

# 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](#)











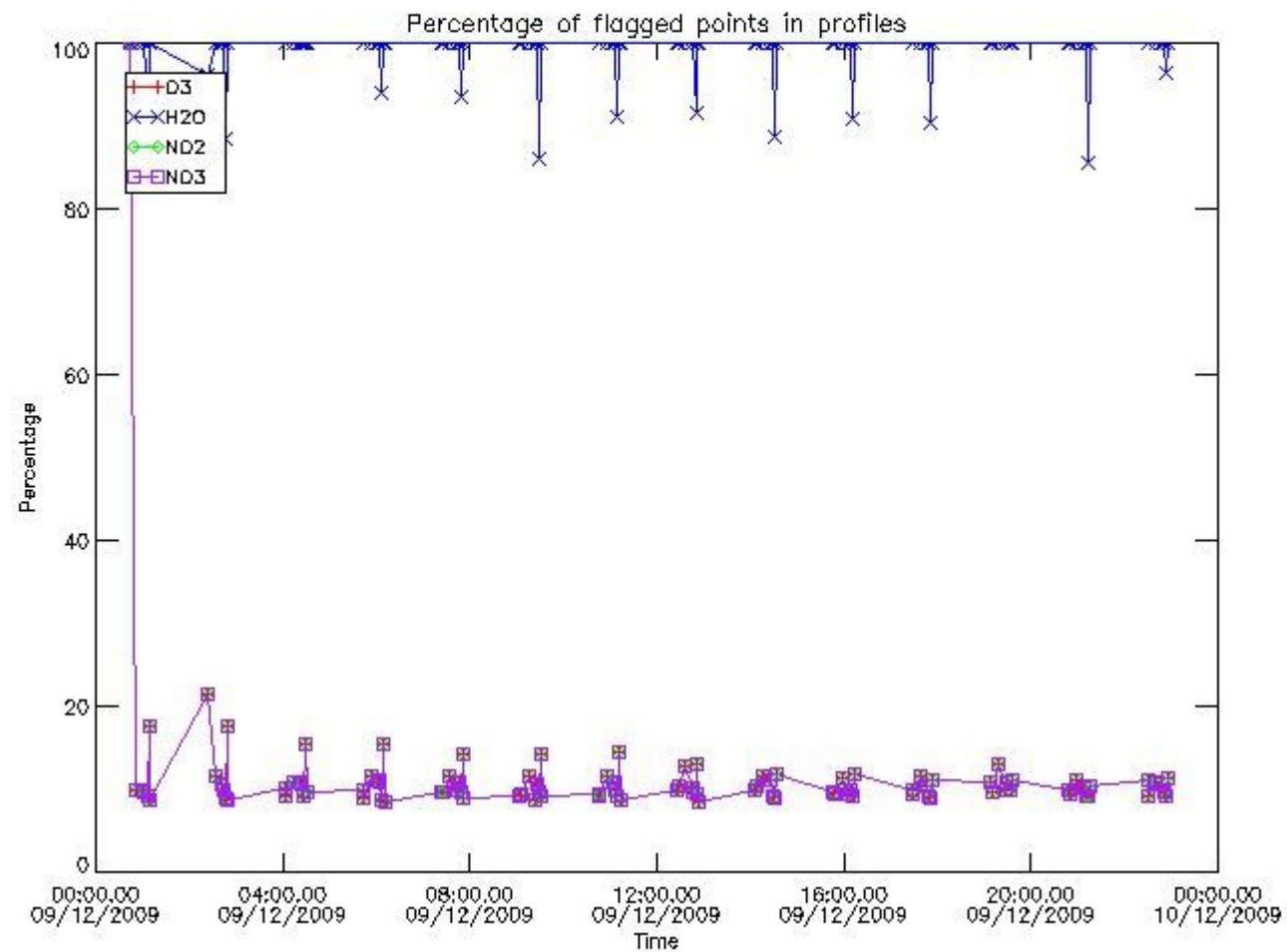


338	GOM_NL__2PRFIN20091209_225606_000000492085_00030_40665_5709.N1	09-DEC-2009 22:56:06	Dark	49.000	88	31Eta CMa	2.4480	20000.	98	40665	No
339	GOM_NL__2PRFIN20091209_225749_000000432085_00030_40665_5710.N1	09-DEC-2009 22:57:49	Straylight	43.000	37	25Del CMa	1.8300	5900.0	86	40665	No
340	GOM_NL__2PRFIN20091209_230208_000000572085_00030_40665_5711.N1	09-DEC-2009 23:02:08	Straylight	57.000	47	2Bet CMa	1.9760	28000.	114	40665	No
341	GOM_NL__2PRFIN20091209_230551_000000502085_00030_40665_5712.N1	09-DEC-2009 23:05:51	Straylight	50.000	7	19Bet Ori	0.10000	14000.	100	40665	No
342	GOM_NL__2PRFIN20091209_230821_000000522085_00030_40665_5713.N1	09-DEC-2009 23:08:21	Straylight	51.500	30	46Eps Ori	1.6940	30000.	103	40665	No
343	GOM_NL__2PRFIN20091209_231154_000000542085_00030_40665_5714.N1	09-DEC-2009 23:11:54	Twilight_stray	54.000	14	58Alp Ori	0.87000	3000.0	108	40665	No
344	GOM_NL__2PRFIN20091209_231323_000000532085_00030_40665_5715.N1	09-DEC-2009 23:13:23	Twilight_stray	52.500	13	87Alp Tau	0.86700	3800.0	105	40665	No
345	GOM_NL__2PRFIN20091209_231611_000000492085_00030_40665_5716.N1	09-DEC-2009 23:16:11	Bright	49.000	176	23Zet Tau	3.0200	22000.	98	40665	No
346	GOM_NL__2PRFIN20091209_231846_000000422085_00030_40665_5717.N1	09-DEC-2009 23:18:46	Bright	41.500	114	31lot Aur	2.6930	4600.0	83	40665	No
347	GOM_NL__2PRFIN20091209_232259_000000462085_00030_40665_5718.N1	09-DEC-2009 23:22:59	Bright	46.000	6	13Alp Aur	0.080000	3400.0	92	40665	No
348	GOM_NL__2PRFIN20091209_233934_000000422085_00030_40665_5719.N1	09-DEC-2009 23:39:34	Bright	41.500	36	50Alp UMa	1.8000	6300.0	83	40665	No
349	GOM_NL__2PRFIN20091209_234105_000000502085_00030_40665_5720.N1	09-DEC-2009 23:41:05	Bright	49.500	82	48Bet UMa	2.3650	10600.	99	40665	No
350	GOM_NL__2PRFIN20091209_234322_000000452085_00030_40665_5721.N1	09-DEC-2009 23:43:22	Bright	45.000	32	77Eps UMa	1.7630	11000.	90	40665	No
351	GOM_NL__2PRFIN20091209_234544_000000562085_00030_40665_5722.N1	09-DEC-2009 23:45:44	Bright	56.000	39	85Eta UMa	1.8540	24000.	112	40665	No
352	GOM_NL__2PRFIN20091209_234916_000000642085_00030_40665_5723.N1	09-DEC-2009 23:49:16	Bright	64.000	152	12Alp2CVn	2.8900	11000.	128	40665	No
353	GOM_NL__2PRFIN20091209_235508_000000382085_00030_40665_5724.N1	09-DEC-2009 23:55:08	Bright	37.500	111	8Eta Boo	2.6800	6000.0	75	40665	No
354	GOM_NL__2PRFIN20091209_235840_000000632085_00030_40665_5725.N1	09-DEC-2009 23:58:40	Bright	63.000	138	47Eps Vir	2.8280	4700.0	126	40665	No

### 3. Quality information per product

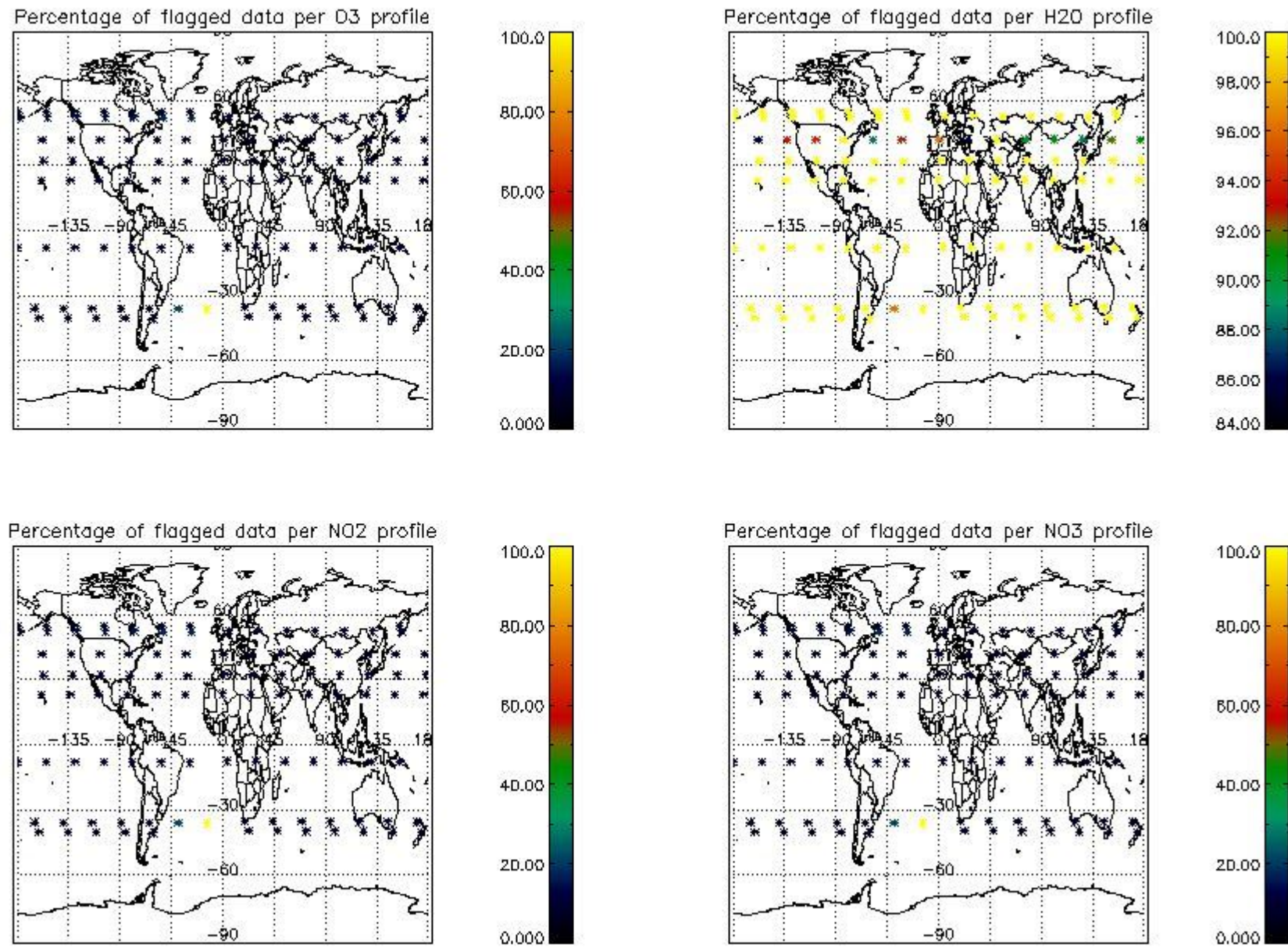
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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





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

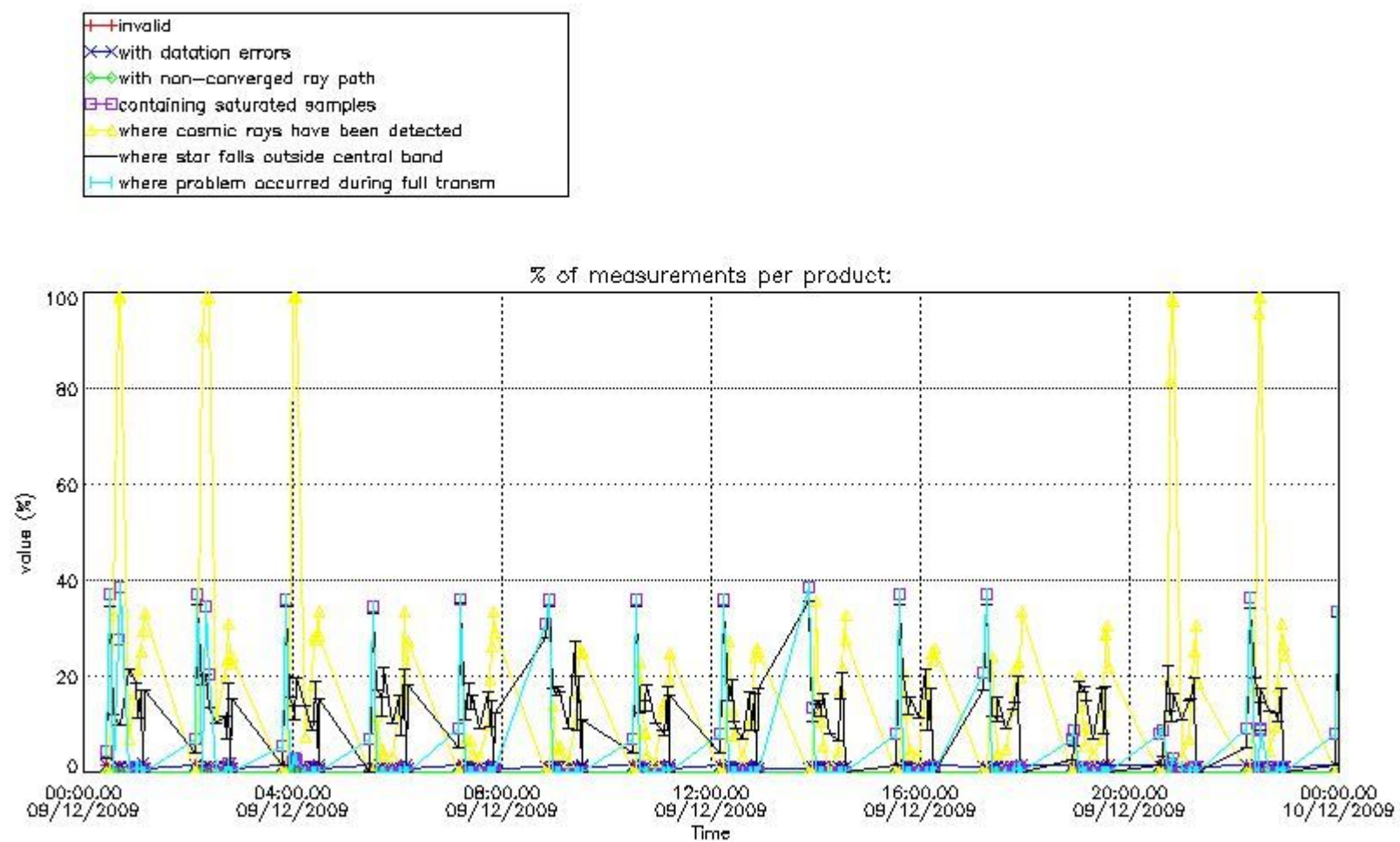


### 4. Level 1 quality information per product

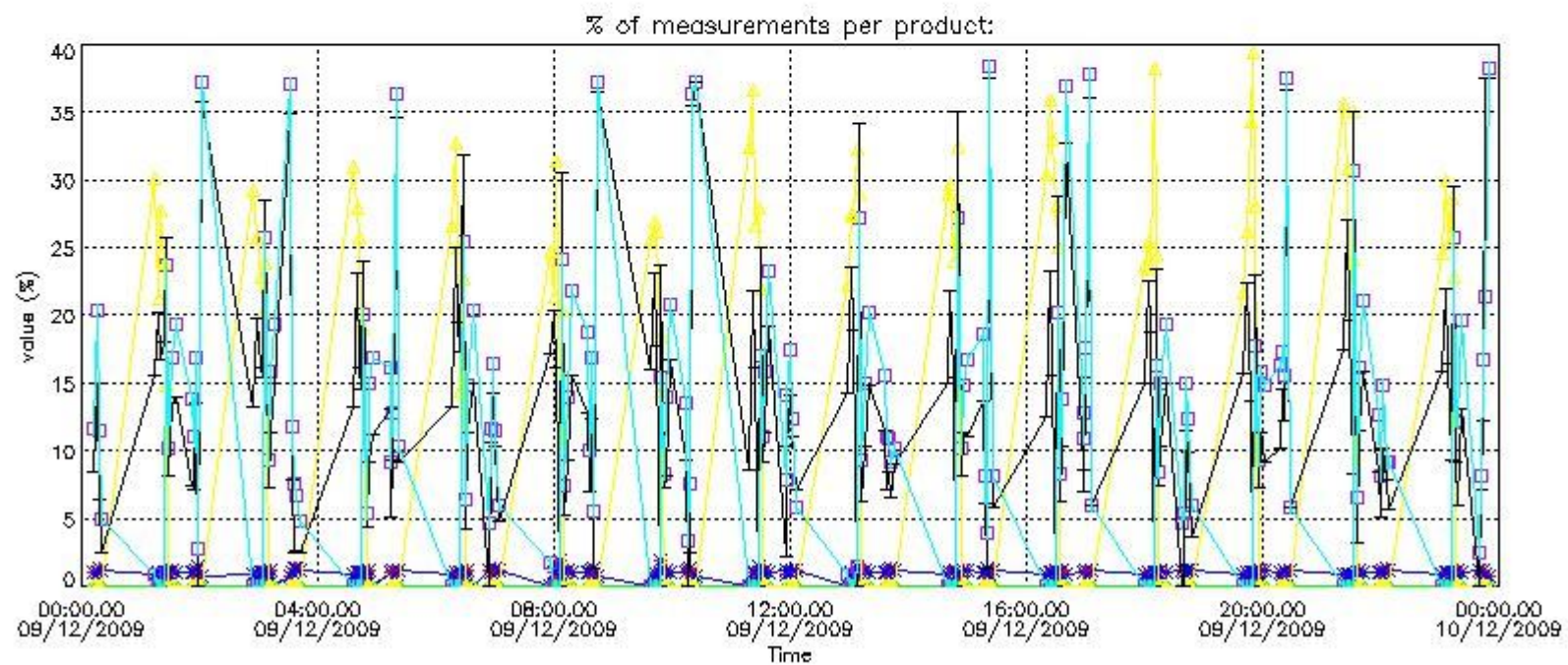
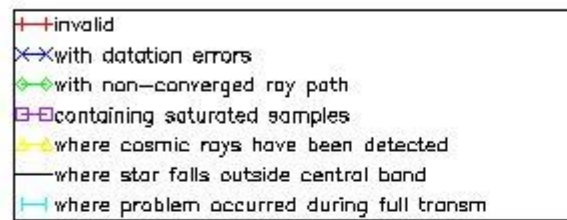
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



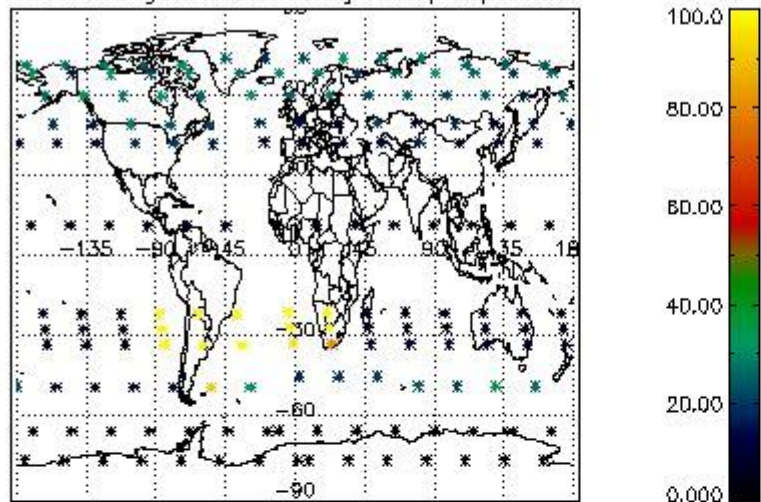
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



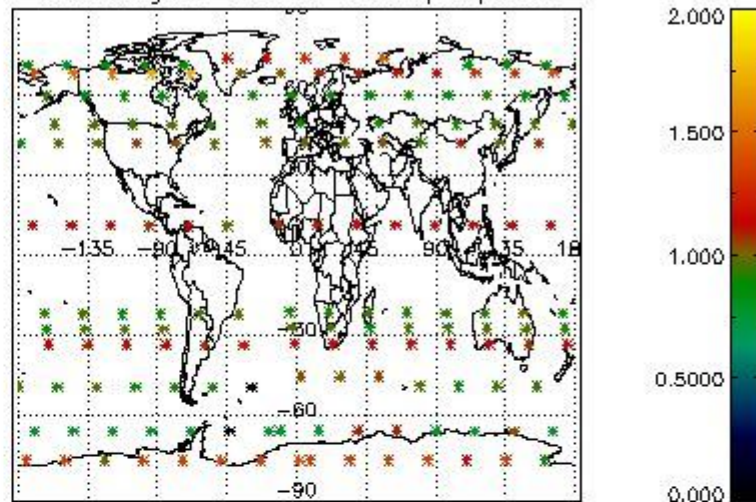
4.2 Plot quality information per product coming from level 1b processing (world map)

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

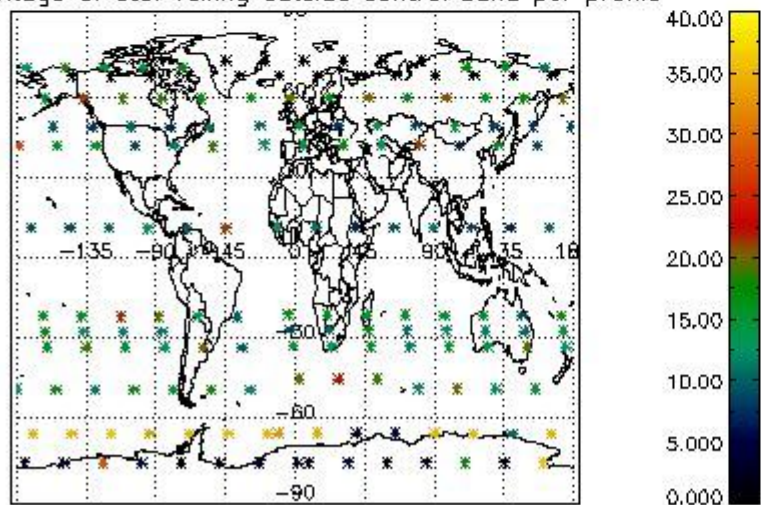
Percentage of cosmic ray hits per profile



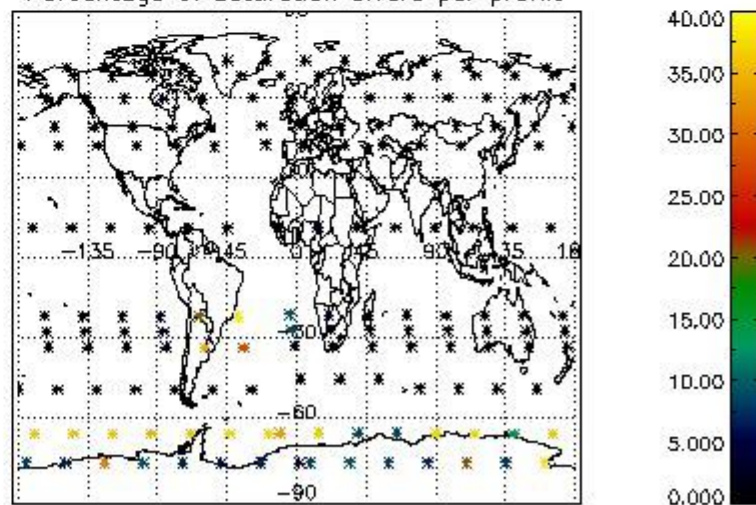
Percentage of datation errors per profile



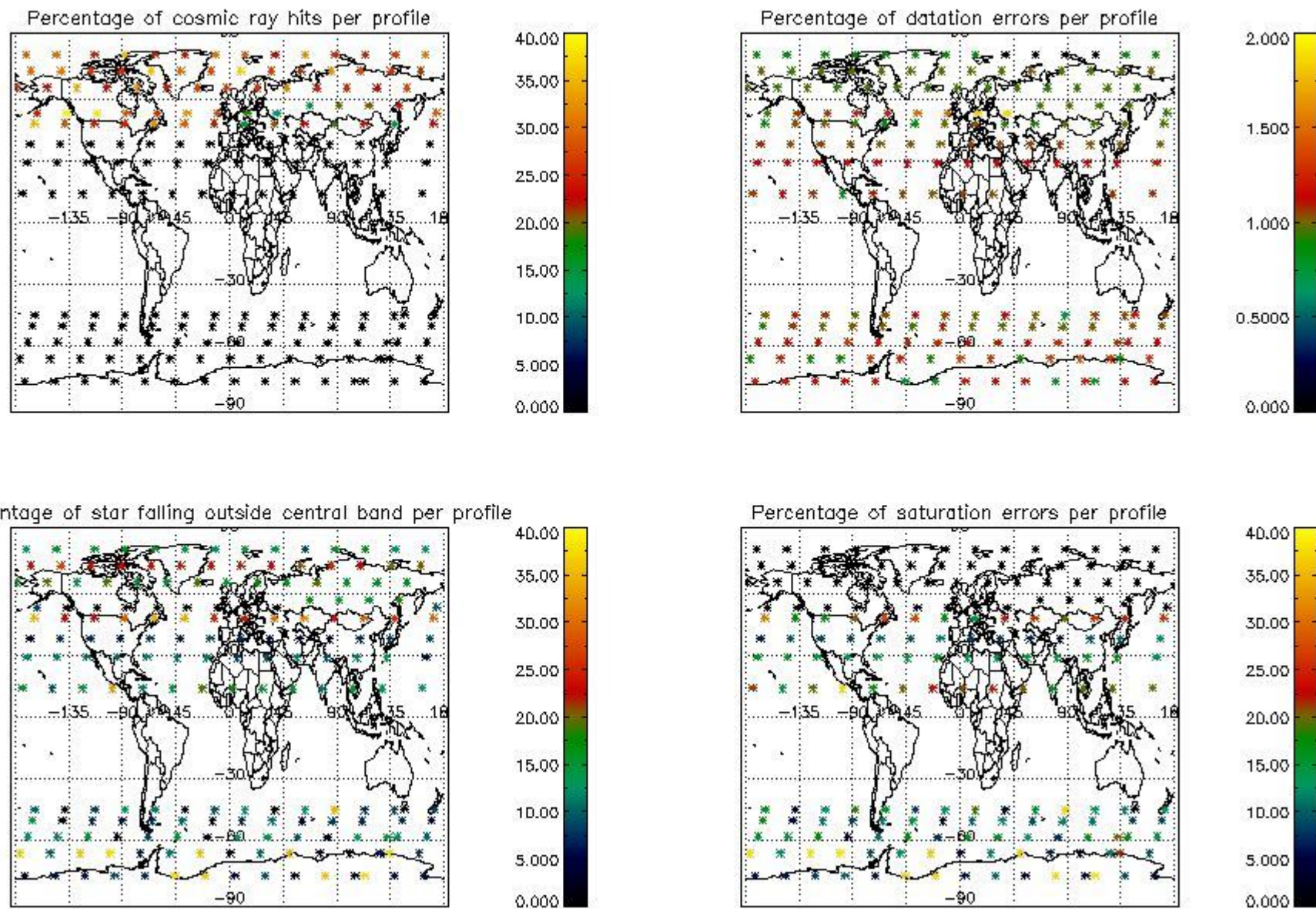
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

