

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 \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

[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 13:55:48
Data source version	GOMOS/6.01
Start time of products	15-11-2009 (15NOV2009 00:00:00)
Stop time of products	16-11-2009 (16NOV2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	247
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

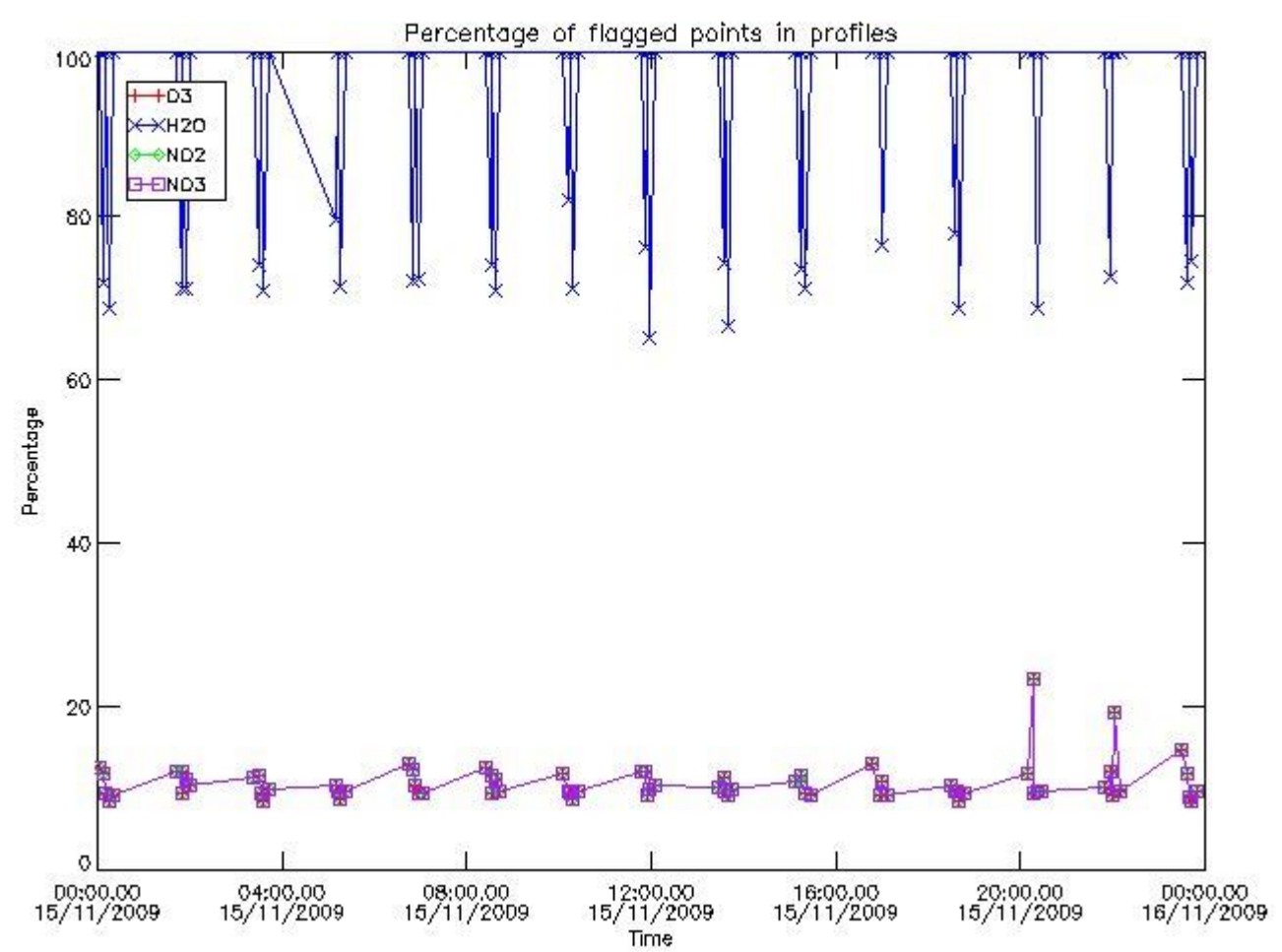
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091115_000149_000000452084_00173_40307_0611.N1	15-NOV-2009 00:01:49	Dark	44.500	113	Mu Vel	2.6920	5000.0	89	40307	No
2	GOM_NL__2PRFIN20091115_000840_000000432084_00174_40308_0605.N1	15-NOV-2009 00:08:40	Dark	43.000	41	Eps Car	1.8600	4100.0	86	40308	No
3	GOM_NL__2PRFIN20091115_001025_000000542084_00174_40308_0606.N1	15-NOV-2009 00:10:25	Dark	54.000	70	Zet Pup	2.2460	39000.	108	40308	No
4	GOM_NL__2PRFIN20091115_001410_000000612084_00174_40308_0607.N1	15-NOV-2009 00:14:10	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	40308	No
5	GOM_NL__2PRFIN20091115_002052_000000552084_00174_40308_0608.N1	15-NOV-2009 00:20:52	Dark	55.000	108	Alp Col	2.6520	15200.	110	40308	No
6	GOM_NL__2PRFIN20091115_003019_000000522084_00174_40308_0609.N1	15-NOV-2009 00:30:19	Straylight	51.500	165	34Gam Eri	2.9500	3200.0	103	40308	No
7	GOM_NL__2PRFIN20091115_003556_000000462084_00174_40308_0610.N1	15-NOV-2009 00:35:56	Twilight	46.000	94	92Alp Cet	2.5260	3100.0	92	40308	No
8	GOM_NL__2PRFIN20091115_004302_000000442084_00174_40308_0611.N1	15-NOV-2009 00:43:02	Bright	44.000	146	25Eta Tau	2.8730	15200.	88	40308	No
9	GOM_NL__2PRFIN20091115_004444_000000362084_00174_40308_0612.N1	15-NOV-2009 00:44:44	Bright	35.500	173	4Bet Tri	3.0040	8900.0	71	40308	No
10	GOM_NL__2PRFIN20091115_004648_000000362084_00174_40308_0613.N1	15-NOV-2009 00:46:48	Bright	36.000	73	57Gam1And	2.2600	13100.	72	40308	No
11	GOM_NL__2PRFIN20091115_004814_000000412084_00174_40308_0614.N1	15-NOV-2009 00:48:14	Bright	40.500	149	45Eps Per	2.8880	30000.	81	40308	No
12	GOM_NL__2PRFIN20091115_004959_000000402084_00174_40308_0615.N1	15-NOV-2009 00:49:59	Bright	40.000	35	33Alp Per	1.7950	6250.0	80	40308	No
13	GOM_NL__2PRFIN20091115_010743_000000482084_00174_40308_0616.N1	15-NOV-2009 01:07:43	Bright	47.500	36	50Alp UMa	1.8000	6300.0	95	40308	No
14	GOM_NL__2PRFIN20091115_010921_000000412084_00174_40308_0617.N1	15-NOV-2009 01:09:21	Bright	41.000	82	48Bet UMa	2.3650	10600.	82	40308	No
15	GOM_NL__2PRFIN20091115_011323_000000632084_00174_40308_0618.N1	15-NOV-2009 01:13:23	Bright	63.000	174	52Psi UMa	3.0040	4400.0	126	40308	No
16	GOM_NL__2PRFIN20091115_011508_000000352084_00174_40308_0619.N1	15-NOV-2009 01:15:08	Bright	35.000	152	12Alp2CVn	2.8900	11000.	70	40308	No
17	GOM_NL__2PRFIN20091115_012156_000000532084_00174_40308_0620.N1	15-NOV-2009 01:21:56	Bright	52.500	96	68Del Leo	2.5600	9300.0	105	40308	No
18	GOM_NL__2PRFIN20091115_014225_000000422084_00174_40308_0621.N1	15-NOV-2009 01:42:25	Dark	42.000	113	Mu Vel	2.6920	5000.0	84	40308	No
19	GOM_NL__2PRFIN20091115_014917_000000422084_00175_40309_0614.N1	15-NOV-2009 01:49:17	Dark	42.000	41	Eps Car	1.8600	4100.0	84	40309	No
20	GOM_NL__2PRFIN20091115_015102_000000552084_00175_40309_0615.N1	15-NOV-2009 01:51:02	Dark	54.500	70	Zet Pup	2.2460	39000.	109	40309	No
21	GOM_NL__2PRFIN20091115_015446_000000462084_00175_40309_0616.N1	15-NOV-2009 01:54:46	Dark	45.500	2	Alp Car	-0.73600	7000.0	91	40309	No
22	GOM_NL__2PRFIN20091115_020129_000000542084_00175_40309_0617.N1	15-NOV-2009 02:01:29	Dark	53.500	108	Alp Col	2.6520	15200.	107	40309	No
23	GOM_NL__2PRFIN20091115_021055_000000522084_00175_40309_0618.N1	15-NOV-2009 02:10:55	Straylight	51.500	165	34Gam Eri	2.9500	3200.0	103	40309	No
24	GOM_NL__2PRFIN20091115_021632_000000492084_00175_40309_0619.N1	15-NOV-2009 02:16:32	Twilight	49.000	94	92Alp Cet	2.5260	3100.0	98	40309	No
25	GOM_NL__2PRFIN20091115_022338_000000472084_00175_40309_0620.N1	15-NOV-2009 02:23:38	Bright	46.500	146	25Eta Tau	2.8730	15200.	93	40309	No
26	GOM_NL__2PRFIN20091115_022520_000000382084_00175_40309_0621.N1	15-NOV-2009 02:25:20	Bright	37.500	173	4Bet Tri	3.0040	8900.0	75	40309	No
27	GOM_NL__2PRFIN20091115_022724_000000372084_00175_40309_0622.N1	15-NOV-2009 02:27:24	Bright	37.000	73	57Gam1And	2.2600	13100.	74	40309	No
28	GOM_NL__2PRFIN20091115_022849_000000432084_00175_40309_0623.N1	15-NOV-2009 02:28:49	Bright	42.500	149	45Eps Per	2.8880	30000.	85	40309	No
29	GOM_NL__2PRFIN20091115_023034_000000392084_00175_40309_0624.N1	15-NOV-2009 02:30:34	Bright	38.500	35	33Alp Per	1.7950	6250.0	77	40309	No
30	GOM_NL__2PRFIN20091115_024819_000000392084_00175_40309_0625.N1	15-NOV-2009 02:48:19	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	40309	No
31	GOM_NL__2PRFIN20091115_024957_000000402084_00175_40309_0626.N1	15-NOV-2009 02:49:57	Bright	40.000	82	48Bet UMa	2.3650	10600.	80	40309	No
32	GOM_NL__2PRFIN20091115_025359_000000412084_00175_40309_0627.N1	15-NOV-2009 02:53:59	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	40309	No
33	GOM_NL__2PRFIN20091115_025544_000000342084_00175_40309_0628.N1	15-NOV-2009 02:55:44	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	40309	No
34	GOM_NL__2PRFIN20091115_030232_000000532084_00175_40309_0629.N1	15-NOV-2009 03:02:32	Bright	52.500	96	68Del Leo	2.5600	9300.0	105	40309	No
35	GOM_NL__2PRFIN20091115_032302_000000452084_00175_40309_0630.N1	15-NOV-2009 03:23:02	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	40309	No
36	GOM_NL__2PRFIN20091115_032953_000000452084_00176_40310_0623.N1	15-NOV-2009 03:29:53	Dark	44.500	41	Eps Car	1.8600	4100.0	89	40310	No
37	GOM_NL__2PRFIN20091115_033140_000000552084_00176_40310_0624.N1	15-NOV-2009 03:31:40	Dark	54.500	70	Zet Pup	2.2460	39000.	109	40310	No
38	GOM_NL__2PRFIN20091115_033524_000000612084_00176_40310_0625.N1	15-NOV-2009 03:35:24	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	40310	No
39	GOM_NL__2PRFIN20091115_034206_000000512084_00176_40310_0626.N1	15-NOV-2009 03:42:06	Dark	51.000	108	Alp Col	2.6520	15200.	102	40310	No
40	GOM_NL__2PRFIN20091115_035131_000000512084_00176_40310_0627.N1	15-NOV-2009 03:51:31	Straylight	50.500	165	34Gam Eri	2.9500	3200.0	101	40310	No
41	GOM_NL__2PRFIN20091115_035708_000000492084_00176_40310_0628.N1	15-NOV-2009 03:57:08	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40310	No
42	GOM_NL__2PRFIN20091115_040414_000000452084_00176_40310_0629.N1	15-NOV-2009 04:04:14	Bright	45.000	146	25Eta Tau	2.8730	15200.	90	40310	No

220	GOM_NL__2PRFIN20091115_212220_000000342084_00186_40320_0746.N1	15-NOV-2009 21:22:20	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	40320	No
221	GOM_NL__2PRFIN20091115_212912_000000462084_00186_40320_0747.N1	15-NOV-2009 21:29:12	Bright	45.500	96	68Del Leo	2.5600	9300.0	91	40320	No
222	GOM_NL__2PRFIN20091115_213858_000000412084_00186_40320_0748.N1	15-NOV-2009 21:38:58	Twilight	40.500	100	4Gam Crv	2.5800	13100.	81	40320	No
223	GOM_NL__2PRFIN20091115_214029_000000462084_00186_40320_0749.N1	15-NOV-2009 21:40:29	Twilight	45.500	171	2Eps Crv	3.0010	4250.0	91	40320	No
224	GOM_NL__2PRFIN20091115_214944_000000502084_00186_40320_0750.N1	15-NOV-2009 21:49:44	Dark	50.000	113	Mu Vel	2.6920	5000.0	100	40320	No
225	GOM_NL__2PRFIN20091115_215636_000000432084_00187_40321_0742.N1	15-NOV-2009 21:56:36	Dark	42.500	41	Eps Car	1.8600	4100.0	85	40321	No
226	GOM_NL__2PRFIN20091115_215828_000000562084_00187_40321_0743.N1	15-NOV-2009 21:58:28	Dark	55.500	70	Zet Pup	2.2460	39000.	111	40321	No
227	GOM_NL__2PRFIN20091115_220206_000000272084_00187_40321_0744.N1	15-NOV-2009 22:02:06	Dark	26.500	2	Alp Car	-0.73600	7000.0	53	40321	No
228	GOM_NL__2PRFIN20091115_220848_000000542084_00187_40321_0745.N1	15-NOV-2009 22:08:48	Dark	53.500	108	Alp Col	2.6520	15200.	107	40321	No
229	GOM_NL__2PRFIN20091115_221807_000000502084_00187_40321_0746.N1	15-NOV-2009 22:18:07	Straylight	50.000	165	34Gam Eri	2.9500	3200.0	100	40321	No
230	GOM_NL__2PRFIN20091115_222342_000000472084_00187_40321_0747.N1	15-NOV-2009 22:23:42	Twilight	46.500	94	92Alp Cet	2.5260	3100.0	93	40321	No
231	GOM_NL__2PRFIN20091115_223043_000000462084_00187_40321_0748.N1	15-NOV-2009 22:30:43	Bright	45.500	146	25Eta Tau	2.8730	15200.	91	40321	No
232	GOM_NL__2PRFIN20091115_223231_000000362084_00187_40321_0749.N1	15-NOV-2009 22:32:31	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	40321	No
233	GOM_NL__2PRFIN20091115_223450_000000392084_00187_40321_0750.N1	15-NOV-2009 22:34:50	Bright	39.000	79	26Bet Per	2.3100	13100.	78	40321	No
234	GOM_NL__2PRFIN20091115_223741_000000422084_00187_40321_0751.N1	15-NOV-2009 22:37:41	Bright	41.500	35	33Alp Per	1.7950	6250.0	83	40321	No
235	GOM_NL__2PRFIN20091115_225528_000000452084_00187_40321_0752.N1	15-NOV-2009 22:55:28	Bright	44.500	36	50Alp UMa	1.8000	6300.0	89	40321	No
236	GOM_NL__2PRFIN20091115_225706_000000412084_00187_40321_0753.N1	15-NOV-2009 22:57:06	Bright	41.000	82	48Bet UMa	2.3650	10600.	82	40321	No
237	GOM_NL__2PRFIN20091115_230109_000000642084_00187_40321_0754.N1	15-NOV-2009 23:01:09	Bright	64.000	174	52Psi UMa	3.0040	4400.0	128	40321	No
238	GOM_NL__2PRFIN20091115_230257_000000342084_00187_40321_0755.N1	15-NOV-2009 23:02:57	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	40321	No
239	GOM_NL__2PRFIN20091115_230948_000000512084_00187_40321_0756.N1	15-NOV-2009 23:09:48	Bright	50.500	96	68Del Leo	2.5600	9300.0	101	40321	No
240	GOM_NL__2PRFIN20091115_231934_000000402084_00187_40321_0757.N1	15-NOV-2009 23:19:34	Twilight	40.000	100	4Gam Crv	2.5800	13100.	80	40321	No
241	GOM_NL__2PRFIN20091115_232105_000000452084_00187_40321_0758.N1	15-NOV-2009 23:21:05	Twilight	44.500	171	2Eps Crv	3.0010	4250.0	89	40321	No
242	GOM_NL__2PRFIN20091115_233020_000000452084_00187_40321_0759.N1	15-NOV-2009 23:30:20	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	40321	No
243	GOM_NL__2PRFIN20091115_233712_000000432084_00188_40322_0751.N1	15-NOV-2009 23:37:12	Dark	43.000	41	Eps Car	1.8600	4100.0	86	40322	No
244	GOM_NL__2PRFIN20091115_233906_000000572084_00188_40322_0752.N1	15-NOV-2009 23:39:06	Dark	56.500	70	Zet Pup	2.2460	39000.	113	40322	No
245	GOM_NL__2PRFIN20091115_234242_000000612084_00188_40322_0753.N1	15-NOV-2009 23:42:42	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	40322	No
246	GOM_NL__2PRFIN20091115_234925_000000542084_00188_40322_0754.N1	15-NOV-2009 23:49:25	Dark	53.500	108	Alp Col	2.6520	15200.	107	40322	No
247	GOM_NL__2PRFIN20091115_235843_000000502084_00188_40322_0755.N1	15-NOV-2009 23:58:43	Straylight	50.000	165	34Gam Eri	2.9500	3200.0	100	40322	No

3. Quality information per product

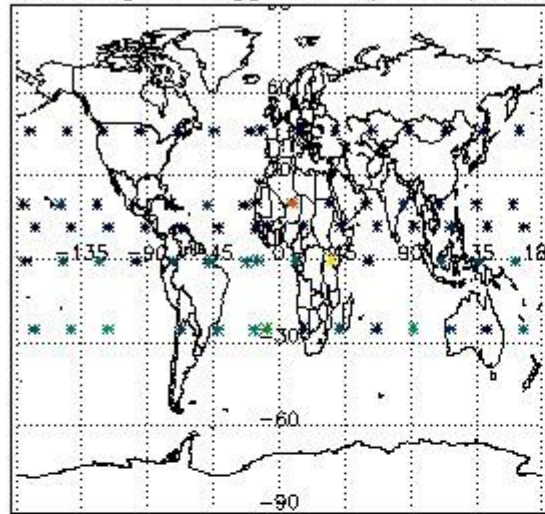
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

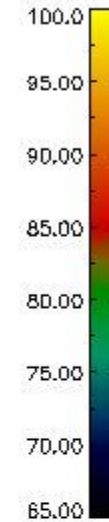
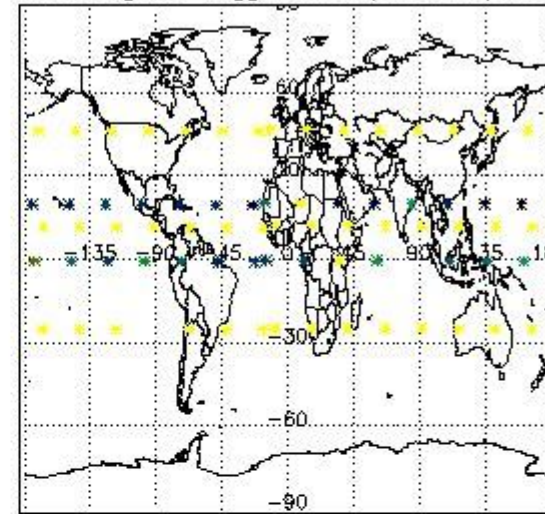


3.2 Plot quality information per product (world map)

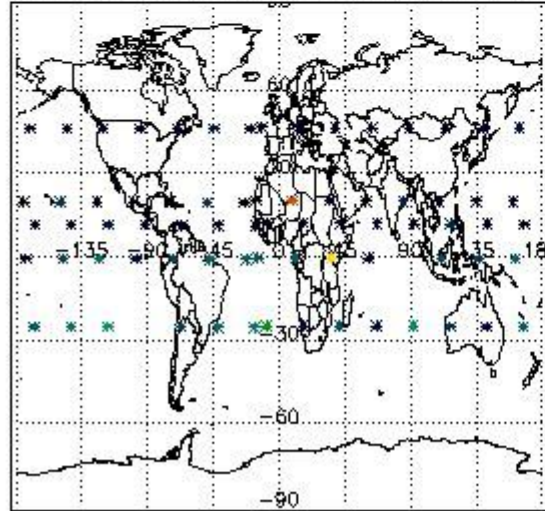
Percentage of flagged data per O3 profile



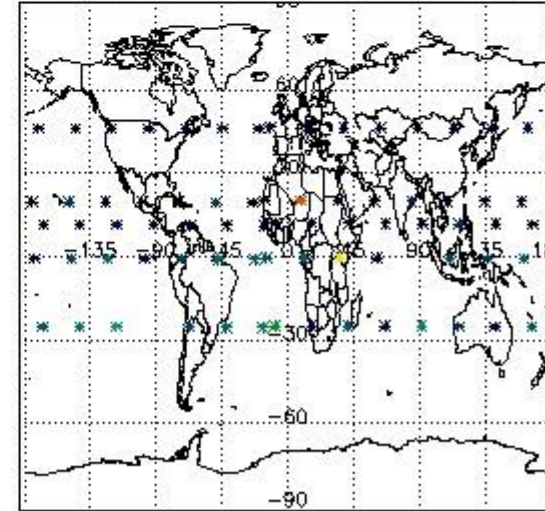
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

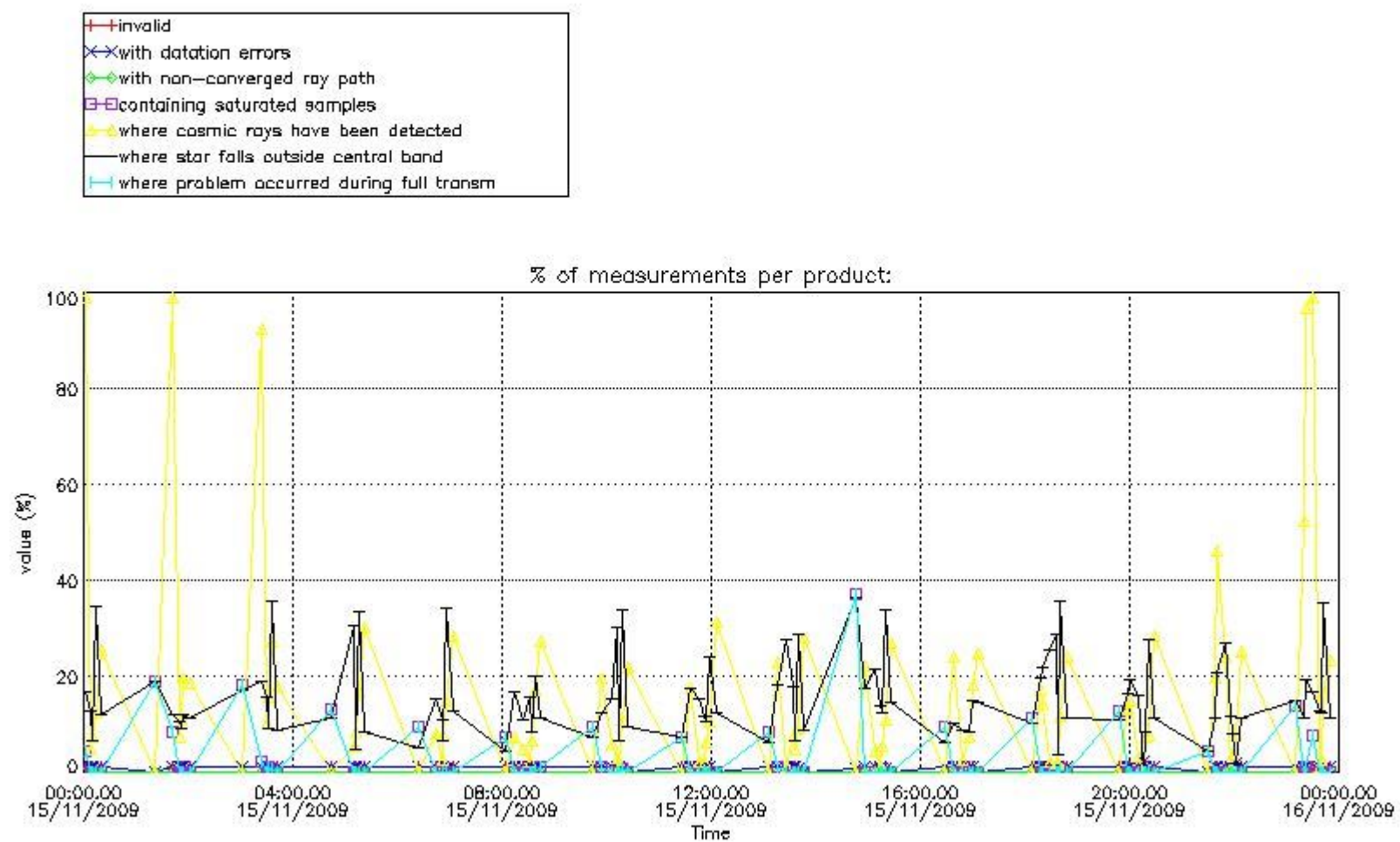


4. Level 1 quality information per product

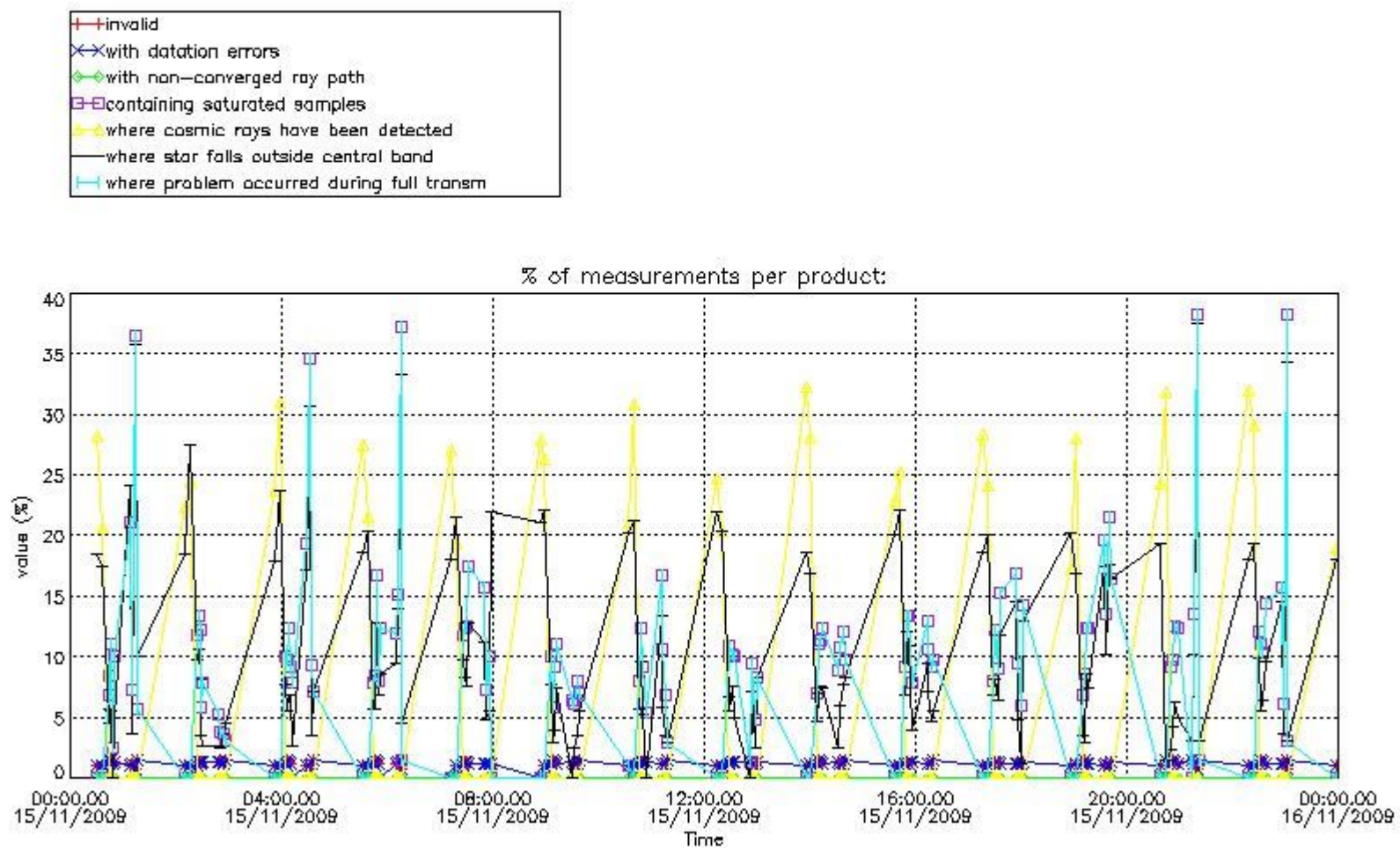
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



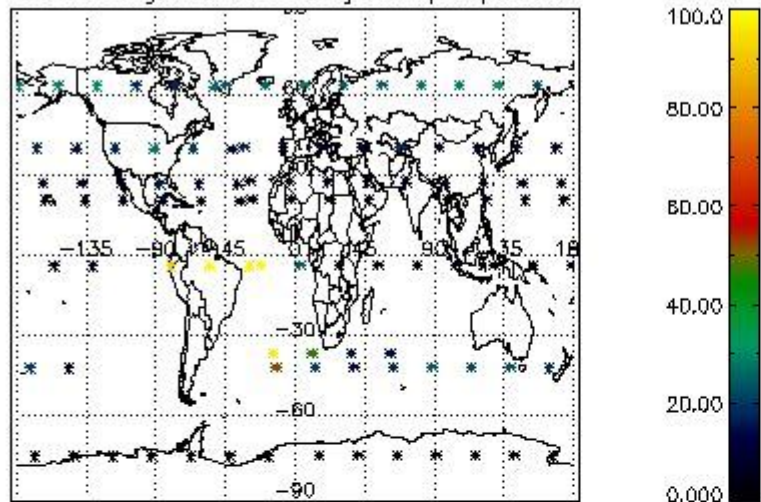
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



