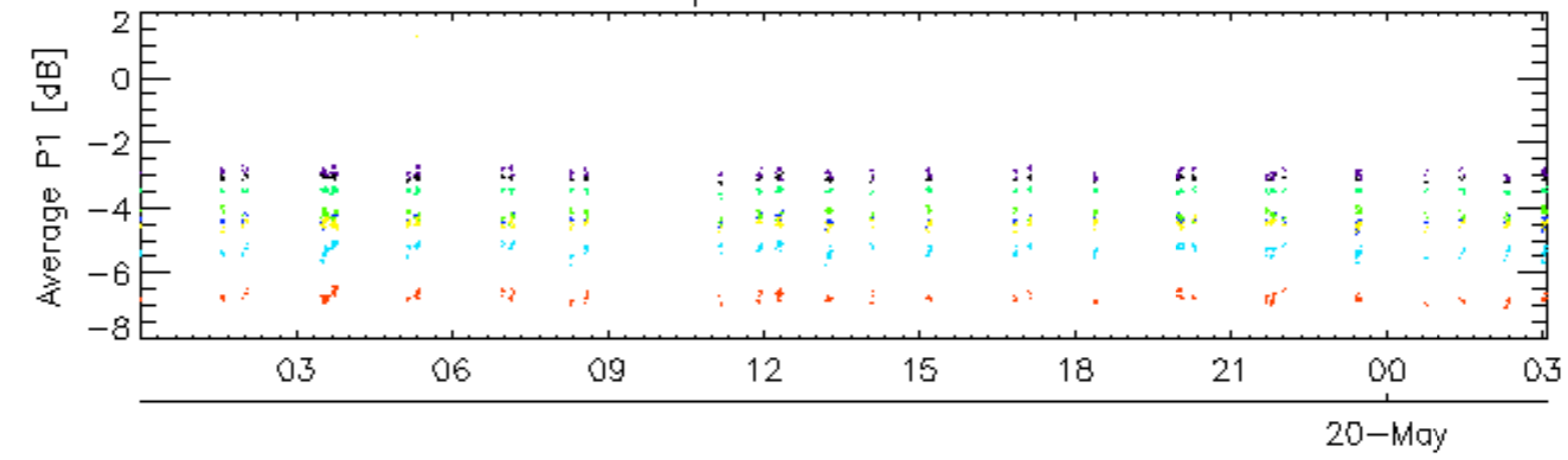
Ascending

<input type="checkbox"/>

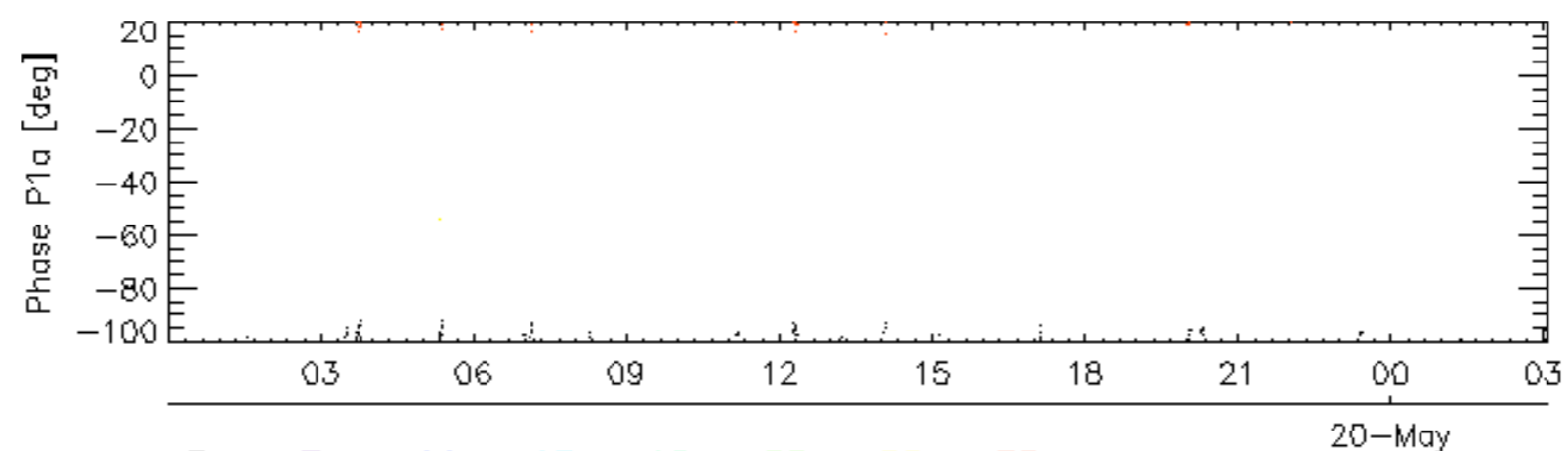
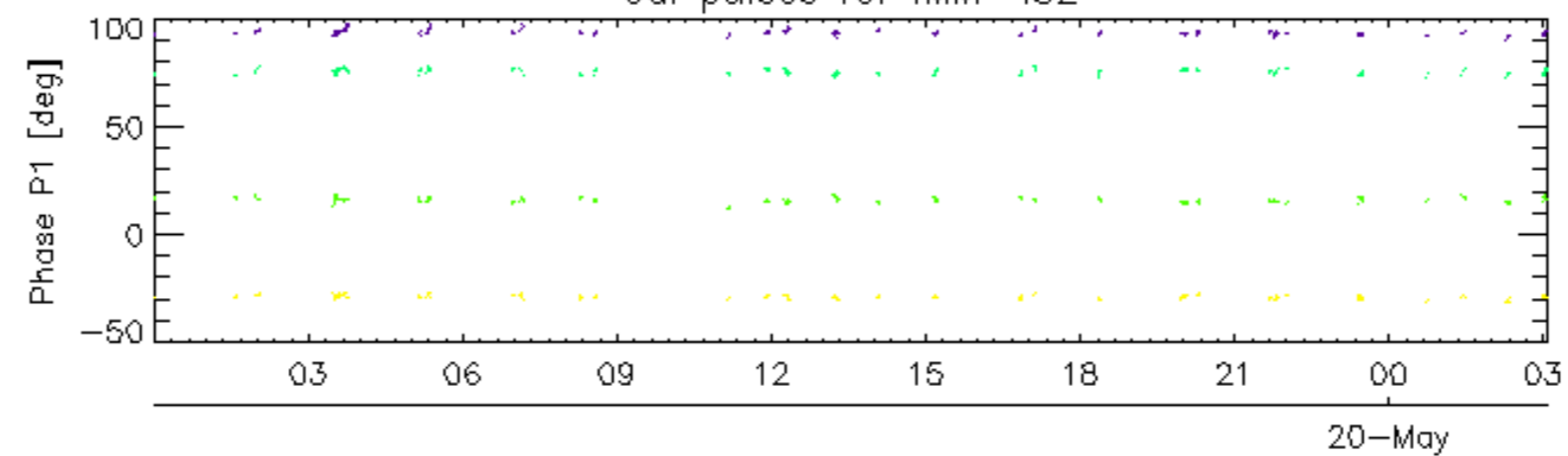
Descending

7.6 - Doppler evolution versus ANX for WSM

Cal pulses for IMM IS2

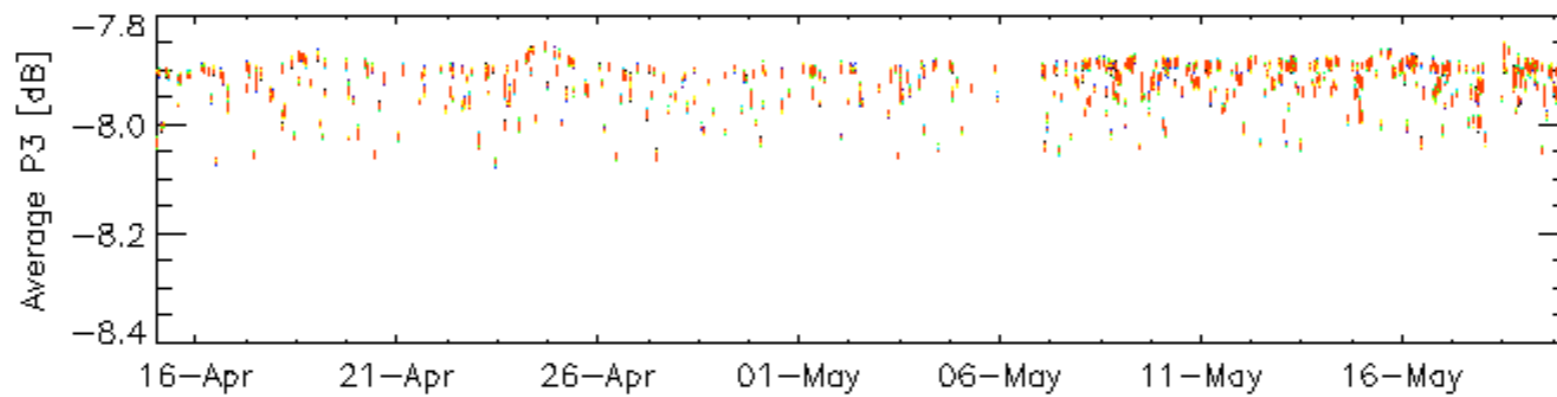
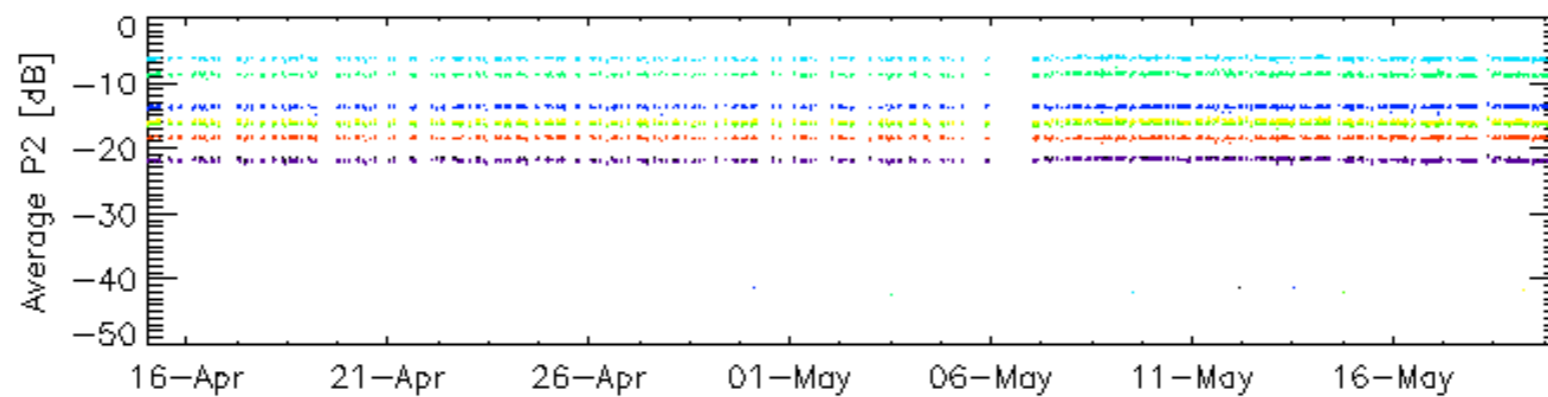
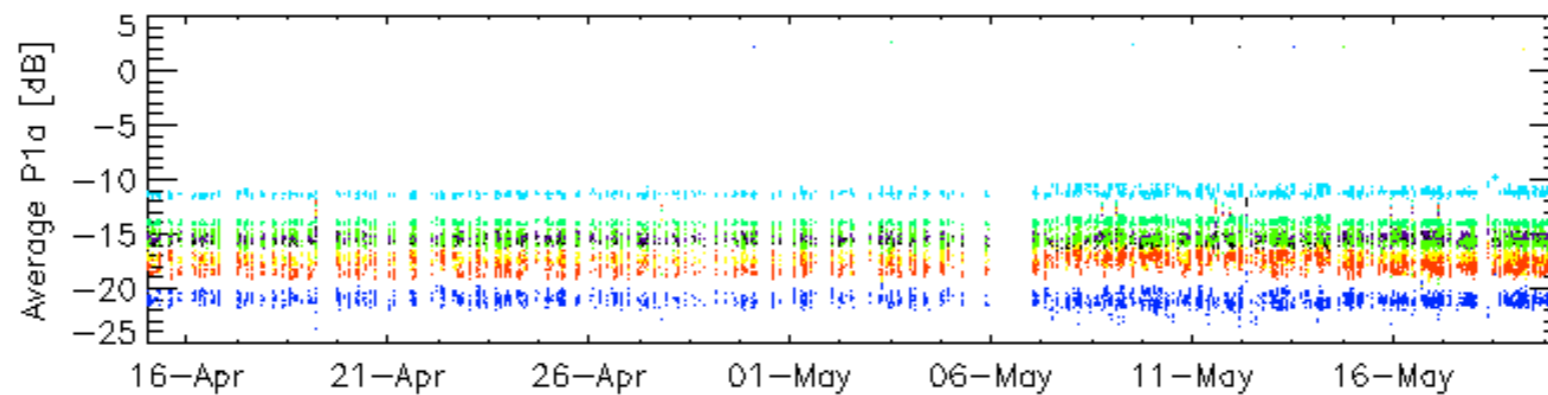
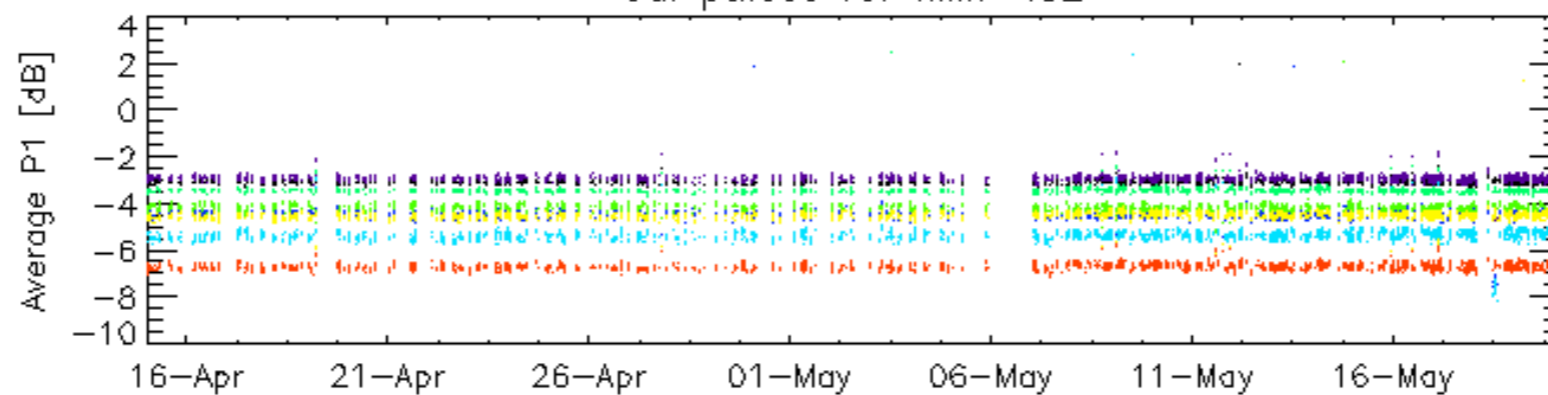


