

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 10:14:44
Data source version	GOMOS/6.01
Start time of products	05-11-2007 (05NOV2007 00:00:00)
Stop time of products	06-11-2007 (06NOV2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	185
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

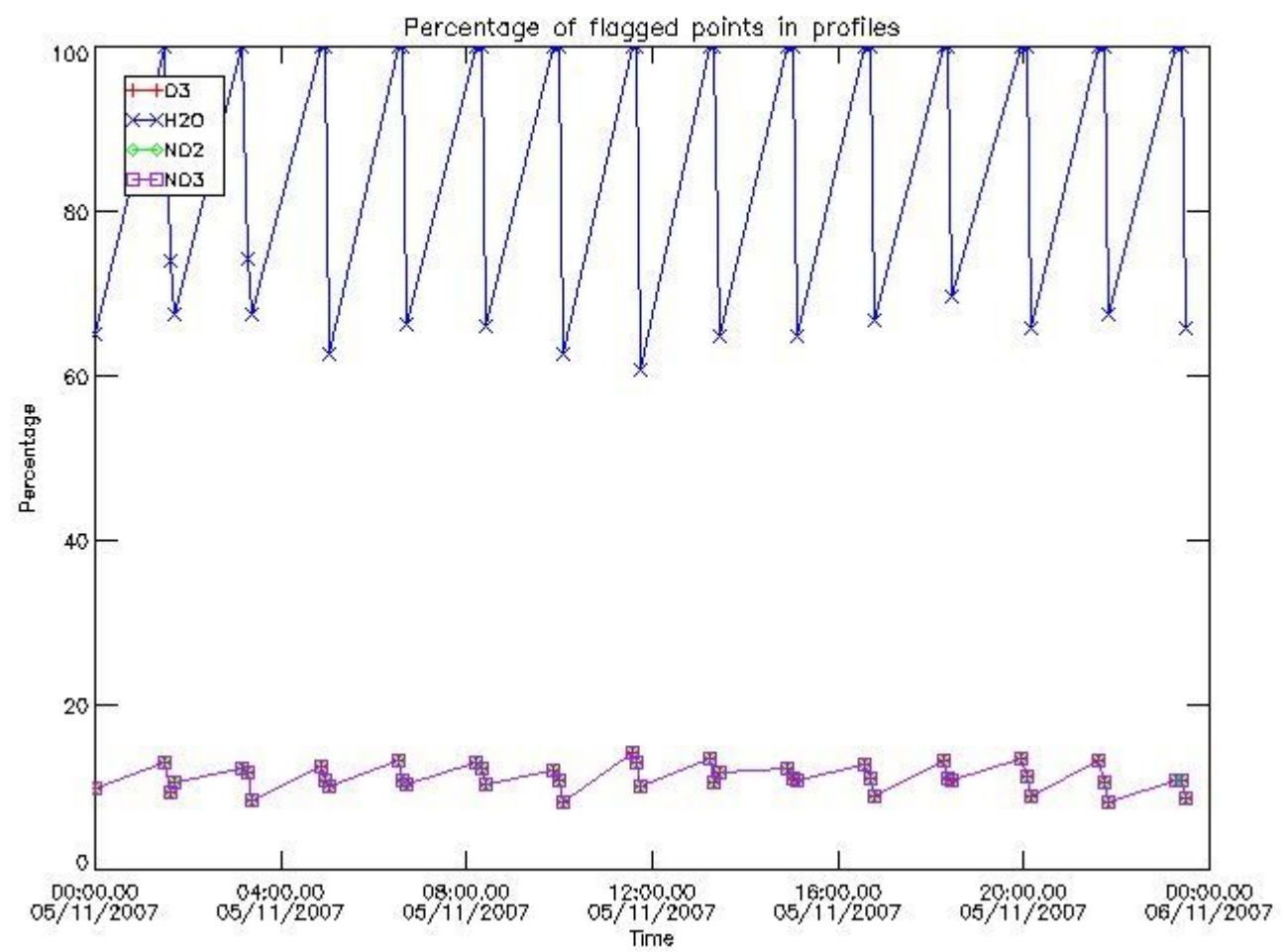
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20071105_000100_000000522063_00088_29701_9050.N1	05-NOV-2007 00:01:00	Dark	52.000	2	Alp Car	-0.73600	7000.0	104	29701	No
2	GOM_NL__2PRFIN20071105_001055_000000412063_00088_29701_9051.N1	05-NOV-2007 00:10:55	Straylight	40.500	157	The1Eri	2.9060	9300.0	81	29701	No
3	GOM_NL__2PRFIN20071105_002924_000000372063_00088_29701_9052.N1	05-NOV-2007 00:29:24	Bright	37.000	105	6Bet Ari	2.6450	8900.0	74	29701	No
4	GOM_NL__2PRFIN20071105_003332_000000382063_00088_29701_9053.N1	05-NOV-2007 00:33:32	Bright	37.500	53	43Bet And	2.0480	3300.0	75	29701	No
5	GOM_NL__2PRFIN20071105_003546_000000382063_00088_29701_9054.N1	05-NOV-2007 00:35:46	Bright	38.000	73	57Gam1And	2.2600	13100.	76	29701	No
6	GOM_NL__2PRFIN20071105_004031_000000352063_00088_29701_9055.N1	05-NOV-2007 00:40:31	Bright	34.500	110	37Del Cas	2.6780	8900.0	69	29701	No
7	GOM_NL__2PRFIN20071105_004841_000000322063_00088_29701_9056.N1	05-NOV-2007 00:48:41	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	29701	No
8	GOM_NL__2PRFIN20071105_005644_000000402063_00088_29701_9057.N1	05-NOV-2007 00:56:44	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	29701	No
9	GOM_NL__2PRFIN20071105_005822_000000492063_00088_29701_9058.N1	05-NOV-2007 00:58:22	Bright	48.500	82	48Bet UMa	2.3650	10600.	97	29701	No
10	GOM_NL__2PRFIN20071105_010207_000000552063_00088_29701_9059.N1	05-NOV-2007 01:02:07	Bright	54.500	174	52Psi UMa	3.0040	4400.0	109	29701	No
11	GOM_NL__2PRFIN20071105_010944_000000382063_00088_29701_9060.N1	05-NOV-2007 01:09:44	Bright	38.000	96	68Del Leo	2.5600	9300.0	76	29701	No
12	GOM_NL__2PRFIN20071105_012944_000000402063_00088_29701_9061.N1	05-NOV-2007 01:29:44	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	29701	No
13	GOM_NL__2PRFIN20071105_013621_000000542063_00089_29702_9066.N1	05-NOV-2007 01:36:21	Dark	54.000	41	Eps Car	1.8600	4100.0	108	29702	No
14	GOM_NL__2PRFIN20071105_014137_000000482063_00089_29702_9067.N1	05-NOV-2007 01:41:37	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	29702	No
15	GOM_NL__2PRFIN20071105_015131_000000412063_00089_29702_9068.N1	05-NOV-2007 01:51:31	Straylight	41.000	157	The1Eri	2.9060	9300.0	82	29702	No
16	GOM_NL__2PRFIN20071105_021000_000000372063_00089_29702_9069.N1	05-NOV-2007 02:10:00	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	29702	No
17	GOM_NL__2PRFIN20071105_021407_000000392063_00089_29702_9070.N1	05-NOV-2007 02:14:07	Bright	38.500	53	43Bet And	2.0480	3300.0	77	29702	No
18	GOM_NL__2PRFIN20071105_021622_000000402063_00089_29702_9071.N1	05-NOV-2007 02:16:22	Bright	40.000	73	57Gam1And	2.2600	13100.	80	29702	No
19	GOM_NL__2PRFIN20071105_022107_000000352063_00089_29702_9072.N1	05-NOV-2007 02:21:07	Bright	35.000	110	37Del Cas	2.6780	8900.0	70	29702	No
20	GOM_NL__2PRFIN20071105_022917_000000332063_00089_29702_9073.N1	05-NOV-2007 02:29:17	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	29702	No
21	GOM_NL__2PRFIN20071105_023720_000000402063_00089_29702_9074.N1	05-NOV-2007 02:37:20	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	29702	No
22	GOM_NL__2PRFIN20071105_023857_000000382063_00089_29702_9075.N1	05-NOV-2007 02:38:57	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	29702	No
23	GOM_NL__2PRFIN20071105_024243_000000452063_00089_29702_9076.N1	05-NOV-2007 02:42:43	Bright	45.000	174	52Psi UMa	3.0040	4400.0	90	29702	No
24	GOM_NL__2PRFIN20071105_025021_000000502063_00089_29702_9077.N1	05-NOV-2007 02:50:21	Bright	50.000	96	68Del Leo	2.5600	9300.0	100	29702	No
25	GOM_NL__2PRFIN20071105_031021_000000422063_00089_29702_9078.N1	05-NOV-2007 03:10:21	Dark	41.500	113	Mu Vel	2.6920	5000.0	83	29702	No
26	GOM_NL__2PRFIN20071105_031657_000000432063_00090_29703_9075.N1	05-NOV-2007 03:16:57	Dark	43.000	41	Eps Car	1.8600	4100.0	86	29703	No
27	GOM_NL__2PRFIN20071105_032214_000000612063_00090_29703_9076.N1	05-NOV-2007 03:22:14	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	29703	No
28	GOM_NL__2PRFIN20071105_033208_000000402063_00090_29703_9077.N1	05-NOV-2007 03:32:08	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	29703	No
29	GOM_NL__2PRFIN20071105_035036_000000372063_00090_29703_9078.N1	05-NOV-2007 03:50:36	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	29703	No
30	GOM_NL__2PRFIN20071105_035443_000000382063_00090_29703_9079.N1	05-NOV-2007 03:54:43	Bright	37.500	53	43Bet And	2.0480	3300.0	75	29703	No
31	GOM_NL__2PRFIN20071105_035657_000000402063_00090_29703_9080.N1	05-NOV-2007 03:56:57	Bright	40.000	73	57Gam1And	2.2600	13100.	80	29703	No
32	GOM_NL__2PRFIN20071105_040143_000000352063_00090_29703_9081.N1	05-NOV-2007 04:01:43	Bright	35.000	110	37Del Cas	2.6780	8900.0	70	29703	No
33	GOM_NL__2PRFIN20071105_040953_000000362063_00090_29703_9082.N1	05-NOV-2007 04:09:53	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	29703	No
34	GOM_NL__2PRFIN20071105_041756_000000382063_00090_29703_9083.N1	05-NOV-2007 04:17:56	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	29703	No
35	GOM_NL__2PRFIN20071105_041933_000000382063_00090_29703_9084.N1	05-NOV-2007 04:19:33	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	29703	No
36	GOM_NL__2PRFIN20071105_042319_000000402063_00090_29703_9085.N1	05-NOV-2007 04:23:19	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	29703	No
37	GOM_NL__2PRFIN20071105_043057_000000382063_00090_29703_9086.N1	05-NOV-2007 04:30:57	Bright	38.000	96	68Del Leo	2.5600	9300.0	76	29703	No
38	GOM_NL__2PRFIN20071105_045057_000000412063_00090_29703_9087.N1	05-NOV-2007 04:50:57	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	29703	No
39	GOM_NL__2PRFIN20071105_045733_000000472063_00091_29704_9095.N1	05-NOV-2007 04:57:33	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	29704	No
40	GOM_NL__2PRFIN20071105_050250_000000502063_00091_29704_9096.N1	05-NOV-2007 05:02:50	Dark	50.000	2	Alp Car	-0.73600	7000.0	100	29704	No
41	GOM_NL__2PRFIN20071105_051244_000000402063_00091_29704_9097.N1	05-NOV-2007 05:12:44	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	29704	No
42	GOM_NL__2PRFIN20071105_053112_000000382063_00091_29704_9098.N1	05-NOV-2007 05:31:12	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29704	No

161	GOM_NL__2PRFIN20071105_204255_000000392063_00100_29713_9245.N1	05-NOV-2007 20:42:55	Bright	38.500	73	57Gam1And	2.2600	13100.	77	29713	No
162	GOM_NL__2PRFIN20071105_204742_000000362063_00100_29713_9246.N1	05-NOV-2007 20:47:42	Bright	36.000	110	37Del Cas	2.6780	8900.0	72	29713	No
163	GOM_NL__2PRFIN20071105_205552_000000382063_00100_29713_9247.N1	05-NOV-2007 20:55:52	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	29713	No
164	GOM_NL__2PRFIN20071105_210354_000000392063_00100_29713_9248.N1	05-NOV-2007 21:03:54	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	29713	No
165	GOM_NL__2PRFIN20071105_210532_000000362063_00100_29713_9249.N1	05-NOV-2007 21:05:32	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	29713	No
166	GOM_NL__2PRFIN20071105_210918_000000412063_00100_29713_9250.N1	05-NOV-2007 21:09:18	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	29713	No
167	GOM_NL__2PRFIN20071105_211659_000000412063_00100_29713_9251.N1	05-NOV-2007 21:16:59	Bright	40.500	96	68Del Leo	2.5600	9300.0	81	29713	No
168	GOM_NL__2PRFIN20071105_213701_000000392063_00100_29713_9252.N1	05-NOV-2007 21:37:01	Dark	38.500	113	Mu Vel	2.6920	5000.0	77	29713	No
169	GOM_NL__2PRFIN20071105_214342_000000492063_00101_29714_9262.N1	05-NOV-2007 21:43:42	Dark	48.500	34	Gam2Vel	1.7930	23000.	97	29714	No
170	GOM_NL__2PRFIN20071105_214857_000000622063_00101_29714_9263.N1	05-NOV-2007 21:48:57	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	29714	No
171	GOM_NL__2PRFIN20071105_215846_000000412063_00101_29714_9264.N1	05-NOV-2007 21:58:46	Straylight	41.000	157	The1Eri	2.9060	9300.0	82	29714	No
172	GOM_NL__2PRFIN20071105_221710_000000382063_00101_29714_9265.N1	05-NOV-2007 22:17:10	Bright	38.000	105	6Bet Ari	2.6450	8900.0	76	29714	No
173	GOM_NL__2PRFIN20071105_222119_000000372063_00101_29714_9266.N1	05-NOV-2007 22:21:19	Bright	36.500	53	43Bet And	2.0480	3300.0	73	29714	No
174	GOM_NL__2PRFIN20071105_222330_000000382063_00101_29714_9267.N1	05-NOV-2007 22:23:30	Bright	38.000	73	57Gam1And	2.2600	13100.	76	29714	No
175	GOM_NL__2PRFIN20071105_222818_000000352063_00101_29714_9268.N1	05-NOV-2007 22:28:18	Bright	34.500	110	37Del Cas	2.6780	8900.0	69	29714	No
176	GOM_NL__2PRFIN20071105_223628_000000362063_00101_29714_9269.N1	05-NOV-2007 22:36:28	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	29714	No
177	GOM_NL__2PRFIN20071105_224430_000000372063_00101_29714_9270.N1	05-NOV-2007 22:44:30	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	29714	No
178	GOM_NL__2PRFIN20071105_224607_000000392063_00101_29714_9271.N1	05-NOV-2007 22:46:07	Bright	39.000	82	48Bet UMa	2.3650	10600.	78	29714	No
179	GOM_NL__2PRFIN20071105_224954_000000402063_00101_29714_9272.N1	05-NOV-2007 22:49:54	Bright	40.000	174	52Psi UMa	3.0040	4400.0	80	29714	No
180	GOM_NL__2PRFIN20071105_225735_000000402063_00101_29714_9273.N1	05-NOV-2007 22:57:35	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	29714	No
181	GOM_NL__2PRFIN20071105_231737_000000472063_00101_29714_9274.N1	05-NOV-2007 23:17:37	Dark	47.000	113	Mu Vel	2.6920	5000.0	94	29714	No
182	GOM_NL__2PRFIN20071105_232418_000000472063_00102_29715_9315.N1	05-NOV-2007 23:24:18	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	29715	No
183	GOM_NL__2PRFIN20071105_232934_000000592063_00102_29715_9316.N1	05-NOV-2007 23:29:34	Dark	59.000	2	Alp Car	-0.73600	7000.0	118	29715	No
184	GOM_NL__2PRFIN20071105_233922_000000402063_00102_29715_9317.N1	05-NOV-2007 23:39:22	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	29715	No
185	GOM_NL__2PRFIN20071105_235746_000000392063_00102_29715_9318.N1	05-NOV-2007 23:57:46	Bright	38.500	105	6Bet Ari	2.6450	8900.0	77	29715	No

3. Quality information per product

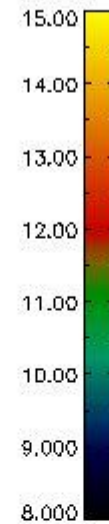
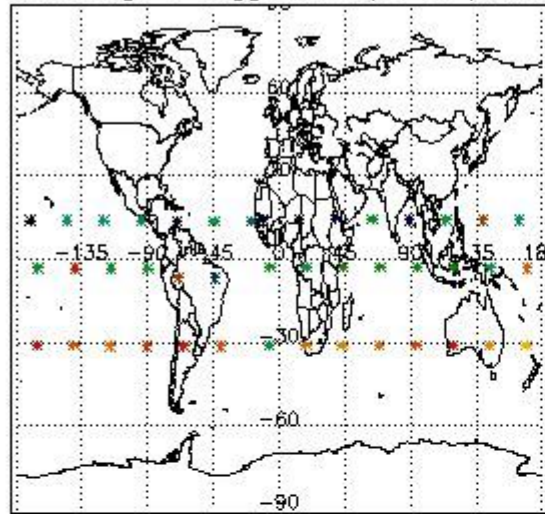
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

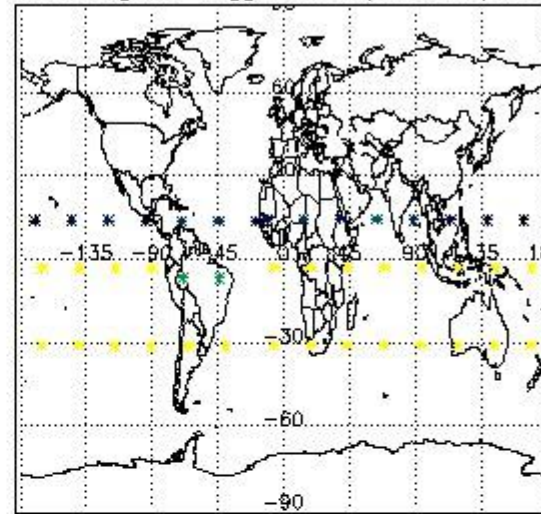


3.2 Plot quality information per product (world map)

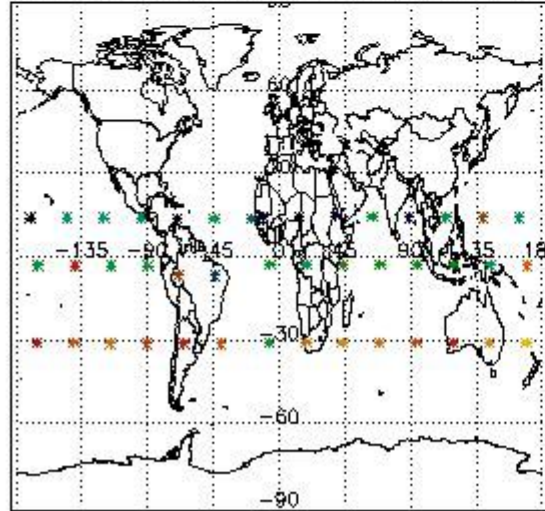
Percentage of flagged data per O3 profile



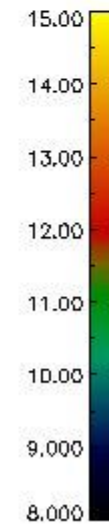
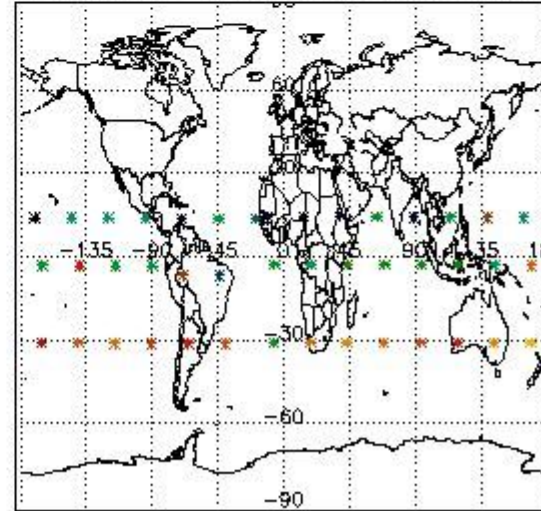
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

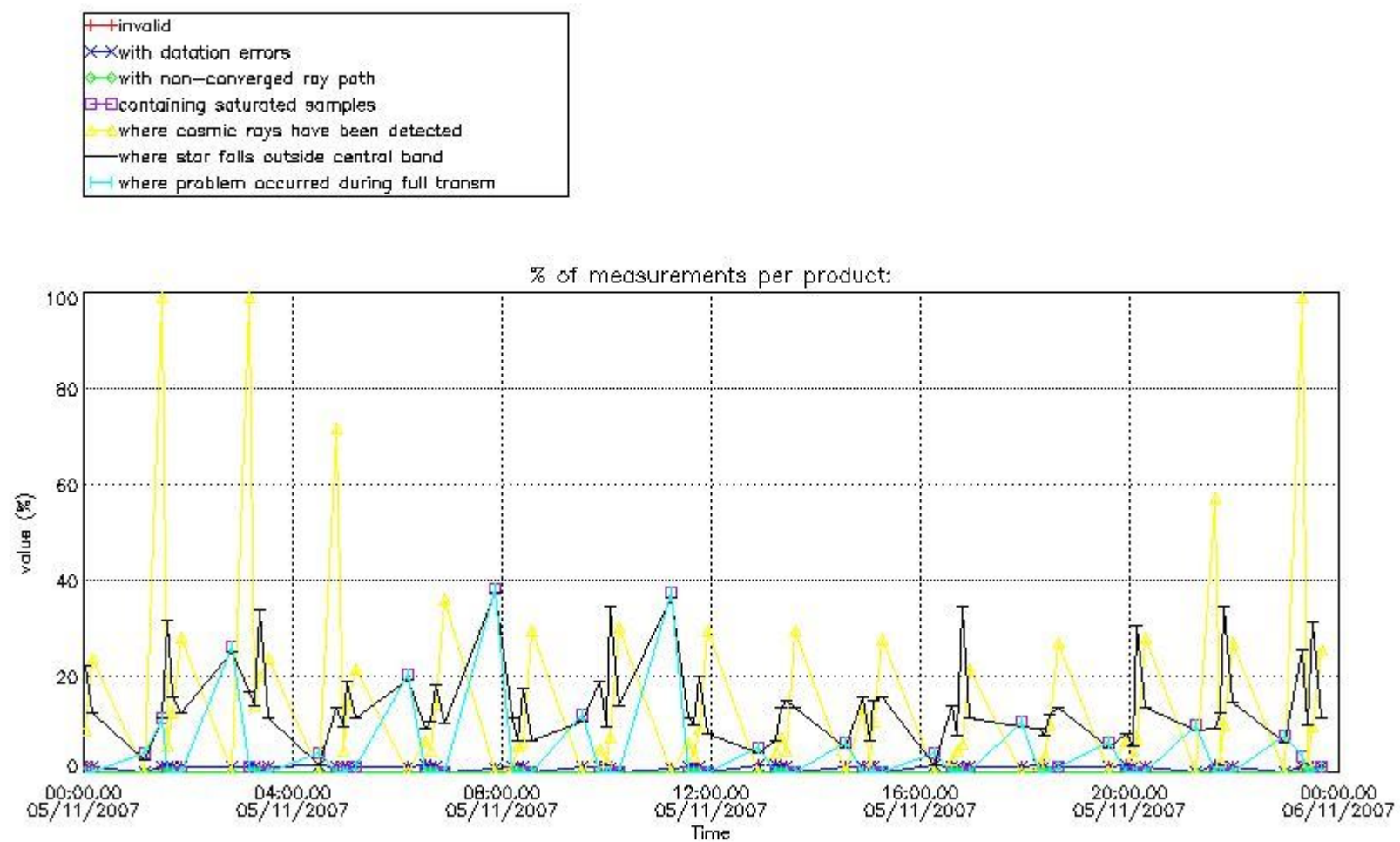


4. Level 1 quality information per product

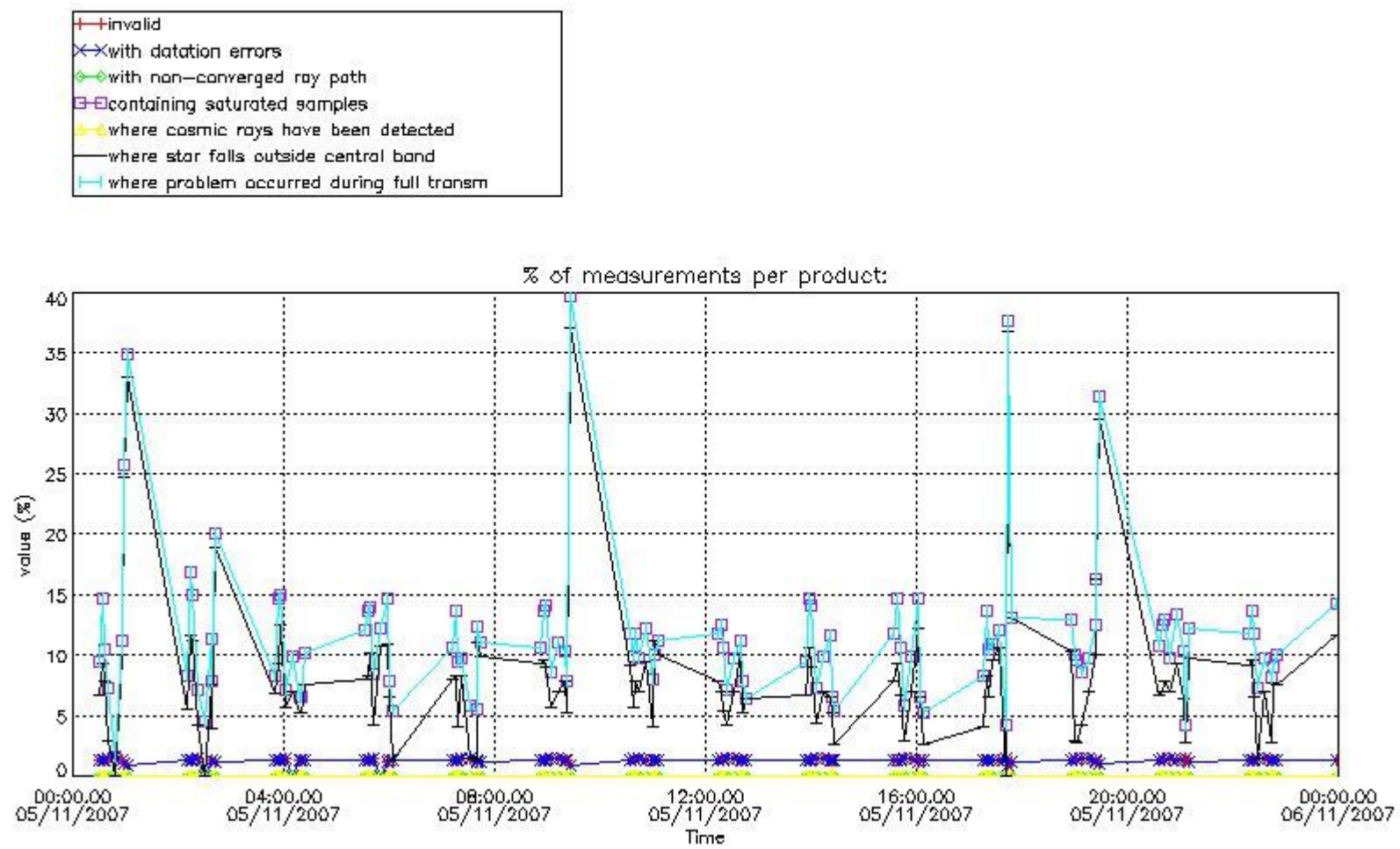
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



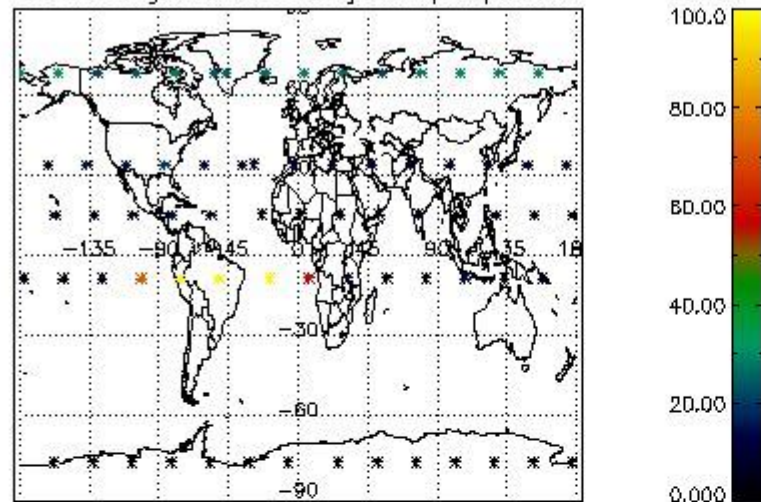
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



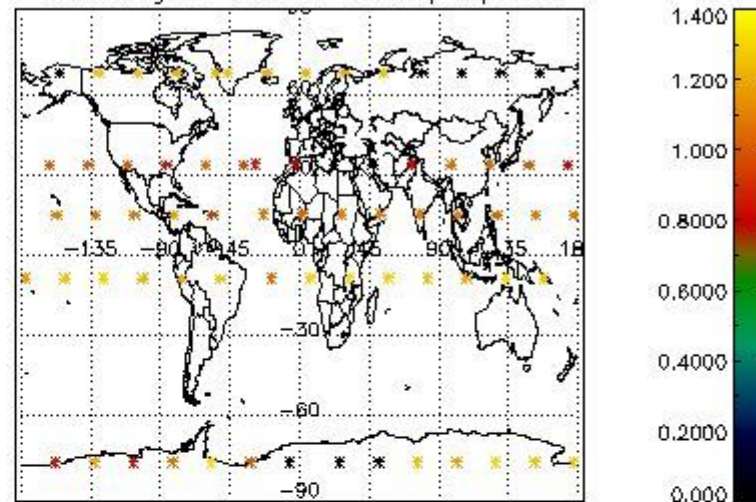
4.2 Plot quality information per product coming from level 1b processing (world map)

