

# 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	17APR2013 17:33:20
Data source version	GOMOS/6.01
Start time of products	28-04-2002 (28APR2002 00:00:00)
Stop time of products	29-04-2002 (29APR2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	39
Nb of prods with errors	0

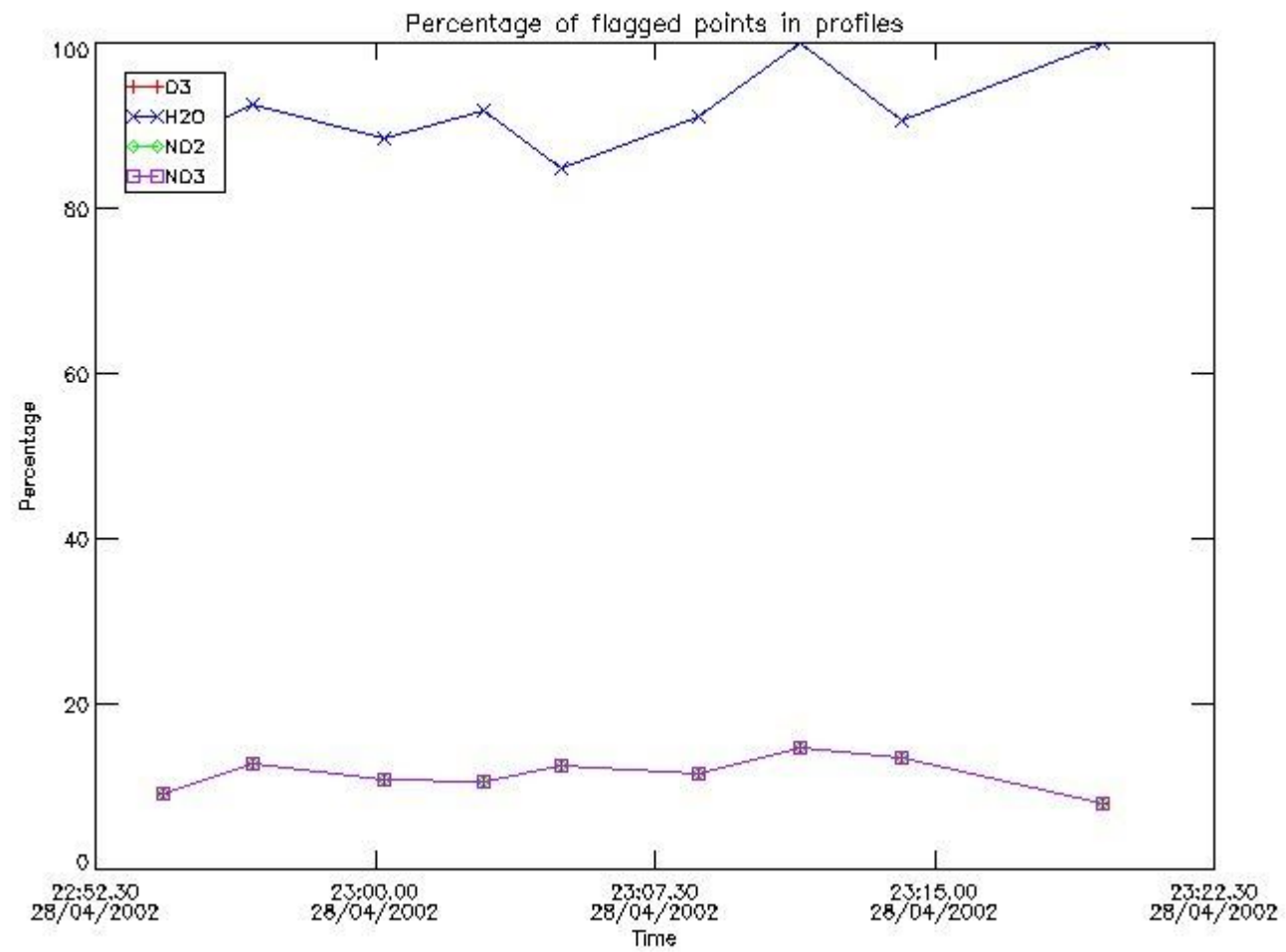
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020428_215041_000000562005_00287_00842_0847.N1	28-APR-2002 21:50:41	Twilight	56.000	136	23Tau Sco	2.8220	30000.	112	842	No
2	GOM_NL__2PRFIN20020428_215215_000000582005_00287_00842_0848.N1	28-APR-2002 21:52:15	Twilight	58.000	156	20Sig Sco	2.9030	28000.	116	842	No
3	GOM_NL__2PRFIN20020428_215556_000000462005_00287_00842_0849.N1	28-APR-2002 21:55:56	Bright	45.500	169	46Gam Hya	2.9910	4700.0	91	842	No
4	GOM_NL__2PRFIN20020428_215716_000000482005_00287_00842_0850.N1	28-APR-2002 21:57:16	Bright	47.500	122	9Alp2Lib	2.7470	9700.0	95	842	No
5	GOM_NL__2PRFIN20020428_215917_000000362005_00287_00842_0851.N1	28-APR-2002 21:59:17	Bright	35.500	15	67Alp Vir	0.97600	28000.	71	842	No
6	GOM_NL__2PRFIN20020428_220220_000000332005_00287_00842_0852.N1	28-APR-2002 22:02:20	Bright	32.500	121	29Gam Vir	2.7400	7200.0	65	842	No
7	GOM_NL__2PRFIN20020428_220542_000000332005_00287_00842_0853.N1	28-APR-2002 22:05:42	Bright	32.500	138	47Eps Vir	2.8280	4700.0	65	842	No
8	GOM_NL__2PRFIN20020428_220722_000000322005_00287_00842_0854.N1	28-APR-2002 22:07:22	Bright	32.000	62	94Bet Leo	2.1360	9700.0	64	842	No
9	GOM_NL__2PRFIN20020428_221203_000000432005_00287_00842_0855.N1	28-APR-2002 22:12:03	Bright	43.000	83		2.3780	11000.	86	842	No
10	GOM_NL__2PRFIN20020428_221428_000000502005_00287_00842_0856.N1	28-APR-2002 22:14:28	Bright	49.500	67	5Alp CrB	2.2210	11000.	99	842	No
11	GOM_NL__2PRFIN20020428_221707_000000342005_00287_00842_0857.N1	28-APR-2002 22:17:07	Bright	34.000	39	85Eta UMa	1.8540	24000.	68	842	No
12	GOM_NL__2PRFIN20020428_221829_000000332005_00287_00842_0858.N1	28-APR-2002 22:18:29	Bright	33.000	32	77Eps UMa	1.7630	11000.	66	842	No
13	GOM_NL__2PRFIN20020428_222037_000000342005_00287_00842_0859.N1	28-APR-2002 22:20:37	Bright	33.500	36	50Alp UMa	1.8000	6300.0	67	842	No
14	GOM_NL__2PRFIN20020428_222440_000000412005_00287_00842_0860.N1	28-APR-2002 22:24:40	Bright	40.500	119	14Eta Dra	2.7270	4700.0	81	842	No
15	GOM_NL__2PRFIN20020428_222813_000000332005_00287_00842_0861.N1	28-APR-2002 22:28:13	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	842	No
16	GOM_NL__2PRFIN20020428_223609_000000332005_00287_00842_0862.N1	28-APR-2002 22:36:09	Bright	32.500	76	27Gam Cas	2.3000	30000.	65	842	No
17	GOM_NL__2PRFIN20020428_223807_000001492005_00287_00842_0863.N1	28-APR-2002 22:38:07	Bright	149.00	5	3Alp Lyr	0.033000	11000.	298	842	No
18	GOM_NL__2PRFIN20020428_224158_000000642005_00287_00842_0864.N1	28-APR-2002 22:41:58	Bright	63.500	66	37Gam Cyg	2.2080	5900.0	127	842	No
19	GOM_NL__2PRFIN20020428_224522_000000662005_00287_00842_0865.N1	28-APR-2002 22:45:22	Twilight	66.000	92	53Eps Cyg	2.5000	4500.0	132	842	No
20	GOM_NL__2PRFIN20020428_225013_000000392005_00287_00842_0866.N1	28-APR-2002 22:50:13	Twilight	39.000	90	54Alp Peg	2.4870	11000.	78	842	No
21	GOM_NL__2PRFIN20020428_225417_000000552005_00287_00842_0867.N1	28-APR-2002 22:54:17	Dark	55.000	61	8Eps Peg	2.1000	3900.0	110	842	No
22	GOM_NL__2PRFIN20020428_225643_000000482005_00287_00842_0868.N1	28-APR-2002 22:56:43	Dark	48.000	162	34Alp Aqr	2.9440	5350.0	96	842	No
23	GOM_NL__2PRFIN20020428_230014_000000572005_00287_00842_0869.N1	28-APR-2002 23:00:14	Dark	56.500	154	22Bet Aqr	2.8990	5700.0	113	842	No
24	GOM_NL__2PRFIN20020428_230256_000000432005_00287_00842_0870.N1	28-APR-2002 23:02:56	Dark	43.000	18	24Alp PsA	1.1660	9700.0	86	842	No
25	GOM_NL__2PRFIN20020428_230500_000000372005_00287_00842_0871.N1	28-APR-2002 23:05:00	Dark	36.500	84	Alp Phe	2.3970	4500.0	73	842	No
26	GOM_NL__2PRFIN20020428_230839_000000402005_00287_00842_0872.N1	28-APR-2002 23:08:39	Dark	40.000	31	Alp Gru	1.7340	15200.	80	842	No
27	GOM_NL__2PRFIN20020428_231123_000000352005_00288_00843_0847.N1	28-APR-2002 23:11:23	Dark	34.500	148	Alp Tuc	2.8780	4100.0	69	843	No
28	GOM_NL__2PRFIN20020428_231405_000000382005_00288_00843_0848.N1	28-APR-2002 23:14:05	Dark	38.000	45	Alp Pav	1.9400	26000.	76	843	No
29	GOM_NL__2PRFIN20020428_231930_000000642005_00288_00843_0849.N1	28-APR-2002 23:19:30	Dark	63.500	103	38Zet Sgr	2.6000	9700.0	127	843	No
30	GOM_NL__2PRFIN20020428_232239_000000332005_00288_00843_0850.N1	28-APR-2002 23:22:39	Straylight	33.000	145	Gam TrA	2.8720	10600.	66	843	No
31	GOM_NL__2PRFIN20020428_232508_000000482005_00288_00843_0851.N1	28-APR-2002 23:25:08	Straylight	48.000	4	Alp1Cen	-0.010000	5800.0	96	843	No
32	GOM_NL__2PRFIN20020428_232646_000000452005_00288_00843_0852.N1	28-APR-2002 23:26:46	Straylight	45.000	20	Bet Cru	1.2530	30000.	90	843	No
33	GOM_NL__2PRFIN20020428_232756_000000392005_00288_00843_0853.N1	28-APR-2002 23:27:56	Straylight	38.500	77	Eps Cen	2.3030	28000.	77	843	No
34	GOM_NL__2PRFIN20020428_232922_000000352005_00288_00843_0854.N1	28-APR-2002 23:29:22	Straylight	35.000	95	Zet Cen	2.5450	26000.	70	843	No
35	GOM_NL__2PRFIN20020428_233117_000000542005_00288_00843_0855.N1	28-APR-2002 23:31:17	Twilight	53.500	136	23Tau Sco	2.8220	30000.	107	843	No
36	GOM_NL__2PRFIN20020428_233252_000000592005_00288_00843_0856.N1	28-APR-2002 23:32:52	Twilight	58.500	156	20Sig Sco	2.9030	28000.	117	843	No
37	GOM_NL__2PRFIN20020428_233631_000000452005_00288_00843_0857.N1	28-APR-2002 23:36:31	Bright	44.500	169	46Gam Hya	2.9910	4700.0	89	843	No
38	GOM_NL__2PRFIN20020428_233752_000000422005_00288_00843_0858.N1	28-APR-2002 23:37:52	Bright	42.000	122	9Alp2Lib	2.7470	9700.0	84	843	No
39	GOM_NL__2PRFIN20020428_233953_000000352005_00288_00843_0859.N1	28-APR-2002 23:39:53	Bright	34.500	15	67Alp Vir	0.97600	28000.	69	843	No

## 3. Quality information per product

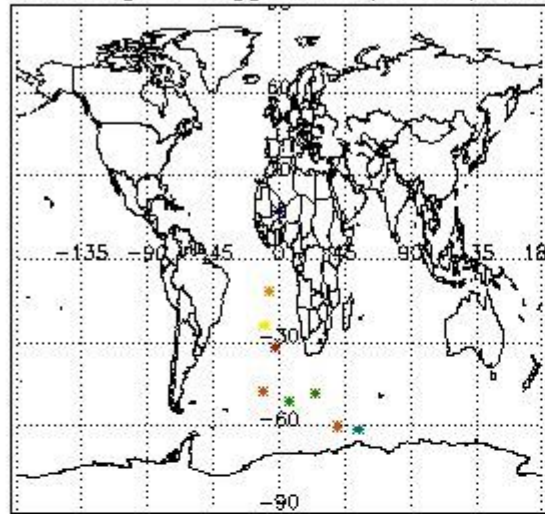
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

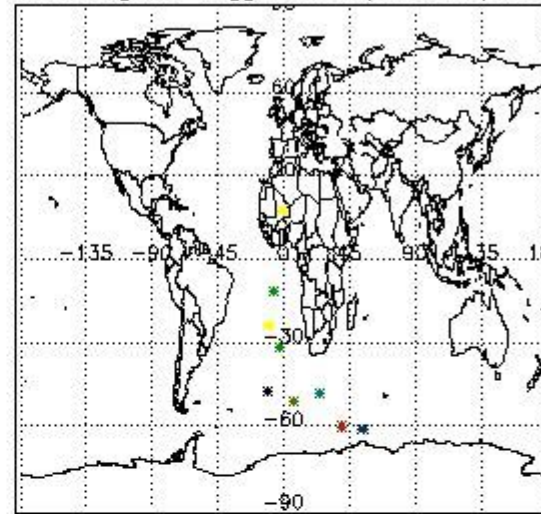


### 3.2 Plot quality information per product (world map)

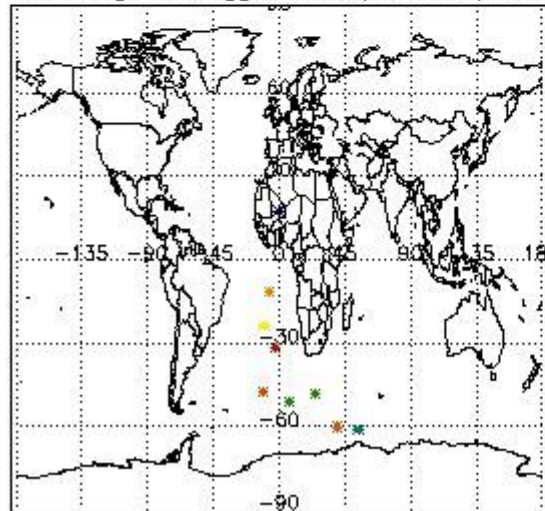
Percentage of flagged data per O3 profile



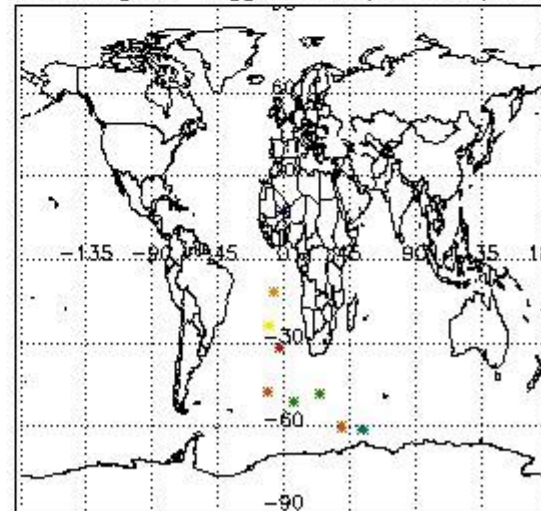
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

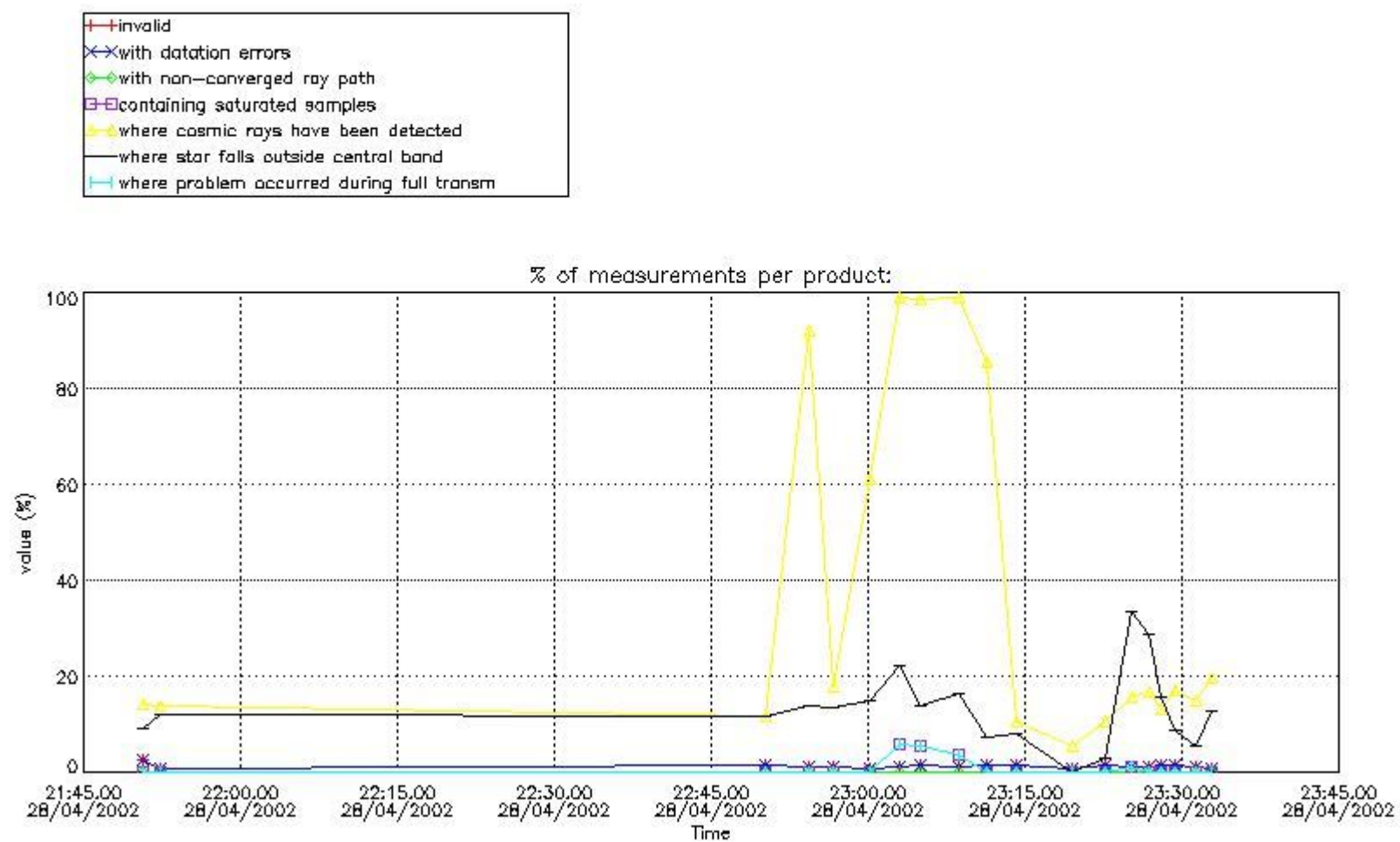


#### 4. Level 1 quality information per product

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.

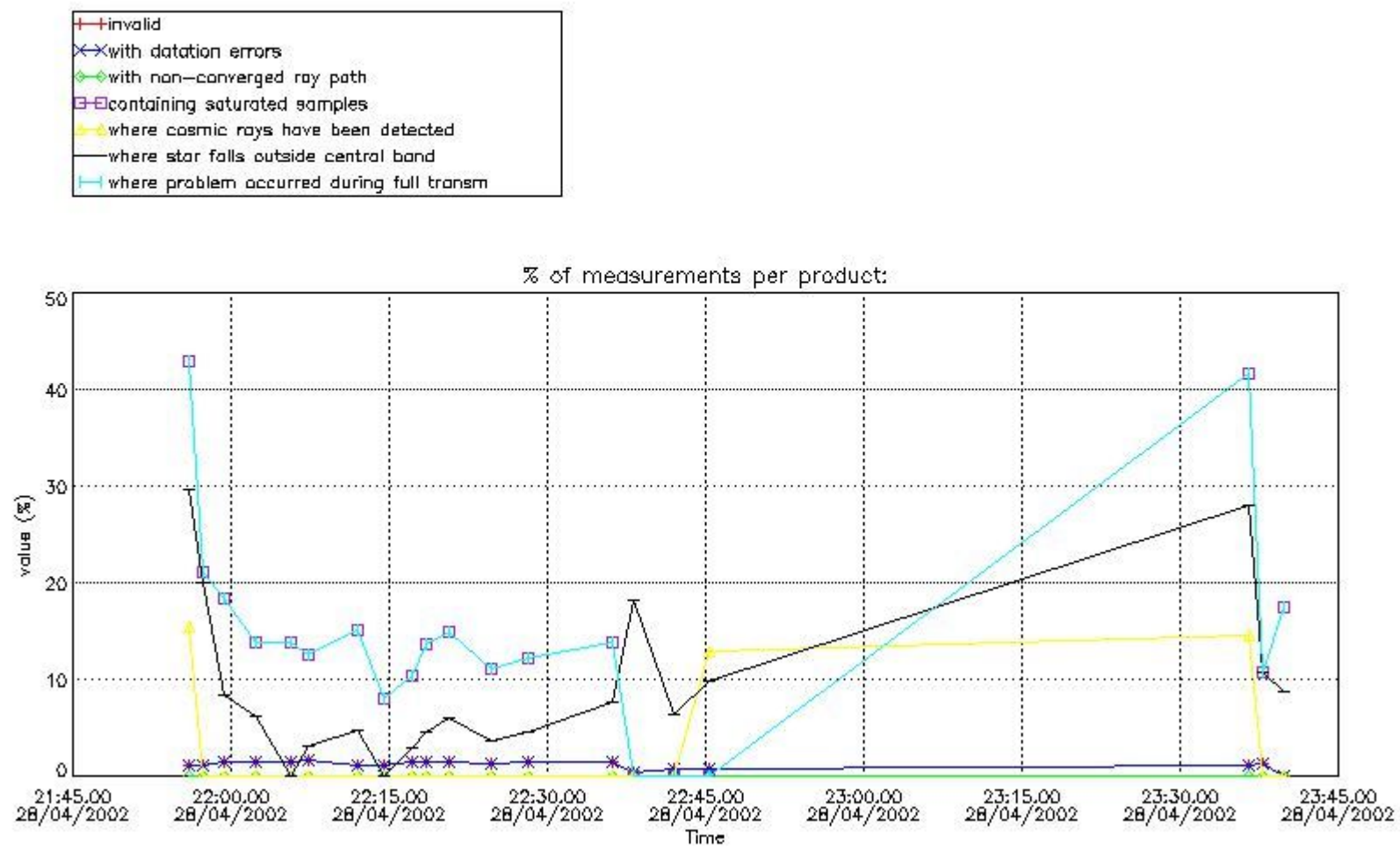
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

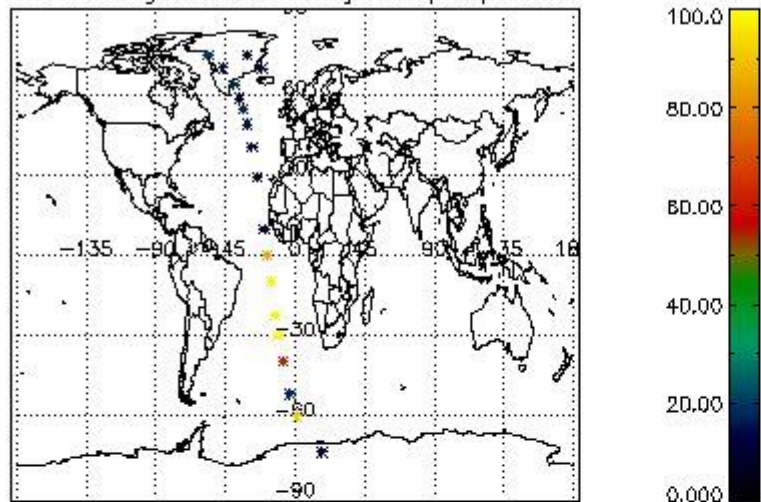




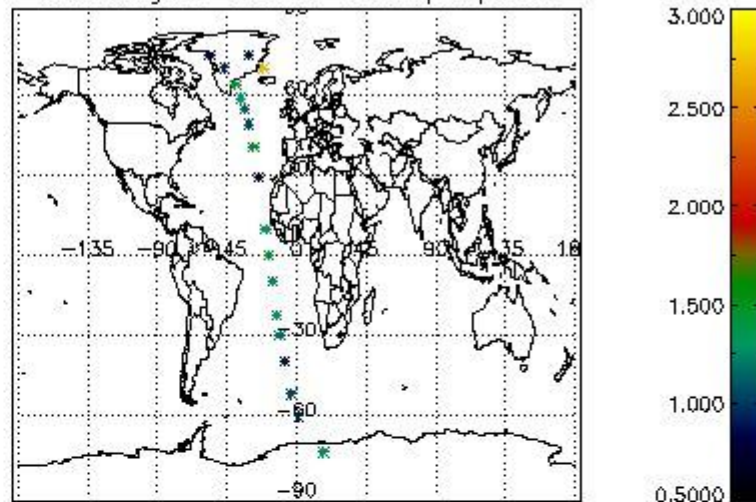
4.2 Plot quality information per product coming from level 1b processing (world map)

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

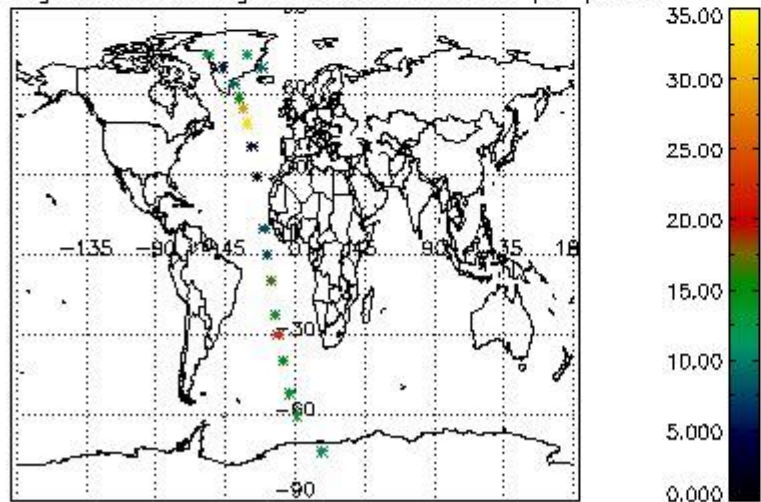
Percentage of cosmic ray hits per profile



