

GOMOS Level 2 Daily Report

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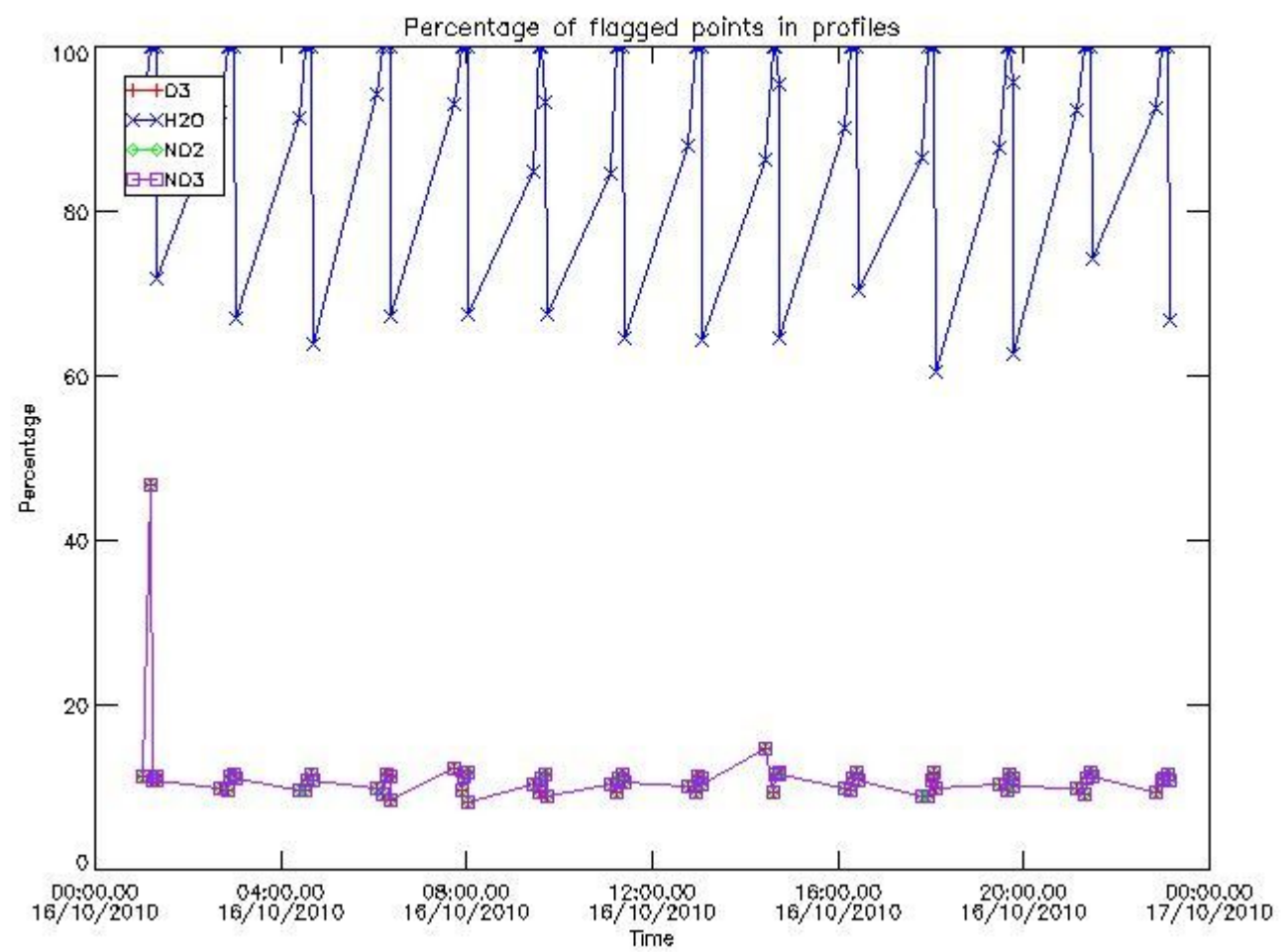
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161	GOM_NL__2PRFIN20101016_192115_000000402093_00471_45114_9936.N1	16-OCT-2010 19:21:15	Bright	40.000	22	32Alp Leo	1.3600	15200.	80	45114	No
162	GOM_NL__2PRFIN20101016_192842_000000542093_00471_45114_9937.N1	16-OCT-2010 19:28:42	Dark	53.500	48	30Alp Hya	1.9770	4100.0	107	45114	No
163	GOM_NL__2PRFIN20101016_193743_000000542093_00471_45114_9938.N1	16-OCT-2010 19:37:43	Dark	53.500	132	15Rho Pup	2.8030	6900.0	107	45114	No
164	GOM_NL__2PRFIN20101016_194038_000000452093_00471_45114_9939.N1	16-OCT-2010 19:40:38	Dark	44.500	70	Zet Pup	2.2460	39000.	89	45114	No
165	GOM_NL__2PRFIN20101016_194544_000000462093_00472_45115_9973.N1	16-OCT-2010 19:45:44	Dark	46.000	161	Tau Pup	2.9310	4500.0	92	45115	No
166	GOM_NL__2PRFIN20101016_194704_000000502093_00472_45115_9974.N1	16-OCT-2010 19:47:04	Dark	49.500	2	Alp Car	-0.73600	7000.0	99	45115	No
167	GOM_NL__2PRFIN20101016_195847_000000442093_00472_45115_9975.N1	16-OCT-2010 19:58:47	Straylight	44.000	157	The1Eri	2.9060	9300.0	88	45115	No
168	GOM_NL__2PRFIN20101016_202021_000000472093_00472_45115_9976.N1	16-OCT-2010 20:20:21	Bright	46.500	105	6Bet Ari	2.6450	8900.0	93	45115	No
169	GOM_NL__2PRFIN20101016_202348_000000412093_00472_45115_9977.N1	16-OCT-2010 20:23:48	Bright	40.500	53	43Bet And	2.0480	3300.0	81	45115	No
170	GOM_NL__2PRFIN20101016_202522_000000692093_00472_45115_9978.N1	16-OCT-2010 20:25:22	Bright	69.000	173	4Bet Tri	3.0040	8900.0	138	45115	No
171	GOM_NL__2PRFIN20101016_202715_000000482093_00472_45115_9979.N1	16-OCT-2010 20:27:15	Bright	48.000	73	57Gam1And	2.2600	13100.	96	45115	No
172	GOM_NL__2PRFIN20101016_203042_000000392093_00472_45115_9980.N1	16-OCT-2010 20:30:42	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	45115	No
173	GOM_NL__2PRFIN20101016_203231_000000462093_00472_45115_9981.N1	16-OCT-2010 20:32:31	Bright	45.500	160	23Gam Per	2.9300	4700.0	91	45115	No
174	GOM_NL__2PRFIN20101016_205834_000000422093_00472_45115_9982.N1	16-OCT-2010 20:58:34	Bright	42.000	166	17Eps Leo	2.9800	6000.0	84	45115	No
175	GOM_NL__2PRFIN20101016_210151_000000582093_00472_45115_9983.N1	16-OCT-2010 21:01:51	Bright	58.000	22	32Alp Leo	1.3600	15200.	116	45115	No
176	GOM_NL__2PRFIN20101016_210919_000000522093_00472_45115_9984.N1	16-OCT-2010 21:09:19	Dark	52.000	48	30Alp Hya	1.9770	4100.0	104	45115	No
177	GOM_NL__2PRFIN20101016_211821_000000552093_00472_45115_9985.N1	16-OCT-2010 21:18:21	Dark	55.000	132	15Rho Pup	2.8030	6900.0	110	45115	No
178	GOM_NL__2PRFIN20101016_212115_000000462093_00472_45115_9986.N1	16-OCT-2010 21:21:15	Dark	45.500	70	Zet Pup	2.2460	39000.	91	45115	No
179	GOM_NL__2PRFIN20101016_212621_000000442093_00473_45116_9983.N1	16-OCT-2010 21:26:21	Dark	43.500	161	Tau Pup	2.9310	4500.0	87	45116	No
180	GOM_NL__2PRFIN20101016_212741_000000452093_00473_45116_9984.N1	16-OCT-2010 21:27:41	Dark	45.000	2	Alp Car	-0.73600	7000.0	90	45116	No
181	GOM_NL__2PRFIN20101016_213924_000000452093_00473_45116_9985.N1	16-OCT-2010 21:39:24	Straylight	44.500	157	The1Eri	2.9060	9300.0	89	45116	No
182	GOM_NL__2PRFIN20101016_220057_000000462093_00473_45116_9986.N1	16-OCT-2010 22:00:57	Bright	46.000	105	6Bet Ari	2.6450	8900.0	92	45116	No
183	GOM_NL__2PRFIN20101016_220424_000000432093_00473_45116_9987.N1	16-OCT-2010 22:04:24	Bright	42.500	53	43Bet And	2.0480	3300.0	85	45116	No
184	GOM_NL__2PRFIN20101016_220557_000000472093_00473_45116_9988.N1	16-OCT-2010 22:05:57	Bright	46.500	173	4Bet Tri	3.0040	8900.0	93	45116	No
185	GOM_NL__2PRFIN20101016_220750_000000482093_00473_45116_9989.N1	16-OCT-2010 22:07:50	Bright	47.500	73	57Gam1And	2.2600	13100.	95	45116	No
186	GOM_NL__2PRFIN20101016_221120_000000382093_00473_45116_9990.N1	16-OCT-2010 22:11:20	Bright	37.500	76	27Gam Cas	2.3000	30000.	75	45116	No
187	GOM_NL__2PRFIN20101016_221306_000000442093_00473_45116_9991.N1	16-OCT-2010 22:13:06	Bright	43.500	160	23Gam Per	2.9300	4700.0	87	45116	No
188	GOM_NL__2PRFIN20101016_223910_000000472093_00473_45116_9992.N1	16-OCT-2010 22:39:10	Bright	46.500	166	17Eps Leo	2.9800	6000.0	93	45116	No
189	GOM_NL__2PRFIN20101016_224228_000000422093_00473_45116_9993.N1	16-OCT-2010 22:42:28	Bright	42.000	22	32Alp Leo	1.3600	15200.	84	45116	No
190	GOM_NL__2PRFIN20101016_224956_000000552093_00473_45116_9994.N1	16-OCT-2010 22:49:56	Dark	54.500	48	30Alp Hya	1.9770	4100.0	109	45116	No
191	GOM_NL__2PRFIN20101016_225858_000000522093_00473_45116_9995.N1	16-OCT-2010 22:58:58	Dark	51.500	132	15Rho Pup	2.8030	6900.0	103	45116	No
192	GOM_NL__2PRFIN20101016_230152_000000462093_00473_45116_9996.N1	16-OCT-2010 23:01:52	Dark	45.500	70	Zet Pup	2.2460	39000.	91	45116	No
193	GOM_NL__2PRFIN20101016_230657_000000452093_00474_45117_9993.N1	16-OCT-2010 23:06:57	Dark	44.500	161	Tau Pup	2.9310	4500.0	89	45117	No
194	GOM_NL__2PRFIN20101016_230817_000000472093_00474_45117_9994.N1	16-OCT-2010 23:08:17	Dark	47.000	2	Alp Car	-0.73600	7000.0	94	45117	No
195	GOM_NL__2PRFIN20101016_232000_000000452093_00474_45117_9995.N1	16-OCT-2010 23:20:00	Straylight	44.500	157	The1Eri	2.9060	9300.0	89	45117	No
196	GOM_NL__2PRFIN20101016_234132_000000472093_00474_45117_9996.N1	16-OCT-2010 23:41:32	Bright	47.000	105	6Bet Ari	2.6450	8900.0	94	45117	No
197	GOM_NL__2PRFIN20101016_234459_000000422093_00474_45117_9997.N1	16-OCT-2010 23:44:59	Bright	41.500	53	43Bet And	2.0480	3300.0	83	45117	No
198	GOM_NL__2PRFIN20101016_234633_000000462093_00474_45117_9998.N1	16-OCT-2010 23:46:33	Bright	46.000	173	4Bet Tri	3.0040	8900.0	92	45117	No
199	GOM_NL__2PRFIN20101016_234825_000000432093_00474_45117_9999.N1	16-OCT-2010 23:48:25	Bright	43.000	73	57Gam1And	2.2600	13100.	86	45117	No
200	GOM_NL__2PRFIN20101016_235159_000000322093_00474_45117_0000.N1	16-OCT-2010 23:51:59	Bright	31.500	76	27Gam Cas	2.3000	30000.	63	45117	No
201	GOM_NL__2PRFIN20101016_235341_000000482093_00474_45117_0001.N1	16-OCT-2010 23:53:41	Bright	47.500	160	23Gam Per	2.9300	4700.0	95	45117	No

3. Quality information per product

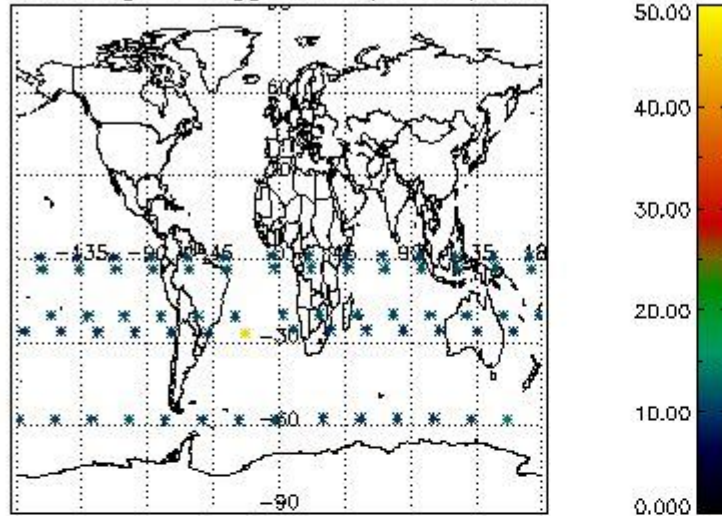
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

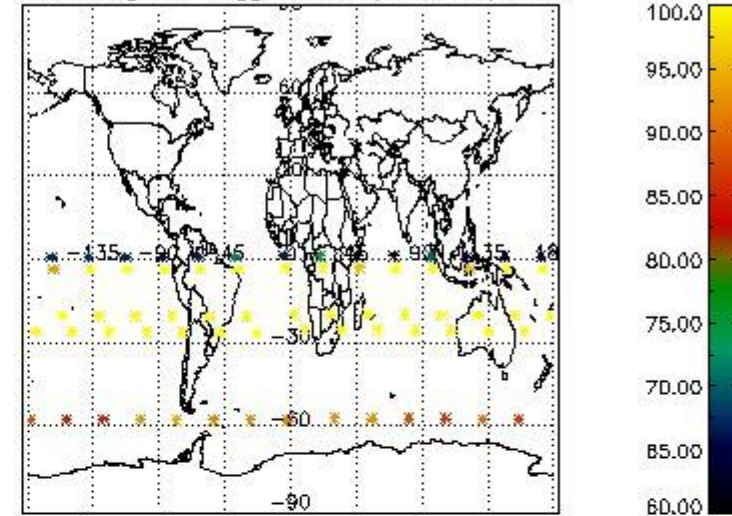


3.2 Plot quality information per product (world map)

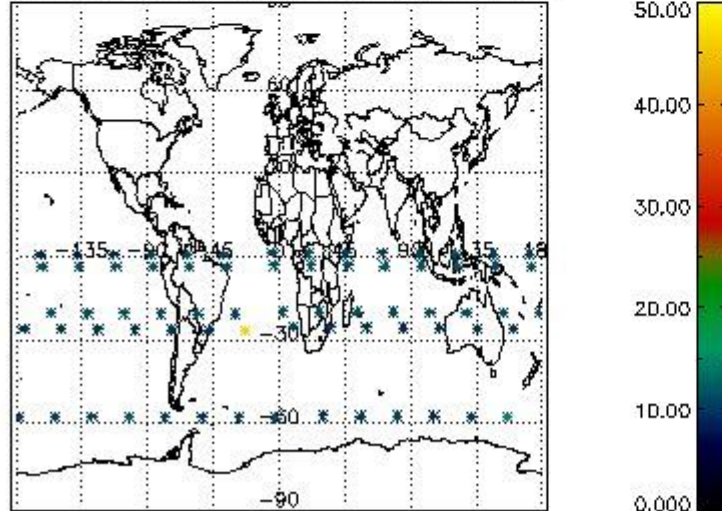
Percentage of flagged data per O3 profile



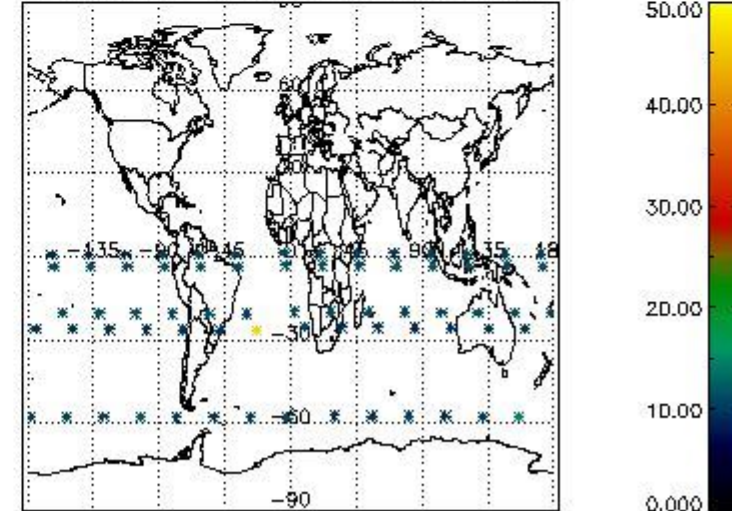
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

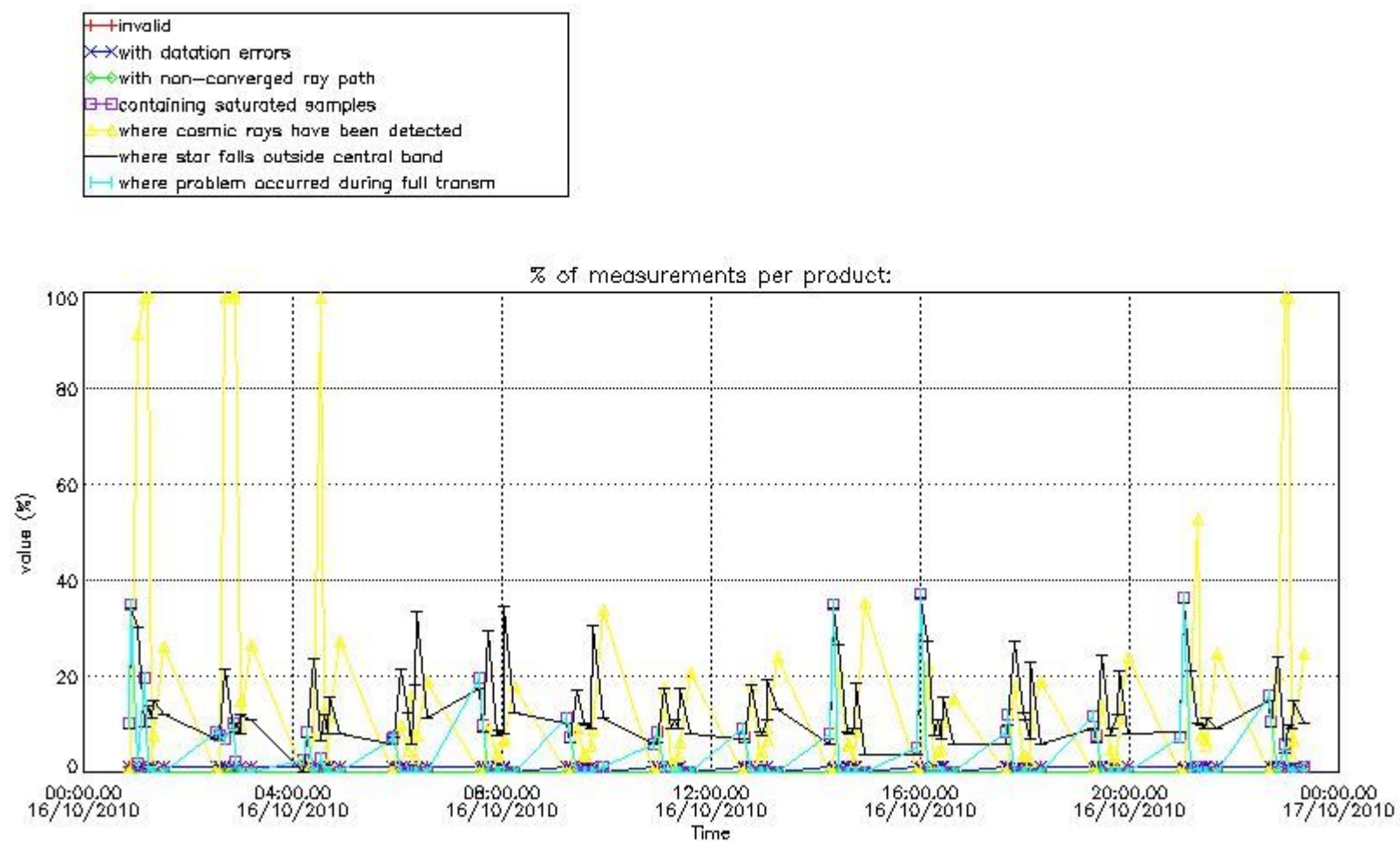


4. Level 1 quality information per product

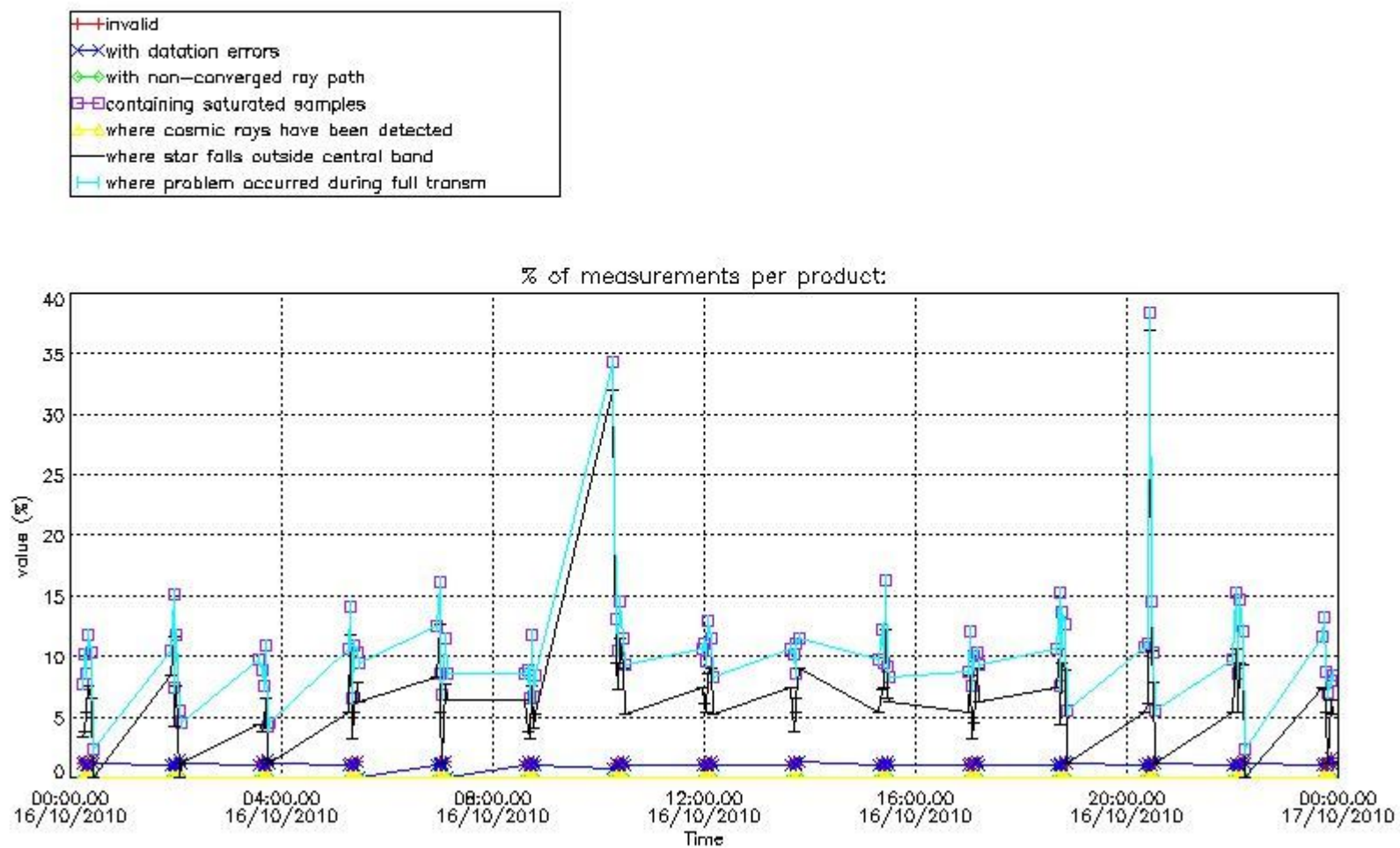
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



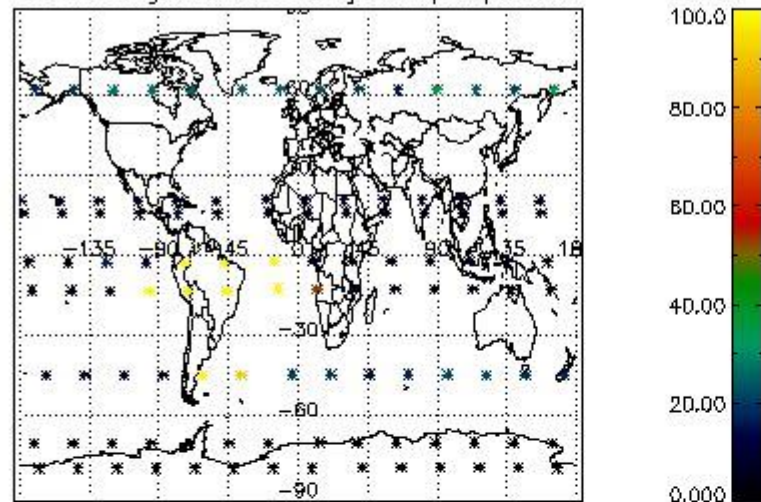
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



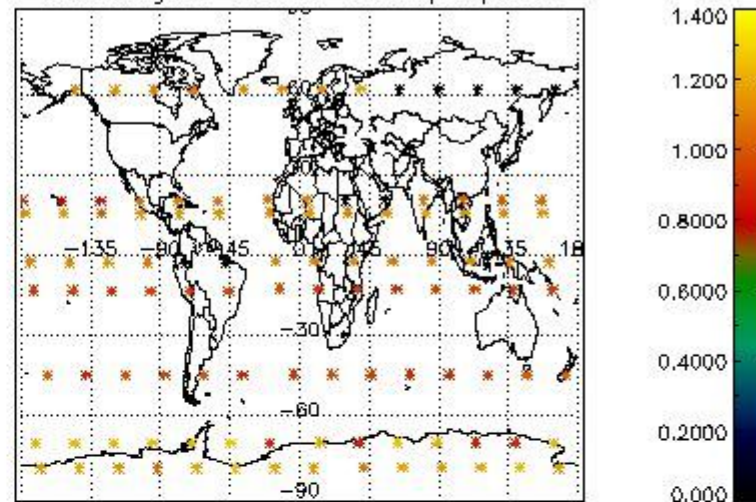
4.2 Plot quality information per product coming from level 1b processing (world map)

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

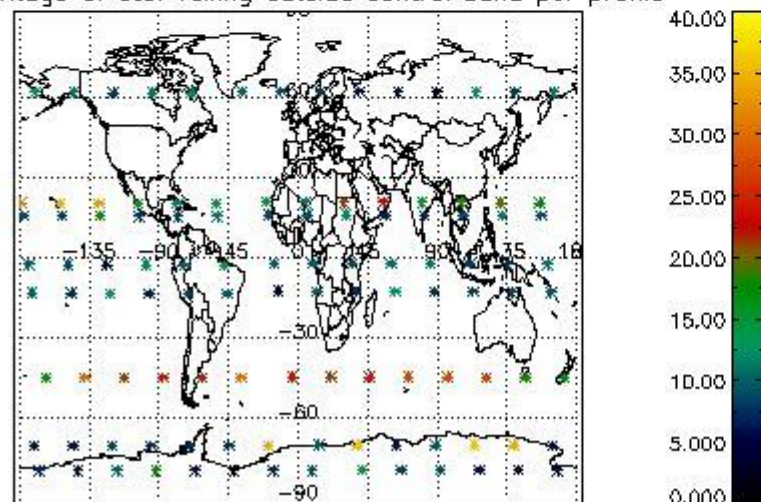
Percentage of cosmic ray hits per profile



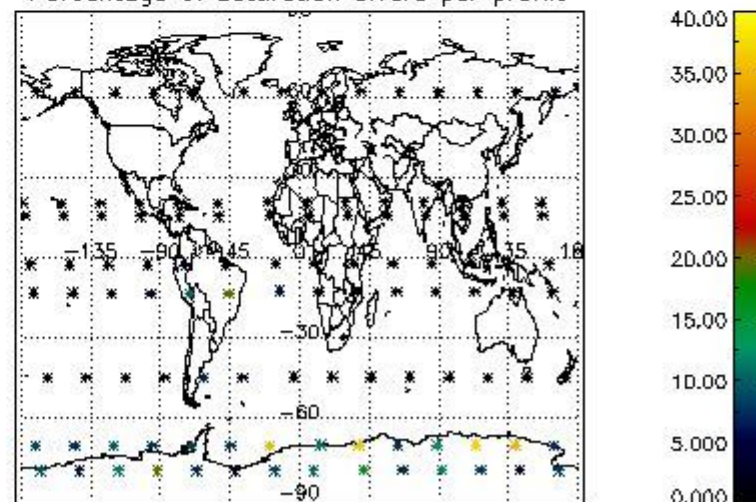
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

