

# GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	17APR2013 18:22:39
Data source version	GOMOS/6.01
Start time of products	12-09-2002 (12SEP2002 00:00:00)
Stop time of products	13-09-2002 (13SEP2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	14
Nb of prods with errors	0

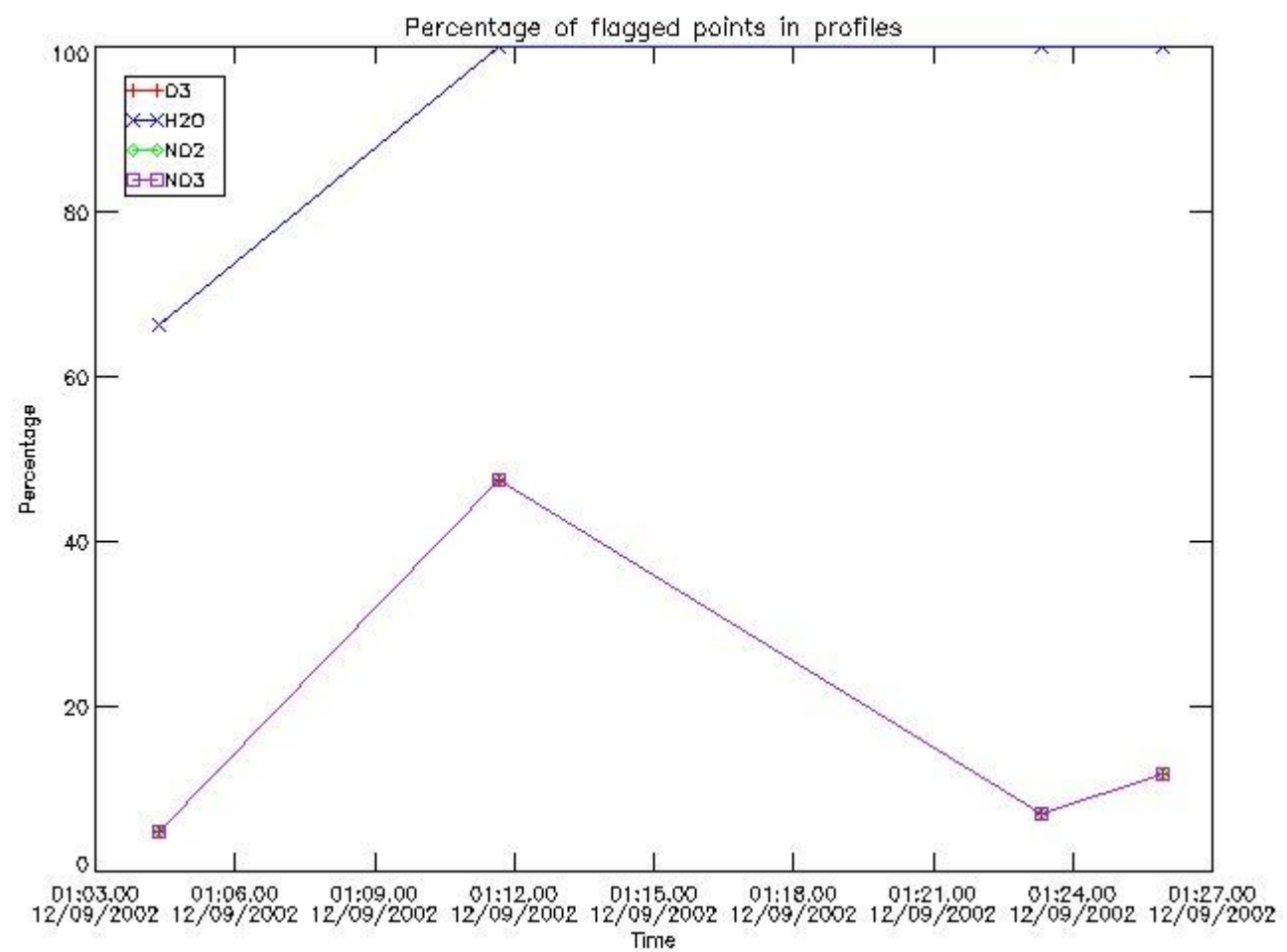
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020912_000130_000000502009_00231_02790_2834.N1	12-SEP-2002 00:01:30	Twilight	49.500	876	86 Aqr	4.4830	4700.0	99	2790	No
2	GOM_NL__2PRFIN20020912_000707_000000622009_00231_02790_2835.N1	12-SEP-2002 00:07:07	Bright	62.000	800	30 Psc	4.3990	3000.0	124	2790	No
3	GOM_NL__2PRFIN20020912_001036_000000452009_00231_02790_2836.N1	12-SEP-2002 00:10:36	Bright	45.000	288	26The Peg	3.5190	10200.	90	2790	No
4	GOM_NL__2PRFIN20020912_001614_000000512009_00231_02790_2837.N1	12-SEP-2002 00:16:14	Bright	51.000	279	48Mu Peg	3.4930	3100.0	102	2790	No
5	GOM_NL__2PRFIN20020912_004510_000001182009_00231_02790_2838.N1	12-SEP-2002 00:45:10	Bright	118.00	149	45Eps Per	2.8880	30000.	236	2790	No
6	GOM_NL__2PRFIN20020912_005439_000000702009_00231_02790_2839.N1	12-SEP-2002 00:54:39	Twilight	70.000	170	27Eps Gem	3.0000	9700.0	140	2790	No
7	GOM_NL__2PRFIN20020912_005759_000000502009_00231_02790_2840.N1	12-SEP-2002 00:57:59	Twilight	50.000	292	17Bet Cnc	3.5280	3950.0	100	2790	No
8	GOM_NL__2PRFIN20020912_010423_000001092009_00231_02790_2841.N1	12-SEP-2002 01:04:23	Dark	108.50	14	58Alp Ori	0.87000	3000.0	217	2790	No
9	GOM_NL__2PRFIN20020912_011141_000000492009_00231_02790_2842.N1	12-SEP-2002 01:11:41	Dark	49.000	70	Zet Pup	2.2460	39000.	98	2790	No
10	GOM_NL__2PRFIN20020912_012319_000000722009_00232_02791_2829.N1	12-SEP-2002 01:23:19	Dark	72.000	298	41Ups4Eri	3.5480	11000.	144	2791	No
11	GOM_NL__2PRFIN20020912_012556_000000432009_00232_02791_2830.N1	12-SEP-2002 01:25:56	Dark	43.000	575	Eps Hyi	4.1010	11000.	86	2791	No
12	GOM_NL__2PRFIN20020912_013556_000000512009_00232_02791_2831.N1	12-SEP-2002 01:35:56	Straylight	50.500	63	Bet Gru	2.1500	2800.0	101	2791	No
13	GOM_NL__2PRFIN20020912_014206_000000472009_00232_02791_2832.N1	12-SEP-2002 01:42:06	Twilight	47.000	876	86 Aqr	4.4830	4700.0	94	2791	No
14	GOM_NL__2PRFIN20020912_014743_000000592009_00232_02791_2833.N1	12-SEP-2002 01:47:43	Bright	58.500	800	30 Psc	4.3990	3000.0	117	2791	No

## 3. Quality information per product

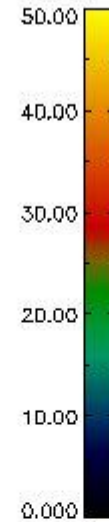
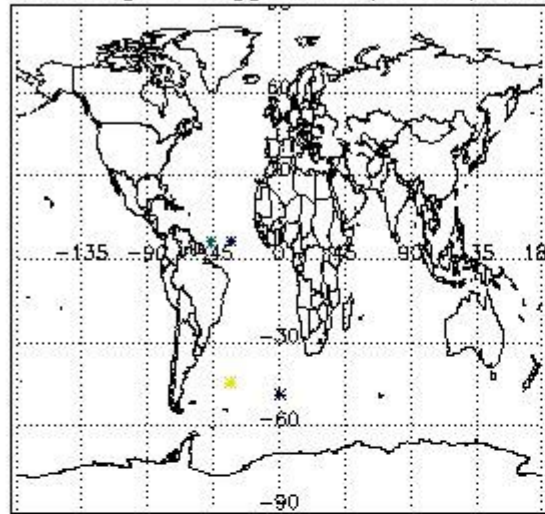
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

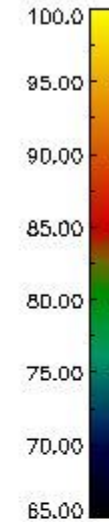
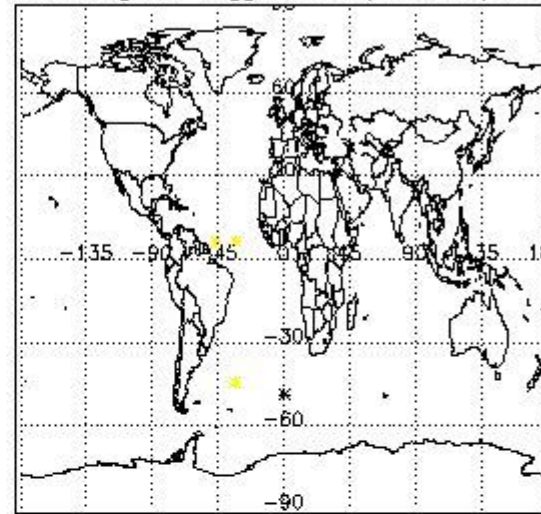


*3.2 Plot quality information per product (world map)*

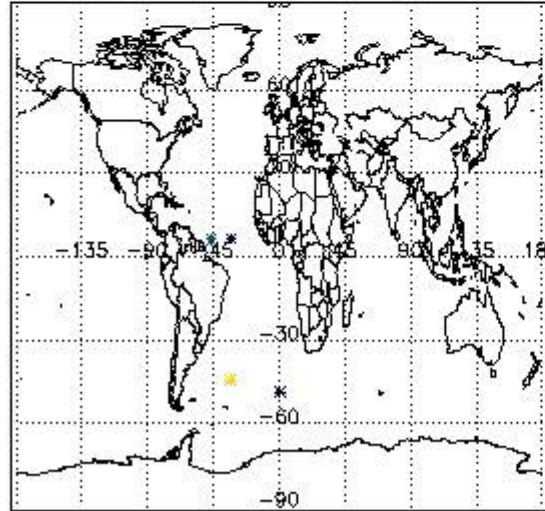
Percentage of flagged data per O3 profile



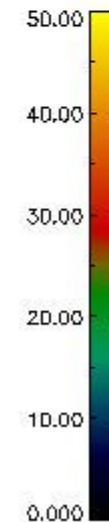
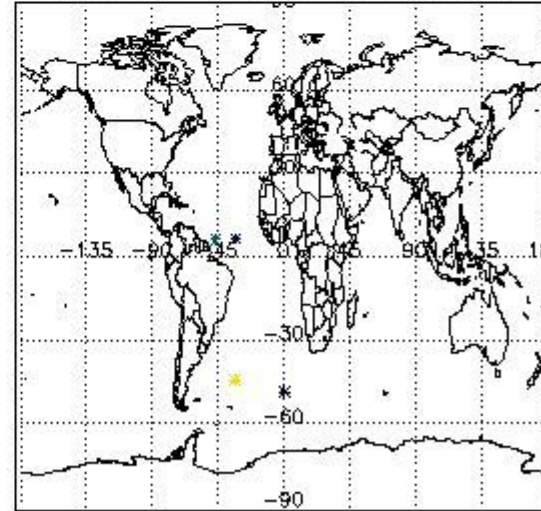
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

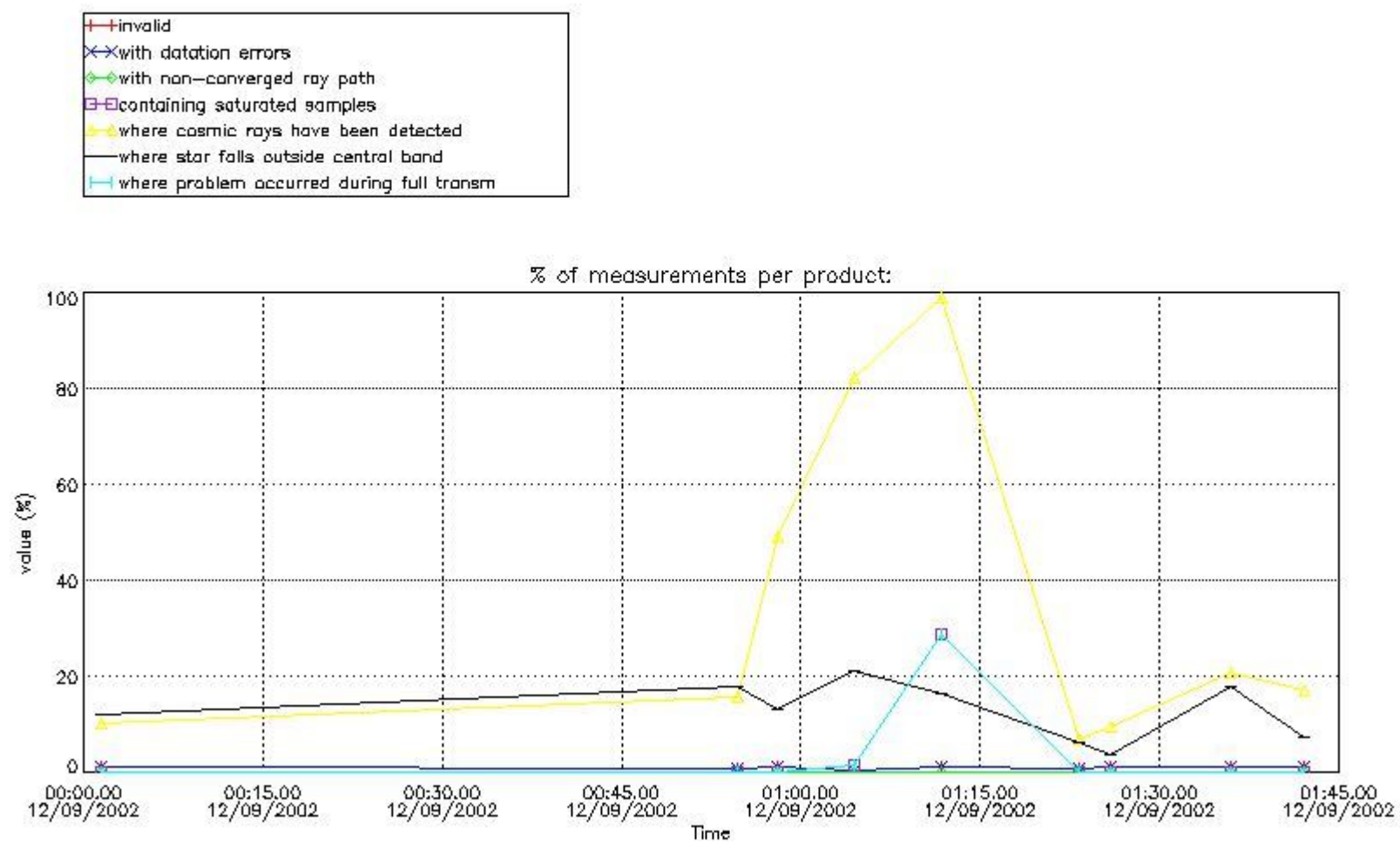


#### 4. Level 1 quality information per product

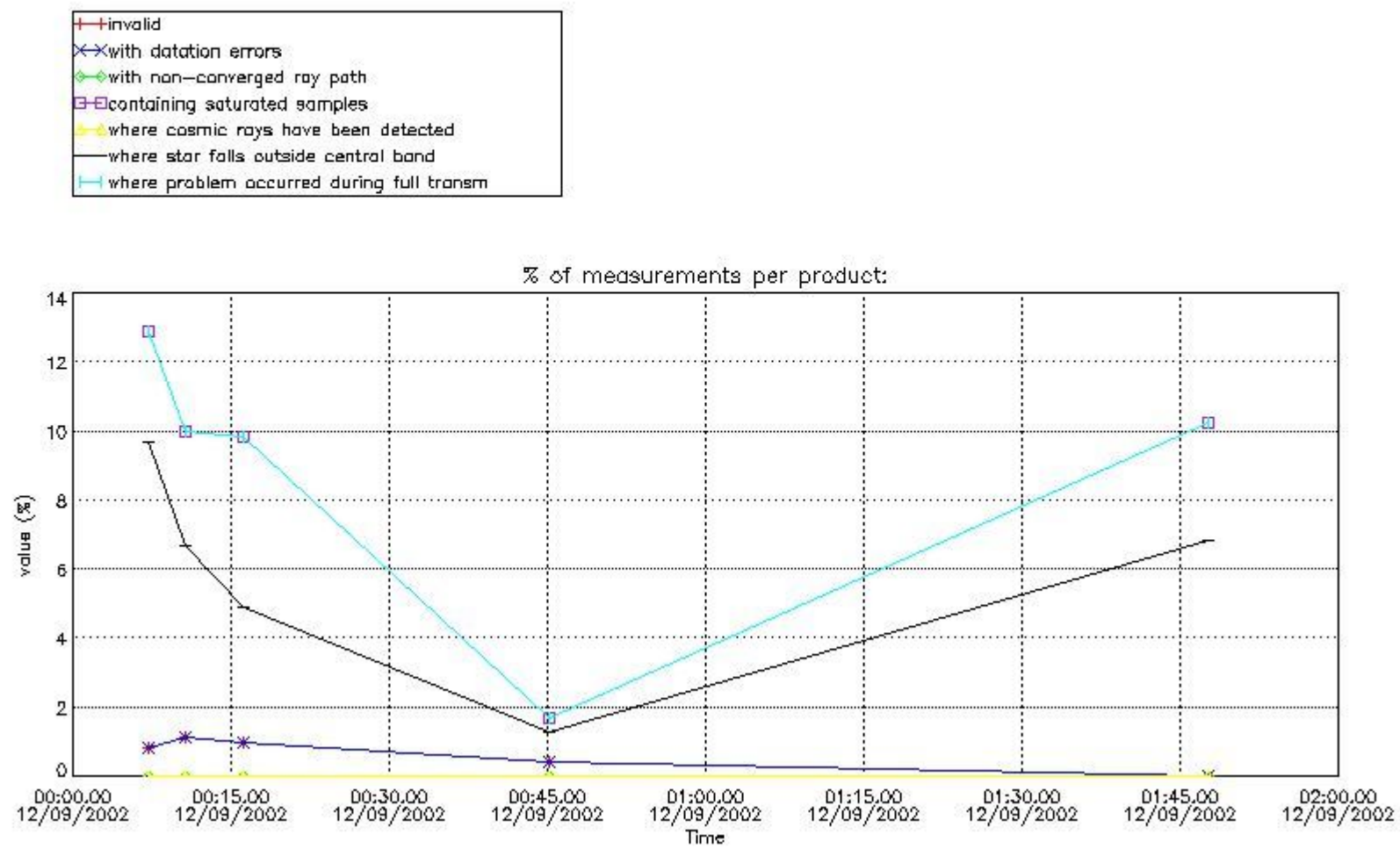
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



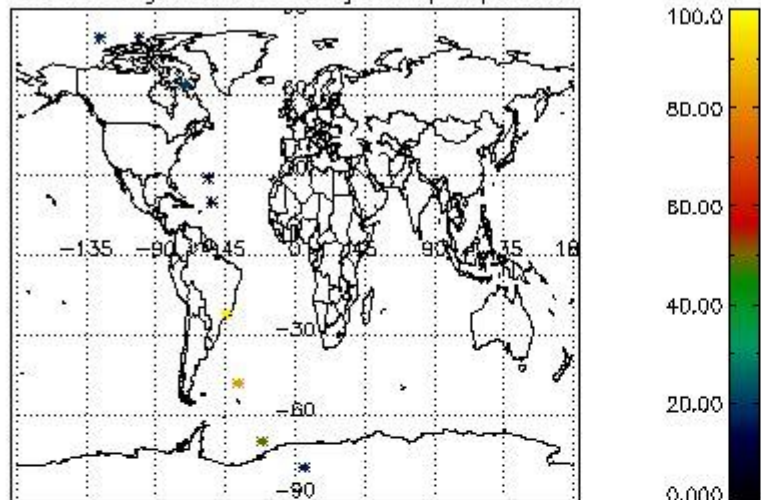
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



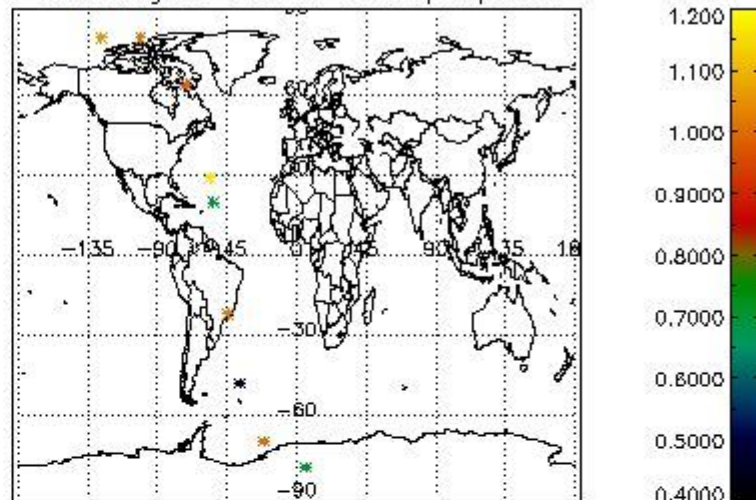
4.2 Plot quality information per product coming from level 1b processing (world map)

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

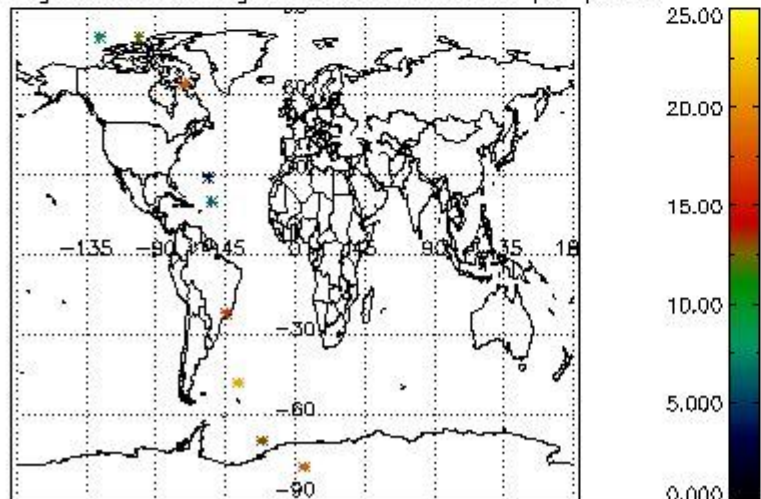
Percentage of cosmic ray hits per profile



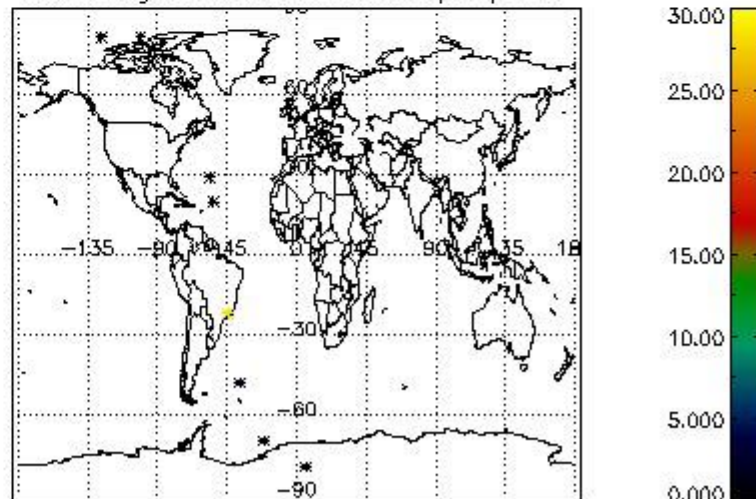
Percentage of datation errors per profile



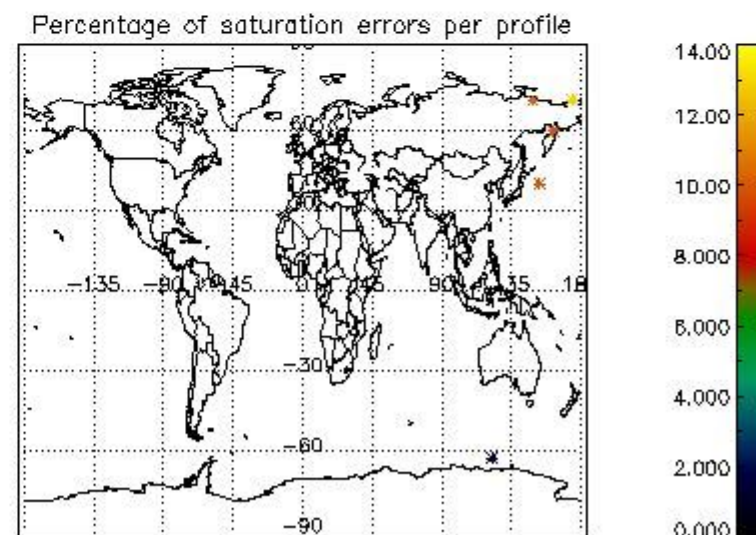
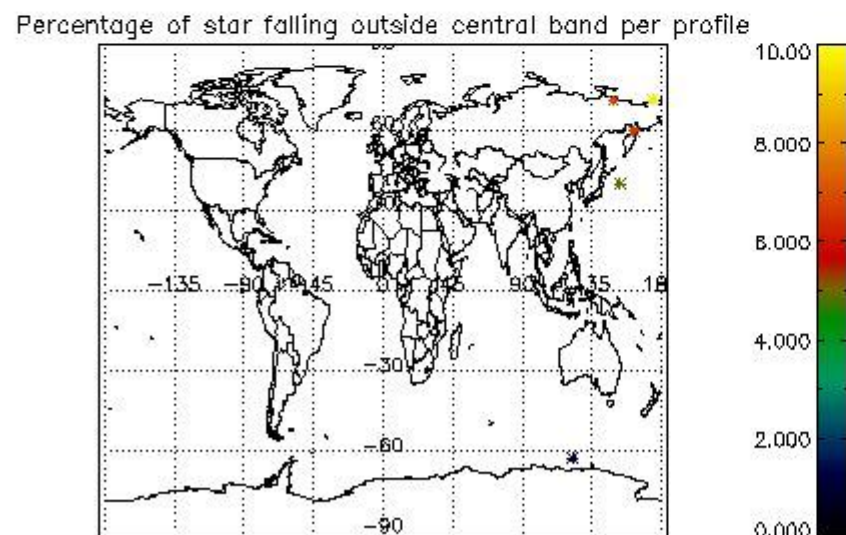
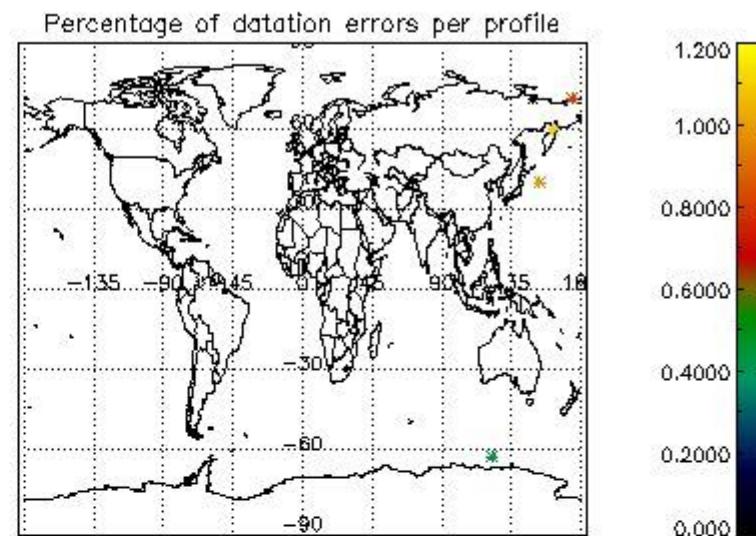
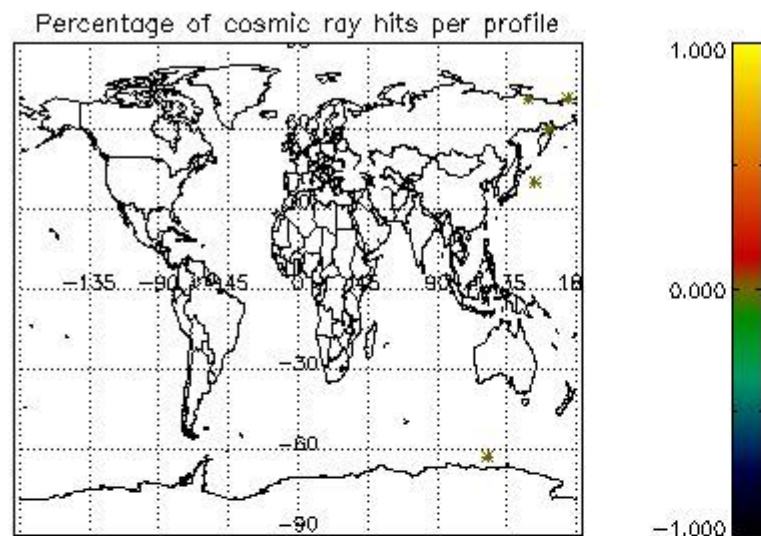
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

