

# GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	26APR2013 11:19:53
Data source version	GOMOS/6.01
Start time of products	01-08-2009 (01AUG2009 00:00:00)
Stop time of products	02-08-2009 (02AUG2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	245
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__2PRFIN20090801_000025_000000482081_00159_38790_4827.N1	01-AUG-2009 00:00:25	Bright	47.500	160	23Gam Per	2.9300	4700.0	95	38790	No
2	GOM_NL__2PRFIN20090801_000205_000000512081_00159_38790_4828.N1	01-AUG-2009 00:02:05	Bright	50.500	35	33Alp Per	1.7950	6250.0	101	38790	No
3	GOM_NL__2PRFIN20090801_000602_000000522081_00159_38790_4829.N1	01-AUG-2009 00:06:02	Bright	52.000	149	45Eps Per	2.8880	30000.	104	38790	No
4	GOM_NL__2PRFIN20090801_000907_000000522081_00159_38790_4830.N1	01-AUG-2009 00:09:07	Twilight	52.000	150	44Zet Per	2.8900	28000.	104	38790	No
5	GOM_NL__2PRFIN20090801_001355_000000632081_00159_38790_4831.N1	01-AUG-2009 00:13:55	Dark	63.000	13	87Alp Tau	0.86700	3800.0	126	38790	No
6	GOM_NL__2PRFIN20090801_002453_000000562081_00159_38790_4832.N1	01-AUG-2009 00:24:53	Dark	55.500	165	34Gam Eri	2.9500	3200.0	111	38790	No
7	GOM_NL__2PRFIN20090801_003418_000000452081_00159_38790_4833.N1	01-AUG-2009 00:34:18	Dark	44.500	157	The1Eri	2.9060	9300.0	89	38790	No
8	GOM_NL__2PRFIN20090801_004435_000000532081_00160_38791_4834.N1	01-AUG-2009 00:44:35	Straylight	53.000	84	Alp Phe	2.3970	4500.0	106	38791	No
9	GOM_NL__2PRFIN20090801_005001_000000442081_00160_38791_4835.N1	01-AUG-2009 00:50:01	Straylight	44.000	31	Alp Gru	1.7340	15200.	88	38791	No
10	GOM_NL__2PRFIN20090801_005310_000000452081_00160_38791_4836.N1	01-AUG-2009 00:53:10	Straylight	44.500	172	Gam Gru	3.0030	13100.	89	38791	No
11	GOM_NL__2PRFIN20090801_010052_000000532081_00160_38791_4837.N1	01-AUG-2009 01:00:52	Bright	53.000	142	49Del Cap	2.8500	8900.0	106	38791	No
12	GOM_NL__2PRFIN20090801_010506_000000542081_00160_38791_4838.N1	01-AUG-2009 01:05:06	Bright	54.000	154	22Bet Aqr	2.8990	5700.0	108	38791	No
13	GOM_NL__2PRFIN20090801_011741_000000432081_00160_38791_4839.N1	01-AUG-2009 01:17:41	Bright	42.500	92	53Eps Cyg	2.5000	4500.0	85	38791	No
14	GOM_NL__2PRFIN20090801_012048_000000612081_00160_38791_4840.N1	01-AUG-2009 01:20:48	Bright	61.000	19	50Alp Cyg	1.2460	10500.	122	38791	No
15	GOM_NL__2PRFIN20090801_012613_000000362081_00160_38791_4841.N1	01-AUG-2009 01:26:13	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	38791	No
16	GOM_NL__2PRFIN20090801_013241_000000502081_00160_38791_4842.N1	01-AUG-2009 01:32:41	Bright	49.500	74	11Bet Cas	2.2680	6600.0	99	38791	No
17	GOM_NL__2PRFIN20090801_013438_000000482081_00160_38791_4843.N1	01-AUG-2009 01:34:38	Bright	47.500	76	27Gam Cas	2.3000	30000.	95	38791	No
18	GOM_NL__2PRFIN20090801_014101_000000472081_00160_38791_4844.N1	01-AUG-2009 01:41:01	Bright	46.500	160	23Gam Per	2.9300	4700.0	93	38791	No
19	GOM_NL__2PRFIN20090801_014240_000000502081_00160_38791_4845.N1	01-AUG-2009 01:42:40	Bright	50.000	35	33Alp Per	1.7950	6250.0	100	38791	No
20	GOM_NL__2PRFIN20090801_014637_000000482081_00160_38791_4846.N1	01-AUG-2009 01:46:37	Bright	47.500	149	45Eps Per	2.8880	30000.	95	38791	No
21	GOM_NL__2PRFIN20090801_014943_000000552081_00160_38791_4847.N1	01-AUG-2009 01:49:43	Twilight	54.500	150	44Zet Per	2.8900	28000.	109	38791	No
22	GOM_NL__2PRFIN20090801_015432_000000632081_00160_38791_4848.N1	01-AUG-2009 01:54:32	Dark	62.500	13	87Alp Tau	0.86700	3800.0	125	38791	No
23	GOM_NL__2PRFIN20090801_020530_000000582081_00160_38791_4849.N1	01-AUG-2009 02:05:30	Dark	58.000	165	34Gam Eri	2.9500	3200.0	116	38791	No
24	GOM_NL__2PRFIN20090801_021455_000000462081_00160_38791_4850.N1	01-AUG-2009 02:14:55	Dark	46.000	157	The1Eri	2.9060	9300.0	92	38791	No
25	GOM_NL__2PRFIN20090801_022512_000000552081_00161_38792_4849.N1	01-AUG-2009 02:25:12	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	38792	No
26	GOM_NL__2PRFIN20090801_023038_000000442081_00161_38792_4850.N1	01-AUG-2009 02:30:38	Straylight	44.000	31	Alp Gru	1.7340	15200.	88	38792	No
27	GOM_NL__2PRFIN20090801_023346_000000462081_00161_38792_4851.N1	01-AUG-2009 02:33:46	Straylight	45.500	172	Gam Gru	3.0030	13100.	91	38792	No
28	GOM_NL__2PRFIN20090801_024128_000000512081_00161_38792_4852.N1	01-AUG-2009 02:41:28	Bright	51.000	142	49Del Cap	2.8500	8900.0	102	38792	No
29	GOM_NL__2PRFIN20090801_024541_000000532081_00161_38792_4853.N1	01-AUG-2009 02:45:41	Bright	53.000	154	22Bet Aqr	2.8990	5700.0	106	38792	No
30	GOM_NL__2PRFIN20090801_025817_000000452081_00161_38792_4854.N1	01-AUG-2009 02:58:17	Bright	45.000	92	53Eps Cyg	2.5000	4500.0	90	38792	No
31	GOM_NL__2PRFIN20090801_030124_000000432081_00161_38792_4855.N1	01-AUG-2009 03:01:24	Bright	42.500	19	50Alp Cyg	1.2460	10500.	85	38792	No
32	GOM_NL__2PRFIN20090801_030648_000000372081_00161_38792_4856.N1	01-AUG-2009 03:06:48	Bright	36.500	89	5Alp Cep	2.4510	8000.0	73	38792	No
33	GOM_NL__2PRFIN20090801_031316_000000502081_00161_38792_4857.N1	01-AUG-2009 03:13:16	Bright	49.500	74	11Bet Cas	2.2680	6600.0	99	38792	No
34	GOM_NL__2PRFIN20090801_031514_000000502081_00161_38792_4858.N1	01-AUG-2009 03:15:14	Bright	49.500	76	27Gam Cas	2.3000	30000.	99	38792	No
35	GOM_NL__2PRFIN20090801_032137_000000492081_00161_38792_4859.N1	01-AUG-2009 03:21:37	Bright	49.000	160	23Gam Per	2.9300	4700.0	98	38792	No
36	GOM_NL__2PRFIN20090801_032316_000000612081_00161_38792_4860.N1	01-AUG-2009 03:23:16	Bright	61.000	35	33Alp Per	1.7950	6250.0	122	38792	No
37	GOM_NL__2PRFIN20090801_032713_000000462081_00161_38792_4861.N1	01-AUG-2009 03:27:13	Bright	45.500	149	45Eps Per	2.8880	30000.	91	38792	No
38	GOM_NL__2PRFIN20090801_033019_000000552081_00161_38792_4862.N1	01-AUG-2009 03:30:19	Twilight	55.000	150	44Zet Per	2.8900	28000.	110	38792	No
39	GOM_NL__2PRFIN20090801_033508_000000442081_00161_38792_4863.N1	01-AUG-2009 03:35:08	Dark	44.000	13	87Alp Tau	0.86700	3800.0	88	38792	No
40	GOM_NL__2PRFIN20090801_034607_000000572081_00161_38792_4864.N1	01-AUG-2009 03:46:07	Dark	57.000	165	34Gam Eri	2.9500	3200.0	114	38792	No
41	GOM_NL__2PRFIN20090801_035532_000000452081_00161_38792_4865.N1	01-AUG-2009 03:55:32	Dark	44.500	157	The1Eri	2.9060	9300.0	89	38792	No
42	GOM_NL__2PRFIN20090801_040549_000000592081_00162_38793_4864.N1	01-AUG-2009 04:05:49	Straylight	59.000	84	Alp Phe	2.3970	4500.0	118	38793	No





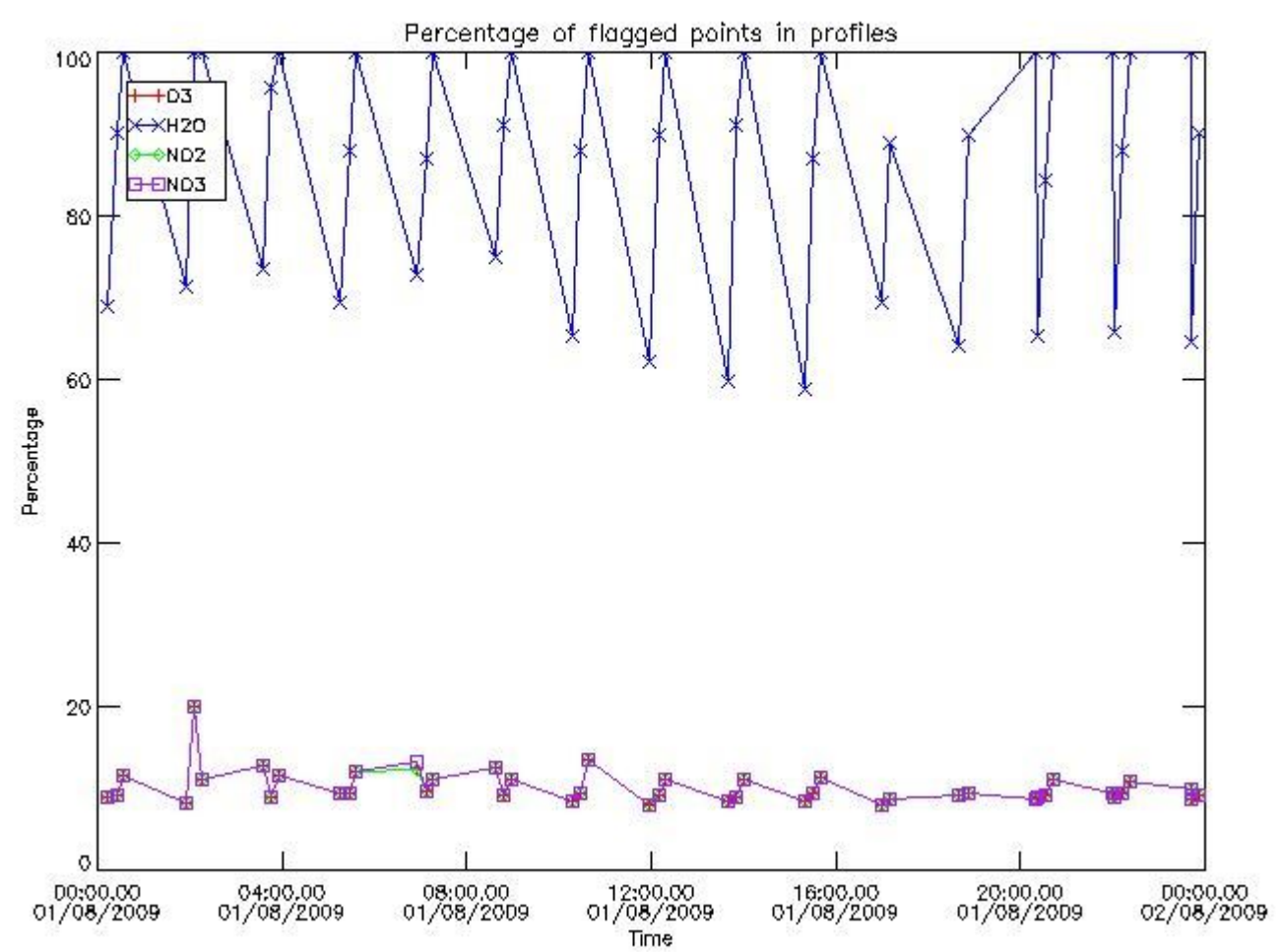


220	GOM_NL__2PRFIN20090801_214142_000000472081_00172_38803_5047.N1	01-AUG-2009 21:41:42	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	38803	No
221	GOM_NL__2PRFIN20090801_214808_000000482081_00172_38803_5048.N1	01-AUG-2009 21:48:08	Bright	48.000	160	23Gam Per	2.9300	4700.0	96	38803	No
222	GOM_NL__2PRFIN20090801_214949_000000692081_00172_38803_5049.N1	01-AUG-2009 21:49:49	Bright	69.000	35	33Alp Per	1.7950	6250.0	138	38803	No
223	GOM_NL__2PRFIN20090801_215348_000000472081_00172_38803_5050.N1	01-AUG-2009 21:53:48	Bright	46.500	149	45Eps Per	2.8880	30000.	93	38803	No
224	GOM_NL__2PRFIN20090801_215656_000000562081_00172_38803_5051.N1	01-AUG-2009 21:56:56	Tw_i_and_stray	55.500	150	44Zet Per	2.8900	28000.	111	38803	No
225	GOM_NL__2PRFIN20090801_220012_000000602081_00172_38803_5052.N1	01-AUG-2009 22:00:12	Dark	59.500	146	25Eta Tau	2.8730	15200.	119	38803	No
226	GOM_NL__2PRFIN20090801_220148_000000582081_00172_38803_5053.N1	01-AUG-2009 22:01:48	Dark	57.500	13	87Alp Tau	0.86700	3800.0	115	38803	No
227	GOM_NL__2PRFIN20090801_221253_000000542081_00172_38803_5054.N1	01-AUG-2009 22:12:53	Dark	54.000	165	34Gam Eri	2.9500	3200.0	108	38803	No
228	GOM_NL__2PRFIN20090801_222218_000000472081_00172_38803_5055.N1	01-AUG-2009 22:22:18	Dark	46.500	157	The1Eri	2.9060	9300.0	93	38803	No
229	GOM_NL__2PRFIN20090801_223236_000000542081_00173_38804_5056.N1	01-AUG-2009 22:32:36	Straylight	53.500	84	Alp Phe	2.3970	4500.0	107	38804	No
230	GOM_NL__2PRFIN20090801_223757_000000472081_00173_38804_5057.N1	01-AUG-2009 22:37:57	Straylight	46.500	31	Alp Gru	1.7340	15200.	93	38804	No
231	GOM_NL__2PRFIN20090801_224103_000000442081_00173_38804_5058.N1	01-AUG-2009 22:41:03	Straylight	44.000	172	Gam Gru	3.0030	13100.	88	38804	No
232	GOM_NL__2PRFIN20090801_224841_000000522081_00173_38804_5059.N1	01-AUG-2009 22:48:41	Bright	52.000	142	49Del Cap	2.8500	8900.0	104	38804	No
233	GOM_NL__2PRFIN20090801_225250_000000532081_00173_38804_5060.N1	01-AUG-2009 22:52:50	Bright	52.500	154	22Bet Agr	2.8990	5700.0	105	38804	No
234	GOM_NL__2PRFIN20090801_230522_000000482081_00173_38804_5061.N1	01-AUG-2009 23:05:22	Bright	47.500	92	53Eps Cyg	2.5000	4500.0	95	38804	No
235	GOM_NL__2PRFIN20090801_230829_000000392081_00173_38804_5062.N1	01-AUG-2009 23:08:29	Bright	38.500	19	50Alp Cyg	1.2460	10500.	77	38804	No
236	GOM_NL__2PRFIN20090801_231355_000000402081_00173_38804_5063.N1	01-AUG-2009 23:13:55	Bright	39.500	89	5Alp Cep	2.4510	8000.0	79	38804	No
237	GOM_NL__2PRFIN20090801_232018_000000522081_00173_38804_5064.N1	01-AUG-2009 23:20:18	Bright	51.500	74	11Bet Cas	2.2680	6600.0	103	38804	No
238	GOM_NL__2PRFIN20090801_232217_000000512081_00173_38804_5065.N1	01-AUG-2009 23:22:17	Bright	50.500	76	27Gam Cas	2.3000	30000.	101	38804	No
239	GOM_NL__2PRFIN20090801_232843_000000702081_00173_38804_5066.N1	01-AUG-2009 23:28:43	Bright	70.000	160	23Gam Per	2.9300	4700.0	140	38804	No
240	GOM_NL__2PRFIN20090801_233024_000000692081_00173_38804_5067.N1	01-AUG-2009 23:30:24	Bright	69.000	35	33Alp Per	1.7950	6250.0	138	38804	No
241	GOM_NL__2PRFIN20090801_233424_000000492081_00173_38804_5068.N1	01-AUG-2009 23:34:24	Bright	48.500	149	45Eps Per	2.8880	30000.	97	38804	No
242	GOM_NL__2PRFIN20090801_233732_000000562081_00173_38804_5069.N1	01-AUG-2009 23:37:32	Tw_i_and_stray	55.500	150	44Zet Per	2.8900	28000.	111	38804	No
243	GOM_NL__2PRFIN20090801_234048_000000572081_00173_38804_5070.N1	01-AUG-2009 23:40:48	Dark	57.000	146	25Eta Tau	2.8730	15200.	114	38804	No
244	GOM_NL__2PRFIN20090801_234224_000000592081_00173_38804_5071.N1	01-AUG-2009 23:42:24	Dark	58.500	13	87Alp Tau	0.86700	3800.0	117	38804	No
245	GOM_NL__2PRFIN20090801_235330_000000562081_00173_38804_5072.N1	01-AUG-2009 23:53:30	Dark	55.500	165	34Gam Eri	2.9500	3200.0	111	38804	No

### 3. Quality information per product

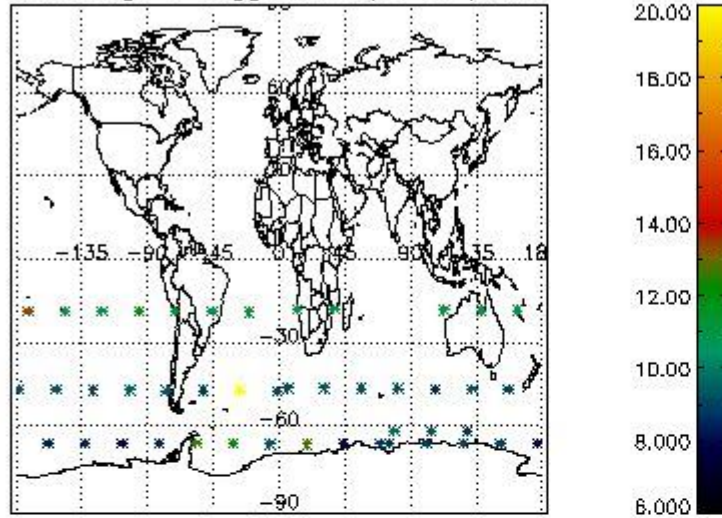
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

#### 3.1 Plot quality information per product (time dependant)

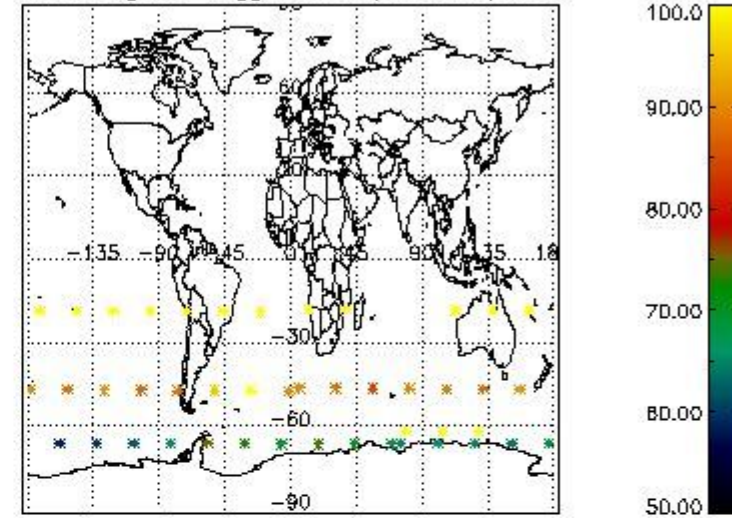


3.2 Plot quality information per product (world map)

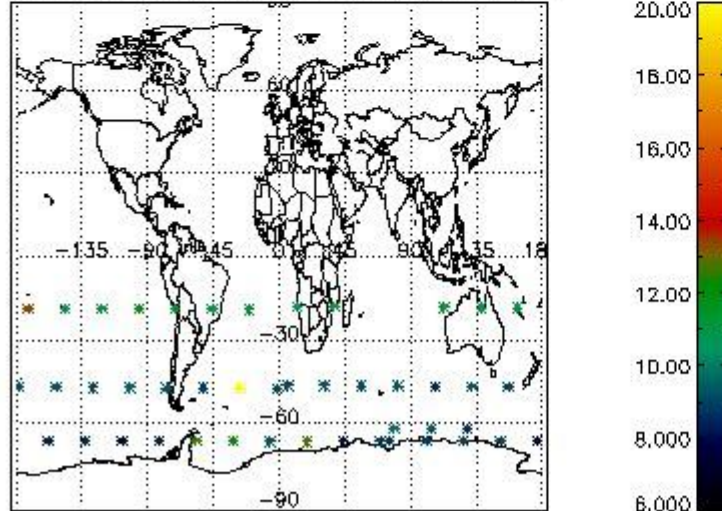
Percentage of flagged data per O3 profile



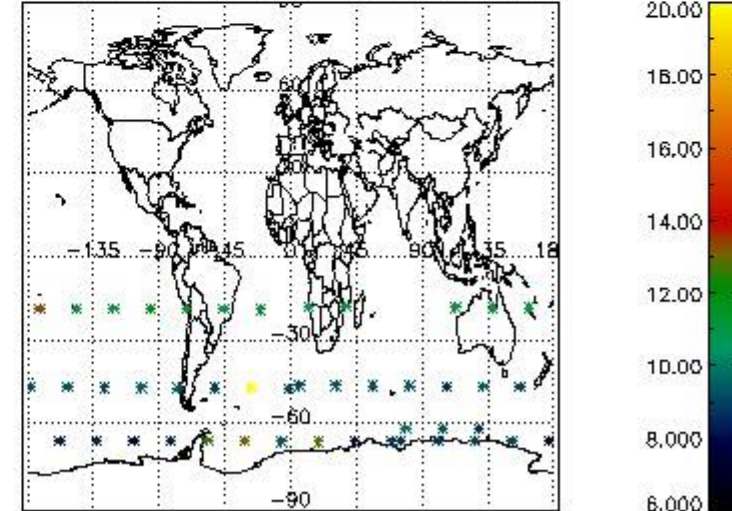
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



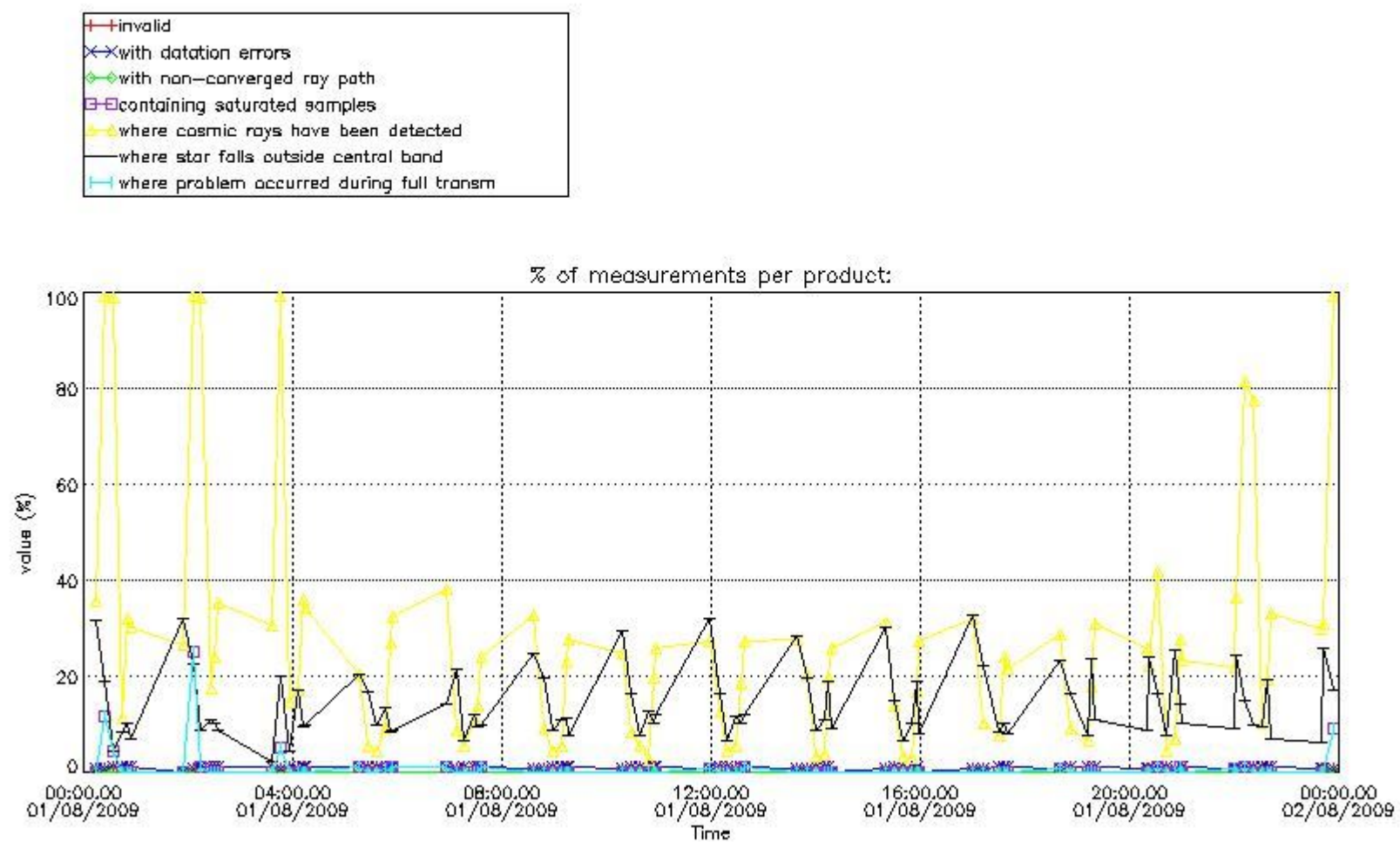
#### 4. Level 1 quality information per product

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.