Cal pulses for IMM IS2



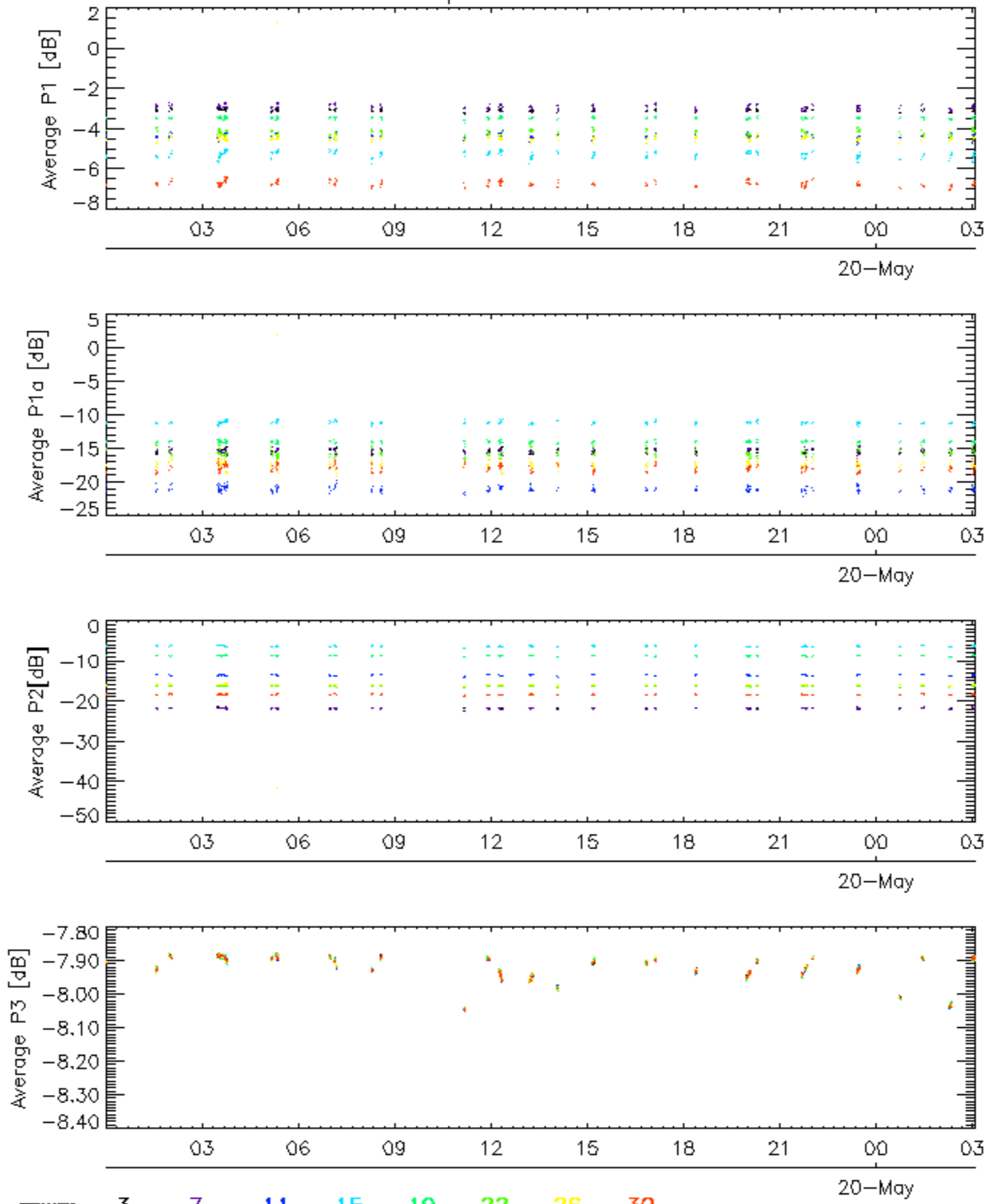
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for IMM IS2

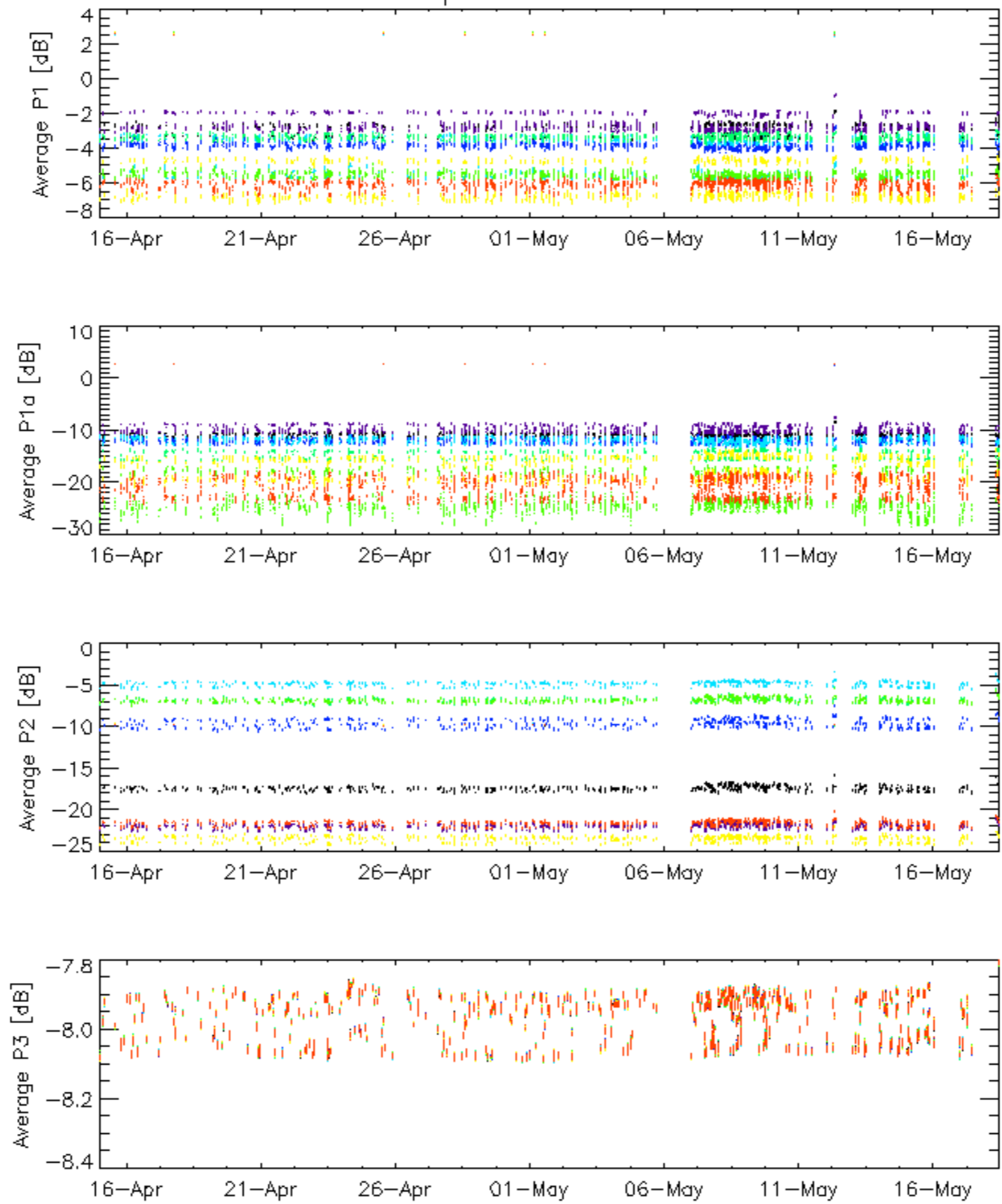


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for IMM IS2

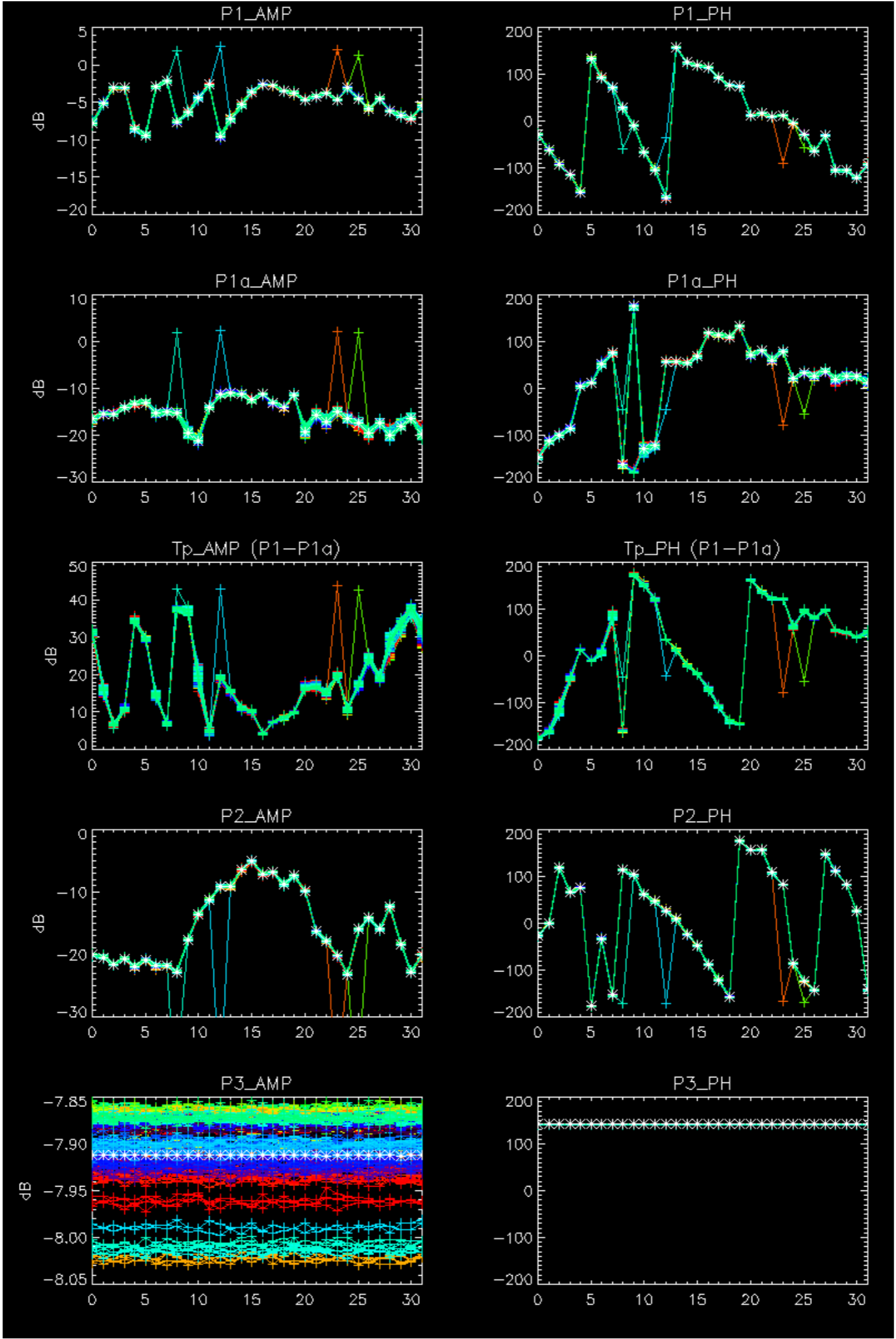


Cal pulses for WSM SS3



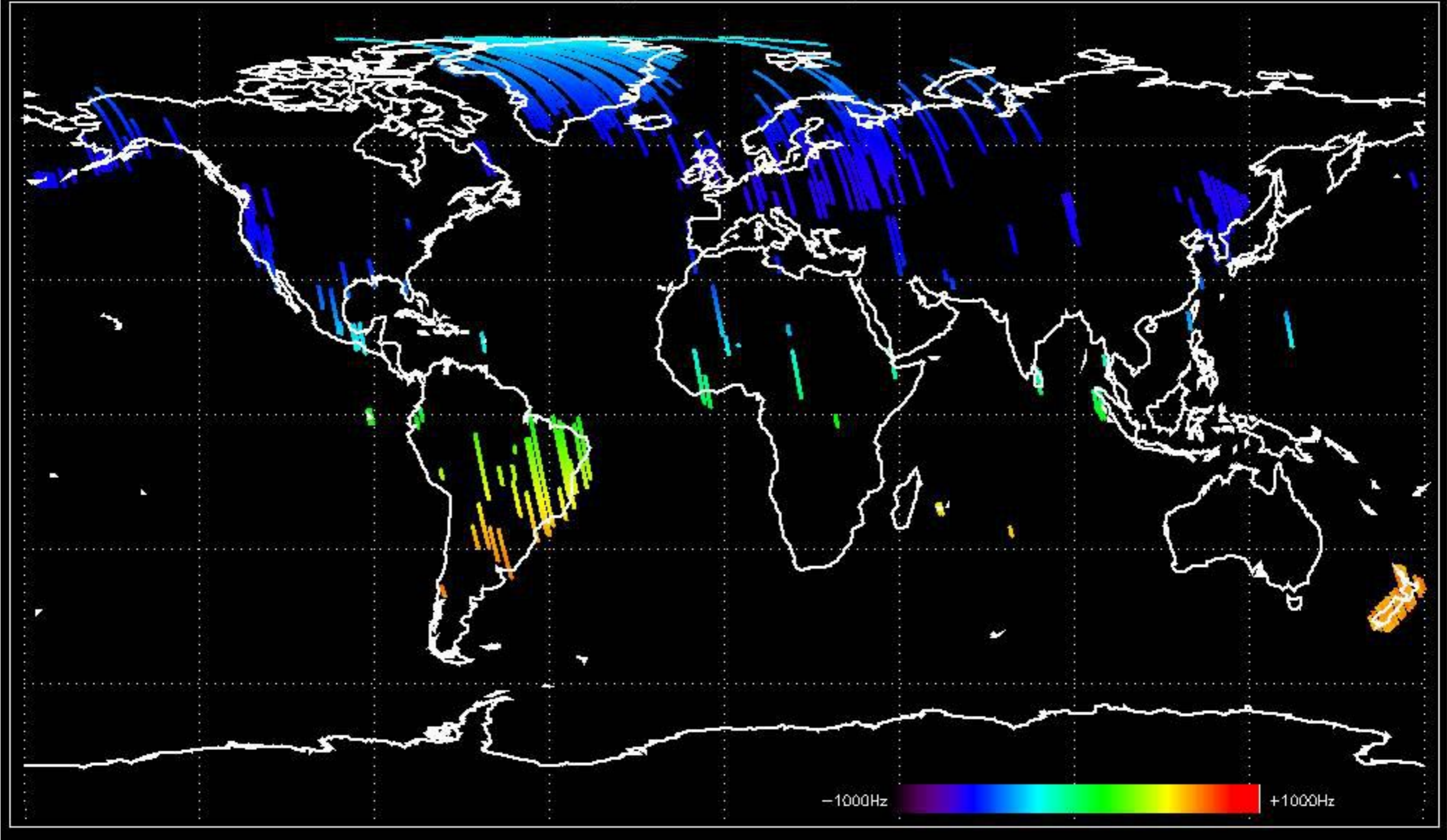
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No anomalies observed.