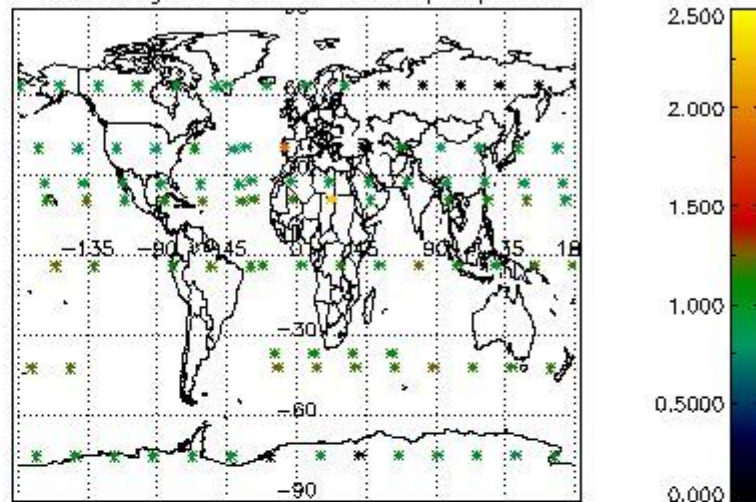
4.2 Plot quality information per product coming from level 1b processing (world map)

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

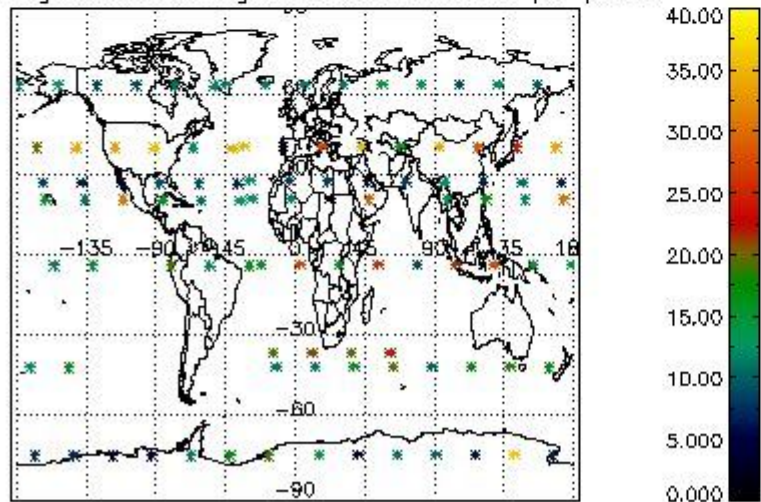
Percentage of cosmic ray hits per profile



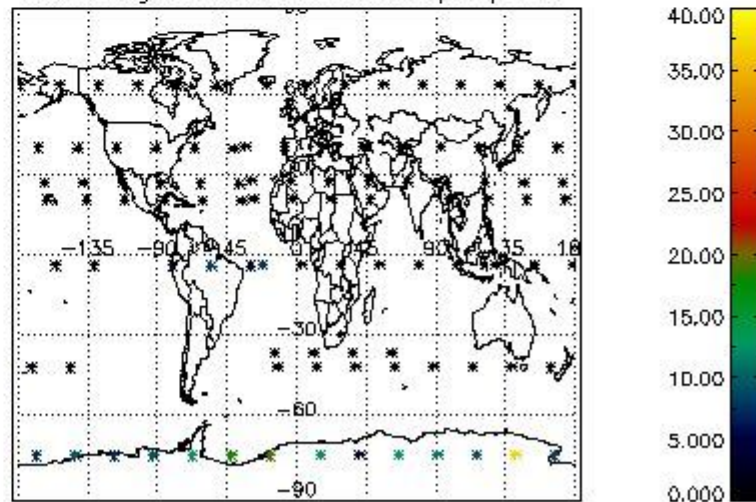
Percentage of datation errors per profile



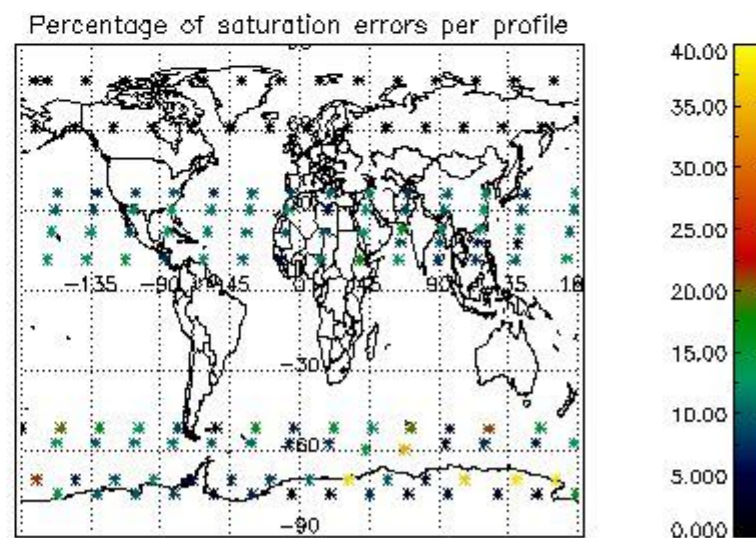
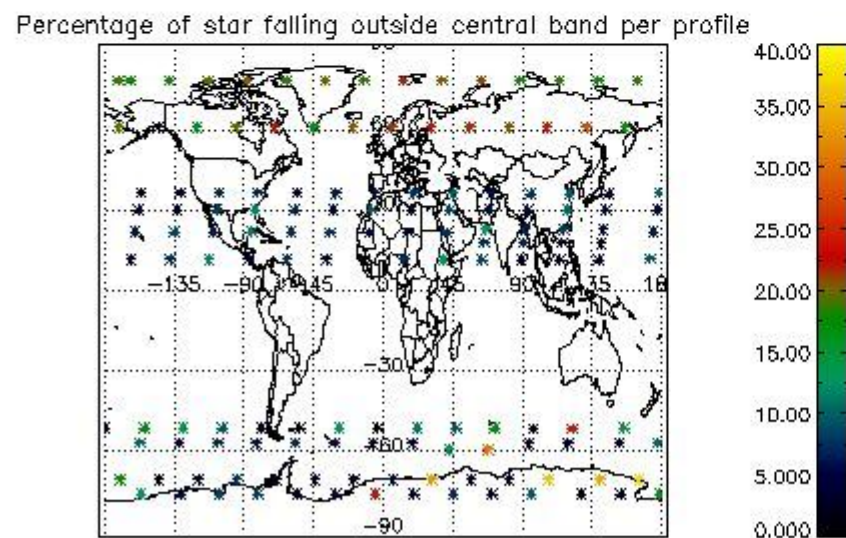
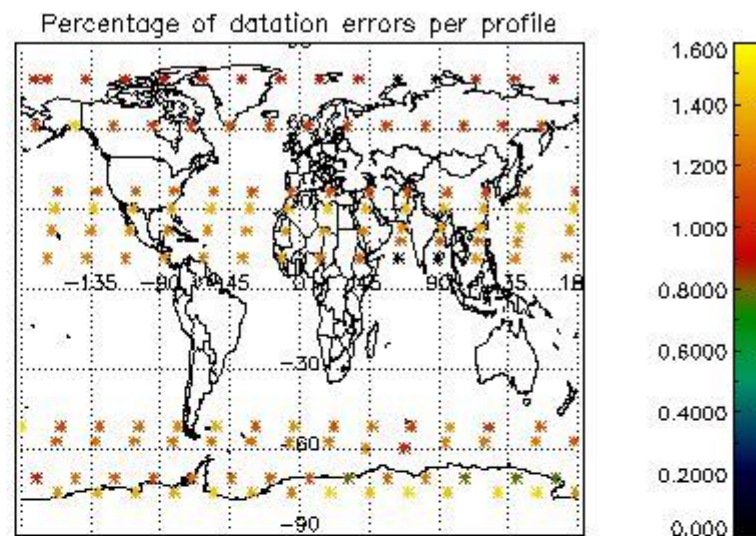
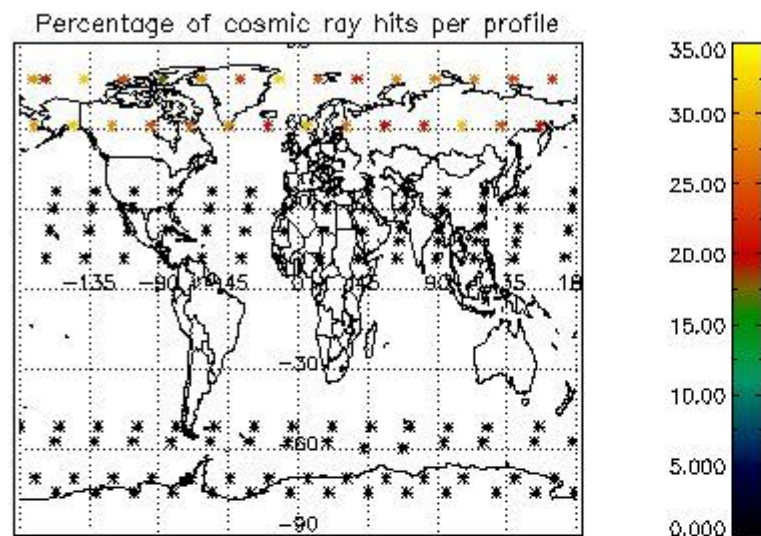
Percentage of star falling outside central band per profile



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

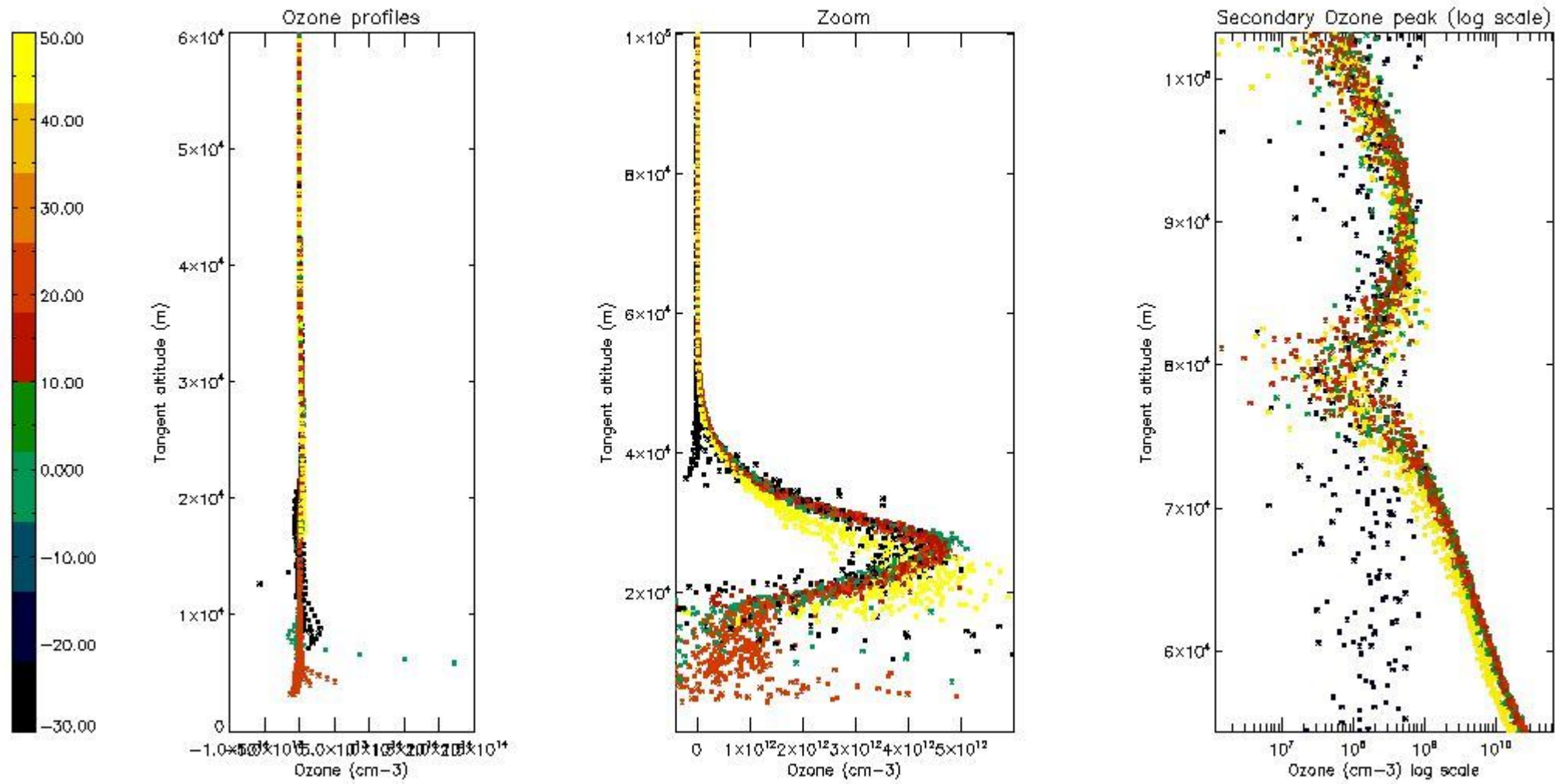
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	15
STD < 5	10

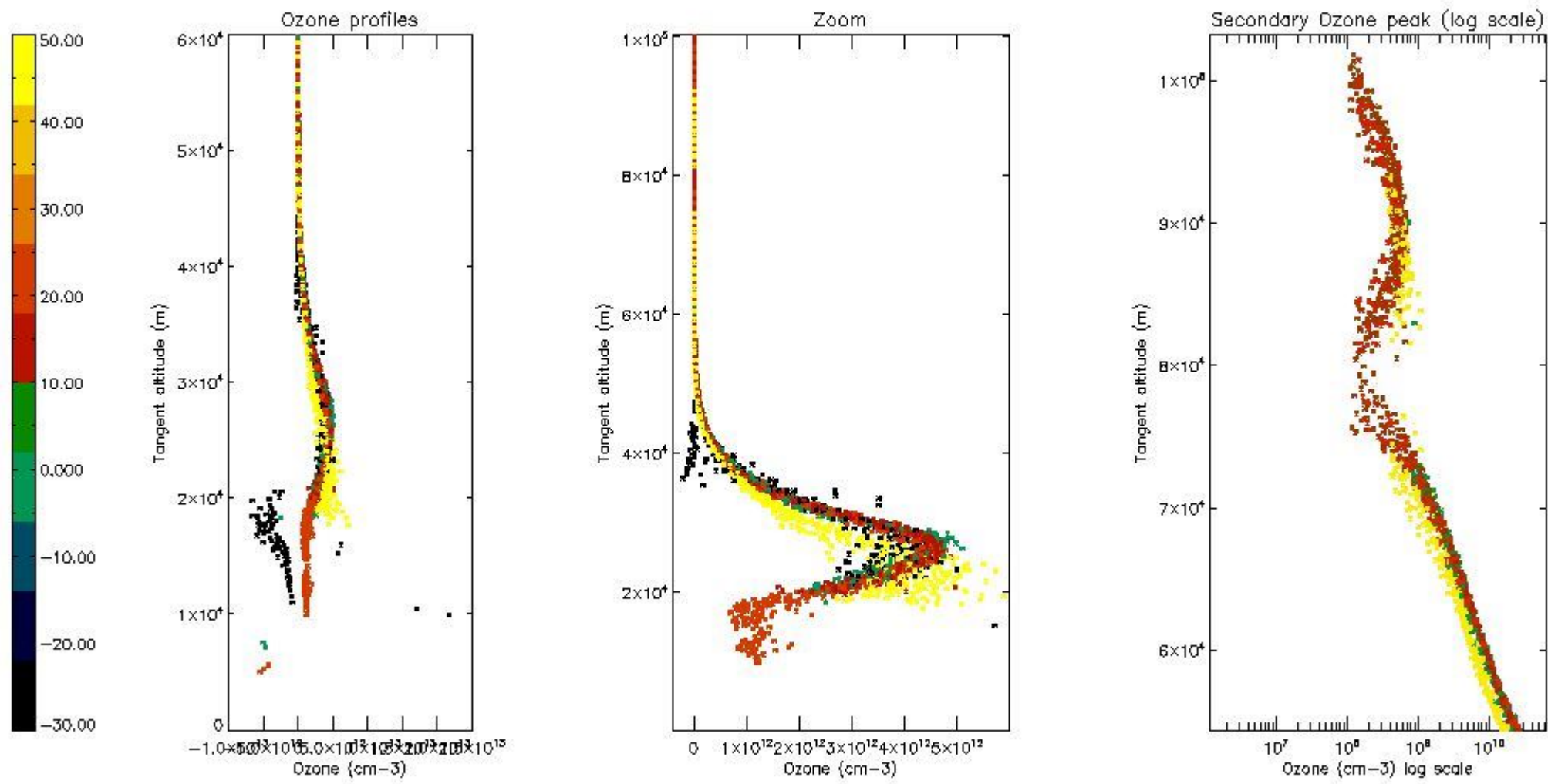
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



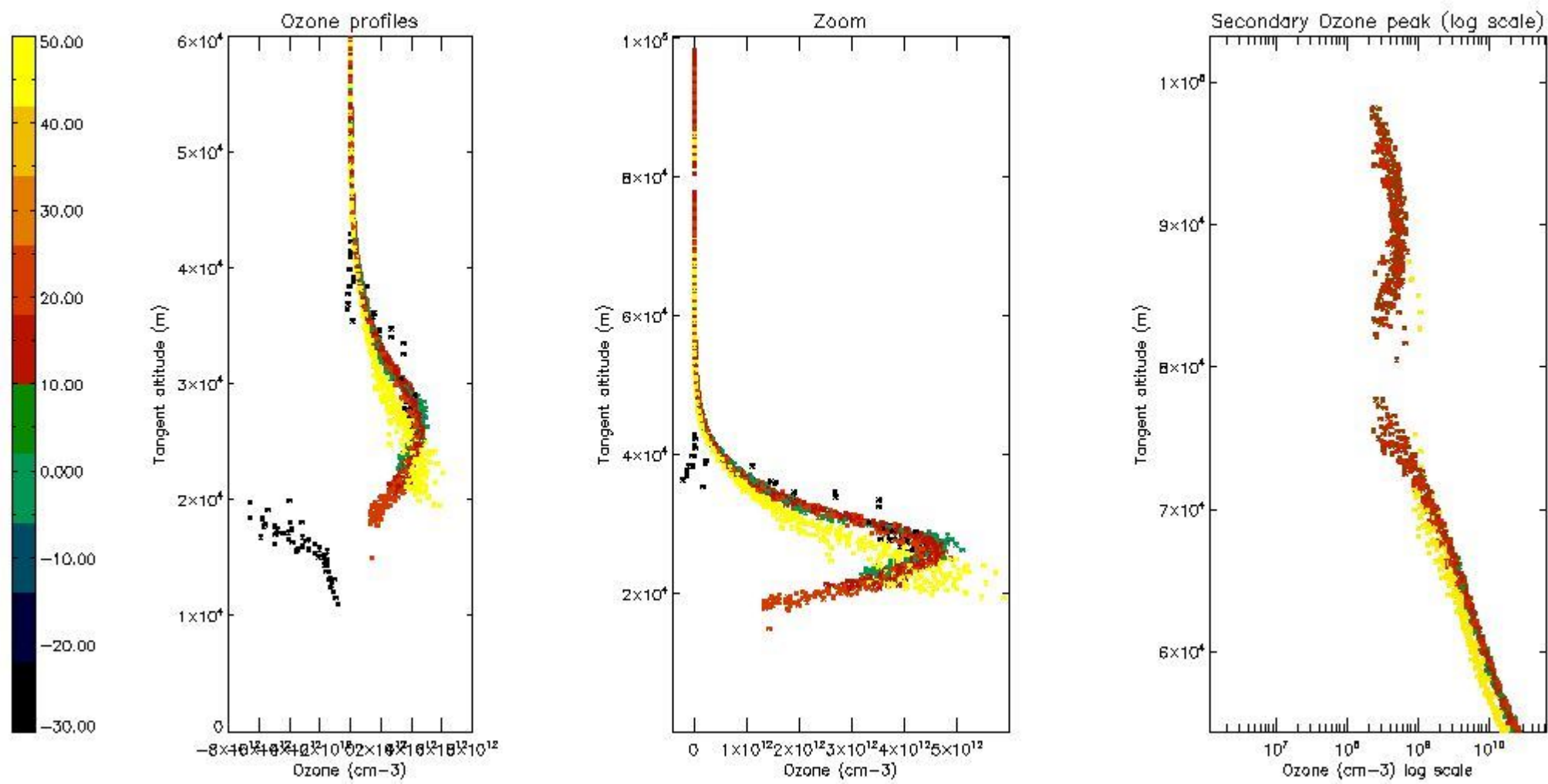
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



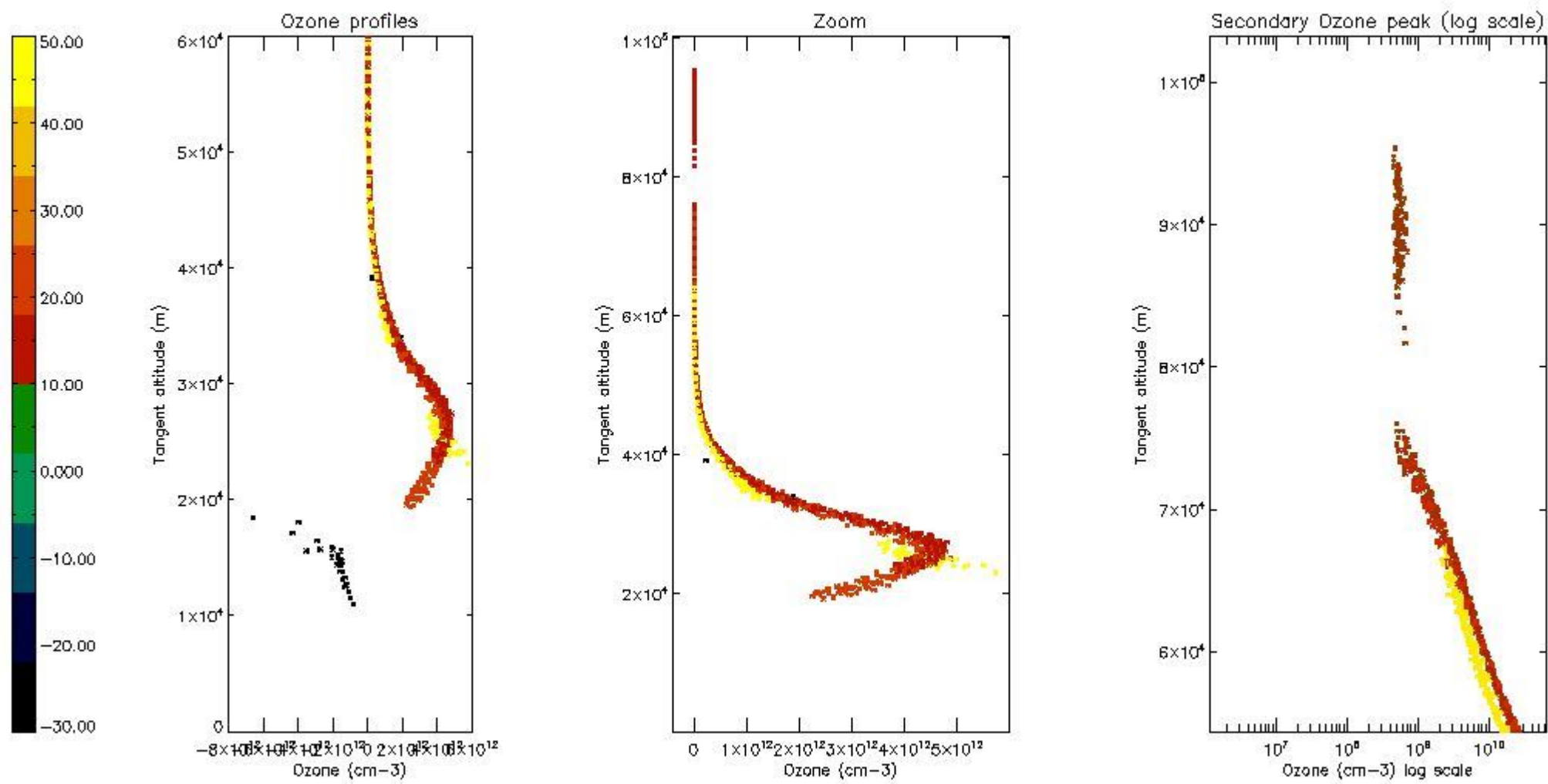
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



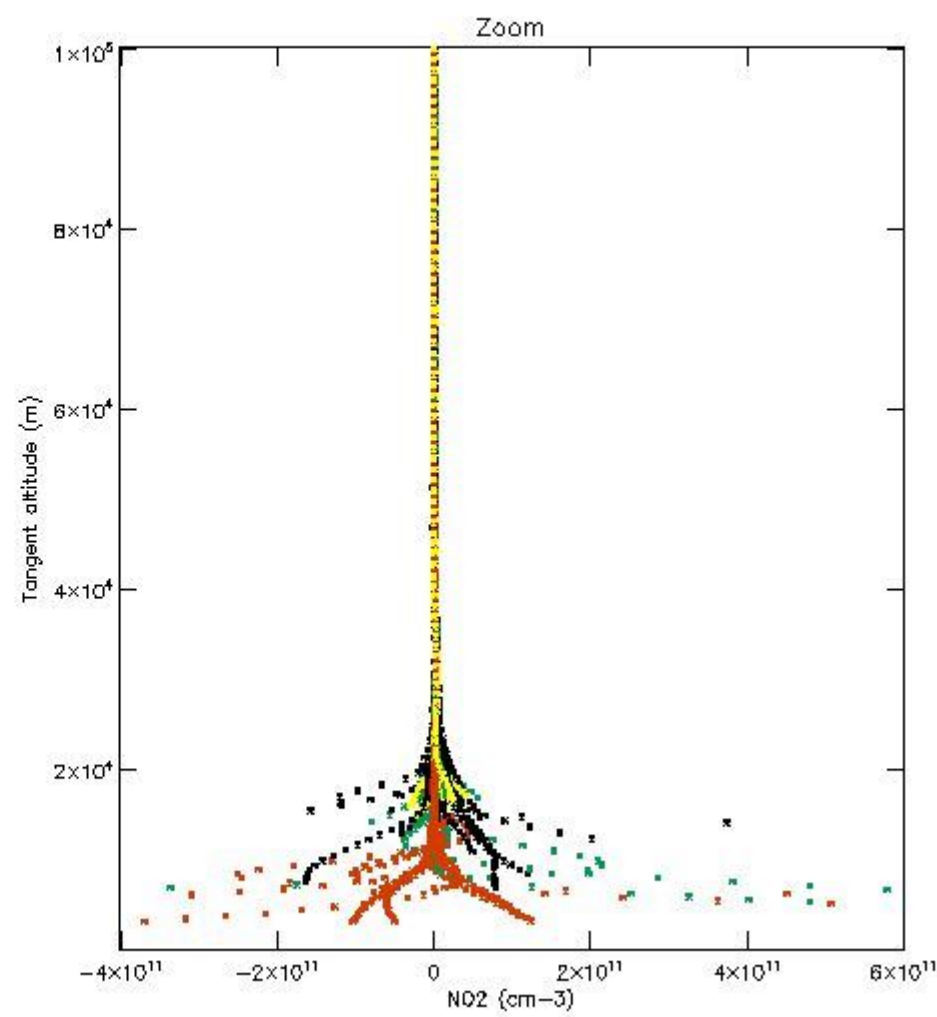
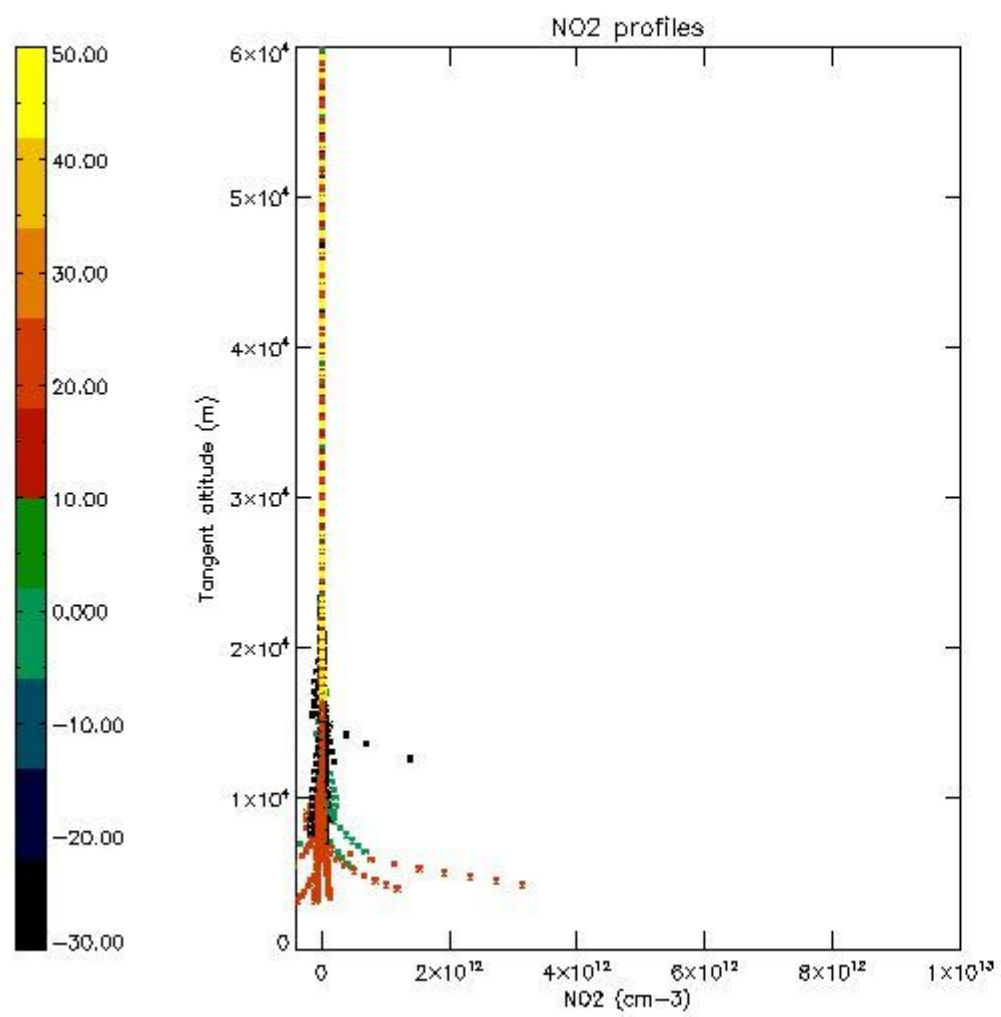
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



