

# 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	18APR2013 09:50:07
Data source version	GOMOS/6.01
Start time of products	23-06-2005 (23JUN2005 00:00:00)
Stop time of products	24-06-2005 (24JUN2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	10
Nb of prods with errors	0

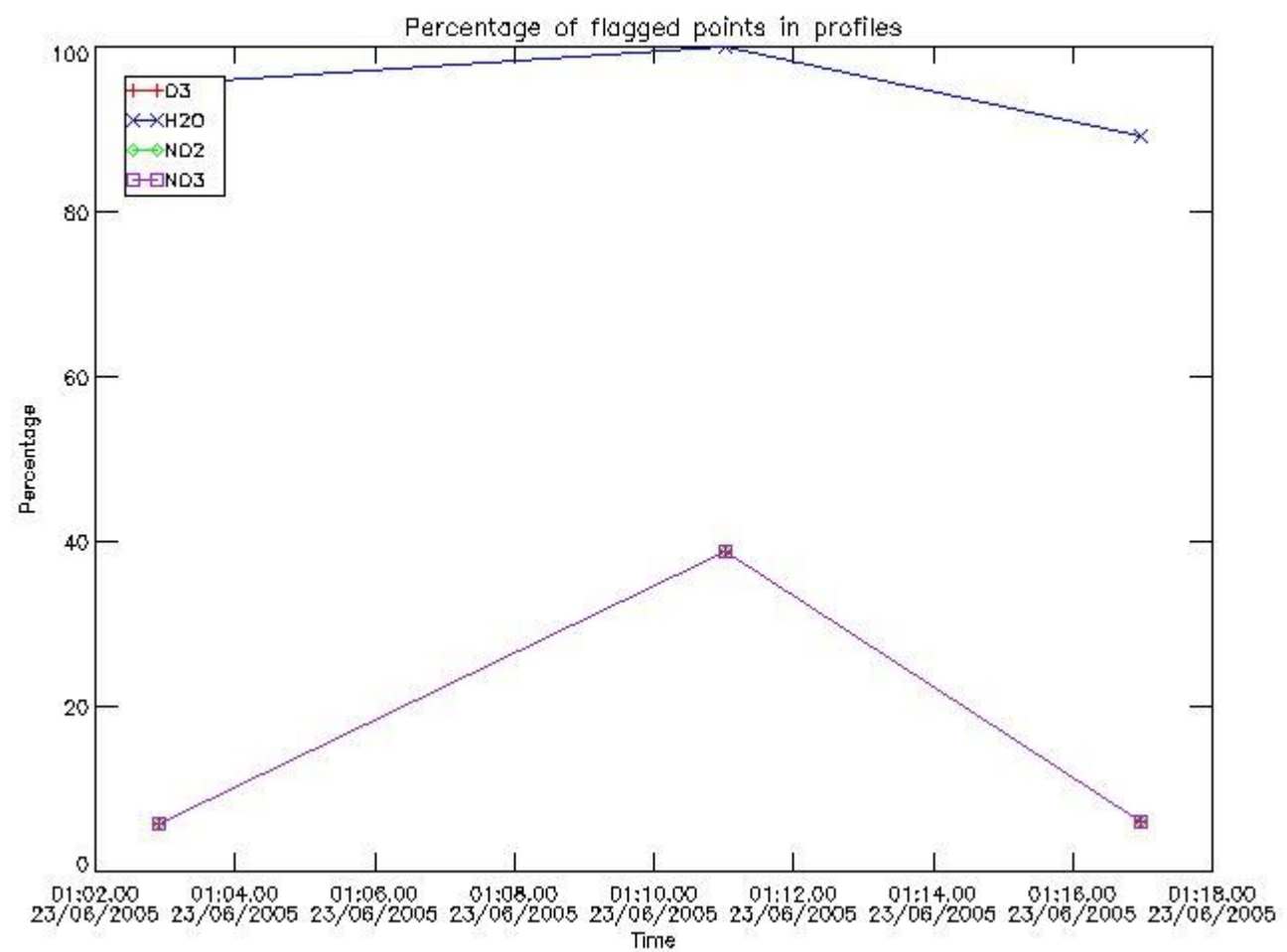
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20050623_000108_000000912038_00231_17319_4703.N1	23-JUN-2005 00:01:08	Bright	91.000	16	21Alp Sco	1.0200	3000.0	182	17319	No
2	GOM_NL__2PRFIN20050623_000313_000000872038_00231_17319_4704.N1	23-JUN-2005 00:03:13	Bright	86.500	97	8Bet1Sco	2.5610	30000.	173	17319	No
3	GOM_NL__2PRFIN20050623_000528_000000882038_00231_17319_4705.N1	23-JUN-2005 00:05:28	Bright	87.500	98	13Zet Oph	2.5710	30000.	175	17319	No
4	GOM_NL__2PRFIN20050623_000735_000000872038_00231_17319_4706.N1	23-JUN-2005 00:07:35	Bright	87.000	120	1Del Oph	2.7340	3200.0	174	17319	No
5	GOM_NL__2PRFIN20050623_001043_000000872038_00231_17319_4707.N1	23-JUN-2005 00:10:43	Bright	86.500	102	24Alp Ser	2.6000	4250.0	173	17319	No
6	GOM_NL__2PRFIN20050623_001625_000000842038_00231_17319_4708.N1	23-JUN-2005 00:16:25	Bright	83.500	67	5Alp CrB	2.2210	11000.	167	17319	No
7	GOM_NL__2PRFIN20050623_002936_000000872038_00231_17319_4709.N1	23-JUN-2005 00:29:36	Bright	87.000	60	7Bet UMi	2.0810	3950.0	174	17319	No
8	GOM_NL__2PRFIN20050623_010255_000000902038_00231_17319_4710.N1	23-JUN-2005 01:02:55	Dark	89.500	165	34Gam Eri	2.9500	3200.0	179	17319	No
9	GOM_NL__2PRFIN20050623_011101_000000902038_00231_17319_4711.N1	23-JUN-2005 01:11:01	Dark	89.500	157	The1Eri	2.9060	9300.0	179	17319	No
10	GOM_NL__2PRFIN20050623_011659_000000932038_00231_17319_4712.N1	23-JUN-2005 01:16:59	Dark	93.000	9	Alp Eri	0.45300	24000.	186	17319	No

## 3. Quality information per product

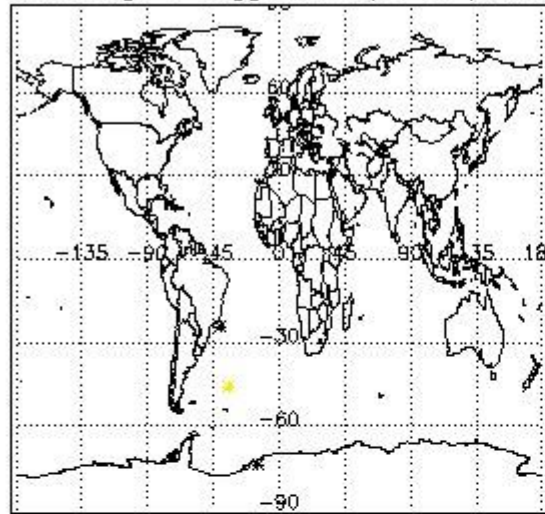
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

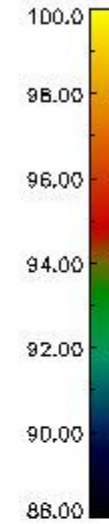
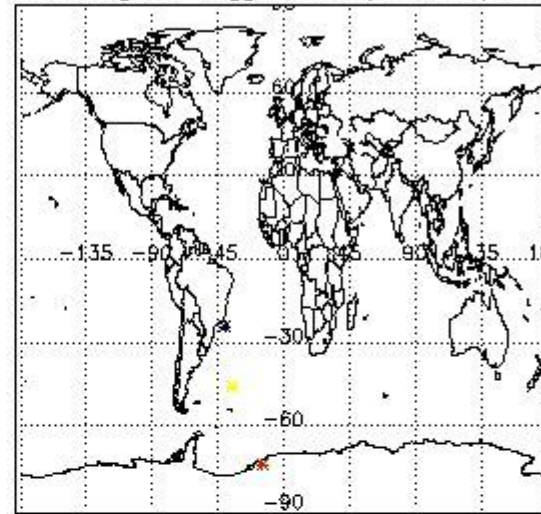


*3.2 Plot quality information per product (world map)*

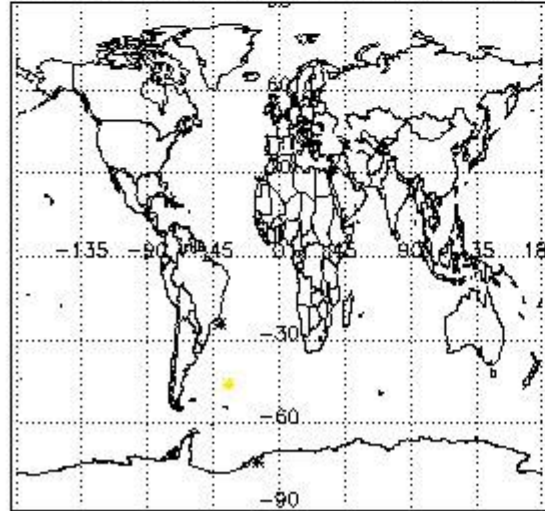
Percentage of flagged data per O3 profile



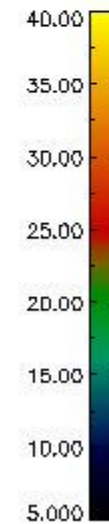
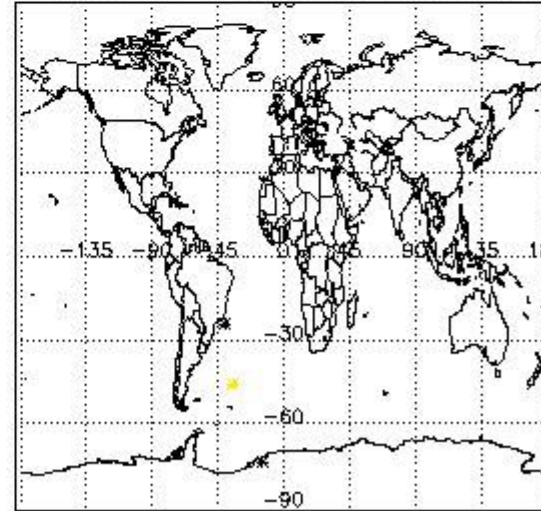
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

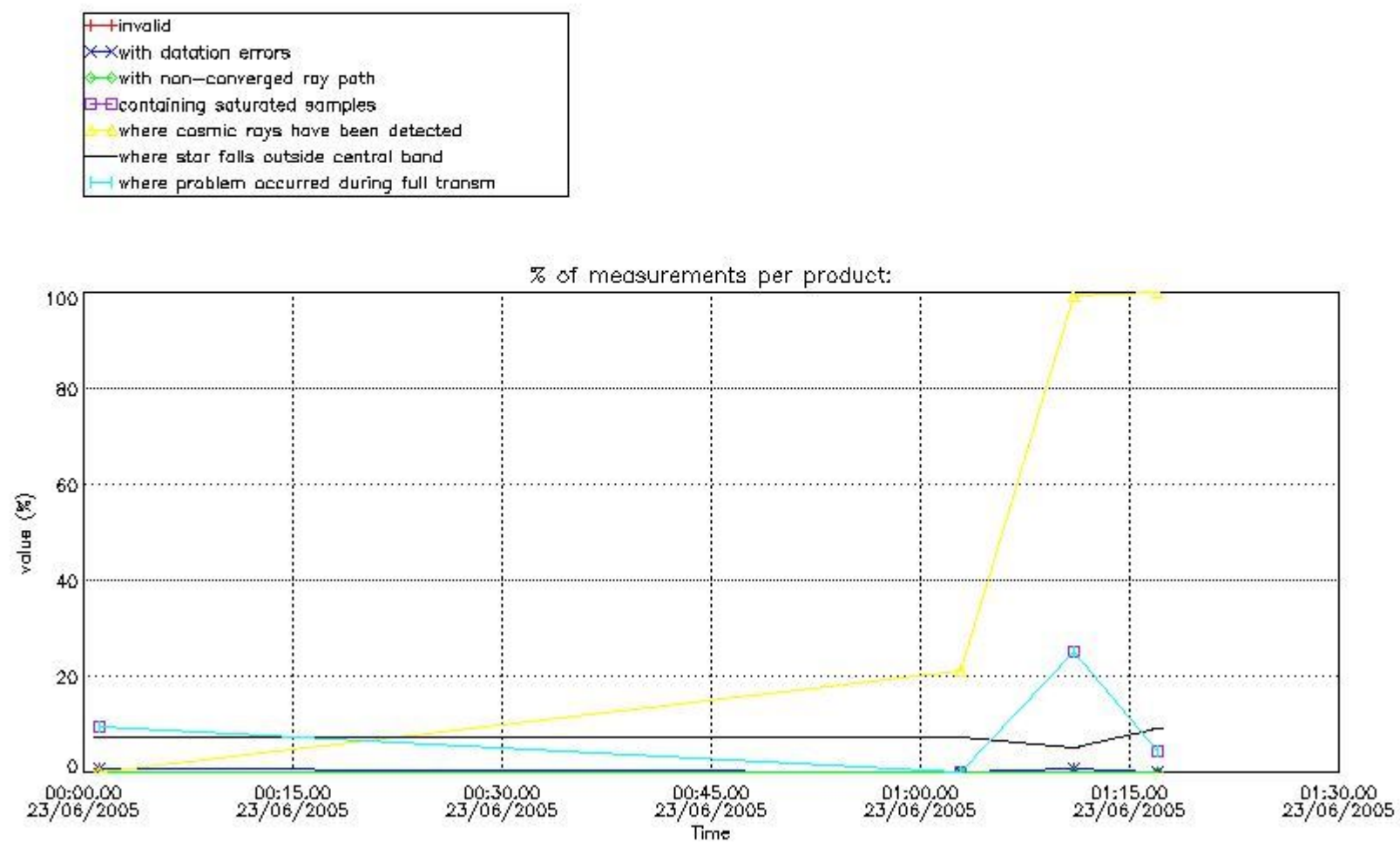


#### 4. Level 1 quality information per product

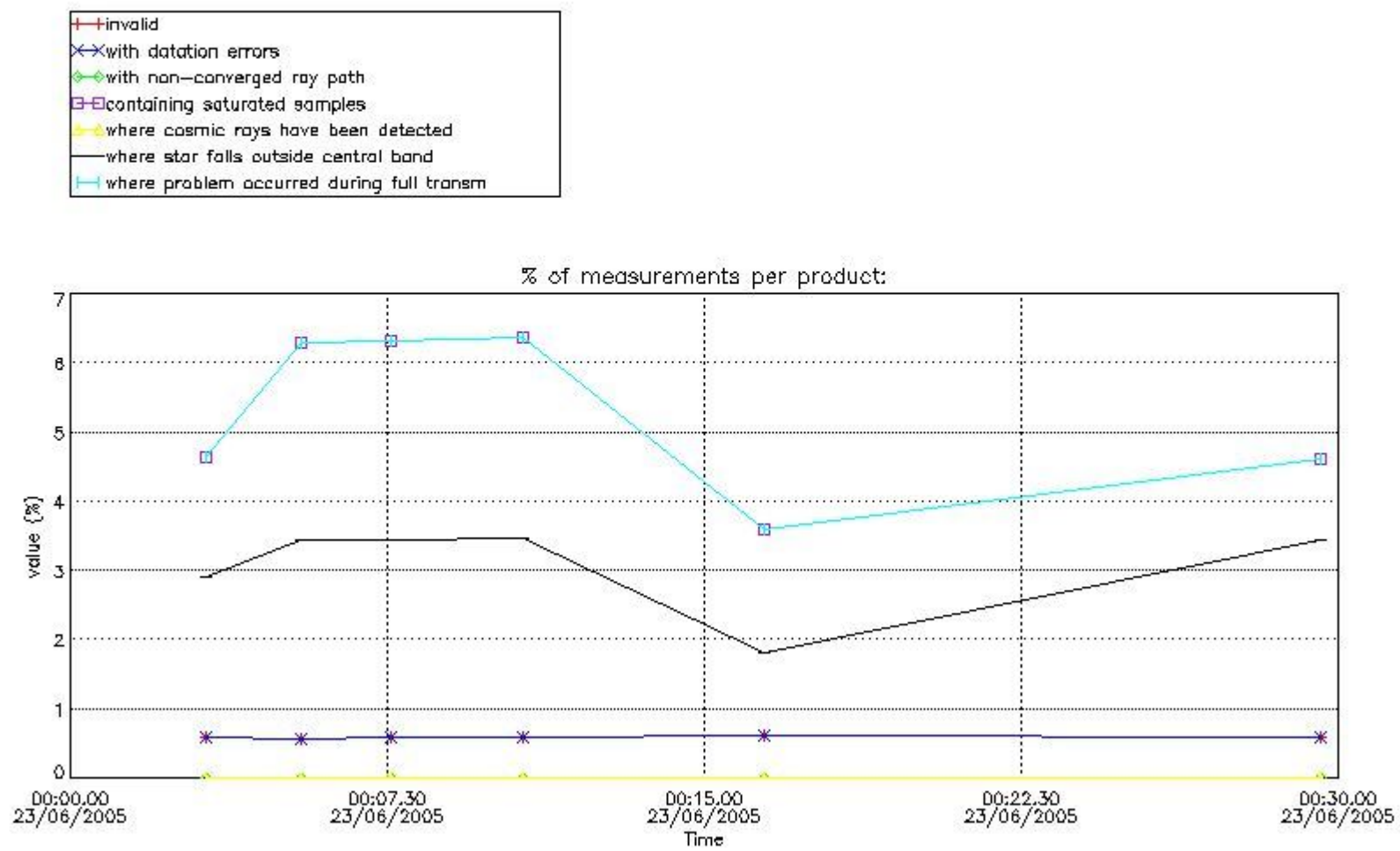
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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): ENVISAT DESCENDING passes

