

# 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](#)















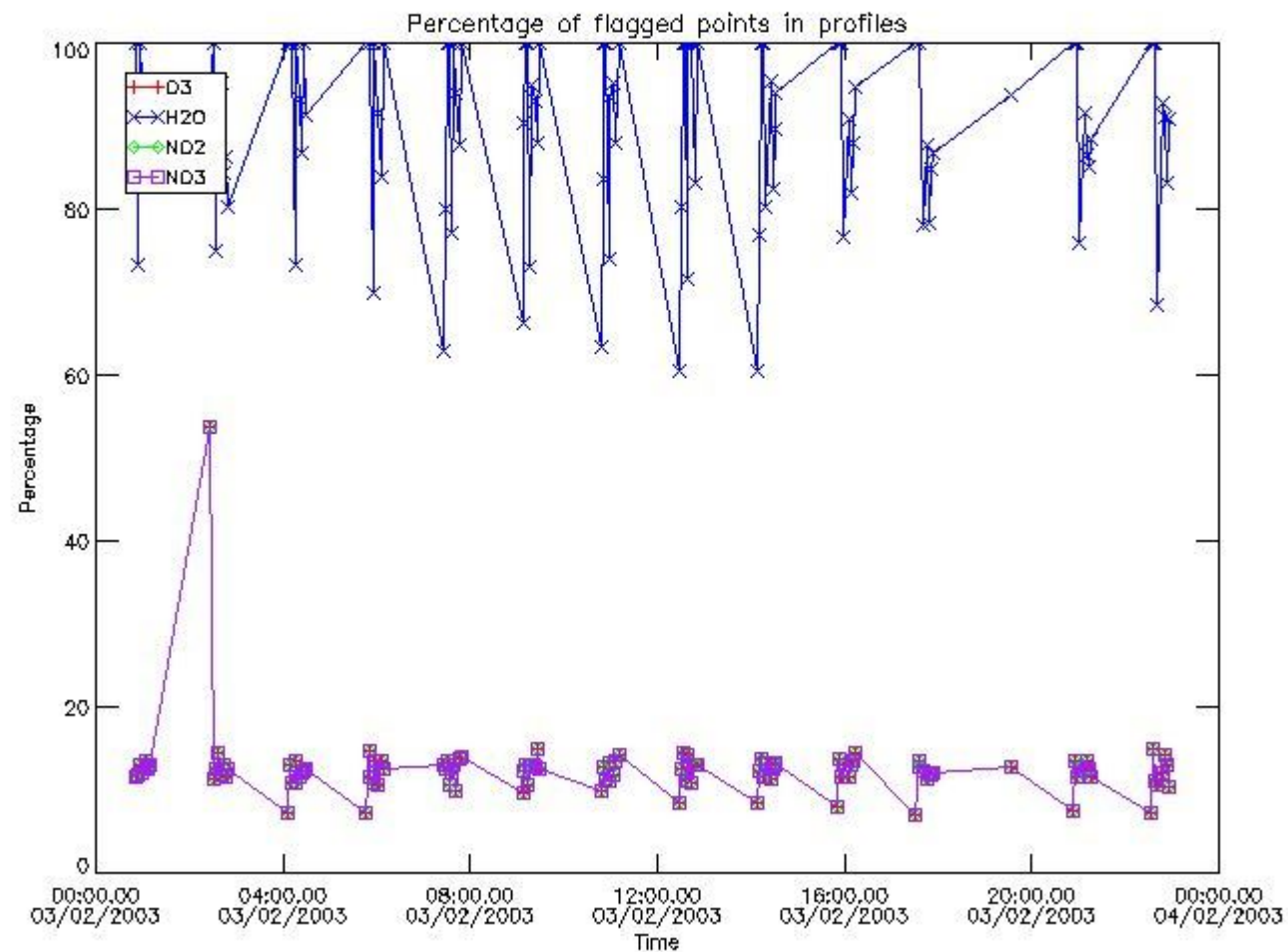


397	GOM_NL__2PRFIN20030203_225959_000000412013_00302_04865_5310.N1	03-FEB-2003 22:59:59	Straylight	40.500	70	Zet Pup	2.2460	39000.	81	4865	No
398	GOM_NL__2PRFIN20030203_230119_000000412013_00302_04865_5311.N1	03-FEB-2003 23:01:19	Straylight	41.000	117	Pi Pup	2.7060	3800.0	82	4865	No
399	GOM_NL__2PRFIN20030203_230320_000002102013_00302_04865_5312.N1	03-FEB-2003 23:03:20	Straylight	209.50	100	4Gam Crv	2.5800	13100.	419	4865	No
400	GOM_NL__2PRFIN20030203_230846_000000662013_00302_04865_5313.N1	03-FEB-2003 23:08:46	Straylight	65.500	48	30Alp Hya	1.9770	4100.0	131	4865	No
401	GOM_NL__2PRFIN20030203_231258_000000472013_00302_04865_5314.N1	03-FEB-2003 23:12:58	Tw_i_and_stray	47.000	8	10Alp CMi	0.40000	6500.0	94	4865	No
402	GOM_NL__2PRFIN20030203_231738_000000532013_00302_04865_5315.N1	03-FEB-2003 23:17:38	Dark	53.000	1015	Jupiter	0.0000	0.0000	106	4865	Yes
403	GOM_NL__2PRFIN20030203_231934_000000422013_00302_04865_5316.N1	03-FEB-2003 23:19:34	Bright	42.000	17	78Bet Gem	1.1610	4500.0	84	4865	No
404	GOM_NL__2PRFIN20030203_232242_000000372013_00302_04865_5317.N1	03-FEB-2003 23:22:42	Bright	37.000	107	37The Aur	2.6490	11000.	74	4865	No
405	GOM_NL__2PRFIN20030203_232446_000000382013_00302_04865_5318.N1	03-FEB-2003 23:24:46	Bright	37.500	42	34Bet Aur	1.9000	10200.	75	4865	No
406	GOM_NL__2PRFIN20030203_233328_000000472013_00302_04865_5319.N1	03-FEB-2003 23:33:28	Bright	46.500	82	48Bet UMa	2.3650	10600.	93	4865	No
407	GOM_NL__2PRFIN20030203_233653_000000332013_00302_04865_5320.N1	03-FEB-2003 23:36:53	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	4865	No
408	GOM_NL__2PRFIN20030203_233948_000000412013_00302_04865_5321.N1	03-FEB-2003 23:39:48	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	4865	No
409	GOM_NL__2PRFIN20030203_234124_000000592013_00302_04865_5322.N1	03-FEB-2003 23:41:24	Bright	58.500	55	79Zet UMa	2.0600	10200.	117	4865	No
410	GOM_NL__2PRFIN20030203_234434_000000432013_00302_04865_5323.N1	03-FEB-2003 23:44:34	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	4865	No
411	GOM_NL__2PRFIN20030203_234751_000000372013_00302_04865_5324.N1	03-FEB-2003 23:47:51	Bright	36.500	130	23Bet Dra	2.7990	5800.0	73	4865	No
412	GOM_NL__2PRFIN20030203_235135_000000362013_00302_04865_5325.N1	03-FEB-2003 23:51:35	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	4865	No
413	GOM_NL__2PRFIN20030203_235437_000000462013_00302_04865_5326.N1	03-FEB-2003 23:54:37	Bright	45.500	133	40Zet Her	2.8070	6000.0	91	4865	No
414	GOM_NL__2PRFIN20030203_235907_000001342013_00302_04865_5327.N1	03-FEB-2003 23:59:07	Tw_i_and_stray	134.00	83		2.3780	11000.	268	4865	No

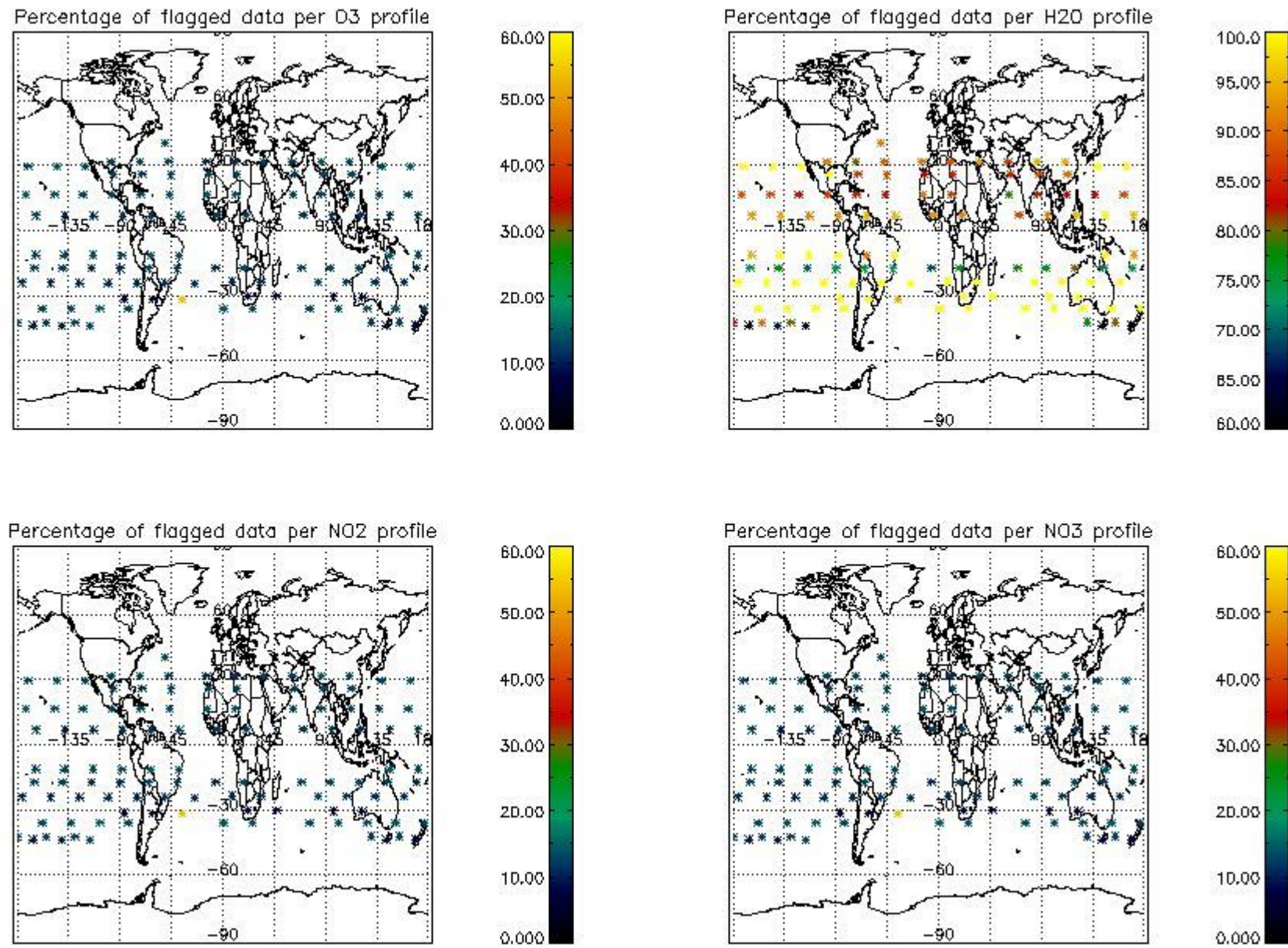
### 3. Quality information per product

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)

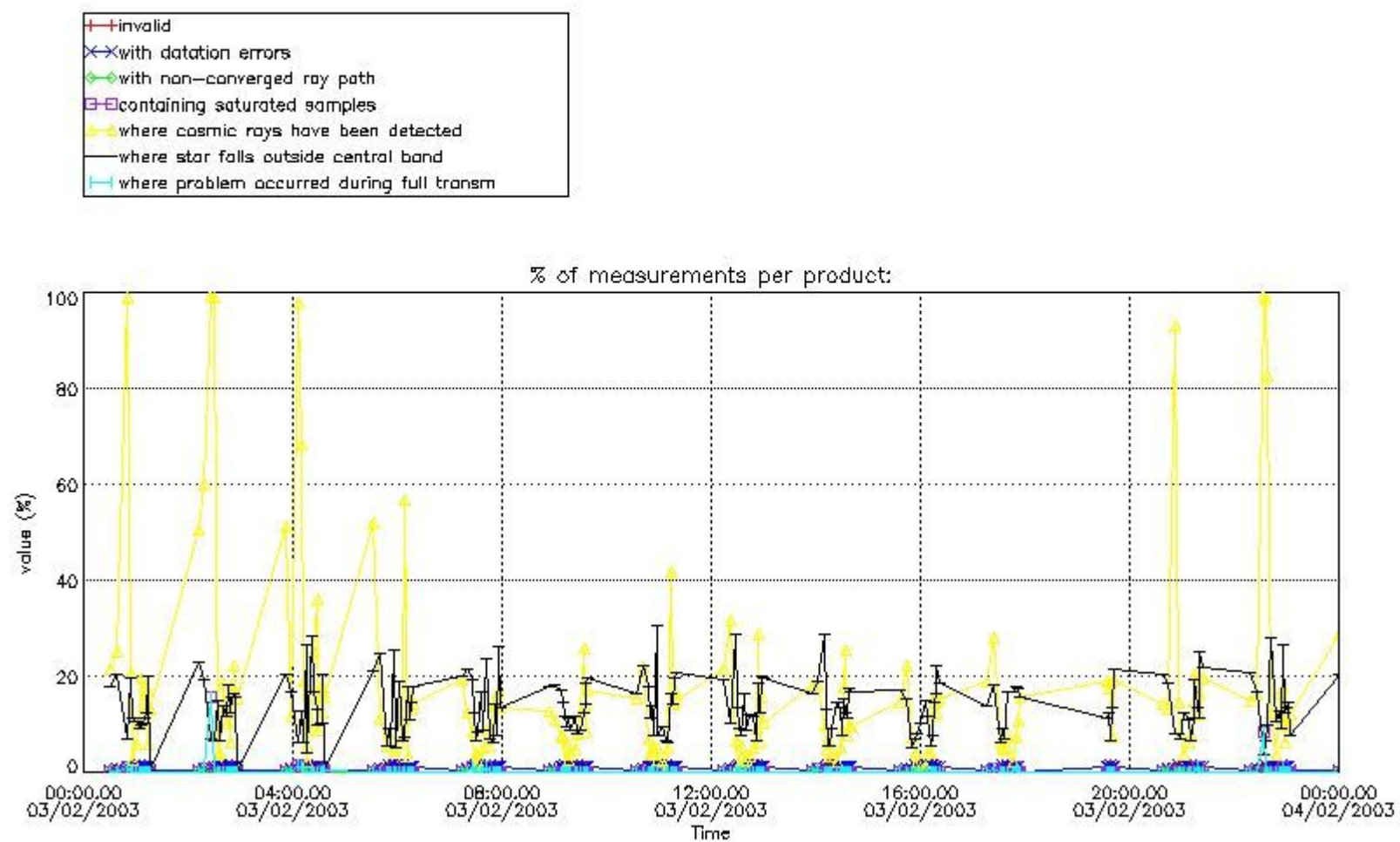


### 4. Level 1 quality information per product

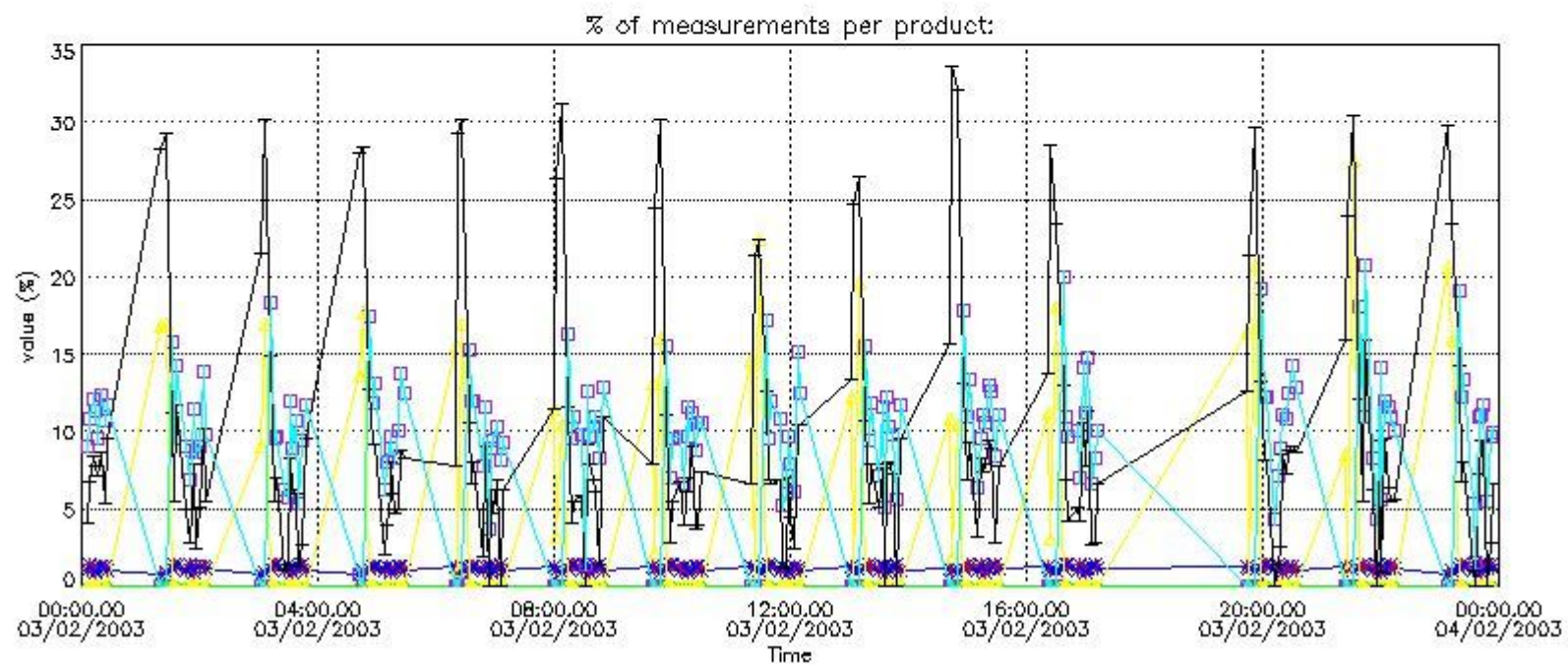
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

#### 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

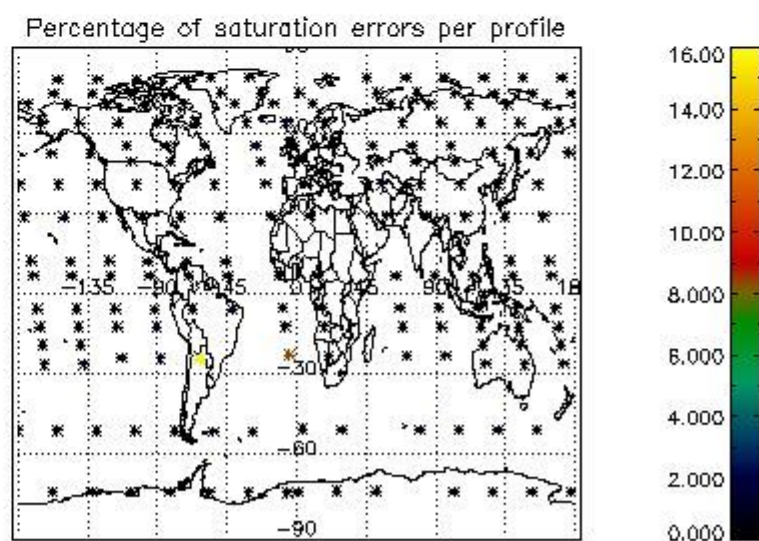
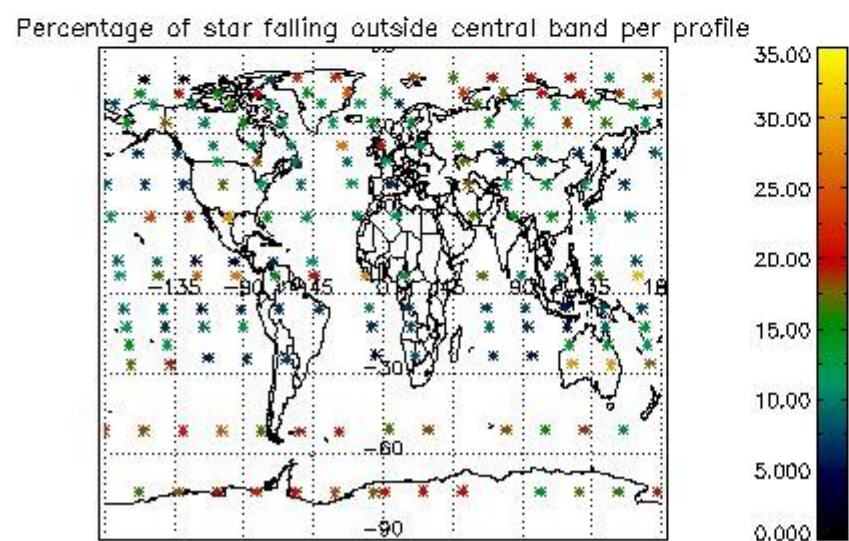
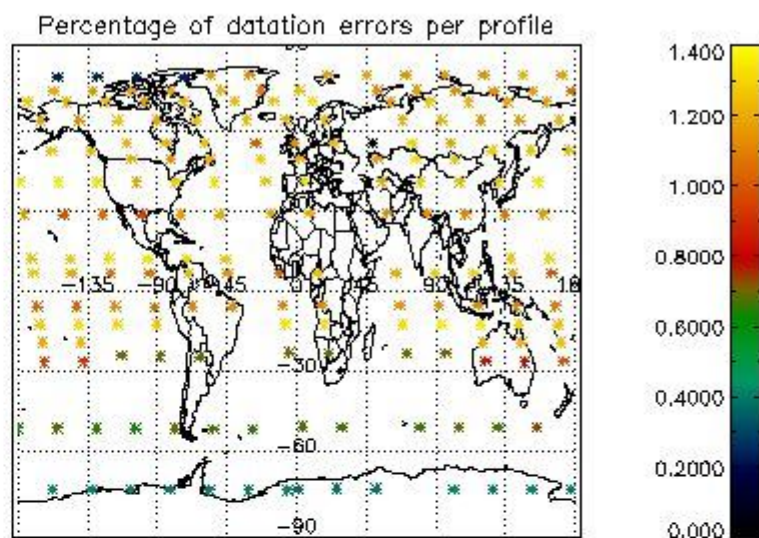
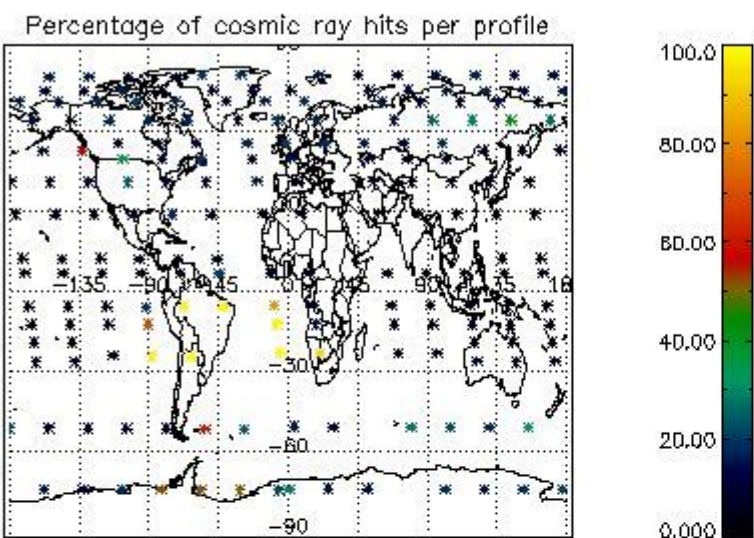