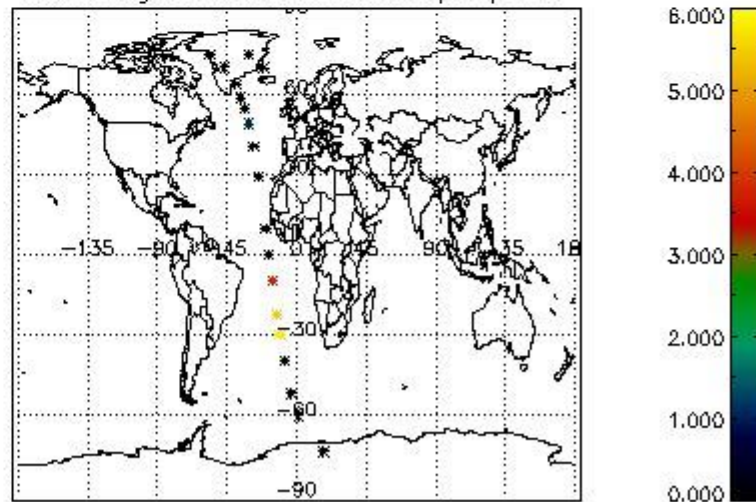
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



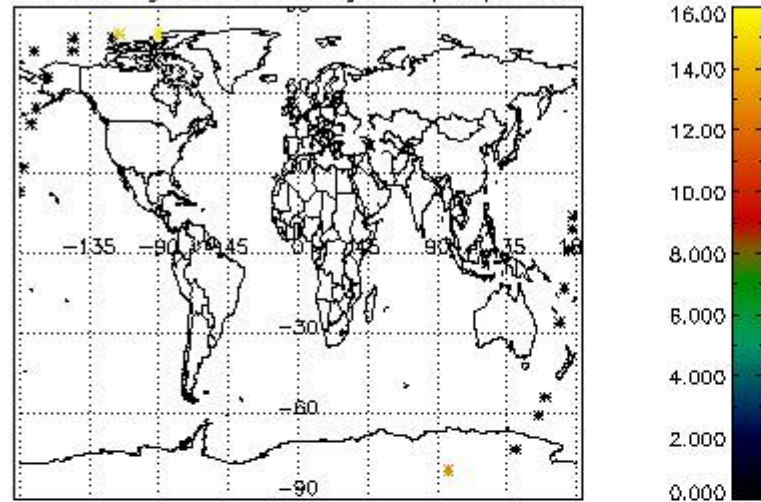
Percentage of saturation errors per profile



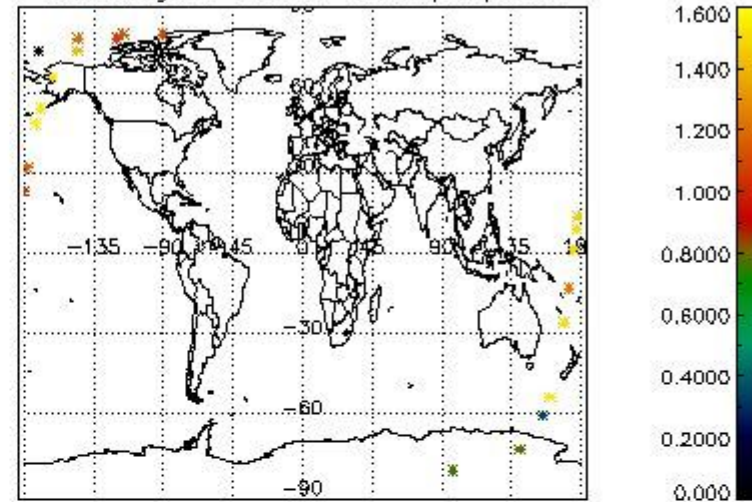
4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



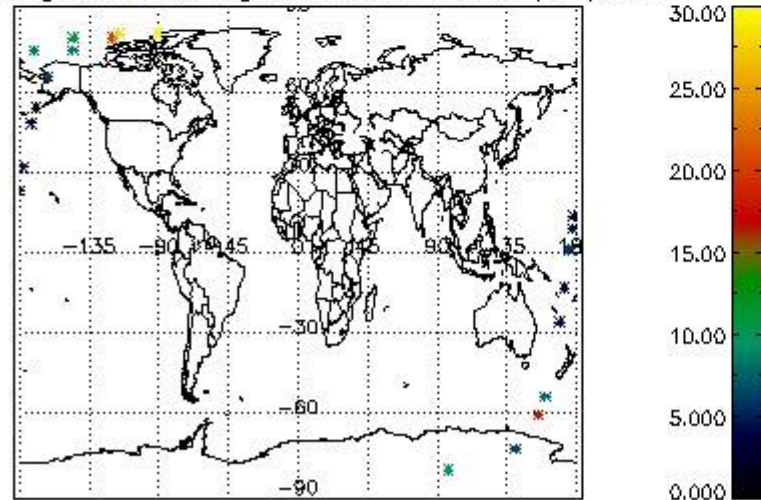
Percentage of cosmic ray hits per profile



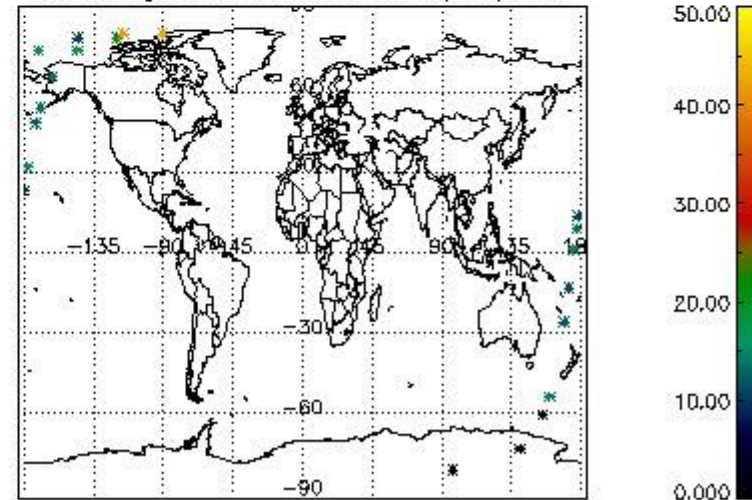
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

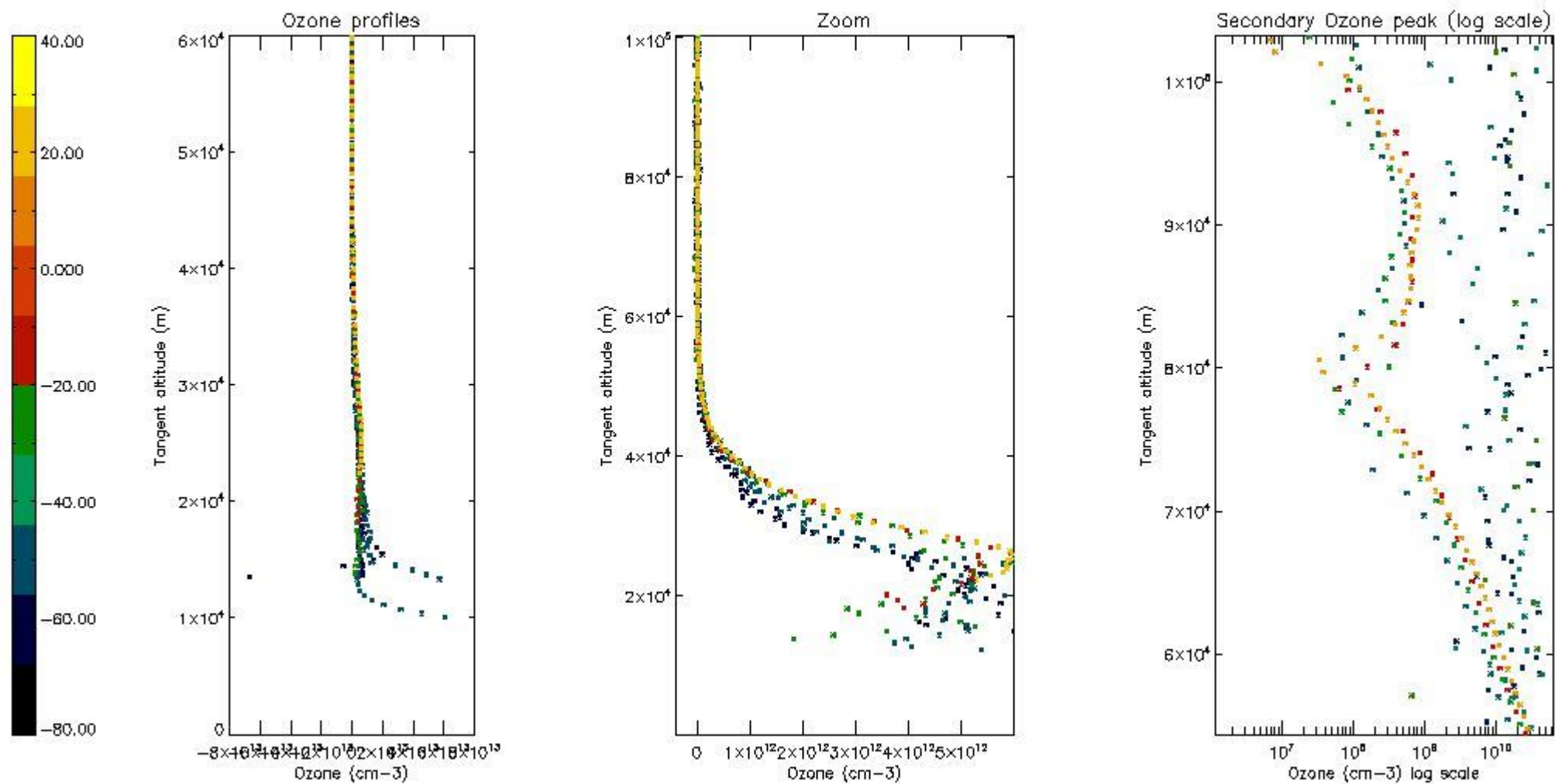
Criteria	% of total production
All STD	23
STD < 20	12



STD < 10	10
STD < 5	7

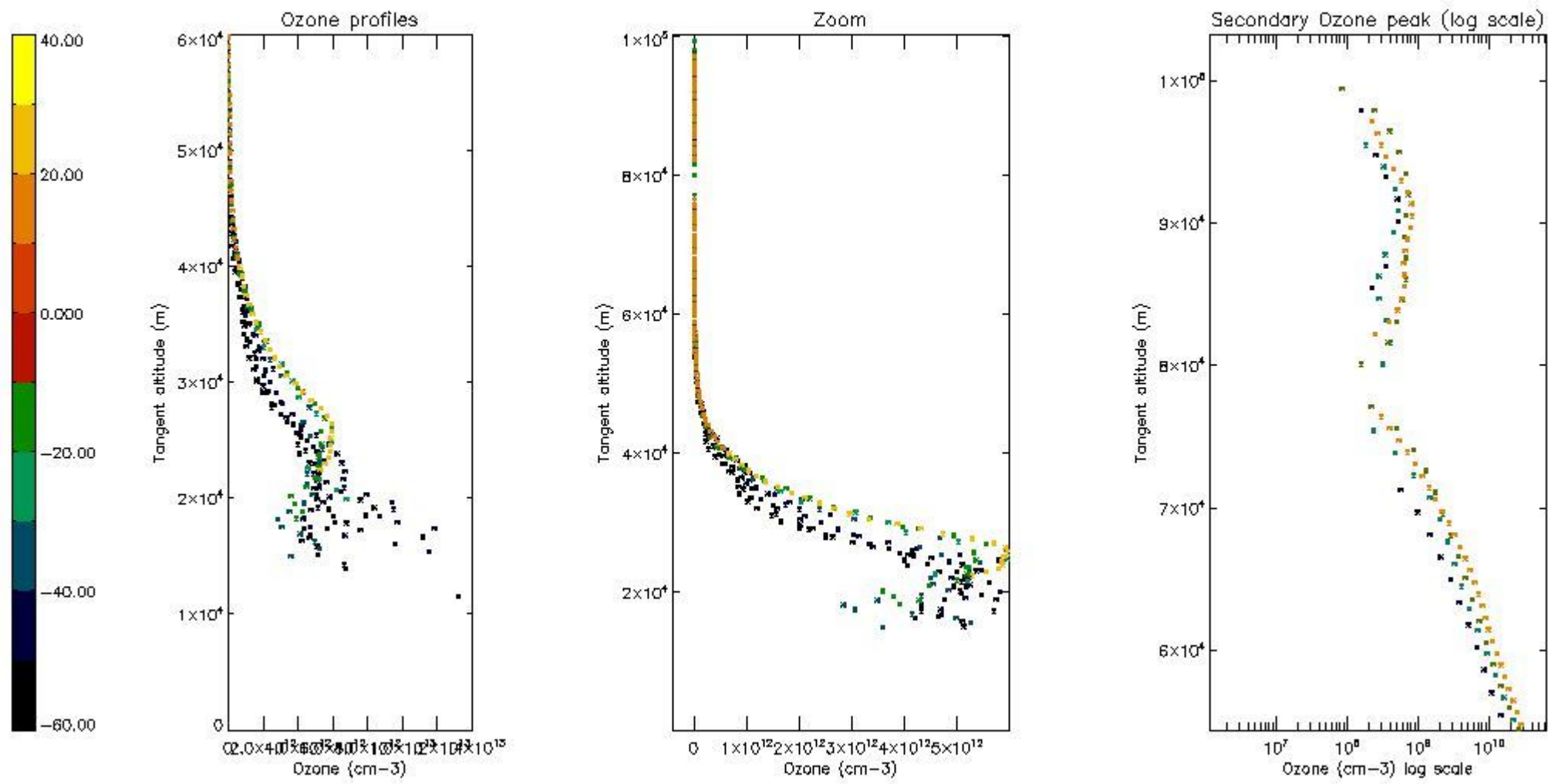
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



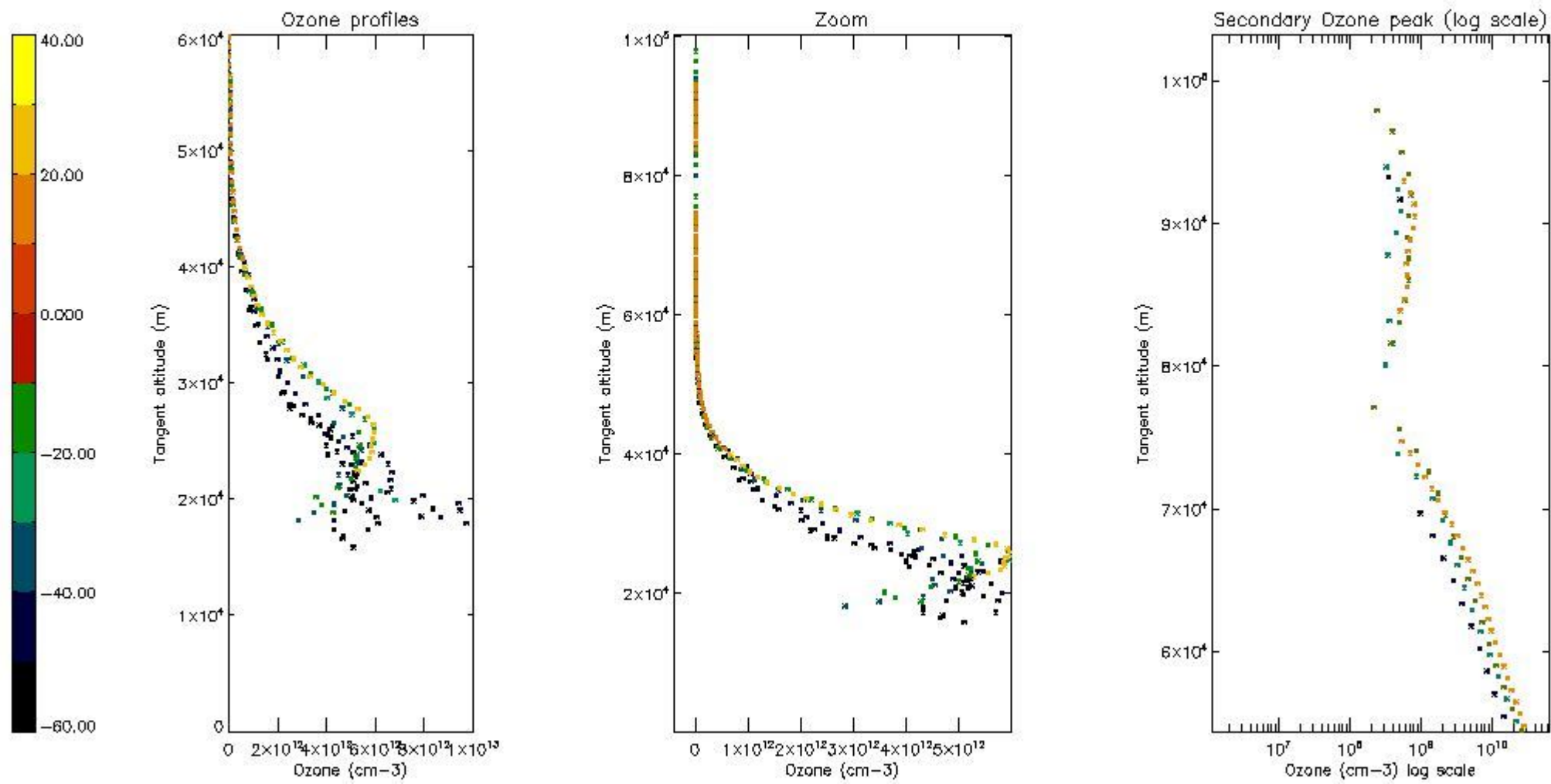
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



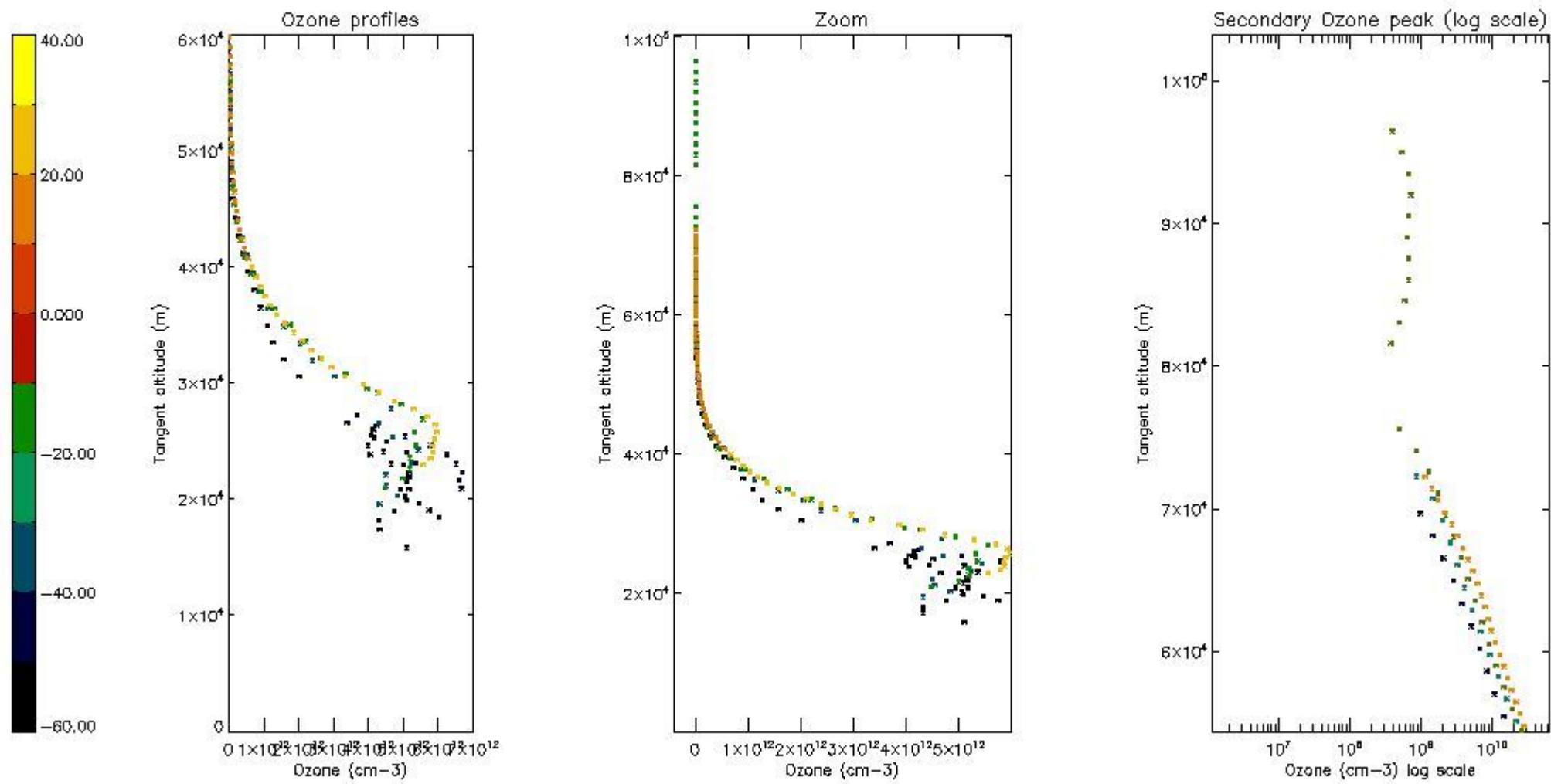
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

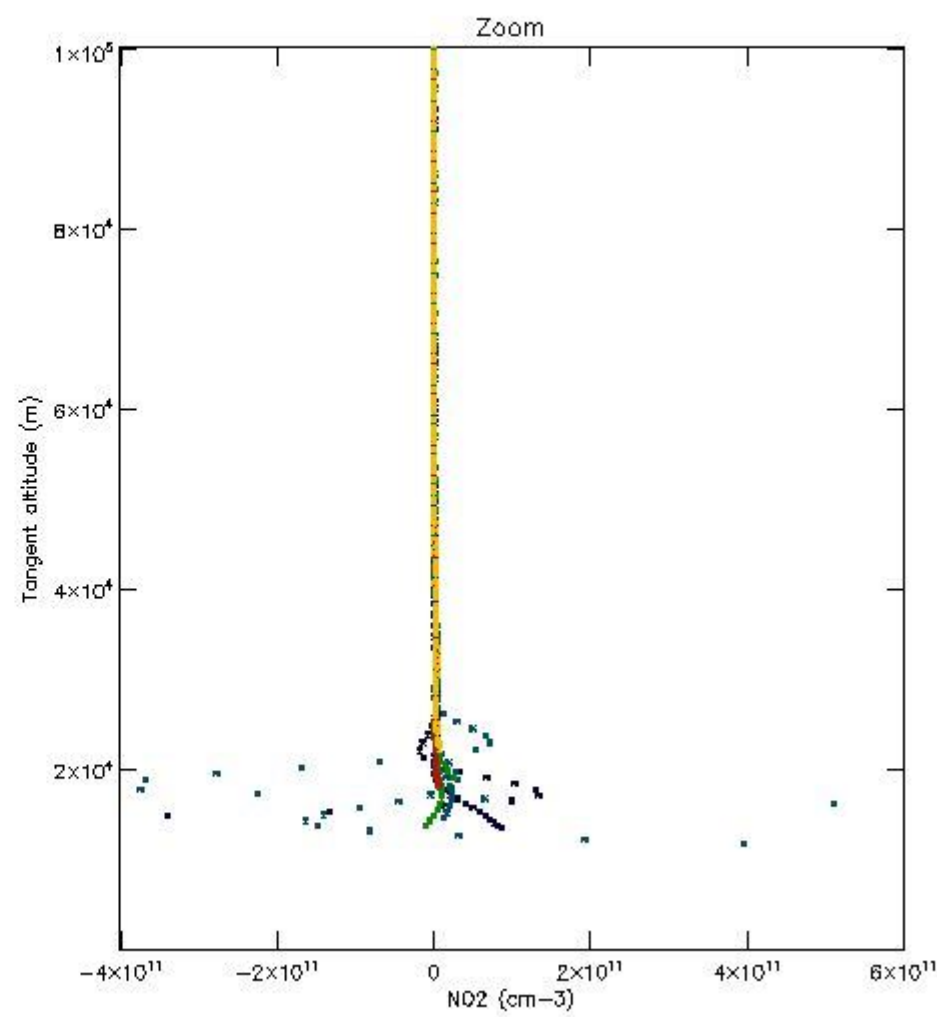
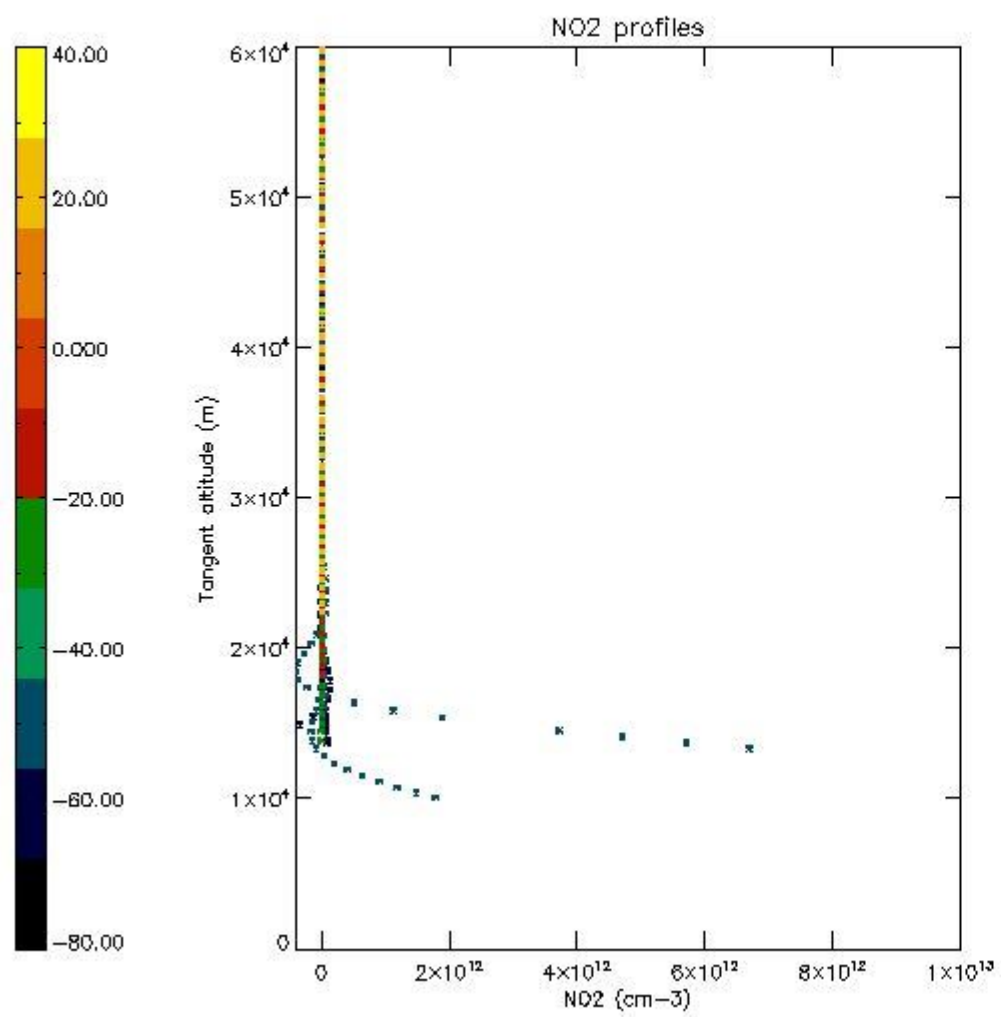
The colorbar represents the latitude.



