

PRELIMINARY REPORT OF 050522

last update on Sun May 22 10:58:52 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 2005-05-21 00:00:00 to 2005-05-22 10:58:52

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	28	46	14	1	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	28	46	14	1	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	28	46	14	1	0

ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	28	46	14	1	0
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	45	54	41	13	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	45	54	41	13	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	45	54	41	13	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	45	54	41	13	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	20050521 030250

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	-3.066343	0.018910	0.023471
7	P1	-2.916040	0.030046	-0.020662
11	P1	-4.431489	0.092108	-0.002697
15	P1	-5.344996	0.094881	0.105053
19	P1	-3.449375	0.016894	-0.011093
22	P1	-4.197376	0.028291	-0.074719
26	P1	-4.497115	0.031072	0.079206
30	P1	-6.707050	0.039022	0.060139
3	P1	-15.551119	0.260809	0.202321
7	P1	-15.353570	0.118763	0.028742
11	P1	-20.989565	0.669818	-0.131012
15	P1	-11.201504	0.133744	0.238106
19	P1	-13.941385	0.115144	-0.009789
22	P1	-15.455285	0.454899	-0.311282
26	P1	-17.185257	0.419474	0.112581
30	P1	-17.738676	0.662008	0.263520

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.649027	0.217614	-0.030423
7	P2	-21.816555	0.033141	0.090045
11	P2	-13.651194	0.601791	0.118067
15	P2	-6.291125	0.338877	-0.037337
19	P2	-8.703980	0.308145	0.022500
22	P2	-16.280024	0.181385	0.015767
26	P2	-15.861485	0.191493	-0.015601
30	P2	-18.398216	0.144759	0.010305

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.919149	0.001538	0.018467
7	P3	-7.919114	0.001538	0.018069
11	P3	-7.919097	0.001541	0.017807
15	P3	-7.919147	0.001536	0.018630

19	P3	-7.919130	0.001540	0.018675
22	P3	-7.919234	0.001535	0.018357
26	P3	-7.919169	0.001547	0.018507
30	P3	-7.919237	0.001539	0.018351

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	-2.941383	0.110518	0.050506
7	P1	-2.513249	0.208185	-0.136470
11	P1	-3.850368	0.049334	-0.056607
15	P1	-4.239795	1.033561	-0.017770
19	P1	-3.365024	0.040884	-0.012580
22	P1	-5.540585	0.068559	-0.060676
26	P1	-6.034905	1.061629	-0.001070
30	P1	-6.120787	0.099559	0.050803
3	P1	-10.806993	0.226496	-0.138745
7	P1	-9.598592	0.474285	-0.231578
11	P1	-12.049093	0.308025	0.050480
15	P1	-11.919162	0.400411	-0.199948
19	P1	-14.883661	0.677100	-0.047324
22	P1	-22.099672	12.036567	-0.673119
26	P1	-16.736841	3.865238	0.851797
30	P1	-20.725092	3.859315	0.083693

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P2	-17.421913	0.127564	0.203972
7	P2	-21.980318	0.172545	0.200264
11	P2	-9.608659	0.227527	0.233454
15	P2	-4.881706	0.091392	0.128611
19	P2	-6.814307	0.067816	0.148904
22	P2	-6.857969	0.075276	0.260977
26	P2	-23.486063	0.243303	-0.000380
30	P2	-21.611860	0.191576	0.139912

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.957351	0.004132	0.010375
7	P3	-7.957393	0.004139	0.010042
11	P3	-7.957329	0.004131	0.010368
15	P3	-7.957381	0.004126	0.010280
19	P3	-7.957391	0.004126	0.010240
22	P3	-7.957363	0.004138	0.010266
26	P3	-7.957357	0.004139	0.010221
30	P3	-7.957362	0.004132	0.010061

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	0.000435064

	stdev	2.33183e-07
MEAN Q	mean	0.000462893
	stdev	2.43144e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125427
	stdev	0.00104449
STDEV Q	mean	0.125666
	stdev	0.00105432



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005052[012]

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_1PNPDE20050520_004259_00000622037_00245_16832_2011.N1	1	0
ASA_IMM_1PNPDE20050520_155124_00001072037_00254_16841_2063.N1	1	0
ASA_IMM_1PNPDK20050520_061446_000004082037_00249_16836_4748.N1	0	19
ASA_IMM_1PNPDK20050520_074429_00000832037_00250_16837_4758.N1	0	17
ASA_IMM_1PNPDK20050520_075913_000003382037_00250_16837_4755.N1	0	14
ASA_IMM_1PNPDK20050520_092334_000000392037_00251_16838_4760.N1	0	12
ASA_IMM_1PNPDK20050520_094552_00000892037_00251_16838_4763.N1	0	15
ASA_IMM_1PNPDK20050520_123932_00001082037_00253_16840_4766.N1	0	13
ASA_IMM_1PNPDK20050520_124234_00001042037_00253_16840_4769.N1	0	29
ASA_IMM_1PNPDK20050521_072959_000002402037_00264_16851_4821.N1	0	6
ASA_IMM_1PNPDK20050521_074032_00000622037_00264_16851_4831.N1	0	14
ASA_IMM_1PNPDK20050521_085157_00000692037_00265_16852_4829.N1	0	7
ASA_IMM_1PNPDK20050521_090859_00000622037_00265_16852_4827.N1	0	7

ASA_IMM_1PNPDK20050521_091100_000000302037_00265_16852_4828.N1	0	12
ASA_IMM_1PNPDK20050521_104453_000000622037_00266_16853_4835.N1	0	7
ASA_IMM_1PNPDK20050521_104654_000000342037_00266_16853_4836.N1	0	10
ASA_IMM_1PNPDK20050521_134748_000000432037_00268_16855_4838.N1	0	7
ASA_GM1_1PNPDK20050520_152850_000003502037_00254_16841_1201.N1	0	15
ASA_GM1_1PNPDK20050521_074554_000006942037_00264_16851_1258.N1	0	6
ASA_GM1_1PNPDK20050521_085554_000006402037_00265_16852_1260.N1	0	14
ASA_GM1_1PNPDK20050521_094520_000009242037_00265_16852_1269.N1	0	6
ASA_GM1_1PNPDK20050521_135741_000007002037_00268_16855_1296.N1	0	15
ASA_WSM_1PNPDE20050520_013211_000003062037_00246_16833_3281.N1	0	71
ASA_WSM_1PNPDK20050520_074638_000000672037_00250_16837_3395.N1	0	15
ASA_WSM_1PNPDK20050520_074847_000000242037_00250_16837_3396.N1	0	7
ASA_APM_1PNPDK20050520_081555_000000112037_00250_16837_2095.N1	0	3
ASA_APM_1PNPDK20050521_074432_000000572037_00264_16851_2097.N1	0	9

⊗

⊗

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)

⊗
Ascending
⊗
Descending

7.2 - Absolute Doppler for IMM

Evolution of Absolute Doppler

⊗
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

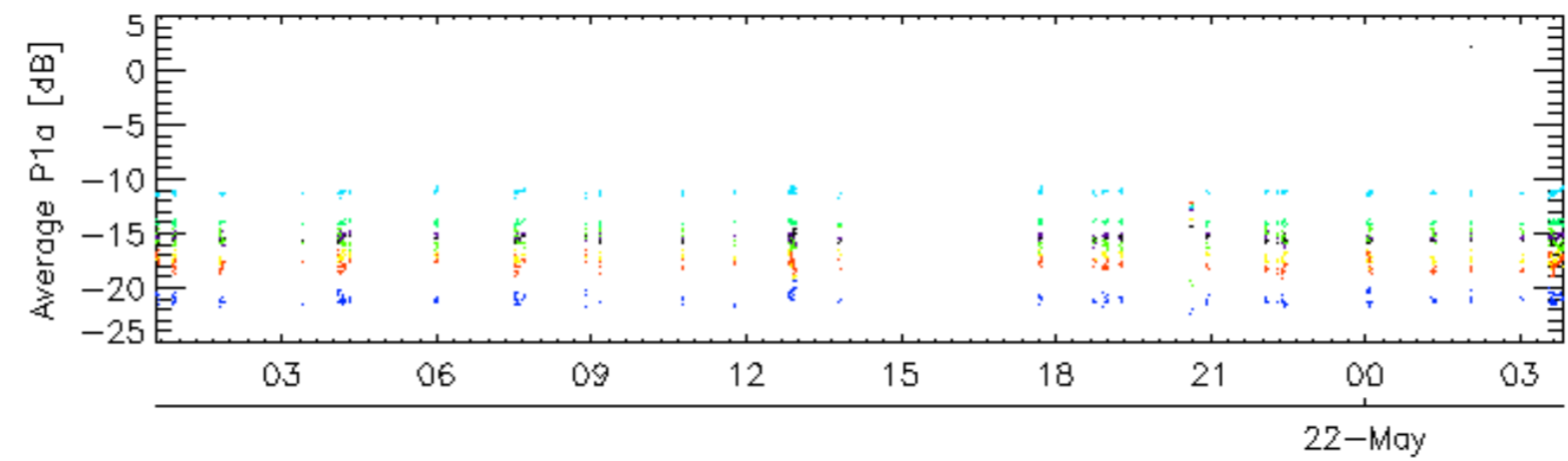
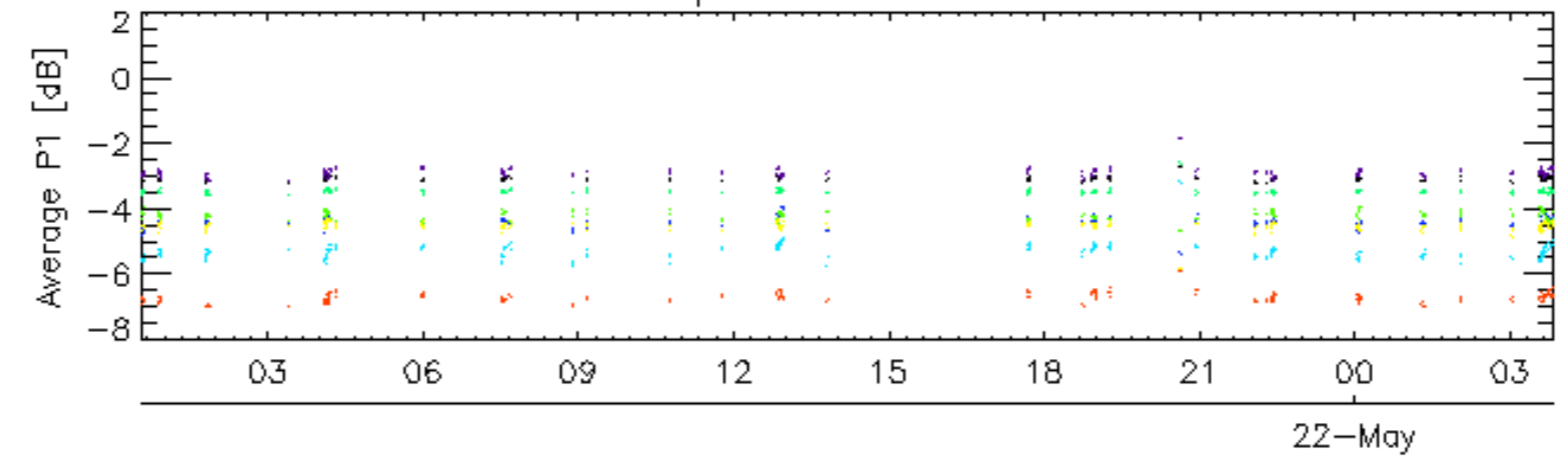
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for WSM

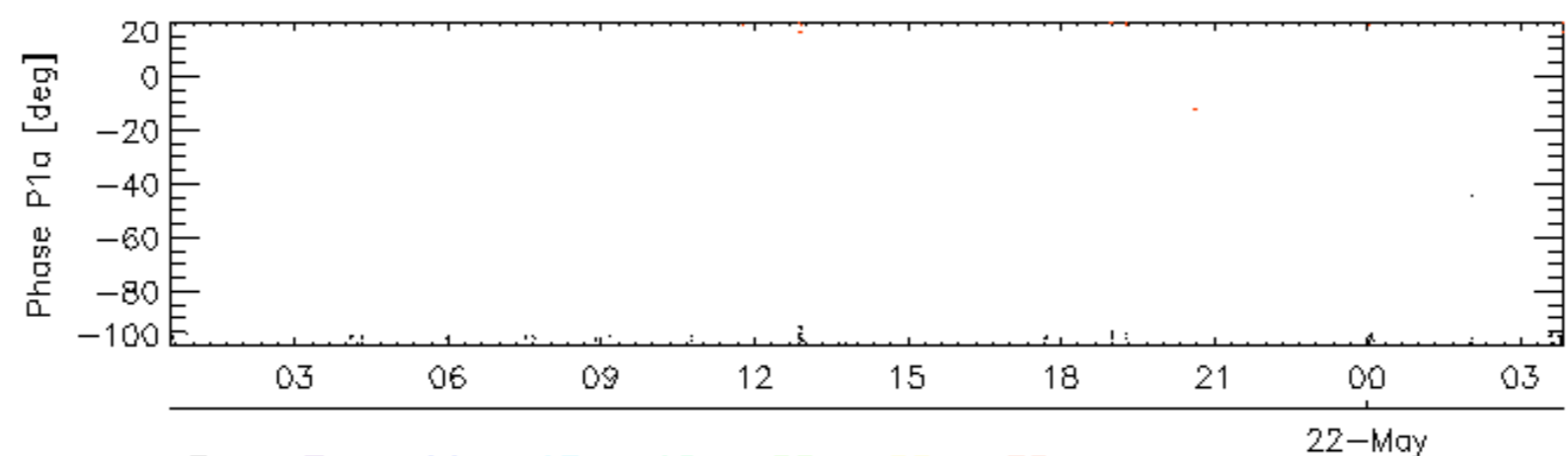
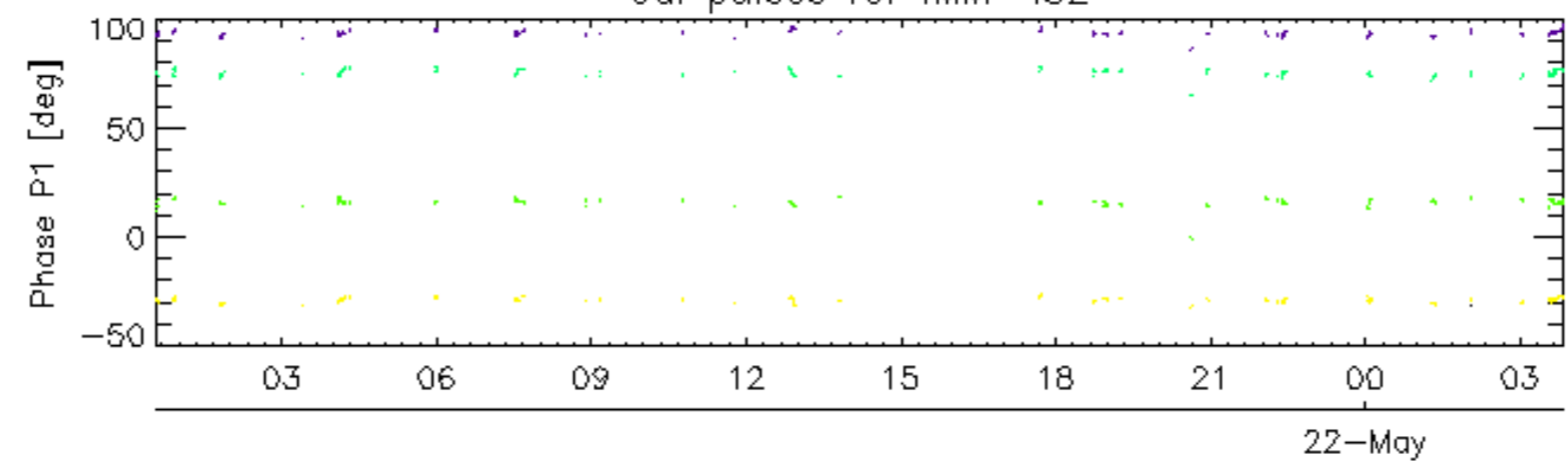
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for IMM IS2