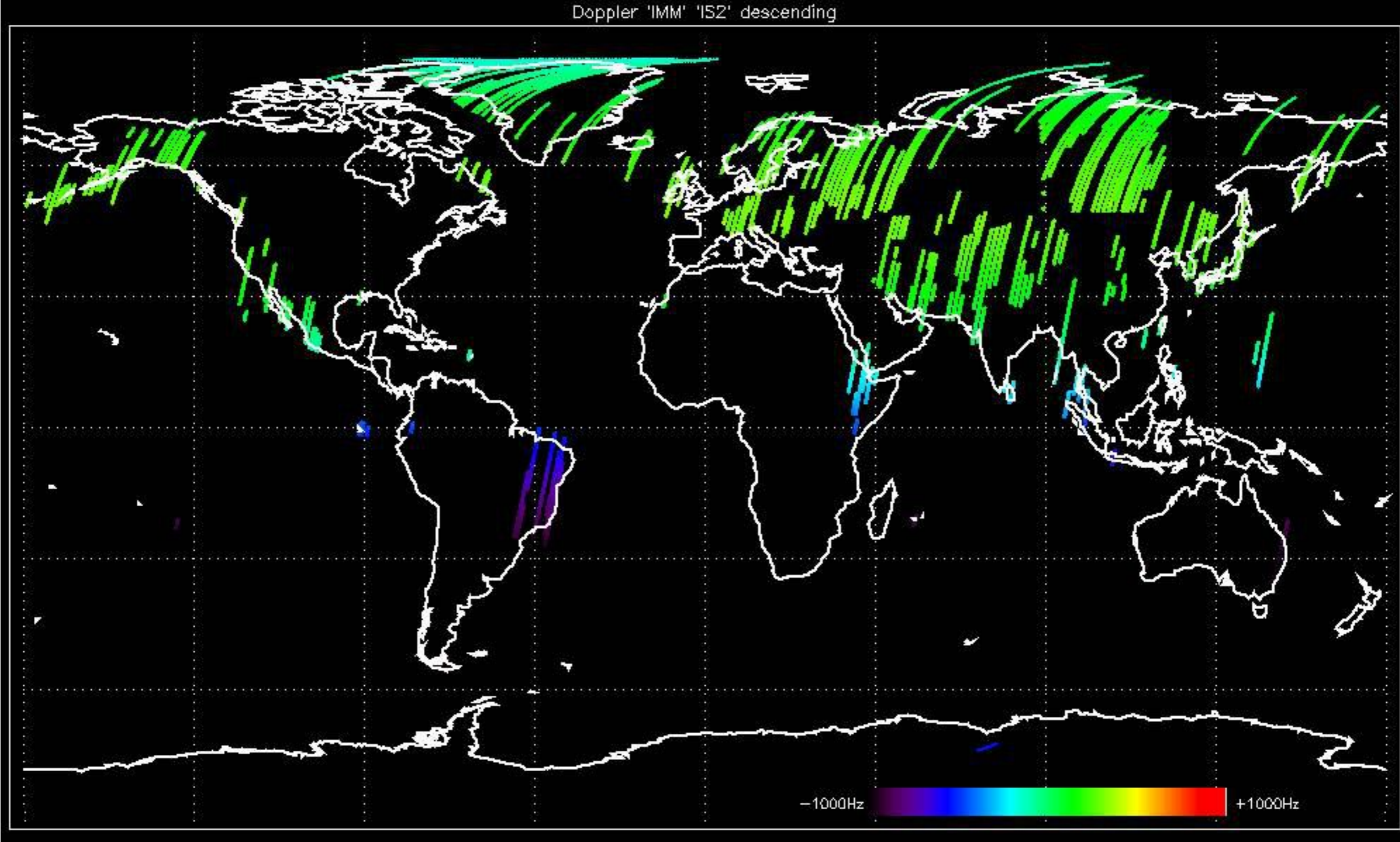


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

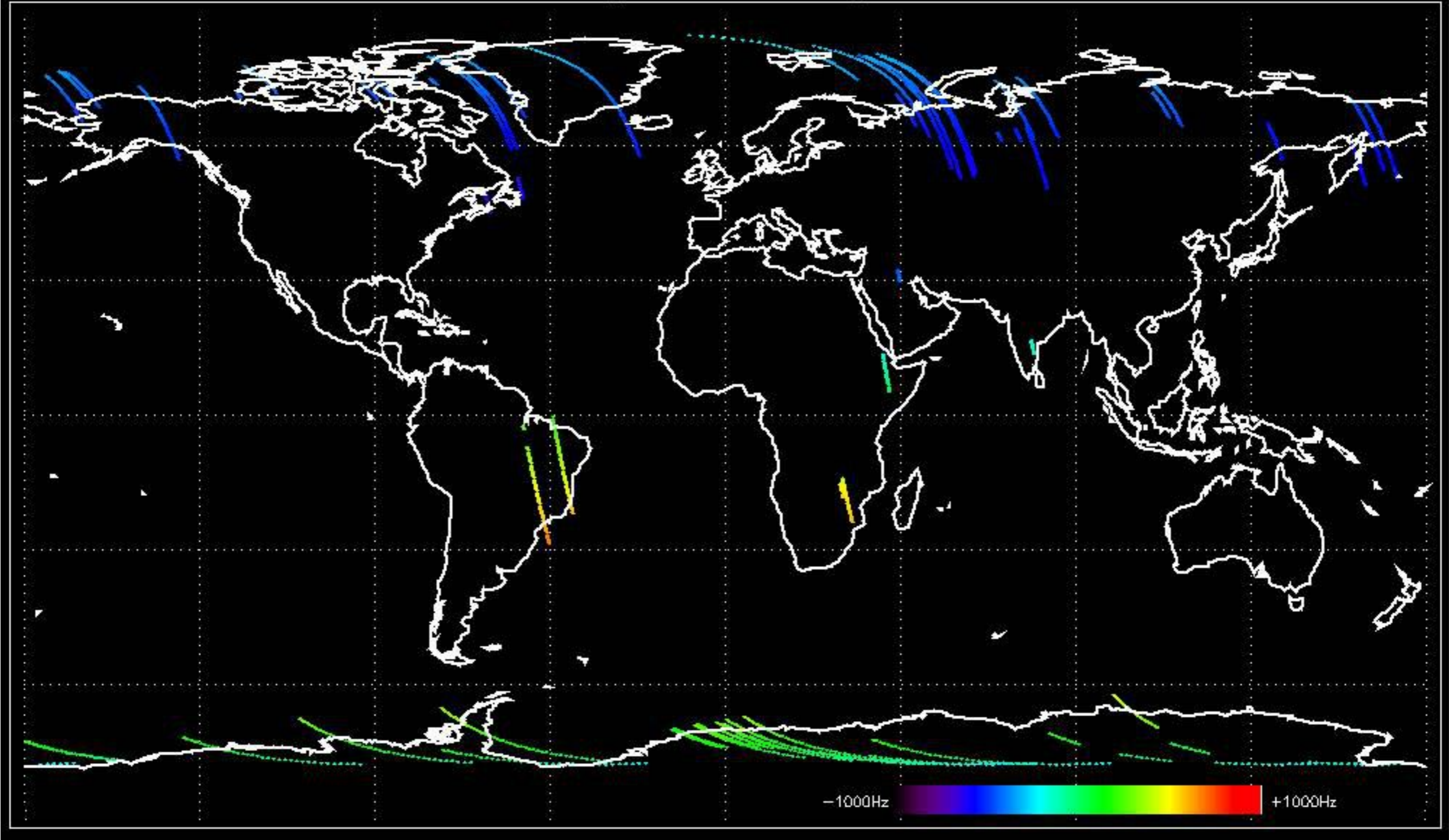
Doppler 'IMM' 'IS2' ascending



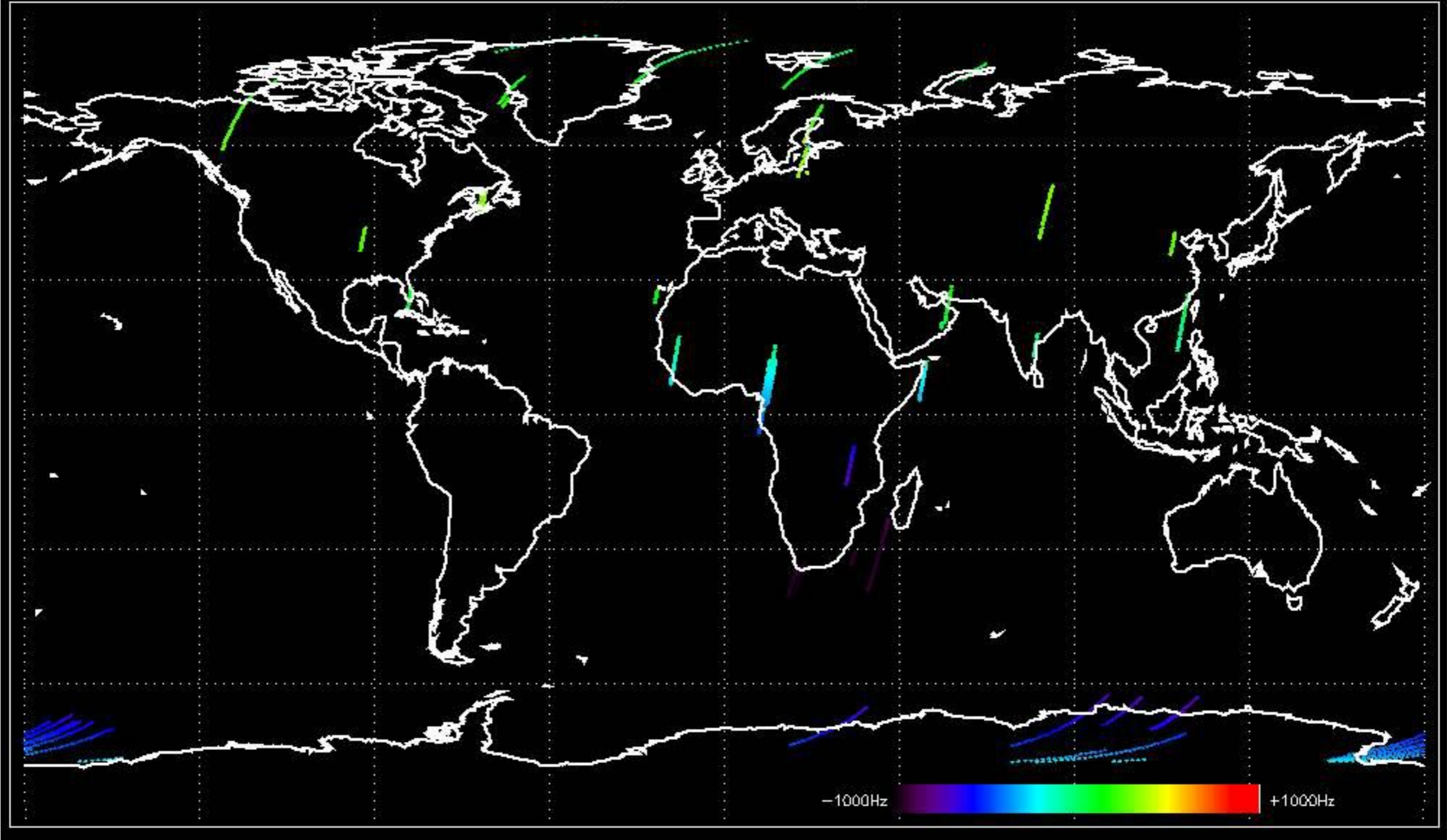
Doppler 'IMM' 'IS2' descending

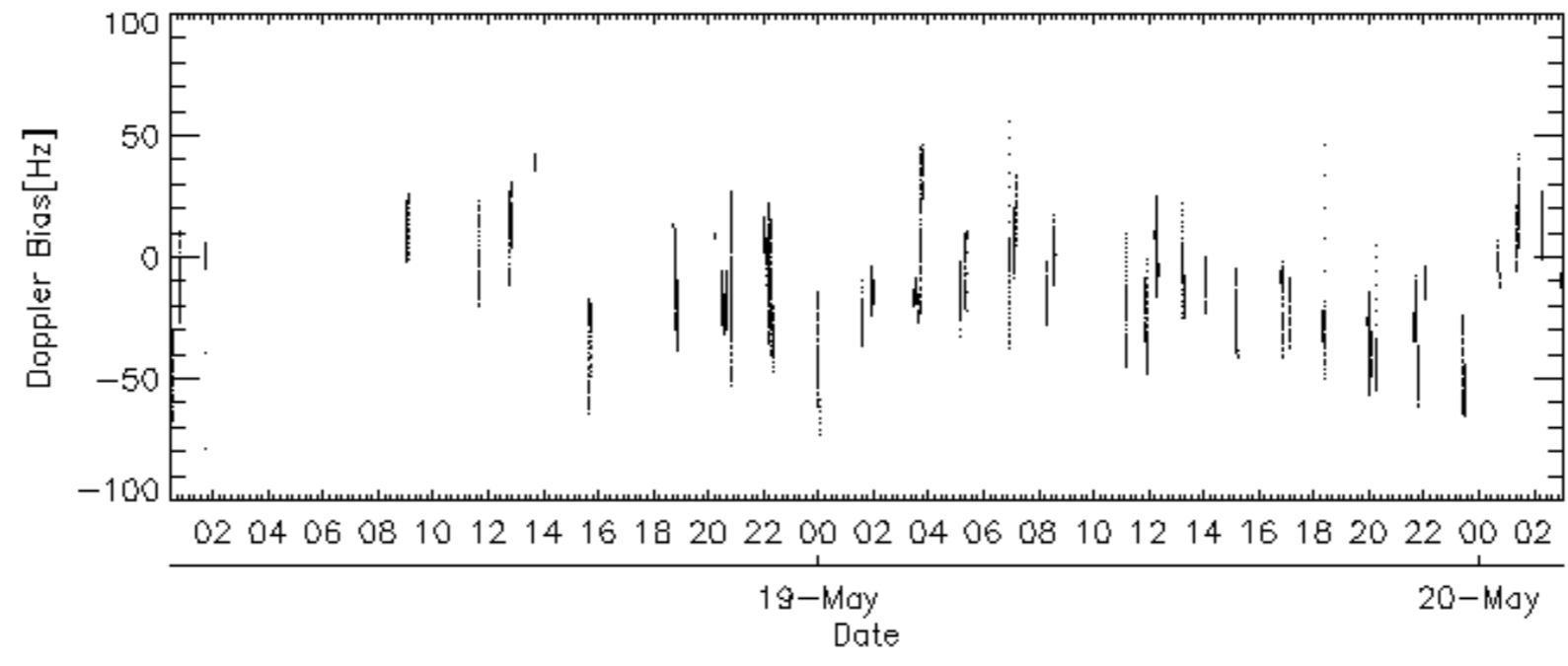
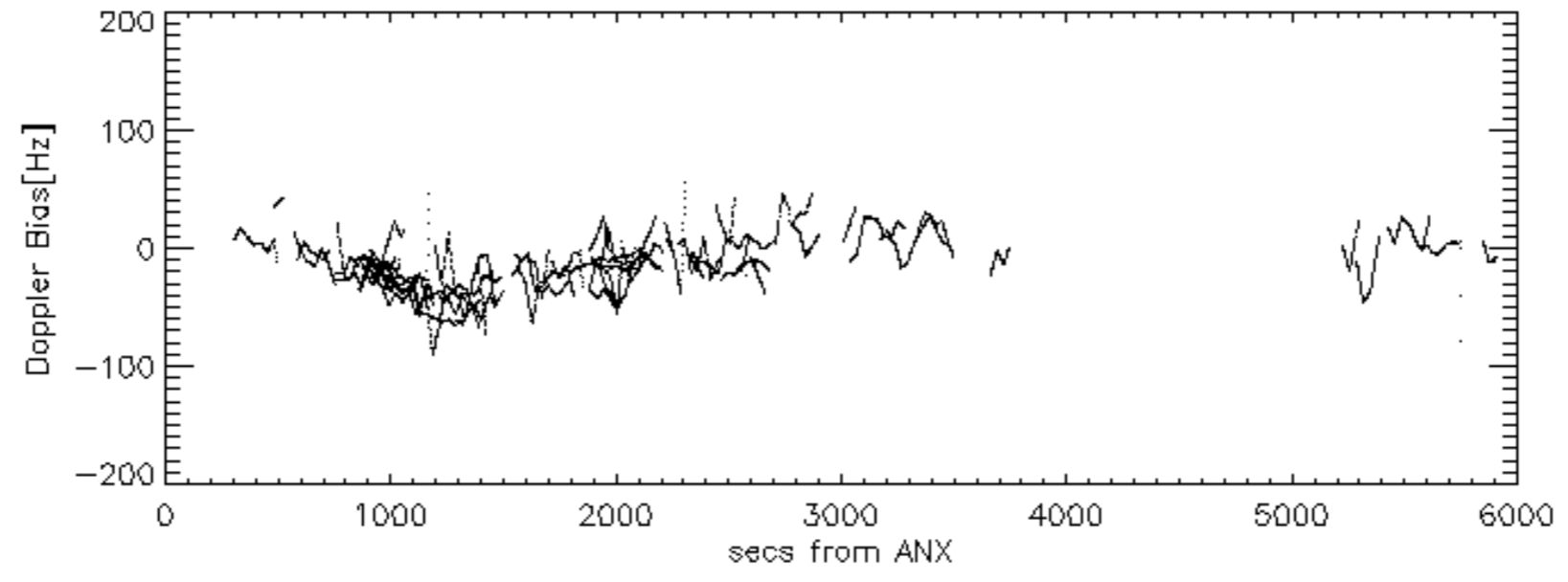
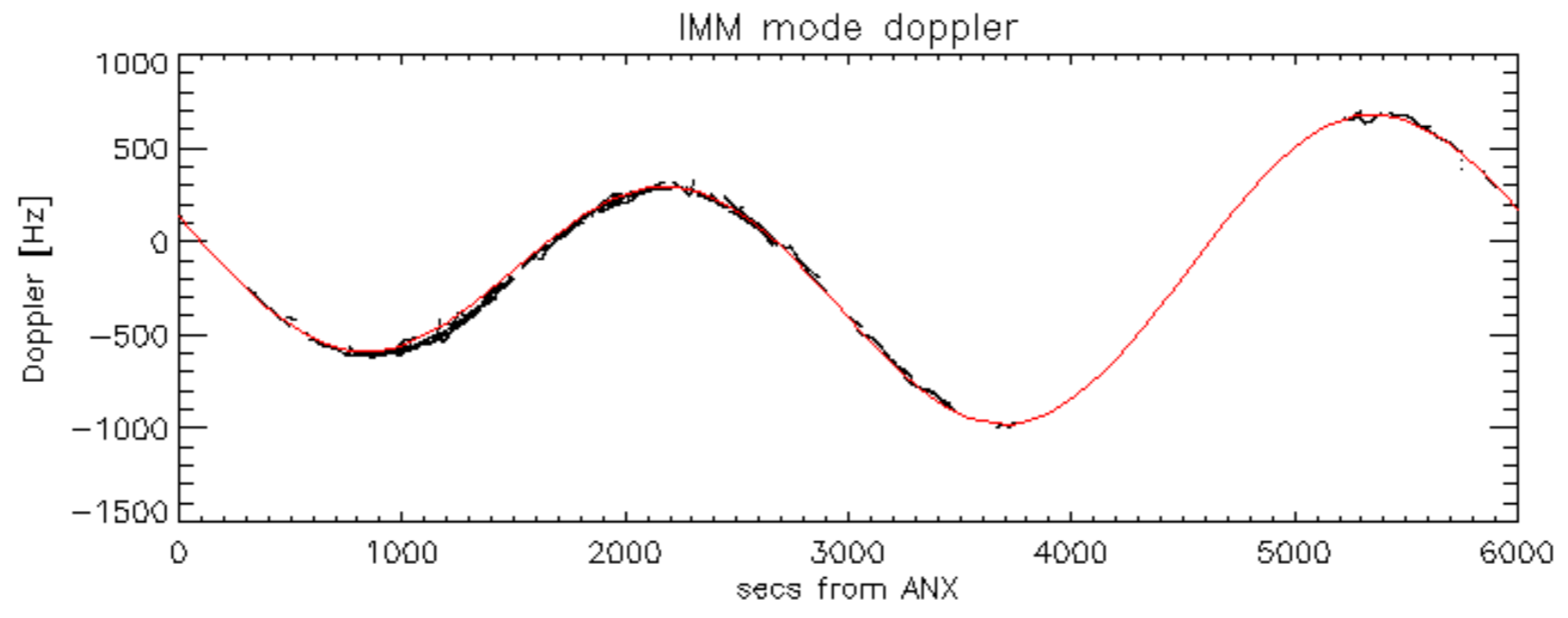


