

# 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	22APR2013 21:03:30
Data source version	GOMOS/6.01
Start time of products	23-06-2007 (23JUN2007 00:00:00)
Stop time of products	24-06-2007 (24JUN2007 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	274
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__2PRFIN20070623_000159_000000342059_00159_27768_2328.N1	23-JUN-2007 00:01:59	Bright	34.000	160	23Gam Per	2.9300	4700.0	68	27768	No
2	GOM_NL__2PRFIN20070623_000540_000000392059_00159_27768_2329.N1	23-JUN-2007 00:05:40	Bright	38.500	79	26Bet Per	2.3100	13100.	77	27768	No
3	GOM_NL__2PRFIN20070623_001626_000000392059_00159_27768_2330.N1	23-JUN-2007 00:16:26	Dark	39.000	94	92Alp Cet	2.5260	3100.0	78	27768	No
4	GOM_NL__2PRFIN20070623_002029_000000392059_00159_27768_2331.N1	23-JUN-2007 00:20:29	Dark	38.500	165	34Gam Eri	2.9500	3200.0	77	27768	No
5	GOM_NL__2PRFIN20070623_003431_000000502059_00159_27768_2332.N1	23-JUN-2007 00:34:31	Dark	50.000	9	Alp Eri	0.45300	24000.	100	27768	No
6	GOM_NL__2PRFIN20070623_003939_000000372059_00160_27769_2366.N1	23-JUN-2007 00:39:39	Dark	37.000	135	Bet Hyi	2.8200	5800.0	74	27769	No
7	GOM_NL__2PRFIN20070623_005041_000000412059_00160_27769_2367.N1	23-JUN-2007 00:50:41	Straylight	41.000	141	Bet Ara	2.8400	4600.0	82	27769	No
8	GOM_NL__2PRFIN20070623_005206_000000382059_00160_27769_2368.N1	23-JUN-2007 00:52:06	Straylight	38.000	147	Alp Ara	2.8770	26000.	76	27769	No
9	GOM_NL__2PRFIN20070623_005352_000000432059_00160_27769_2369.N1	23-JUN-2007 00:53:52	Tw_i_and_stray	42.500	40	The Sco	1.8590	7100.0	85	27769	No
10	GOM_NL__2PRFIN20070623_005533_000000422059_00160_27769_2370.N1	23-JUN-2007 00:55:33	Tw_i_and_stray	42.000	25	35Lam Sco	1.6200	28000.	84	27769	No
11	GOM_NL__2PRFIN20070623_005654_000000432059_00160_27769_2371.N1	23-JUN-2007 00:56:54	Bright	43.000	75	26Eps Sco	2.2910	4250.0	86	27769	No
12	GOM_NL__2PRFIN20070623_005937_000000362059_00160_27769_2372.N1	23-JUN-2007 00:59:37	Bright	35.500	156	20Sig Sco	2.9030	28000.	71	27769	No
13	GOM_NL__2PRFIN20070623_010155_000000382059_00160_27769_2373.N1	23-JUN-2007 01:01:55	Bright	37.500	86	35Eta Oph	2.4300	10200.	75	27769	No
14	GOM_NL__2PRFIN20070623_010339_000000362059_00160_27769_2374.N1	23-JUN-2007 01:03:39	Bright	36.000	98	13Zet Oph	2.5710	30000.	72	27769	No
15	GOM_NL__2PRFIN20070623_010545_000000362059_00160_27769_2375.N1	23-JUN-2007 01:05:45	Bright	36.000	120	1Del Oph	2.7340	3200.0	72	27769	No
16	GOM_NL__2PRFIN20070623_010852_000000362059_00160_27769_2376.N1	23-JUN-2007 01:08:52	Bright	36.000	102	24Alp Ser	2.6000	4250.0	72	27769	No
17	GOM_NL__2PRFIN20070623_011243_000000372059_00160_27769_2377.N1	23-JUN-2007 01:12:43	Bright	36.500	127	27Bet Her	2.7810	4700.0	73	27769	No
18	GOM_NL__2PRFIN20070623_011433_000000492059_00160_27769_2378.N1	23-JUN-2007 01:14:33	Bright	48.500	67	5Alp CrB	2.2210	11000.	97	27769	No
19	GOM_NL__2PRFIN20070623_012402_000000472059_00160_27769_2379.N1	23-JUN-2007 01:24:02	Bright	47.000	119	14Eta Dra	2.7270	4700.0	94	27769	No
20	GOM_NL__2PRFIN20070623_012746_000000372059_00160_27769_2380.N1	23-JUN-2007 01:27:46	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	27769	No
21	GOM_NL__2PRFIN20070623_013215_000000342059_00160_27769_2381.N1	23-JUN-2007 01:32:15	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	27769	No
22	GOM_NL__2PRFIN20070623_014234_000000352059_00160_27769_2382.N1	23-JUN-2007 01:42:34	Bright	35.000	160	23Gam Per	2.9300	4700.0	70	27769	No
23	GOM_NL__2PRFIN20070623_014616_000000452059_00160_27769_2383.N1	23-JUN-2007 01:46:16	Bright	45.000	79	26Bet Per	2.3100	13100.	90	27769	No
24	GOM_NL__2PRFIN20070623_015703_000000442059_00160_27769_2384.N1	23-JUN-2007 01:57:03	Dark	43.500	94	92Alp Cet	2.5260	3100.0	87	27769	No
25	GOM_NL__2PRFIN20070623_020105_000000362059_00160_27769_2385.N1	23-JUN-2007 02:01:05	Dark	36.000	165	34Gam Eri	2.9500	3200.0	72	27769	No
26	GOM_NL__2PRFIN20070623_021507_000000382059_00160_27769_2386.N1	23-JUN-2007 02:15:07	Dark	38.000	9	Alp Eri	0.45300	24000.	76	27769	No
27	GOM_NL__2PRFIN20070623_022015_000000382059_00161_27770_2382.N1	23-JUN-2007 02:20:15	Dark	37.500	135	Bet Hyi	2.8200	5800.0	75	27770	No
28	GOM_NL__2PRFIN20070623_023117_000000382059_00161_27770_2383.N1	23-JUN-2007 02:31:17	Straylight	38.000	141	Bet Ara	2.8400	4600.0	76	27770	No
29	GOM_NL__2PRFIN20070623_023242_000000392059_00161_27770_2384.N1	23-JUN-2007 02:32:42	Straylight	39.000	147	Alp Ara	2.8770	26000.	78	27770	No
30	GOM_NL__2PRFIN20070623_023428_000000432059_00161_27770_2385.N1	23-JUN-2007 02:34:28	Tw_i_and_stray	43.000	40	The Sco	1.8590	7100.0	86	27770	No
31	GOM_NL__2PRFIN20070623_023609_000000422059_00161_27770_2386.N1	23-JUN-2007 02:36:09	Tw_i_and_stray	42.000	25	35Lam Sco	1.6200	28000.	84	27770	No
32	GOM_NL__2PRFIN20070623_023730_000000472059_00161_27770_2387.N1	23-JUN-2007 02:37:30	Bright	47.000	75	26Eps Sco	2.2910	4250.0	94	27770	No
33	GOM_NL__2PRFIN20070623_024013_000000362059_00161_27770_2388.N1	23-JUN-2007 02:40:13	Bright	36.000	156	20Sig Sco	2.9030	28000.	72	27770	No
34	GOM_NL__2PRFIN20070623_024231_000000372059_00161_27770_2389.N1	23-JUN-2007 02:42:31	Bright	36.500	86	35Eta Oph	2.4300	10200.	73	27770	No
35	GOM_NL__2PRFIN20070623_024415_000000362059_00161_27770_2390.N1	23-JUN-2007 02:44:15	Bright	35.500	98	13Zet Oph	2.5710	30000.	71	27770	No
36	GOM_NL__2PRFIN20070623_024621_000000362059_00161_27770_2391.N1	23-JUN-2007 02:46:21	Bright	35.500	120	1Del Oph	2.7340	3200.0	71	27770	No
37	GOM_NL__2PRFIN20070623_024929_000000372059_00161_27770_2392.N1	23-JUN-2007 02:49:29	Bright	37.000	102	24Alp Ser	2.6000	4250.0	74	27770	No
38	GOM_NL__2PRFIN20070623_025319_000000362059_00161_27770_2393.N1	23-JUN-2007 02:53:19	Bright	35.500	127	27Bet Her	2.7810	4700.0	71	27770	No
39	GOM_NL__2PRFIN20070623_025509_000000342059_00161_27770_2394.N1	23-JUN-2007 02:55:09	Bright	34.000	67	5Alp CrB	2.2210	11000.	68	27770	No
40	GOM_NL__2PRFIN20070623_030438_000000342059_00161_27770_2395.N1	23-JUN-2007 03:04:38	Bright	33.500	119	14Eta Dra	2.7270	4700.0	67	27770	No
41	GOM_NL__2PRFIN20070623_030822_000000342059_00161_27770_2396.N1	23-JUN-2007 03:08:22	Bright	34.000	60	7Bet UMi	2.0810	3950.0	68	27770	No
42	GOM_NL__2PRFIN20070623_031251_000000332059_00161_27770_2397.N1	23-JUN-2007 03:12:51	Bright	33.000	49	1Alp UMi	1.9900	6300.0	66	27770	No



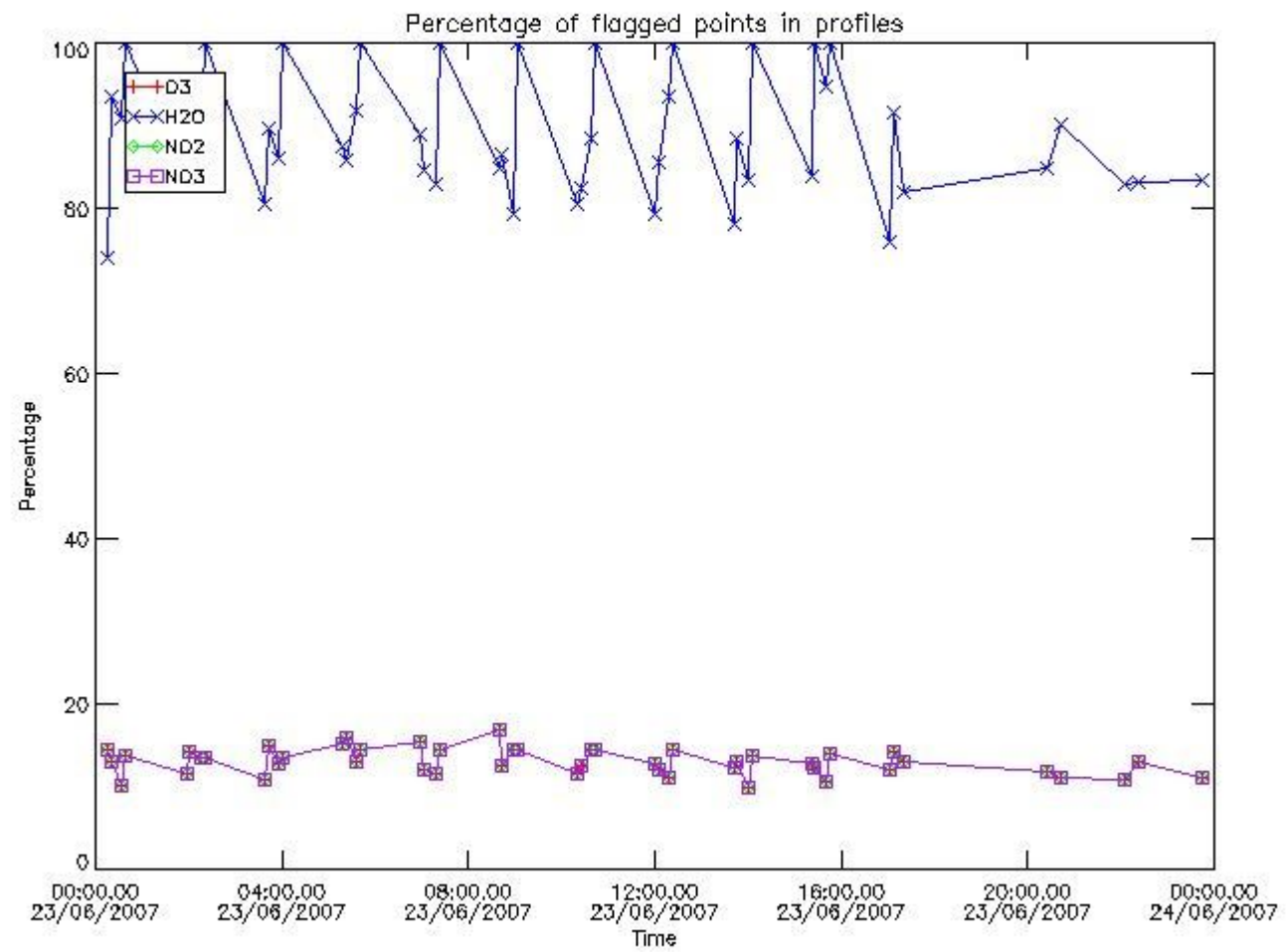






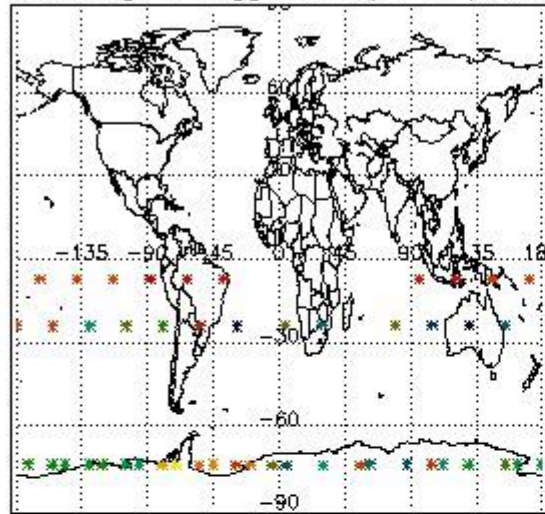
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

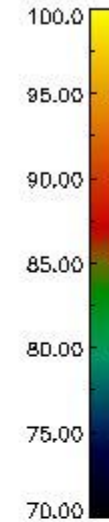
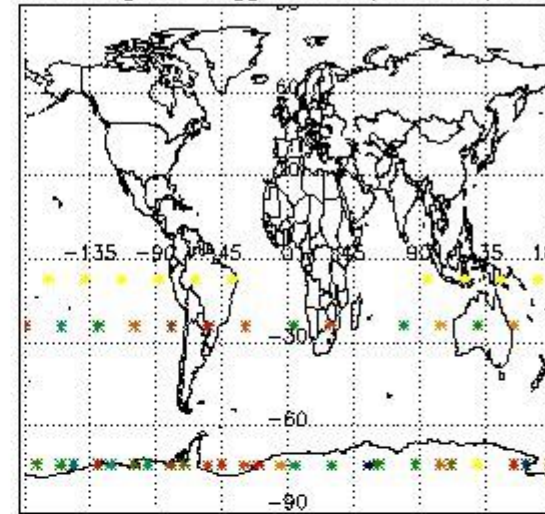


### 3.2 Plot quality information per product (world map)

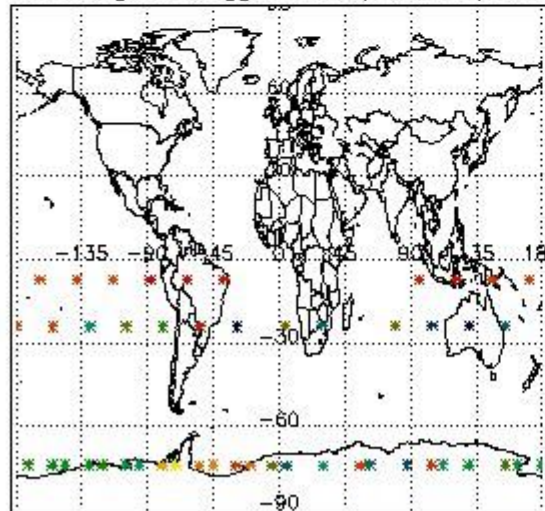
Percentage of flagged data per O3 profile



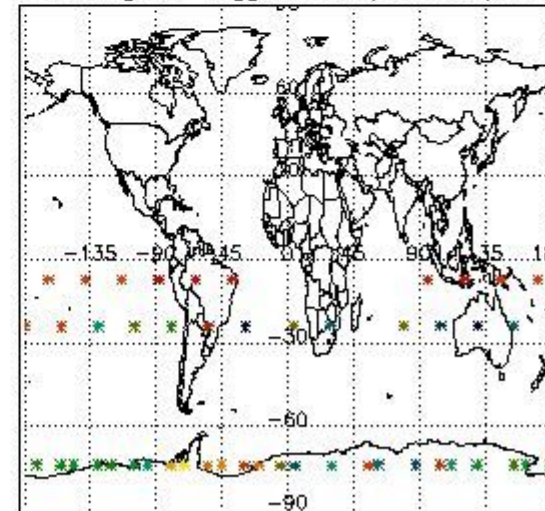
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



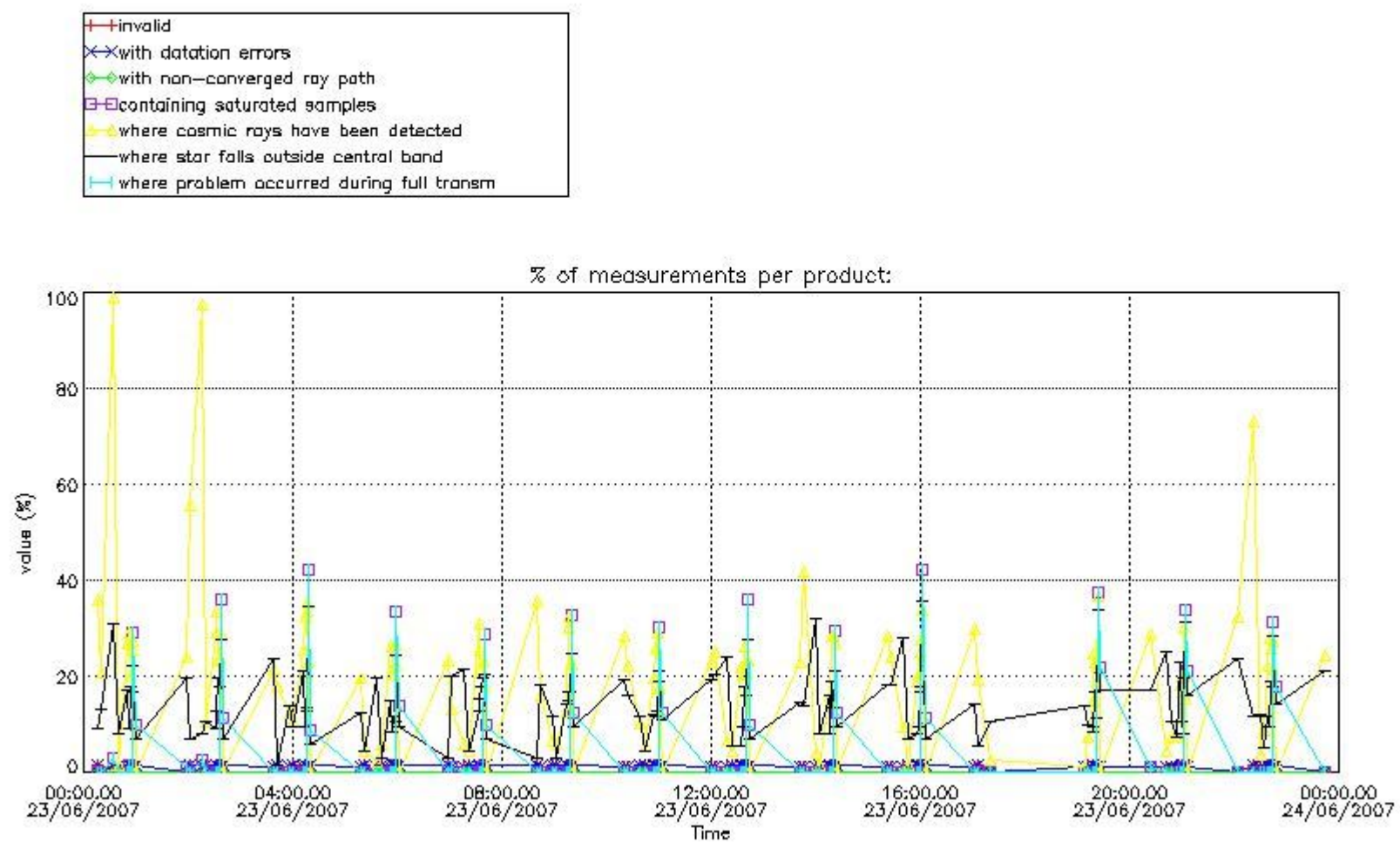
#### 4. Level 1 quality information per product

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

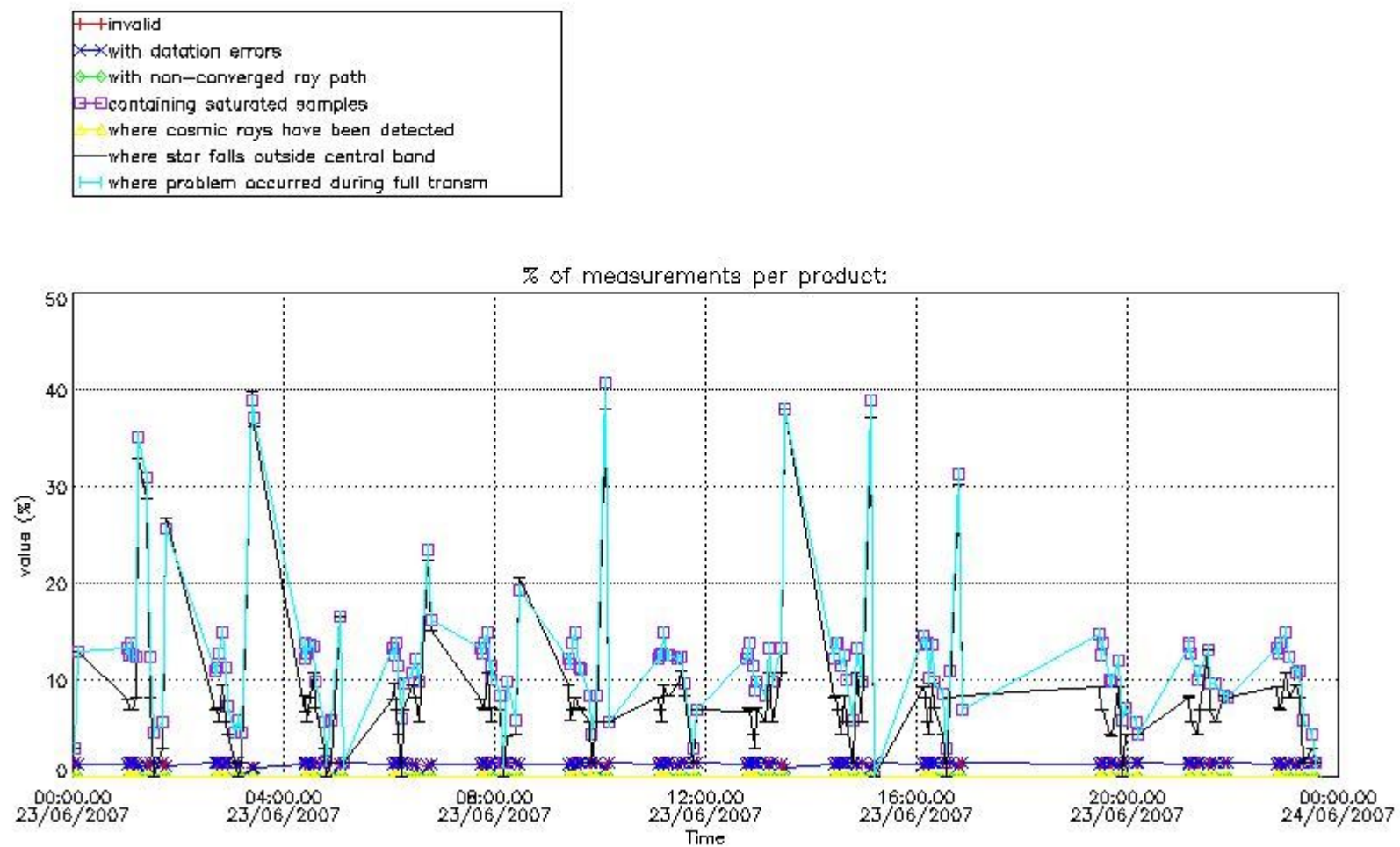
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