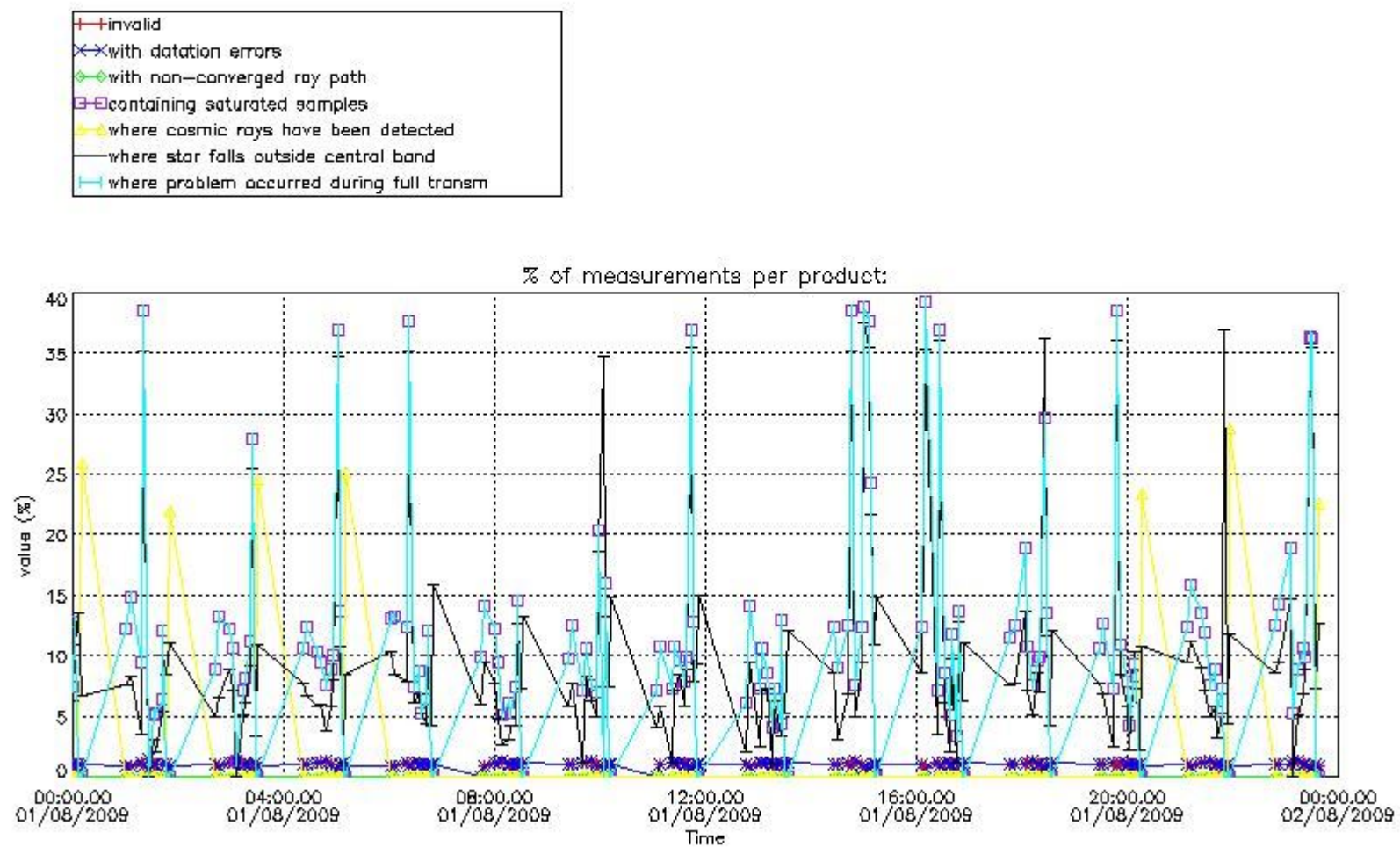
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



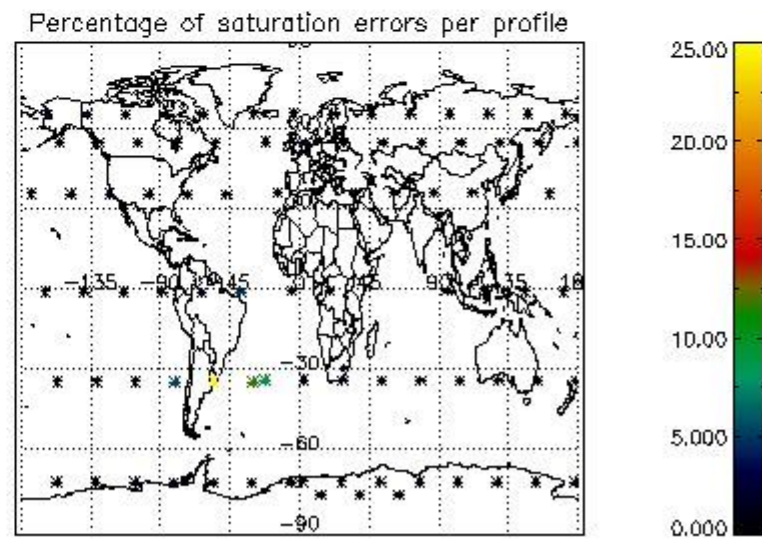
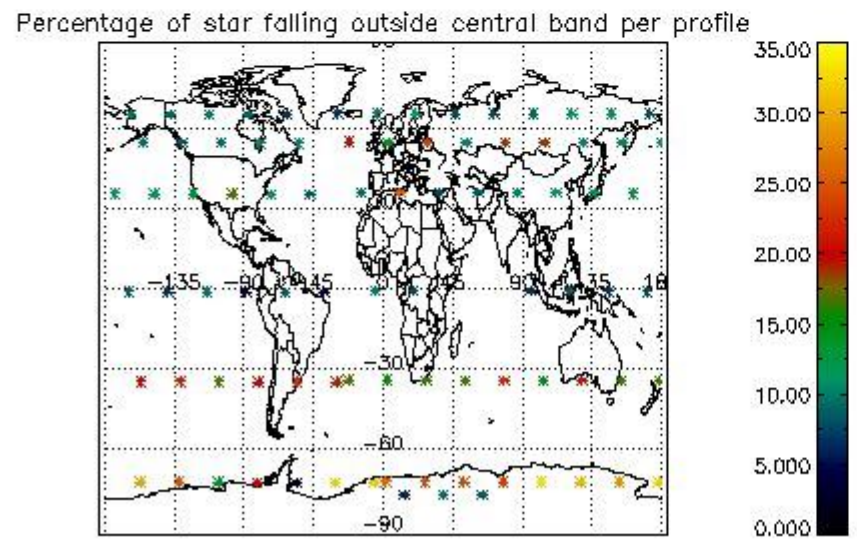
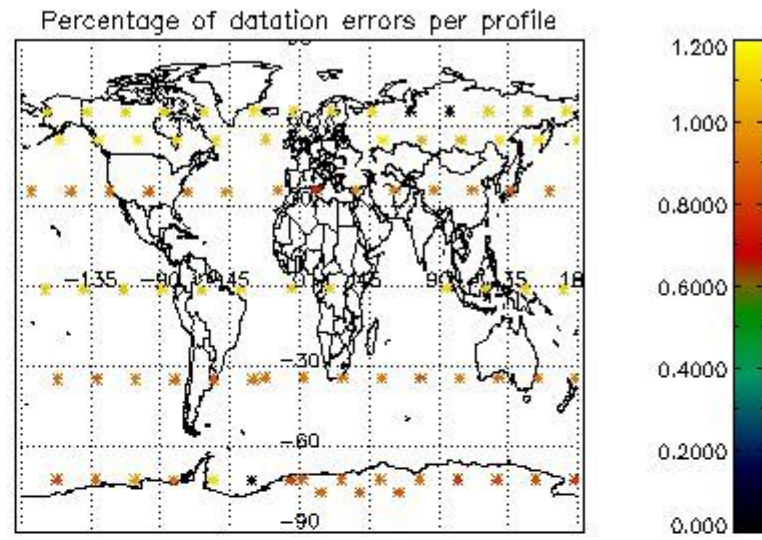
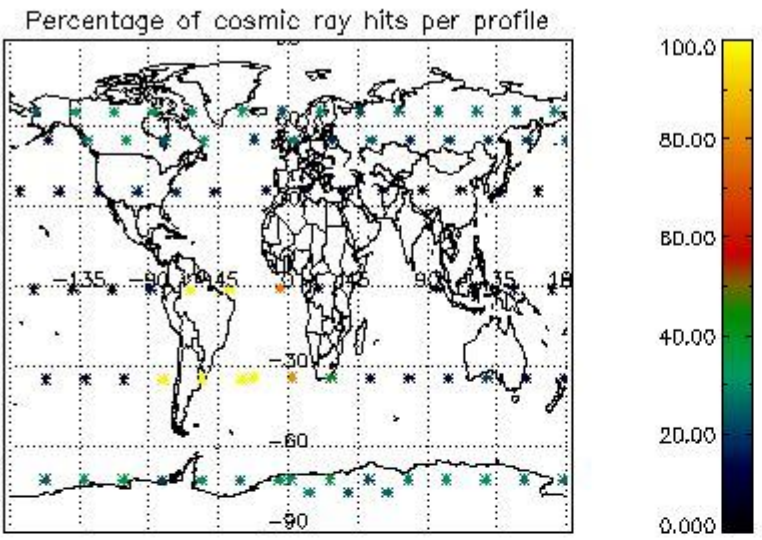


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

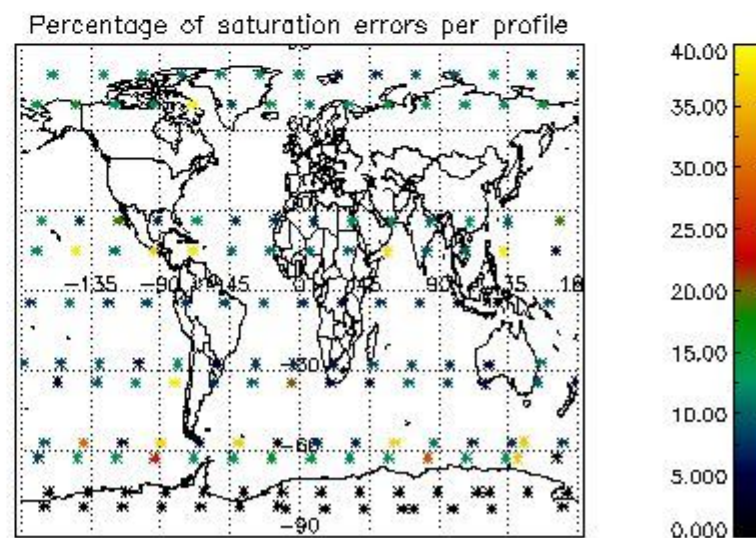
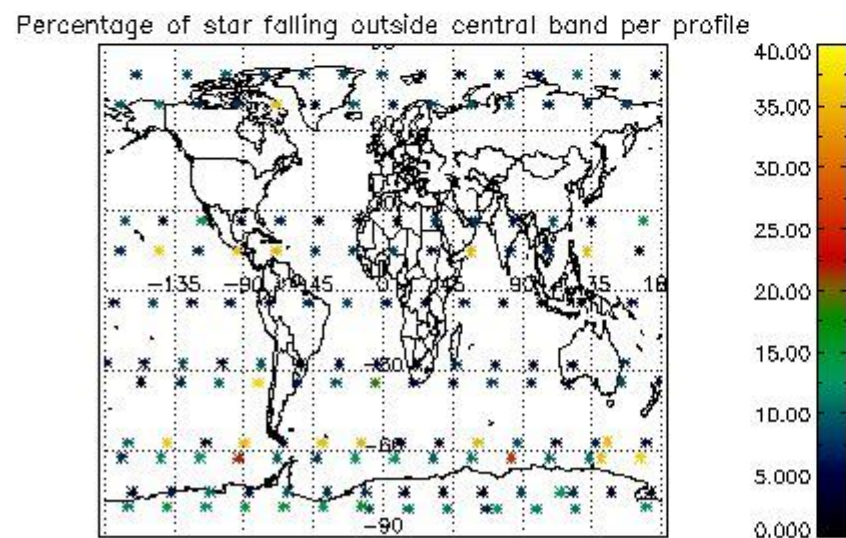
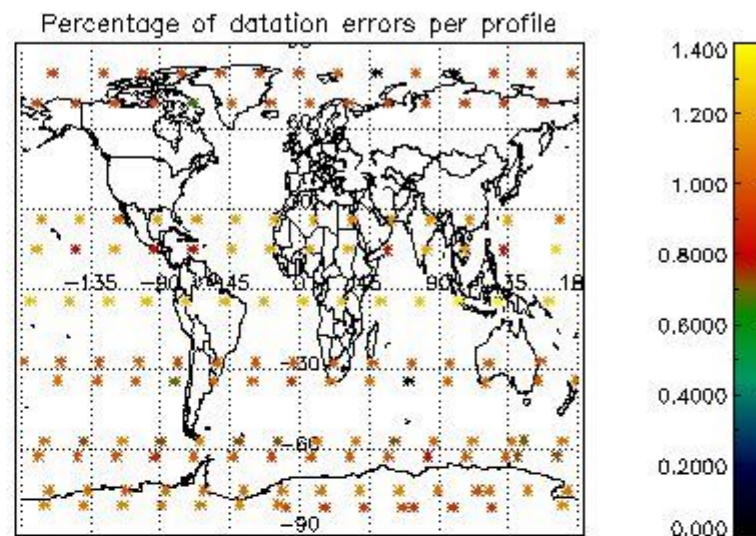
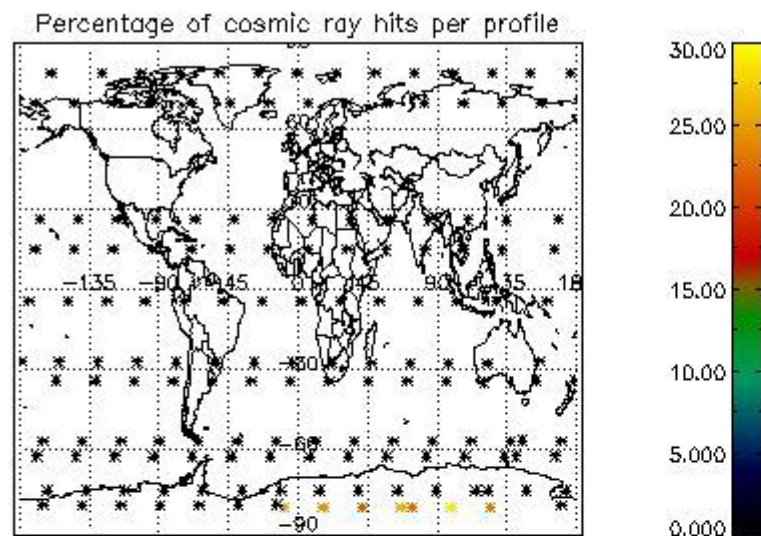


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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

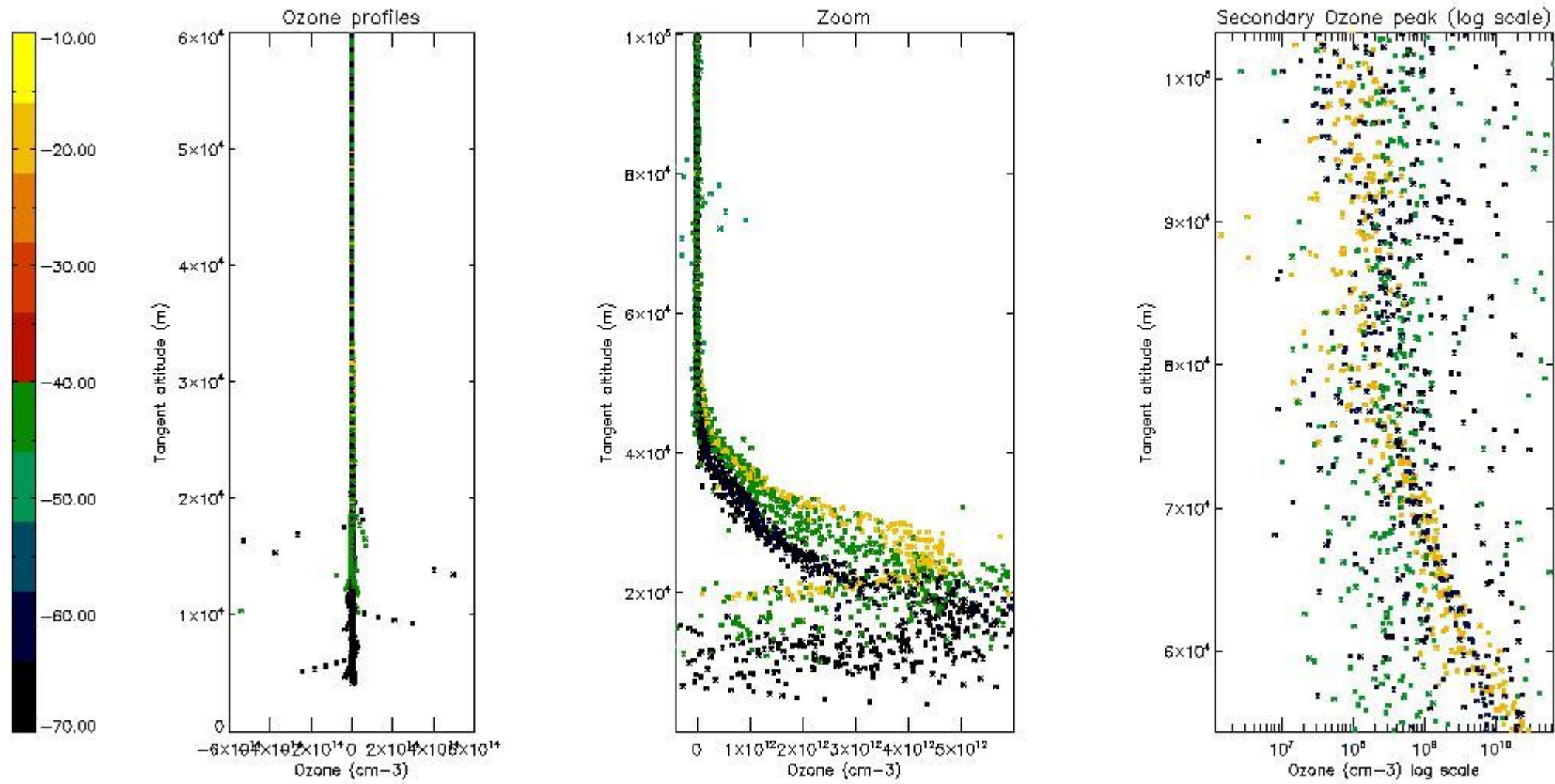
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	3
STD < 5	1

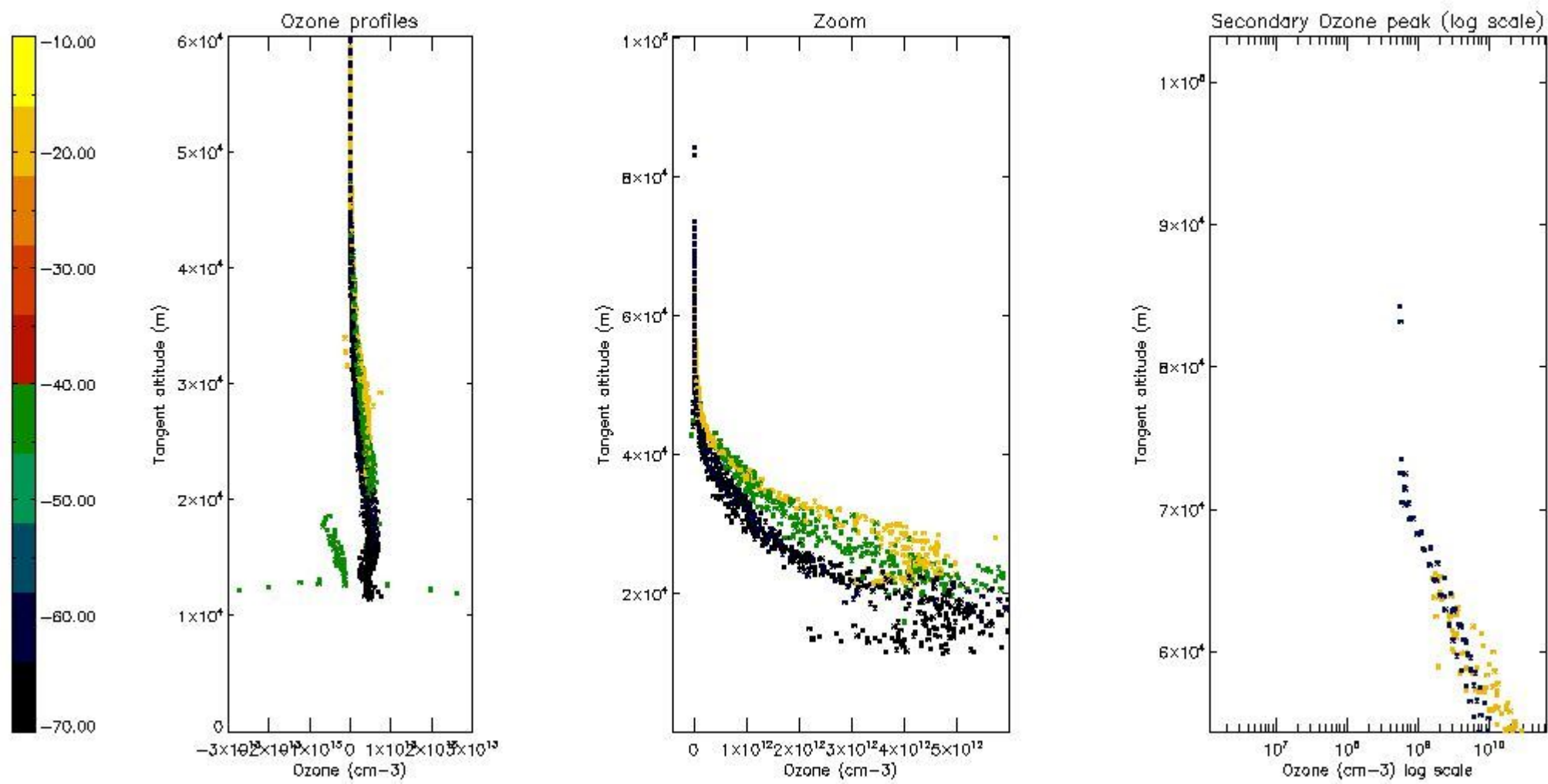
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



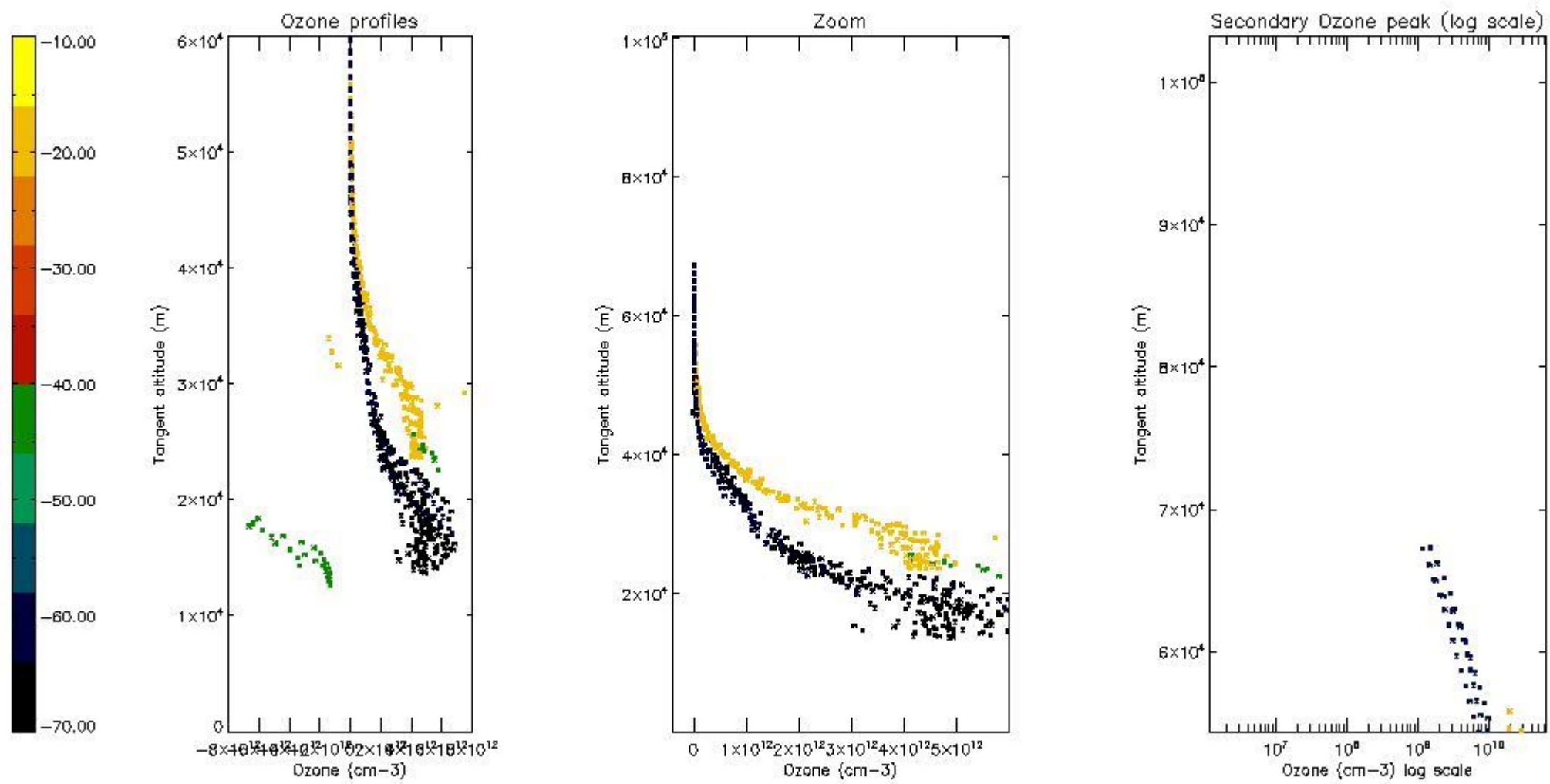
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



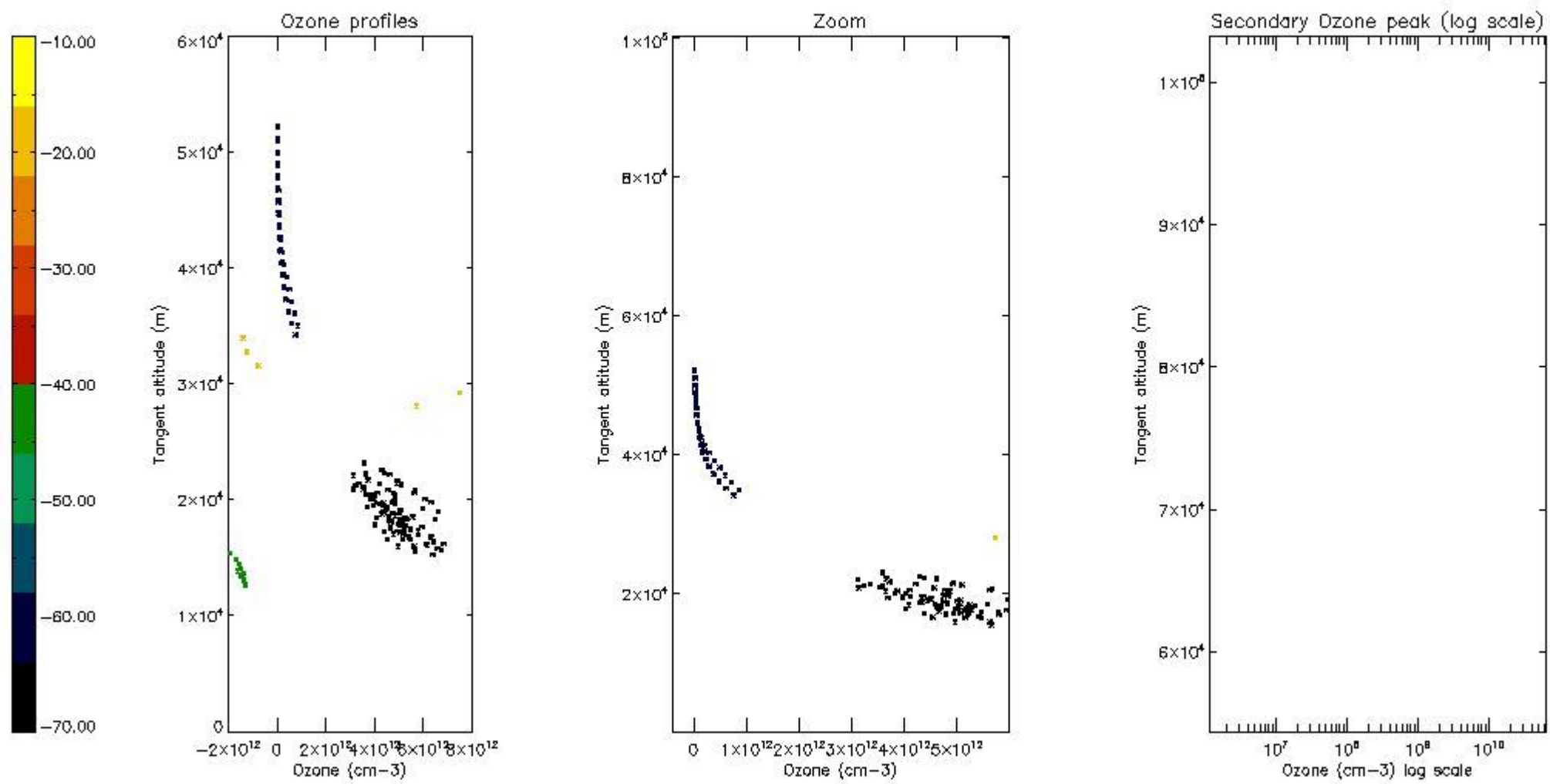
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

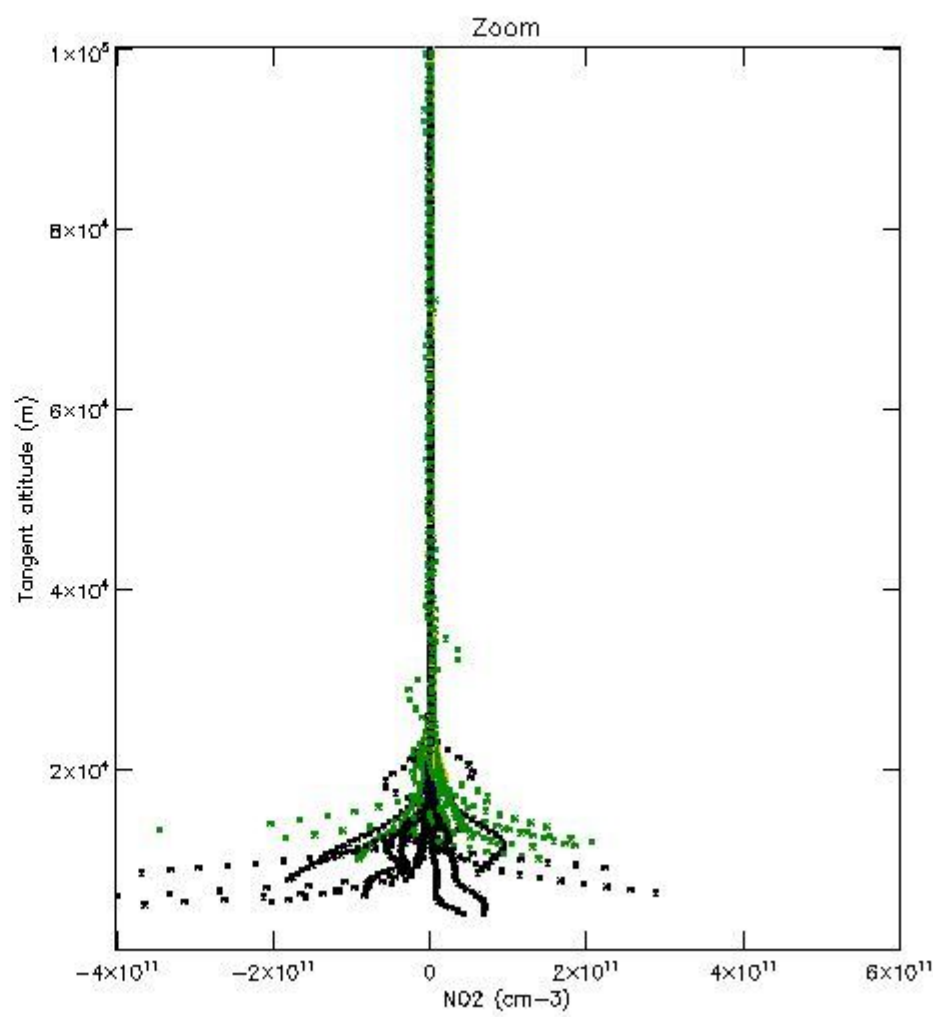
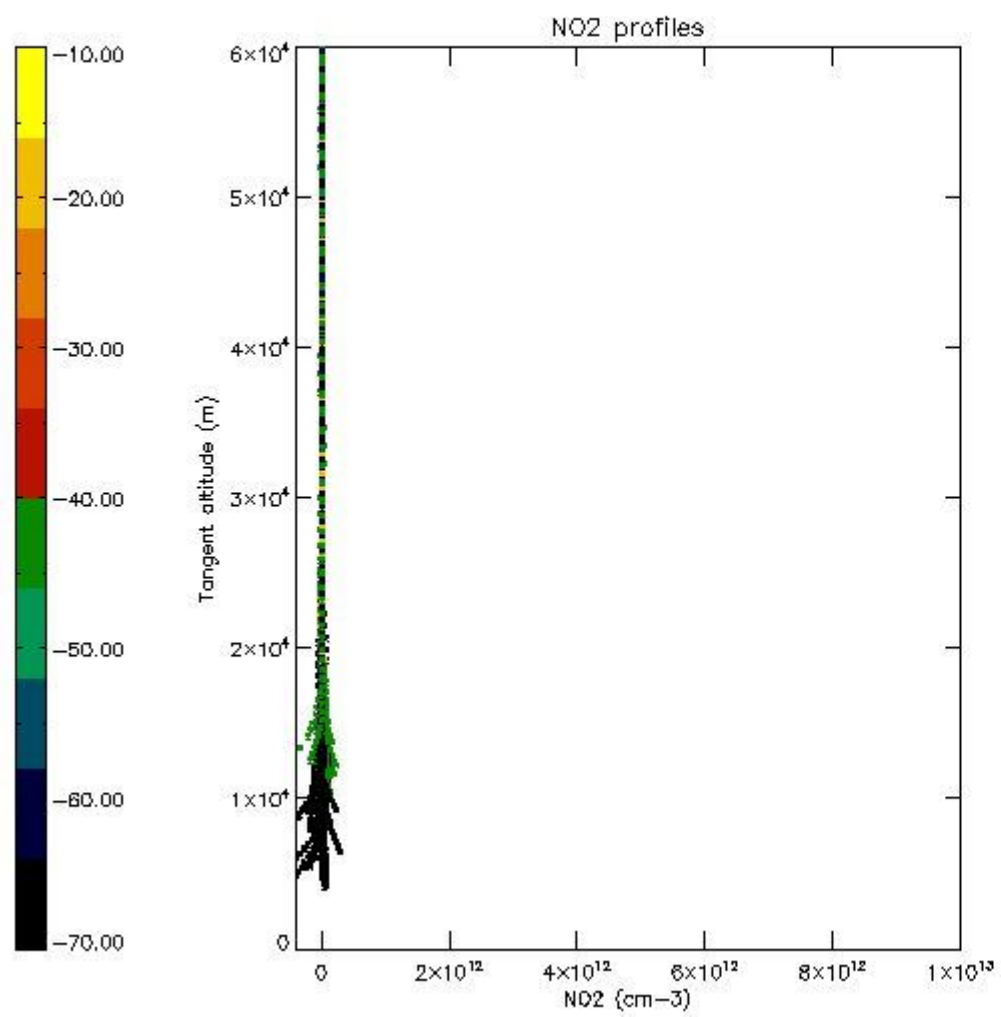
The colorbar represents the latitude.



