

GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	26APR2013 11:03:27
Data source version	GOMOS/6.01
Start time of products	23-07-2009 (23JUL2009 00:00:00)
Stop time of products	24-07-2009 (24JUL2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	231
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

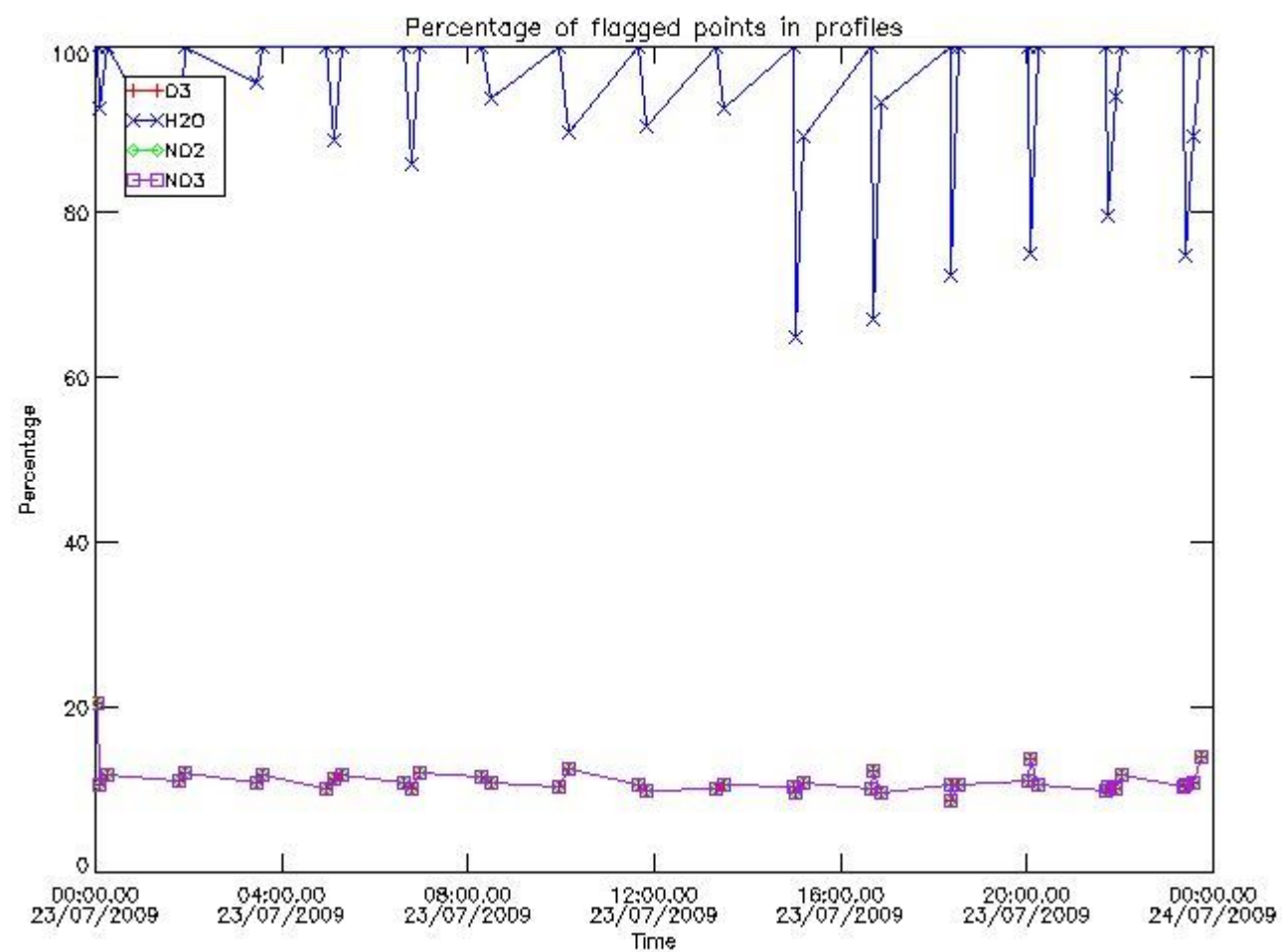
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090723_000323_000000252081_00030_38661_2483.N1	23-JUL-2009 00:03:23	Dark	25.000	94	92Alp Cet	2.5260	3100.0	50	38661	No
2	GOM_NL__2PRFIN20090723_000554_000000482081_00030_38661_2484.N1	23-JUL-2009 00:05:54	Dark	48.000	165	34Gam Eri	2.9500	3200.0	96	38661	No
3	GOM_NL__2PRFIN20090723_001509_000000442081_00030_38661_2485.N1	23-JUL-2009 00:15:09	Dark	43.500	157	The1Eri	2.9060	9300.0	87	38661	No
4	GOM_NL__2PRFIN20090723_002457_000000552081_00031_38662_2494.N1	23-JUL-2009 00:24:57	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	38662	No
5	GOM_NL__2PRFIN20090723_003007_000000642081_00031_38662_2495.N1	23-JUL-2009 00:30:07	Straylight	64.000	63	Bet Gru	2.1500	2800.0	128	38662	No
6	GOM_NL__2PRFIN20090723_003132_000000462081_00031_38662_2496.N1	23-JUL-2009 00:31:32	Straylight	46.000	31	Alp Gru	1.7340	15200.	92	38662	No
7	GOM_NL__2PRFIN20090723_003445_000000502081_00031_38662_2497.N1	23-JUL-2009 00:34:45	Straylight	50.000	172	Gam Gru	3.0030	13100.	100	38662	No
8	GOM_NL__2PRFIN20090723_005204_000000602081_00031_38662_2498.N1	23-JUL-2009 00:52:04	Bright	60.000	11	53Alp Aql	0.76500	8000.0	120	38662	No
9	GOM_NL__2PRFIN20090723_010259_000000382081_00031_38662_2499.N1	23-JUL-2009 01:02:59	Bright	37.500	144	18Del Cyg	2.8600	11000.	75	38662	No
10	GOM_NL__2PRFIN20090723_010447_000000462081_00031_38662_2500.N1	23-JUL-2009 01:04:47	Bright	46.000	19	50Alp Cyg	1.2460	10500.	92	38662	No
11	GOM_NL__2PRFIN20090723_010959_000000442081_00031_38662_2501.N1	23-JUL-2009 01:09:59	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	38662	No
12	GOM_NL__2PRFIN20090723_011707_000000502081_00031_38662_2502.N1	23-JUL-2009 01:17:07	Bright	50.000	74	11Bet Cas	2.2680	6600.0	100	38662	No
13	GOM_NL__2PRFIN20090723_011955_000000462081_00031_38662_2503.N1	23-JUL-2009 01:19:55	Bright	46.000	110	37Del Cas	2.6780	8900.0	92	38662	No
14	GOM_NL__2PRFIN20090723_012425_000000472081_00031_38662_2504.N1	23-JUL-2009 01:24:25	Bright	47.000	160	23Gam Per	2.9300	4700.0	94	38662	No
15	GOM_NL__2PRFIN20090723_012553_000000472081_00031_38662_2505.N1	23-JUL-2009 01:25:53	Bright	46.500	35	33Alp Per	1.7950	6250.0	93	38662	No
16	GOM_NL__2PRFIN20090723_012858_000000502081_00031_38662_2506.N1	23-JUL-2009 01:28:58	Bright	49.500	79	26Bet Per	2.3100	13100.	99	38662	No
17	GOM_NL__2PRFIN20090723_013210_000000482081_00031_38662_2507.N1	23-JUL-2009 01:32:10	Twi_and_stray	48.000	150	44Zet Per	2.8900	28000.	96	38662	No
18	GOM_NL__2PRFIN20090723_013458_000000502081_00031_38662_2508.N1	23-JUL-2009 01:34:58	Twilight	50.000	146	25Eta Tau	2.8730	15200.	100	38662	No
19	GOM_NL__2PRFIN20090723_014631_000000462081_00031_38662_2509.N1	23-JUL-2009 01:46:31	Dark	46.000	165	34Gam Eri	2.9500	3200.0	92	38662	No
20	GOM_NL__2PRFIN20090723_015546_000000432081_00031_38662_2510.N1	23-JUL-2009 01:55:46	Dark	42.500	157	The1Eri	2.9060	9300.0	85	38662	No
21	GOM_NL__2PRFIN20090723_020534_000000532081_00032_38663_2508.N1	23-JUL-2009 02:05:34	Straylight	53.000	84	Alp Phe	2.3970	4500.0	106	38663	No
22	GOM_NL__2PRFIN20090723_021044_000000602081_00032_38663_2509.N1	23-JUL-2009 02:10:44	Straylight	60.000	63	Bet Gru	2.1500	2800.0	120	38663	No
23	GOM_NL__2PRFIN20090723_021209_000000472081_00032_38663_2510.N1	23-JUL-2009 02:12:09	Straylight	46.500	31	Alp Gru	1.7340	15200.	93	38663	No
24	GOM_NL__2PRFIN20090723_021521_000000482081_00032_38663_2511.N1	23-JUL-2009 02:15:21	Straylight	48.000	172	Gam Gru	3.0030	13100.	96	38663	No
25	GOM_NL__2PRFIN20090723_023239_000000442081_00032_38663_2512.N1	23-JUL-2009 02:32:39	Bright	44.000	11	53Alp Aql	0.76500	8000.0	88	38663	No
26	GOM_NL__2PRFIN20090723_024334_000000392081_00032_38663_2513.N1	23-JUL-2009 02:43:34	Bright	39.000	144	18Del Cyg	2.8600	11000.	78	38663	No
27	GOM_NL__2PRFIN20090723_024522_000000462081_00032_38663_2514.N1	23-JUL-2009 02:45:22	Bright	45.500	19	50Alp Cyg	1.2460	10500.	91	38663	No
28	GOM_NL__2PRFIN20090723_025035_000000382081_00032_38663_2515.N1	23-JUL-2009 02:50:35	Bright	38.000	89	5Alp Cep	2.4510	8000.0	76	38663	No
29	GOM_NL__2PRFIN20090723_025743_000000532081_00032_38663_2516.N1	23-JUL-2009 02:57:43	Bright	53.000	74	11Bet Cas	2.2680	6600.0	106	38663	No
30	GOM_NL__2PRFIN20090723_030030_000000472081_00032_38663_2517.N1	23-JUL-2009 03:00:30	Bright	47.000	110	37Del Cas	2.6780	8900.0	94	38663	No
31	GOM_NL__2PRFIN20090723_030501_000000432081_00032_38663_2518.N1	23-JUL-2009 03:05:01	Bright	43.000	160	23Gam Per	2.9300	4700.0	86	38663	No
32	GOM_NL__2PRFIN20090723_030629_000000462081_00032_38663_2519.N1	23-JUL-2009 03:06:29	Bright	45.500	35	33Alp Per	1.7950	6250.0	91	38663	No
33	GOM_NL__2PRFIN20090723_030934_000000532081_00032_38663_2520.N1	23-JUL-2009 03:09:34	Bright	52.500	79	26Bet Per	2.3100	13100.	105	38663	No
34	GOM_NL__2PRFIN20090723_031247_000000492081_00032_38663_2521.N1	23-JUL-2009 03:12:47	Twi_and_stray	48.500	150	44Zet Per	2.8900	28000.	97	38663	No
35	GOM_NL__2PRFIN20090723_031534_000000472081_00032_38663_2522.N1	23-JUL-2009 03:15:34	Twilight	47.000	146	25Eta Tau	2.8730	15200.	94	38663	No
36	GOM_NL__2PRFIN20090723_032708_000000472081_00032_38663_2523.N1	23-JUL-2009 03:27:08	Dark	46.500	165	34Gam Eri	2.9500	3200.0	93	38663	No
37	GOM_NL__2PRFIN20090723_033623_000000432081_00032_38663_2524.N1	23-JUL-2009 03:36:23	Dark	43.000	157	The1Eri	2.9060	9300.0	86	38663	No
38	GOM_NL__2PRFIN20090723_034611_000000582081_00033_38664_2519.N1	23-JUL-2009 03:46:11	Straylight	57.500	84	Alp Phe	2.3970	4500.0	115	38664	No
39	GOM_NL__2PRFIN20090723_035121_000000512081_00033_38664_2520.N1	23-JUL-2009 03:51:21	Straylight	50.500	63	Bet Gru	2.1500	2800.0	101	38664	No
40	GOM_NL__2PRFIN20090723_035245_000000482081_00033_38664_2521.N1	23-JUL-2009 03:52:45	Straylight	47.500	31	Alp Gru	1.7340	15200.	95	38664	No
41	GOM_NL__2PRFIN20090723_035558_000000502081_00033_38664_2522.N1	23-JUL-2009 03:55:58	Straylight	50.000	172	Gam Gru	3.0030	13100.	100	38664	No
42	GOM_NL__2PRFIN20090723_041315_000000442081_00033_38664_2523.N1	23-JUL-2009 04:13:15	Bright	43.500	11	53Alp Aql	0.76500	8000.0	87	38664	No

220	GOM_NL__2PRFIN20090723_225740_000000442081_00044_38675_2730.N1	23-JUL-2009 22:57:40	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	38675	No
221	GOM_NL__2PRFIN20090723_230445_000000532081_00044_38675_2731.N1	23-JUL-2009 23:04:45	Bright	53.000	74	11Bet Cas	2.2680	6600.0	106	38675	No
222	GOM_NL__2PRFIN20090723_230626_000000492081_00044_38675_2732.N1	23-JUL-2009 23:06:26	Bright	49.000	76	27Gam Cas	2.3000	30000.	98	38675	No
223	GOM_NL__2PRFIN20090723_231209_000000472081_00044_38675_2733.N1	23-JUL-2009 23:12:09	Bright	46.500	160	23Gam Per	2.9300	4700.0	93	38675	No
224	GOM_NL__2PRFIN20090723_231339_000000472081_00044_38675_2734.N1	23-JUL-2009 23:13:39	Bright	46.500	35	33Alp Per	1.7950	6250.0	93	38675	No
225	GOM_NL__2PRFIN20090723_231644_000000542081_00044_38675_2735.N1	23-JUL-2009 23:16:44	Bright	53.500	79	26Bet Per	2.3100	13100.	107	38675	No
226	GOM_NL__2PRFIN20090723_231959_000000472081_00044_38675_2736.N1	23-JUL-2009 23:19:59	Tw_i_and_stray	46.500	150	44Zet Per	2.8900	28000.	93	38675	No
227	GOM_NL__2PRFIN20090723_232249_000000492081_00044_38675_2737.N1	23-JUL-2009 23:22:49	Dark	49.000	146	25Eta Tau	2.8730	15200.	98	38675	No
228	GOM_NL__2PRFIN20090723_232424_000000582081_00044_38675_2738.N1	23-JUL-2009 23:24:24	Dark	58.000	13	87Alp Tau	0.86700	3800.0	116	38675	No
229	GOM_NL__2PRFIN20090723_233427_000000472081_00044_38675_2739.N1	23-JUL-2009 23:34:27	Dark	47.000	165	34Gam Eri	2.9500	3200.0	94	38675	No
230	GOM_NL__2PRFIN20090723_234344_000000442081_00044_38675_2740.N1	23-JUL-2009 23:43:44	Dark	43.500	157	The1Eri	2.9060	9300.0	87	38675	No
231	GOM_NL__2PRFIN20090723_235336_000000542081_00045_38676_2741.N1	23-JUL-2009 23:53:36	Straylight	53.500	84	Alp Phe	2.3970	4500.0	107	38676	No

3. Quality information per product

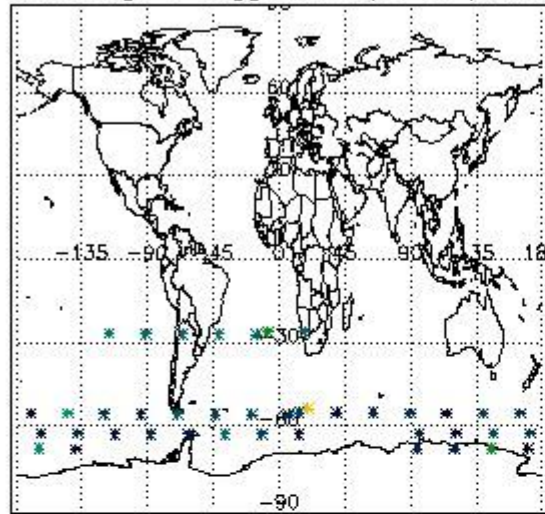
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

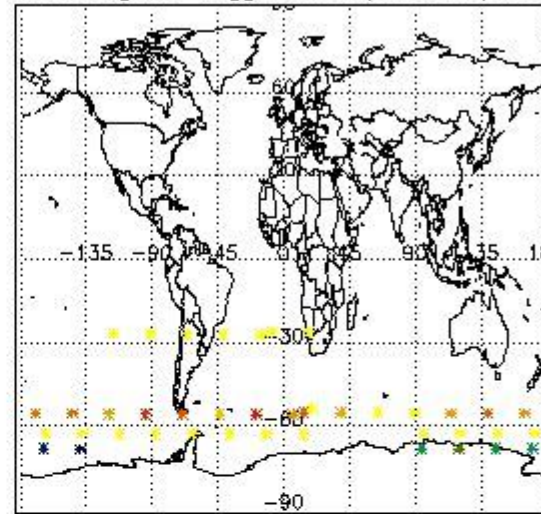


3.2 Plot quality information per product (world map)

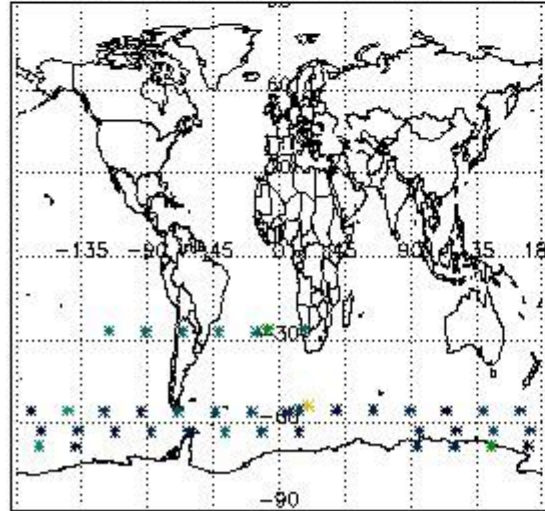
Percentage of flagged data per O3 profile



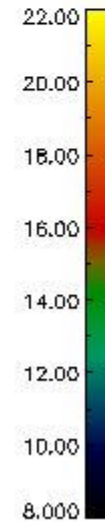
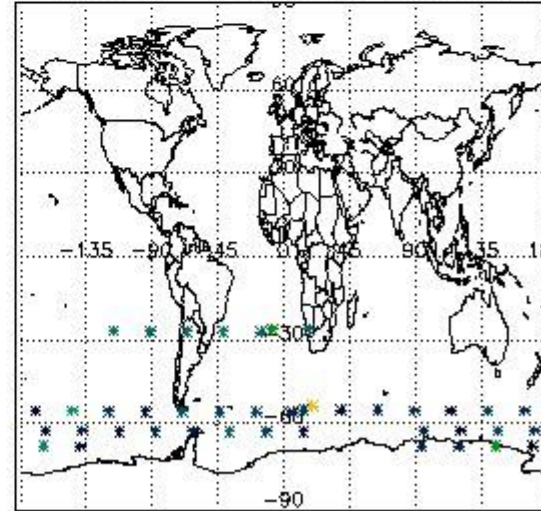
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

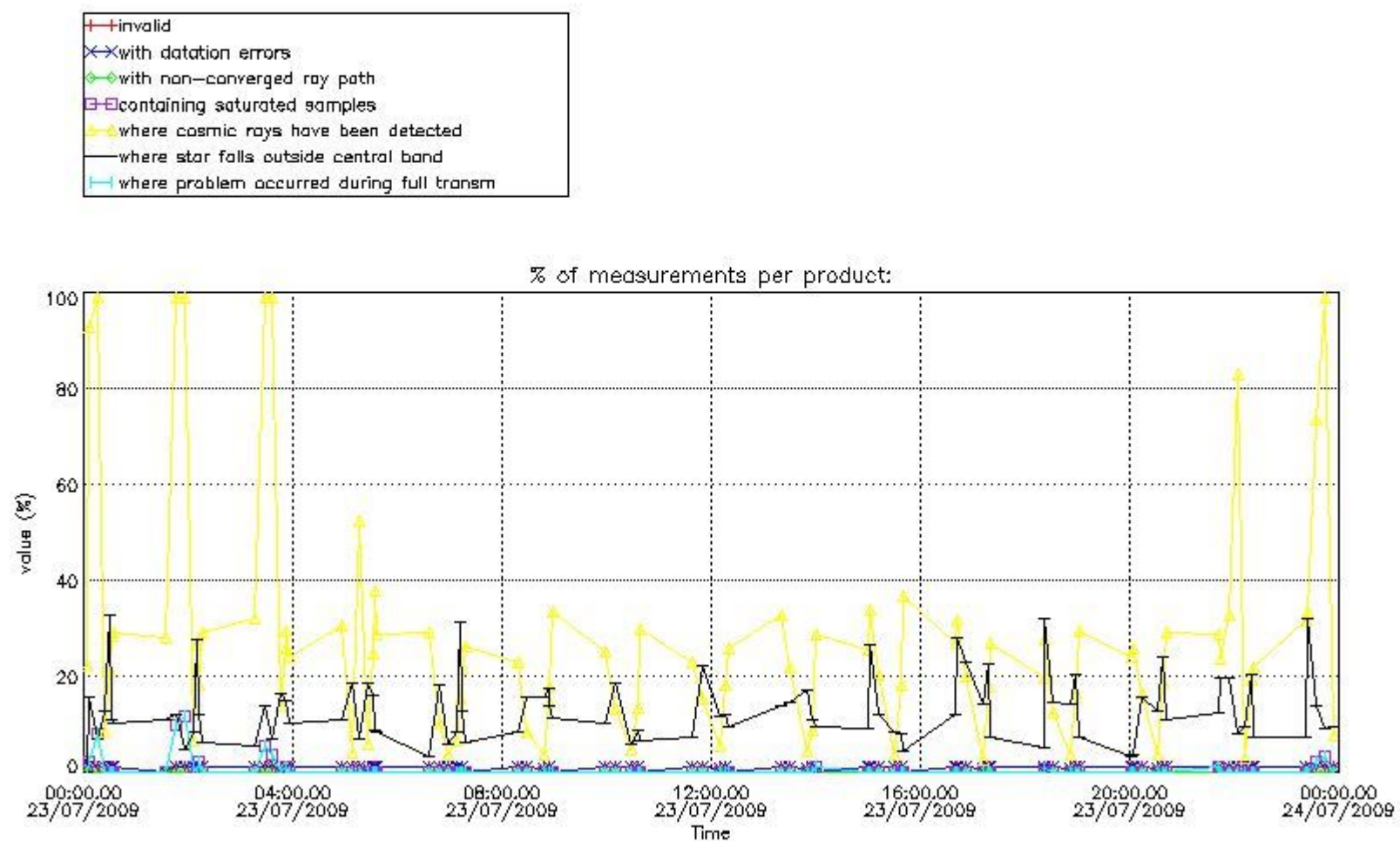


4. Level 1 quality information per product

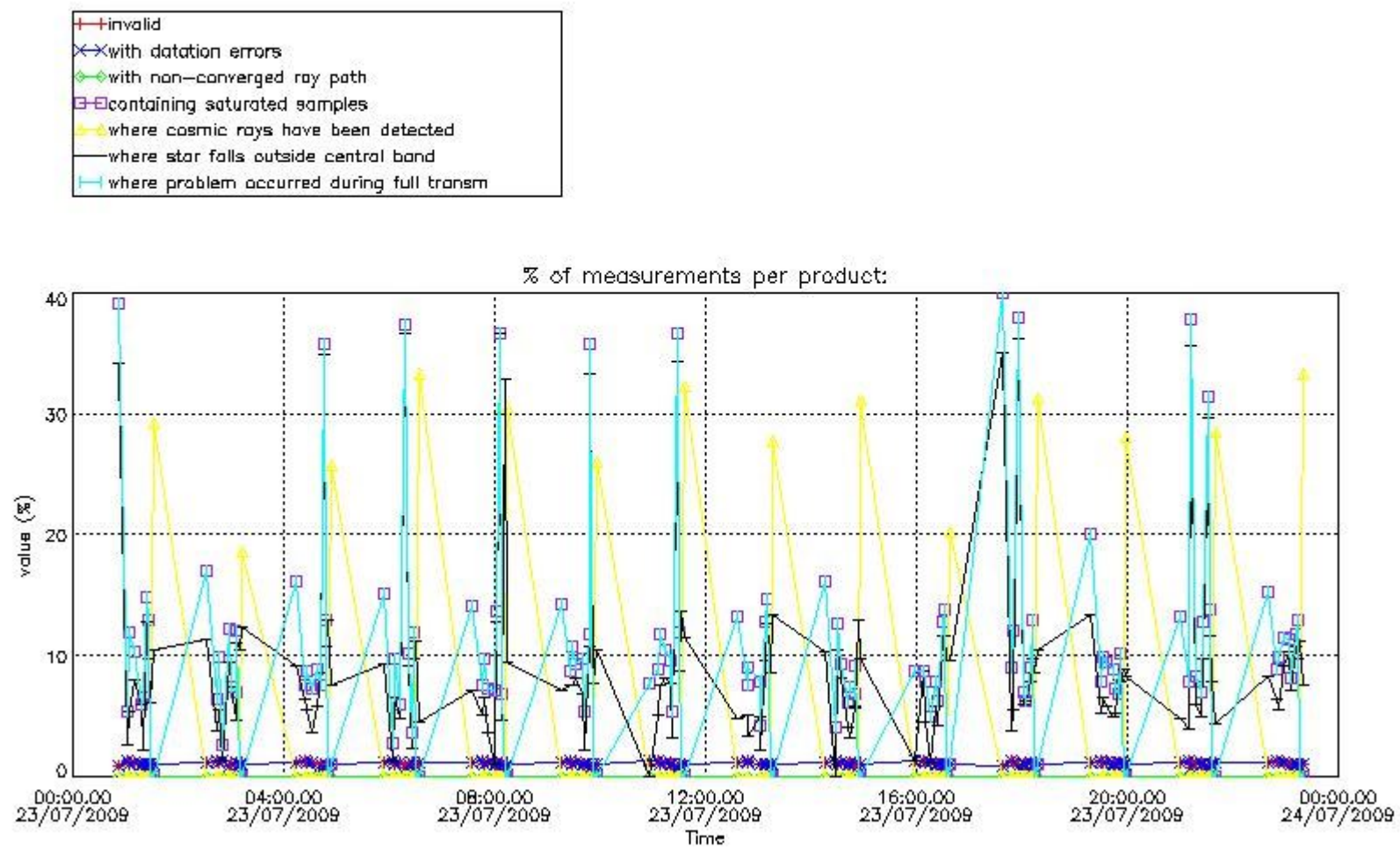
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



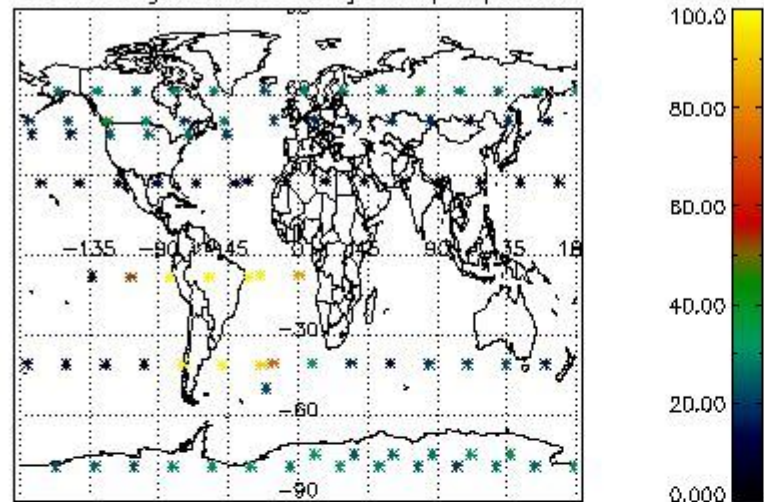
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



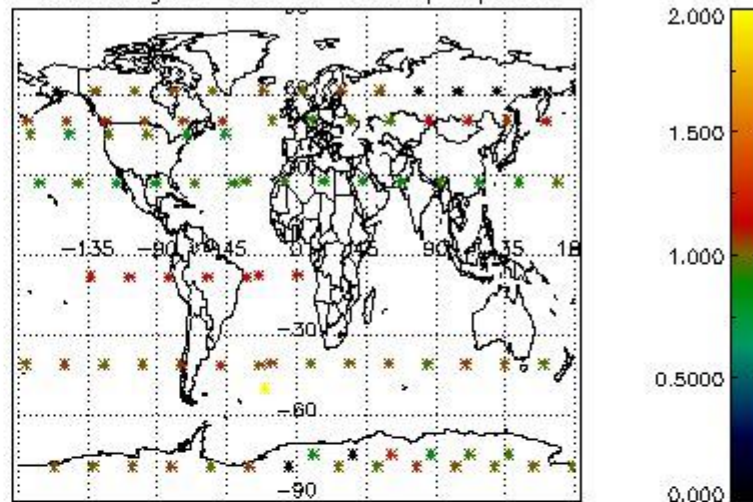
4.2 Plot quality information per product coming from level 1b processing (world map)

4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

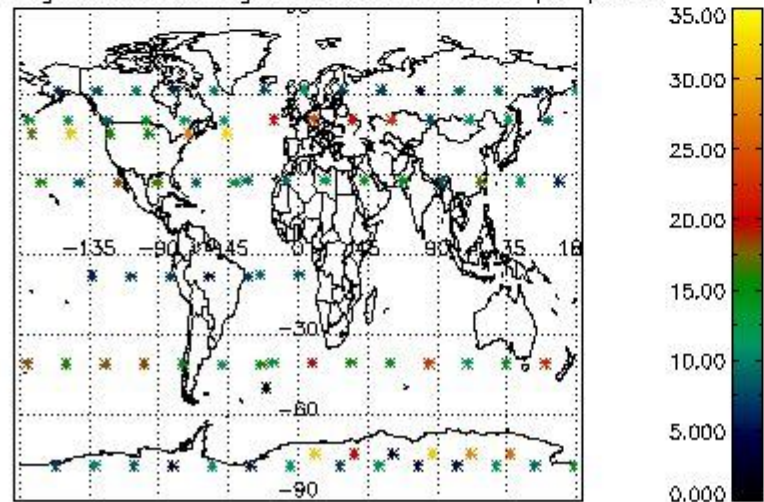
Percentage of cosmic ray hits per profile