Doppler 'WSM' 'SS1' ascending

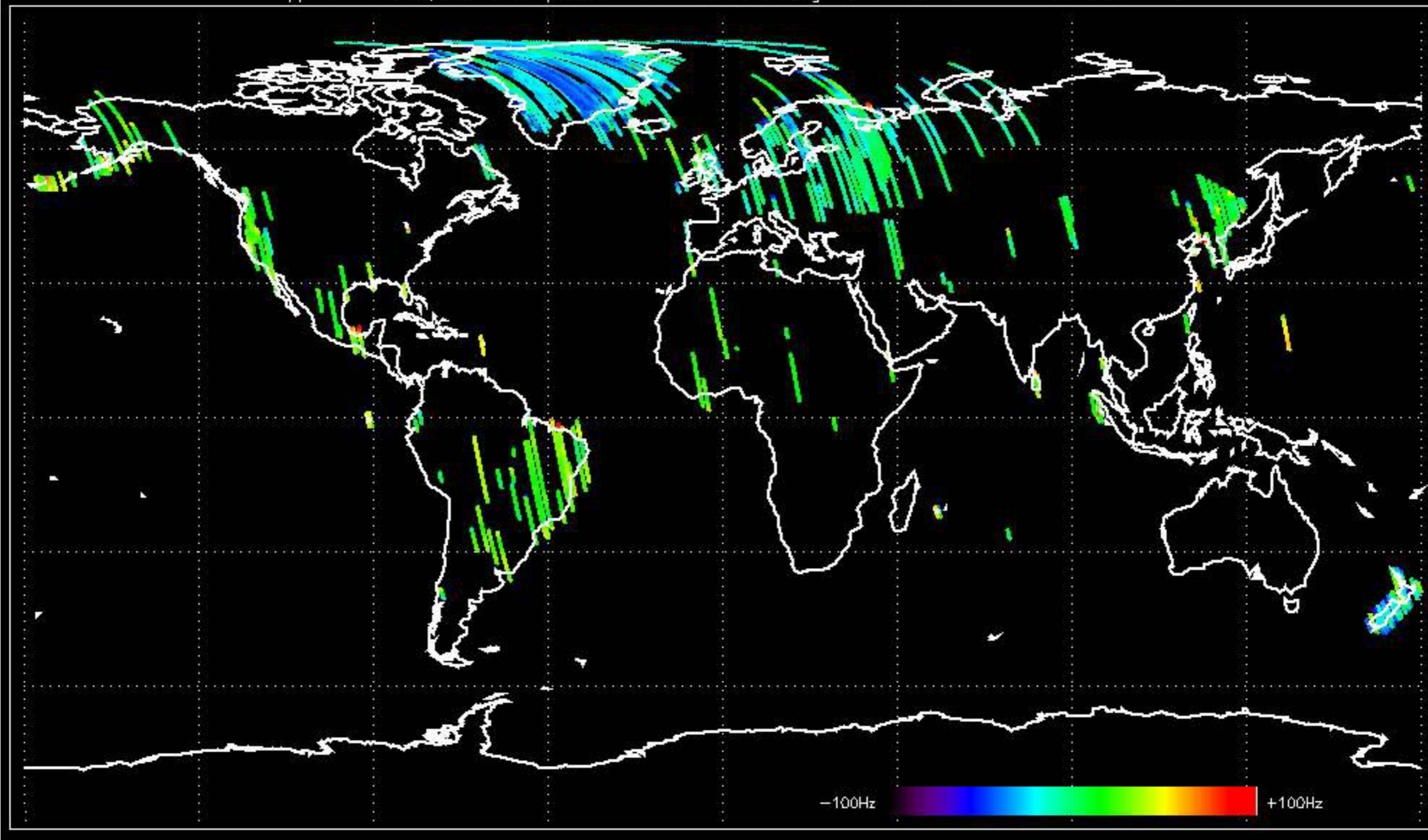


Doppler 'WSM' 'SS1' descending

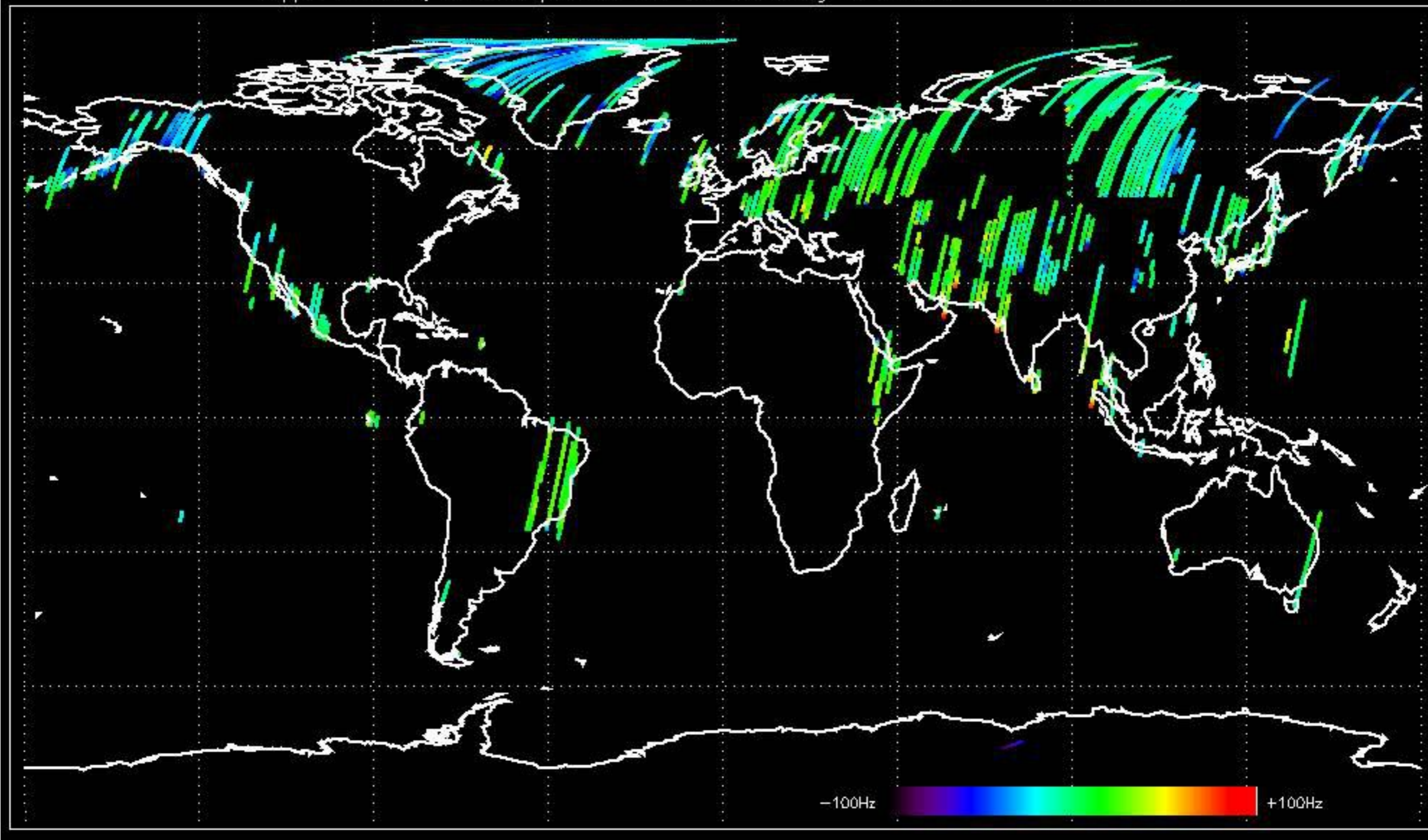




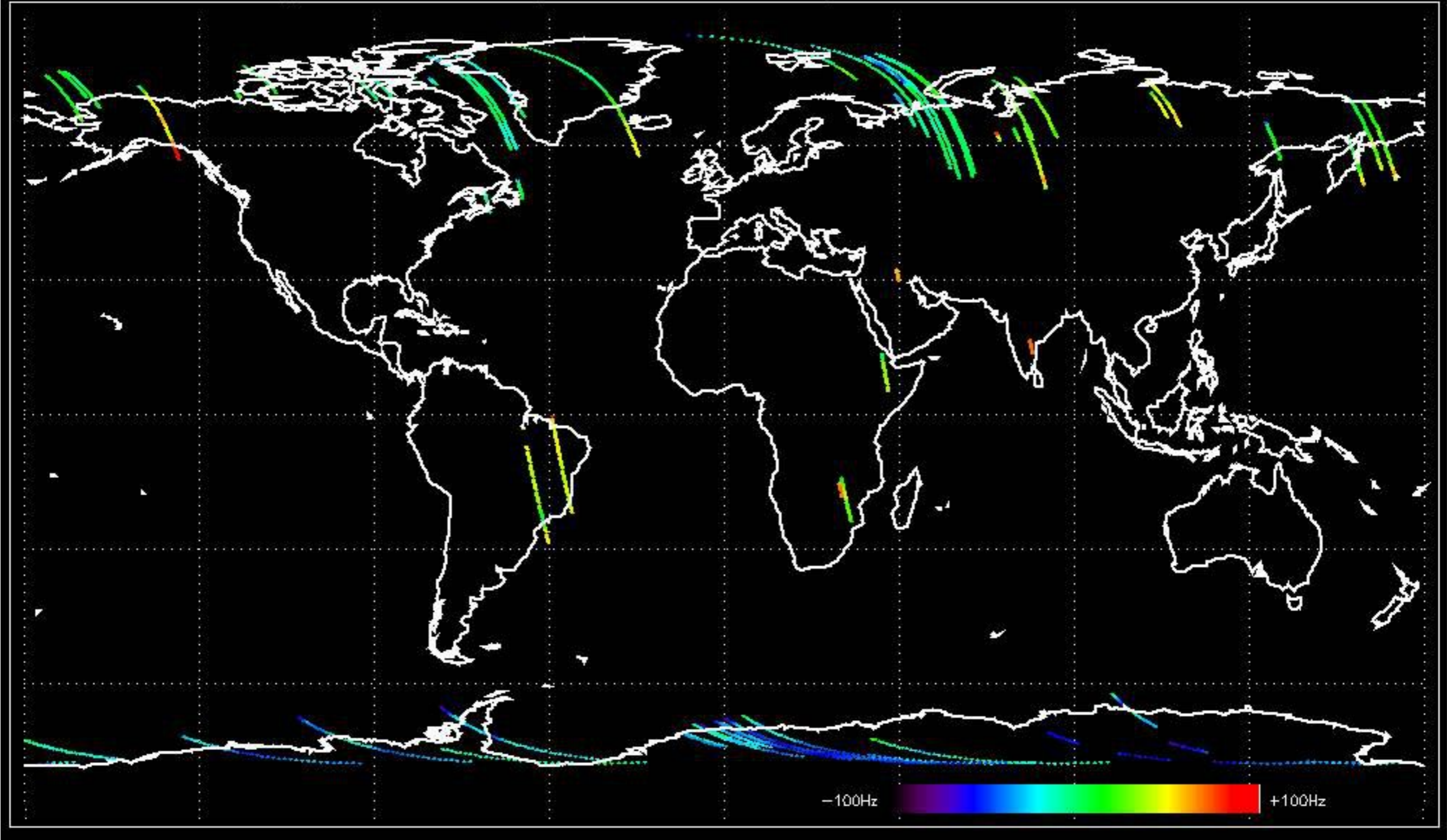
Doppler difference, estimated-predicted 'IMM' 'IS2' ascending -error mean of -16.358953 Hz



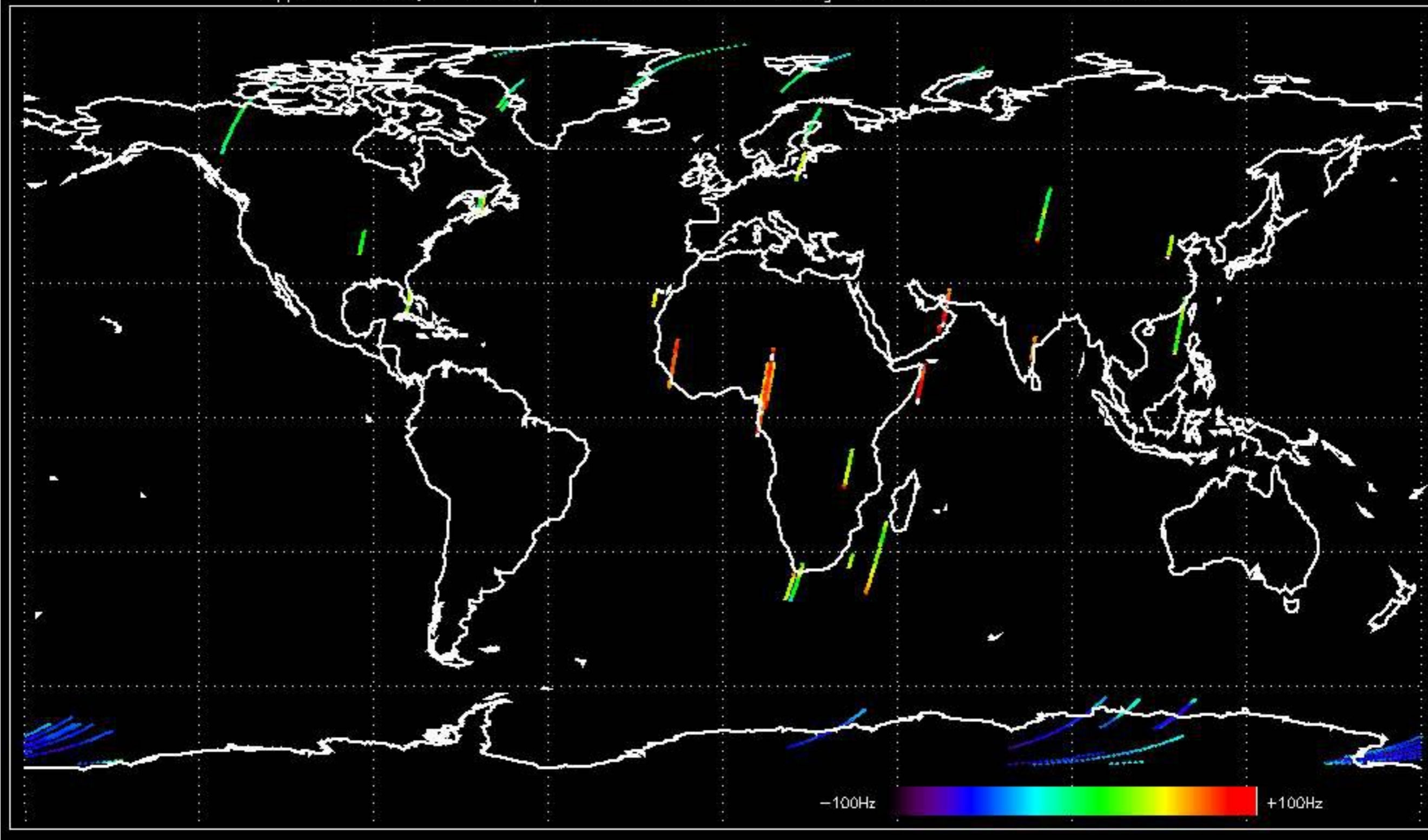
Doppler difference, estimated-predicted 'IMM' 'IS2' descending -error mean of -6.5410922 Hz



Doppler difference, estimated-predicted 'WSM' 'SS1' ascending -error mean of -37.409929 Hz