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

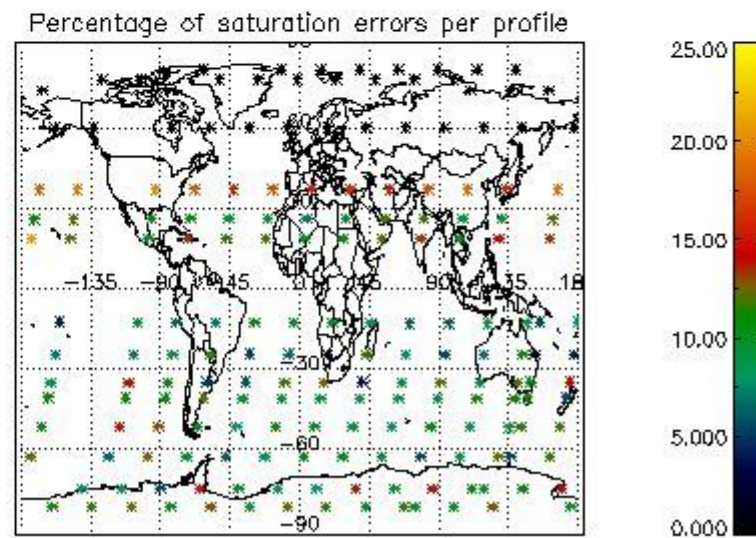
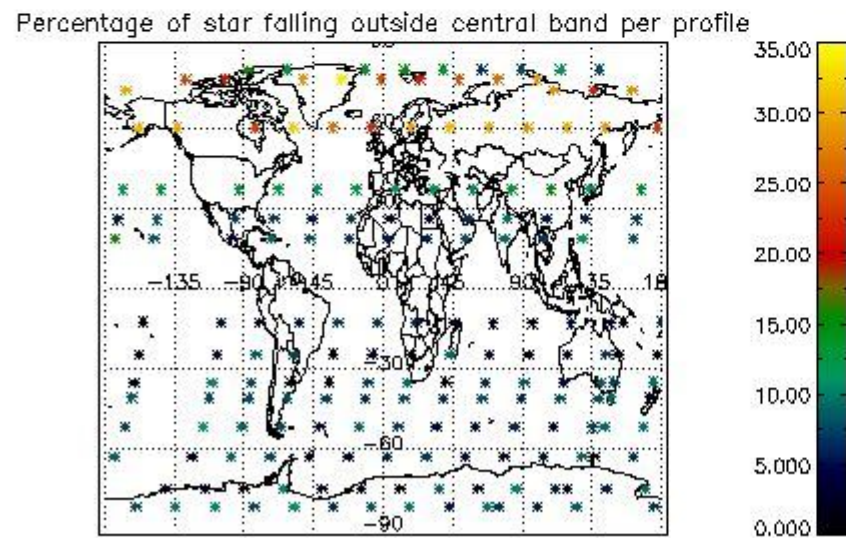
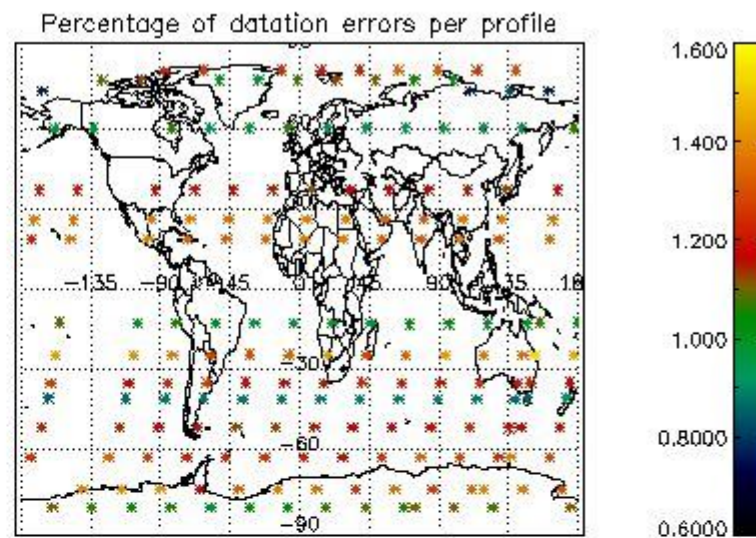
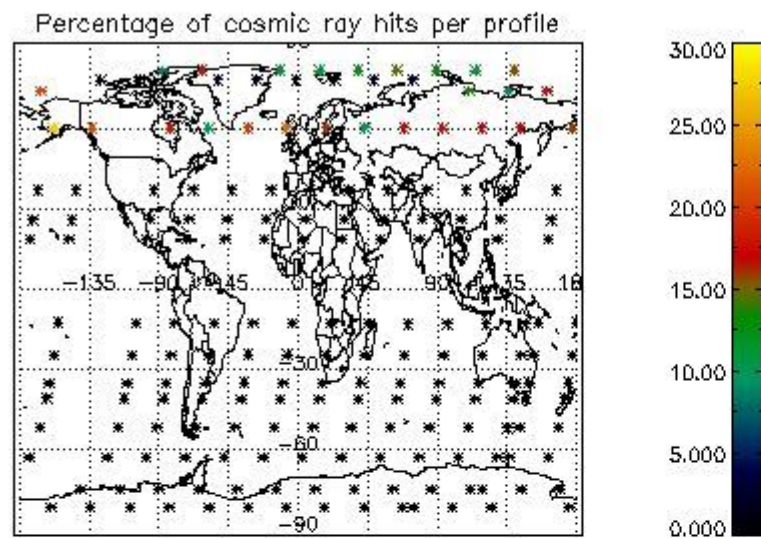


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

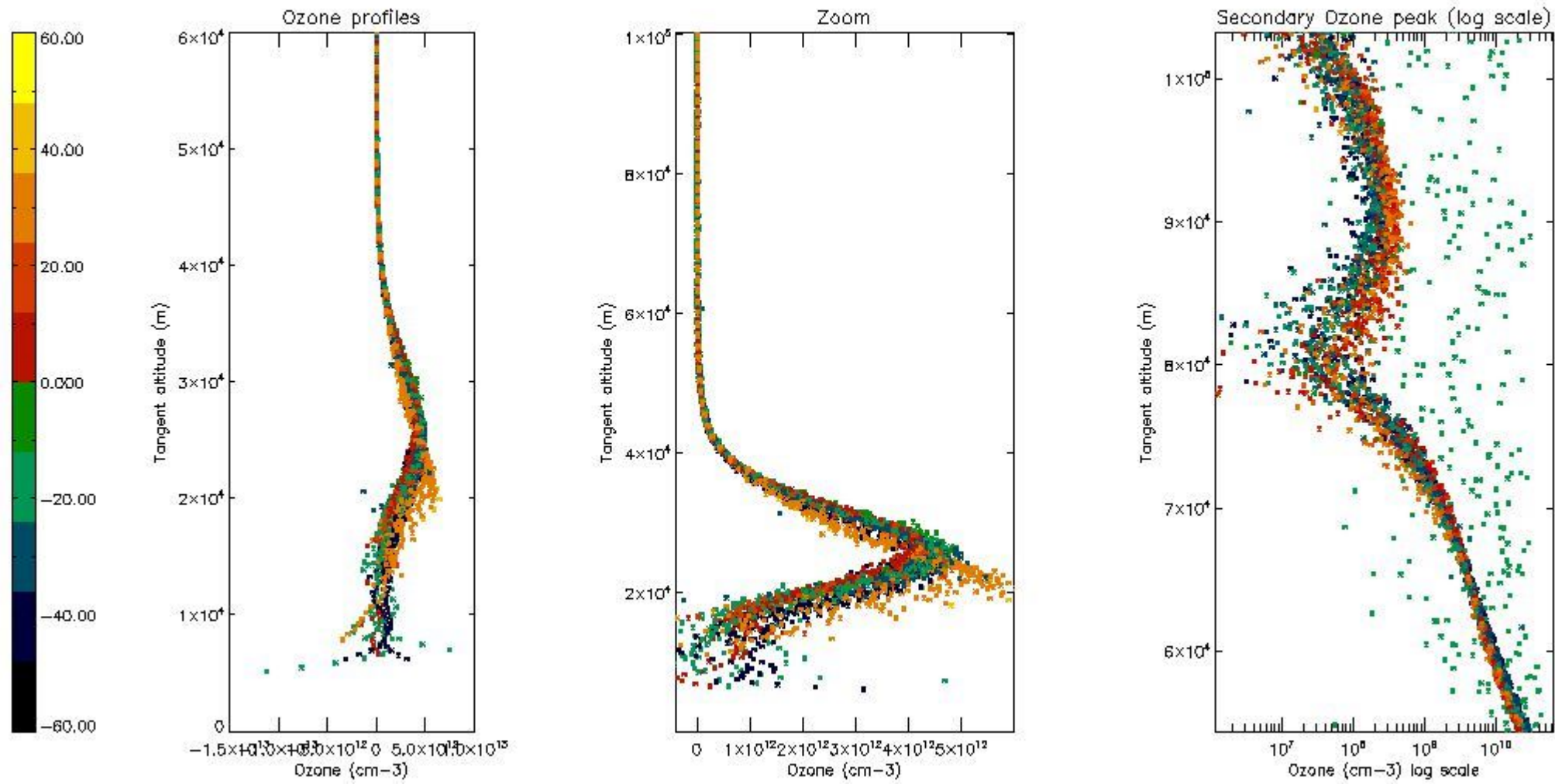
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	16

STD < 10	13
STD < 5	10

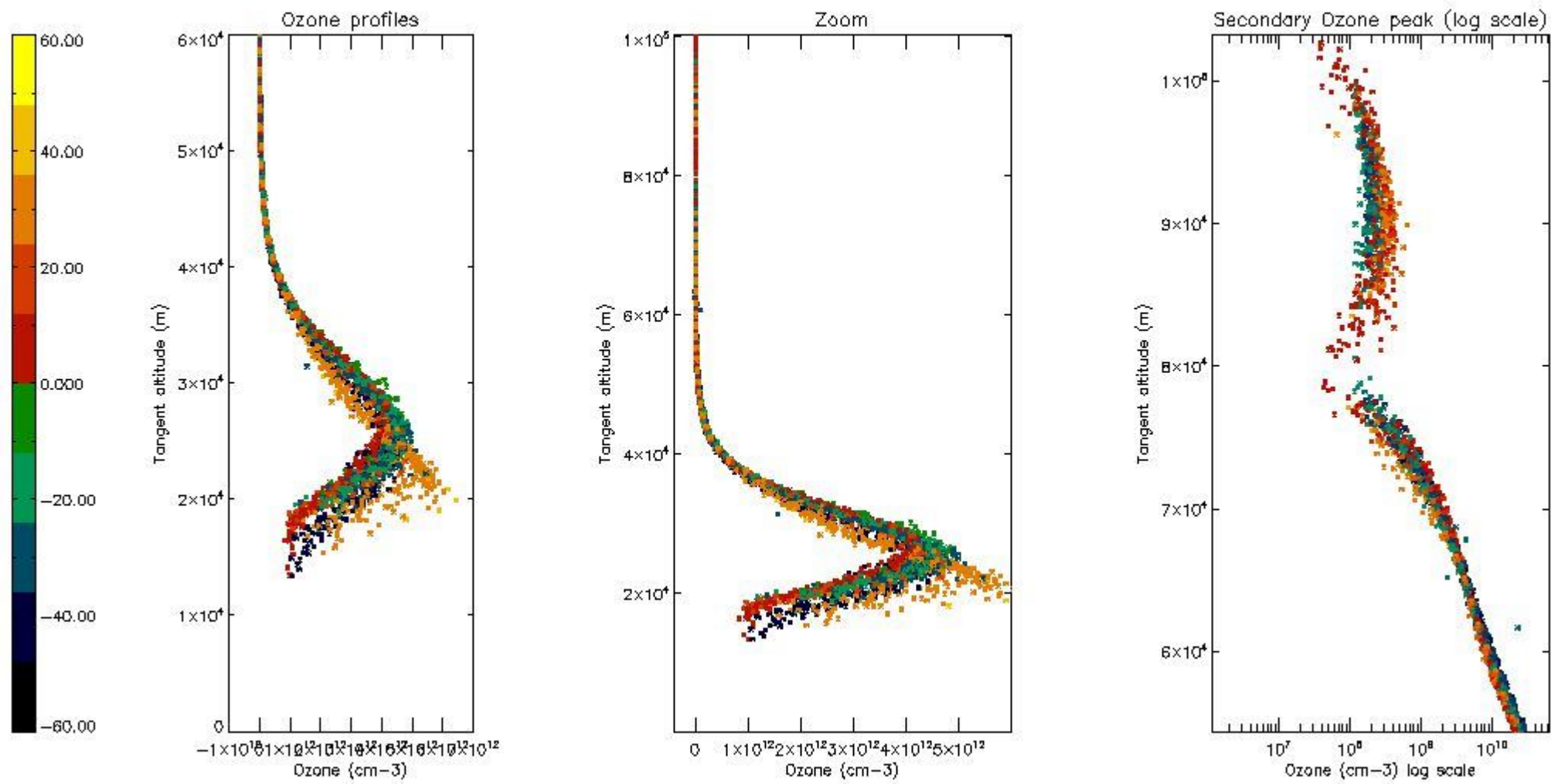
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

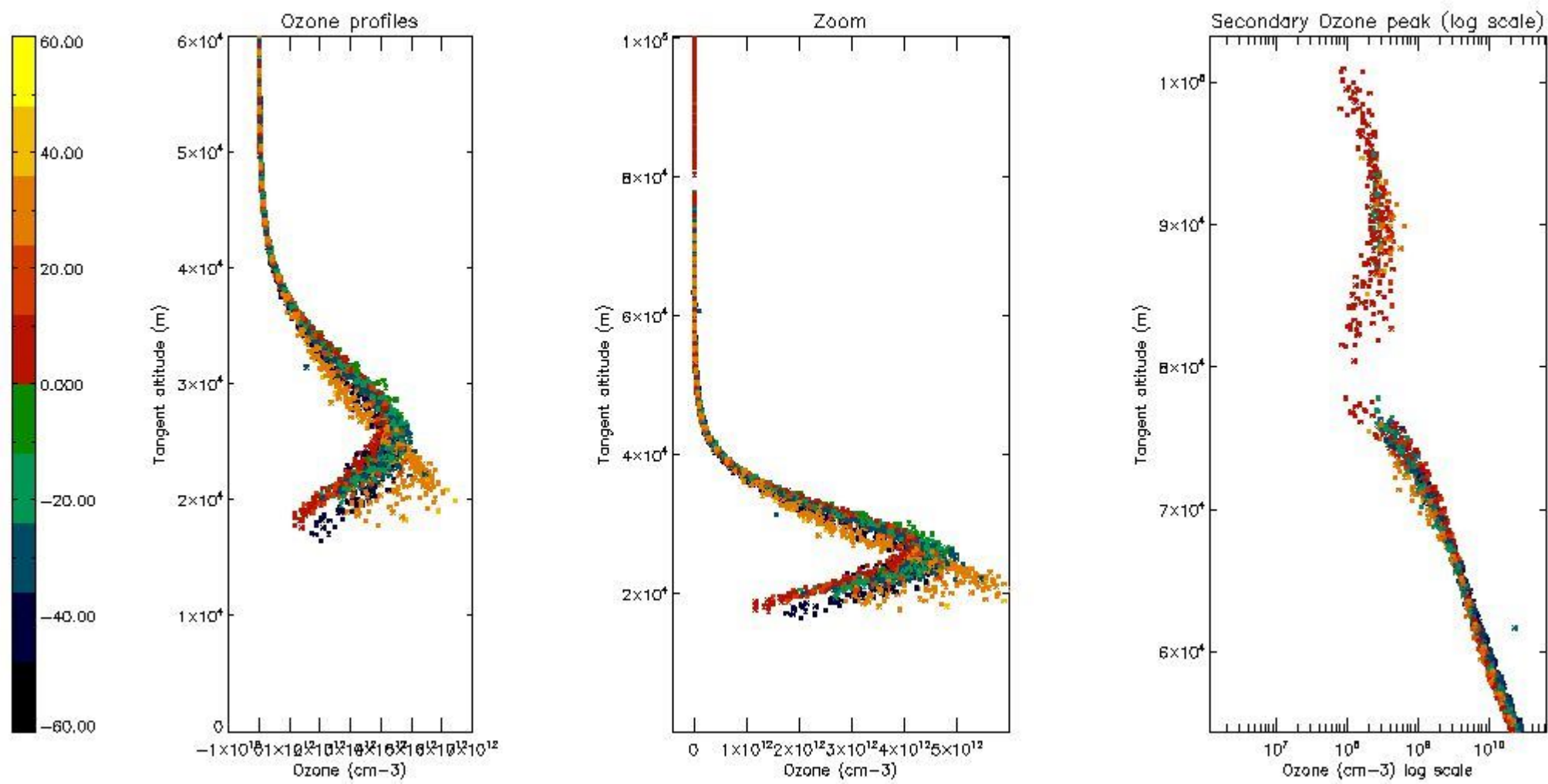
The colorbar represents the latitude.



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

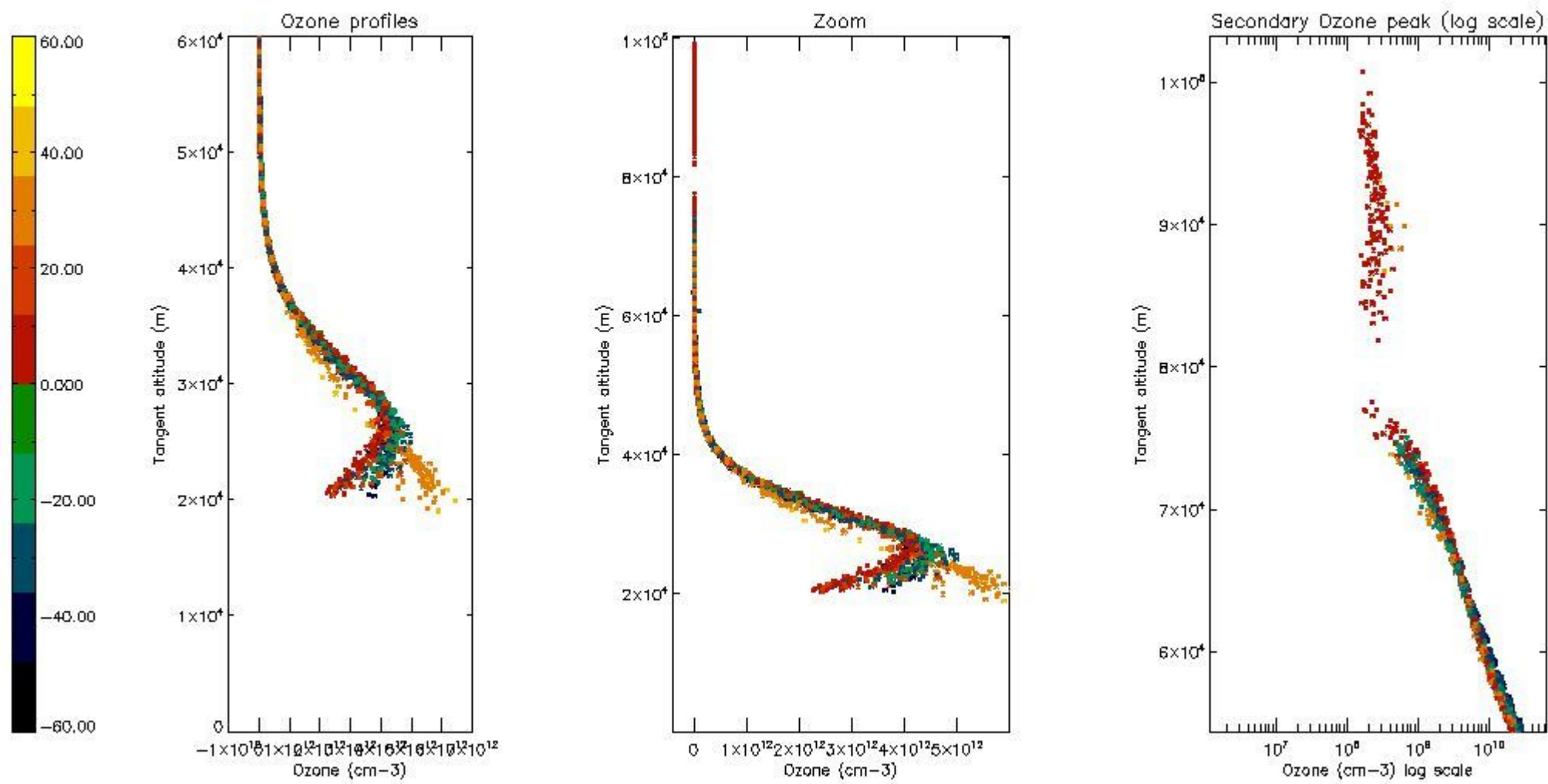
The colorbar represents the latitude.





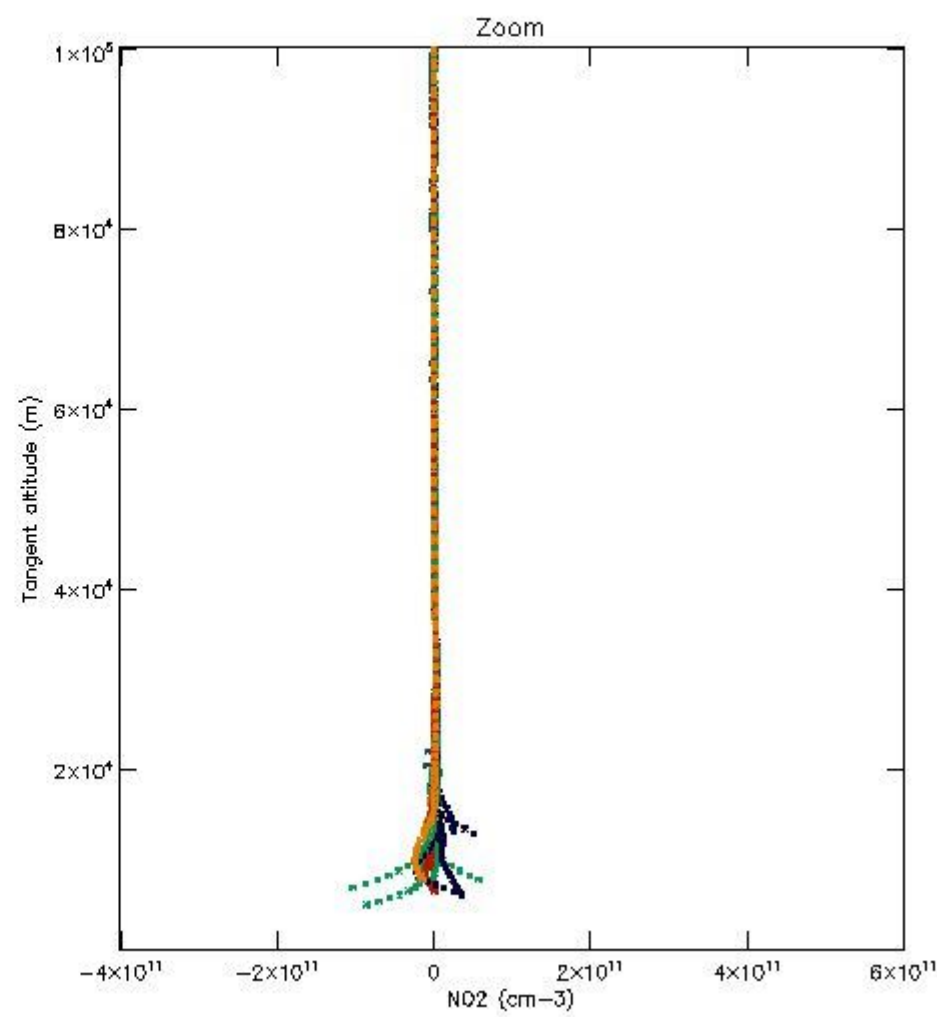
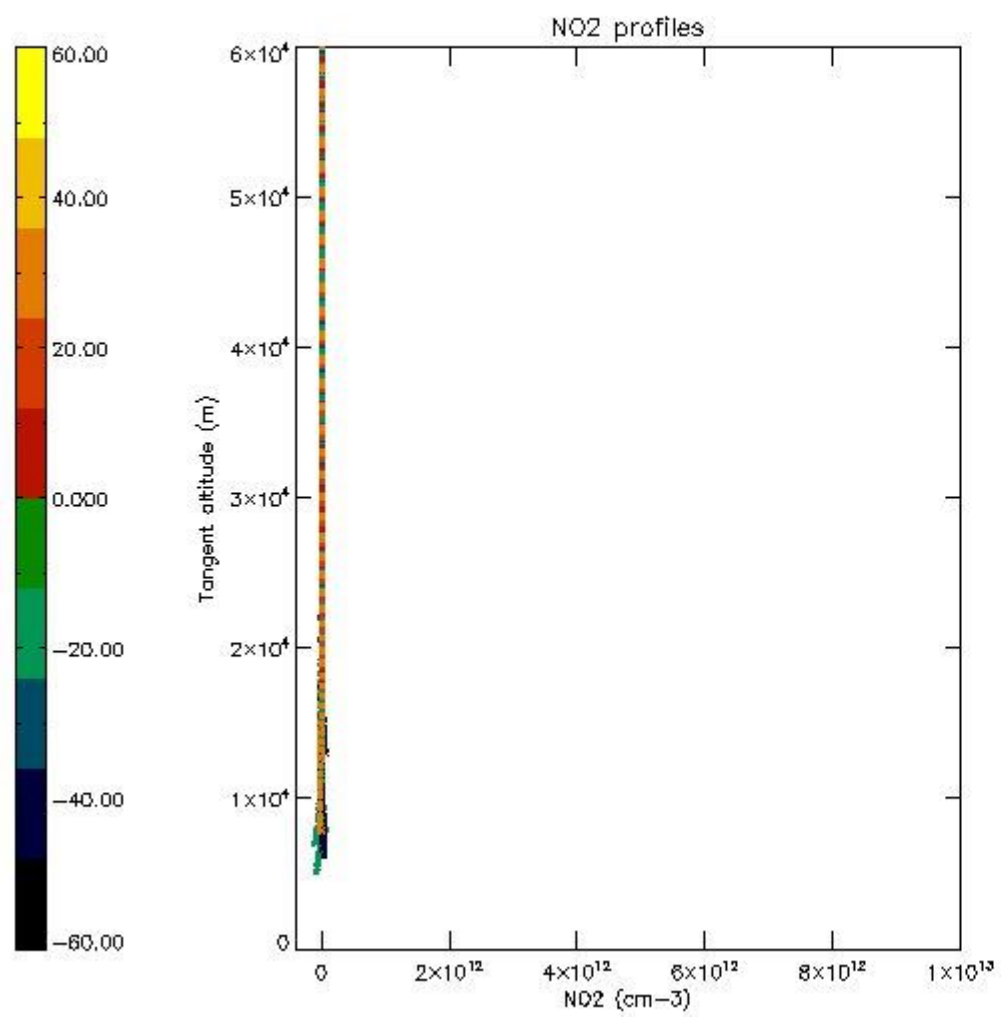
*5.5 Plot ozone profiles where  $STD < 5\%$  (dark without errors)*

The colorbar represents the latitude.



