

# 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	23APR2013 10:38:15
Data source version	GOMOS/6.01
Start time of products	08-11-2007 (08NOV2007 00:00:00)
Stop time of products	09-11-2007 (09NOV2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	196
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__2PRFIN20071108_000208_000000472063_00131_29744_9806.N1	08-NOV-2007 00:02:08	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	29744	No
2	GOM_NL__2PRFIN20071108_000717_000000602063_00131_29744_9807.N1	08-NOV-2007 00:07:17	Dark	59.500	2	Alp Car	-0.73600	7000.0	119	29744	No
3	GOM_NL__2PRFIN20071108_001653_000000392063_00131_29744_9808.N1	08-NOV-2007 00:16:53	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	29744	No
4	GOM_NL__2PRFIN20071108_003506_000000362063_00131_29744_9809.N1	08-NOV-2007 00:35:06	Bright	36.000	105	6Bet Ari	2.6450	8900.0	72	29744	No
5	GOM_NL__2PRFIN20071108_003919_000000382063_00131_29744_9810.N1	08-NOV-2007 00:39:19	Bright	38.000	173	4Bet Tri	3.0040	8900.0	76	29744	No
6	GOM_NL__2PRFIN20071108_004122_000000392063_00131_29744_9811.N1	08-NOV-2007 00:41:22	Bright	39.000	73	57Gam1And	2.2600	13100.	78	29744	No
7	GOM_NL__2PRFIN20071108_004535_000000392063_00131_29744_9812.N1	08-NOV-2007 00:45:35	Bright	39.000	160	23Gam Per	2.9300	4700.0	78	29744	No
8	GOM_NL__2PRFIN20071108_005425_000000372063_00131_29744_9813.N1	08-NOV-2007 00:54:25	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	29744	No
9	GOM_NL__2PRFIN20071108_010224_000000402063_00131_29744_9814.N1	08-NOV-2007 01:02:24	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	29744	No
10	GOM_NL__2PRFIN20071108_010401_000000402063_00131_29744_9815.N1	08-NOV-2007 01:04:01	Bright	40.000	82	48Bet UMa	2.3650	10600.	80	29744	No
11	GOM_NL__2PRFIN20071108_010751_000000592063_00131_29744_9816.N1	08-NOV-2007 01:07:51	Bright	59.000	174	52Psi UMa	3.0040	4400.0	118	29744	No
12	GOM_NL__2PRFIN20071108_011542_000000592063_00131_29744_9817.N1	08-NOV-2007 01:15:42	Bright	59.000	96	68Del Leo	2.5600	9300.0	118	29744	No
13	GOM_NL__2PRFIN20071108_013549_000000412063_00131_29744_9818.N1	08-NOV-2007 01:35:49	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	29744	No
14	GOM_NL__2PRFIN20071108_014245_000000462063_00132_29745_9839.N1	08-NOV-2007 01:42:45	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	29745	No
15	GOM_NL__2PRFIN20071108_014754_000000502063_00132_29745_9840.N1	08-NOV-2007 01:47:54	Dark	50.000	2	Alp Car	-0.73600	7000.0	100	29745	No
16	GOM_NL__2PRFIN20071108_015729_000000392063_00132_29745_9841.N1	08-NOV-2007 01:57:29	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	29745	No
17	GOM_NL__2PRFIN20071108_021542_000000372063_00132_29745_9842.N1	08-NOV-2007 02:15:42	Bright	37.000	105	6Bet Ari	2.6450	8900.0	74	29745	No
18	GOM_NL__2PRFIN20071108_021955_000000372063_00132_29745_9843.N1	08-NOV-2007 02:19:55	Bright	37.000	173	4Bet Tri	3.0040	8900.0	74	29745	No
19	GOM_NL__2PRFIN20071108_022158_000000382063_00132_29745_9844.N1	08-NOV-2007 02:21:58	Bright	38.000	73	57Gam1And	2.2600	13100.	76	29745	No
20	GOM_NL__2PRFIN20071108_022611_000000392063_00132_29745_9845.N1	08-NOV-2007 02:26:11	Bright	38.500	160	23Gam Per	2.9300	4700.0	77	29745	No
21	GOM_NL__2PRFIN20071108_023501_000000342063_00132_29745_9846.N1	08-NOV-2007 02:35:01	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	29745	No
22	GOM_NL__2PRFIN20071108_024259_000000402063_00132_29745_9847.N1	08-NOV-2007 02:42:59	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	29745	No
23	GOM_NL__2PRFIN20071108_024437_000000402063_00132_29745_9848.N1	08-NOV-2007 02:44:37	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	29745	No
24	GOM_NL__2PRFIN20071108_024827_000000402063_00132_29745_9849.N1	08-NOV-2007 02:48:27	Bright	40.000	174	52Psi UMa	3.0040	4400.0	80	29745	No
25	GOM_NL__2PRFIN20071108_025618_000000422063_00132_29745_9850.N1	08-NOV-2007 02:56:18	Bright	42.000	96	68Del Leo	2.5600	9300.0	84	29745	No
26	GOM_NL__2PRFIN20071108_031626_000000392063_00132_29745_9851.N1	08-NOV-2007 03:16:26	Dark	39.000	113	Mu Vel	2.6920	5000.0	78	29745	No
27	GOM_NL__2PRFIN20071108_032322_000000462063_00133_29746_9846.N1	08-NOV-2007 03:23:22	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	29746	No
28	GOM_NL__2PRFIN20071108_032830_000000492063_00133_29746_9847.N1	08-NOV-2007 03:28:30	Dark	48.500	2	Alp Car	-0.73600	7000.0	97	29746	No
29	GOM_NL__2PRFIN20071108_033805_000000402063_00133_29746_9848.N1	08-NOV-2007 03:38:05	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	29746	No
30	GOM_NL__2PRFIN20071108_035618_000000382063_00133_29746_9849.N1	08-NOV-2007 03:56:18	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29746	No
31	GOM_NL__2PRFIN20071108_040030_000000372063_00133_29746_9850.N1	08-NOV-2007 04:00:30	Bright	37.000	173	4Bet Tri	3.0040	8900.0	74	29746	No
32	GOM_NL__2PRFIN20071108_040234_000000402063_00133_29746_9851.N1	08-NOV-2007 04:02:34	Bright	39.500	73	57Gam1And	2.2600	13100.	79	29746	No
33	GOM_NL__2PRFIN20071108_040646_000000402063_00133_29746_9852.N1	08-NOV-2007 04:06:46	Bright	39.500	160	23Gam Per	2.9300	4700.0	79	29746	No
34	GOM_NL__2PRFIN20071108_041537_000000332063_00133_29746_9853.N1	08-NOV-2007 04:15:37	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	29746	No
35	GOM_NL__2PRFIN20071108_042335_000000402063_00133_29746_9854.N1	08-NOV-2007 04:23:35	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	29746	No
36	GOM_NL__2PRFIN20071108_042513_000000512063_00133_29746_9855.N1	08-NOV-2007 04:25:13	Bright	50.500	82	48Bet UMa	2.3650	10600.	101	29746	No
37	GOM_NL__2PRFIN20071108_042903_000000412063_00133_29746_9856.N1	08-NOV-2007 04:29:03	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	29746	No
38	GOM_NL__2PRFIN20071108_043654_000000422063_00133_29746_9857.N1	08-NOV-2007 04:36:54	Bright	41.500	96	68Del Leo	2.5600	9300.0	83	29746	No
39	GOM_NL__2PRFIN20071108_045702_000000432063_00133_29746_9858.N1	08-NOV-2007 04:57:02	Dark	42.500	113	Mu Vel	2.6920	5000.0	85	29746	No
40	GOM_NL__2PRFIN20071108_050359_000000472063_00134_29747_9850.N1	08-NOV-2007 05:03:59	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	29747	No
41	GOM_NL__2PRFIN20071108_050907_000000492063_00134_29747_9851.N1	08-NOV-2007 05:09:07	Dark	48.500	2	Alp Car	-0.73600	7000.0	97	29747	No
42	GOM_NL__2PRFIN20071108_051841_000000382063_00134_29747_9852.N1	08-NOV-2007 05:18:41	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	29747	No



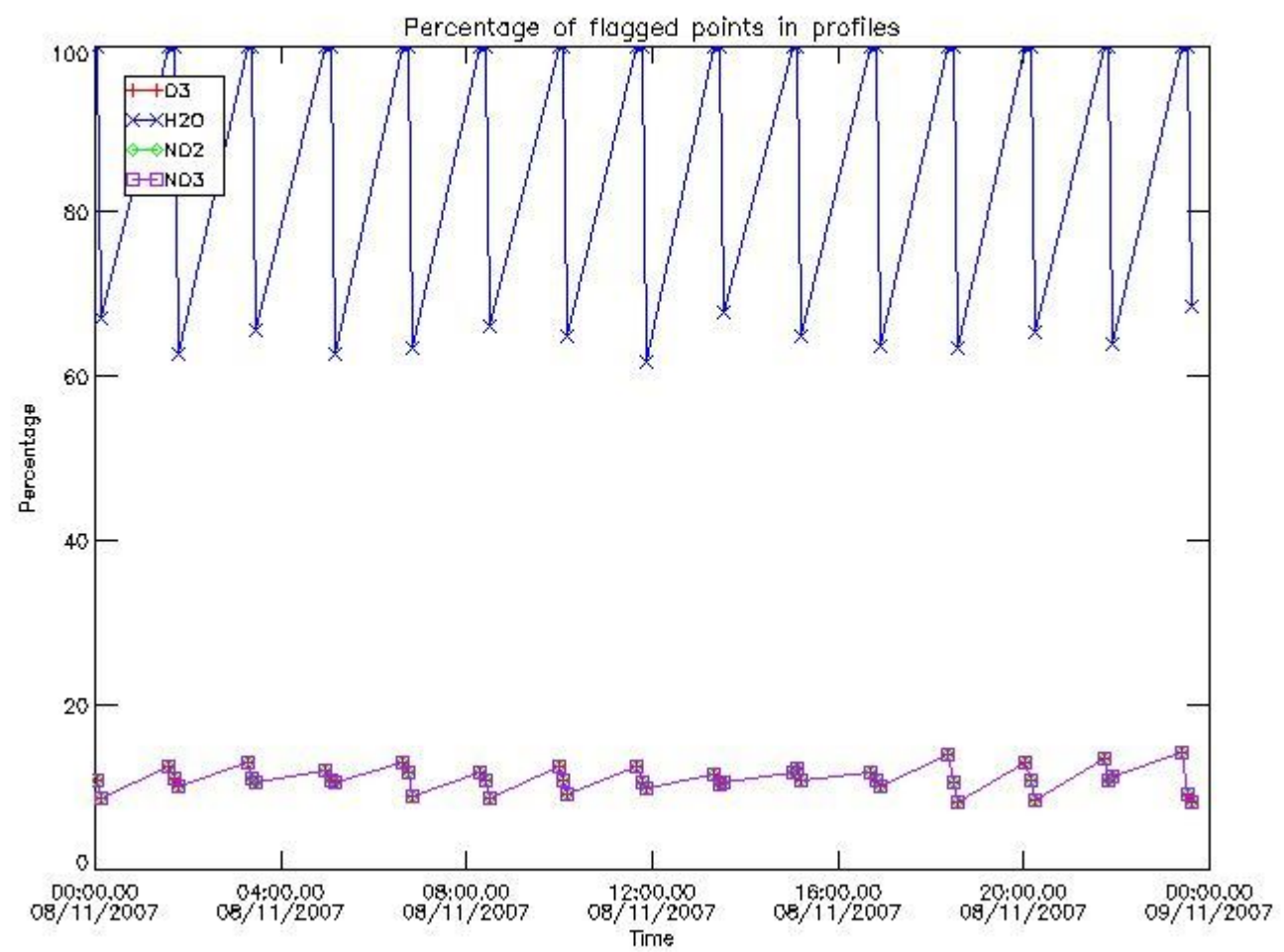


161	GOM_NL__2PRFIN20071108_193035_000000382063_00142_29755_0005.N1	08-NOV-2007 19:30:35	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	29755	No
162	GOM_NL__2PRFIN20071108_193426_000000422063_00142_29755_0006.N1	08-NOV-2007 19:34:26	Bright	41.500	174	52Psi UMa	3.0040	4400.0	83	29755	No
163	GOM_NL__2PRFIN20071108_194220_000000622063_00142_29755_0007.N1	08-NOV-2007 19:42:20	Bright	62.000	96	68Del Leo	2.5600	9300.0	124	29755	No
164	GOM_NL__2PRFIN20071108_200230_000000402063_00142_29755_0008.N1	08-NOV-2007 20:02:30	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	29755	No
165	GOM_NL__2PRFIN20071108_200931_000000472063_00143_29756_0004.N1	08-NOV-2007 20:09:31	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	29756	No
166	GOM_NL__2PRFIN20071108_201437_000000612063_00143_29756_0005.N1	08-NOV-2007 20:14:37	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	29756	No
167	GOM_NL__2PRFIN20071108_202407_000000392063_00143_29756_0006.N1	08-NOV-2007 20:24:07	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	29756	No
168	GOM_NL__2PRFIN20071108_203740_000000542063_00143_29756_0007.N1	08-NOV-2007 20:37:40	Twilight_and_stray	53.500	94	92Alp Cet	2.5260	3100.0	107	29756	No
169	GOM_NL__2PRFIN20071108_204217_000000382063_00143_29756_0008.N1	08-NOV-2007 20:42:17	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29756	No
170	GOM_NL__2PRFIN20071108_204628_000000362063_00143_29756_0009.N1	08-NOV-2007 20:46:28	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	29756	No
171	GOM_NL__2PRFIN20071108_204832_000000372063_00143_29756_0010.N1	08-NOV-2007 20:48:32	Bright	37.000	73	57Gam1And	2.2600	13100.	74	29756	No
172	GOM_NL__2PRFIN20071108_205242_000000402063_00143_29756_0011.N1	08-NOV-2007 20:52:42	Bright	39.500	160	23Gam Per	2.9300	4700.0	79	29756	No
173	GOM_NL__2PRFIN20071108_210136_000000362063_00143_29756_0012.N1	08-NOV-2007 21:01:36	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	29756	No
174	GOM_NL__2PRFIN20071108_210933_000000402063_00143_29756_0013.N1	08-NOV-2007 21:09:33	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	29756	No
175	GOM_NL__2PRFIN20071108_211111_000000582063_00143_29756_0014.N1	08-NOV-2007 21:11:11	Bright	58.000	82	48Bet UMa	2.3650	10600.	116	29756	No
176	GOM_NL__2PRFIN20071108_211502_000000412063_00143_29756_0015.N1	08-NOV-2007 21:15:02	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	29756	No
177	GOM_NL__2PRFIN20071108_212257_000000482063_00143_29756_0016.N1	08-NOV-2007 21:22:57	Bright	47.500	96	68Del Leo	2.5600	9300.0	95	29756	No
178	GOM_NL__2PRFIN20071108_214307_000000382063_00143_29756_0017.N1	08-NOV-2007 21:43:07	Dark	38.000	113	Mu Vel	2.6920	5000.0	76	29756	No
179	GOM_NL__2PRFIN20071108_215008_000000472063_00144_29757_0043.N1	08-NOV-2007 21:50:08	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	29757	No
180	GOM_NL__2PRFIN20071108_215514_000000492063_00144_29757_0044.N1	08-NOV-2007 21:55:14	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	29757	No
181	GOM_NL__2PRFIN20071108_220443_000000402063_00144_29757_0045.N1	08-NOV-2007 22:04:43	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	29757	No
182	GOM_NL__2PRFIN20071108_221816_000000522063_00144_29757_0046.N1	08-NOV-2007 22:18:16	Twilight_and_stray	51.500	94	92Alp Cet	2.5260	3100.0	103	29757	No
183	GOM_NL__2PRFIN20071108_222252_000000382063_00144_29757_0047.N1	08-NOV-2007 22:22:52	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29757	No
184	GOM_NL__2PRFIN20071108_222704_000000362063_00144_29757_0048.N1	08-NOV-2007 22:27:04	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	29757	No
185	GOM_NL__2PRFIN20071108_222907_000000392063_00144_29757_0049.N1	08-NOV-2007 22:29:07	Bright	38.500	73	57Gam1And	2.2600	13100.	77	29757	No
186	GOM_NL__2PRFIN20071108_223317_000000392063_00144_29757_0050.N1	08-NOV-2007 22:33:17	Bright	38.500	160	23Gam Per	2.9300	4700.0	77	29757	No
187	GOM_NL__2PRFIN20071108_224212_000000362063_00144_29757_0051.N1	08-NOV-2007 22:42:12	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	29757	No
188	GOM_NL__2PRFIN20071108_225009_000000402063_00144_29757_0052.N1	08-NOV-2007 22:50:09	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	29757	No
189	GOM_NL__2PRFIN20071108_225147_000000412063_00144_29757_0053.N1	08-NOV-2007 22:51:47	Bright	40.500	82	48Bet UMa	2.3650	10600.	81	29757	No
190	GOM_NL__2PRFIN20071108_225538_000000402063_00144_29757_0054.N1	08-NOV-2007 22:55:38	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	29757	No
191	GOM_NL__2PRFIN20071108_230333_000000402063_00144_29757_0055.N1	08-NOV-2007 23:03:33	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	29757	No
192	GOM_NL__2PRFIN20071108_232343_000000402063_00144_29757_0056.N1	08-NOV-2007 23:23:43	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	29757	No
193	GOM_NL__2PRFIN20071108_233044_000000562063_00145_29758_0054.N1	08-NOV-2007 23:30:44	Dark	56.000	34	Gam2Vel	1.7930	23000.	112	29758	No
194	GOM_NL__2PRFIN20071108_233550_000000622063_00145_29758_0055.N1	08-NOV-2007 23:35:50	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	29758	No
195	GOM_NL__2PRFIN20071108_234520_000000392063_00145_29758_0056.N1	08-NOV-2007 23:45:20	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	29758	No
196	GOM_NL__2PRFIN20071108_235852_000000532063_00145_29758_0057.N1	08-NOV-2007 23:58:52	Twilight_and_stray	53.000	94	92Alp Cet	2.5260	3100.0	106	29758	No

### 3. Quality information per product

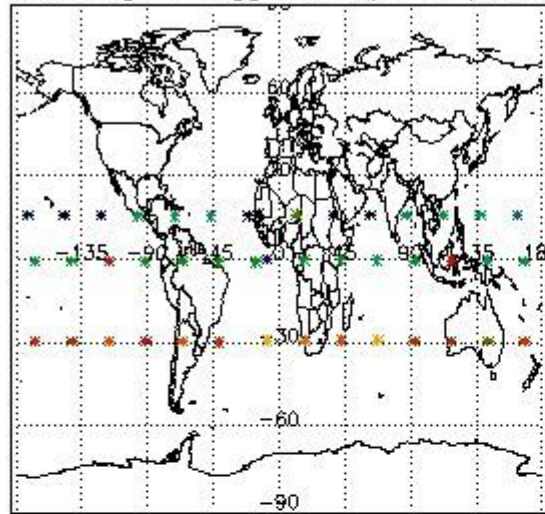
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

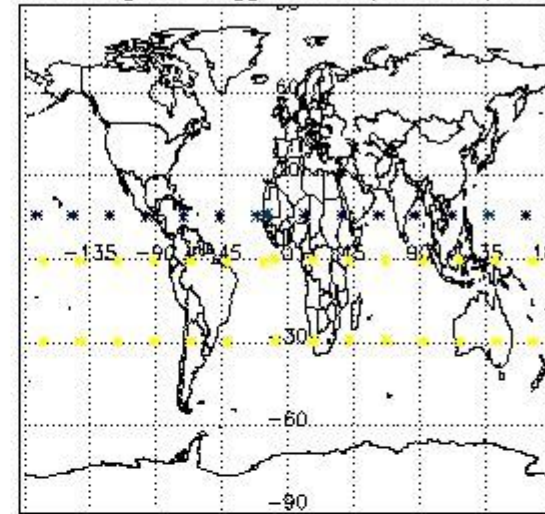


3.2 Plot quality information per product (world map)

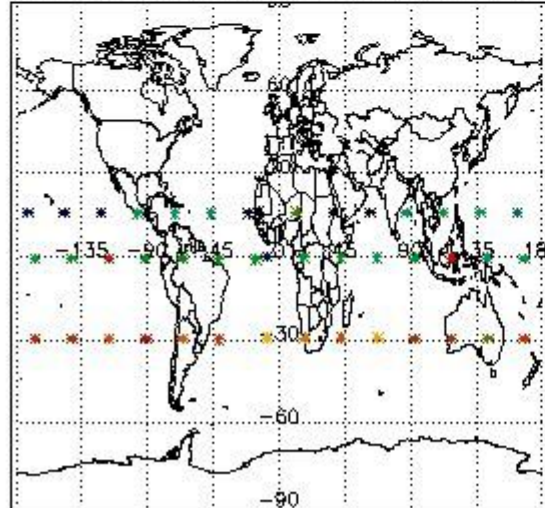
Percentage of flagged data per O3 profile



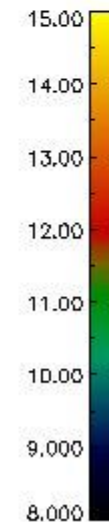
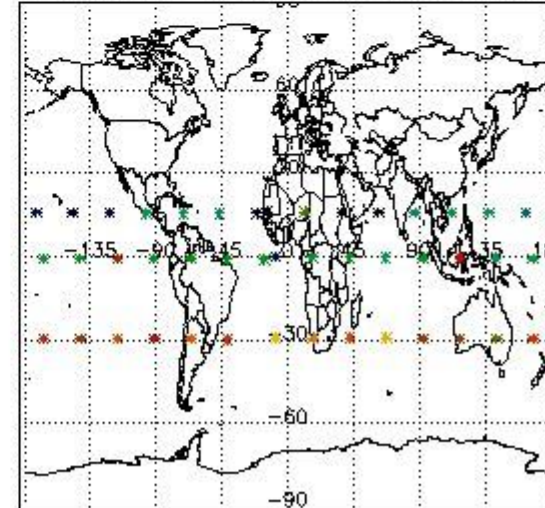
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

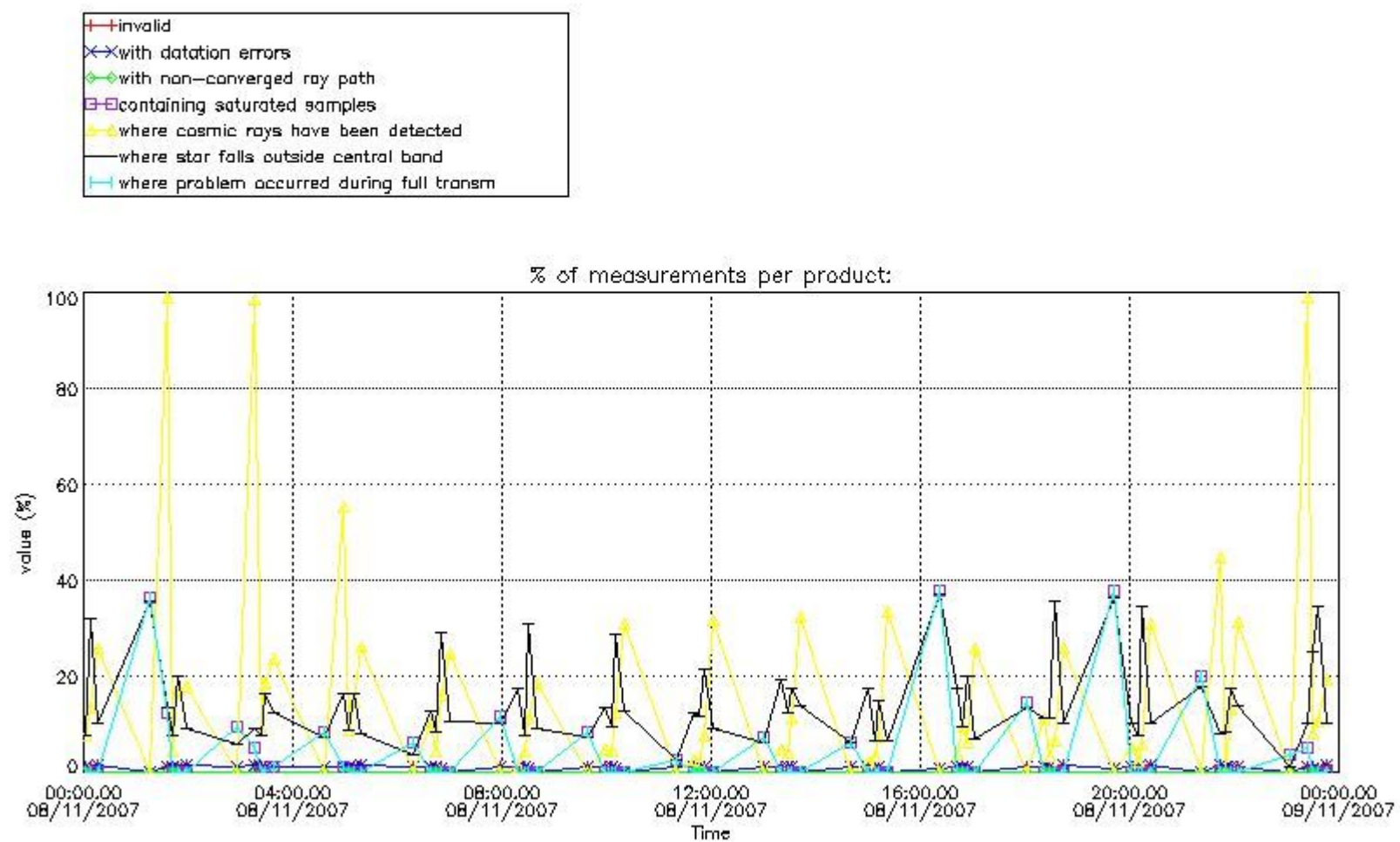


#### 4. Level 1 quality information per product

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.