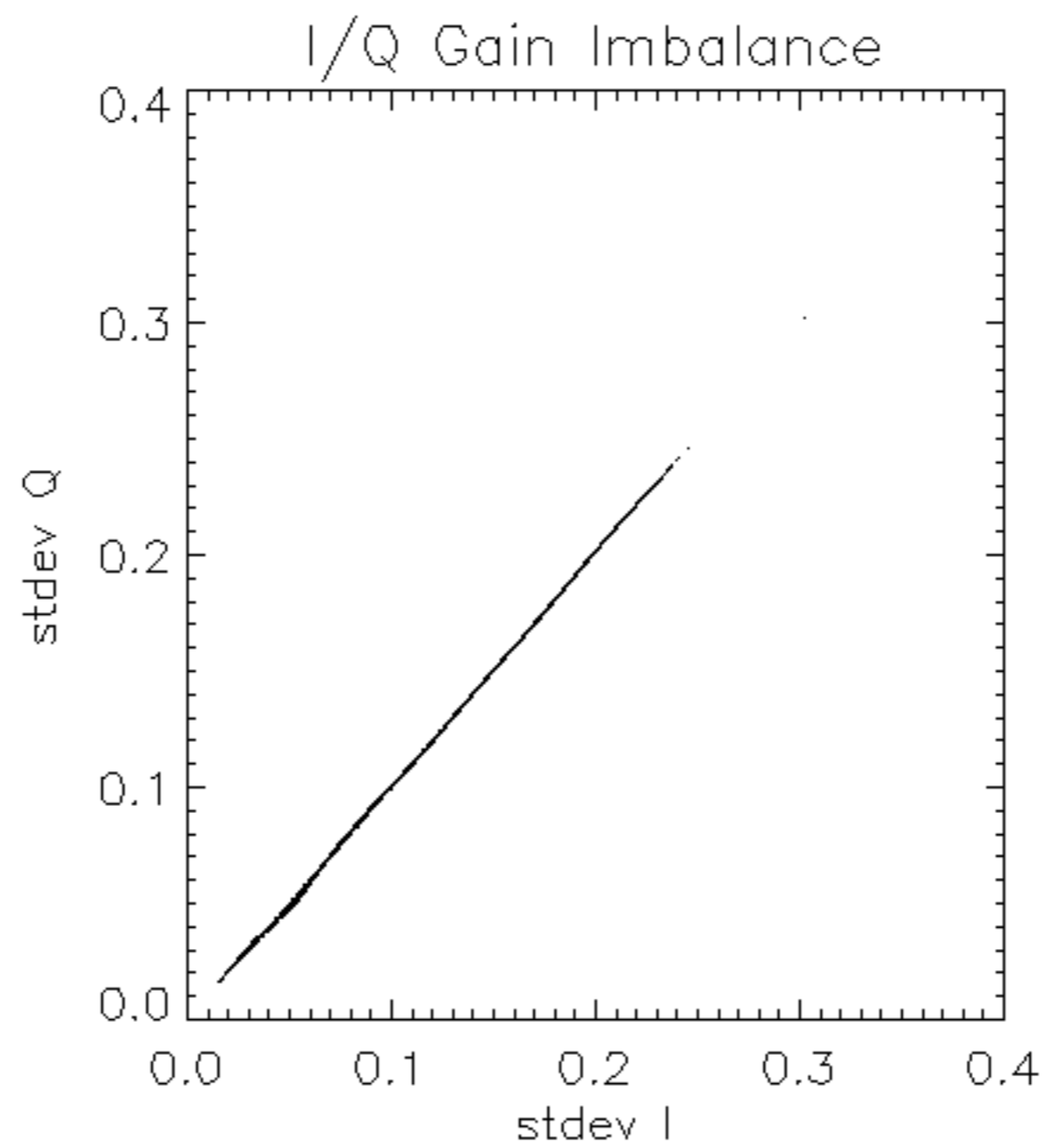


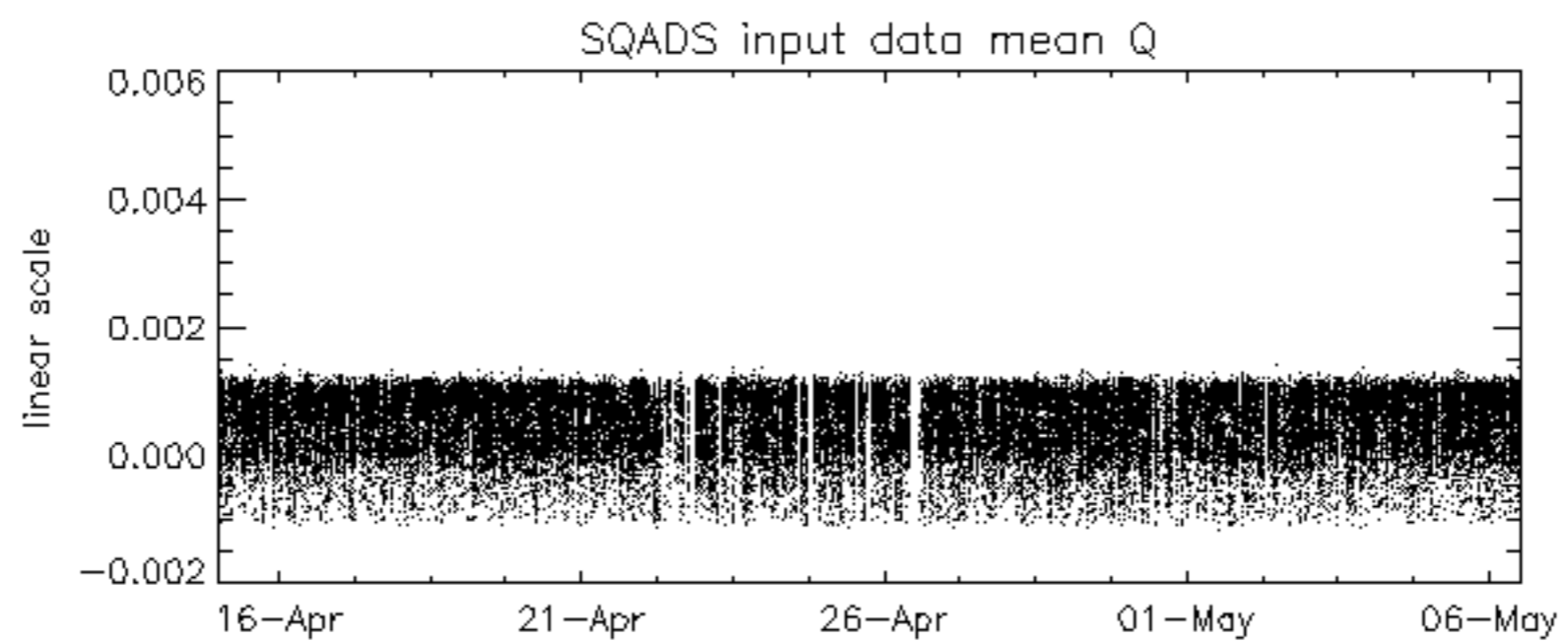
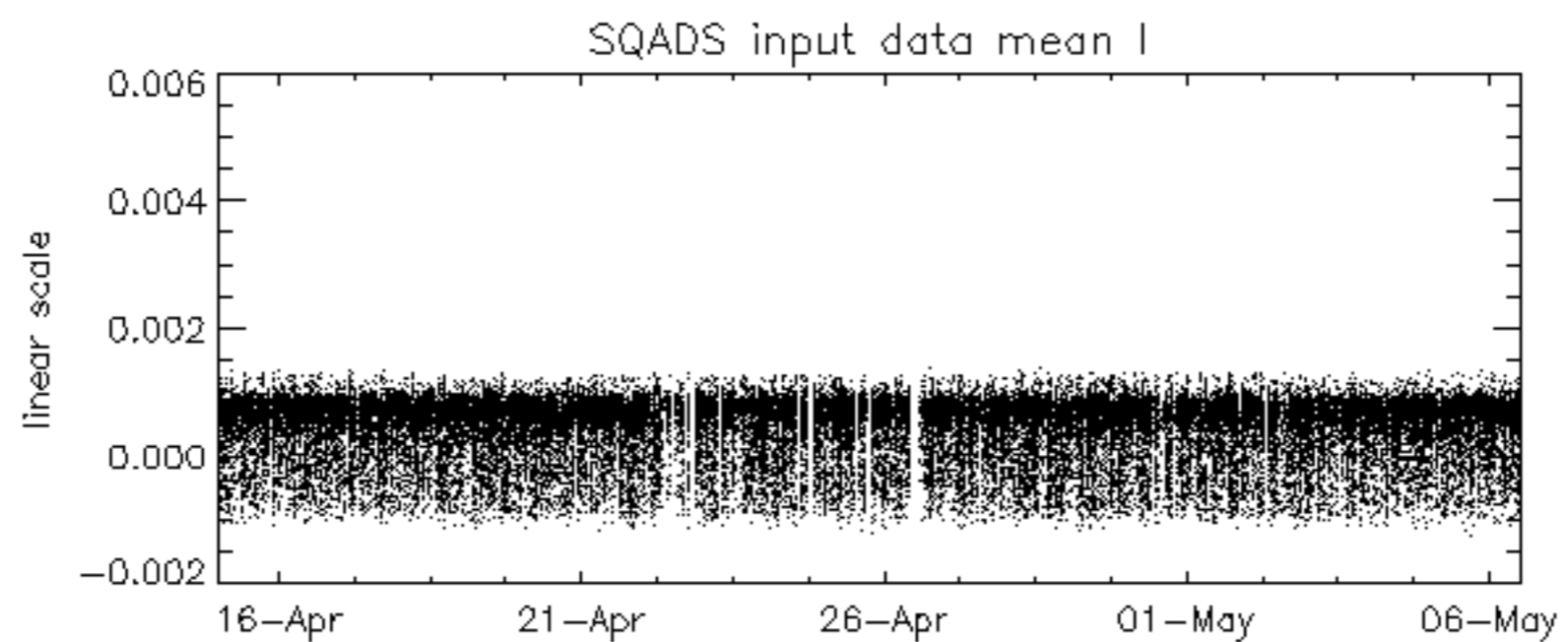
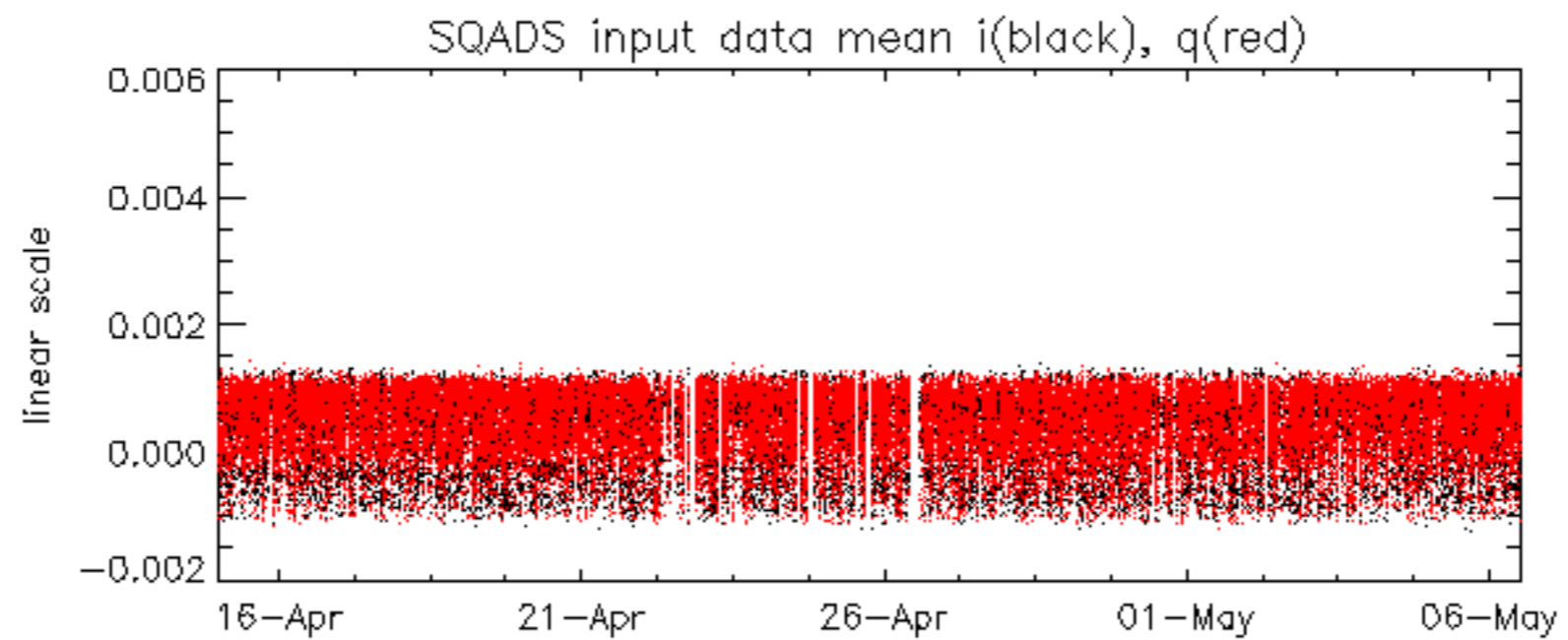
Doppler difference, estimated-predicted 'WSM' 'SS1' descending -error mean of -19.223140 Hz