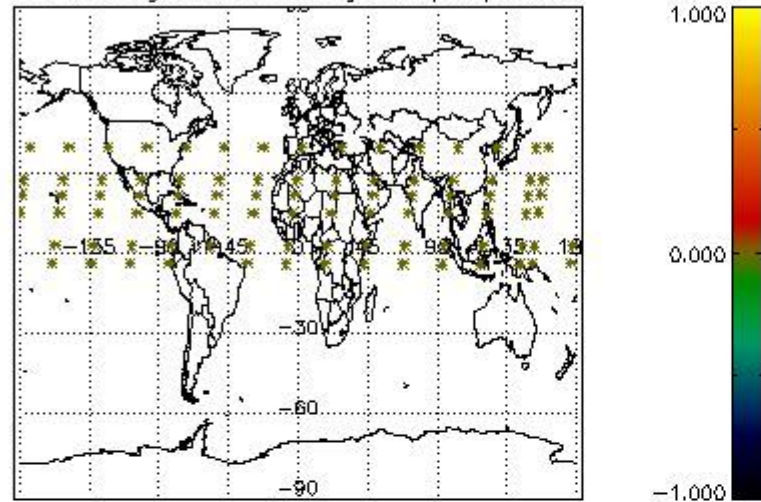


Percentage of saturation errors per profile

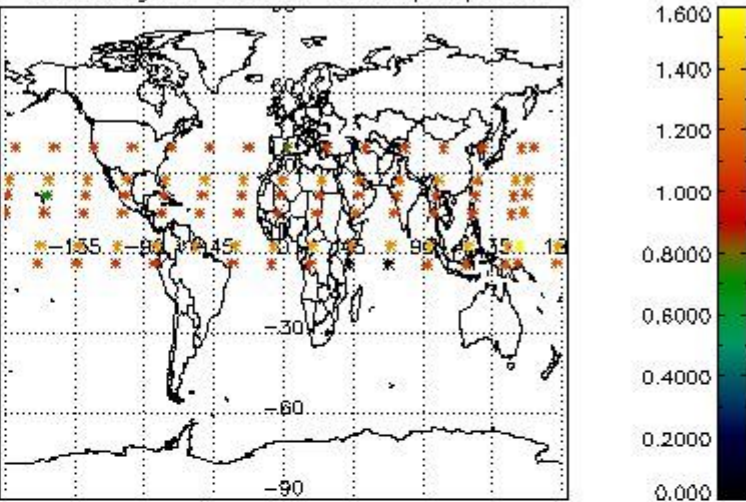


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

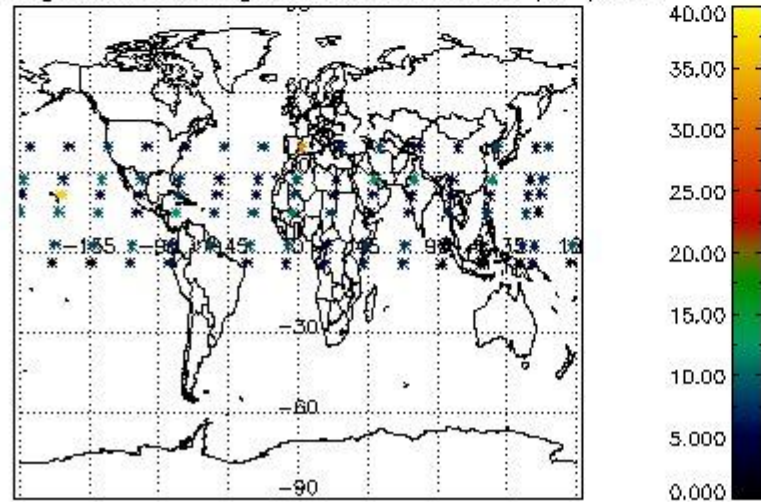
Percentage of cosmic ray hits per profile



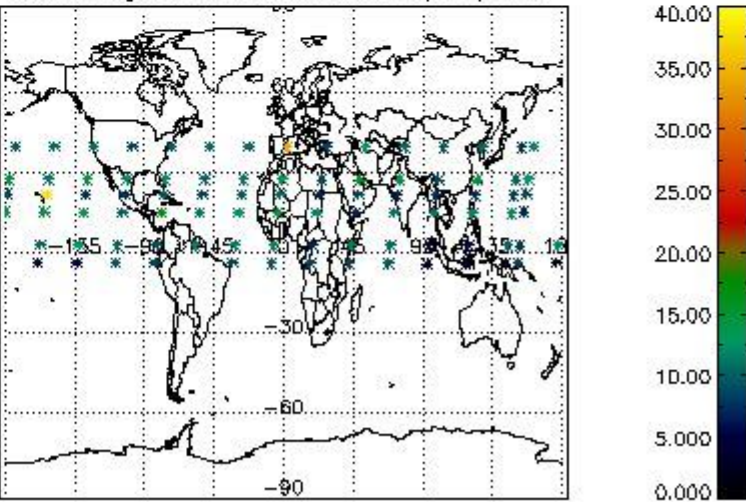
Percentage of datation errors per profile



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

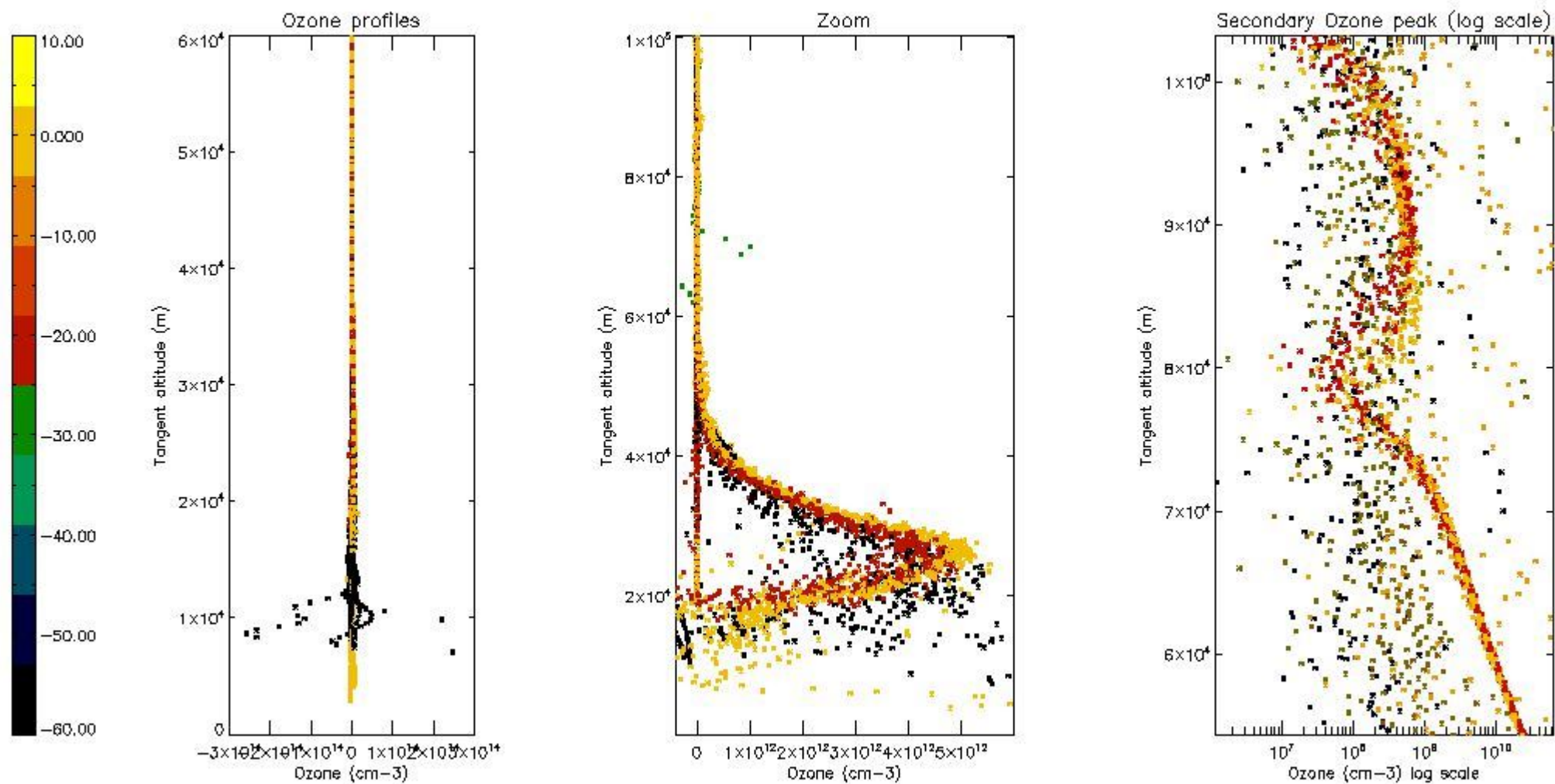
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	38
STD < 20	17

STD < 10	12
STD < 5	8

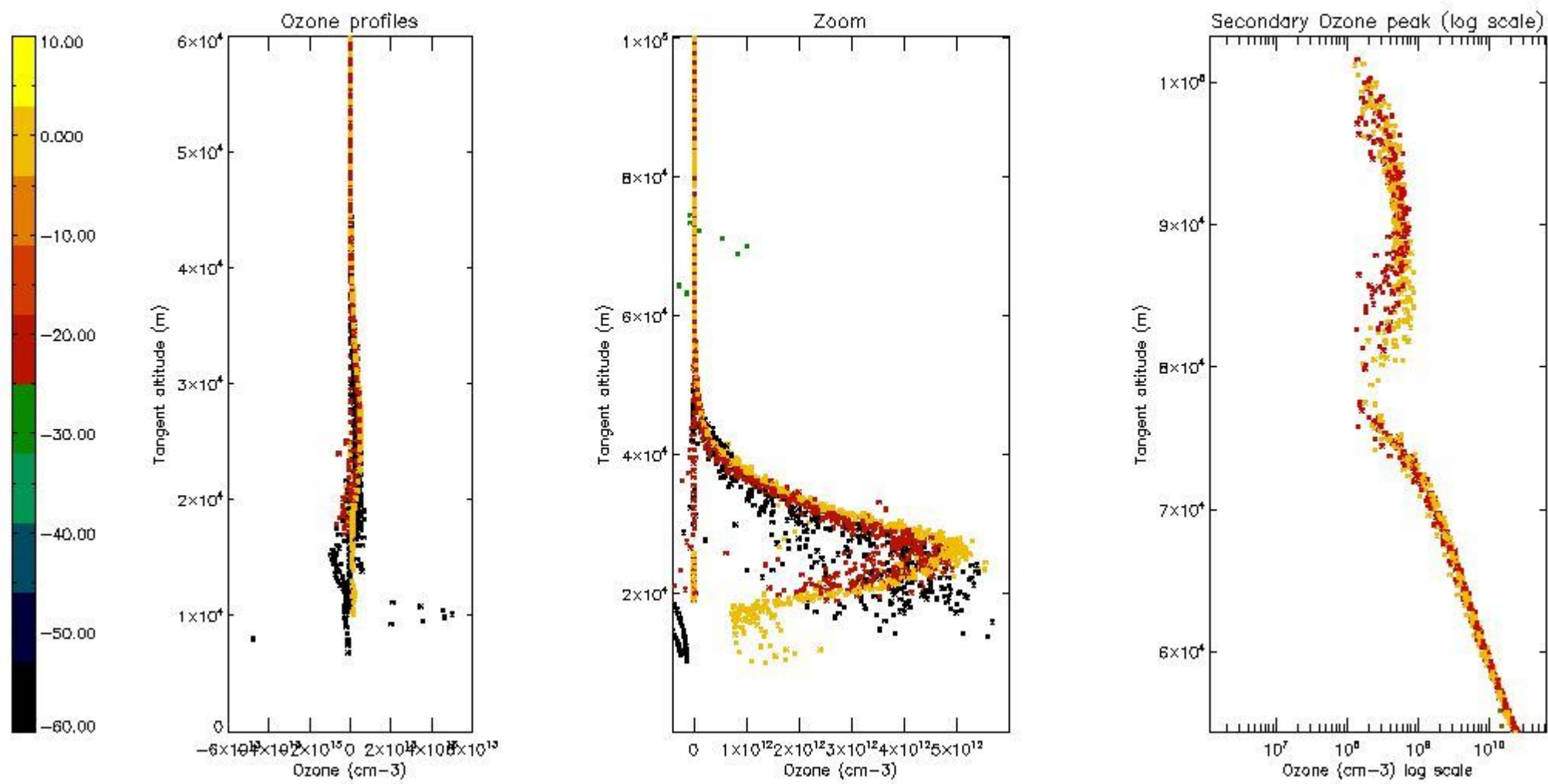
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



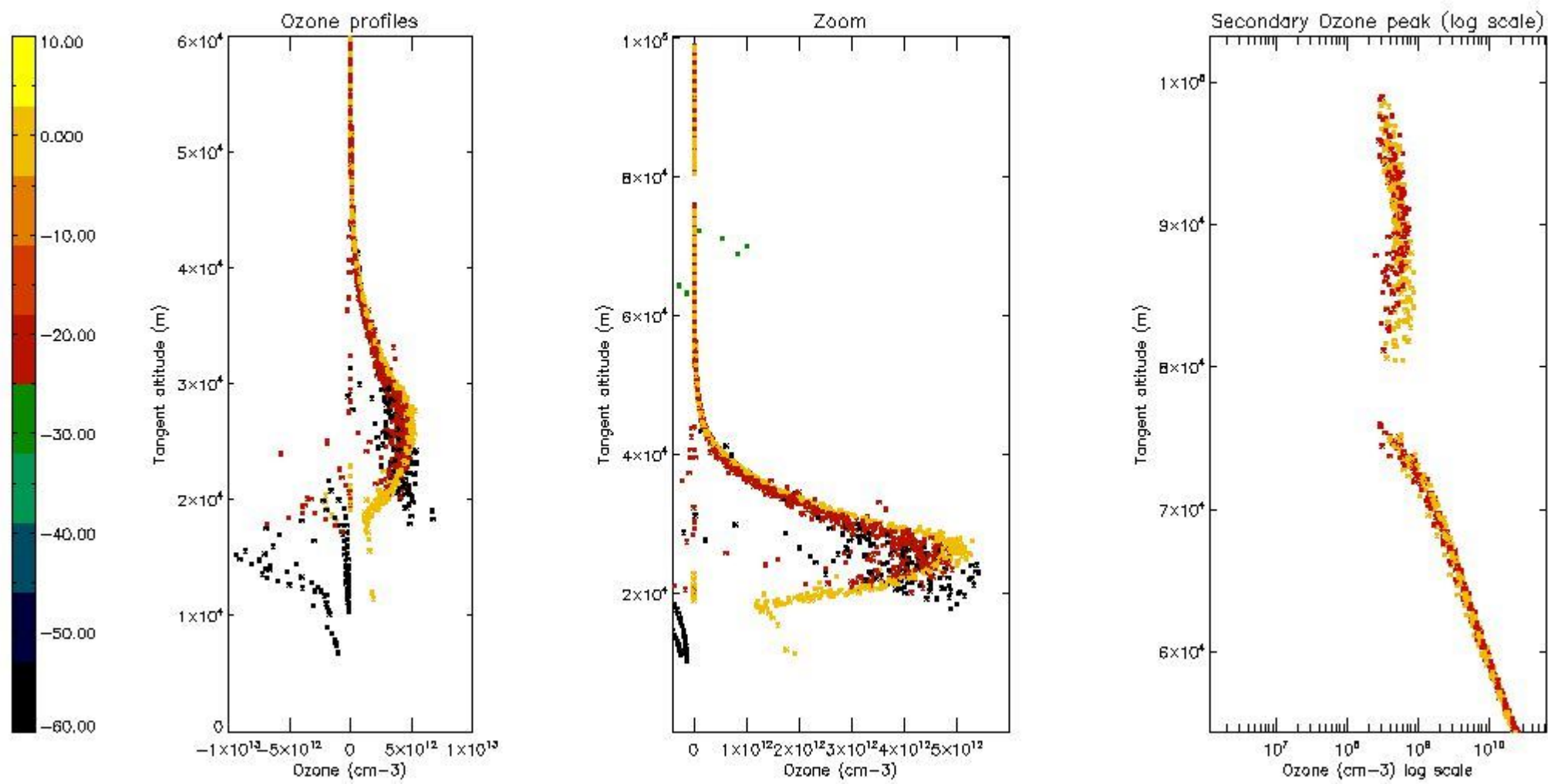
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



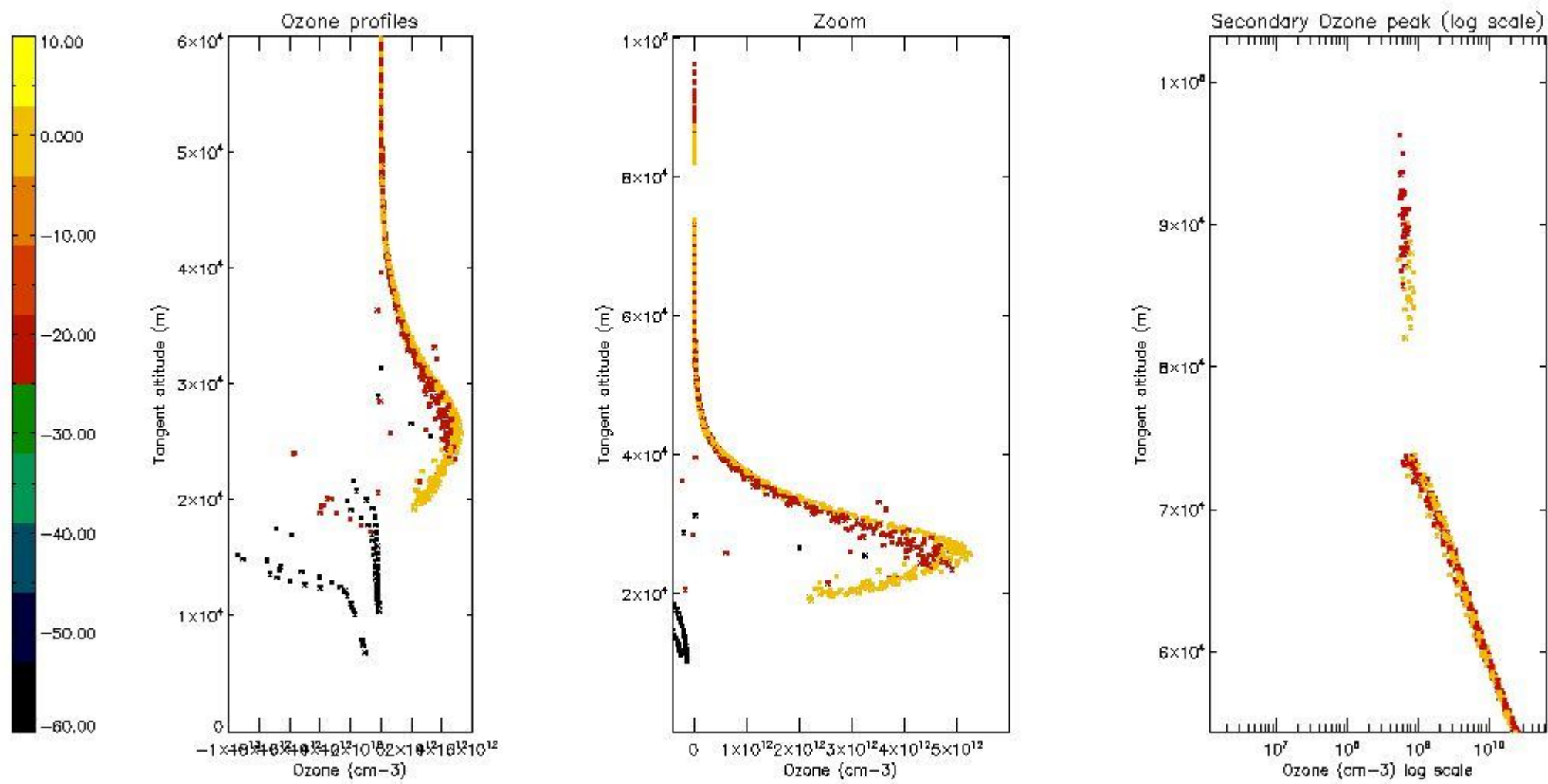
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



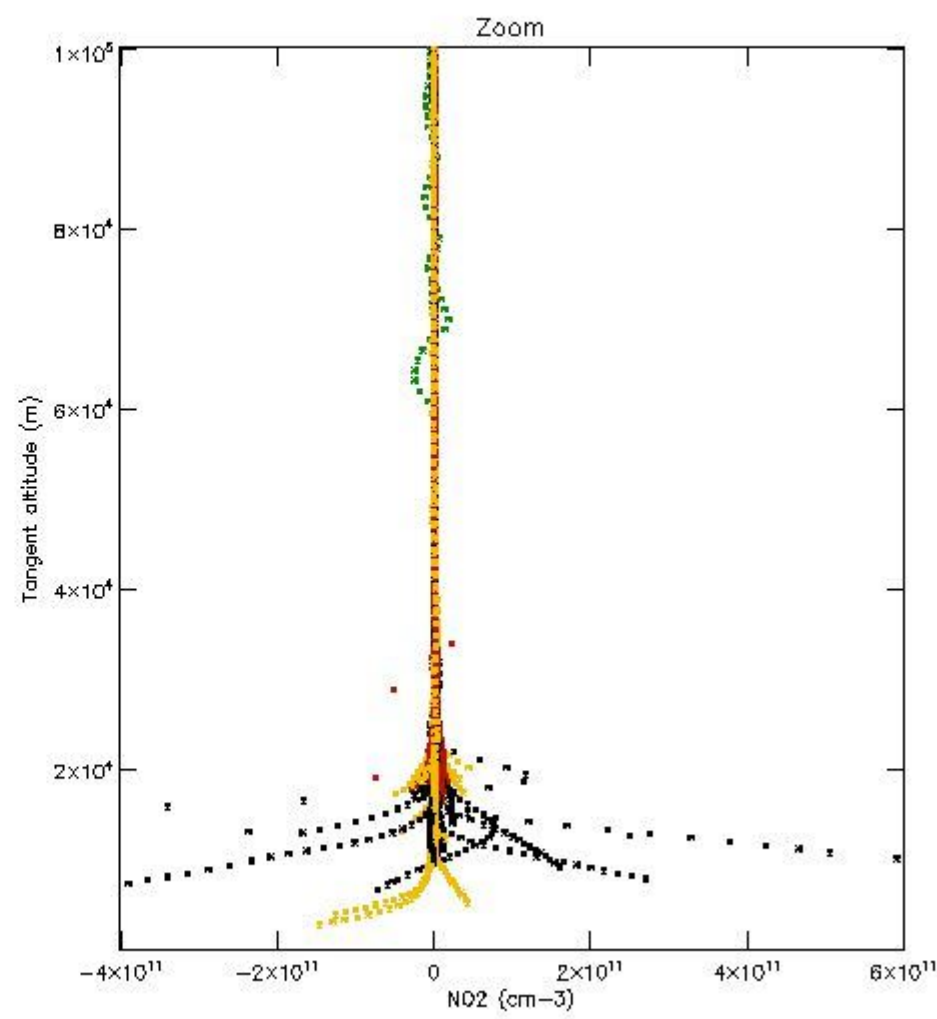
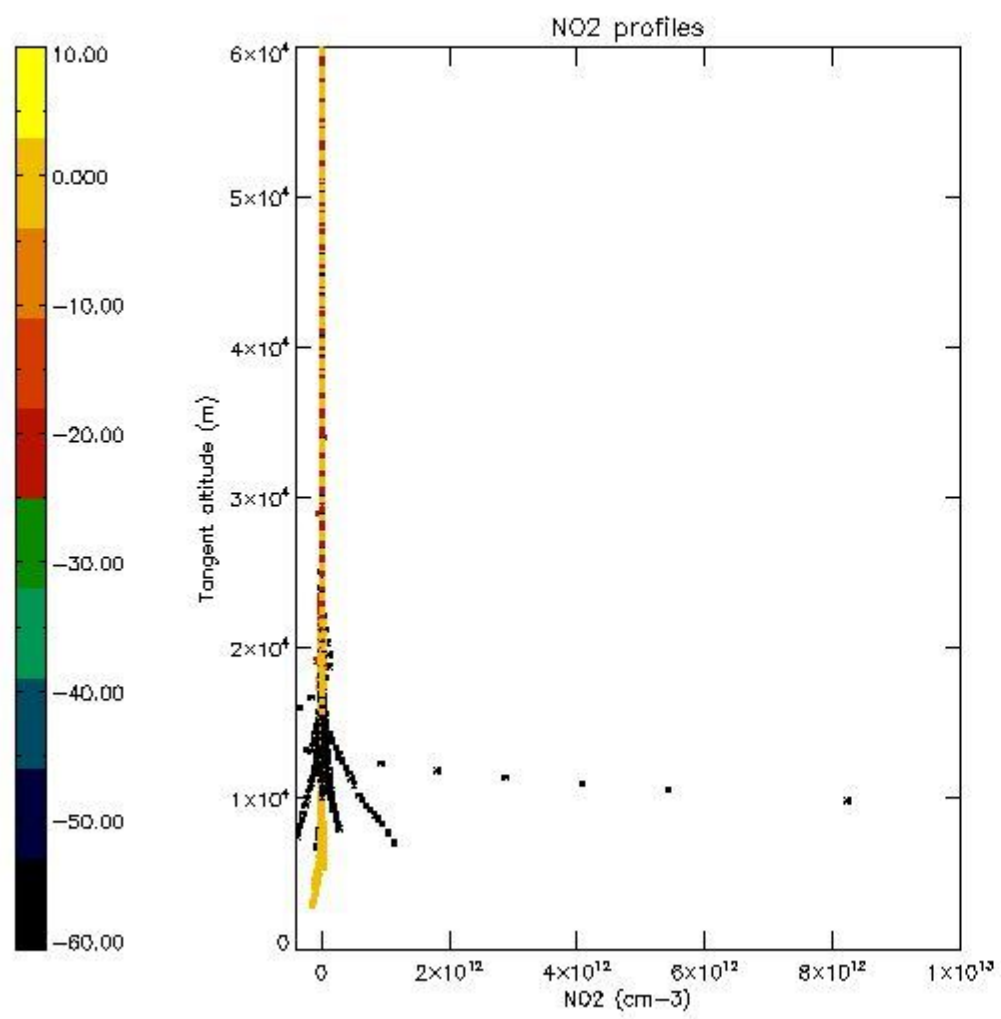
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



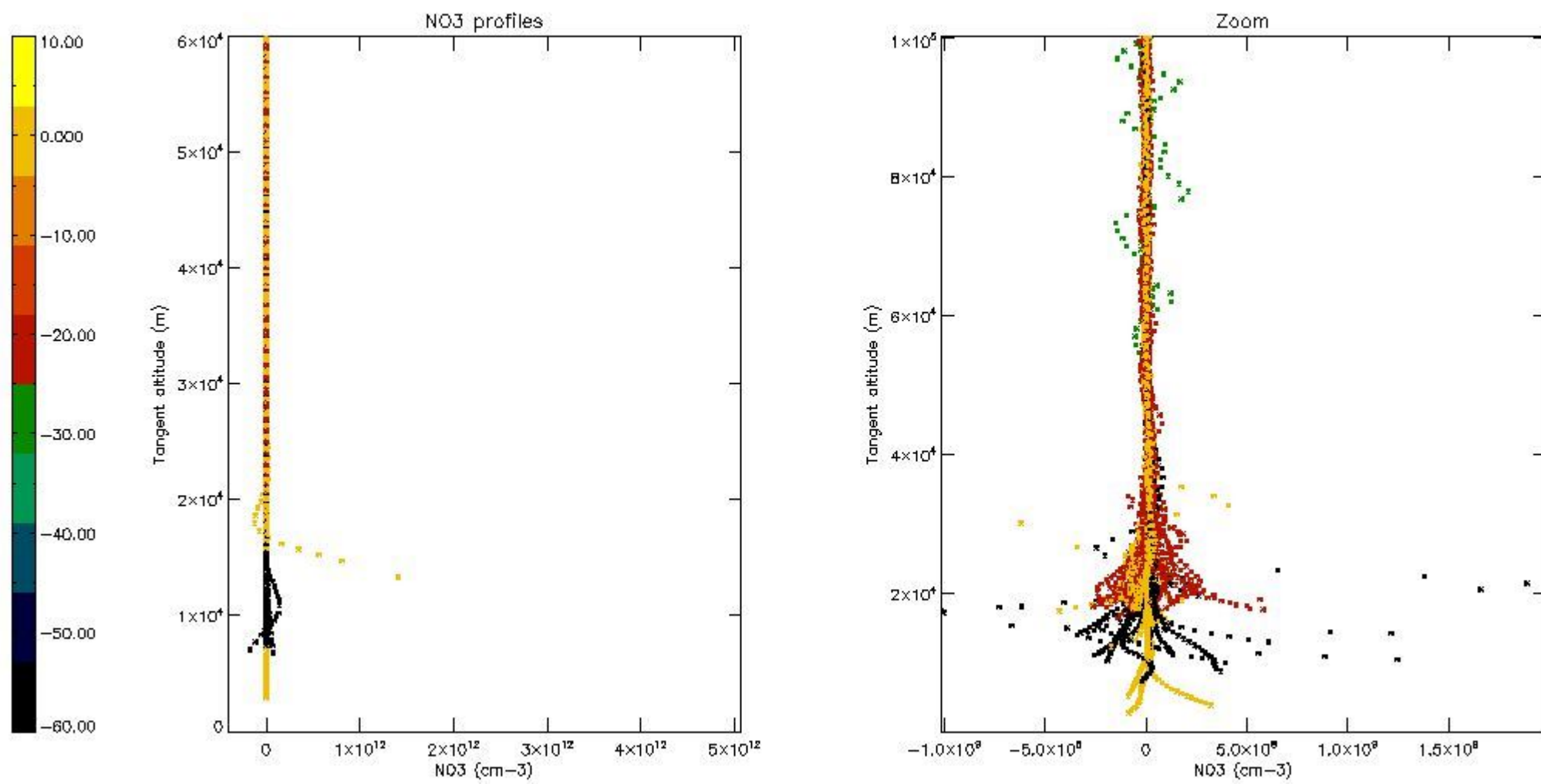
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