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

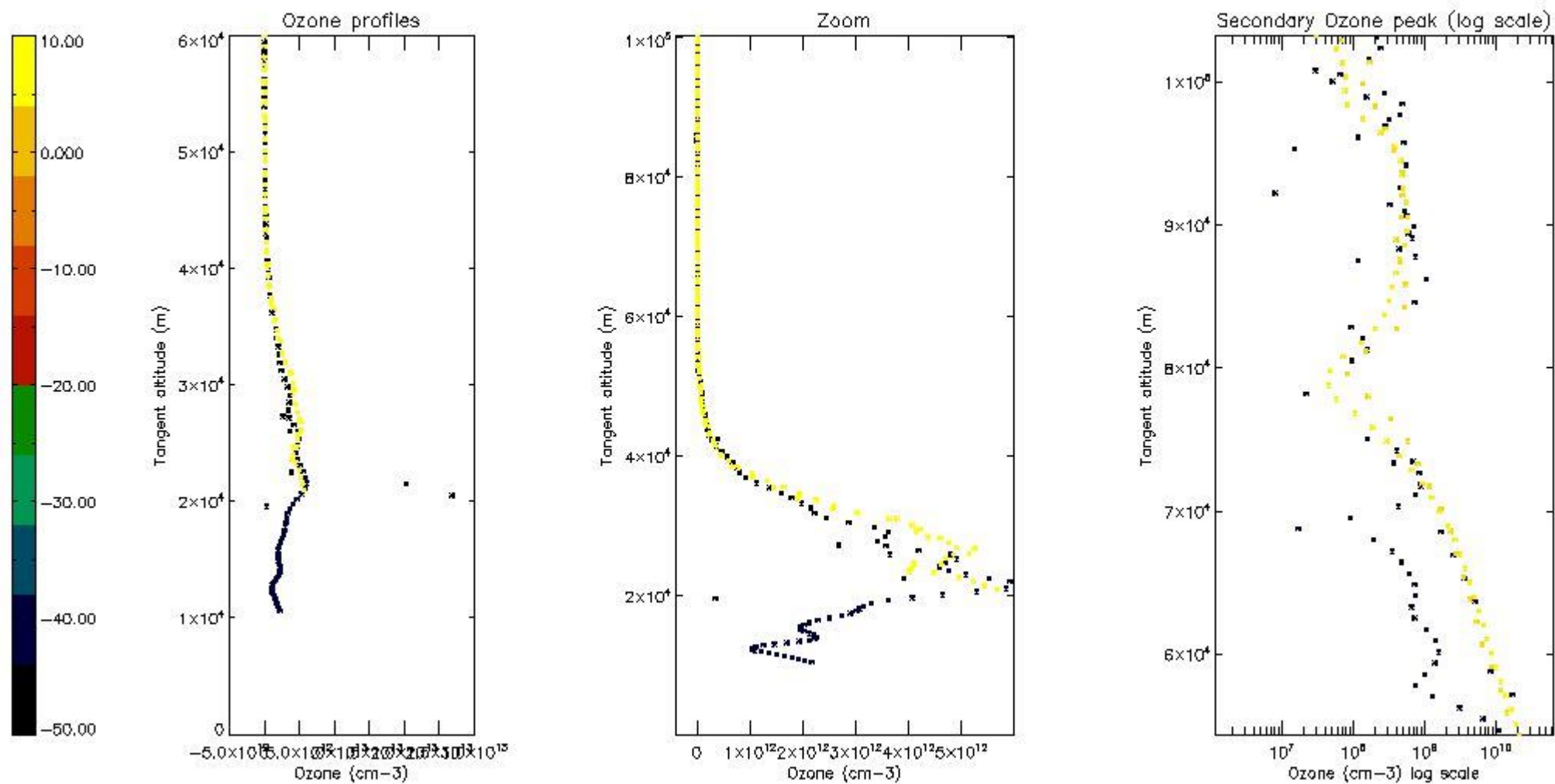
Criteria	% of total production
All STD	30
STD < 20	13



STD < 10	11
STD < 5	7

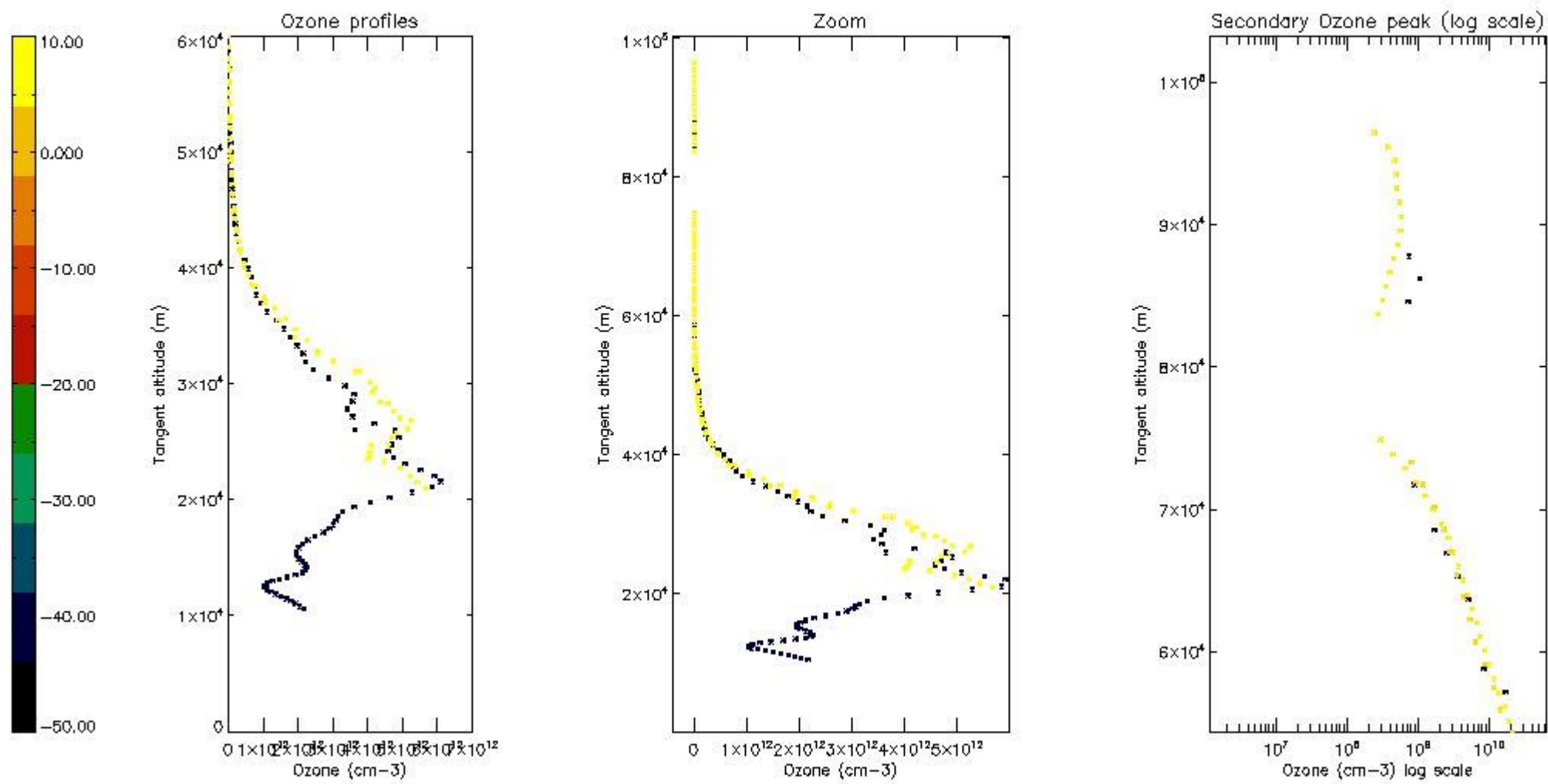
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



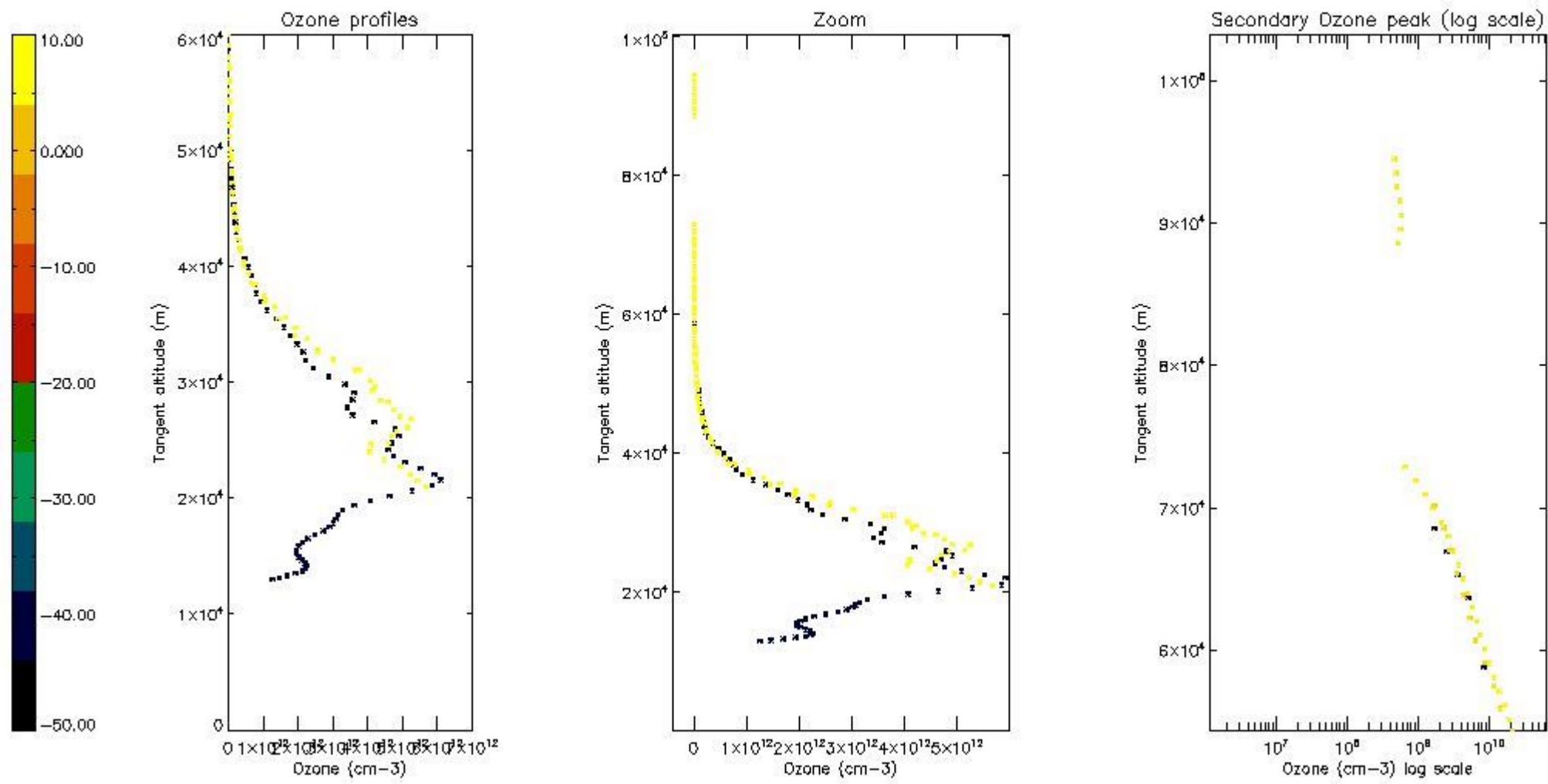
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



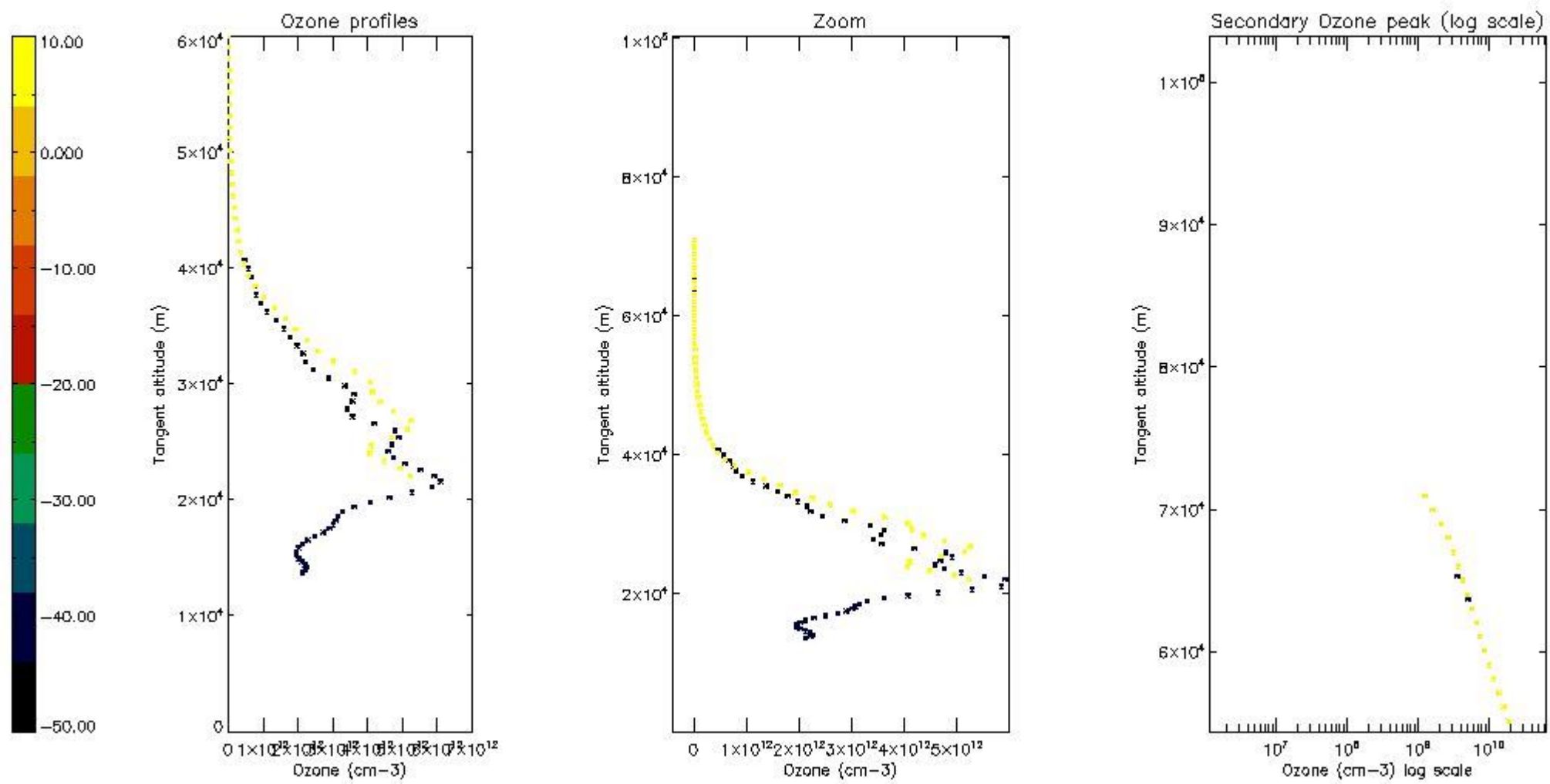
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



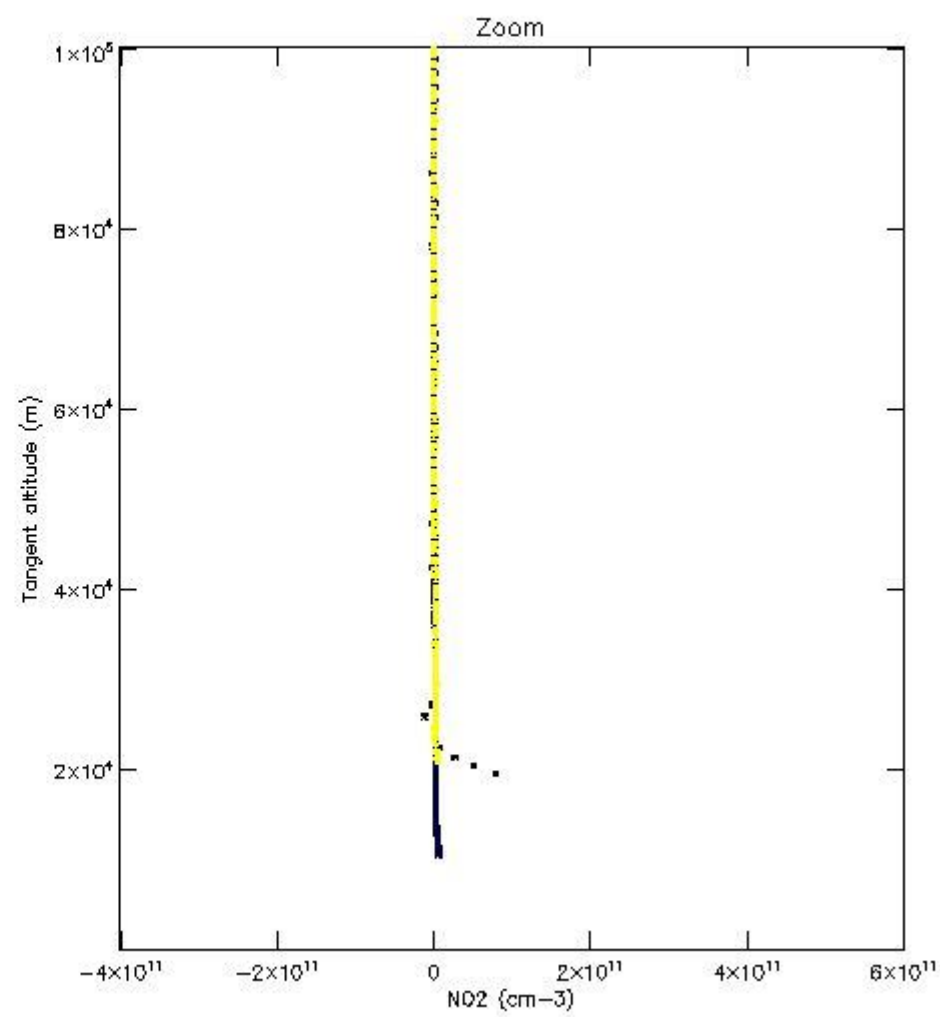
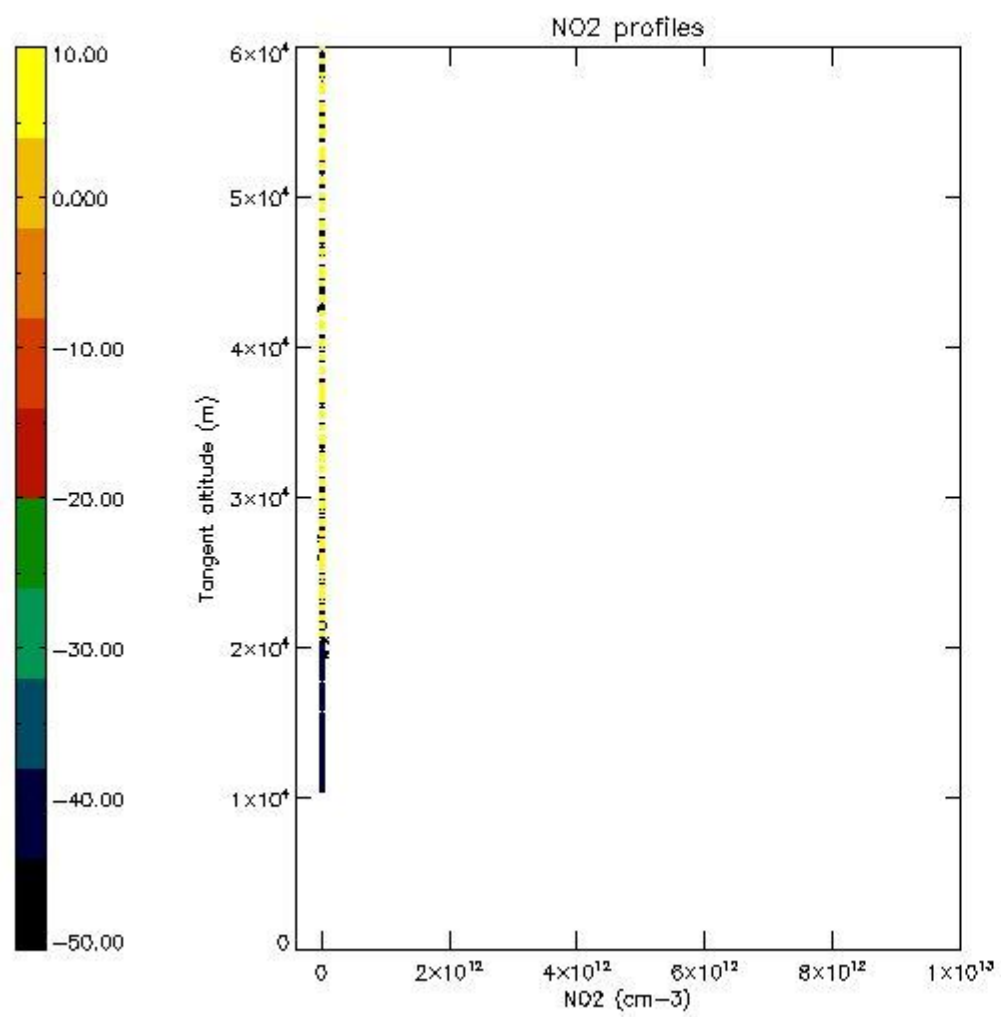
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



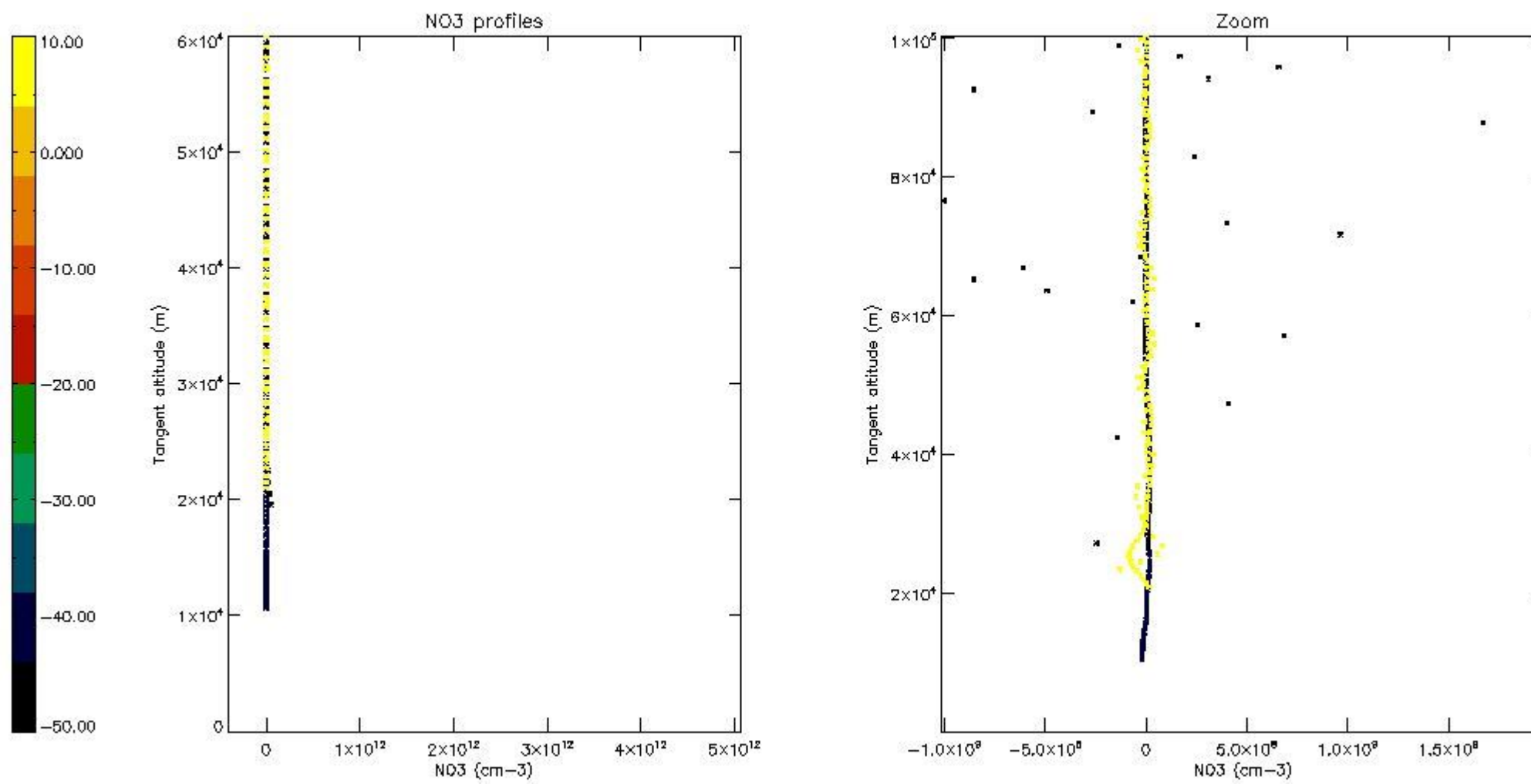
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	12-SEP-2002 00:01:30
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-SEP-2002 00:01:30
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-SEP-2002 00:01:30