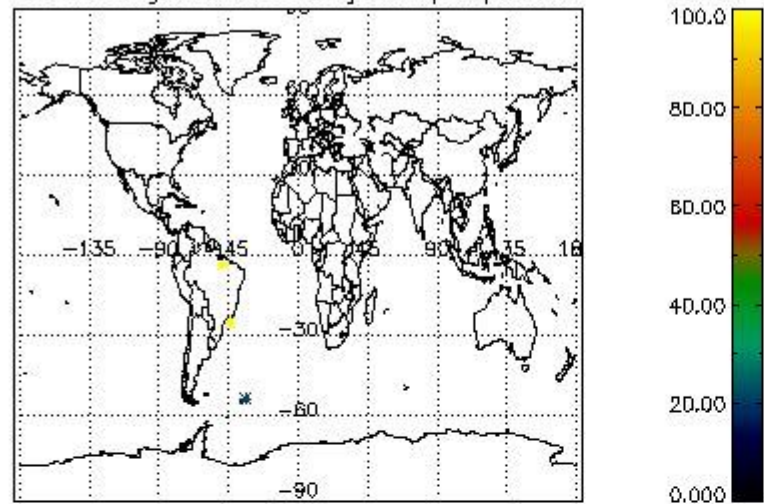


4.2 Plot quality information per product coming from level 1b processing (world map)

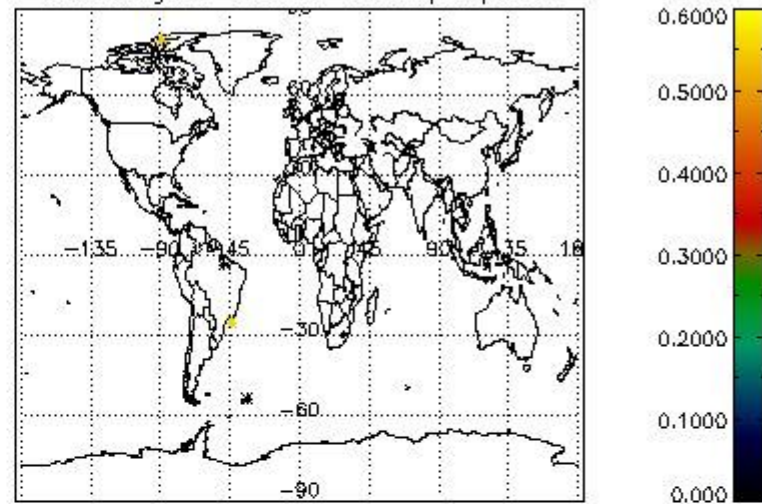
4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



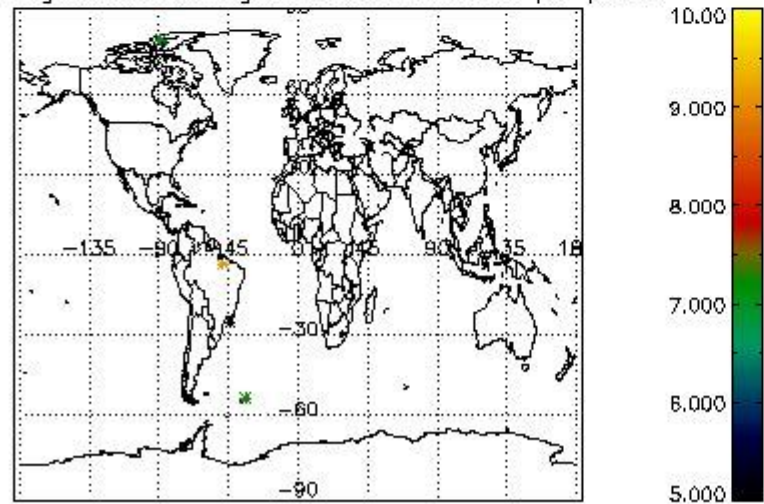
Percentage of cosmic ray hits per profile



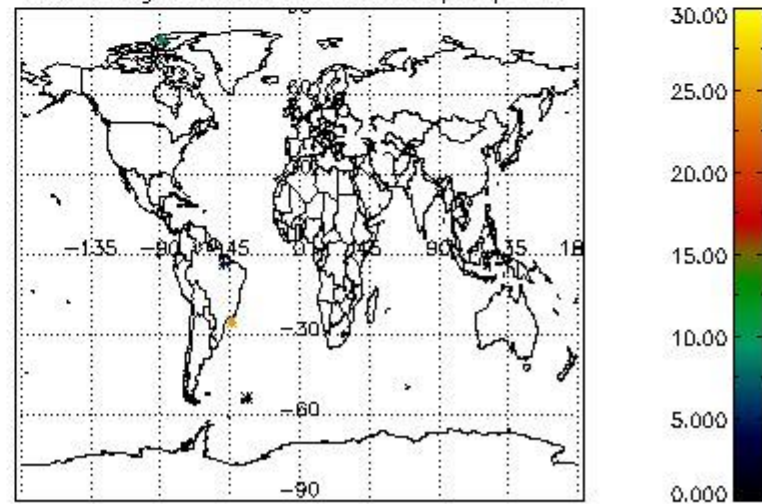
Percentage of datation errors per profile



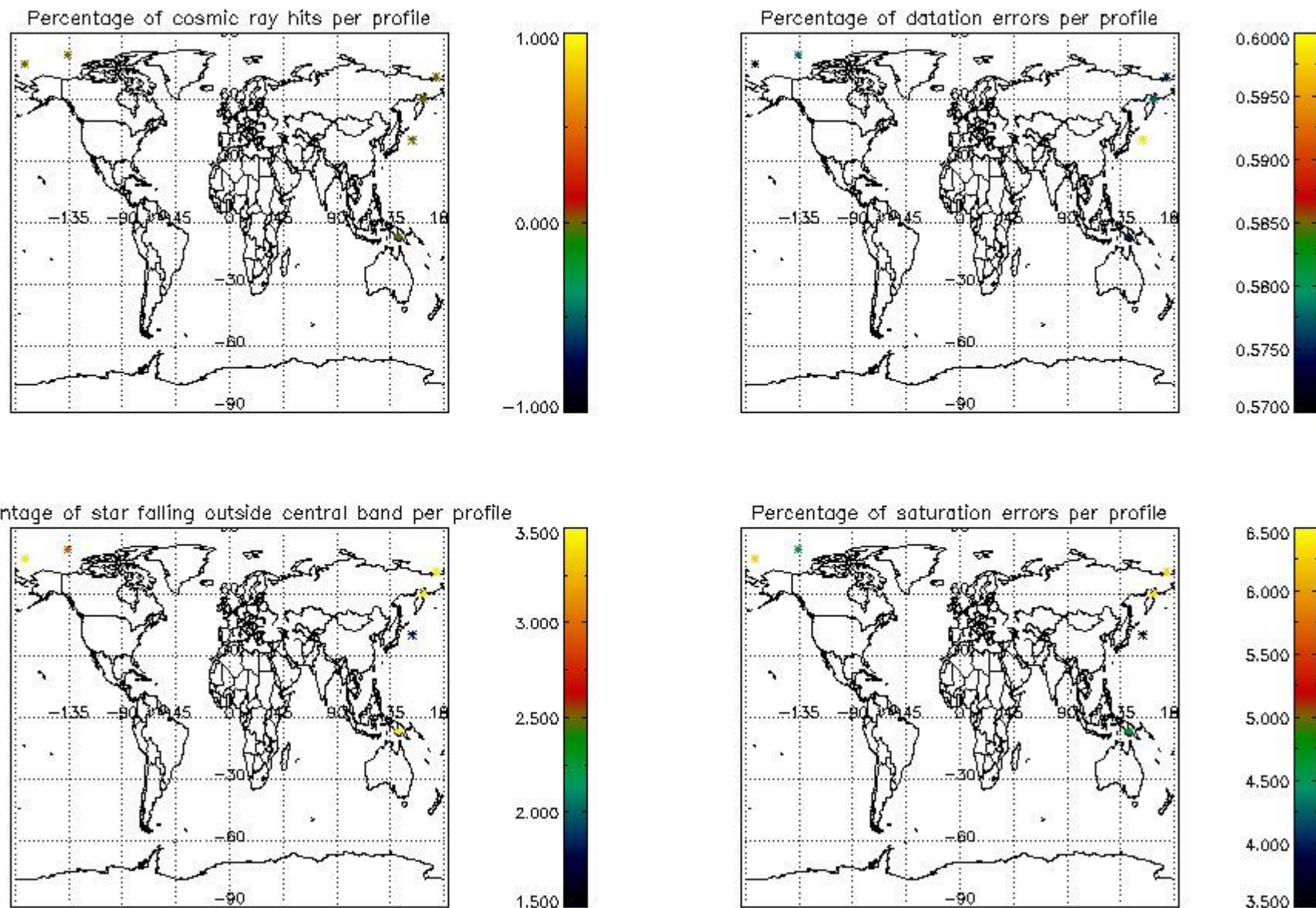
Percentage of star falling outside central band per profile



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.

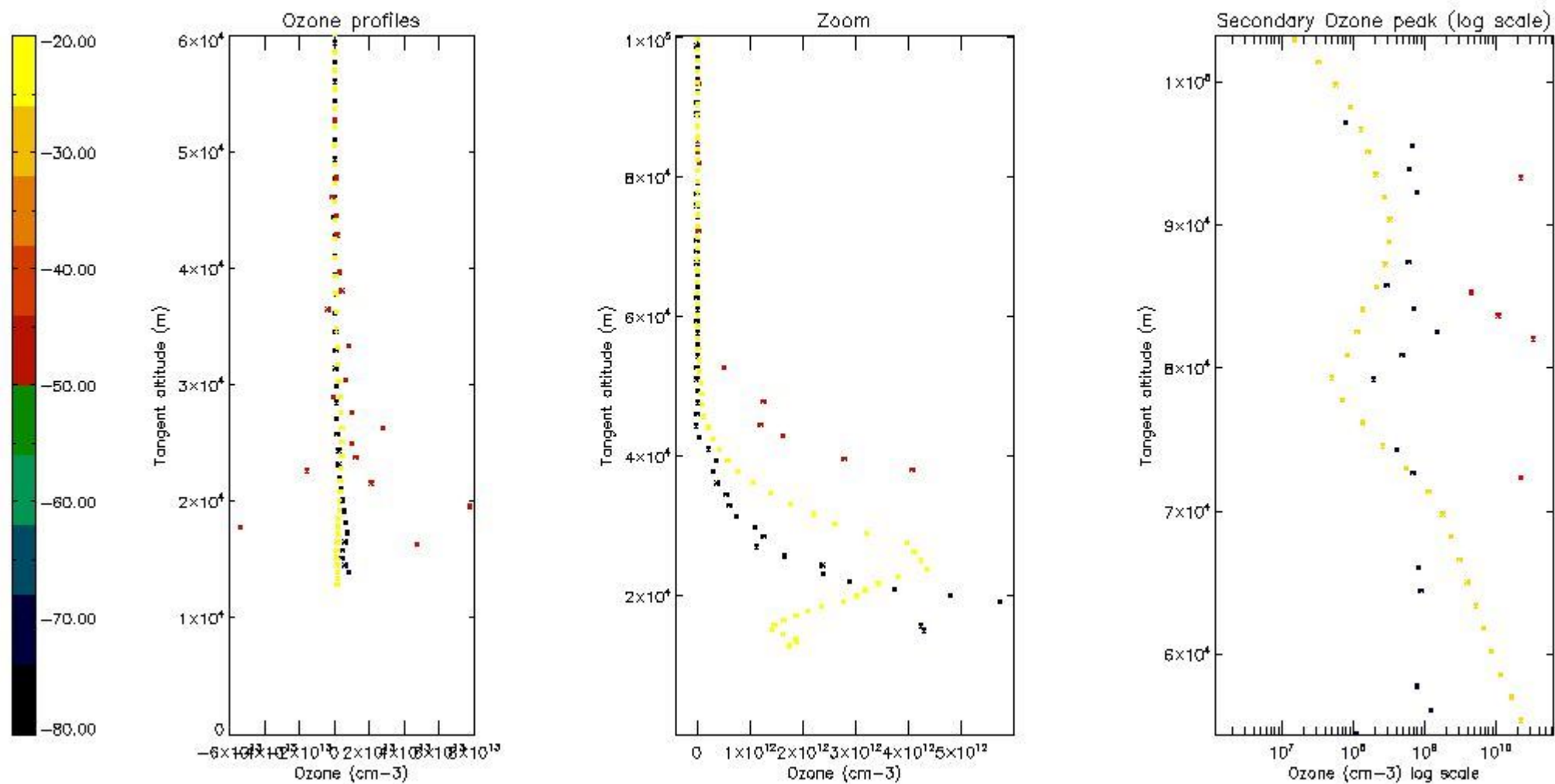
Criteria	% of total production
All STD	29
STD < 20	5



STD < 10	3
STD < 5	2

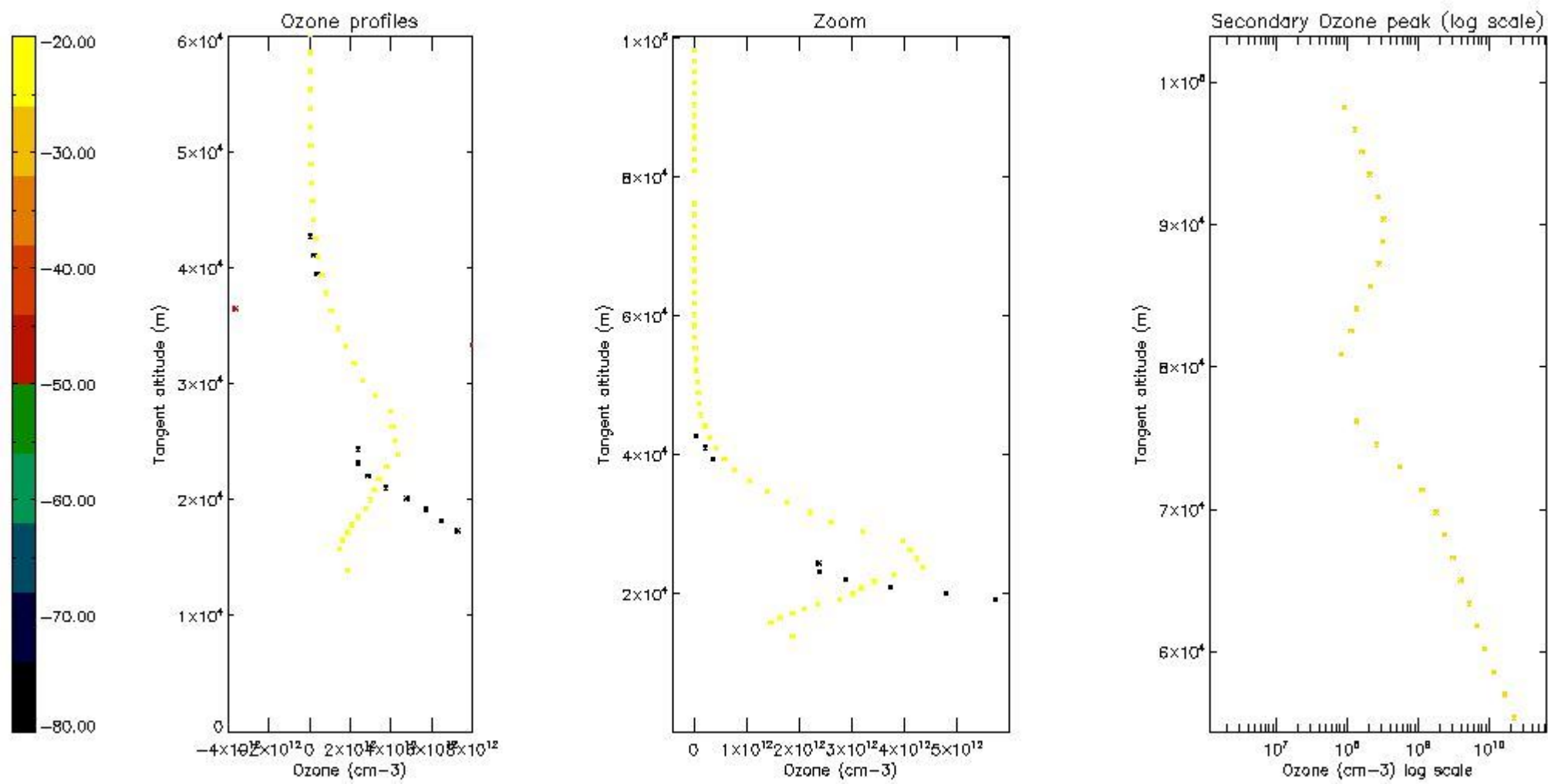
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



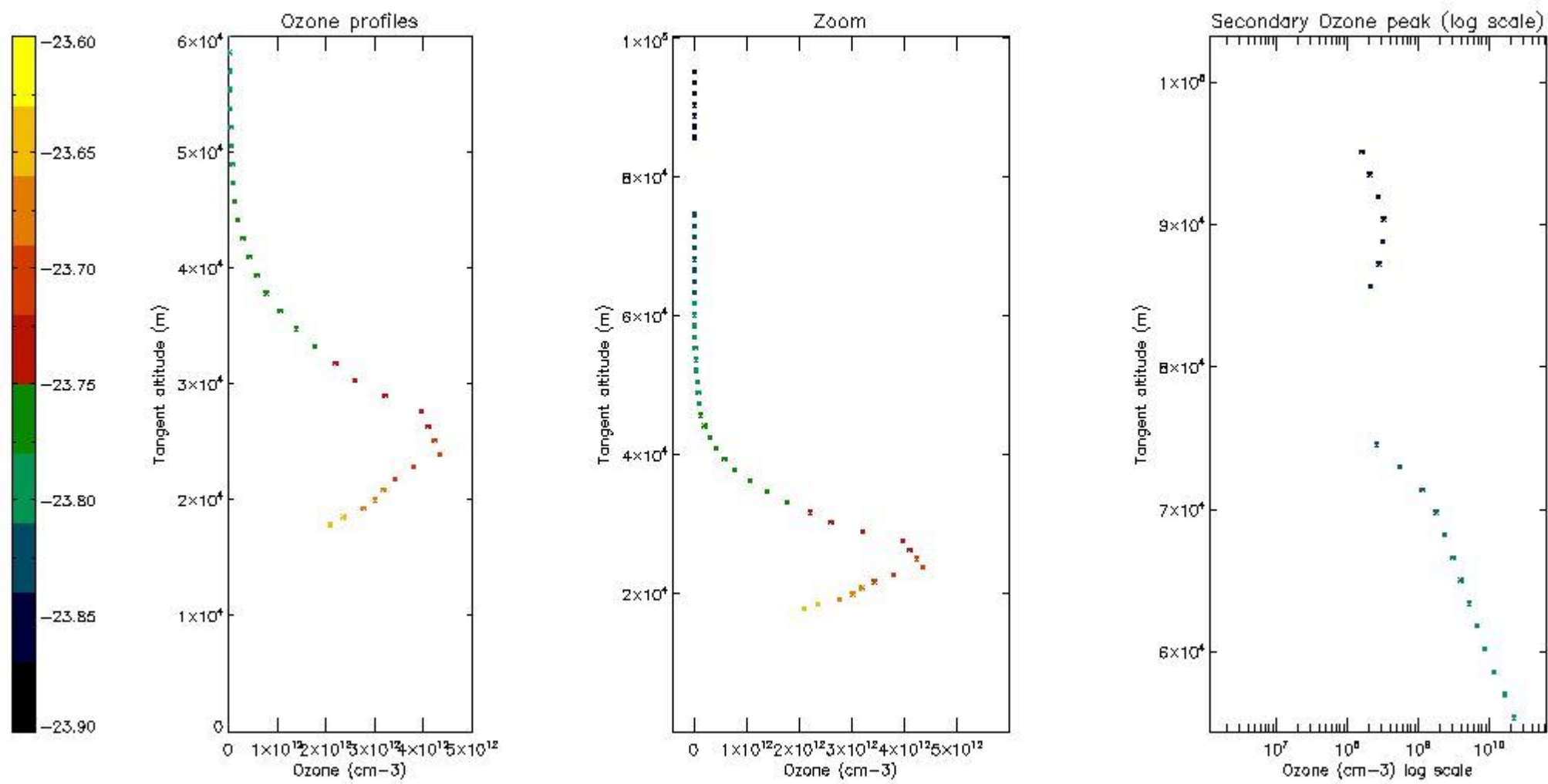
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