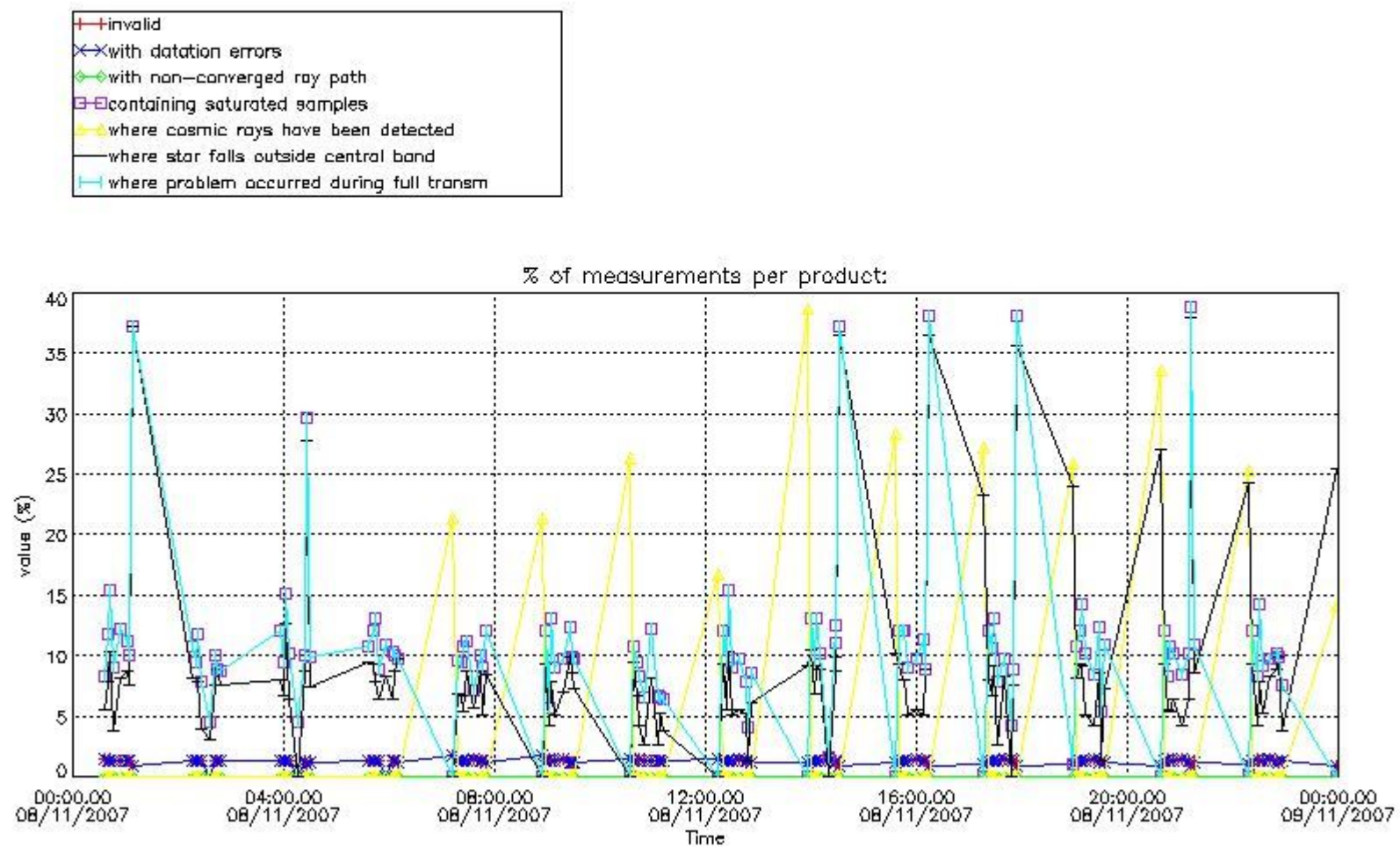
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



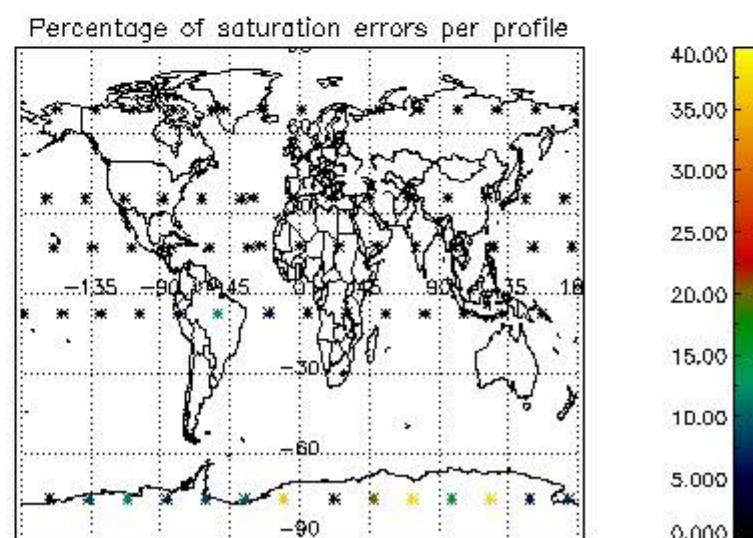
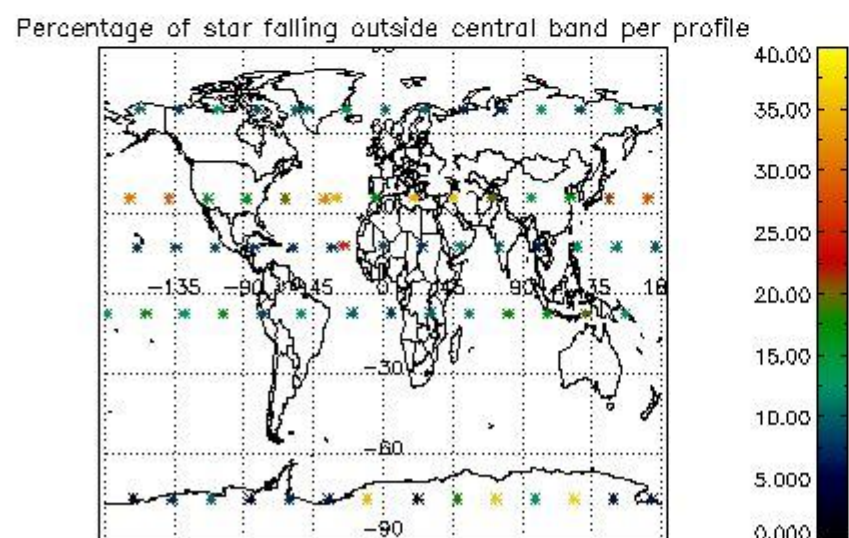
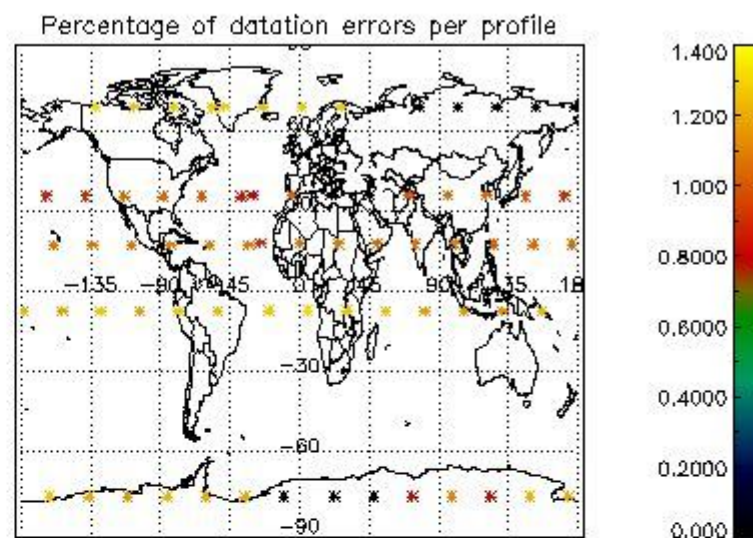
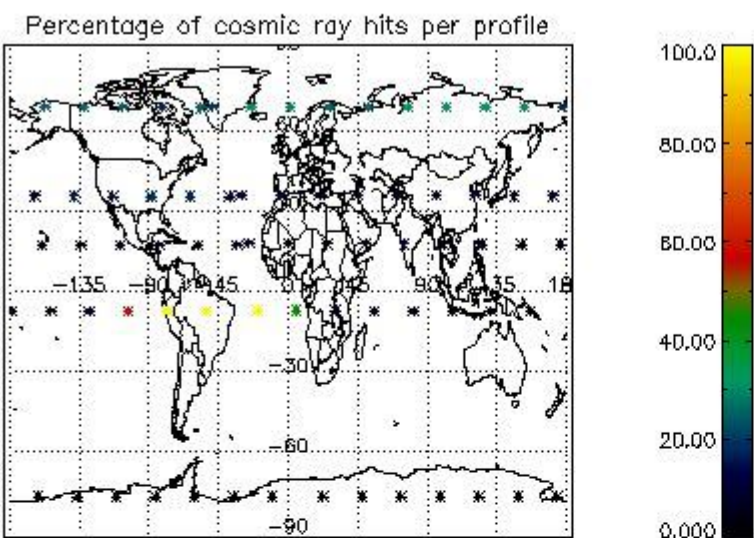
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



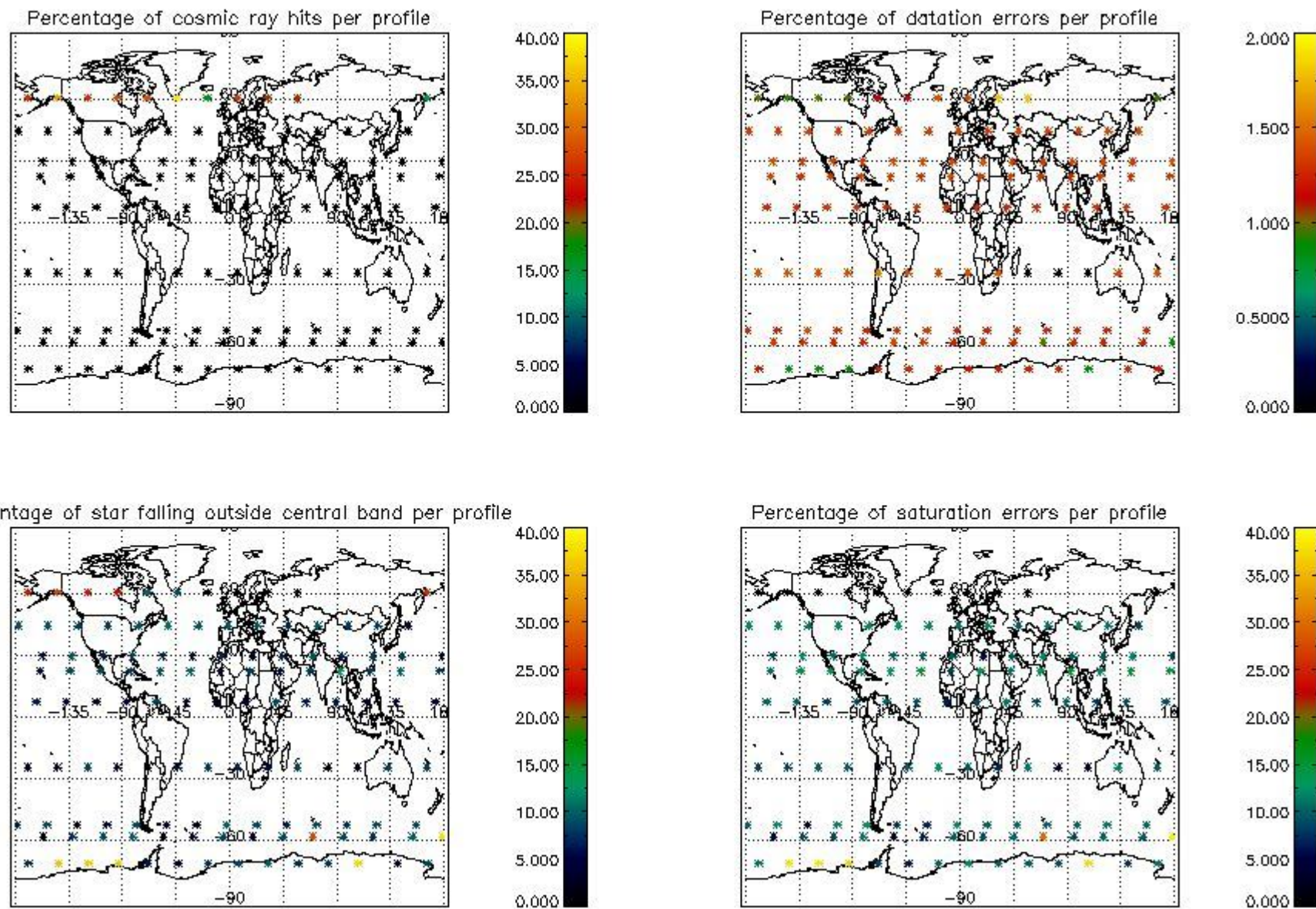


4.2 Plot quality information per product coming from level 1b processing (world map)

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

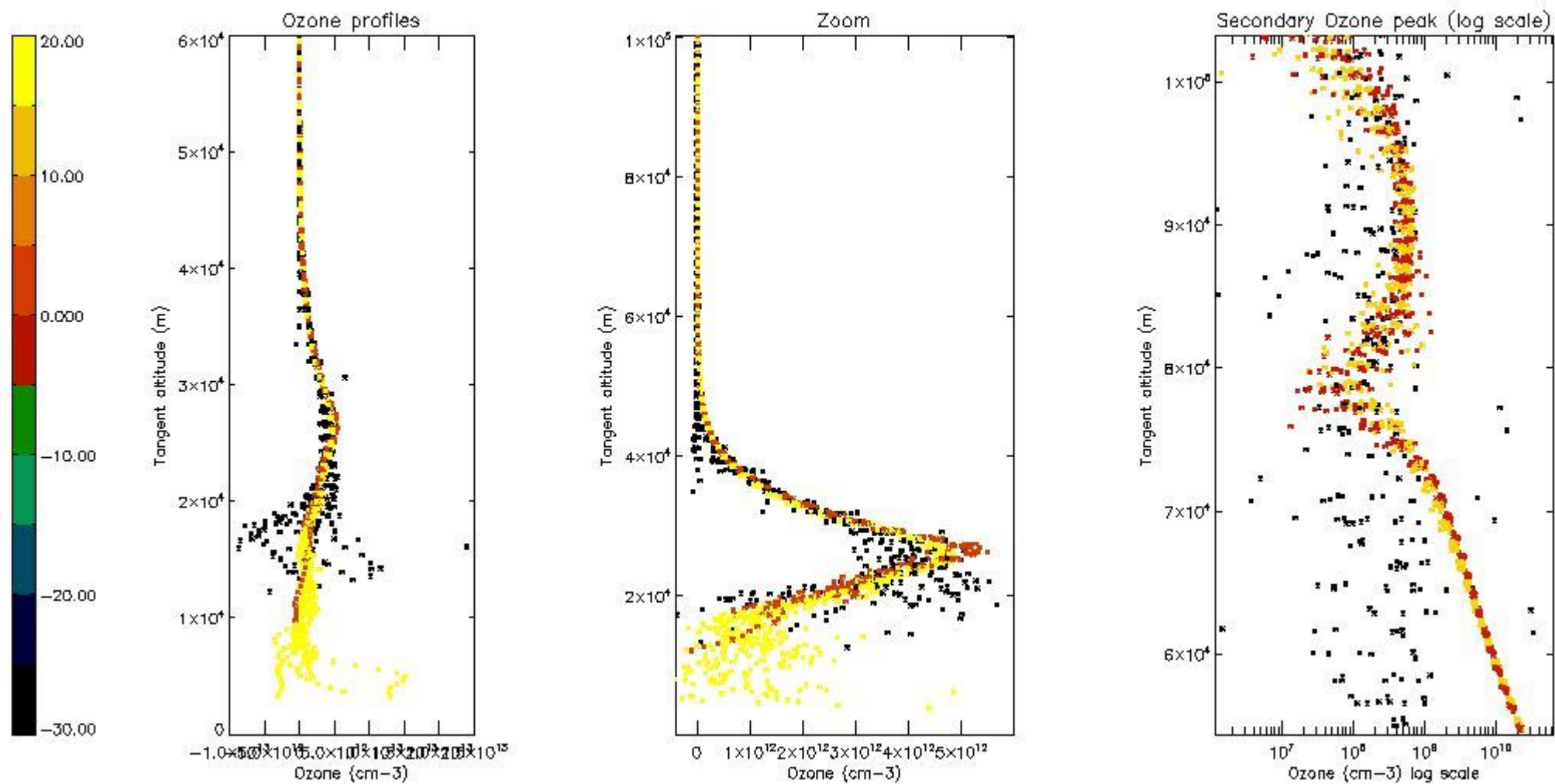
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	27
STD < 20	16

STD < 10	14
STD < 5	11

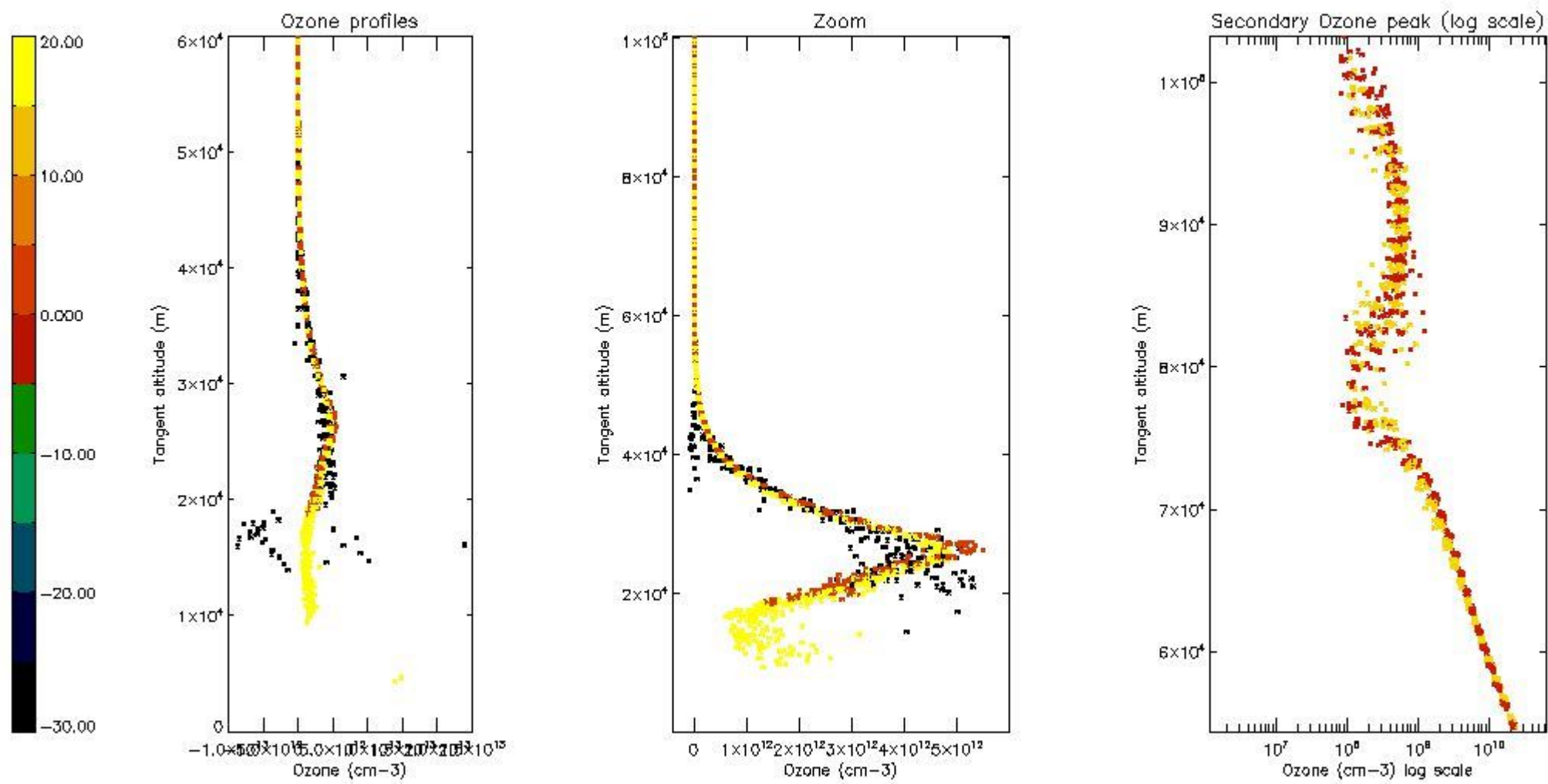
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



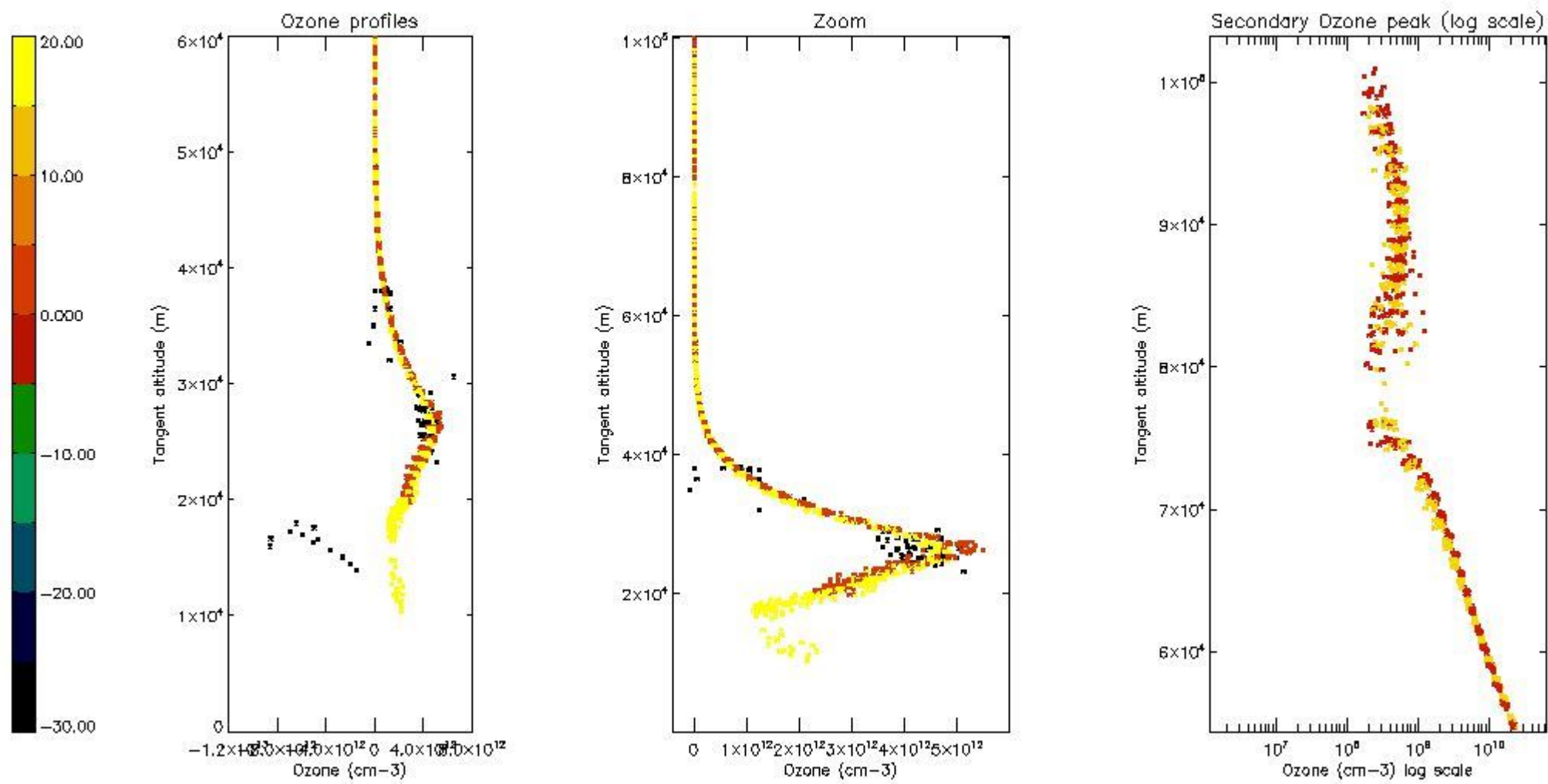
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



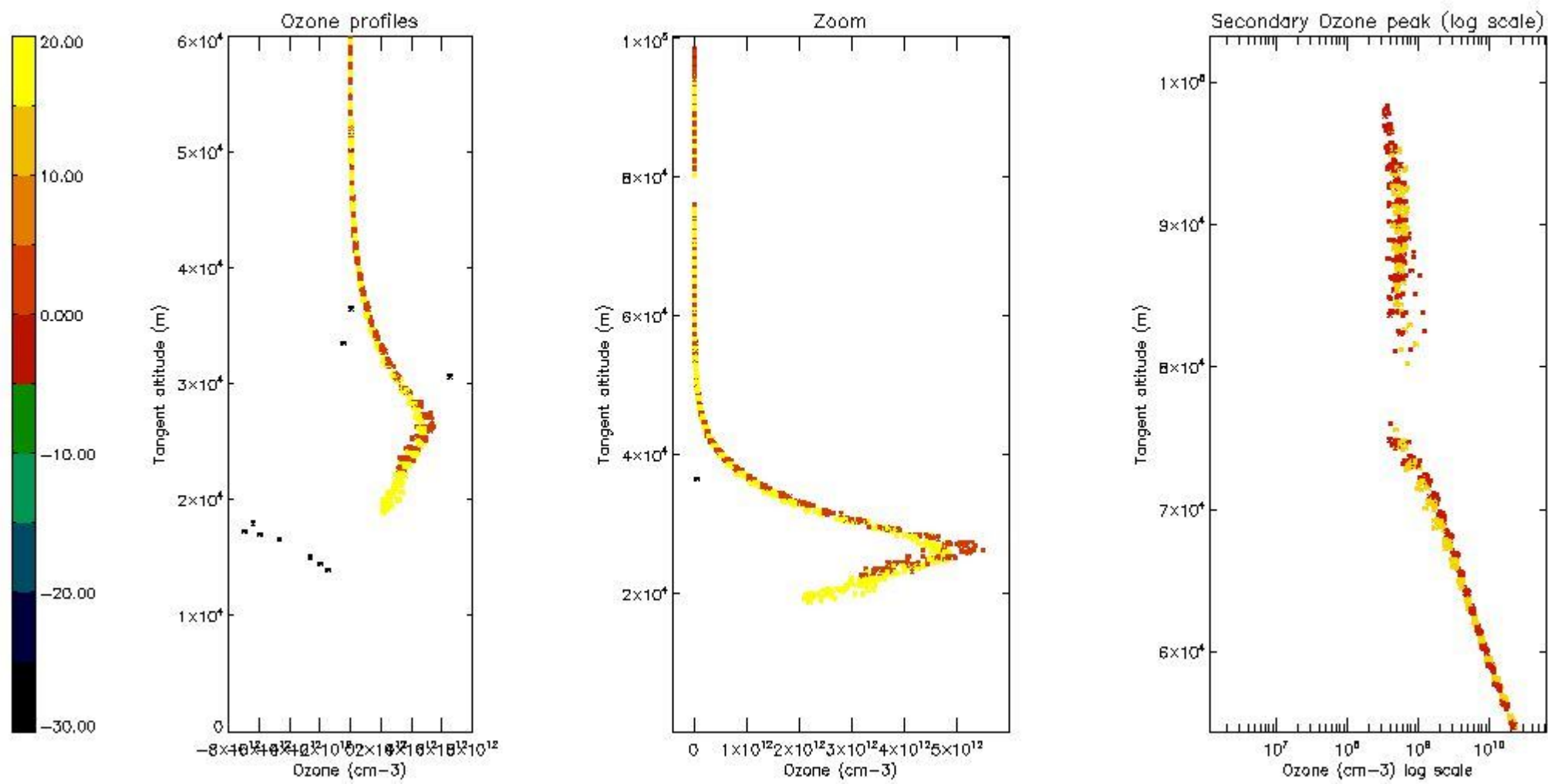
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



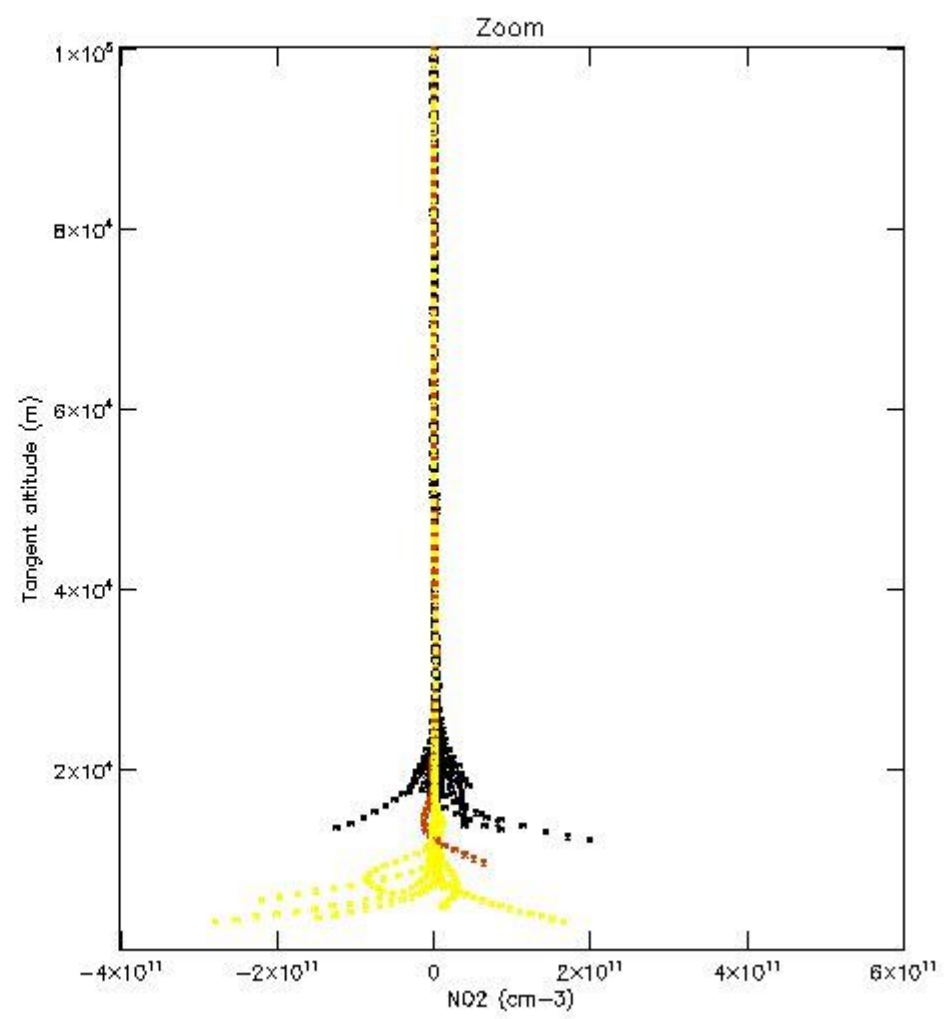
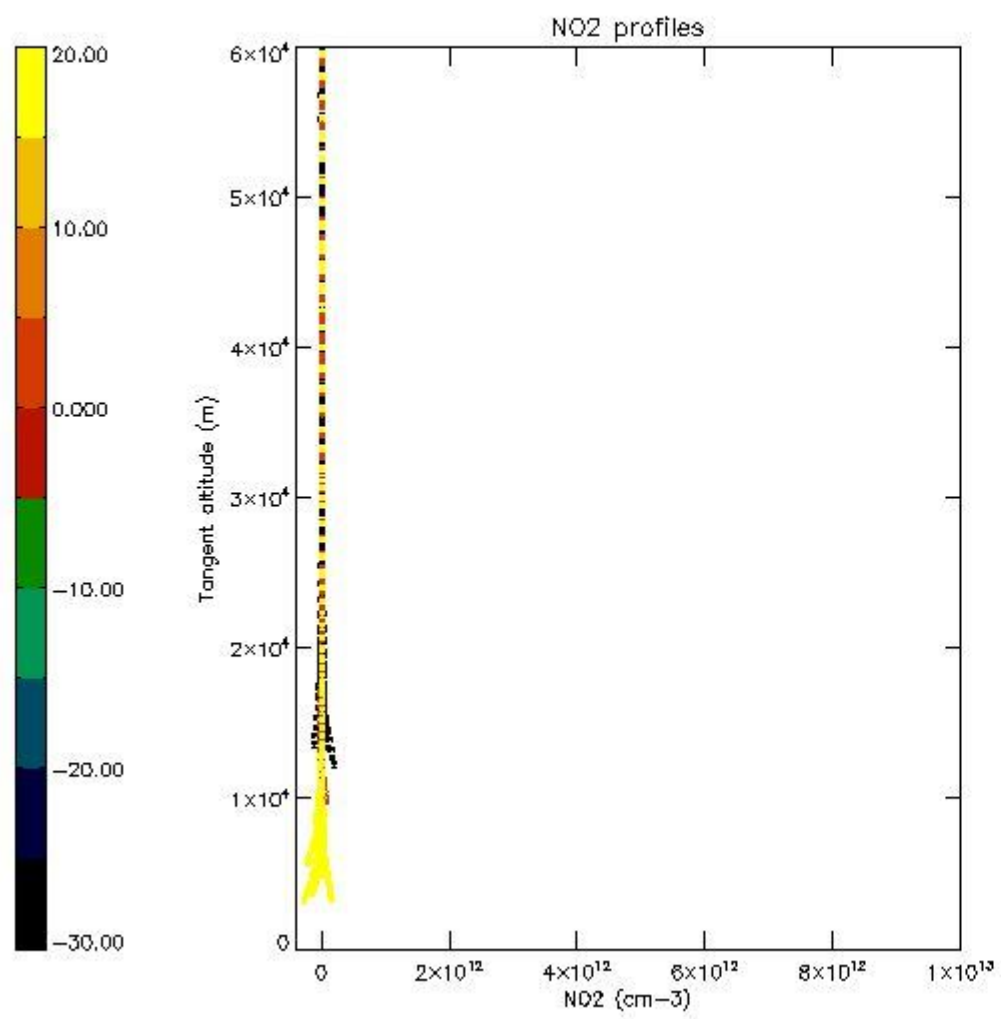
*5.5 Plot ozone profiles where  $STD < 5\%$  (dark without errors)*

The colorbar represents the latitude.