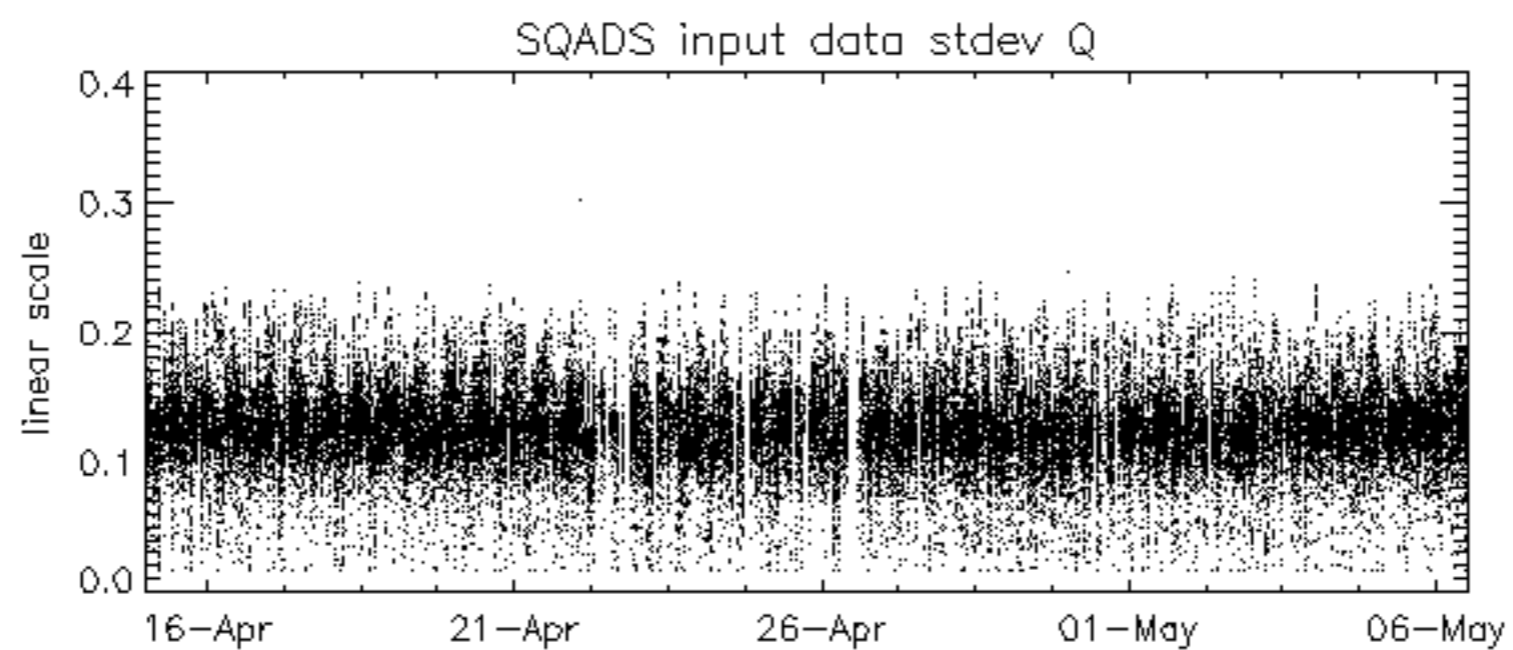
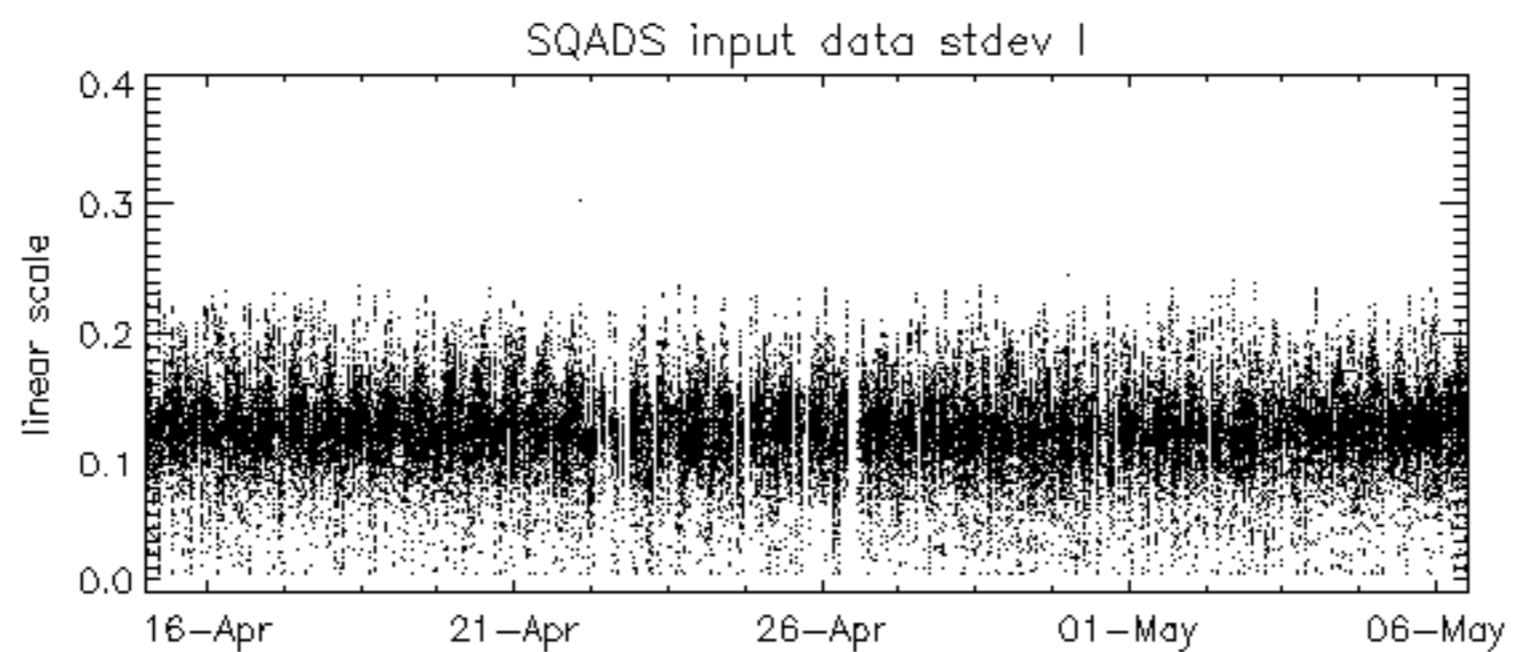
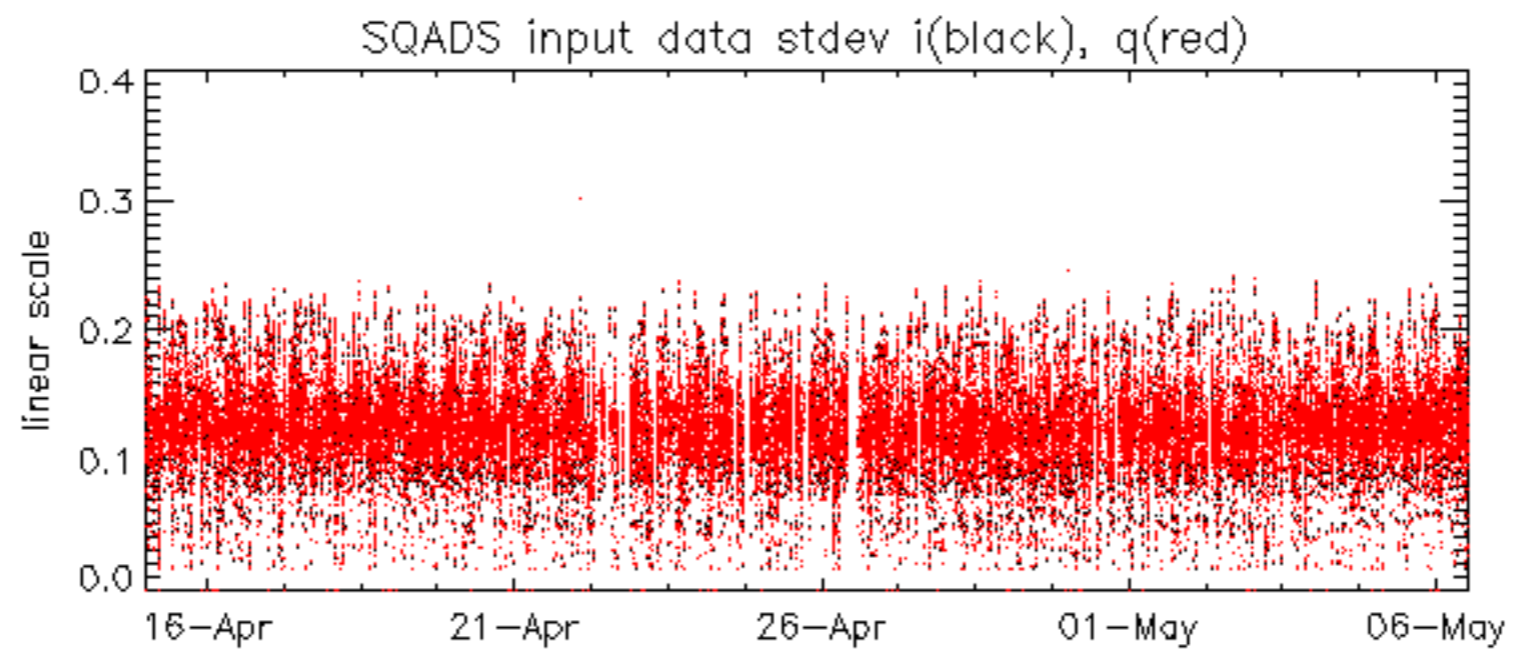


No anomalies observed on available MS products:

No anomalies observed.