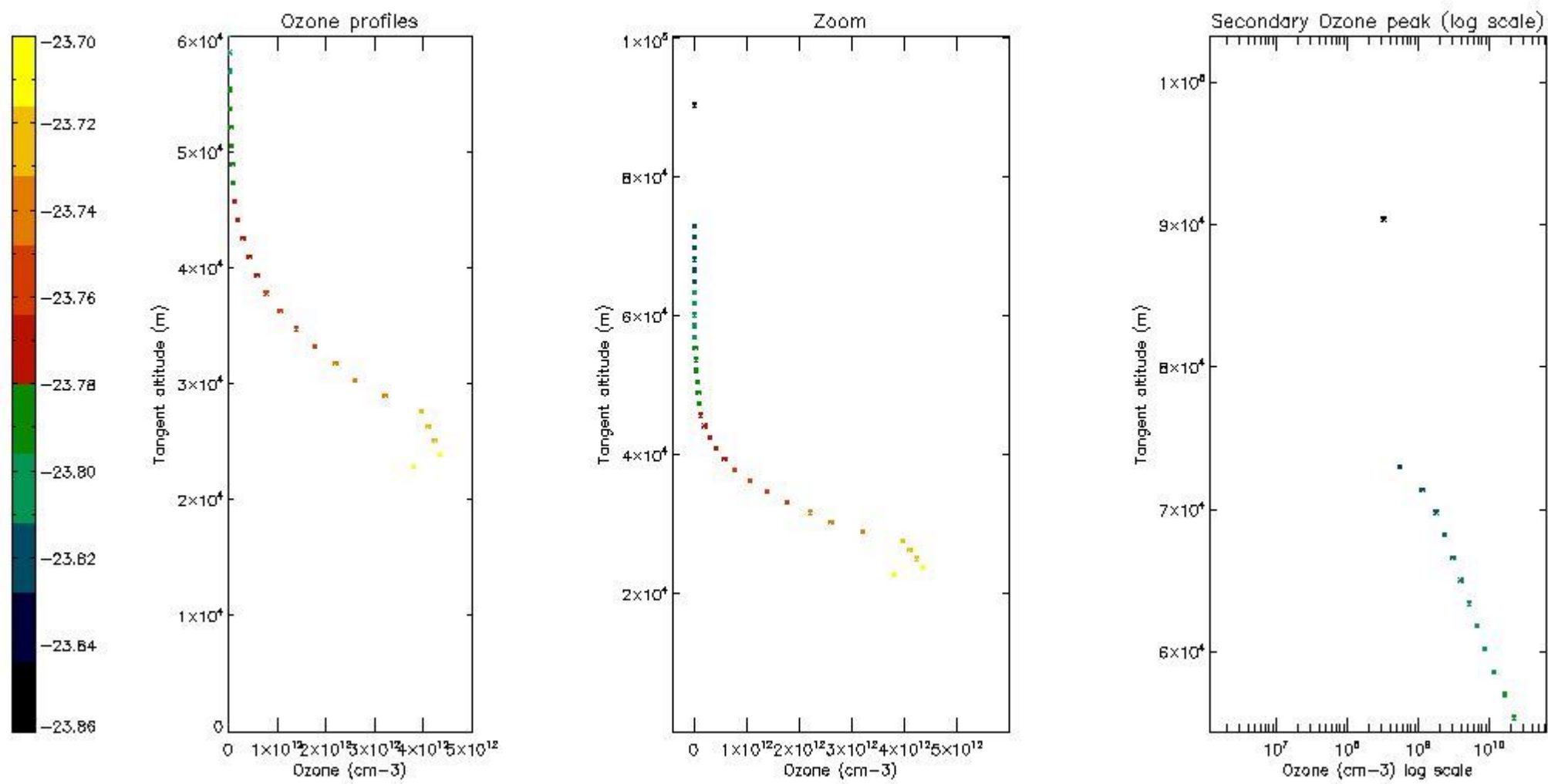
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

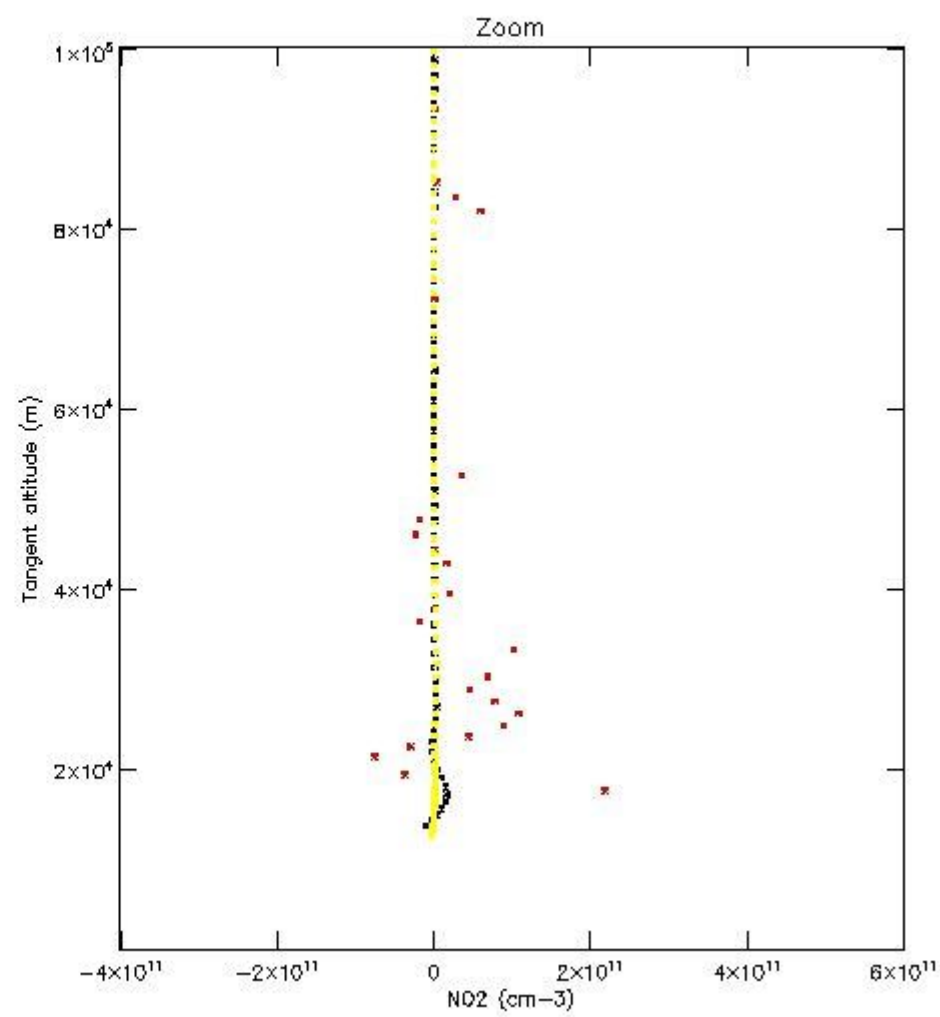
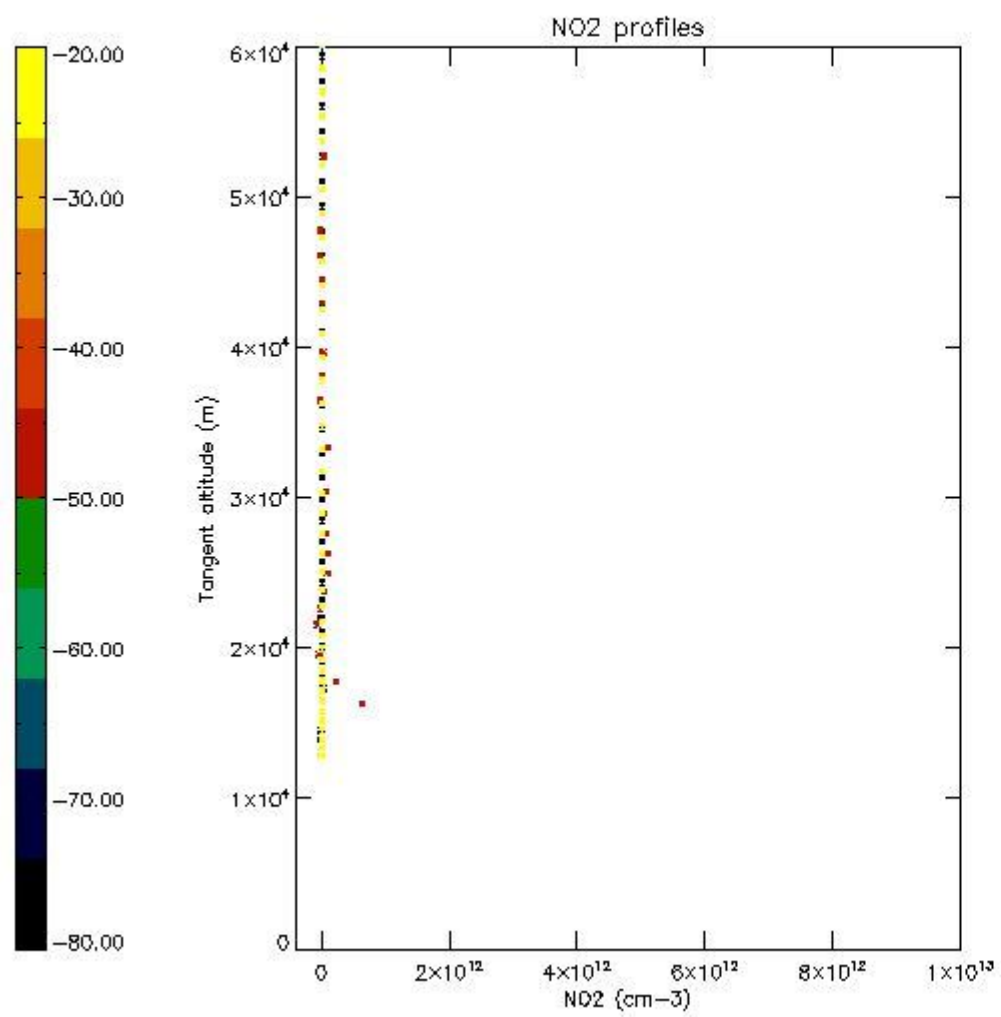
The colorbar represents the latitude.



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

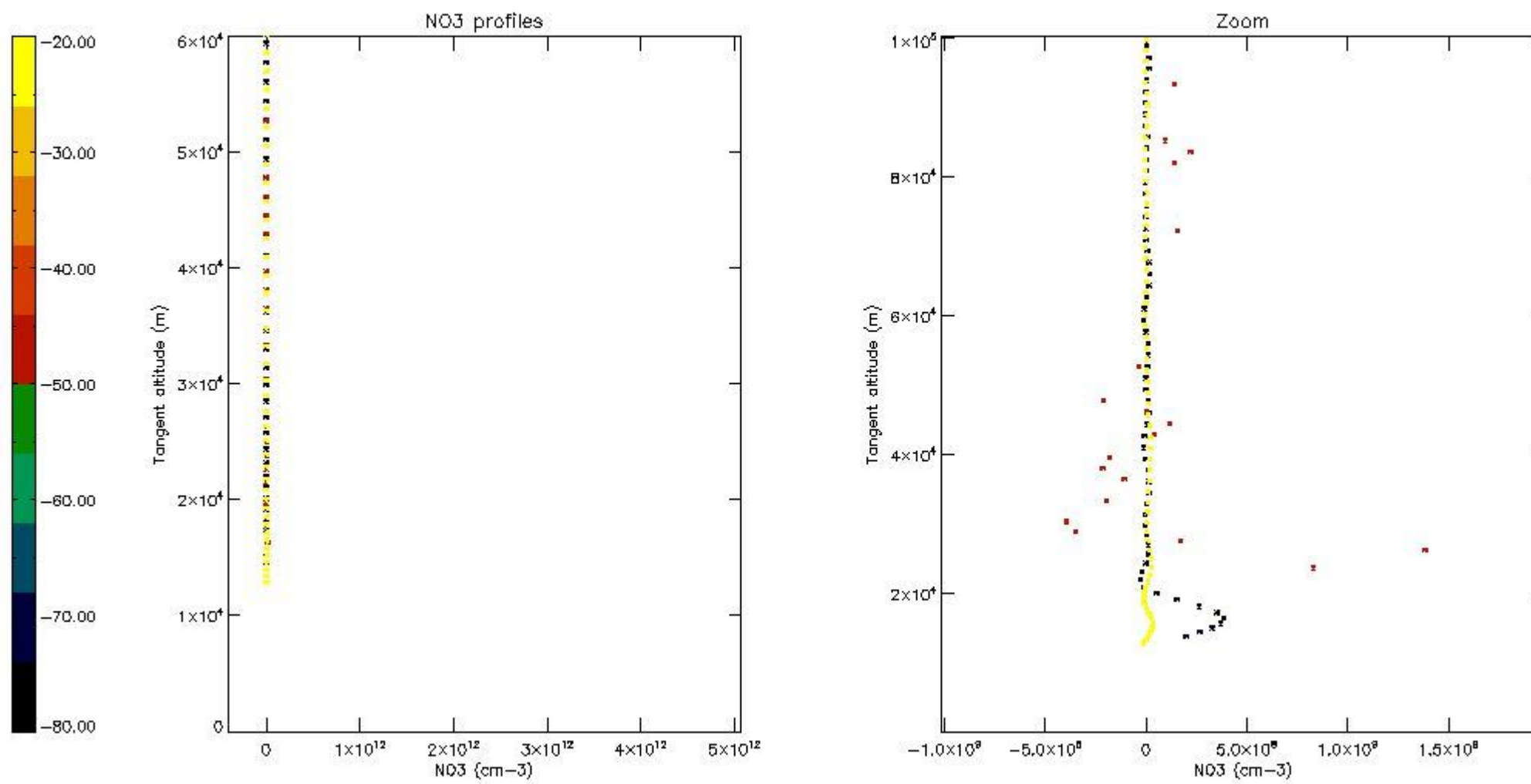
The colorbar represents the latitude.





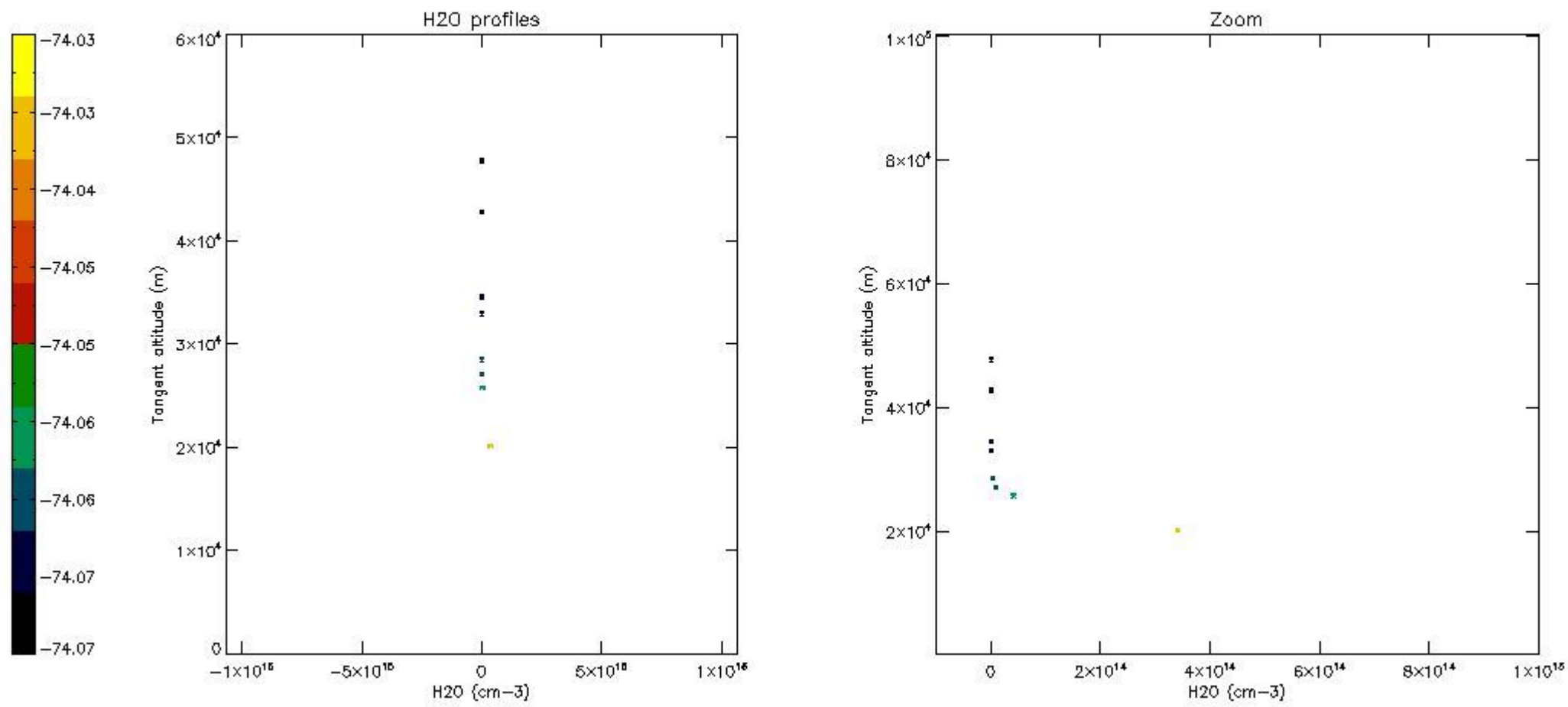
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H<sub>2</sub>O 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	23-JUN-2005 00:01:08
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-JUN-2005 00:01:08
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-JUN-2005 00:01:08

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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](#)

### [6. Auxiliary Data Files used for the production reported in section 2](#)



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

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Time of report generation	18APR2013 09:50:07
Data source version	GOMOS/6.01
Start time of products	23-06-2005 (23JUN2005 00:00:00)
Stop time of products	24-06-2005 (24JUN2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	10
Nb of prods with errors	0