# GOMOS Level 2 Daily Report

## SUMMARY

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### [2. Summary of processed GOM\\_NL\\_2P products](#)

### [3. Level 2 Quality information per product](#)

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#### [3.2 Plot of level 2 quality information per product \(world map\)](#)

### [4. Level 1 Quality information per product \(stored on level 2 products\)](#)

#### [4.1 Plot of level 1 quality information per product \(time dependant\)](#)

##### [4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

##### [4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

#### [4.2 Plot of level 1 quality information per product \(world map\)](#)

##### [4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

##### [4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

### [5. Ozone profiles based on quality statistics and other trace gas profiles](#)

#### [5.1 Ozone statistics based on quality of products](#)

#### [5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

#### [5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

#### [5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

#### [5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

#### [5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

#### [5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

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

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

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Stop time of products	13-09-2002 (13SEP2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	14
Nb of prods with errors	0

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

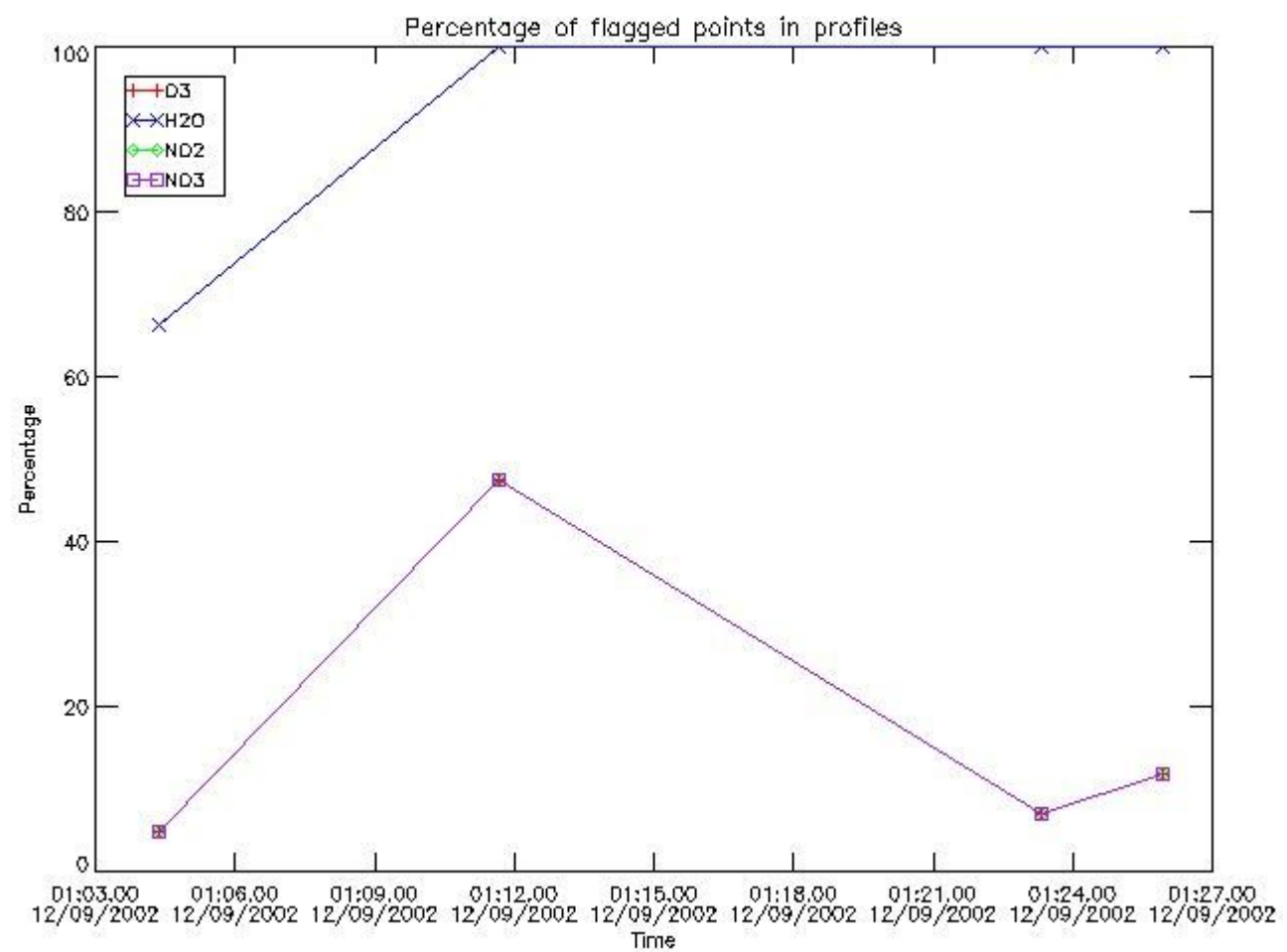
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020912_000130_000000502009_00231_02790_2834.N1	12-SEP-2002 00:01:30	Twilight	49.500	876	86 Aqr	4.4830	4700.0	99	2790	No
2	GOM_NL__2PRFIN20020912_000707_000000622009_00231_02790_2835.N1	12-SEP-2002 00:07:07	Bright	62.000	800	30 Psc	4.3990	3000.0	124	2790	No
3	GOM_NL__2PRFIN20020912_001036_000000452009_00231_02790_2836.N1	12-SEP-2002 00:10:36	Bright	45.000	288	26The Peg	3.5190	10200.	90	2790	No
4	GOM_NL__2PRFIN20020912_001614_000000512009_00231_02790_2837.N1	12-SEP-2002 00:16:14	Bright	51.000	279	48Mu Peg	3.4930	3100.0	102	2790	No
5	GOM_NL__2PRFIN20020912_004510_000001182009_00231_02790_2838.N1	12-SEP-2002 00:45:10	Bright	118.00	149	45Eps Per	2.8880	30000.	236	2790	No
6	GOM_NL__2PRFIN20020912_005439_000000702009_00231_02790_2839.N1	12-SEP-2002 00:54:39	Twilight	70.000	170	27Eps Gem	3.0000	9700.0	140	2790	No
7	GOM_NL__2PRFIN20020912_005759_000000502009_00231_02790_2840.N1	12-SEP-2002 00:57:59	Twilight	50.000	292	17Bet Cnc	3.5280	3950.0	100	2790	No
8	GOM_NL__2PRFIN20020912_010423_000001092009_00231_02790_2841.N1	12-SEP-2002 01:04:23	Dark	108.50	14	58Alp Ori	0.87000	3000.0	217	2790	No
9	GOM_NL__2PRFIN20020912_011141_000000492009_00231_02790_2842.N1	12-SEP-2002 01:11:41	Dark	49.000	70	Zet Pup	2.2460	39000.	98	2790	No
10	GOM_NL__2PRFIN20020912_012319_000000722009_00232_02791_2829.N1	12-SEP-2002 01:23:19	Dark	72.000	298	41Ups4Eri	3.5480	11000.	144	2791	No
11	GOM_NL__2PRFIN20020912_012556_000000432009_00232_02791_2830.N1	12-SEP-2002 01:25:56	Dark	43.000	575	Eps Hyi	4.1010	11000.	86	2791	No
12	GOM_NL__2PRFIN20020912_013556_000000512009_00232_02791_2831.N1	12-SEP-2002 01:35:56	Straylight	50.500	63	Bet Gru	2.1500	2800.0	101	2791	No
13	GOM_NL__2PRFIN20020912_014206_000000472009_00232_02791_2832.N1	12-SEP-2002 01:42:06	Twilight	47.000	876	86 Aqr	4.4830	4700.0	94	2791	No
14	GOM_NL__2PRFIN20020912_014743_000000592009_00232_02791_2833.N1	12-SEP-2002 01:47:43	Bright	58.500	800	30 Psc	4.3990	3000.0	117	2791	No

## 3. Quality information per product

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

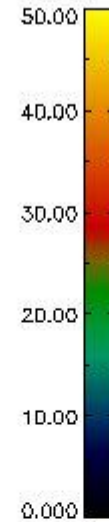
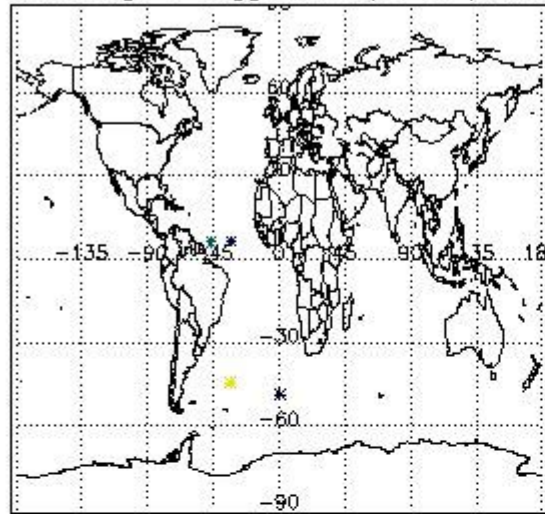
### 3.1 Plot quality information per product (time dependant)



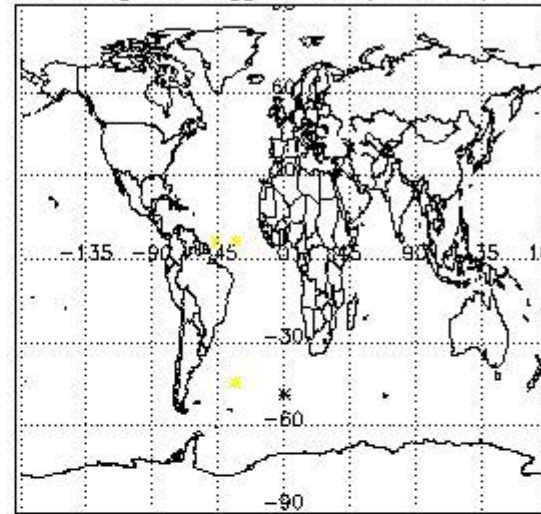


*3.2 Plot quality information per product (world map)*

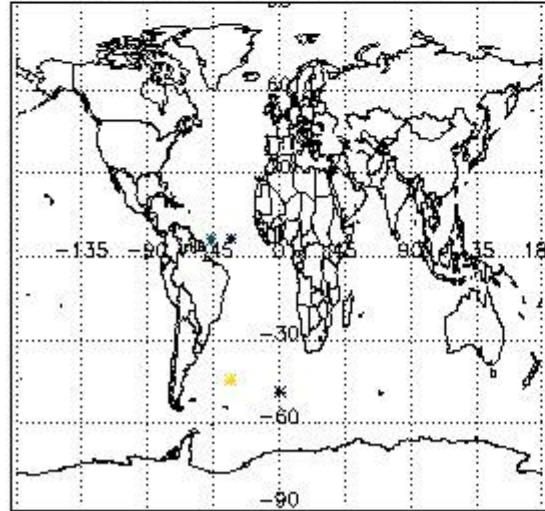
Percentage of flagged data per O3 profile



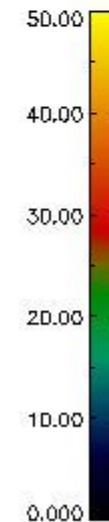
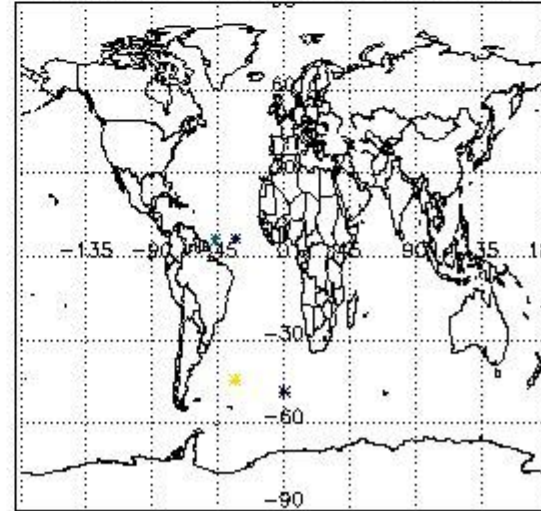
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

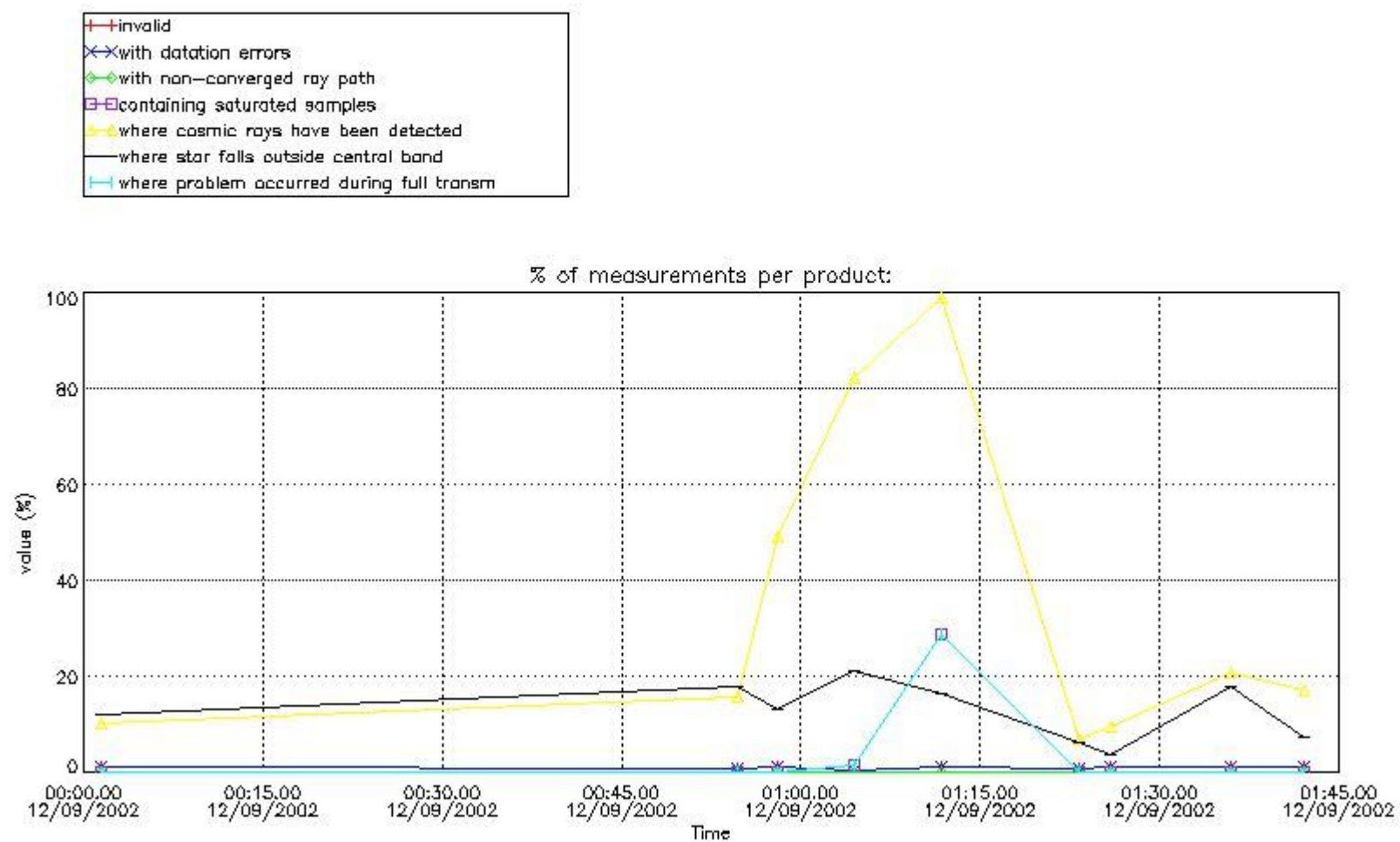


#### 4. Level 1 quality information per product

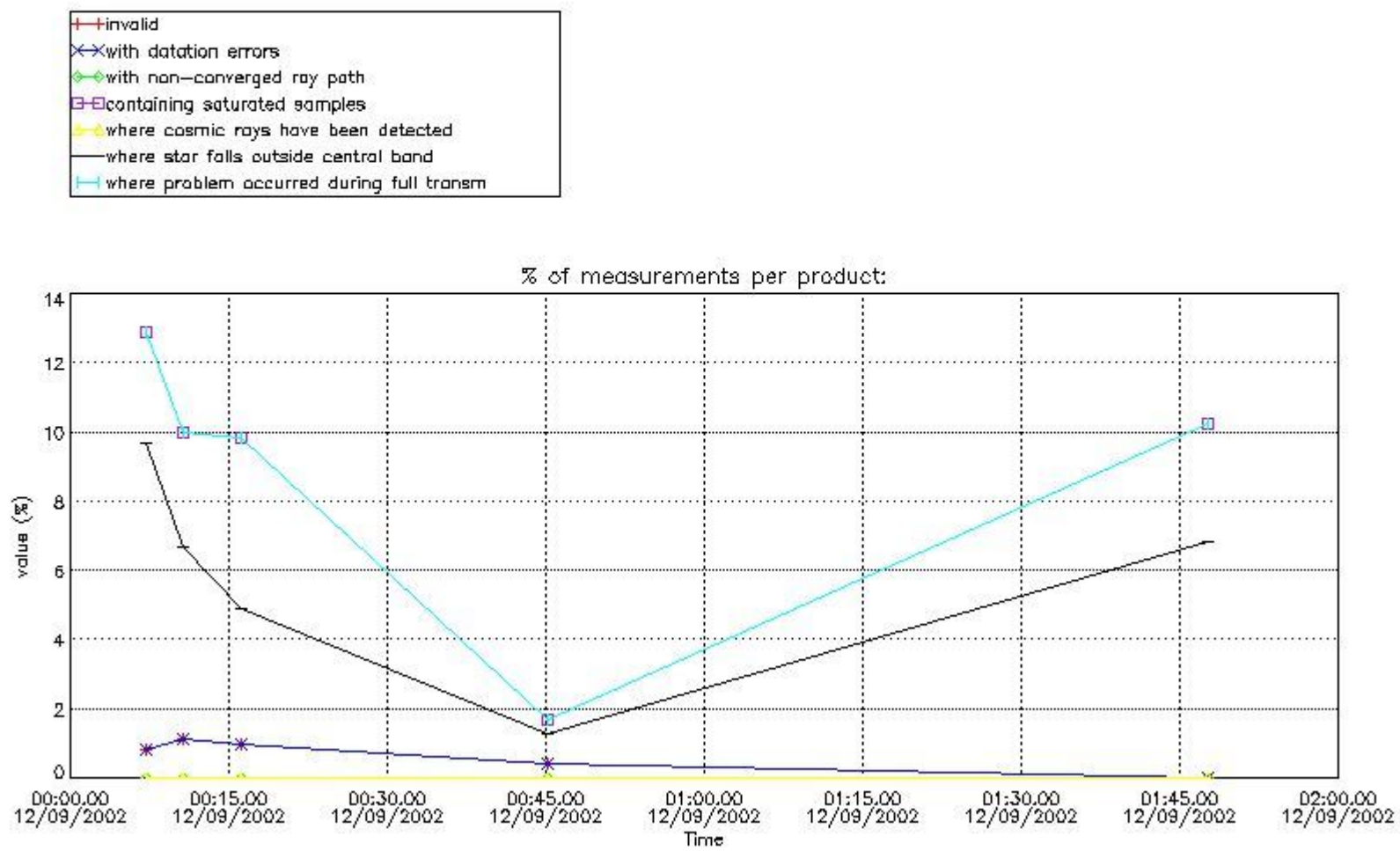
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



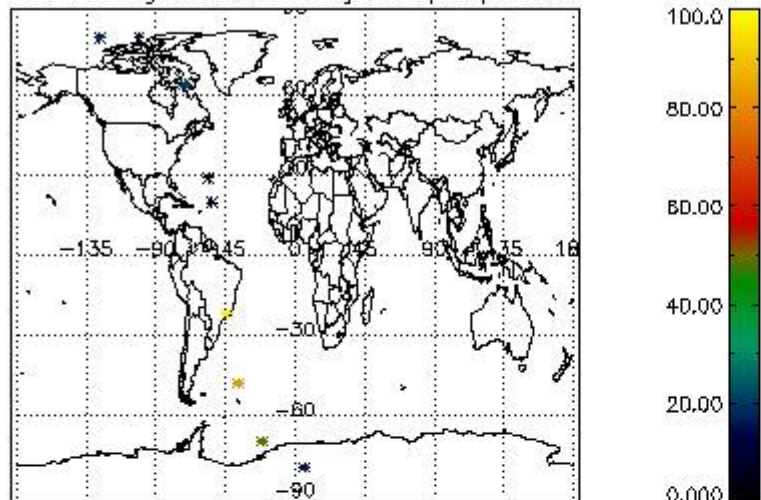
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



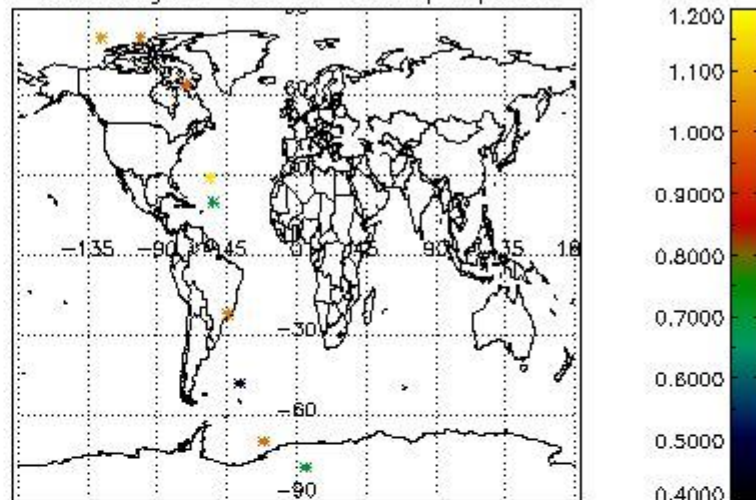
4.2 Plot quality information per product coming from level 1b processing (world map)

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

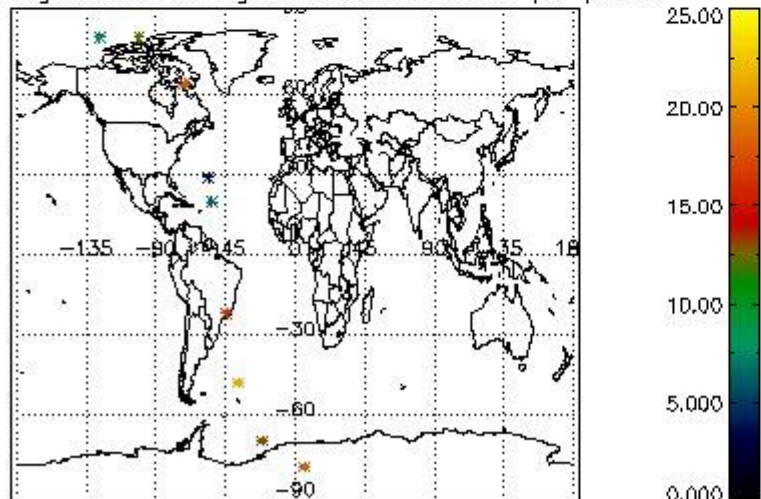
Percentage of cosmic ray hits per profile



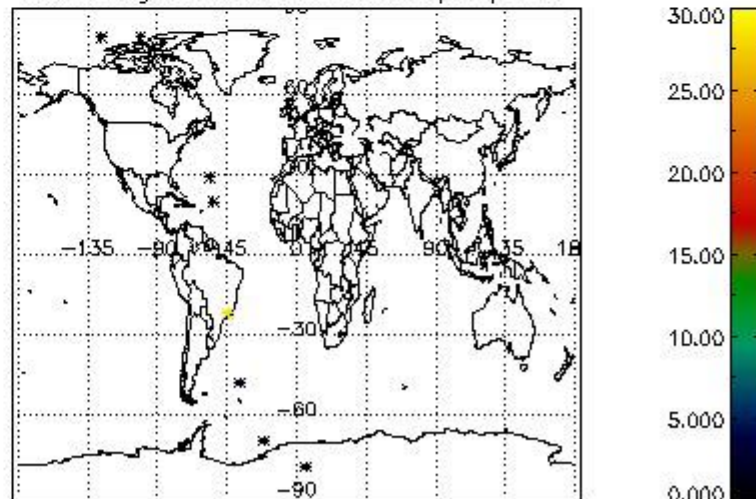
Percentage of datation errors per profile