*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

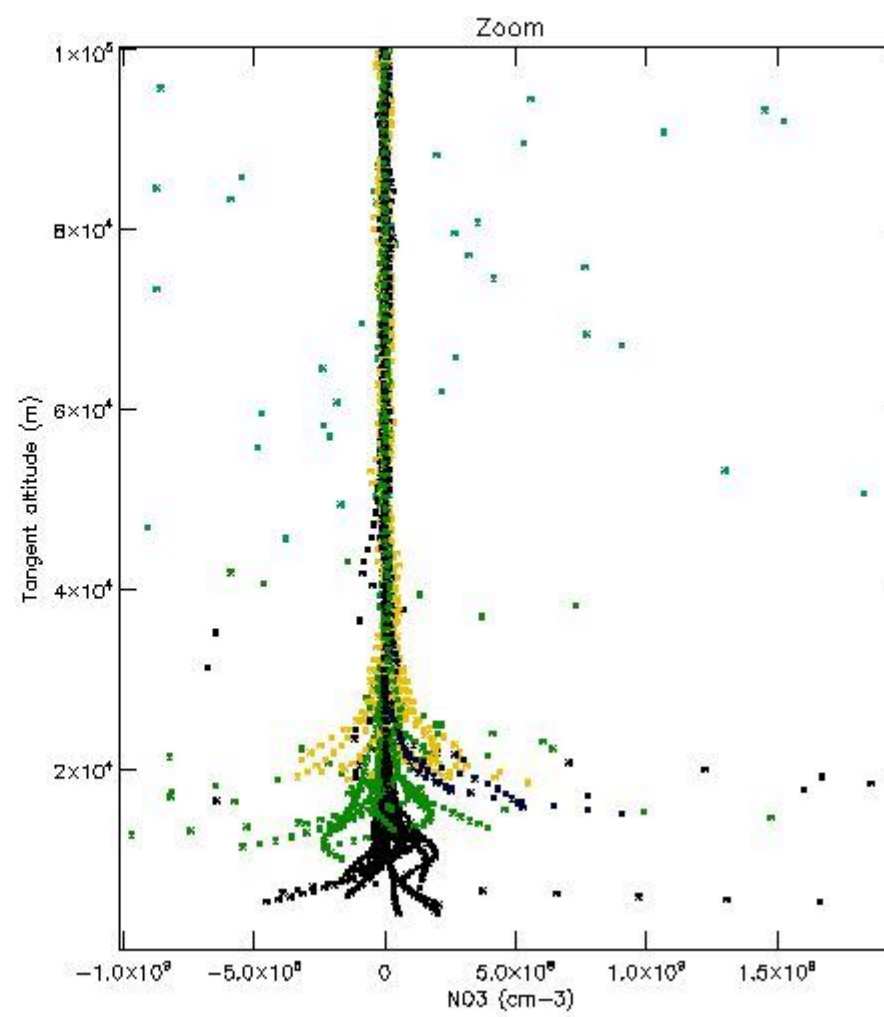
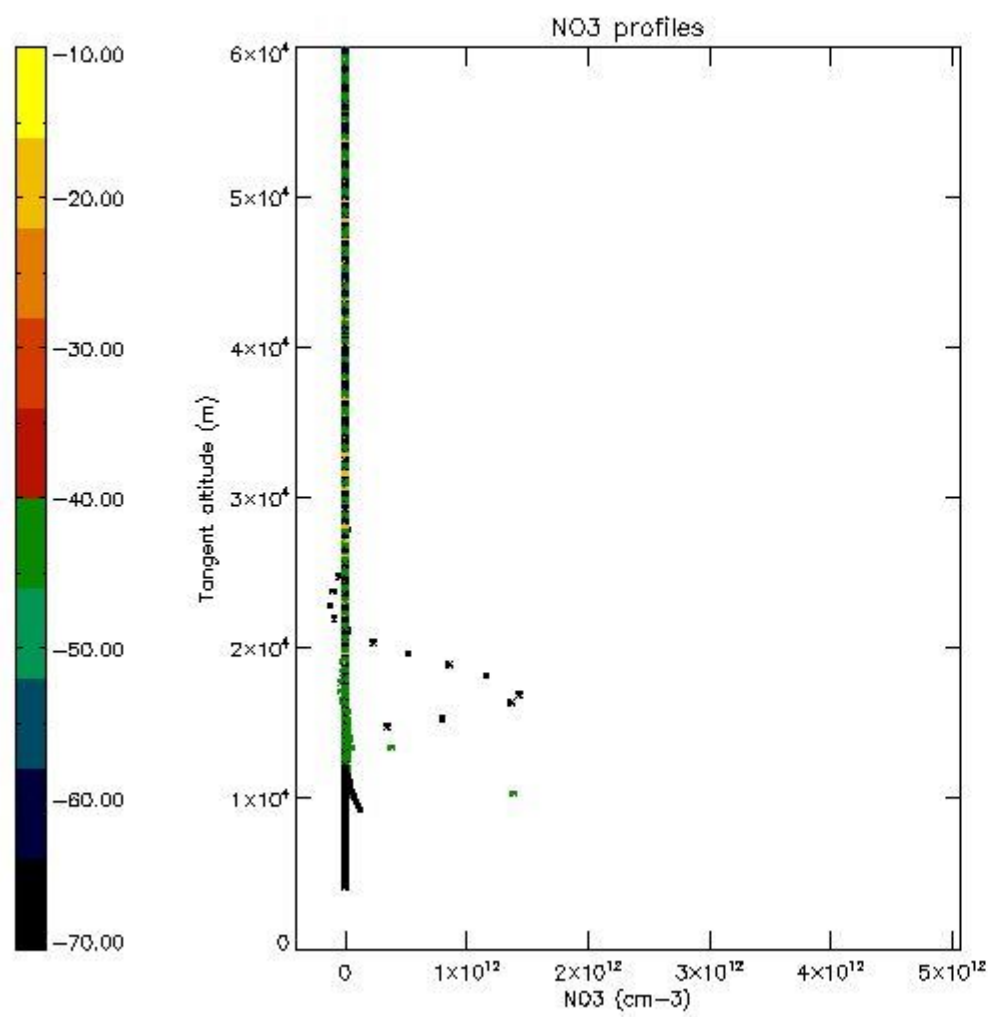
The colorbar represents the latitude.





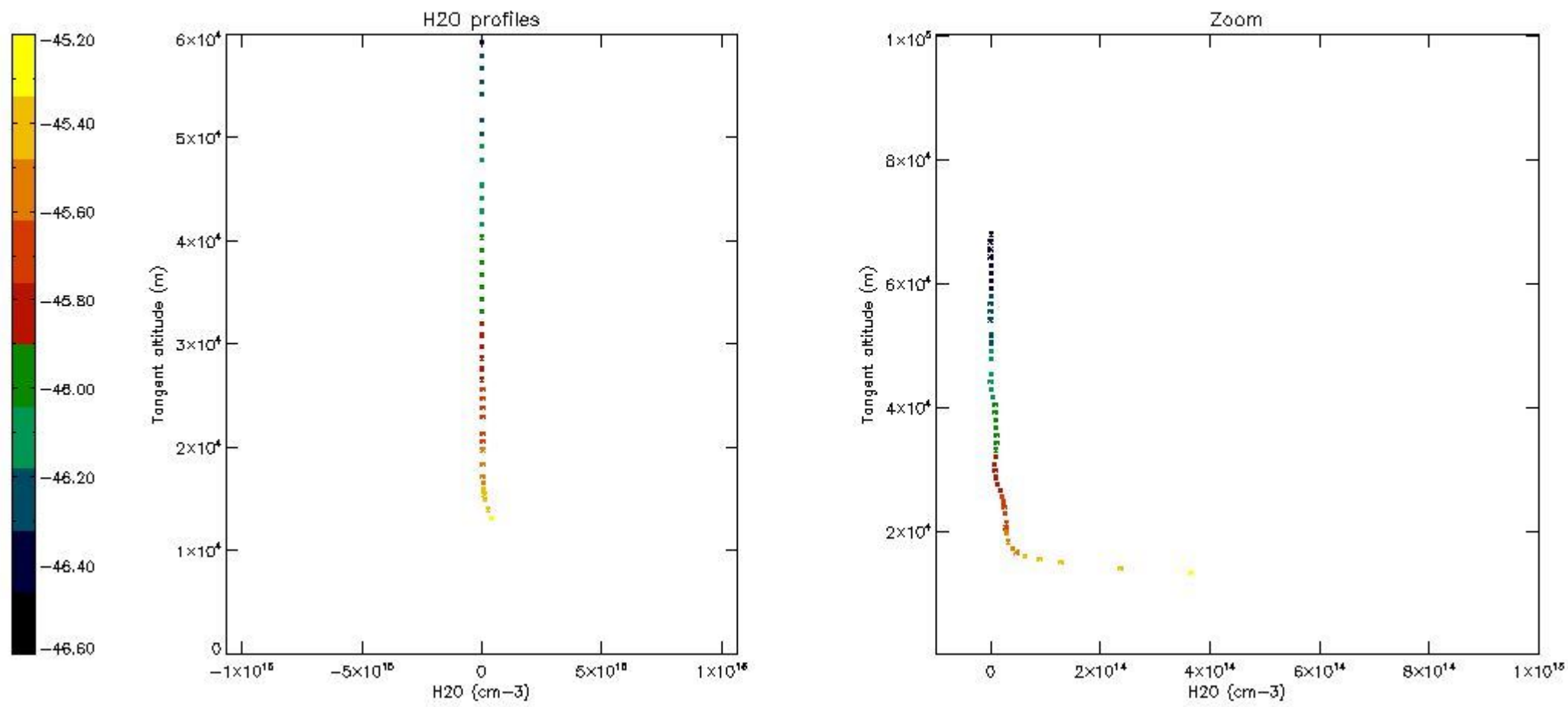
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H<sub>2</sub>O 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	01-AUG-2009 00:00:25
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	01-AUG-2009 00:00:25
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	01-AUG-2009 00:00:25

# GOMOS Level 2 Daily Report

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









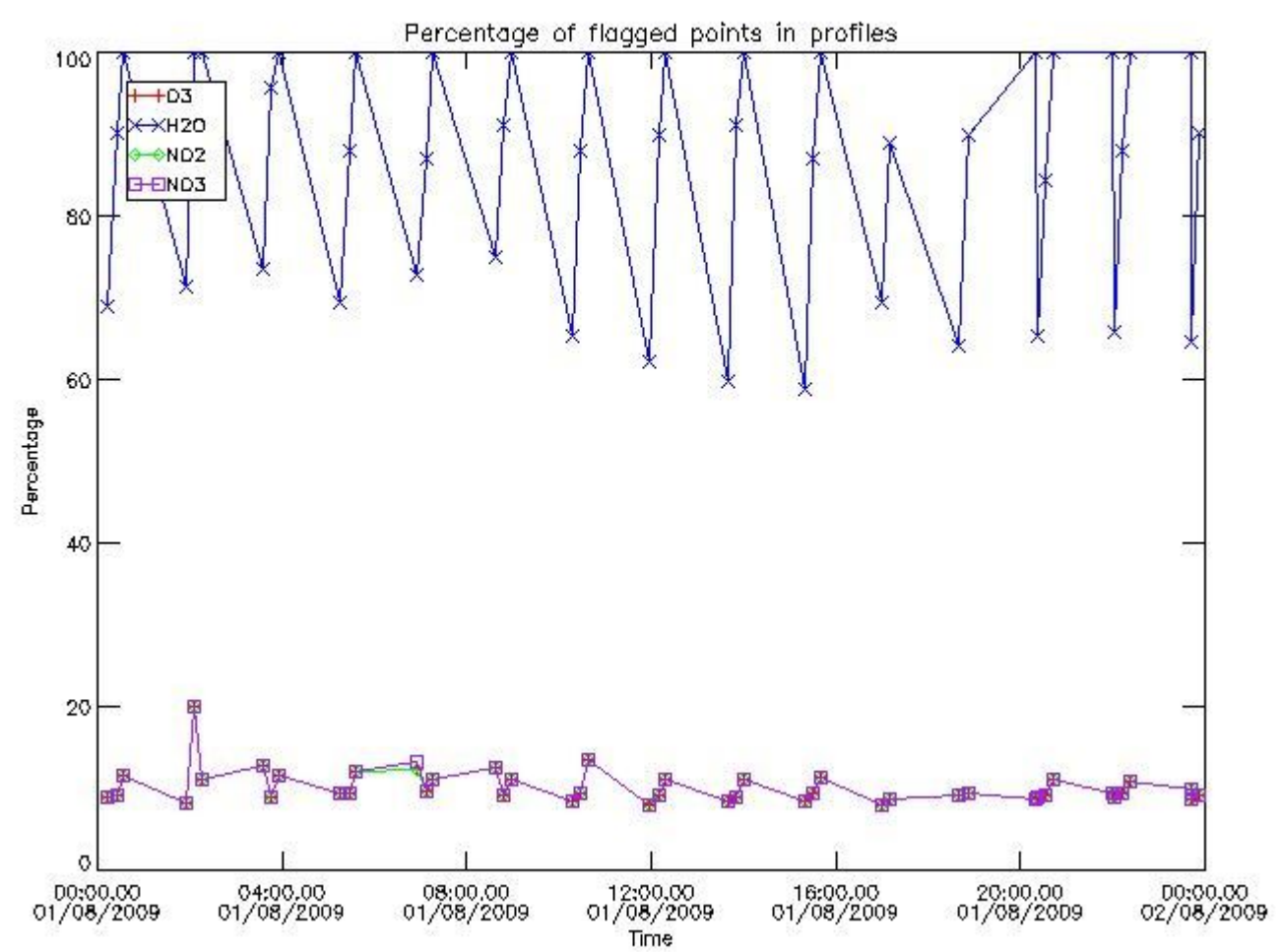


220	GOM_NL__2PRFIN20090801_214142_000000472081_00172_38803_5047.N1	01-AUG-2009 21:41:42	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	38803	No
221	GOM_NL__2PRFIN20090801_214808_000000482081_00172_38803_5048.N1	01-AUG-2009 21:48:08	Bright	48.000	160	23Gam Per	2.9300	4700.0	96	38803	No
222	GOM_NL__2PRFIN20090801_214949_000000692081_00172_38803_5049.N1	01-AUG-2009 21:49:49	Bright	69.000	35	33Alp Per	1.7950	6250.0	138	38803	No
223	GOM_NL__2PRFIN20090801_215348_000000472081_00172_38803_5050.N1	01-AUG-2009 21:53:48	Bright	46.500	149	45Eps Per	2.8880	30000.	93	38803	No
224	GOM_NL__2PRFIN20090801_215656_000000562081_00172_38803_5051.N1	01-AUG-2009 21:56:56	Tw_i_and_stray	55.500	150	44Zet Per	2.8900	28000.	111	38803	No
225	GOM_NL__2PRFIN20090801_220012_000000602081_00172_38803_5052.N1	01-AUG-2009 22:00:12	Dark	59.500	146	25Eta Tau	2.8730	15200.	119	38803	No
226	GOM_NL__2PRFIN20090801_220148_000000582081_00172_38803_5053.N1	01-AUG-2009 22:01:48	Dark	57.500	13	87Alp Tau	0.86700	3800.0	115	38803	No
227	GOM_NL__2PRFIN20090801_221253_000000542081_00172_38803_5054.N1	01-AUG-2009 22:12:53	Dark	54.000	165	34Gam Eri	2.9500	3200.0	108	38803	No
228	GOM_NL__2PRFIN20090801_222218_000000472081_00172_38803_5055.N1	01-AUG-2009 22:22:18	Dark	46.500	157	The1Eri	2.9060	9300.0	93	38803	No
229	GOM_NL__2PRFIN20090801_223236_000000542081_00173_38804_5056.N1	01-AUG-2009 22:32:36	Straylight	53.500	84	Alp Phe	2.3970	4500.0	107	38804	No
230	GOM_NL__2PRFIN20090801_223757_000000472081_00173_38804_5057.N1	01-AUG-2009 22:37:57	Straylight	46.500	31	Alp Gru	1.7340	15200.	93	38804	No
231	GOM_NL__2PRFIN20090801_224103_000000442081_00173_38804_5058.N1	01-AUG-2009 22:41:03	Straylight	44.000	172	Gam Gru	3.0030	13100.	88	38804	No
232	GOM_NL__2PRFIN20090801_224841_000000522081_00173_38804_5059.N1	01-AUG-2009 22:48:41	Bright	52.000	142	49Del Cap	2.8500	8900.0	104	38804	No
233	GOM_NL__2PRFIN20090801_225250_000000532081_00173_38804_5060.N1	01-AUG-2009 22:52:50	Bright	52.500	154	22Bet Agr	2.8990	5700.0	105	38804	No
234	GOM_NL__2PRFIN20090801_230522_000000482081_00173_38804_5061.N1	01-AUG-2009 23:05:22	Bright	47.500	92	53Eps Cyg	2.5000	4500.0	95	38804	No
235	GOM_NL__2PRFIN20090801_230829_000000392081_00173_38804_5062.N1	01-AUG-2009 23:08:29	Bright	38.500	19	50Alp Cyg	1.2460	10500.	77	38804	No
236	GOM_NL__2PRFIN20090801_231355_000000402081_00173_38804_5063.N1	01-AUG-2009 23:13:55	Bright	39.500	89	5Alp Cep	2.4510	8000.0	79	38804	No
237	GOM_NL__2PRFIN20090801_232018_000000522081_00173_38804_5064.N1	01-AUG-2009 23:20:18	Bright	51.500	74	11Bet Cas	2.2680	6600.0	103	38804	No
238	GOM_NL__2PRFIN20090801_232217_000000512081_00173_38804_5065.N1	01-AUG-2009 23:22:17	Bright	50.500	76	27Gam Cas	2.3000	30000.	101	38804	No
239	GOM_NL__2PRFIN20090801_232843_000000702081_00173_38804_5066.N1	01-AUG-2009 23:28:43	Bright	70.000	160	23Gam Per	2.9300	4700.0	140	38804	No
240	GOM_NL__2PRFIN20090801_233024_000000692081_00173_38804_5067.N1	01-AUG-2009 23:30:24	Bright	69.000	35	33Alp Per	1.7950	6250.0	138	38804	No
241	GOM_NL__2PRFIN20090801_233424_000000492081_00173_38804_5068.N1	01-AUG-2009 23:34:24	Bright	48.500	149	45Eps Per	2.8880	30000.	97	38804	No
242	GOM_NL__2PRFIN20090801_233732_000000562081_00173_38804_5069.N1	01-AUG-2009 23:37:32	Tw_i_and_stray	55.500	150	44Zet Per	2.8900	28000.	111	38804	No
243	GOM_NL__2PRFIN20090801_234048_000000572081_00173_38804_5070.N1	01-AUG-2009 23:40:48	Dark	57.000	146	25Eta Tau	2.8730	15200.	114	38804	No
244	GOM_NL__2PRFIN20090801_234224_000000592081_00173_38804_5071.N1	01-AUG-2009 23:42:24	Dark	58.500	13	87Alp Tau	0.86700	3800.0	117	38804	No
245	GOM_NL__2PRFIN20090801_235330_000000562081_00173_38804_5072.N1	01-AUG-2009 23:53:30	Dark	55.500	165	34Gam Eri	2.9500	3200.0	111	38804	No

### 3. Quality information per product

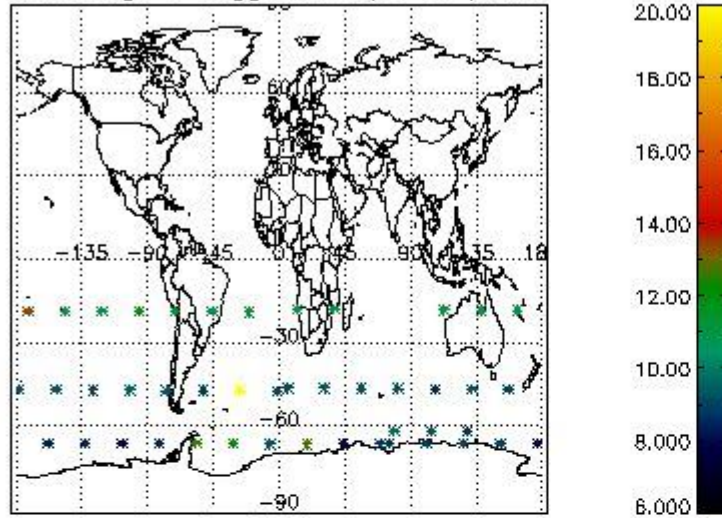
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

#### 3.1 Plot quality information per product (time dependant)

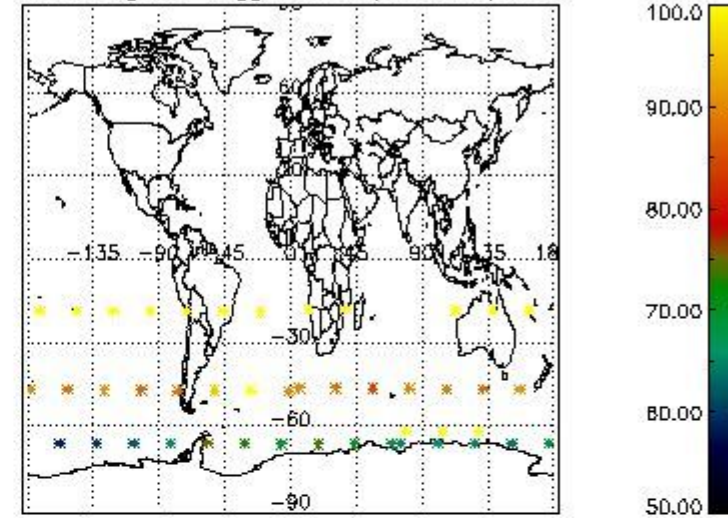


*3.2 Plot quality information per product (world map)*

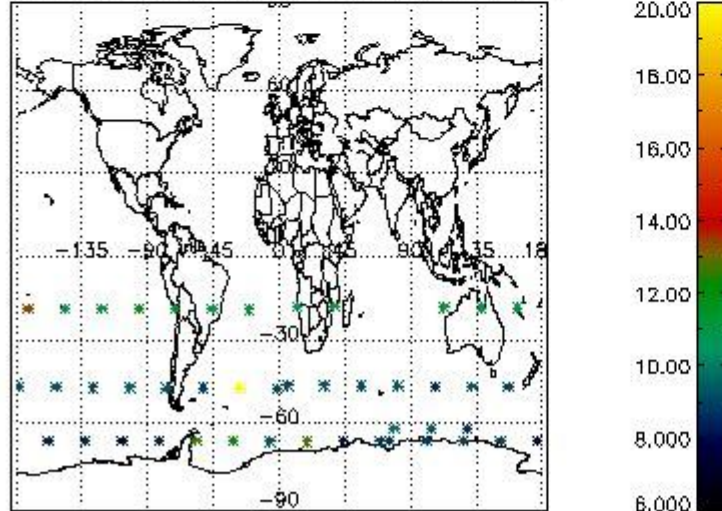
Percentage of flagged data per O3 profile



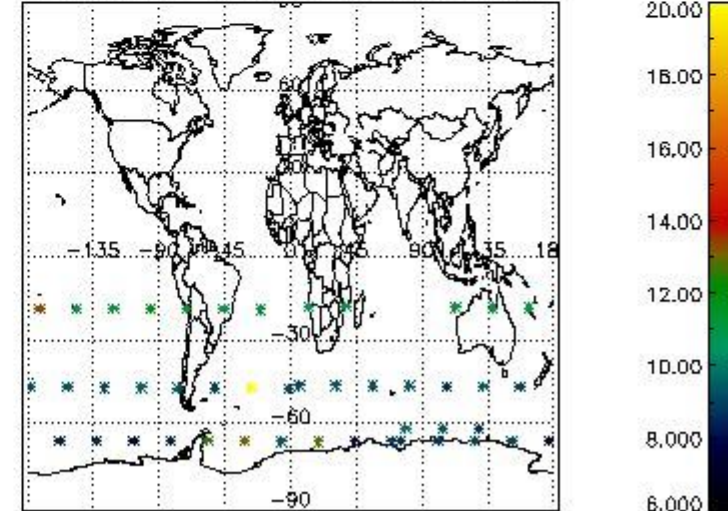
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

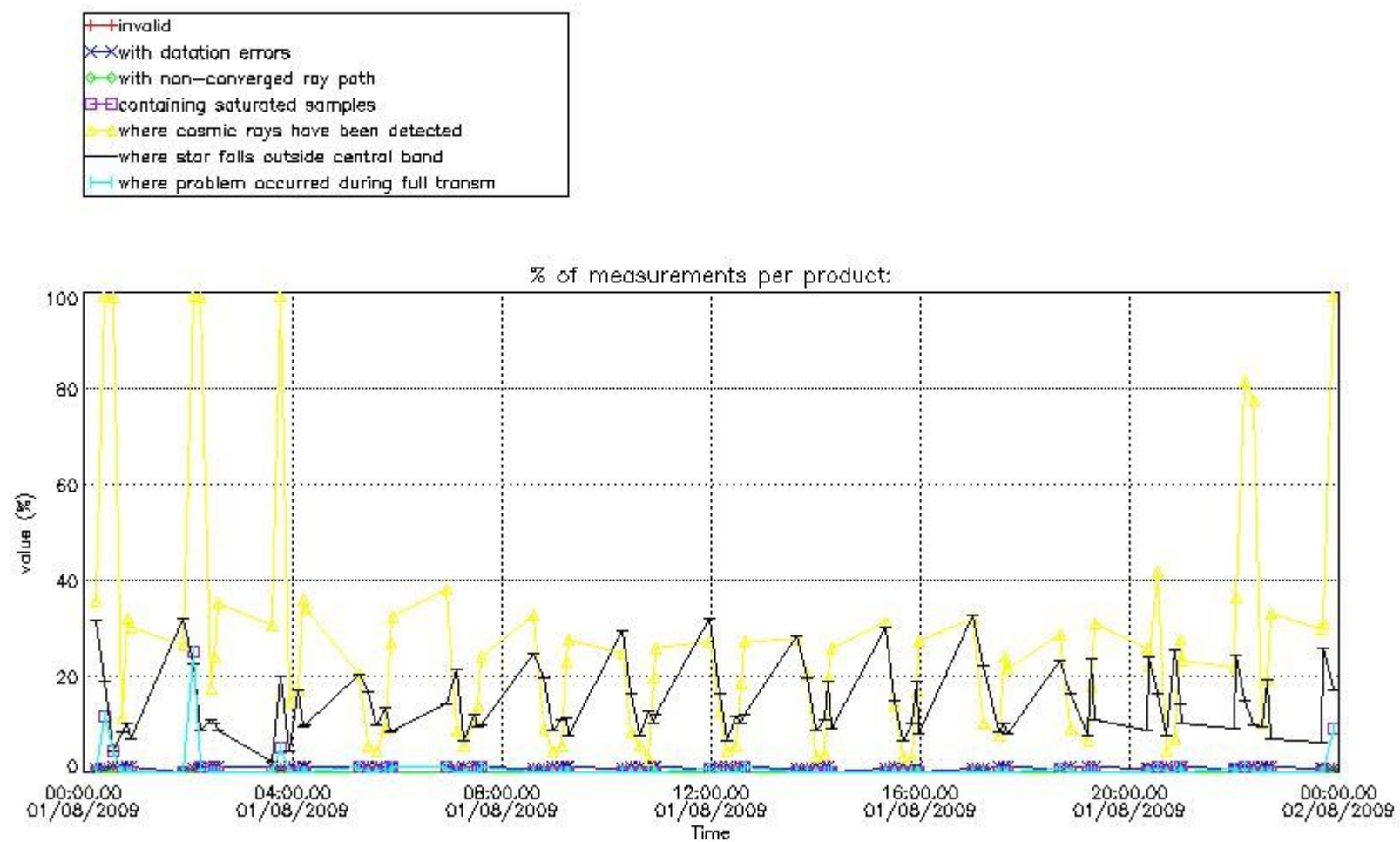


#### 4. Level 1 quality information per product

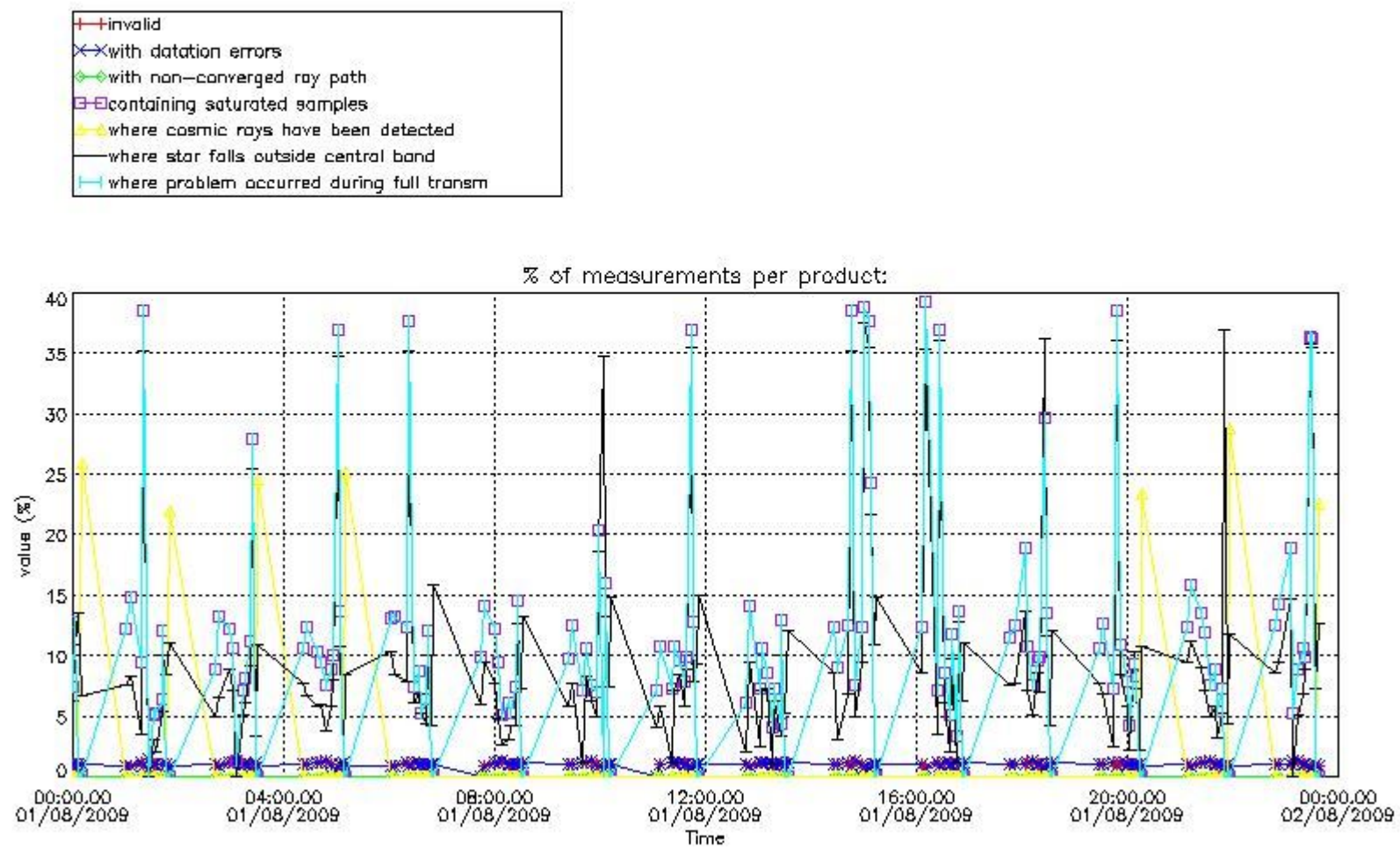
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