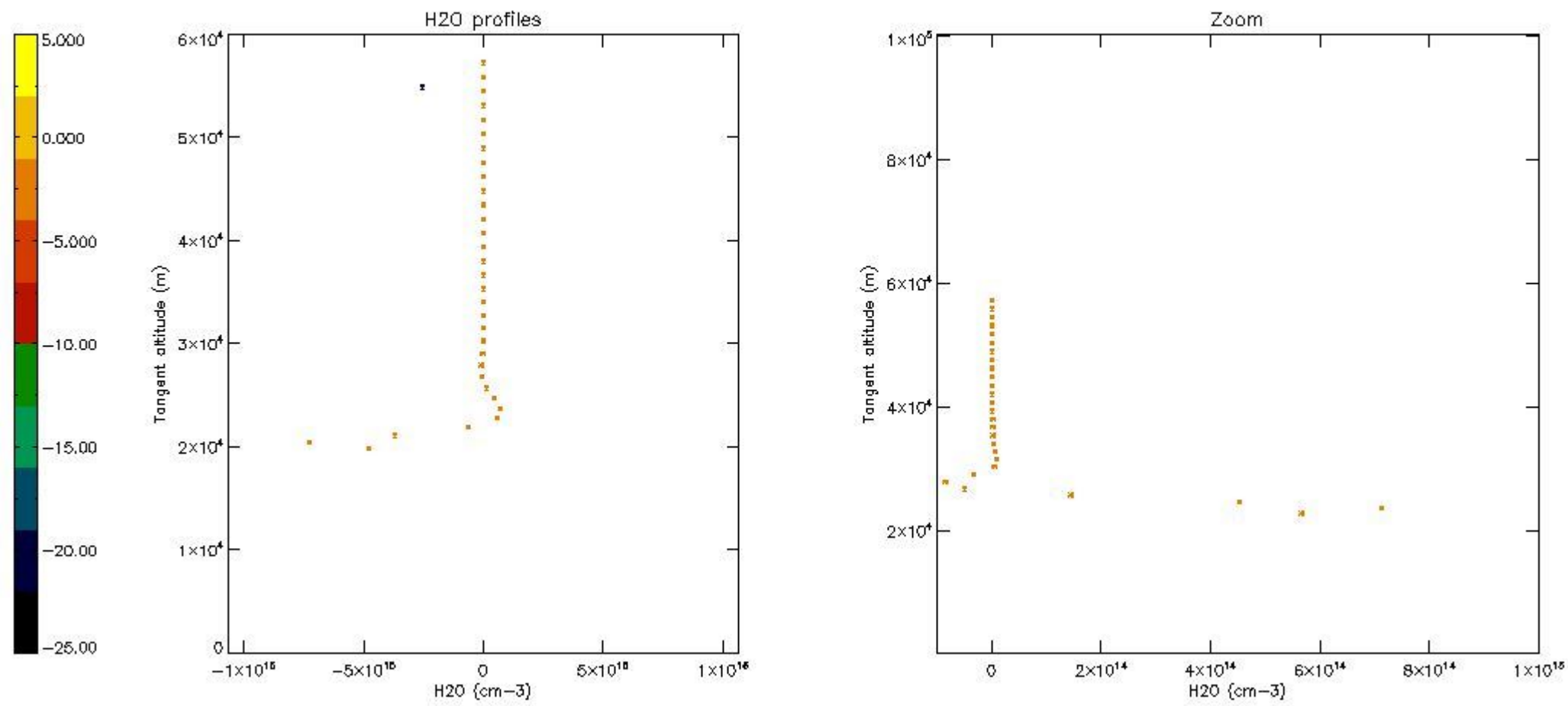
5.7 Plot NO3 profiles for all STD (dark without errors)

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	16-OCT-2010 00:13:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-OCT-2010 00:13:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-OCT-2010 00:13:17

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[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	29APR2013 16:00:03
Data source version	GOMOS/6.01
Start time of products	16-10-2010 (16OCT2010 00:00:00)
Stop time of products	17-10-2010 (17OCT2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	201
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

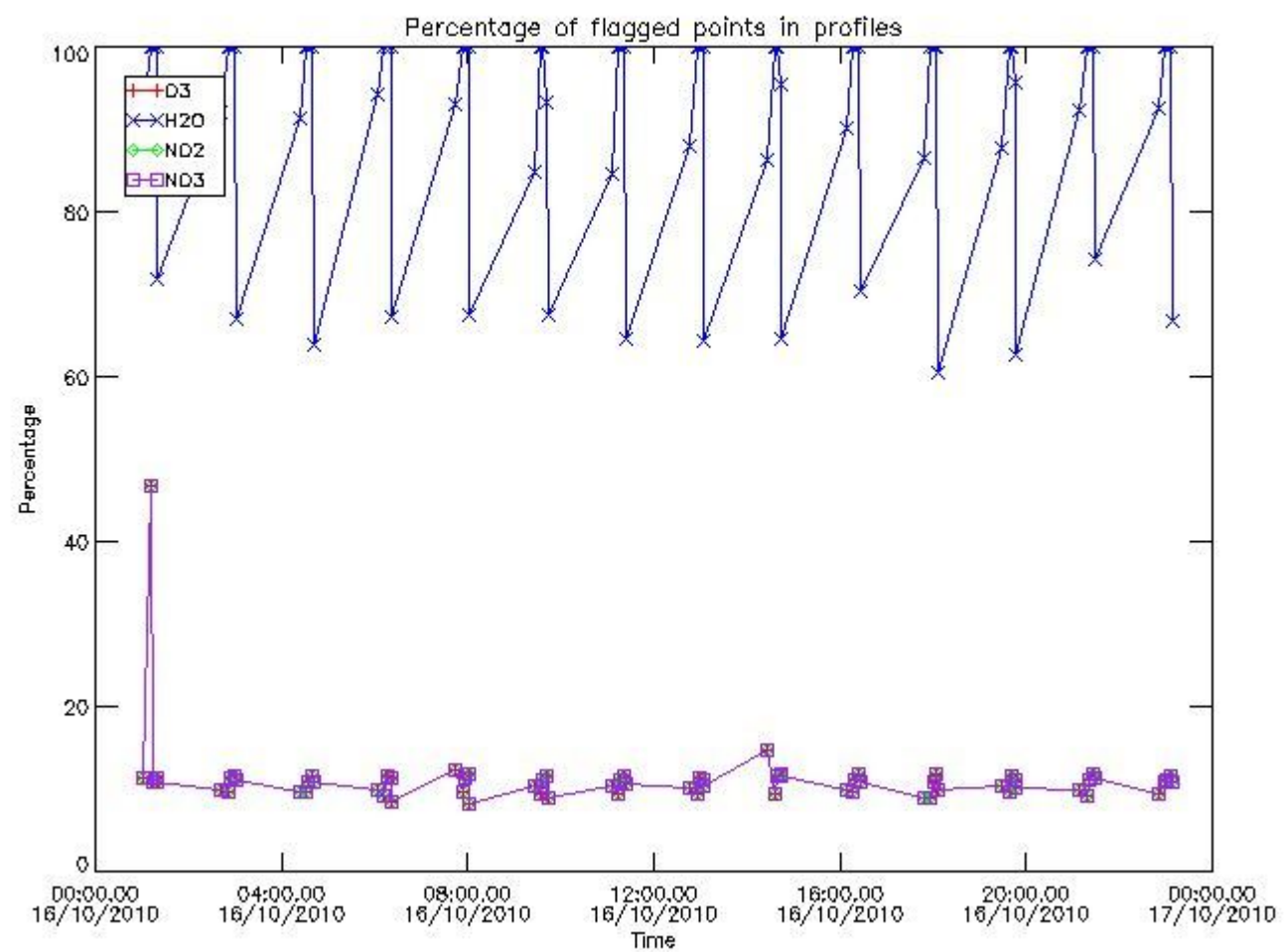
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20101016_001317_000000462093_00460_45103_9600.N1	16-OCT-2010 00:13:17	Bright	45.500	105	6Bet Ari	2.6450	8900.0	91	45103	No
2	GOM_NL__2PRFIN20101016_001641_000000402093_00460_45103_9601.N1	16-OCT-2010 00:16:41	Bright	39.500	53	43Bet And	2.0480	3300.0	79	45103	No
3	GOM_NL__2PRFIN20101016_001820_000000472093_00460_45103_9602.N1	16-OCT-2010 00:18:20	Bright	47.000	173	4Bet Tri	3.0040	8900.0	94	45103	No
4	GOM_NL__2PRFIN20101016_002011_000000472093_00460_45103_9603.N1	16-OCT-2010 00:20:11	Bright	46.500	73	57Gam1And	2.2600	13100.	93	45103	No
5	GOM_NL__2PRFIN20101016_002334_000000392093_00460_45103_9604.N1	16-OCT-2010 00:23:34	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	45103	No
6	GOM_NL__2PRFIN20101016_002529_000000442093_00460_45103_9605.N1	16-OCT-2010 00:25:29	Bright	44.000	160	23Gam Per	2.9300	4700.0	88	45103	No
7	GOM_NL__2PRFIN20101016_005120_000000442093_00460_45103_9606.N1	16-OCT-2010 00:51:20	Bright	43.500	166	17Eps Leo	2.9800	6000.0	87	45103	No
8	GOM_NL__2PRFIN20101016_005436_000000572093_00460_45103_9607.N1	16-OCT-2010 00:54:36	Bright	57.000	22	32Alp Leo	1.3600	15200.	114	45103	No
9	GOM_NL__2PRFIN20101016_010200_000000582093_00460_45103_9608.N1	16-OCT-2010 01:02:00	Dark	58.000	48	30Alp Hya	1.9770	4100.0	116	45103	No
10	GOM_NL__2PRFIN20101016_011054_000000532093_00460_45103_9609.N1	16-OCT-2010 01:10:54	Dark	53.000	132	15Rho Pup	2.8030	6900.0	106	45103	No
11	GOM_NL__2PRFIN20101016_011352_000000472093_00460_45103_9610.N1	16-OCT-2010 01:13:52	Dark	47.000	70	Zet Pup	2.2460	39000.	94	45103	No
12	GOM_NL__2PRFIN20101016_011859_000000452093_00461_45104_9607.N1	16-OCT-2010 01:18:59	Dark	45.000	161	Tau Pup	2.9310	4500.0	90	45104	No
13	GOM_NL__2PRFIN20101016_012020_000000472093_00461_45104_9608.N1	16-OCT-2010 01:20:20	Dark	46.500	2	Alp Car	-0.73600	7000.0	93	45104	No
14	GOM_NL__2PRFIN20101016_013207_000000462093_00461_45104_9609.N1	16-OCT-2010 01:32:07	Straylight	46.000	157	The1Eri	2.9060	9300.0	92	45104	No
15	GOM_NL__2PRFIN20101016_015352_000000482093_00461_45104_9610.N1	16-OCT-2010 01:53:52	Bright	47.500	105	6Bet Ari	2.6450	8900.0	95	45104	No
16	GOM_NL__2PRFIN20101016_015716_000000432093_00461_45104_9611.N1	16-OCT-2010 01:57:16	Bright	43.000	53	43Bet And	2.0480	3300.0	86	45104	No
17	GOM_NL__2PRFIN20101016_015855_000000472093_00461_45104_9612.N1	16-OCT-2010 01:58:55	Bright	47.000	173	4Bet Tri	3.0040	8900.0	94	45104	No
18	GOM_NL__2PRFIN20101016_020046_000000472093_00461_45104_9613.N1	16-OCT-2010 02:00:46	Bright	46.500	73	57Gam1And	2.2600	13100.	93	45104	No
19	GOM_NL__2PRFIN20101016_020410_000000362093_00461_45104_9614.N1	16-OCT-2010 02:04:10	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	45104	No
20	GOM_NL__2PRFIN20101016_020604_000000452093_00461_45104_9615.N1	16-OCT-2010 02:06:04	Bright	45.000	160	23Gam Per	2.9300	4700.0	90	45104	No
21	GOM_NL__2PRFIN20101016_023156_000000432093_00461_45104_9616.N1	16-OCT-2010 02:31:56	Bright	42.500	166	17Eps Leo	2.9800	6000.0	85	45104	No
22	GOM_NL__2PRFIN20101016_023512_000000402093_00461_45104_9617.N1	16-OCT-2010 02:35:12	Bright	40.000	22	32Alp Leo	1.3600	15200.	80	45104	No
23	GOM_NL__2PRFIN20101016_024236_000000512093_00461_45104_9618.N1	16-OCT-2010 02:42:36	Dark	51.000	48	30Alp Hya	1.9770	4100.0	102	45104	No
24	GOM_NL__2PRFIN20101016_025131_000000542093_00461_45104_9619.N1	16-OCT-2010 02:51:31	Dark	53.500	132	15Rho Pup	2.8030	6900.0	107	45104	No
25	GOM_NL__2PRFIN20101016_025429_000000452093_00461_45104_9620.N1	16-OCT-2010 02:54:29	Dark	44.500	70	Zet Pup	2.2460	39000.	89	45104	No
26	GOM_NL__2PRFIN20101016_025936_000000442093_00462_45105_9633.N1	16-OCT-2010 02:59:36	Dark	44.000	161	Tau Pup	2.9310	4500.0	88	45105	No
27	GOM_NL__2PRFIN20101016_030056_000000462093_00462_45105_9634.N1	16-OCT-2010 03:00:56	Dark	46.000	2	Alp Car	-0.73600	7000.0	92	45105	No
28	GOM_NL__2PRFIN20101016_031243_000000462093_00462_45105_9635.N1	16-OCT-2010 03:12:43	Straylight	45.500	157	The1Eri	2.9060	9300.0	91	45105	No
29	GOM_NL__2PRFIN20101016_033428_000000472093_00462_45105_9636.N1	16-OCT-2010 03:34:28	Bright	46.500	105	6Bet Ari	2.6450	8900.0	93	45105	No
30	GOM_NL__2PRFIN20101016_033752_000000402093_00462_45105_9637.N1	16-OCT-2010 03:37:52	Bright	39.500	53	43Bet And	2.0480	3300.0	79	45105	No
31	GOM_NL__2PRFIN20101016_033930_000000472093_00462_45105_9638.N1	16-OCT-2010 03:39:30	Bright	46.500	173	4Bet Tri	3.0040	8900.0	93	45105	No
32	GOM_NL__2PRFIN20101016_034122_000000462093_00462_45105_9639.N1	16-OCT-2010 03:41:22	Bright	46.000	73	57Gam1And	2.2600	13100.	92	45105	No
33	GOM_NL__2PRFIN20101016_034445_000000362093_00462_45105_9640.N1	16-OCT-2010 03:44:45	Bright	35.500	76	27Gam Cas	2.3000	30000.	71	45105	No
34	GOM_NL__2PRFIN20101016_034640_000000452093_00462_45105_9641.N1	16-OCT-2010 03:46:40	Bright	45.000	160	23Gam Per	2.9300	4700.0	90	45105	No
35	GOM_NL__2PRFIN20101016_041232_000000402093_00462_45105_9642.N1	16-OCT-2010 04:12:32	Bright	40.000	166	17Eps Leo	2.9800	6000.0	80	45105	No
36	GOM_NL__2PRFIN20101016_041549_000000412093_00462_45105_9643.N1	16-OCT-2010 04:15:49	Bright	41.000	22	32Alp Leo	1.3600	15200.	82	45105	No
37	GOM_NL__2PRFIN20101016_042313_000000532093_00462_45105_9644.N1	16-OCT-2010 04:23:13	Dark	53.000	48	30Alp Hya	1.9770	4100.0	106	45105	No
38	GOM_NL__2PRFIN20101016_043208_000000532093_00462_45105_9645.N1	16-OCT-2010 04:32:08	Dark	52.500	132	15Rho Pup	2.8030	6900.0	105	45105	No
39	GOM_NL__2PRFIN20101016_043506_000000472093_00462_45105_9646.N1	16-OCT-2010 04:35:06	Dark	46.500	70	Zet Pup	2.2460	39000.	93	45105	No
40	GOM_NL__2PRFIN20101016_044013_000000442093_00463_45106_9643.N1	16-OCT-2010 04:40:13	Dark	44.000	161	Tau Pup	2.9310	4500.0	88	45106	No
41	GOM_NL__2PRFIN20101016_044133_000000482093_00463_45106_9644.N1	16-OCT-2010 04:41:33	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	45106	No
42	GOM_NL__2PRFIN20101016_045320_000000442093_00463_45106_9645.N1	16-OCT-2010 04:53:20	Straylight	44.000	157	The1Eri	2.9060	9300.0	88	45106	No

161	GOM_NL__2PRFIN20101016_192115_000000402093_00471_45114_9936.N1	16-OCT-2010 19:21:15	Bright	40.000	22	32Alp Leo	1.3600	15200.	80	45114	No
162	GOM_NL__2PRFIN20101016_192842_000000542093_00471_45114_9937.N1	16-OCT-2010 19:28:42	Dark	53.500	48	30Alp Hya	1.9770	4100.0	107	45114	No
163	GOM_NL__2PRFIN20101016_193743_000000542093_00471_45114_9938.N1	16-OCT-2010 19:37:43	Dark	53.500	132	15Rho Pup	2.8030	6900.0	107	45114	No
164	GOM_NL__2PRFIN20101016_194038_000000452093_00471_45114_9939.N1	16-OCT-2010 19:40:38	Dark	44.500	70	Zet Pup	2.2460	39000.	89	45114	No
165	GOM_NL__2PRFIN20101016_194544_000000462093_00472_45115_9973.N1	16-OCT-2010 19:45:44	Dark	46.000	161	Tau Pup	2.9310	4500.0	92	45115	No
166	GOM_NL__2PRFIN20101016_194704_000000502093_00472_45115_9974.N1	16-OCT-2010 19:47:04	Dark	49.500	2	Alp Car	-0.73600	7000.0	99	45115	No
167	GOM_NL__2PRFIN20101016_195847_000000442093_00472_45115_9975.N1	16-OCT-2010 19:58:47	Straylight	44.000	157	The1Eri	2.9060	9300.0	88	45115	No
168	GOM_NL__2PRFIN20101016_202021_000000472093_00472_45115_9976.N1	16-OCT-2010 20:20:21	Bright	46.500	105	6Bet Ari	2.6450	8900.0	93	45115	No
169	GOM_NL__2PRFIN20101016_202348_000000412093_00472_45115_9977.N1	16-OCT-2010 20:23:48	Bright	40.500	53	43Bet And	2.0480	3300.0	81	45115	No
170	GOM_NL__2PRFIN20101016_202522_000000692093_00472_45115_9978.N1	16-OCT-2010 20:25:22	Bright	69.000	173	4Bet Tri	3.0040	8900.0	138	45115	No
171	GOM_NL__2PRFIN20101016_202715_000000482093_00472_45115_9979.N1	16-OCT-2010 20:27:15	Bright	48.000	73	57Gam1And	2.2600	13100.	96	45115	No
172	GOM_NL__2PRFIN20101016_203042_000000392093_00472_45115_9980.N1	16-OCT-2010 20:30:42	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	45115	No
173	GOM_NL__2PRFIN20101016_203231_000000462093_00472_45115_9981.N1	16-OCT-2010 20:32:31	Bright	45.500	160	23Gam Per	2.9300	4700.0	91	45115	No
174	GOM_NL__2PRFIN20101016_205834_000000422093_00472_45115_9982.N1	16-OCT-2010 20:58:34	Bright	42.000	166	17Eps Leo	2.9800	6000.0	84	45115	No
175	GOM_NL__2PRFIN20101016_210151_000000582093_00472_45115_9983.N1	16-OCT-2010 21:01:51	Bright	58.000	22	32Alp Leo	1.3600	15200.	116	45115	No
176	GOM_NL__2PRFIN20101016_210919_000000522093_00472_45115_9984.N1	16-OCT-2010 21:09:19	Dark	52.000	48	30Alp Hya	1.9770	4100.0	104	45115	No
177	GOM_NL__2PRFIN20101016_211821_000000552093_00472_45115_9985.N1	16-OCT-2010 21:18:21	Dark	55.000	132	15Rho Pup	2.8030	6900.0	110	45115	No
178	GOM_NL__2PRFIN20101016_212115_000000462093_00472_45115_9986.N1	16-OCT-2010 21:21:15	Dark	45.500	70	Zet Pup	2.2460	39000.	91	45115	No
179	GOM_NL__2PRFIN20101016_212621_000000442093_00473_45116_9983.N1	16-OCT-2010 21:26:21	Dark	43.500	161	Tau Pup	2.9310	4500.0	87	45116	No
180	GOM_NL__2PRFIN20101016_212741_000000452093_00473_45116_9984.N1	16-OCT-2010 21:27:41	Dark	45.000	2	Alp Car	-0.73600	7000.0	90	45116	No
181	GOM_NL__2PRFIN20101016_213924_000000452093_00473_45116_9985.N1	16-OCT-2010 21:39:24	Straylight	44.500	157	The1Eri	2.9060	9300.0	89	45116	No
182	GOM_NL__2PRFIN20101016_220057_000000462093_00473_45116_9986.N1	16-OCT-2010 22:00:57	Bright	46.000	105	6Bet Ari	2.6450	8900.0	92	45116	No
183	GOM_NL__2PRFIN20101016_220424_000000432093_00473_45116_9987.N1	16-OCT-2010 22:04:24	Bright	42.500	53	43Bet And	2.0480	3300.0	85	45116	No
184	GOM_NL__2PRFIN20101016_220557_000000472093_00473_45116_9988.N1	16-OCT-2010 22:05:57	Bright	46.500	173	4Bet Tri	3.0040	8900.0	93	45116	No
185	GOM_NL__2PRFIN20101016_220750_000000482093_00473_45116_9989.N1	16-OCT-2010 22:07:50	Bright	47.500	73	57Gam1And	2.2600	13100.	95	45116	No
186	GOM_NL__2PRFIN20101016_221120_000000382093_00473_45116_9990.N1	16-OCT-2010 22:11:20	Bright	37.500	76	27Gam Cas	2.3000	30000.	75	45116	No
187	GOM_NL__2PRFIN20101016_221306_000000442093_00473_45116_9991.N1	16-OCT-2010 22:13:06	Bright	43.500	160	23Gam Per	2.9300	4700.0	87	45116	No
188	GOM_NL__2PRFIN20101016_223910_000000472093_00473_45116_9992.N1	16-OCT-2010 22:39:10	Bright	46.500	166	17Eps Leo	2.9800	6000.0	93	45116	No
189	GOM_NL__2PRFIN20101016_224228_000000422093_00473_45116_9993.N1	16-OCT-2010 22:42:28	Bright	42.000	22	32Alp Leo	1.3600	15200.	84	45116	No
190	GOM_NL__2PRFIN20101016_224956_000000552093_00473_45116_9994.N1	16-OCT-2010 22:49:56	Dark	54.500	48	30Alp Hya	1.9770	4100.0	109	45116	No
191	GOM_NL__2PRFIN20101016_225858_000000522093_00473_45116_9995.N1	16-OCT-2010 22:58:58	Dark	51.500	132	15Rho Pup	2.8030	6900.0	103	45116	No
192	GOM_NL__2PRFIN20101016_230152_000000462093_00473_45116_9996.N1	16-OCT-2010 23:01:52	Dark	45.500	70	Zet Pup	2.2460	39000.	91	45116	No
193	GOM_NL__2PRFIN20101016_230657_000000452093_00474_45117_9993.N1	16-OCT-2010 23:06:57	Dark	44.500	161	Tau Pup	2.9310	4500.0	89	45117	No
194	GOM_NL__2PRFIN20101016_230817_000000472093_00474_45117_9994.N1	16-OCT-2010 23:08:17	Dark	47.000	2	Alp Car	-0.73600	7000.0	94	45117	No
195	GOM_NL__2PRFIN20101016_232000_000000452093_00474_45117_9995.N1	16-OCT-2010 23:20:00	Straylight	44.500	157	The1Eri	2.9060	9300.0	89	45117	No
196	GOM_NL__2PRFIN20101016_234132_000000472093_00474_45117_9996.N1	16-OCT-2010 23:41:32	Bright	47.000	105	6Bet Ari	2.6450	8900.0	94	45117	No
197	GOM_NL__2PRFIN20101016_234459_000000422093_00474_45117_9997.N1	16-OCT-2010 23:44:59	Bright	41.500	53	43Bet And	2.0480	3300.0	83	45117	No
198	GOM_NL__2PRFIN20101016_234633_000000462093_00474_45117_9998.N1	16-OCT-2010 23:46:33	Bright	46.000	173	4Bet Tri	3.0040	8900.0	92	45117	No
199	GOM_NL__2PRFIN20101016_234825_000000432093_00474_45117_9999.N1	16-OCT-2010 23:48:25	Bright	43.000	73	57Gam1And	2.2600	13100.	86	45117	No
200	GOM_NL__2PRFIN20101016_235159_000000322093_00474_45117_0000.N1	16-OCT-2010 23:51:59	Bright	31.500	76	27Gam Cas	2.3000	30000.	63	45117	No
201	GOM_NL__2PRFIN20101016_235341_000000482093_00474_45117_0001.N1	16-OCT-2010 23:53:41	Bright	47.500	160	23Gam Per	2.9300	4700.0	95	45117	No

3. Quality information per product

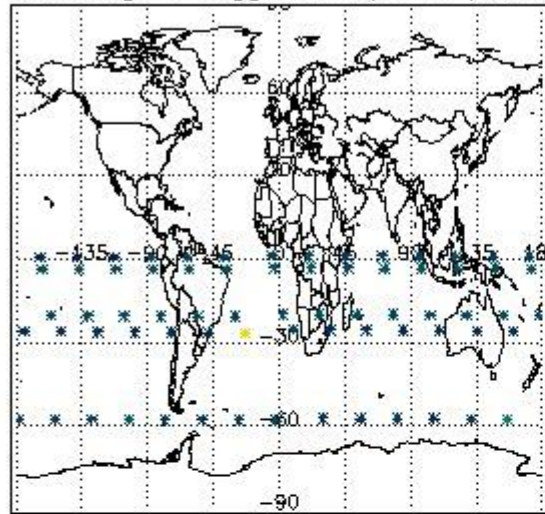
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

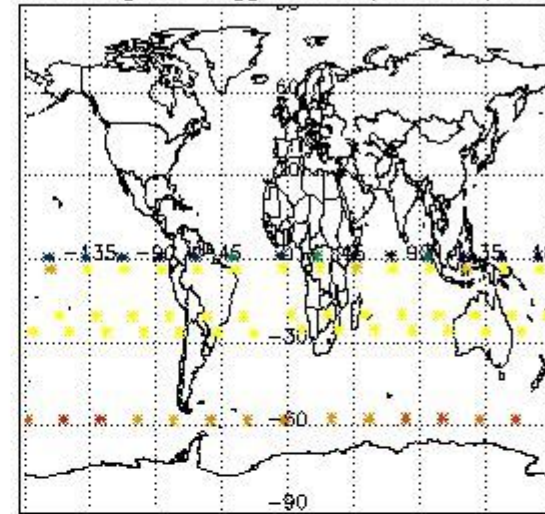


3.2 Plot quality information per product (world map)

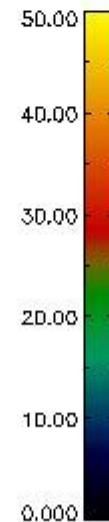
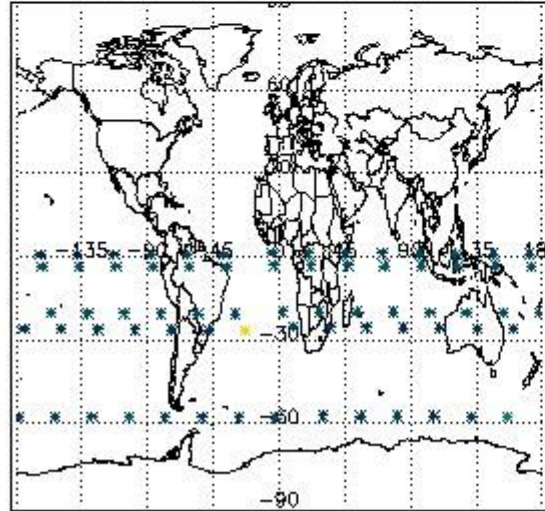
Percentage of flagged data per O3 profile



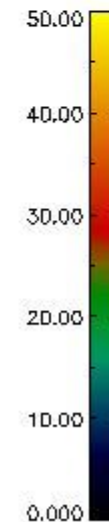
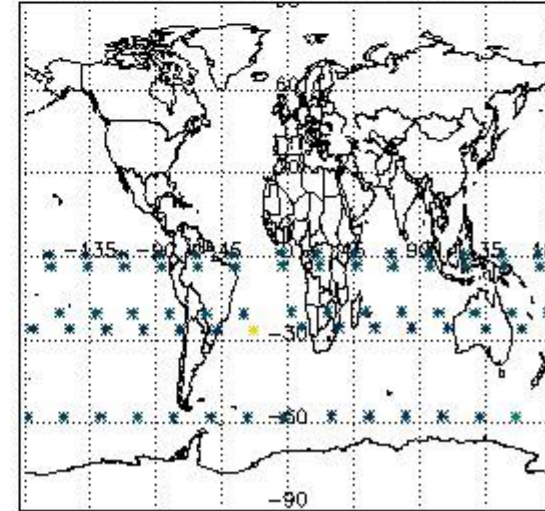
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