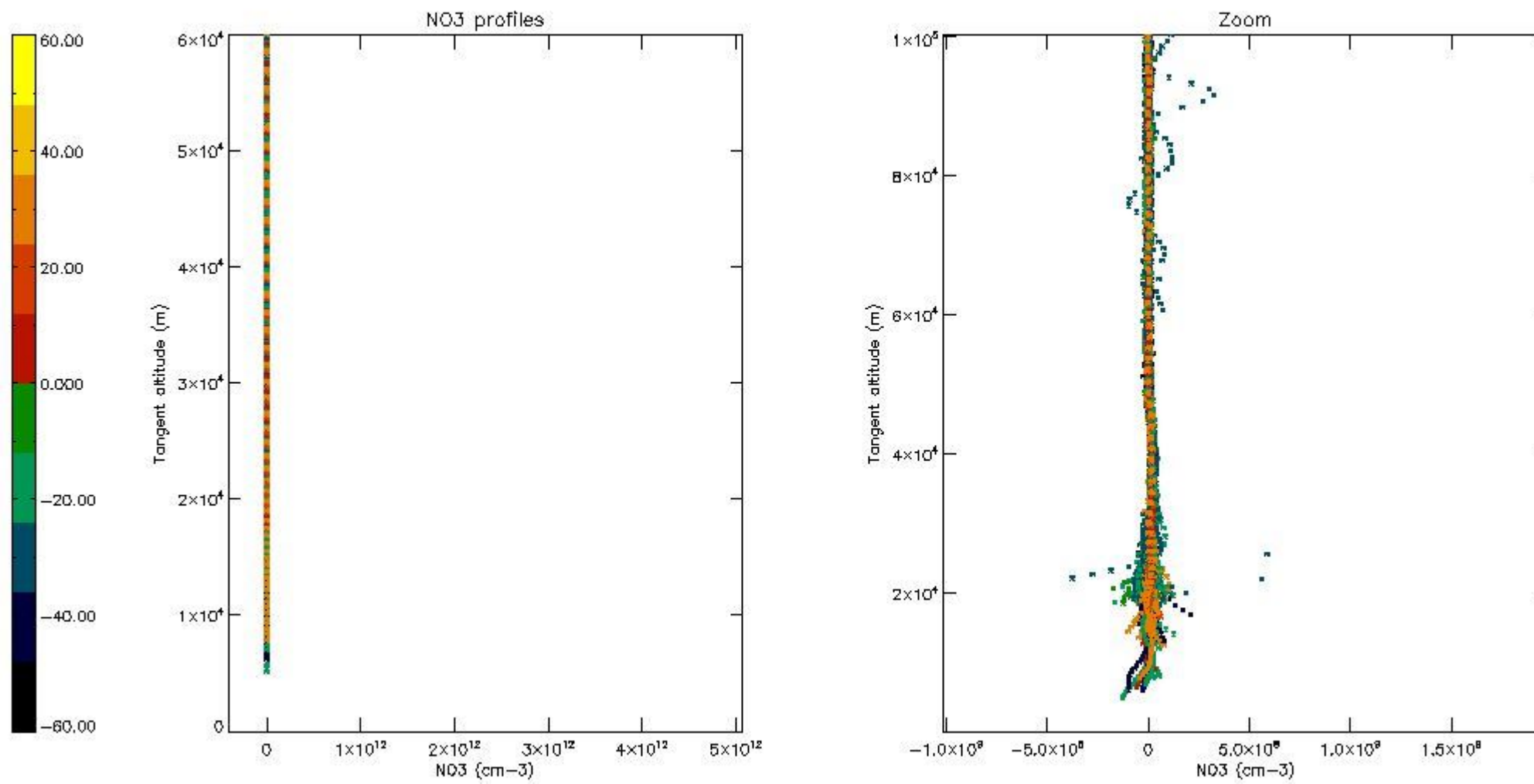
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	03-FEB-2003 00:05:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	03-FEB-2003 00:05:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	03-FEB-2003 00:05:16

# 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](#)















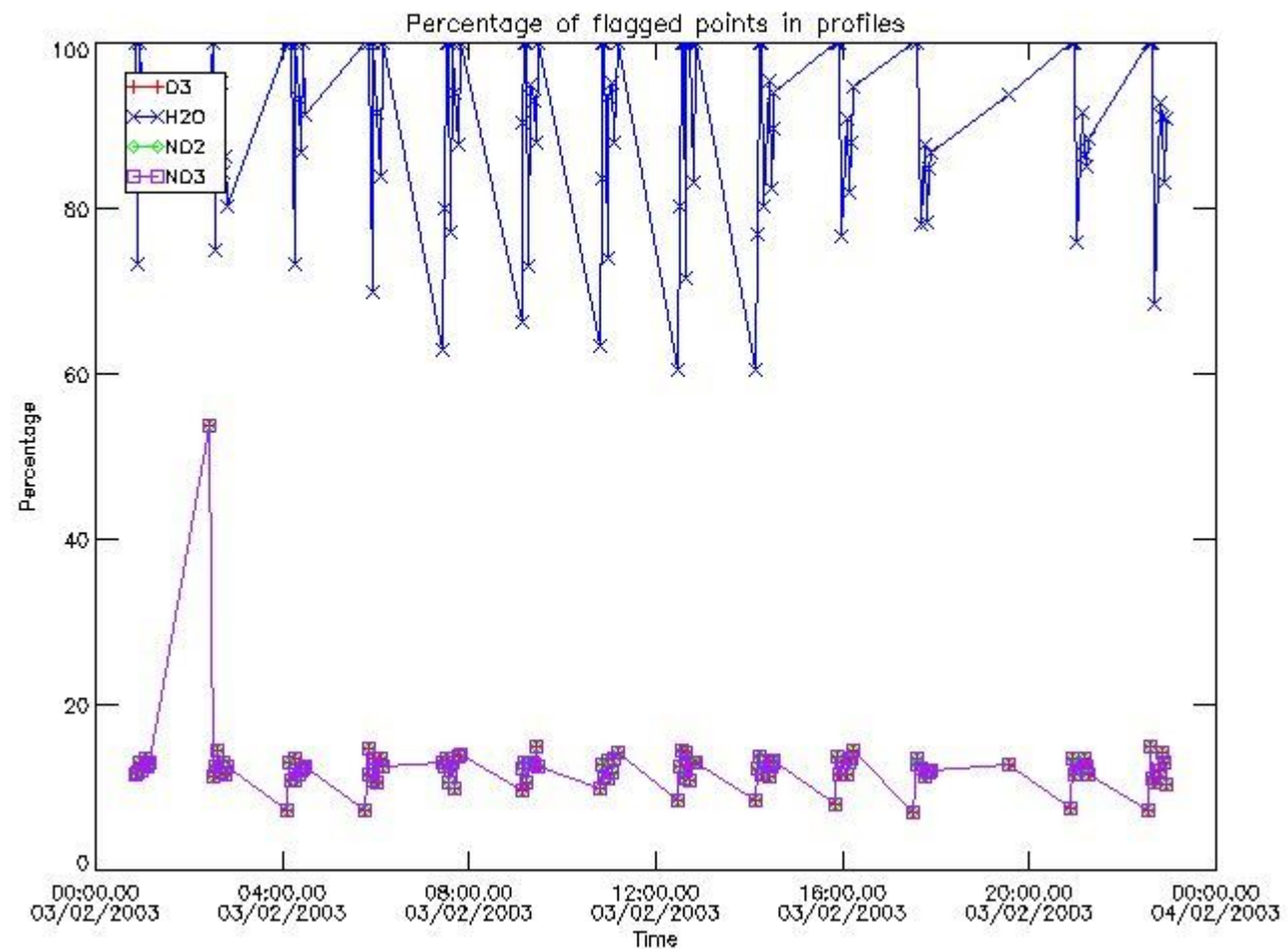


397	GOM_NL__2PRFIN20030203_225959_000000412013_00302_04865_5310.N1	03-FEB-2003 22:59:59	Straylight	40.500	70	Zet Pup	2.2460	39000.	81	4865	No
398	GOM_NL__2PRFIN20030203_230119_000000412013_00302_04865_5311.N1	03-FEB-2003 23:01:19	Straylight	41.000	117	Pi Pup	2.7060	3800.0	82	4865	No
399	GOM_NL__2PRFIN20030203_230320_000002102013_00302_04865_5312.N1	03-FEB-2003 23:03:20	Straylight	209.50	100	4Gam Crv	2.5800	13100.	419	4865	No
400	GOM_NL__2PRFIN20030203_230846_000000662013_00302_04865_5313.N1	03-FEB-2003 23:08:46	Straylight	65.500	48	30Alp Hya	1.9770	4100.0	131	4865	No
401	GOM_NL__2PRFIN20030203_231258_000000472013_00302_04865_5314.N1	03-FEB-2003 23:12:58	Tw_i_and_stray	47.000	8	10Alp CMi	0.40000	6500.0	94	4865	No
402	GOM_NL__2PRFIN20030203_231738_000000532013_00302_04865_5315.N1	03-FEB-2003 23:17:38	Dark	53.000	1015	Jupiter	0.0000	0.0000	106	4865	Yes
403	GOM_NL__2PRFIN20030203_231934_000000422013_00302_04865_5316.N1	03-FEB-2003 23:19:34	Bright	42.000	17	78Bet Gem	1.1610	4500.0	84	4865	No
404	GOM_NL__2PRFIN20030203_232242_000000372013_00302_04865_5317.N1	03-FEB-2003 23:22:42	Bright	37.000	107	37The Aur	2.6490	11000.	74	4865	No
405	GOM_NL__2PRFIN20030203_232446_000000382013_00302_04865_5318.N1	03-FEB-2003 23:24:46	Bright	37.500	42	34Bet Aur	1.9000	10200.	75	4865	No
406	GOM_NL__2PRFIN20030203_233328_000000472013_00302_04865_5319.N1	03-FEB-2003 23:33:28	Bright	46.500	82	48Bet UMa	2.3650	10600.	93	4865	No
407	GOM_NL__2PRFIN20030203_233653_000000332013_00302_04865_5320.N1	03-FEB-2003 23:36:53	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	4865	No
408	GOM_NL__2PRFIN20030203_233948_000000412013_00302_04865_5321.N1	03-FEB-2003 23:39:48	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	4865	No
409	GOM_NL__2PRFIN20030203_234124_000000592013_00302_04865_5322.N1	03-FEB-2003 23:41:24	Bright	58.500	55	79Zet UMa	2.0600	10200.	117	4865	No
410	GOM_NL__2PRFIN20030203_234434_000000432013_00302_04865_5323.N1	03-FEB-2003 23:44:34	Bright	42.500	119	14Eta Dra	2.7270	4700.0	85	4865	No
411	GOM_NL__2PRFIN20030203_234751_000000372013_00302_04865_5324.N1	03-FEB-2003 23:47:51	Bright	36.500	130	23Bet Dra	2.7990	5800.0	73	4865	No
412	GOM_NL__2PRFIN20030203_235135_000000362013_00302_04865_5325.N1	03-FEB-2003 23:51:35	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	4865	No
413	GOM_NL__2PRFIN20030203_235437_000000462013_00302_04865_5326.N1	03-FEB-2003 23:54:37	Bright	45.500	133	40Zet Her	2.8070	6000.0	91	4865	No
414	GOM_NL__2PRFIN20030203_235907_000001342013_00302_04865_5327.N1	03-FEB-2003 23:59:07	Tw_i_and_stray	134.00	83		2.3780	11000.	268	4865	No

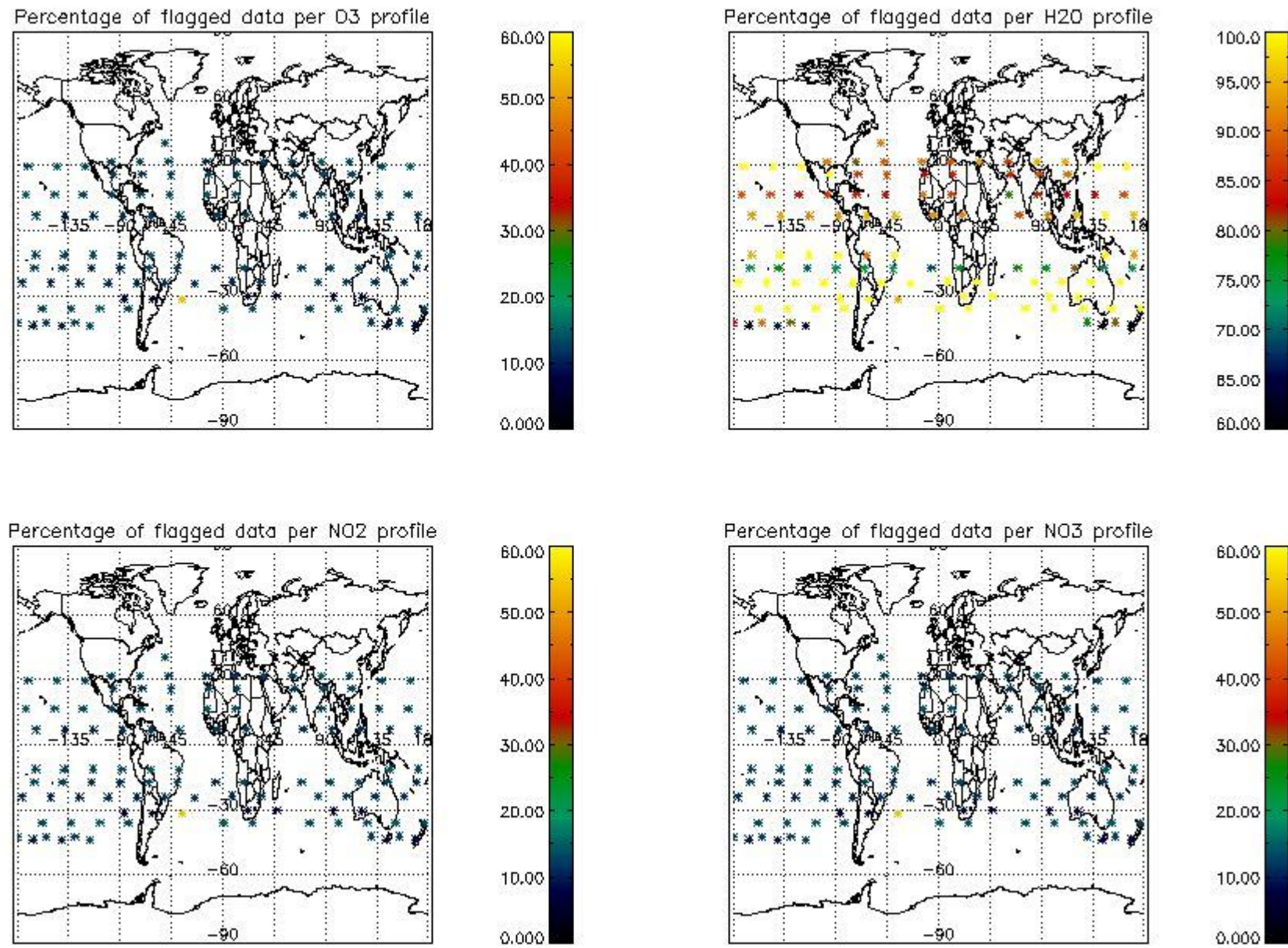
### 3. Quality information per product

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)

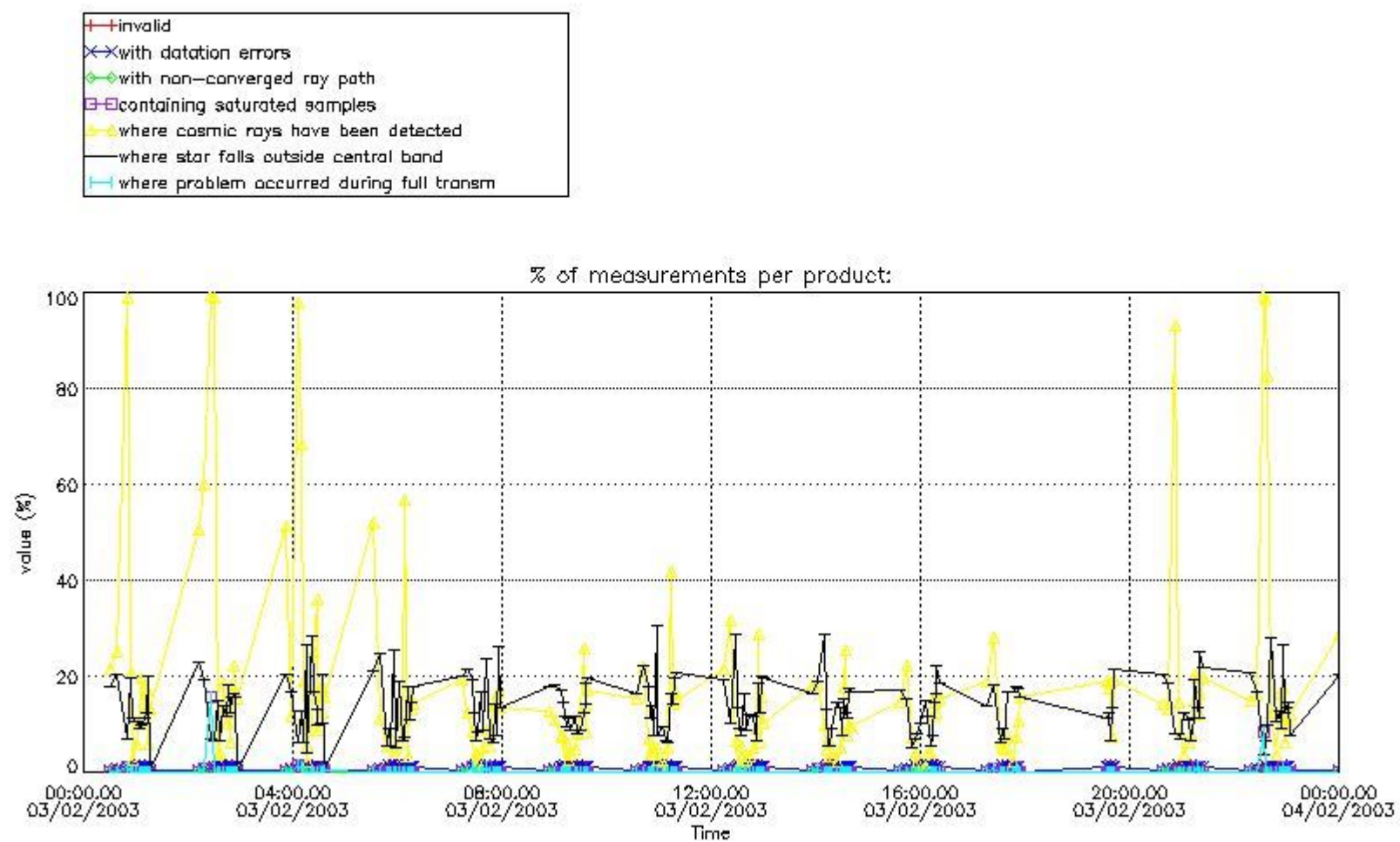


### 4. Level 1 quality information per product

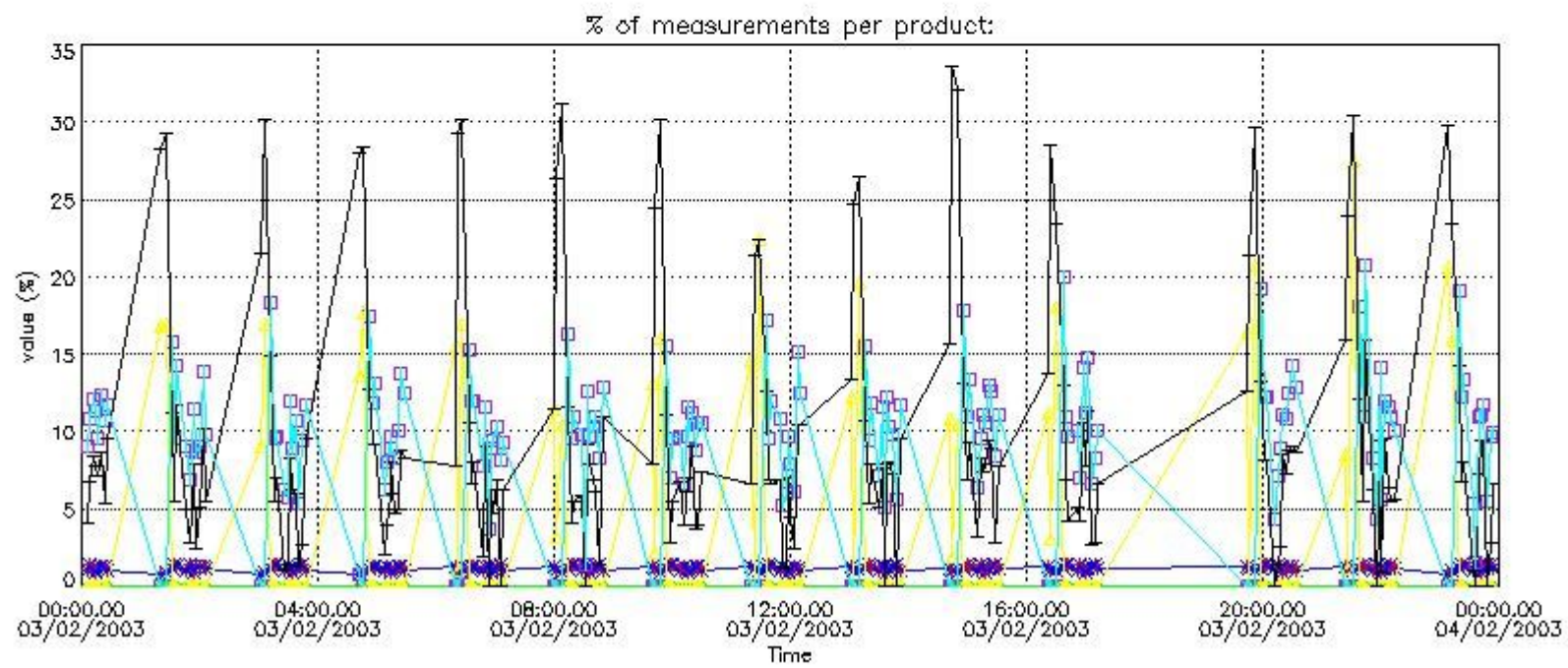
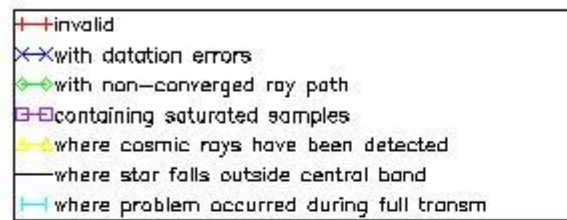
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

#### 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



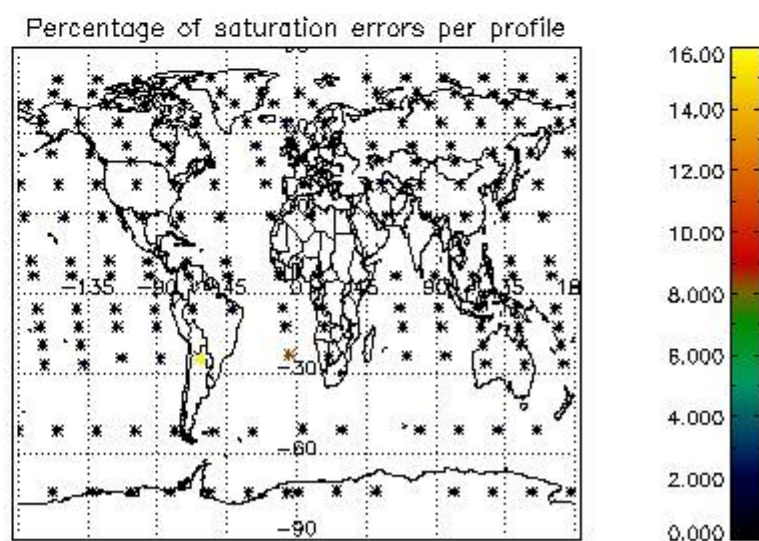
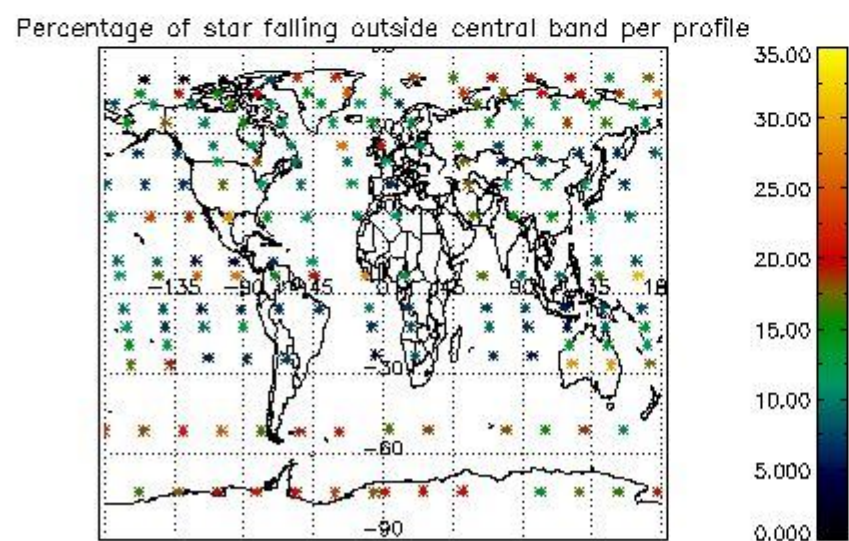
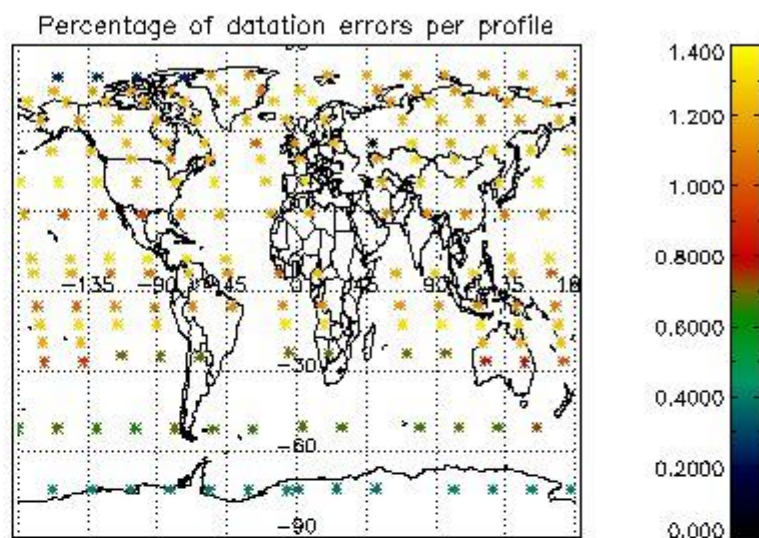
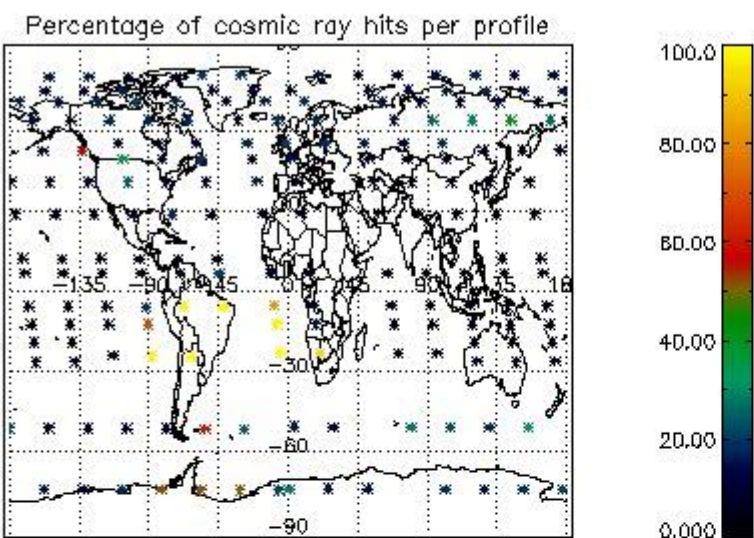
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