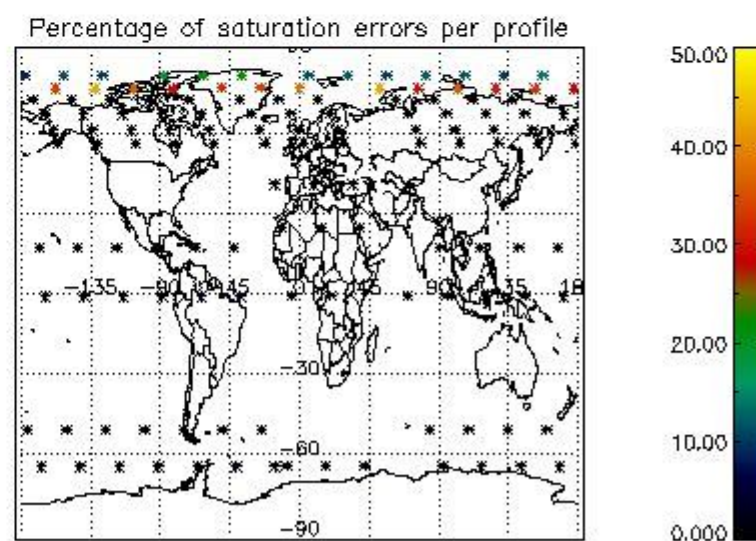
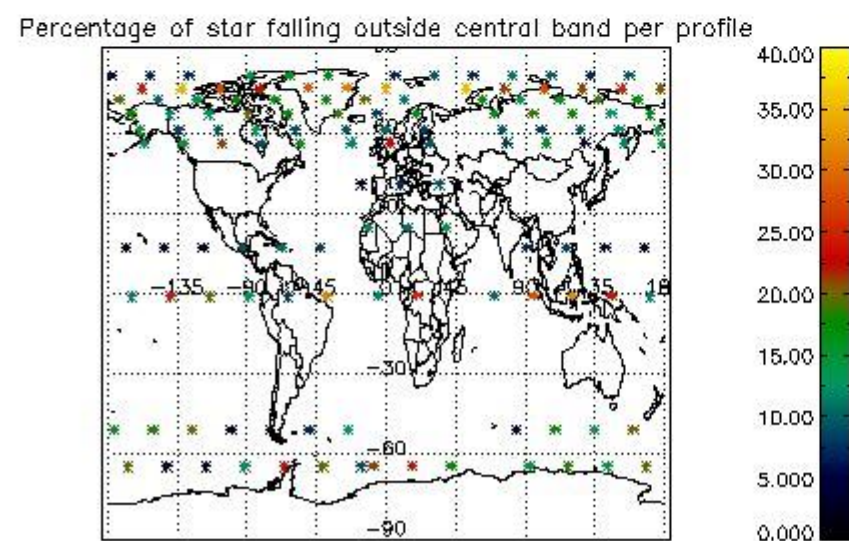
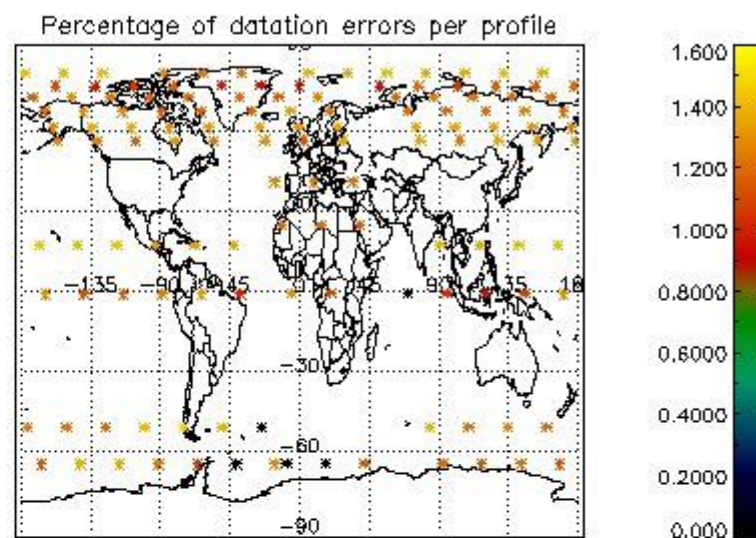
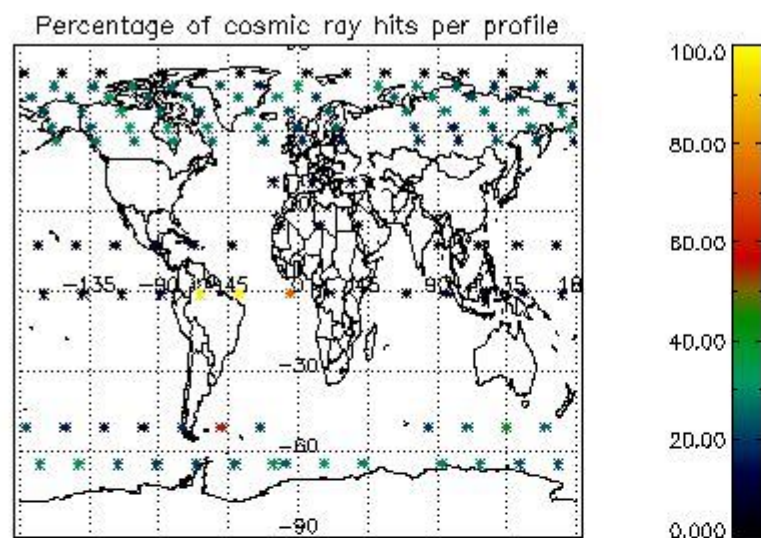


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

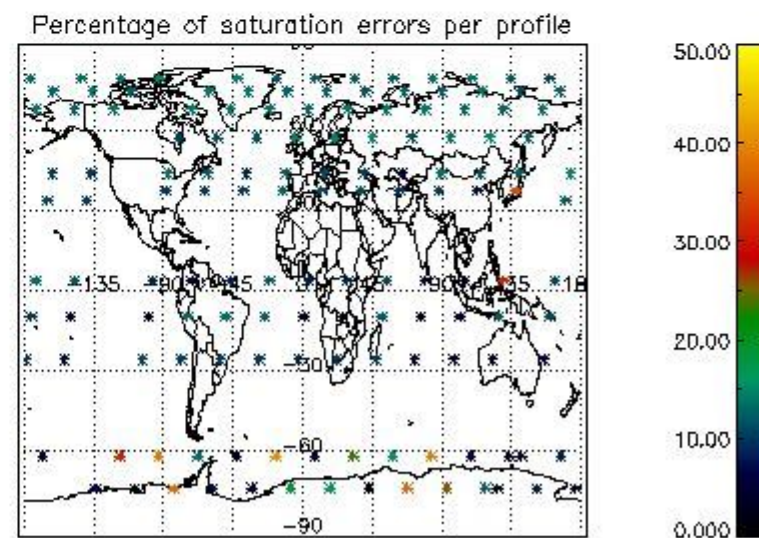
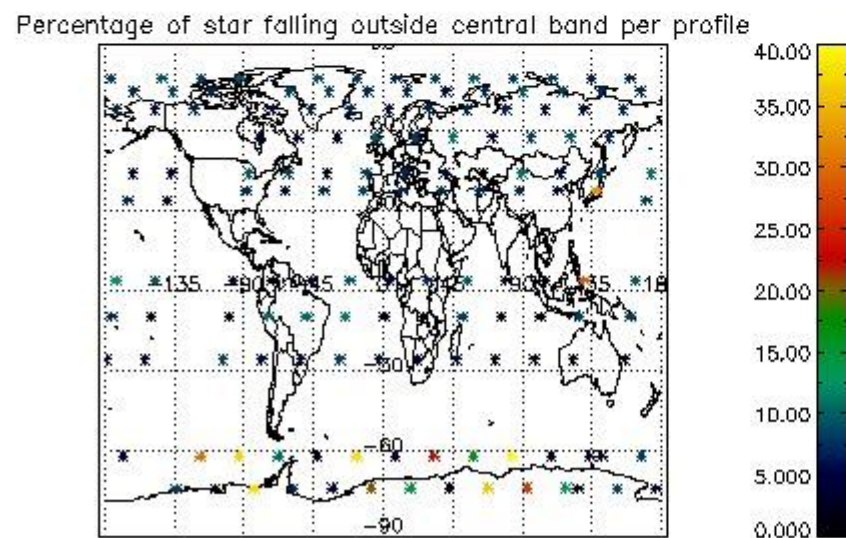
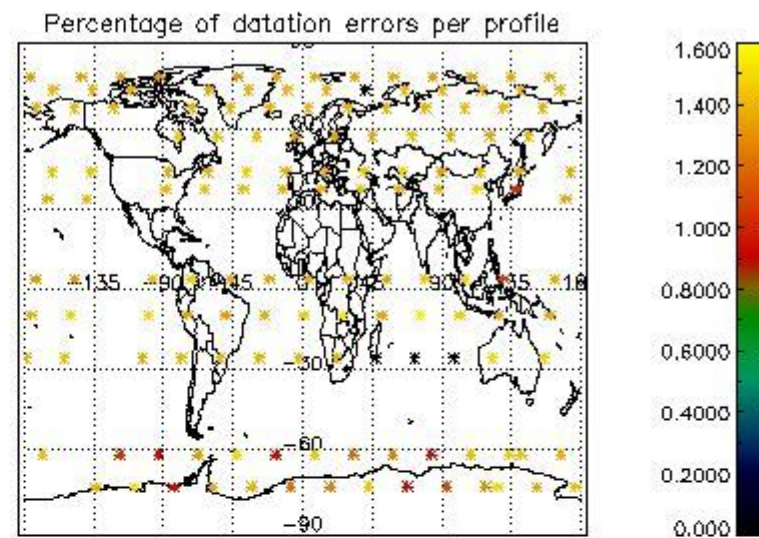
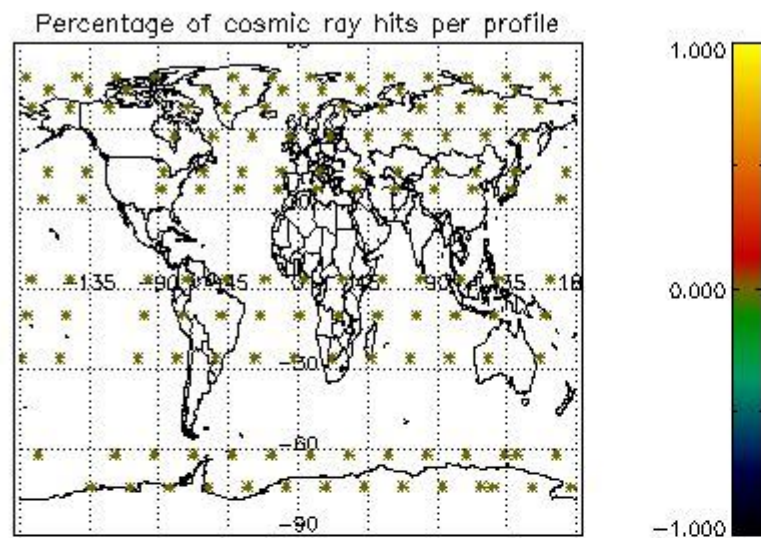


*4.2 Plot quality information per product coming from level 1b processing (world map)*

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



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

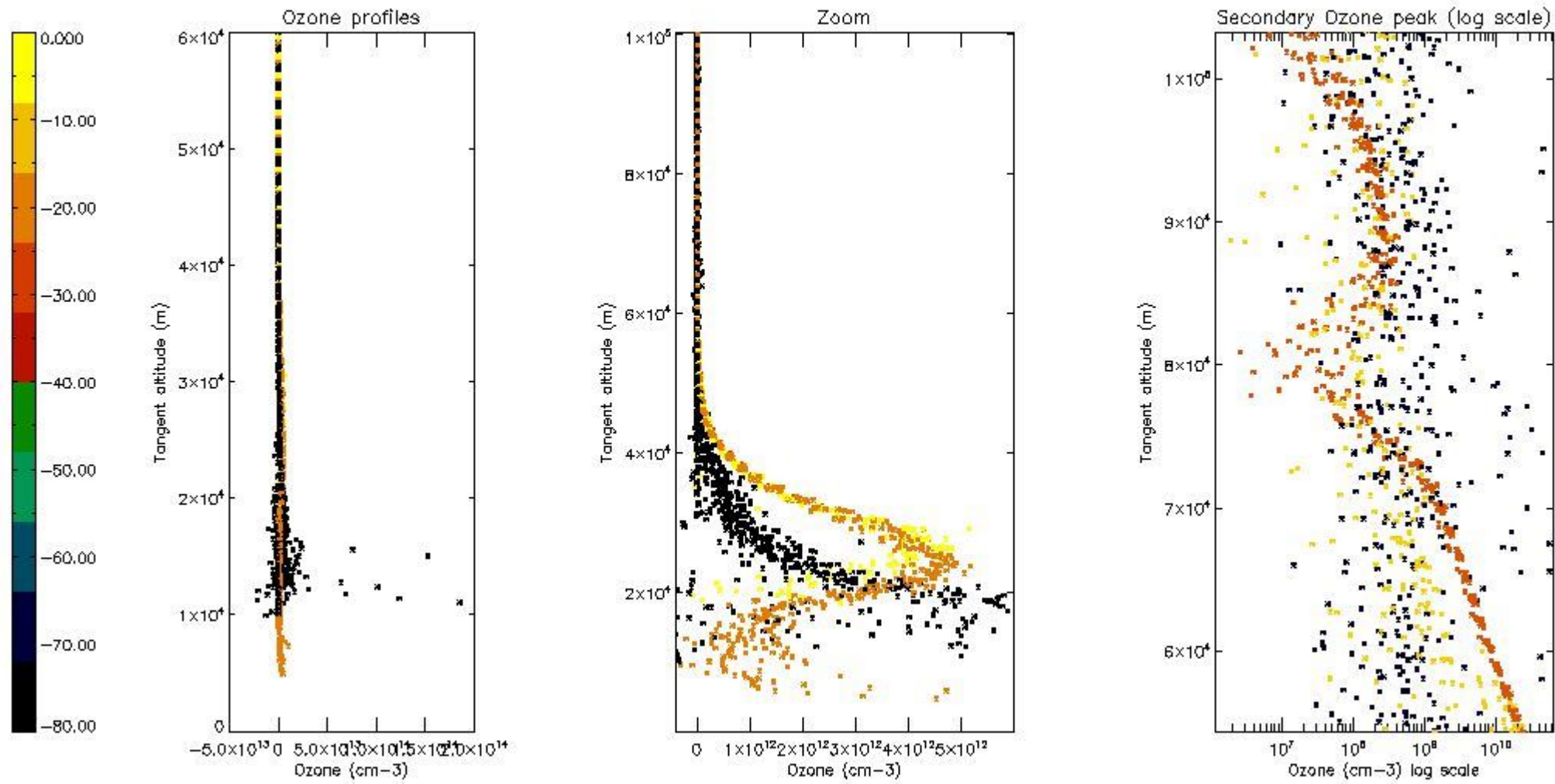
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	19
STD < 20	6

STD < 10	4
STD < 5	3

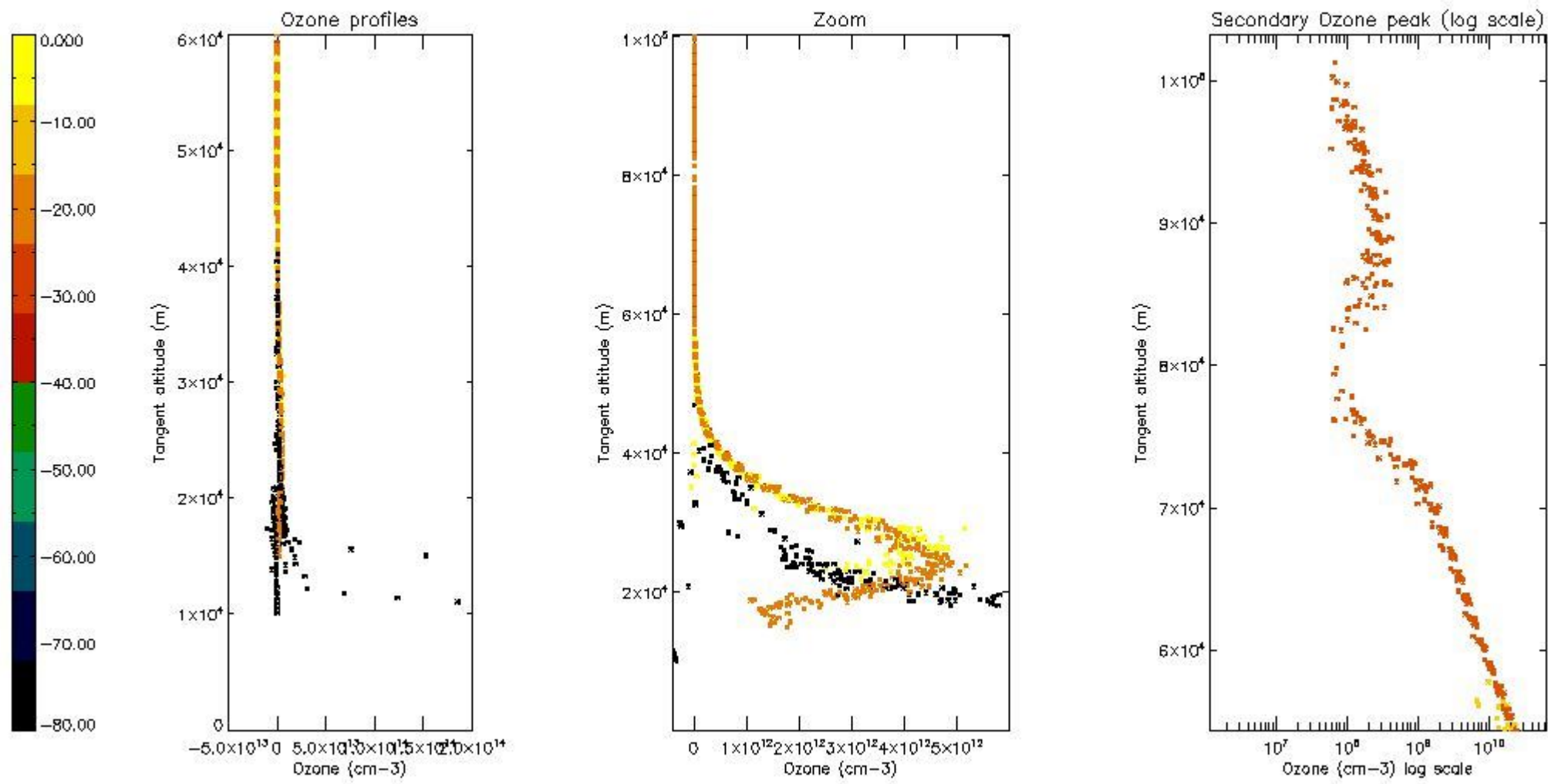
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



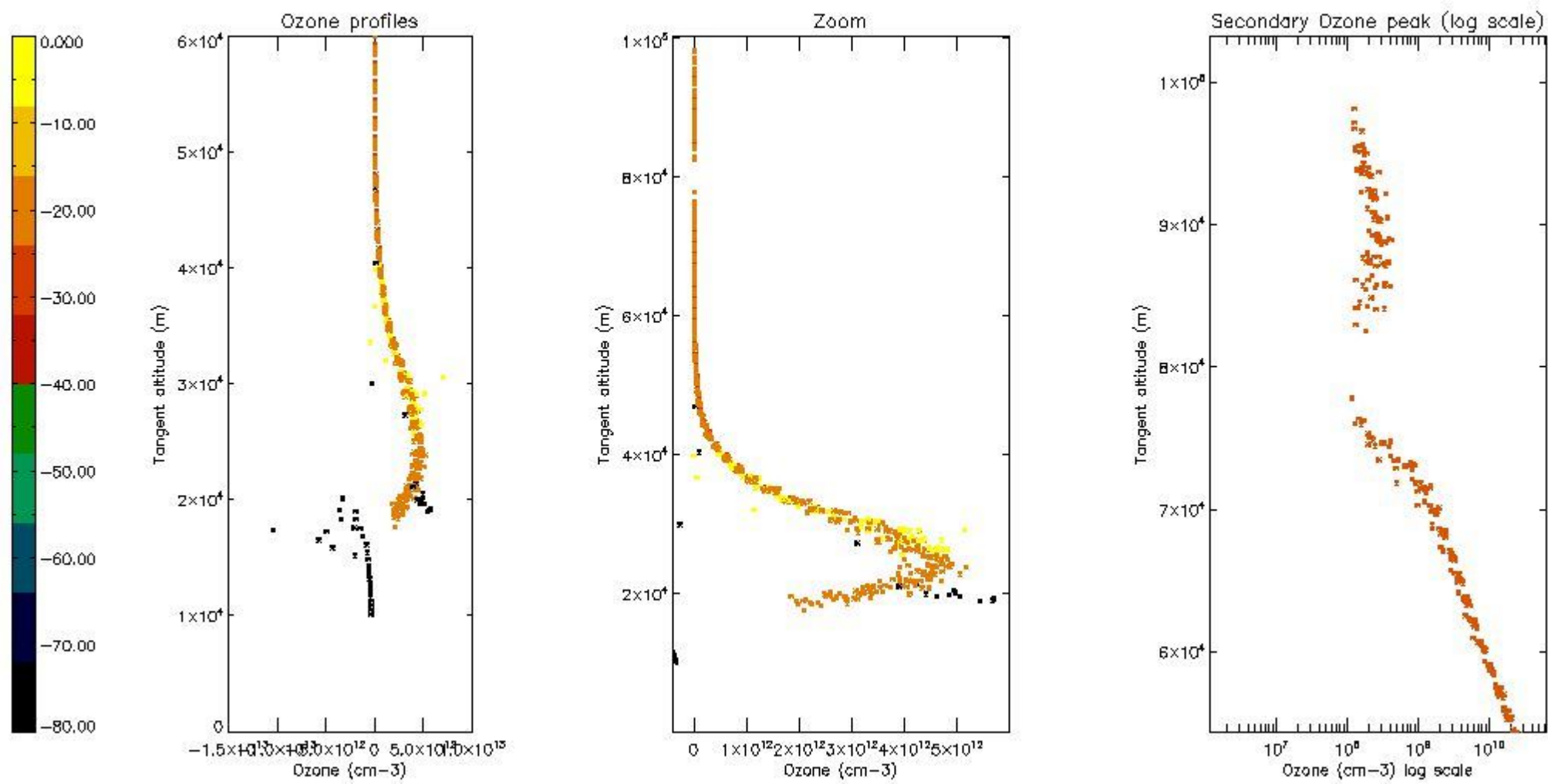
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



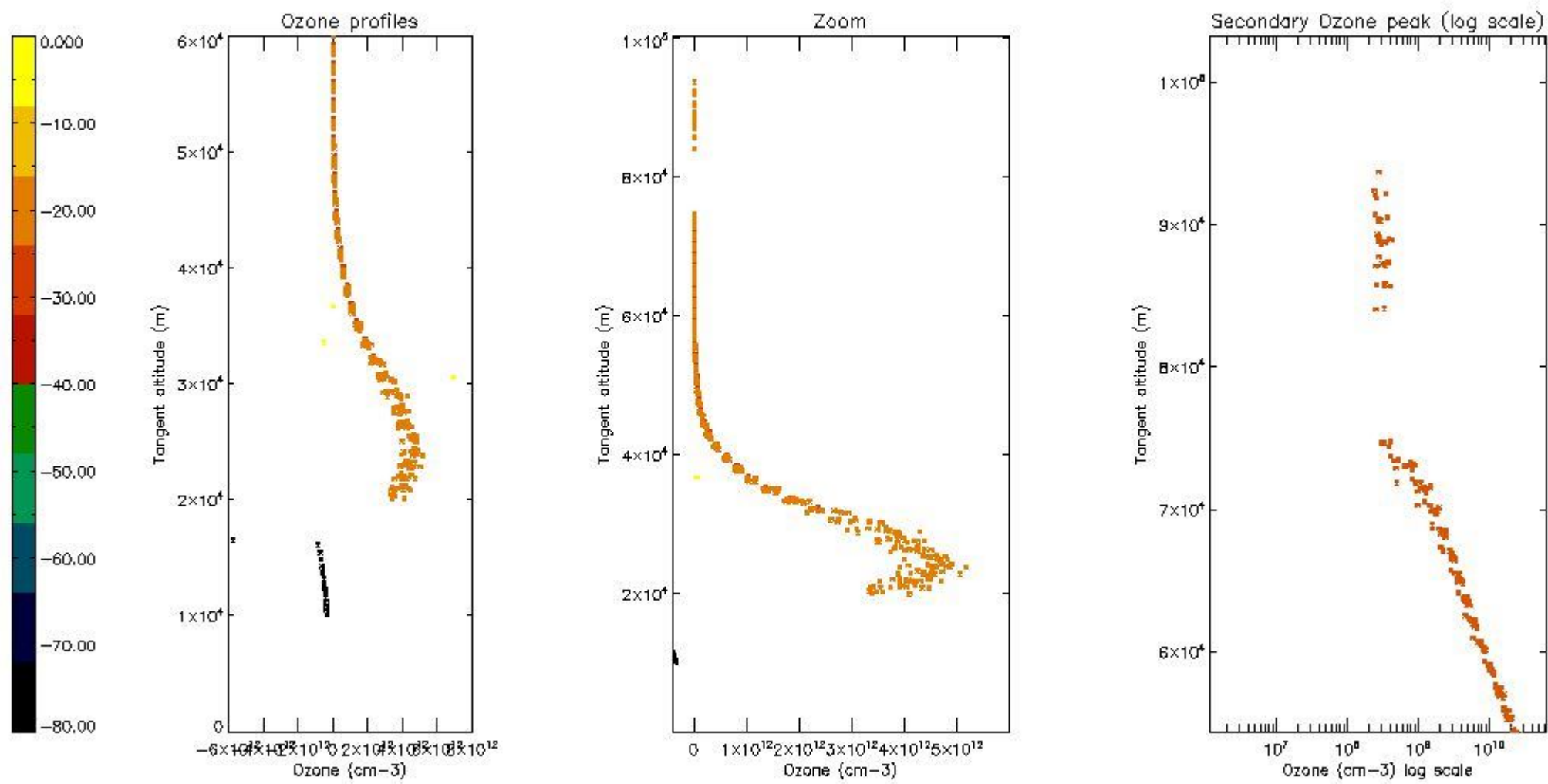
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



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

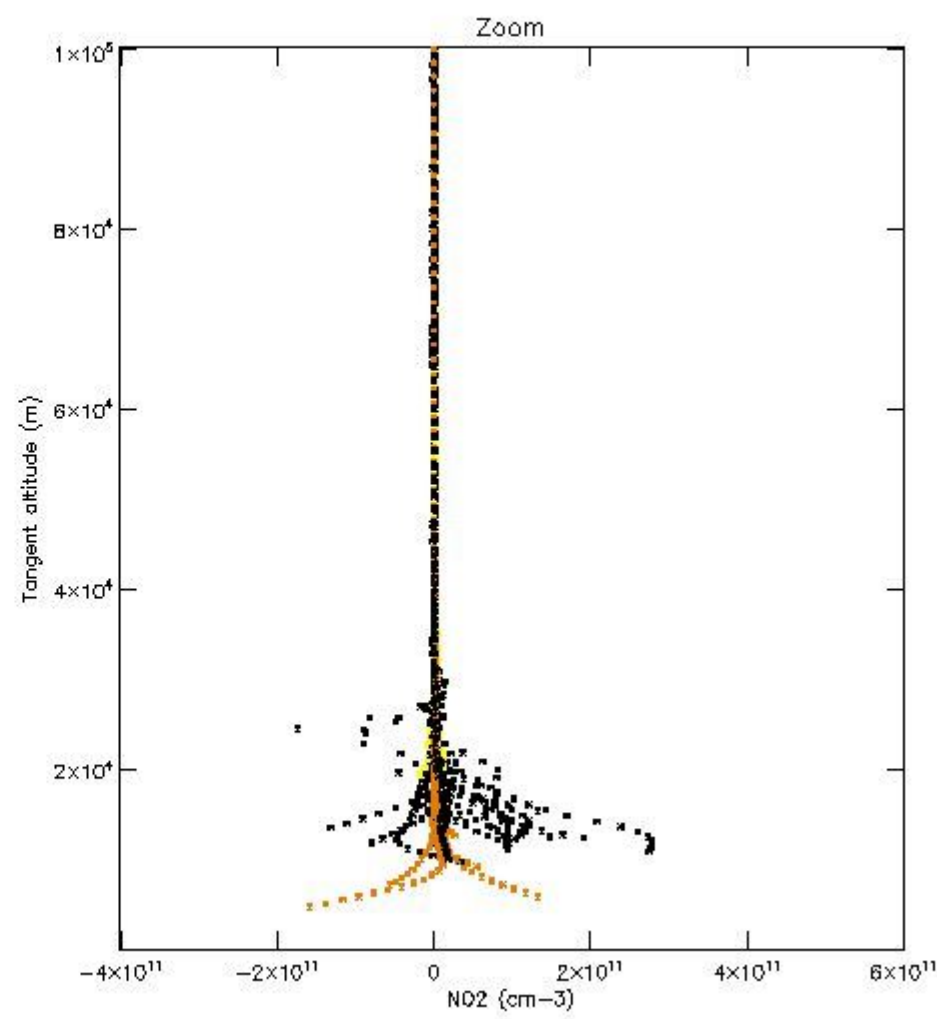
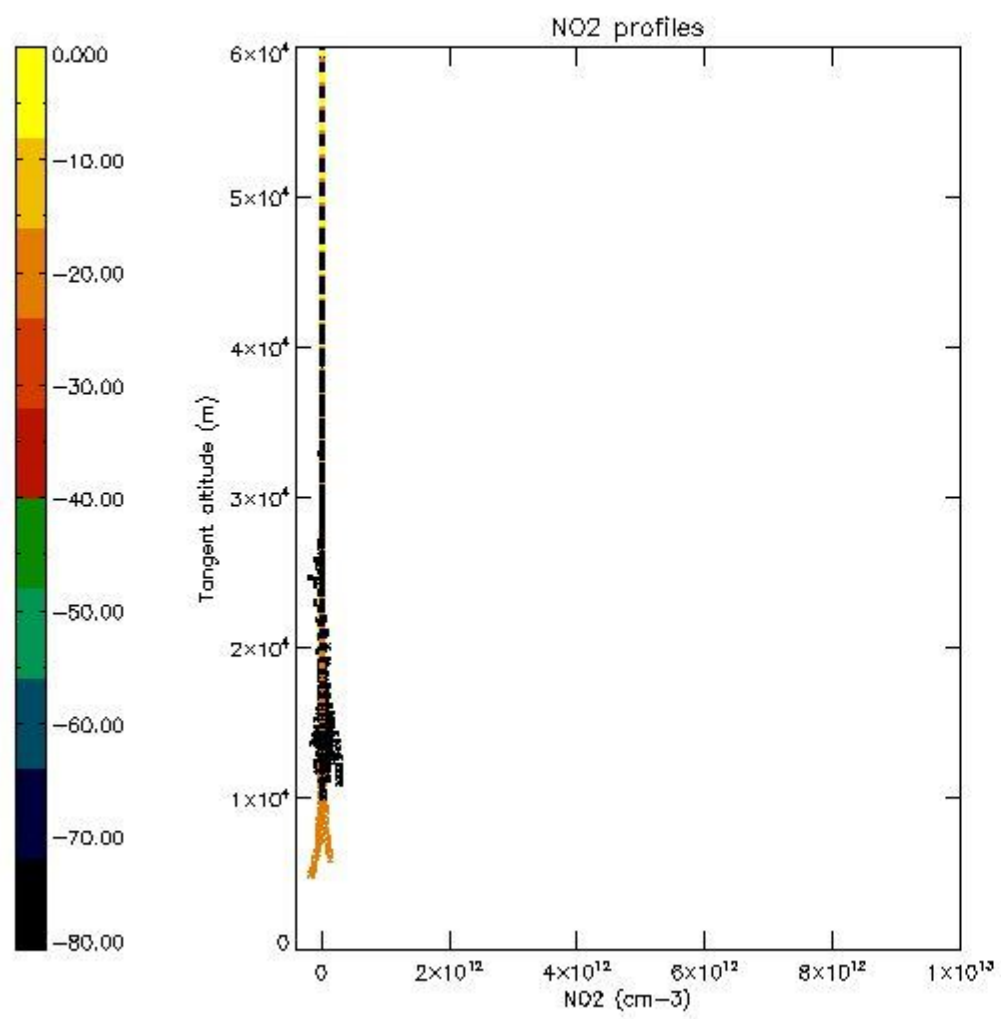
The colorbar represents the latitude.