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

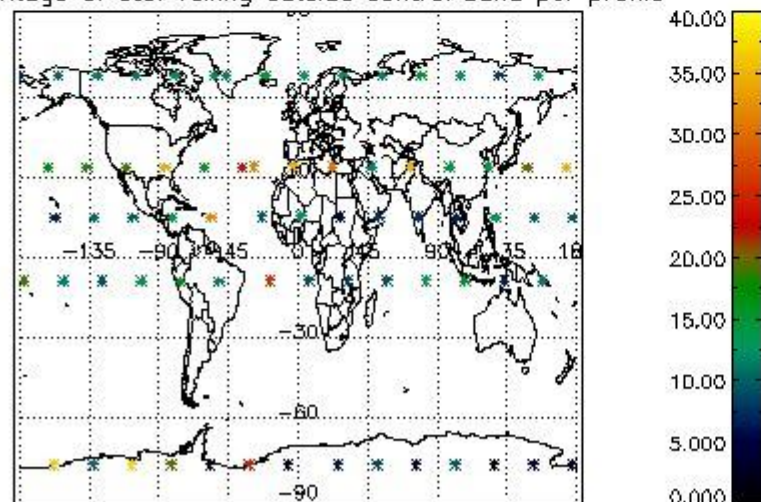
Percentage of cosmic ray hits per profile



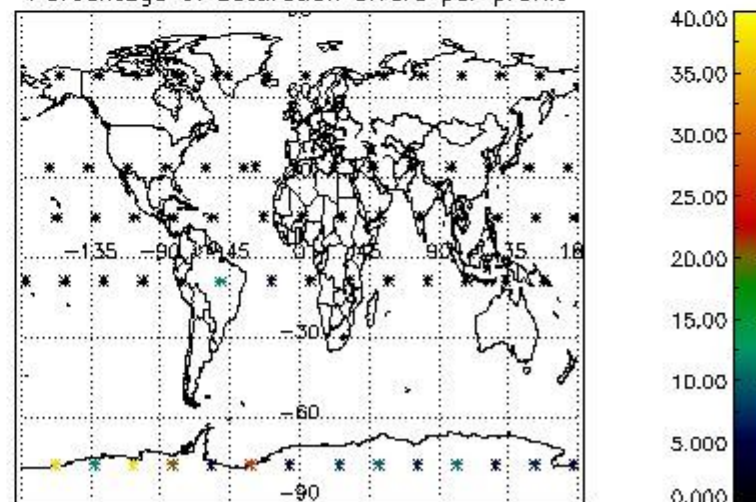
Percentage of datation errors per profile



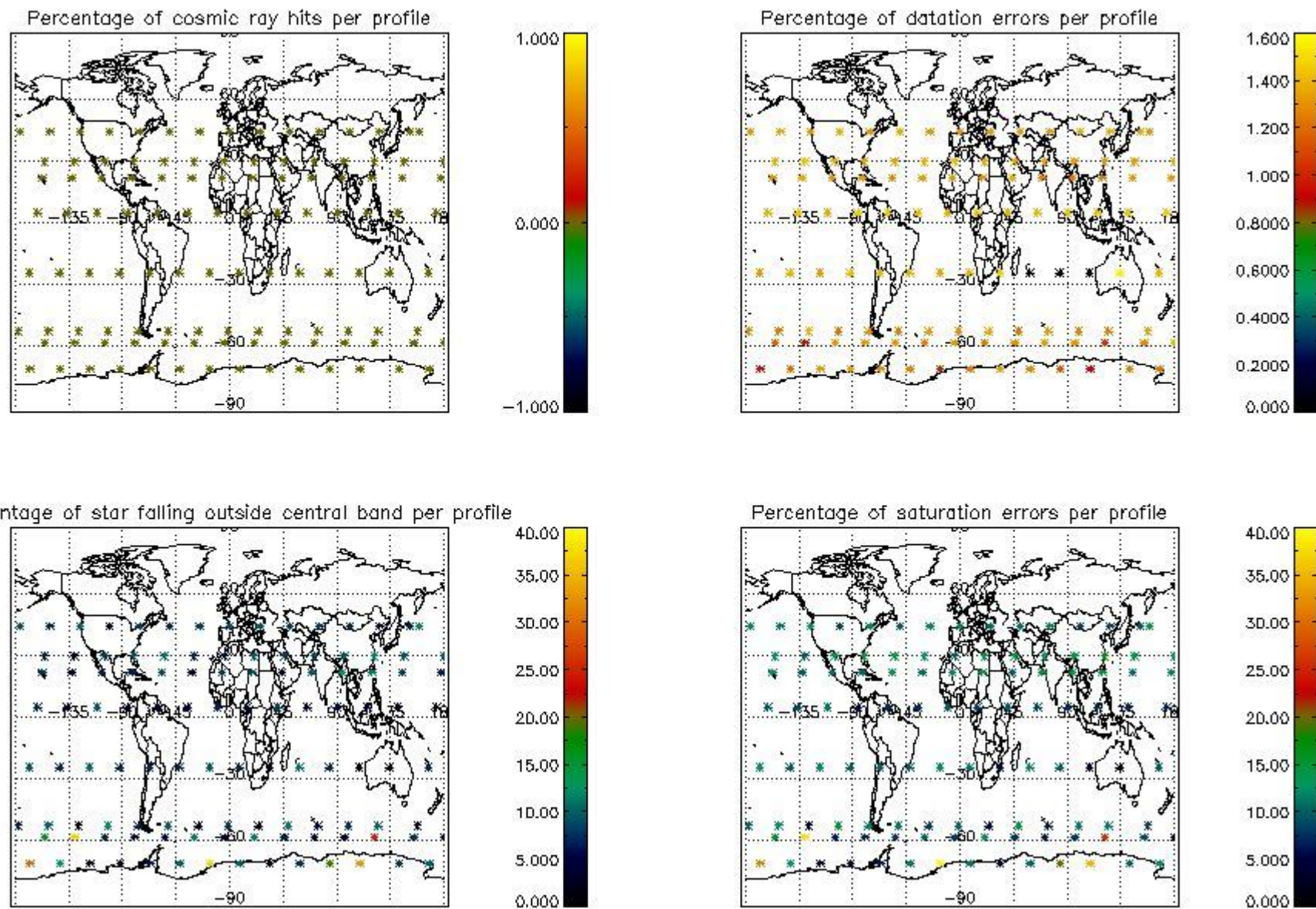
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

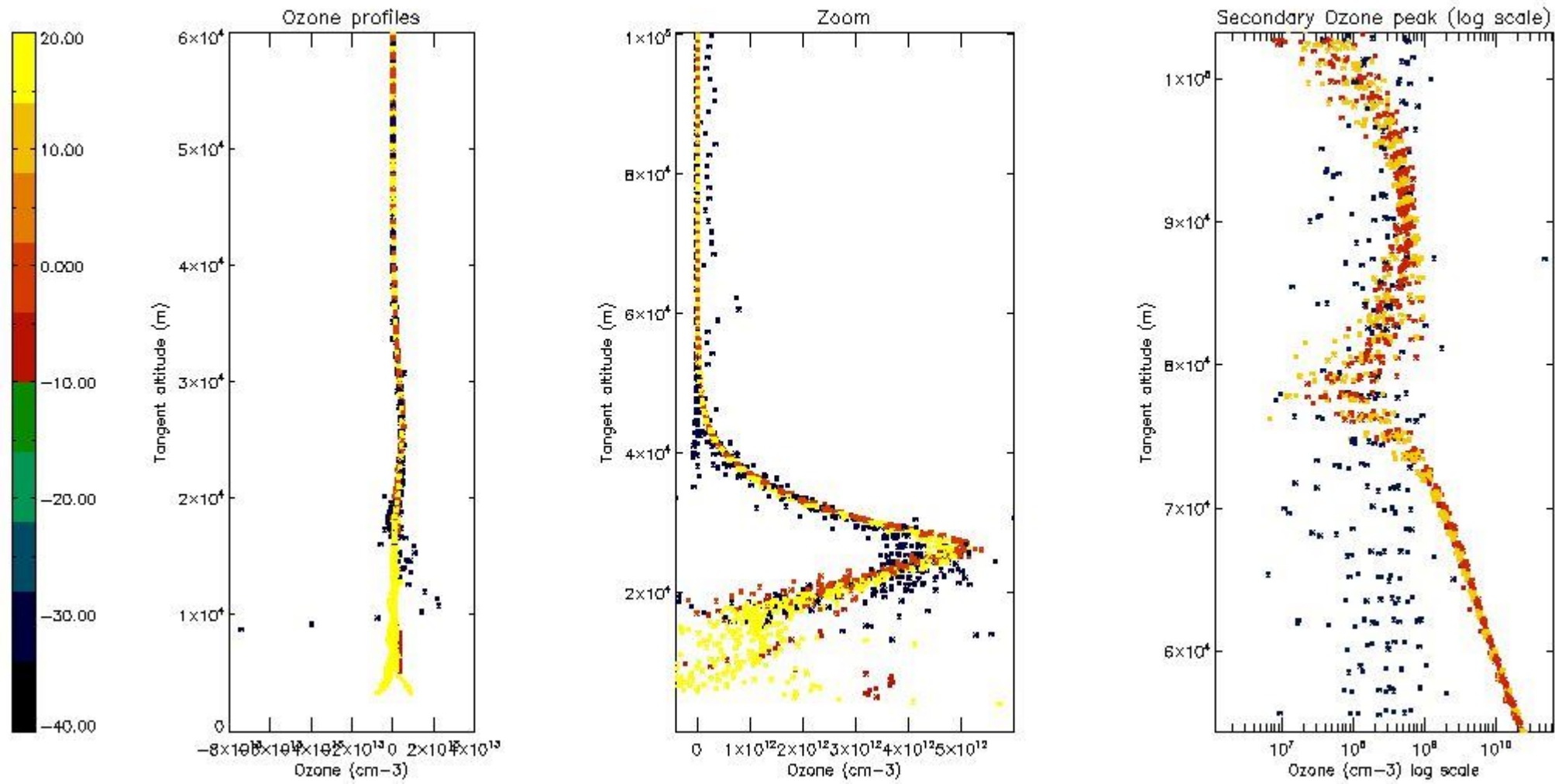
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	17

STD < 10	14
STD < 5	11

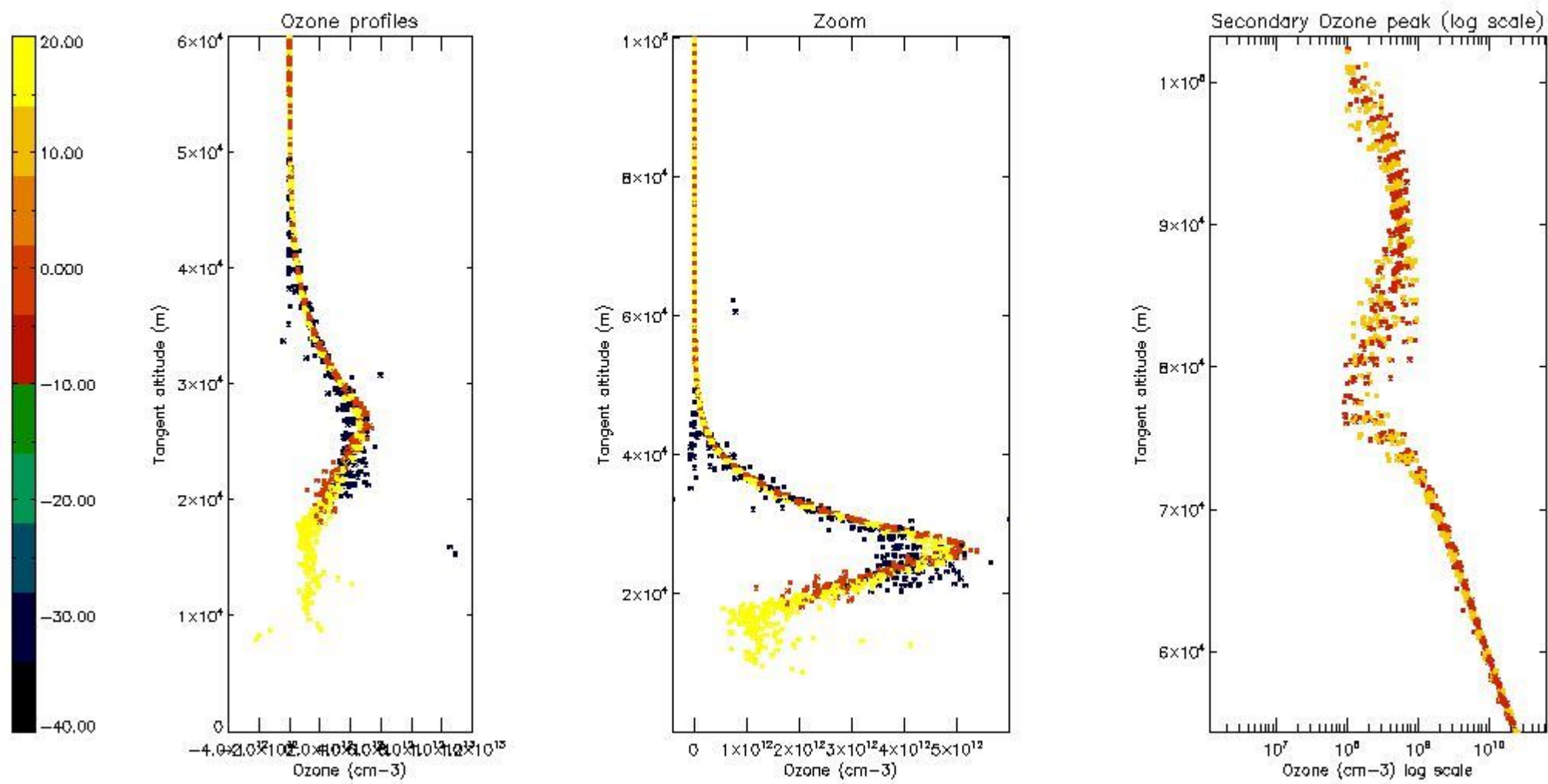
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



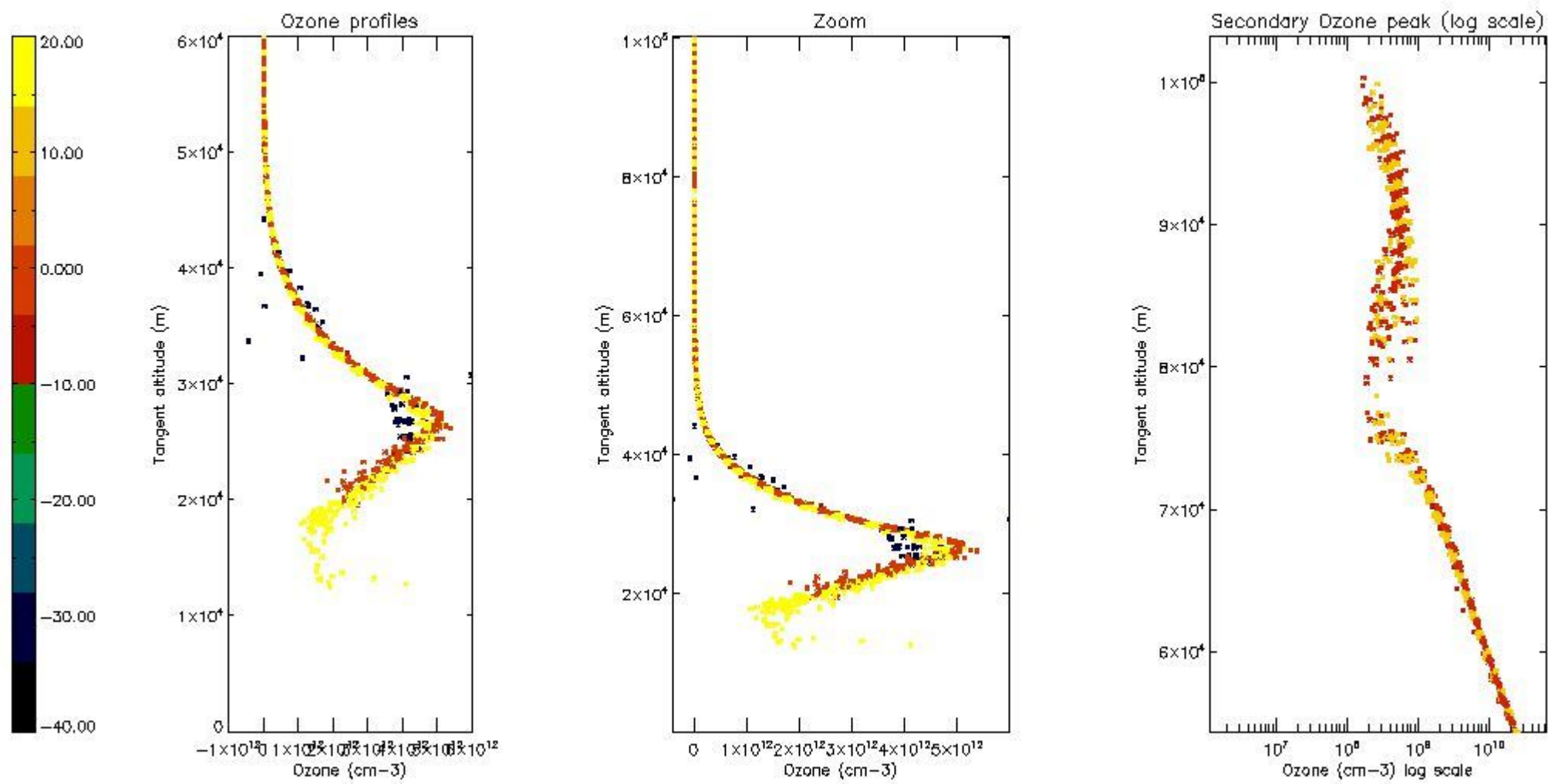
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



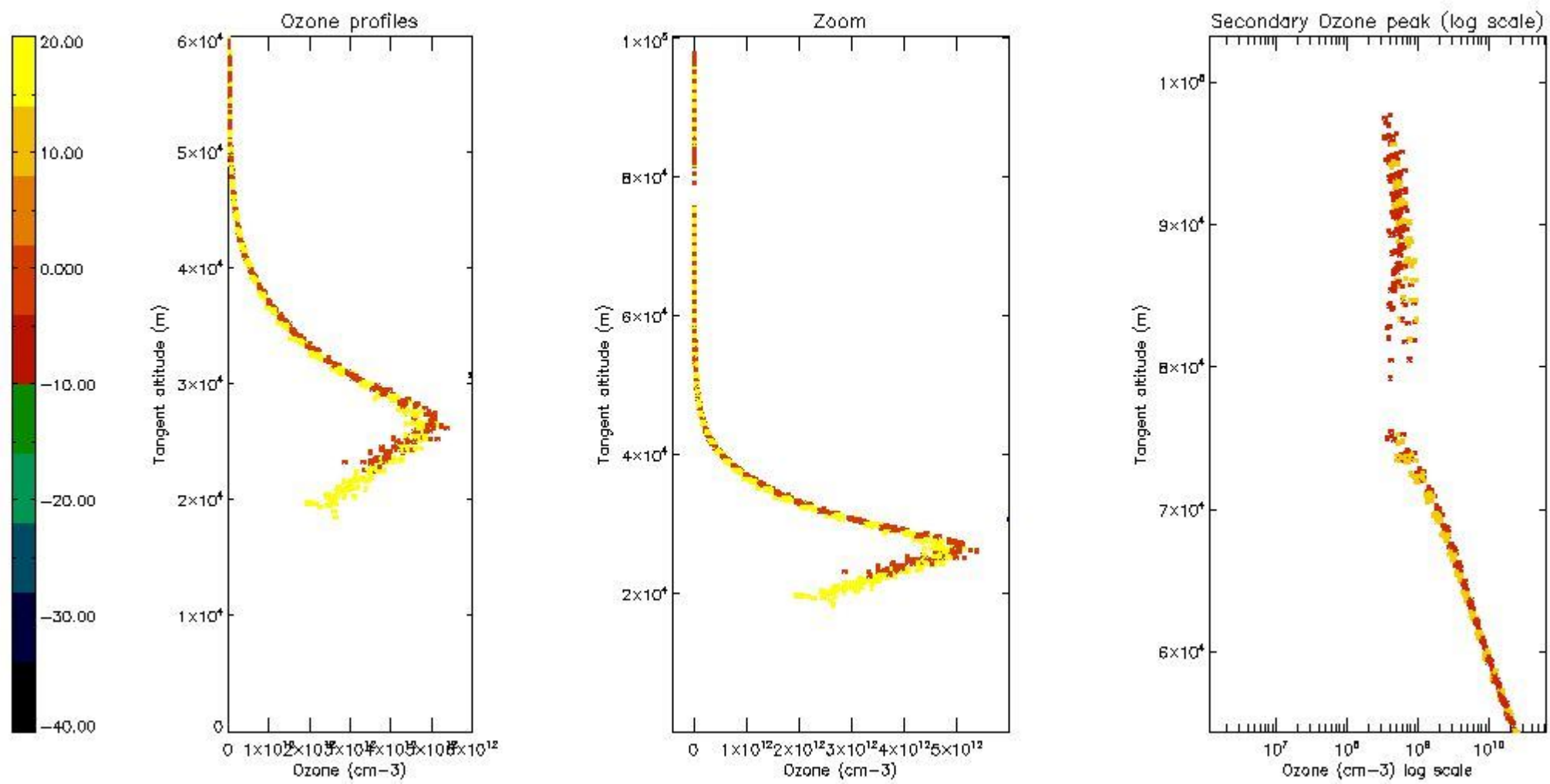
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



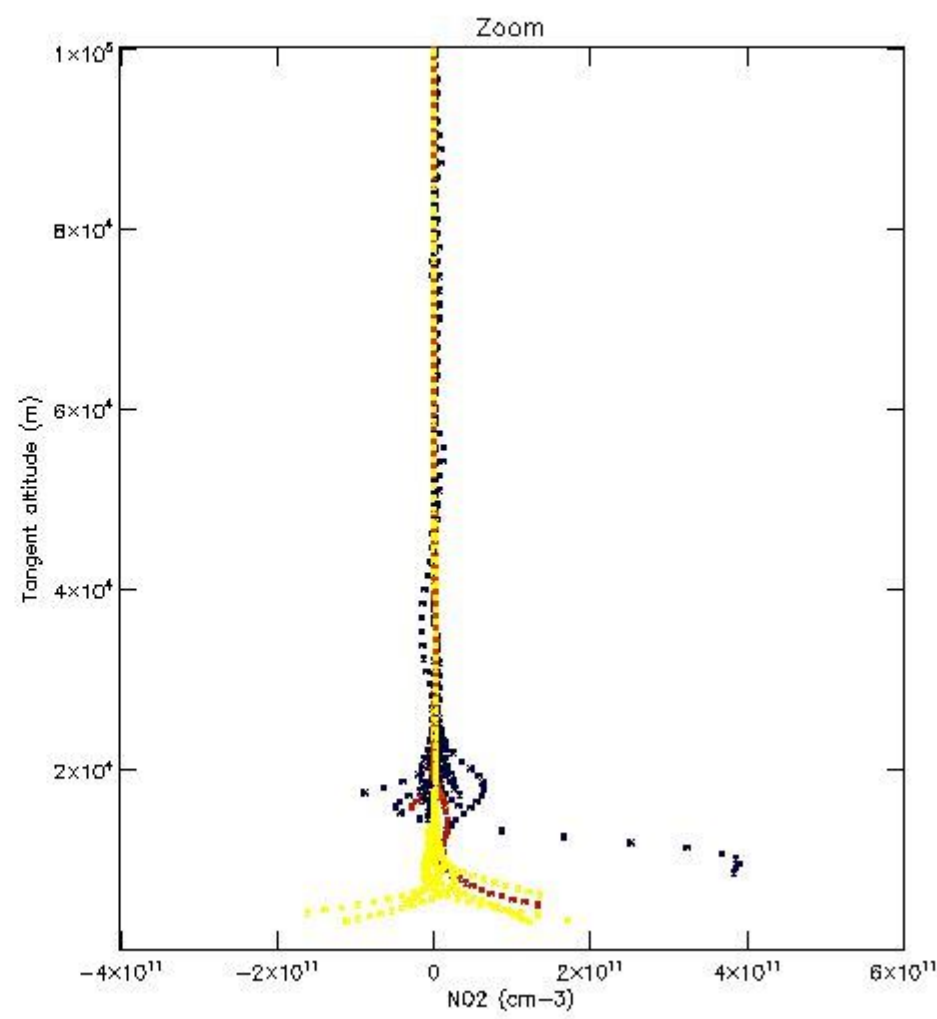
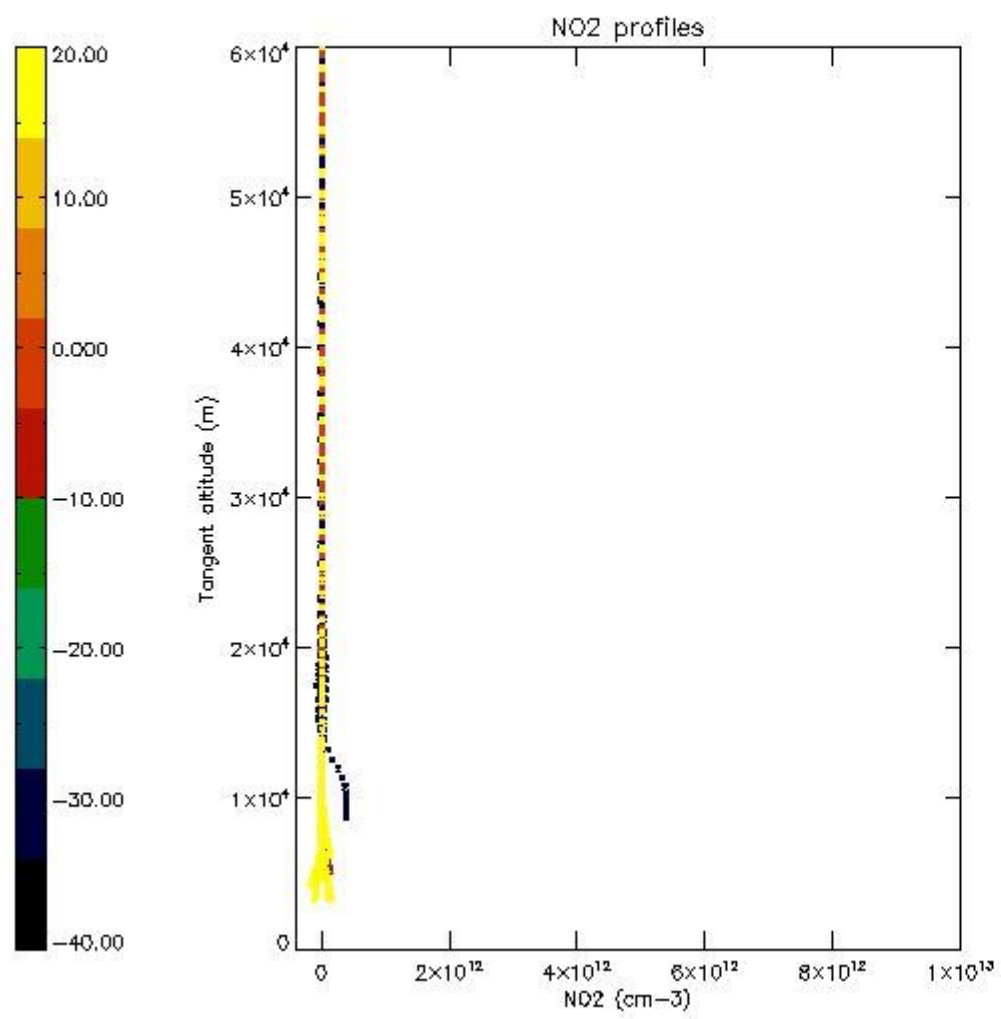
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



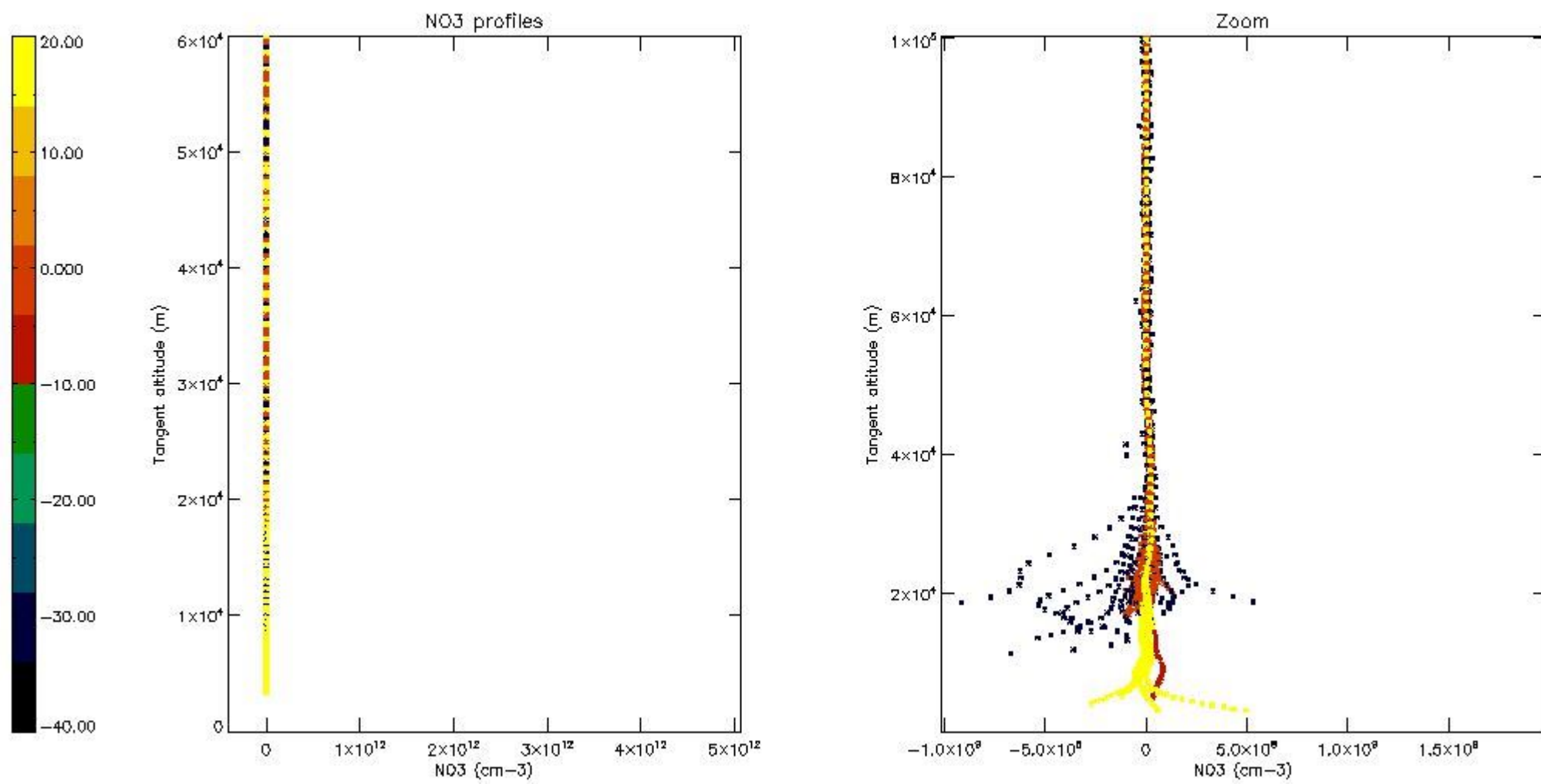
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



