

PRELIMINARY REPORT OF 061227

last update on Wed Dec 27 16:20:30 GMT 2006

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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 2006-12-26 00:00:00 to 2006-12-27 16:20:30

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	0	0	31	10	69
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	0	0	31	10	69
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	0	0	31	10	69
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	0	0	31	10	69

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	20061220 170201
H	20061221 062648

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

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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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	-3.964315	0.007910	-0.013573
7	P1	-3.142986	0.025007	0.026120
11	P1	-4.117918	0.026854	0.022359
15	P1	-6.326445	0.016212	-0.052409
19	P1	-3.650859	0.005891	-0.064893
22	P1	-4.654894	0.014085	-0.018790
26	P1	-3.958094	0.009388	-0.029860
30	P1	-5.891596	0.009460	-0.045306
3	P1	-16.554462	0.255490	-0.108390
7	P1	-17.291636	0.191875	0.050294
11	P1	-17.192003	0.483421	0.126828
15	P1	-13.056863	0.138187	0.045194
19	P1	-14.991545	0.094904	-0.058863
22	P1	-15.803551	0.557537	0.050650
26	P1	-15.078023	0.185891	-0.058545
30	P1	-17.508841	0.478531	0.024734

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.804499	0.094765	0.044246
7	P2	-21.724861	0.094288	0.059183
11	P2	-15.583344	0.103665	0.081838
15	P2	-7.112818	0.109648	0.021509
19	P2	-9.190290	0.106153	-0.011760
22	P2	-18.232647	0.099228	0.029305
26	P2	-16.586832	0.113945	-0.061709
30	P2	-19.460430	0.089634	0.007316

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.241756	0.009076	0.013651
7	P3	-8.241756	0.009076	0.013651
11	P3	-8.241756	0.009076	0.013651
15	P3	-8.241756	0.009076	0.013651
19	P3	-8.241756	0.009076	0.013651
22	P3	-8.241756	0.009076	0.013651

26	P3	-8.241792	0.009077	0.013442
30	P3	-8.241792	0.009077	0.013442

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-3.920017	0.014811	-0.026477
7	P1	-2.476818	0.017221	0.007486
11	P1	-2.851569	0.017908	-0.019273
15	P1	-3.689276	0.031839	-0.049965
19	P1	-3.546332	0.018708	-0.019641
22	P1	-5.027124	0.023844	-0.016037
26	P1	-6.029577	0.029188	-0.024060
30	P1	-5.347847	0.039517	-0.003884
3	P1	-11.744231	0.084580	-0.026231
7	P1	-10.062820	0.090083	-0.063238
11	P1	-10.339670	0.136670	-0.082720
15	P1	-10.711361	0.120510	-0.084649
19	P1	-15.733345	0.126189	0.009971
22	P1	-21.591898	1.425920	0.101030
26	P1	-16.064882	0.342073	0.071748
30	P1	-17.884098	0.366169	-0.068624

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.469070	0.129876	0.003646
7	P2	-22.226336	0.277796	0.062788

11	P2	-10.884910	0.142652	0.102192
15	P2	-4.988311	0.254978	0.022911
19	P2	-6.968020	0.288483	-0.023876
22	P2	-8.254248	0.140097	-0.003848
26	P2	-24.319384	0.201487	-0.009857
30	P2	-21.947893	0.165528	-0.012103

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.090779	0.005045	0.008008
7	P3	-8.090754	0.005024	0.007817
11	P3	-8.090838	0.005041	0.007836
15	P3	-8.090582	0.005030	0.008539
19	P3	-8.090731	0.005042	0.008199
22	P3	-8.090671	0.005031	0.008597
26	P3	-8.090838	0.005040	0.008152
30	P3	-8.090662	0.005016	0.007511

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	0.000559530
	stdev	1.67755e-07
MEAN Q	mean	0.000508082
	stdev	2.14524e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139324
	stdev	0.00119754
STDEV Q	mean	0.139716
	stdev	0.00121745



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006122[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_IMM_1PNPDE20061226_201156_00000492054_00114_25218_7986.N1	0	14
ASA_WSM_1PNPDE20061225_022028_000001402054_00089_25193_5683.N1	0	40
ASA_WSM_1PNPDE20061225_035048_000002812054_00090_25194_5816.N1	0	1
ASA_WSM_1PNPDE20061225_145900_000002872054_00097_25201_6096.N1	0	41
ASA_WSM_1PNPDE20061225_182246_000000852054_00099_25203_6458.N1	0	20
ASA_WSM_1PNPDE20061225_182246_000000852054_00099_25203_6639.N1	0	20
ASA_WSM_1PNPDE20061226_000916_000005742054_00102_25206_6895.N1	0	36
ASA_WSM_1PNPDE20061226_014553_000002442054_00103_25207_6968.N1	0	30
ASA_WSM_1PNPDE20061226_042643_000001842054_00105_25209_8829.N1	0	60
ASA_WSM_1PNPDE20061226_233738_000001412054_00116_25220_8721.N1	0	37
ASA_WSM_1PNPDE20061227_011513_000004412054_00117_25221_8723.N1	0	41









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)

Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

Acsending

Descending

7.3 - Doppler evolution versus ANX for WVS

7.4 - Unbiased Doppler Error for GM1

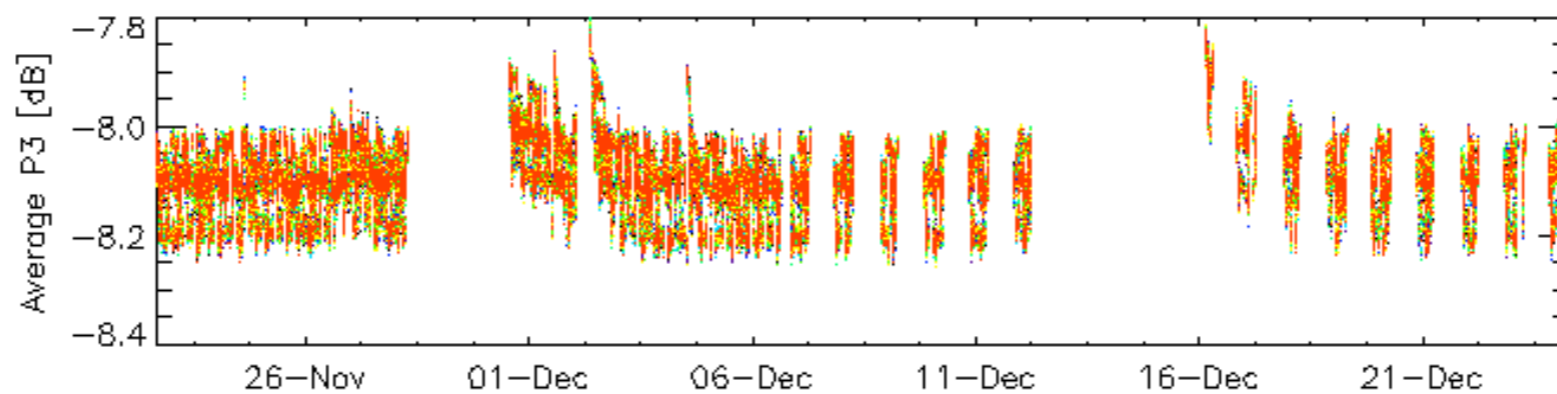
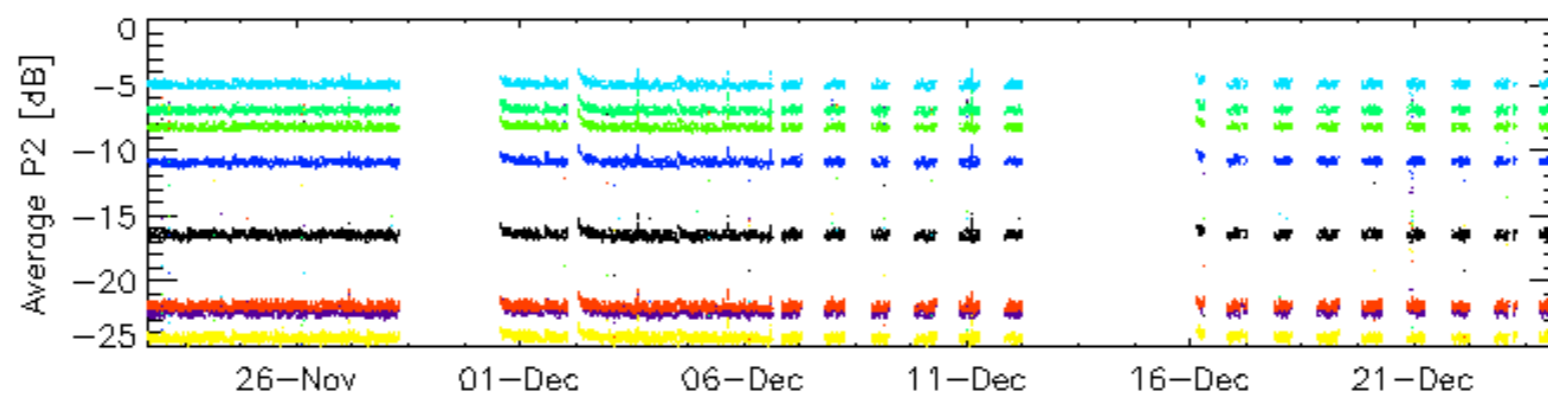
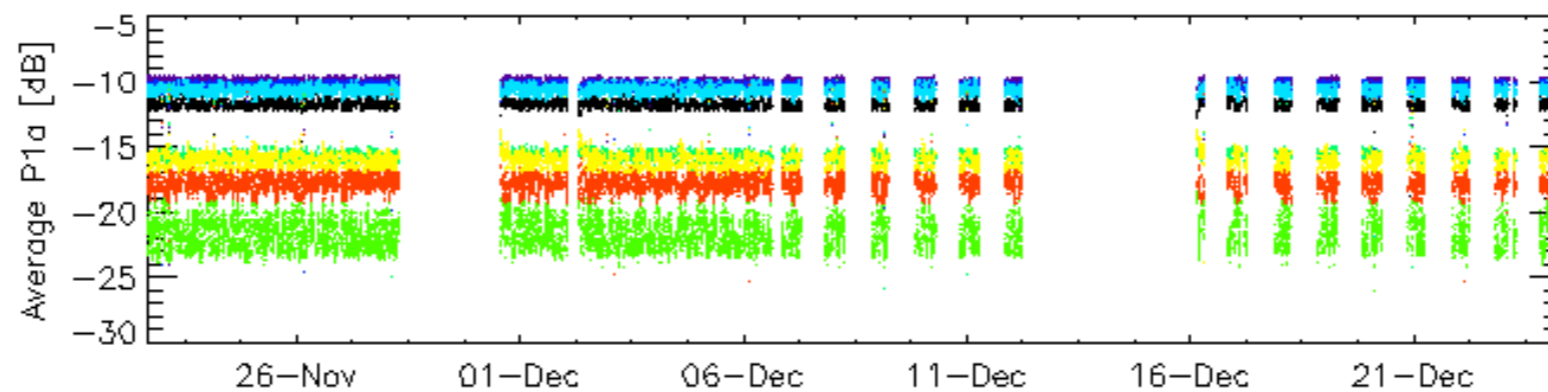
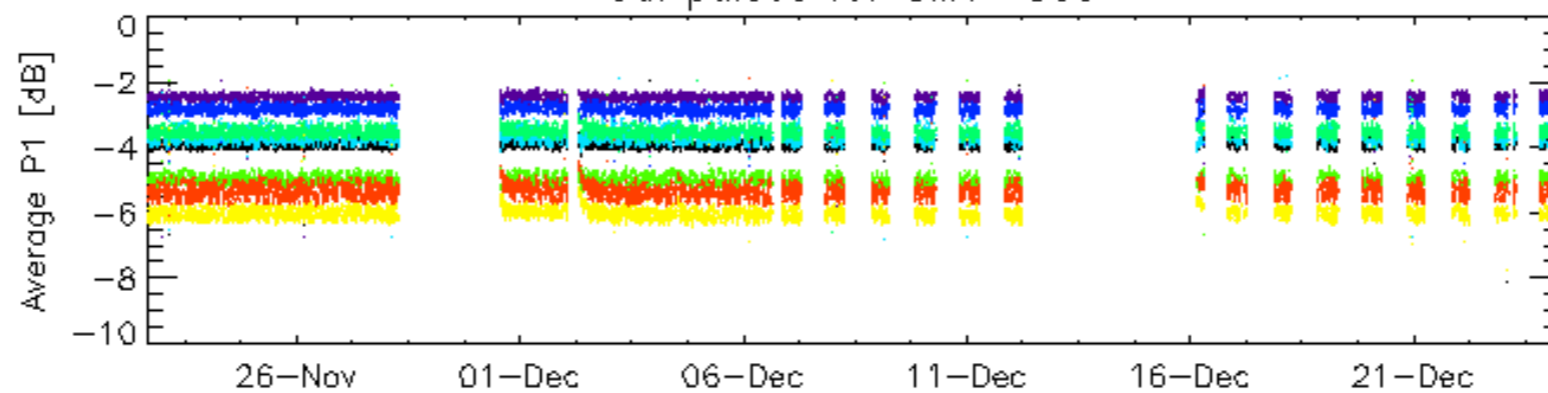
Evolution of unbiased Doppler error (Real - Expected)