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

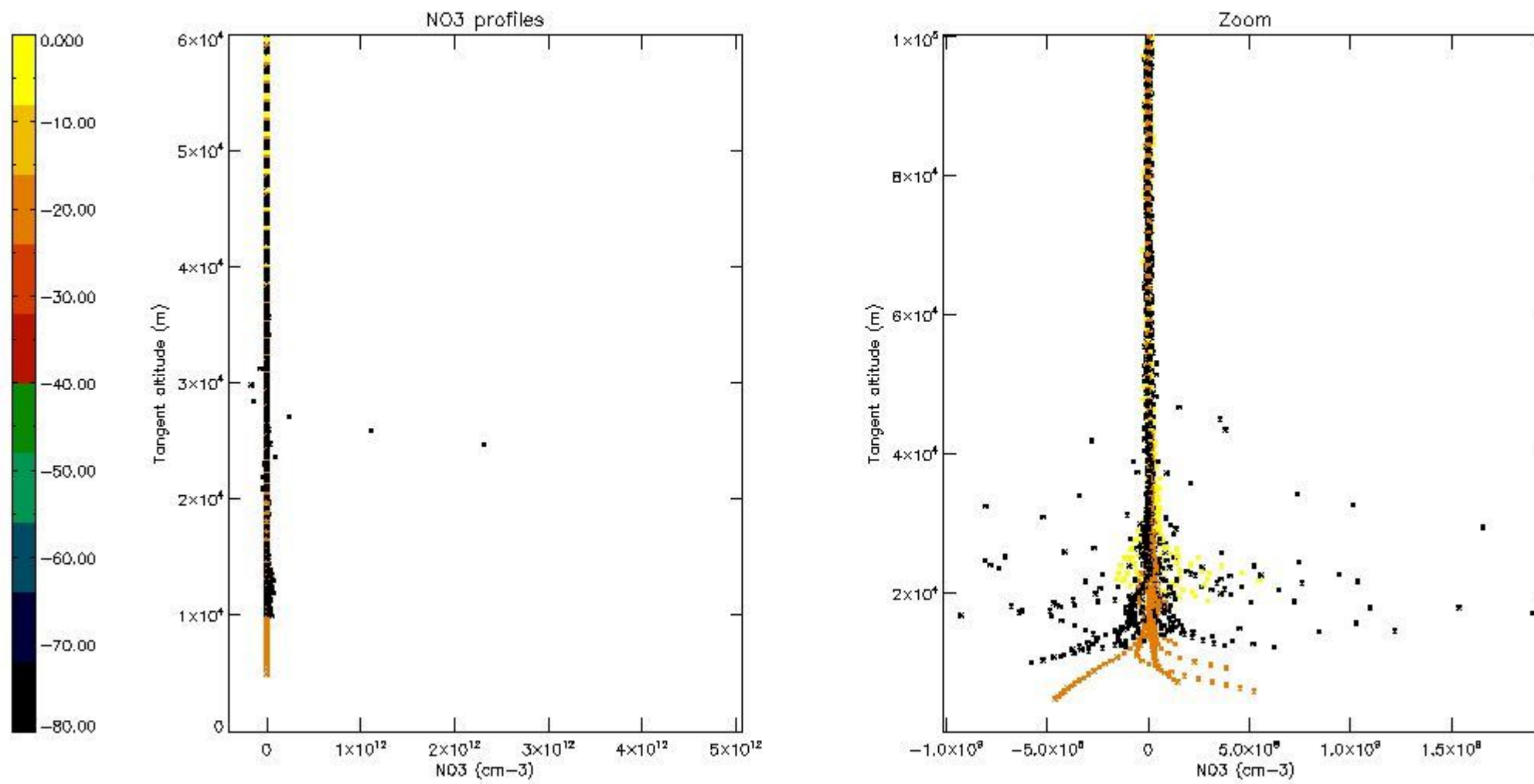
The colorbar represents the latitude.





*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	23-JUN-2007 00:01:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-JUN-2007 00:01:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-JUN-2007 00:01:59

# 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](#)







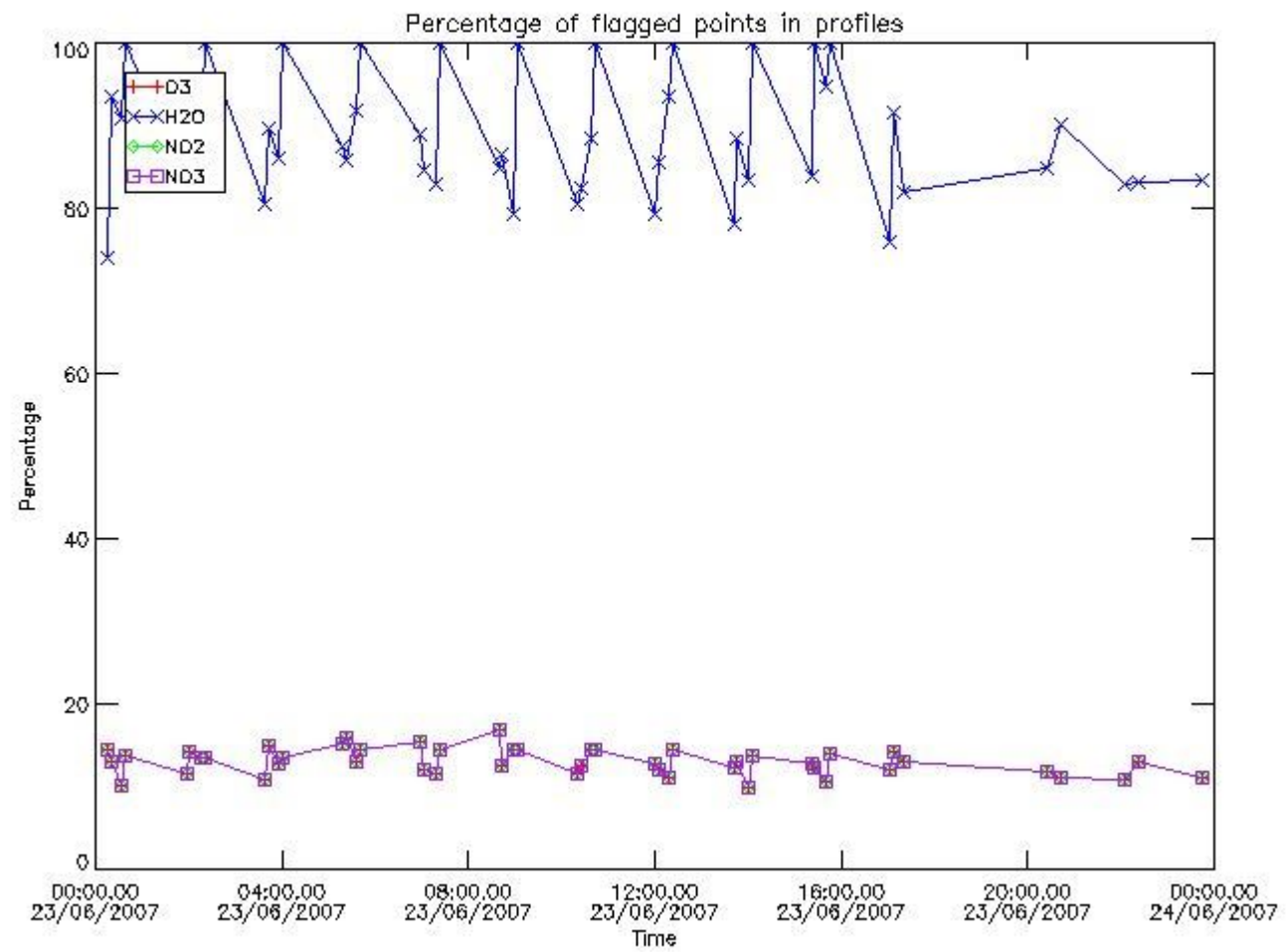






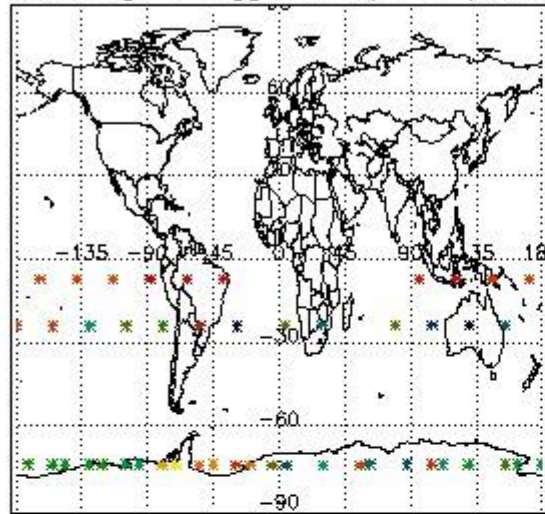
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

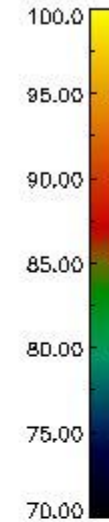
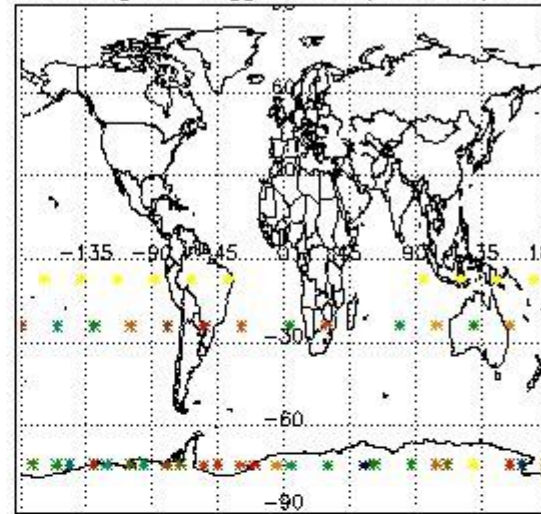


### 3.2 Plot quality information per product (world map)

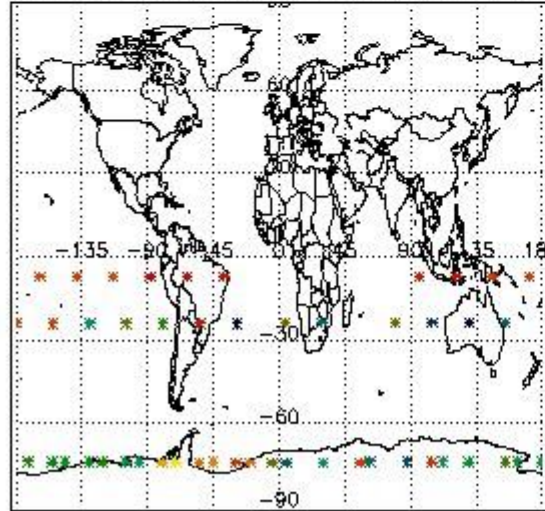
Percentage of flagged data per O3 profile



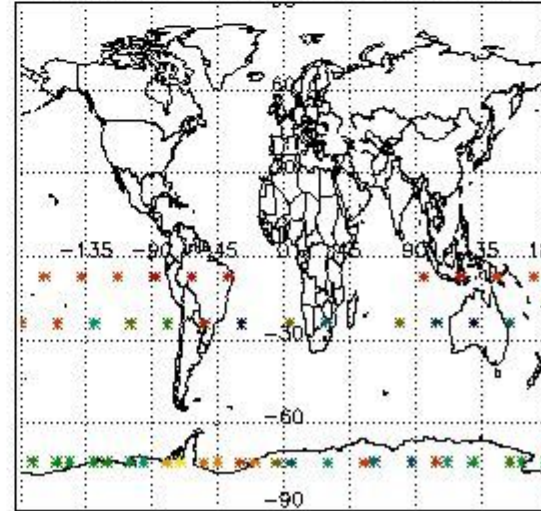
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

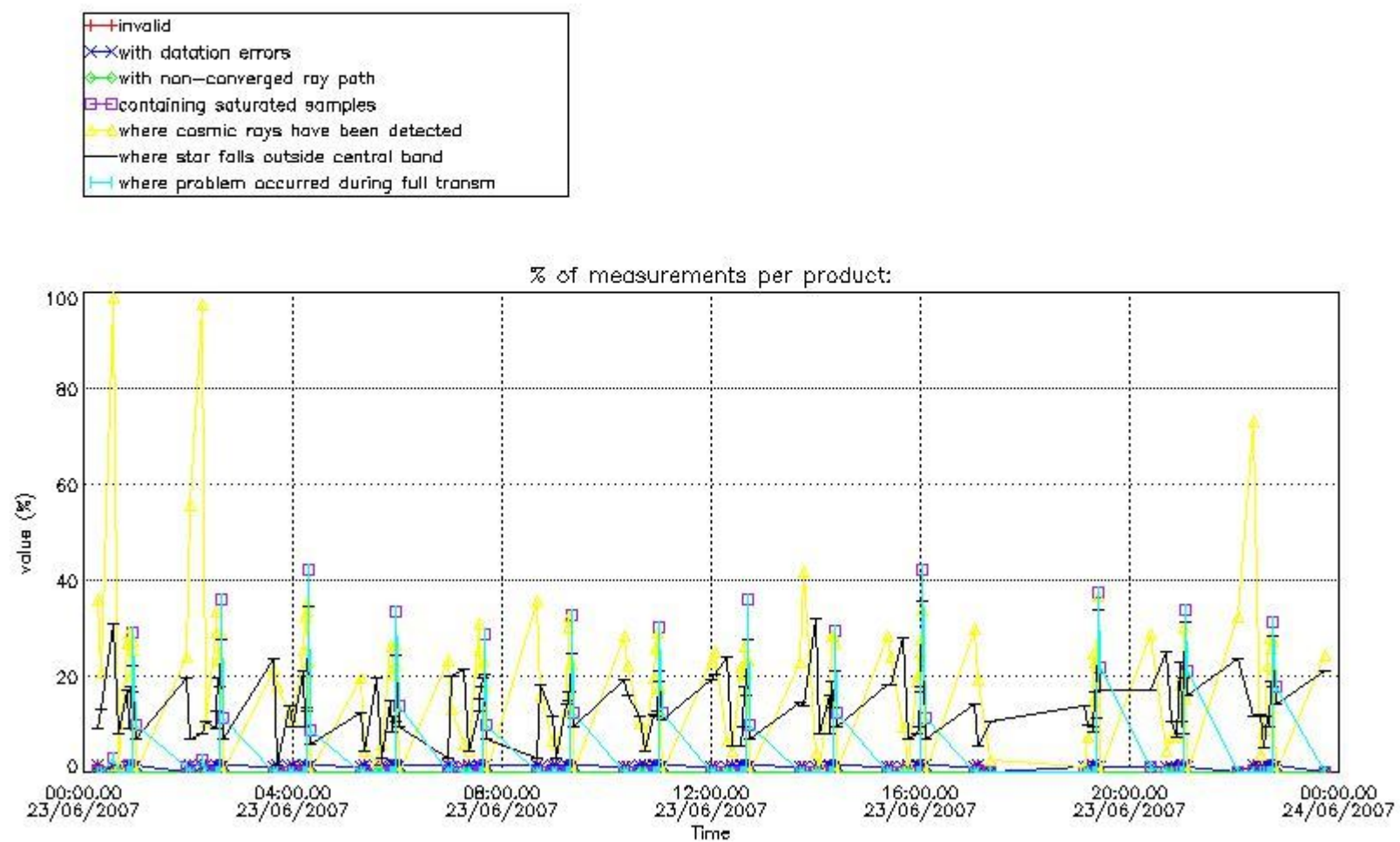


#### 4. Level 1 quality information per product

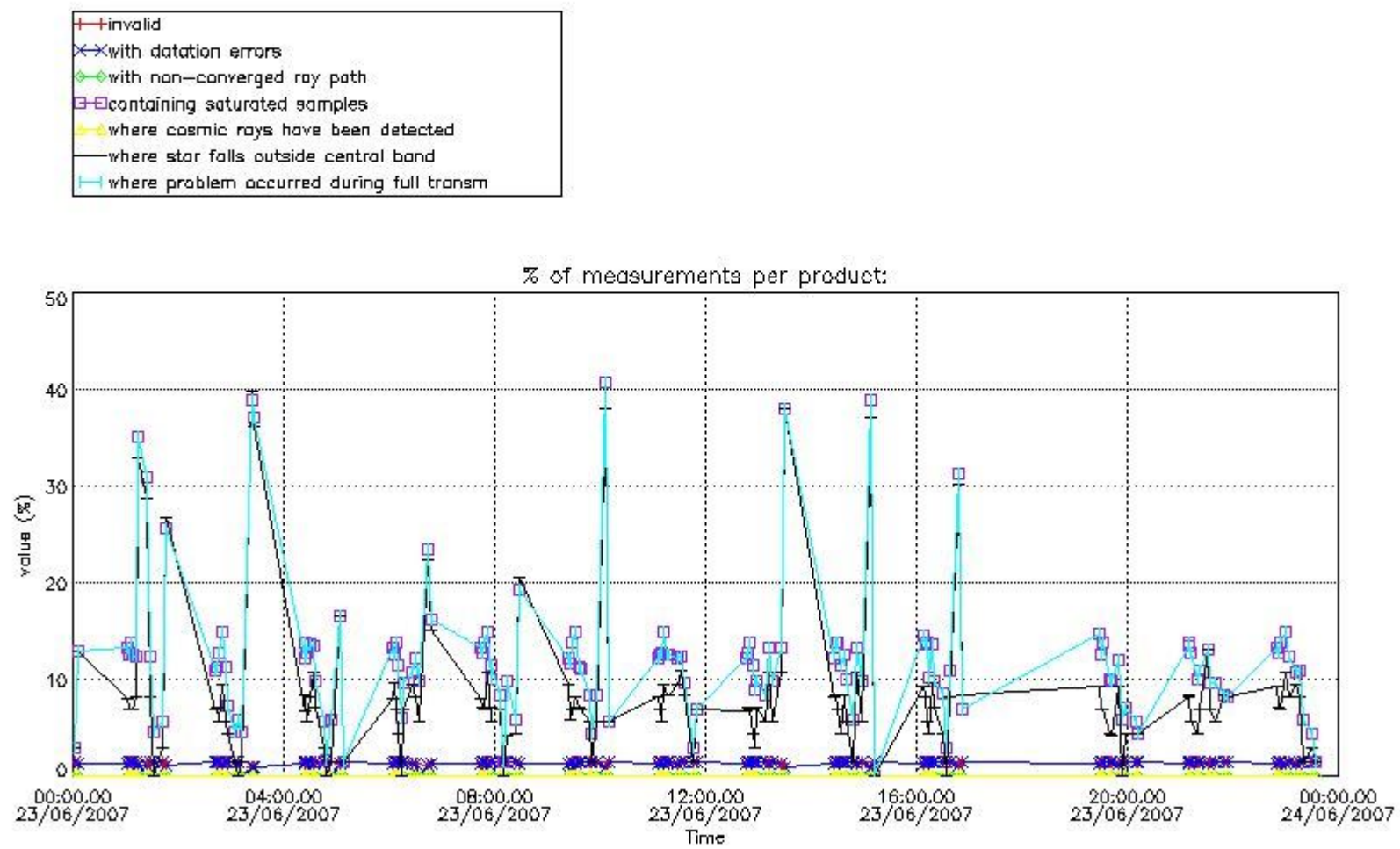
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

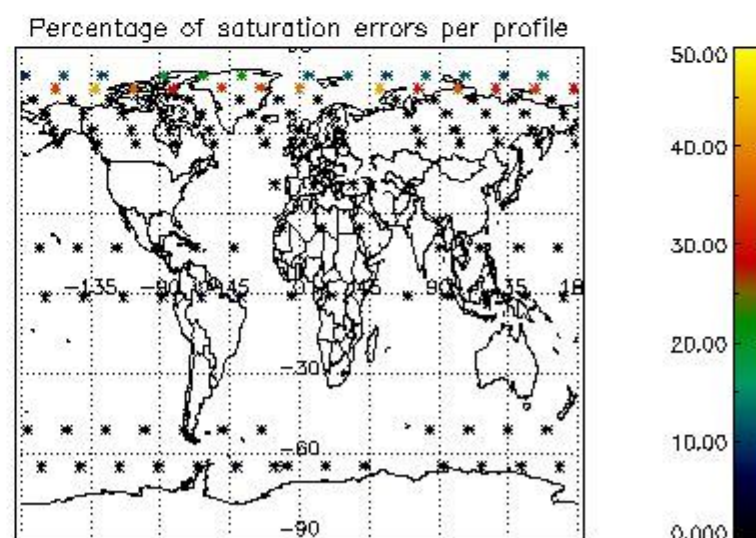
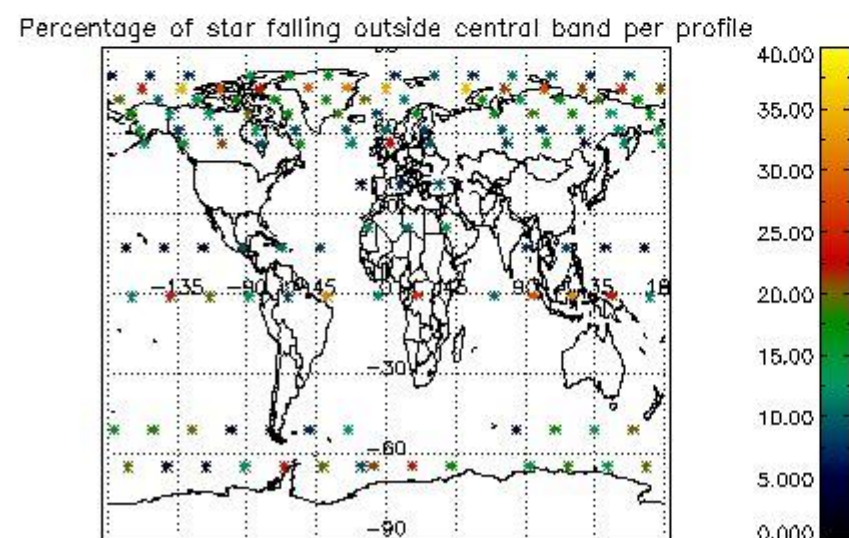
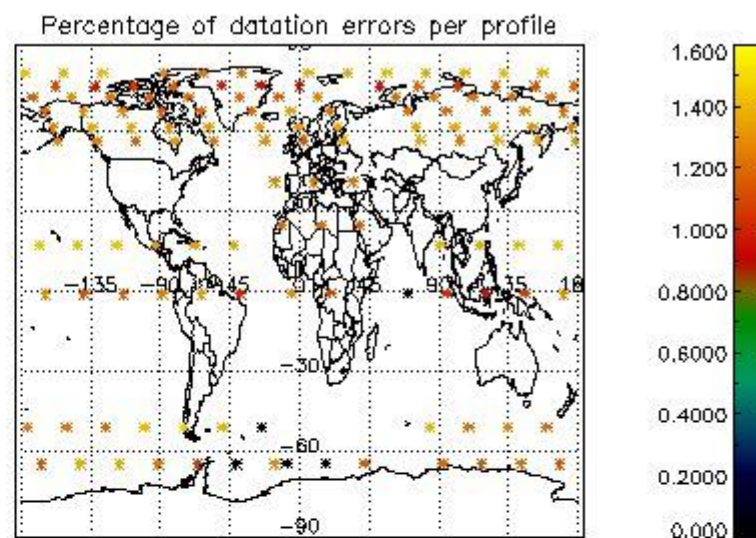
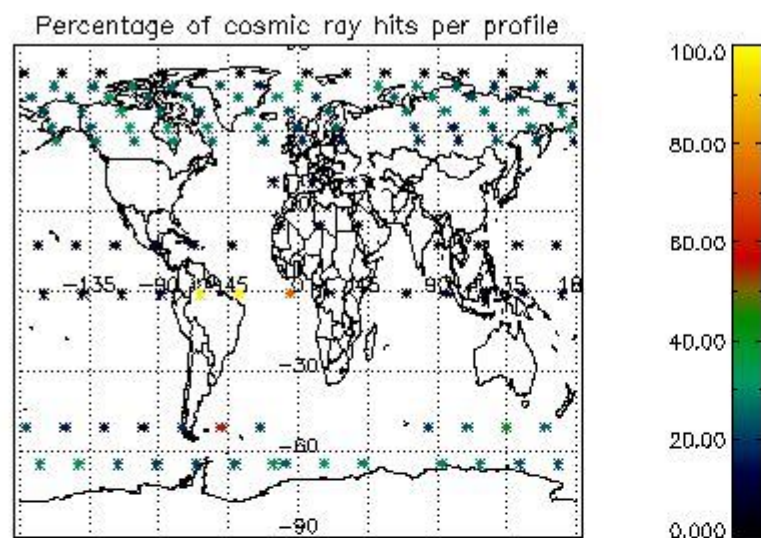