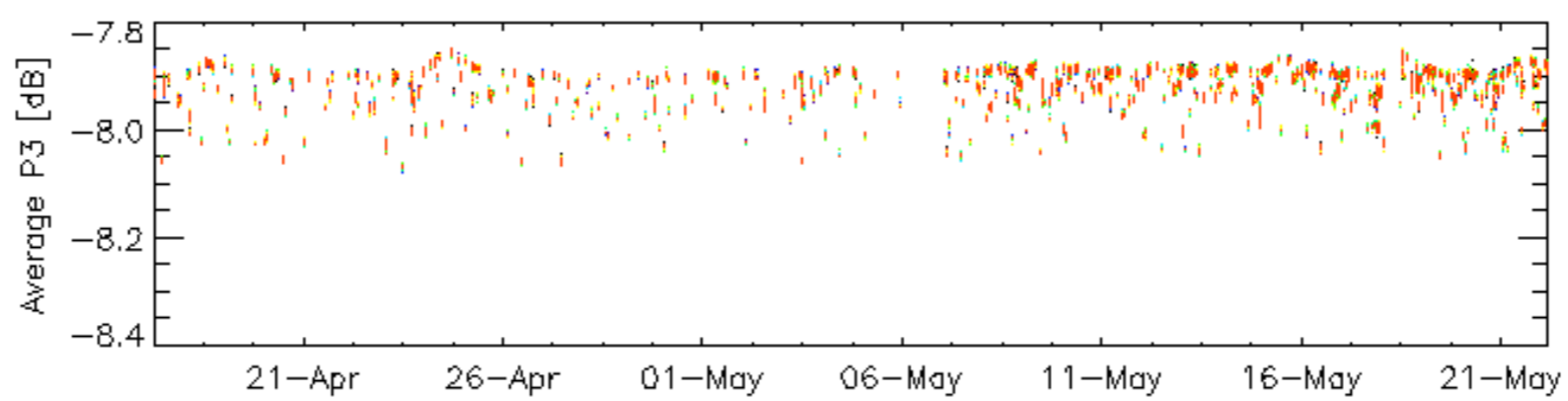
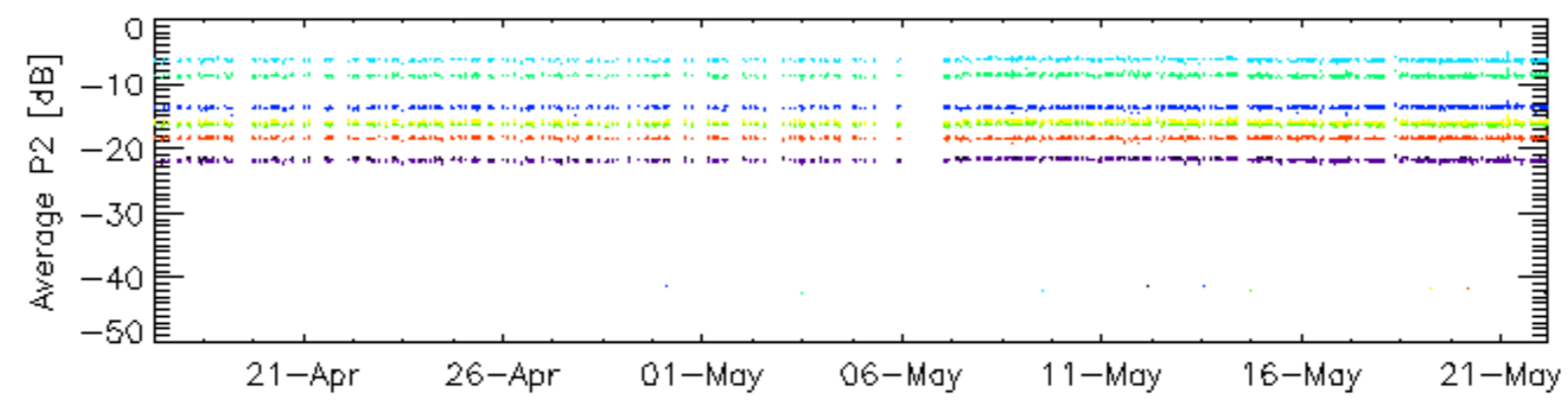
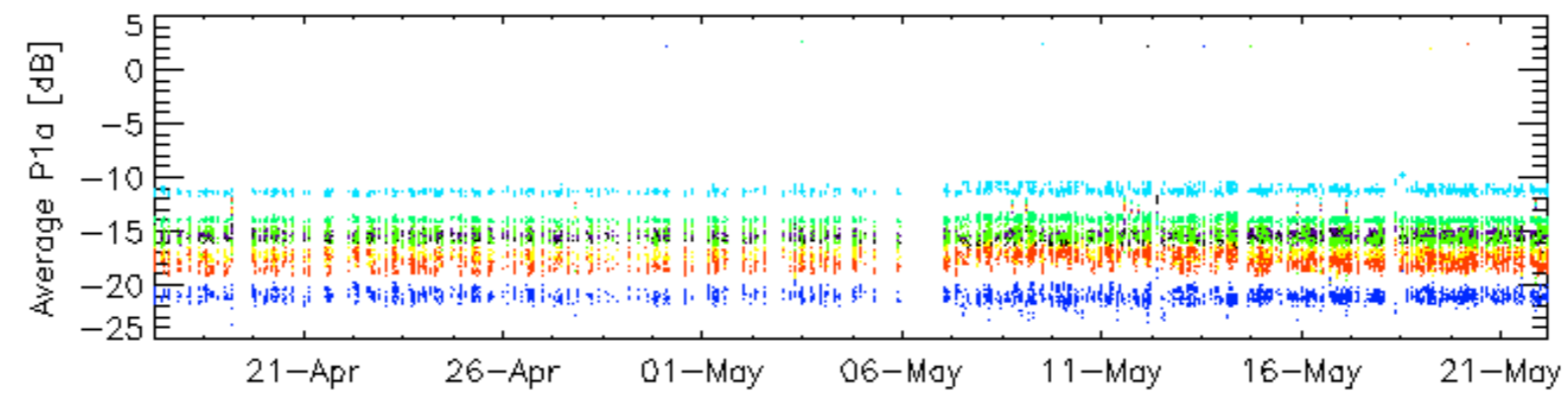
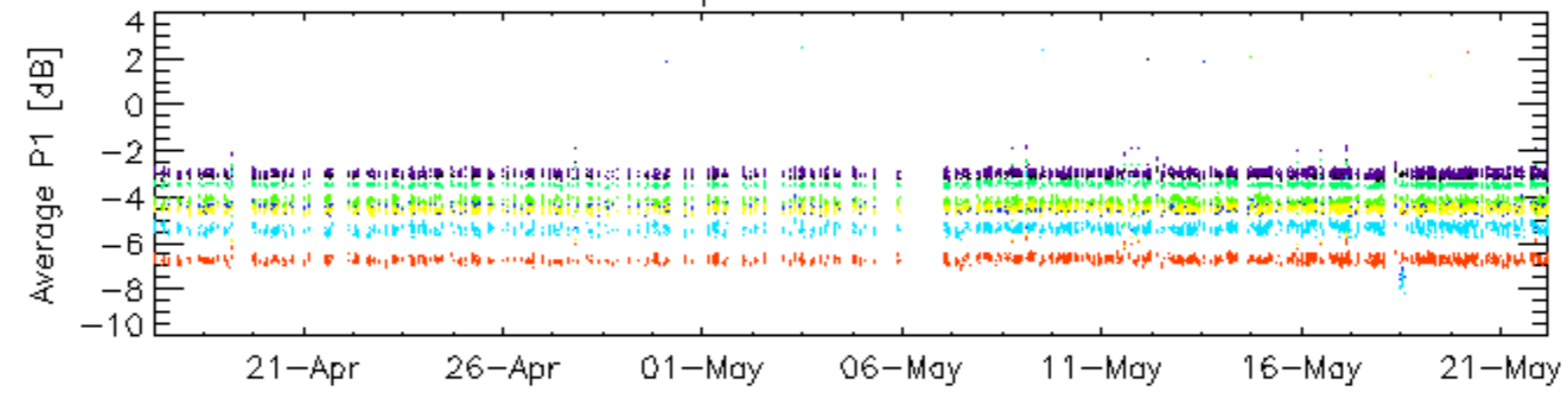


Cal pulses for IMM IS2



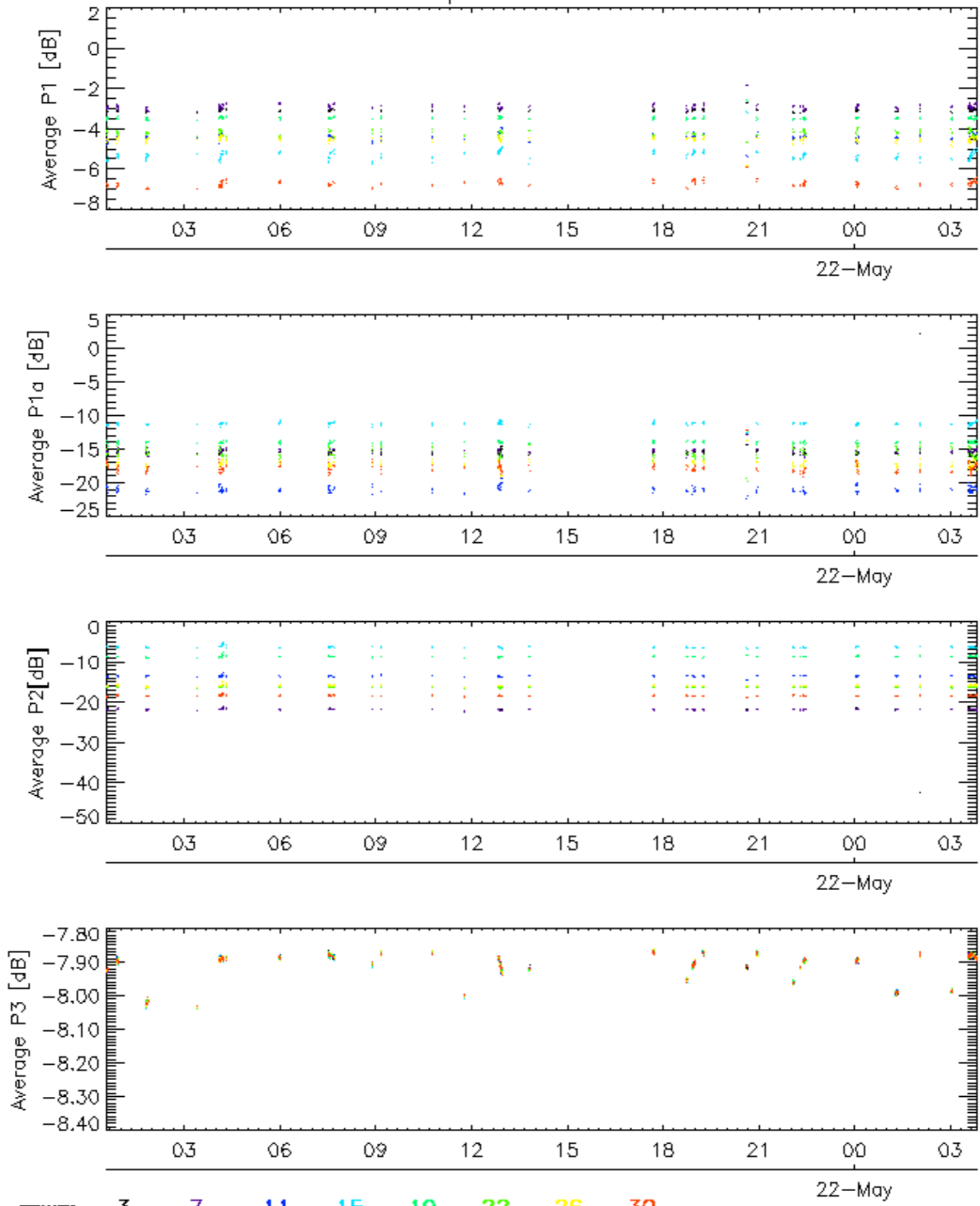
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for IMM IS2

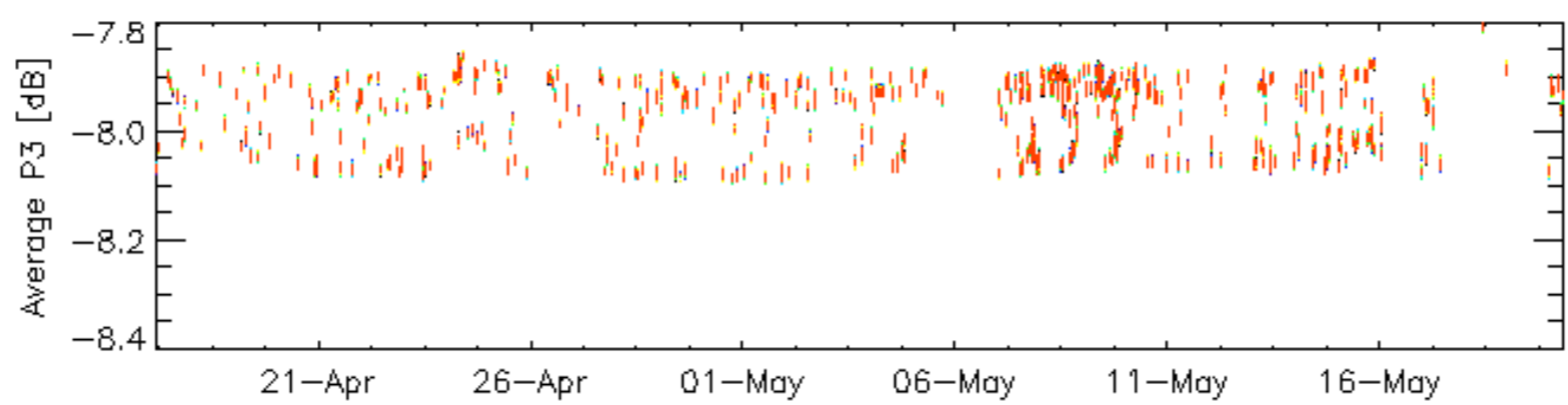
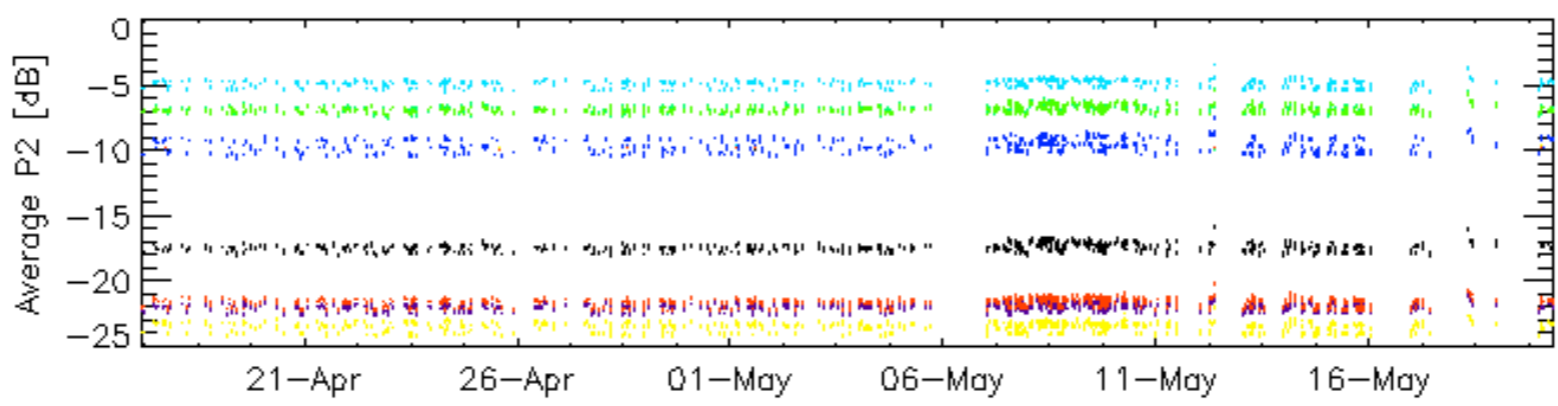
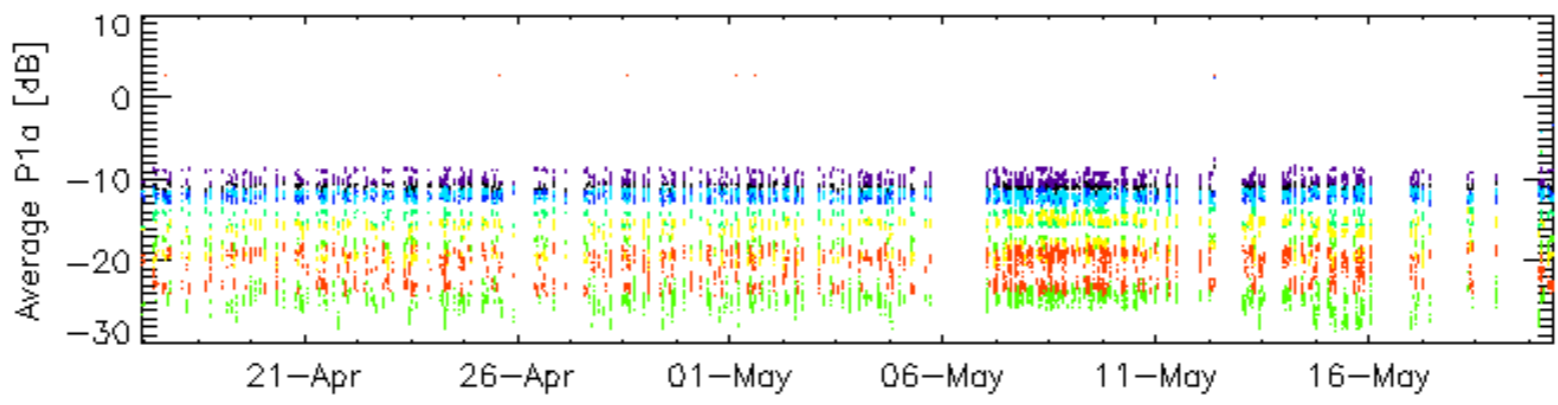
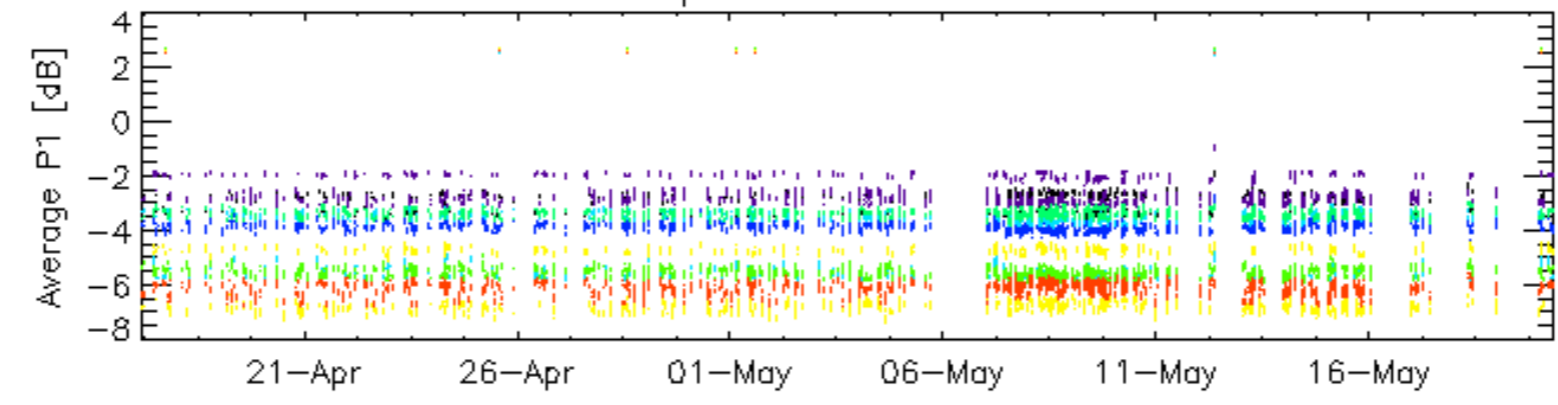


