

# 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	24APR2013 05:33:33
Data source version	GOMOS/6.01
Start time of products	04-11-2006 (04NOV2006 00:00:00)
Stop time of products	05-11-2006 (05NOV2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	225
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__2PRFIN20061104_000911_000000312052_00360_24462_3181.N1	04-NOV-2006 00:09:11	Dark	31.000	143	Alp Hyi	2.8570	7200.0	62	24462	No
2	GOM_NL__2PRFIN20061104_001033_000000402052_00360_24462_3182.N1	04-NOV-2006 00:10:33	Dark	40.000	9	Alp Eri	0.45300	24000.	80	24462	No
3	GOM_NL__2PRFIN20061104_001358_000000362052_00360_24462_3183.N1	04-NOV-2006 00:13:58	Straylight	35.500	157	The1Eri	2.9060	9300.0	71	24462	No
4	GOM_NL__2PRFIN20061104_002155_000000382052_00360_24462_3184.N1	04-NOV-2006 00:21:55	Straylight	38.000	52	16Bet Cet	2.0370	4500.0	76	24462	No
5	GOM_NL__2PRFIN20061104_003519_000000312052_00360_24462_3185.N1	04-NOV-2006 00:35:19	Bright	30.500	58	21Alp And	2.0730	11000.	61	24462	No
6	GOM_NL__2PRFIN20061104_003637_000000322052_00360_24462_3186.N1	04-NOV-2006 00:36:37	Bright	31.500	53	43Bet And	2.0480	3300.0	63	24462	No
7	GOM_NL__2PRFIN20061104_004233_000000292052_00360_24462_3187.N1	04-NOV-2006 00:42:33	Bright	29.000	68	18Alp Cas	2.2250	4500.0	58	24462	No
8	GOM_NL__2PRFIN20061104_004342_000000292052_00360_24462_3188.N1	04-NOV-2006 00:43:42	Bright	29.000	76	27Gam Cas	2.3000	30000.	58	24462	No
9	GOM_NL__2PRFIN20061104_005147_000000302052_00360_24462_3189.N1	04-NOV-2006 00:51:47	Bright	30.000	49	1Alp UMi	1.9900	6300.0	60	24462	No
10	GOM_NL__2PRFIN20061104_005544_000000282052_00360_24462_3190.N1	04-NOV-2006 00:55:44	Bright	27.500	60	7Bet UMi	2.0810	3950.0	55	24462	No
11	GOM_NL__2PRFIN20061104_010135_000000312052_00360_24462_3191.N1	04-NOV-2006 01:01:35	Bright	30.500	32	77Eps UMa	1.7630	11000.	61	24462	No
12	GOM_NL__2PRFIN20061104_010256_000000302052_00360_24462_3192.N1	04-NOV-2006 01:02:56	Bright	30.000	39	85Eta UMa	1.8540	24000.	60	24462	No
13	GOM_NL__2PRFIN20061104_010630_000000292052_00360_24462_3193.N1	04-NOV-2006 01:06:30	Bright	29.000	152	12Alp2CVn	2.8900	11000.	58	24462	No
14	GOM_NL__2PRFIN20061104_011400_000000302052_00360_24462_3194.N1	04-NOV-2006 01:14:00	Bright	29.500	62	94Bet Leo	2.1360	9700.0	59	24462	No
15	GOM_NL__2PRFIN20061104_013133_000000322052_00360_24462_3195.N1	04-NOV-2006 01:31:33	Dark	31.500	99	Del Cen	2.5750	26000.	63	24462	No
16	GOM_NL__2PRFIN20061104_013245_000000332052_00360_24462_3196.N1	04-NOV-2006 01:32:45	Dark	32.500	113	Mu Vel	2.6920	5000.0	65	24462	No
17	GOM_NL__2PRFIN20061104_013637_000000352052_00361_24463_3487.N1	04-NOV-2006 01:36:37	Dark	34.500	91	Kap Vel	2.4900	26000.	69	24463	No
18	GOM_NL__2PRFIN20061104_014947_000000332052_00361_24463_3488.N1	04-NOV-2006 01:49:47	Dark	32.500	143	Alp Hyi	2.8570	7200.0	65	24463	No
19	GOM_NL__2PRFIN20061104_015110_000000322052_00361_24463_3489.N1	04-NOV-2006 01:51:10	Dark	31.500	9	Alp Eri	0.45300	24000.	63	24463	No
20	GOM_NL__2PRFIN20061104_015434_000000332052_00361_24463_3490.N1	04-NOV-2006 01:54:34	Straylight	33.000	157	The1Eri	2.9060	9300.0	66	24463	No
21	GOM_NL__2PRFIN20061104_020231_000000392052_00361_24463_3491.N1	04-NOV-2006 02:02:31	Straylight	39.000	52	16Bet Cet	2.0370	4500.0	78	24463	No
22	GOM_NL__2PRFIN20061104_021556_000000312052_00361_24463_3492.N1	04-NOV-2006 02:15:56	Bright	31.000	58	21Alp And	2.0730	11000.	62	24463	No
23	GOM_NL__2PRFIN20061104_021713_000000312052_00361_24463_3493.N1	04-NOV-2006 02:17:13	Bright	31.000	53	43Bet And	2.0480	3300.0	62	24463	No
24	GOM_NL__2PRFIN20061104_022309_000000322052_00361_24463_3494.N1	04-NOV-2006 02:23:09	Bright	32.000	68	18Alp Cas	2.2250	4500.0	64	24463	No
25	GOM_NL__2PRFIN20061104_022418_000000302052_00361_24463_3495.N1	04-NOV-2006 02:24:18	Bright	29.500	76	27Gam Cas	2.3000	30000.	59	24463	No
26	GOM_NL__2PRFIN20061104_023223_000000282052_00361_24463_3496.N1	04-NOV-2006 02:32:23	Bright	28.000	49	1Alp UMi	1.9900	6300.0	56	24463	No
27	GOM_NL__2PRFIN20061104_023620_000000312052_00361_24463_3497.N1	04-NOV-2006 02:36:20	Bright	30.500	60	7Bet UMi	2.0810	3950.0	61	24463	No
28	GOM_NL__2PRFIN20061104_024211_000000312052_00361_24463_3498.N1	04-NOV-2006 02:42:11	Bright	31.000	32	77Eps UMa	1.7630	11000.	62	24463	No
29	GOM_NL__2PRFIN20061104_024332_000000312052_00361_24463_3499.N1	04-NOV-2006 02:43:32	Bright	30.500	39	85Eta UMa	1.8540	24000.	61	24463	No
30	GOM_NL__2PRFIN20061104_025436_000000302052_00361_24463_3500.N1	04-NOV-2006 02:54:36	Bright	30.000	62	94Bet Leo	2.1360	9700.0	60	24463	No
31	GOM_NL__2PRFIN20061104_031209_000000342052_00361_24463_3501.N1	04-NOV-2006 03:12:09	Dark	34.000	99	Del Cen	2.5750	26000.	68	24463	No
32	GOM_NL__2PRFIN20061104_031322_000000342052_00361_24463_3502.N1	04-NOV-2006 03:13:22	Dark	33.500	113	Mu Vel	2.6920	5000.0	67	24463	No
33	GOM_NL__2PRFIN20061104_031714_000000352052_00362_24464_3182.N1	04-NOV-2006 03:17:14	Dark	35.000	91	Kap Vel	2.4900	26000.	70	24464	No
34	GOM_NL__2PRFIN20061104_033023_000000312052_00362_24464_3183.N1	04-NOV-2006 03:30:23	Dark	30.500	143	Alp Hyi	2.8570	7200.0	61	24464	No
35	GOM_NL__2PRFIN20061104_033146_000000332052_00362_24464_3184.N1	04-NOV-2006 03:31:46	Dark	33.000	9	Alp Eri	0.45300	24000.	66	24464	No
36	GOM_NL__2PRFIN20061104_033510_000000352052_00362_24464_3185.N1	04-NOV-2006 03:35:10	Straylight	35.000	157	The1Eri	2.9060	9300.0	70	24464	No
37	GOM_NL__2PRFIN20061104_035632_000000322052_00362_24464_3186.N1	04-NOV-2006 03:56:32	Bright	31.500	58	21Alp And	2.0730	11000.	63	24464	No
38	GOM_NL__2PRFIN20061104_035749_000000312052_00362_24464_3187.N1	04-NOV-2006 03:57:49	Bright	31.000	53	43Bet And	2.0480	3300.0	62	24464	No
39	GOM_NL__2PRFIN20061104_040345_000000292052_00362_24464_3188.N1	04-NOV-2006 04:03:45	Bright	28.500	68	18Alp Cas	2.2250	4500.0	57	24464	No
40	GOM_NL__2PRFIN20061104_040454_000000282052_00362_24464_3189.N1	04-NOV-2006 04:04:54	Bright	27.500	76	27Gam Cas	2.3000	30000.	55	24464	No
41	GOM_NL__2PRFIN20061104_041259_000000312052_00362_24464_3190.N1	04-NOV-2006 04:12:59	Bright	31.000	49	1Alp UMi	1.9900	6300.0	62	24464	No
42	GOM_NL__2PRFIN20061104_041656_000000302052_00362_24464_3191.N1	04-NOV-2006 04:16:56	Bright	30.000	60	7Bet UMi	2.0810	3950.0	60	24464	No





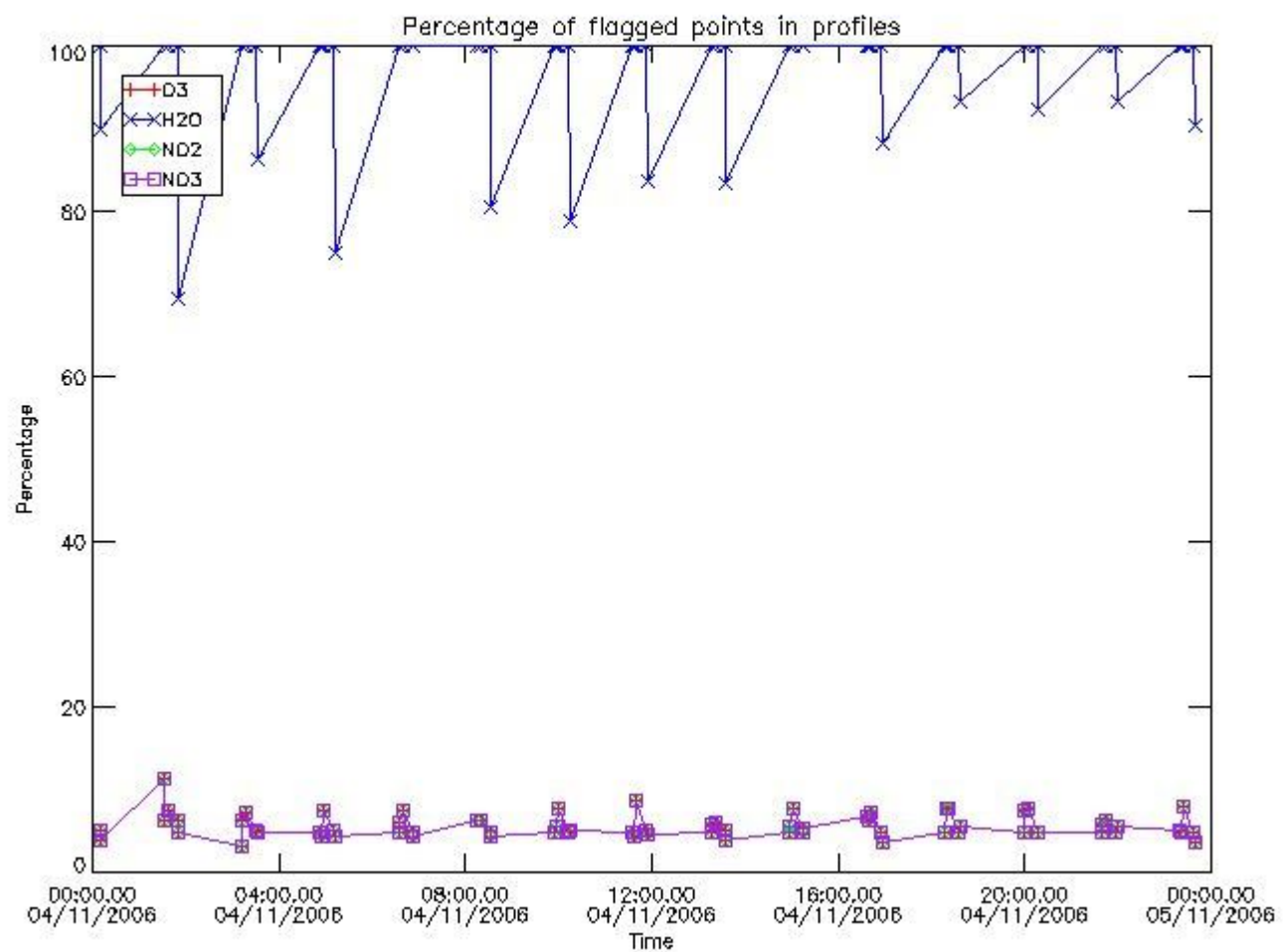


220	GOM_NL__2PRFIN20061104_231922_000000312052_00373_24475_3216.N1	04-NOV-2006 23:19:22	Dark	31.000	99	Del Cen	2.5750	26000.	62	24475	No
221	GOM_NL__2PRFIN20061104_232039_000000422052_00373_24475_3217.N1	04-NOV-2006 23:20:39	Dark	42.000	113	Mu Vel	2.6920	5000.0	84	24475	No
222	GOM_NL__2PRFIN20061104_232432_000000332052_00374_24476_3202.N1	04-NOV-2006 23:24:32	Dark	32.500	91	Kap Vel	2.4900	26000.	65	24476	No
223	GOM_NL__2PRFIN20061104_233736_000000322052_00374_24476_3203.N1	04-NOV-2006 23:37:36	Dark	32.000	143	Alp Hyi	2.8570	7200.0	64	24476	No
224	GOM_NL__2PRFIN20061104_233859_000000422052_00374_24476_3204.N1	04-NOV-2006 23:38:59	Dark	42.000	9	Alp Eri	0.45300	24000.	84	24476	No
225	GOM_NL__2PRFIN20061104_234225_000000342052_00374_24476_3205.N1	04-NOV-2006 23:42:25	Straylight	34.000	157	The1Eri	2.9060	9300.0	68	24476	No

### 3. Quality information per product

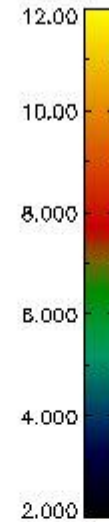
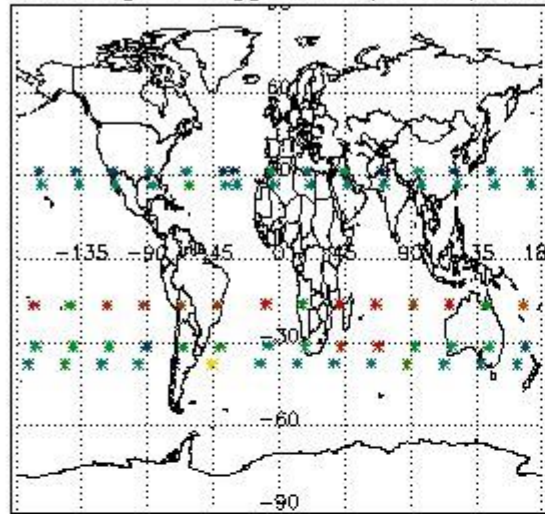
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

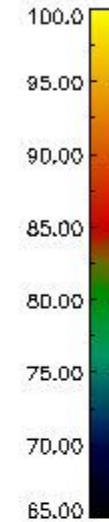
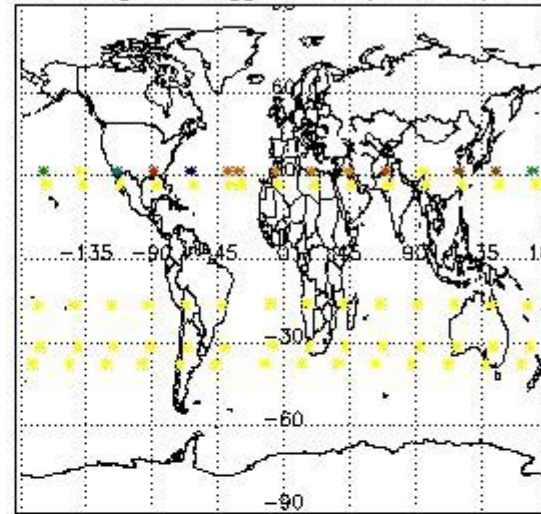


#### 3.2 Plot quality information per product (world map)

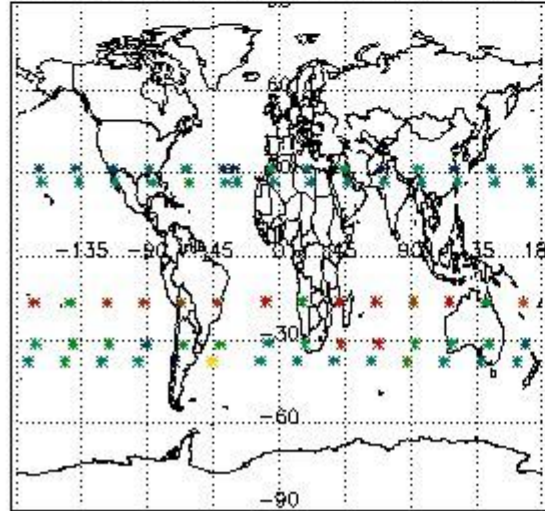
Percentage of flagged data per O3 profile



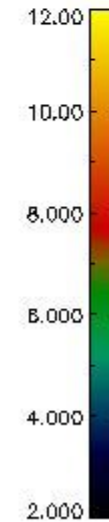
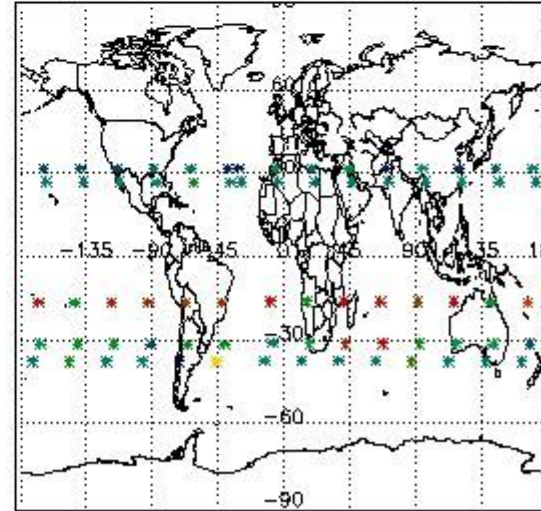
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

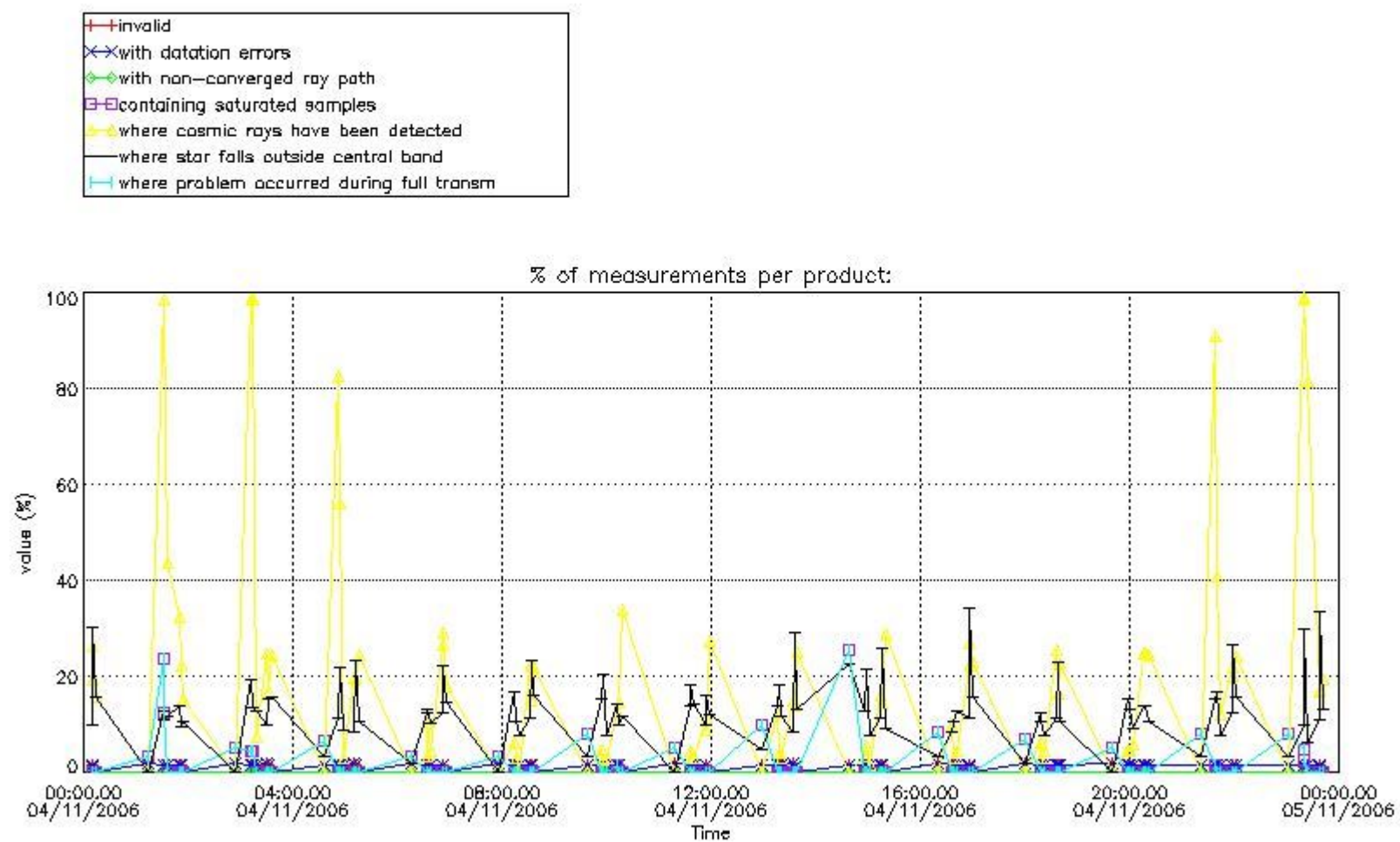


#### 4. Level 1 quality information per product

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

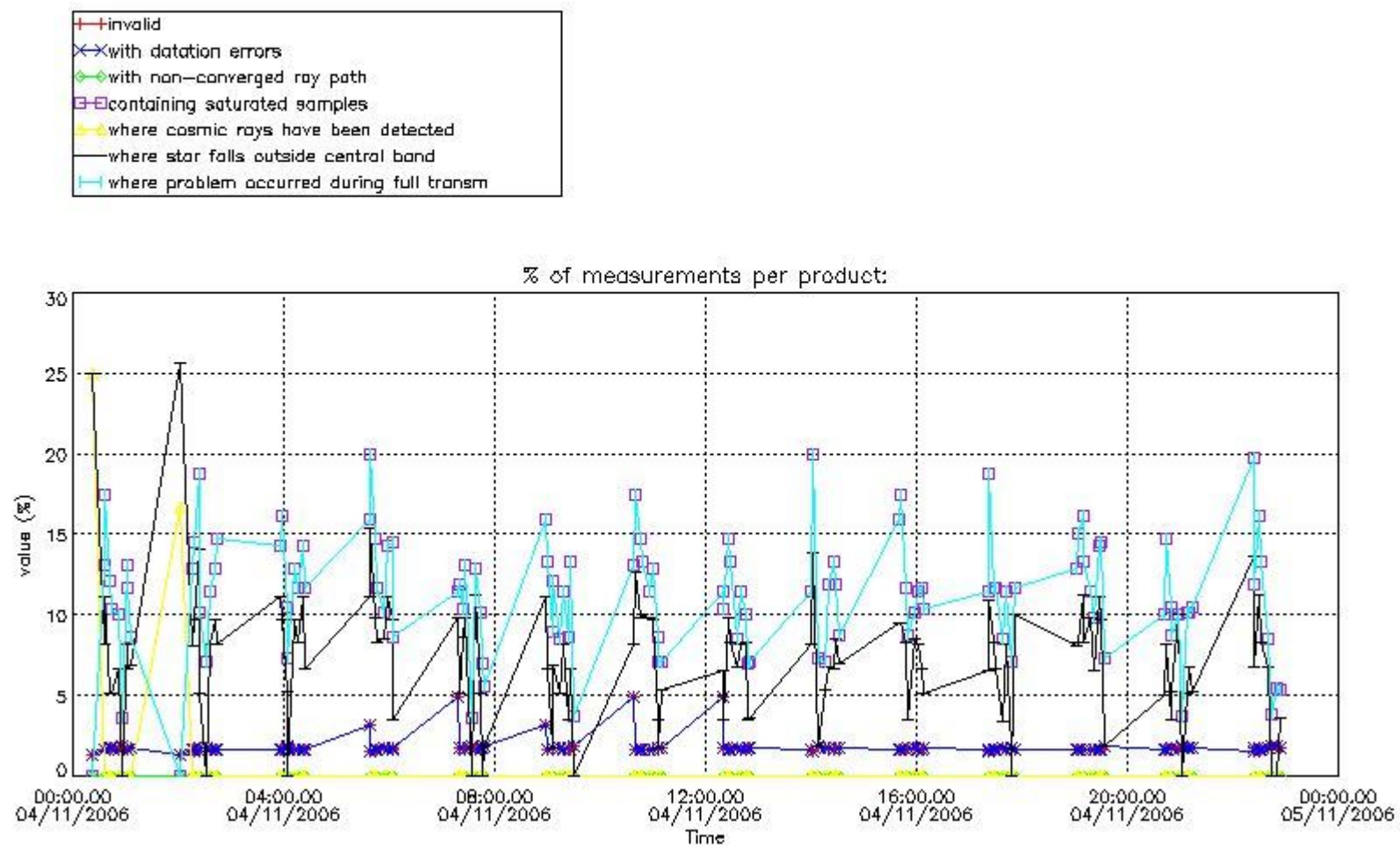
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