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

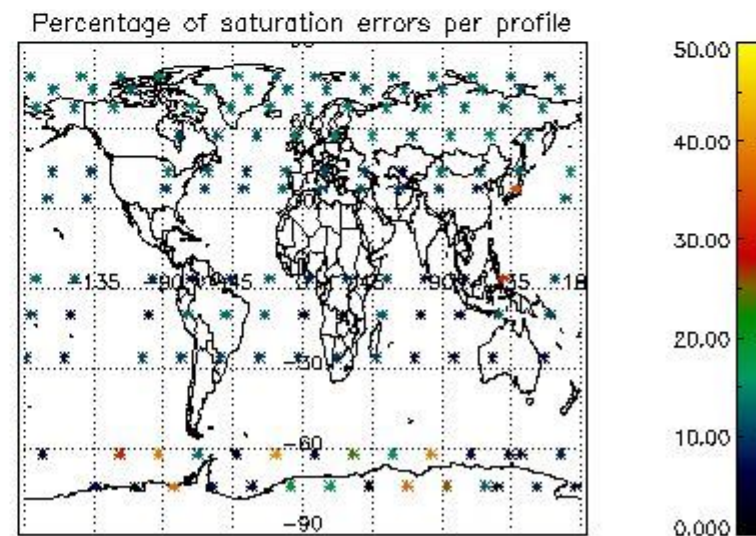
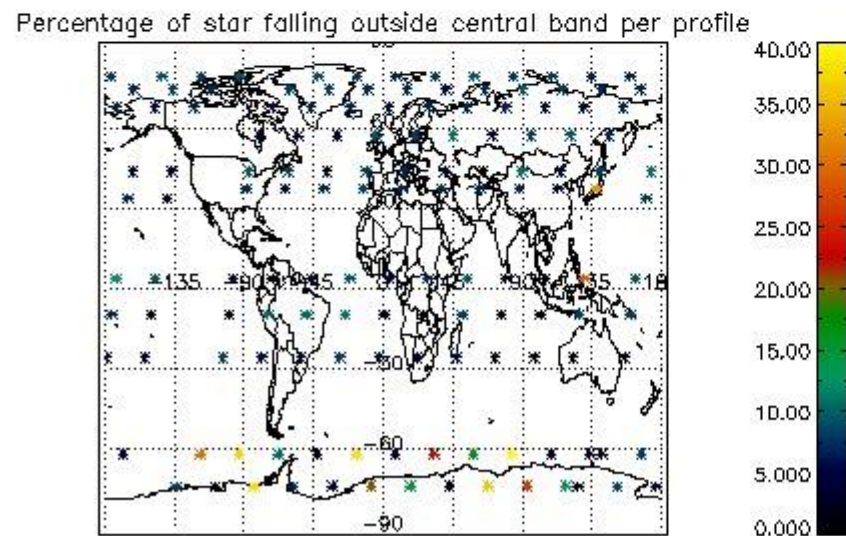
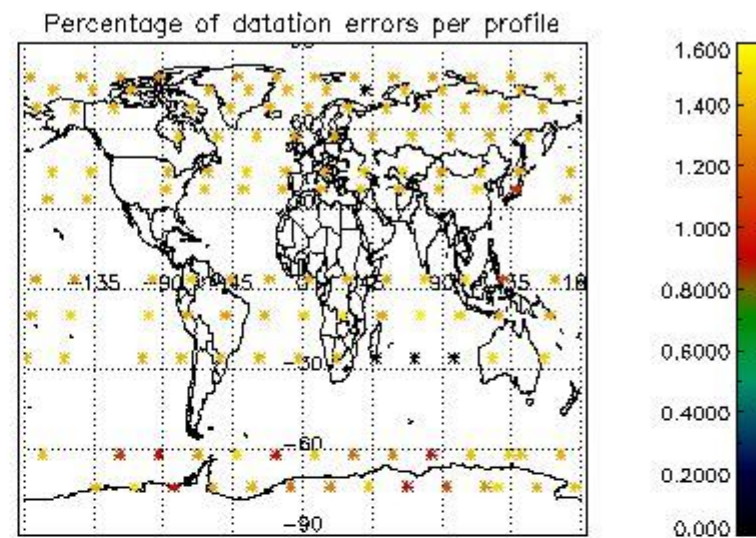
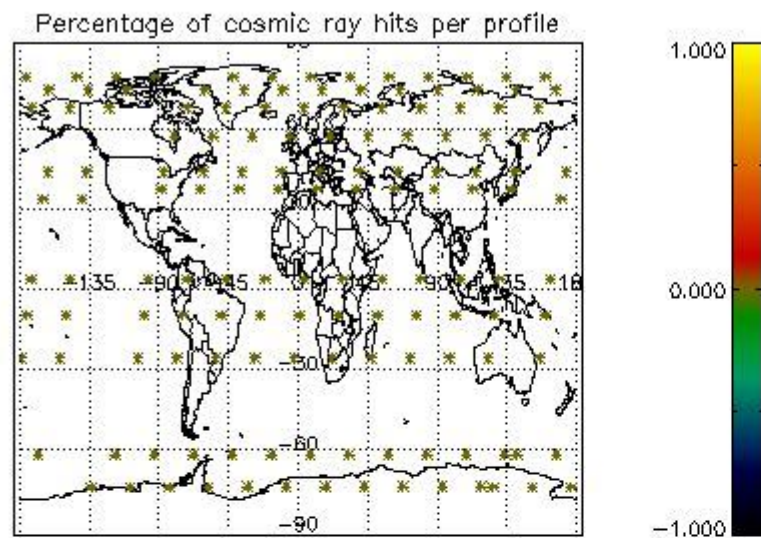


*4.2 Plot quality information per product coming from level 1b processing (world map)*

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



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

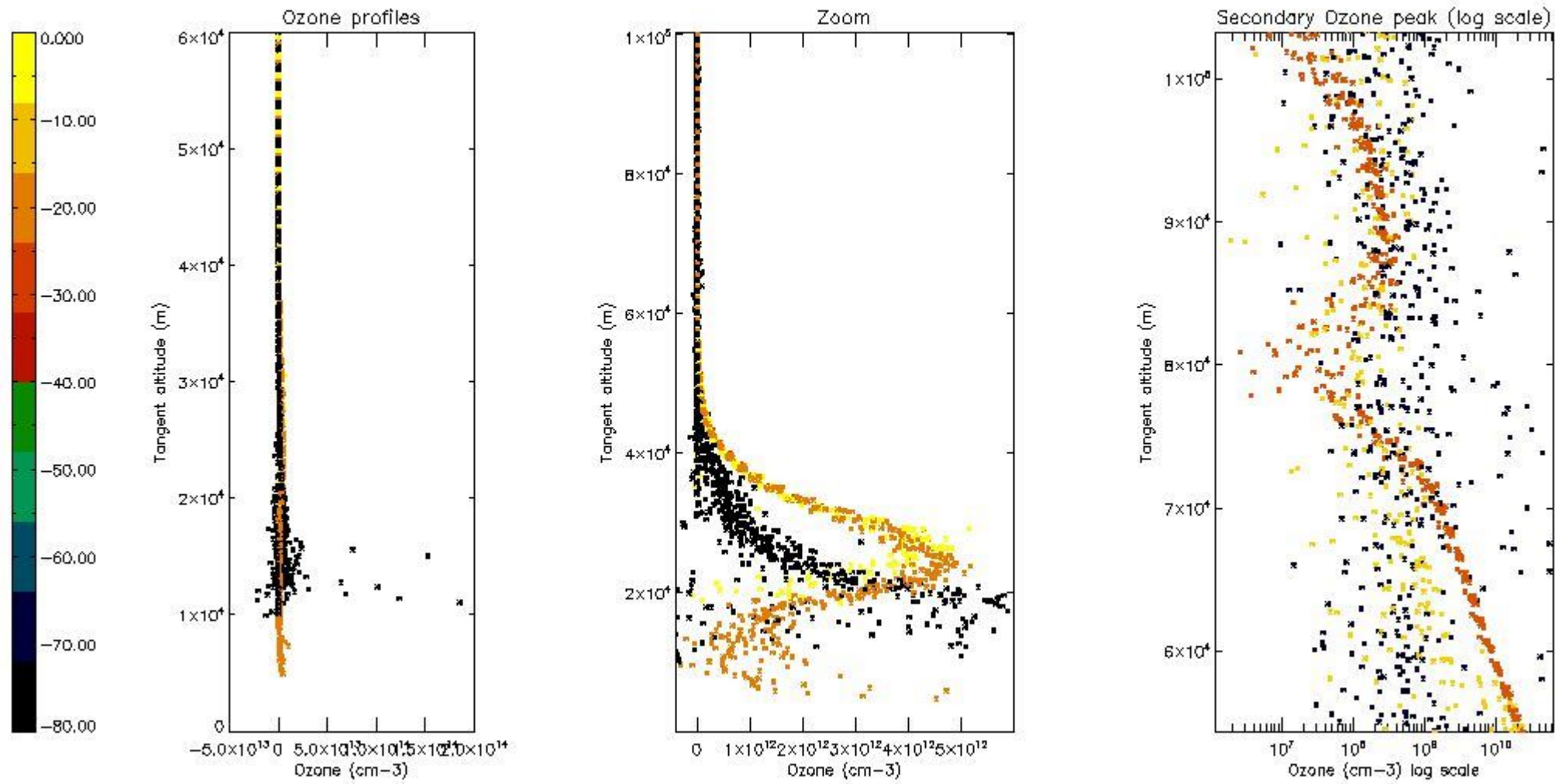
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	19
STD < 20	6

STD < 10	4
STD < 5	3

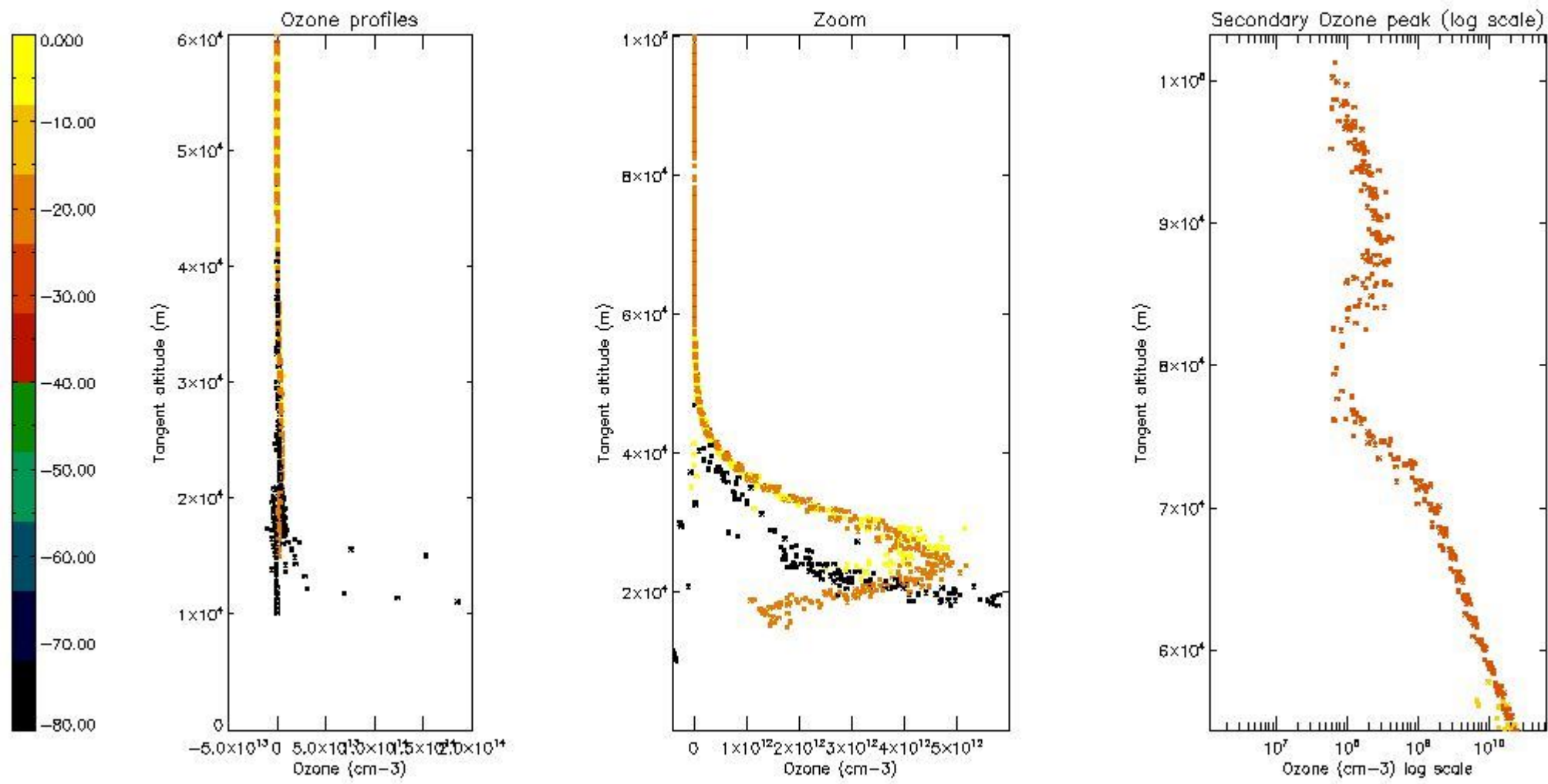
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

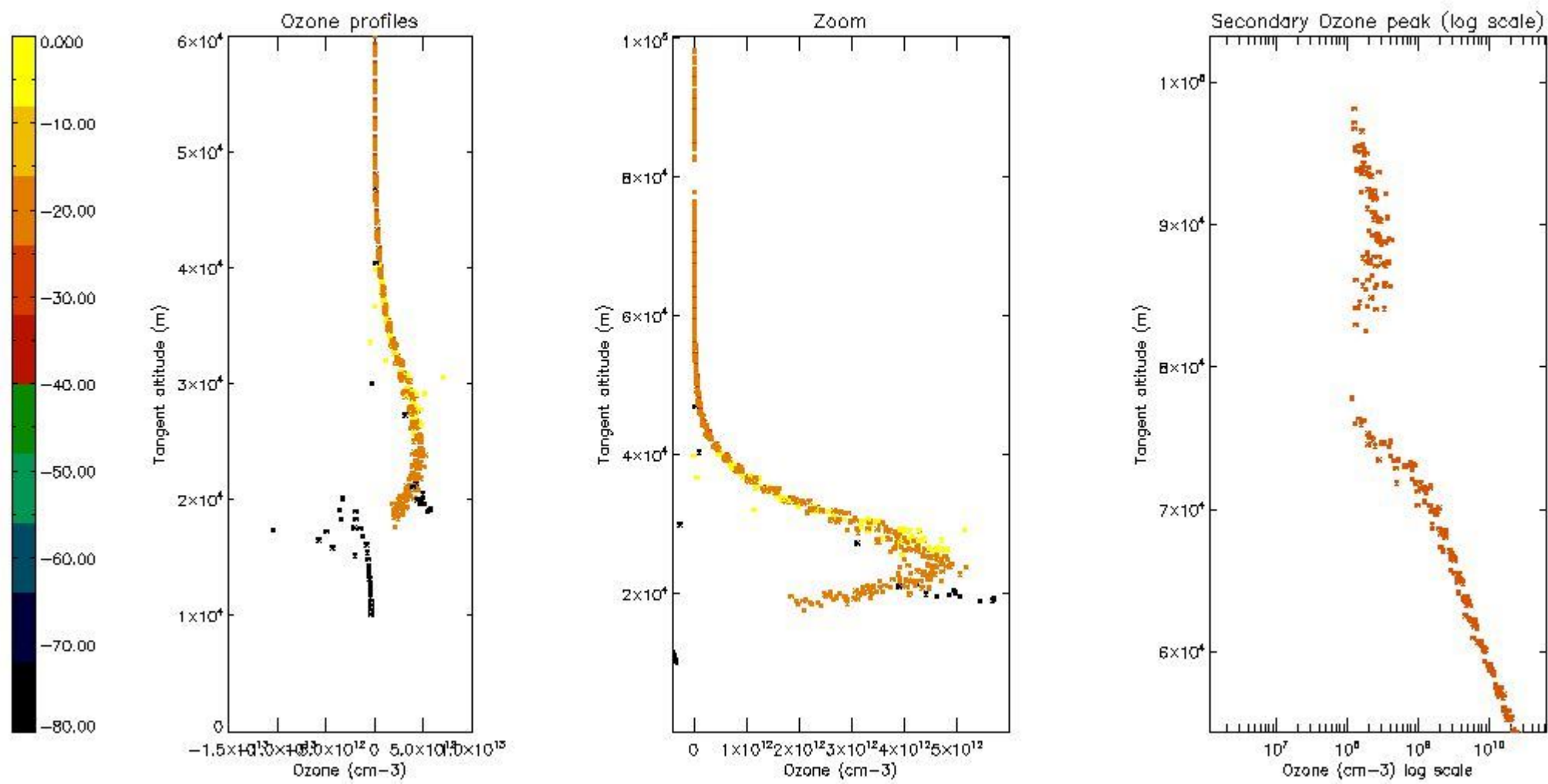
The colorbar represents the latitude.



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

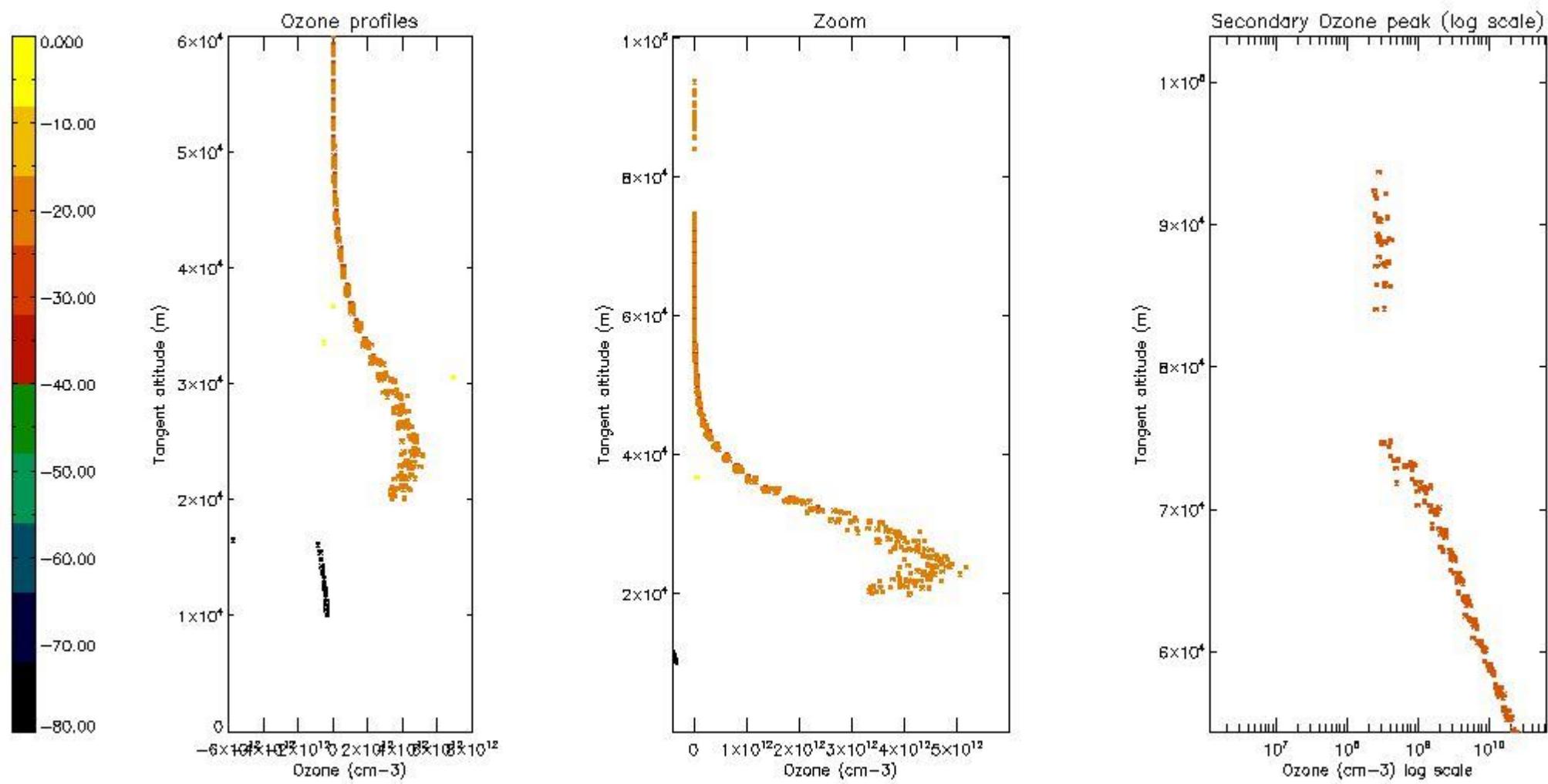
The colorbar represents the latitude.