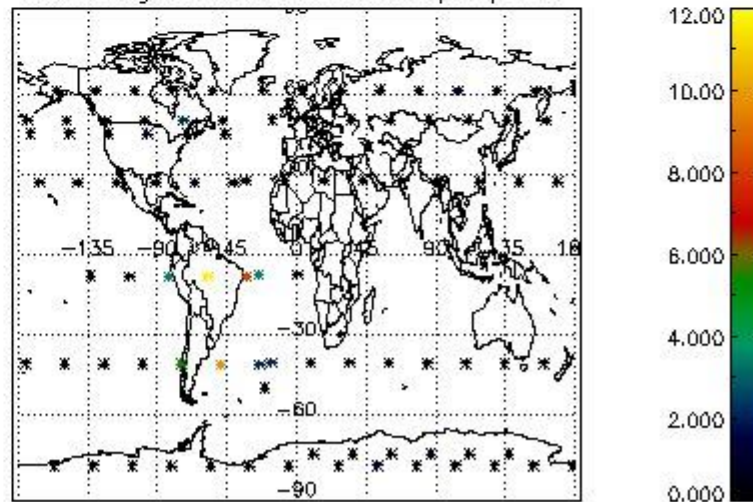
Percentage of datation errors per profile



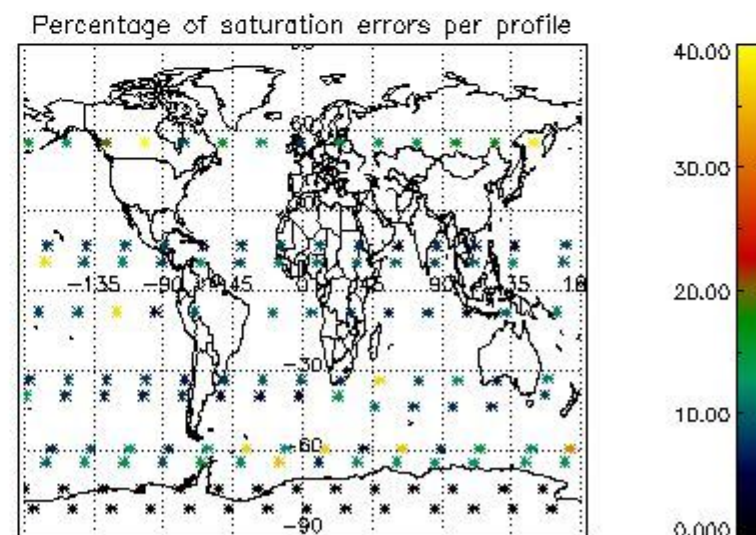
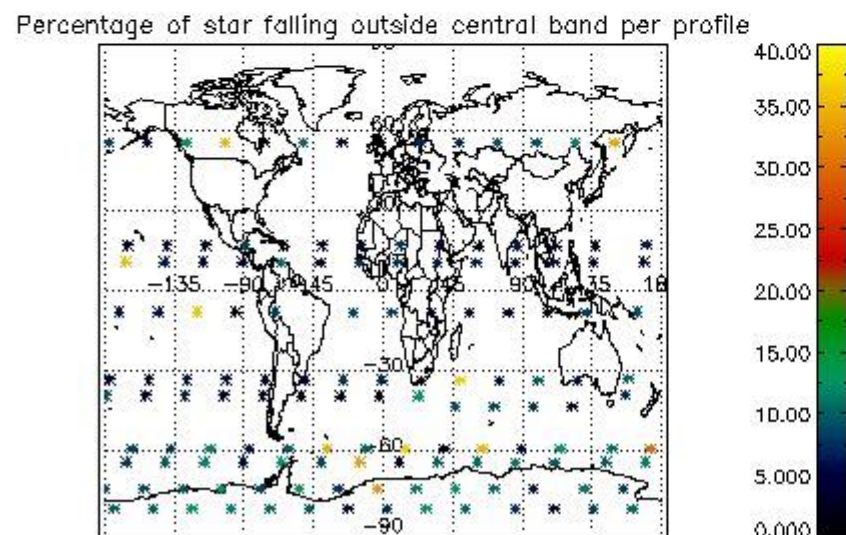
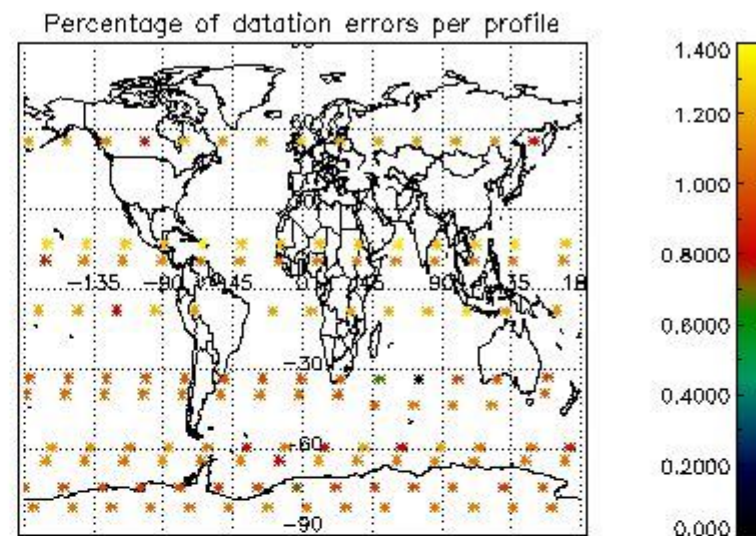
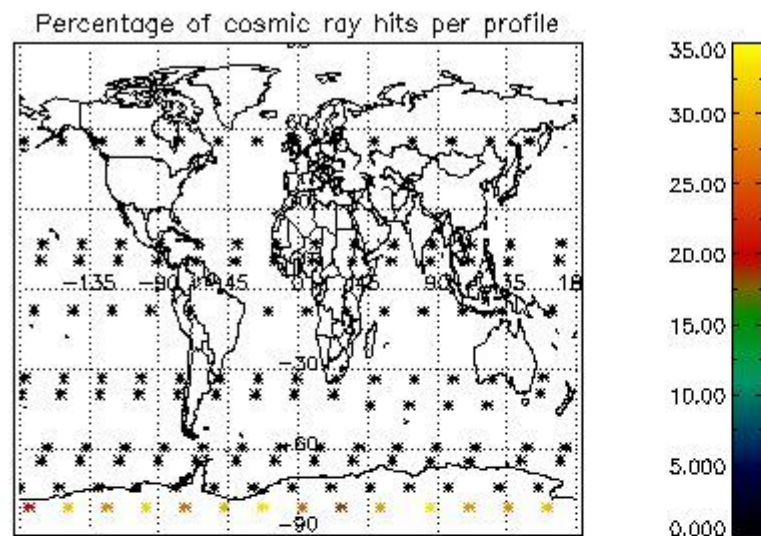
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

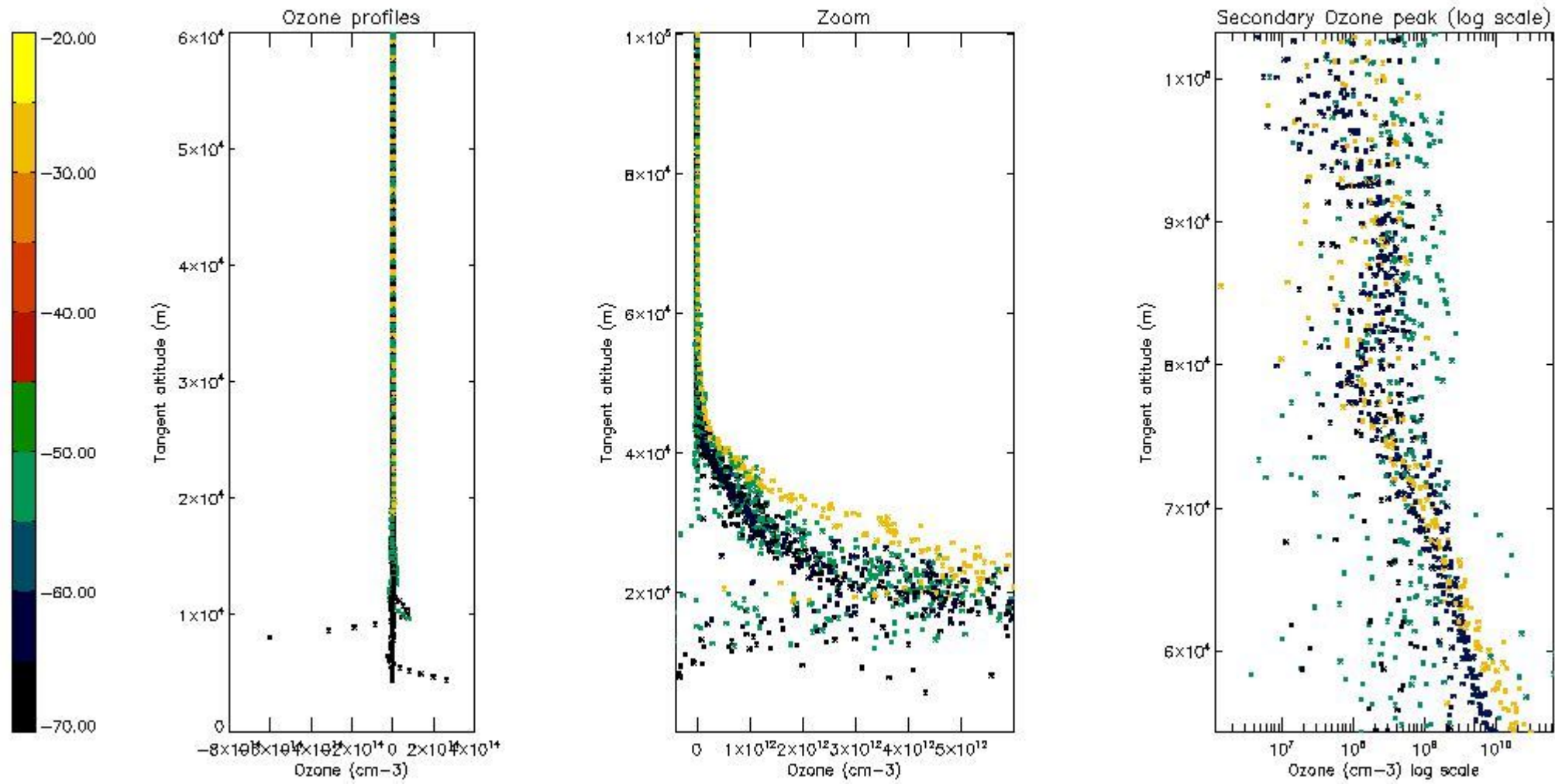
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	6

STD < 10	3
STD < 5	1

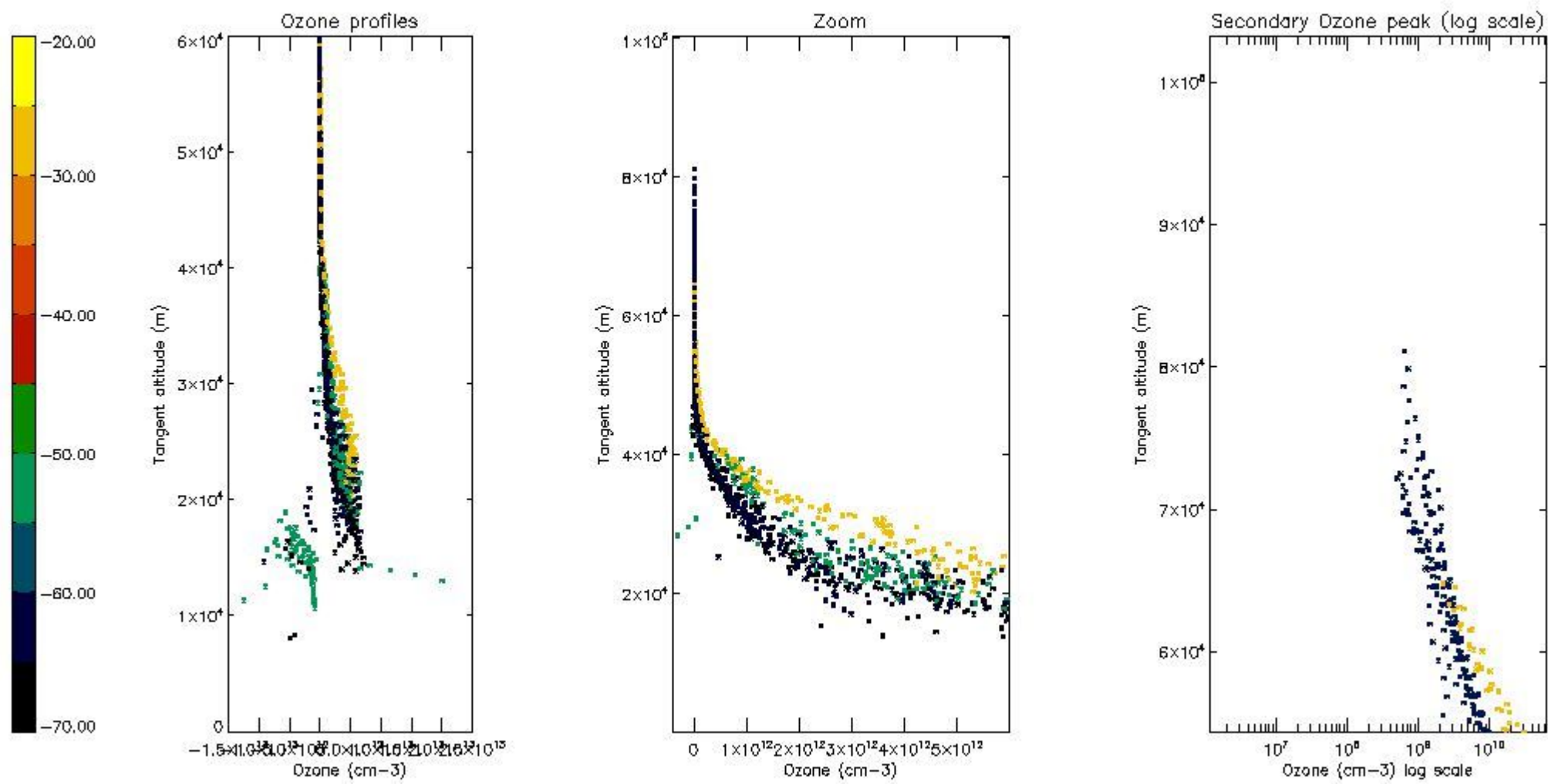
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



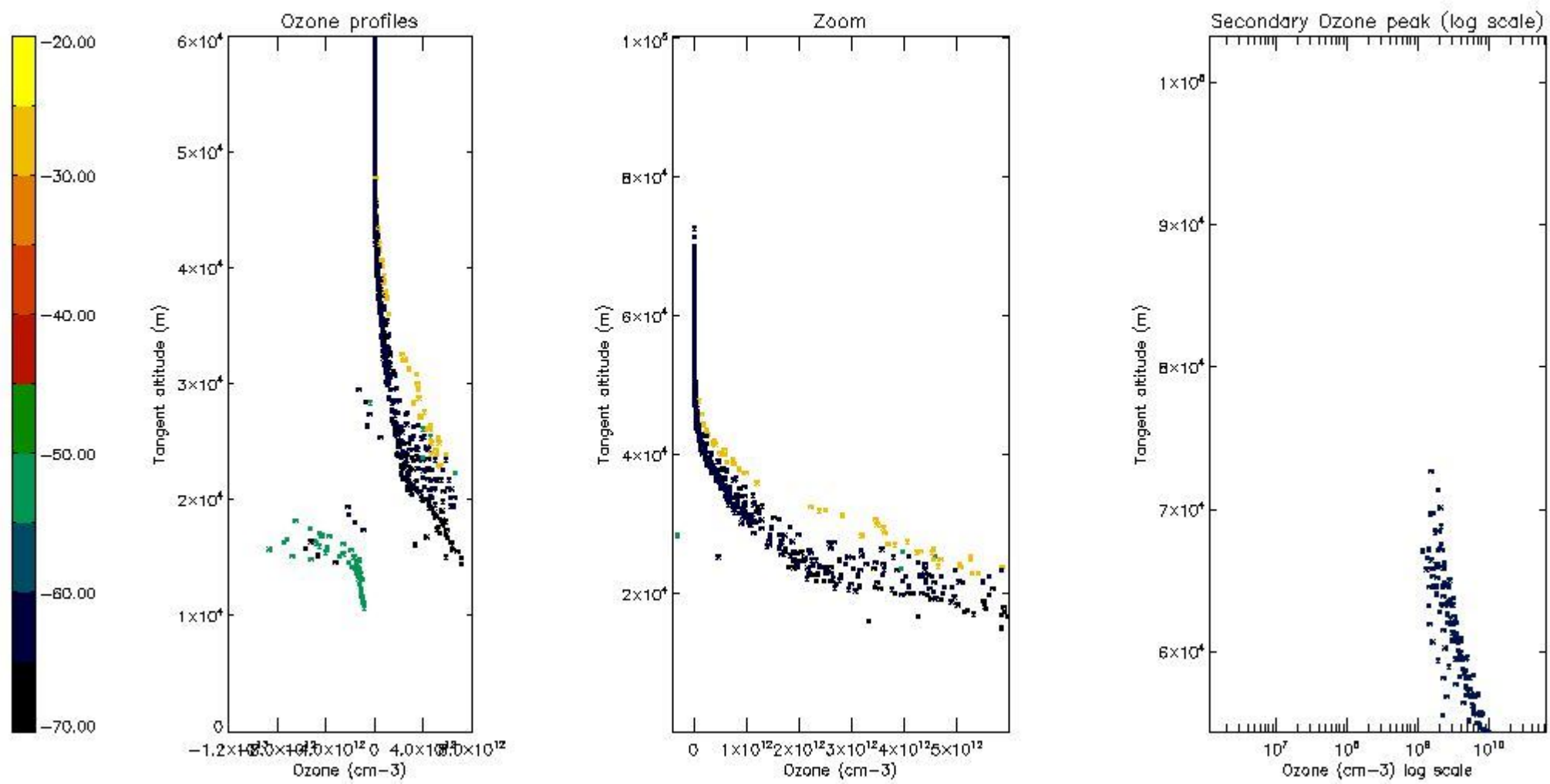
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



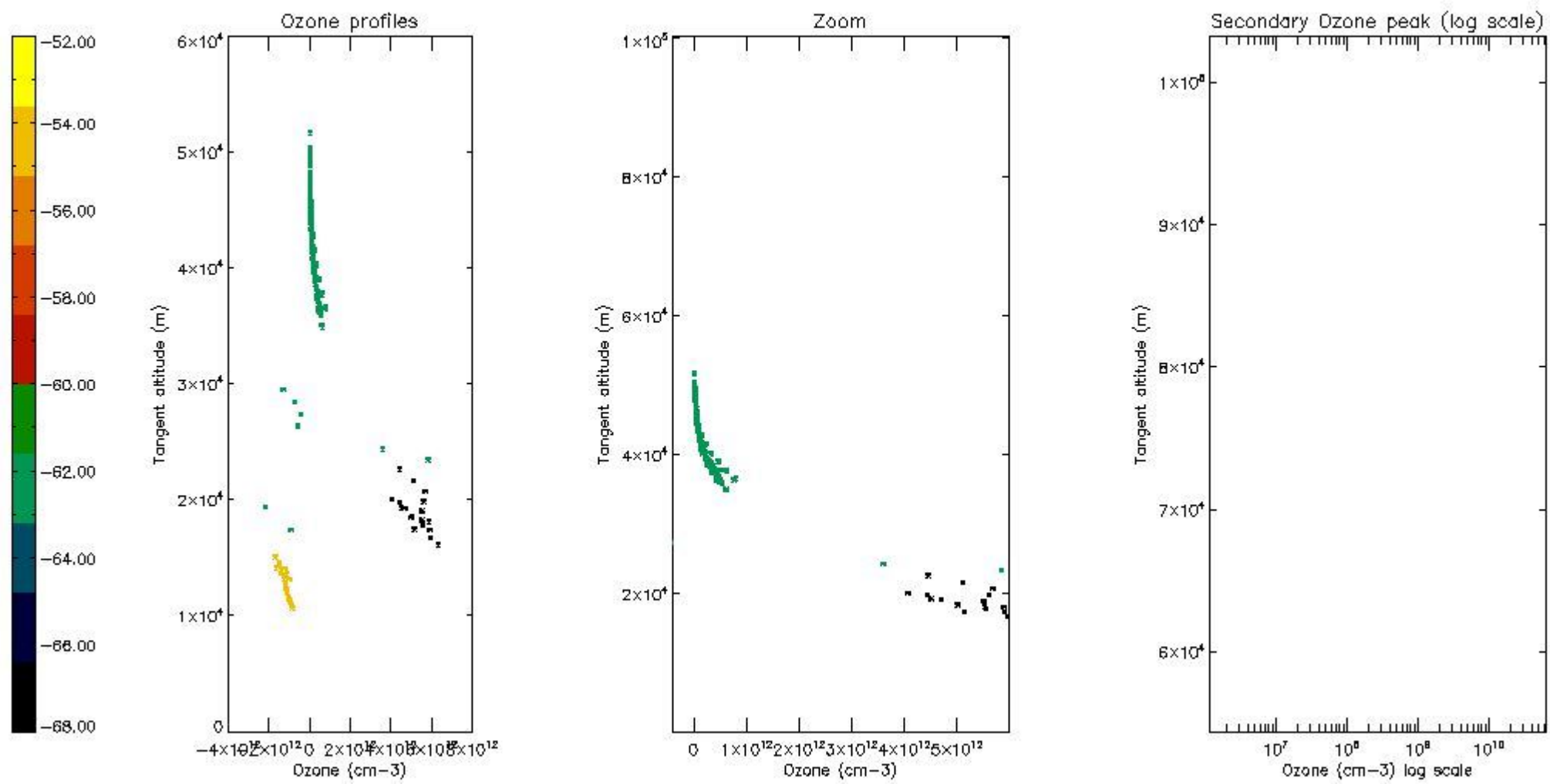
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



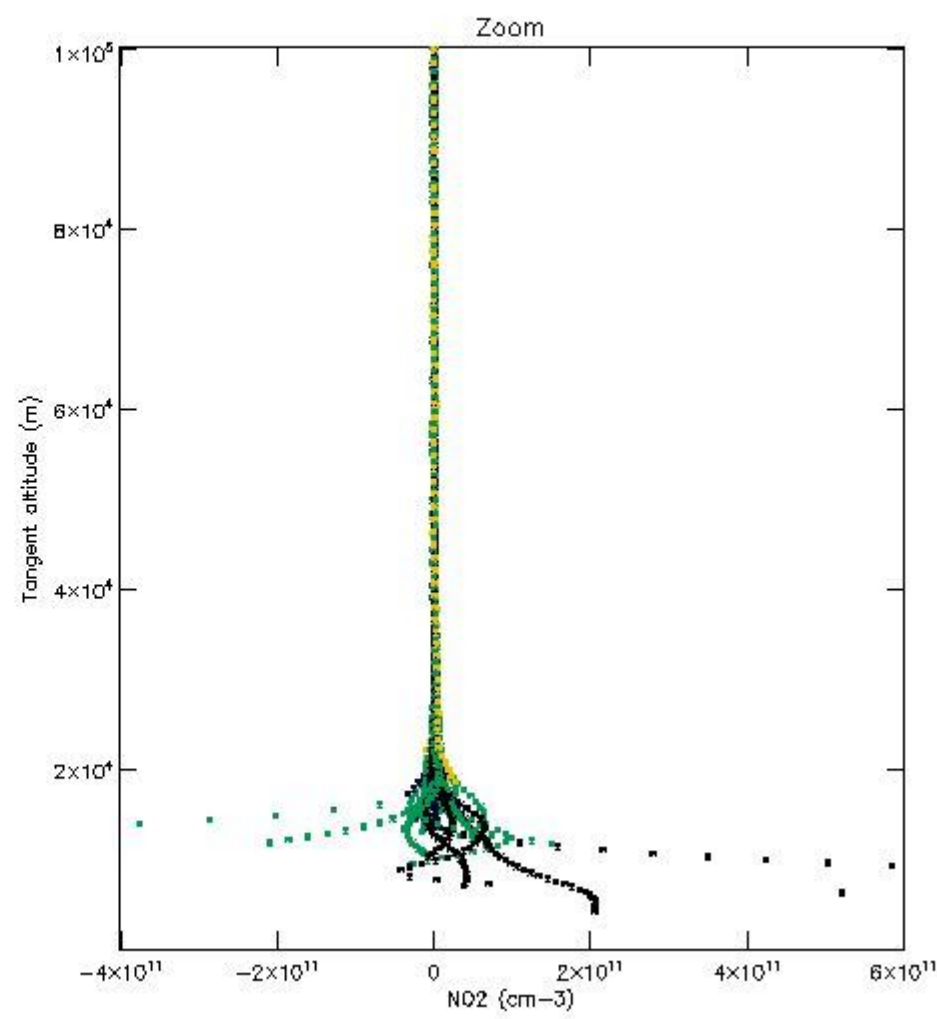
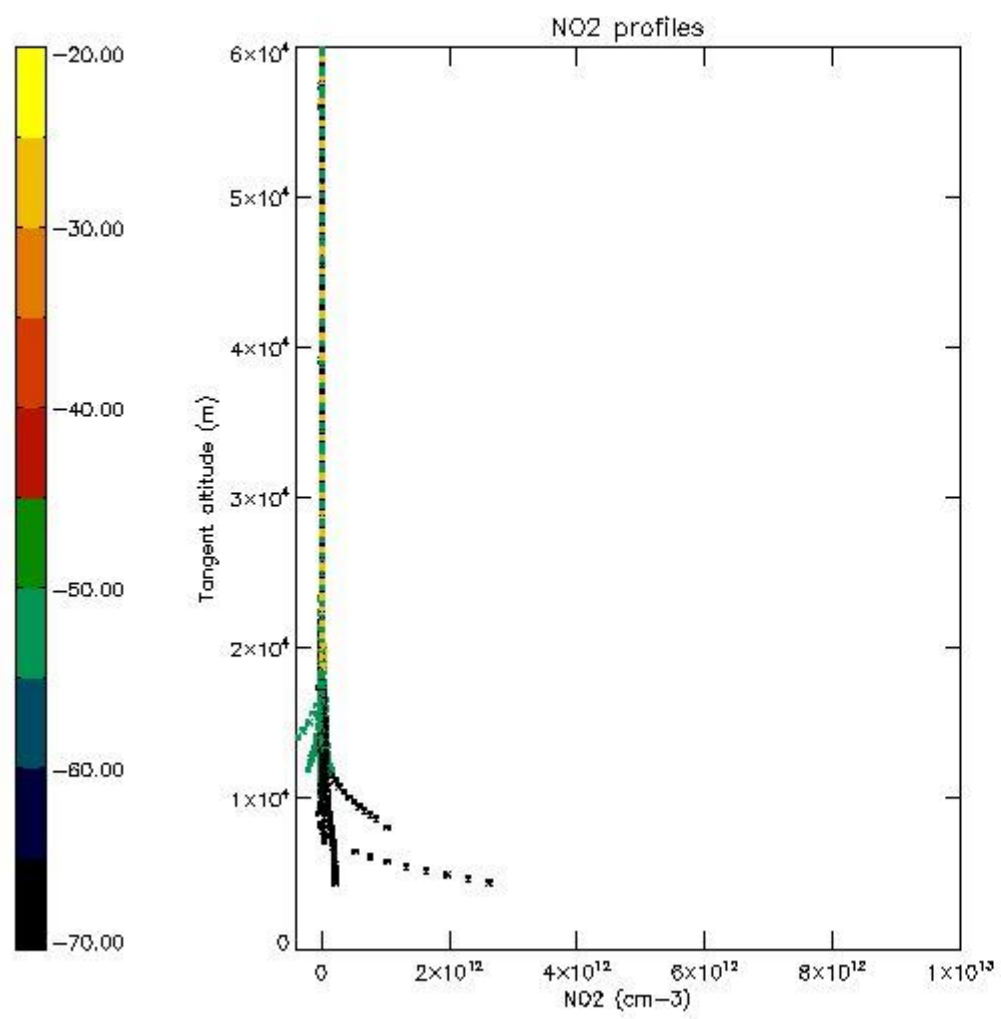
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