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

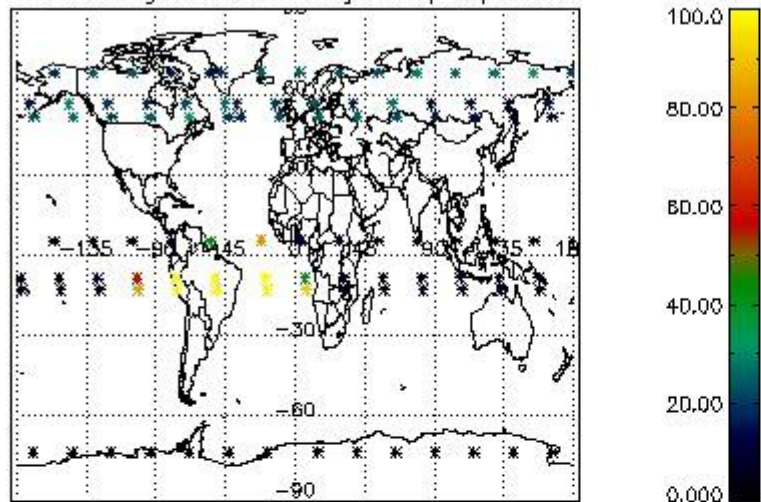




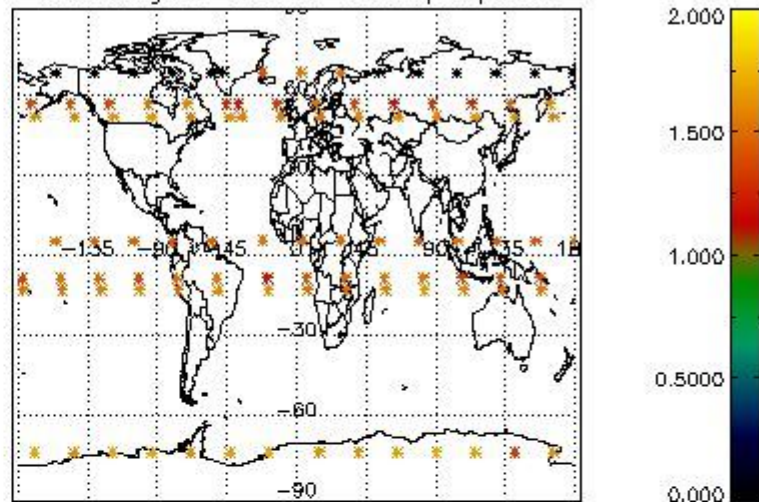
4.2 Plot quality information per product coming from level 1b processing (world map)

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

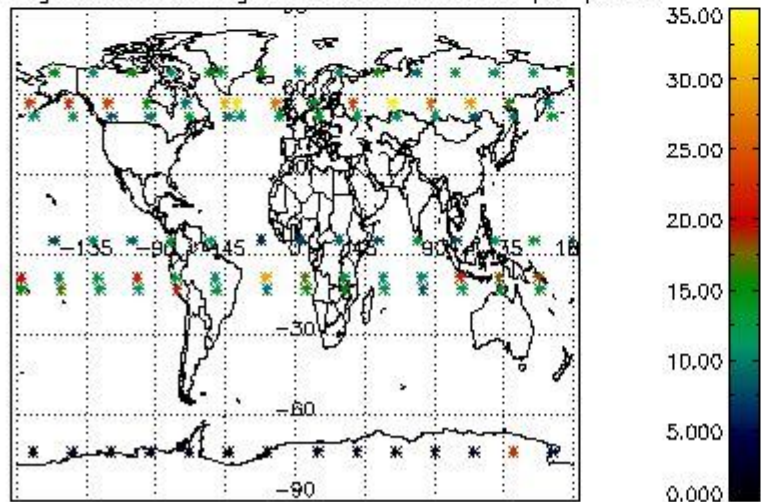
Percentage of cosmic ray hits per profile



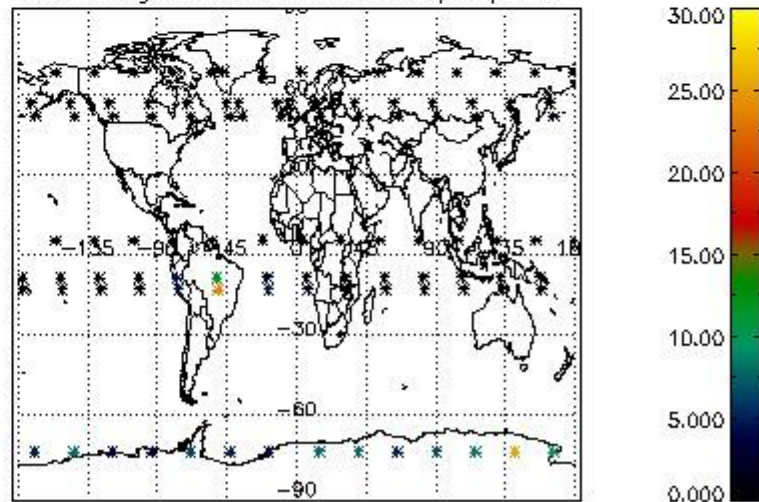
Percentage of datation errors per profile



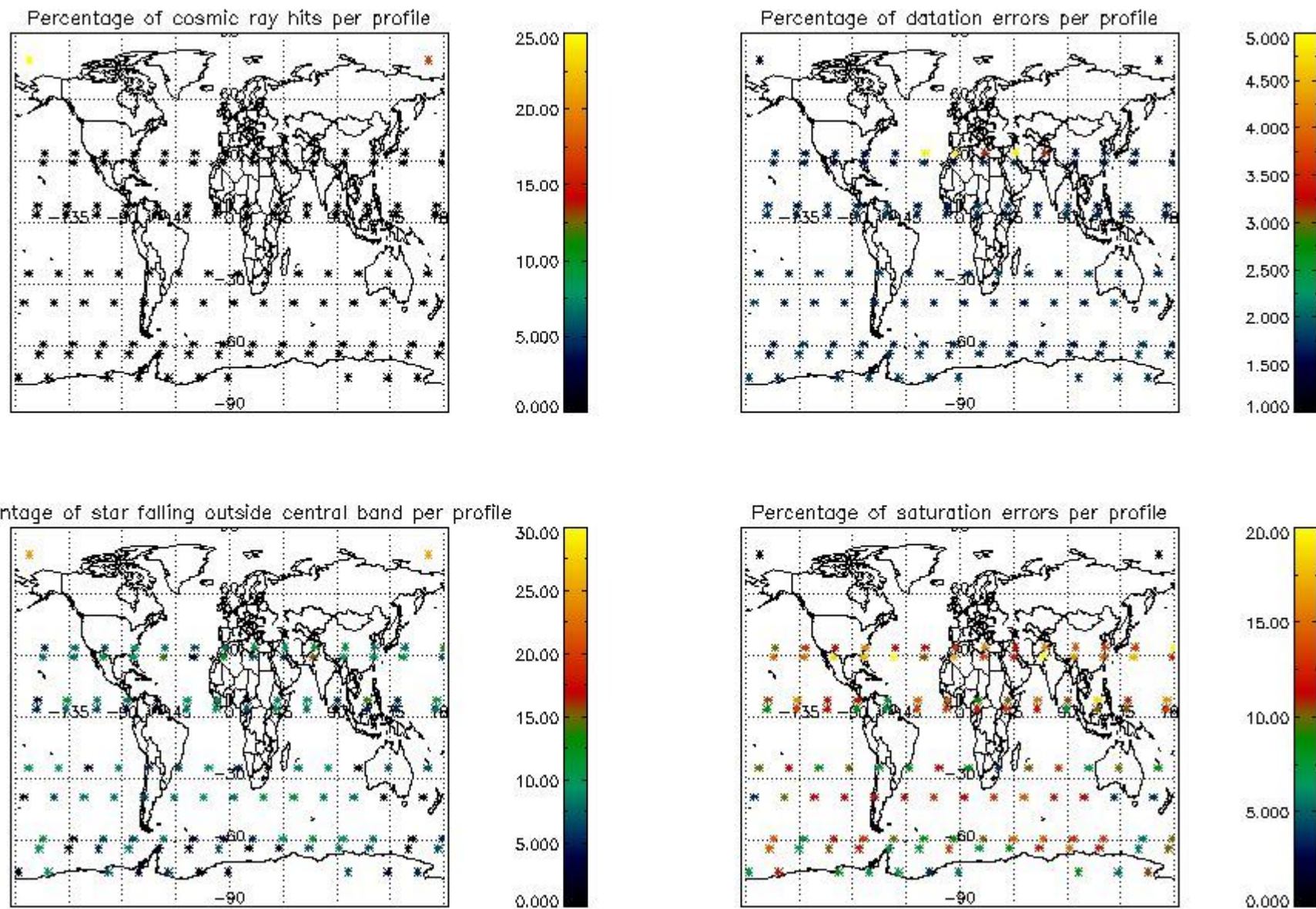
Percentage of star falling outside central band per profile



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

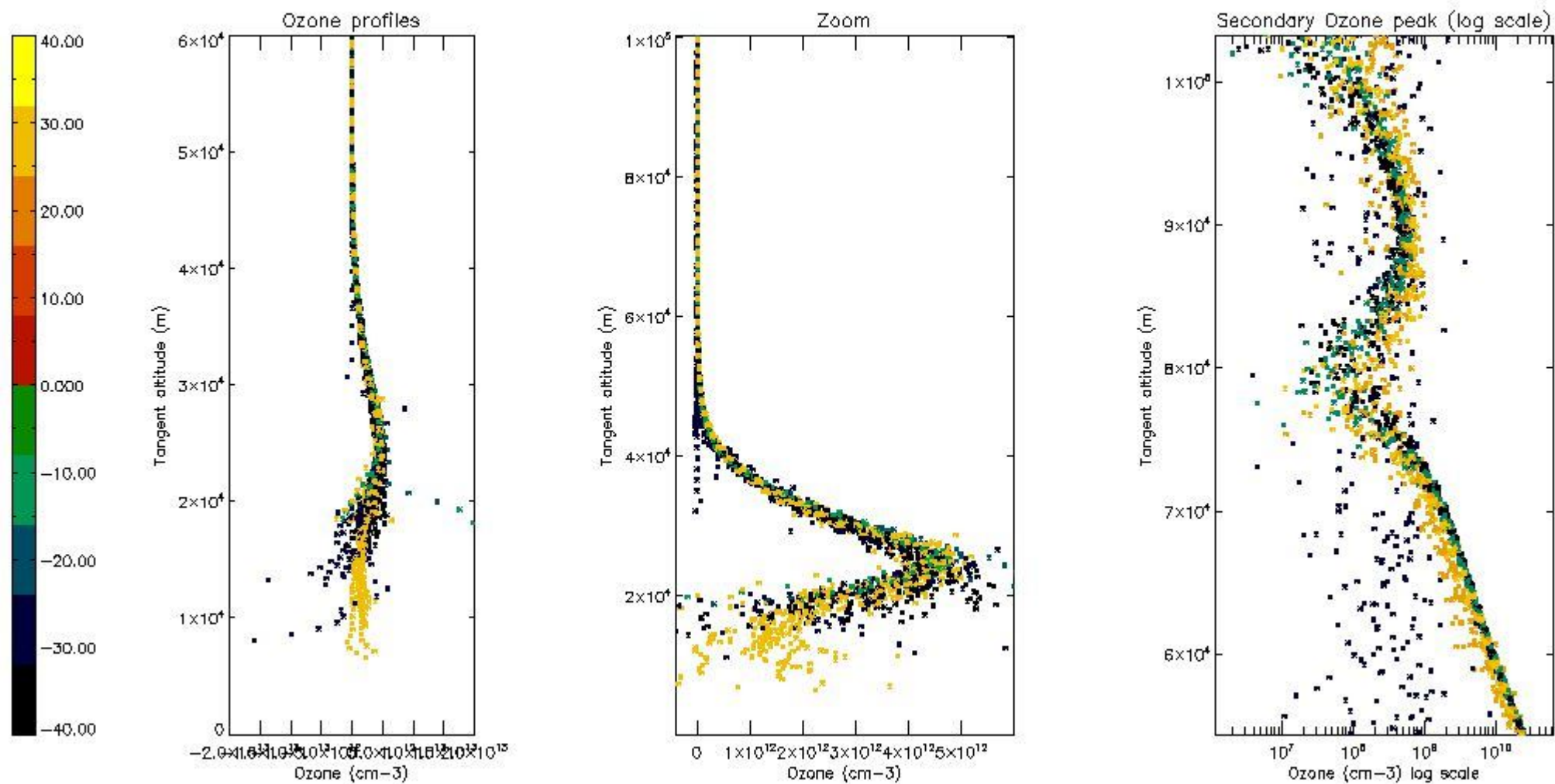
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	35
STD < 20	22

STD < 10	17
STD < 5	11

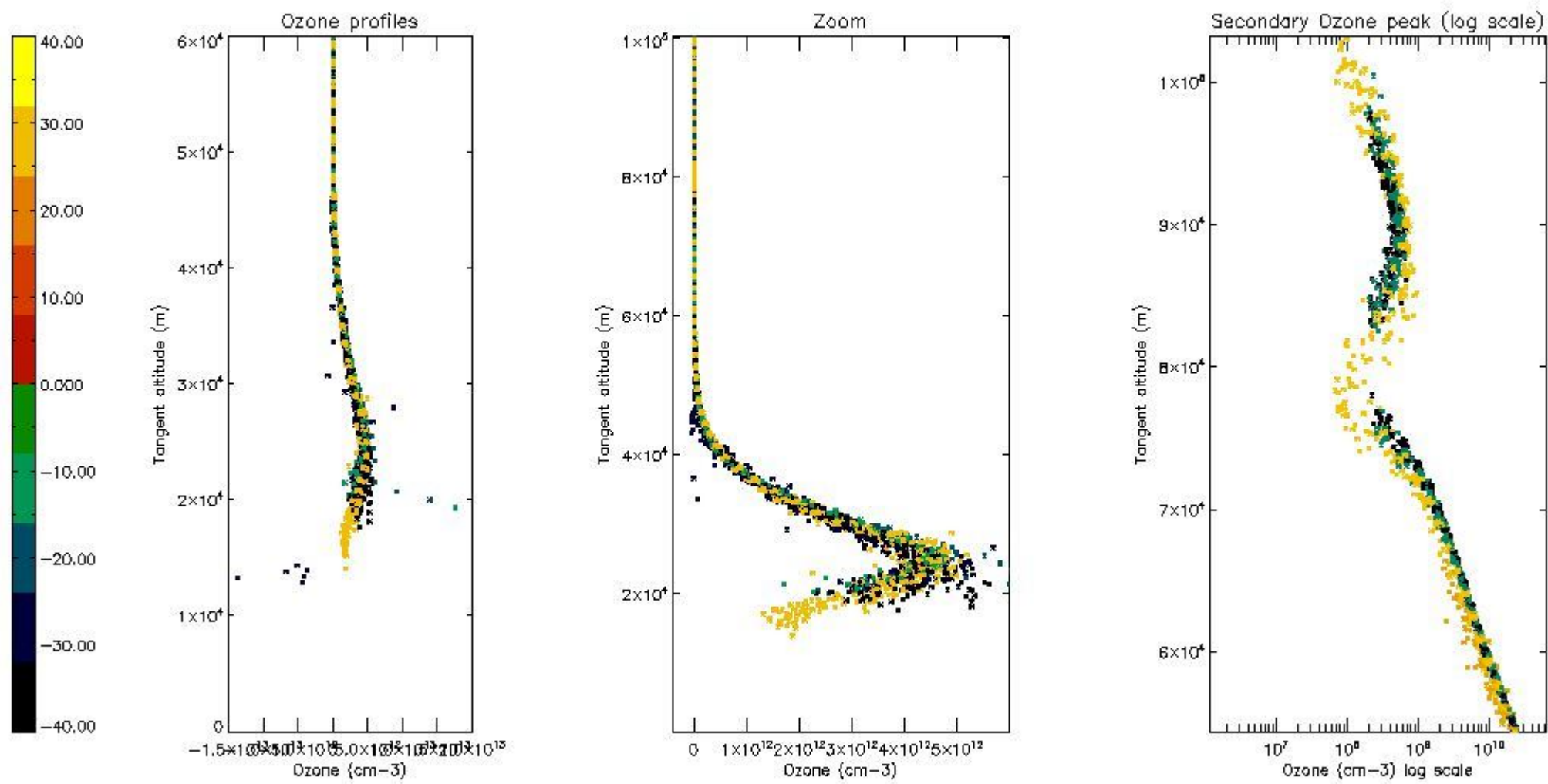
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



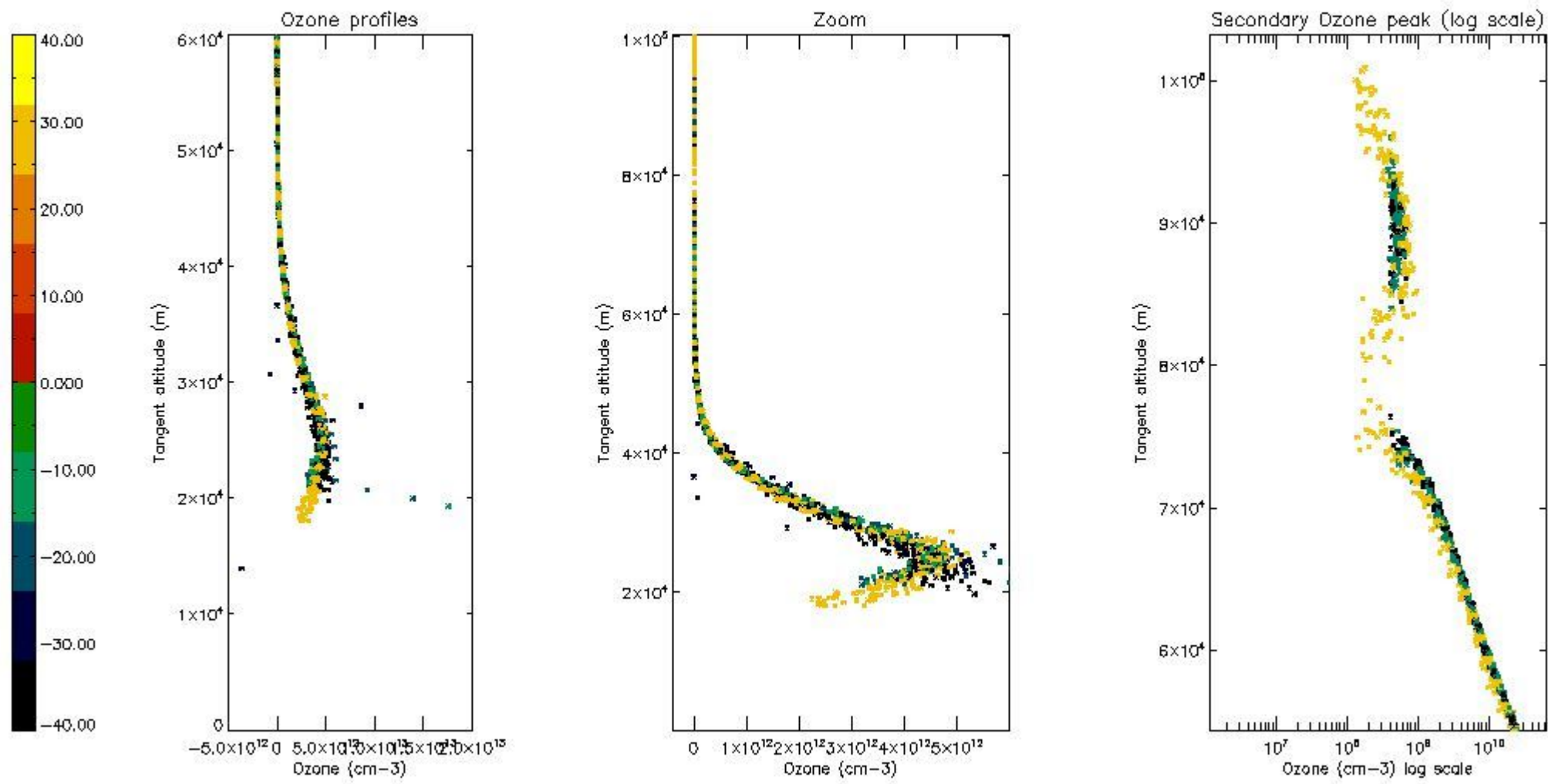
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



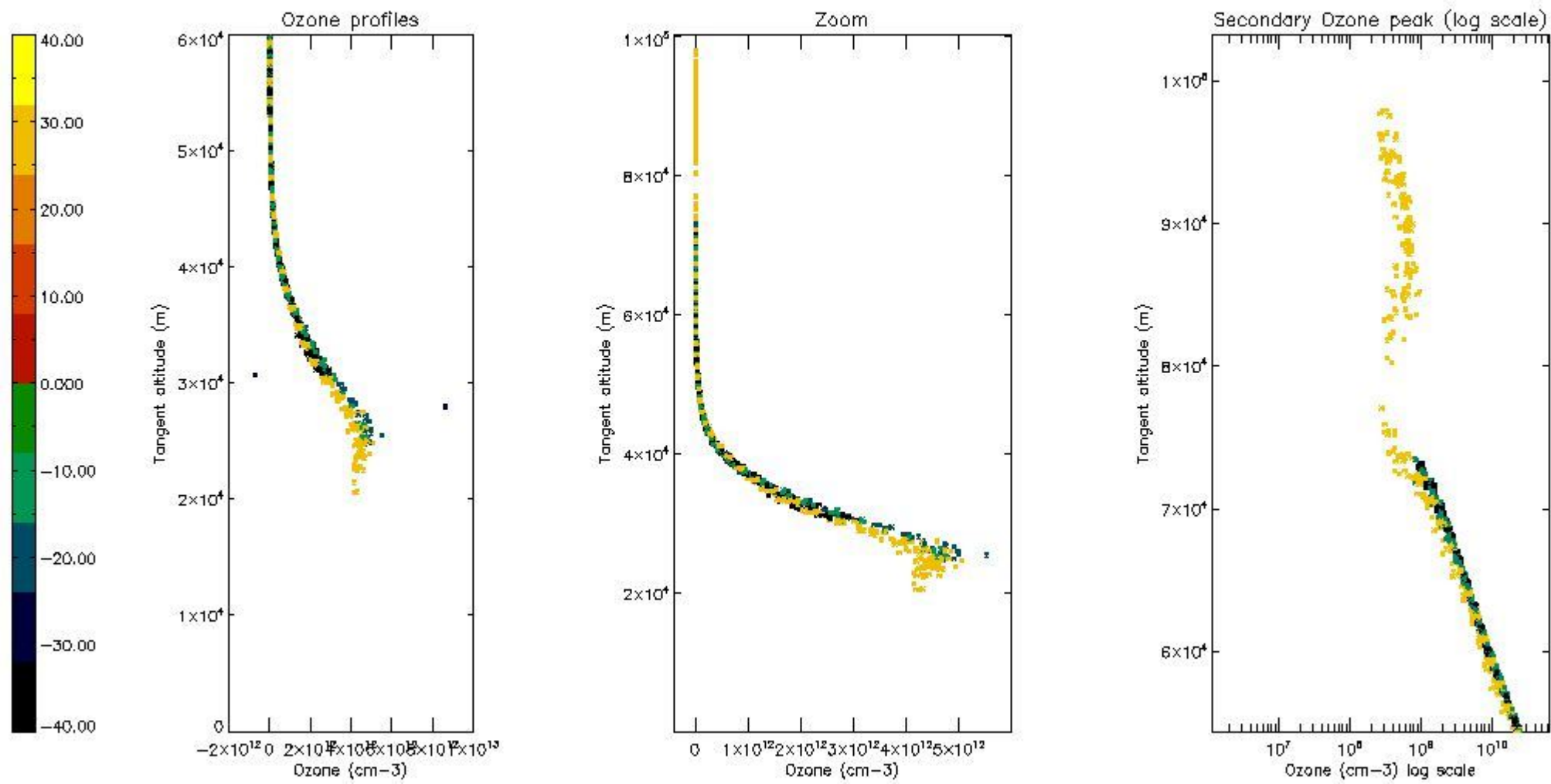
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



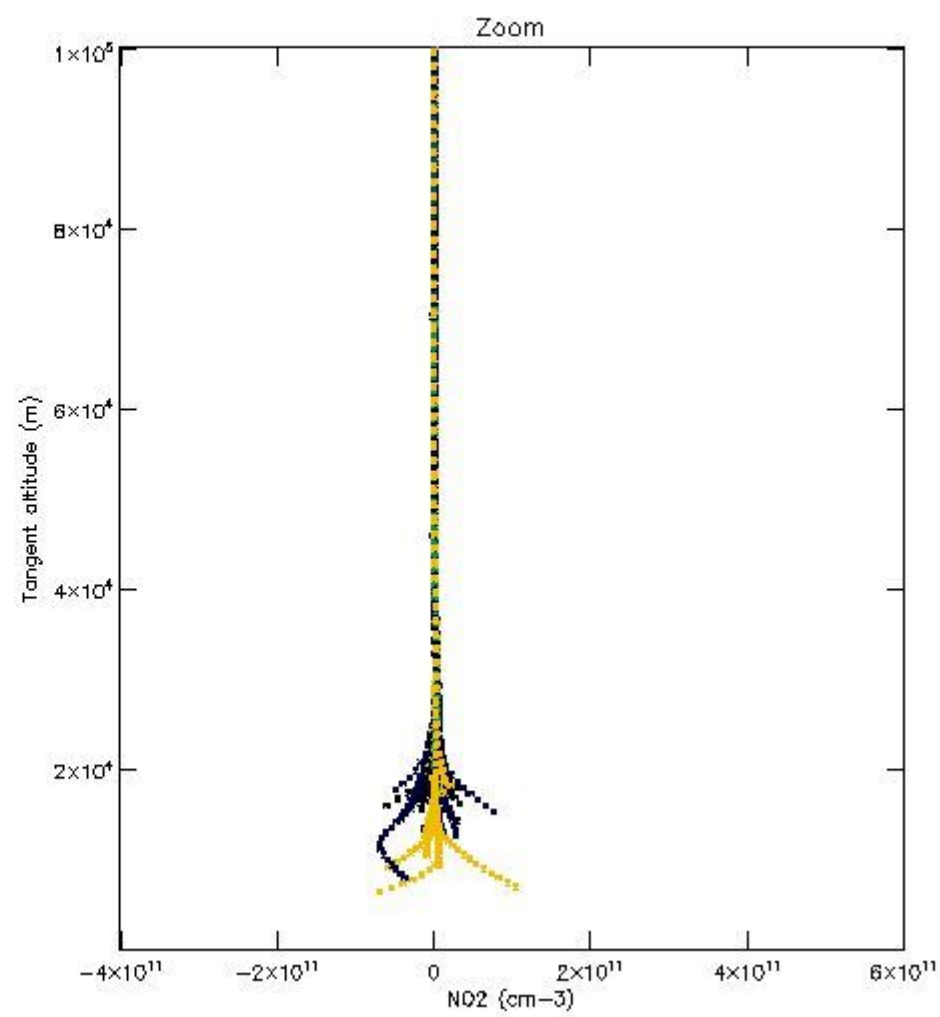
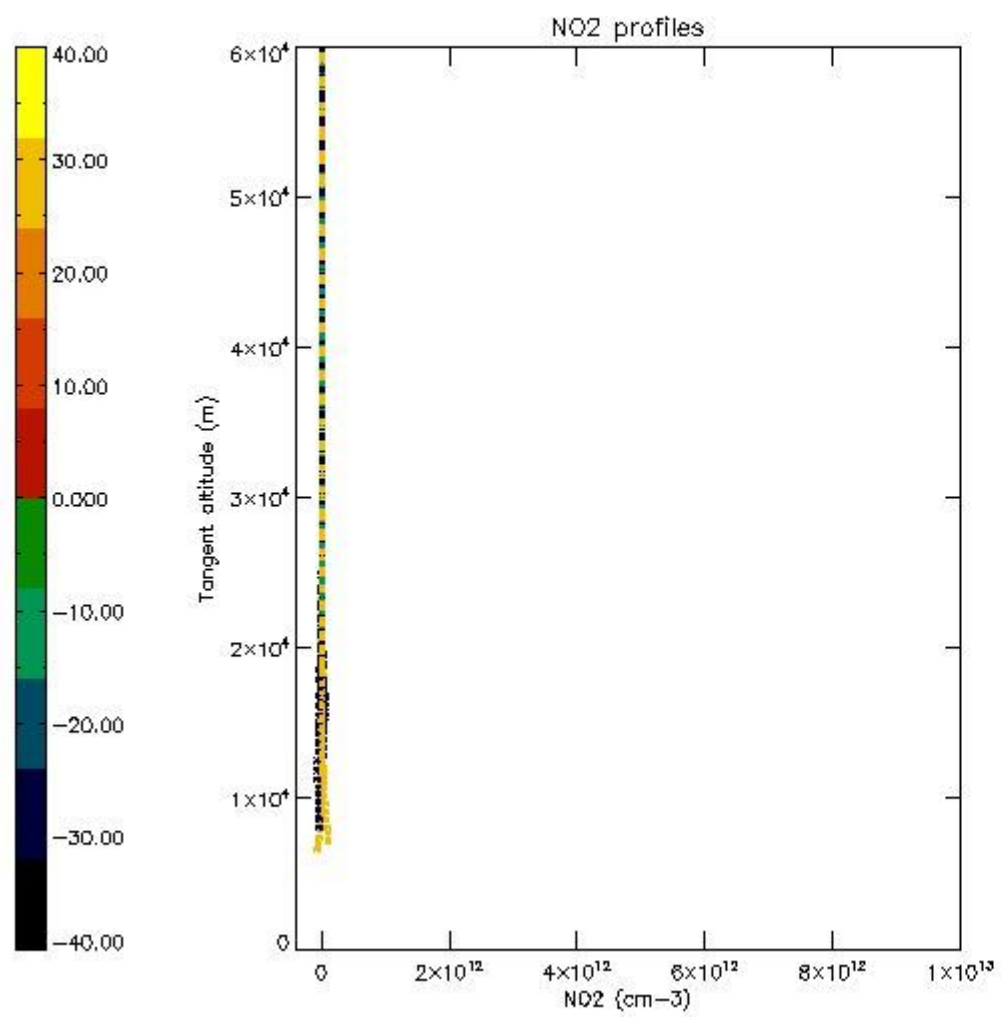
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