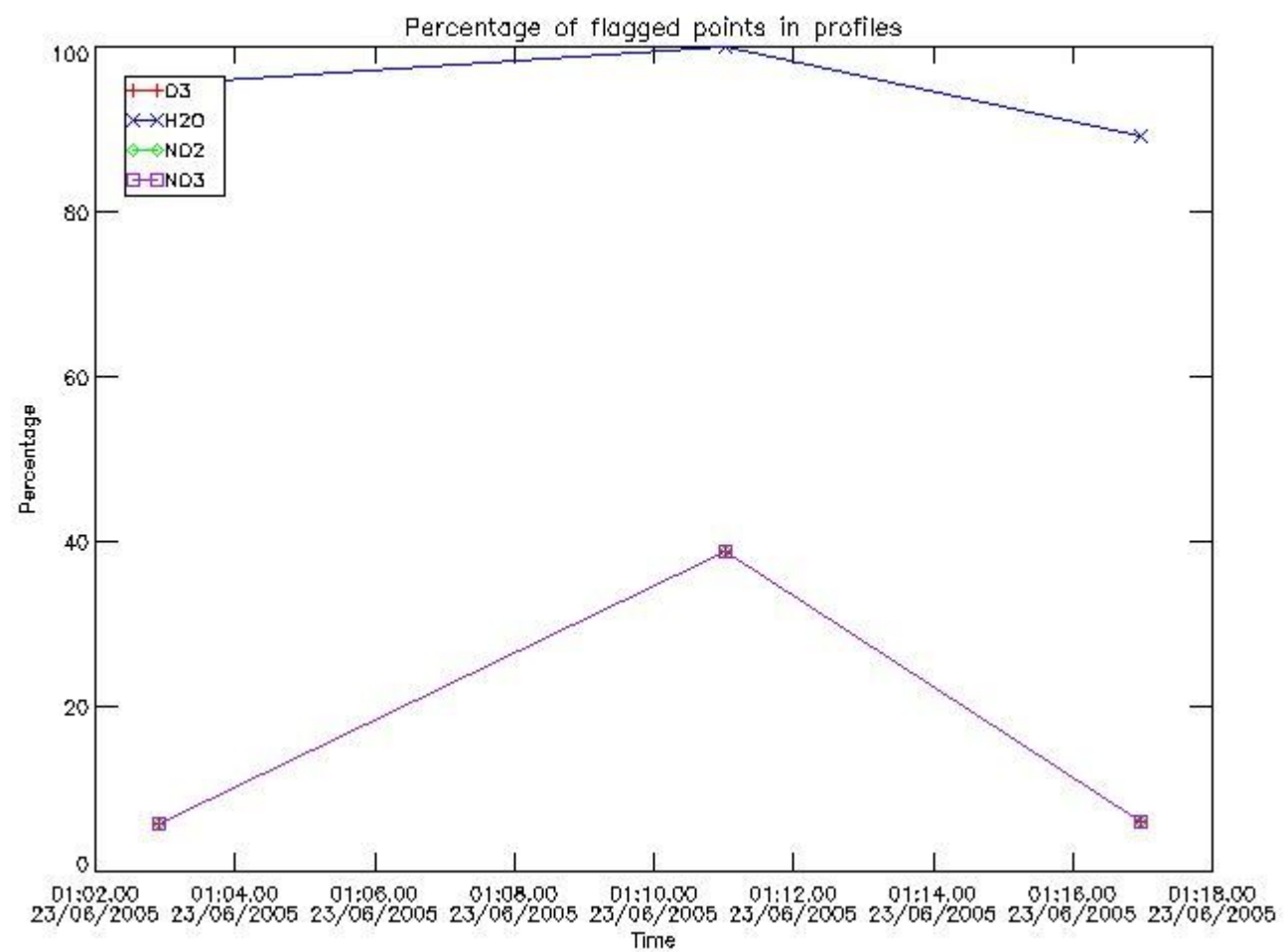
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20050623_000108_000000912038_00231_17319_4703.N1	23-JUN-2005 00:01:08	Bright	91.000	16	21Alp Sco	1.0200	3000.0	182	17319	No
2	GOM_NL__2PRFIN20050623_000313_000000872038_00231_17319_4704.N1	23-JUN-2005 00:03:13	Bright	86.500	97	8Bet1Sco	2.5610	30000.	173	17319	No
3	GOM_NL__2PRFIN20050623_000528_000000882038_00231_17319_4705.N1	23-JUN-2005 00:05:28	Bright	87.500	98	13Zet Oph	2.5710	30000.	175	17319	No
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6	GOM_NL__2PRFIN20050623_001625_000000842038_00231_17319_4708.N1	23-JUN-2005 00:16:25	Bright	83.500	67	5Alp CrB	2.2210	11000.	167	17319	No
7	GOM_NL__2PRFIN20050623_002936_000000872038_00231_17319_4709.N1	23-JUN-2005 00:29:36	Bright	87.000	60	7Bet UMi	2.0810	3950.0	174	17319	No
8	GOM_NL__2PRFIN20050623_010255_000000902038_00231_17319_4710.N1	23-JUN-2005 01:02:55	Dark	89.500	165	34Gam Eri	2.9500	3200.0	179	17319	No
9	GOM_NL__2PRFIN20050623_011101_000000902038_00231_17319_4711.N1	23-JUN-2005 01:11:01	Dark	89.500	157	The1Eri	2.9060	9300.0	179	17319	No
10	GOM_NL__2PRFIN20050623_011659_000000932038_00231_17319_4712.N1	23-JUN-2005 01:16:59	Dark	93.000	9	Alp Eri	0.45300	24000.	186	17319	No

## 3. Quality information per product

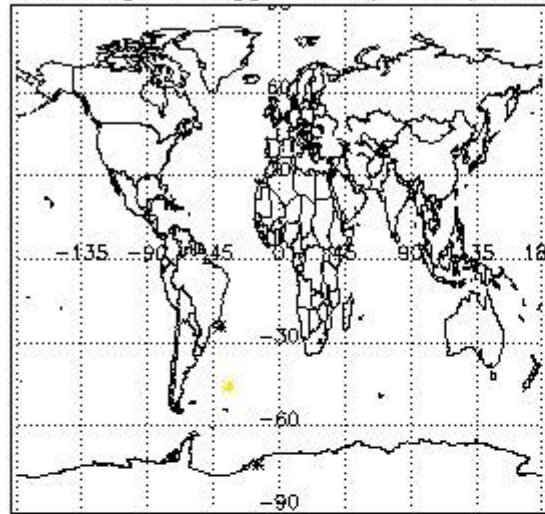
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

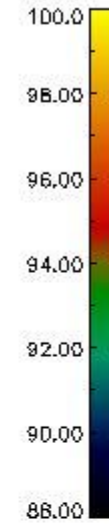
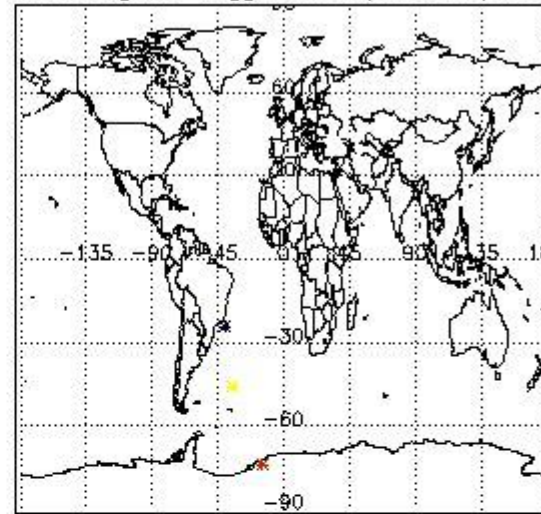


*3.2 Plot quality information per product (world map)*

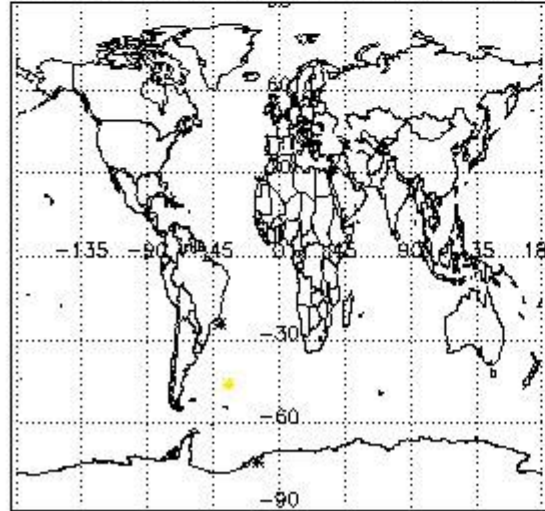
Percentage of flagged data per O3 profile



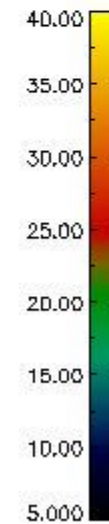
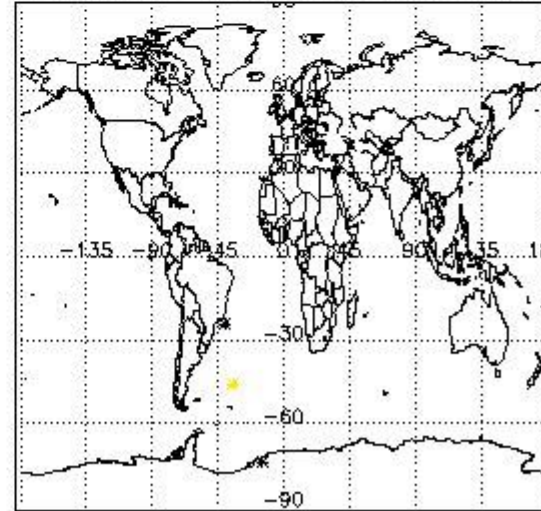
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

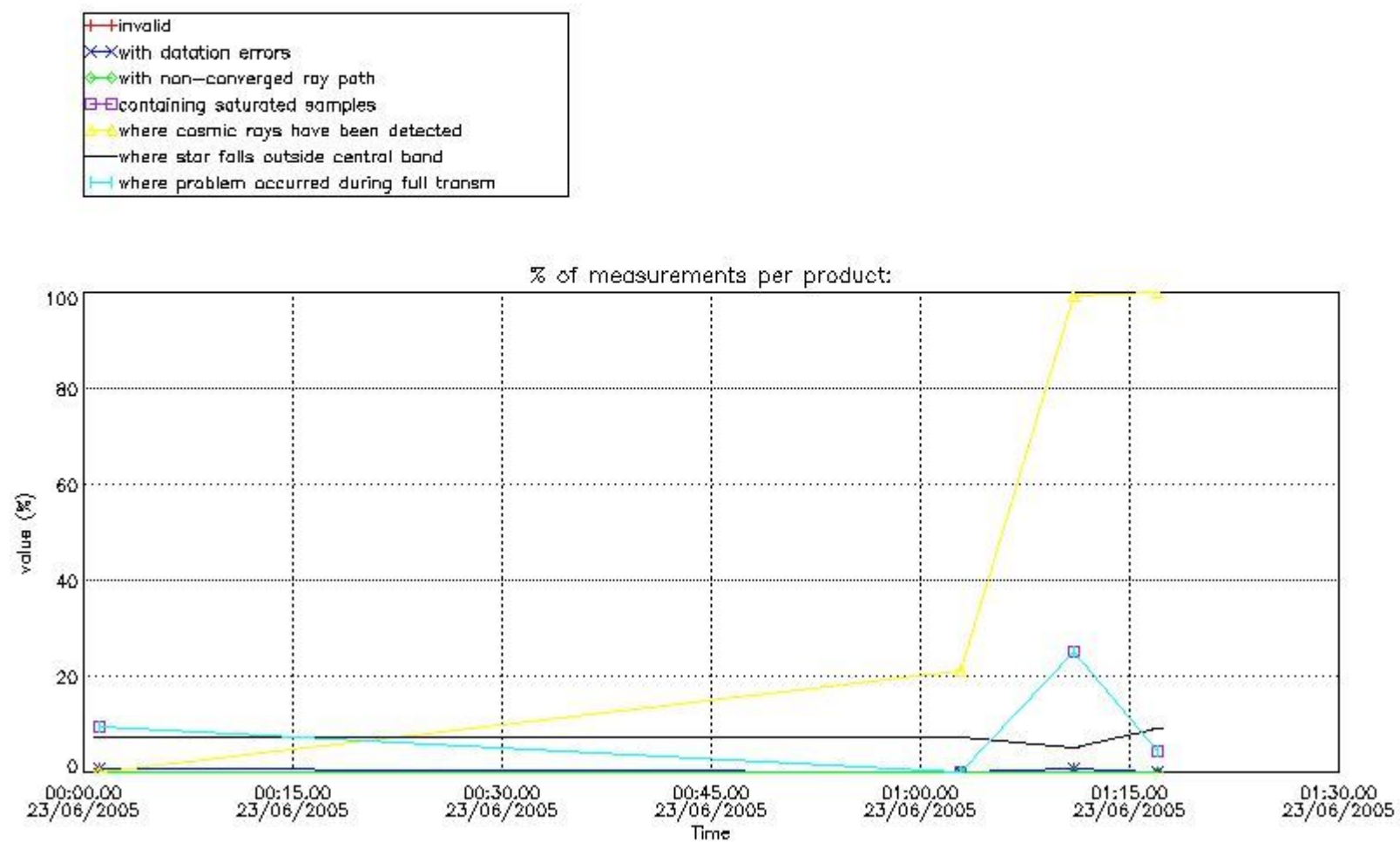


#### 4. Level 1 quality information per product

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.

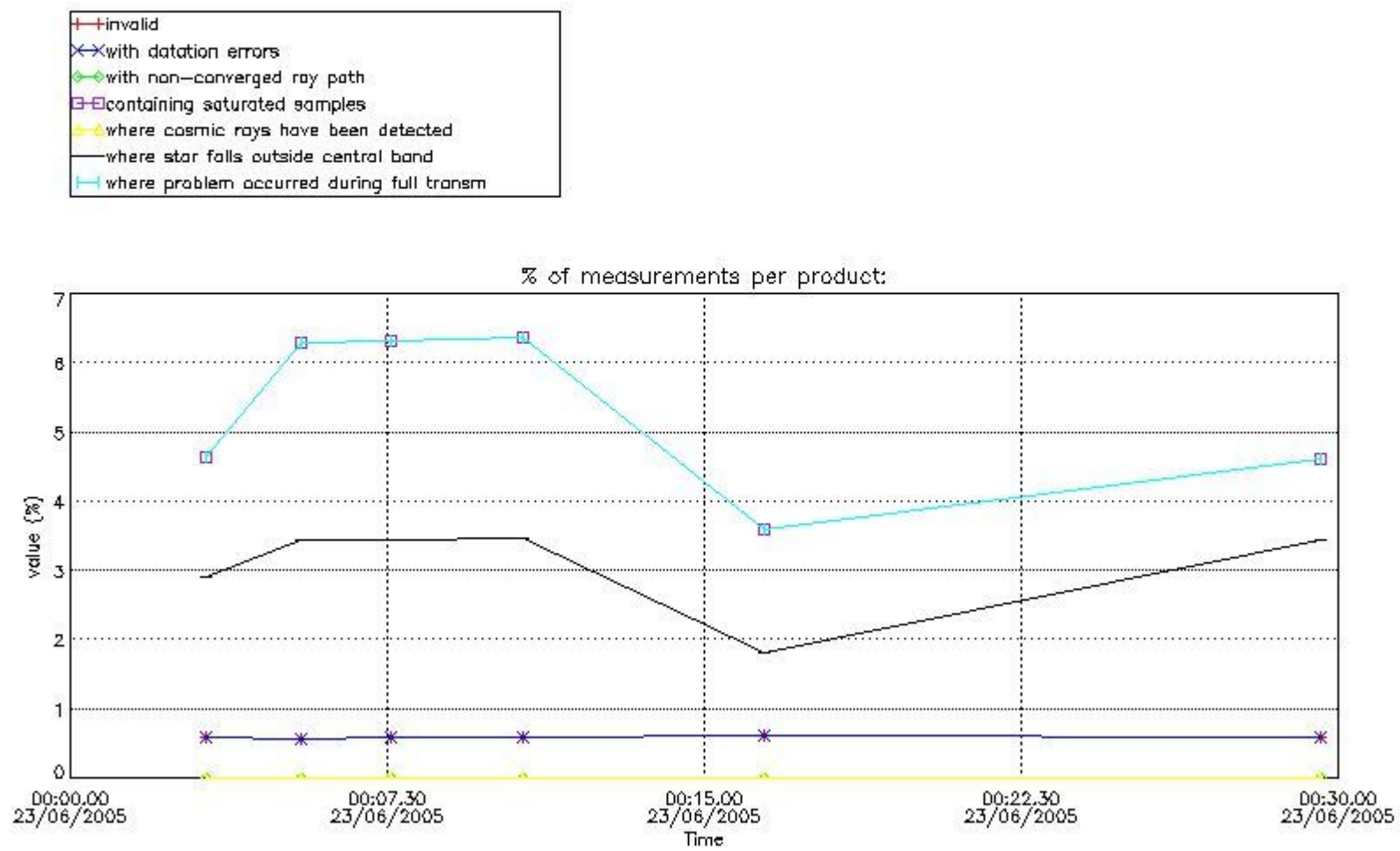
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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): ENVISAT DESCENDING passes

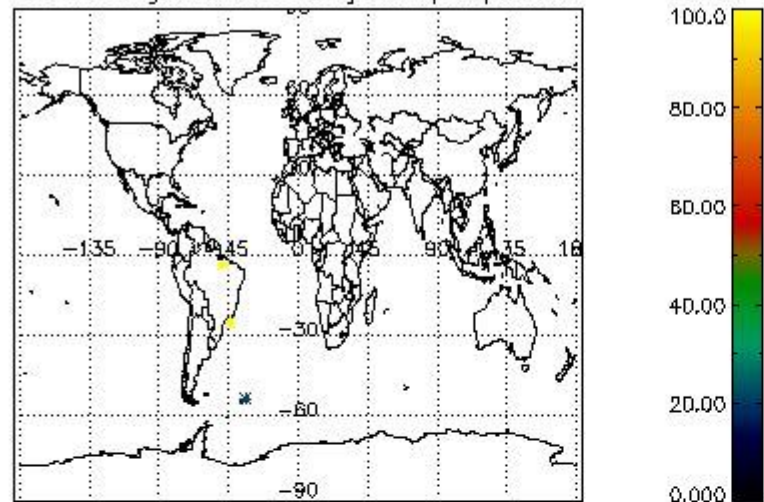




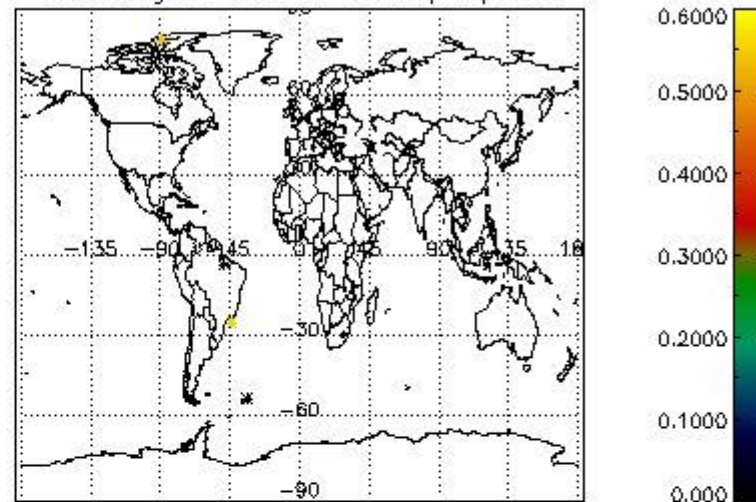
4.2 Plot quality information per product coming from level 1b processing (world map)