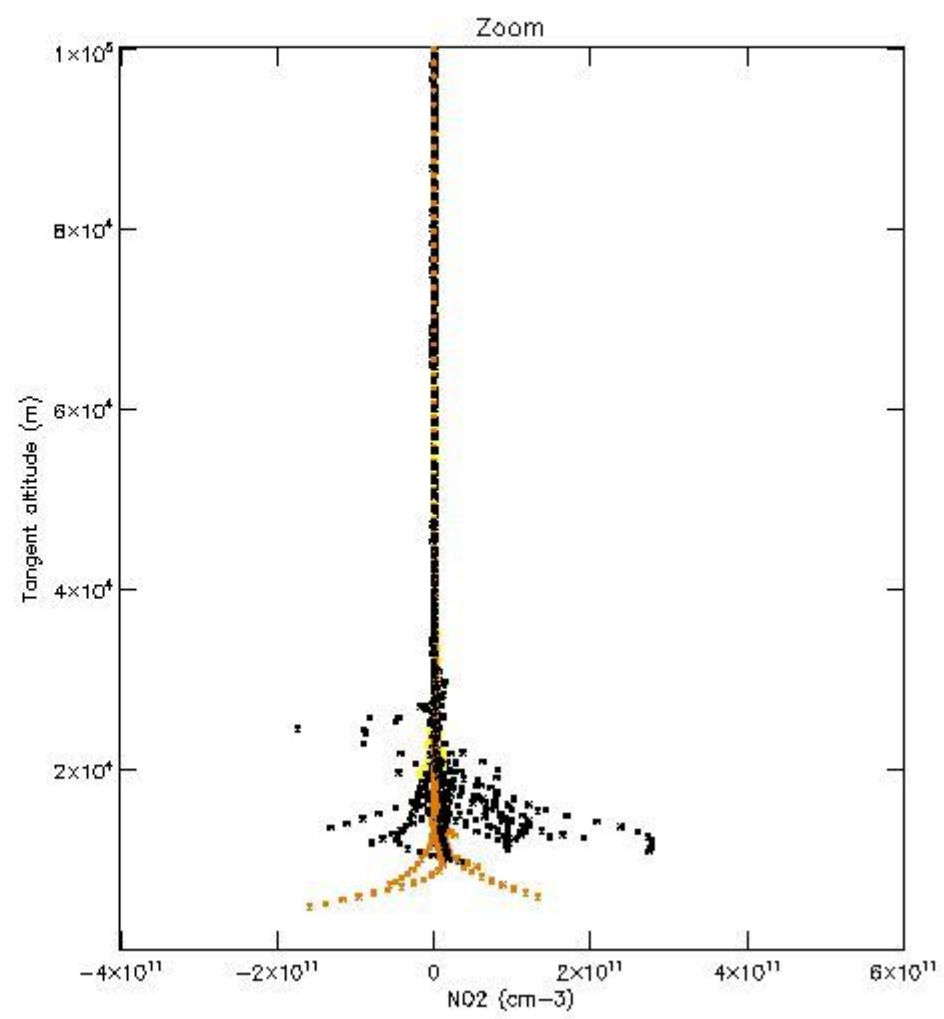
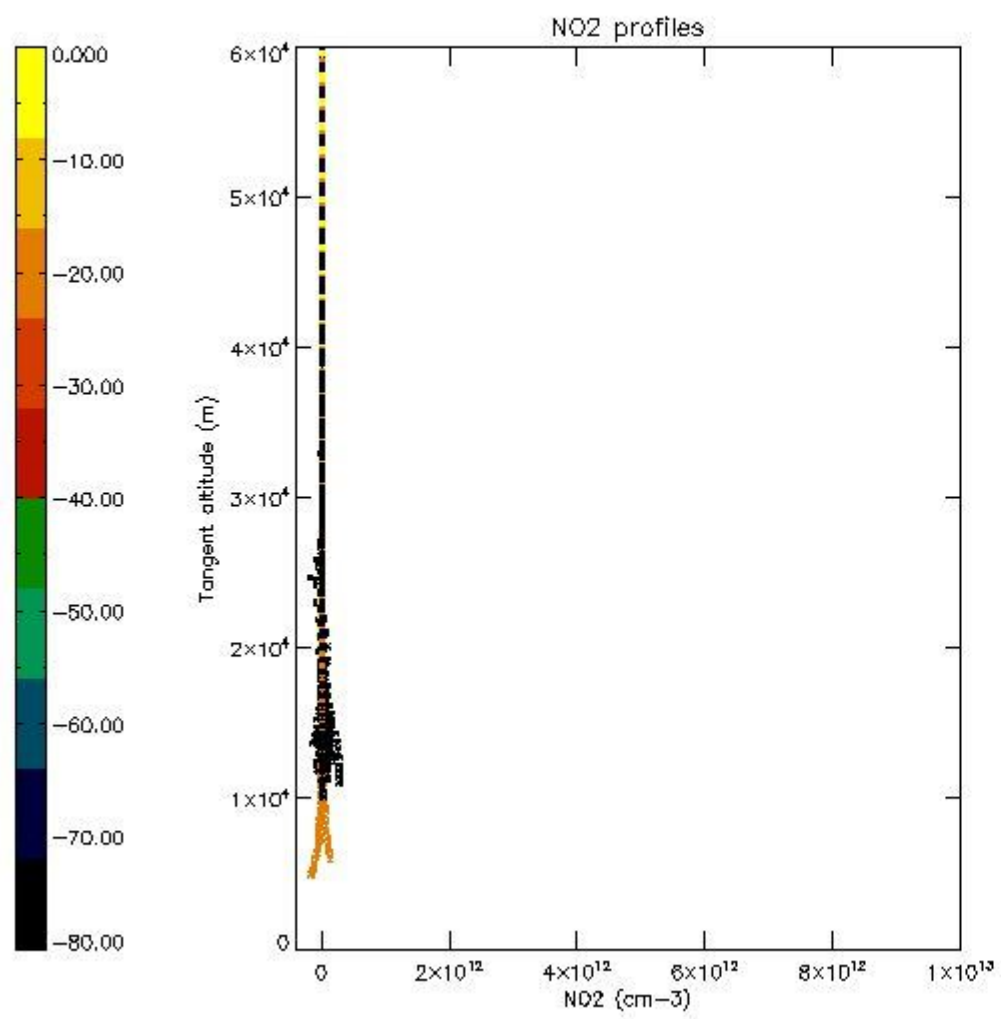
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



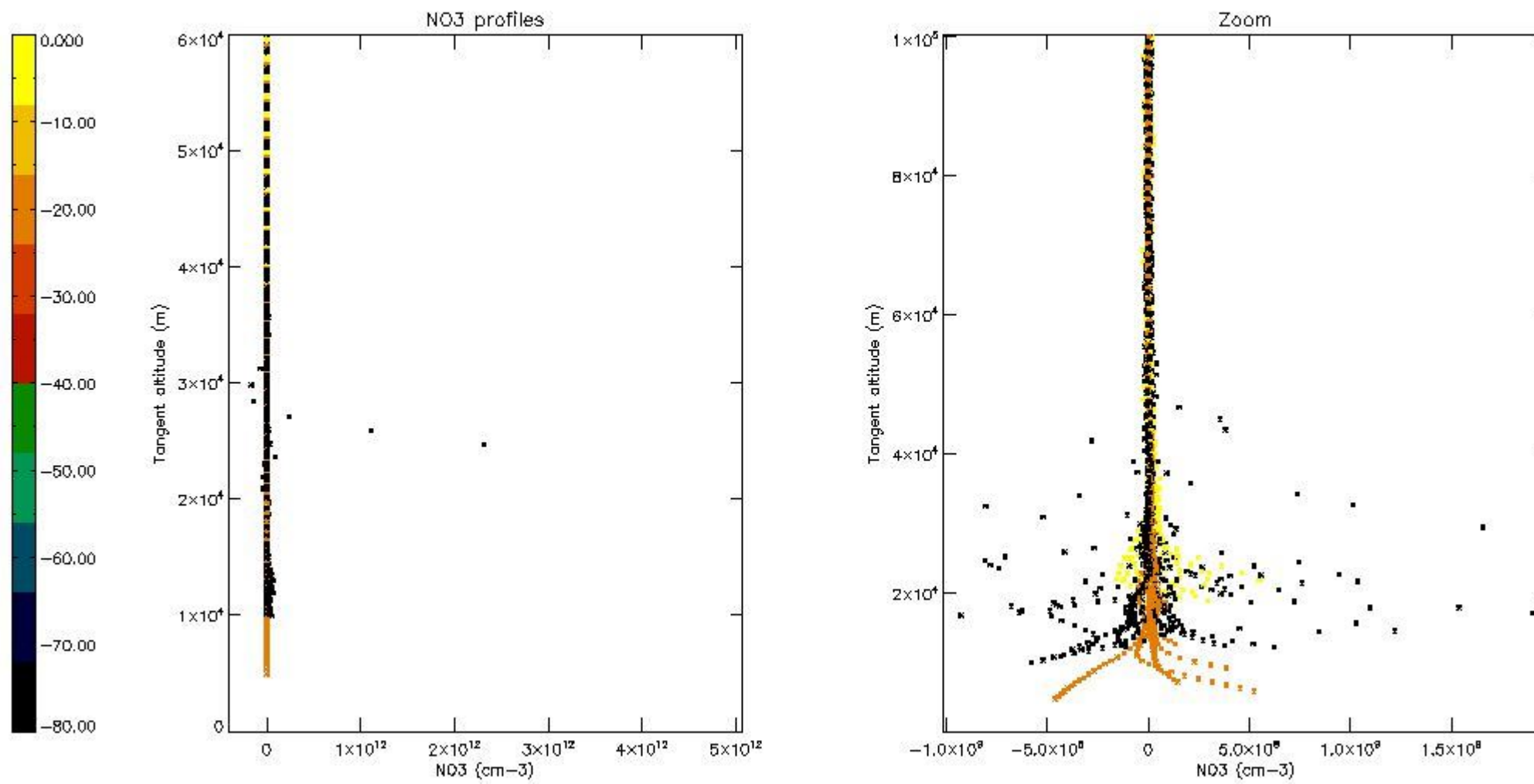
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

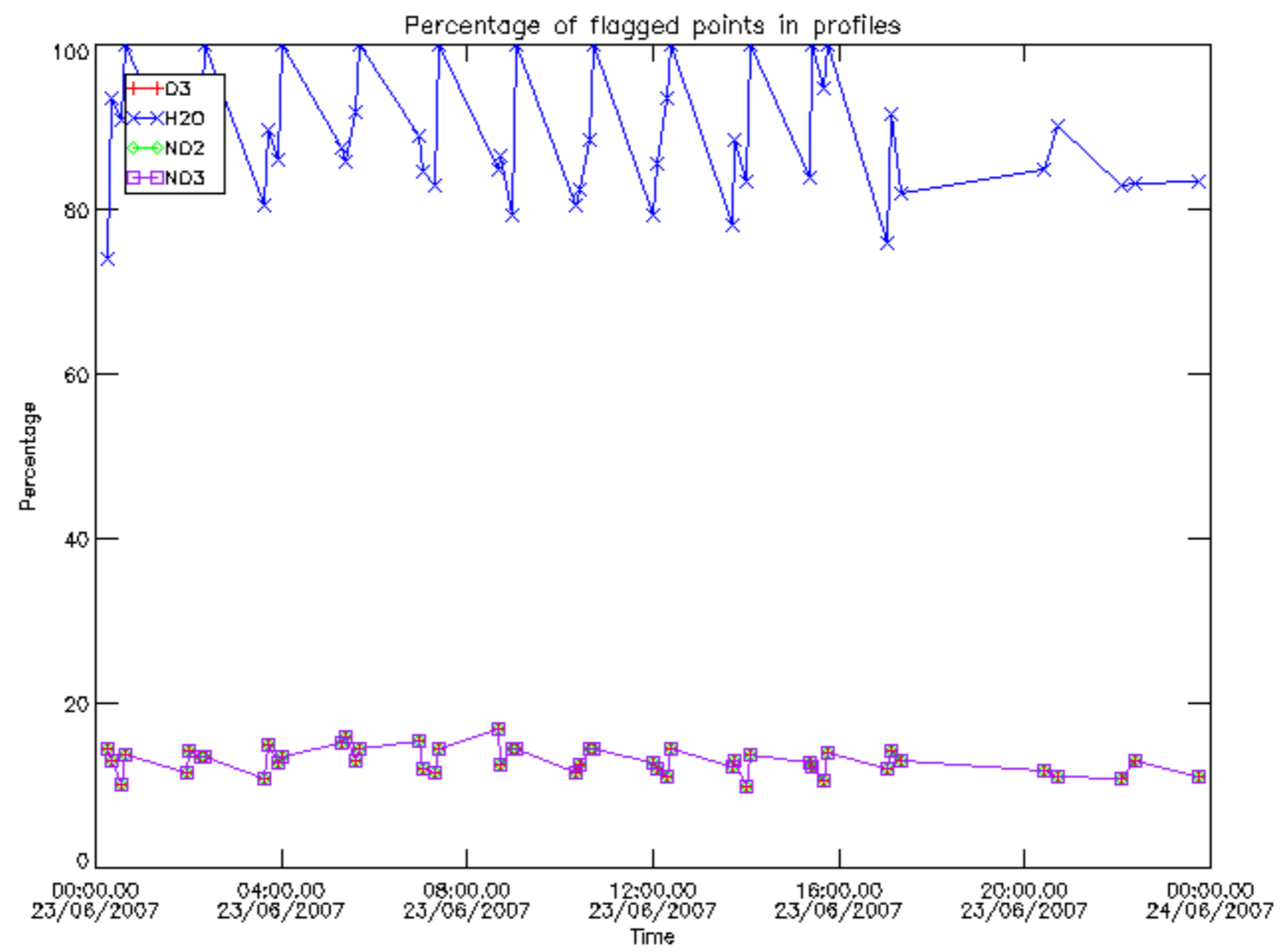
The colorbar represents the latitude.



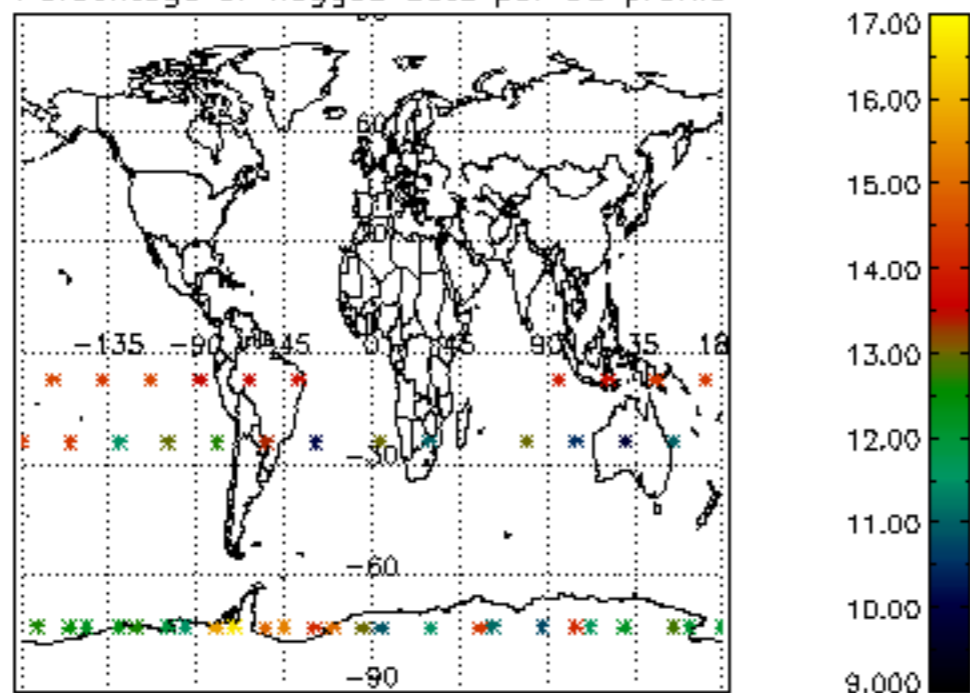
## 6. Auxiliary Data Files used for the production reported in section 2

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.

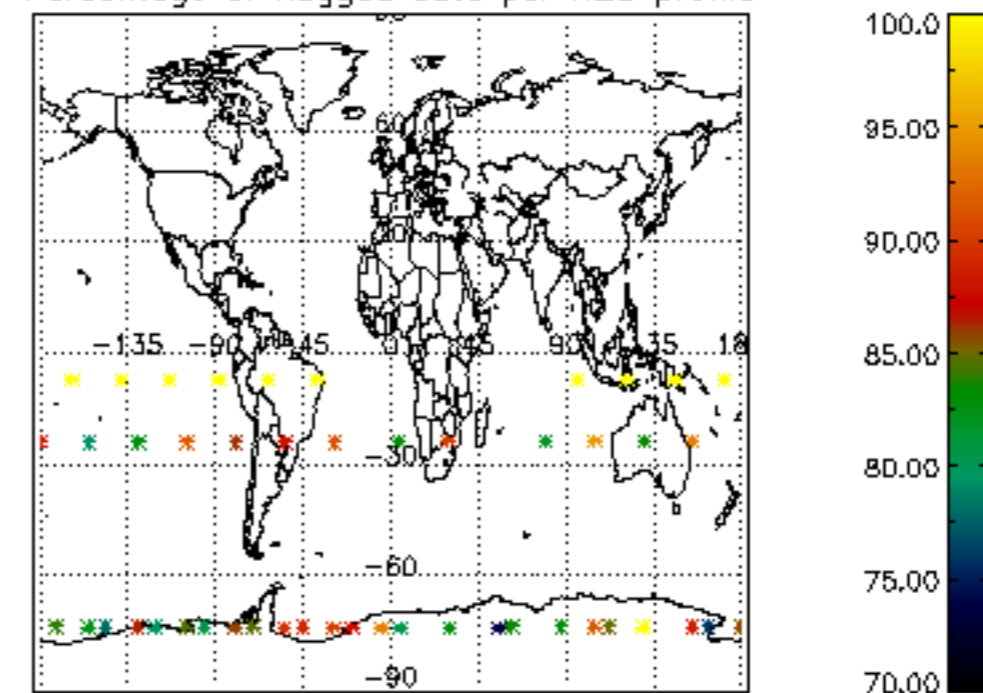
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	23-JUN-2007 00:01:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-JUN-2007 00:01:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-JUN-2007 00:01:59



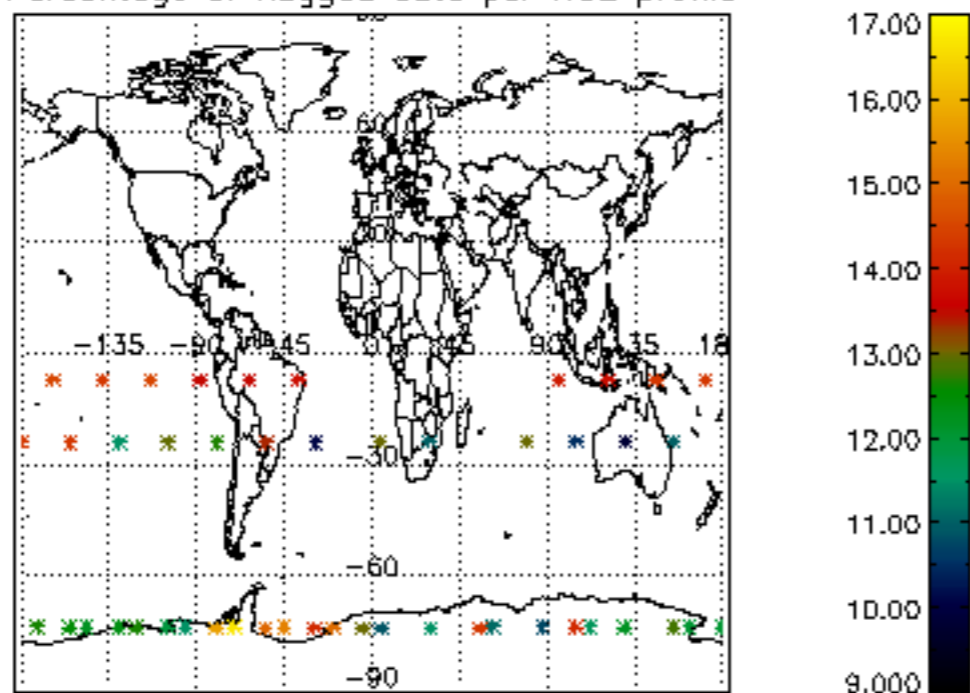
Percentage of flagged data per D3 profile



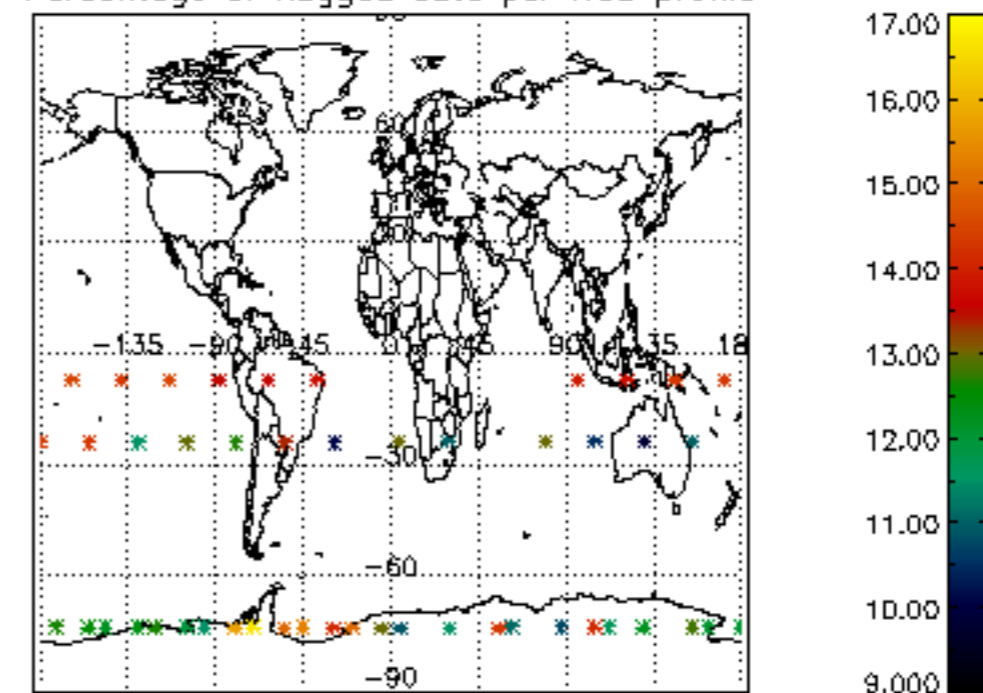
Percentage of flagged data per H2O profile

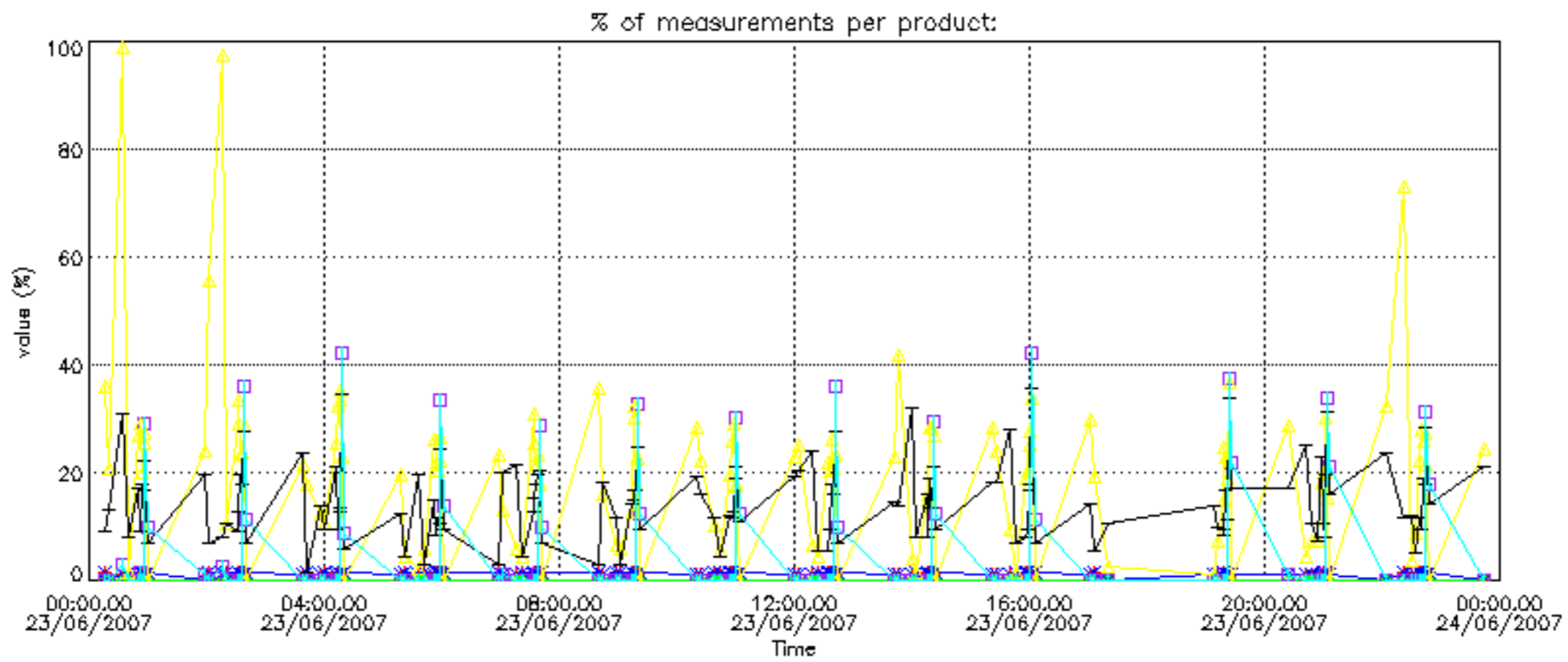


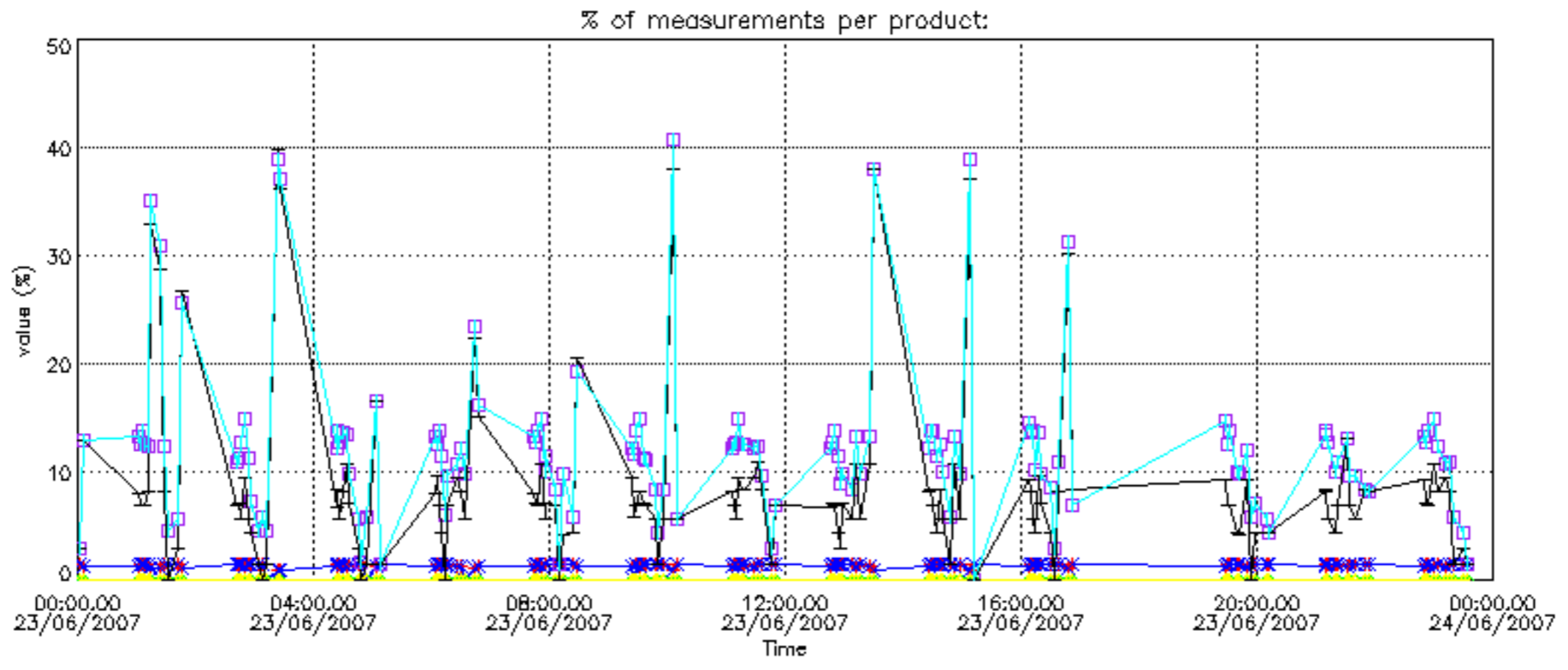
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