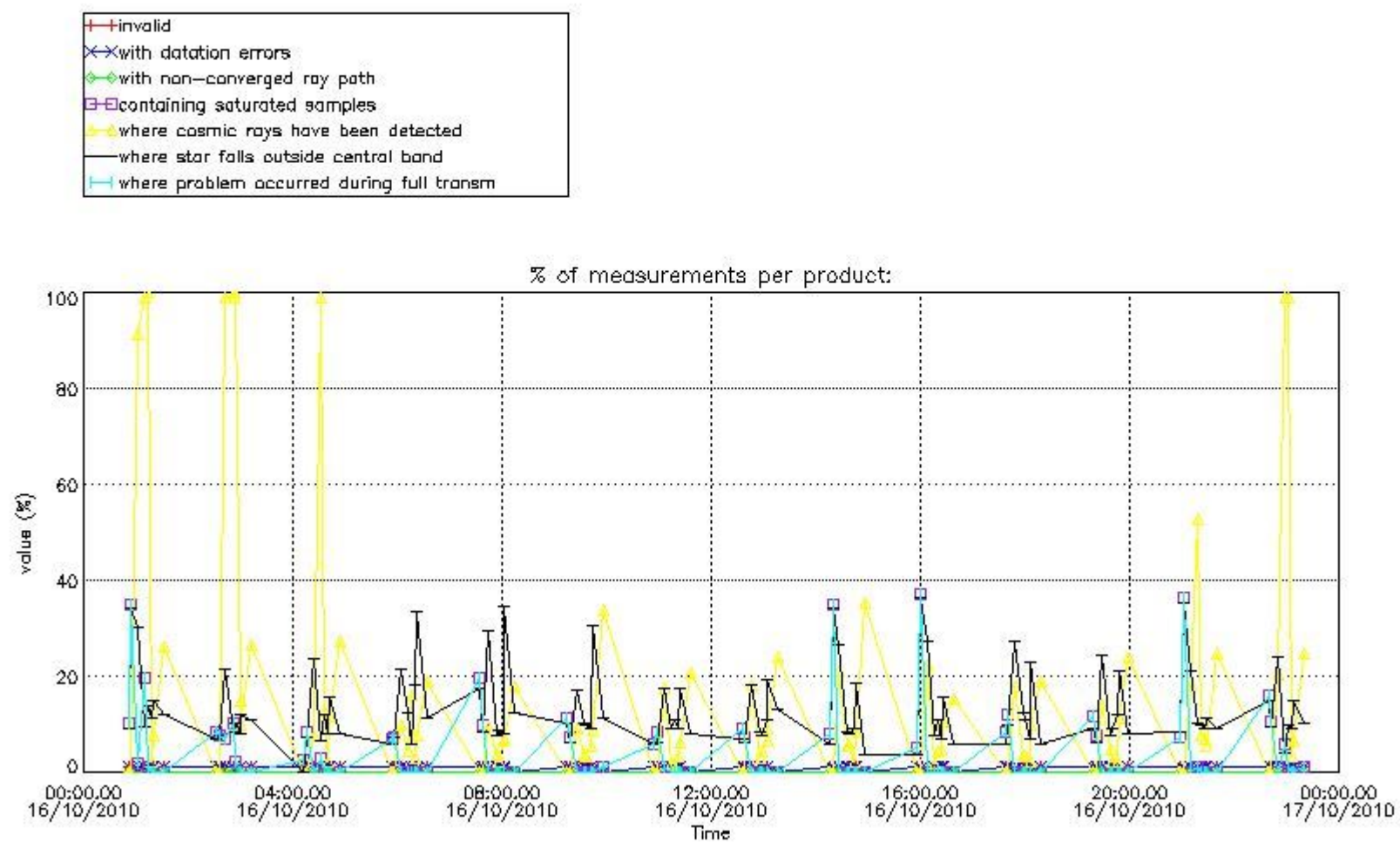


4. Level 1 quality information per product

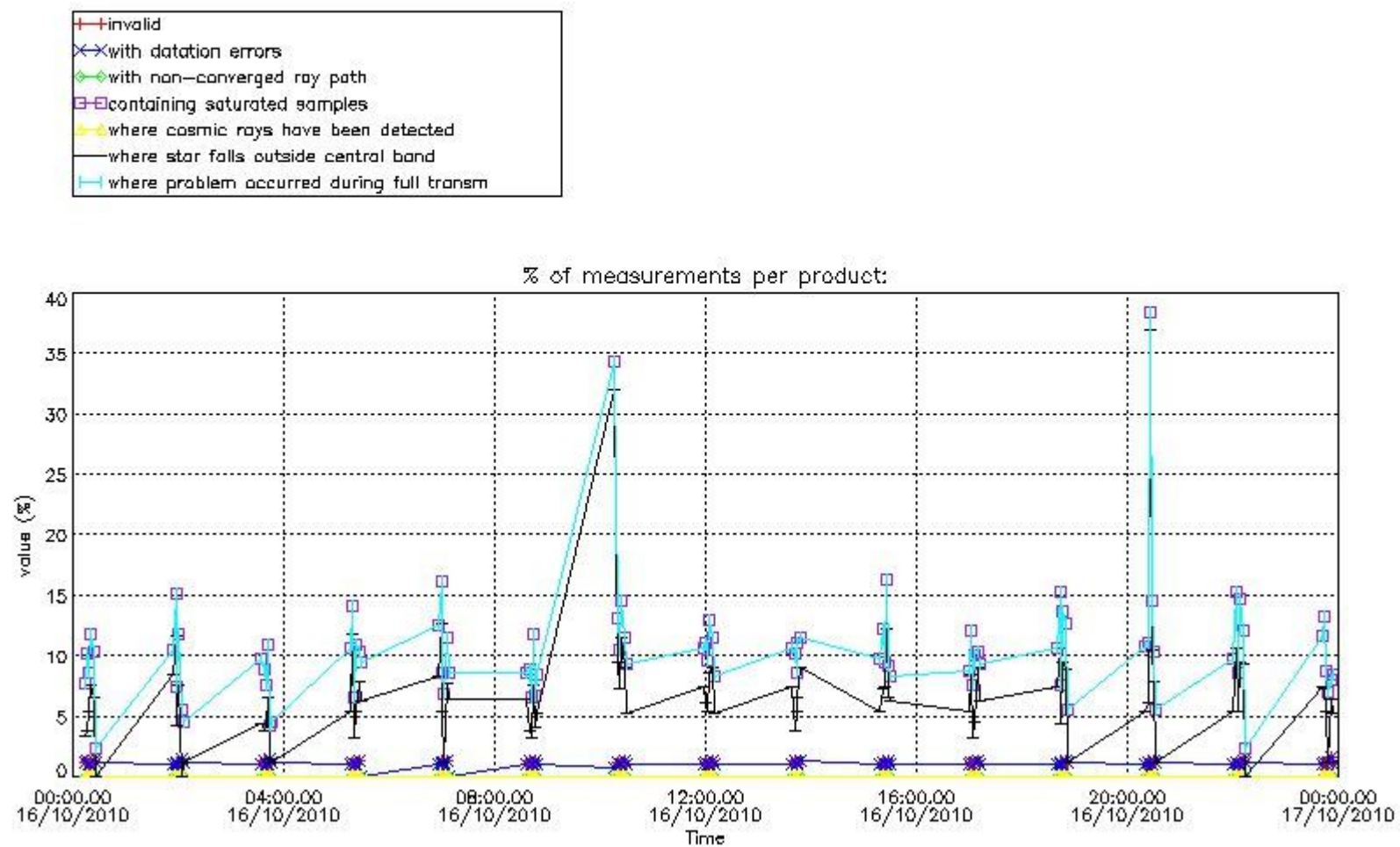
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



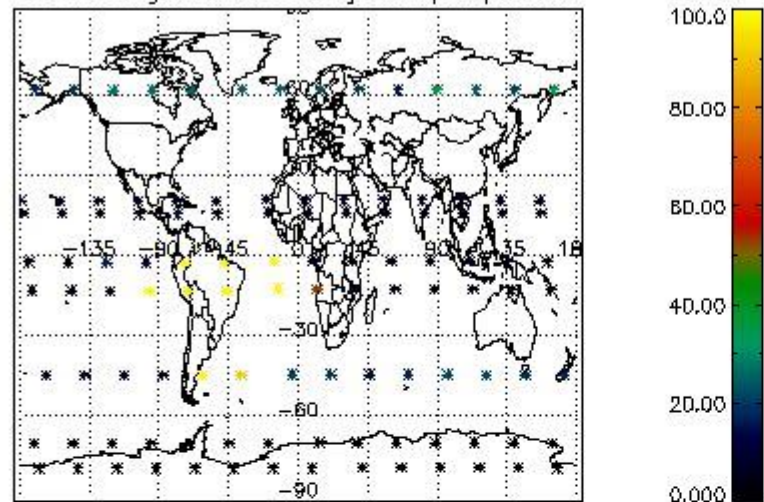
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



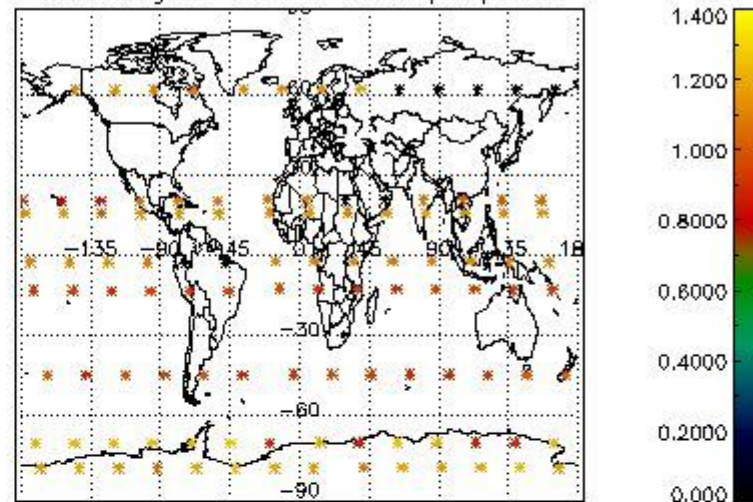
4.2 Plot quality information per product coming from level 1b processing (world map)

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

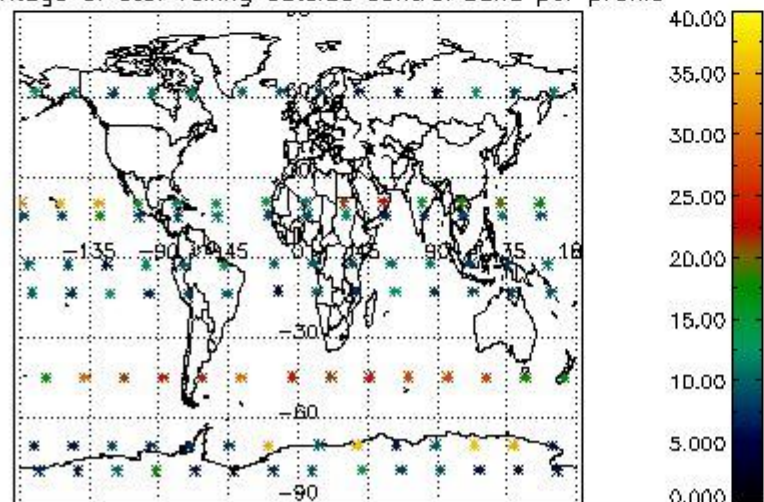
Percentage of cosmic ray hits per profile



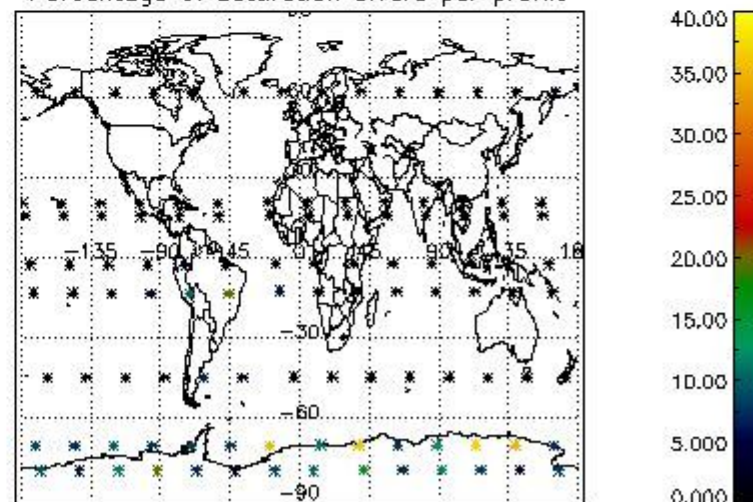
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

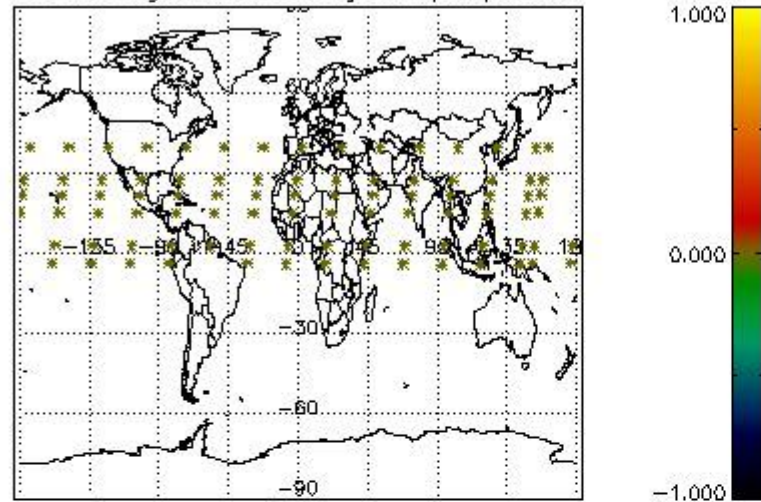


Percentage of saturation errors per profile

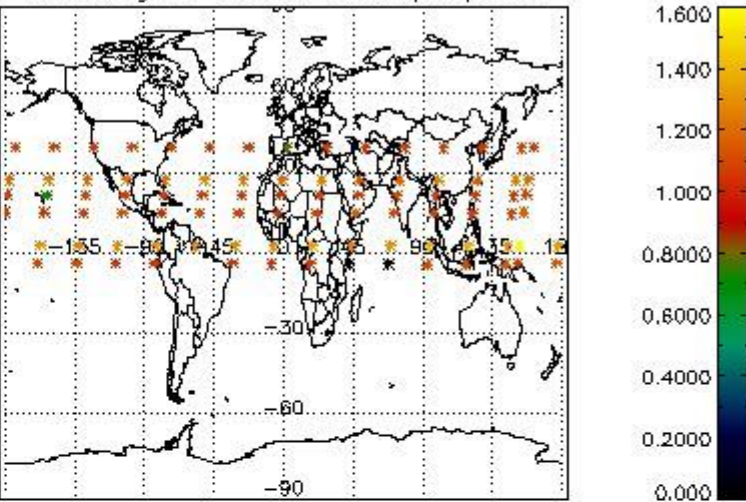


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

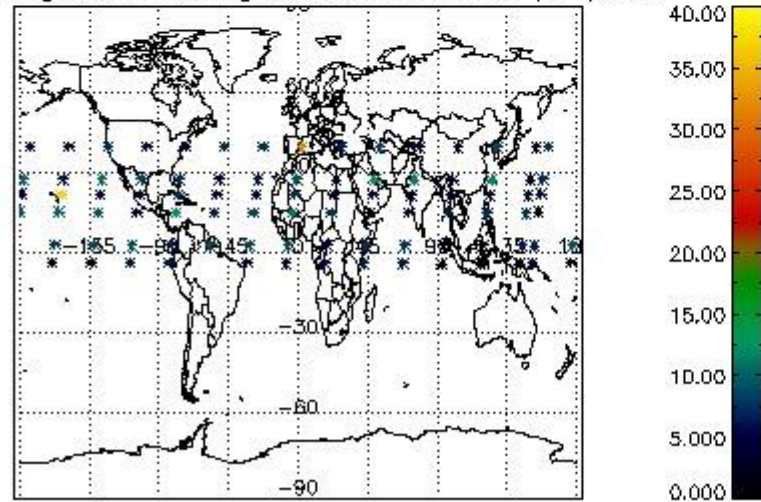
Percentage of cosmic ray hits per profile



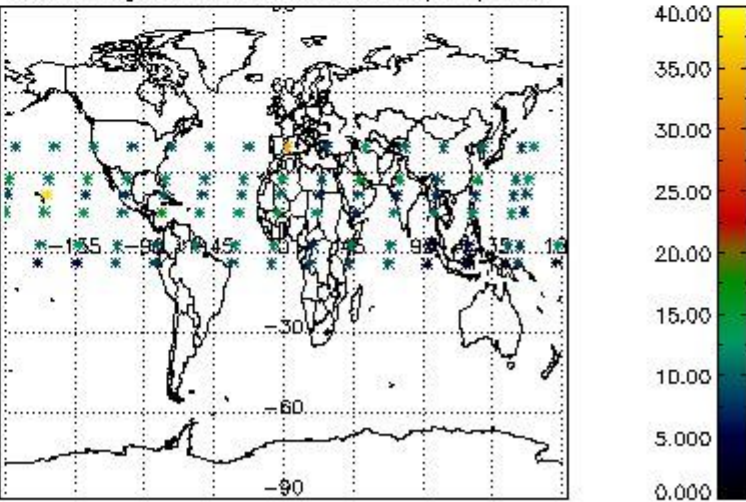
Percentage of datation errors per profile



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

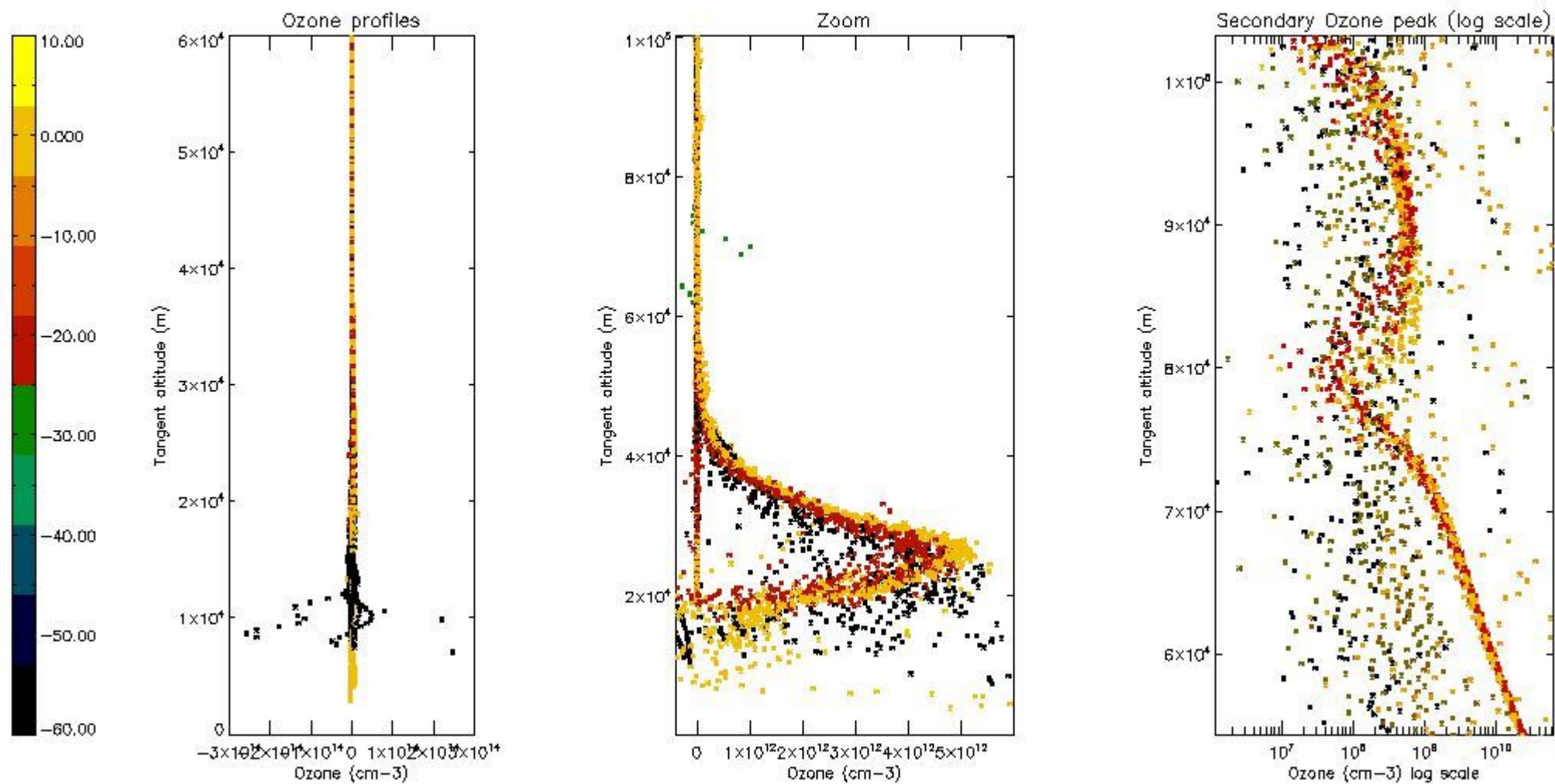
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	38
STD < 20	17

STD < 10	12
STD < 5	8

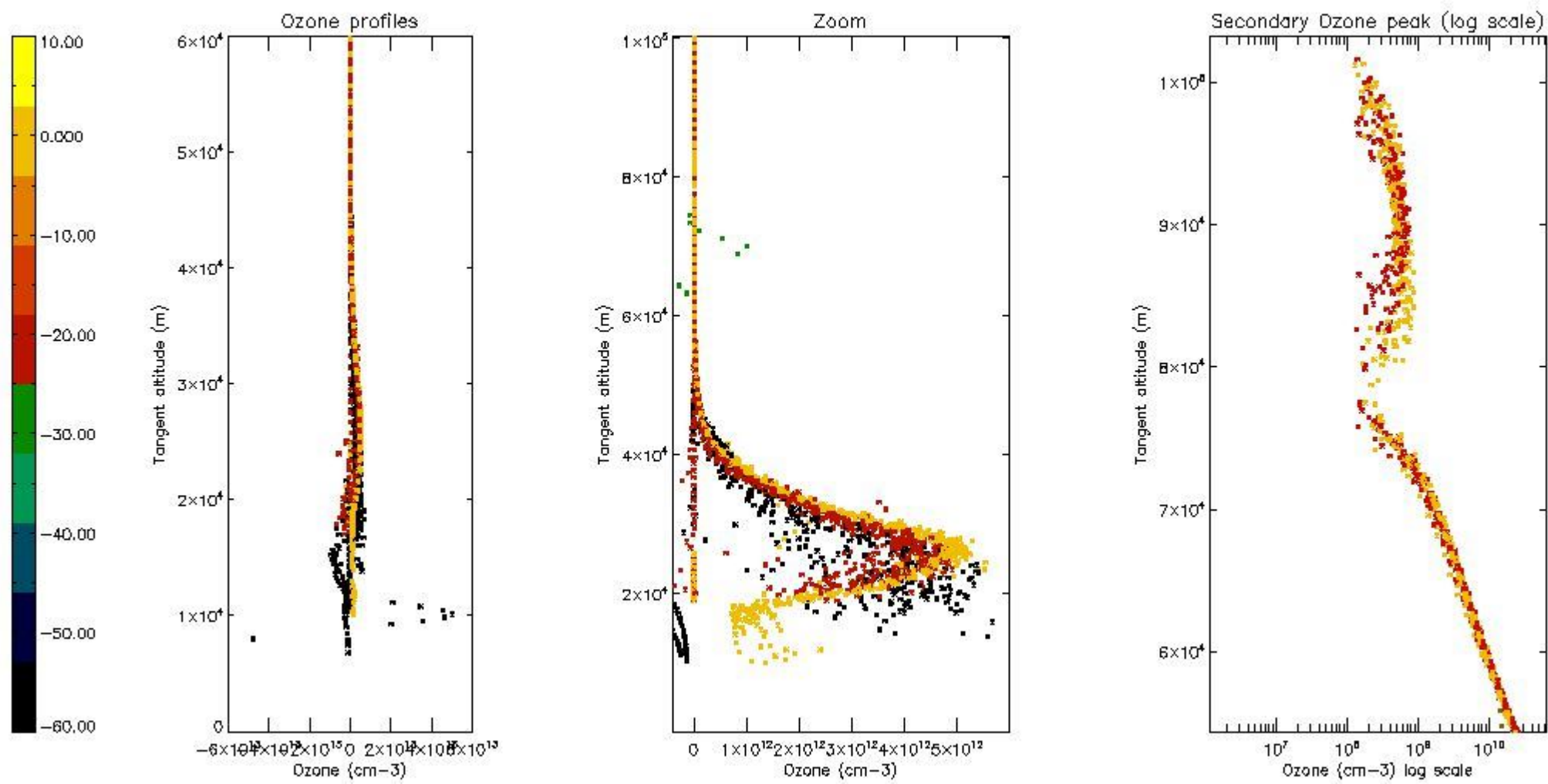
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



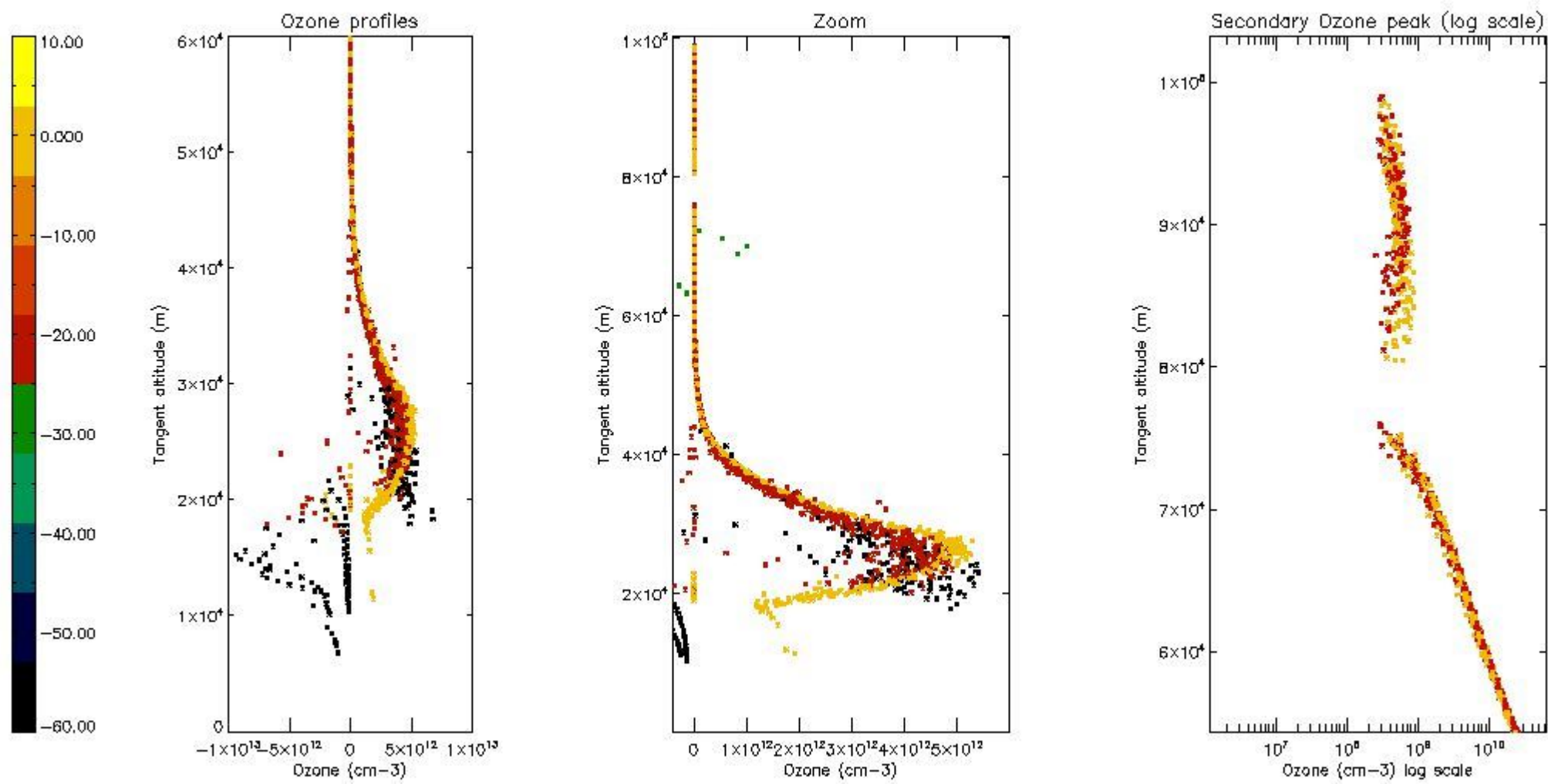
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



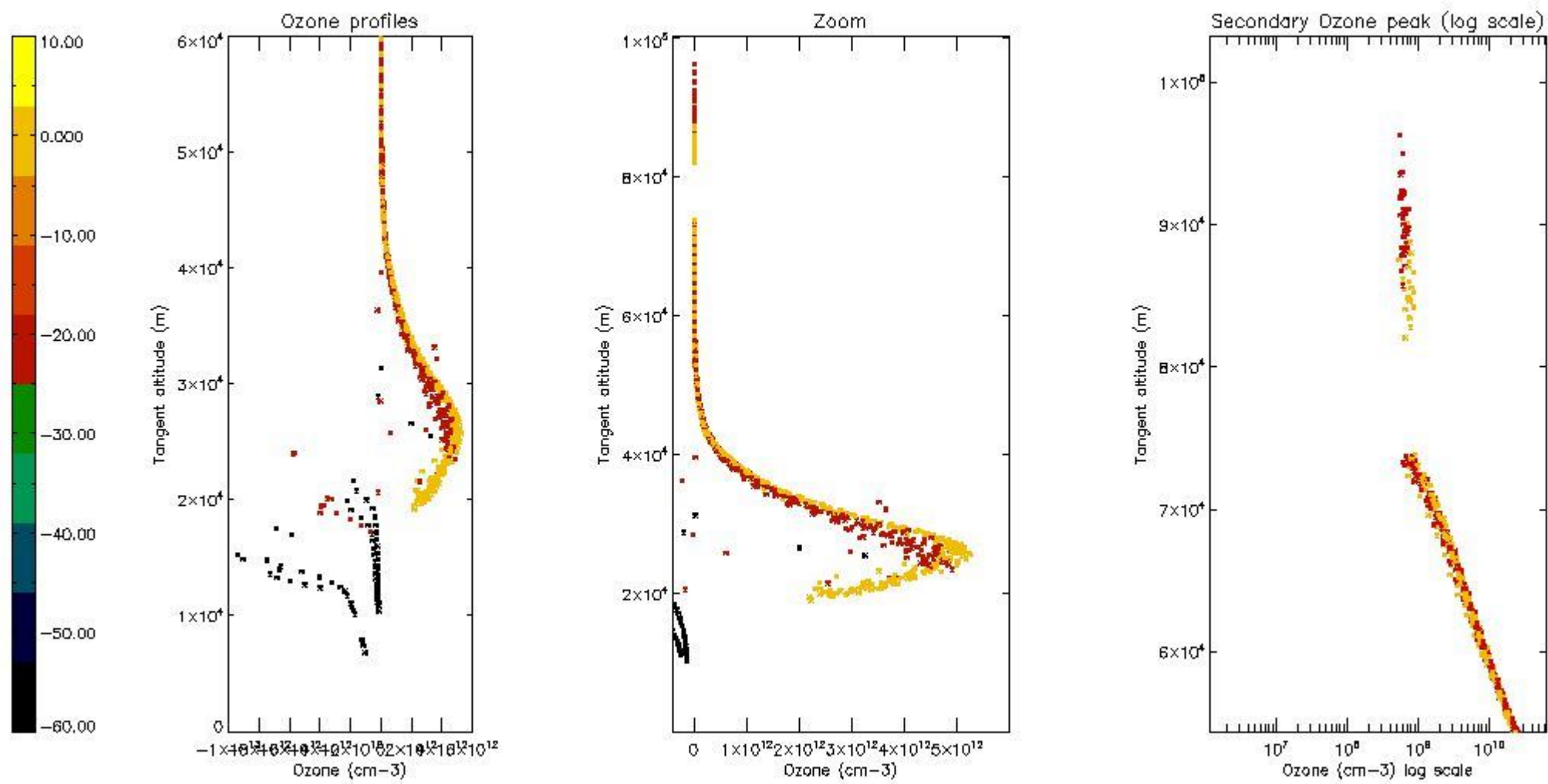
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