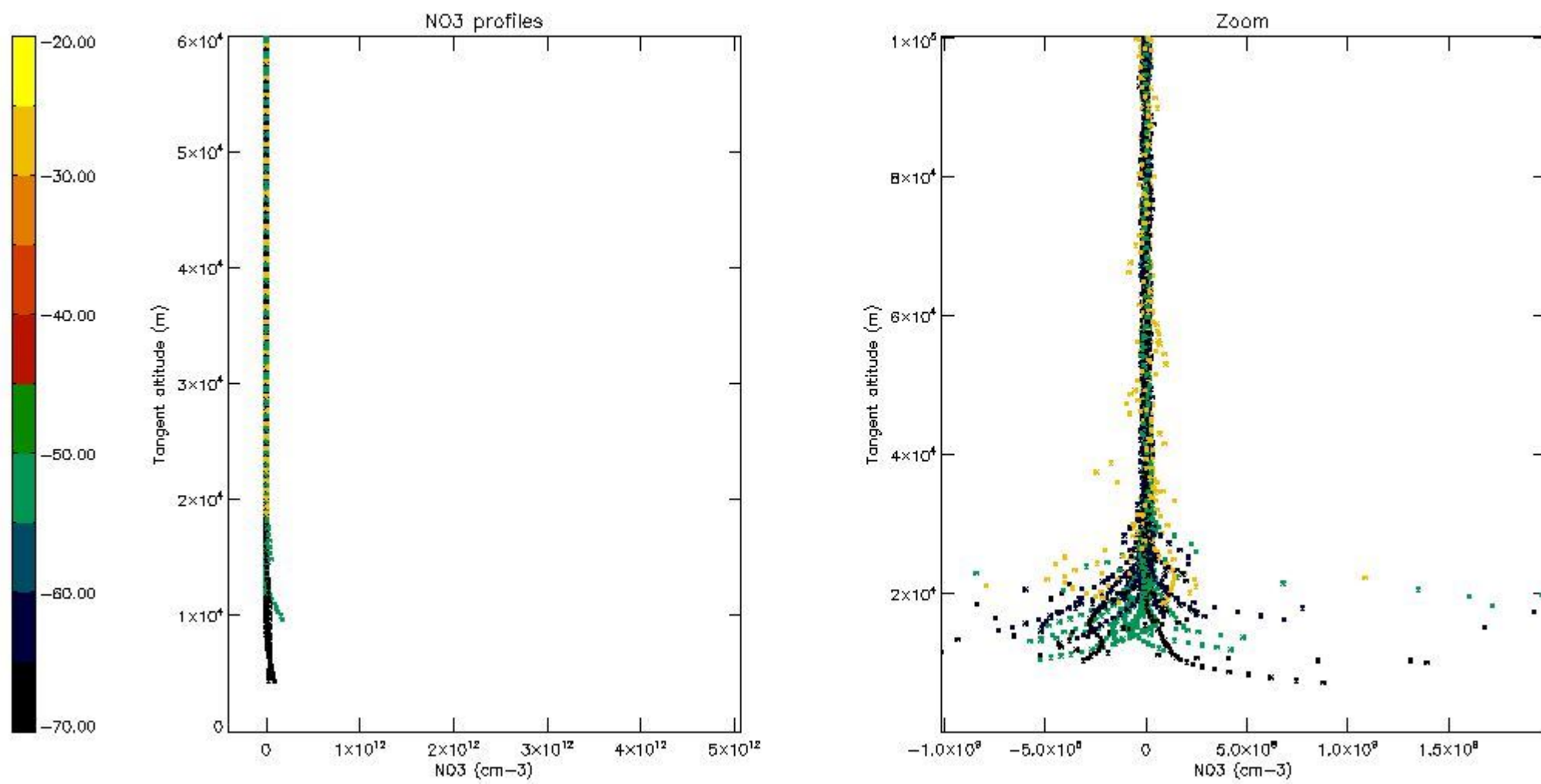
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



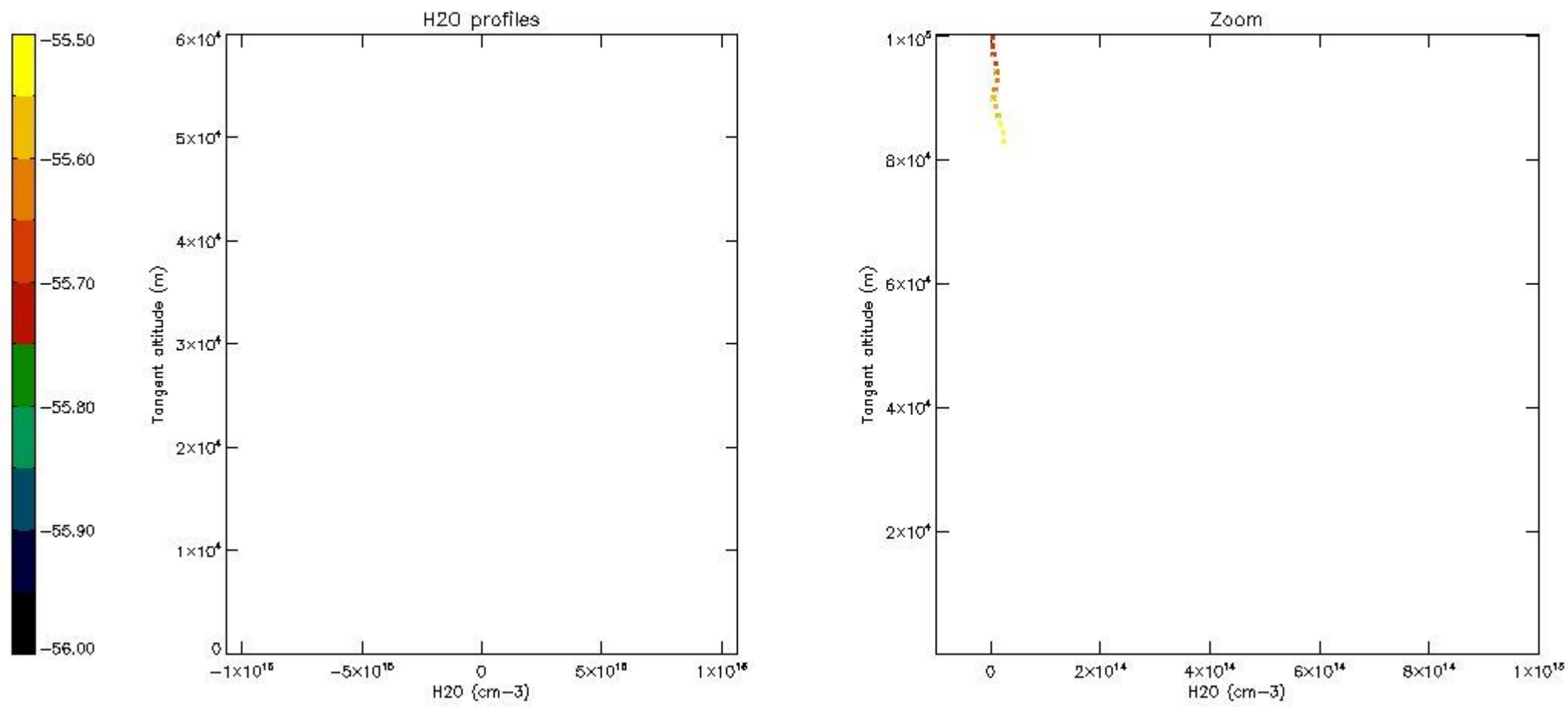
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H₂O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.



6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	23-JUL-2009 00:03:23
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-JUL-2009 00:03:23
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-JUL-2009 00:03:23

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[3.1 Plot of level 2 quality information per product \(time dependant\)](#)

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[4. Level 1 Quality information per product \(stored on level 2 products\)](#)

[4.1 Plot of level 1 quality information per product \(time dependant\)](#)

[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

[4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

[4.2 Plot of level 1 quality information per product \(world map\)](#)

[4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

[4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

[5. Ozone profiles based on quality statistics and other trace gas profiles](#)

[5.1 Ozone statistics based on quality of products](#)

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

[6. Auxiliary Data Files used for the production reported in section 2](#)

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	26APR2013 11:03:27
Data source version	GOMOS/6.01
Start time of products	23-07-2009 (23JUL2009 00:00:00)
Stop time of products	24-07-2009 (24JUL2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	231
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

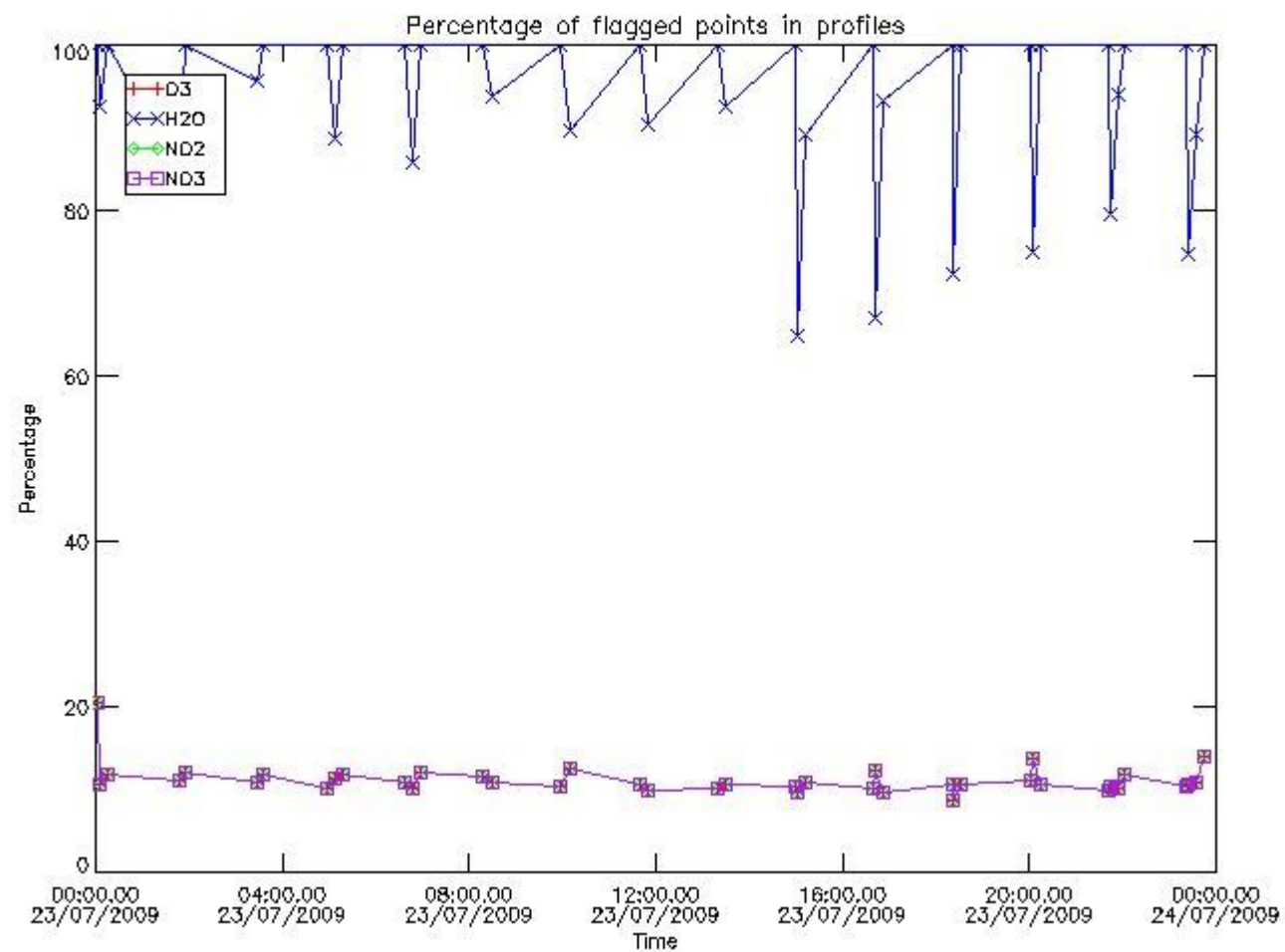
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090723_000323_000000252081_00030_38661_2483.N1	23-JUL-2009 00:03:23	Dark	25.000	94	92Alp Cet	2.5260	3100.0	50	38661	No
2	GOM_NL__2PRFIN20090723_000554_000000482081_00030_38661_2484.N1	23-JUL-2009 00:05:54	Dark	48.000	165	34Gam Eri	2.9500	3200.0	96	38661	No
3	GOM_NL__2PRFIN20090723_001509_000000442081_00030_38661_2485.N1	23-JUL-2009 00:15:09	Dark	43.500	157	The1Eri	2.9060	9300.0	87	38661	No
4	GOM_NL__2PRFIN20090723_002457_000000552081_00031_38662_2494.N1	23-JUL-2009 00:24:57	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	38662	No
5	GOM_NL__2PRFIN20090723_003007_000000642081_00031_38662_2495.N1	23-JUL-2009 00:30:07	Straylight	64.000	63	Bet Gru	2.1500	2800.0	128	38662	No
6	GOM_NL__2PRFIN20090723_003132_000000462081_00031_38662_2496.N1	23-JUL-2009 00:31:32	Straylight	46.000	31	Alp Gru	1.7340	15200.	92	38662	No
7	GOM_NL__2PRFIN20090723_003445_000000502081_00031_38662_2497.N1	23-JUL-2009 00:34:45	Straylight	50.000	172	Gam Gru	3.0030	13100.	100	38662	No
8	GOM_NL__2PRFIN20090723_005204_000000602081_00031_38662_2498.N1	23-JUL-2009 00:52:04	Bright	60.000	11	53Alp Aql	0.76500	8000.0	120	38662	No
9	GOM_NL__2PRFIN20090723_010259_000000382081_00031_38662_2499.N1	23-JUL-2009 01:02:59	Bright	37.500	144	18Del Cyg	2.8600	11000.	75	38662	No
10	GOM_NL__2PRFIN20090723_010447_000000462081_00031_38662_2500.N1	23-JUL-2009 01:04:47	Bright	46.000	19	50Alp Cyg	1.2460	10500.	92	38662	No
11	GOM_NL__2PRFIN20090723_010959_000000442081_00031_38662_2501.N1	23-JUL-2009 01:09:59	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	38662	No
12	GOM_NL__2PRFIN20090723_011707_000000502081_00031_38662_2502.N1	23-JUL-2009 01:17:07	Bright	50.000	74	11Bet Cas	2.2680	6600.0	100	38662	No
13	GOM_NL__2PRFIN20090723_011955_000000462081_00031_38662_2503.N1	23-JUL-2009 01:19:55	Bright	46.000	110	37Del Cas	2.6780	8900.0	92	38662	No
14	GOM_NL__2PRFIN20090723_012425_000000472081_00031_38662_2504.N1	23-JUL-2009 01:24:25	Bright	47.000	160	23Gam Per	2.9300	4700.0	94	38662	No
15	GOM_NL__2PRFIN20090723_012553_000000472081_00031_38662_2505.N1	23-JUL-2009 01:25:53	Bright	46.500	35	33Alp Per	1.7950	6250.0	93	38662	No
16	GOM_NL__2PRFIN20090723_012858_000000502081_00031_38662_2506.N1	23-JUL-2009 01:28:58	Bright	49.500	79	26Bet Per	2.3100	13100.	99	38662	No
17	GOM_NL__2PRFIN20090723_013210_000000482081_00031_38662_2507.N1	23-JUL-2009 01:32:10	Twi_and_stray	48.000	150	44Zet Per	2.8900	28000.	96	38662	No
18	GOM_NL__2PRFIN20090723_013458_000000502081_00031_38662_2508.N1	23-JUL-2009 01:34:58	Twilight	50.000	146	25Eta Tau	2.8730	15200.	100	38662	No
19	GOM_NL__2PRFIN20090723_014631_000000462081_00031_38662_2509.N1	23-JUL-2009 01:46:31	Dark	46.000	165	34Gam Eri	2.9500	3200.0	92	38662	No
20	GOM_NL__2PRFIN20090723_015546_000000432081_00031_38662_2510.N1	23-JUL-2009 01:55:46	Dark	42.500	157	The1Eri	2.9060	9300.0	85	38662	No
21	GOM_NL__2PRFIN20090723_020534_000000532081_00032_38663_2508.N1	23-JUL-2009 02:05:34	Straylight	53.000	84	Alp Phe	2.3970	4500.0	106	38663	No
22	GOM_NL__2PRFIN20090723_021044_000000602081_00032_38663_2509.N1	23-JUL-2009 02:10:44	Straylight	60.000	63	Bet Gru	2.1500	2800.0	120	38663	No
23	GOM_NL__2PRFIN20090723_021209_000000472081_00032_38663_2510.N1	23-JUL-2009 02:12:09	Straylight	46.500	31	Alp Gru	1.7340	15200.	93	38663	No
24	GOM_NL__2PRFIN20090723_021521_000000482081_00032_38663_2511.N1	23-JUL-2009 02:15:21	Straylight	48.000	172	Gam Gru	3.0030	13100.	96	38663	No
25	GOM_NL__2PRFIN20090723_023239_000000442081_00032_38663_2512.N1	23-JUL-2009 02:32:39	Bright	44.000	11	53Alp Aql	0.76500	8000.0	88	38663	No
26	GOM_NL__2PRFIN20090723_024334_000000392081_00032_38663_2513.N1	23-JUL-2009 02:43:34	Bright	39.000	144	18Del Cyg	2.8600	11000.	78	38663	No
27	GOM_NL__2PRFIN20090723_024522_000000462081_00032_38663_2514.N1	23-JUL-2009 02:45:22	Bright	45.500	19	50Alp Cyg	1.2460	10500.	91	38663	No
28	GOM_NL__2PRFIN20090723_025035_000000382081_00032_38663_2515.N1	23-JUL-2009 02:50:35	Bright	38.000	89	5Alp Cep	2.4510	8000.0	76	38663	No
29	GOM_NL__2PRFIN20090723_025743_000000532081_00032_38663_2516.N1	23-JUL-2009 02:57:43	Bright	53.000	74	11Bet Cas	2.2680	6600.0	106	38663	No
30	GOM_NL__2PRFIN20090723_030030_000000472081_00032_38663_2517.N1	23-JUL-2009 03:00:30	Bright	47.000	110	37Del Cas	2.6780	8900.0	94	38663	No
31	GOM_NL__2PRFIN20090723_030501_000000432081_00032_38663_2518.N1	23-JUL-2009 03:05:01	Bright	43.000	160	23Gam Per	2.9300	4700.0	86	38663	No
32	GOM_NL__2PRFIN20090723_030629_000000462081_00032_38663_2519.N1	23-JUL-2009 03:06:29	Bright	45.500	35	33Alp Per	1.7950	6250.0	91	38663	No
33	GOM_NL__2PRFIN20090723_030934_000000532081_00032_38663_2520.N1	23-JUL-2009 03:09:34	Bright	52.500	79	26Bet Per	2.3100	13100.	105	38663	No
34	GOM_NL__2PRFIN20090723_031247_000000492081_00032_38663_2521.N1	23-JUL-2009 03:12:47	Twi_and_stray	48.500	150	44Zet Per	2.8900	28000.	97	38663	No
35	GOM_NL__2PRFIN20090723_031534_000000472081_00032_38663_2522.N1	23-JUL-2009 03:15:34	Twilight	47.000	146	25Eta Tau	2.8730	15200.	94	38663	No
36	GOM_NL__2PRFIN20090723_032708_000000472081_00032_38663_2523.N1	23-JUL-2009 03:27:08	Dark	46.500	165	34Gam Eri	2.9500	3200.0	93	38663	No
37	GOM_NL__2PRFIN20090723_033623_000000432081_00032_38663_2524.N1	23-JUL-2009 03:36:23	Dark	43.000	157	The1Eri	2.9060	9300.0	86	38663	No
38	GOM_NL__2PRFIN20090723_034611_000000582081_00033_38664_2519.N1	23-JUL-2009 03:46:11	Straylight	57.500	84	Alp Phe	2.3970	4500.0	115	38664	No
39	GOM_NL__2PRFIN20090723_035121_000000512081_00033_38664_2520.N1	23-JUL-2009 03:51:21	Straylight	50.500	63	Bet Gru	2.1500	2800.0	101	38664	No
40	GOM_NL__2PRFIN20090723_035245_000000482081_00033_38664_2521.N1	23-JUL-2009 03:52:45	Straylight	47.500	31	Alp Gru	1.7340	15200.	95	38664	No
41	GOM_NL__2PRFIN20090723_035558_000000502081_00033_38664_2522.N1	23-JUL-2009 03:55:58	Straylight	50.000	172	Gam Gru	3.0030	13100.	100	38664	No
42	GOM_NL__2PRFIN20090723_041315_000000442081_00033_38664_2523.N1	23-JUL-2009 04:13:15	Bright	43.500	11	53Alp Aql	0.76500	8000.0	87	38664	No

220	GOM_NL__2PRFIN20090723_225740_000000442081_00044_38675_2730.N1	23-JUL-2009 22:57:40	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	38675	No
221	GOM_NL__2PRFIN20090723_230445_000000532081_00044_38675_2731.N1	23-JUL-2009 23:04:45	Bright	53.000	74	11Bet Cas	2.2680	6600.0	106	38675	No
222	GOM_NL__2PRFIN20090723_230626_000000492081_00044_38675_2732.N1	23-JUL-2009 23:06:26	Bright	49.000	76	27Gam Cas	2.3000	30000.	98	38675	No
223	GOM_NL__2PRFIN20090723_231209_000000472081_00044_38675_2733.N1	23-JUL-2009 23:12:09	Bright	46.500	160	23Gam Per	2.9300	4700.0	93	38675	No
224	GOM_NL__2PRFIN20090723_231339_000000472081_00044_38675_2734.N1	23-JUL-2009 23:13:39	Bright	46.500	35	33Alp Per	1.7950	6250.0	93	38675	No
225	GOM_NL__2PRFIN20090723_231644_000000542081_00044_38675_2735.N1	23-JUL-2009 23:16:44	Bright	53.500	79	26Bet Per	2.3100	13100.	107	38675	No
226	GOM_NL__2PRFIN20090723_231959_000000472081_00044_38675_2736.N1	23-JUL-2009 23:19:59	Tw_i_and_stray	46.500	150	44Zet Per	2.8900	28000.	93	38675	No
227	GOM_NL__2PRFIN20090723_232249_000000492081_00044_38675_2737.N1	23-JUL-2009 23:22:49	Dark	49.000	146	25Eta Tau	2.8730	15200.	98	38675	No
228	GOM_NL__2PRFIN20090723_232424_000000582081_00044_38675_2738.N1	23-JUL-2009 23:24:24	Dark	58.000	13	87Alp Tau	0.86700	3800.0	116	38675	No
229	GOM_NL__2PRFIN20090723_233427_000000472081_00044_38675_2739.N1	23-JUL-2009 23:34:27	Dark	47.000	165	34Gam Eri	2.9500	3200.0	94	38675	No
230	GOM_NL__2PRFIN20090723_234344_000000442081_00044_38675_2740.N1	23-JUL-2009 23:43:44	Dark	43.500	157	The1Eri	2.9060	9300.0	87	38675	No
231	GOM_NL__2PRFIN20090723_235336_000000542081_00045_38676_2741.N1	23-JUL-2009 23:53:36	Straylight	53.500	84	Alp Phe	2.3970	4500.0	107	38676	No

3. Quality information per product

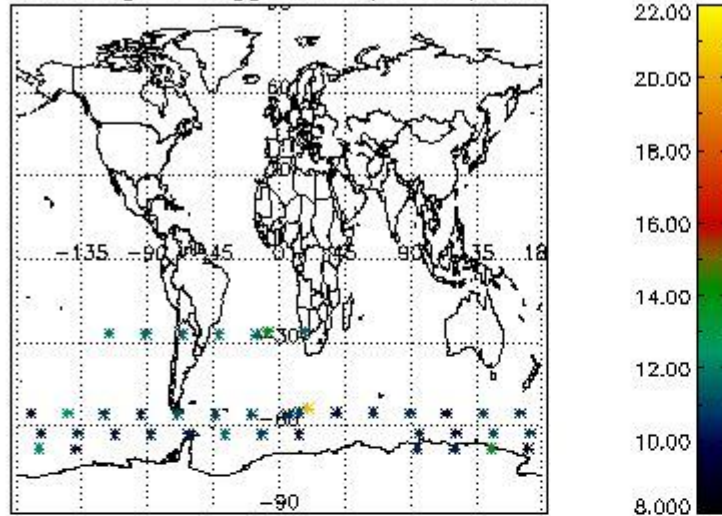
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

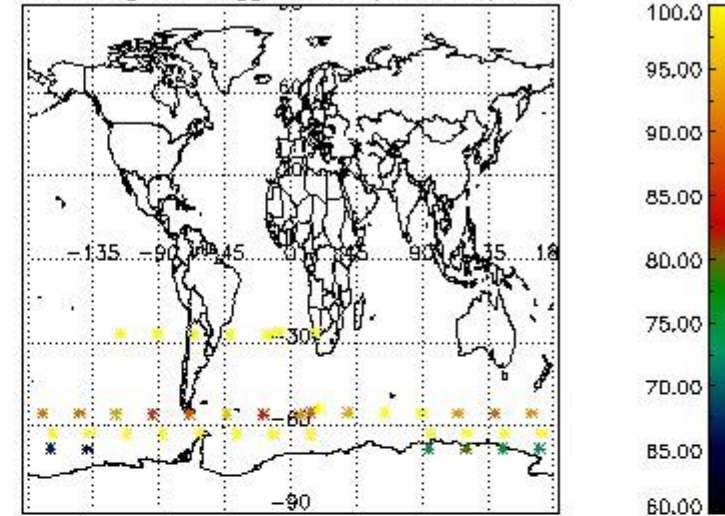


3.2 Plot quality information per product (world map)

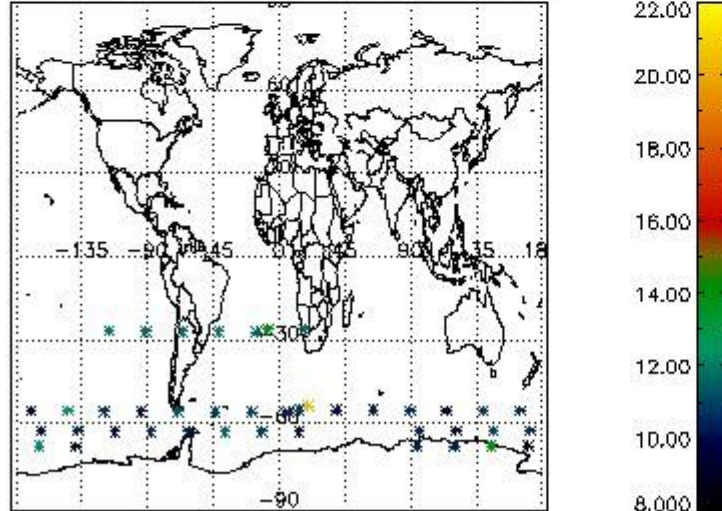
Percentage of flagged data per O3 profile



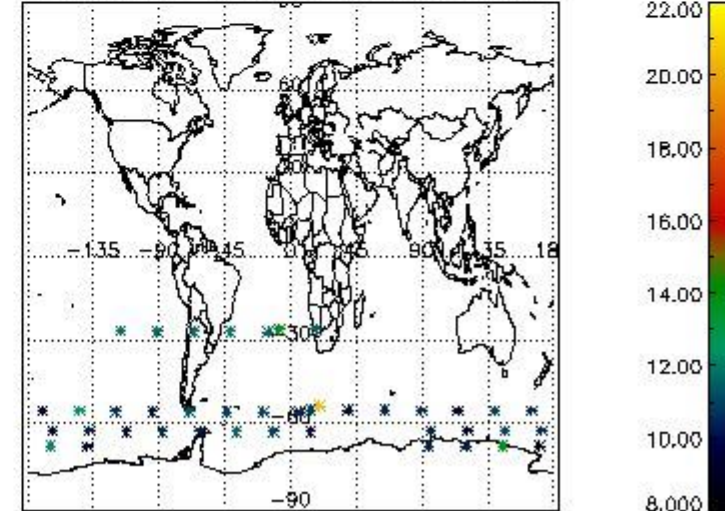
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