Acsending

Descending

7.5 - Absolute Doppler for GM1

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

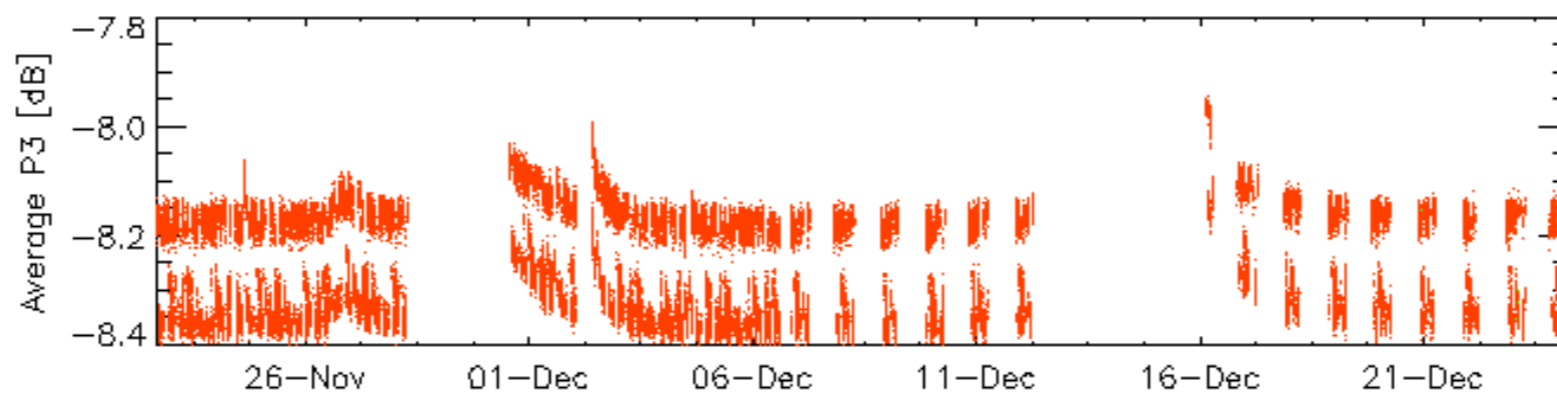
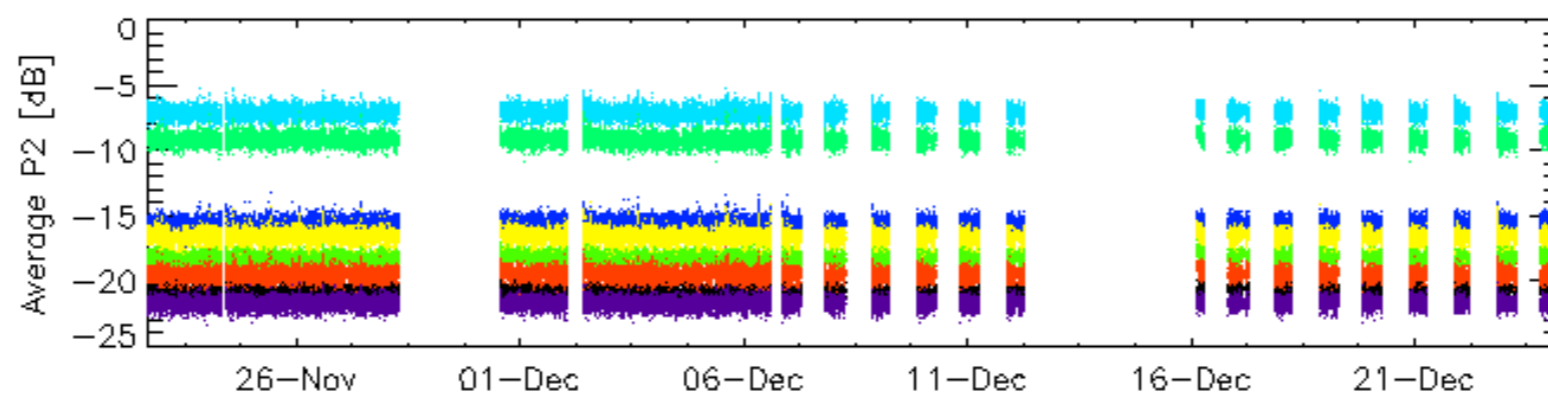
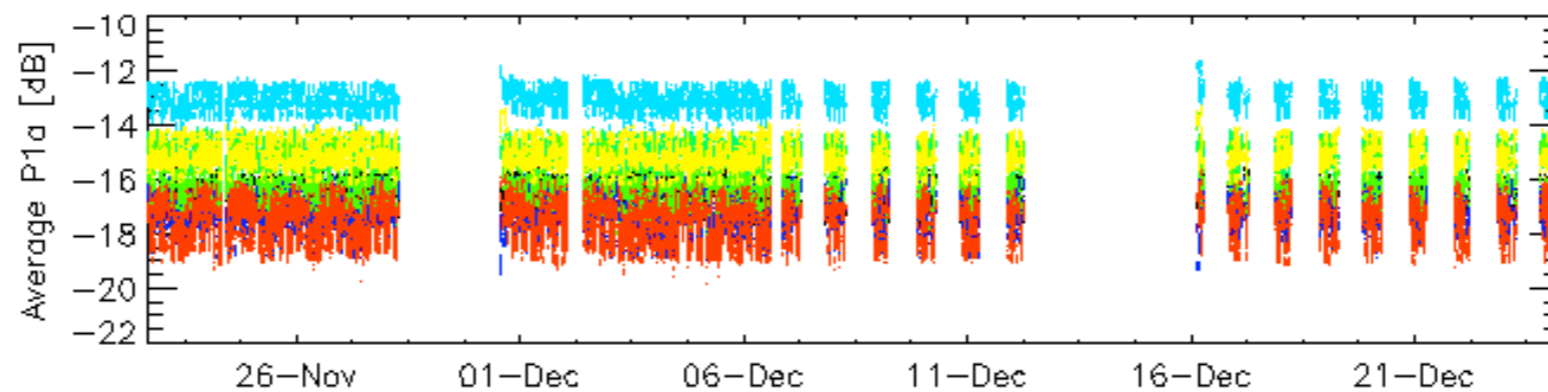
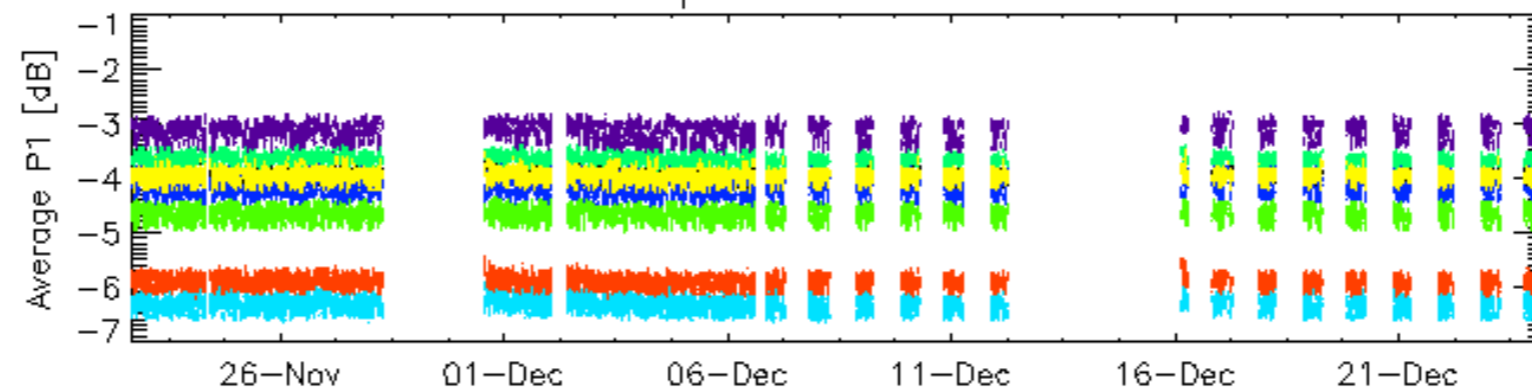
7.6 - Doppler evolution versus ANX for GM1