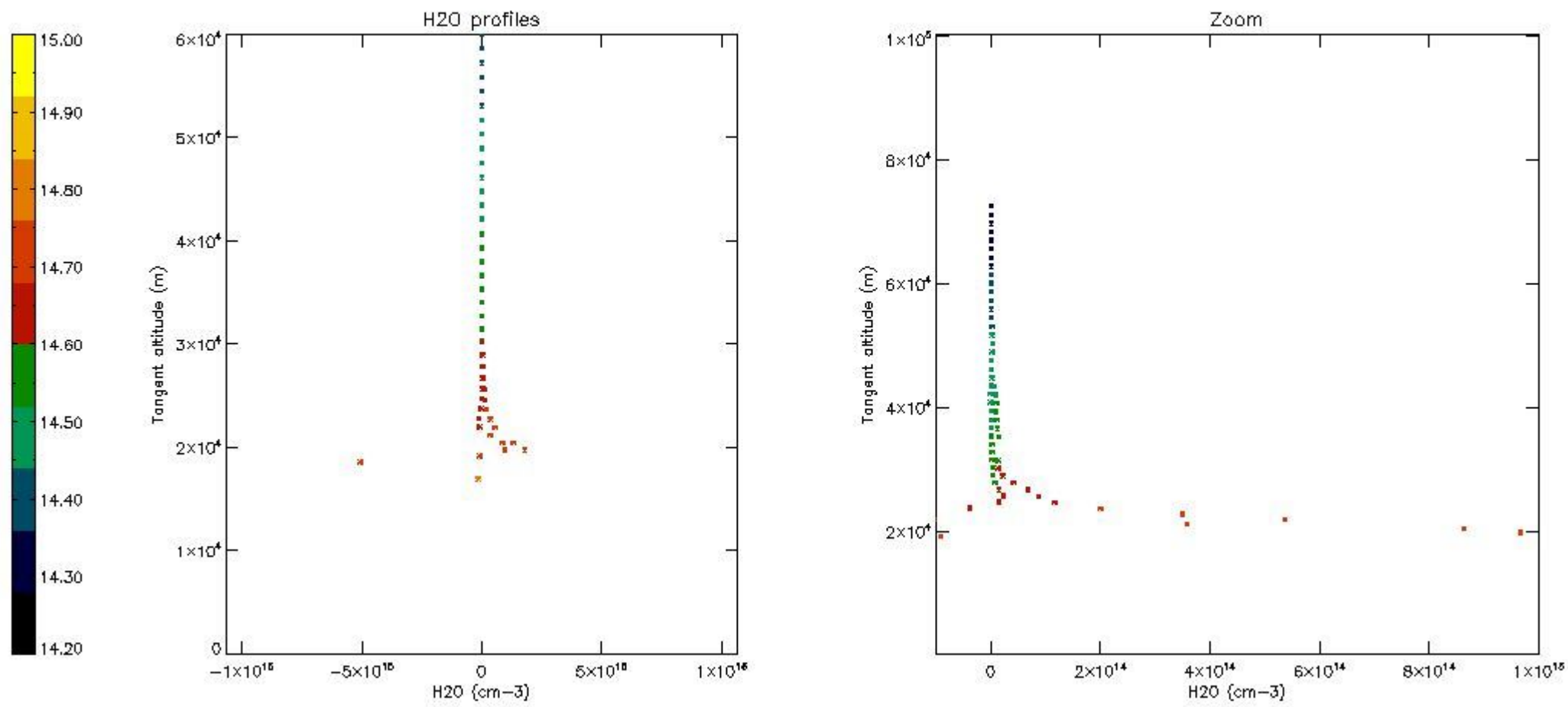
5.7 Plot NO3 profiles for all STD (dark without errors)

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	05-NOV-2007 00:01:00
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	05-NOV-2007 00:01:00
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	05-NOV-2007 00:01:00

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 10:14:44
Data source version	GOMOS/6.01
Start time of products	05-11-2007 (05NOV2007 00:00:00)
Stop time of products	06-11-2007 (06NOV2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	185
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

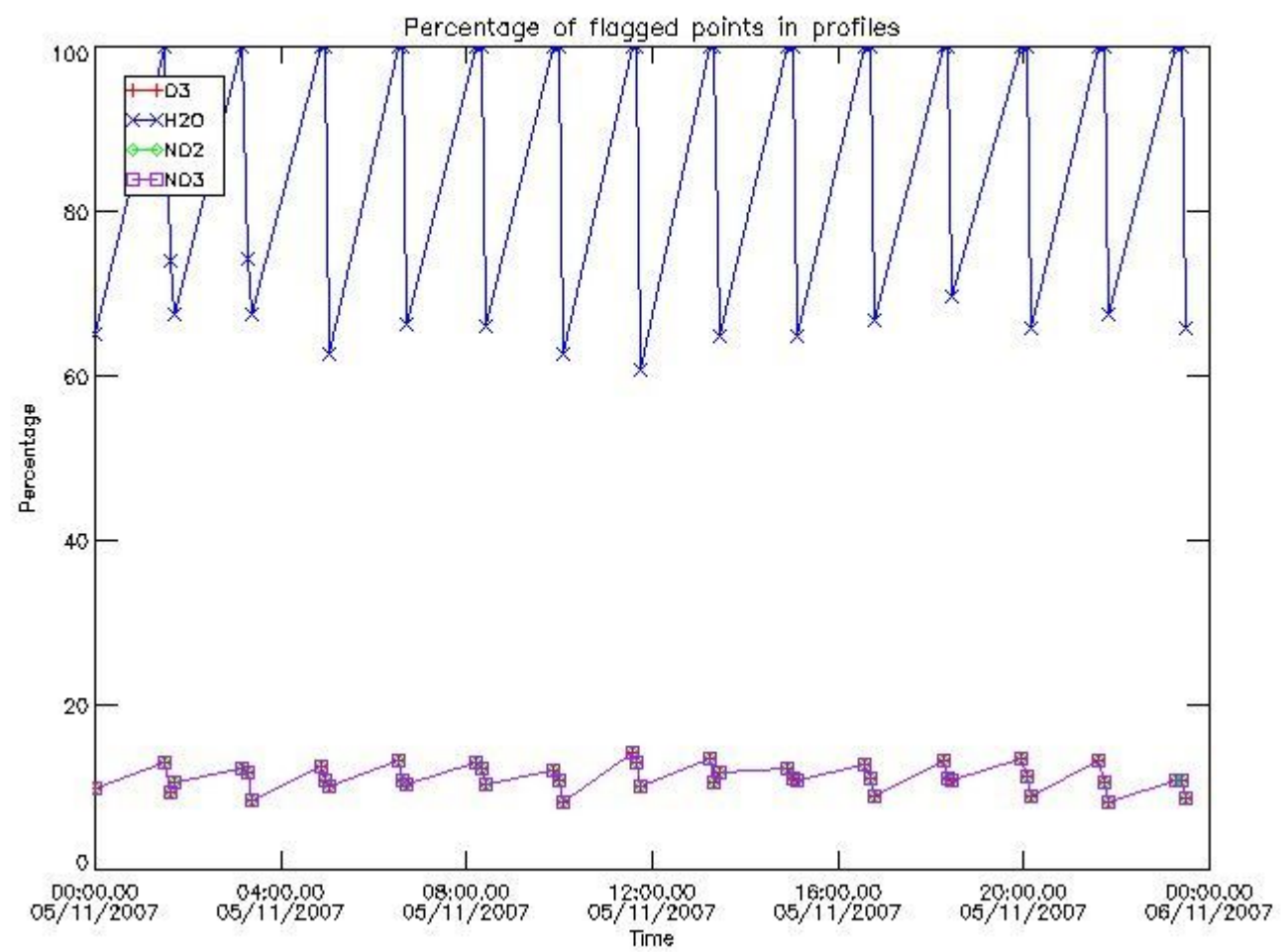
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20071105_000100_000000522063_00088_29701_9050.N1	05-NOV-2007 00:01:00	Dark	52.000	2	Alp Car	-0.73600	7000.0	104	29701	No
2	GOM_NL__2PRFIN20071105_001055_000000412063_00088_29701_9051.N1	05-NOV-2007 00:10:55	Straylight	40.500	157	The1Eri	2.9060	9300.0	81	29701	No
3	GOM_NL__2PRFIN20071105_002924_000000372063_00088_29701_9052.N1	05-NOV-2007 00:29:24	Bright	37.000	105	6Bet Ari	2.6450	8900.0	74	29701	No
4	GOM_NL__2PRFIN20071105_003332_000000382063_00088_29701_9053.N1	05-NOV-2007 00:33:32	Bright	37.500	53	43Bet And	2.0480	3300.0	75	29701	No
5	GOM_NL__2PRFIN20071105_003546_000000382063_00088_29701_9054.N1	05-NOV-2007 00:35:46	Bright	38.000	73	57Gam1And	2.2600	13100.	76	29701	No
6	GOM_NL__2PRFIN20071105_004031_000000352063_00088_29701_9055.N1	05-NOV-2007 00:40:31	Bright	34.500	110	37Del Cas	2.6780	8900.0	69	29701	No
7	GOM_NL__2PRFIN20071105_004841_000000322063_00088_29701_9056.N1	05-NOV-2007 00:48:41	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	29701	No
8	GOM_NL__2PRFIN20071105_005644_000000402063_00088_29701_9057.N1	05-NOV-2007 00:56:44	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	29701	No
9	GOM_NL__2PRFIN20071105_005822_000000492063_00088_29701_9058.N1	05-NOV-2007 00:58:22	Bright	48.500	82	48Bet UMa	2.3650	10600.	97	29701	No
10	GOM_NL__2PRFIN20071105_010207_000000552063_00088_29701_9059.N1	05-NOV-2007 01:02:07	Bright	54.500	174	52Psi UMa	3.0040	4400.0	109	29701	No
11	GOM_NL__2PRFIN20071105_010944_000000382063_00088_29701_9060.N1	05-NOV-2007 01:09:44	Bright	38.000	96	68Del Leo	2.5600	9300.0	76	29701	No
12	GOM_NL__2PRFIN20071105_012944_000000402063_00088_29701_9061.N1	05-NOV-2007 01:29:44	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	29701	No
13	GOM_NL__2PRFIN20071105_013621_000000542063_00089_29702_9066.N1	05-NOV-2007 01:36:21	Dark	54.000	41	Eps Car	1.8600	4100.0	108	29702	No
14	GOM_NL__2PRFIN20071105_014137_000000482063_00089_29702_9067.N1	05-NOV-2007 01:41:37	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	29702	No
15	GOM_NL__2PRFIN20071105_015131_000000412063_00089_29702_9068.N1	05-NOV-2007 01:51:31	Straylight	41.000	157	The1Eri	2.9060	9300.0	82	29702	No
16	GOM_NL__2PRFIN20071105_021000_000000372063_00089_29702_9069.N1	05-NOV-2007 02:10:00	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	29702	No
17	GOM_NL__2PRFIN20071105_021407_000000392063_00089_29702_9070.N1	05-NOV-2007 02:14:07	Bright	38.500	53	43Bet And	2.0480	3300.0	77	29702	No
18	GOM_NL__2PRFIN20071105_021622_000000402063_00089_29702_9071.N1	05-NOV-2007 02:16:22	Bright	40.000	73	57Gam1And	2.2600	13100.	80	29702	No
19	GOM_NL__2PRFIN20071105_022107_000000352063_00089_29702_9072.N1	05-NOV-2007 02:21:07	Bright	35.000	110	37Del Cas	2.6780	8900.0	70	29702	No
20	GOM_NL__2PRFIN20071105_022917_000000332063_00089_29702_9073.N1	05-NOV-2007 02:29:17	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	29702	No
21	GOM_NL__2PRFIN20071105_023720_000000402063_00089_29702_9074.N1	05-NOV-2007 02:37:20	Bright	39.500	36	50Alp UMa	1.8000	6300.0	79	29702	No
22	GOM_NL__2PRFIN20071105_023857_000000382063_00089_29702_9075.N1	05-NOV-2007 02:38:57	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	29702	No
23	GOM_NL__2PRFIN20071105_024243_000000452063_00089_29702_9076.N1	05-NOV-2007 02:42:43	Bright	45.000	174	52Psi UMa	3.0040	4400.0	90	29702	No
24	GOM_NL__2PRFIN20071105_025021_000000502063_00089_29702_9077.N1	05-NOV-2007 02:50:21	Bright	50.000	96	68Del Leo	2.5600	9300.0	100	29702	No
25	GOM_NL__2PRFIN20071105_031021_000000422063_00089_29702_9078.N1	05-NOV-2007 03:10:21	Dark	41.500	113	Mu Vel	2.6920	5000.0	83	29702	No
26	GOM_NL__2PRFIN20071105_031657_000000432063_00090_29703_9075.N1	05-NOV-2007 03:16:57	Dark	43.000	41	Eps Car	1.8600	4100.0	86	29703	No
27	GOM_NL__2PRFIN20071105_032214_000000612063_00090_29703_9076.N1	05-NOV-2007 03:22:14	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	29703	No
28	GOM_NL__2PRFIN20071105_033208_000000402063_00090_29703_9077.N1	05-NOV-2007 03:32:08	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	29703	No
29	GOM_NL__2PRFIN20071105_035036_000000372063_00090_29703_9078.N1	05-NOV-2007 03:50:36	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	29703	No
30	GOM_NL__2PRFIN20071105_035443_000000382063_00090_29703_9079.N1	05-NOV-2007 03:54:43	Bright	37.500	53	43Bet And	2.0480	3300.0	75	29703	No
31	GOM_NL__2PRFIN20071105_035657_000000402063_00090_29703_9080.N1	05-NOV-2007 03:56:57	Bright	40.000	73	57Gam1And	2.2600	13100.	80	29703	No
32	GOM_NL__2PRFIN20071105_040143_000000352063_00090_29703_9081.N1	05-NOV-2007 04:01:43	Bright	35.000	110	37Del Cas	2.6780	8900.0	70	29703	No
33	GOM_NL__2PRFIN20071105_040953_000000362063_00090_29703_9082.N1	05-NOV-2007 04:09:53	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	29703	No
34	GOM_NL__2PRFIN20071105_041756_000000382063_00090_29703_9083.N1	05-NOV-2007 04:17:56	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	29703	No
35	GOM_NL__2PRFIN20071105_041933_000000382063_00090_29703_9084.N1	05-NOV-2007 04:19:33	Bright	38.000	82	48Bet UMa	2.3650	10600.	76	29703	No
36	GOM_NL__2PRFIN20071105_042319_000000402063_00090_29703_9085.N1	05-NOV-2007 04:23:19	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	29703	No
37	GOM_NL__2PRFIN20071105_043057_000000382063_00090_29703_9086.N1	05-NOV-2007 04:30:57	Bright	38.000	96	68Del Leo	2.5600	9300.0	76	29703	No
38	GOM_NL__2PRFIN20071105_045057_000000412063_00090_29703_9087.N1	05-NOV-2007 04:50:57	Dark	40.500	113	Mu Vel	2.6920	5000.0	81	29703	No
39	GOM_NL__2PRFIN20071105_045733_000000472063_00091_29704_9095.N1	05-NOV-2007 04:57:33	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	29704	No
40	GOM_NL__2PRFIN20071105_050250_000000502063_00091_29704_9096.N1	05-NOV-2007 05:02:50	Dark	50.000	2	Alp Car	-0.73600	7000.0	100	29704	No
41	GOM_NL__2PRFIN20071105_051244_000000402063_00091_29704_9097.N1	05-NOV-2007 05:12:44	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	29704	No
42	GOM_NL__2PRFIN20071105_053112_000000382063_00091_29704_9098.N1	05-NOV-2007 05:31:12	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	29704	No

161	GOM_NL__2PRFIN20071105_204255_000000392063_00100_29713_9245.N1	05-NOV-2007 20:42:55	Bright	38.500	73	57Gam1And	2.2600	13100.	77	29713	No
162	GOM_NL__2PRFIN20071105_204742_000000362063_00100_29713_9246.N1	05-NOV-2007 20:47:42	Bright	36.000	110	37Del Cas	2.6780	8900.0	72	29713	No
163	GOM_NL__2PRFIN20071105_205552_000000382063_00100_29713_9247.N1	05-NOV-2007 20:55:52	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	29713	No
164	GOM_NL__2PRFIN20071105_210354_000000392063_00100_29713_9248.N1	05-NOV-2007 21:03:54	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	29713	No
165	GOM_NL__2PRFIN20071105_210532_000000362063_00100_29713_9249.N1	05-NOV-2007 21:05:32	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	29713	No
166	GOM_NL__2PRFIN20071105_210918_000000412063_00100_29713_9250.N1	05-NOV-2007 21:09:18	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	29713	No
167	GOM_NL__2PRFIN20071105_211659_000000412063_00100_29713_9251.N1	05-NOV-2007 21:16:59	Bright	40.500	96	68Del Leo	2.5600	9300.0	81	29713	No
168	GOM_NL__2PRFIN20071105_213701_000000392063_00100_29713_9252.N1	05-NOV-2007 21:37:01	Dark	38.500	113	Mu Vel	2.6920	5000.0	77	29713	No
169	GOM_NL__2PRFIN20071105_214342_000000492063_00101_29714_9262.N1	05-NOV-2007 21:43:42	Dark	48.500	34	Gam2Vel	1.7930	23000.	97	29714	No
170	GOM_NL__2PRFIN20071105_214857_000000622063_00101_29714_9263.N1	05-NOV-2007 21:48:57	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	29714	No
171	GOM_NL__2PRFIN20071105_215846_000000412063_00101_29714_9264.N1	05-NOV-2007 21:58:46	Straylight	41.000	157	The1Eri	2.9060	9300.0	82	29714	No
172	GOM_NL__2PRFIN20071105_221710_000000382063_00101_29714_9265.N1	05-NOV-2007 22:17:10	Bright	38.000	105	6Bet Ari	2.6450	8900.0	76	29714	No
173	GOM_NL__2PRFIN20071105_222119_000000372063_00101_29714_9266.N1	05-NOV-2007 22:21:19	Bright	36.500	53	43Bet And	2.0480	3300.0	73	29714	No
174	GOM_NL__2PRFIN20071105_222330_000000382063_00101_29714_9267.N1	05-NOV-2007 22:23:30	Bright	38.000	73	57Gam1And	2.2600	13100.	76	29714	No
175	GOM_NL__2PRFIN20071105_222818_000000352063_00101_29714_9268.N1	05-NOV-2007 22:28:18	Bright	34.500	110	37Del Cas	2.6780	8900.0	69	29714	No
176	GOM_NL__2PRFIN20071105_223628_000000362063_00101_29714_9269.N1	05-NOV-2007 22:36:28	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	29714	No
177	GOM_NL__2PRFIN20071105_224430_000000372063_00101_29714_9270.N1	05-NOV-2007 22:44:30	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	29714	No
178	GOM_NL__2PRFIN20071105_224607_000000392063_00101_29714_9271.N1	05-NOV-2007 22:46:07	Bright	39.000	82	48Bet UMa	2.3650	10600.	78	29714	No
179	GOM_NL__2PRFIN20071105_224954_000000402063_00101_29714_9272.N1	05-NOV-2007 22:49:54	Bright	40.000	174	52Psi UMa	3.0040	4400.0	80	29714	No
180	GOM_NL__2PRFIN20071105_225735_000000402063_00101_29714_9273.N1	05-NOV-2007 22:57:35	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	29714	No
181	GOM_NL__2PRFIN20071105_231737_000000472063_00101_29714_9274.N1	05-NOV-2007 23:17:37	Dark	47.000	113	Mu Vel	2.6920	5000.0	94	29714	No
182	GOM_NL__2PRFIN20071105_232418_000000472063_00102_29715_9315.N1	05-NOV-2007 23:24:18	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	29715	No
183	GOM_NL__2PRFIN20071105_232934_000000592063_00102_29715_9316.N1	05-NOV-2007 23:29:34	Dark	59.000	2	Alp Car	-0.73600	7000.0	118	29715	No
184	GOM_NL__2PRFIN20071105_233922_000000402063_00102_29715_9317.N1	05-NOV-2007 23:39:22	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	29715	No
185	GOM_NL__2PRFIN20071105_235746_000000392063_00102_29715_9318.N1	05-NOV-2007 23:57:46	Bright	38.500	105	6Bet Ari	2.6450	8900.0	77	29715	No

3. Quality information per product

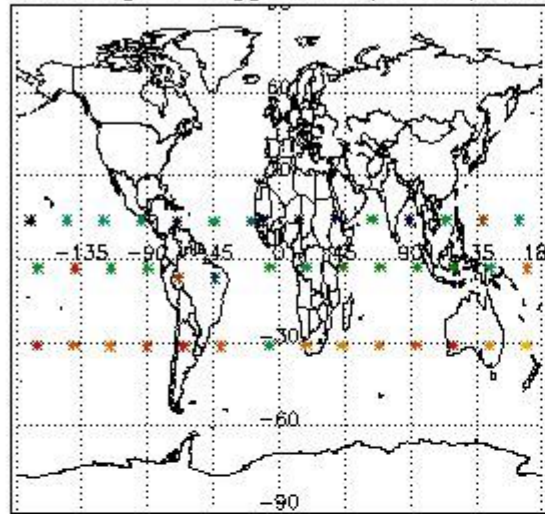
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

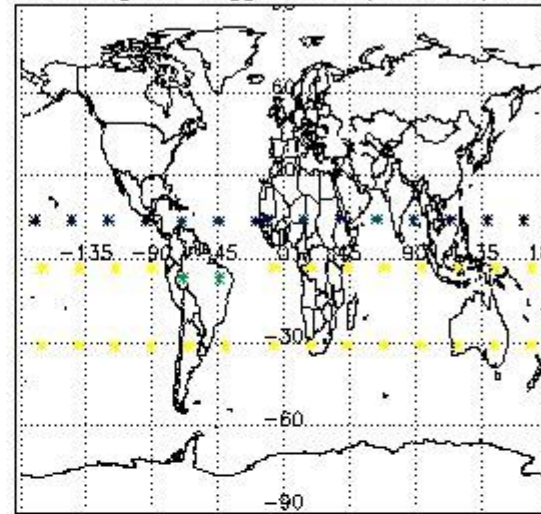


3.2 Plot quality information per product (world map)

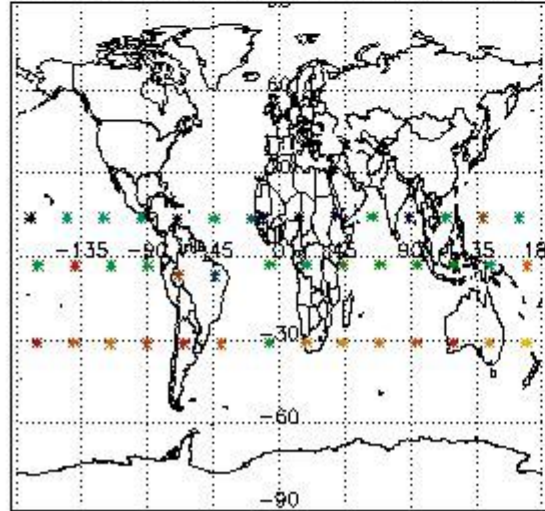
Percentage of flagged data per O3 profile



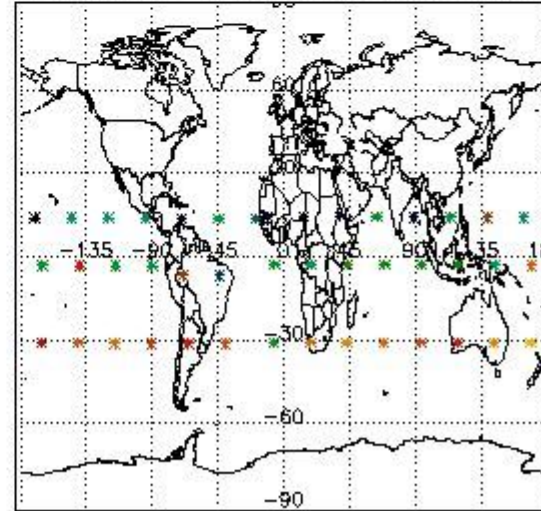
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

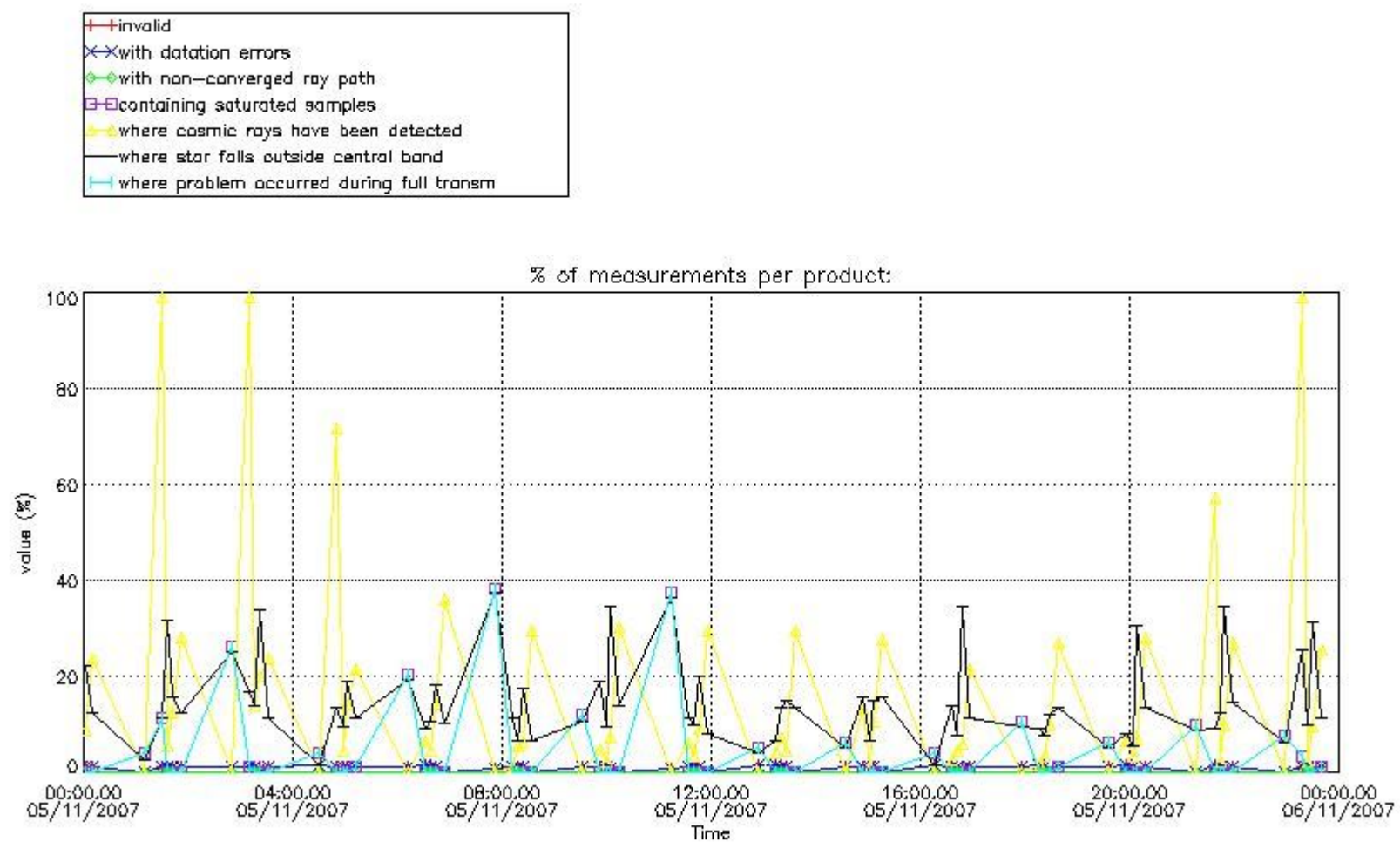


4. Level 1 quality information per product

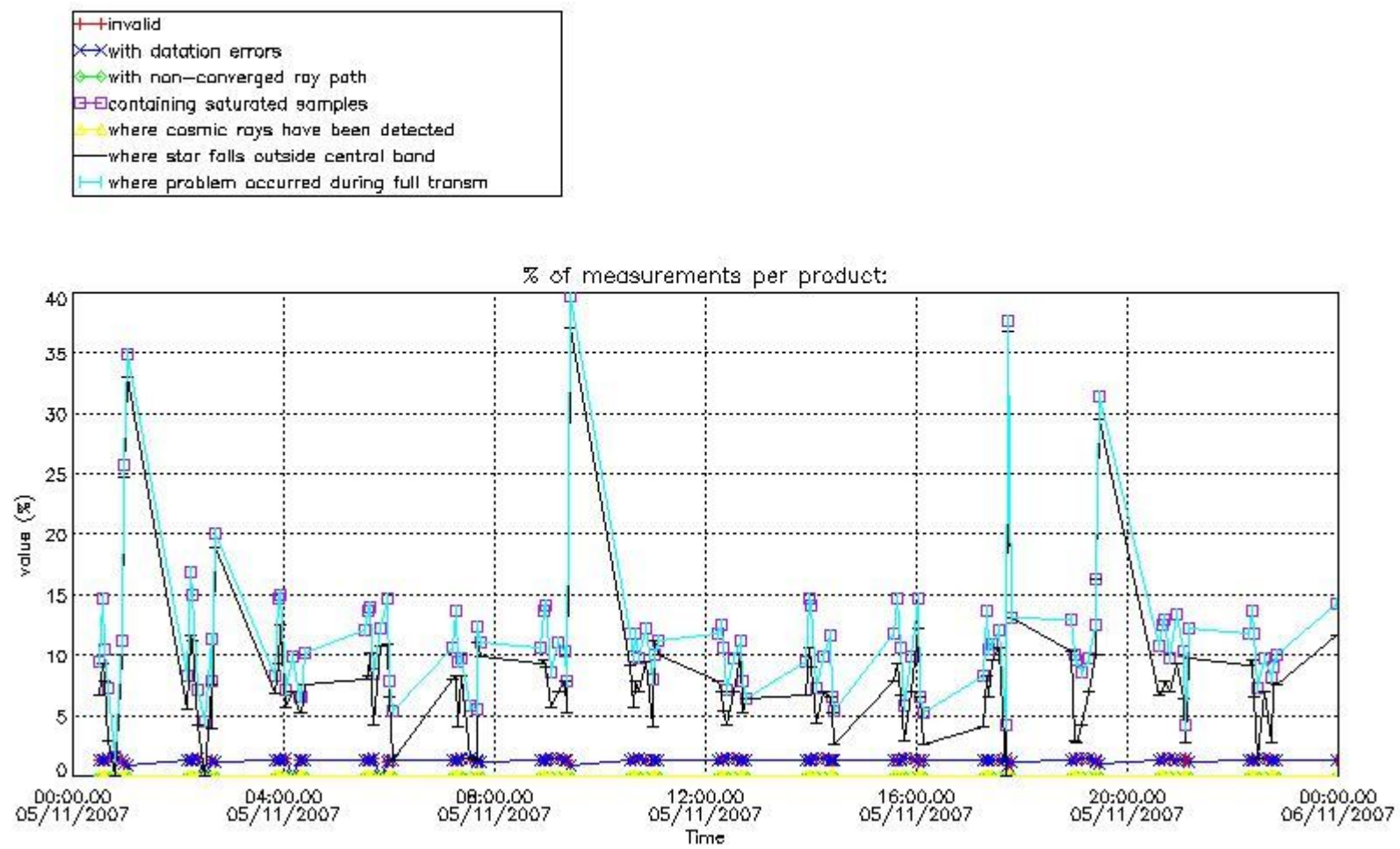
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



