

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 13:49:10
Data source version	GOMOS/6.01
Start time of products	11-11-2009 (11NOV2009 00:00:00)
Stop time of products	12-11-2009 (12NOV2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	187
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

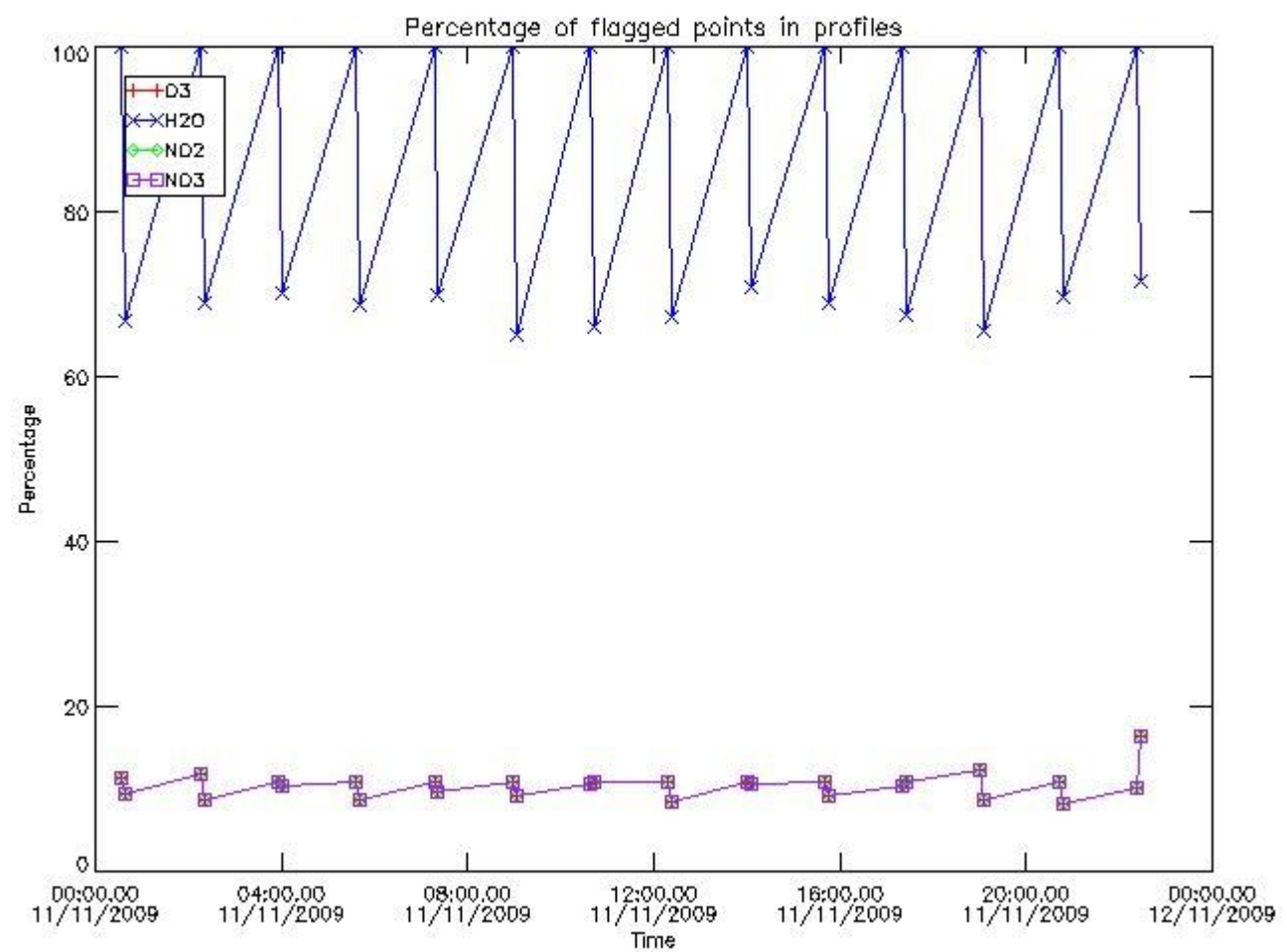
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091111_000651_000000642084_00116_40250_9813.N1	11-NOV-2009 00:06:51	Bright	63.500	96	68Del Leo	2.5600	9300.0	127	40250	No
2	GOM_NL__2PRFIN20091111_003426_000000452084_00117_40251_9813.N1	11-NOV-2009 00:34:26	Dark	45.000	34	Gam2Vel	1.7930	23000.	90	40251	No
3	GOM_NL__2PRFIN20091111_003923_000000552084_00117_40251_9814.N1	11-NOV-2009 00:39:23	Dark	54.500	2	Alp Car	-0.73600	7000.0	109	40251	No
4	GOM_NL__2PRFIN20091111_005608_000000542084_00117_40251_9815.N1	11-NOV-2009 00:56:08	Straylight	53.500	165	34Gam Eri	2.9500	3200.0	107	40251	No
5	GOM_NL__2PRFIN20091111_010153_000000492084_00117_40251_9816.N1	11-NOV-2009 01:01:53	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40251	No
6	GOM_NL__2PRFIN20091111_010721_000000412084_00117_40251_9817.N1	11-NOV-2009 01:07:21	Bright	41.000	50	13Alp Ari	2.0070	4250.0	82	40251	No
7	GOM_NL__2PRFIN20091111_011041_000000372084_00117_40251_9818.N1	11-NOV-2009 01:10:41	Bright	36.500	173	4Bet Tri	3.0040	8900.0	73	40251	No
8	GOM_NL__2PRFIN20091111_011245_000000392084_00117_40251_9819.N1	11-NOV-2009 01:12:45	Bright	38.500	73	57Gam1And	2.2600	13100.	77	40251	No
9	GOM_NL__2PRFIN20091111_011444_000000442084_00117_40251_9820.N1	11-NOV-2009 01:14:44	Bright	44.000	149	45Eps Per	2.8880	30000.	88	40251	No
10	GOM_NL__2PRFIN20091111_013346_000000392084_00117_40251_9821.N1	11-NOV-2009 01:33:46	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	40251	No
11	GOM_NL__2PRFIN20091111_013524_000000422084_00117_40251_9822.N1	11-NOV-2009 01:35:24	Bright	41.500	82	48Bet UMa	2.3650	10600.	83	40251	No
12	GOM_NL__2PRFIN20091111_013919_000000432084_00117_40251_9823.N1	11-NOV-2009 01:39:19	Bright	43.000	174	52Psi UMa	3.0040	4400.0	86	40251	No
13	GOM_NL__2PRFIN20091111_014727_000000642084_00117_40251_9824.N1	11-NOV-2009 01:47:27	Bright	63.500	96	68Del Leo	2.5600	9300.0	127	40251	No
14	GOM_NL__2PRFIN20091111_021503_000000482084_00118_40252_9824.N1	11-NOV-2009 02:15:03	Dark	47.500	34	Gam2Vel	1.7930	23000.	95	40252	No
15	GOM_NL__2PRFIN20091111_022000_000000592084_00118_40252_9825.N1	11-NOV-2009 02:20:00	Dark	58.500	2	Alp Car	-0.73600	7000.0	117	40252	No
16	GOM_NL__2PRFIN20091111_023644_000000532084_00118_40252_9826.N1	11-NOV-2009 02:36:44	Straylight	52.500	165	34Gam Eri	2.9500	3200.0	105	40252	No
17	GOM_NL__2PRFIN20091111_024229_000000492084_00118_40252_9827.N1	11-NOV-2009 02:42:29	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40252	No
18	GOM_NL__2PRFIN20091111_024757_000000392084_00118_40252_9828.N1	11-NOV-2009 02:47:57	Bright	39.000	50	13Alp Ari	2.0070	4250.0	78	40252	No
19	GOM_NL__2PRFIN20091111_025117_000000372084_00118_40252_9829.N1	11-NOV-2009 02:51:17	Bright	36.500	173	4Bet Tri	3.0040	8900.0	73	40252	No
20	GOM_NL__2PRFIN20091111_025321_000000372084_00118_40252_9830.N1	11-NOV-2009 02:53:21	Bright	36.500	73	57Gam1And	2.2600	13100.	73	40252	No
21	GOM_NL__2PRFIN20091111_025519_000000462084_00118_40252_9831.N1	11-NOV-2009 02:55:19	Bright	45.500	149	45Eps Per	2.8880	30000.	91	40252	No
22	GOM_NL__2PRFIN20091111_025650_000000412084_00118_40252_9832.N1	11-NOV-2009 02:56:50	Bright	40.500	35	33Alp Per	1.7950	6250.0	81	40252	No
23	GOM_NL__2PRFIN20091111_031422_000000432084_00118_40252_9833.N1	11-NOV-2009 03:14:22	Bright	42.500	36	50Alp UMa	1.8000	6300.0	85	40252	No
24	GOM_NL__2PRFIN20091111_031600_000000432084_00118_40252_9834.N1	11-NOV-2009 03:16:00	Bright	42.500	82	48Bet UMa	2.3650	10600.	85	40252	No
25	GOM_NL__2PRFIN20091111_031955_000000442084_00118_40252_9835.N1	11-NOV-2009 03:19:55	Bright	44.000	174	52Psi UMa	3.0040	4400.0	88	40252	No
26	GOM_NL__2PRFIN20091111_032804_000000452084_00118_40252_9836.N1	11-NOV-2009 03:28:04	Bright	45.000	96	68Del Leo	2.5600	9300.0	90	40252	No
27	GOM_NL__2PRFIN20091111_035540_000000472084_00119_40253_9855.N1	11-NOV-2009 03:55:40	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	40253	No
28	GOM_NL__2PRFIN20091111_040036_000000492084_00119_40253_9856.N1	11-NOV-2009 04:00:36	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	40253	No
29	GOM_NL__2PRFIN20091111_041721_000000532084_00119_40253_9857.N1	11-NOV-2009 04:17:21	Straylight	53.000	165	34Gam Eri	2.9500	3200.0	106	40253	No
30	GOM_NL__2PRFIN20091111_042305_000000492084_00119_40253_9858.N1	11-NOV-2009 04:23:05	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40253	No
31	GOM_NL__2PRFIN20091111_042833_000000402084_00119_40253_9859.N1	11-NOV-2009 04:28:33	Bright	39.500	50	13Alp Ari	2.0070	4250.0	79	40253	No
32	GOM_NL__2PRFIN20091111_043153_000000372084_00119_40253_9860.N1	11-NOV-2009 04:31:53	Bright	37.000	173	4Bet Tri	3.0040	8900.0	74	40253	No
33	GOM_NL__2PRFIN20091111_043357_000000372084_00119_40253_9861.N1	11-NOV-2009 04:33:57	Bright	37.000	73	57Gam1And	2.2600	13100.	74	40253	No
34	GOM_NL__2PRFIN20091111_043555_000000452084_00119_40253_9862.N1	11-NOV-2009 04:35:55	Bright	44.500	149	45Eps Per	2.8880	30000.	89	40253	No
35	GOM_NL__2PRFIN20091111_043726_000000412084_00119_40253_9863.N1	11-NOV-2009 04:37:26	Bright	40.500	35	33Alp Per	1.7950	6250.0	81	40253	No
36	GOM_NL__2PRFIN20091111_045458_000000422084_00119_40253_9864.N1	11-NOV-2009 04:54:58	Bright	41.500	36	50Alp UMa	1.8000	6300.0	83	40253	No
37	GOM_NL__2PRFIN20091111_045636_000000412084_00119_40253_9865.N1	11-NOV-2009 04:56:36	Bright	40.500	82	48Bet UMa	2.3650	10600.	81	40253	No
38	GOM_NL__2PRFIN20091111_050031_000000432084_00119_40253_9866.N1	11-NOV-2009 05:00:31	Bright	42.500	174	52Psi UMa	3.0040	4400.0	85	40253	No
39	GOM_NL__2PRFIN20091111_050840_000000452084_00119_40253_9867.N1	11-NOV-2009 05:08:40	Bright	44.500	96	68Del Leo	2.5600	9300.0	89	40253	No
40	GOM_NL__2PRFIN20091111_053617_000000472084_00120_40254_9866.N1	11-NOV-2009 05:36:17	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	40254	No
41	GOM_NL__2PRFIN20091111_054113_000000582084_00120_40254_9867.N1	11-NOV-2009 05:41:13	Dark	58.000	2	Alp Car	-0.73600	7000.0	116	40254	No
42	GOM_NL__2PRFIN20091111_055757_000000552084_00120_40254_9868.N1	11-NOV-2009 05:57:57	Straylight	55.000	165	34Gam Eri	2.9500	3200.0	110	40254	No

161	GOM_NL__2PRFIN20091111_204643_000000612084_00129_40263_0066.N1	11-NOV-2009 20:46:43	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	40263	No
162	GOM_NL__2PRFIN20091111_210320_000000532084_00129_40263_0067.N1	11-NOV-2009 21:03:20	Straylight	52.500	165	34Gam Eri	2.9500	3200.0	105	40263	No
163	GOM_NL__2PRFIN20091111_210903_000000492084_00129_40263_0068.N1	11-NOV-2009 21:09:03	Tw_i_and_stray	49.000	94	92Alp Cet	2.5260	3100.0	98	40263	No
164	GOM_NL__2PRFIN20091111_211432_000000402084_00129_40263_0069.N1	11-NOV-2009 21:14:32	Bright	39.500	50	13Alp Ari	2.0070	4250.0	79	40263	No
165	GOM_NL__2PRFIN20091111_211631_000000372084_00129_40263_0070.N1	11-NOV-2009 21:16:31	Bright	37.000	146	25Eta Tau	2.8730	15200.	74	40263	No
166	GOM_NL__2PRFIN20091111_211751_000000352084_00129_40263_0071.N1	11-NOV-2009 21:17:51	Bright	35.000	173	4Bet Tri	3.0040	8900.0	70	40263	No
167	GOM_NL__2PRFIN20091111_211955_000000392084_00129_40263_0072.N1	11-NOV-2009 21:19:55	Bright	38.500	73	57Gam1And	2.2600	13100.	77	40263	No
168	GOM_NL__2PRFIN20091111_212147_000000452084_00129_40263_0073.N1	11-NOV-2009 21:21:47	Bright	44.500	149	45Eps Per	2.8880	30000.	89	40263	No
169	GOM_NL__2PRFIN20091111_212321_000000422084_00129_40263_0074.N1	11-NOV-2009 21:23:21	Bright	41.500	35	33Alp Per	1.7950	6250.0	83	40263	No
170	GOM_NL__2PRFIN20091111_214055_000000432084_00129_40263_0075.N1	11-NOV-2009 21:40:55	Bright	43.000	36	50Alp UMa	1.8000	6300.0	86	40263	No
171	GOM_NL__2PRFIN20091111_214233_000000482084_00129_40263_0076.N1	11-NOV-2009 21:42:33	Bright	48.000	82	48Bet UMa	2.3650	10600.	96	40263	No
172	GOM_NL__2PRFIN20091111_214630_000000412084_00129_40263_0077.N1	11-NOV-2009 21:46:30	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	40263	No
173	GOM_NL__2PRFIN20091111_215443_000000472084_00129_40263_0078.N1	11-NOV-2009 21:54:43	Bright	46.500	96	68Del Leo	2.5600	9300.0	93	40263	No
174	GOM_NL__2PRFIN20091111_222226_000000502084_00130_40264_0076.N1	11-NOV-2009 22:22:26	Dark	50.000	34	Gam2Vel	1.7930	23000.	100	40264	No
175	GOM_NL__2PRFIN20091111_222719_000000622084_00130_40264_0077.N1	11-NOV-2009 22:27:19	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	40264	No
176	GOM_NL__2PRFIN20091111_224356_000000532084_00130_40264_0078.N1	11-NOV-2009 22:43:56	Straylight	52.500	165	34Gam Eri	2.9500	3200.0	105	40264	No
177	GOM_NL__2PRFIN20091111_224939_000000472084_00130_40264_0079.N1	11-NOV-2009 22:49:39	Tw_i_and_stray	47.000	94	92Alp Cet	2.5260	3100.0	94	40264	No
178	GOM_NL__2PRFIN20091111_225508_000000402084_00130_40264_0080.N1	11-NOV-2009 22:55:08	Bright	40.000	50	13Alp Ari	2.0070	4250.0	80	40264	No
179	GOM_NL__2PRFIN20091111_225707_000000432084_00130_40264_0081.N1	11-NOV-2009 22:57:07	Bright	43.000	146	25Eta Tau	2.8730	15200.	86	40264	No
180	GOM_NL__2PRFIN20091111_225827_000000362084_00130_40264_0082.N1	11-NOV-2009 22:58:27	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	40264	No
181	GOM_NL__2PRFIN20091111_230031_000000362084_00130_40264_0083.N1	11-NOV-2009 23:00:31	Bright	35.500	73	57Gam1And	2.2600	13100.	71	40264	No
182	GOM_NL__2PRFIN20091111_230222_000000452084_00130_40264_0084.N1	11-NOV-2009 23:02:22	Bright	44.500	149	45Eps Per	2.8880	30000.	89	40264	No
183	GOM_NL__2PRFIN20091111_230356_000000412084_00130_40264_0085.N1	11-NOV-2009 23:03:56	Bright	41.000	35	33Alp Per	1.7950	6250.0	82	40264	No
184	GOM_NL__2PRFIN20091111_232131_000000412084_00130_40264_0086.N1	11-NOV-2009 23:21:31	Bright	40.500	36	50Alp UMa	1.8000	6300.0	81	40264	No
185	GOM_NL__2PRFIN20091111_232309_000000592084_00130_40264_0087.N1	11-NOV-2009 23:23:09	Bright	59.000	82	48Bet UMa	2.3650	10600.	118	40264	No
186	GOM_NL__2PRFIN20091111_232706_000000412084_00130_40264_0088.N1	11-NOV-2009 23:27:06	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	40264	No
187	GOM_NL__2PRFIN20091111_233519_000000652084_00130_40264_0089.N1	11-NOV-2009 23:35:19	Bright	64.500	96	68Del Leo	2.5600	9300.0	129	40264	No

3. Quality information per product

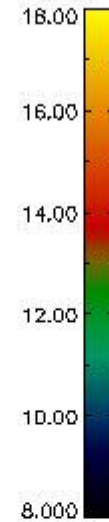
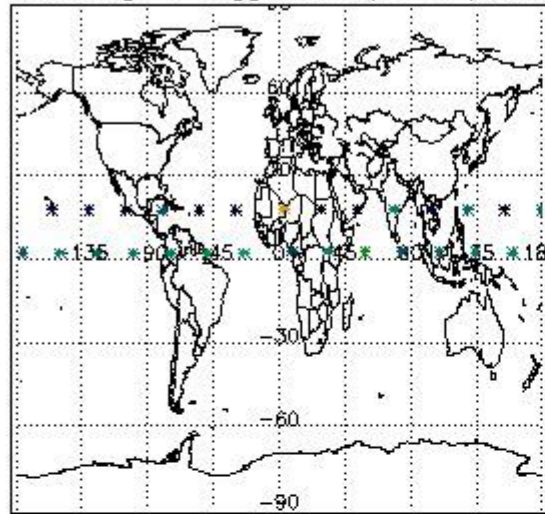
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

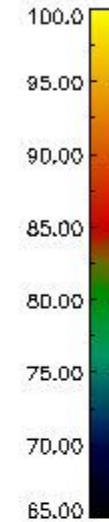
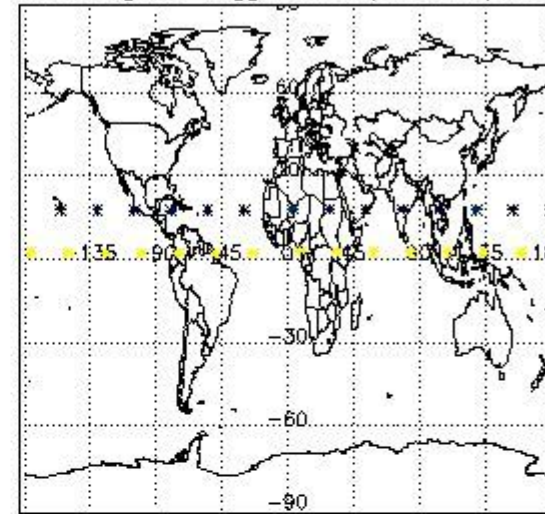


3.2 Plot quality information per product (world map)

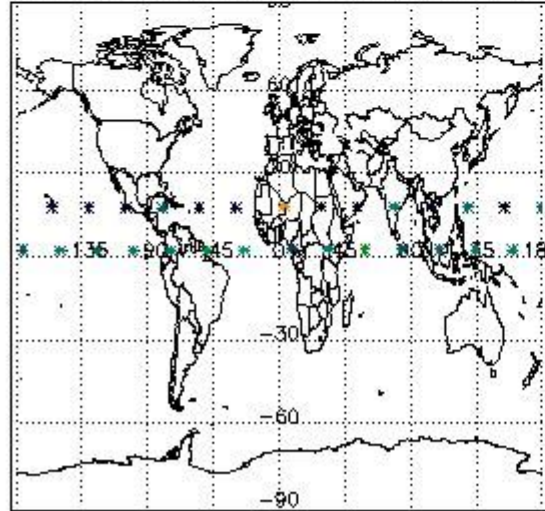
Percentage of flagged data per O3 profile



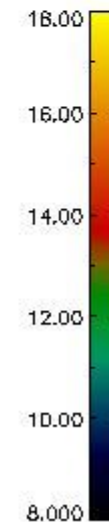
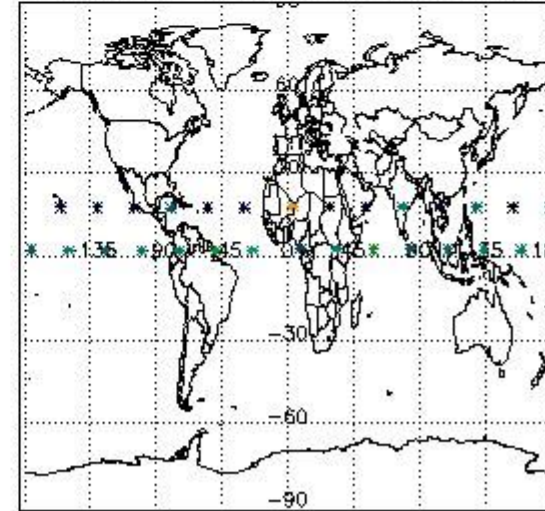
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

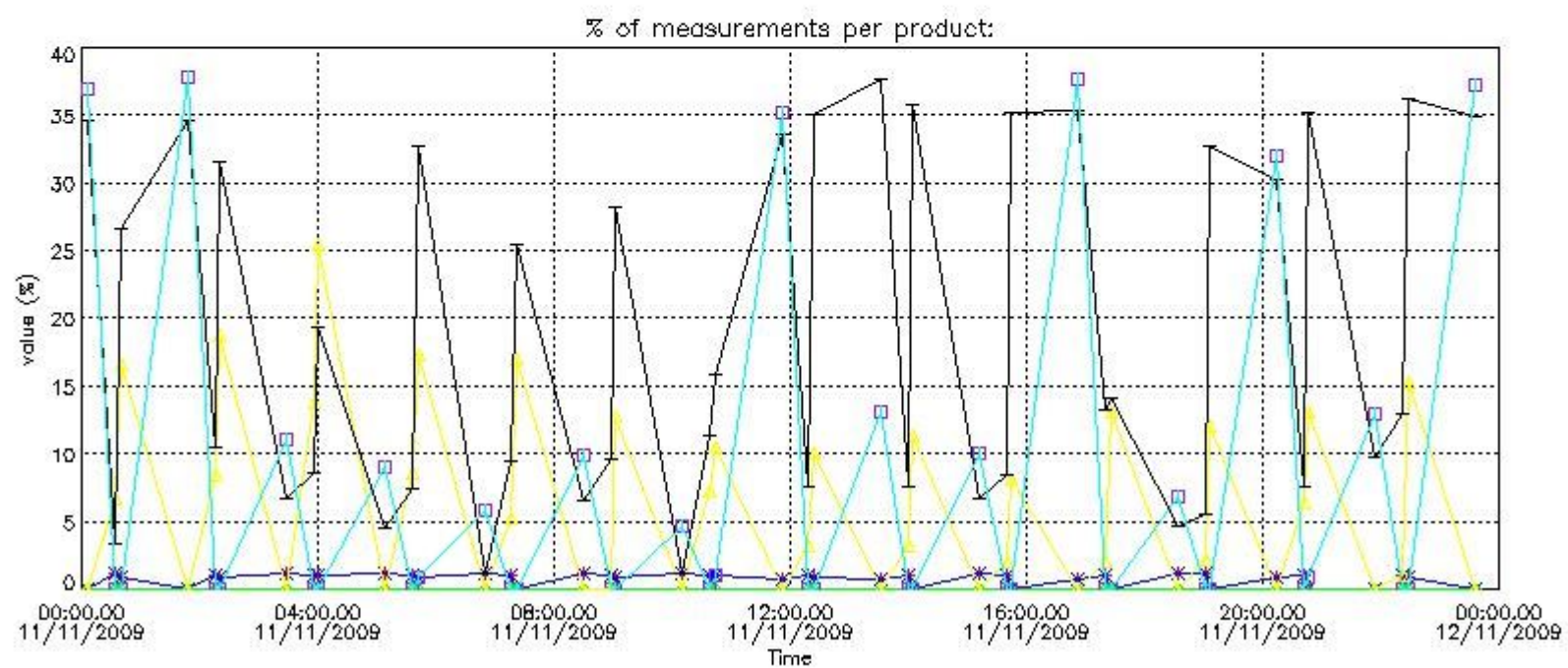
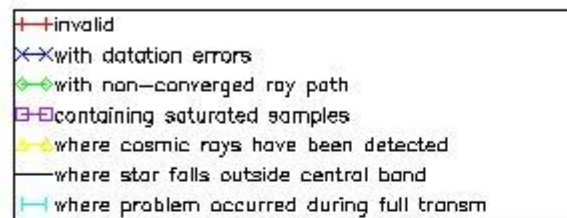


4. Level 1 quality information per product

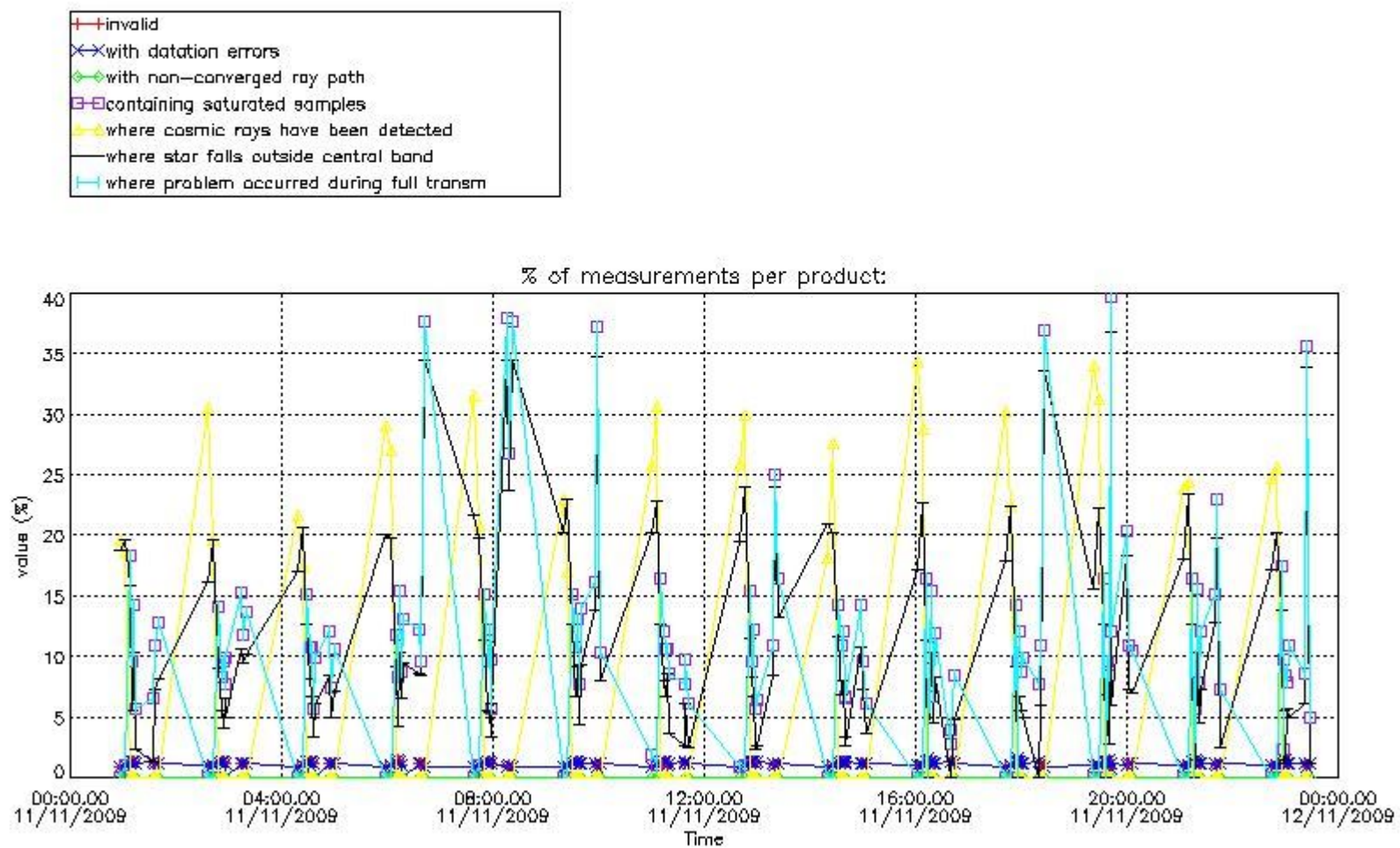
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