Cal pulses for GM1 SS3



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

Cal pulses for WVS IS2

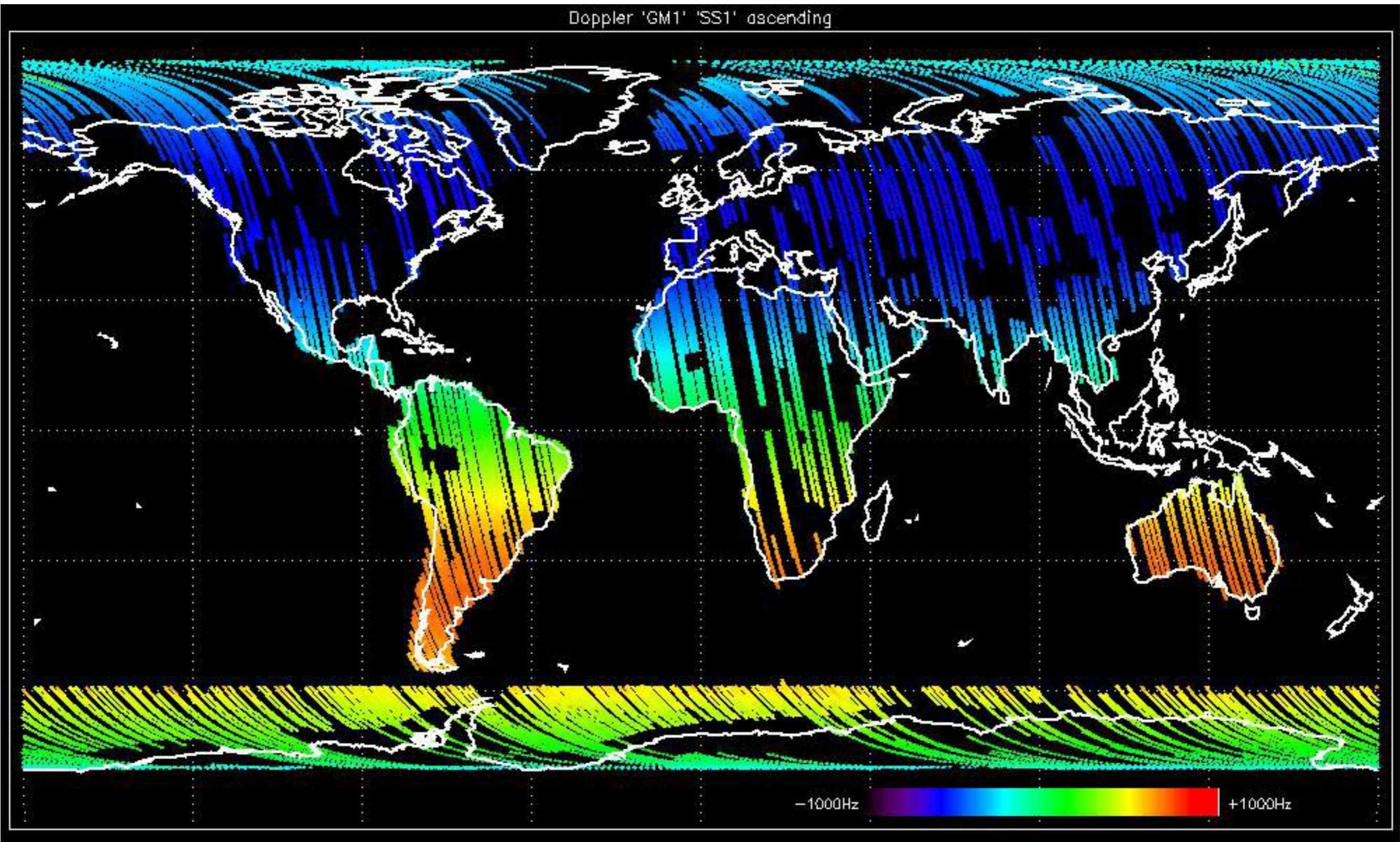


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

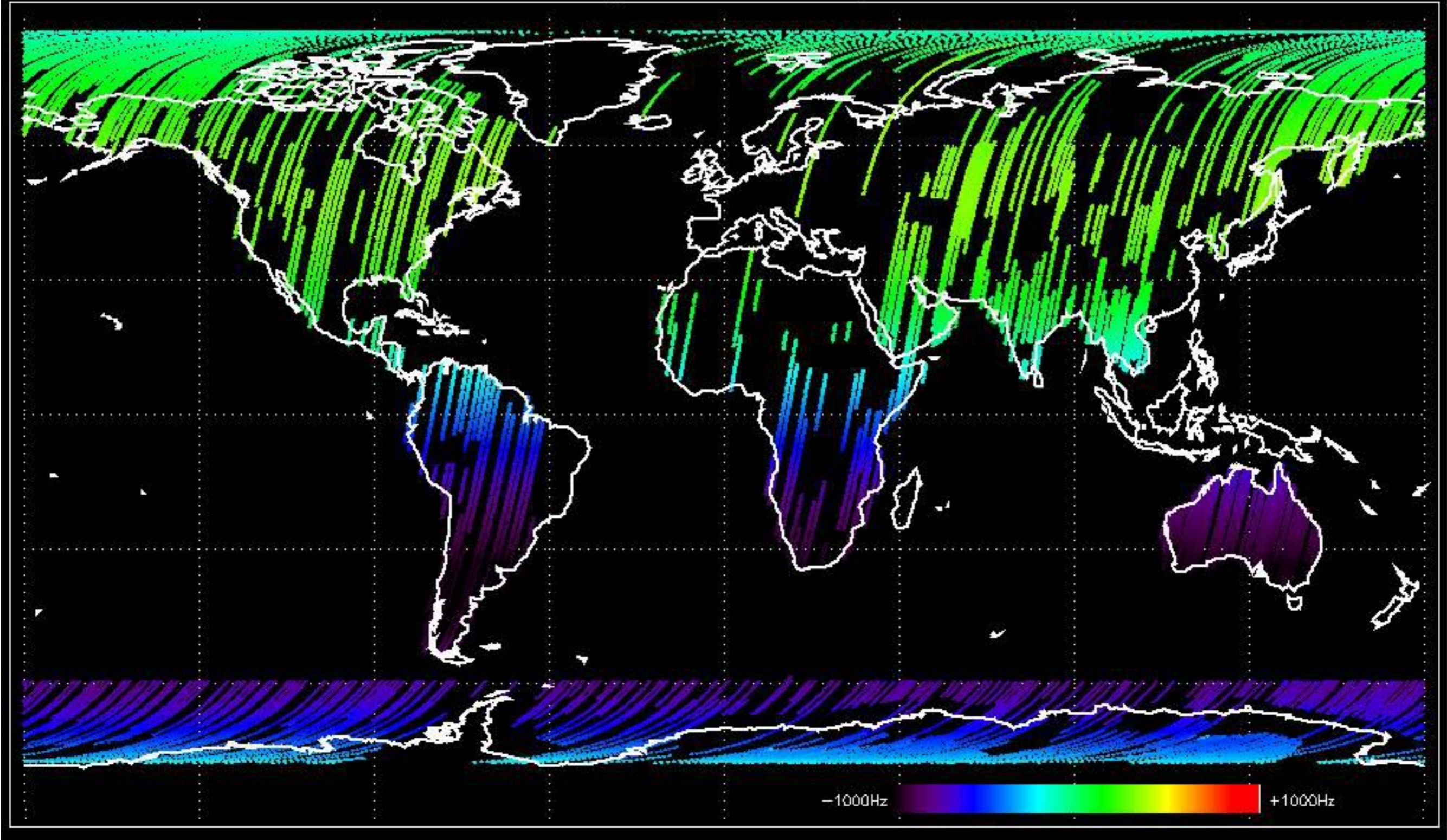
No anomalies observed.