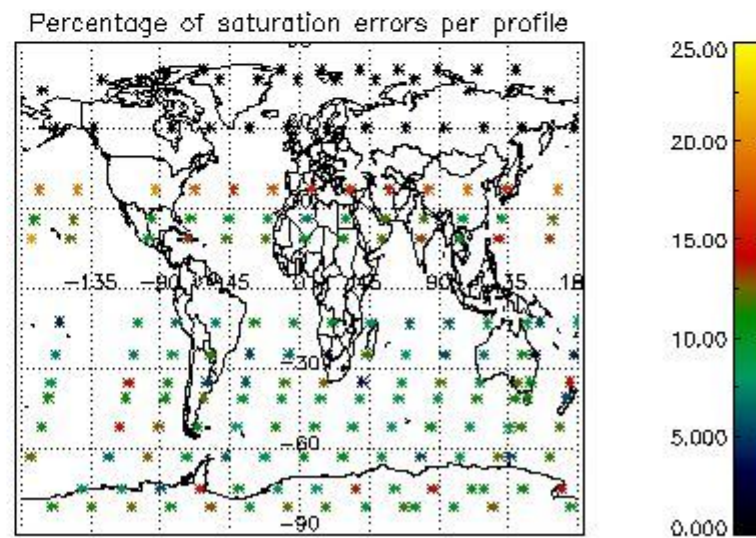
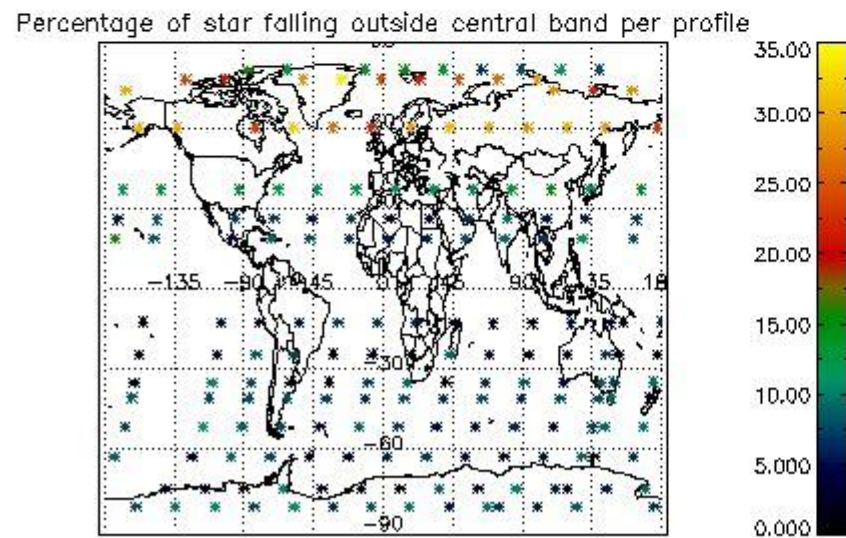
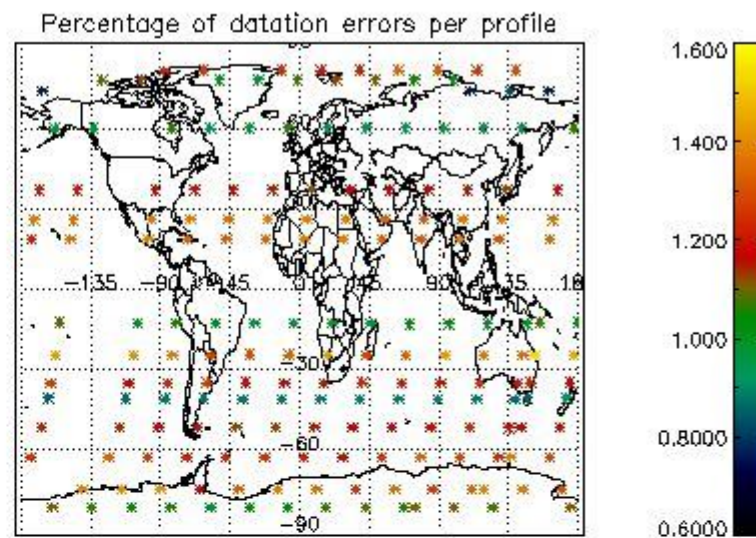
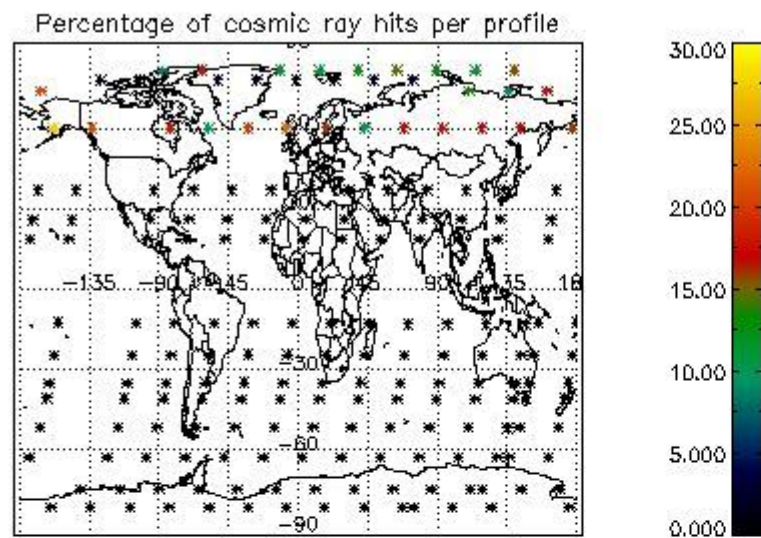
*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

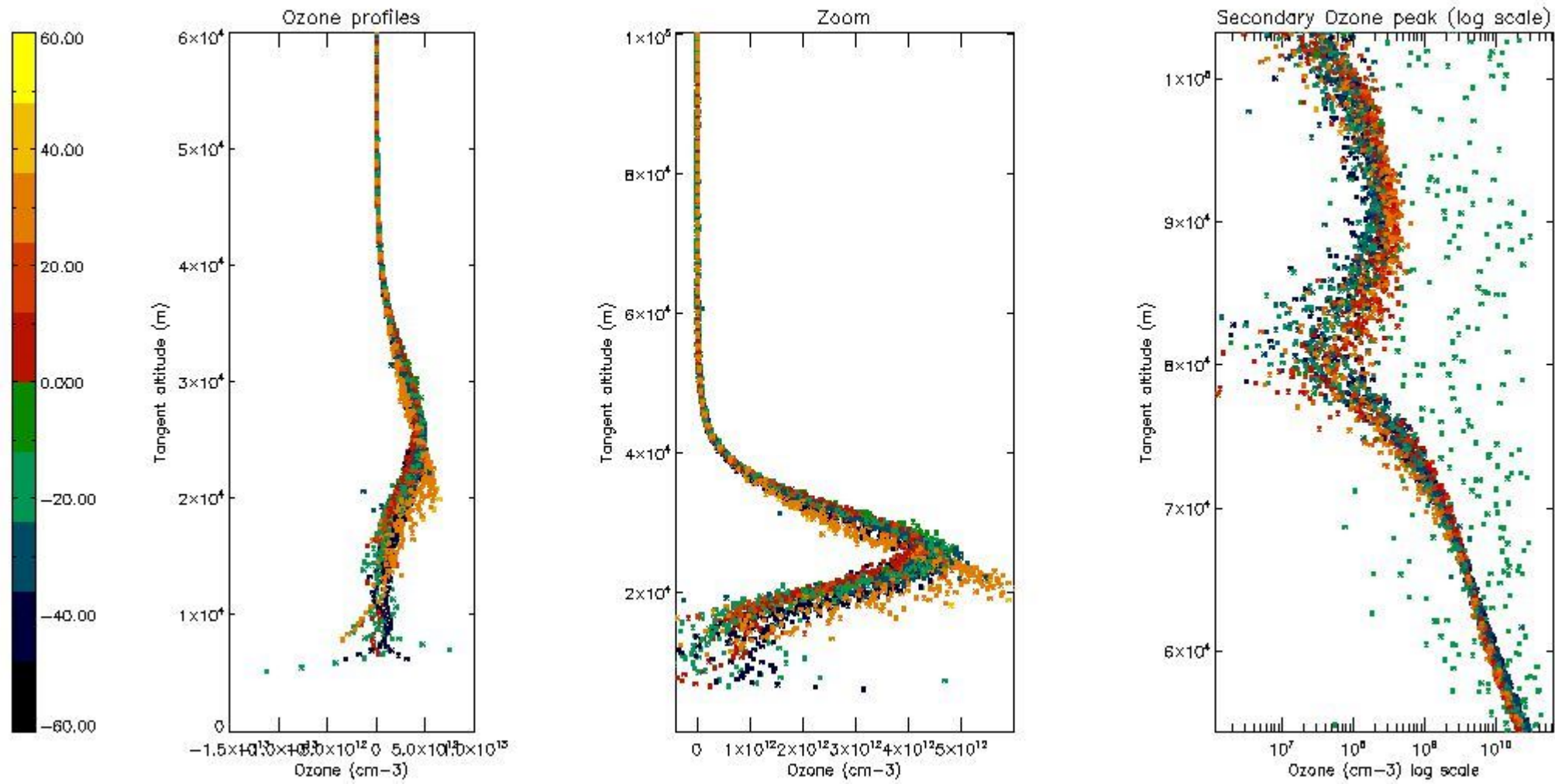
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	16

STD < 10	13
STD < 5	10

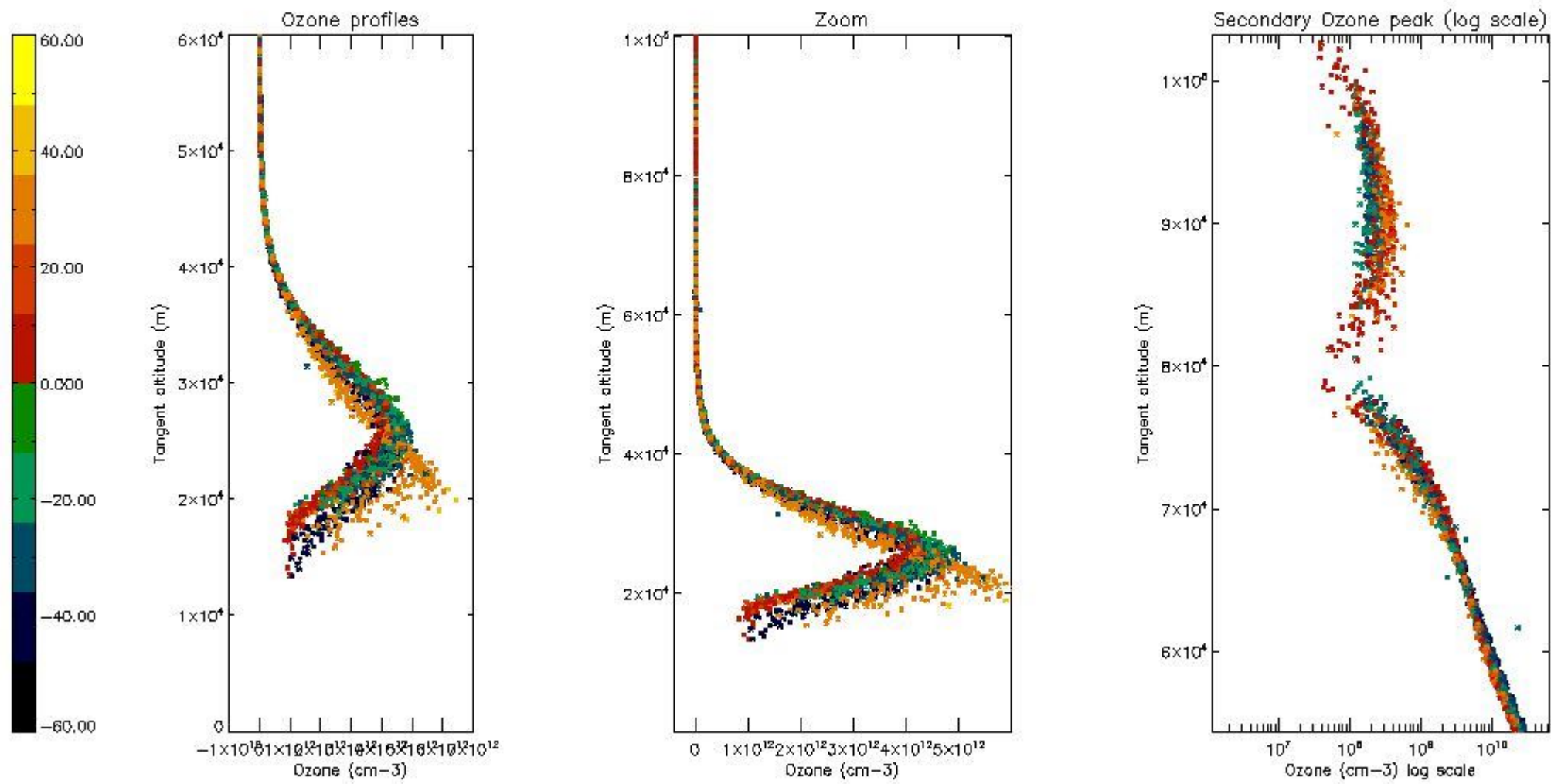
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



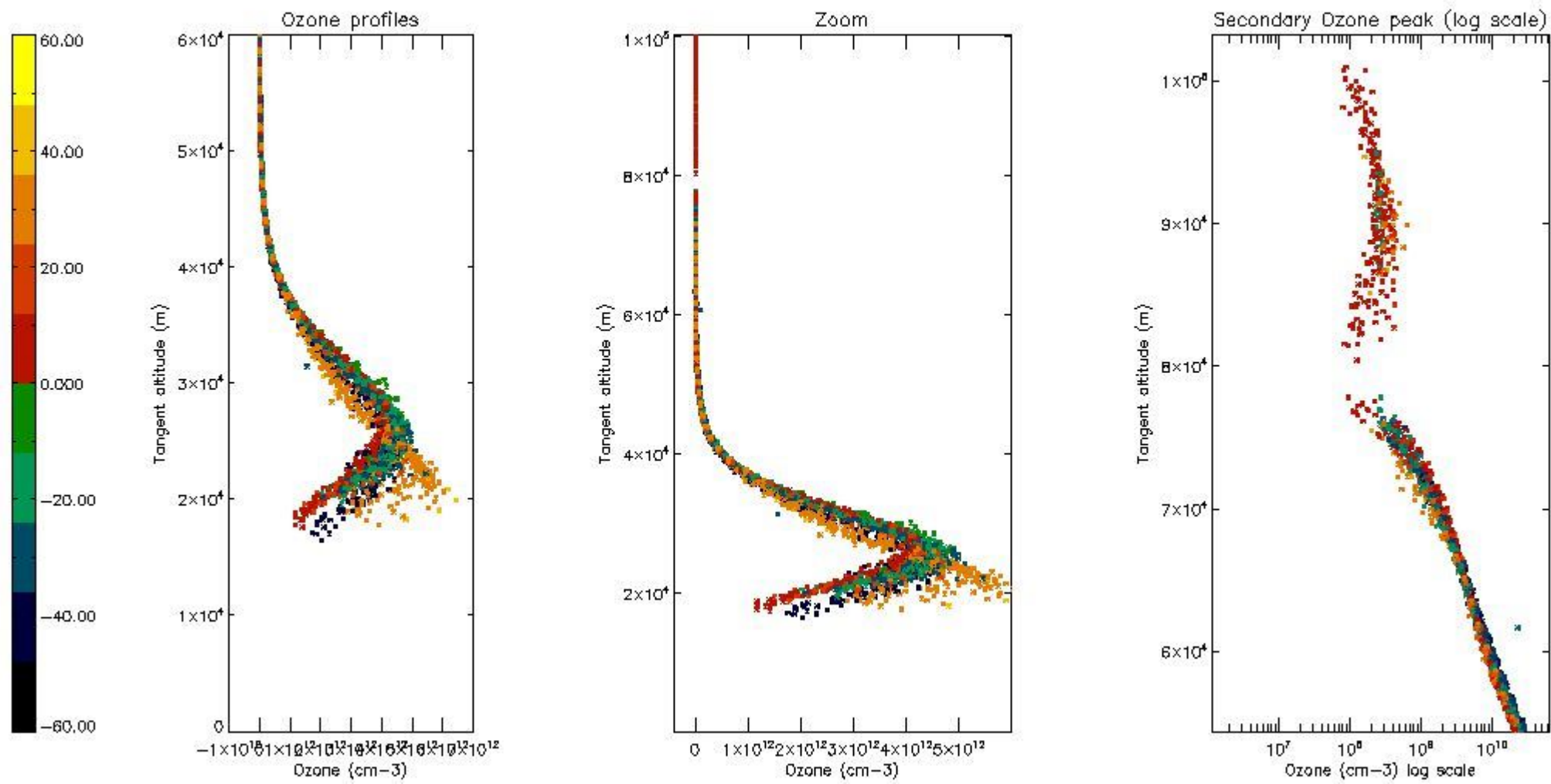
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



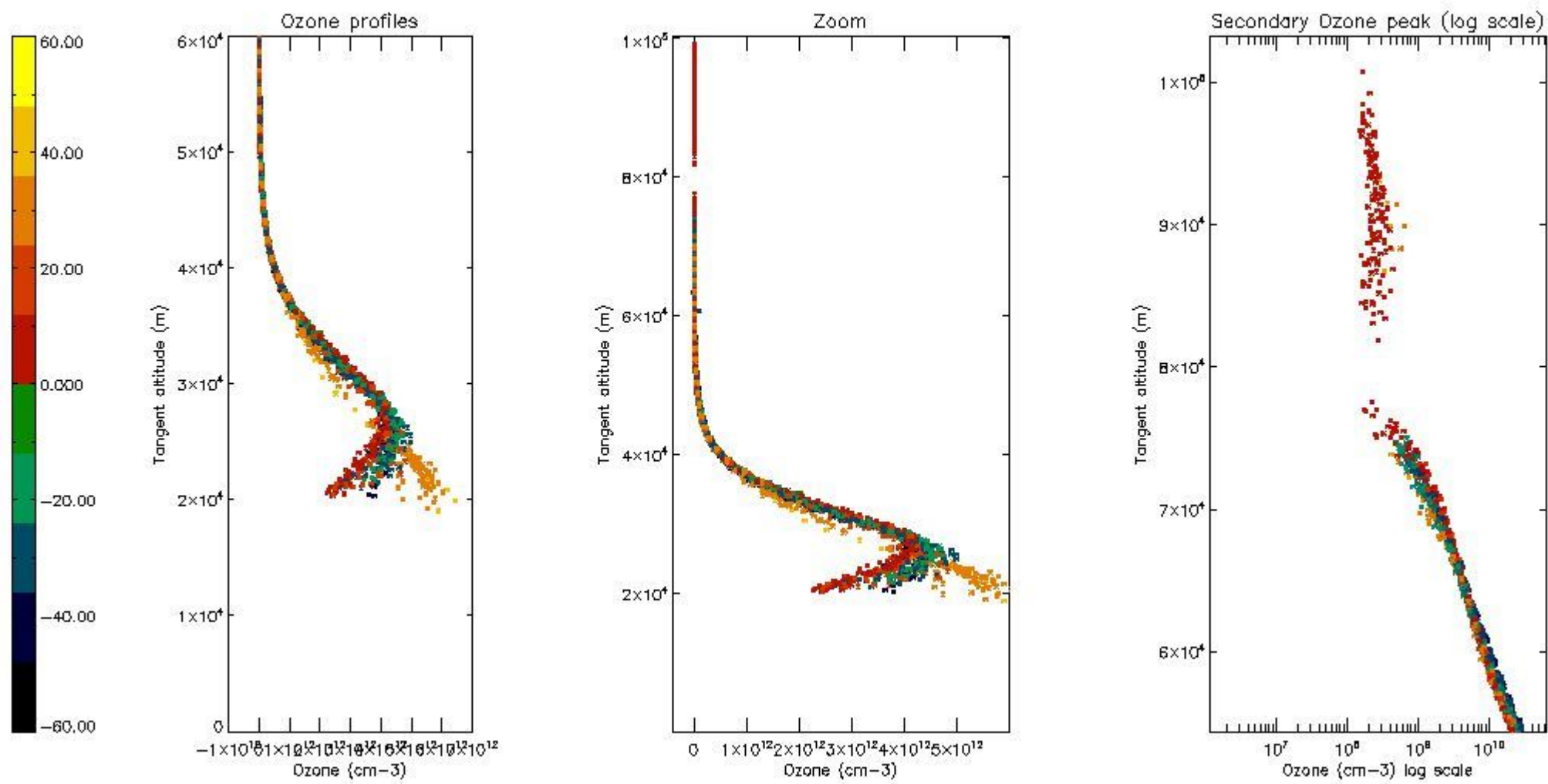
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



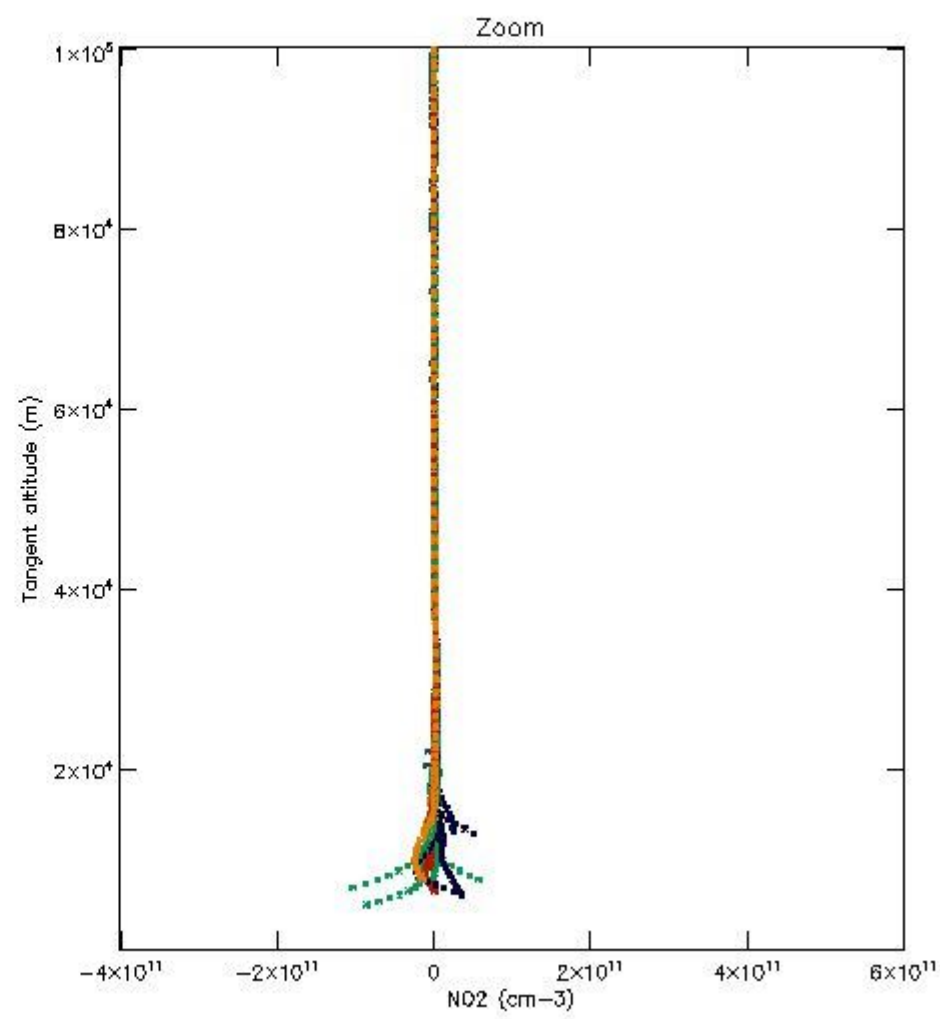
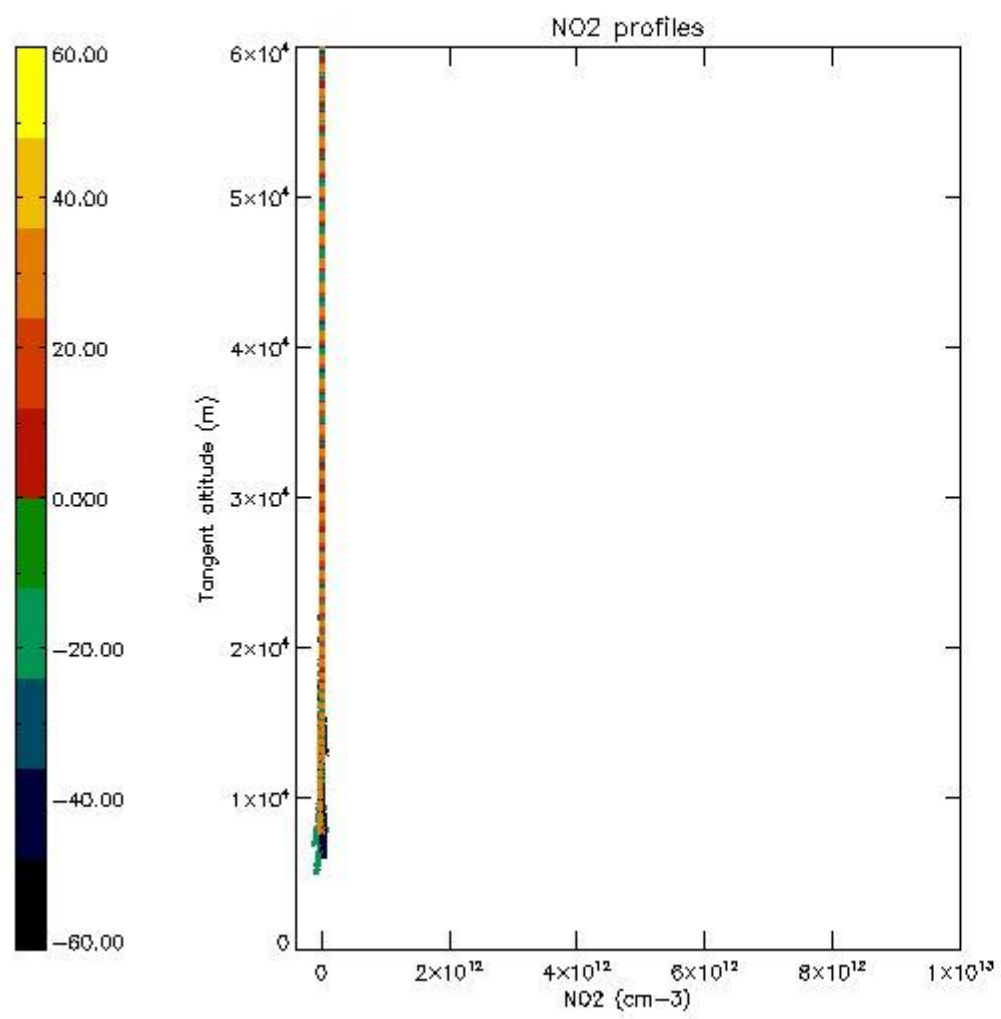
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