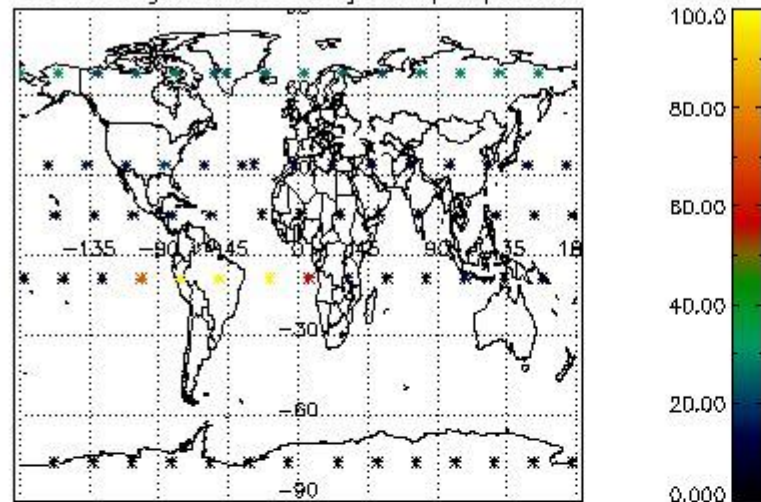
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



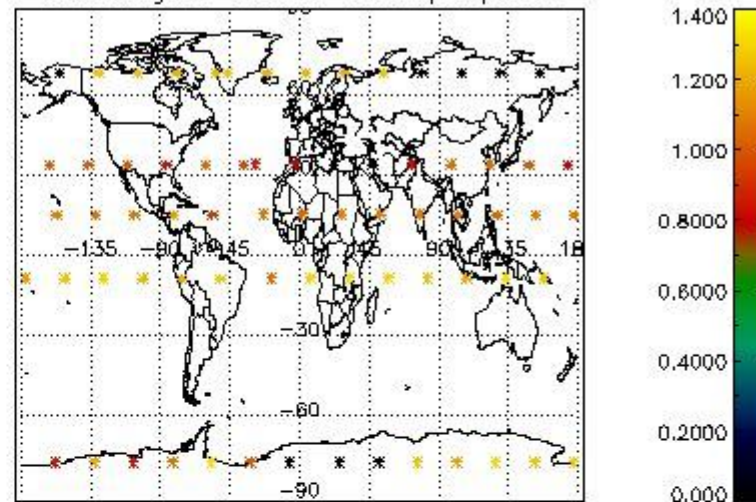
4.2 Plot quality information per product coming from level 1b processing (world map)

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

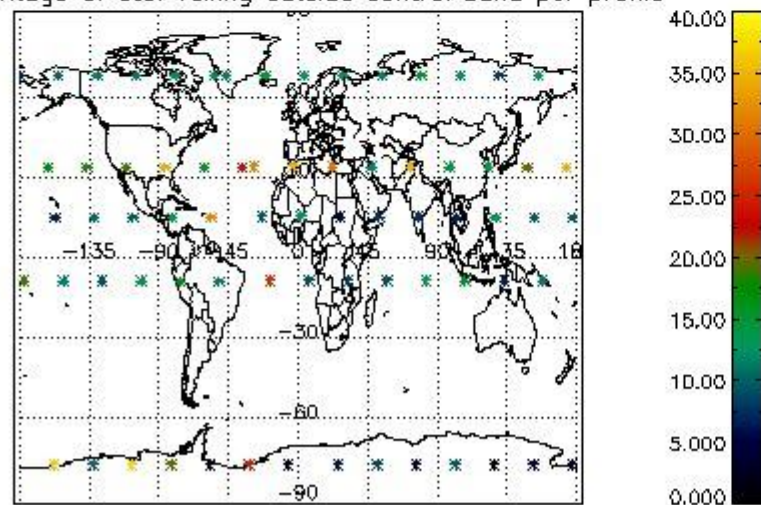
Percentage of cosmic ray hits per profile



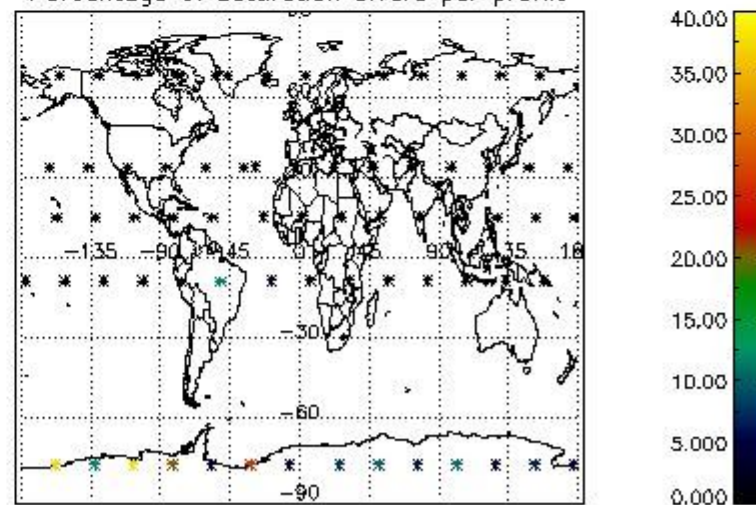
Percentage of datation errors per profile



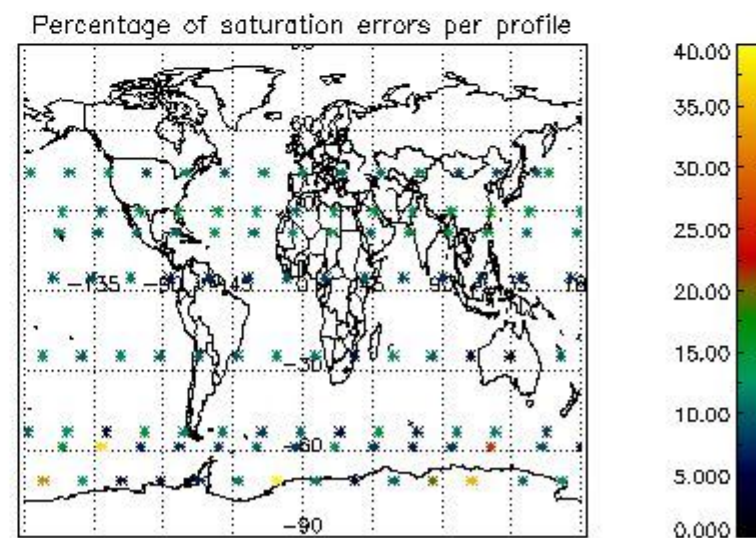
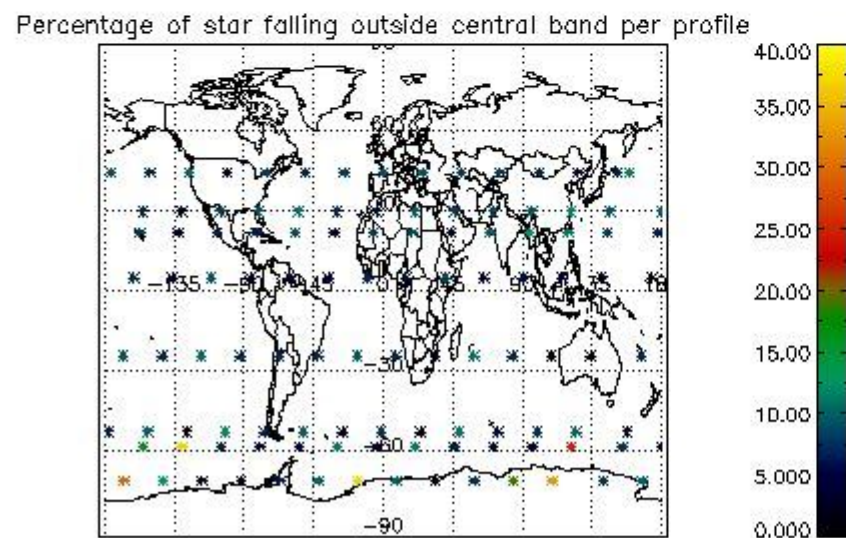
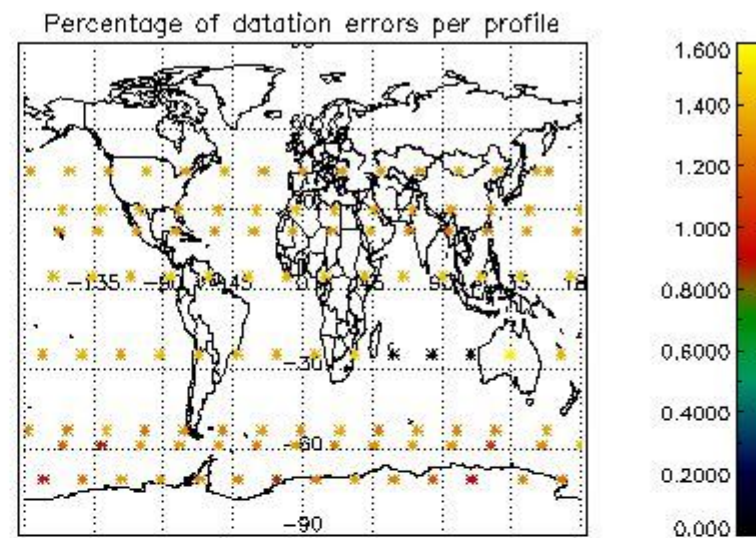
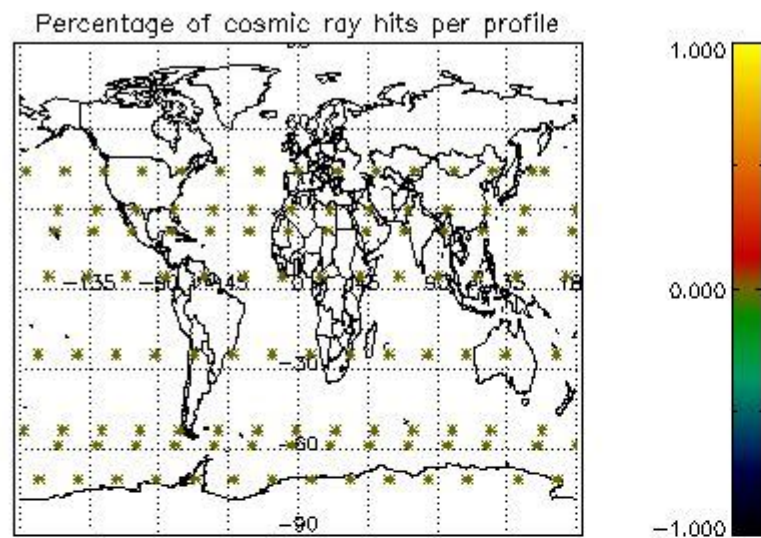
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

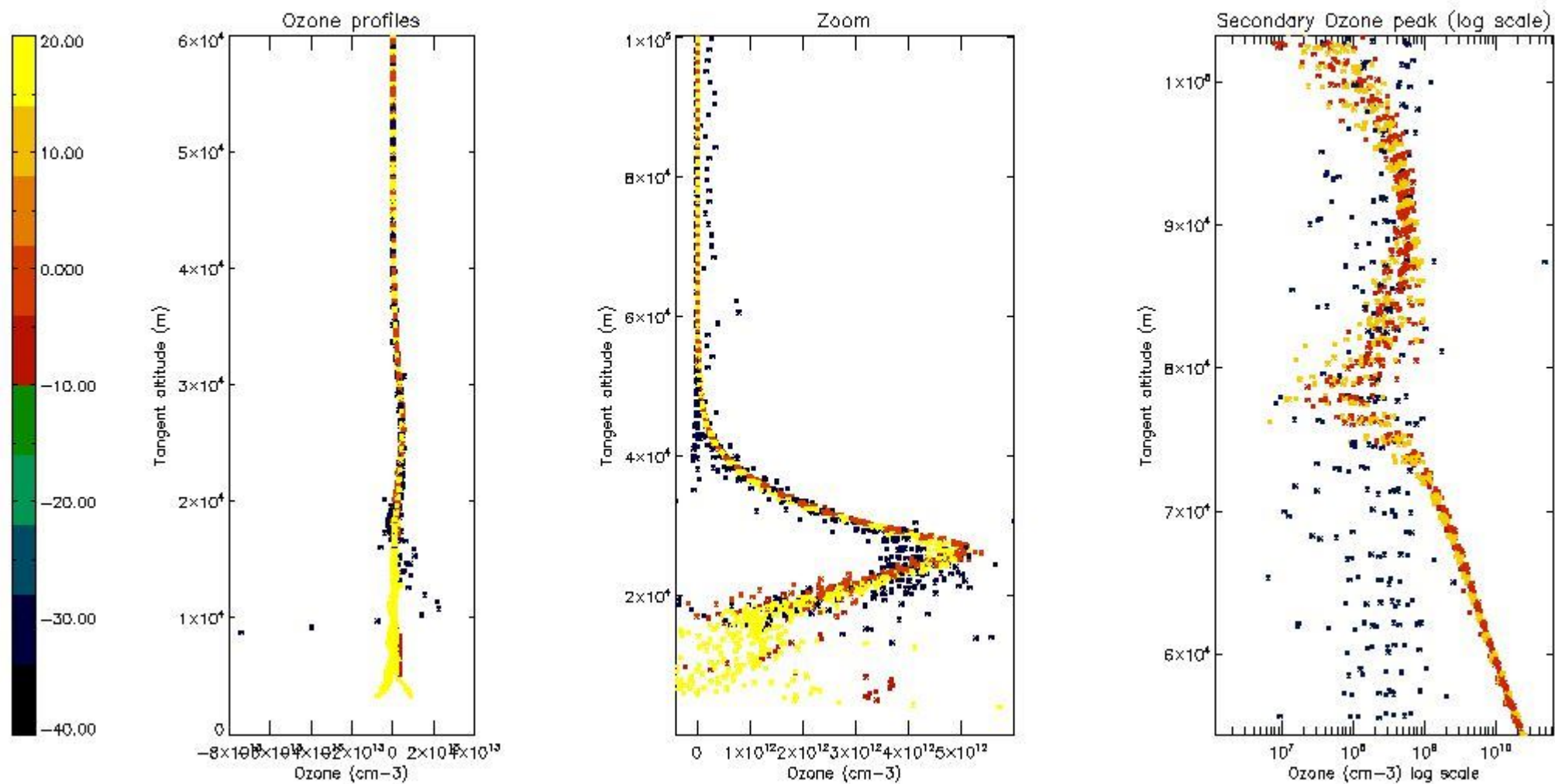
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	17

STD < 10	14
STD < 5	11

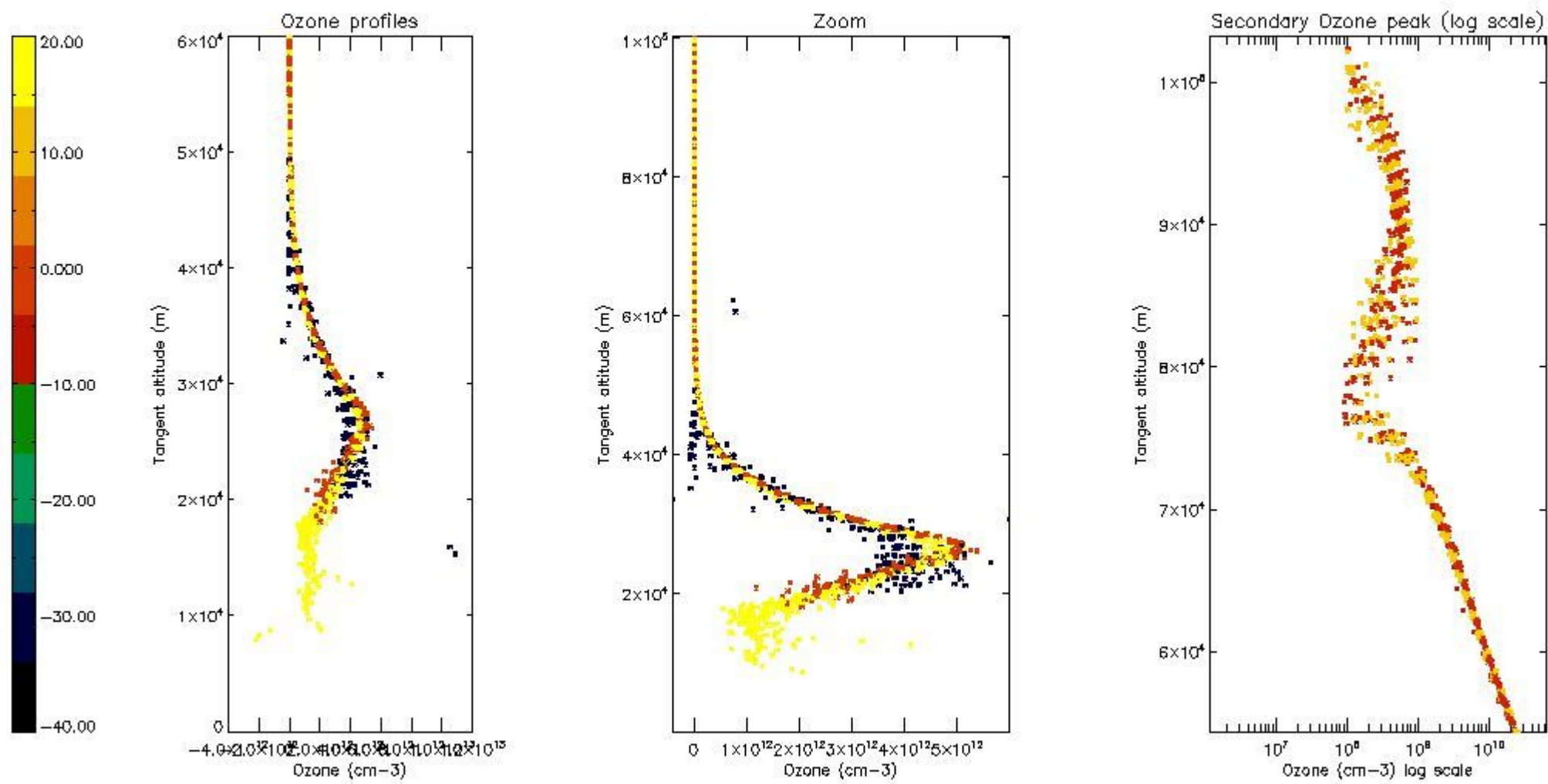
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



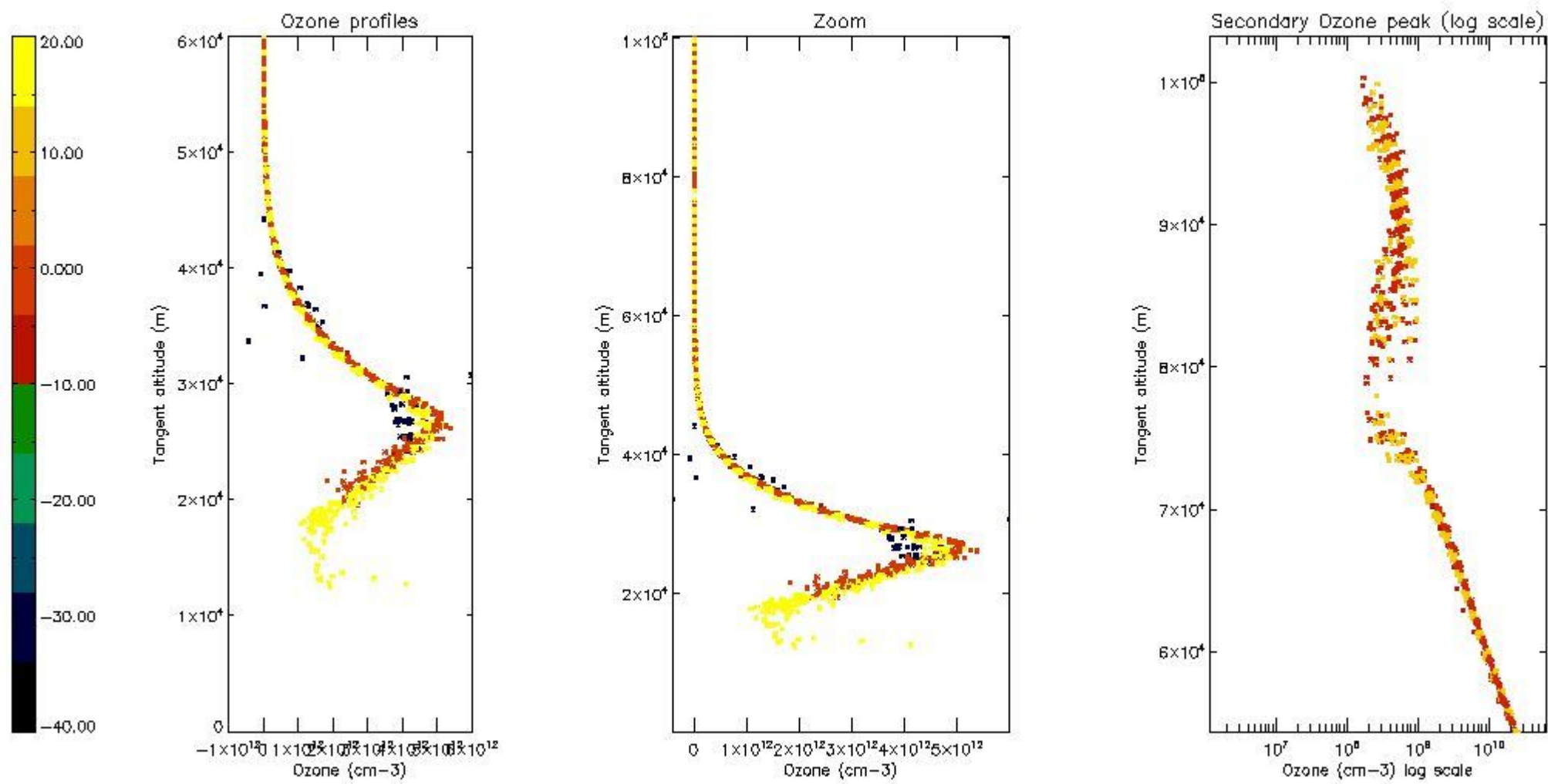
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



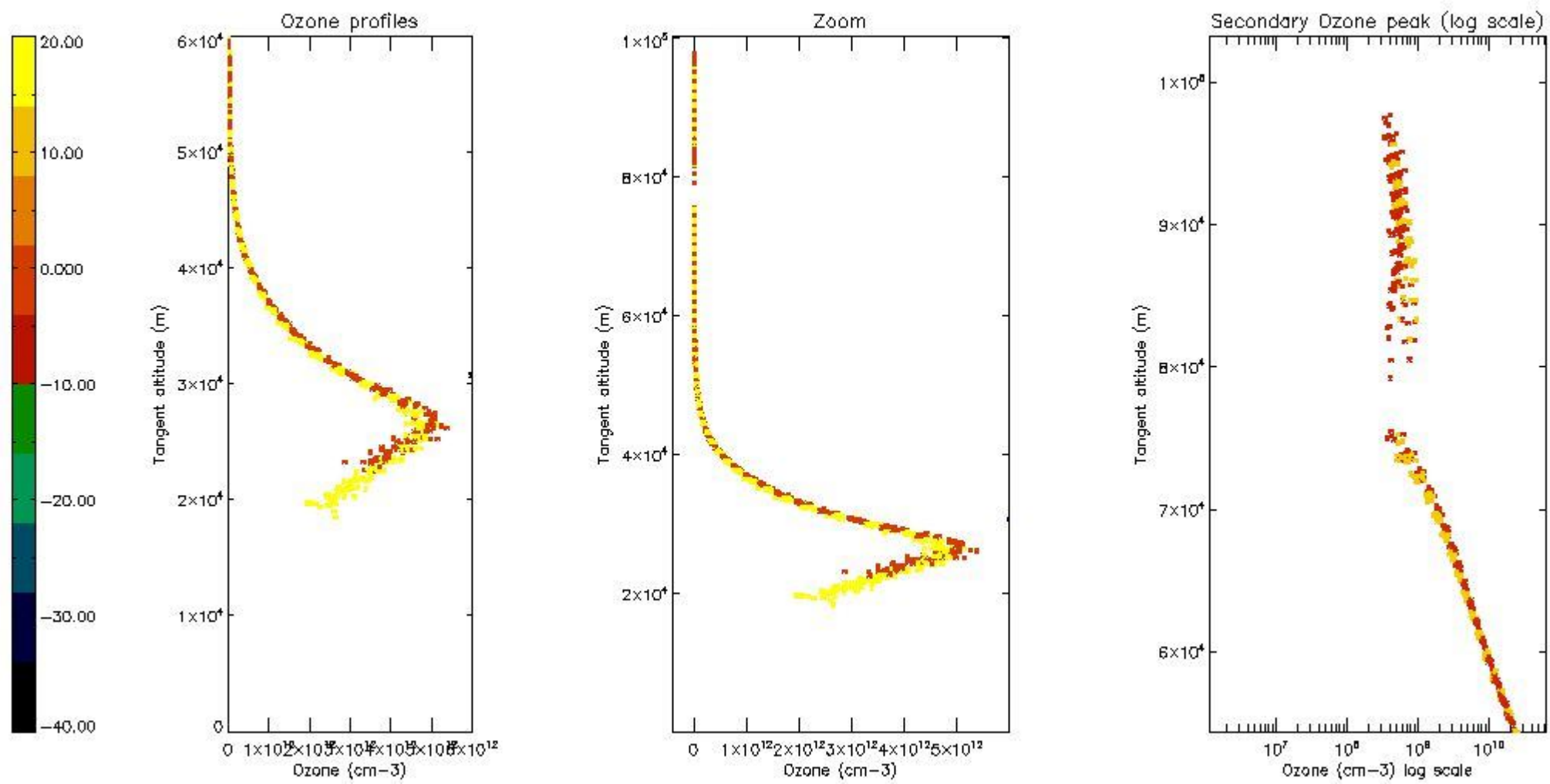
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