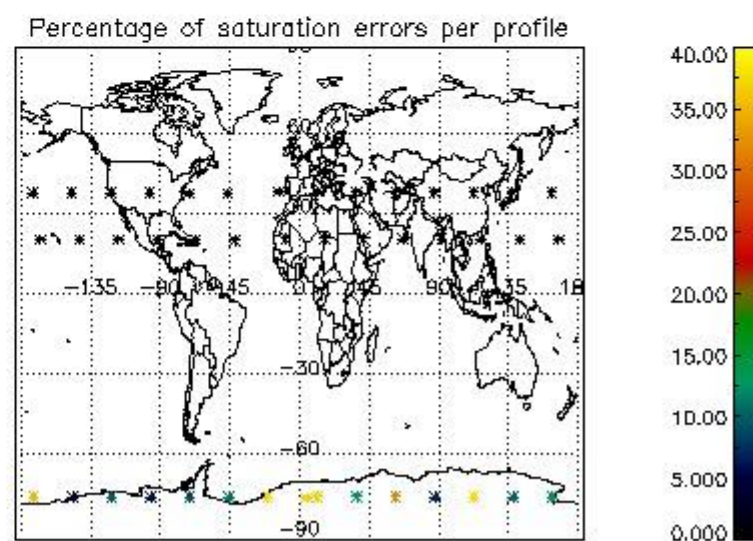
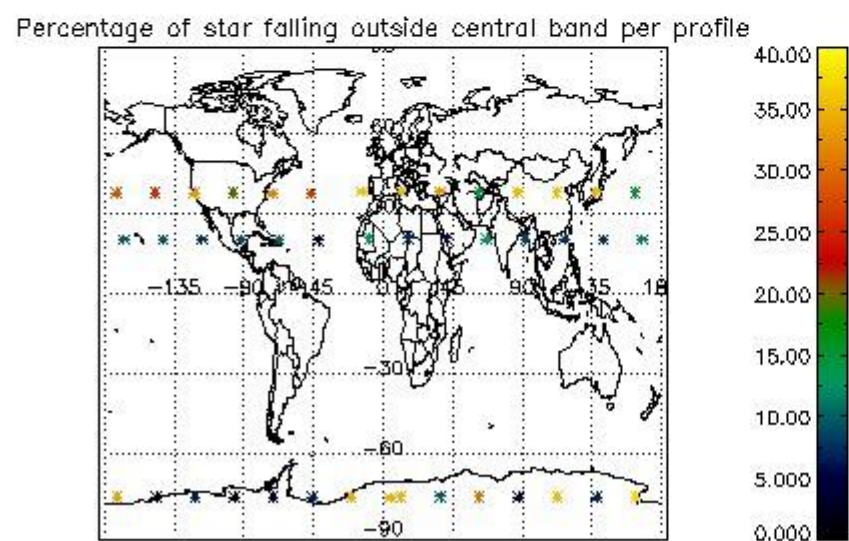
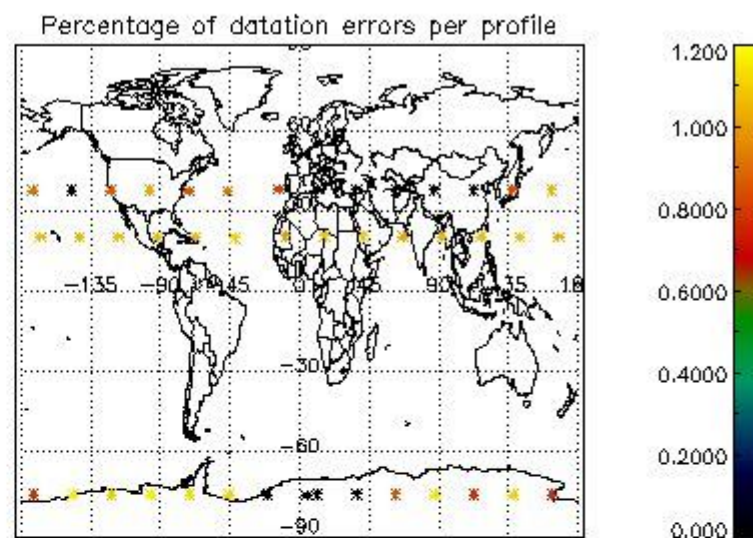
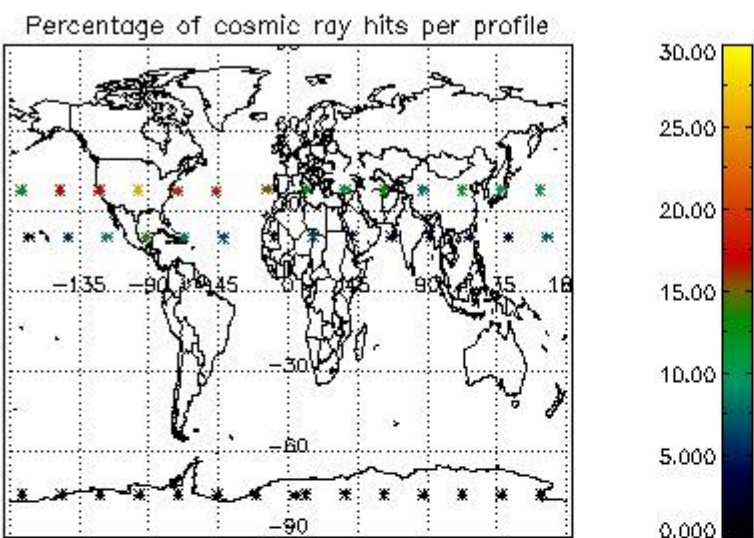


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

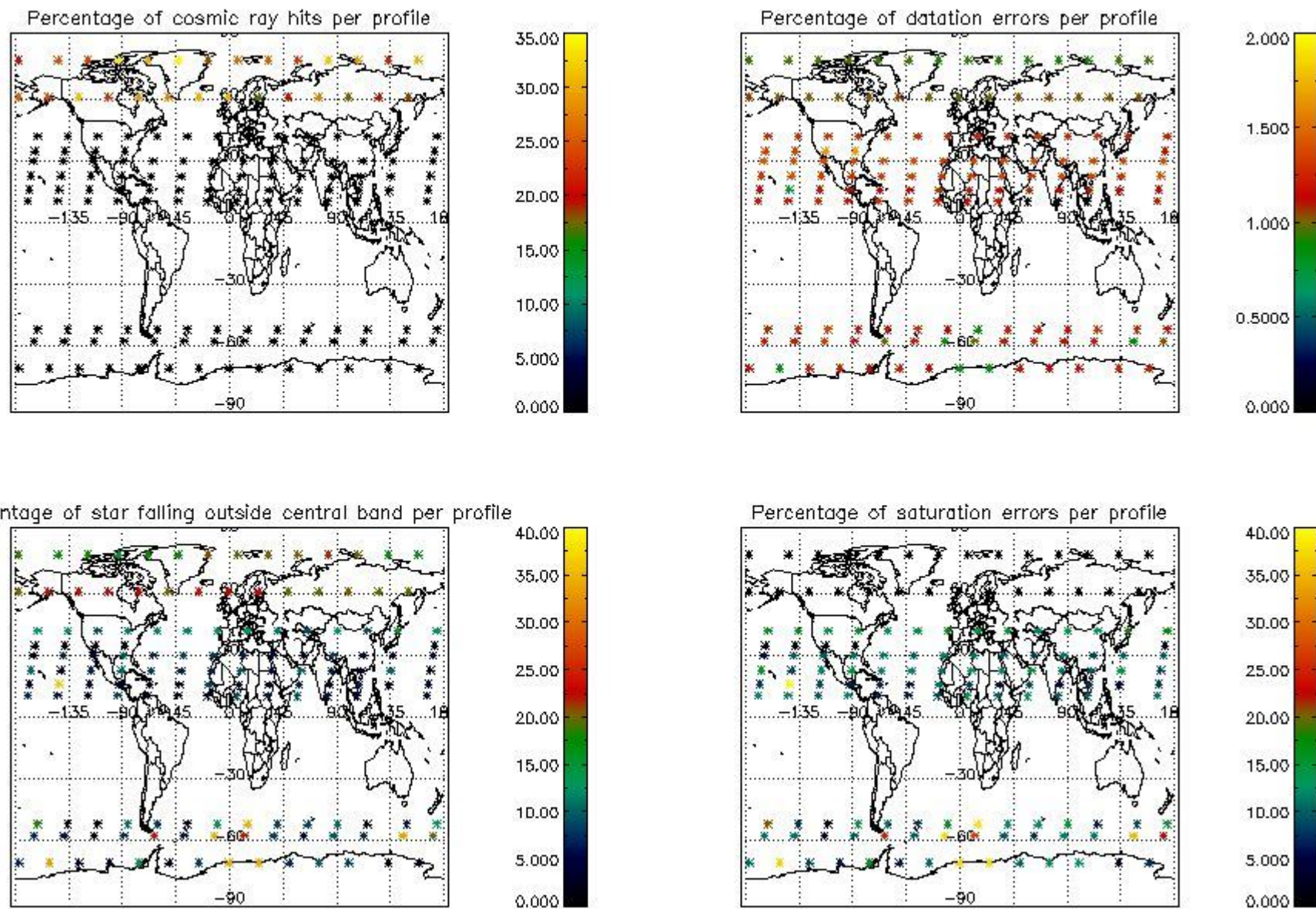


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

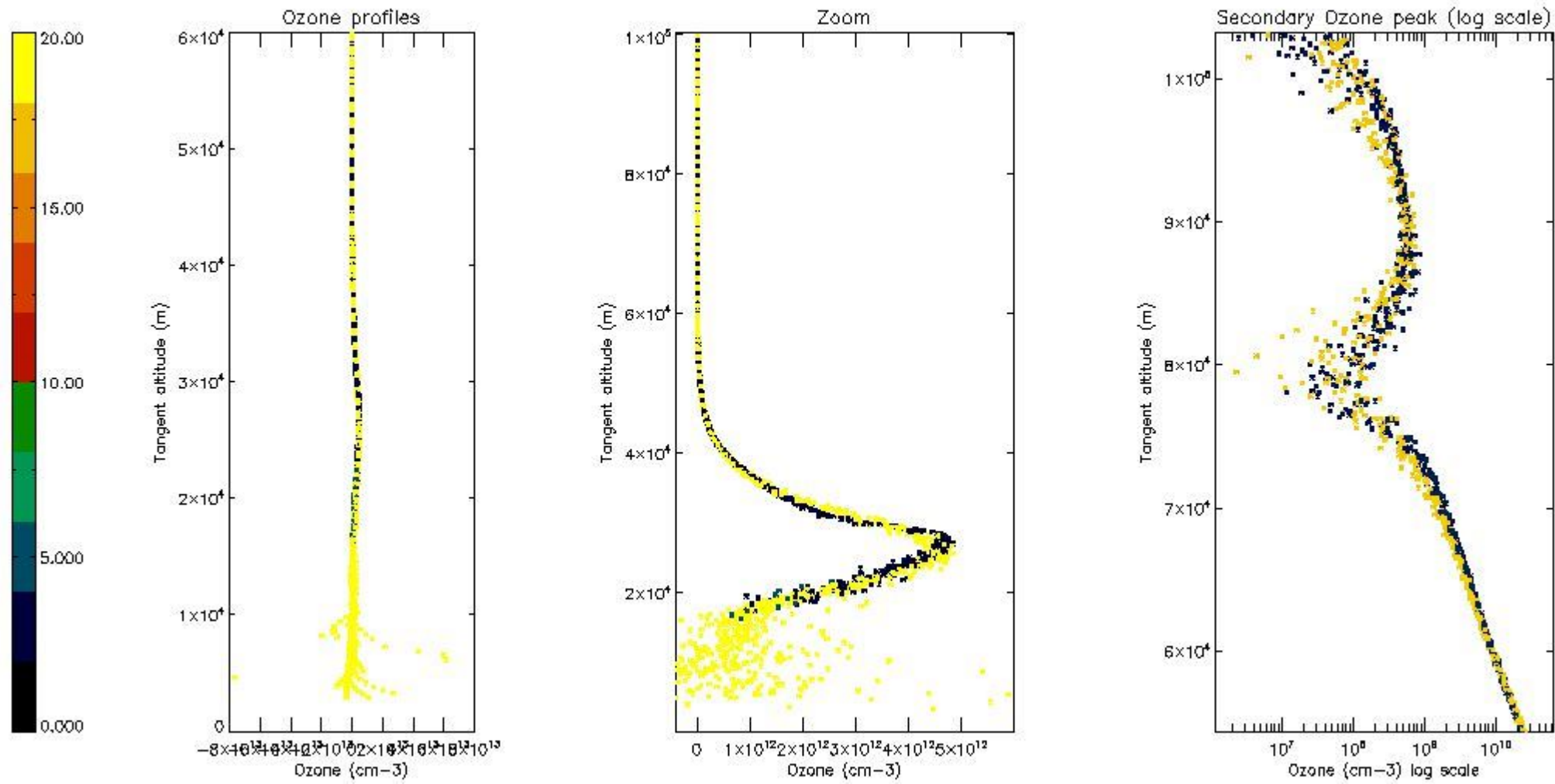
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	12

STD < 10	11
STD < 5	9

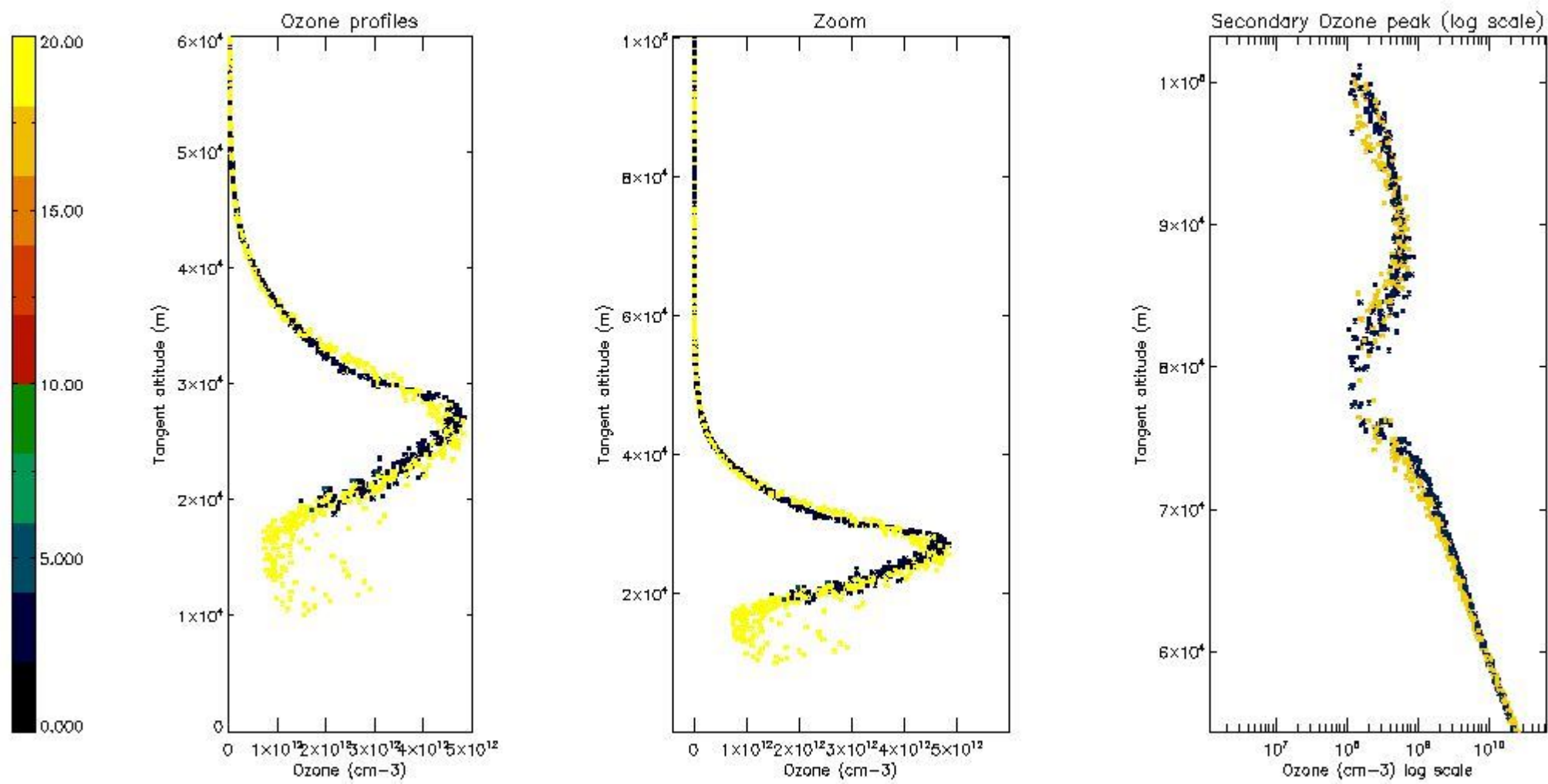
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



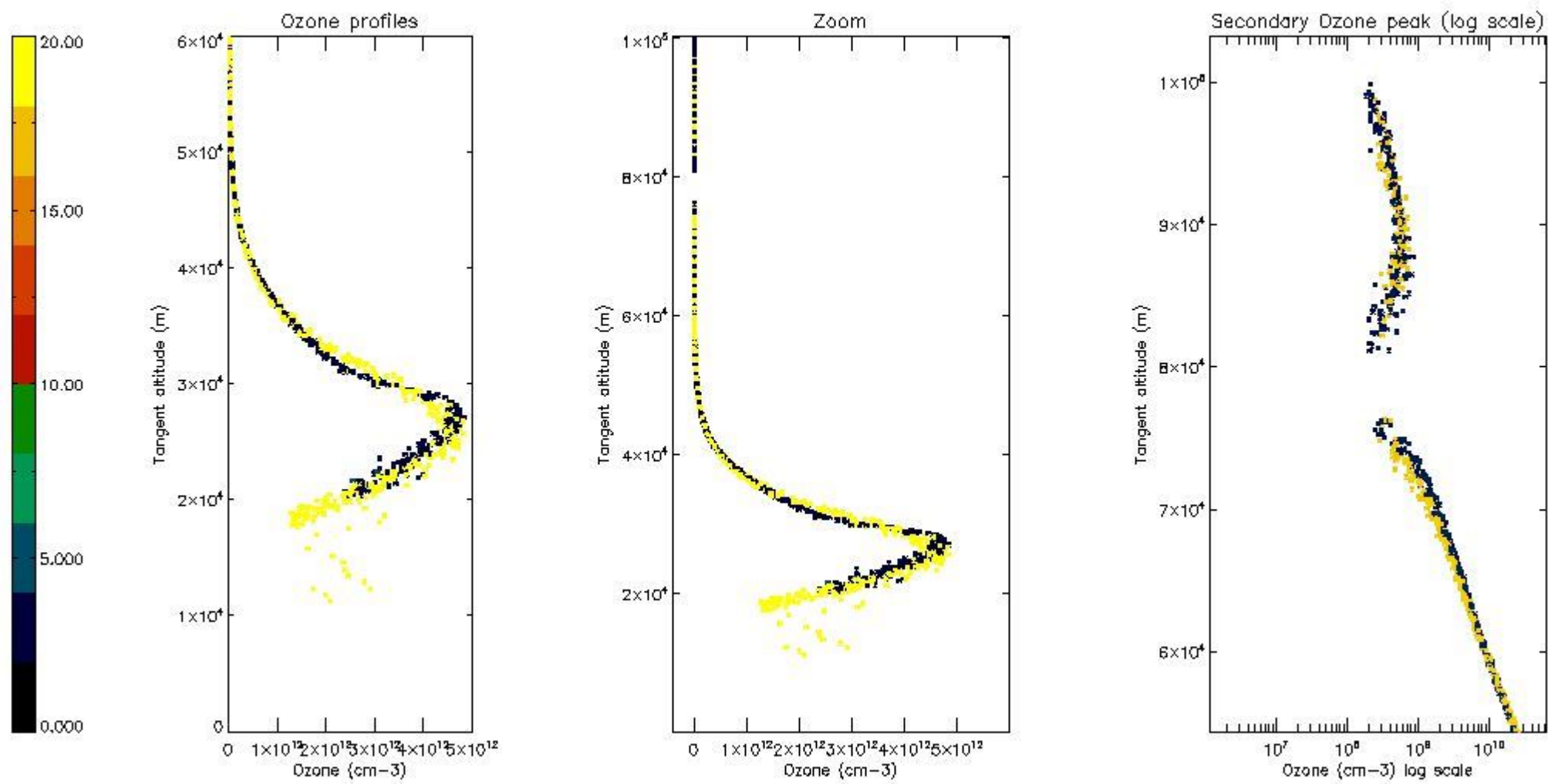
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



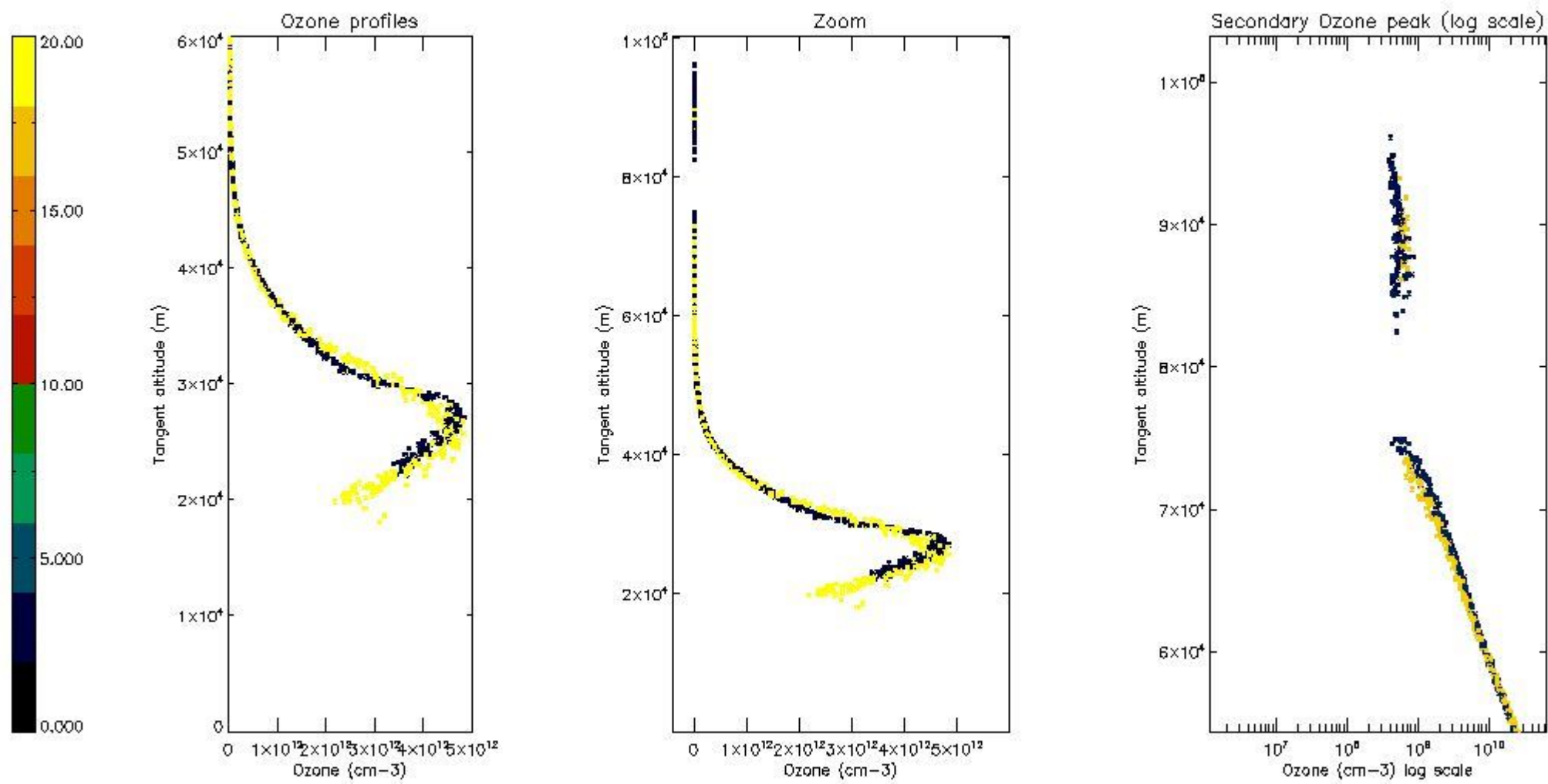
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



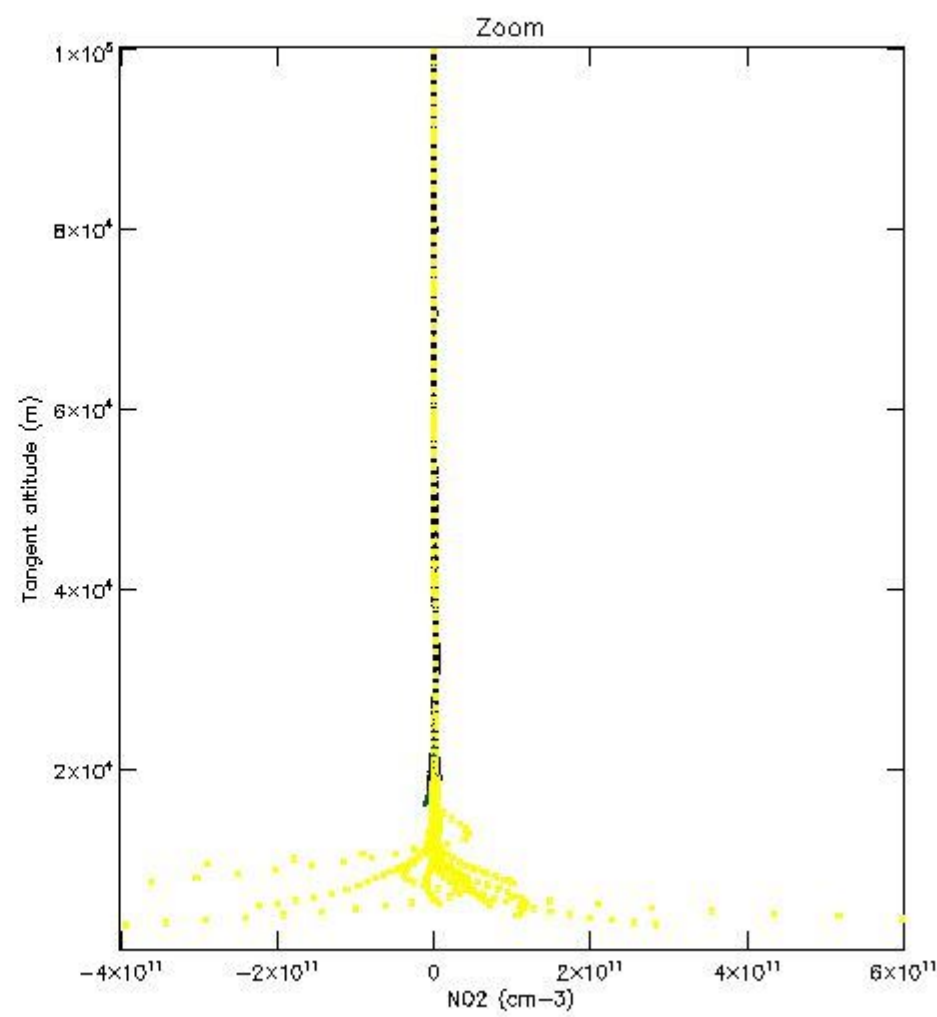
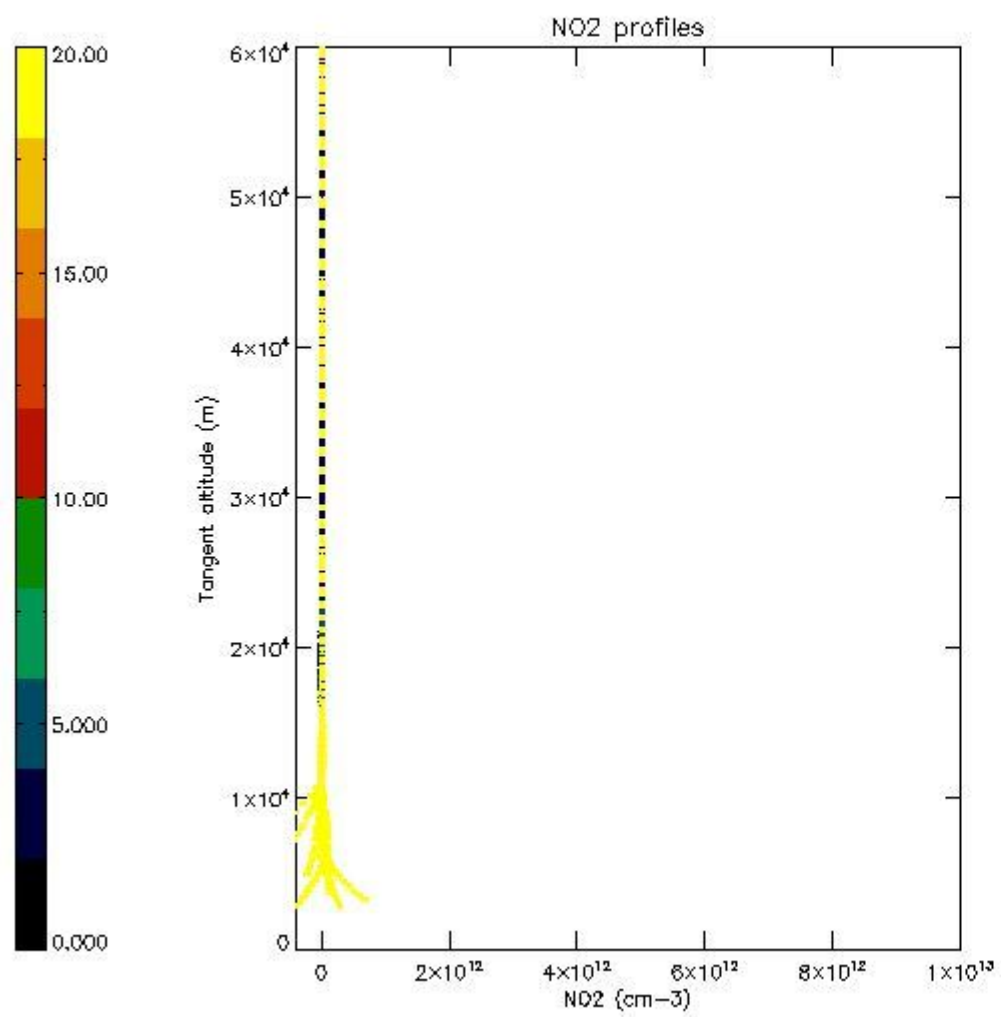
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