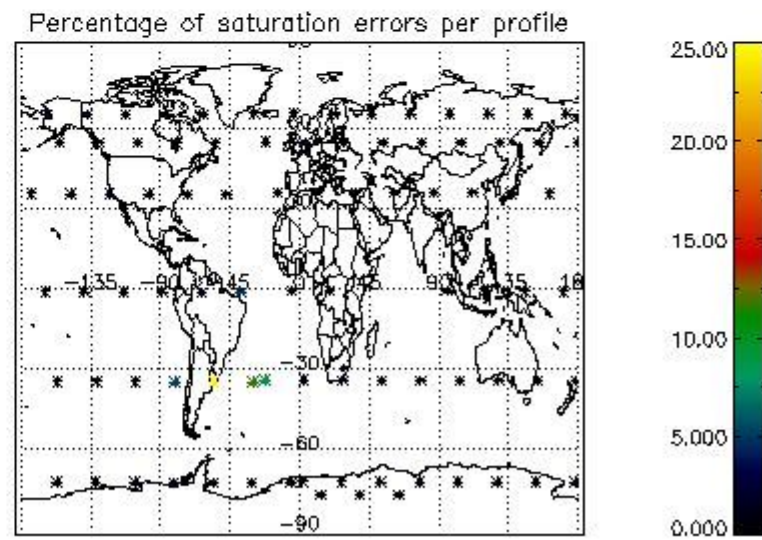
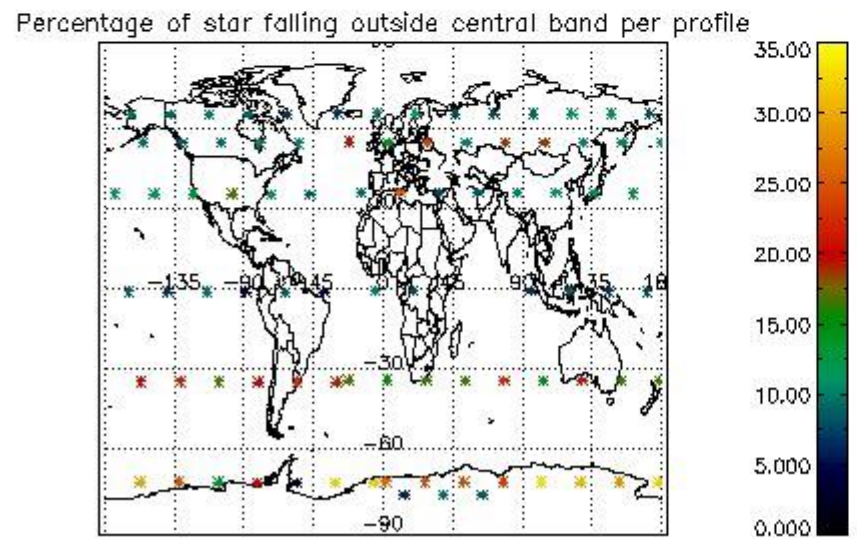
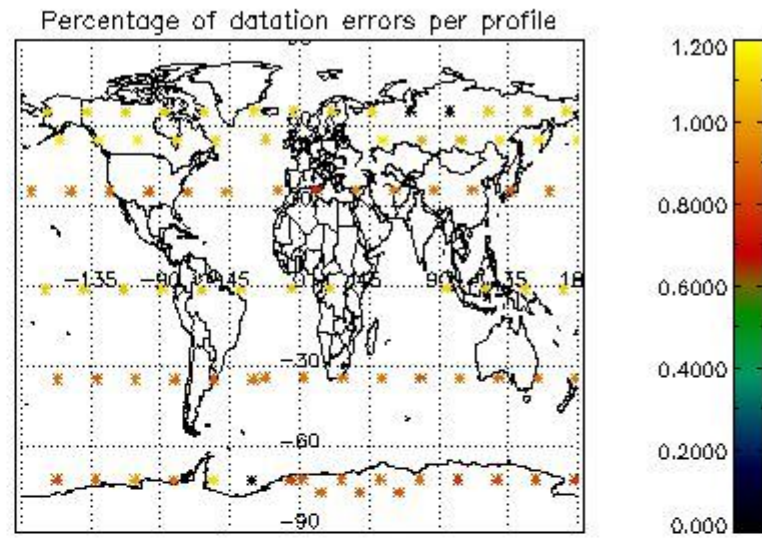
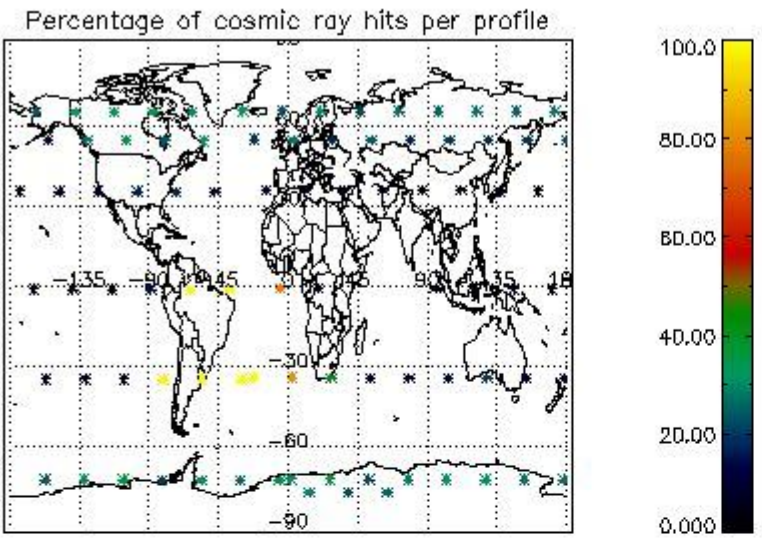


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

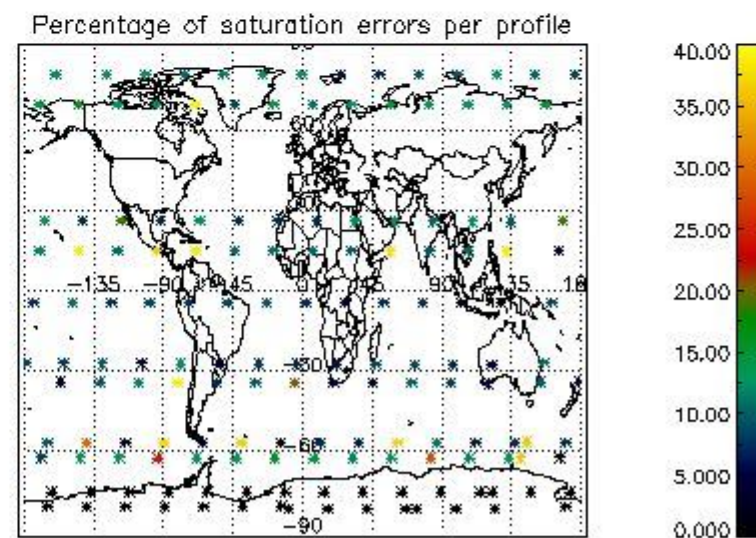
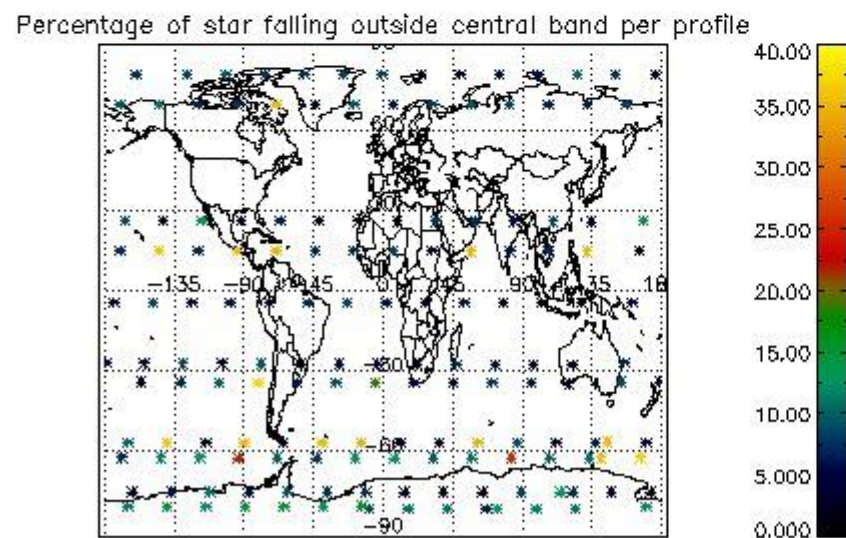
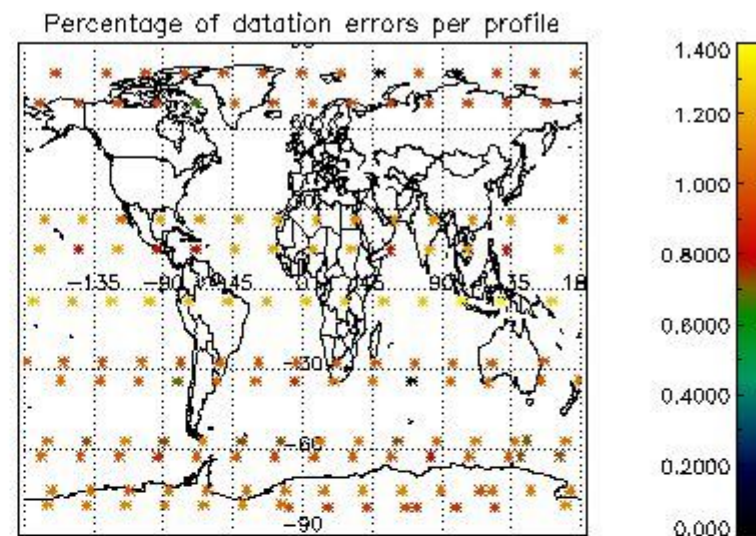
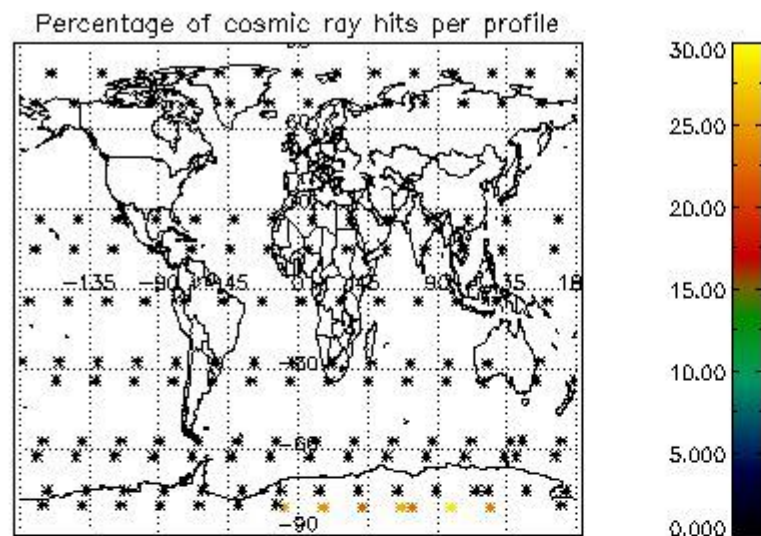


*4.2 Plot quality information per product coming from level 1b processing (world map)*

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



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

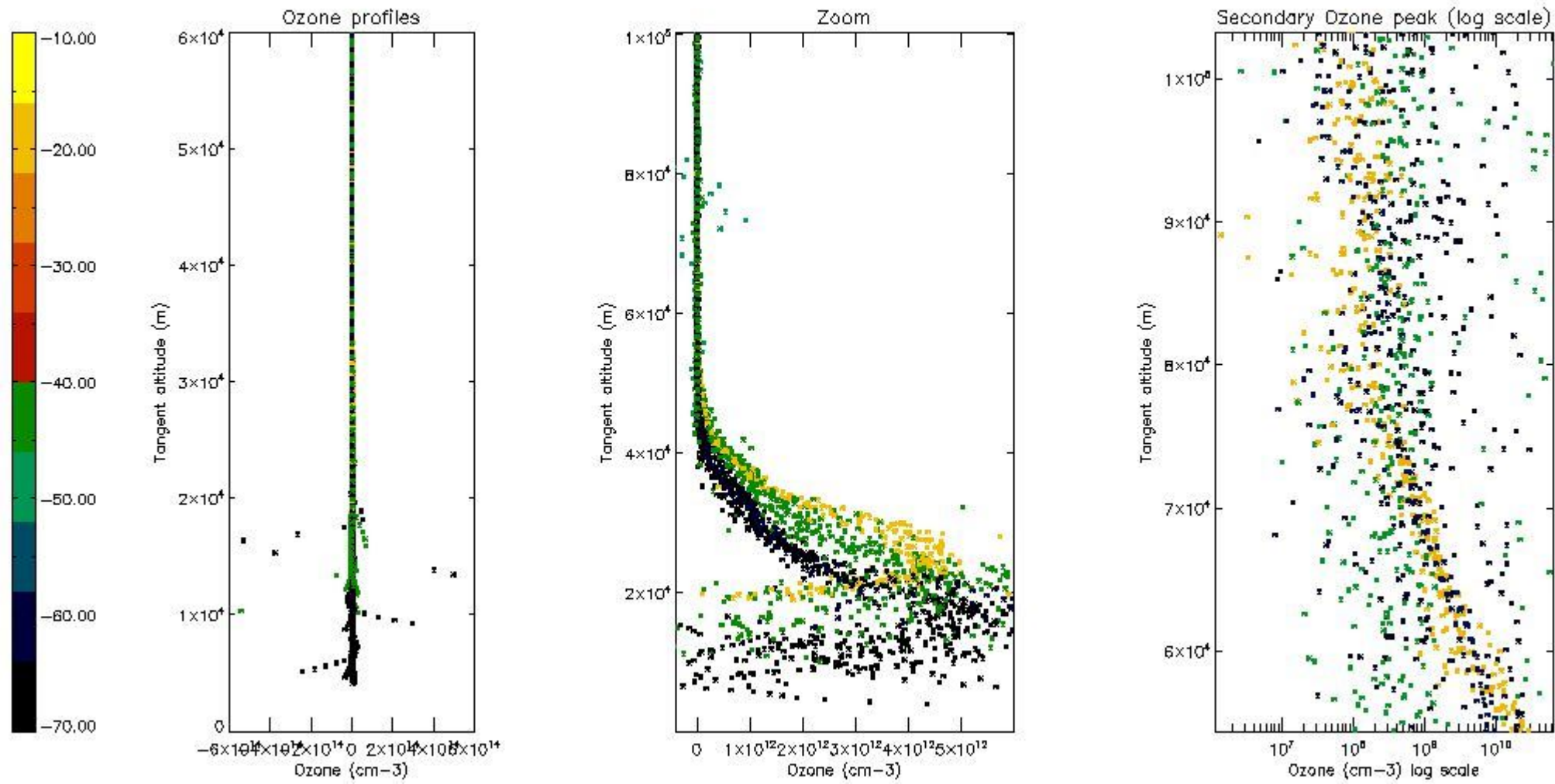
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	3
STD < 5	1

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

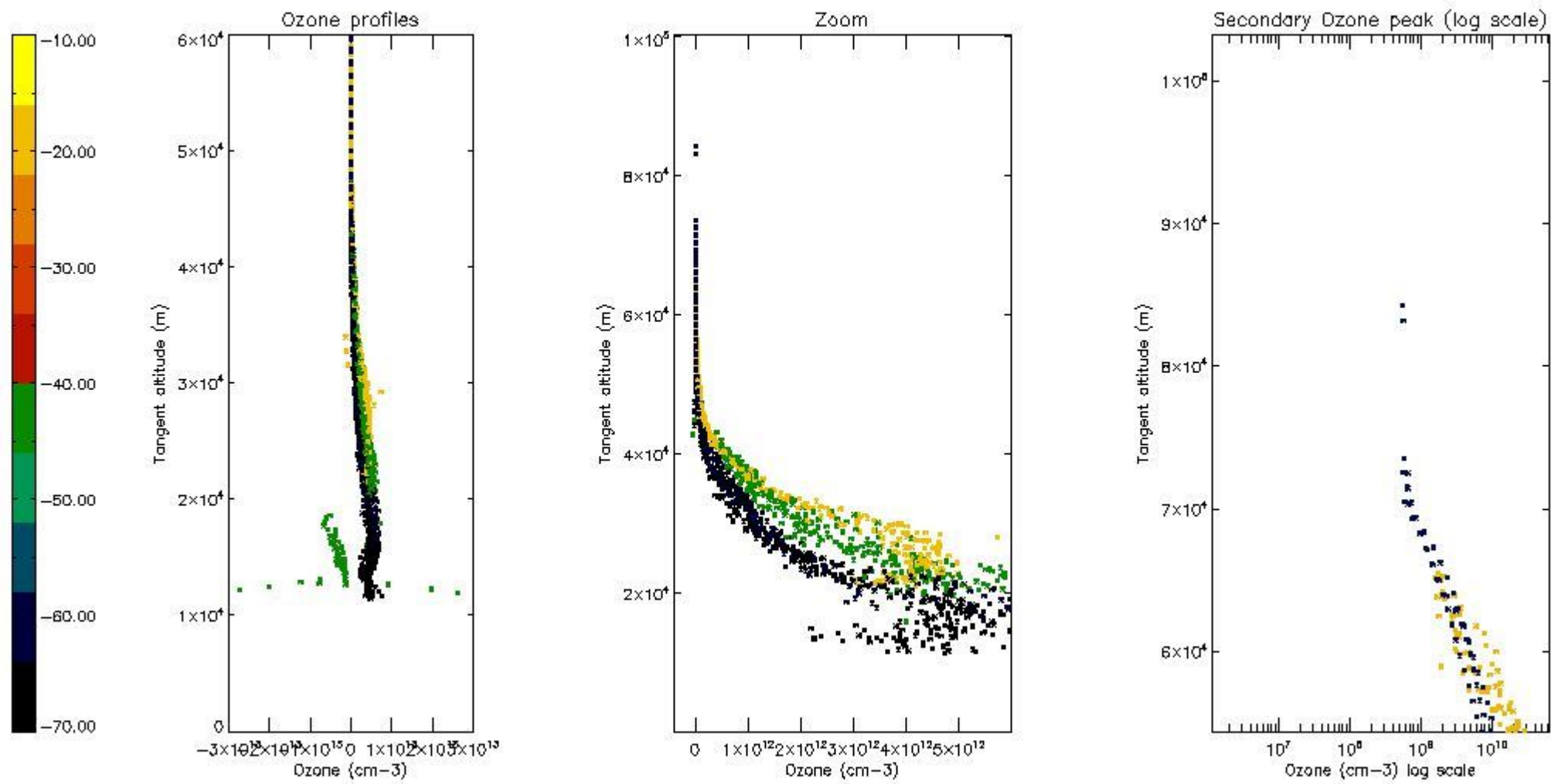
The colorbar represents the latitude.



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

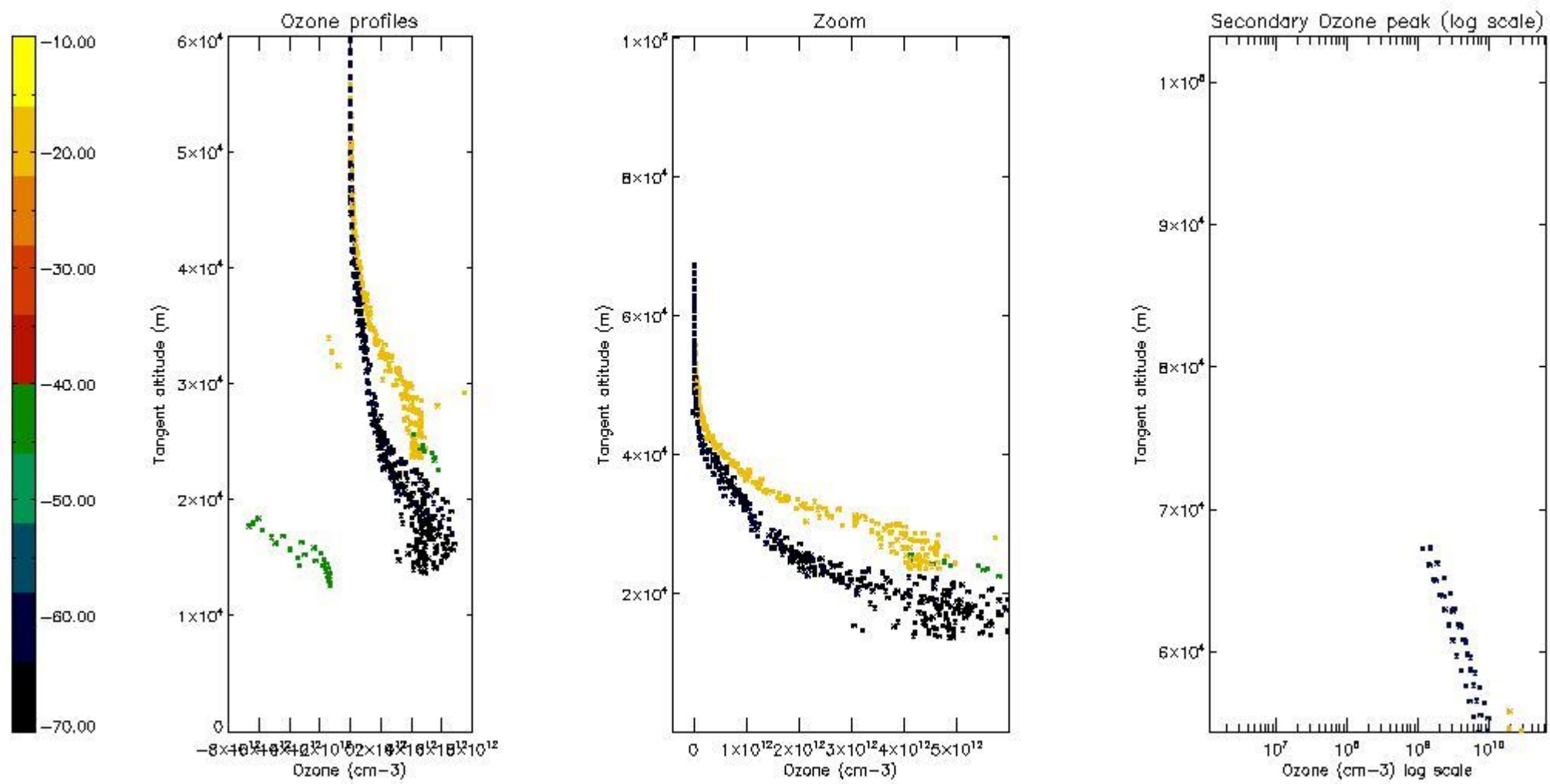
The colorbar represents the latitude.





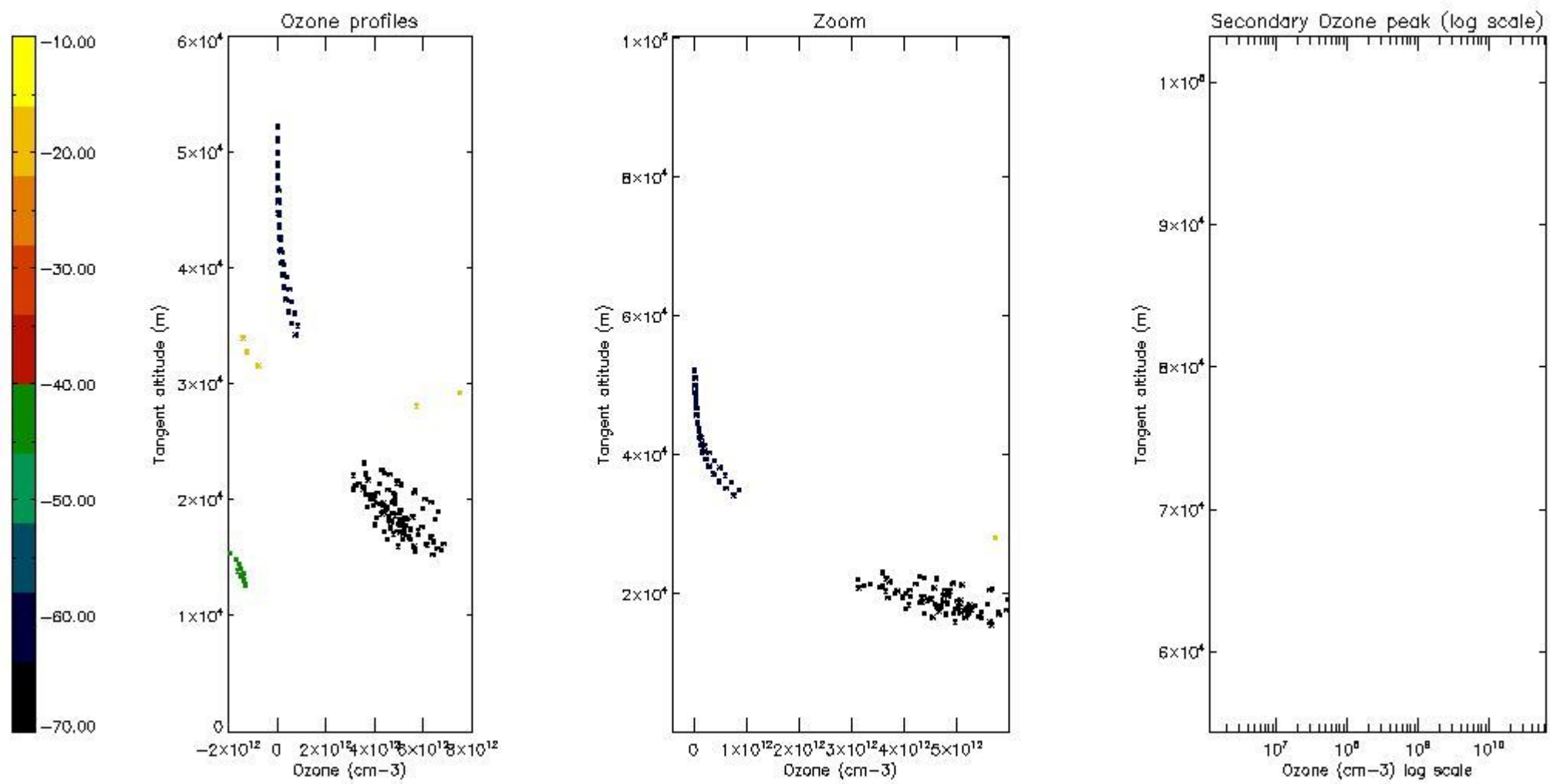
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