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for IMM IS2

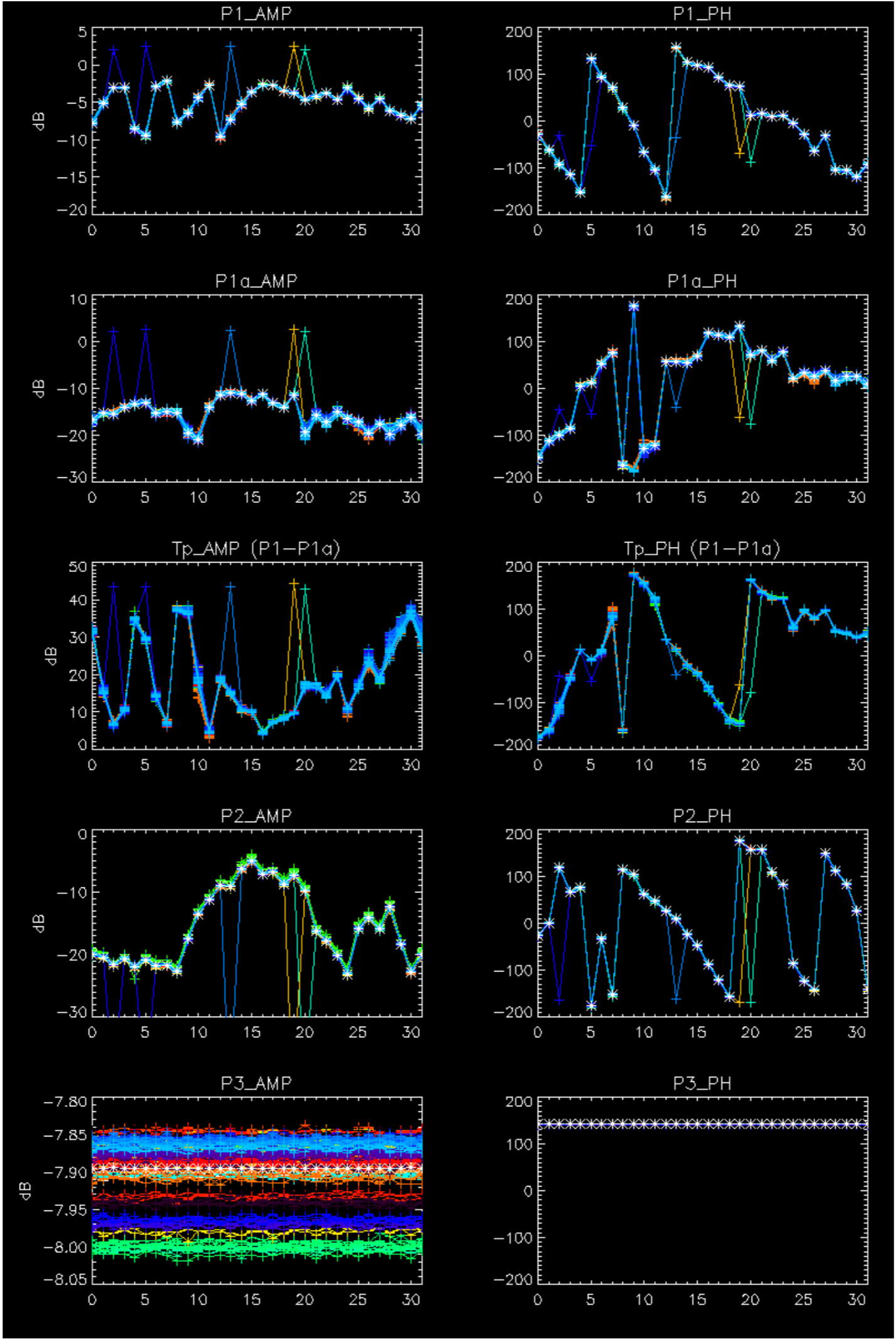


Cal pulses for WSM SS3



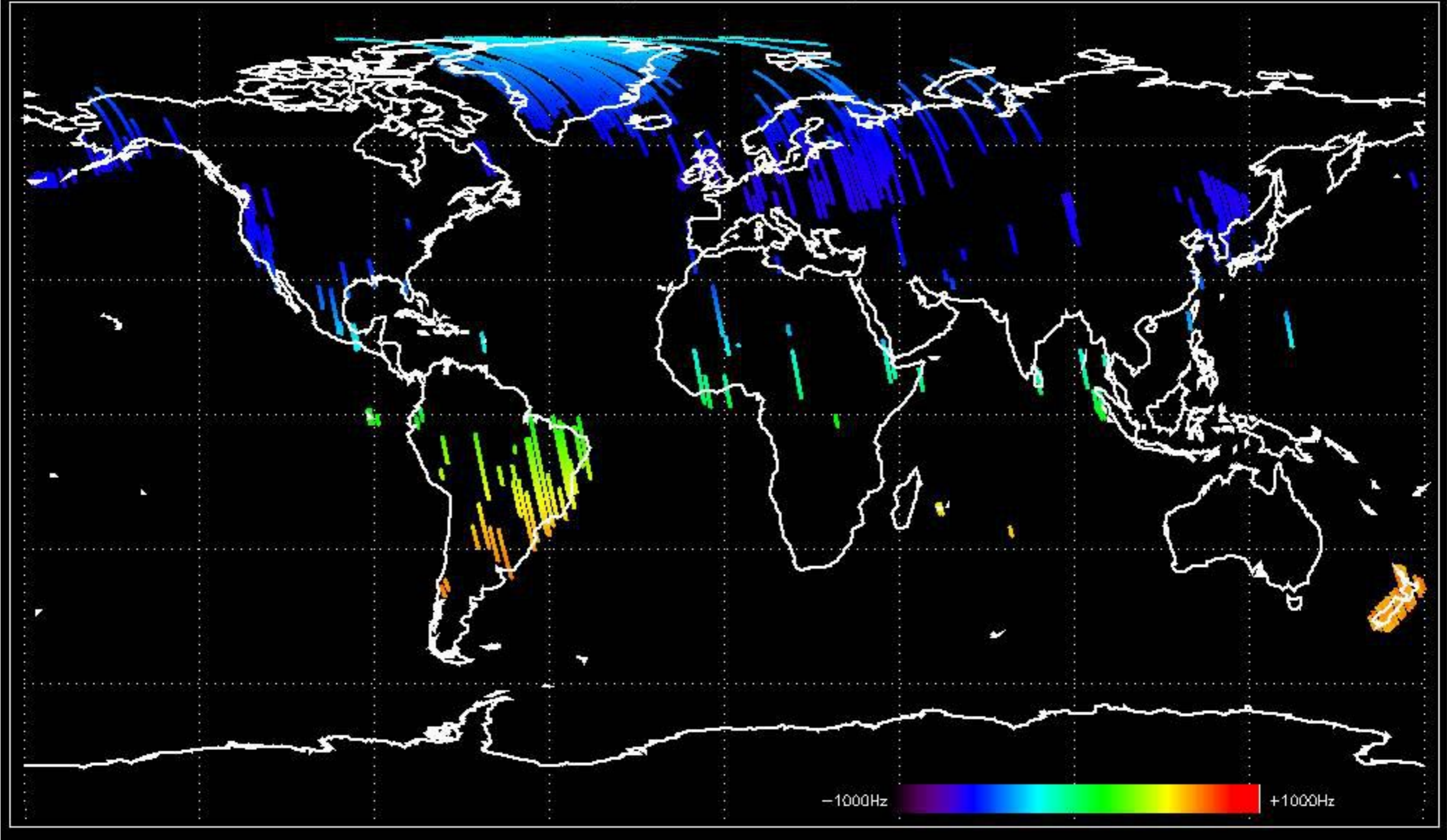
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No anomalies observed.