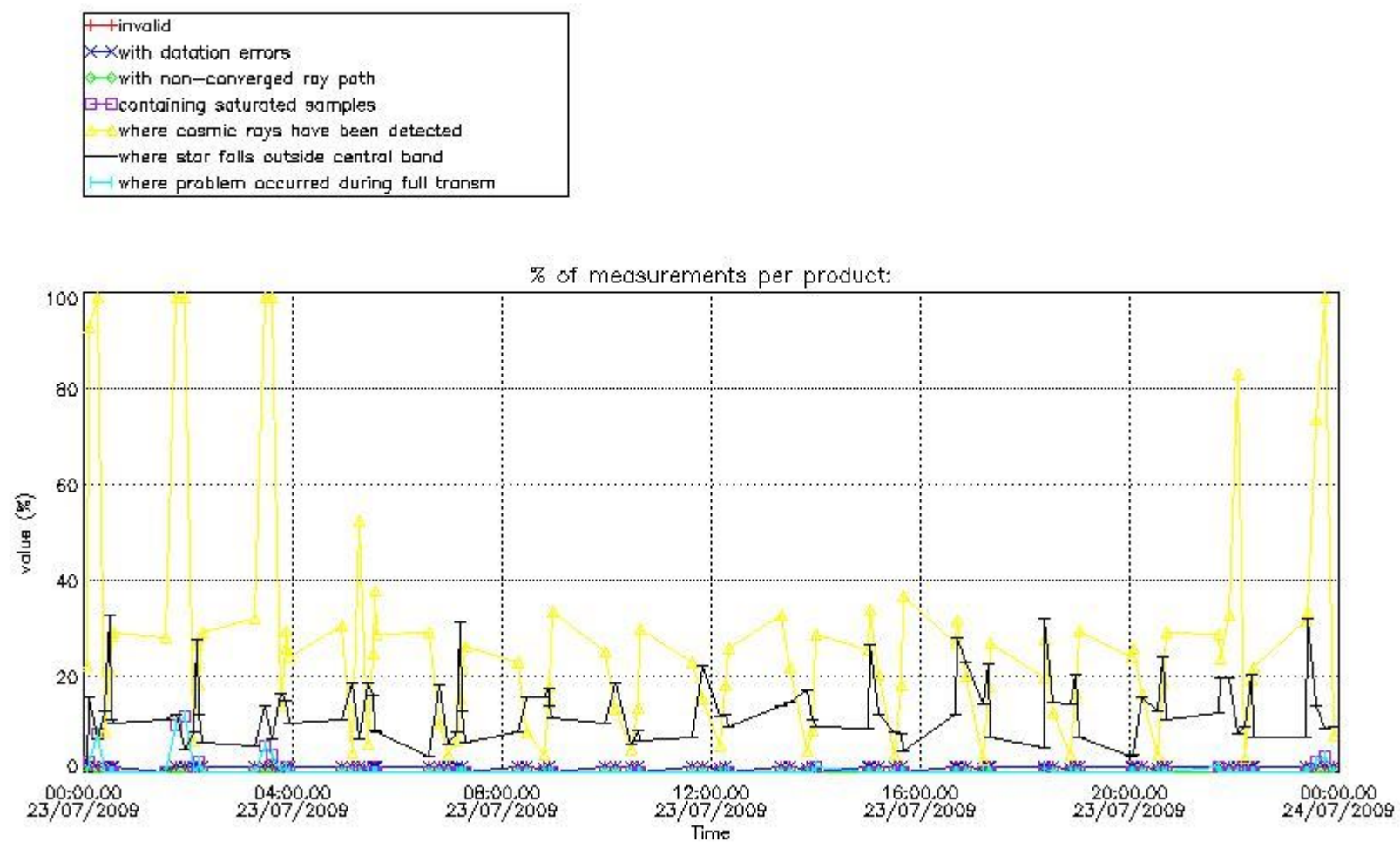


4. Level 1 quality information per product

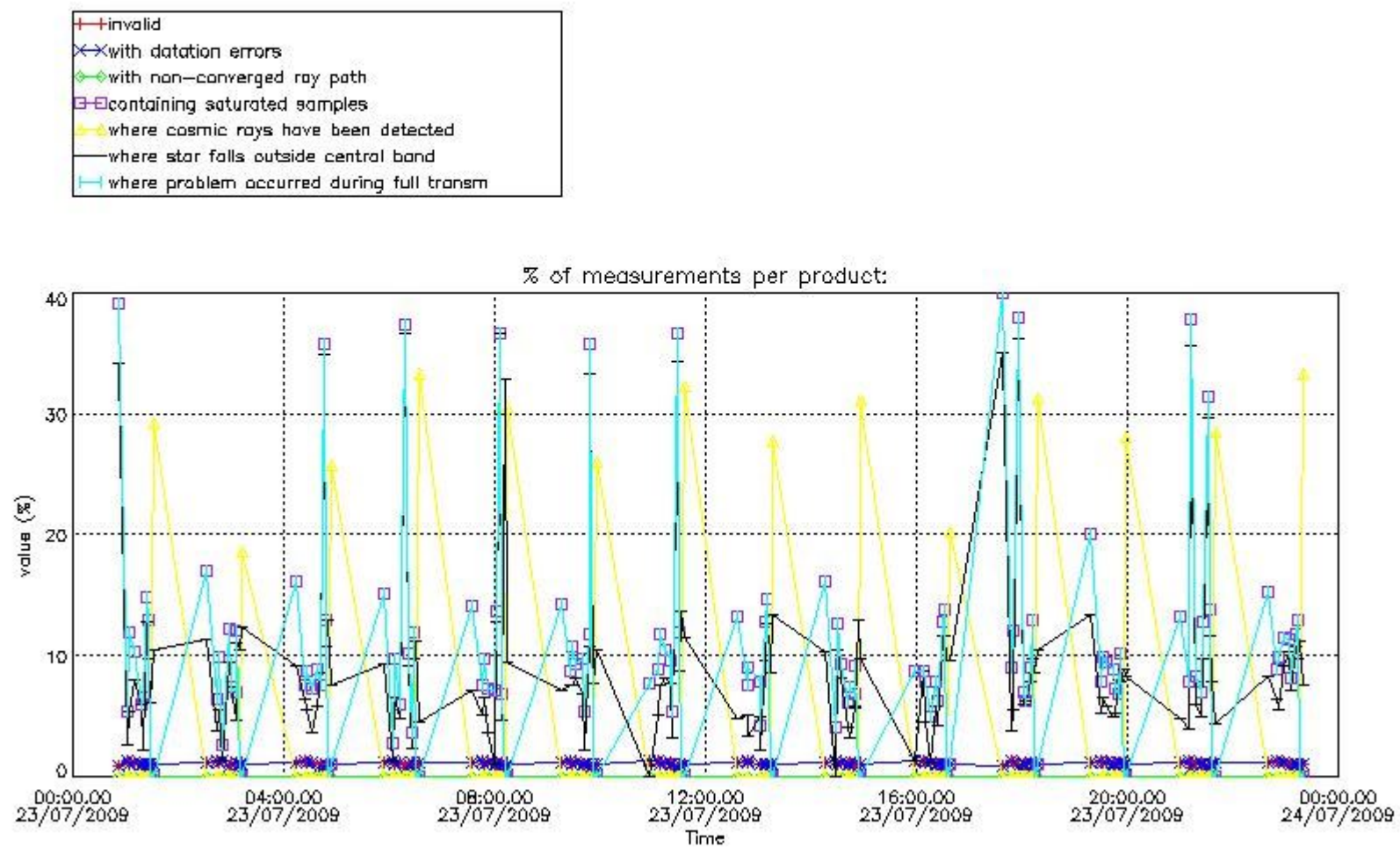
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



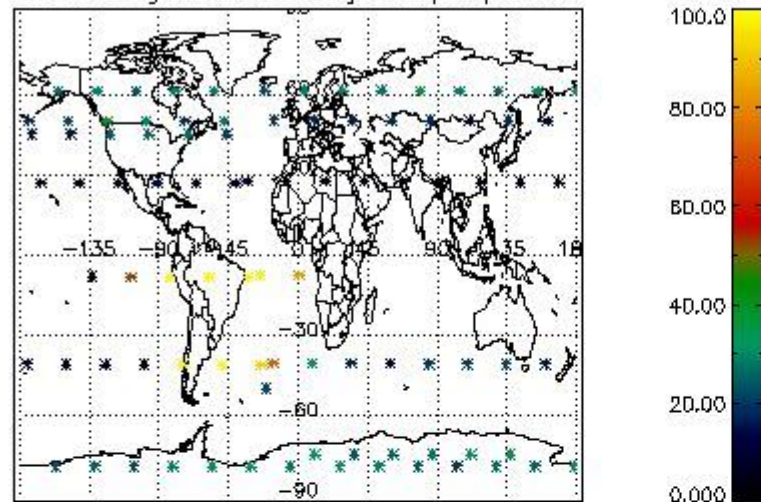
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



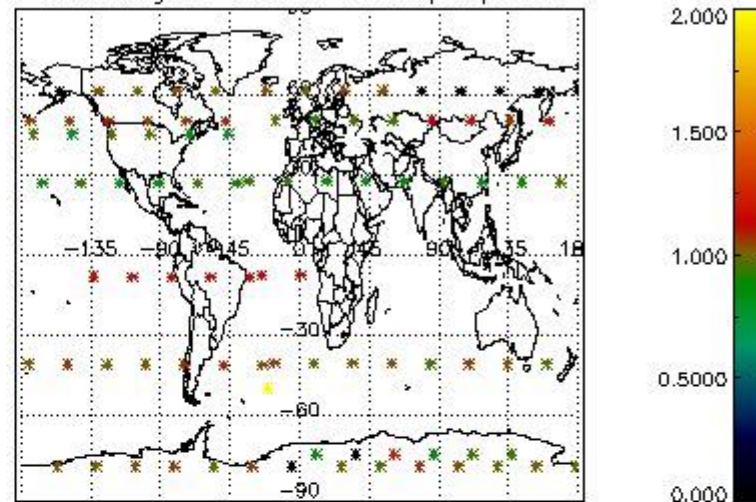
4.2 Plot quality information per product coming from level 1b processing (world map)

4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

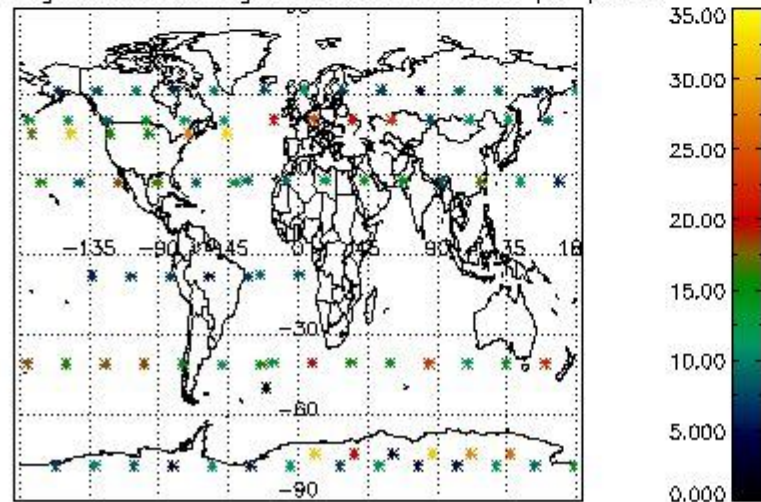
Percentage of cosmic ray hits per profile



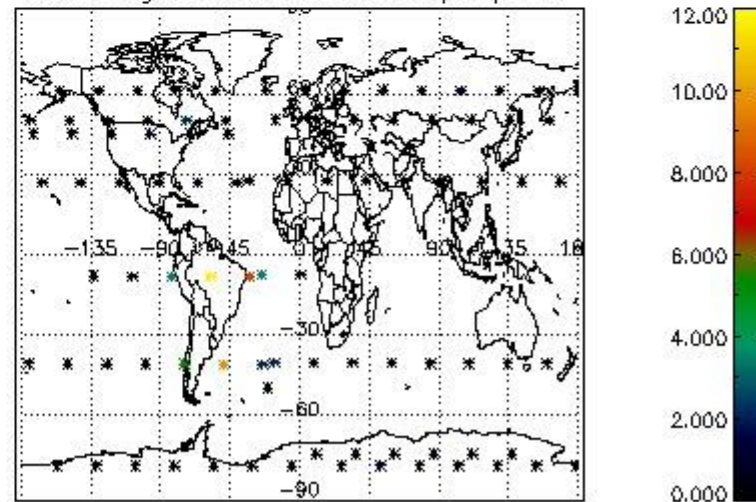
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

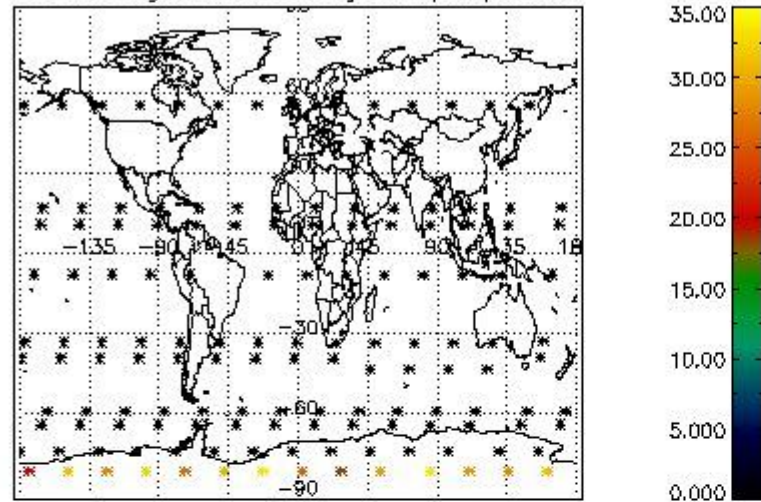


Percentage of saturation errors per profile

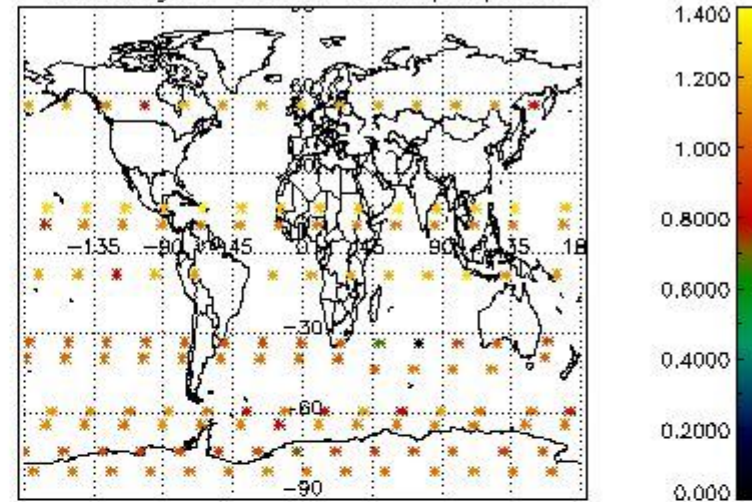


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

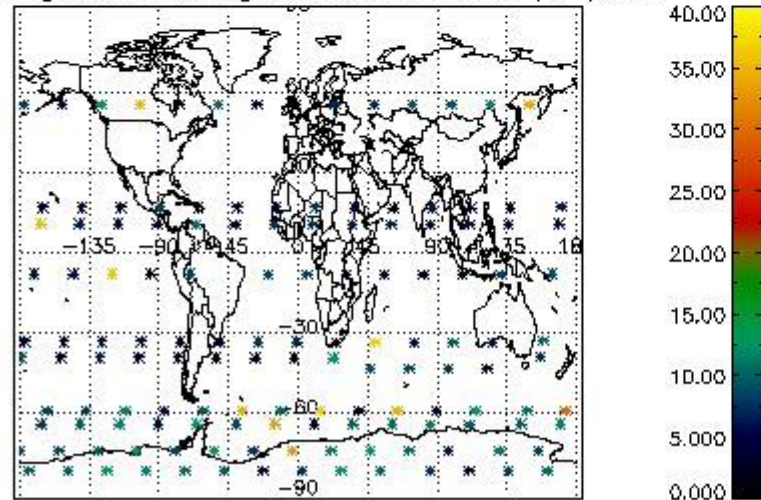
Percentage of cosmic ray hits per profile



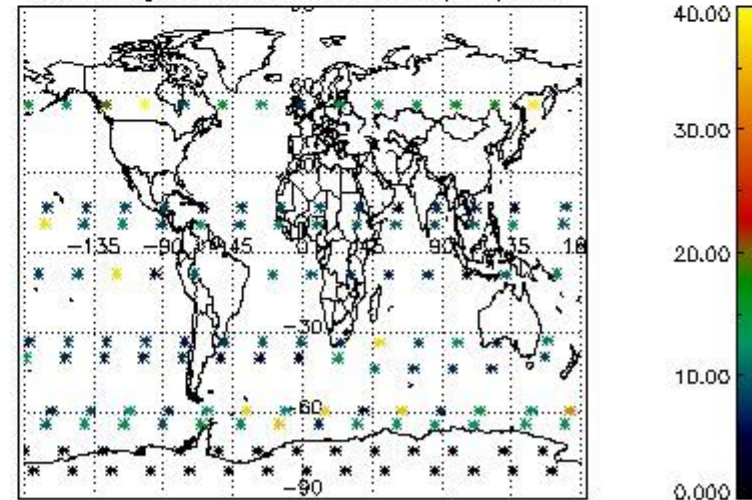
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

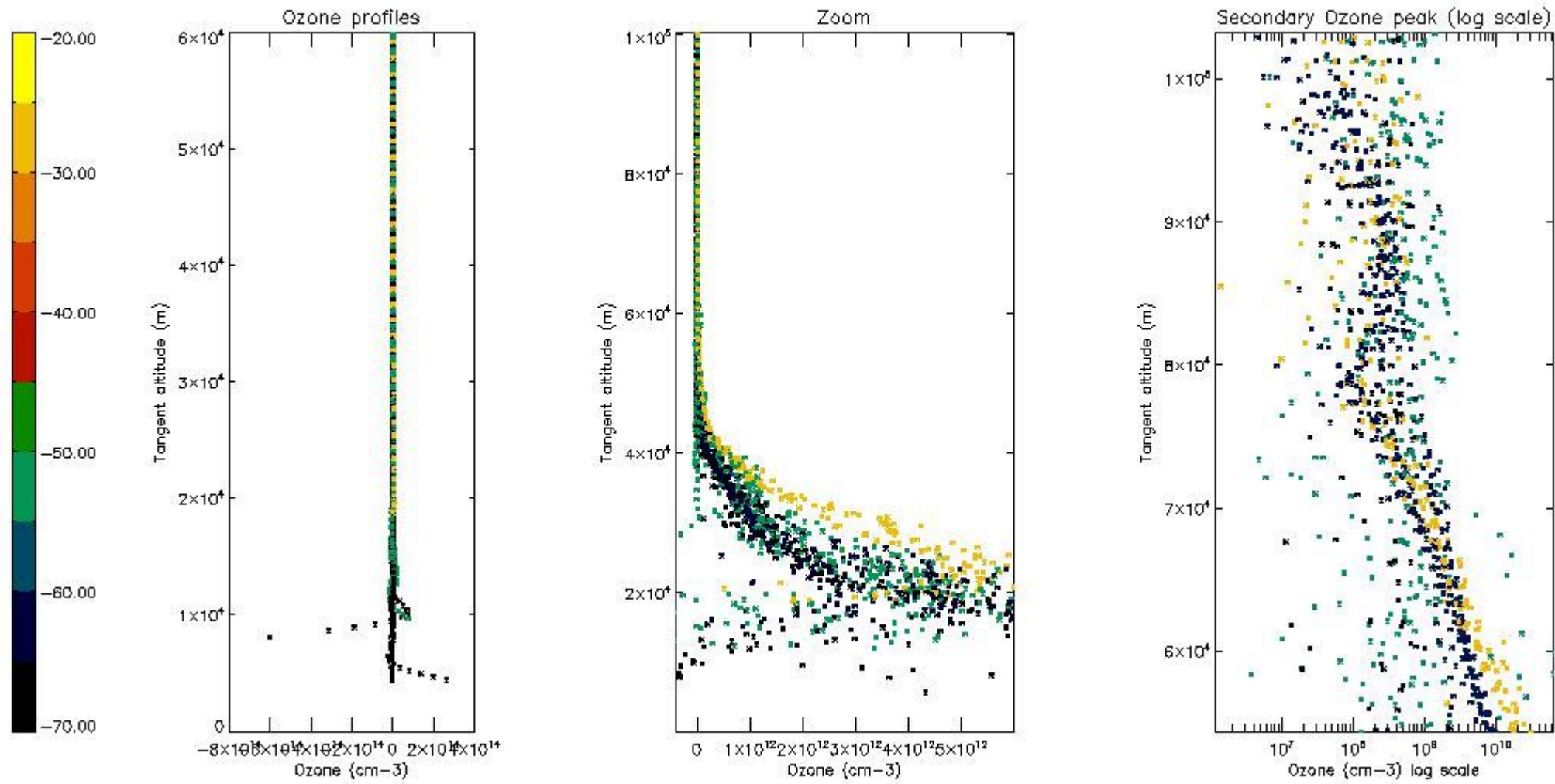
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	6

STD < 10	3
STD < 5	1

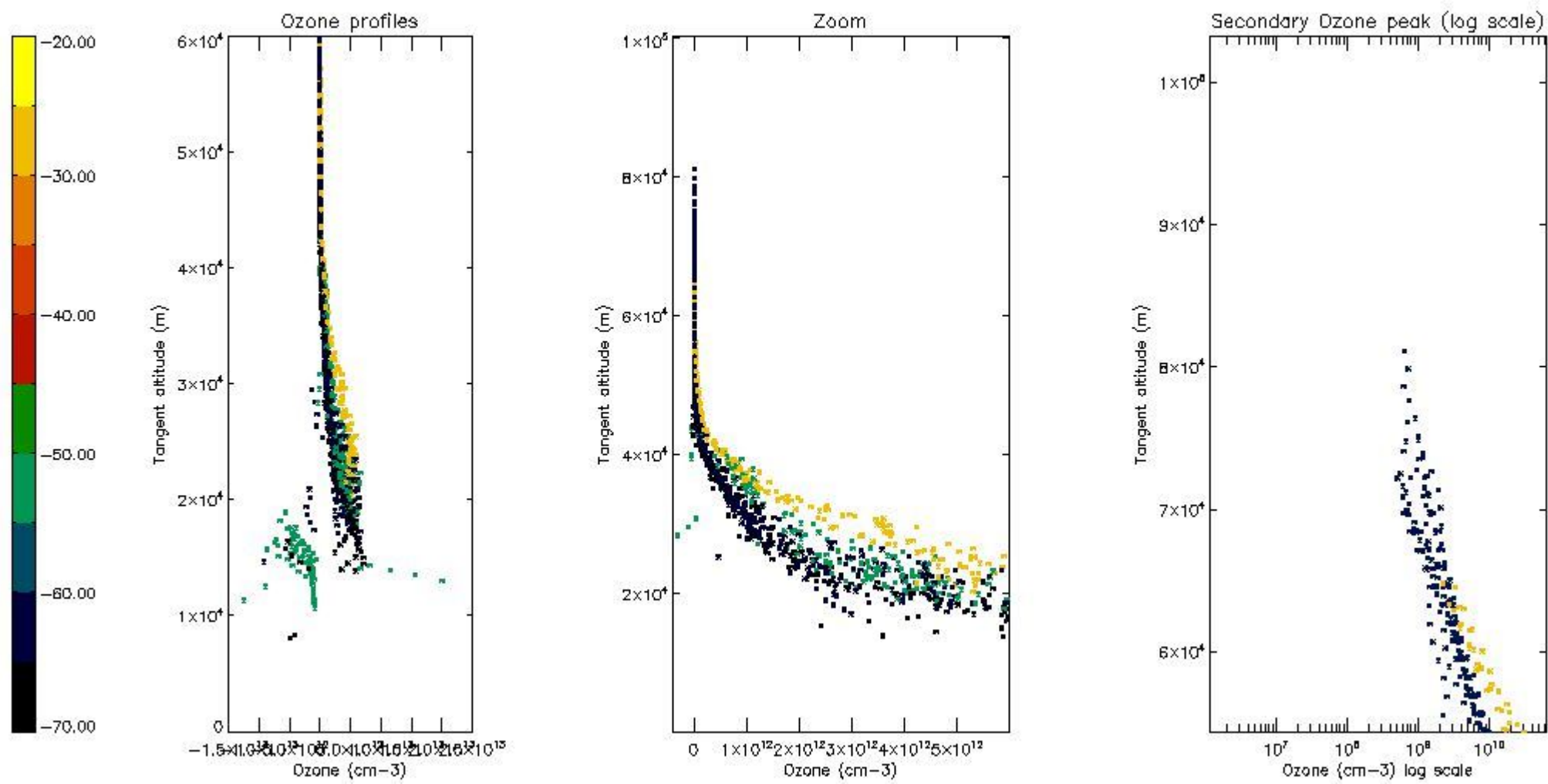
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



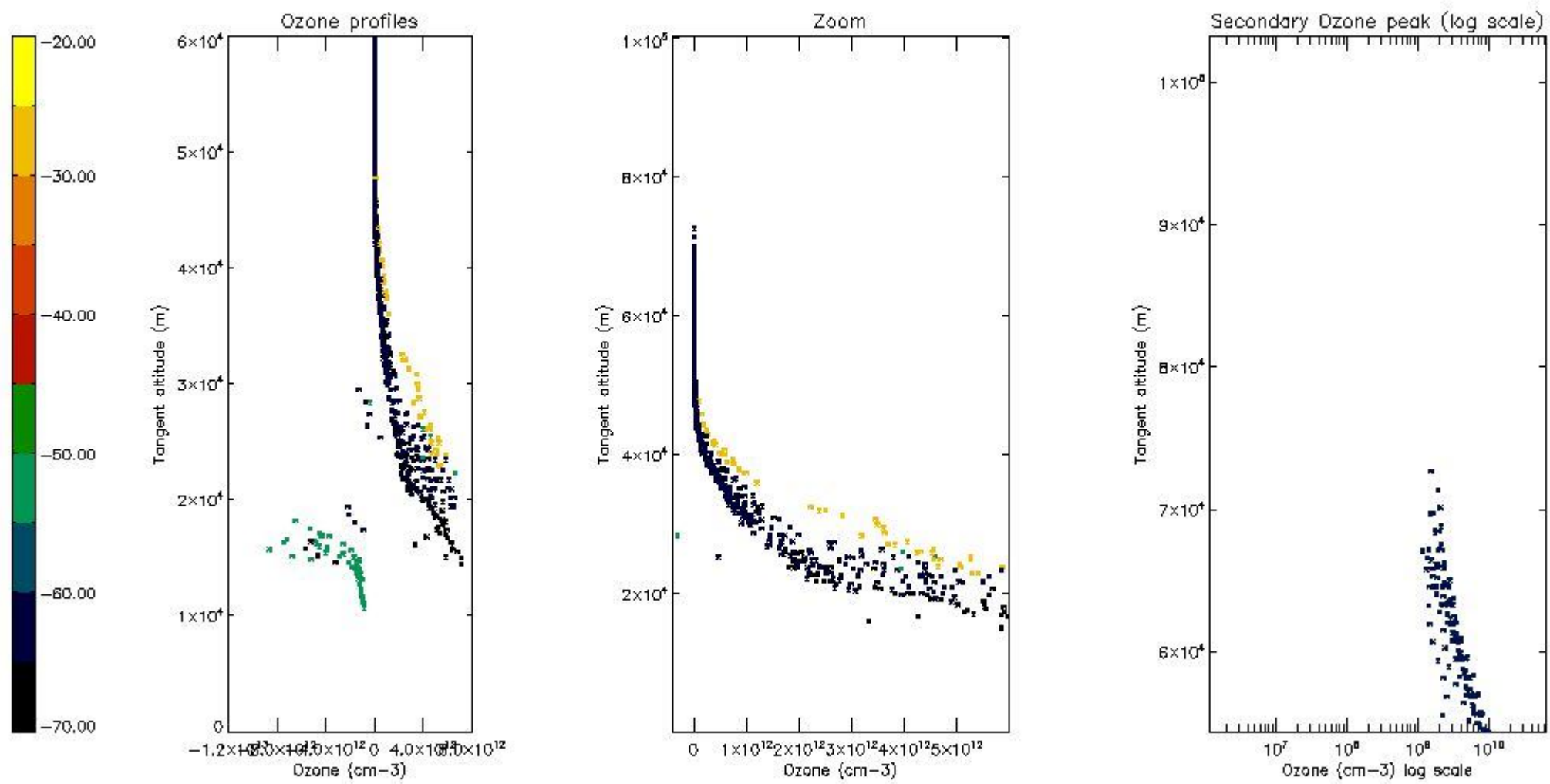
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



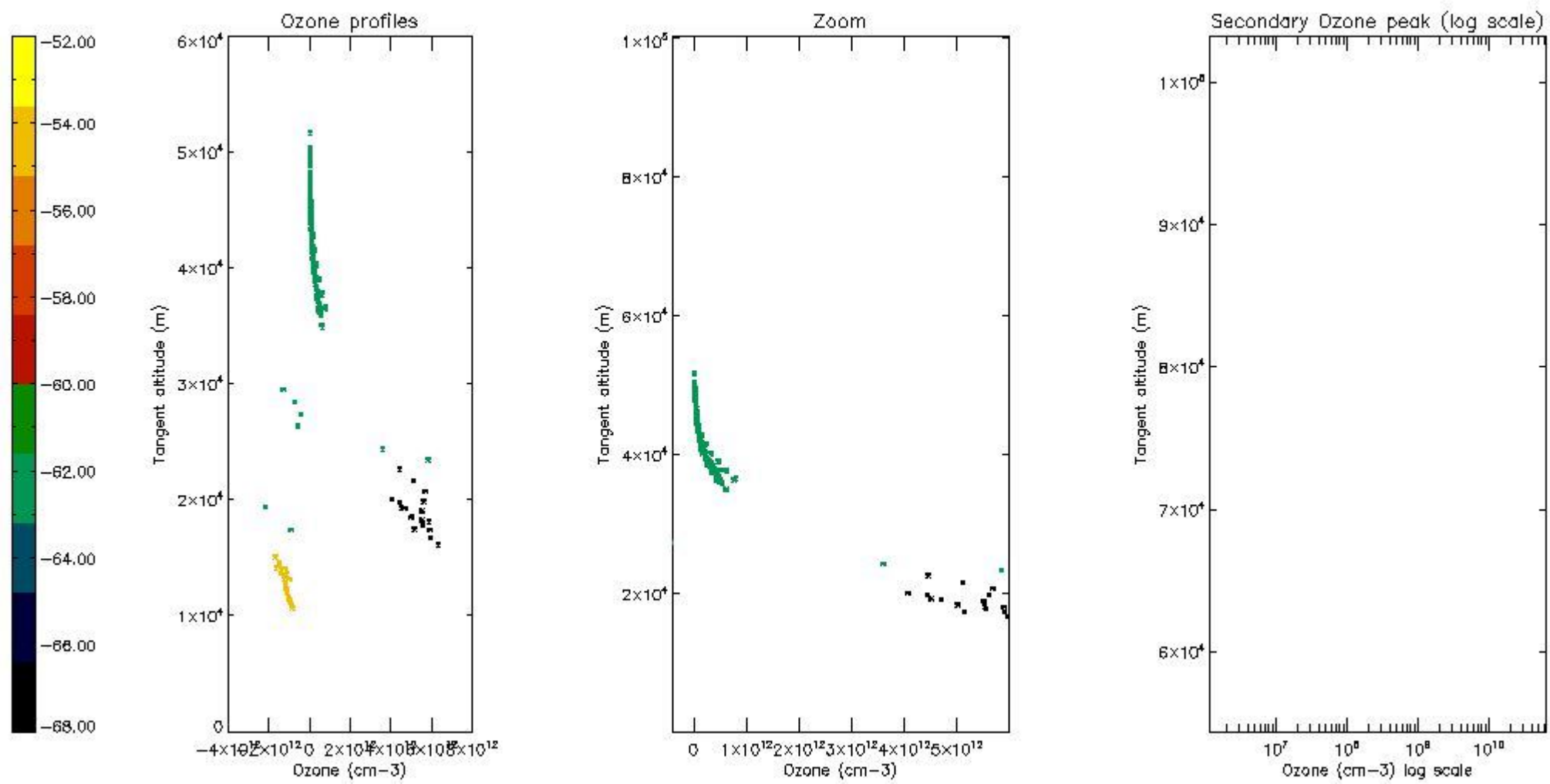
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