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

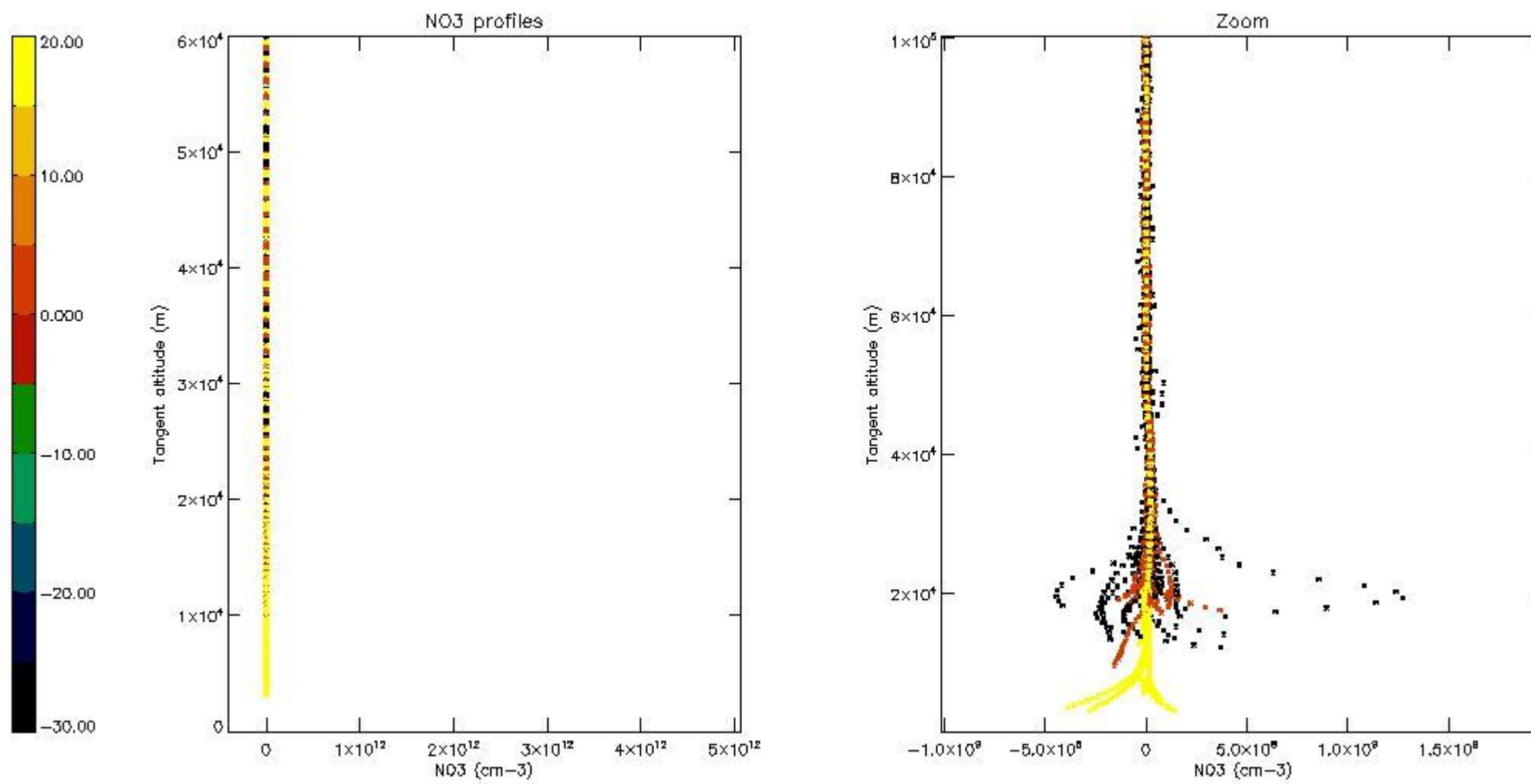
The colorbar represents the latitude.



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

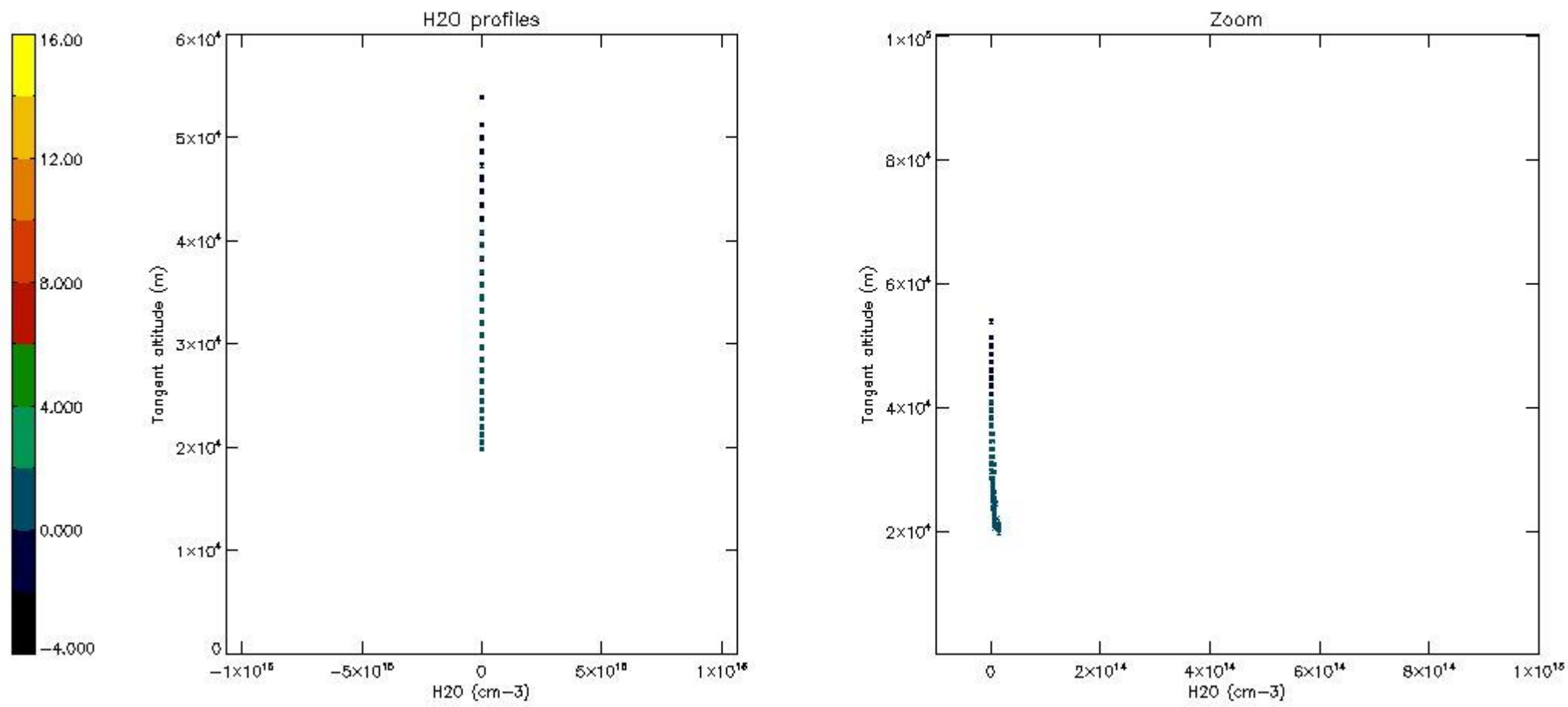
The colorbar represents the latitude.





*5.8 Plot 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	08-NOV-2007 00:02:08
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-NOV-2007 00:02:08
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-NOV-2007 00:02:08

# 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](#)





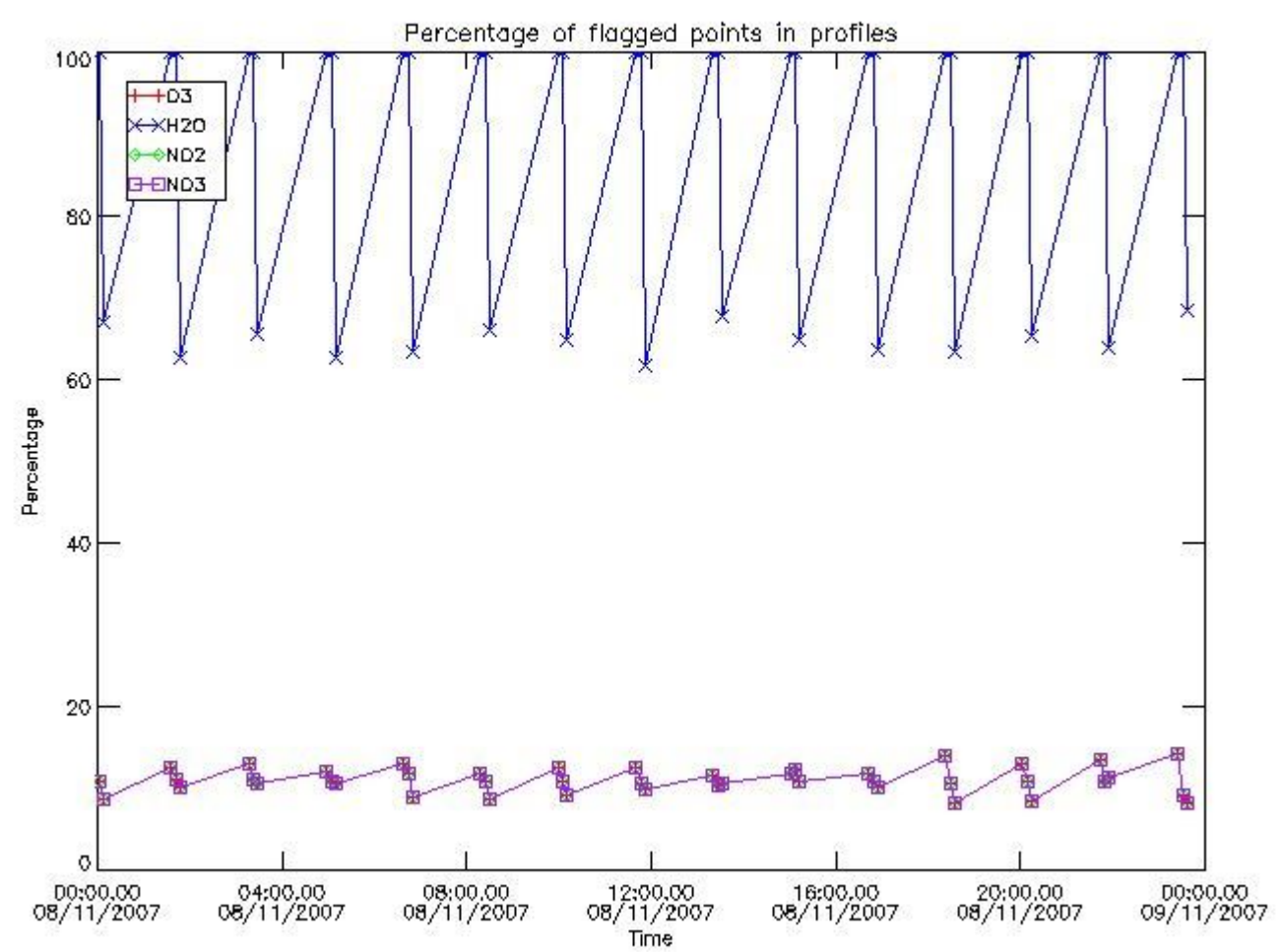


161	GOM_NL__2PRFIN20071108_193035_000000382063_00142_29755_0005.N1	08-NOV-2007 19:30:35	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	29755	No
162	GOM_NL__2PRFIN20071108_193426_000000422063_00142_29755_0006.N1	08-NOV-2007 19:34:26	Bright	41.500	174	52Psi UMa	3.0040	4400.0	83	29755	No
163	GOM_NL__2PRFIN20071108_194220_000000622063_00142_29755_0007.N1	08-NOV-2007 19:42:20	Bright	62.000	96	68Del Leo	2.5600	9300.0	124	29755	No
164	GOM_NL__2PRFIN20071108_200230_000000402063_00142_29755_0008.N1	08-NOV-2007 20:02:30	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	29755	No
165	GOM_NL__2PRFIN20071108_200931_000000472063_00143_29756_0004.N1	08-NOV-2007 20:09:31	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	29756	No
166	GOM_NL__2PRFIN20071108_201437_000000612063_00143_29756_0005.N1	08-NOV-2007 20:14:37	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	29756	No
167	GOM_NL__2PRFIN20071108_202407_000000392063_00143_29756_0006.N1	08-NOV-2007 20:24:07	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	29756	No
168	GOM_NL__2PRFIN20071108_203740_000000542063_00143_29756_0007.N1	08-NOV-2007 20:37:40	Twilight_and_stray	53.500	94	92Alp Cet	2.5260	3100.0	107	29756	No
169	GOM_NL__2PRFIN20071108_204217_000000382063_00143_29756_0008.N1	08-NOV-2007 20:42:17	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29756	No
170	GOM_NL__2PRFIN20071108_204628_000000362063_00143_29756_0009.N1	08-NOV-2007 20:46:28	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	29756	No
171	GOM_NL__2PRFIN20071108_204832_000000372063_00143_29756_0010.N1	08-NOV-2007 20:48:32	Bright	37.000	73	57Gam1And	2.2600	13100.	74	29756	No
172	GOM_NL__2PRFIN20071108_205242_000000402063_00143_29756_0011.N1	08-NOV-2007 20:52:42	Bright	39.500	160	23Gam Per	2.9300	4700.0	79	29756	No
173	GOM_NL__2PRFIN20071108_210136_000000362063_00143_29756_0012.N1	08-NOV-2007 21:01:36	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	29756	No
174	GOM_NL__2PRFIN20071108_210933_000000402063_00143_29756_0013.N1	08-NOV-2007 21:09:33	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	29756	No
175	GOM_NL__2PRFIN20071108_211111_000000582063_00143_29756_0014.N1	08-NOV-2007 21:11:11	Bright	58.000	82	48Bet UMa	2.3650	10600.	116	29756	No
176	GOM_NL__2PRFIN20071108_211502_000000412063_00143_29756_0015.N1	08-NOV-2007 21:15:02	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	29756	No
177	GOM_NL__2PRFIN20071108_212257_000000482063_00143_29756_0016.N1	08-NOV-2007 21:22:57	Bright	47.500	96	68Del Leo	2.5600	9300.0	95	29756	No
178	GOM_NL__2PRFIN20071108_214307_000000382063_00143_29756_0017.N1	08-NOV-2007 21:43:07	Dark	38.000	113	Mu Vel	2.6920	5000.0	76	29756	No
179	GOM_NL__2PRFIN20071108_215008_000000472063_00144_29757_0043.N1	08-NOV-2007 21:50:08	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	29757	No
180	GOM_NL__2PRFIN20071108_215514_000000492063_00144_29757_0044.N1	08-NOV-2007 21:55:14	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	29757	No
181	GOM_NL__2PRFIN20071108_220443_000000402063_00144_29757_0045.N1	08-NOV-2007 22:04:43	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	29757	No
182	GOM_NL__2PRFIN20071108_221816_000000522063_00144_29757_0046.N1	08-NOV-2007 22:18:16	Twilight_and_stray	51.500	94	92Alp Cet	2.5260	3100.0	103	29757	No
183	GOM_NL__2PRFIN20071108_222252_000000382063_00144_29757_0047.N1	08-NOV-2007 22:22:52	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29757	No
184	GOM_NL__2PRFIN20071108_222704_000000362063_00144_29757_0048.N1	08-NOV-2007 22:27:04	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	29757	No
185	GOM_NL__2PRFIN20071108_222907_000000392063_00144_29757_0049.N1	08-NOV-2007 22:29:07	Bright	38.500	73	57Gam1And	2.2600	13100.	77	29757	No
186	GOM_NL__2PRFIN20071108_223317_000000392063_00144_29757_0050.N1	08-NOV-2007 22:33:17	Bright	38.500	160	23Gam Per	2.9300	4700.0	77	29757	No
187	GOM_NL__2PRFIN20071108_224212_000000362063_00144_29757_0051.N1	08-NOV-2007 22:42:12	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	29757	No
188	GOM_NL__2PRFIN20071108_225009_000000402063_00144_29757_0052.N1	08-NOV-2007 22:50:09	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	29757	No
189	GOM_NL__2PRFIN20071108_225147_000000412063_00144_29757_0053.N1	08-NOV-2007 22:51:47	Bright	40.500	82	48Bet UMa	2.3650	10600.	81	29757	No
190	GOM_NL__2PRFIN20071108_225538_000000402063_00144_29757_0054.N1	08-NOV-2007 22:55:38	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	29757	No
191	GOM_NL__2PRFIN20071108_230333_000000402063_00144_29757_0055.N1	08-NOV-2007 23:03:33	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	29757	No
192	GOM_NL__2PRFIN20071108_232343_000000402063_00144_29757_0056.N1	08-NOV-2007 23:23:43	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	29757	No
193	GOM_NL__2PRFIN20071108_233044_000000562063_00145_29758_0054.N1	08-NOV-2007 23:30:44	Dark	56.000	34	Gam2Vel	1.7930	23000.	112	29758	No
194	GOM_NL__2PRFIN20071108_233550_000000622063_00145_29758_0055.N1	08-NOV-2007 23:35:50	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	29758	No
195	GOM_NL__2PRFIN20071108_234520_000000392063_00145_29758_0056.N1	08-NOV-2007 23:45:20	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	29758	No
196	GOM_NL__2PRFIN20071108_235852_000000532063_00145_29758_0057.N1	08-NOV-2007 23:58:52	Twilight_and_stray	53.000	94	92Alp Cet	2.5260	3100.0	106	29758	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.

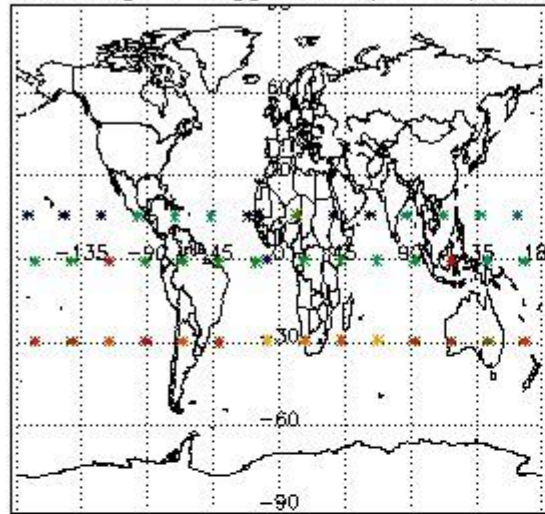
#### 3.1 Plot quality information per product (time dependant)



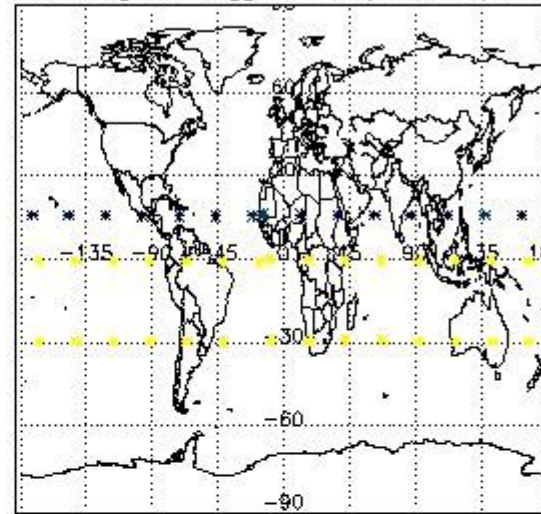
3.2 Plot quality information per product (world map)



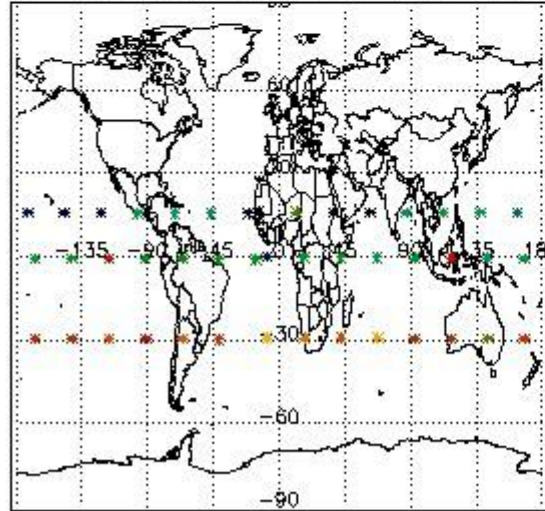
Percentage of flagged data per O3 profile



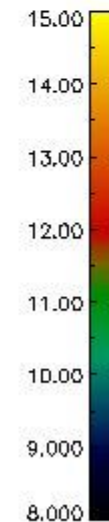
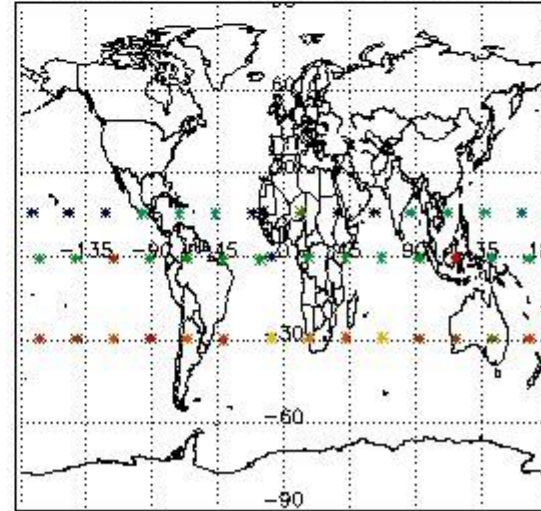
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

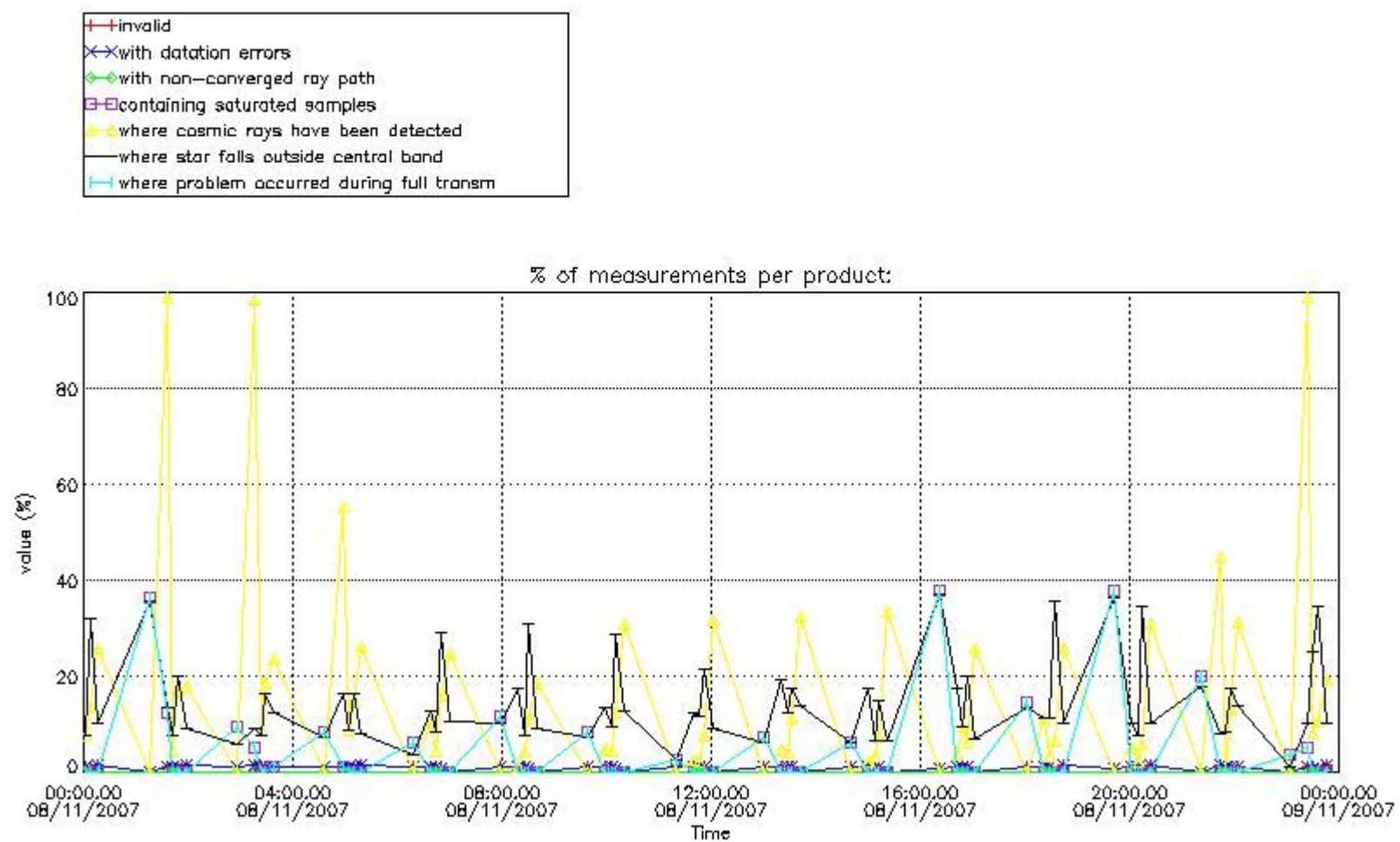


#### 4. Level 1 quality information per product

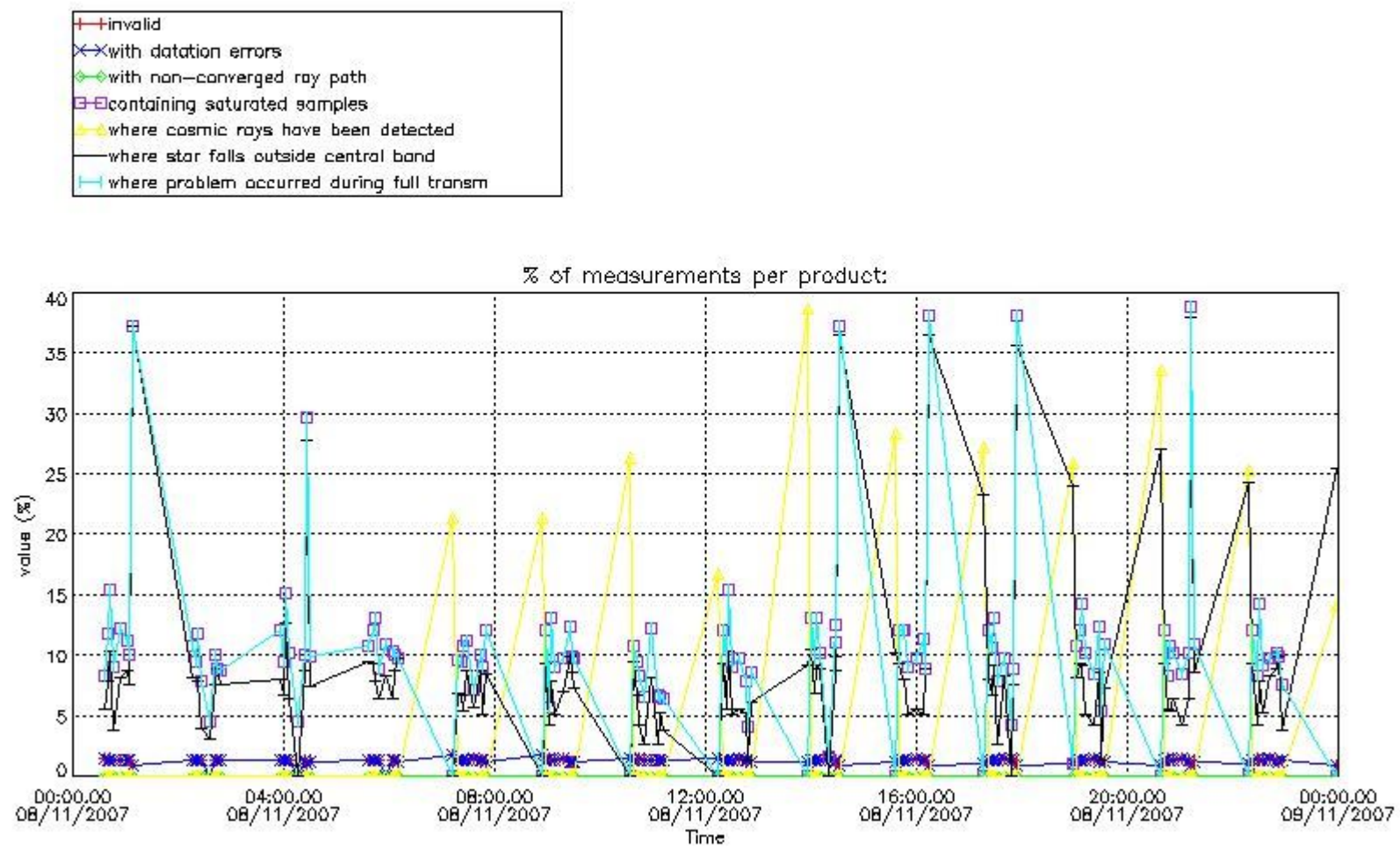
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