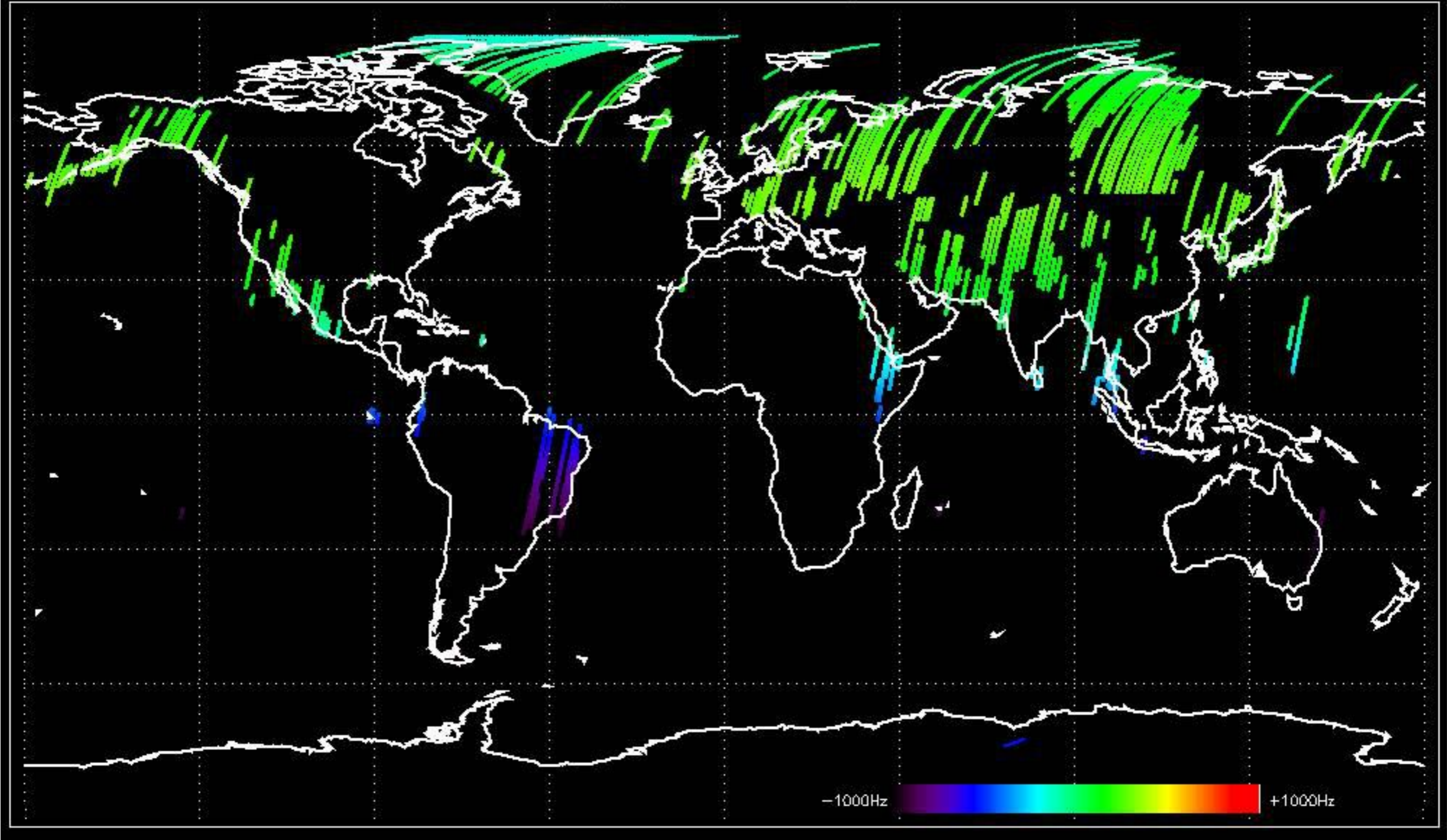


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

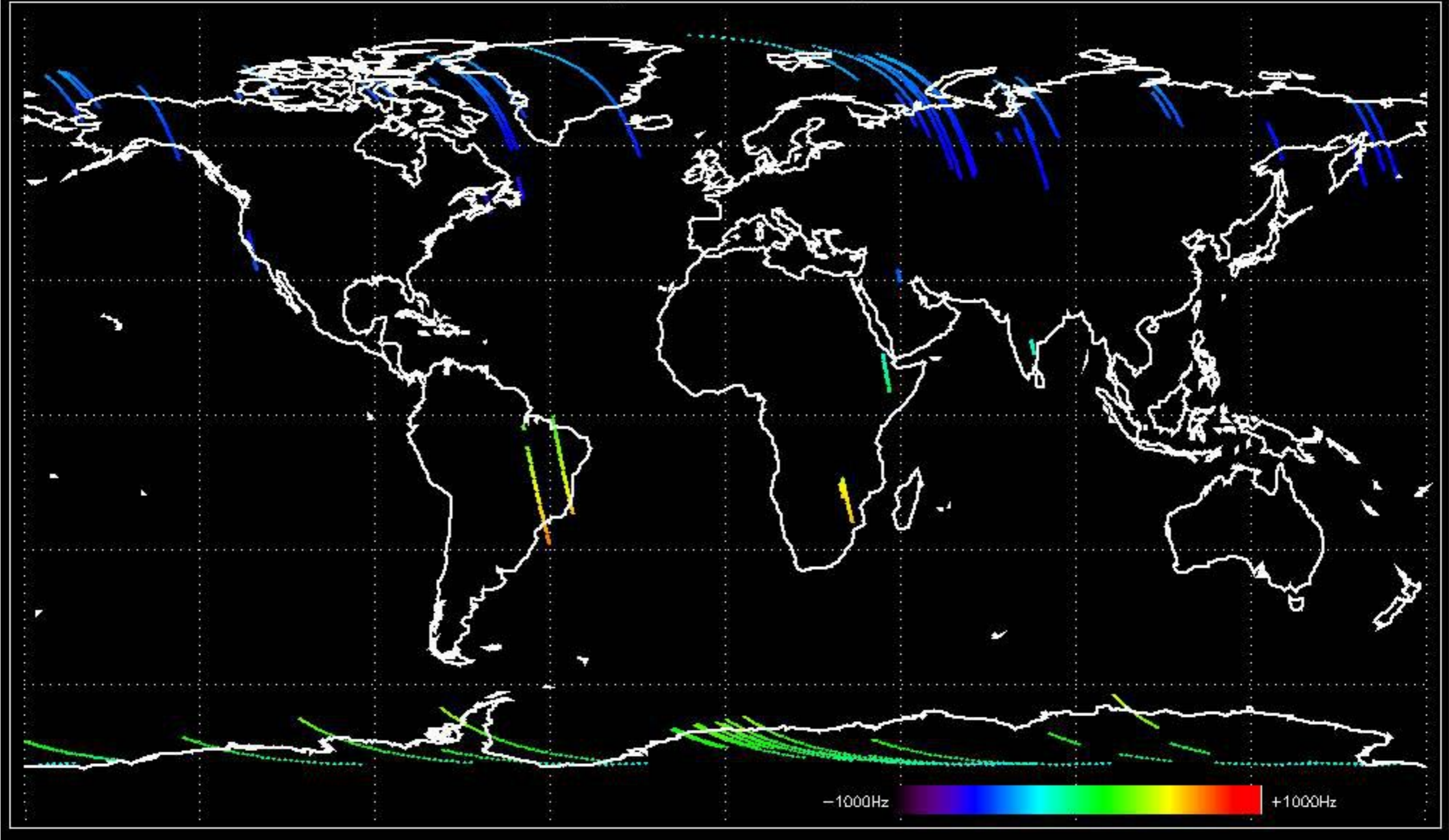
Doppler 'IMM' 'IS2' ascending



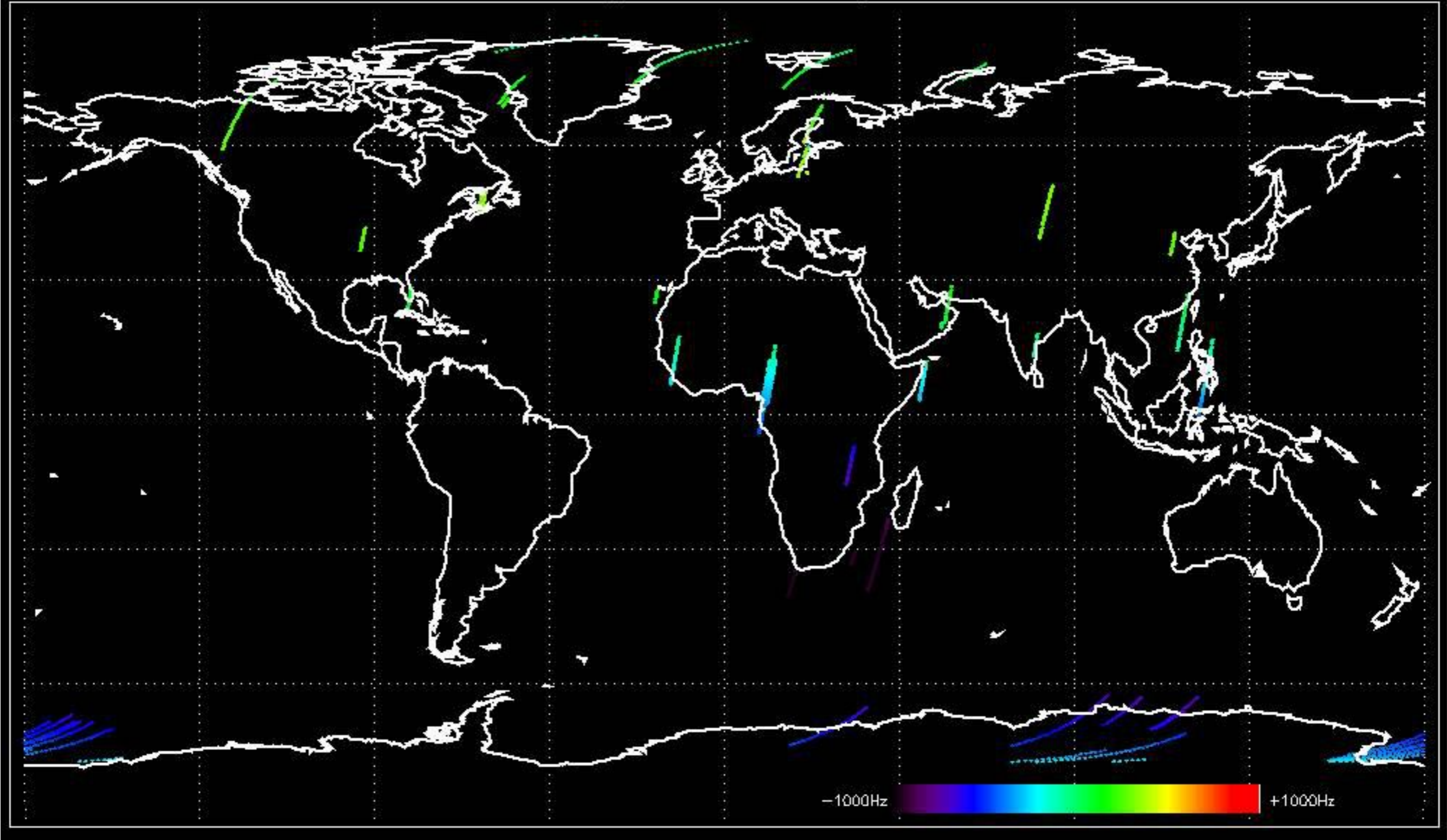
Doppler 'IMM' 'IS2' descending

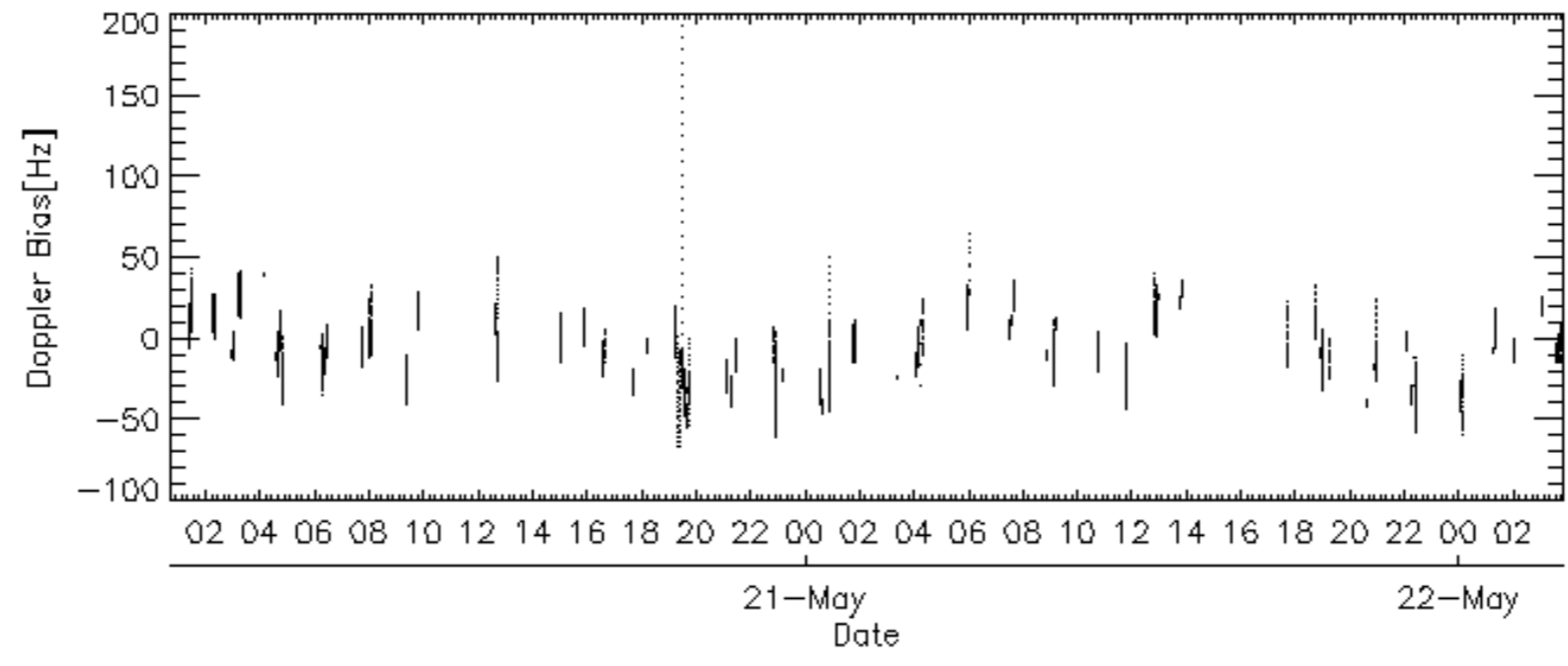
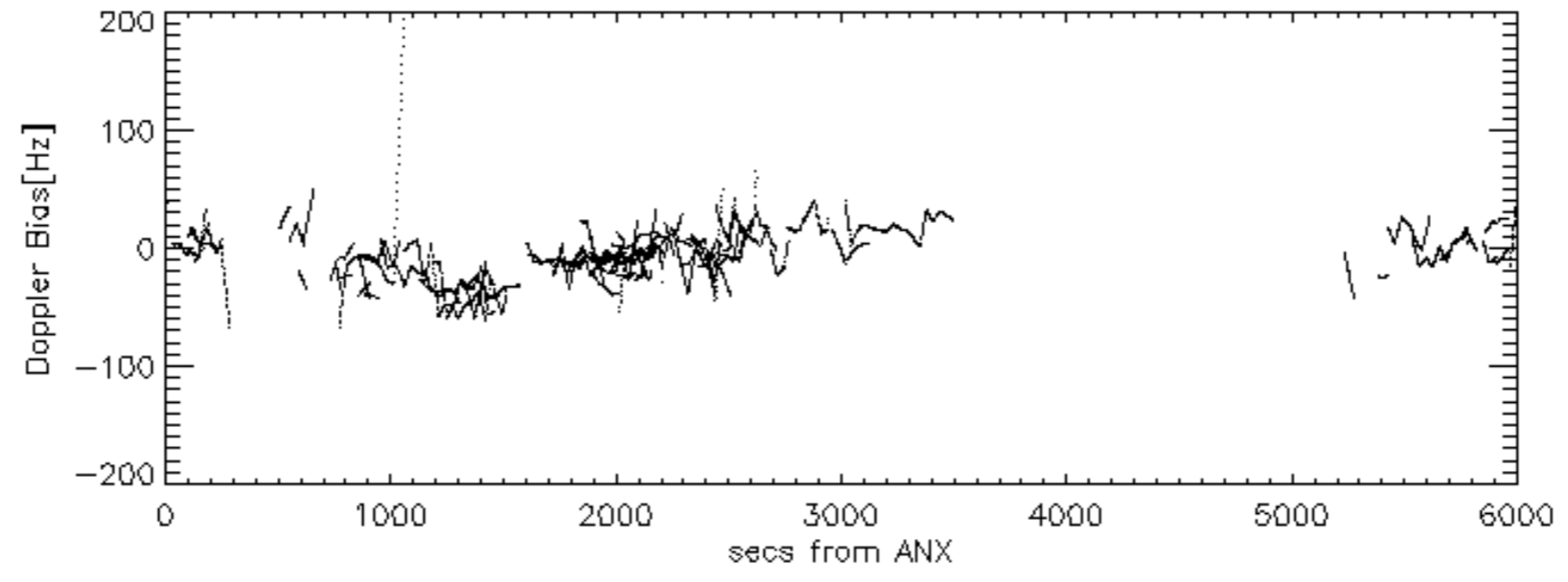
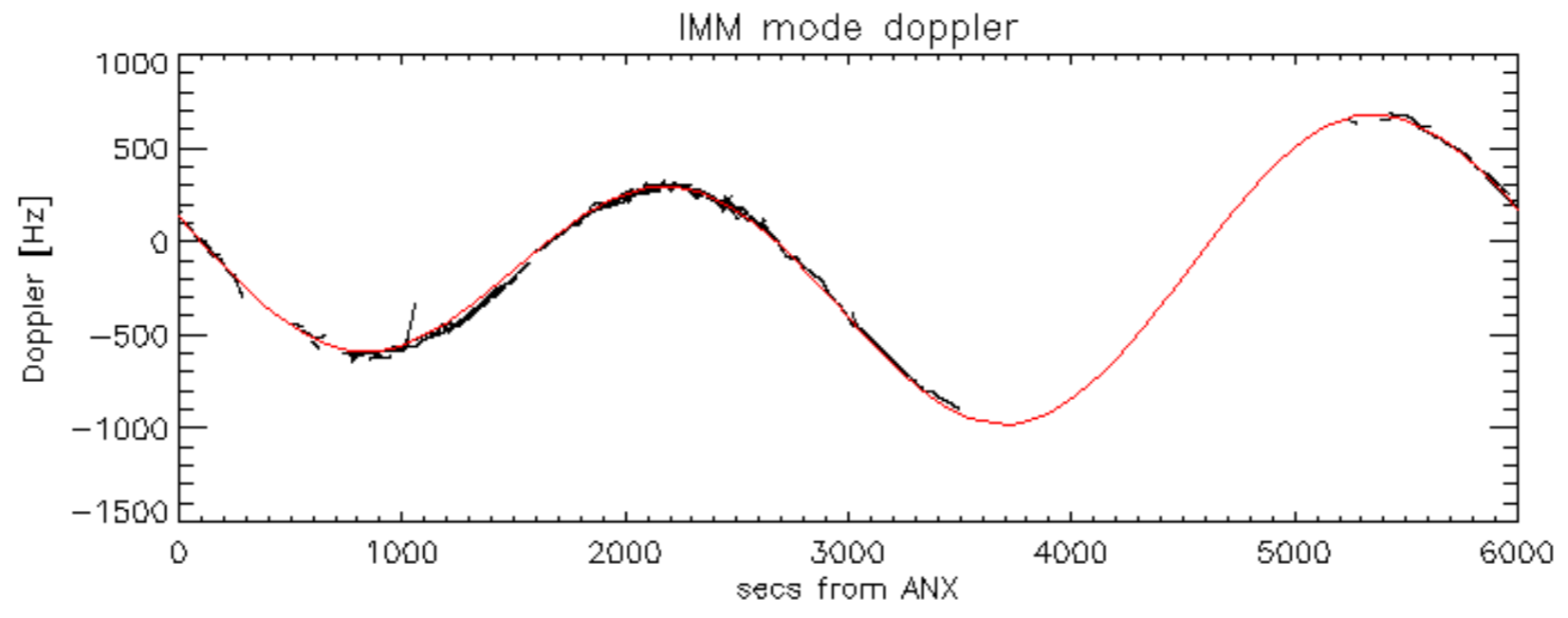