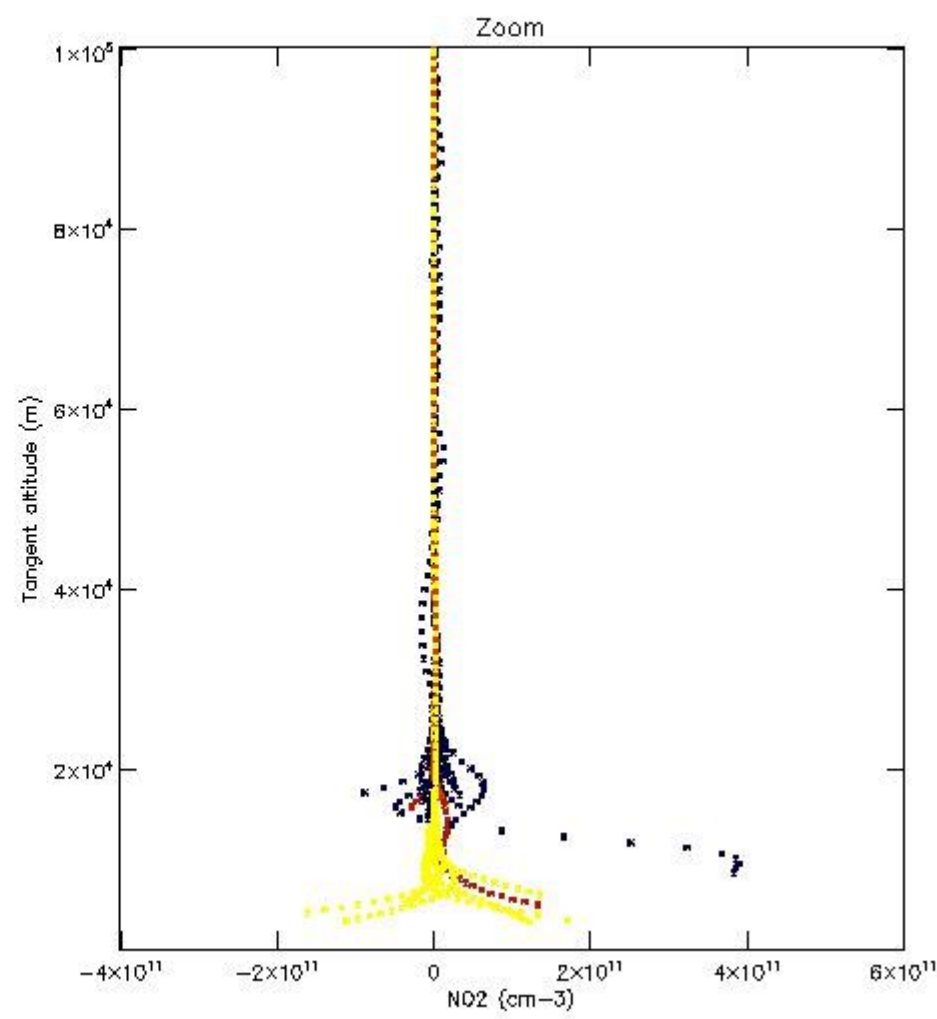
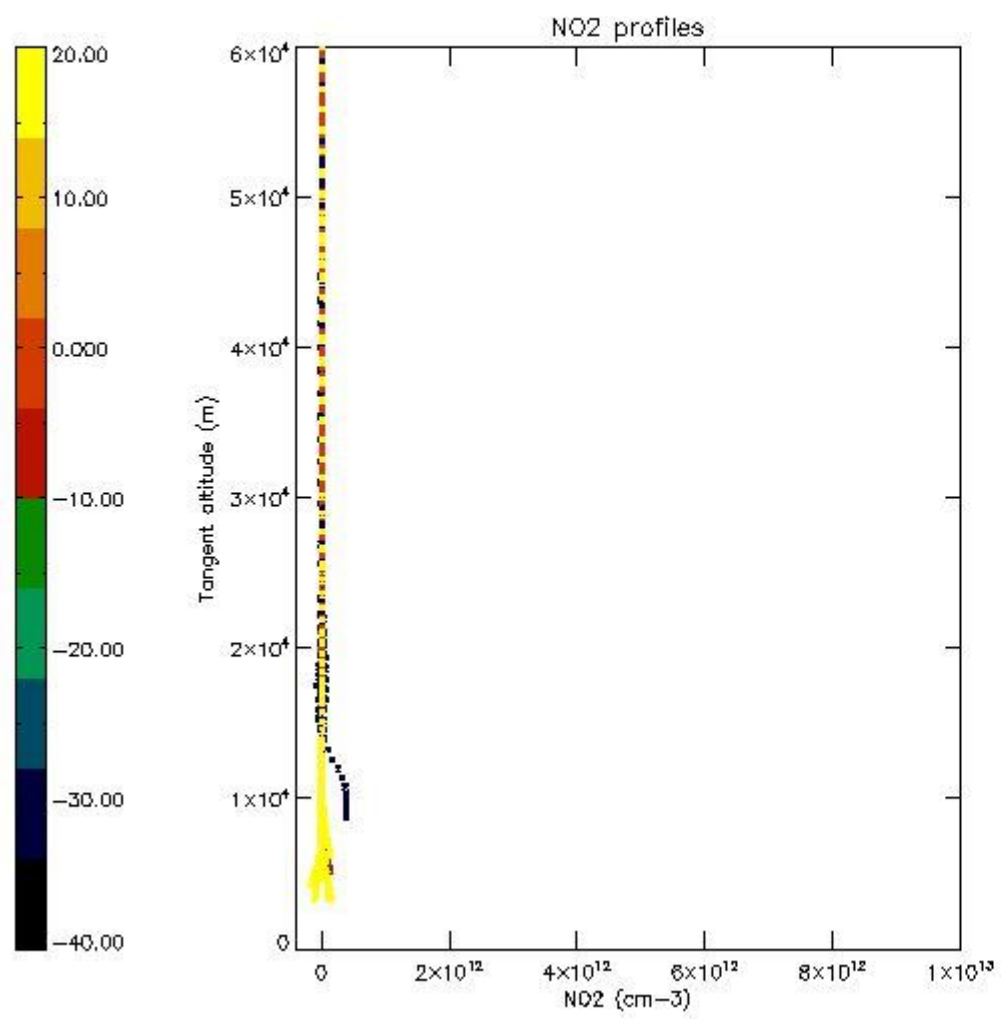
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



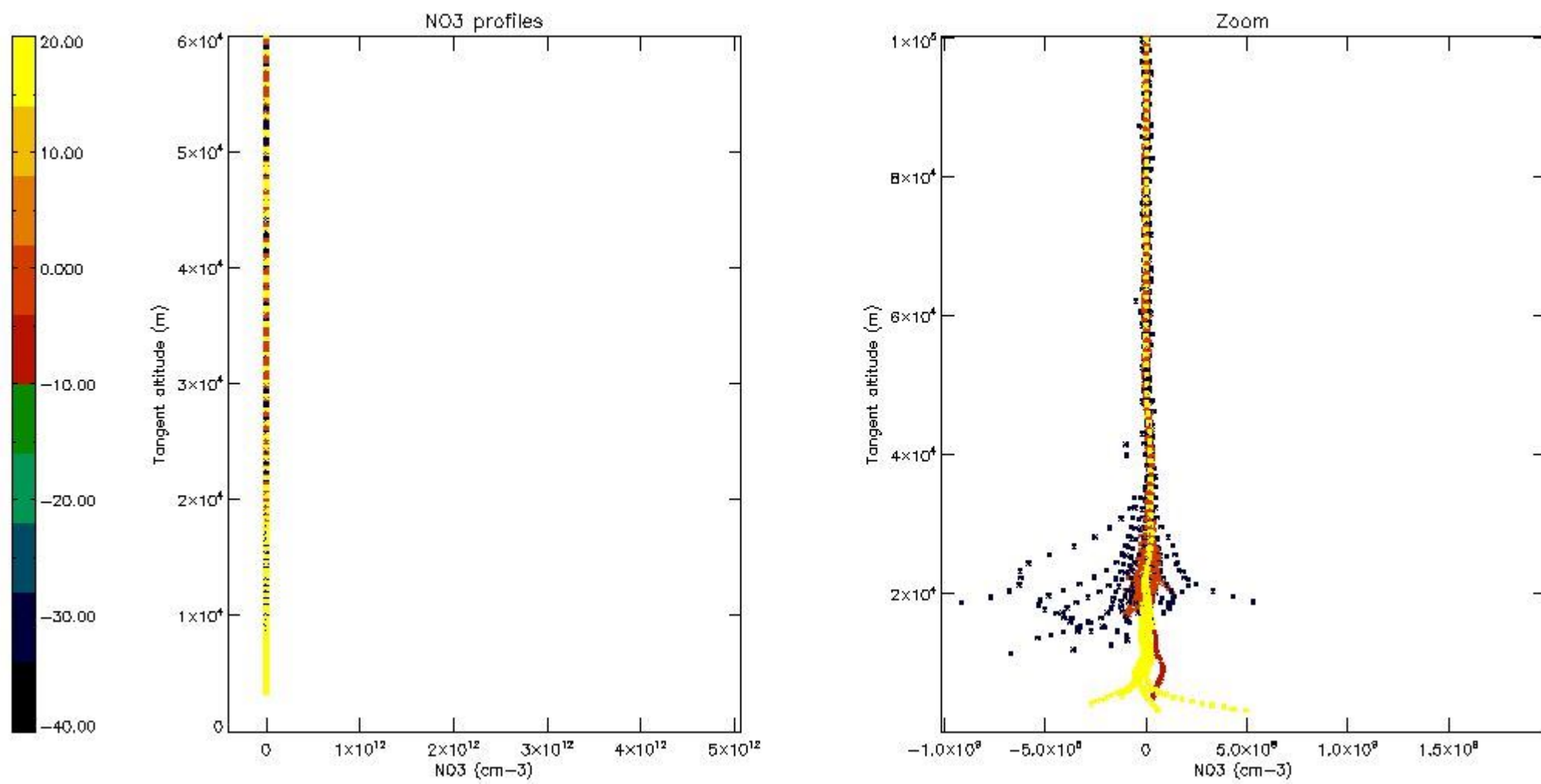
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



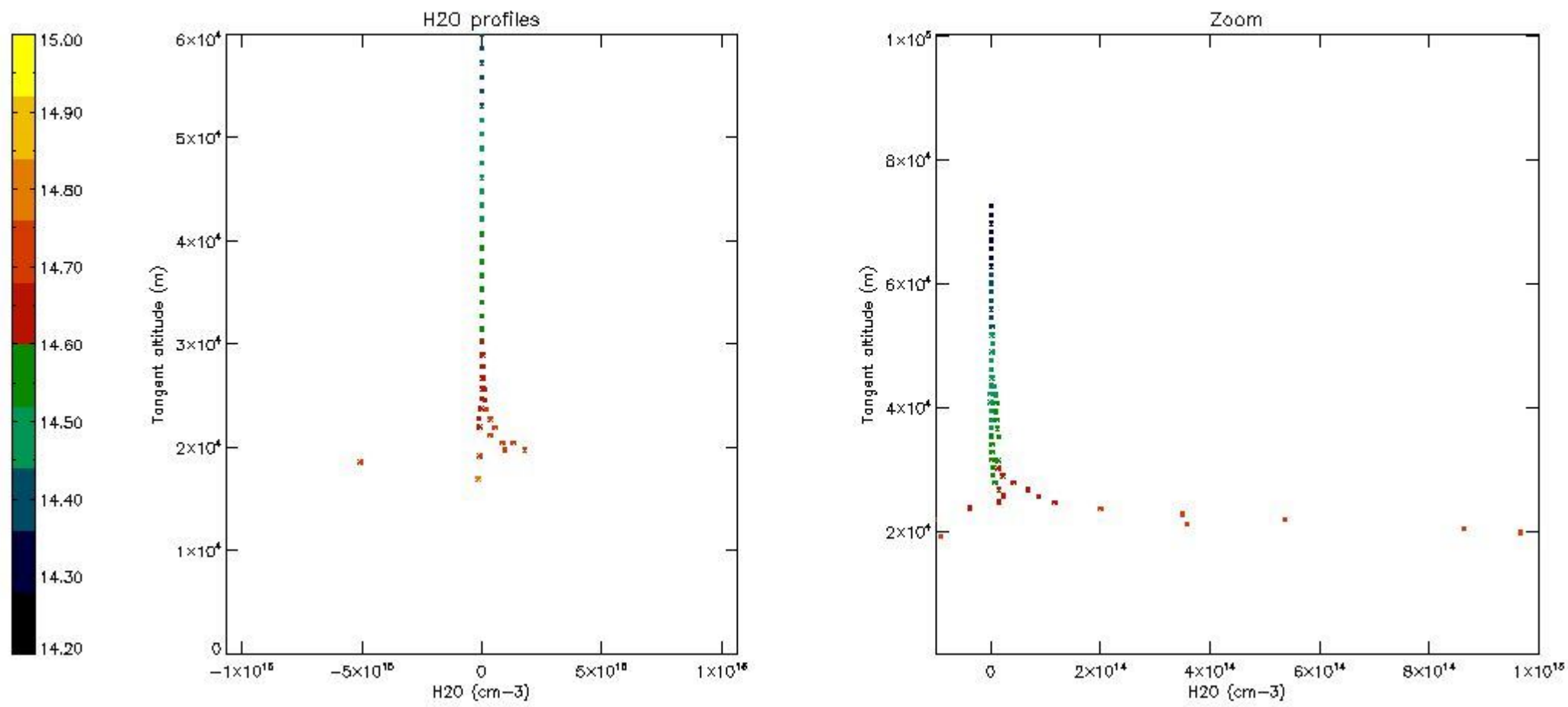
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

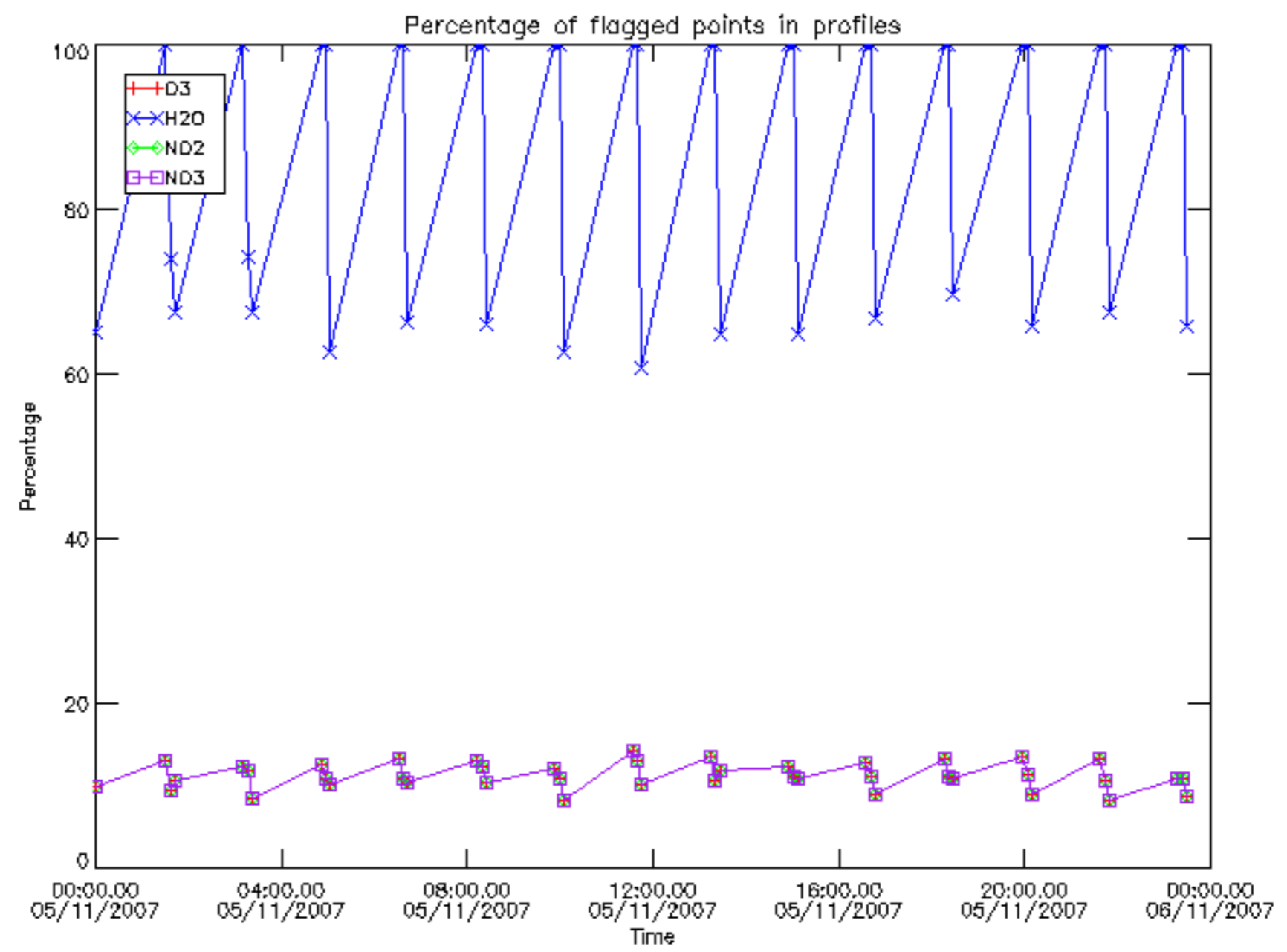
The colorbar represents the latitude.



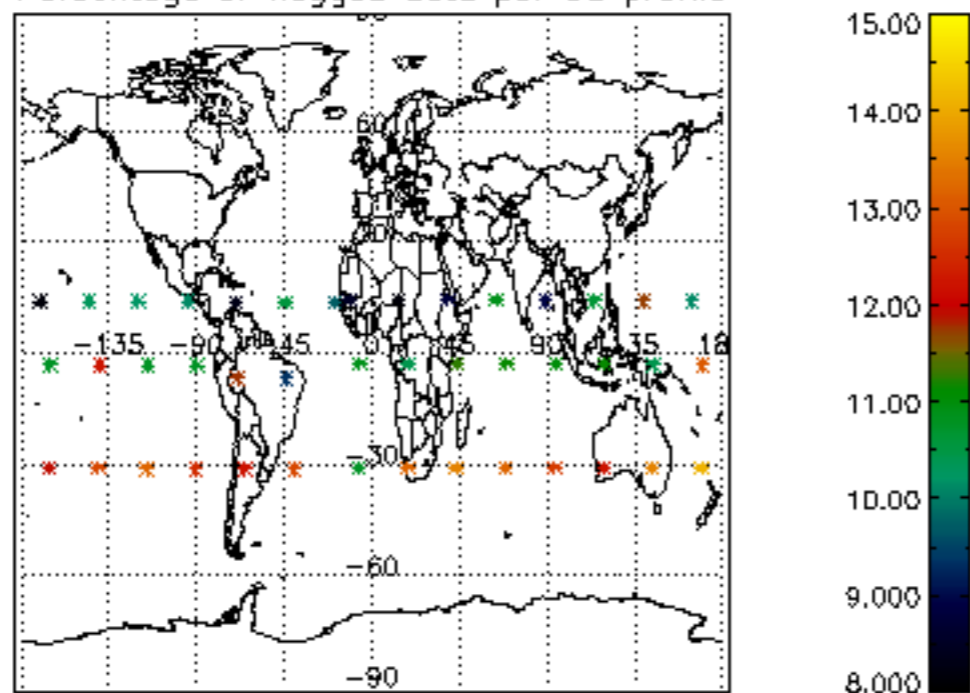
6. Auxiliary Data Files used for the production reported in section 2

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.

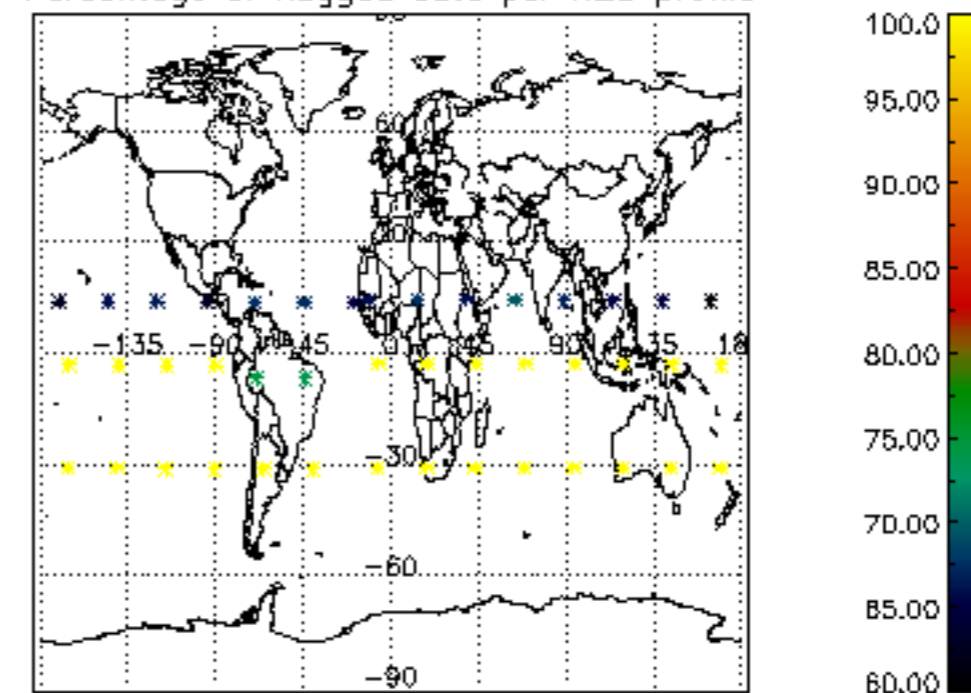
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	05-NOV-2007 00:01:00
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	05-NOV-2007 00:01:00
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	05-NOV-2007 00:01:00



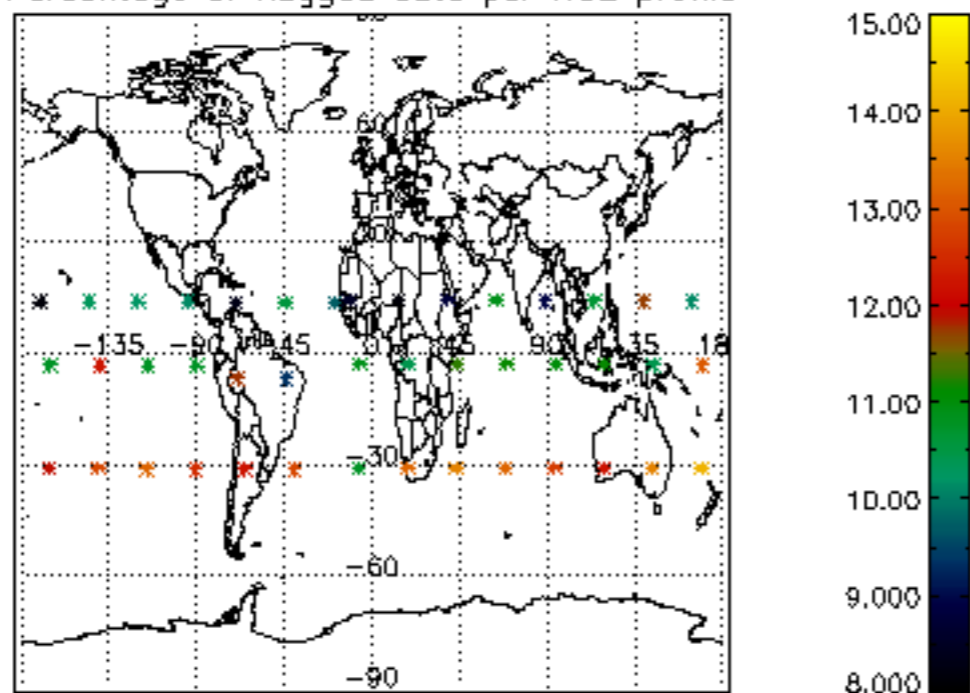
Percentage of flagged data per D3 profile



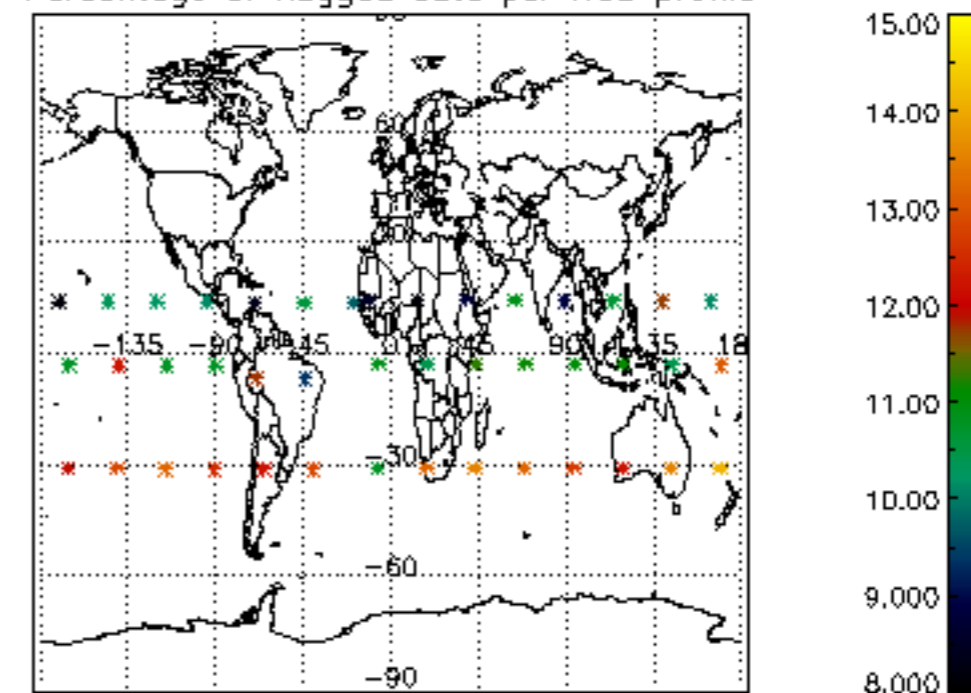
Percentage of flagged data per H2O profile

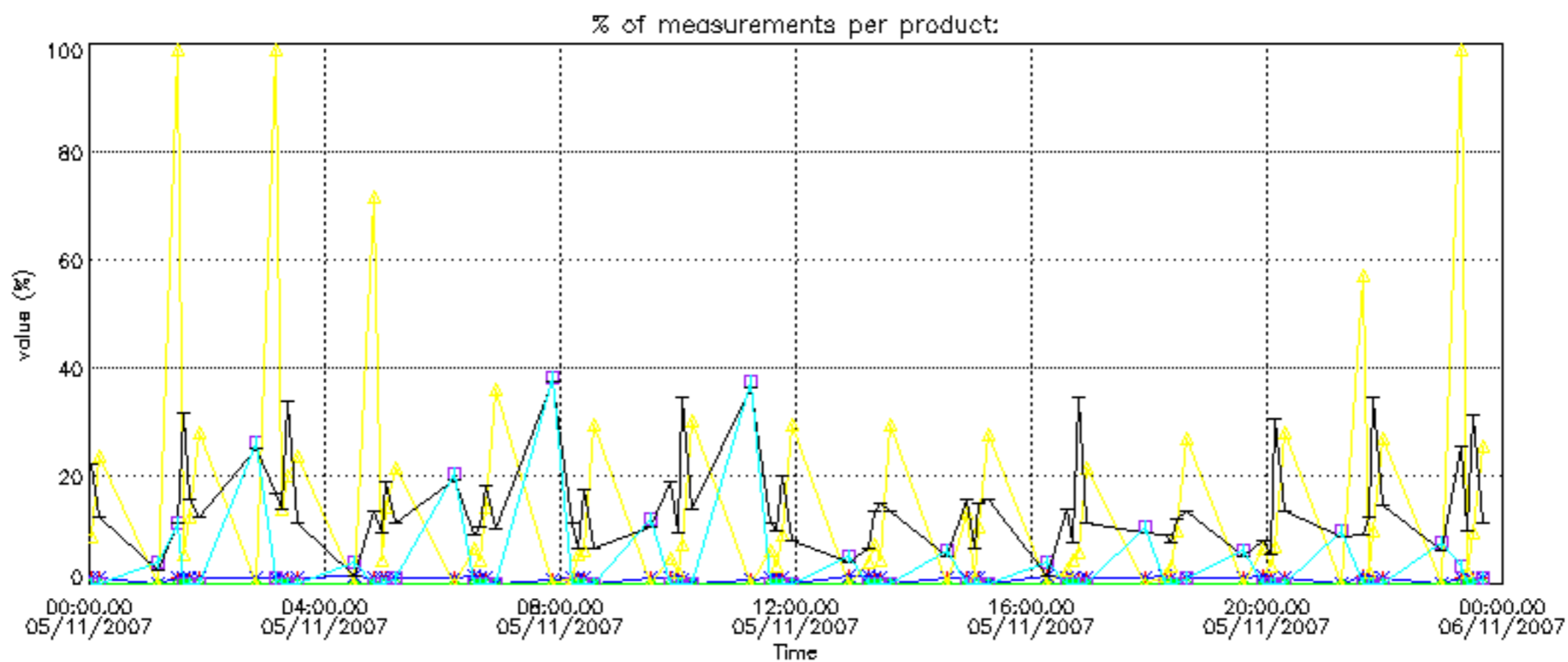


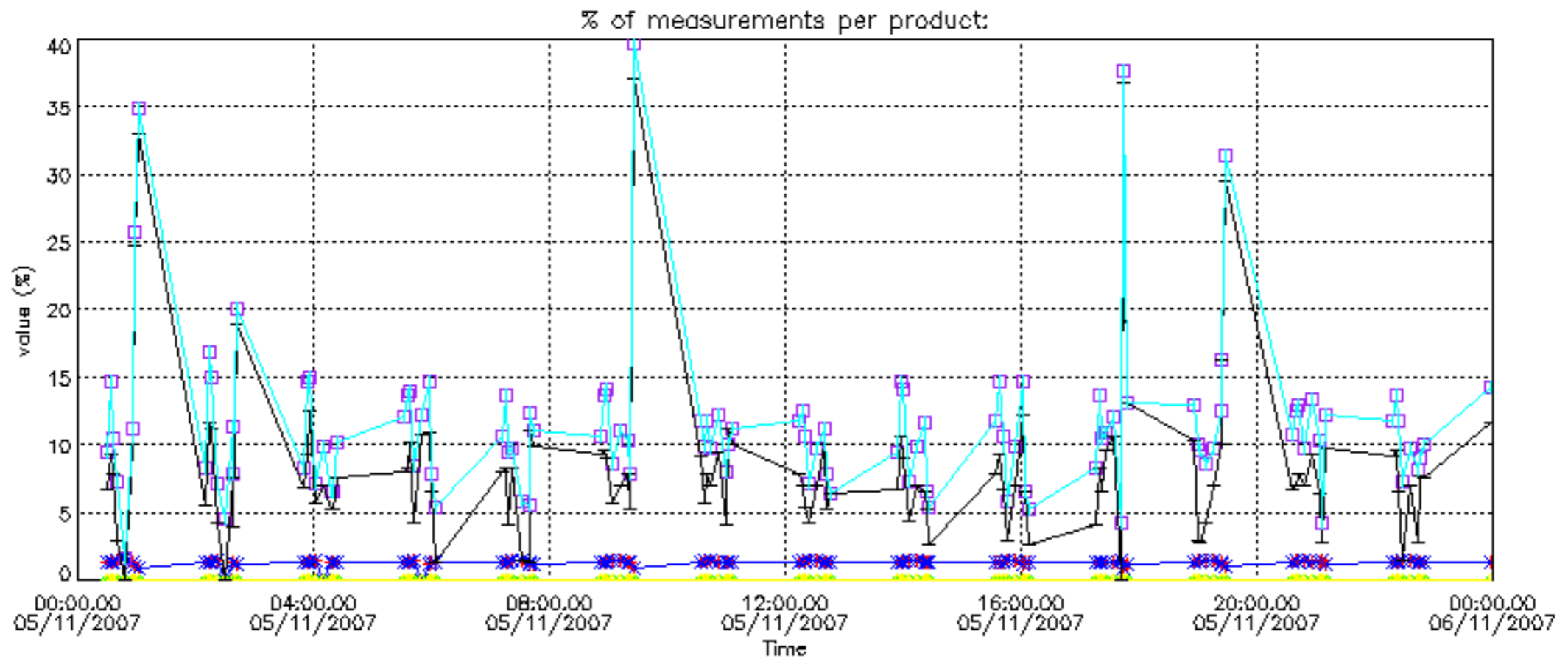
Percentage of flagged data per NO2 profile