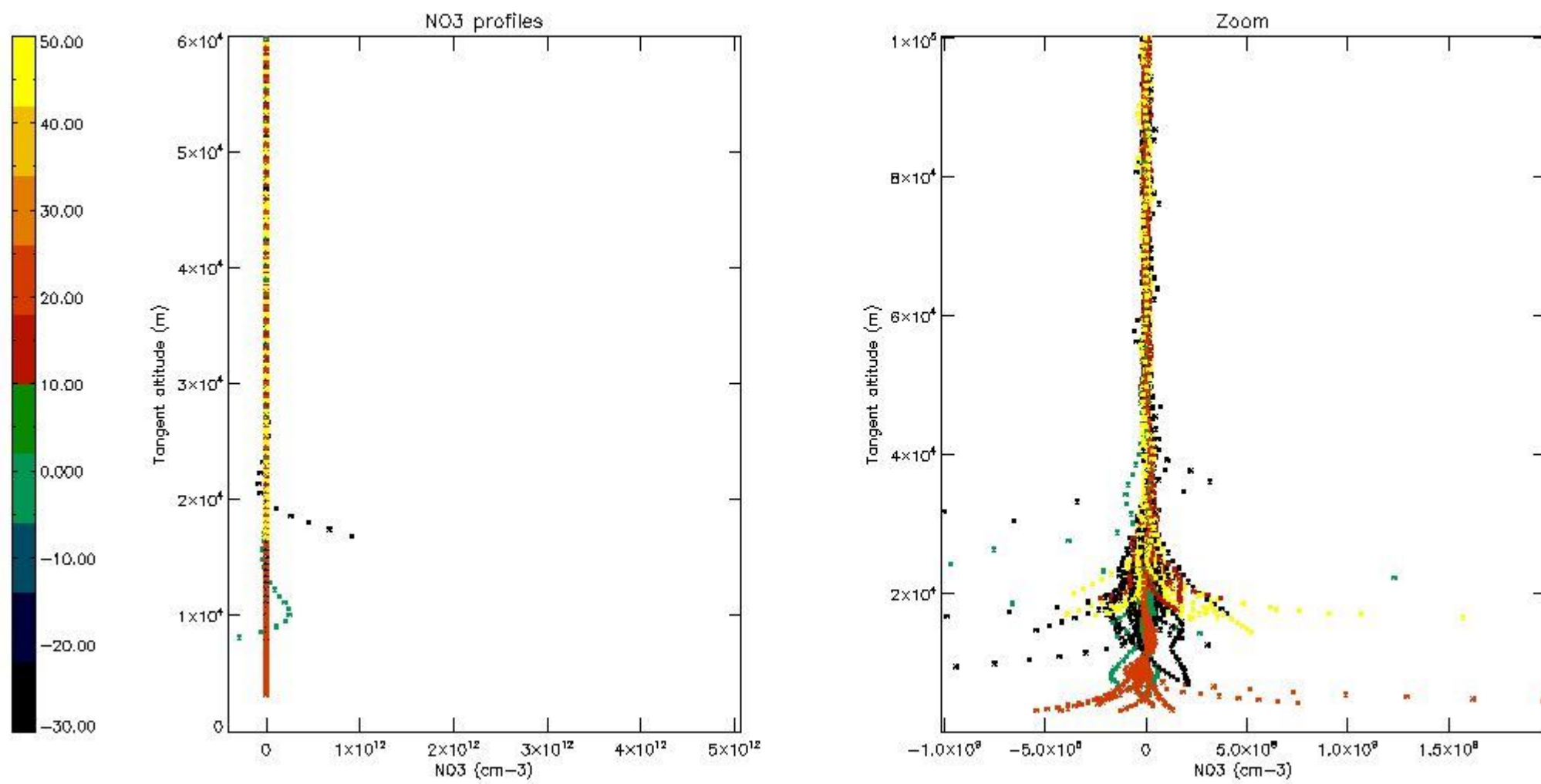
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



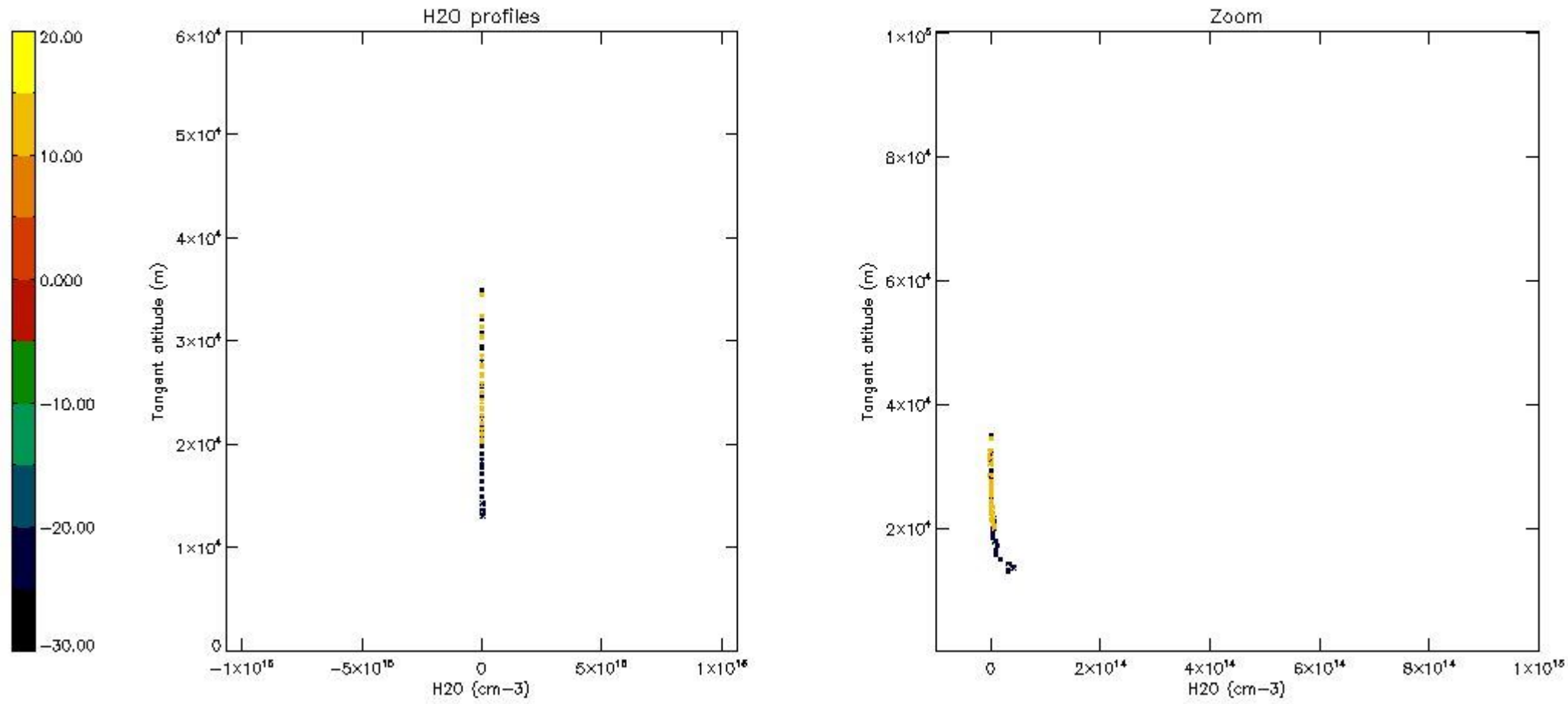
5.7 Plot NO3 profiles for all STD (dark without errors)

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	15-NOV-2009 00:01:49
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-NOV-2009 00:01:49
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-NOV-2009 00:01:49

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 \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

[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 13:55:48
Data source version	GOMOS/6.01
Start time of products	15-11-2009 (15NOV2009 00:00:00)
Stop time of products	16-11-2009 (16NOV2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	247
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

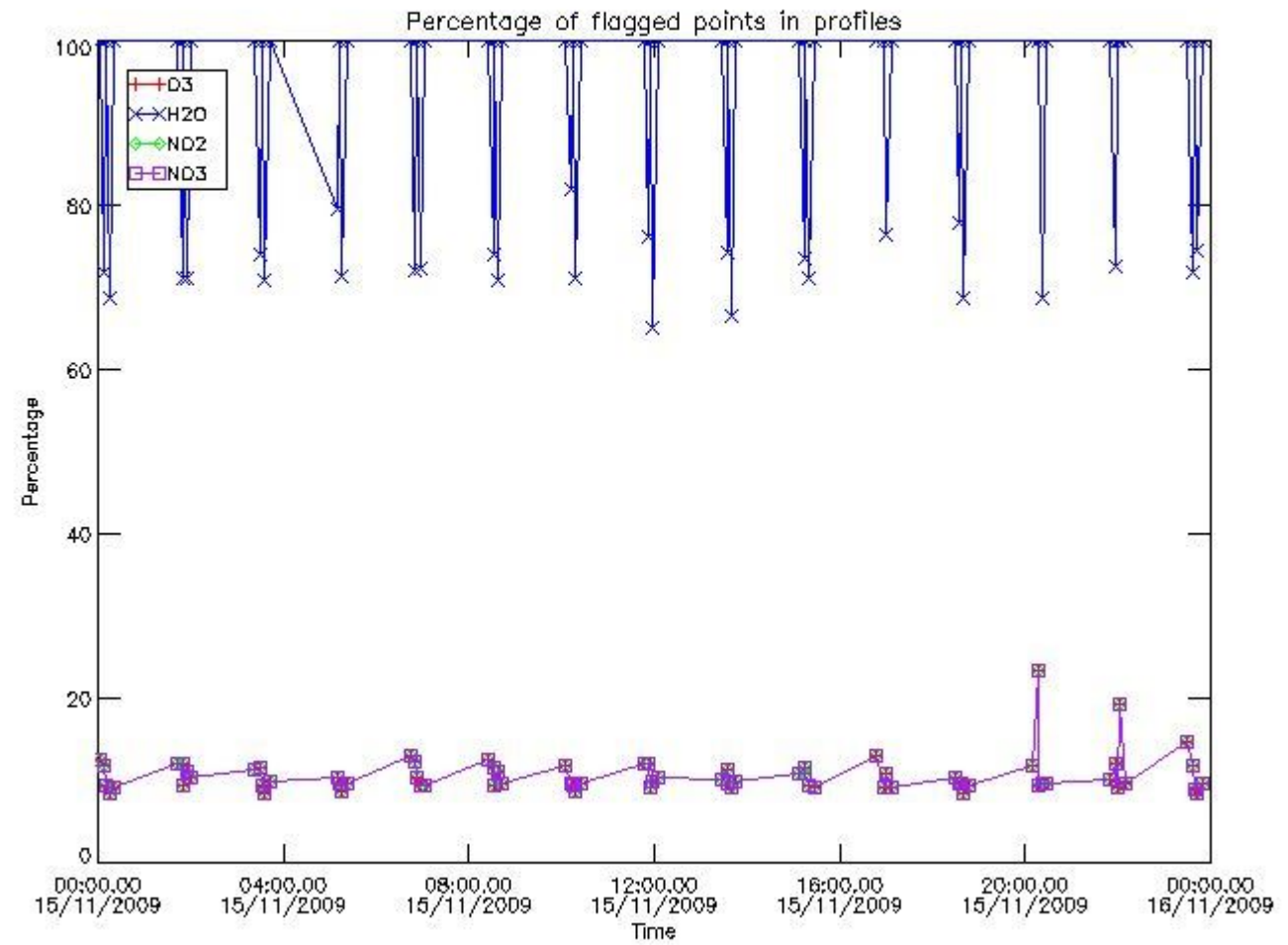
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091115_000149_000000452084_00173_40307_0611.N1	15-NOV-2009 00:01:49	Dark	44.500	113	Mu Vel	2.6920	5000.0	89	40307	No
2	GOM_NL__2PRFIN20091115_000840_000000432084_00174_40308_0605.N1	15-NOV-2009 00:08:40	Dark	43.000	41	Eps Car	1.8600	4100.0	86	40308	No
3	GOM_NL__2PRFIN20091115_001025_000000542084_00174_40308_0606.N1	15-NOV-2009 00:10:25	Dark	54.000	70	Zet Pup	2.2460	39000.	108	40308	No
4	GOM_NL__2PRFIN20091115_001410_000000612084_00174_40308_0607.N1	15-NOV-2009 00:14:10	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	40308	No
5	GOM_NL__2PRFIN20091115_002052_000000552084_00174_40308_0608.N1	15-NOV-2009 00:20:52	Dark	55.000	108	Alp Col	2.6520	15200.	110	40308	No
6	GOM_NL__2PRFIN20091115_003019_000000522084_00174_40308_0609.N1	15-NOV-2009 00:30:19	Straylight	51.500	165	34Gam Eri	2.9500	3200.0	103	40308	No
7	GOM_NL__2PRFIN20091115_003556_000000462084_00174_40308_0610.N1	15-NOV-2009 00:35:56	Twilight	46.000	94	92Alp Cet	2.5260	3100.0	92	40308	No
8	GOM_NL__2PRFIN20091115_004302_000000442084_00174_40308_0611.N1	15-NOV-2009 00:43:02	Bright	44.000	146	25Eta Tau	2.8730	15200.	88	40308	No
9	GOM_NL__2PRFIN20091115_004444_000000362084_00174_40308_0612.N1	15-NOV-2009 00:44:44	Bright	35.500	173	4Bet Tri	3.0040	8900.0	71	40308	No
10	GOM_NL__2PRFIN20091115_004648_000000362084_00174_40308_0613.N1	15-NOV-2009 00:46:48	Bright	36.000	73	57Gam1And	2.2600	13100.	72	40308	No
11	GOM_NL__2PRFIN20091115_004814_000000412084_00174_40308_0614.N1	15-NOV-2009 00:48:14	Bright	40.500	149	45Eps Per	2.8880	30000.	81	40308	No
12	GOM_NL__2PRFIN20091115_004959_000000402084_00174_40308_0615.N1	15-NOV-2009 00:49:59	Bright	40.000	35	33Alp Per	1.7950	6250.0	80	40308	No
13	GOM_NL__2PRFIN20091115_010743_000000482084_00174_40308_0616.N1	15-NOV-2009 01:07:43	Bright	47.500	36	50Alp UMa	1.8000	6300.0	95	40308	No
14	GOM_NL__2PRFIN20091115_010921_000000412084_00174_40308_0617.N1	15-NOV-2009 01:09:21	Bright	41.000	82	48Bet UMa	2.3650	10600.	82	40308	No
15	GOM_NL__2PRFIN20091115_011323_000000632084_00174_40308_0618.N1	15-NOV-2009 01:13:23	Bright	63.000	174	52Psi UMa	3.0040	4400.0	126	40308	No
16	GOM_NL__2PRFIN20091115_011508_000000352084_00174_40308_0619.N1	15-NOV-2009 01:15:08	Bright	35.000	152	12Alp2CVn	2.8900	11000.	70	40308	No
17	GOM_NL__2PRFIN20091115_012156_000000532084_00174_40308_0620.N1	15-NOV-2009 01:21:56	Bright	52.500	96	68Del Leo	2.5600	9300.0	105	40308	No
18	GOM_NL__2PRFIN20091115_014225_000000422084_00174_40308_0621.N1	15-NOV-2009 01:42:25	Dark	42.000	113	Mu Vel	2.6920	5000.0	84	40308	No
19	GOM_NL__2PRFIN20091115_014917_000000422084_00175_40309_0614.N1	15-NOV-2009 01:49:17	Dark	42.000	41	Eps Car	1.8600	4100.0	84	40309	No
20	GOM_NL__2PRFIN20091115_015102_000000552084_00175_40309_0615.N1	15-NOV-2009 01:51:02	Dark	54.500	70	Zet Pup	2.2460	39000.	109	40309	No
21	GOM_NL__2PRFIN20091115_015446_000000462084_00175_40309_0616.N1	15-NOV-2009 01:54:46	Dark	45.500	2	Alp Car	-0.73600	7000.0	91	40309	No
22	GOM_NL__2PRFIN20091115_020129_000000542084_00175_40309_0617.N1	15-NOV-2009 02:01:29	Dark	53.500	108	Alp Col	2.6520	15200.	107	40309	No
23	GOM_NL__2PRFIN20091115_021055_000000522084_00175_40309_0618.N1	15-NOV-2009 02:10:55	Straylight	51.500	165	34Gam Eri	2.9500	3200.0	103	40309	No
24	GOM_NL__2PRFIN20091115_021632_000000492084_00175_40309_0619.N1	15-NOV-2009 02:16:32	Twilight	49.000	94	92Alp Cet	2.5260	3100.0	98	40309	No
25	GOM_NL__2PRFIN20091115_022338_000000472084_00175_40309_0620.N1	15-NOV-2009 02:23:38	Bright	46.500	146	25Eta Tau	2.8730	15200.	93	40309	No
26	GOM_NL__2PRFIN20091115_022520_000000382084_00175_40309_0621.N1	15-NOV-2009 02:25:20	Bright	37.500	173	4Bet Tri	3.0040	8900.0	75	40309	No
27	GOM_NL__2PRFIN20091115_022724_000000372084_00175_40309_0622.N1	15-NOV-2009 02:27:24	Bright	37.000	73	57Gam1And	2.2600	13100.	74	40309	No
28	GOM_NL__2PRFIN20091115_022849_000000432084_00175_40309_0623.N1	15-NOV-2009 02:28:49	Bright	42.500	149	45Eps Per	2.8880	30000.	85	40309	No
29	GOM_NL__2PRFIN20091115_023034_000000392084_00175_40309_0624.N1	15-NOV-2009 02:30:34	Bright	38.500	35	33Alp Per	1.7950	6250.0	77	40309	No
30	GOM_NL__2PRFIN20091115_024819_000000392084_00175_40309_0625.N1	15-NOV-2009 02:48:19	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	40309	No
31	GOM_NL__2PRFIN20091115_024957_000000402084_00175_40309_0626.N1	15-NOV-2009 02:49:57	Bright	40.000	82	48Bet UMa	2.3650	10600.	80	40309	No
32	GOM_NL__2PRFIN20091115_025359_000000412084_00175_40309_0627.N1	15-NOV-2009 02:53:59	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	40309	No
33	GOM_NL__2PRFIN20091115_025544_000000342084_00175_40309_0628.N1	15-NOV-2009 02:55:44	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	40309	No
34	GOM_NL__2PRFIN20091115_030232_000000532084_00175_40309_0629.N1	15-NOV-2009 03:02:32	Bright	52.500	96	68Del Leo	2.5600	9300.0	105	40309	No
35	GOM_NL__2PRFIN20091115_032302_000000452084_00175_40309_0630.N1	15-NOV-2009 03:23:02	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	40309	No
36	GOM_NL__2PRFIN20091115_032953_000000452084_00176_40310_0623.N1	15-NOV-2009 03:29:53	Dark	44.500	41	Eps Car	1.8600	4100.0	89	40310	No
37	GOM_NL__2PRFIN20091115_033140_000000552084_00176_40310_0624.N1	15-NOV-2009 03:31:40	Dark	54.500	70	Zet Pup	2.2460	39000.	109	40310	No
38	GOM_NL__2PRFIN20091115_033524_000000612084_00176_40310_0625.N1	15-NOV-2009 03:35:24	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	40310	No
39	GOM_NL__2PRFIN20091115_034206_000000512084_00176_40310_0626.N1	15-NOV-2009 03:42:06	Dark	51.000	108	Alp Col	2.6520	15200.	102	40310	No
40	GOM_NL__2PRFIN20091115_035131_000000512084_00176_40310_0627.N1	15-NOV-2009 03:51:31	Straylight	50.500	165	34Gam Eri	2.9500	3200.0	101	40310	No
41	GOM_NL__2PRFIN20091115_035708_000000492084_00176_40310_0628.N1	15-NOV-2009 03:57:08	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40310	No
42	GOM_NL__2PRFIN20091115_040414_000000452084_00176_40310_0629.N1	15-NOV-2009 04:04:14	Bright	45.000	146	25Eta Tau	2.8730	15200.	90	40310	No

220	GOM_NL__2PRFIN20091115_212220_000000342084_00186_40320_0746.N1	15-NOV-2009 21:22:20	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	40320	No
221	GOM_NL__2PRFIN20091115_212912_000000462084_00186_40320_0747.N1	15-NOV-2009 21:29:12	Bright	45.500	96	68Del Leo	2.5600	9300.0	91	40320	No
222	GOM_NL__2PRFIN20091115_213858_000000412084_00186_40320_0748.N1	15-NOV-2009 21:38:58	Twilight	40.500	100	4Gam Crv	2.5800	13100.	81	40320	No
223	GOM_NL__2PRFIN20091115_214029_000000462084_00186_40320_0749.N1	15-NOV-2009 21:40:29	Twilight	45.500	171	2Eps Crv	3.0010	4250.0	91	40320	No
224	GOM_NL__2PRFIN20091115_214944_000000502084_00186_40320_0750.N1	15-NOV-2009 21:49:44	Dark	50.000	113	Mu Vel	2.6920	5000.0	100	40320	No
225	GOM_NL__2PRFIN20091115_215636_000000432084_00187_40321_0742.N1	15-NOV-2009 21:56:36	Dark	42.500	41	Eps Car	1.8600	4100.0	85	40321	No
226	GOM_NL__2PRFIN20091115_215828_000000562084_00187_40321_0743.N1	15-NOV-2009 21:58:28	Dark	55.500	70	Zet Pup	2.2460	39000.	111	40321	No
227	GOM_NL__2PRFIN20091115_220206_000000272084_00187_40321_0744.N1	15-NOV-2009 22:02:06	Dark	26.500	2	Alp Car	-0.73600	7000.0	53	40321	No
228	GOM_NL__2PRFIN20091115_220848_000000542084_00187_40321_0745.N1	15-NOV-2009 22:08:48	Dark	53.500	108	Alp Col	2.6520	15200.	107	40321	No
229	GOM_NL__2PRFIN20091115_221807_000000502084_00187_40321_0746.N1	15-NOV-2009 22:18:07	Straylight	50.000	165	34Gam Eri	2.9500	3200.0	100	40321	No
230	GOM_NL__2PRFIN20091115_222342_000000472084_00187_40321_0747.N1	15-NOV-2009 22:23:42	Twilight	46.500	94	92Alp Cet	2.5260	3100.0	93	40321	No
231	GOM_NL__2PRFIN20091115_223043_000000462084_00187_40321_0748.N1	15-NOV-2009 22:30:43	Bright	45.500	146	25Eta Tau	2.8730	15200.	91	40321	No
232	GOM_NL__2PRFIN20091115_223231_000000362084_00187_40321_0749.N1	15-NOV-2009 22:32:31	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	40321	No
233	GOM_NL__2PRFIN20091115_223450_000000392084_00187_40321_0750.N1	15-NOV-2009 22:34:50	Bright	39.000	79	26Bet Per	2.3100	13100.	78	40321	No
234	GOM_NL__2PRFIN20091115_223741_000000422084_00187_40321_0751.N1	15-NOV-2009 22:37:41	Bright	41.500	35	33Alp Per	1.7950	6250.0	83	40321	No
235	GOM_NL__2PRFIN20091115_225528_000000452084_00187_40321_0752.N1	15-NOV-2009 22:55:28	Bright	44.500	36	50Alp UMa	1.8000	6300.0	89	40321	No
236	GOM_NL__2PRFIN20091115_225706_000000412084_00187_40321_0753.N1	15-NOV-2009 22:57:06	Bright	41.000	82	48Bet UMa	2.3650	10600.	82	40321	No
237	GOM_NL__2PRFIN20091115_230109_000000642084_00187_40321_0754.N1	15-NOV-2009 23:01:09	Bright	64.000	174	52Psi UMa	3.0040	4400.0	128	40321	No
238	GOM_NL__2PRFIN20091115_230257_000000342084_00187_40321_0755.N1	15-NOV-2009 23:02:57	Bright	33.500	152	12Alp2CVn	2.8900	11000.	67	40321	No
239	GOM_NL__2PRFIN20091115_230948_000000512084_00187_40321_0756.N1	15-NOV-2009 23:09:48	Bright	50.500	96	68Del Leo	2.5600	9300.0	101	40321	No
240	GOM_NL__2PRFIN20091115_231934_000000402084_00187_40321_0757.N1	15-NOV-2009 23:19:34	Twilight	40.000	100	4Gam Crv	2.5800	13100.	80	40321	No
241	GOM_NL__2PRFIN20091115_232105_000000452084_00187_40321_0758.N1	15-NOV-2009 23:21:05	Twilight	44.500	171	2Eps Crv	3.0010	4250.0	89	40321	No
242	GOM_NL__2PRFIN20091115_233020_000000452084_00187_40321_0759.N1	15-NOV-2009 23:30:20	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	40321	No
243	GOM_NL__2PRFIN20091115_233712_000000432084_00188_40322_0751.N1	15-NOV-2009 23:37:12	Dark	43.000	41	Eps Car	1.8600	4100.0	86	40322	No
244	GOM_NL__2PRFIN20091115_233906_000000572084_00188_40322_0752.N1	15-NOV-2009 23:39:06	Dark	56.500	70	Zet Pup	2.2460	39000.	113	40322	No
245	GOM_NL__2PRFIN20091115_234242_000000612084_00188_40322_0753.N1	15-NOV-2009 23:42:42	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	40322	No
246	GOM_NL__2PRFIN20091115_234925_000000542084_00188_40322_0754.N1	15-NOV-2009 23:49:25	Dark	53.500	108	Alp Col	2.6520	15200.	107	40322	No
247	GOM_NL__2PRFIN20091115_235843_000000502084_00188_40322_0755.N1	15-NOV-2009 23:58:43	Straylight	50.000	165	34Gam Eri	2.9500	3200.0	100	40322	No

3. Quality information per product

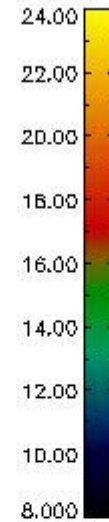
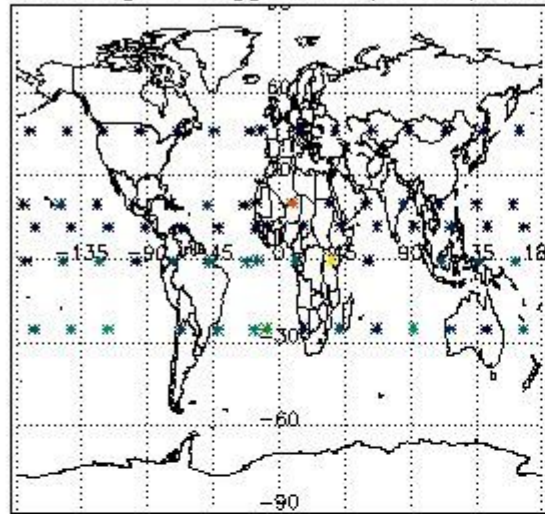
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

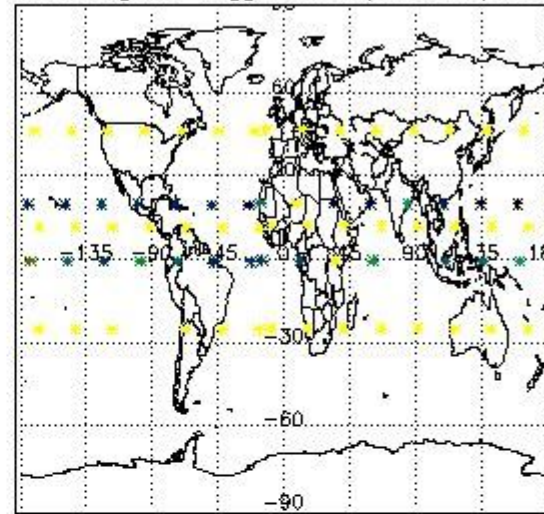


3.2 Plot quality information per product (world map)

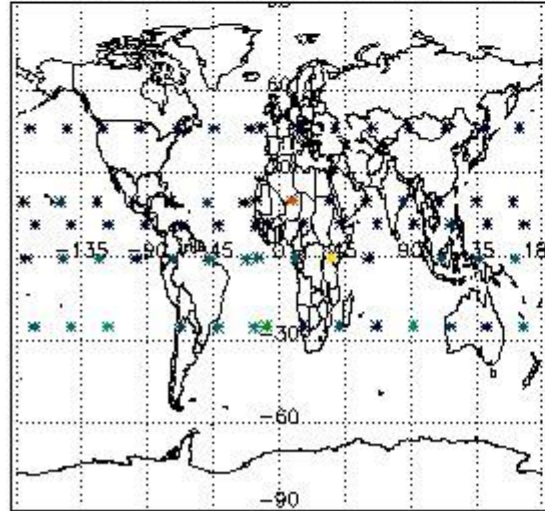
Percentage of flagged data per O3 profile



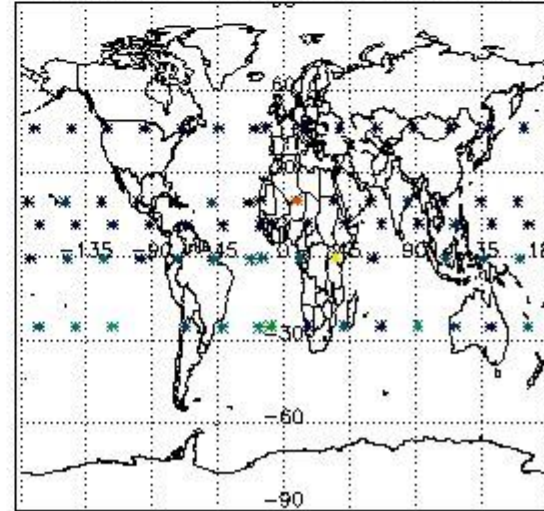
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