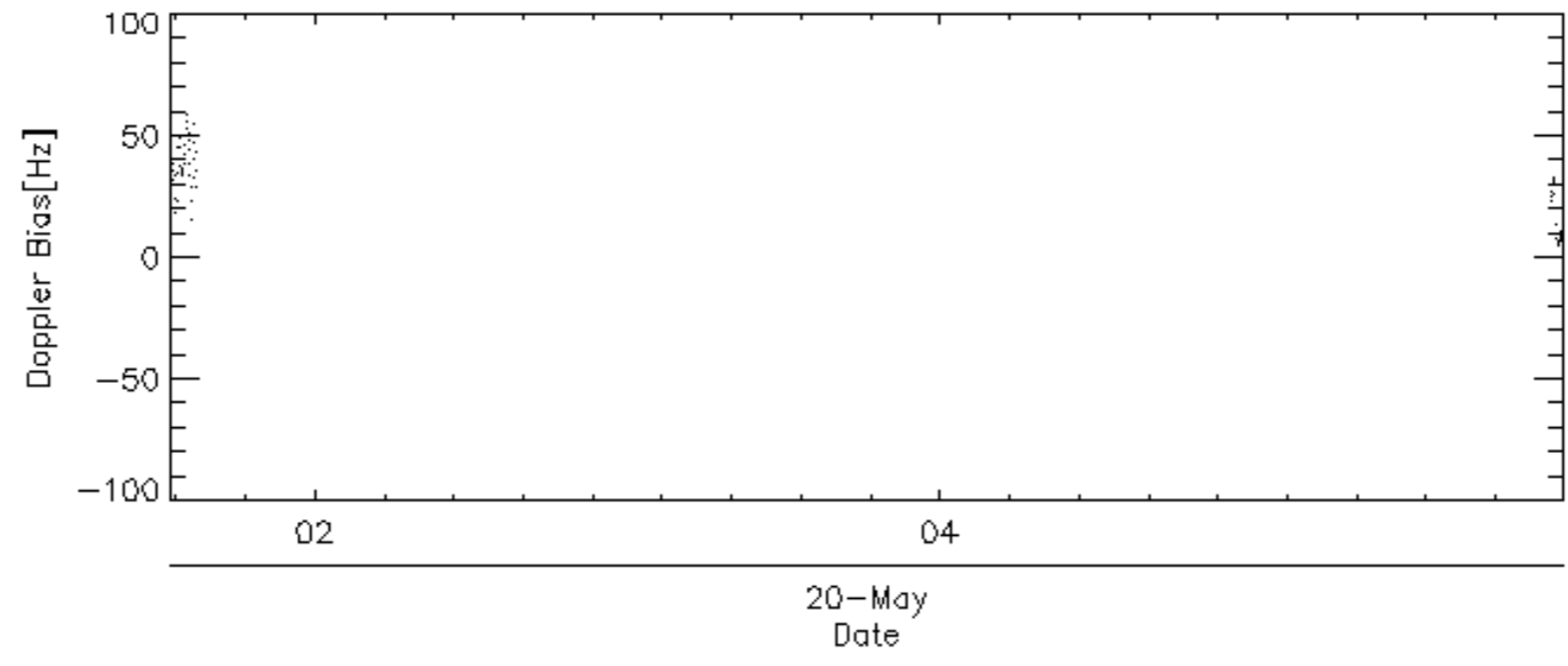
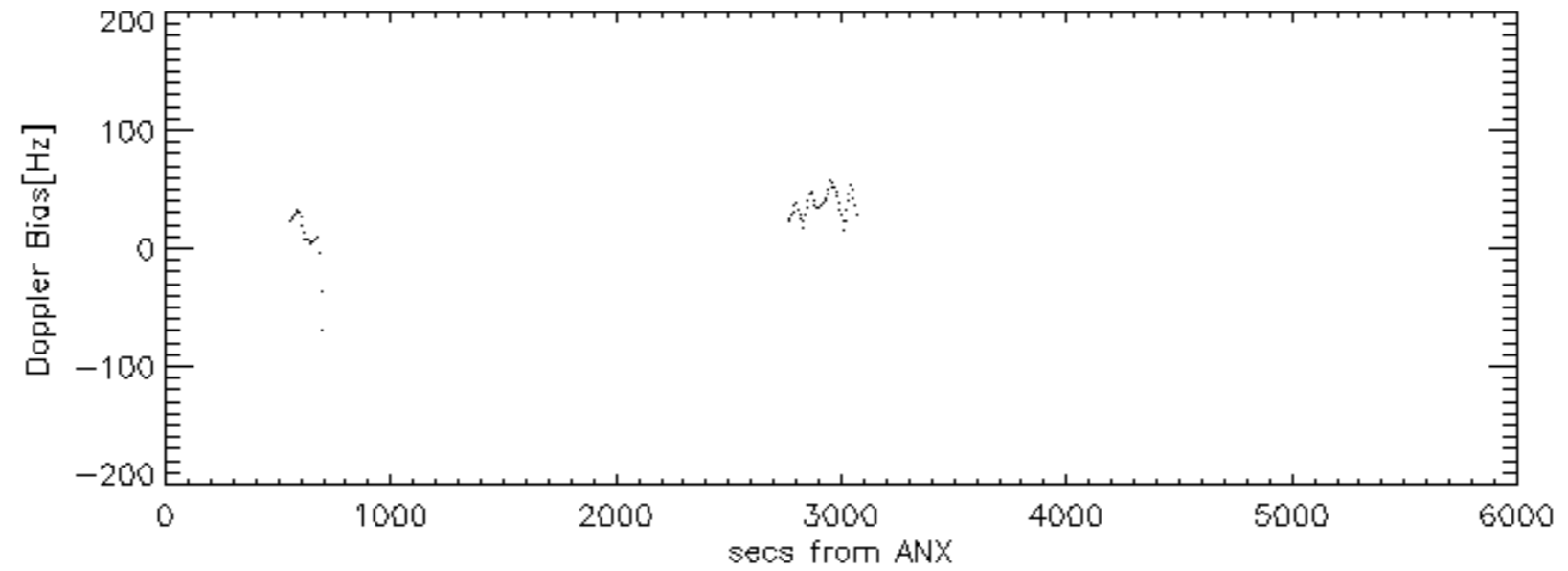
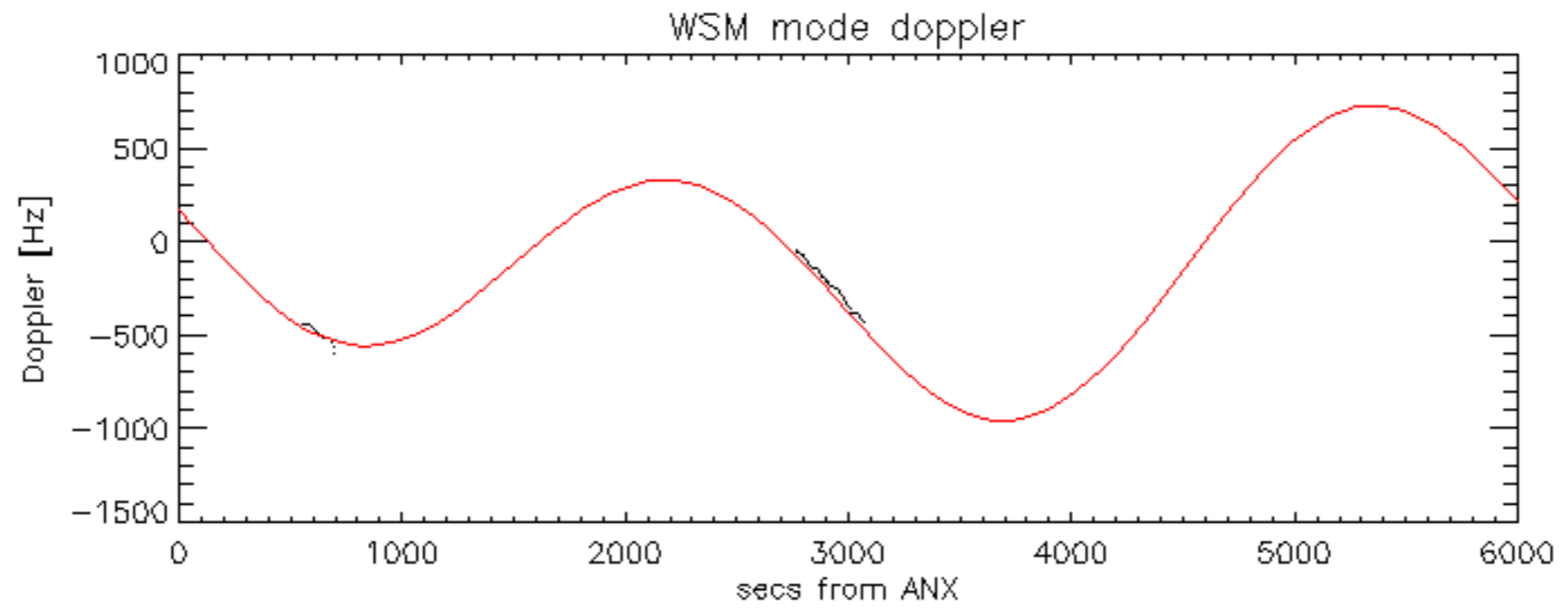
Doppler 'WSM' 'SS1' ascending