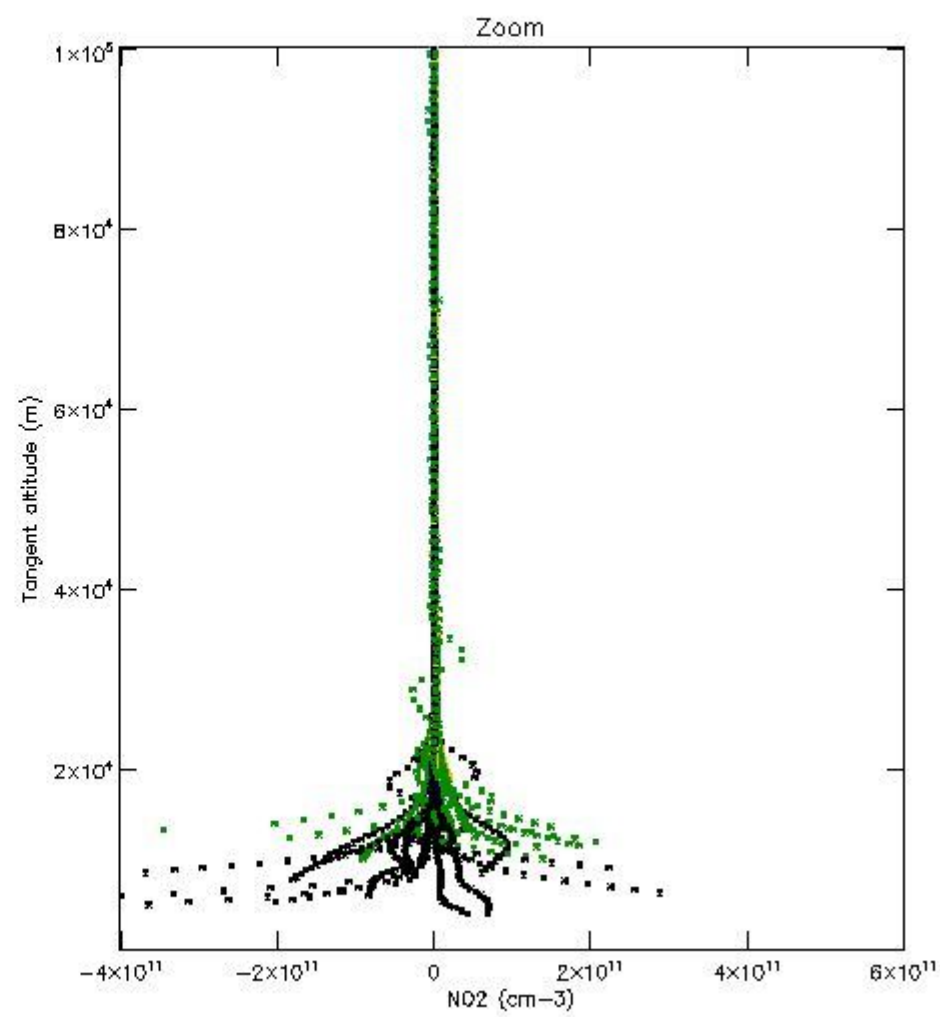
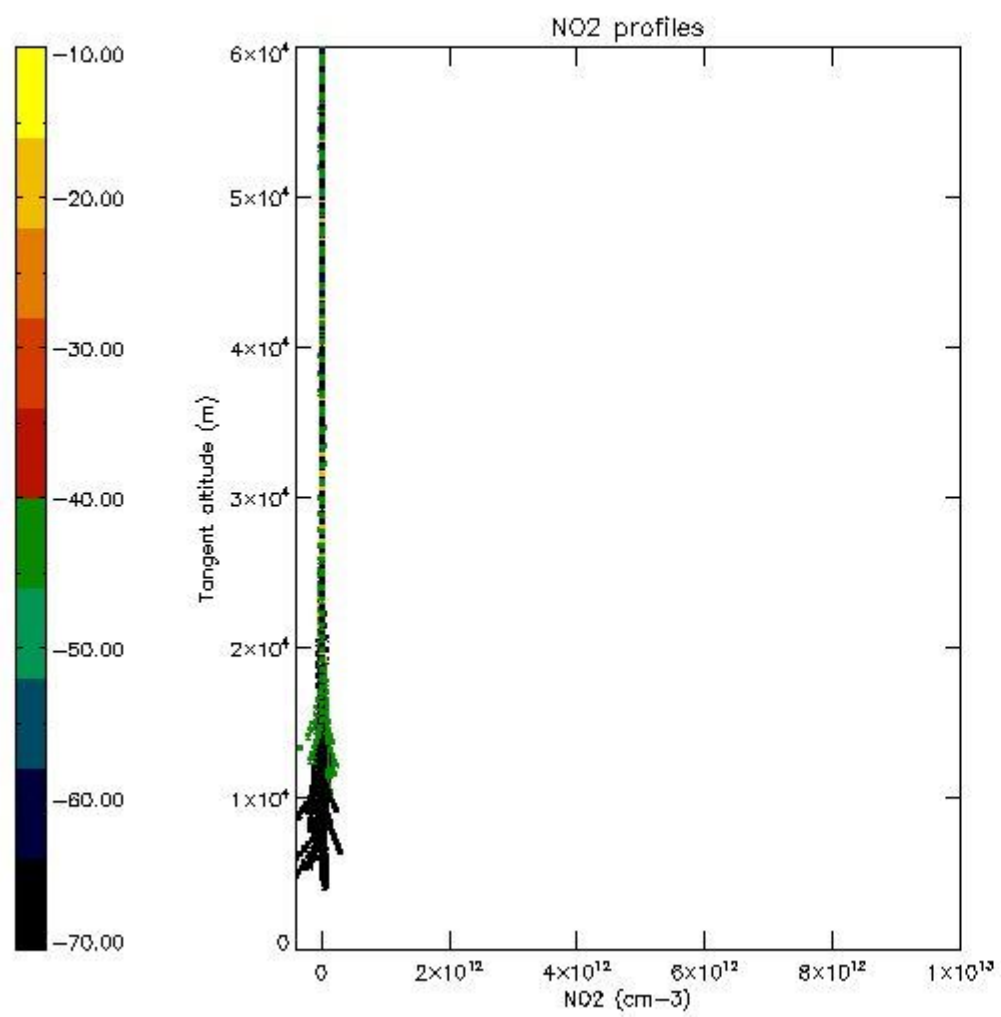
*5.5 Plot ozone profiles where  $STD < 5\%$  (dark without errors)*

The colorbar represents the latitude.



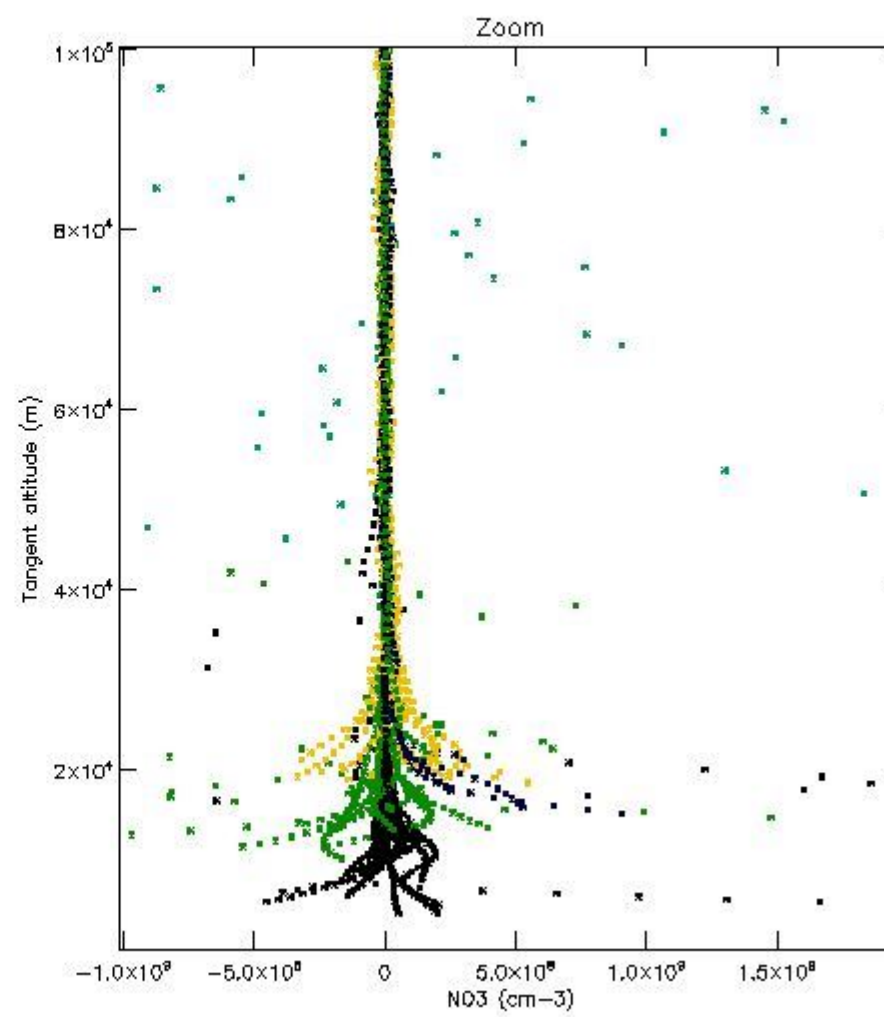
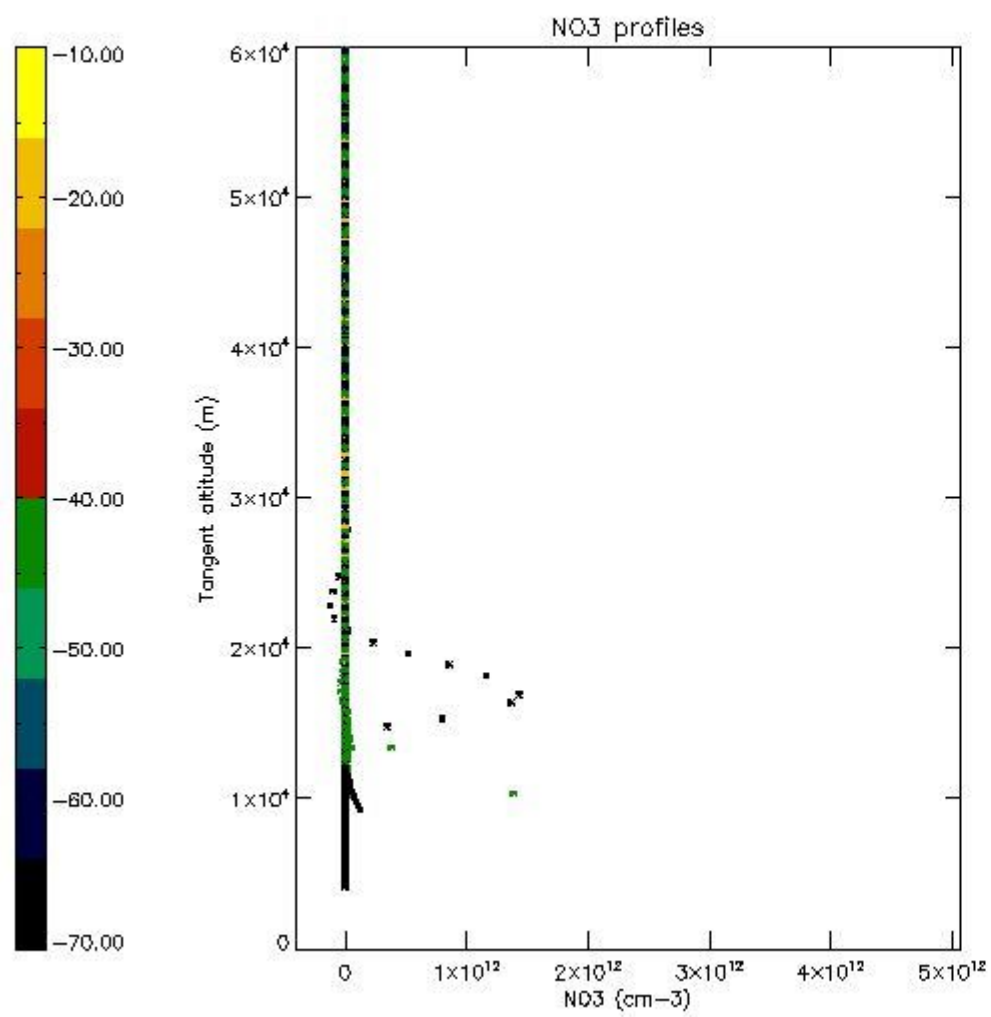
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



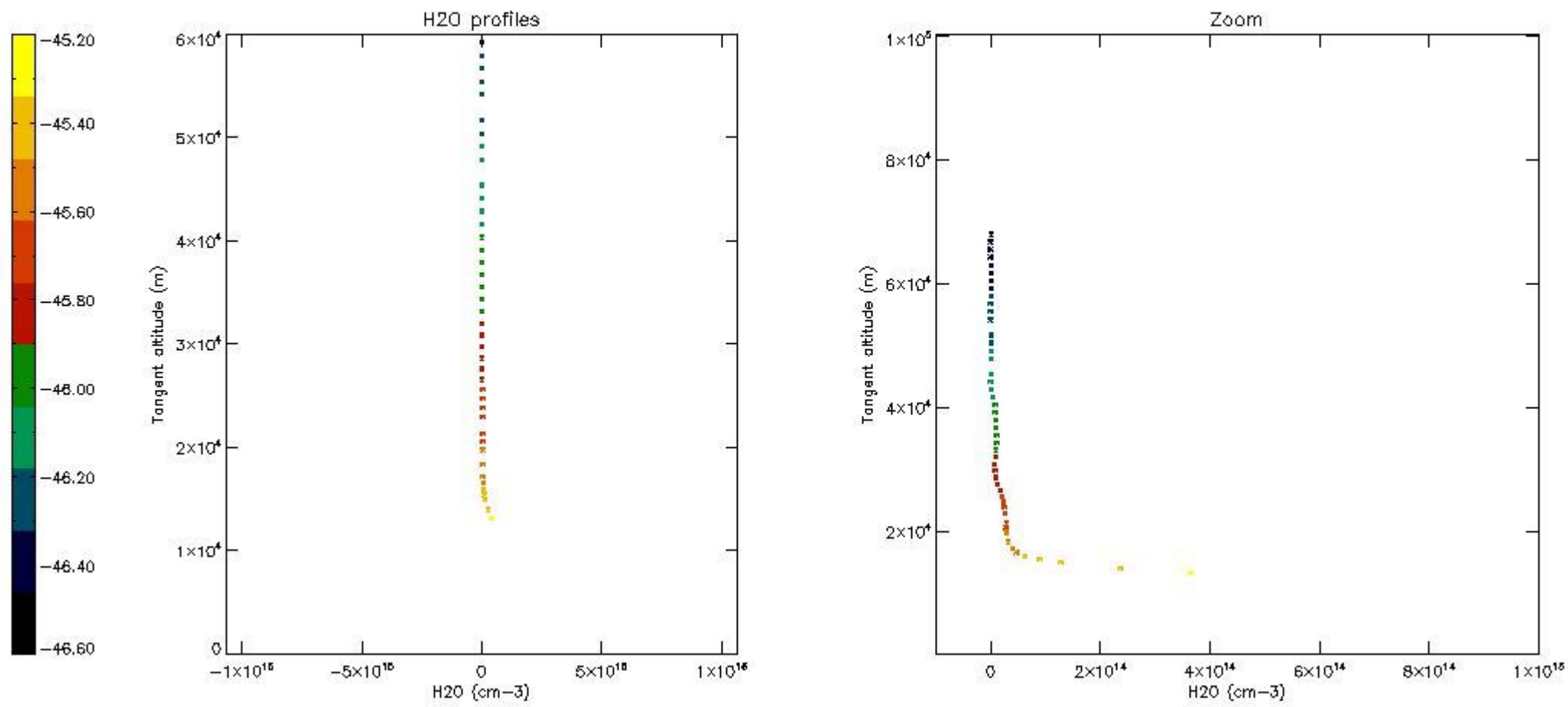
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H<sub>2</sub>O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

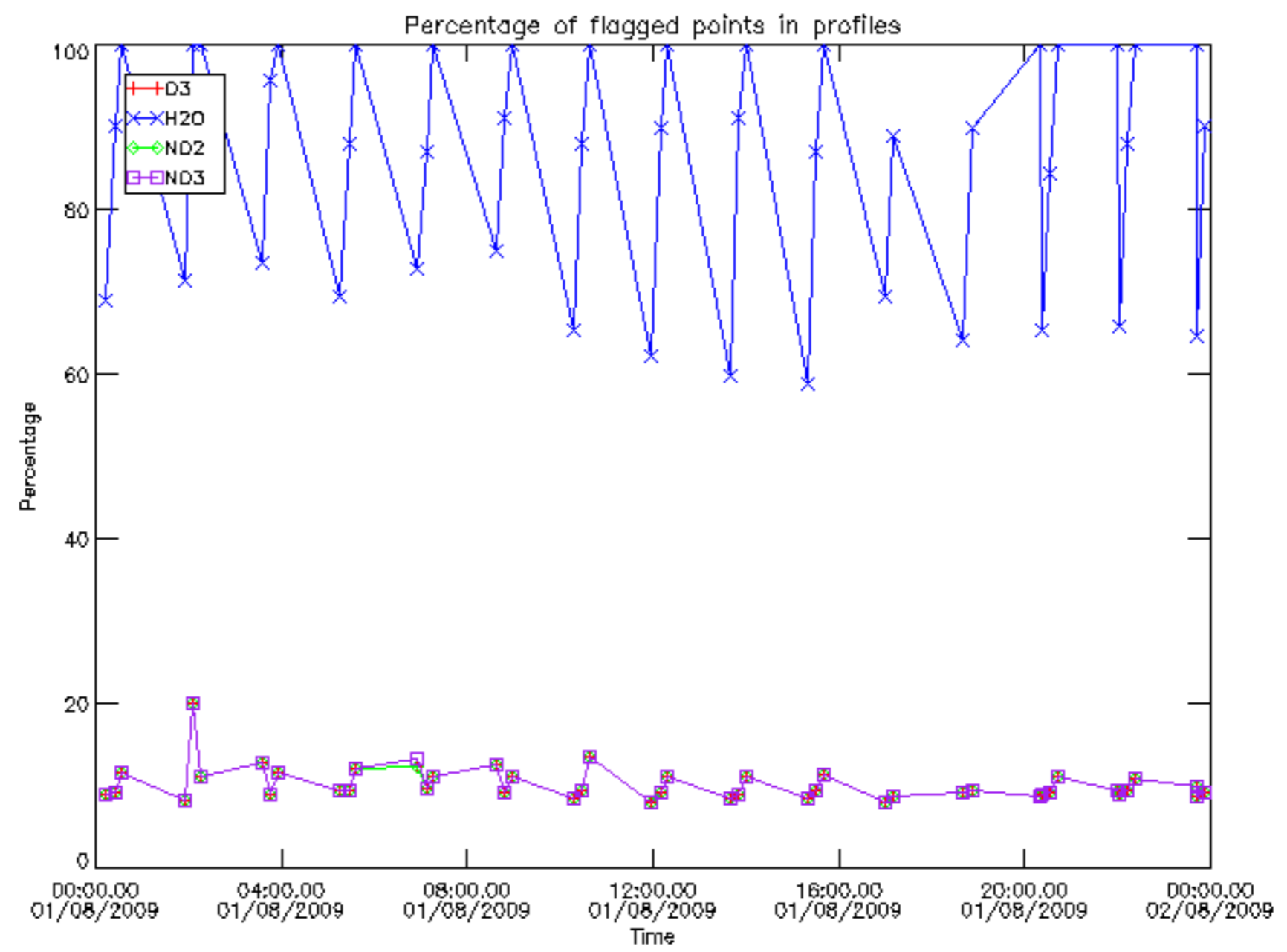
The colorbar represents the latitude.



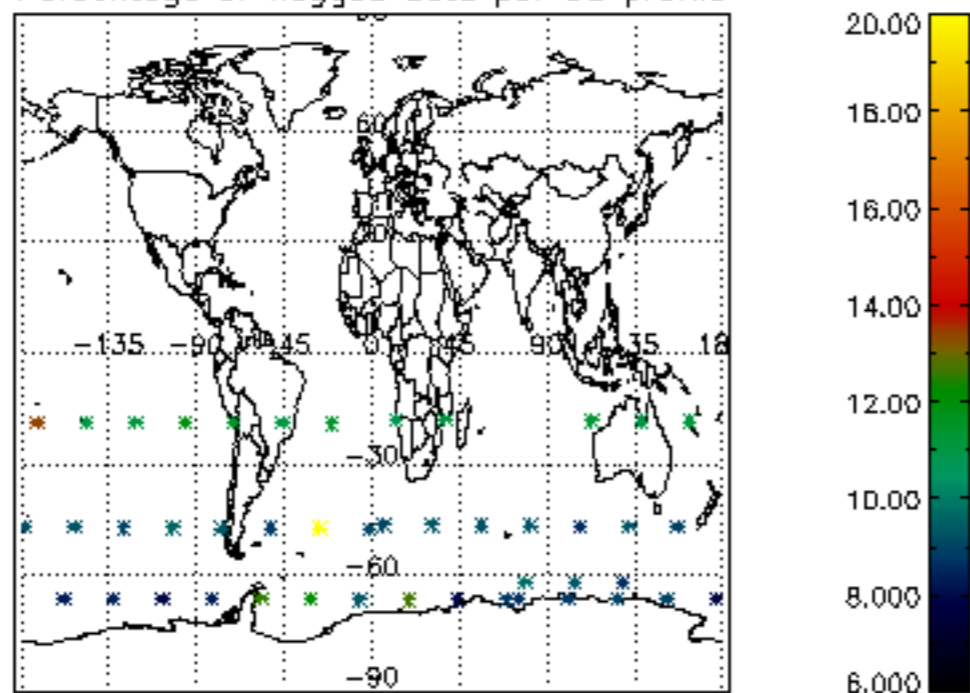
## 6. Auxiliary Data Files used for the production reported in section 2

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.

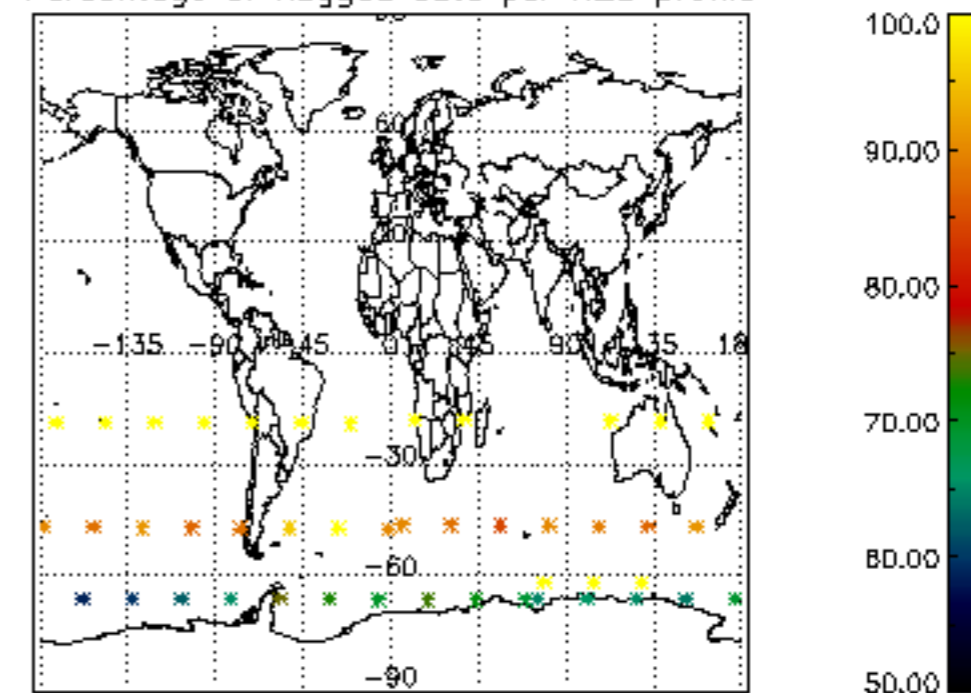
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	01-AUG-2009 00:00:25
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	01-AUG-2009 00:00:25
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	01-AUG-2009 00:00:25



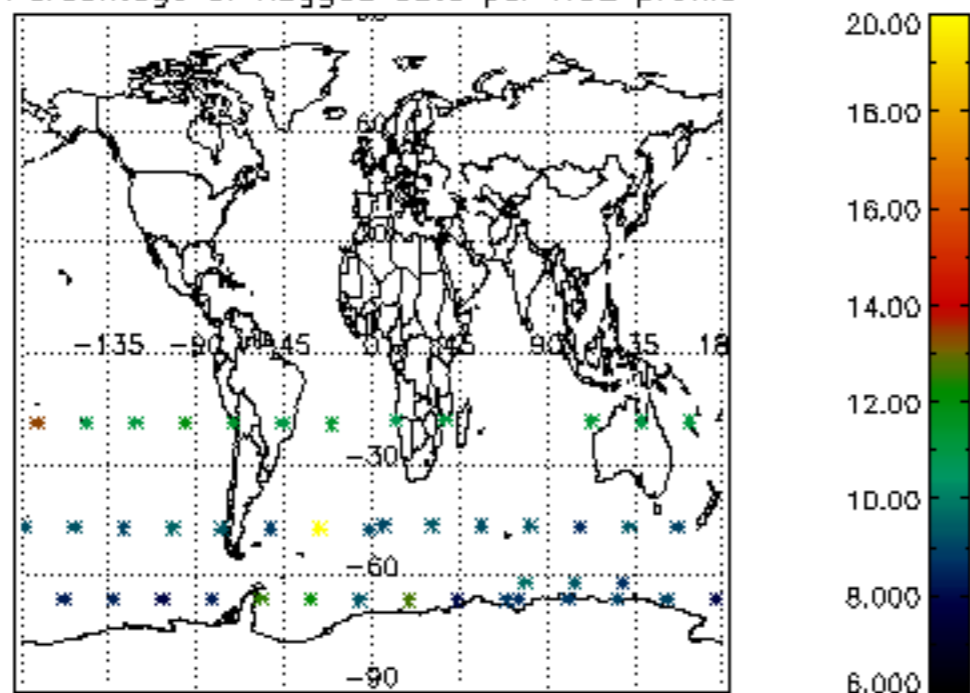
Percentage of flagged data per D3 profile



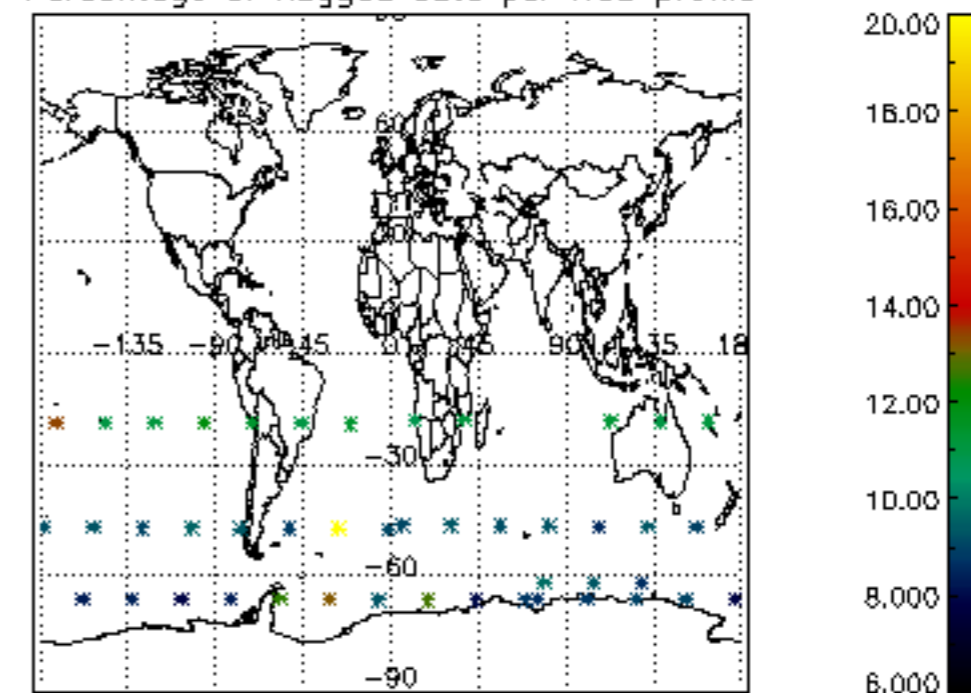
Percentage of flagged data per H2O profile



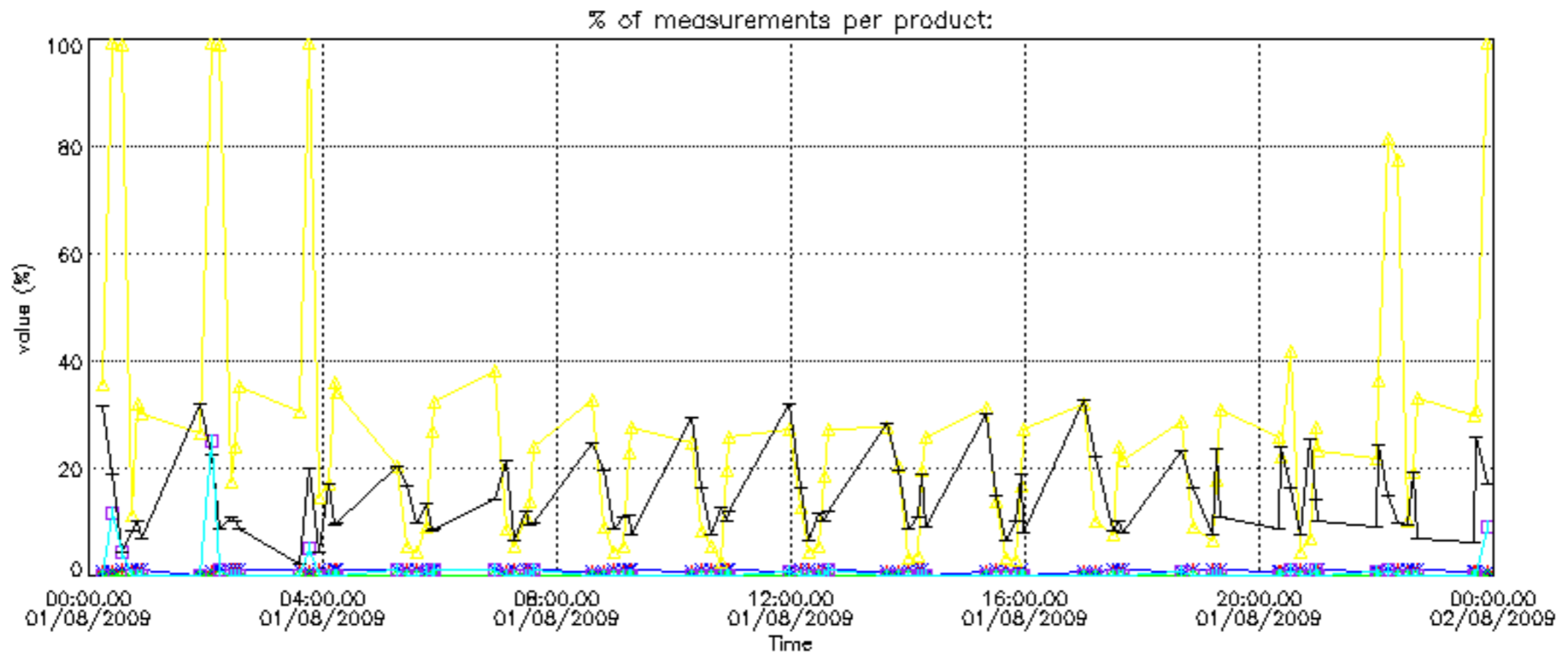
Percentage of flagged data per NO2 profile