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

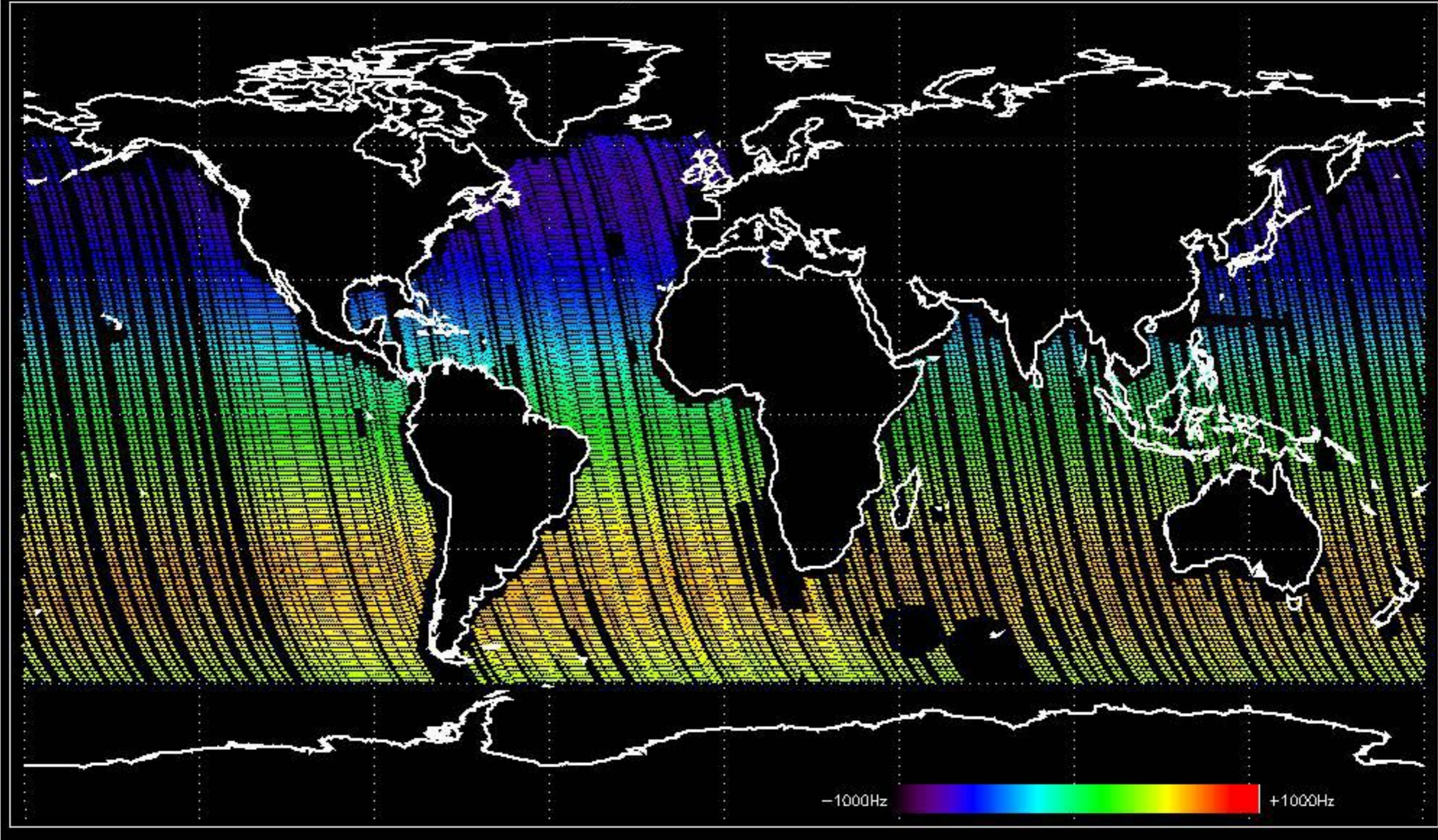
Doppler 'GM1' 'SS1' ascending



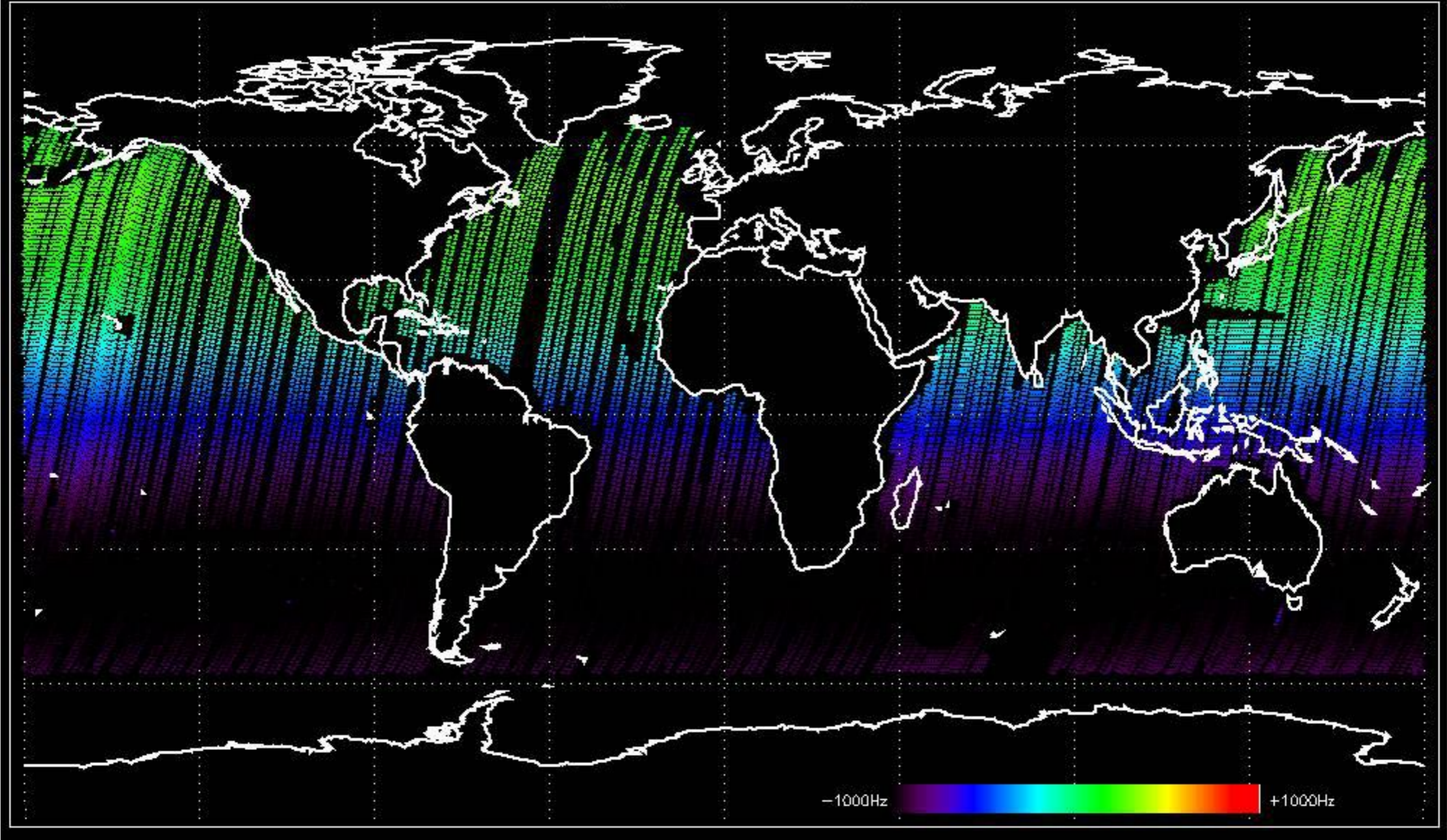
Doppler 'GM1' 'SS1' descending



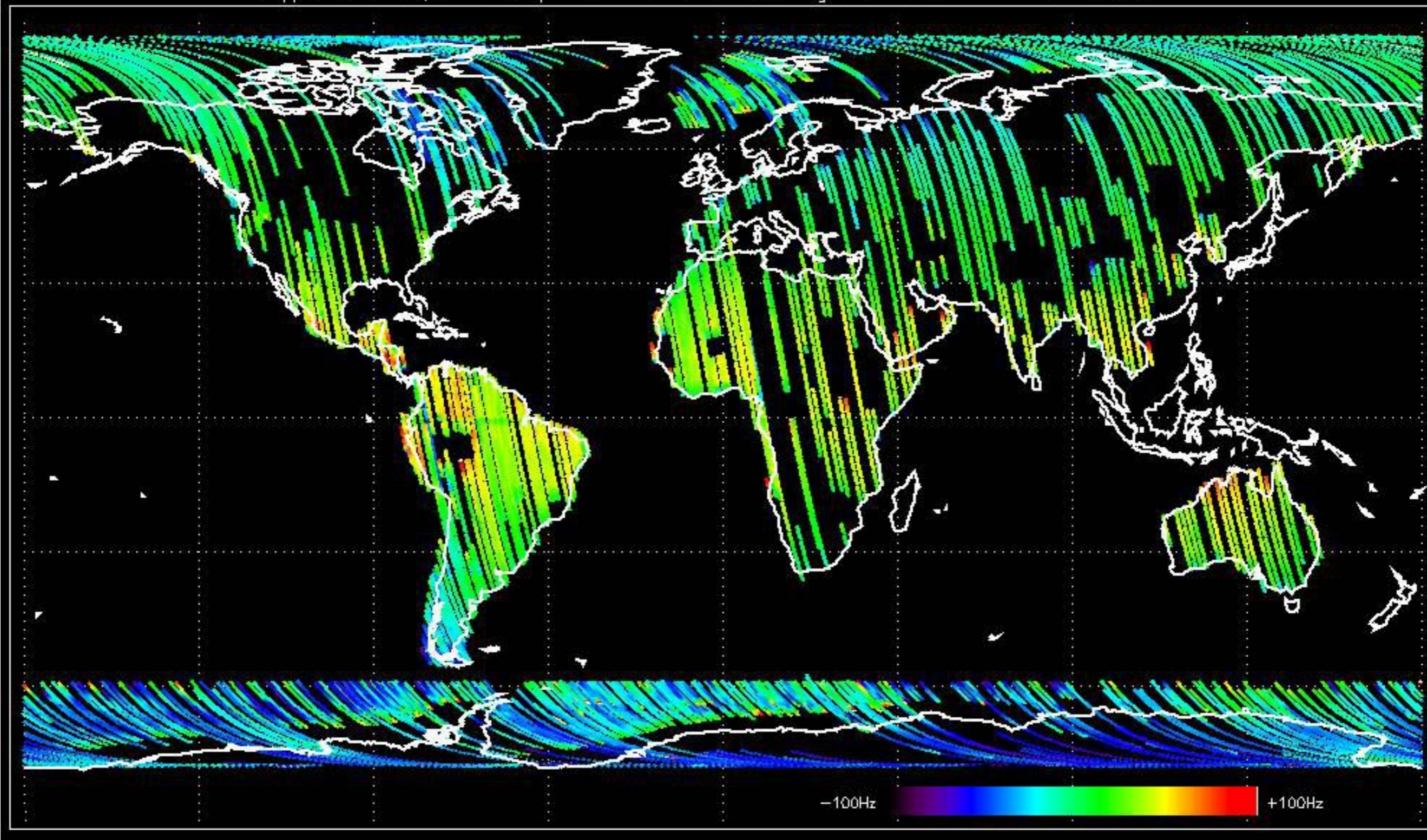
Doppler 'WVS' 'IS2' ascending



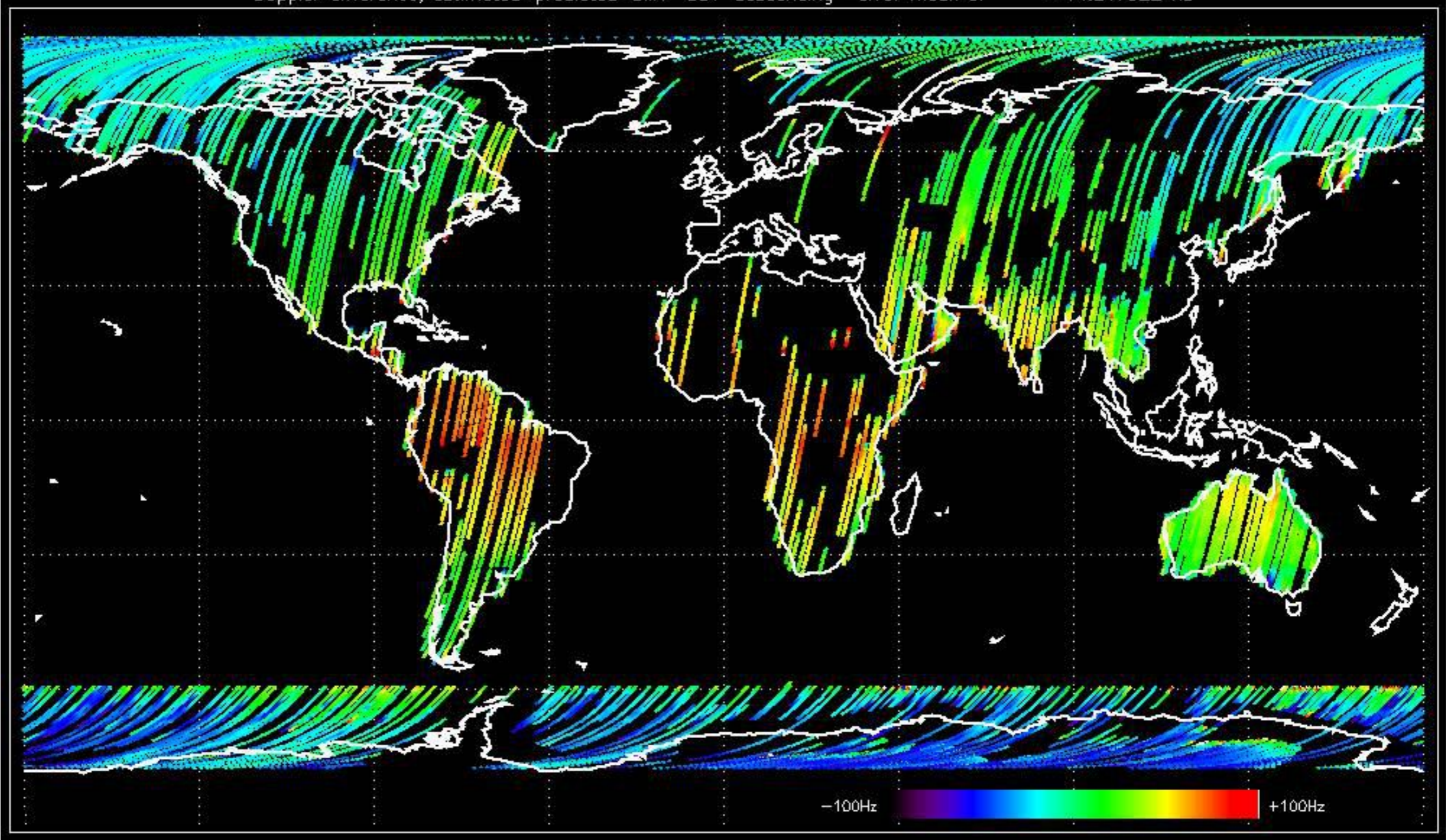
Doppler 'WVS' 'IS2' descending



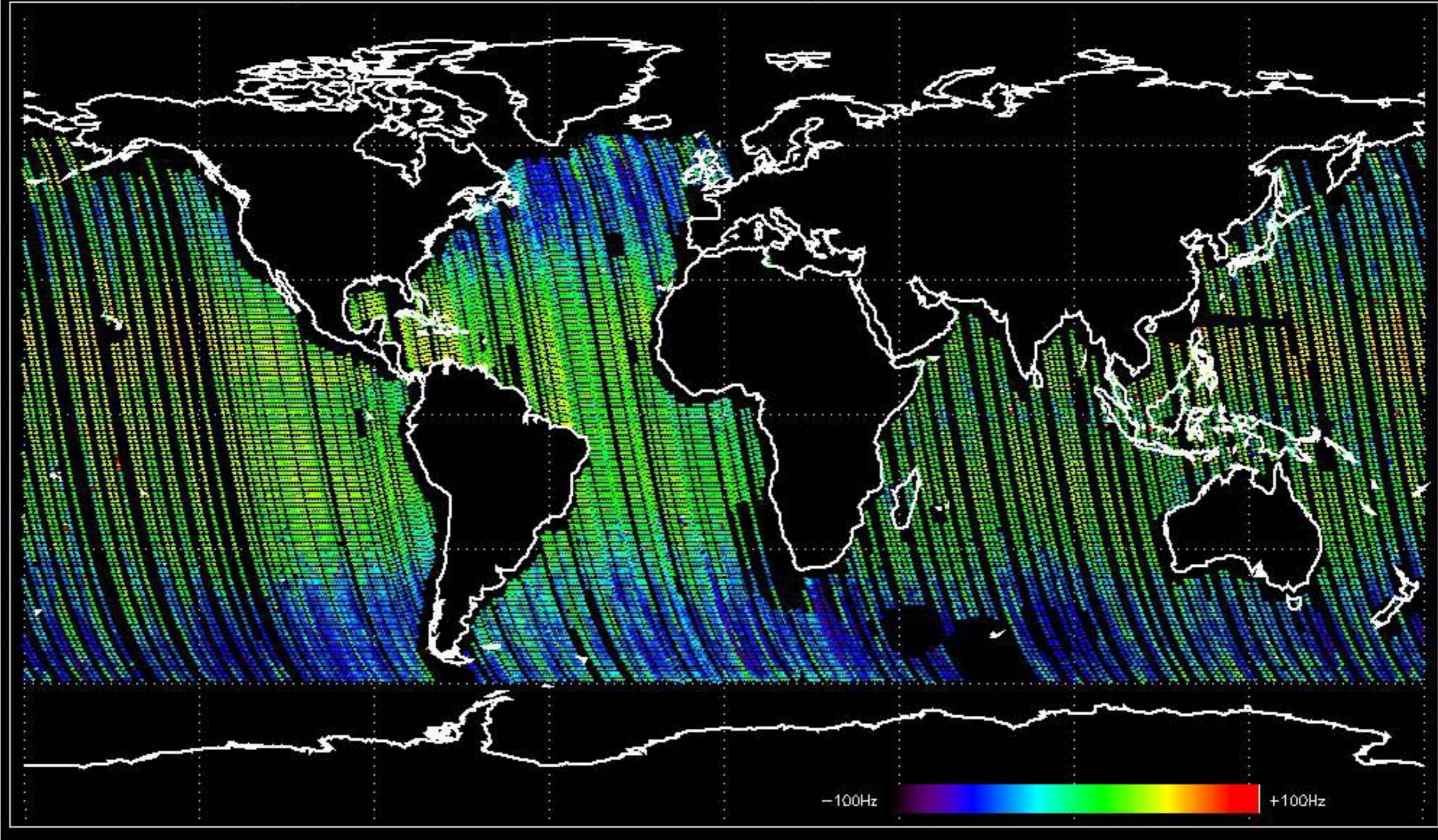
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.031322 Hz