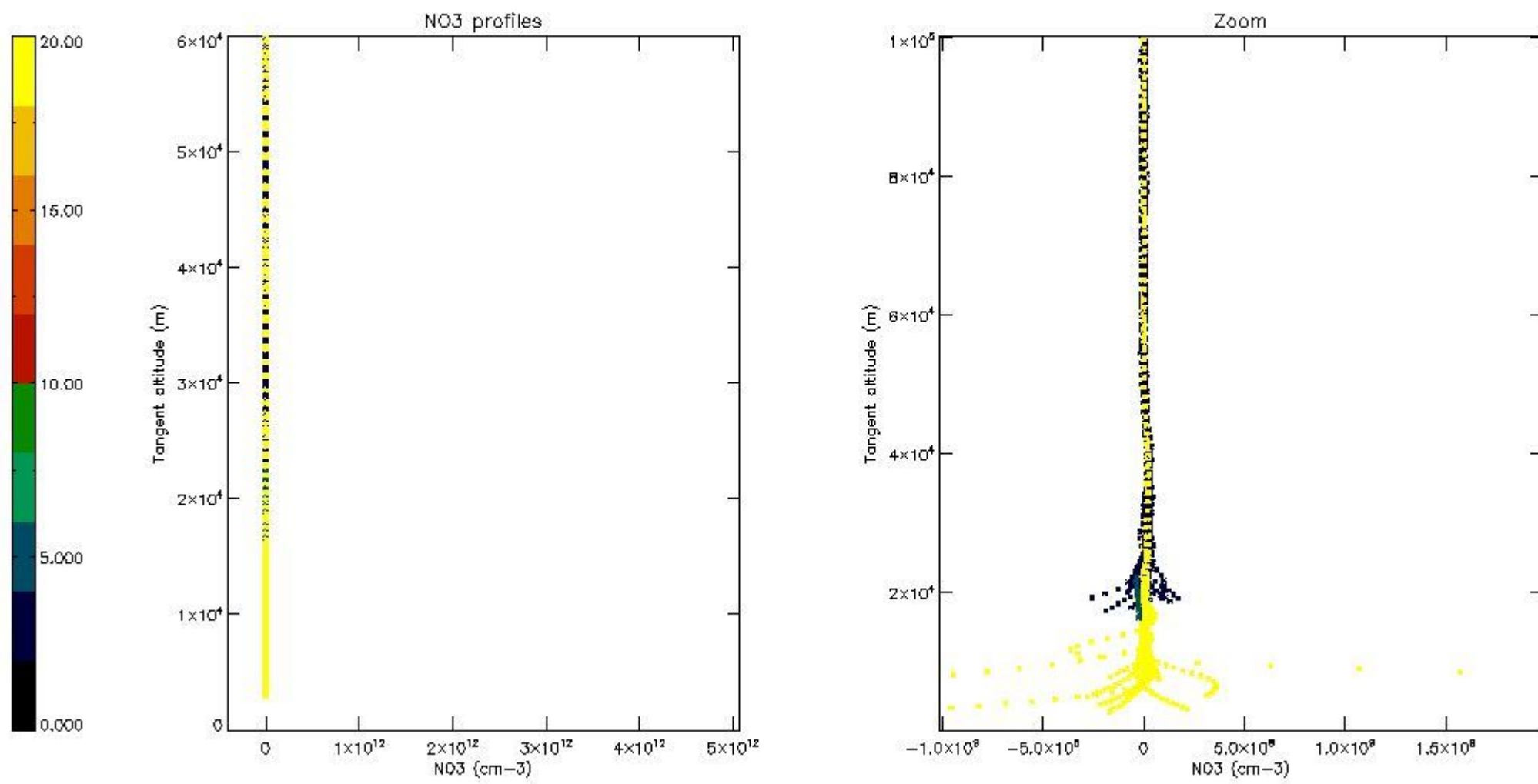
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



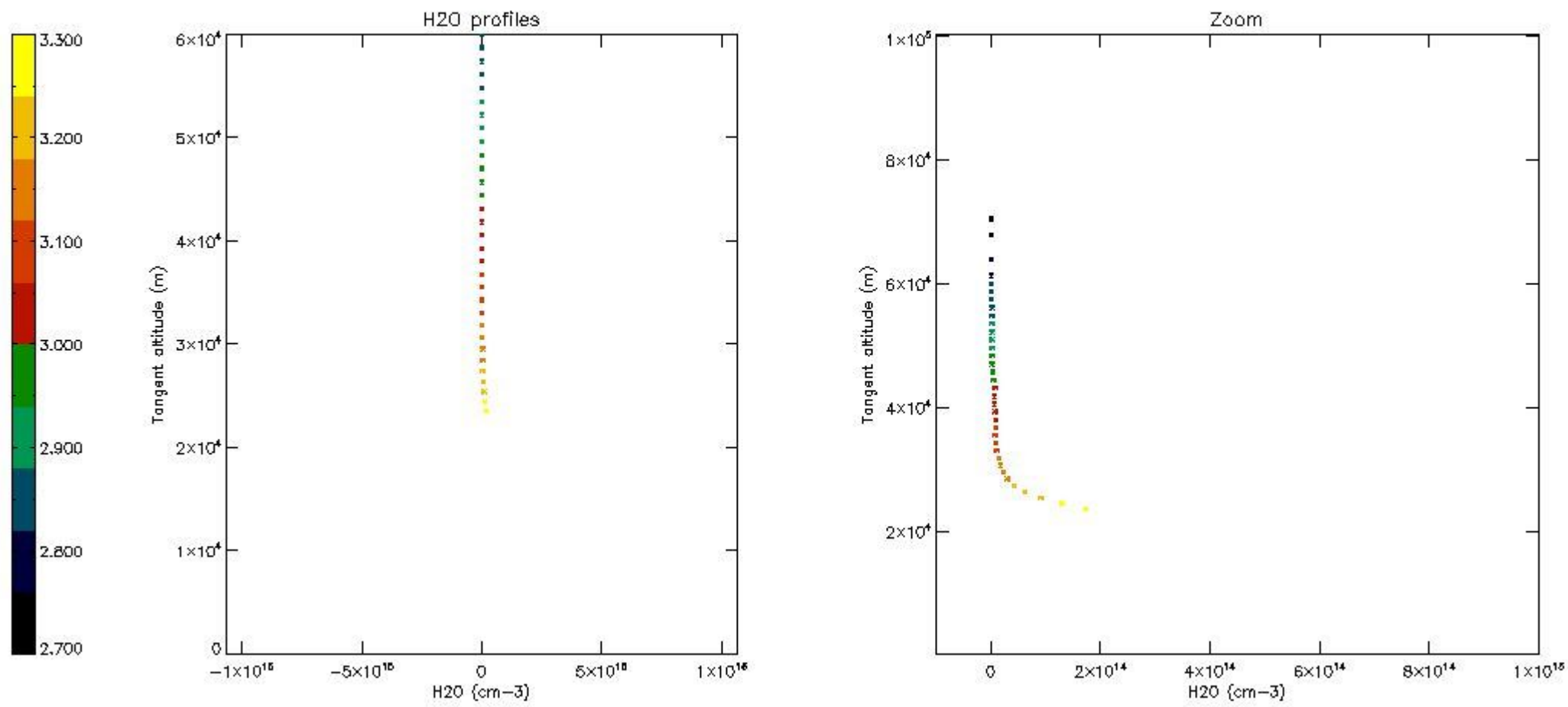
5.7 Plot NO3 profiles for all STD (dark without errors)

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	11-NOV-2009 00:06:51
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	11-NOV-2009 00:06:51
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	11-NOV-2009 00:06:51

GOMOS Level 2 Daily Report

SUMMARY

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

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

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

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

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

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

Item	Value
Time of report generation	26APR2013 13:49:10
Data source version	GOMOS/6.01
Start time of products	11-11-2009 (11NOV2009 00:00:00)
Stop time of products	12-11-2009 (12NOV2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	187
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

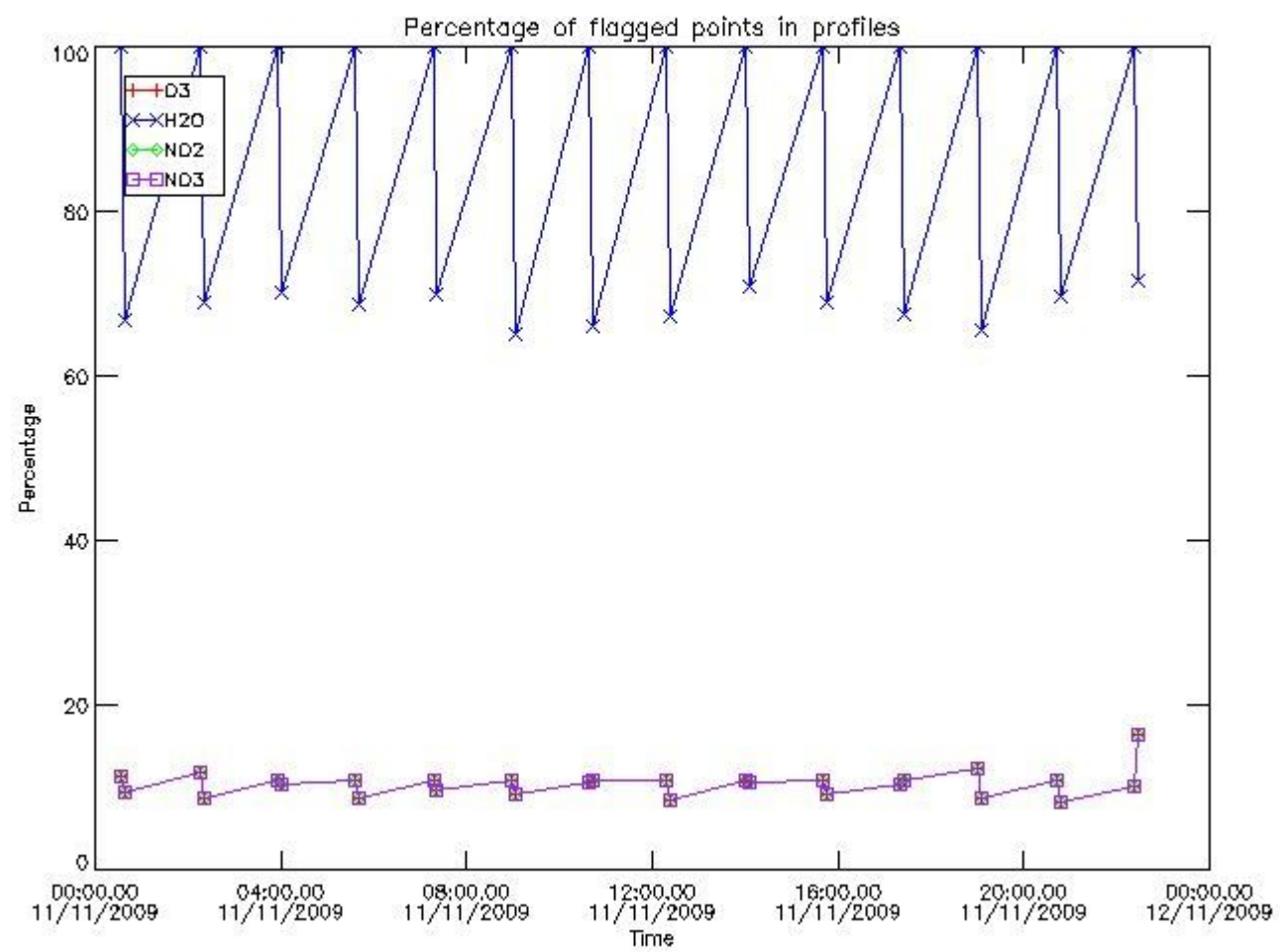
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091111_000651_000000642084_00116_40250_9813.N1	11-NOV-2009 00:06:51	Bright	63.500	96	68Del Leo	2.5600	9300.0	127	40250	No
2	GOM_NL__2PRFIN20091111_003426_000000452084_00117_40251_9813.N1	11-NOV-2009 00:34:26	Dark	45.000	34	Gam2Vel	1.7930	23000.	90	40251	No
3	GOM_NL__2PRFIN20091111_003923_000000552084_00117_40251_9814.N1	11-NOV-2009 00:39:23	Dark	54.500	2	Alp Car	-0.73600	7000.0	109	40251	No
4	GOM_NL__2PRFIN20091111_005608_000000542084_00117_40251_9815.N1	11-NOV-2009 00:56:08	Straylight	53.500	165	34Gam Eri	2.9500	3200.0	107	40251	No
5	GOM_NL__2PRFIN20091111_010153_000000492084_00117_40251_9816.N1	11-NOV-2009 01:01:53	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40251	No
6	GOM_NL__2PRFIN20091111_010721_000000412084_00117_40251_9817.N1	11-NOV-2009 01:07:21	Bright	41.000	50	13Alp Ari	2.0070	4250.0	82	40251	No
7	GOM_NL__2PRFIN20091111_011041_000000372084_00117_40251_9818.N1	11-NOV-2009 01:10:41	Bright	36.500	173	4Bet Tri	3.0040	8900.0	73	40251	No
8	GOM_NL__2PRFIN20091111_011245_000000392084_00117_40251_9819.N1	11-NOV-2009 01:12:45	Bright	38.500	73	57Gam1And	2.2600	13100.	77	40251	No
9	GOM_NL__2PRFIN20091111_011444_000000442084_00117_40251_9820.N1	11-NOV-2009 01:14:44	Bright	44.000	149	45Eps Per	2.8880	30000.	88	40251	No
10	GOM_NL__2PRFIN20091111_013346_000000392084_00117_40251_9821.N1	11-NOV-2009 01:33:46	Bright	38.500	36	50Alp UMa	1.8000	6300.0	77	40251	No
11	GOM_NL__2PRFIN20091111_013524_000000422084_00117_40251_9822.N1	11-NOV-2009 01:35:24	Bright	41.500	82	48Bet UMa	2.3650	10600.	83	40251	No
12	GOM_NL__2PRFIN20091111_013919_000000432084_00117_40251_9823.N1	11-NOV-2009 01:39:19	Bright	43.000	174	52Psi UMa	3.0040	4400.0	86	40251	No
13	GOM_NL__2PRFIN20091111_014727_000000642084_00117_40251_9824.N1	11-NOV-2009 01:47:27	Bright	63.500	96	68Del Leo	2.5600	9300.0	127	40251	No
14	GOM_NL__2PRFIN20091111_021503_000000482084_00118_40252_9824.N1	11-NOV-2009 02:15:03	Dark	47.500	34	Gam2Vel	1.7930	23000.	95	40252	No
15	GOM_NL__2PRFIN20091111_022000_000000592084_00118_40252_9825.N1	11-NOV-2009 02:20:00	Dark	58.500	2	Alp Car	-0.73600	7000.0	117	40252	No
16	GOM_NL__2PRFIN20091111_023644_000000532084_00118_40252_9826.N1	11-NOV-2009 02:36:44	Straylight	52.500	165	34Gam Eri	2.9500	3200.0	105	40252	No
17	GOM_NL__2PRFIN20091111_024229_000000492084_00118_40252_9827.N1	11-NOV-2009 02:42:29	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40252	No
18	GOM_NL__2PRFIN20091111_024757_000000392084_00118_40252_9828.N1	11-NOV-2009 02:47:57	Bright	39.000	50	13Alp Ari	2.0070	4250.0	78	40252	No
19	GOM_NL__2PRFIN20091111_025117_000000372084_00118_40252_9829.N1	11-NOV-2009 02:51:17	Bright	36.500	173	4Bet Tri	3.0040	8900.0	73	40252	No
20	GOM_NL__2PRFIN20091111_025321_000000372084_00118_40252_9830.N1	11-NOV-2009 02:53:21	Bright	36.500	73	57Gam1And	2.2600	13100.	73	40252	No
21	GOM_NL__2PRFIN20091111_025519_000000462084_00118_40252_9831.N1	11-NOV-2009 02:55:19	Bright	45.500	149	45Eps Per	2.8880	30000.	91	40252	No
22	GOM_NL__2PRFIN20091111_025650_000000412084_00118_40252_9832.N1	11-NOV-2009 02:56:50	Bright	40.500	35	33Alp Per	1.7950	6250.0	81	40252	No
23	GOM_NL__2PRFIN20091111_031422_000000432084_00118_40252_9833.N1	11-NOV-2009 03:14:22	Bright	42.500	36	50Alp UMa	1.8000	6300.0	85	40252	No
24	GOM_NL__2PRFIN20091111_031600_000000432084_00118_40252_9834.N1	11-NOV-2009 03:16:00	Bright	42.500	82	48Bet UMa	2.3650	10600.	85	40252	No
25	GOM_NL__2PRFIN20091111_031955_000000442084_00118_40252_9835.N1	11-NOV-2009 03:19:55	Bright	44.000	174	52Psi UMa	3.0040	4400.0	88	40252	No
26	GOM_NL__2PRFIN20091111_032804_000000452084_00118_40252_9836.N1	11-NOV-2009 03:28:04	Bright	45.000	96	68Del Leo	2.5600	9300.0	90	40252	No
27	GOM_NL__2PRFIN20091111_035540_000000472084_00119_40253_9855.N1	11-NOV-2009 03:55:40	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	40253	No
28	GOM_NL__2PRFIN20091111_040036_000000492084_00119_40253_9856.N1	11-NOV-2009 04:00:36	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	40253	No
29	GOM_NL__2PRFIN20091111_041721_000000532084_00119_40253_9857.N1	11-NOV-2009 04:17:21	Straylight	53.000	165	34Gam Eri	2.9500	3200.0	106	40253	No
30	GOM_NL__2PRFIN20091111_042305_000000492084_00119_40253_9858.N1	11-NOV-2009 04:23:05	Twilight	48.500	94	92Alp Cet	2.5260	3100.0	97	40253	No
31	GOM_NL__2PRFIN20091111_042833_000000402084_00119_40253_9859.N1	11-NOV-2009 04:28:33	Bright	39.500	50	13Alp Ari	2.0070	4250.0	79	40253	No
32	GOM_NL__2PRFIN20091111_043153_000000372084_00119_40253_9860.N1	11-NOV-2009 04:31:53	Bright	37.000	173	4Bet Tri	3.0040	8900.0	74	40253	No
33	GOM_NL__2PRFIN20091111_043357_000000372084_00119_40253_9861.N1	11-NOV-2009 04:33:57	Bright	37.000	73	57Gam1And	2.2600	13100.	74	40253	No
34	GOM_NL__2PRFIN20091111_043555_000000452084_00119_40253_9862.N1	11-NOV-2009 04:35:55	Bright	44.500	149	45Eps Per	2.8880	30000.	89	40253	No
35	GOM_NL__2PRFIN20091111_043726_000000412084_00119_40253_9863.N1	11-NOV-2009 04:37:26	Bright	40.500	35	33Alp Per	1.7950	6250.0	81	40253	No
36	GOM_NL__2PRFIN20091111_045458_000000422084_00119_40253_9864.N1	11-NOV-2009 04:54:58	Bright	41.500	36	50Alp UMa	1.8000	6300.0	83	40253	No
37	GOM_NL__2PRFIN20091111_045636_000000412084_00119_40253_9865.N1	11-NOV-2009 04:56:36	Bright	40.500	82	48Bet UMa	2.3650	10600.	81	40253	No
38	GOM_NL__2PRFIN20091111_050031_000000432084_00119_40253_9866.N1	11-NOV-2009 05:00:31	Bright	42.500	174	52Psi UMa	3.0040	4400.0	85	40253	No
39	GOM_NL__2PRFIN20091111_050840_000000452084_00119_40253_9867.N1	11-NOV-2009 05:08:40	Bright	44.500	96	68Del Leo	2.5600	9300.0	89	40253	No
40	GOM_NL__2PRFIN20091111_053617_000000472084_00120_40254_9866.N1	11-NOV-2009 05:36:17	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	40254	No
41	GOM_NL__2PRFIN20091111_054113_000000582084_00120_40254_9867.N1	11-NOV-2009 05:41:13	Dark	58.000	2	Alp Car	-0.73600	7000.0	116	40254	No
42	GOM_NL__2PRFIN20091111_055757_000000552084_00120_40254_9868.N1	11-NOV-2009 05:57:57	Straylight	55.000	165	34Gam Eri	2.9500	3200.0	110	40254	No

161	GOM_NL__2PRFIN20091111_204643_000000612084_00129_40263_0066.N1	11-NOV-2009 20:46:43	Dark	61.000	2	Alp Car	-0.73600	7000.0	122	40263	No
162	GOM_NL__2PRFIN20091111_210320_000000532084_00129_40263_0067.N1	11-NOV-2009 21:03:20	Straylight	52.500	165	34Gam Eri	2.9500	3200.0	105	40263	No
163	GOM_NL__2PRFIN20091111_210903_000000492084_00129_40263_0068.N1	11-NOV-2009 21:09:03	Twilight_stray	49.000	94	92Alp Cet	2.5260	3100.0	98	40263	No
164	GOM_NL__2PRFIN20091111_211432_000000402084_00129_40263_0069.N1	11-NOV-2009 21:14:32	Bright	39.500	50	13Alp Ari	2.0070	4250.0	79	40263	No
165	GOM_NL__2PRFIN20091111_211631_000000372084_00129_40263_0070.N1	11-NOV-2009 21:16:31	Bright	37.000	146	25Eta Tau	2.8730	15200.	74	40263	No
166	GOM_NL__2PRFIN20091111_211751_000000352084_00129_40263_0071.N1	11-NOV-2009 21:17:51	Bright	35.000	173	4Bet Tri	3.0040	8900.0	70	40263	No
167	GOM_NL__2PRFIN20091111_211955_000000392084_00129_40263_0072.N1	11-NOV-2009 21:19:55	Bright	38.500	73	57Gam1And	2.2600	13100.	77	40263	No
168	GOM_NL__2PRFIN20091111_212147_000000452084_00129_40263_0073.N1	11-NOV-2009 21:21:47	Bright	44.500	149	45Eps Per	2.8880	30000.	89	40263	No
169	GOM_NL__2PRFIN20091111_212321_000000422084_00129_40263_0074.N1	11-NOV-2009 21:23:21	Bright	41.500	35	33Alp Per	1.7950	6250.0	83	40263	No
170	GOM_NL__2PRFIN20091111_214055_000000432084_00129_40263_0075.N1	11-NOV-2009 21:40:55	Bright	43.000	36	50Alp UMa	1.8000	6300.0	86	40263	No
171	GOM_NL__2PRFIN20091111_214233_000000482084_00129_40263_0076.N1	11-NOV-2009 21:42:33	Bright	48.000	82	48Bet UMa	2.3650	10600.	96	40263	No
172	GOM_NL__2PRFIN20091111_214630_000000412084_00129_40263_0077.N1	11-NOV-2009 21:46:30	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	40263	No
173	GOM_NL__2PRFIN20091111_215443_000000472084_00129_40263_0078.N1	11-NOV-2009 21:54:43	Bright	46.500	96	68Del Leo	2.5600	9300.0	93	40263	No
174	GOM_NL__2PRFIN20091111_222226_000000502084_00130_40264_0076.N1	11-NOV-2009 22:22:26	Dark	50.000	34	Gam2Vel	1.7930	23000.	100	40264	No
175	GOM_NL__2PRFIN20091111_222719_000000622084_00130_40264_0077.N1	11-NOV-2009 22:27:19	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	40264	No
176	GOM_NL__2PRFIN20091111_224356_000000532084_00130_40264_0078.N1	11-NOV-2009 22:43:56	Straylight	52.500	165	34Gam Eri	2.9500	3200.0	105	40264	No
177	GOM_NL__2PRFIN20091111_224939_000000472084_00130_40264_0079.N1	11-NOV-2009 22:49:39	Twilight_stray	47.000	94	92Alp Cet	2.5260	3100.0	94	40264	No
178	GOM_NL__2PRFIN20091111_225508_000000402084_00130_40264_0080.N1	11-NOV-2009 22:55:08	Bright	40.000	50	13Alp Ari	2.0070	4250.0	80	40264	No
179	GOM_NL__2PRFIN20091111_225707_000000432084_00130_40264_0081.N1	11-NOV-2009 22:57:07	Bright	43.000	146	25Eta Tau	2.8730	15200.	86	40264	No
180	GOM_NL__2PRFIN20091111_225827_000000362084_00130_40264_0082.N1	11-NOV-2009 22:58:27	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	40264	No
181	GOM_NL__2PRFIN20091111_230031_000000362084_00130_40264_0083.N1	11-NOV-2009 23:00:31	Bright	35.500	73	57Gam1And	2.2600	13100.	71	40264	No
182	GOM_NL__2PRFIN20091111_230222_000000452084_00130_40264_0084.N1	11-NOV-2009 23:02:22	Bright	44.500	149	45Eps Per	2.8880	30000.	89	40264	No
183	GOM_NL__2PRFIN20091111_230356_000000412084_00130_40264_0085.N1	11-NOV-2009 23:03:56	Bright	41.000	35	33Alp Per	1.7950	6250.0	82	40264	No
184	GOM_NL__2PRFIN20091111_232131_000000412084_00130_40264_0086.N1	11-NOV-2009 23:21:31	Bright	40.500	36	50Alp UMa	1.8000	6300.0	81	40264	No
185	GOM_NL__2PRFIN20091111_232309_000000592084_00130_40264_0087.N1	11-NOV-2009 23:23:09	Bright	59.000	82	48Bet UMa	2.3650	10600.	118	40264	No
186	GOM_NL__2PRFIN20091111_232706_000000412084_00130_40264_0088.N1	11-NOV-2009 23:27:06	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	40264	No
187	GOM_NL__2PRFIN20091111_233519_000000652084_00130_40264_0089.N1	11-NOV-2009 23:35:19	Bright	64.500	96	68Del Leo	2.5600	9300.0	129	40264	No

3. Quality information per product

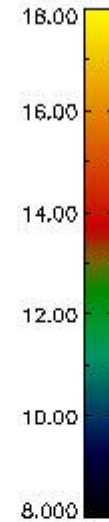
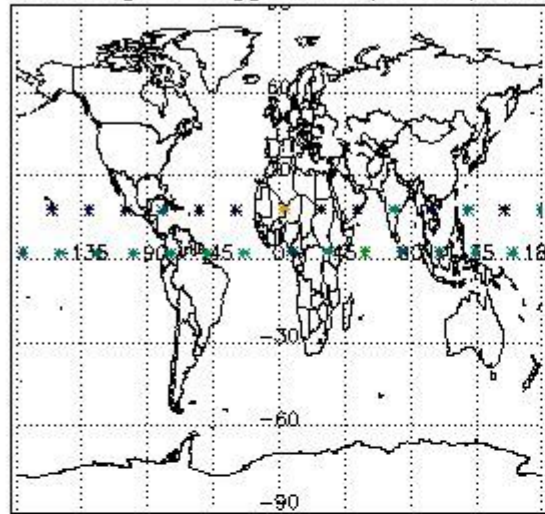
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

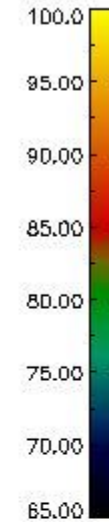
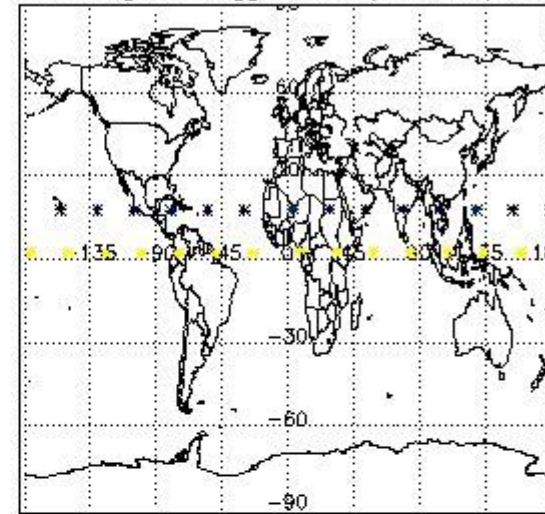


3.2 Plot quality information per product (world map)

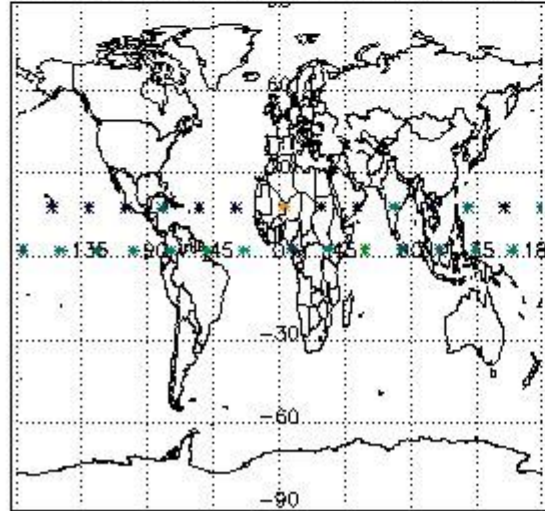
Percentage of flagged data per O3 profile



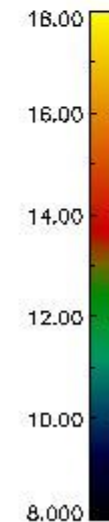
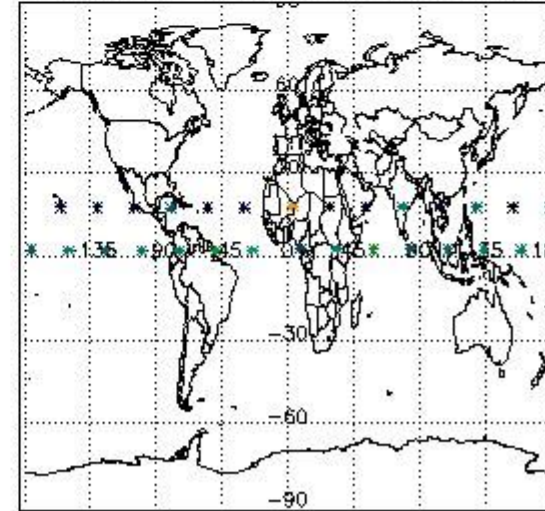
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