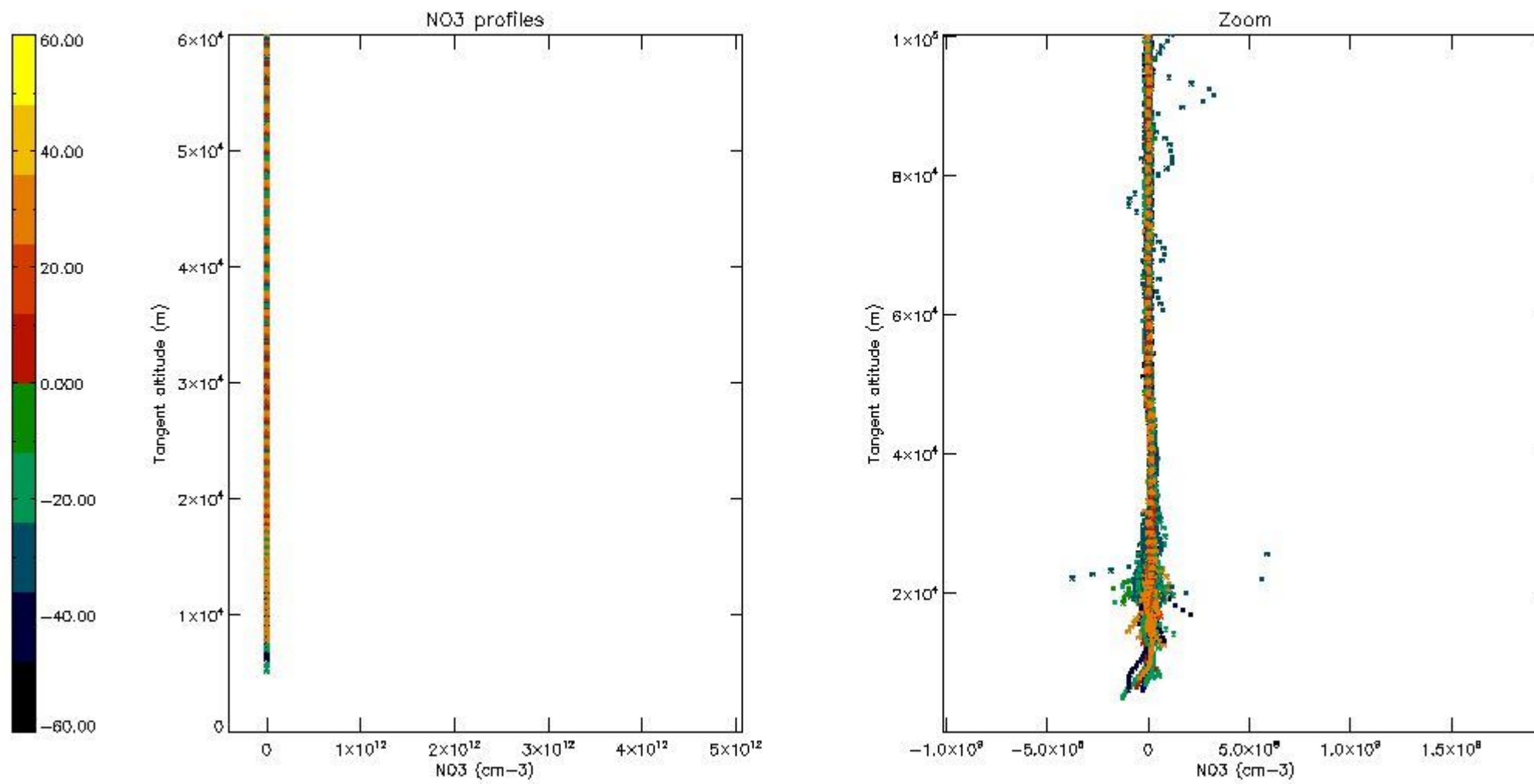
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.

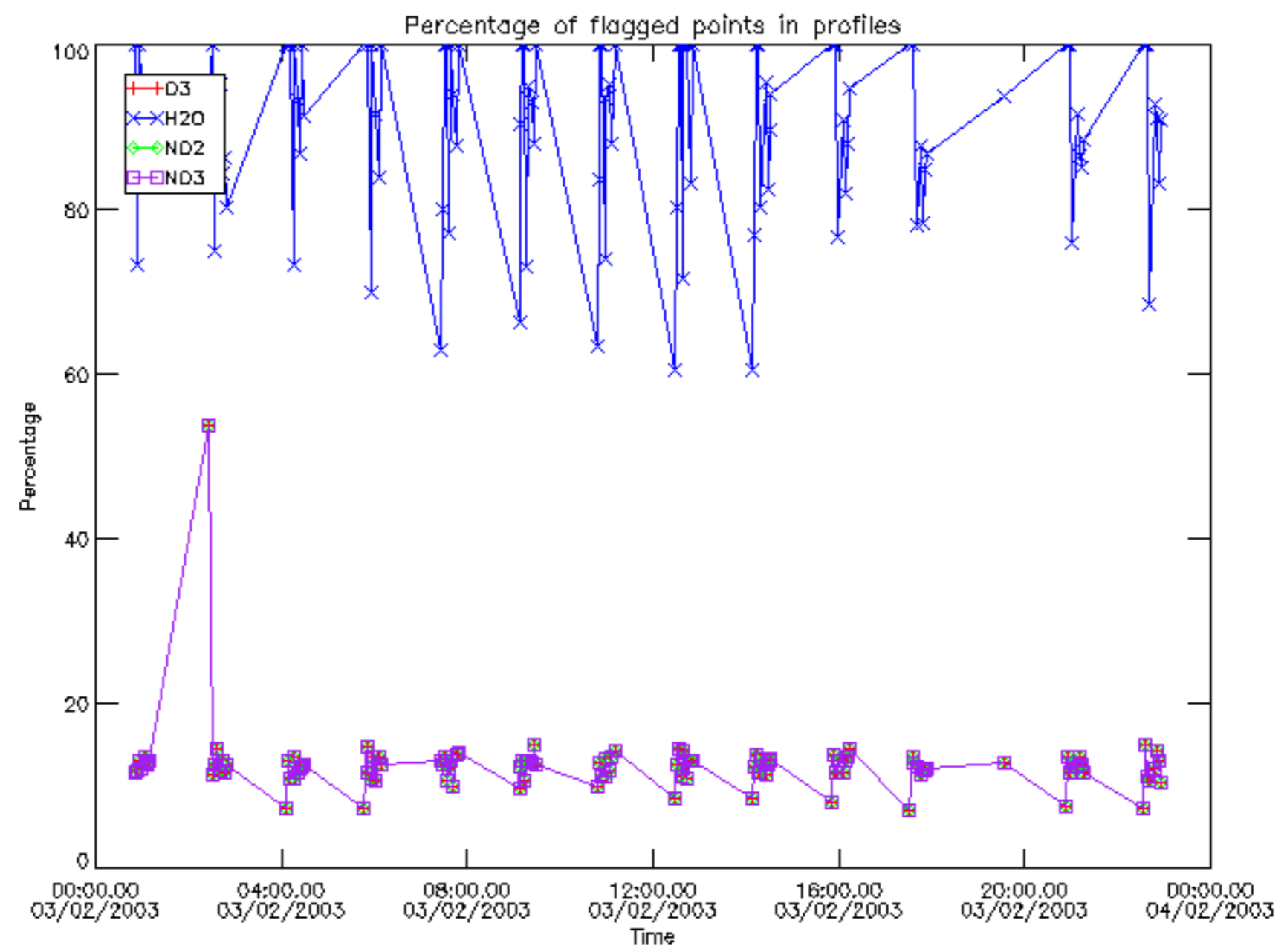


## 6. Auxiliary Data Files used for the production reported in section 2

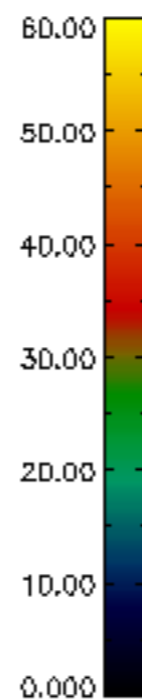
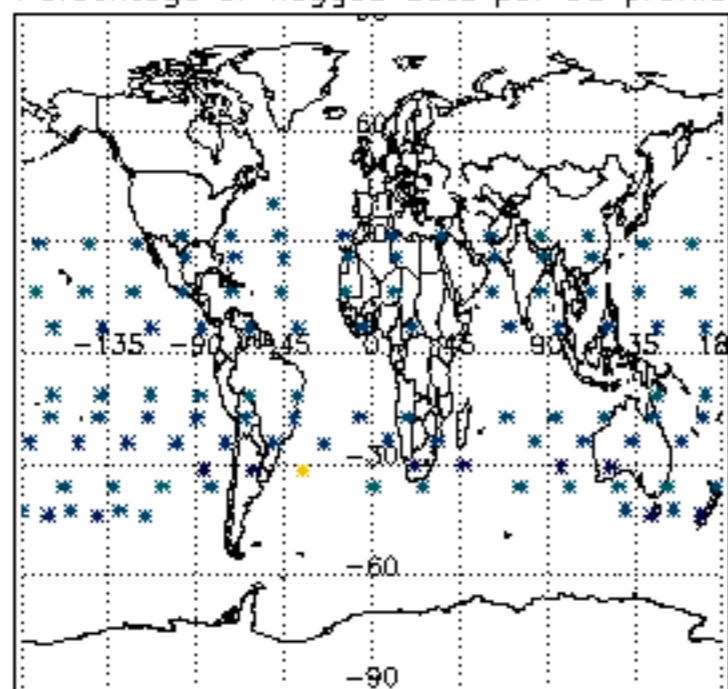
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	03-FEB-2003 00:05:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	03-FEB-2003 00:05:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	03-FEB-2003 00:05:16

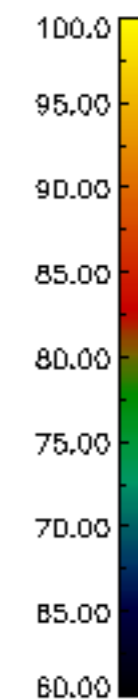
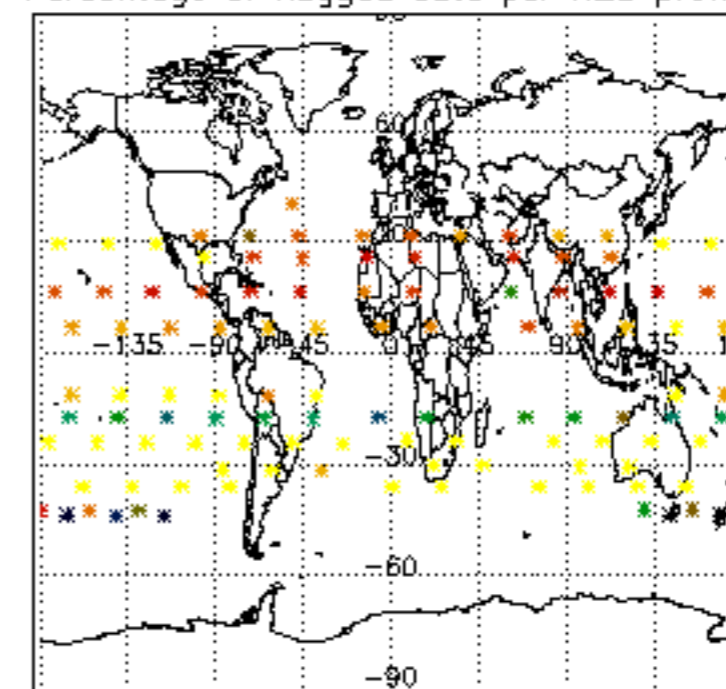




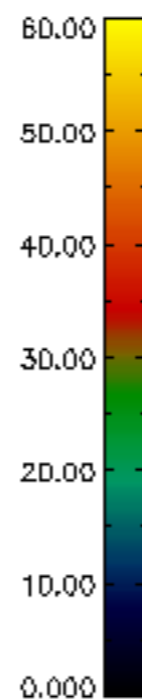
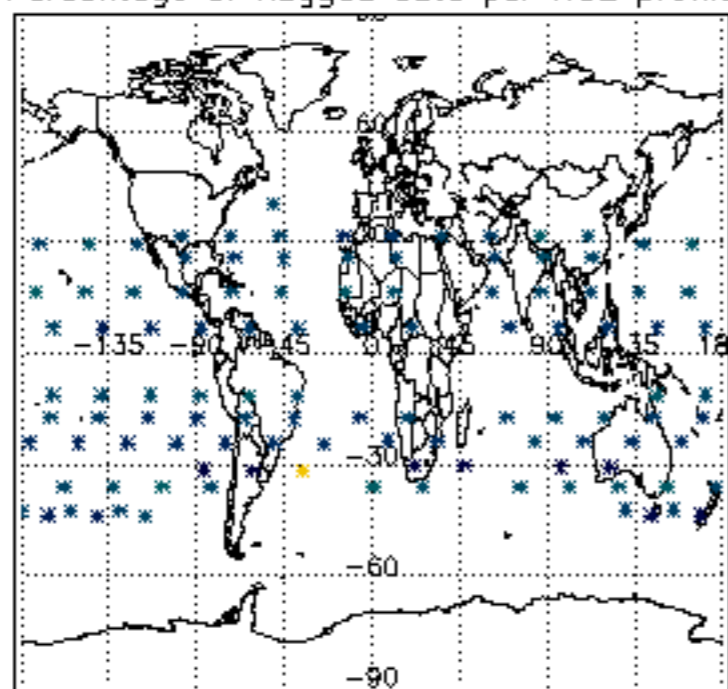
Percentage of flagged data per D3 profile



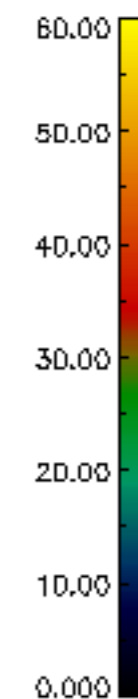
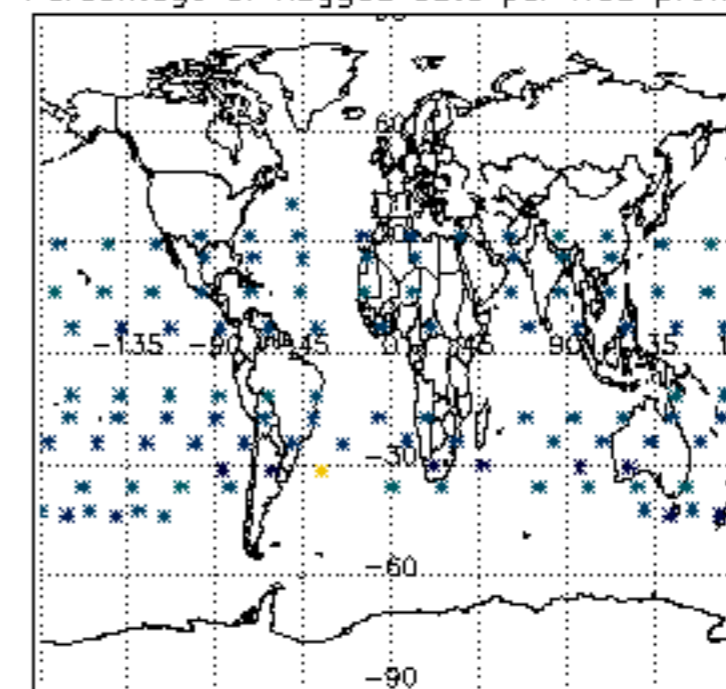
Percentage of flagged data per H2O profile

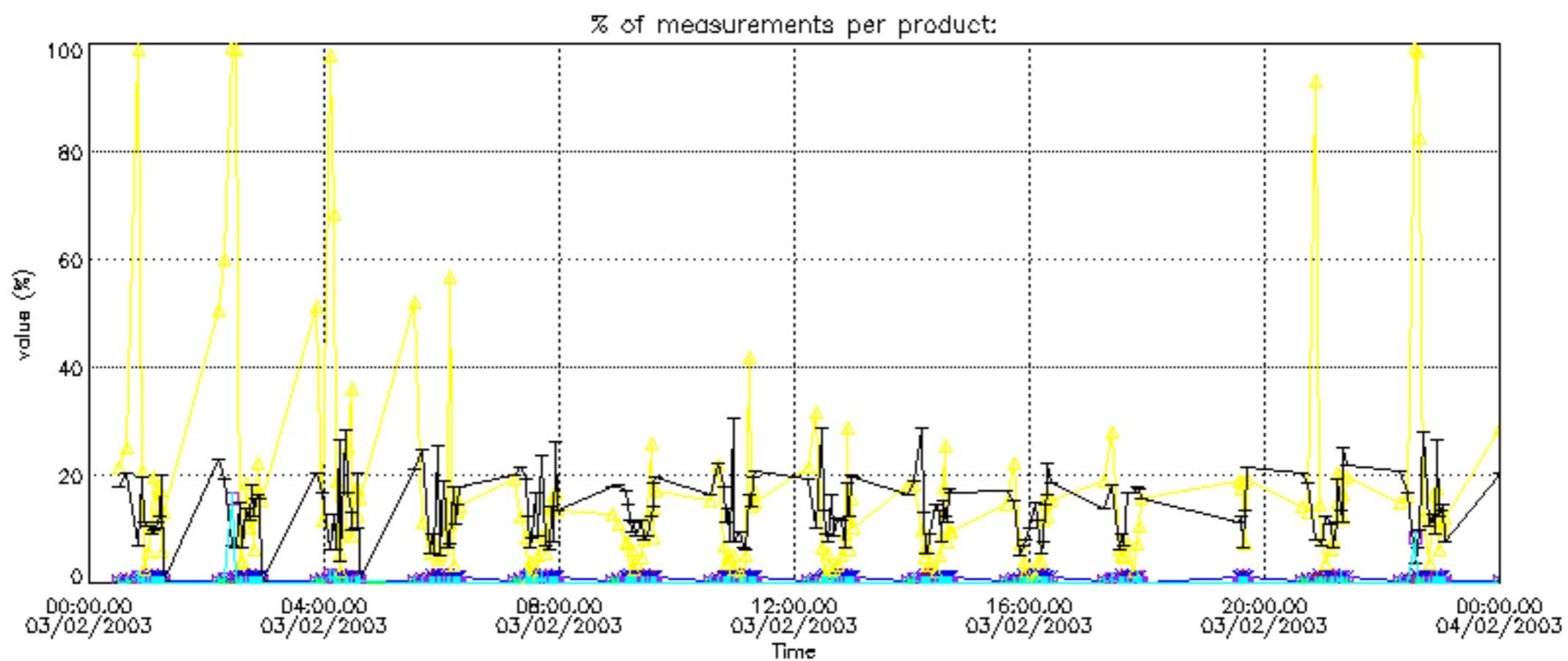


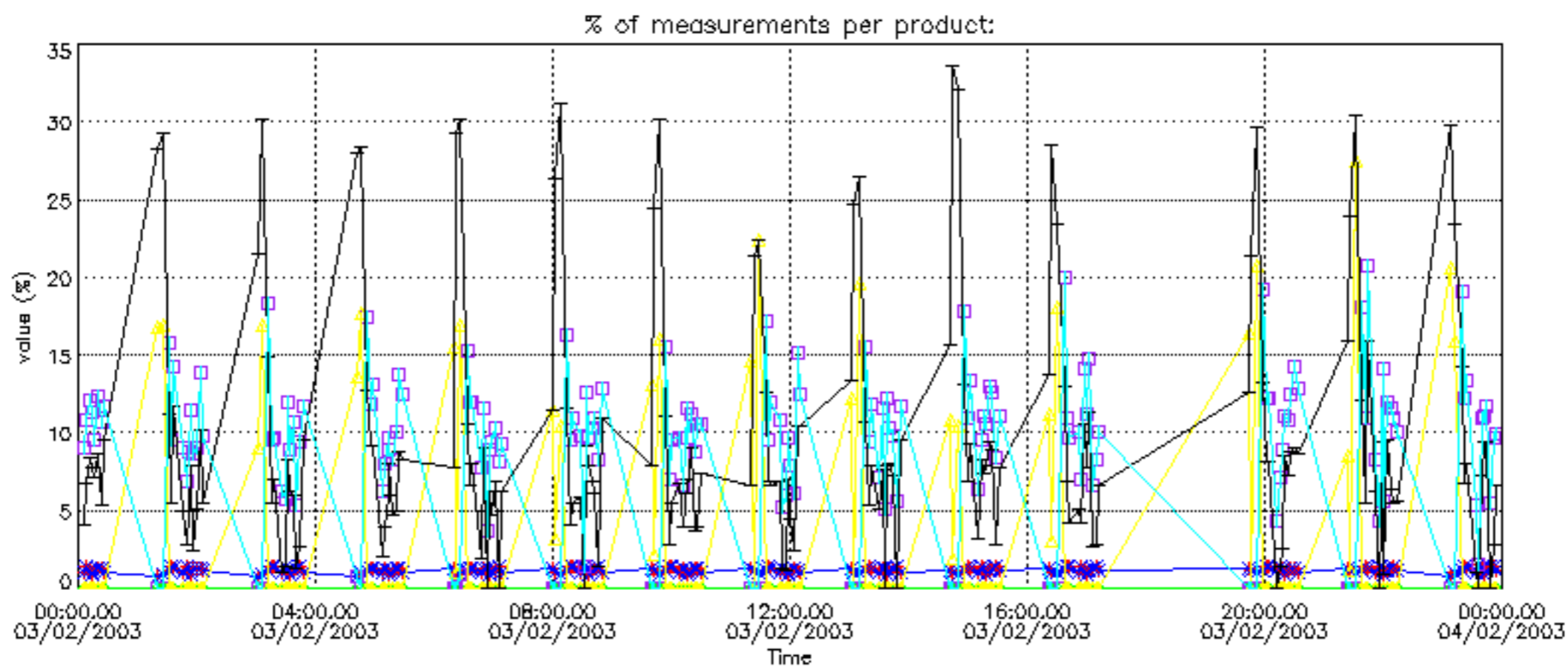
Percentage of flagged data per NO2 profile



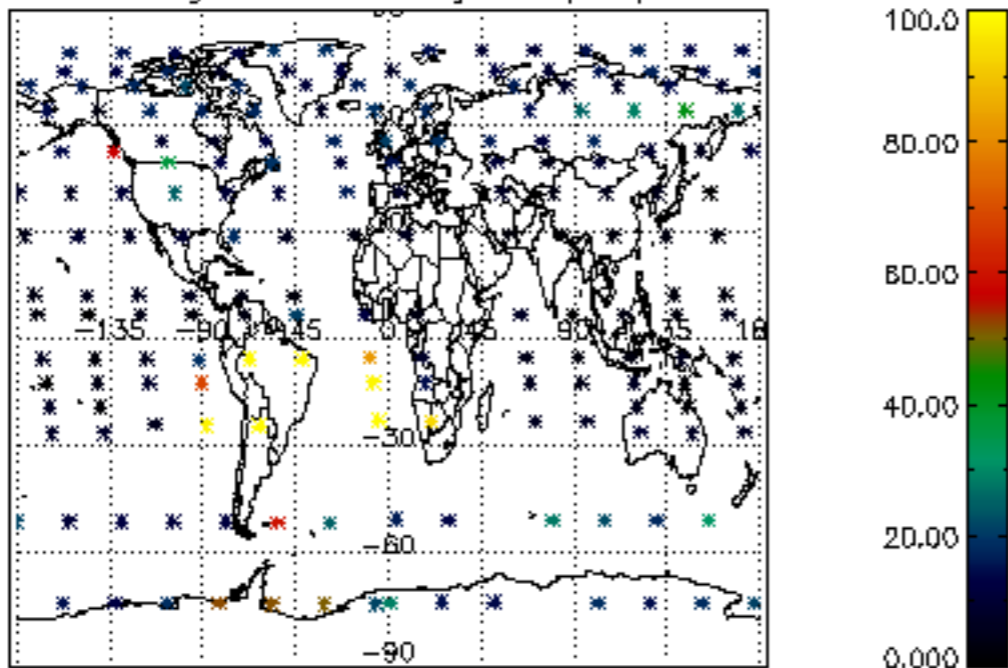
Percentage of flagged data per NO3 profile