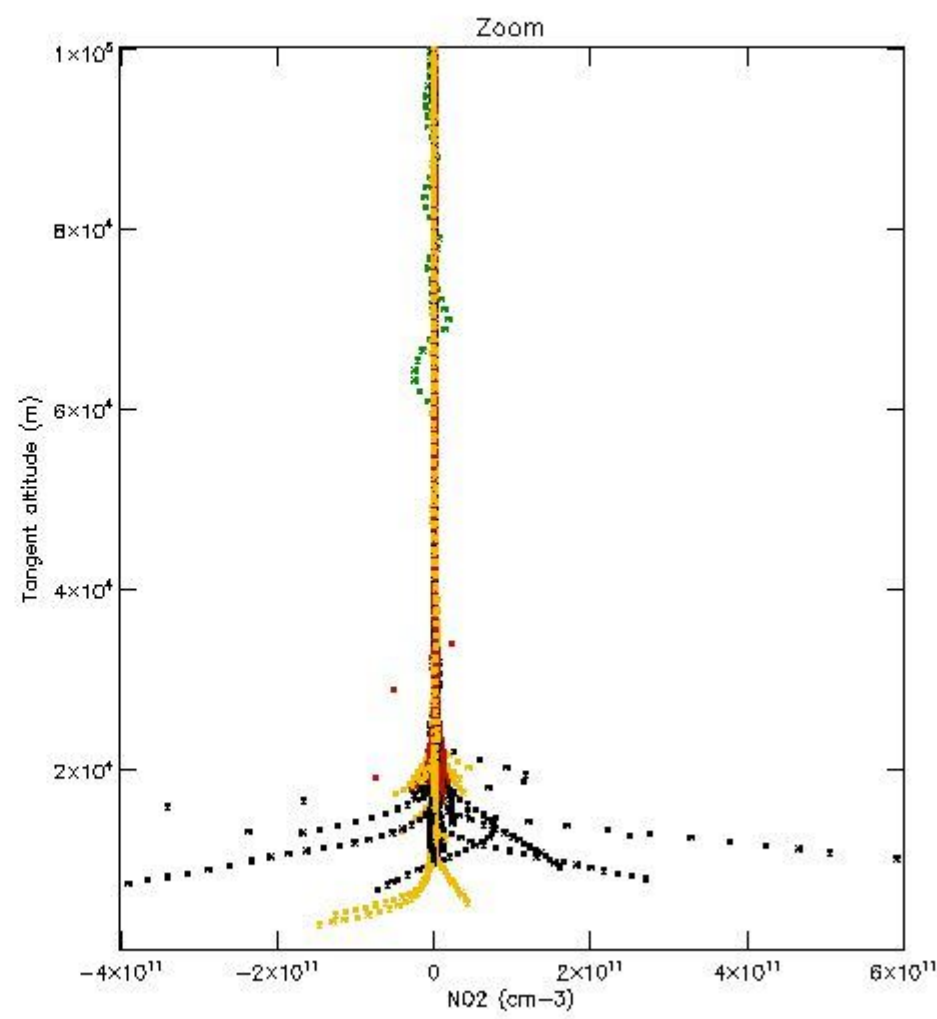
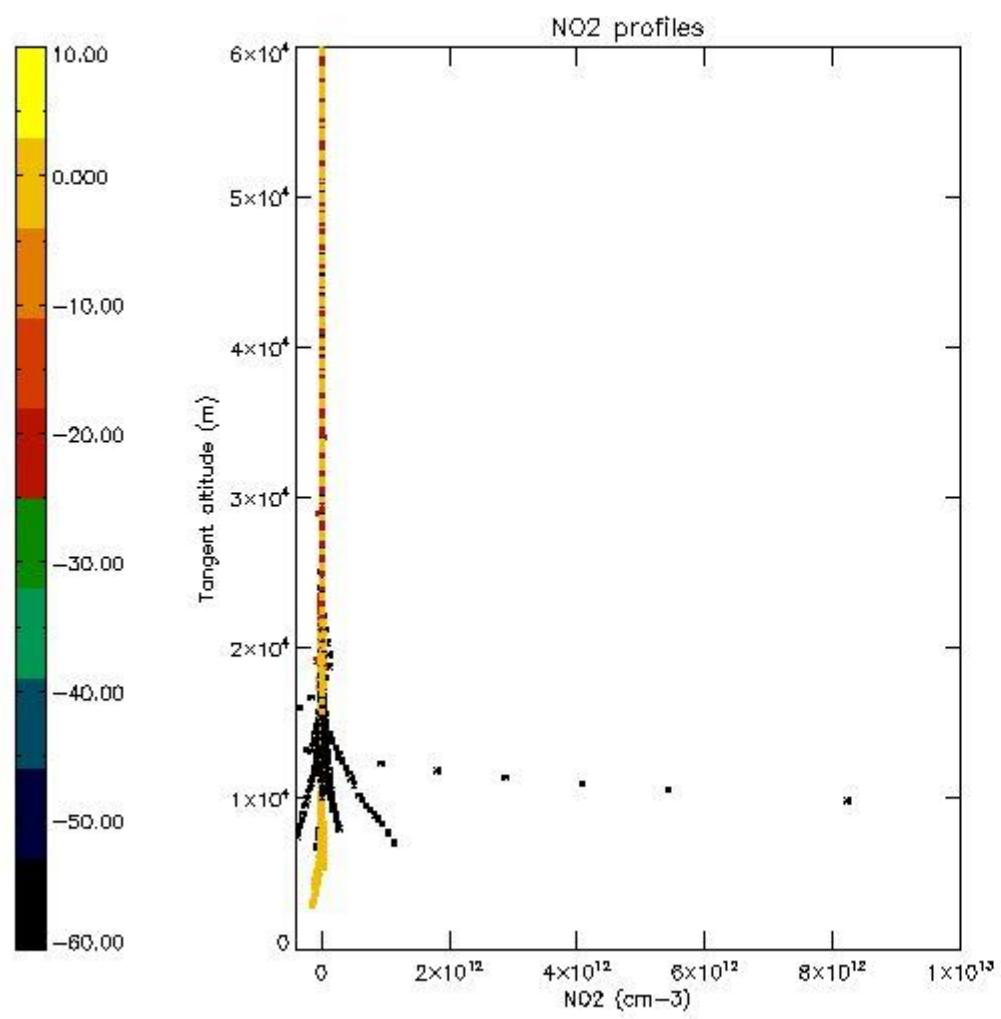
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



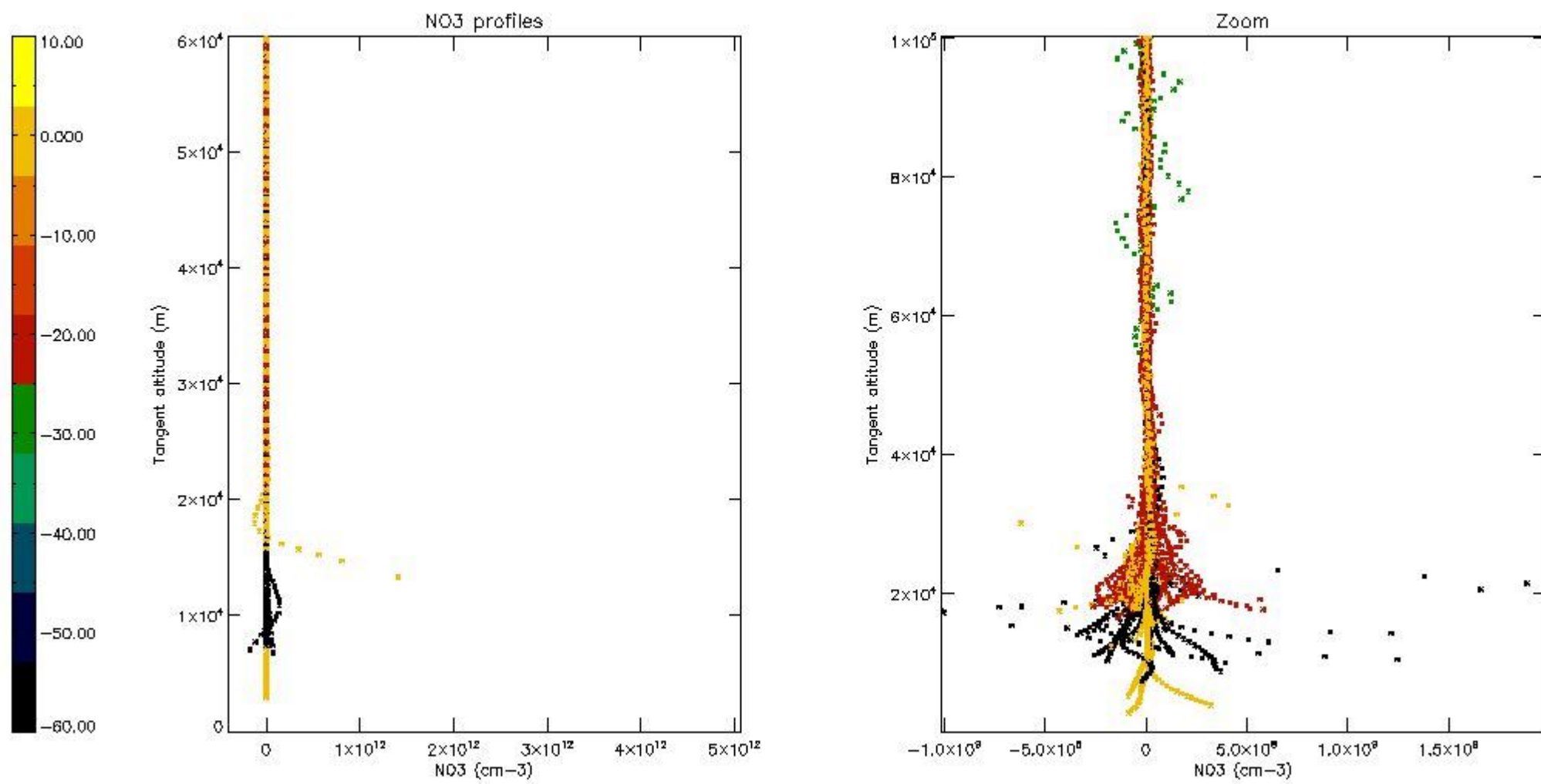
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



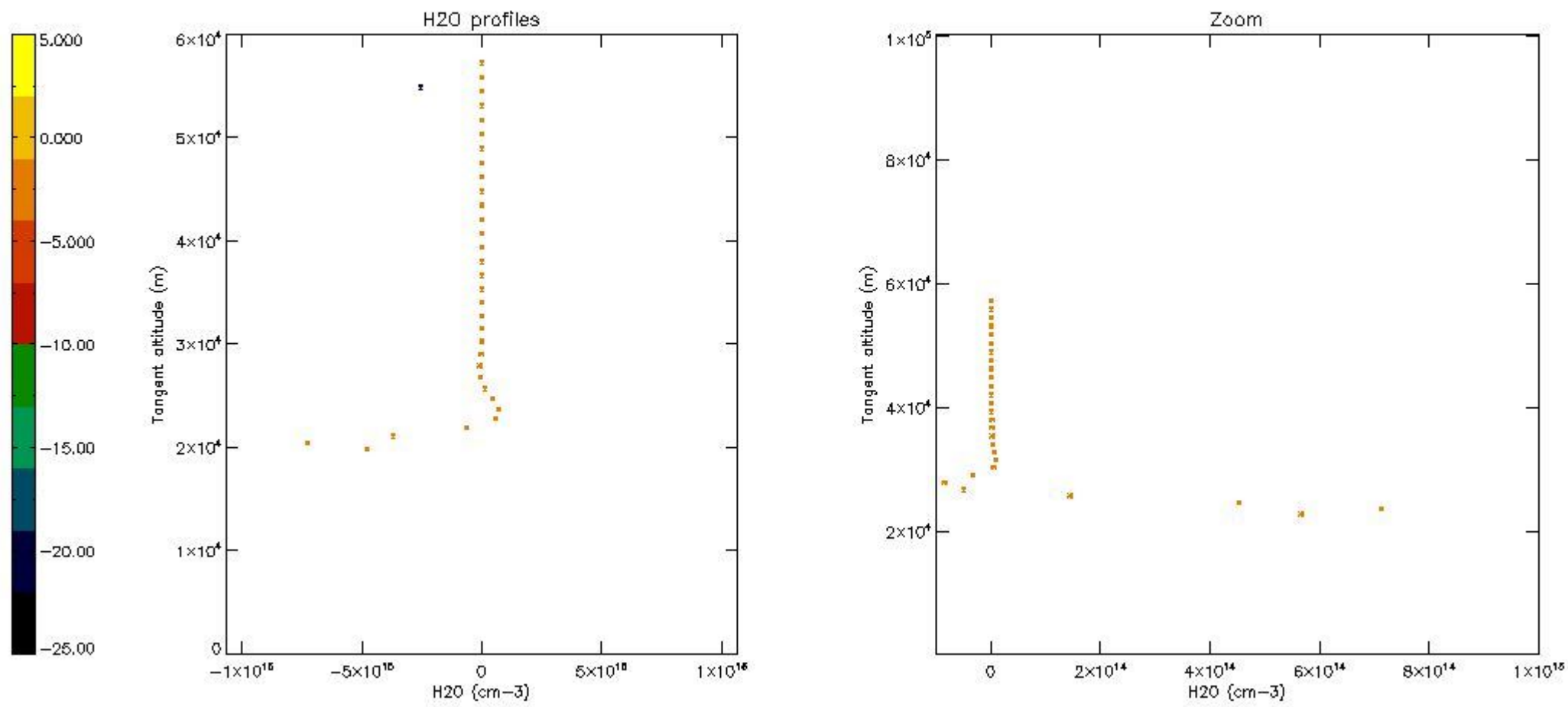
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

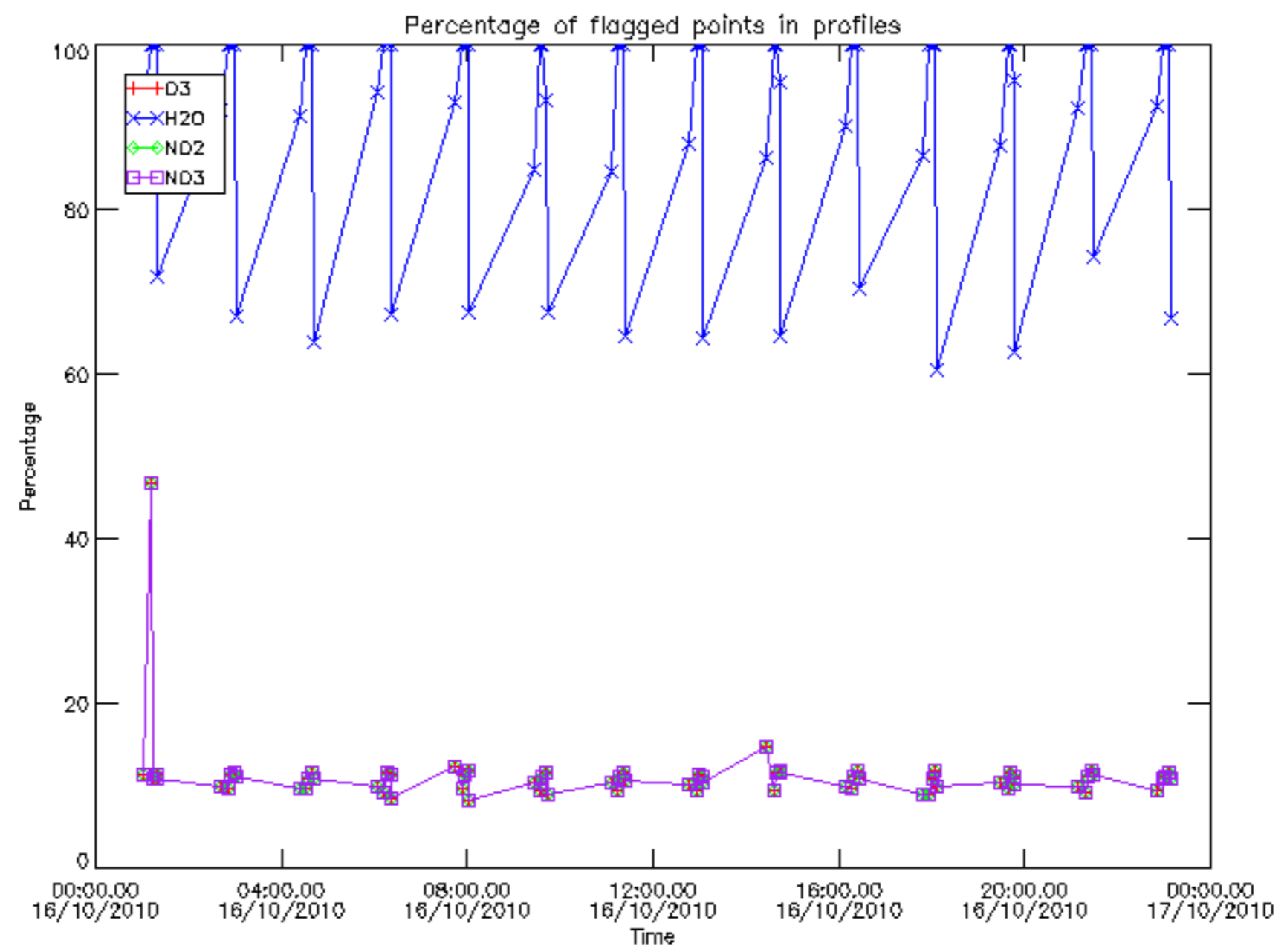
The colorbar represents the latitude.



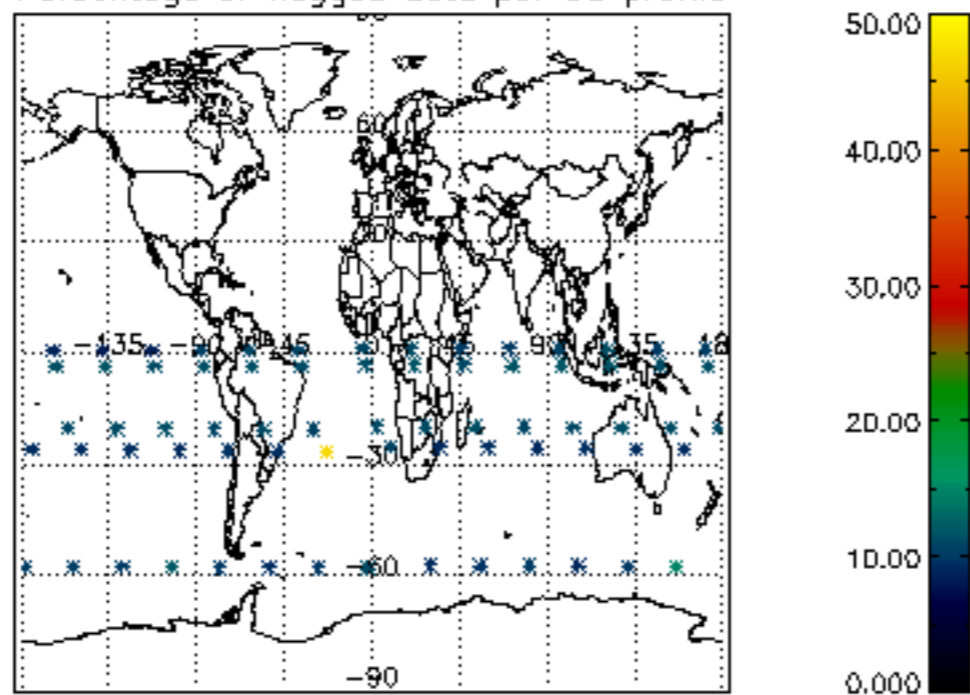
6. Auxiliary Data Files used for the production reported in section 2

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.

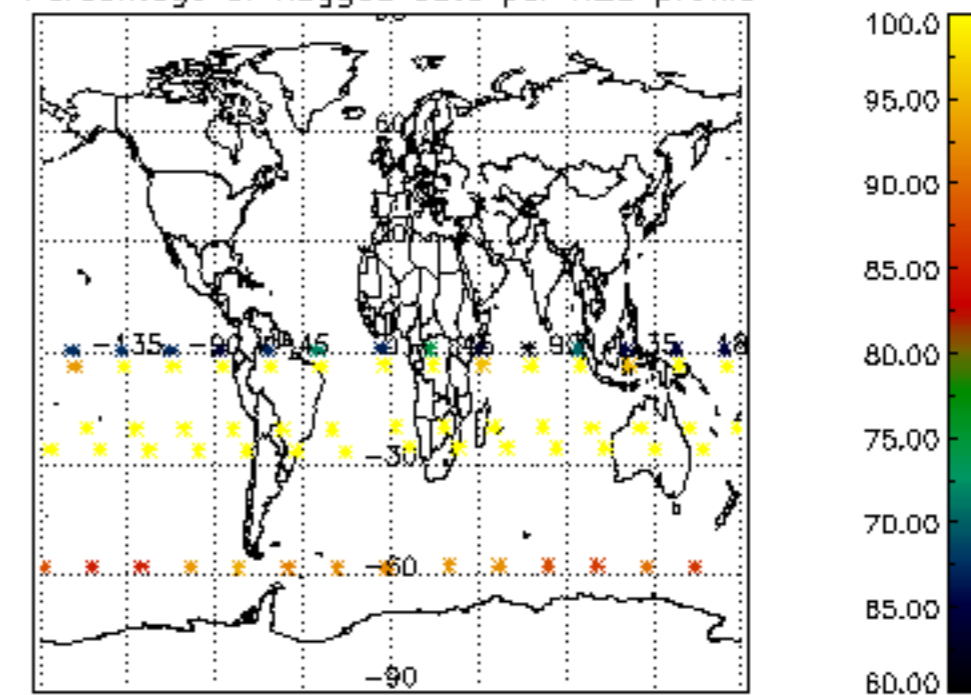
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	16-OCT-2010 00:13:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-OCT-2010 00:13:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-OCT-2010 00:13:17



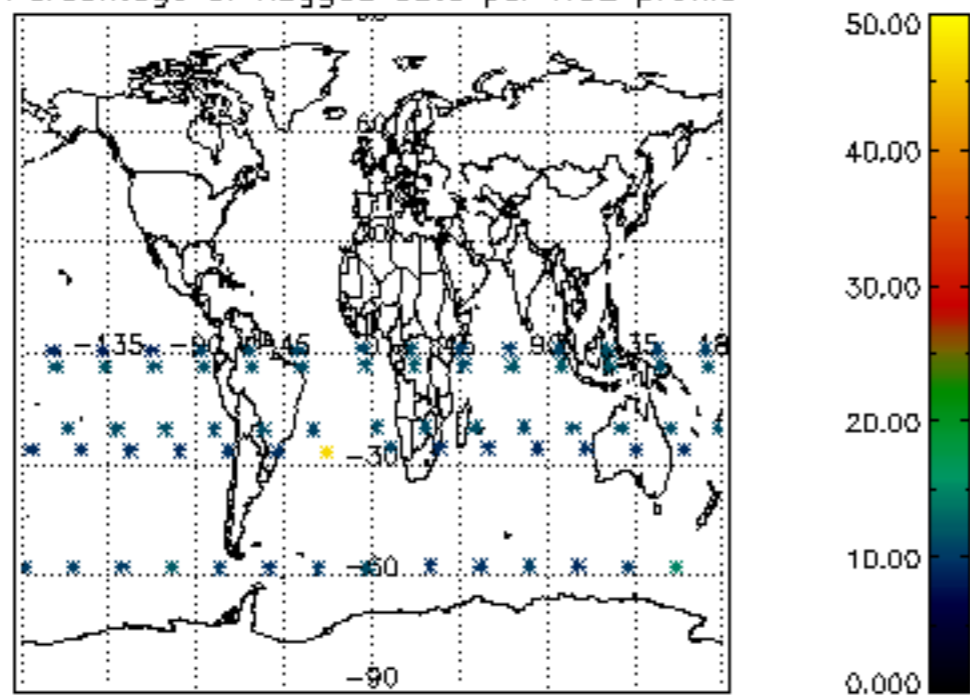
Percentage of flagged data per D3 profile



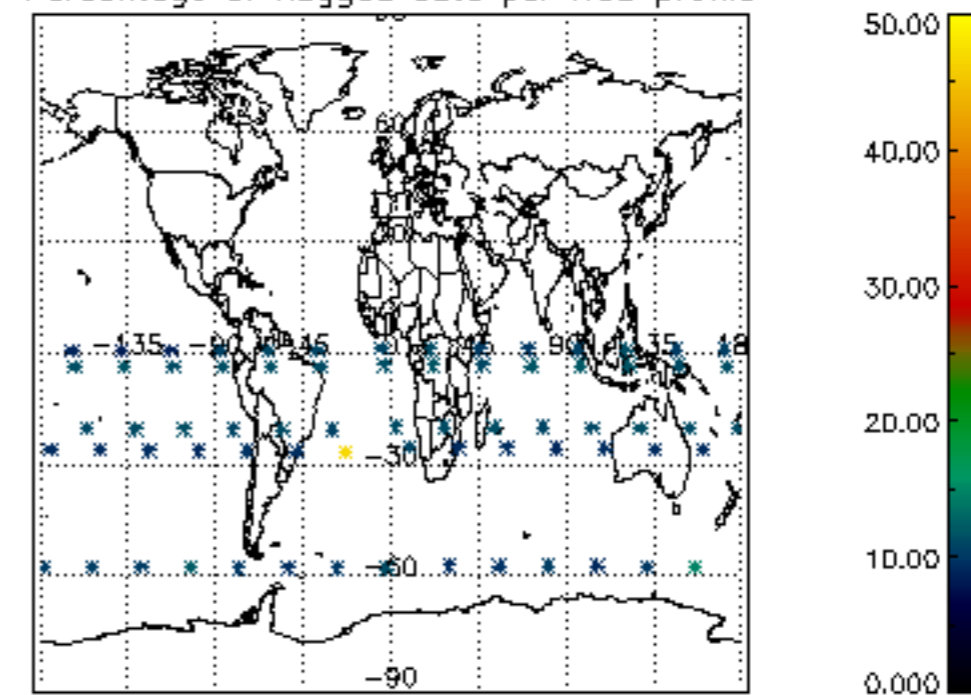
Percentage of flagged data per H2O profile

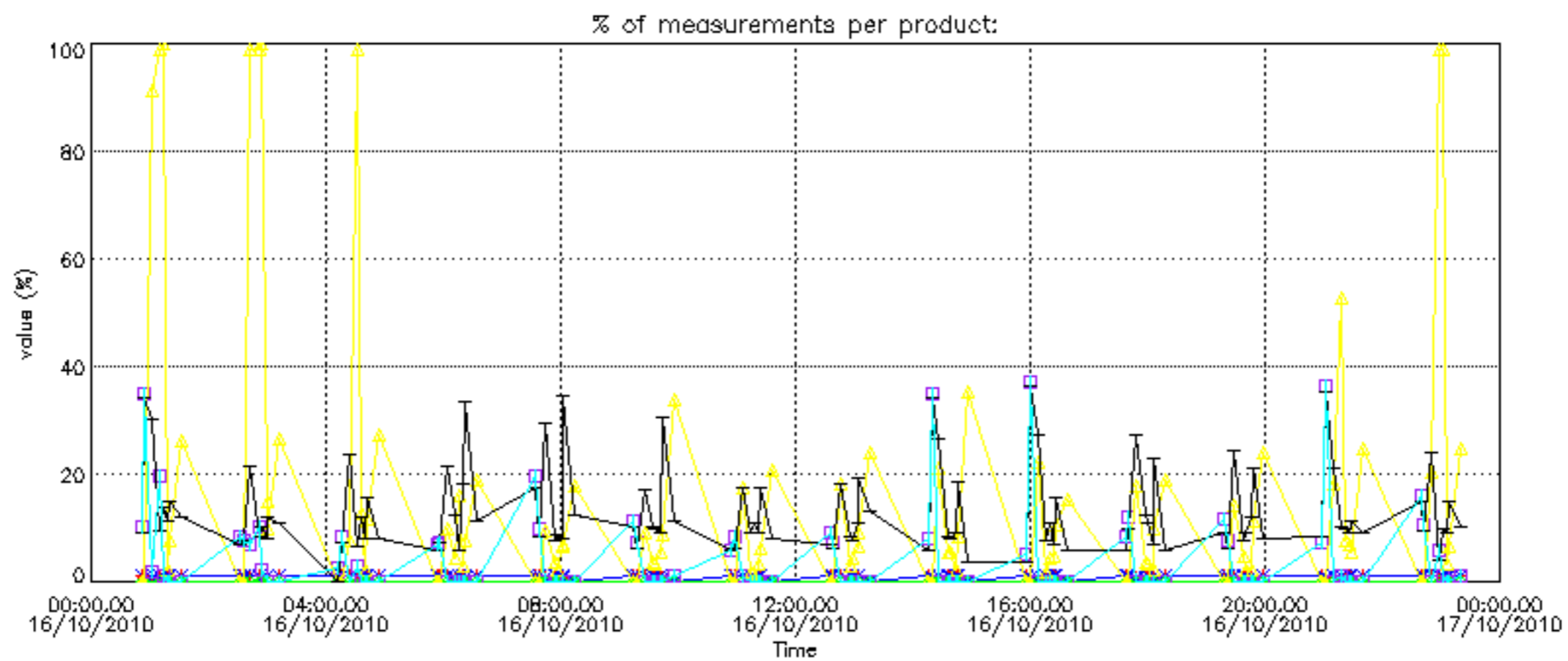


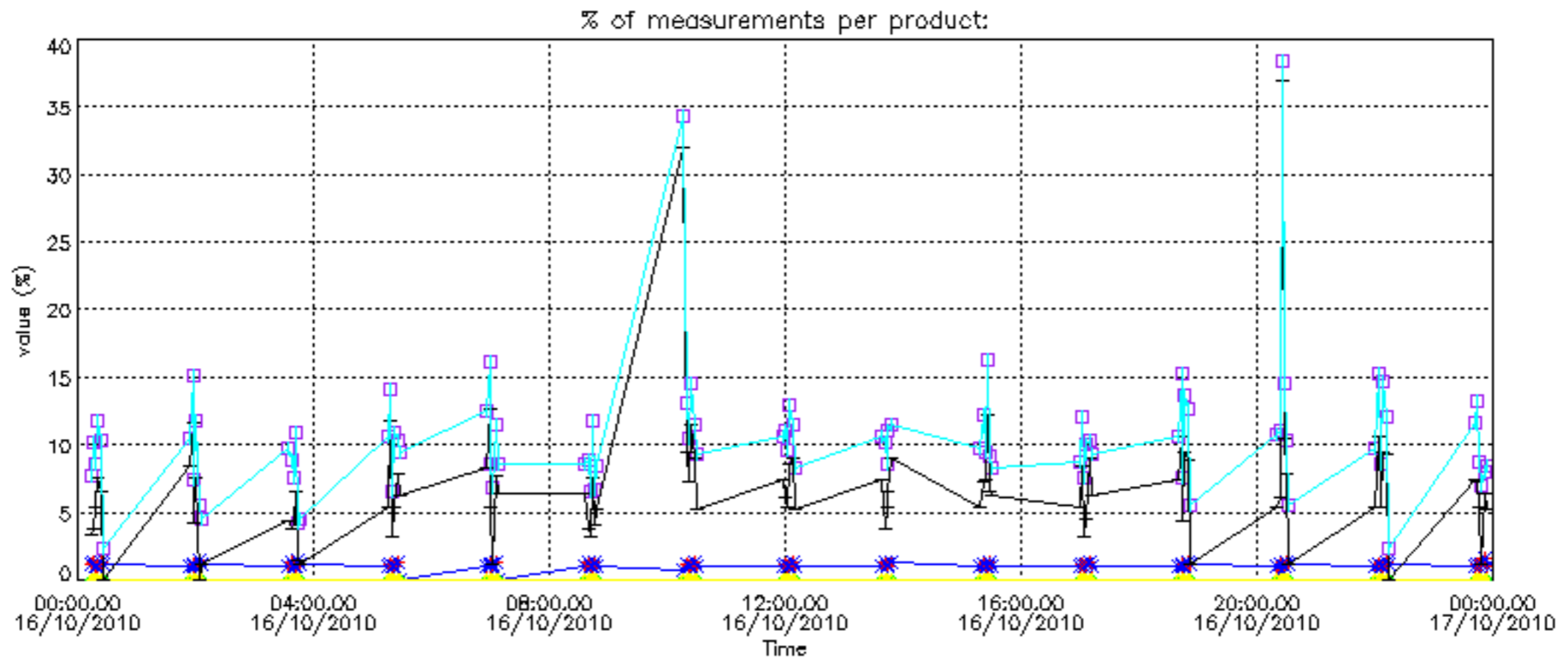
Percentage of flagged data per NO2 profile