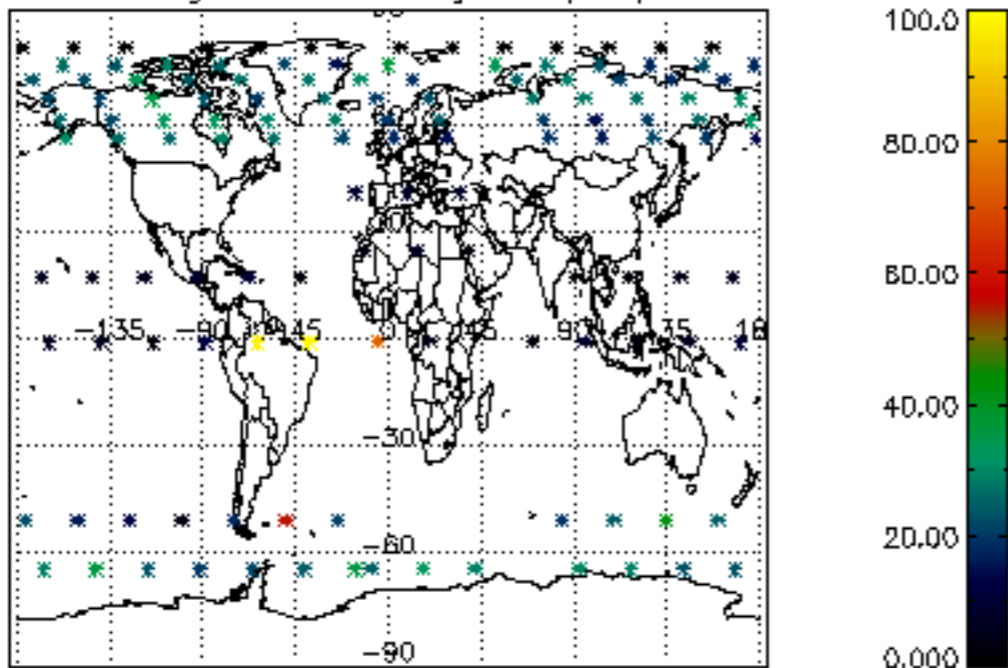




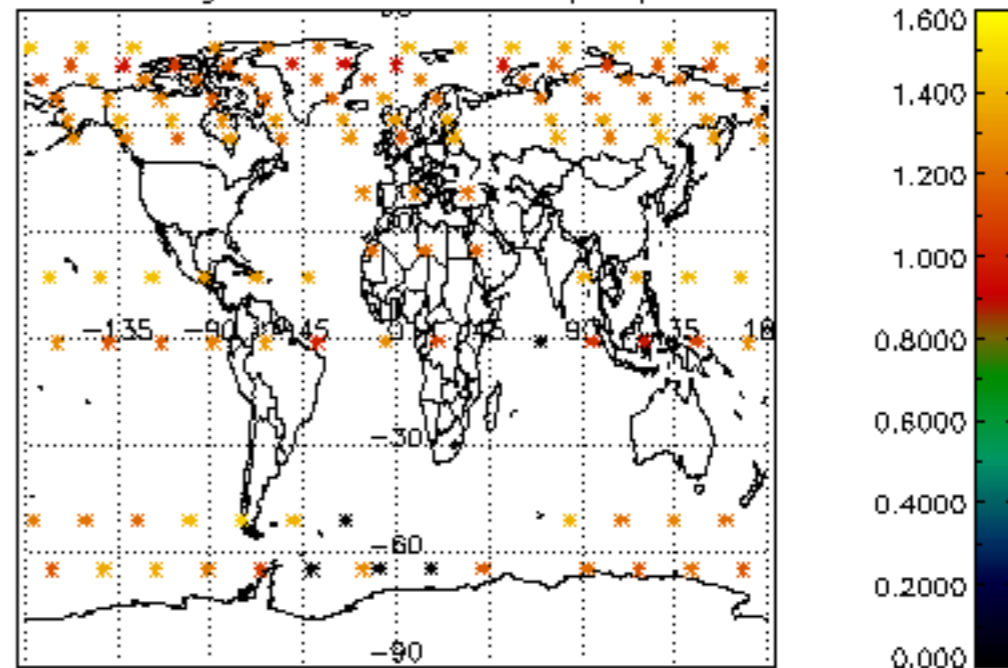




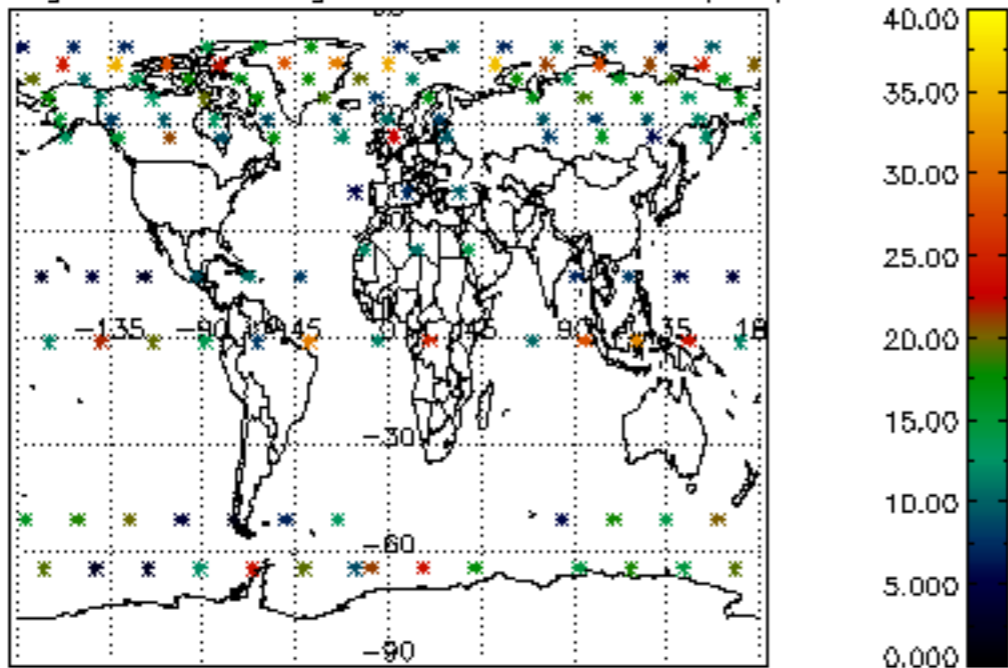
Percentage of cosmic ray hits per profile



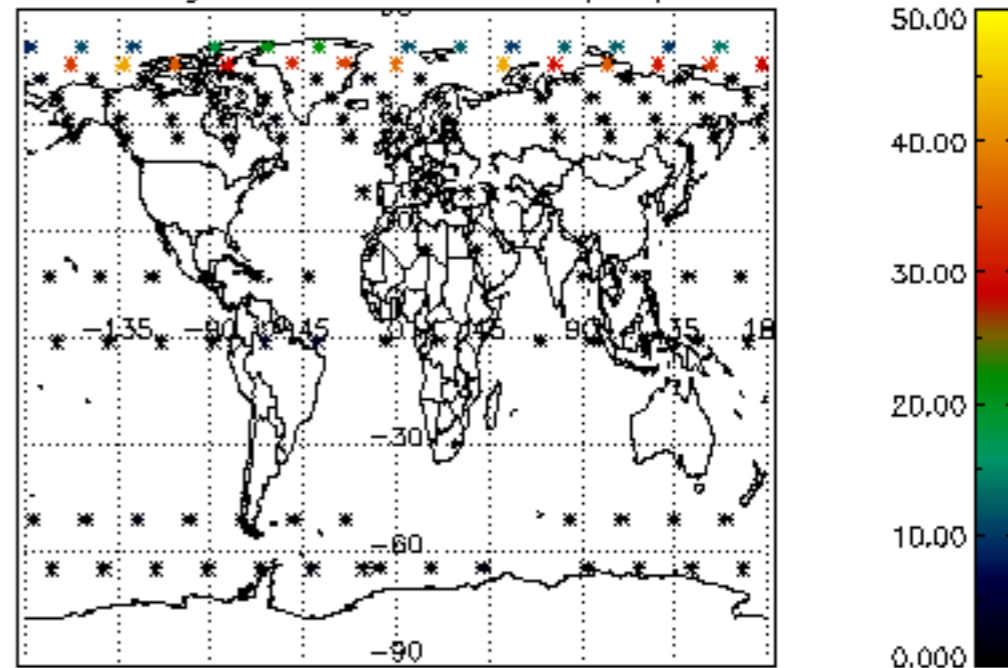
Percentage of datation errors per profile



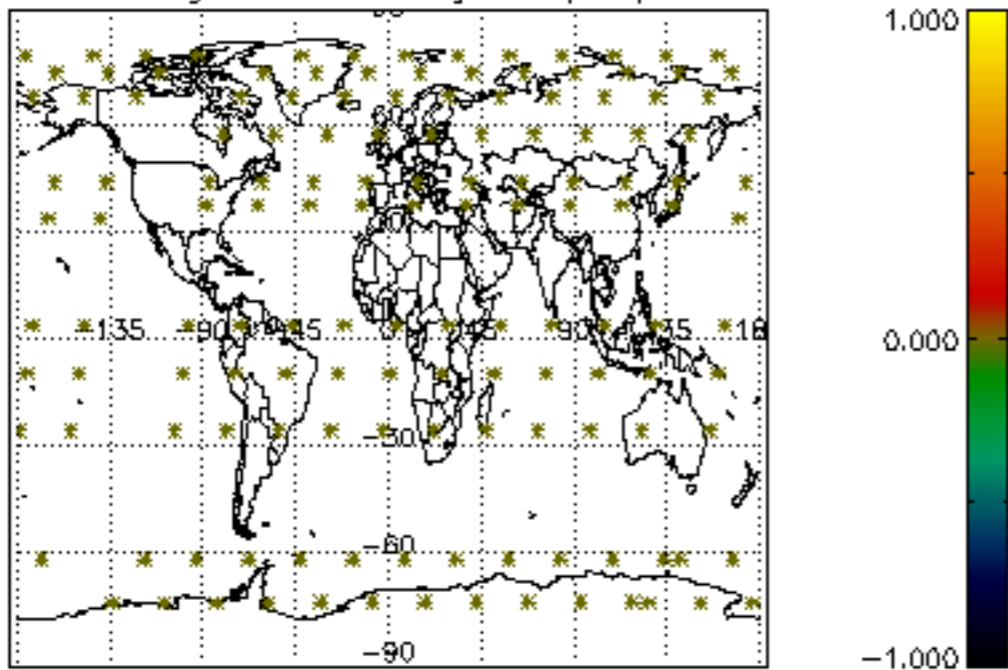
Percentage of star falling outside central band per profile



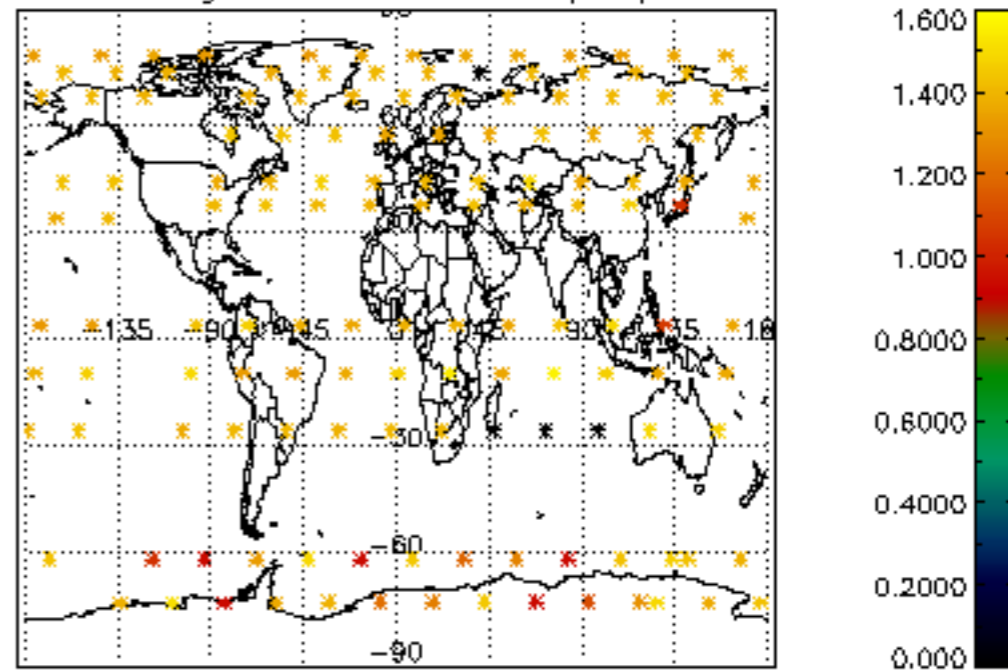
Percentage of saturation errors per profile



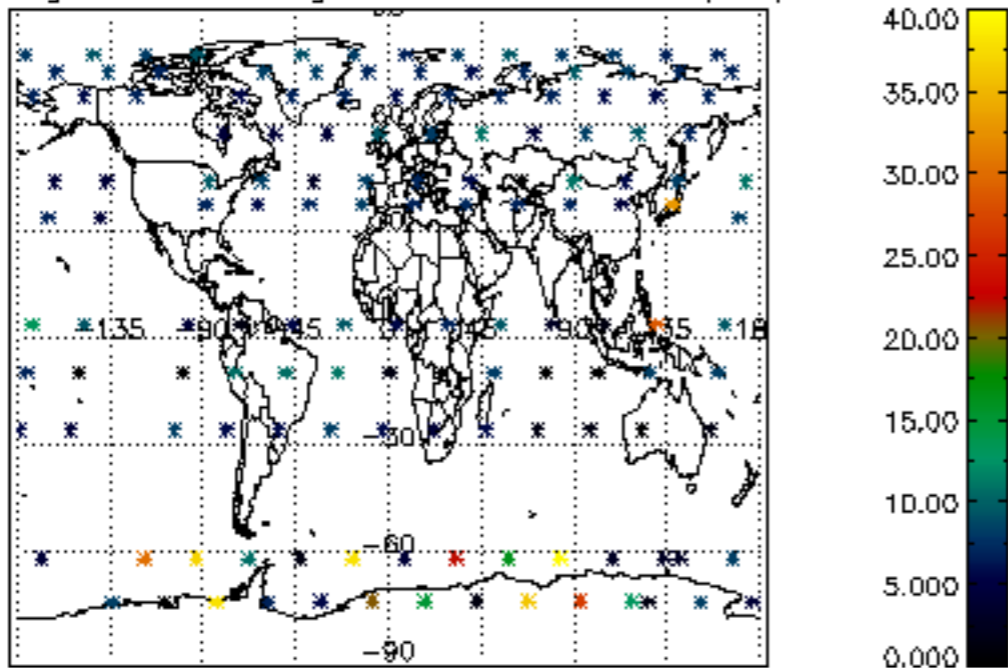
Percentage of cosmic ray hits per profile



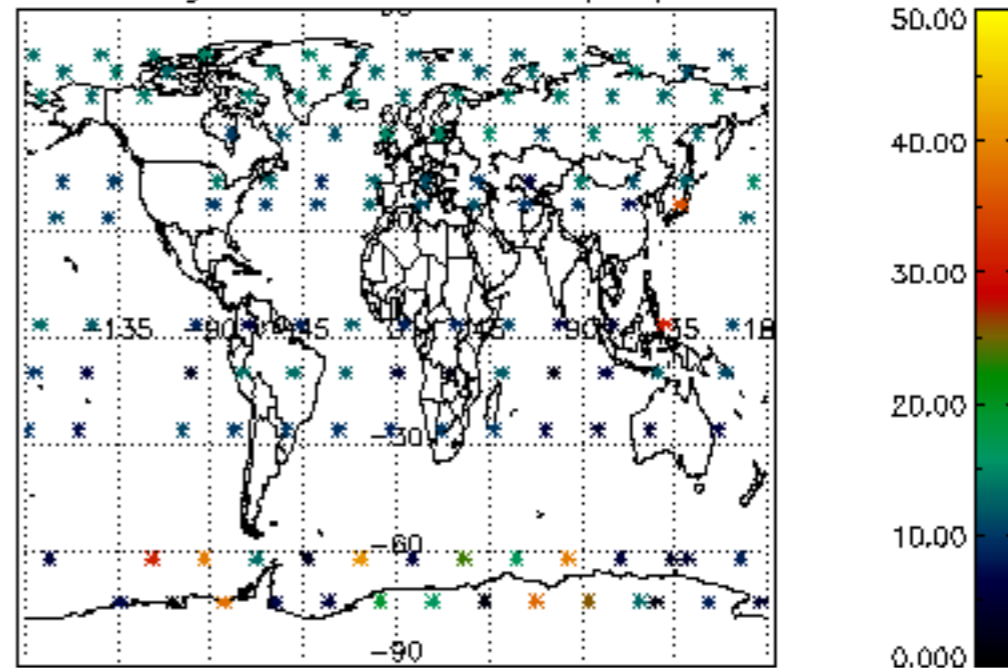
Percentage of datation errors per profile

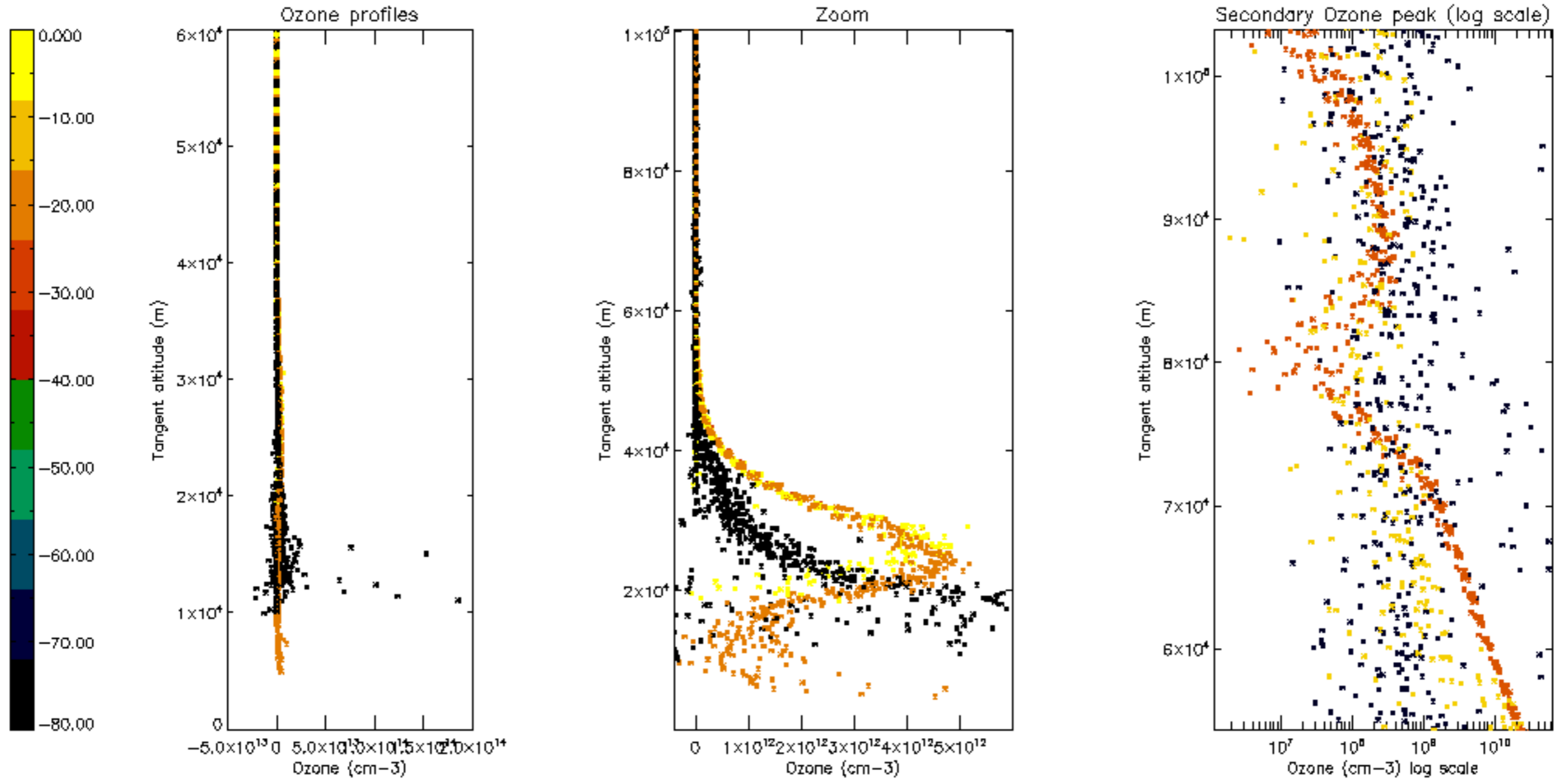


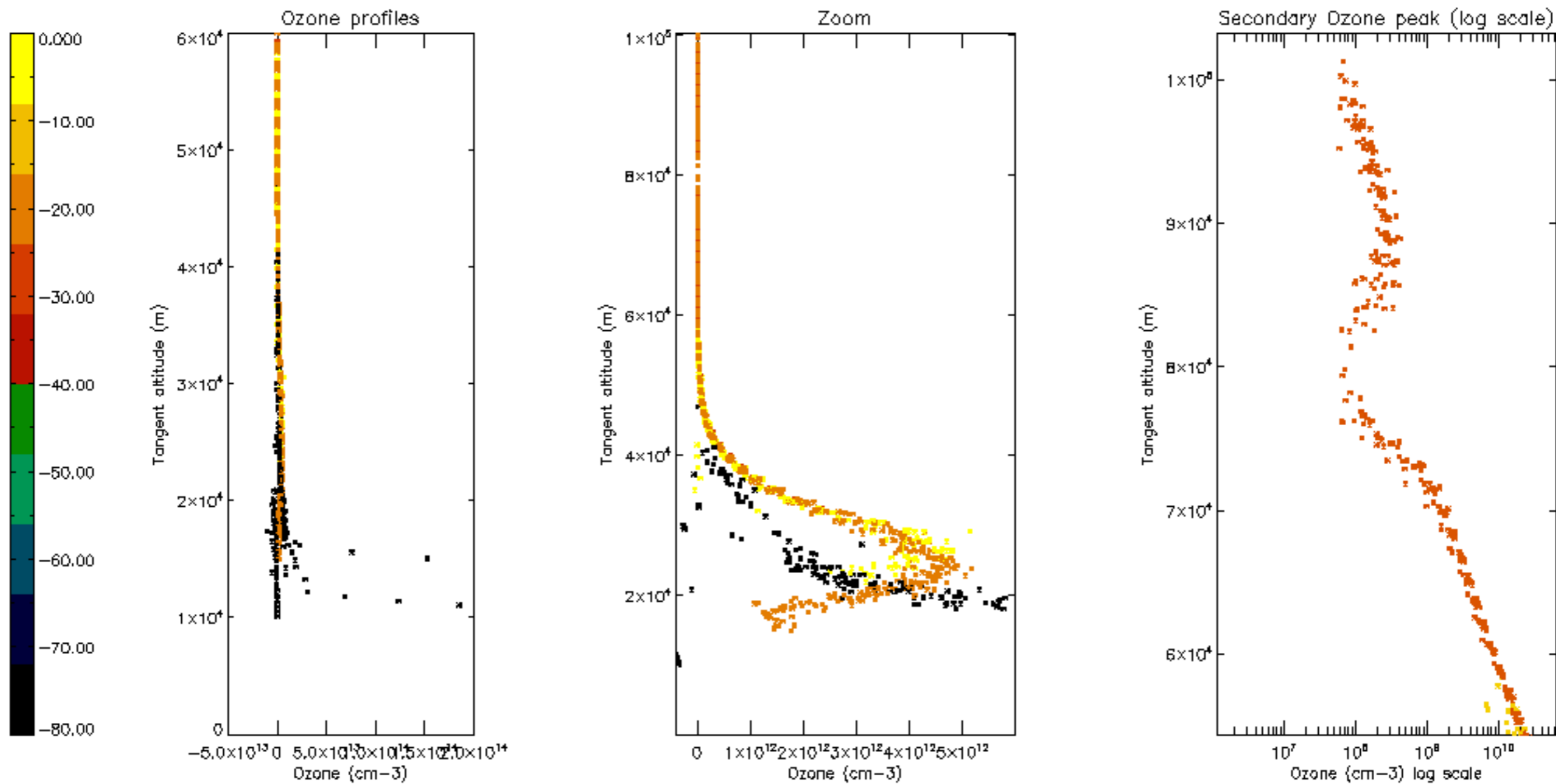
Percentage of star falling outside central band per profile