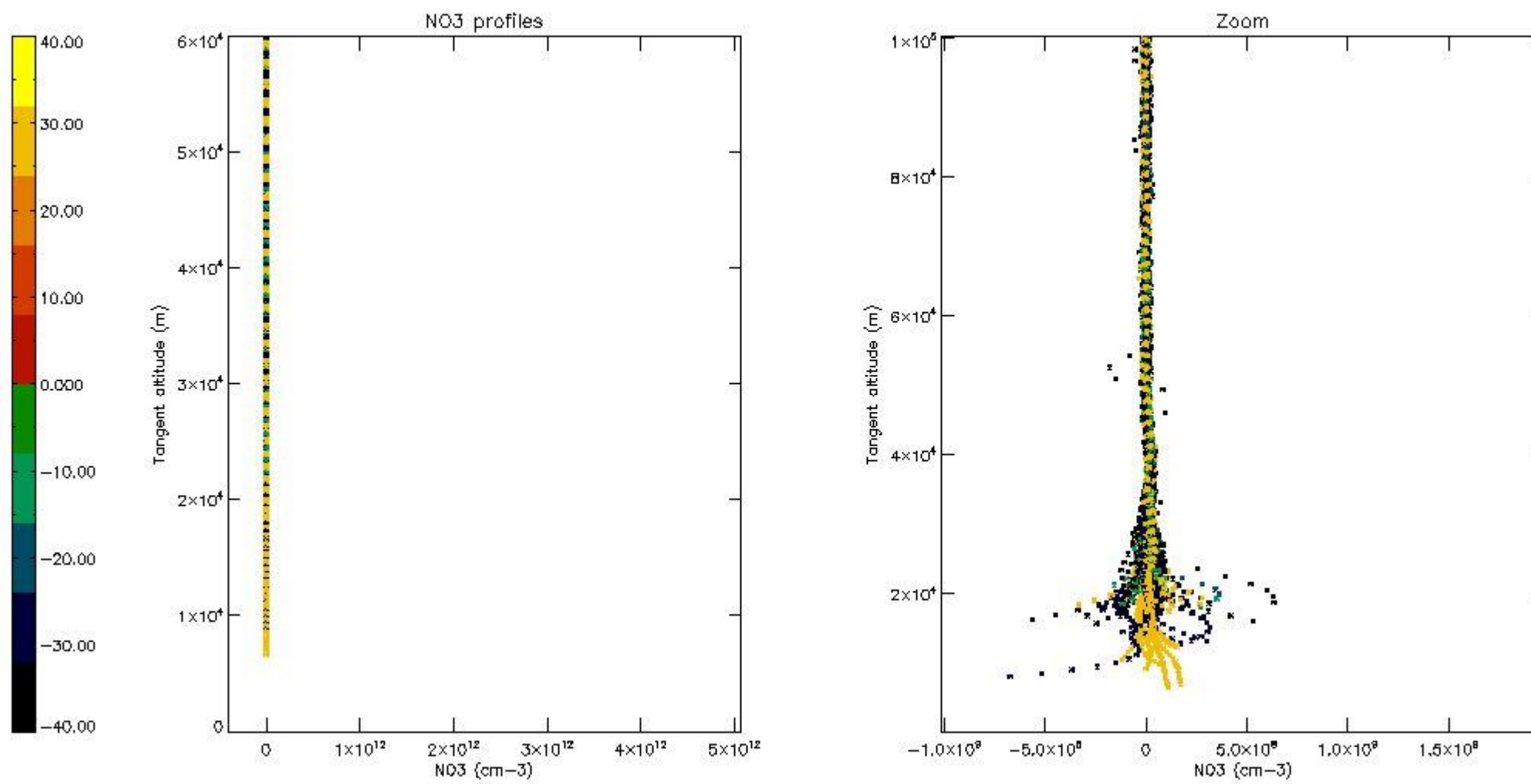
The colorbar represents the latitude.



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

The colorbar represents the latitude.





## 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	04-NOV-2006 00:09:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	04-NOV-2006 00:09:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	04-NOV-2006 00:09:11

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#### [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% \(dark without errors\)](#)

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#### [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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Time of report generation	24APR2013 05:33:33
Data source version	GOMOS/6.01
Start time of products	04-11-2006 (04NOV2006 00:00:00)
Stop time of products	05-11-2006 (05NOV2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	225
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__2PRFIN20061104_000911_000000312052_00360_24462_3181.N1	04-NOV-2006 00:09:11	Dark	31.000	143	Alp Hyi	2.8570	7200.0	62	24462	No
2	GOM_NL__2PRFIN20061104_001033_000000402052_00360_24462_3182.N1	04-NOV-2006 00:10:33	Dark	40.000	9	Alp Eri	0.45300	24000.	80	24462	No
3	GOM_NL__2PRFIN20061104_001358_000000362052_00360_24462_3183.N1	04-NOV-2006 00:13:58	Straylight	35.500	157	The1Eri	2.9060	9300.0	71	24462	No
4	GOM_NL__2PRFIN20061104_002155_000000382052_00360_24462_3184.N1	04-NOV-2006 00:21:55	Straylight	38.000	52	16Bet Cet	2.0370	4500.0	76	24462	No
5	GOM_NL__2PRFIN20061104_003519_000000312052_00360_24462_3185.N1	04-NOV-2006 00:35:19	Bright	30.500	58	21Alp And	2.0730	11000.	61	24462	No
6	GOM_NL__2PRFIN20061104_003637_000000322052_00360_24462_3186.N1	04-NOV-2006 00:36:37	Bright	31.500	53	43Bet And	2.0480	3300.0	63	24462	No
7	GOM_NL__2PRFIN20061104_004233_000000292052_00360_24462_3187.N1	04-NOV-2006 00:42:33	Bright	29.000	68	18Alp Cas	2.2250	4500.0	58	24462	No
8	GOM_NL__2PRFIN20061104_004342_000000292052_00360_24462_3188.N1	04-NOV-2006 00:43:42	Bright	29.000	76	27Gam Cas	2.3000	30000.	58	24462	No
9	GOM_NL__2PRFIN20061104_005147_000000302052_00360_24462_3189.N1	04-NOV-2006 00:51:47	Bright	30.000	49	1Alp UMi	1.9900	6300.0	60	24462	No
10	GOM_NL__2PRFIN20061104_005544_000000282052_00360_24462_3190.N1	04-NOV-2006 00:55:44	Bright	27.500	60	7Bet UMi	2.0810	3950.0	55	24462	No
11	GOM_NL__2PRFIN20061104_010135_000000312052_00360_24462_3191.N1	04-NOV-2006 01:01:35	Bright	30.500	32	77Eps UMa	1.7630	11000.	61	24462	No
12	GOM_NL__2PRFIN20061104_010256_000000302052_00360_24462_3192.N1	04-NOV-2006 01:02:56	Bright	30.000	39	85Eta UMa	1.8540	24000.	60	24462	No
13	GOM_NL__2PRFIN20061104_010630_000000292052_00360_24462_3193.N1	04-NOV-2006 01:06:30	Bright	29.000	152	12Alp2CVn	2.8900	11000.	58	24462	No
14	GOM_NL__2PRFIN20061104_011400_000000302052_00360_24462_3194.N1	04-NOV-2006 01:14:00	Bright	29.500	62	94Bet Leo	2.1360	9700.0	59	24462	No
15	GOM_NL__2PRFIN20061104_013133_000000322052_00360_24462_3195.N1	04-NOV-2006 01:31:33	Dark	31.500	99	Del Cen	2.5750	26000.	63	24462	No
16	GOM_NL__2PRFIN20061104_013245_000000332052_00360_24462_3196.N1	04-NOV-2006 01:32:45	Dark	32.500	113	Mu Vel	2.6920	5000.0	65	24462	No
17	GOM_NL__2PRFIN20061104_013637_000000352052_00361_24463_3487.N1	04-NOV-2006 01:36:37	Dark	34.500	91	Kap Vel	2.4900	26000.	69	24463	No
18	GOM_NL__2PRFIN20061104_014947_000000332052_00361_24463_3488.N1	04-NOV-2006 01:49:47	Dark	32.500	143	Alp Hyi	2.8570	7200.0	65	24463	No
19	GOM_NL__2PRFIN20061104_015110_000000322052_00361_24463_3489.N1	04-NOV-2006 01:51:10	Dark	31.500	9	Alp Eri	0.45300	24000.	63	24463	No
20	GOM_NL__2PRFIN20061104_015434_000000332052_00361_24463_3490.N1	04-NOV-2006 01:54:34	Straylight	33.000	157	The1Eri	2.9060	9300.0	66	24463	No
21	GOM_NL__2PRFIN20061104_020231_000000392052_00361_24463_3491.N1	04-NOV-2006 02:02:31	Straylight	39.000	52	16Bet Cet	2.0370	4500.0	78	24463	No
22	GOM_NL__2PRFIN20061104_021556_000000312052_00361_24463_3492.N1	04-NOV-2006 02:15:56	Bright	31.000	58	21Alp And	2.0730	11000.	62	24463	No
23	GOM_NL__2PRFIN20061104_021713_000000312052_00361_24463_3493.N1	04-NOV-2006 02:17:13	Bright	31.000	53	43Bet And	2.0480	3300.0	62	24463	No
24	GOM_NL__2PRFIN20061104_022309_000000322052_00361_24463_3494.N1	04-NOV-2006 02:23:09	Bright	32.000	68	18Alp Cas	2.2250	4500.0	64	24463	No
25	GOM_NL__2PRFIN20061104_022418_000000302052_00361_24463_3495.N1	04-NOV-2006 02:24:18	Bright	29.500	76	27Gam Cas	2.3000	30000.	59	24463	No
26	GOM_NL__2PRFIN20061104_023223_000000282052_00361_24463_3496.N1	04-NOV-2006 02:32:23	Bright	28.000	49	1Alp UMi	1.9900	6300.0	56	24463	No
27	GOM_NL__2PRFIN20061104_023620_000000312052_00361_24463_3497.N1	04-NOV-2006 02:36:20	Bright	30.500	60	7Bet UMi	2.0810	3950.0	61	24463	No
28	GOM_NL__2PRFIN20061104_024211_000000312052_00361_24463_3498.N1	04-NOV-2006 02:42:11	Bright	31.000	32	77Eps UMa	1.7630	11000.	62	24463	No
29	GOM_NL__2PRFIN20061104_024332_000000312052_00361_24463_3499.N1	04-NOV-2006 02:43:32	Bright	30.500	39	85Eta UMa	1.8540	24000.	61	24463	No
30	GOM_NL__2PRFIN20061104_025436_000000302052_00361_24463_3500.N1	04-NOV-2006 02:54:36	Bright	30.000	62	94Bet Leo	2.1360	9700.0	60	24463	No
31	GOM_NL__2PRFIN20061104_031209_000000342052_00361_24463_3501.N1	04-NOV-2006 03:12:09	Dark	34.000	99	Del Cen	2.5750	26000.	68	24463	No
32	GOM_NL__2PRFIN20061104_031322_000000342052_00361_24463_3502.N1	04-NOV-2006 03:13:22	Dark	33.500	113	Mu Vel	2.6920	5000.0	67	24463	No
33	GOM_NL__2PRFIN20061104_031714_000000352052_00362_24464_3182.N1	04-NOV-2006 03:17:14	Dark	35.000	91	Kap Vel	2.4900	26000.	70	24464	No
34	GOM_NL__2PRFIN20061104_033023_000000312052_00362_24464_3183.N1	04-NOV-2006 03:30:23	Dark	30.500	143	Alp Hyi	2.8570	7200.0	61	24464	No
35	GOM_NL__2PRFIN20061104_033146_000000332052_00362_24464_3184.N1	04-NOV-2006 03:31:46	Dark	33.000	9	Alp Eri	0.45300	24000.	66	24464	No
36	GOM_NL__2PRFIN20061104_033510_000000352052_00362_24464_3185.N1	04-NOV-2006 03:35:10	Straylight	35.000	157	The1Eri	2.9060	9300.0	70	24464	No
37	GOM_NL__2PRFIN20061104_035632_000000322052_00362_24464_3186.N1	04-NOV-2006 03:56:32	Bright	31.500	58	21Alp And	2.0730	11000.	63	24464	No
38	GOM_NL__2PRFIN20061104_035749_000000312052_00362_24464_3187.N1	04-NOV-2006 03:57:49	Bright	31.000	53	43Bet And	2.0480	3300.0	62	24464	No
39	GOM_NL__2PRFIN20061104_040345_000000292052_00362_24464_3188.N1	04-NOV-2006 04:03:45	Bright	28.500	68	18Alp Cas	2.2250	4500.0	57	24464	No
40	GOM_NL__2PRFIN20061104_040454_000000282052_00362_24464_3189.N1	04-NOV-2006 04:04:54	Bright	27.500	76	27Gam Cas	2.3000	30000.	55	24464	No
41	GOM_NL__2PRFIN20061104_041259_000000312052_00362_24464_3190.N1	04-NOV-2006 04:12:59	Bright	31.000	49	1Alp UMi	1.9900	6300.0	62	24464	No
42	GOM_NL__2PRFIN20061104_041656_000000302052_00362_24464_3191.N1	04-NOV-2006 04:16:56	Bright	30.000	60	7Bet UMi	2.0810	3950.0	60	24464	No





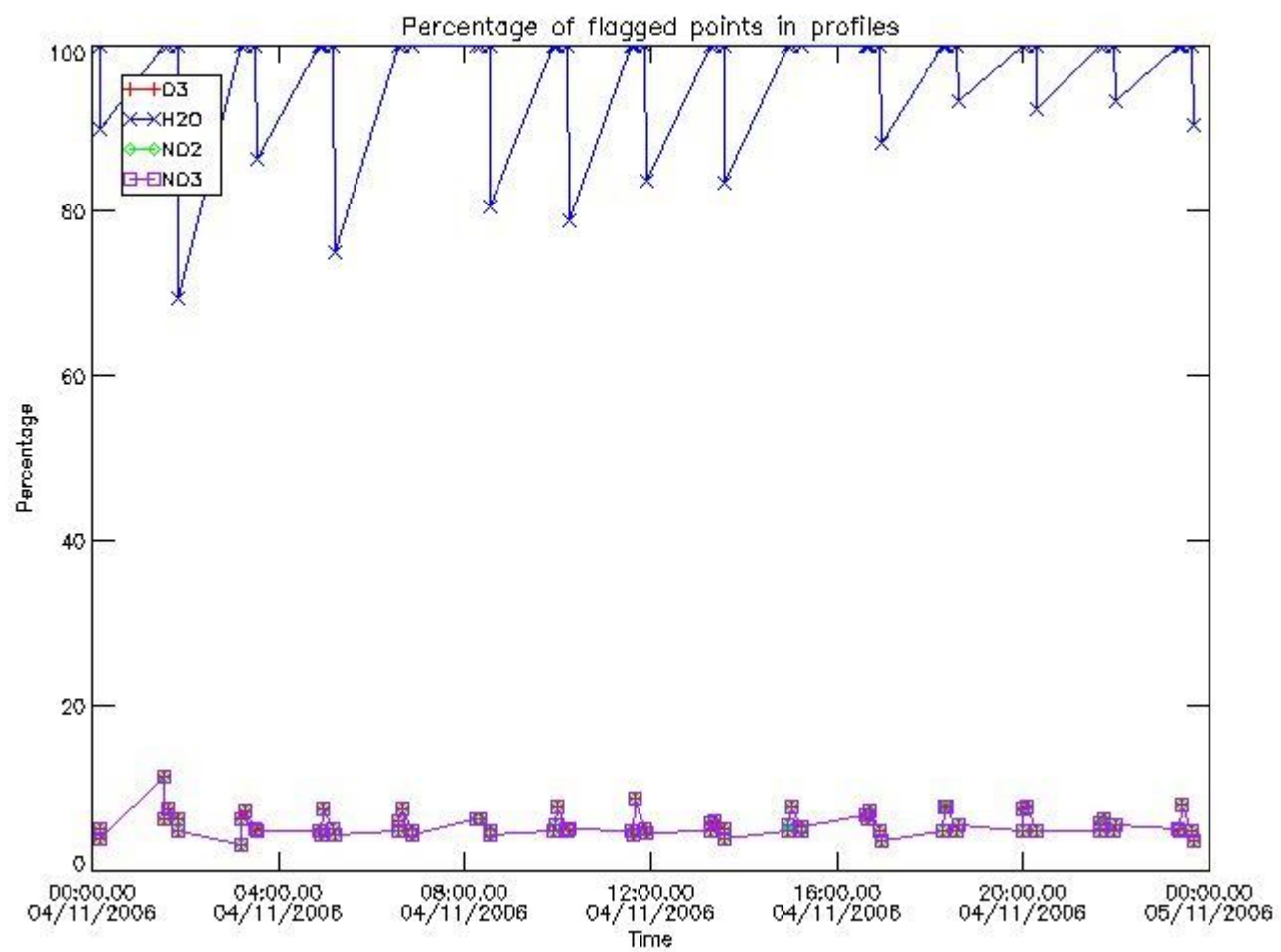


220	GOM_NL__2PRFIN20061104_231922_000000312052_00373_24475_3216.N1	04-NOV-2006 23:19:22	Dark	31.000	99	Del Cen	2.5750	26000.	62	24475	No
221	GOM_NL__2PRFIN20061104_232039_000000422052_00373_24475_3217.N1	04-NOV-2006 23:20:39	Dark	42.000	113	Mu Vel	2.6920	5000.0	84	24475	No
222	GOM_NL__2PRFIN20061104_232432_000000332052_00374_24476_3202.N1	04-NOV-2006 23:24:32	Dark	32.500	91	Kap Vel	2.4900	26000.	65	24476	No
223	GOM_NL__2PRFIN20061104_233736_000000322052_00374_24476_3203.N1	04-NOV-2006 23:37:36	Dark	32.000	143	Alp Hyi	2.8570	7200.0	64	24476	No
224	GOM_NL__2PRFIN20061104_233859_000000422052_00374_24476_3204.N1	04-NOV-2006 23:38:59	Dark	42.000	9	Alp Eri	0.45300	24000.	84	24476	No
225	GOM_NL__2PRFIN20061104_234225_000000342052_00374_24476_3205.N1	04-NOV-2006 23:42:25	Straylight	34.000	157	The1Eri	2.9060	9300.0	68	24476	No

### 3. Quality information per product

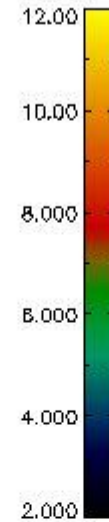
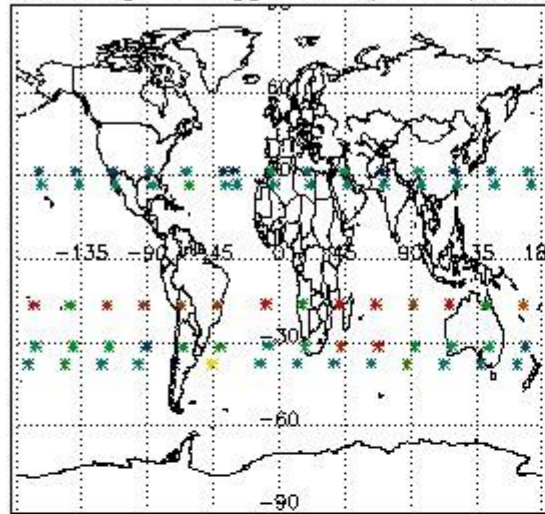
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

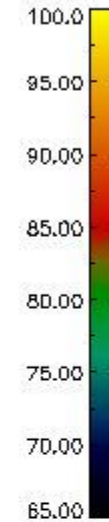
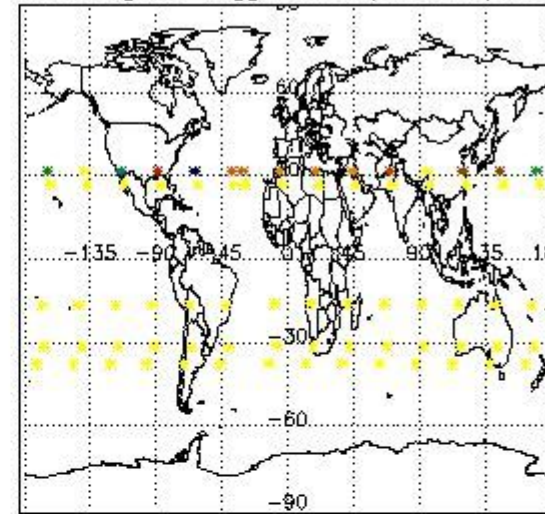


#### 3.2 Plot quality information per product (world map)

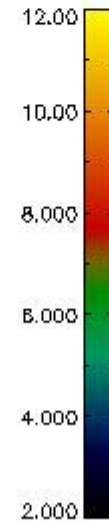
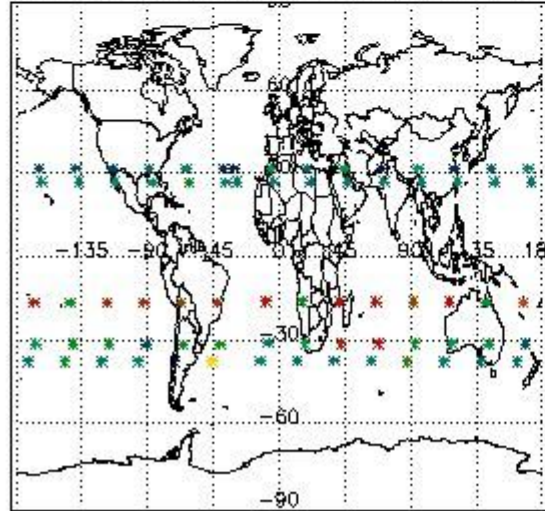
Percentage of flagged data per O3 profile



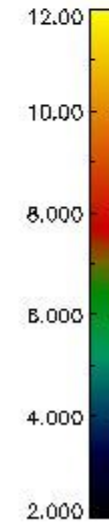
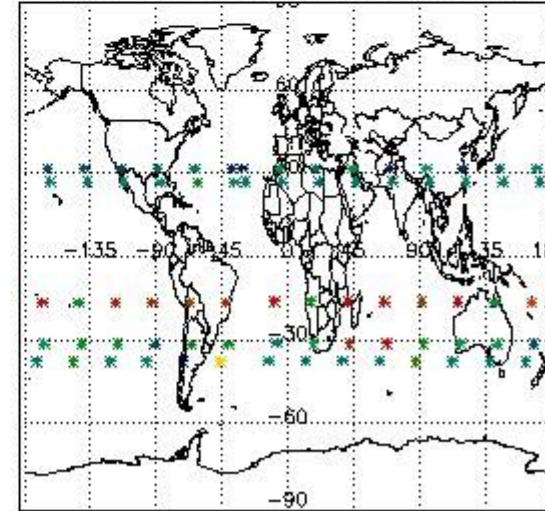
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



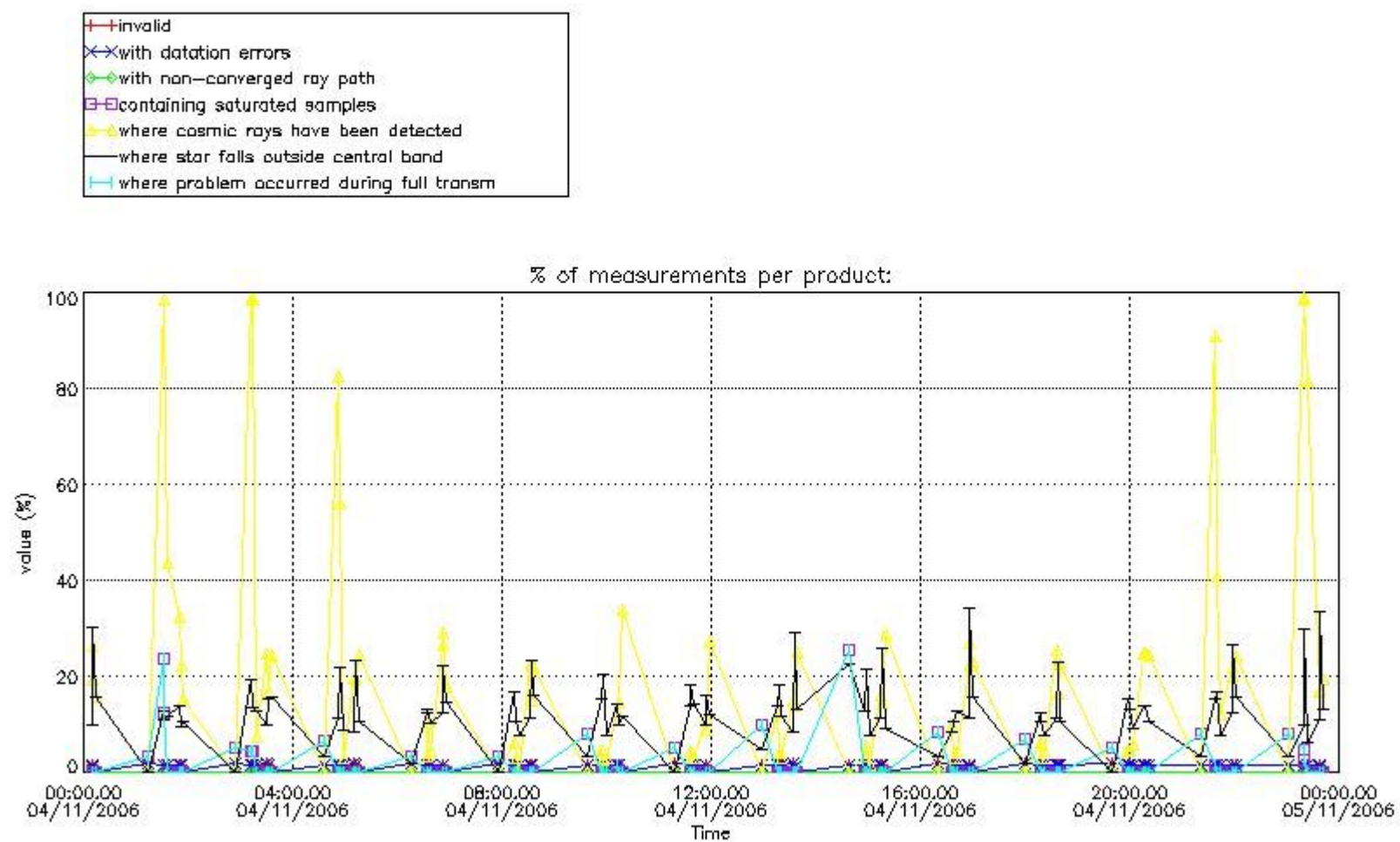
#### 4. Level 1 quality information per product