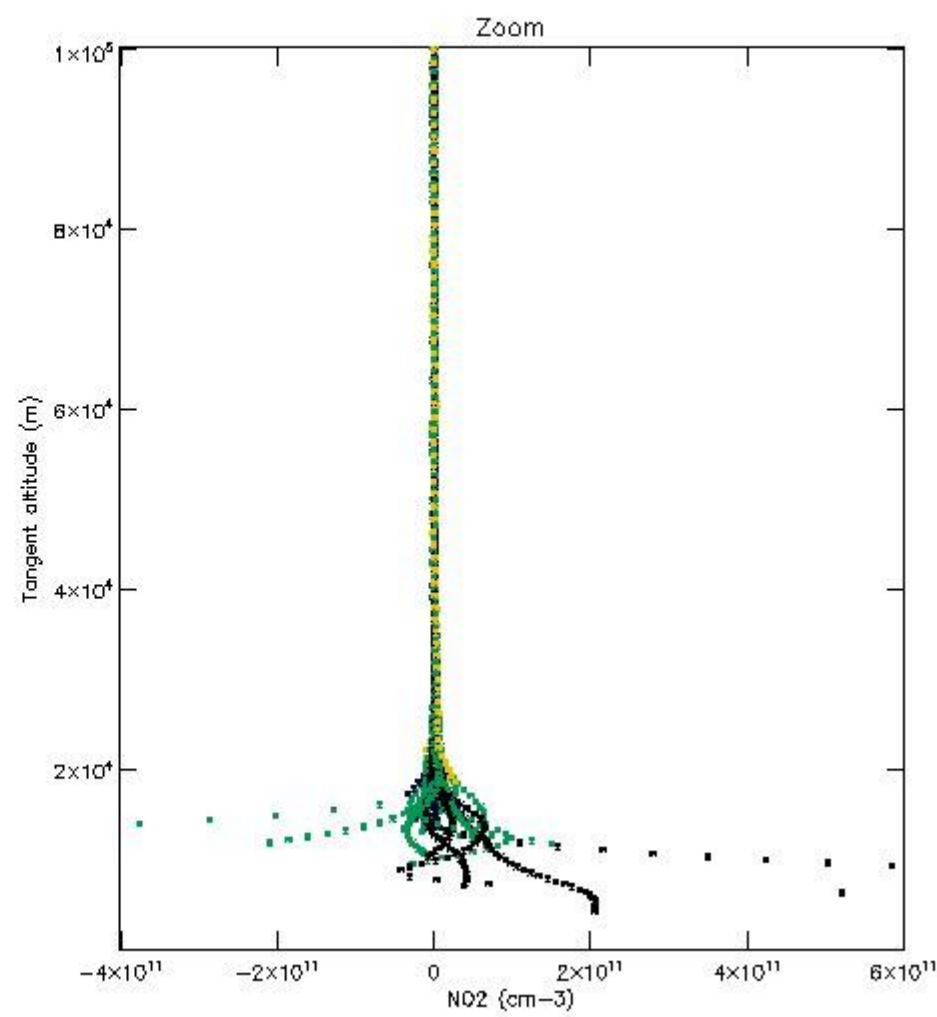
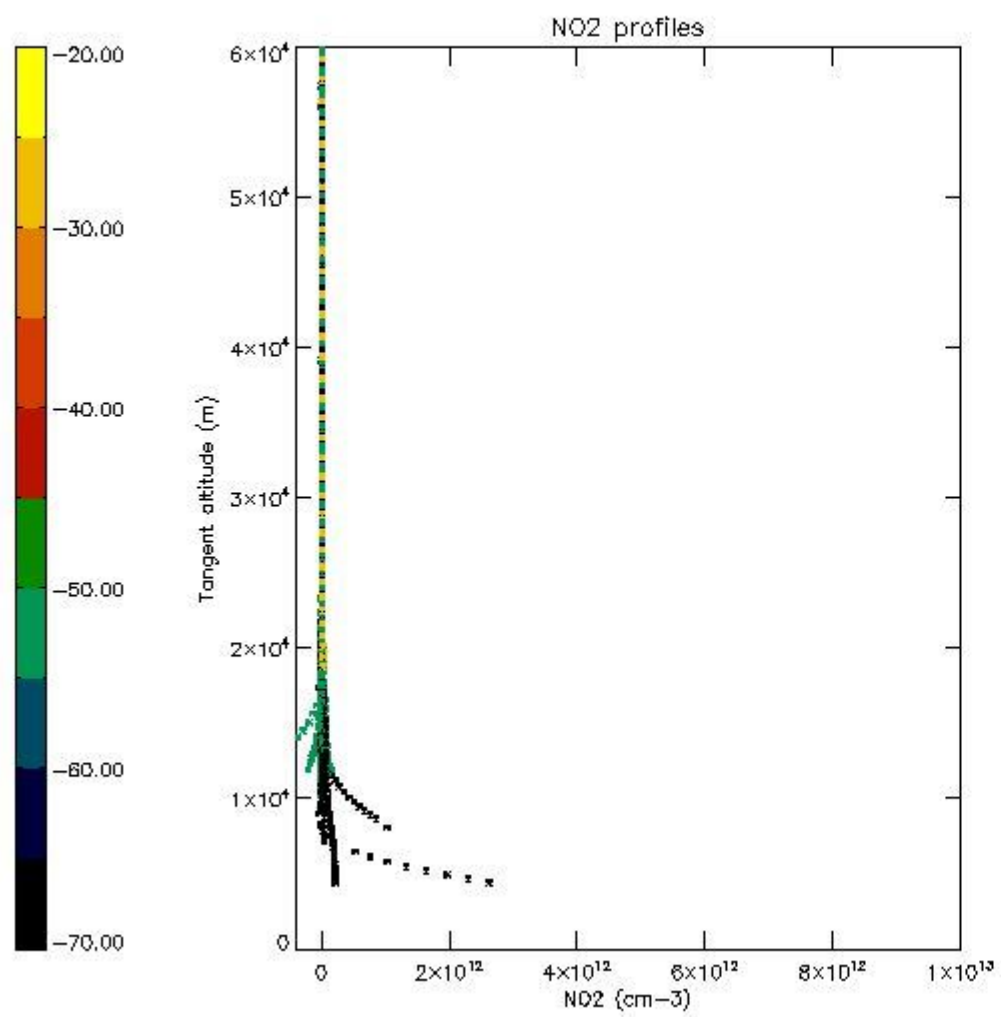
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



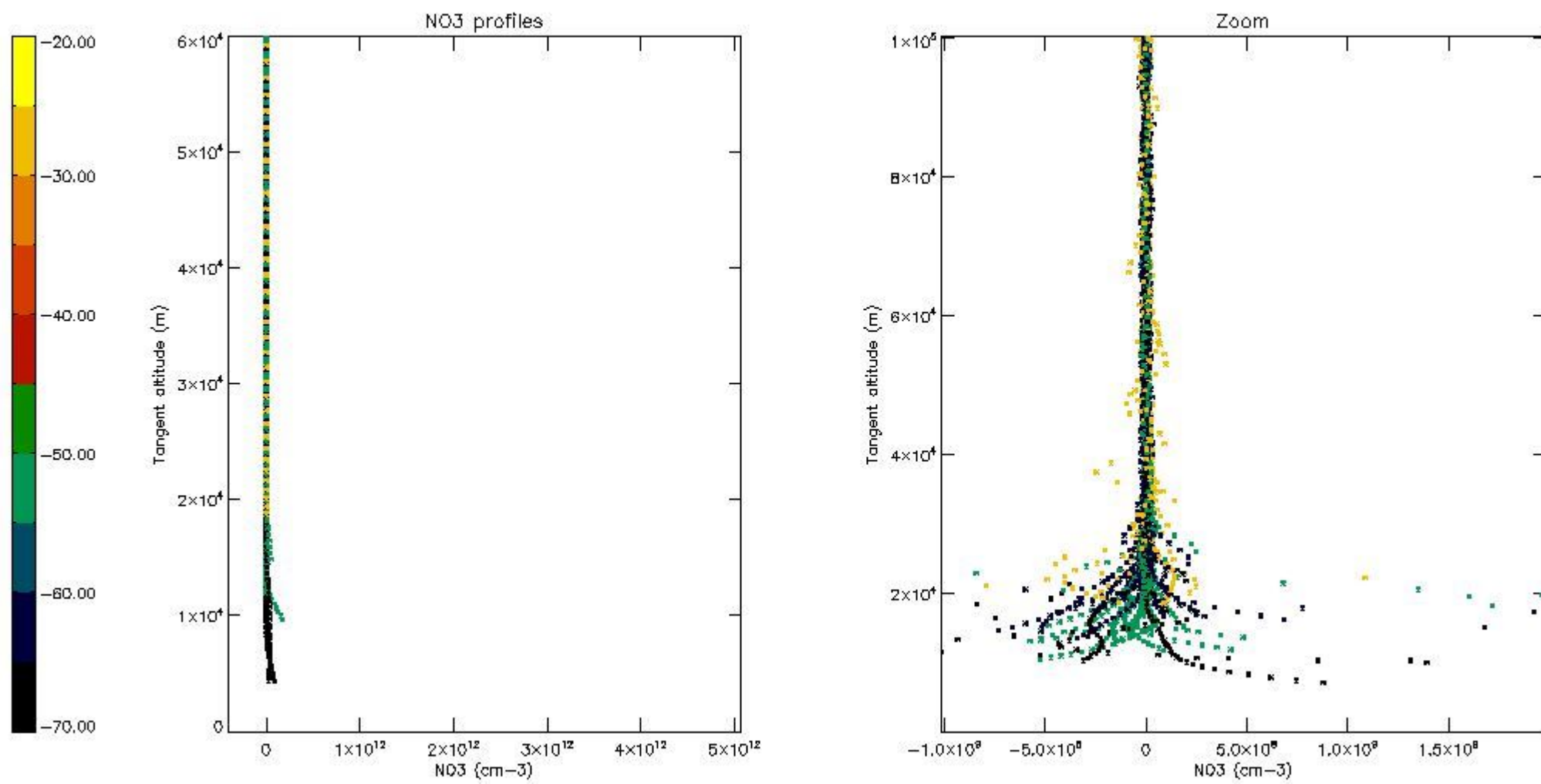
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



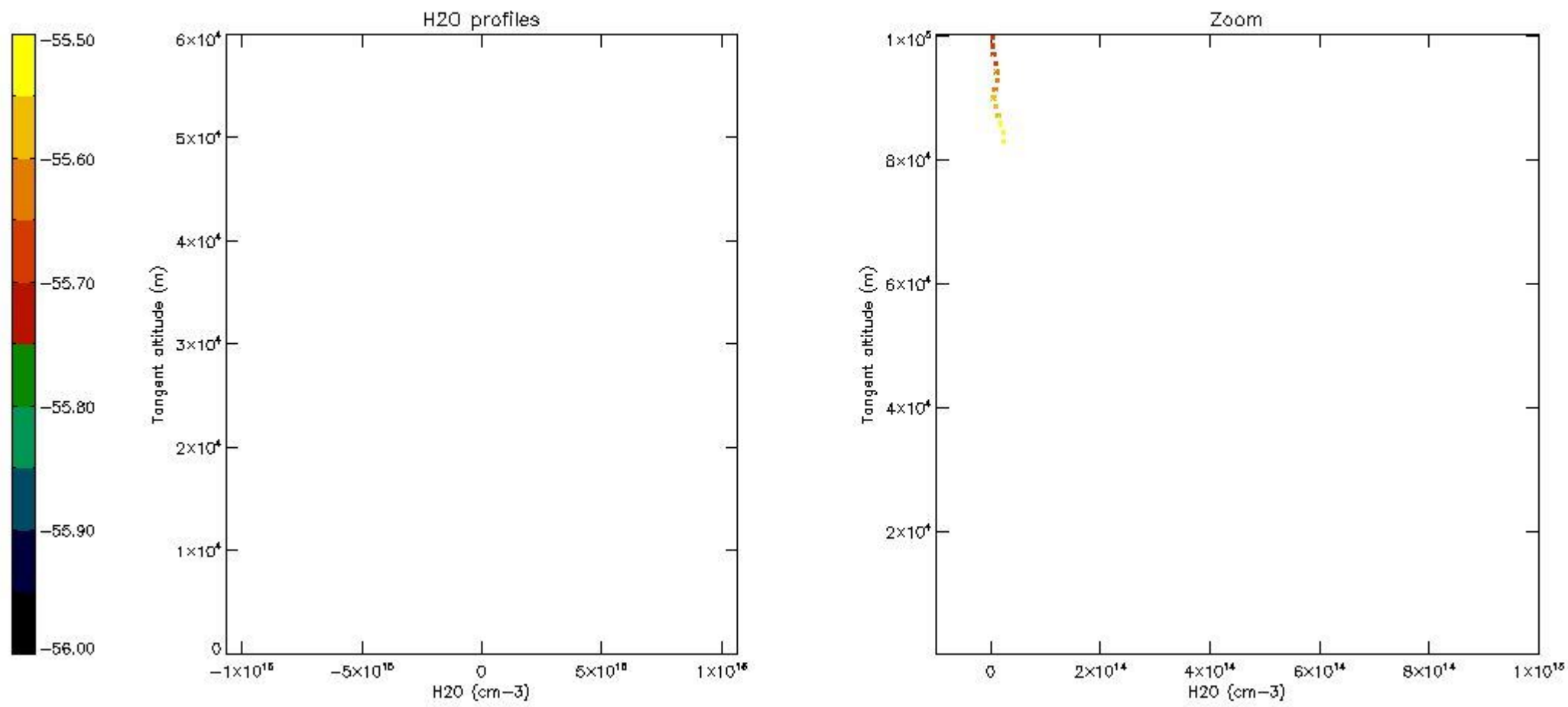
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

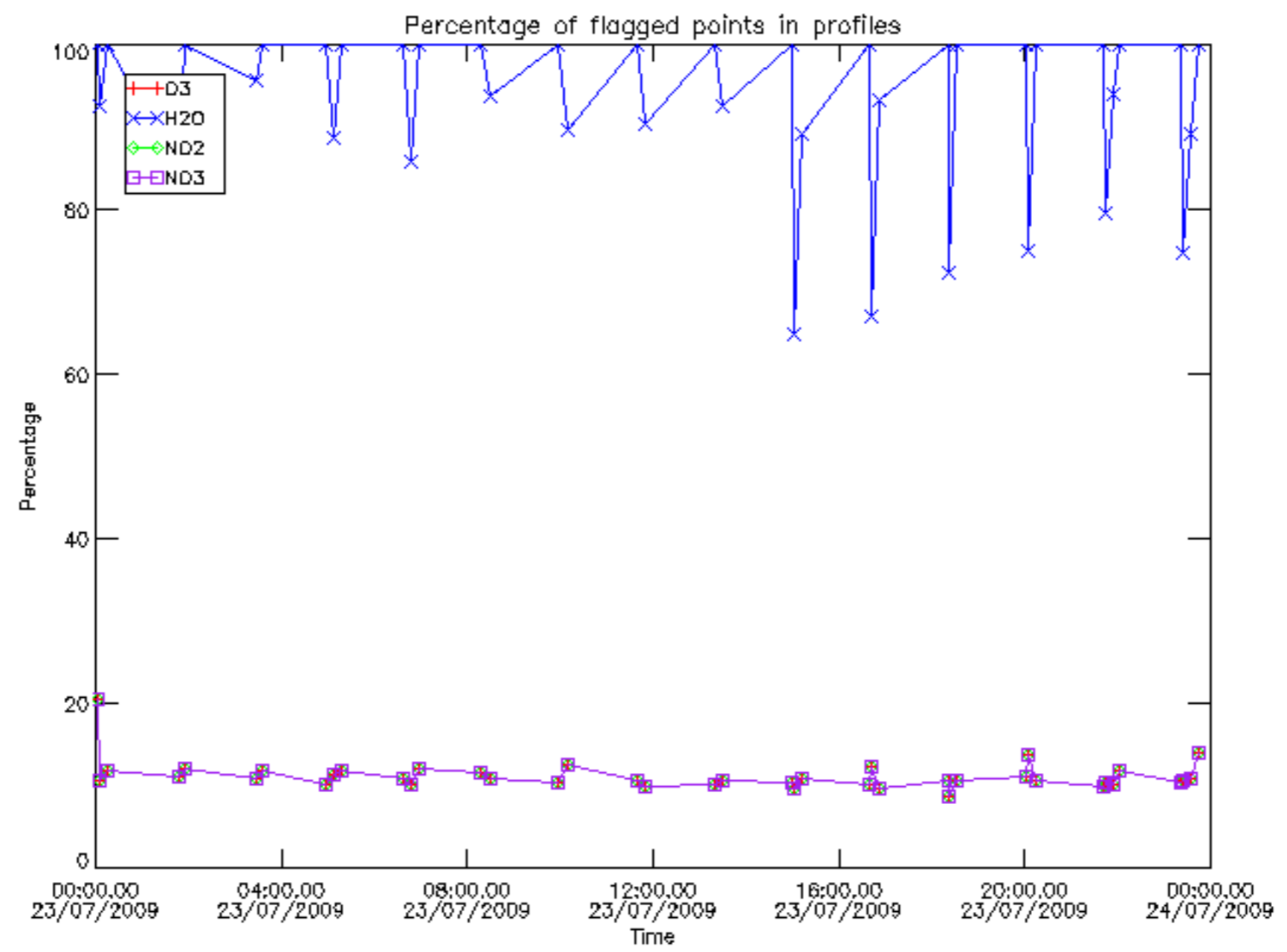
The colorbar represents the latitude.



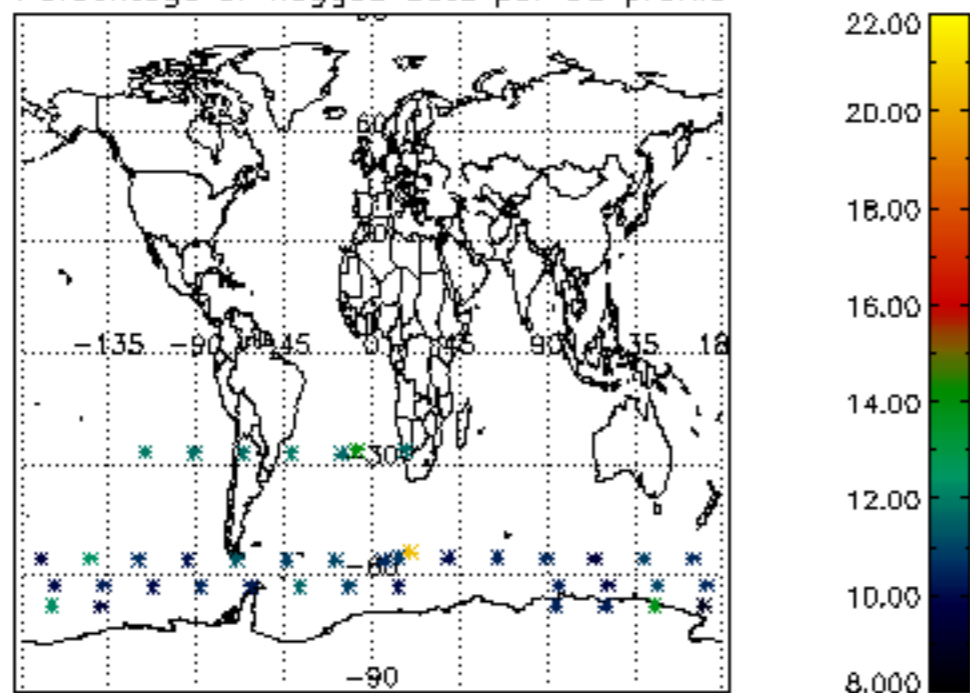
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

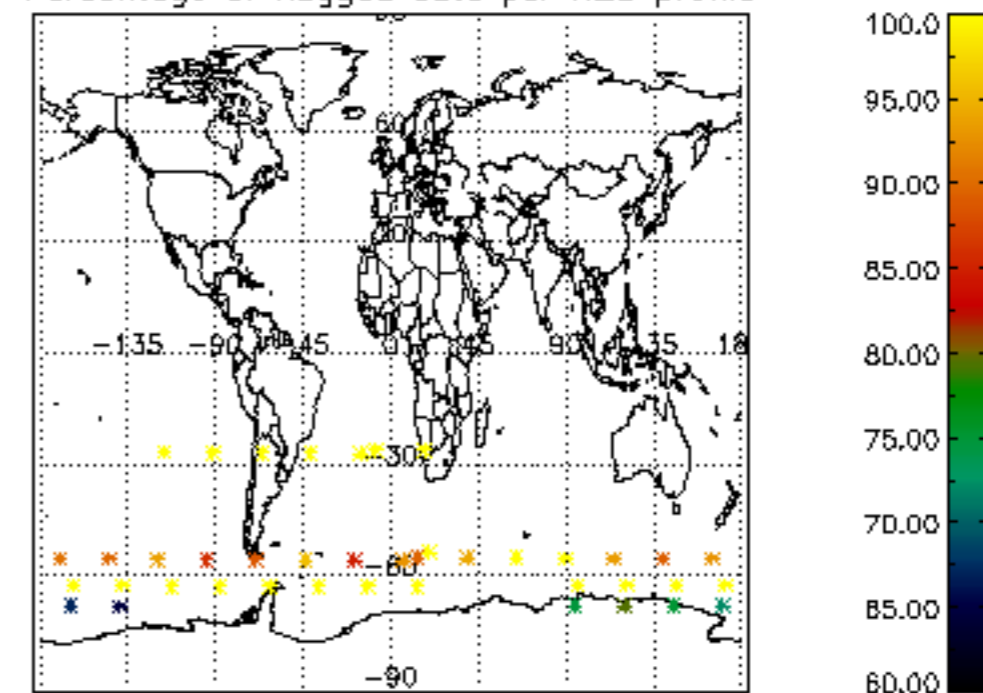
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	23-JUL-2009 00:03:23
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-JUL-2009 00:03:23
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-JUL-2009 00:03:23



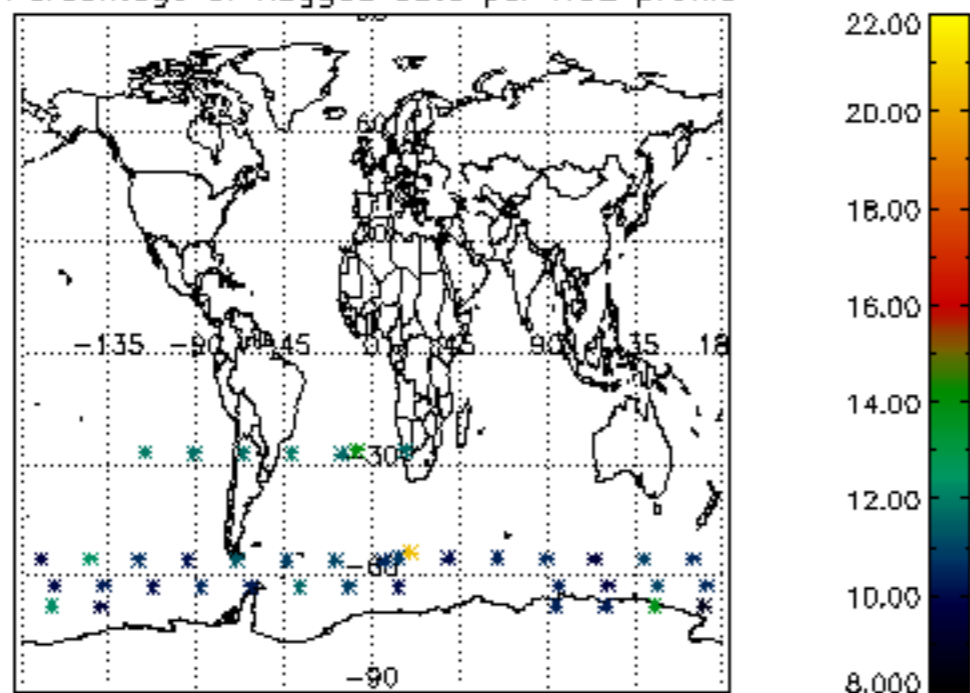
Percentage of flagged data per D3 profile



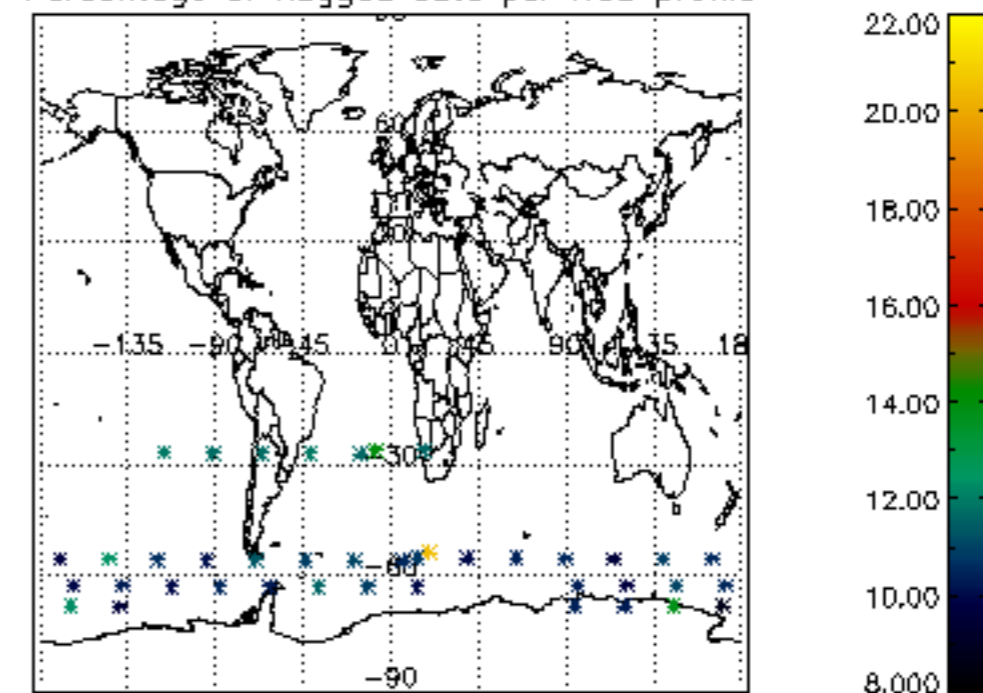
Percentage of flagged data per H2O profile

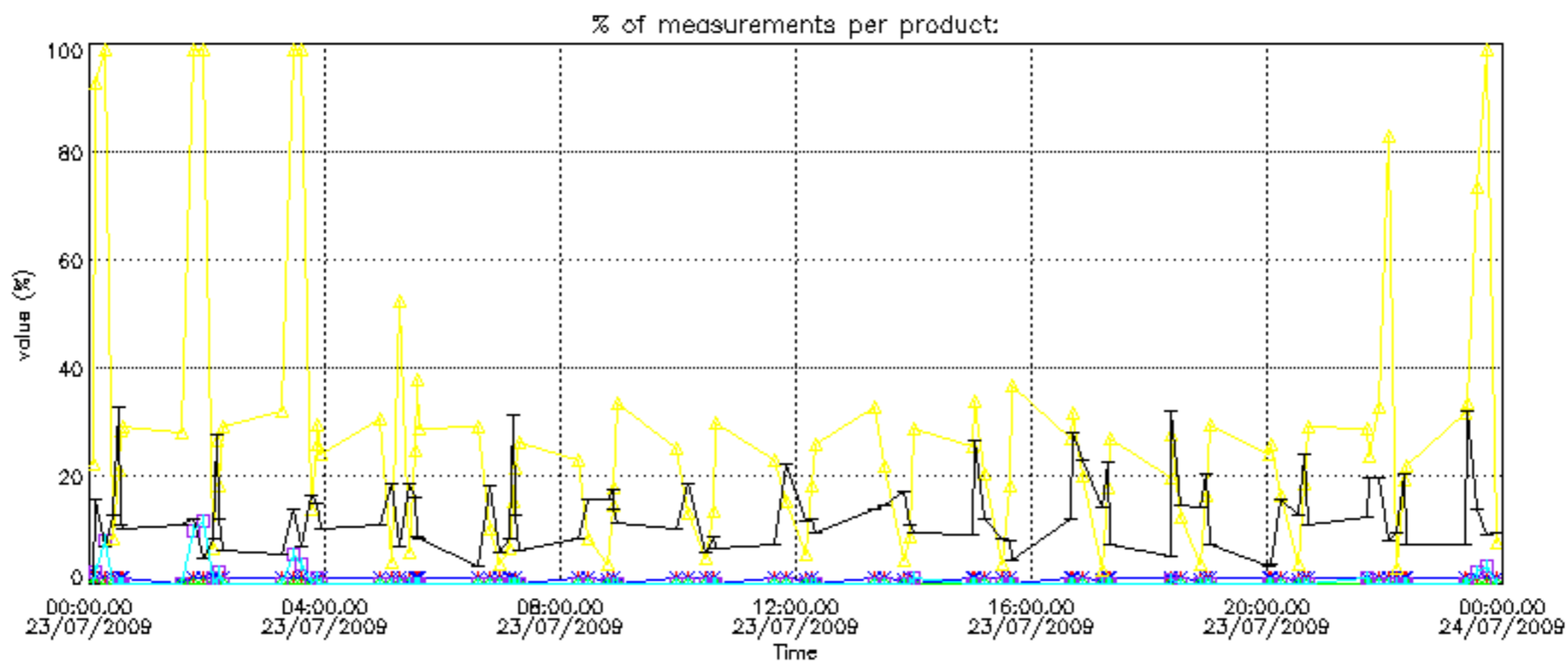


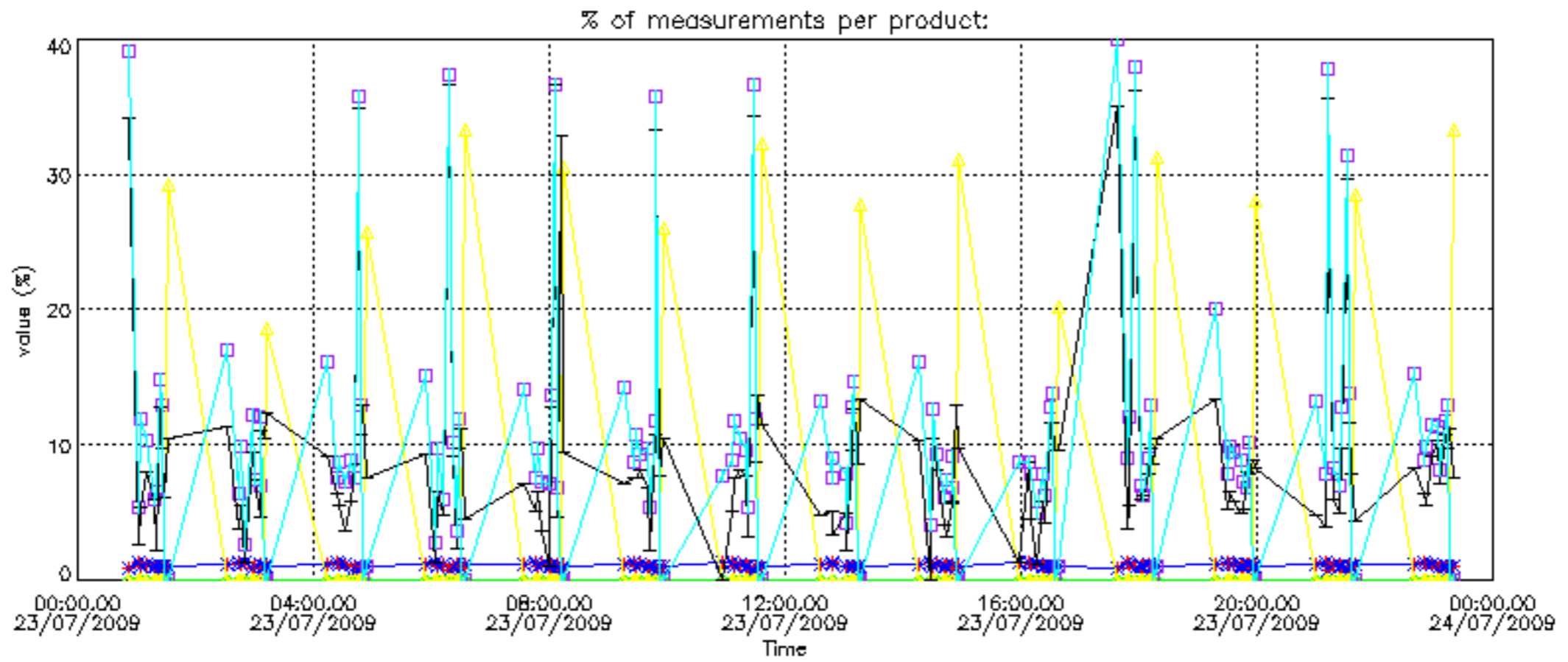
Percentage of flagged data per NO2 profile