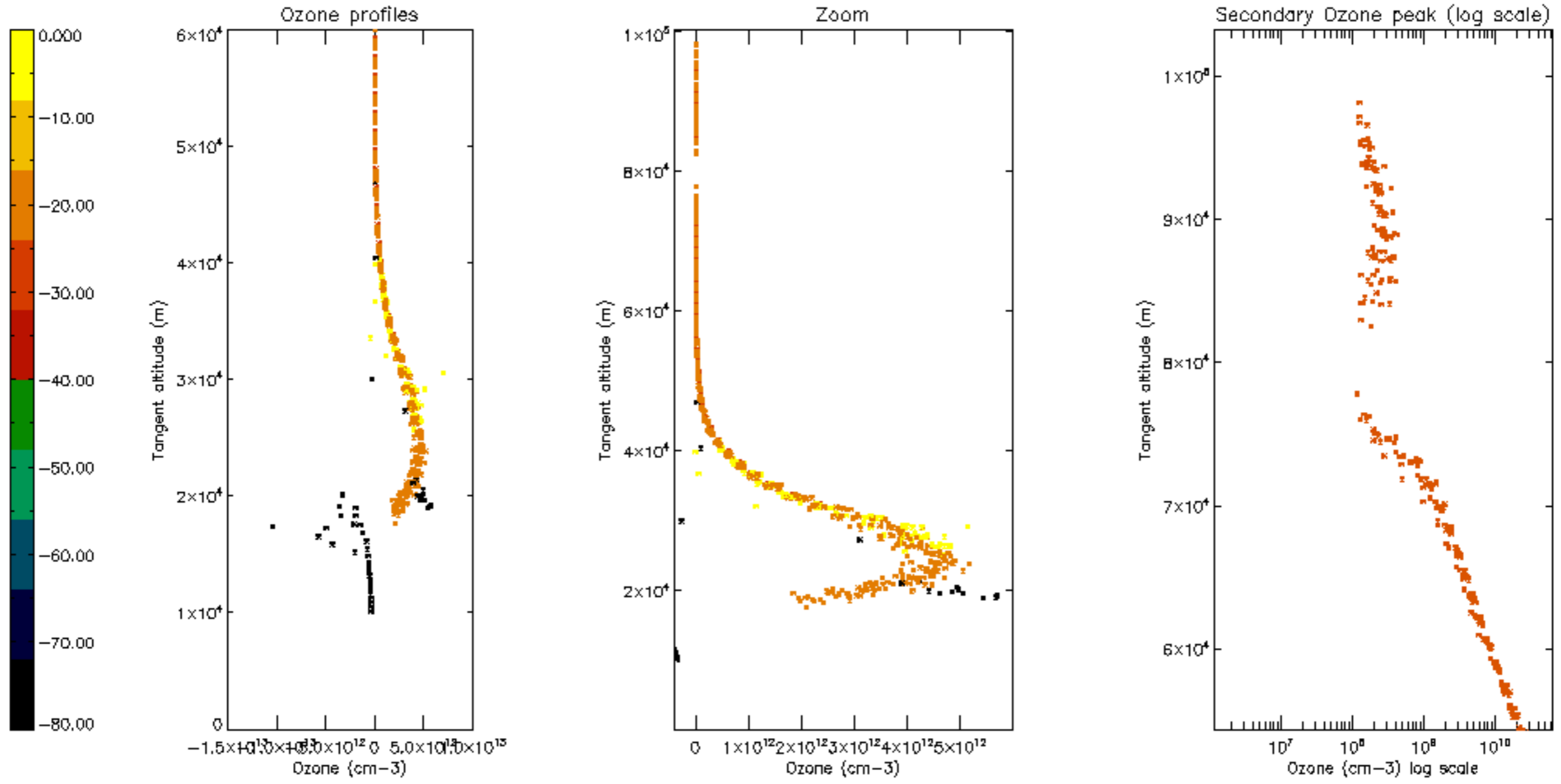


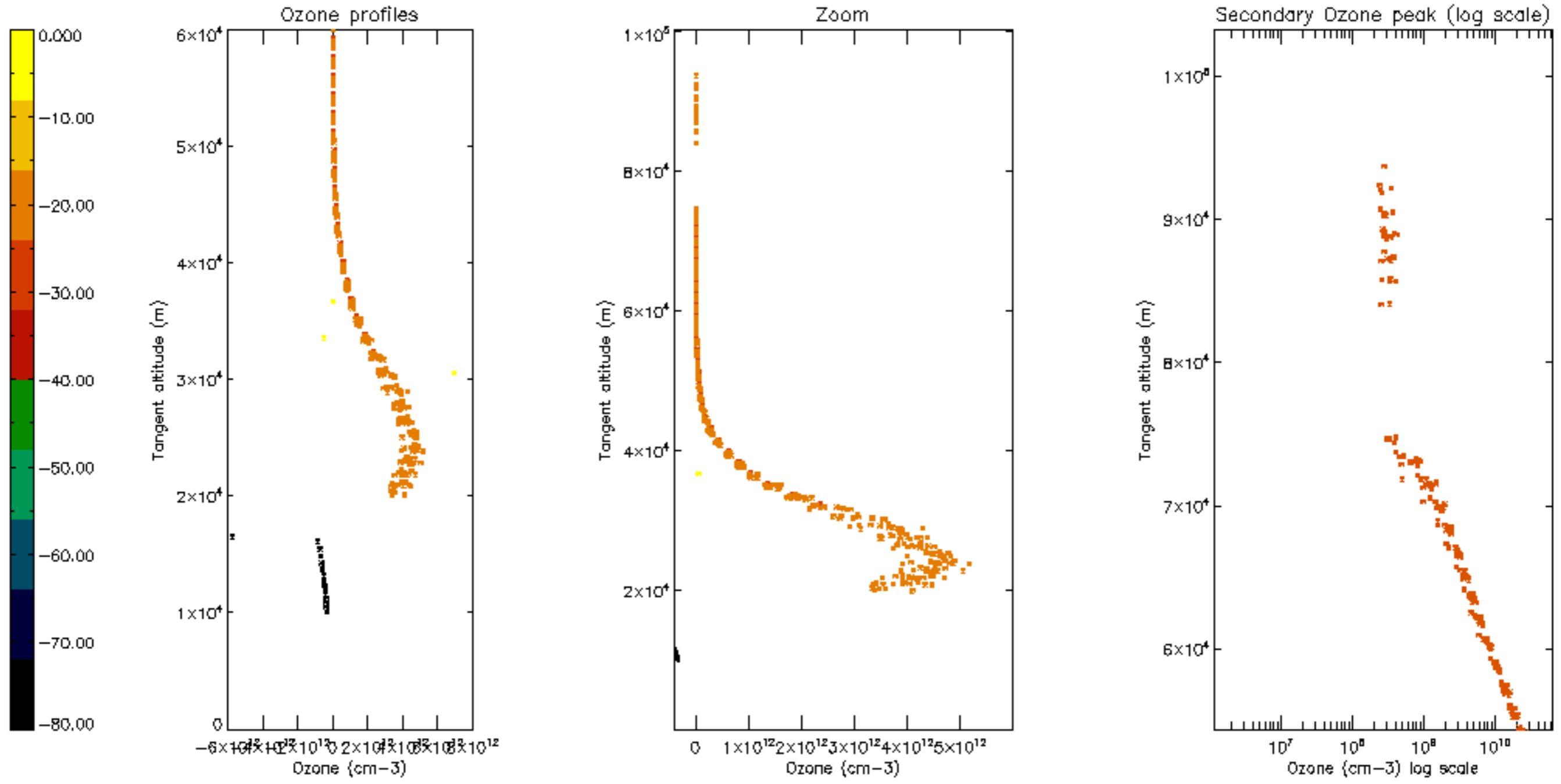
Percentage of saturation errors per profile

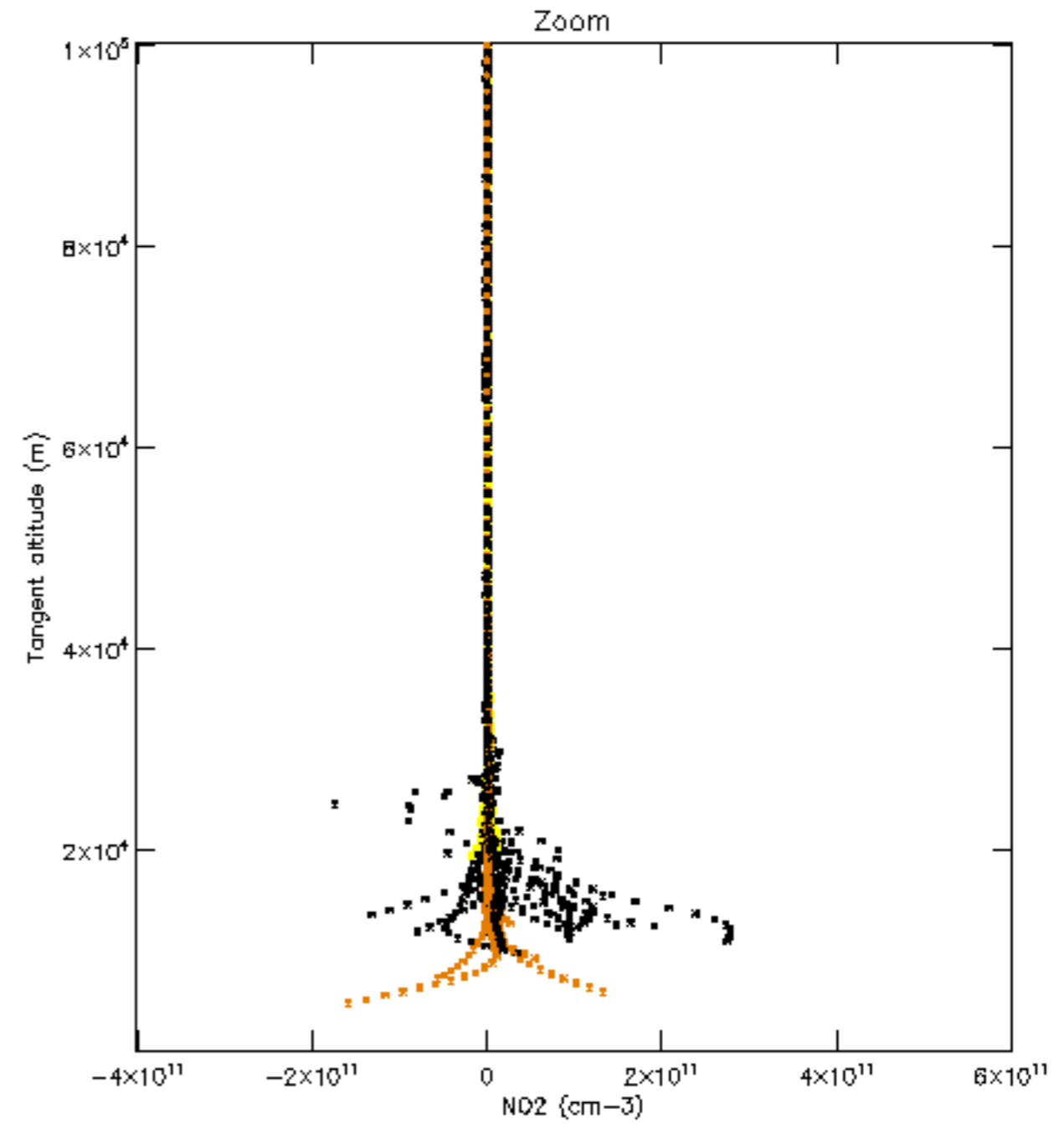
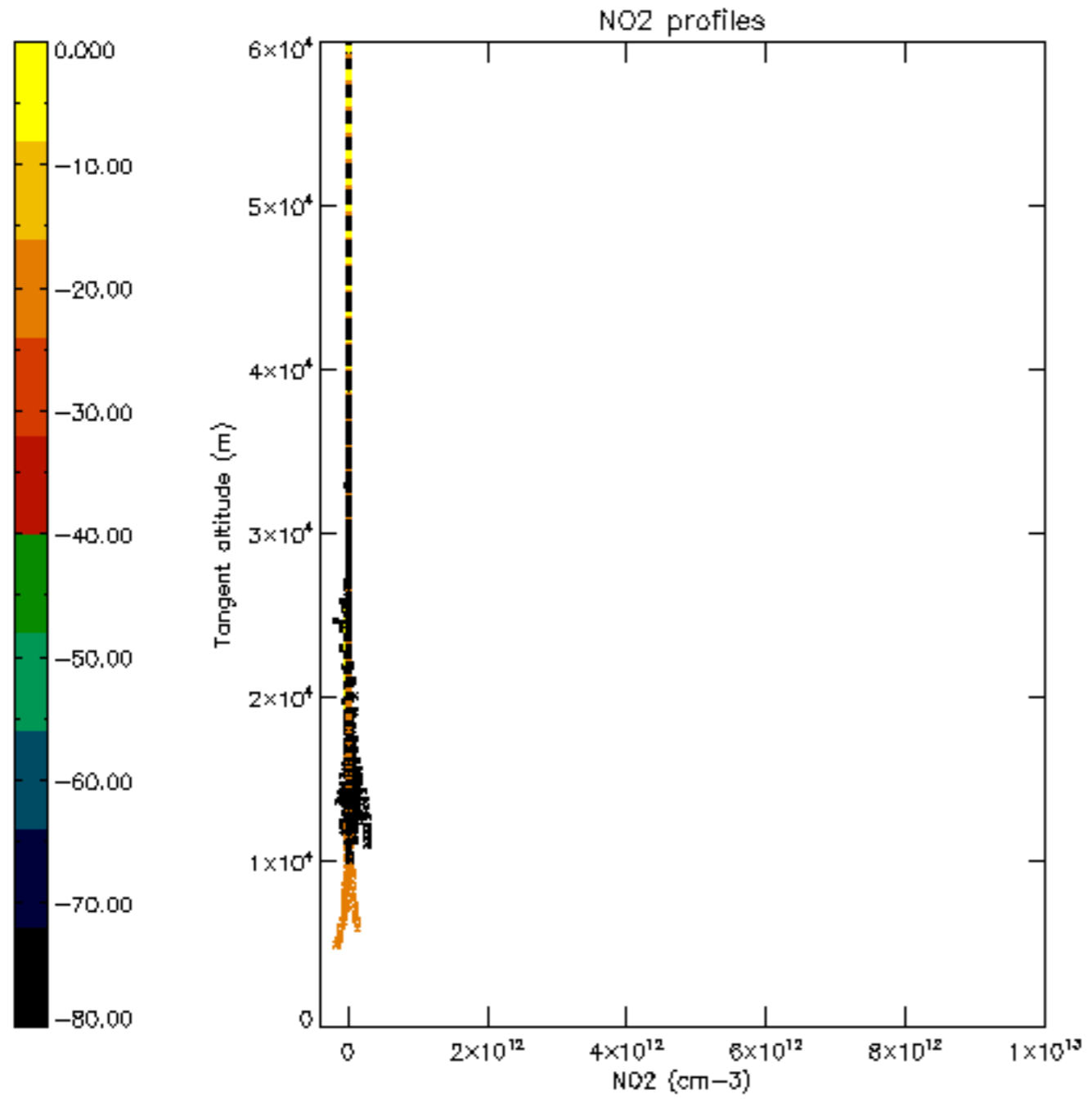


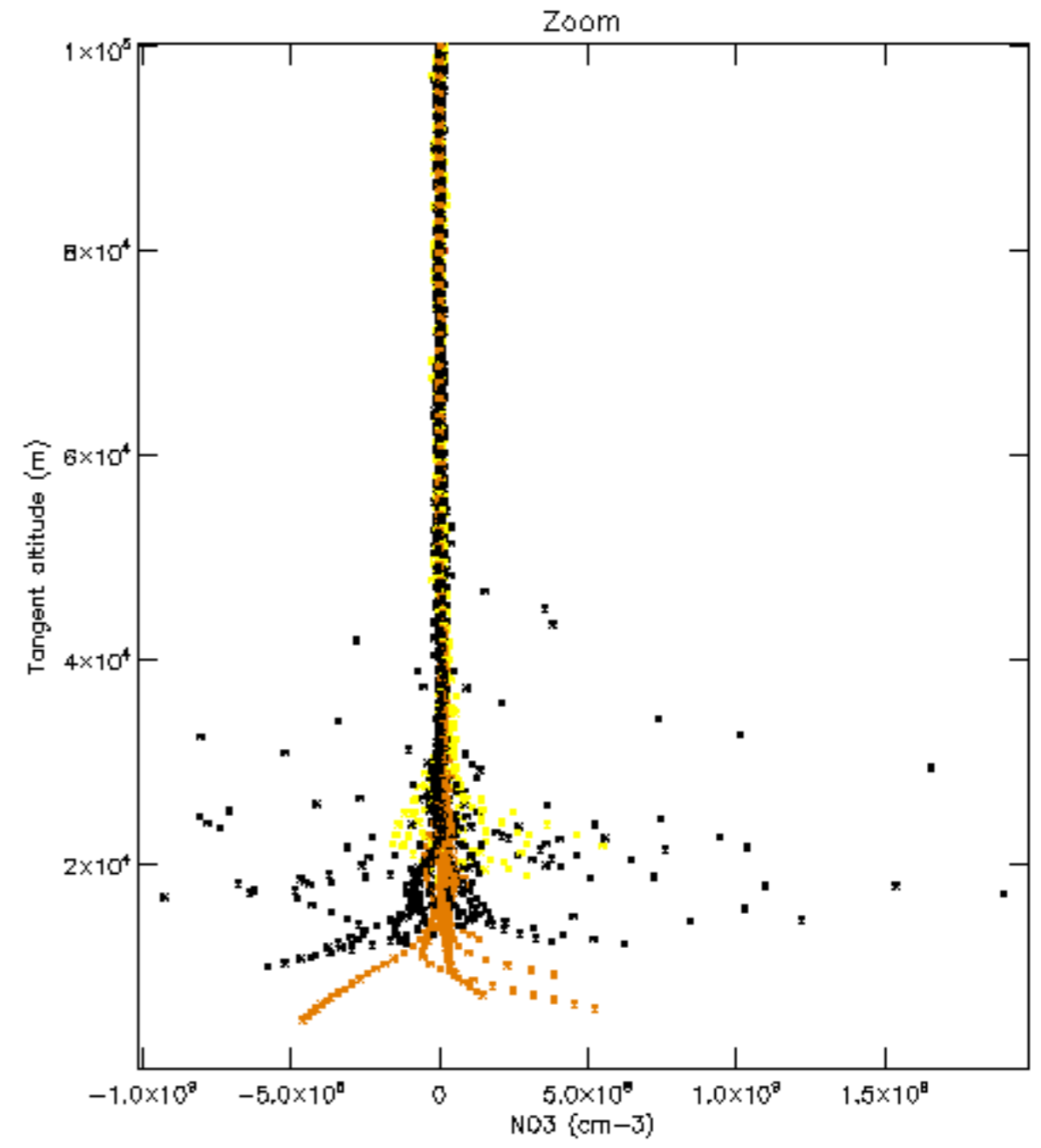
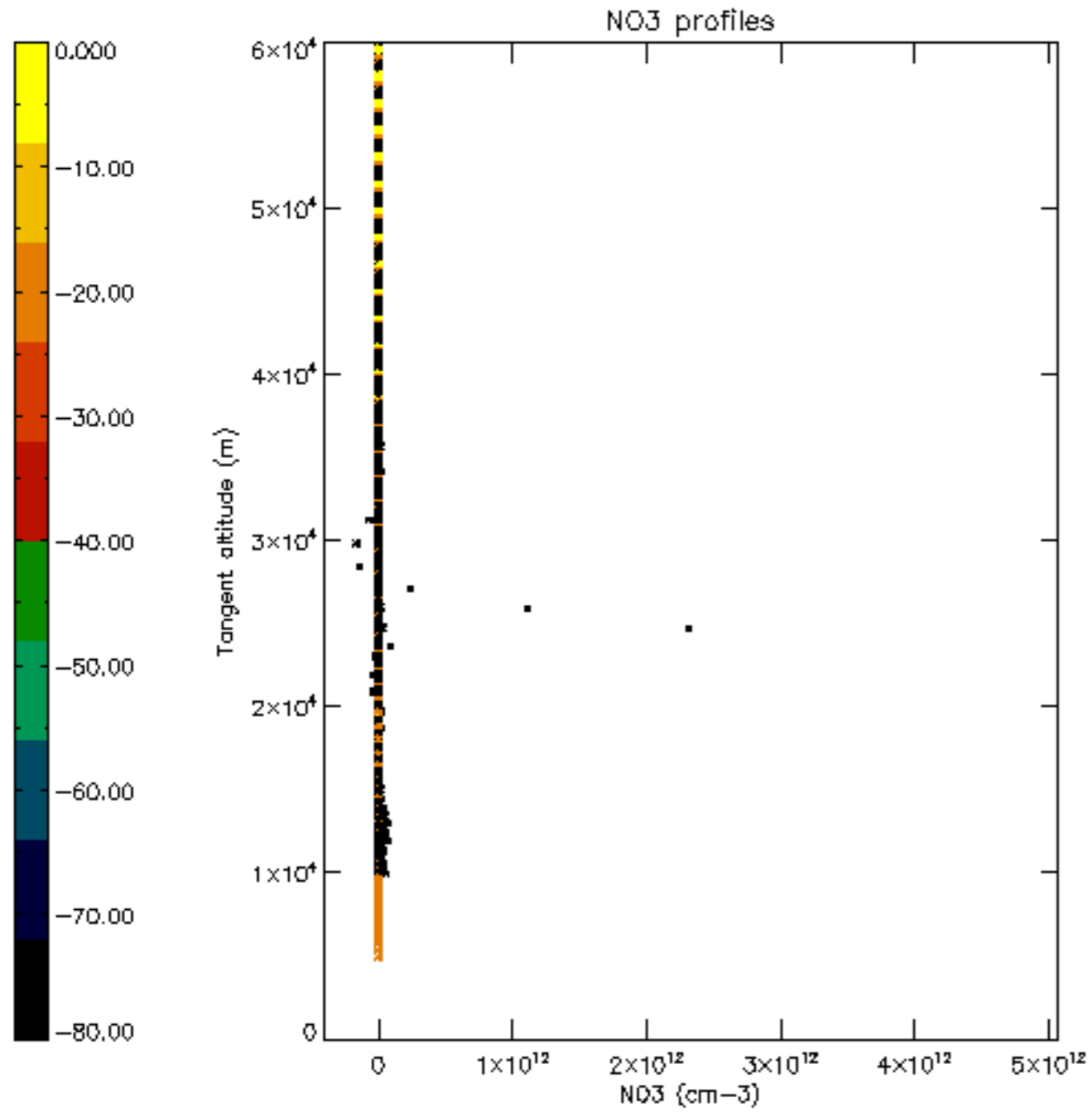




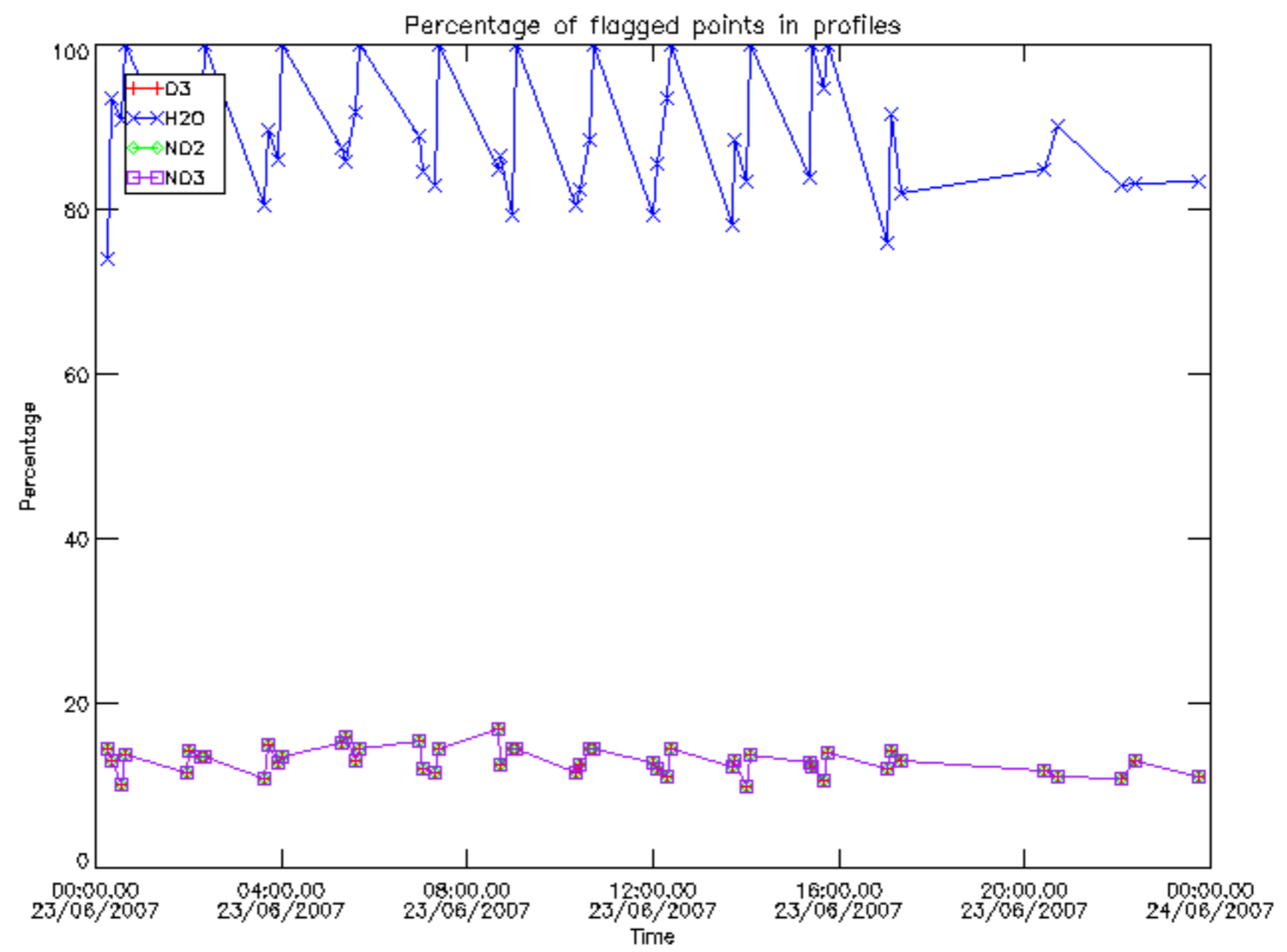




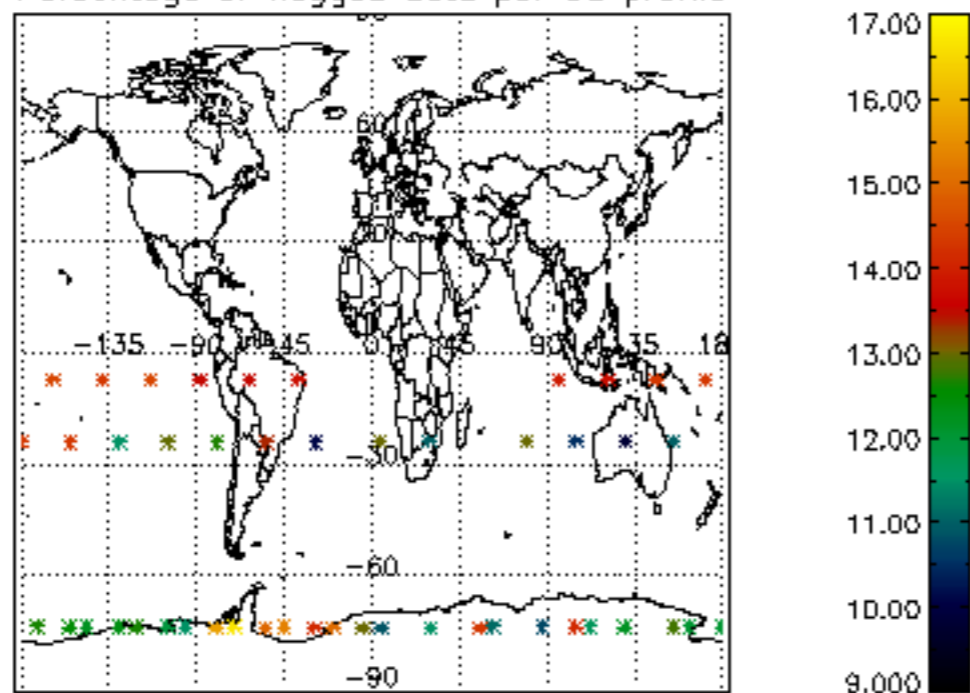




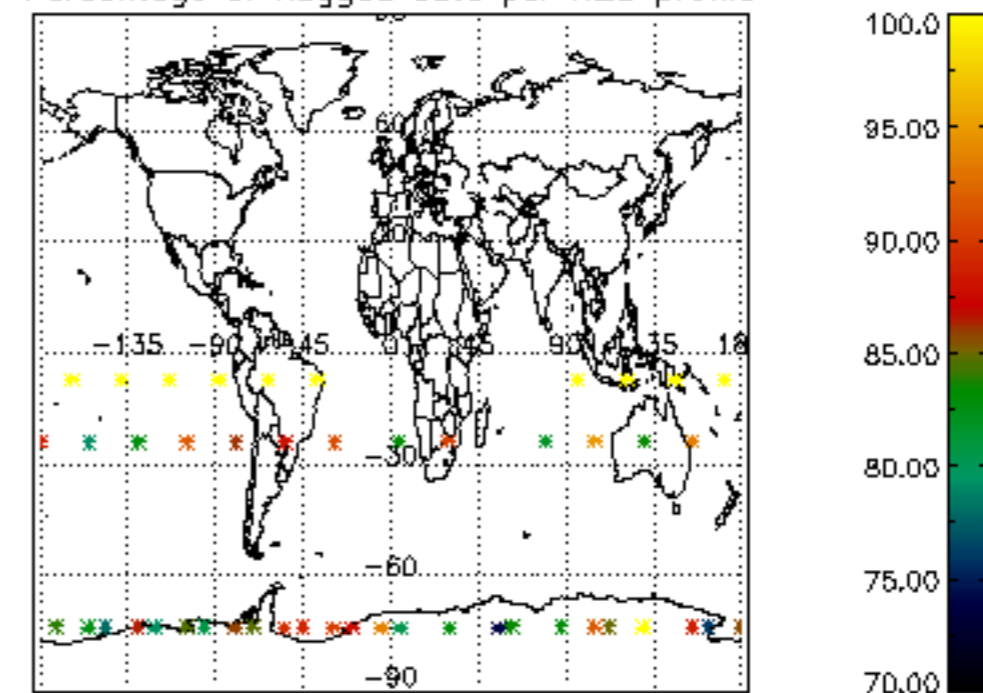




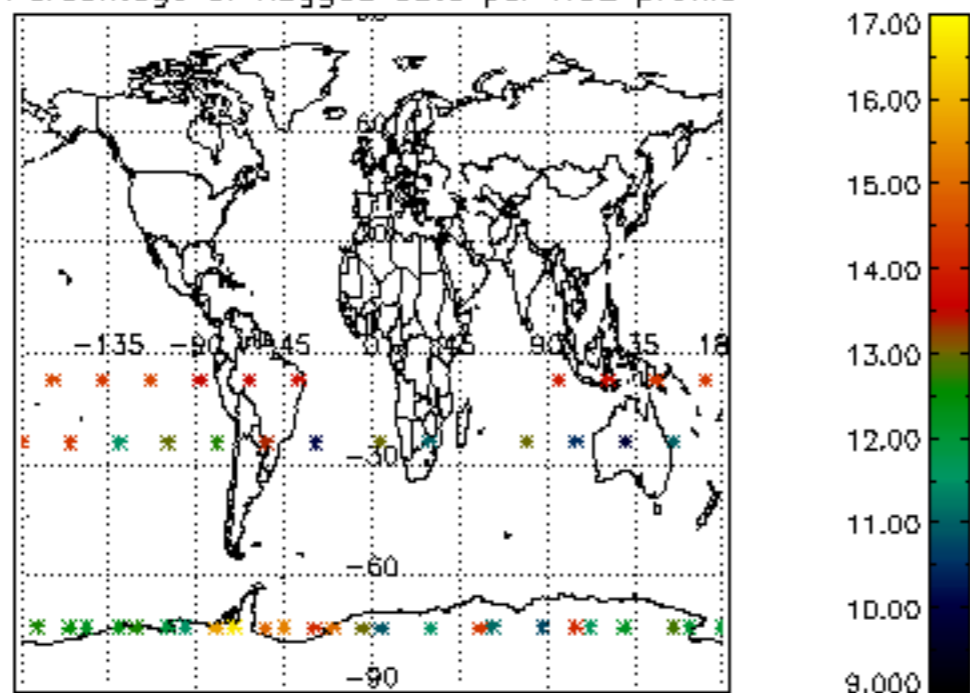
Percentage of flagged data per D3 profile