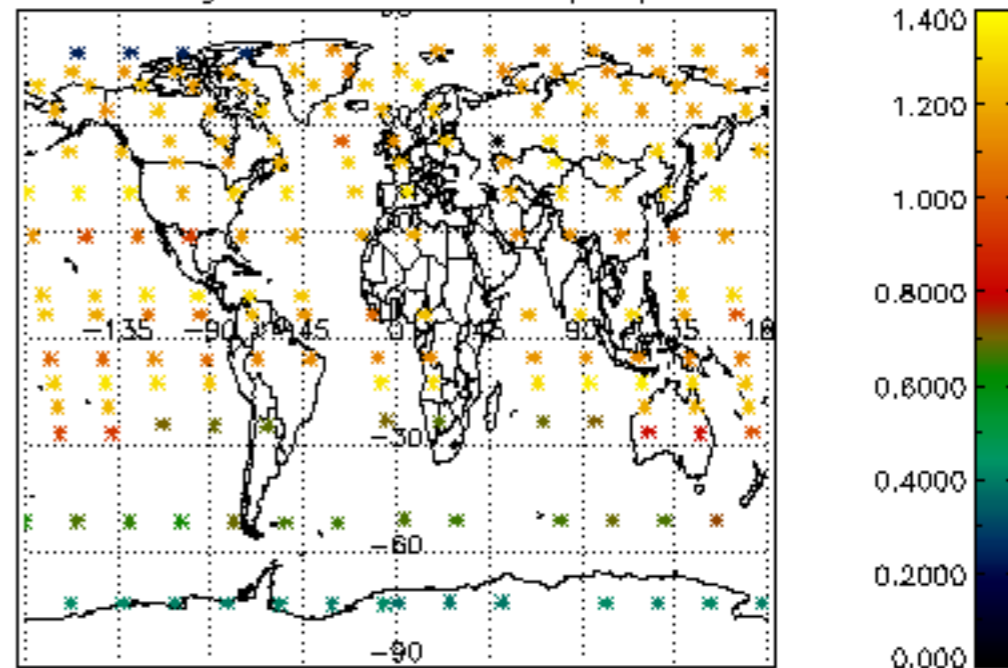




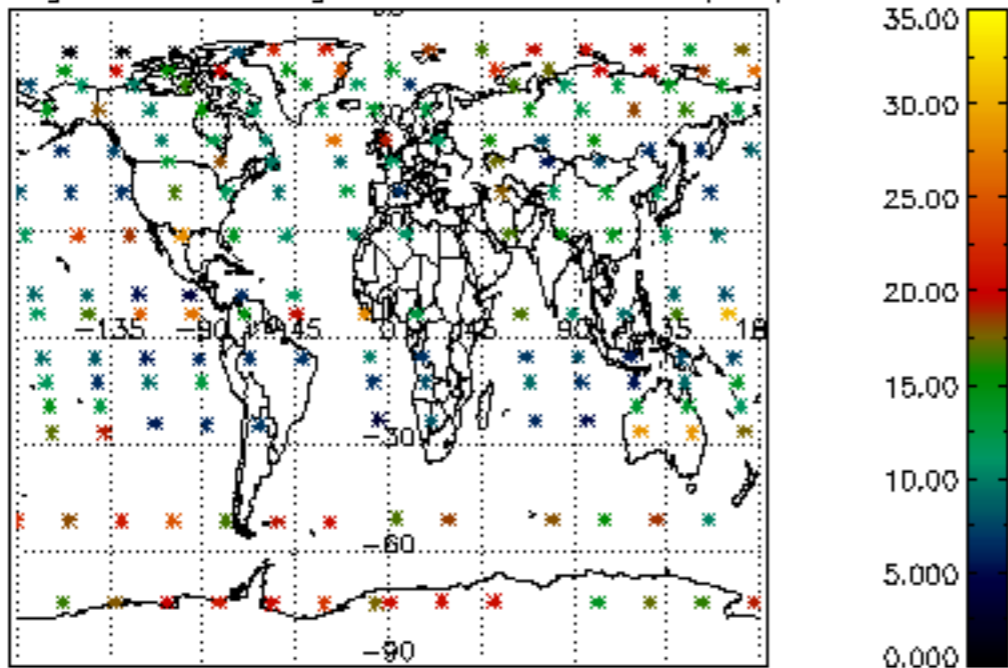
Percentage of cosmic ray hits per profile



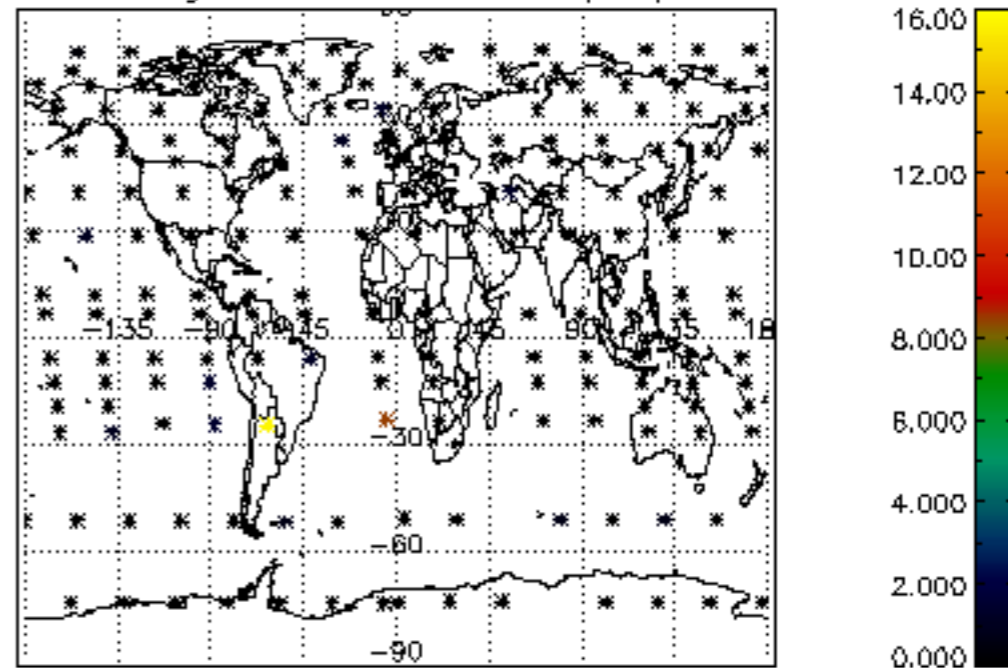
Percentage of datation errors per profile



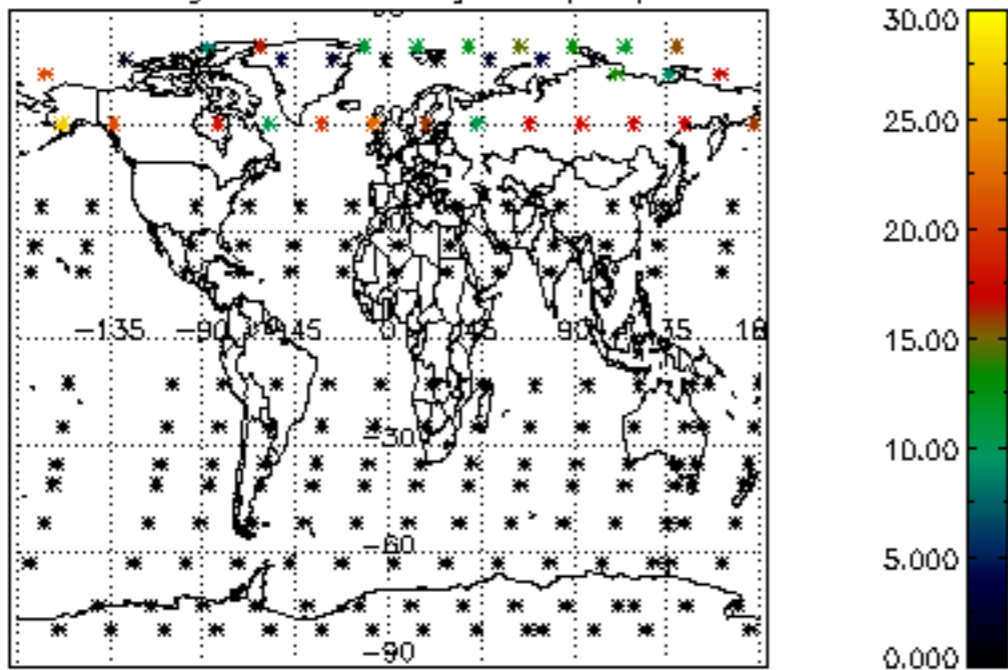
Percentage of star falling outside central band per profile



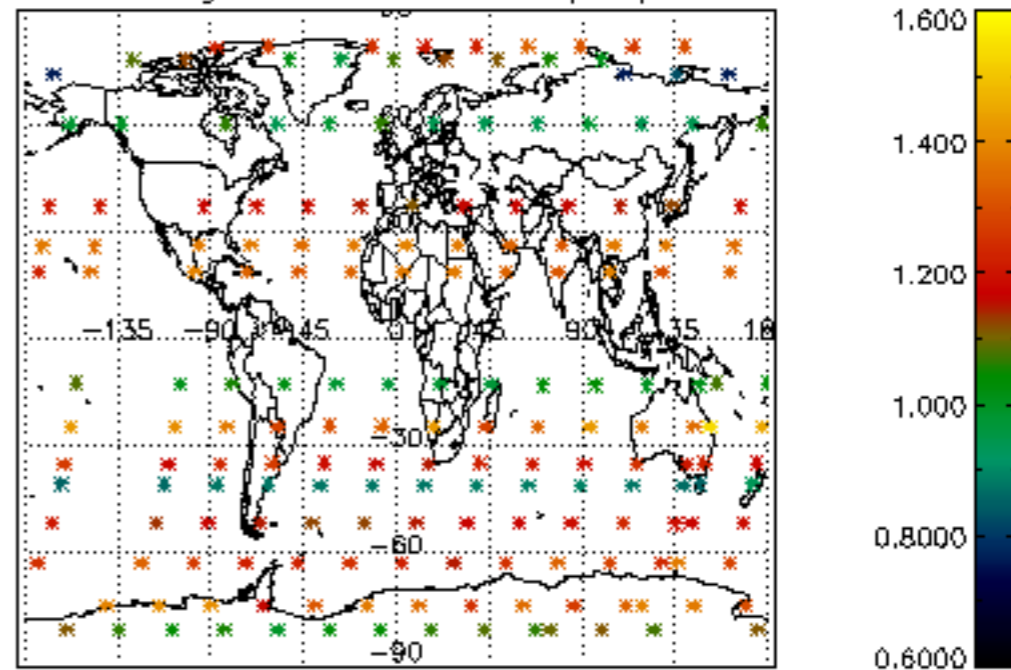
Percentage of saturation errors per profile



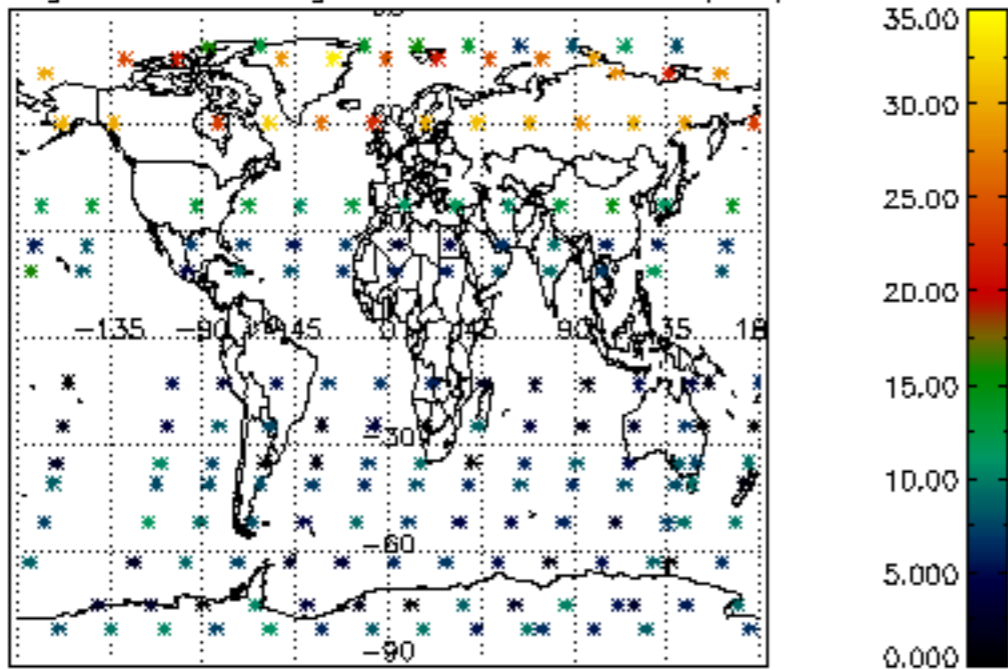
Percentage of cosmic ray hits per profile



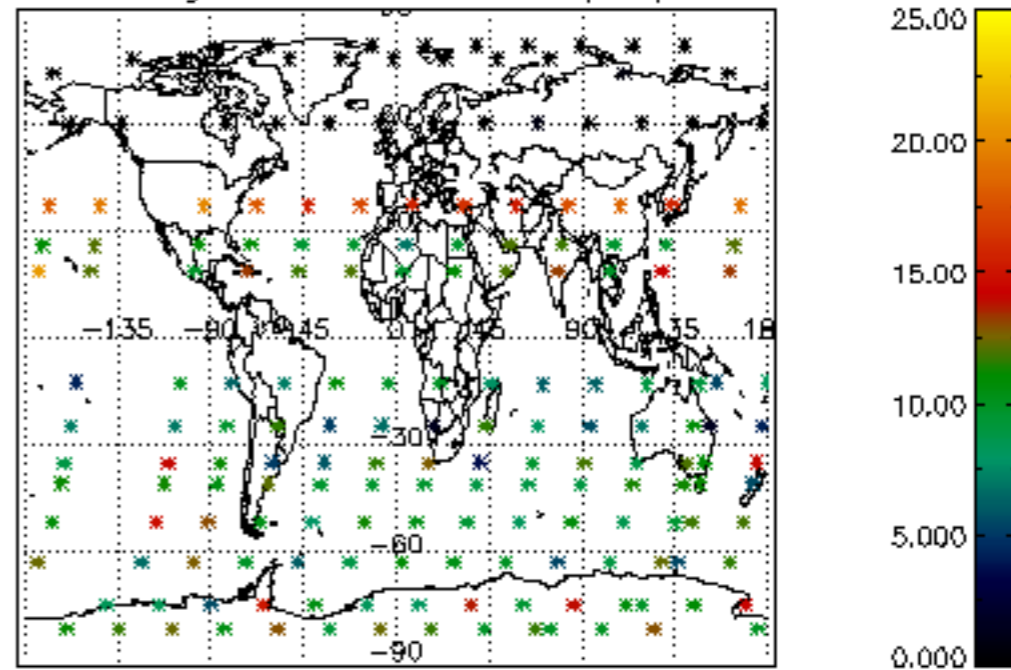
Percentage of datation errors per profile

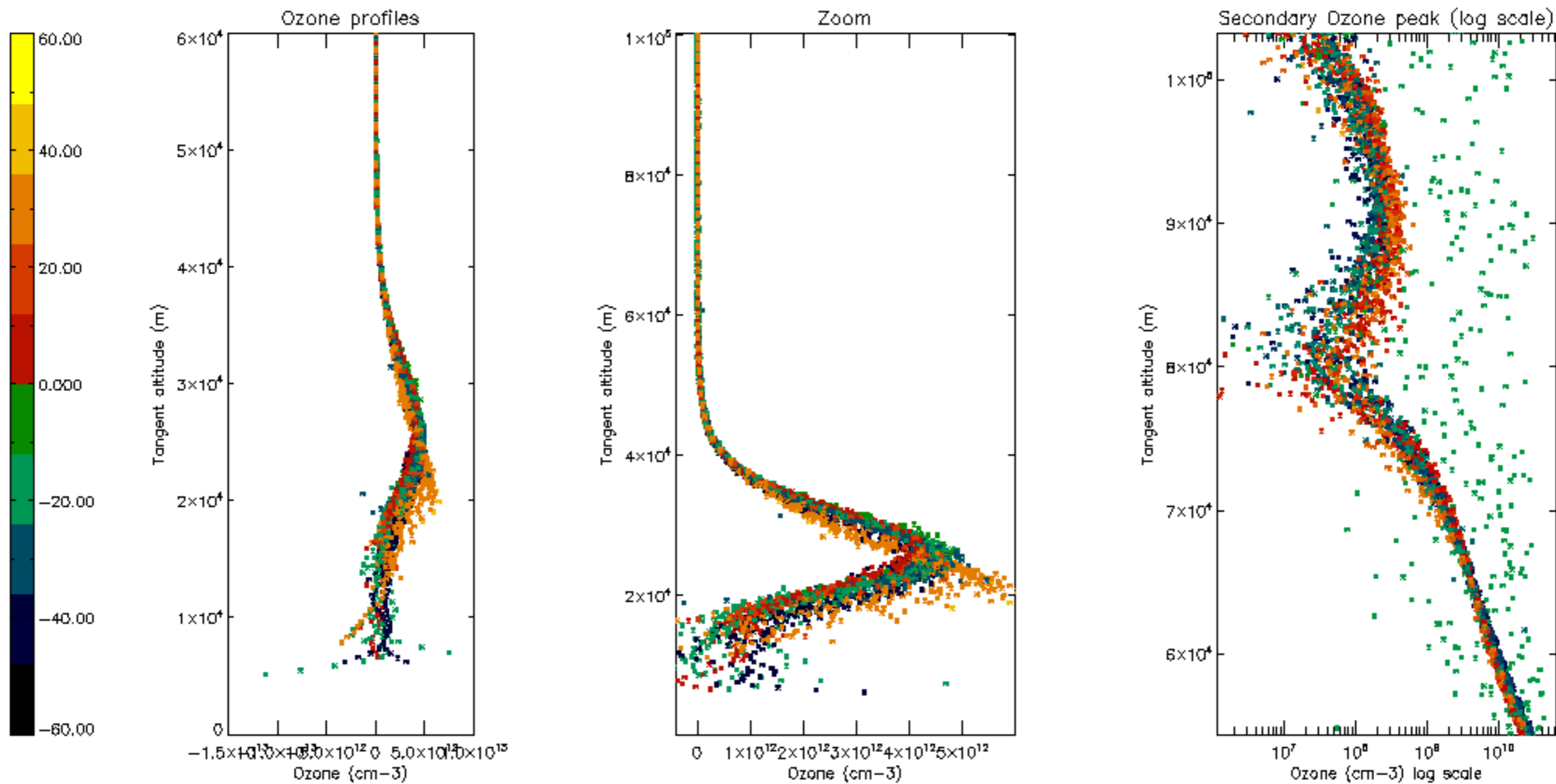


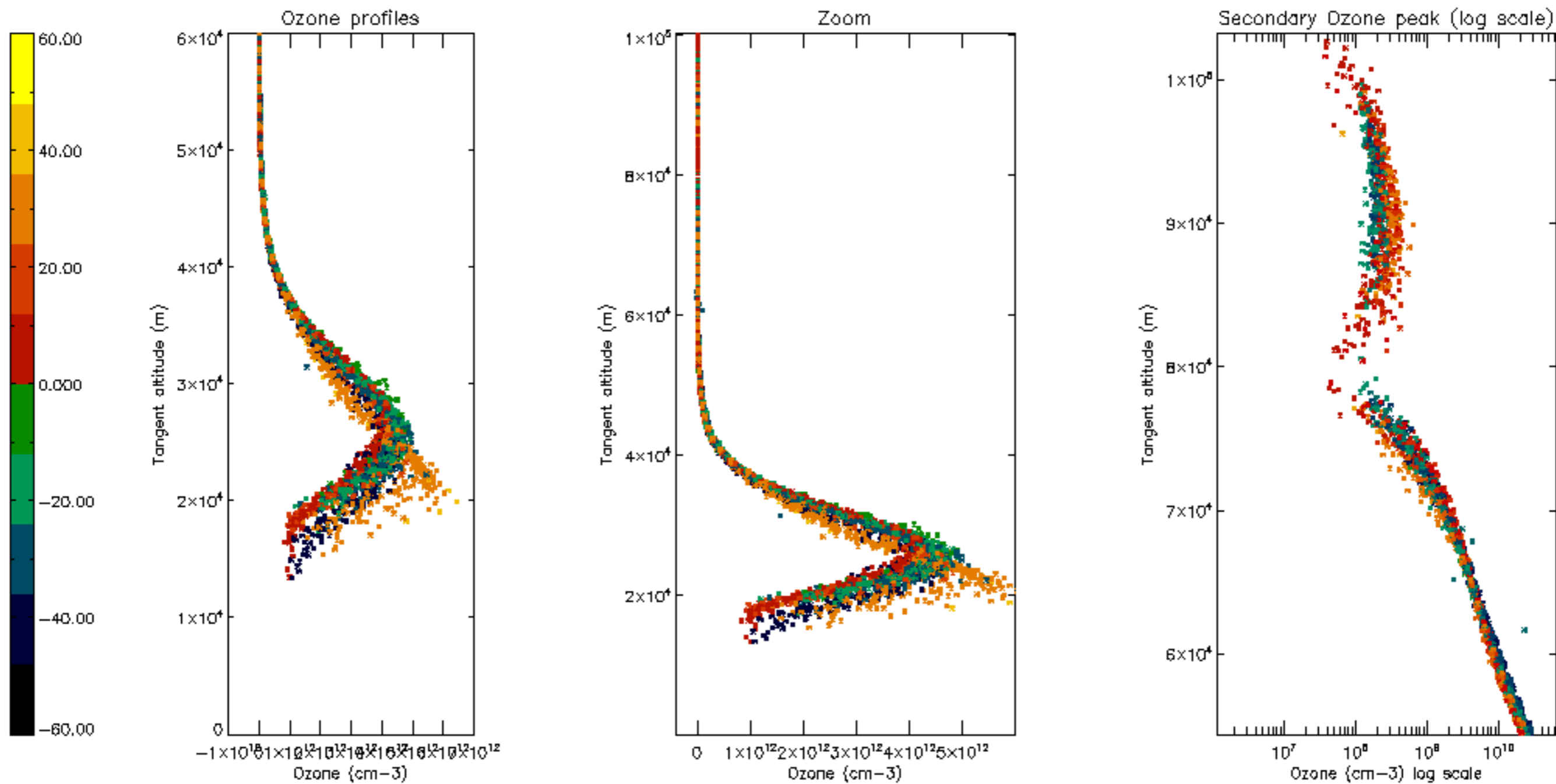
Percentage of star falling outside central band per profile



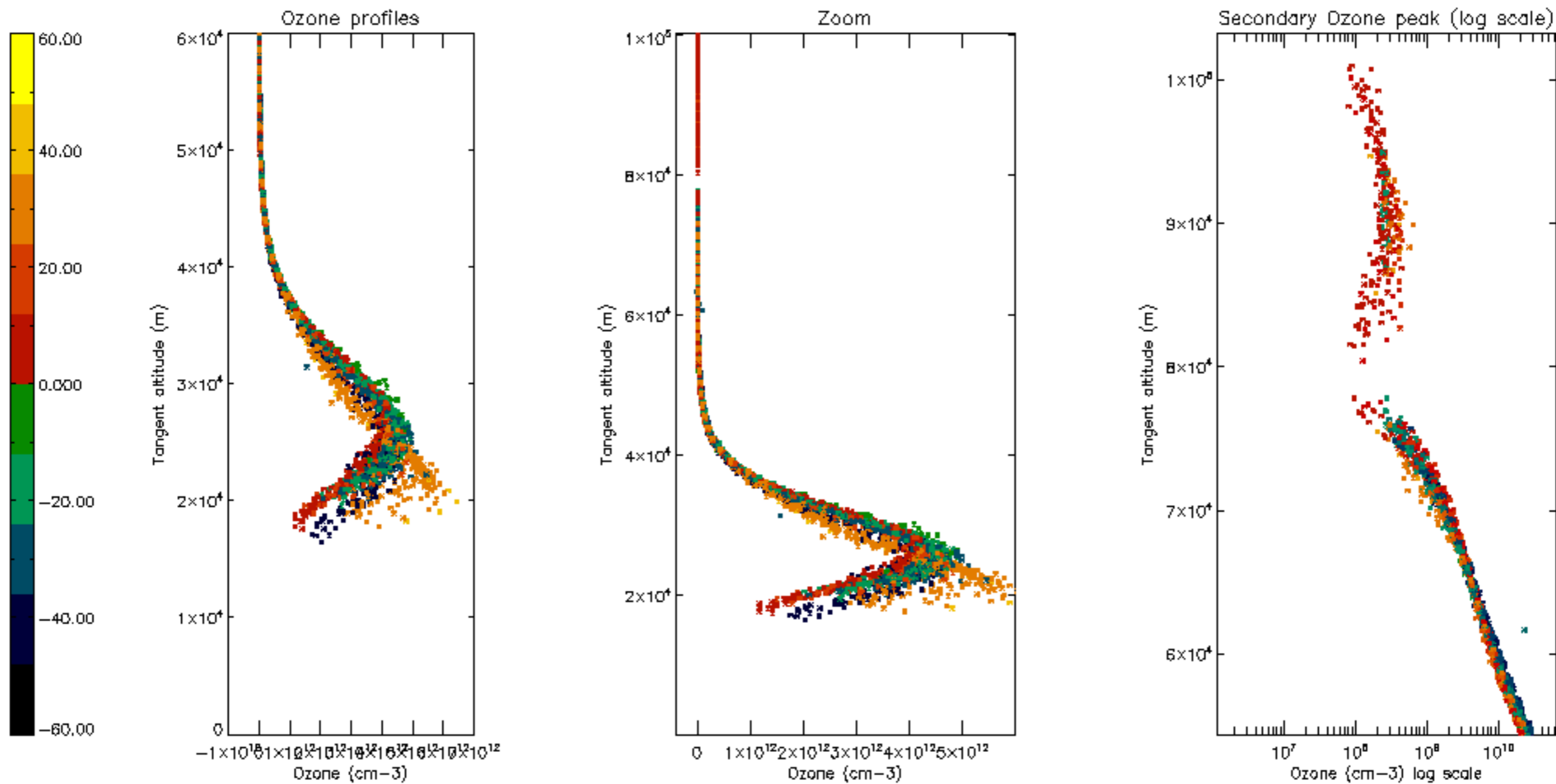
Percentage of saturation errors per profile