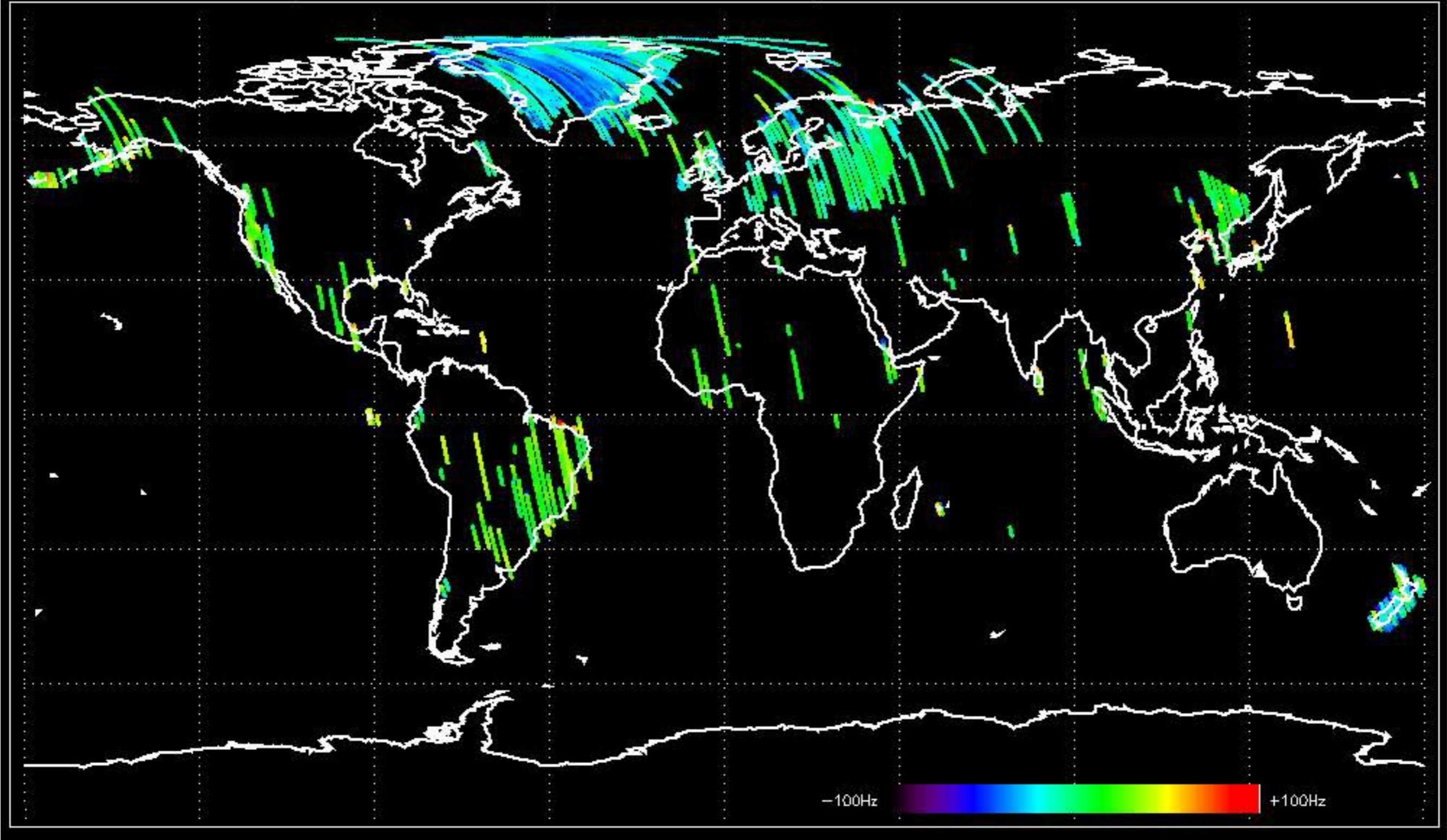
Doppler 'WSM' 'SS1' descending



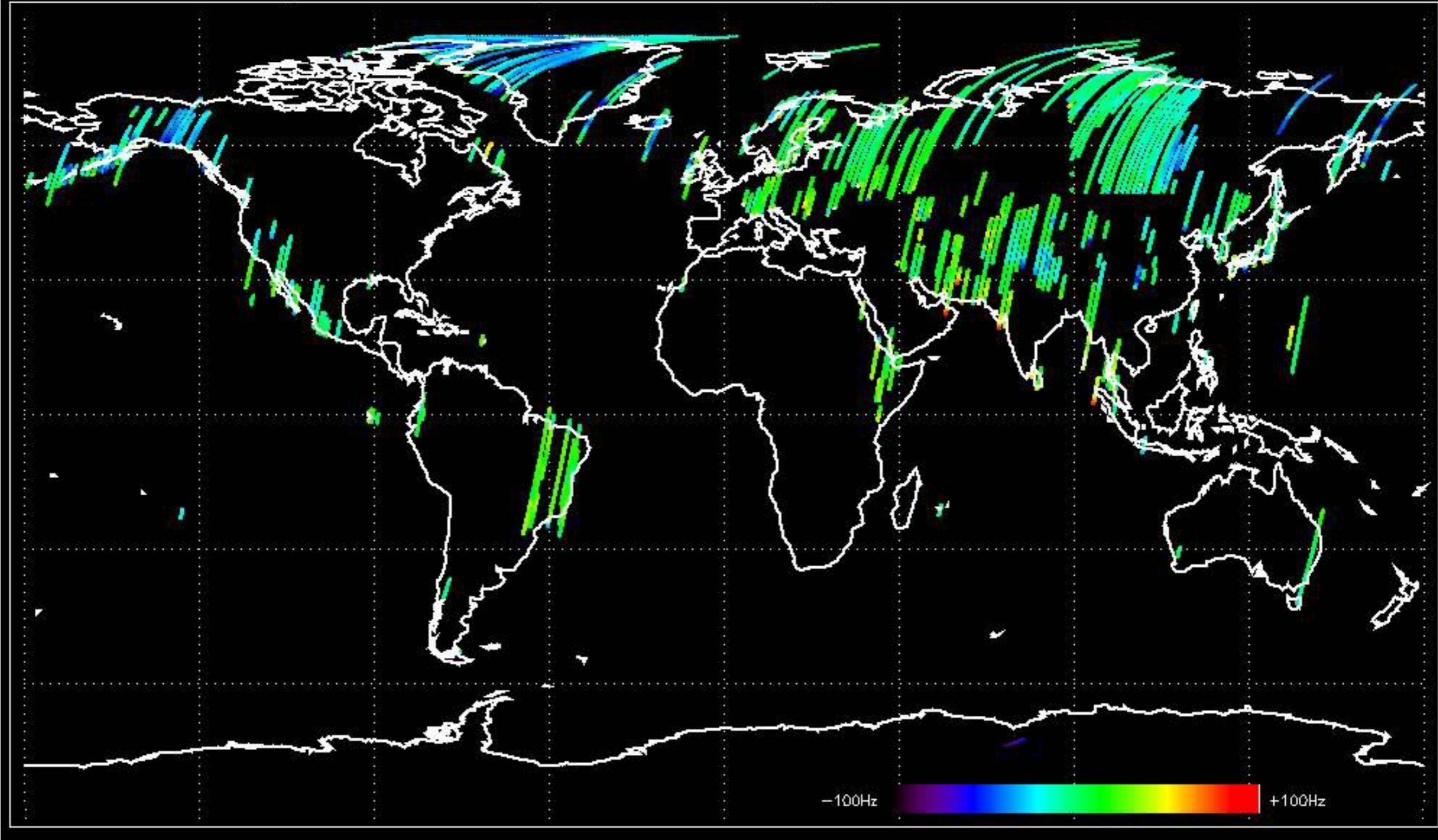




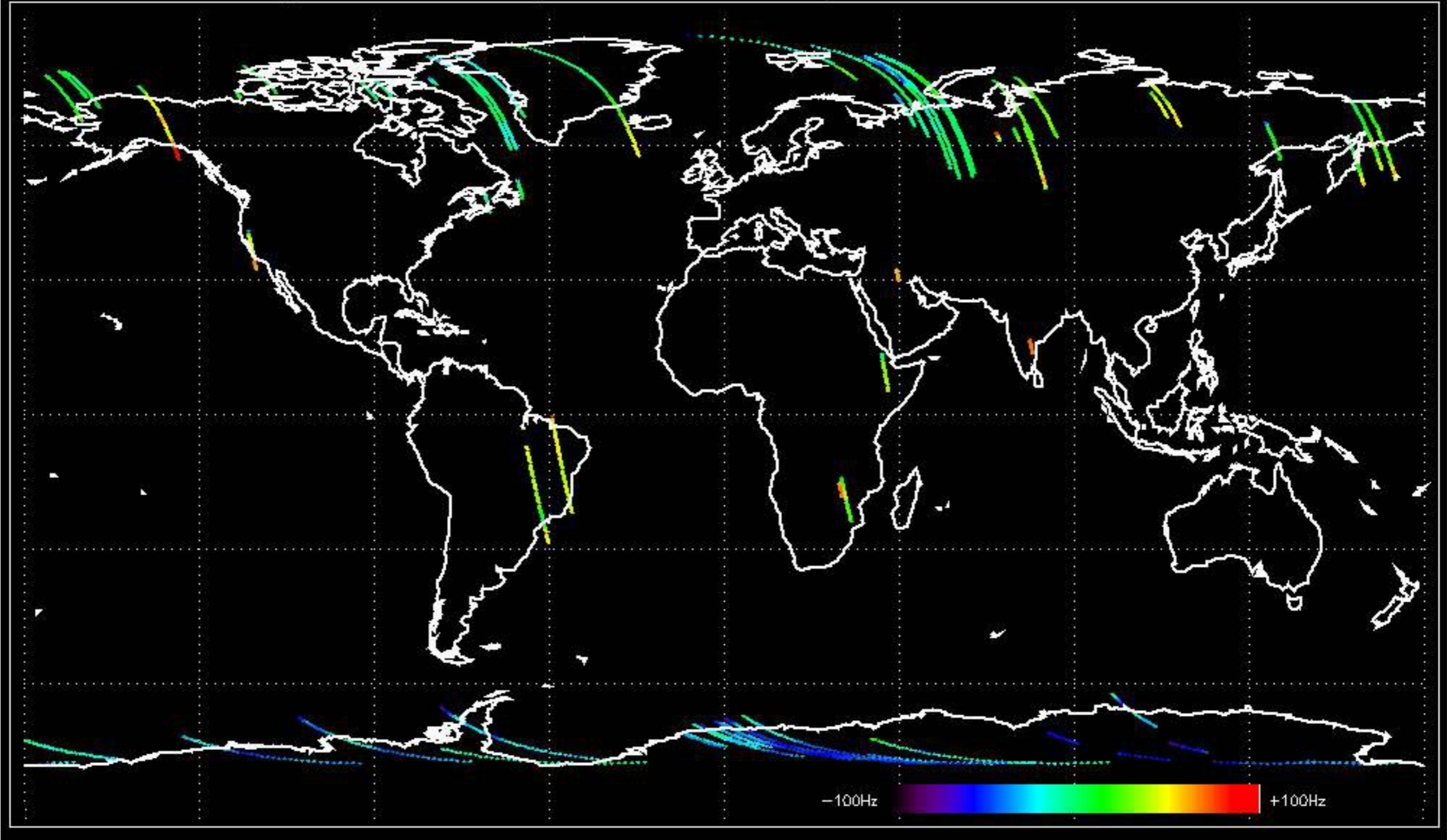
Doppler difference, estimated-predicted 'IMM' 'IS2' ascending -error mean of -16.464474 Hz



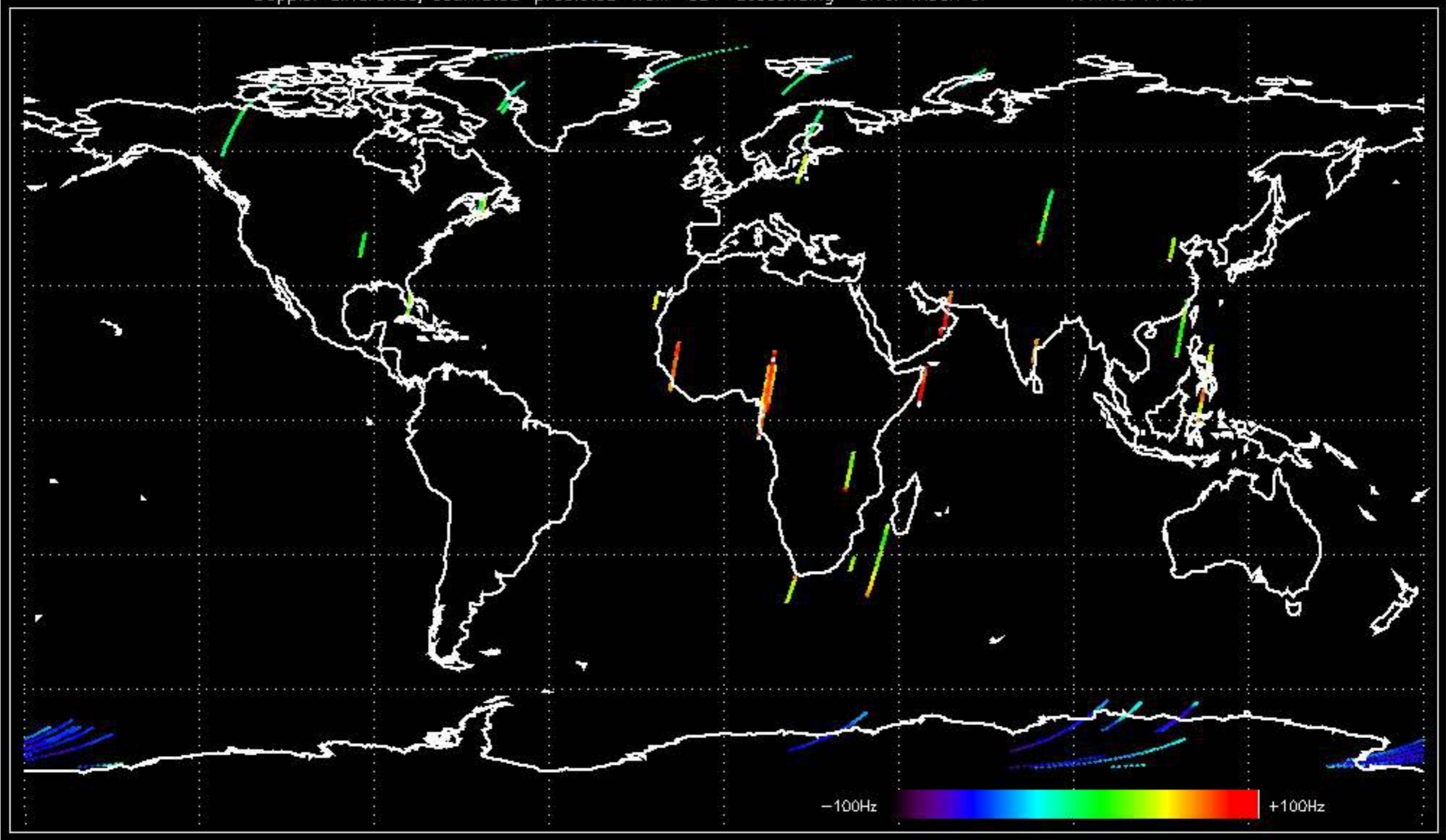
Doppler difference, estimated-predicted 'IMM' 'IS2' descending -error mean of -6.0335711 Hz



Doppler difference, estimated-predicted 'WSM' 'SS1' ascending -error mean of -36.861260 Hz