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

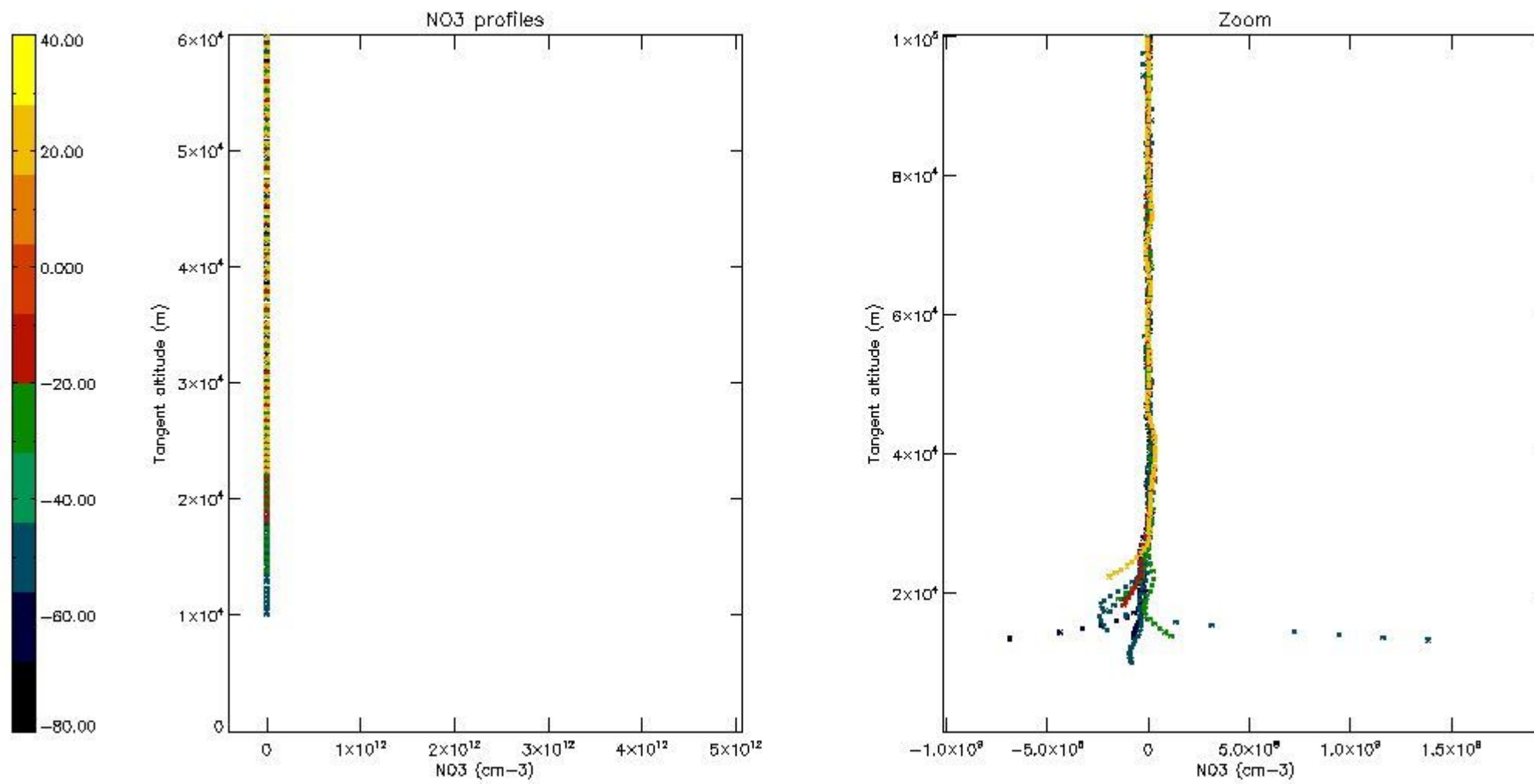
The colorbar represents the latitude.





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

The colorbar represents the latitude.



## 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_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	28-APR-2002 21:50:41
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-APR-2002 21:50:41
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-APR-2002 21:50:41

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#### [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.

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Data source version	GOMOS/6.01
Start time of products	28-04-2002 (28APR2002 00:00:00)
Stop time of products	29-04-2002 (29APR2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	39
Nb of prods with errors	0

## 2. Summary of processed GOM\_NL\_\_2P products.

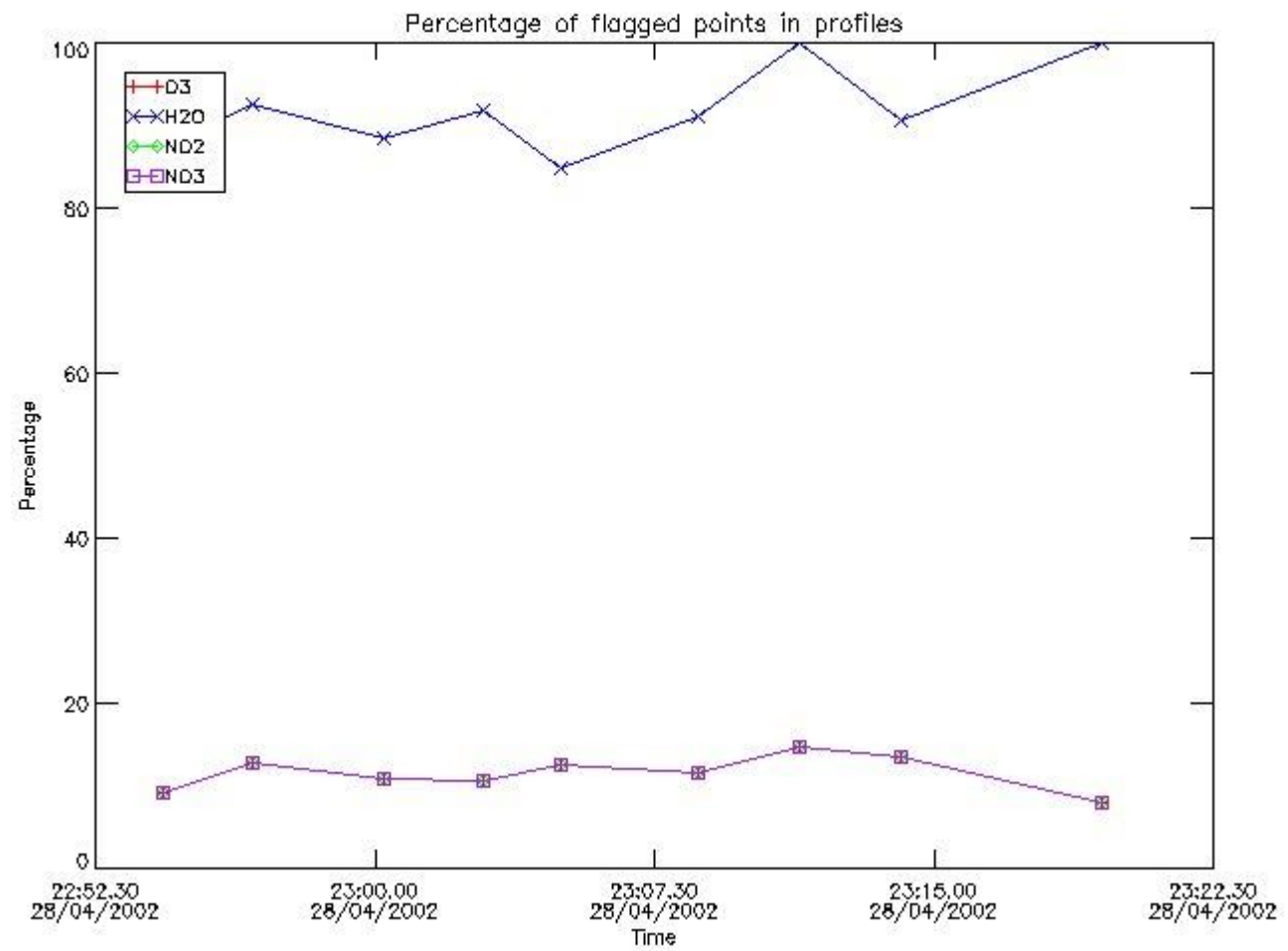
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020428_215041_000000562005_00287_00842_0847.N1	28-APR-2002 21:50:41	Twilight	56.000	136	23Tau Sco	2.8220	30000.	112	842	No
2	GOM_NL__2PRFIN20020428_215215_000000582005_00287_00842_0848.N1	28-APR-2002 21:52:15	Twilight	58.000	156	20Sig Sco	2.9030	28000.	116	842	No
3	GOM_NL__2PRFIN20020428_215556_000000462005_00287_00842_0849.N1	28-APR-2002 21:55:56	Bright	45.500	169	46Gam Hya	2.9910	4700.0	91	842	No
4	GOM_NL__2PRFIN20020428_215716_000000482005_00287_00842_0850.N1	28-APR-2002 21:57:16	Bright	47.500	122	9Alp2Lib	2.7470	9700.0	95	842	No
5	GOM_NL__2PRFIN20020428_215917_000000362005_00287_00842_0851.N1	28-APR-2002 21:59:17	Bright	35.500	15	67Alp Vir	0.97600	28000.	71	842	No
6	GOM_NL__2PRFIN20020428_220220_000000332005_00287_00842_0852.N1	28-APR-2002 22:02:20	Bright	32.500	121	29Gam Vir	2.7400	7200.0	65	842	No
7	GOM_NL__2PRFIN20020428_220542_000000332005_00287_00842_0853.N1	28-APR-2002 22:05:42	Bright	32.500	138	47Eps Vir	2.8280	4700.0	65	842	No
8	GOM_NL__2PRFIN20020428_220722_000000322005_00287_00842_0854.N1	28-APR-2002 22:07:22	Bright	32.000	62	94Bet Leo	2.1360	9700.0	64	842	No
9	GOM_NL__2PRFIN20020428_221203_000000432005_00287_00842_0855.N1	28-APR-2002 22:12:03	Bright	43.000	83		2.3780	11000.	86	842	No
10	GOM_NL__2PRFIN20020428_221428_000000502005_00287_00842_0856.N1	28-APR-2002 22:14:28	Bright	49.500	67	5Alp CrB	2.2210	11000.	99	842	No
11	GOM_NL__2PRFIN20020428_221707_000000342005_00287_00842_0857.N1	28-APR-2002 22:17:07	Bright	34.000	39	85Eta UMa	1.8540	24000.	68	842	No
12	GOM_NL__2PRFIN20020428_221829_000000332005_00287_00842_0858.N1	28-APR-2002 22:18:29	Bright	33.000	32	77Eps UMa	1.7630	11000.	66	842	No
13	GOM_NL__2PRFIN20020428_222037_000000342005_00287_00842_0859.N1	28-APR-2002 22:20:37	Bright	33.500	36	50Alp UMa	1.8000	6300.0	67	842	No
14	GOM_NL__2PRFIN20020428_222440_000000412005_00287_00842_0860.N1	28-APR-2002 22:24:40	Bright	40.500	119	14Eta Dra	2.7270	4700.0	81	842	No
15	GOM_NL__2PRFIN20020428_222813_000000332005_00287_00842_0861.N1	28-APR-2002 22:28:13	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	842	No
16	GOM_NL__2PRFIN20020428_223609_000000332005_00287_00842_0862.N1	28-APR-2002 22:36:09	Bright	32.500	76	27Gam Cas	2.3000	30000.	65	842	No
17	GOM_NL__2PRFIN20020428_223807_000001492005_00287_00842_0863.N1	28-APR-2002 22:38:07	Bright	149.00	5	3Alp Lyr	0.033000	11000.	298	842	No
18	GOM_NL__2PRFIN20020428_224158_000000642005_00287_00842_0864.N1	28-APR-2002 22:41:58	Bright	63.500	66	37Gam Cyg	2.2080	5900.0	127	842	No
19	GOM_NL__2PRFIN20020428_224522_000000662005_00287_00842_0865.N1	28-APR-2002 22:45:22	Twilight	66.000	92	53Eps Cyg	2.5000	4500.0	132	842	No
20	GOM_NL__2PRFIN20020428_225013_000000392005_00287_00842_0866.N1	28-APR-2002 22:50:13	Twilight	39.000	90	54Alp Peg	2.4870	11000.	78	842	No
21	GOM_NL__2PRFIN20020428_225417_000000552005_00287_00842_0867.N1	28-APR-2002 22:54:17	Dark	55.000	61	8Eps Peg	2.1000	3900.0	110	842	No
22	GOM_NL__2PRFIN20020428_225643_000000482005_00287_00842_0868.N1	28-APR-2002 22:56:43	Dark	48.000	162	34Alp Aqr	2.9440	5350.0	96	842	No
23	GOM_NL__2PRFIN20020428_230014_000000572005_00287_00842_0869.N1	28-APR-2002 23:00:14	Dark	56.500	154	22Bet Aqr	2.8990	5700.0	113	842	No
24	GOM_NL__2PRFIN20020428_230256_000000432005_00287_00842_0870.N1	28-APR-2002 23:02:56	Dark	43.000	18	24Alp PsA	1.1660	9700.0	86	842	No
25	GOM_NL__2PRFIN20020428_230500_000000372005_00287_00842_0871.N1	28-APR-2002 23:05:00	Dark	36.500	84	Alp Phe	2.3970	4500.0	73	842	No
26	GOM_NL__2PRFIN20020428_230839_000000402005_00287_00842_0872.N1	28-APR-2002 23:08:39	Dark	40.000	31	Alp Gru	1.7340	15200.	80	842	No
27	GOM_NL__2PRFIN20020428_231123_000000352005_00288_00843_0847.N1	28-APR-2002 23:11:23	Dark	34.500	148	Alp Tuc	2.8780	4100.0	69	843	No
28	GOM_NL__2PRFIN20020428_231405_000000382005_00288_00843_0848.N1	28-APR-2002 23:14:05	Dark	38.000	45	Alp Pav	1.9400	26000.	76	843	No
29	GOM_NL__2PRFIN20020428_231930_000000642005_00288_00843_0849.N1	28-APR-2002 23:19:30	Dark	63.500	103	38Zet Sgr	2.6000	9700.0	127	843	No
30	GOM_NL__2PRFIN20020428_232239_000000332005_00288_00843_0850.N1	28-APR-2002 23:22:39	Straylight	33.000	145	Gam TrA	2.8720	10600.	66	843	No
31	GOM_NL__2PRFIN20020428_232508_000000482005_00288_00843_0851.N1	28-APR-2002 23:25:08	Straylight	48.000	4	Alp1Cen	-0.010000	5800.0	96	843	No
32	GOM_NL__2PRFIN20020428_232646_000000452005_00288_00843_0852.N1	28-APR-2002 23:26:46	Straylight	45.000	20	Bet Cru	1.2530	30000.	90	843	No
33	GOM_NL__2PRFIN20020428_232756_000000392005_00288_00843_0853.N1	28-APR-2002 23:27:56	Straylight	38.500	77	Eps Cen	2.3030	28000.	77	843	No
34	GOM_NL__2PRFIN20020428_232922_000000352005_00288_00843_0854.N1	28-APR-2002 23:29:22	Straylight	35.000	95	Zet Cen	2.5450	26000.	70	843	No
35	GOM_NL__2PRFIN20020428_233117_000000542005_00288_00843_0855.N1	28-APR-2002 23:31:17	Twilight	53.500	136	23Tau Sco	2.8220	30000.	107	843	No
36	GOM_NL__2PRFIN20020428_233252_000000592005_00288_00843_0856.N1	28-APR-2002 23:32:52	Twilight	58.500	156	20Sig Sco	2.9030	28000.	117	843	No
37	GOM_NL__2PRFIN20020428_233631_000000452005_00288_00843_0857.N1	28-APR-2002 23:36:31	Bright	44.500	169	46Gam Hya	2.9910	4700.0	89	843	No
38	GOM_NL__2PRFIN20020428_233752_000000422005_00288_00843_0858.N1	28-APR-2002 23:37:52	Bright	42.000	122	9Alp2Lib	2.7470	9700.0	84	843	No
39	GOM_NL__2PRFIN20020428_233953_000000352005_00288_00843_0859.N1	28-APR-2002 23:39:53	Bright	34.500	15	67Alp Vir	0.97600	28000.	69	843	No

## 3. Quality information per product



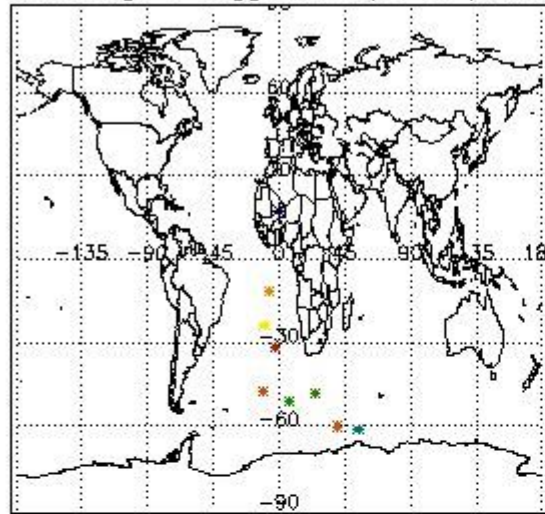
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

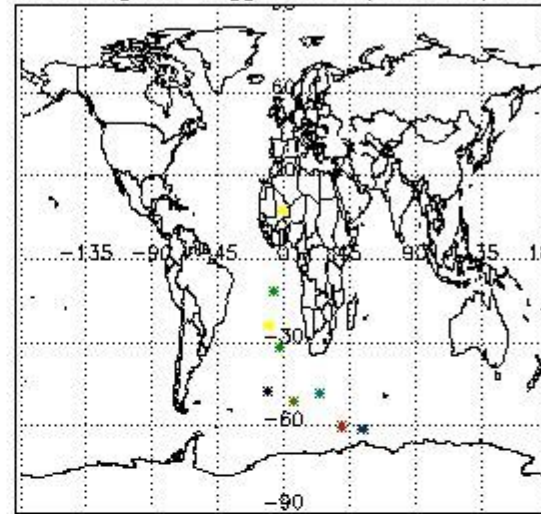


### 3.2 Plot quality information per product (world map)

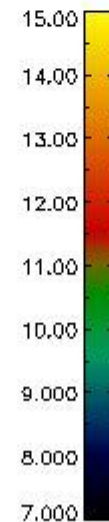
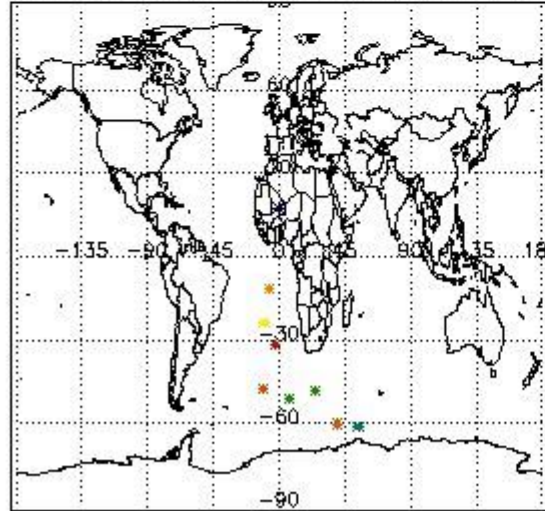
Percentage of flagged data per O3 profile



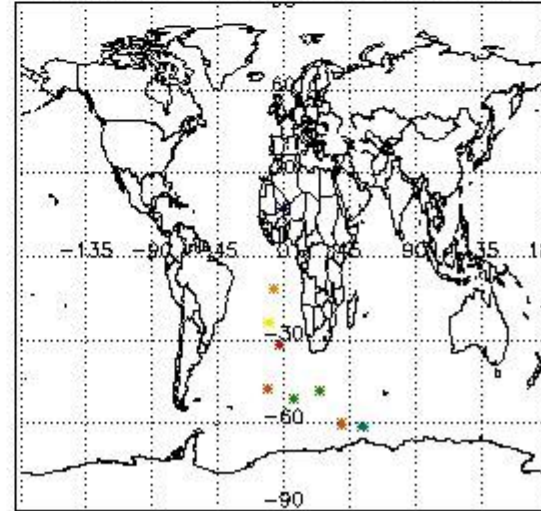
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

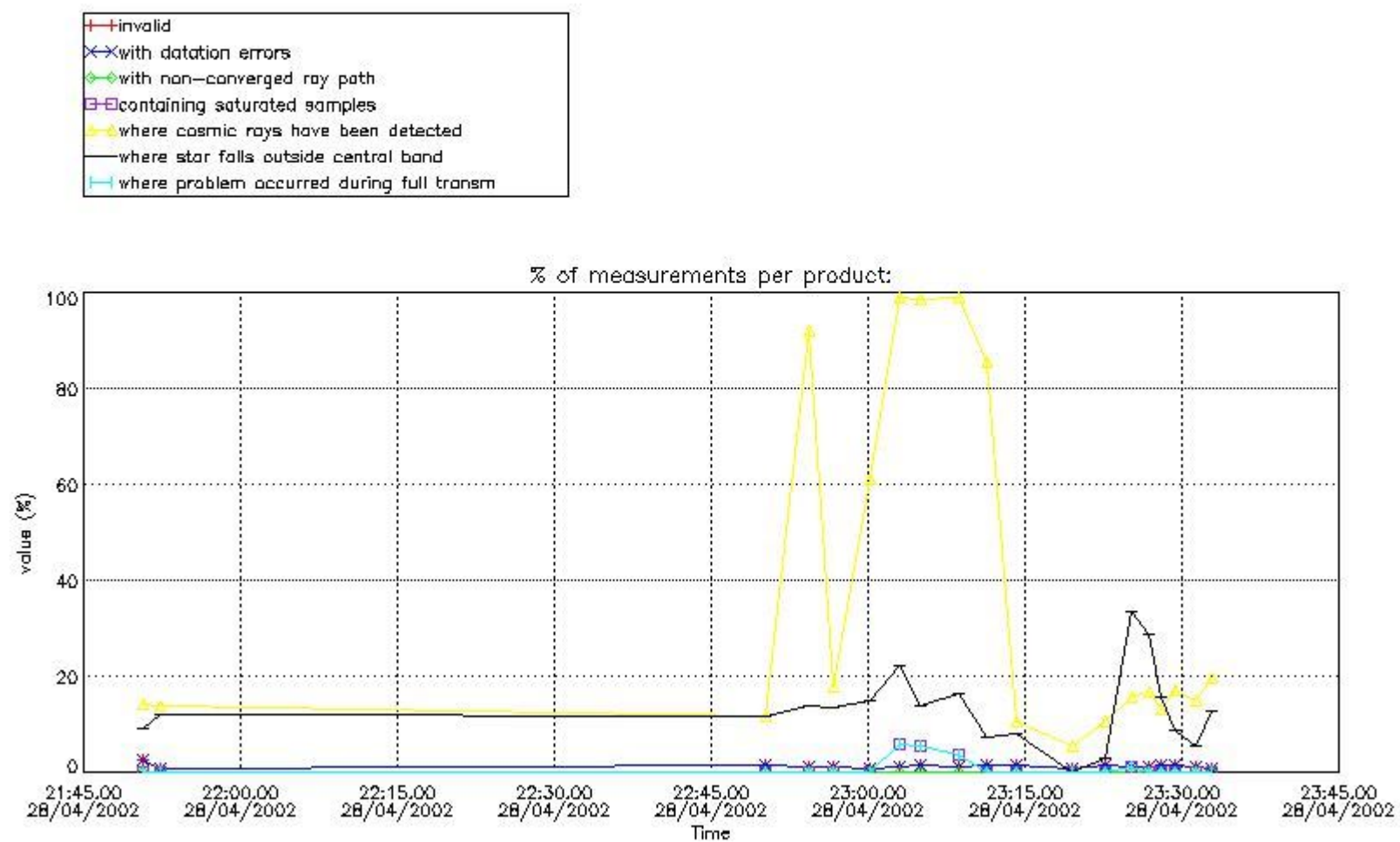


#### 4. Level 1 quality information per product

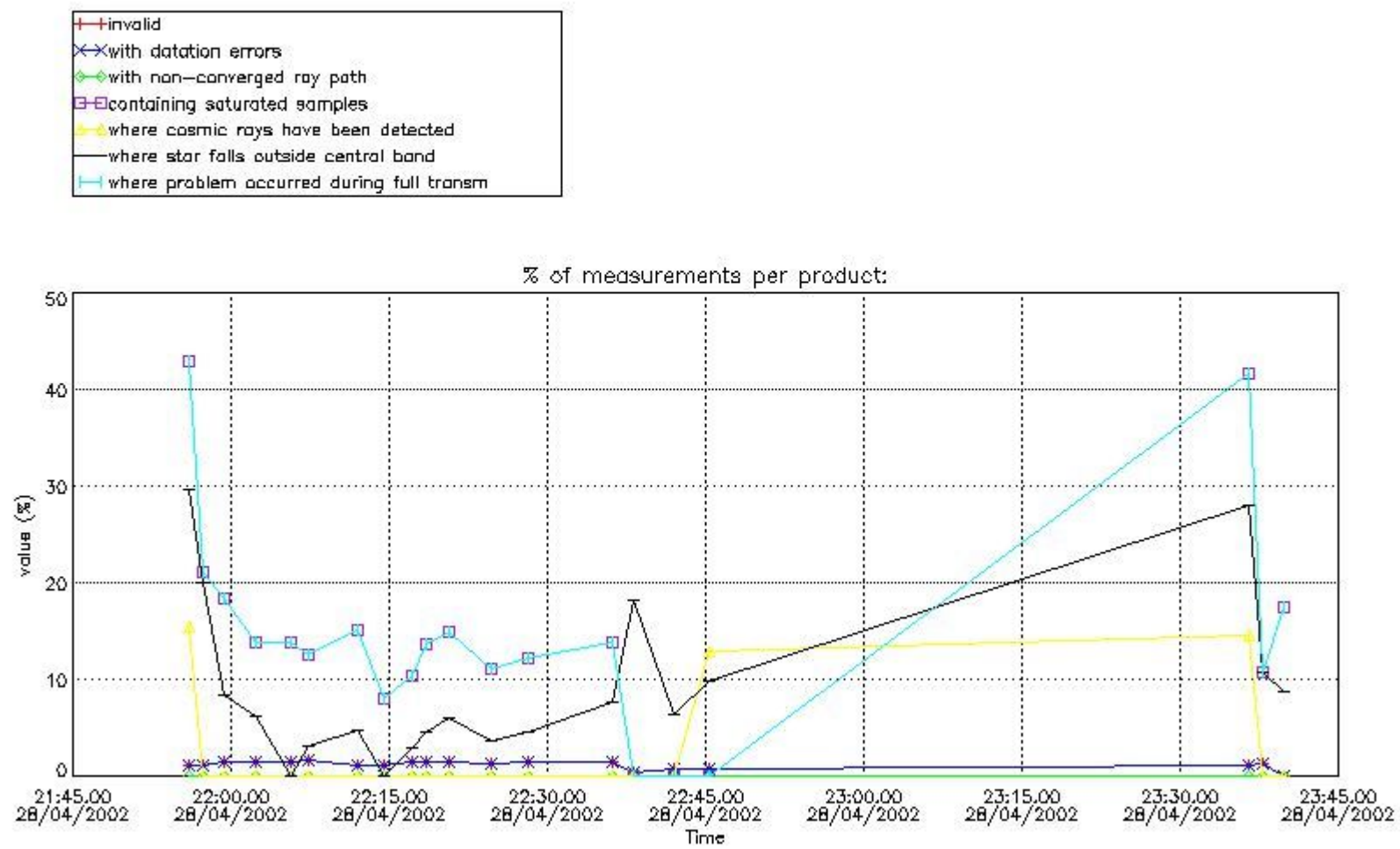
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