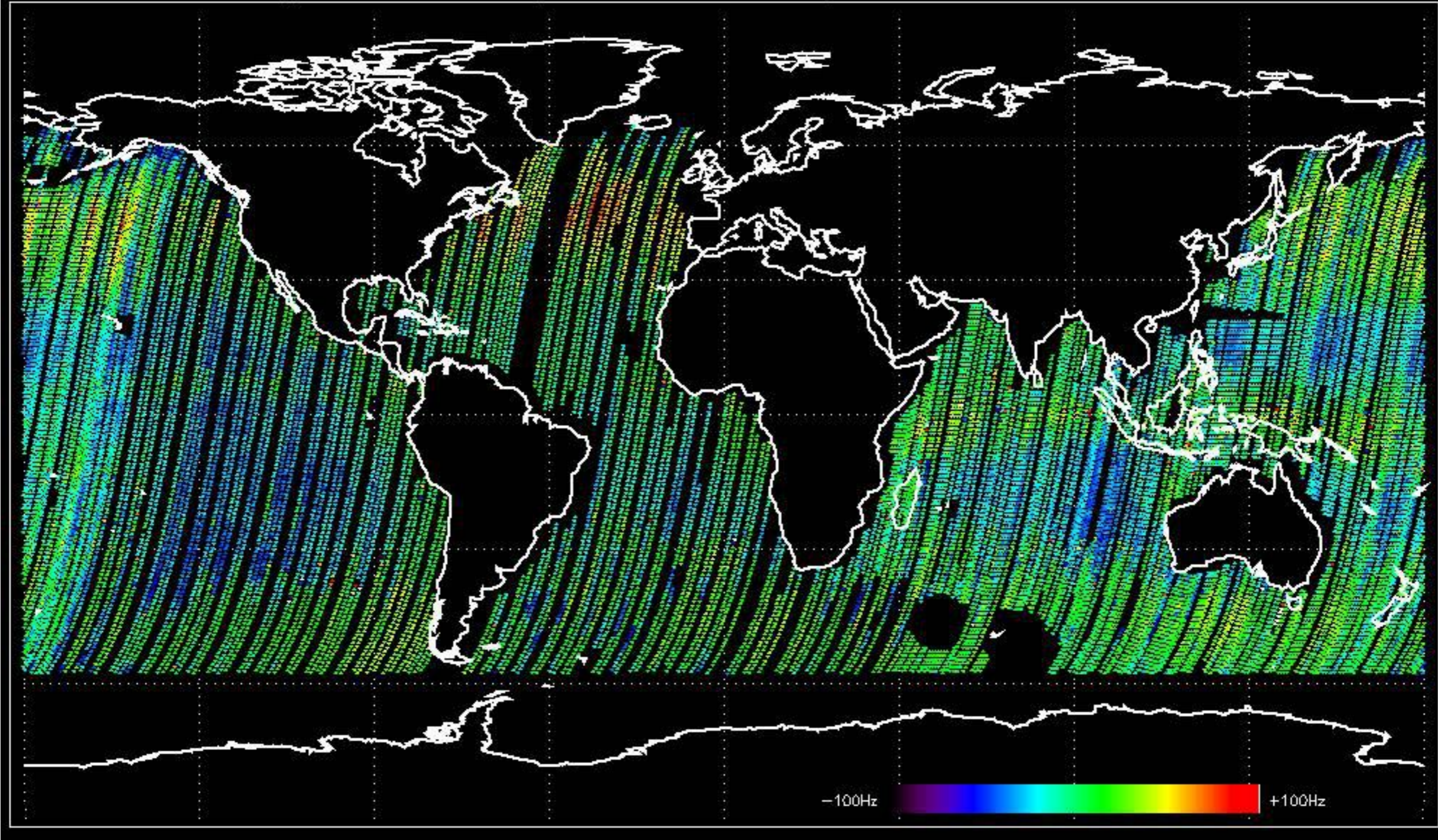
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.247922 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.377679 Hz