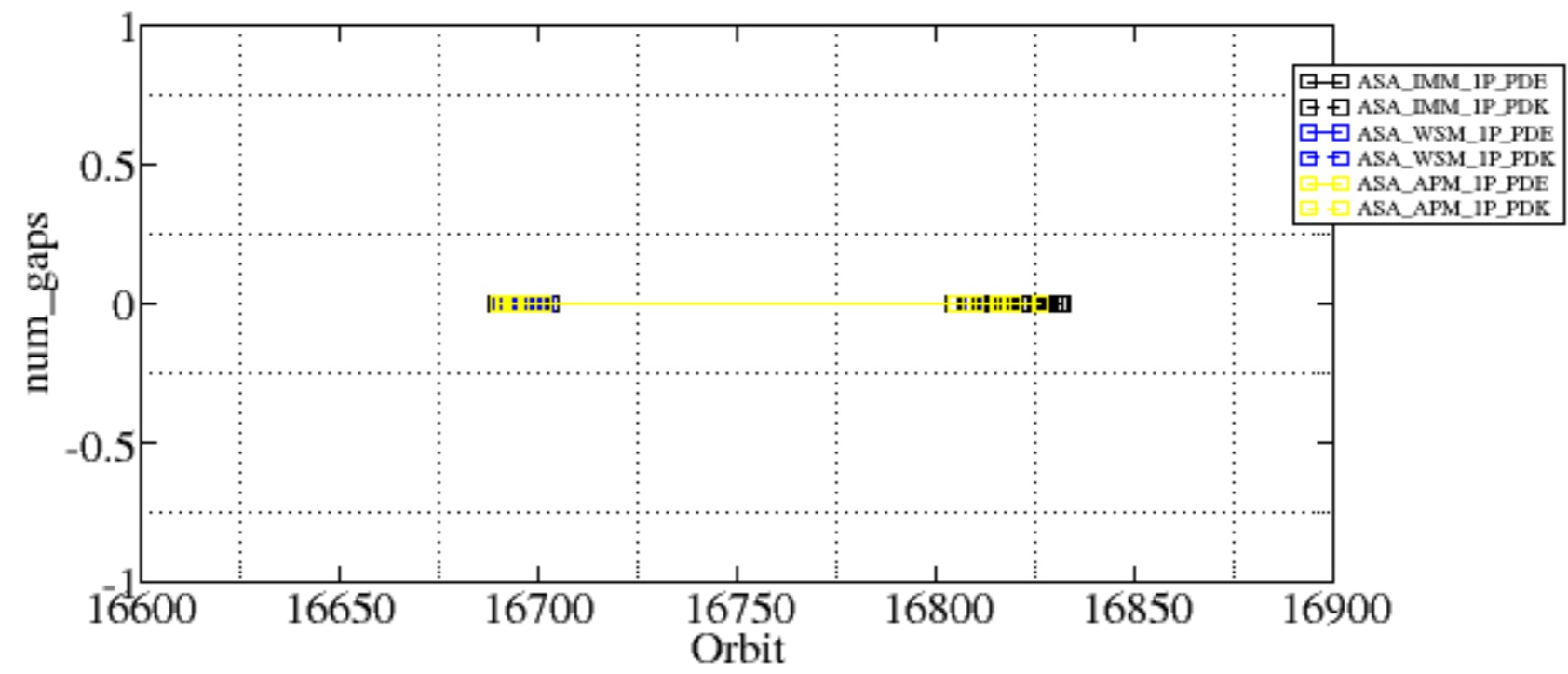


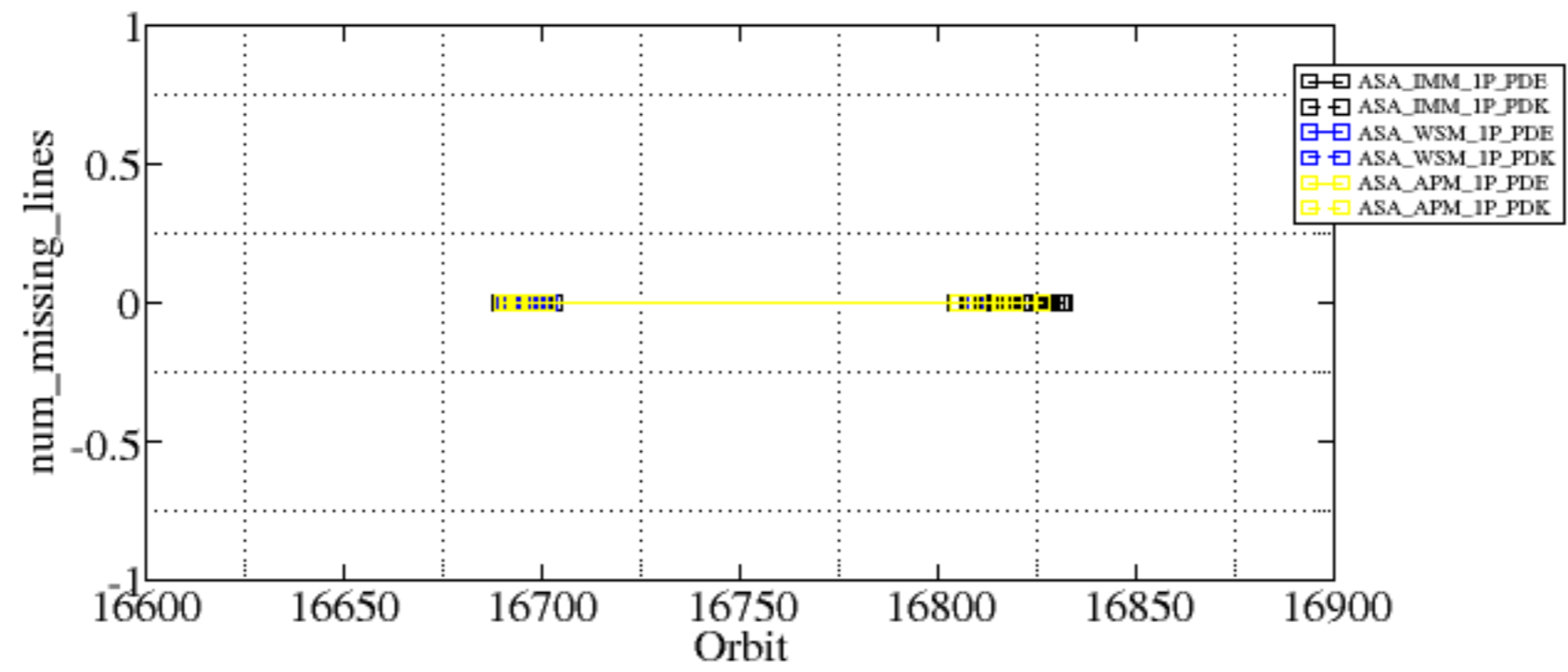


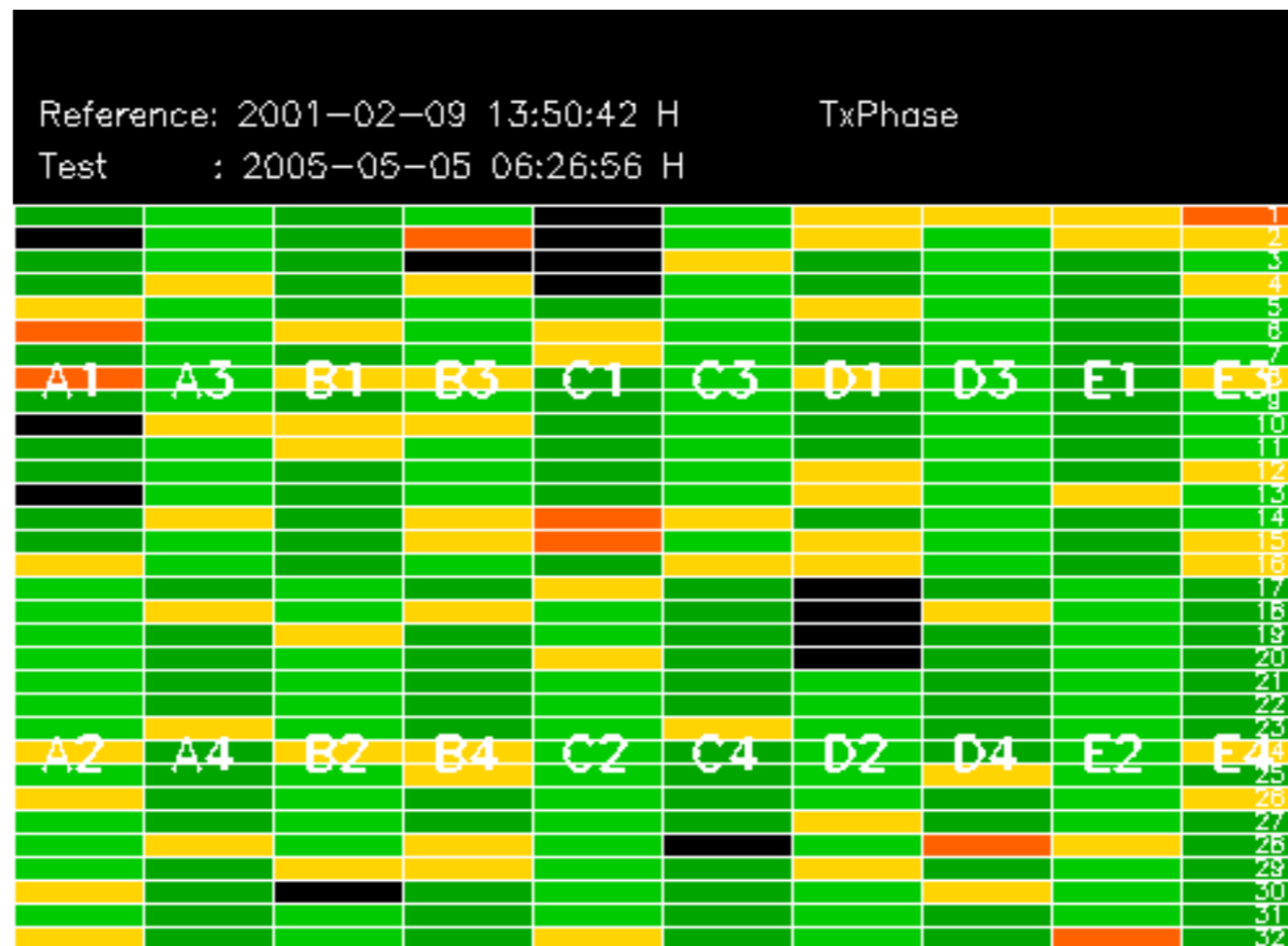
Summary of analysis for the last 3 days 2005051[890]

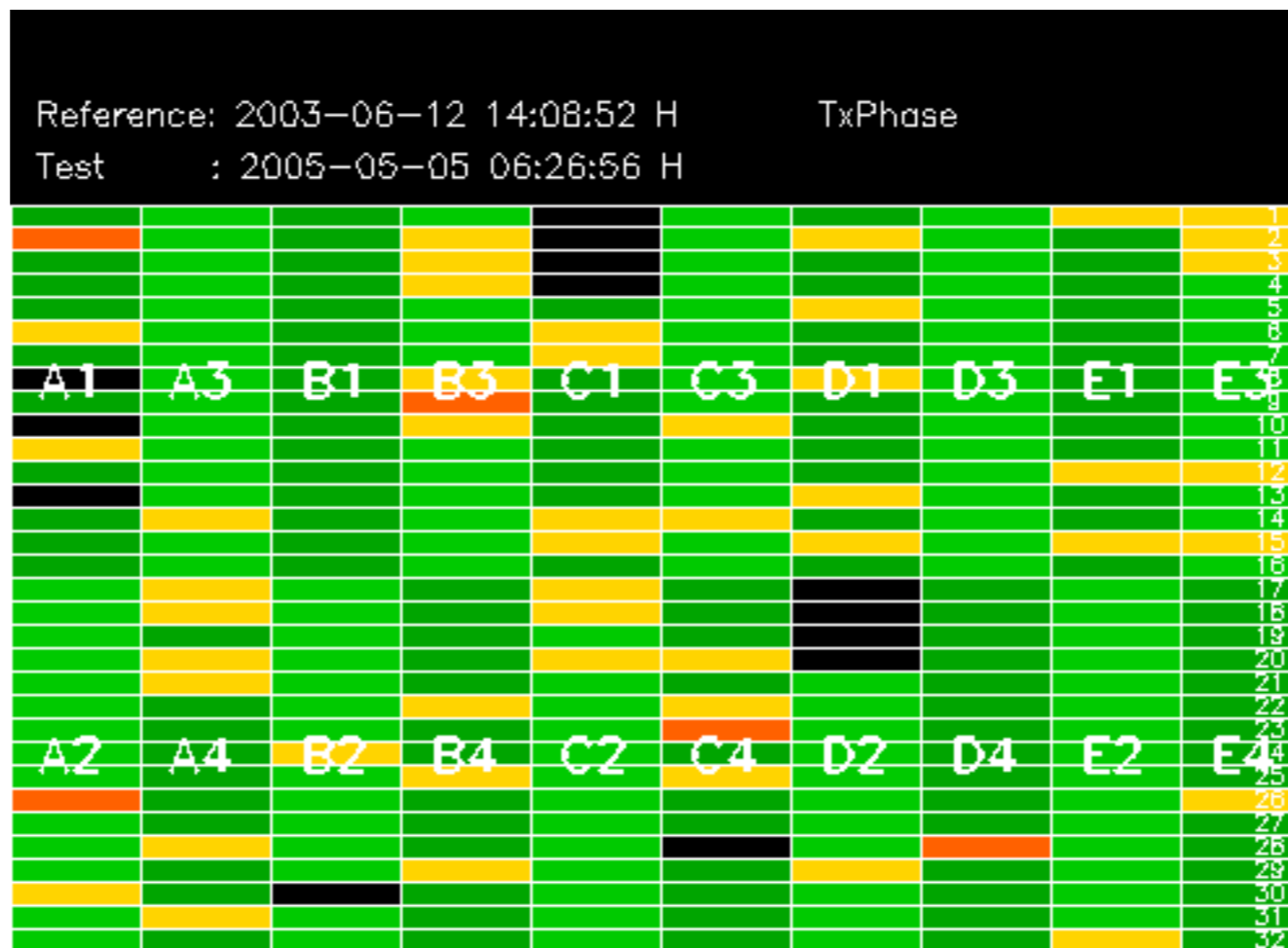
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