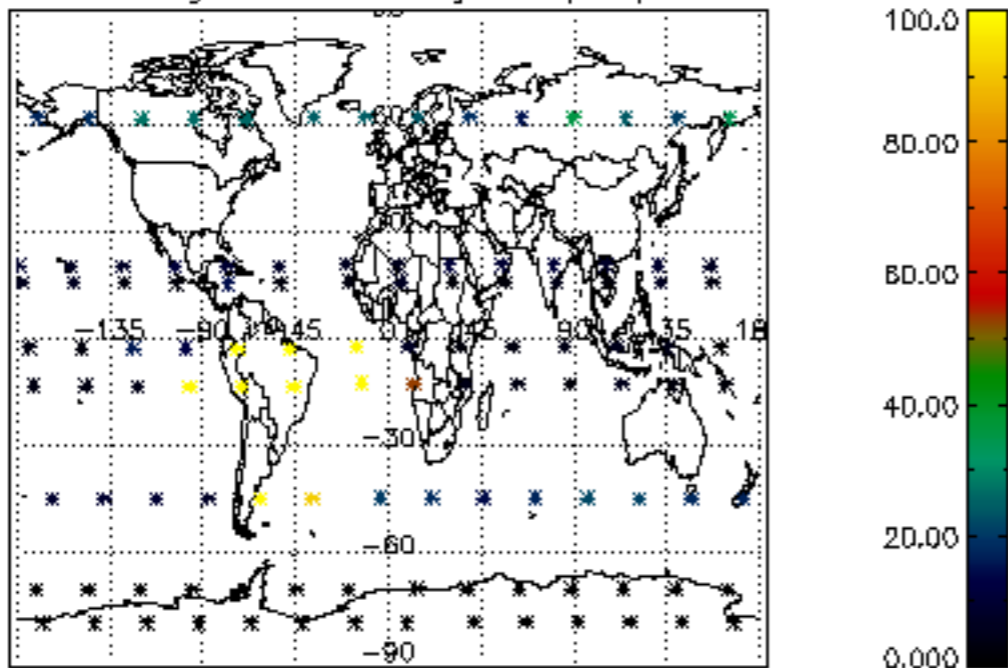
Percentage of flagged data per NO3 profile



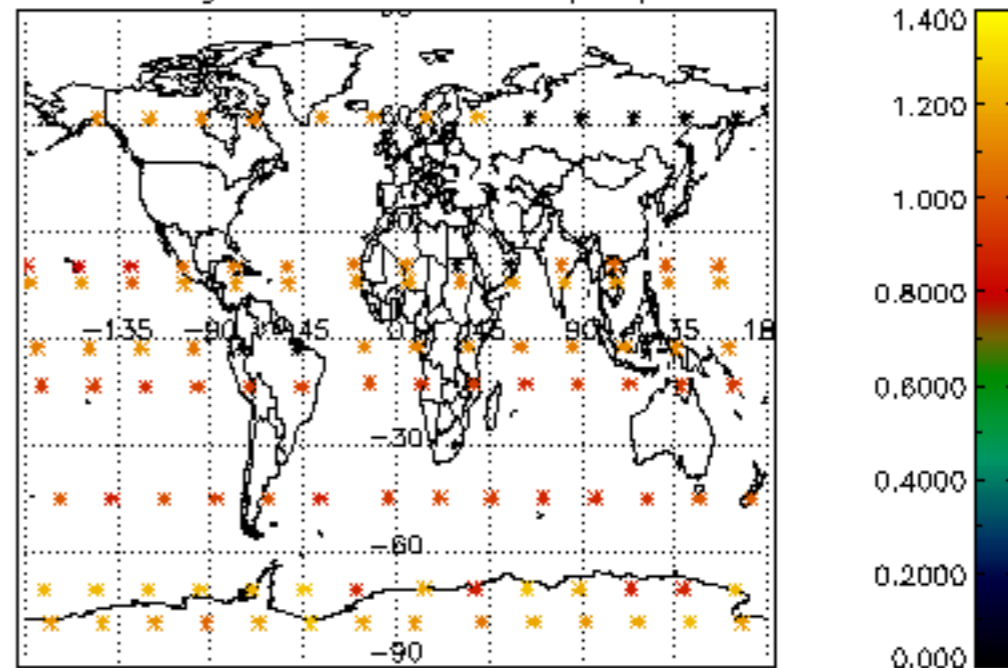




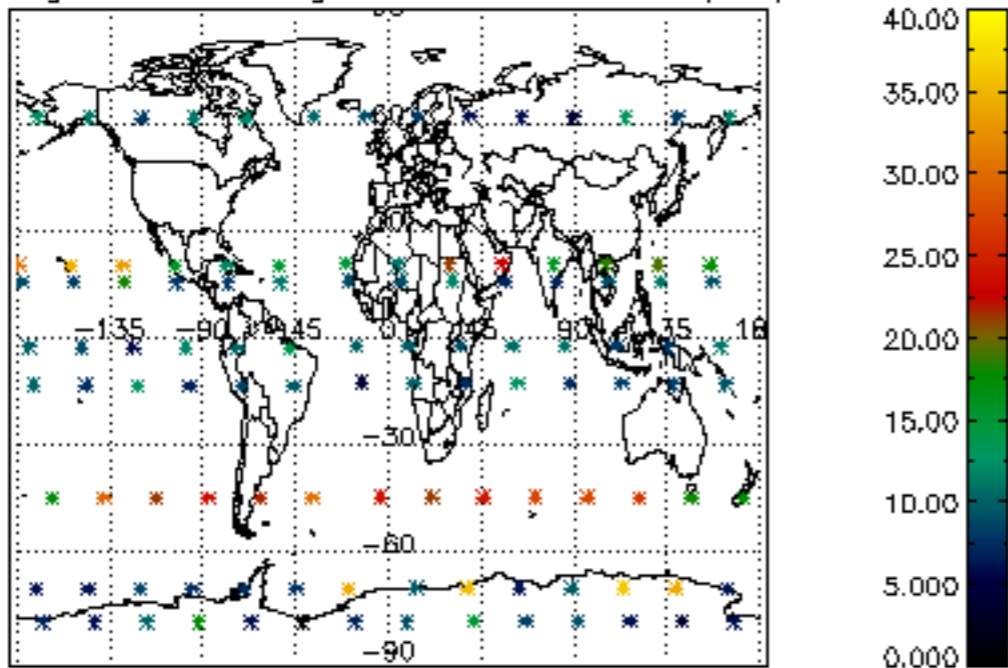
Percentage of cosmic ray hits per profile



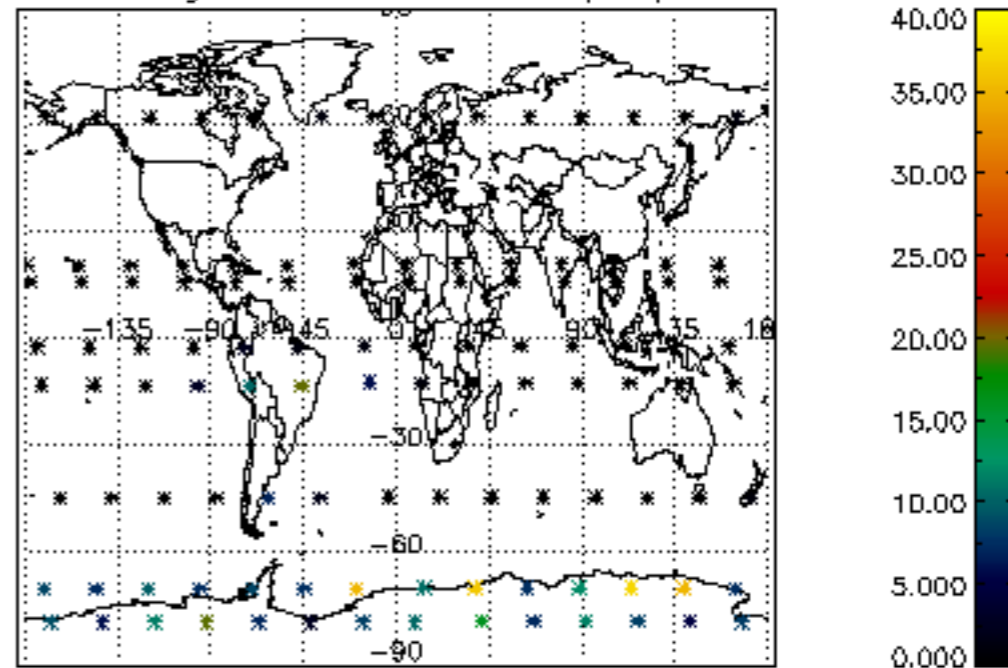
Percentage of datation errors per profile



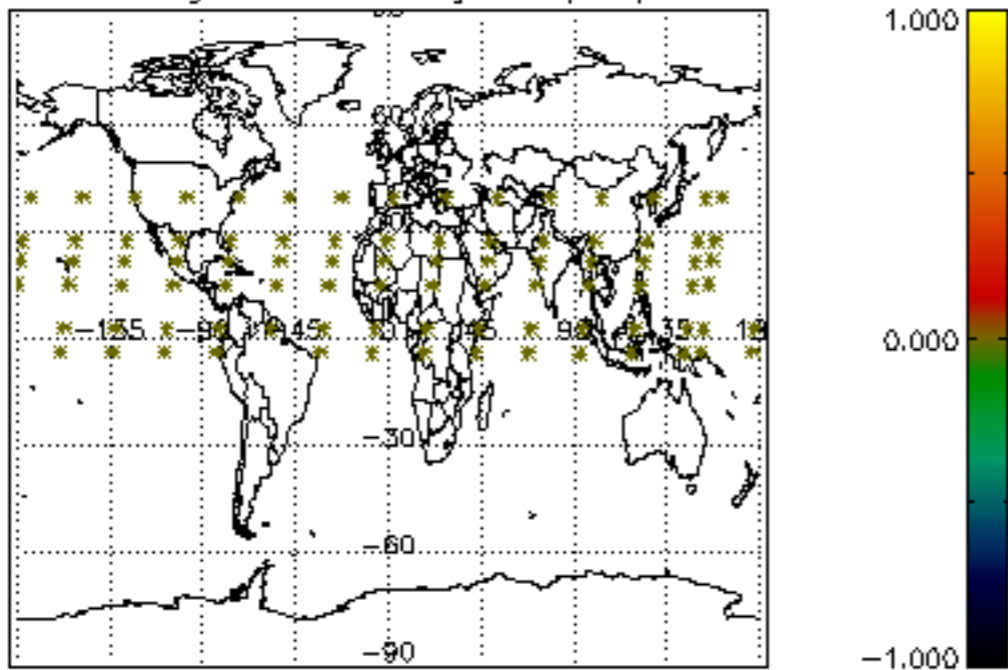
Percentage of star falling outside central band per profile



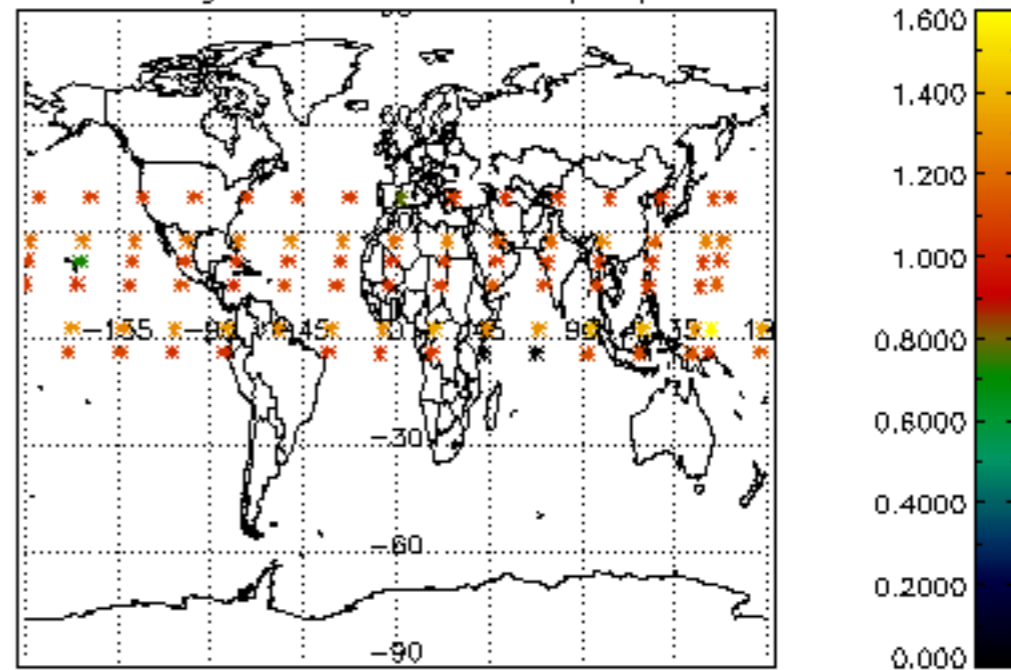
Percentage of saturation errors per profile



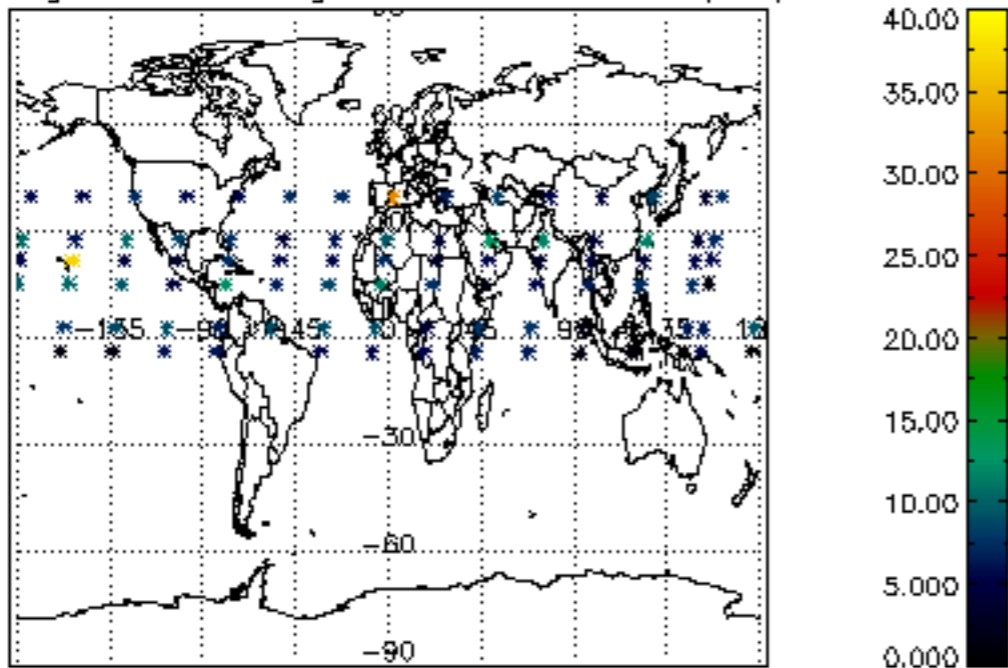
Percentage of cosmic ray hits per profile



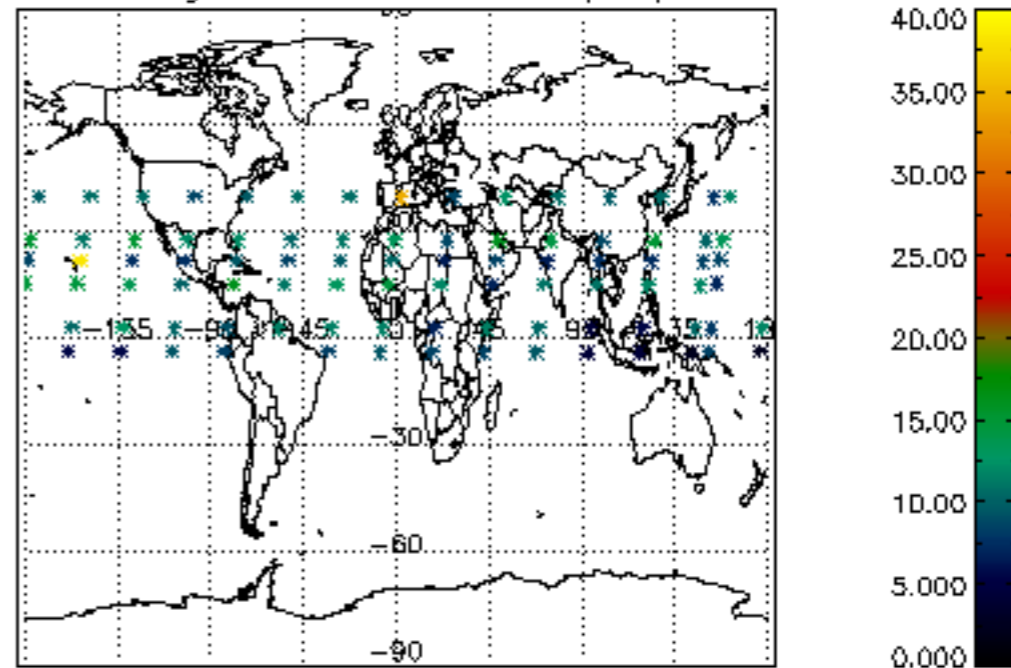
Percentage of datation errors per profile

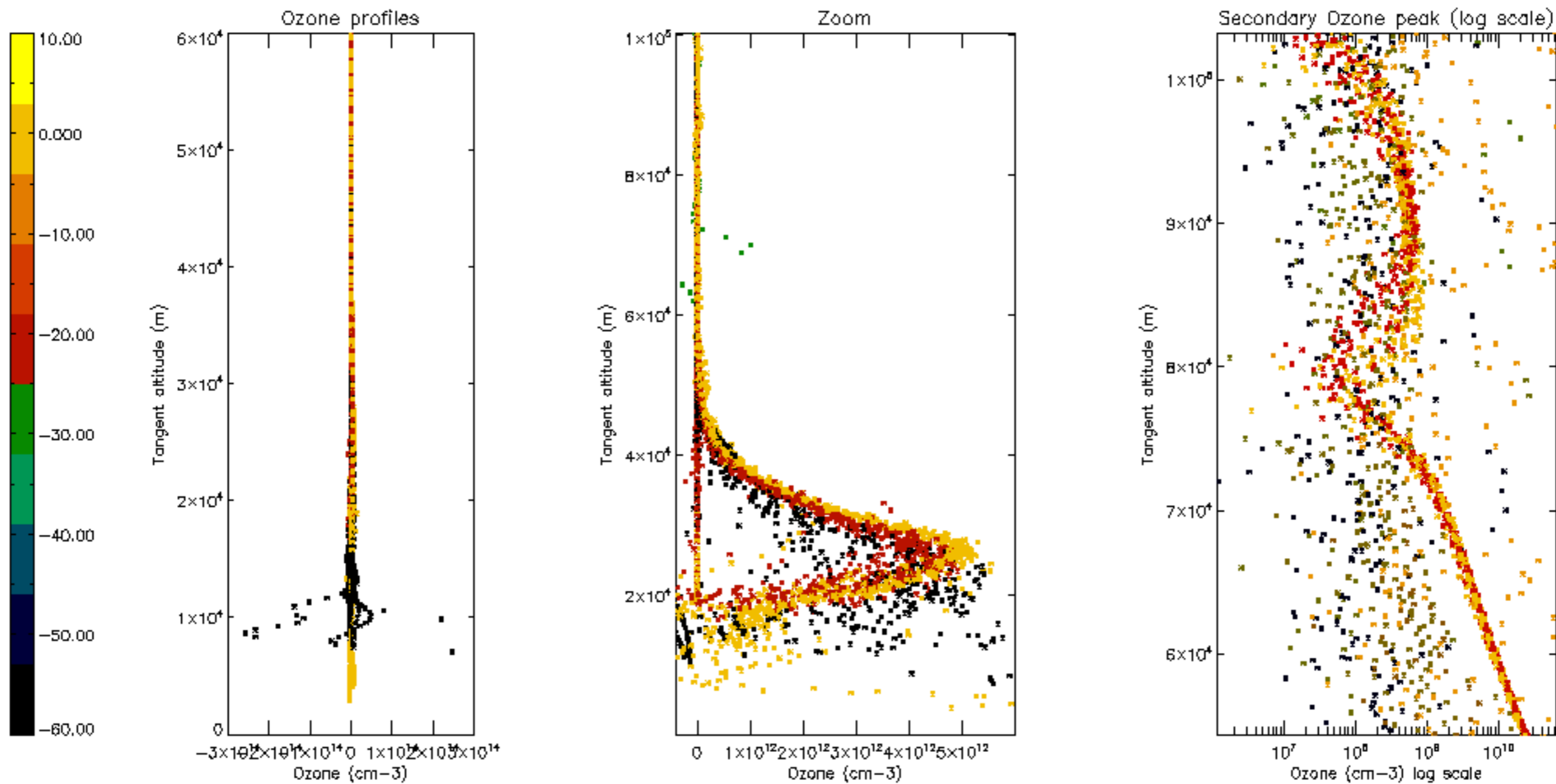


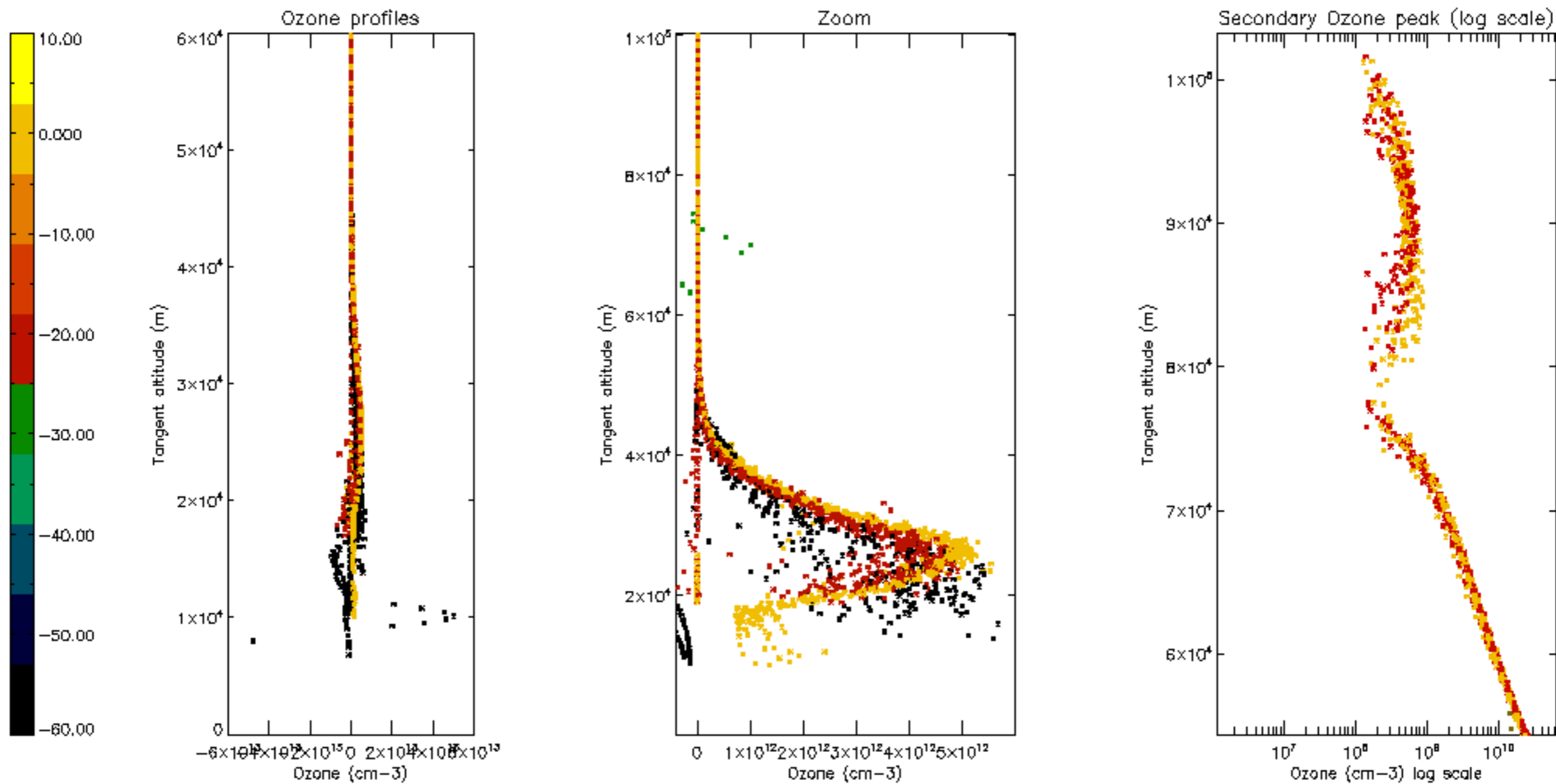
Percentage of star falling outside central band per profile