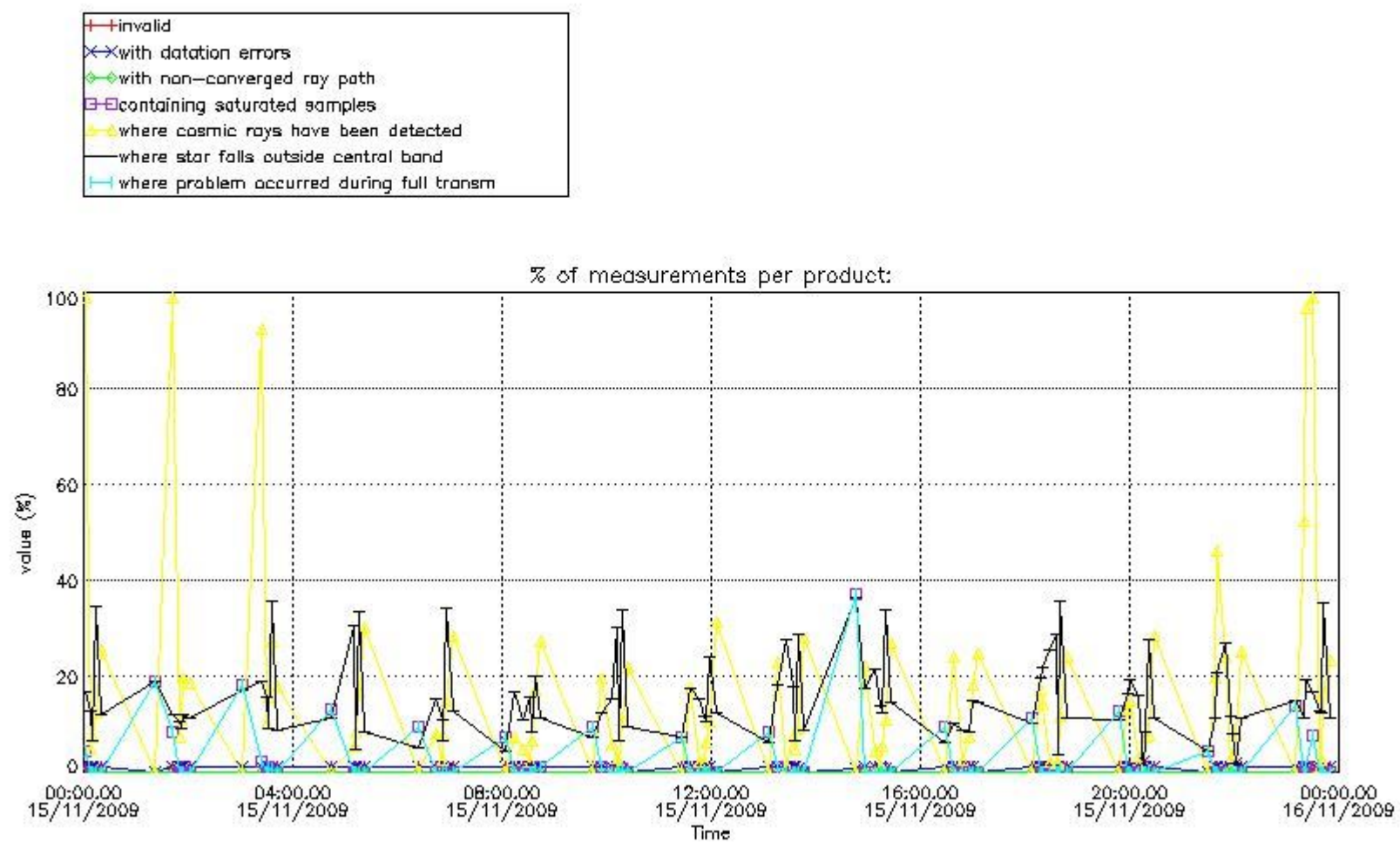


4. Level 1 quality information per product

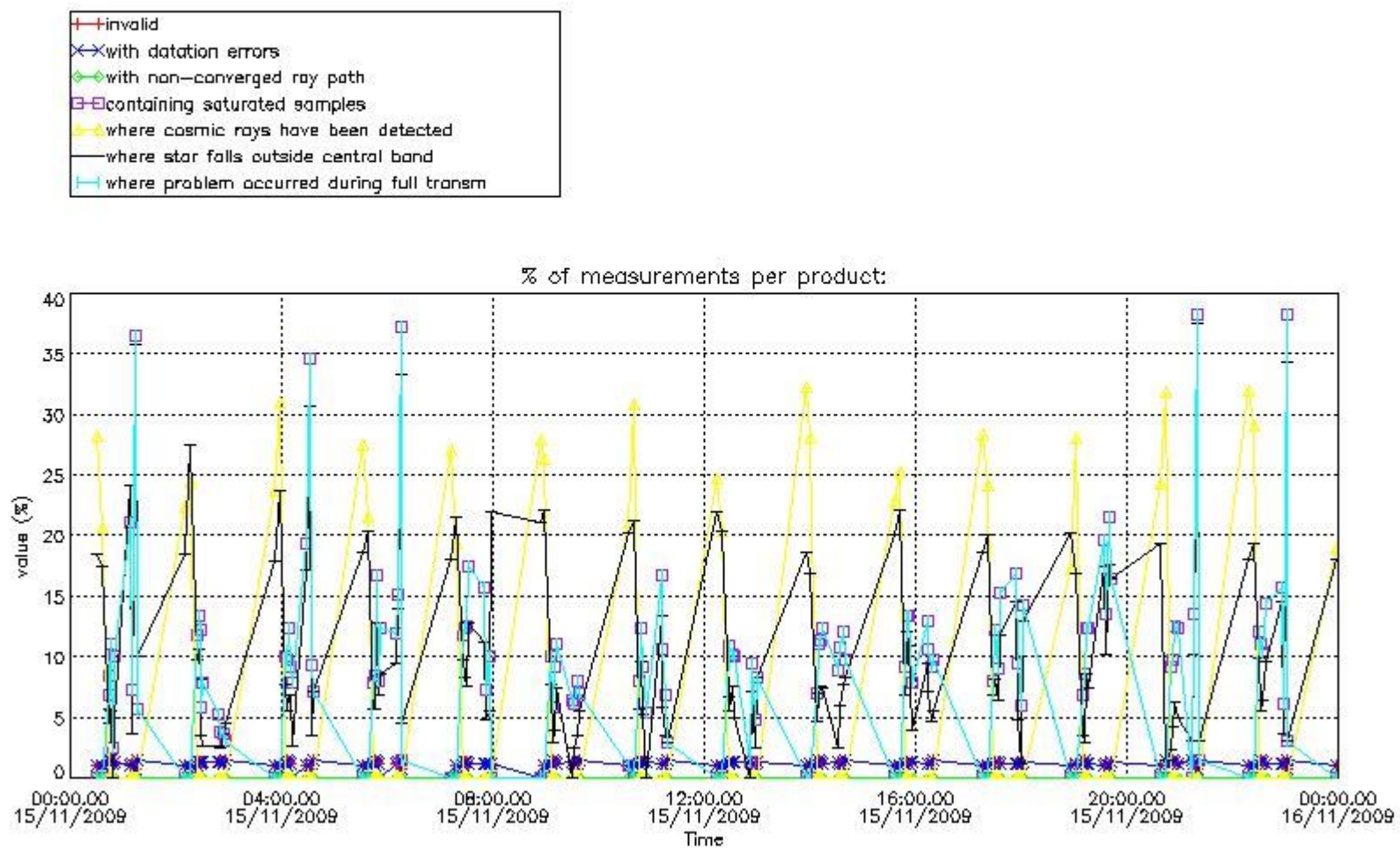
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



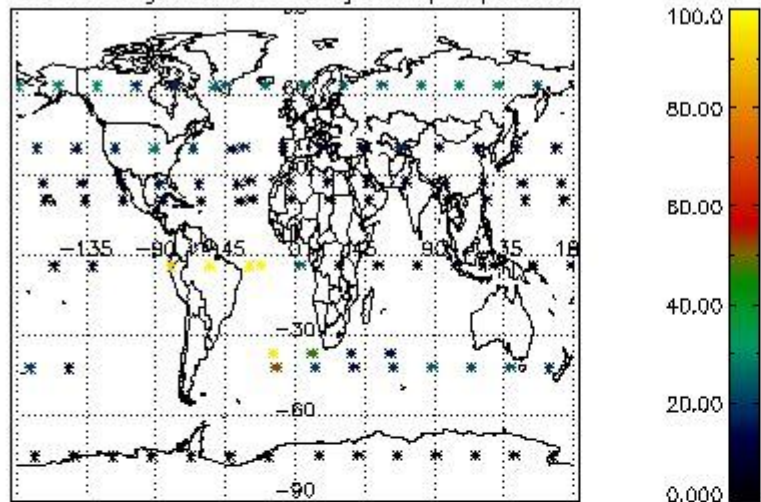
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



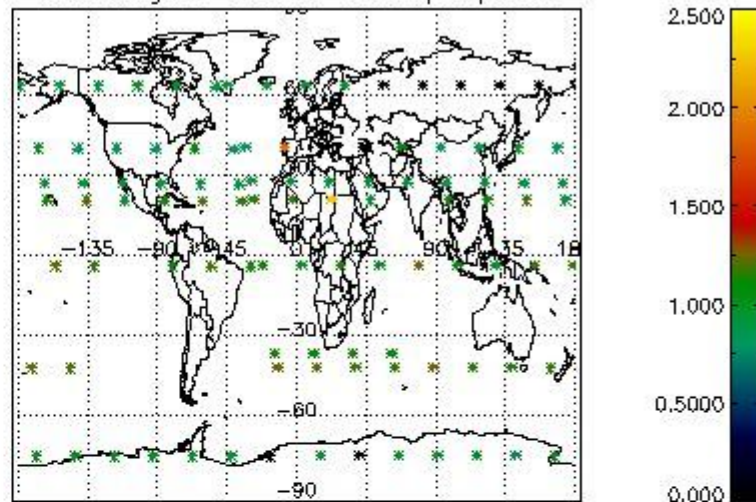
4.2 Plot quality information per product coming from level 1b processing (world map)

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

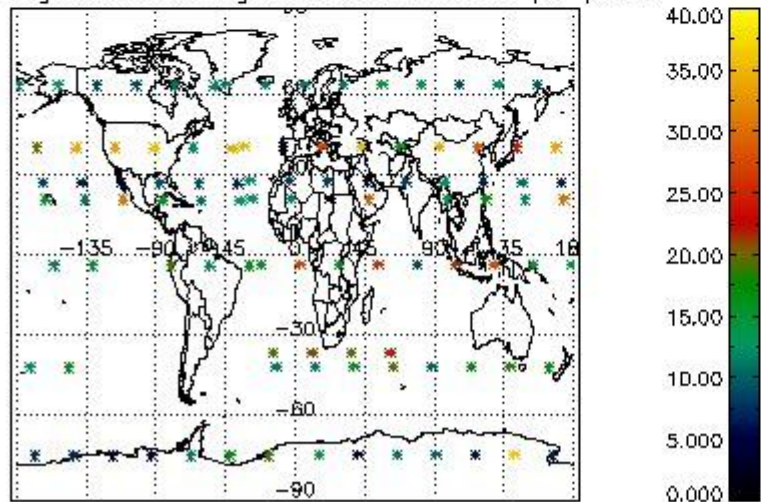
Percentage of cosmic ray hits per profile



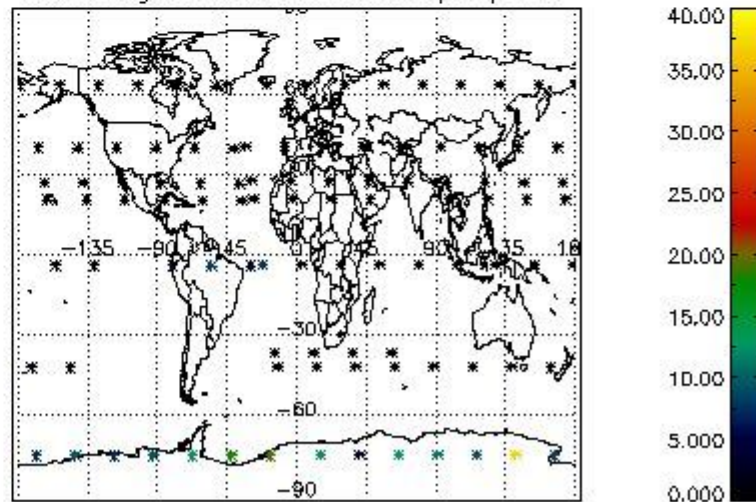
Percentage of datation errors per profile



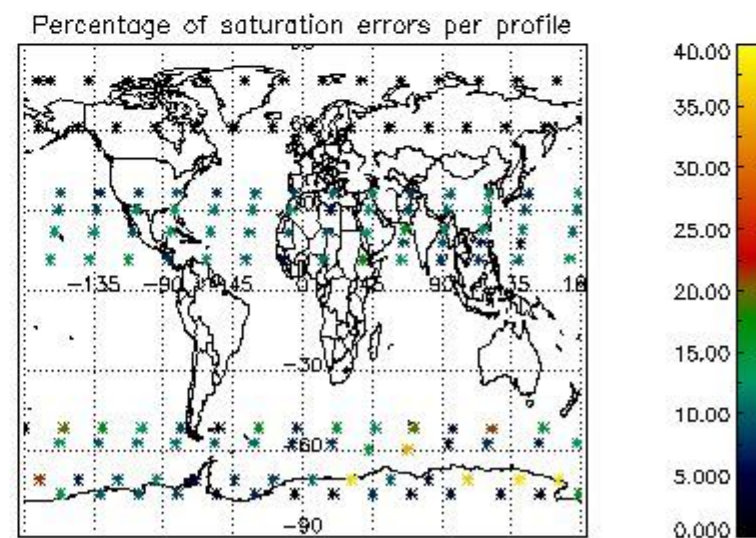
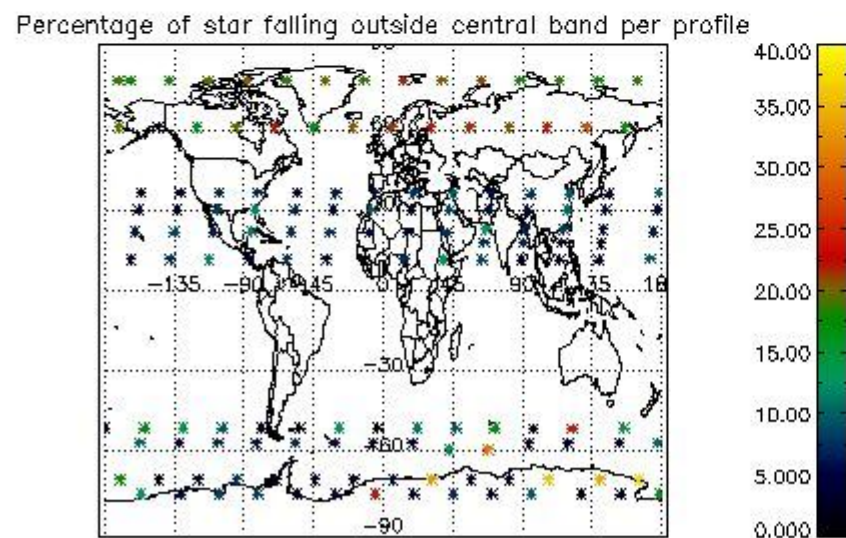
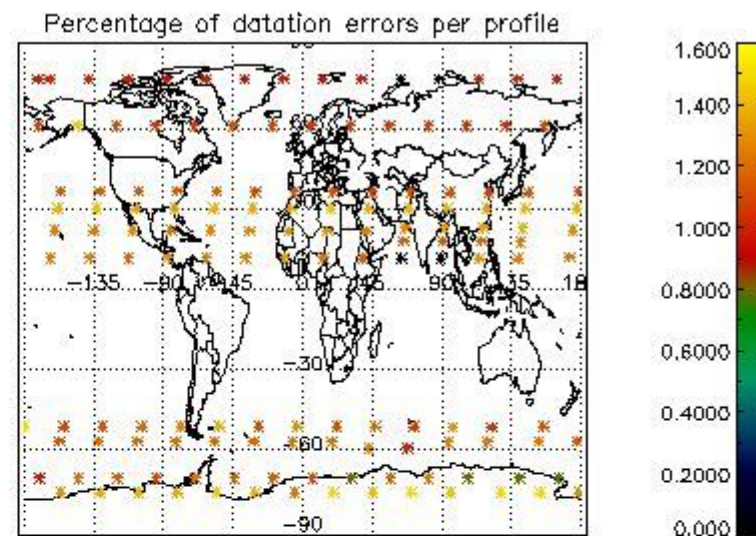
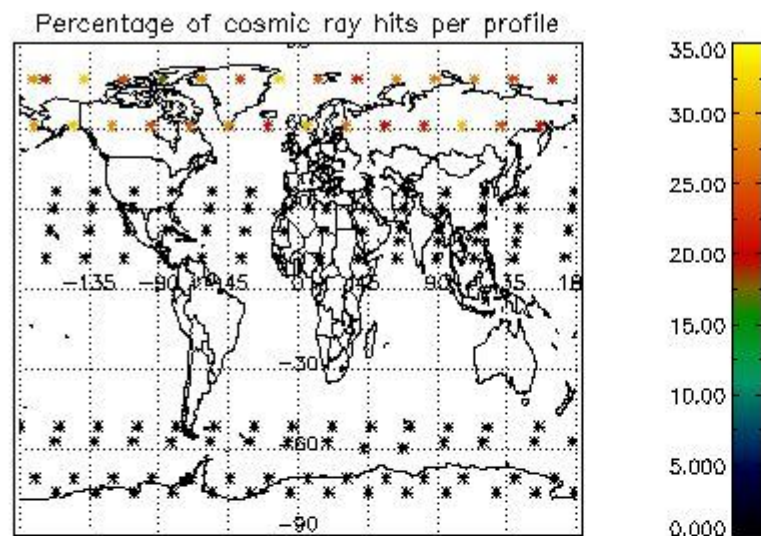
Percentage of star falling outside central band per profile



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

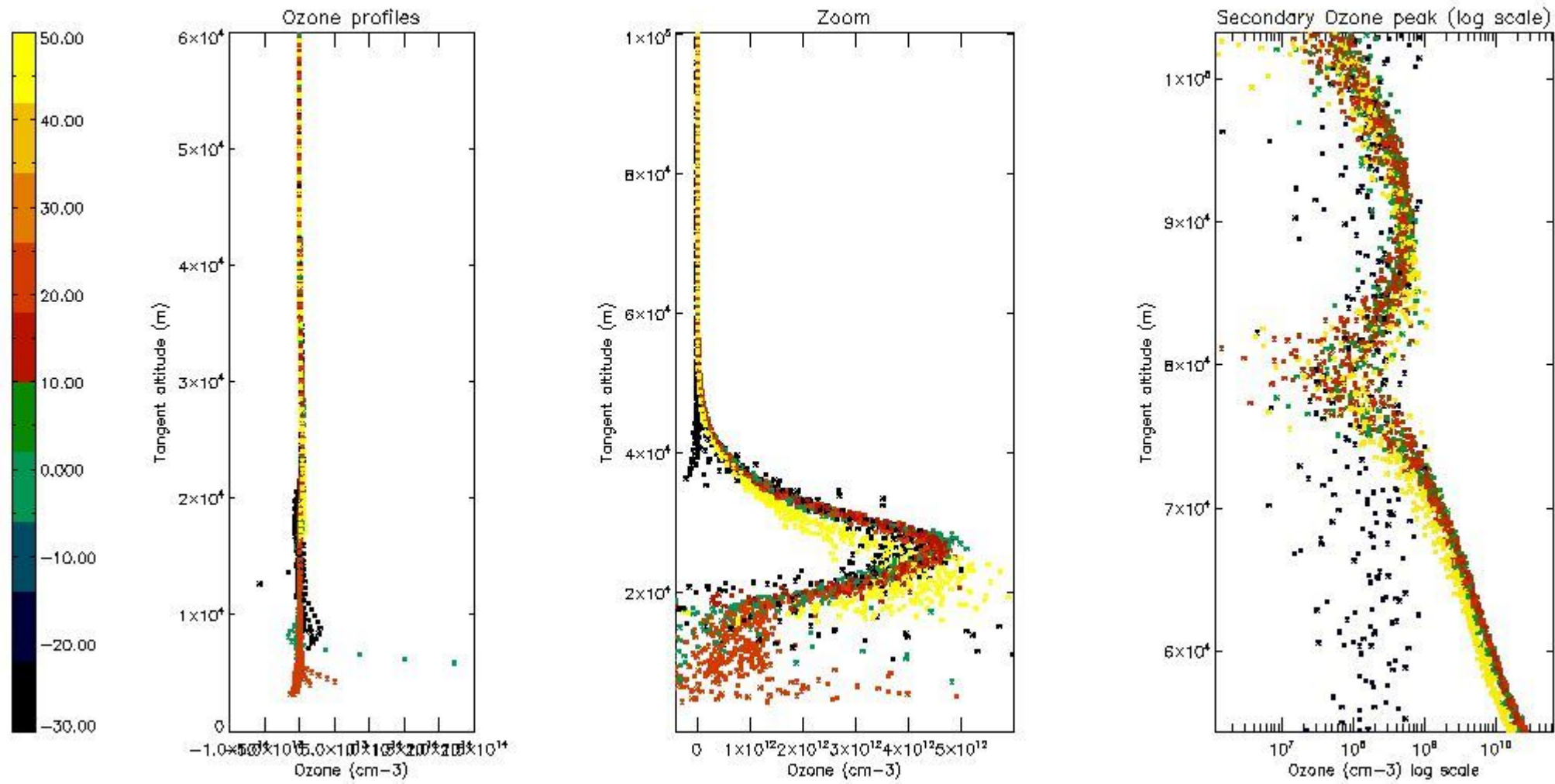
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	15
STD < 5	10

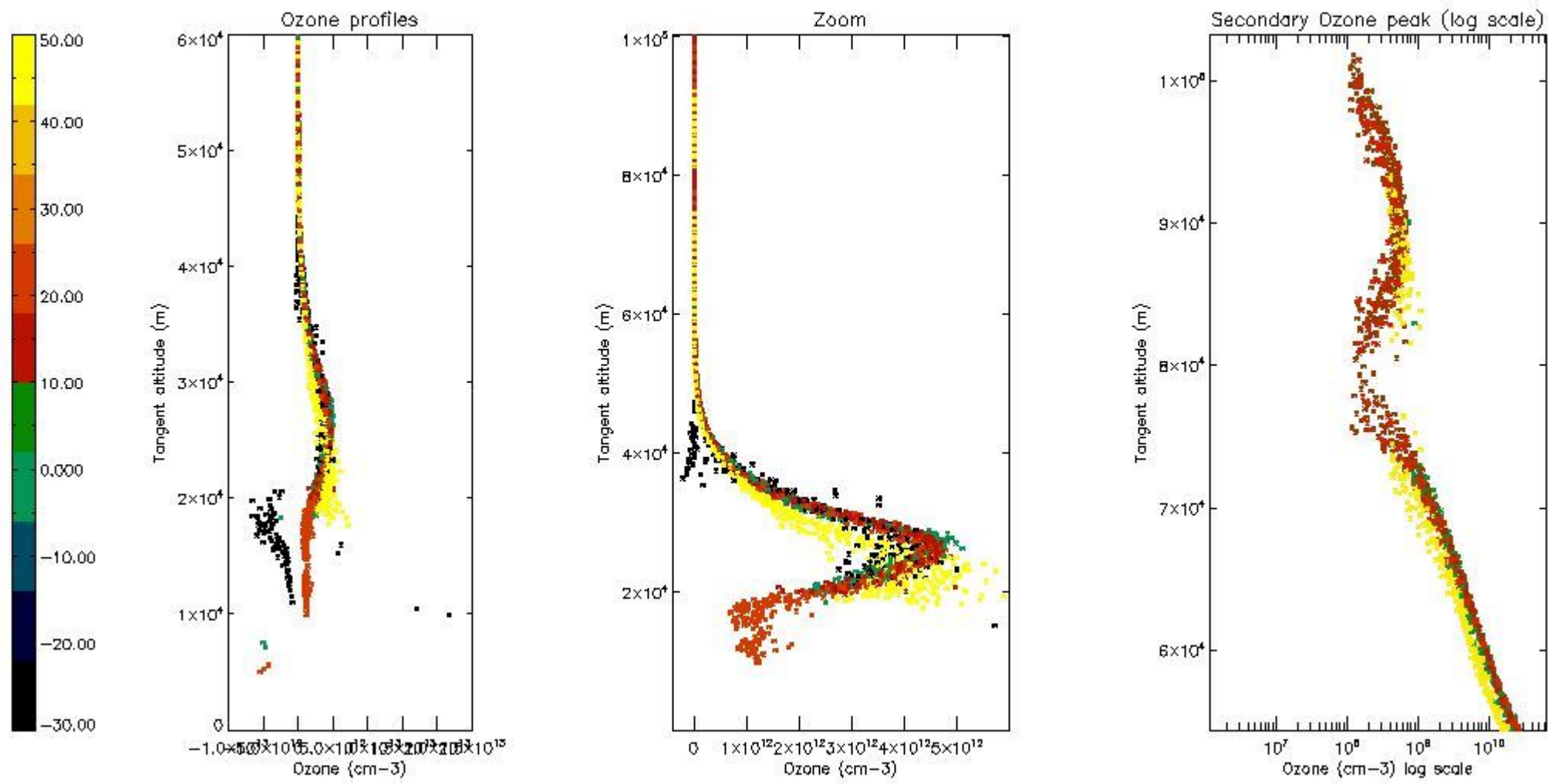
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



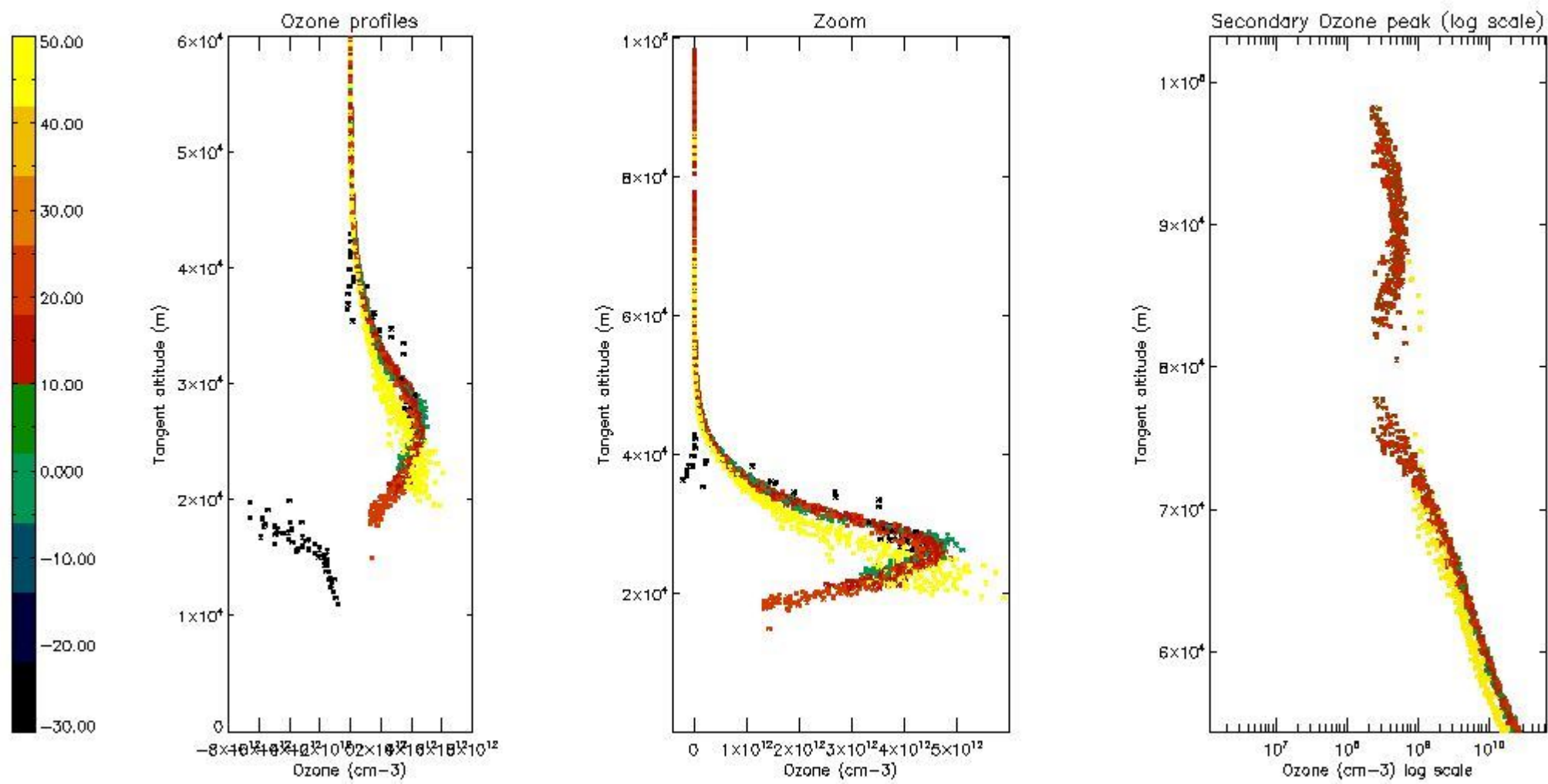
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



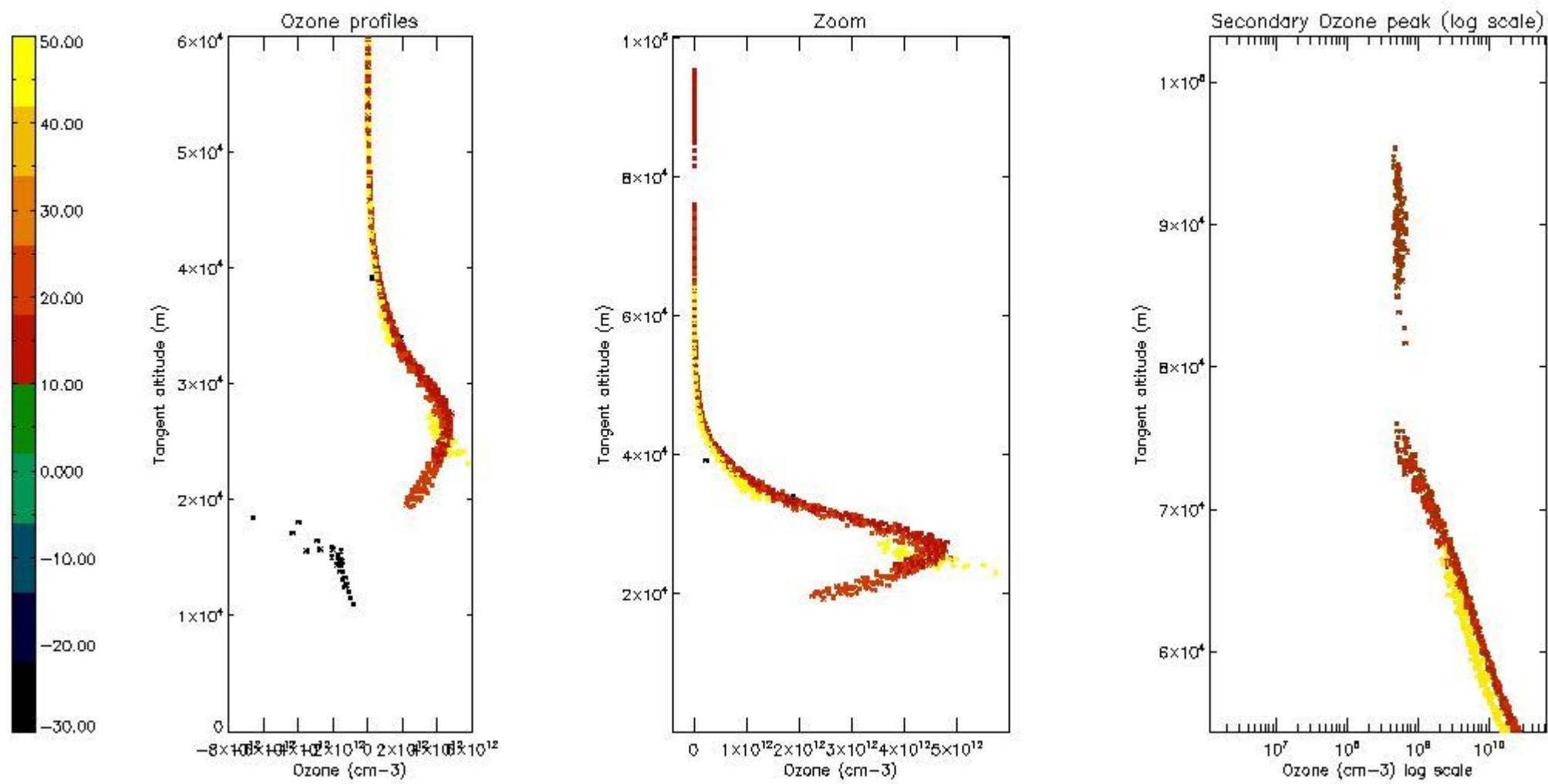
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