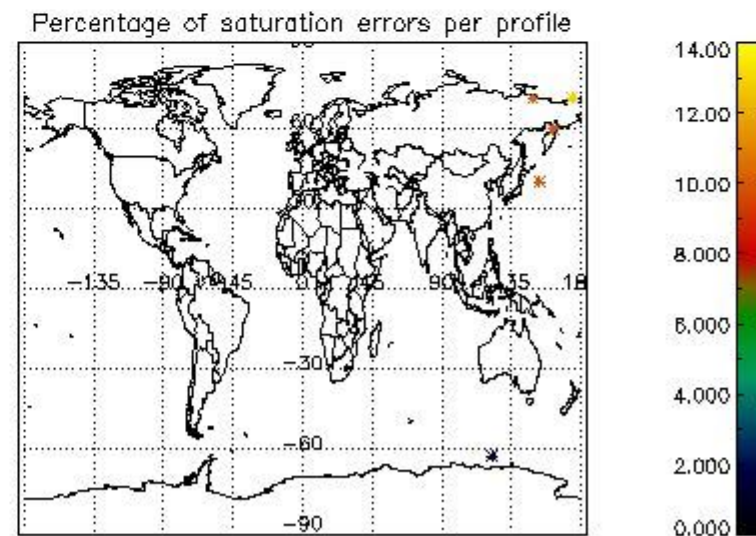
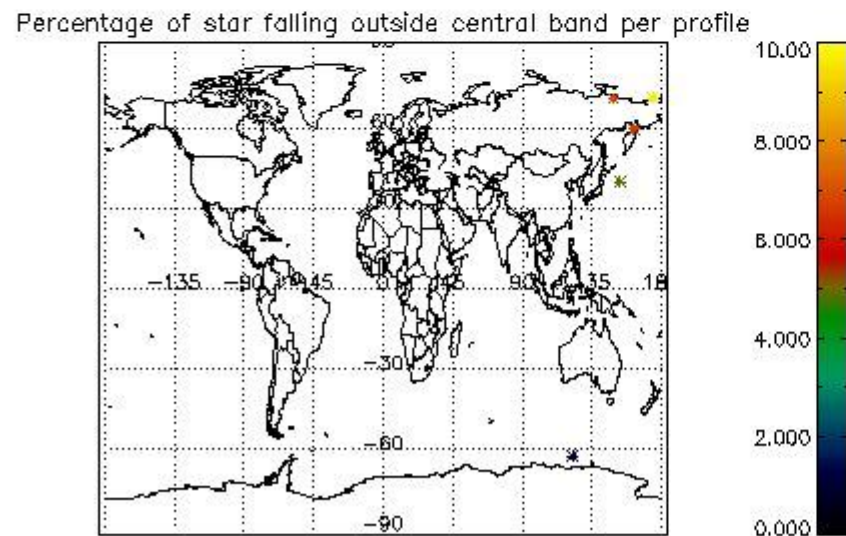
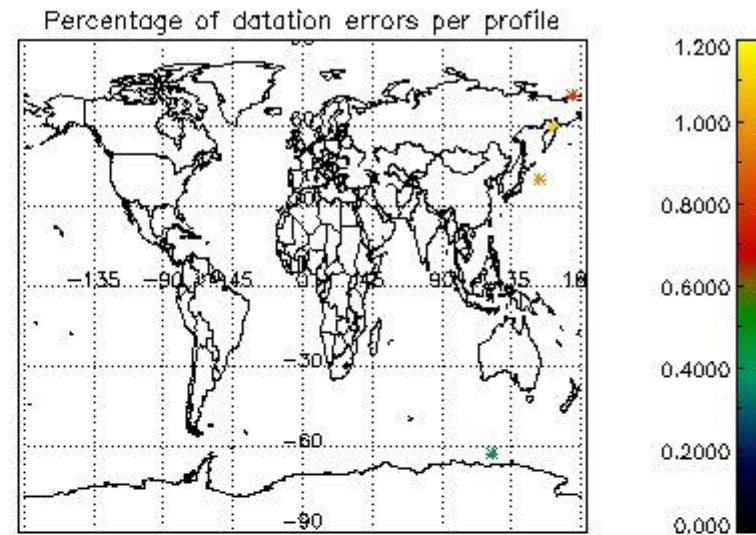
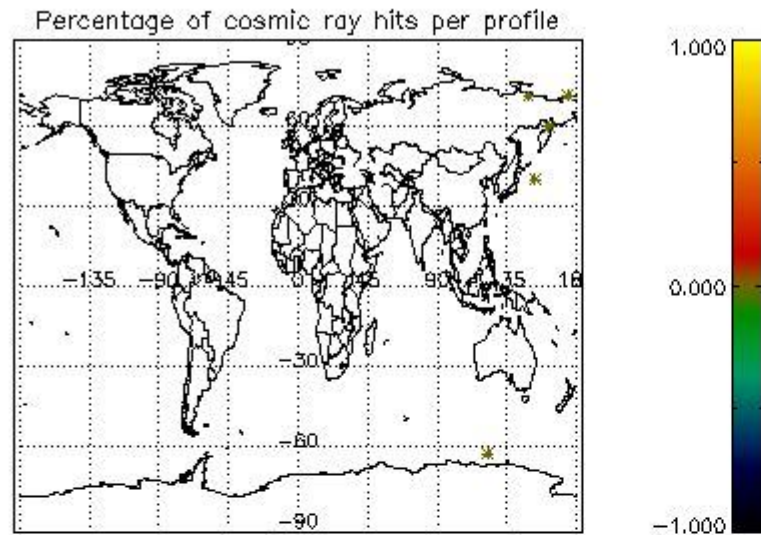
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

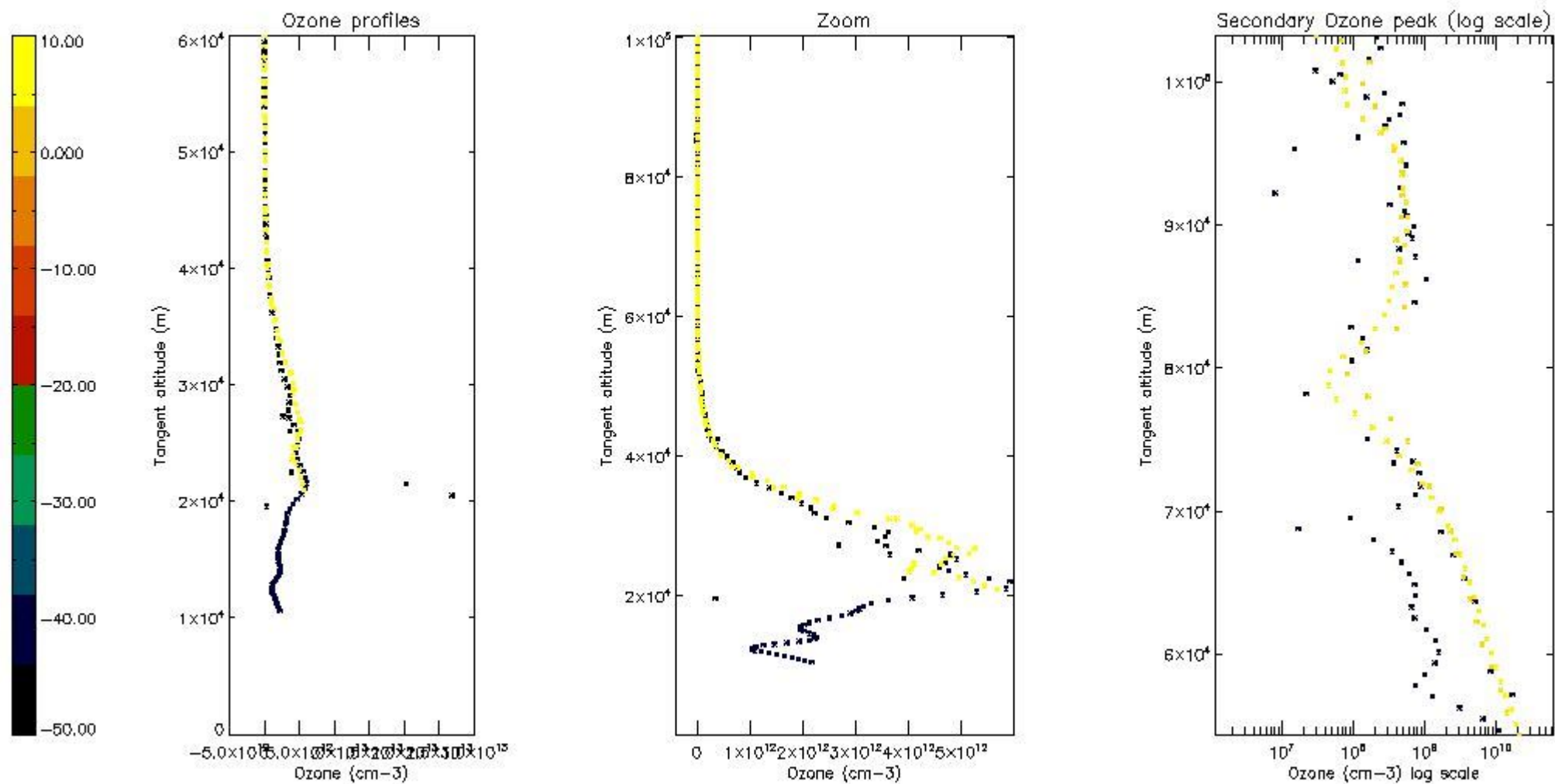
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	30
STD < 20	13

STD < 10	11
STD < 5	7

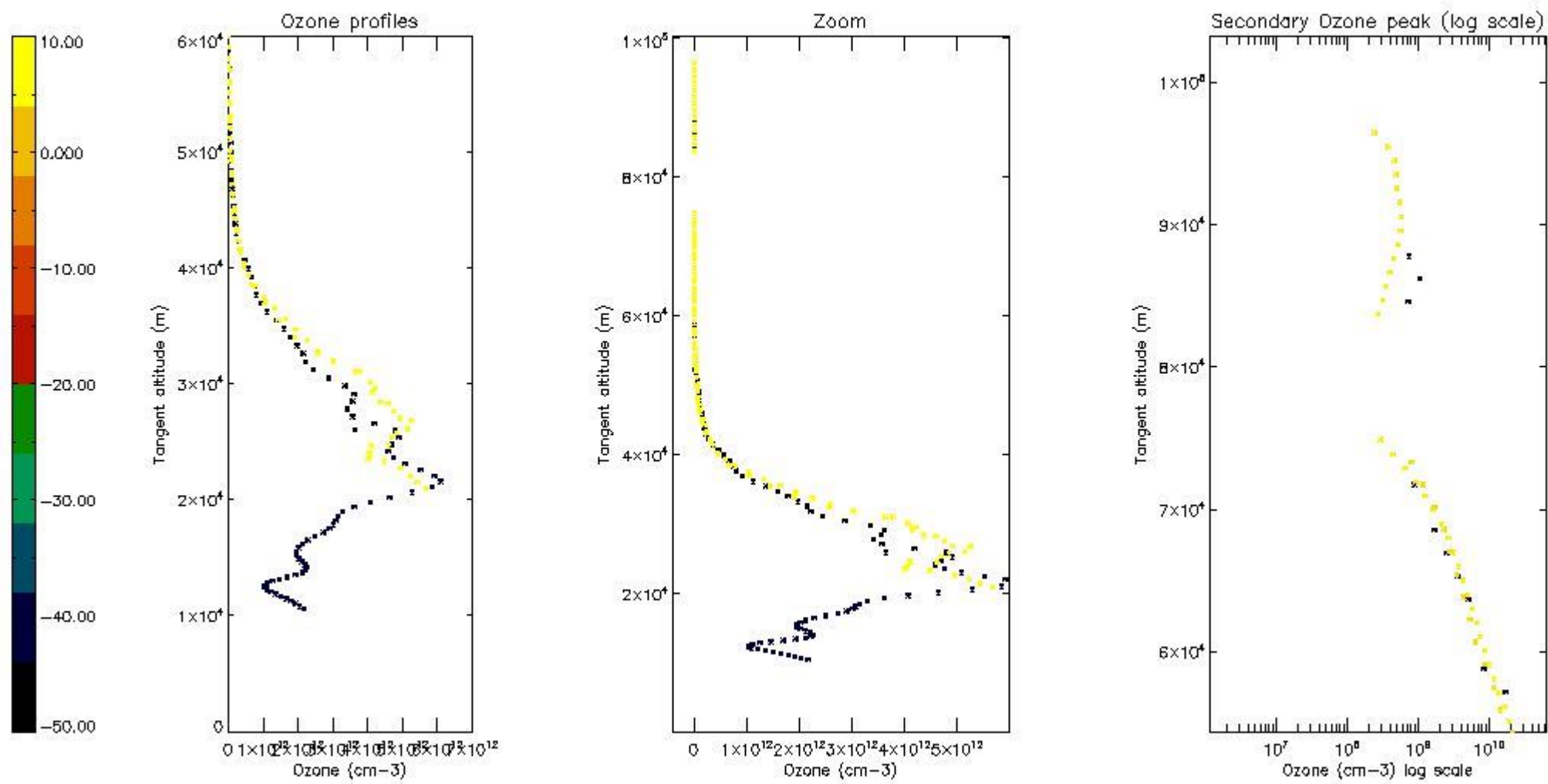
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

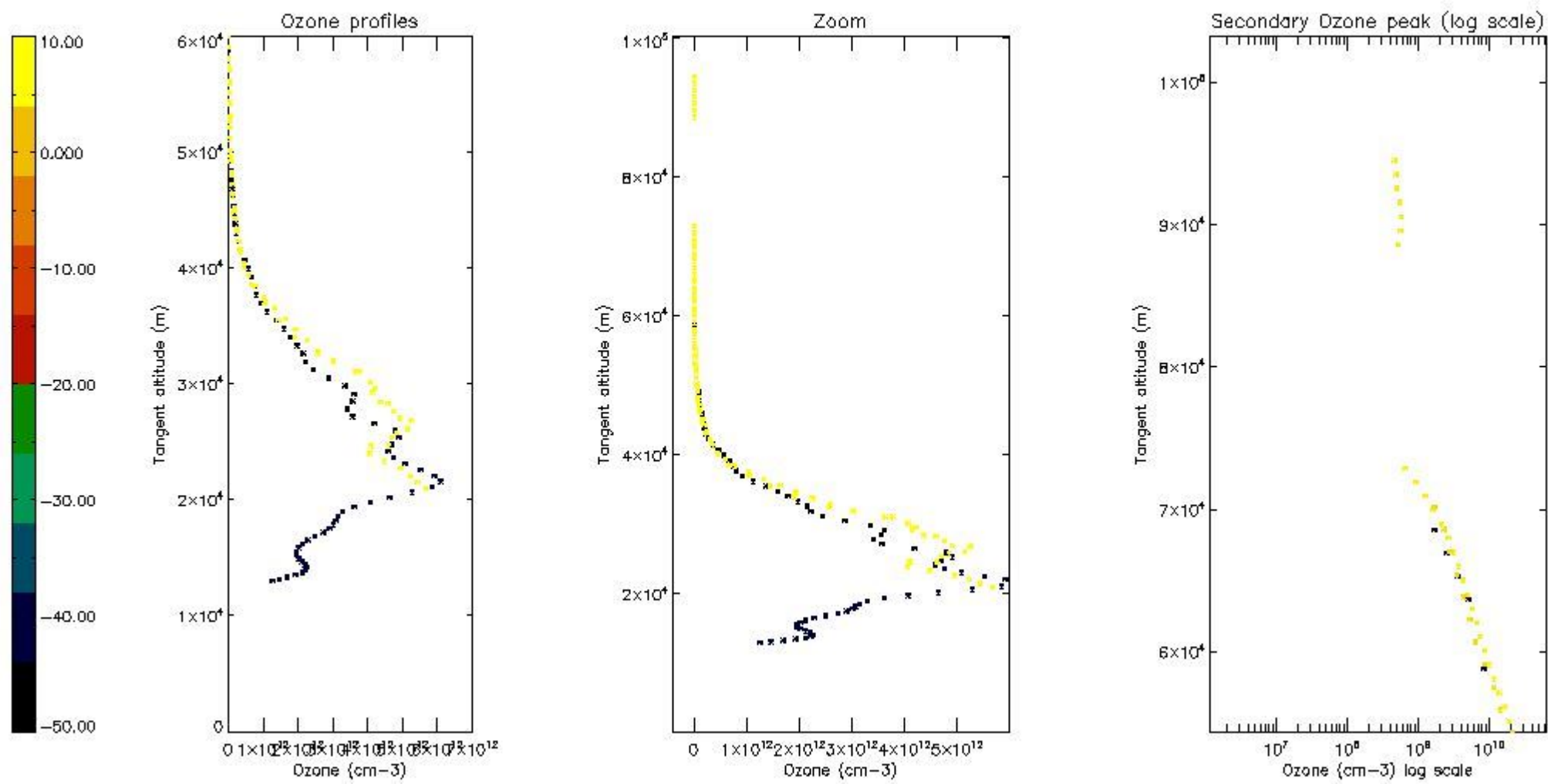
The colorbar represents the latitude.



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

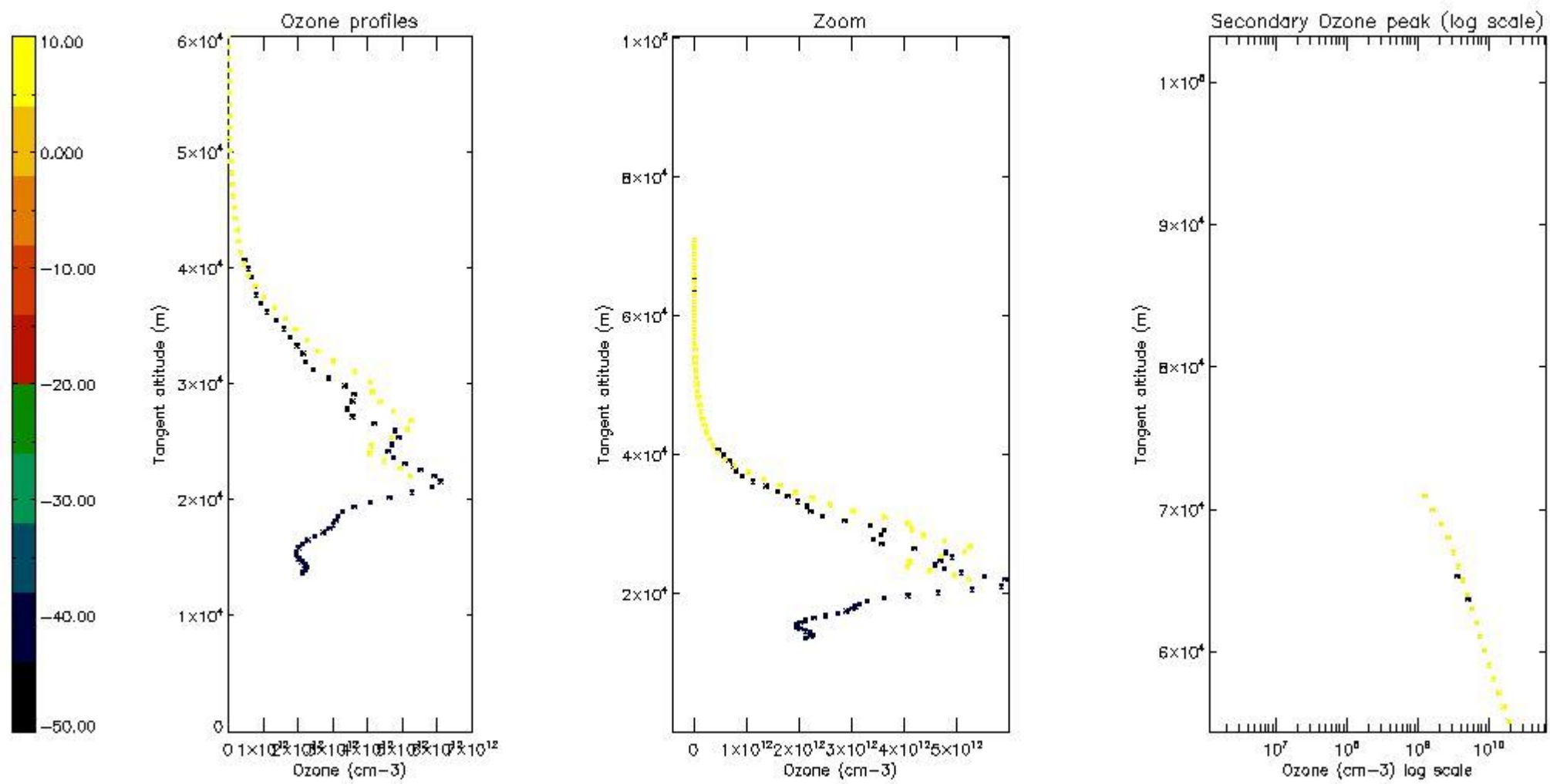
The colorbar represents the latitude.





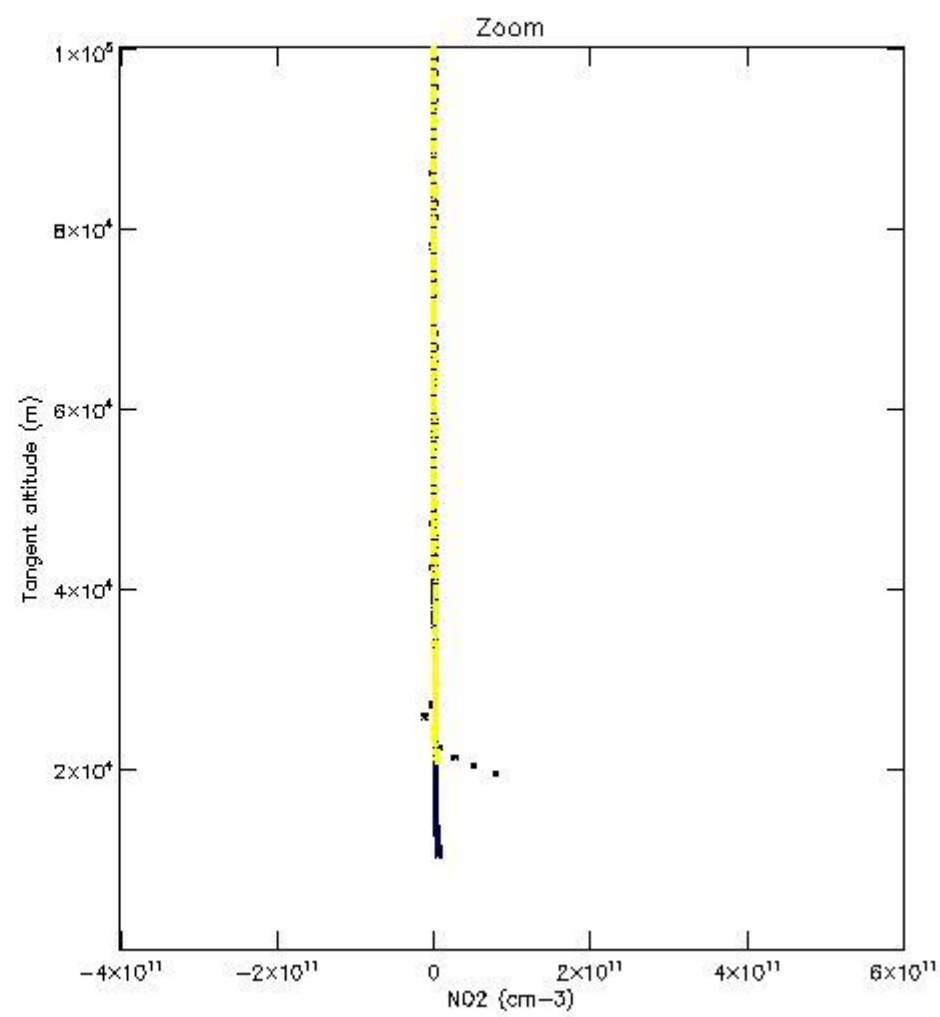
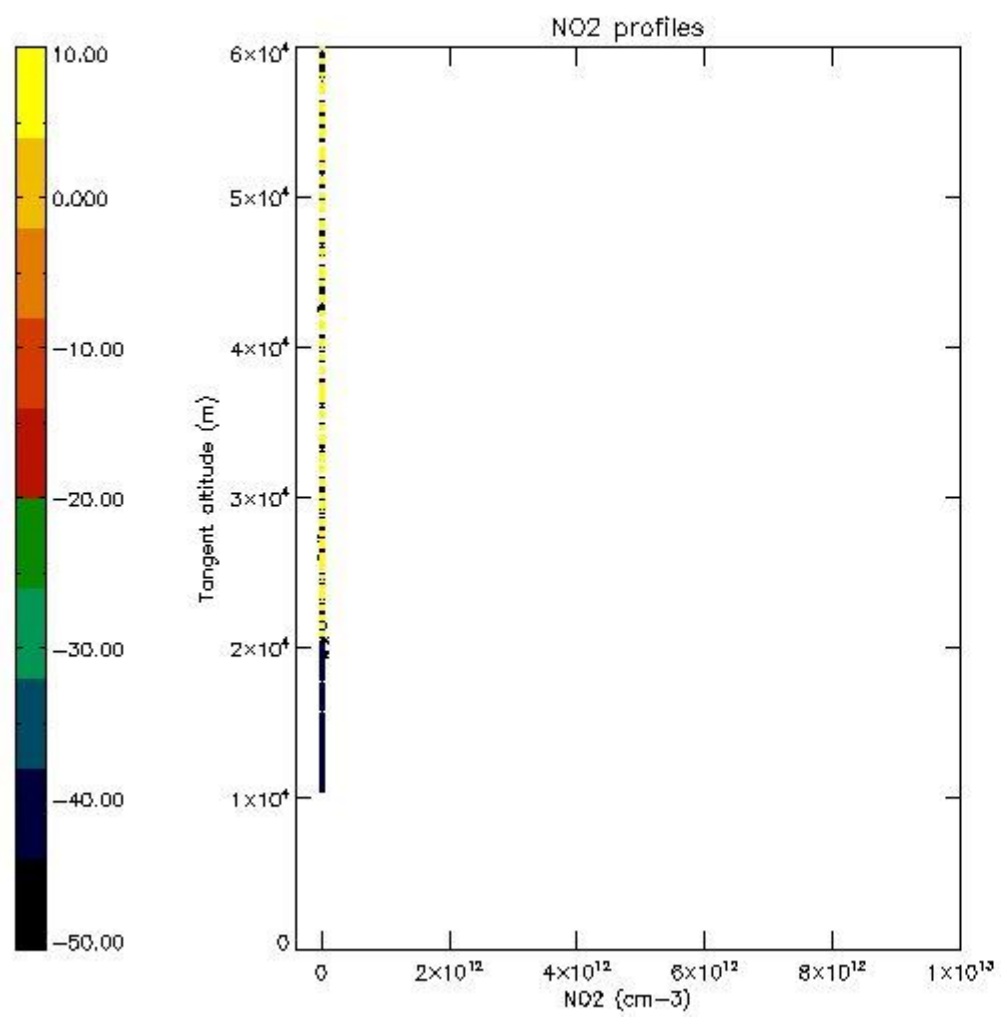
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