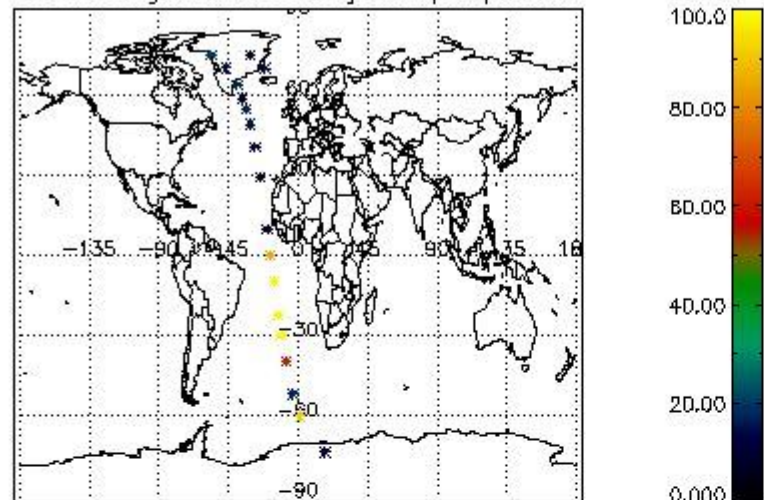


4.2 Plot quality information per product coming from level 1b processing (world map)

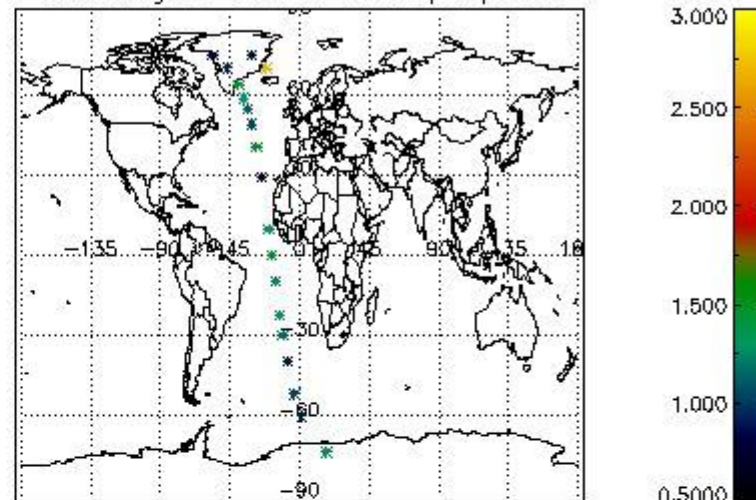
4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



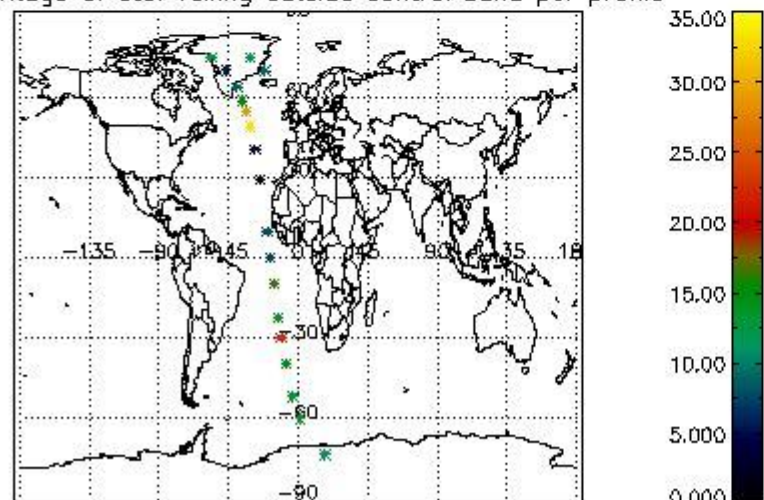
Percentage of cosmic ray hits per profile



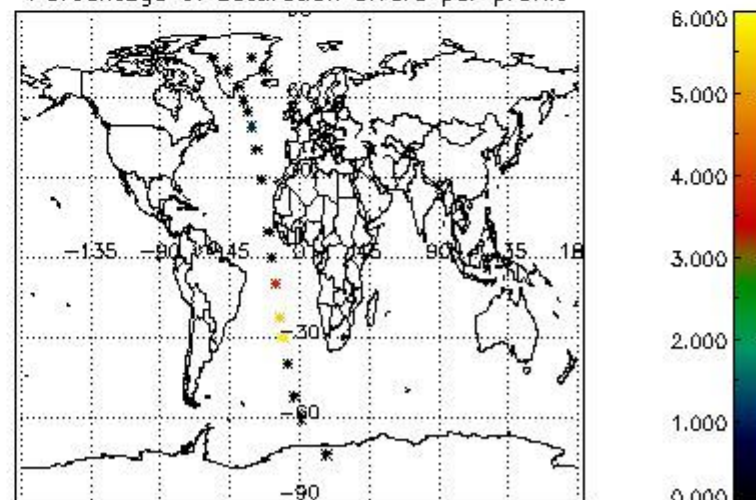
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

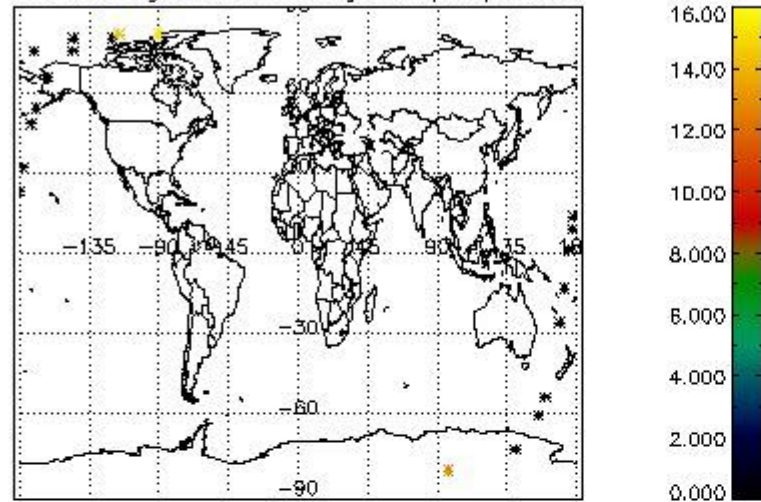


Percentage of saturation errors per profile

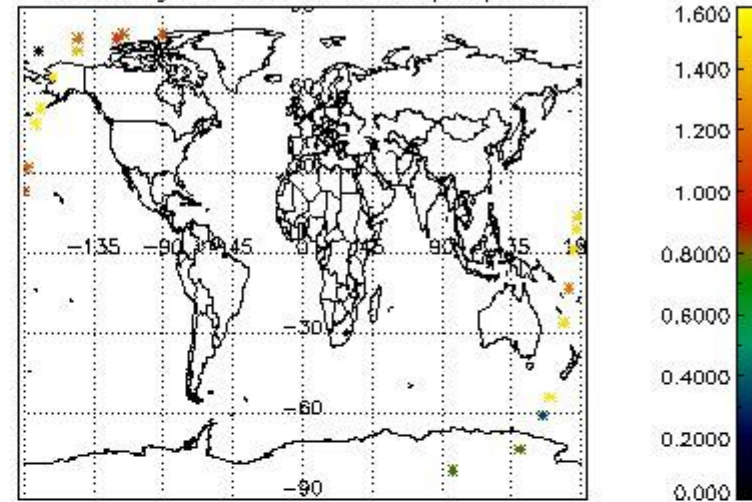


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

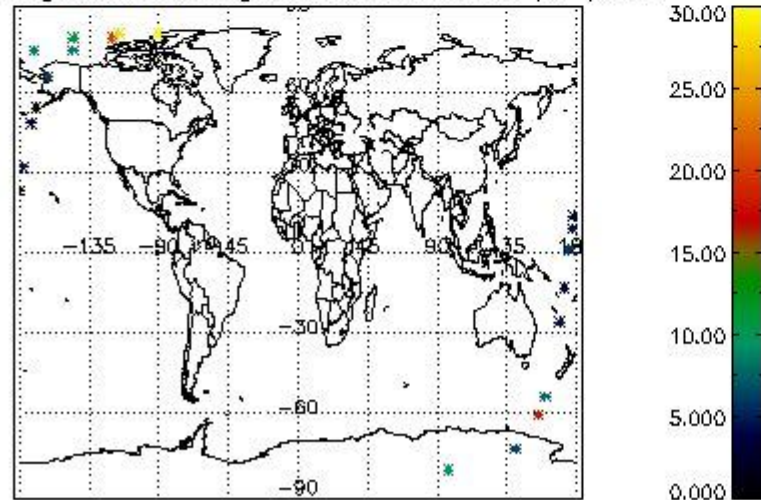
Percentage of cosmic ray hits per profile



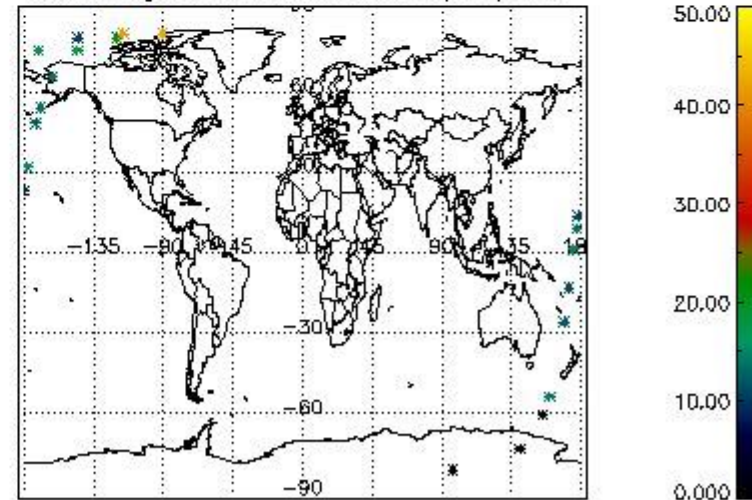
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

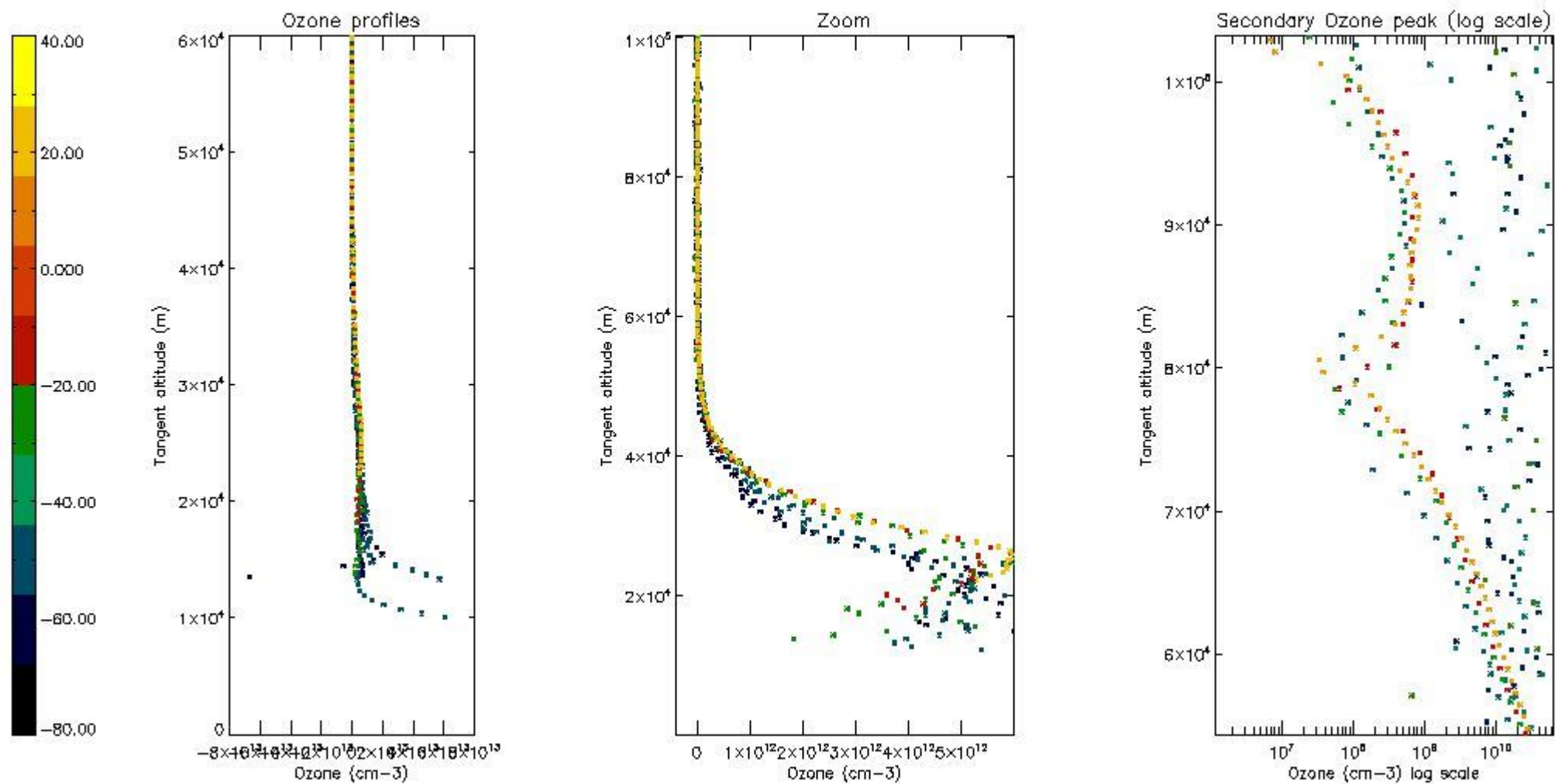
Criteria	% of total production
All STD	23
STD < 20	12



STD < 10	10
STD < 5	7

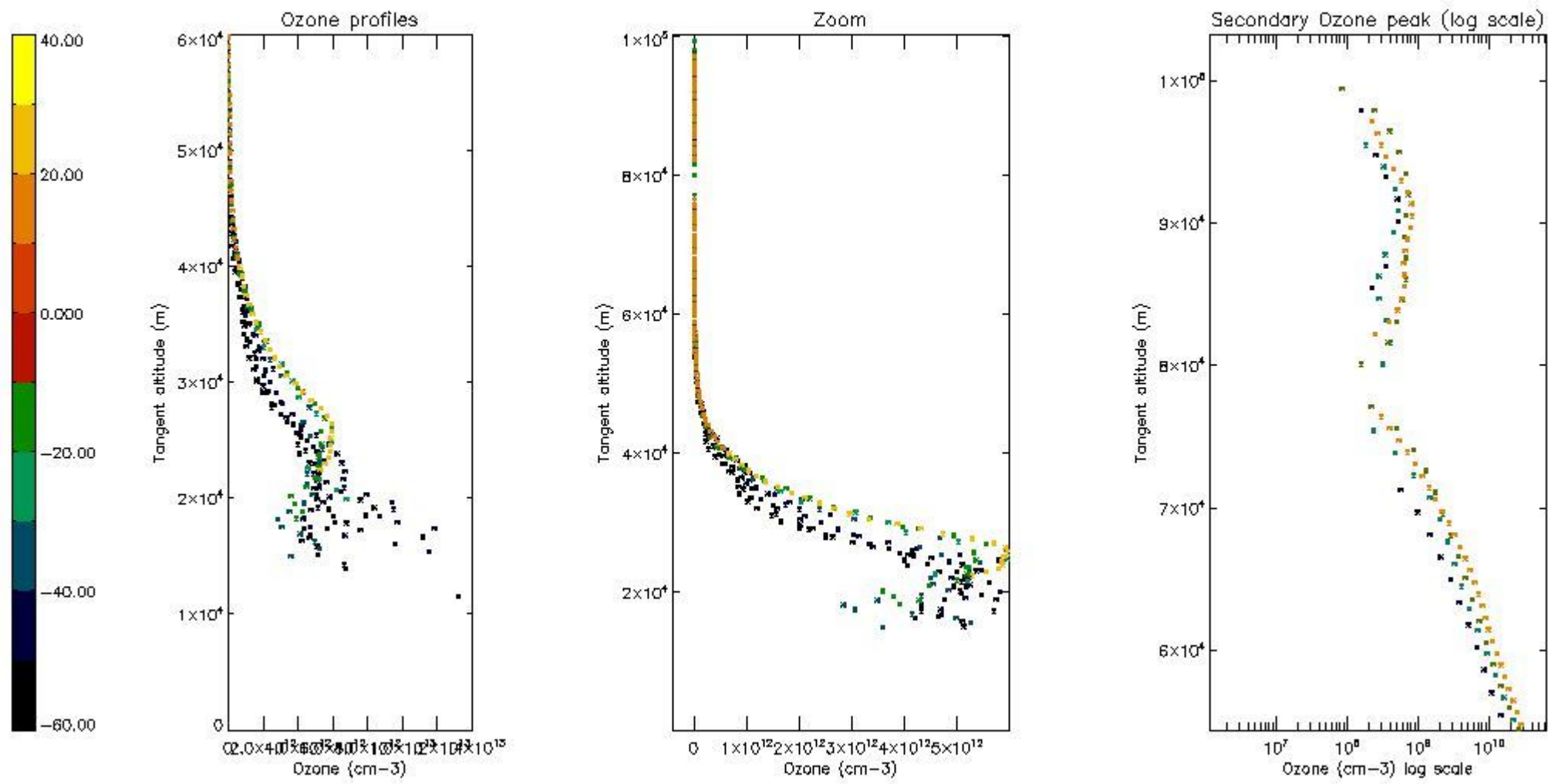
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



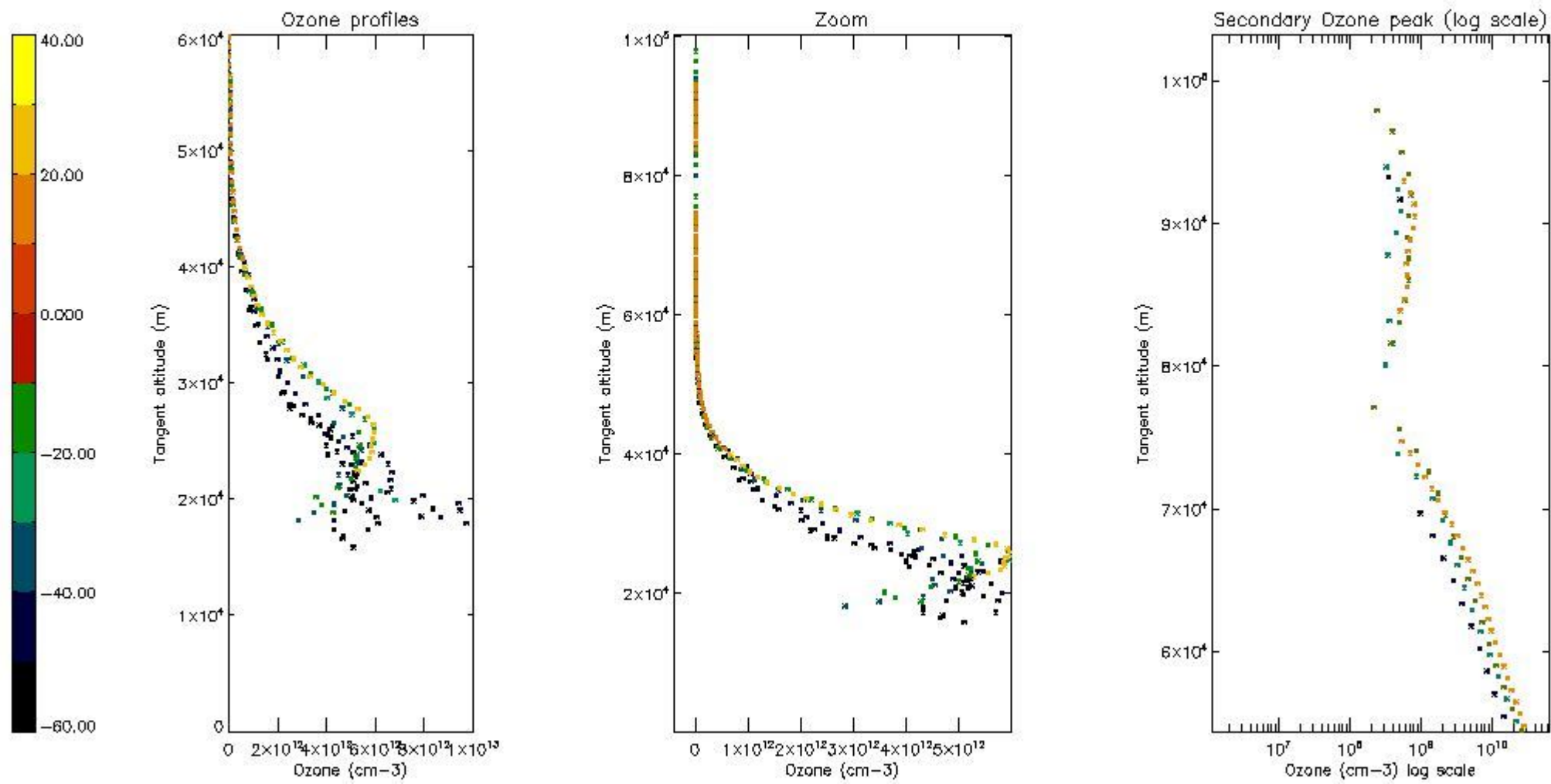
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

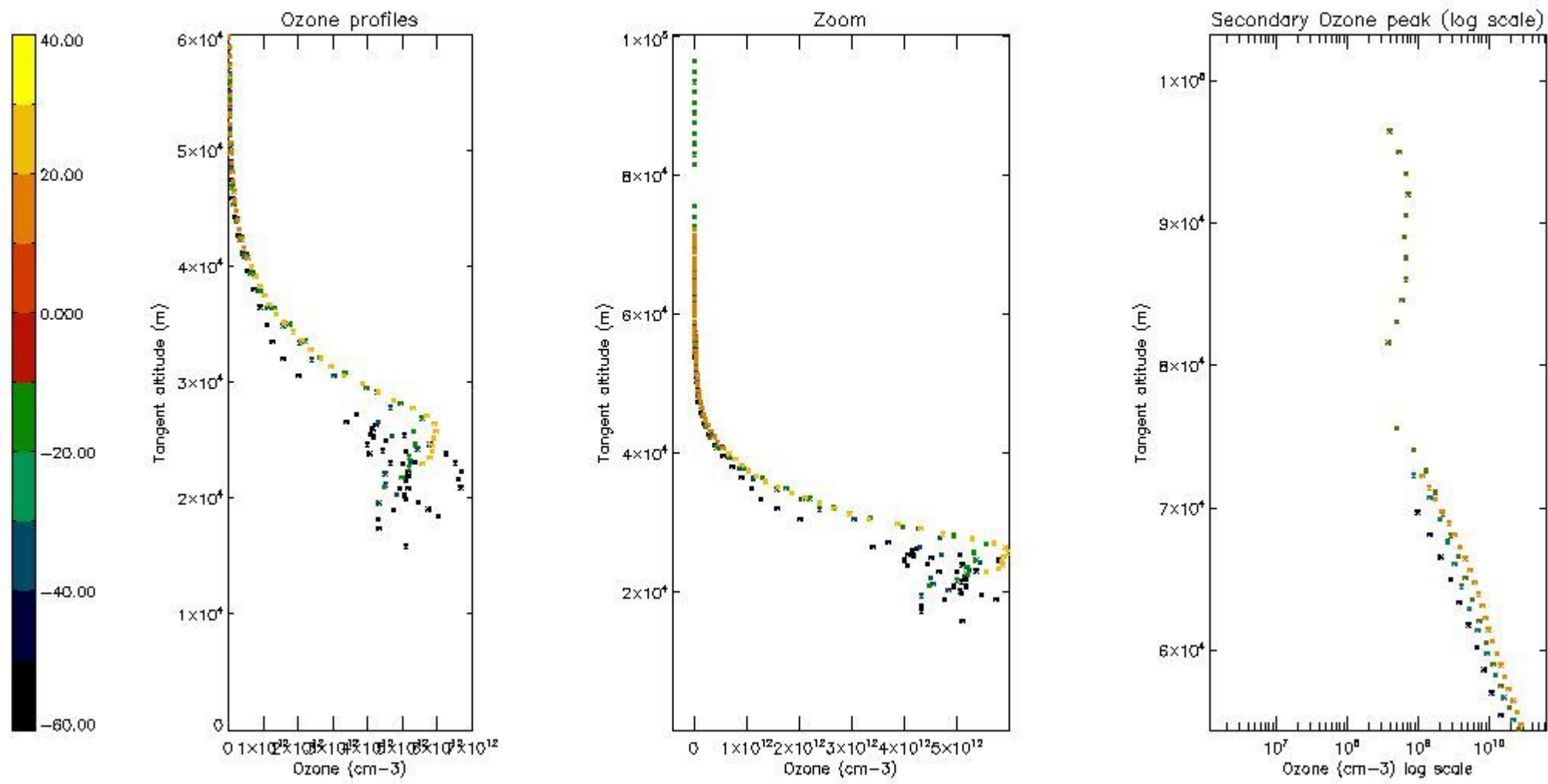
The colorbar represents the latitude.