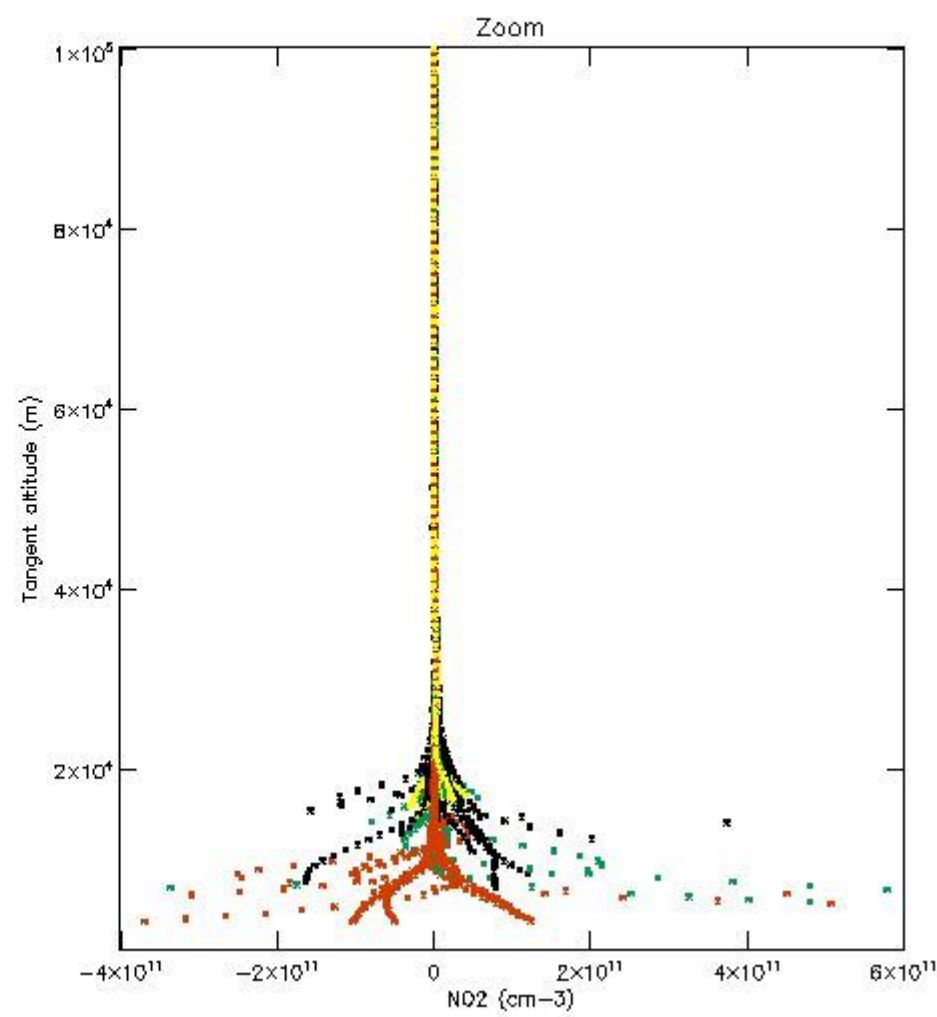
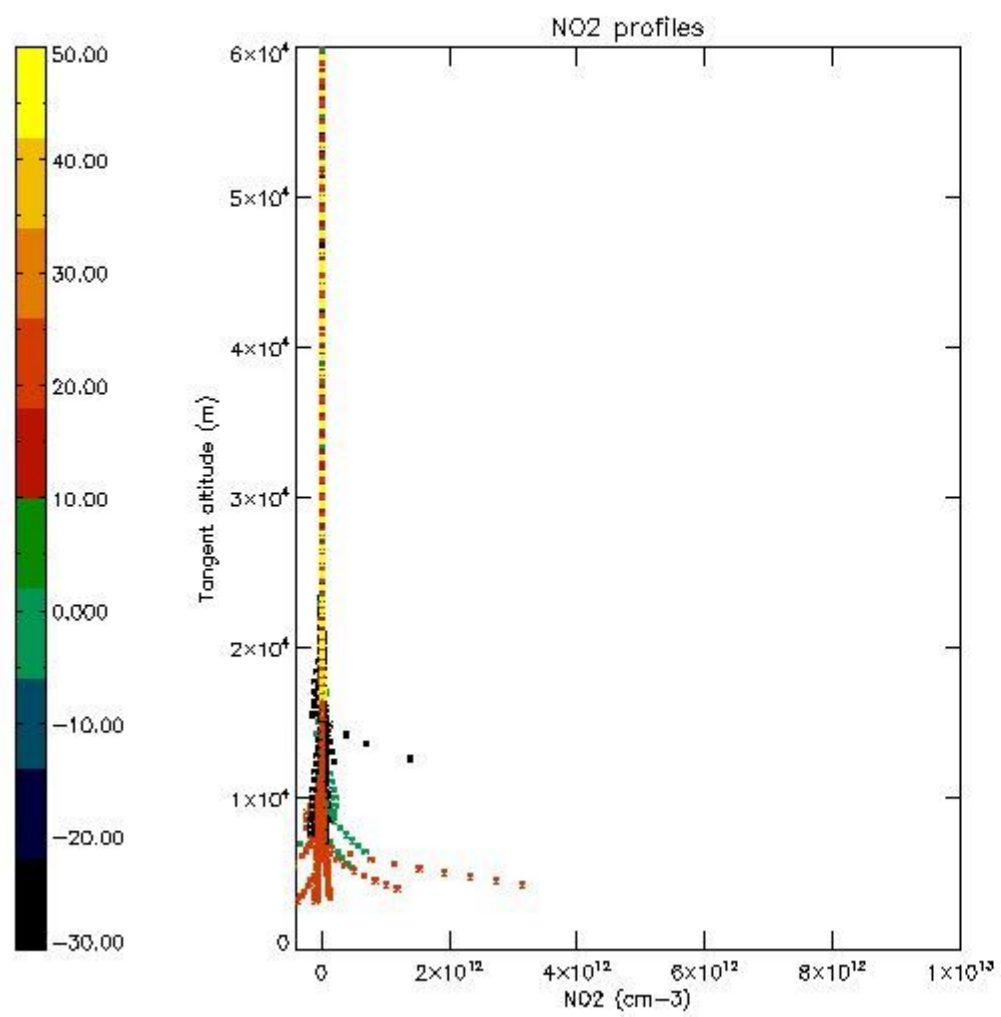
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



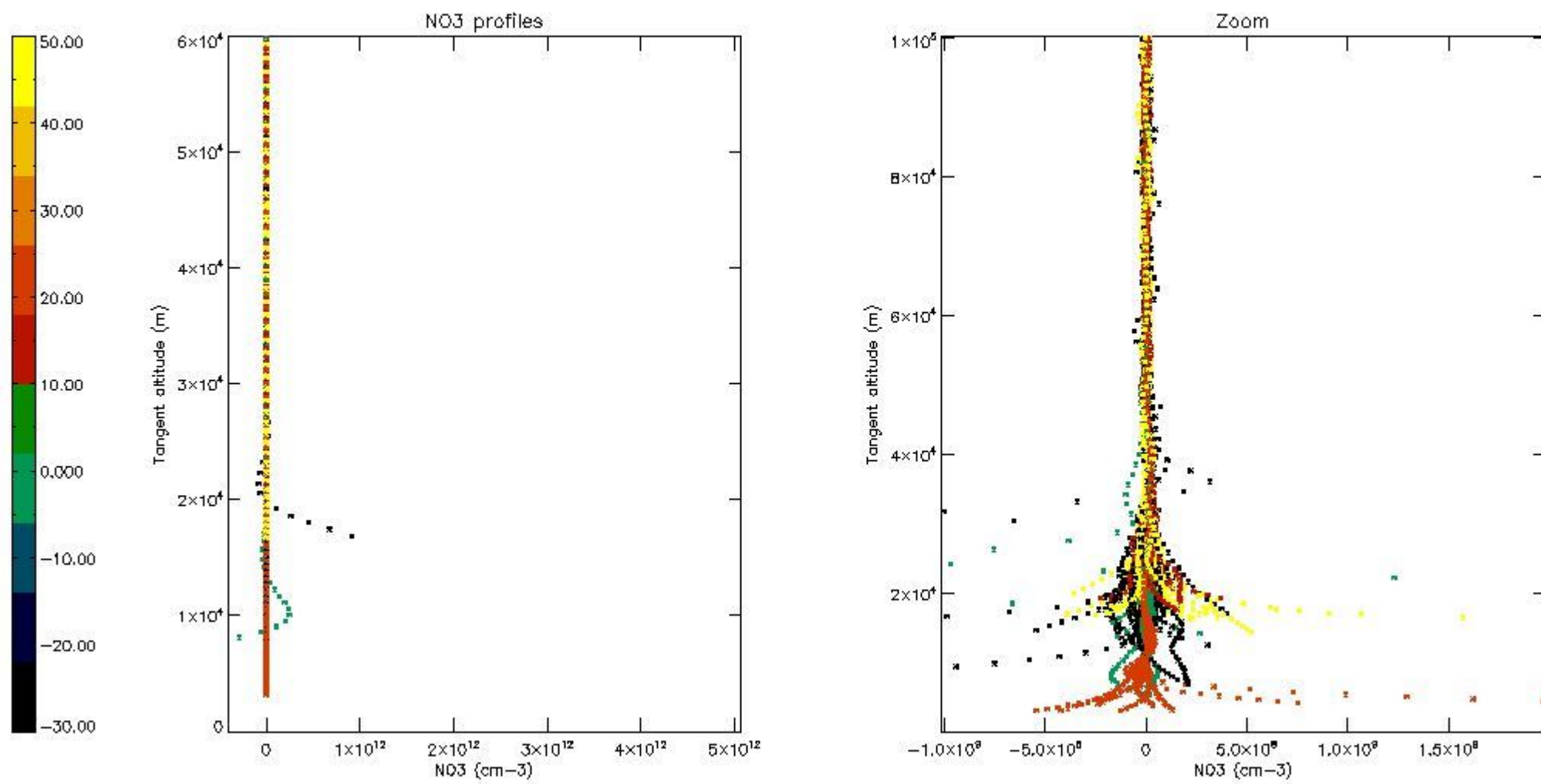
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



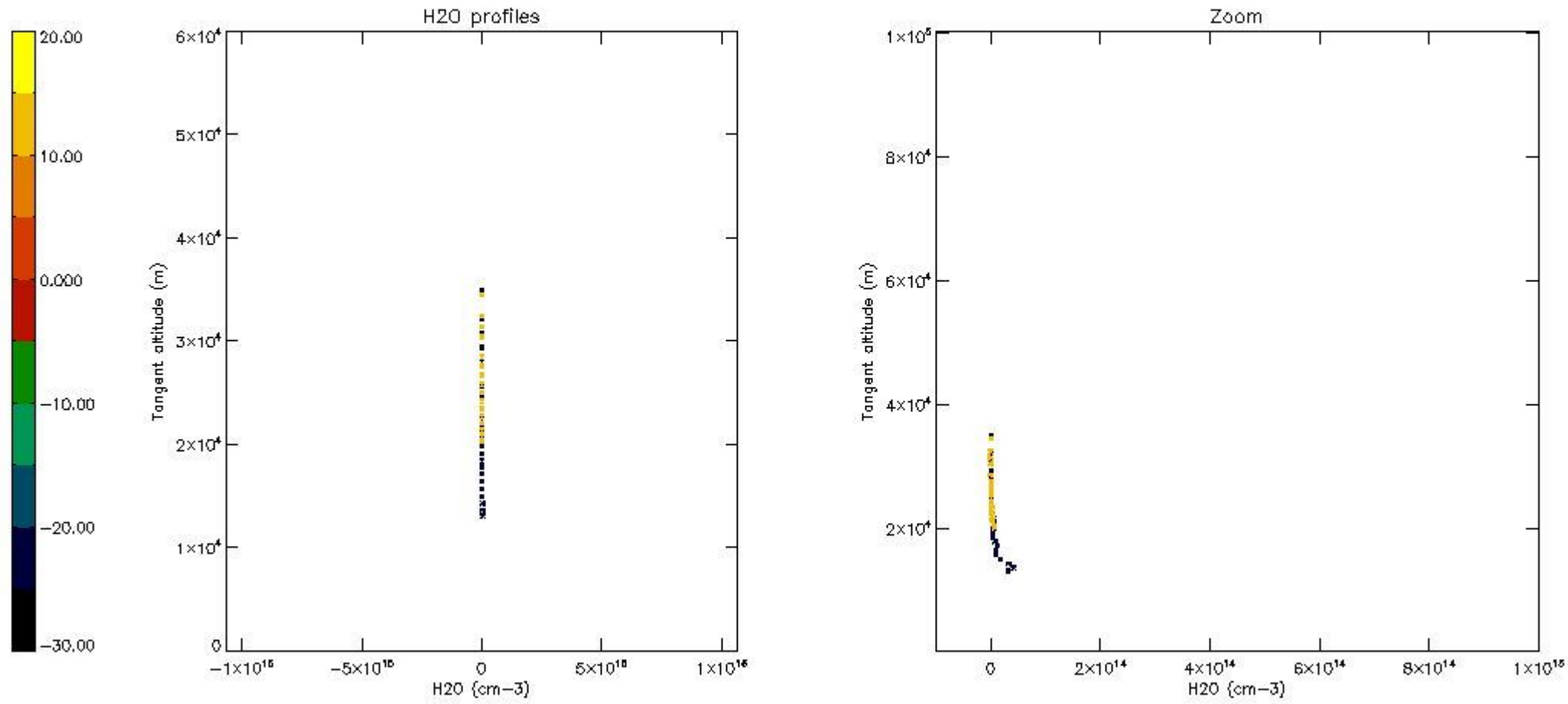
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

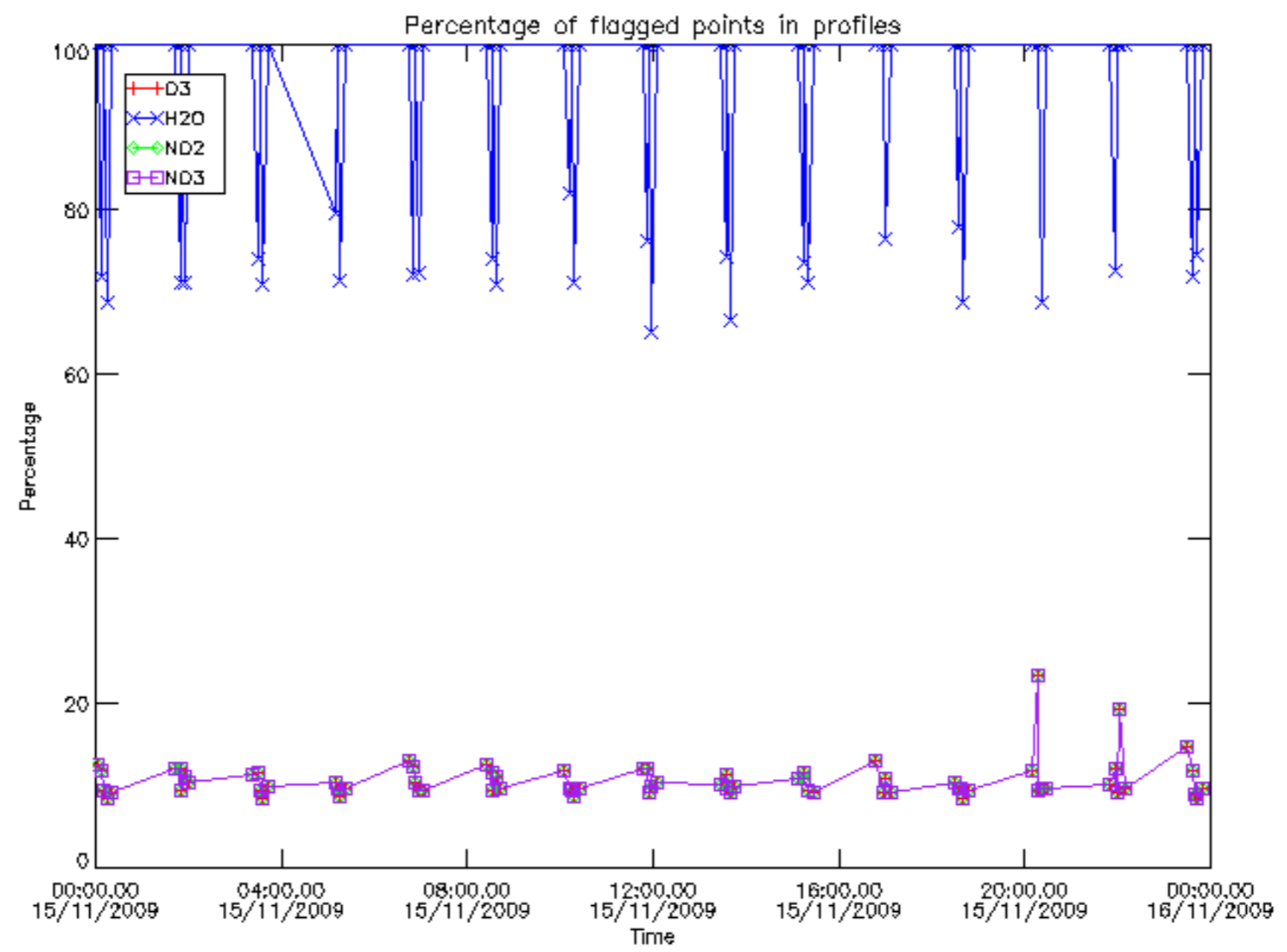
The colorbar represents the latitude.



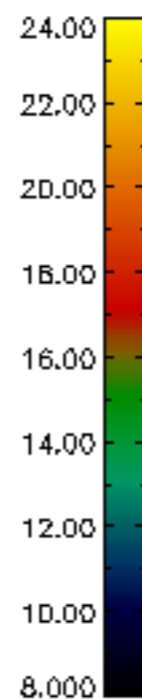
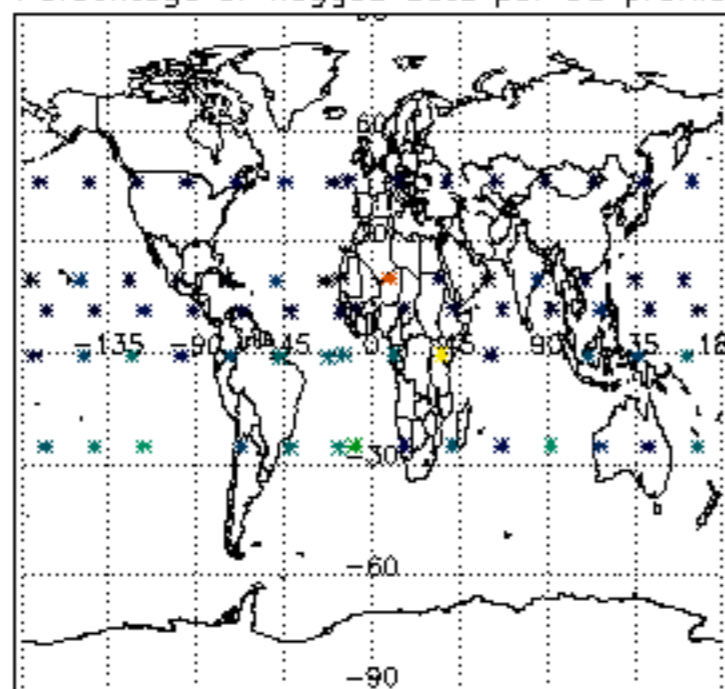
6. Auxiliary Data Files used for the production reported in section 2

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.

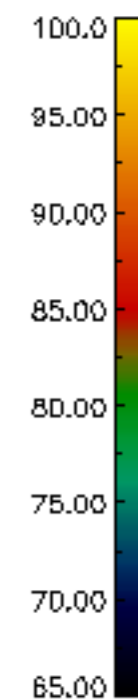
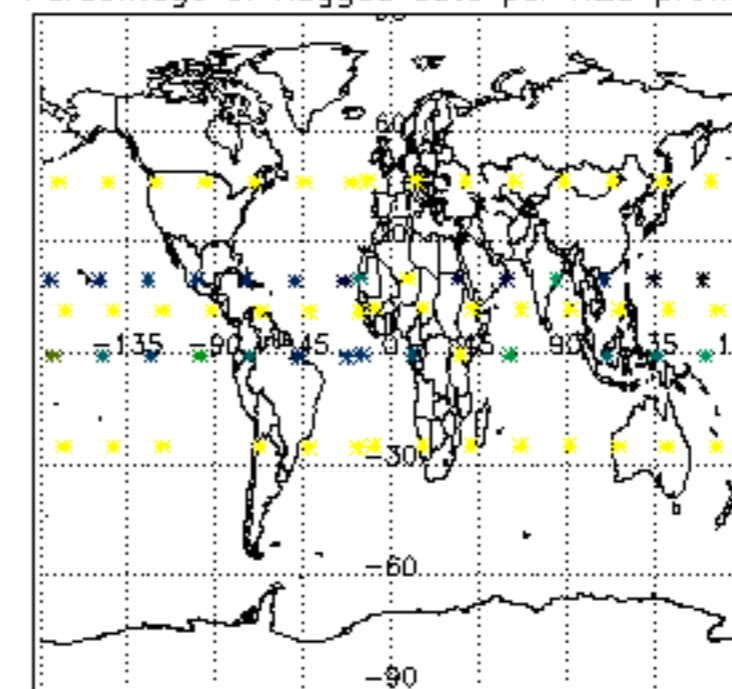
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-NOV-2009 00:01:49
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-NOV-2009 00:01:49
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-NOV-2009 00:01:49



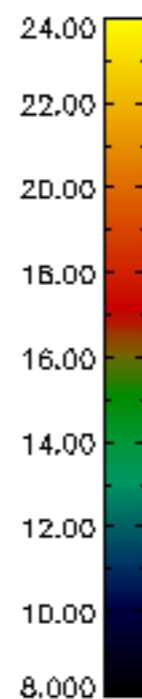
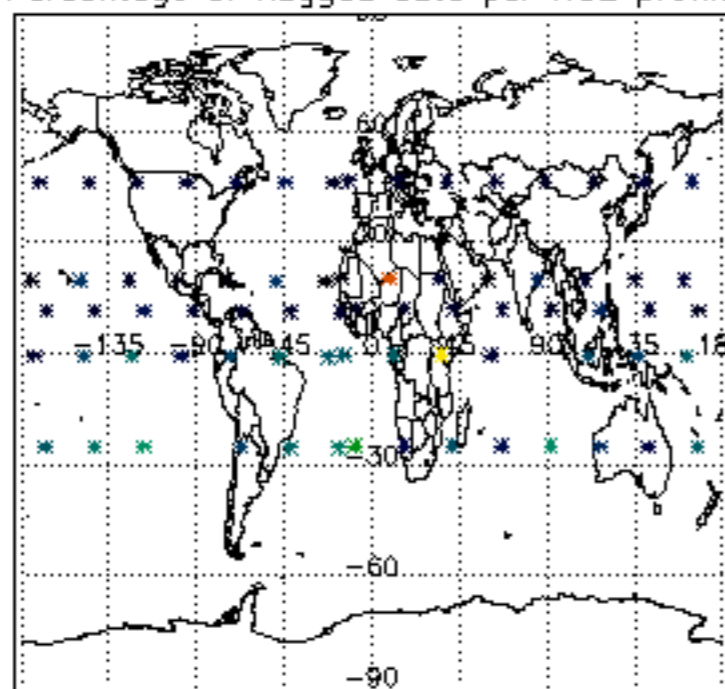
Percentage of flagged data per D3 profile



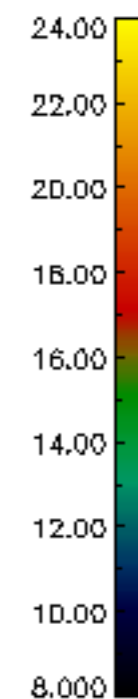
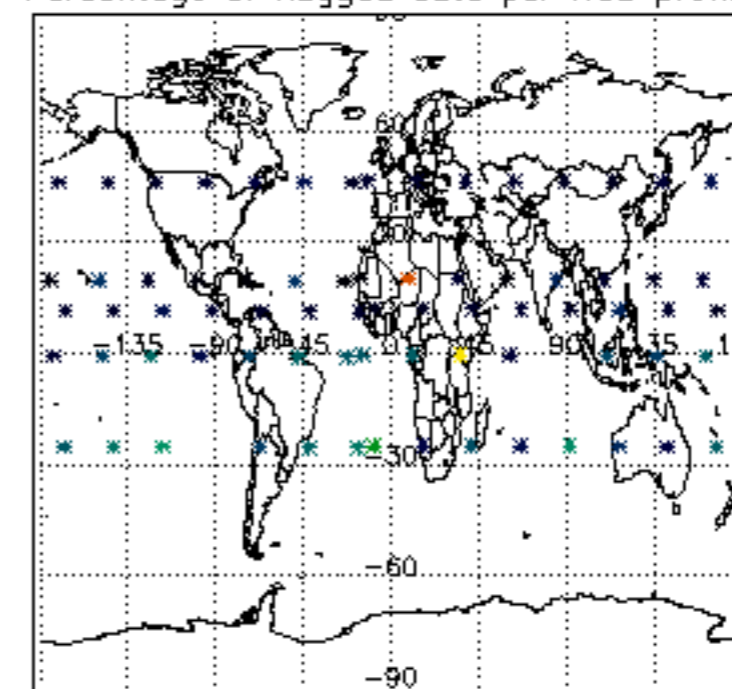
Percentage of flagged data per H2O profile

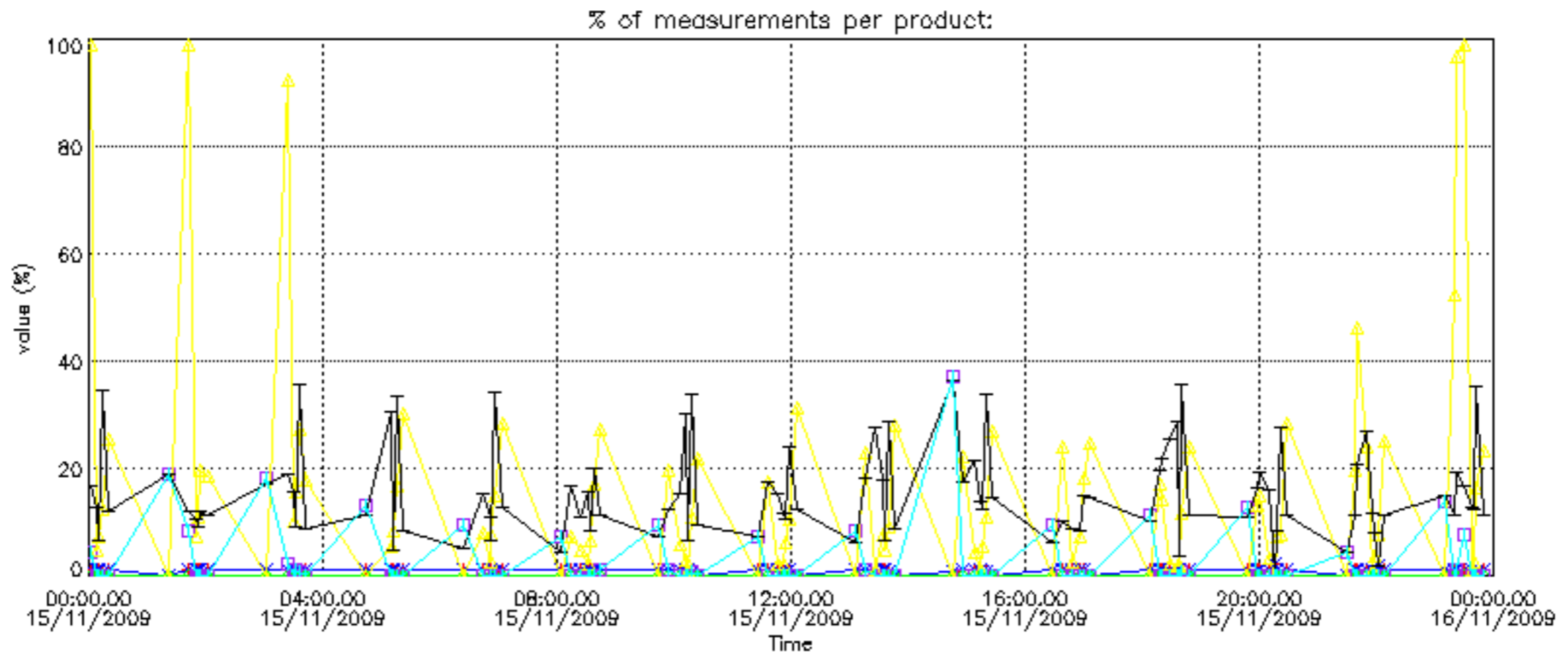


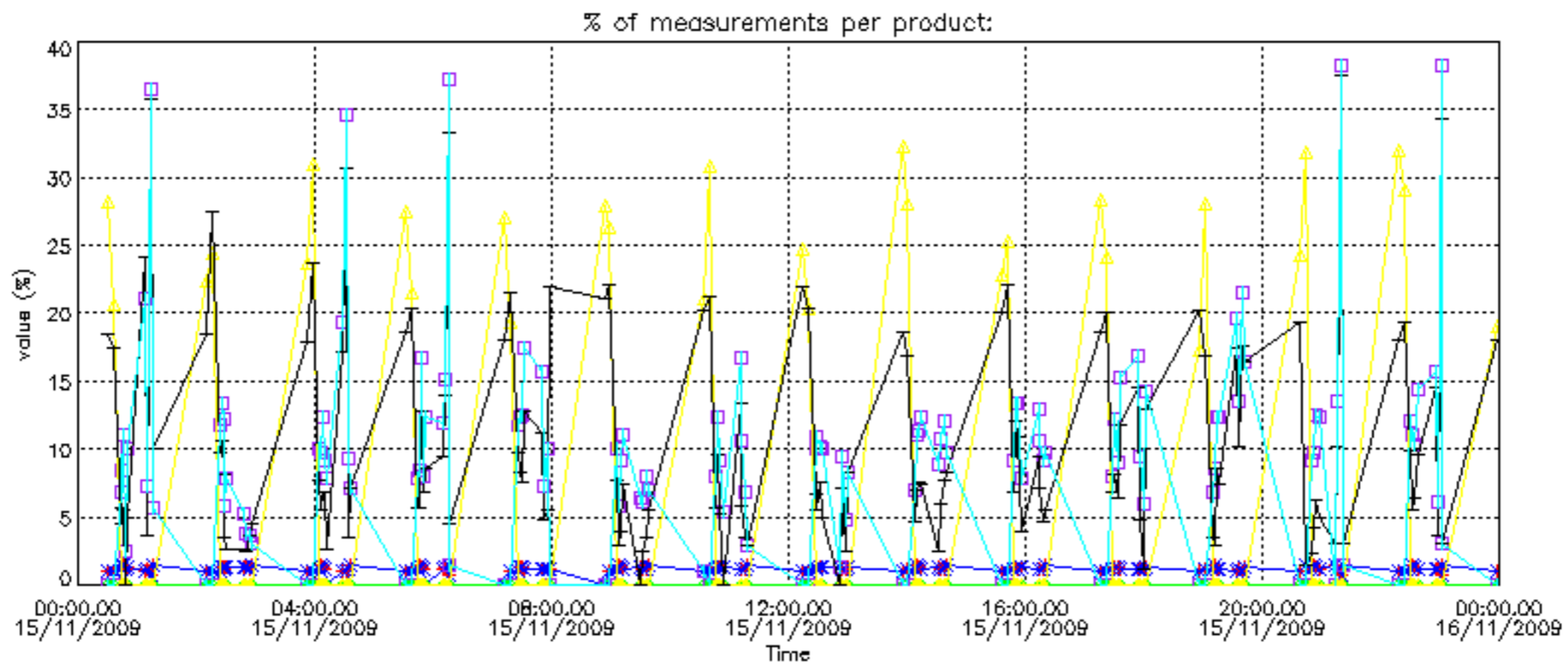
Percentage of flagged data per NO2 profile