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

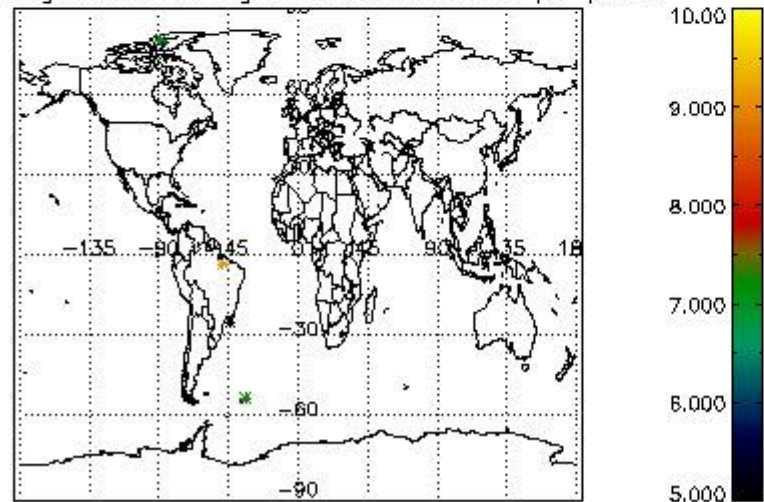
Percentage of cosmic ray hits per profile



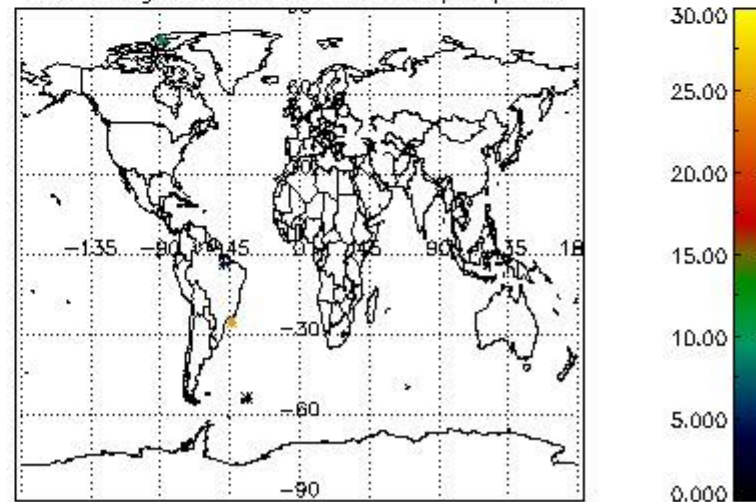
Percentage of datation errors per profile



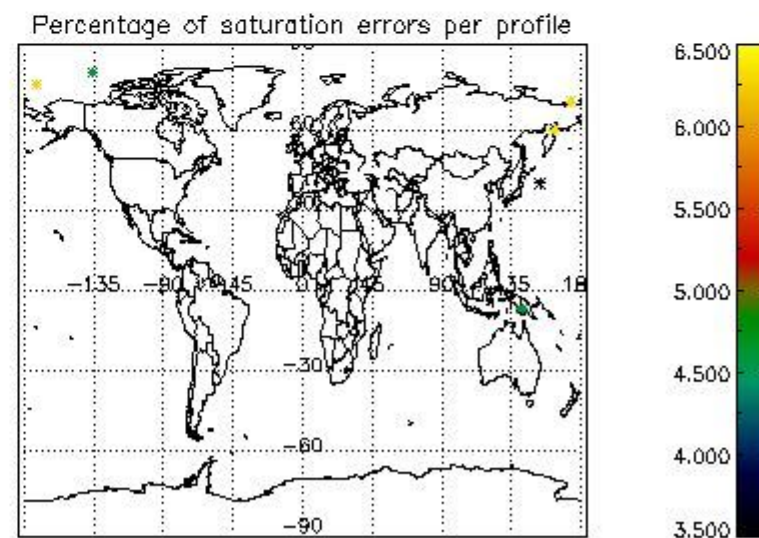
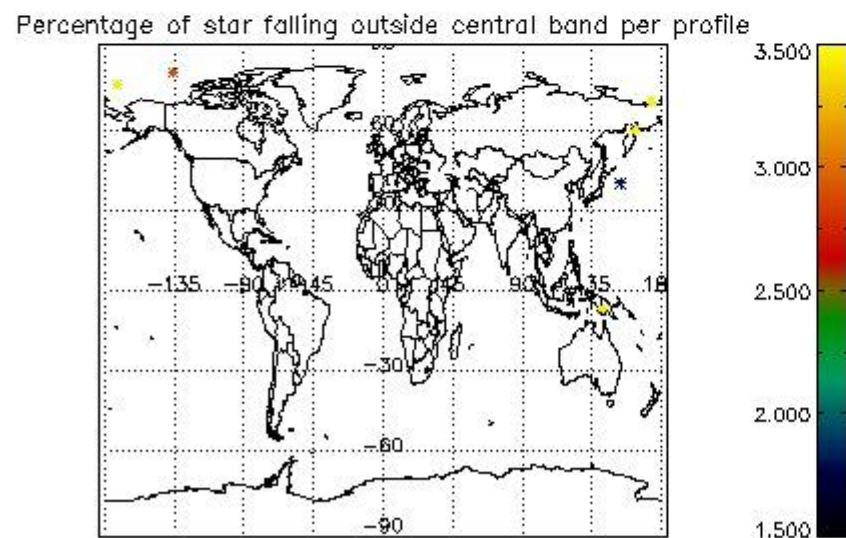
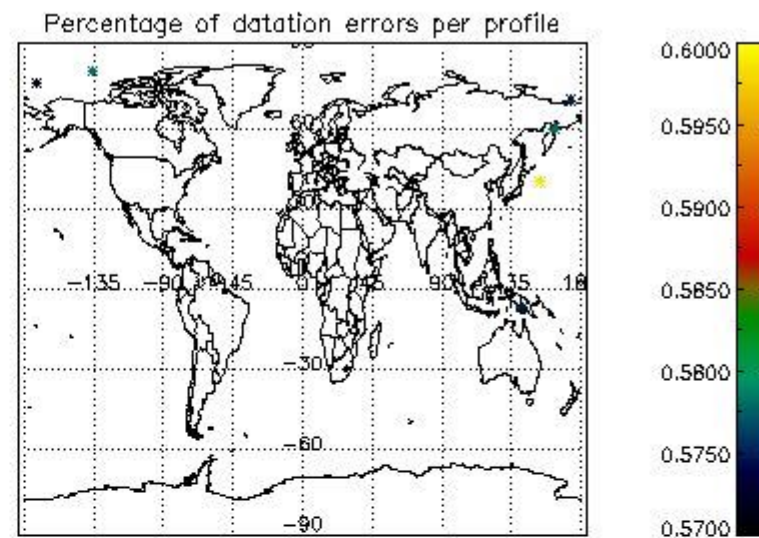
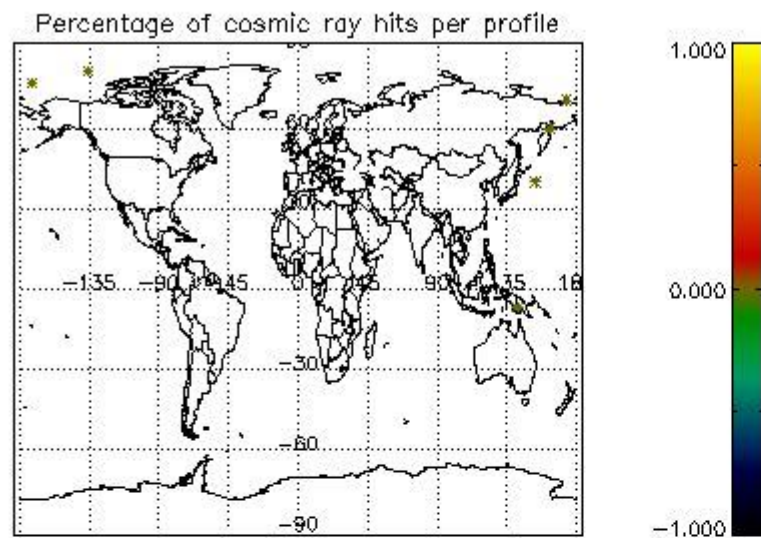
Percentage of star falling outside central band per profile



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.

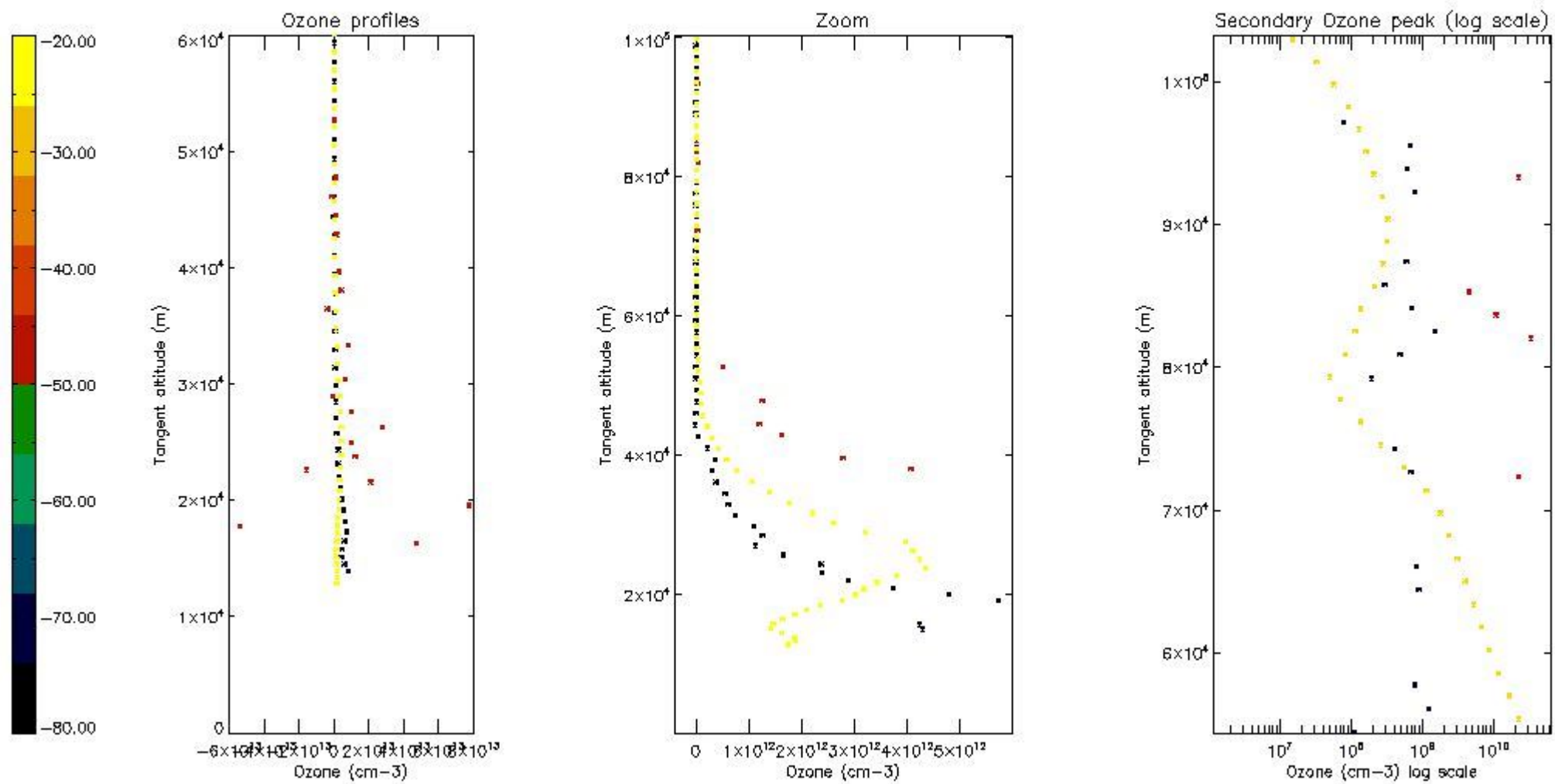
Criteria	% of total production
All STD	29
STD < 20	5



STD < 10	3
STD < 5	2

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

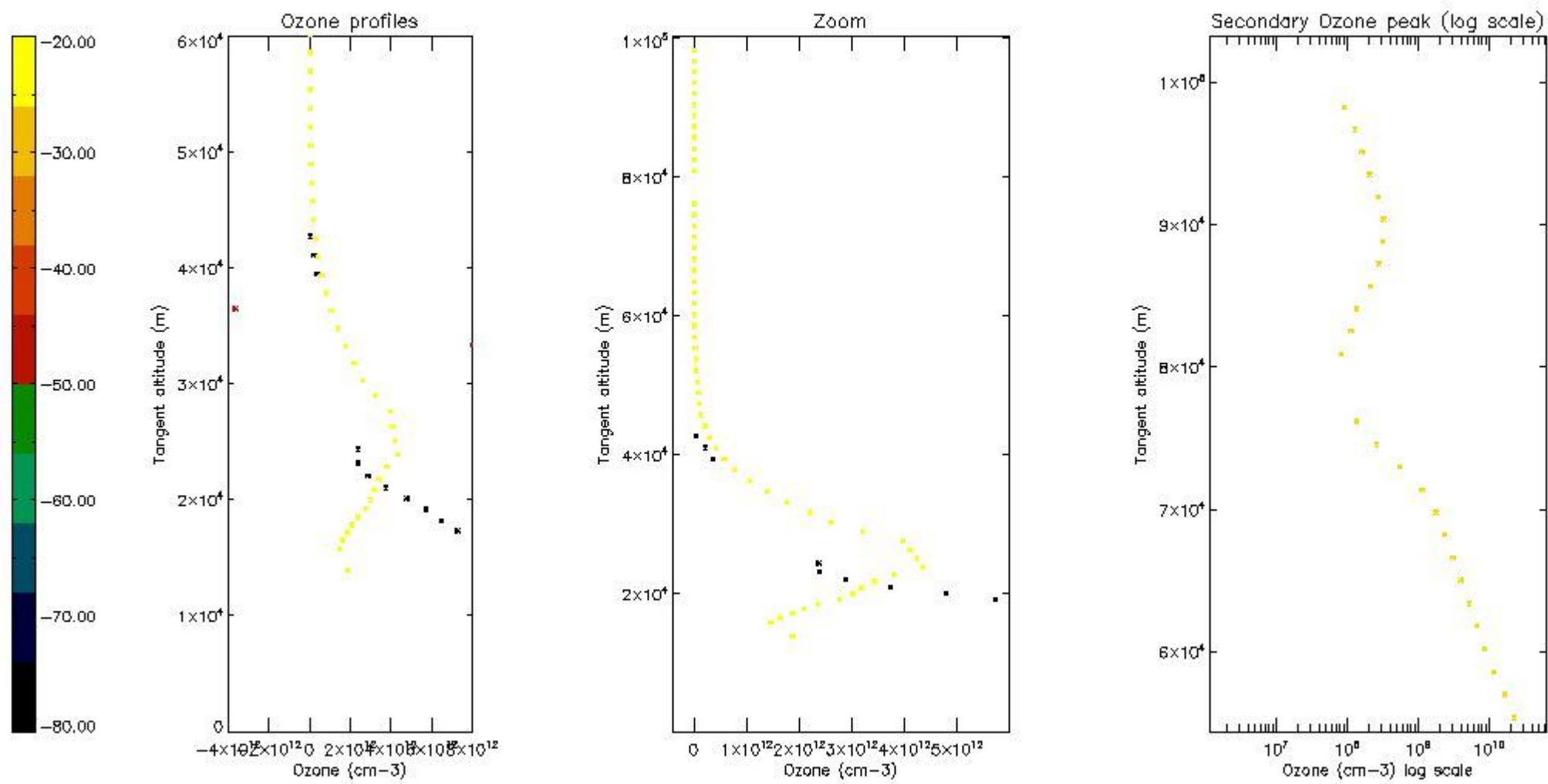
The colorbar represents the latitude.



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

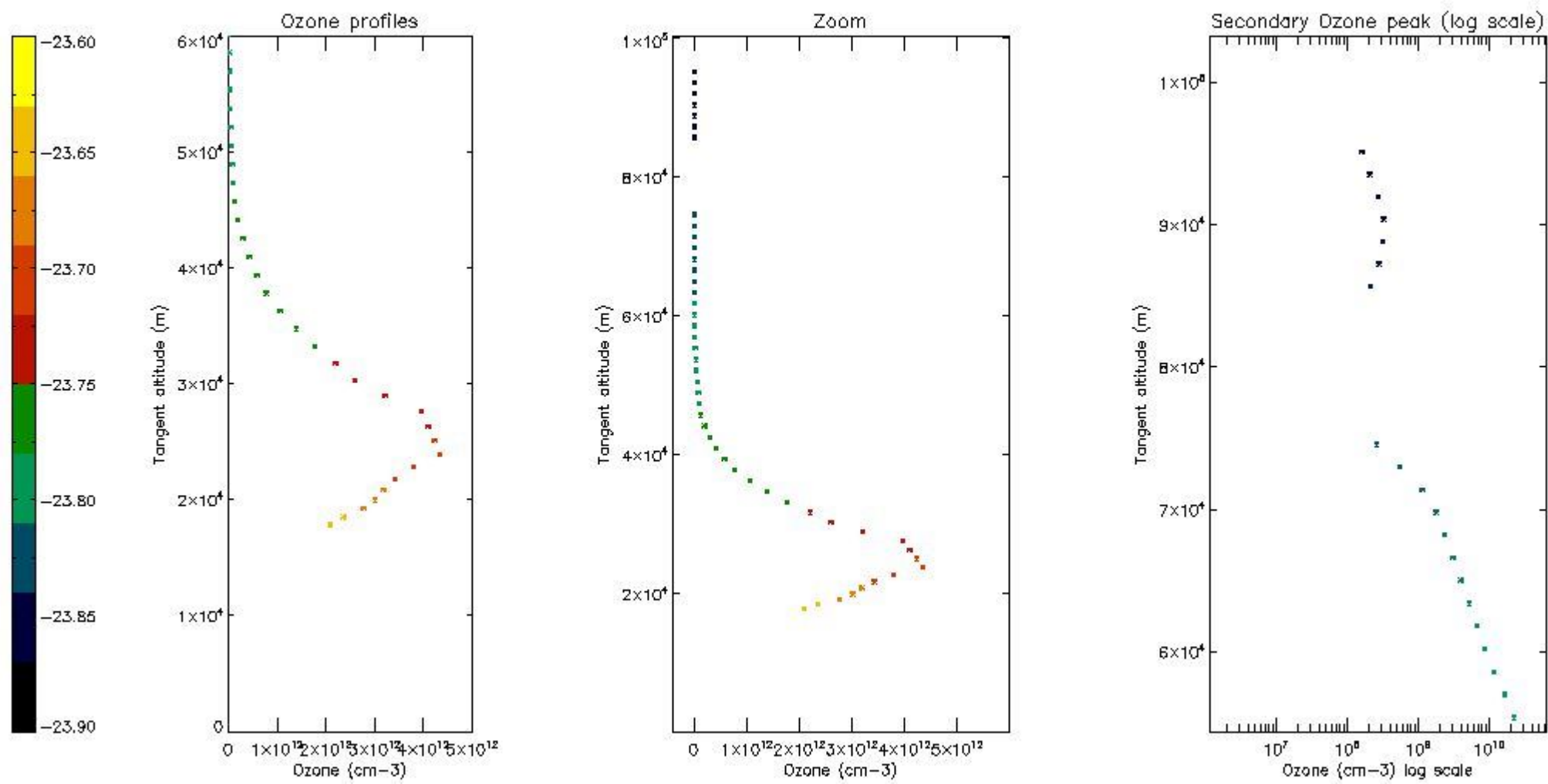
The colorbar represents the latitude.