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

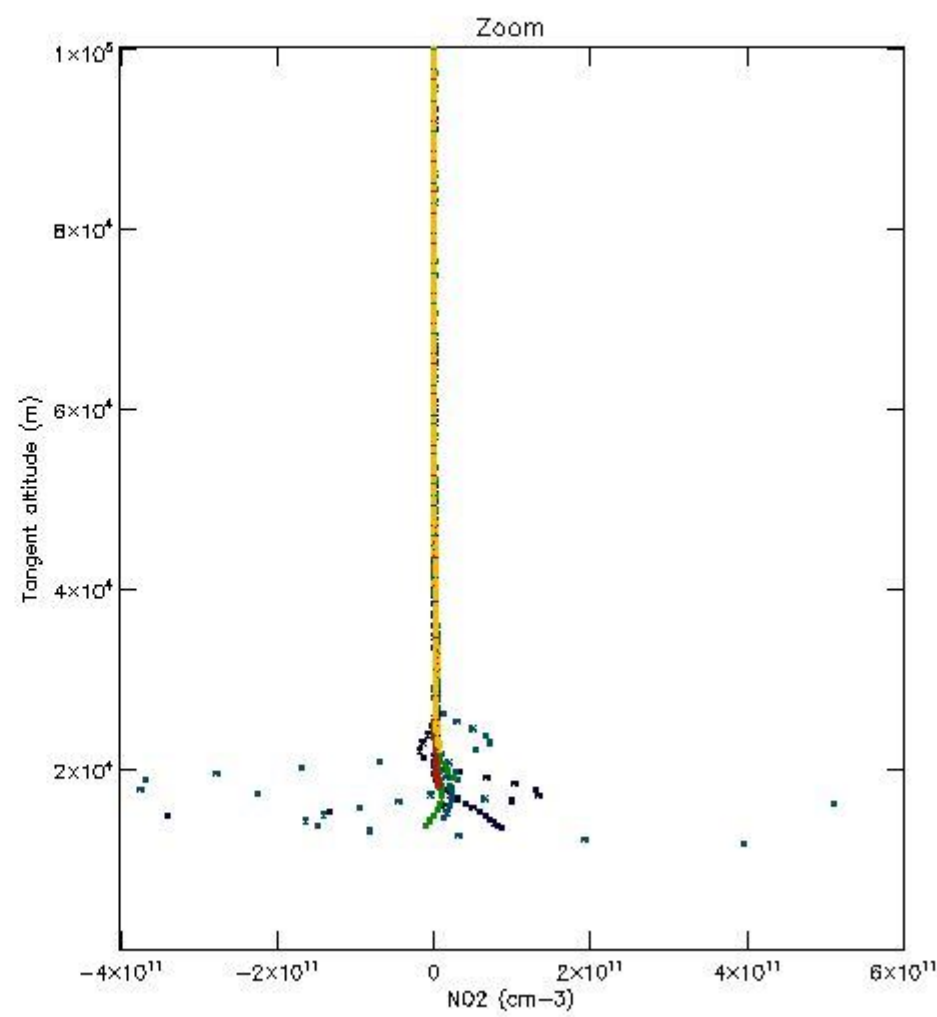
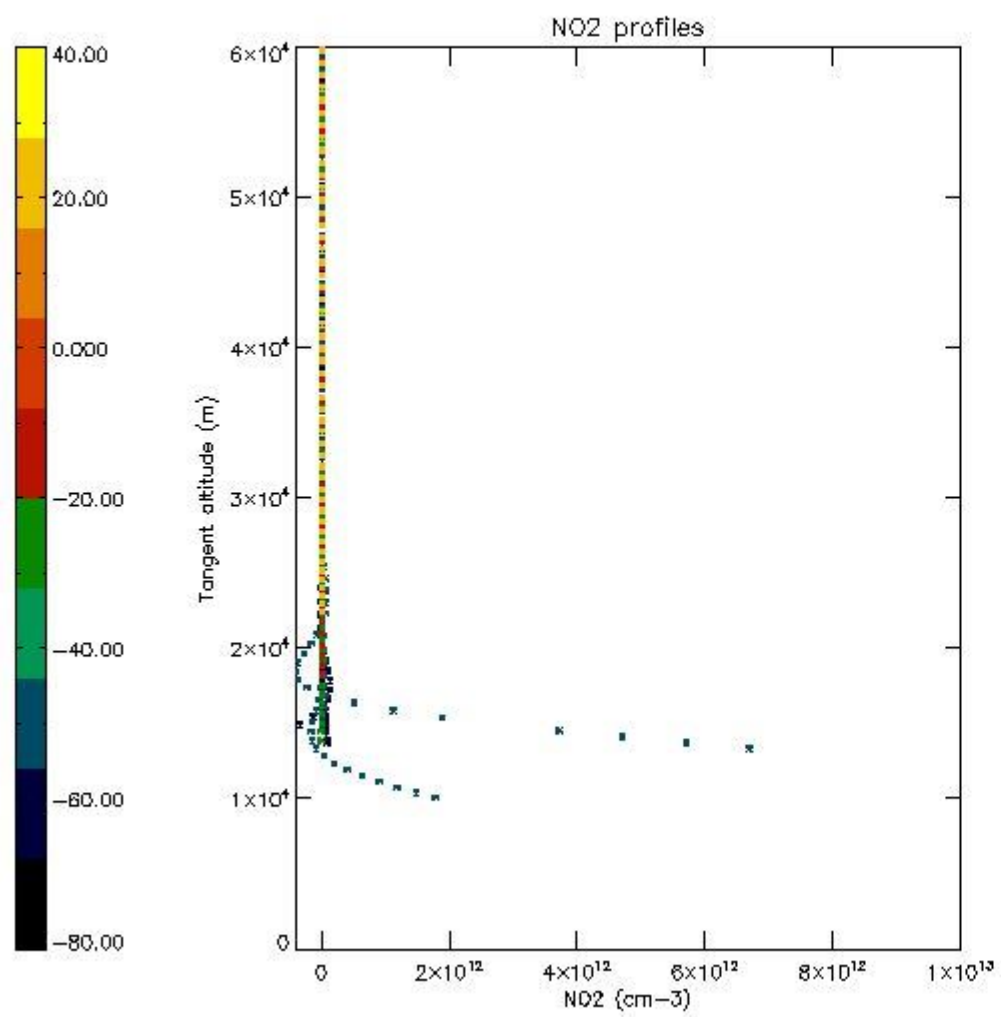
The colorbar represents the latitude.





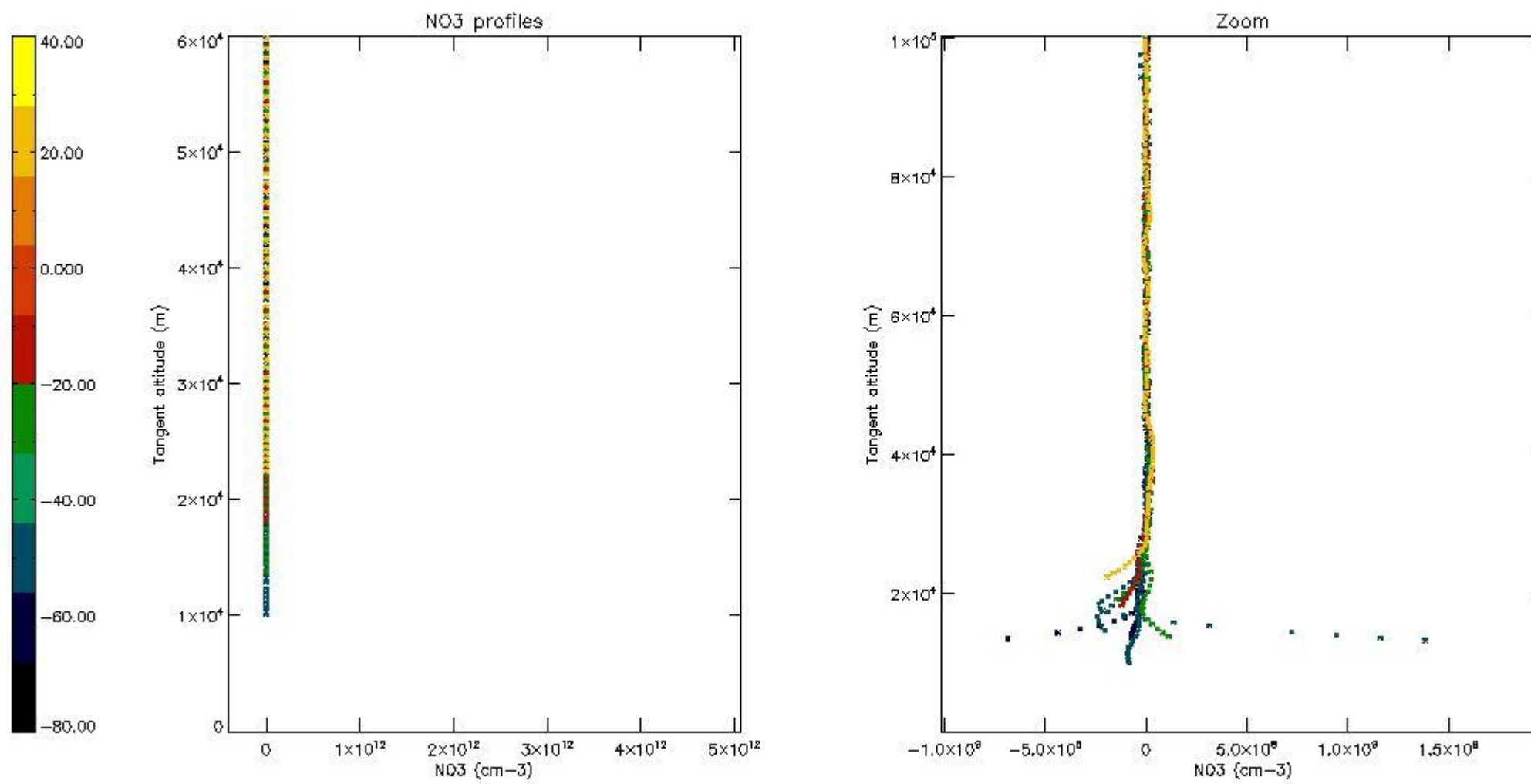
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

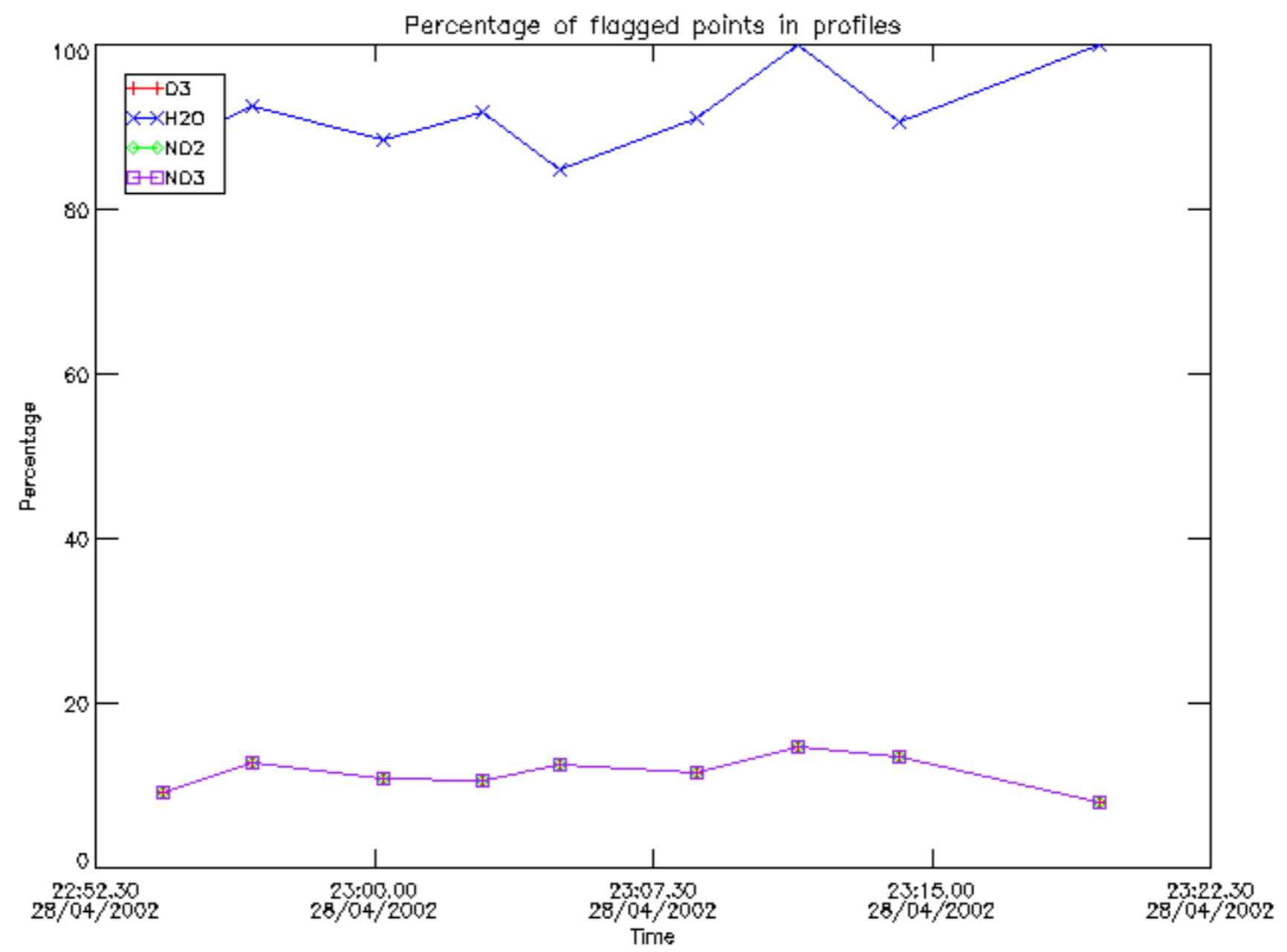
The colorbar represents the latitude.



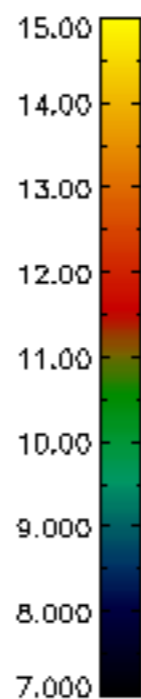
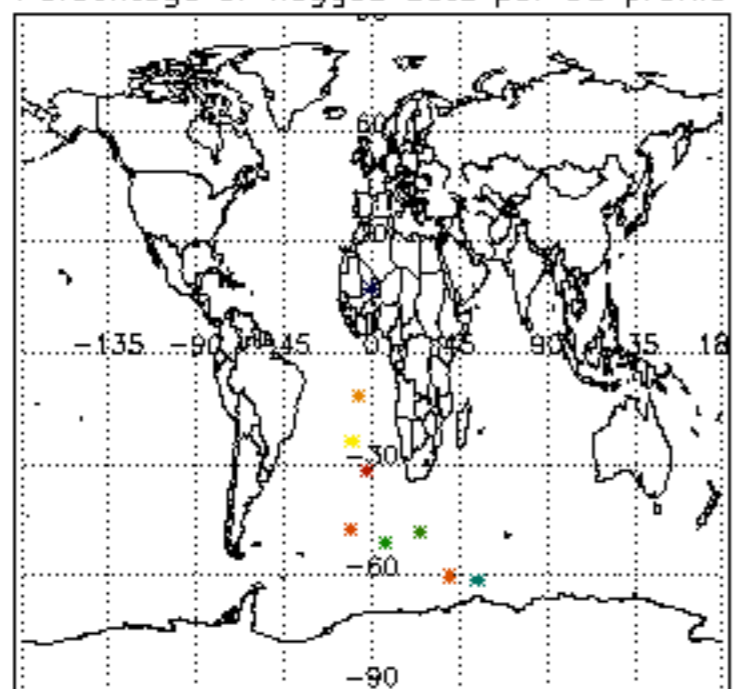
## 6. Auxiliary Data Files used for the production reported in section 2

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.

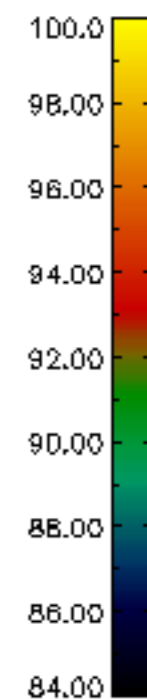
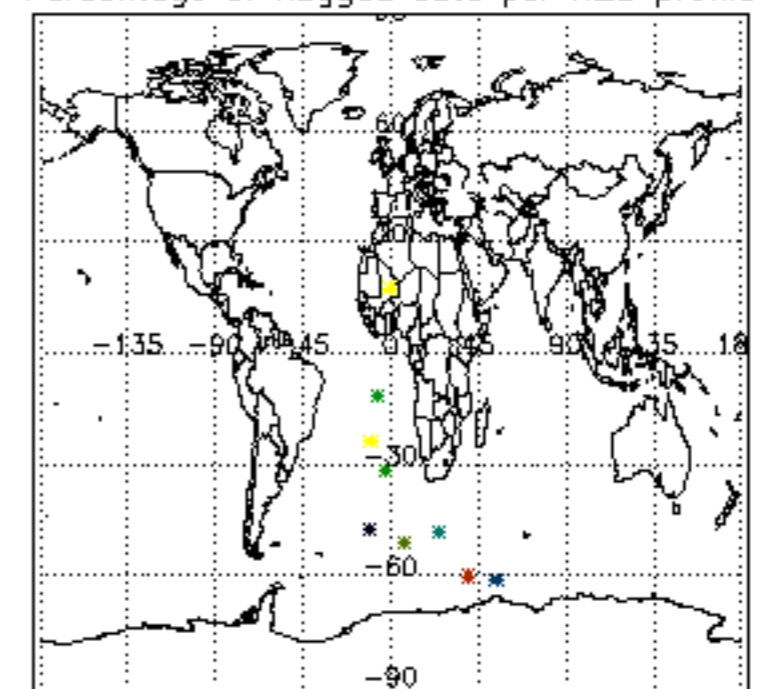
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	28-APR-2002 21:50:41
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-APR-2002 21:50:41
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-APR-2002 21:50:41



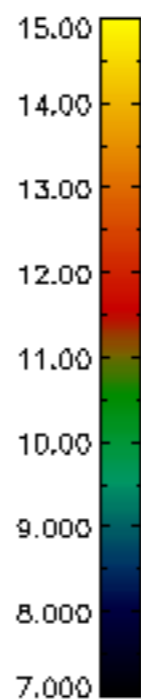
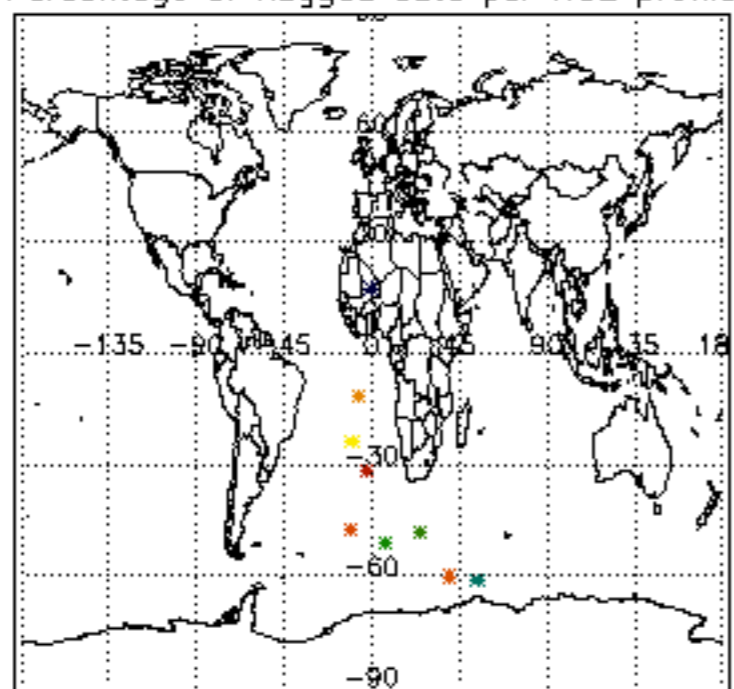
Percentage of flagged data per D3 profile



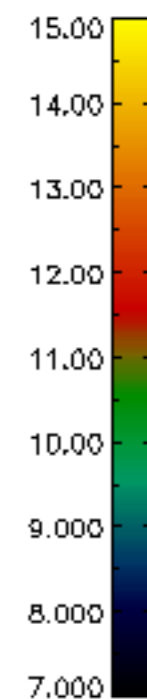
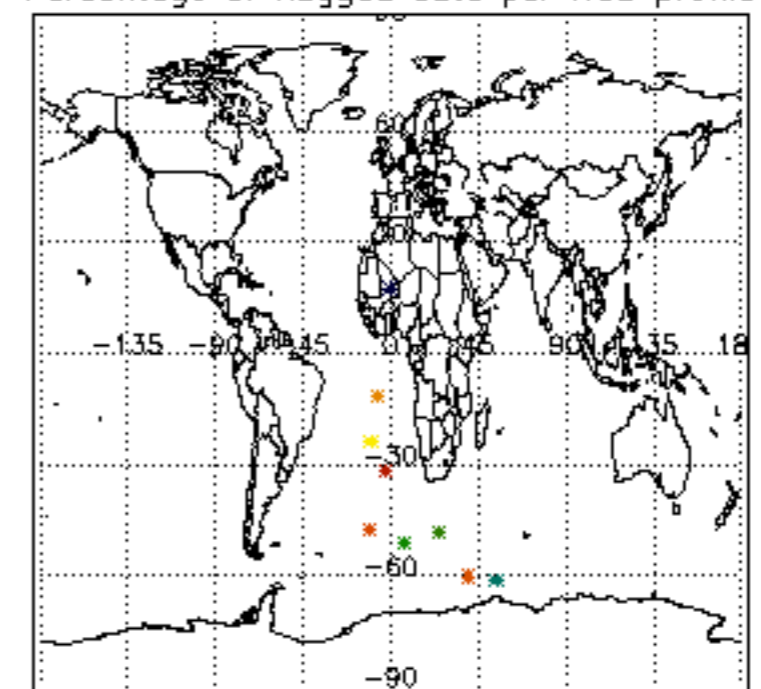
Percentage of flagged data per H2O profile



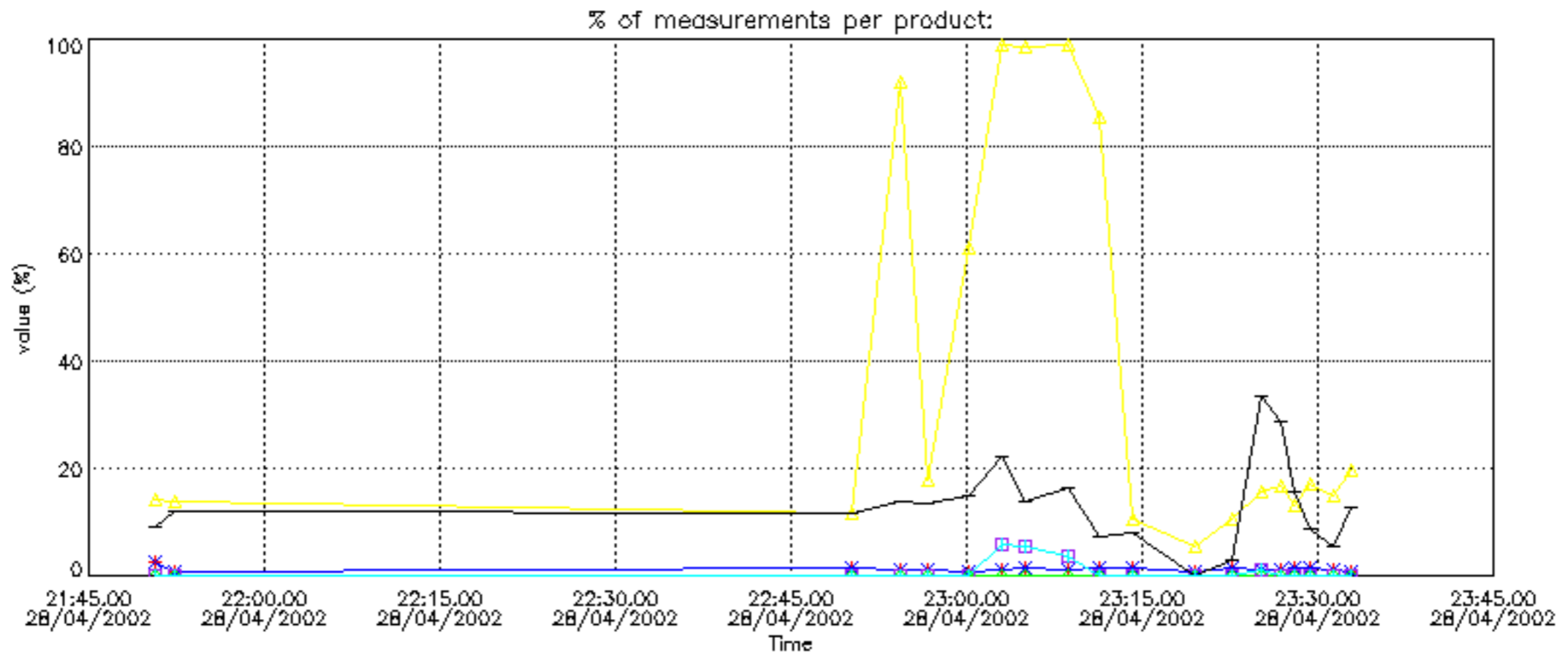
Percentage of flagged data per NO2 profile