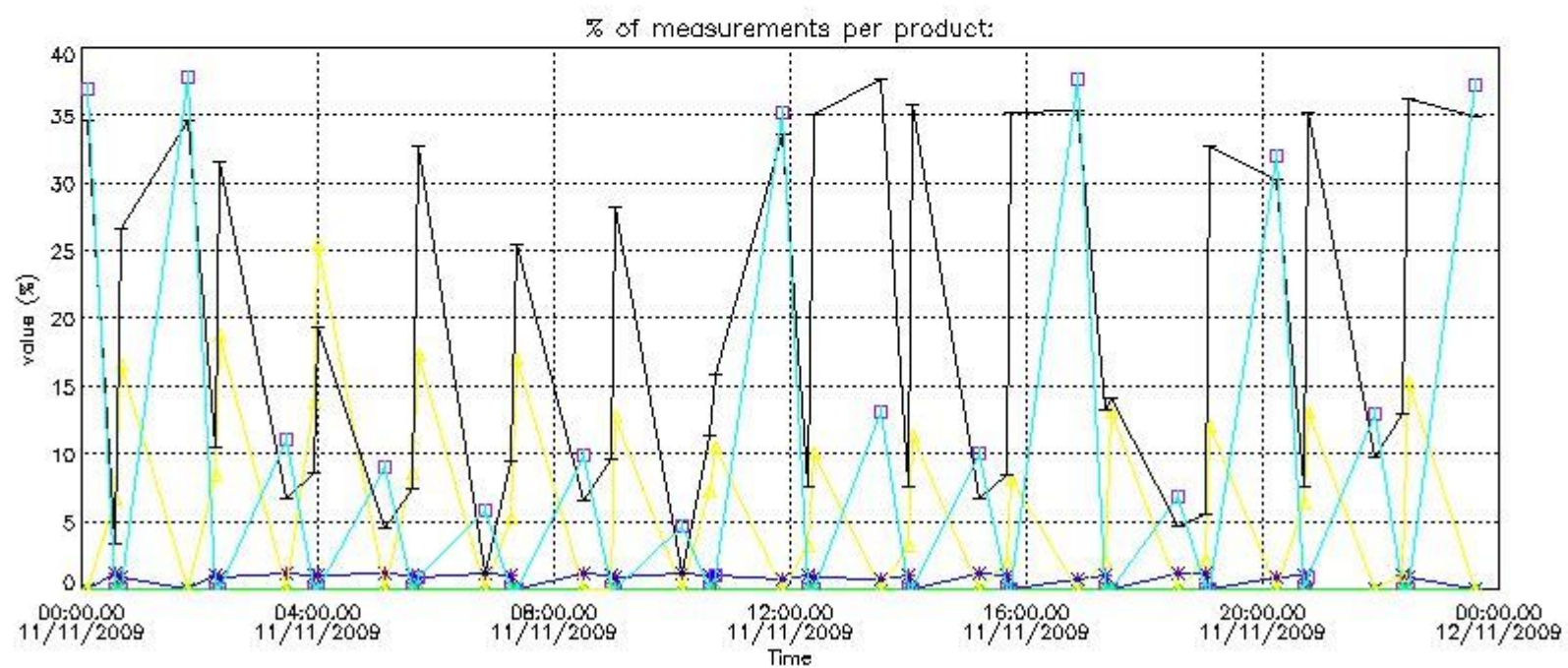
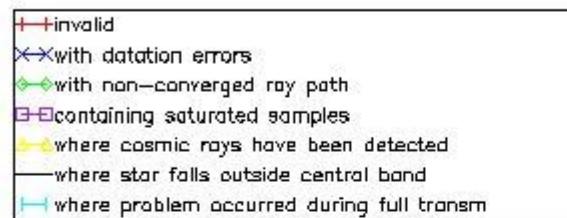


4. Level 1 quality information per product

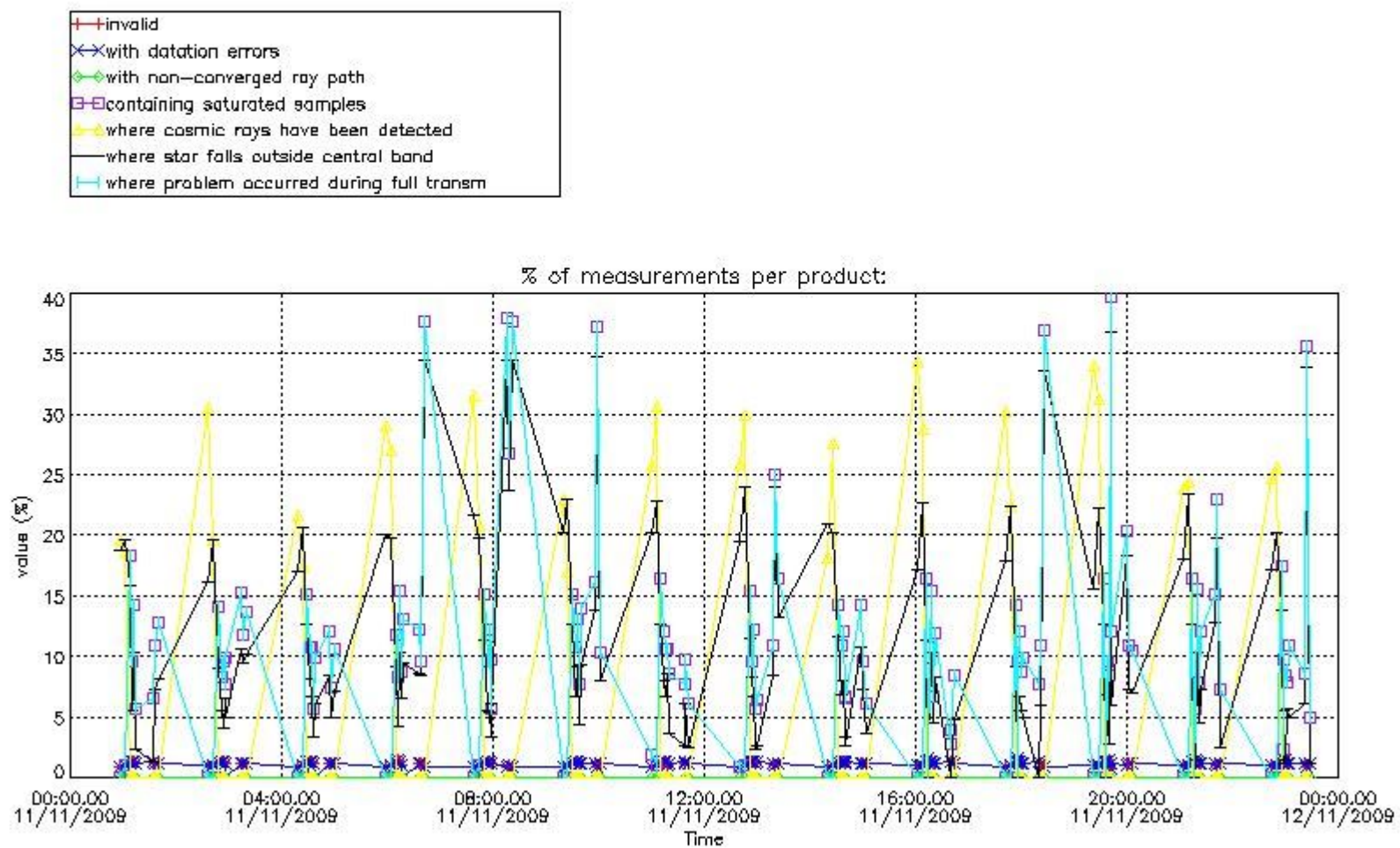
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

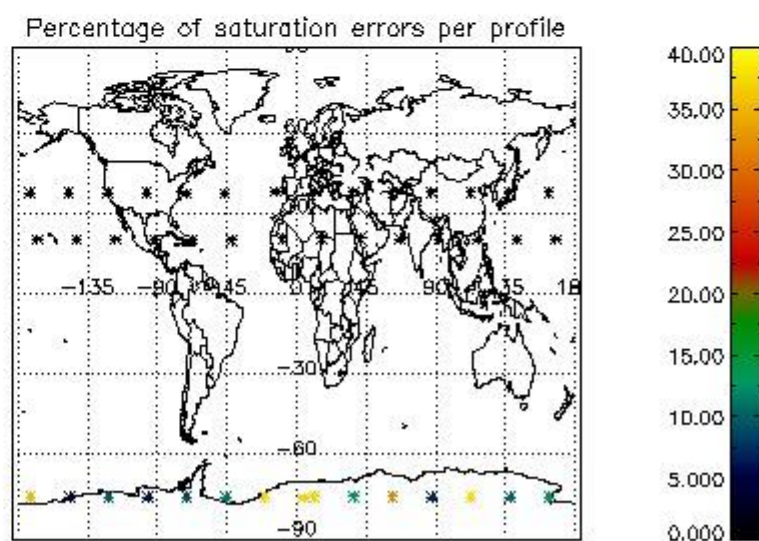
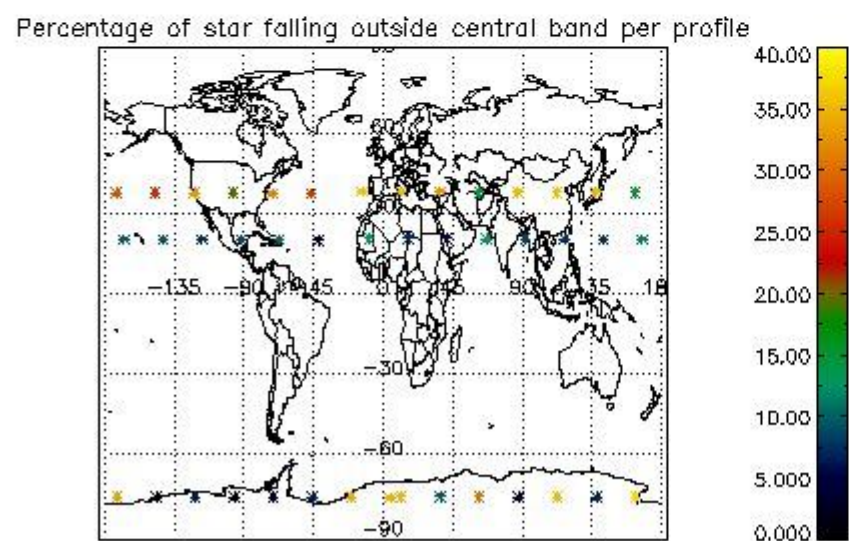
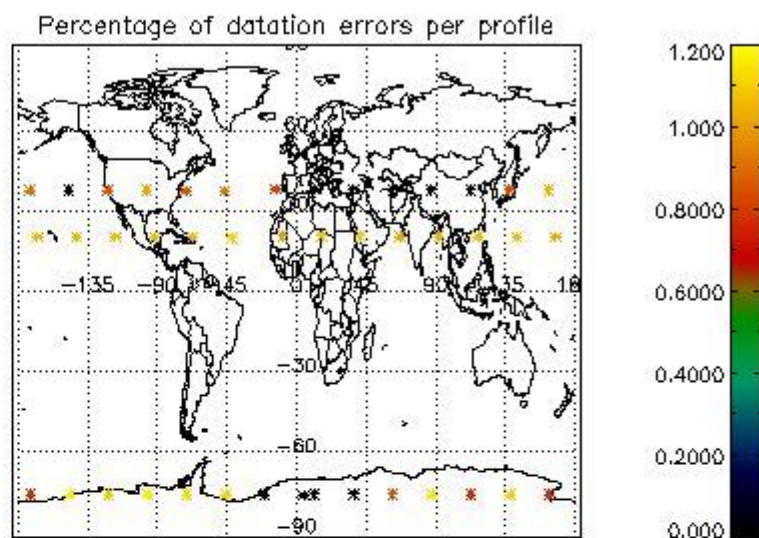
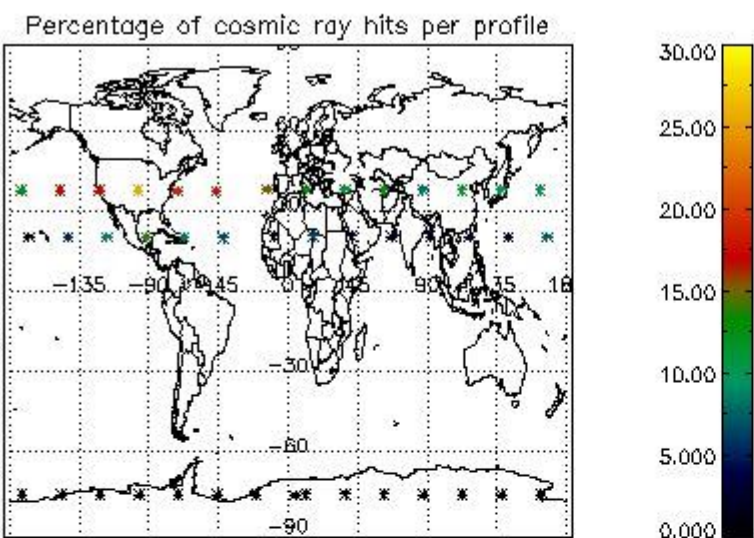


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

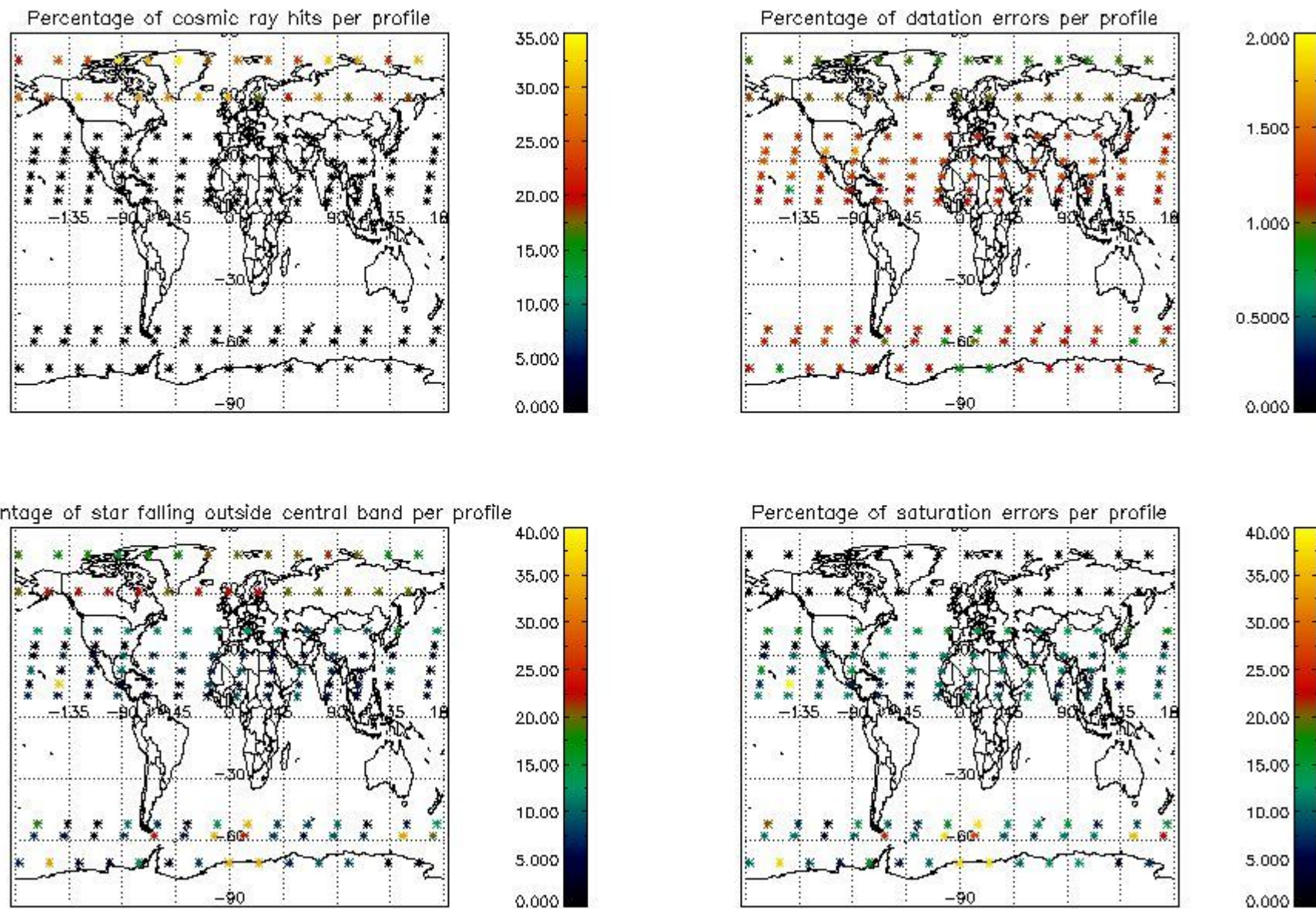


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

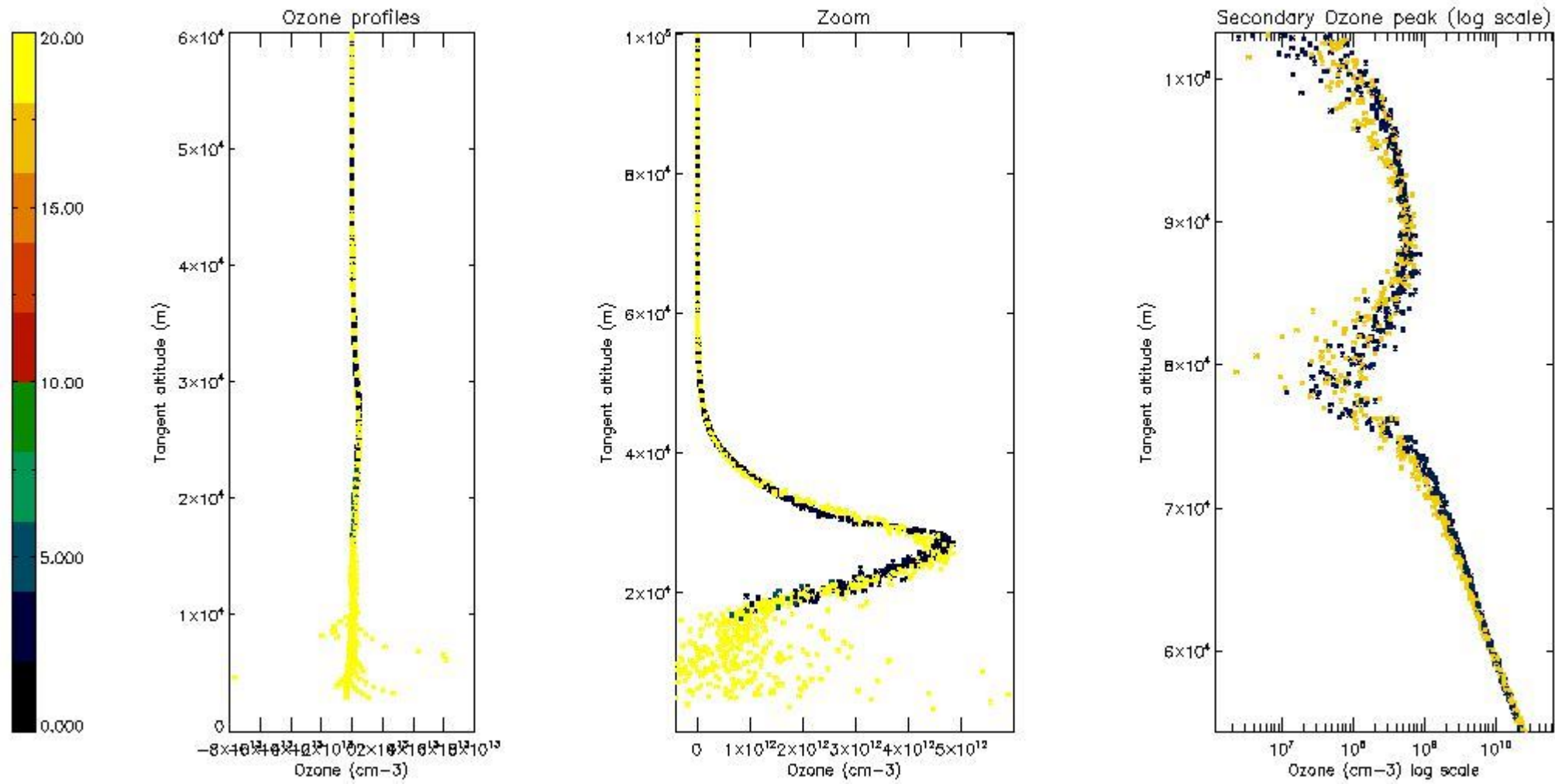
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	12

STD < 10	11
STD < 5	9

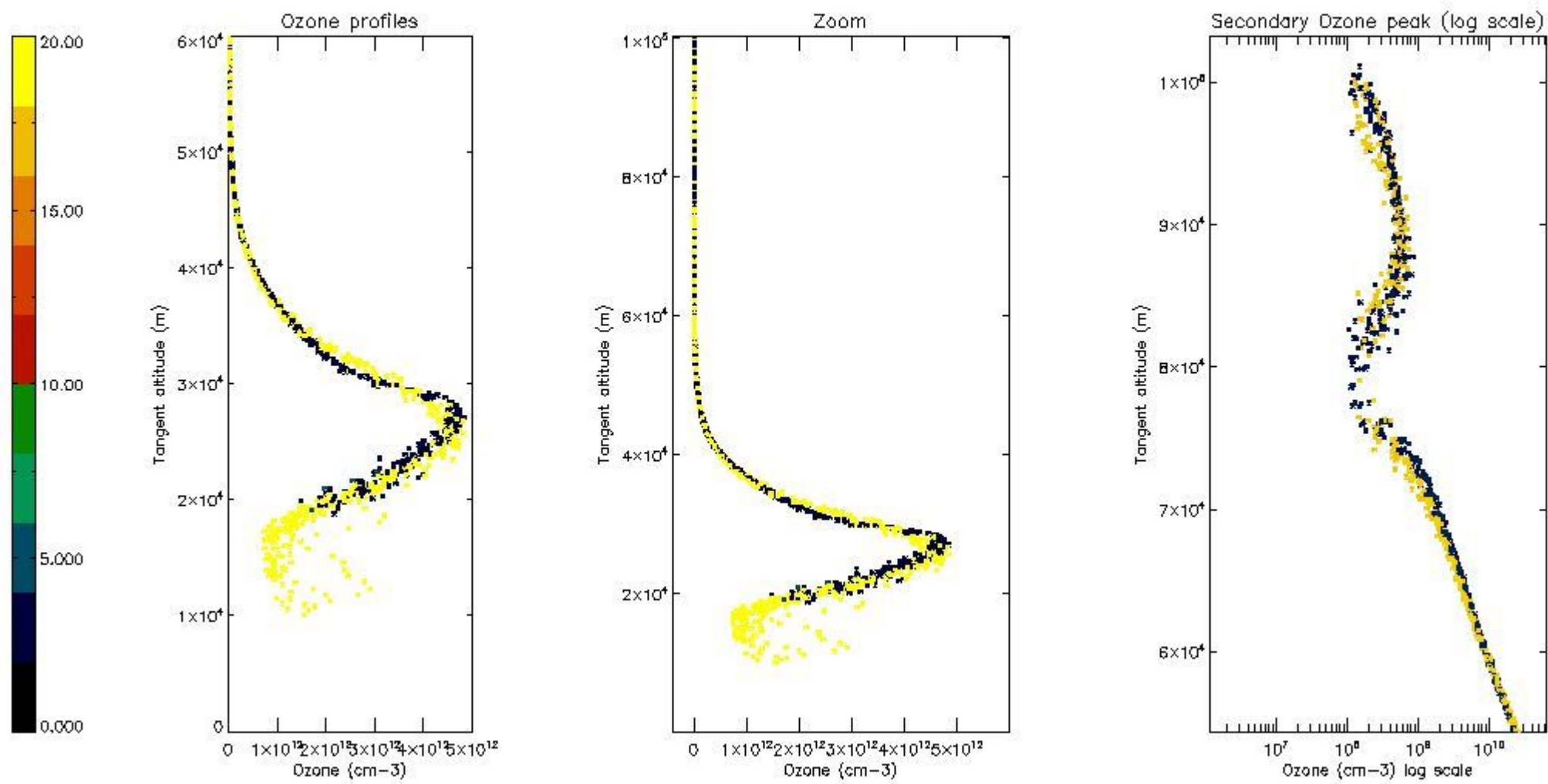
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



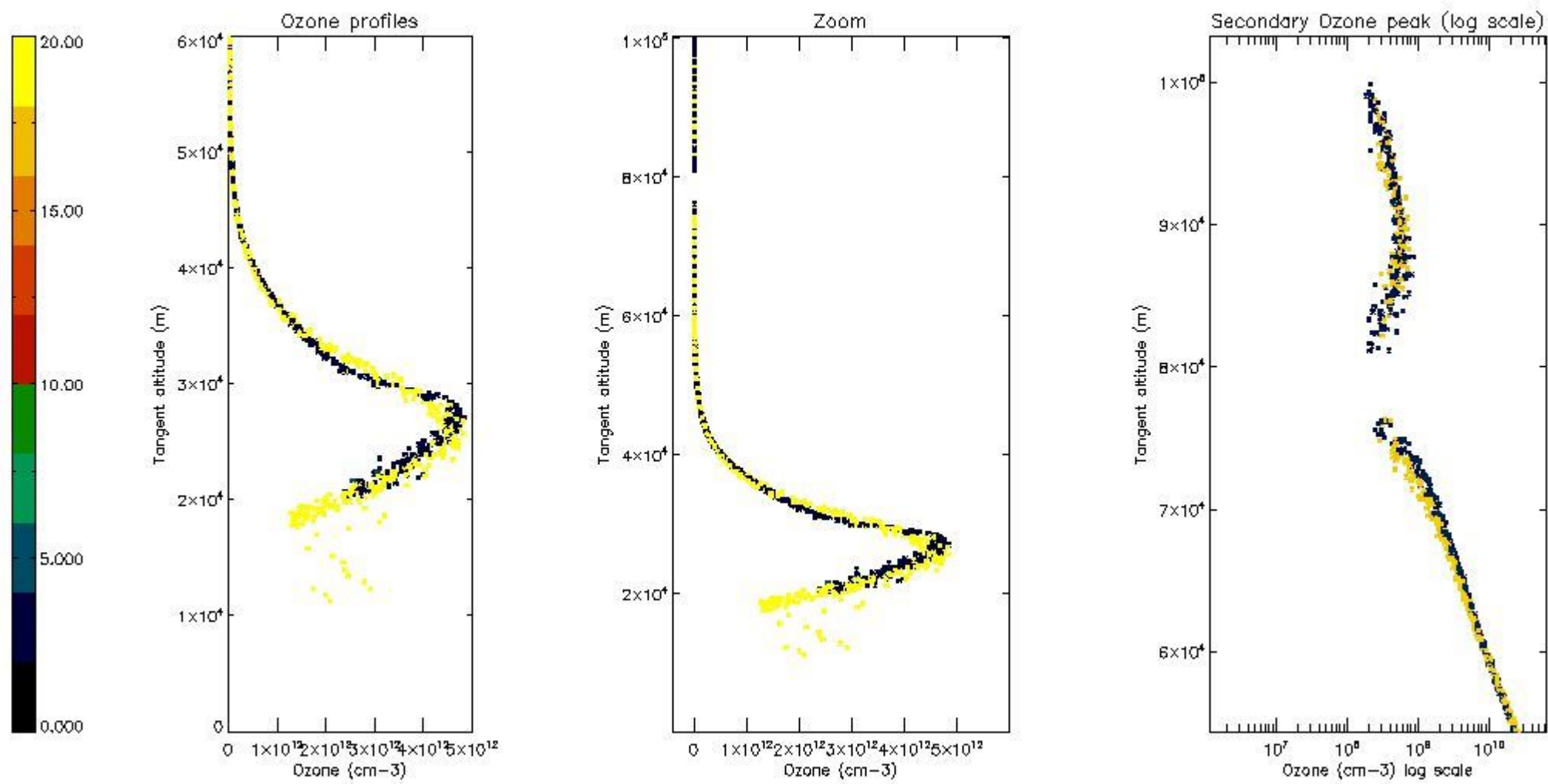
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



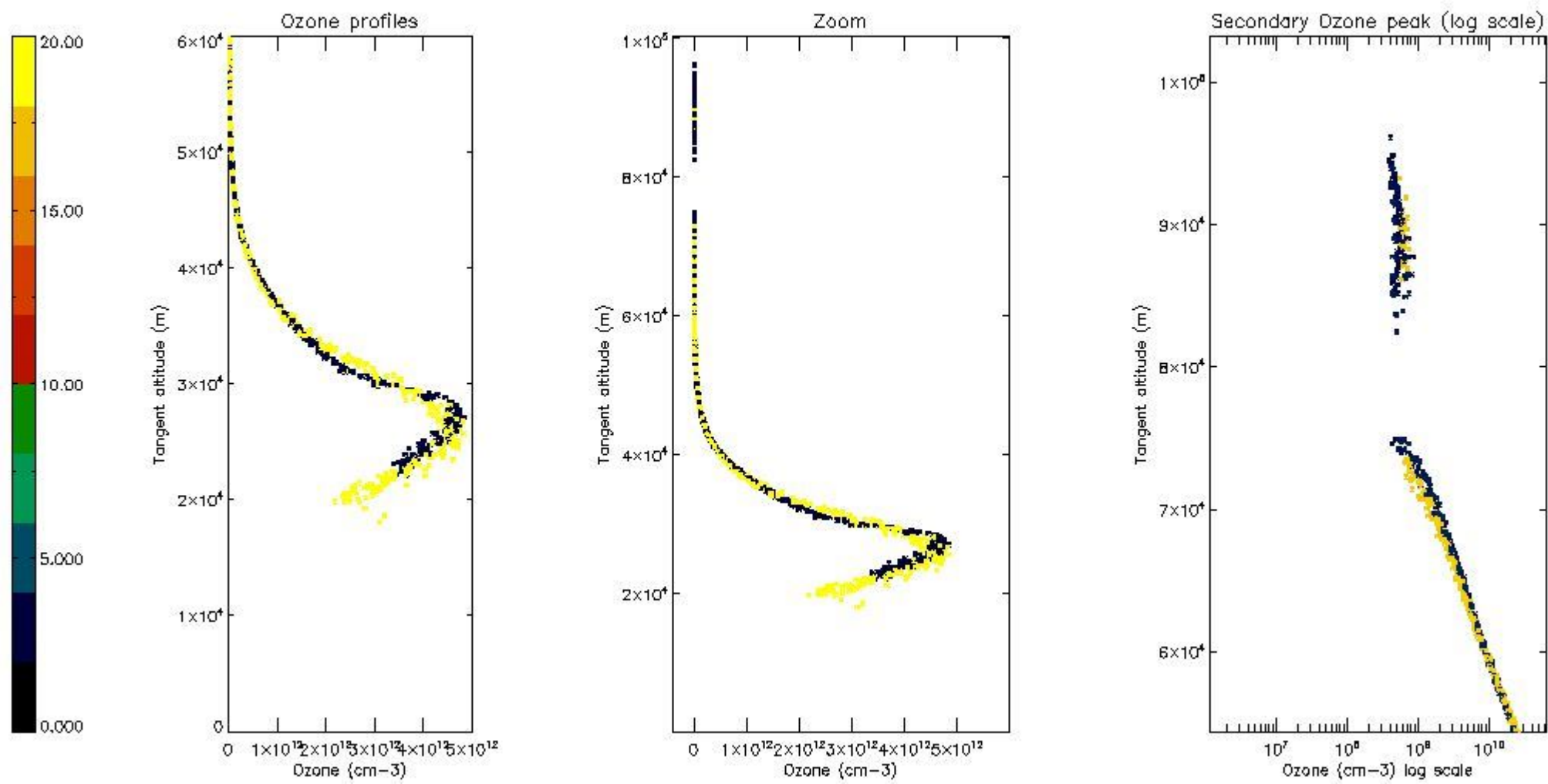
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