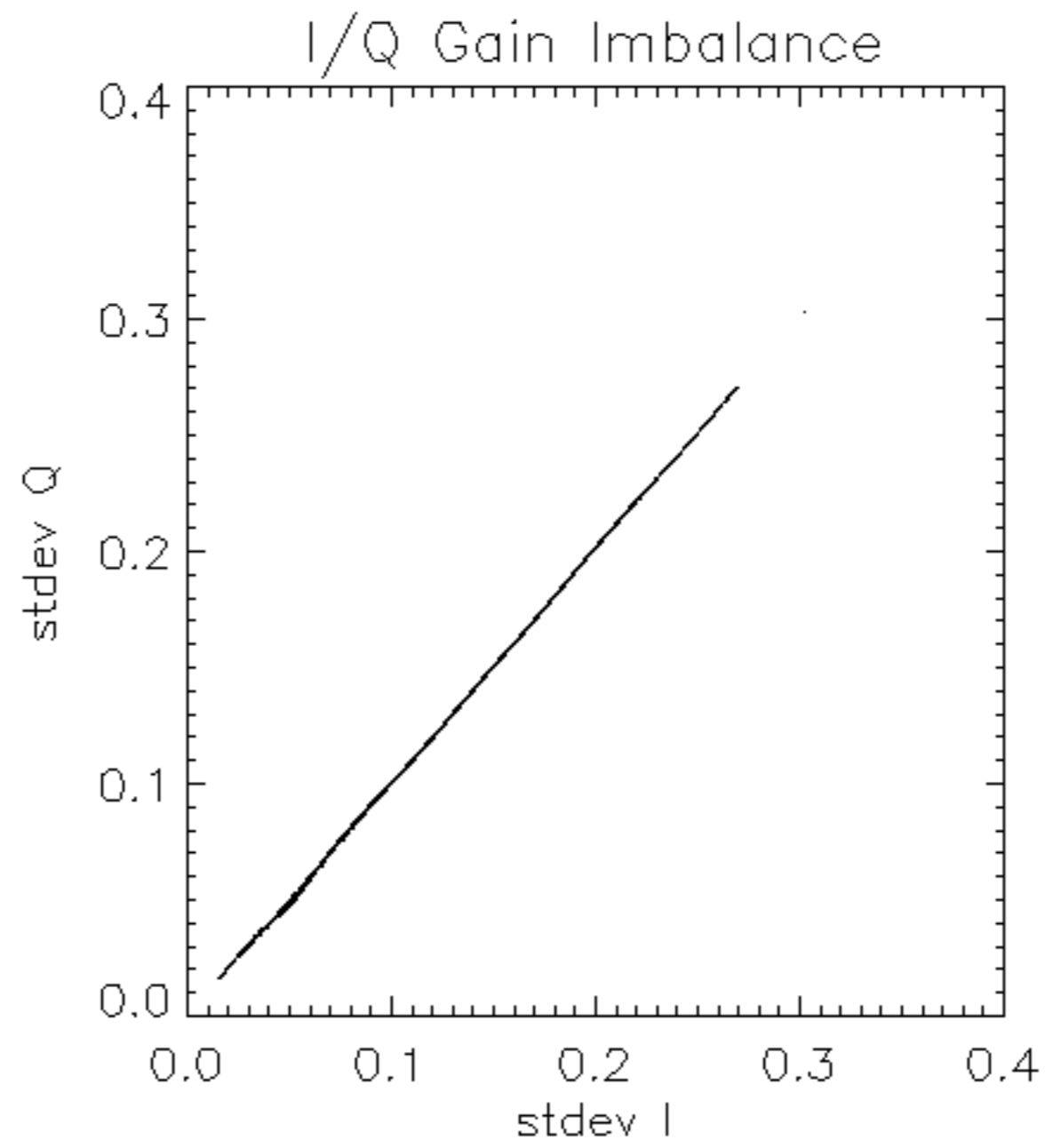


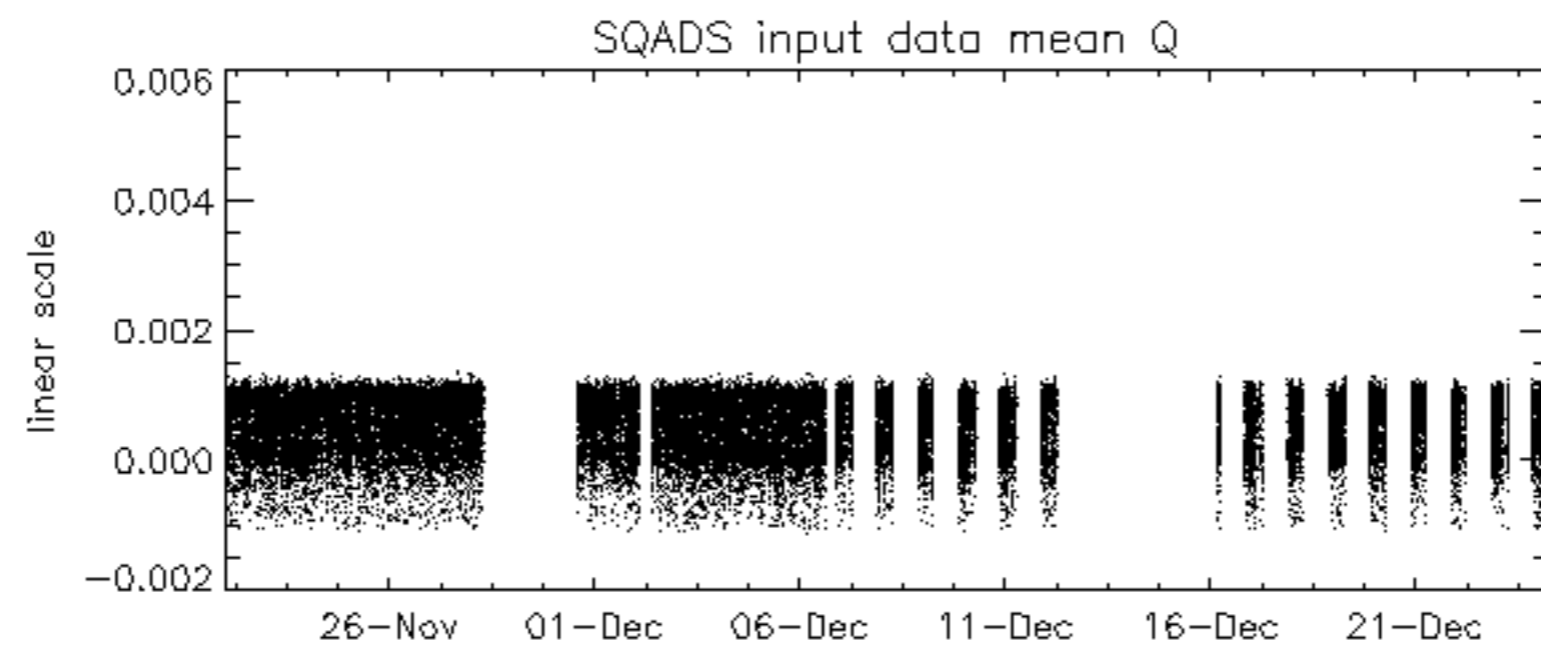
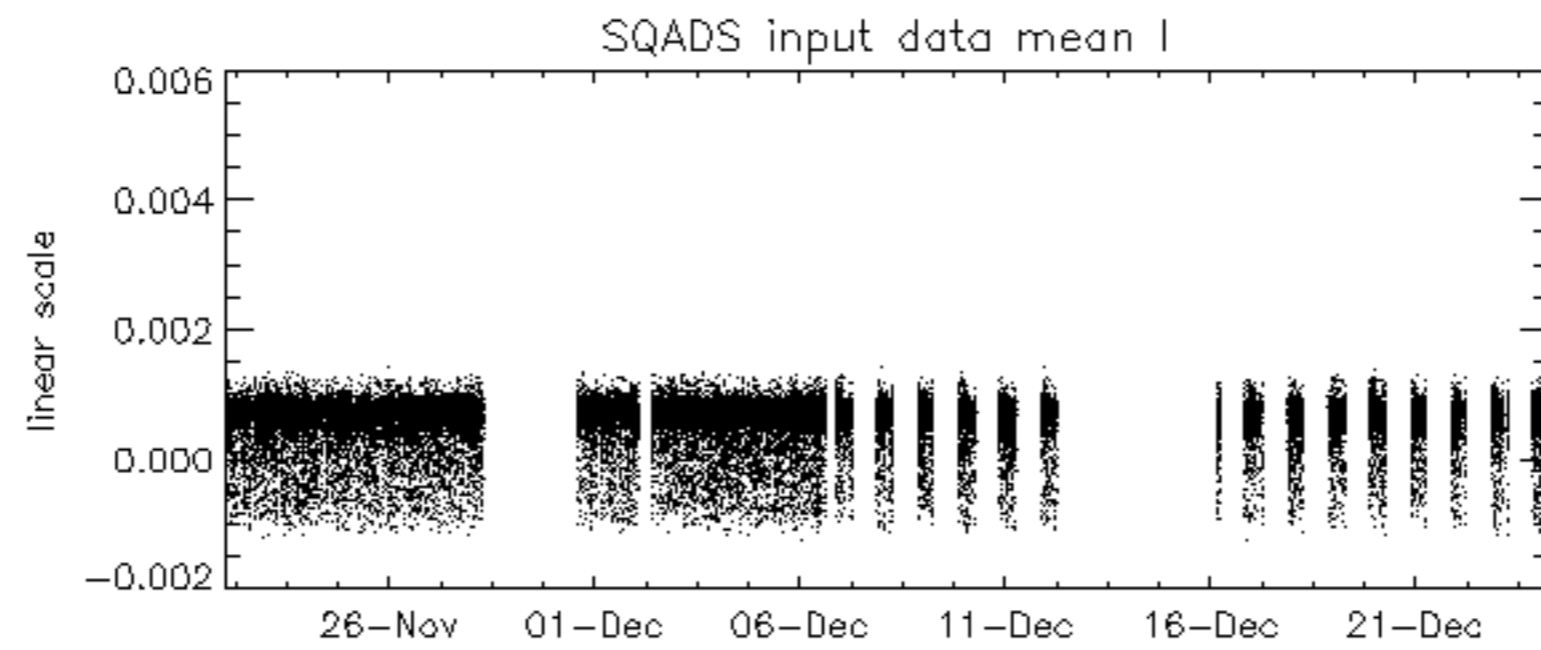
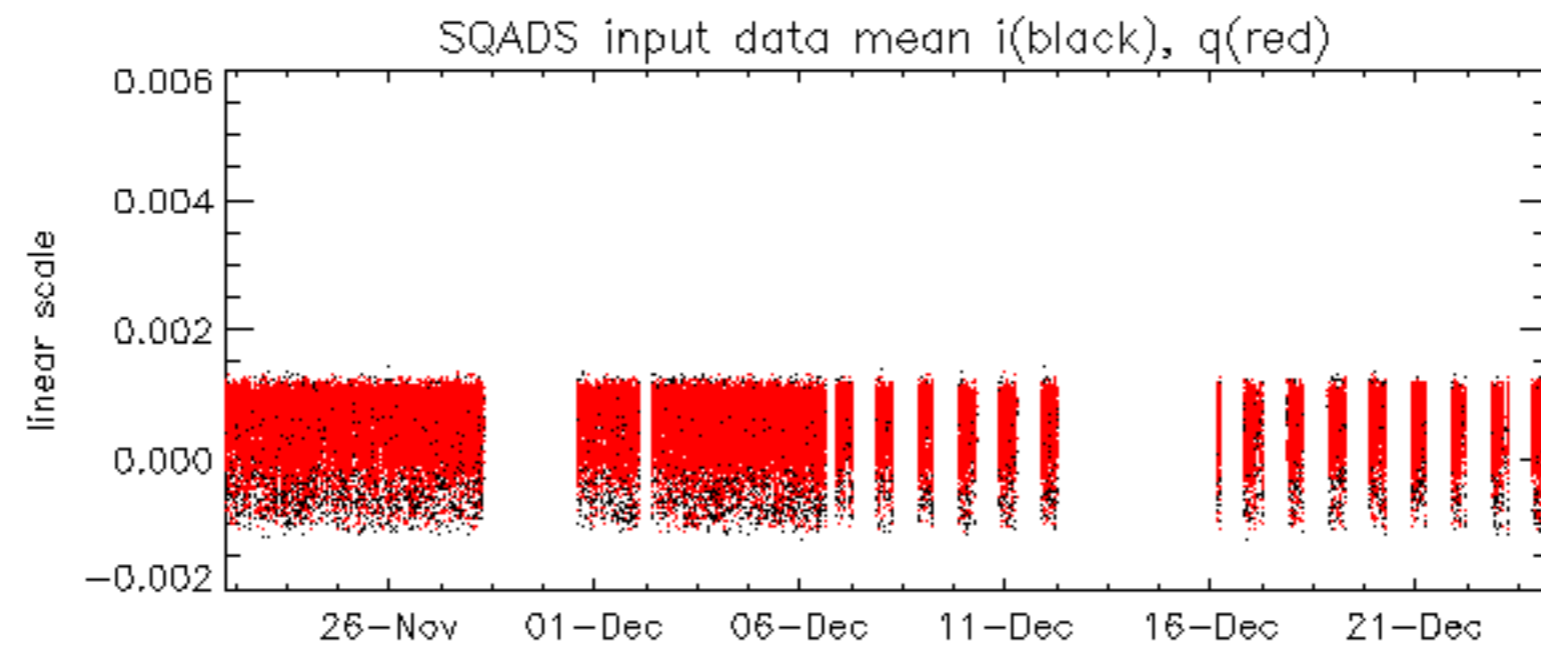