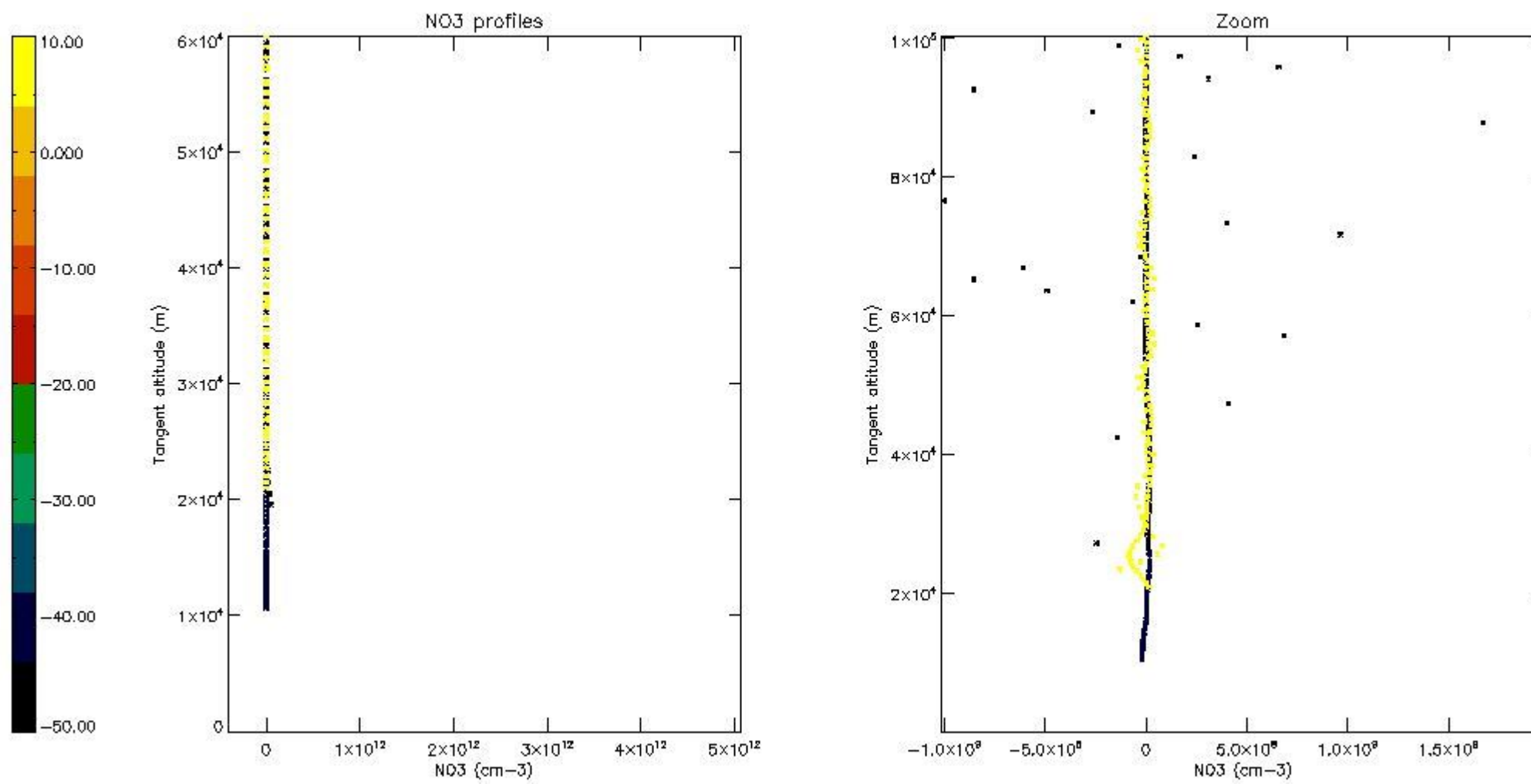
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

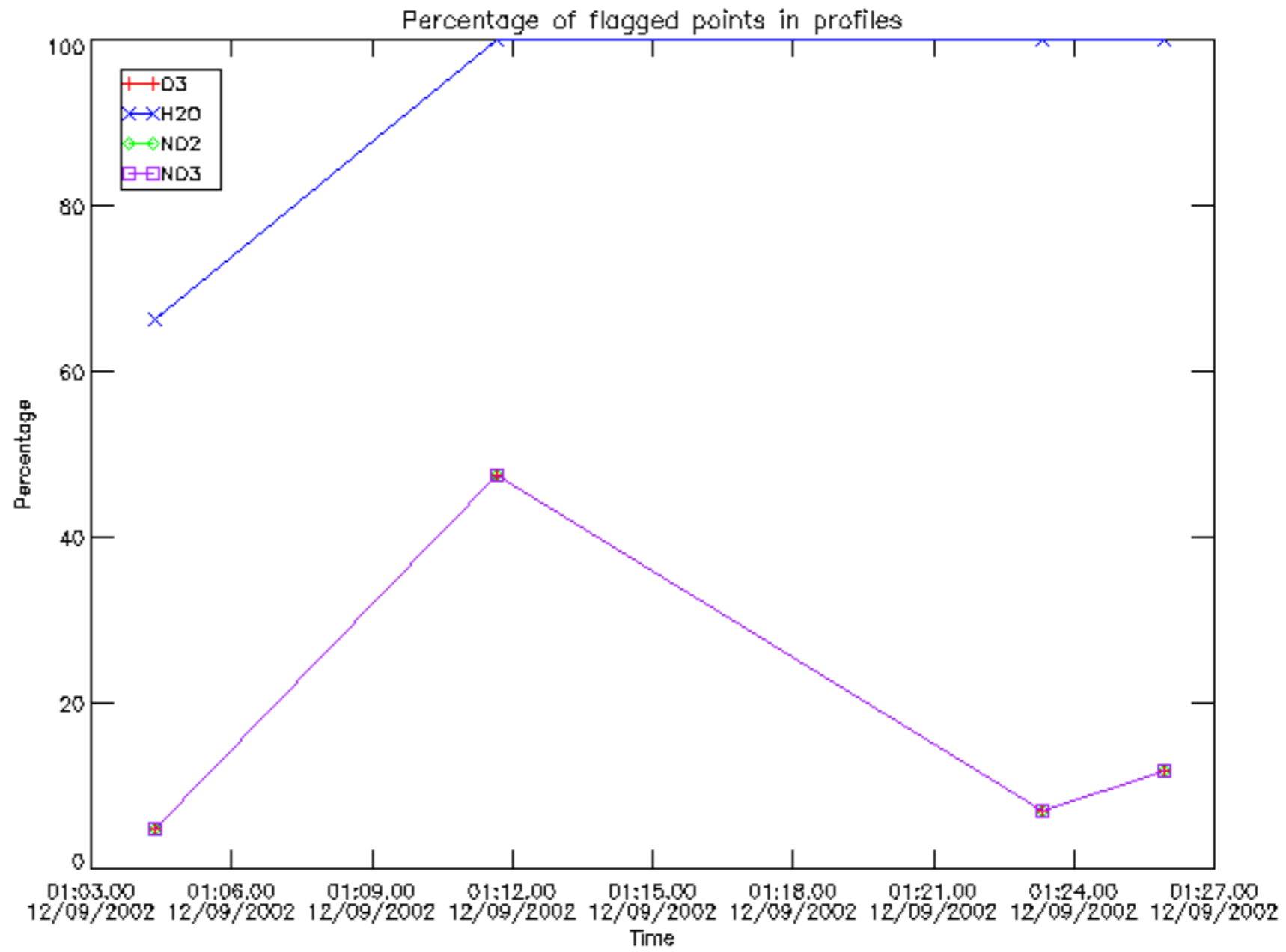
The colorbar represents the latitude.



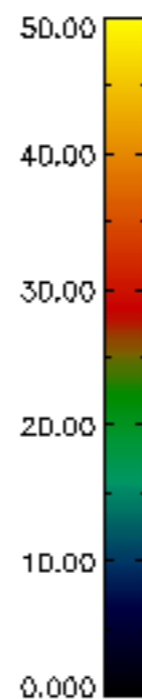
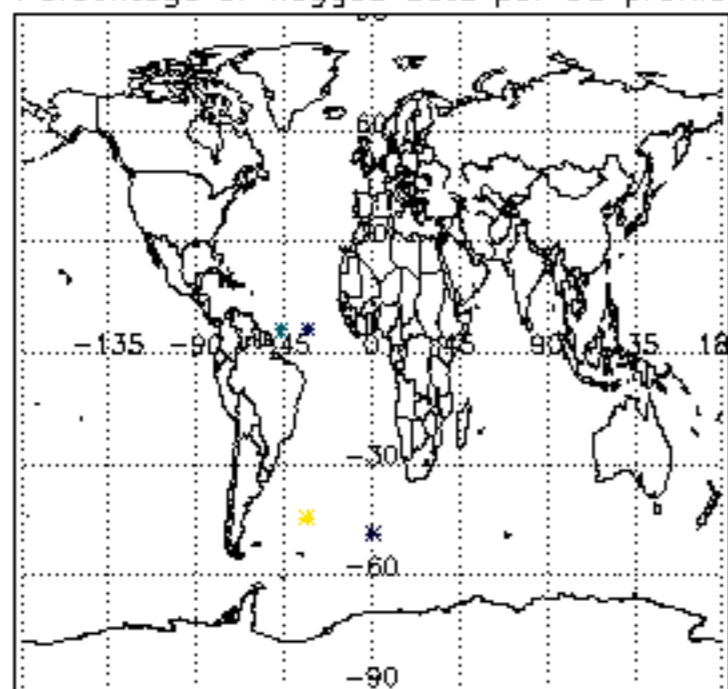
## 6. Auxiliary Data Files used for the production reported in section 2

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

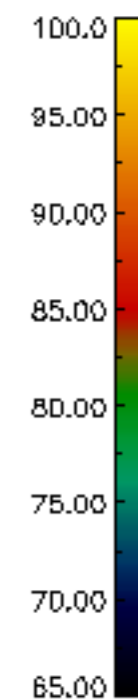
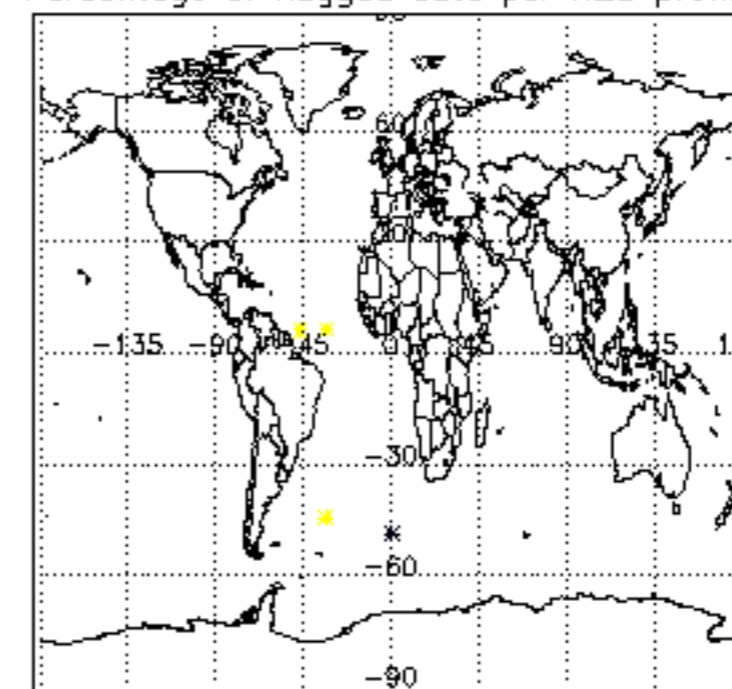
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	12-SEP-2002 00:01:30
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-SEP-2002 00:01:30
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-SEP-2002 00:01:30



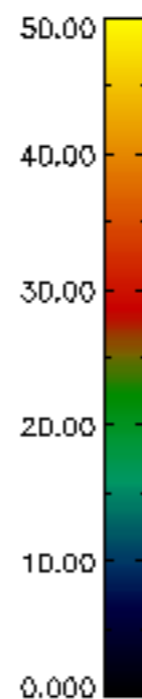
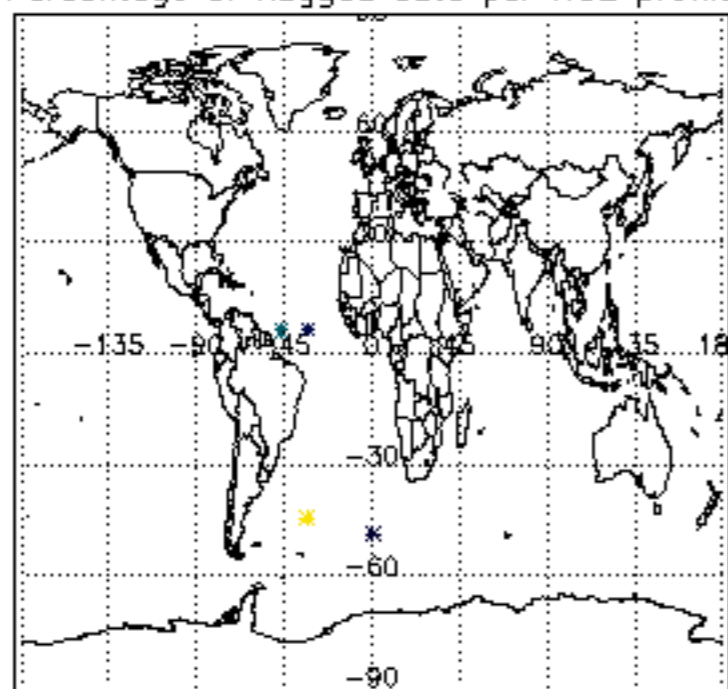
Percentage of flagged data per D3 profile



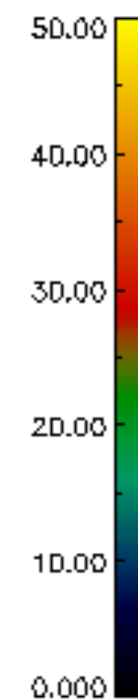
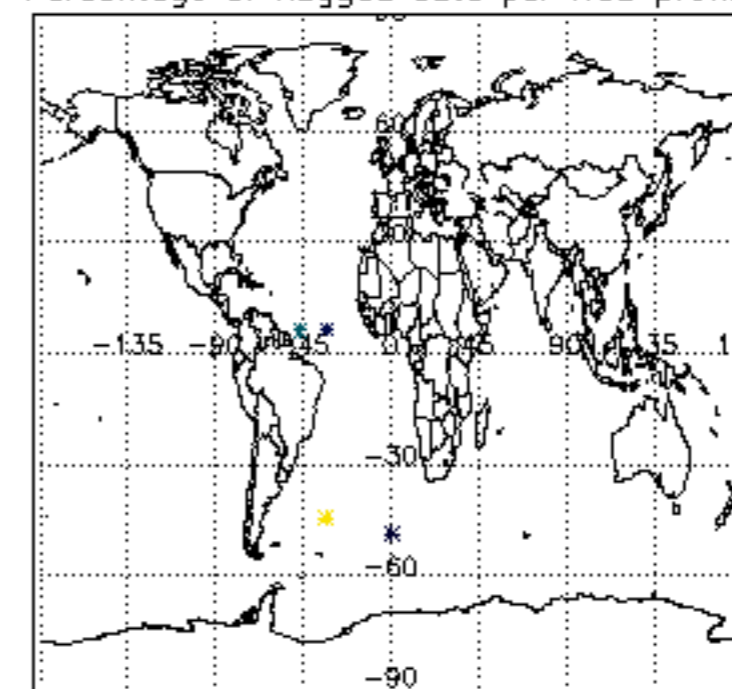
Percentage of flagged data per H2O profile

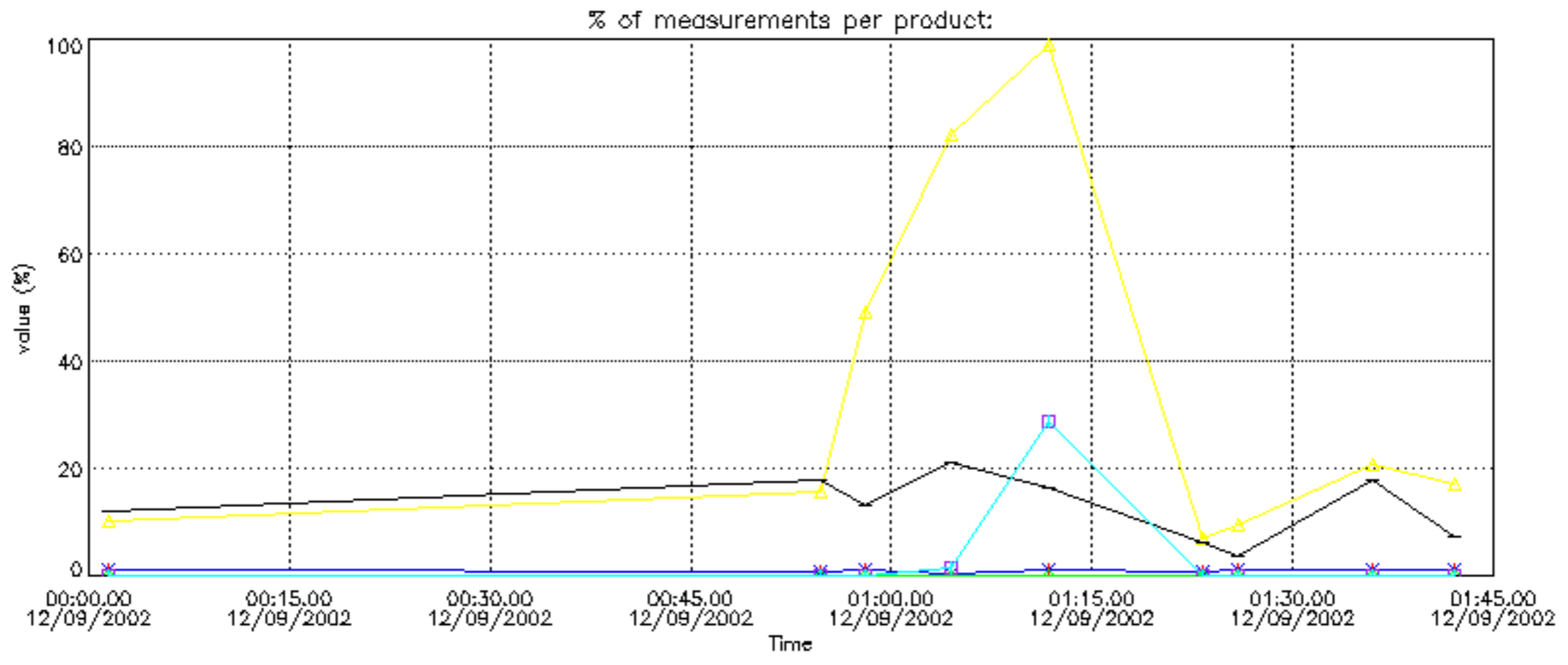


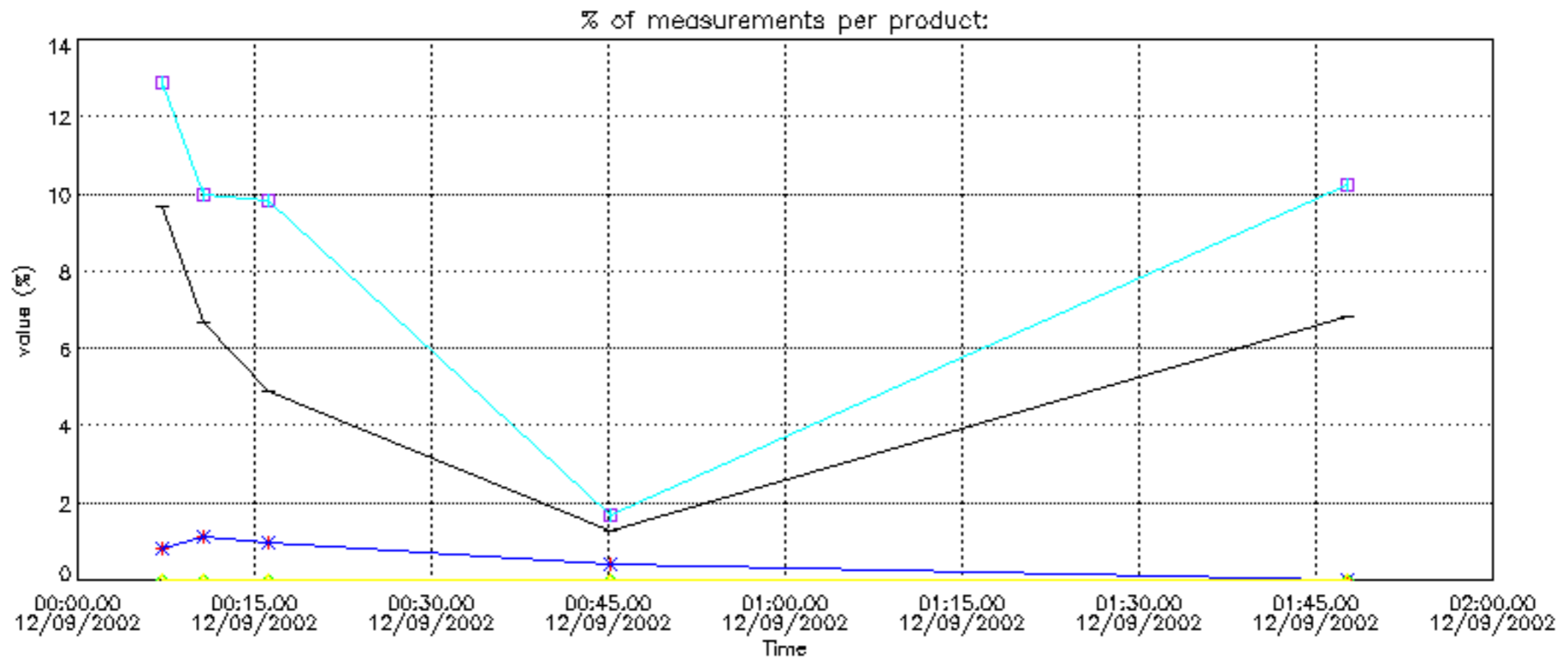
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

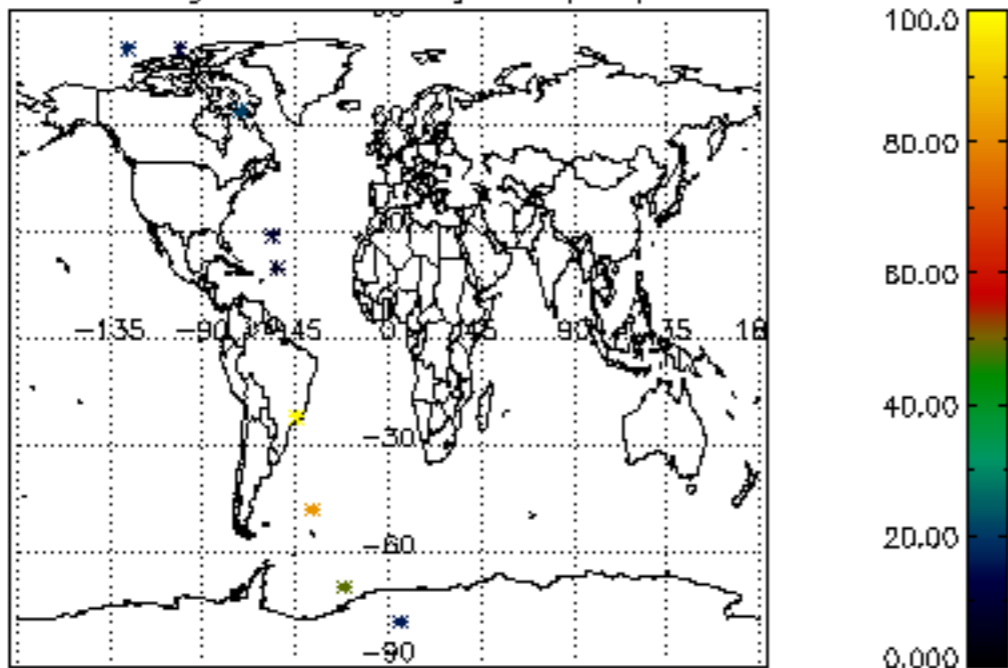




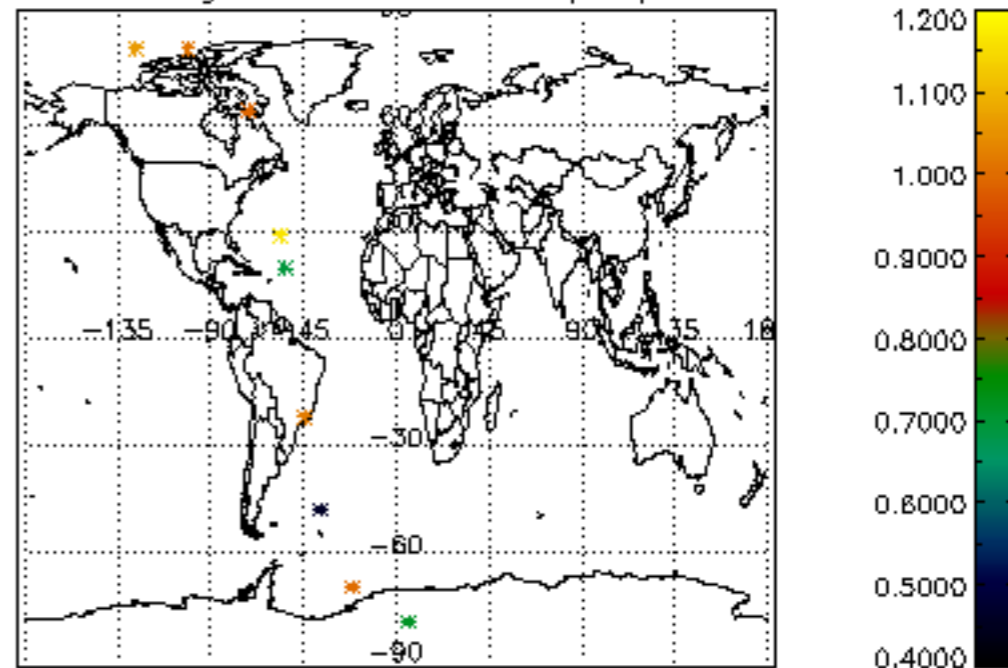




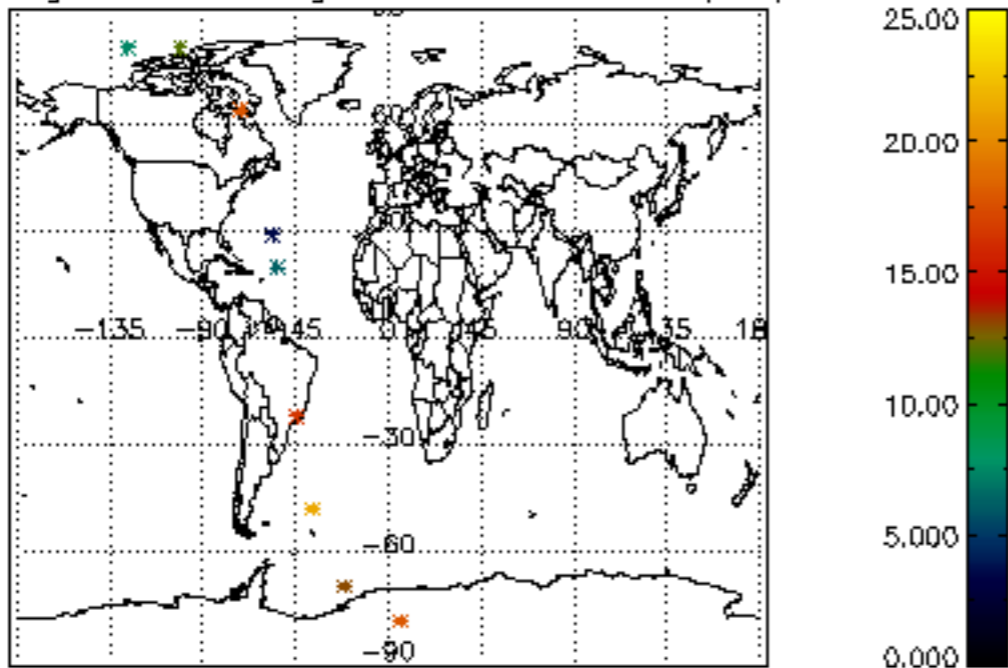
Percentage of cosmic ray hits per profile