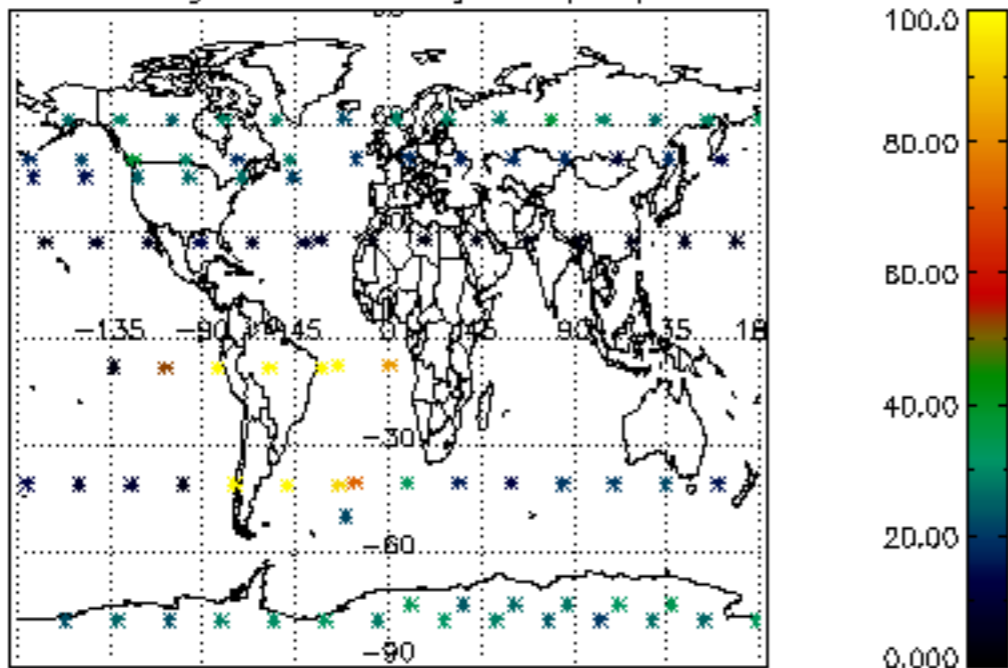
Percentage of flagged data per NO3 profile



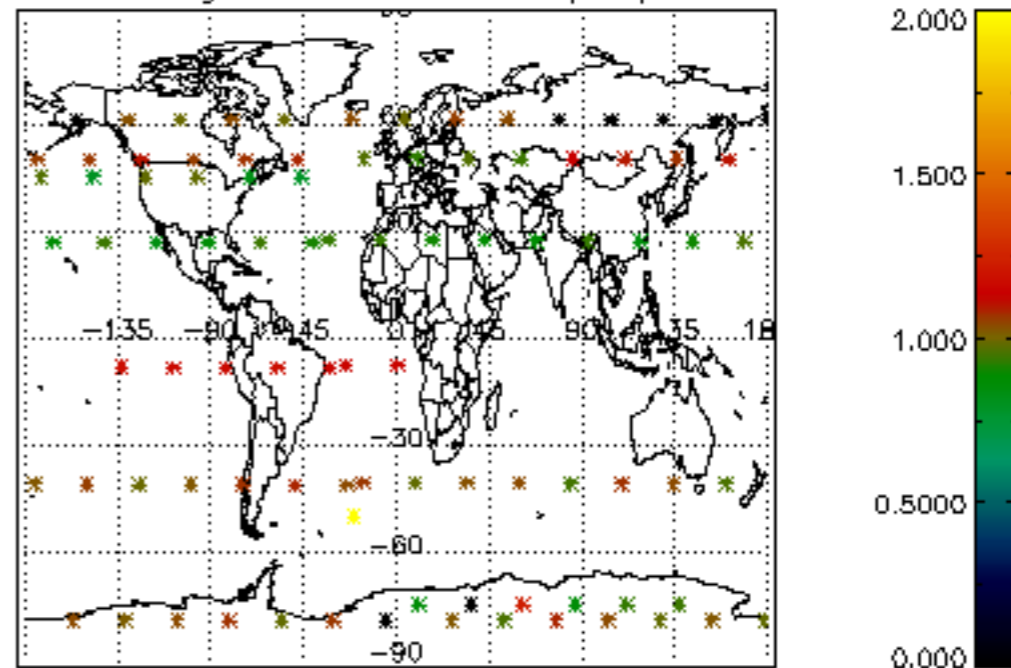




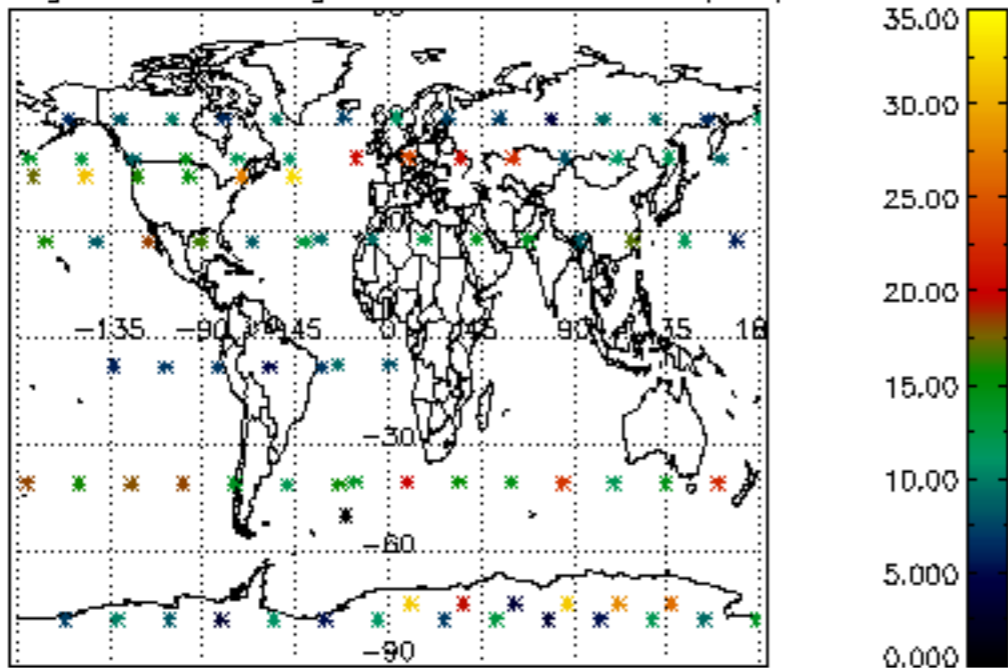
Percentage of cosmic ray hits per profile



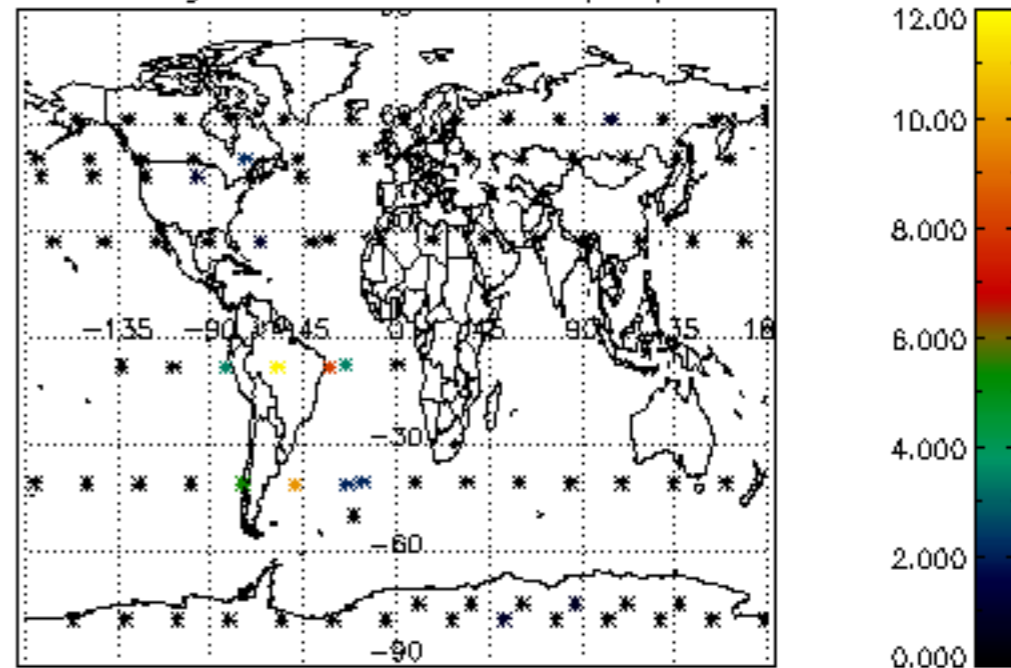
Percentage of datation errors per profile



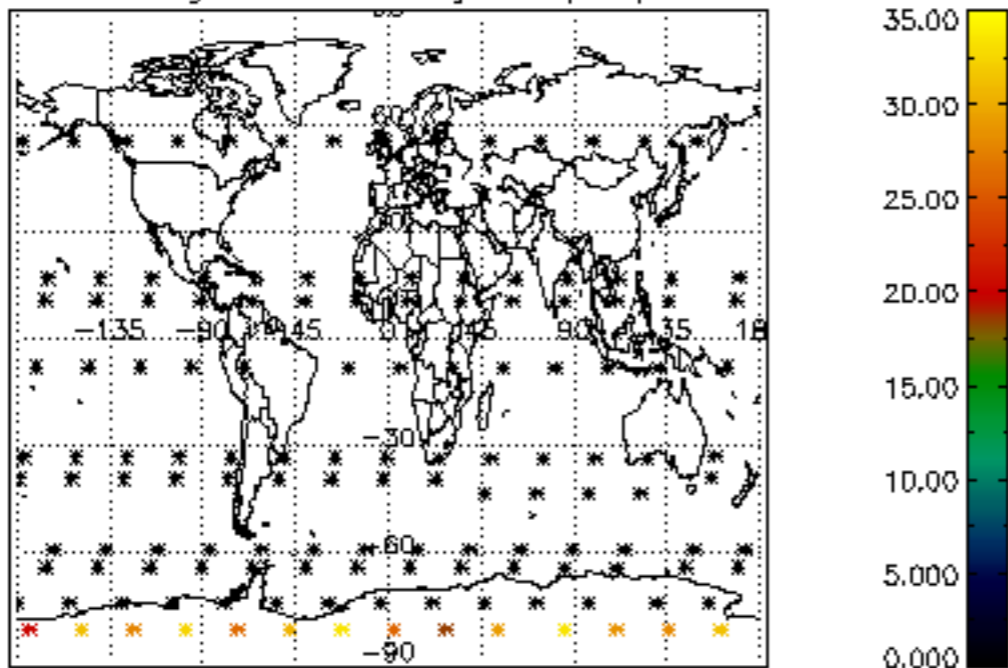
Percentage of star falling outside central band per profile



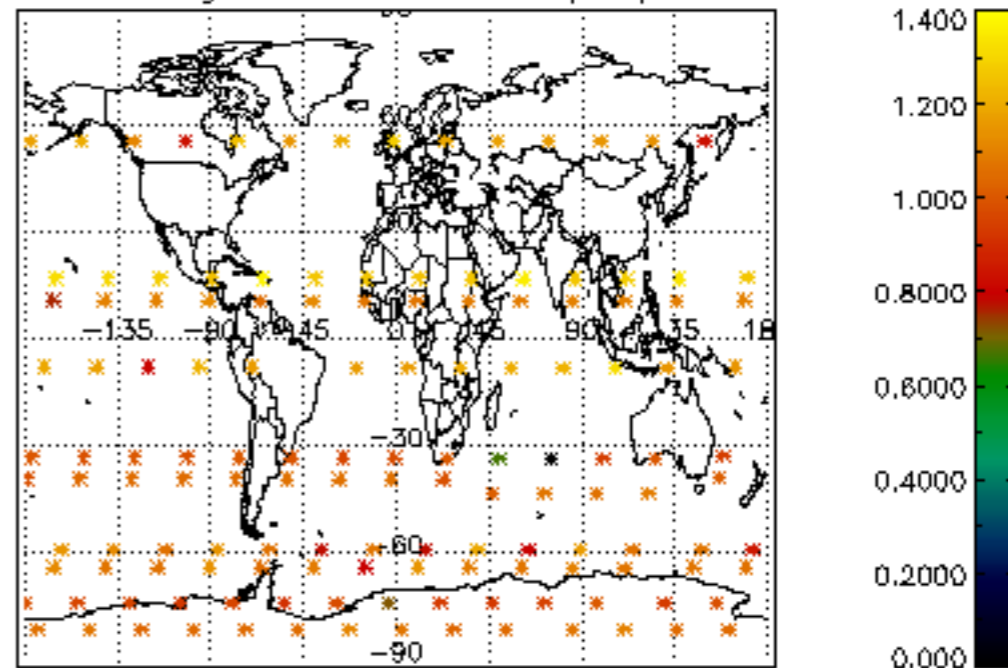
Percentage of saturation errors per profile



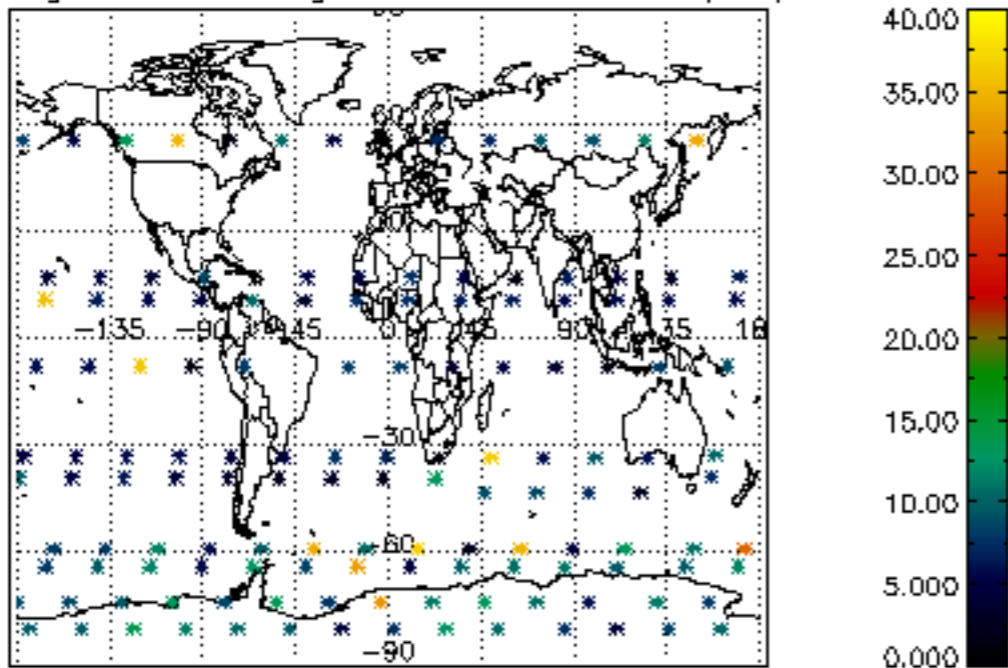
Percentage of cosmic ray hits per profile



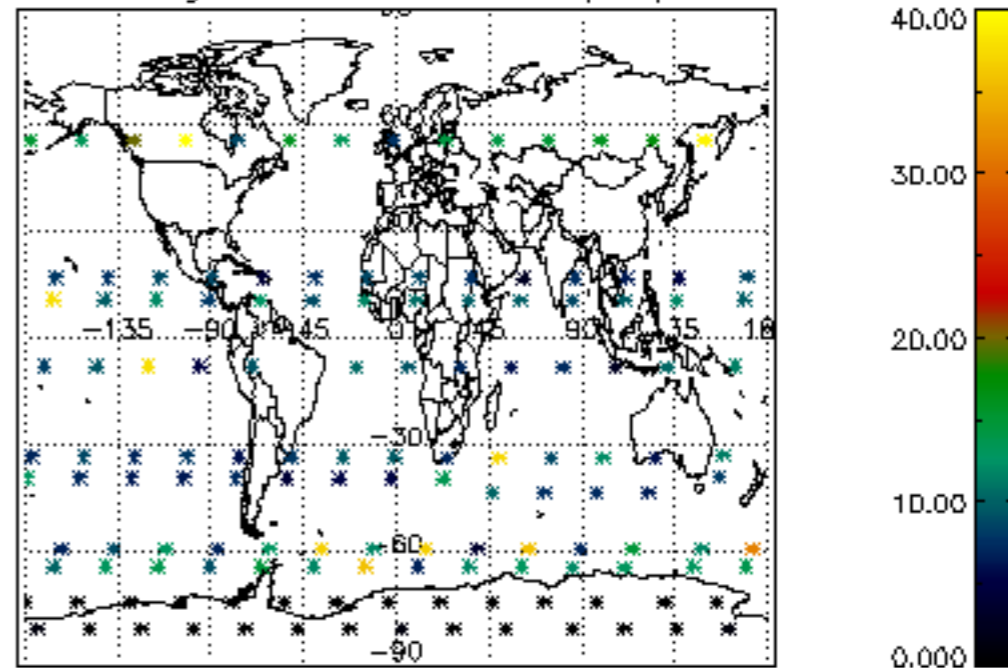
Percentage of datation errors per profile

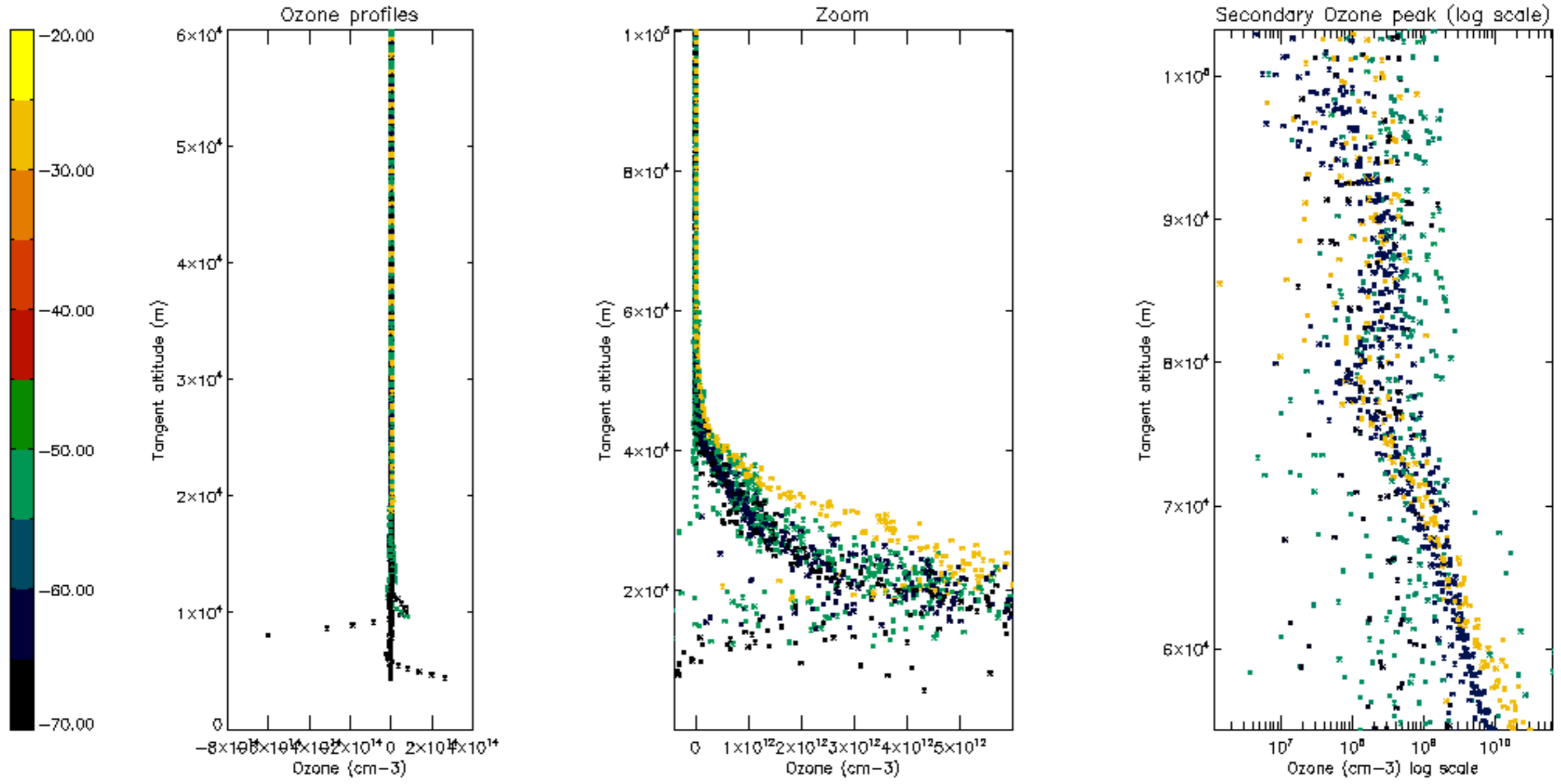


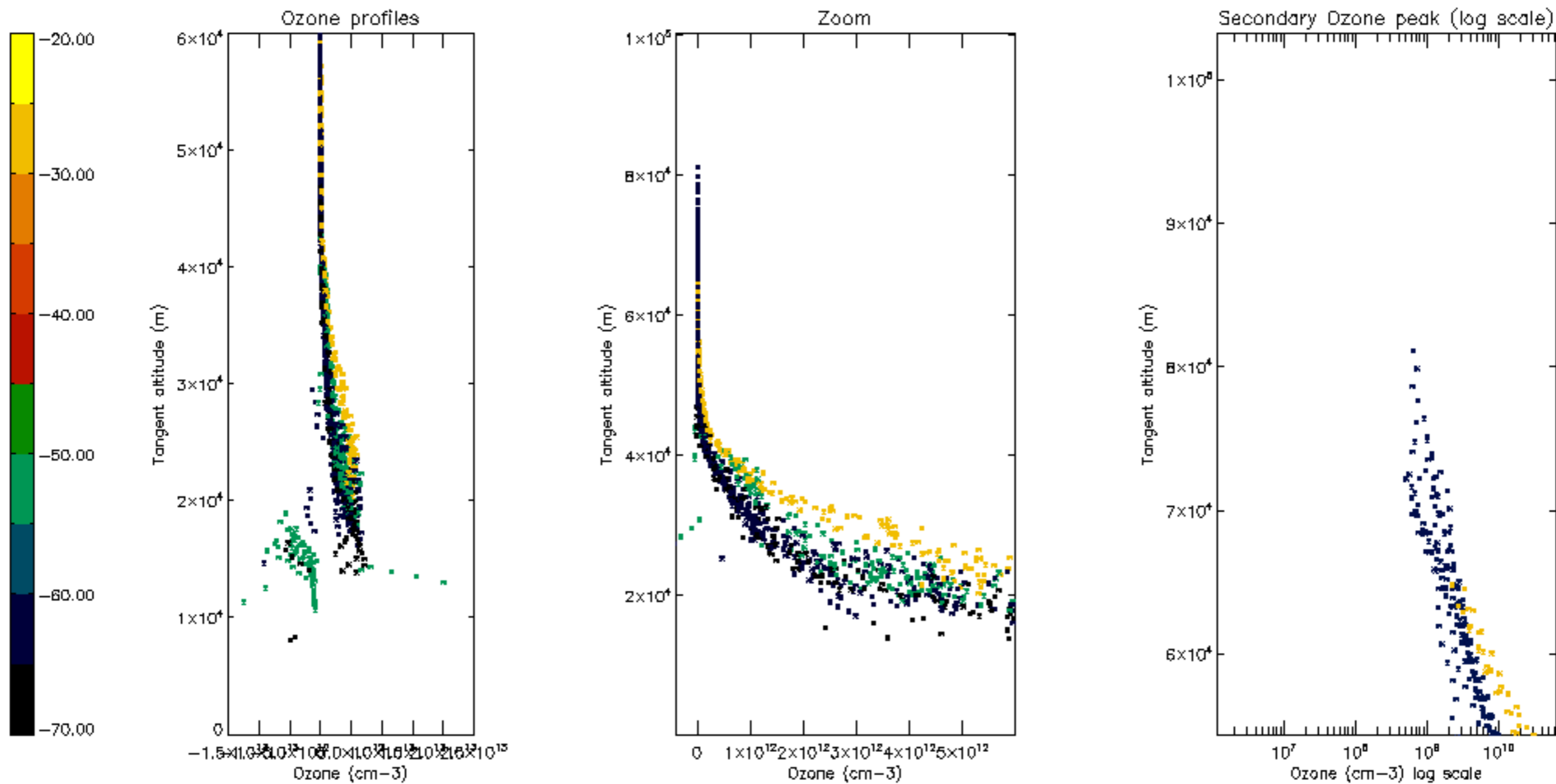
Percentage of star falling outside central band per profile

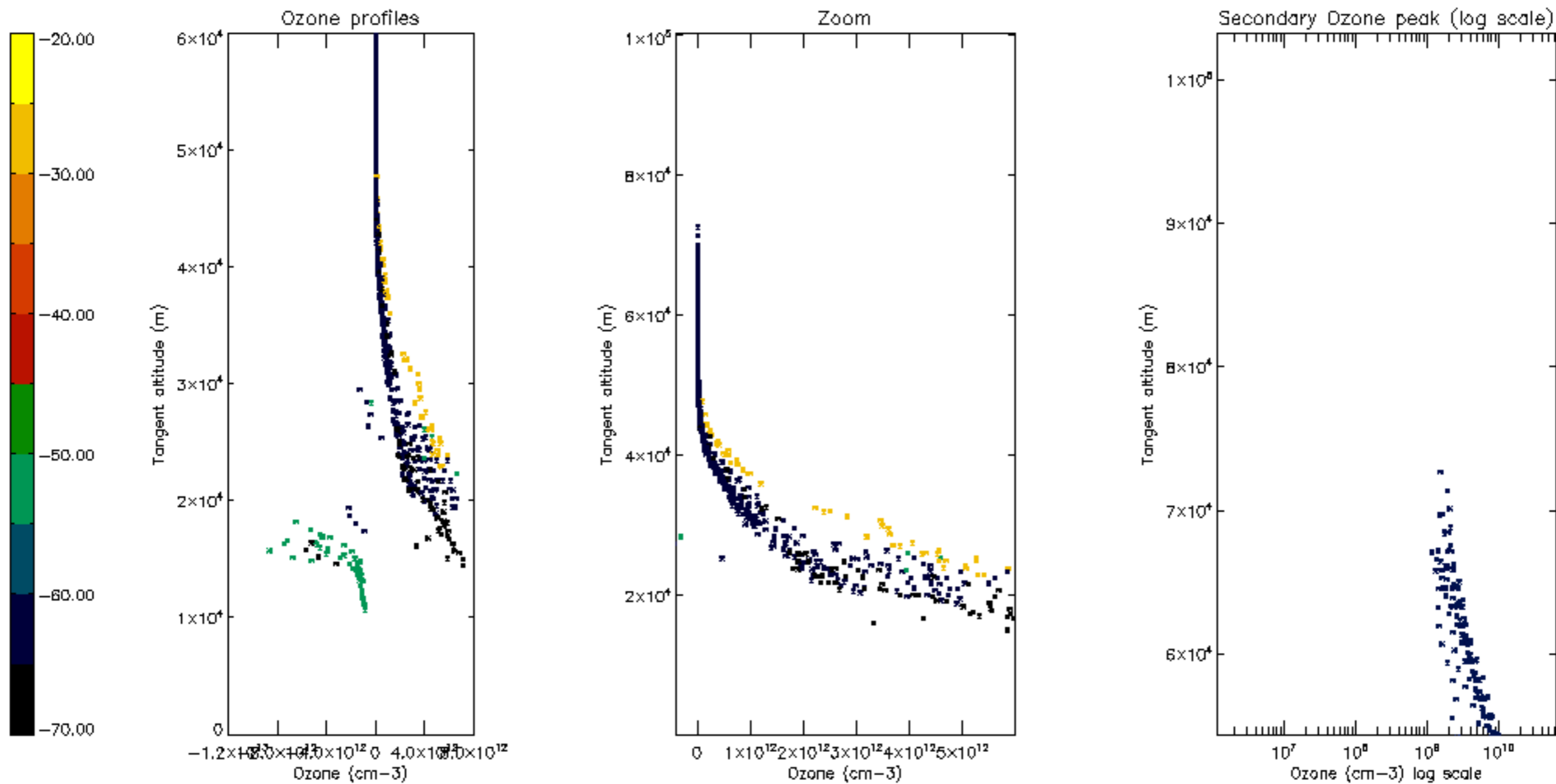


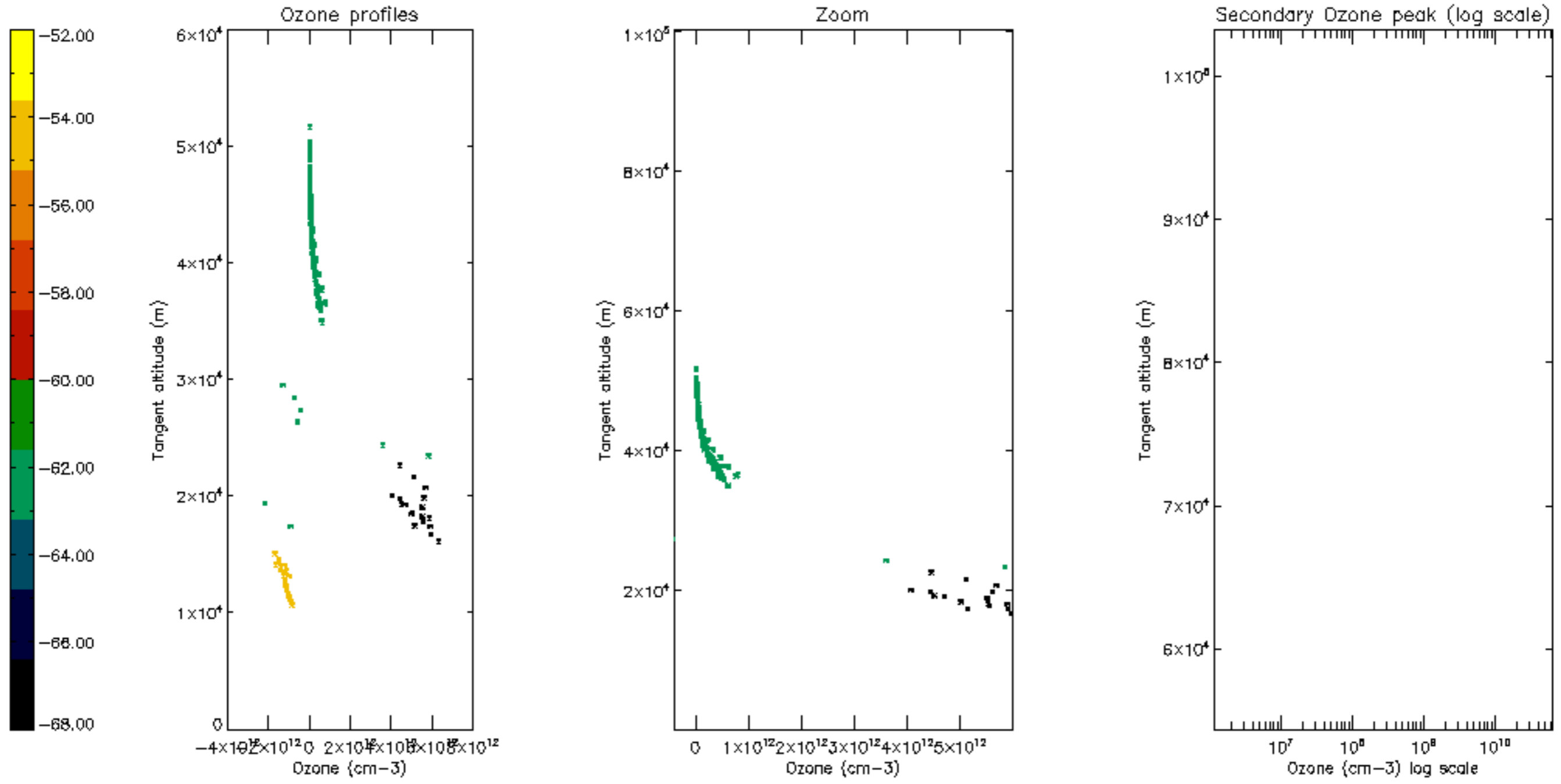
Percentage of saturation errors per profile