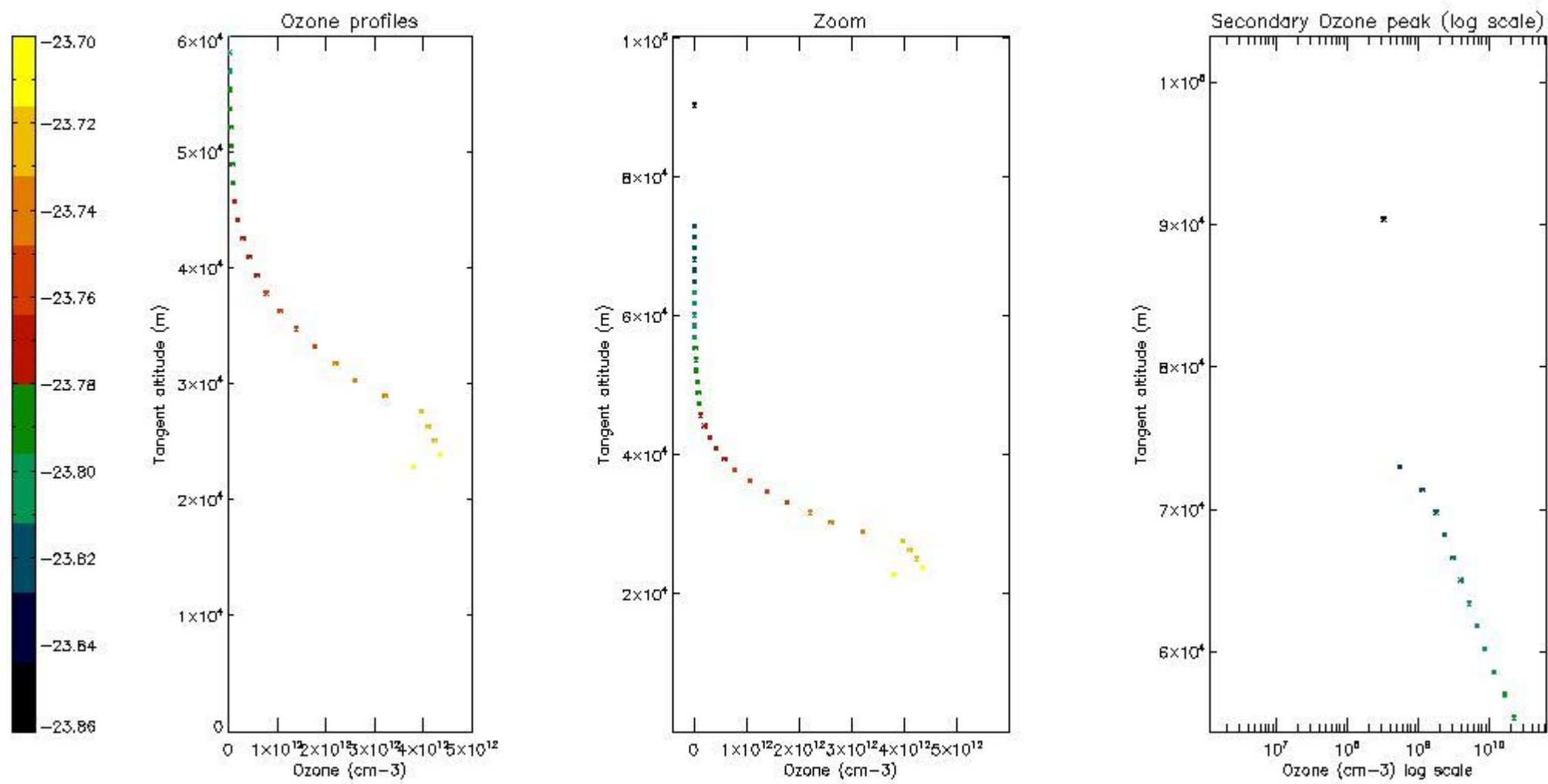
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



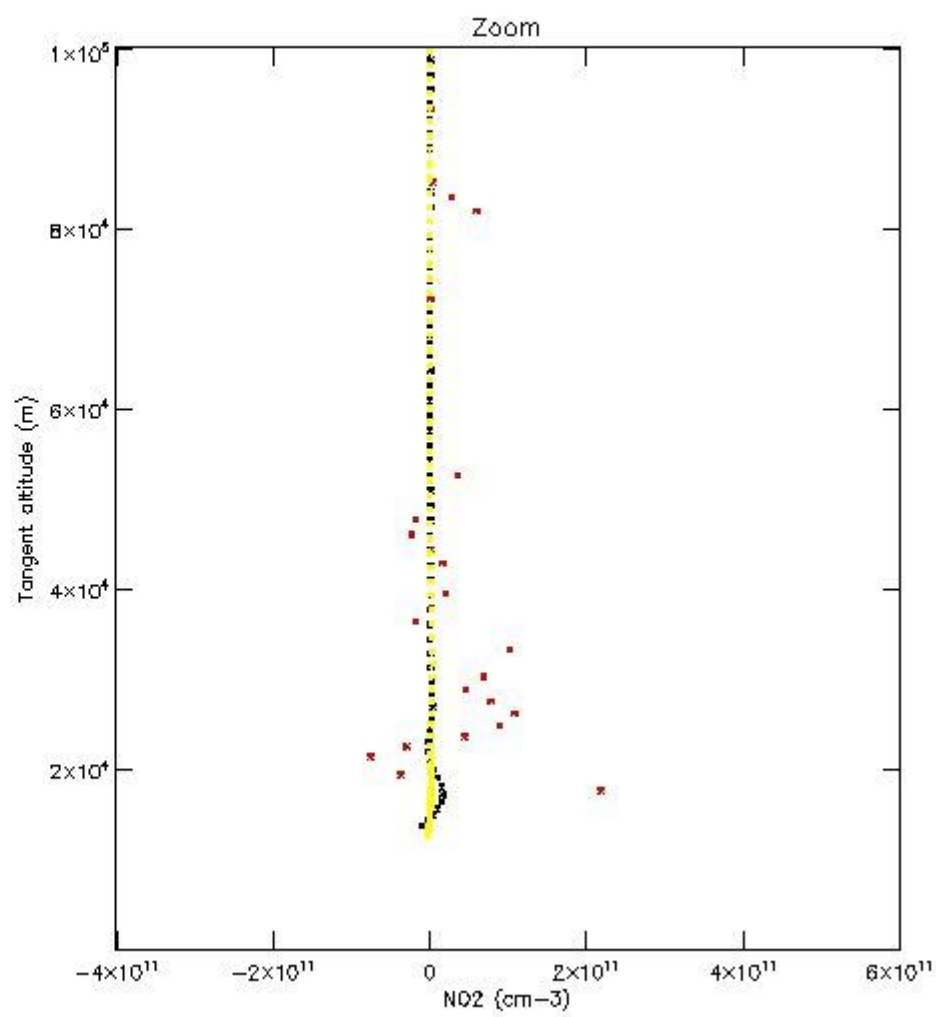
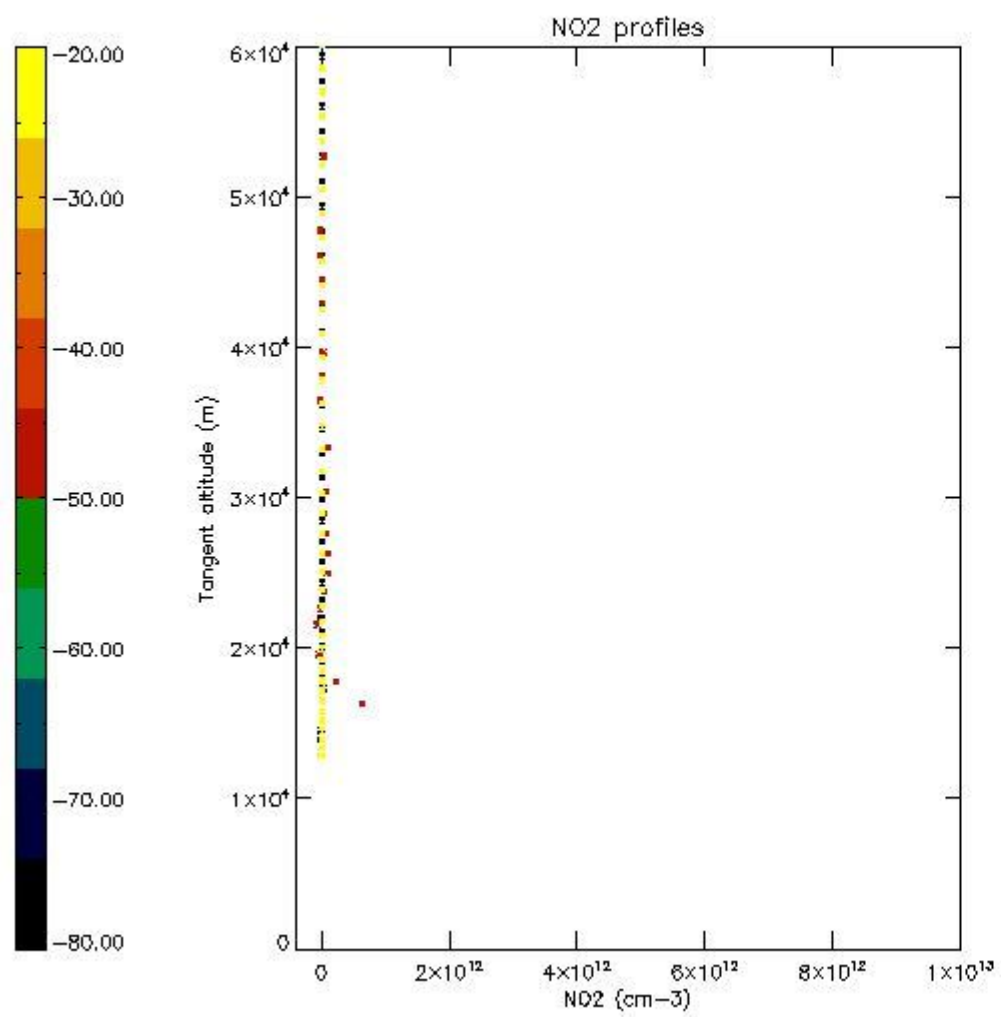
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

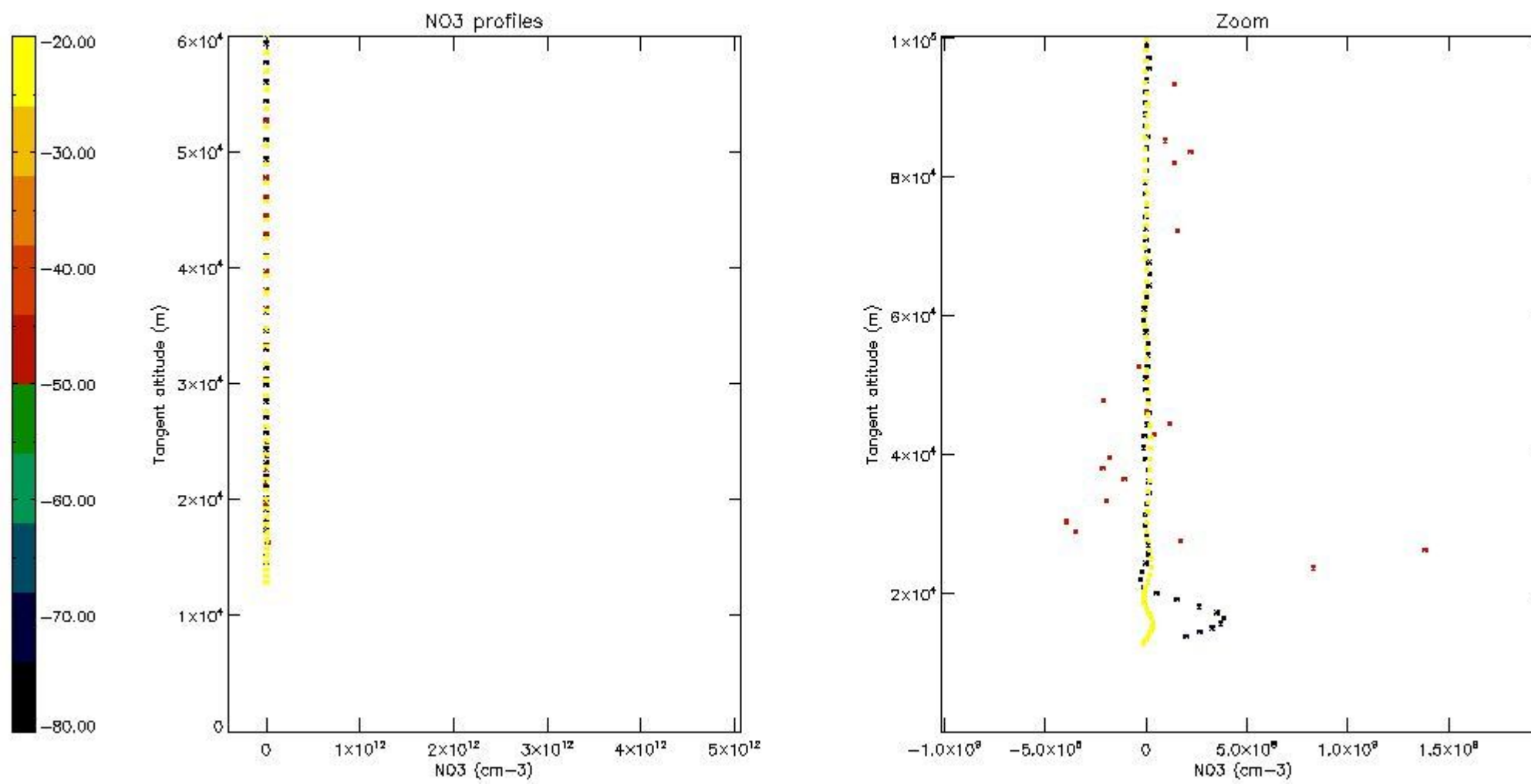
The colorbar represents the latitude.



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

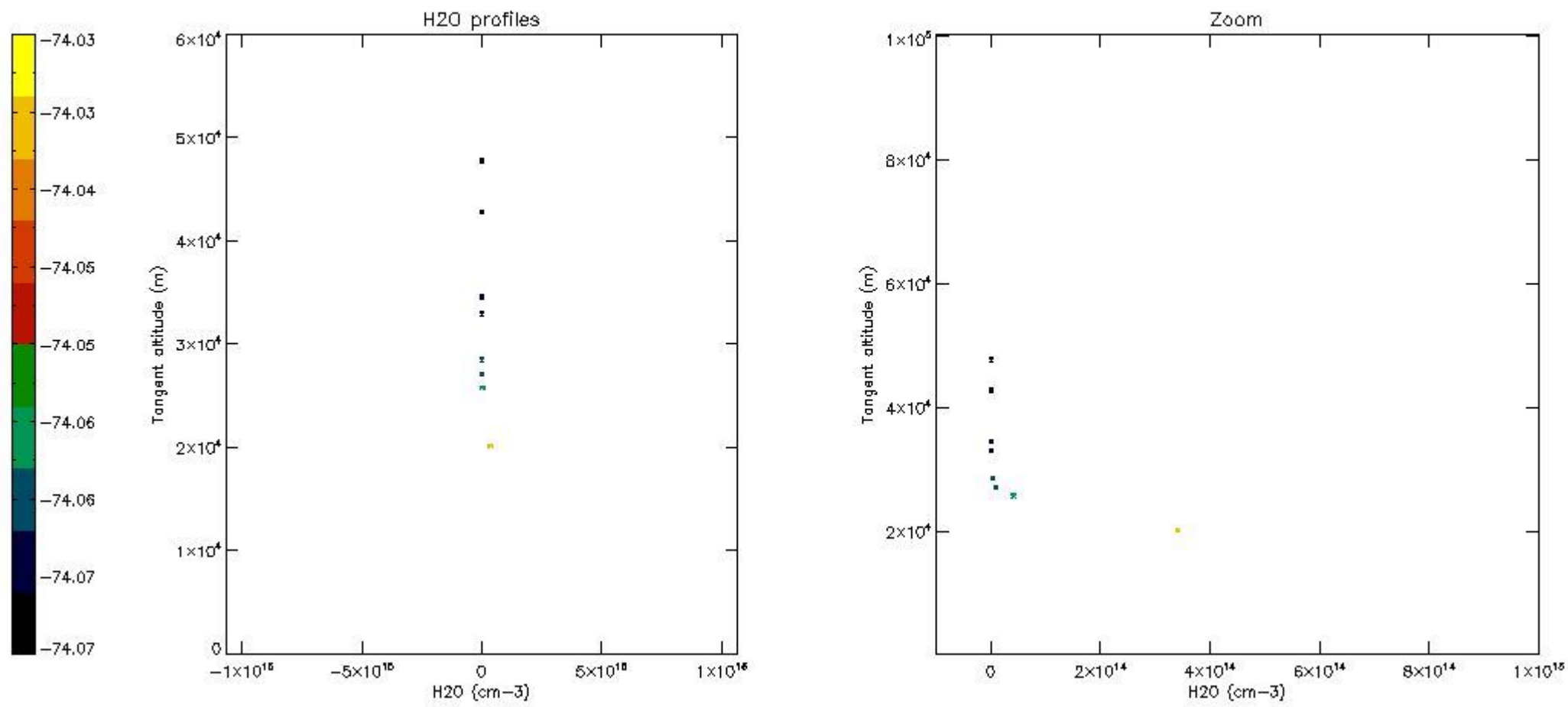
The colorbar represents the latitude.