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

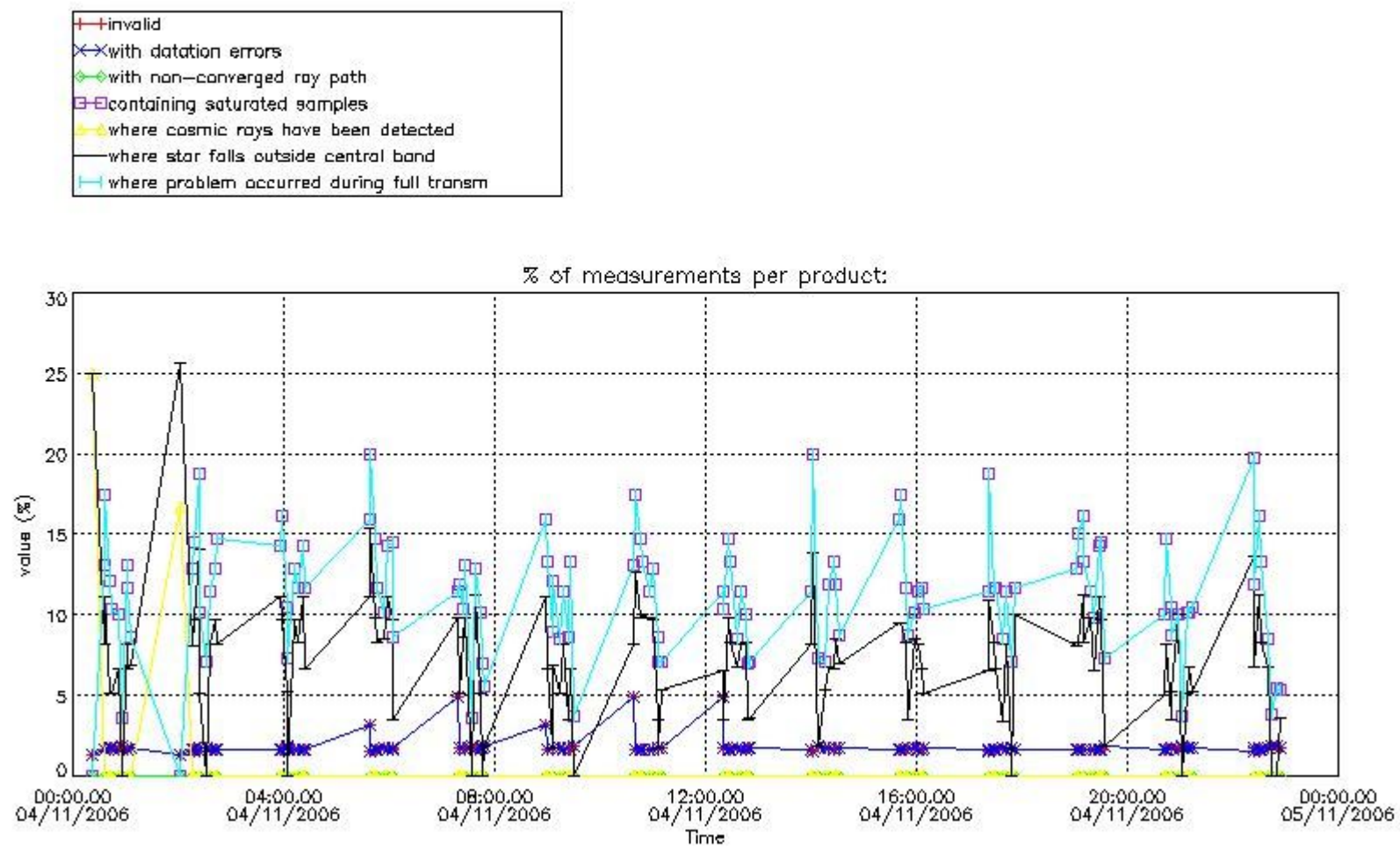
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





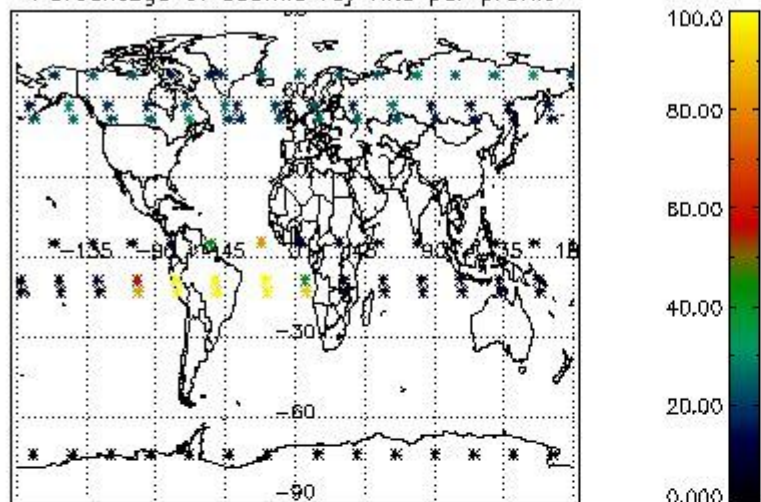
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



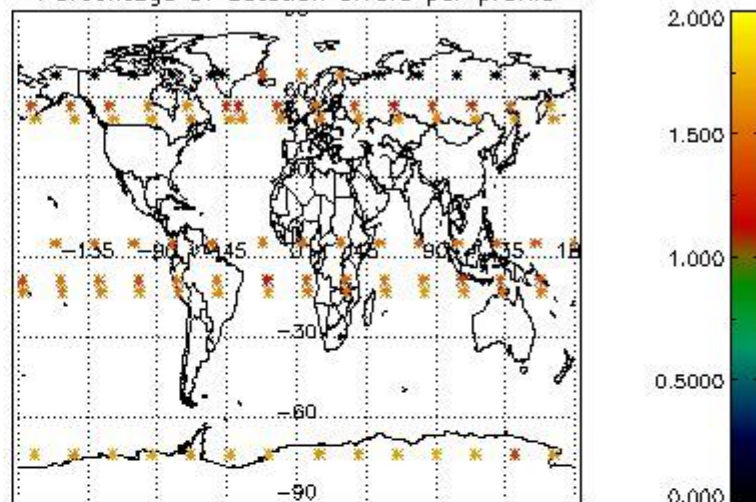
4.2 Plot quality information per product coming from level 1b processing (world map)

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

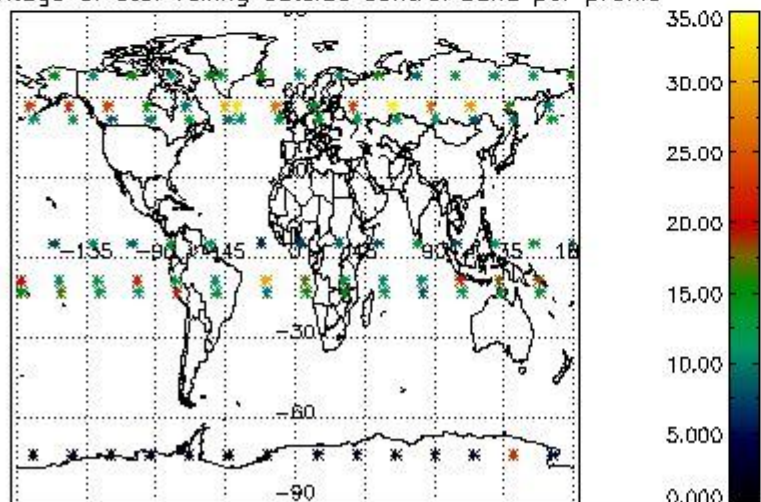
Percentage of cosmic ray hits per profile



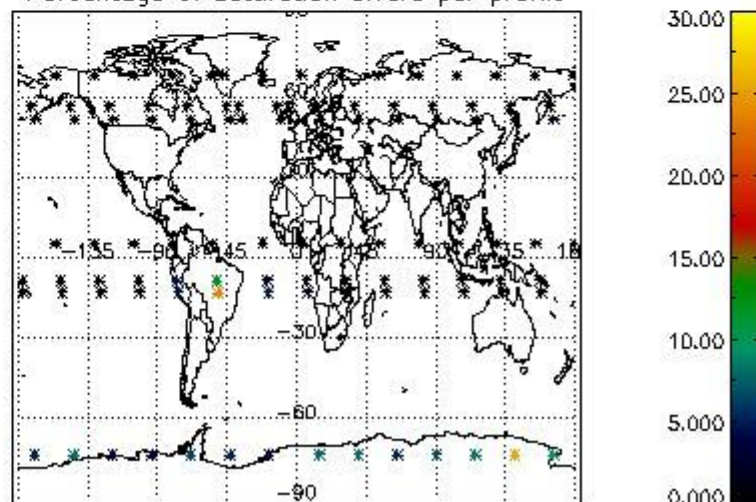
Percentage of datation errors per profile



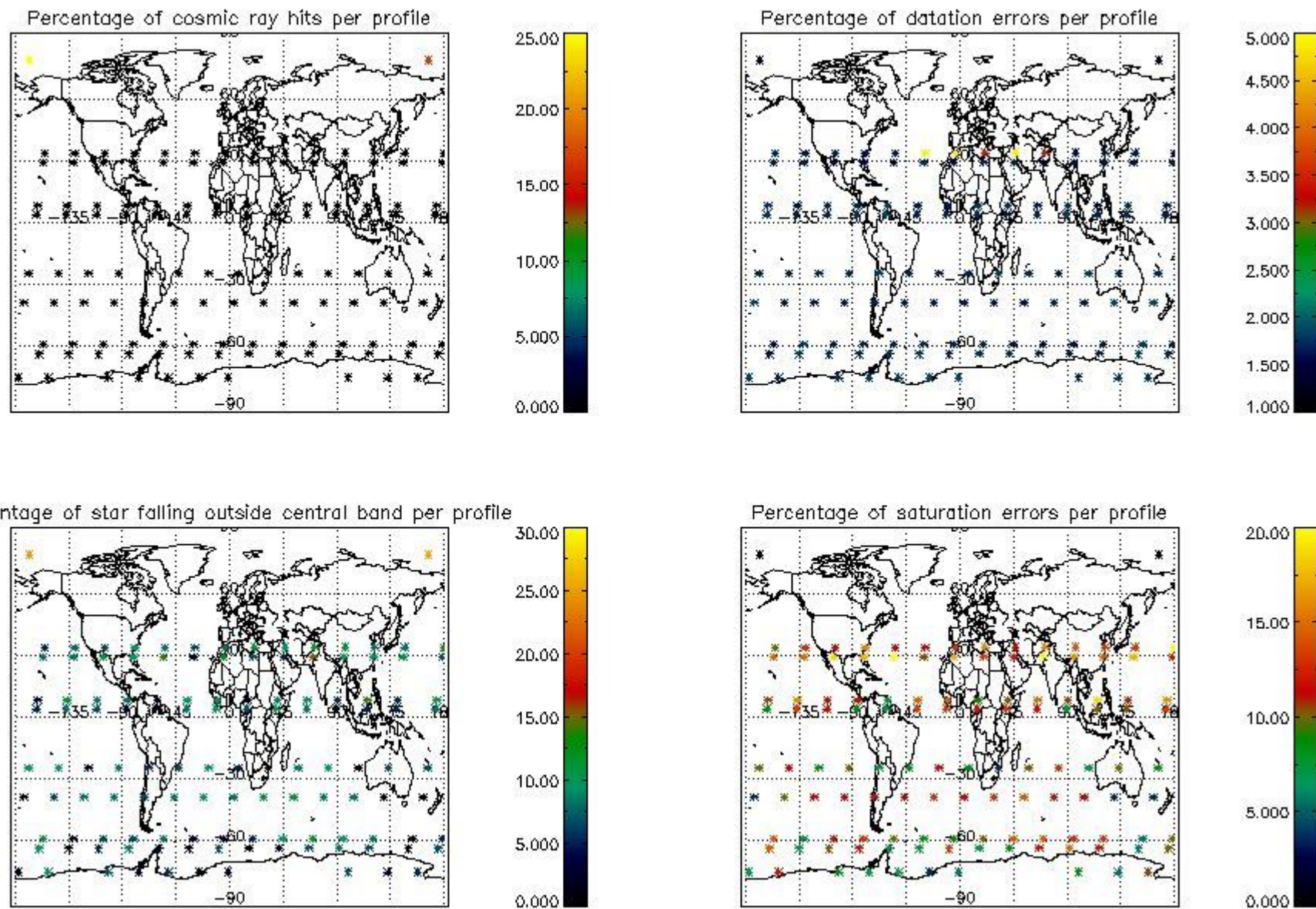
Percentage of star falling outside central band per profile



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

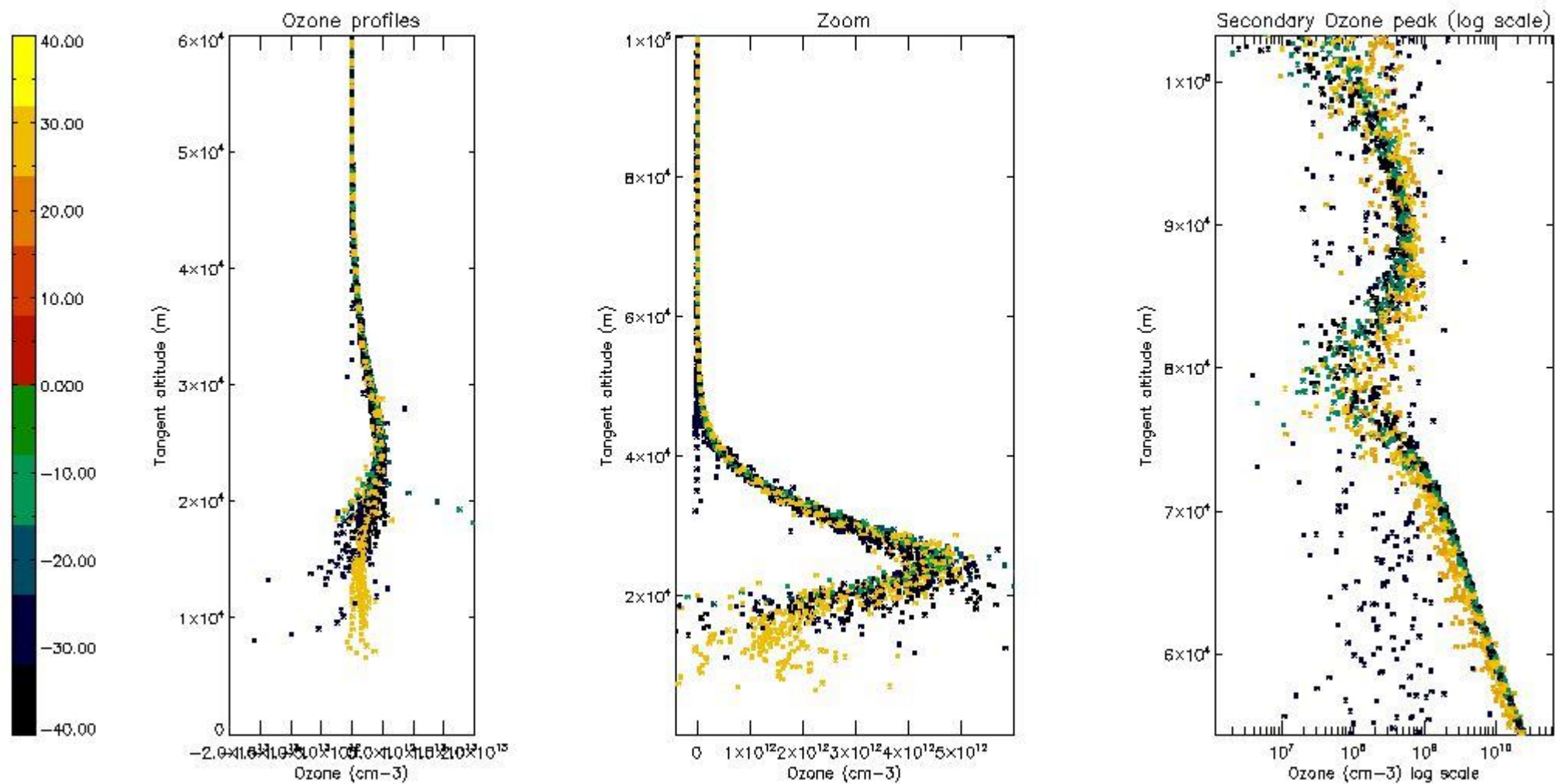
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	35
STD < 20	22

STD < 10	17
STD < 5	11

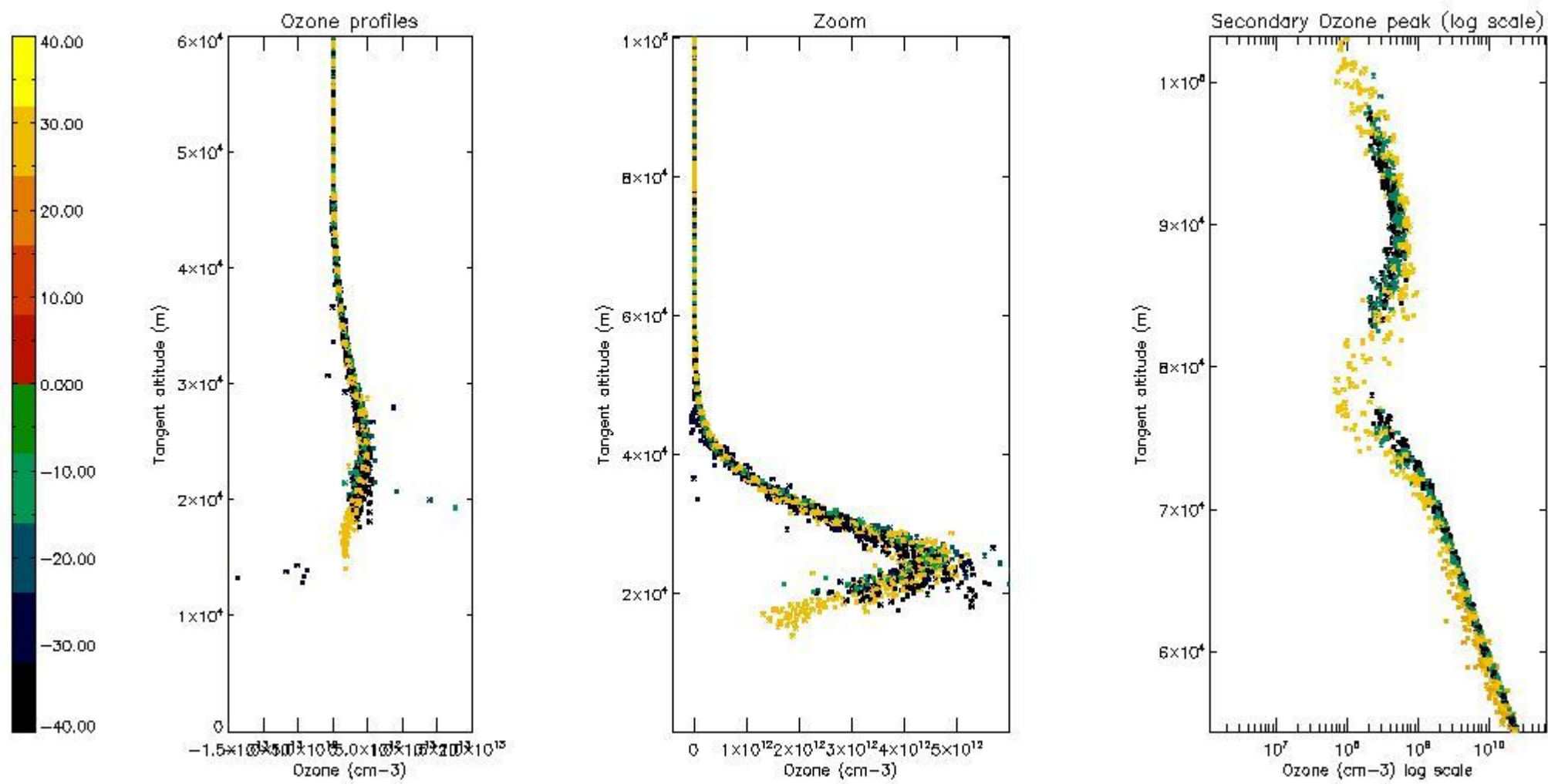
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



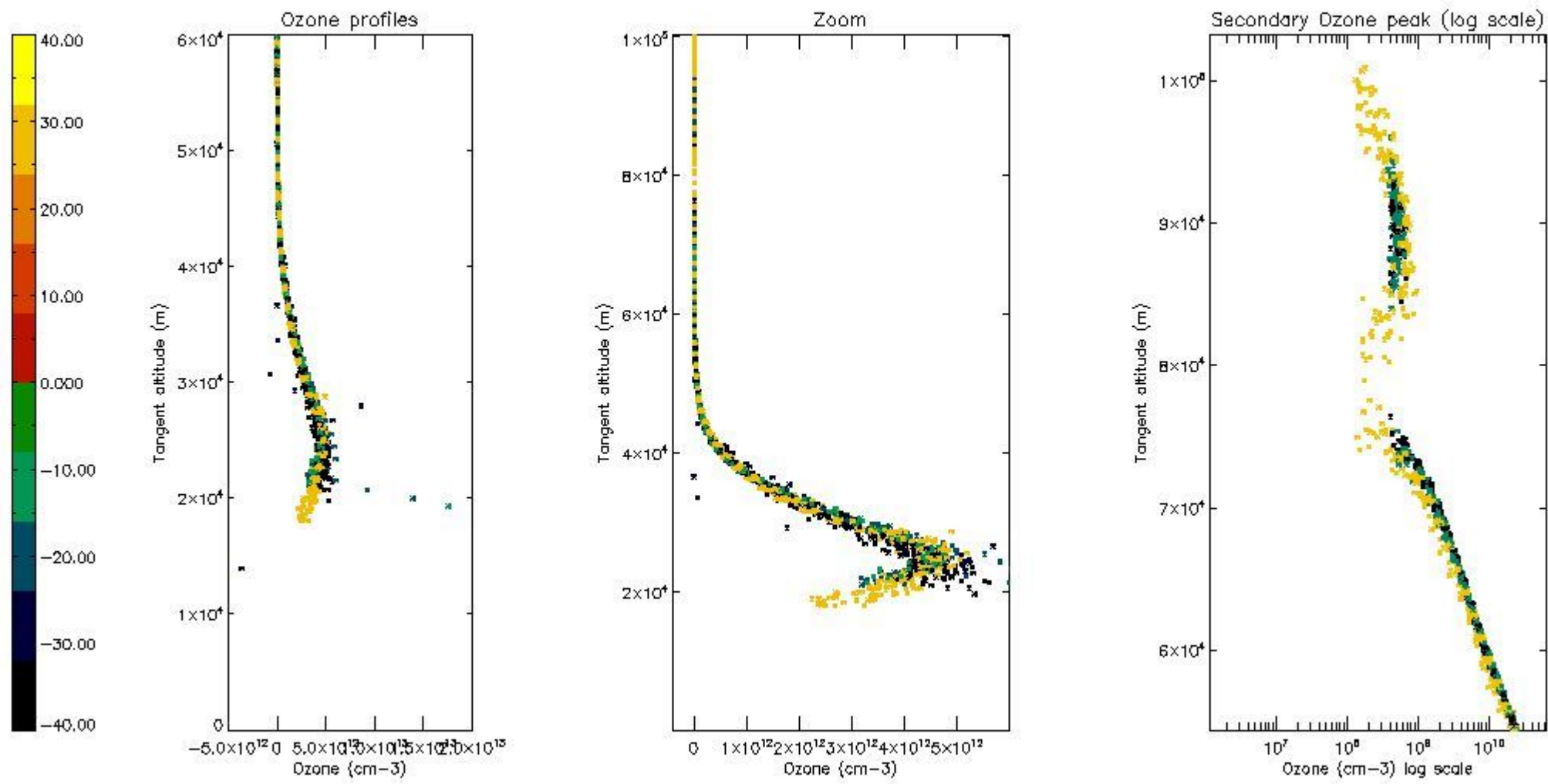
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