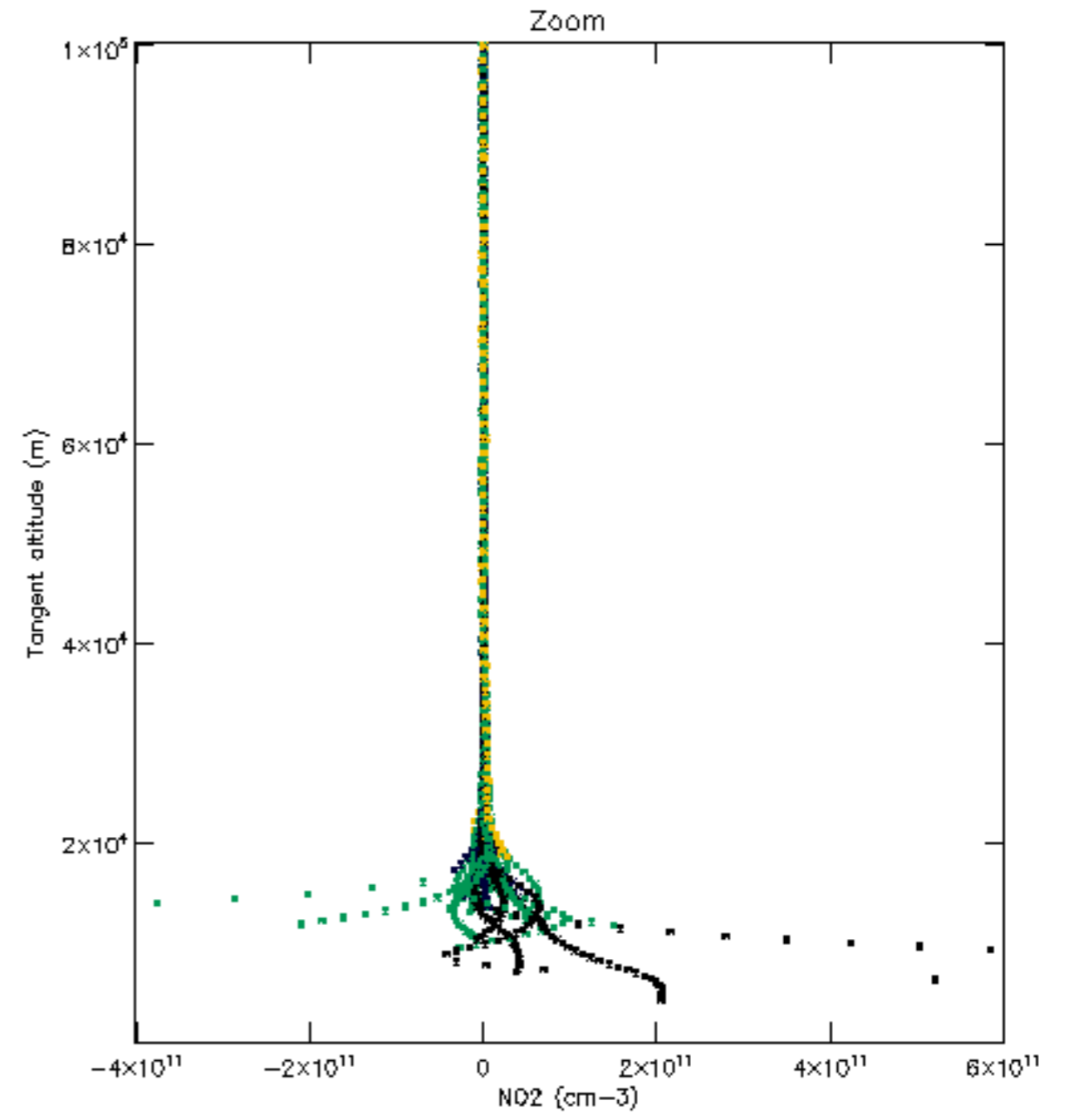
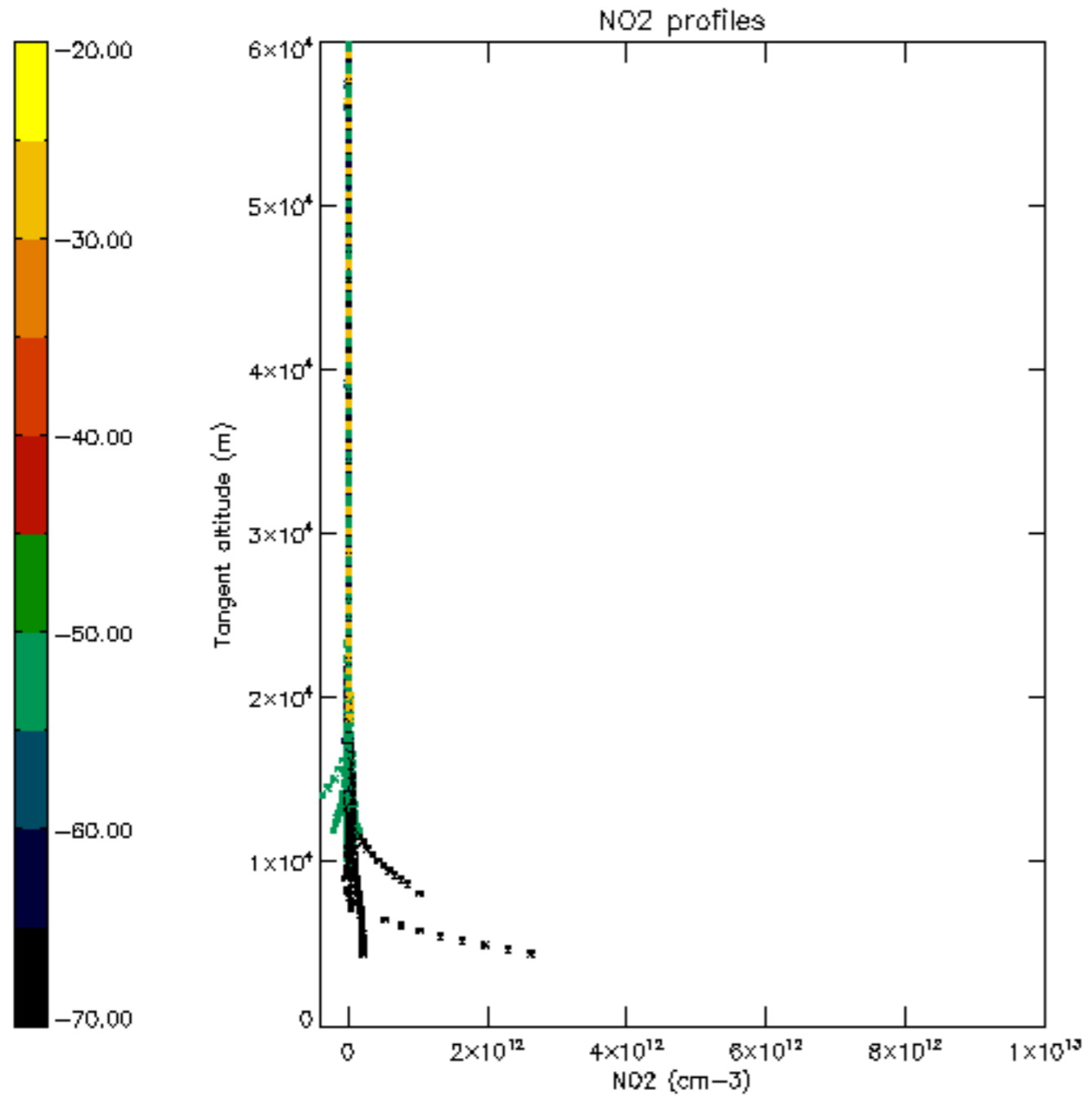


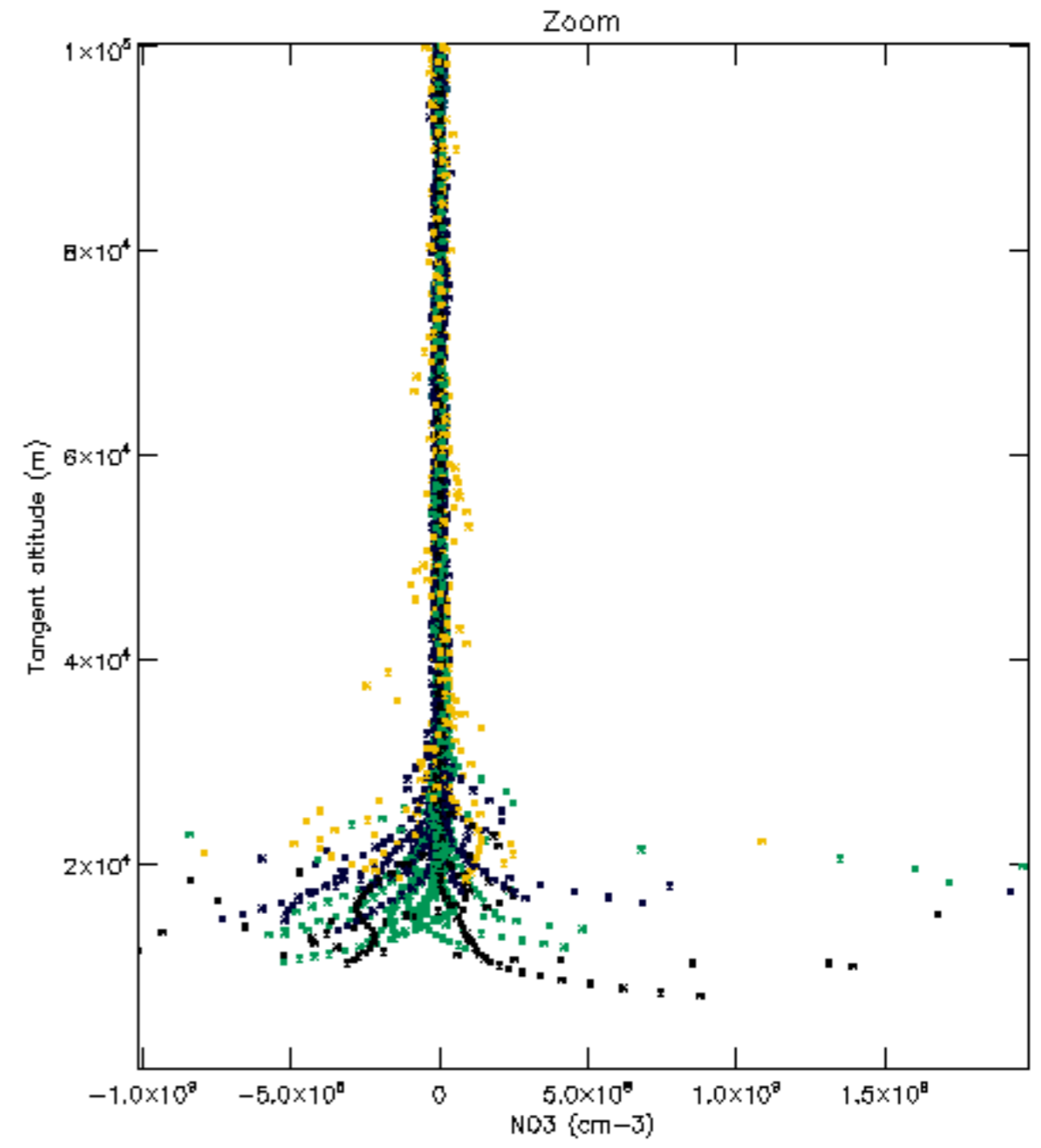
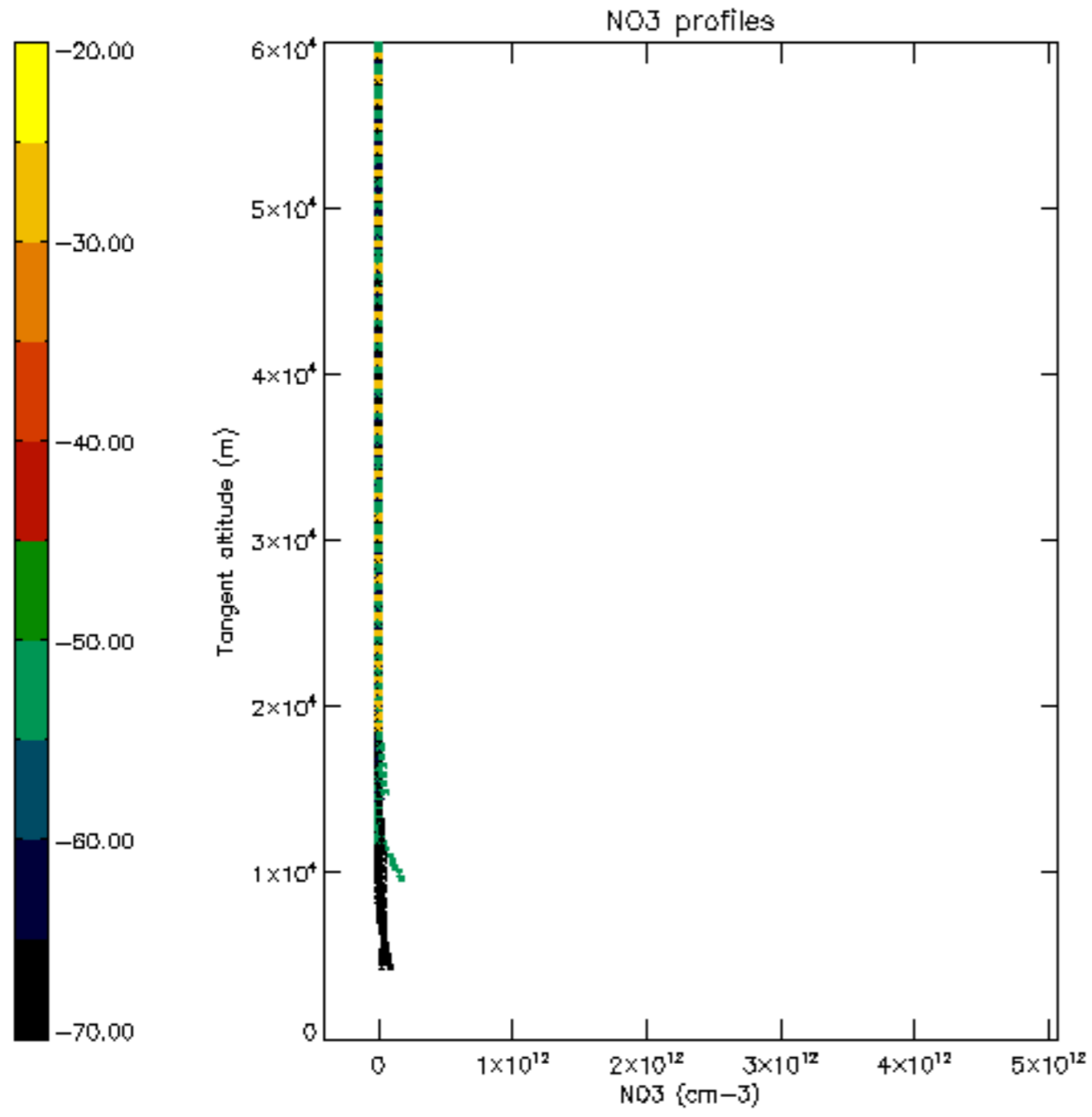


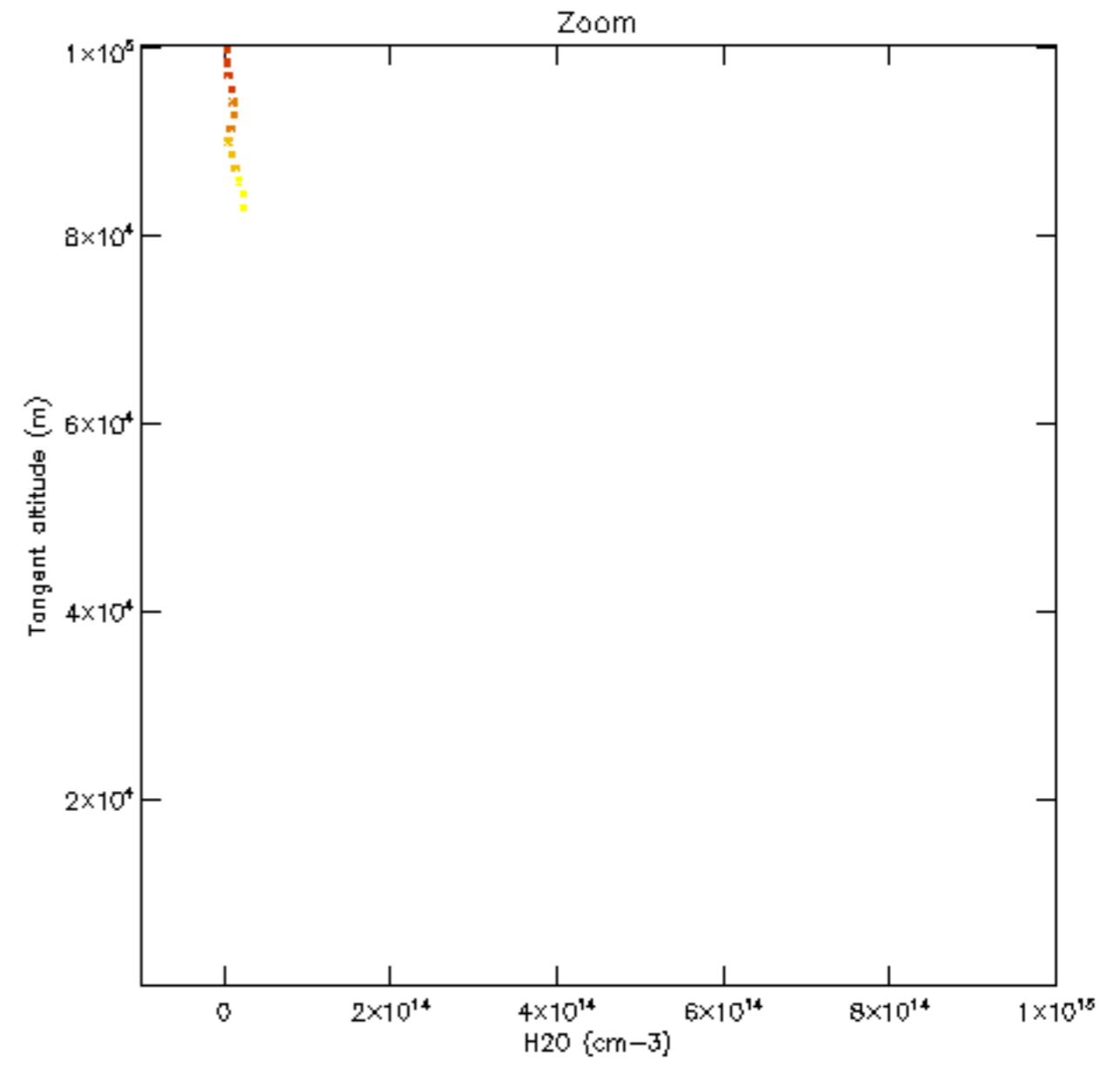
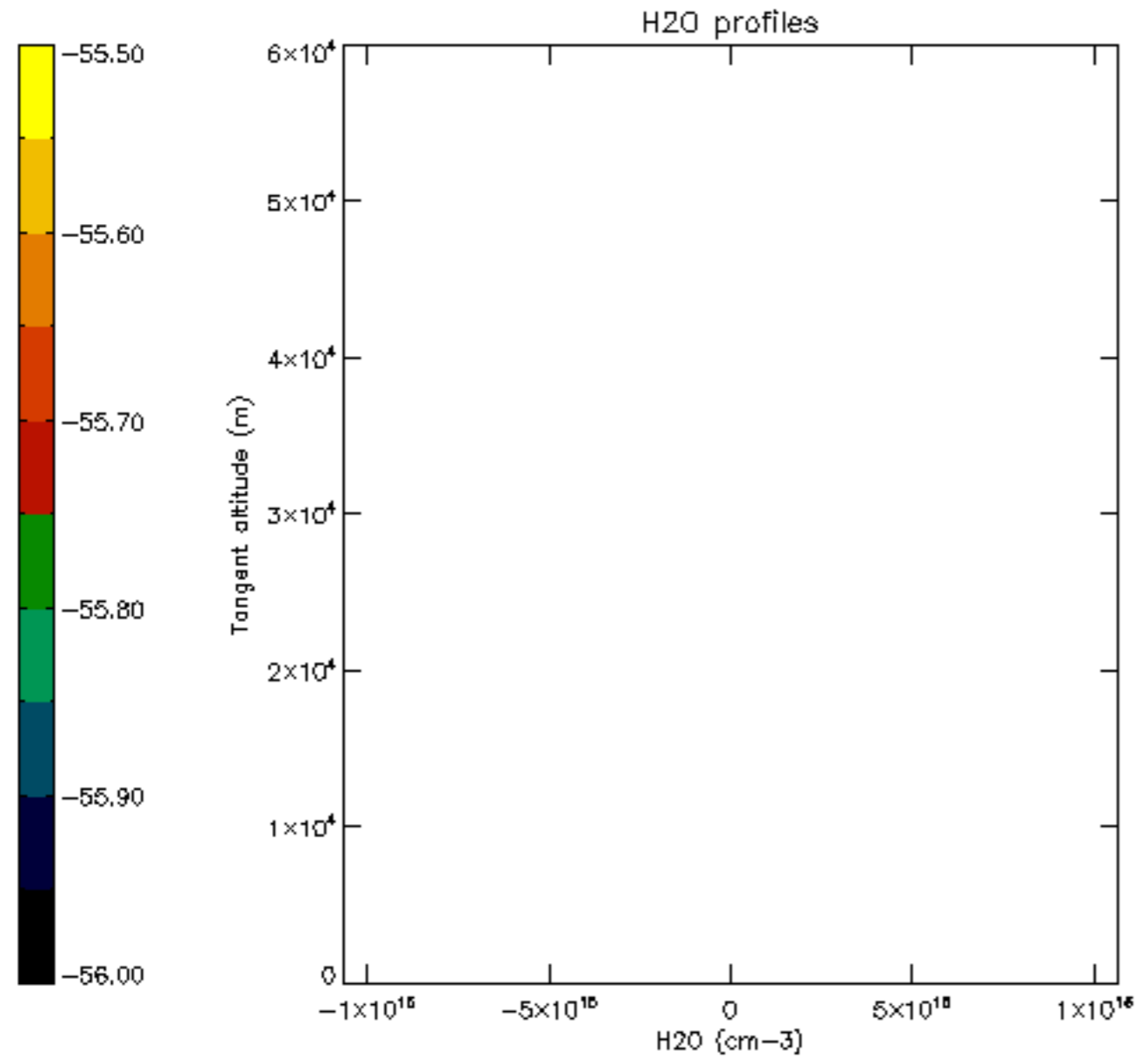