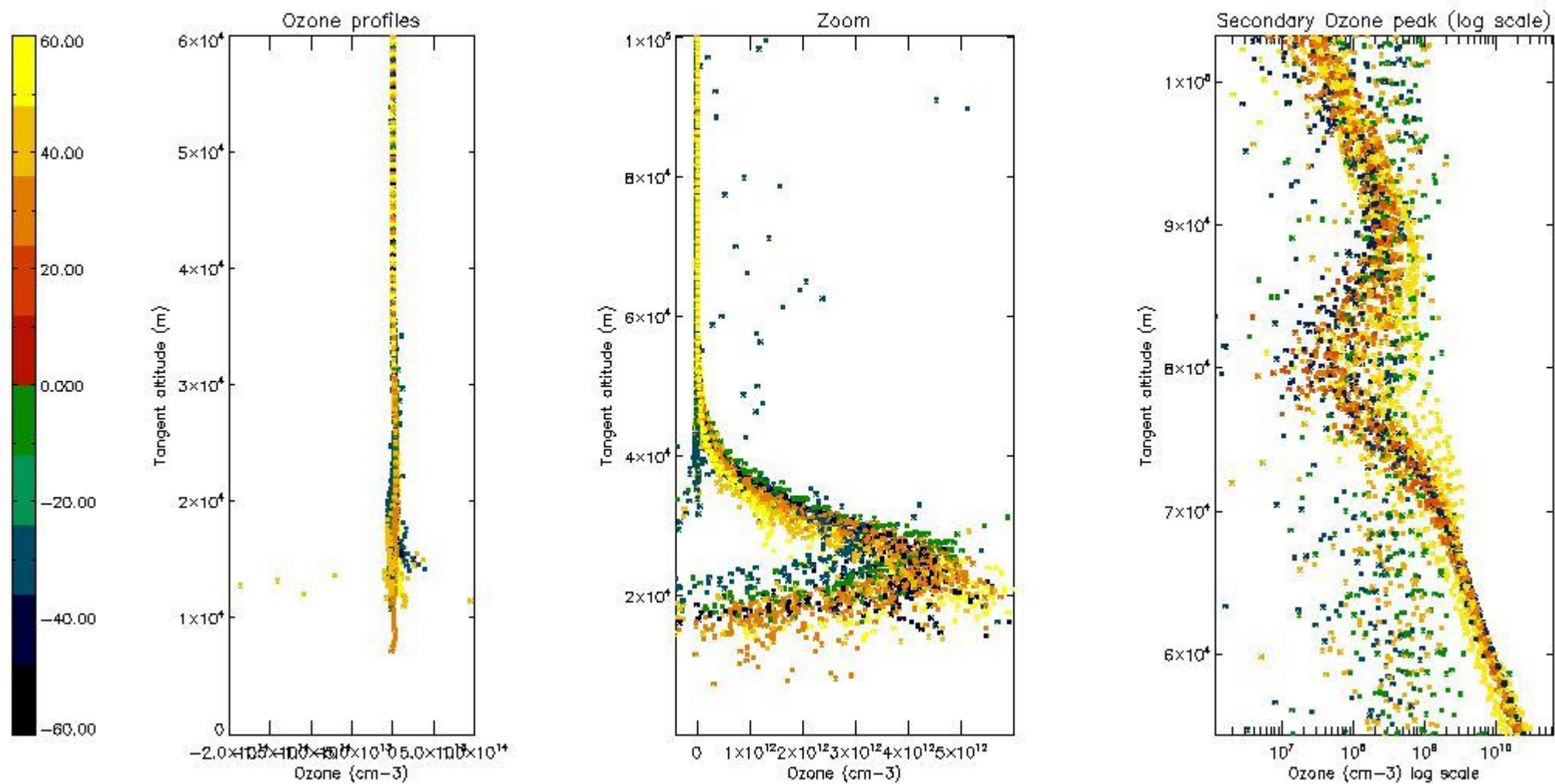
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	15

STD < 10	11
STD < 5	8

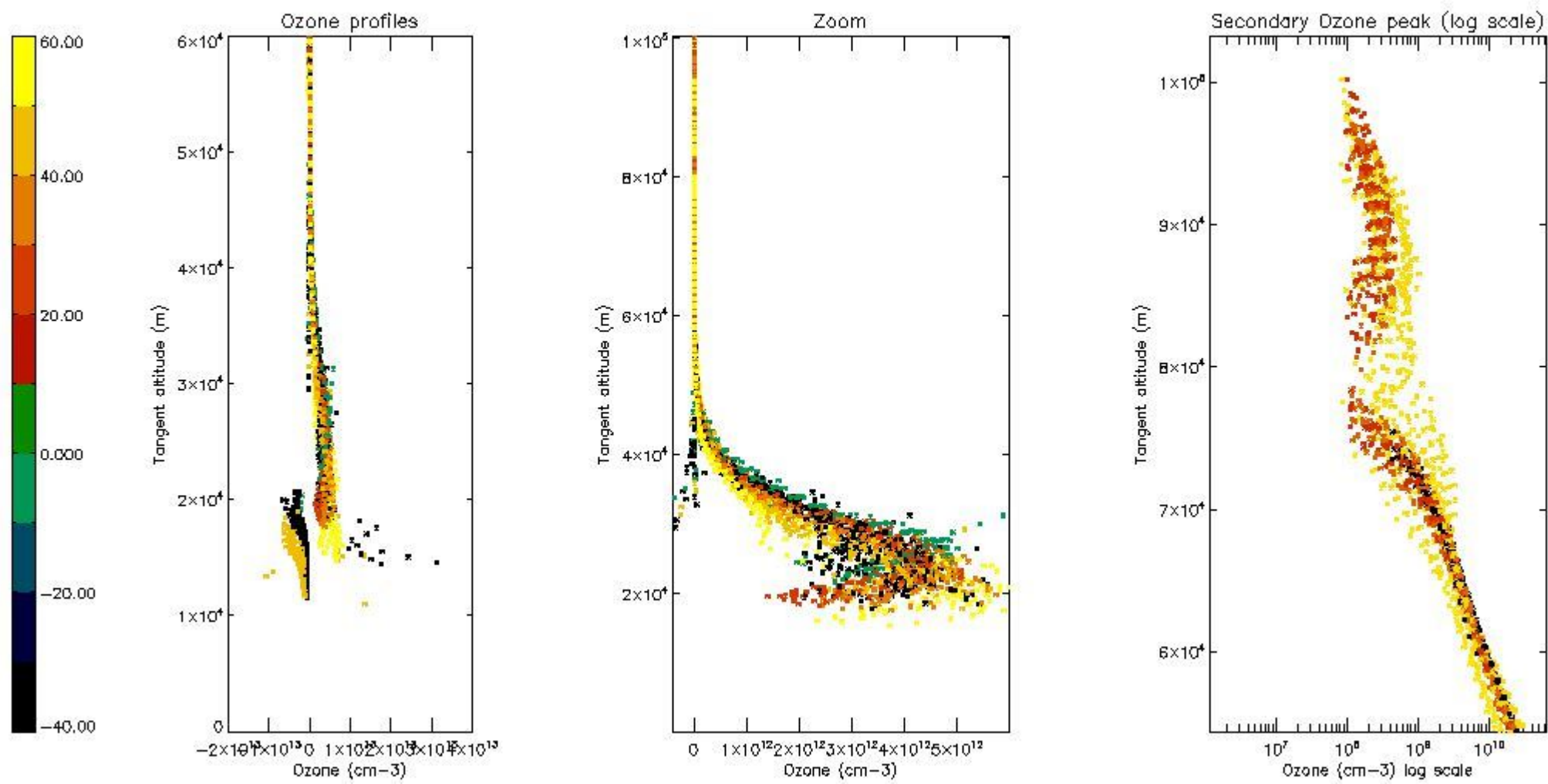
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



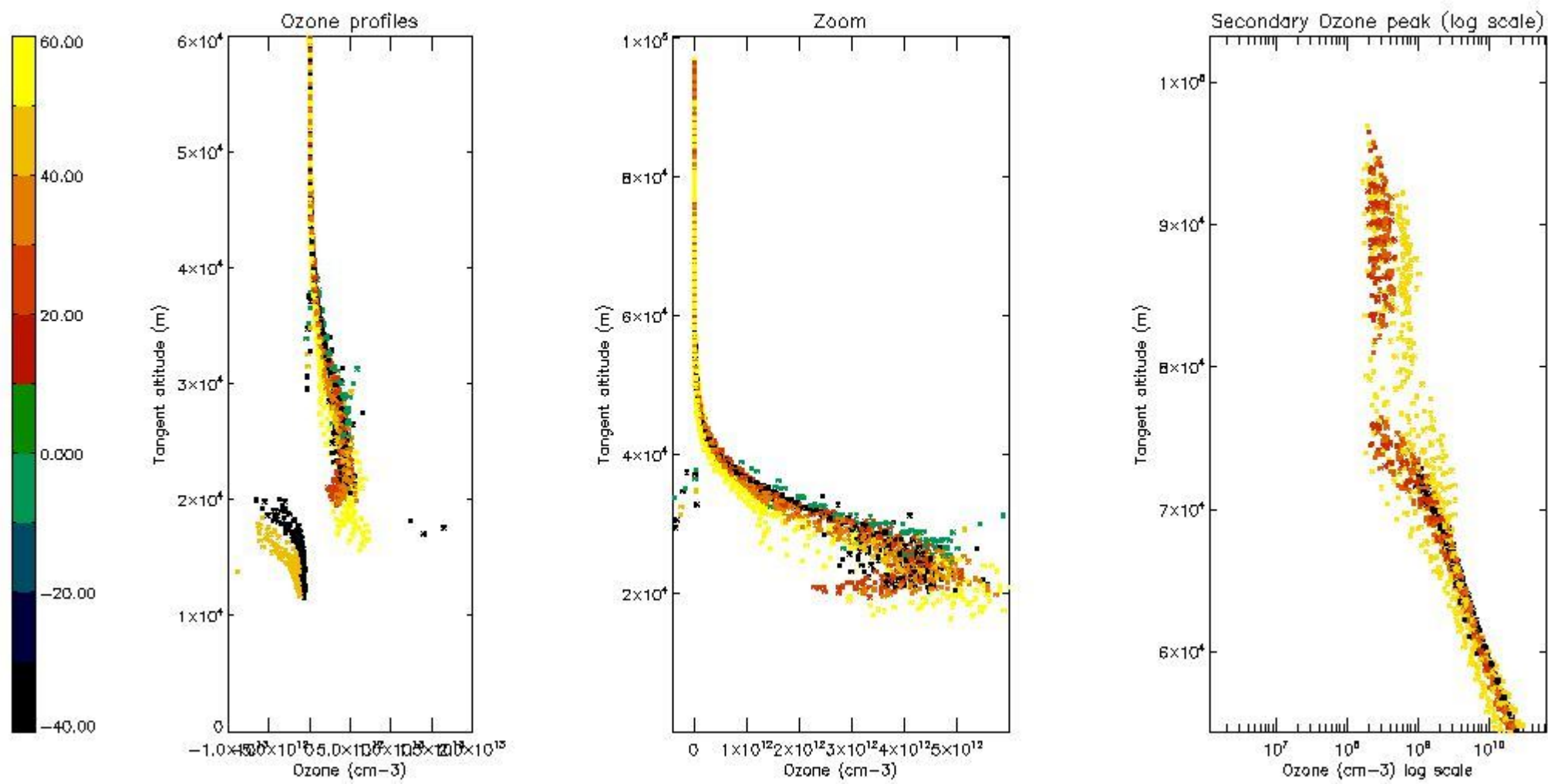
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

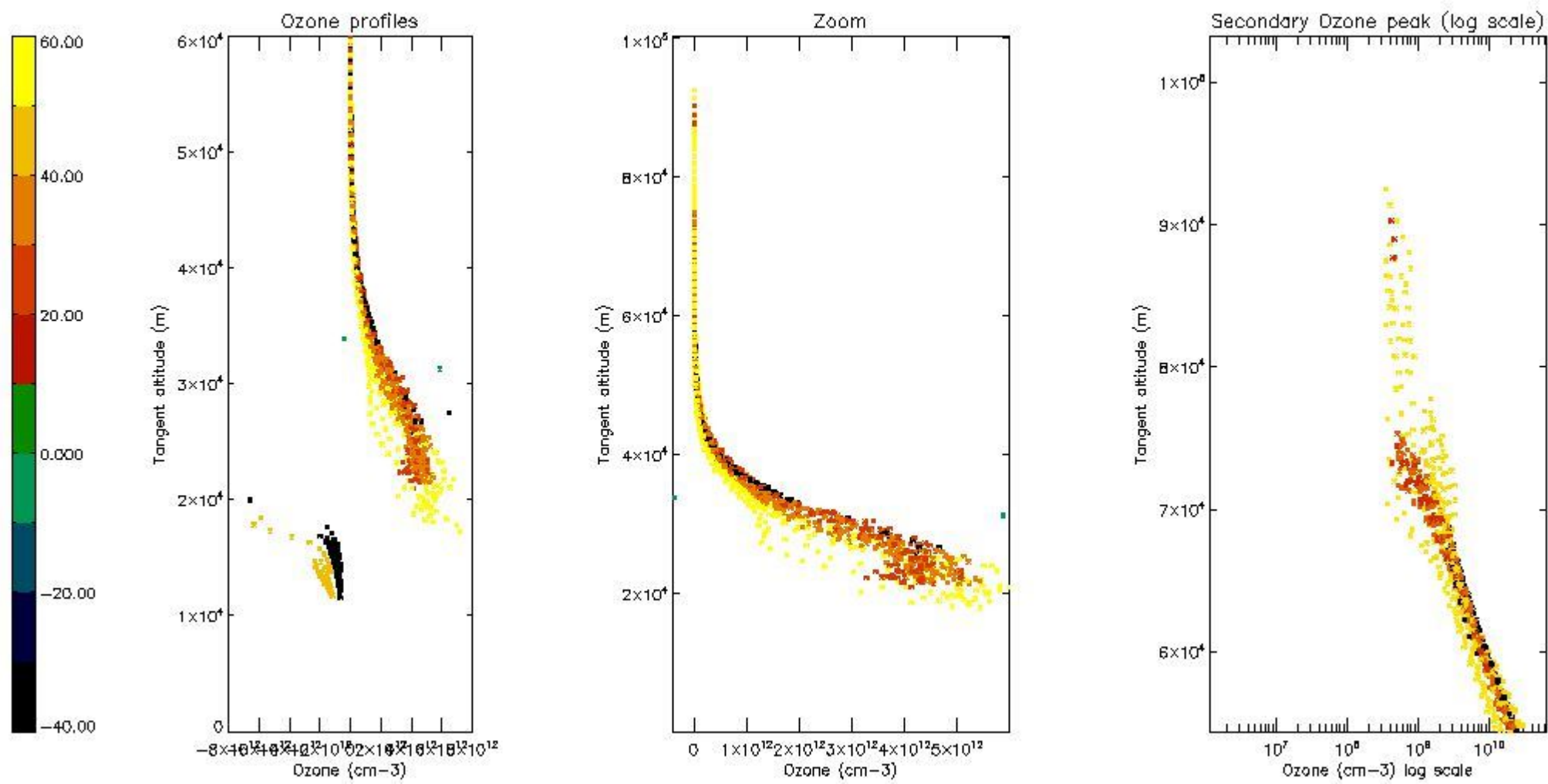
The colorbar represents the latitude.



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

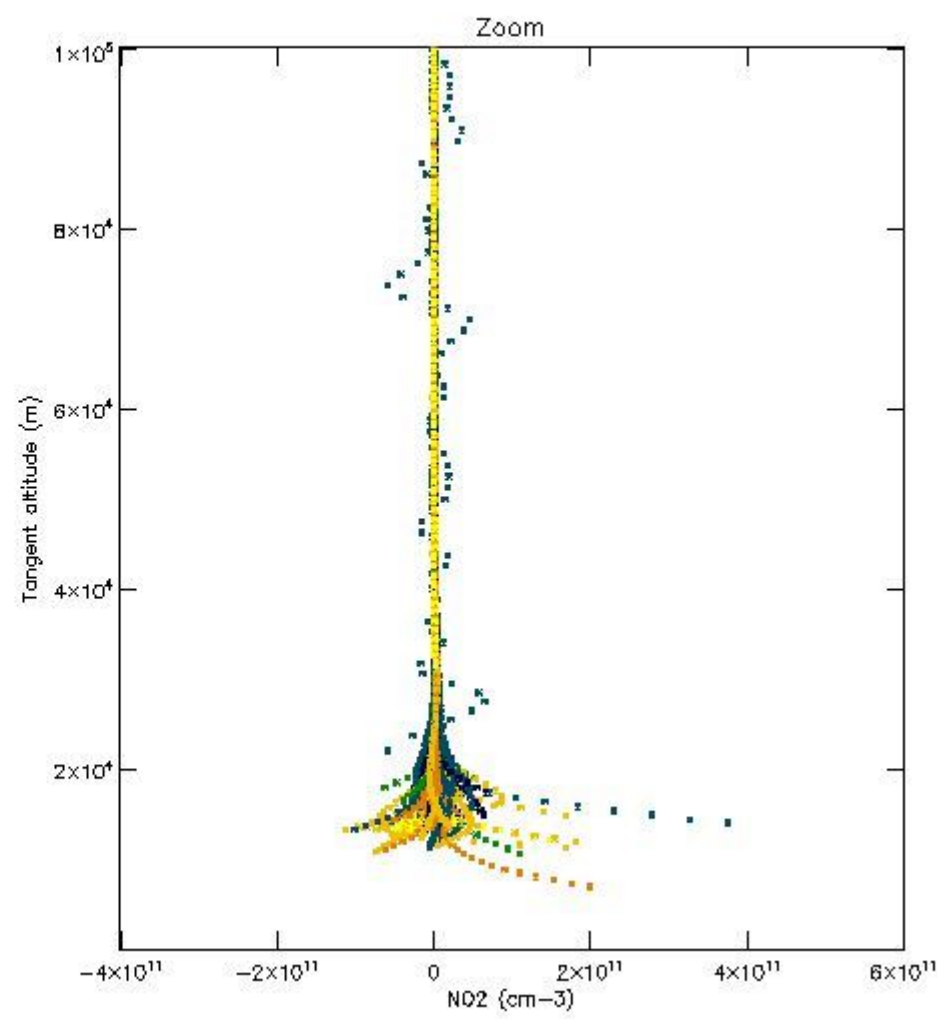
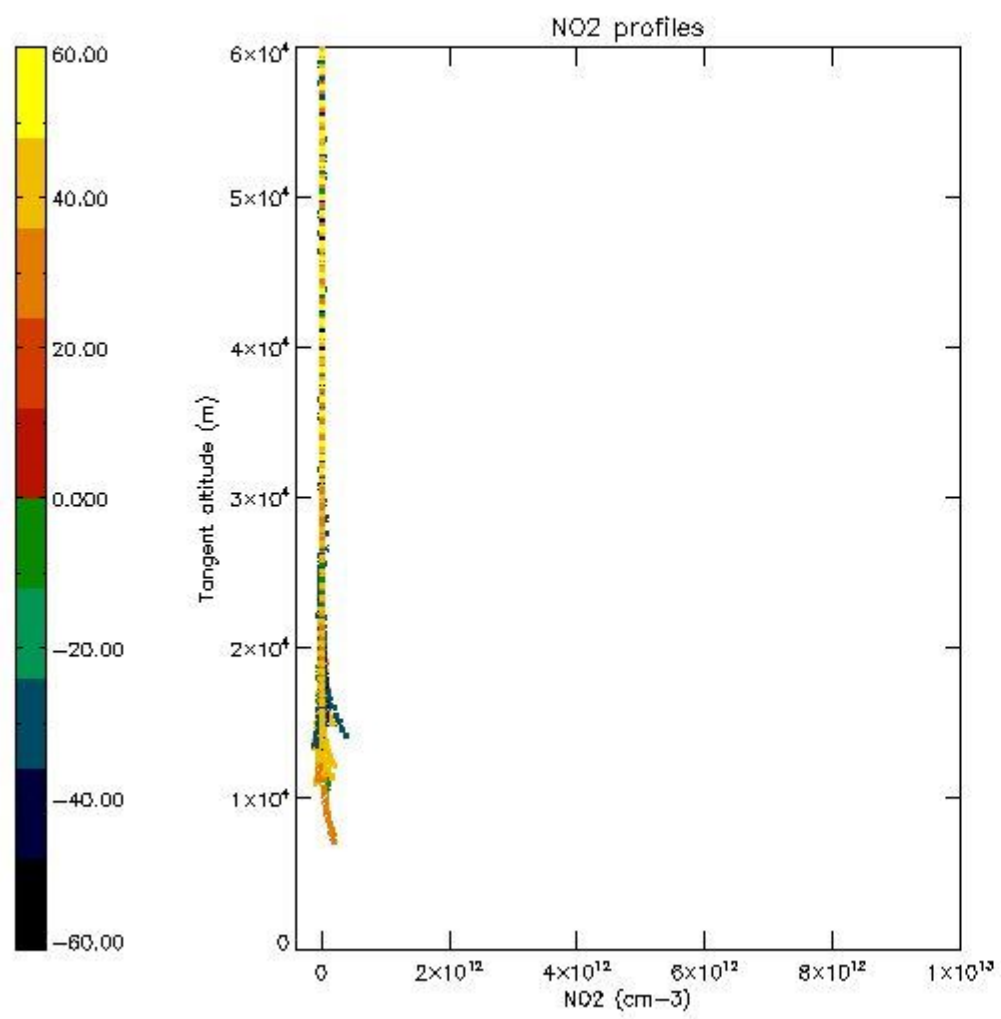
The colorbar represents the latitude.





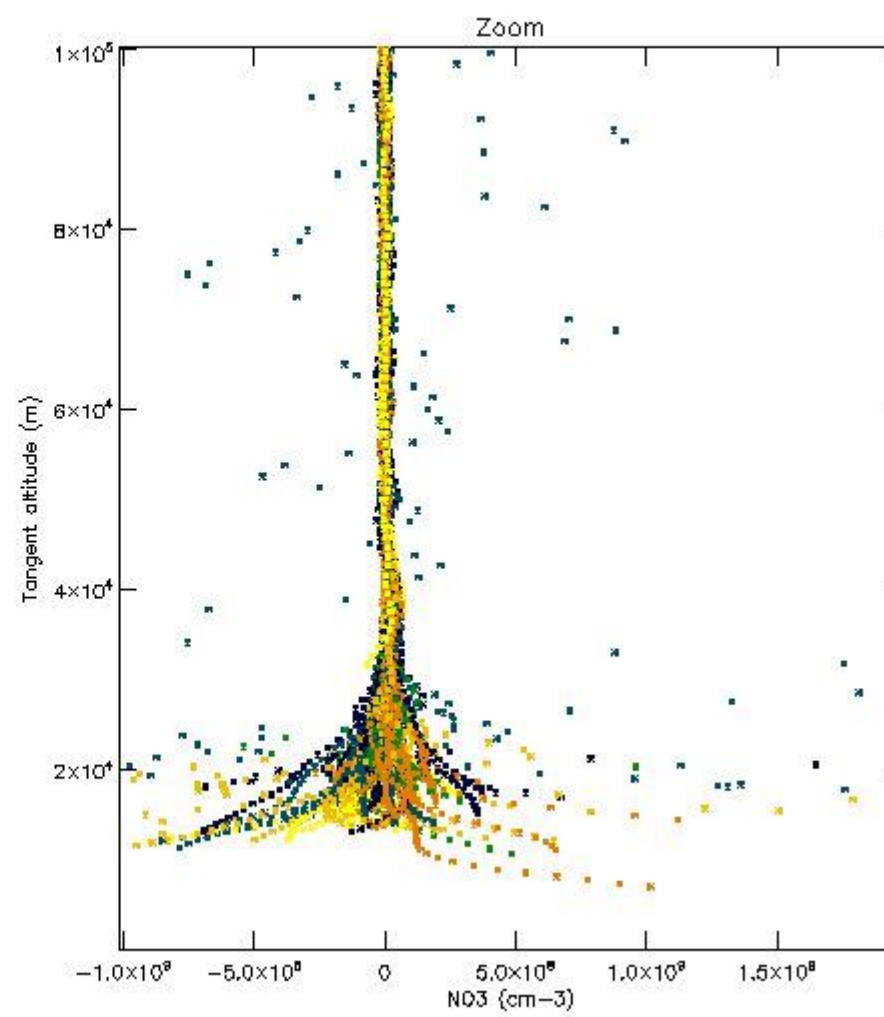
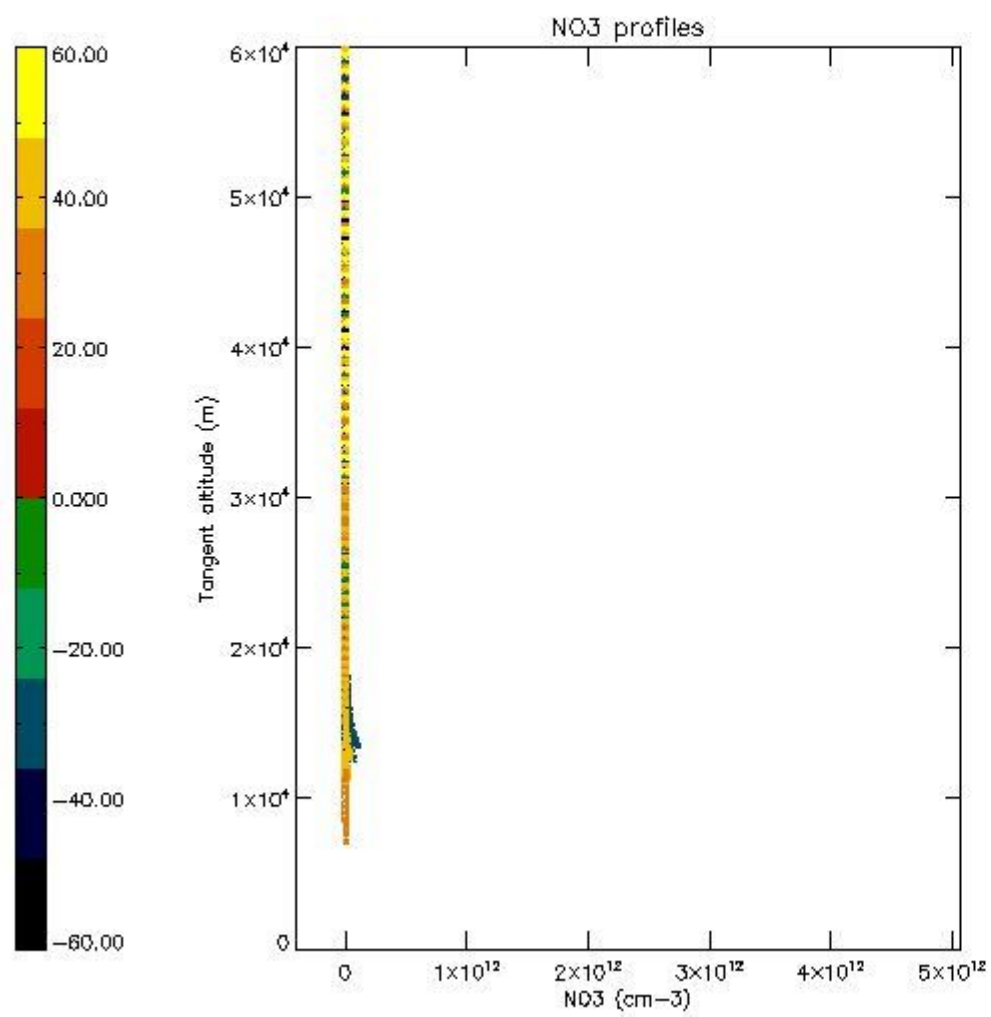
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