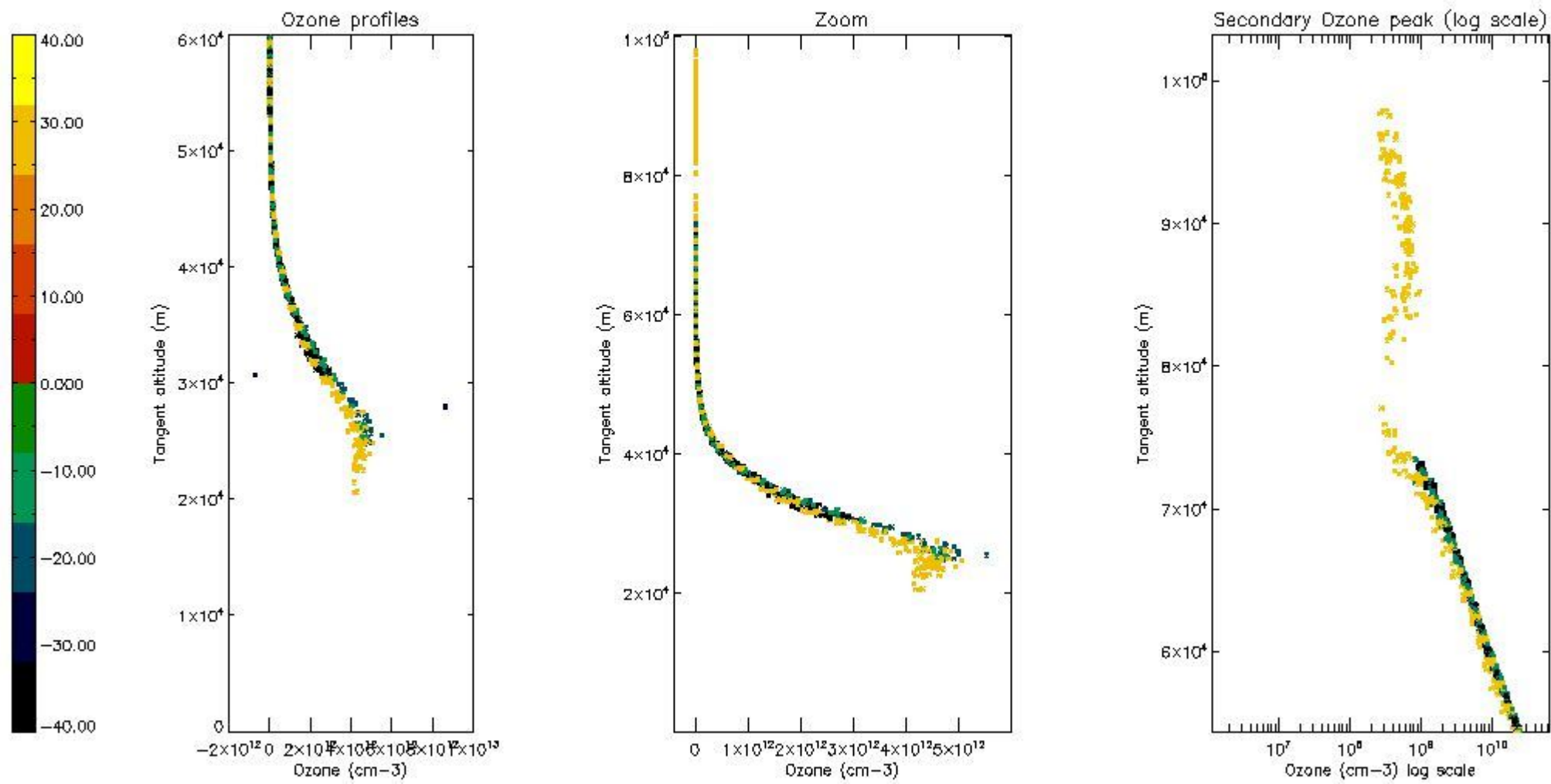
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

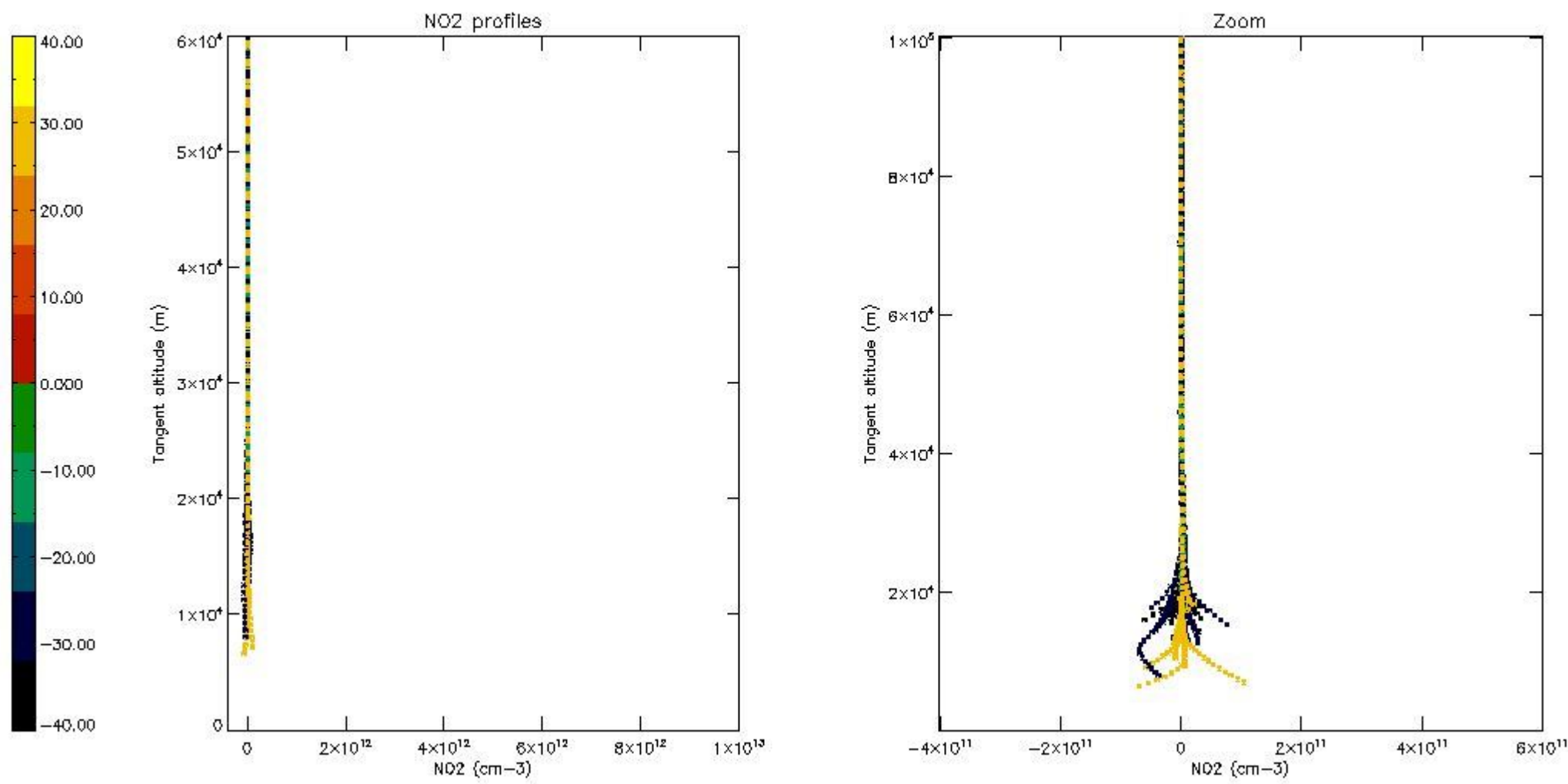
The colorbar represents the latitude.



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

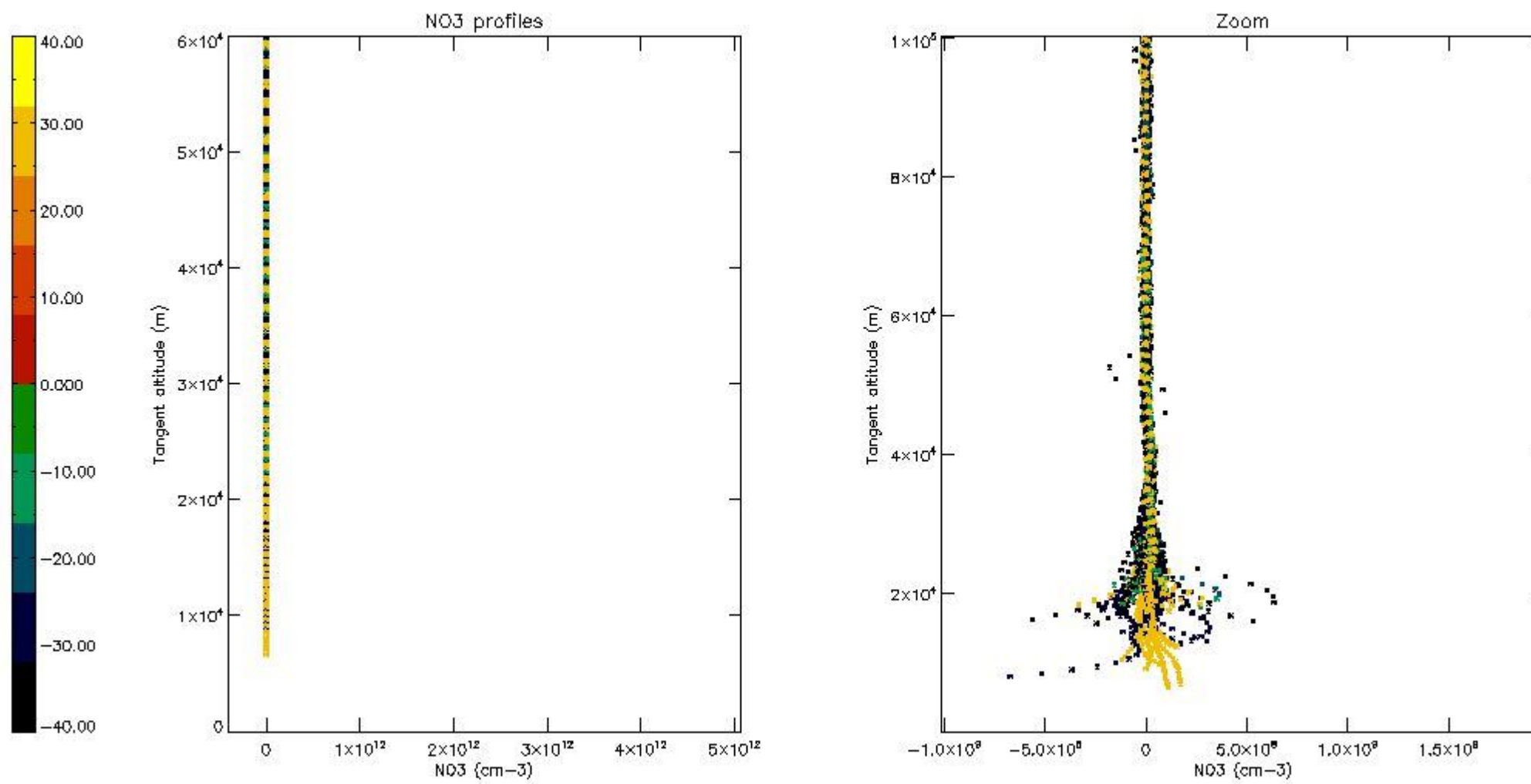
The colorbar represents the latitude.





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

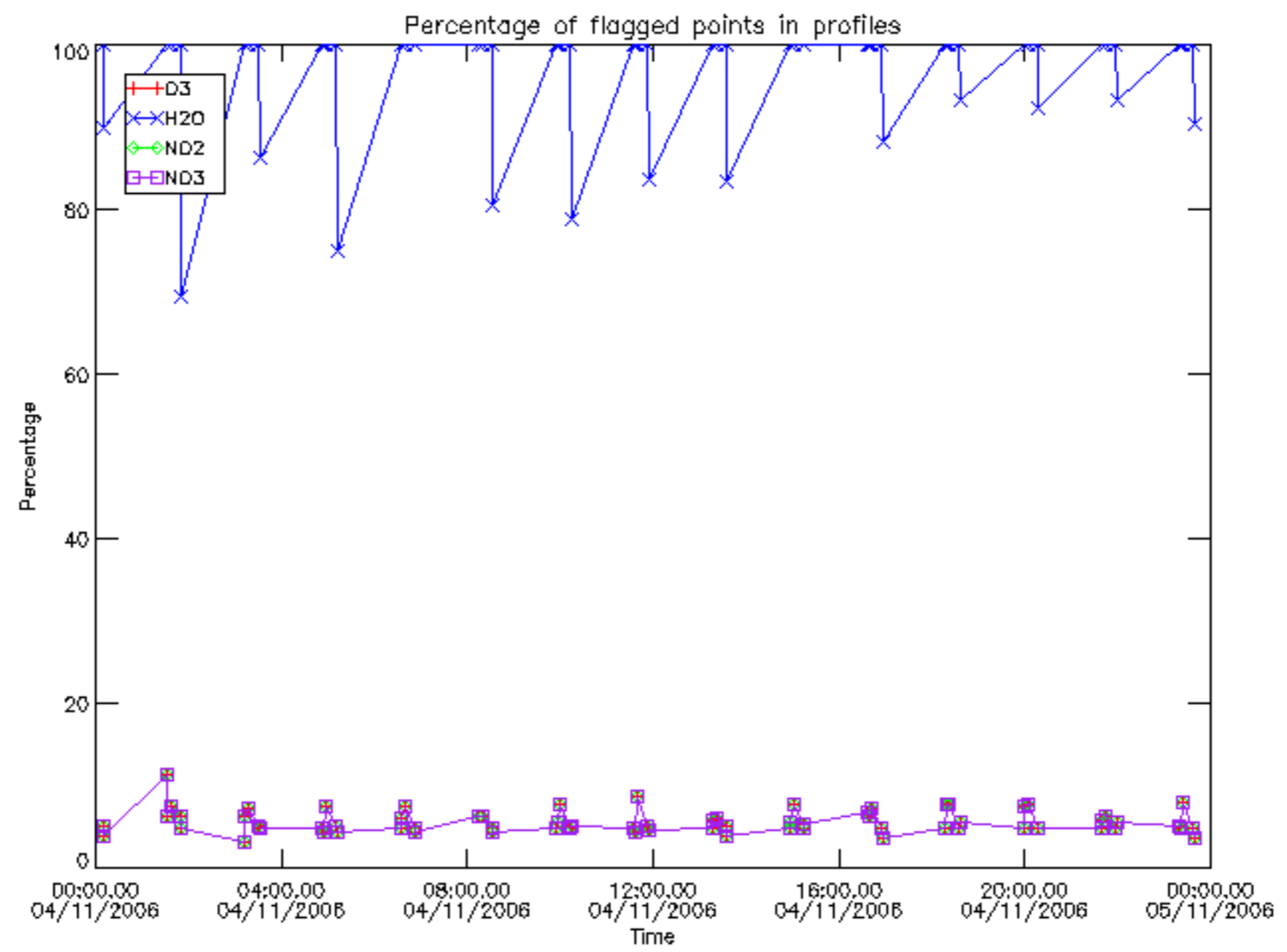
The colorbar represents the latitude.



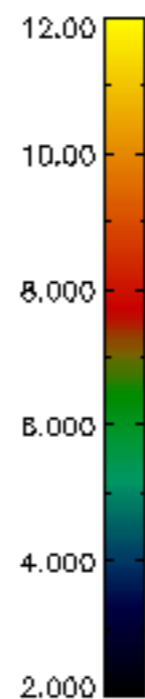
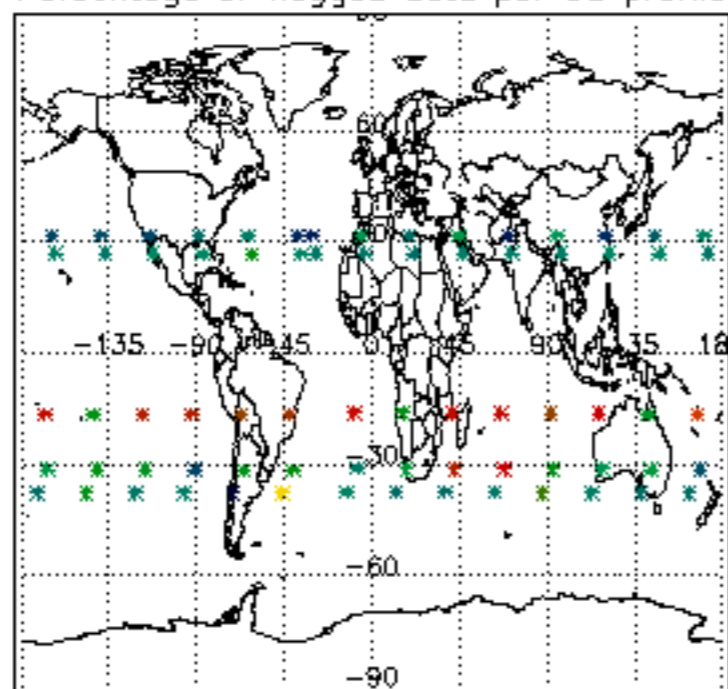
## 6. Auxiliary Data Files used for the production reported in section 2

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.

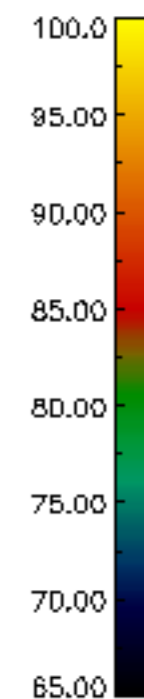
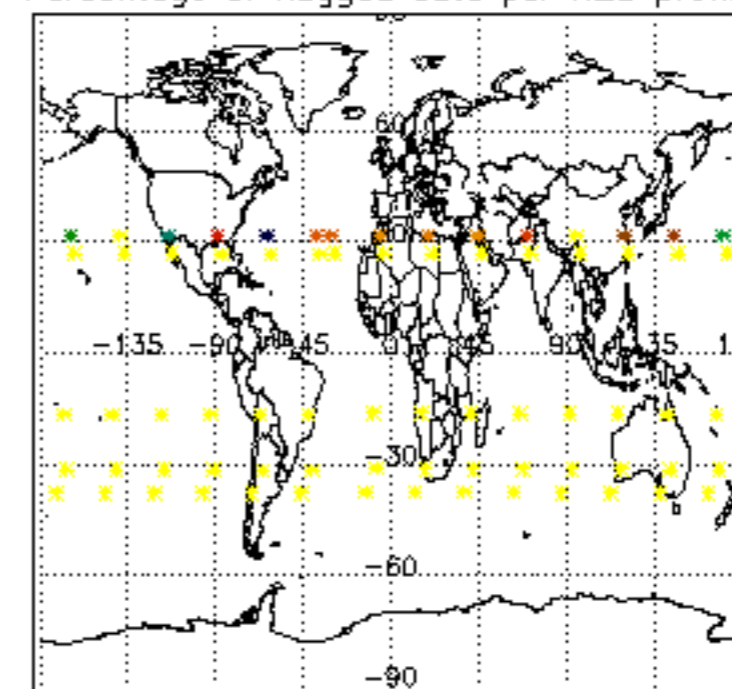
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	04-NOV-2006 00:09:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	04-NOV-2006 00:09:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	04-NOV-2006 00:09:11



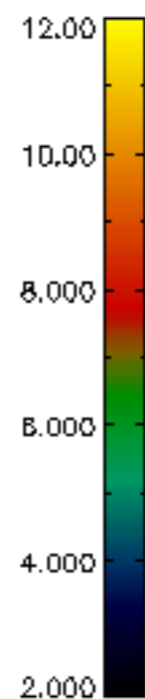
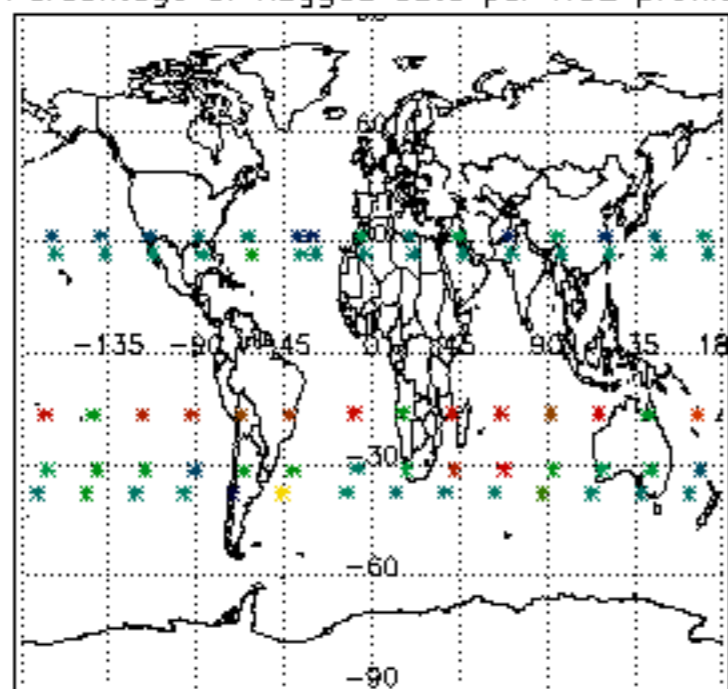
Percentage of flagged data per D3 profile



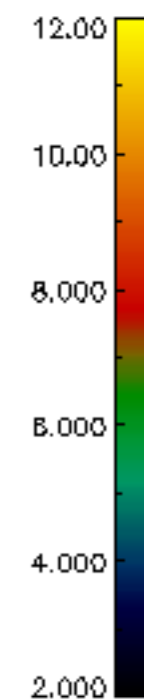
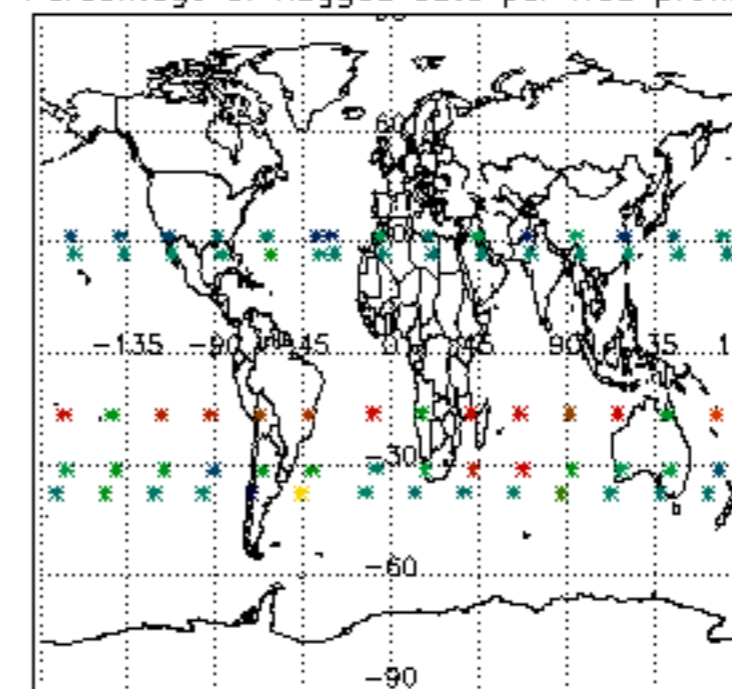
Percentage of flagged data per H2O profile

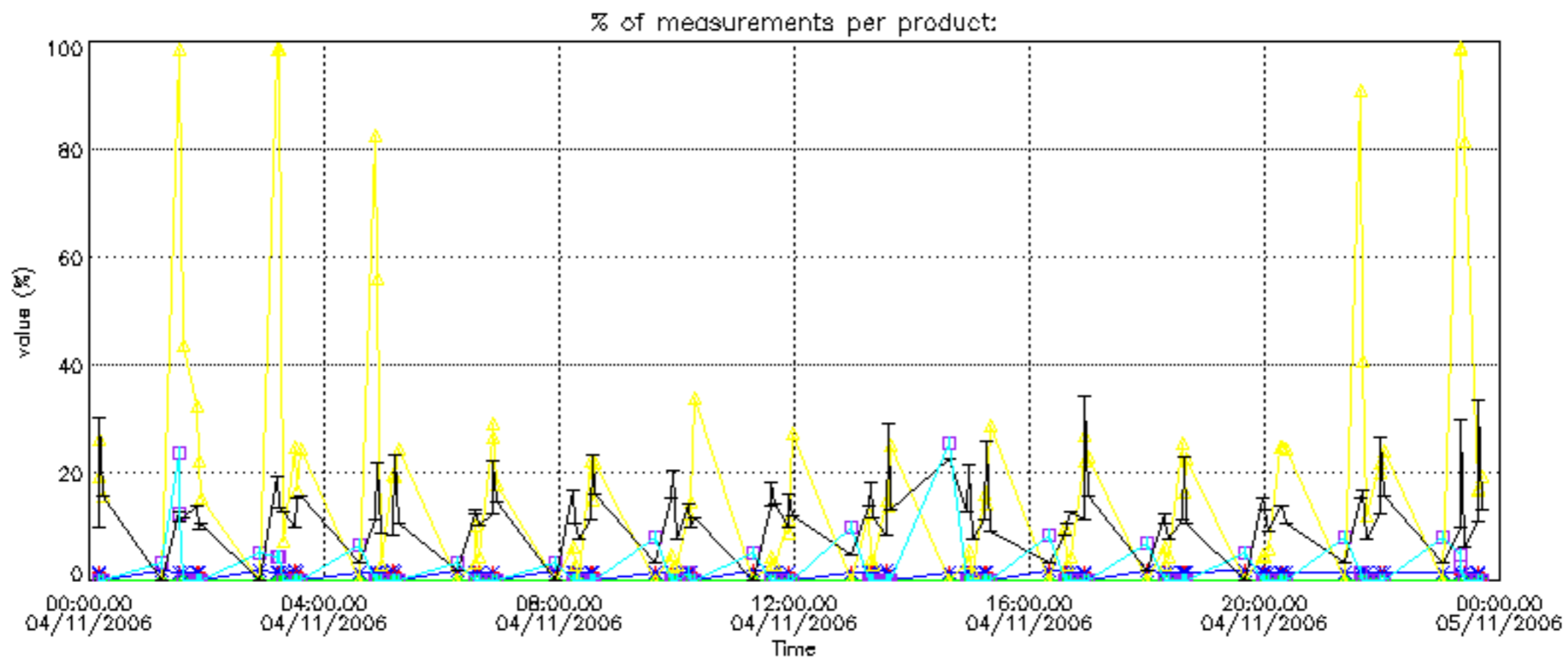


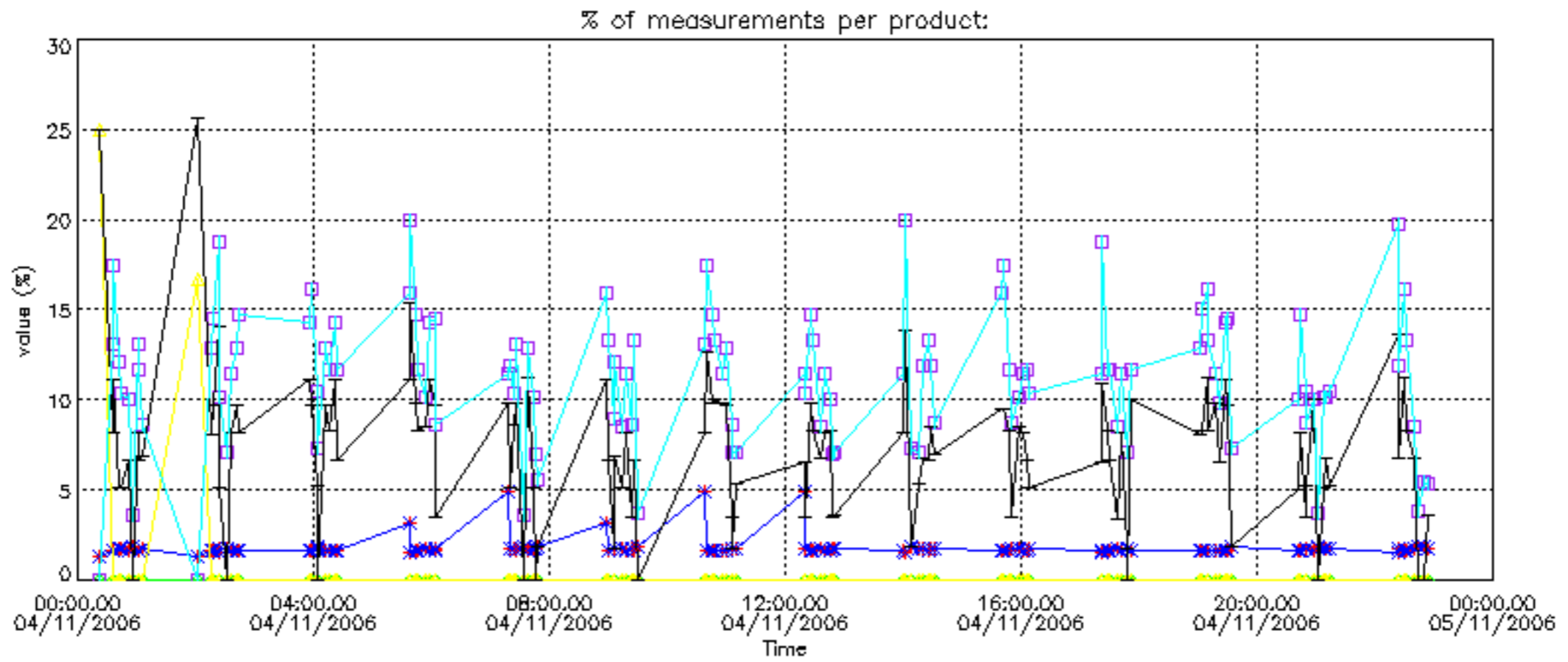
Percentage of flagged data per NO2 profile