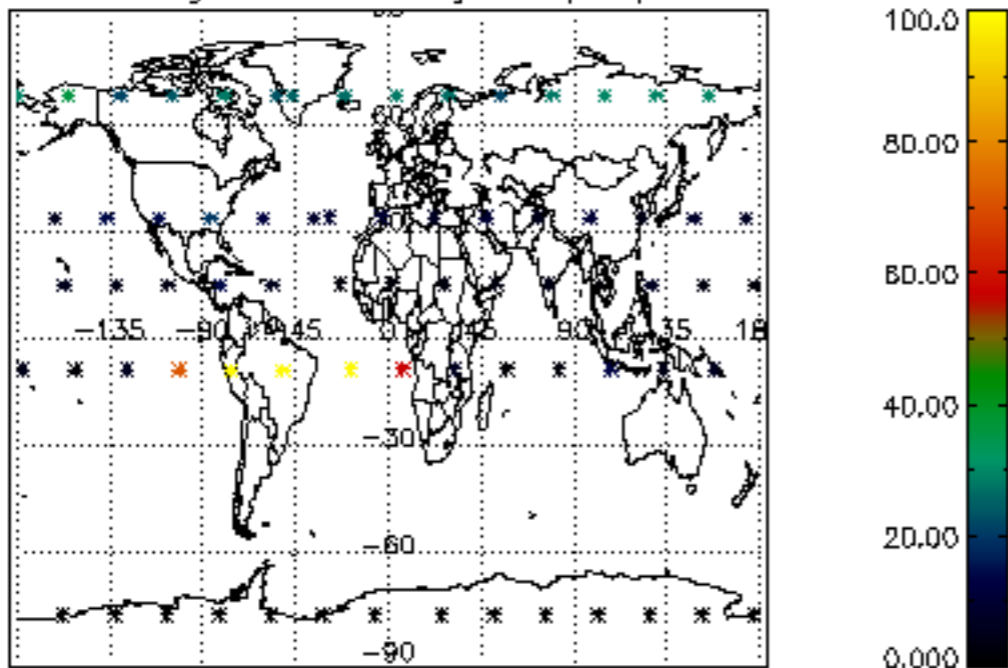
Percentage of flagged data per NO3 profile



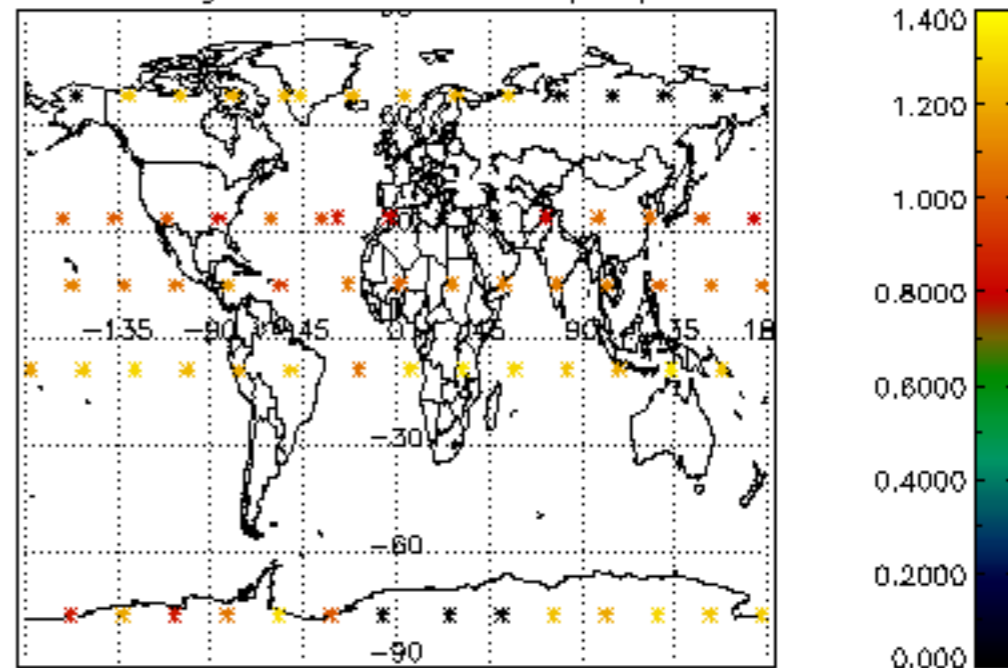




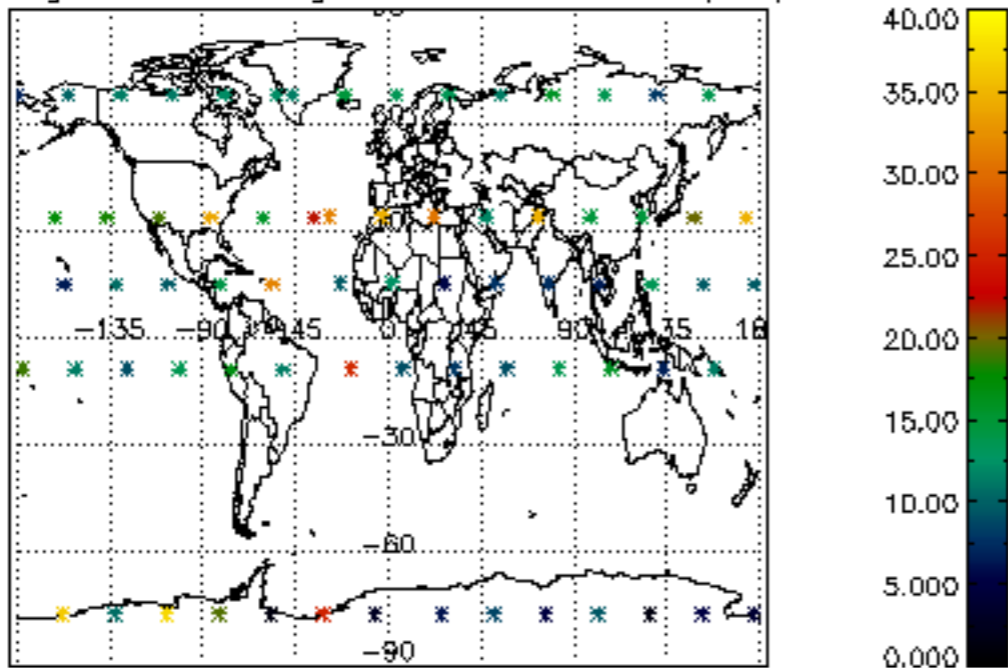
Percentage of cosmic ray hits per profile



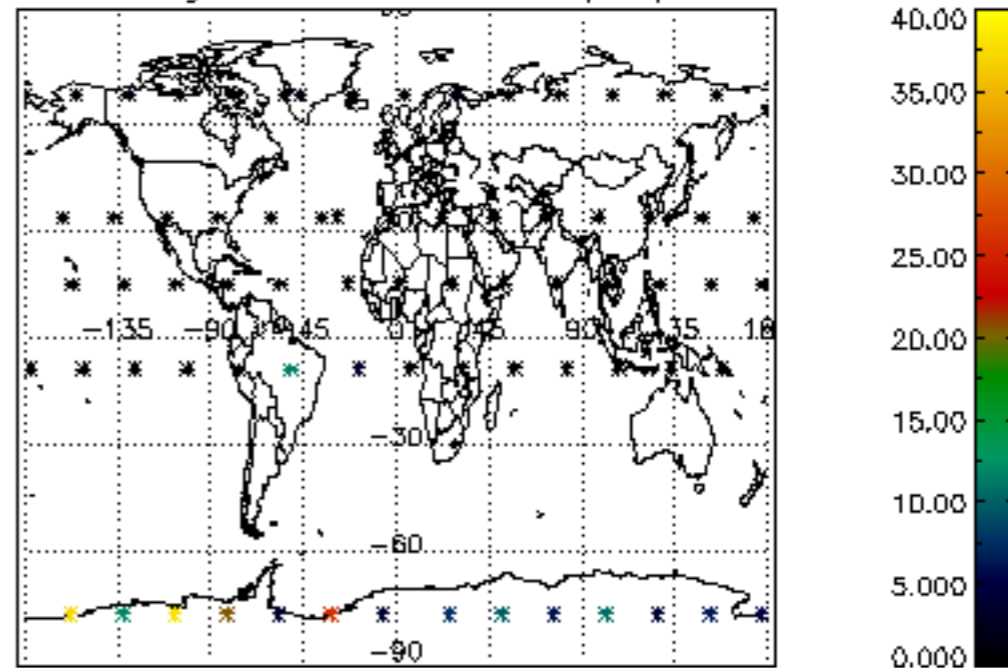
Percentage of datation errors per profile



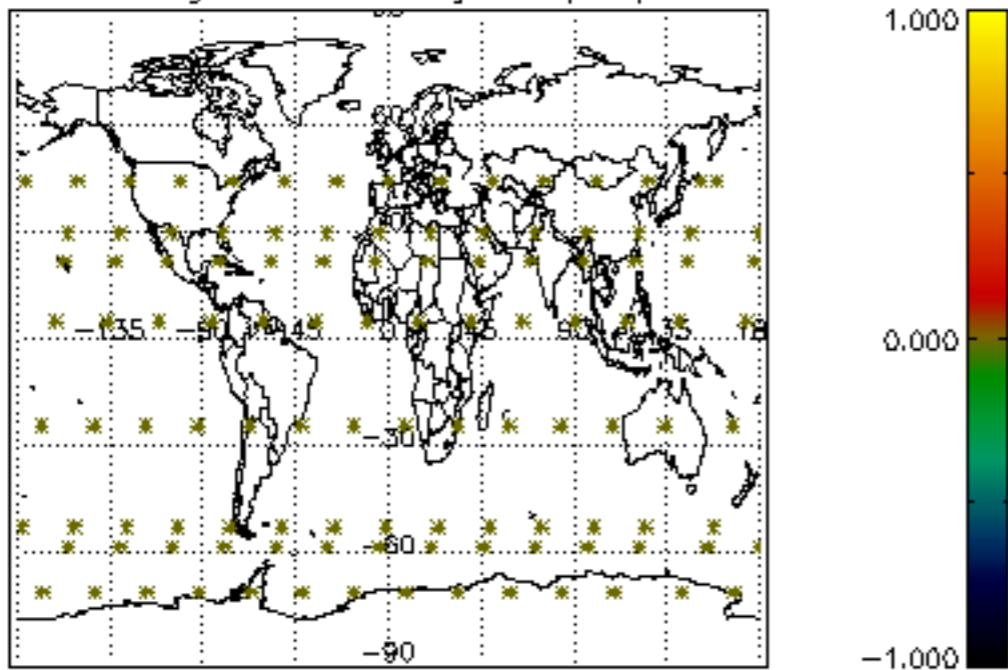
Percentage of star falling outside central band per profile



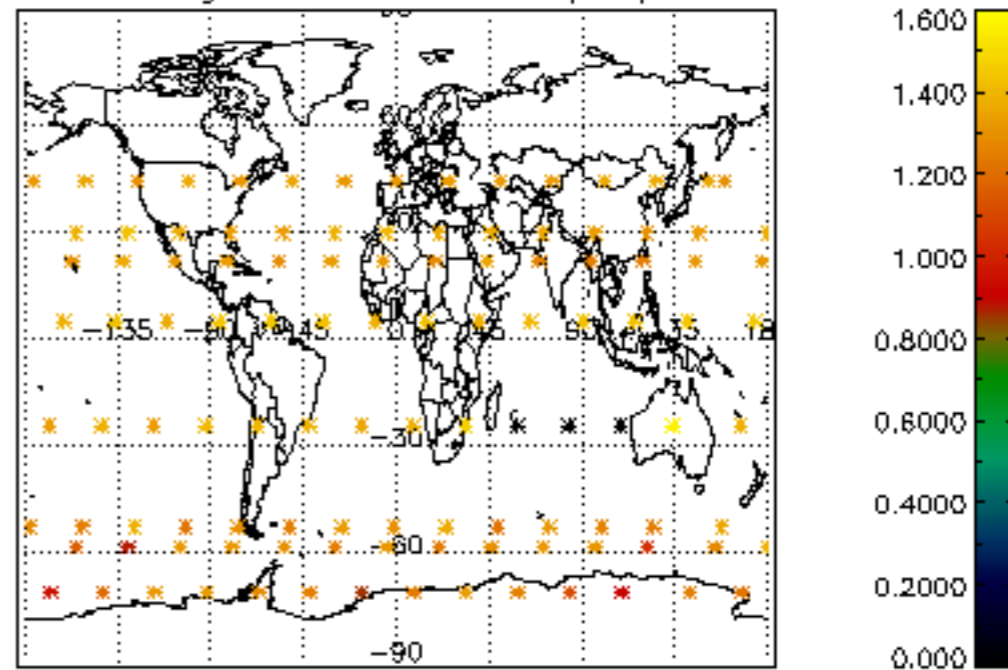
Percentage of saturation errors per profile



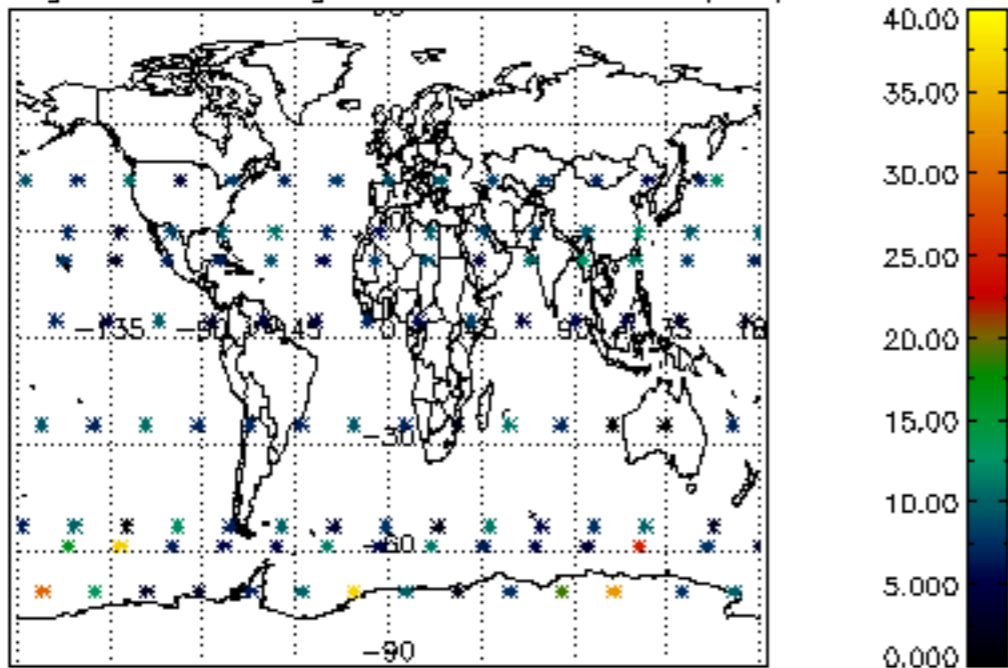
Percentage of cosmic ray hits per profile



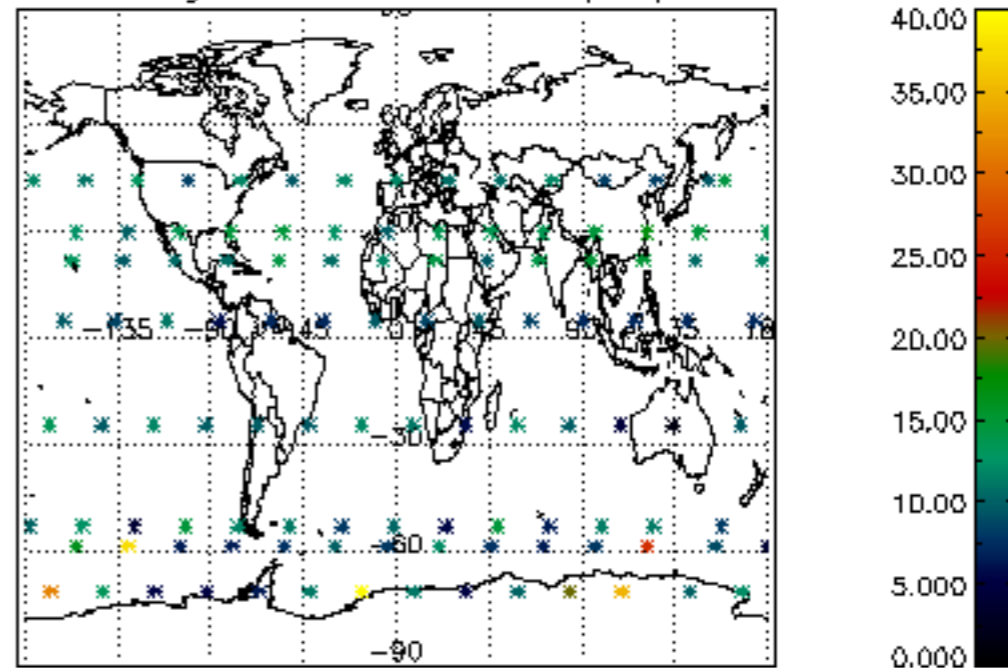
Percentage of datation errors per profile

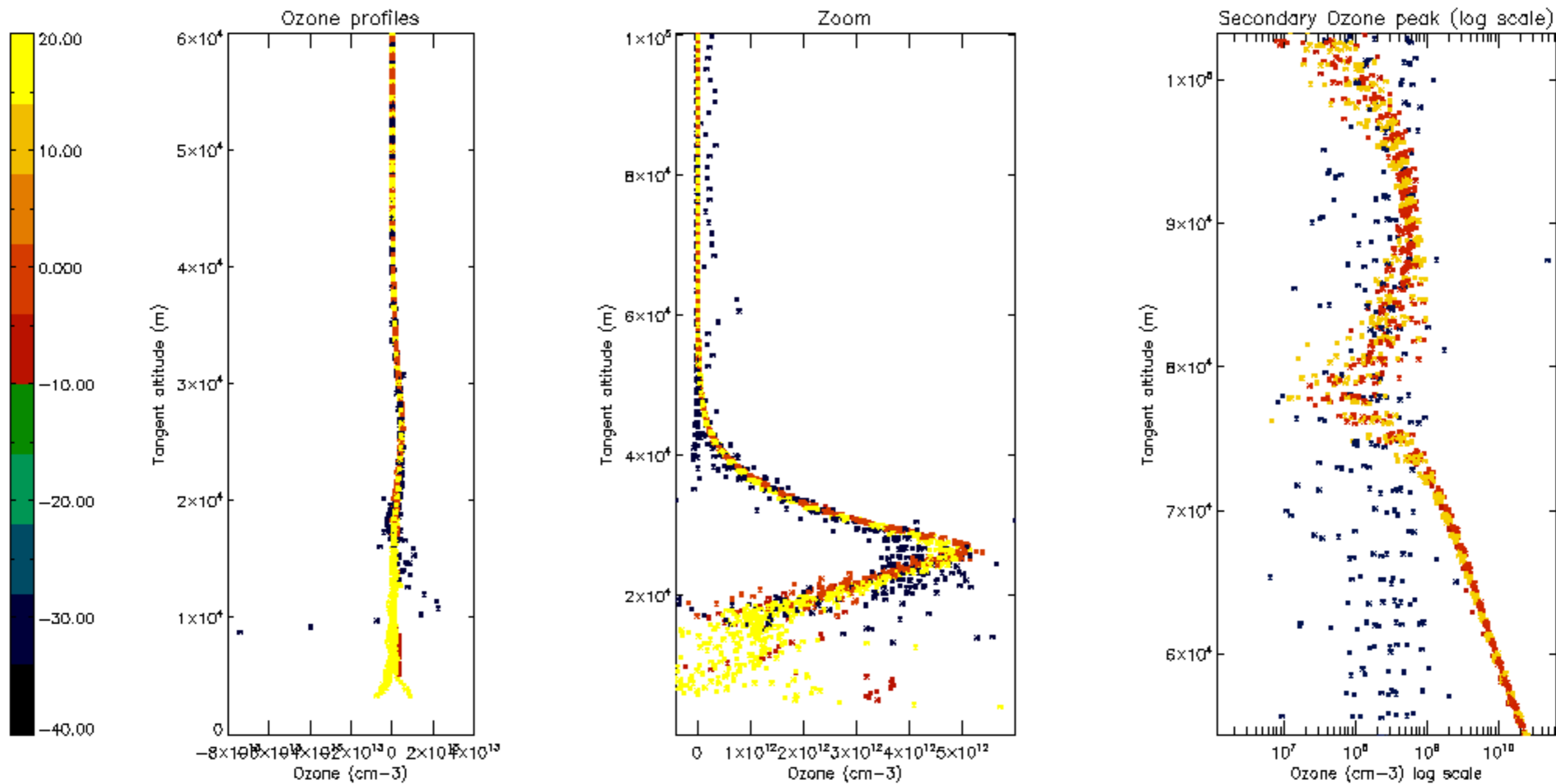


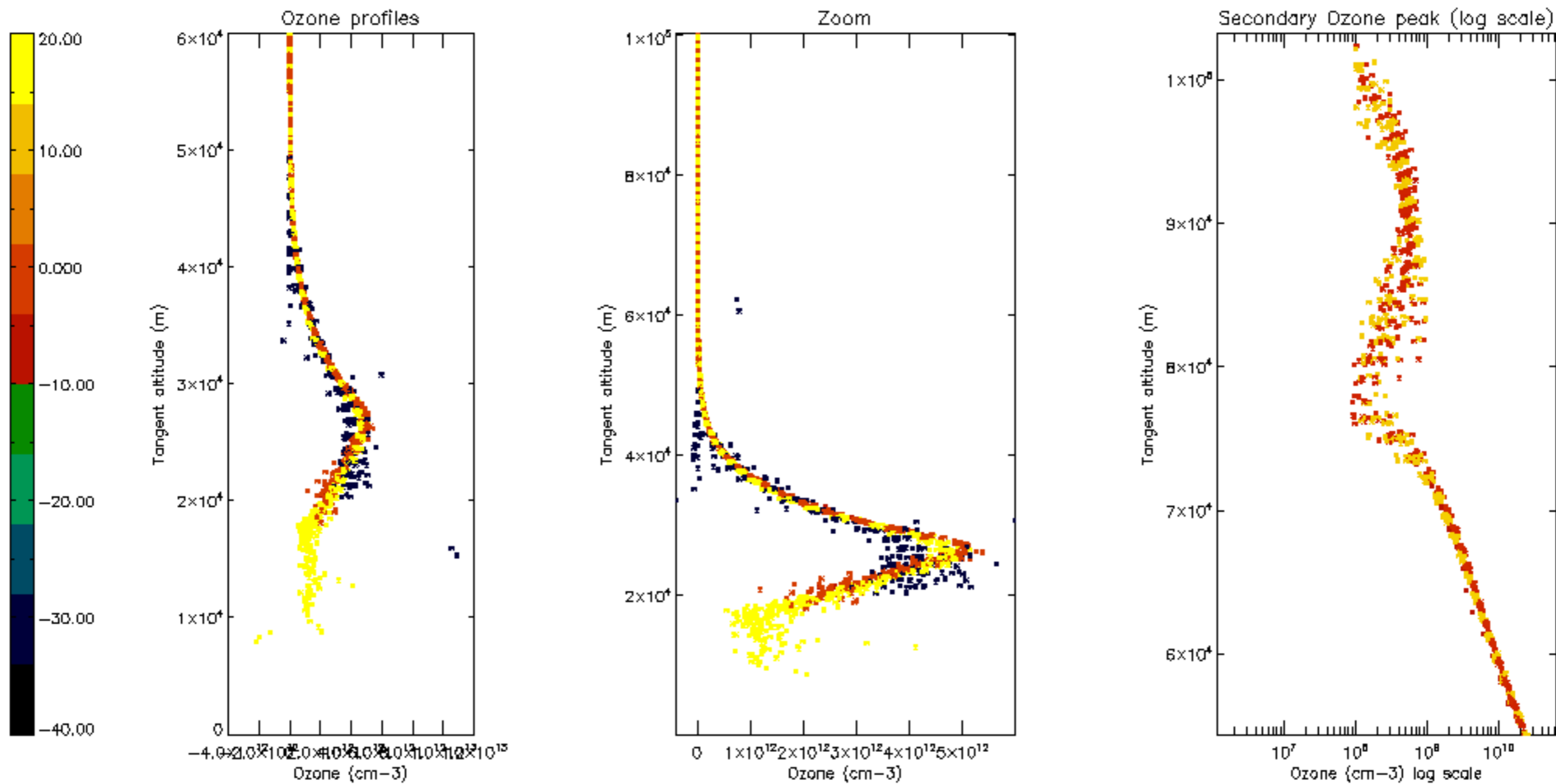
Percentage of star falling outside central band per profile

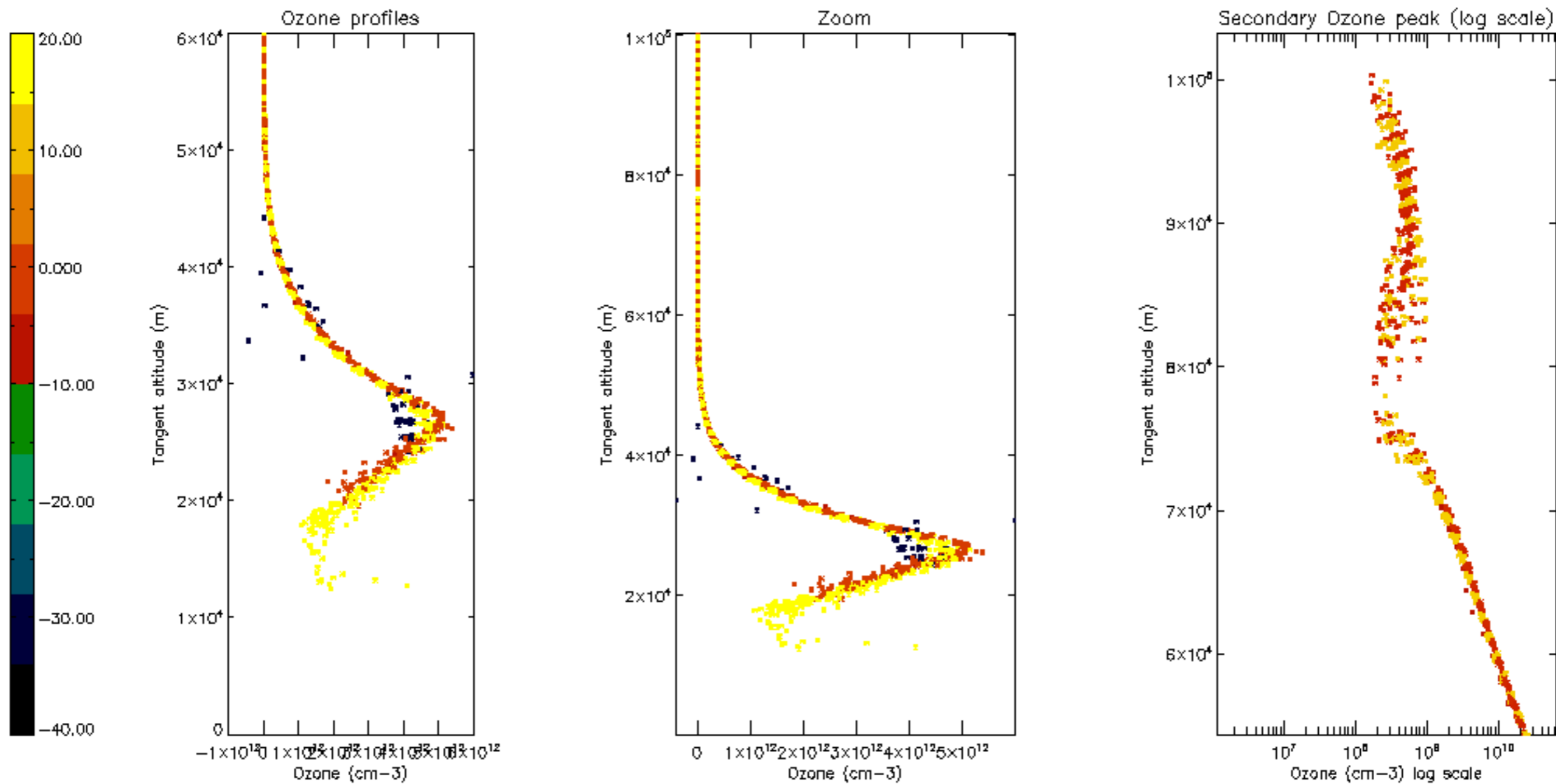


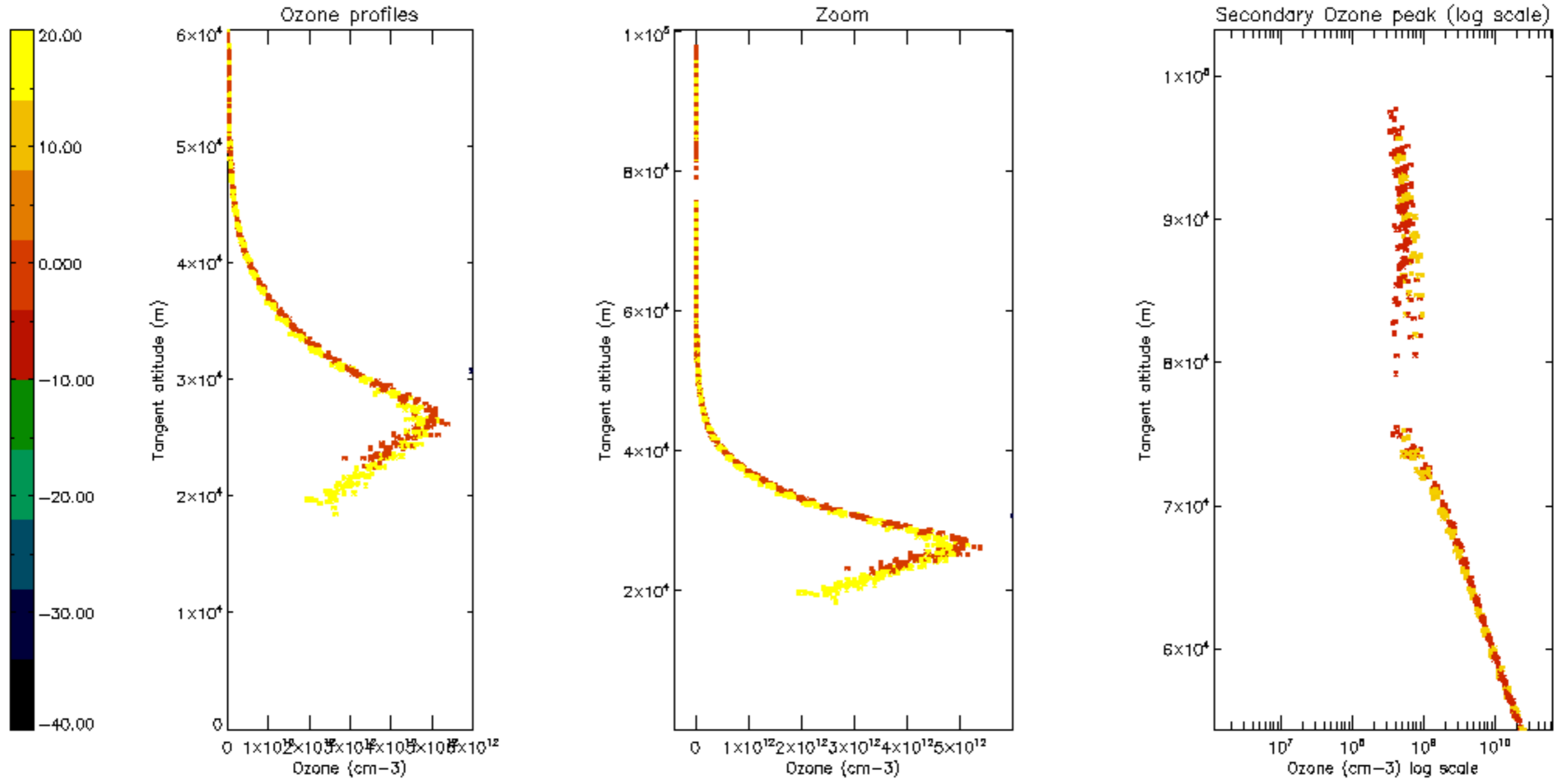
Percentage of saturation errors per profile