5.8 Plot H<sub>2</sub>O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

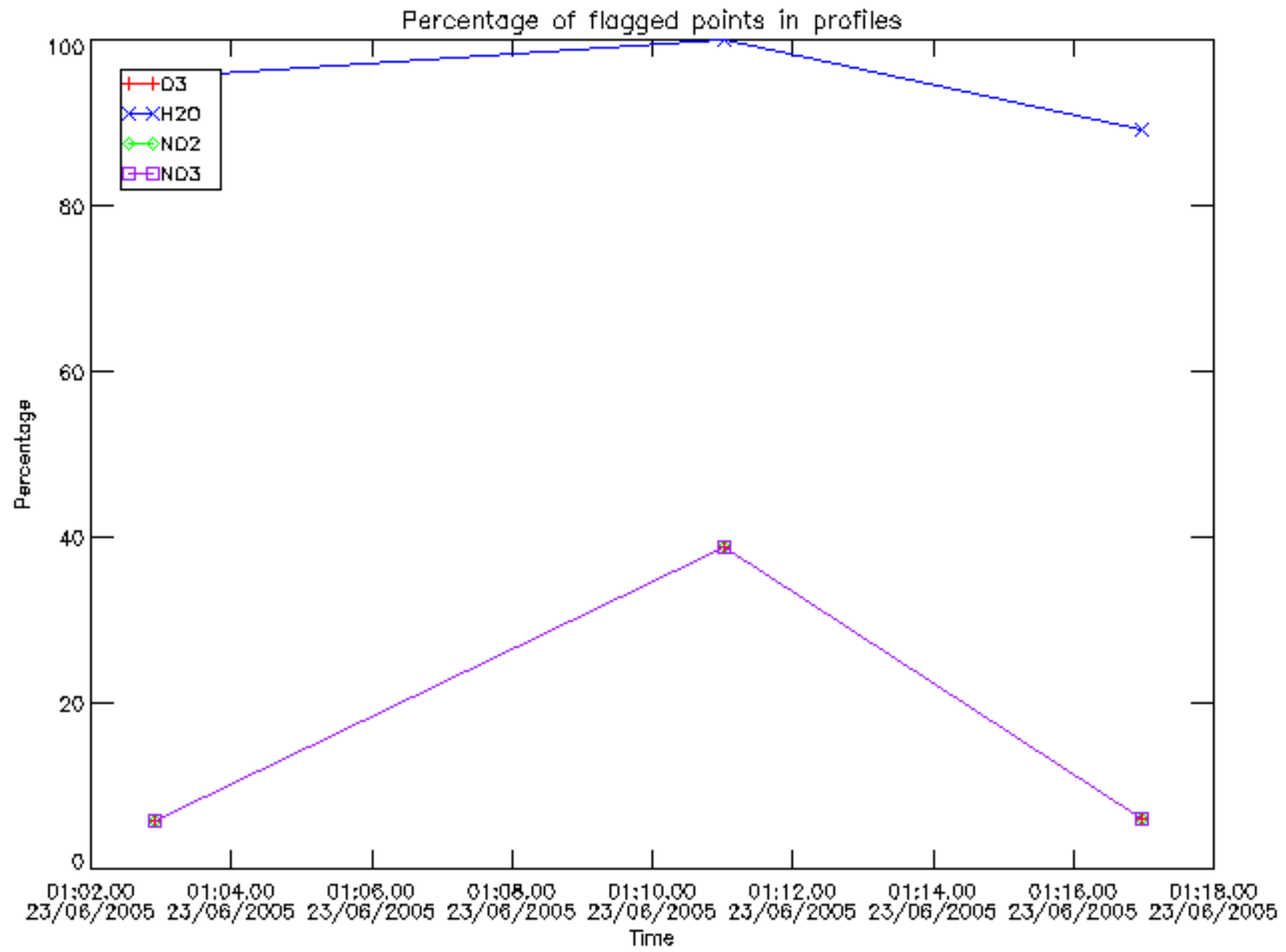
The colorbar represents the latitude.



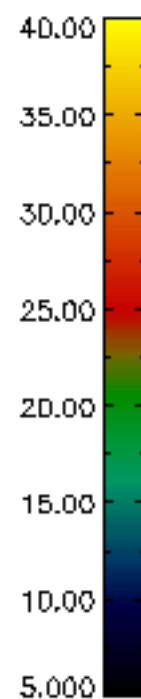
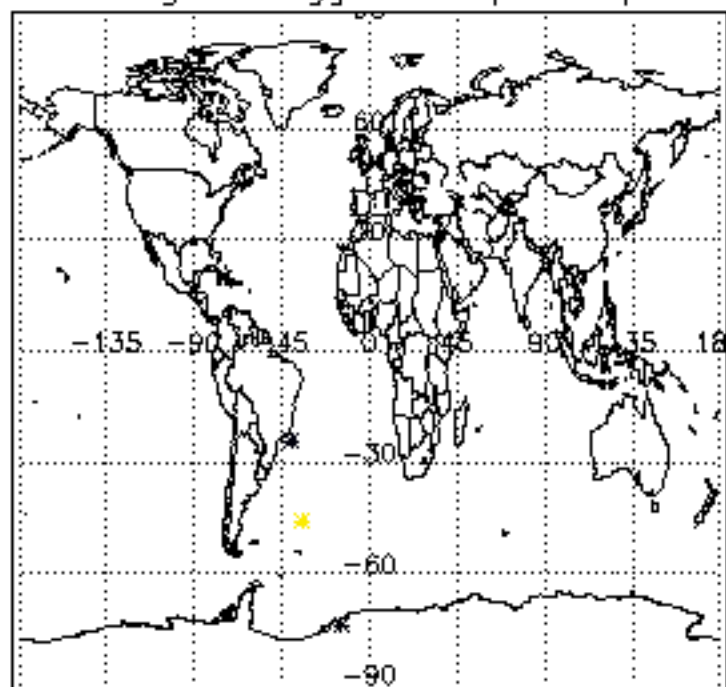
## 6. Auxiliary Data Files used for the production reported in section 2

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.

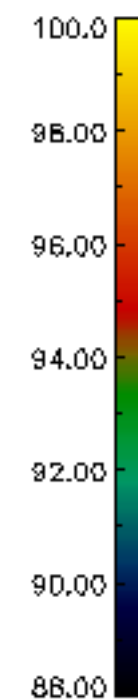
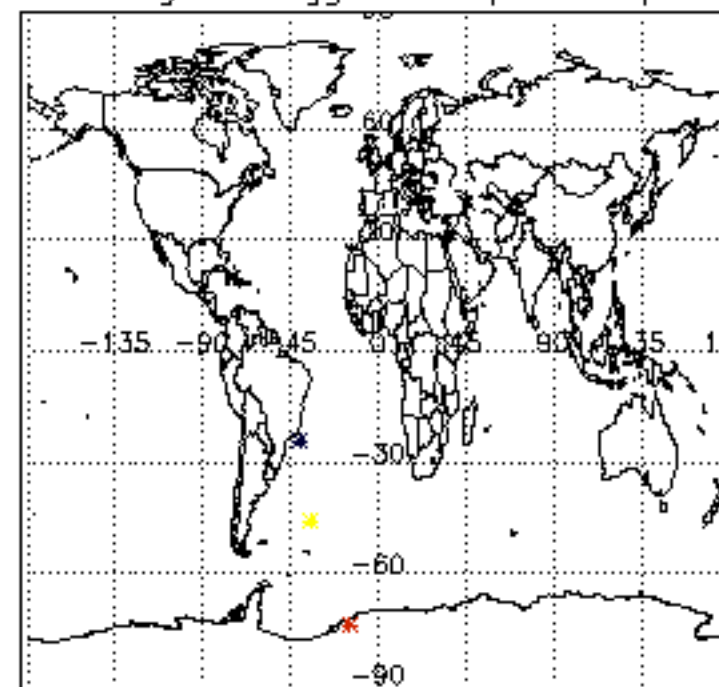
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	23-JUN-2005 00:01:08
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-JUN-2005 00:01:08
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-JUN-2005 00:01:08



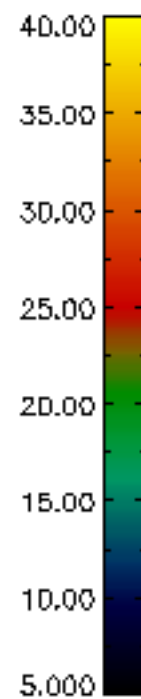
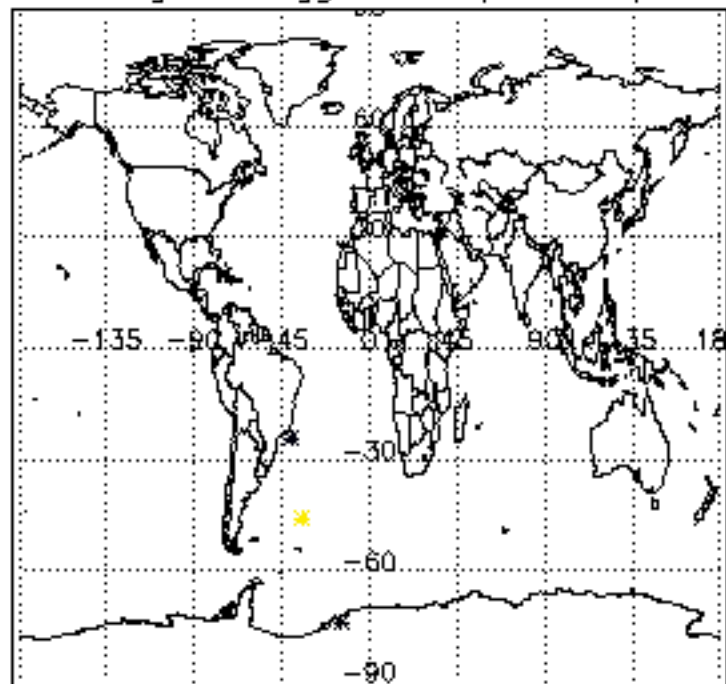
Percentage of flagged data per D3 profile



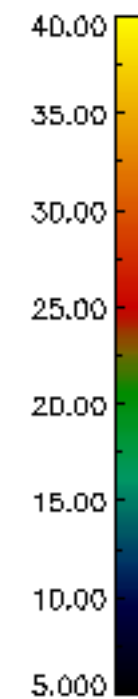
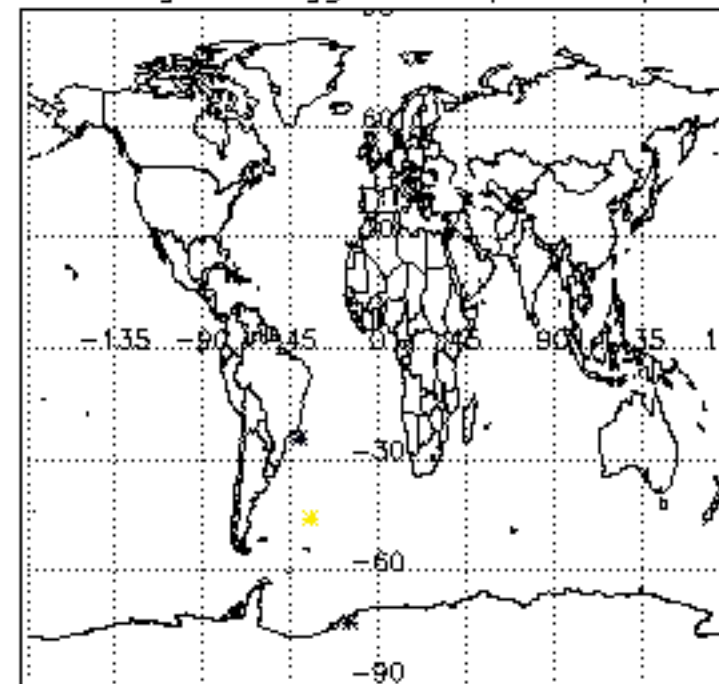
Percentage of flagged data per H2O profile

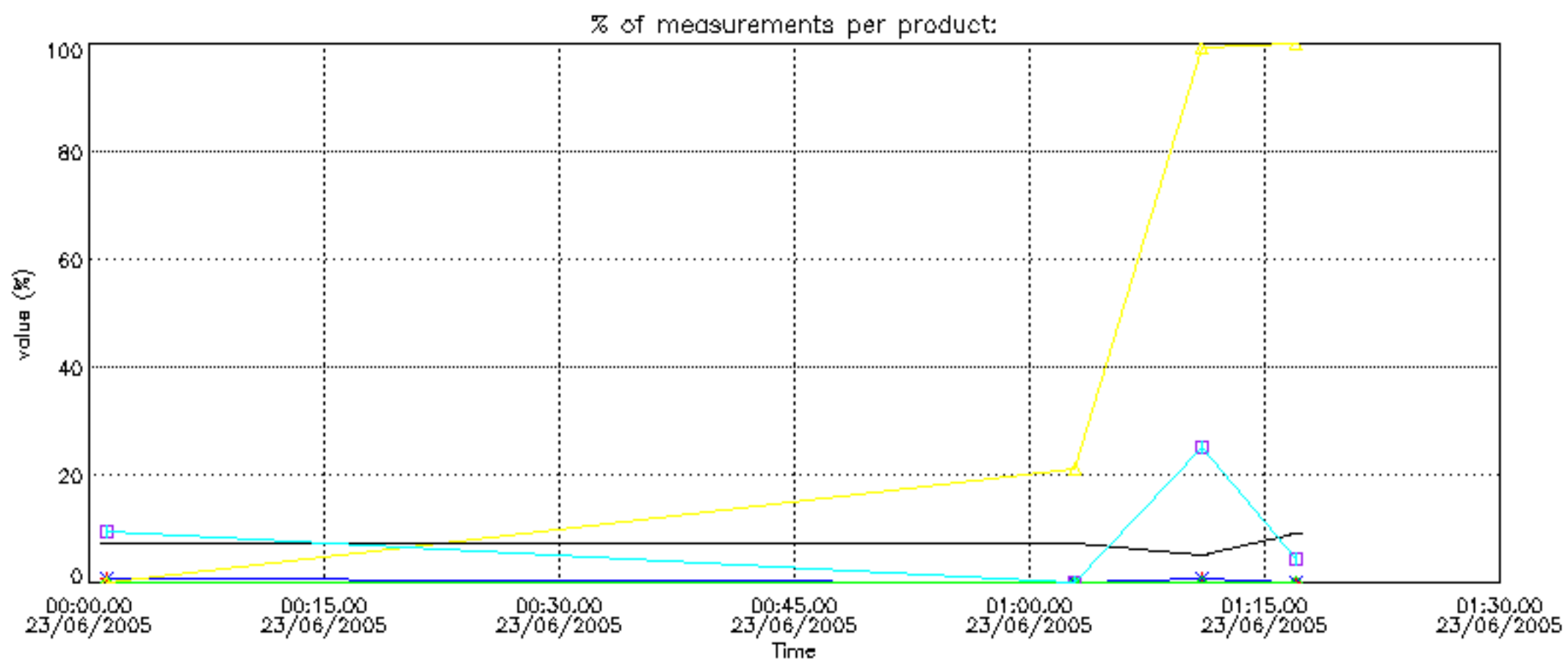
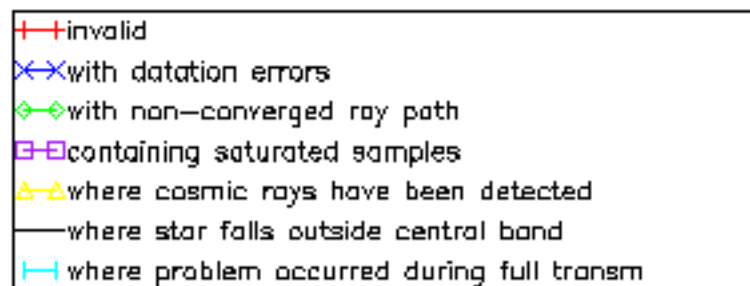