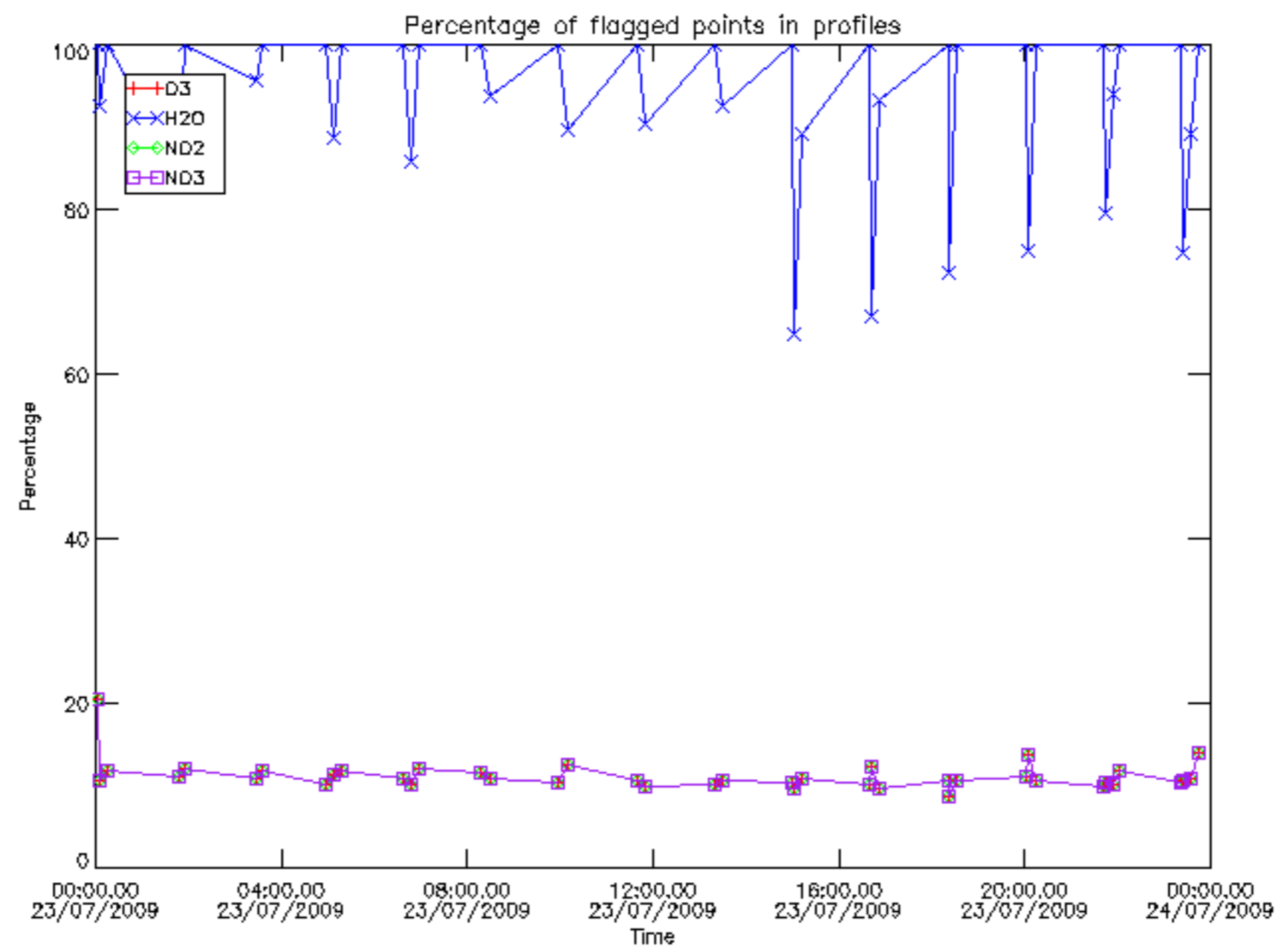




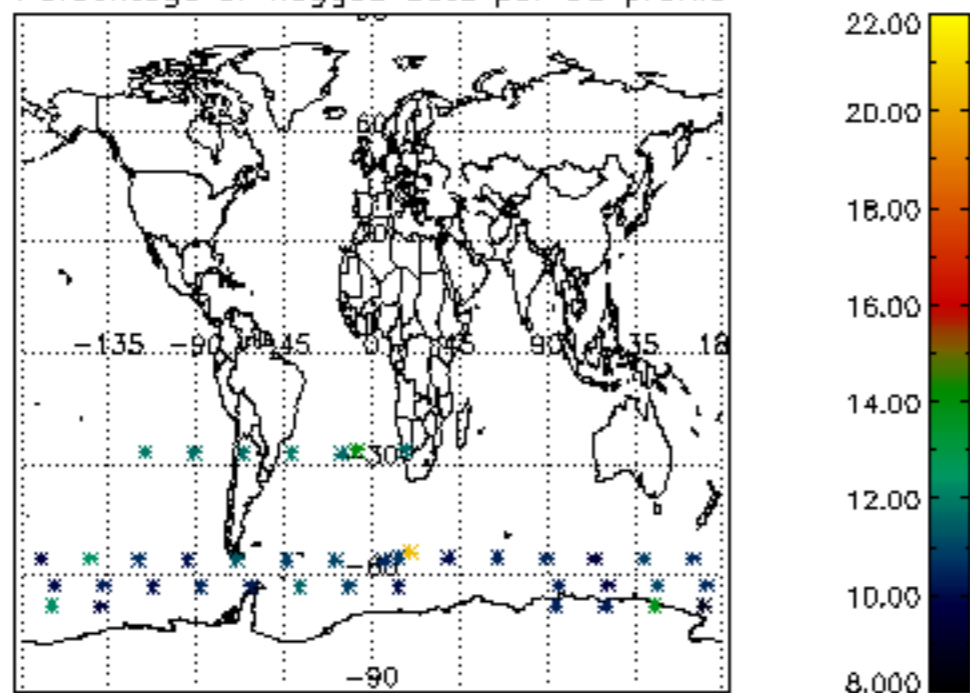




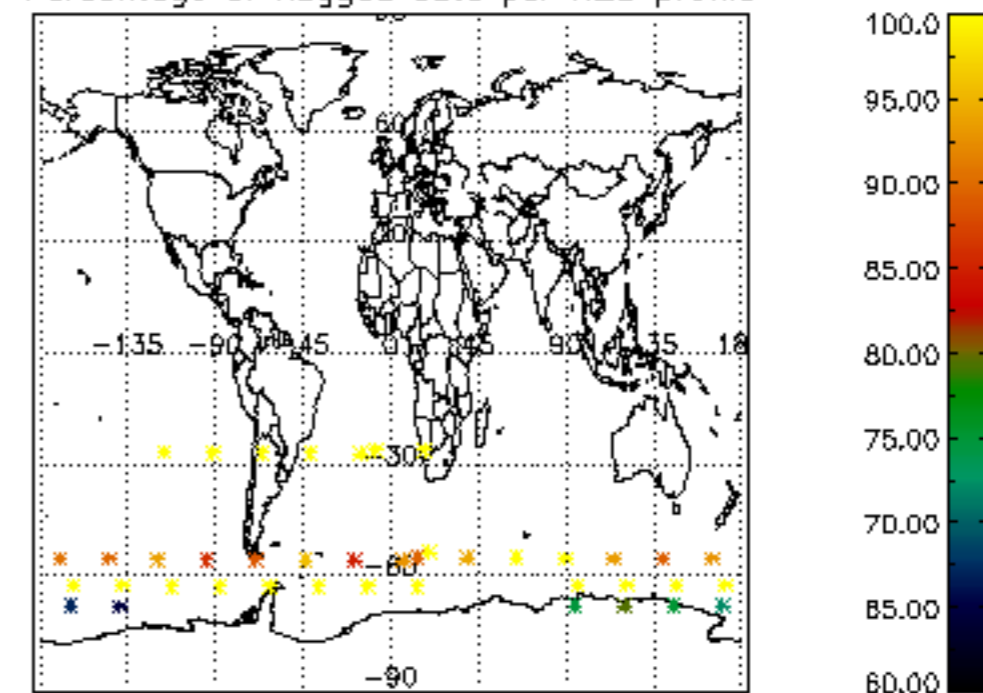




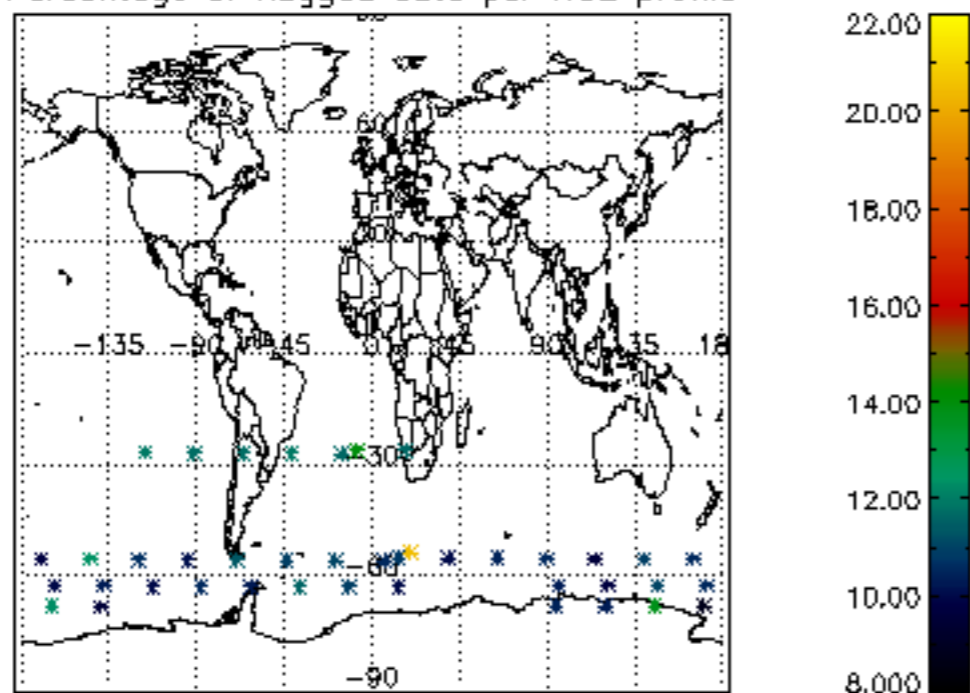
Percentage of flagged data per D3 profile



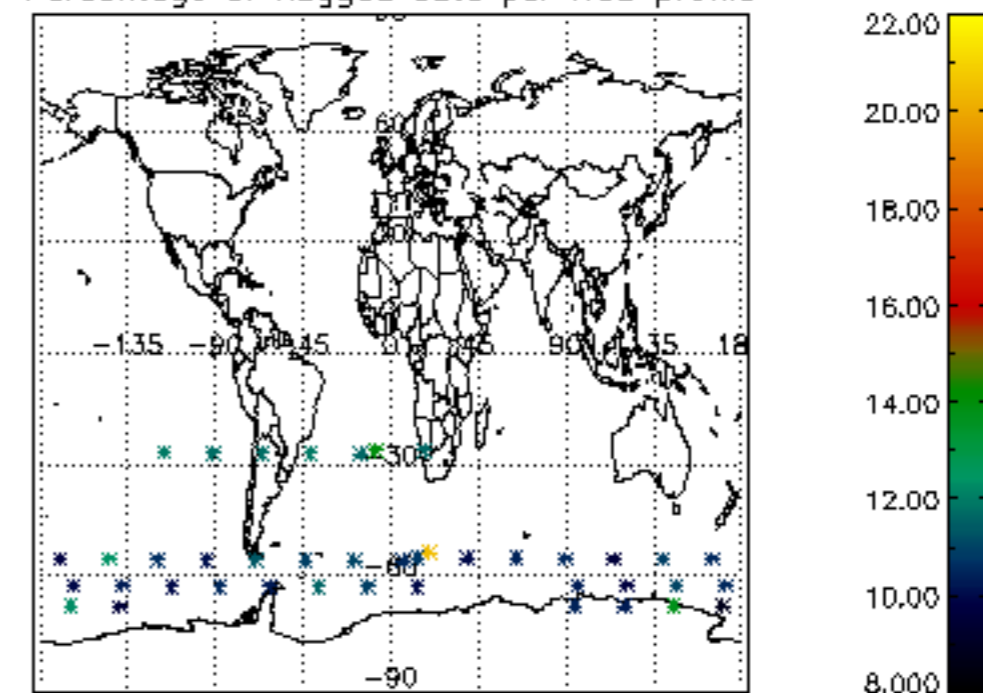
Percentage of flagged data per H2O profile

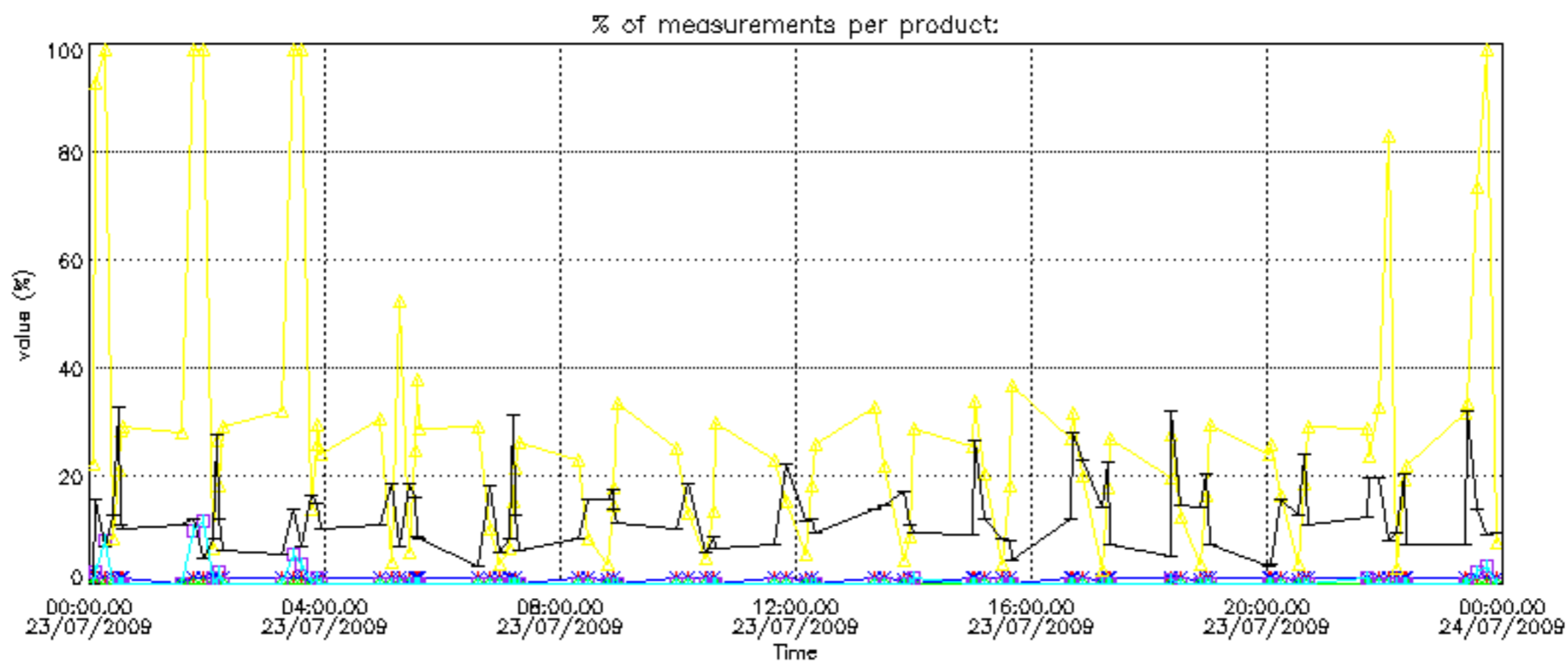


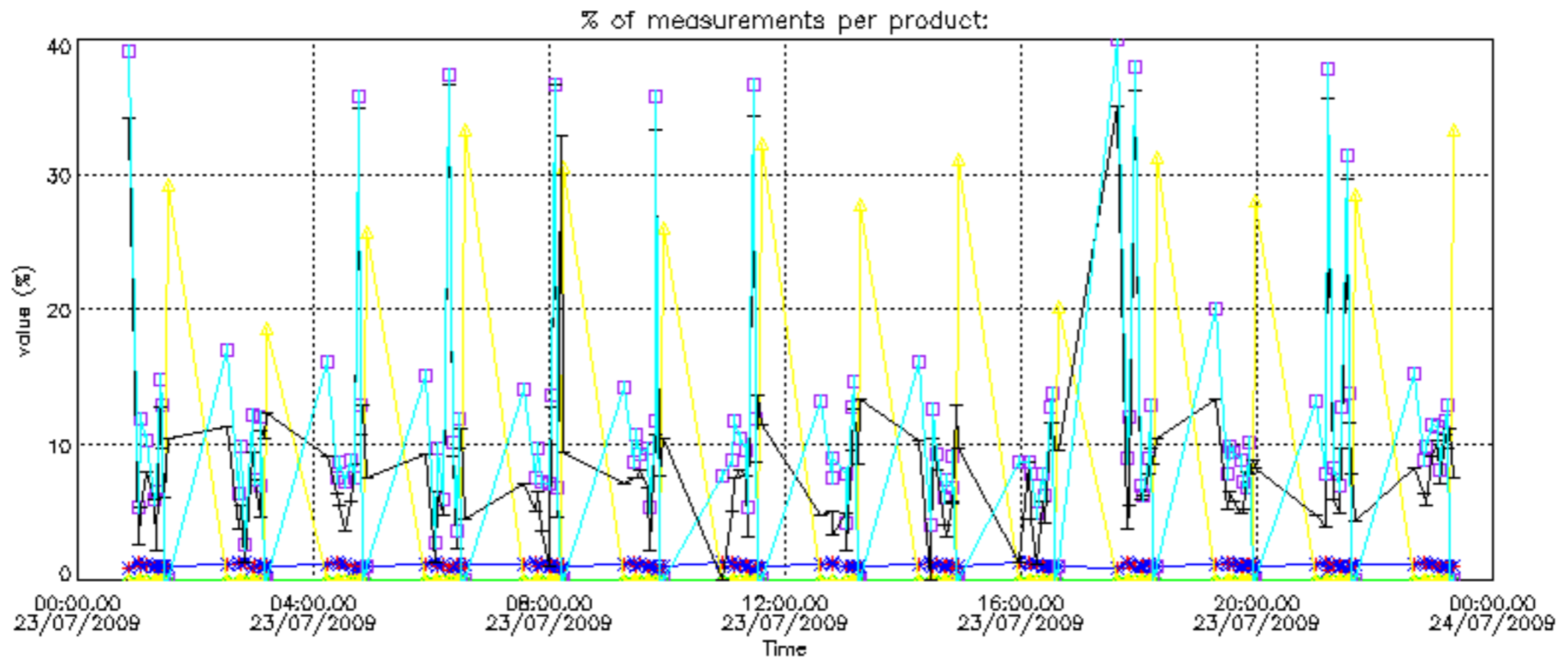
Percentage of flagged data per NO2 profile



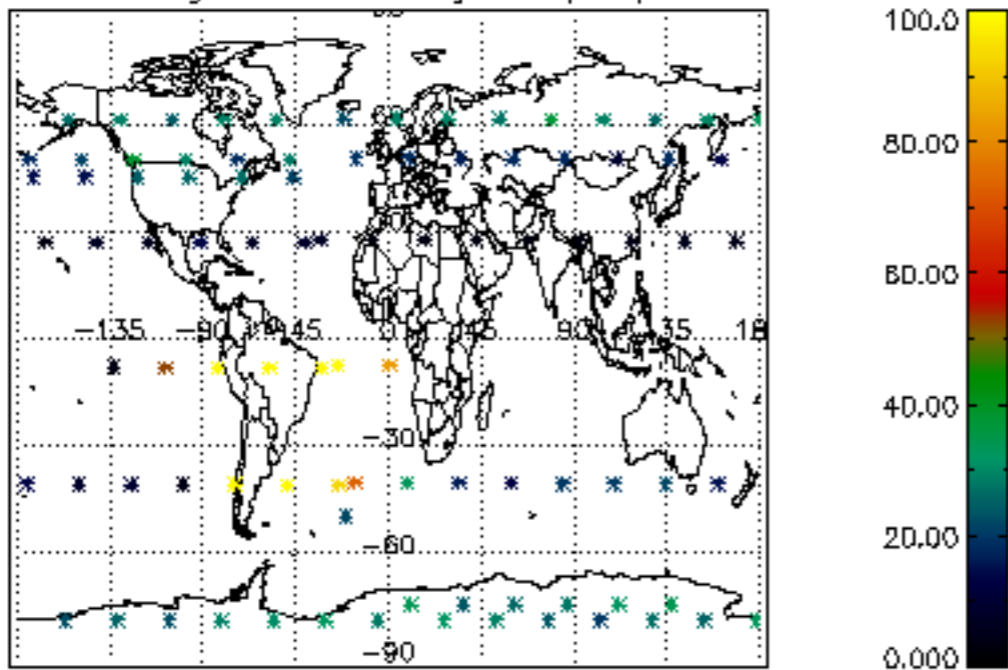
Percentage of flagged data per NO3 profile



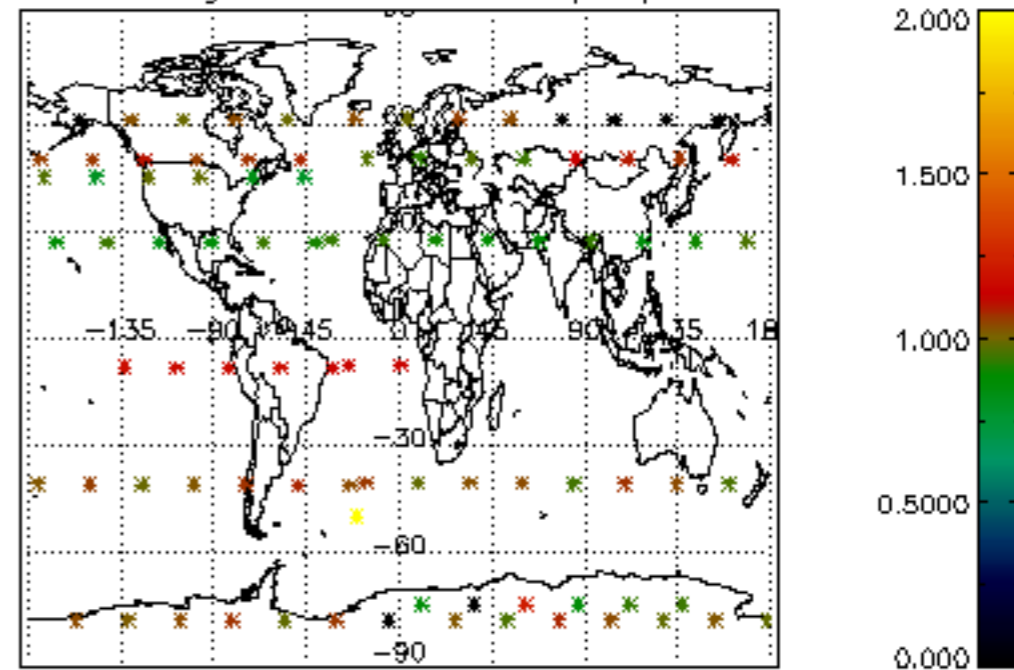




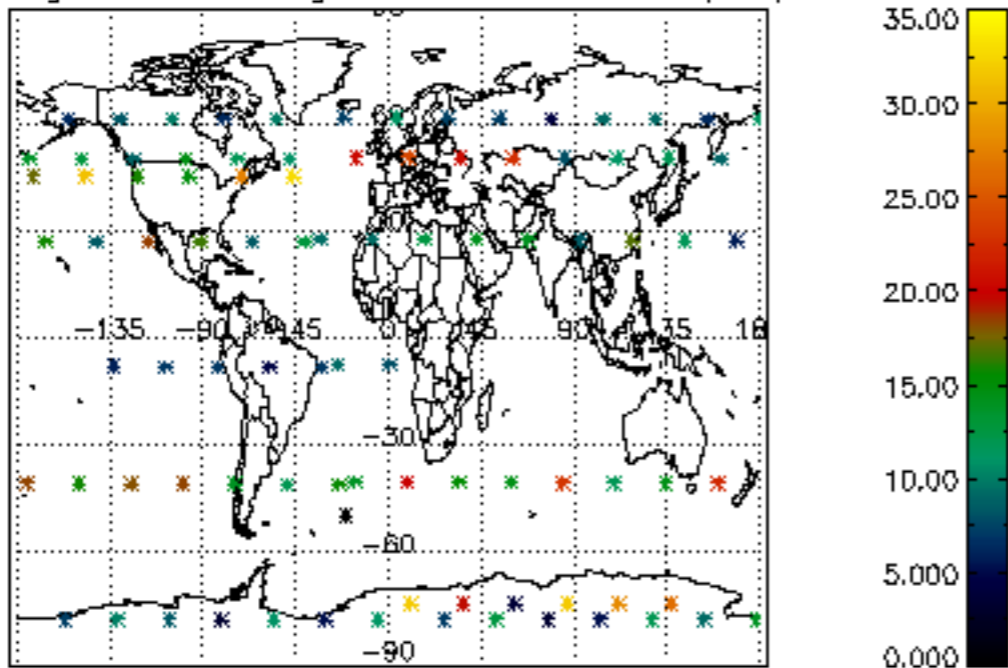
Percentage of cosmic ray hits per profile



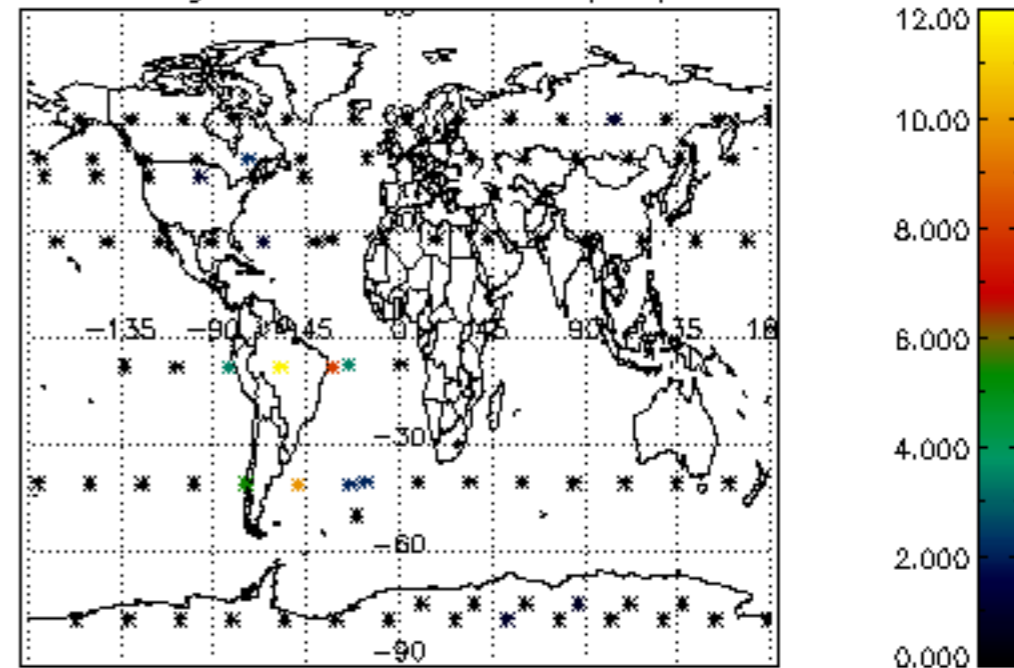
Percentage of datation errors per profile



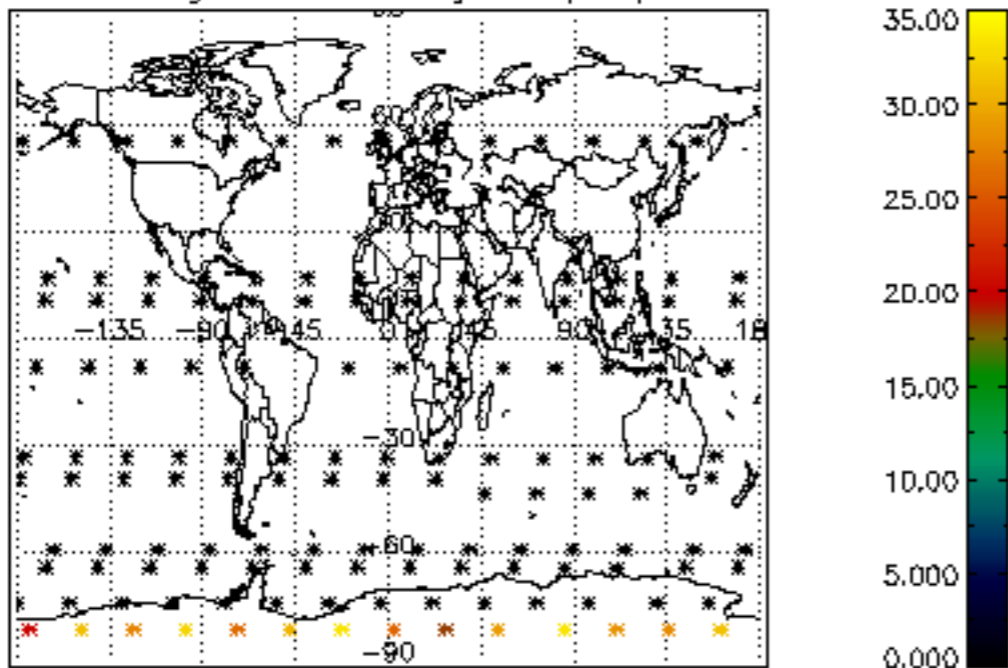
Percentage of star falling outside central band per profile



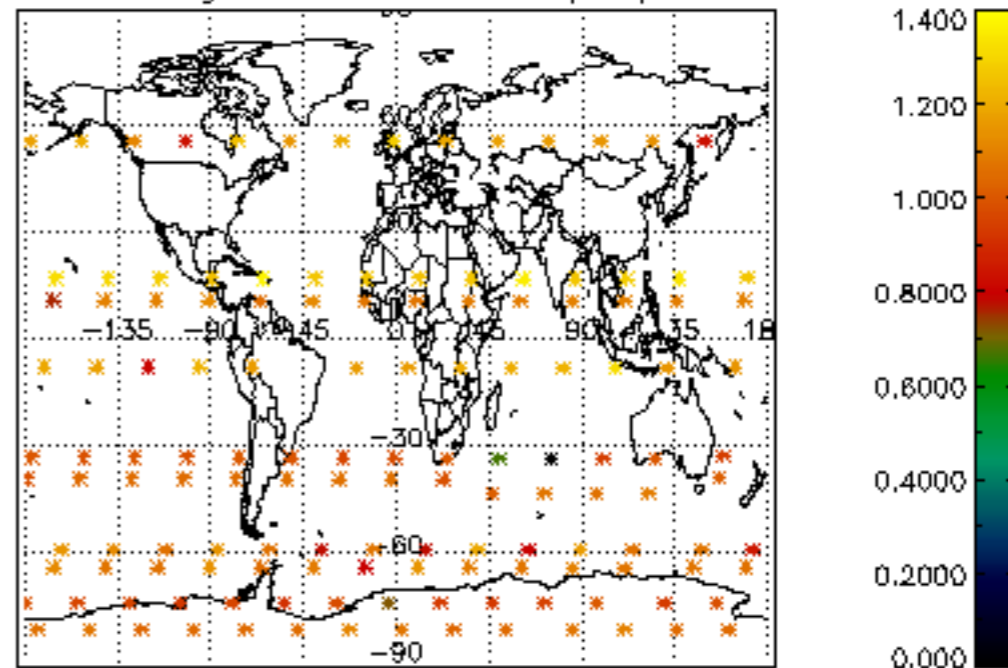
Percentage of saturation errors per profile



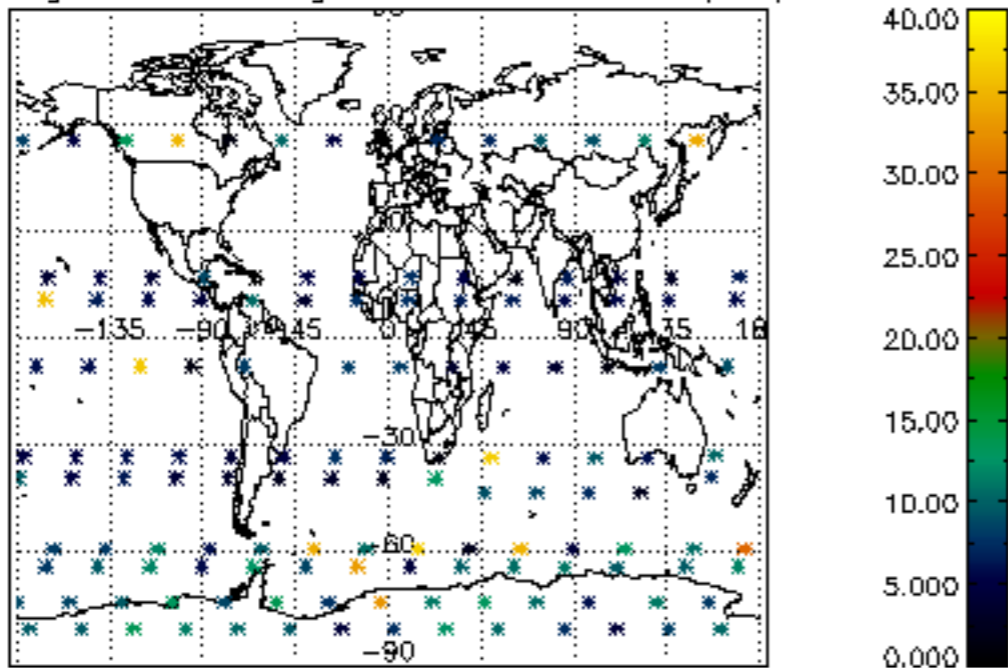
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