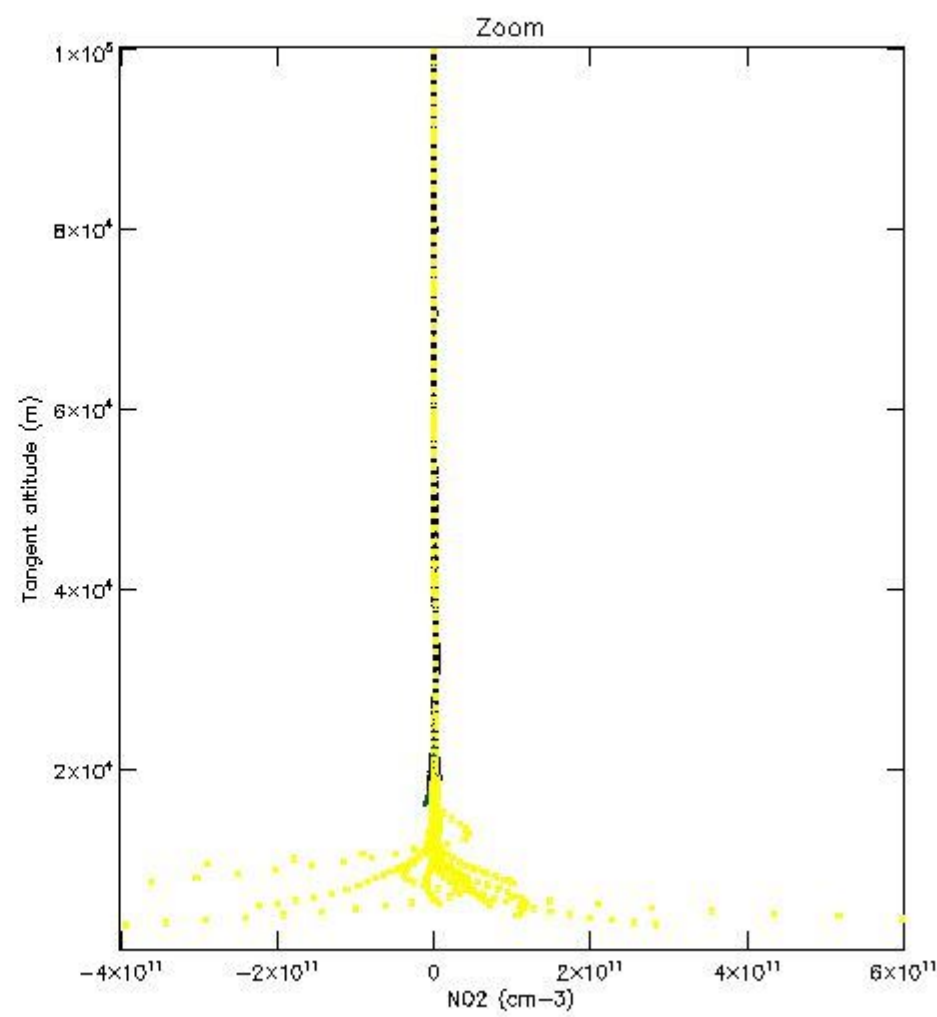
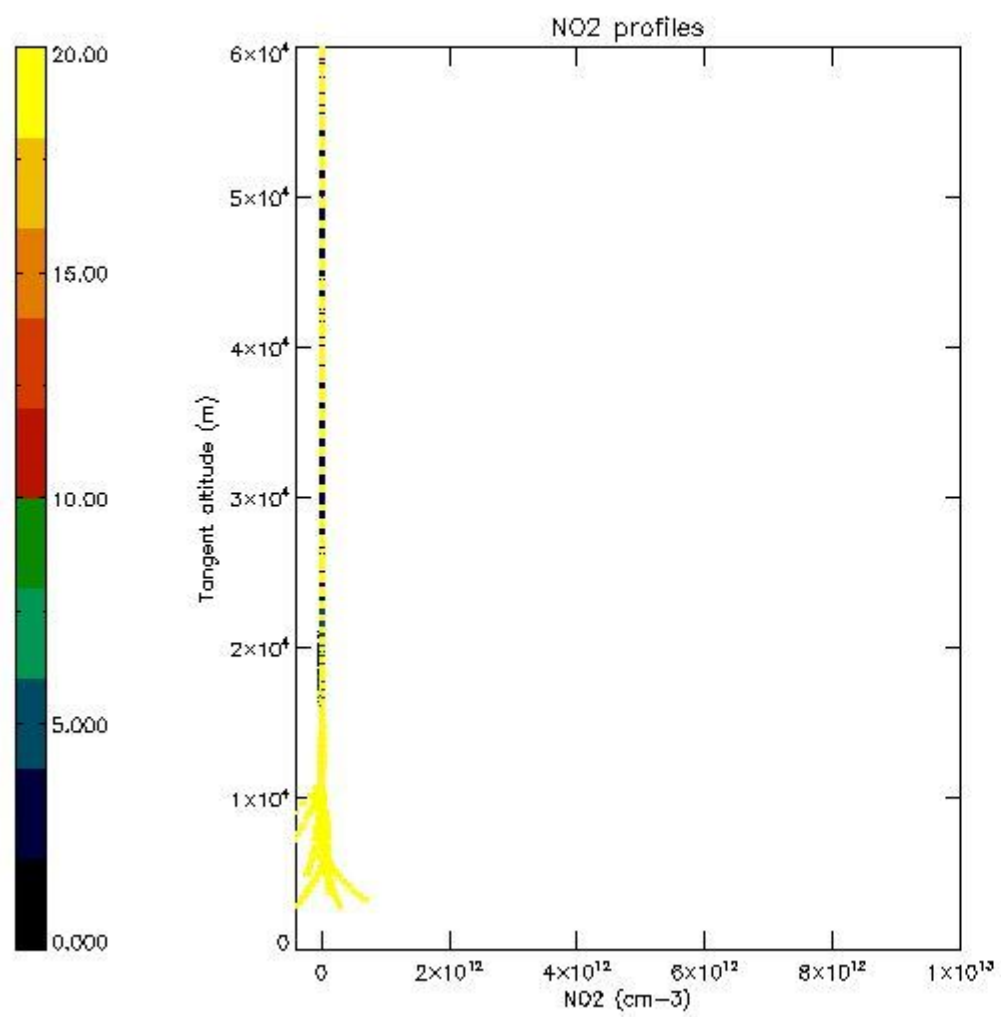
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



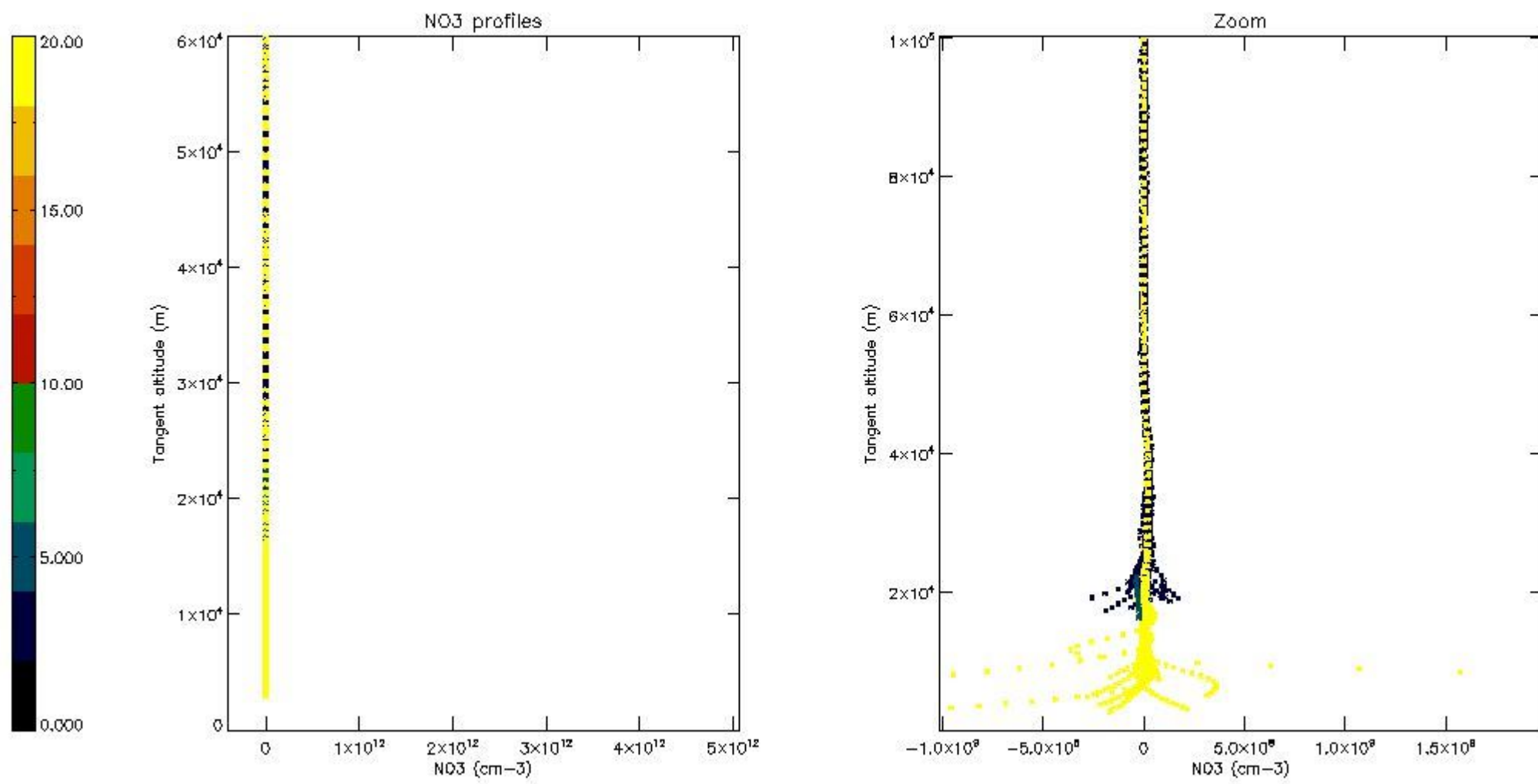
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



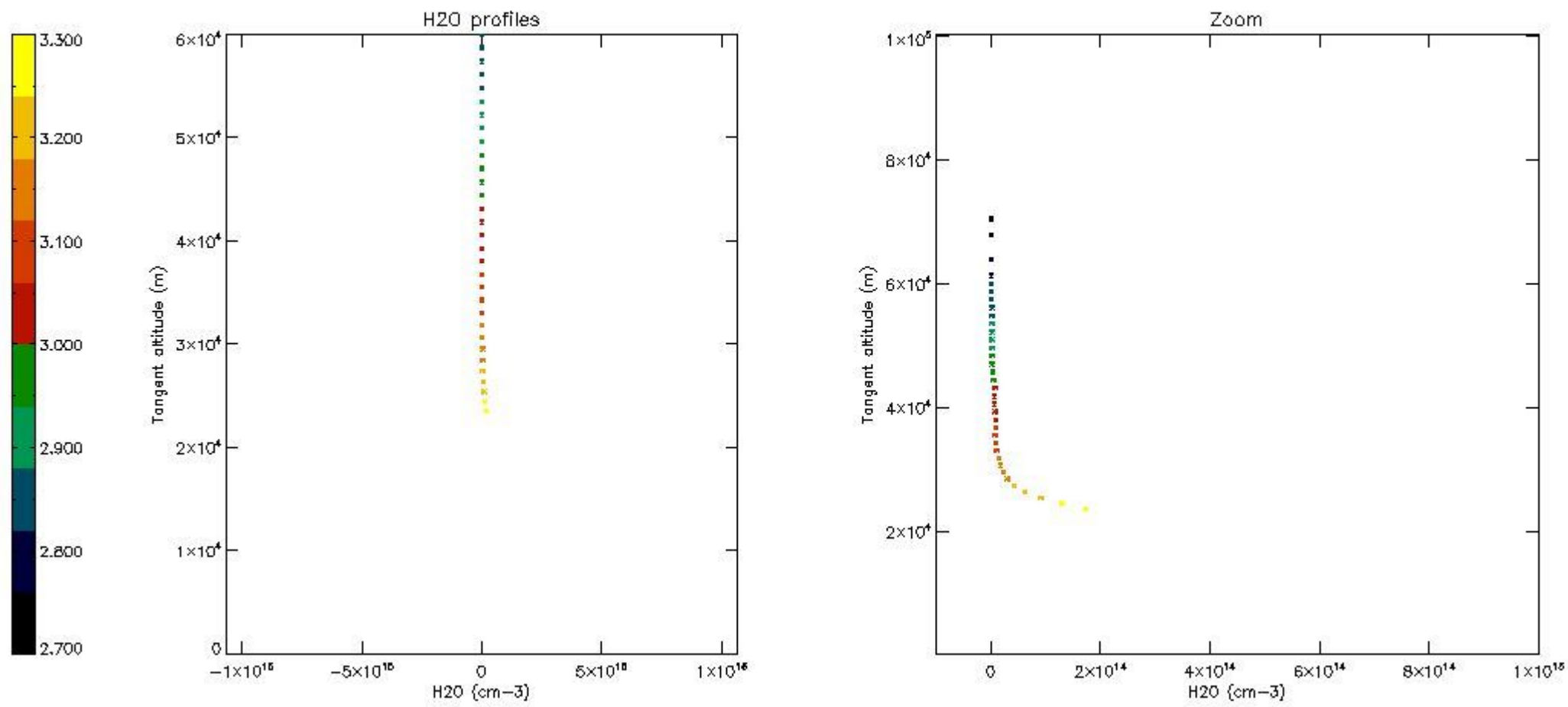
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

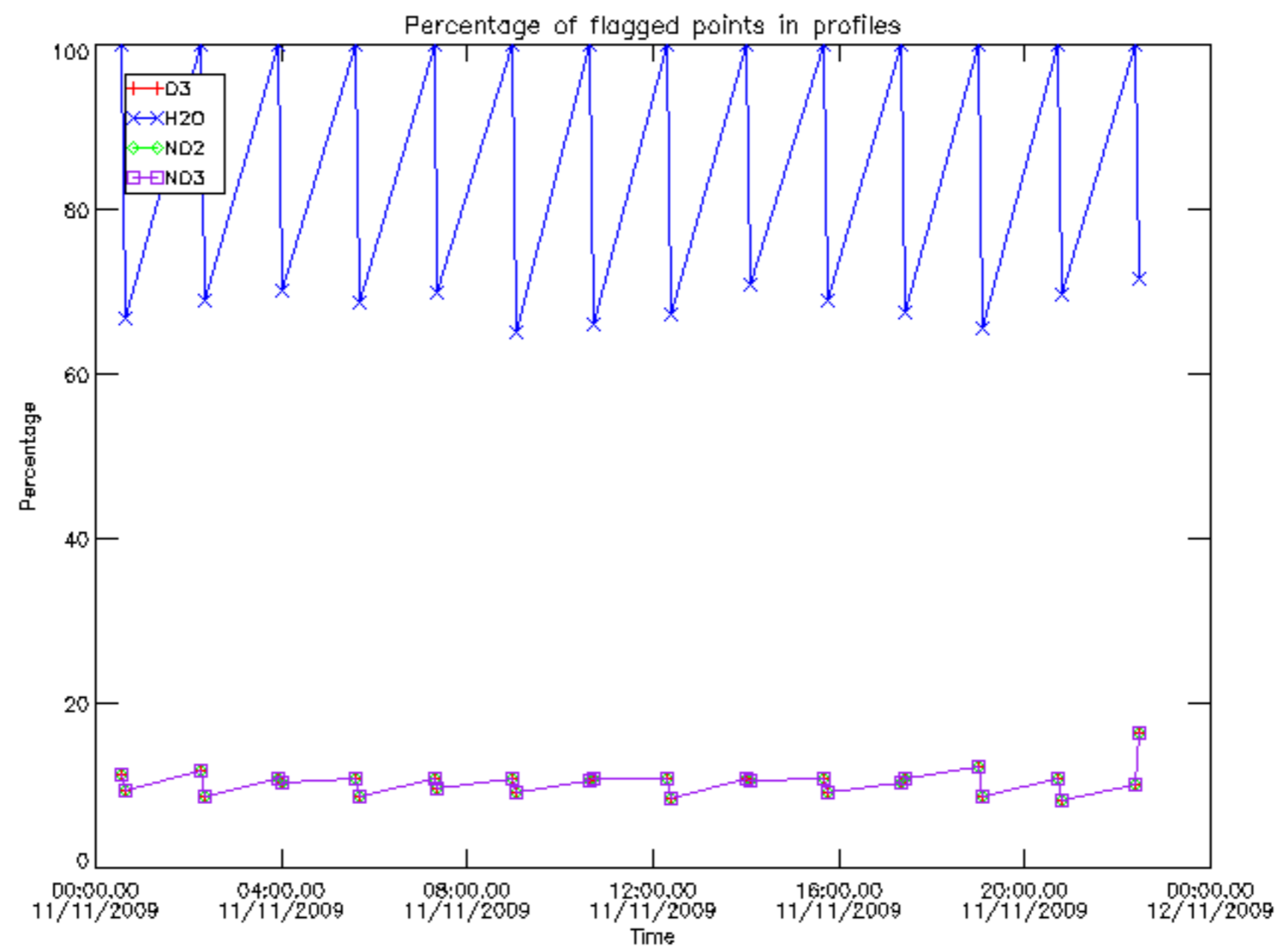
The colorbar represents the latitude.



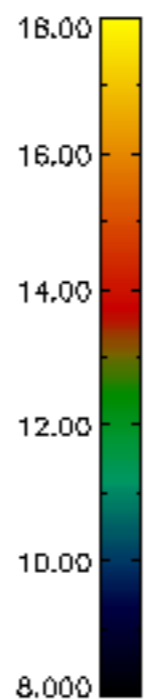
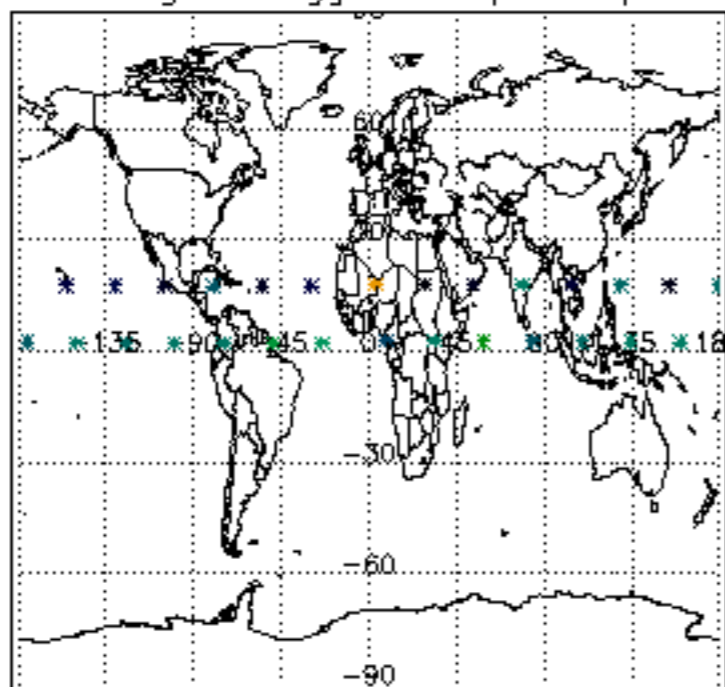
6. Auxiliary Data Files used for the production reported in section 2

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.

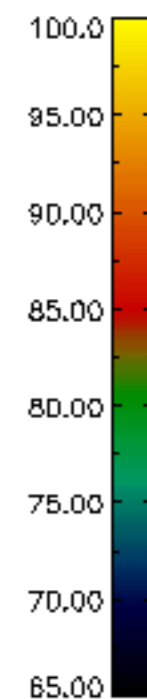
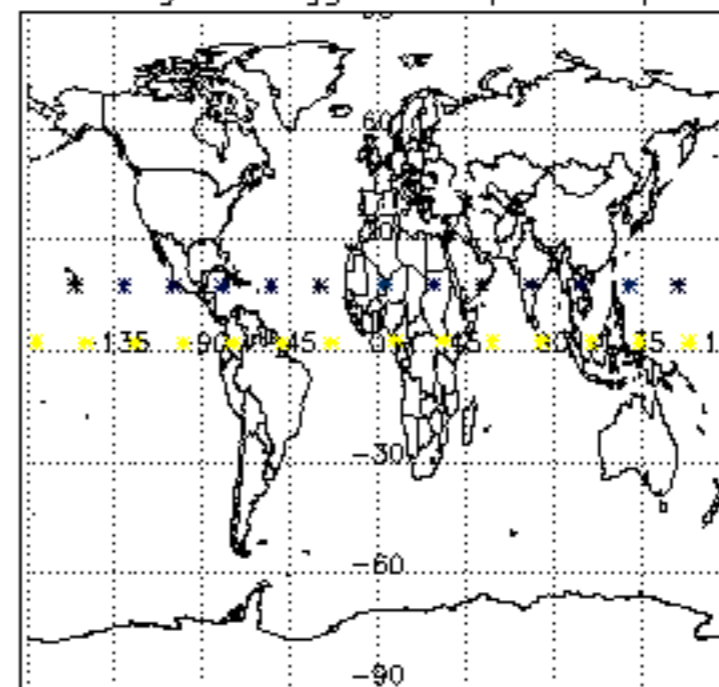
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	11-NOV-2009 00:06:51
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	11-NOV-2009 00:06:51
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	11-NOV-2009 00:06:51



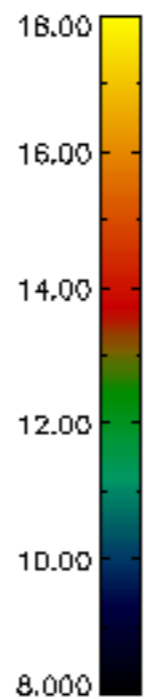
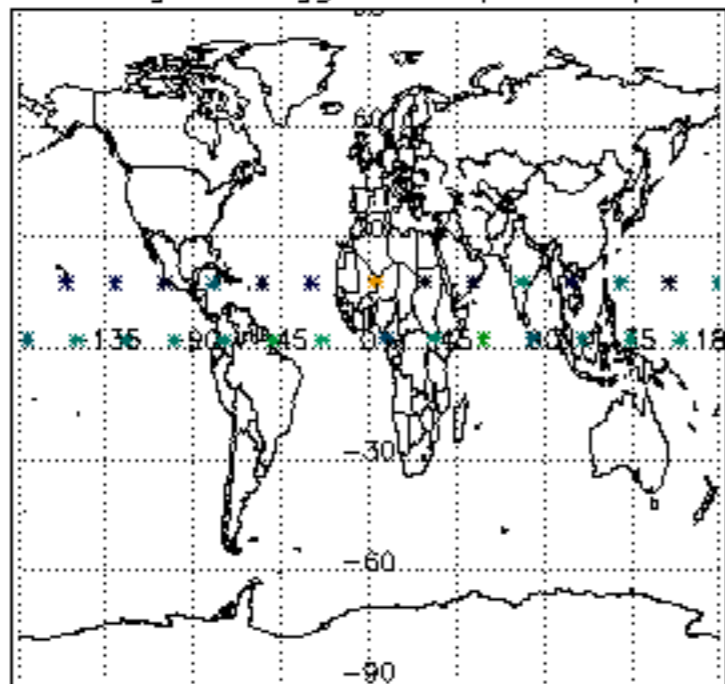
Percentage of flagged data per D3 profile



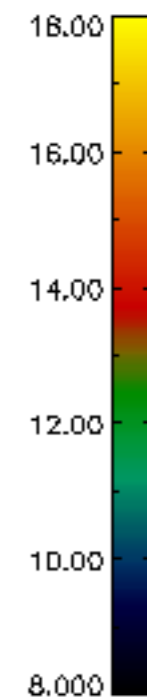
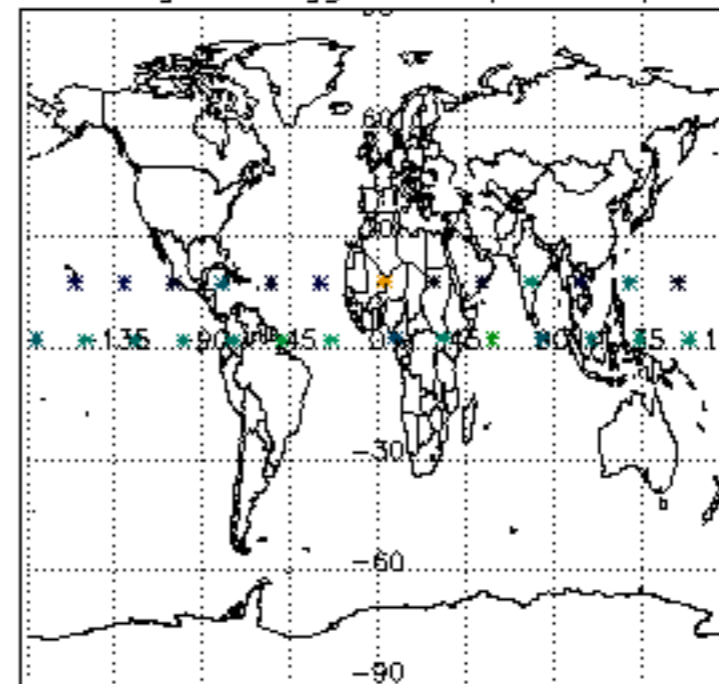
Percentage of flagged data per H2O profile

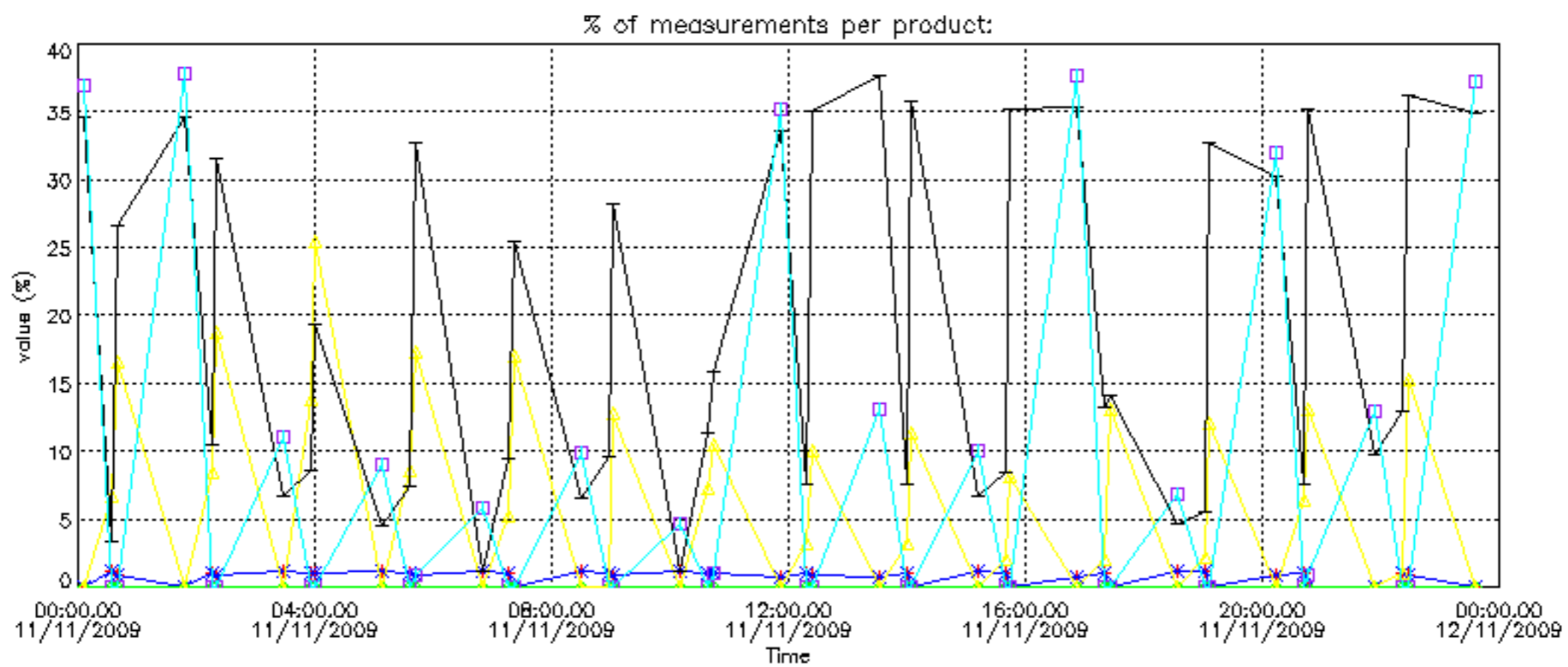


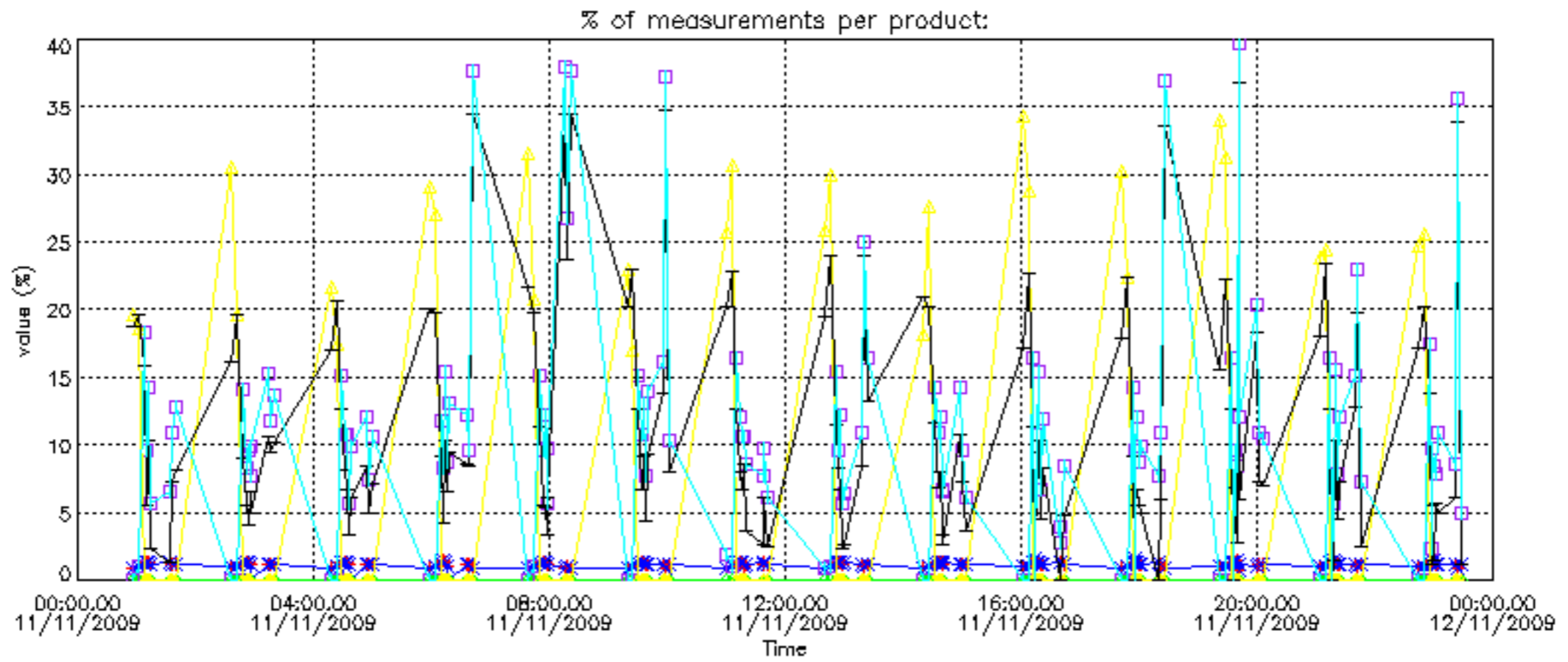
Percentage of flagged data per NO2 profile