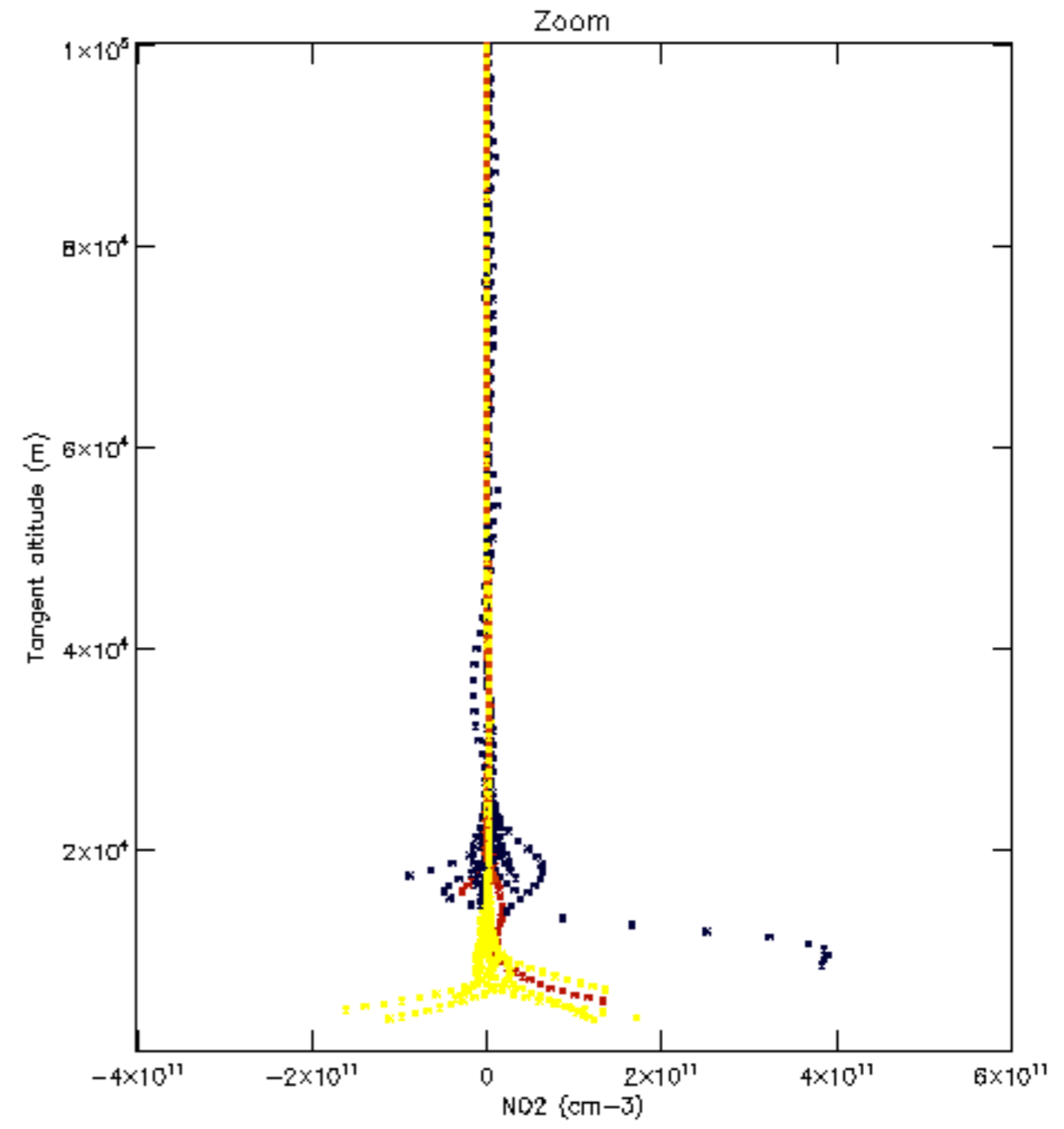
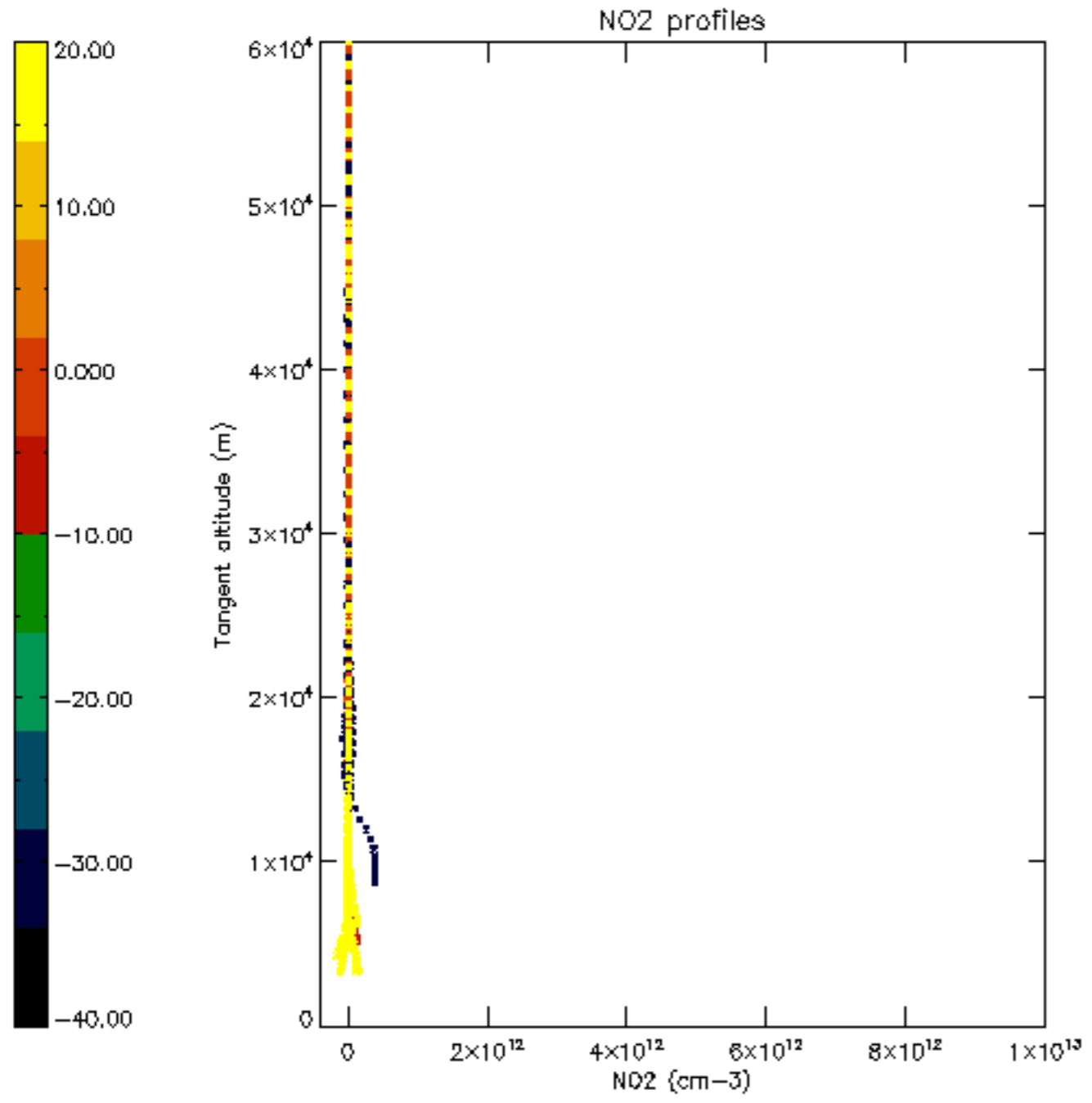


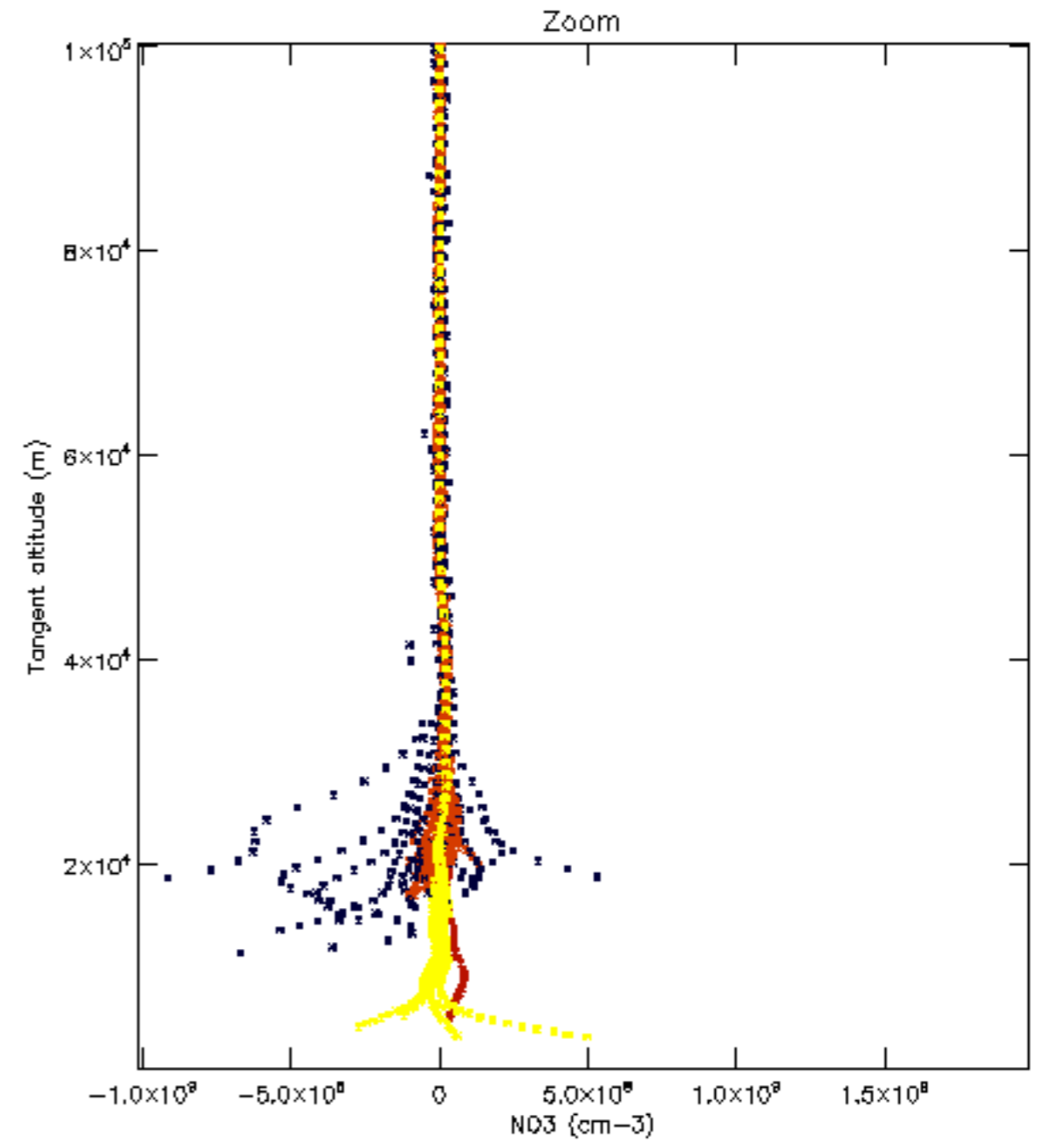
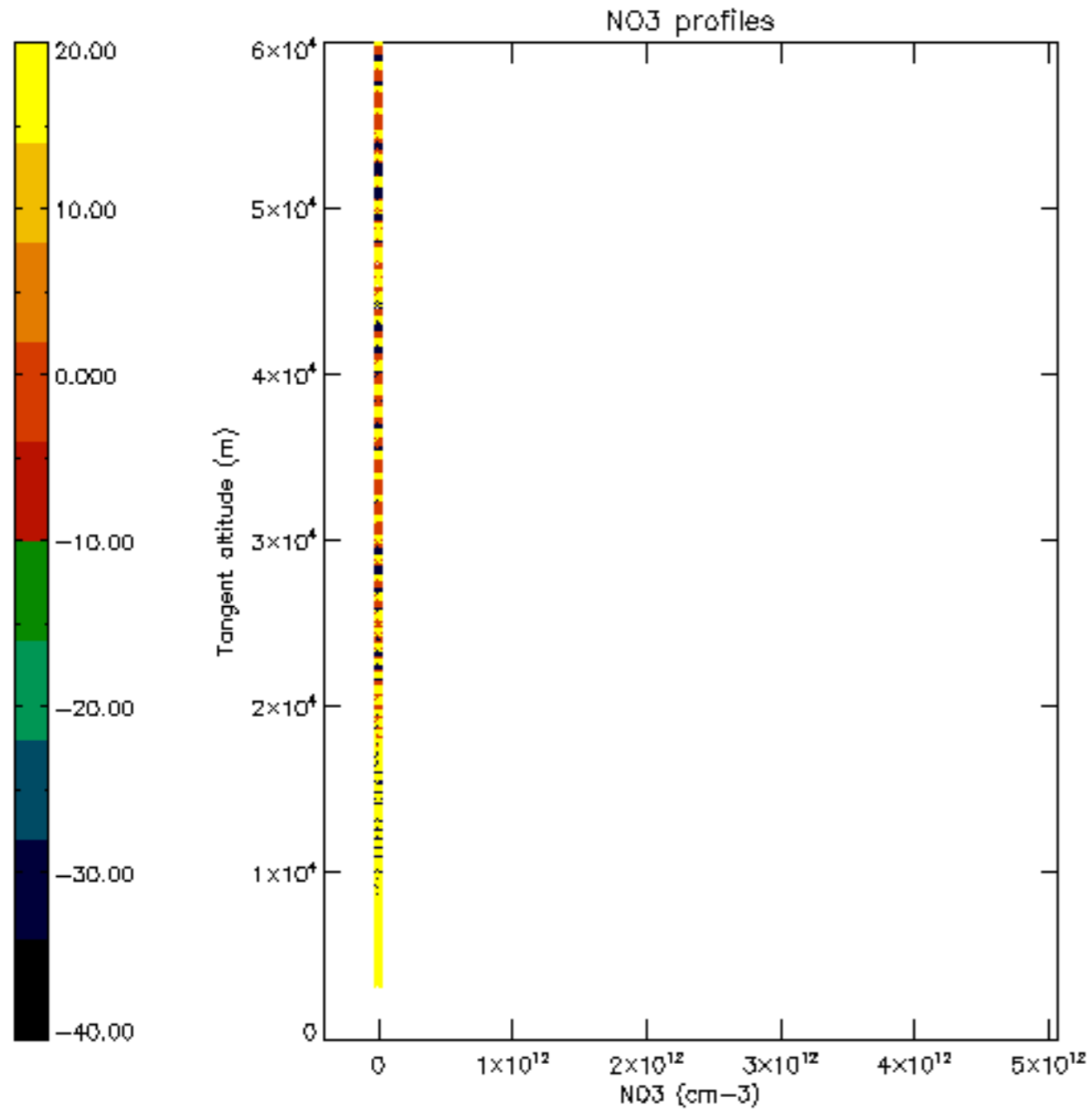


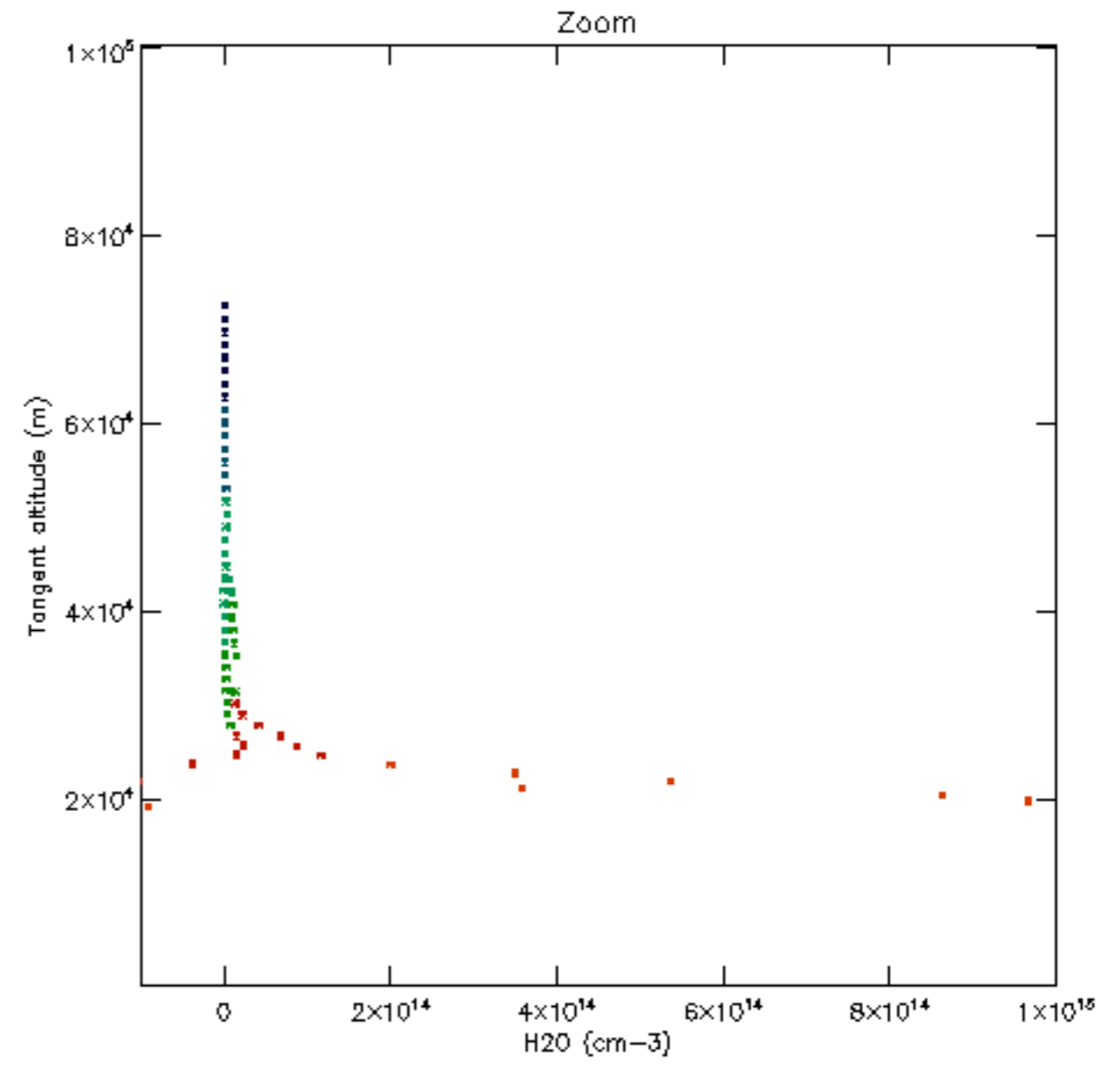
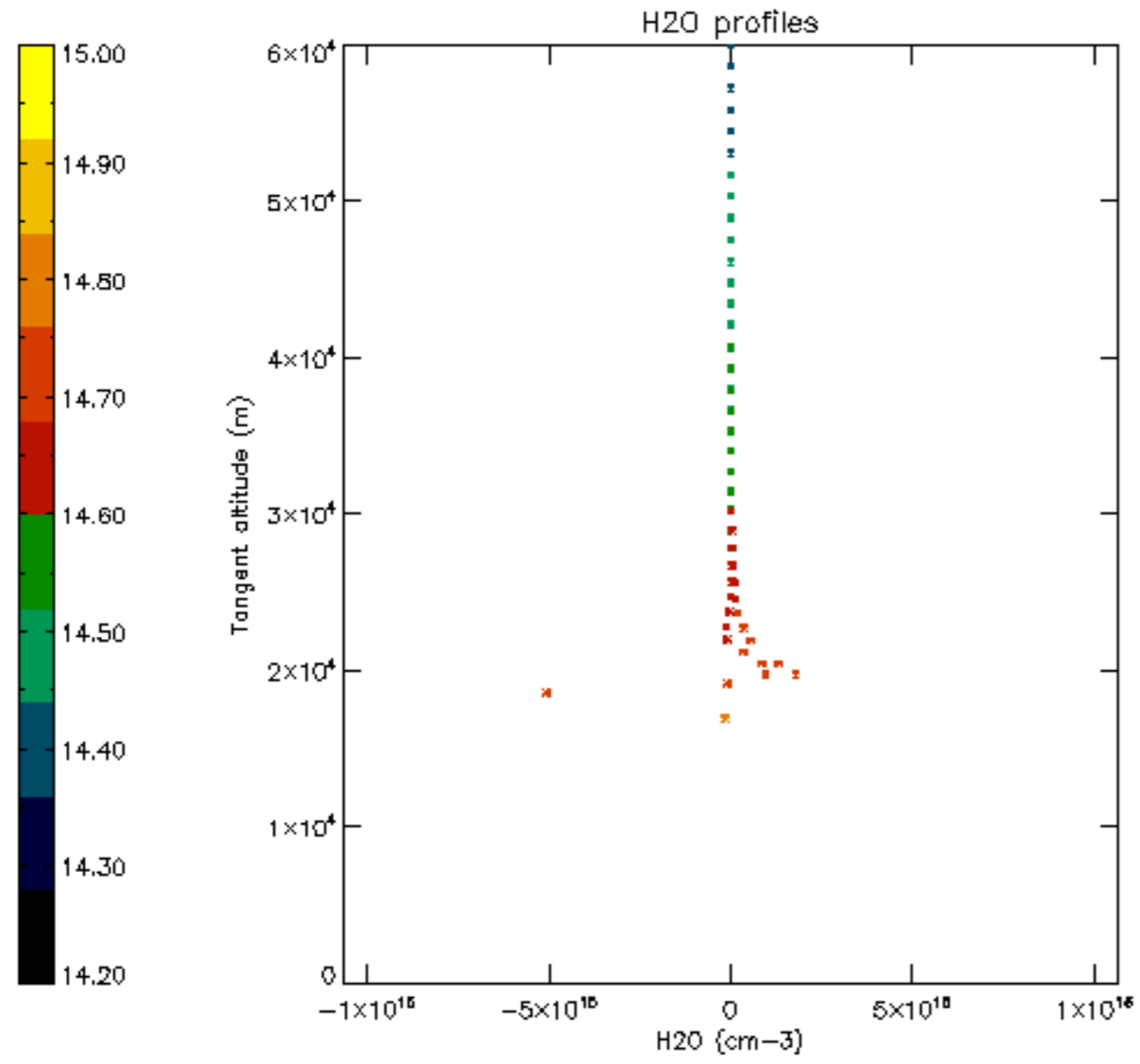