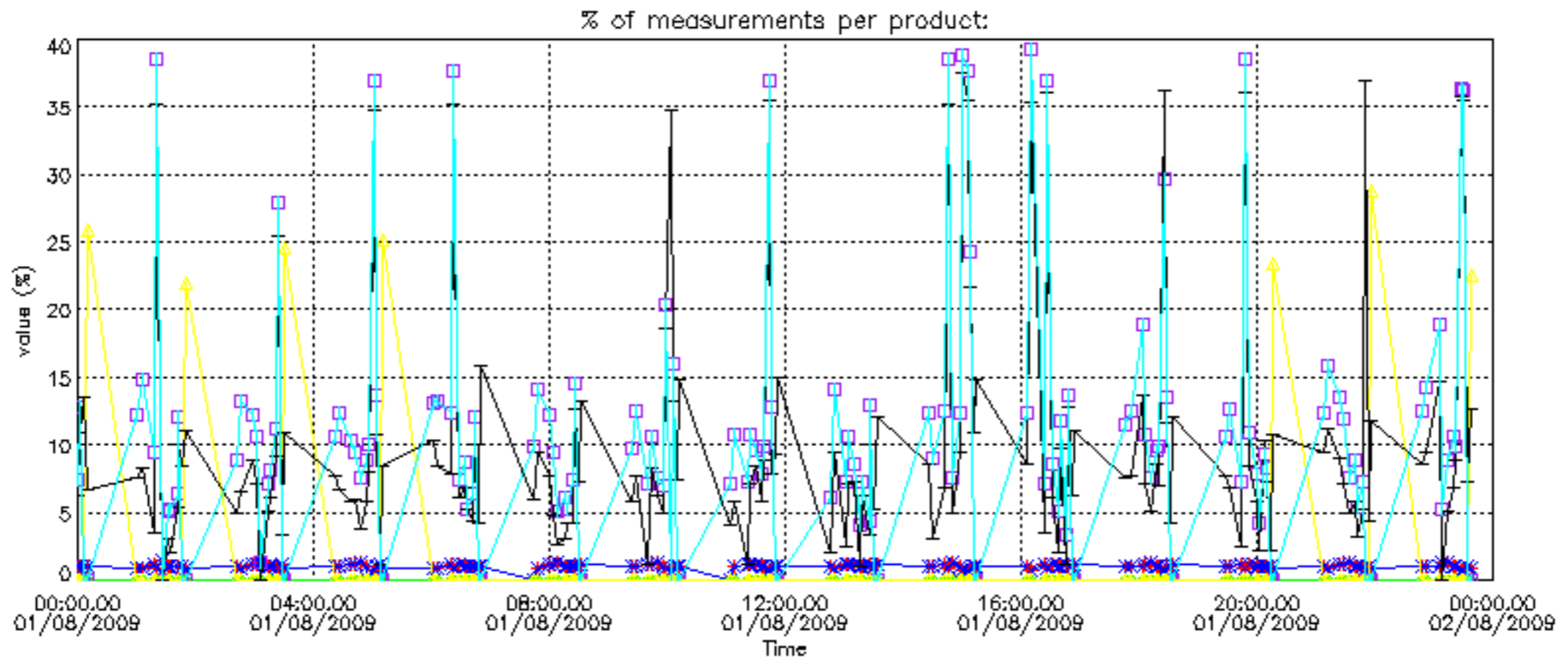


Percentage of flagged data per NO3 profile

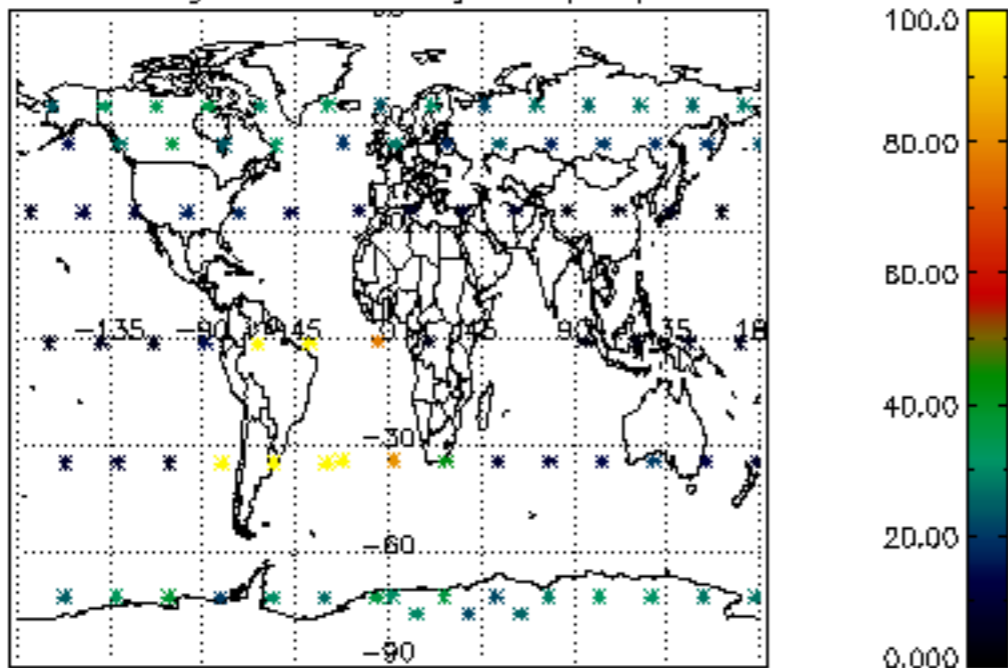




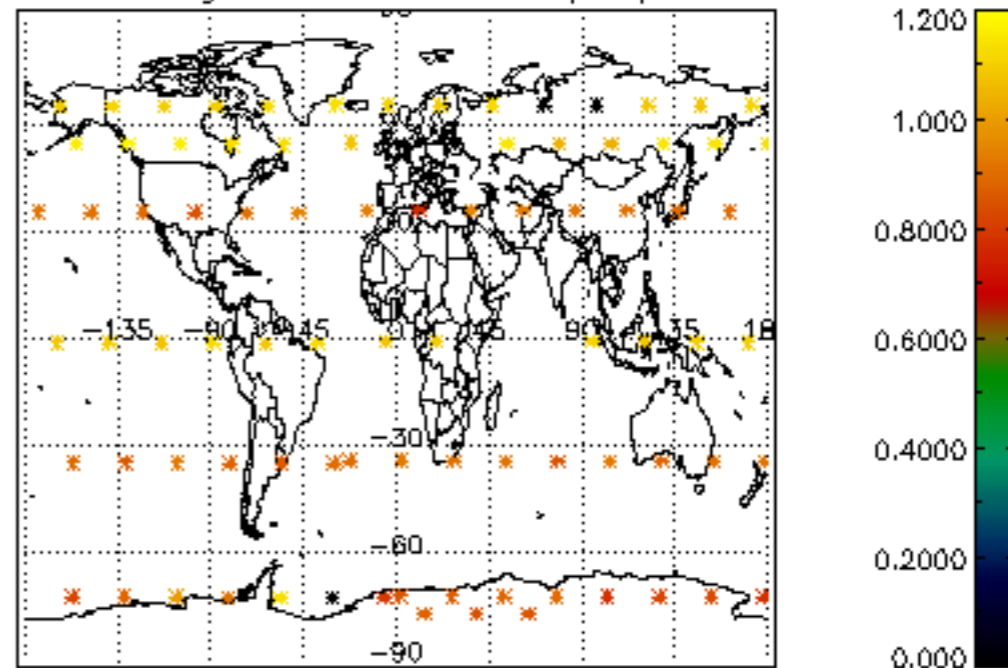




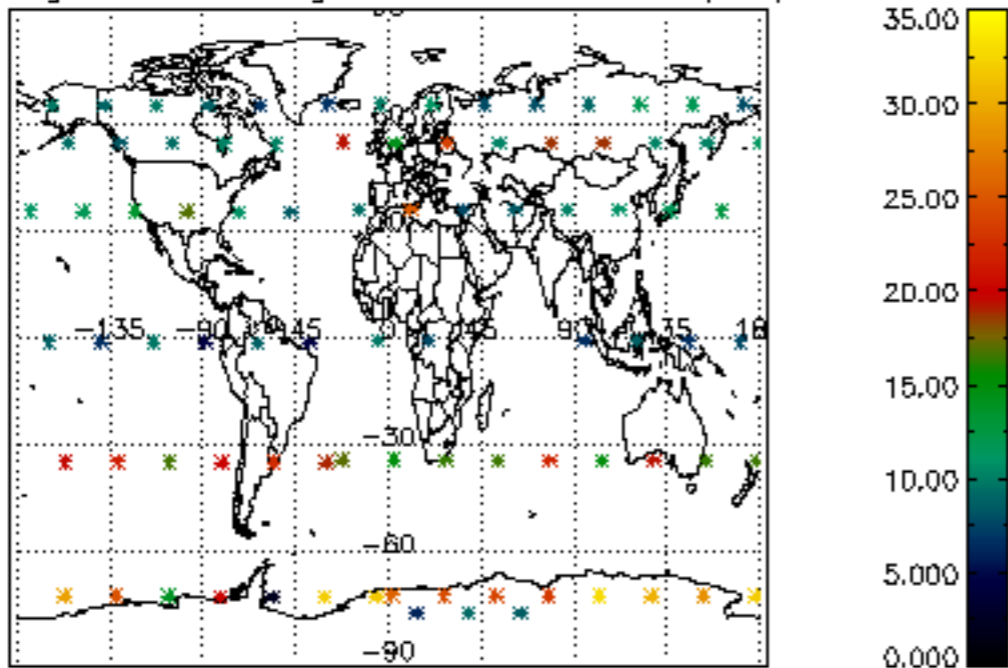
Percentage of cosmic ray hits per profile



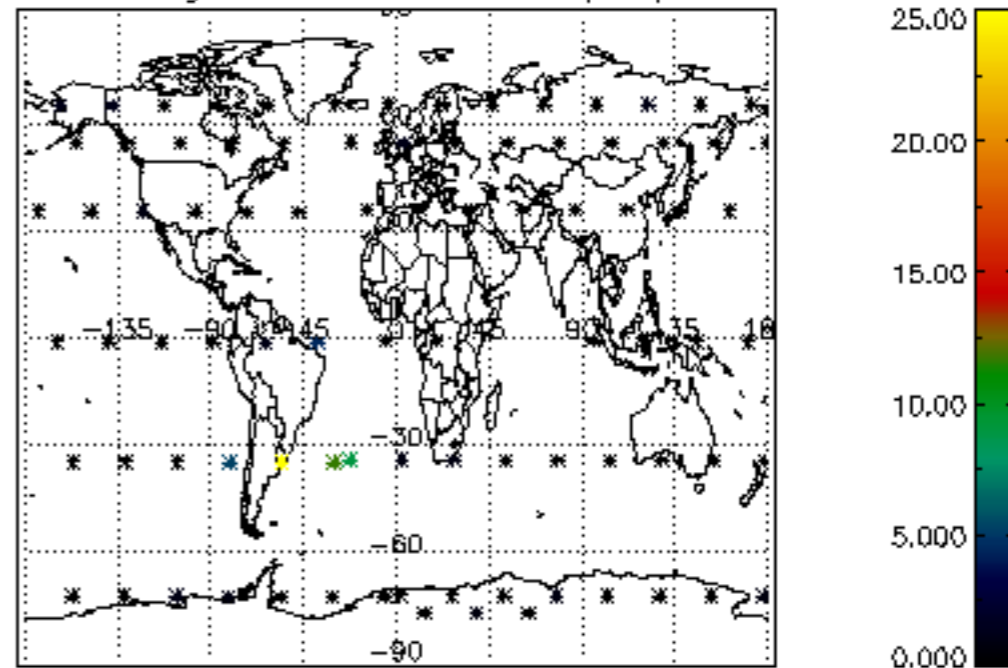
Percentage of datation errors per profile



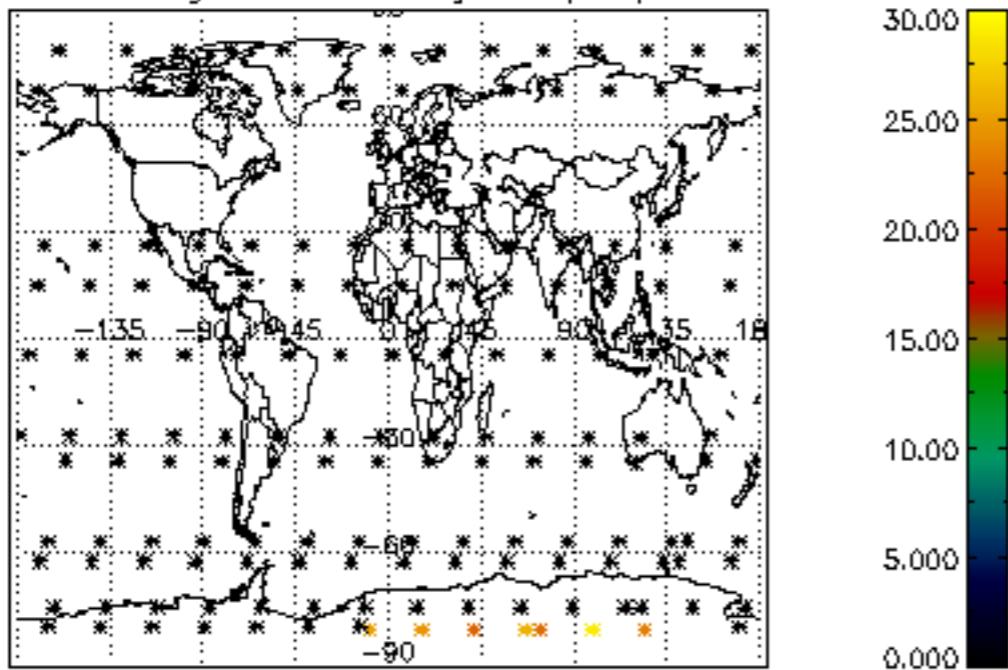
Percentage of star falling outside central band per profile



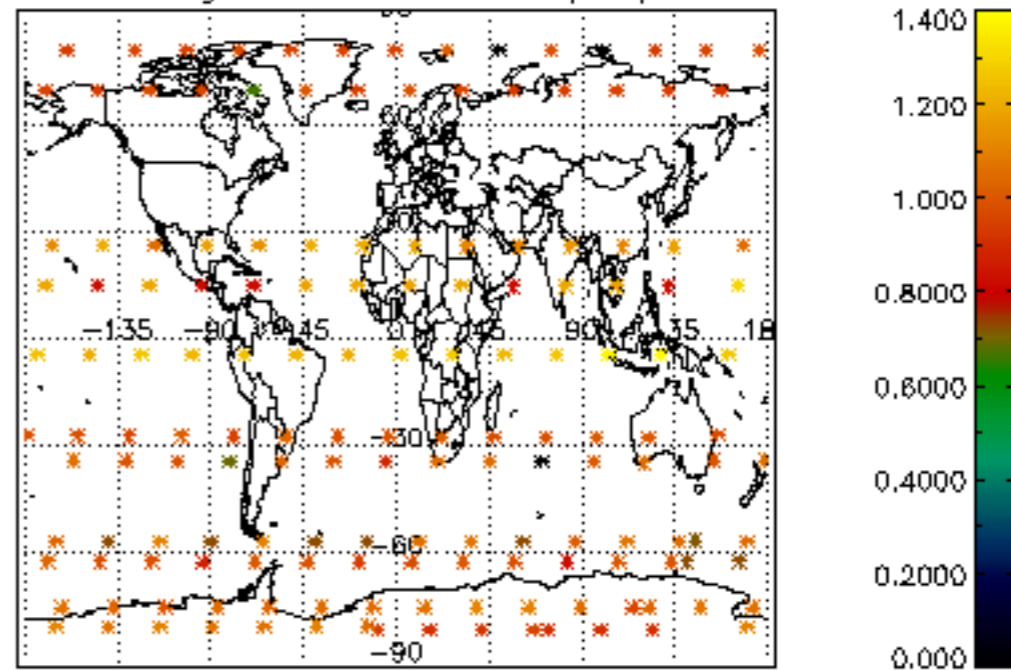
Percentage of saturation errors per profile



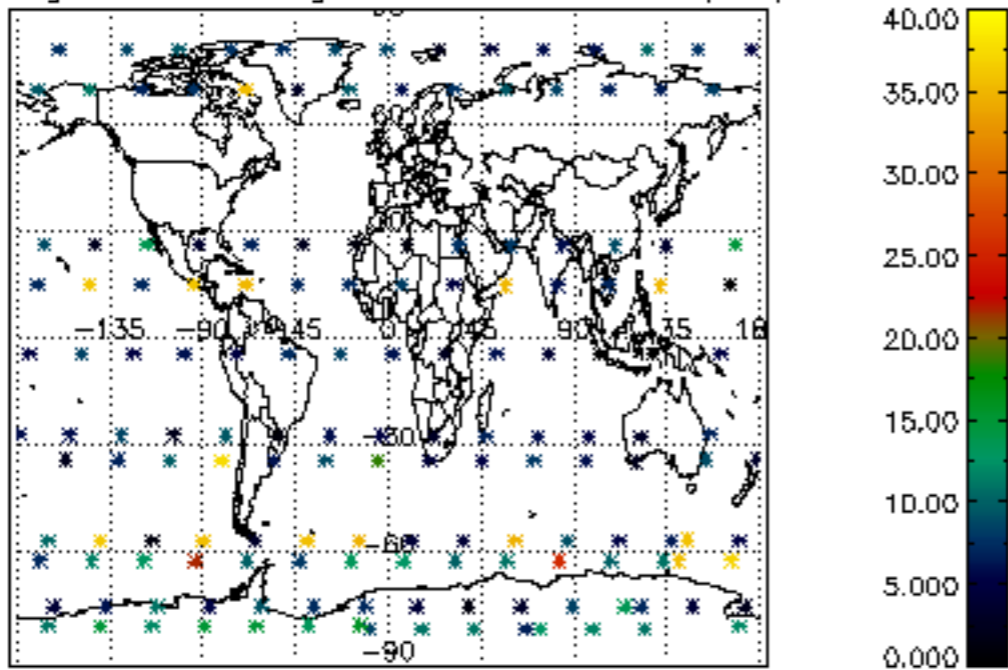
Percentage of cosmic ray hits per profile



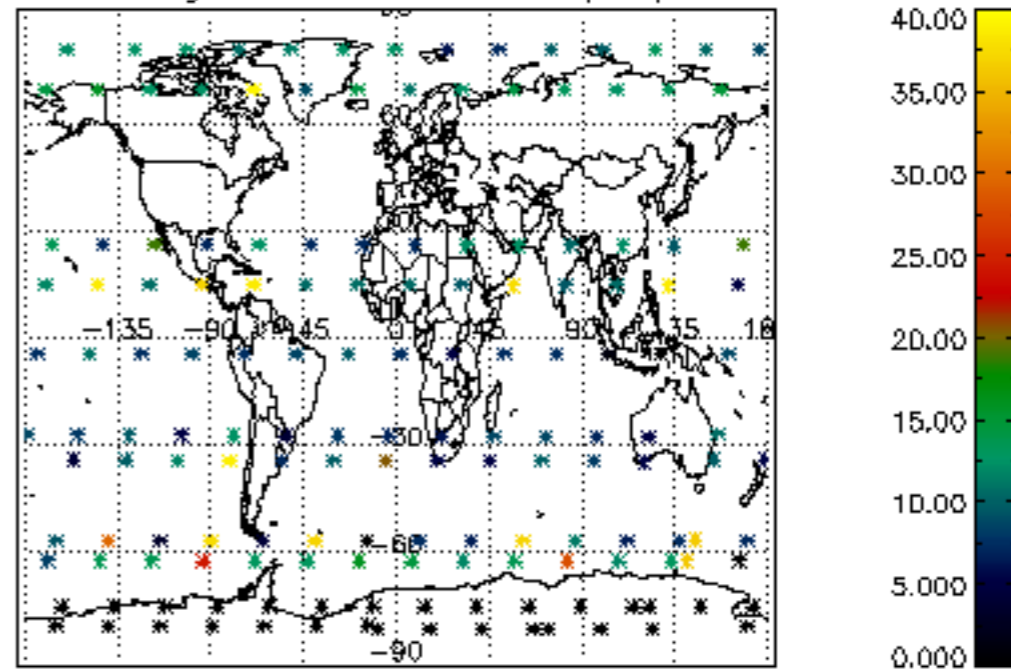
Percentage of datation errors per profile

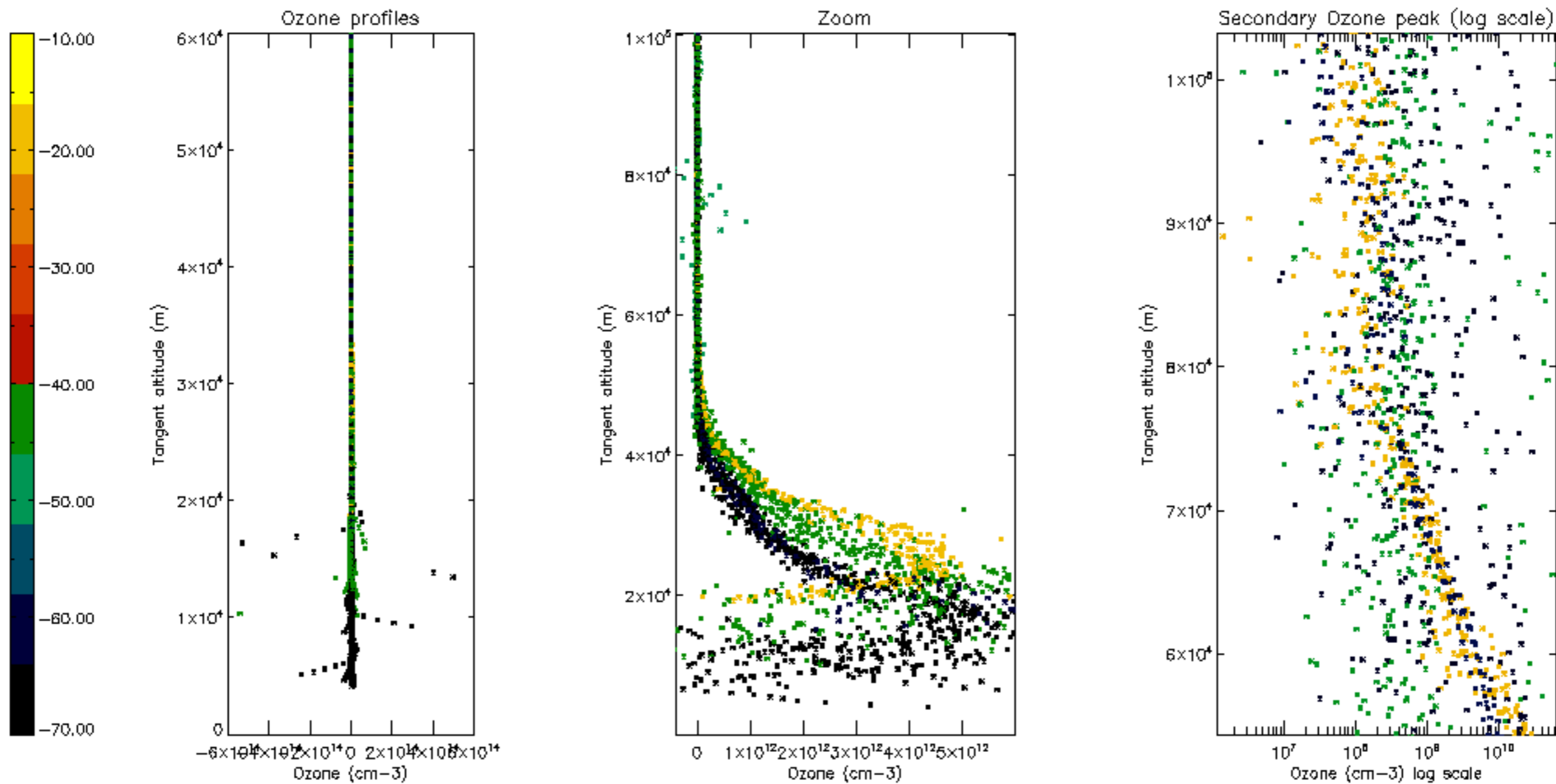


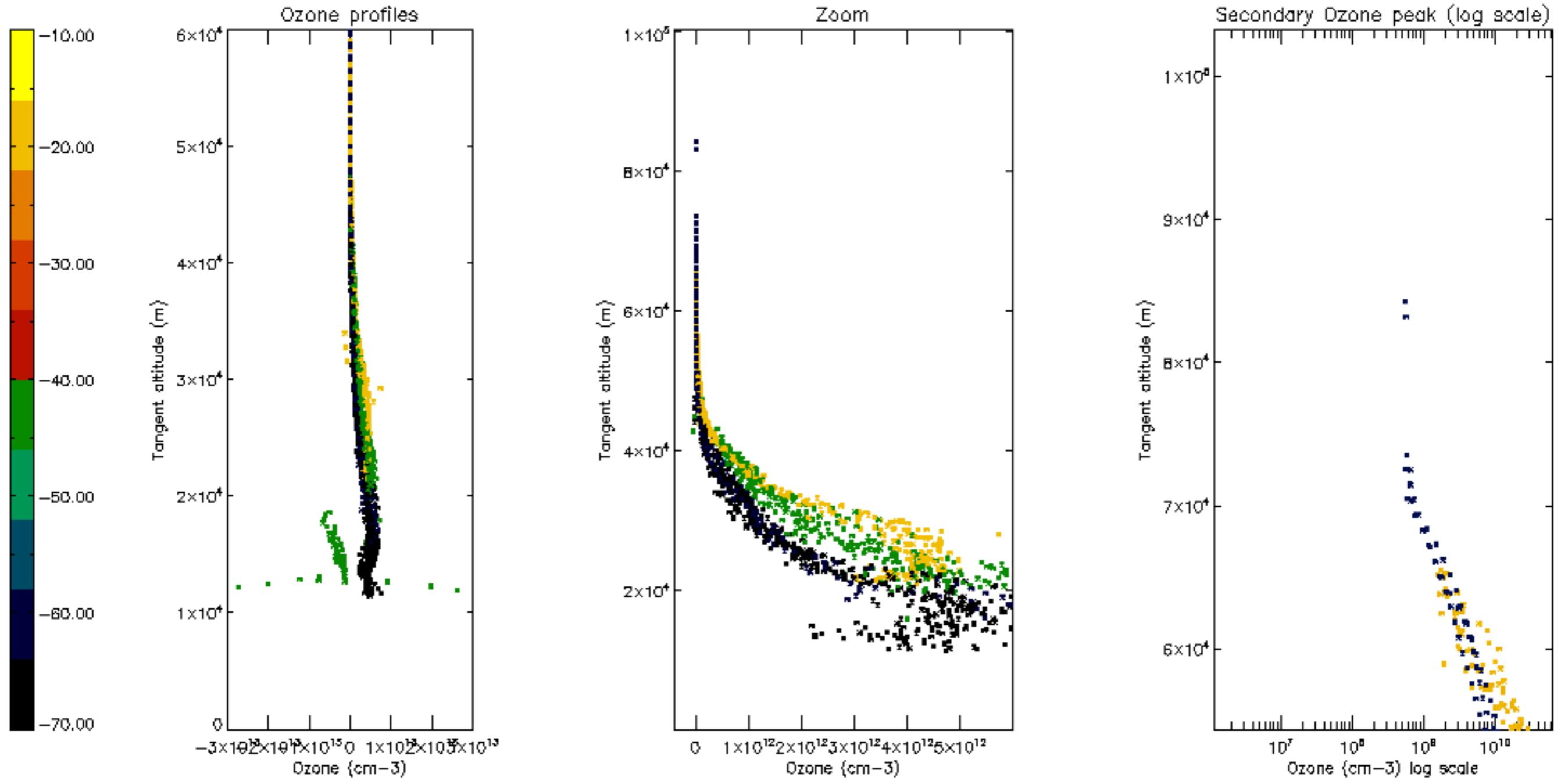
Percentage of star falling outside central band per profile