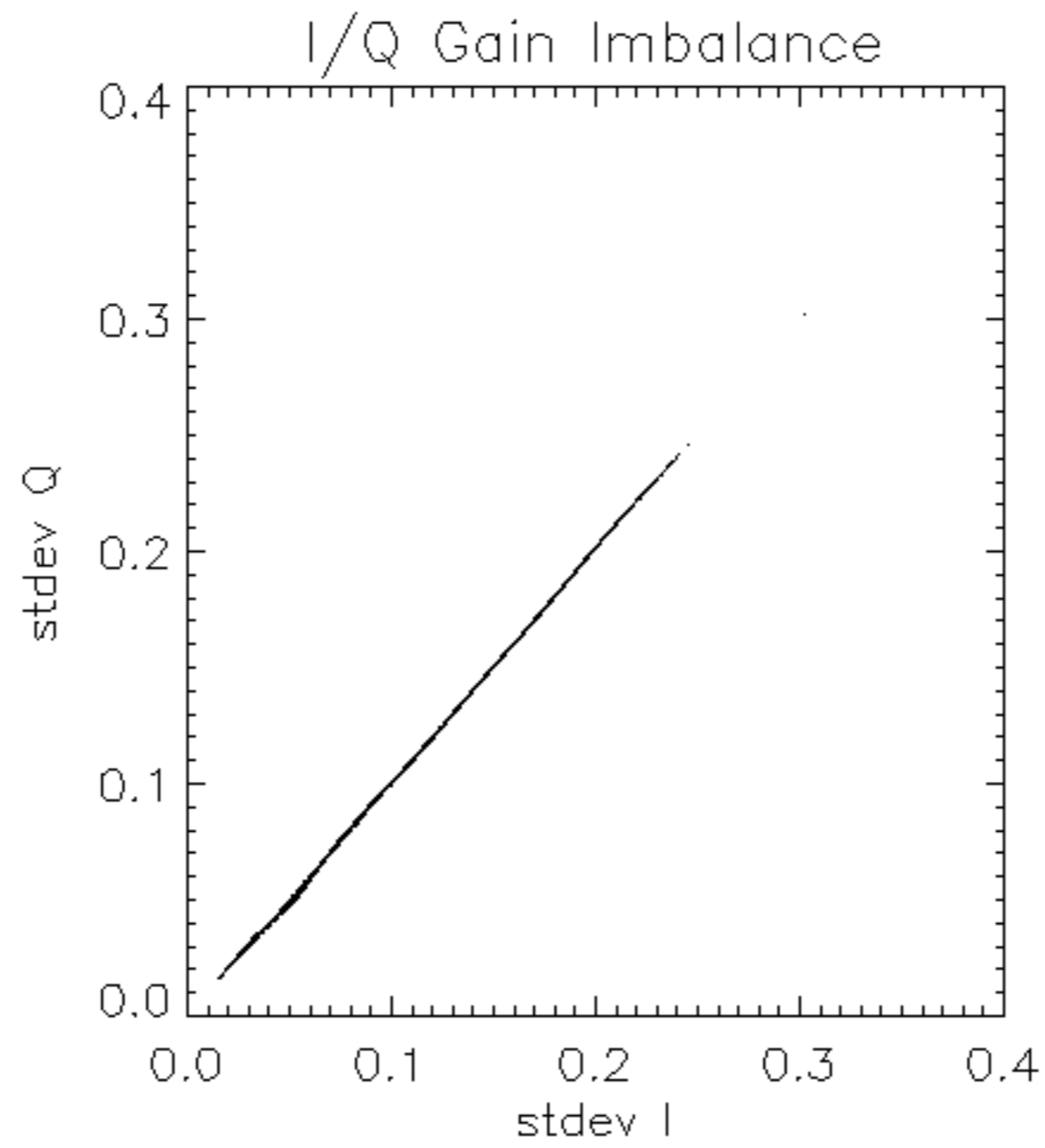


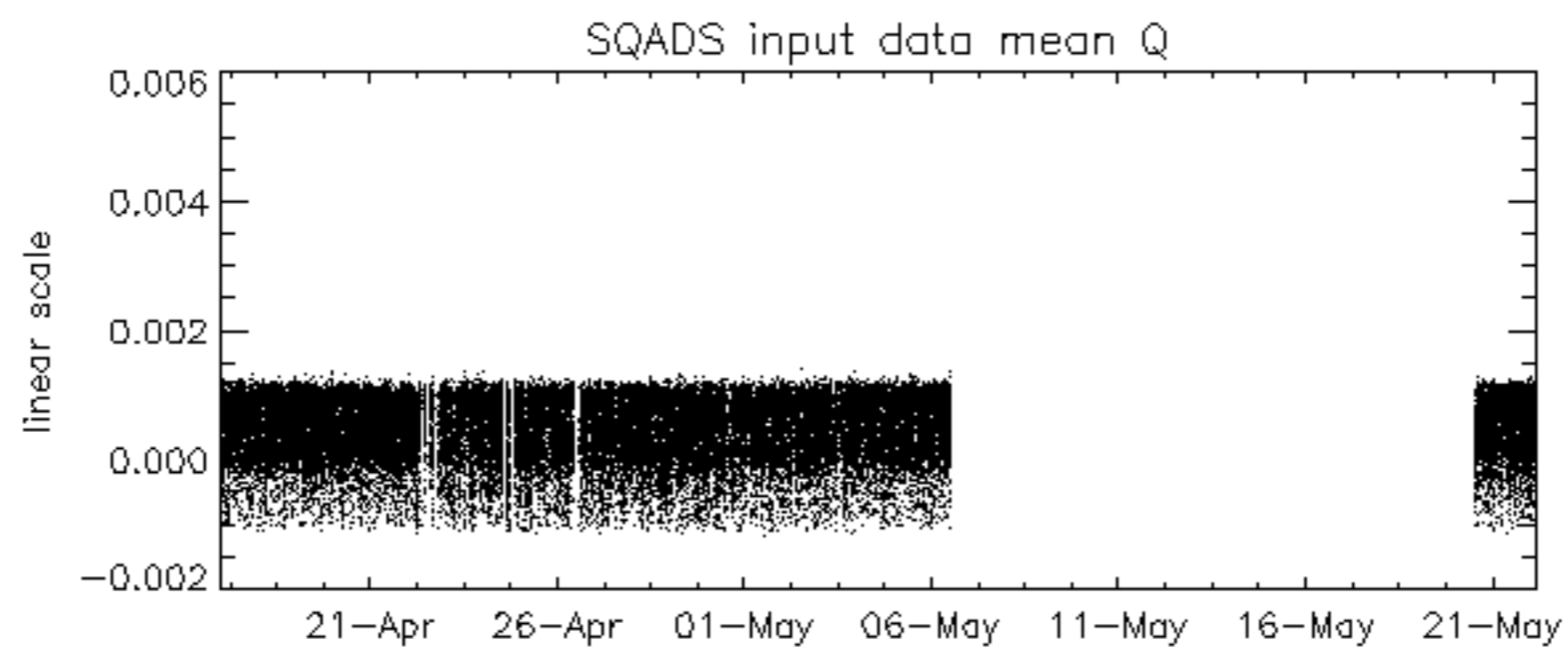
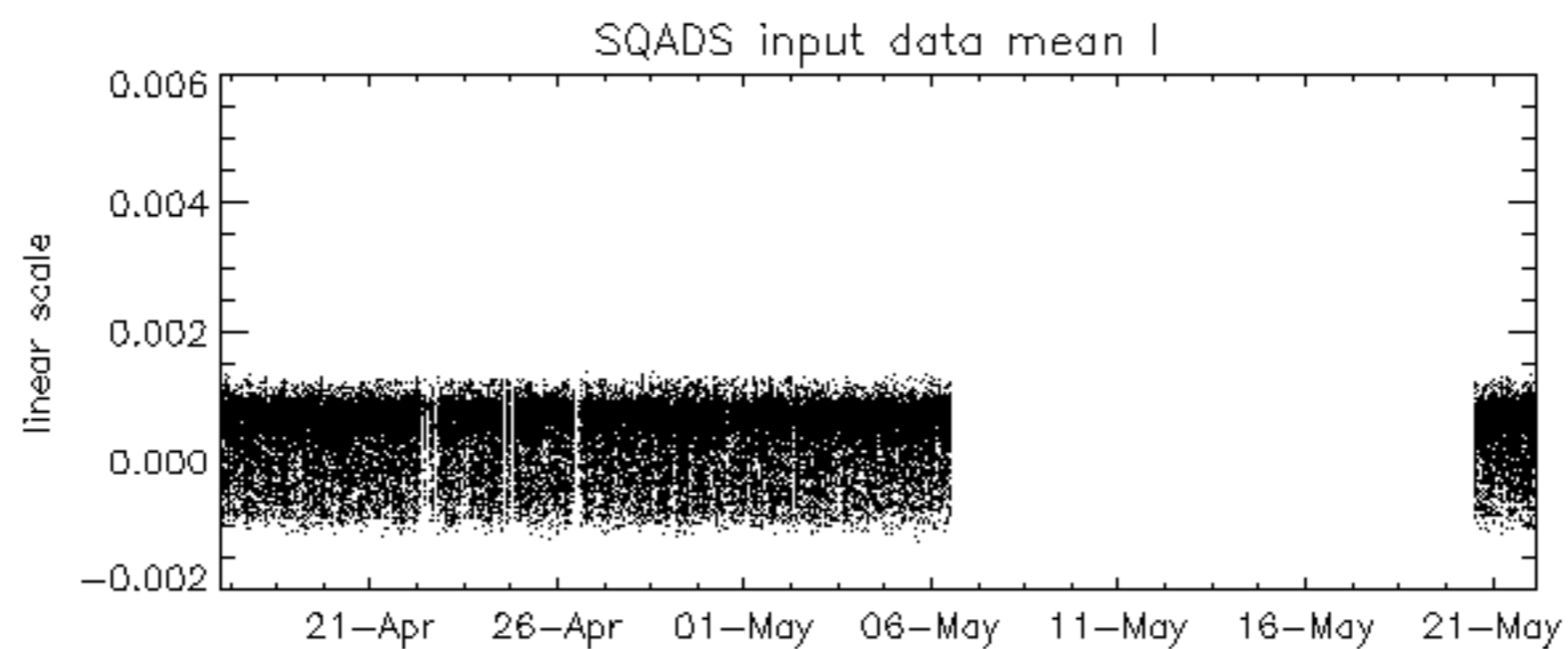
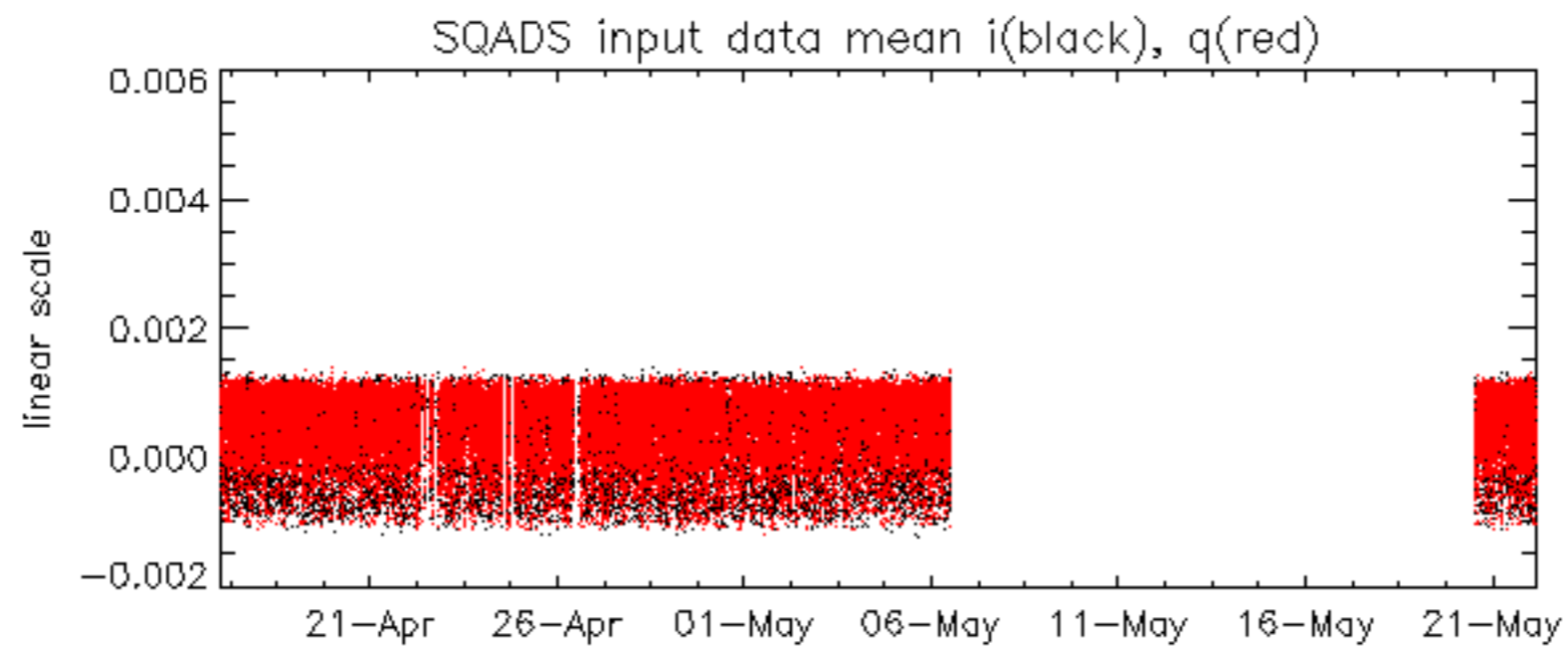
Doppler difference, estimated-predicted 'WSM' 'SS1' descending -error mean of -17.140711 Hz

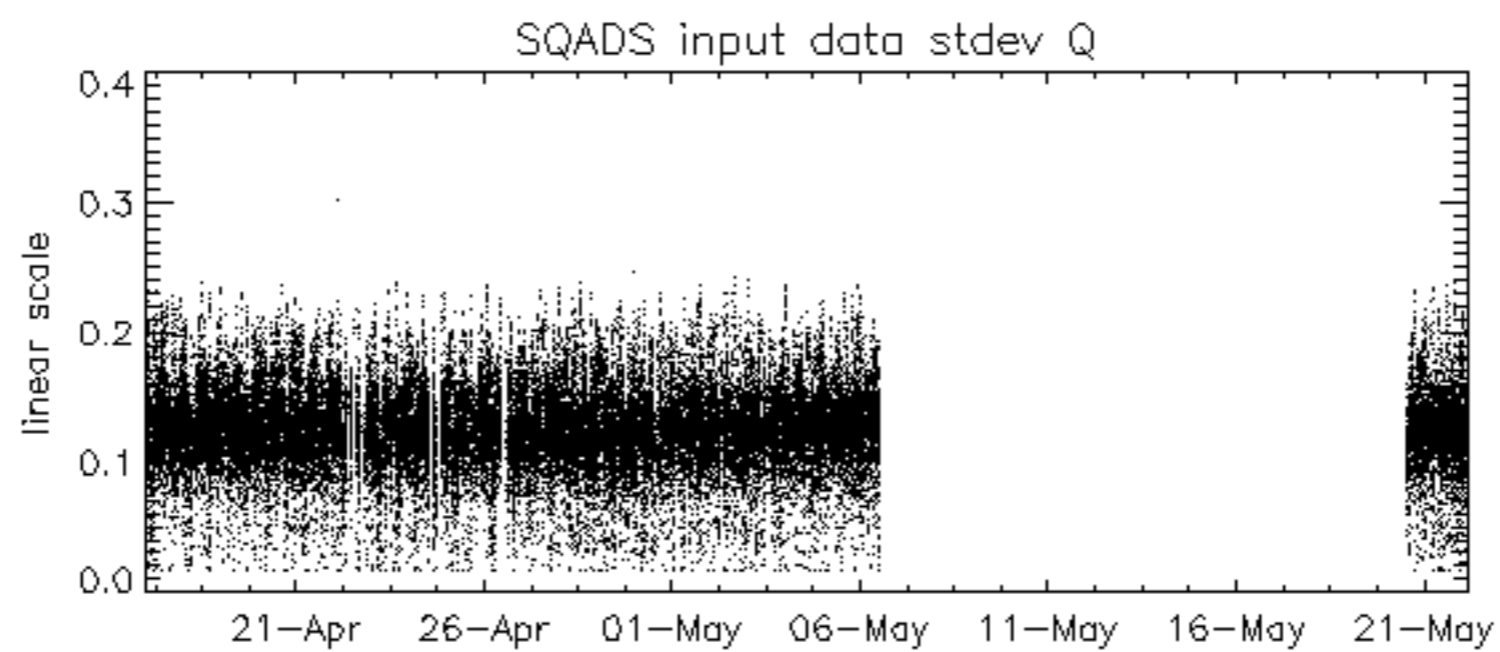
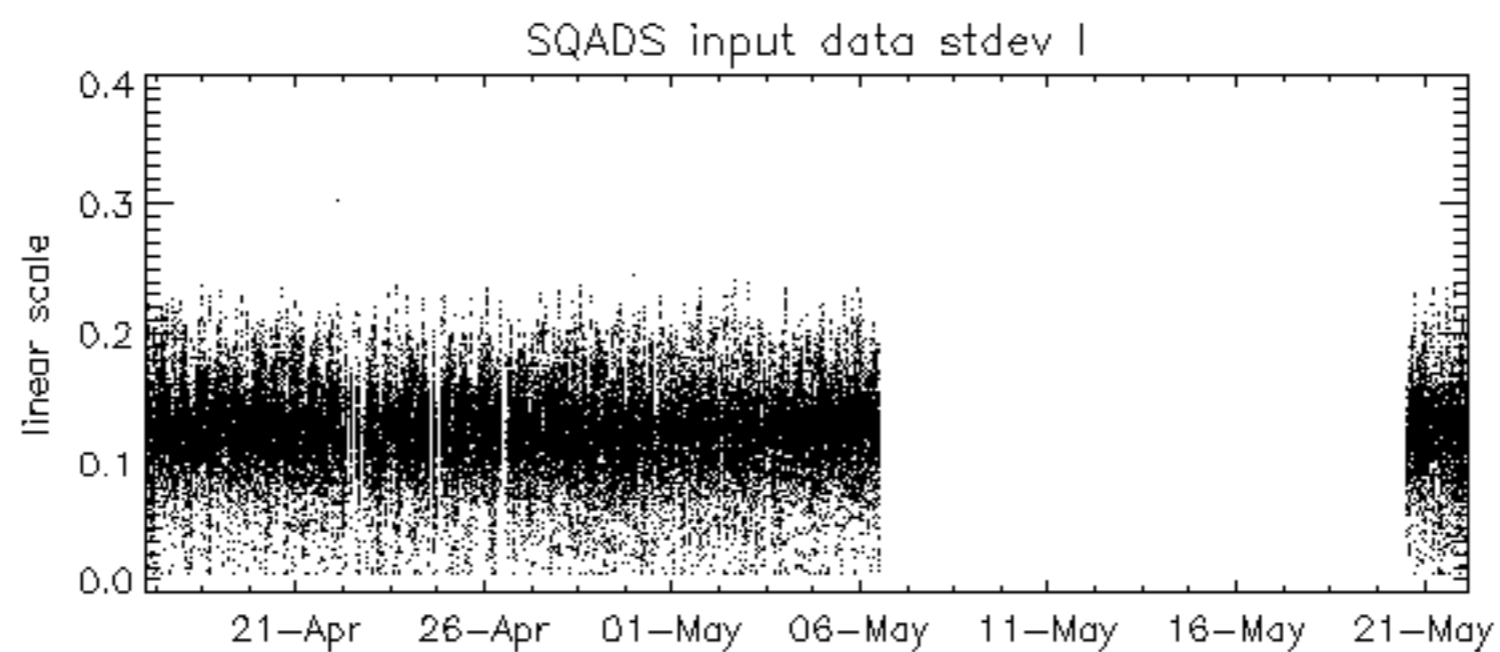
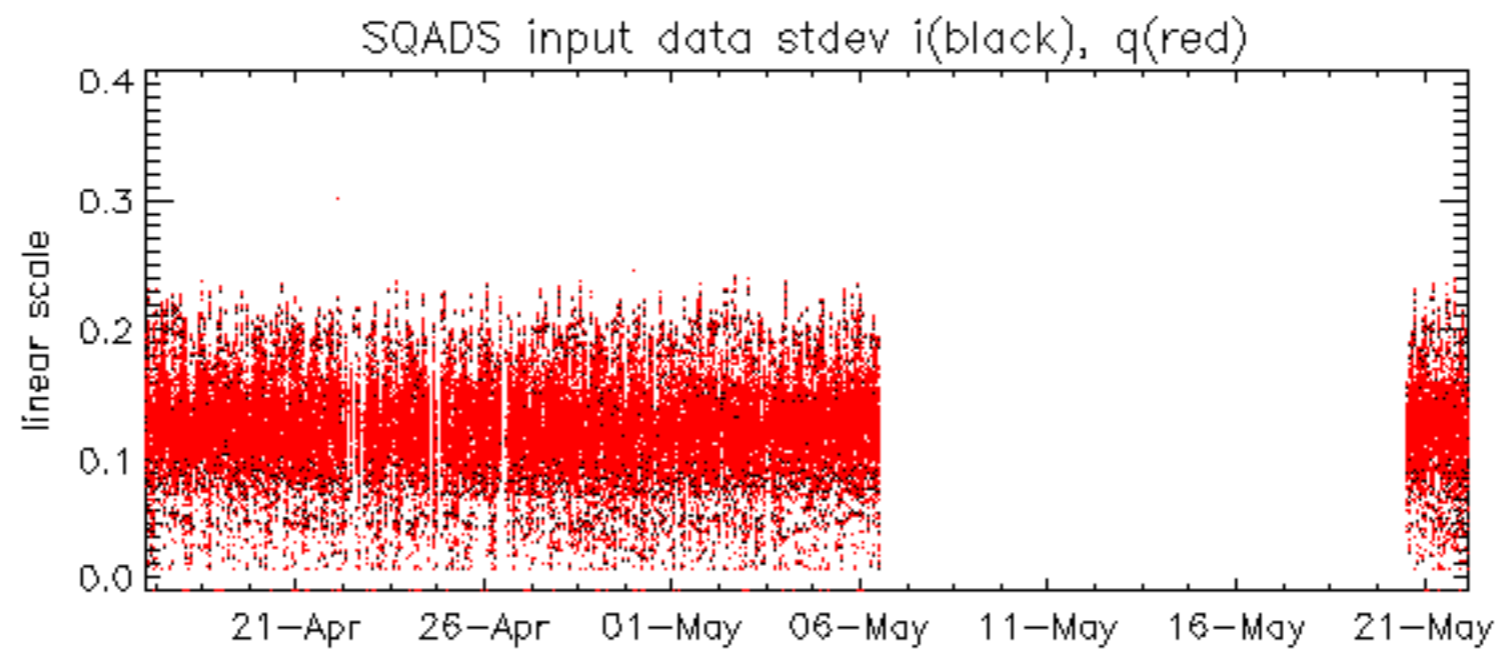


No anomalies observed on available MS products:

No anomalies observed.