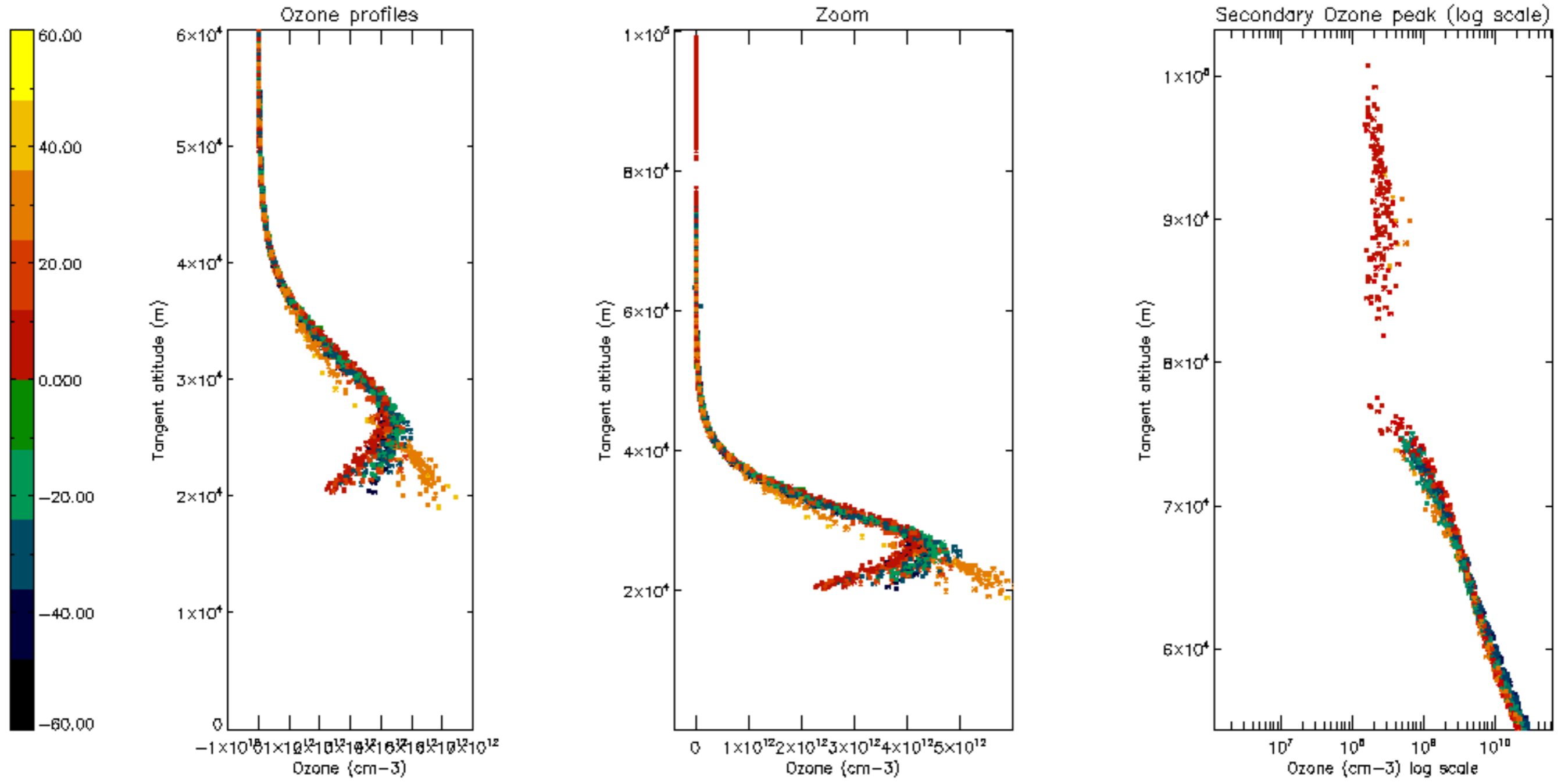


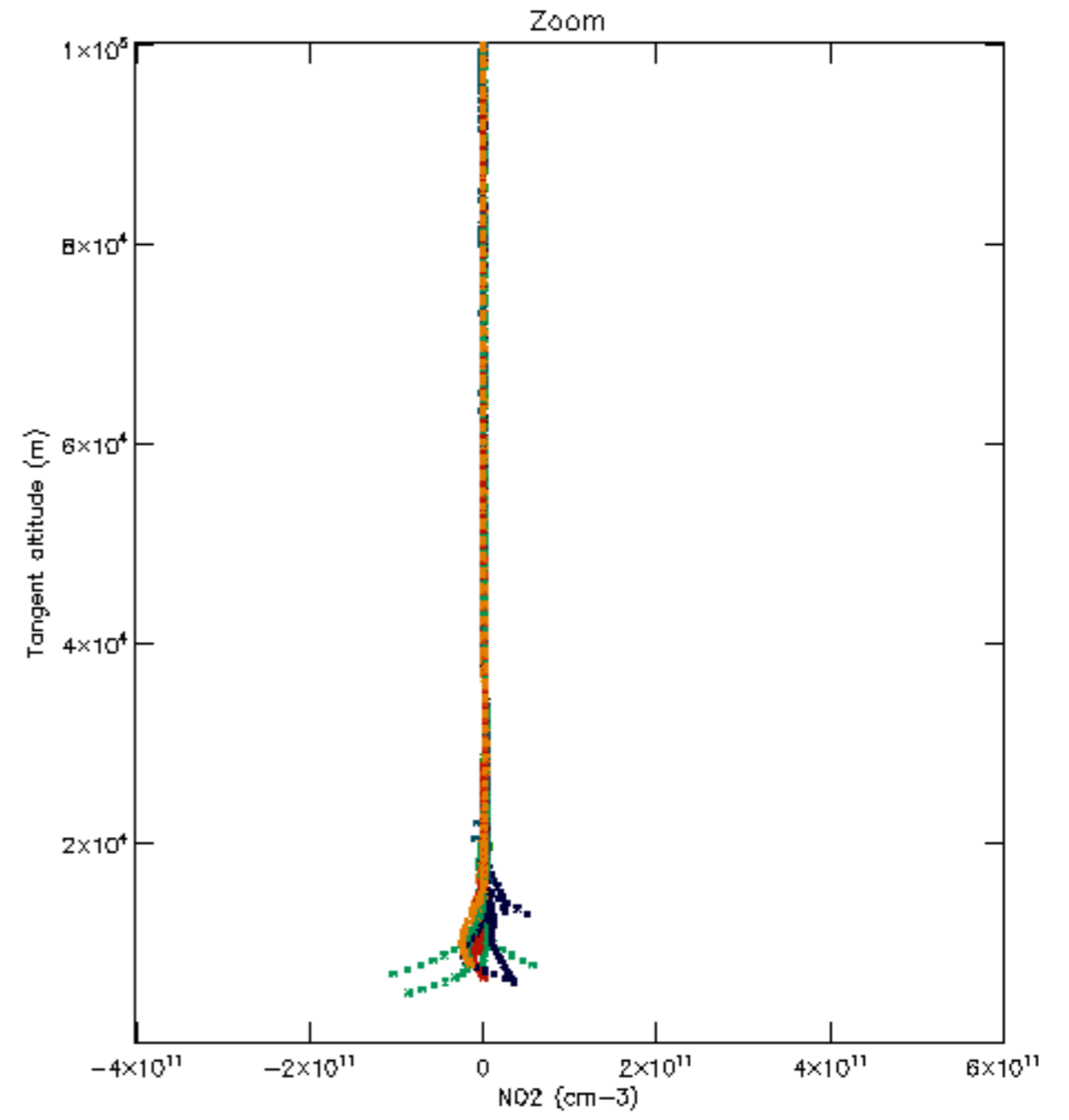
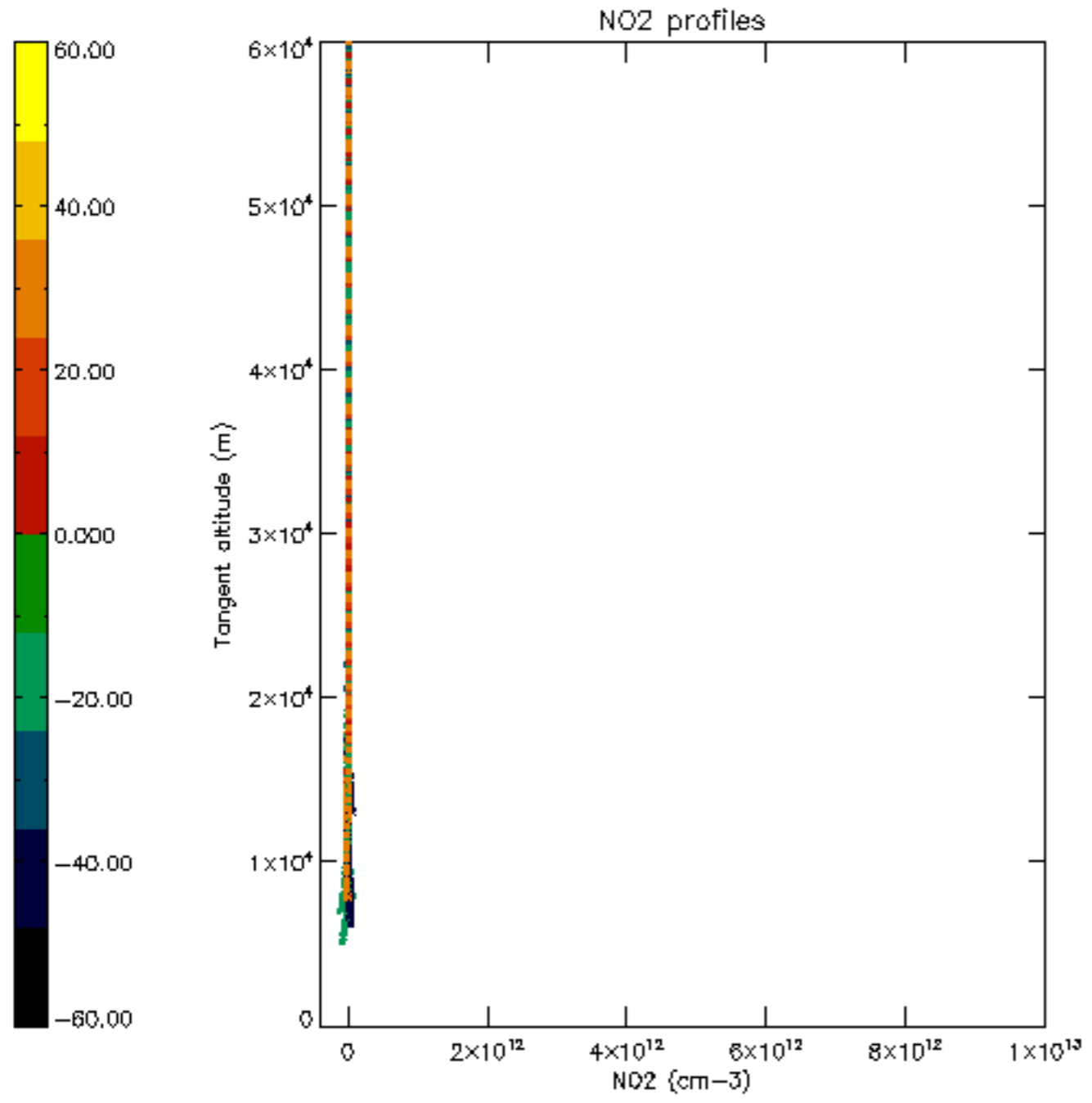


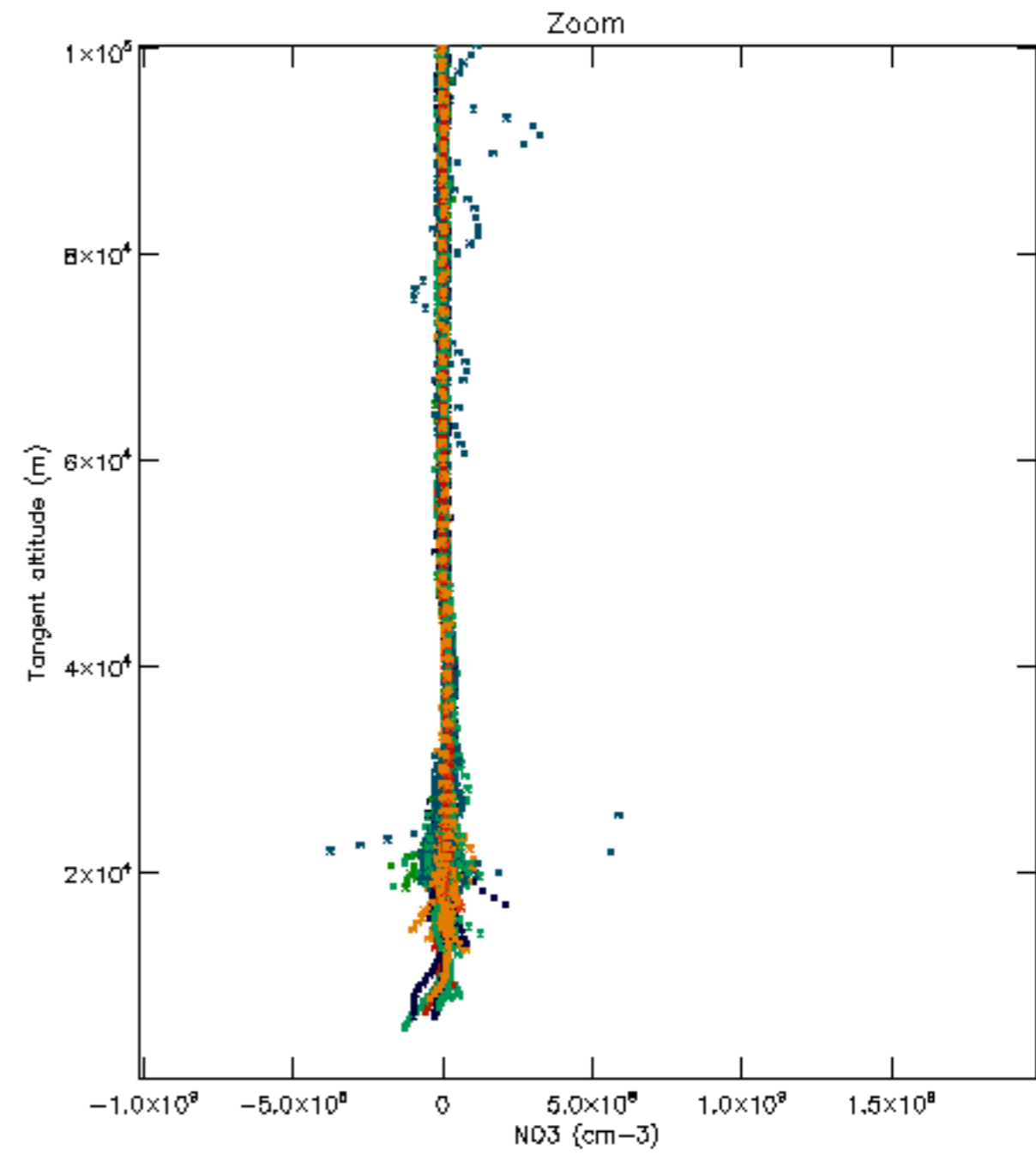
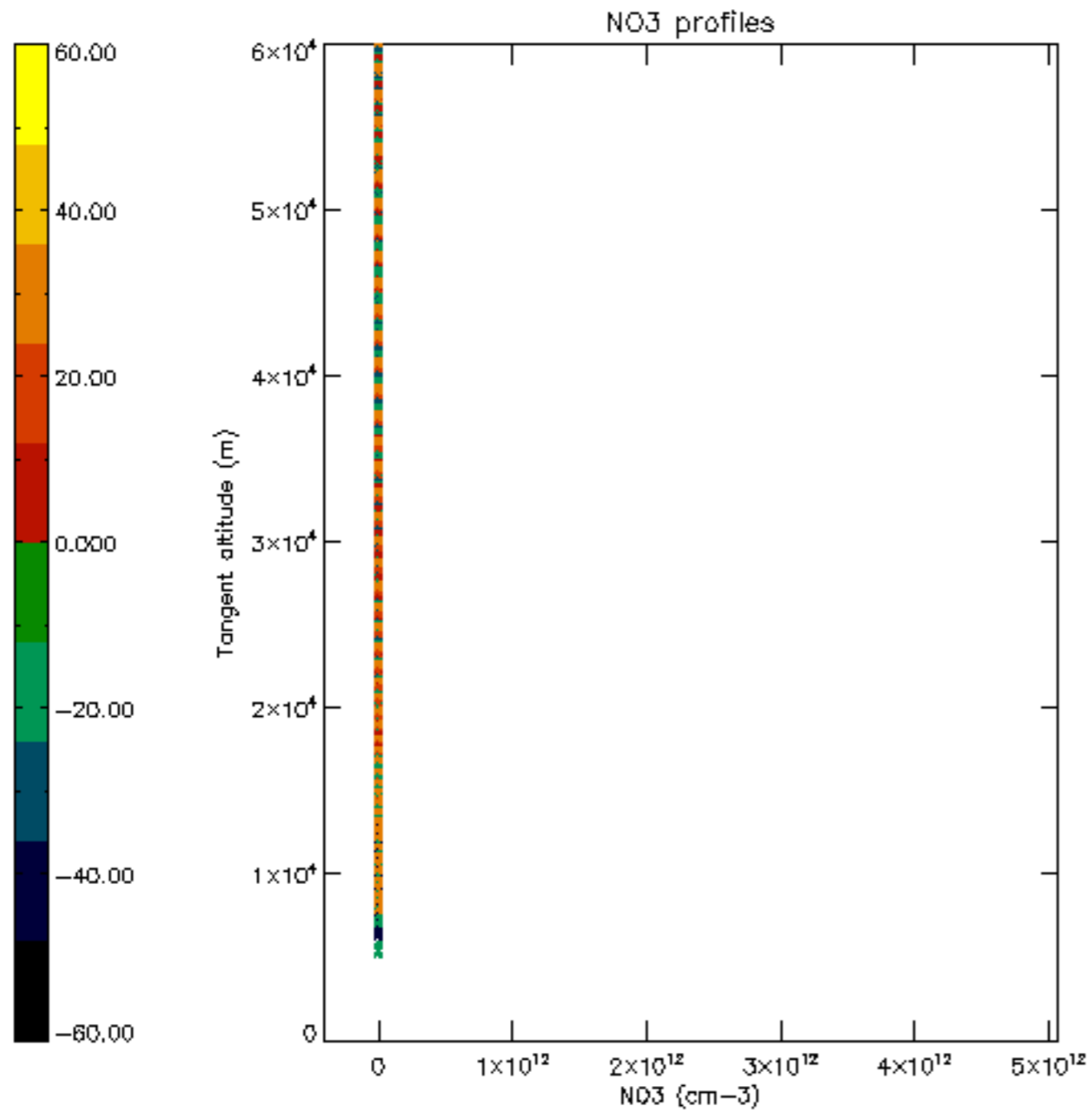


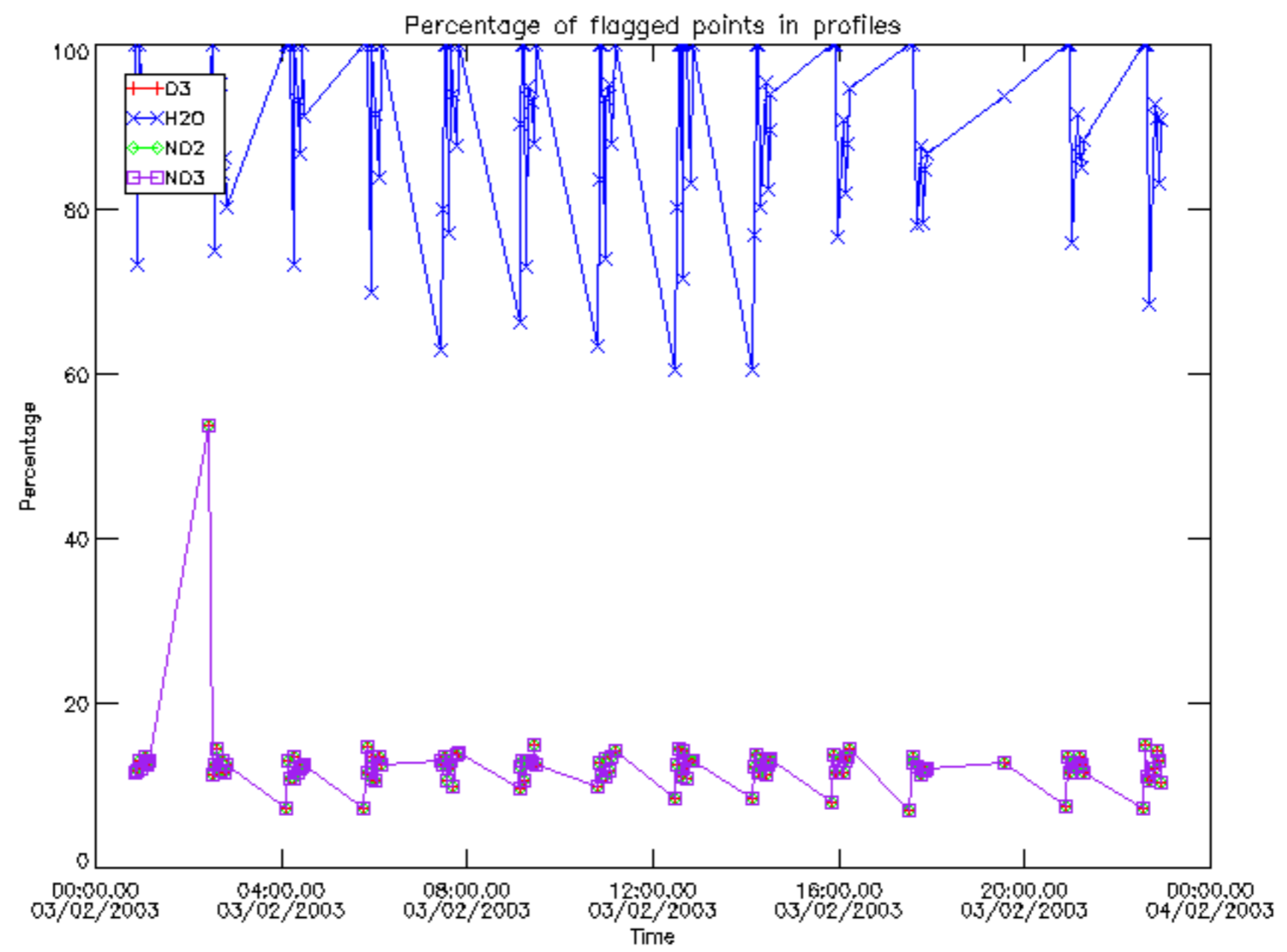




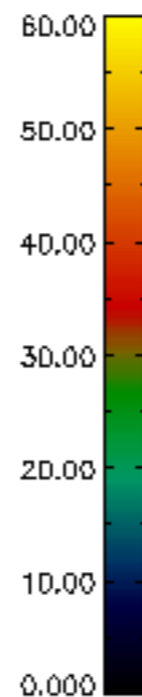
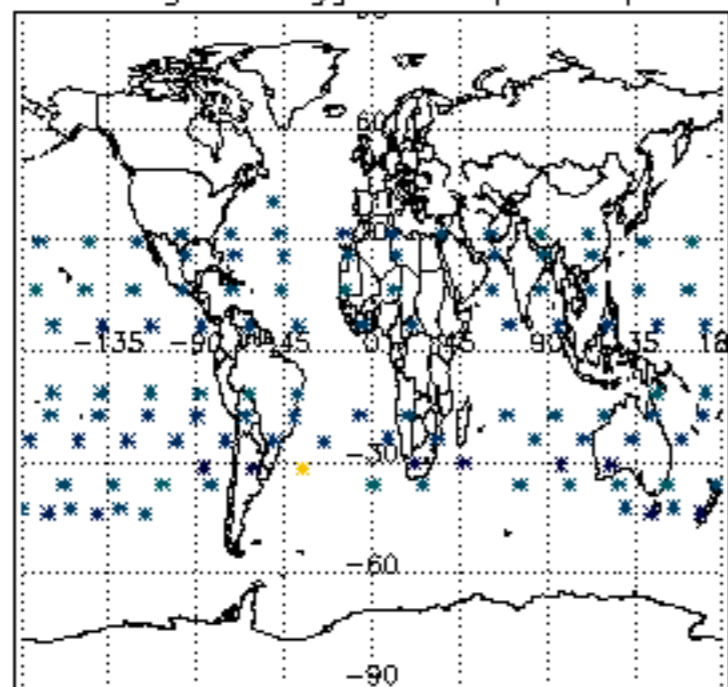




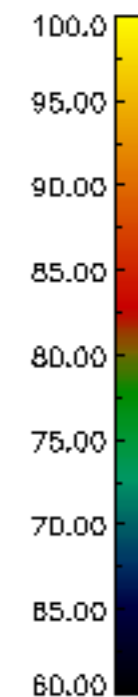
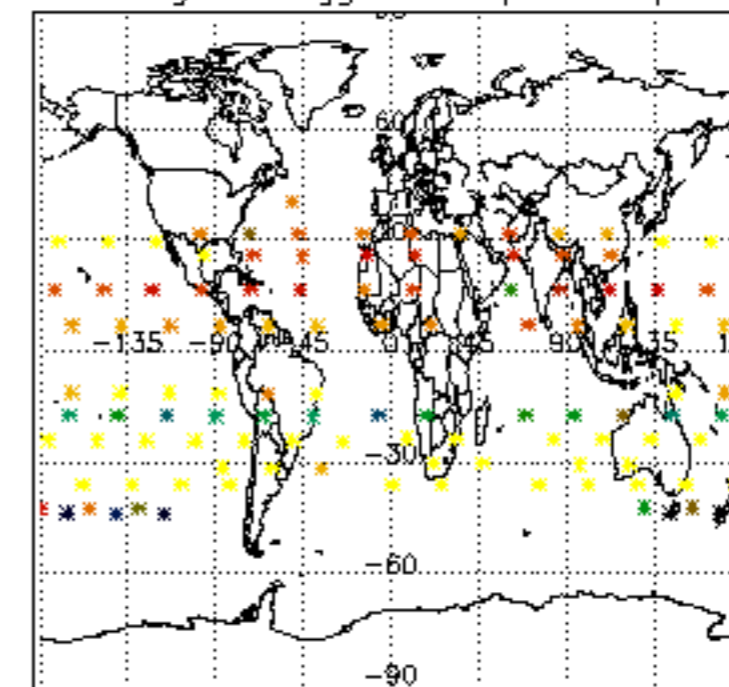