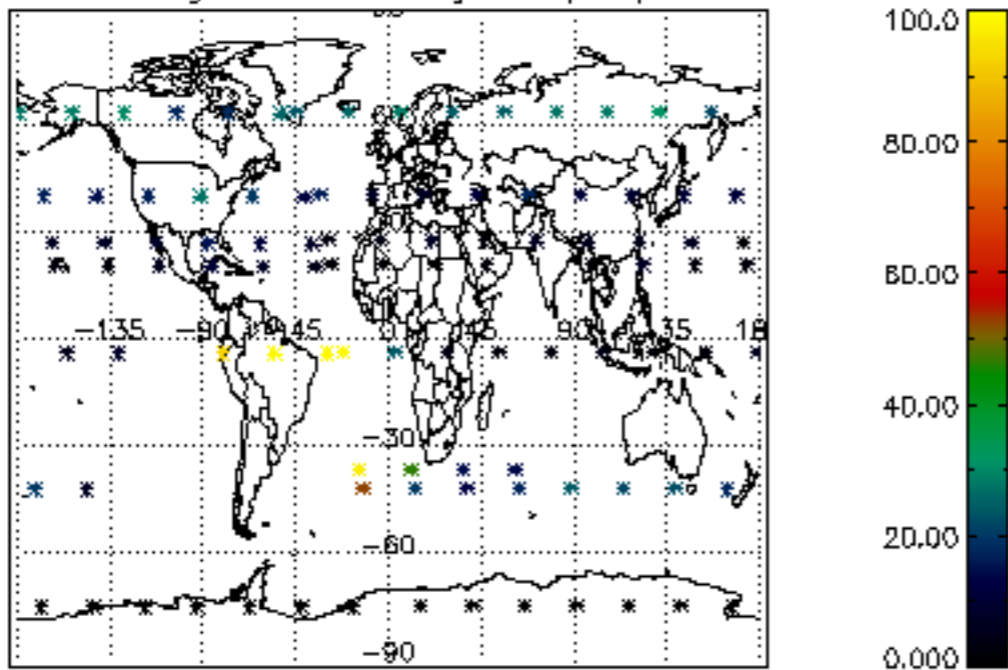
Percentage of flagged data per NO3 profile



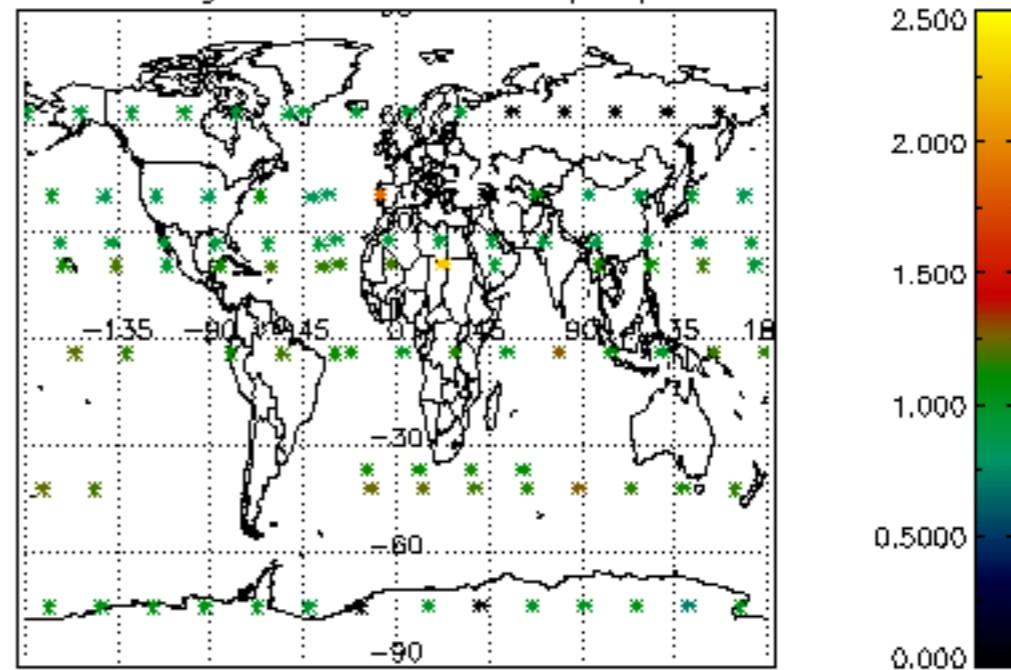




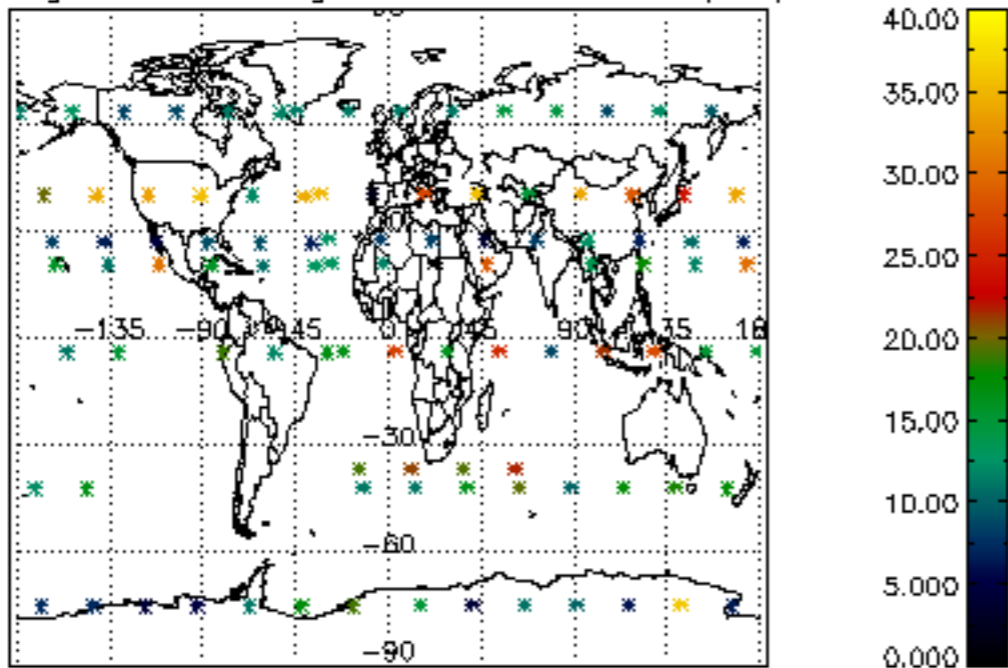
Percentage of cosmic ray hits per profile



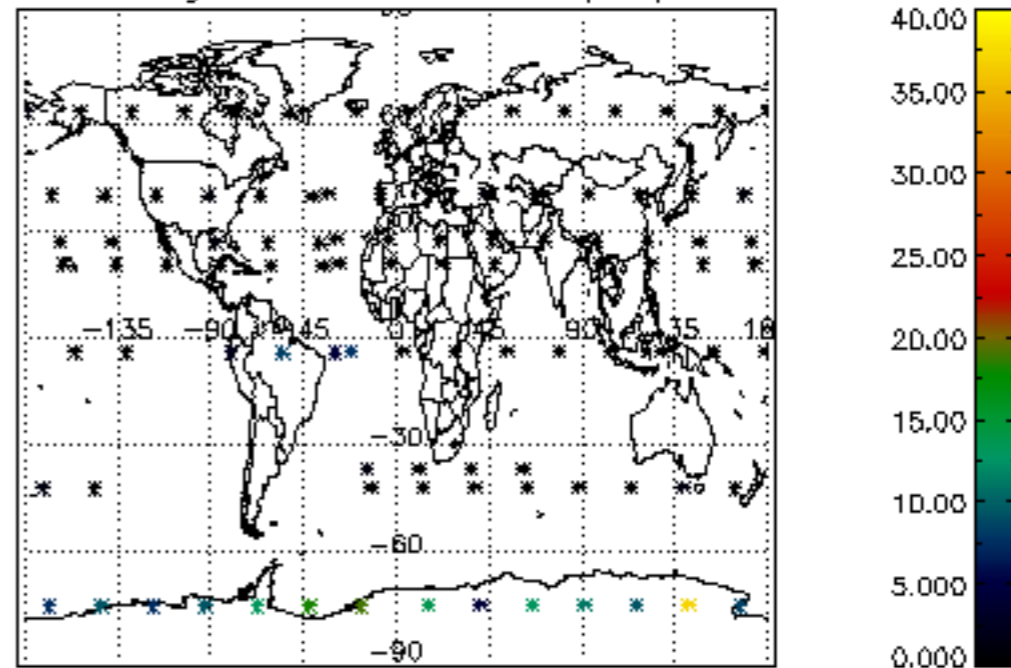
Percentage of datation errors per profile



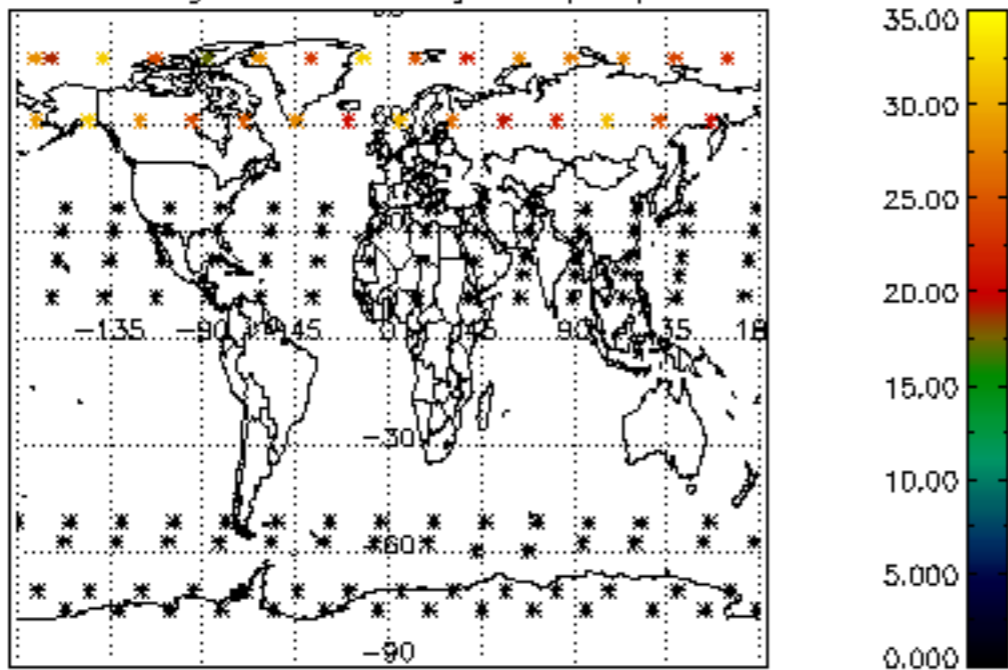
Percentage of star falling outside central band per profile



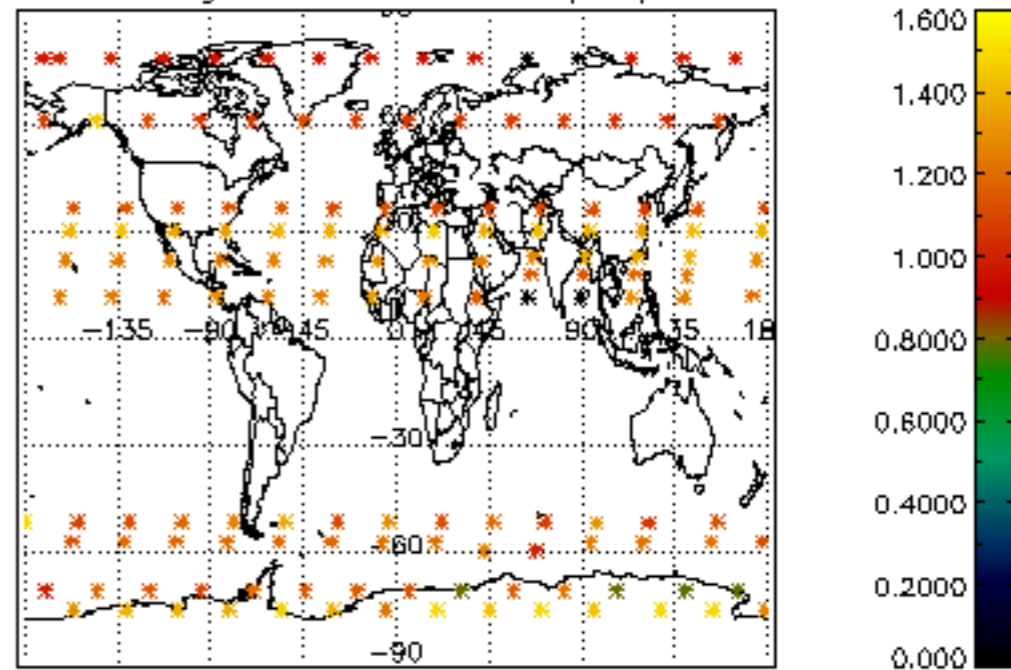
Percentage of saturation errors per profile



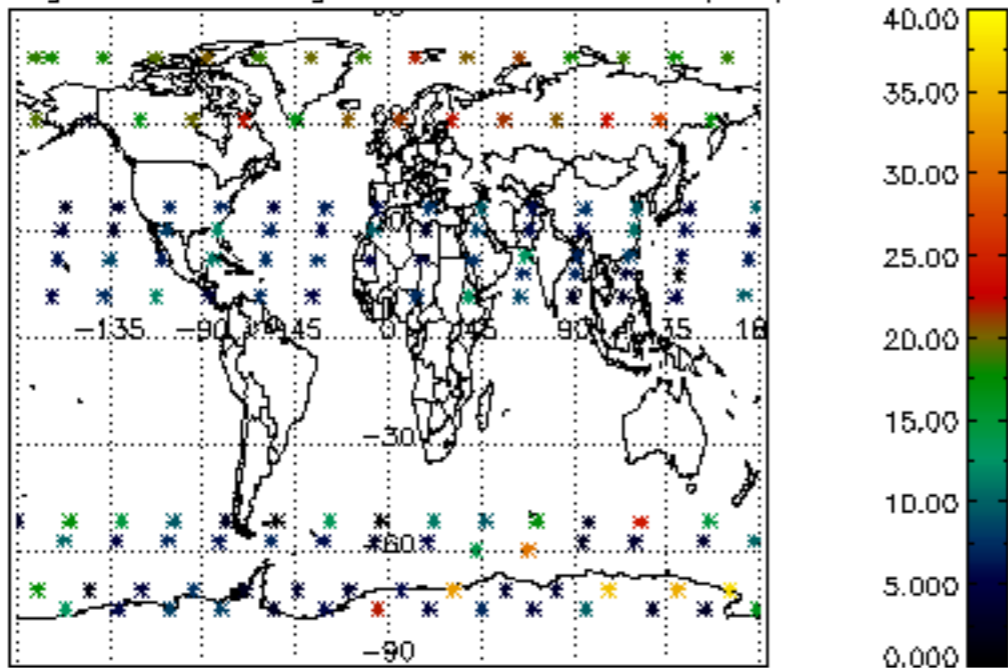
Percentage of cosmic ray hits per profile



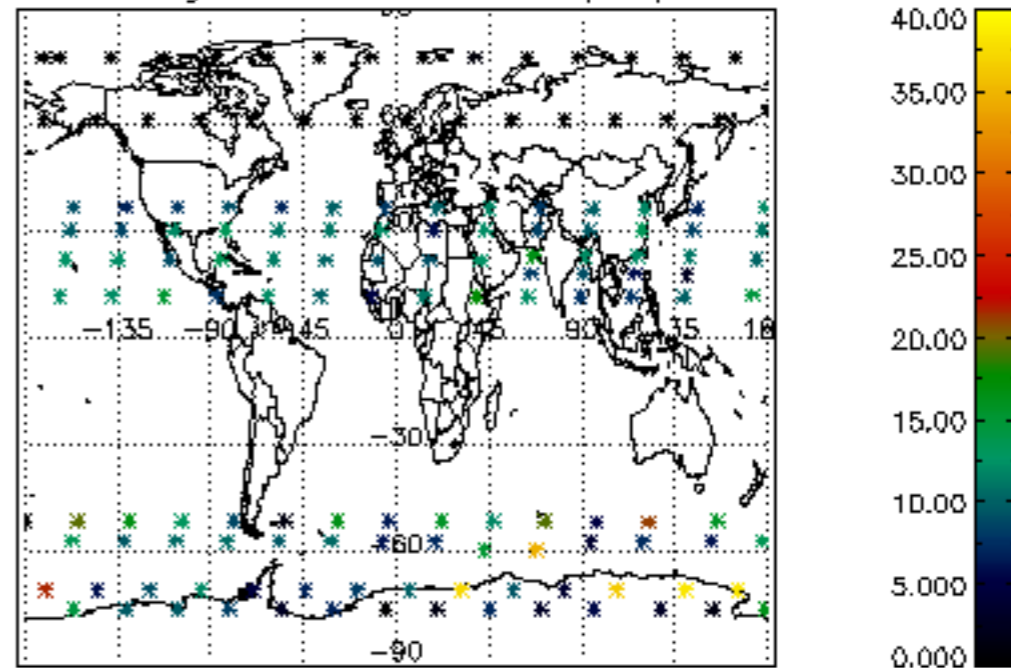
Percentage of datation errors per profile

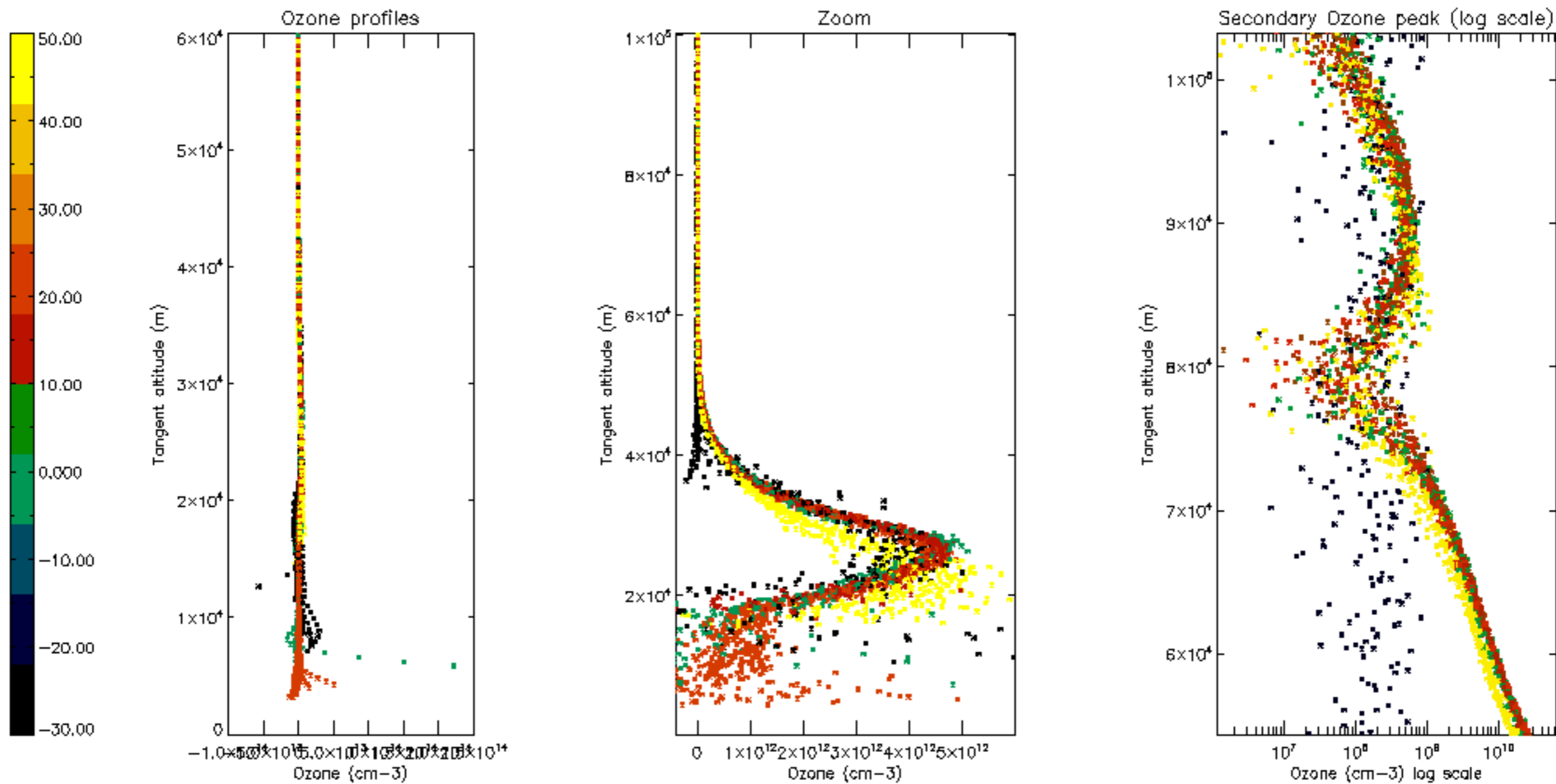


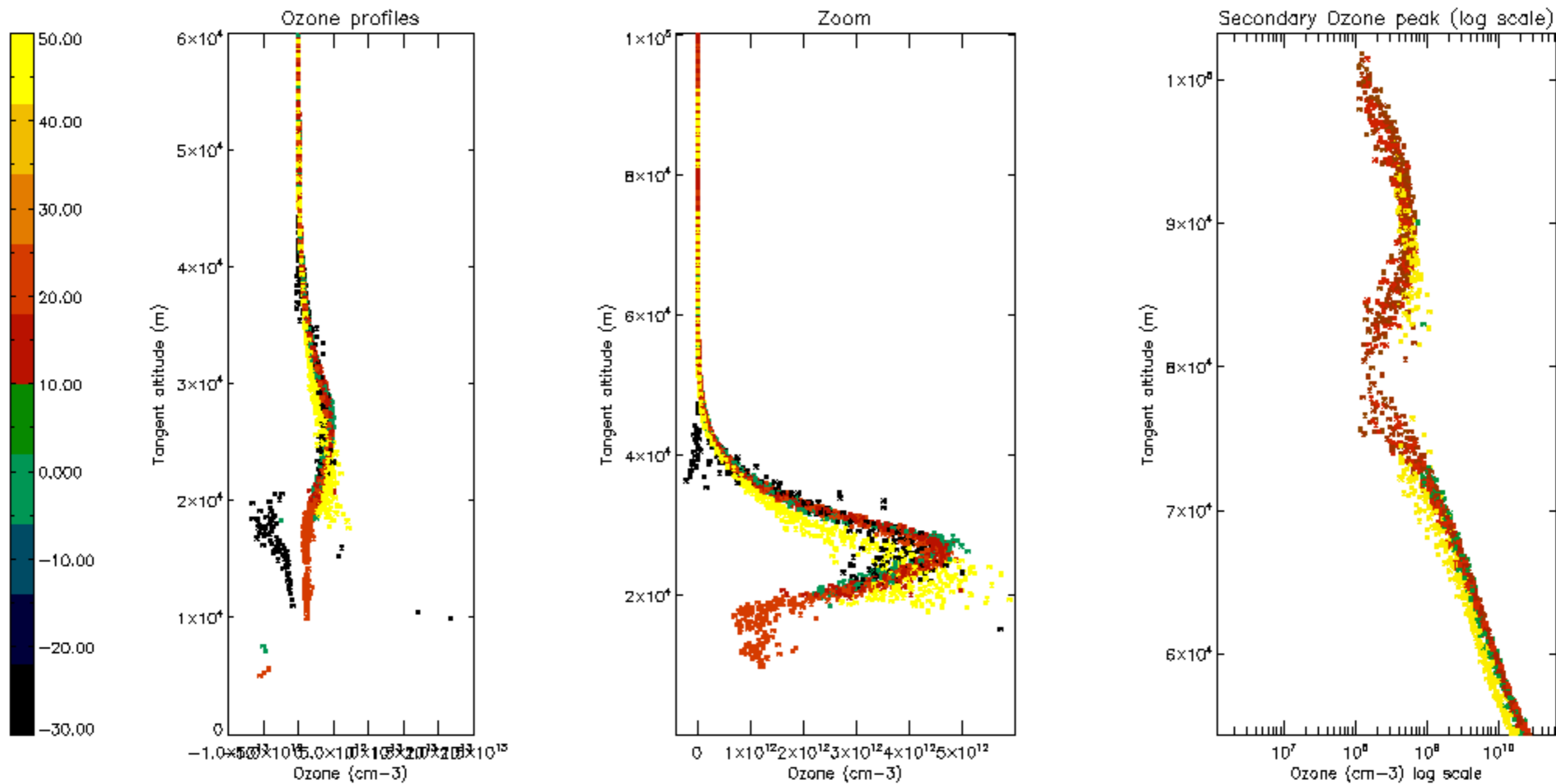
Percentage of star falling outside central band per profile