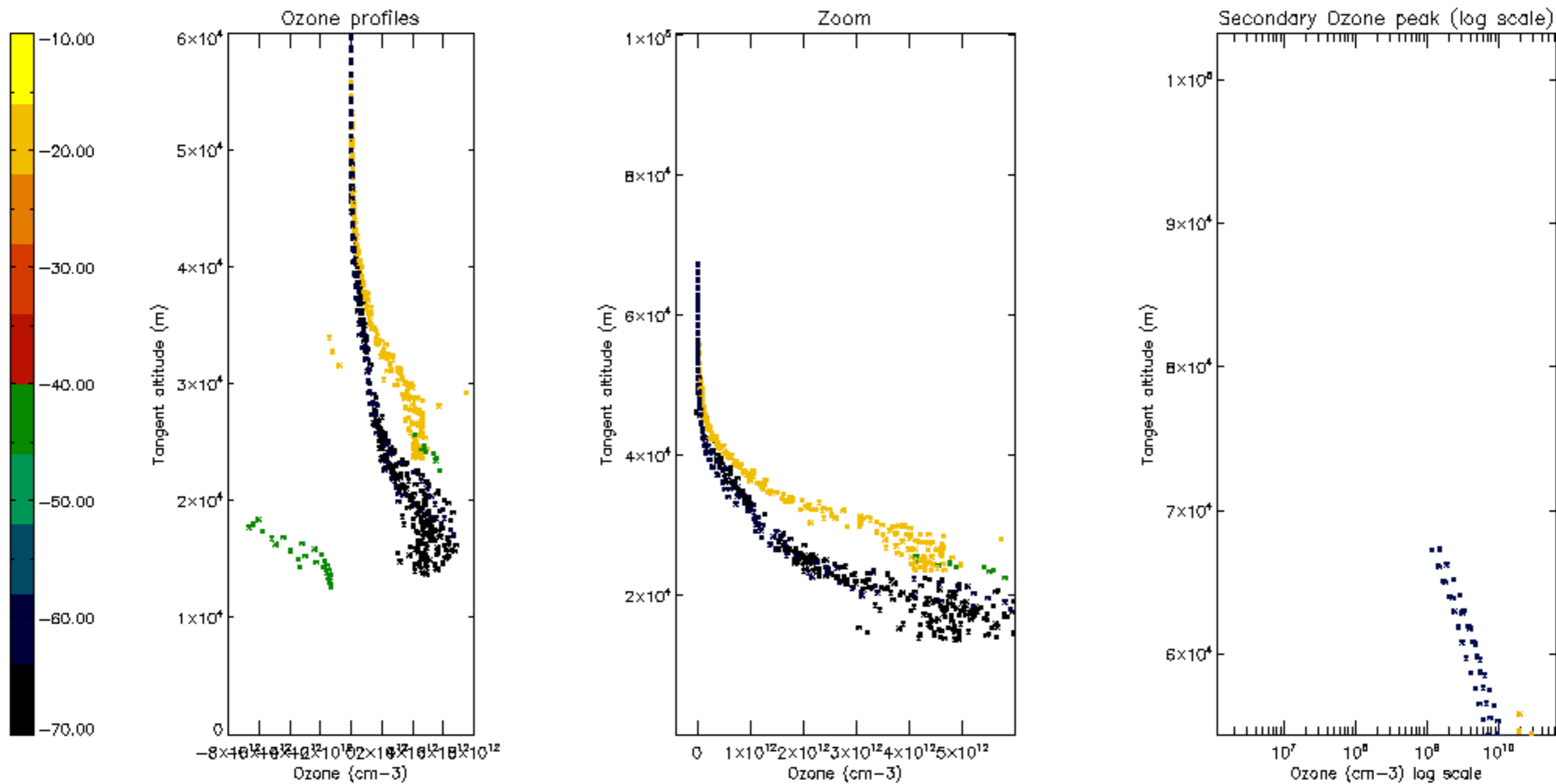


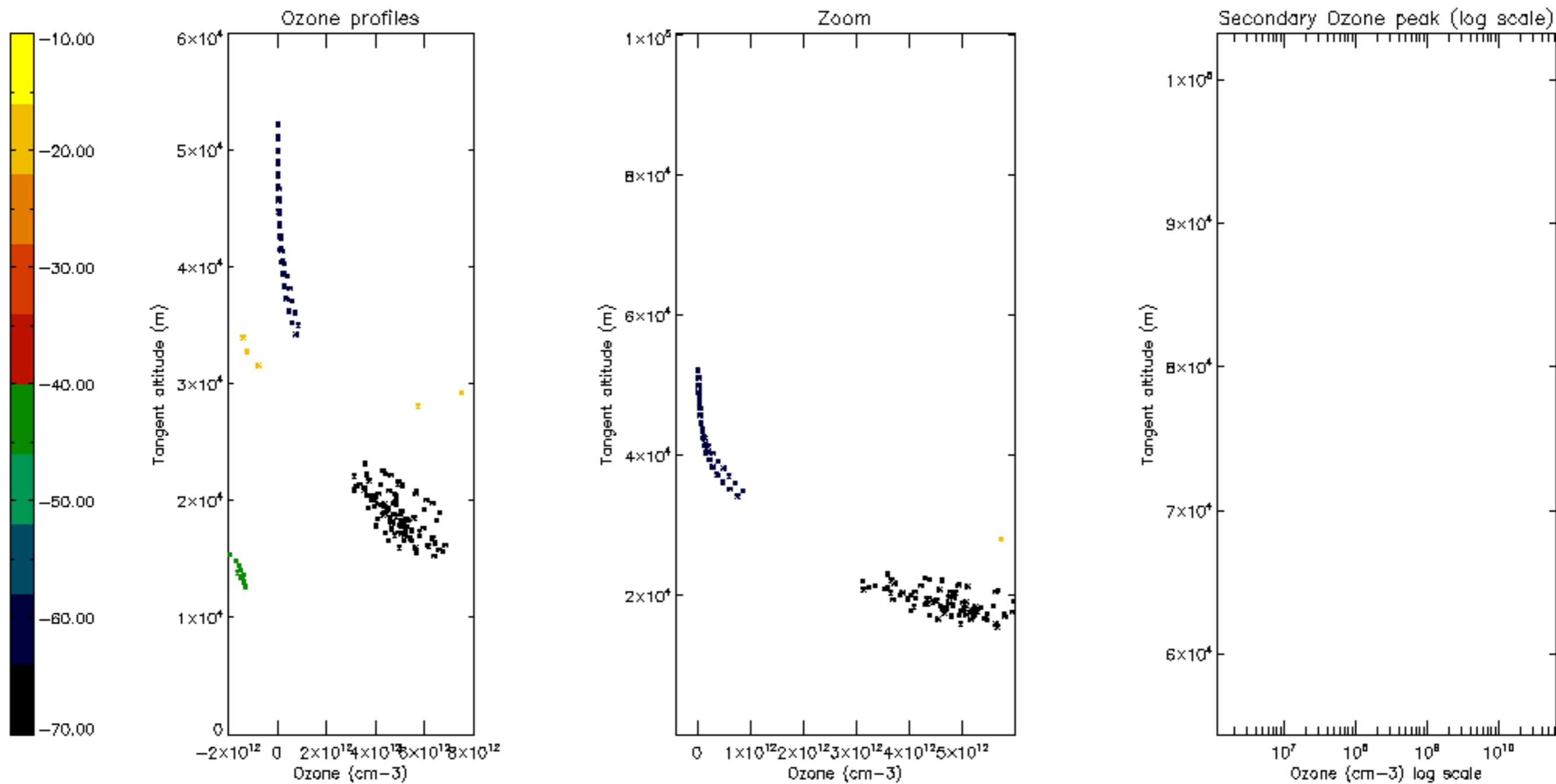
Percentage of saturation errors per profile



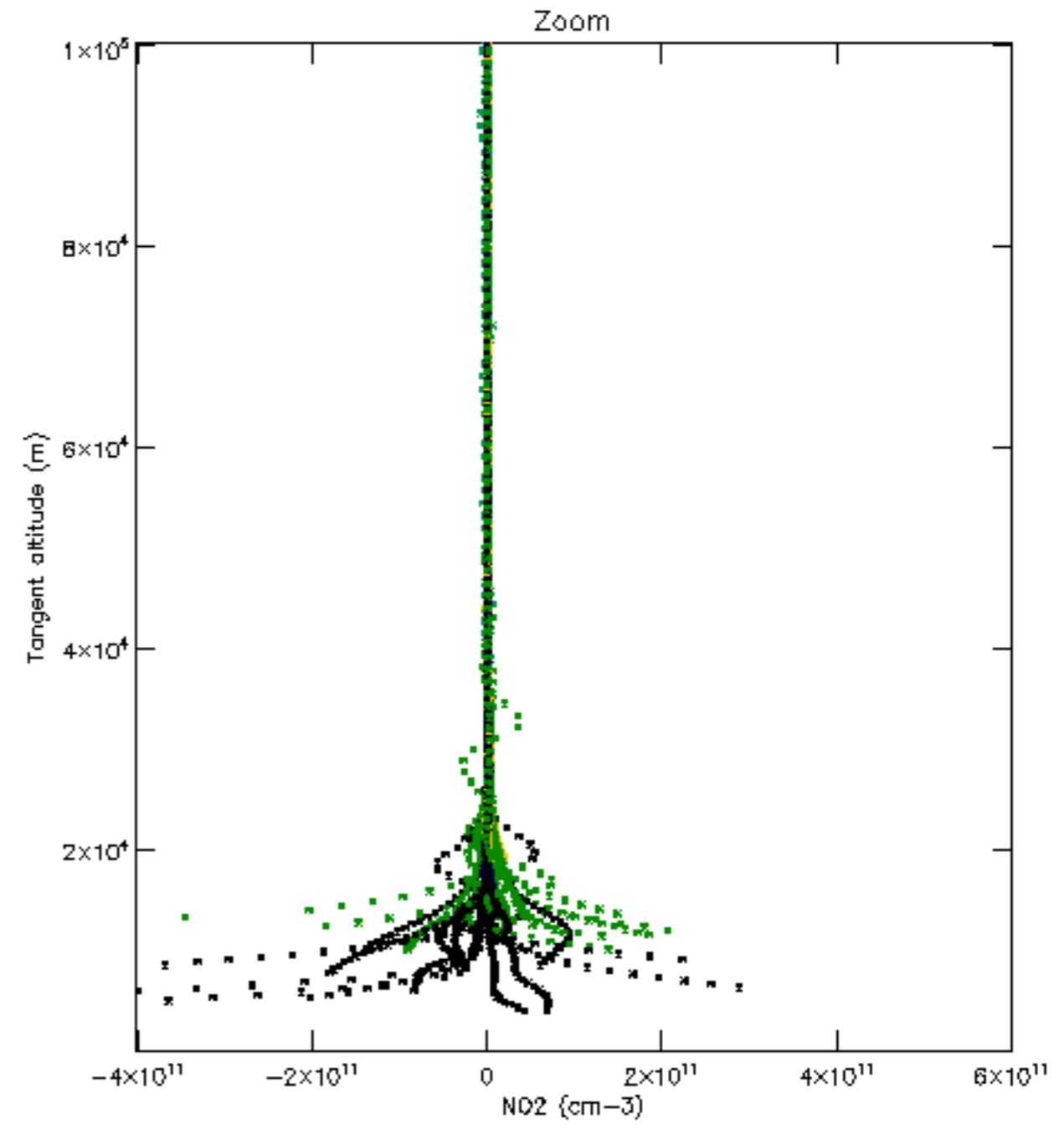
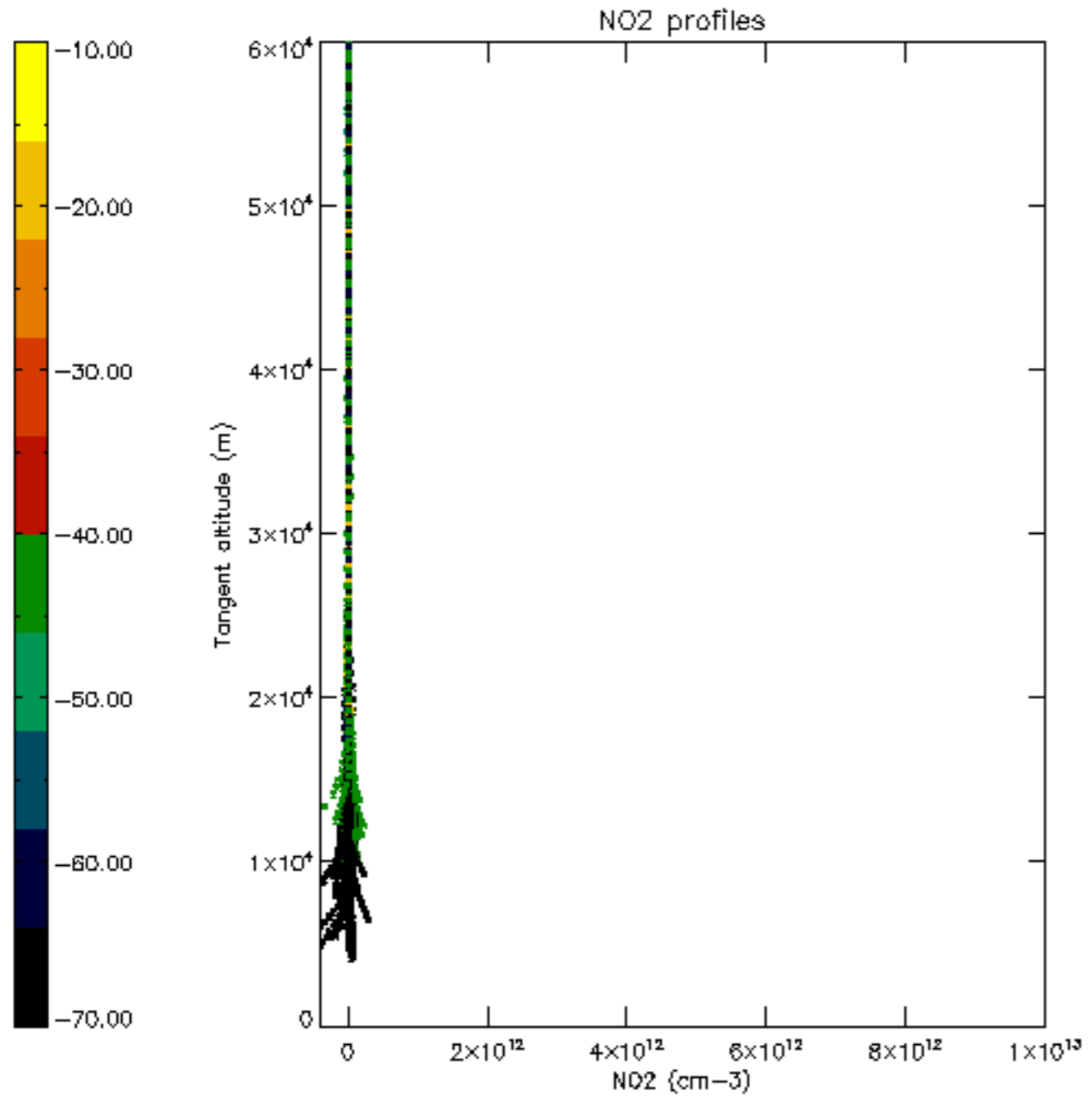


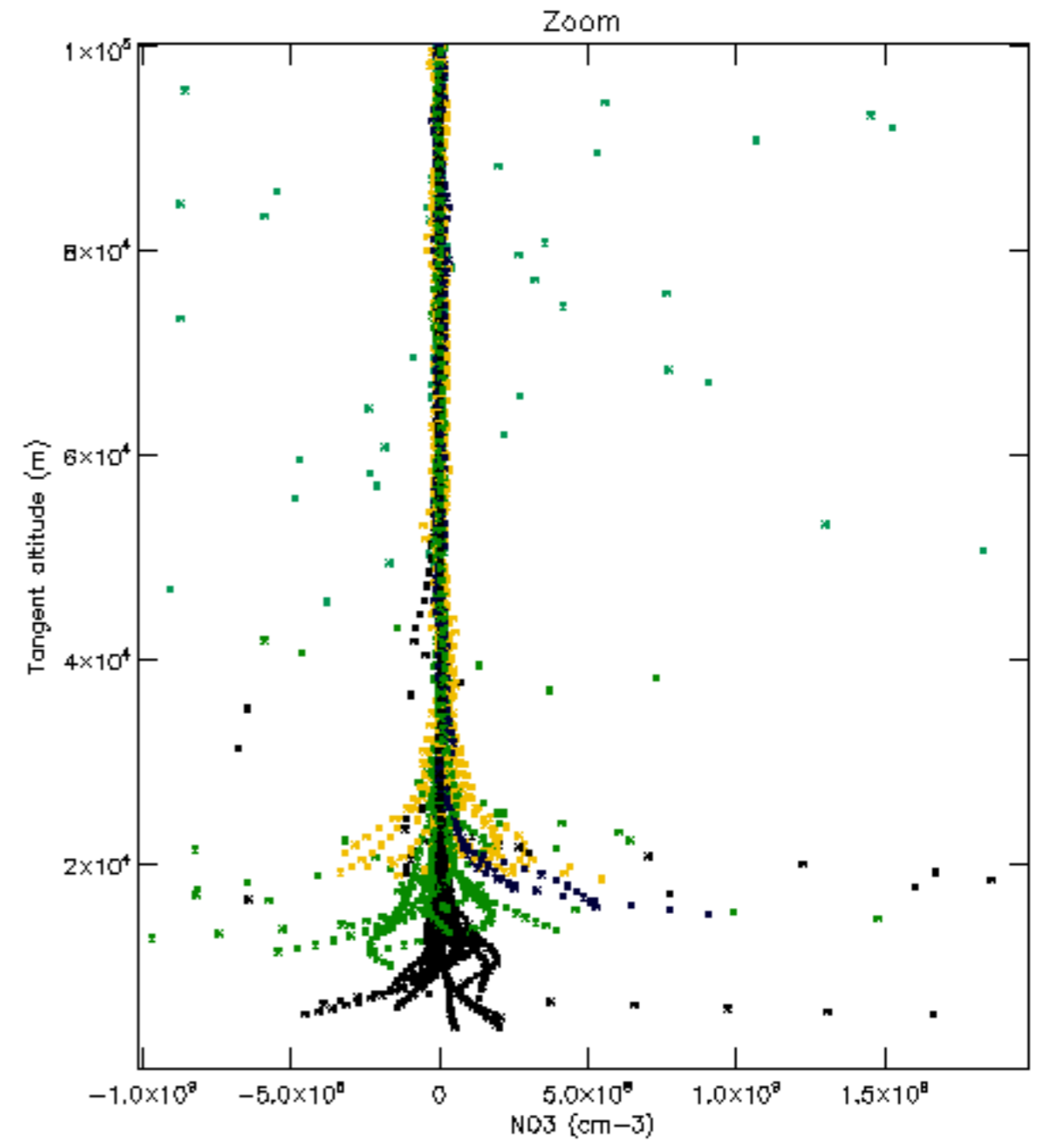
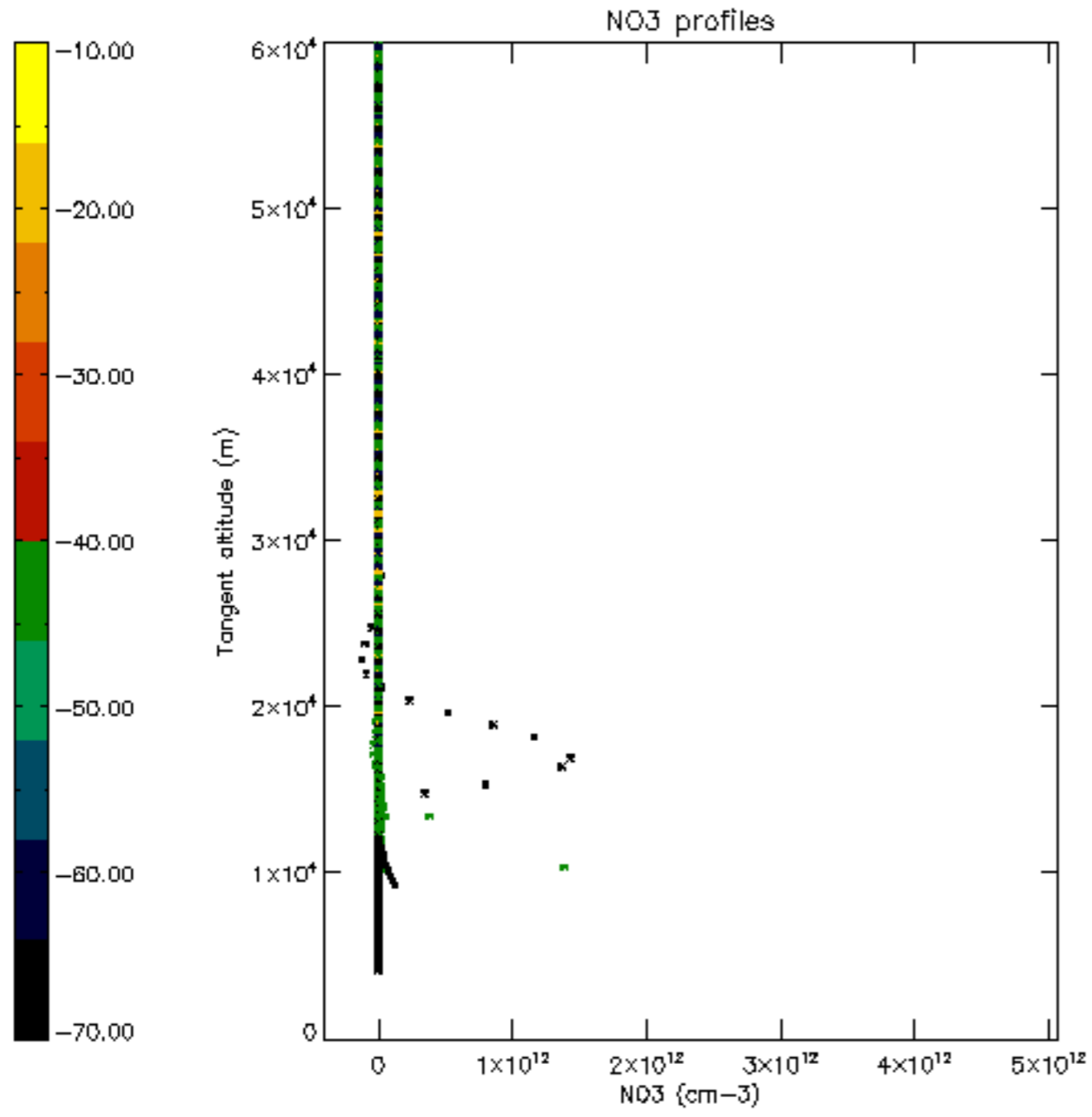


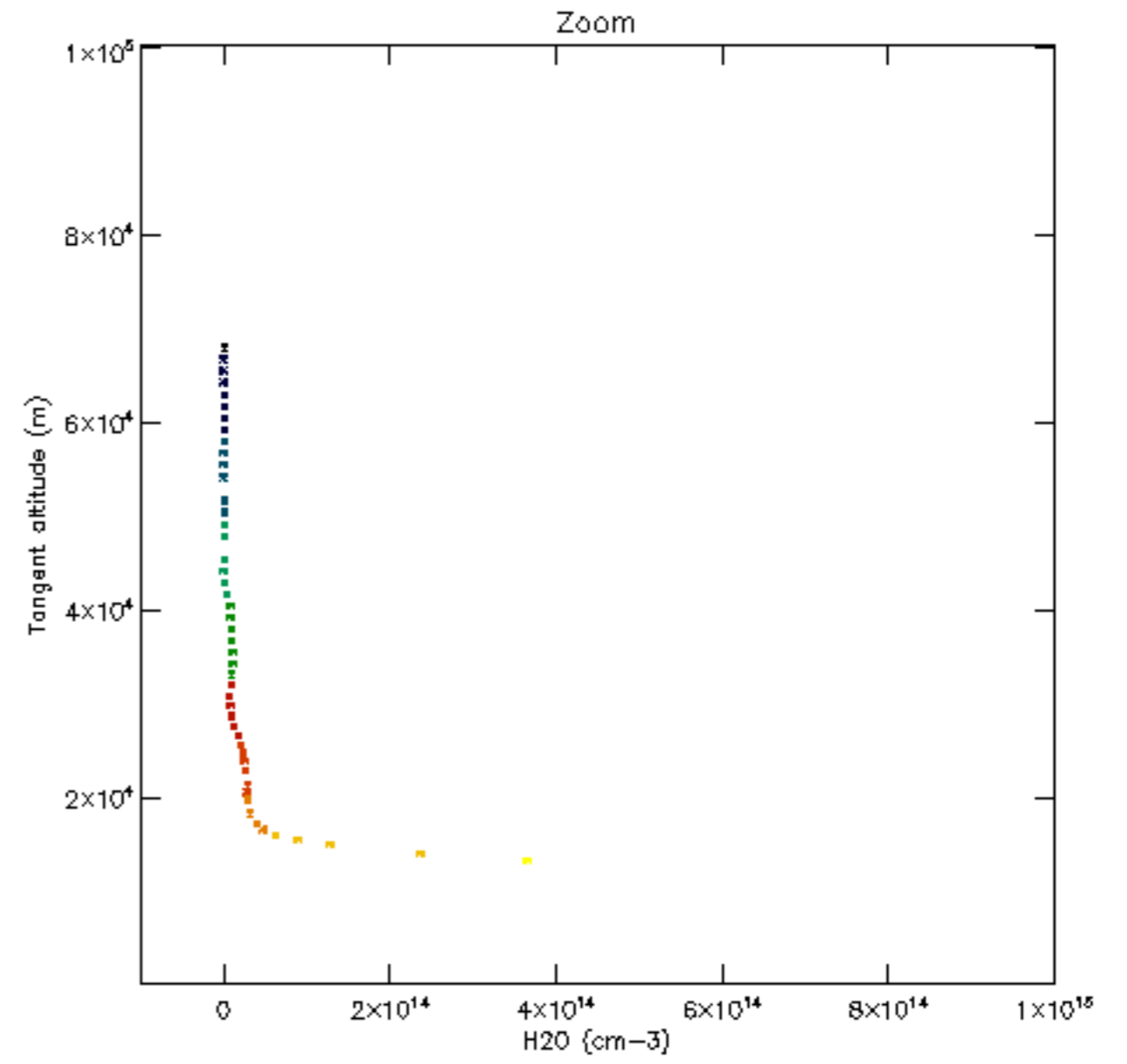
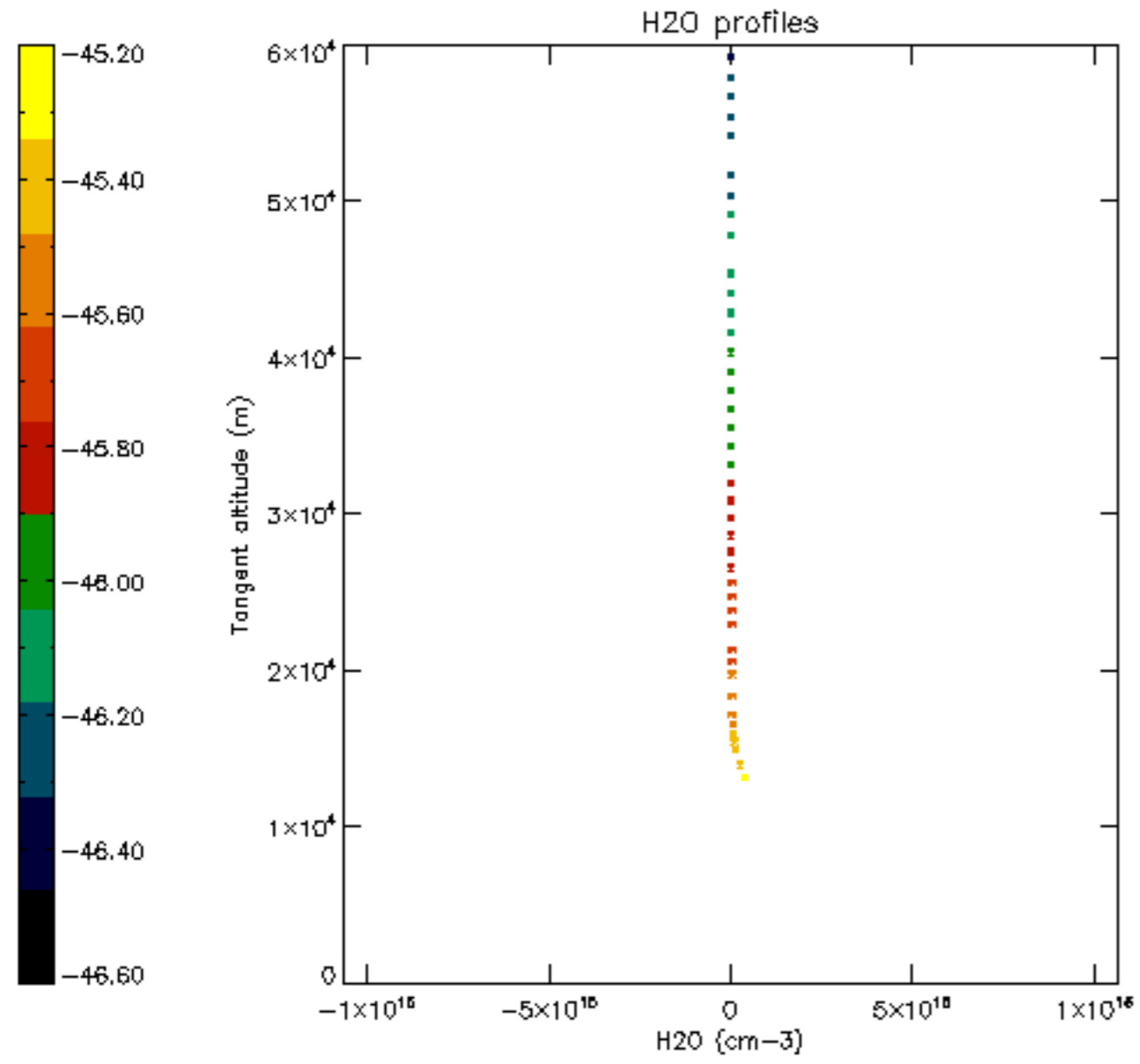