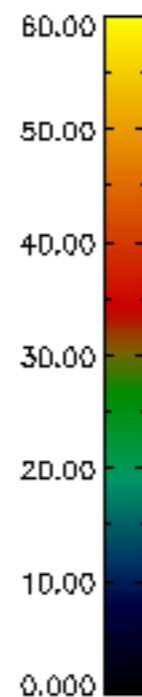
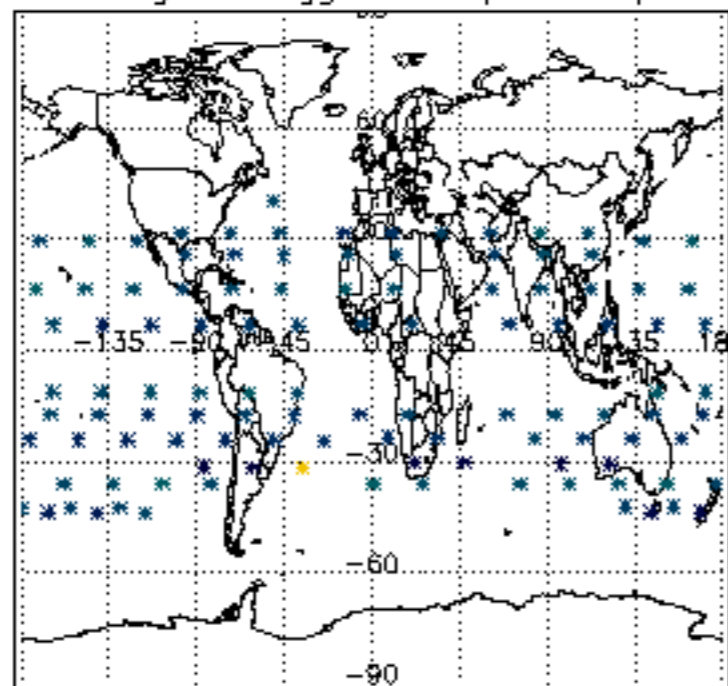
Percentage of flagged data per D3 profile



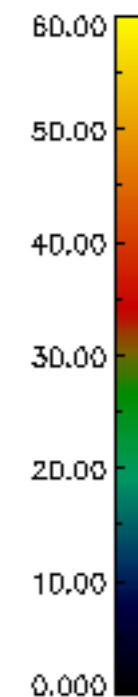
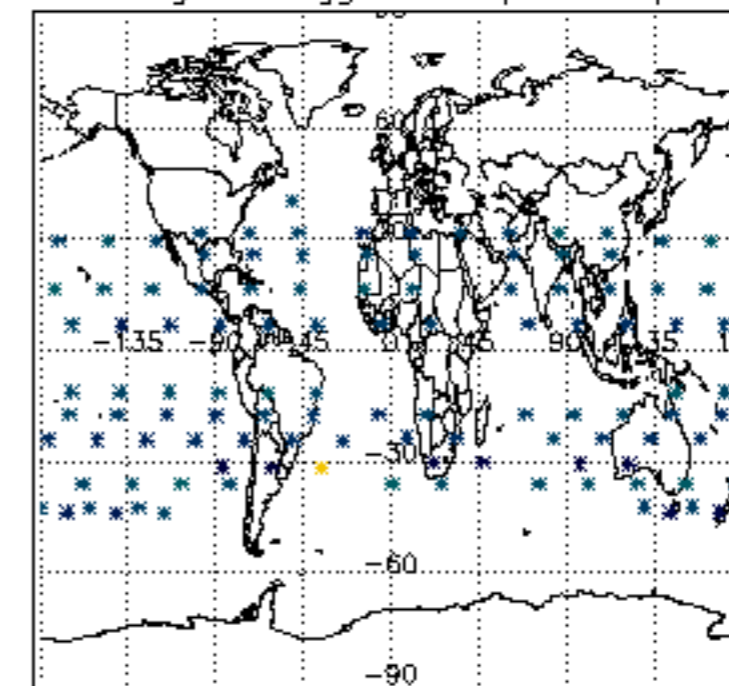
Percentage of flagged data per H2O profile

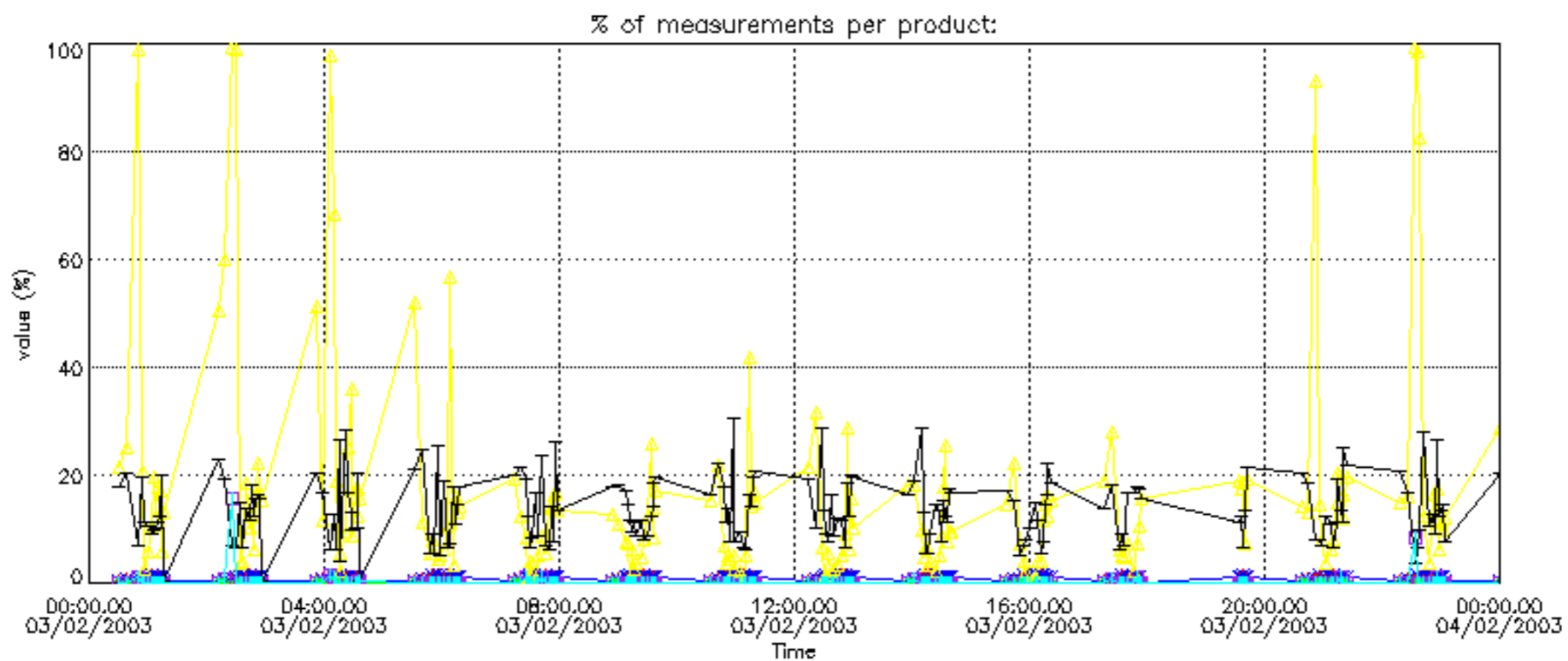


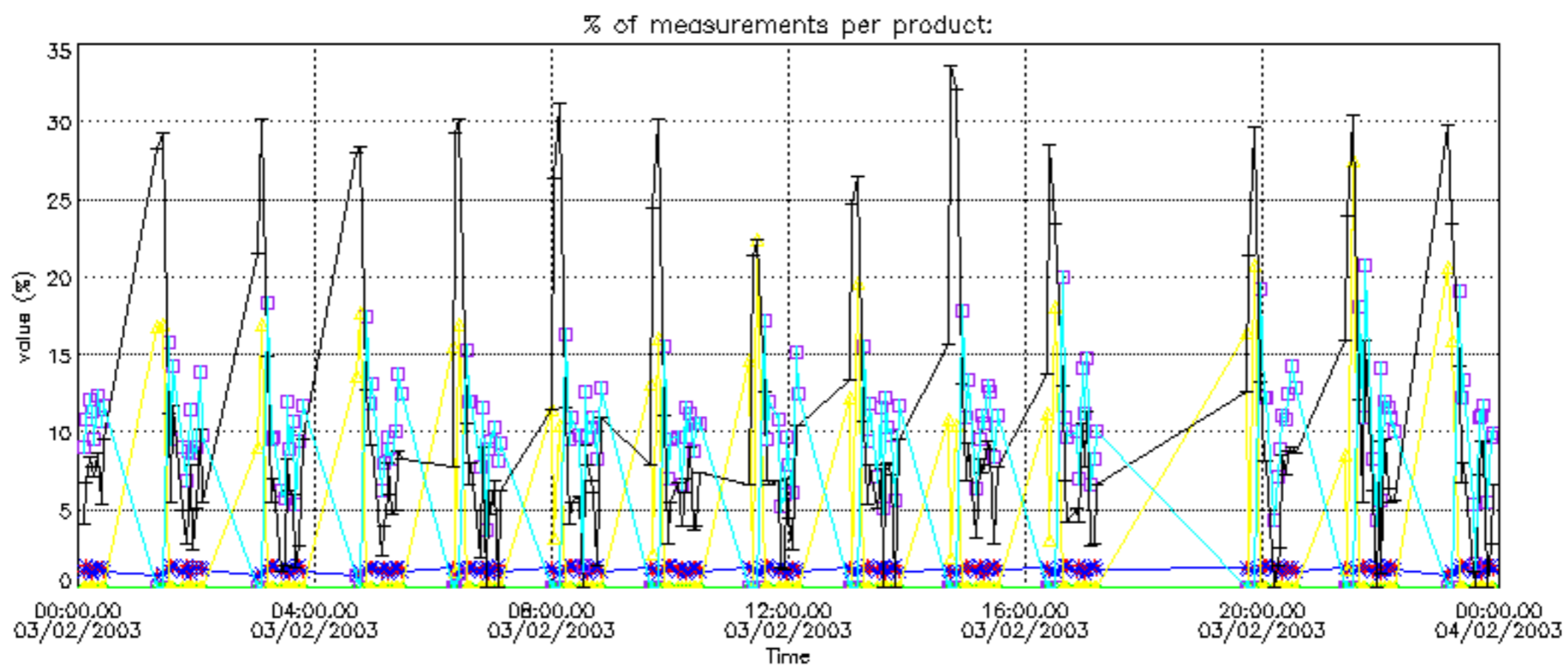
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

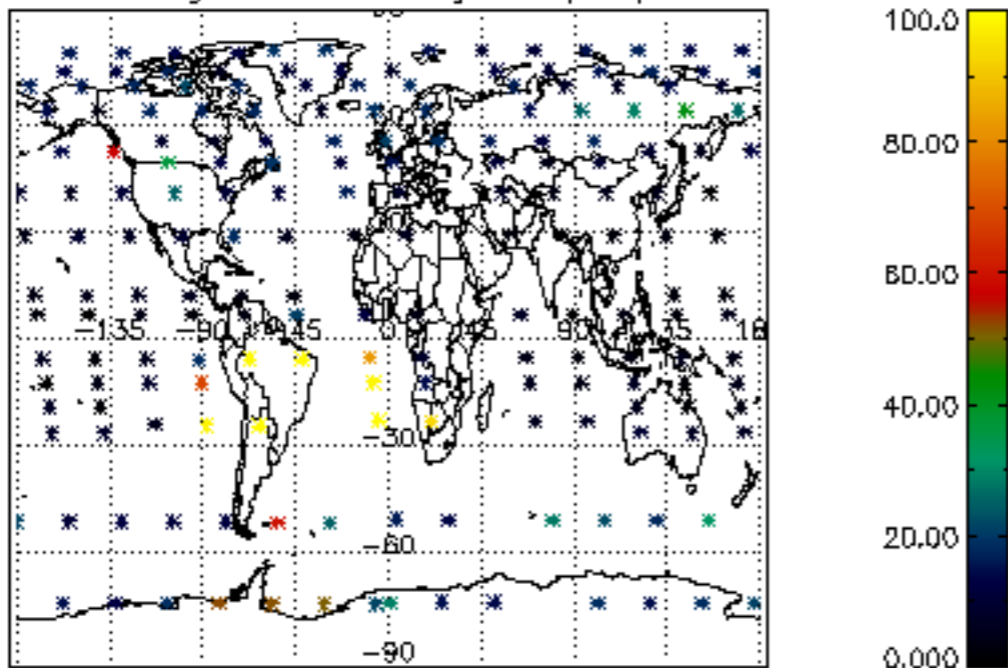




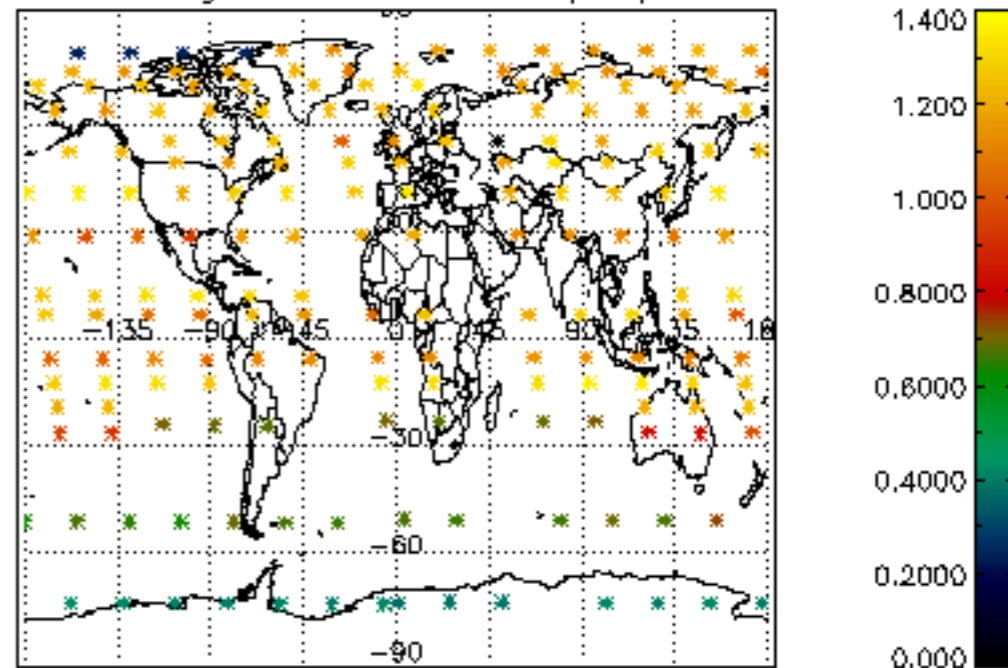




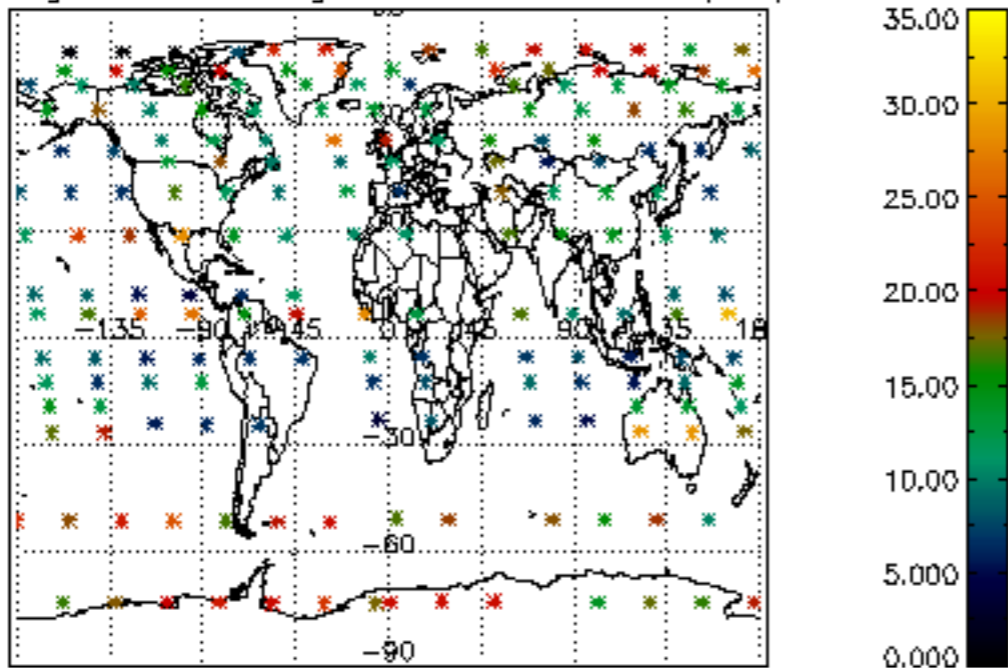
Percentage of cosmic ray hits per profile



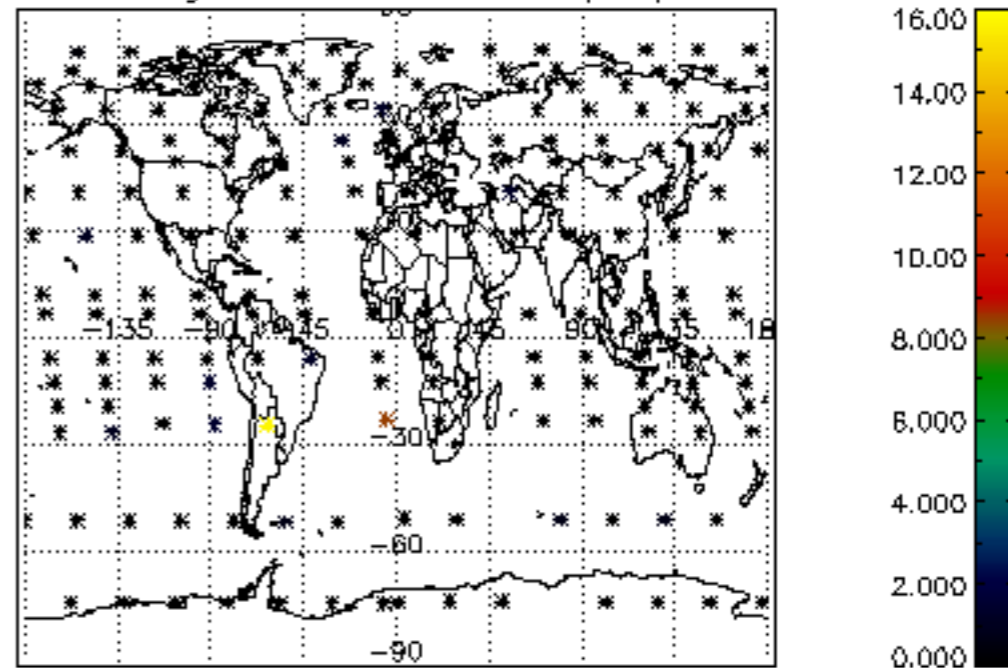
Percentage of datation errors per profile



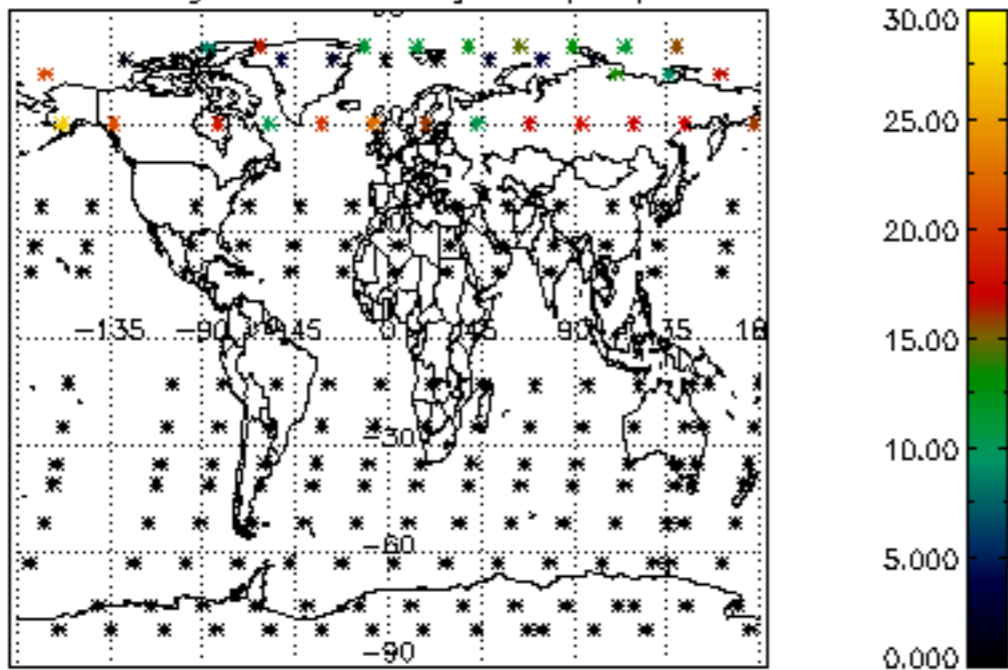
Percentage of star falling outside central band per profile



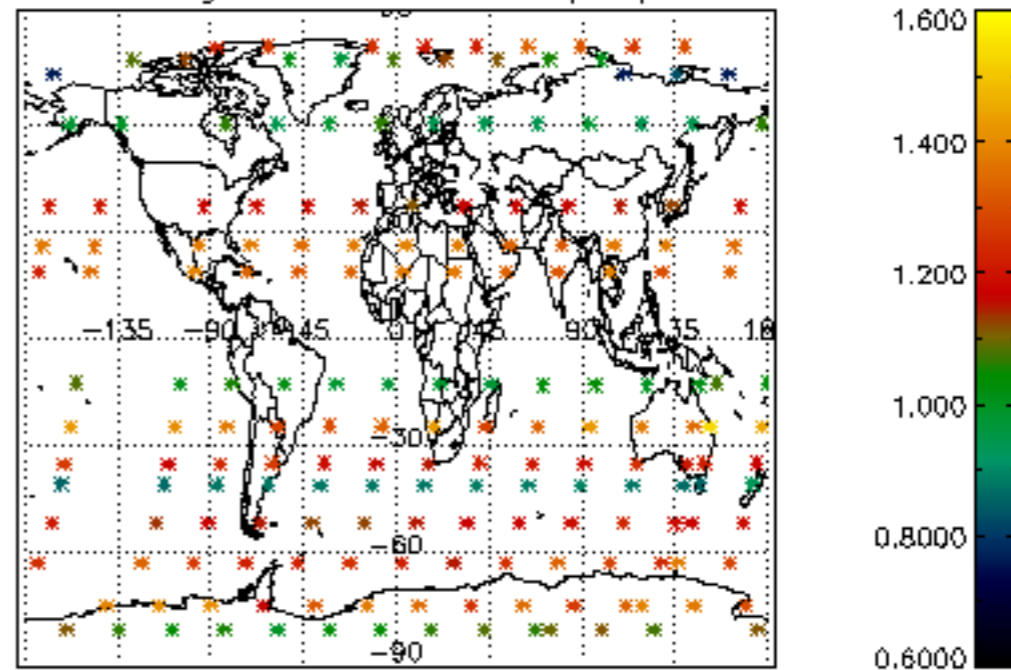
Percentage of saturation errors per profile



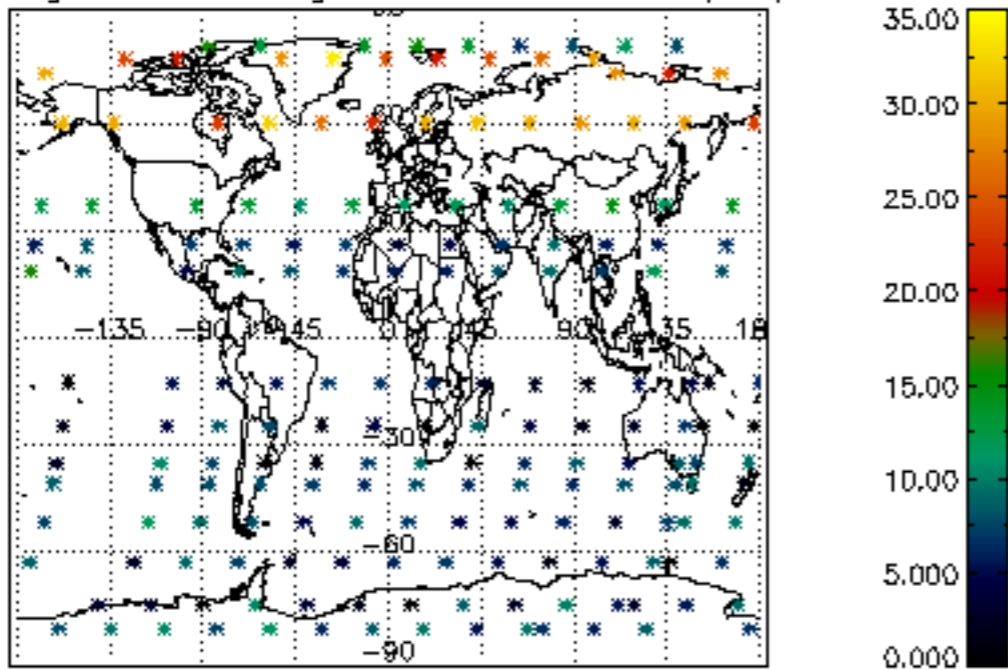
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