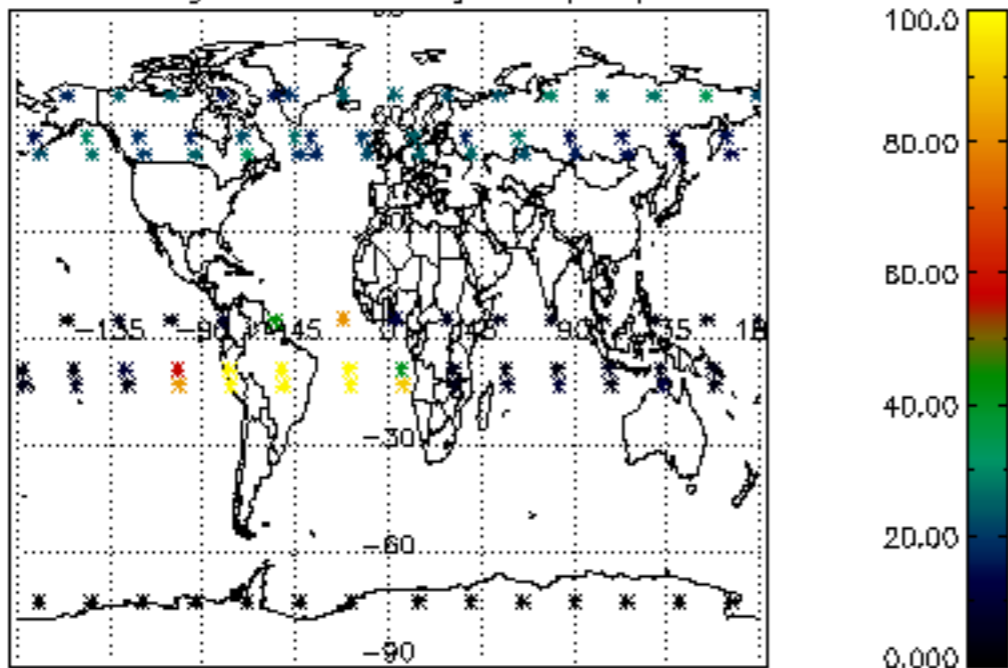
Percentage of flagged data per NO3 profile



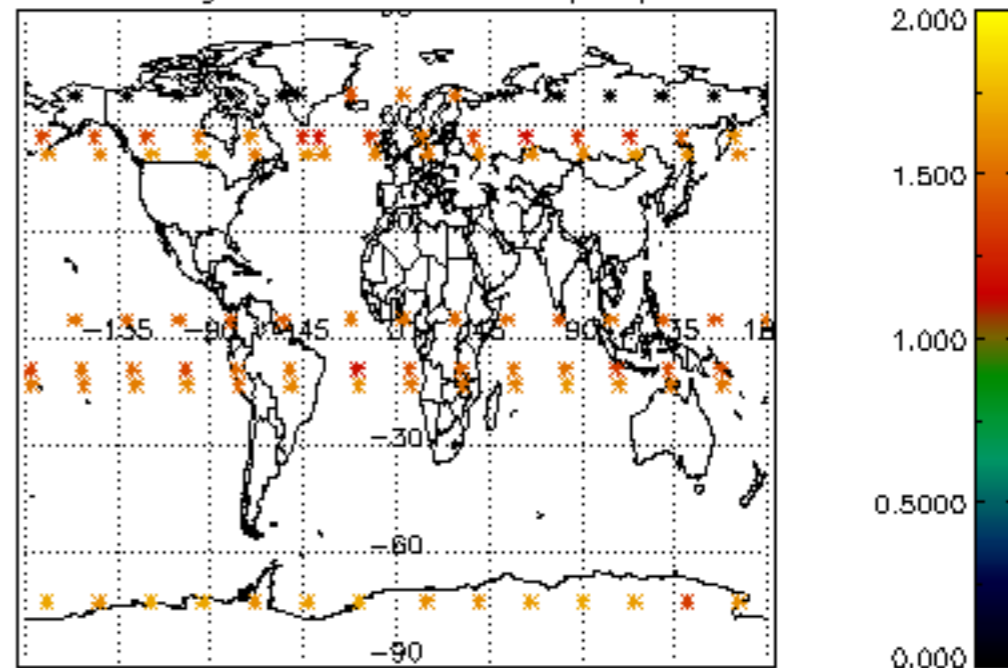




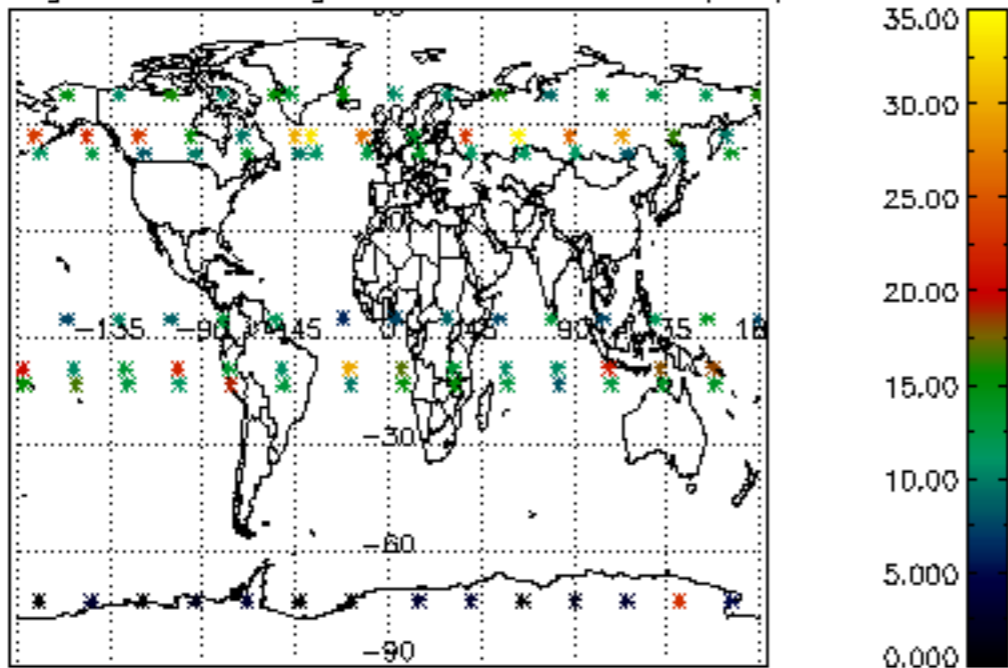
Percentage of cosmic ray hits per profile



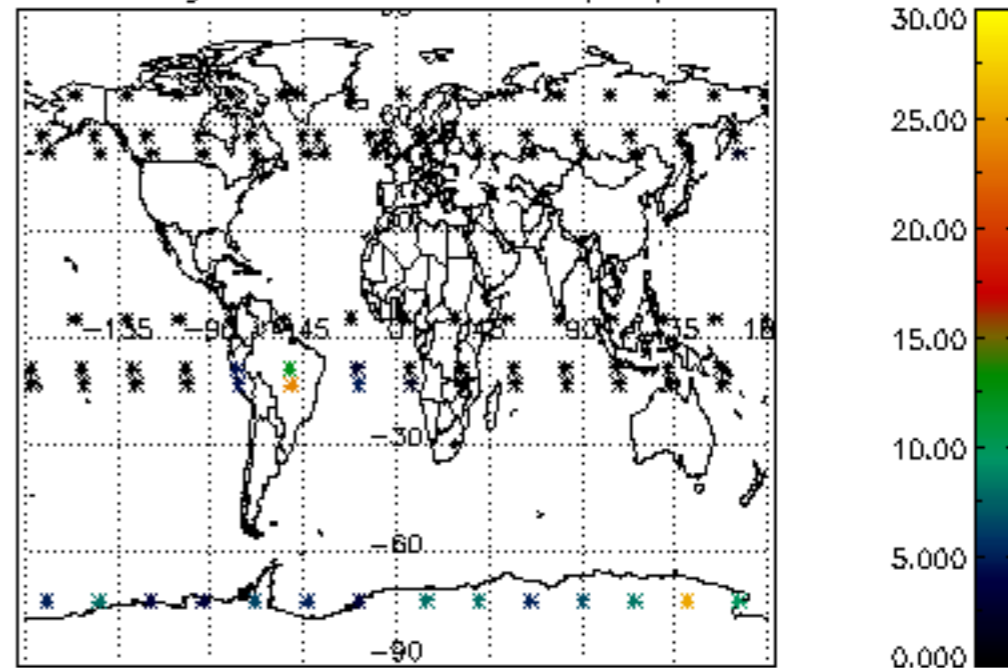
Percentage of datation errors per profile



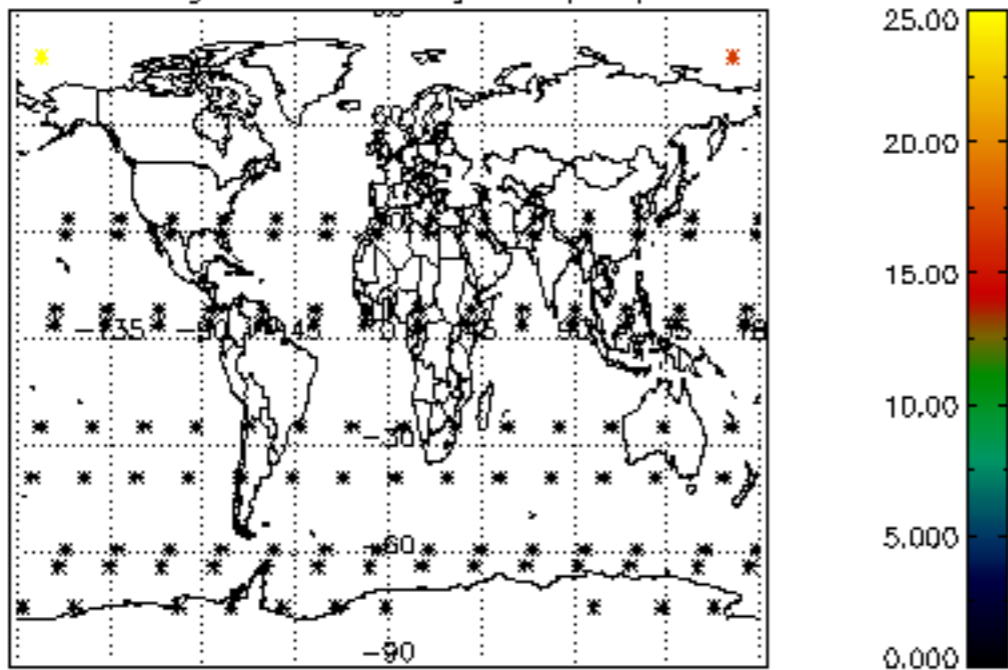
Percentage of star falling outside central band per profile



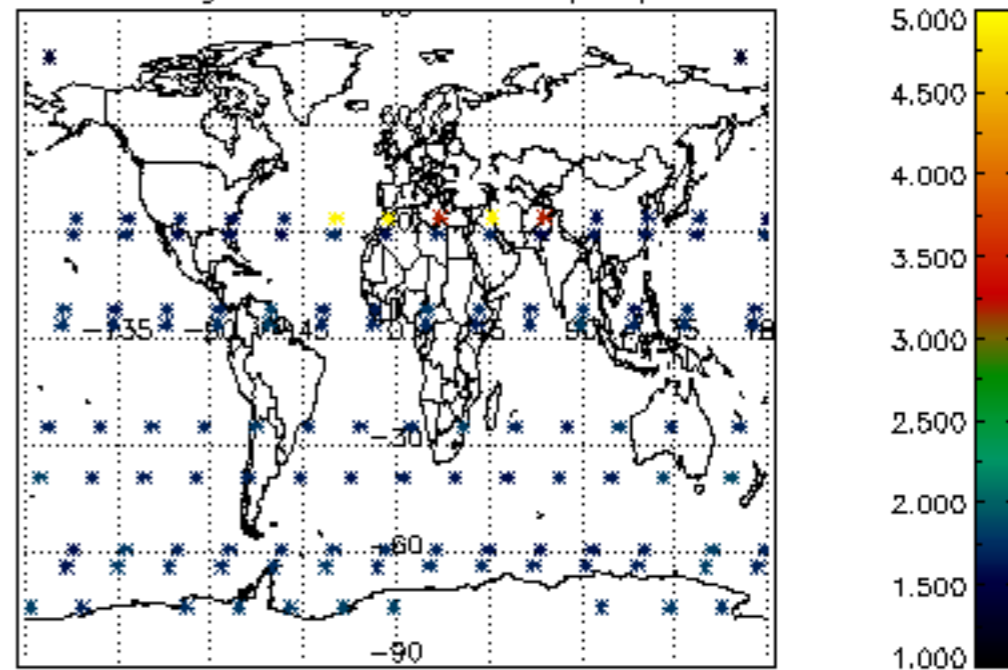
Percentage of saturation errors per profile



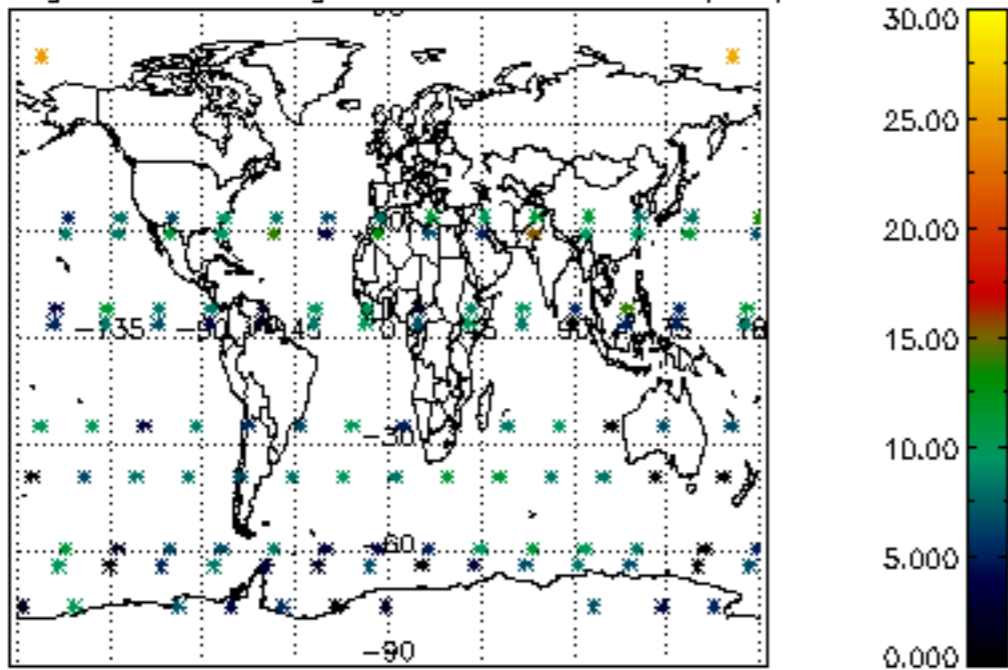
Percentage of cosmic ray hits per profile



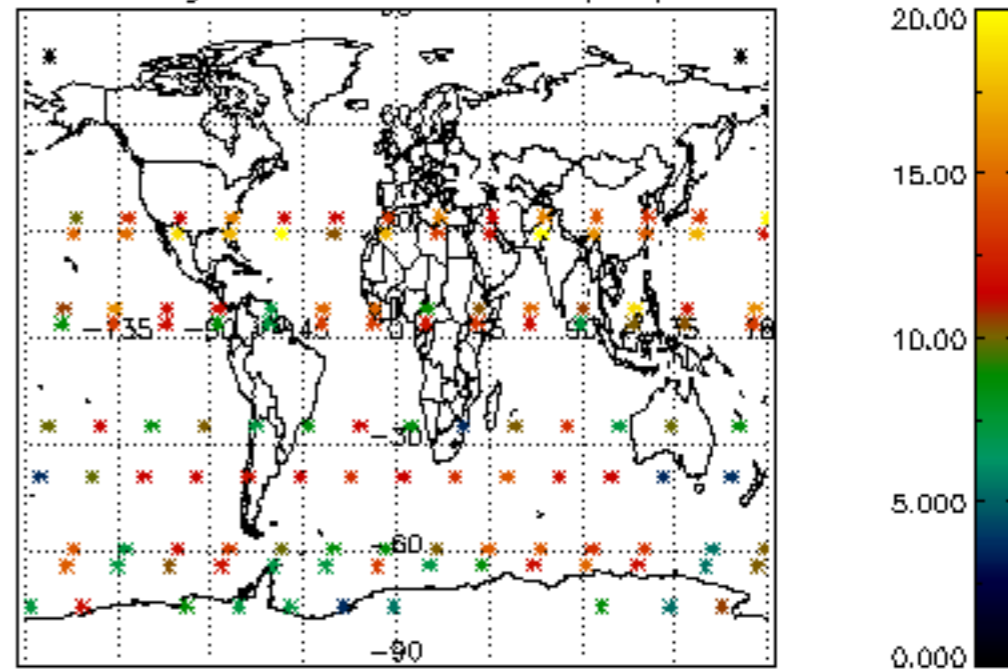
Percentage of datation errors per profile



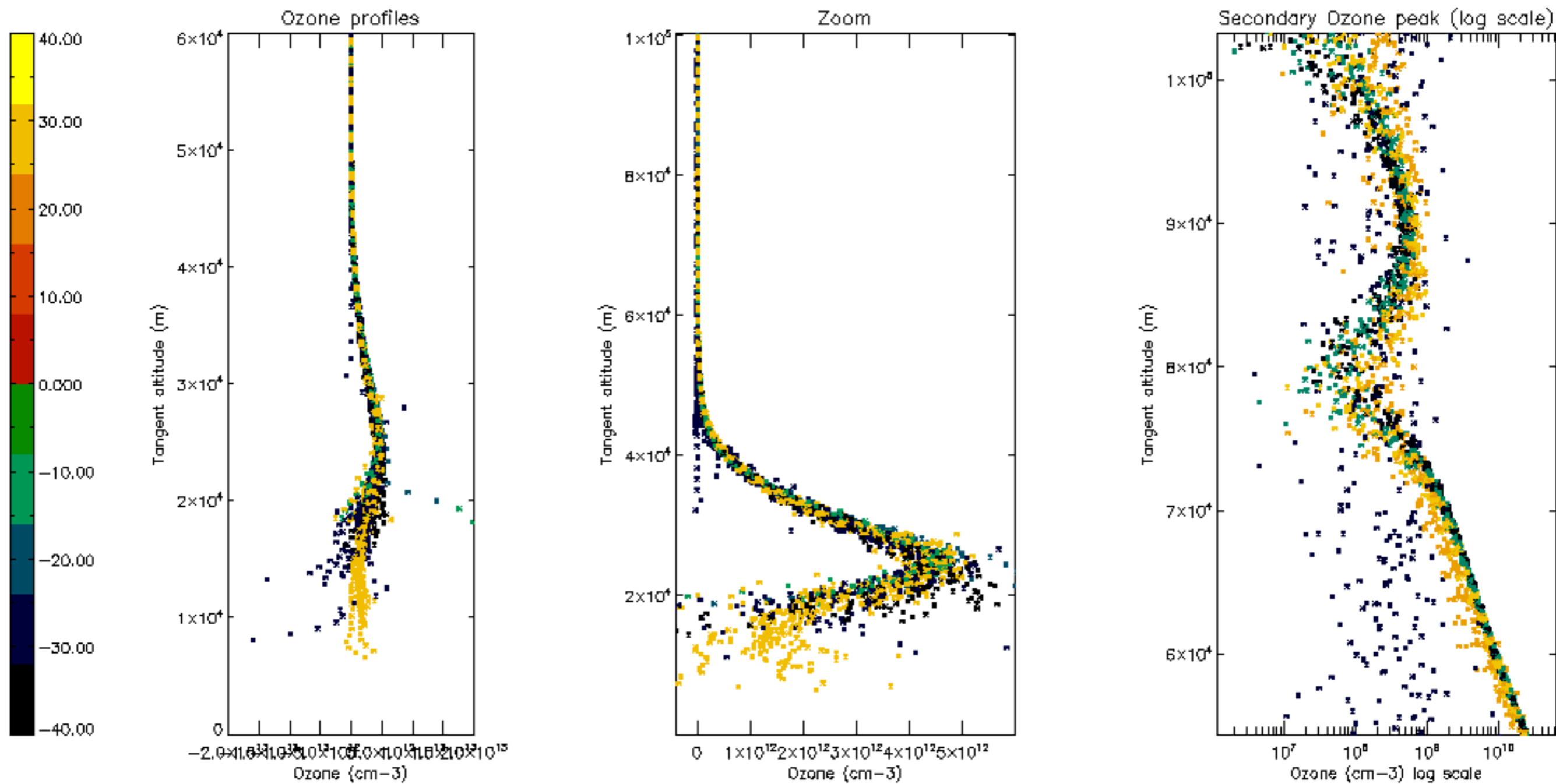
Percentage of star falling outside central band per profile

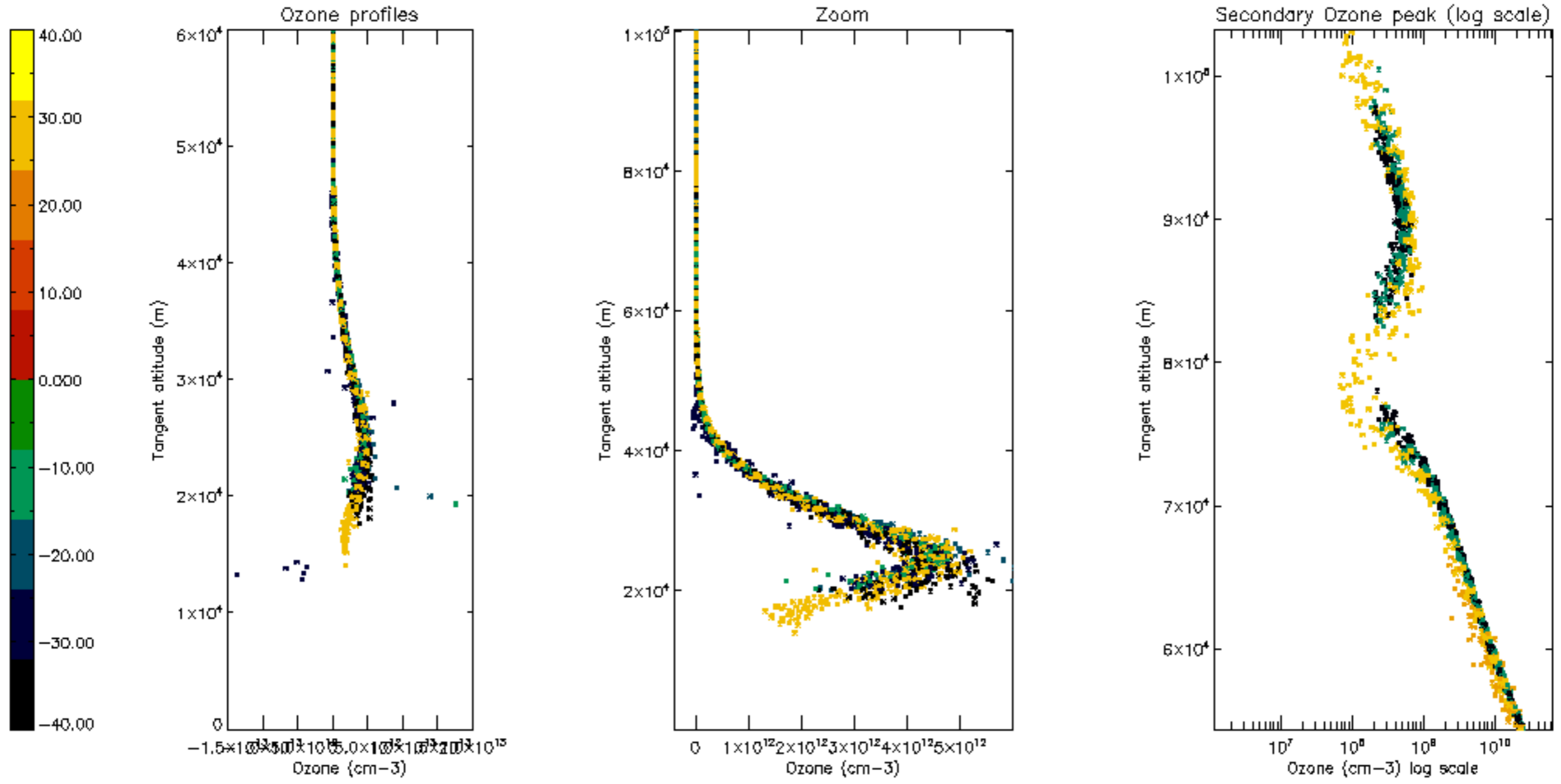


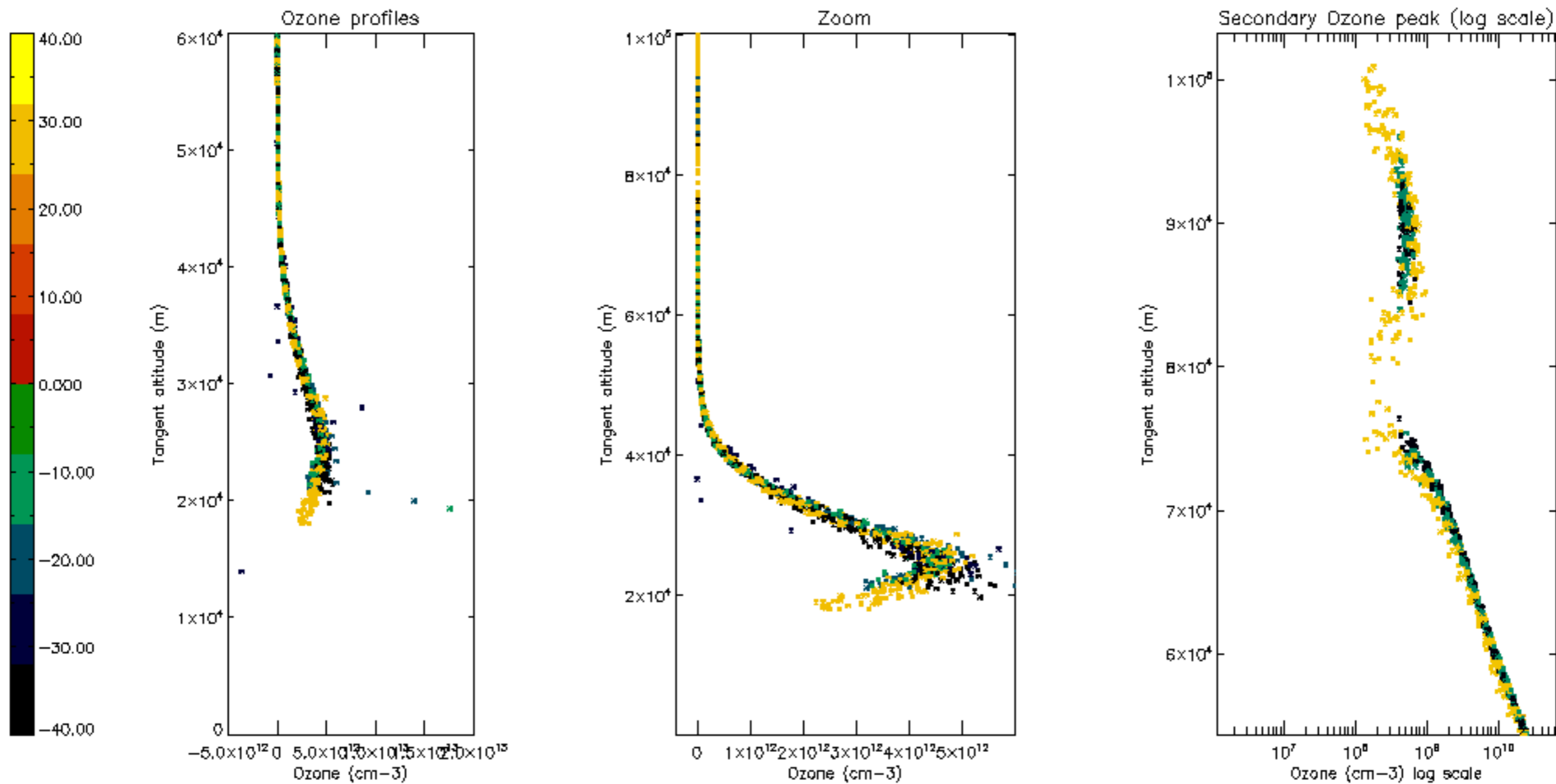
Percentage of saturation errors per profile