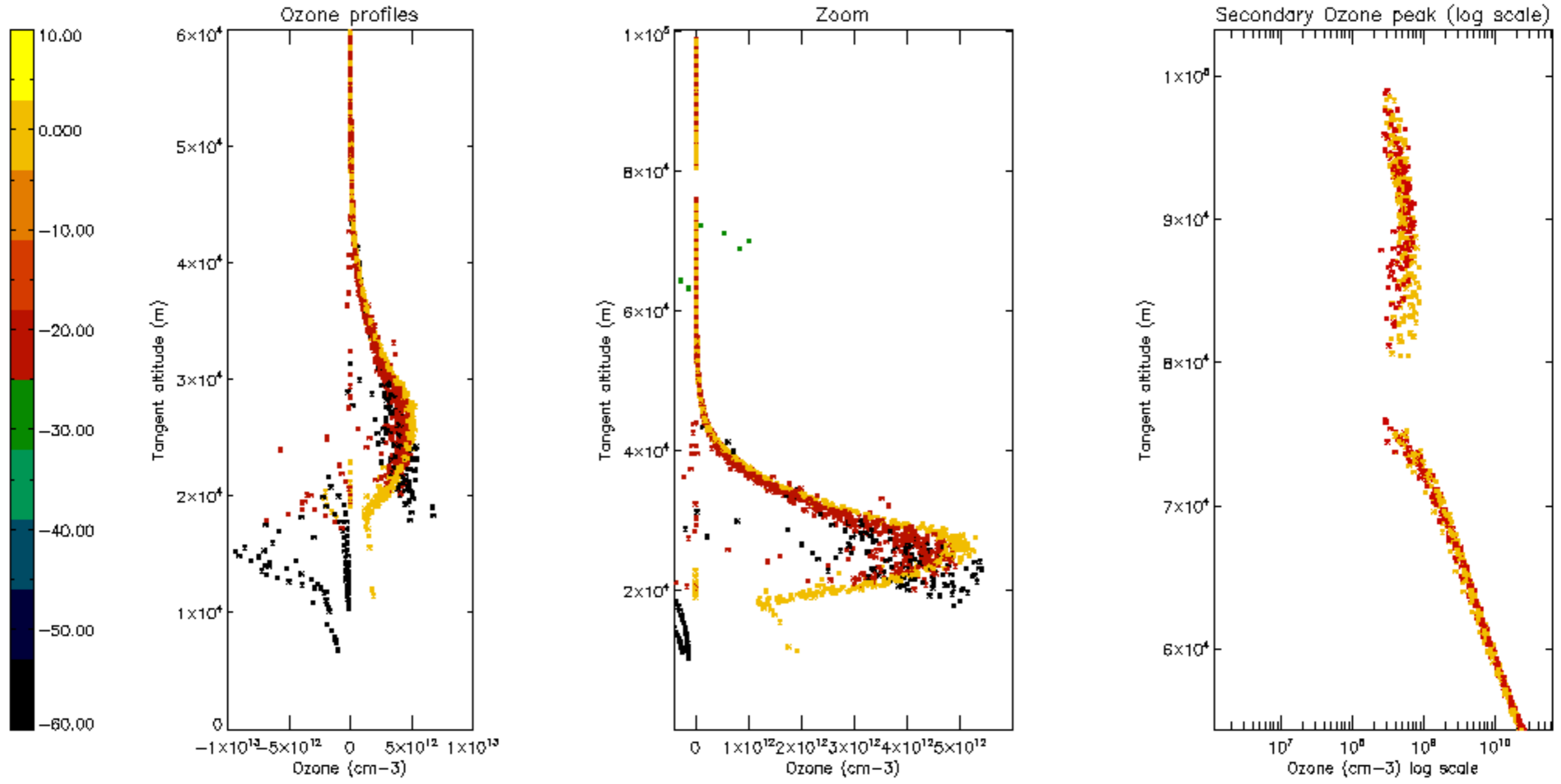


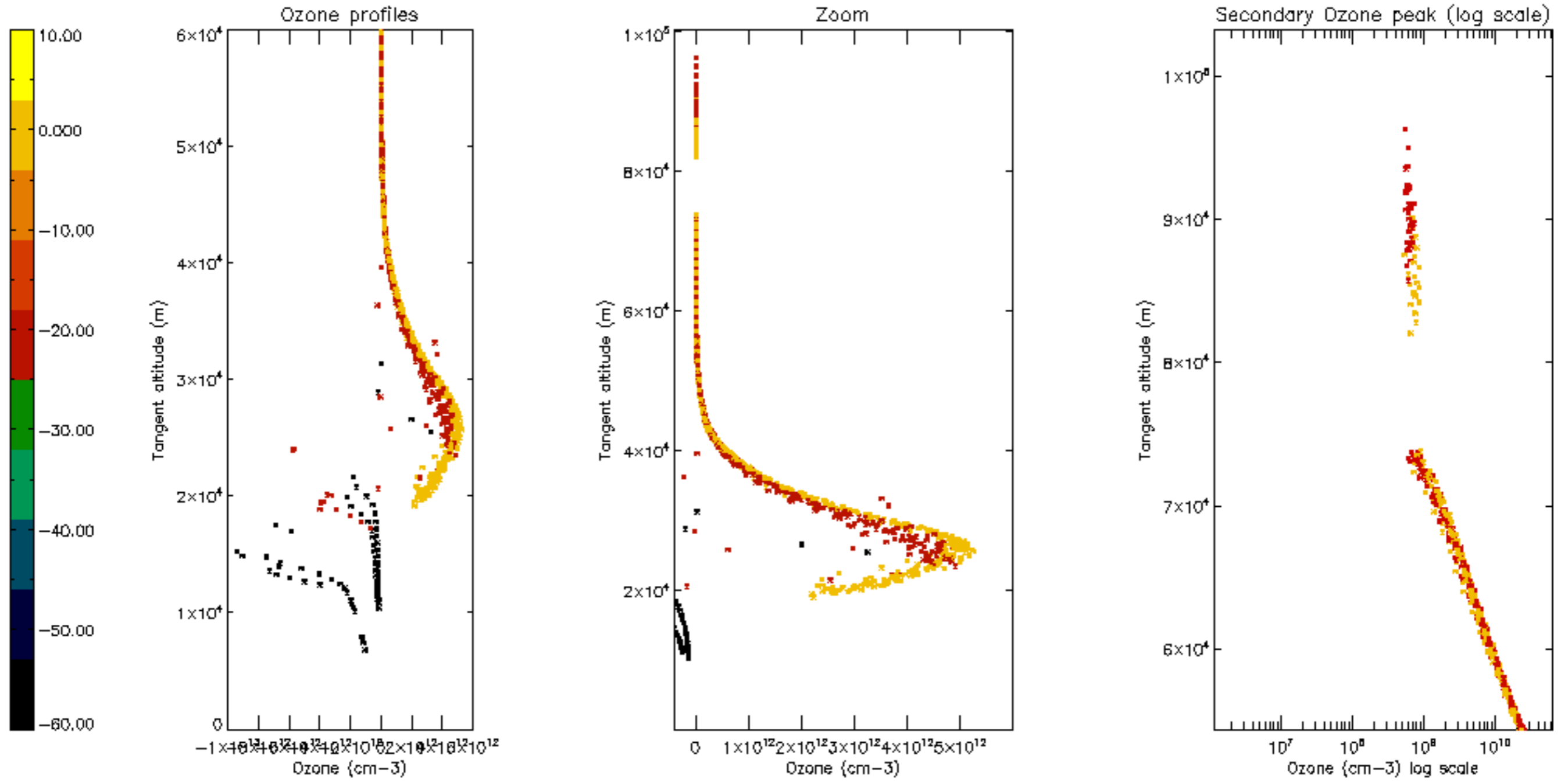
Percentage of saturation errors per profile

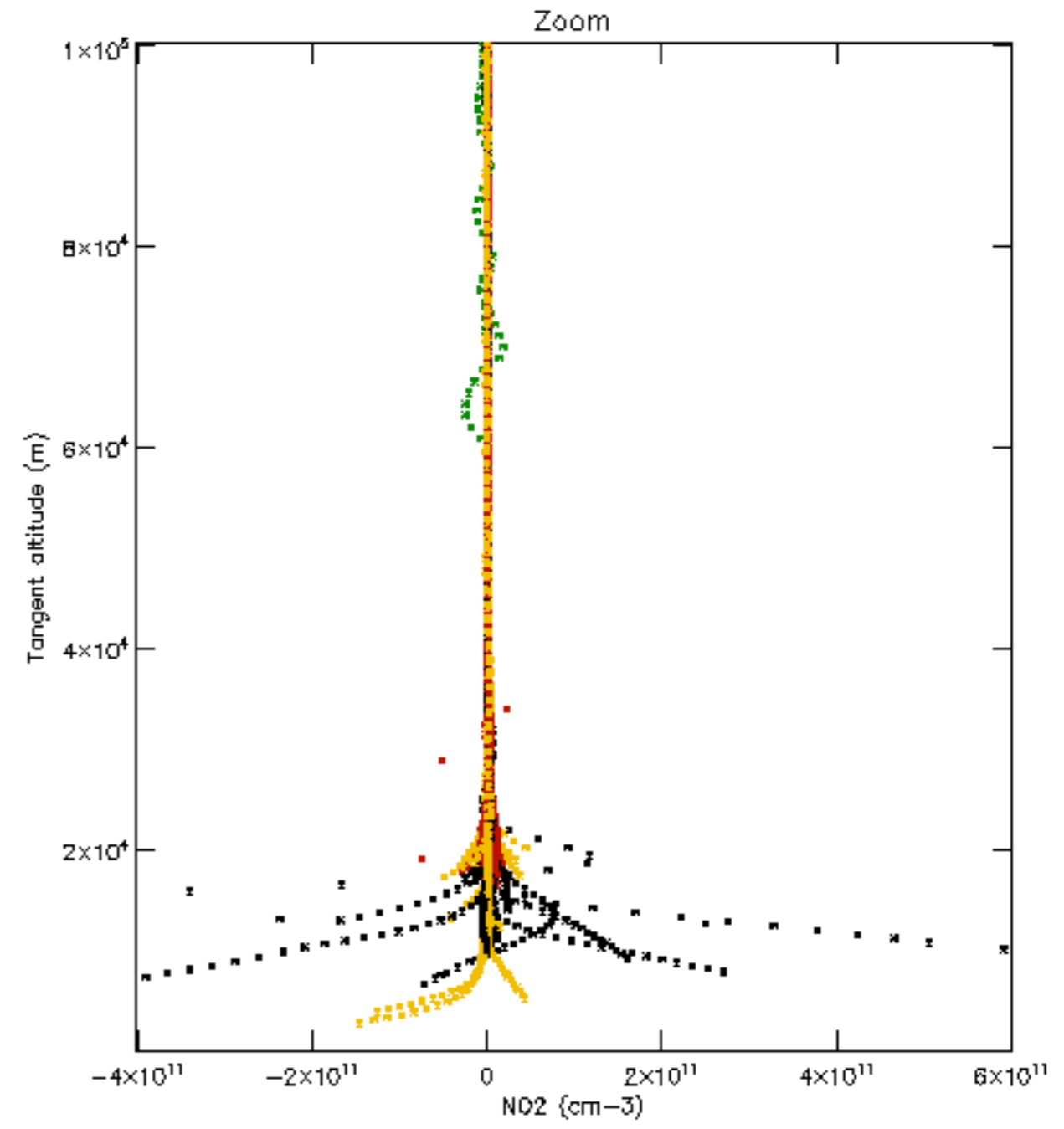
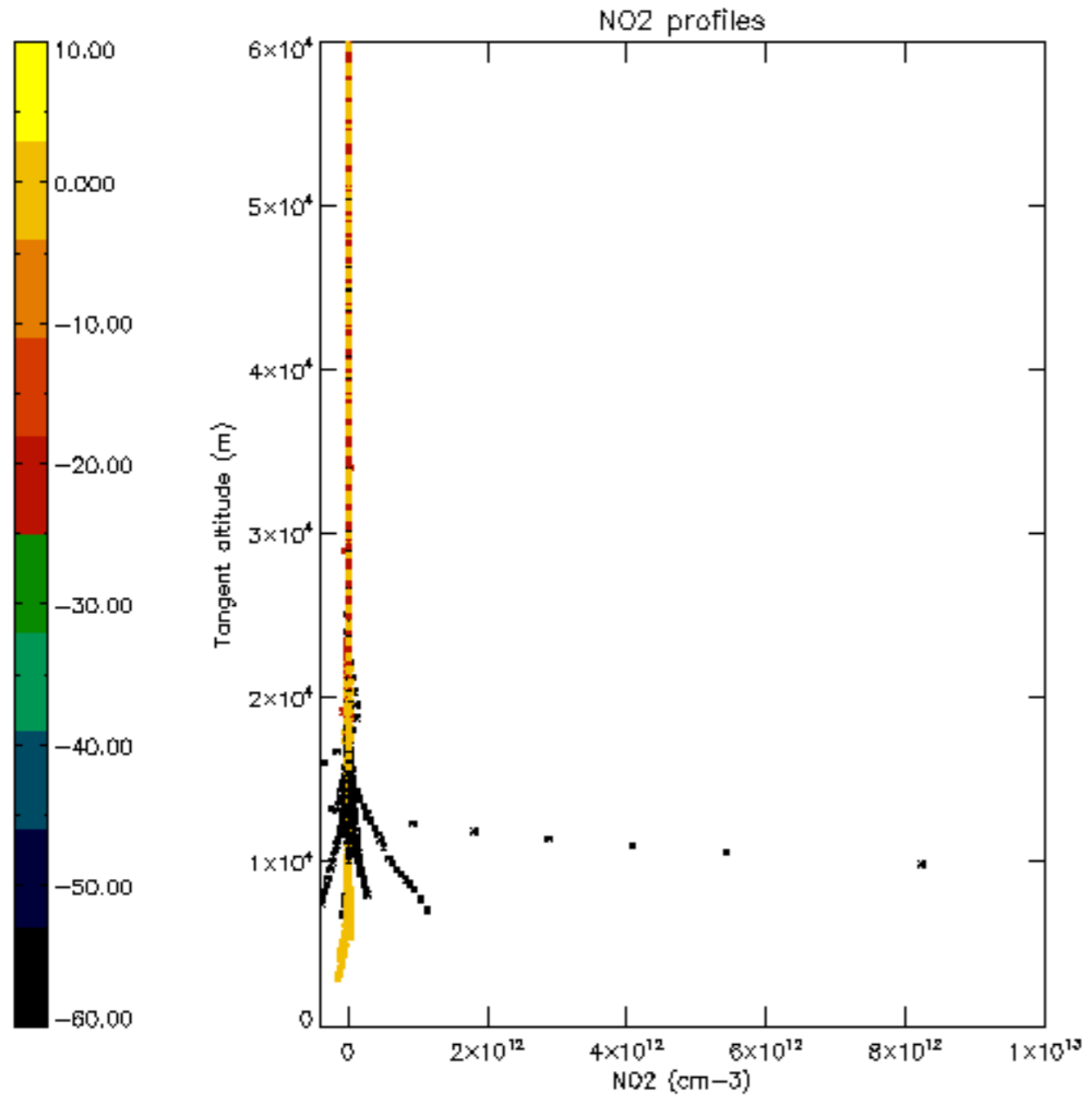


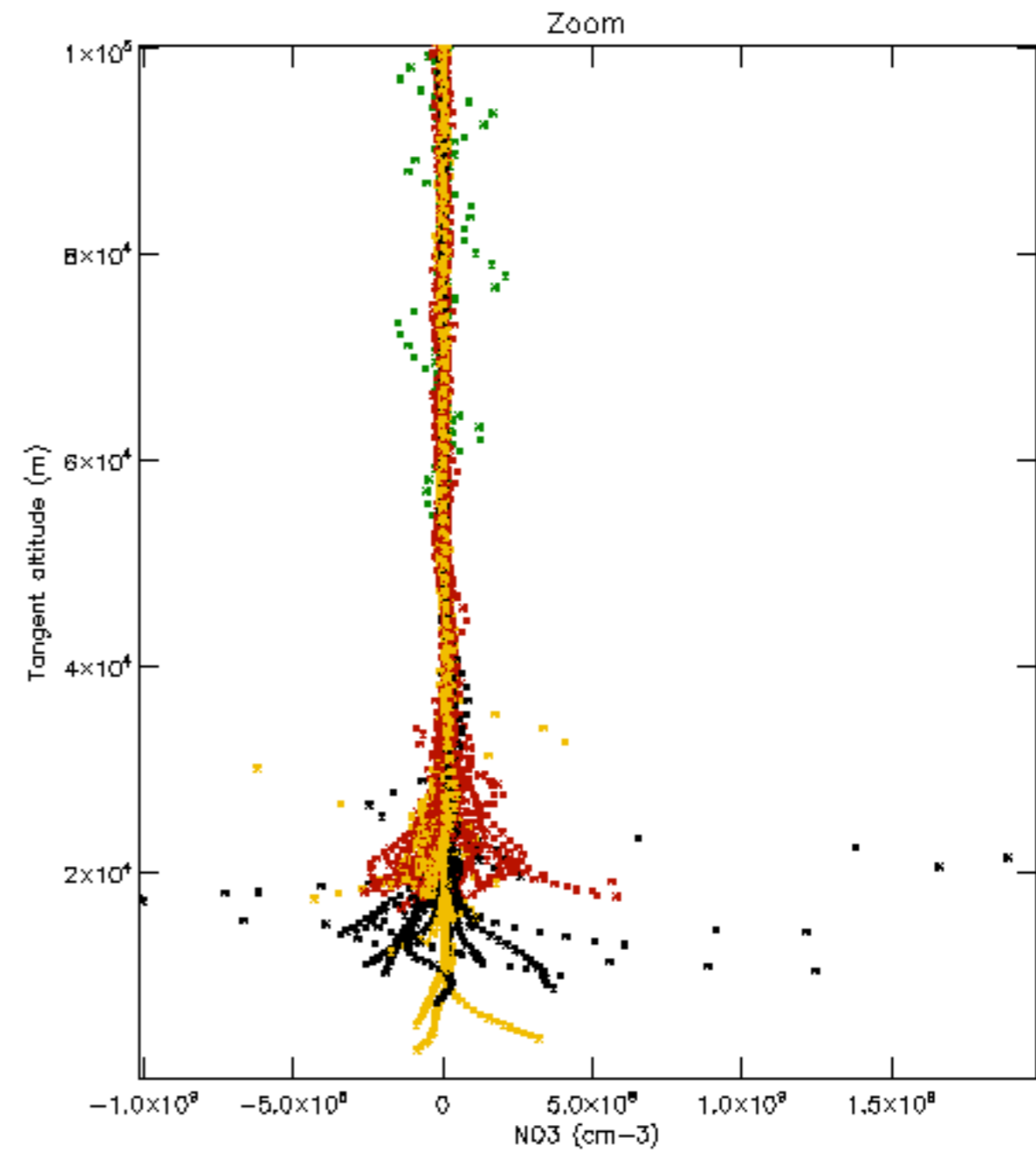
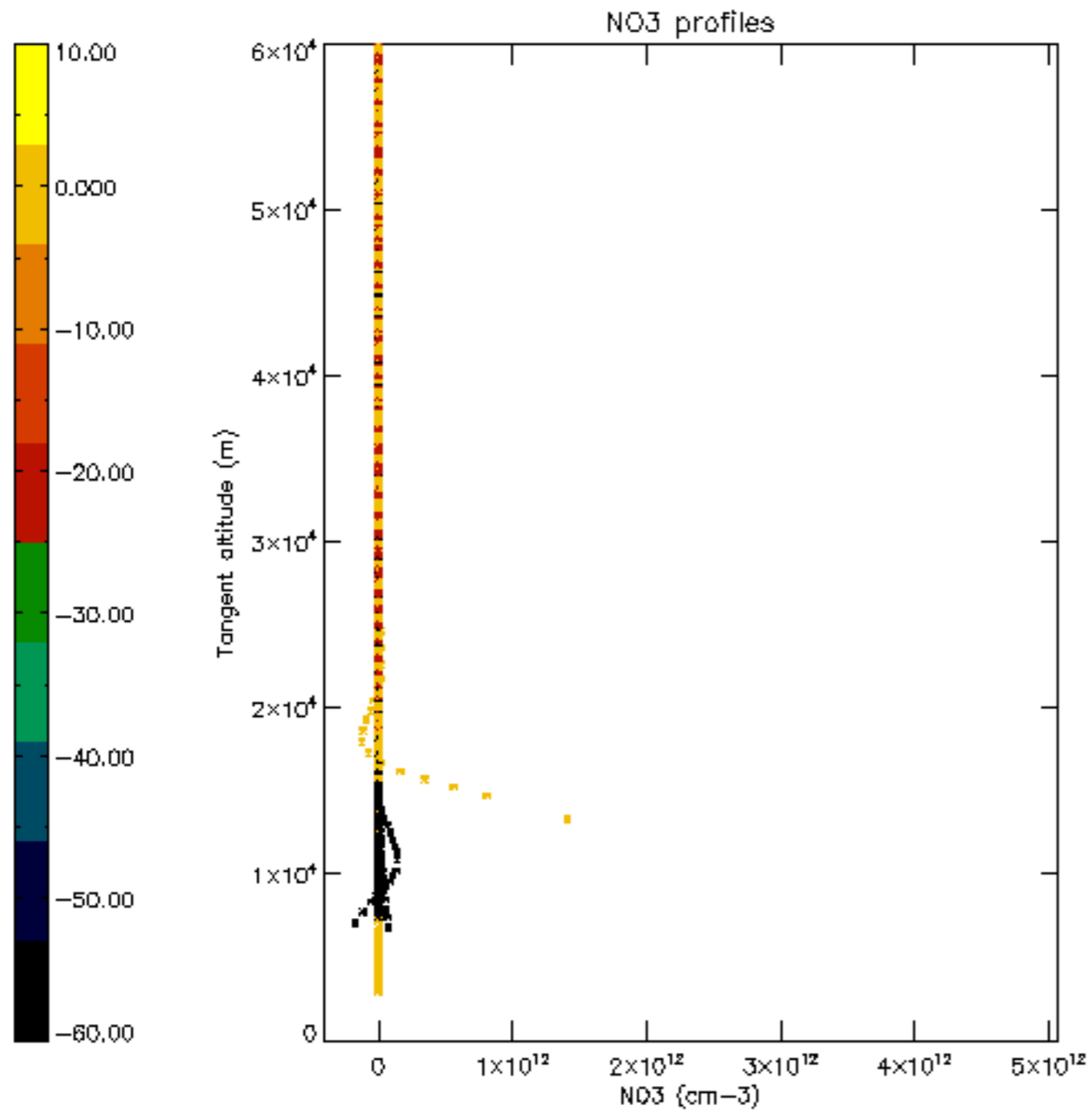


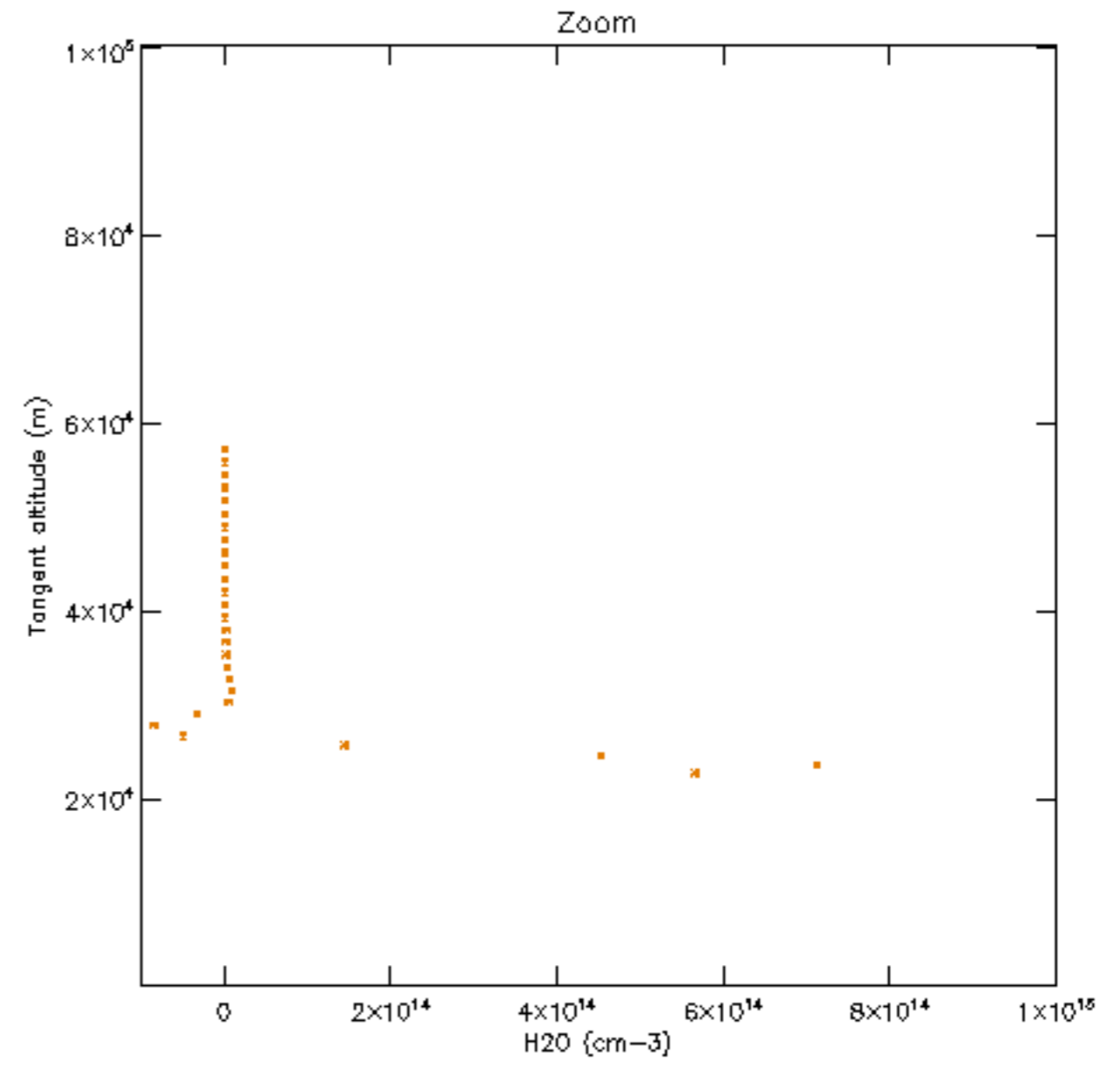
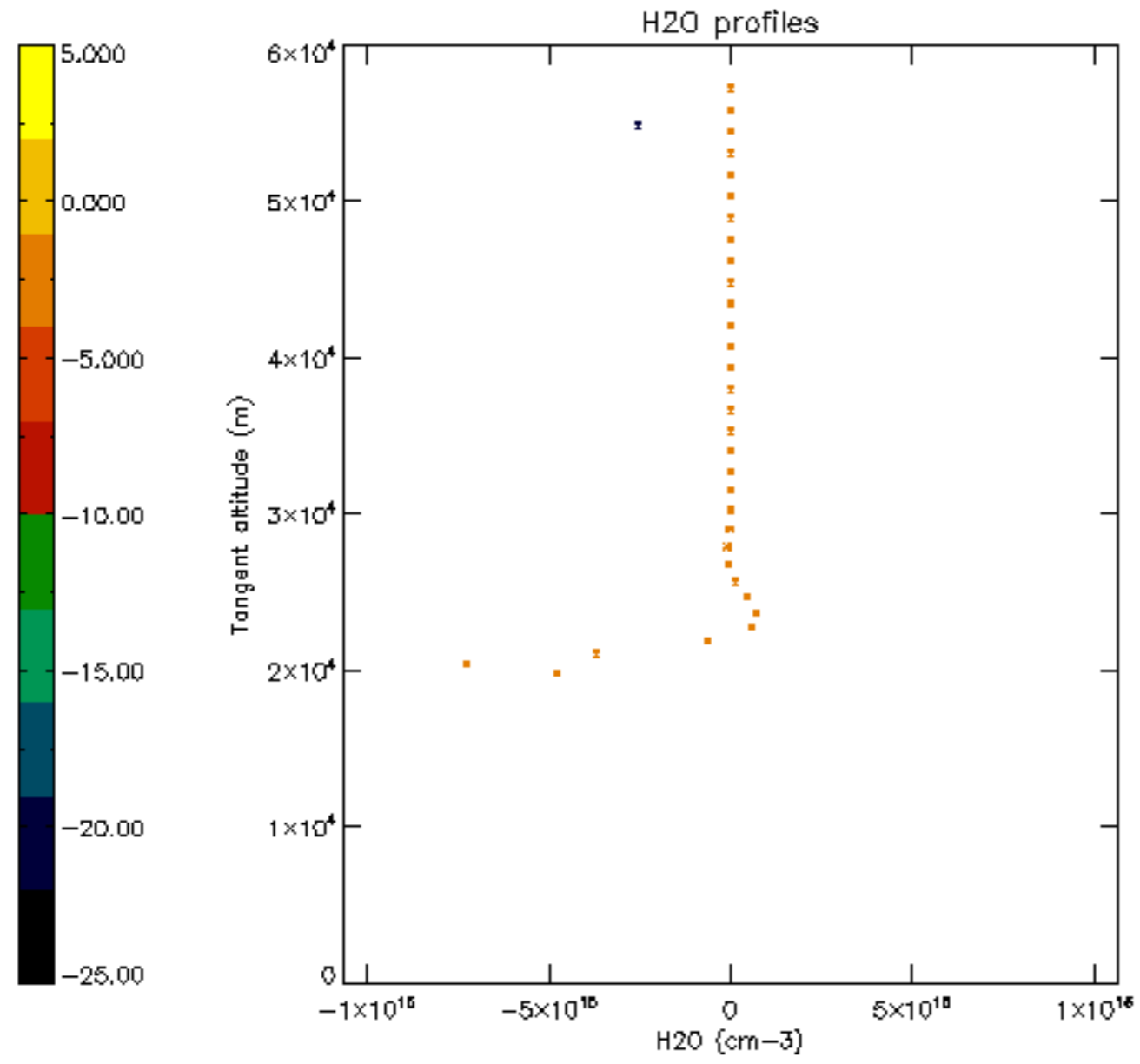