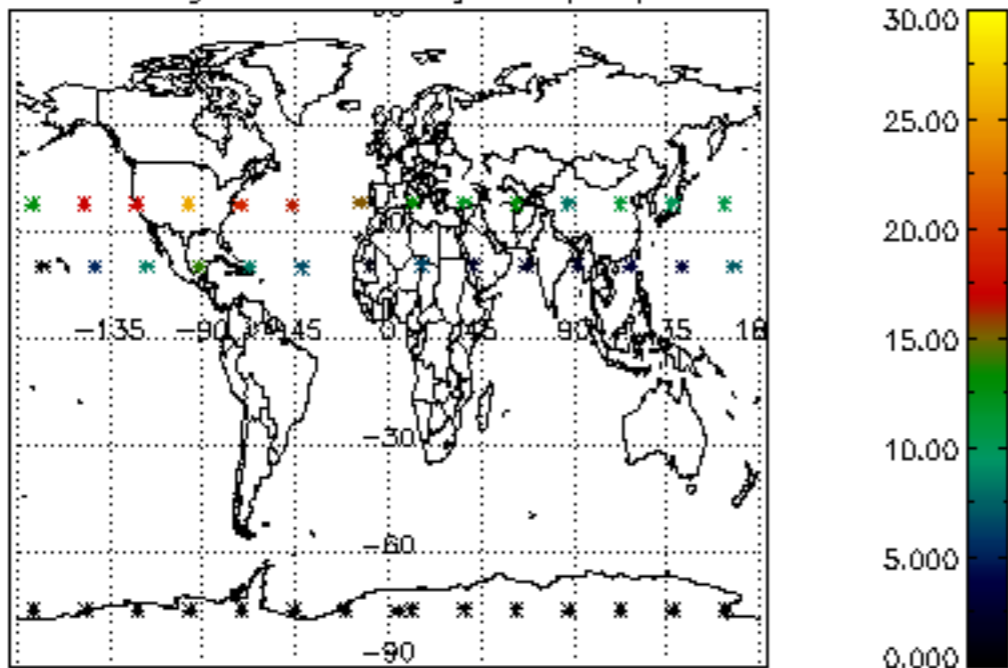
Percentage of flagged data per NO3 profile



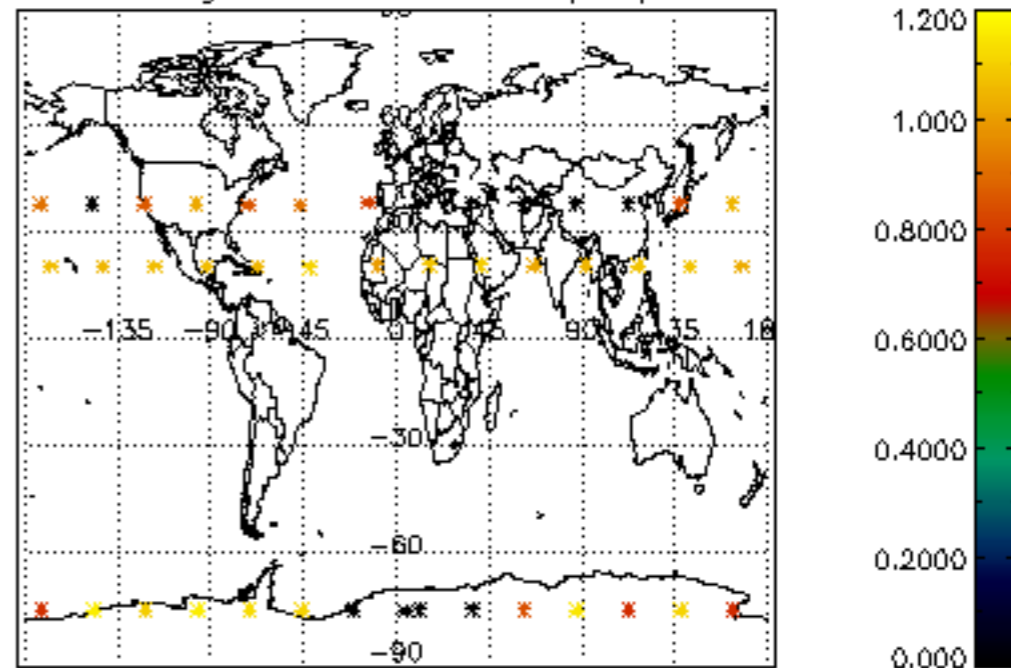




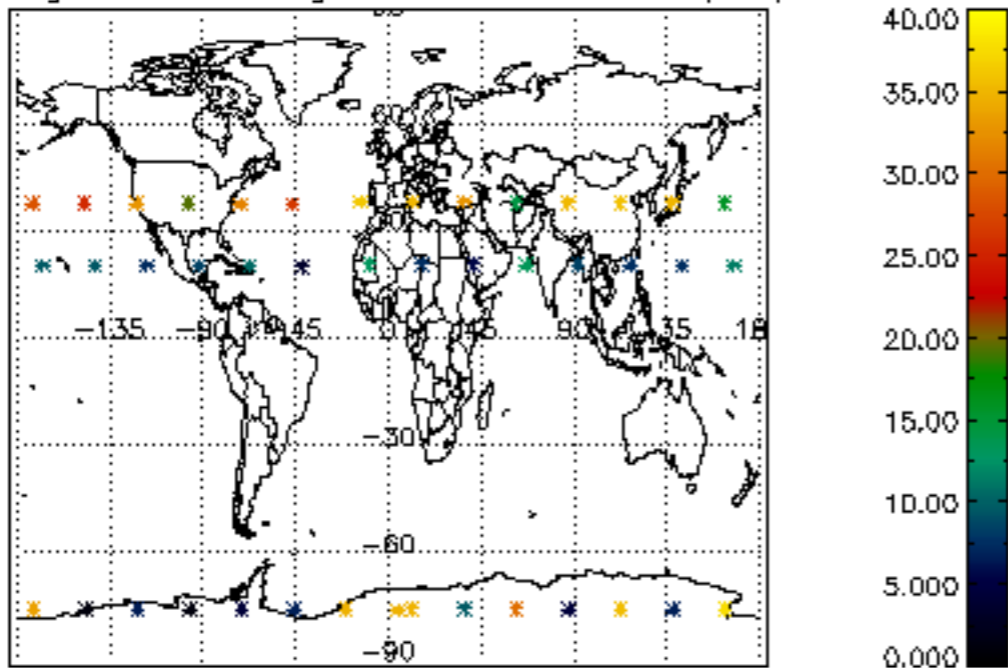
Percentage of cosmic ray hits per profile



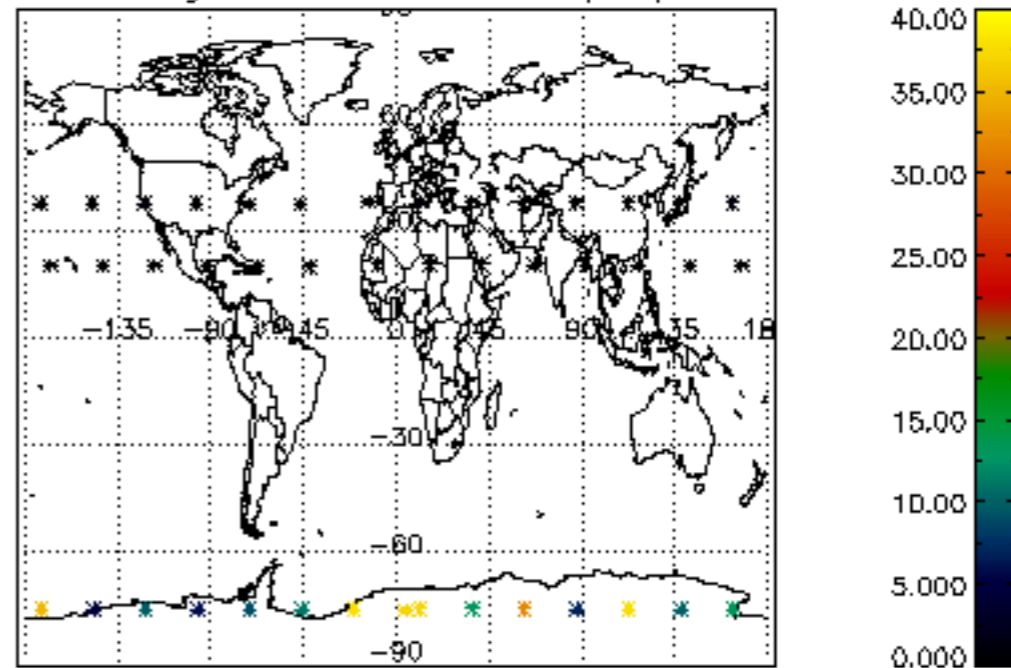
Percentage of datation errors per profile



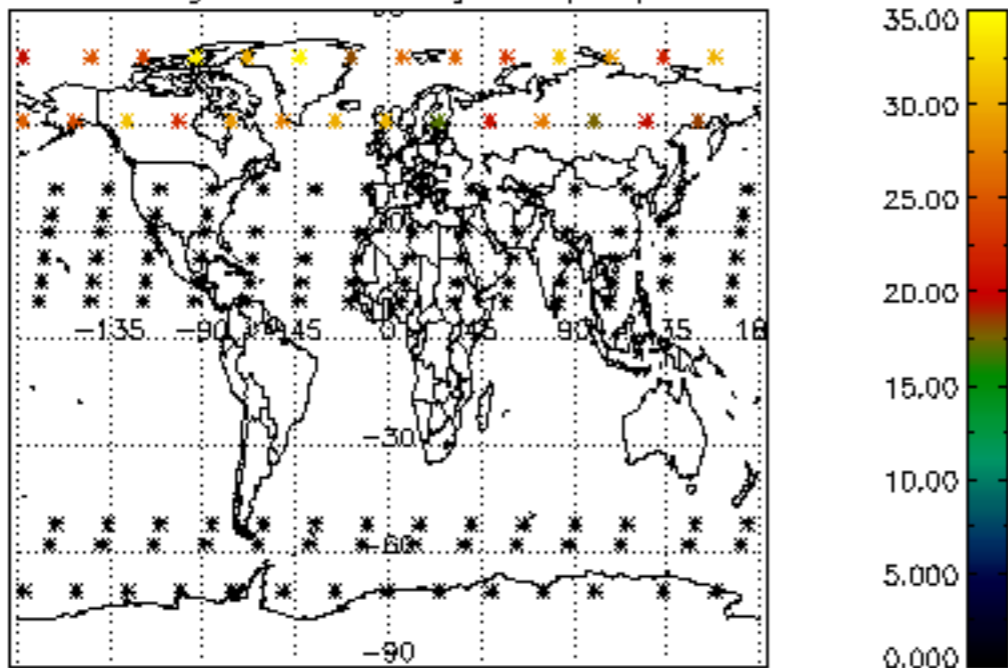
Percentage of star falling outside central band per profile



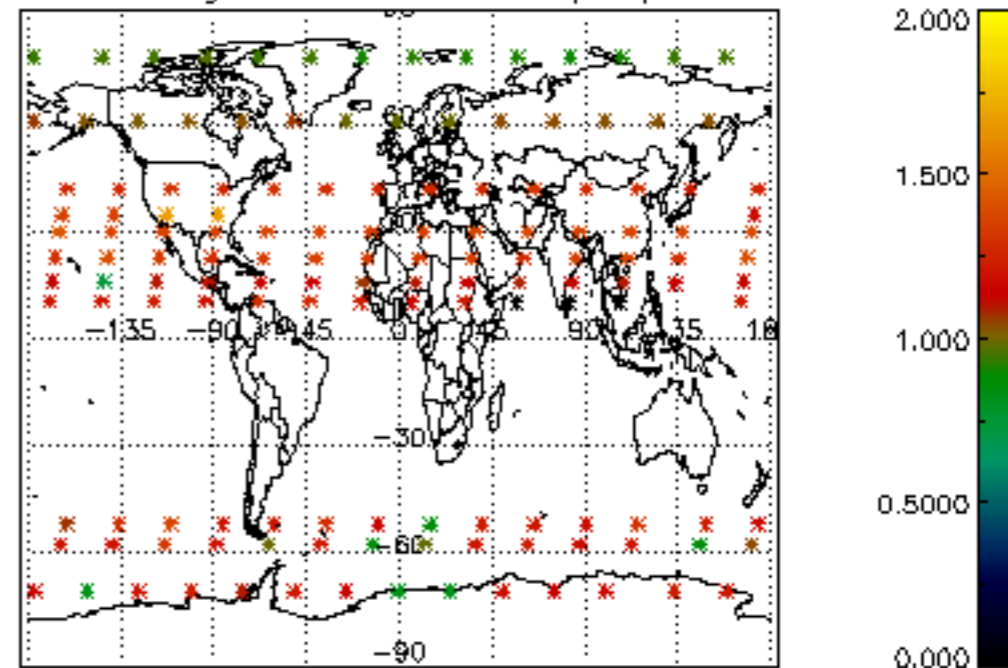
Percentage of saturation errors per profile



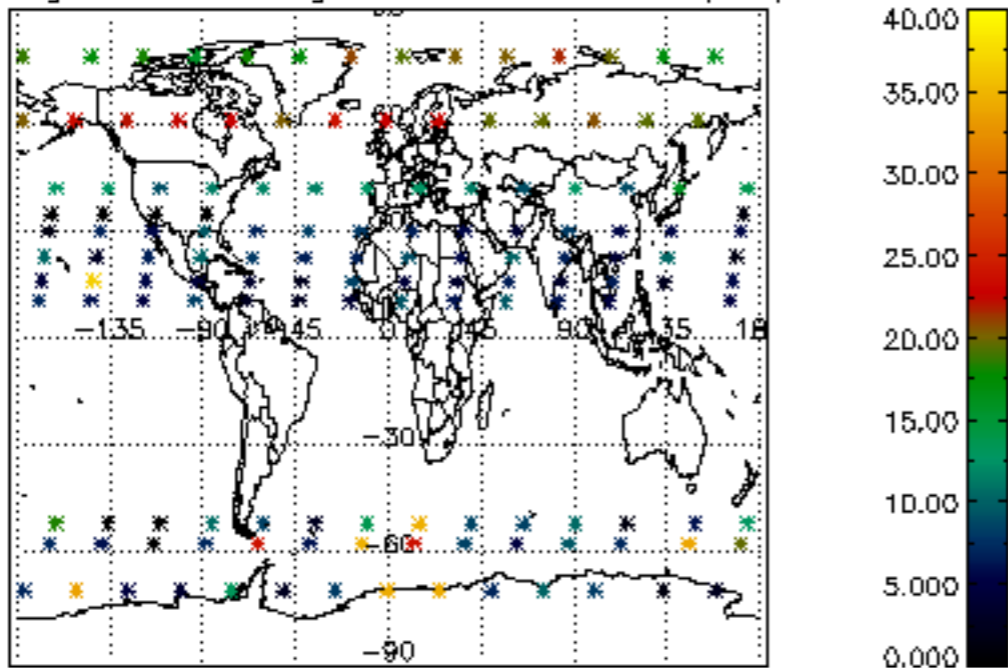
Percentage of cosmic ray hits per profile



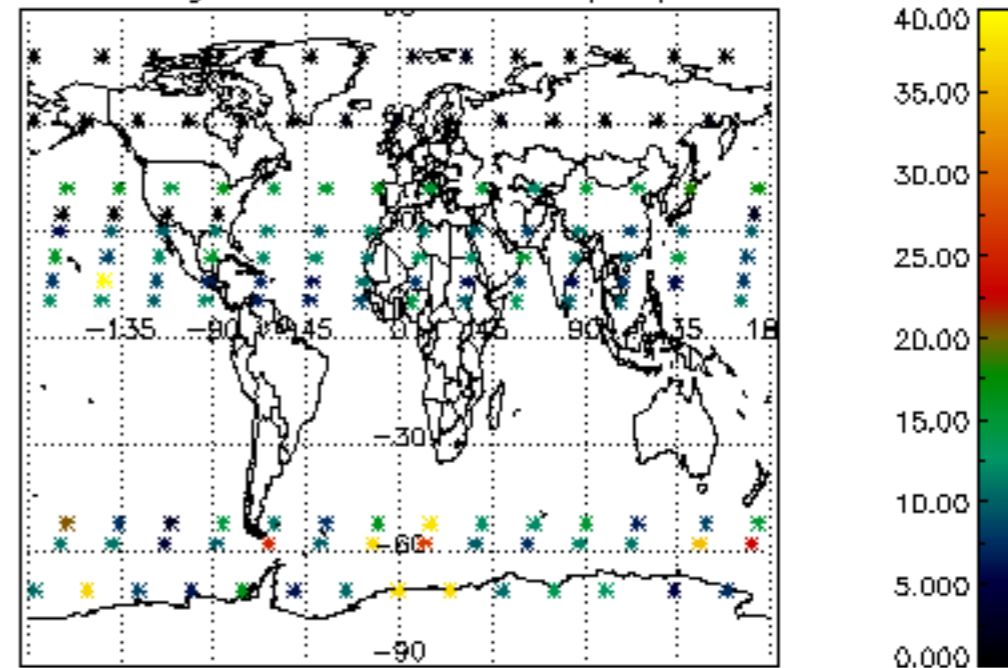
Percentage of datation errors per profile

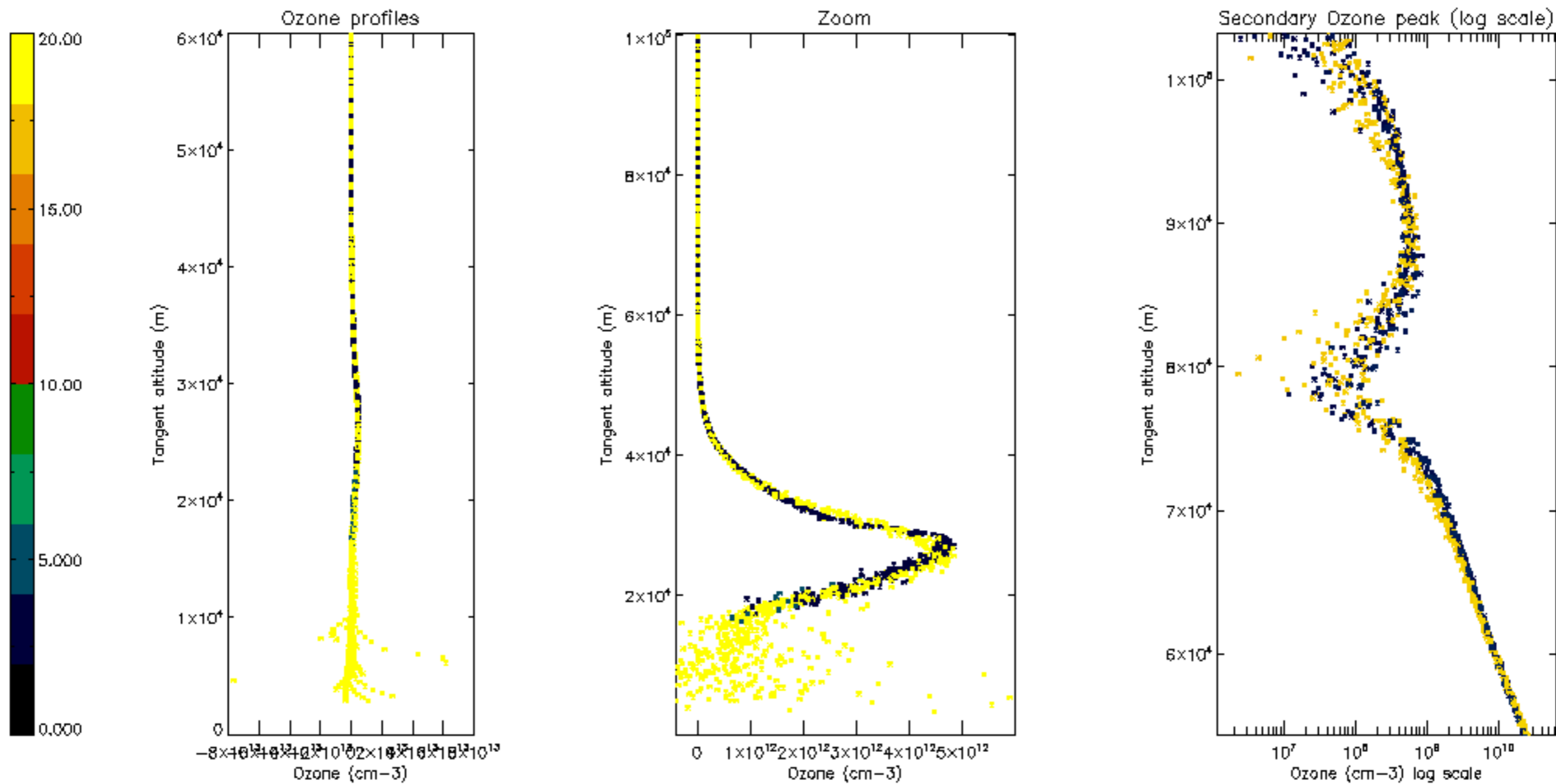


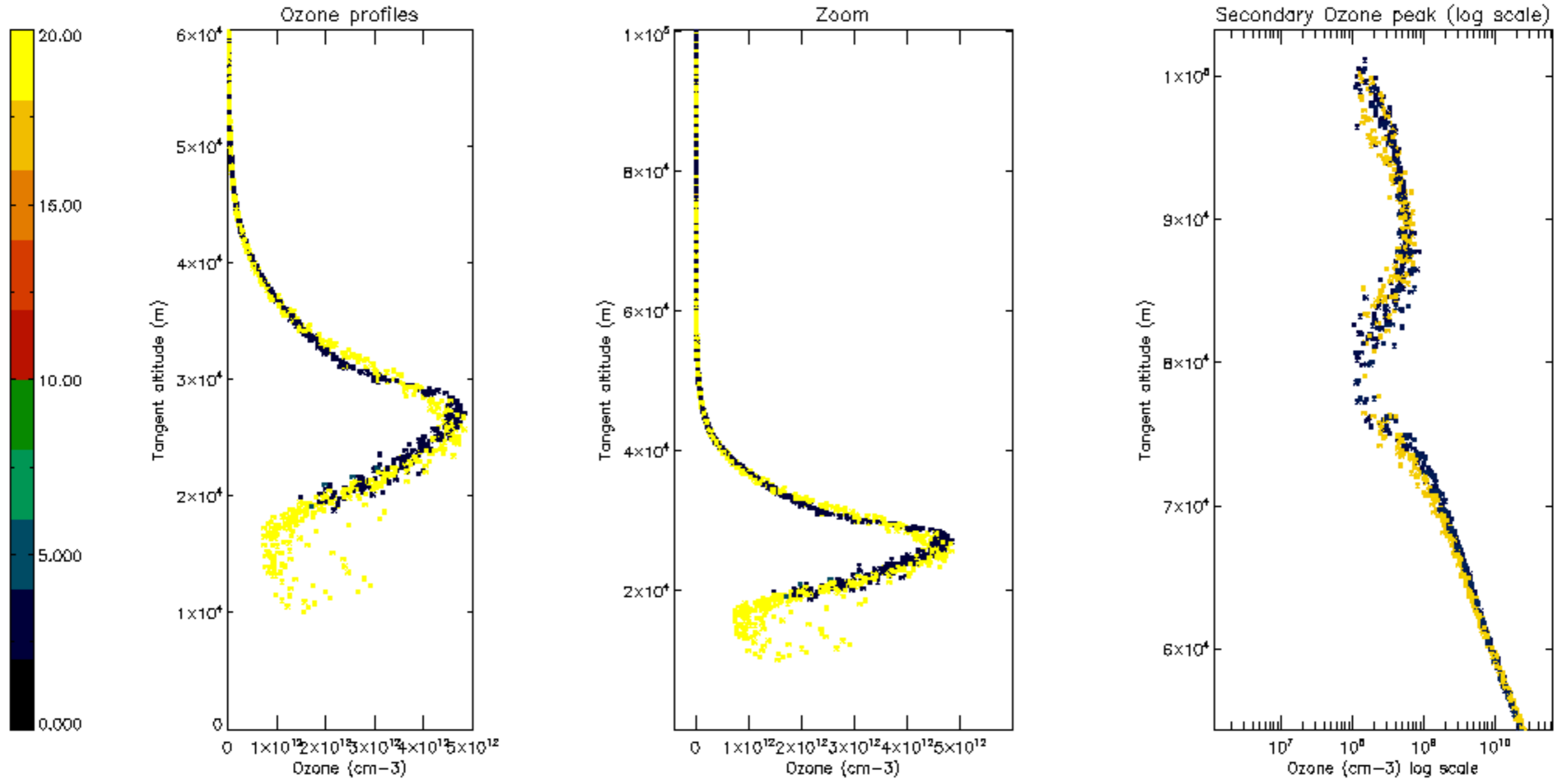
Percentage of star falling outside central band per profile