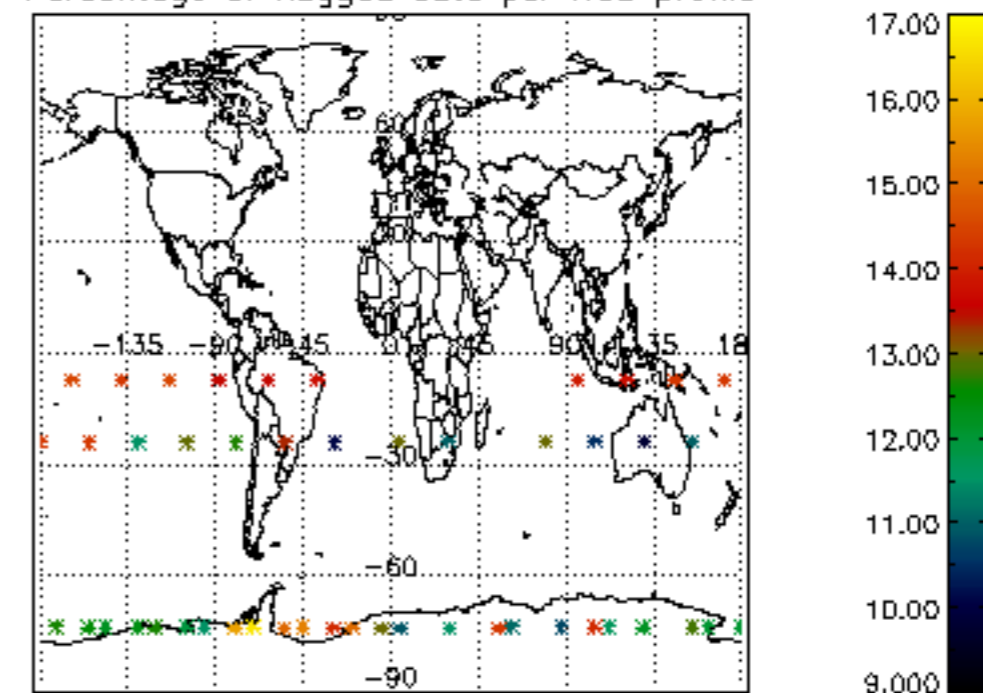
Percentage of flagged data per H2O profile

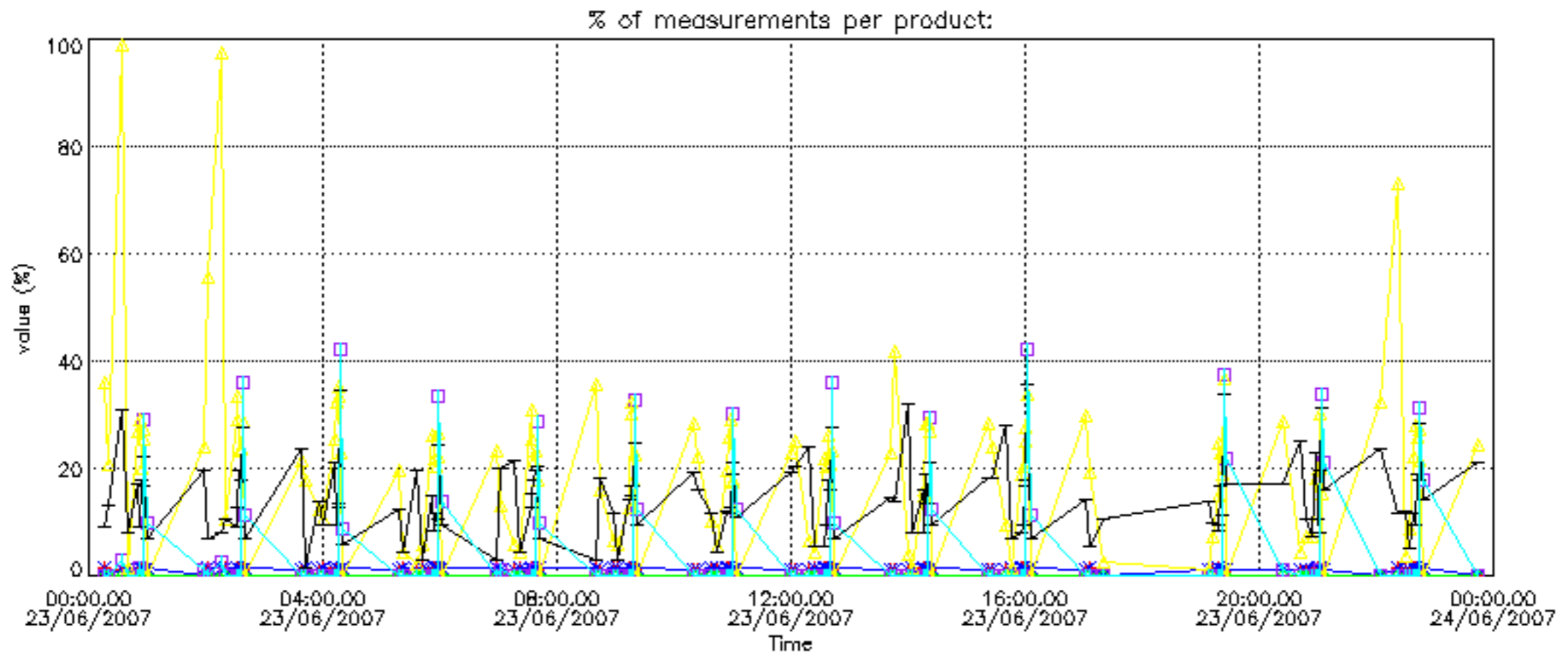


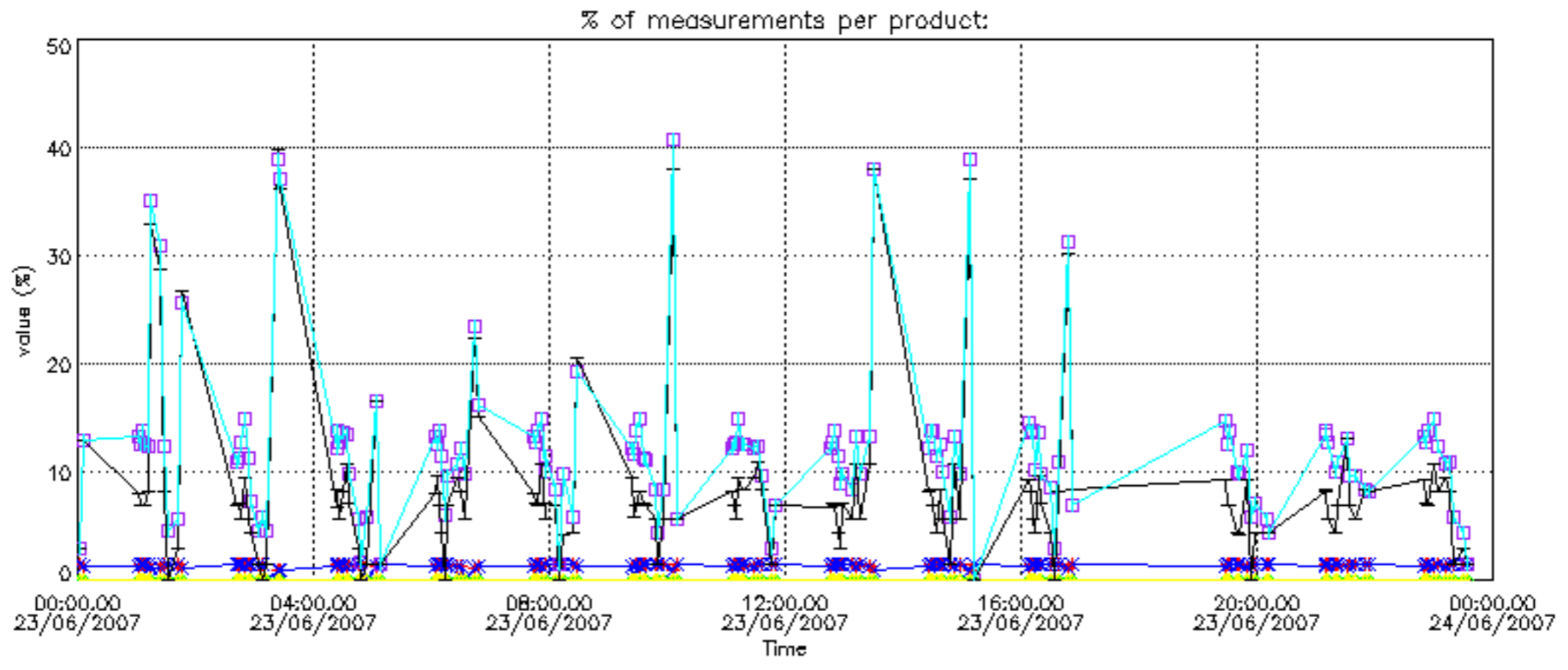
Percentage of flagged data per NO2 profile



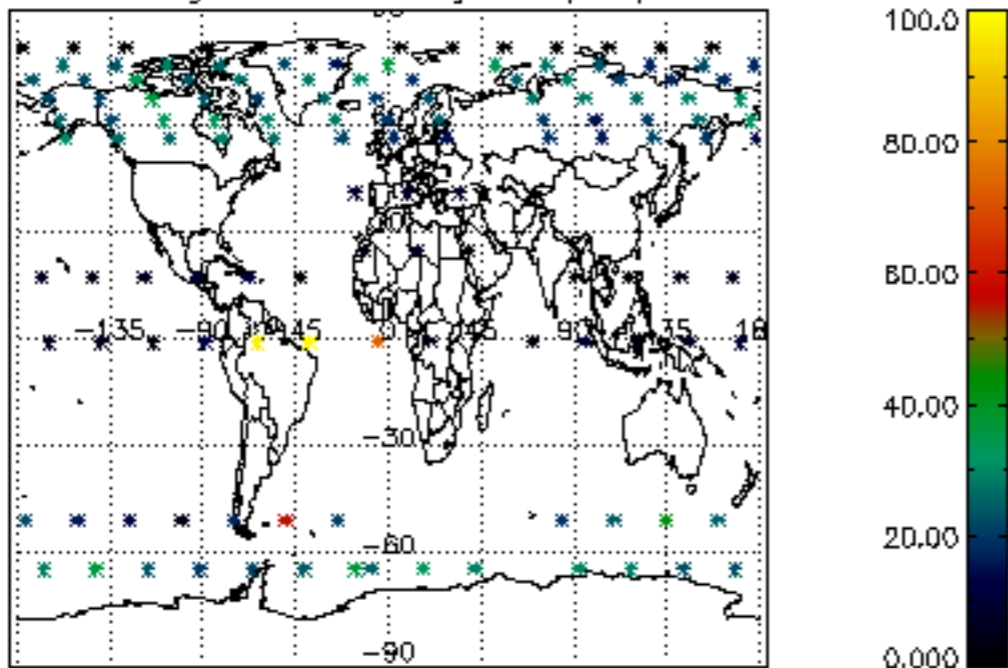
Percentage of flagged data per NO3 profile



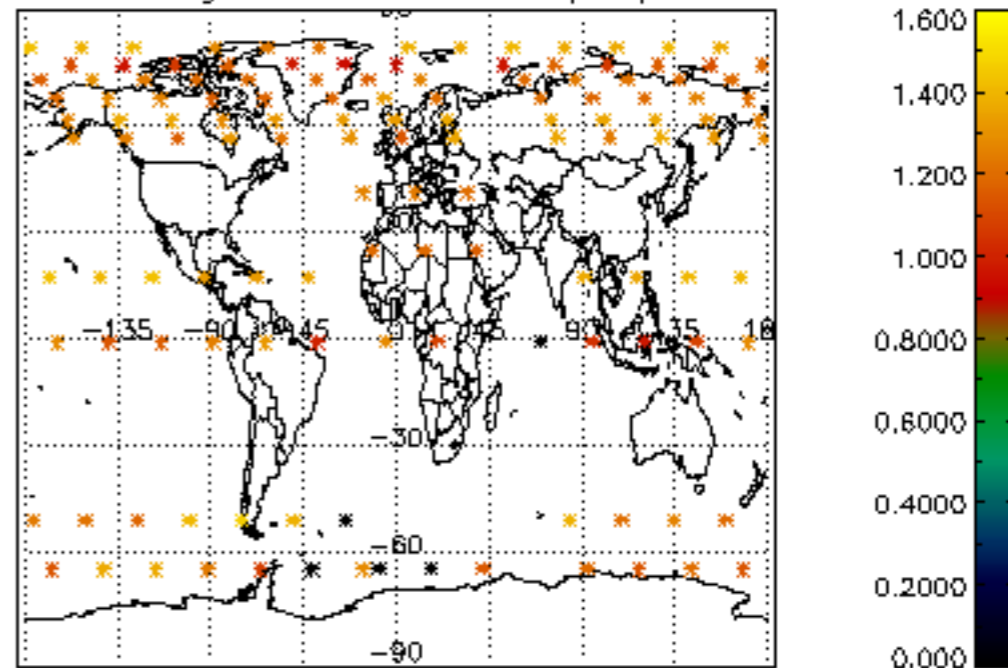




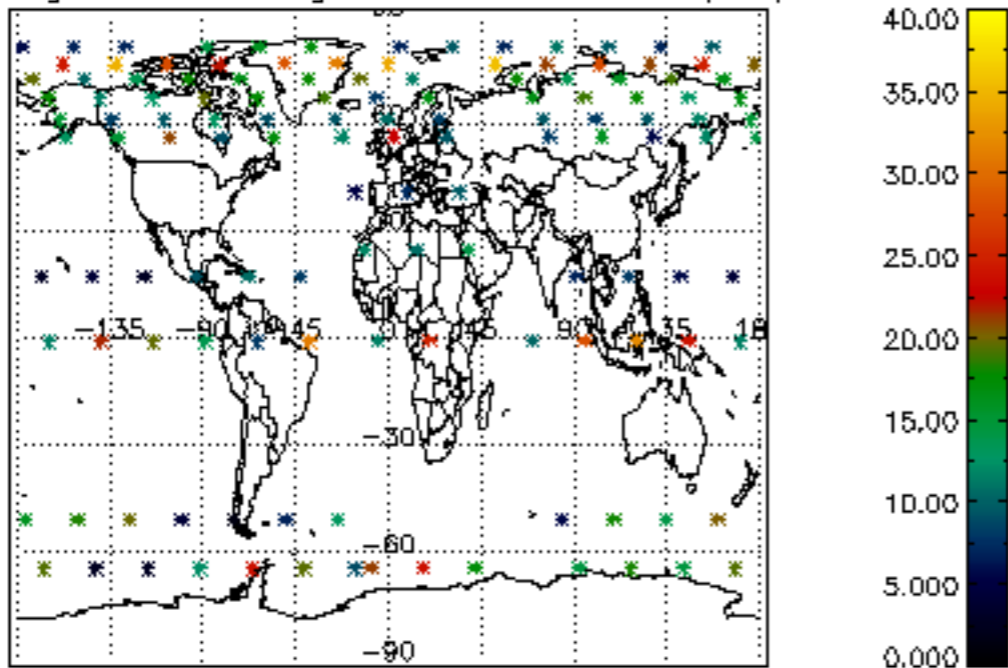
Percentage of cosmic ray hits per profile



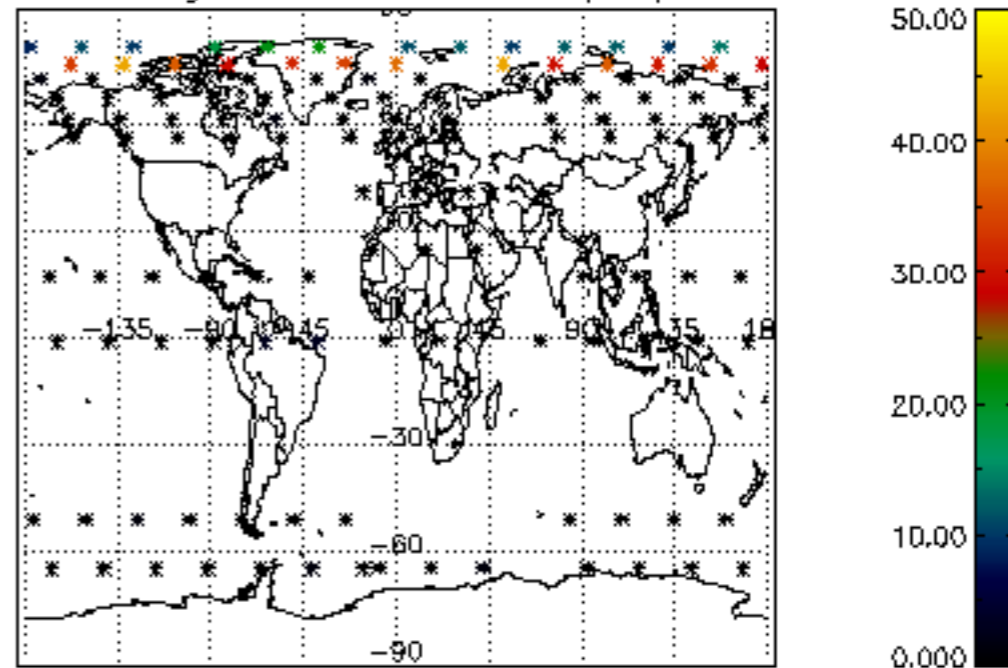
Percentage of datation errors per profile



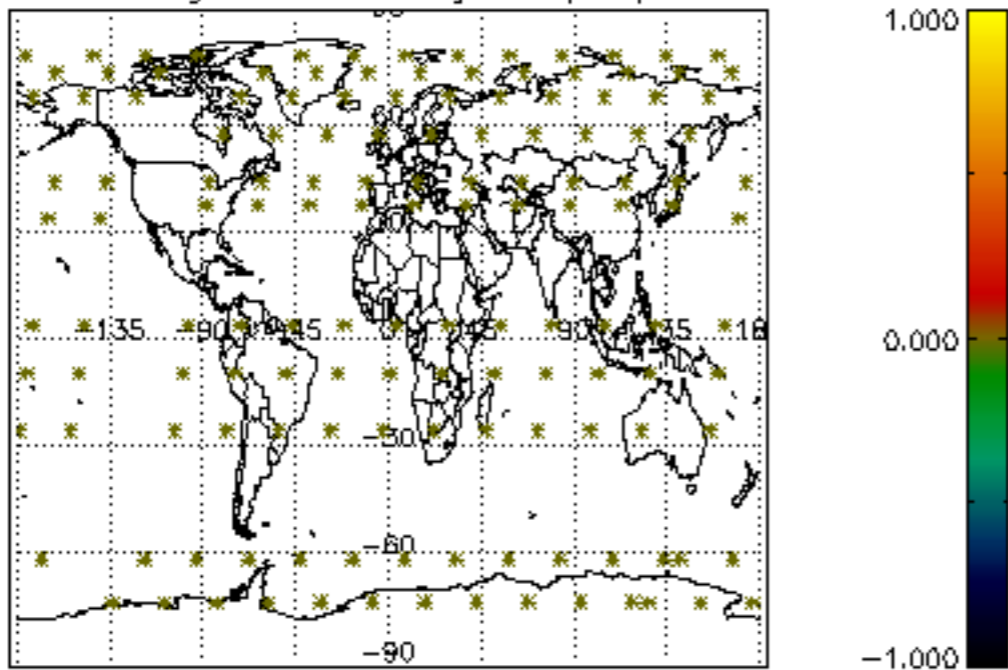
Percentage of star falling outside central band per profile



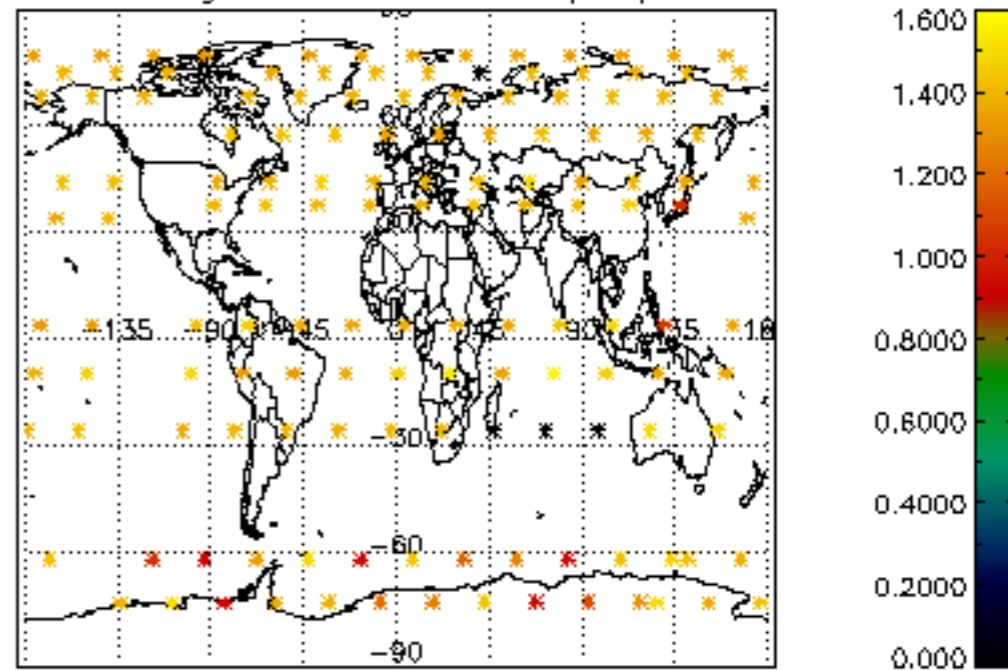
Percentage of saturation errors per profile



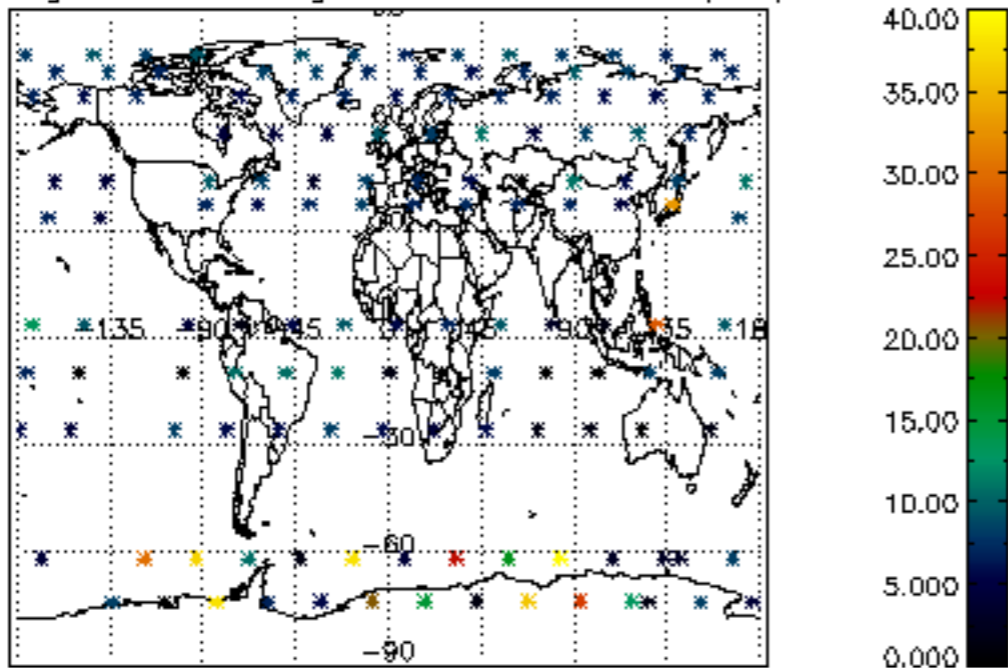
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