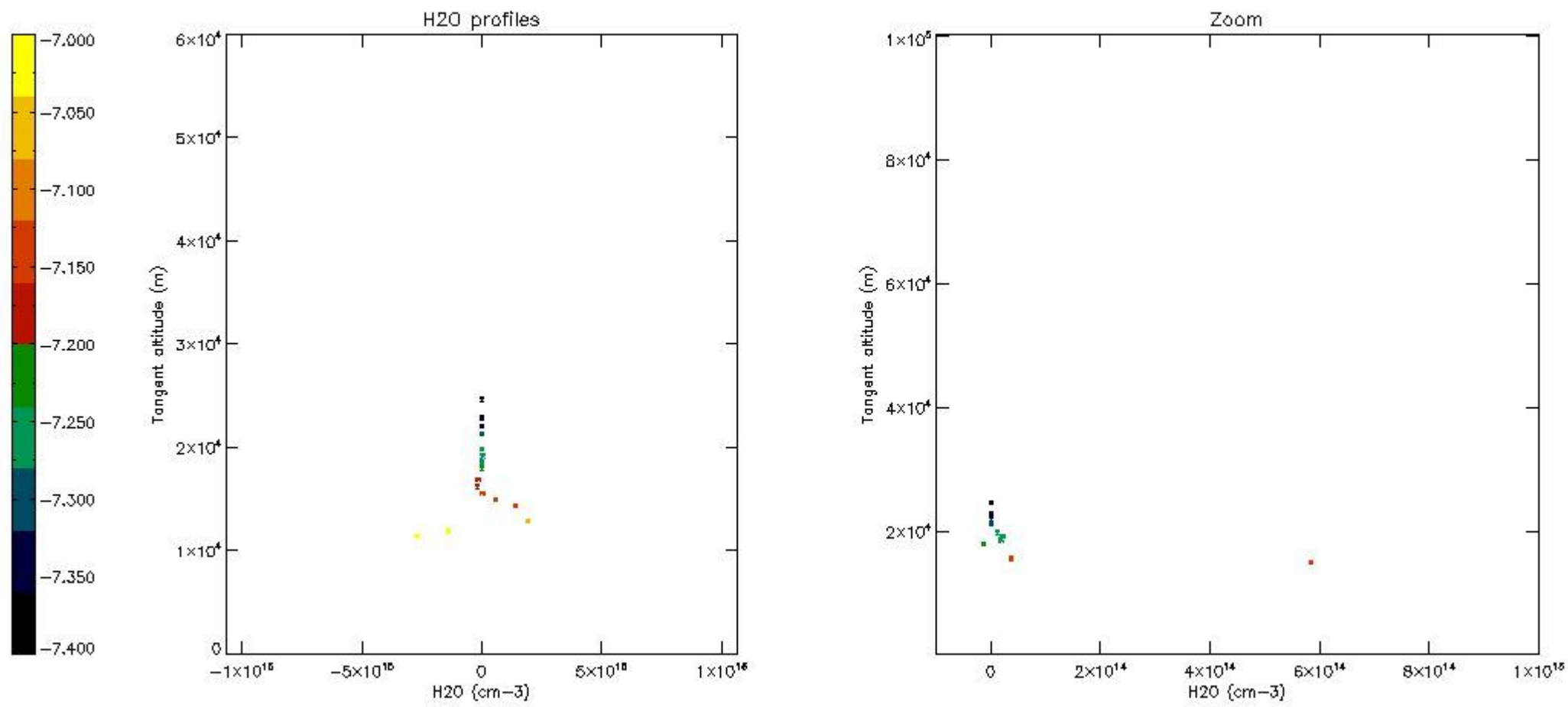
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	09-DEC-2009 00:11:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-DEC-2009 00:11:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-DEC-2009 00:11:17

# 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](#)













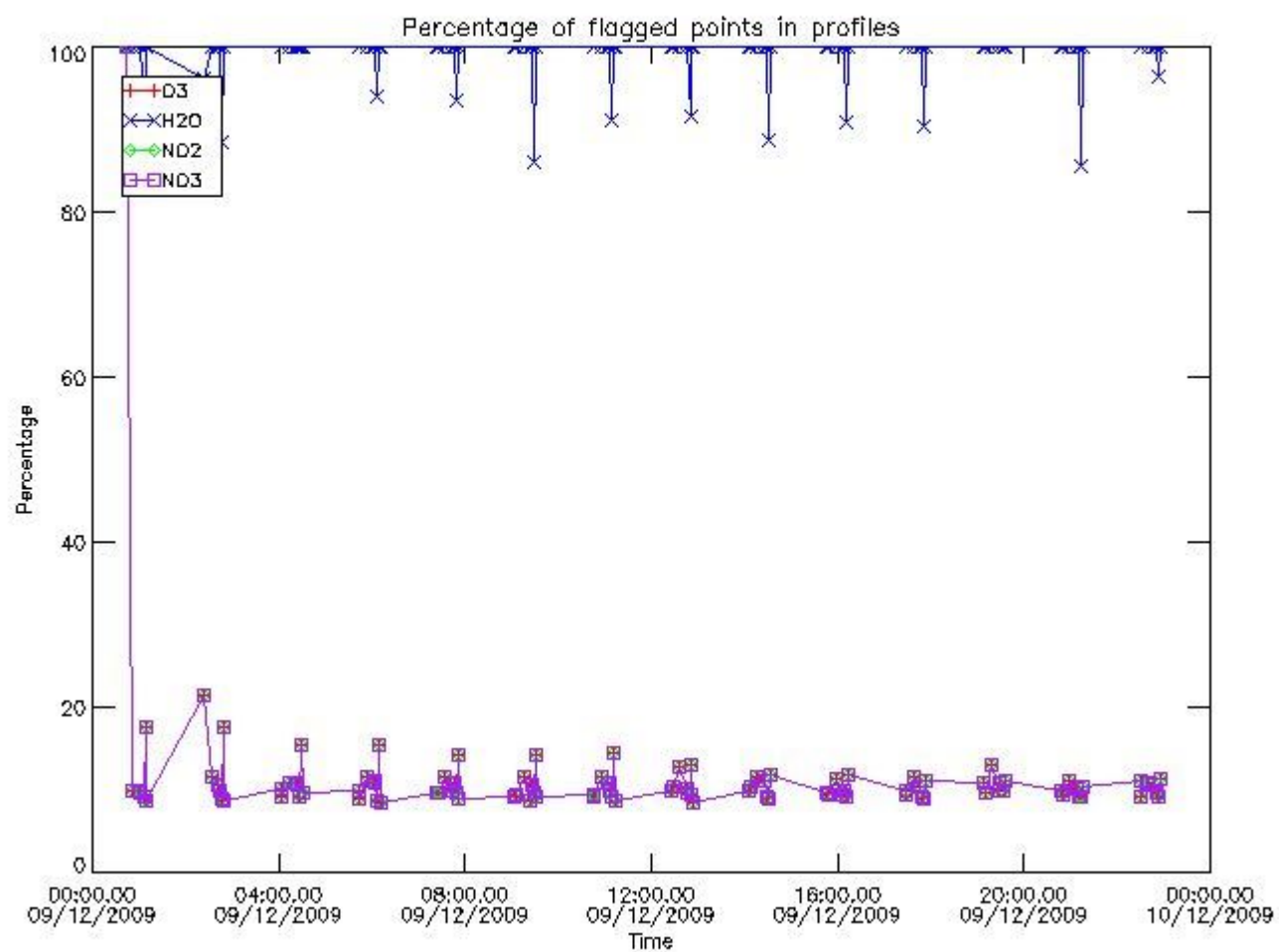


338	GOM_NL__2PRFIN20091209_225606_000000492085_00030_40665_5709.N1	09-DEC-2009 22:56:06	Dark	49.000	88	31Eta CMa	2.4480	20000.	98	40665	No
339	GOM_NL__2PRFIN20091209_225749_000000432085_00030_40665_5710.N1	09-DEC-2009 22:57:49	Straylight	43.000	37	25Del CMa	1.8300	5900.0	86	40665	No
340	GOM_NL__2PRFIN20091209_230208_000000572085_00030_40665_5711.N1	09-DEC-2009 23:02:08	Straylight	57.000	47	2Bet CMa	1.9760	28000.	114	40665	No
341	GOM_NL__2PRFIN20091209_230551_000000502085_00030_40665_5712.N1	09-DEC-2009 23:05:51	Straylight	50.000	7	19Bet Ori	0.10000	14000.	100	40665	No
342	GOM_NL__2PRFIN20091209_230821_000000522085_00030_40665_5713.N1	09-DEC-2009 23:08:21	Straylight	51.500	30	46Eps Ori	1.6940	30000.	103	40665	No
343	GOM_NL__2PRFIN20091209_231154_000000542085_00030_40665_5714.N1	09-DEC-2009 23:11:54	Twilight_stray	54.000	14	58Alp Ori	0.87000	3000.0	108	40665	No
344	GOM_NL__2PRFIN20091209_231323_000000532085_00030_40665_5715.N1	09-DEC-2009 23:13:23	Twilight_stray	52.500	13	87Alp Tau	0.86700	3800.0	105	40665	No
345	GOM_NL__2PRFIN20091209_231611_000000492085_00030_40665_5716.N1	09-DEC-2009 23:16:11	Bright	49.000	176	23Zet Tau	3.0200	22000.	98	40665	No
346	GOM_NL__2PRFIN20091209_231846_000000422085_00030_40665_5717.N1	09-DEC-2009 23:18:46	Bright	41.500	114	31lot Aur	2.6930	4600.0	83	40665	No
347	GOM_NL__2PRFIN20091209_232259_000000462085_00030_40665_5718.N1	09-DEC-2009 23:22:59	Bright	46.000	6	13Alp Aur	0.080000	3400.0	92	40665	No
348	GOM_NL__2PRFIN20091209_233934_000000422085_00030_40665_5719.N1	09-DEC-2009 23:39:34	Bright	41.500	36	50Alp UMa	1.8000	6300.0	83	40665	No
349	GOM_NL__2PRFIN20091209_234105_000000502085_00030_40665_5720.N1	09-DEC-2009 23:41:05	Bright	49.500	82	48Bet UMa	2.3650	10600.	99	40665	No
350	GOM_NL__2PRFIN20091209_234322_000000452085_00030_40665_5721.N1	09-DEC-2009 23:43:22	Bright	45.000	32	77Eps UMa	1.7630	11000.	90	40665	No
351	GOM_NL__2PRFIN20091209_234544_000000562085_00030_40665_5722.N1	09-DEC-2009 23:45:44	Bright	56.000	39	85Eta UMa	1.8540	24000.	112	40665	No
352	GOM_NL__2PRFIN20091209_234916_000000642085_00030_40665_5723.N1	09-DEC-2009 23:49:16	Bright	64.000	152	12Alp2CVn	2.8900	11000.	128	40665	No
353	GOM_NL__2PRFIN20091209_235508_000000382085_00030_40665_5724.N1	09-DEC-2009 23:55:08	Bright	37.500	111	8Eta Boo	2.6800	6000.0	75	40665	No
354	GOM_NL__2PRFIN20091209_235840_000000632085_00030_40665_5725.N1	09-DEC-2009 23:58:40	Bright	63.000	138	47Eps Vir	2.8280	4700.0	126	40665	No

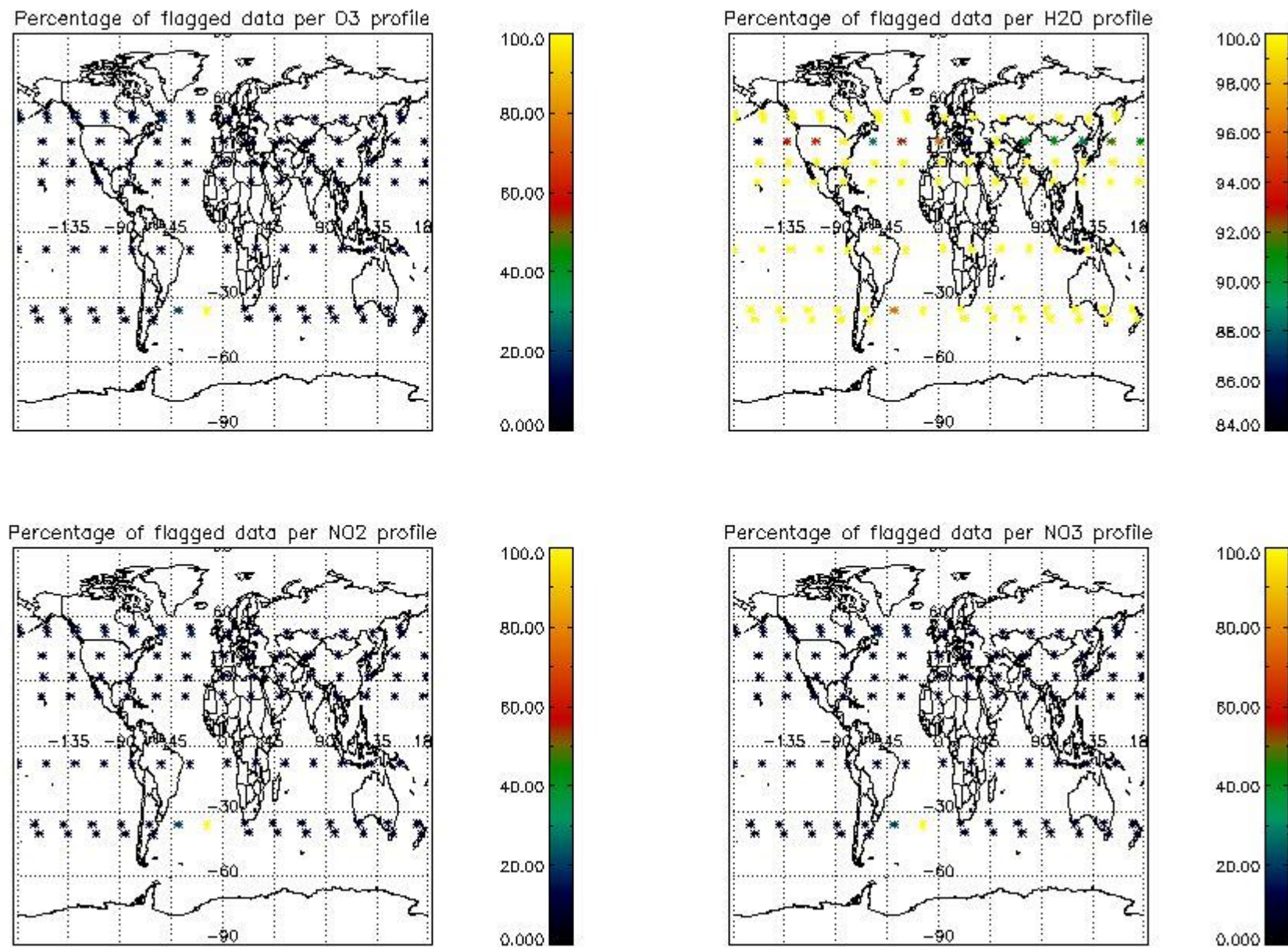
### 3. Quality information per product

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)

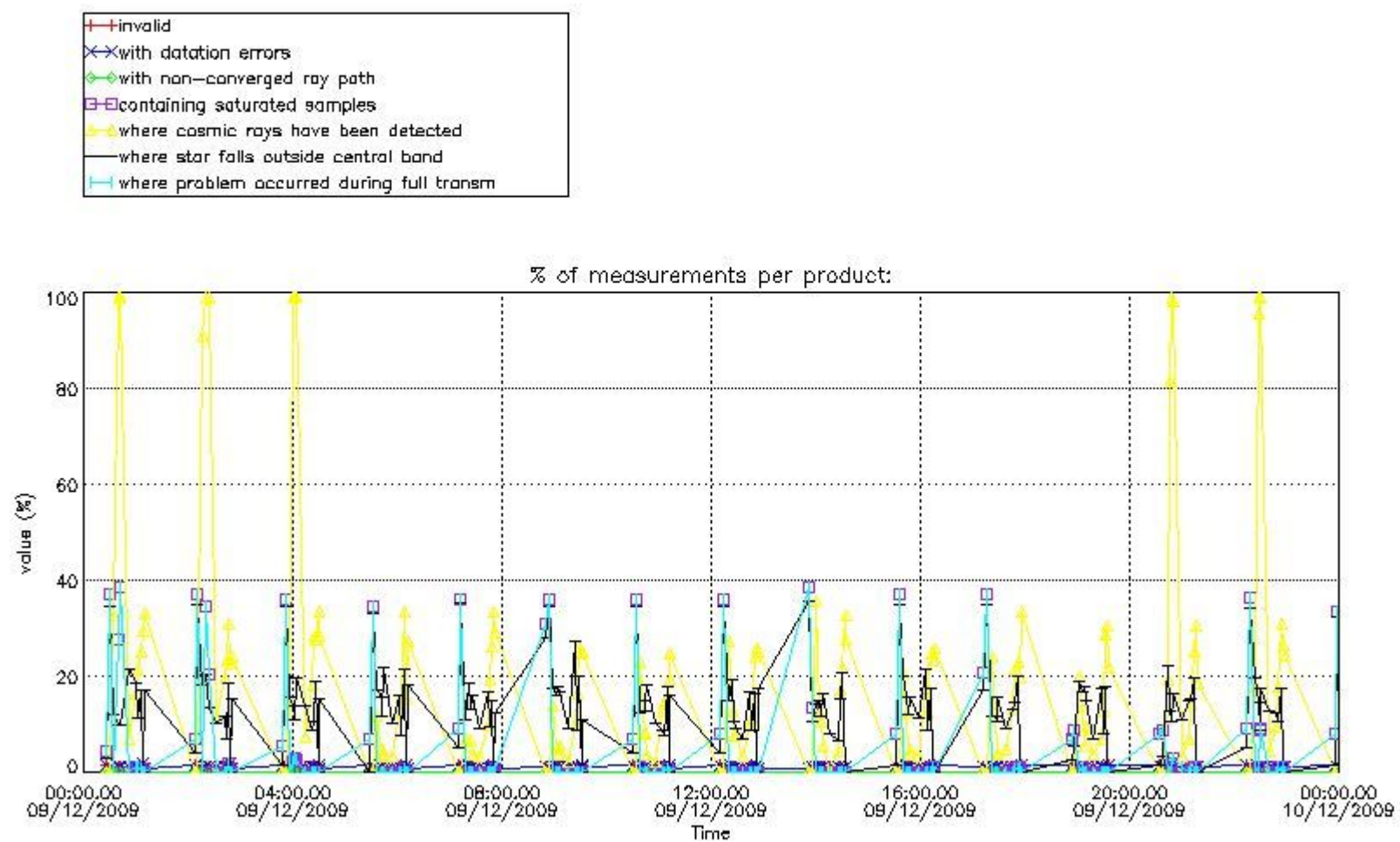


### 4. Level 1 quality information per product

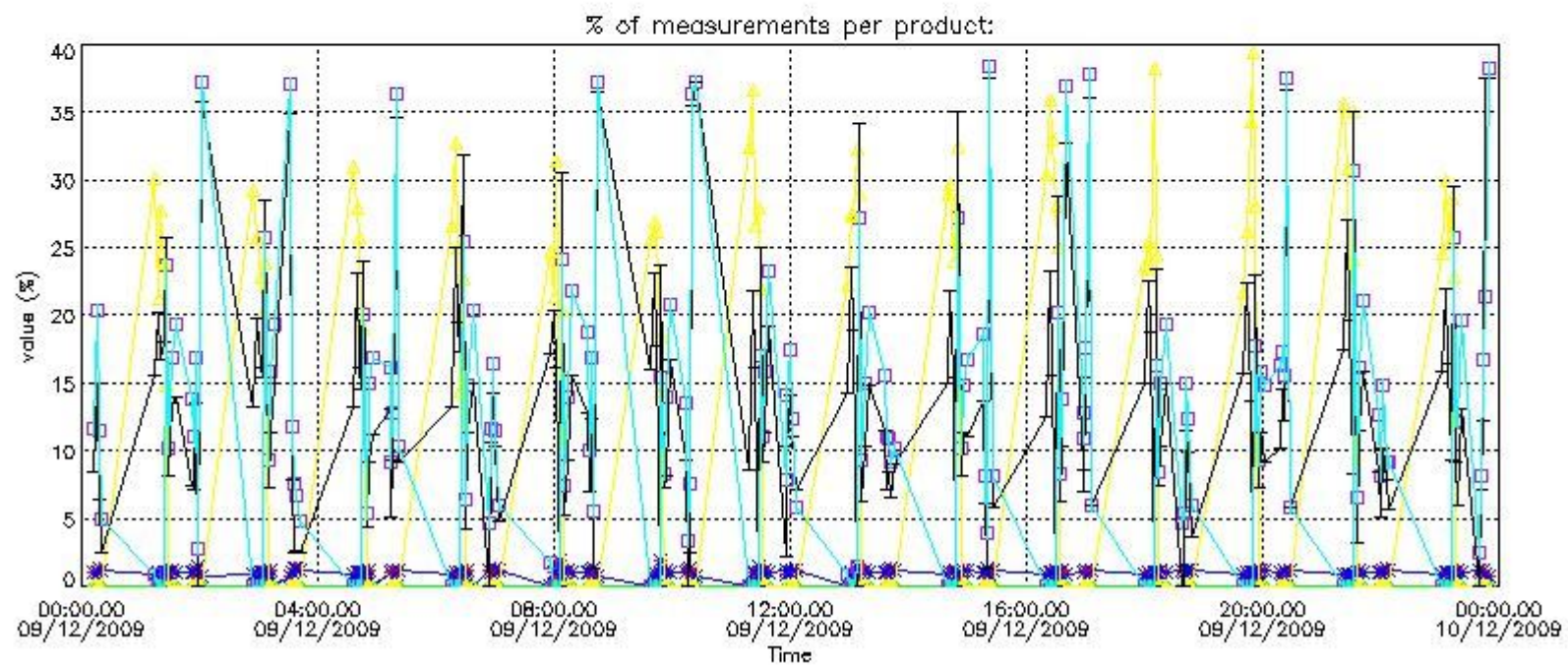
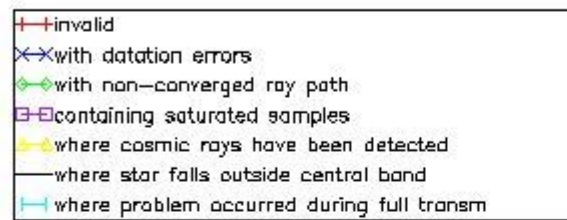
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

#### 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

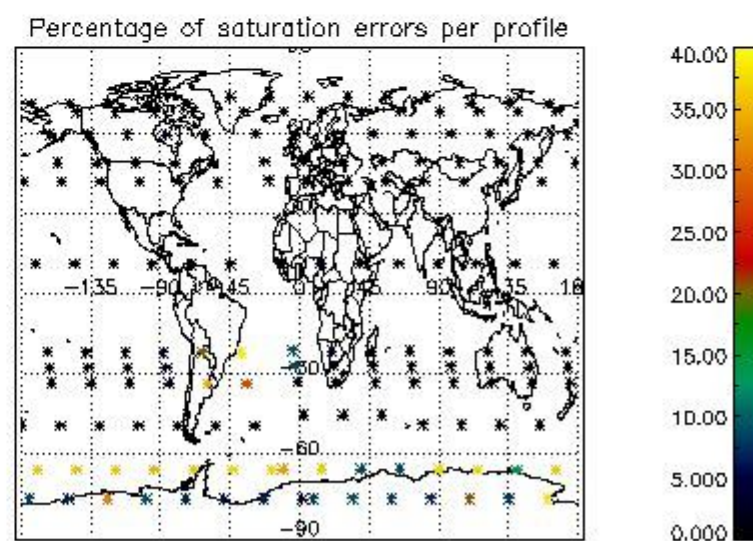
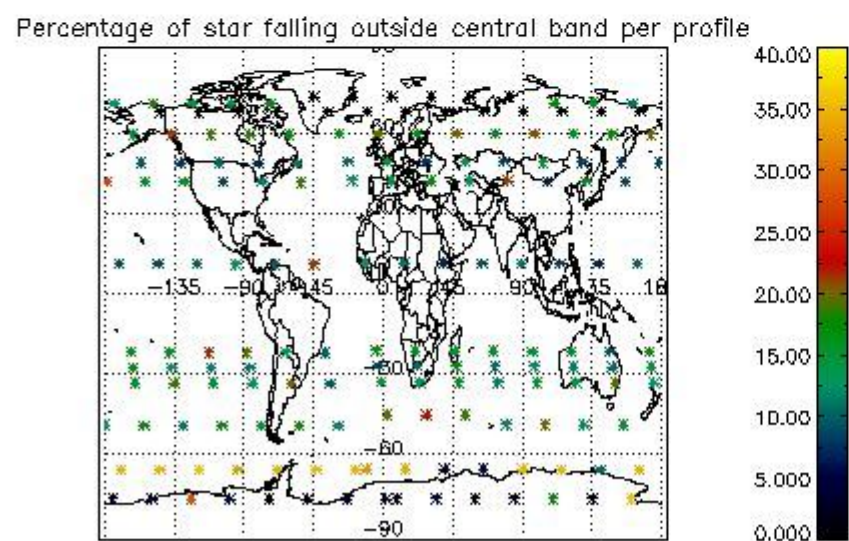
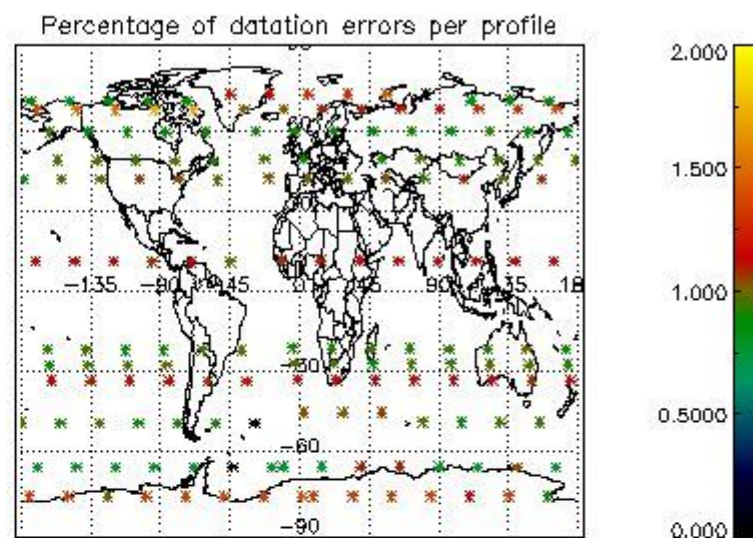
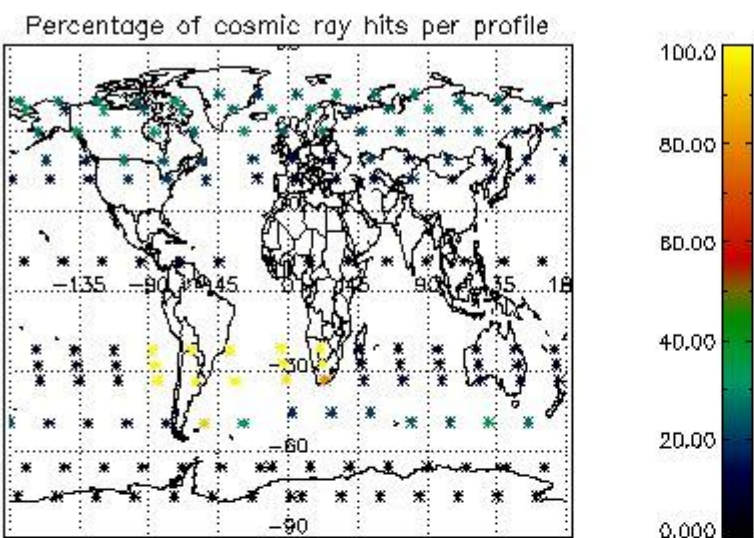


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



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

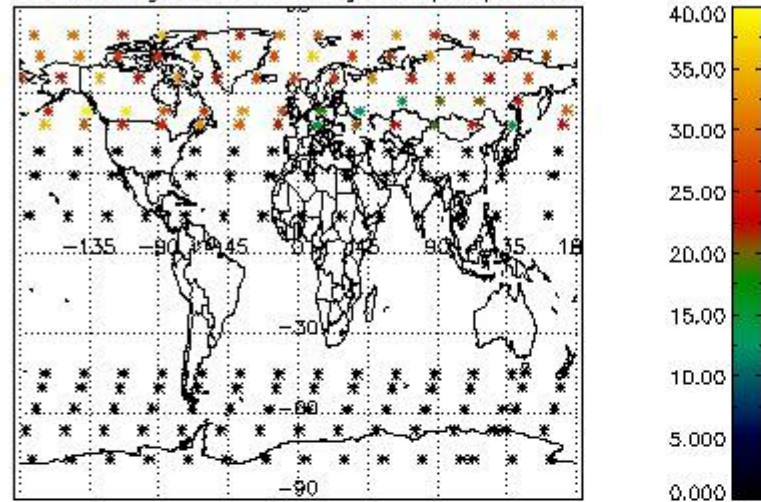
4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



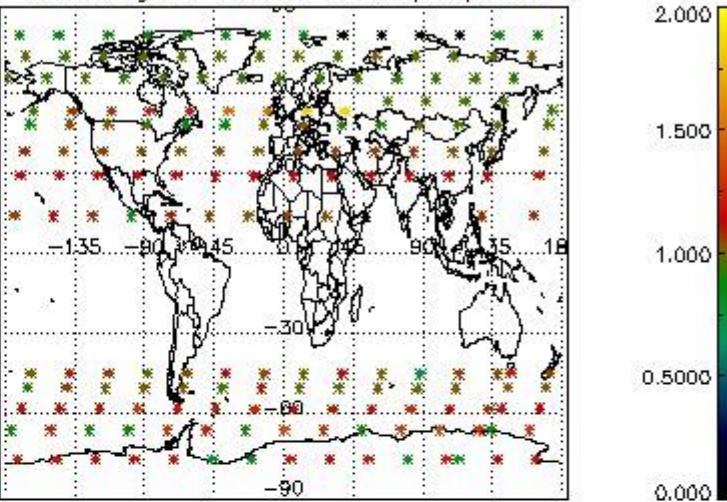
4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