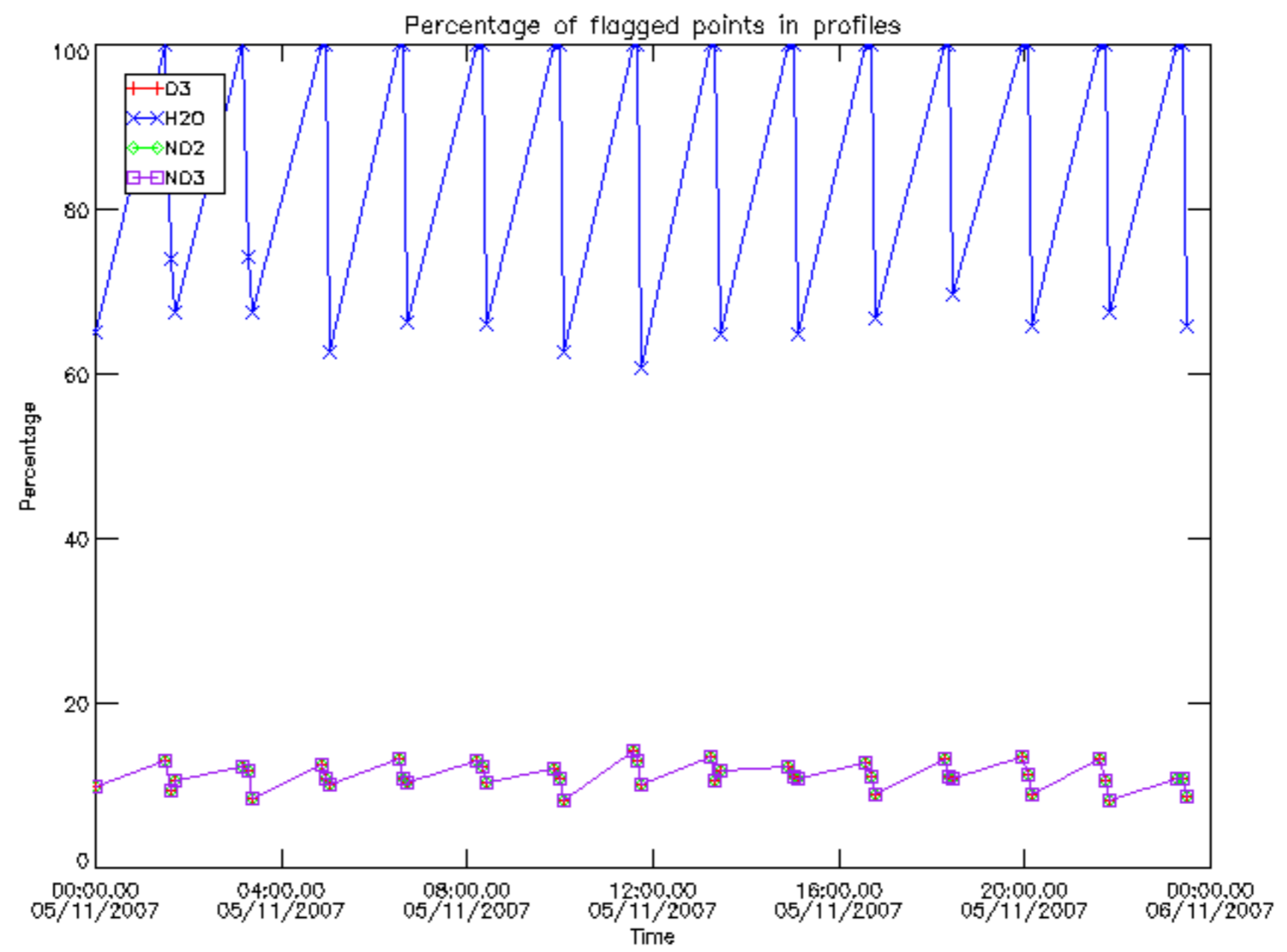




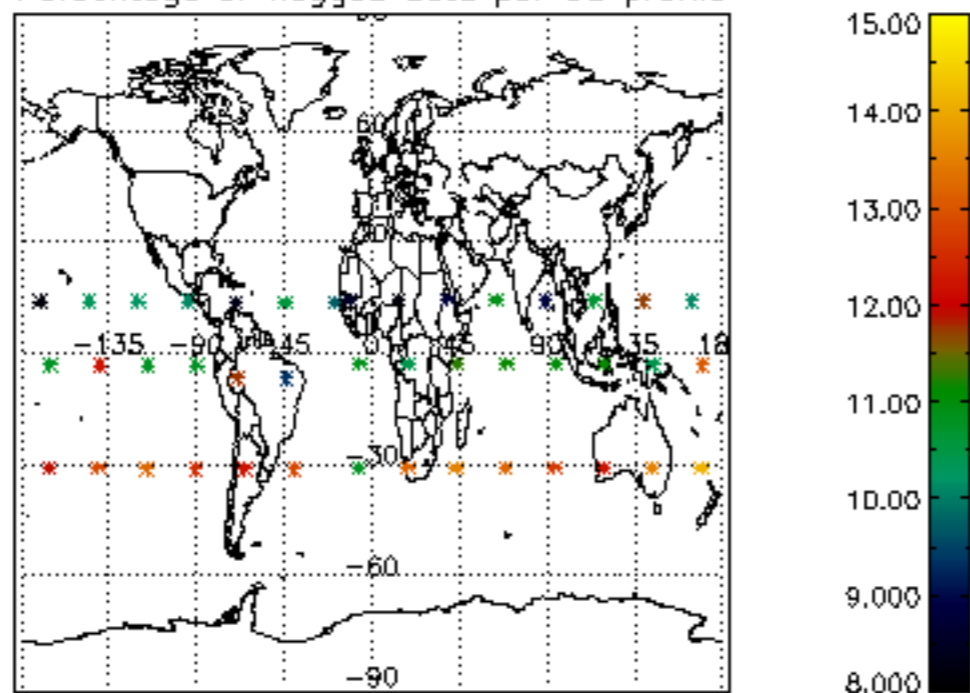




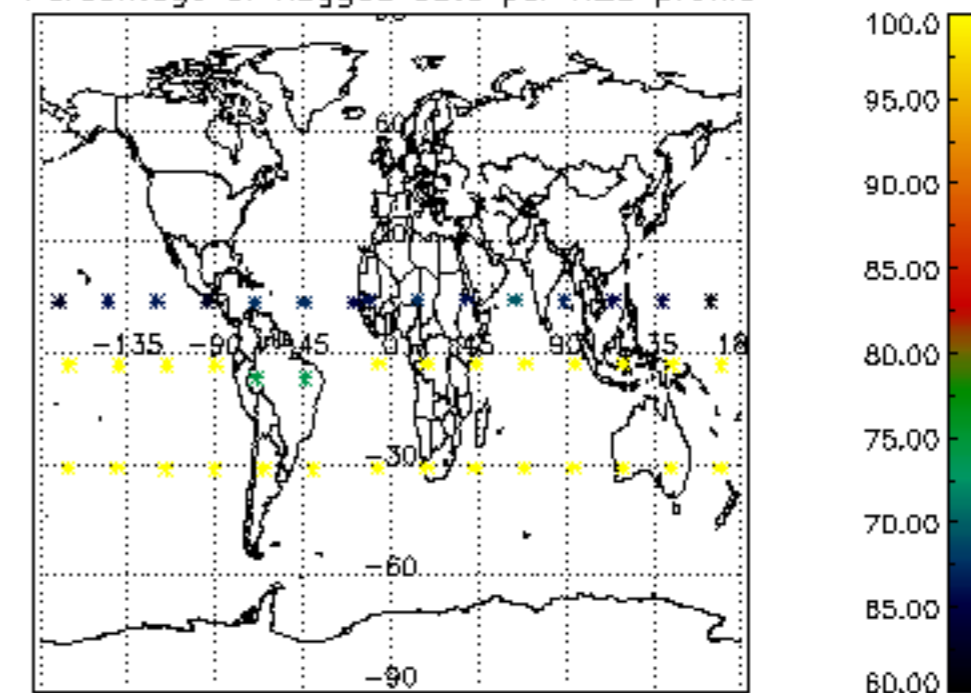




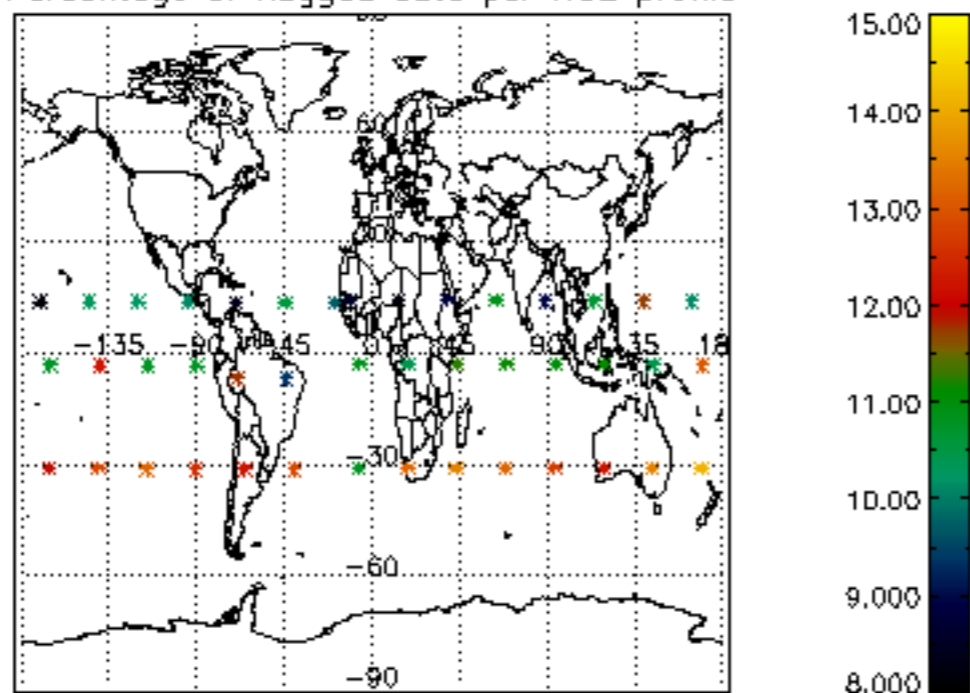
Percentage of flagged data per D3 profile



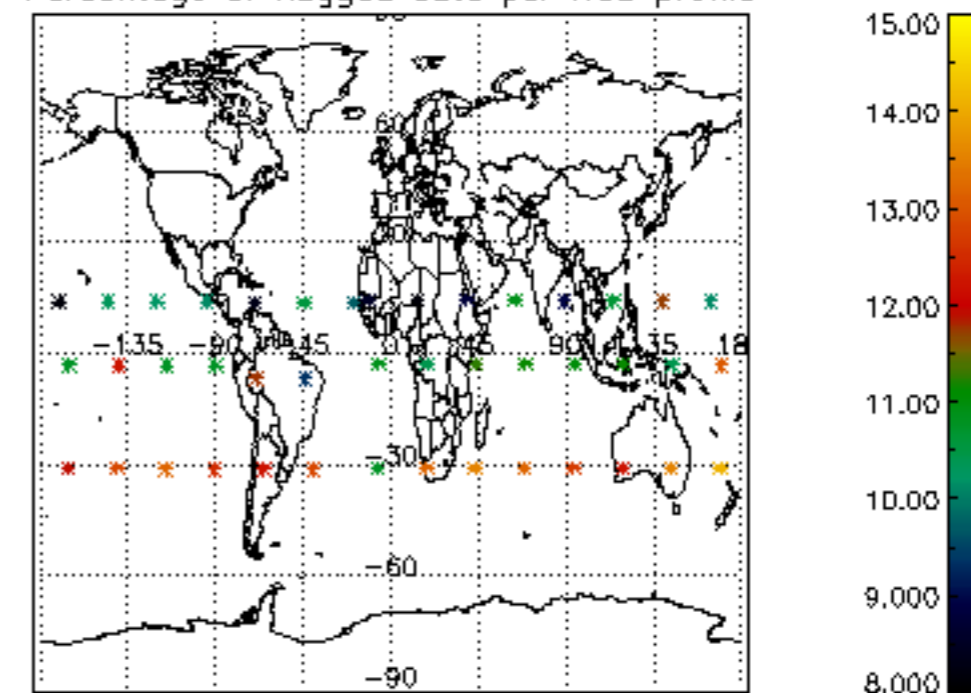
Percentage of flagged data per H2O profile

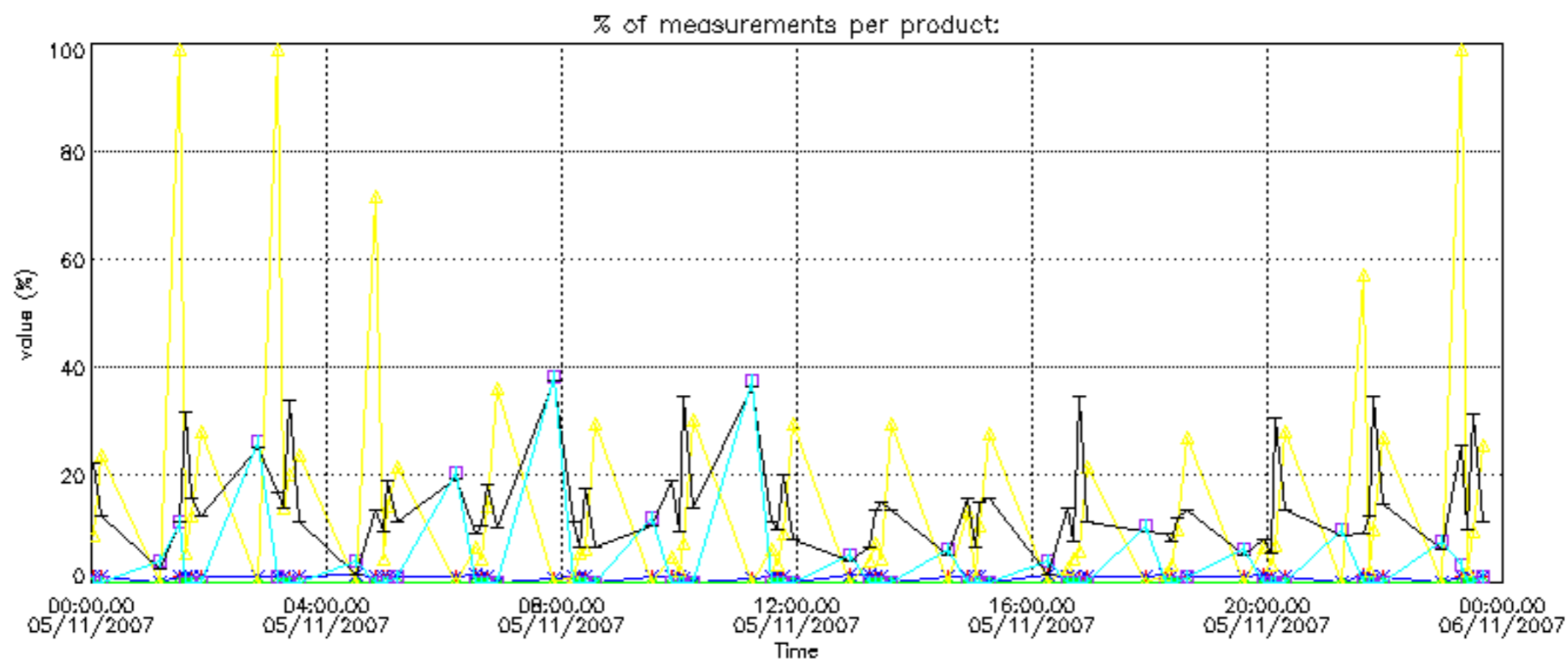


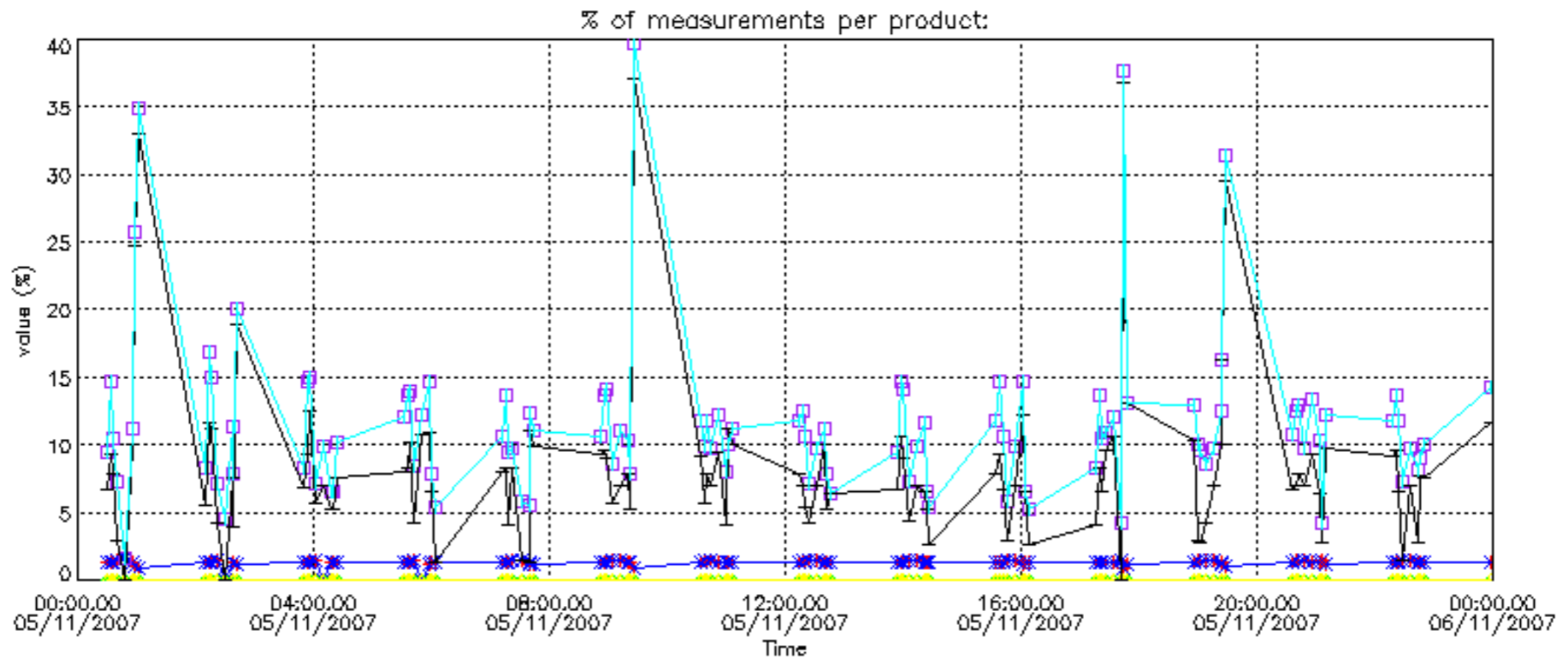
Percentage of flagged data per NO2 profile



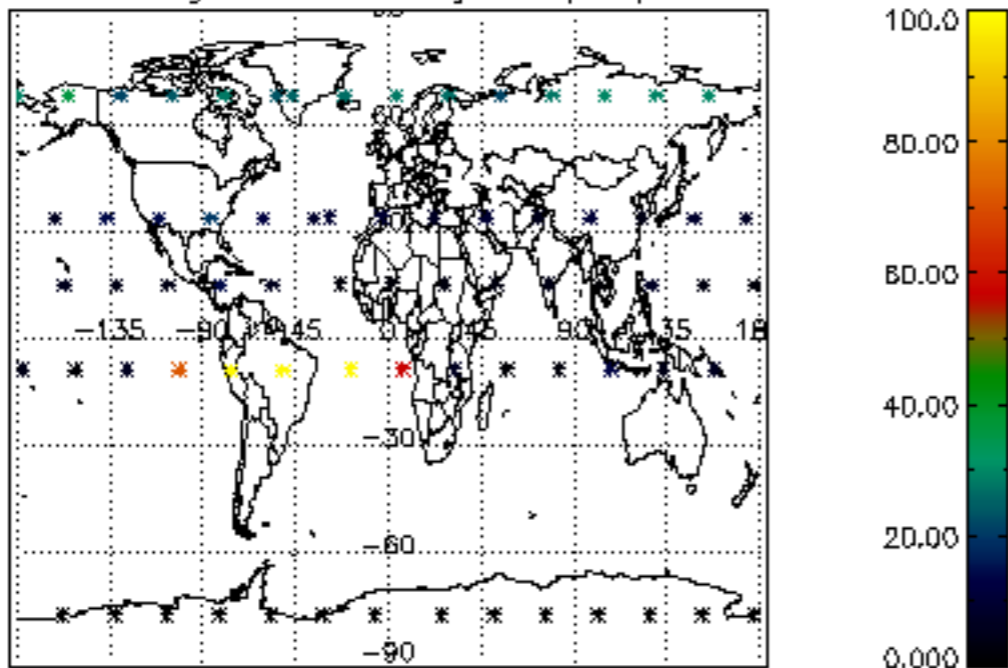
Percentage of flagged data per NO3 profile



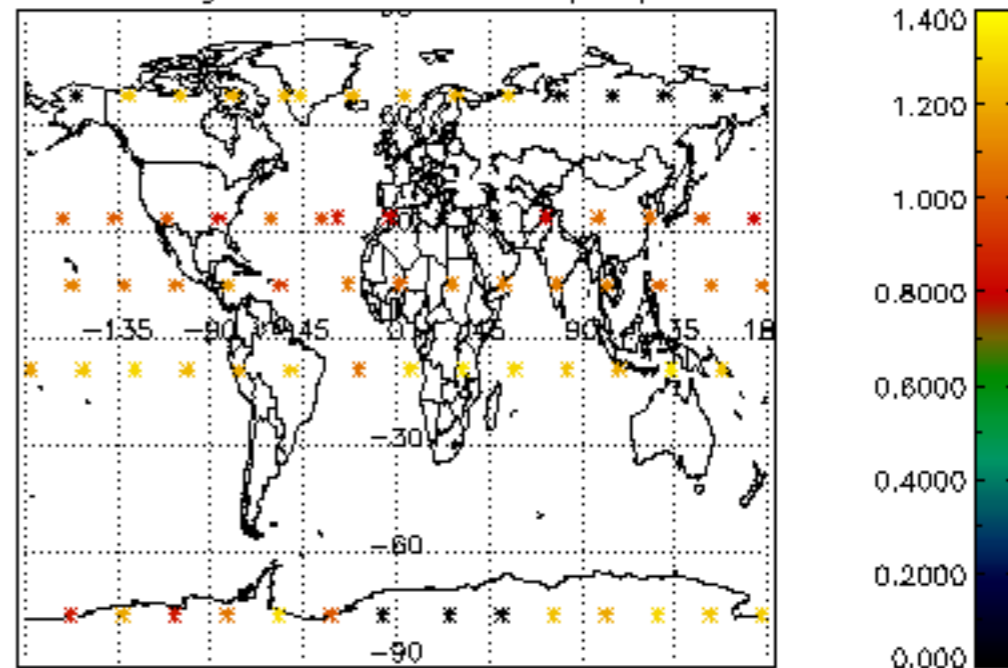




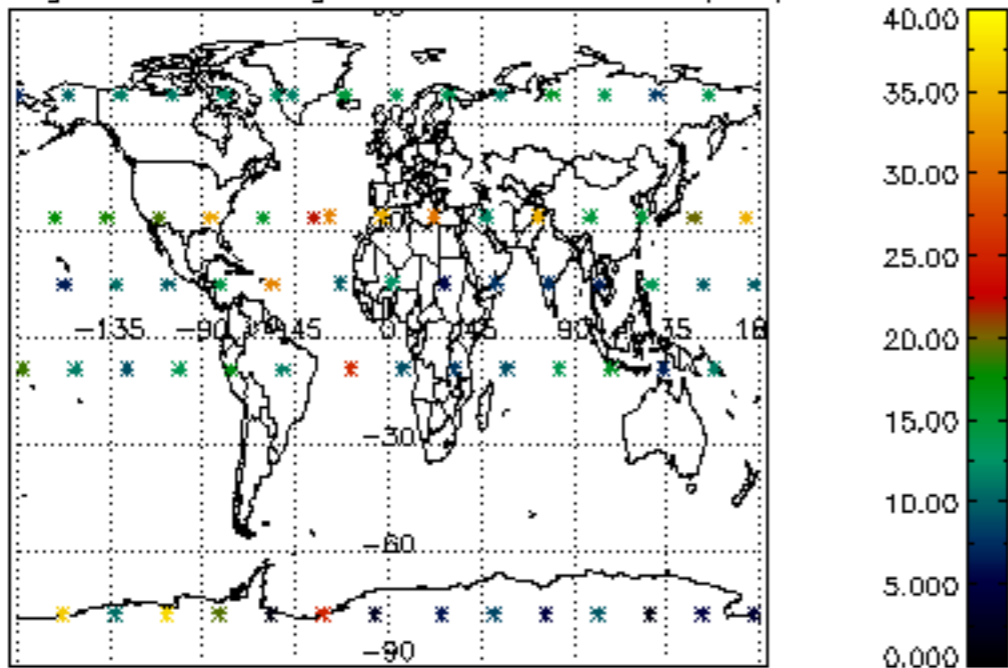
Percentage of cosmic ray hits per profile



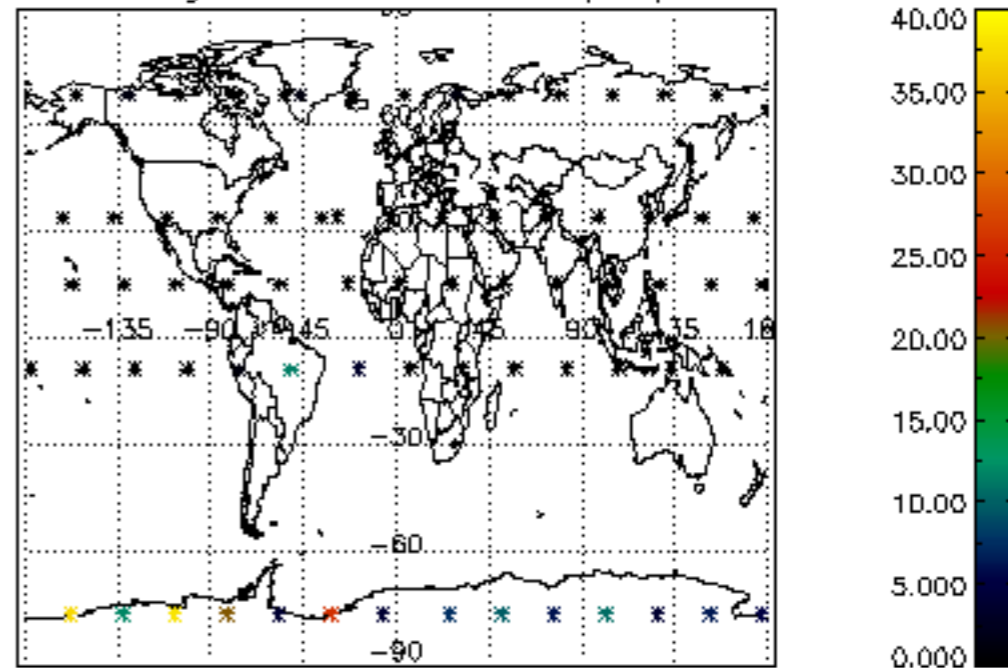
Percentage of datation errors per profile



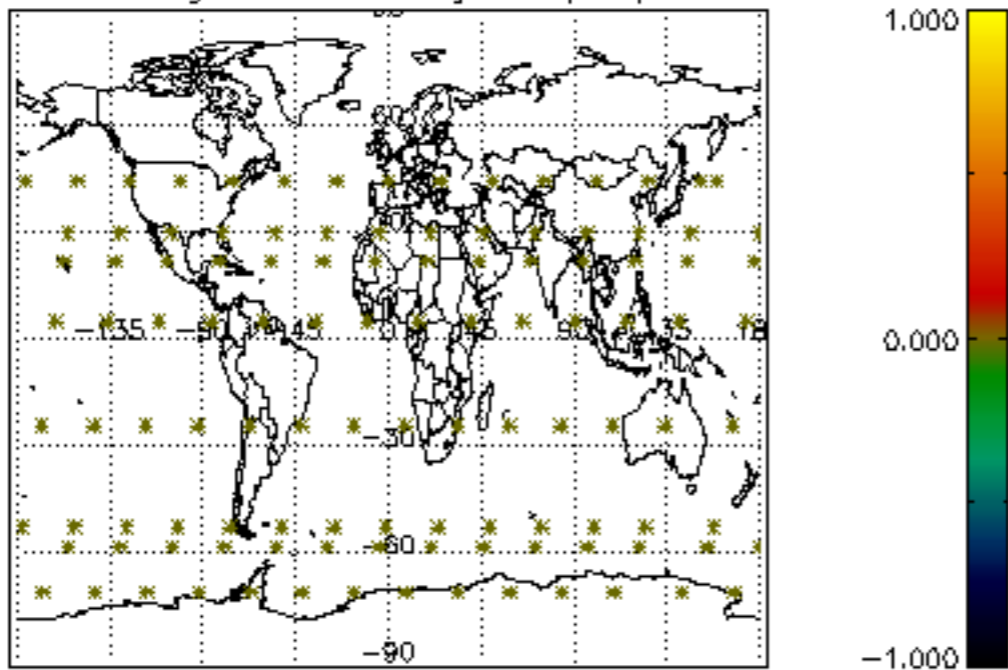
Percentage of star falling outside central band per profile



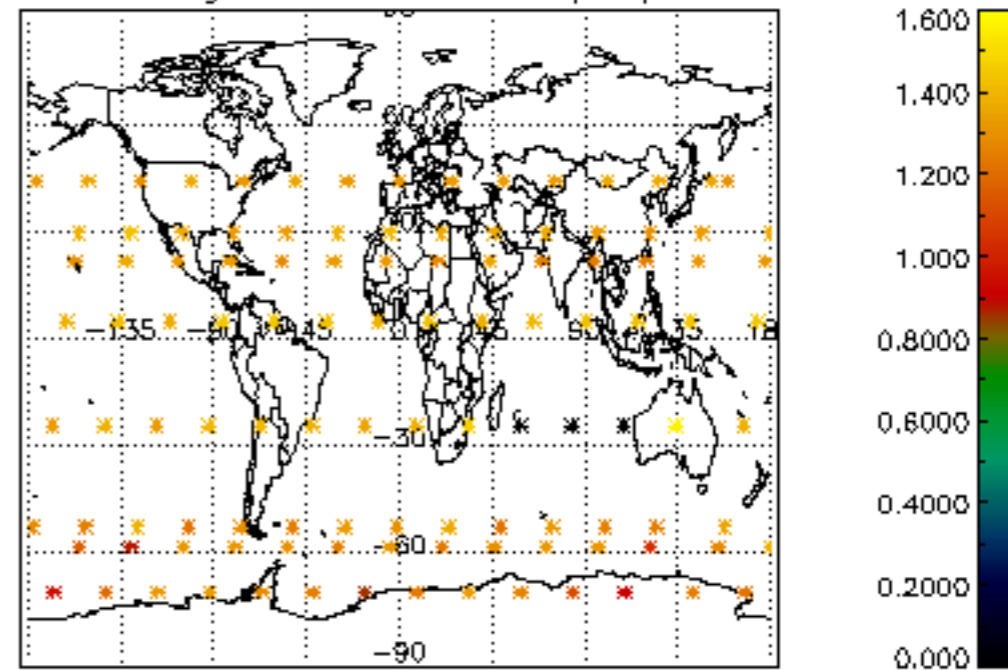
Percentage of saturation errors per profile



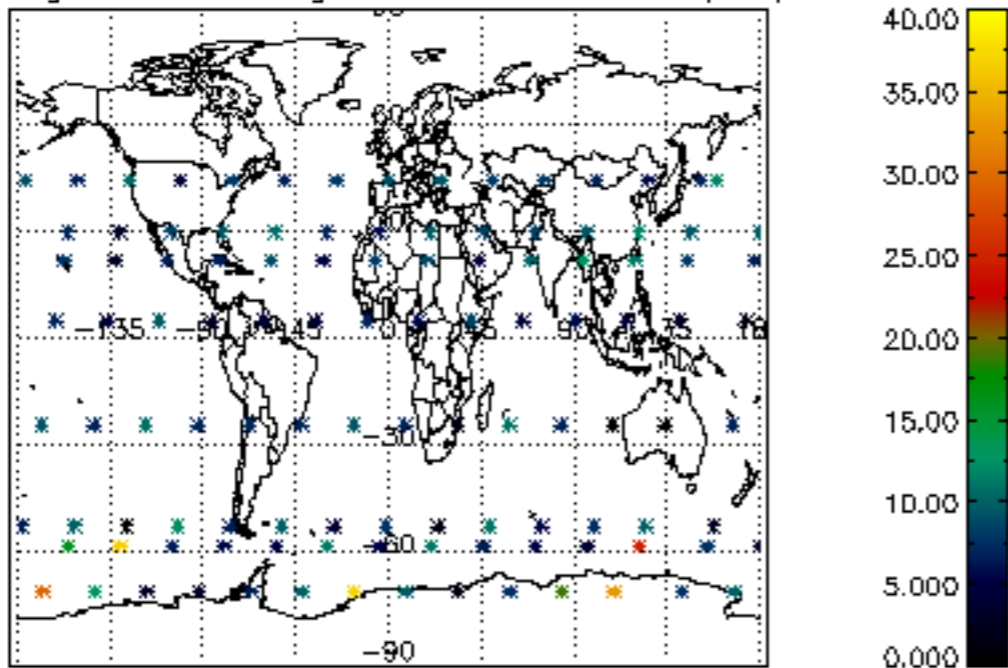
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