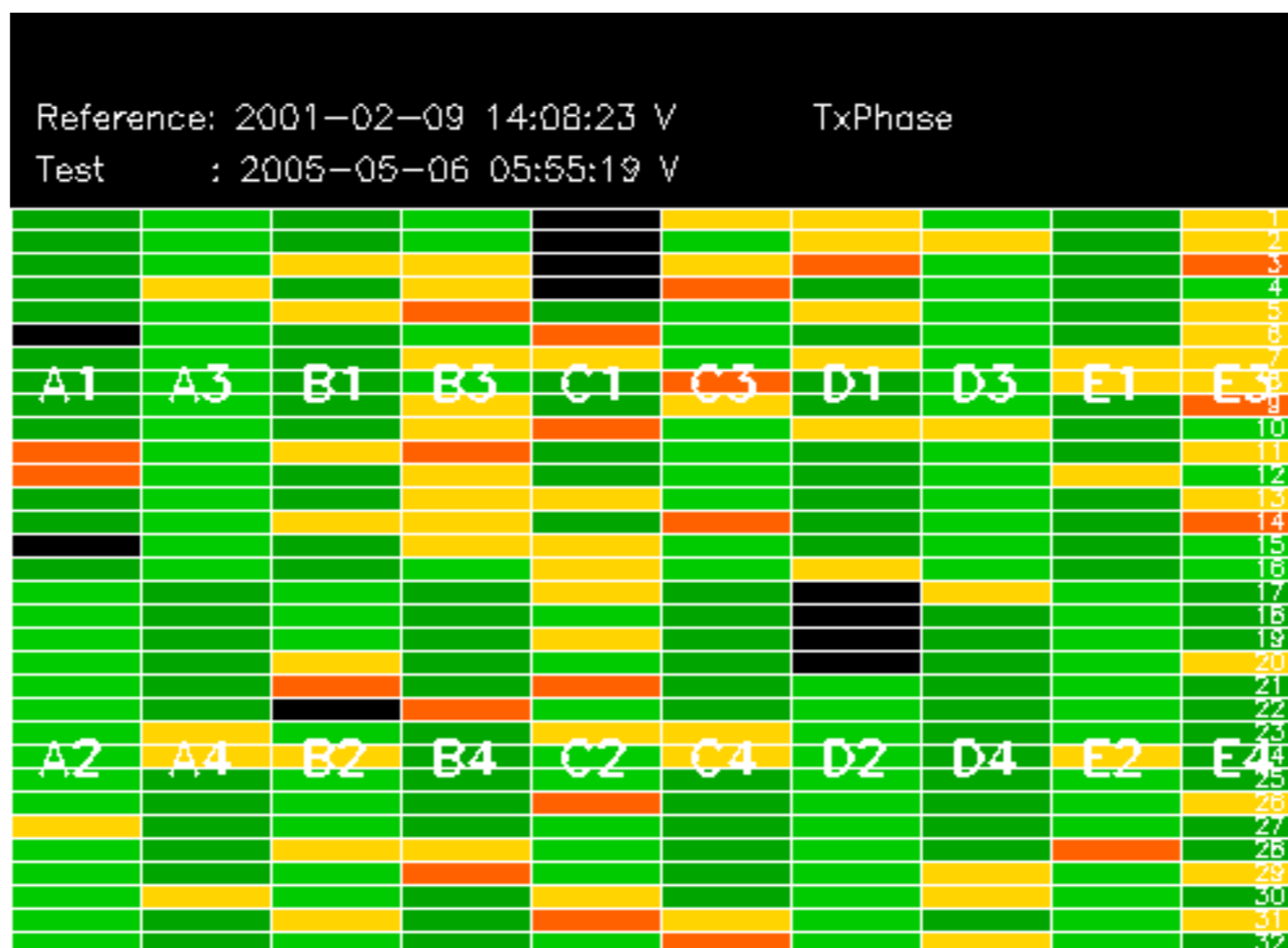
Filename	num_gaps	num_missing_lines

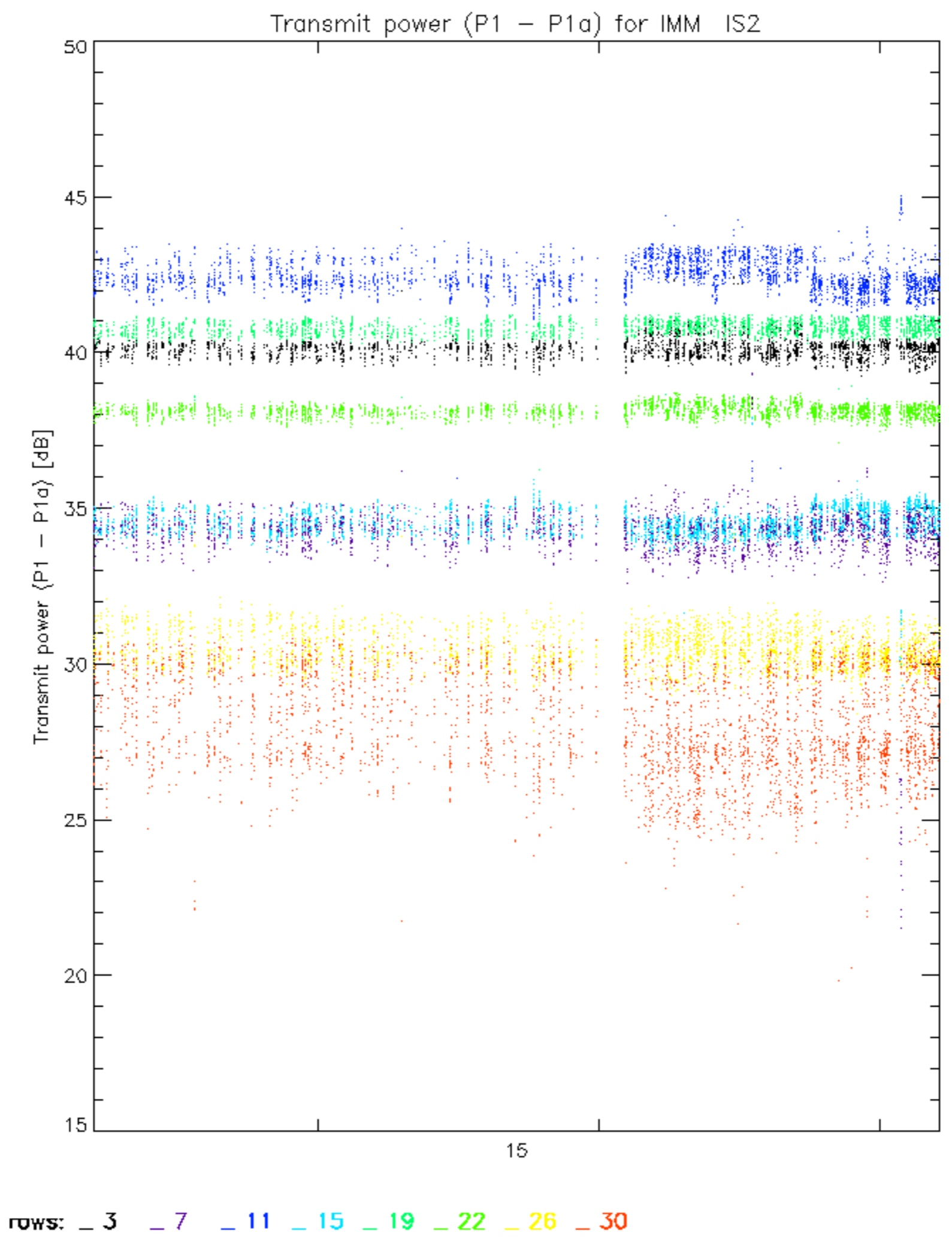


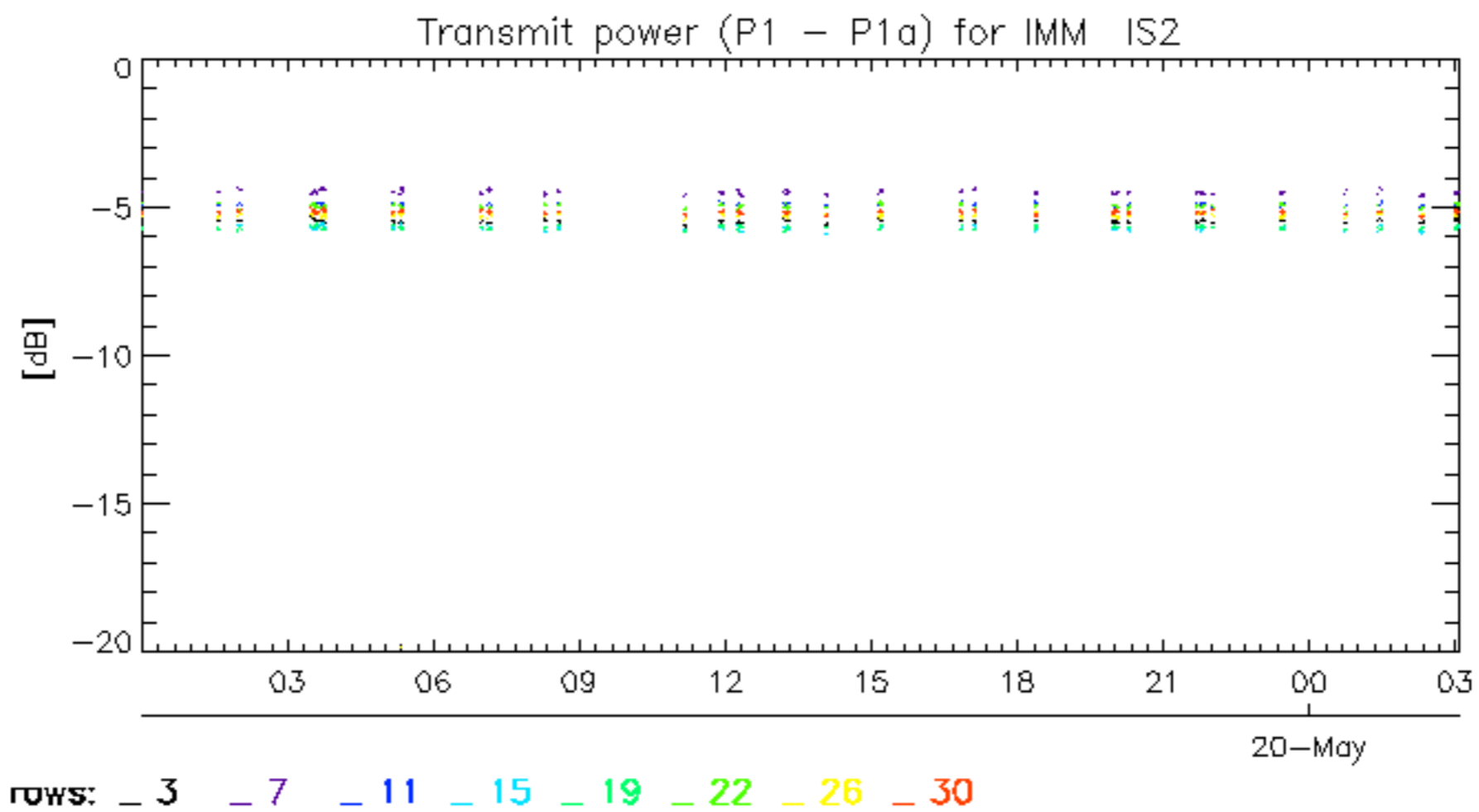


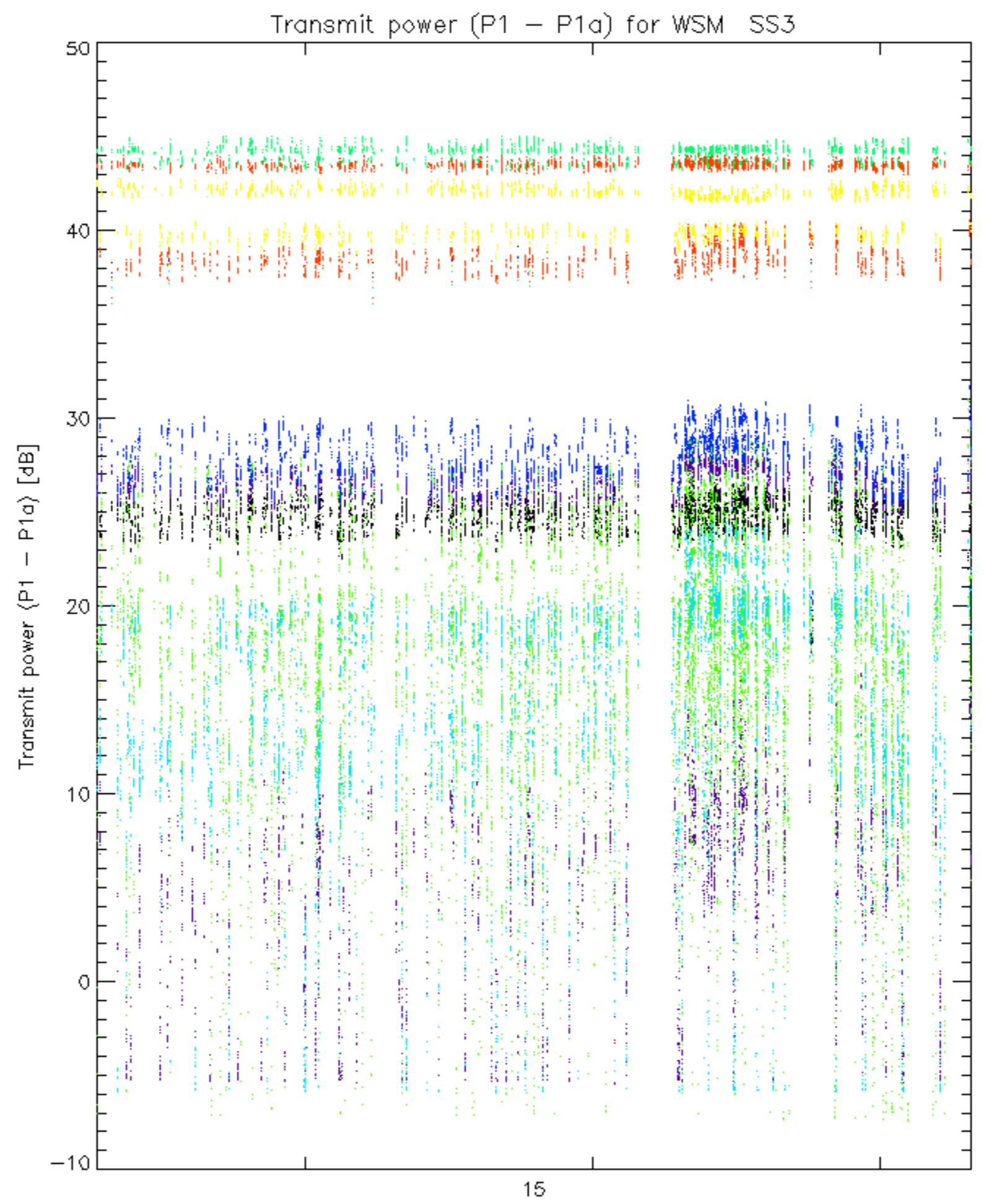












rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.