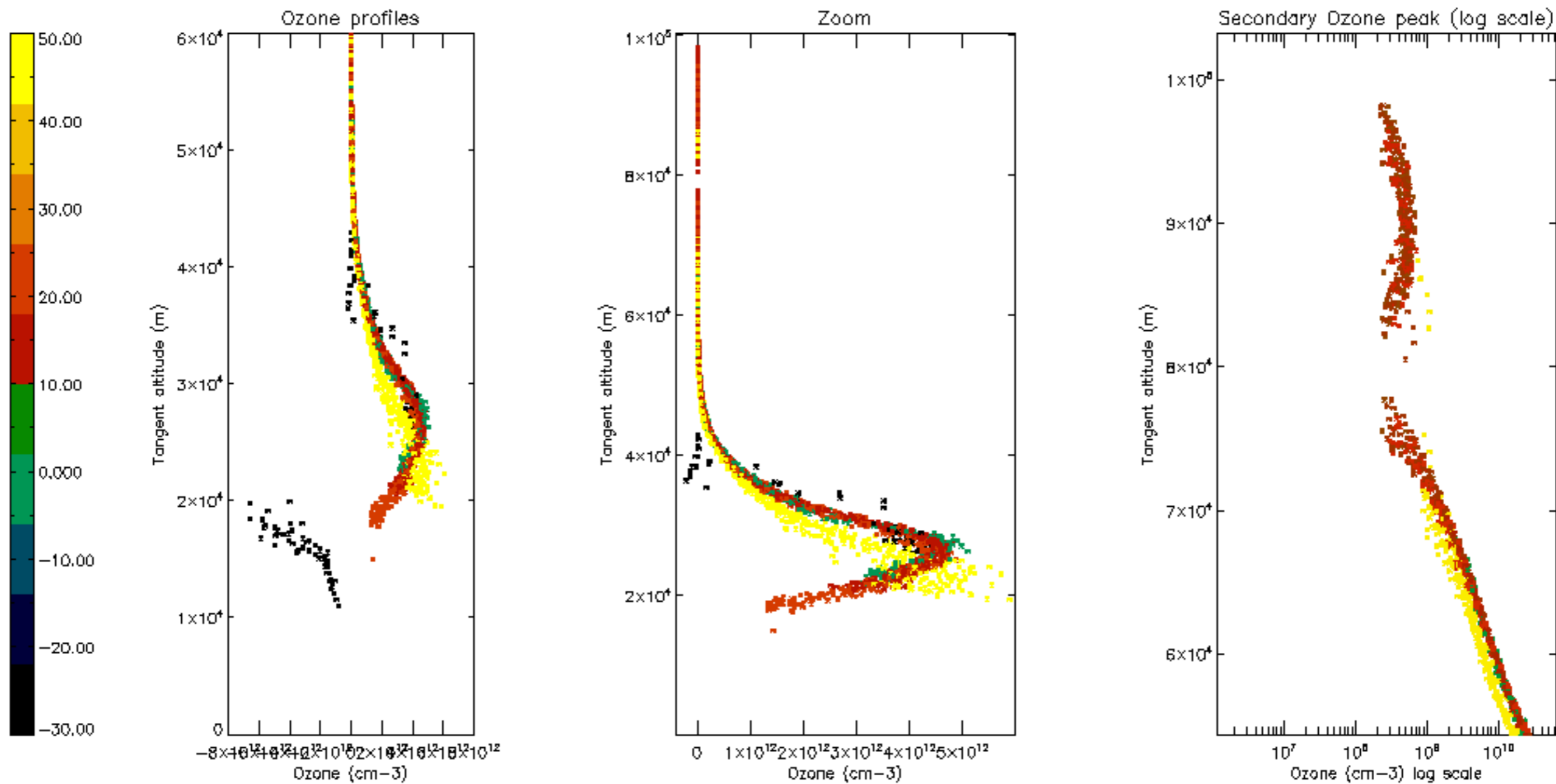


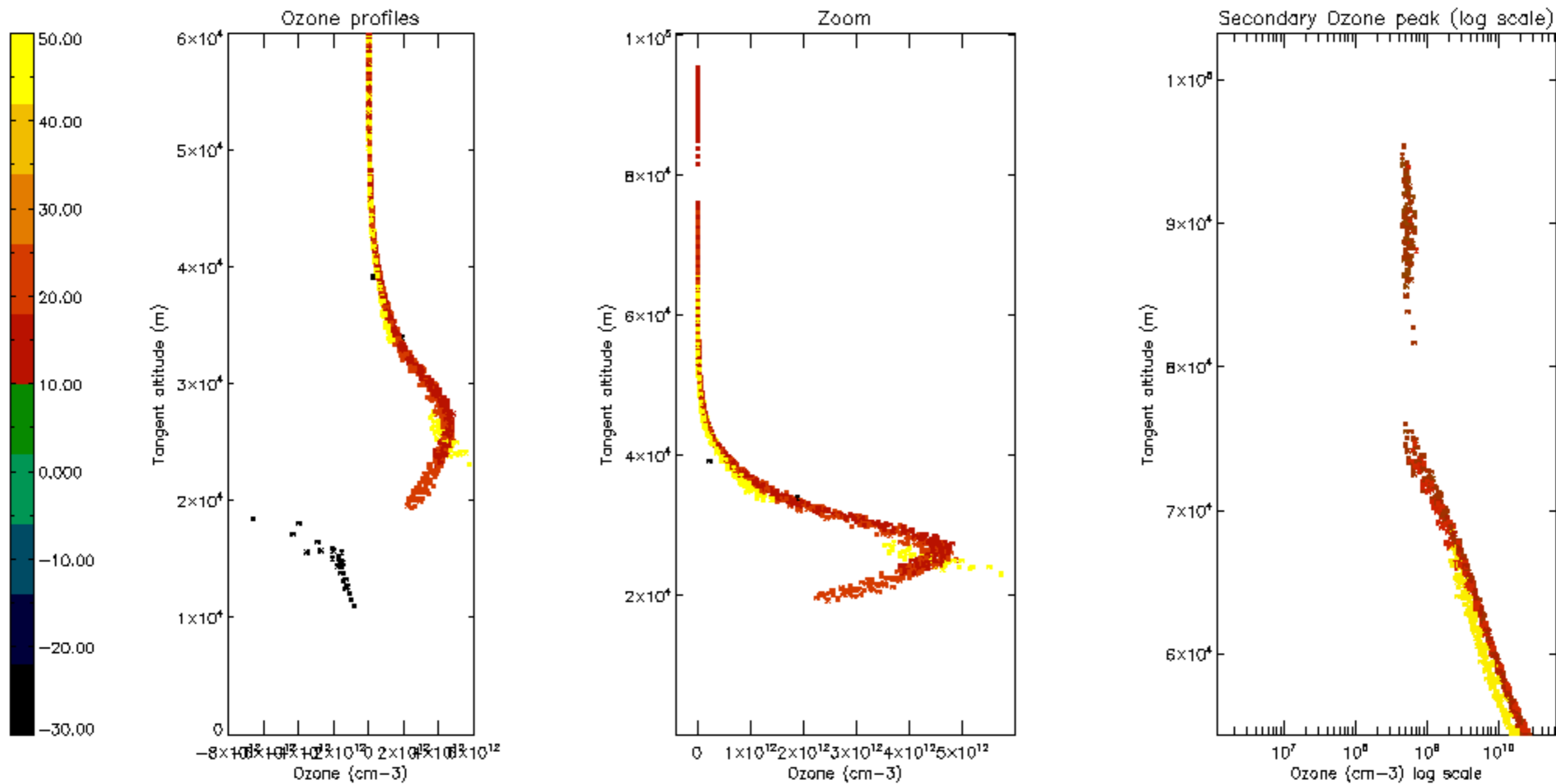
Percentage of saturation errors per profile

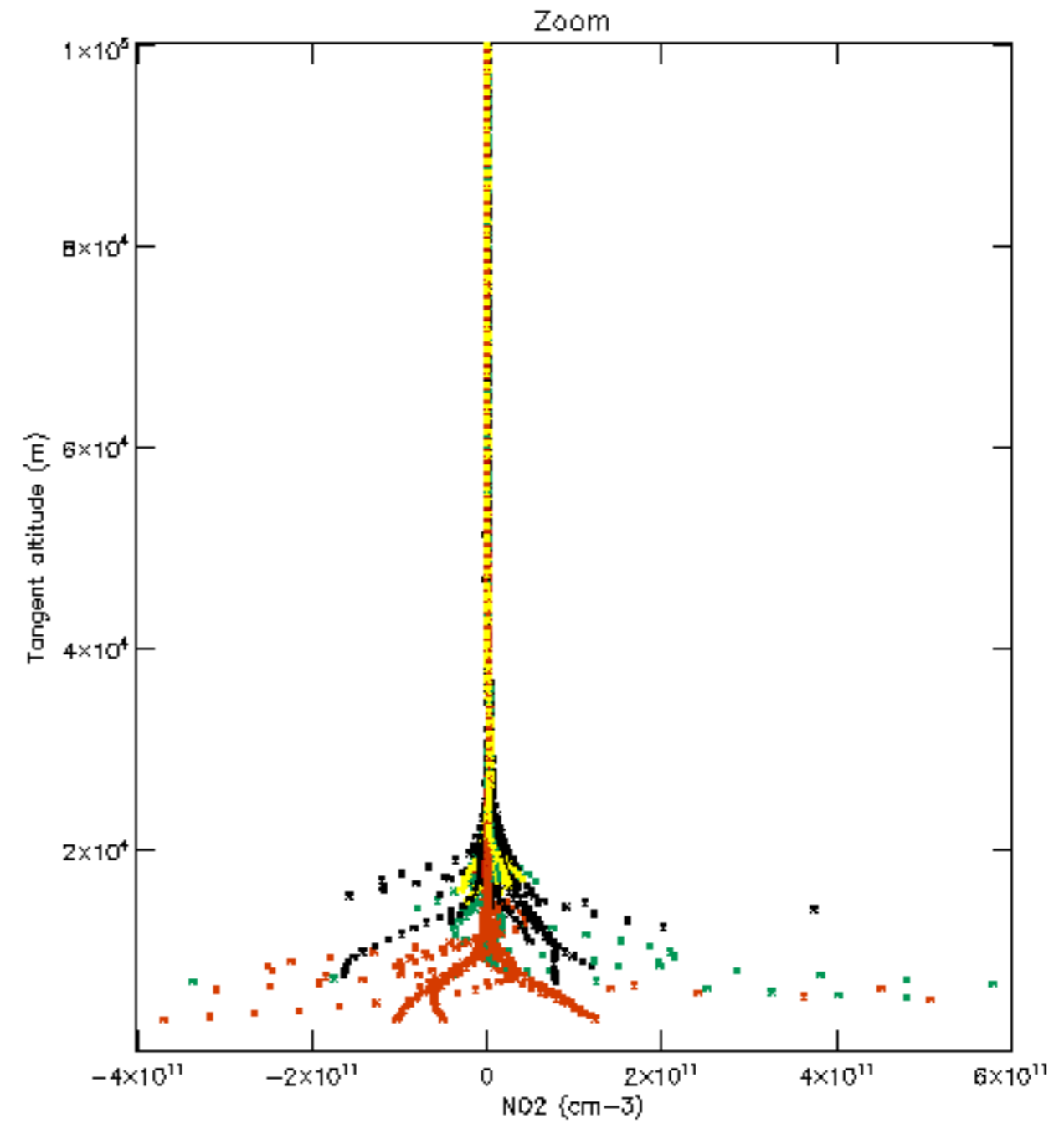
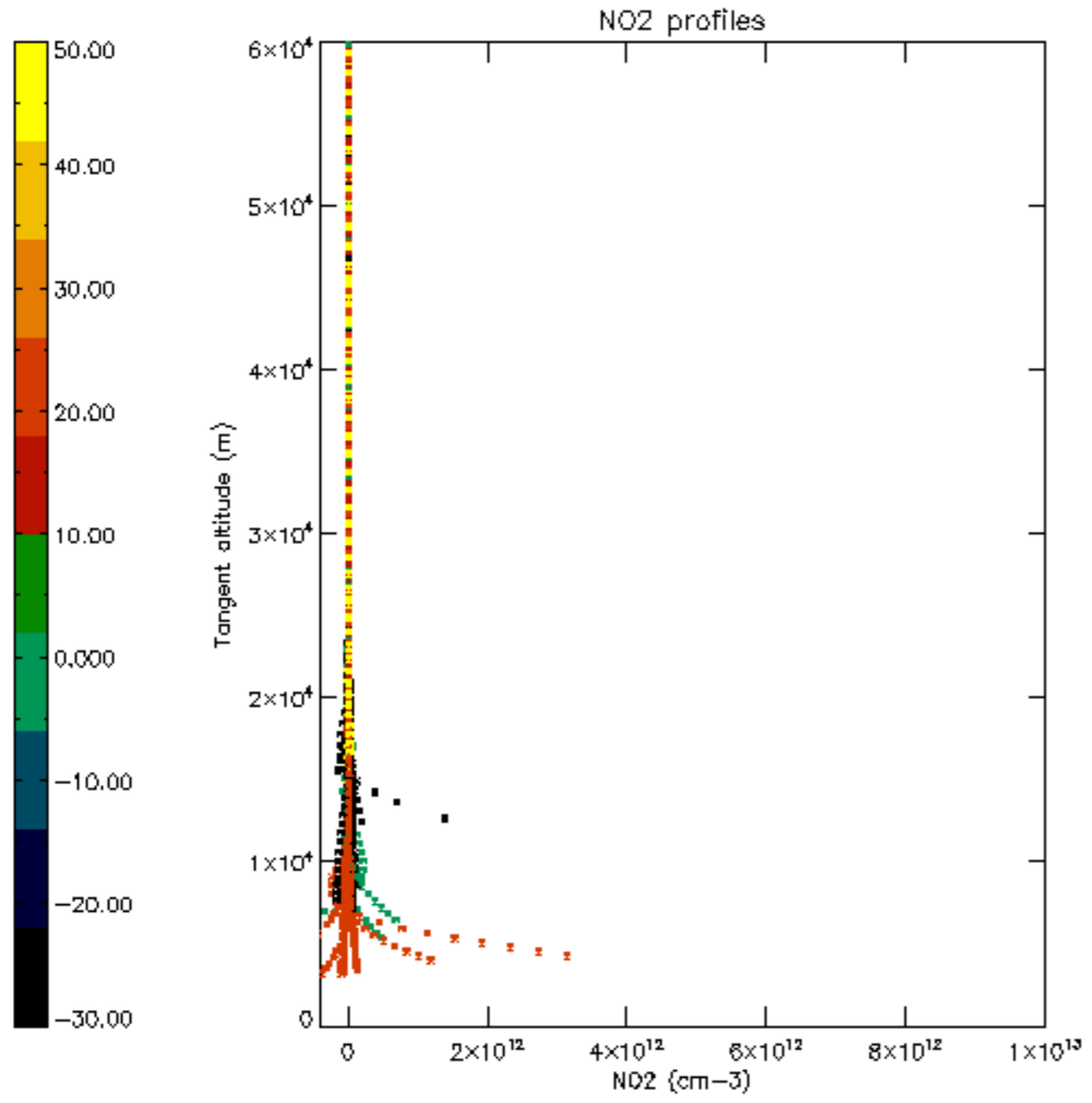


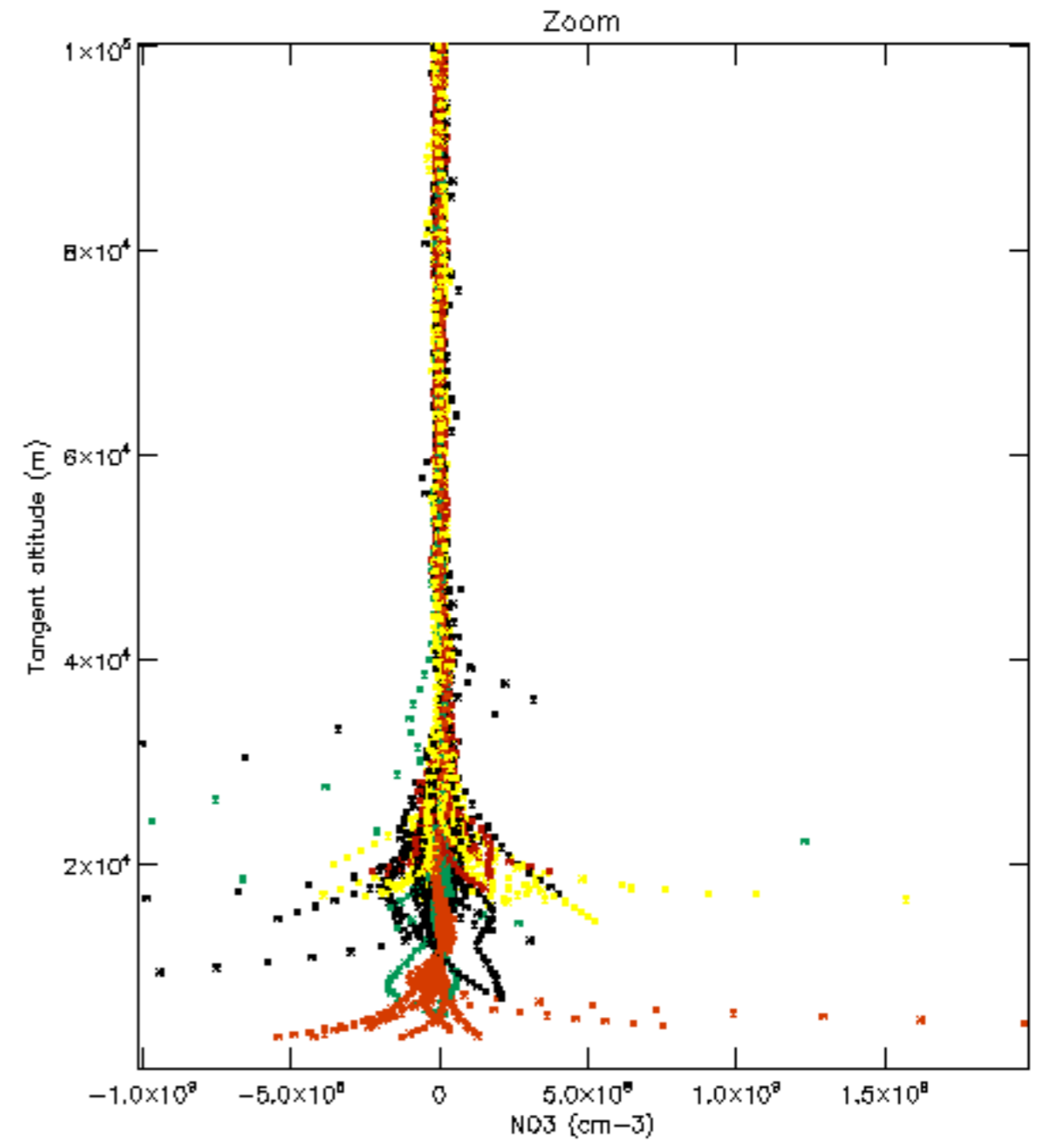
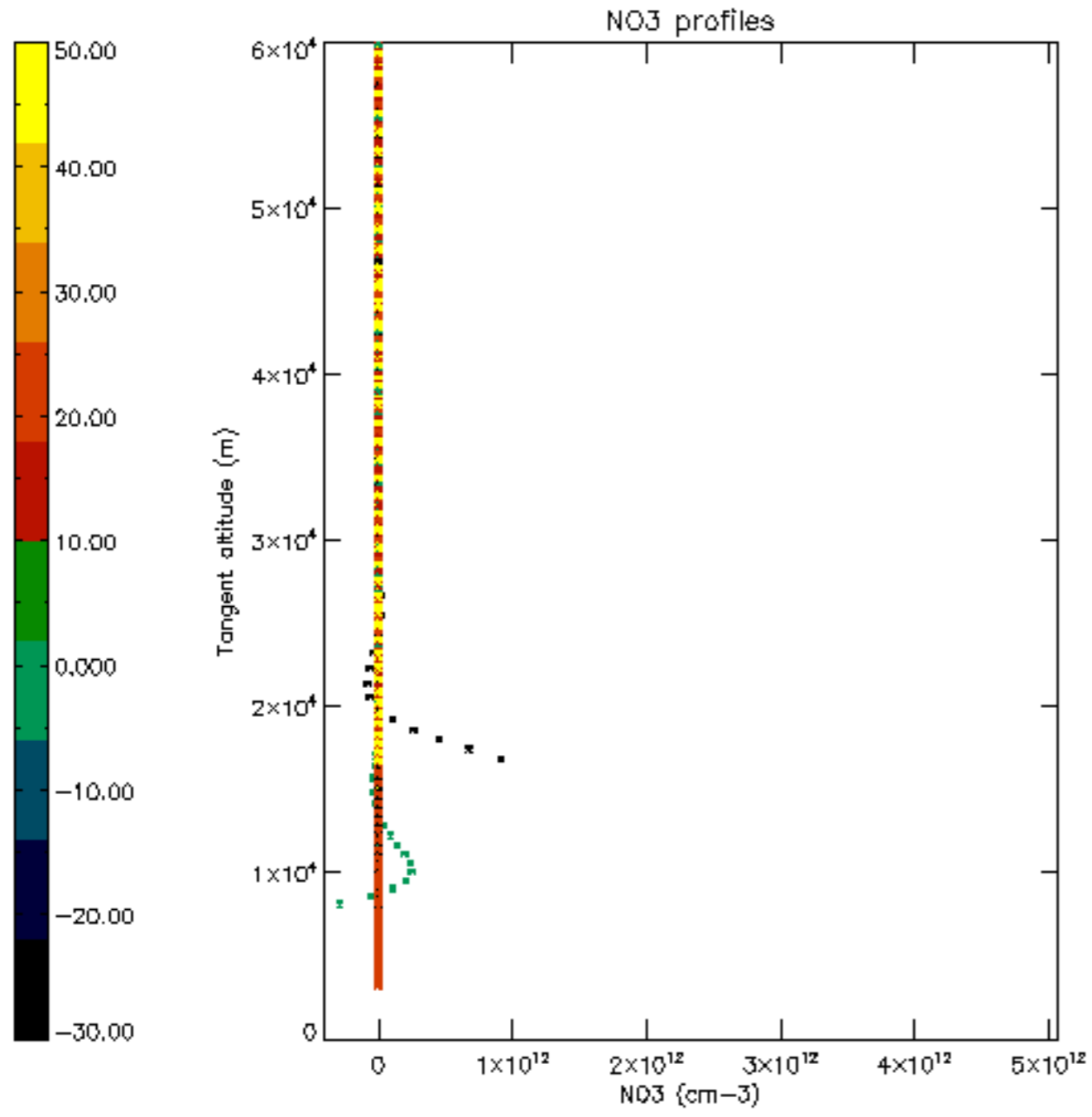


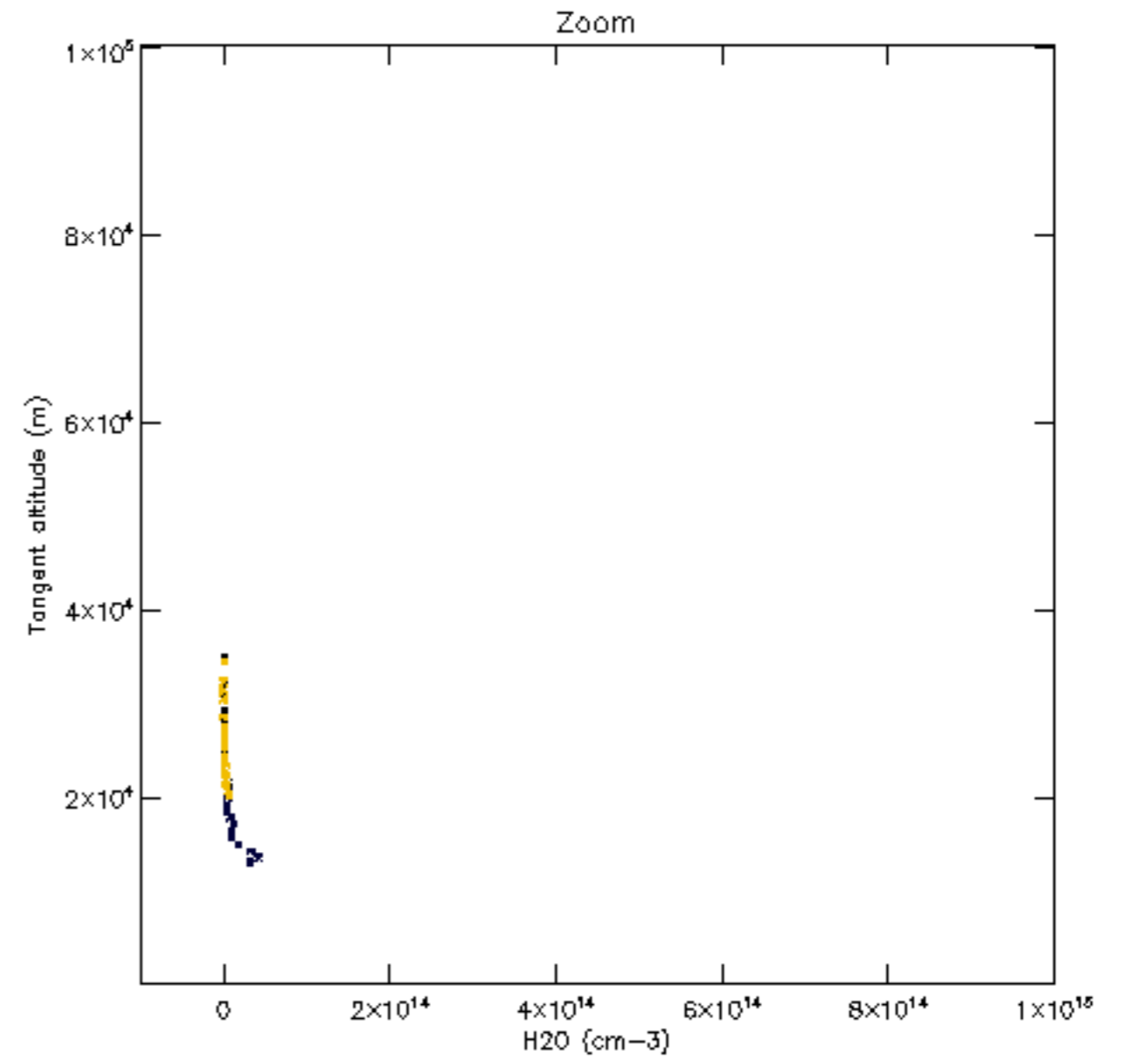
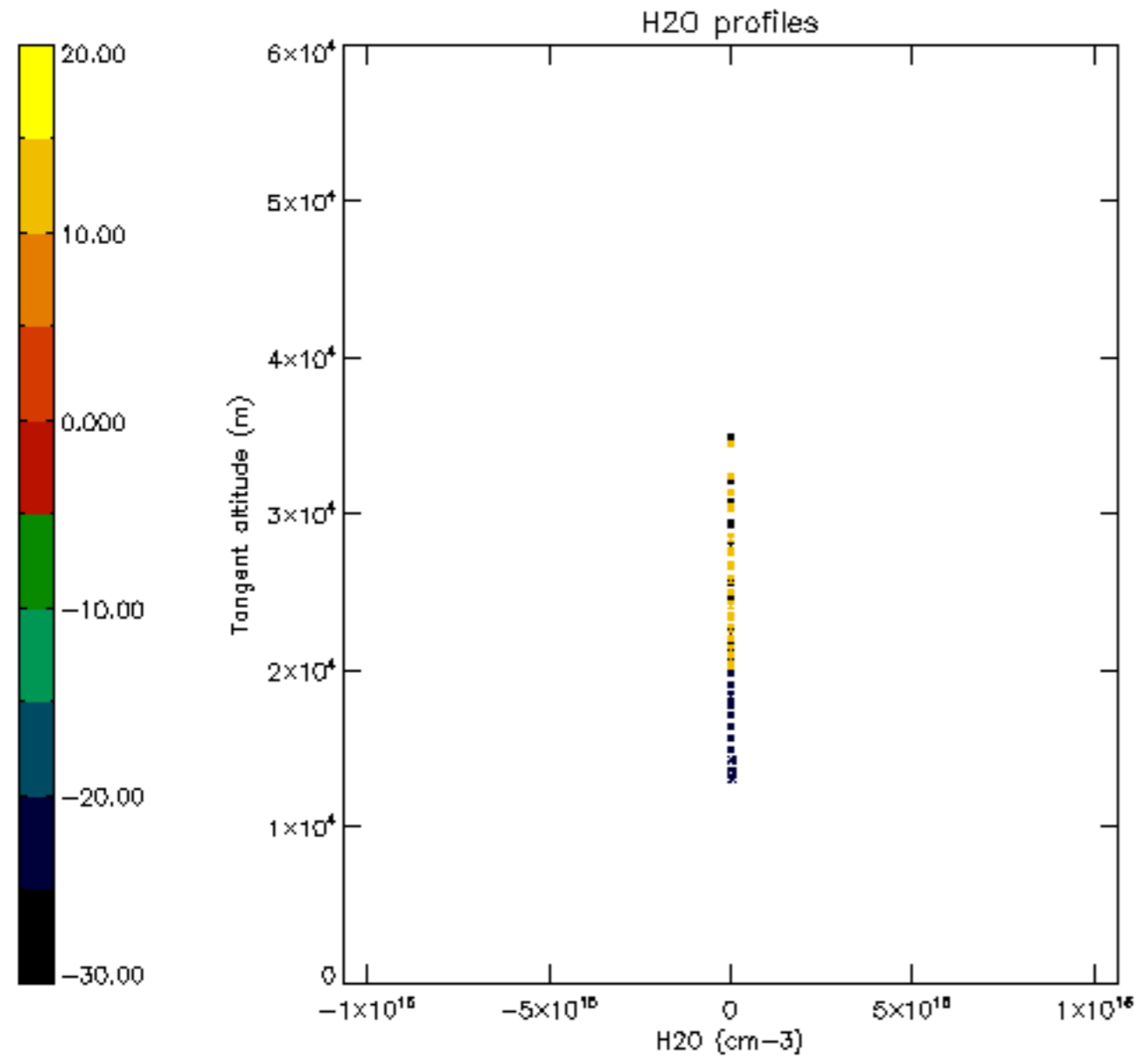