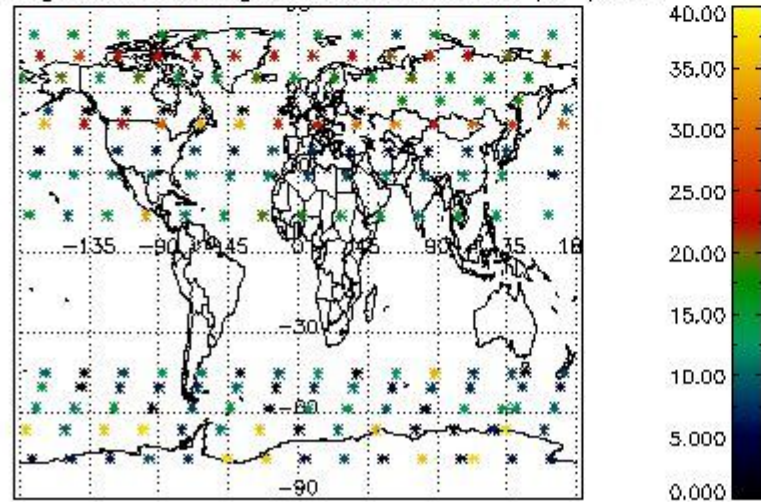
Percentage of cosmic ray hits per profile



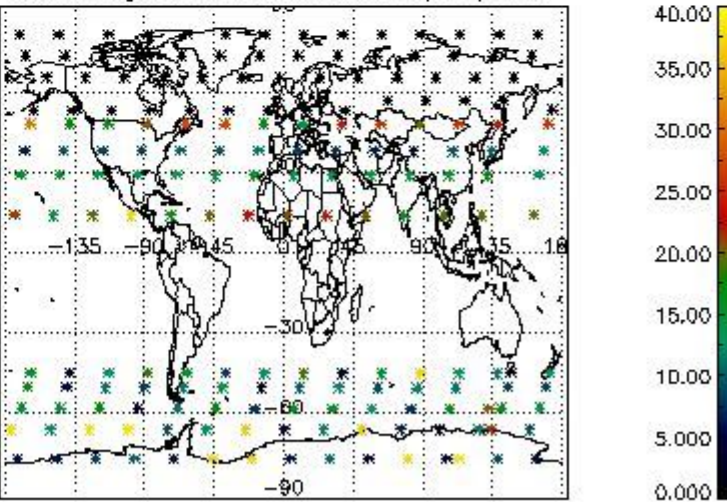
Percentage of datation errors per profile



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

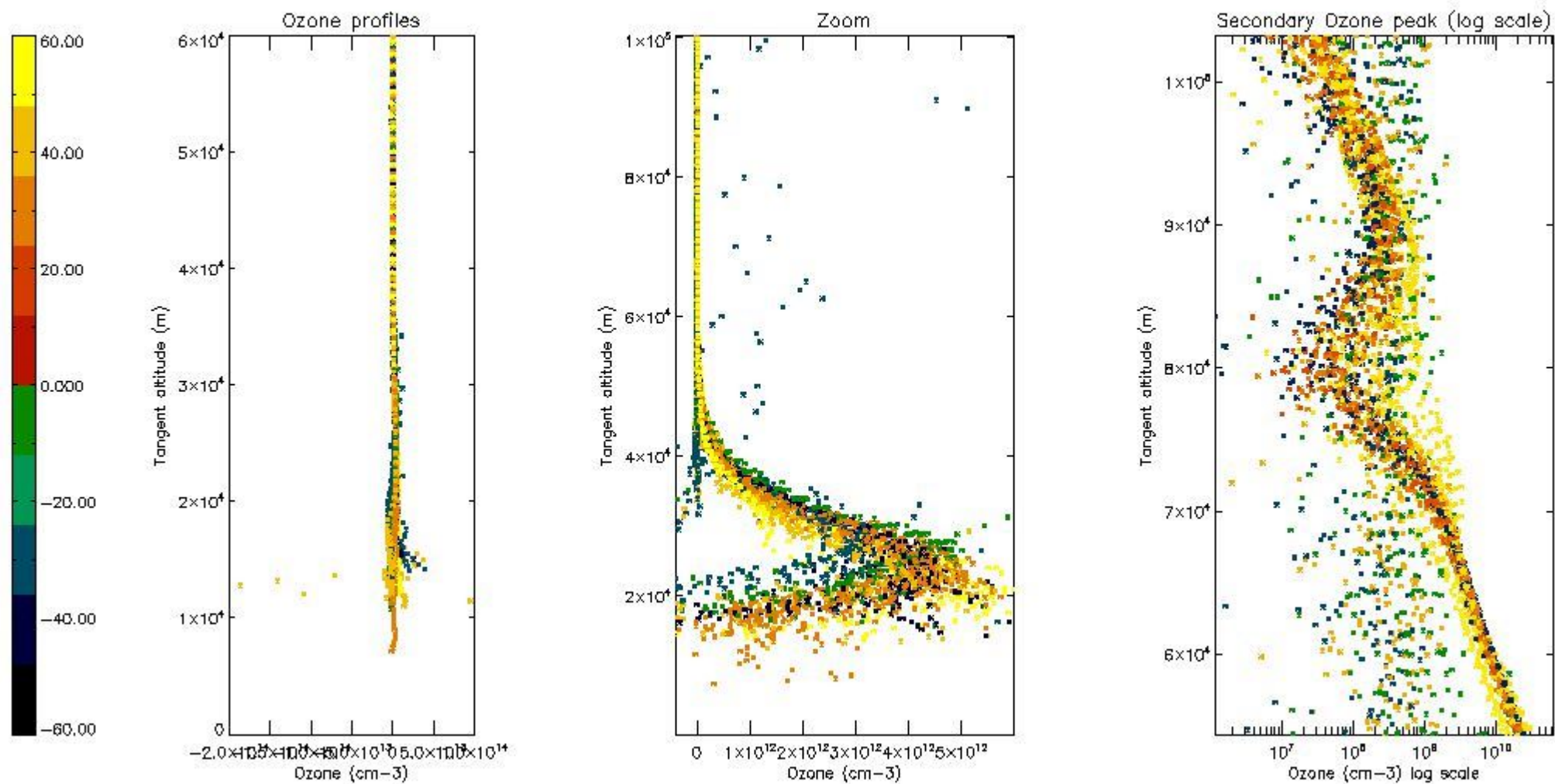
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	15

STD < 10	11
STD < 5	8

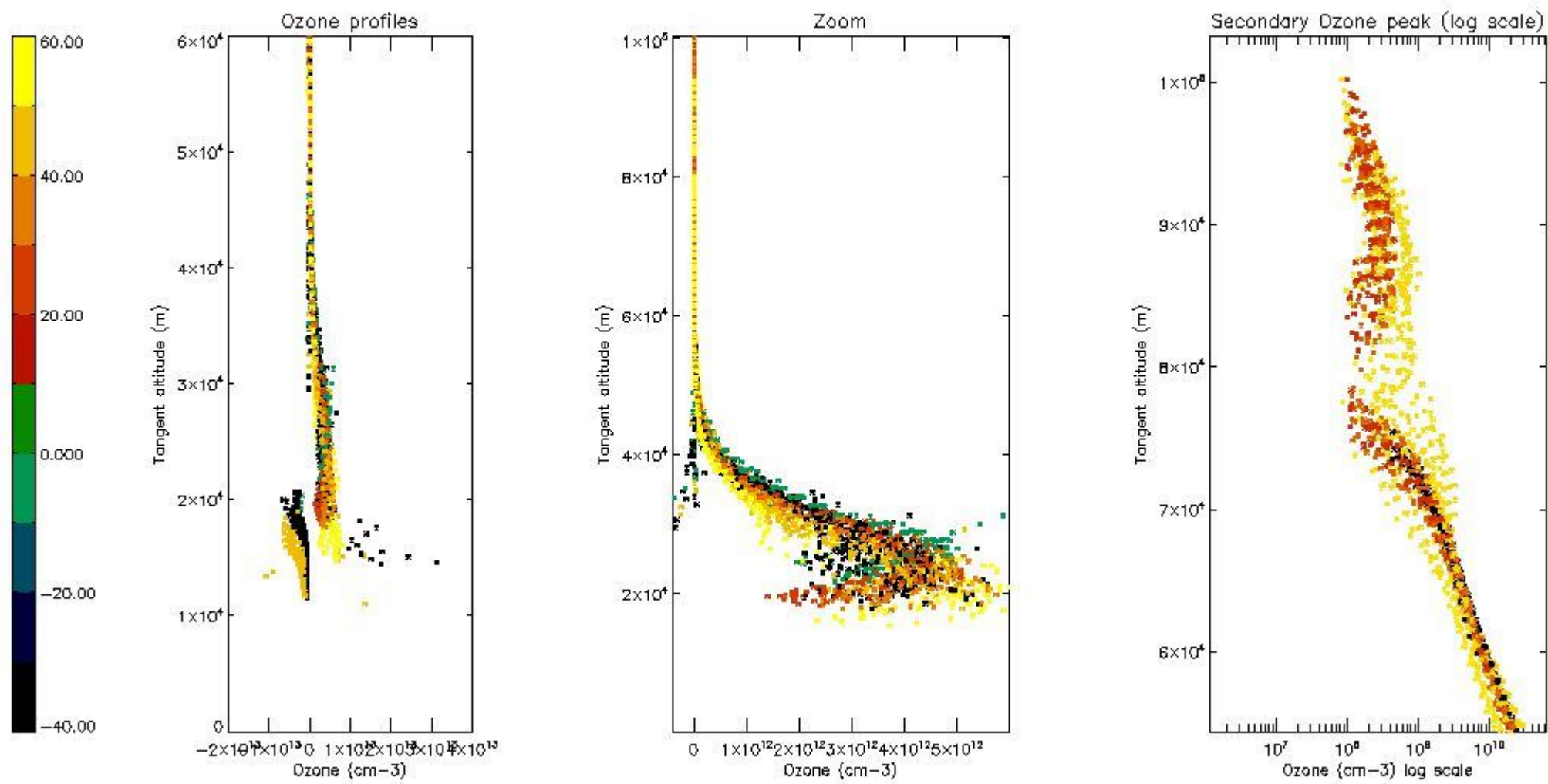
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



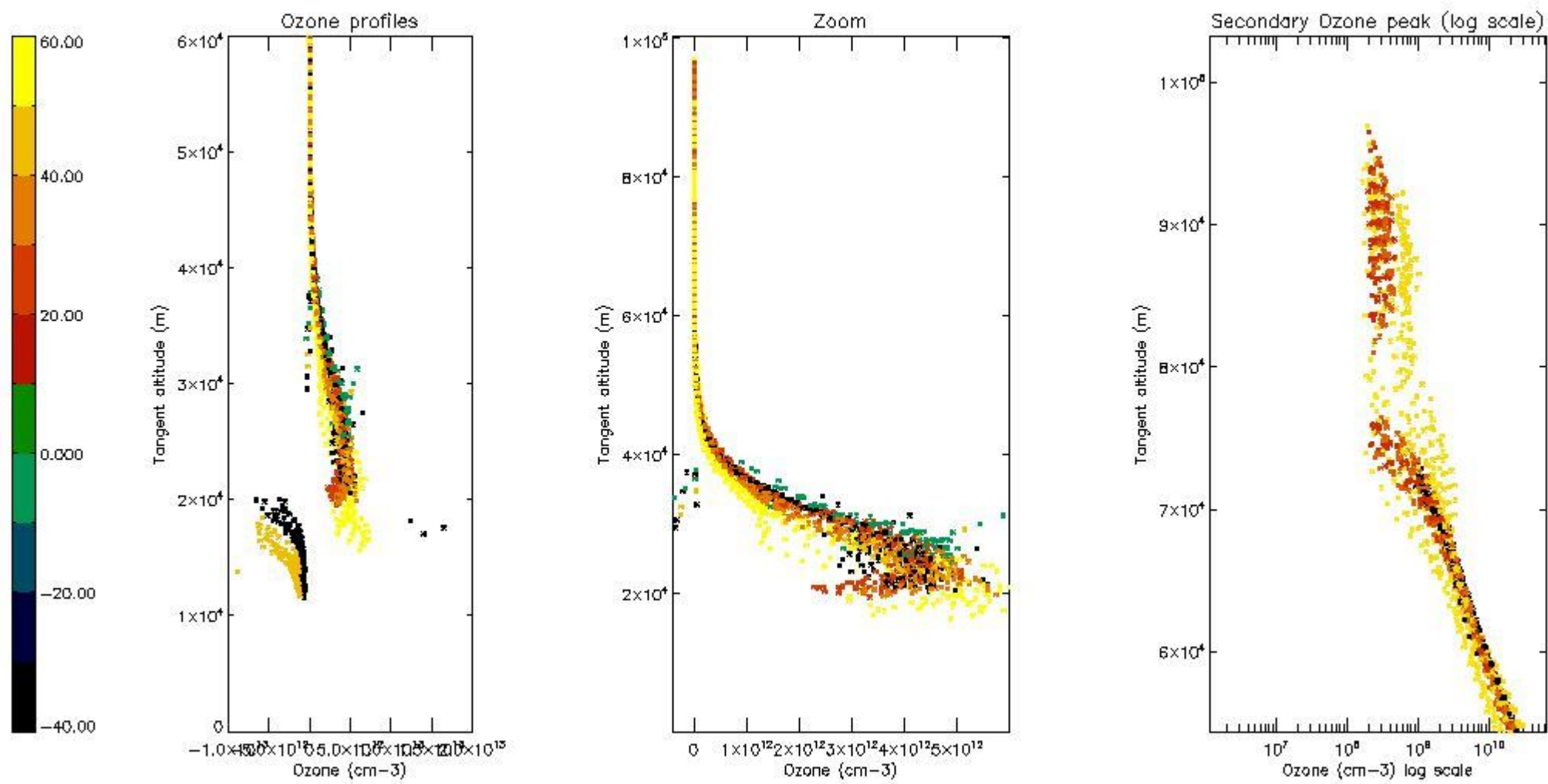
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



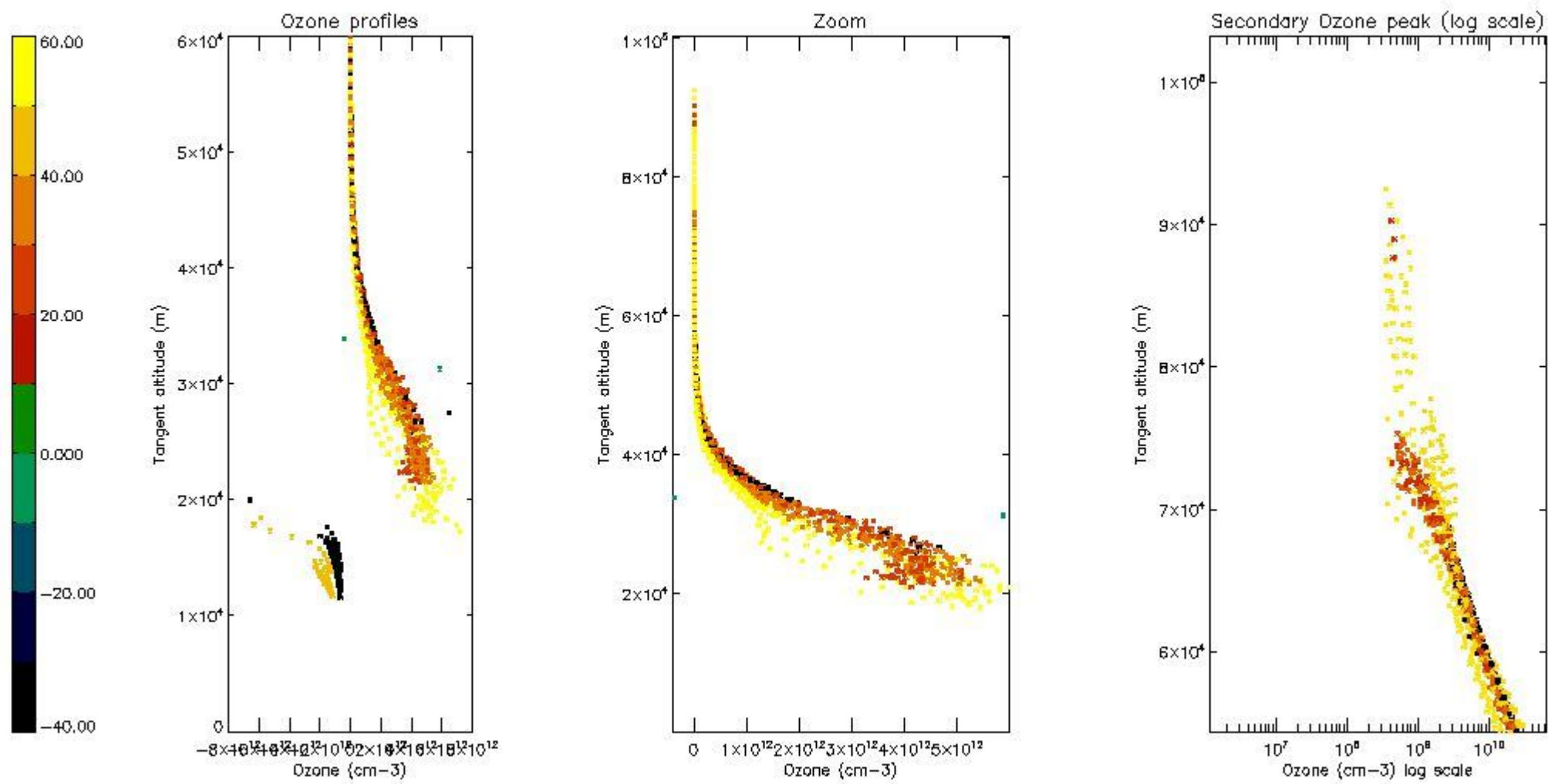
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



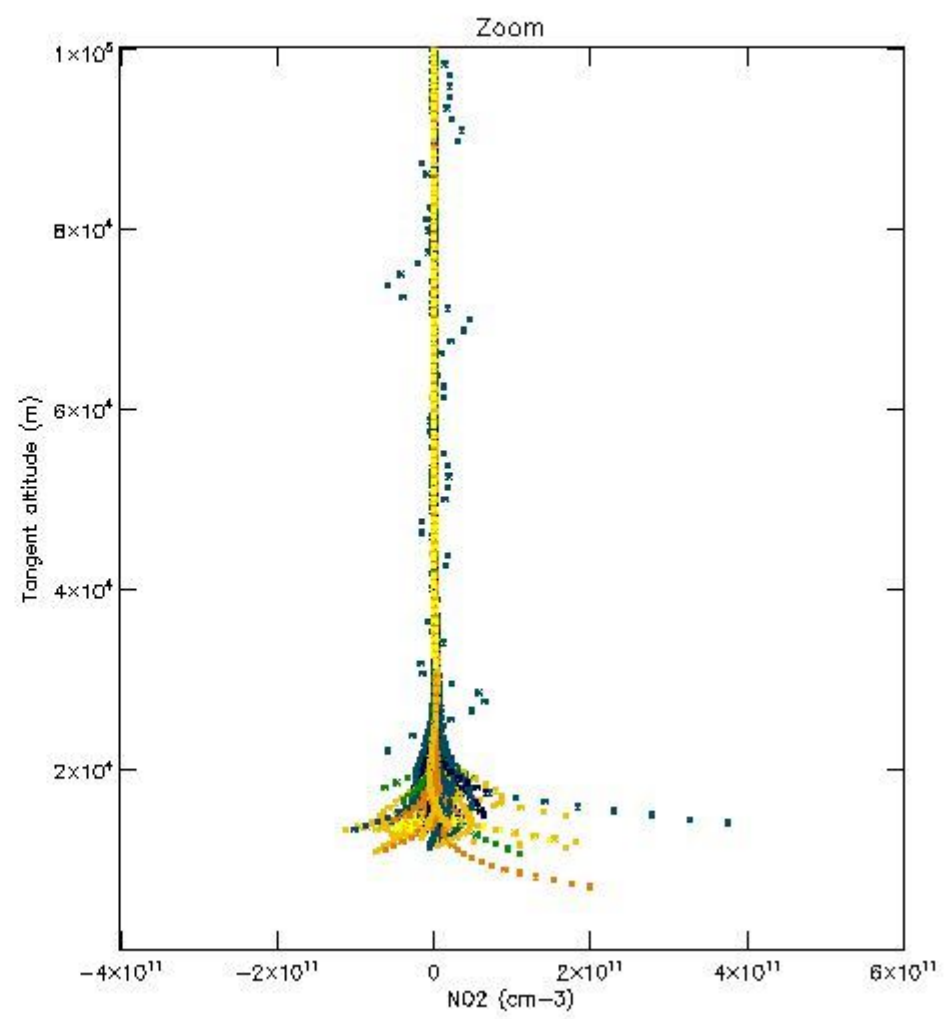
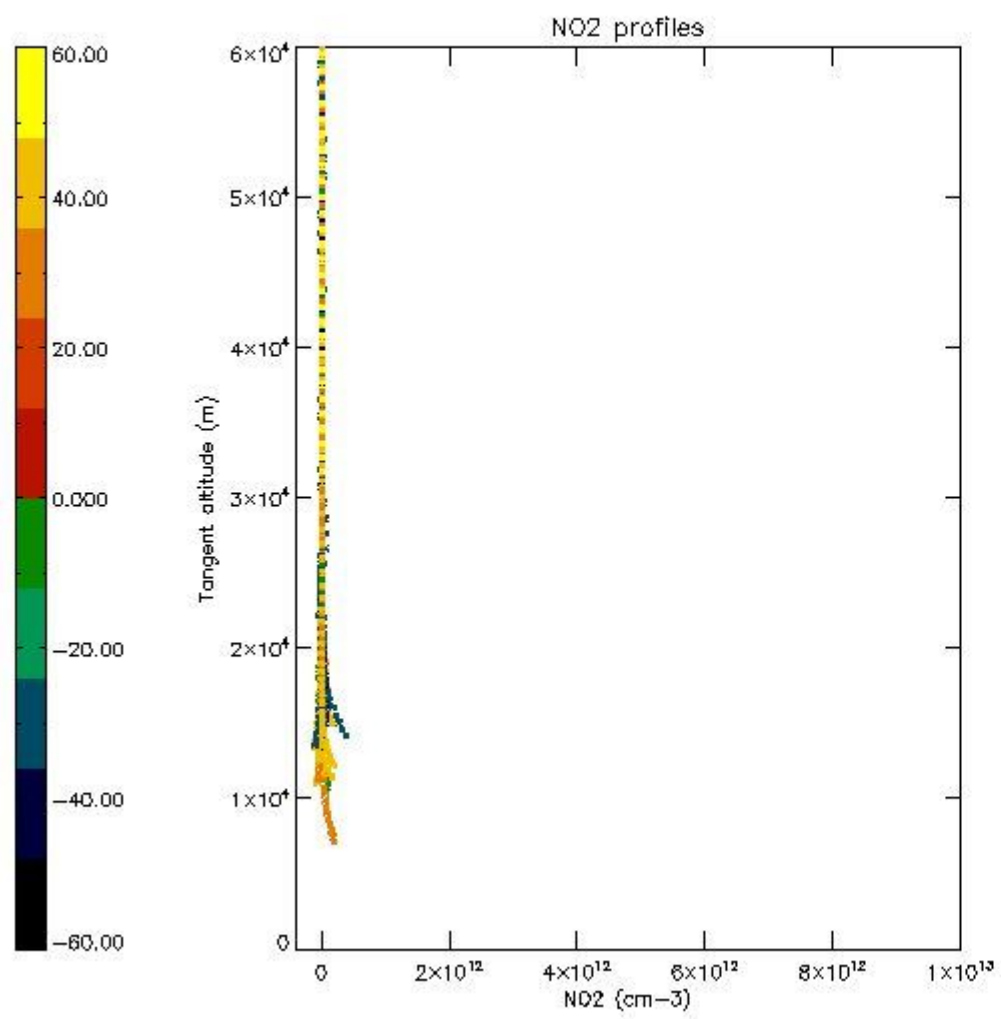
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



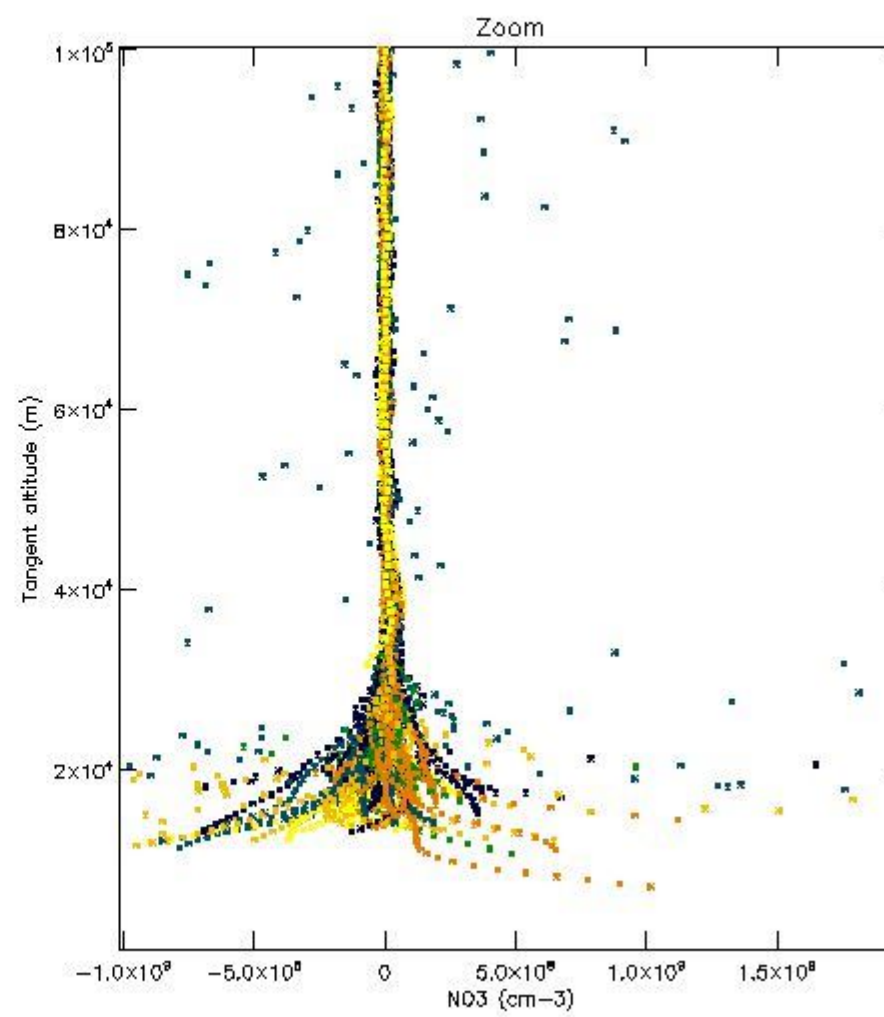
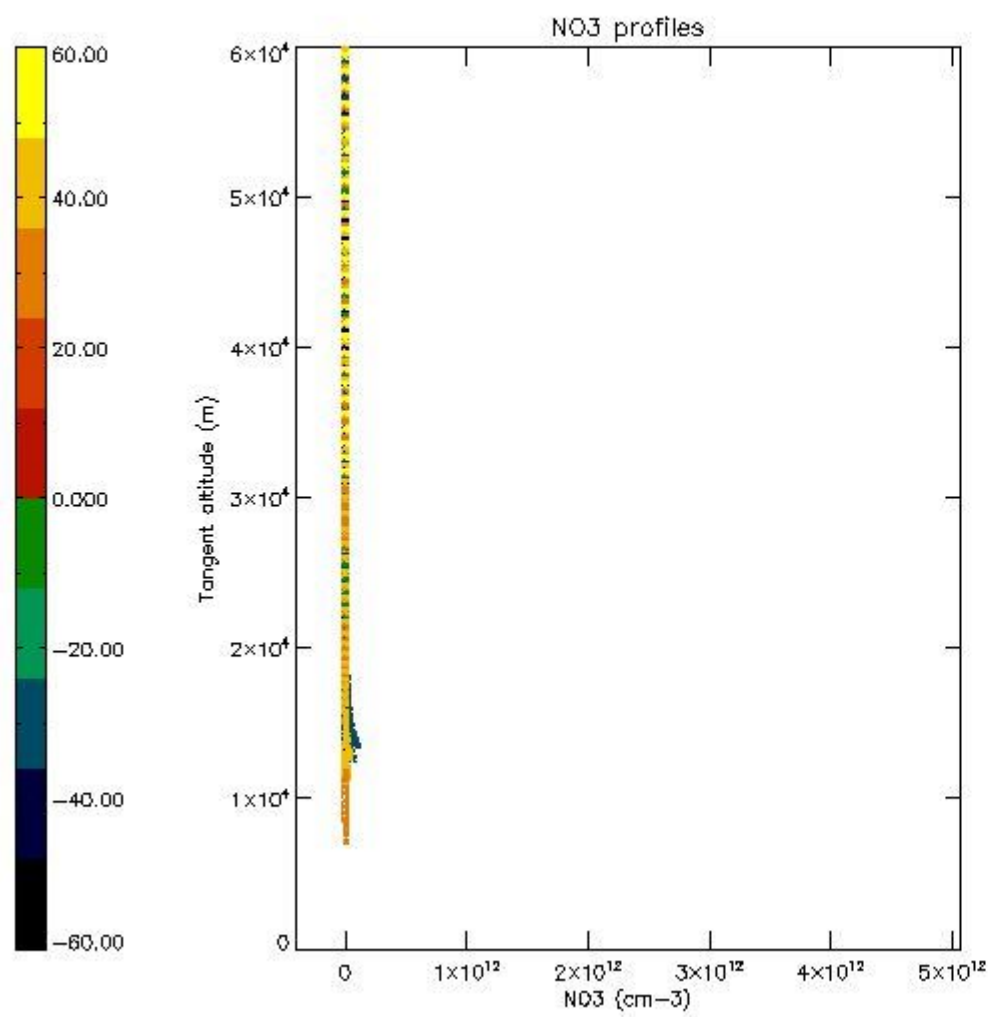
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