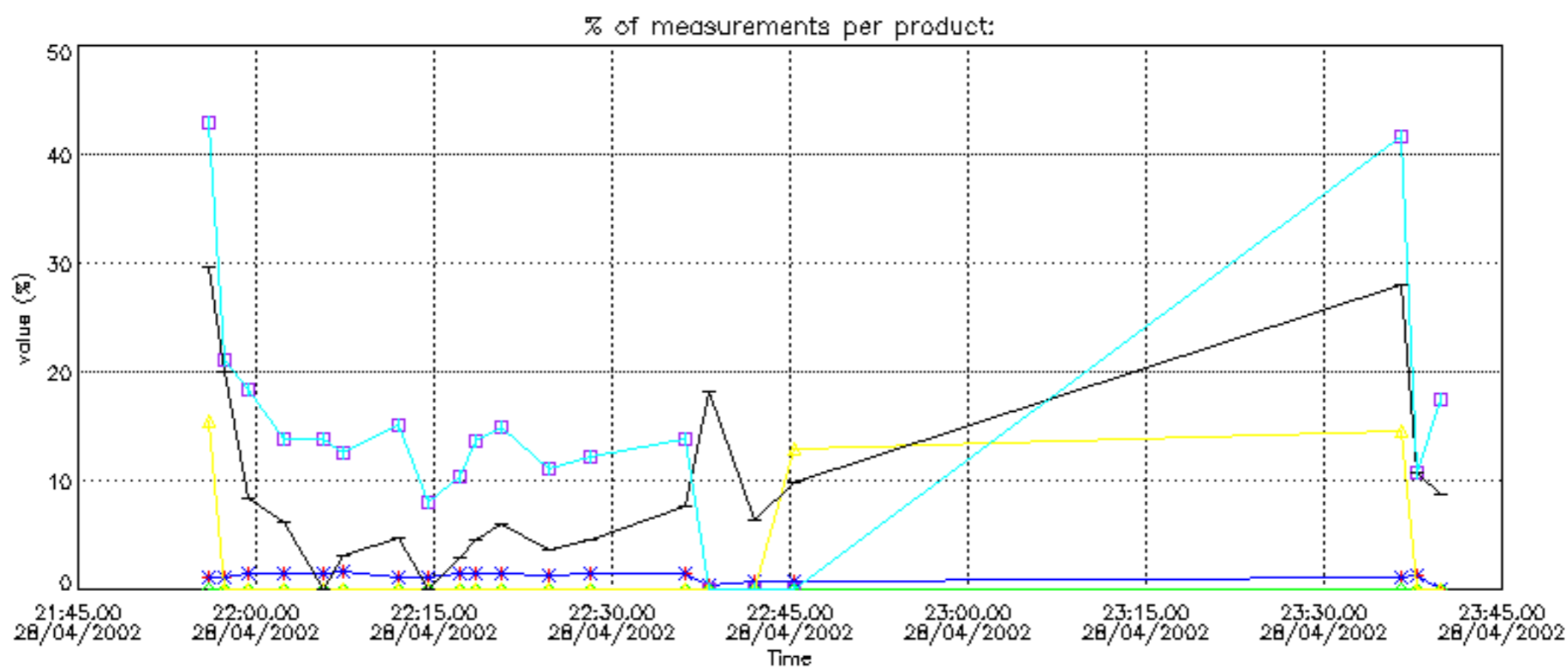


Percentage of flagged data per NO3 profile

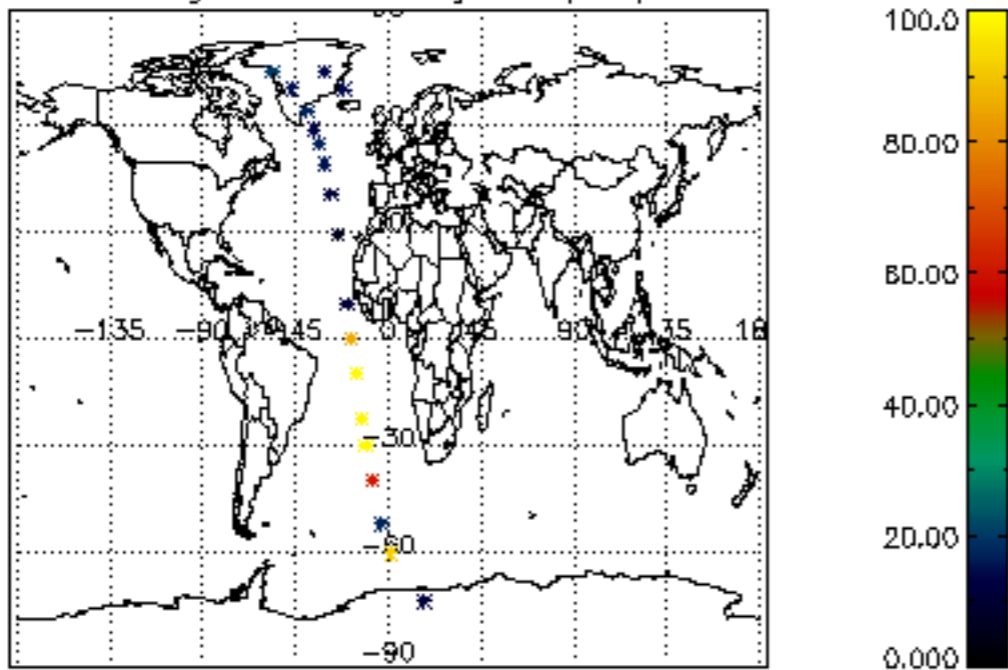




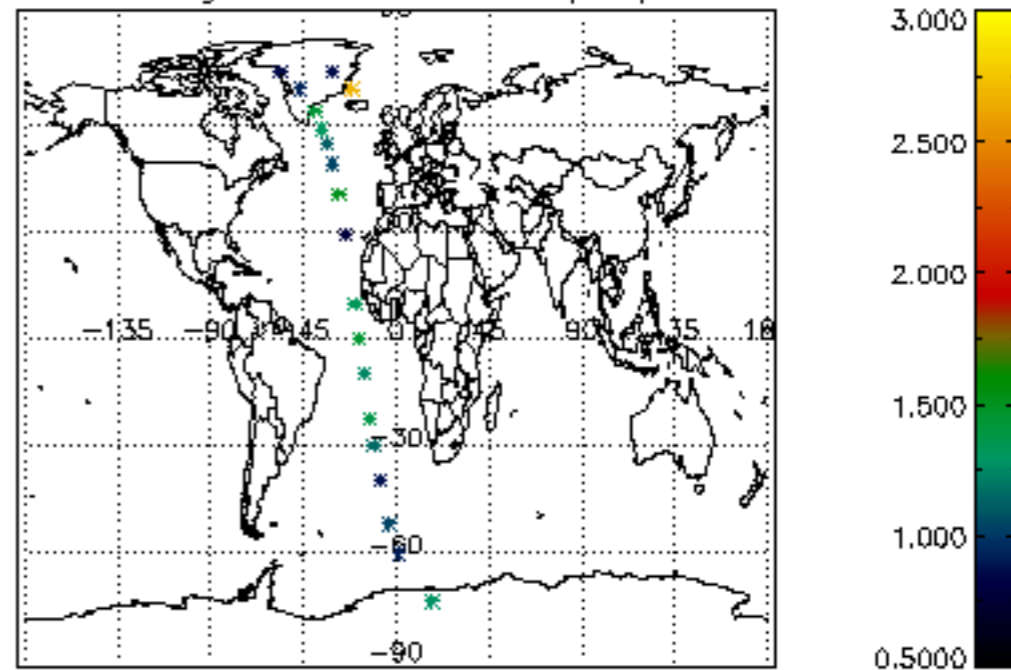




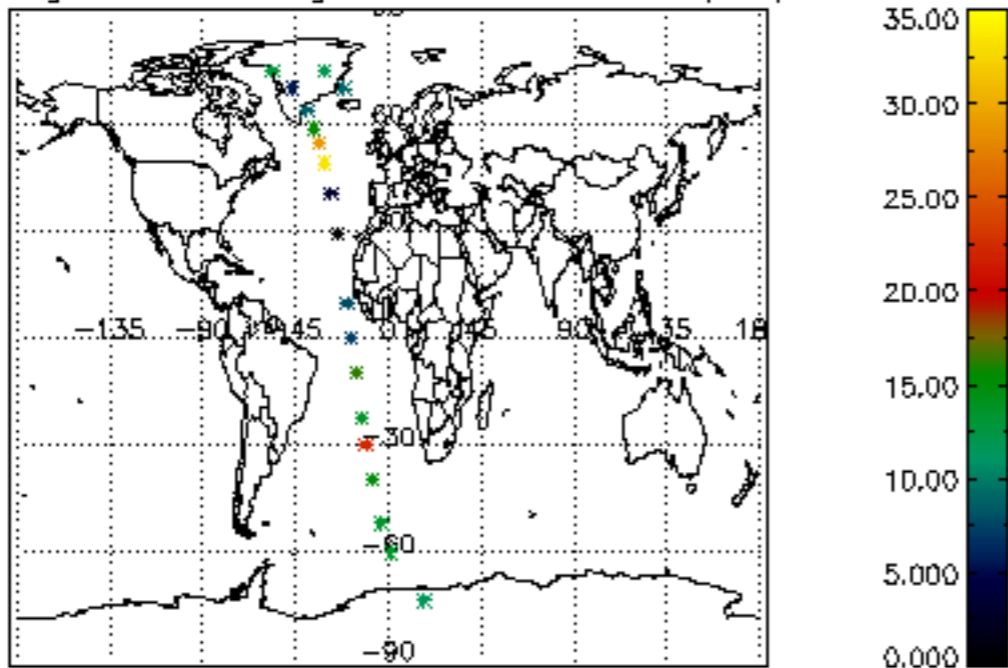
Percentage of cosmic ray hits per profile



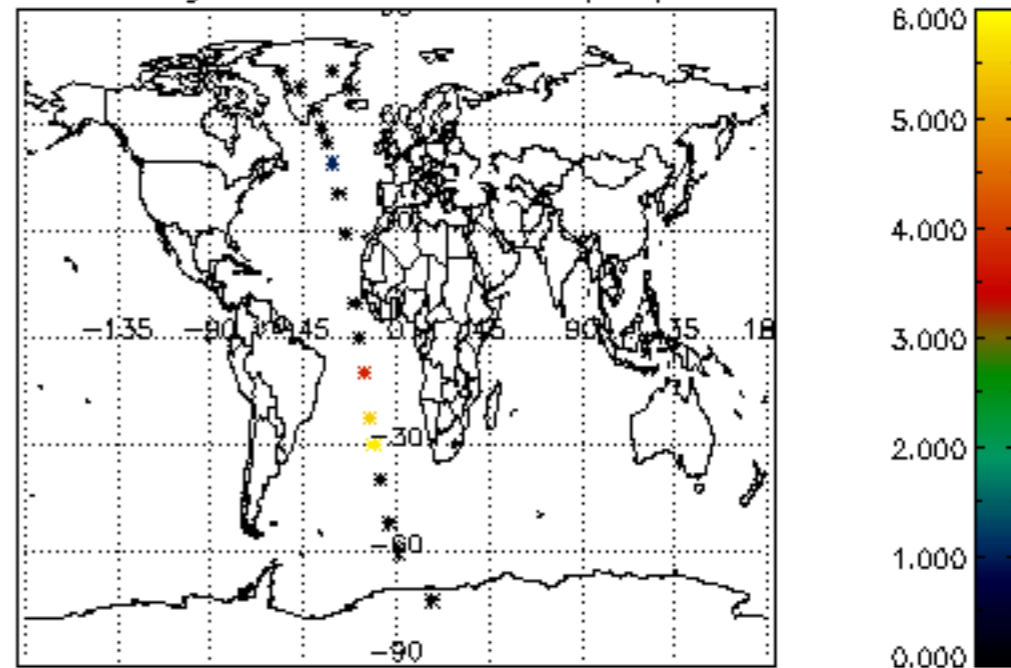
Percentage of datation errors per profile



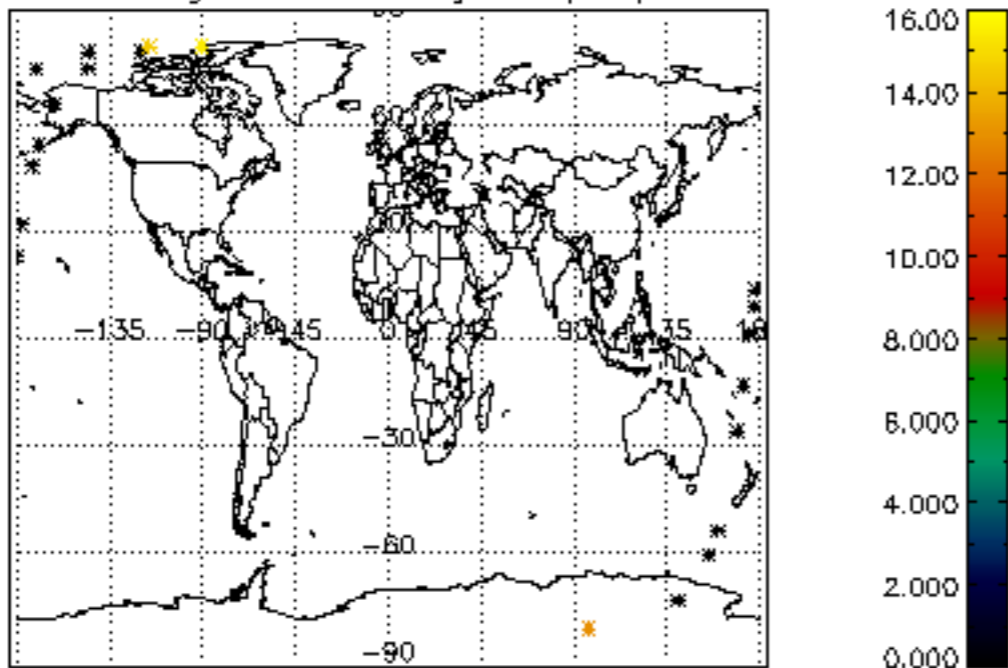
Percentage of star falling outside central band per profile



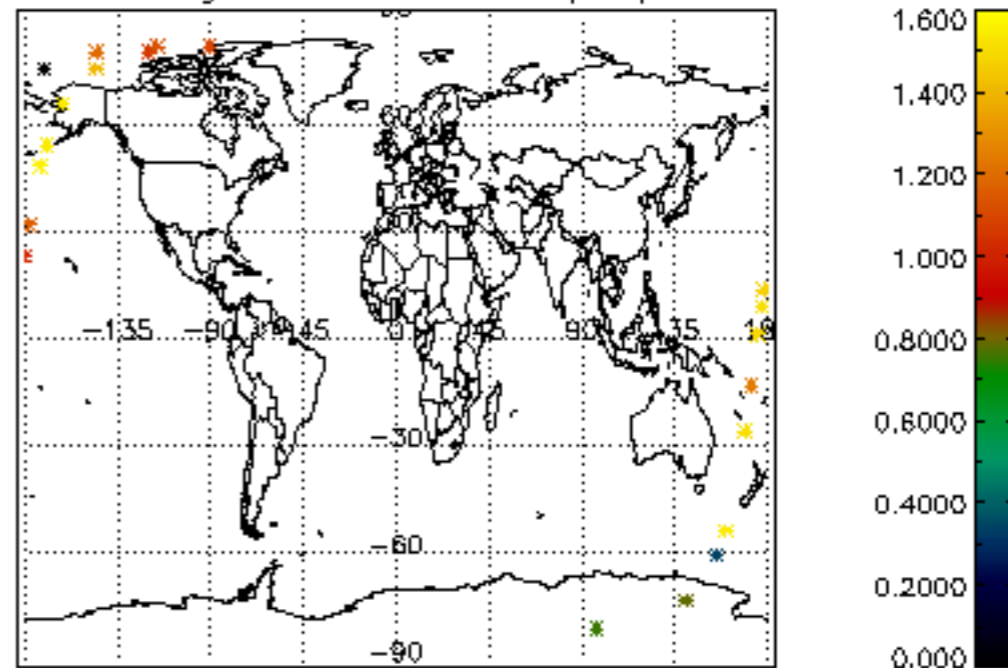
Percentage of saturation errors per profile



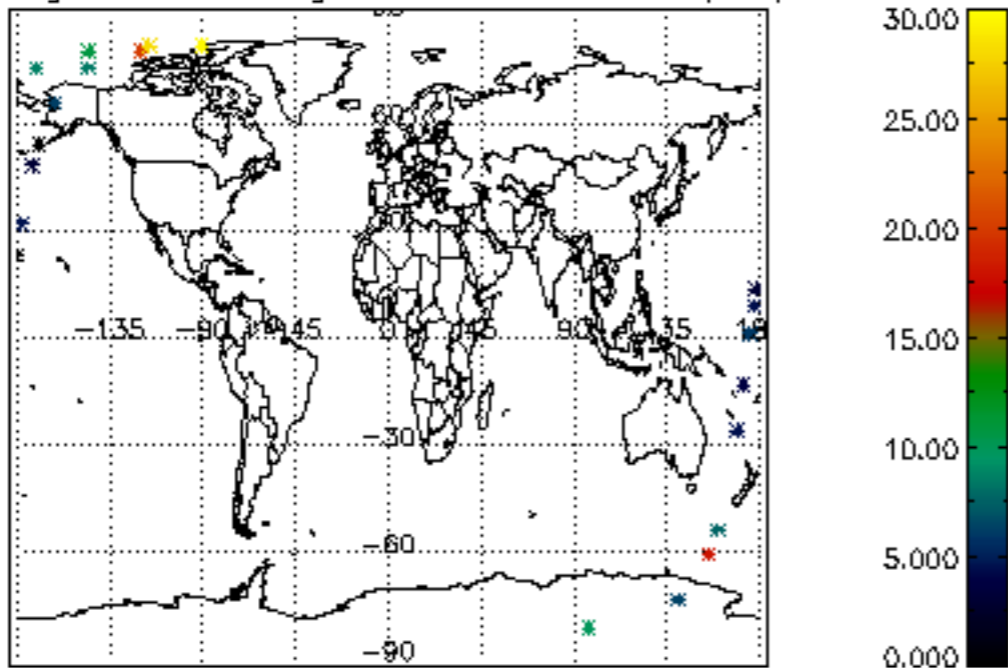
Percentage of cosmic ray hits per profile



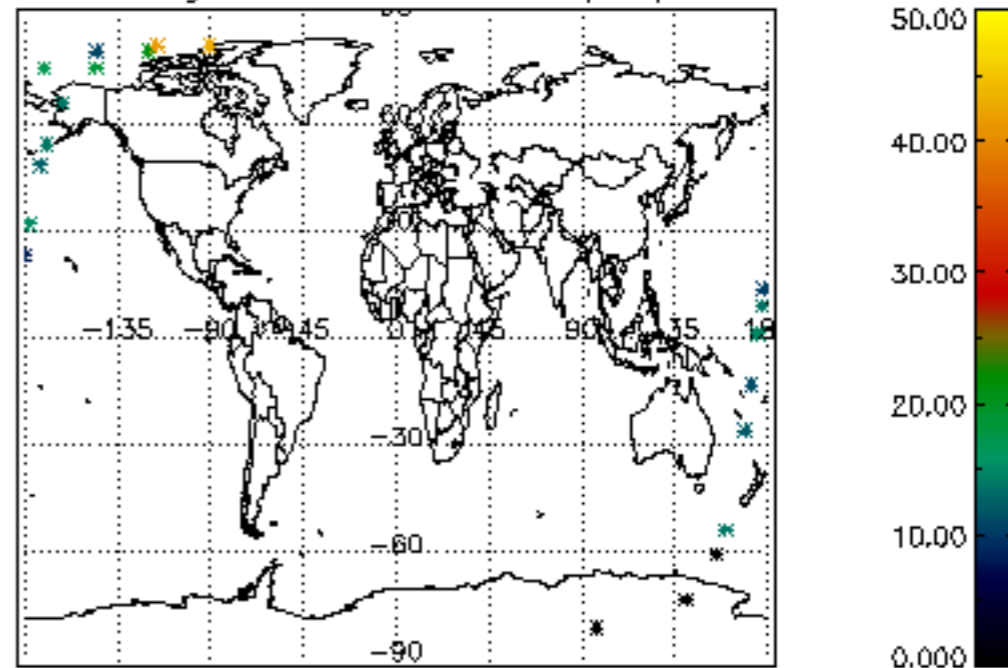
Percentage of datation errors per profile

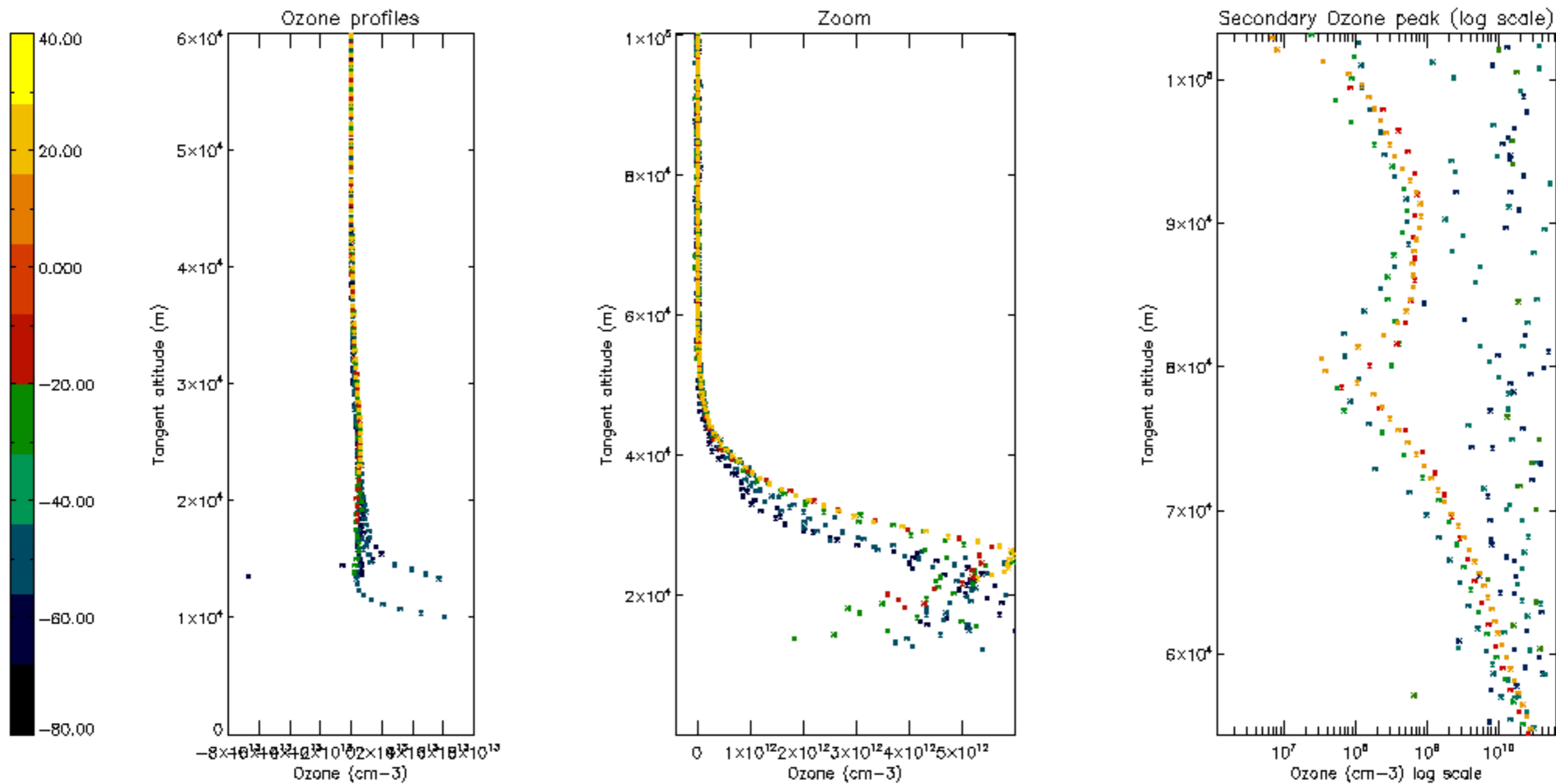


Percentage of star falling outside central band per profile

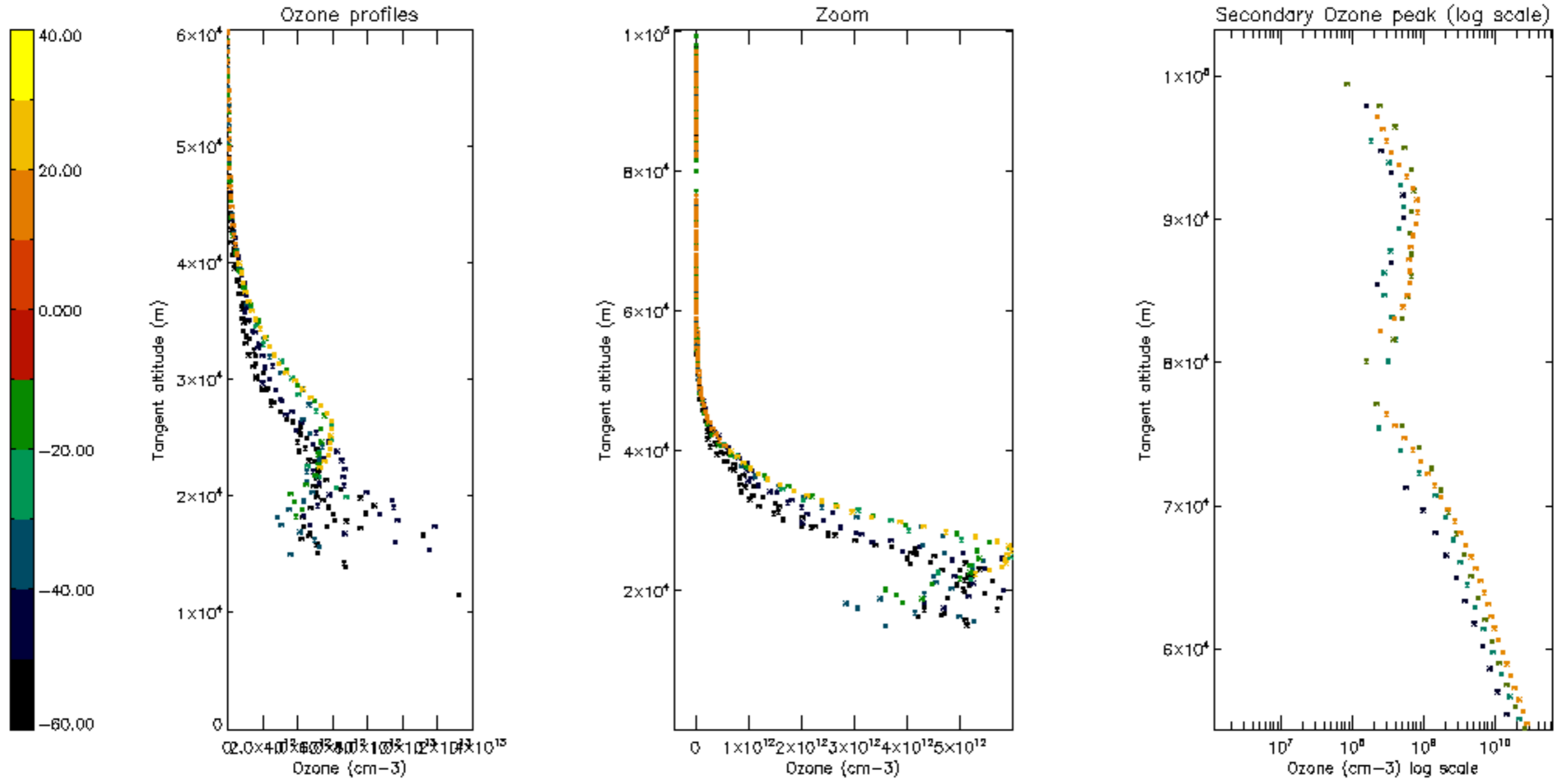


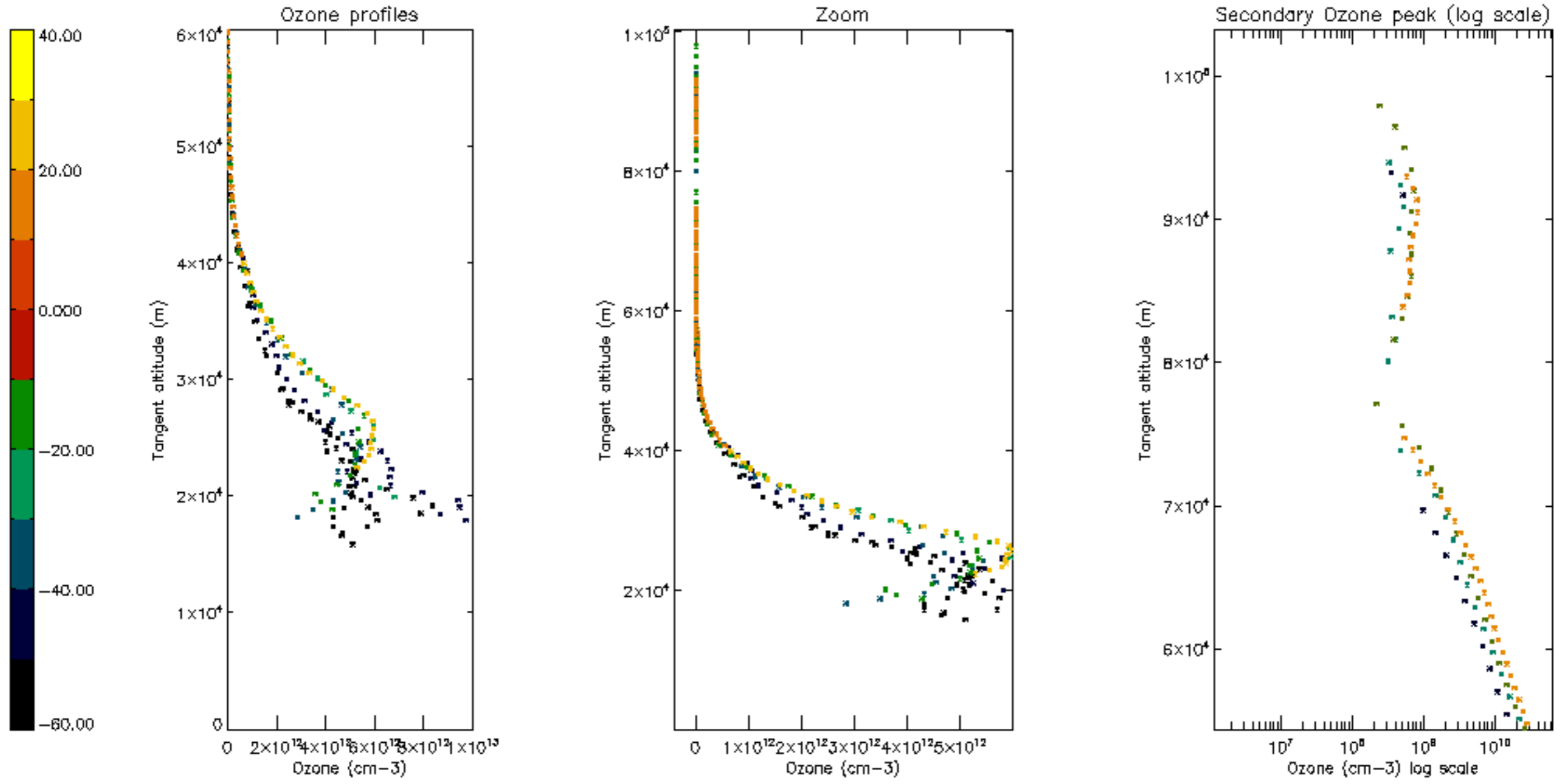
Percentage of saturation errors per profile