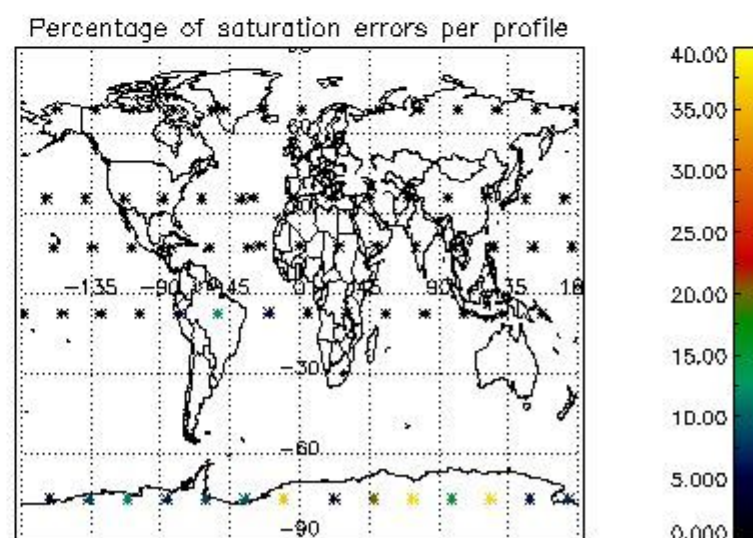
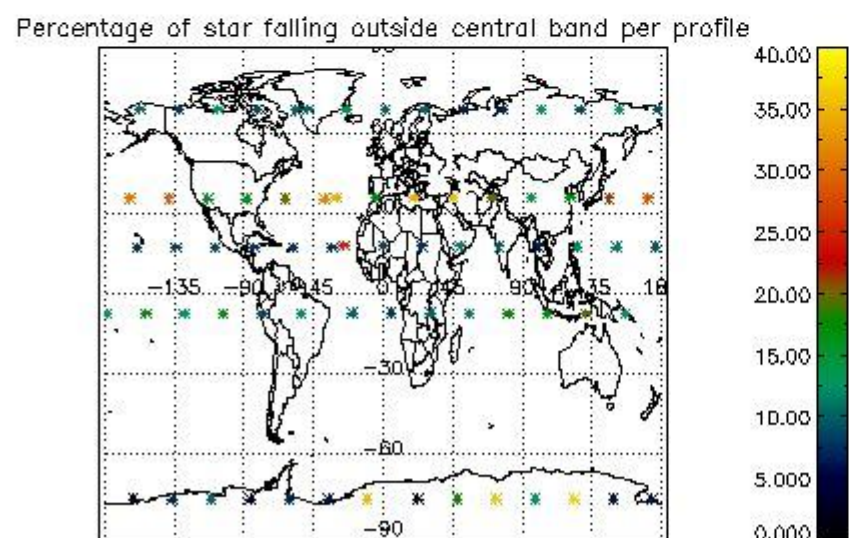
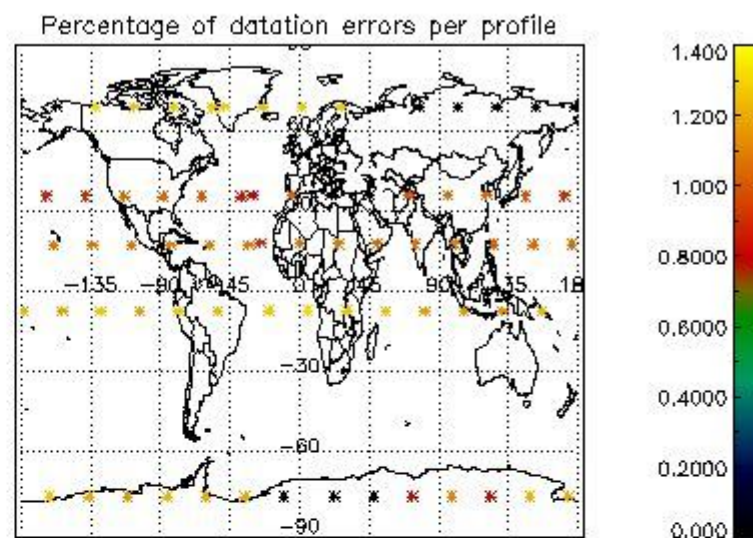
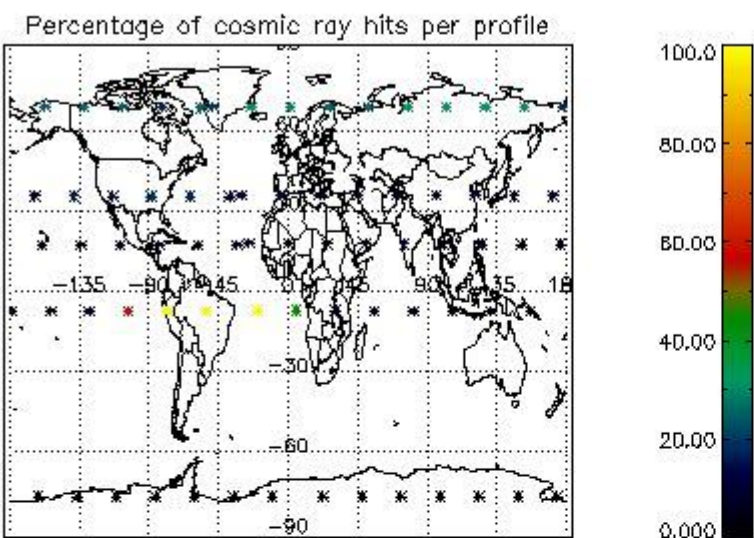


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

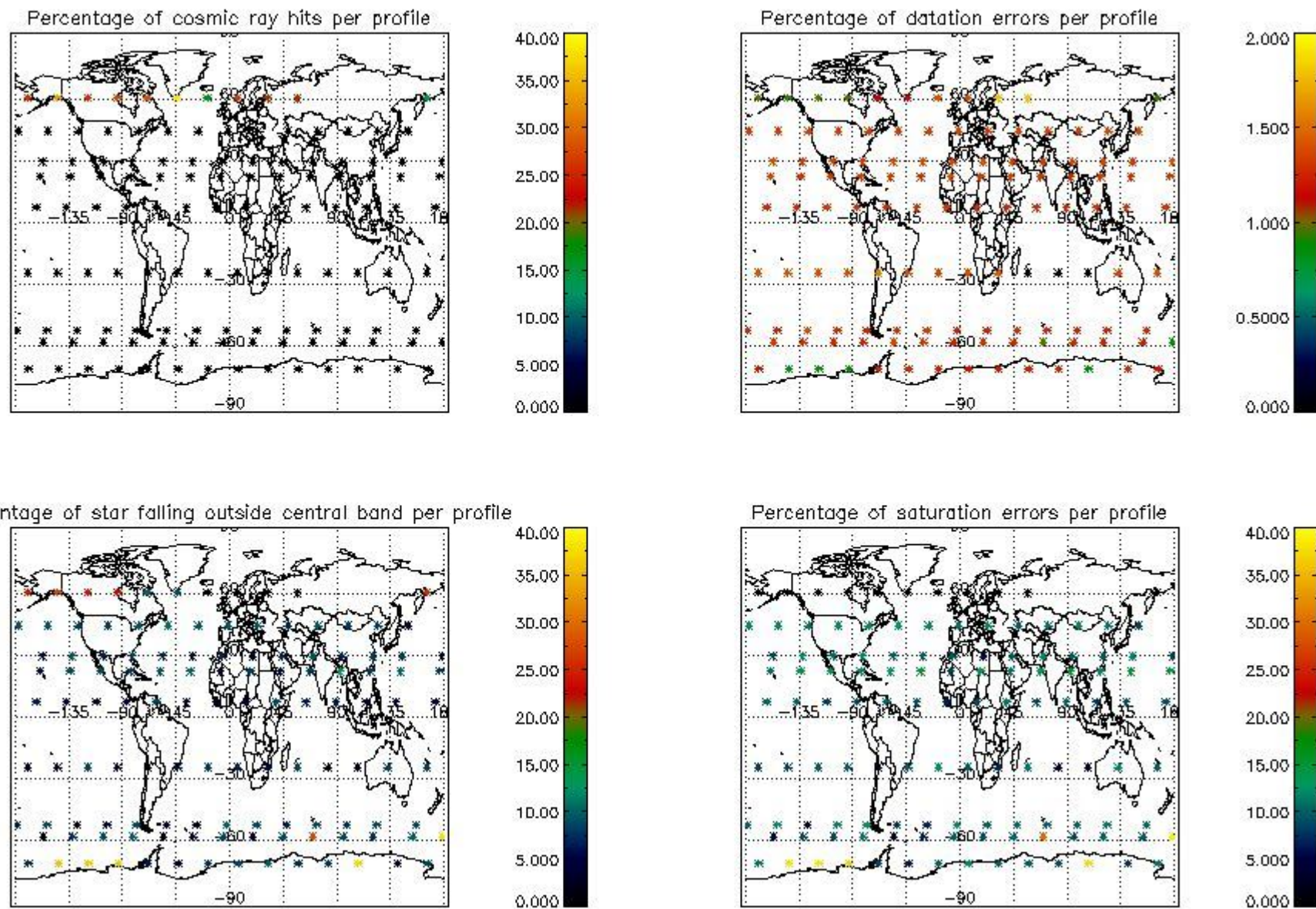


#### 4.2 Plot quality information per product coming from level 1b processing (world map)

##### 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

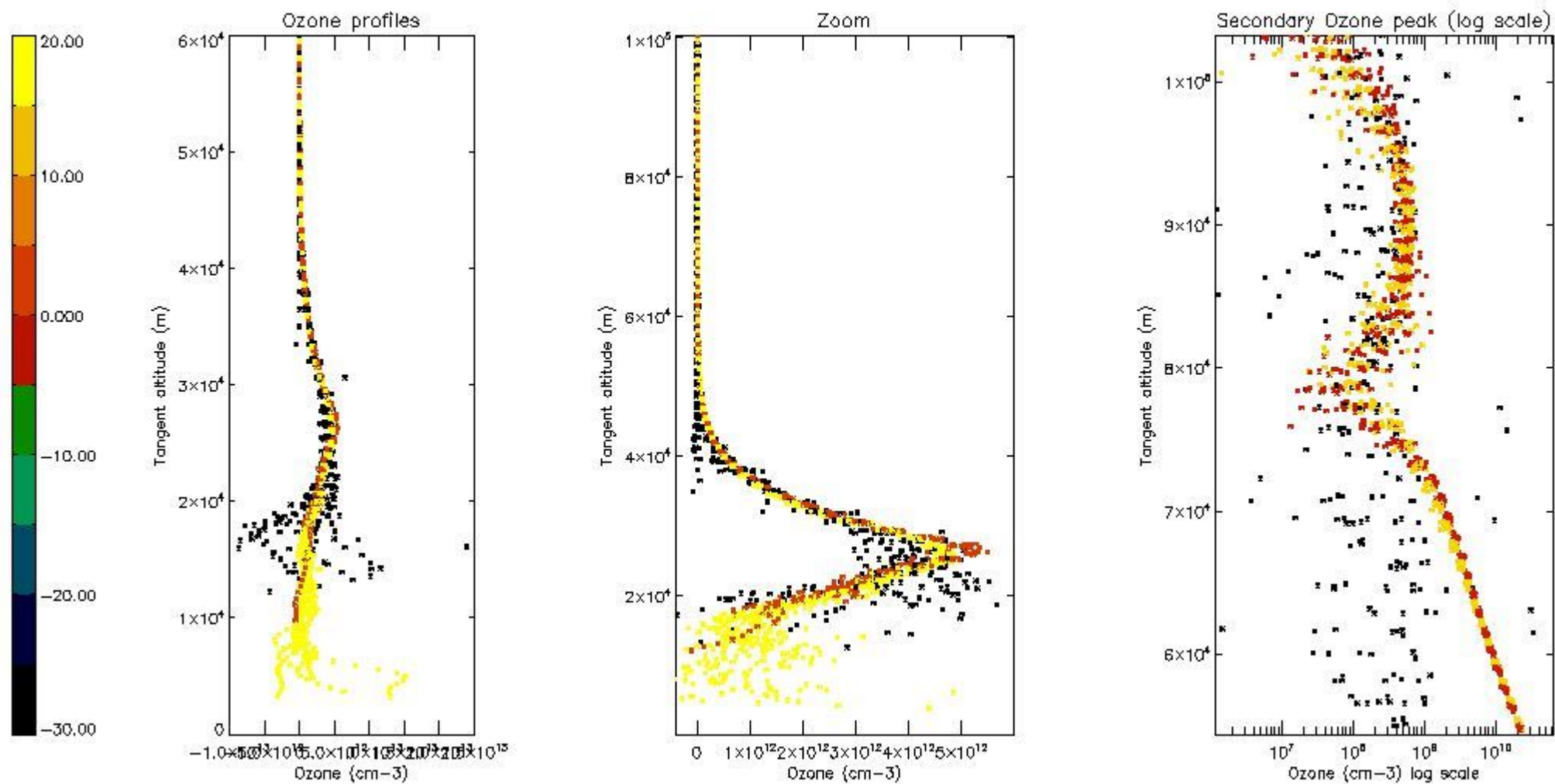
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	27
STD < 20	16

STD < 10	14
STD < 5	11

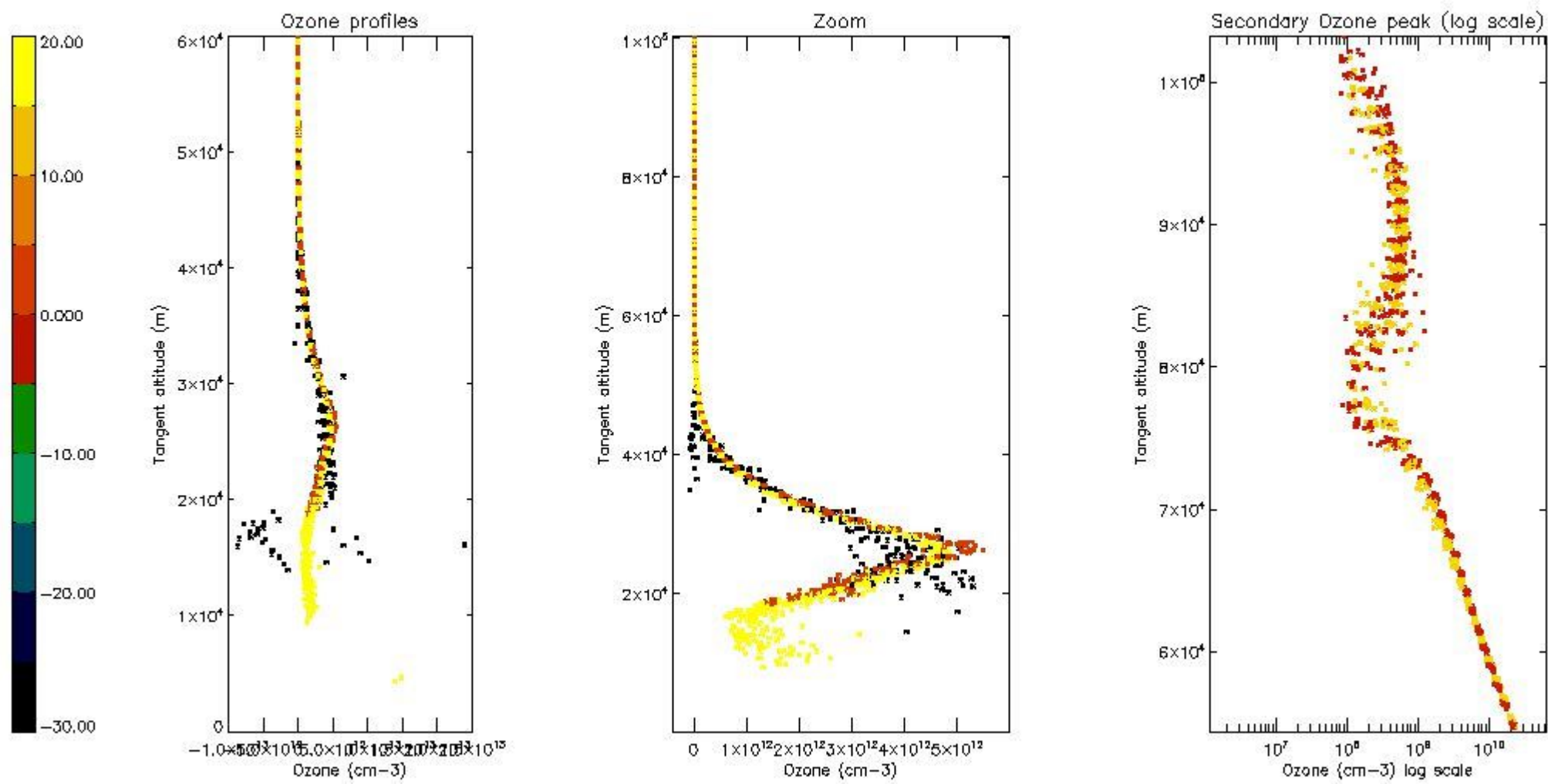
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



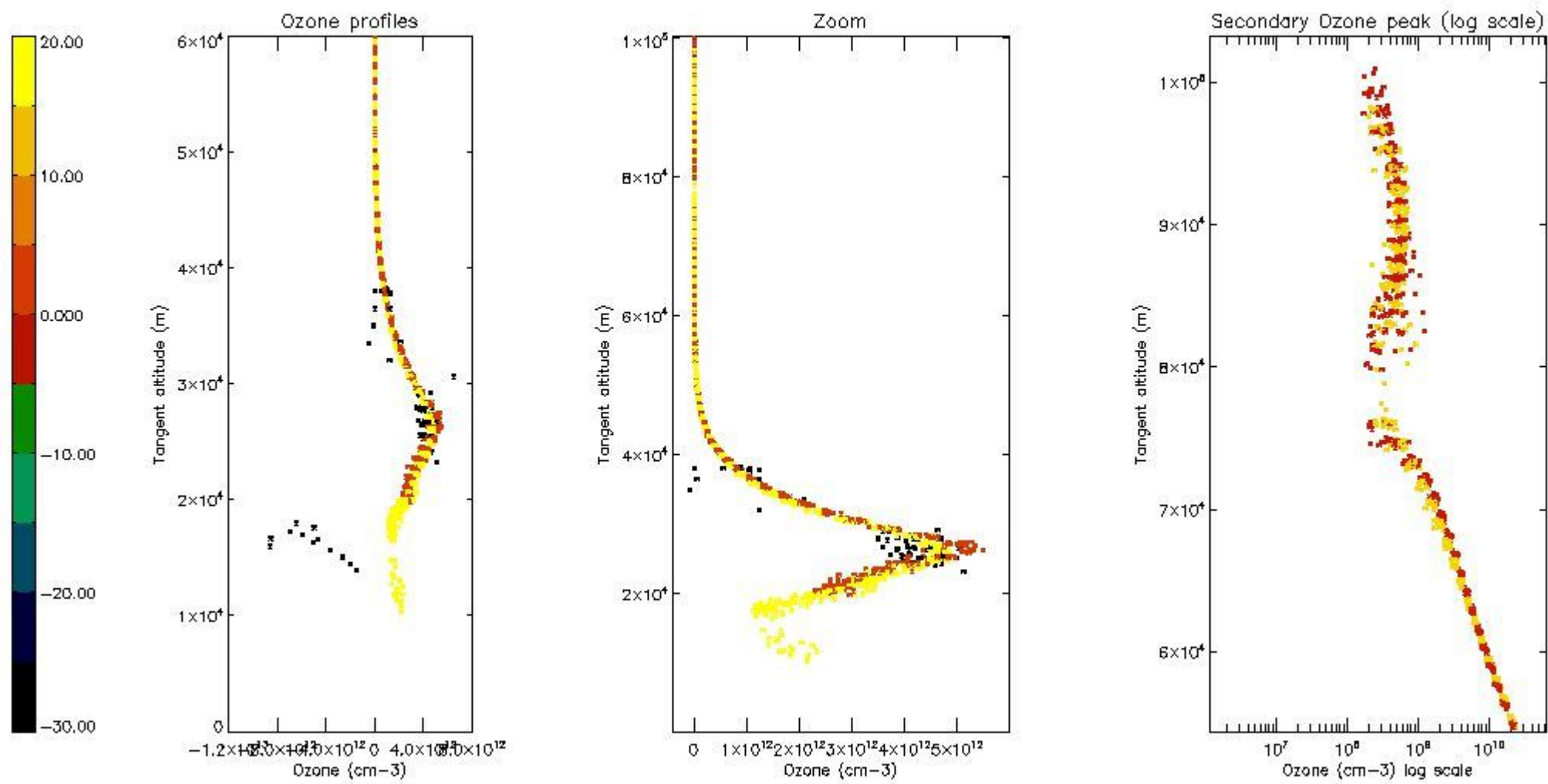
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

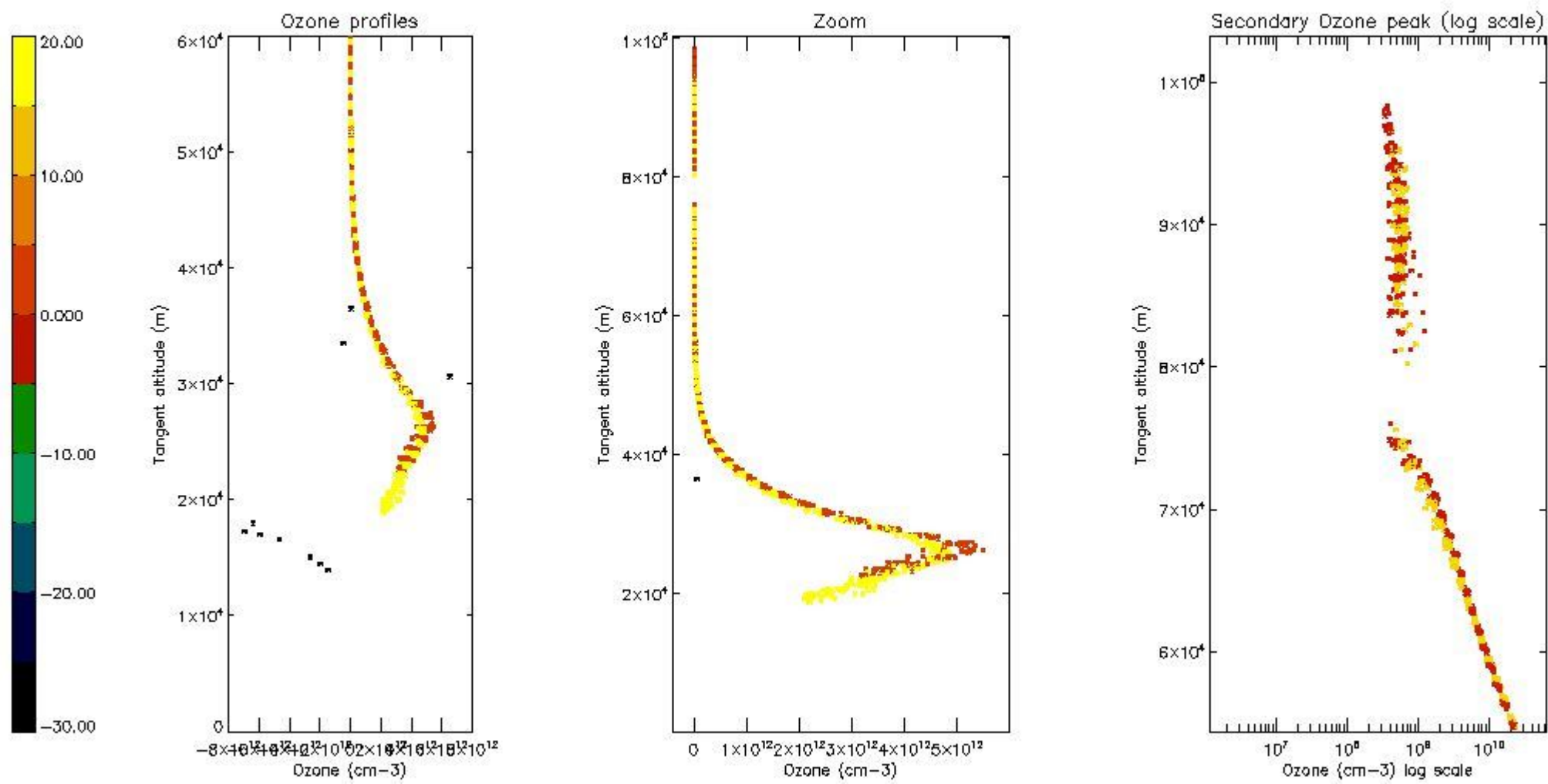
The colorbar represents the latitude.