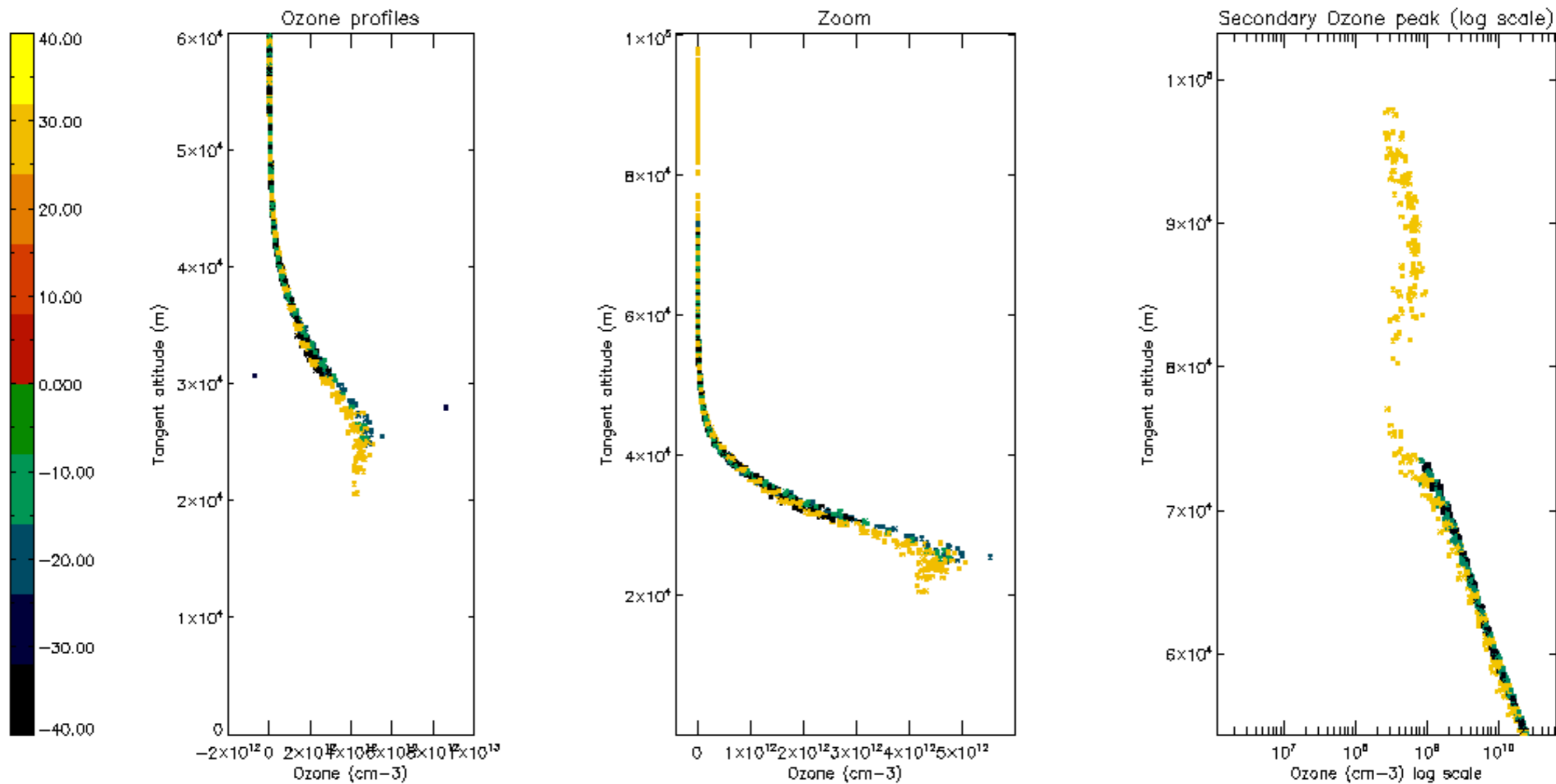


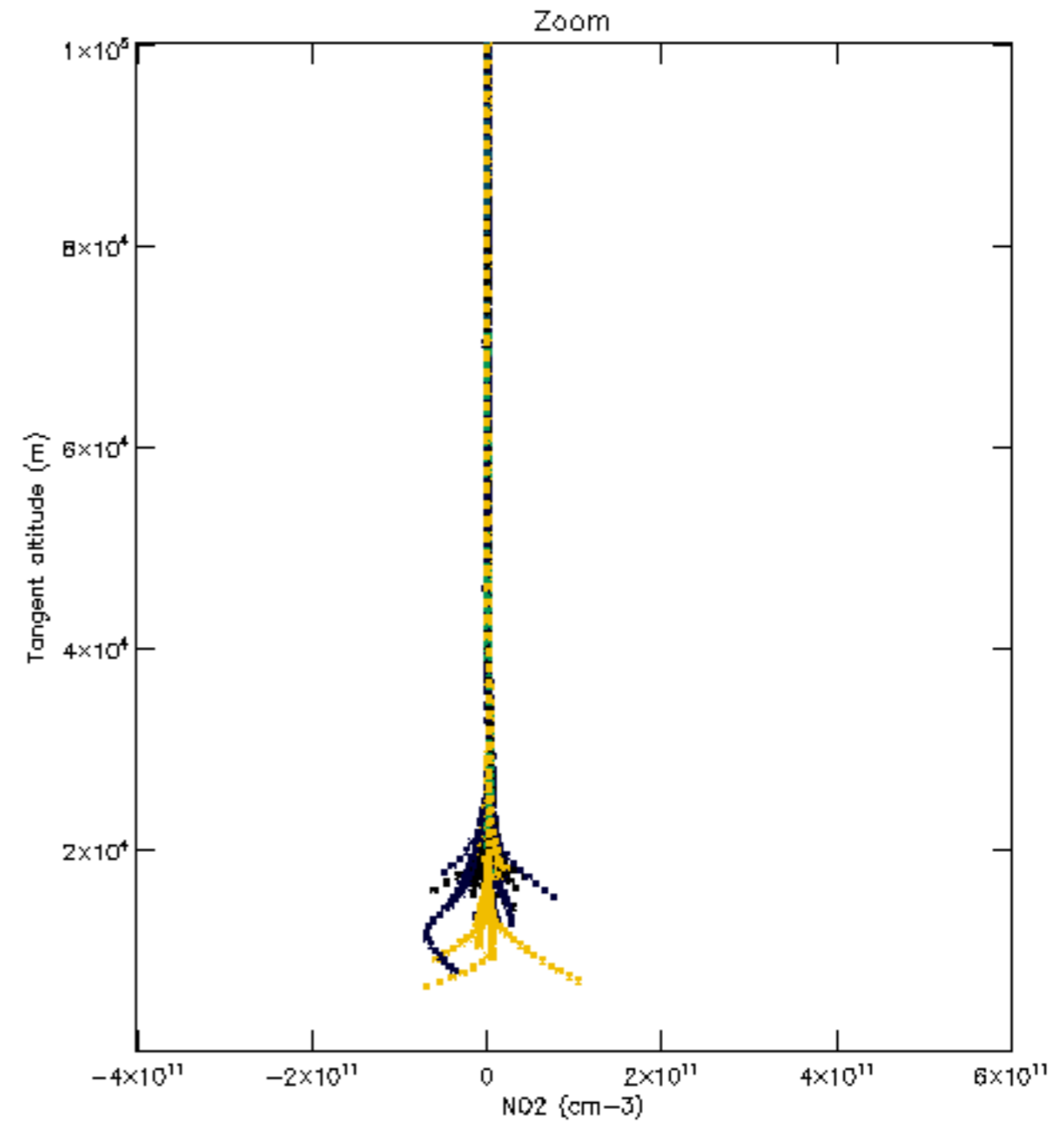
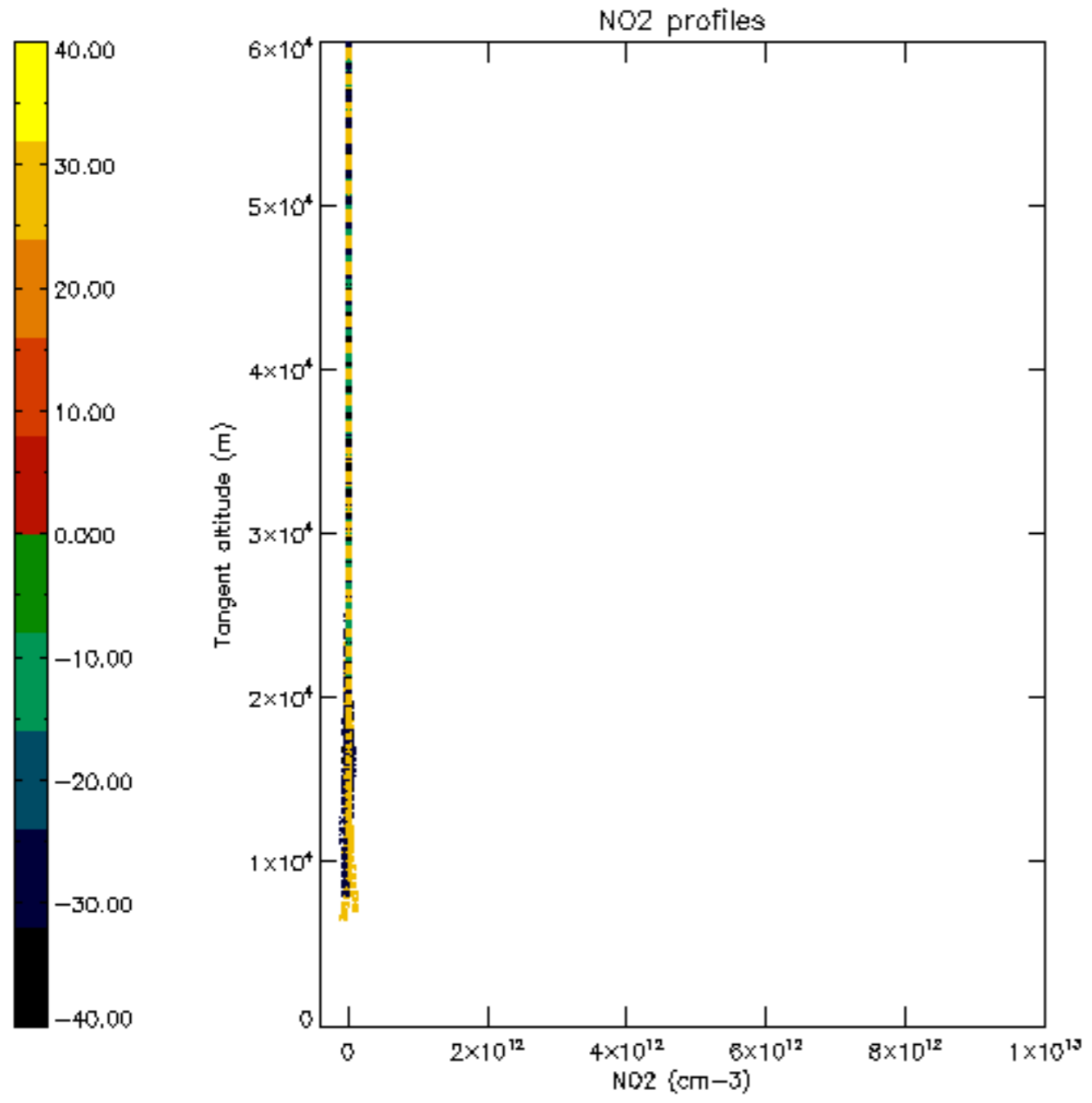


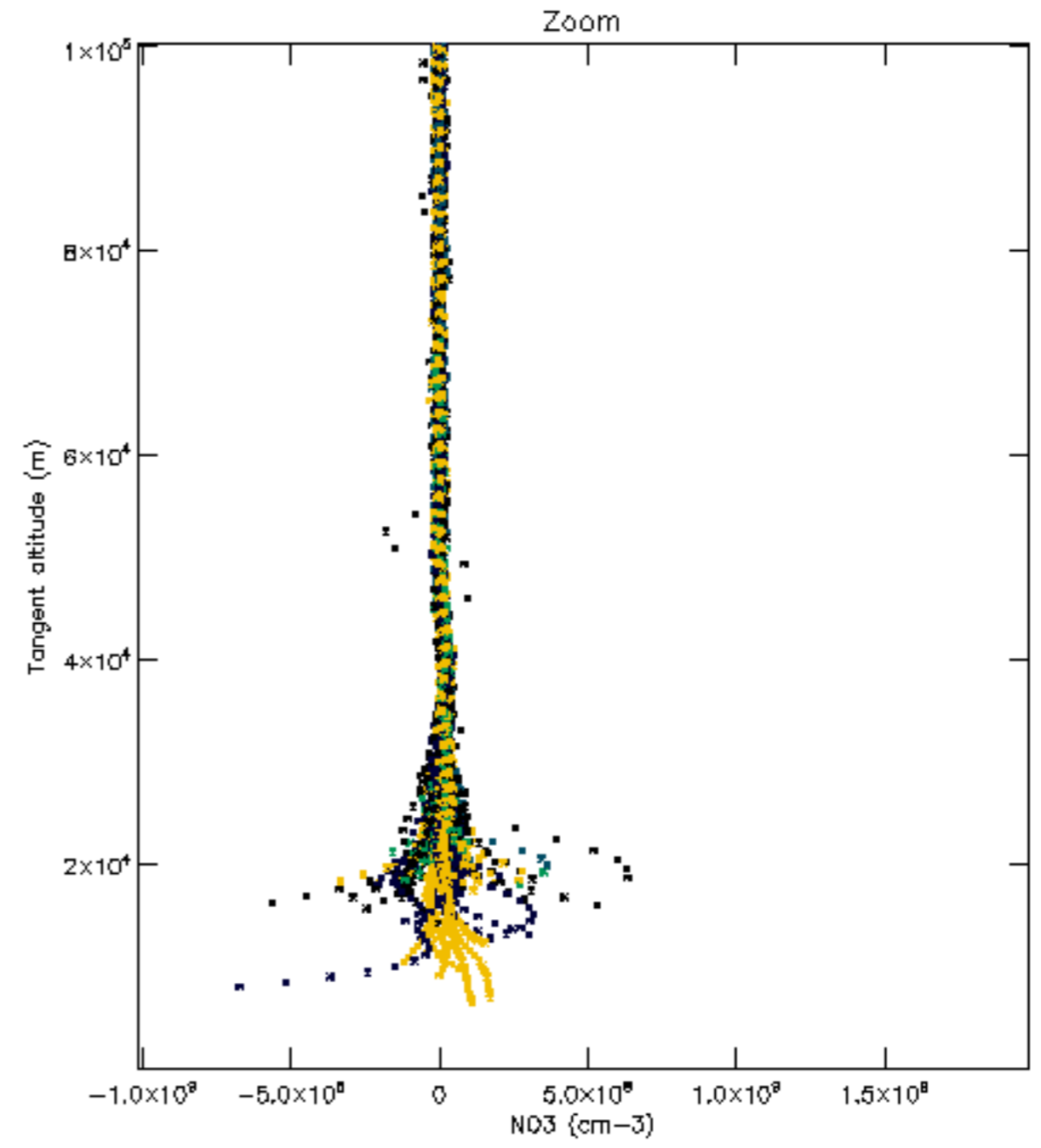
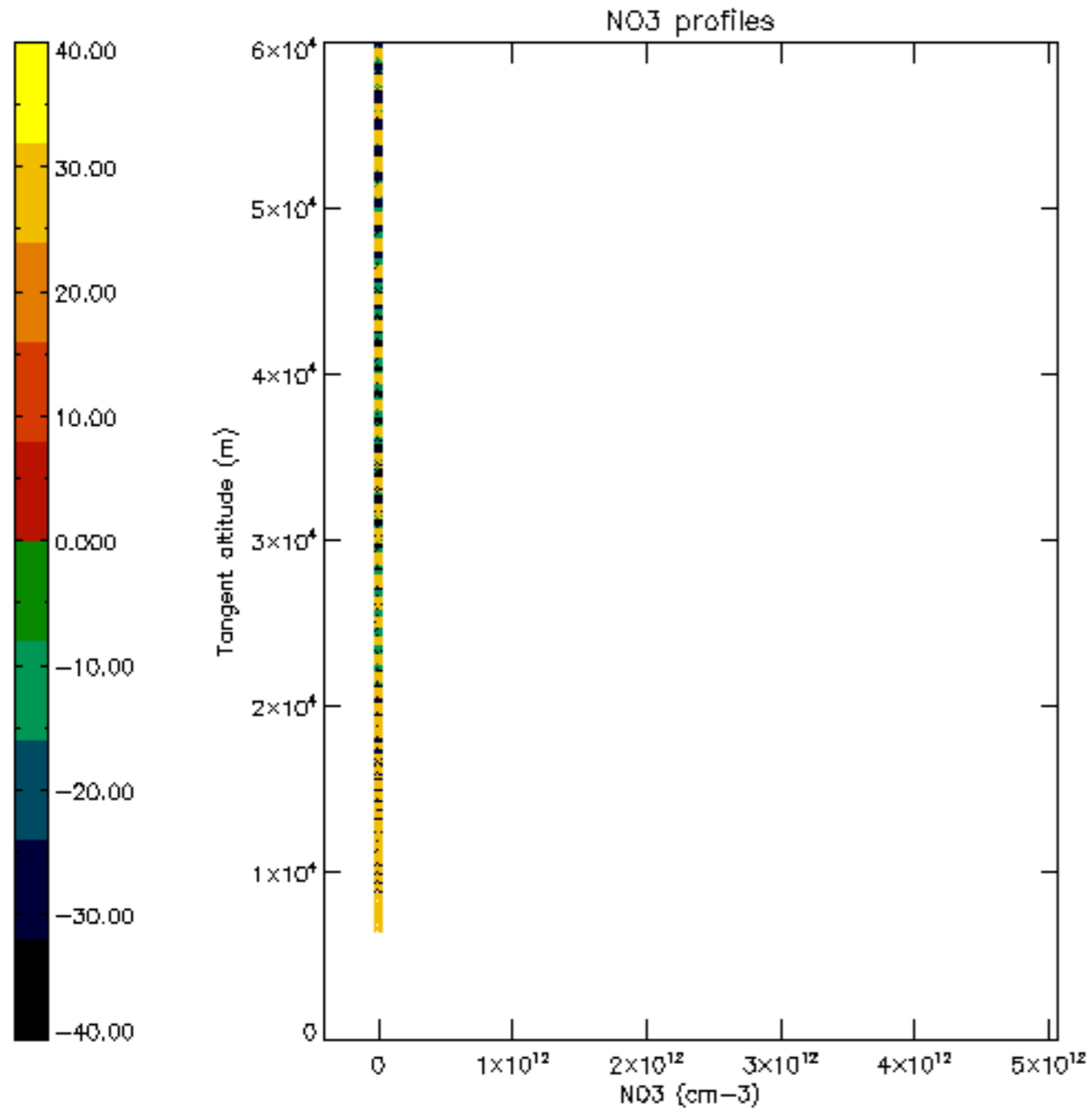


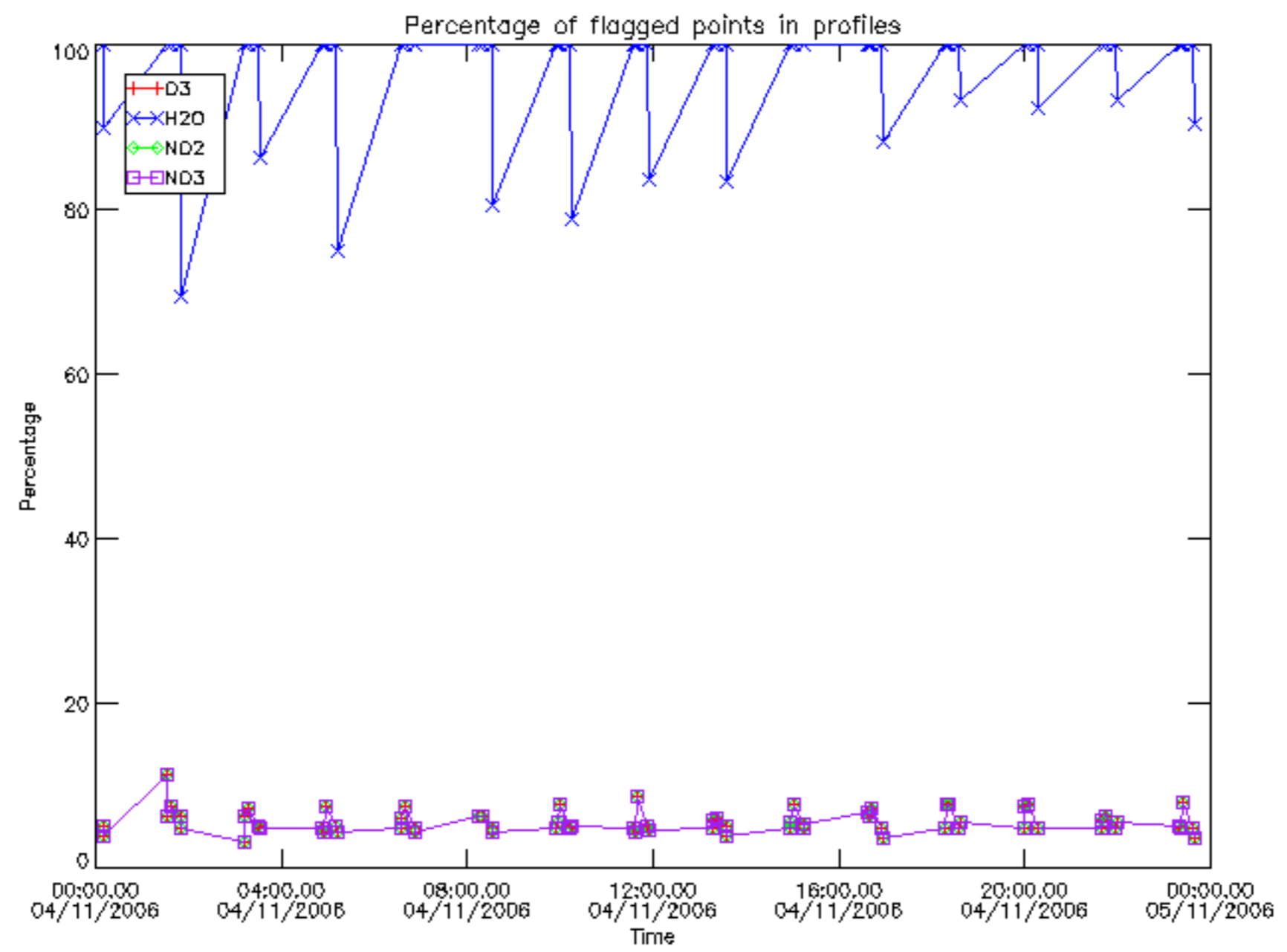




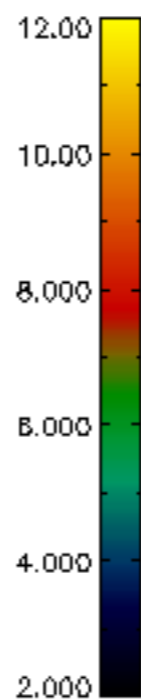
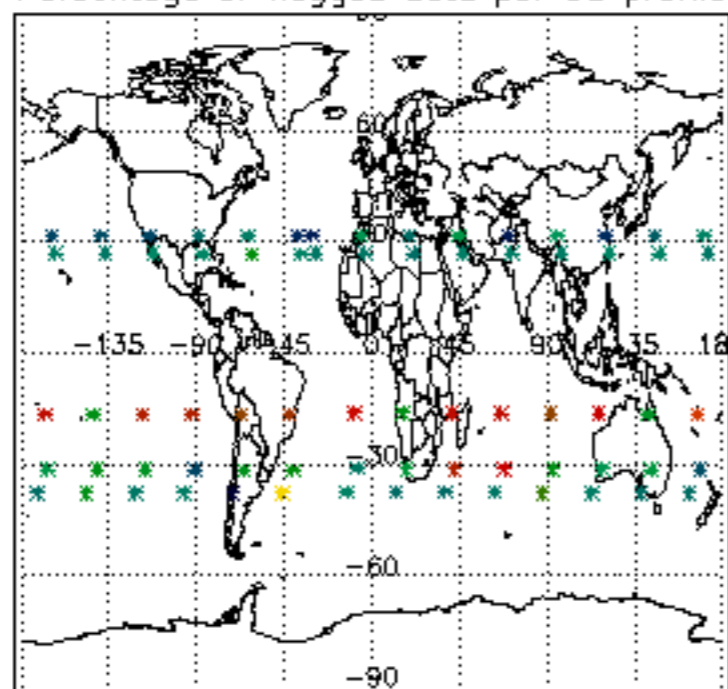