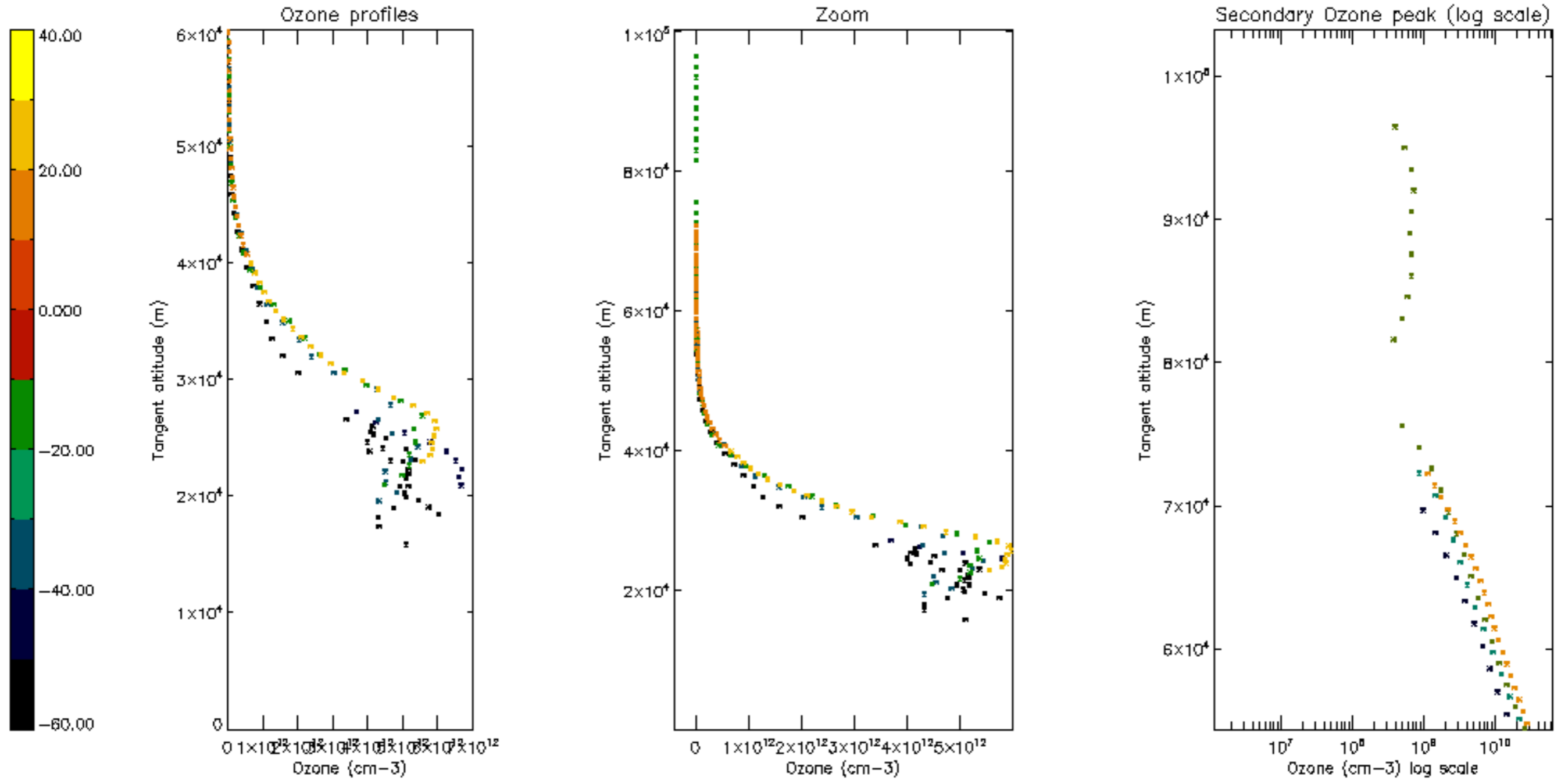


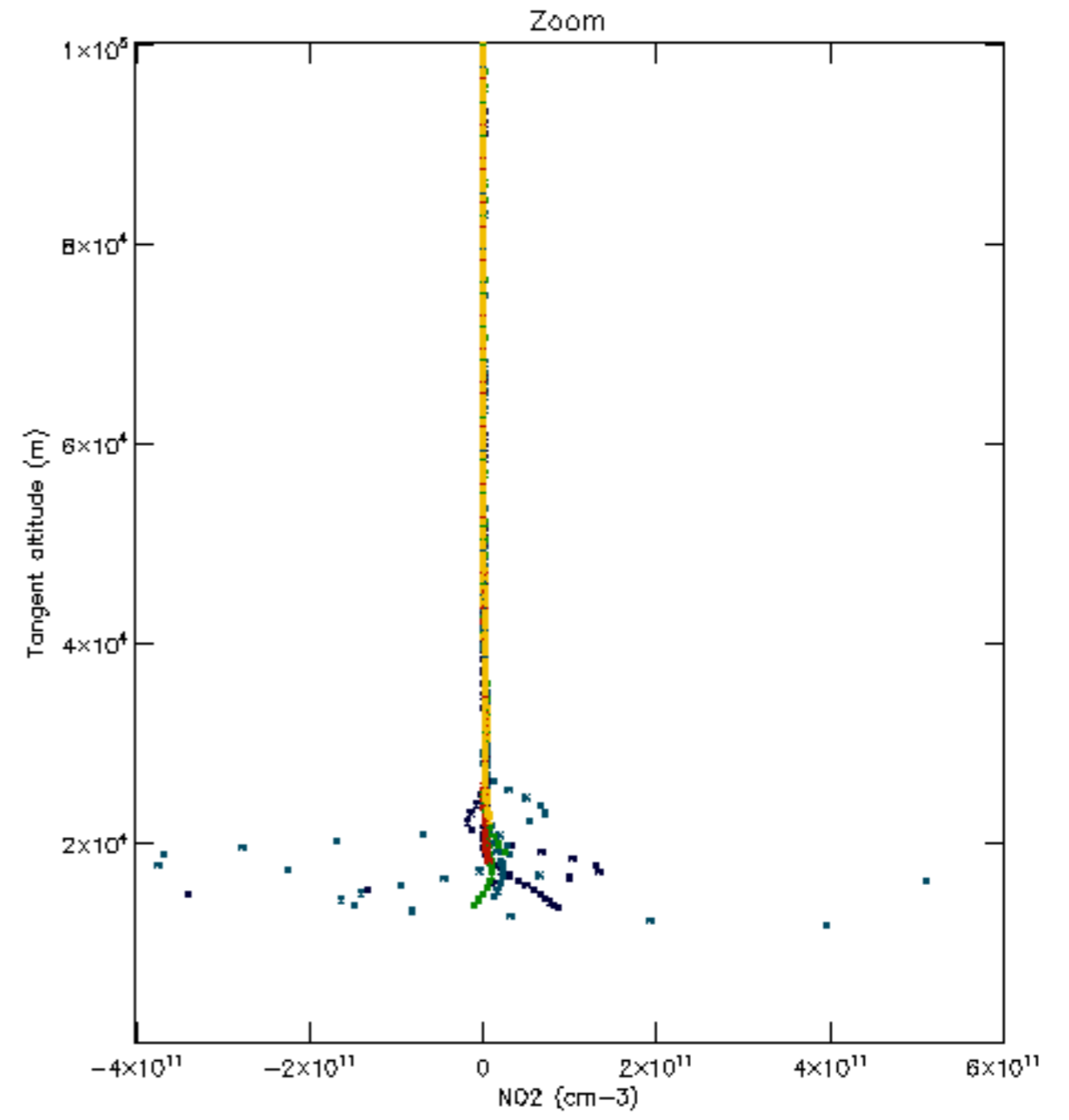
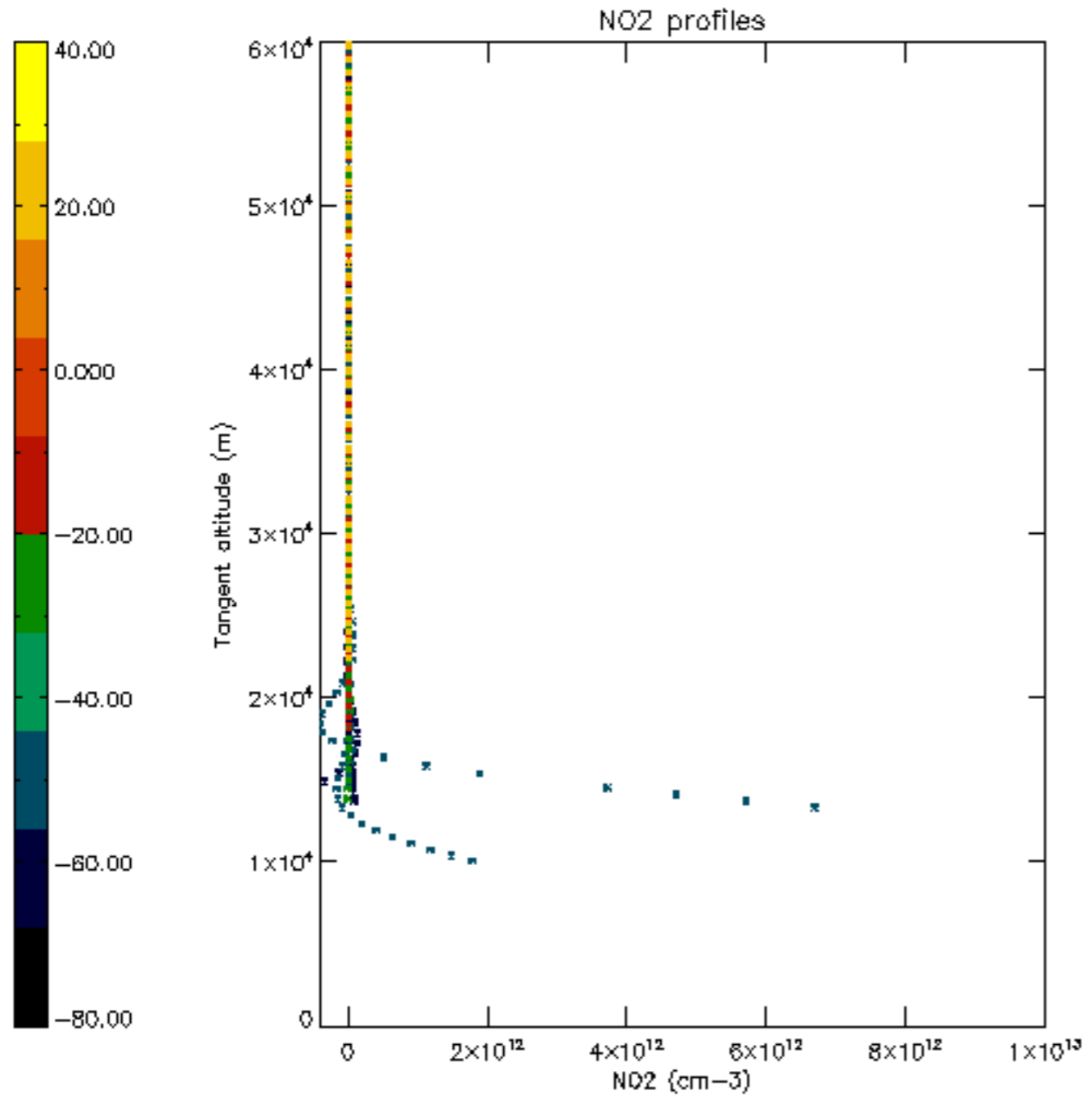


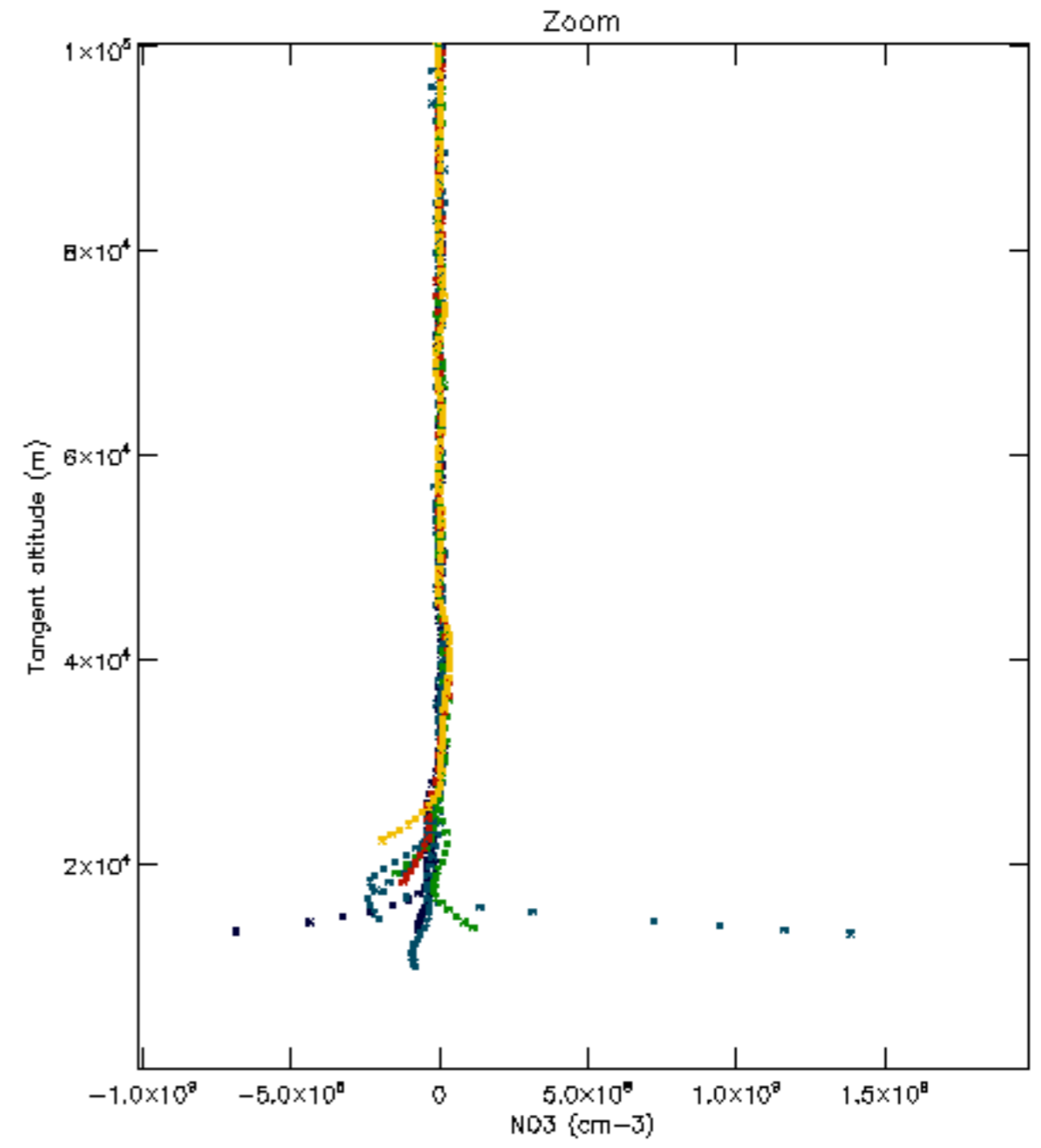
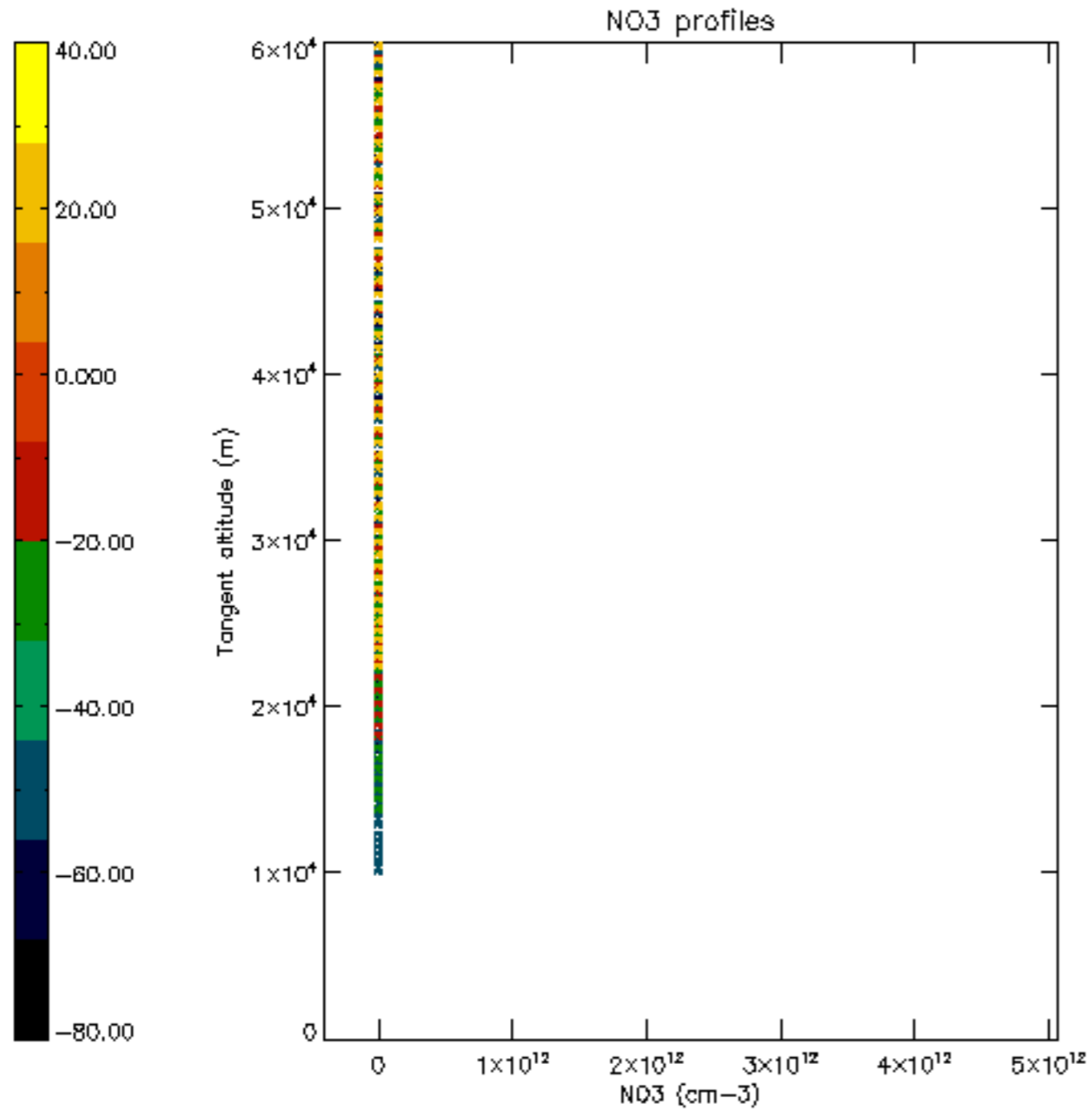




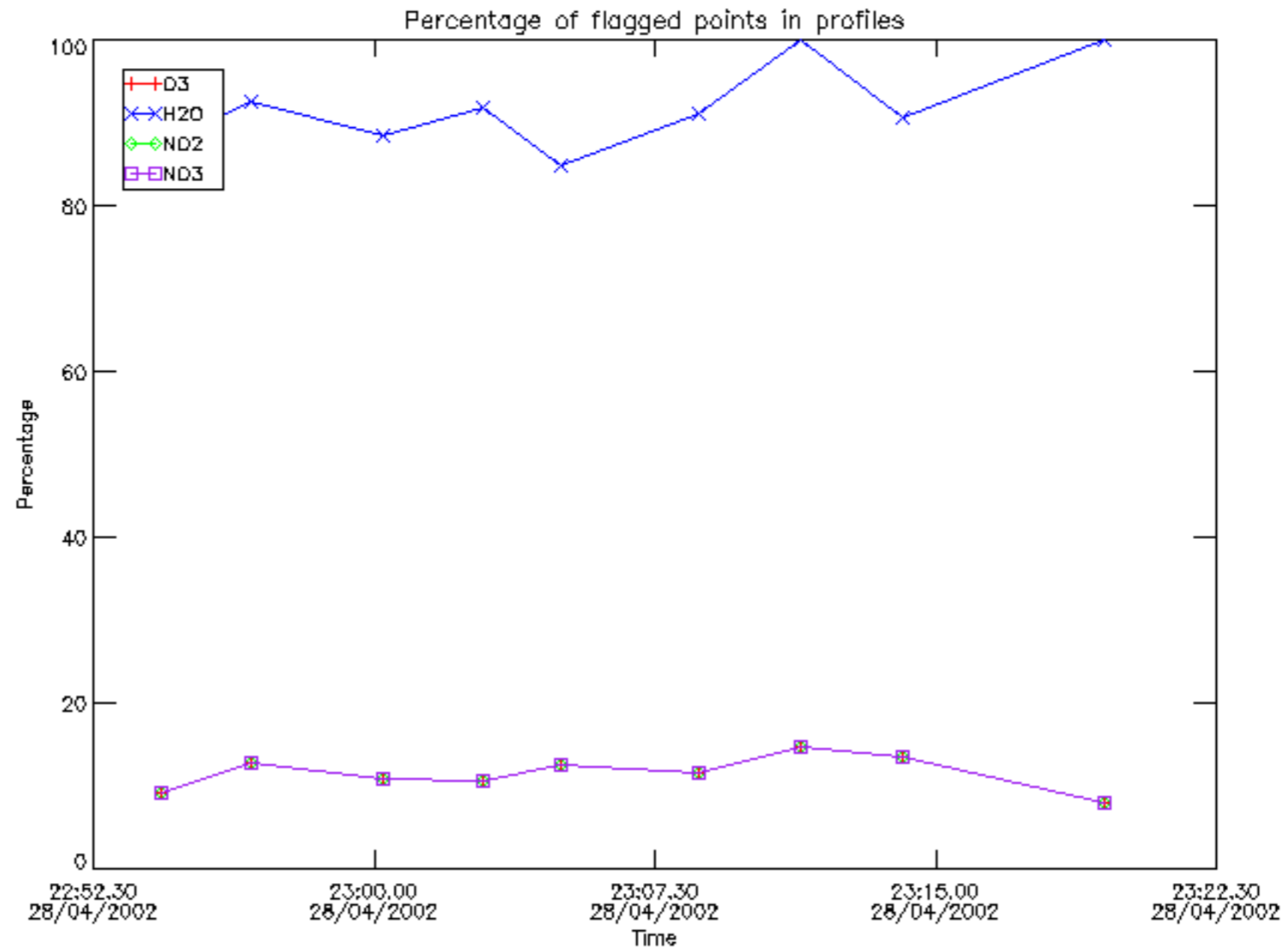




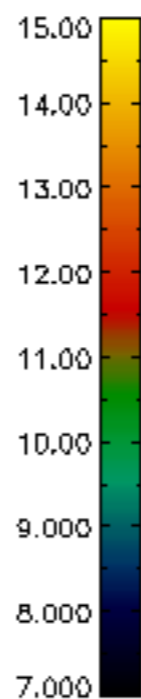
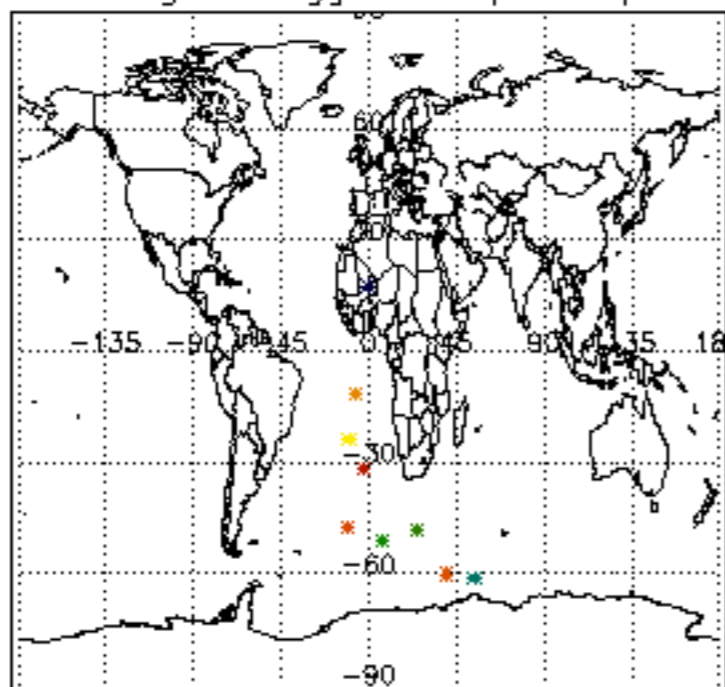