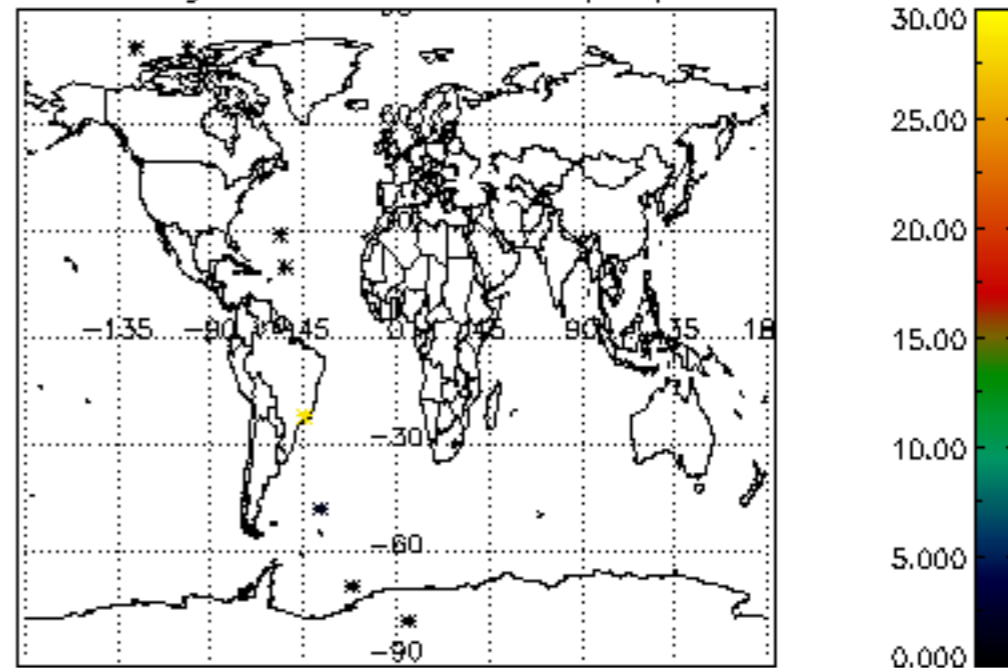
Percentage of datation errors per profile



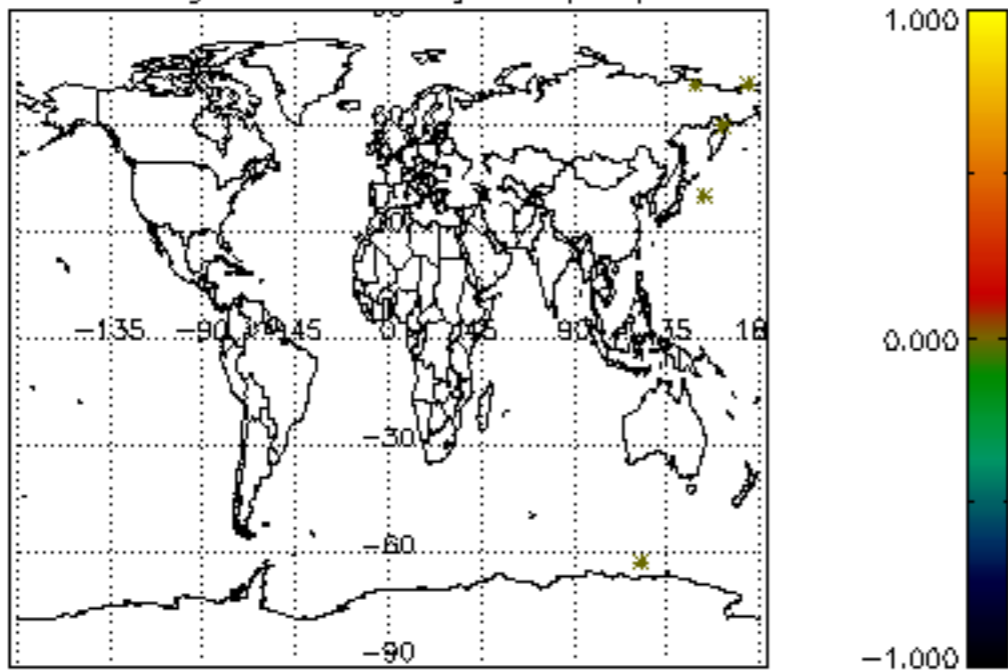
Percentage of star falling outside central band per profile



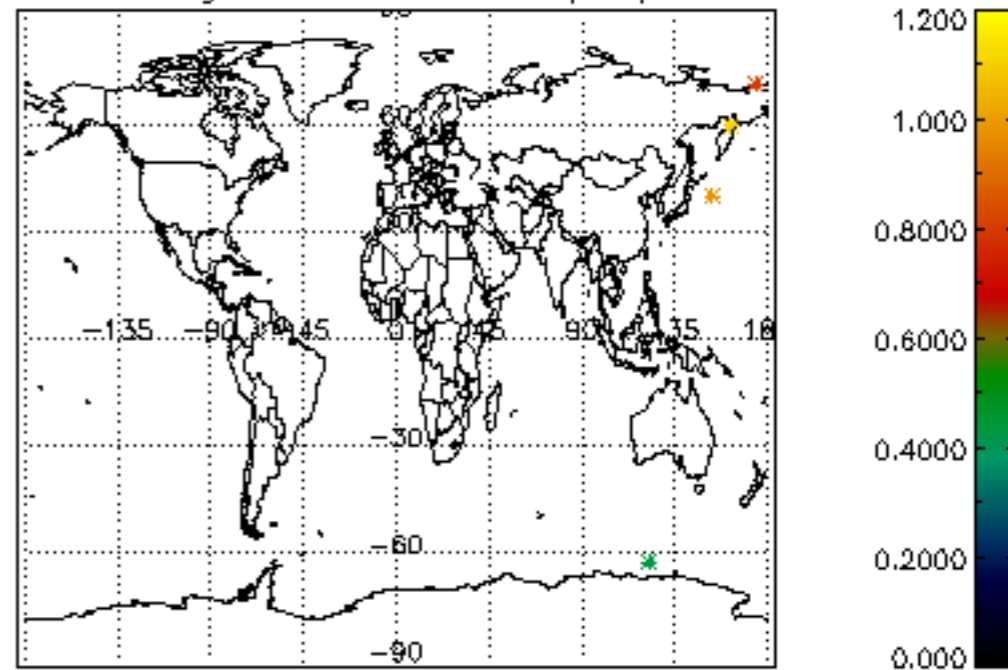
Percentage of saturation errors per profile



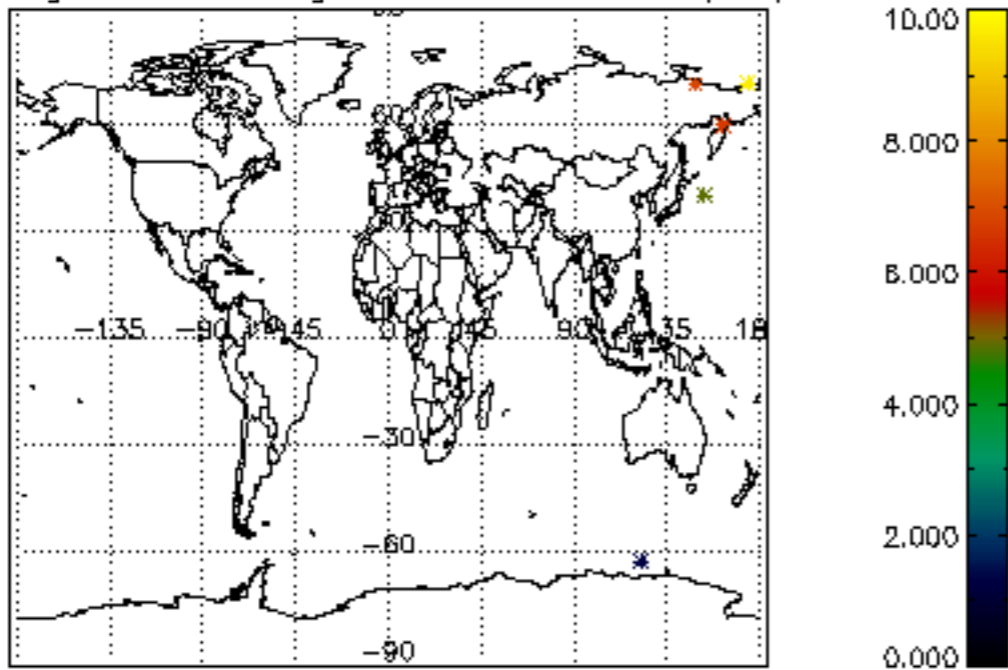
Percentage of cosmic ray hits per profile



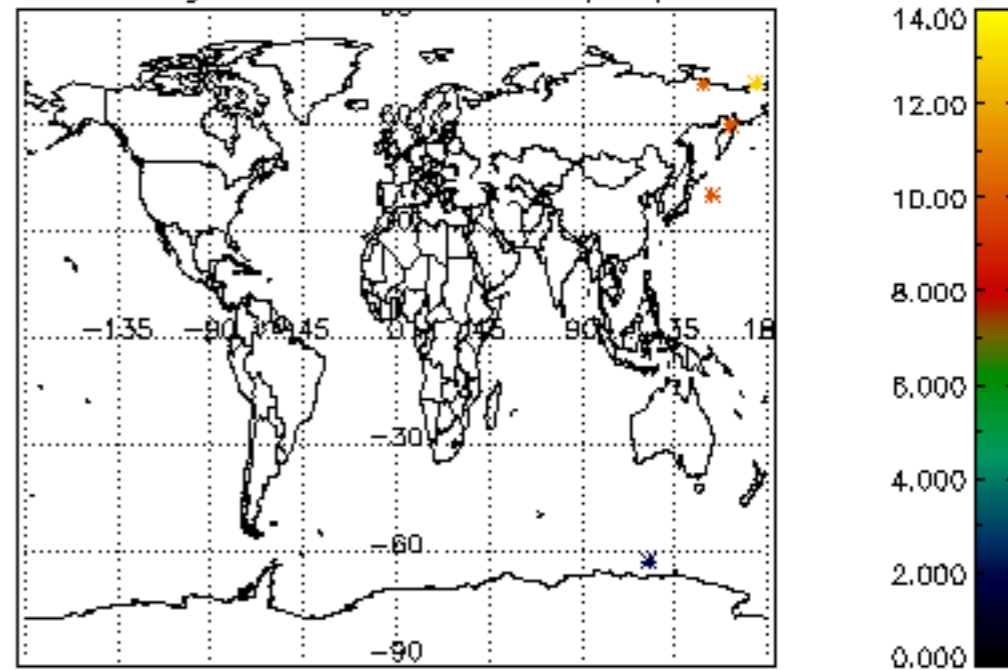
Percentage of datation errors per profile

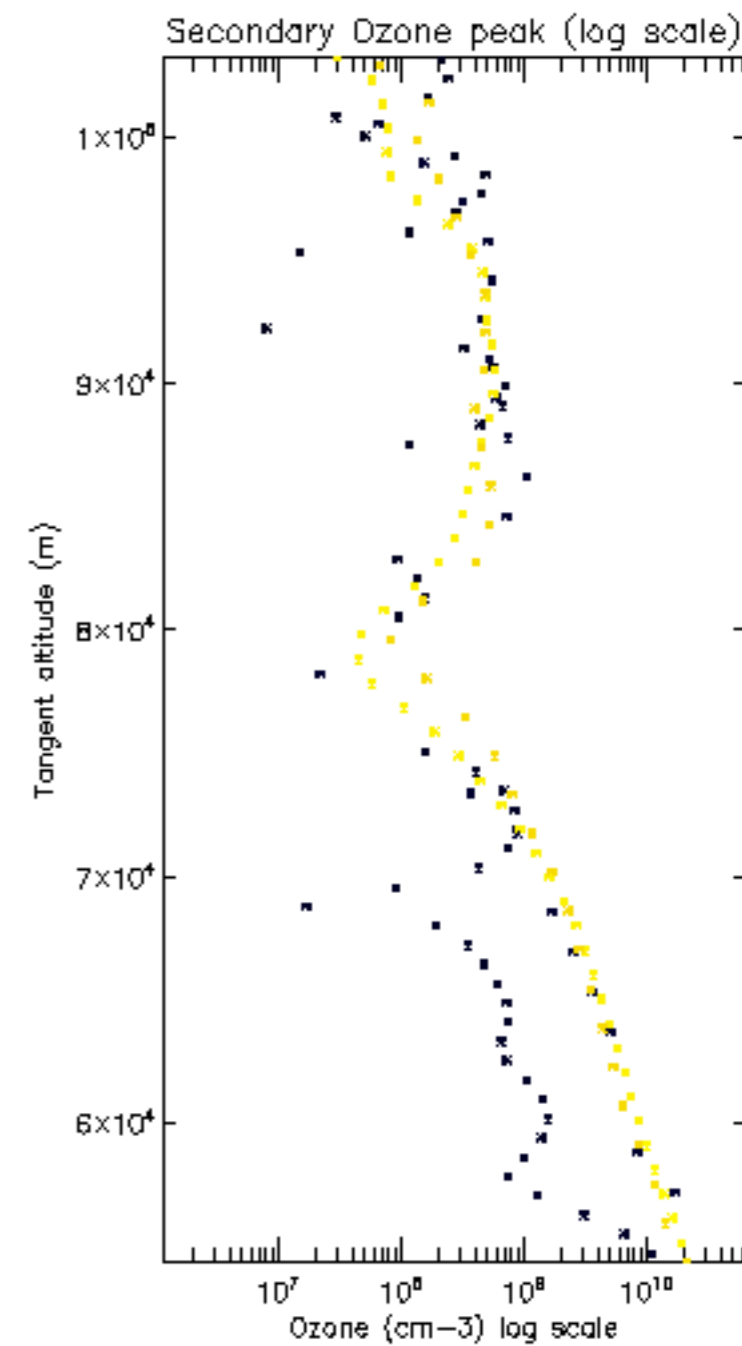
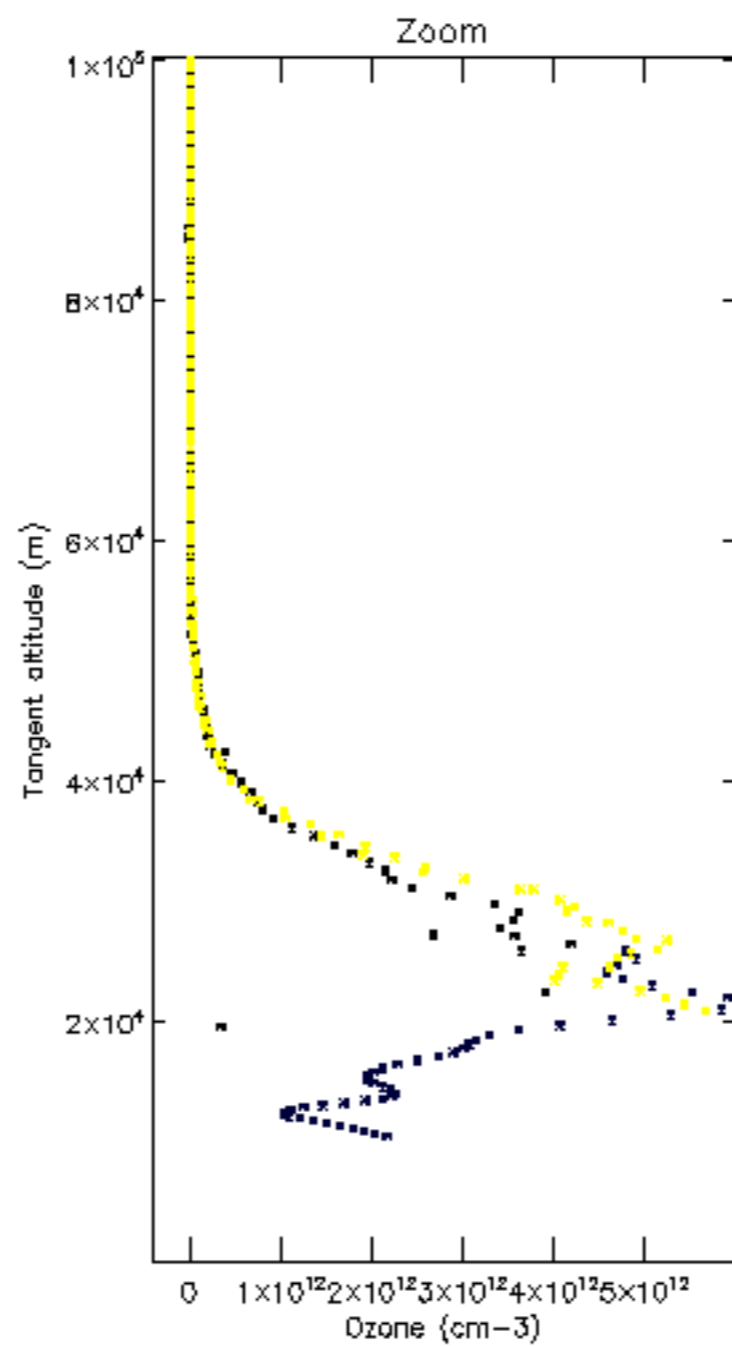
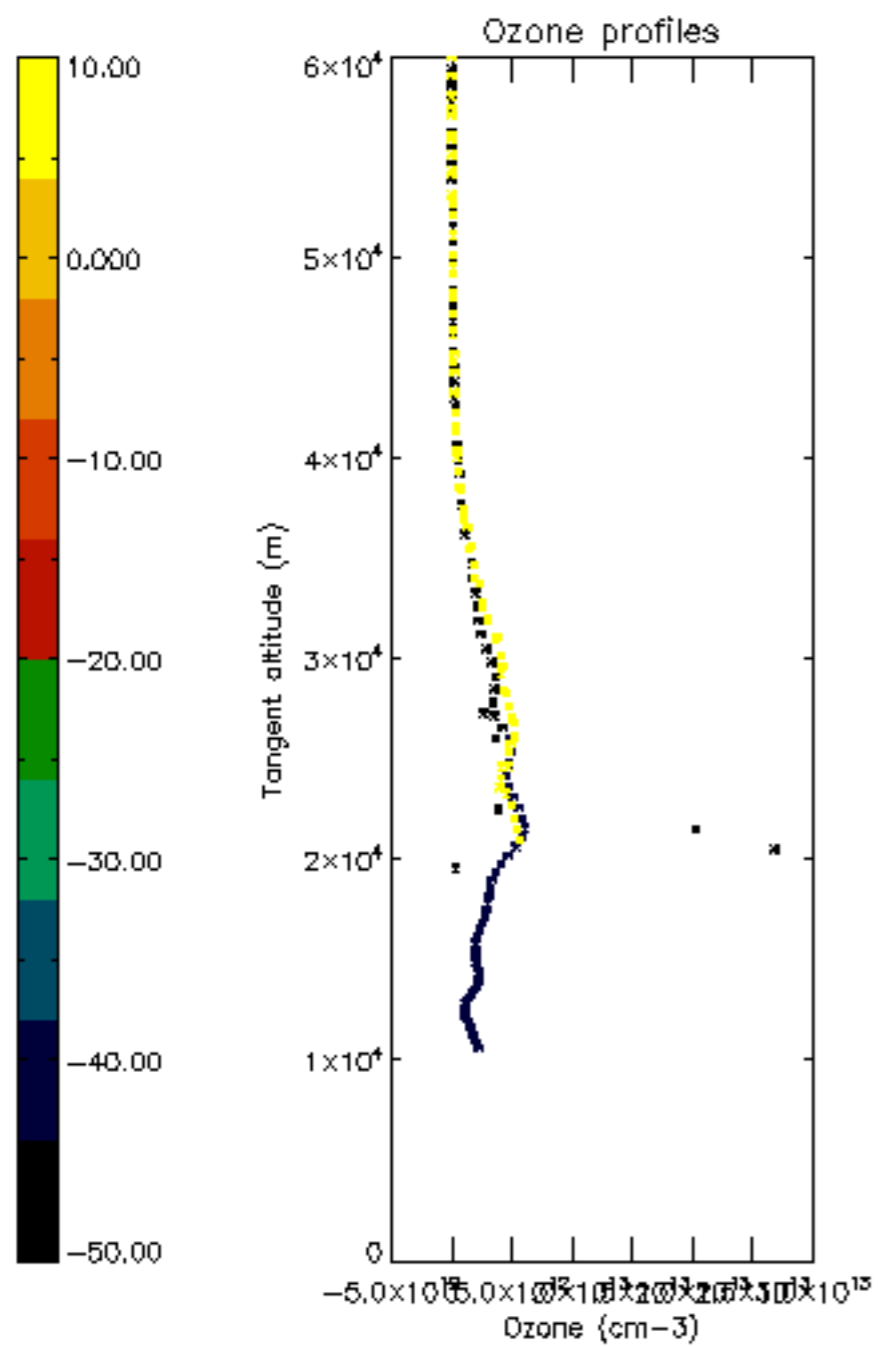


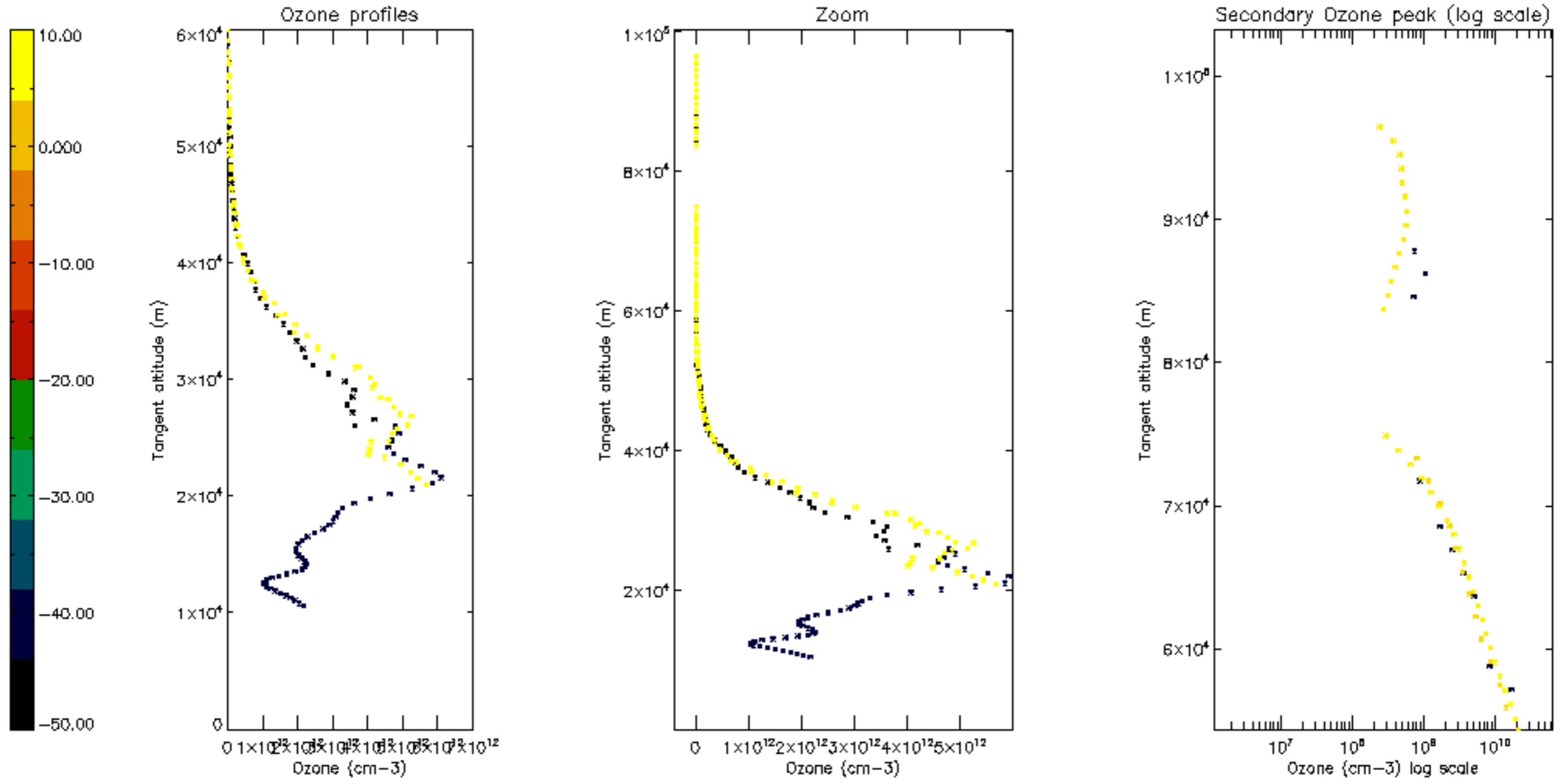
Percentage of star falling outside central band per profile