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

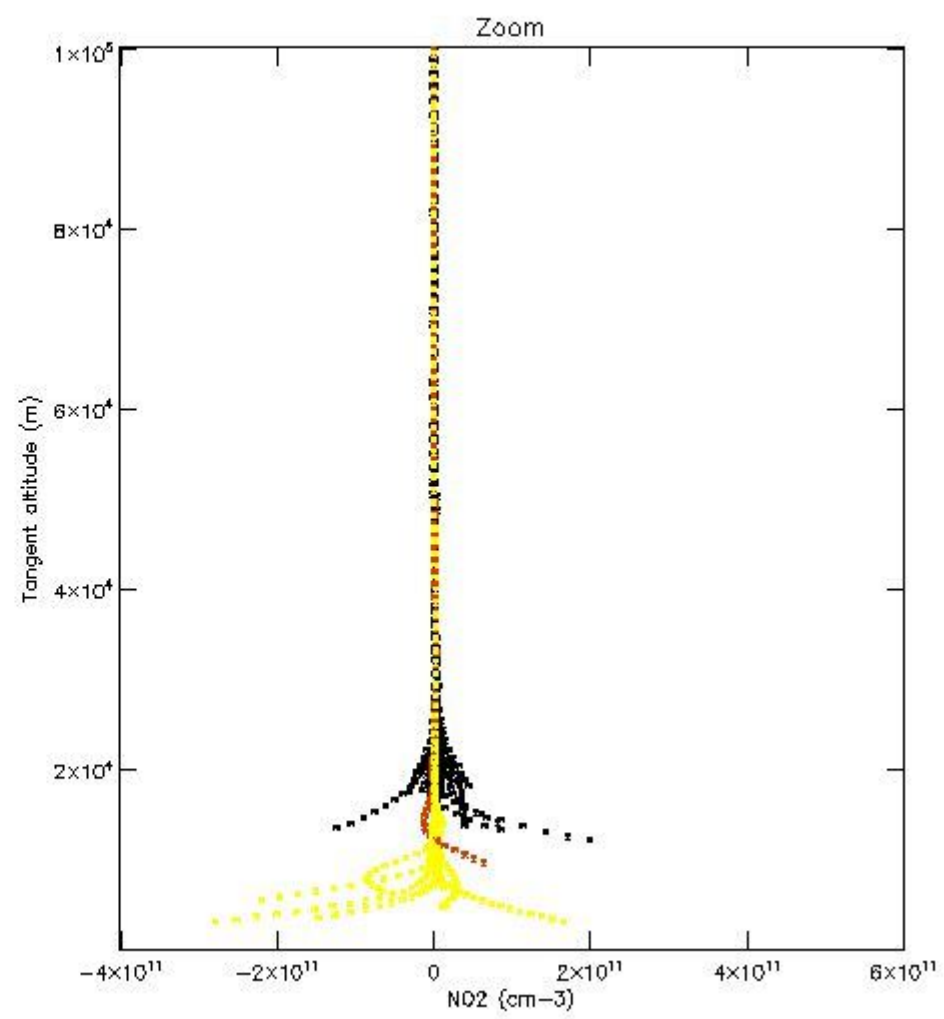
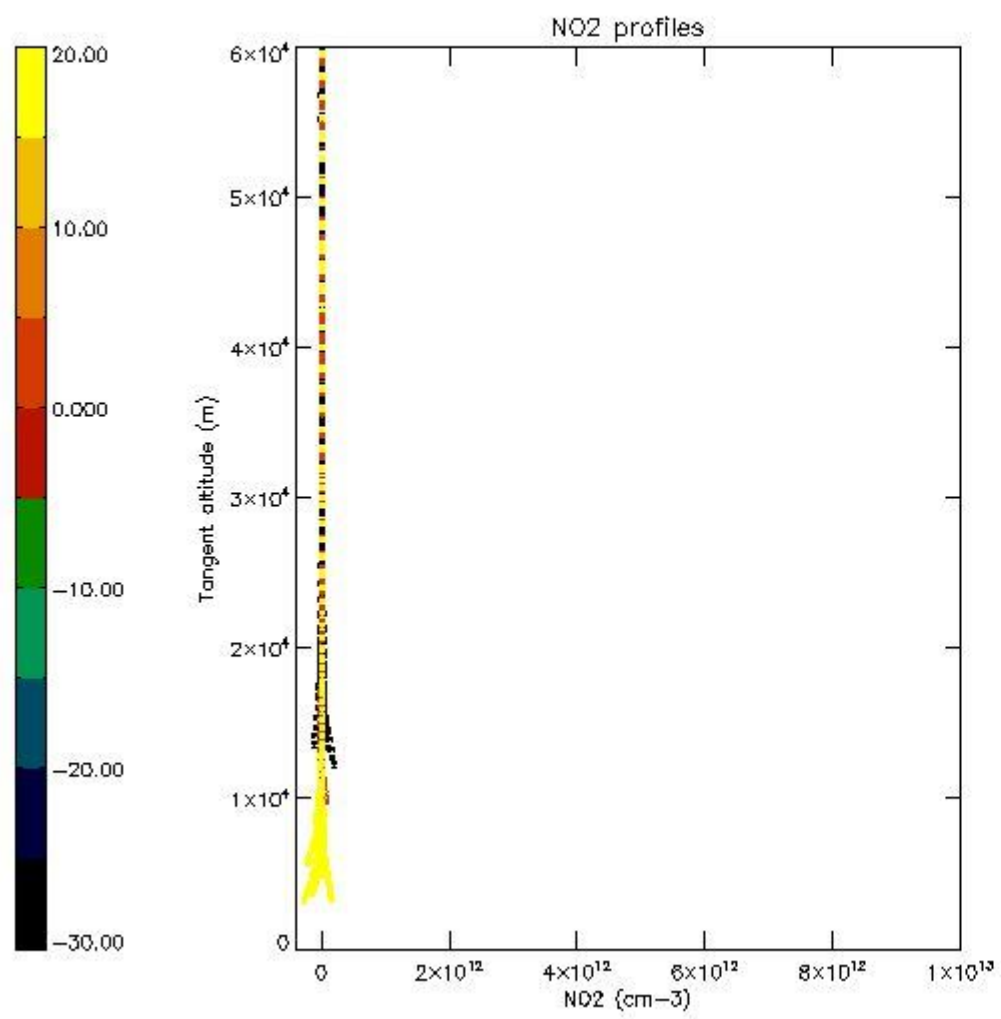
The colorbar represents the latitude.





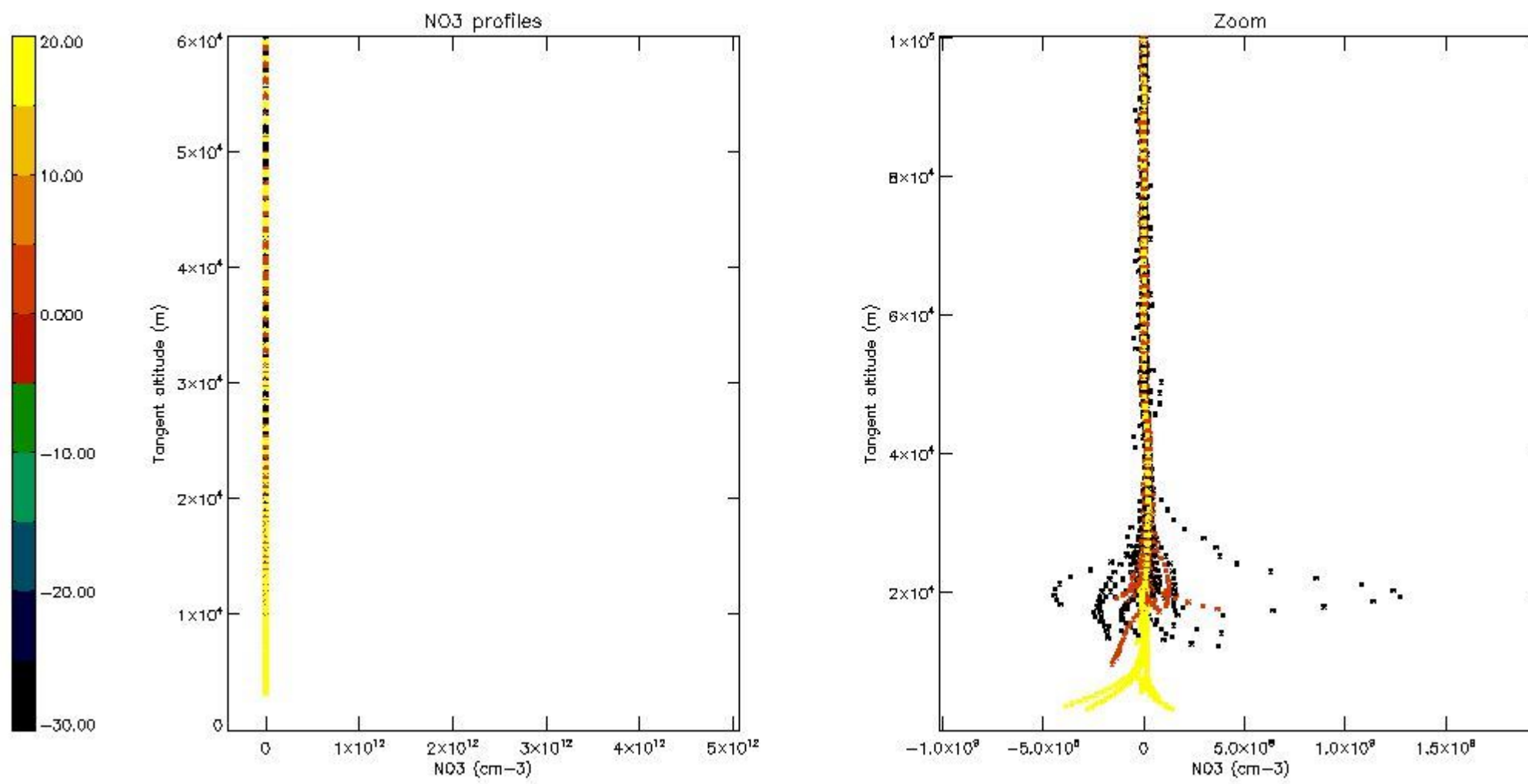
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



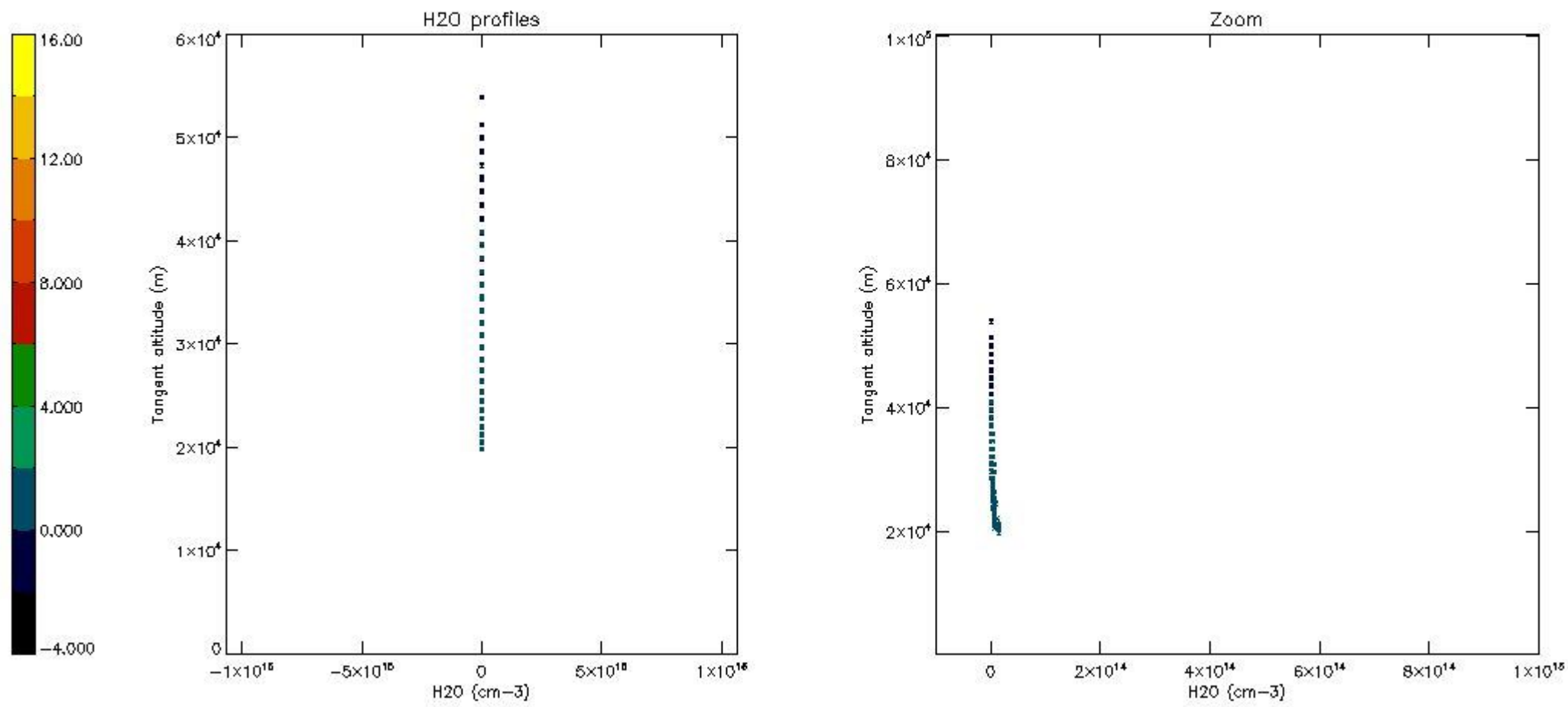
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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)

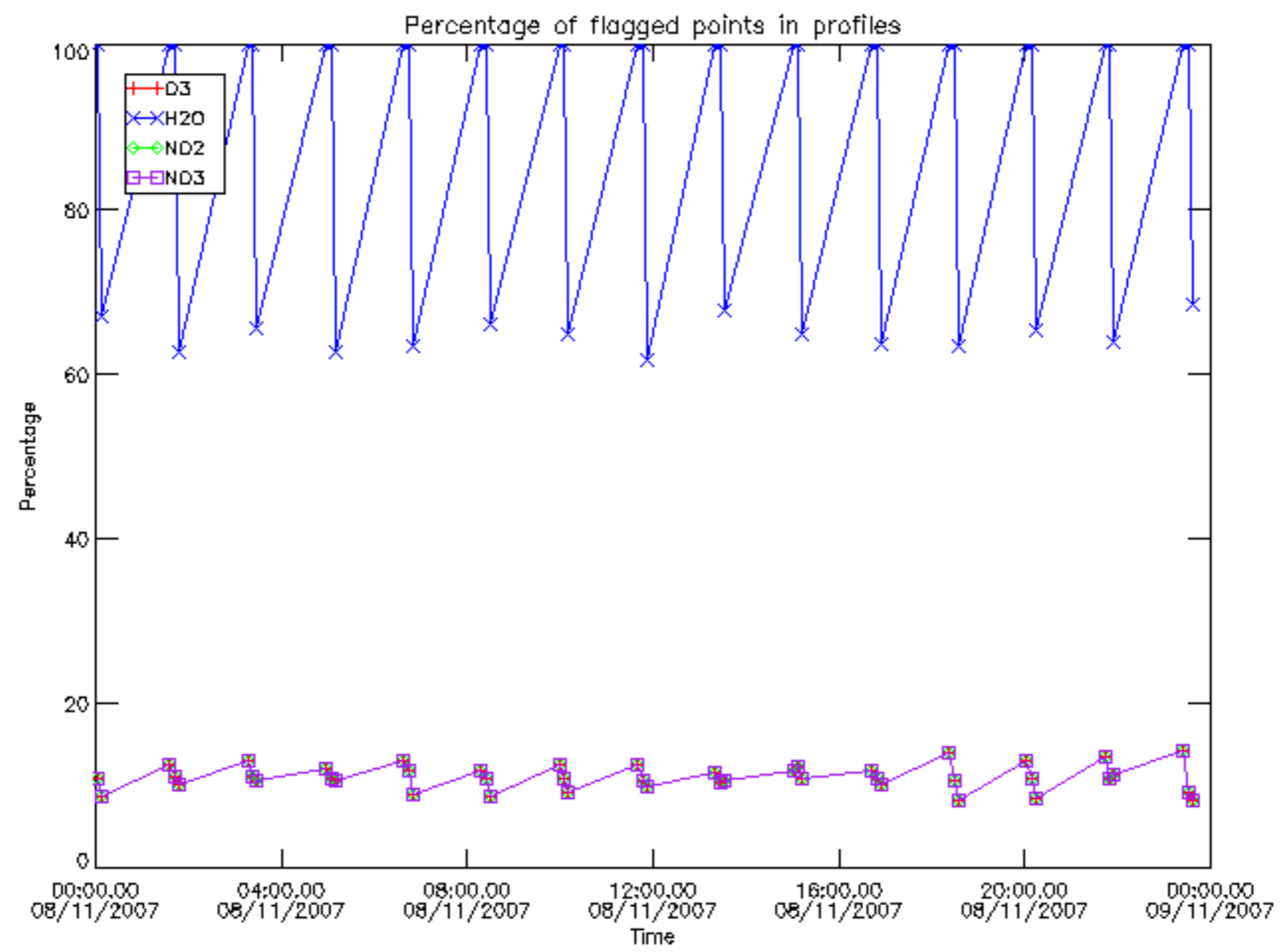
The colorbar represents the latitude.



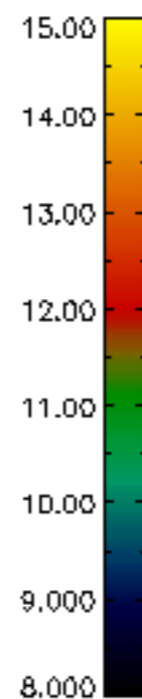
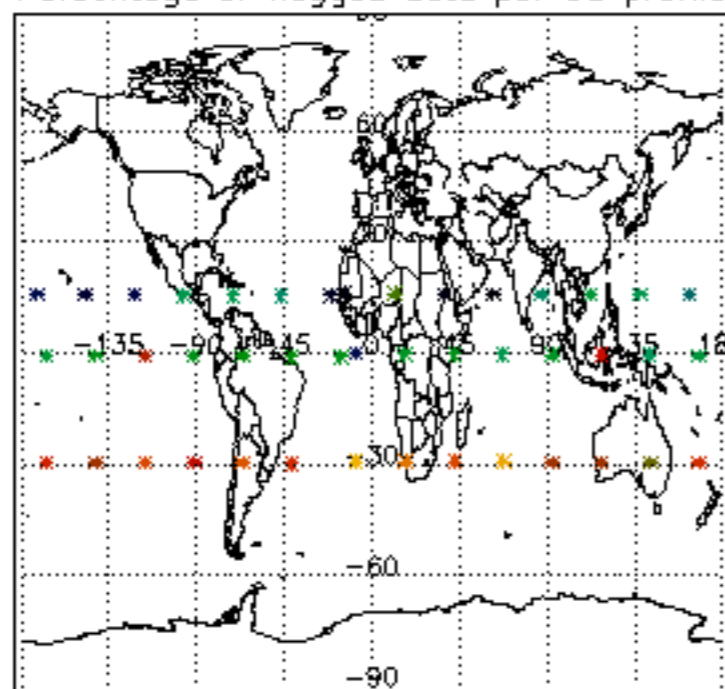
## 6. Auxiliary Data Files used for the production reported in section 2

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.

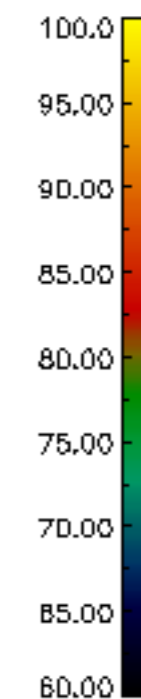
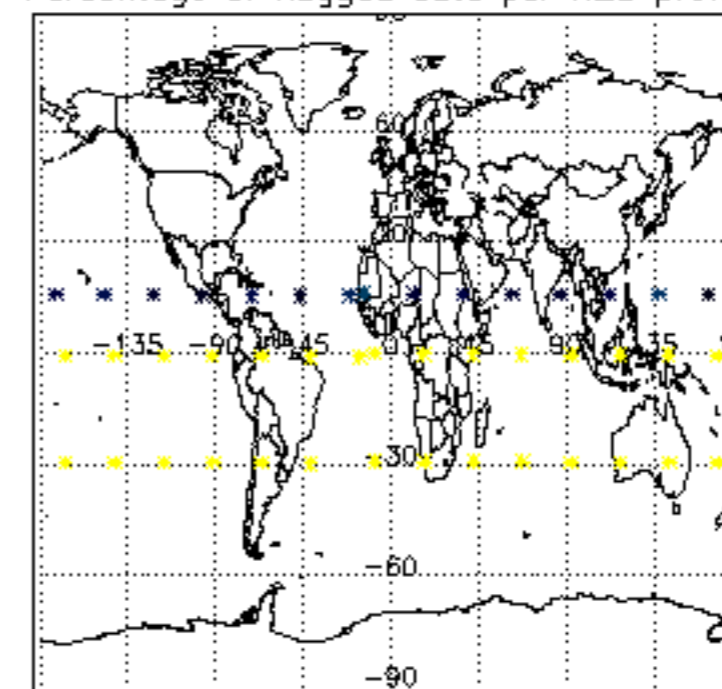
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LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-NOV-2007 00:02:08
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-NOV-2007 00:02:08



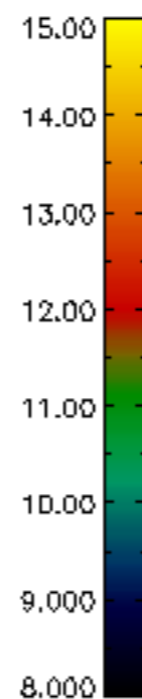
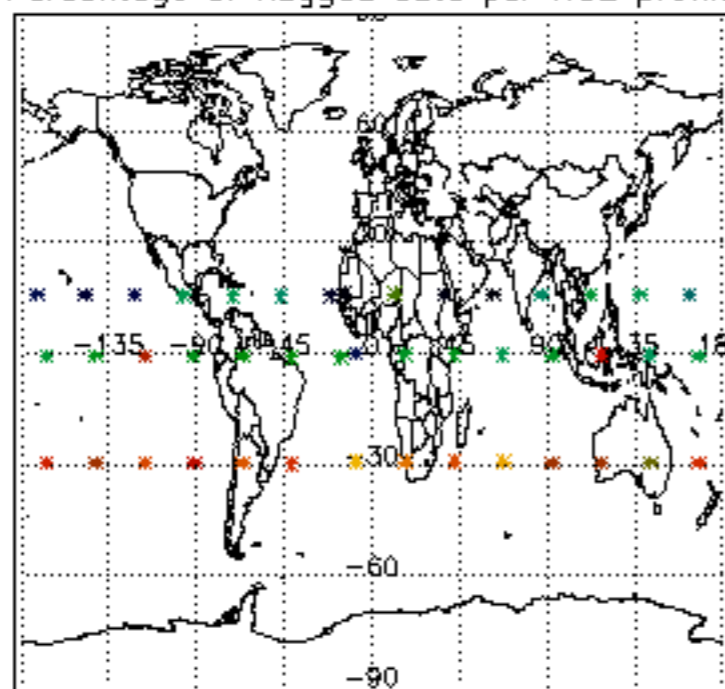
Percentage of flagged data per D3 profile



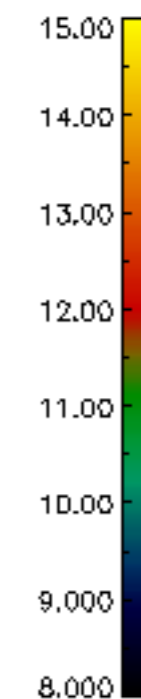
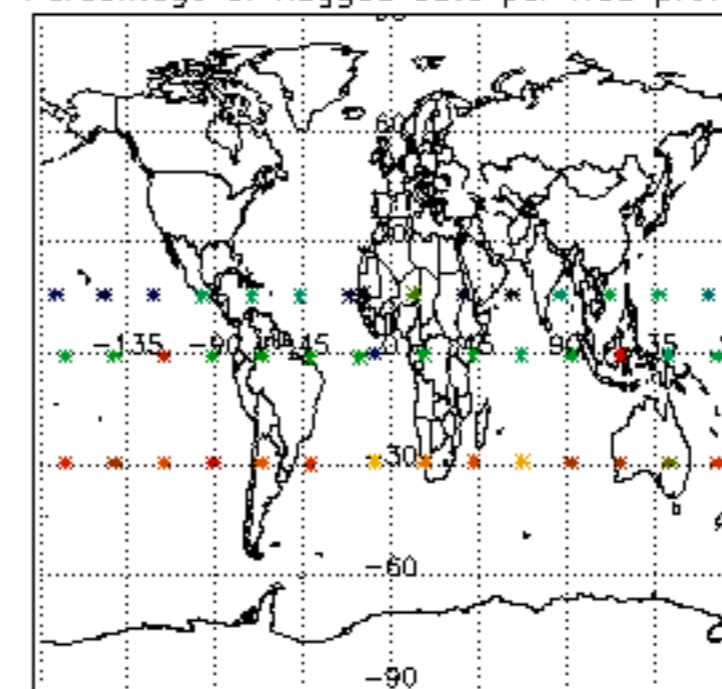
Percentage of flagged data per H2O profile

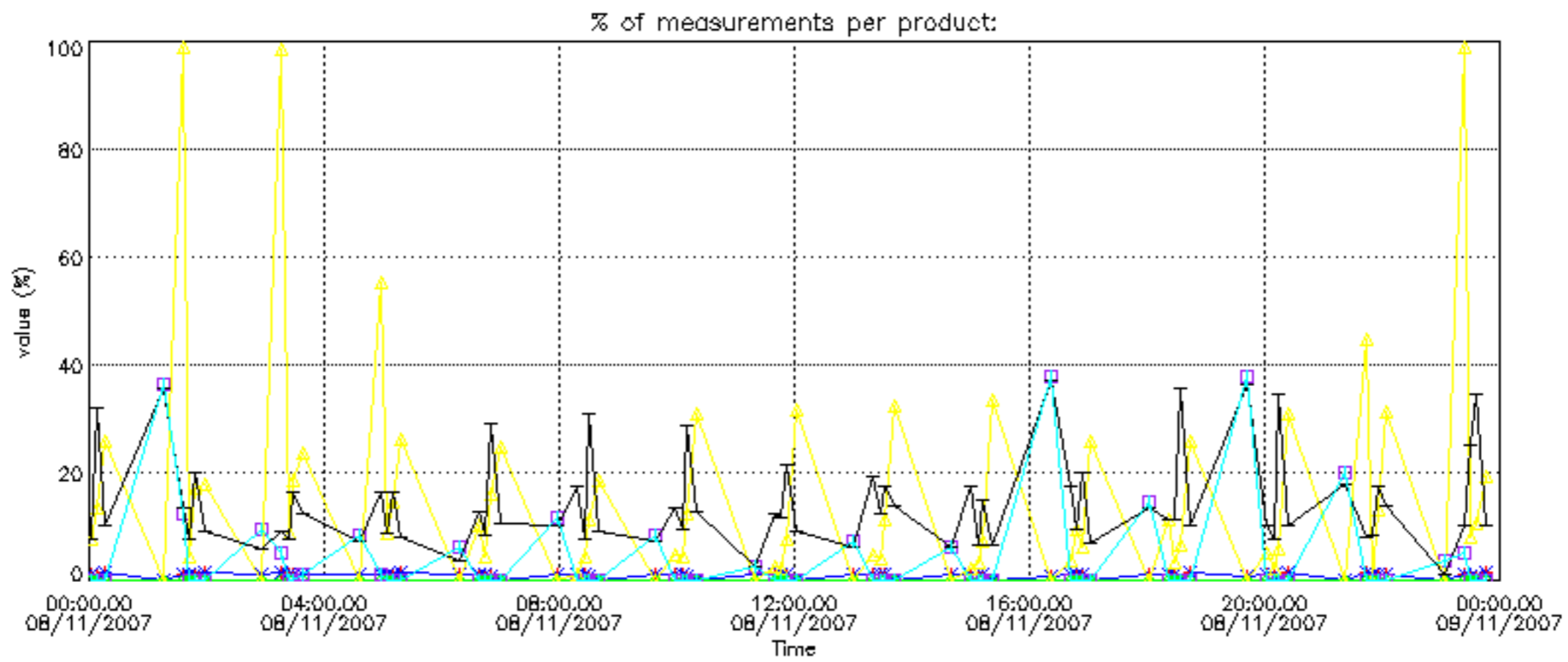


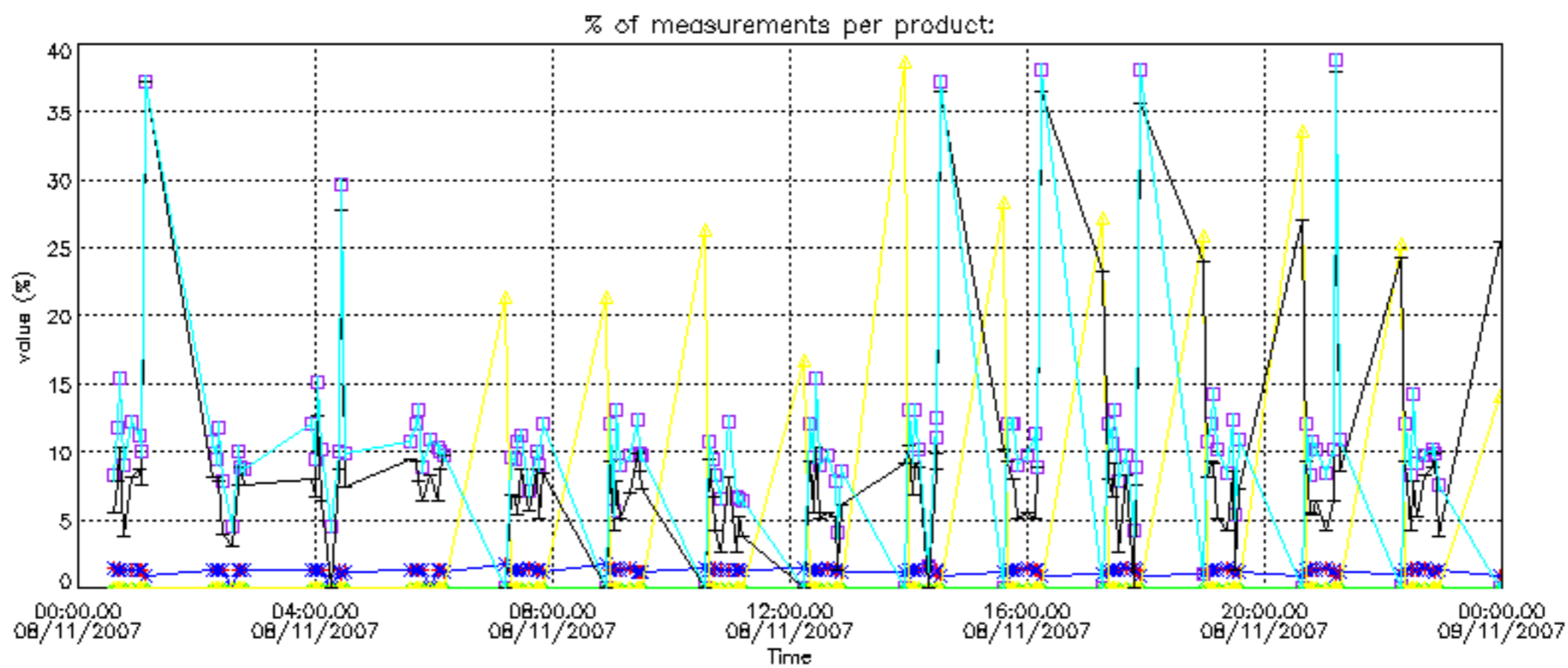
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