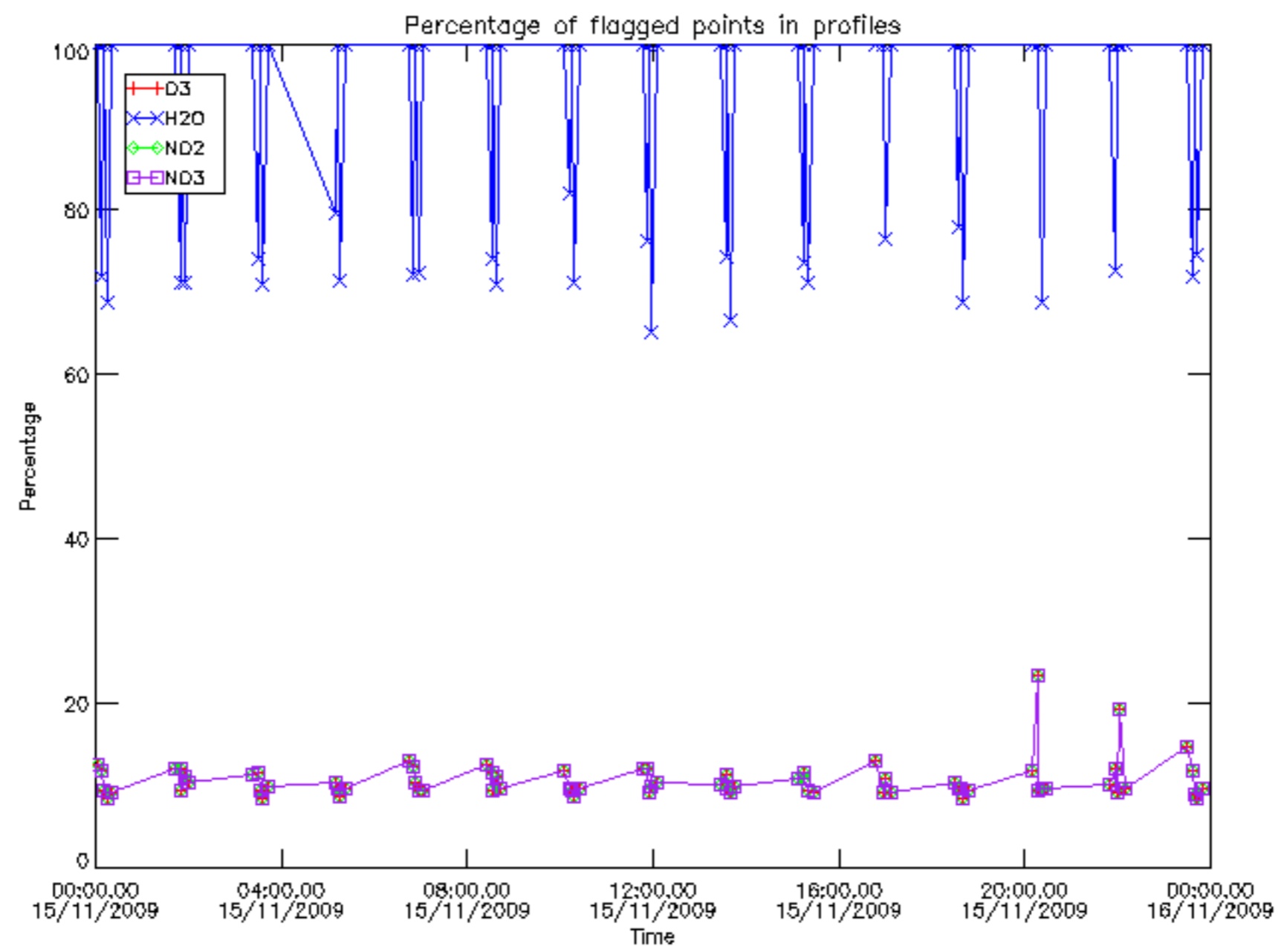




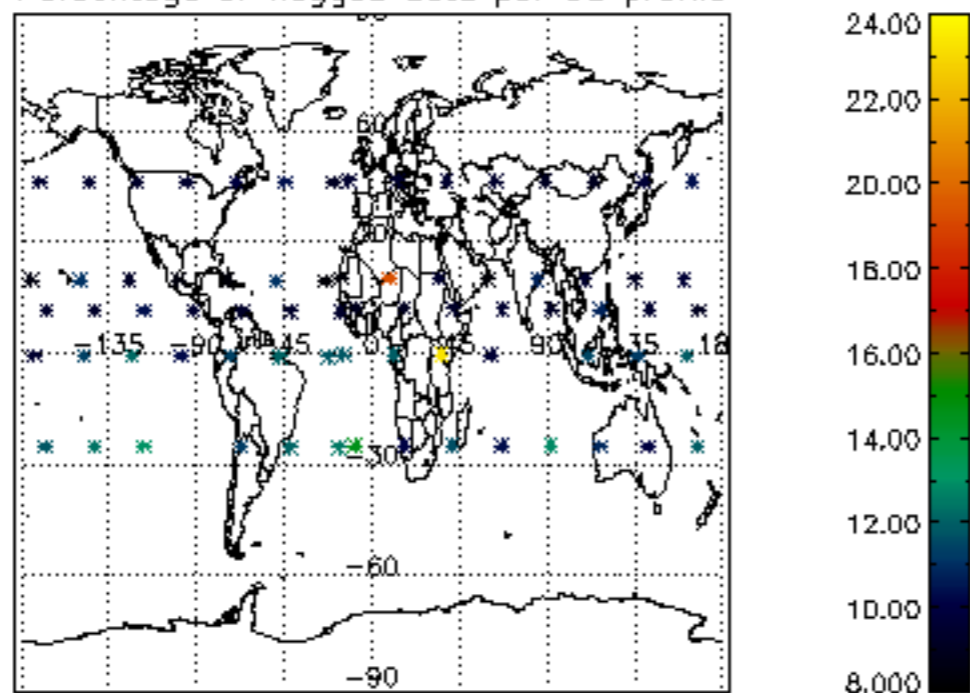




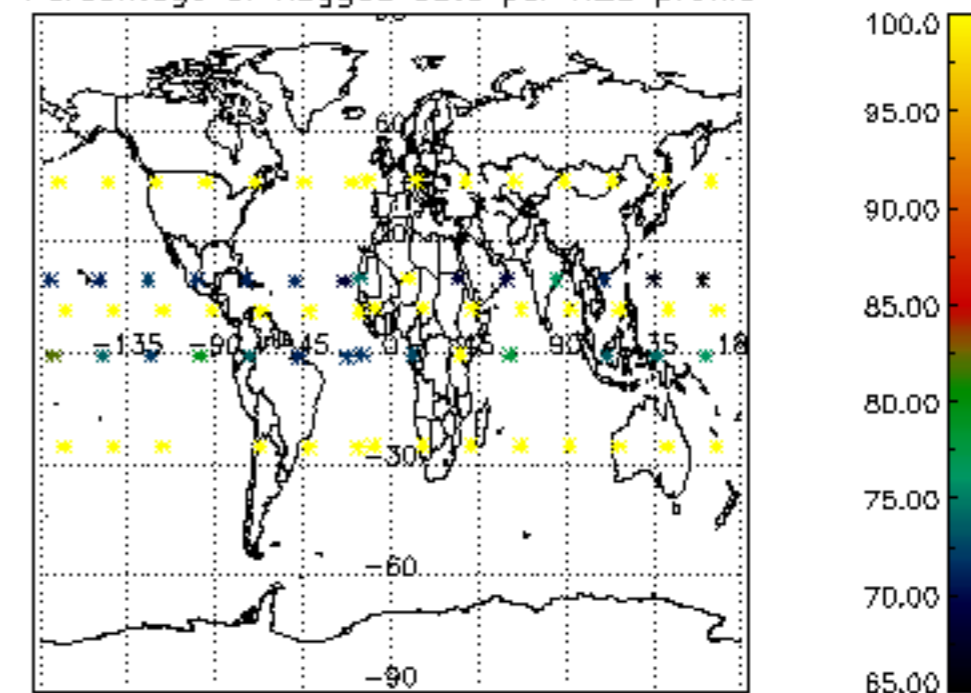




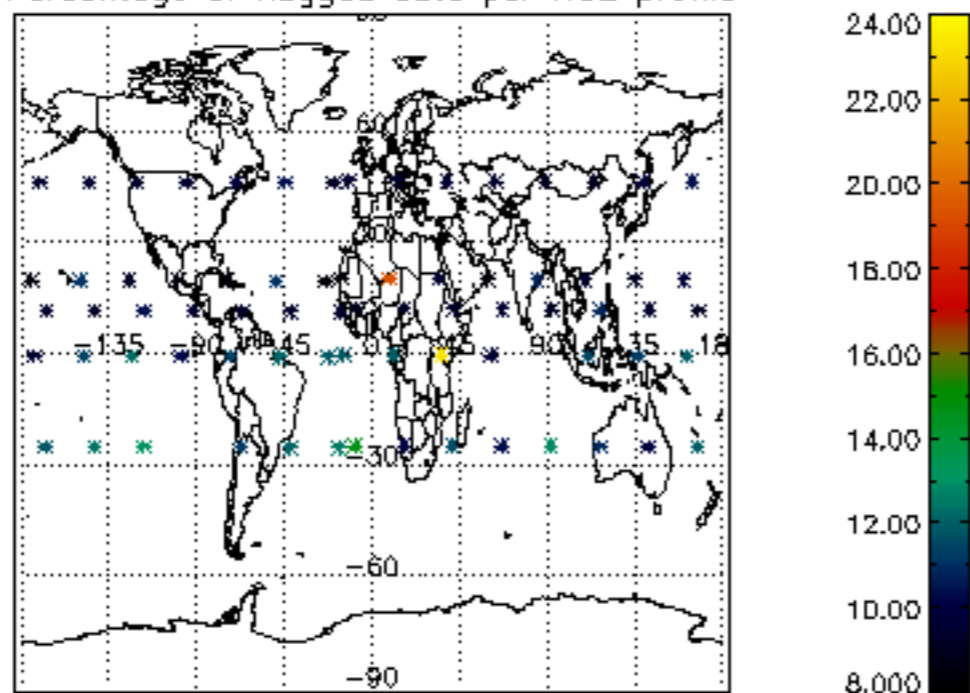
Percentage of flagged data per D3 profile



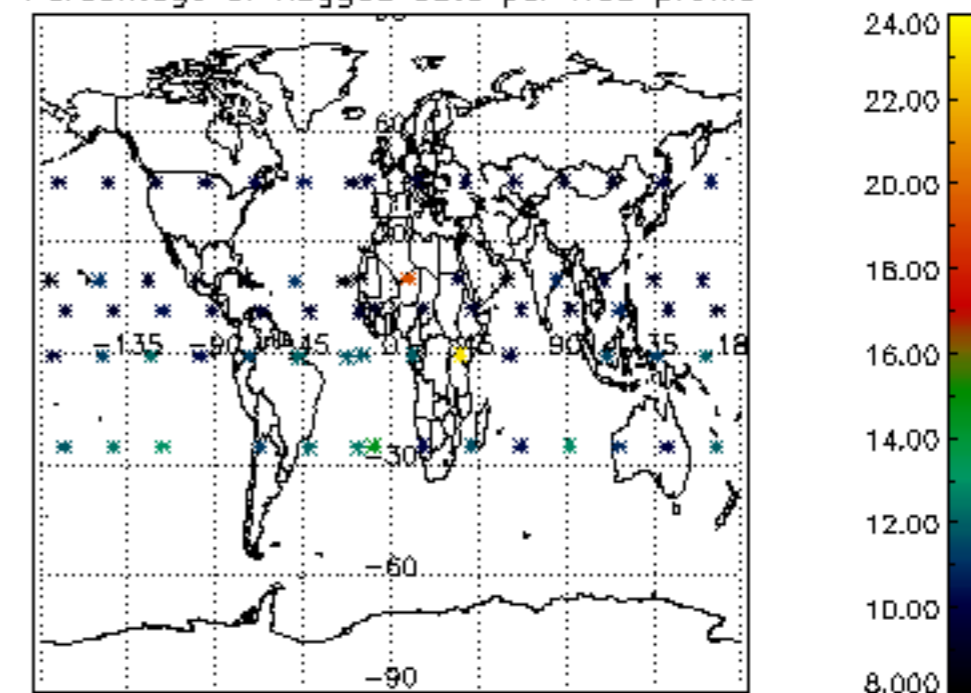
Percentage of flagged data per H2O profile

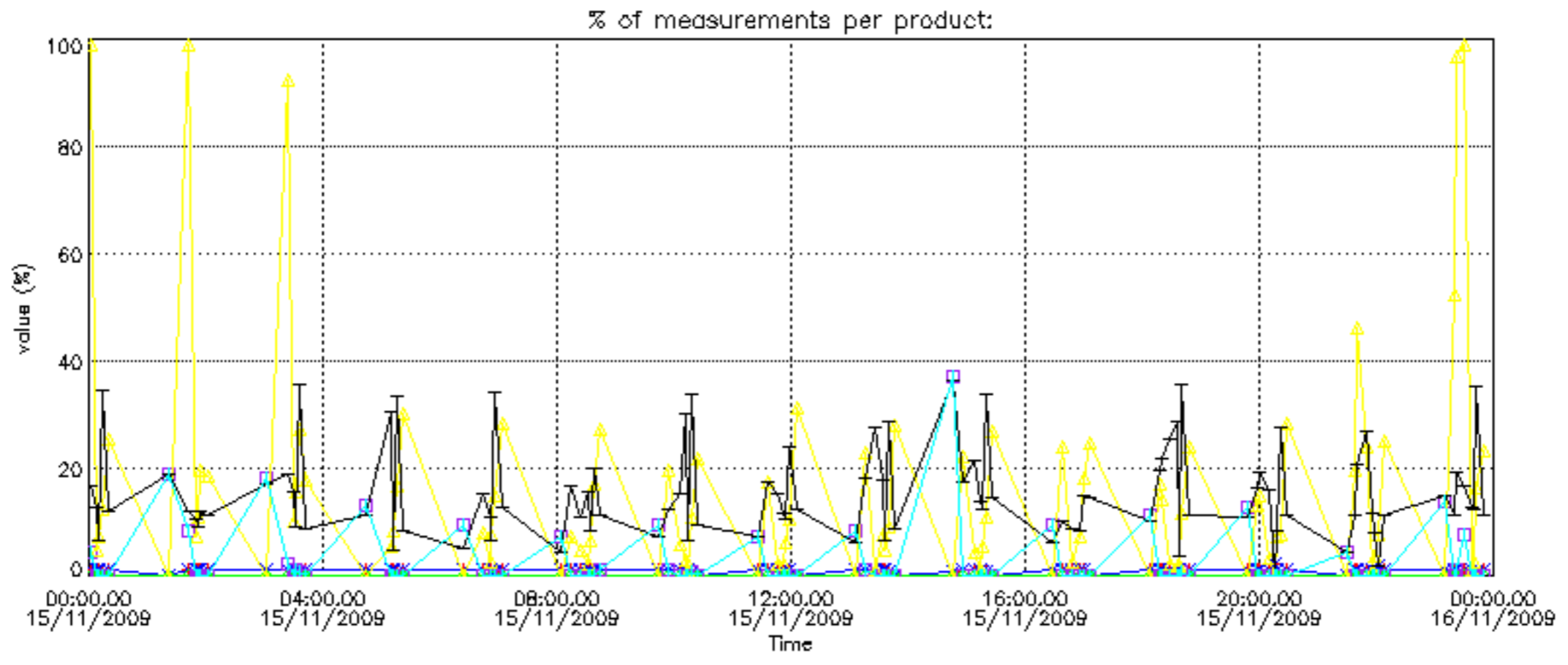


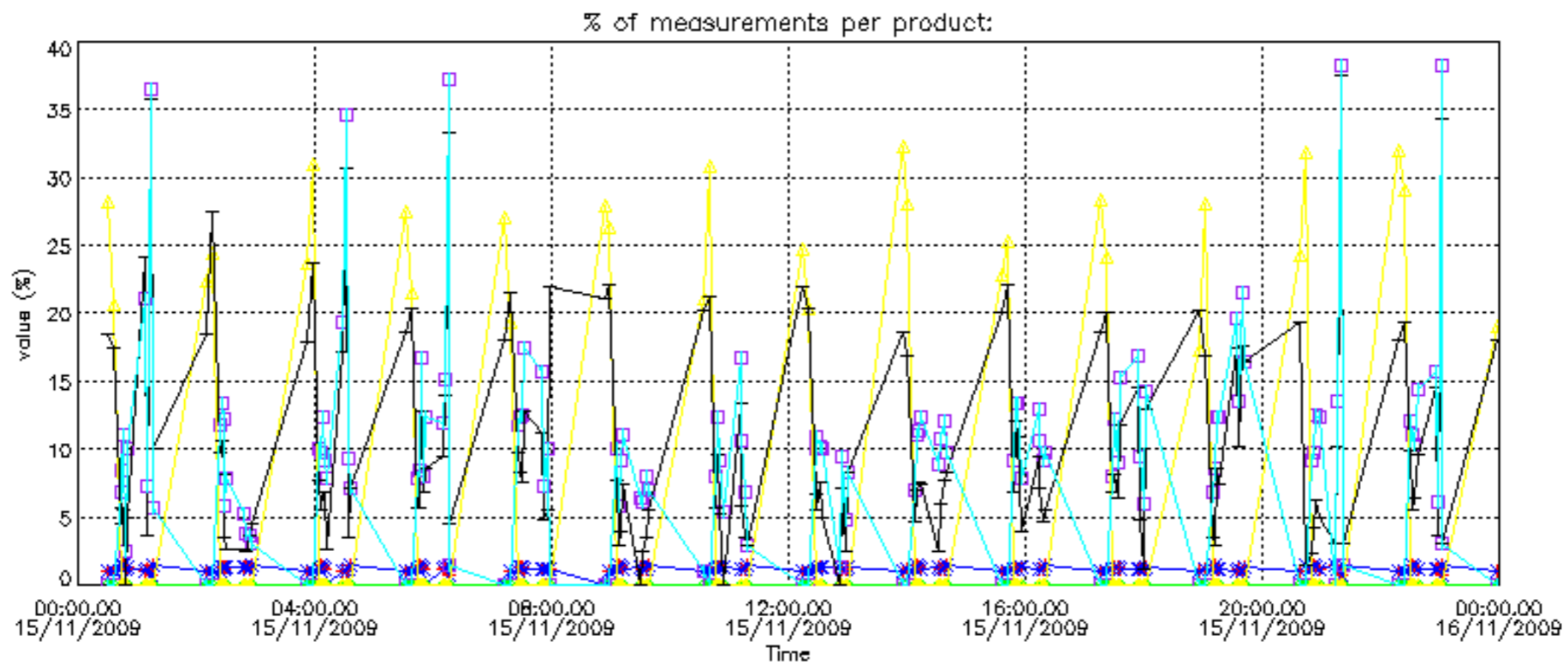
Percentage of flagged data per NO2 profile



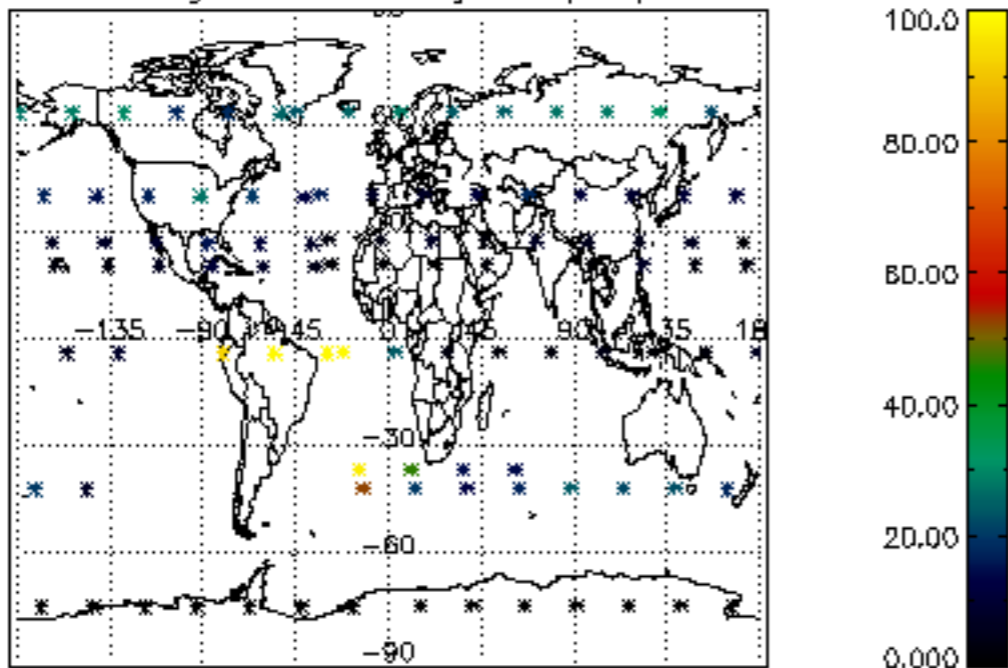
Percentage of flagged data per NO3 profile



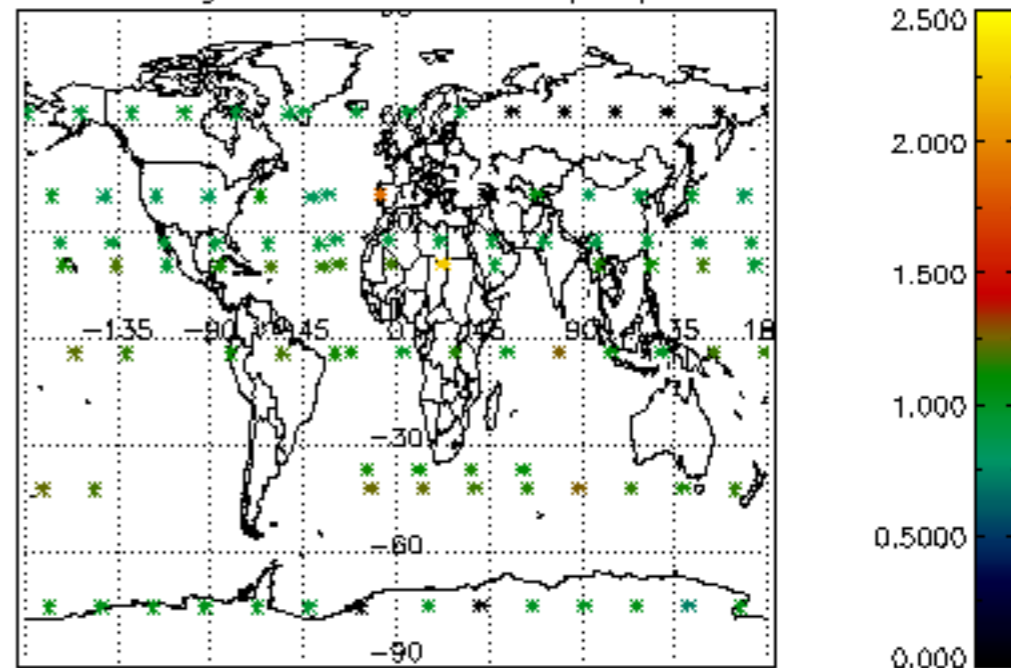




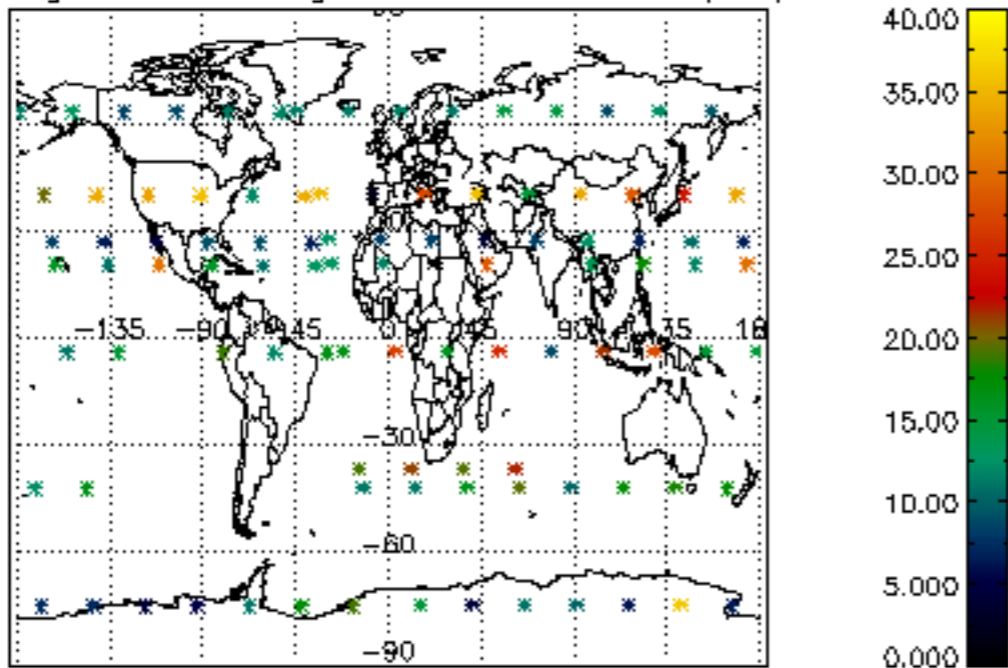
Percentage of cosmic ray hits per profile



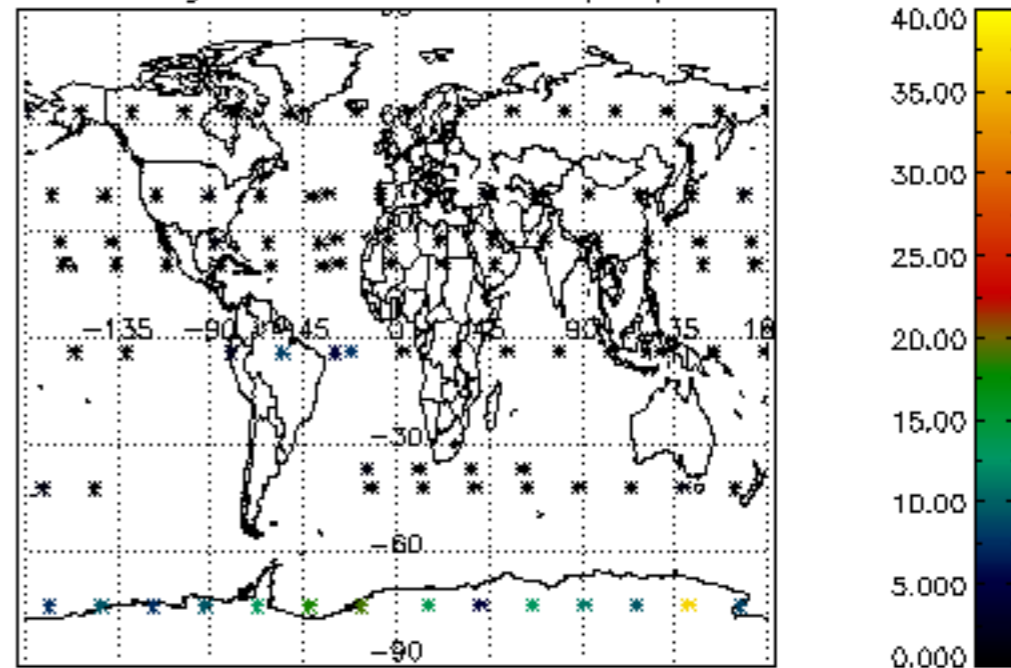
Percentage of datation errors per profile



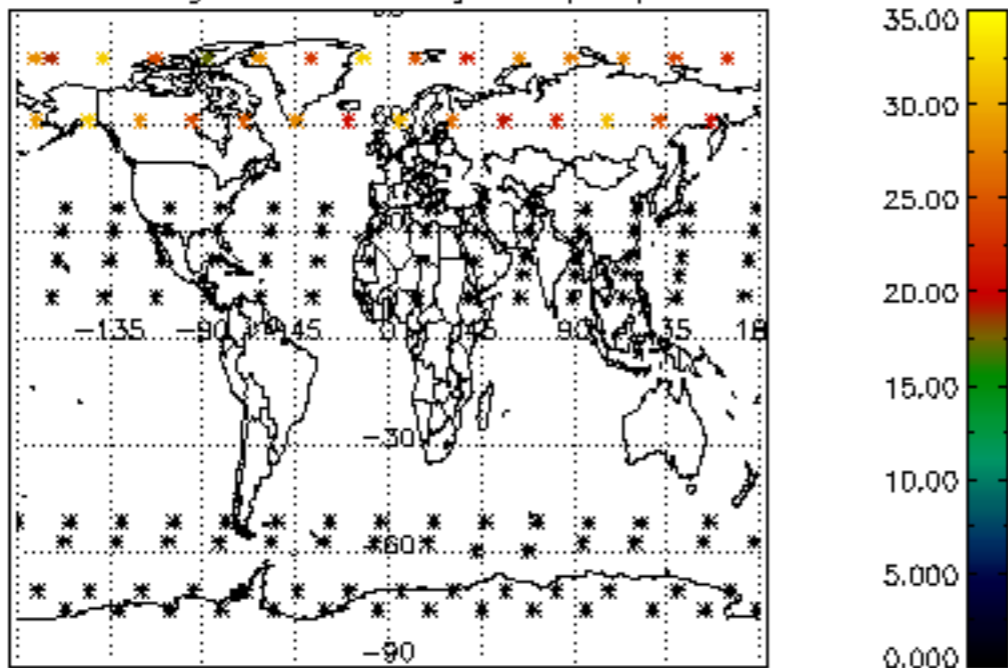
Percentage of star falling outside central band per profile



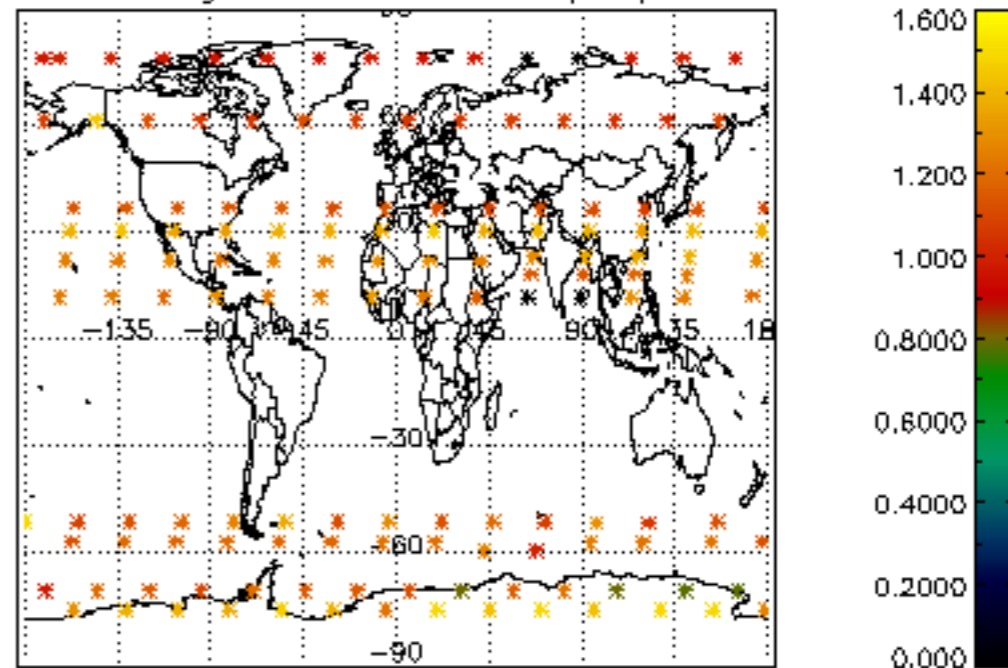
Percentage of saturation errors per profile



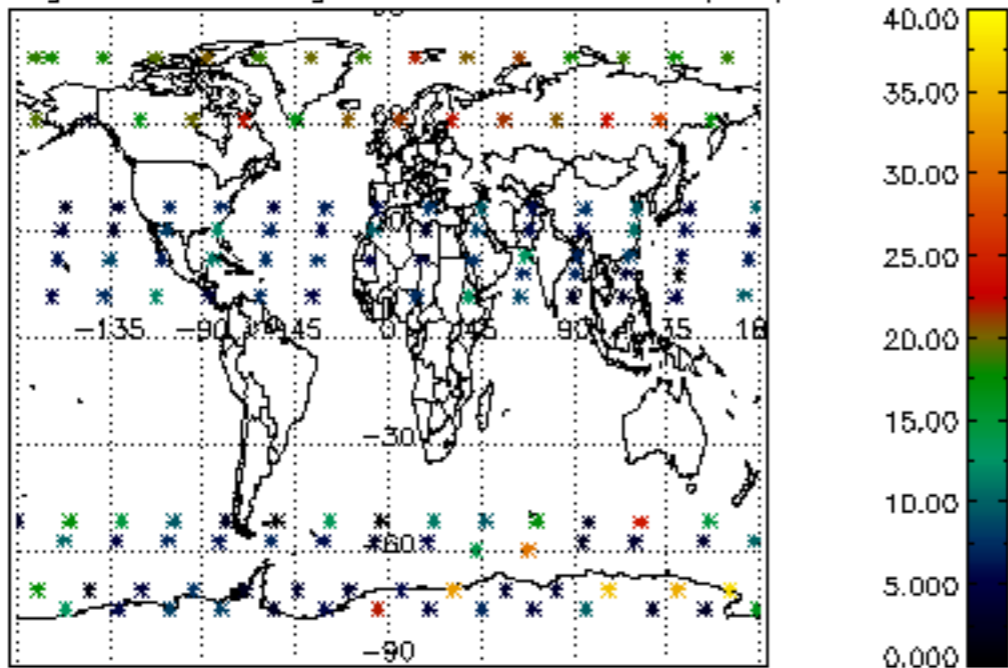
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