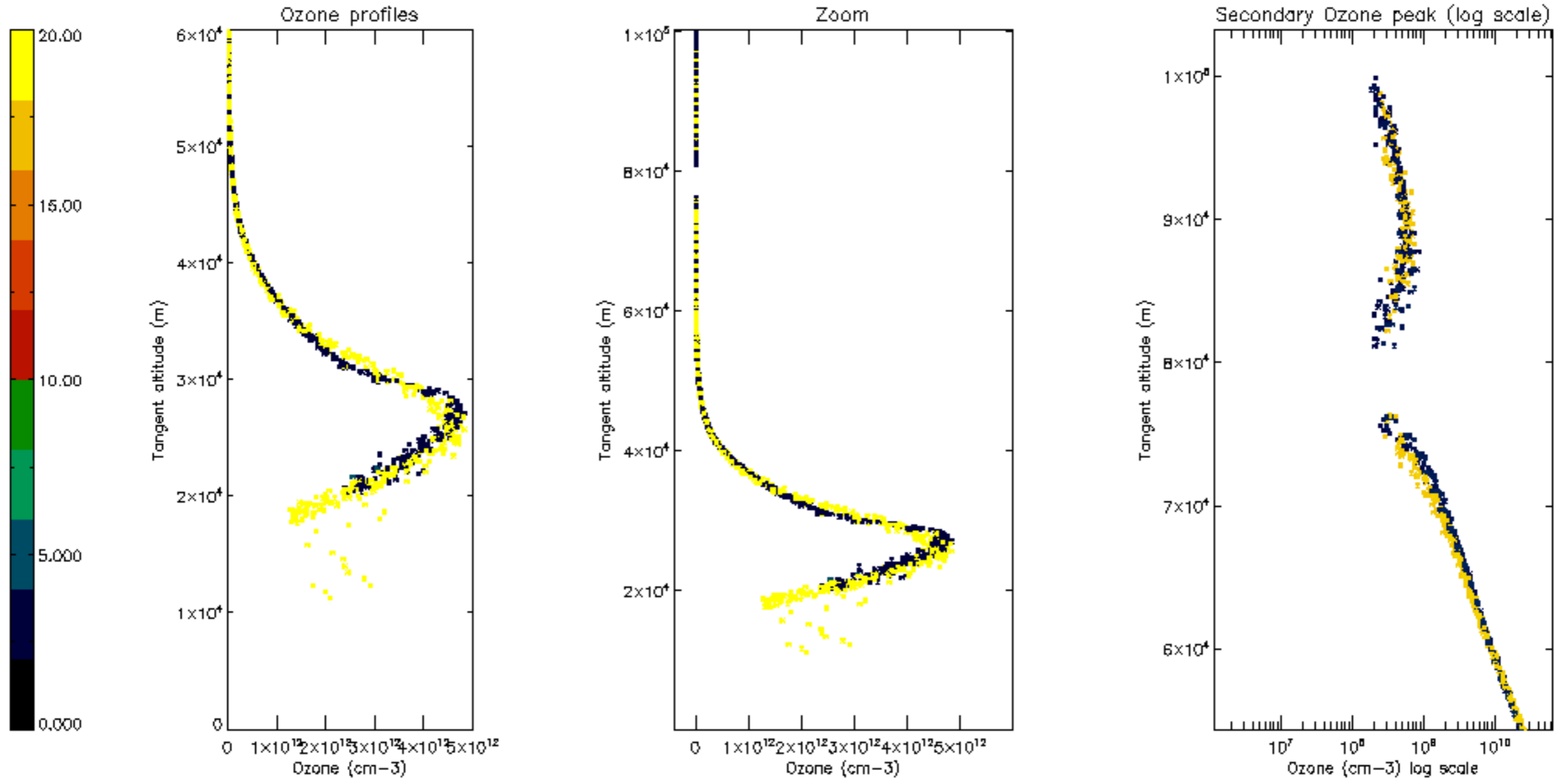


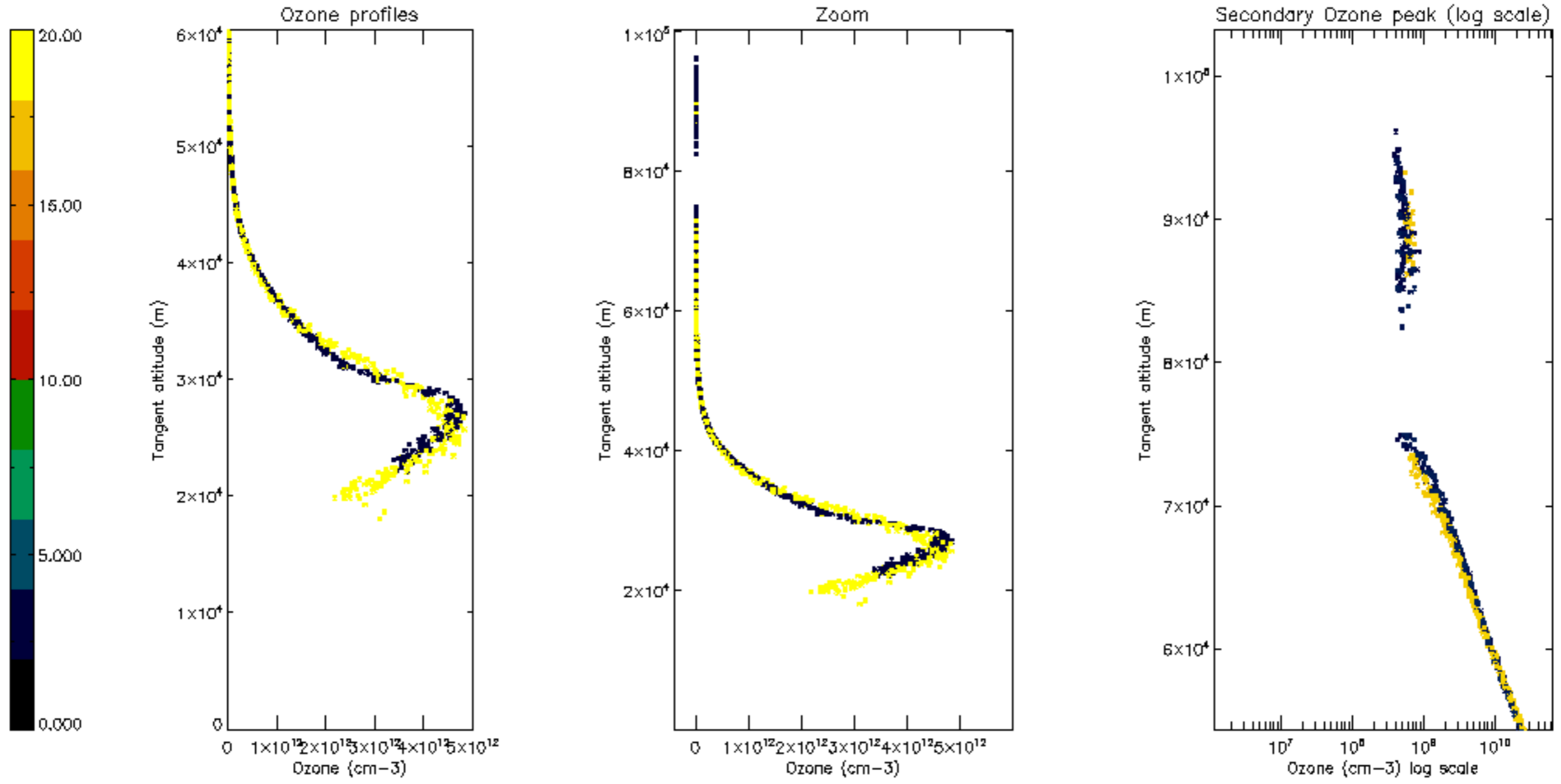
Percentage of saturation errors per profile

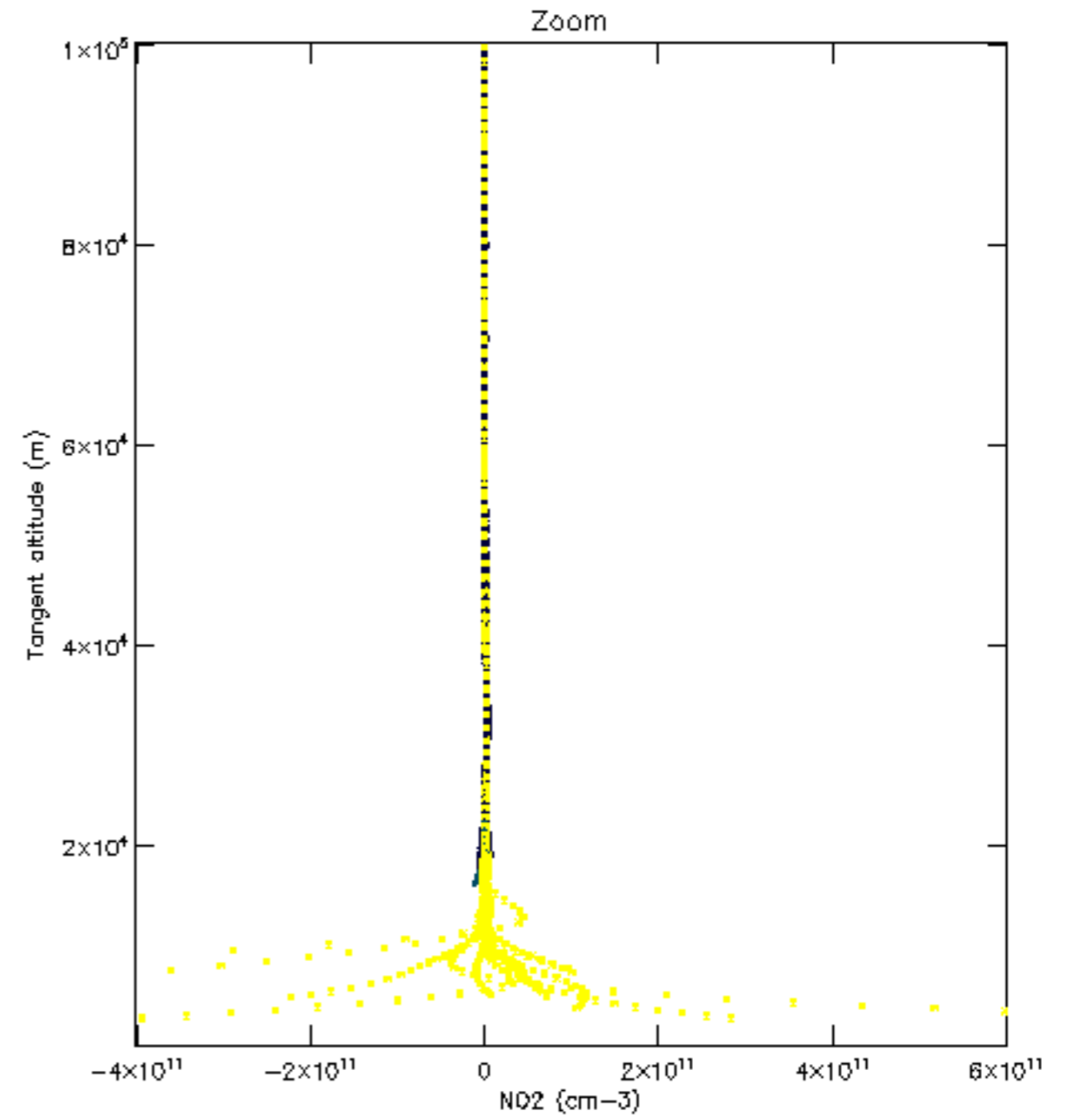
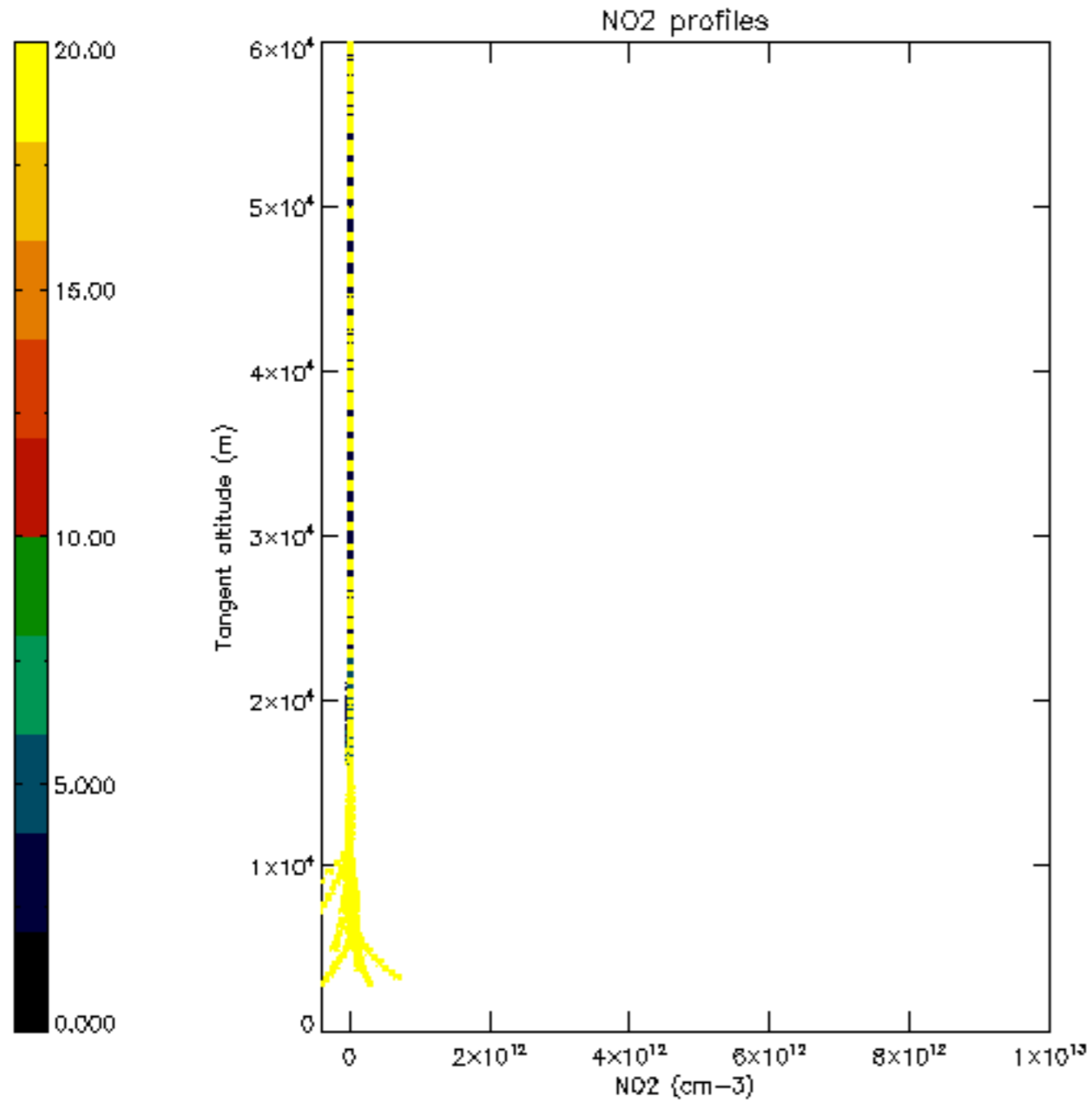


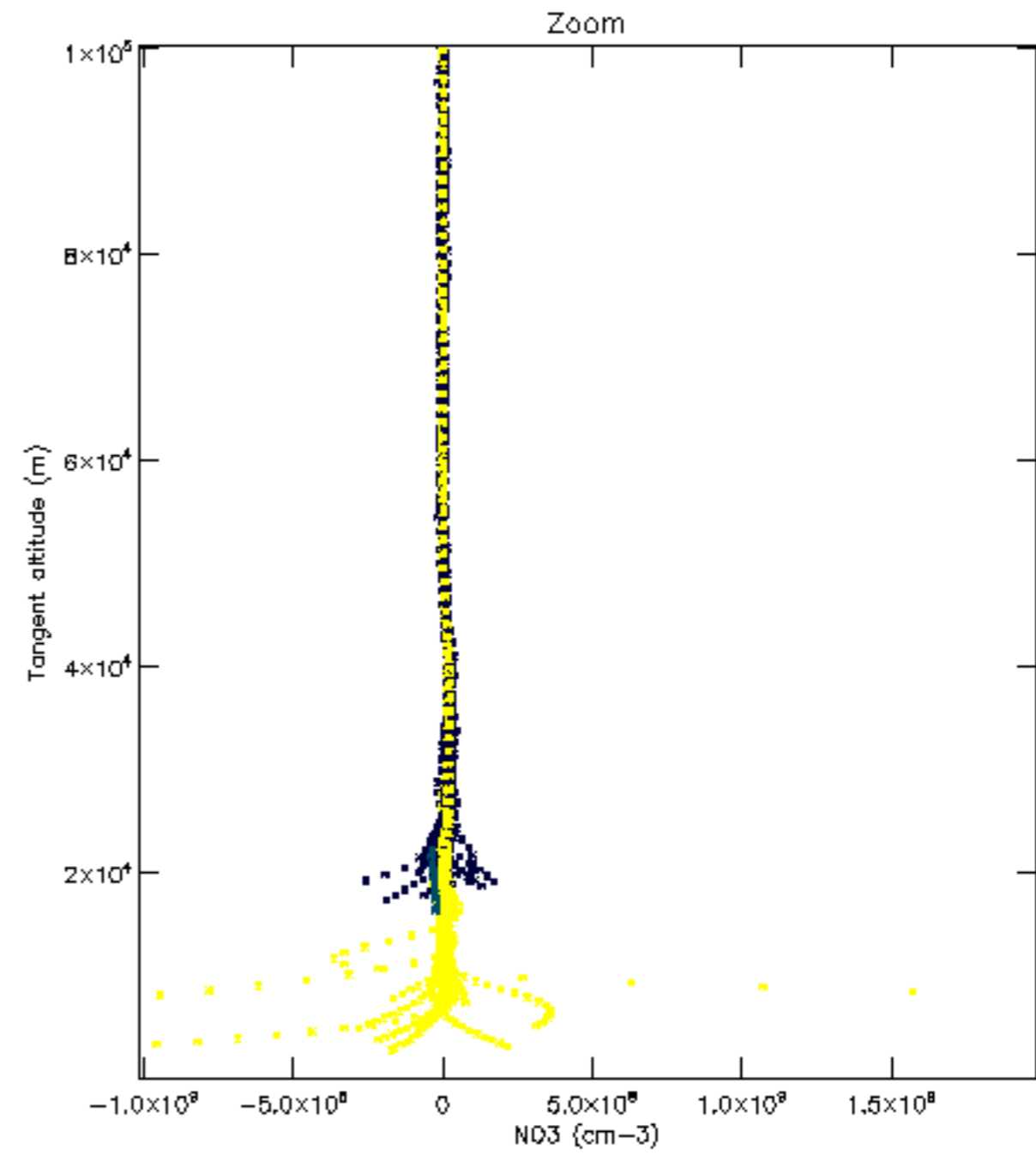
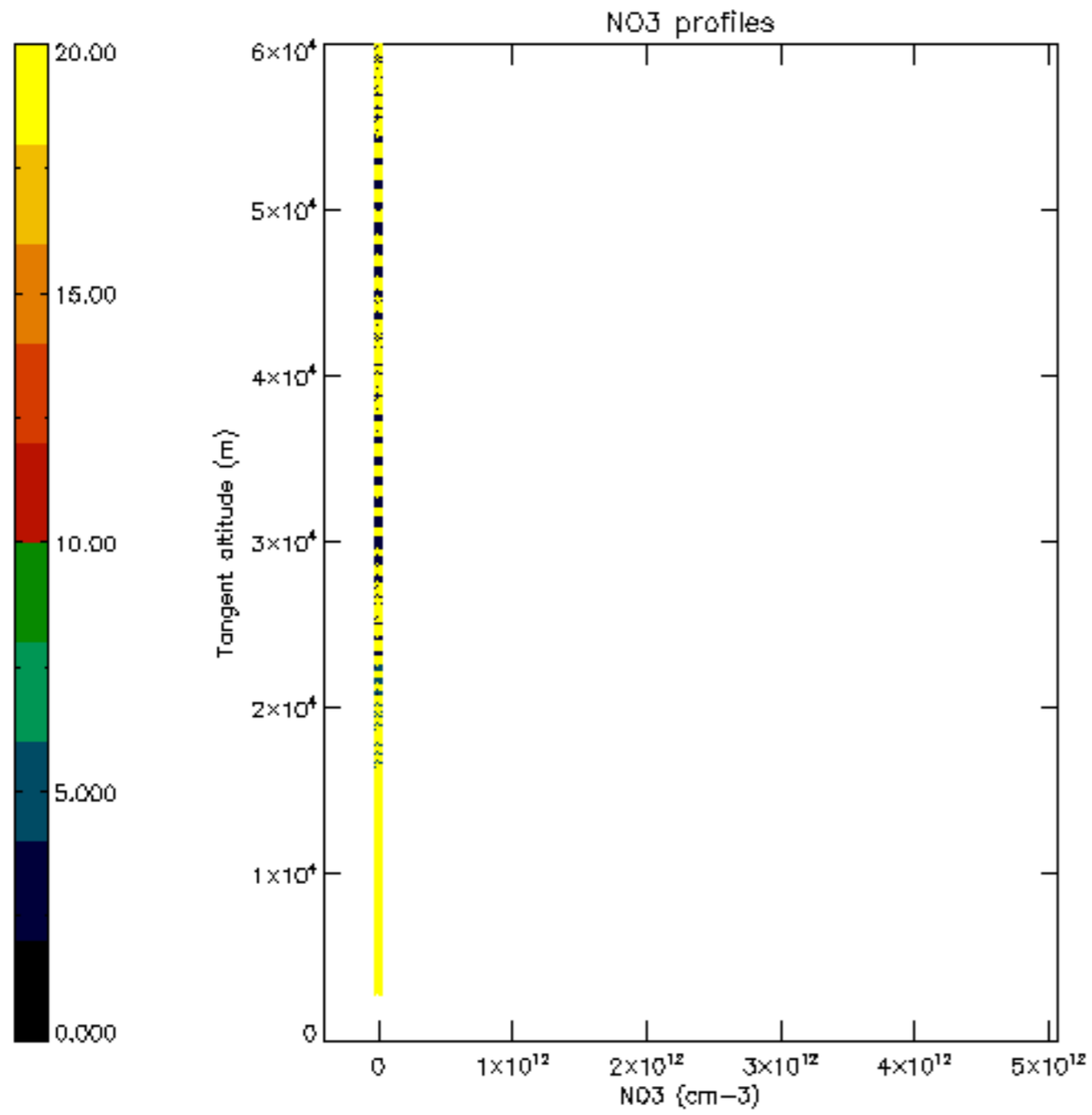


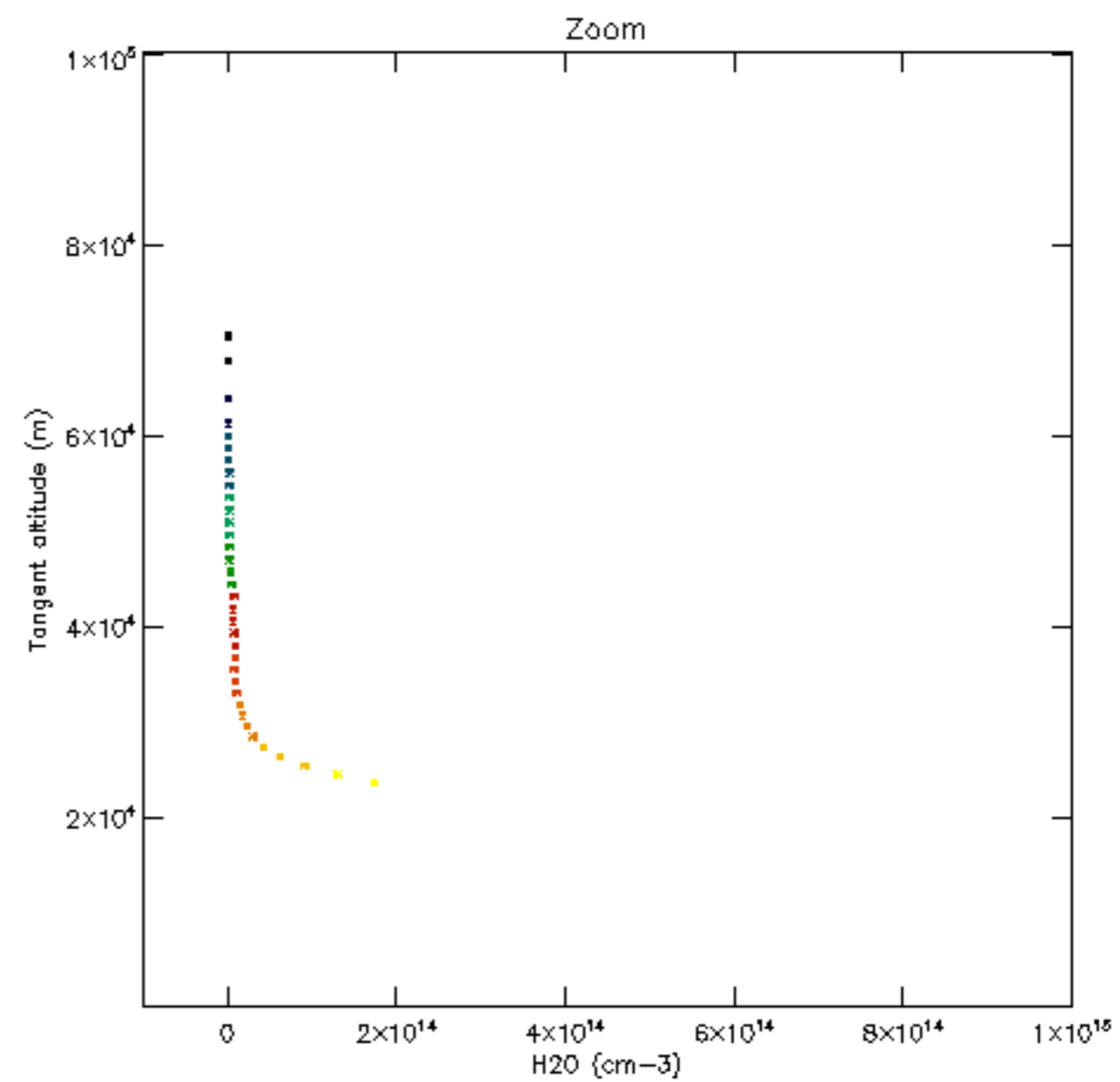
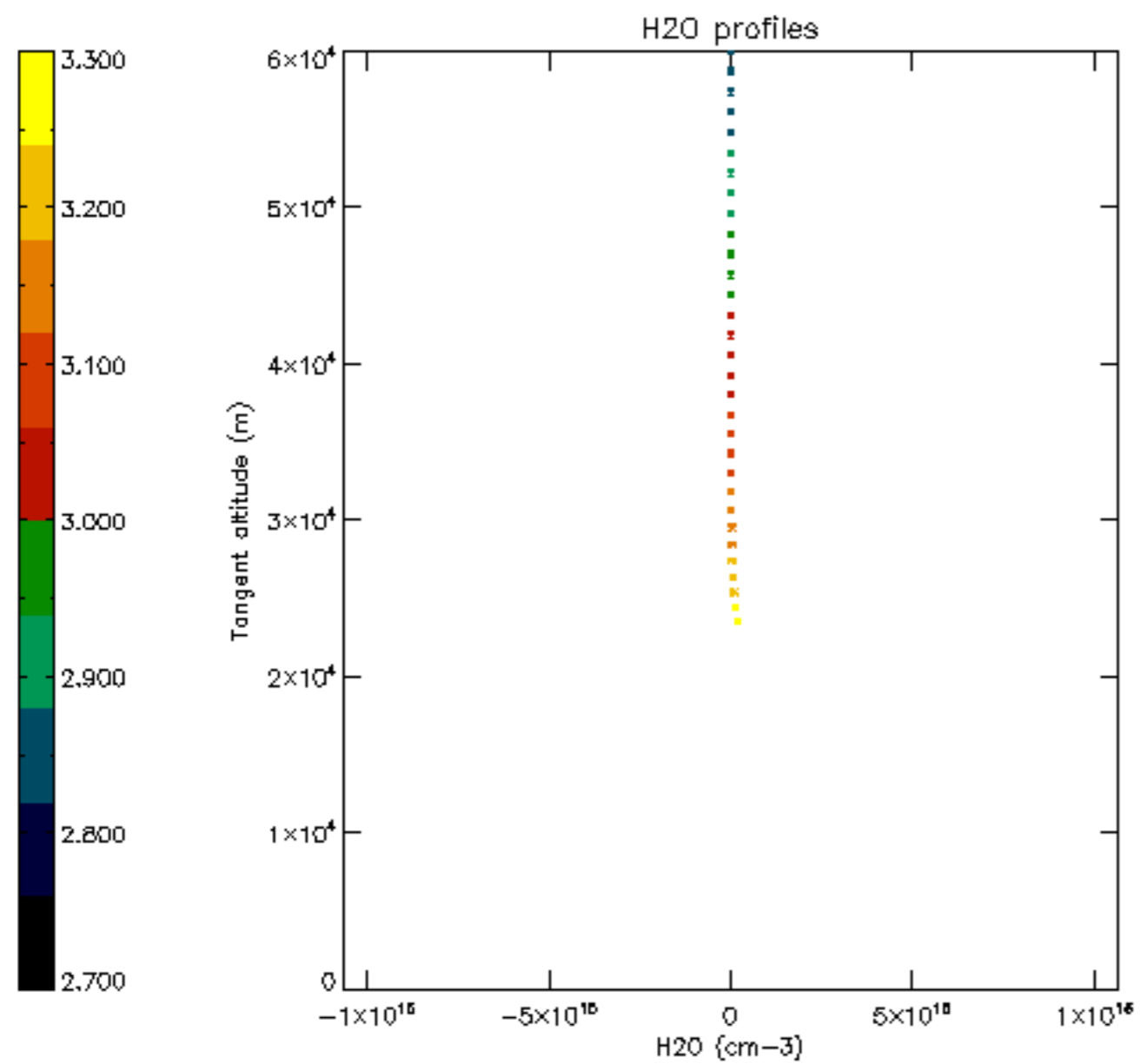


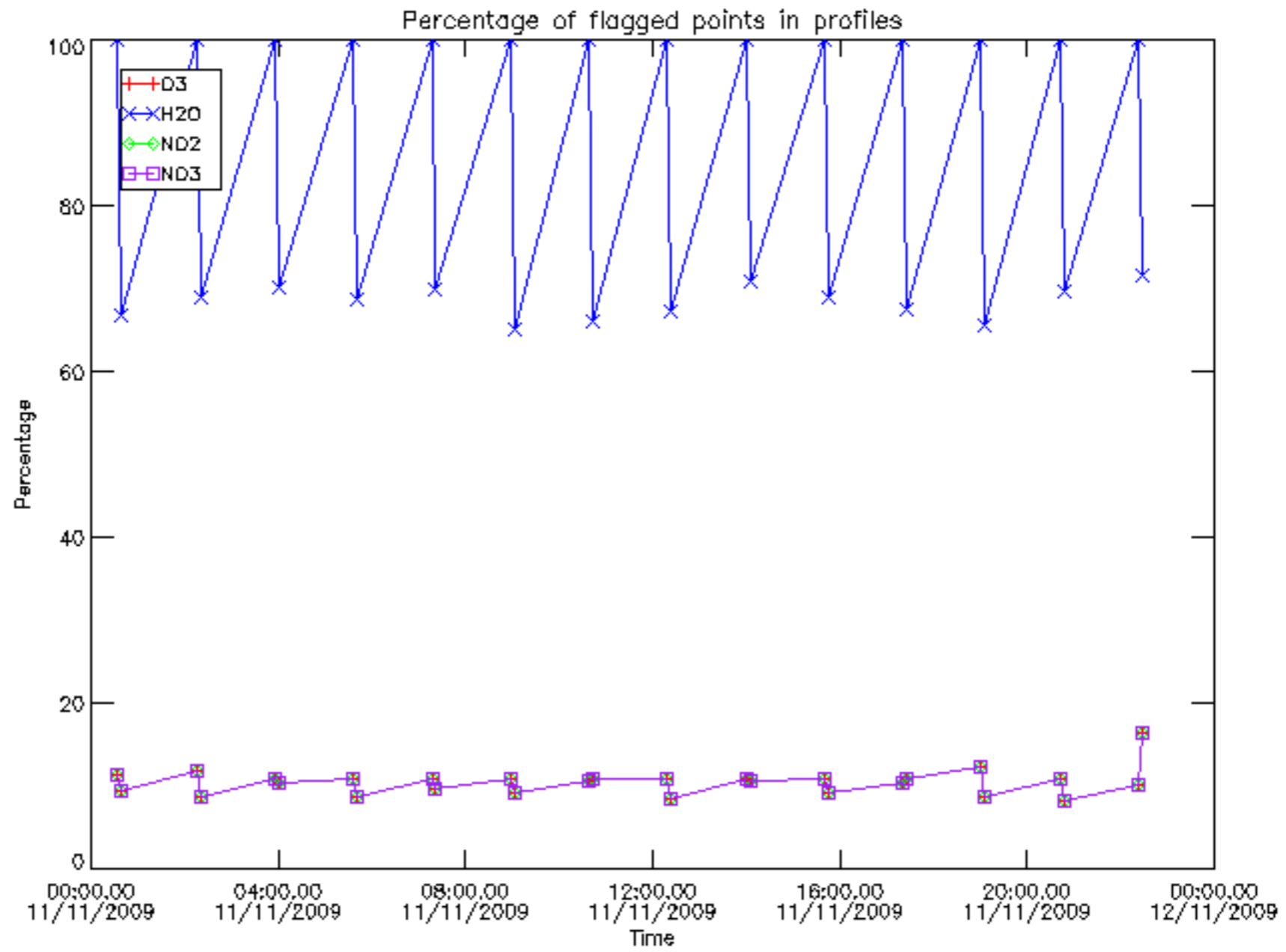




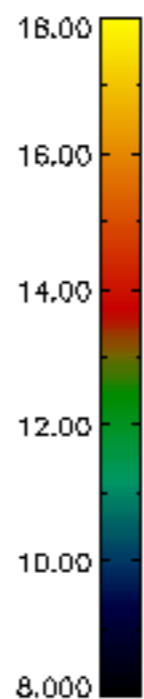
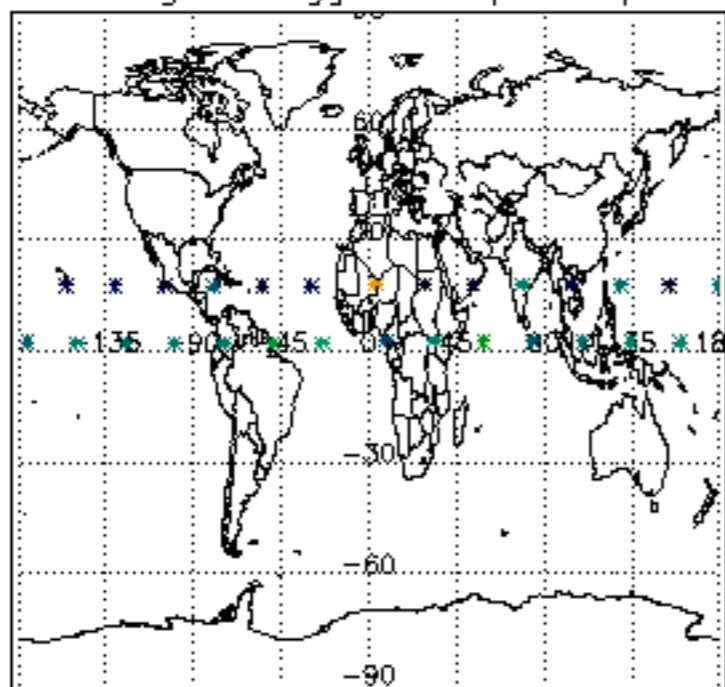