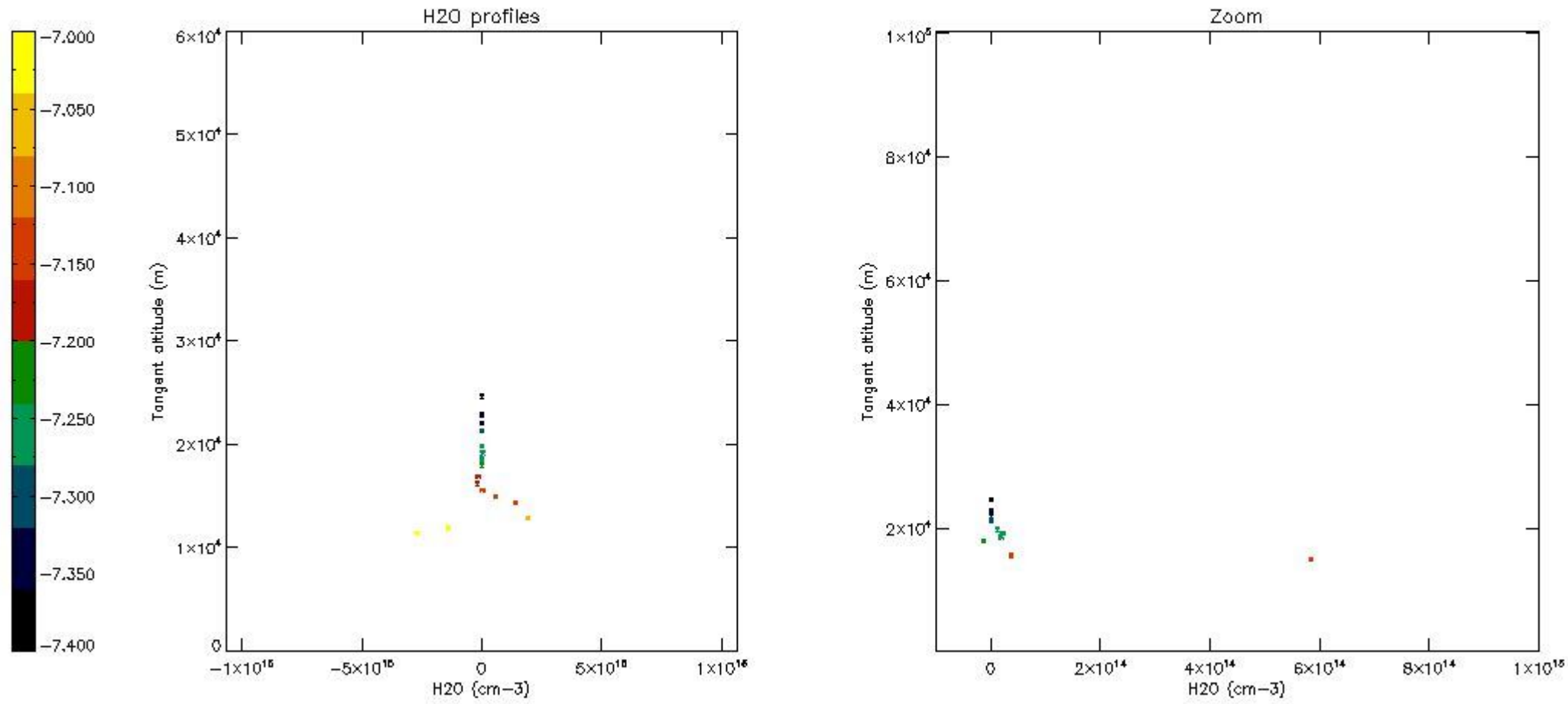
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.

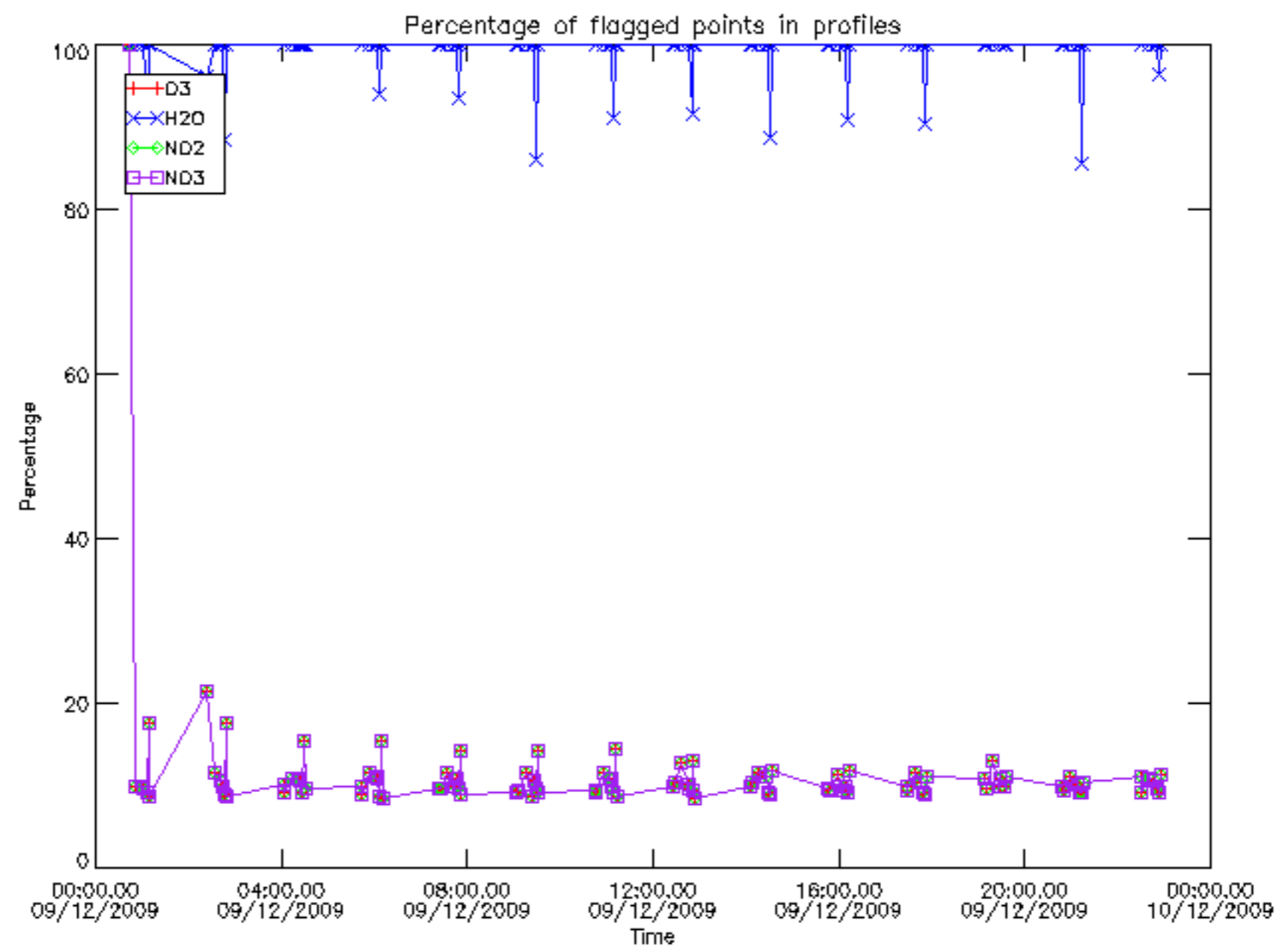


## 6. Auxiliary Data Files used for the production reported in section 2

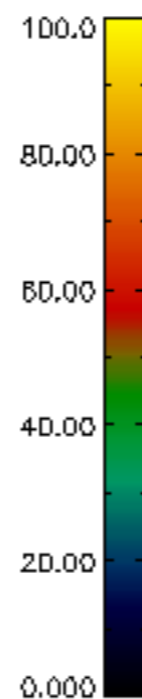
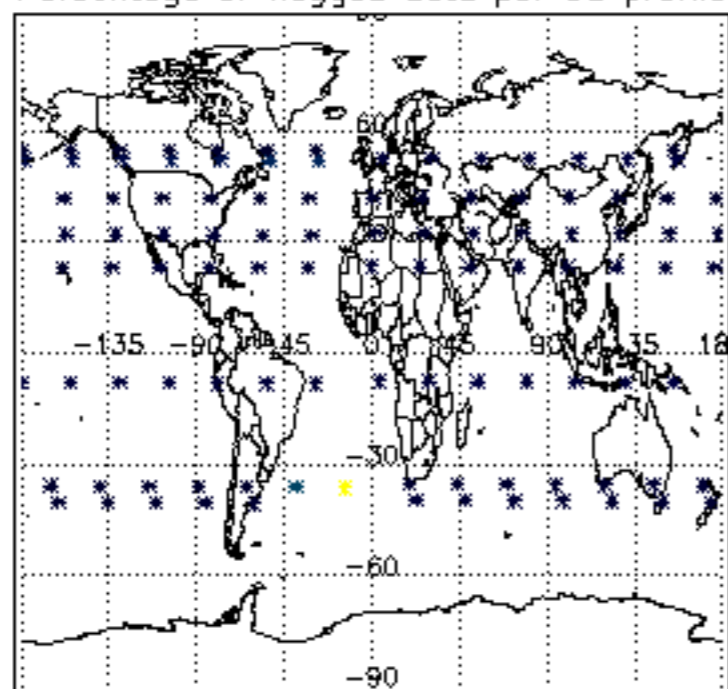
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	09-DEC-2009 00:11:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-DEC-2009 00:11:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-DEC-2009 00:11:17

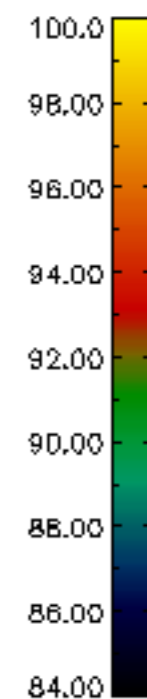
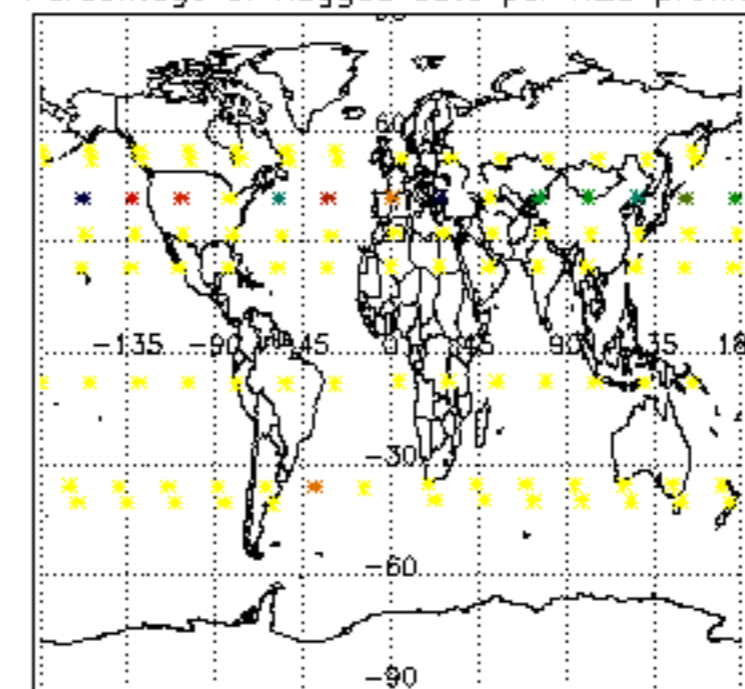




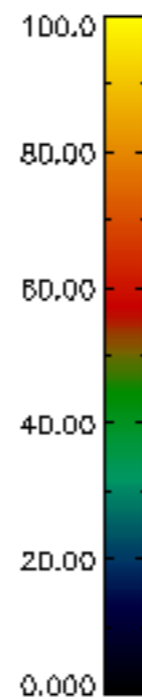
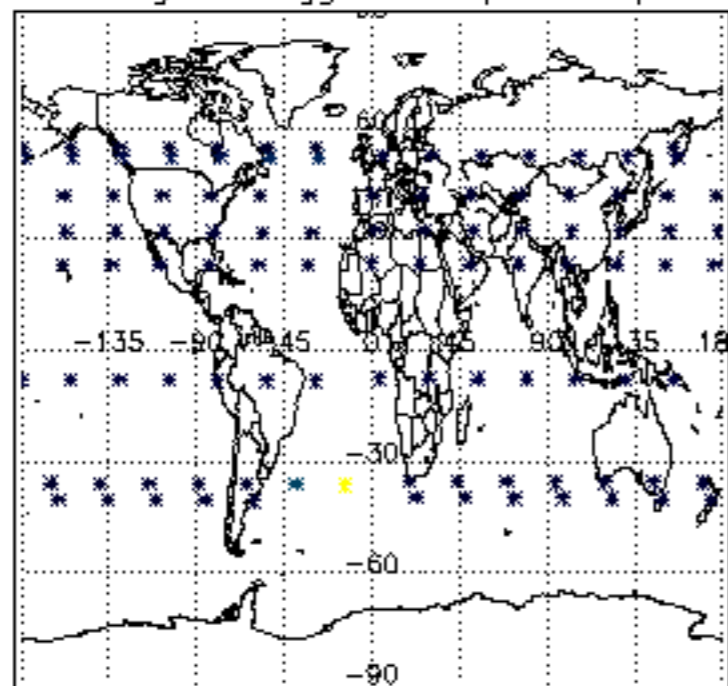
Percentage of flagged data per D3 profile



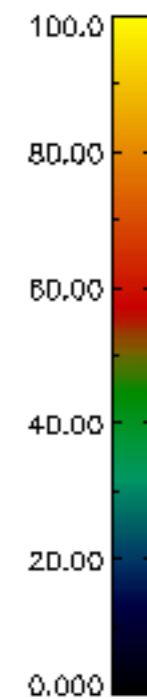
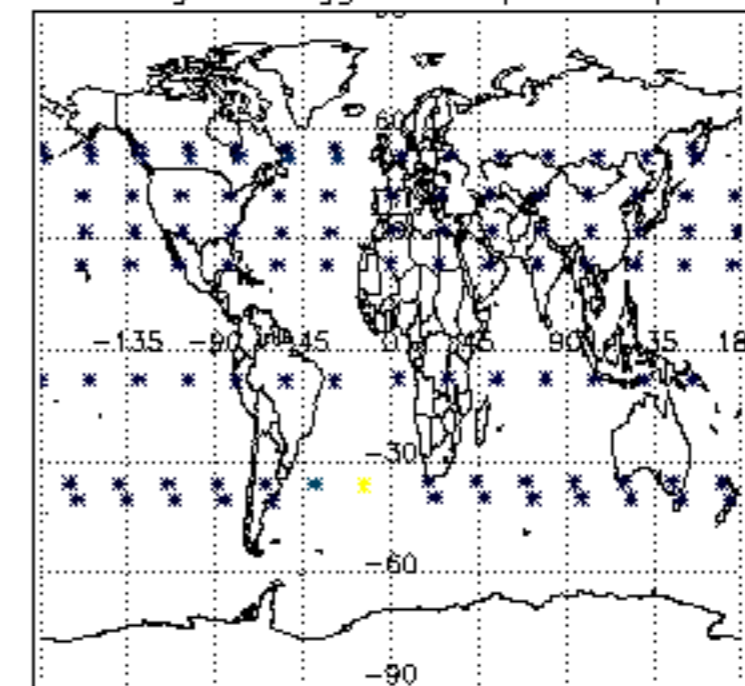
Percentage of flagged data per H2O profile

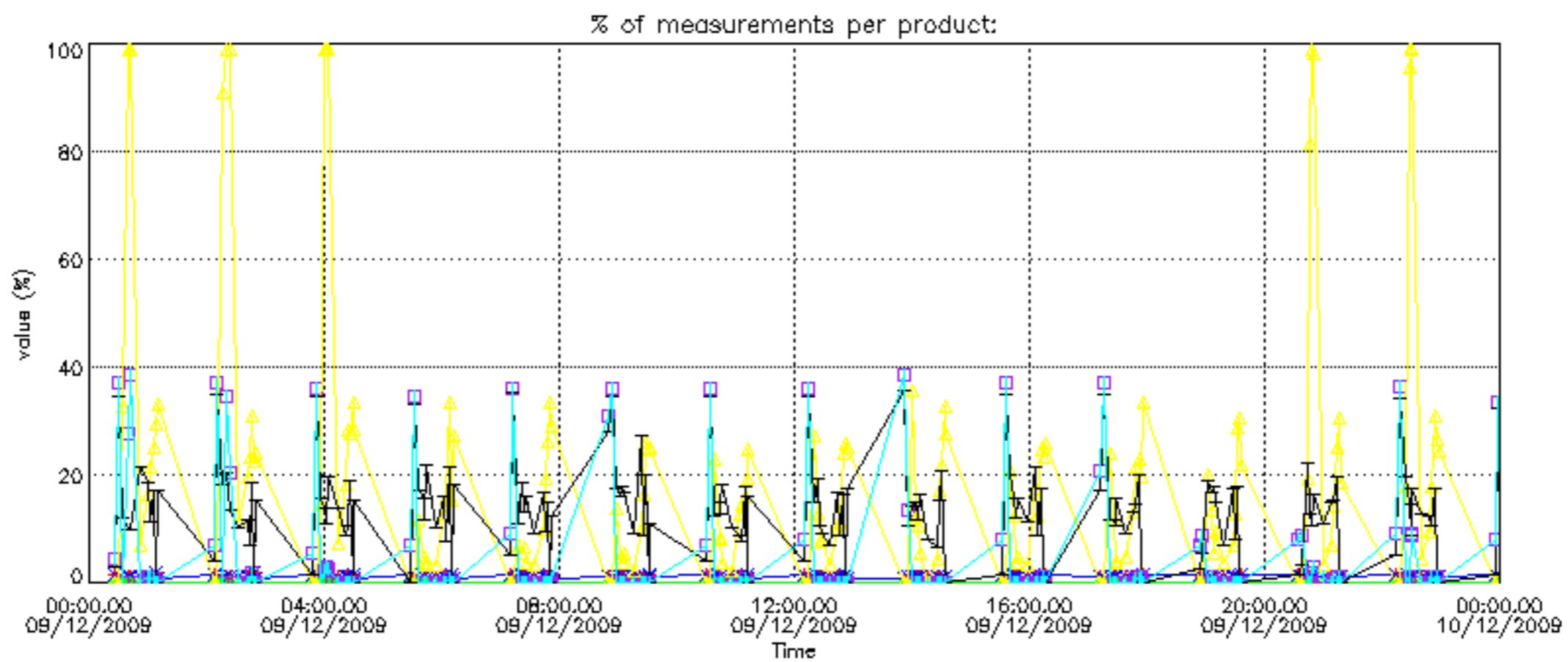
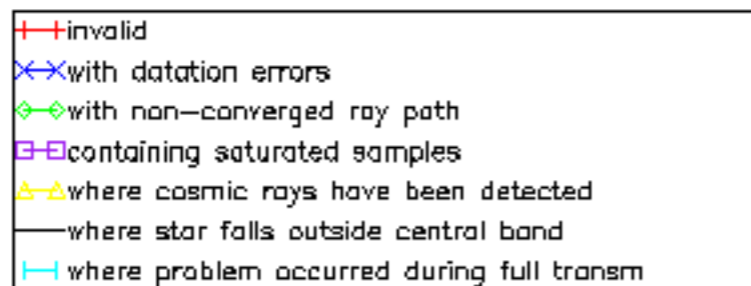


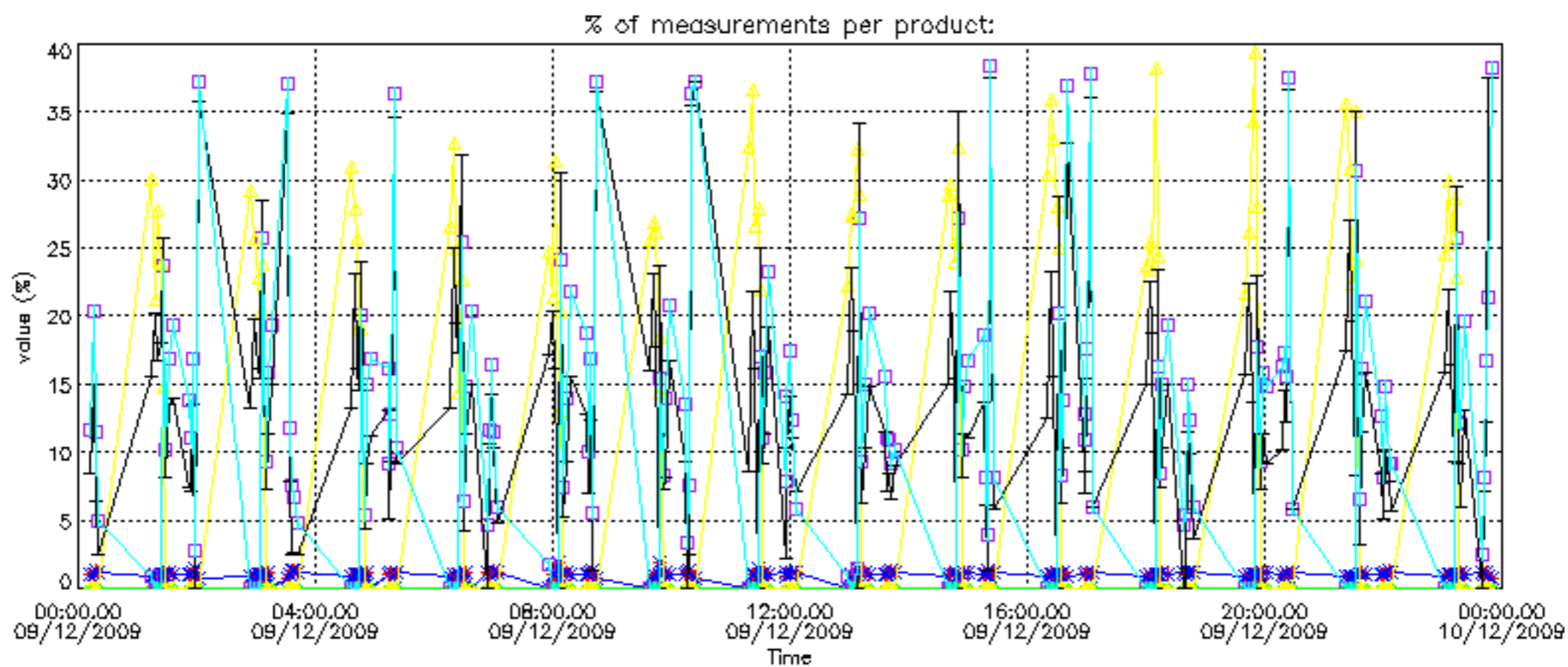
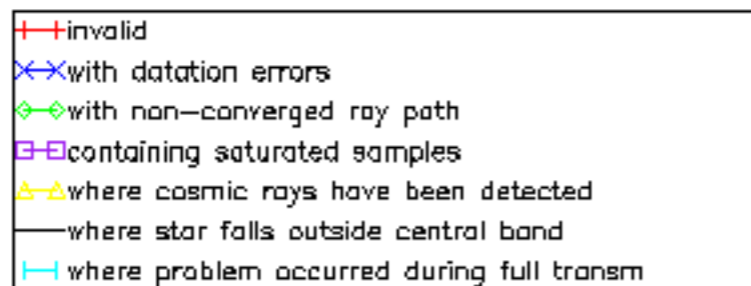
Percentage of flagged data per NO2 profile



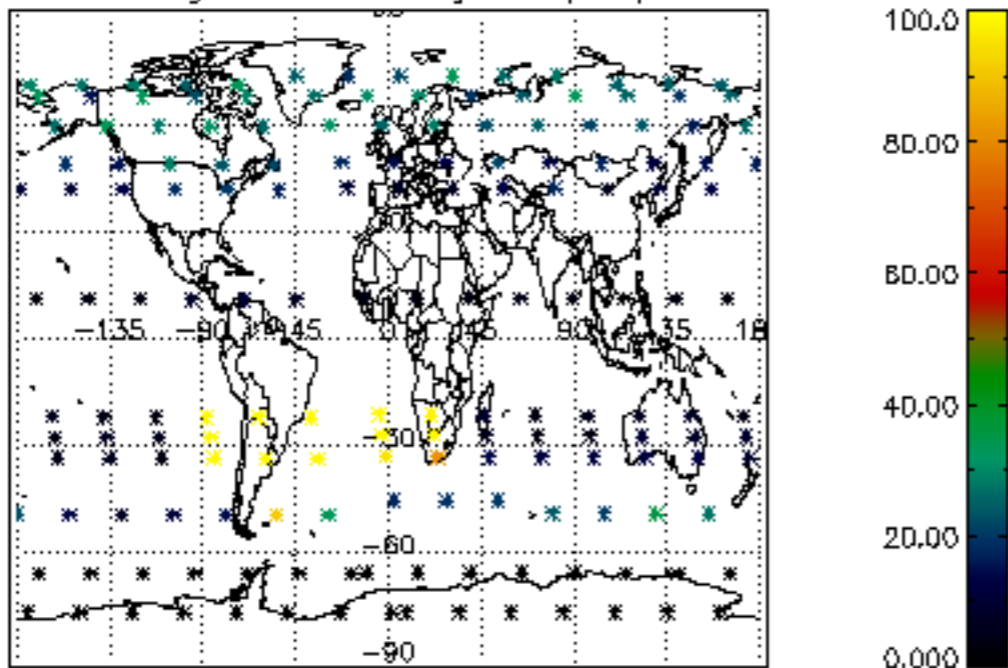
Percentage of flagged data per NO3 profile