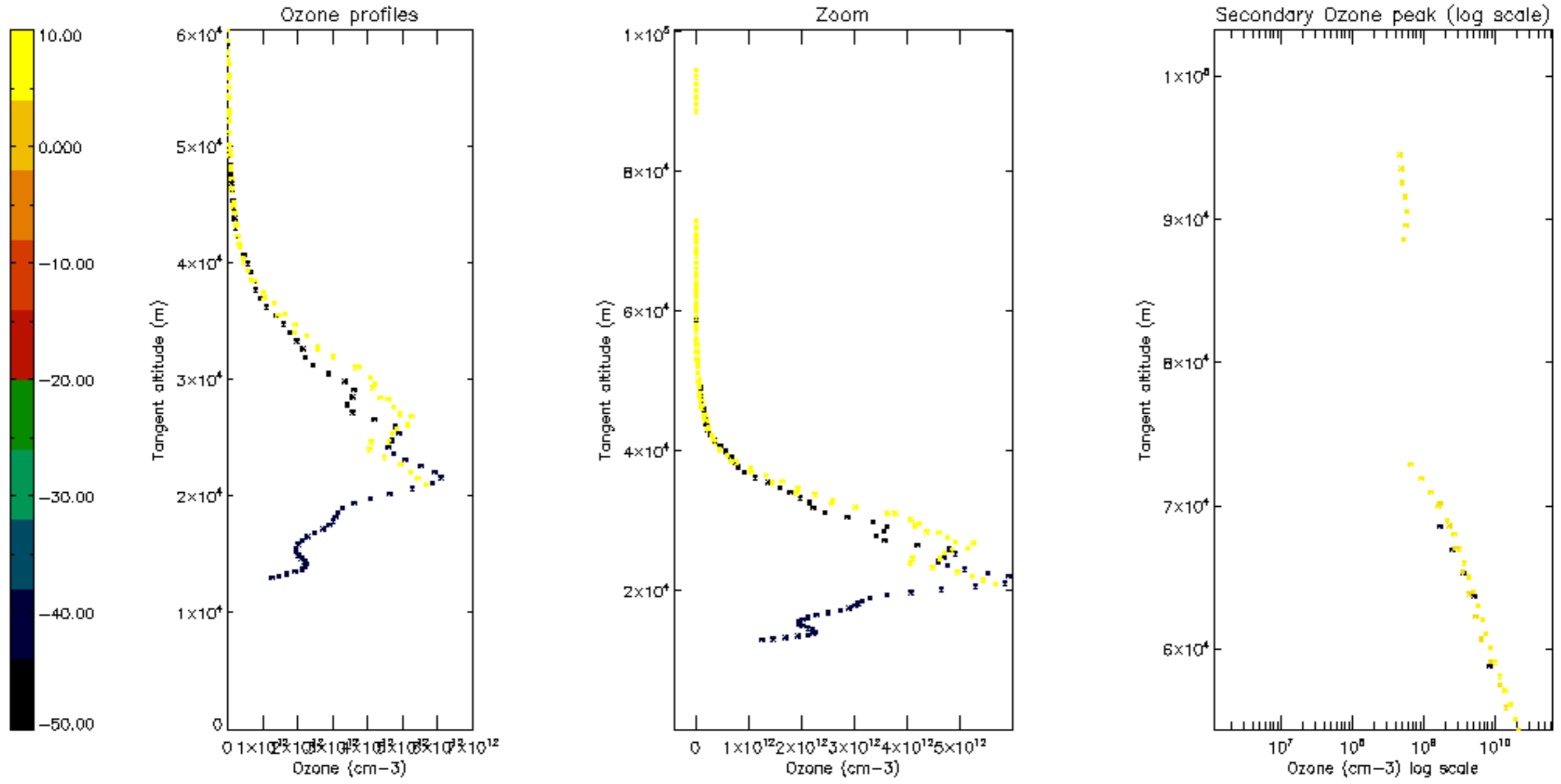


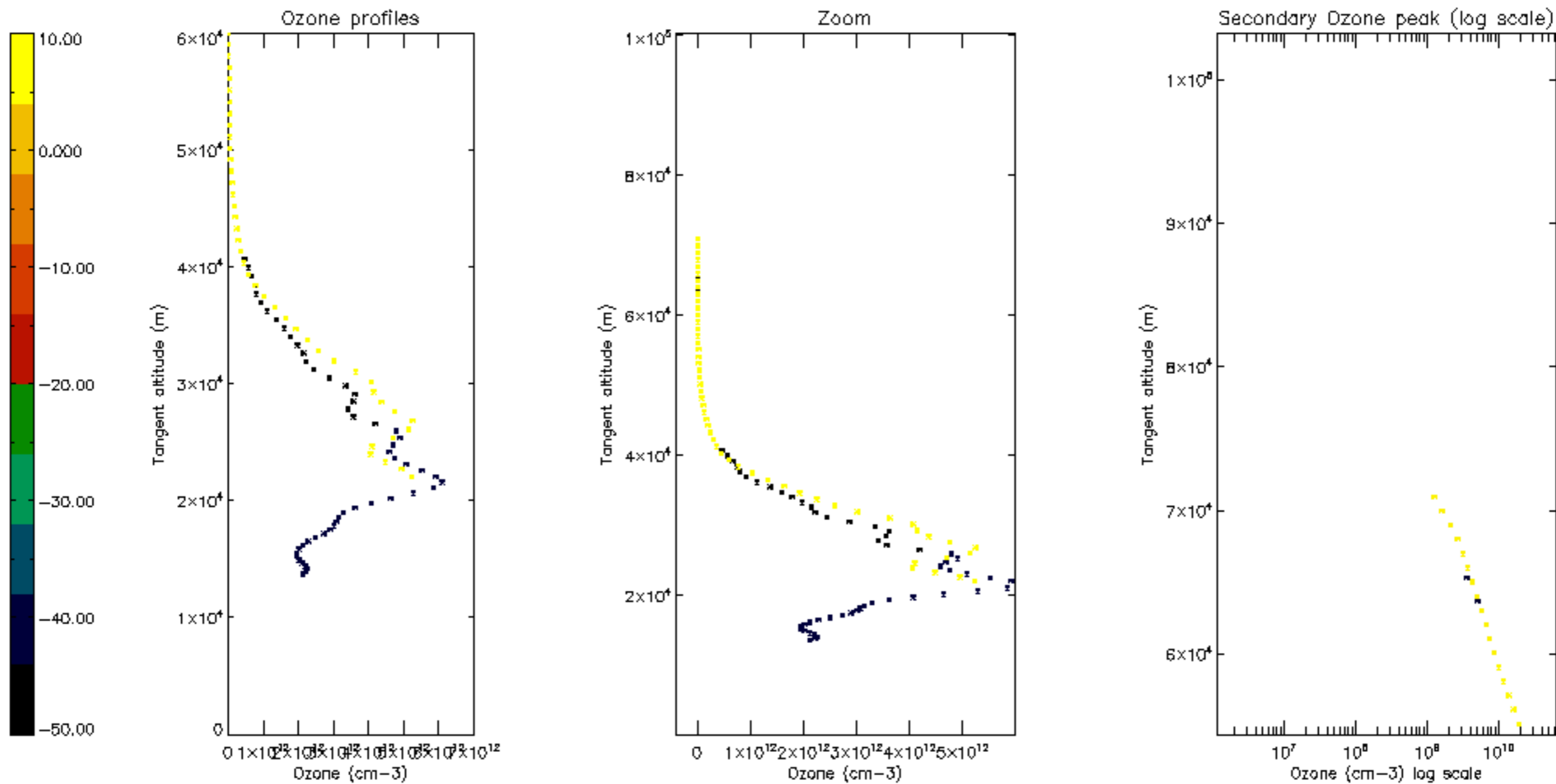
Percentage of saturation errors per profile

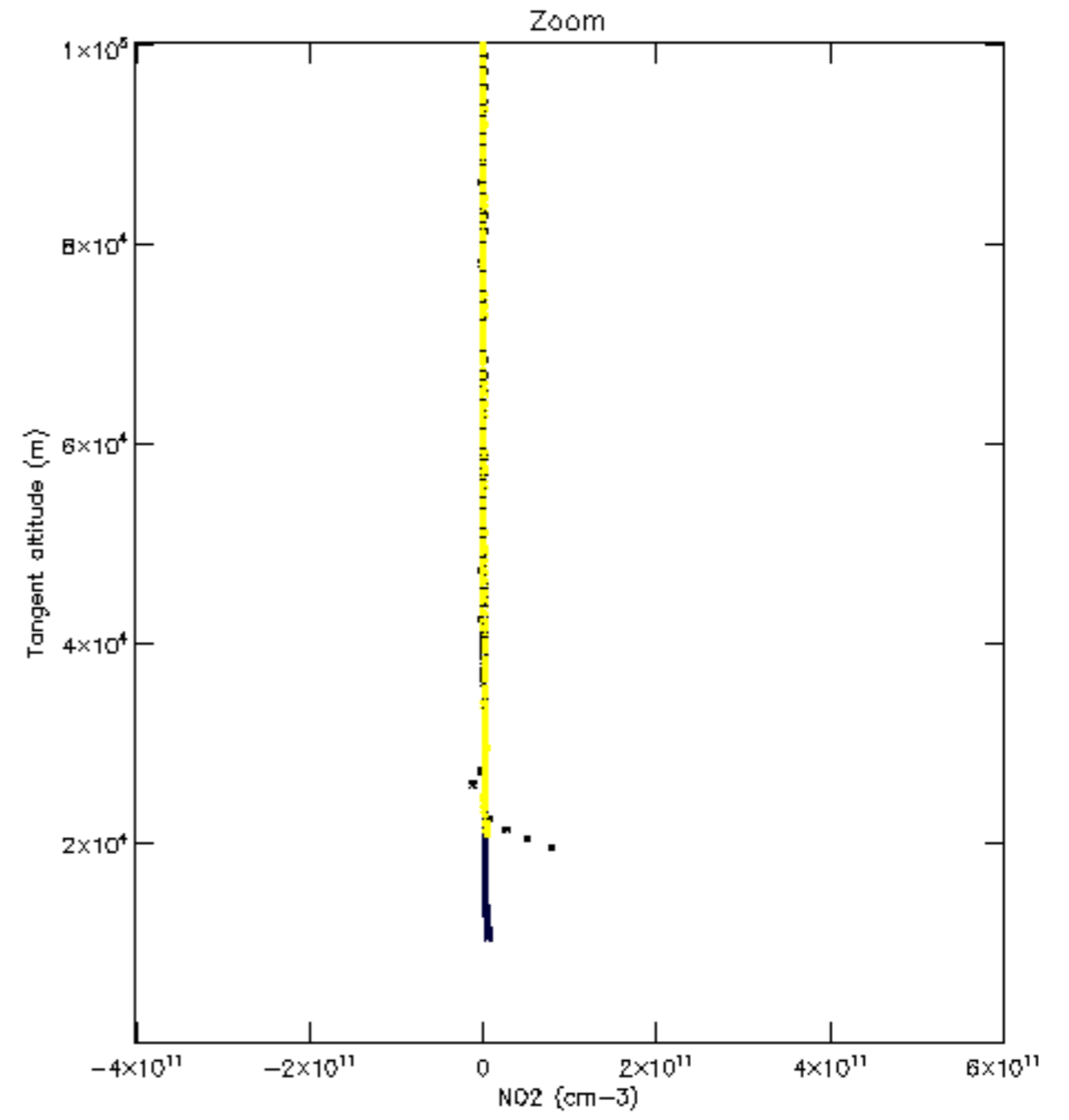
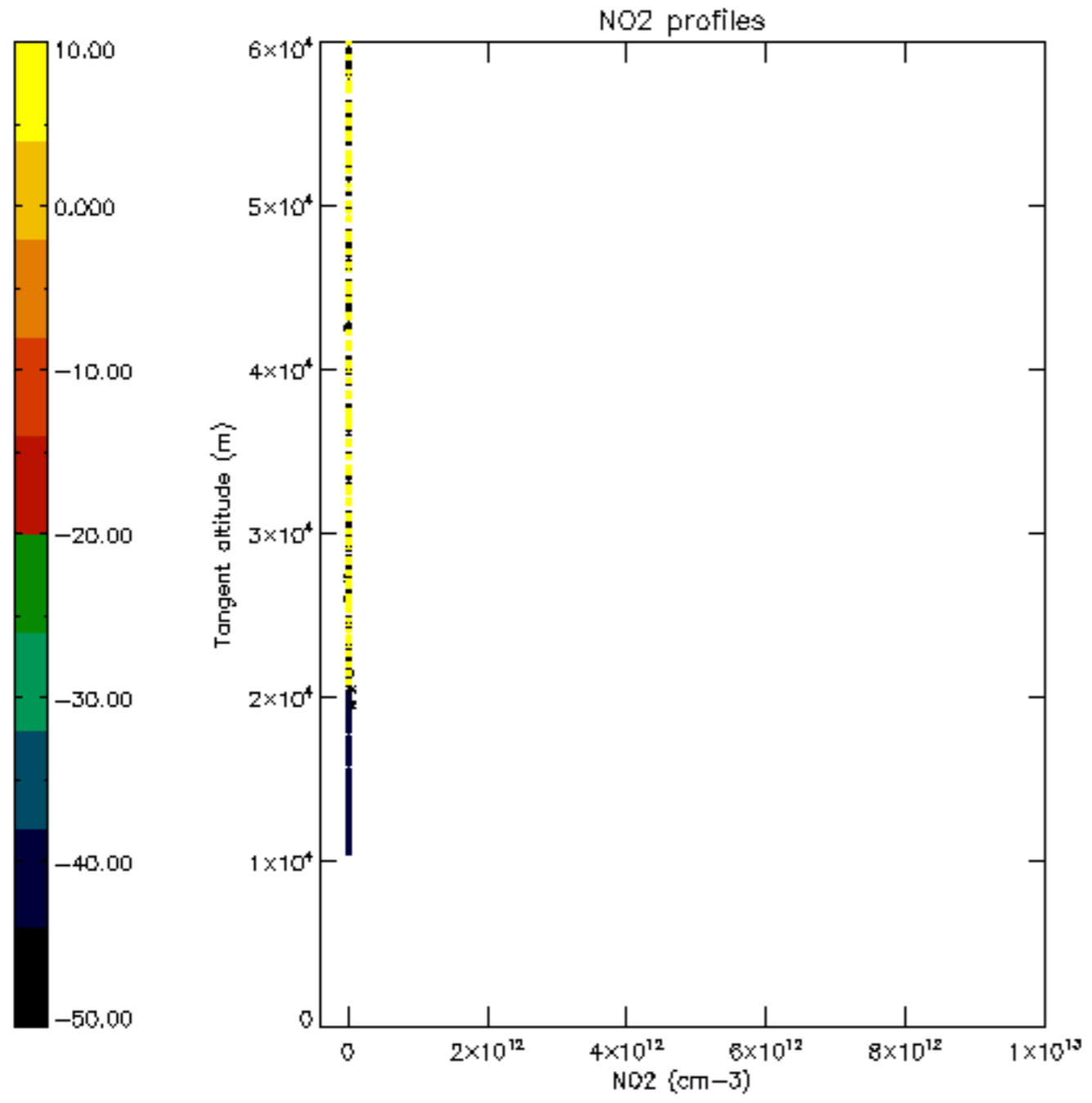


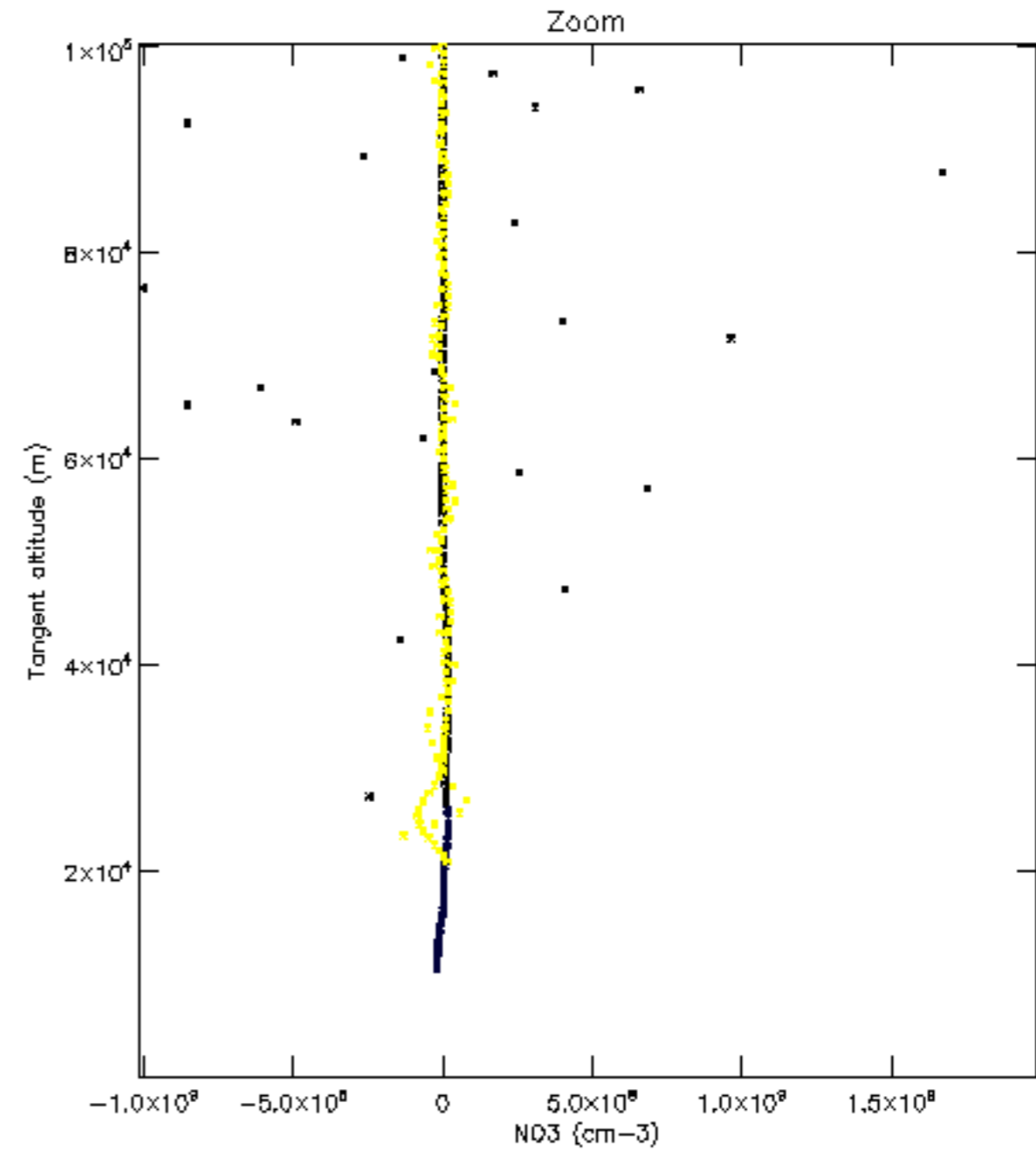
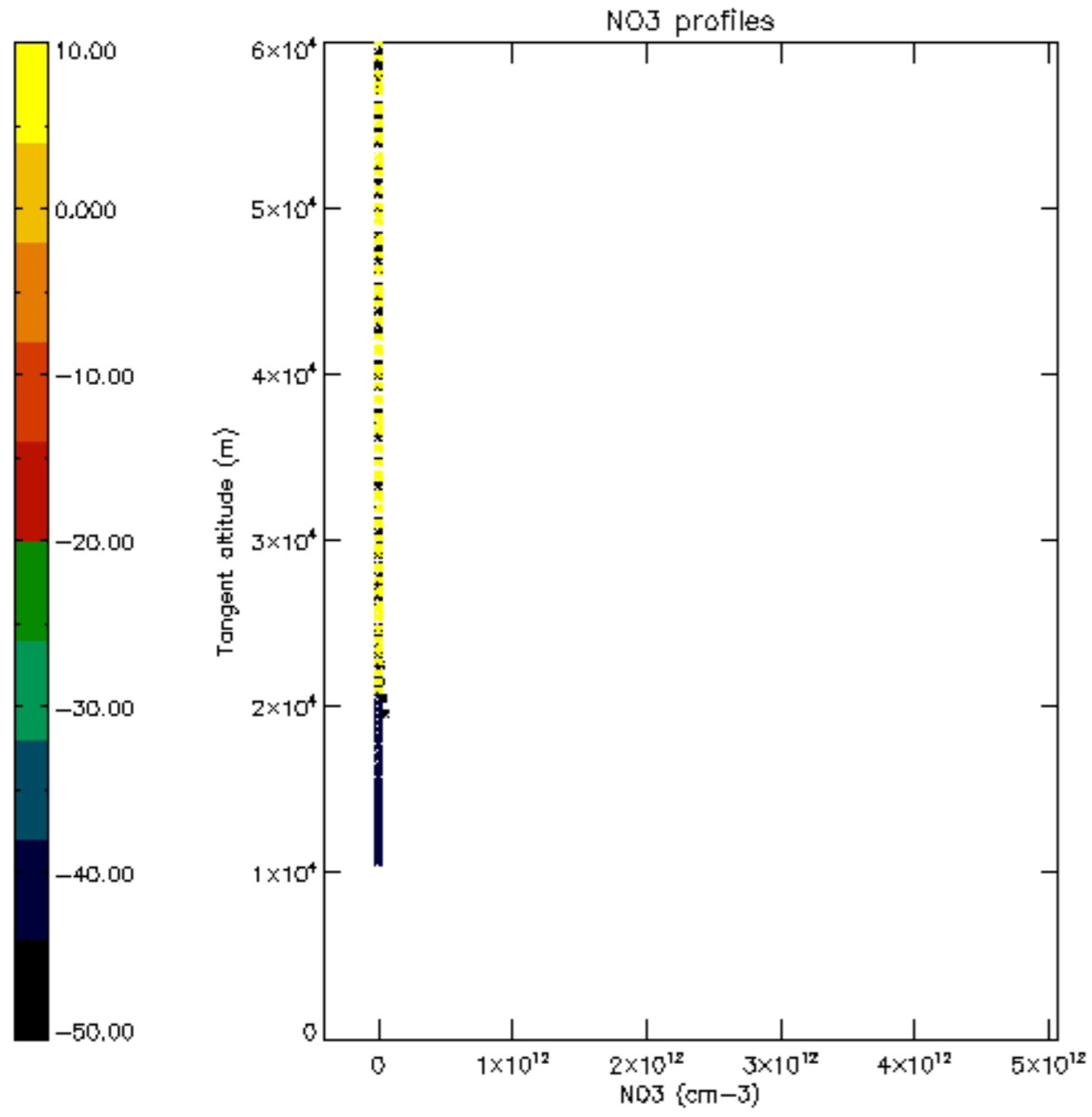




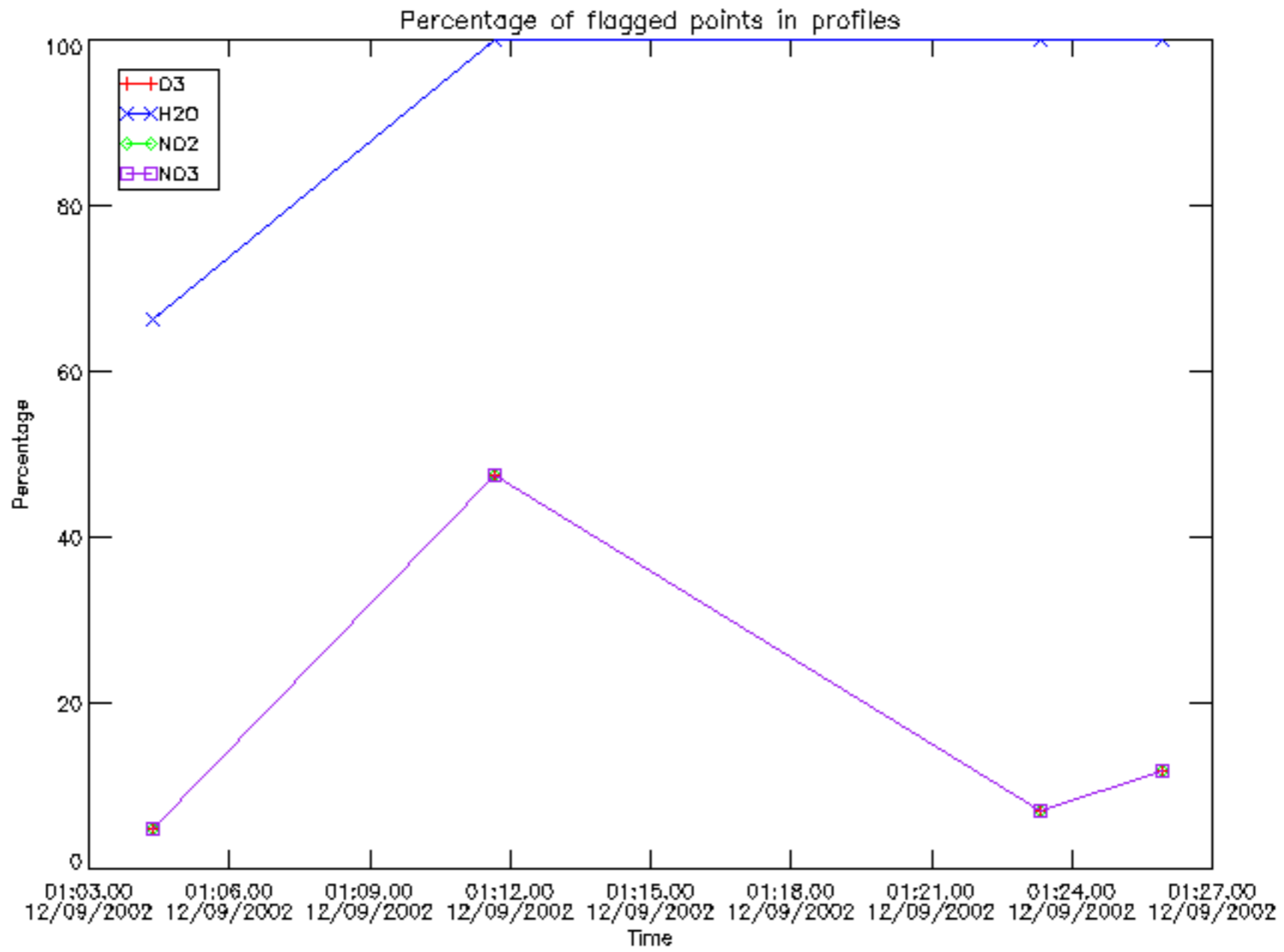




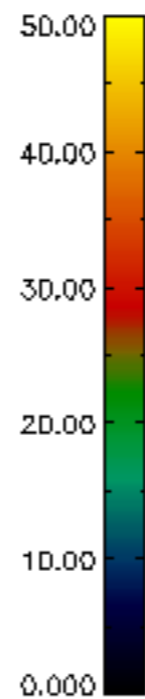
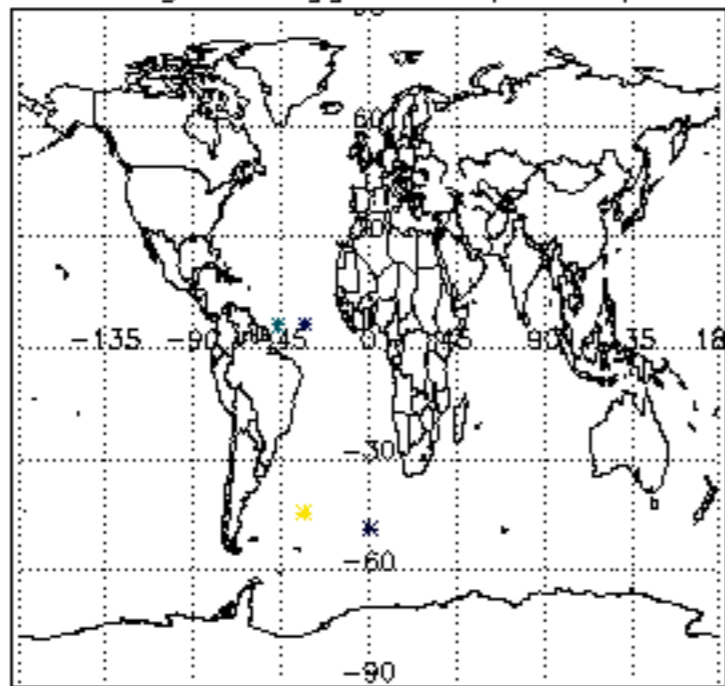