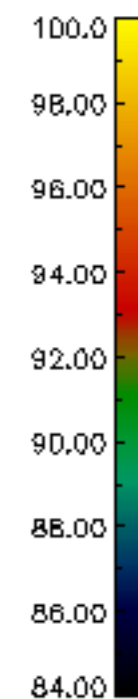
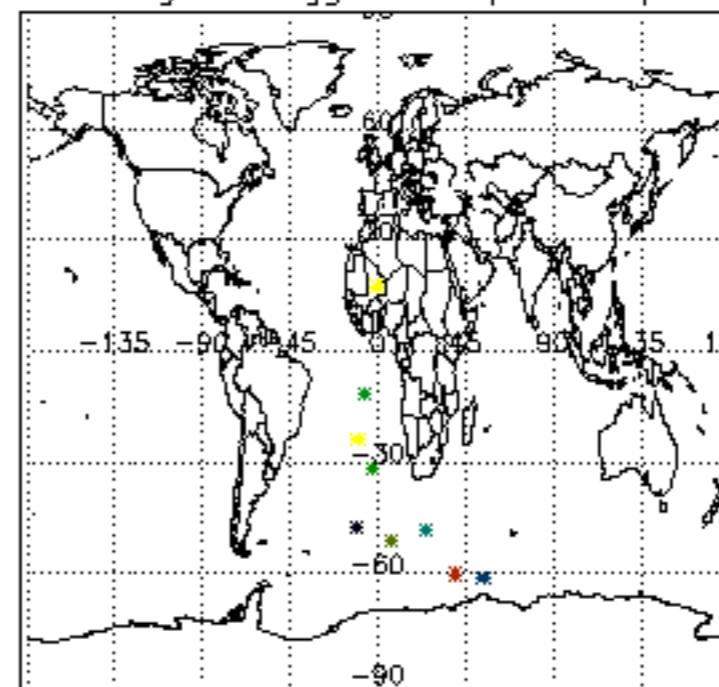




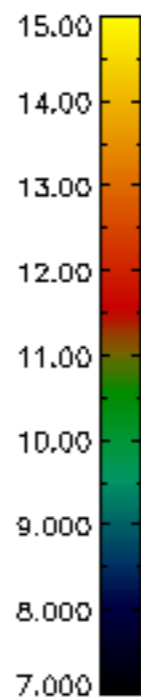
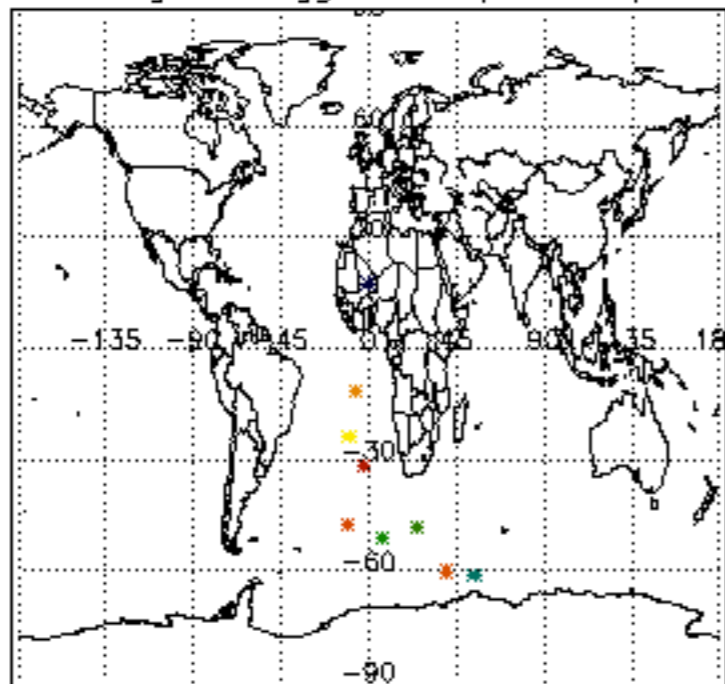
Percentage of flagged data per D3 profile



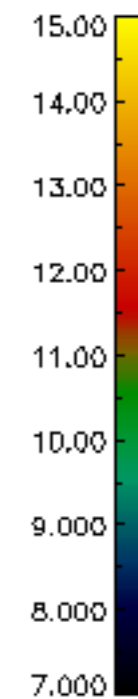
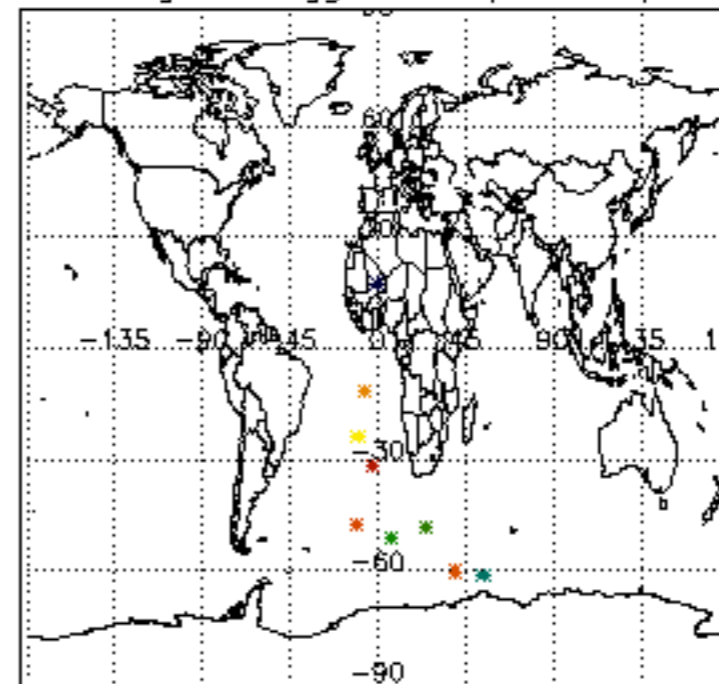
Percentage of flagged data per H2O profile

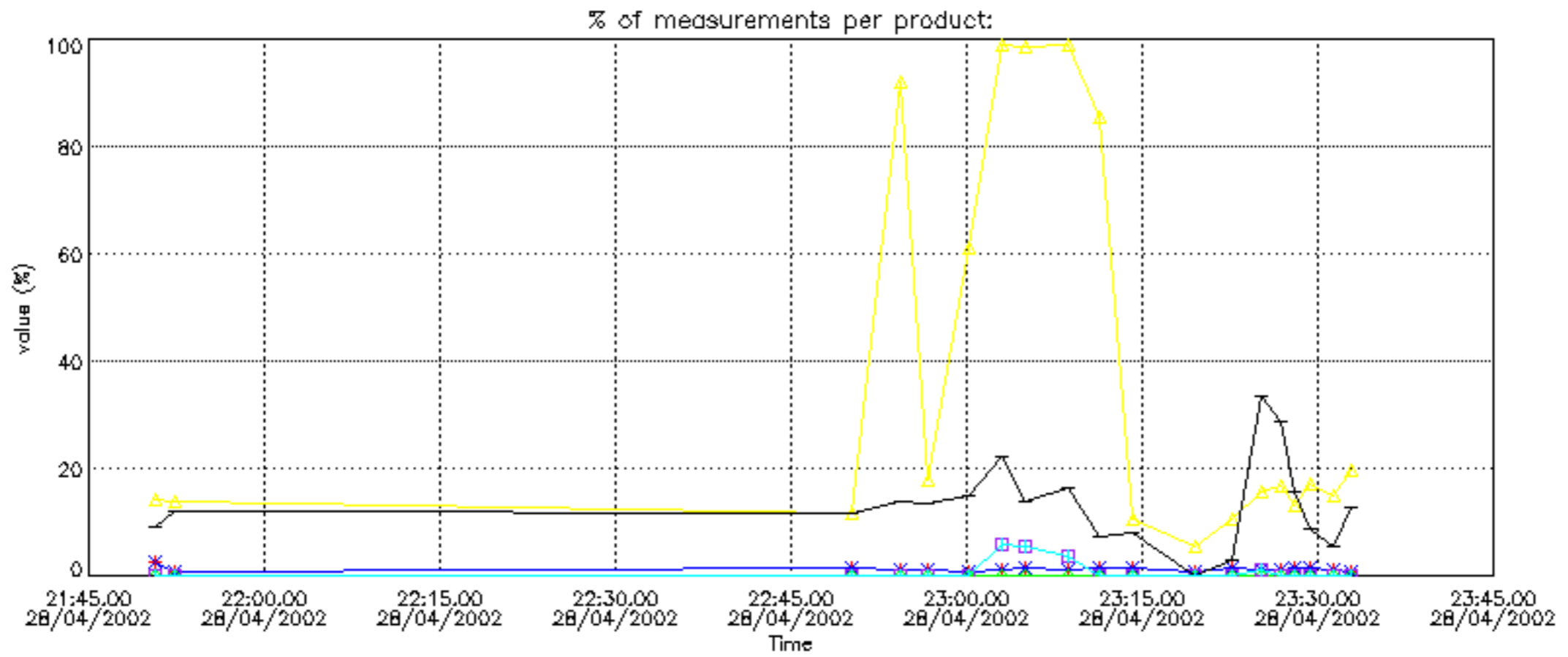


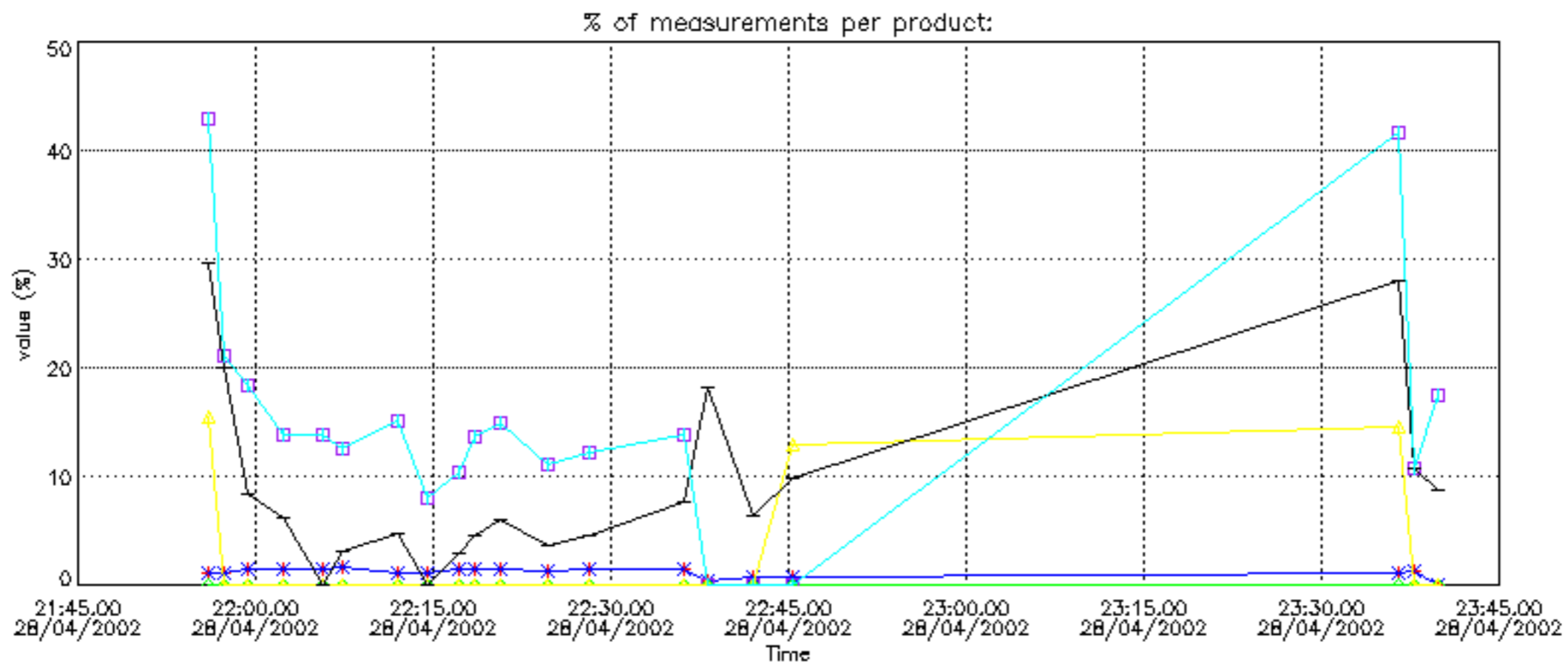
Percentage of flagged data per NO2 profile



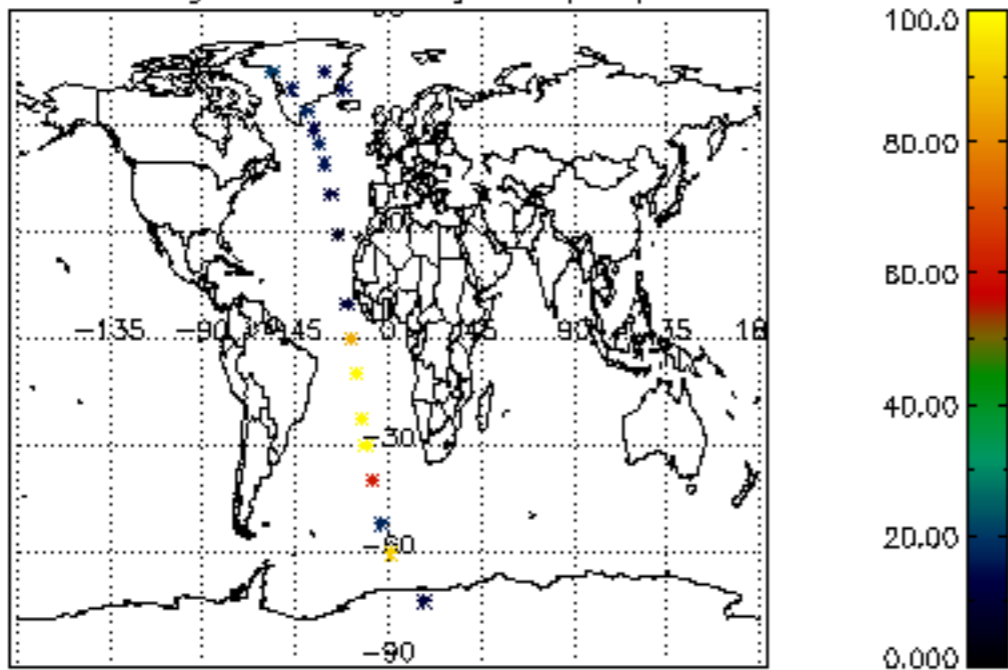
Percentage of flagged data per NO3 profile



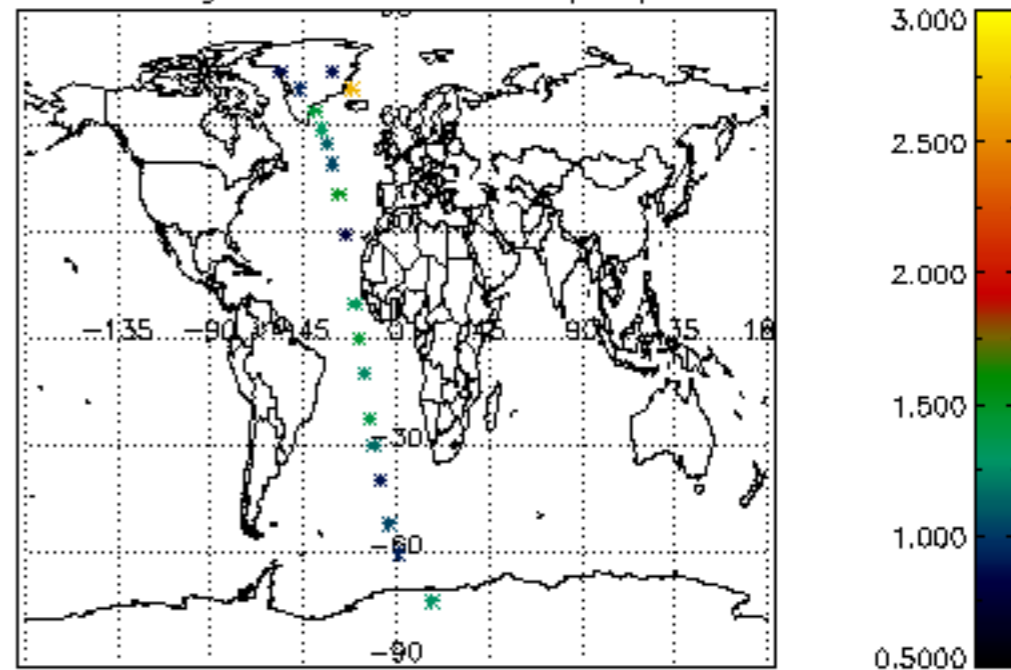




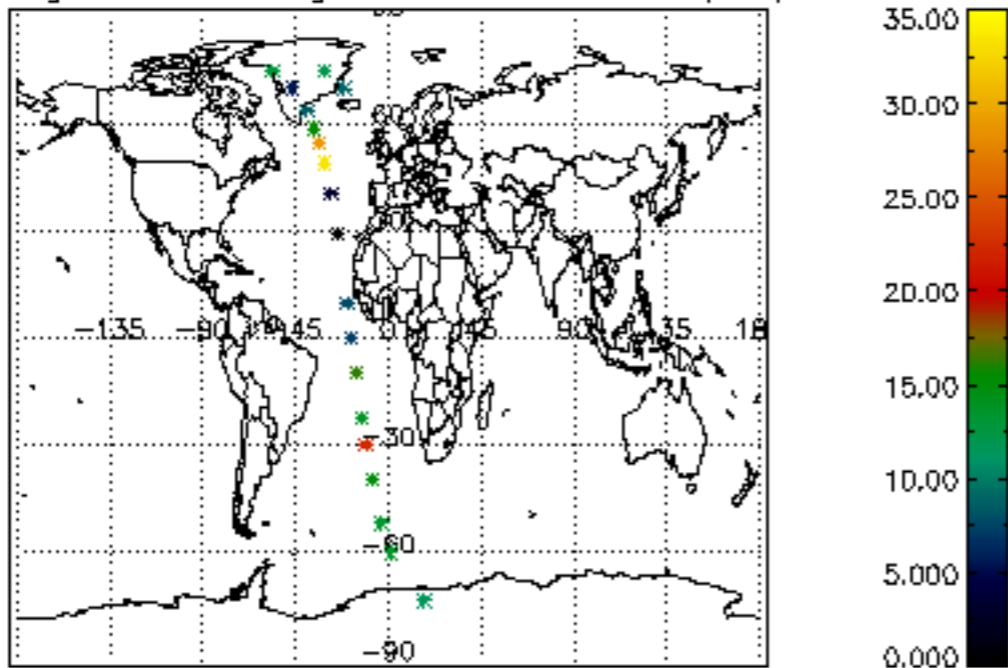
Percentage of cosmic ray hits per profile



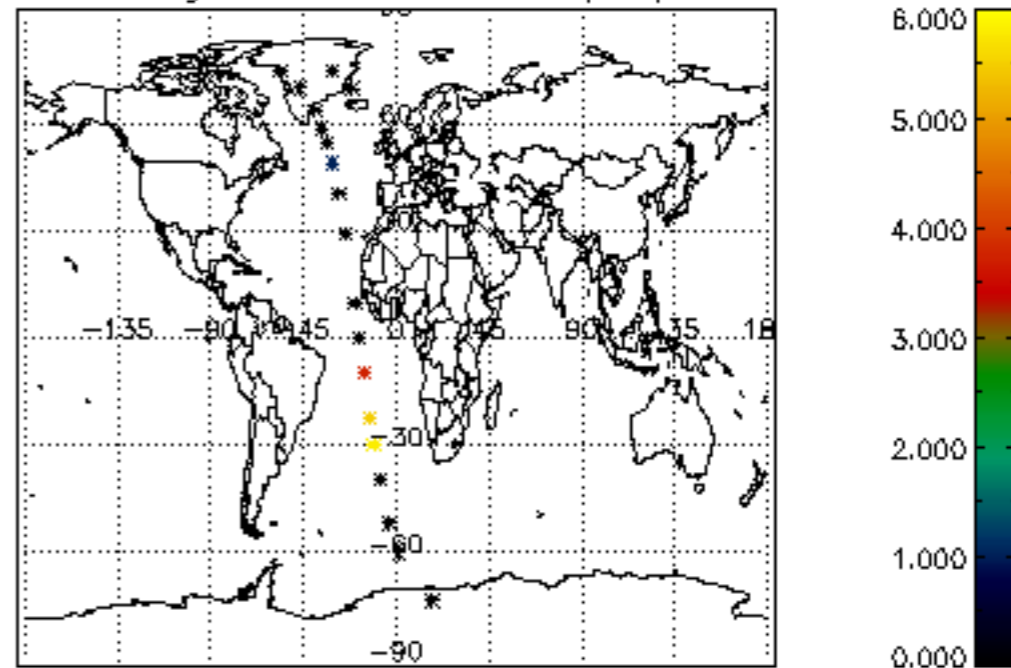
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

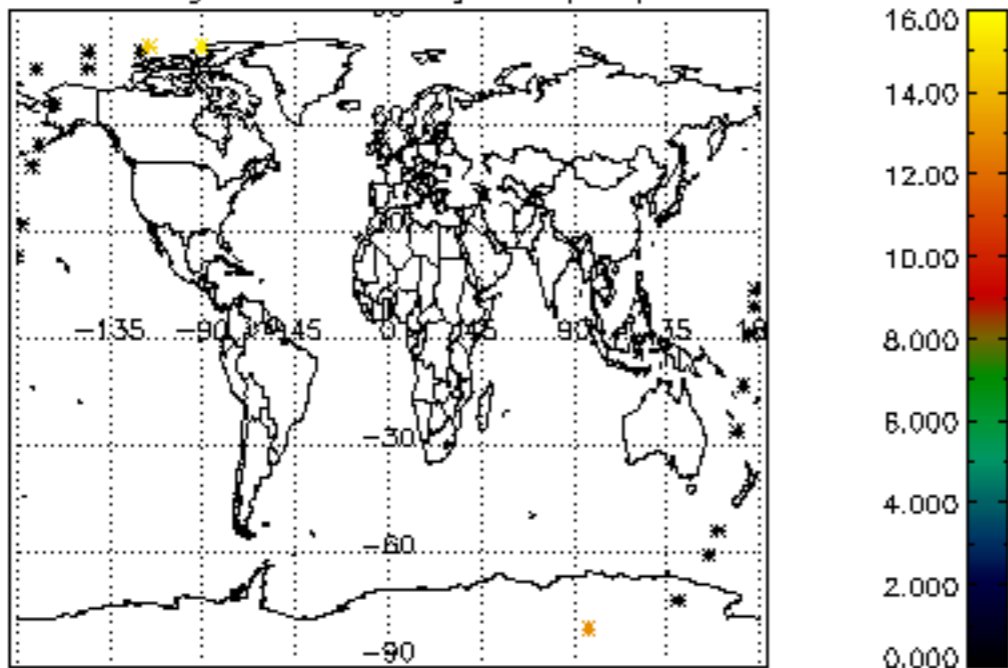


Percentage of saturation errors per profile

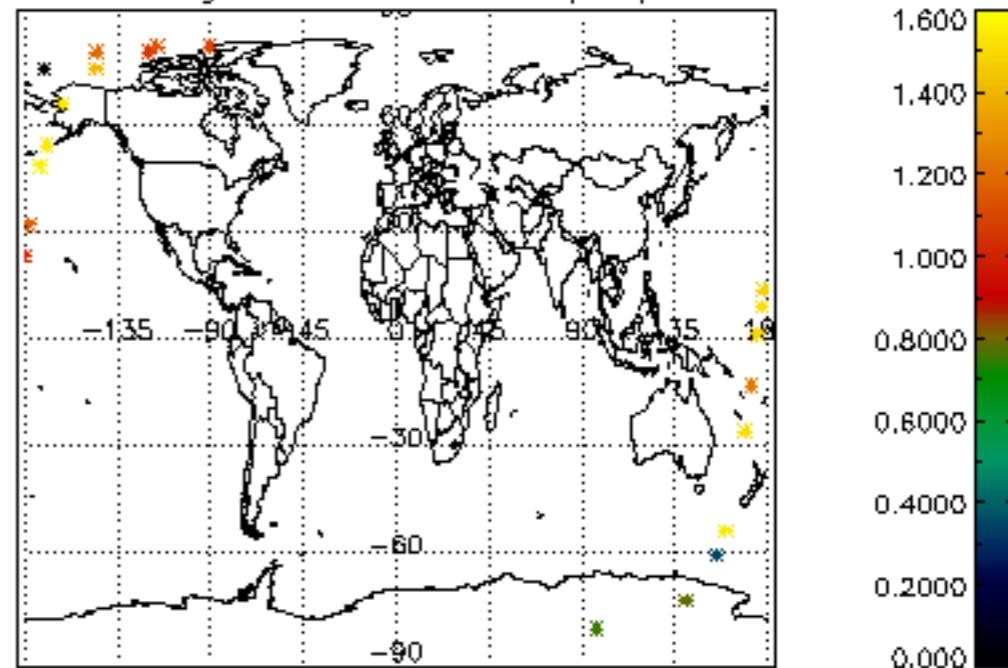




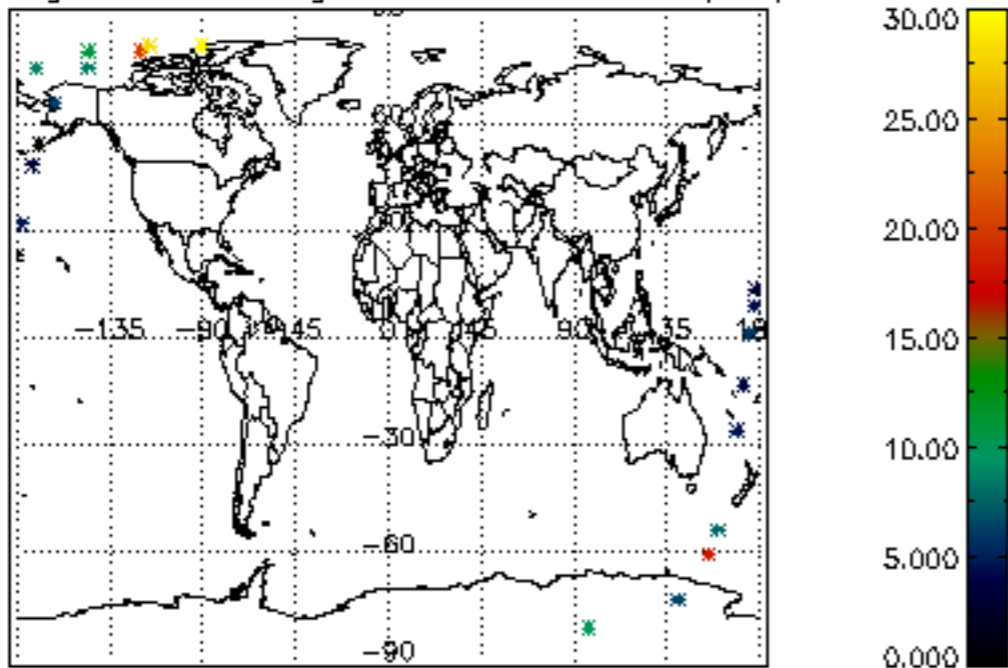
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