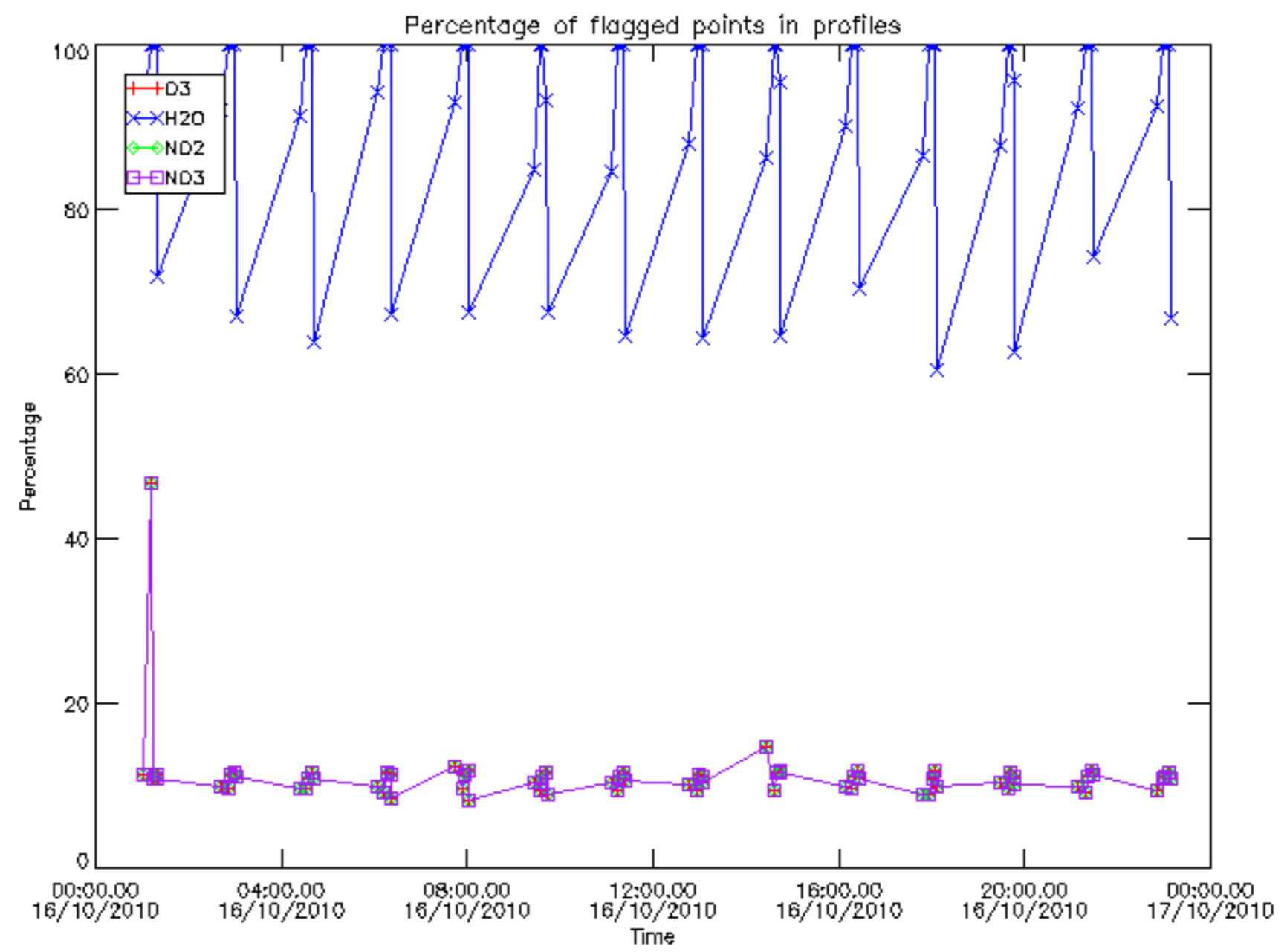




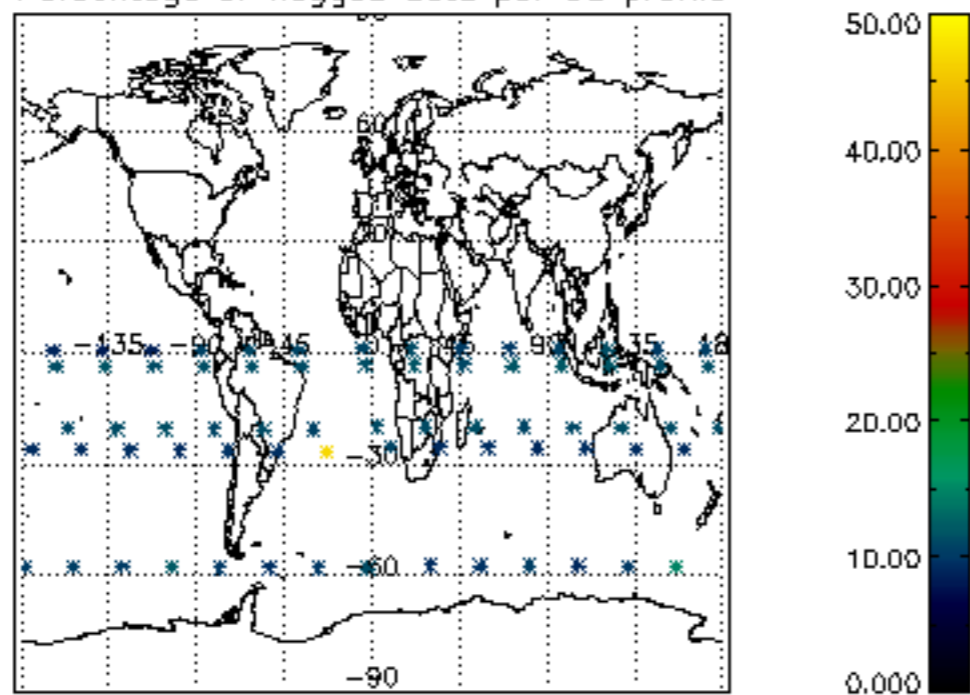




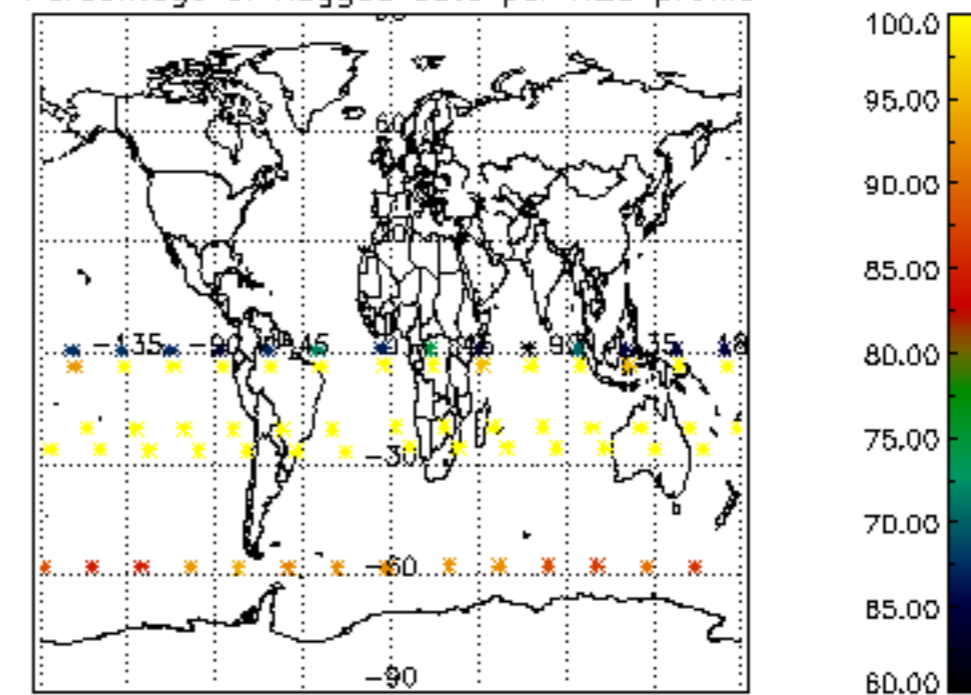




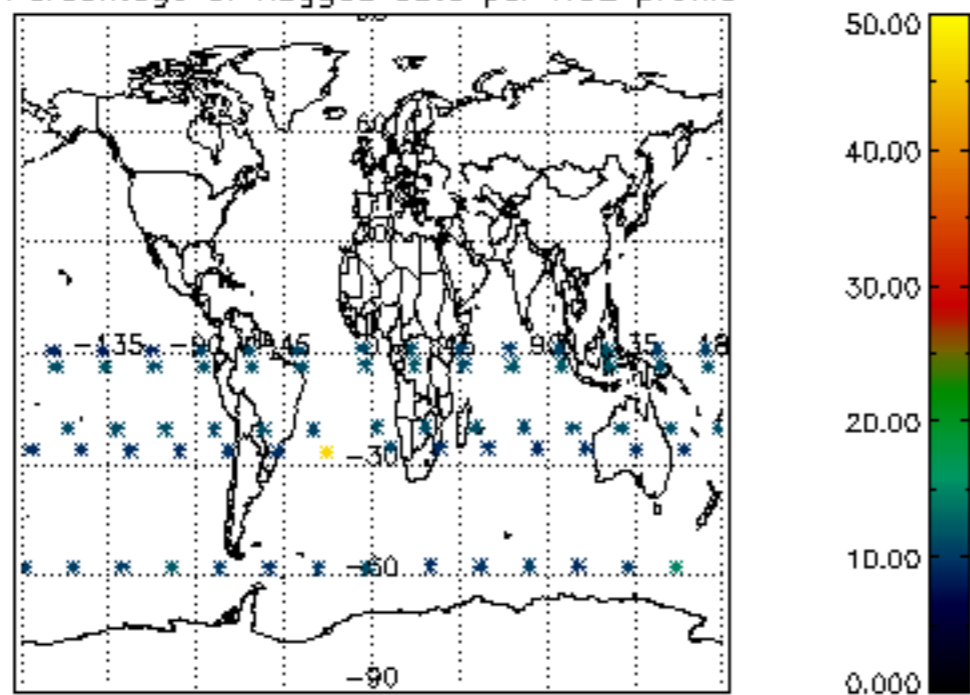
Percentage of flagged data per D3 profile



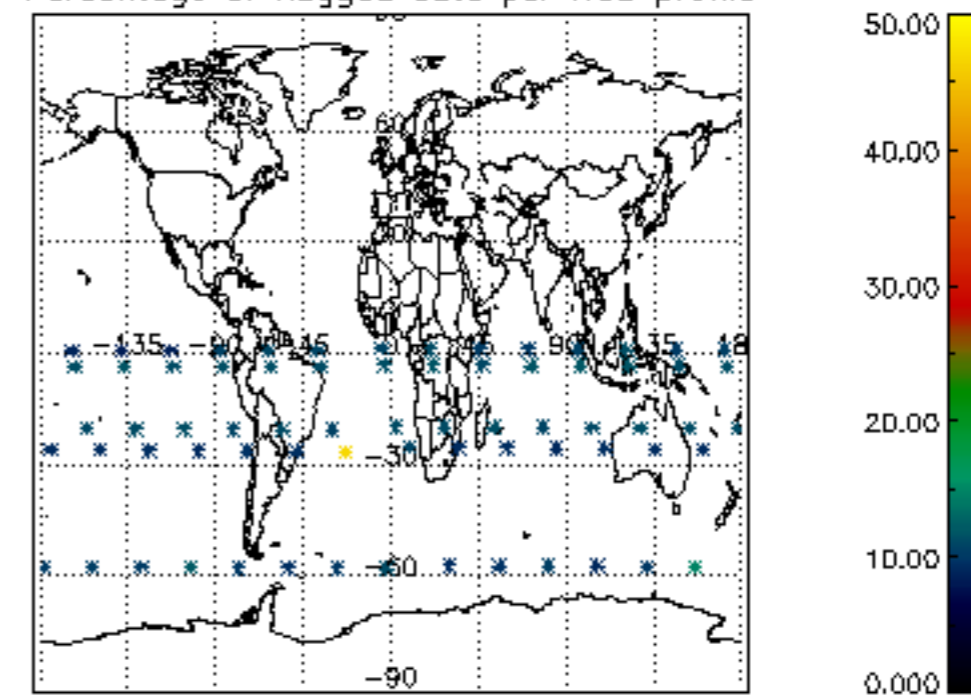
Percentage of flagged data per H2O profile

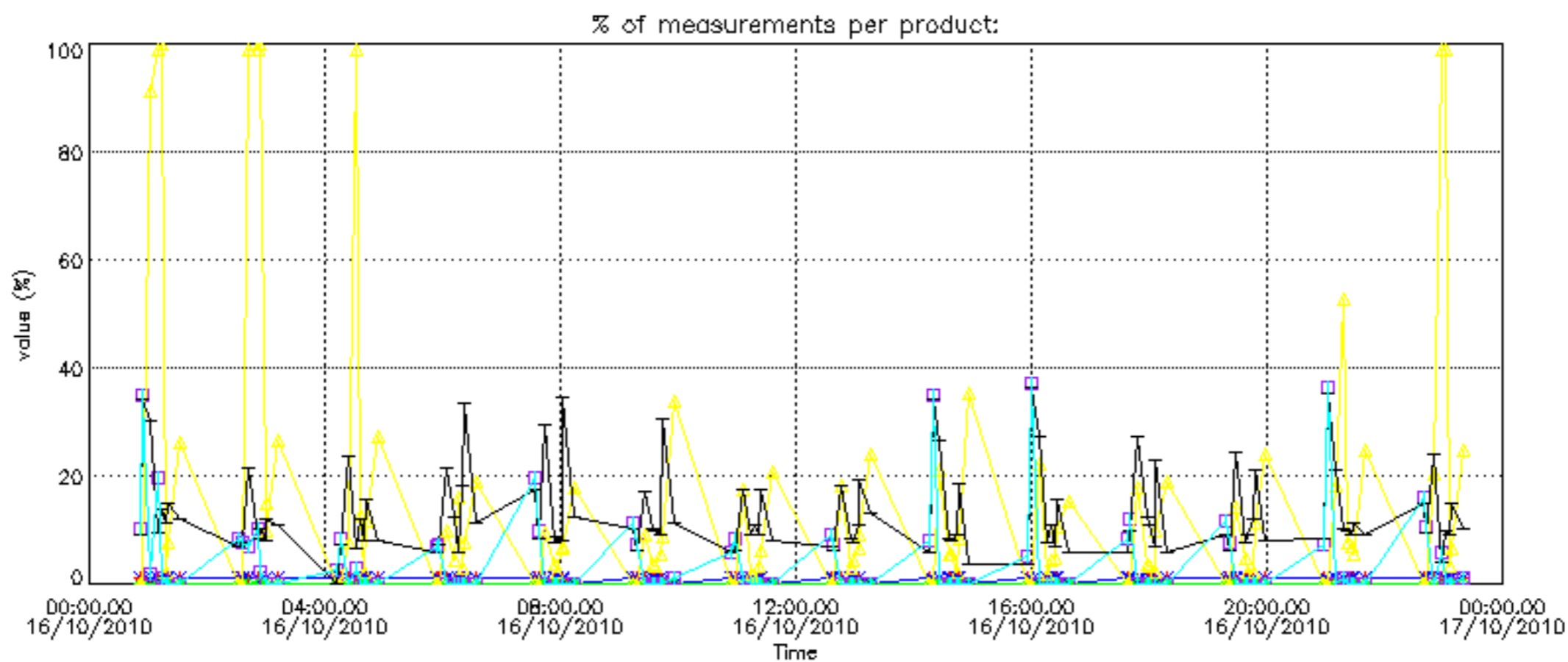


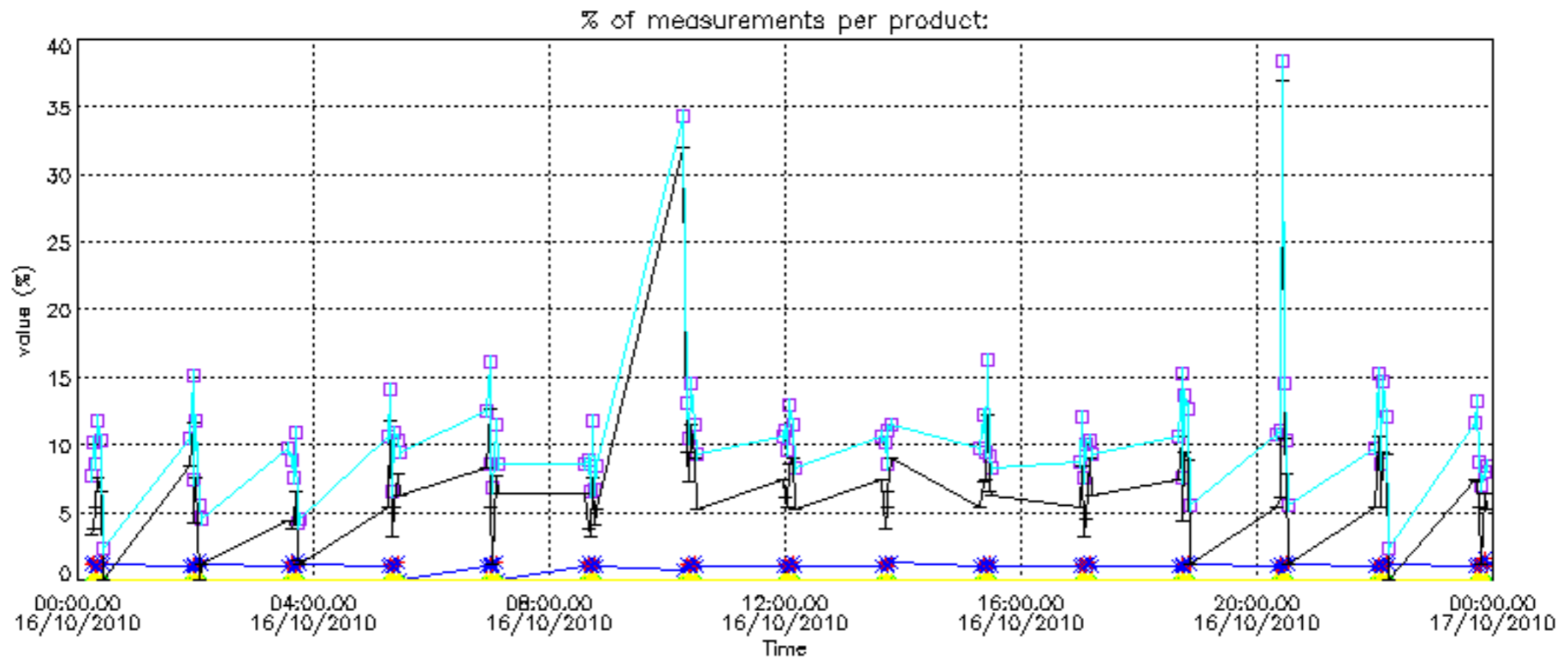
Percentage of flagged data per NO2 profile



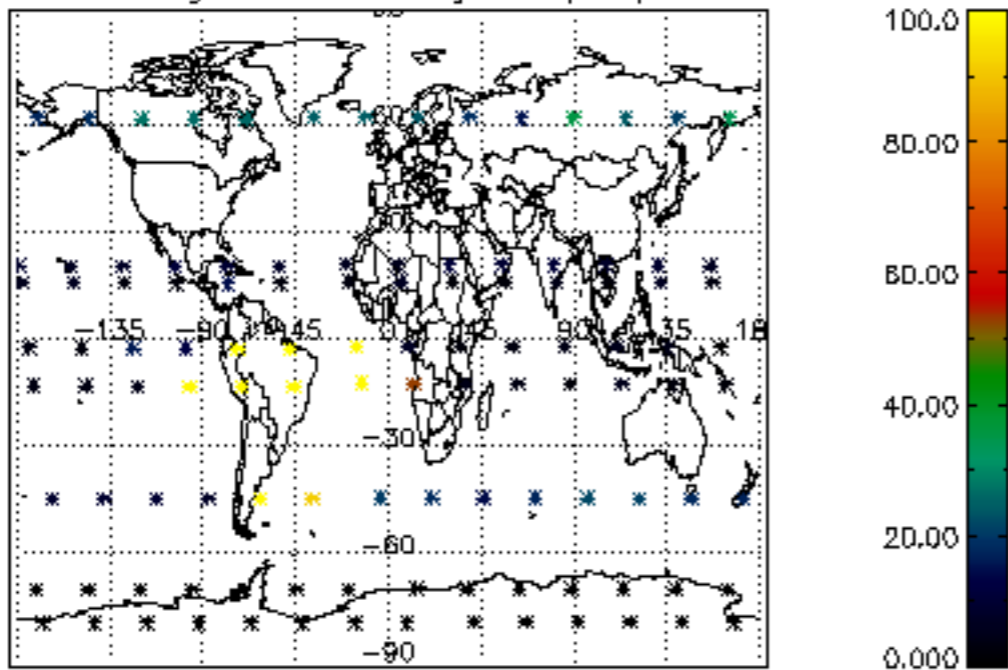
Percentage of flagged data per NO3 profile



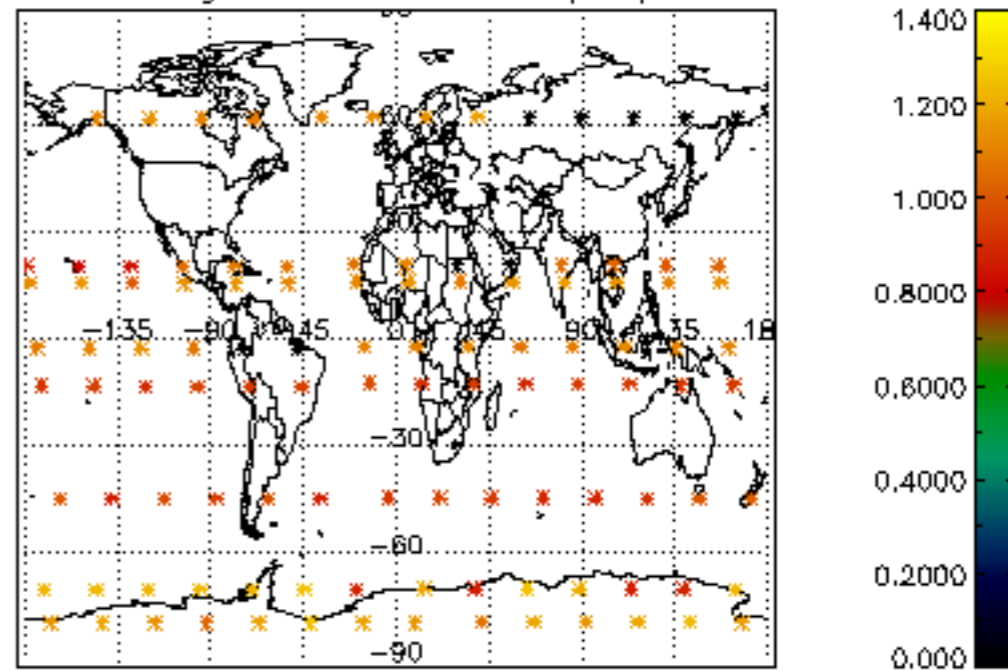




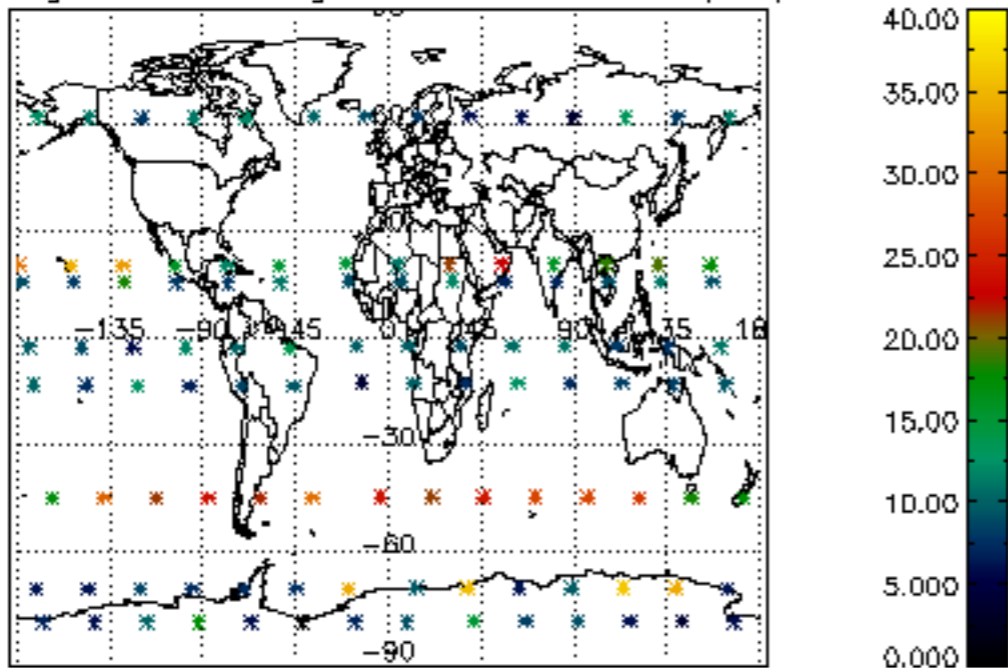
Percentage of cosmic ray hits per profile



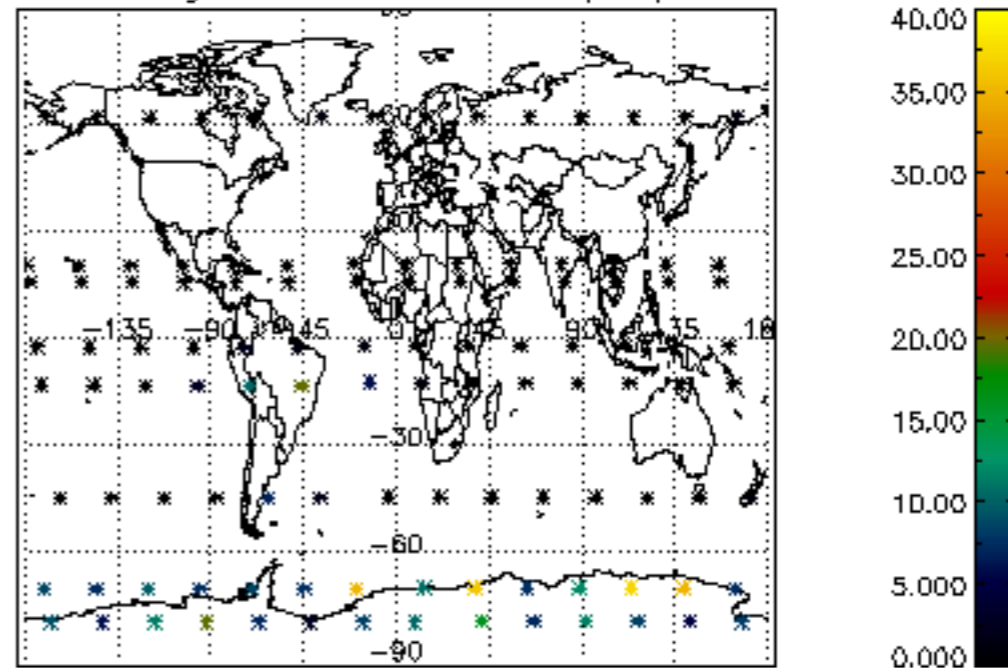
Percentage of datation errors per profile



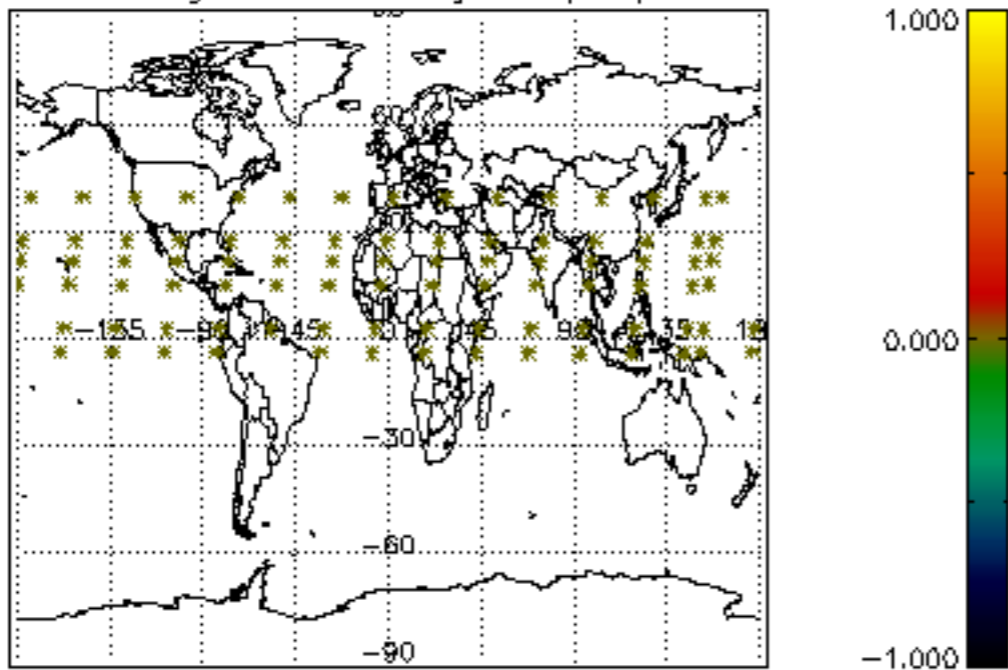
Percentage of star falling outside central band per profile



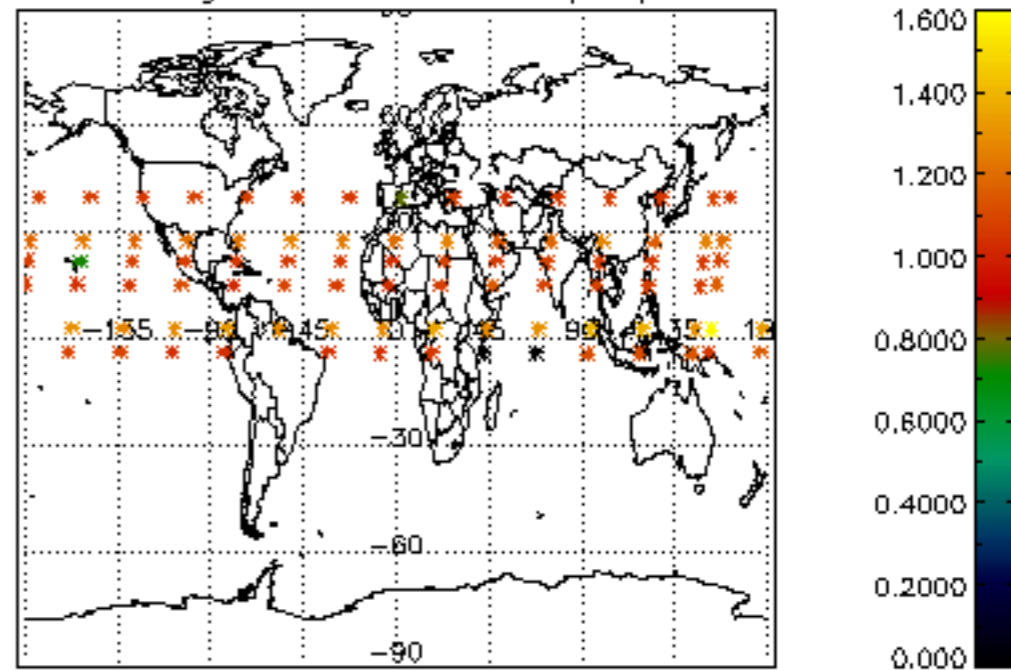
Percentage of saturation errors per profile



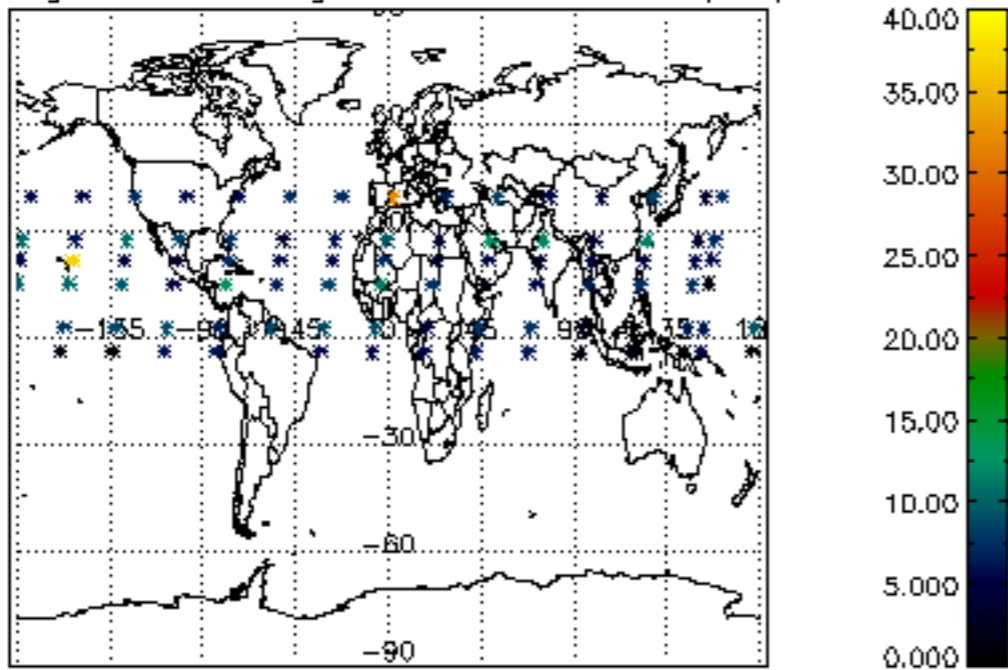
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