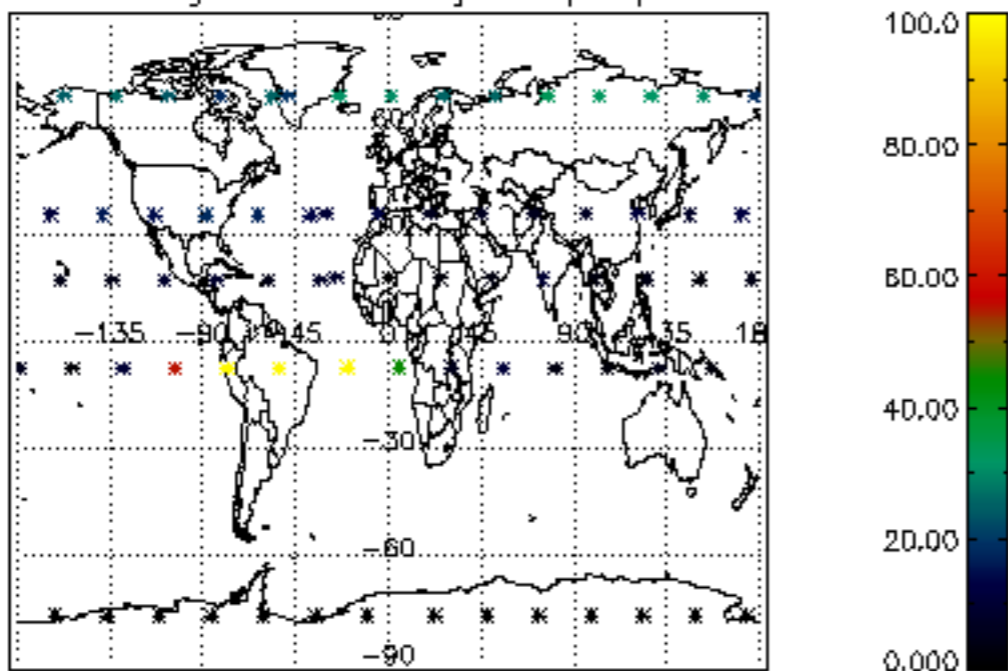




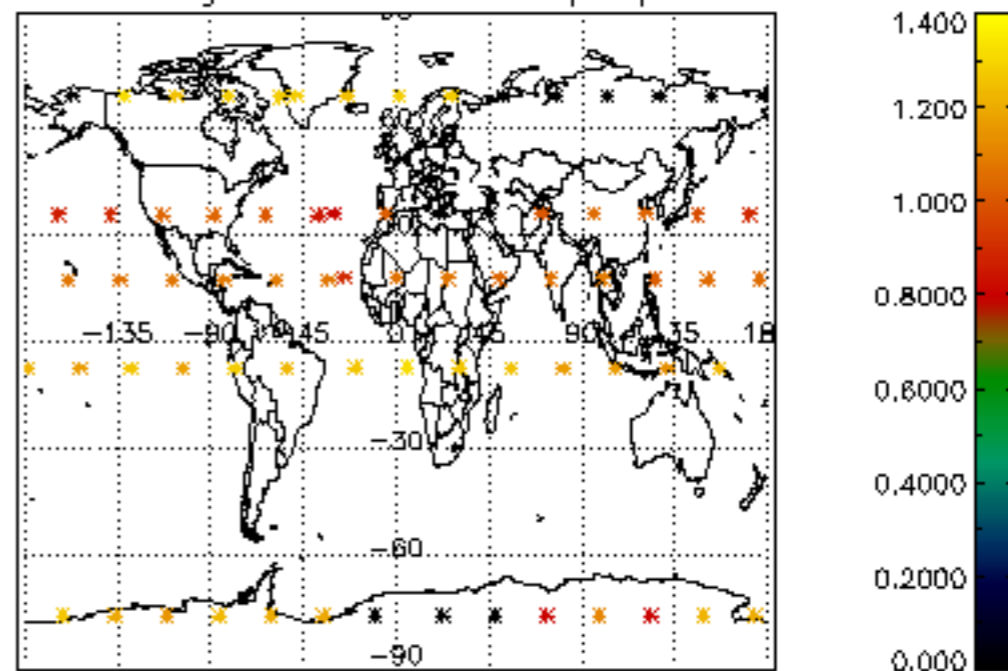




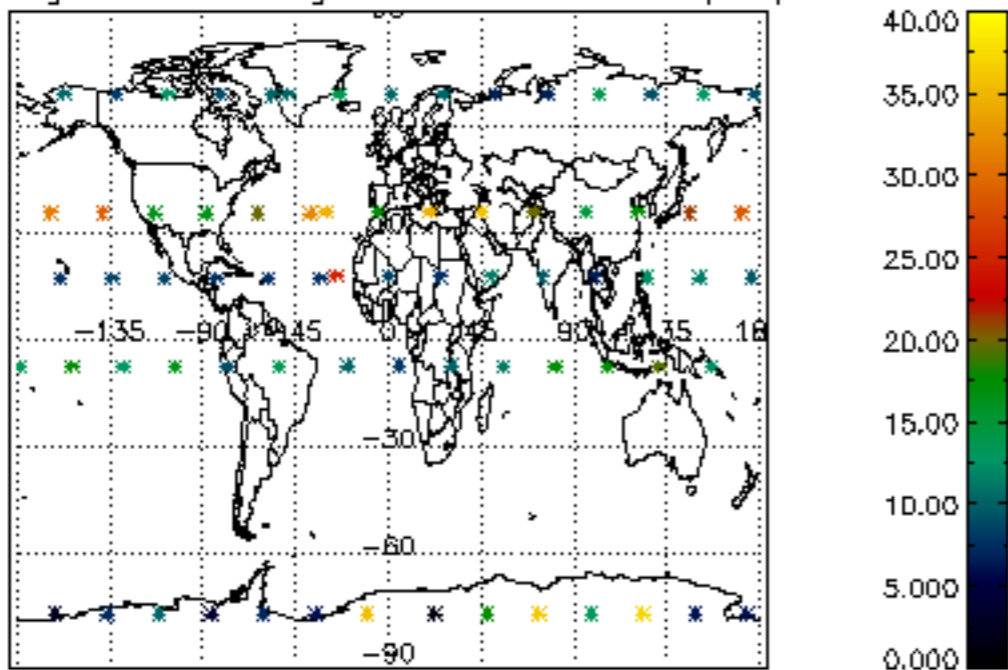
Percentage of cosmic ray hits per profile



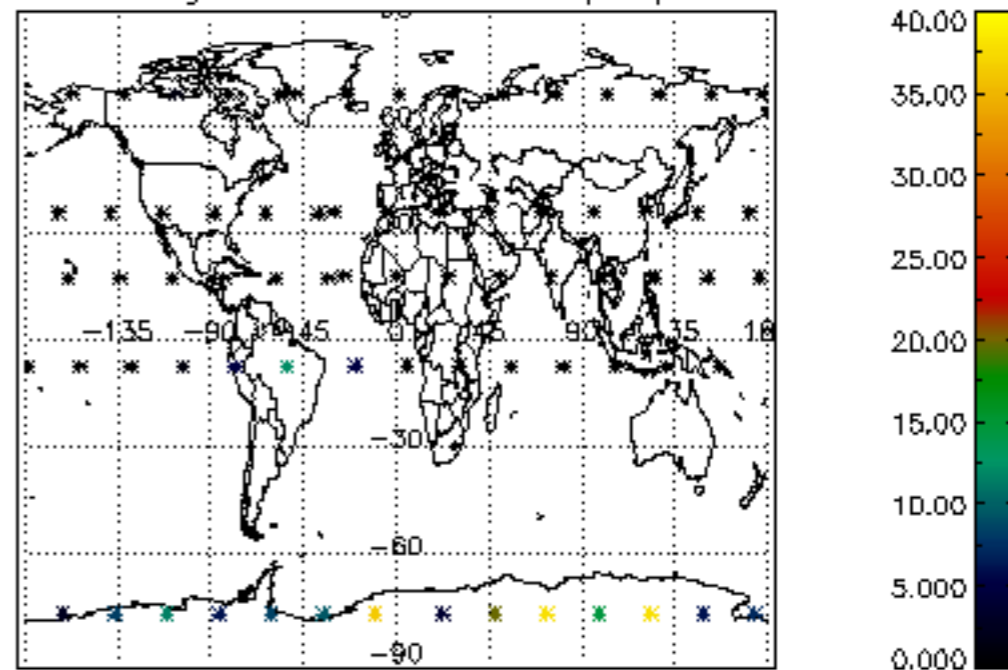
Percentage of datation errors per profile



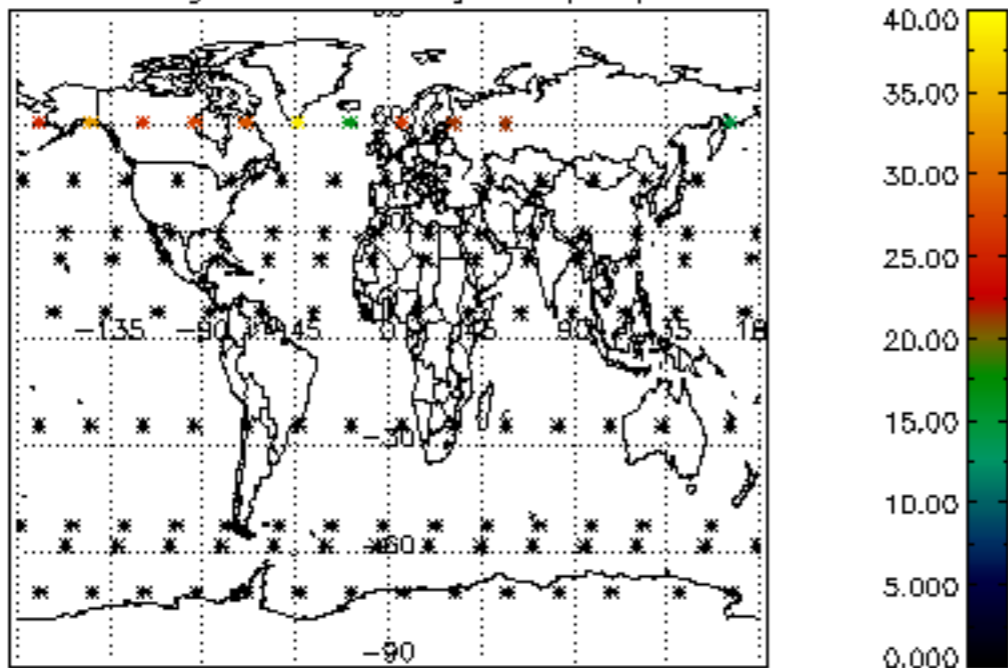
Percentage of star falling outside central band per profile



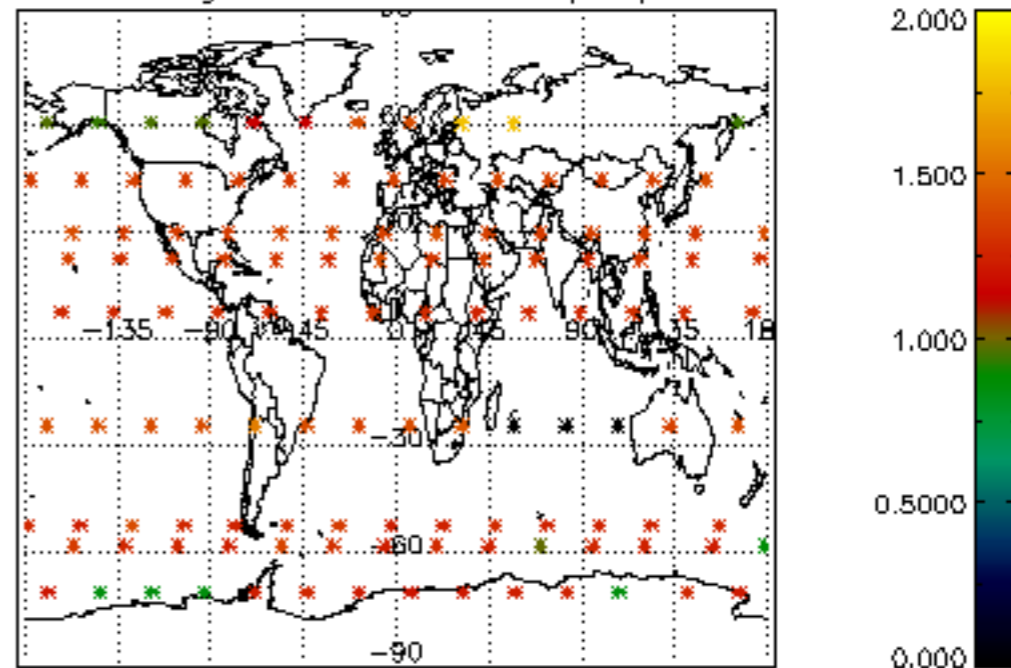
Percentage of saturation errors per profile



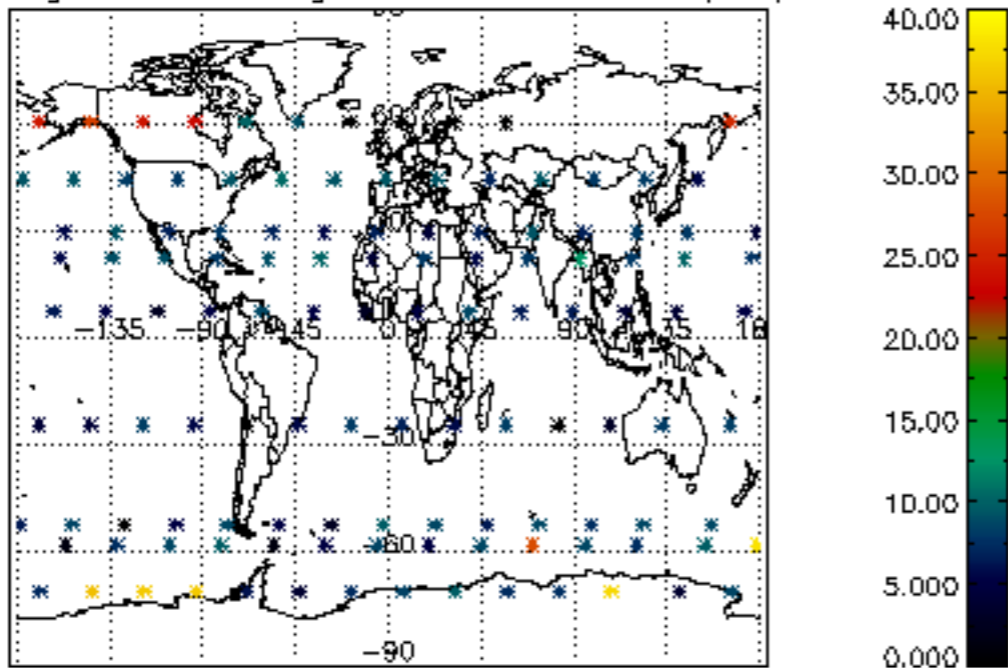
Percentage of cosmic ray hits per profile



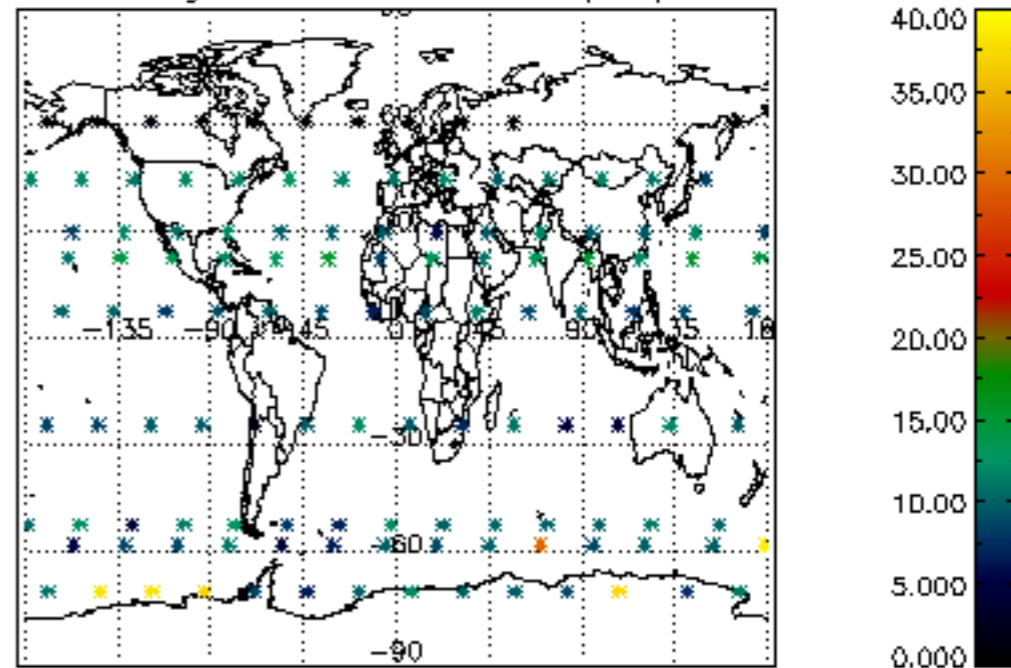
Percentage of datation errors per profile

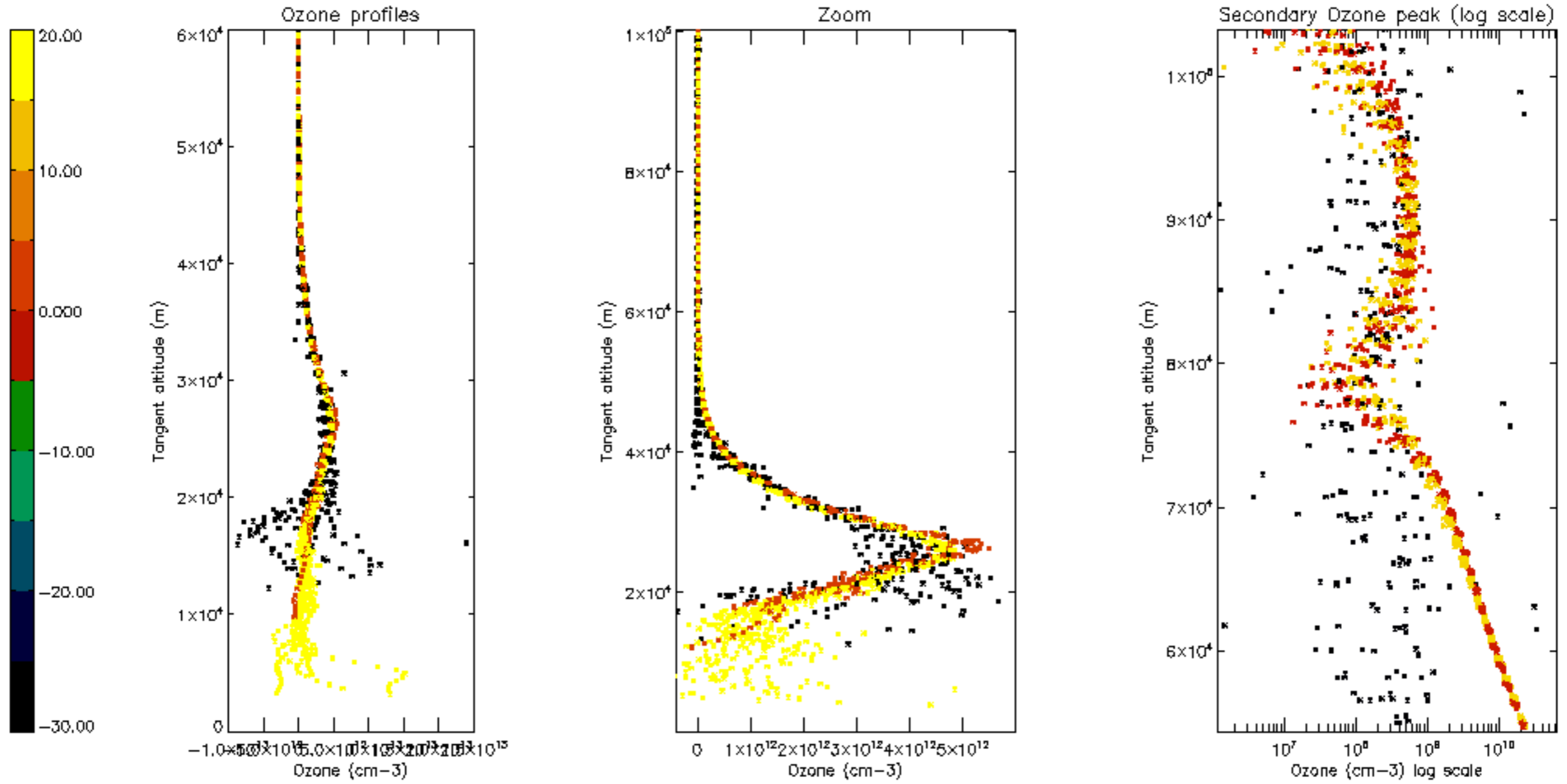


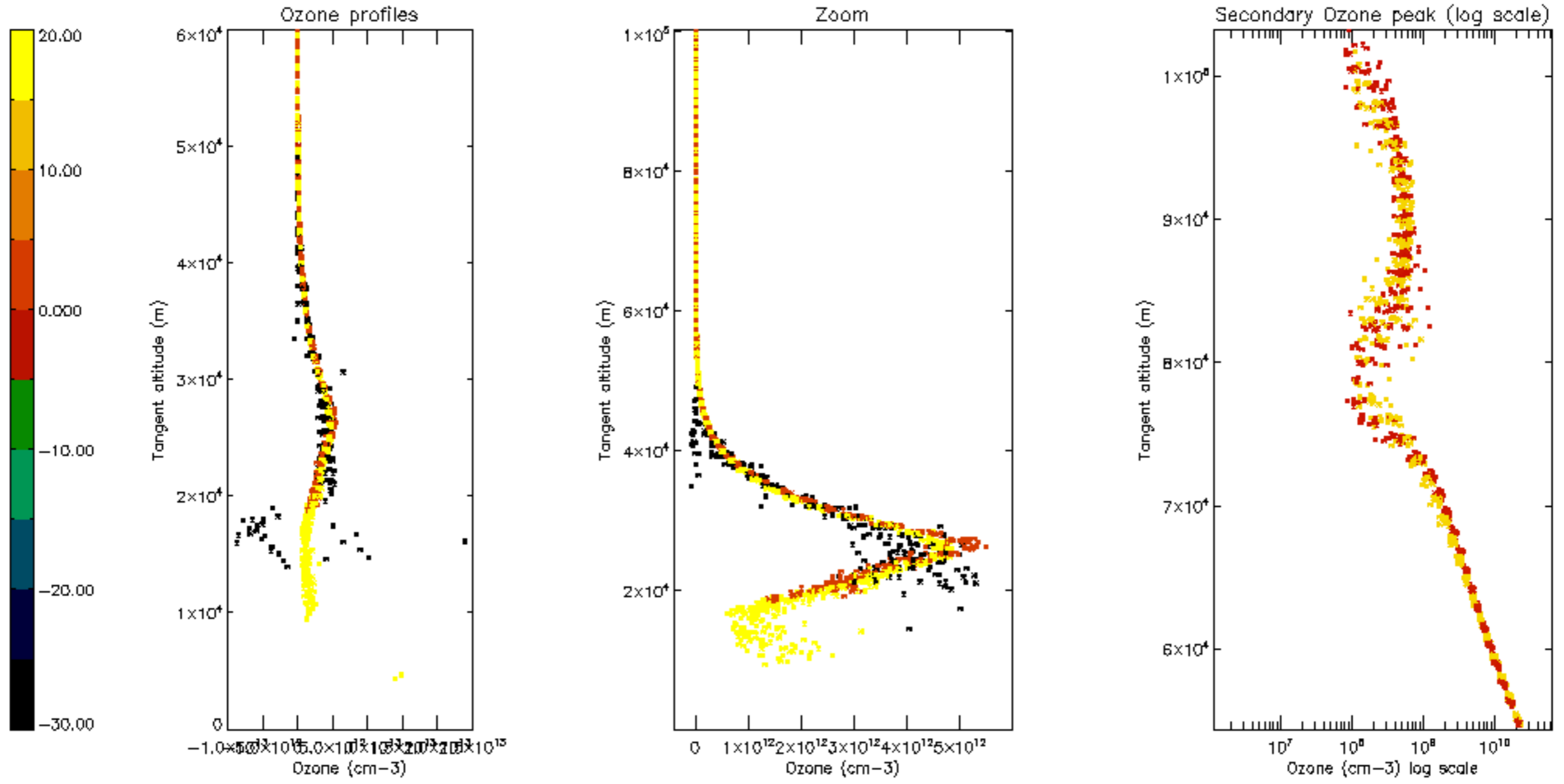
Percentage of star falling outside central band per profile

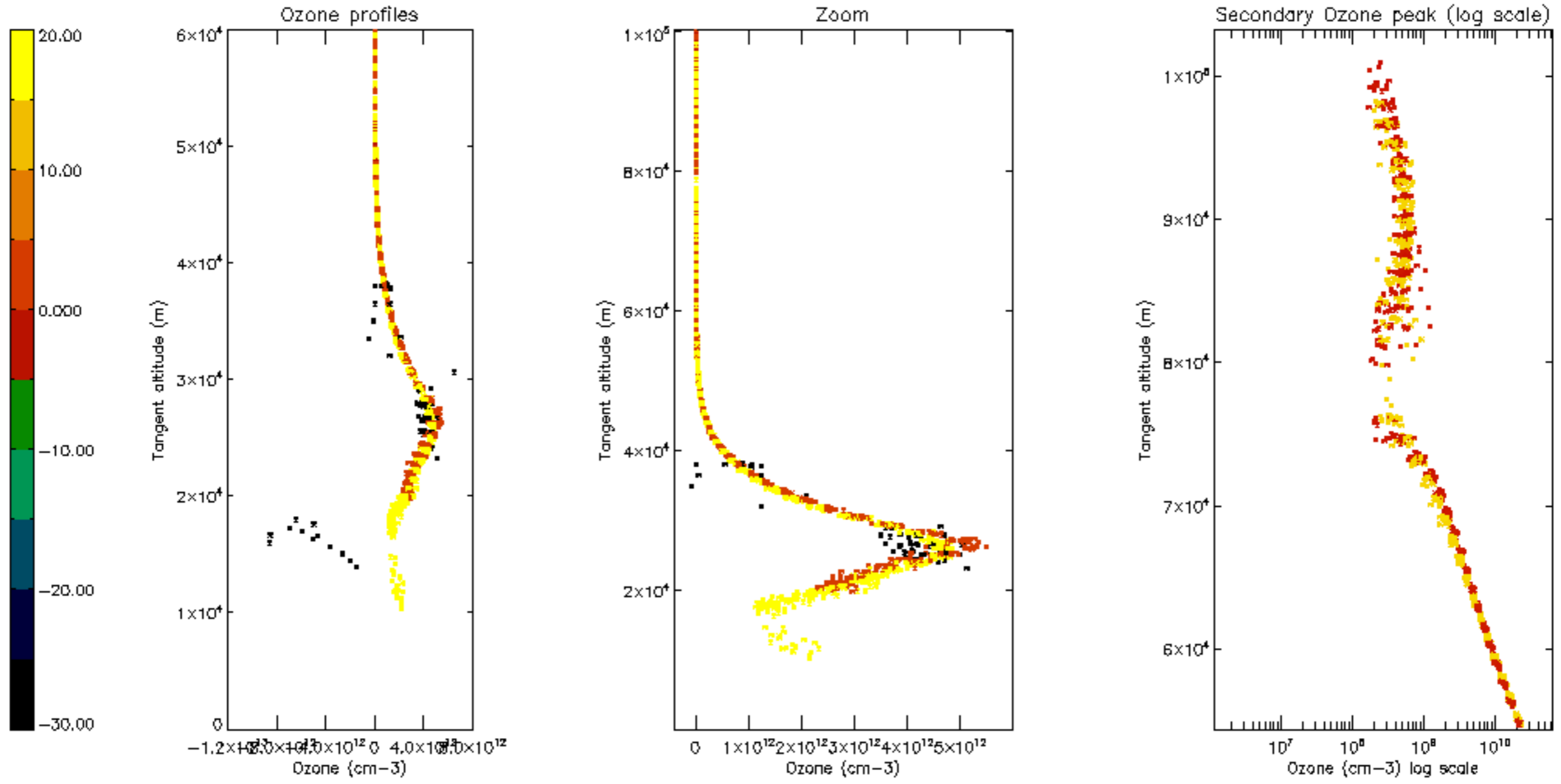


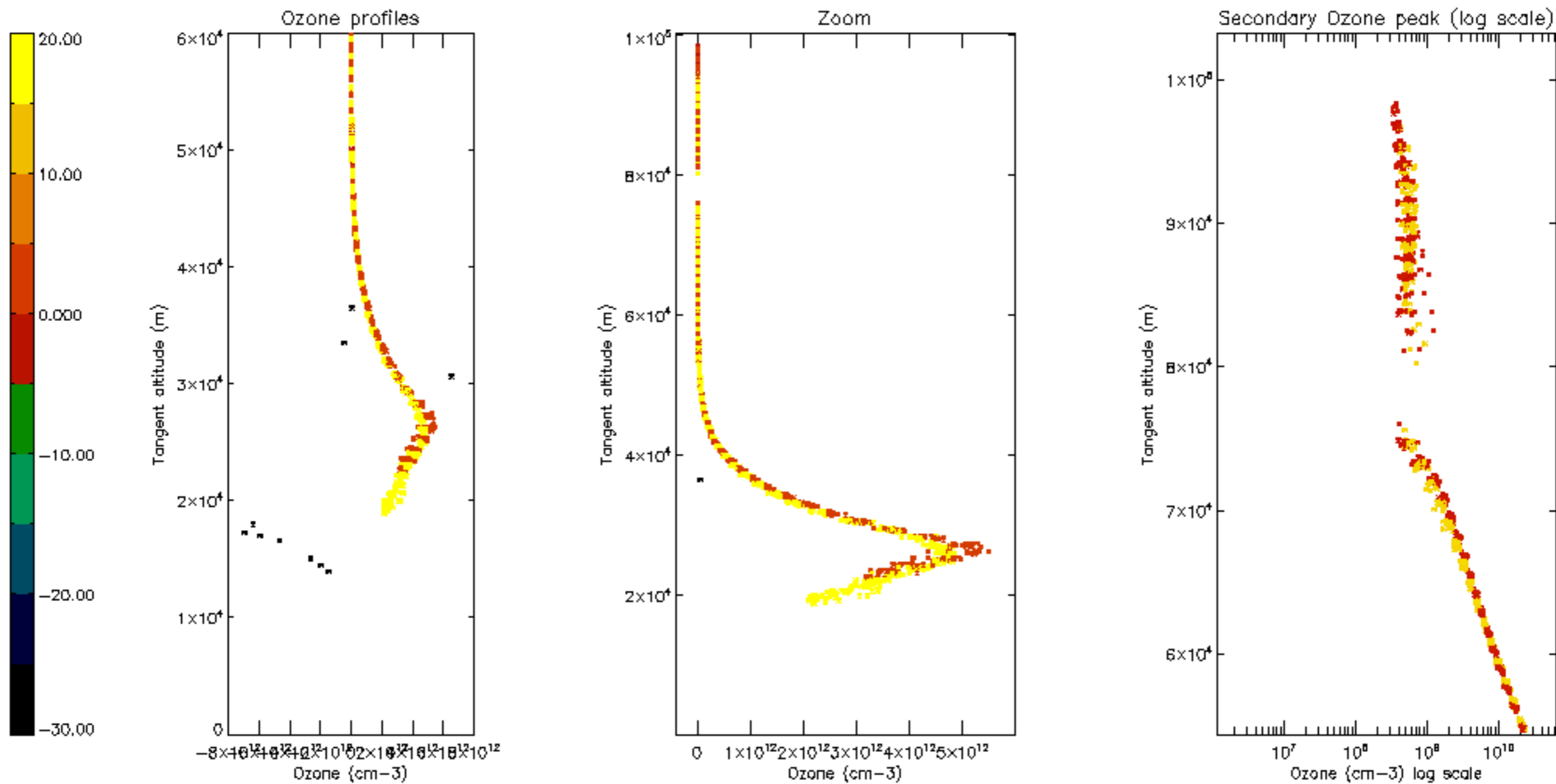
Percentage of saturation errors per profile