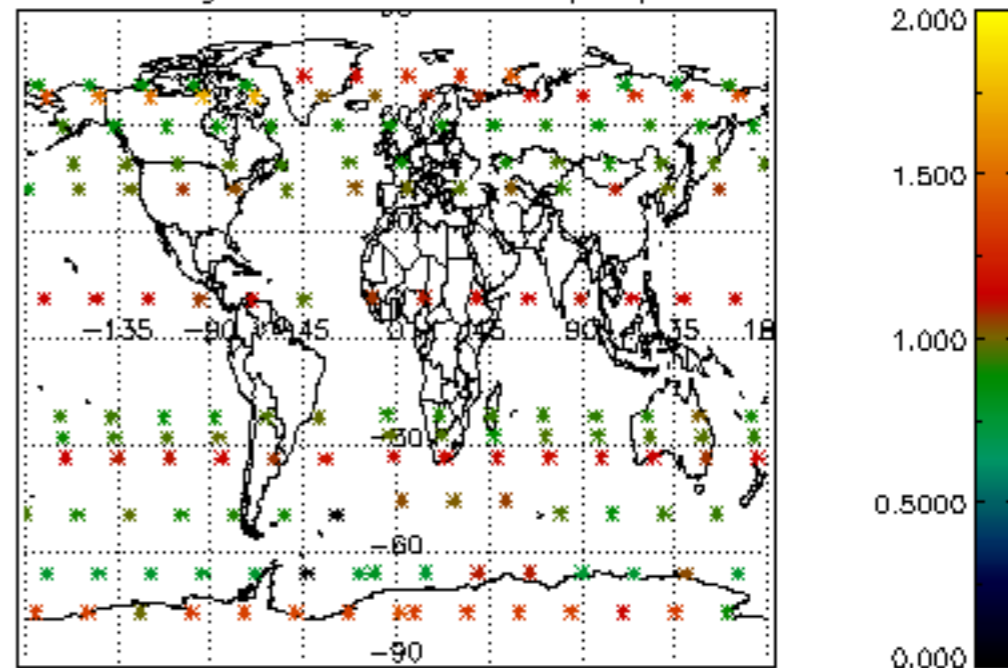




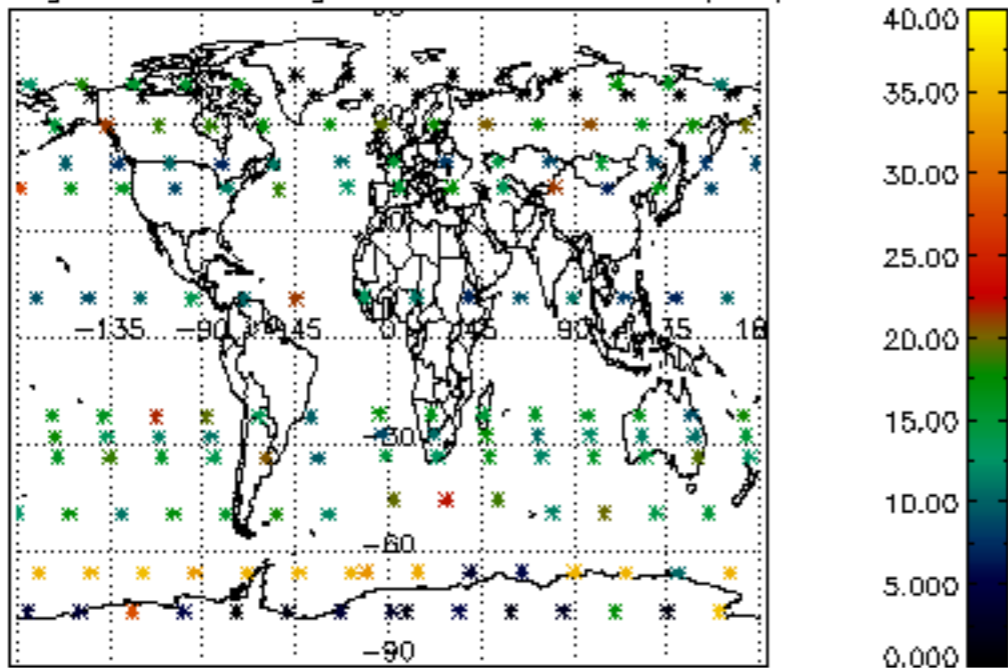
Percentage of cosmic ray hits per profile



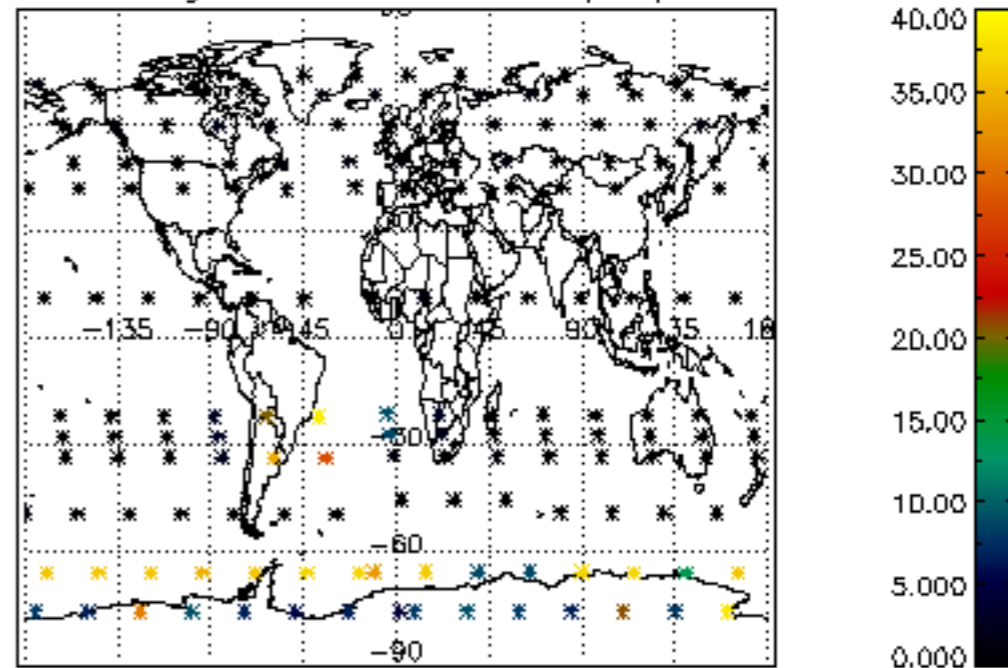
Percentage of datation errors per profile



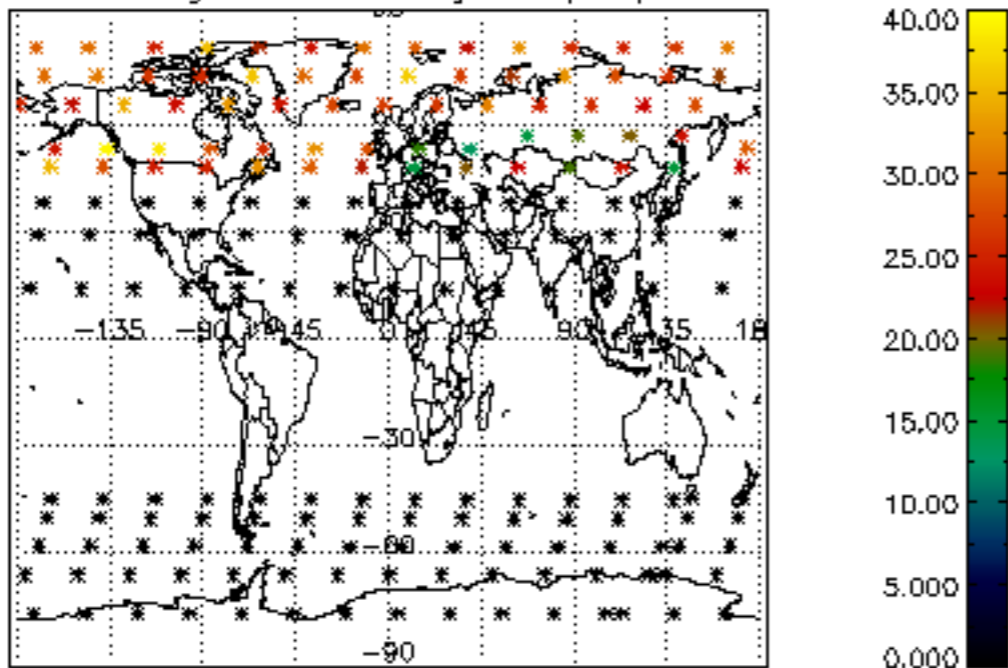
Percentage of star falling outside central band per profile



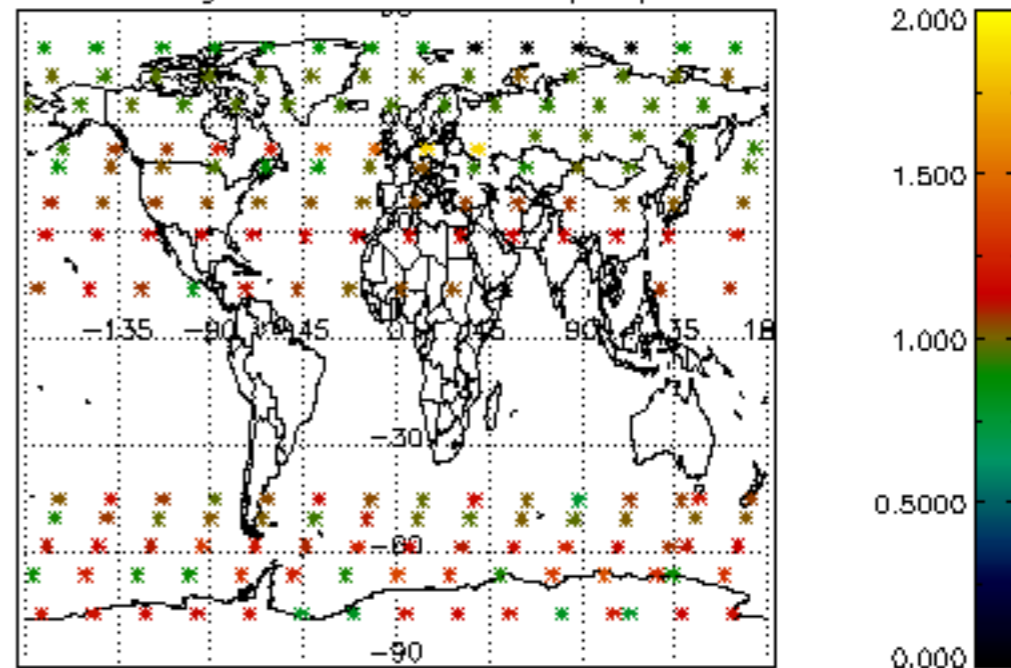
Percentage of saturation errors per profile



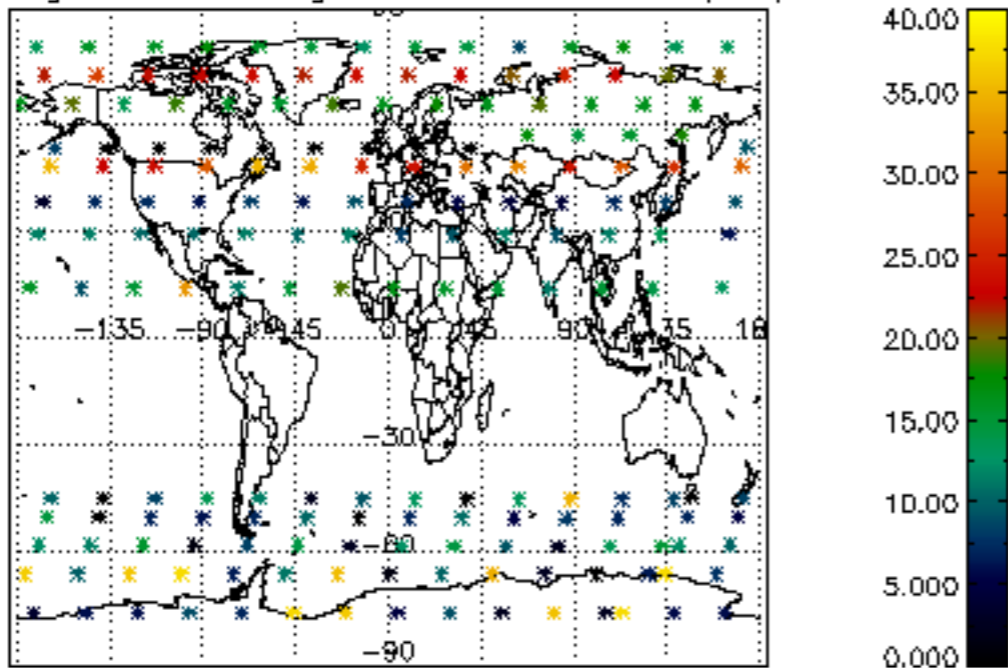
Percentage of cosmic ray hits per profile



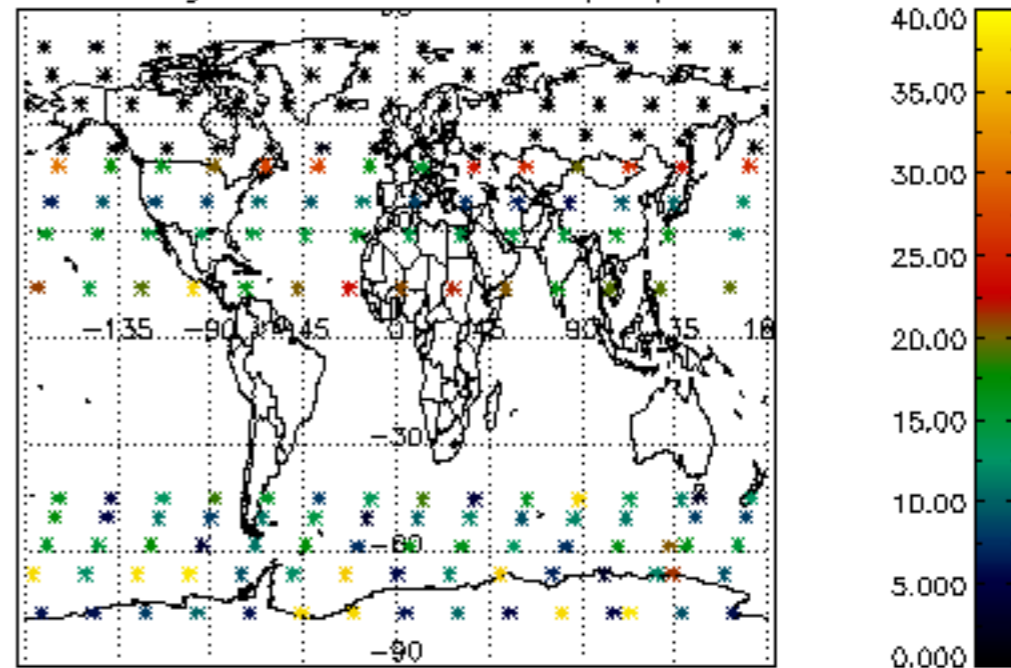
Percentage of datation errors per profile

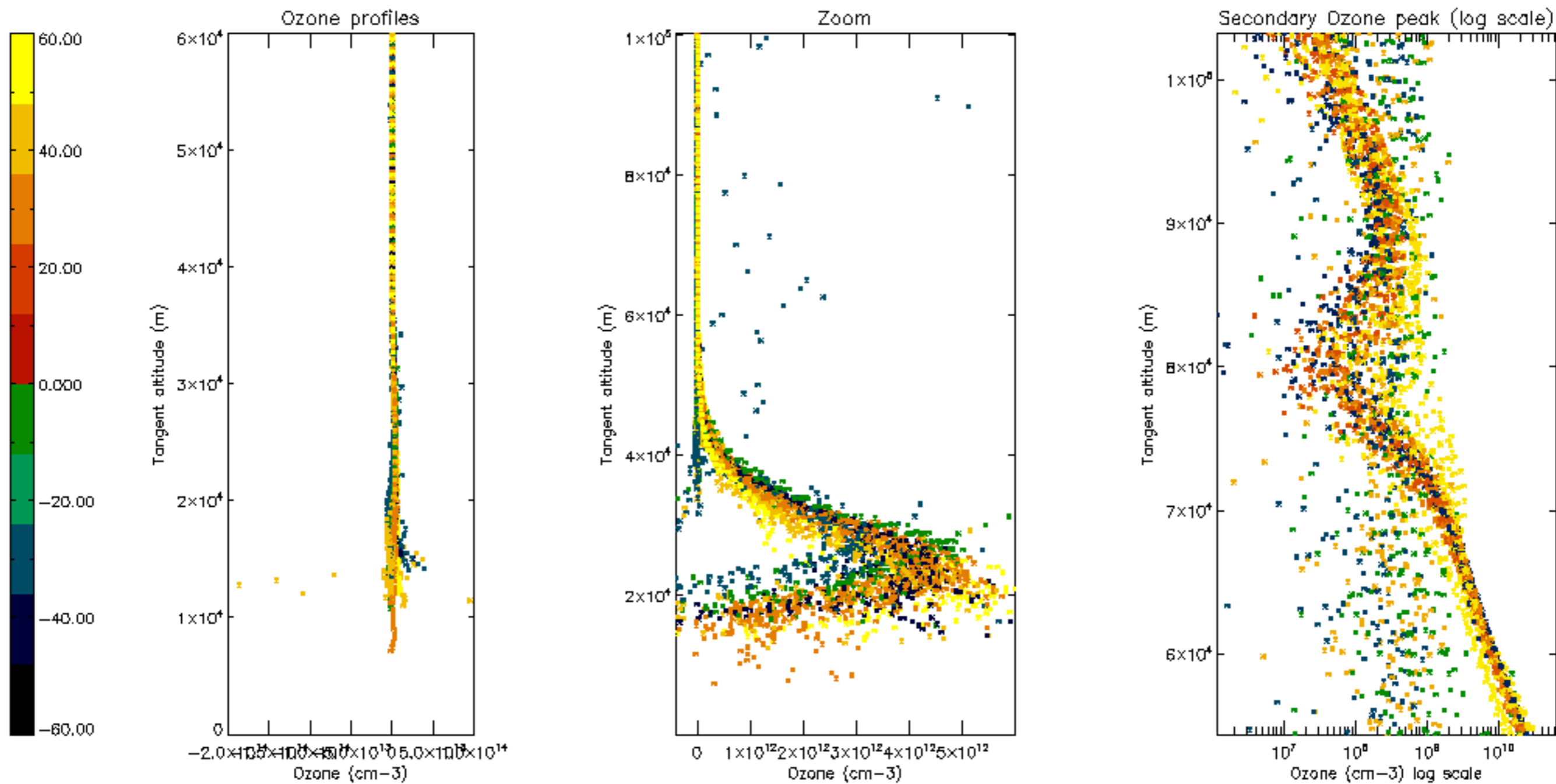


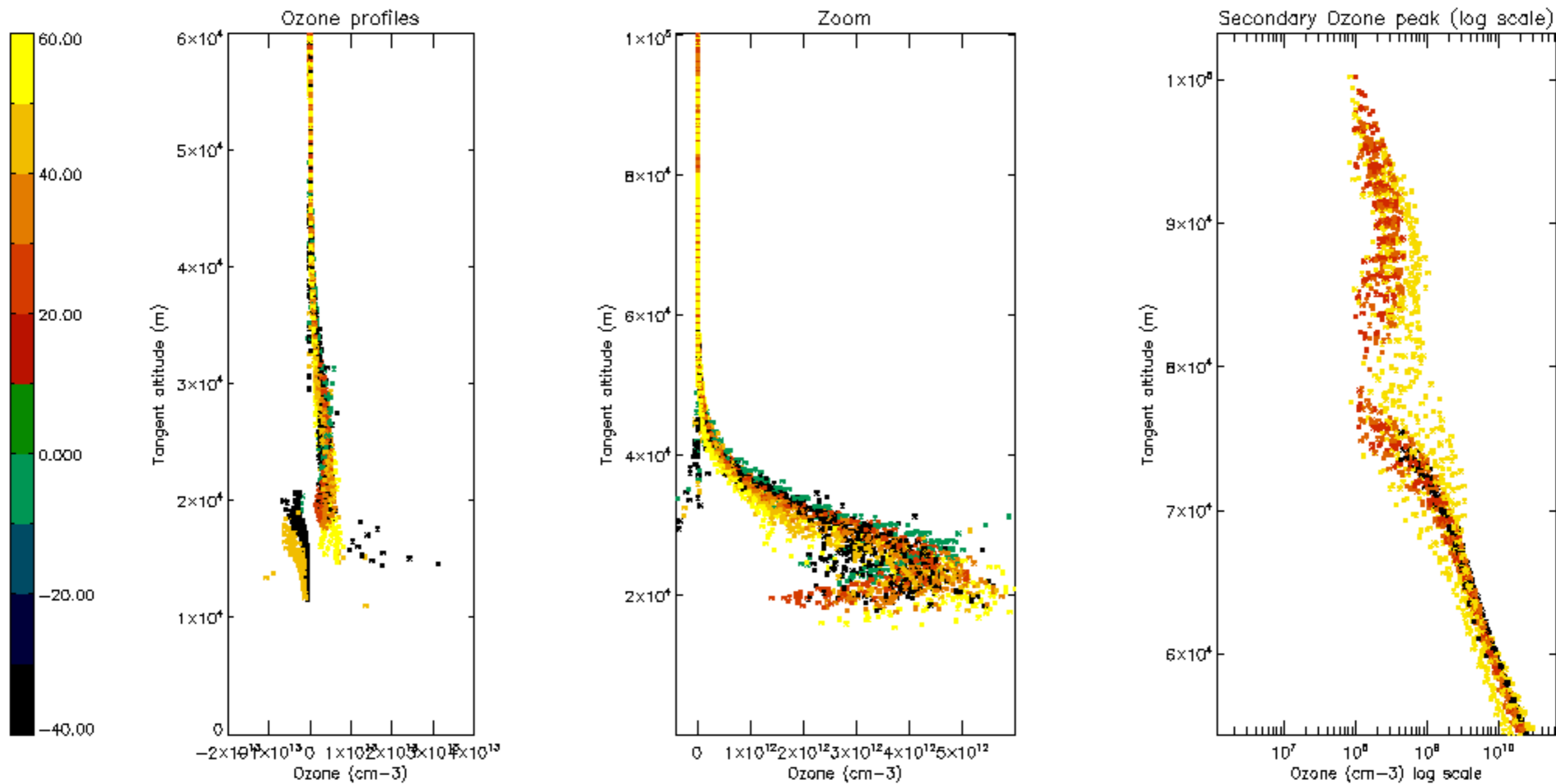
Percentage of star falling outside central band per profile



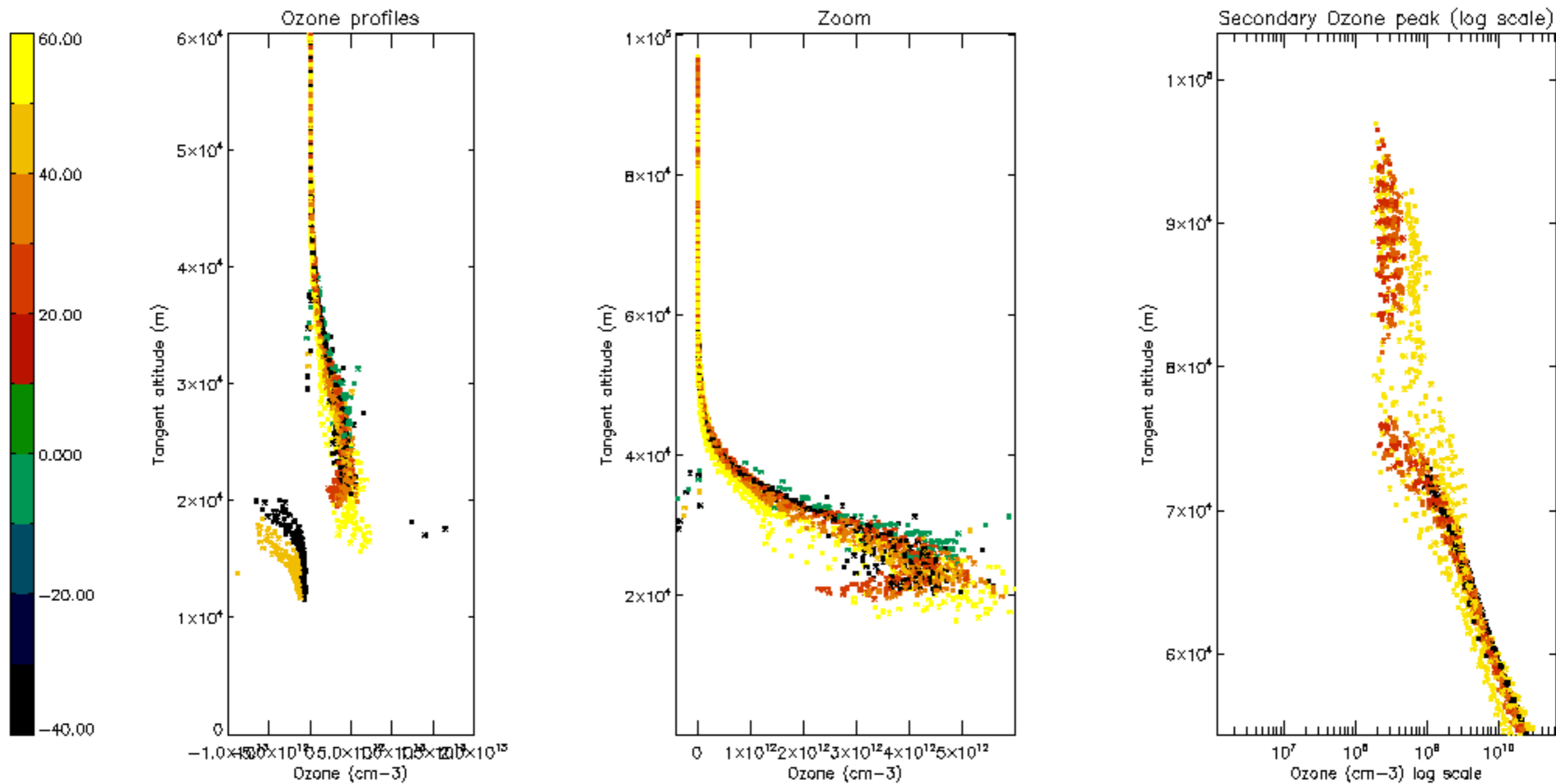
Percentage of saturation errors per profile