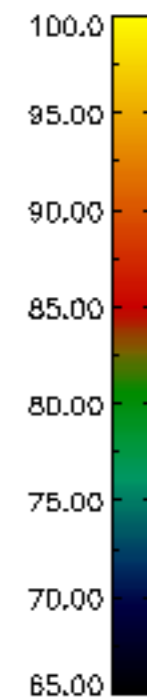
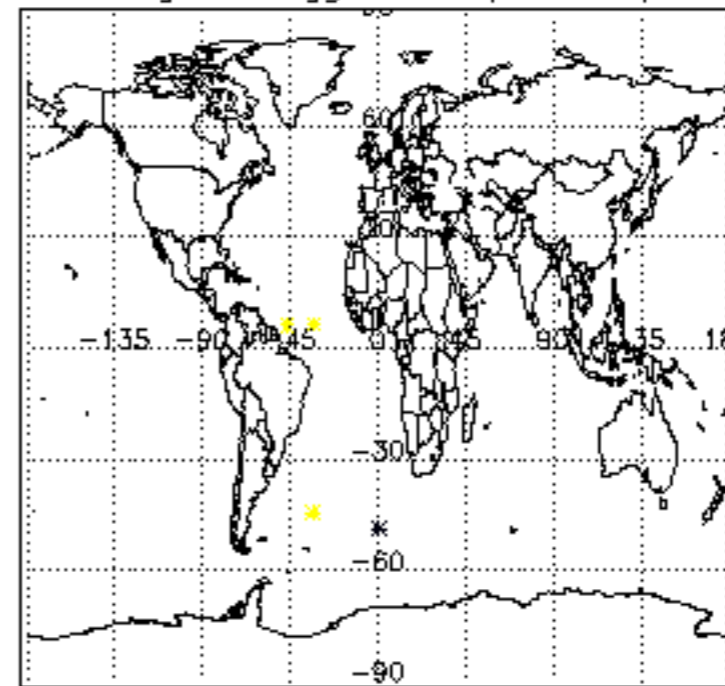




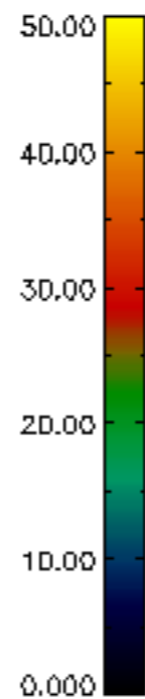
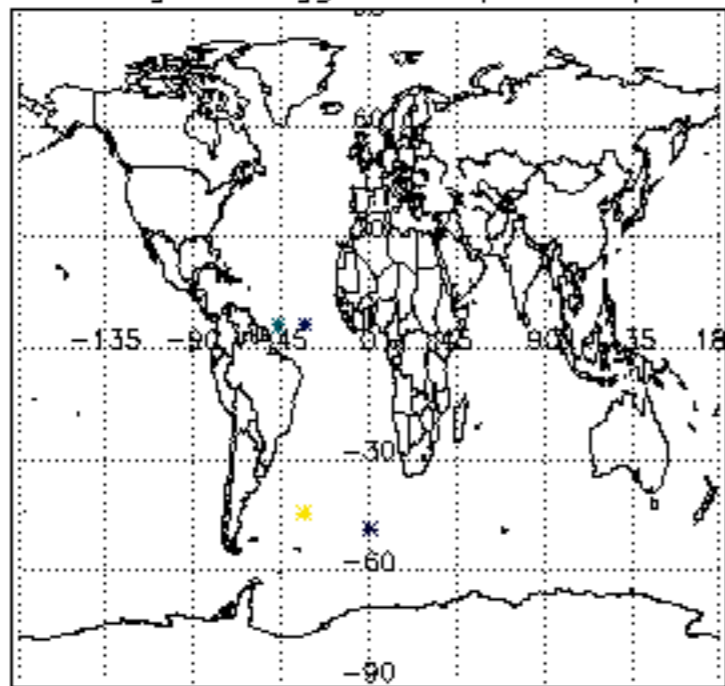
Percentage of flagged data per D3 profile



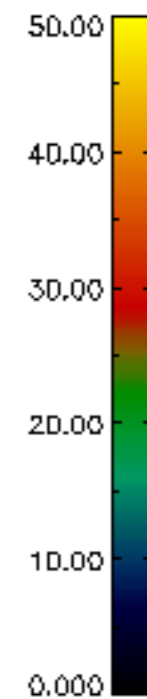
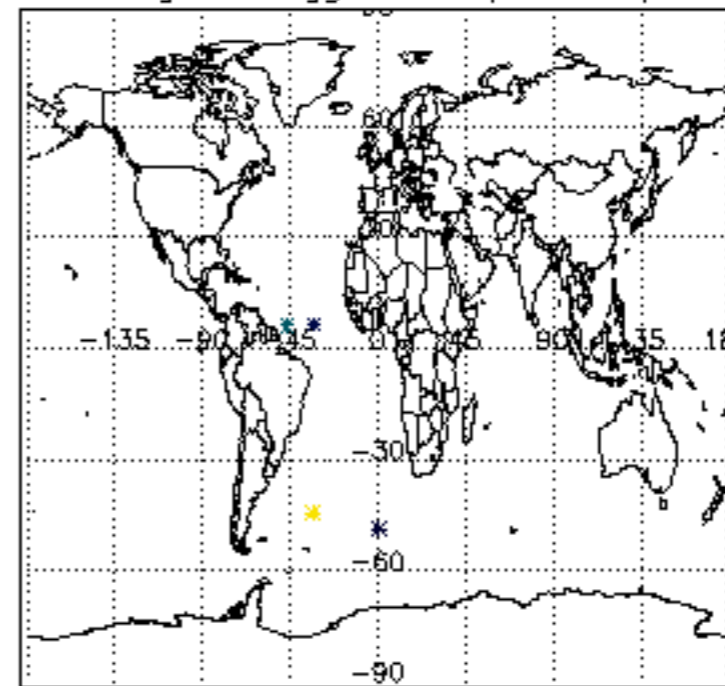
Percentage of flagged data per H2O profile

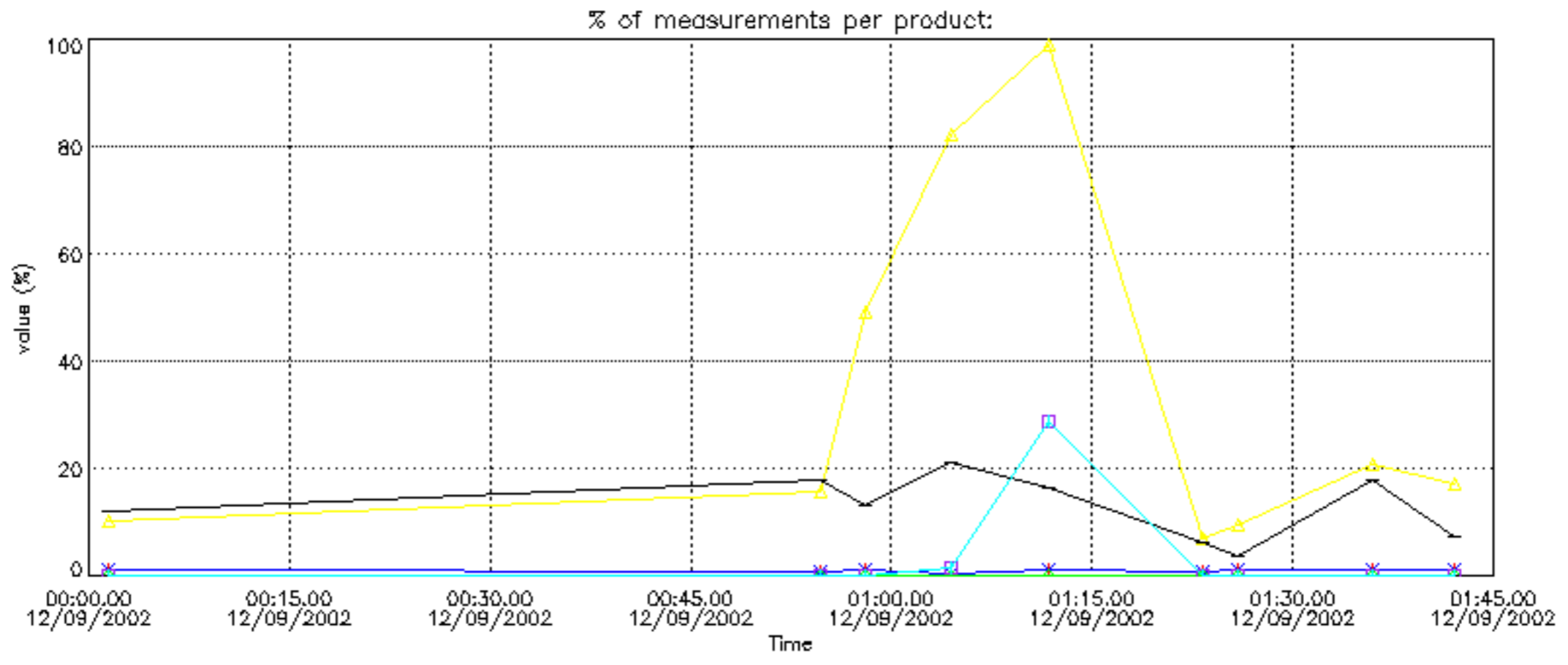


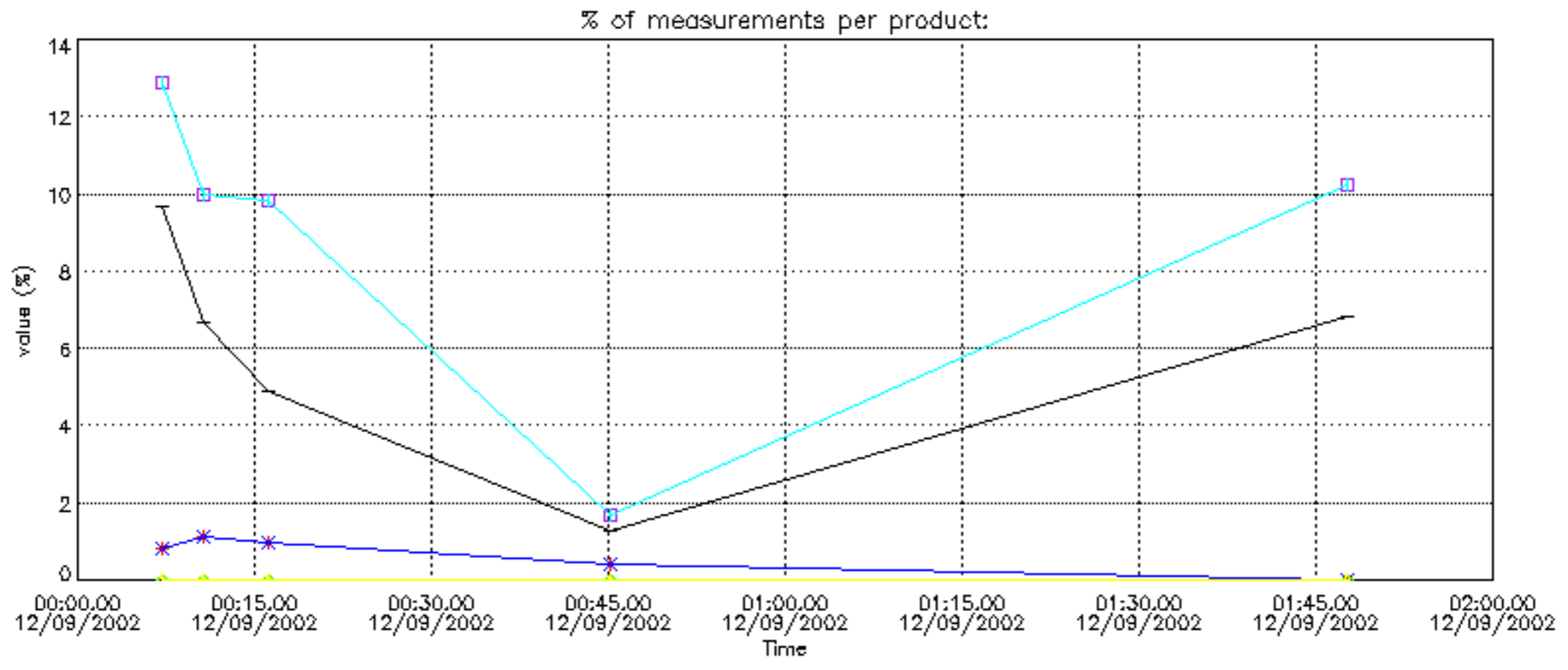
Percentage of flagged data per NO2 profile



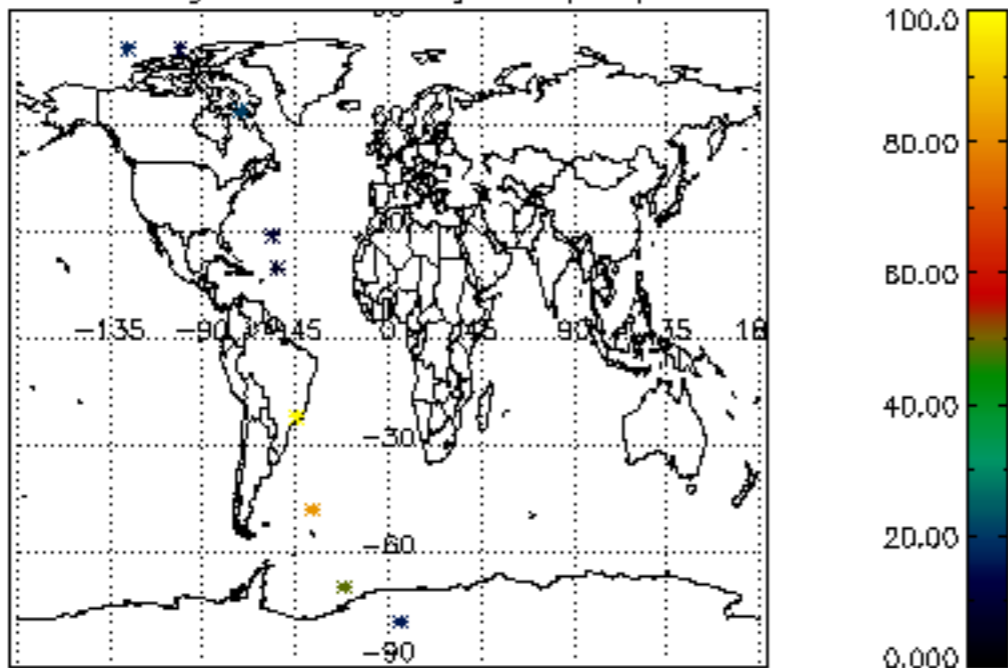
Percentage of flagged data per NO3 profile



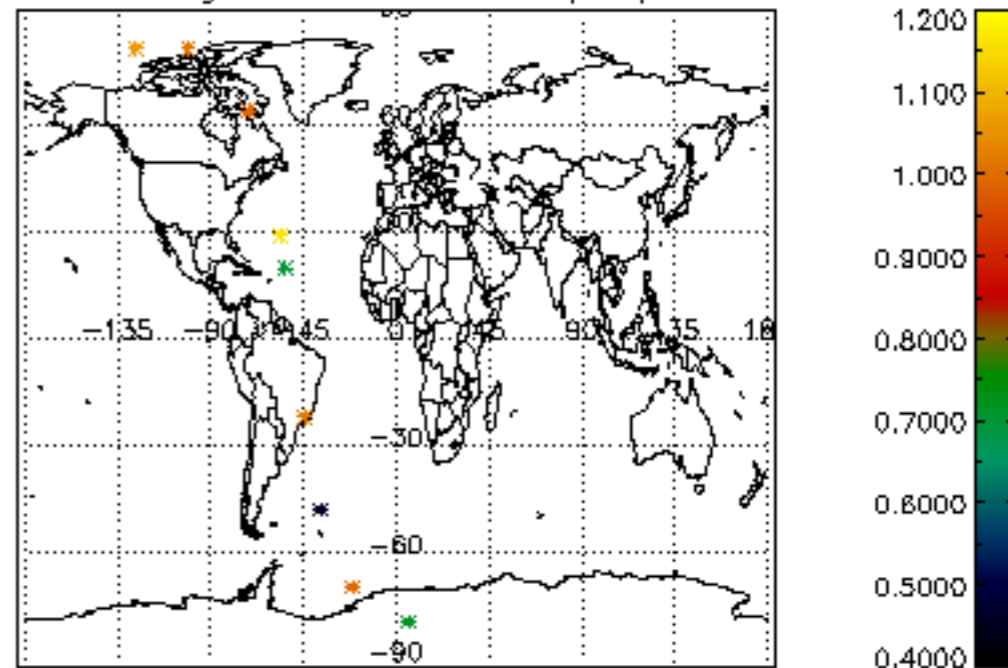




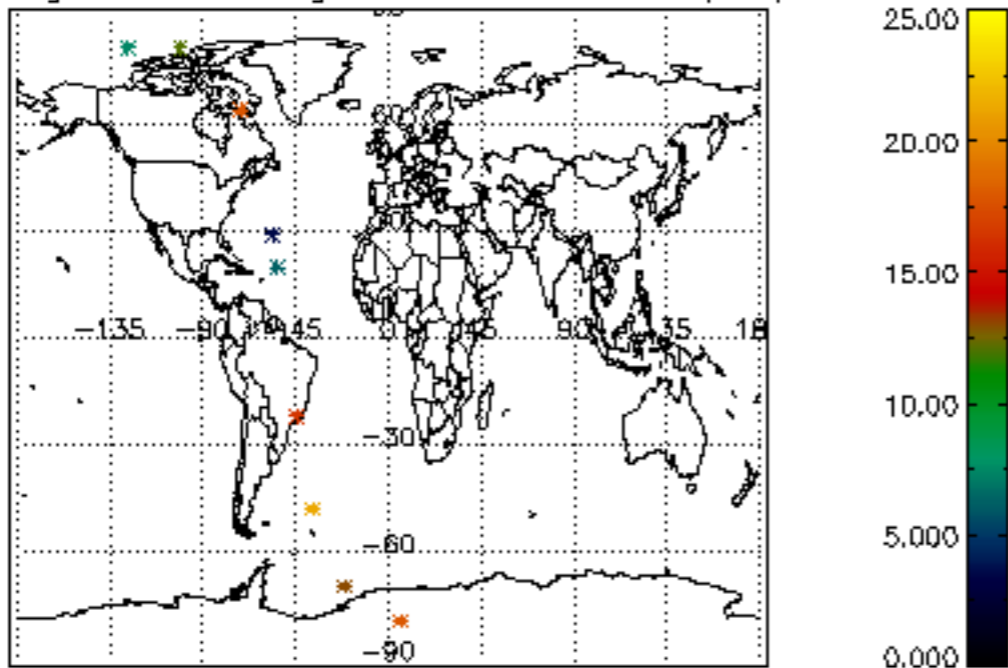
Percentage of cosmic ray hits per profile



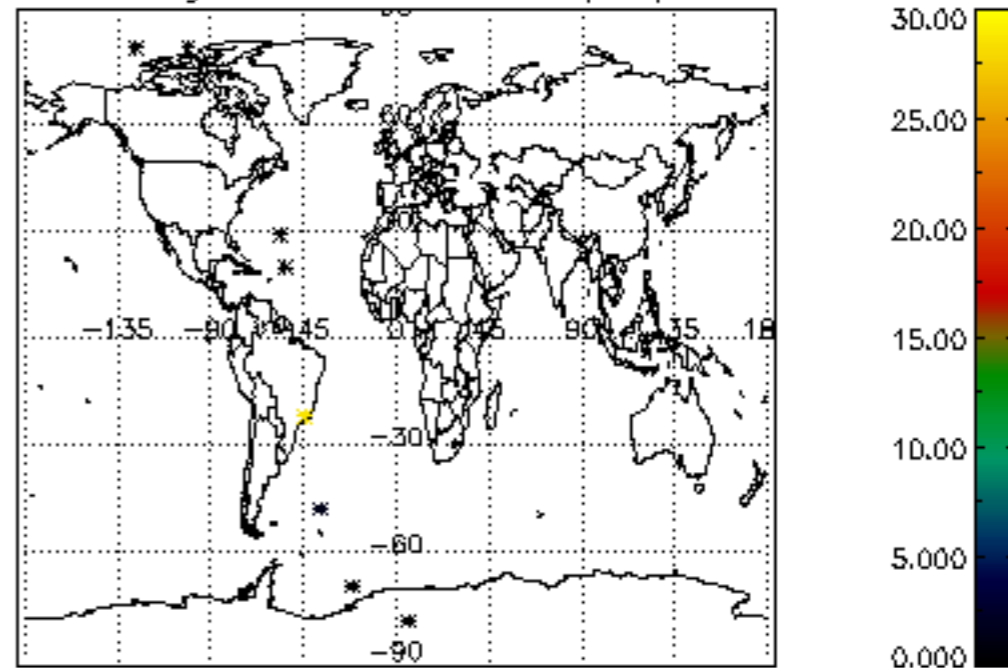
Percentage of datation errors per profile



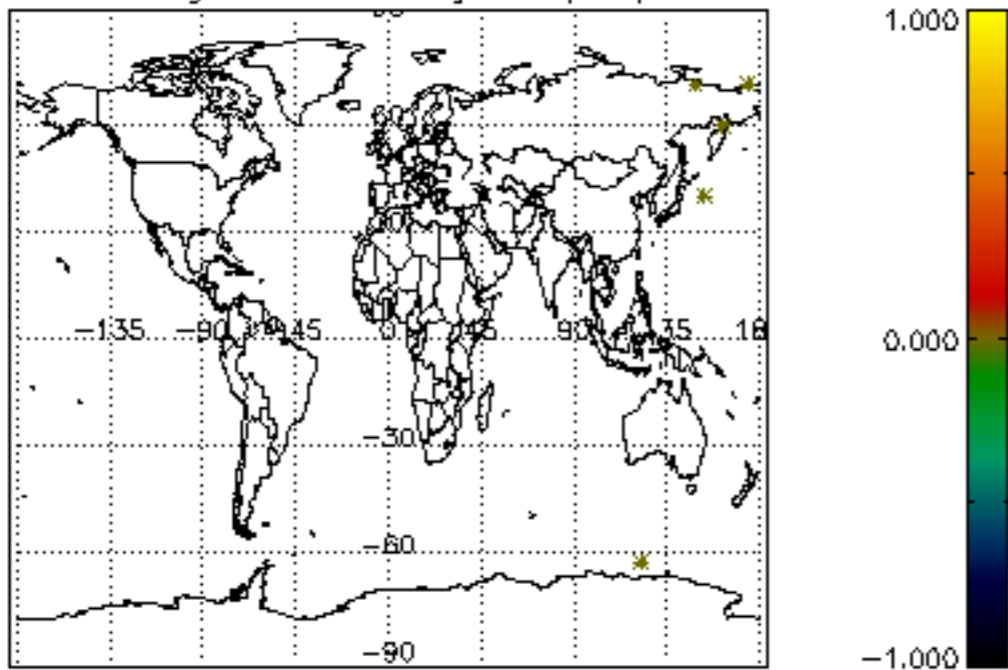
Percentage of star falling outside central band per profile



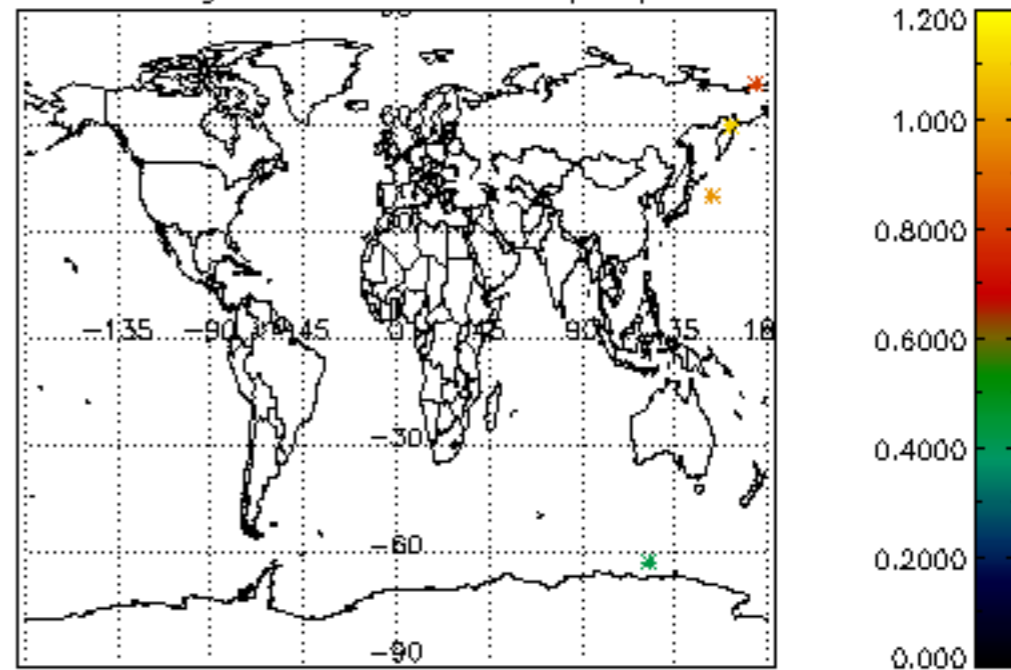
Percentage of saturation errors per profile



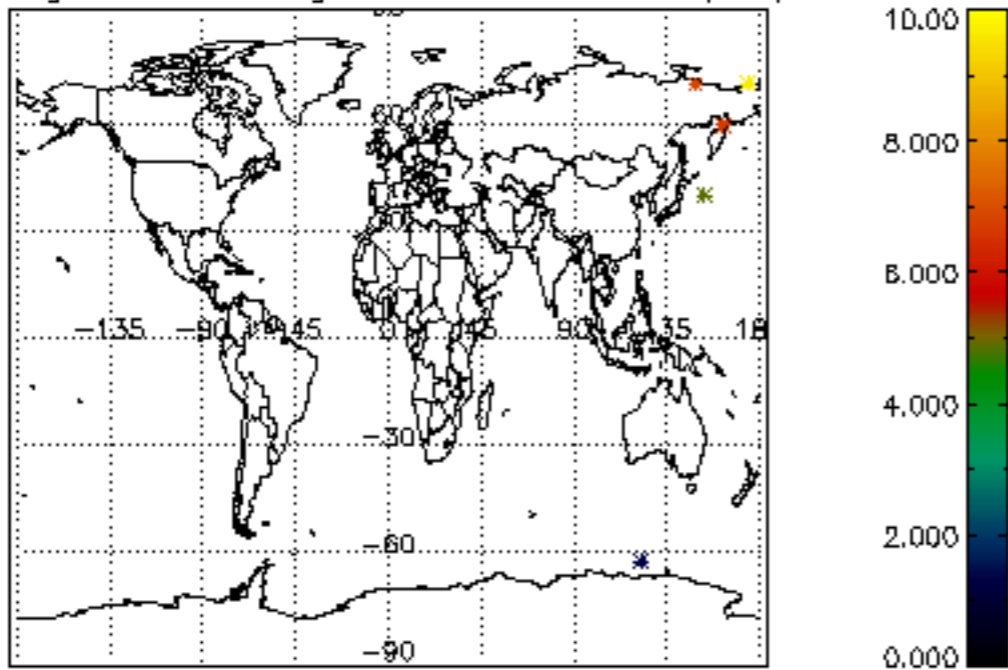
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