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.1897613 Hz

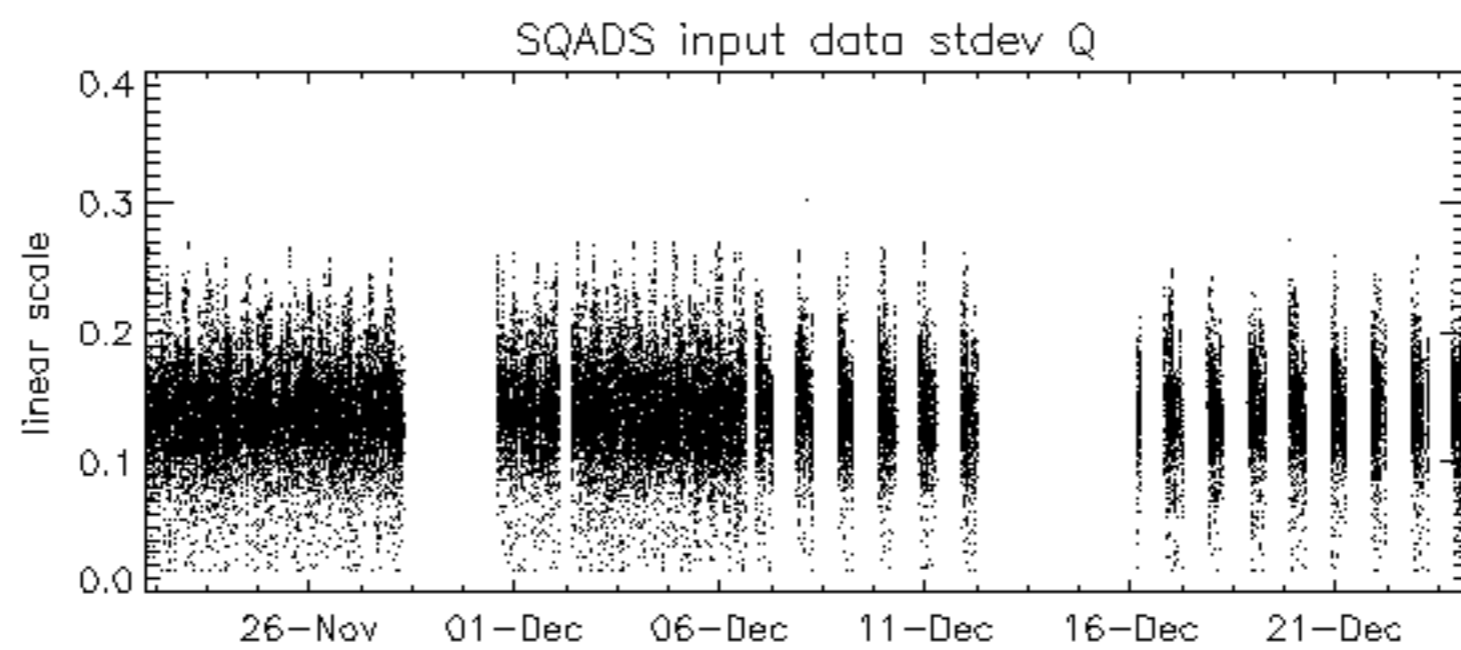
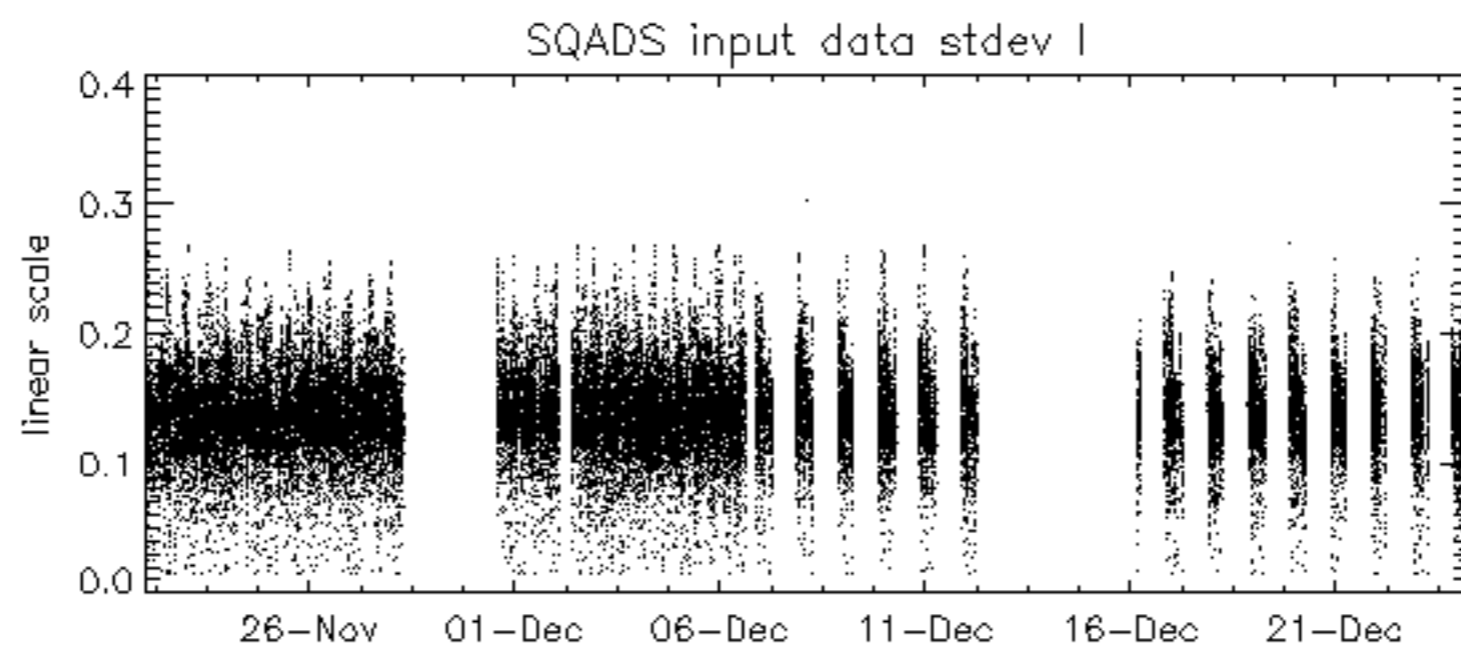
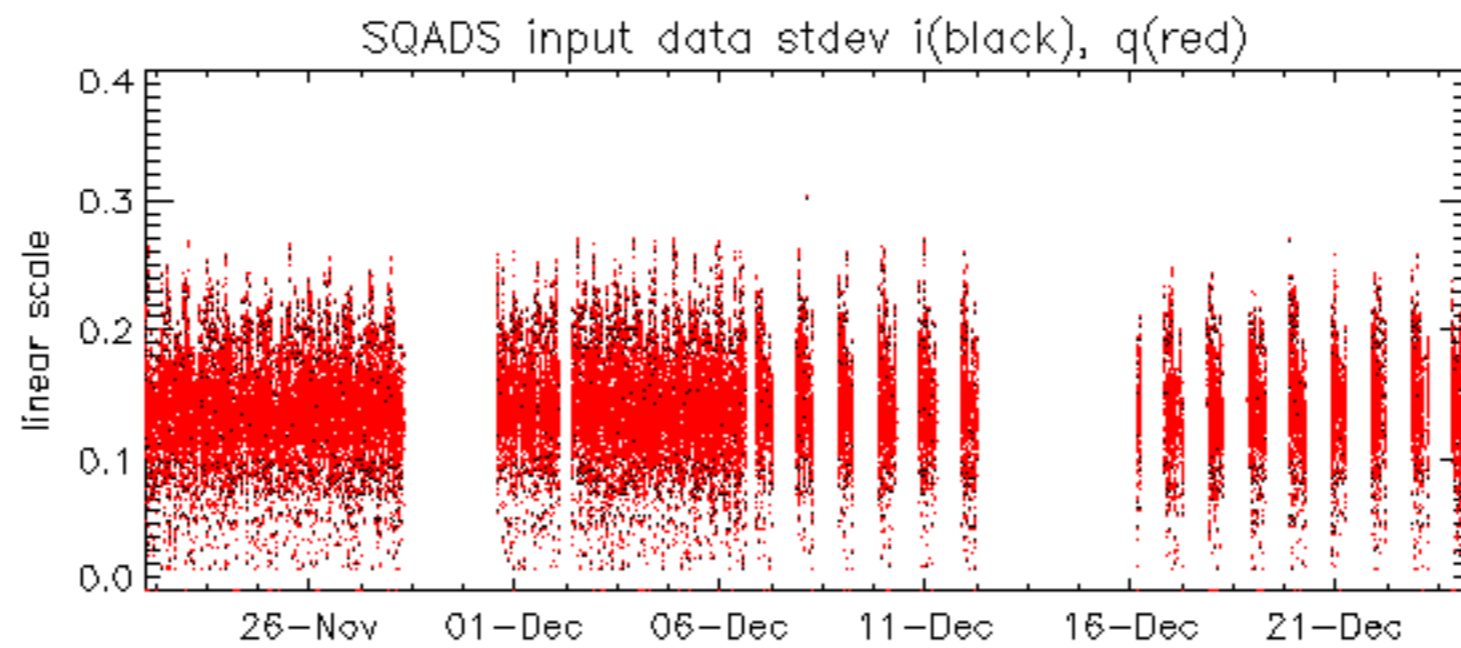