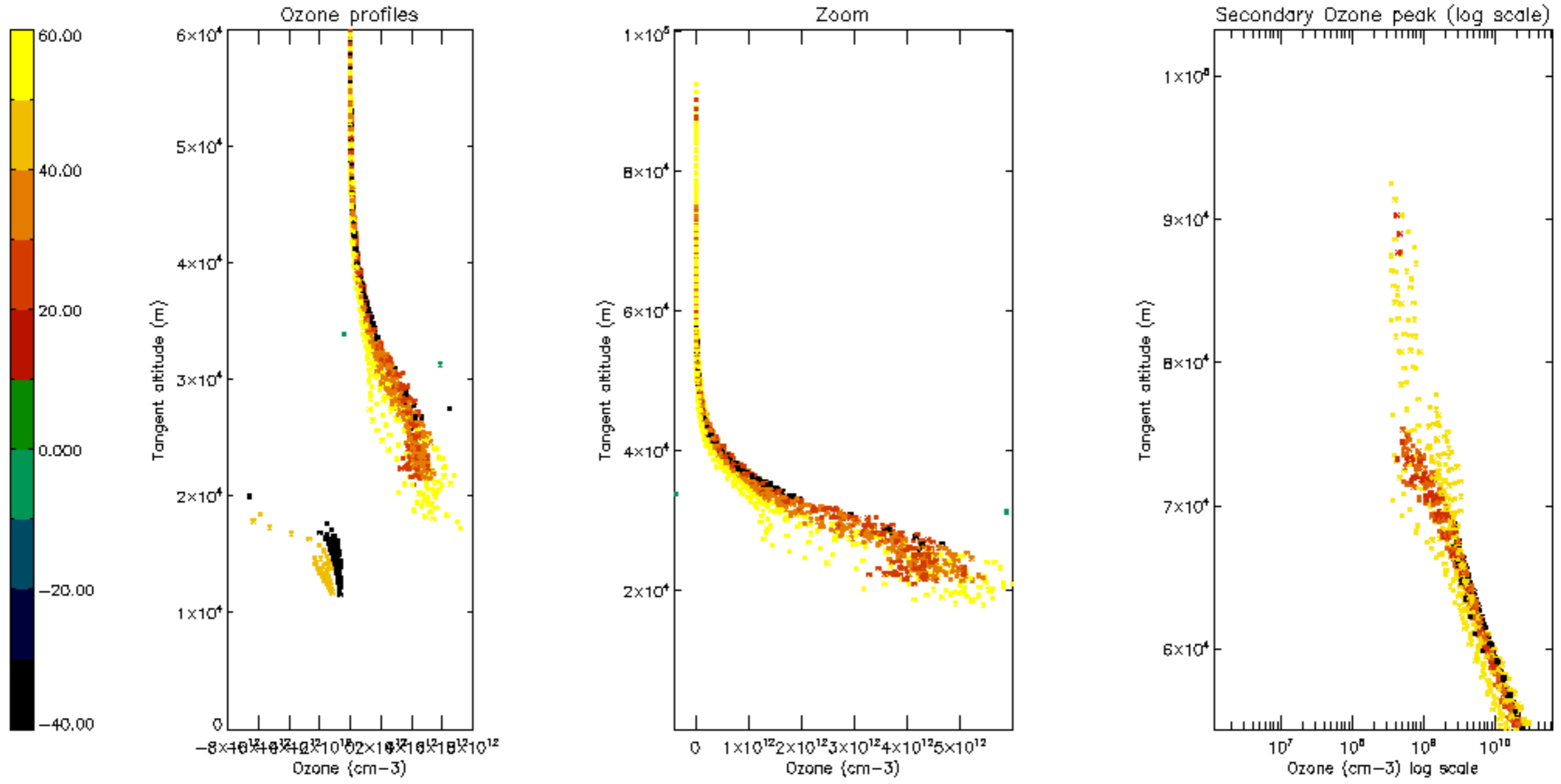


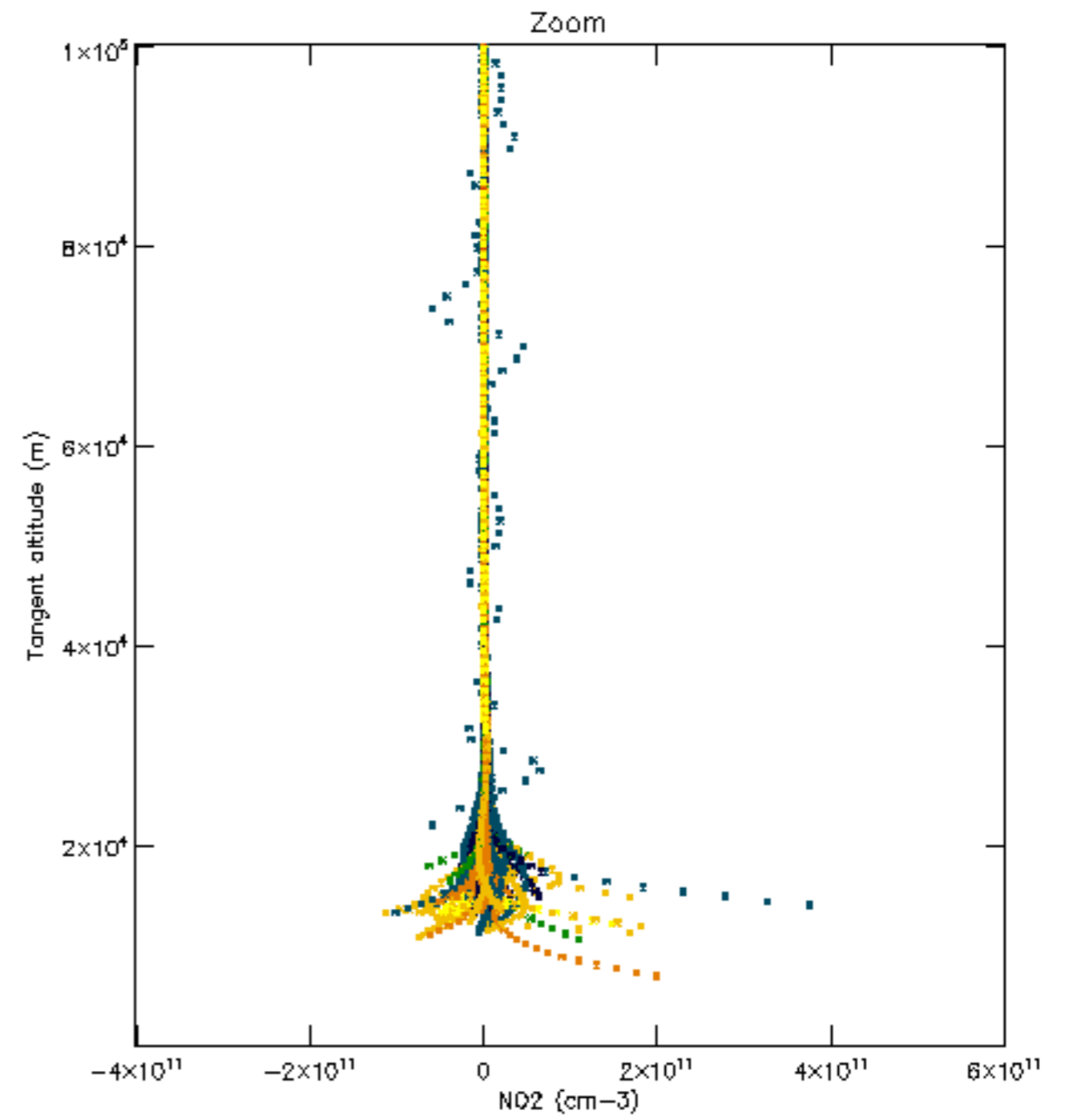
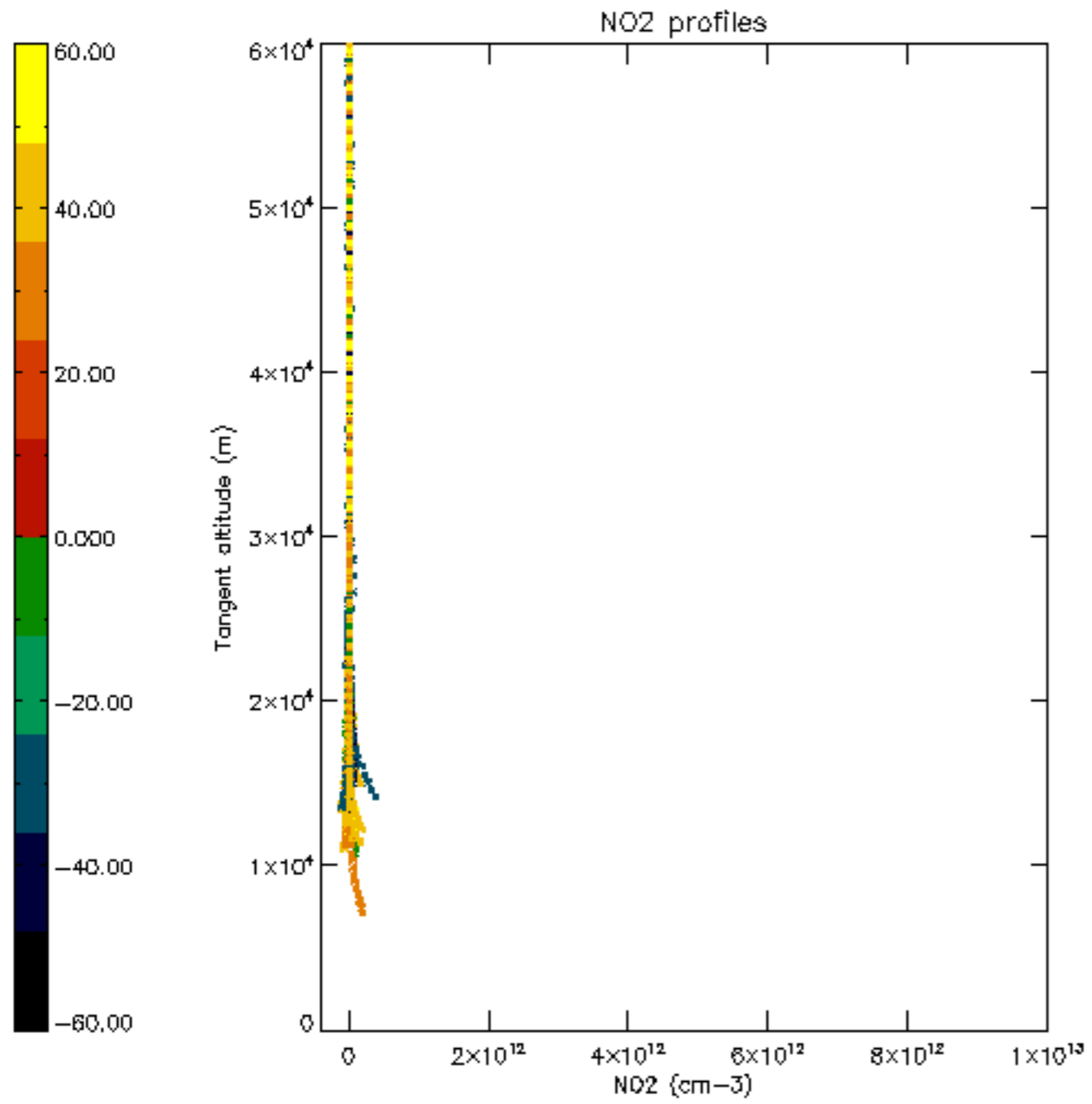


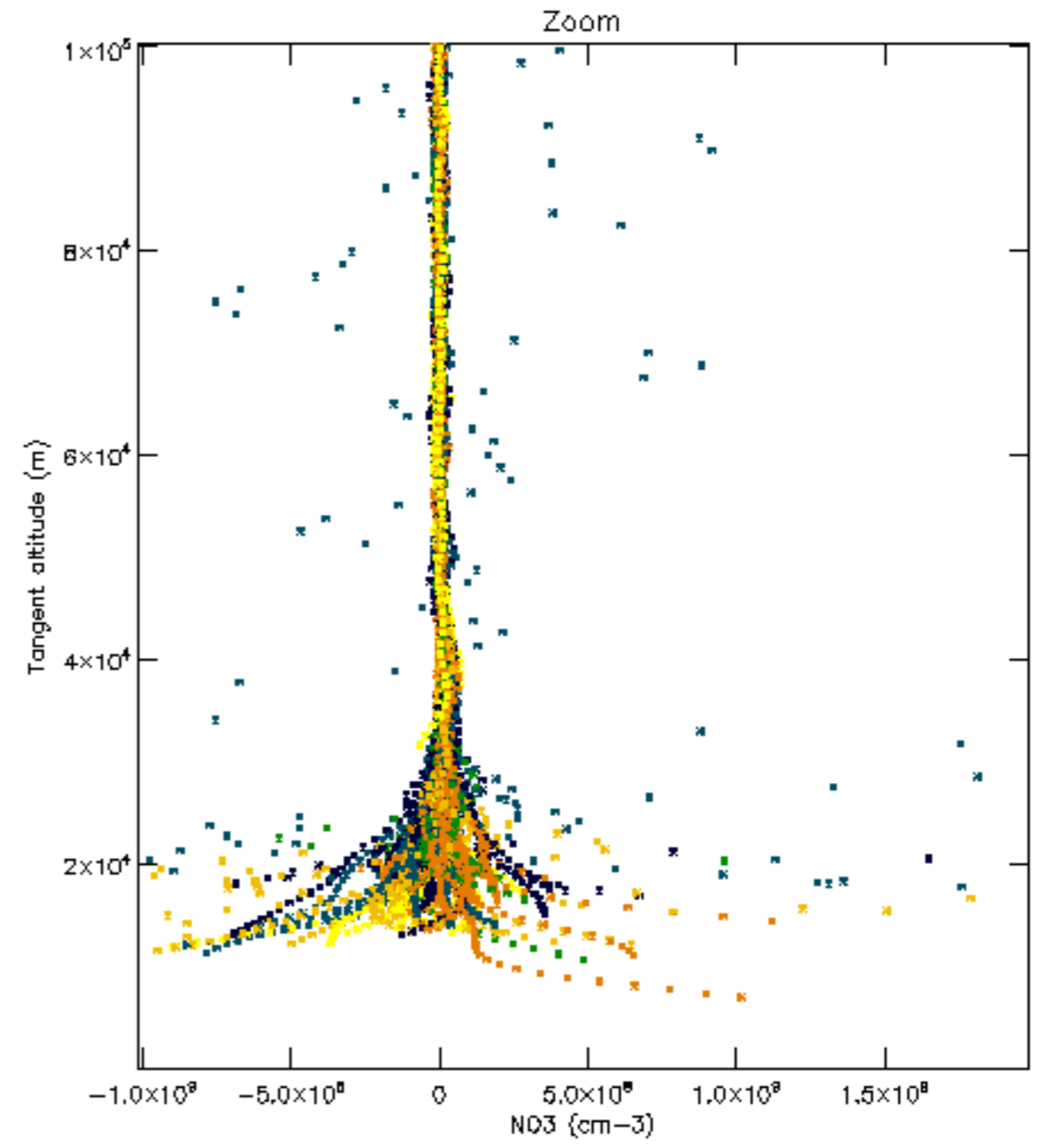
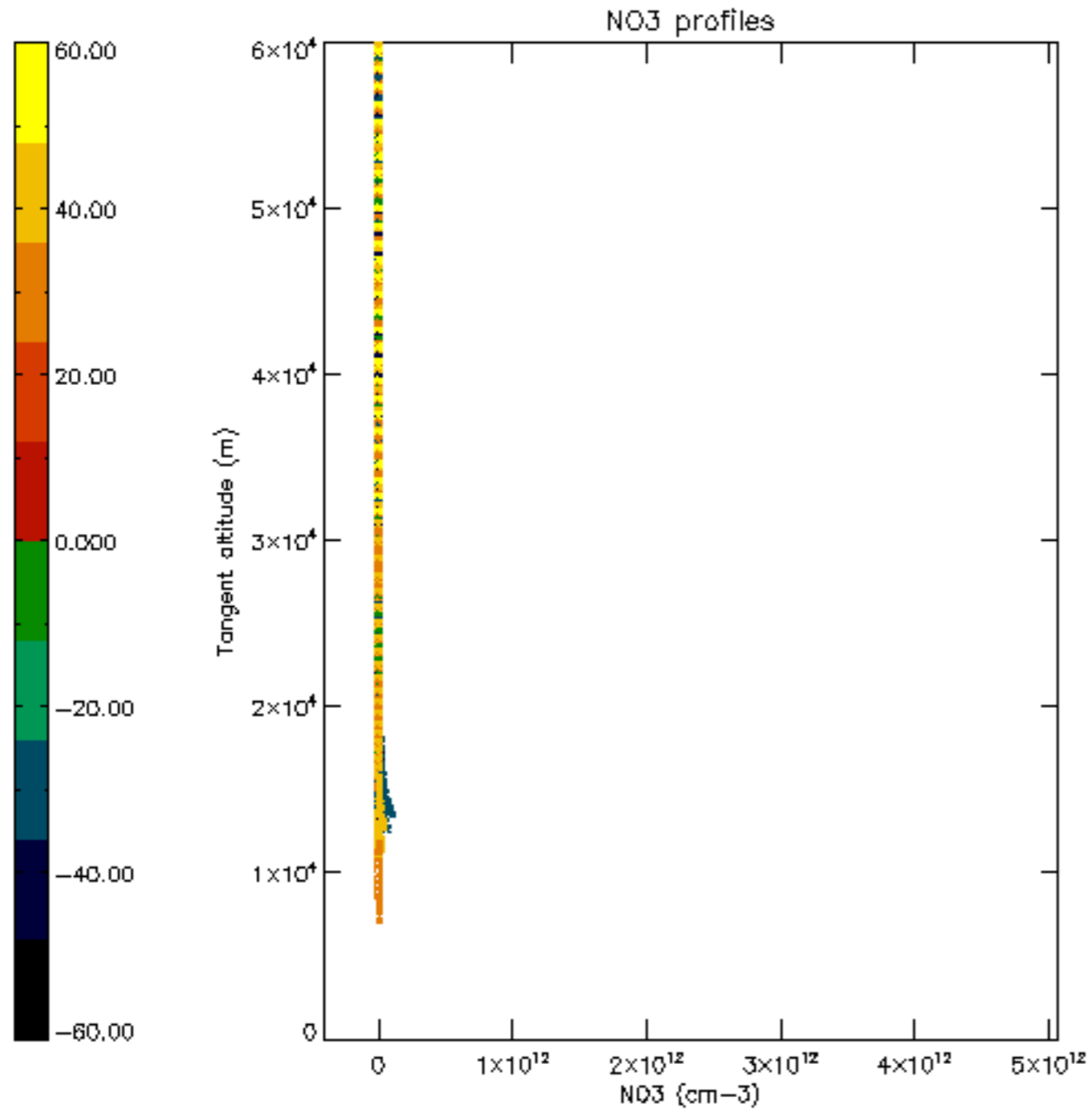


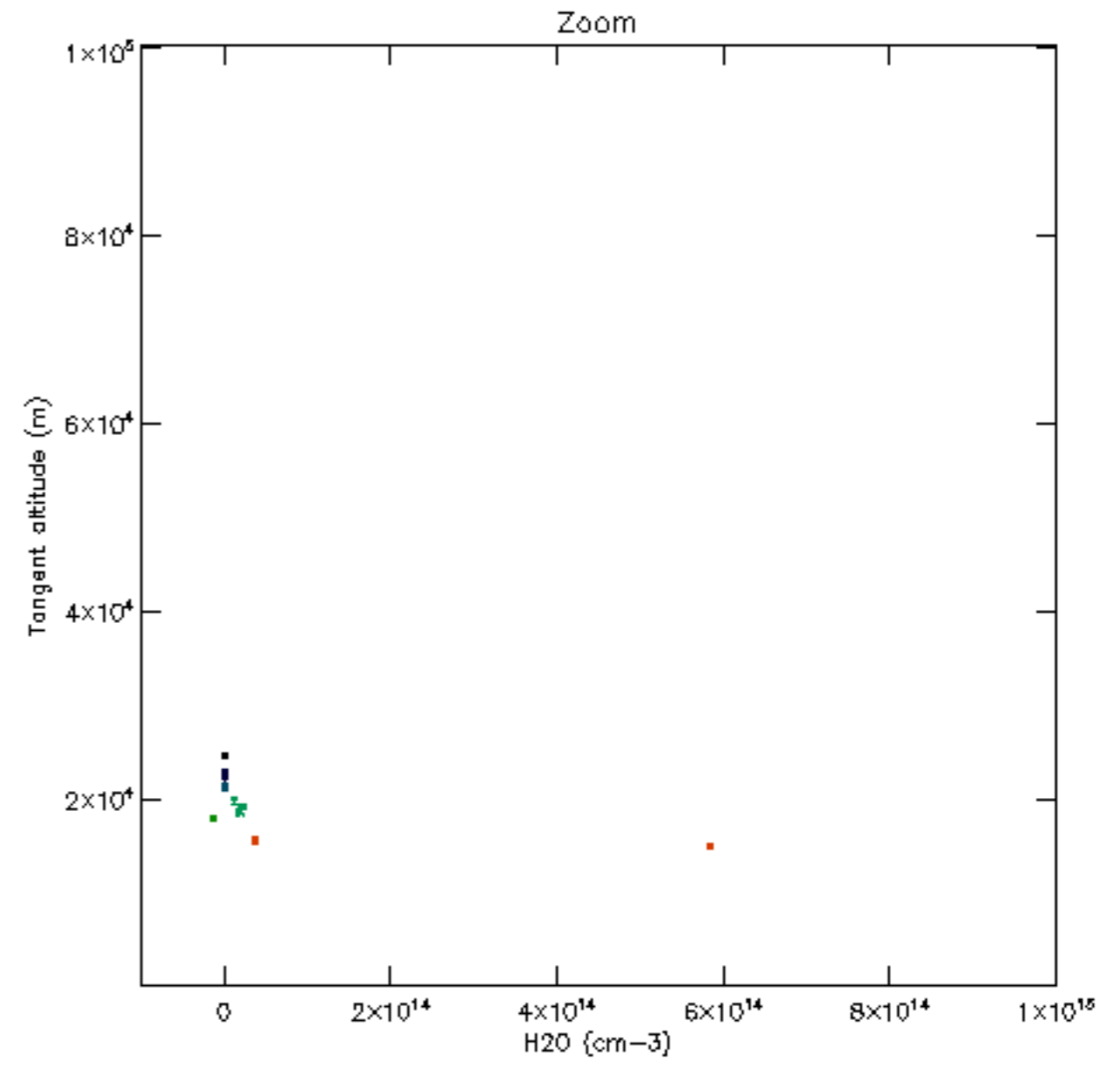
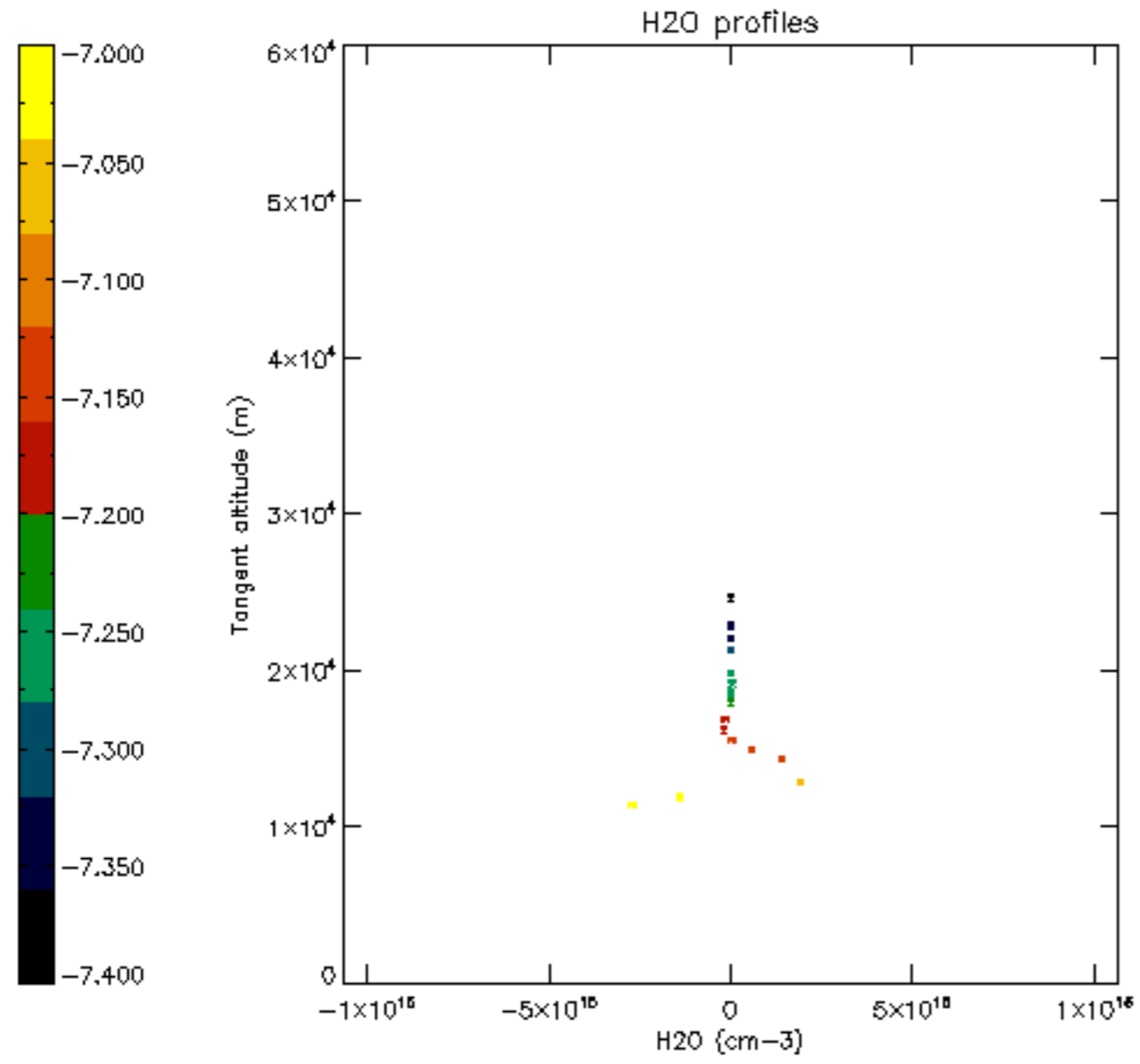


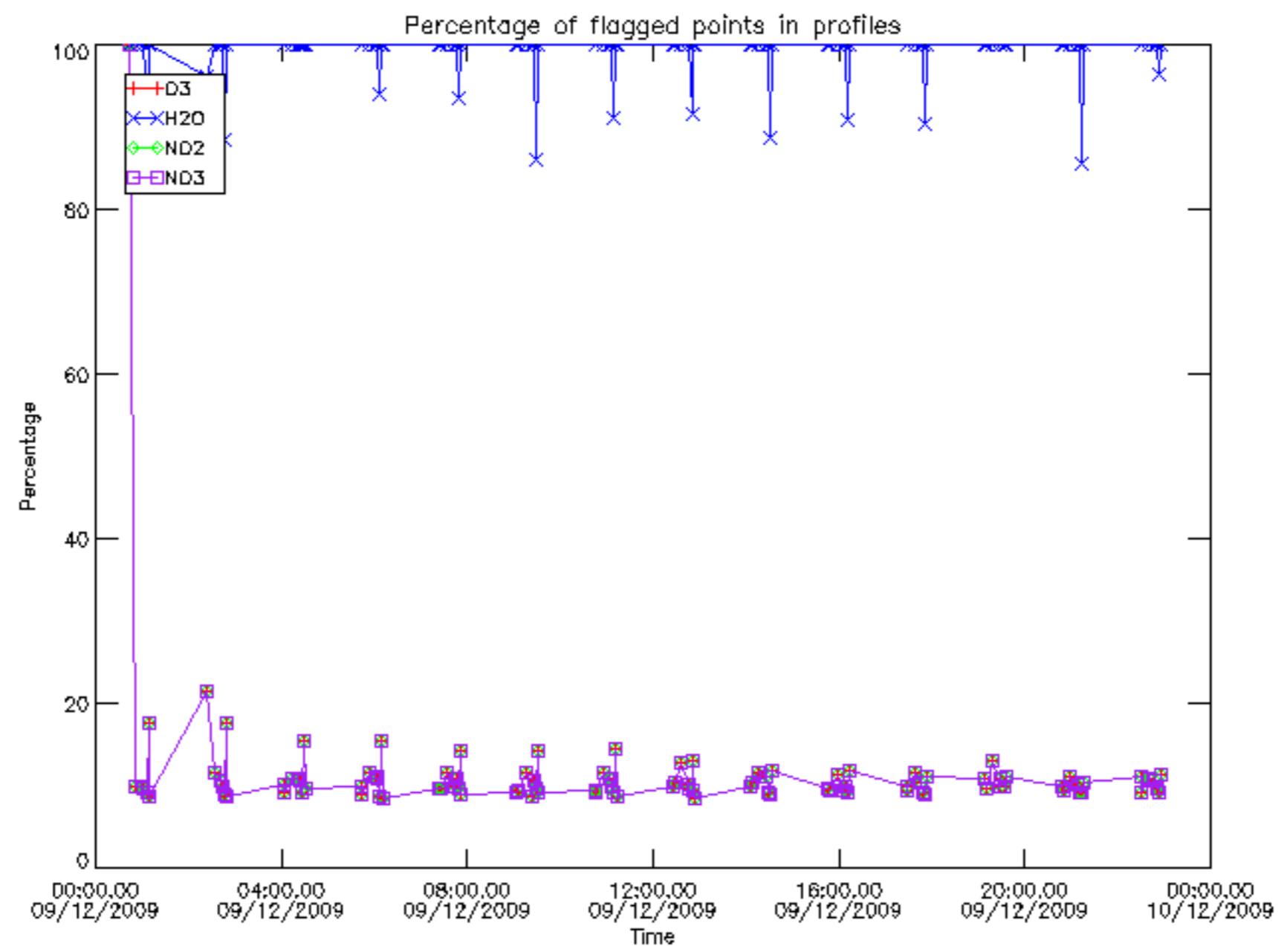




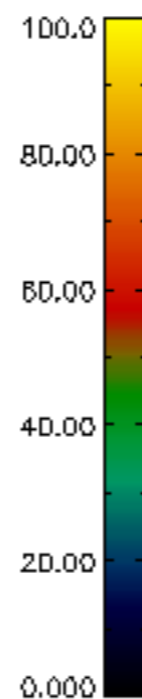
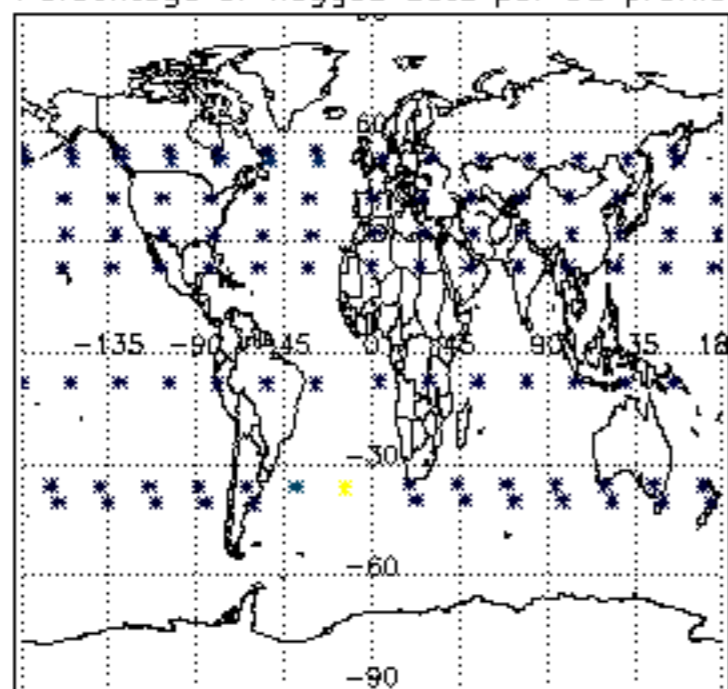