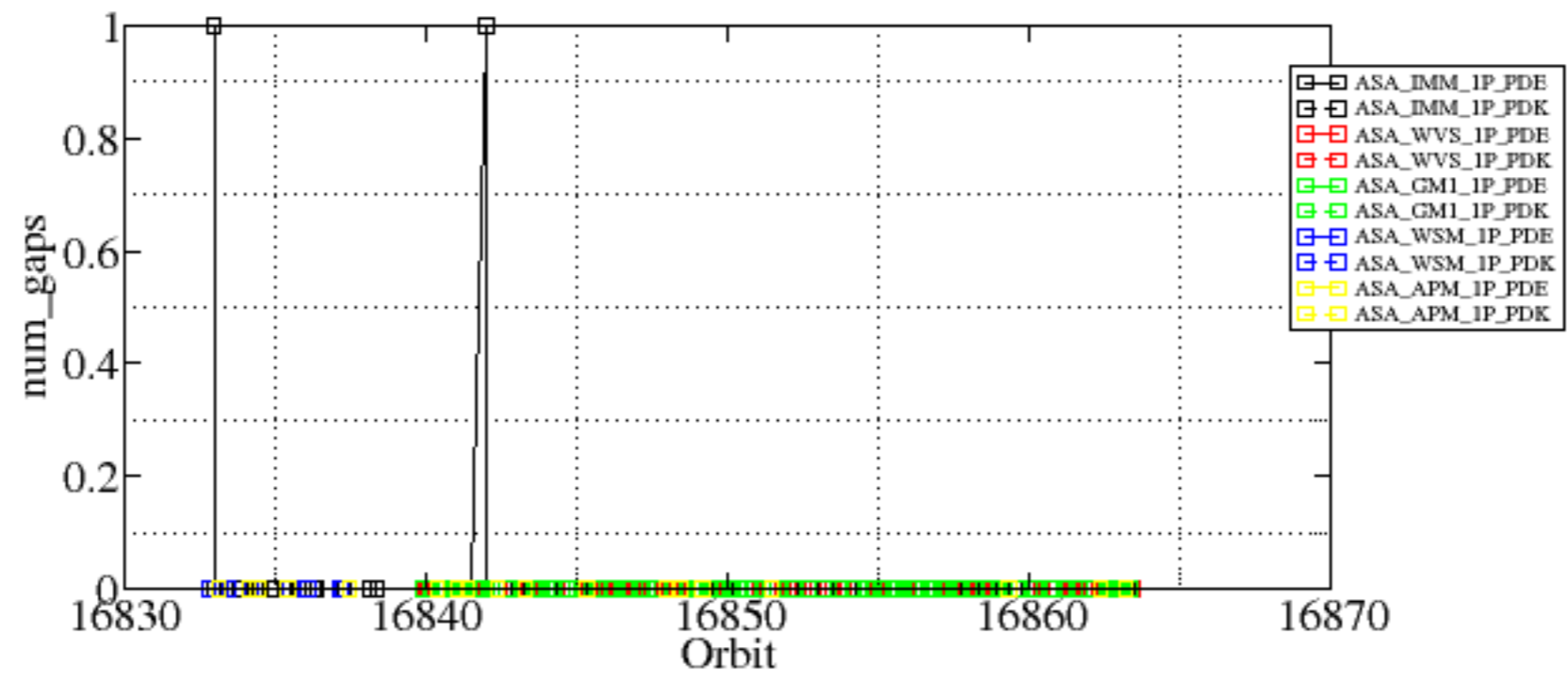


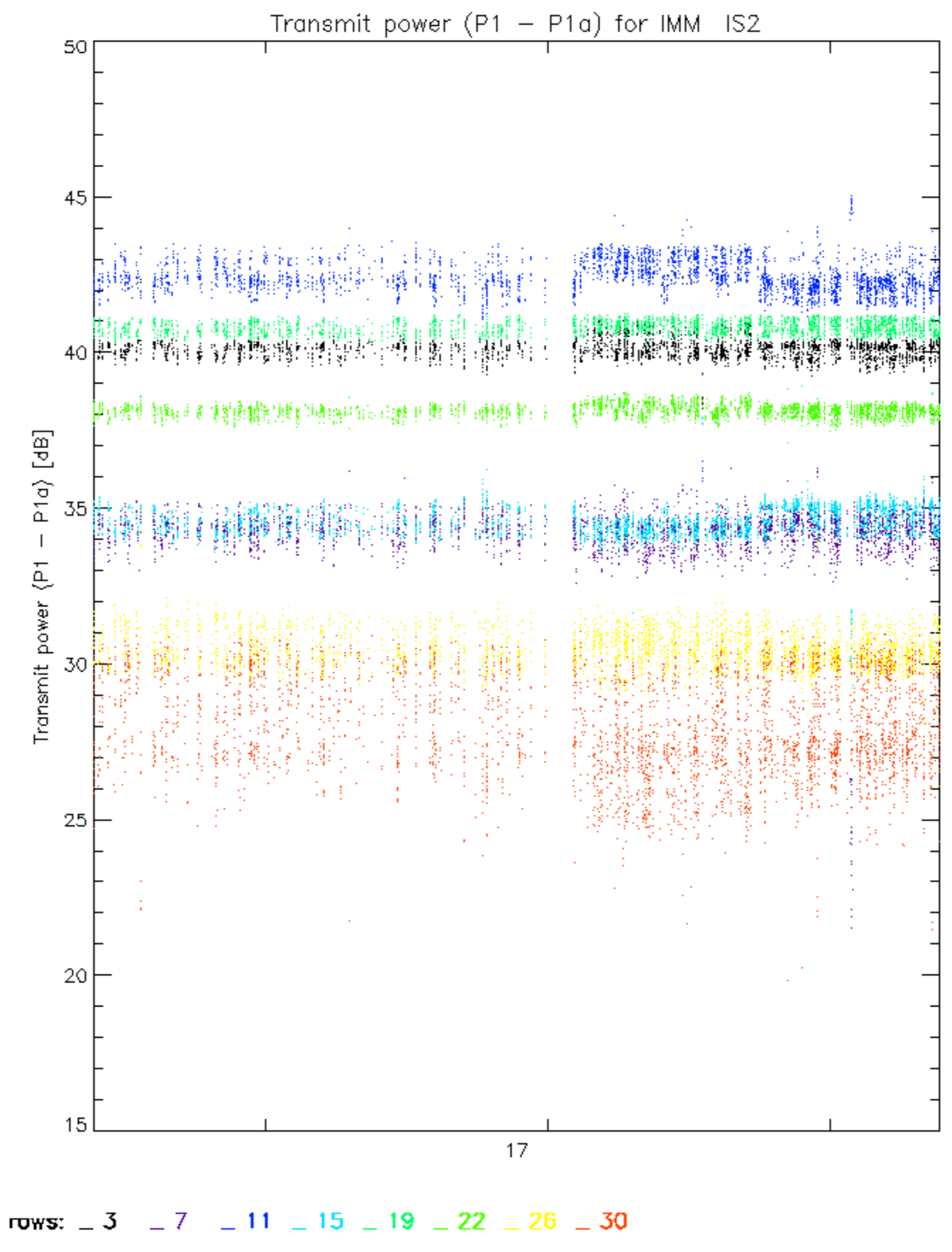


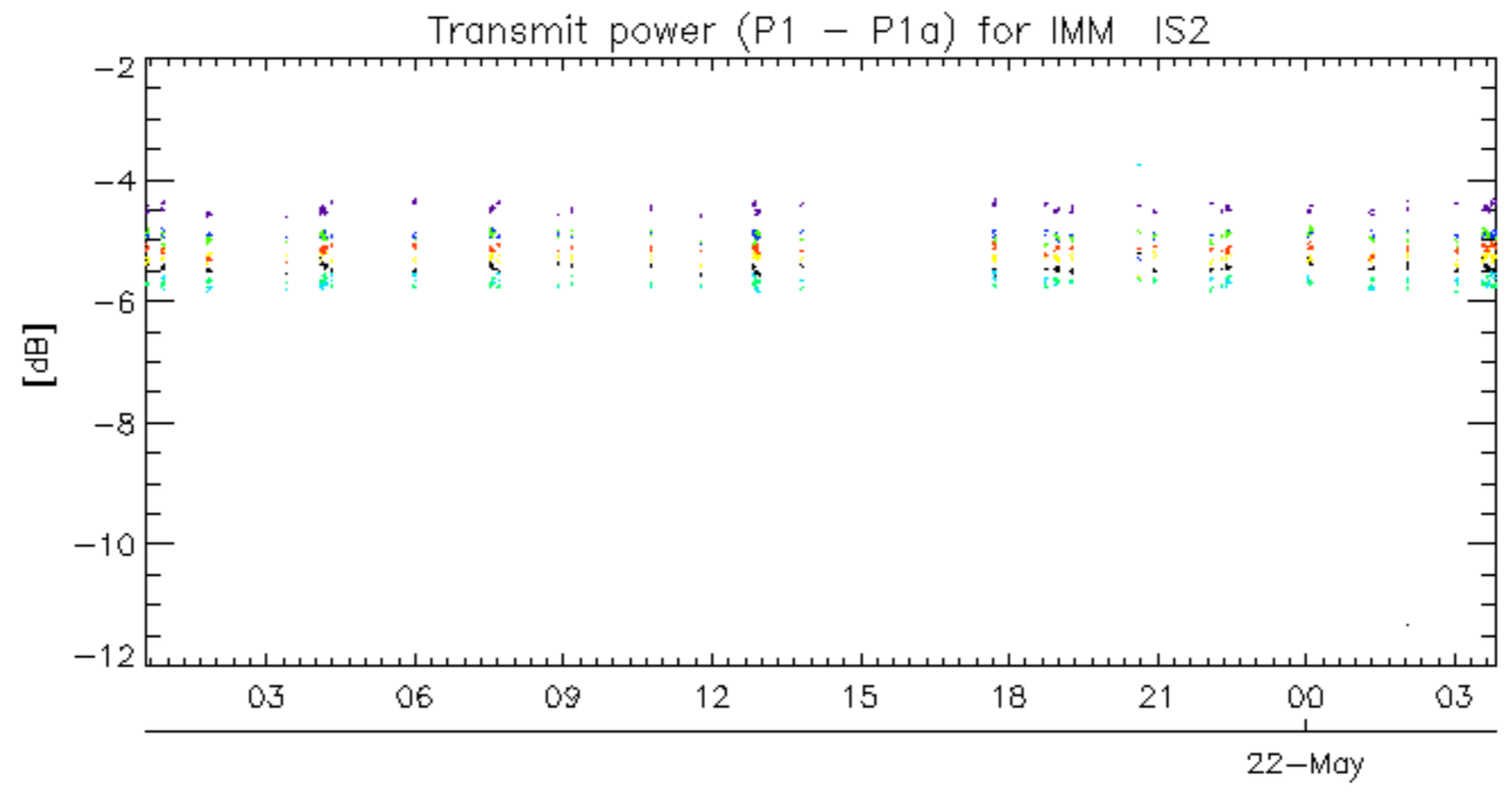
Summary of analysis for the last 3 days 2005052[012]

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_1PNPDE20050520_004259_00000622037_00245_16832_2011.N1	1	0
ASA_IMM_1PNPDE20050520_155124_000001072037_00254_16841_2063.N1	1	0
ASA_IMM_1PNPDK20050520_061446_000004082037_00249_16836_4748.N1	0	19
ASA_IMM_1PNPDK20050520_074429_00000832037_00250_16837_4758.N1	0	17
ASA_IMM_1PNPDK20050520_075913_000003382037_00250_16837_4755.N1	0	14
ASA_IMM_1PNPDK20050520_092334_00000392037_00251_16838_4760.N1	0	12
ASA_IMM_1PNPDK20050520_094552_00000892037_00251_16838_4763.N1	0	15
ASA_IMM_1PNPDK20050520_123932_000001082037_00253_16840_4766.N1	0	13
ASA_IMM_1PNPDK20050520_124234_000001042037_00253_16840_4769.N1	0	29
ASA_IMM_1PNPDK20050521_072959_000002402037_00264_16851_4821.N1	0	6
ASA_IMM_1PNPDK20050521_074032_00000622037_00264_16851_4831.N1	0	14
ASA_IMM_1PNPDK20050521_085157_00000692037_00265_16852_4829.N1	0	7
ASA_IMM_1PNPDK20050521_090859_00000622037_00265_16852_4827.N1	0	7
ASA_IMM_1PNPDK20050521_091100_00000302037_00265_16852_4828.N1	0	12
ASA_IMM_1PNPDK20050521_104453_00000622037_00266_16853_4835.N1	0	7
ASA_IMM_1PNPDK20050521_104654_00000342037_00266_16853_4836.N1	0	10
ASA_IMM_1PNPDK20050521_134748_00000432037_00268_16855_4838.N1	0	7
ASA_GM1_1PNPDK20050520_152850_000003502037_00254_16841_1201.N1	0	15
ASA_GM1_1PNPDK20050521_074554_000006942037_00264_16851_1258.N1	0	6
ASA_GM1_1PNPDK20050521_085554_000006402037_00265_16852_1260.N1	0	14
ASA_GM1_1PNPDK20050521_094520_000009242037_00265_16852_1269.N1	0	6
ASA_GM1_1PNPDK20050521_135741_000007002037_00268_16855_1296.N1	0	15
ASA_WSM_1PNPDE20050520_013211_000003062037_00246_16833_3281.N1	0	71
ASA_WSM_1PNPDK20050520_074638_00000672037_00250_16837_3395.N1	0	15
ASA_WSM_1PNPDK20050520_074847_00000242037_00250_16837_3396.N1	0	7
ASA_APM_1PNPDK20050520_081555_00000112037_00250_16837_2095.N1	0	3
ASA_APM_1PNPDK20050521_074432_00000572037_00264_16851_2097.N1	0	9

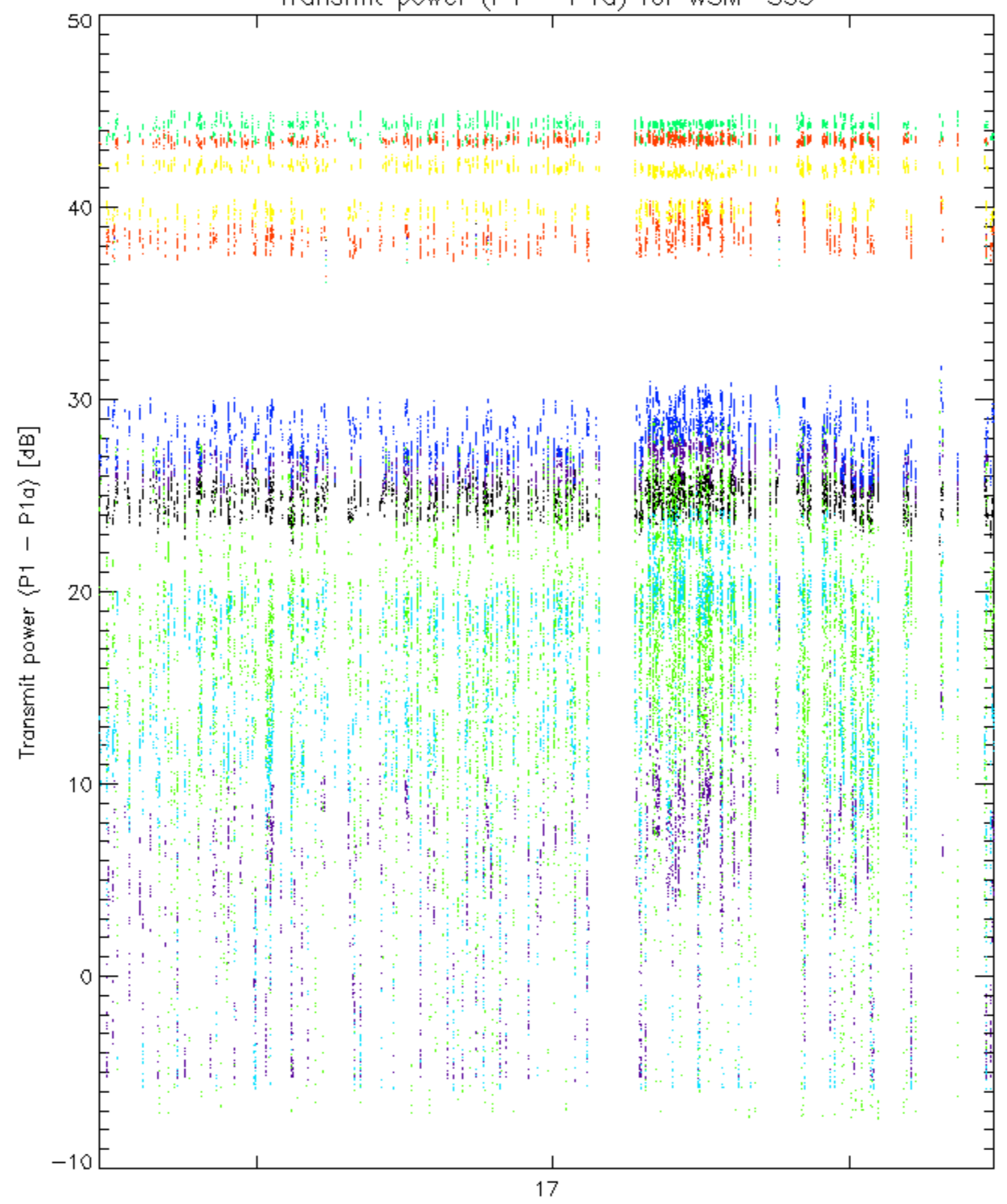






rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WSM SS3



rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.