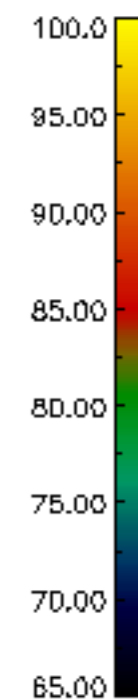
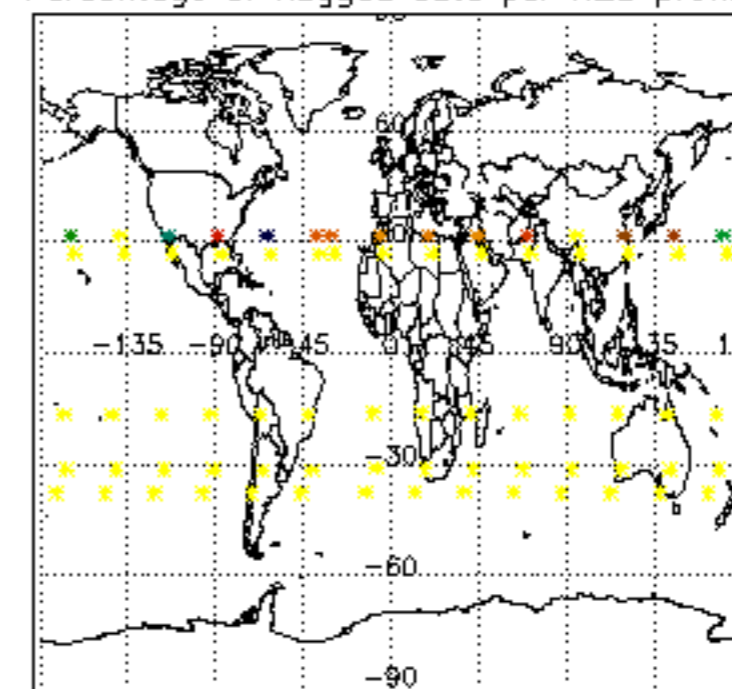




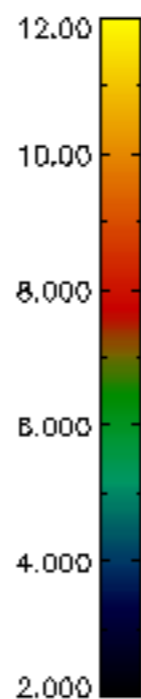
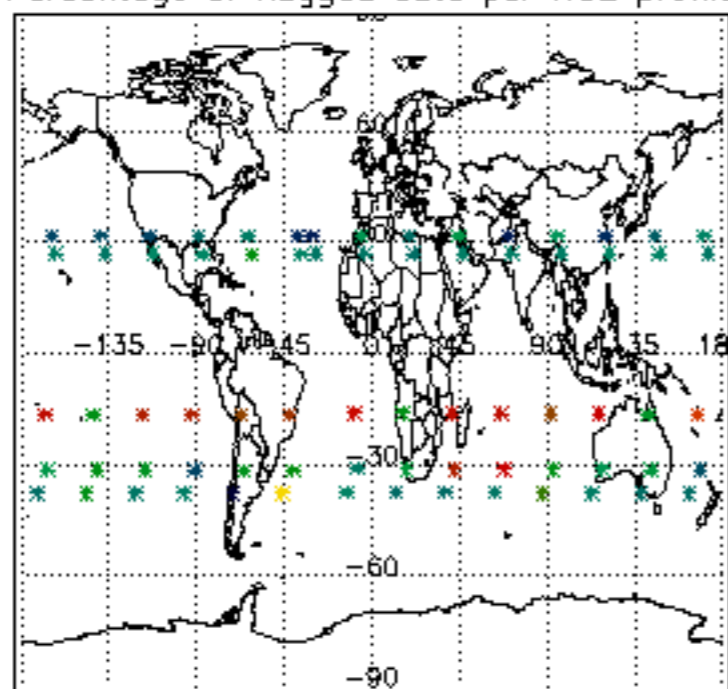
Percentage of flagged data per D3 profile



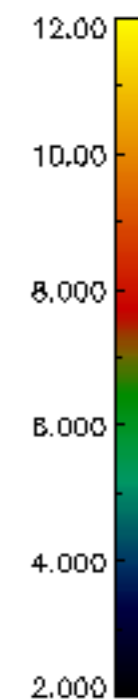
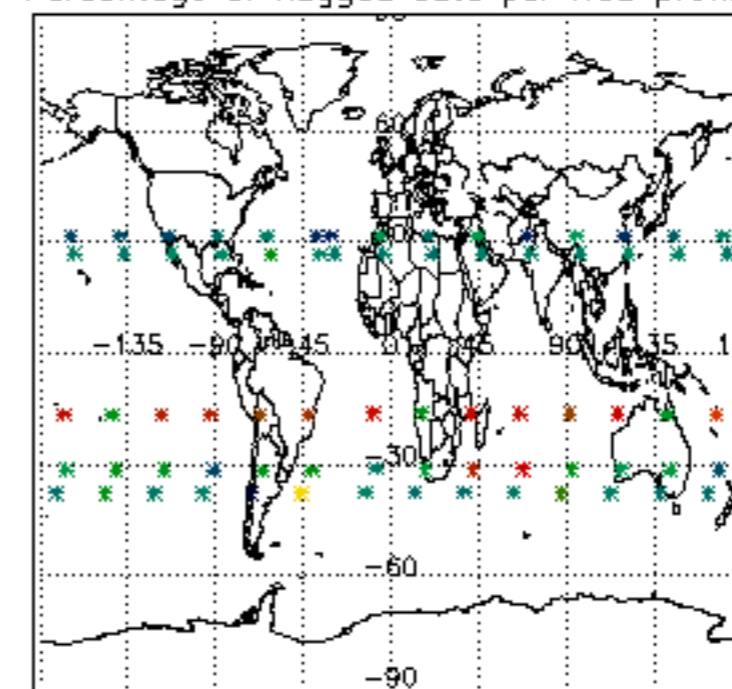
Percentage of flagged data per H2O profile



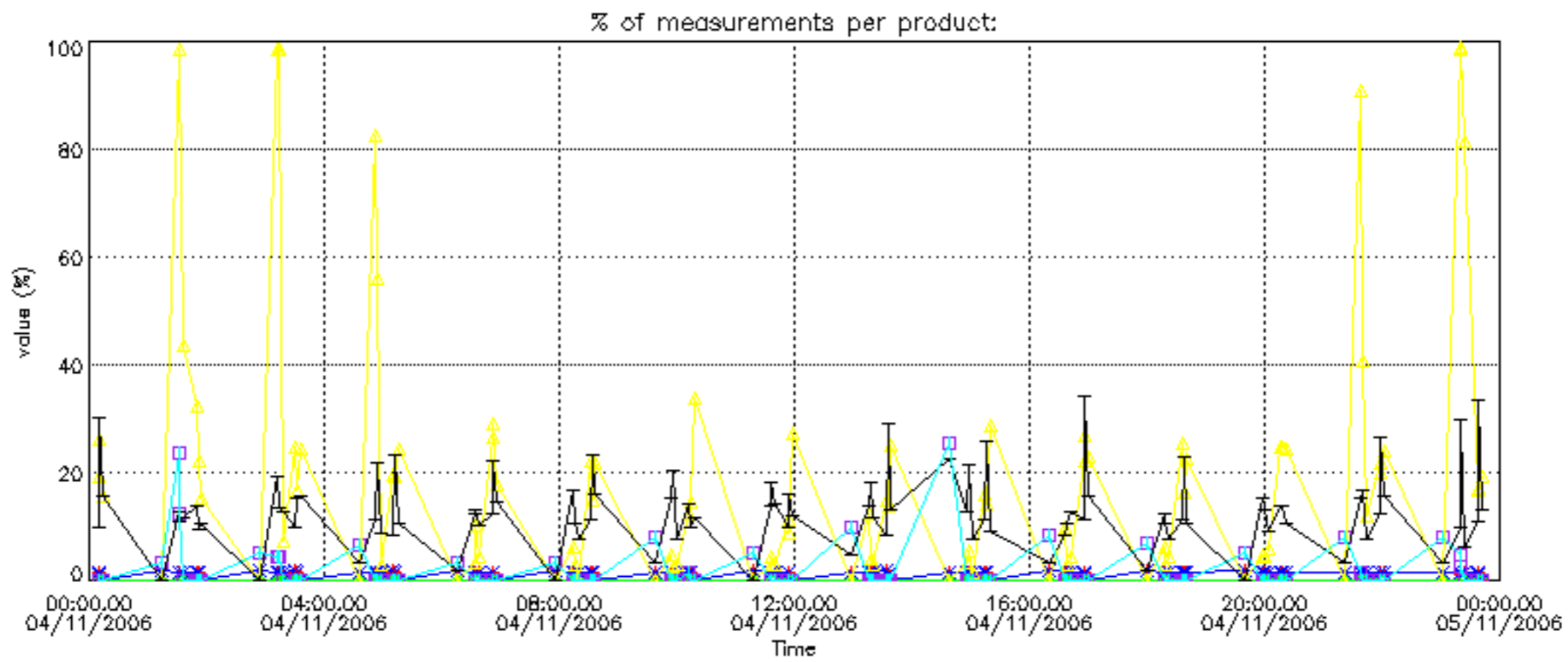
Percentage of flagged data per NO2 profile

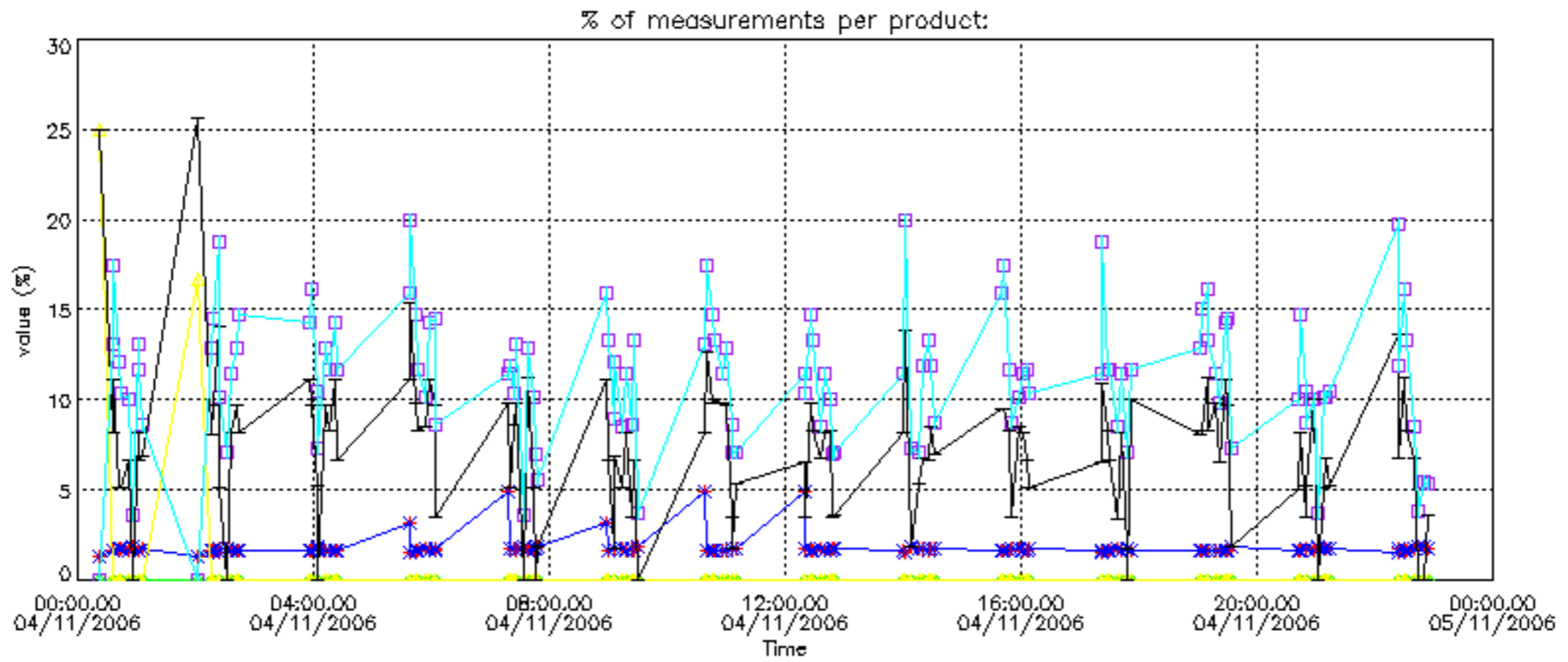


Percentage of flagged data per NO3 profile

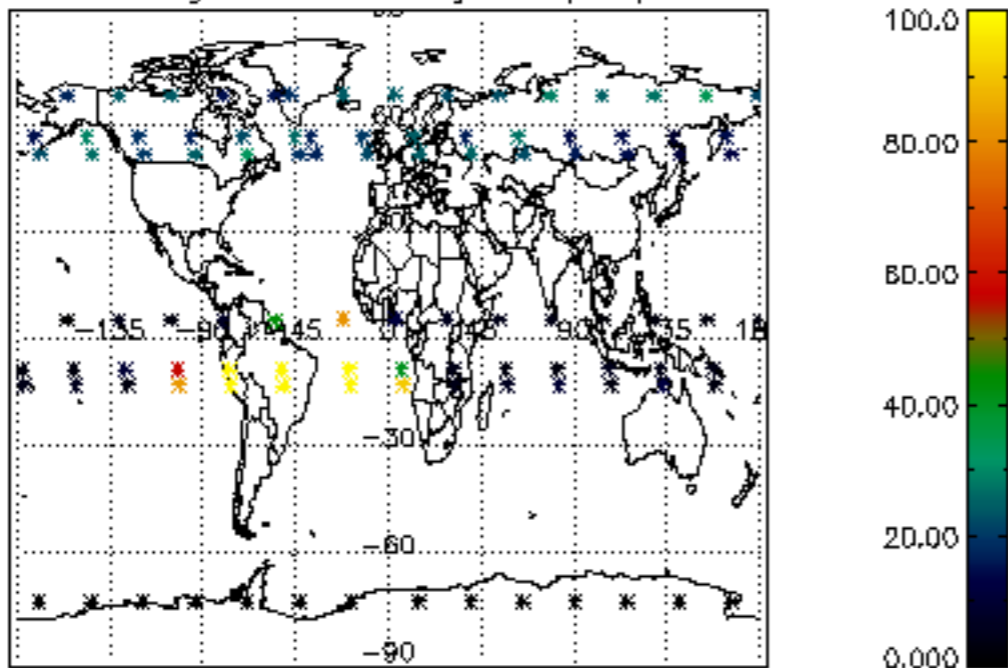




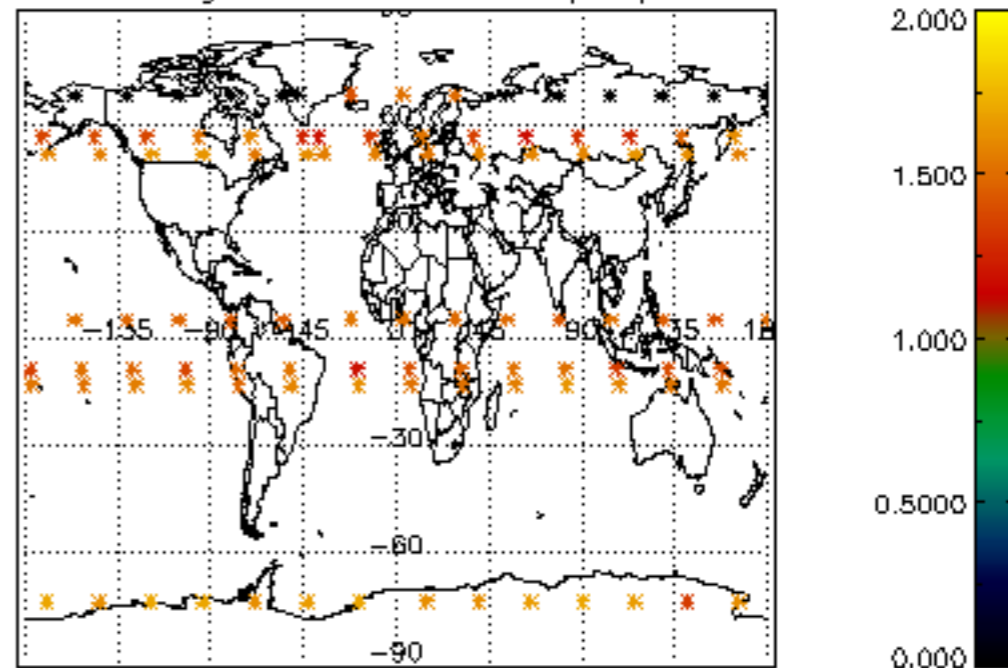




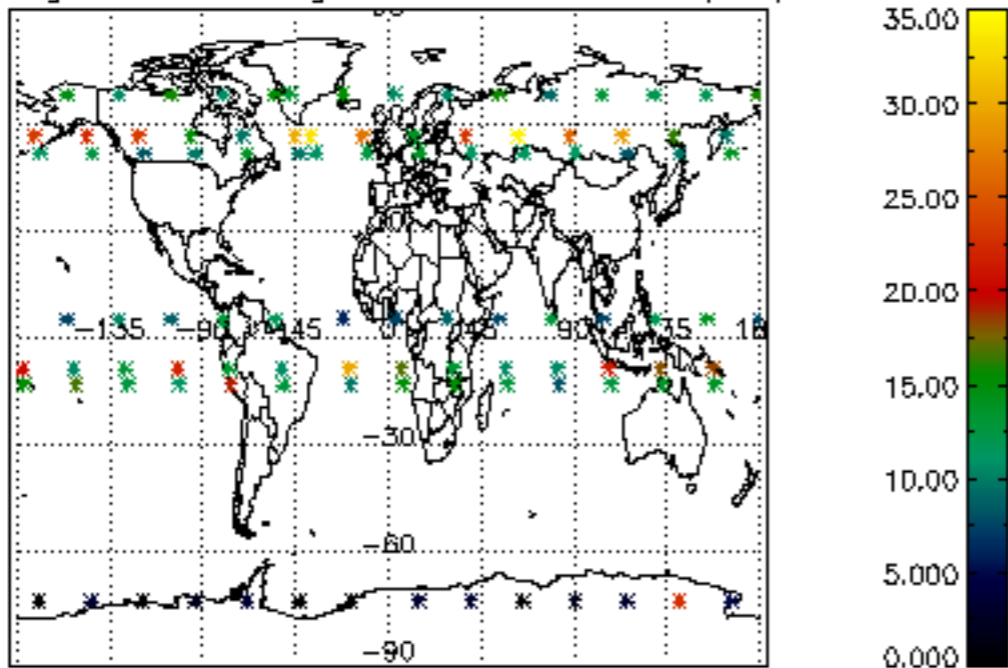
Percentage of cosmic ray hits per profile



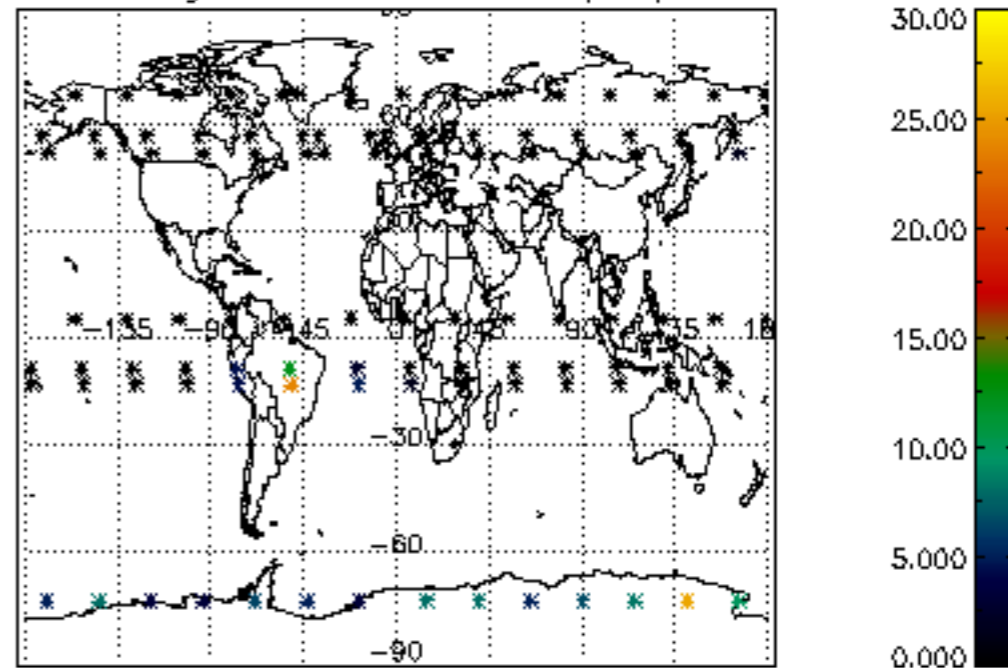
Percentage of datation errors per profile



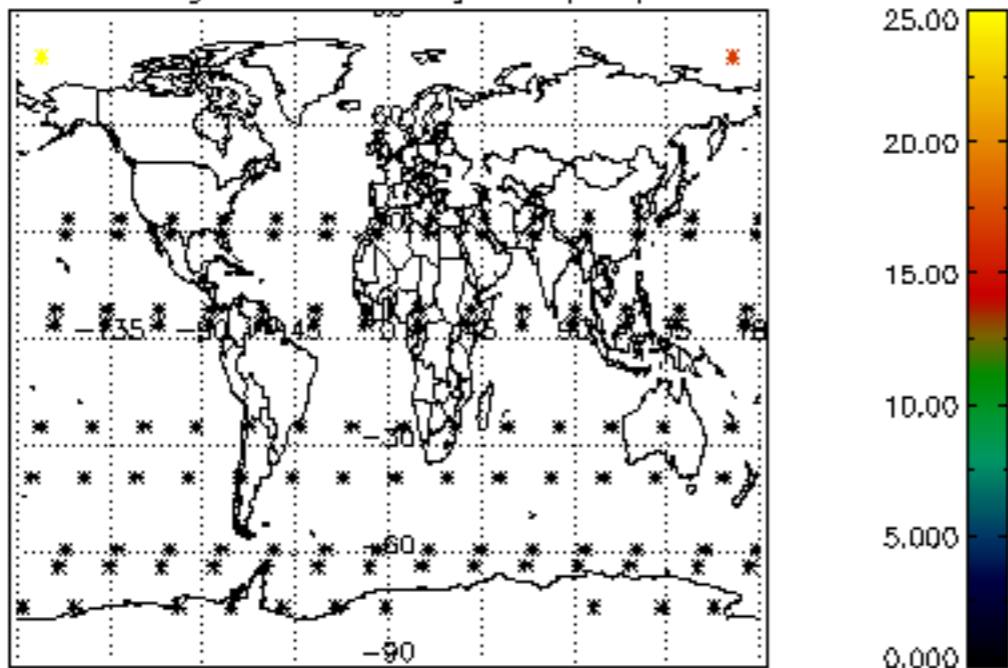
Percentage of star falling outside central band per profile



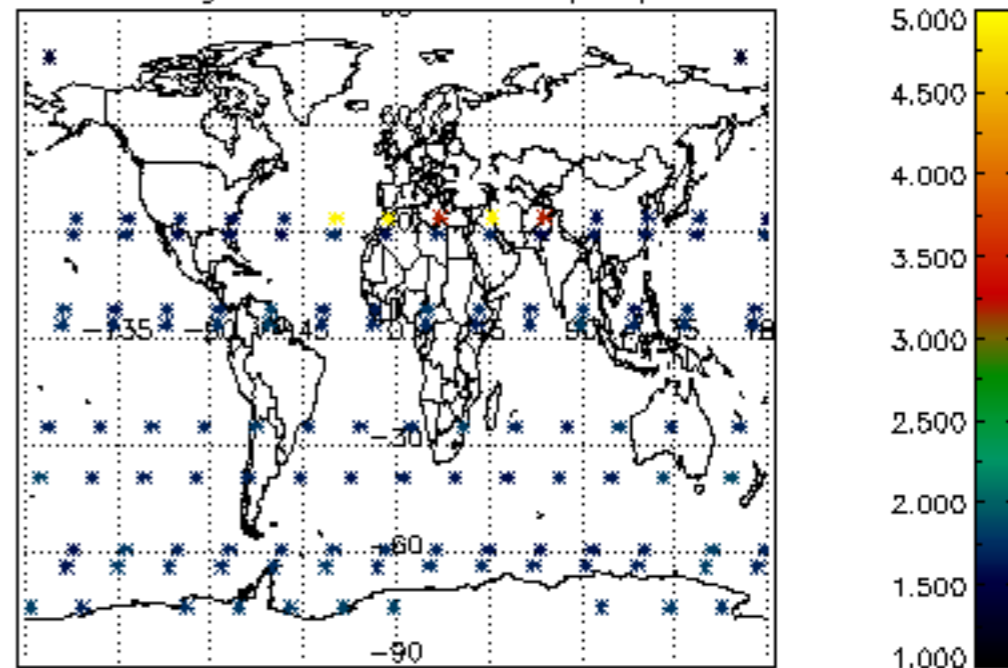
Percentage of saturation errors per profile



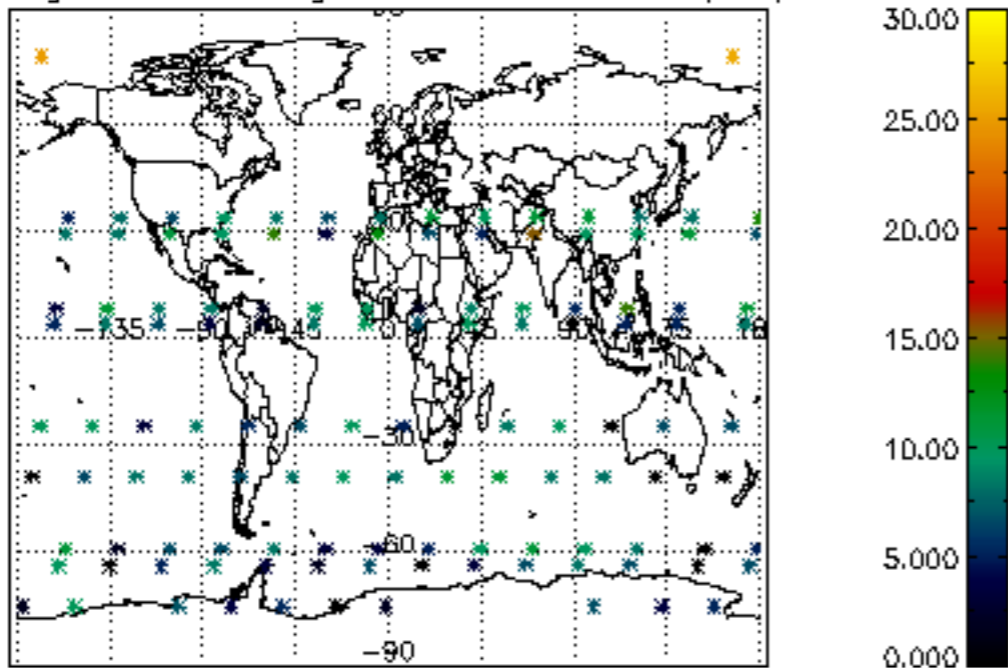
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