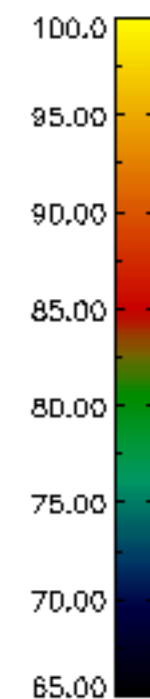
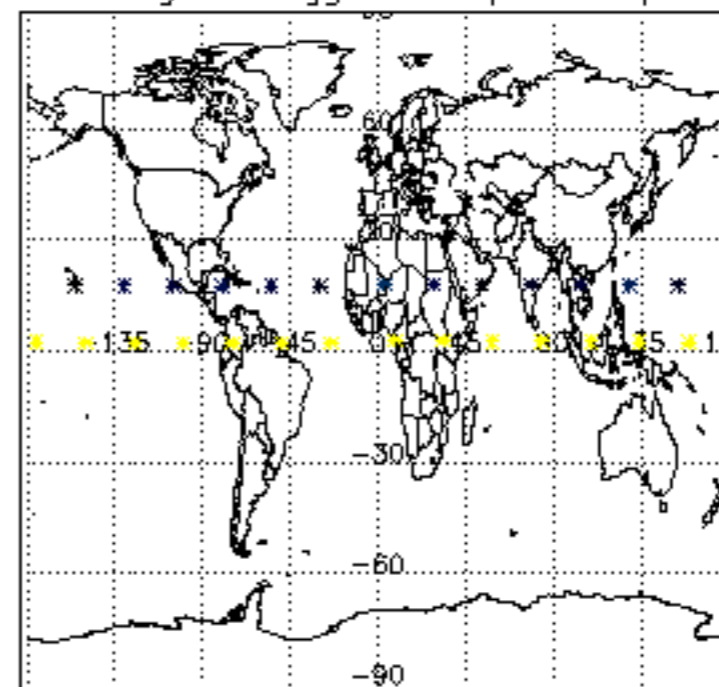




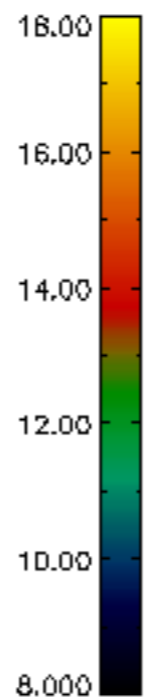
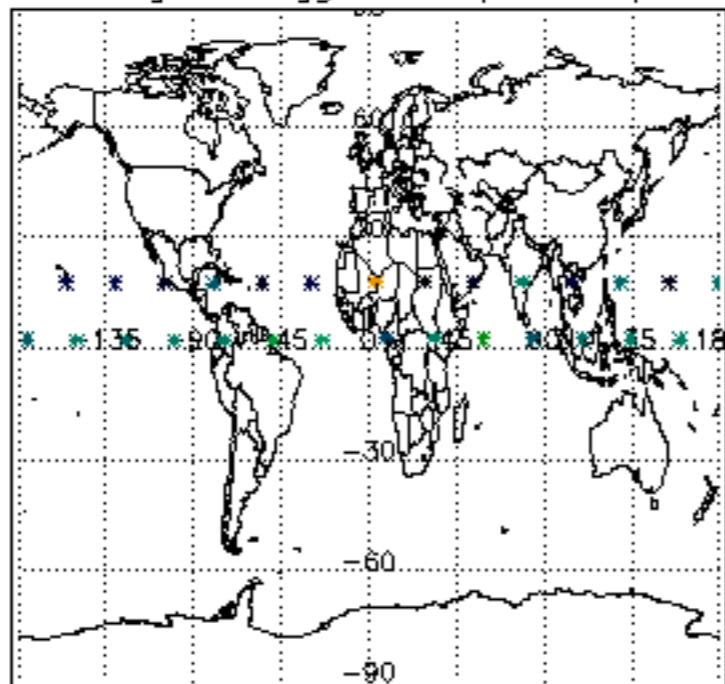
Percentage of flagged data per D3 profile



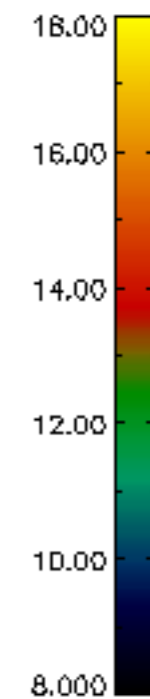
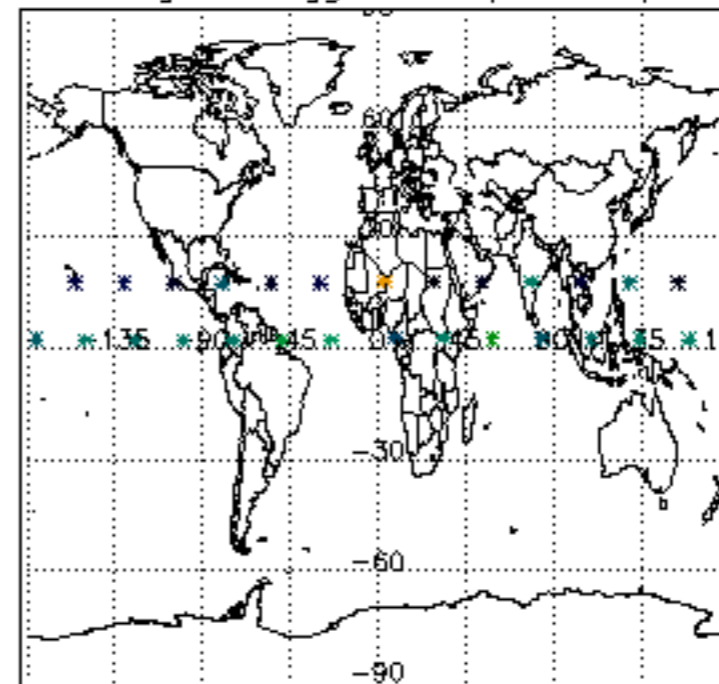
Percentage of flagged data per H2O profile

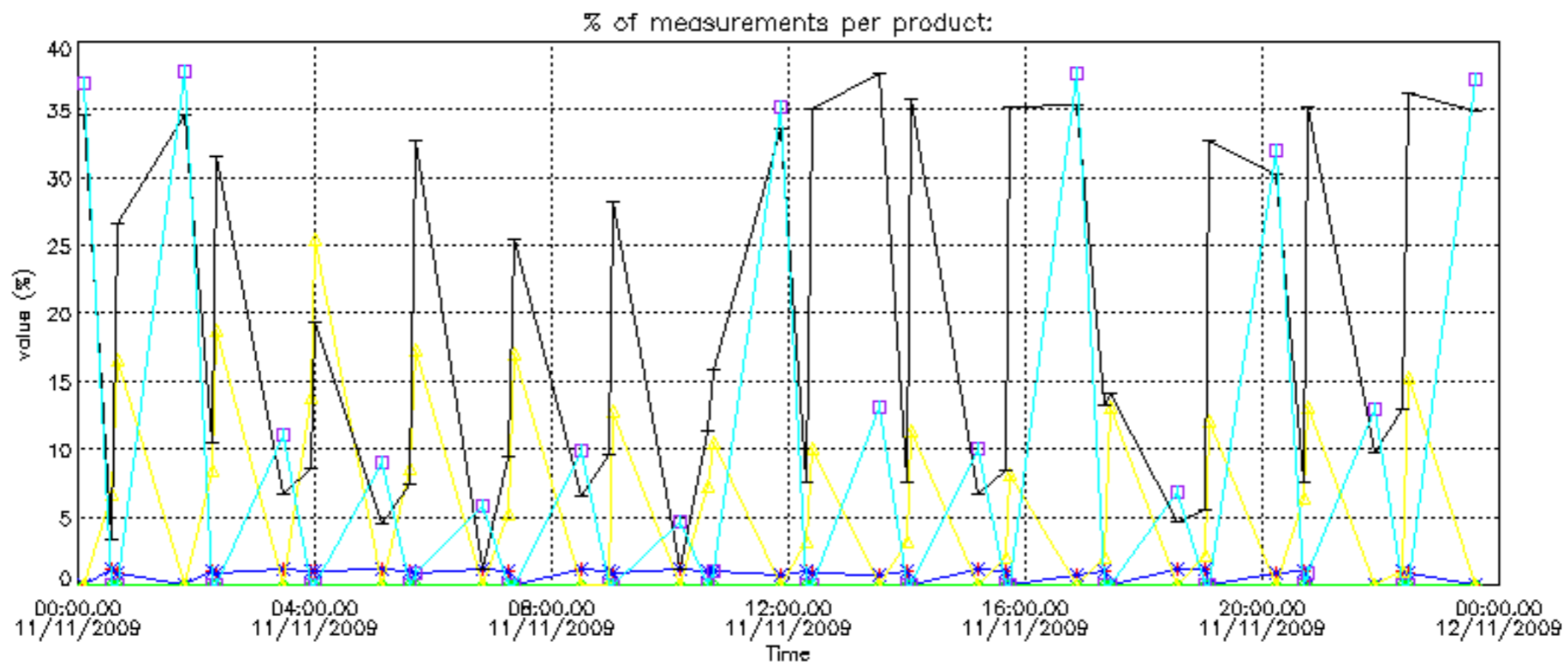


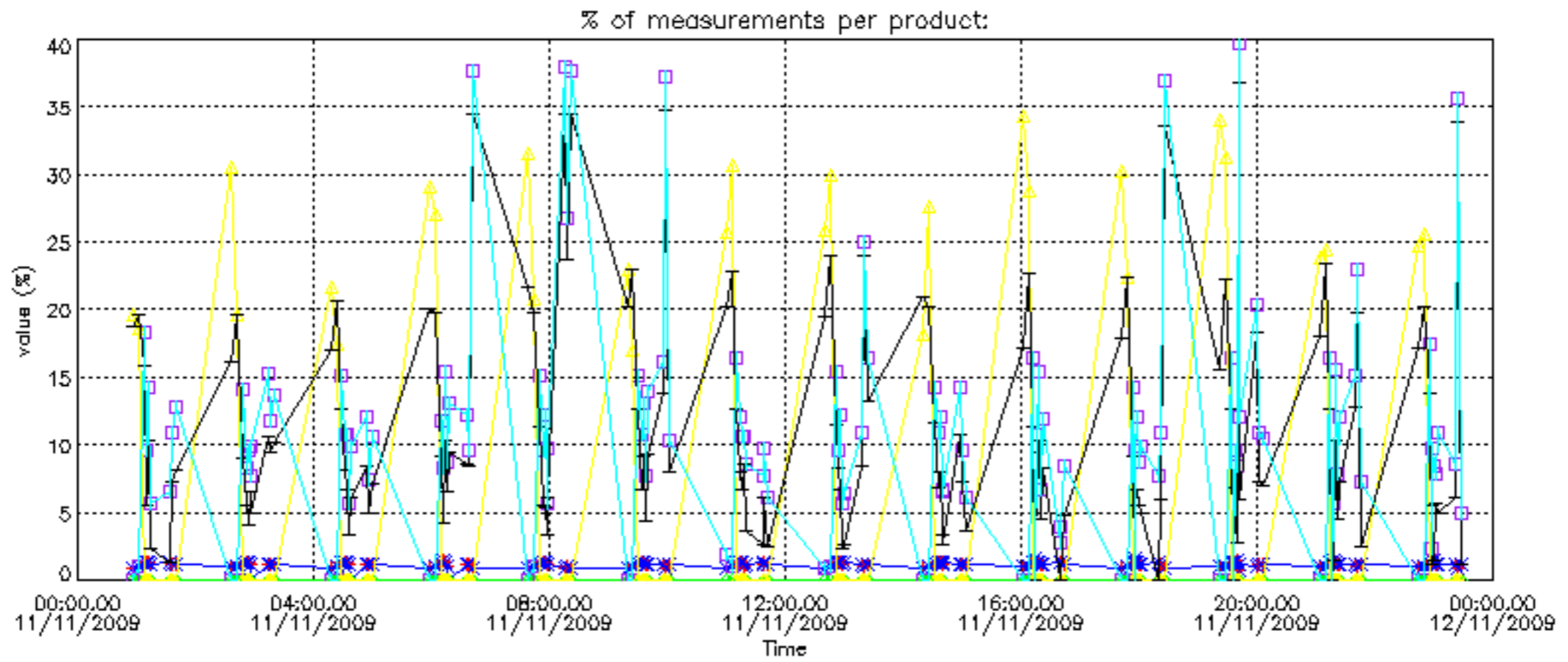
Percentage of flagged data per NO2 profile



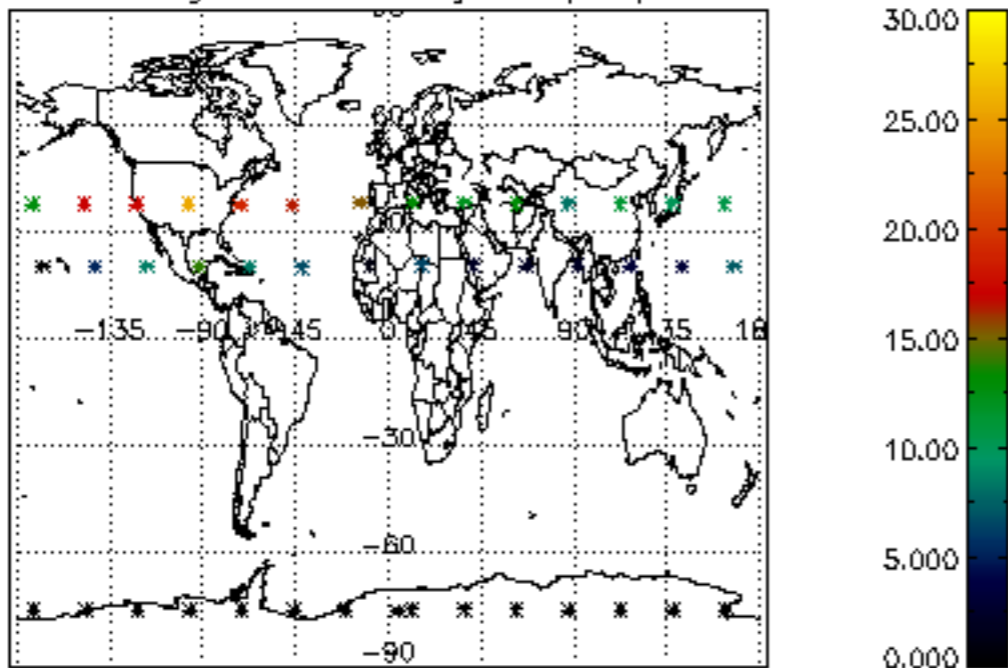
Percentage of flagged data per NO3 profile



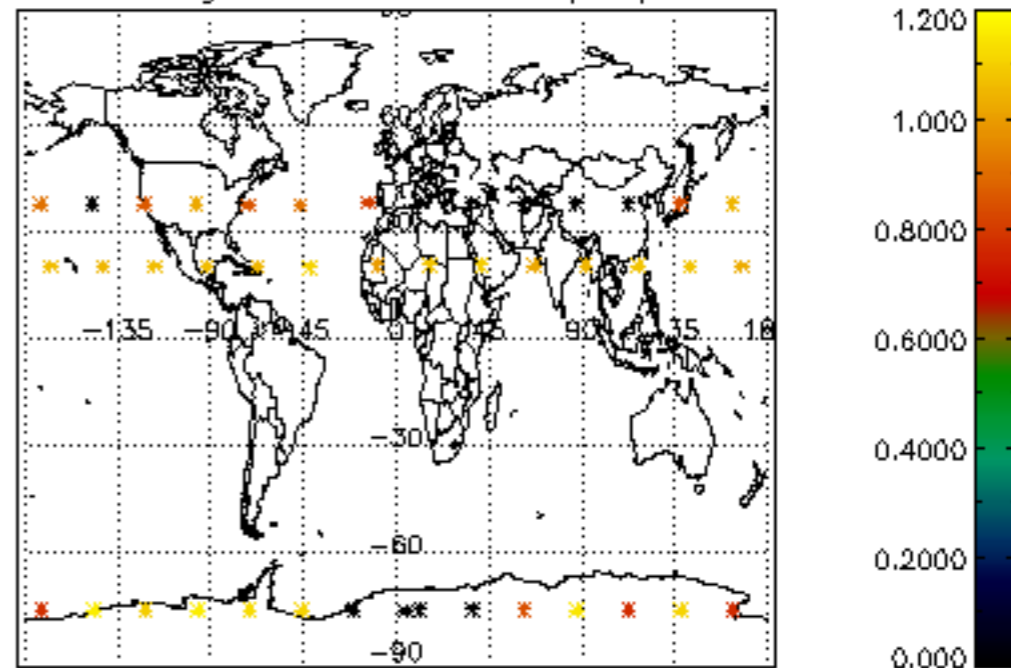




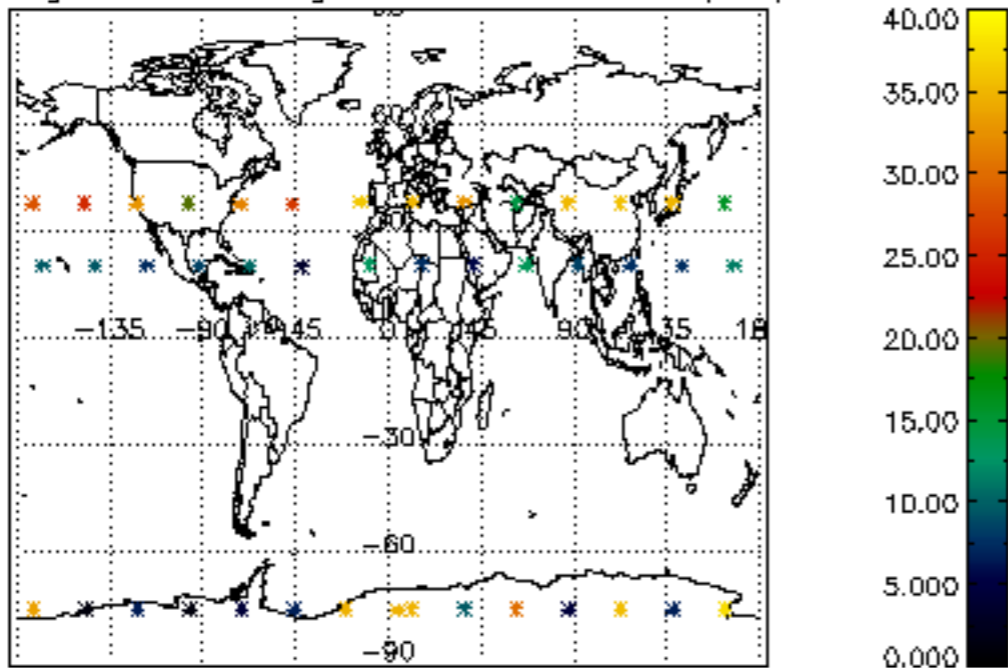
Percentage of cosmic ray hits per profile



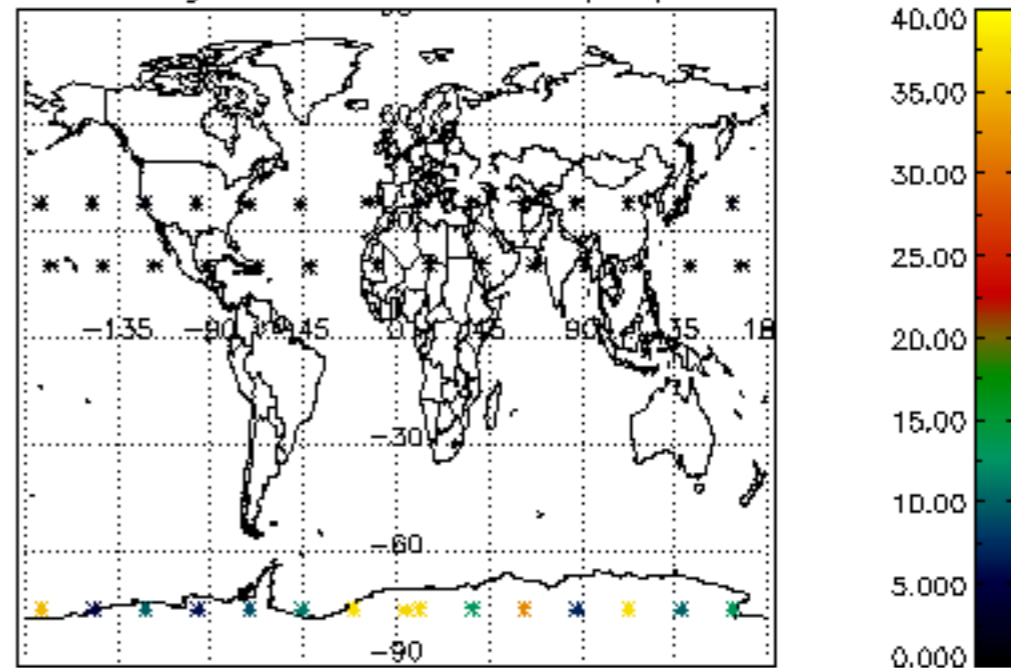
Percentage of datation errors per profile



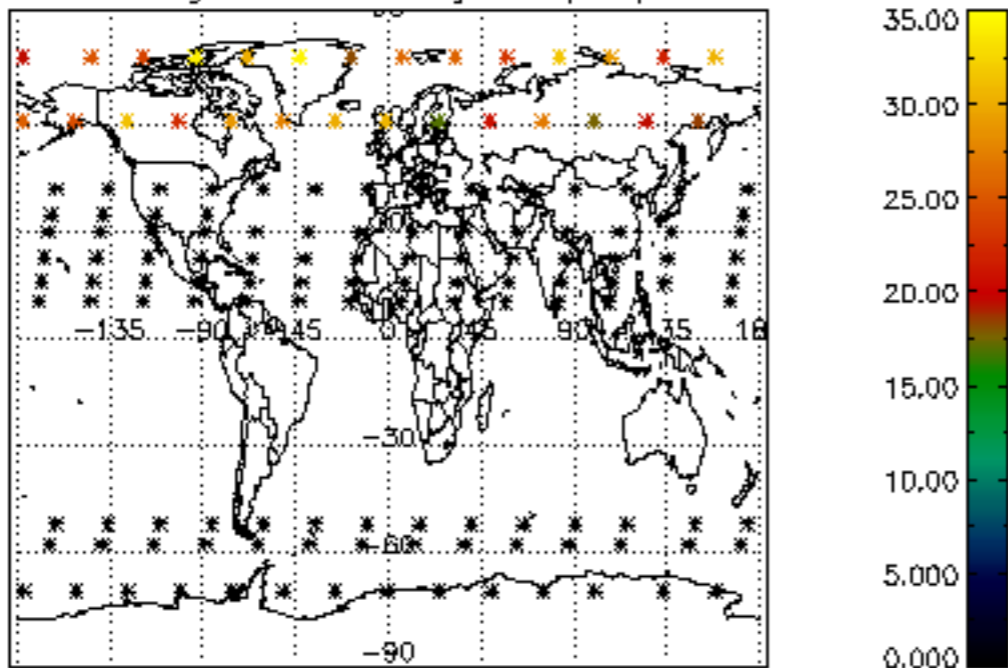
Percentage of star falling outside central band per profile



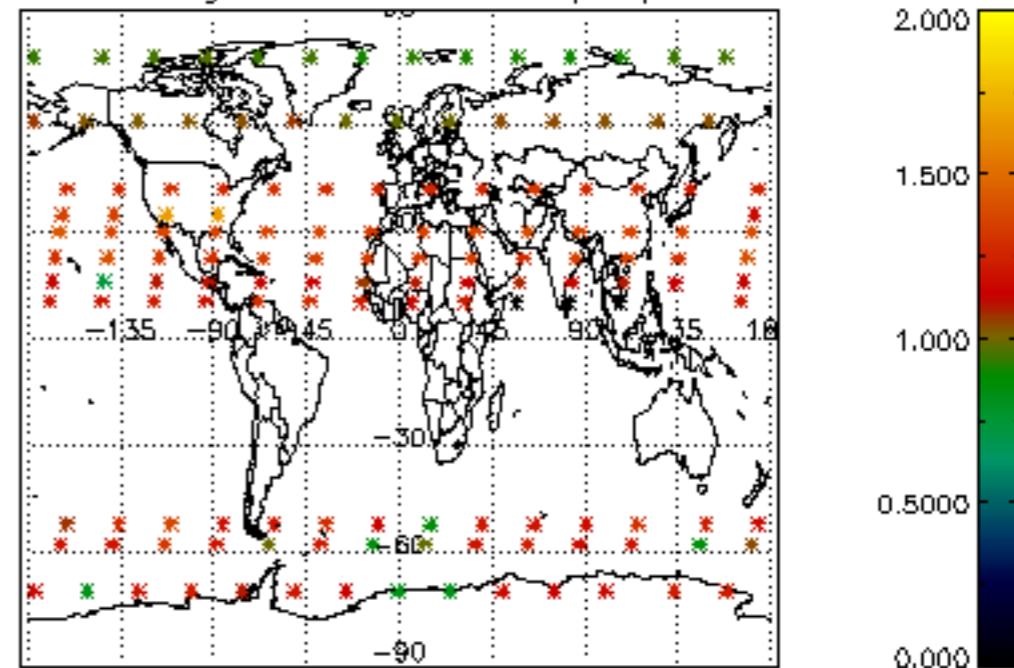
Percentage of saturation errors per profile



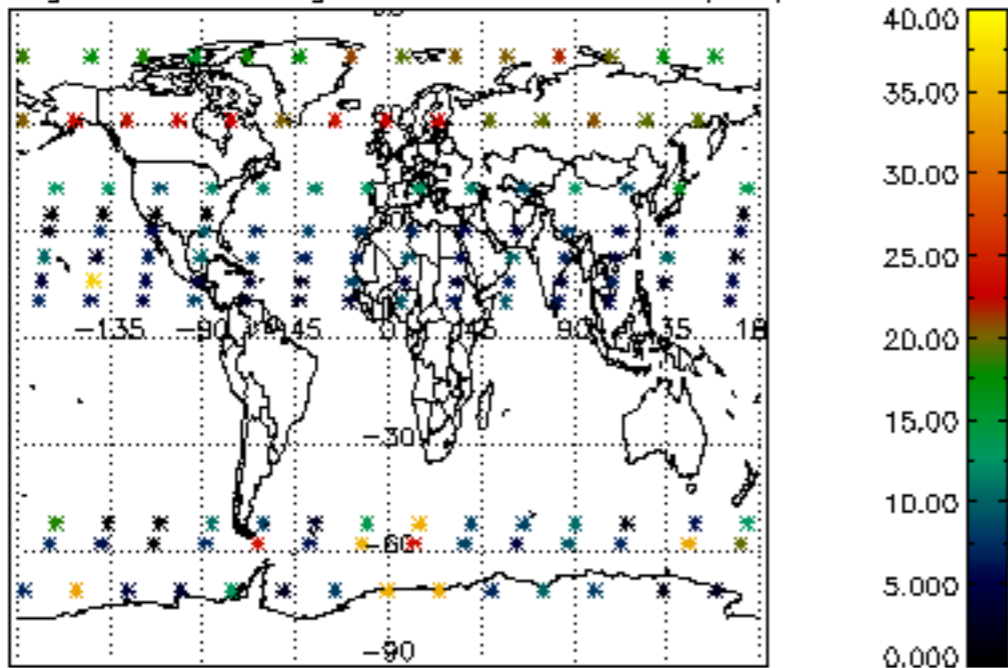
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