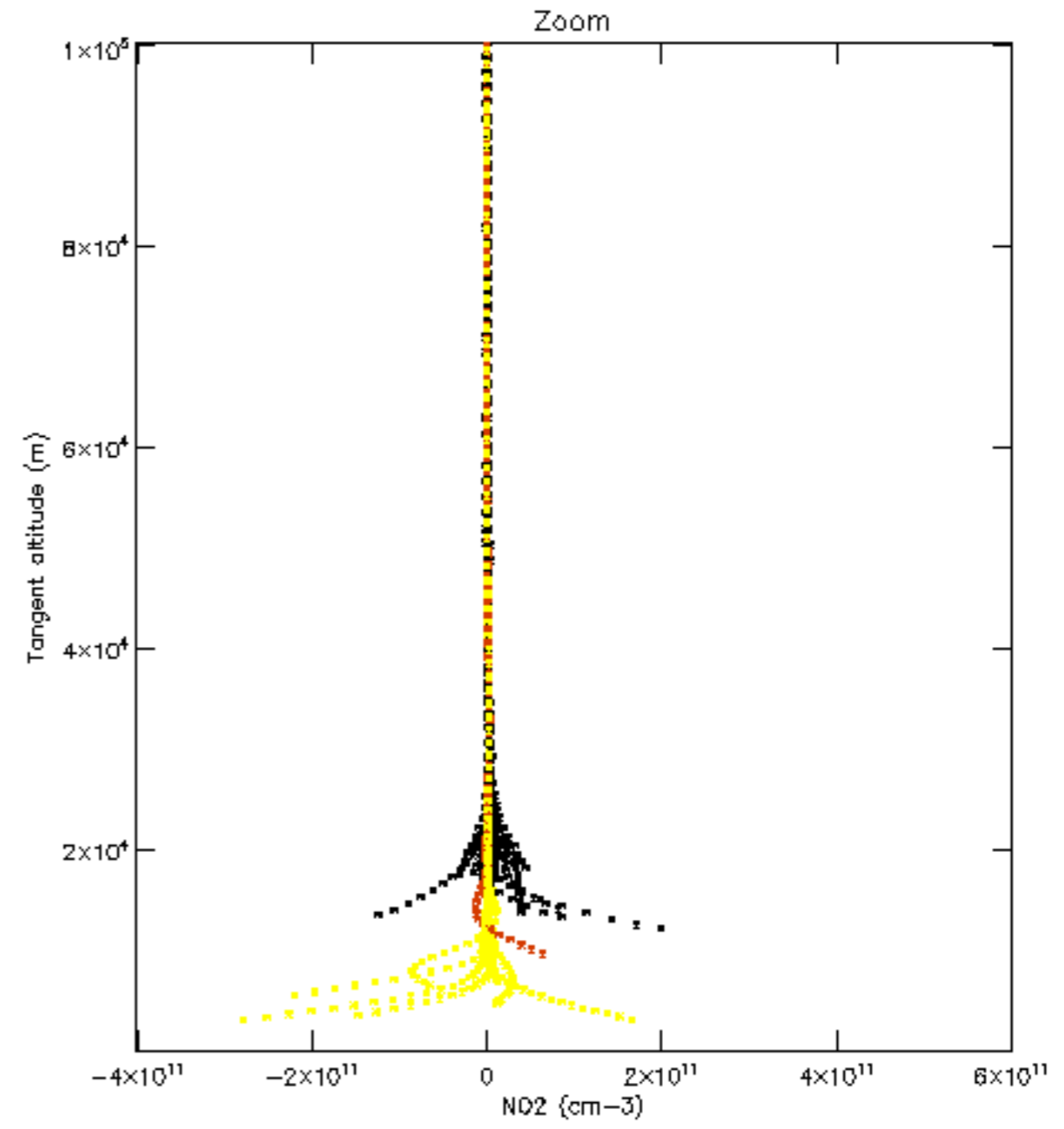
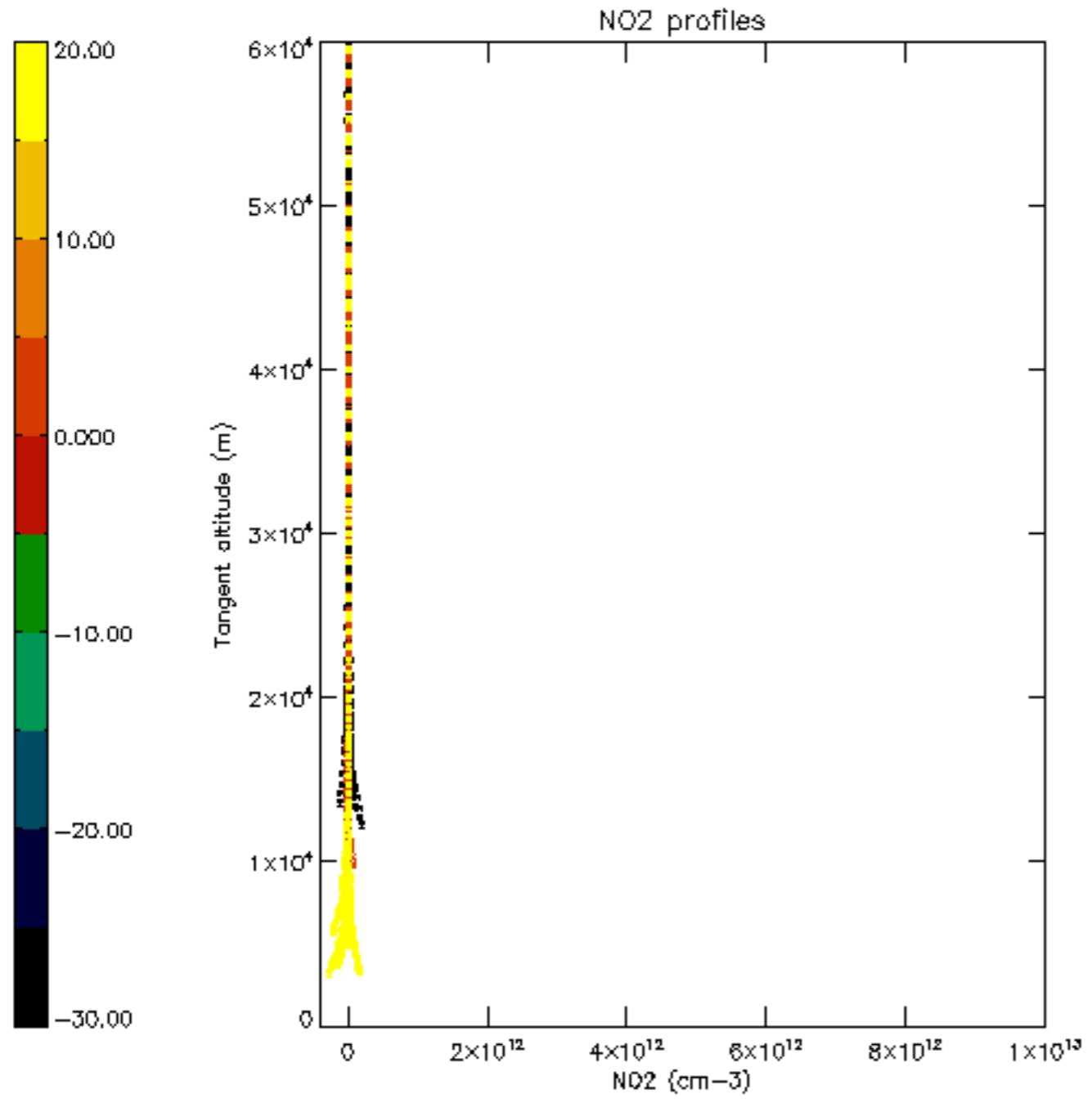


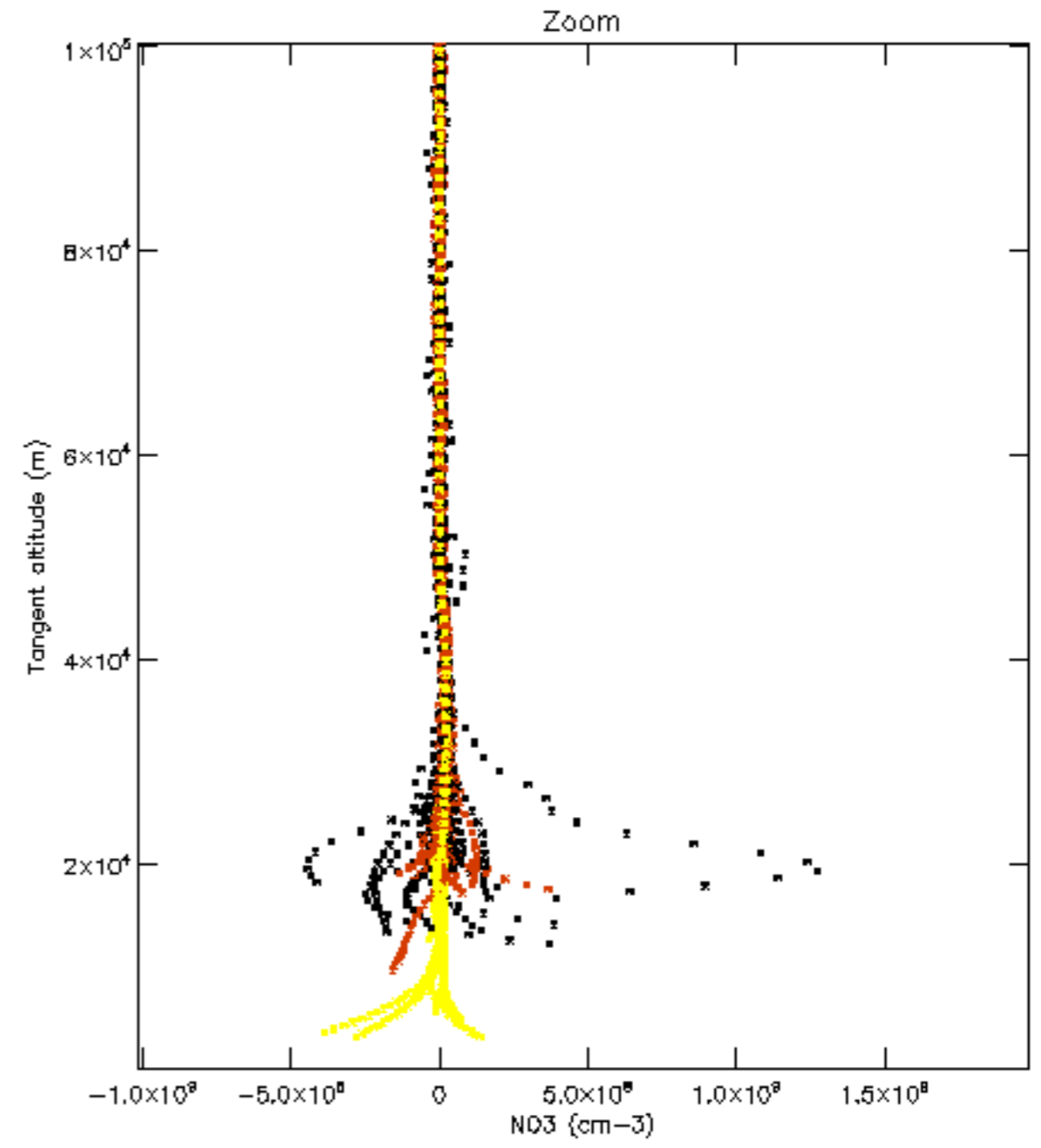
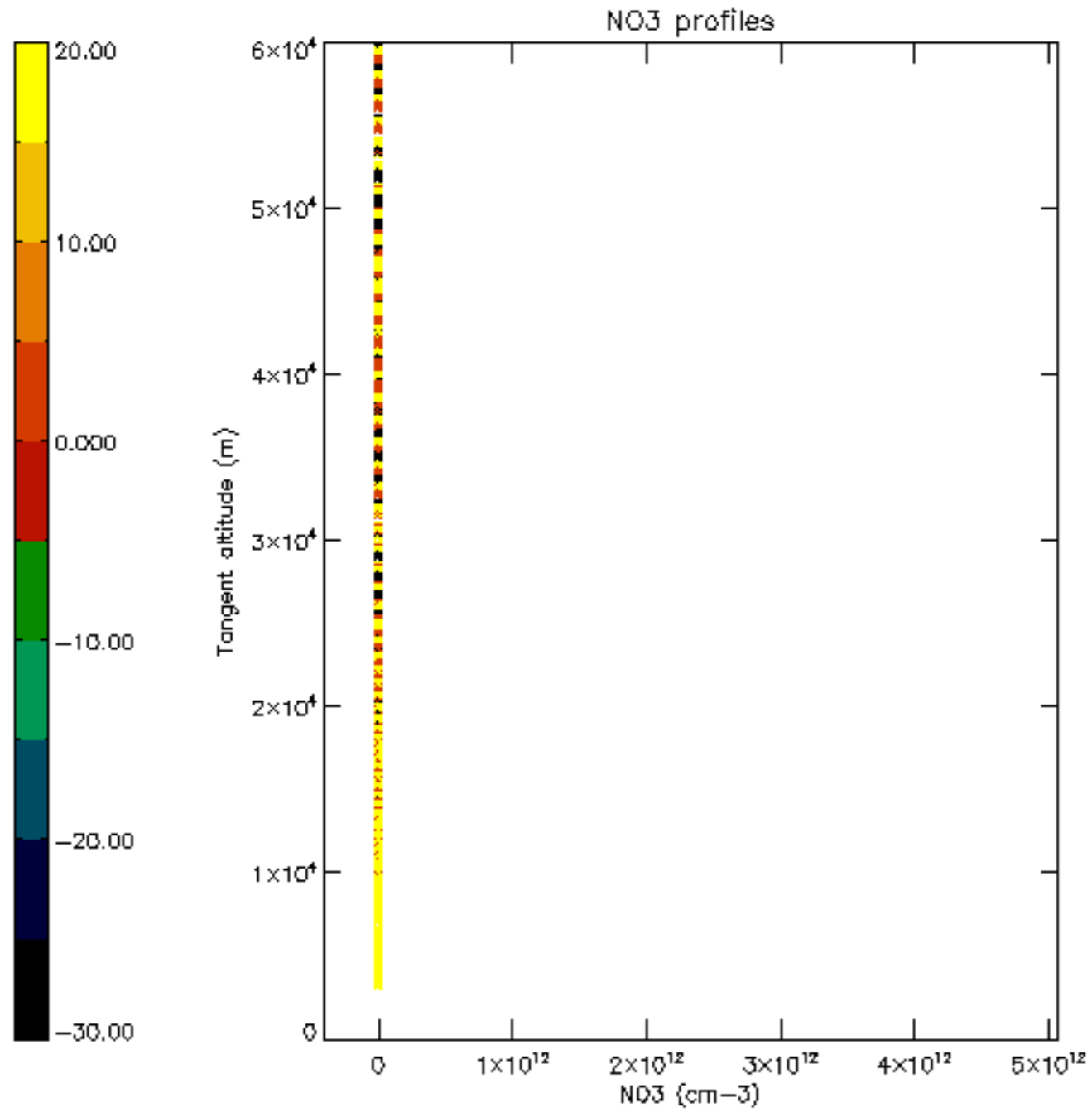




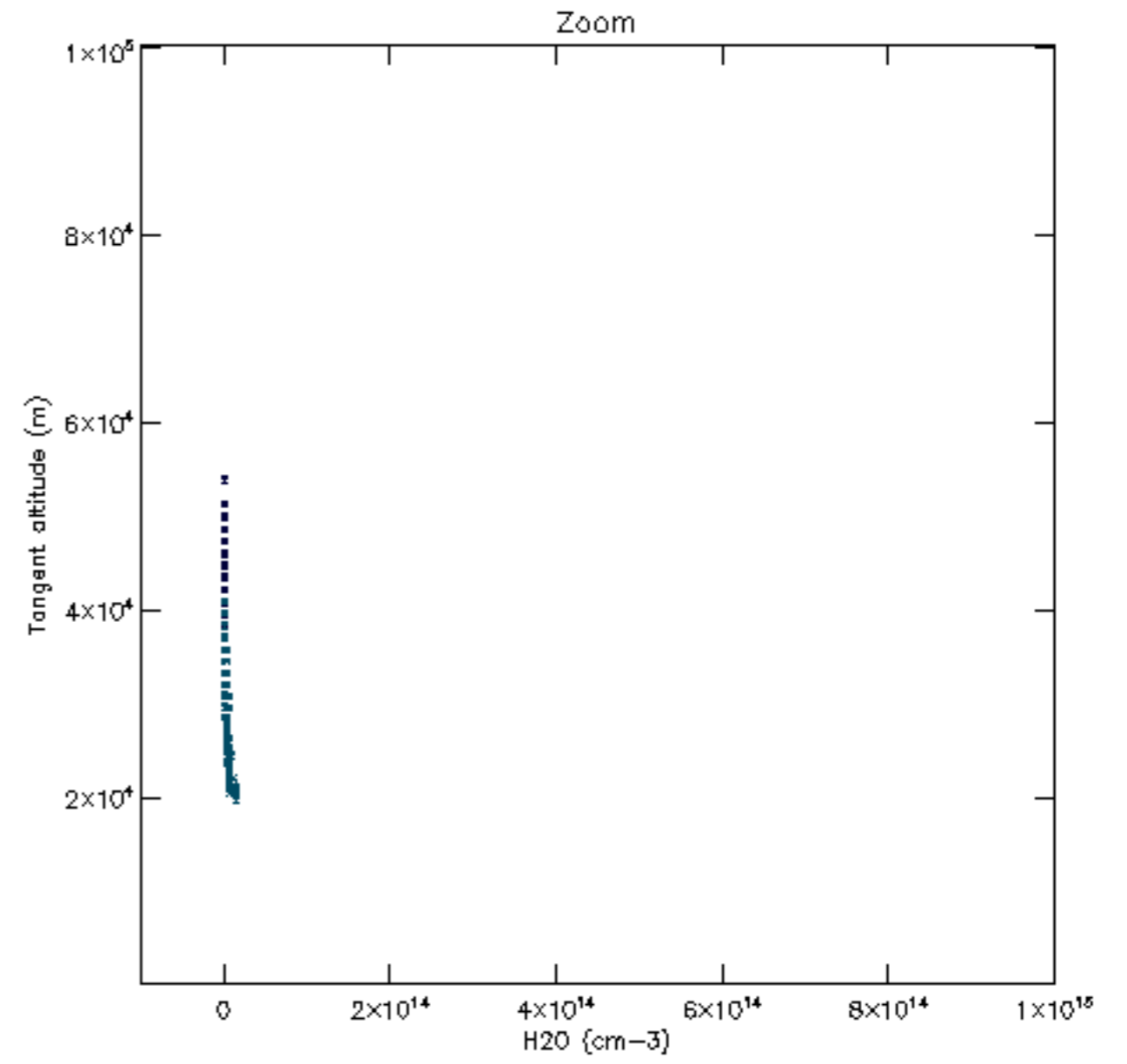
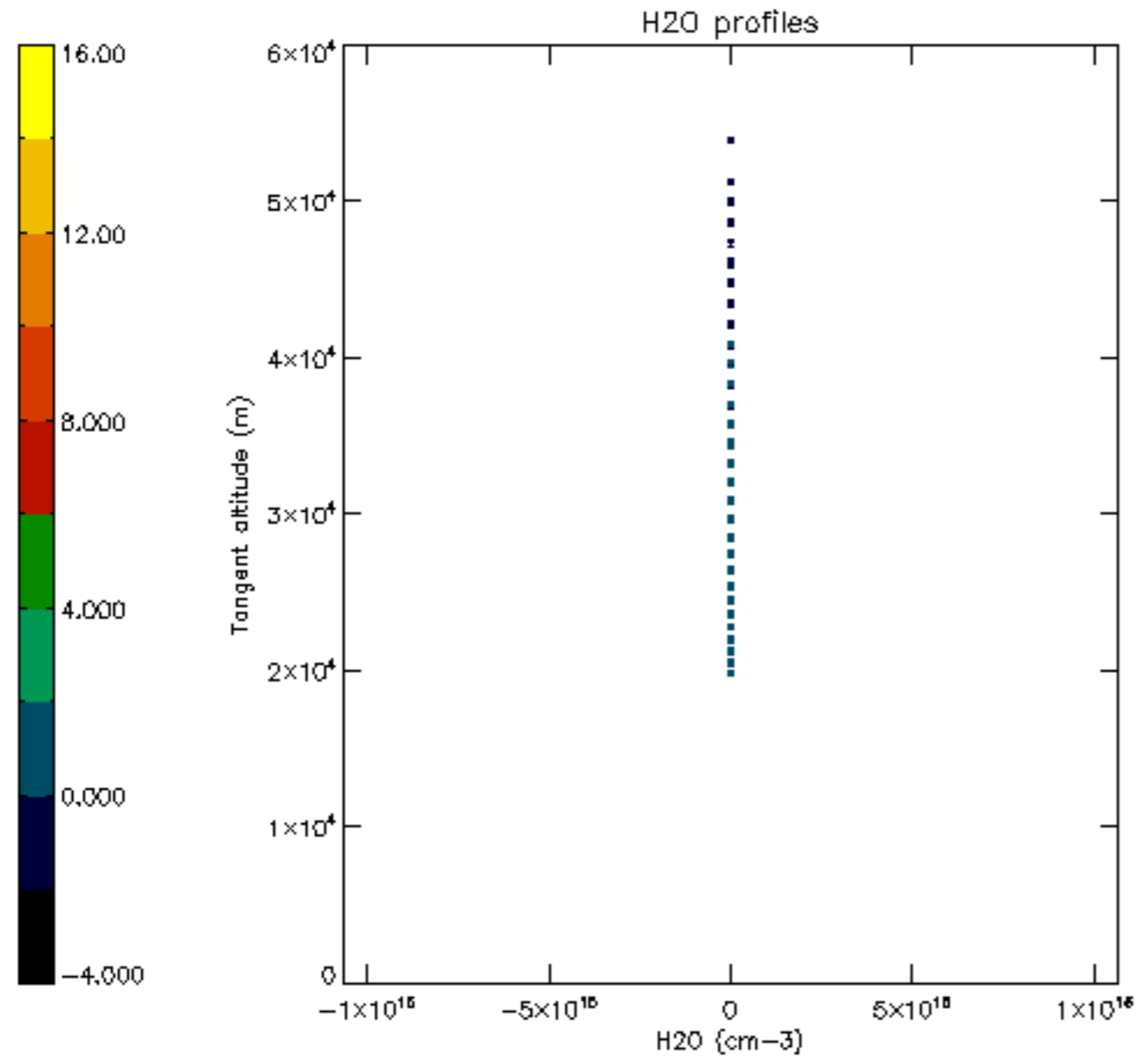


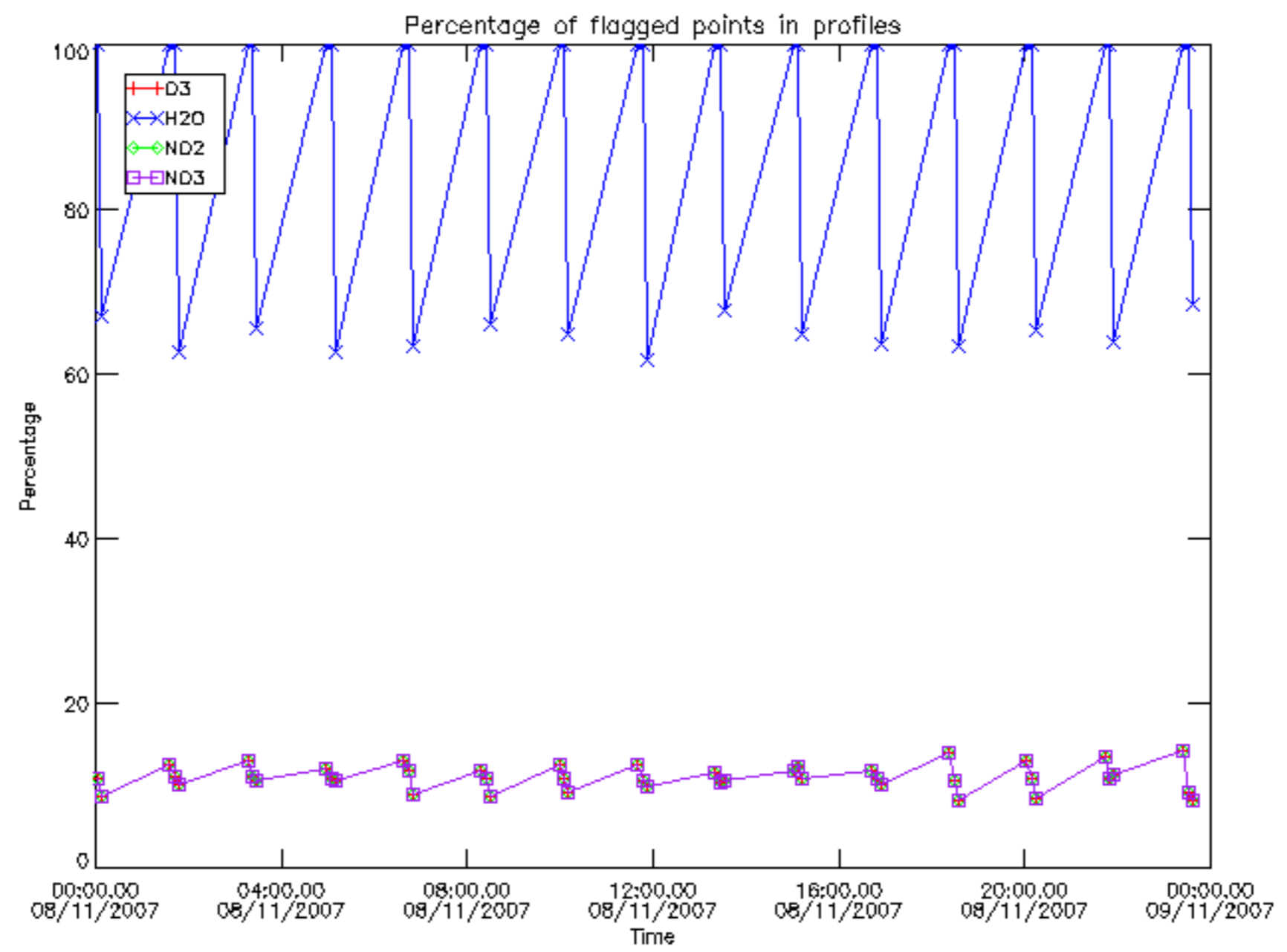




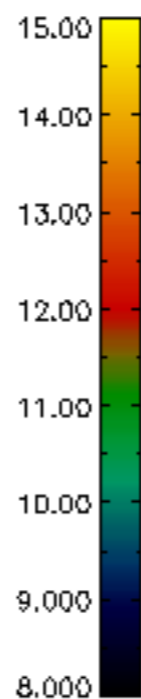
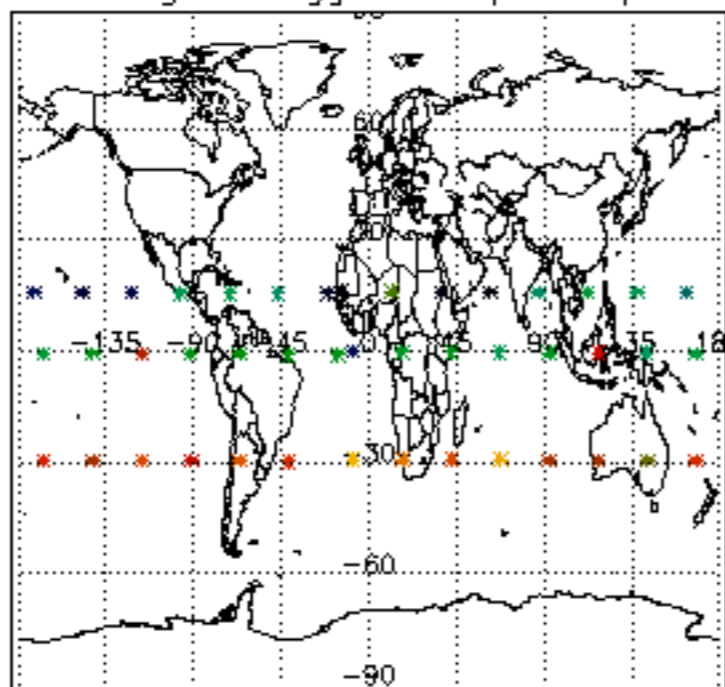