No anomalies observed on available MS products:

No anomalies observed.



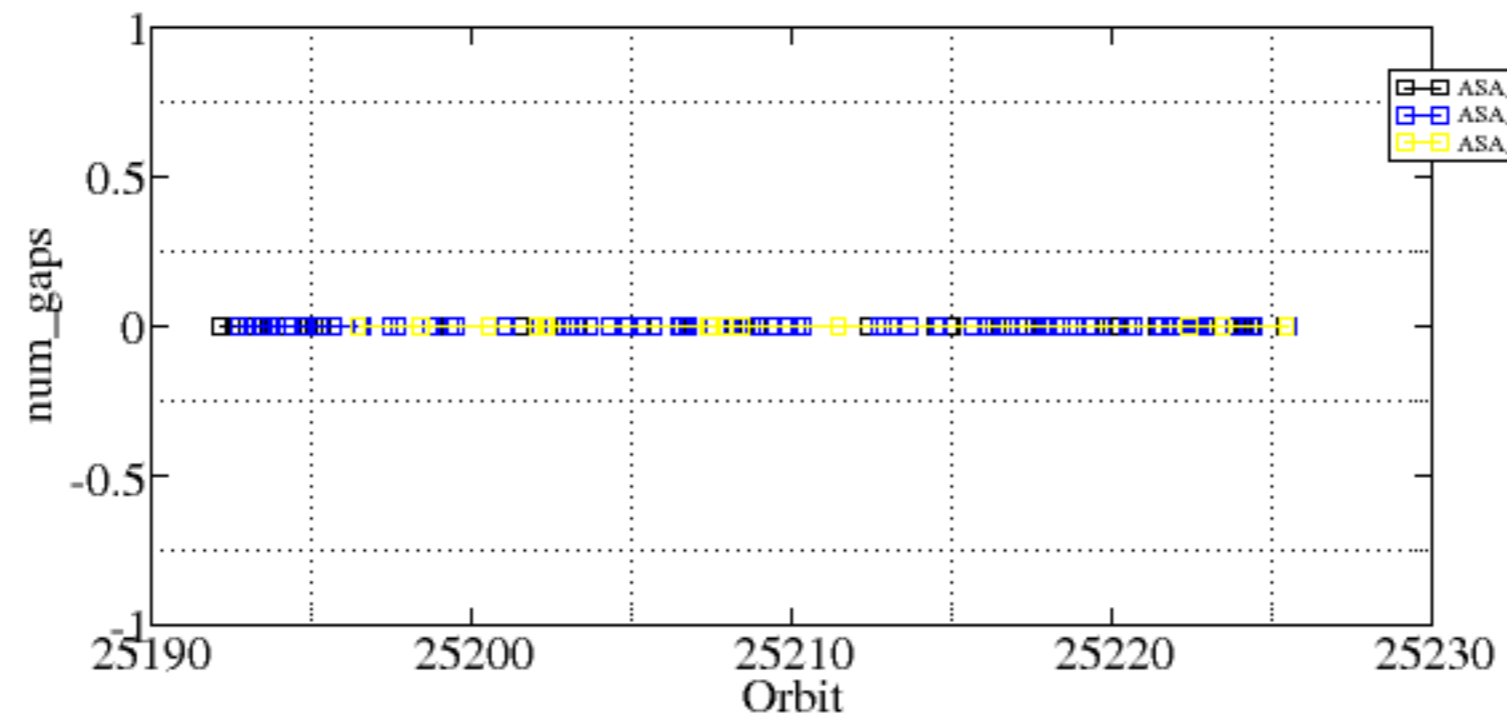


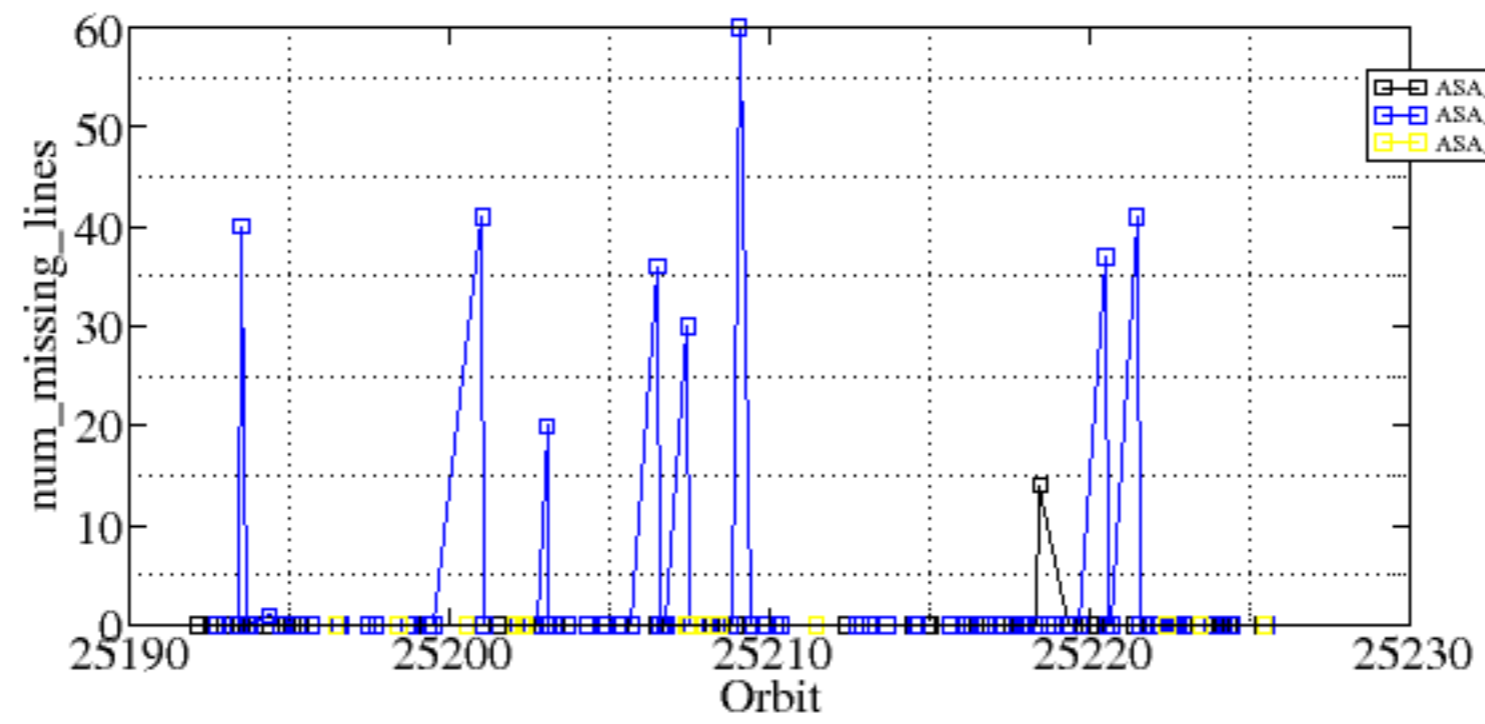


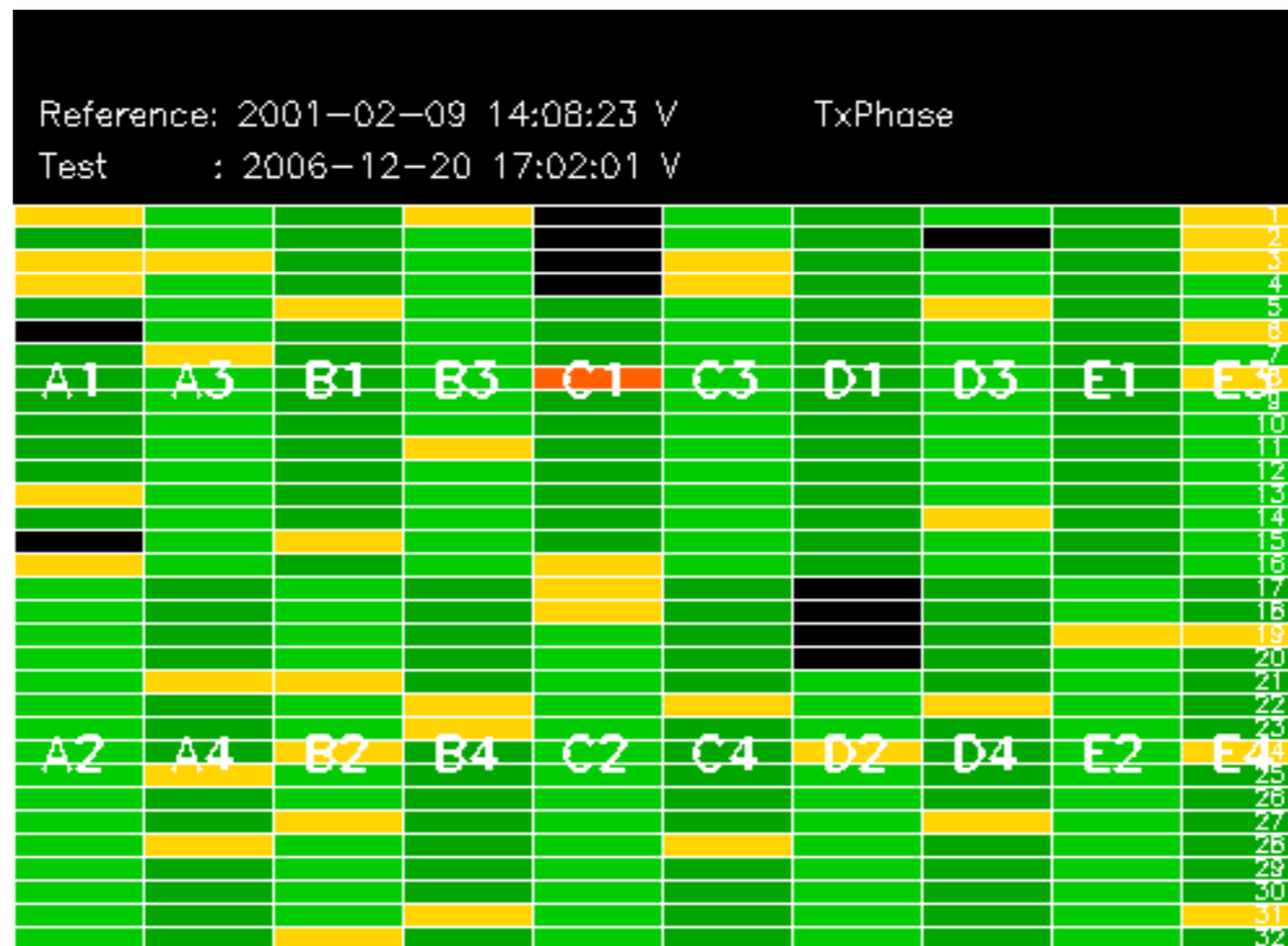
Summary of analysis for the last 3 days 2006122[567]

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

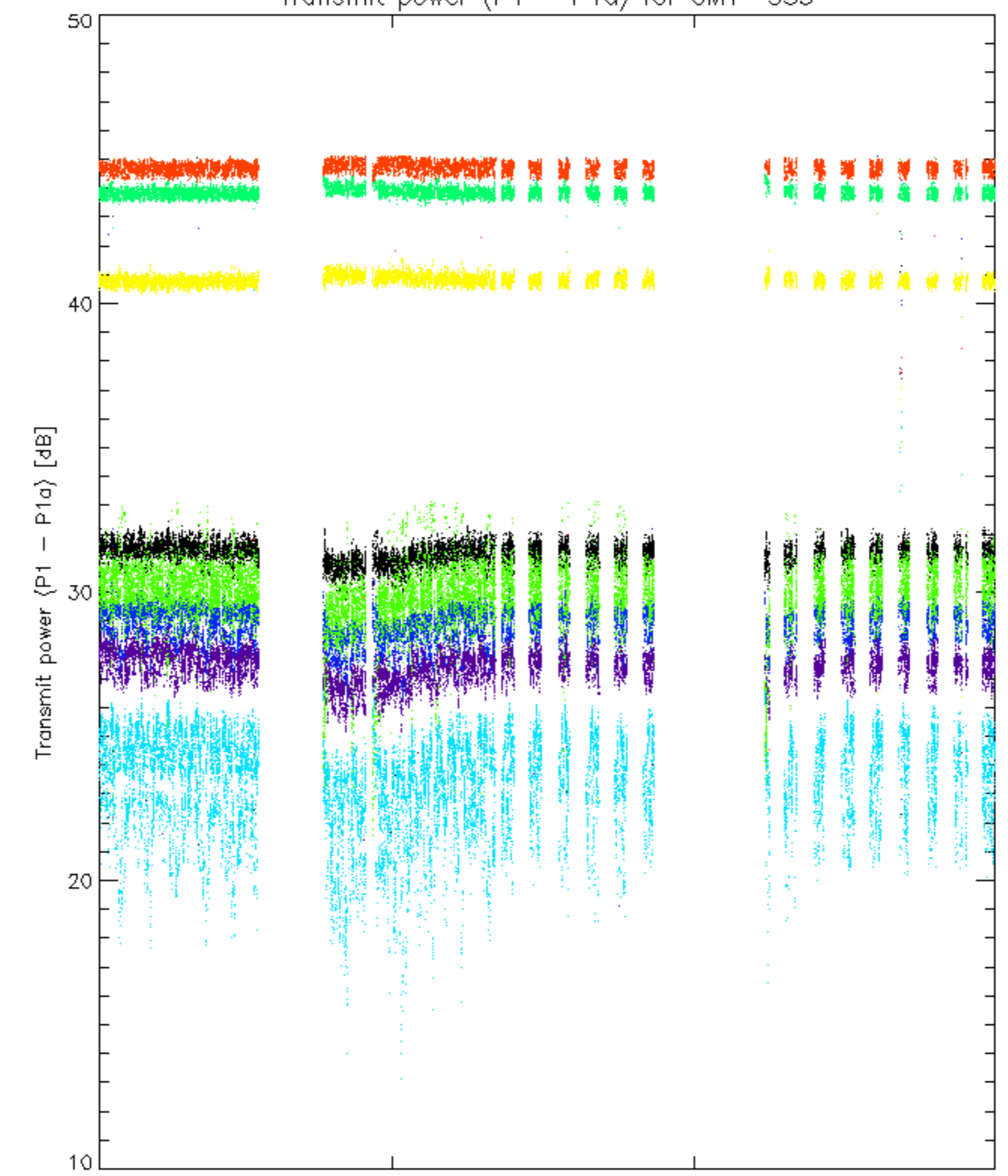
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061226_201156_000000492054_00114_25218_7986.N1	0	14
ASA_WSM_1PNPDE20061225_022028_000001402054_00089_25193_5683.N1	0	40
ASA_WSM_1PNPDE20061225_035048_000002812054_00090_25194_5816.N1	0	1
ASA_WSM_1PNPDE20061225_145900_000002872054_00097_25201_6096.N1	0	41
ASA_WSM_1PNPDE20061225_182246_000000852054_00099_25203_6458.N1	0	20
ASA_WSM_1PNPDE20061225_182246_000000852054_00099_25203_6639.N1	0	20
ASA_WSM_1PNPDE20061226_000916_000005742054_00102_25206_6895.N1	0	36
ASA_WSM_1PNPDE20061226_014553_000002442054_00103_25207_6968.N1	0	30
ASA_WSM_1PNPDE20061226_042643_000001842054_00105_25209_8829.N1	0	60
ASA_WSM_1PNPDE20061226_233738_000001412054_00116_25220_8721.N1	0	37
ASA_WSM_1PNPDE20061227_011513_000004412054_00117_25221_8723.N1	0	41







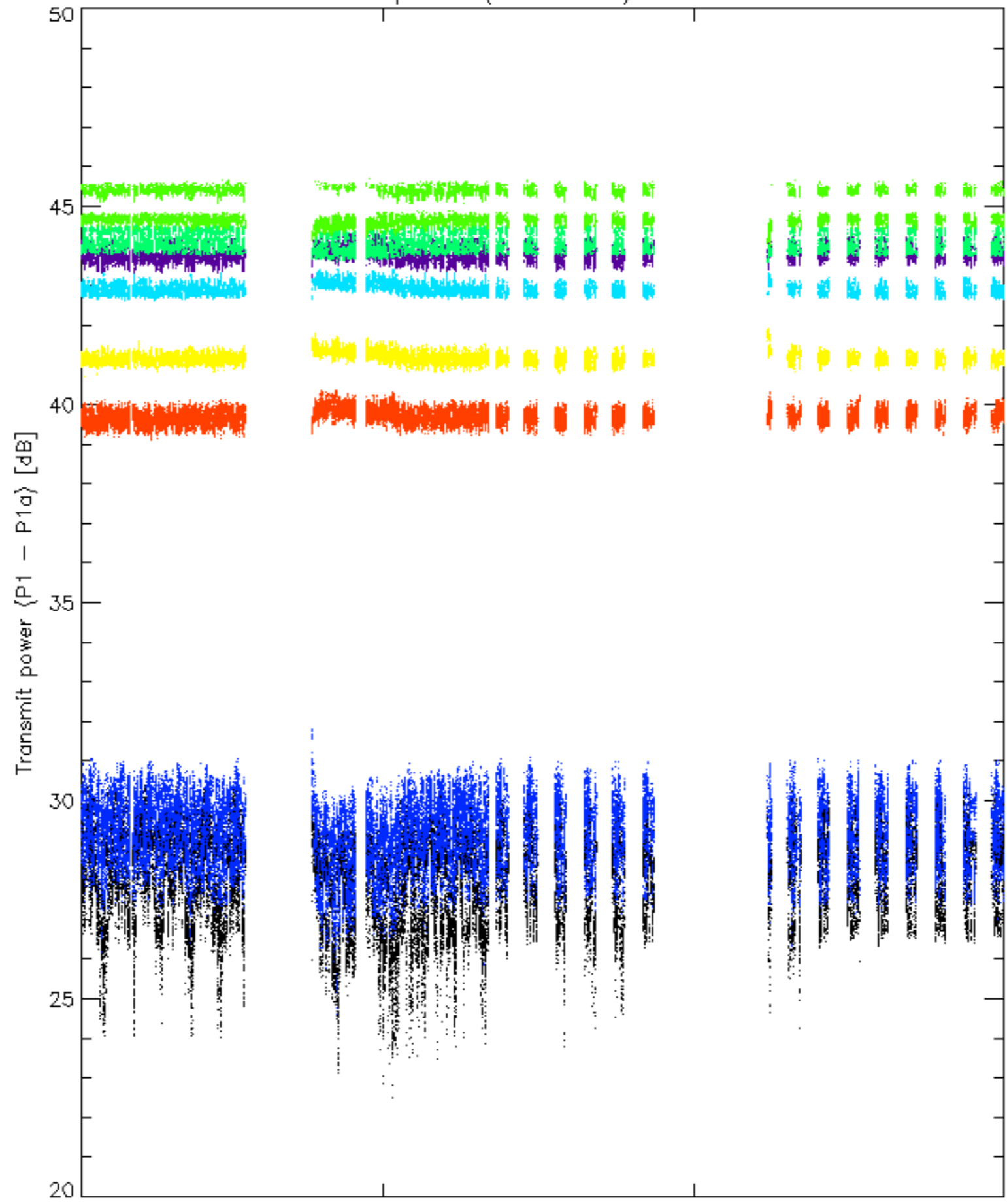
Transmit power (P1 - P1a) for GM1 SS3



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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

No unavailabilities during the reported period.