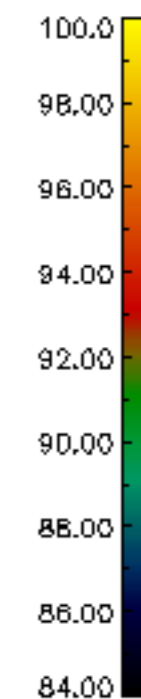
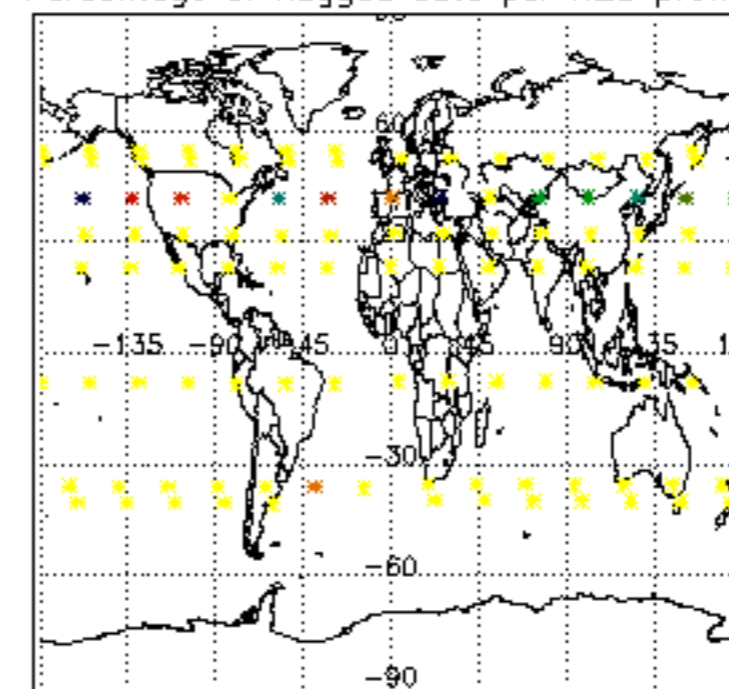




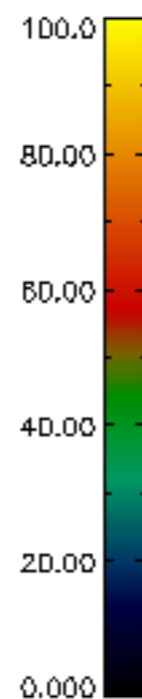
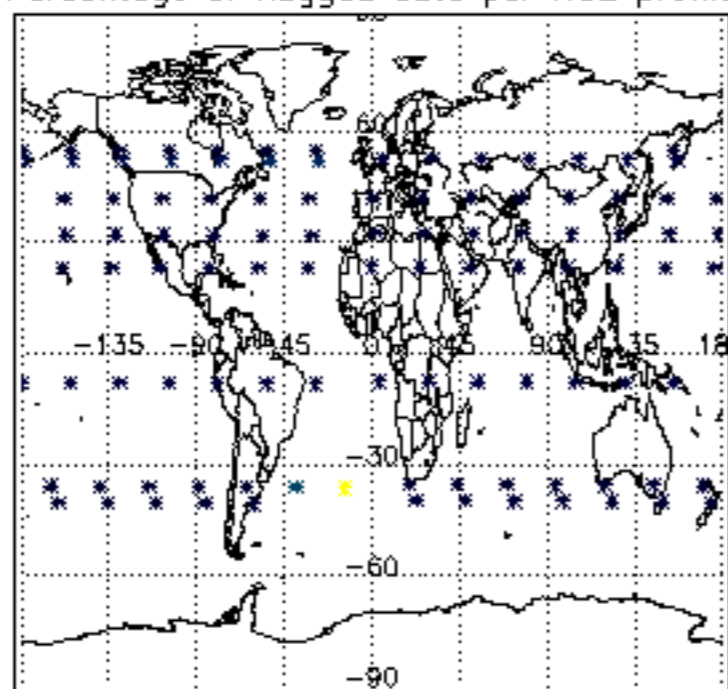
Percentage of flagged data per D3 profile



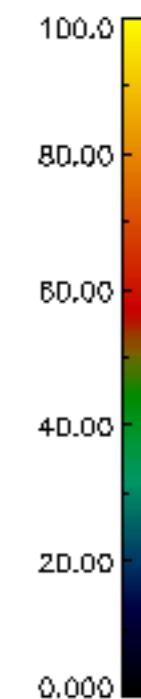
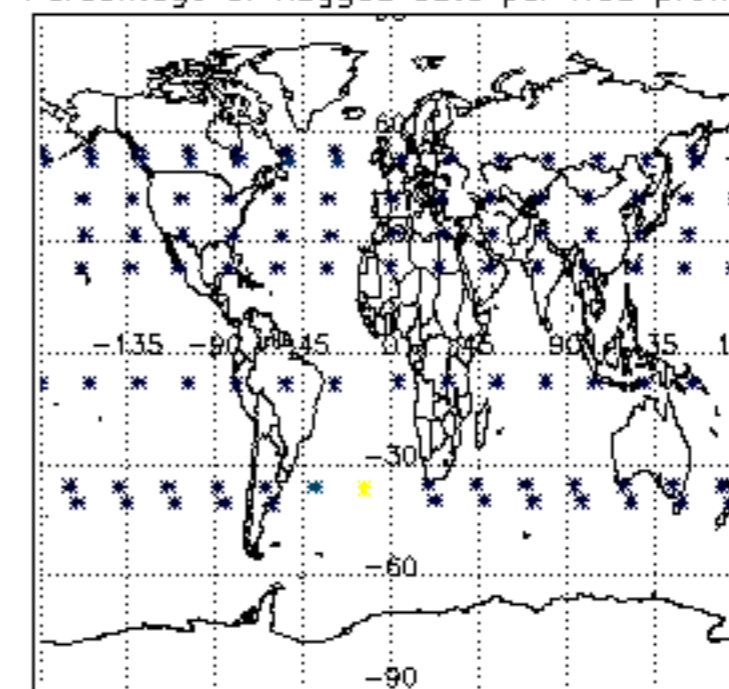
Percentage of flagged data per H2O profile

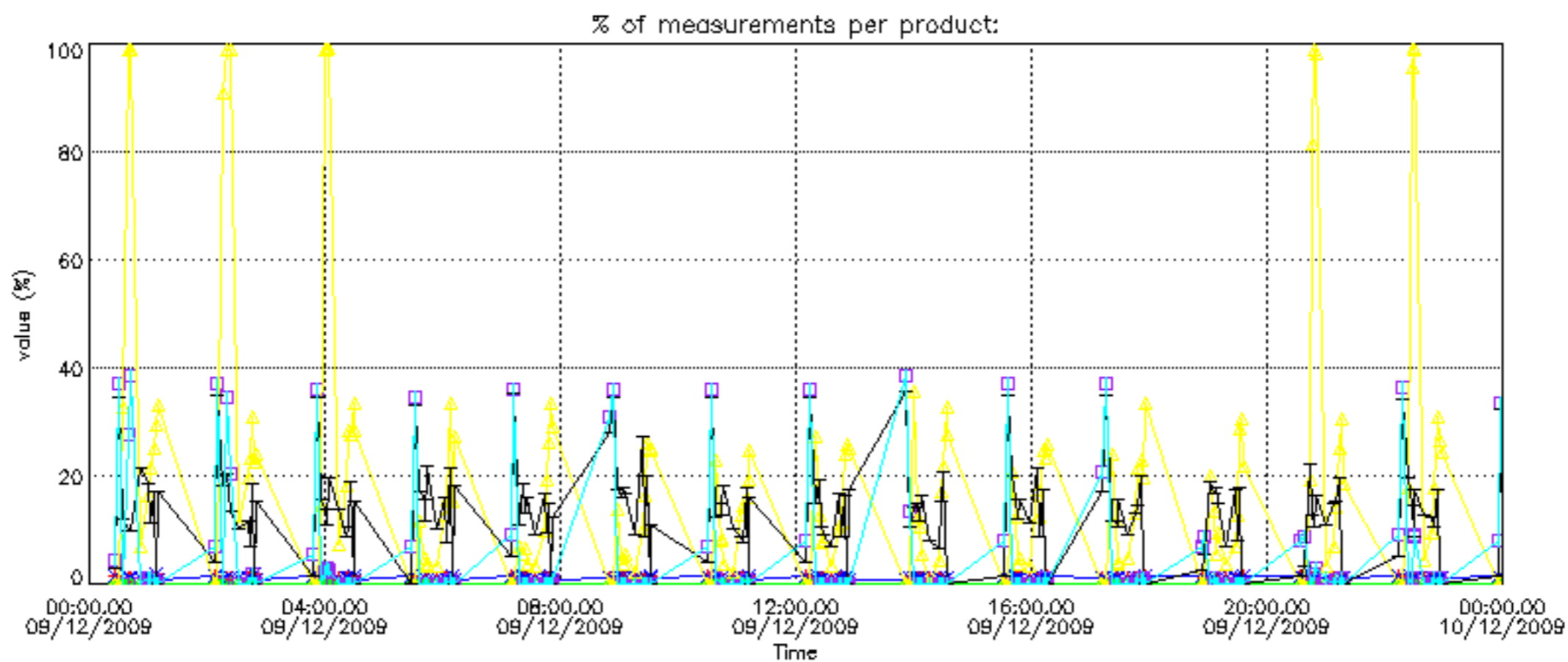
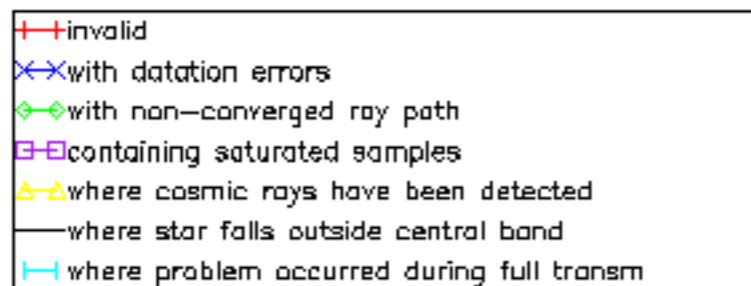


Percentage of flagged data per NO2 profile

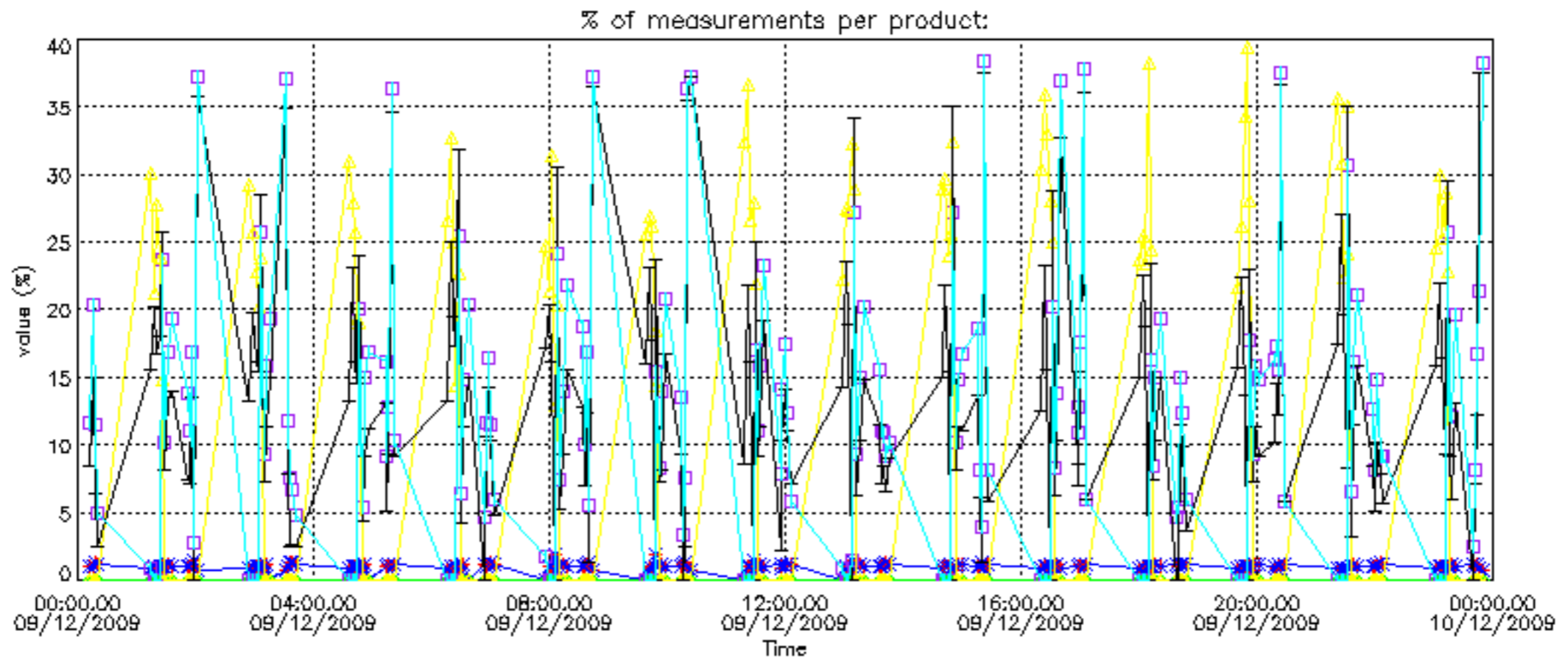


Percentage of flagged data per NO3 profile

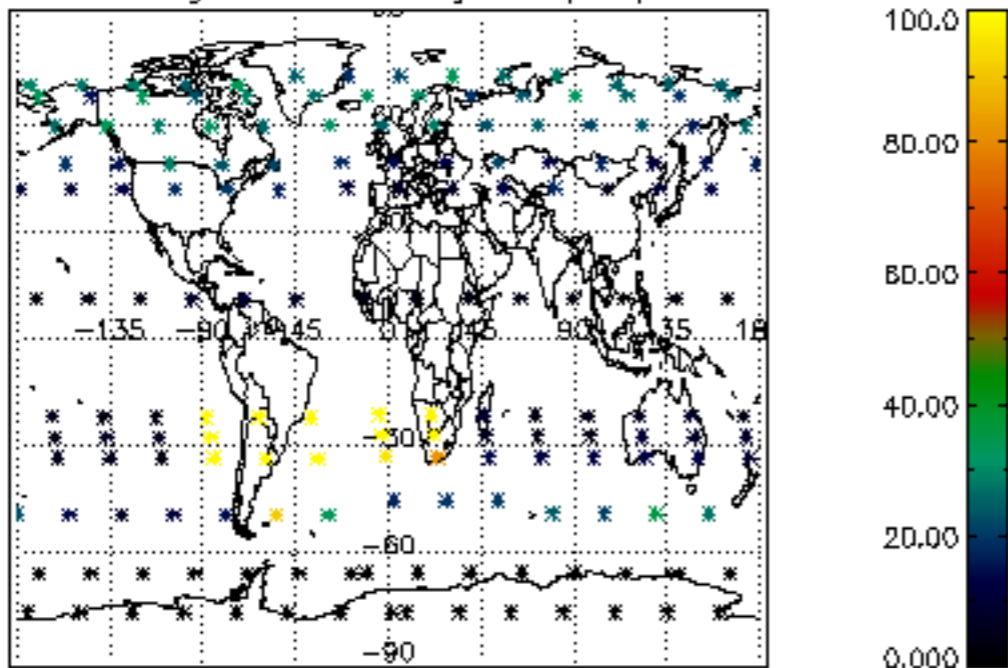




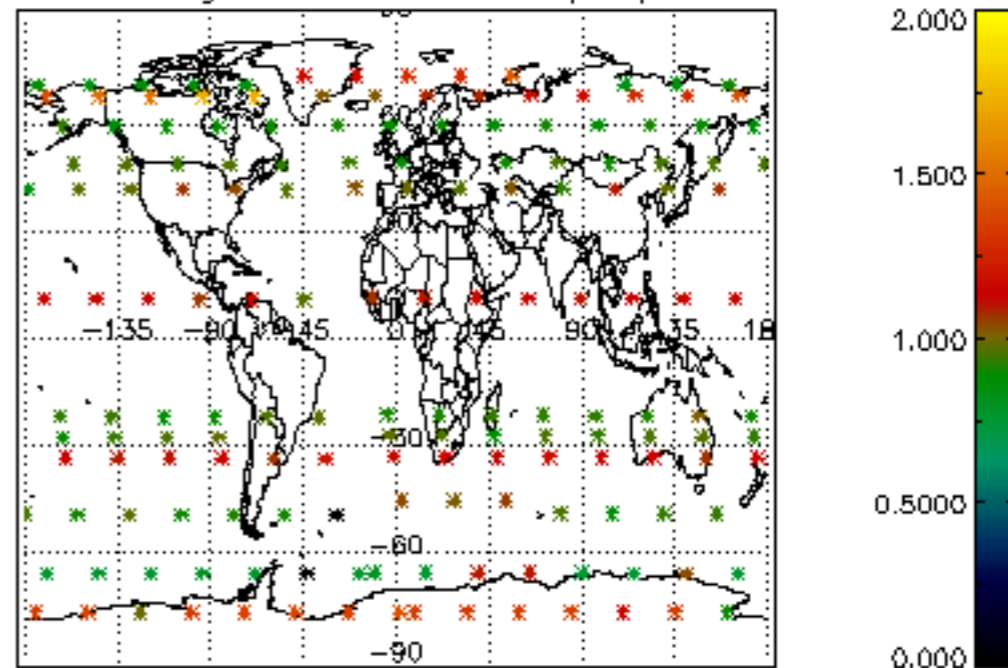




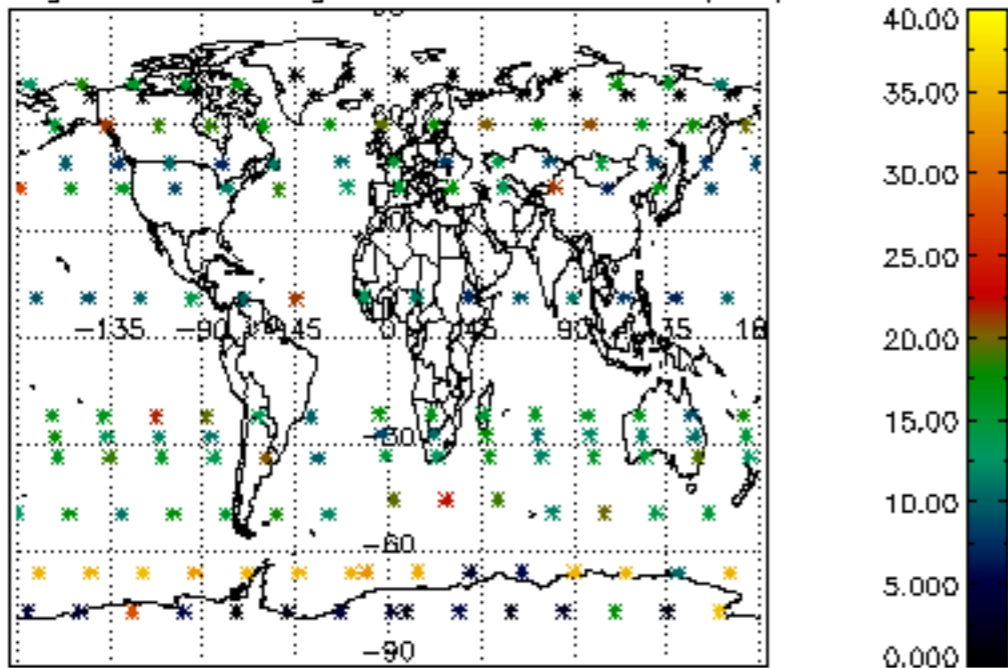
Percentage of cosmic ray hits per profile



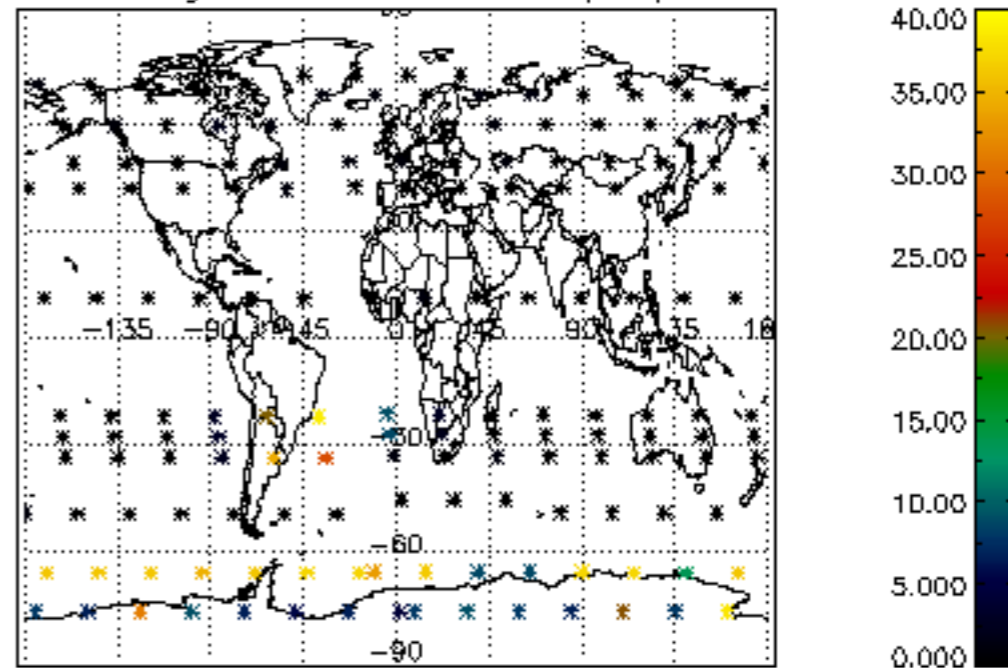
Percentage of datation errors per profile



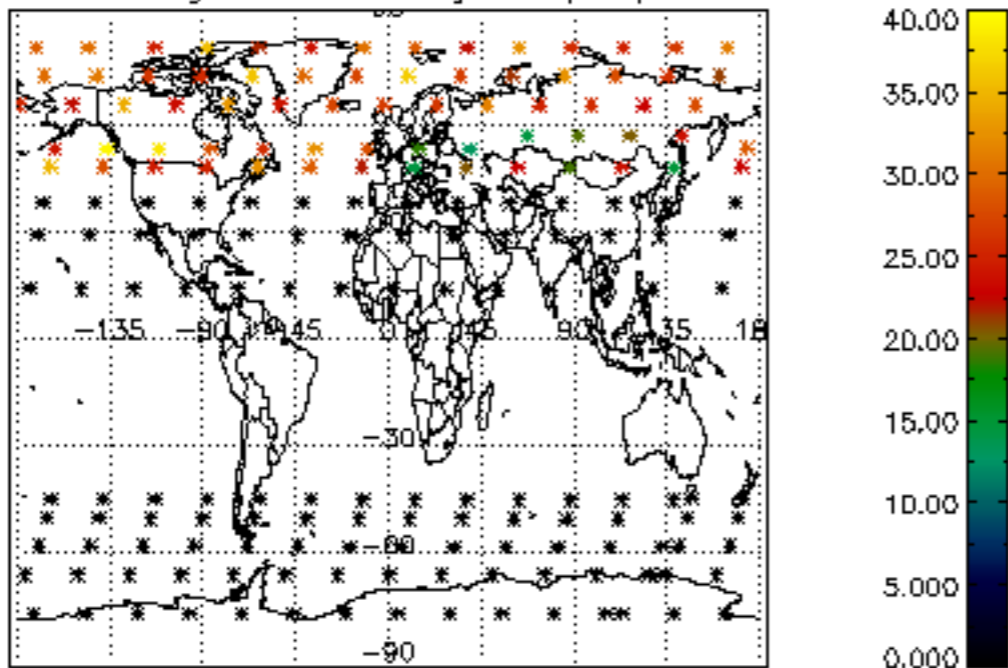
Percentage of star falling outside central band per profile



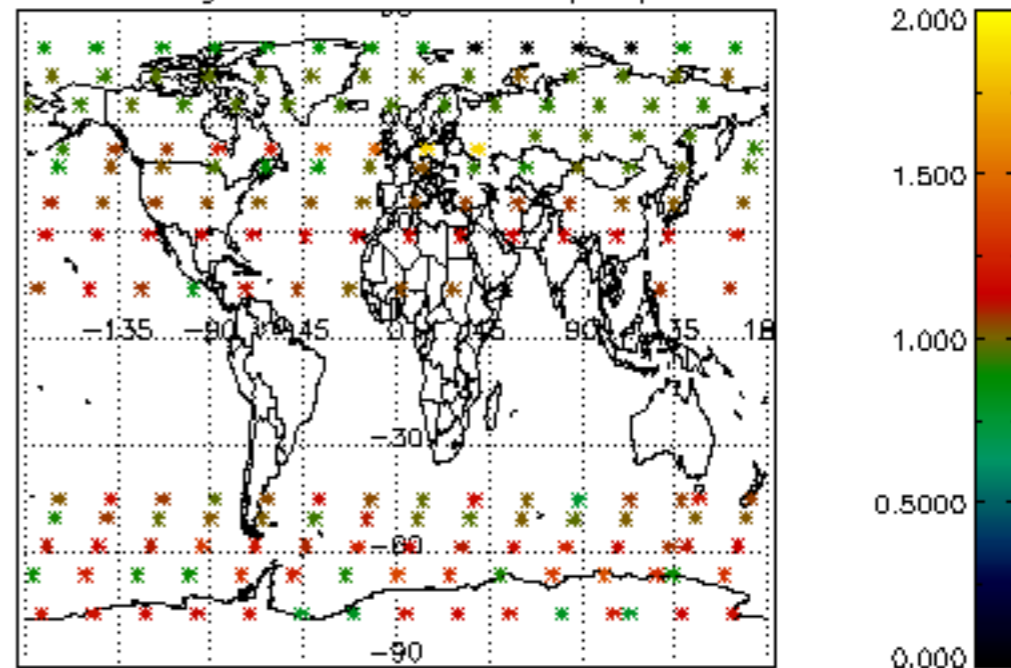
Percentage of saturation errors per profile



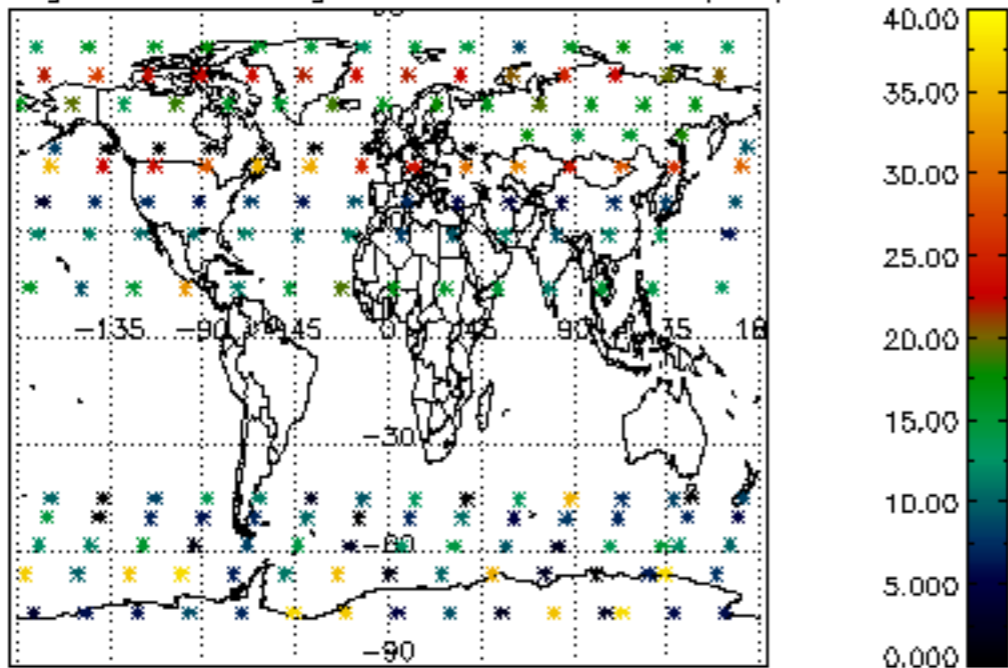
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