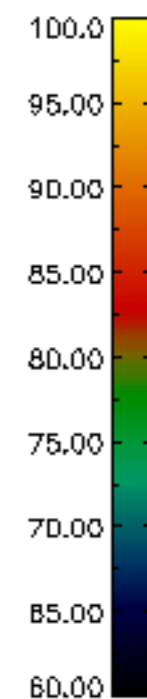
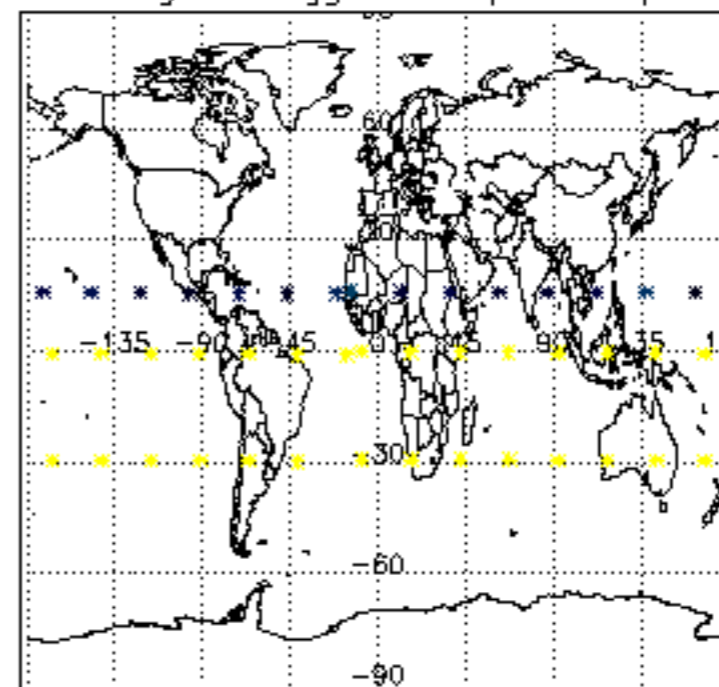




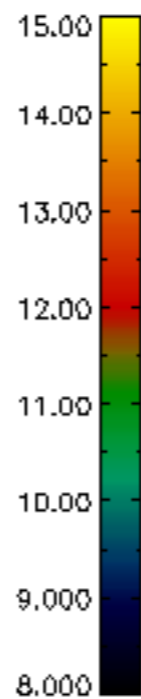
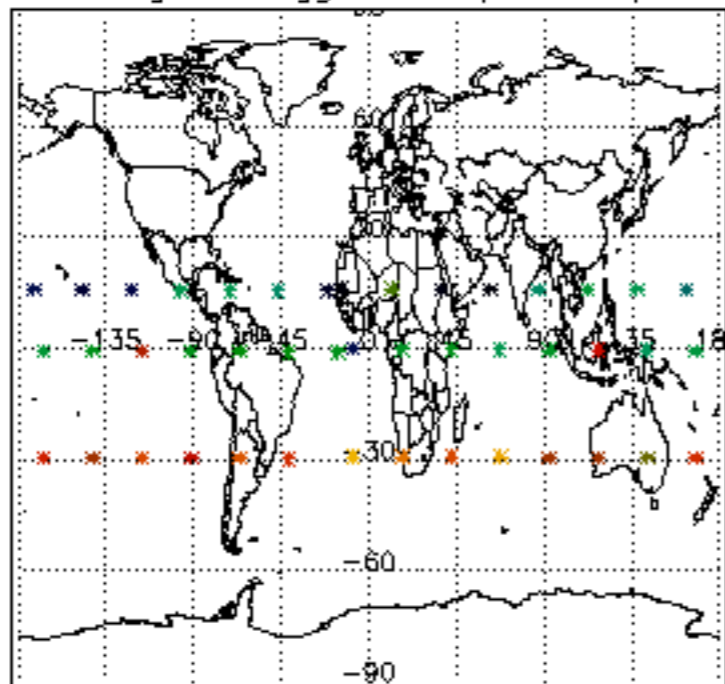
Percentage of flagged data per D3 profile



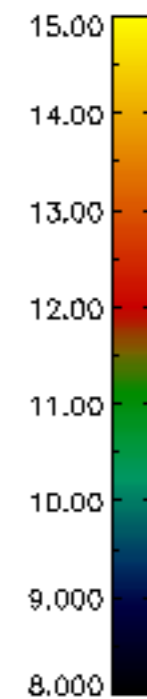
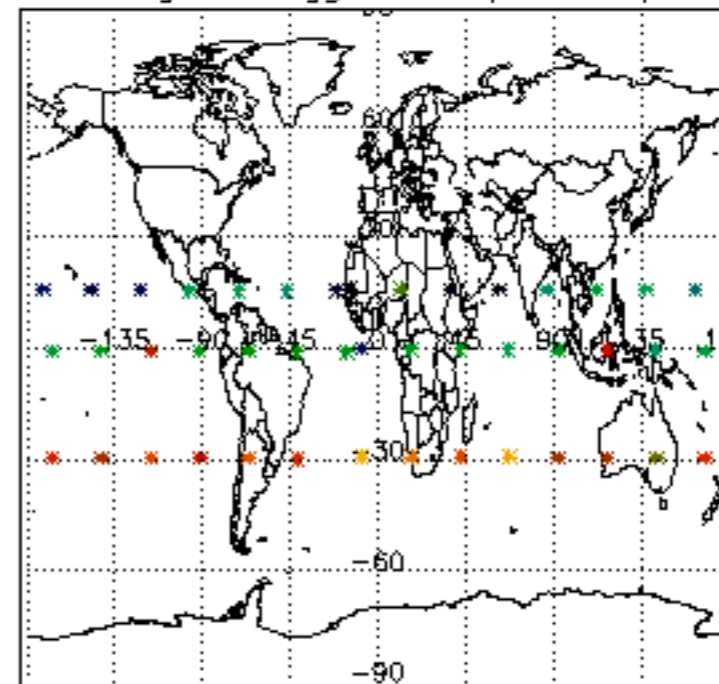
Percentage of flagged data per H2O profile

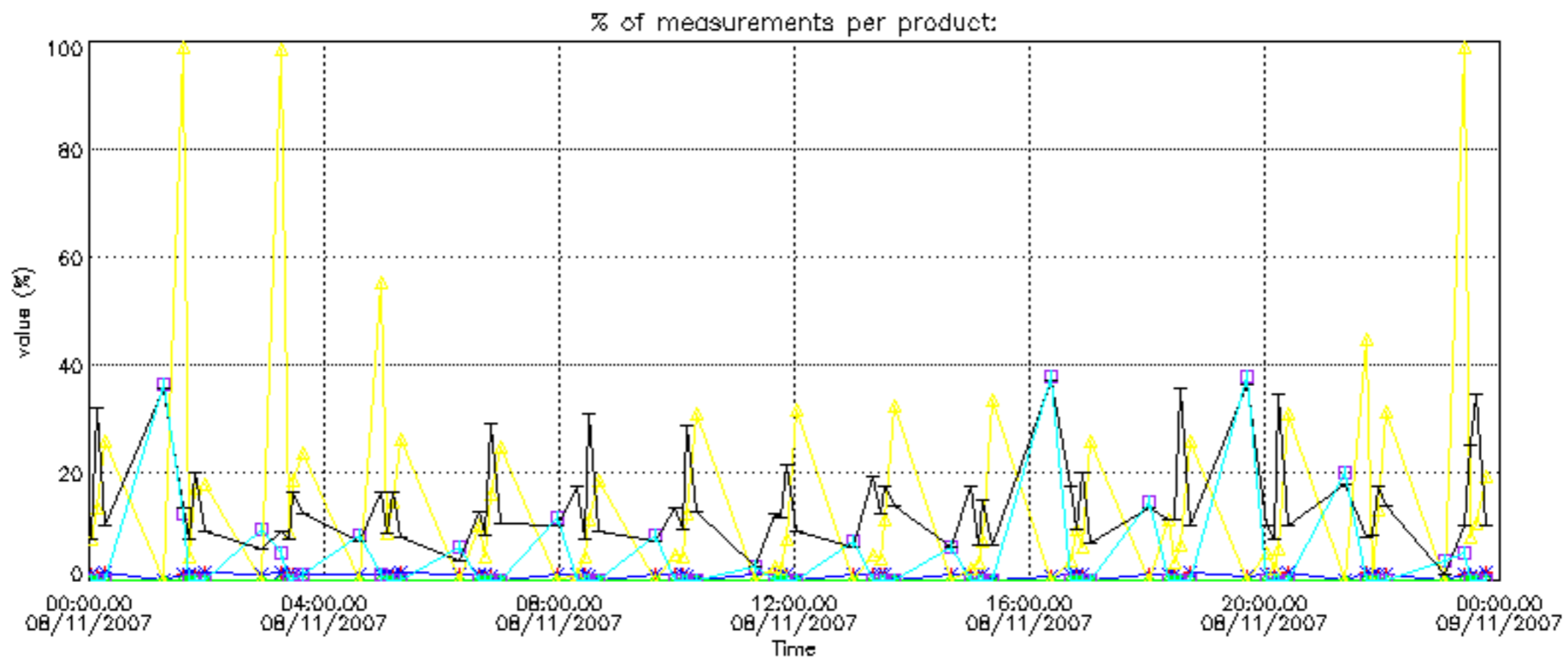


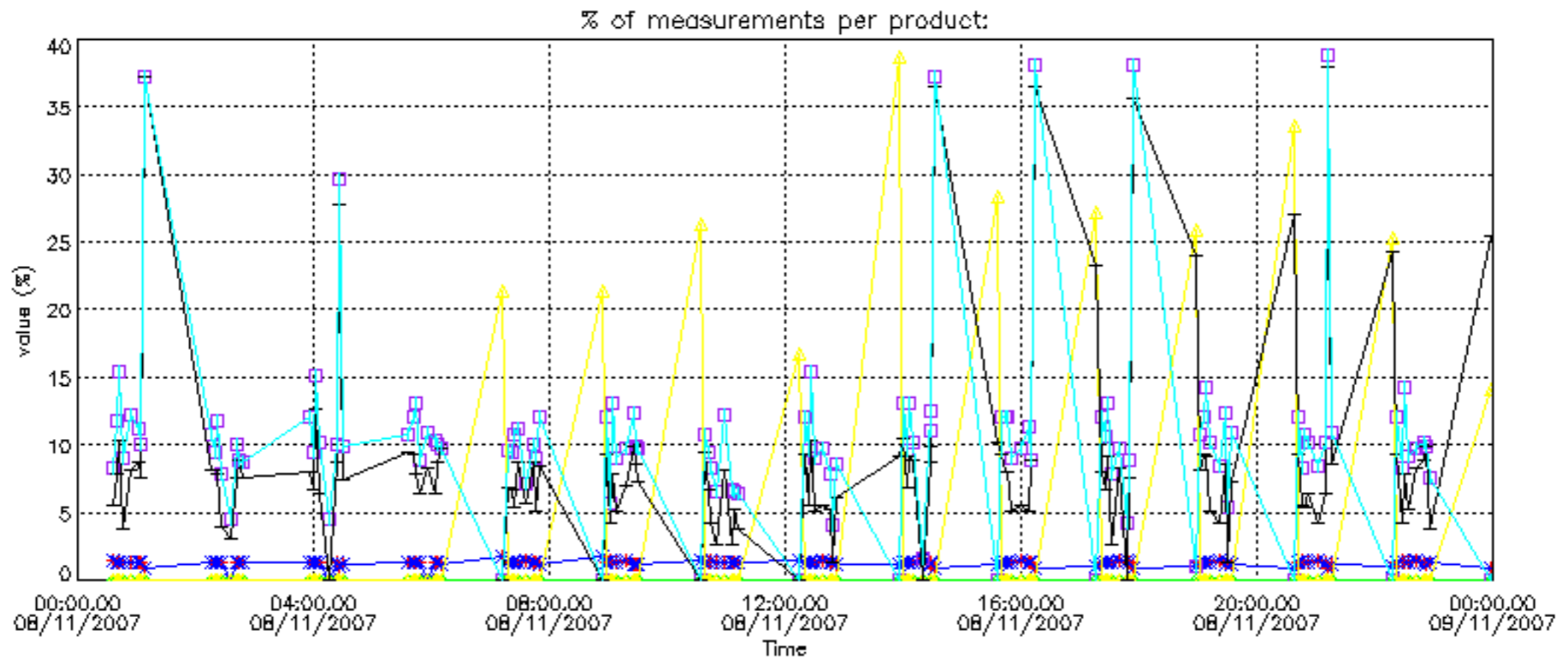
Percentage of flagged data per NO2 profile



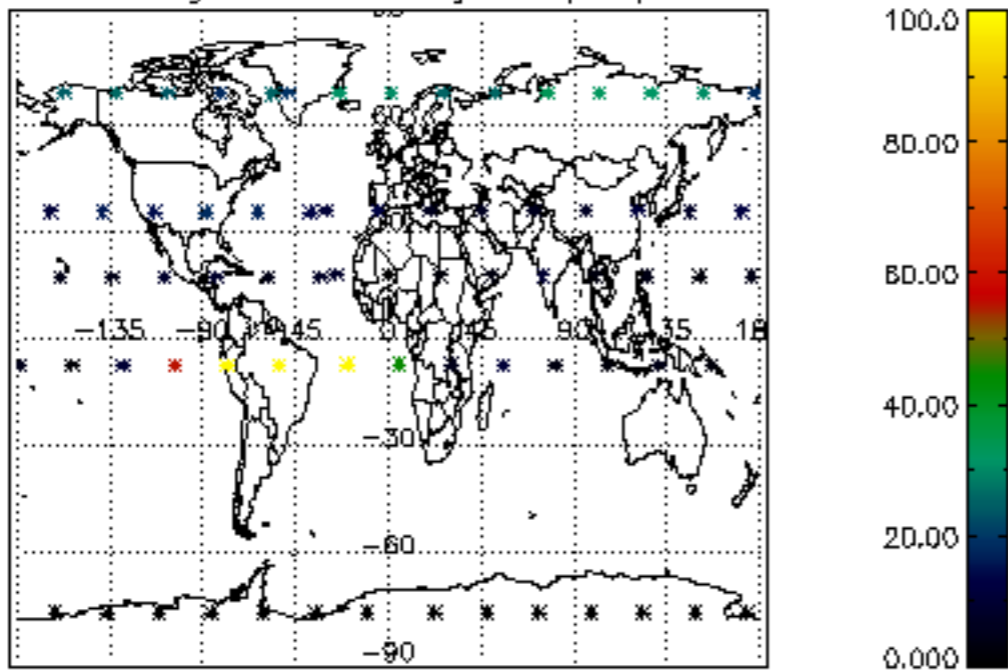
Percentage of flagged data per NO3 profile



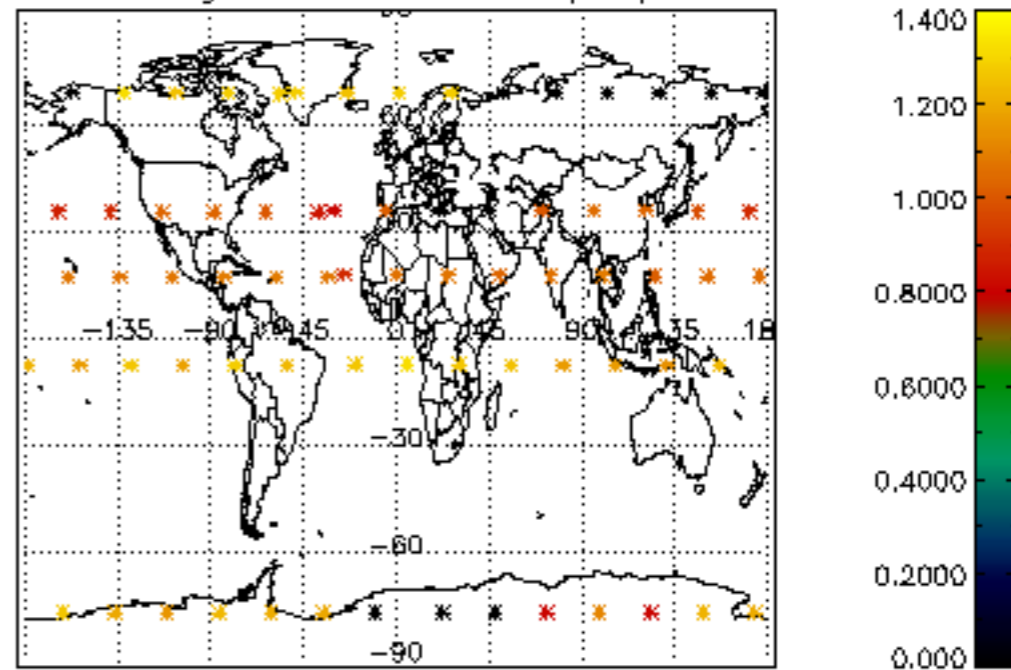




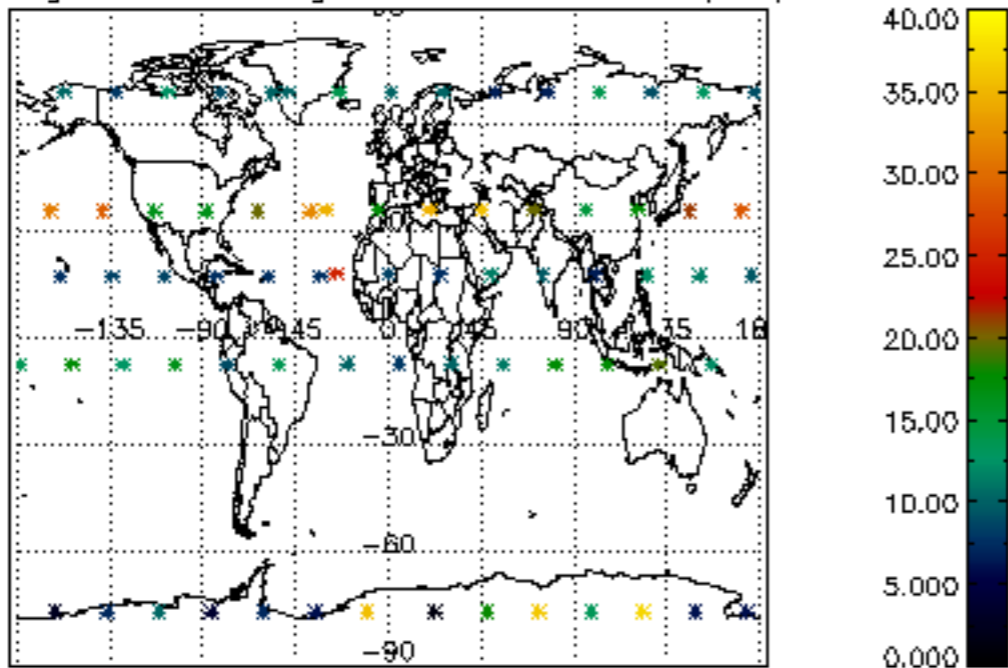
Percentage of cosmic ray hits per profile



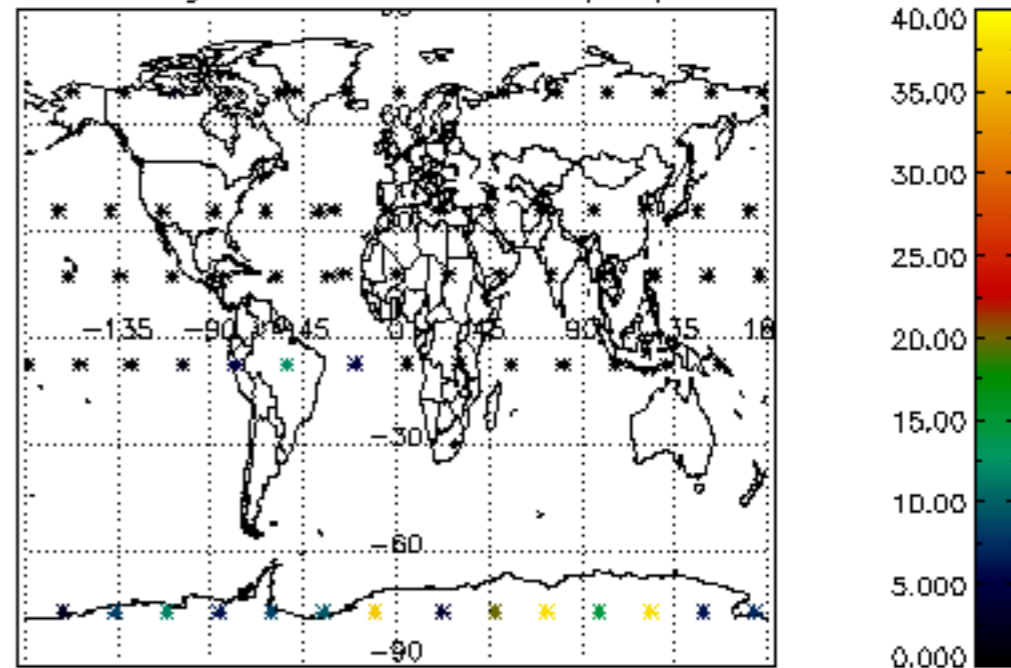
Percentage of datation errors per profile



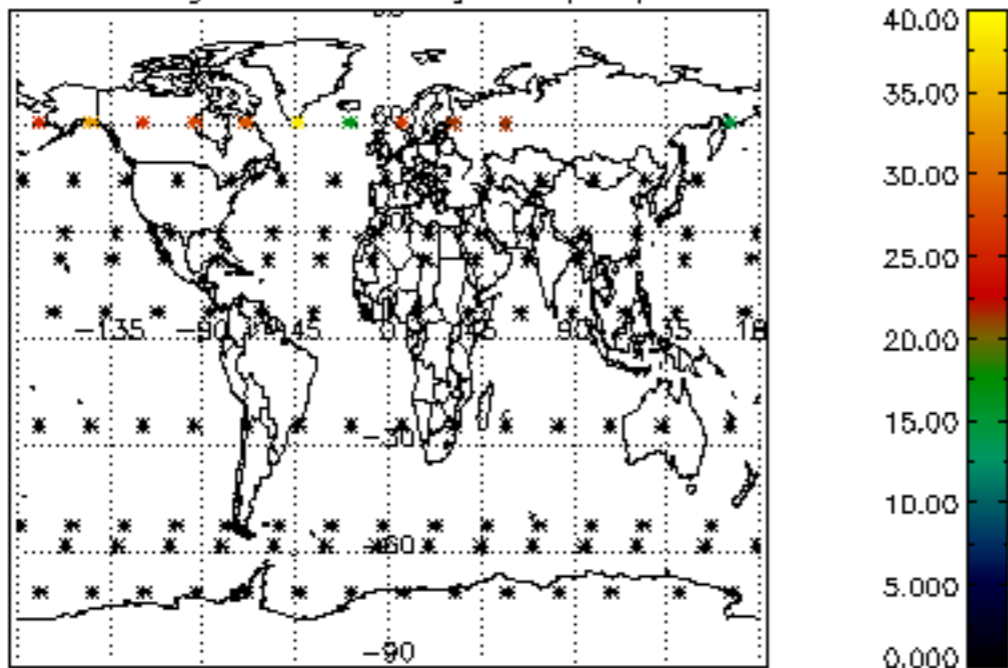
Percentage of star falling outside central band per profile



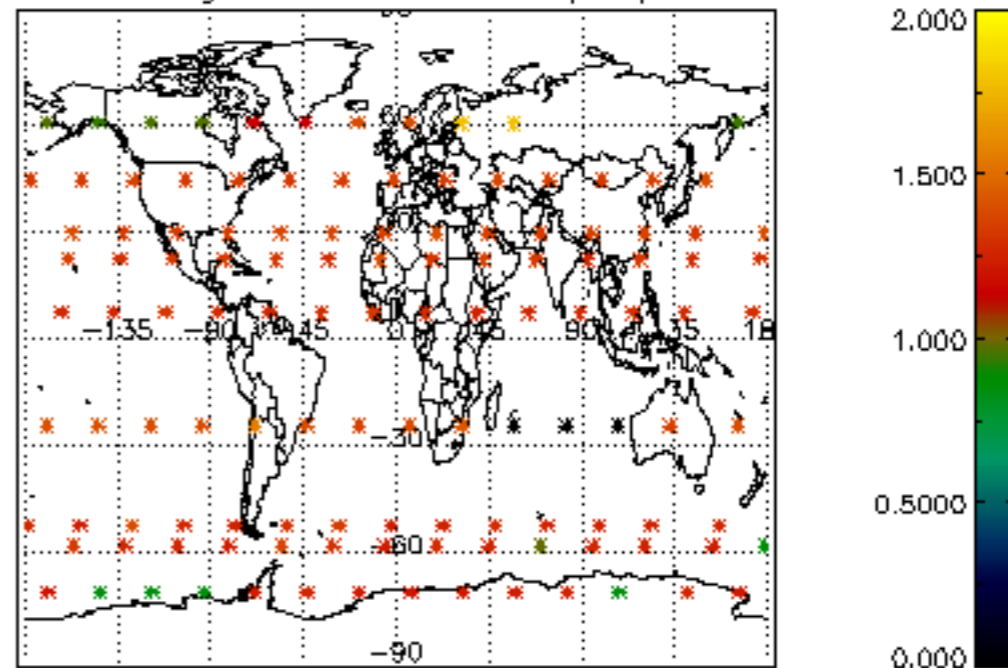
Percentage of saturation errors per profile



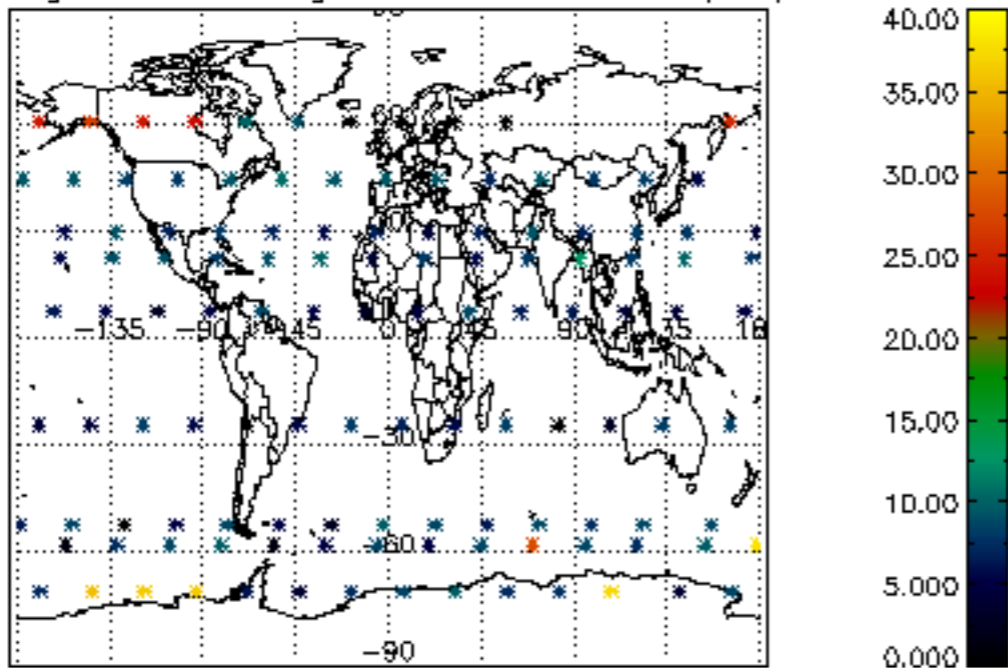
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