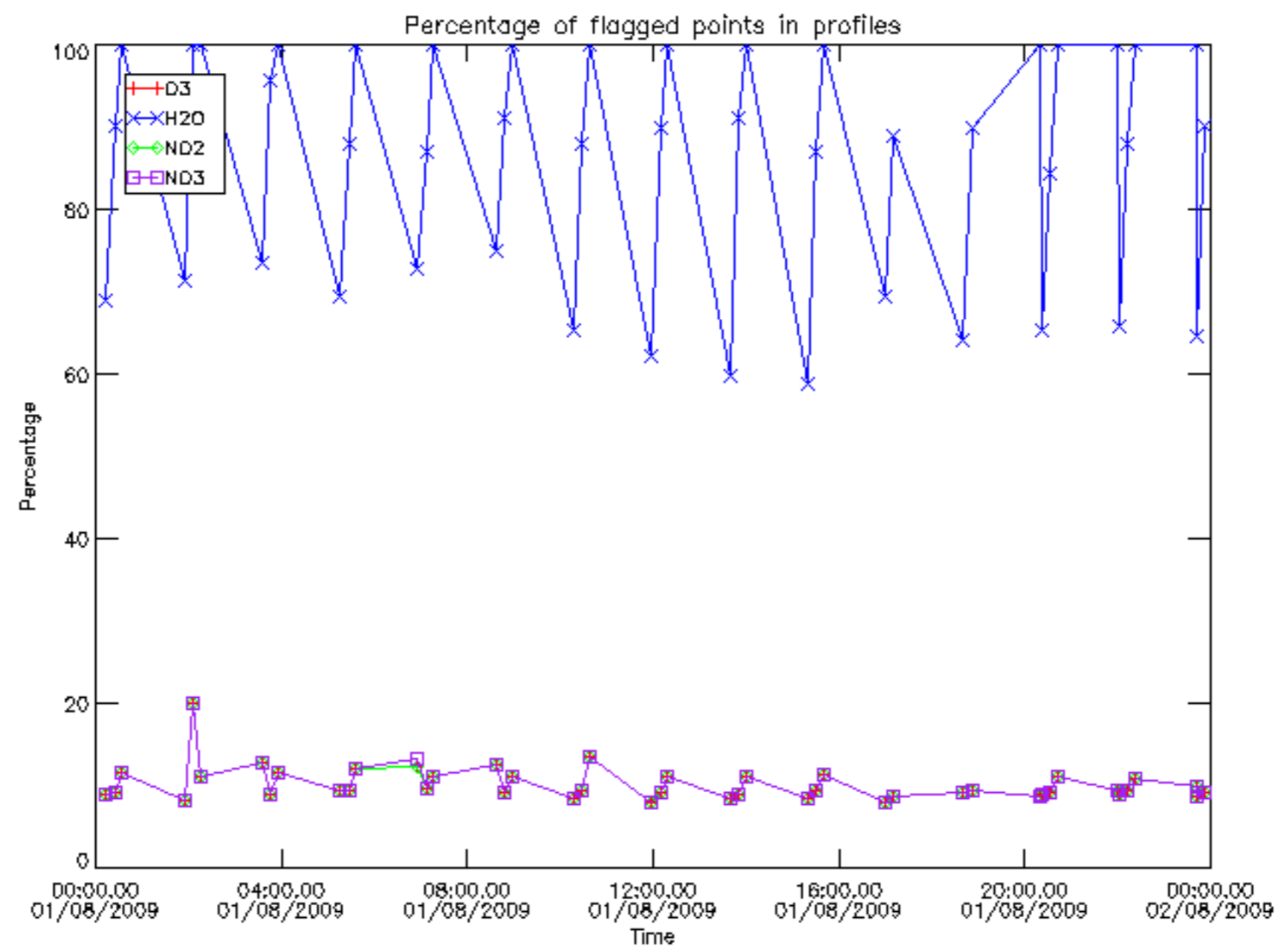




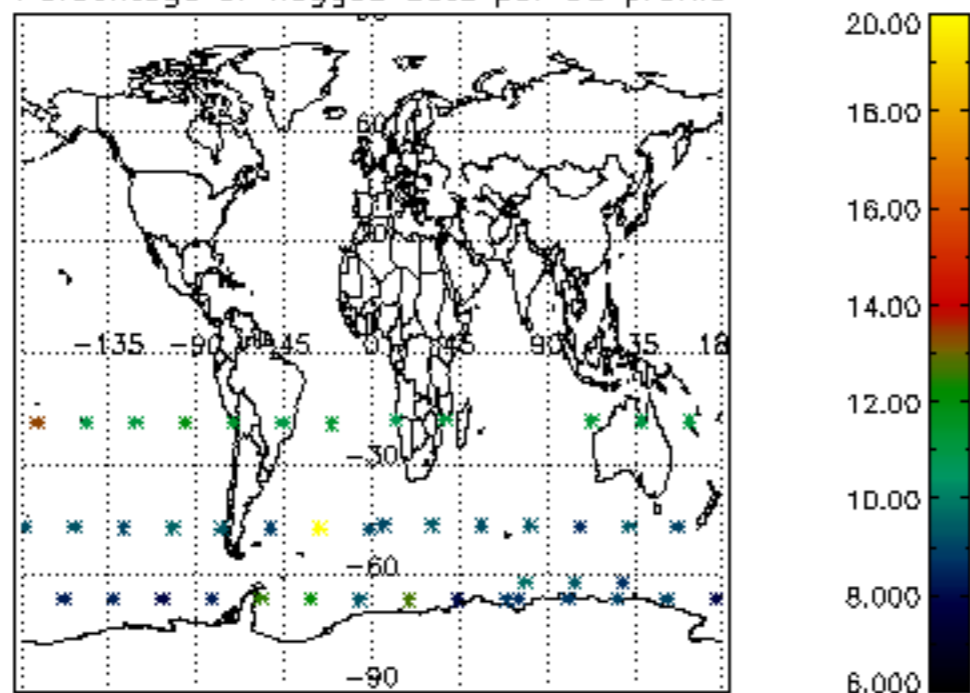




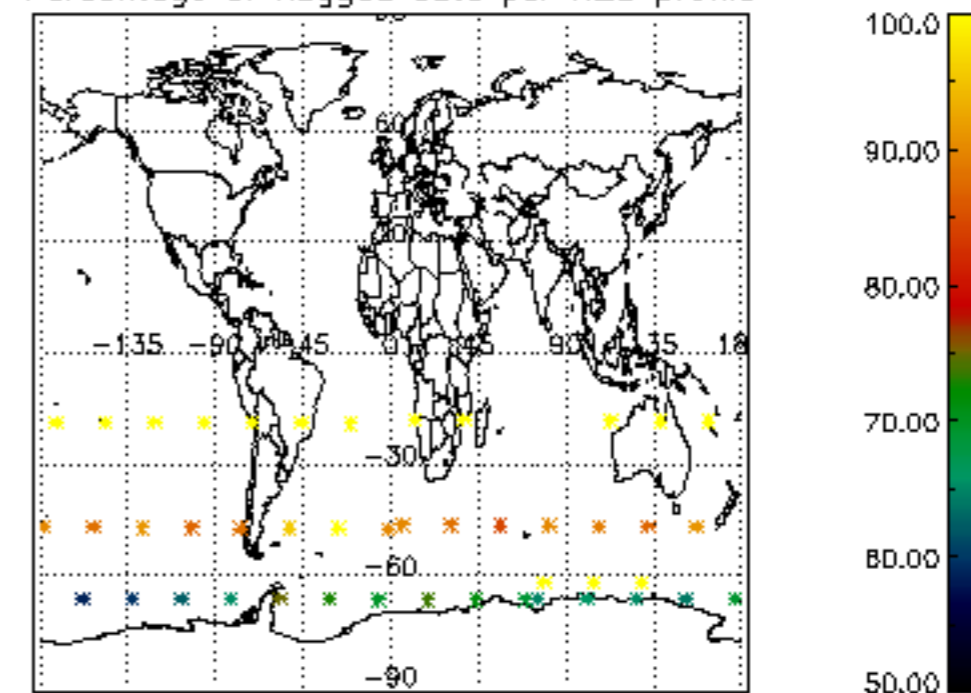




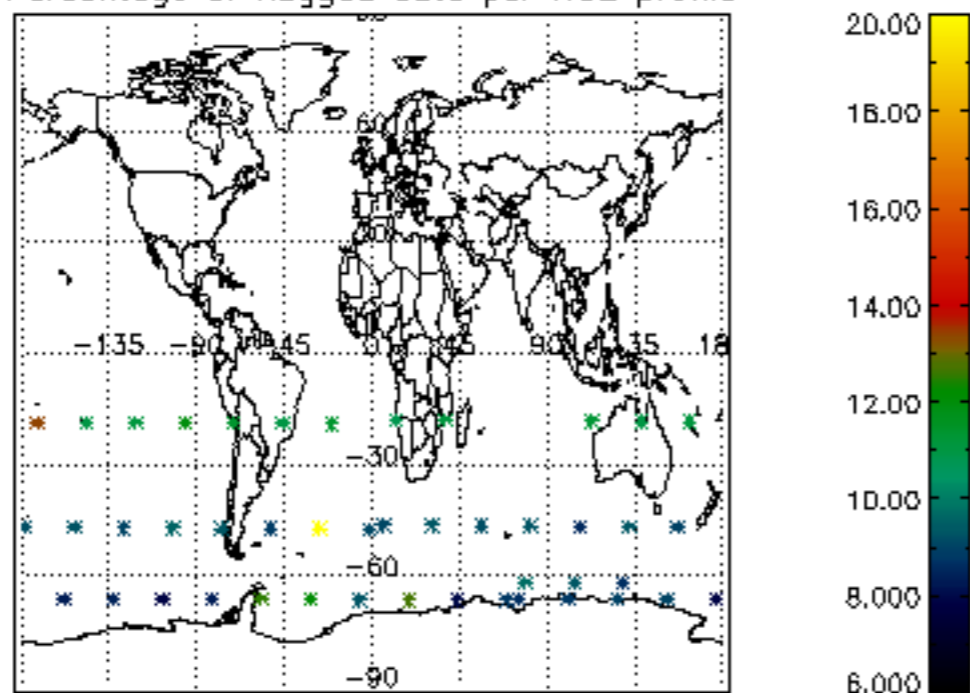
Percentage of flagged data per D3 profile



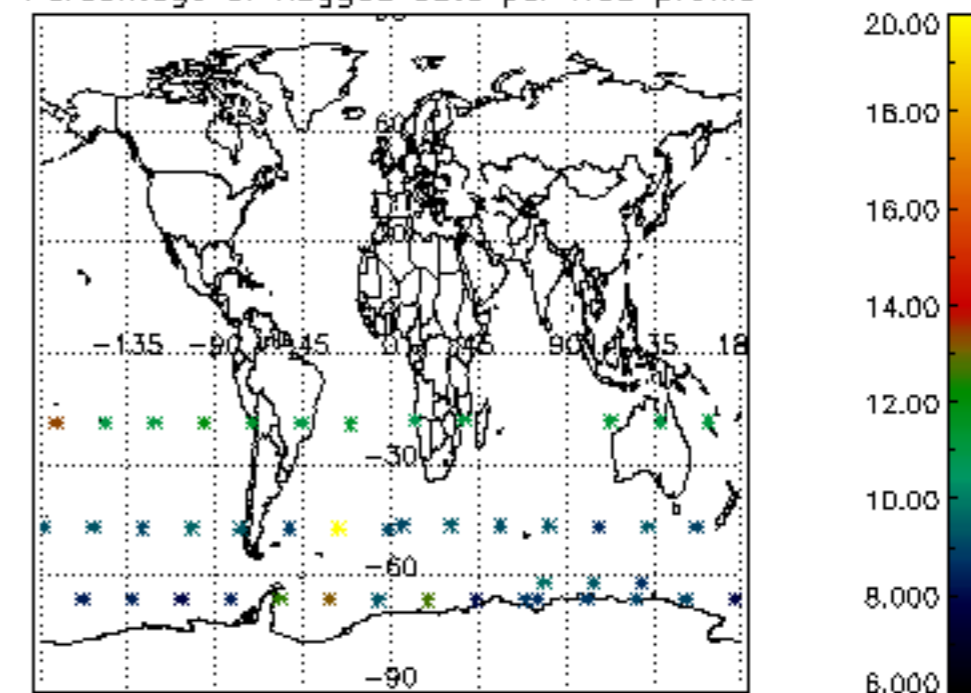
Percentage of flagged data per H2O profile

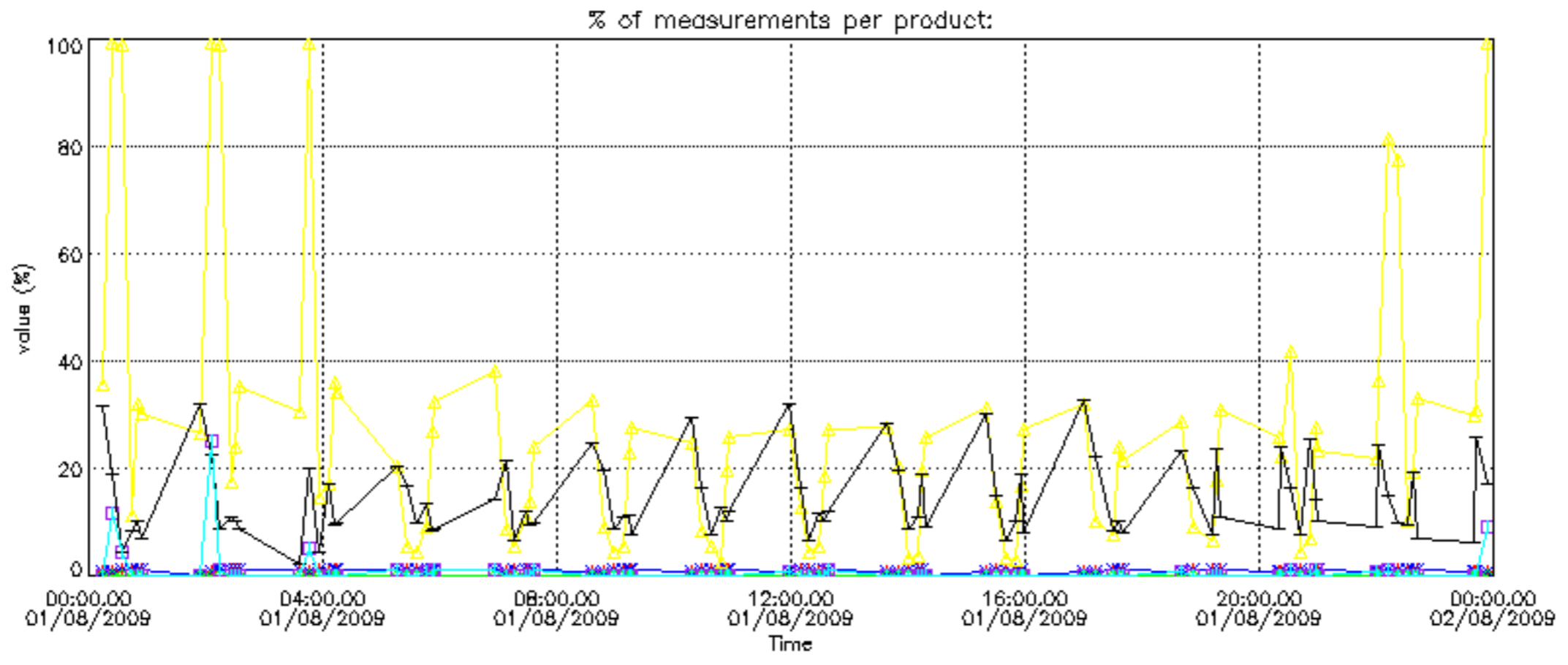


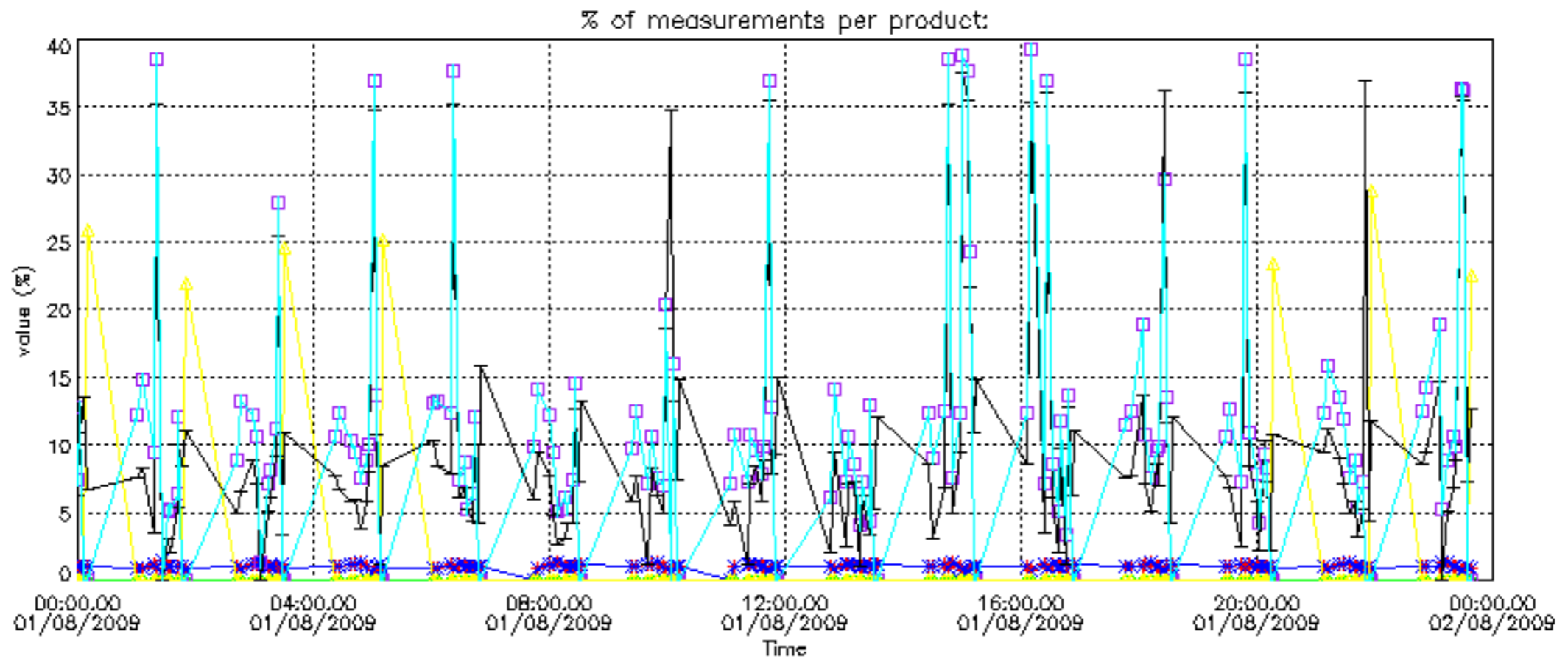
Percentage of flagged data per NO2 profile



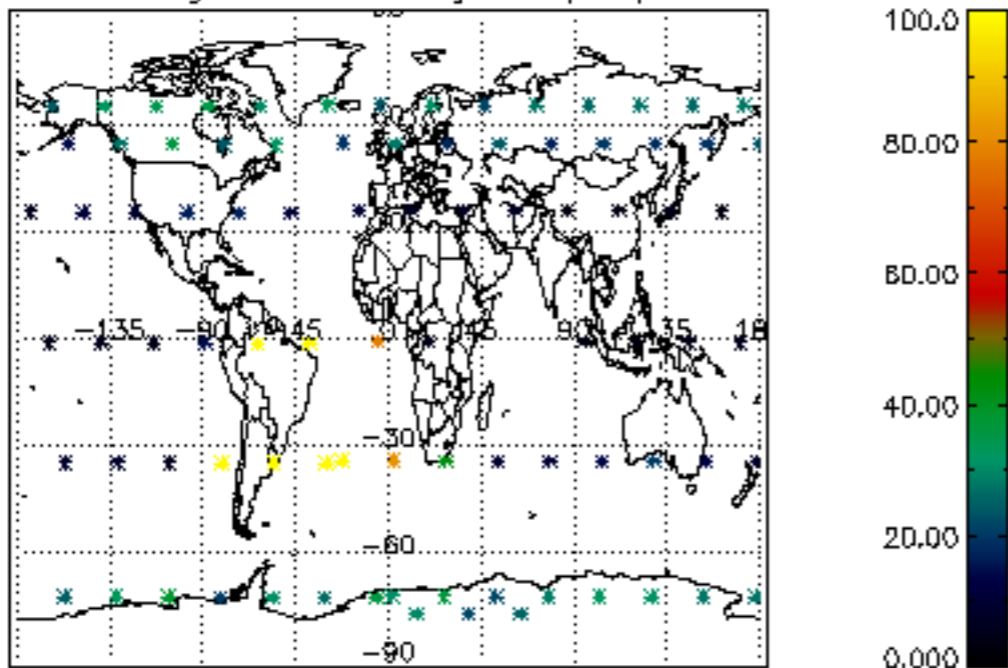
Percentage of flagged data per NO3 profile



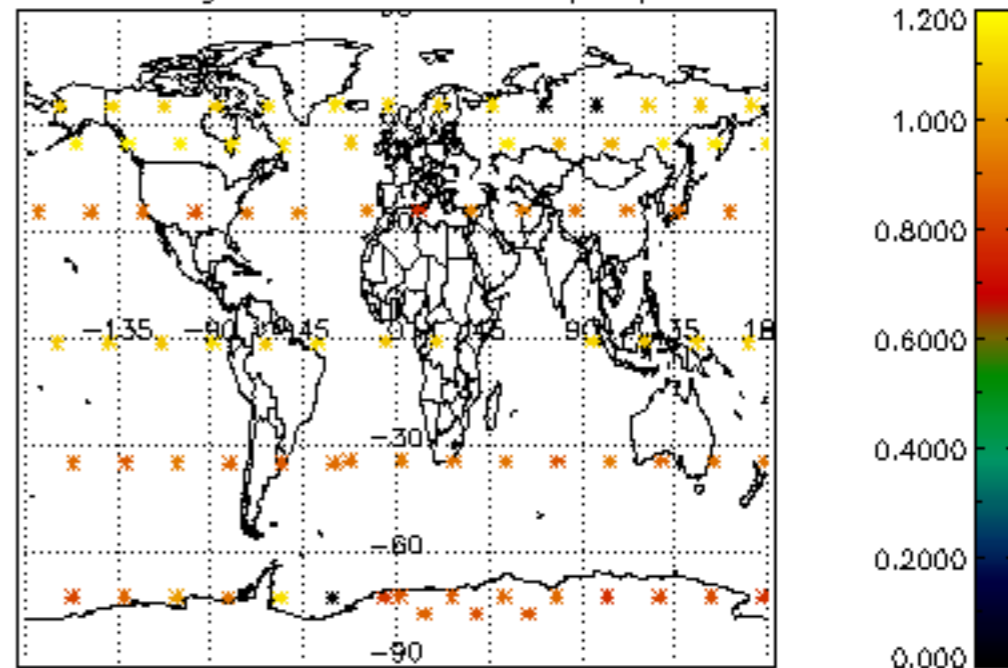




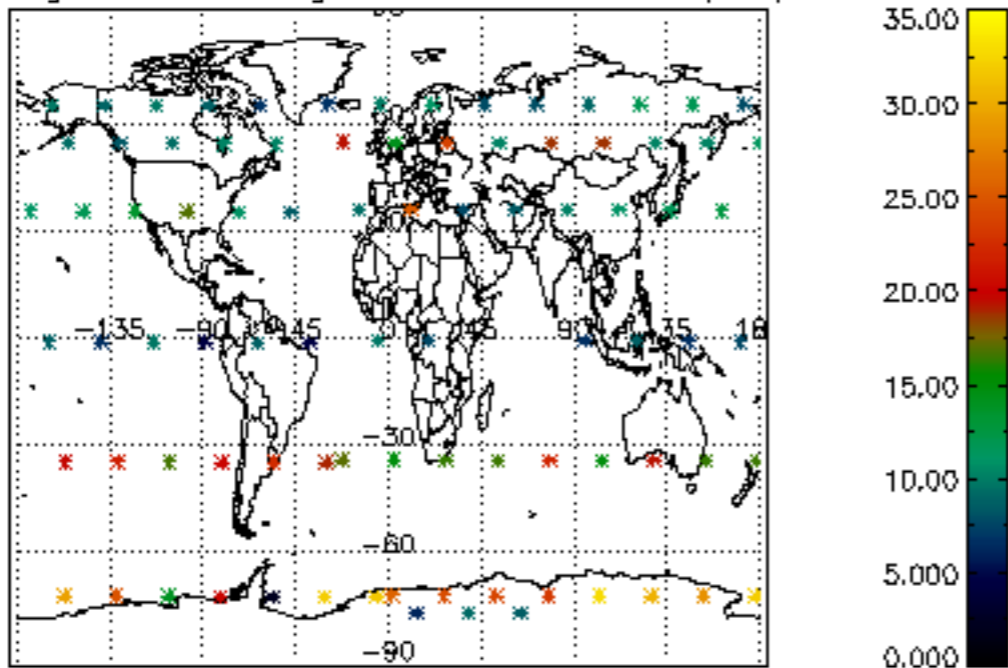
Percentage of cosmic ray hits per profile



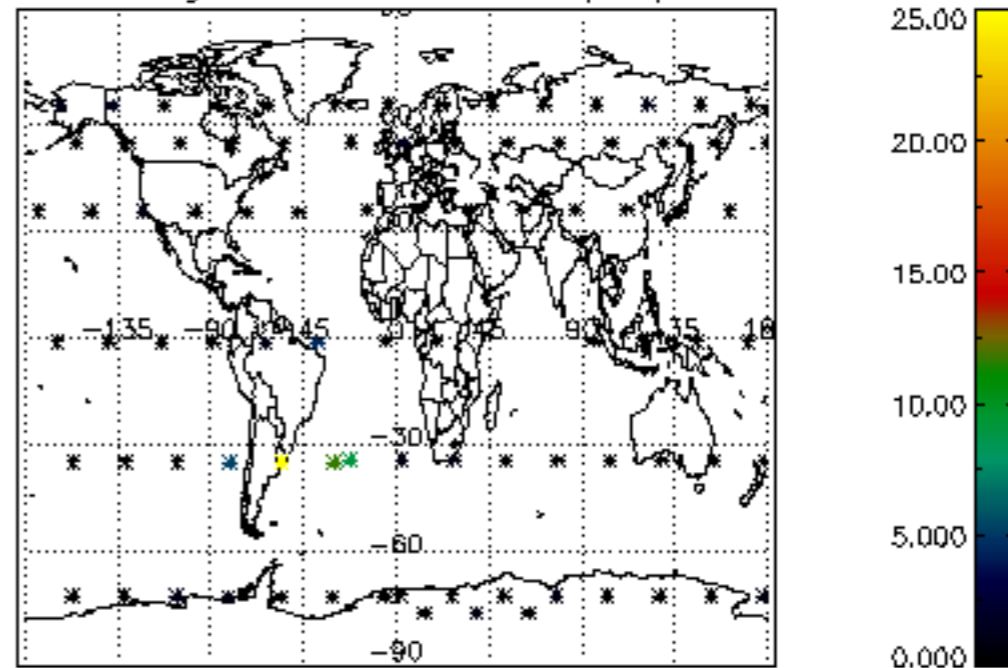
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

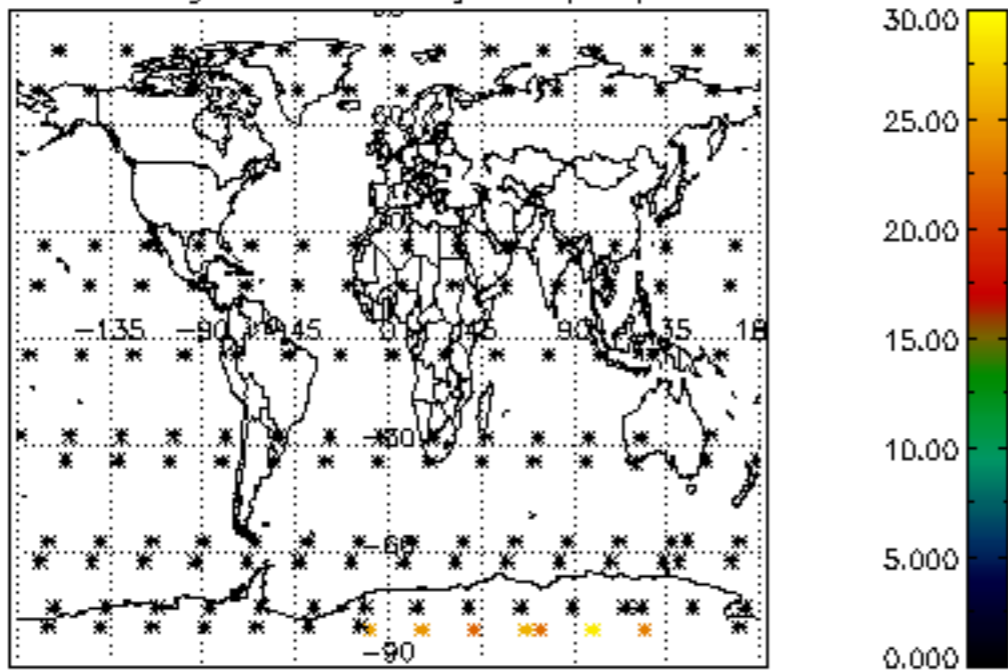


Percentage of saturation errors per profile

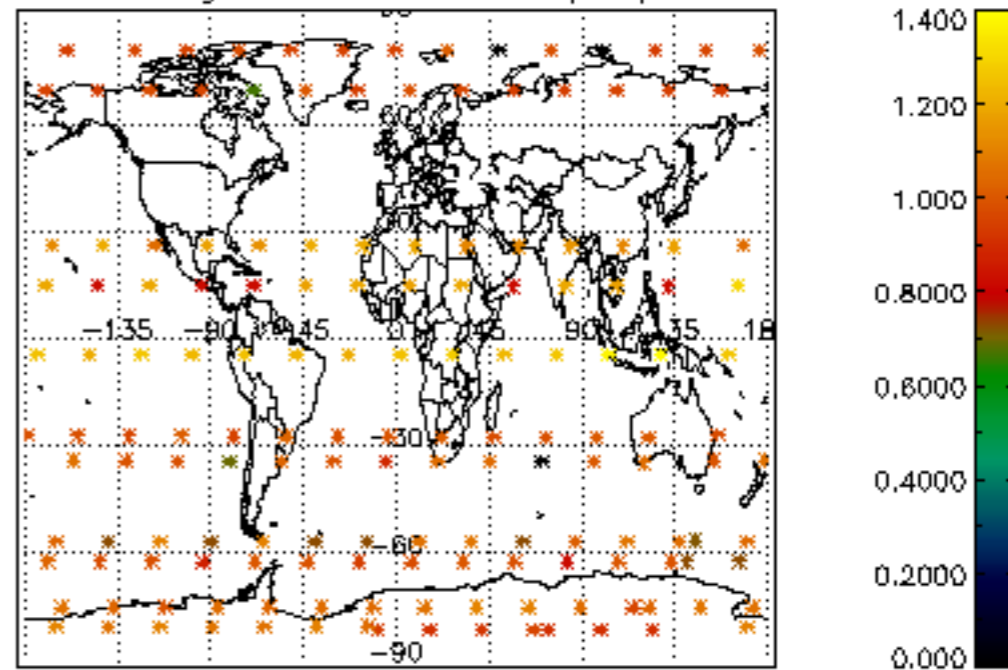




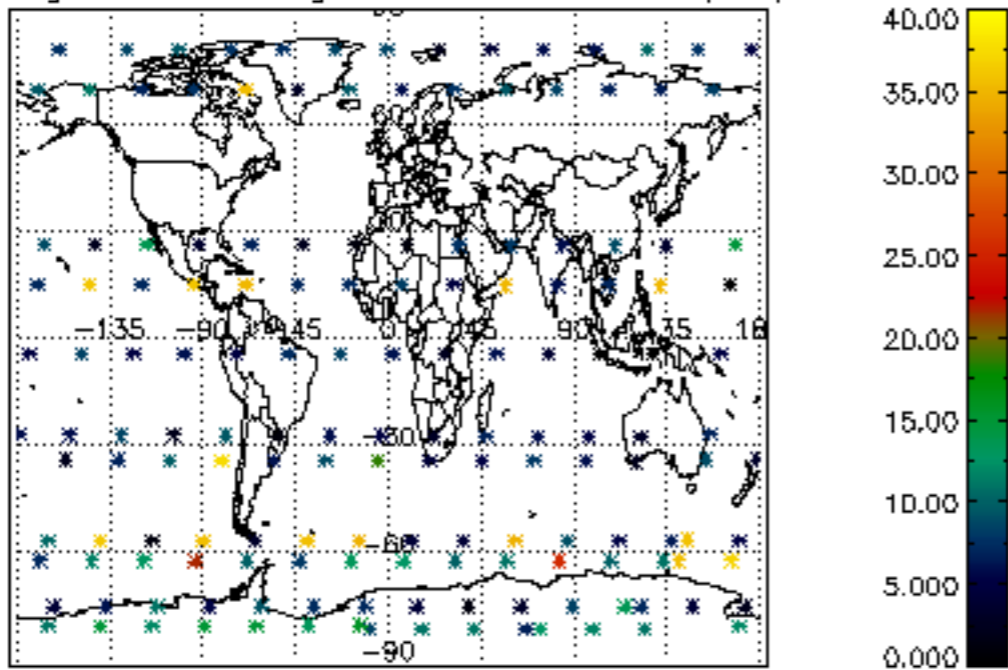
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