Percentage of flagged data per NO2 profile

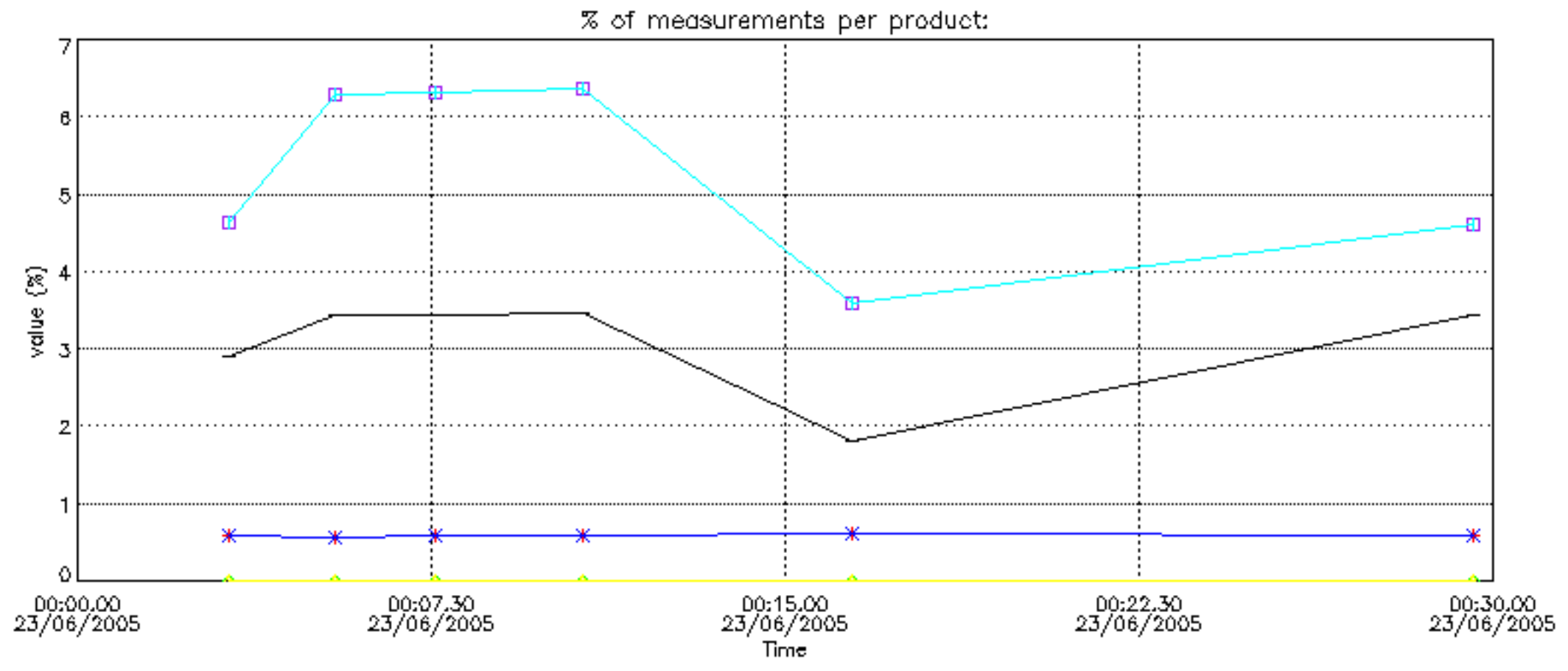


Percentage of flagged data per NO3 profile

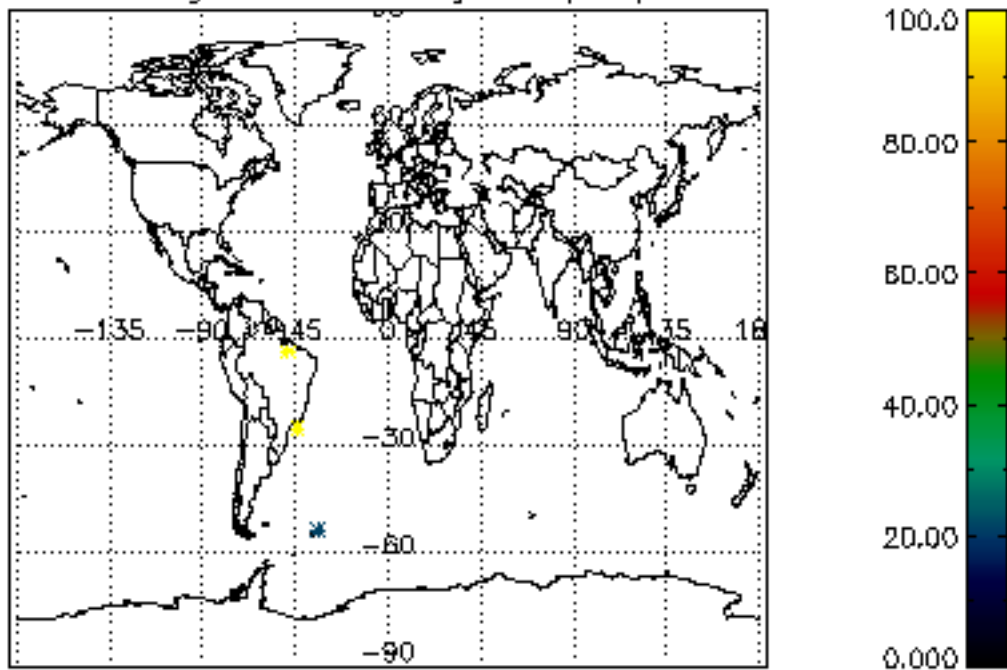




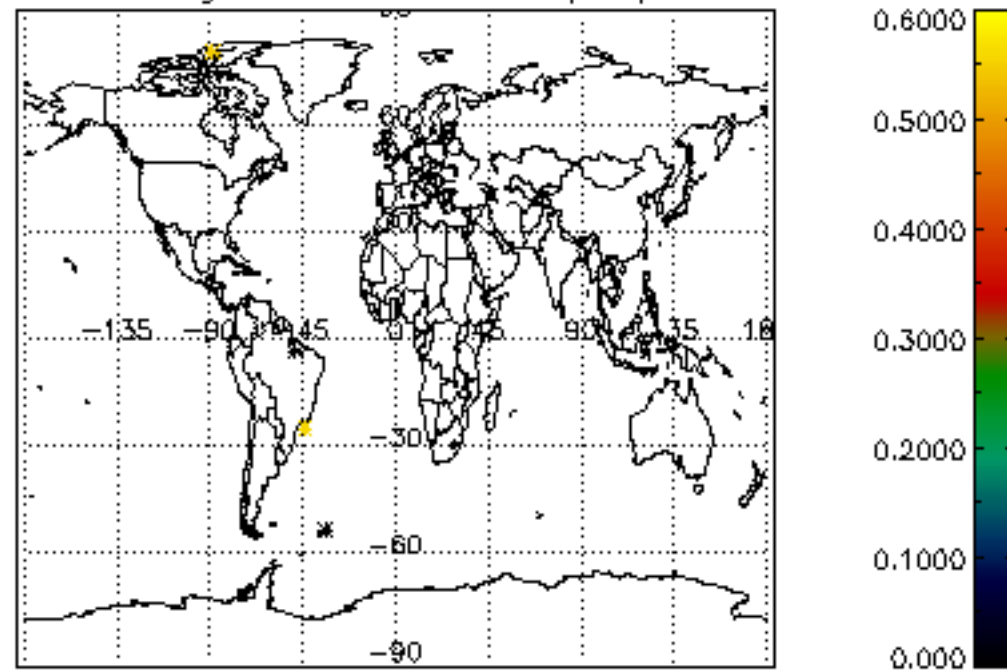




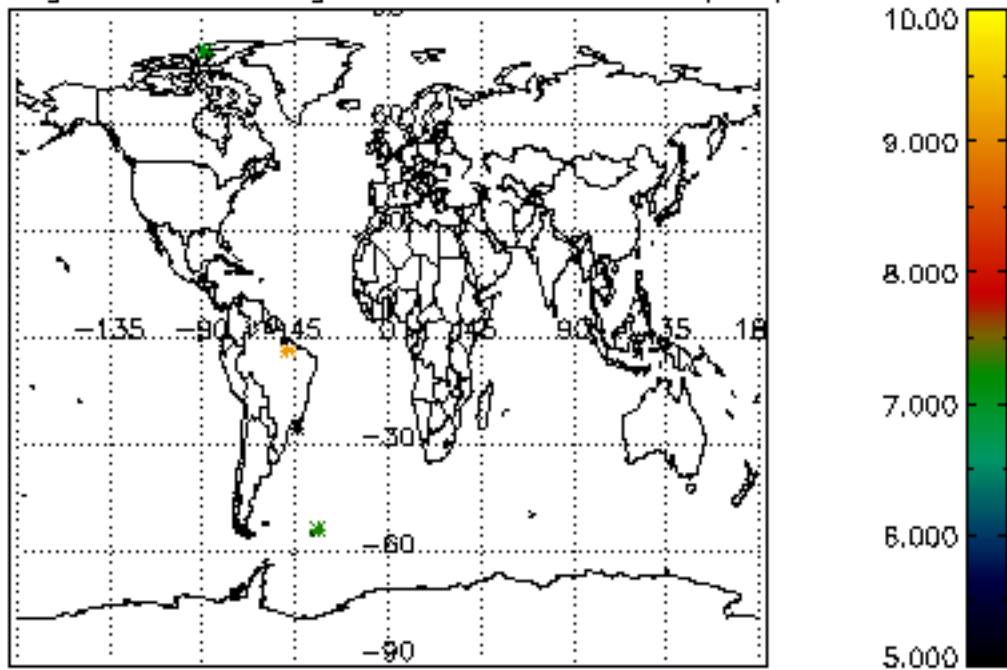
Percentage of cosmic ray hits per profile



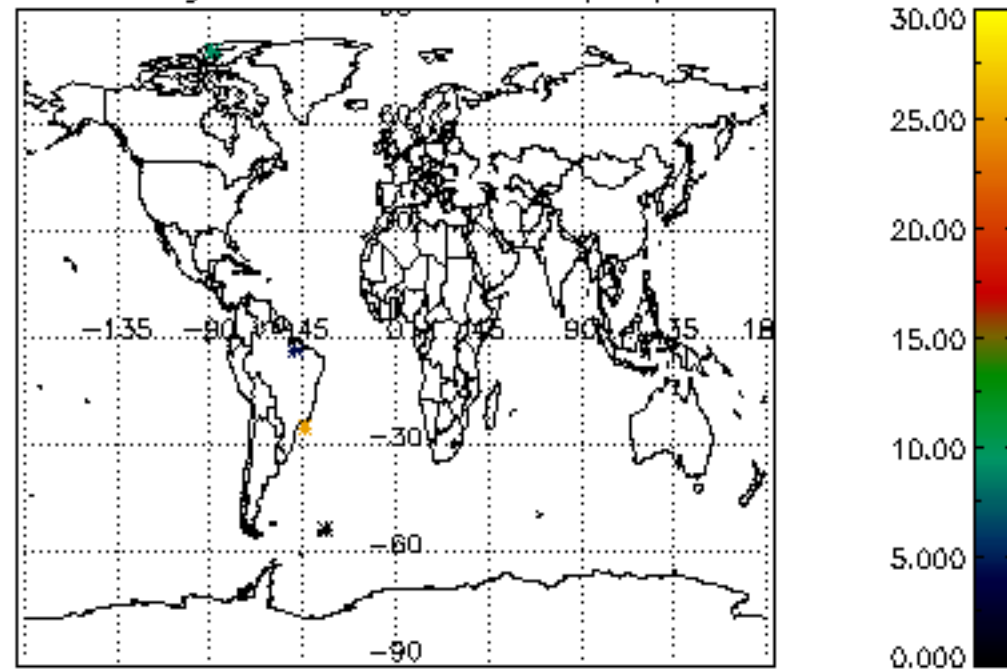
Percentage of datation errors per profile



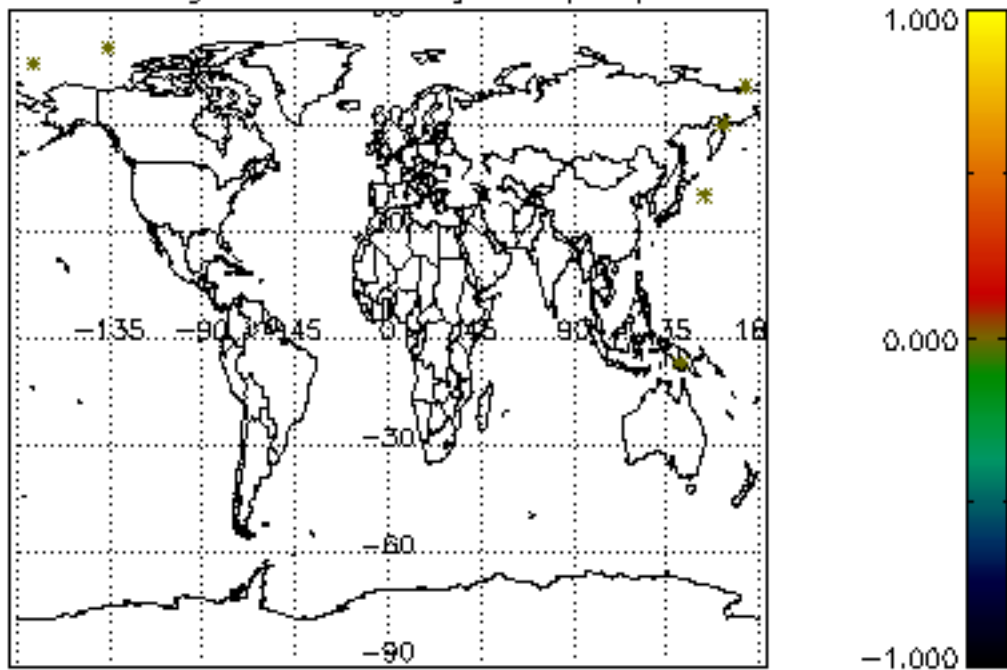
Percentage of star falling outside central band per profile



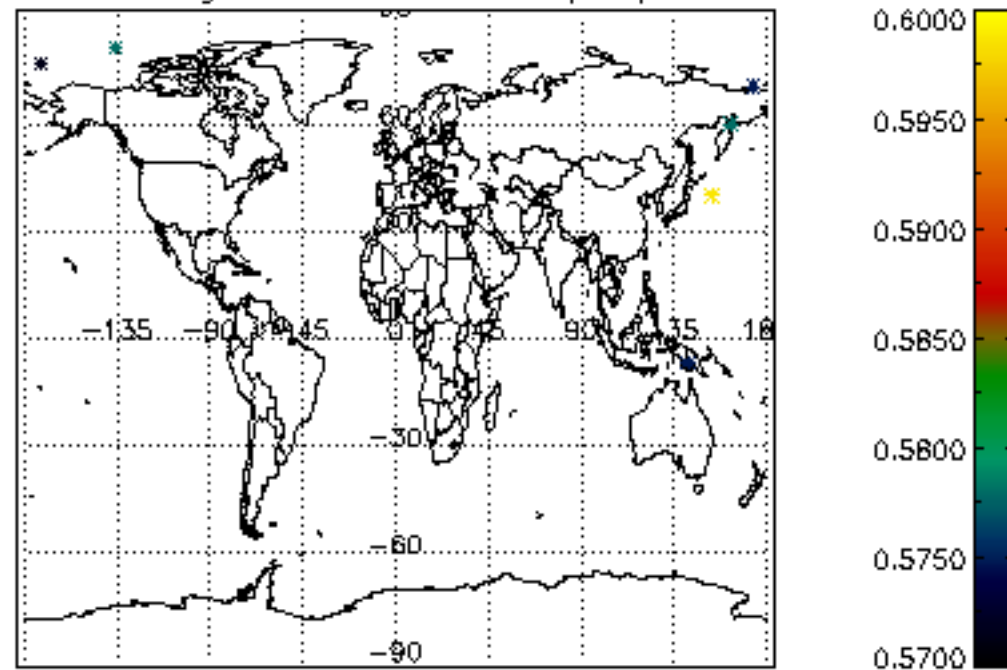
Percentage of saturation errors per profile



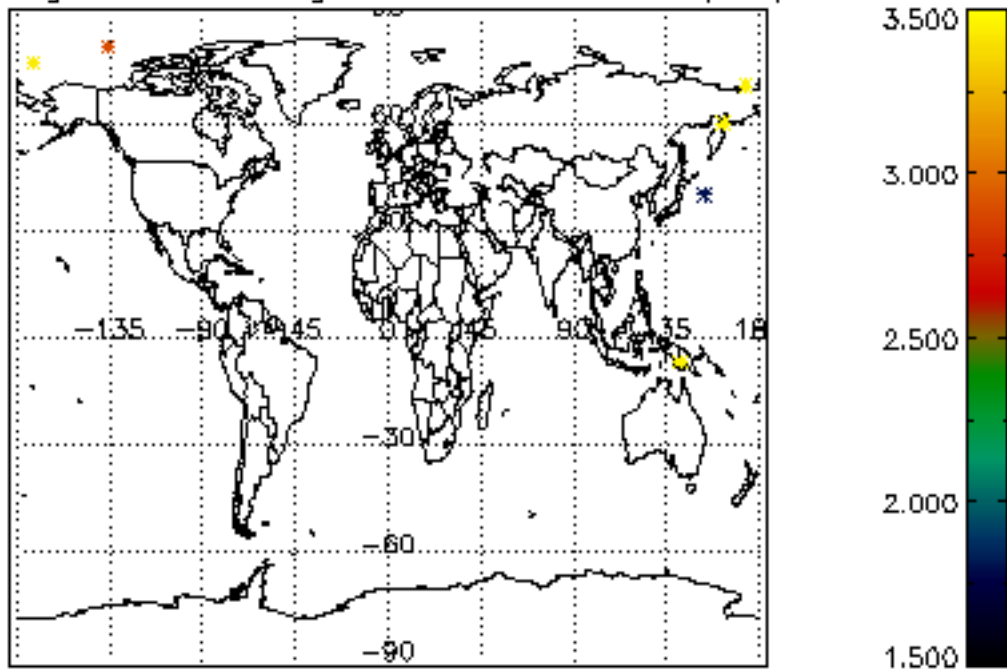
Percentage of cosmic ray hits per profile



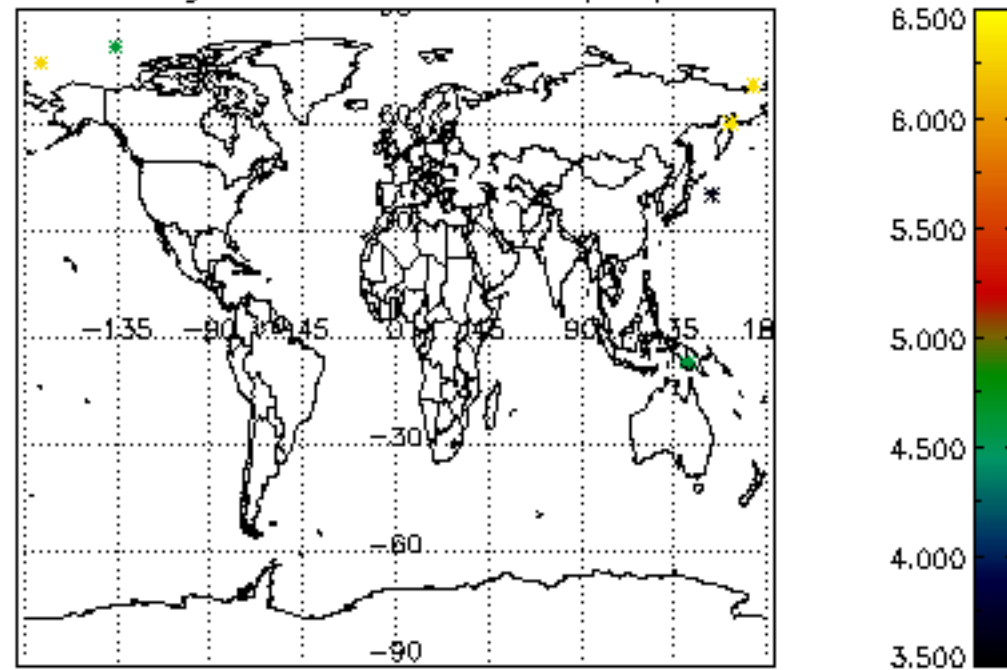
Percentage of datation errors per profile

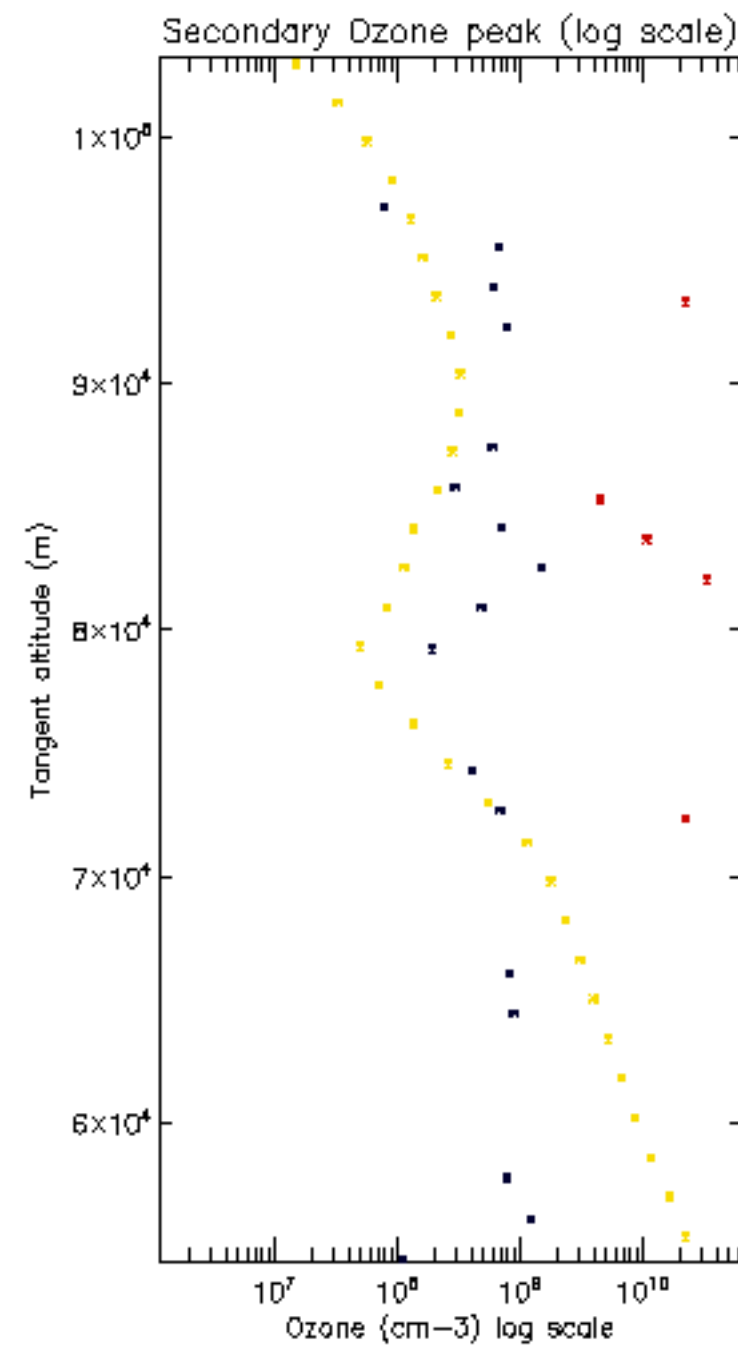
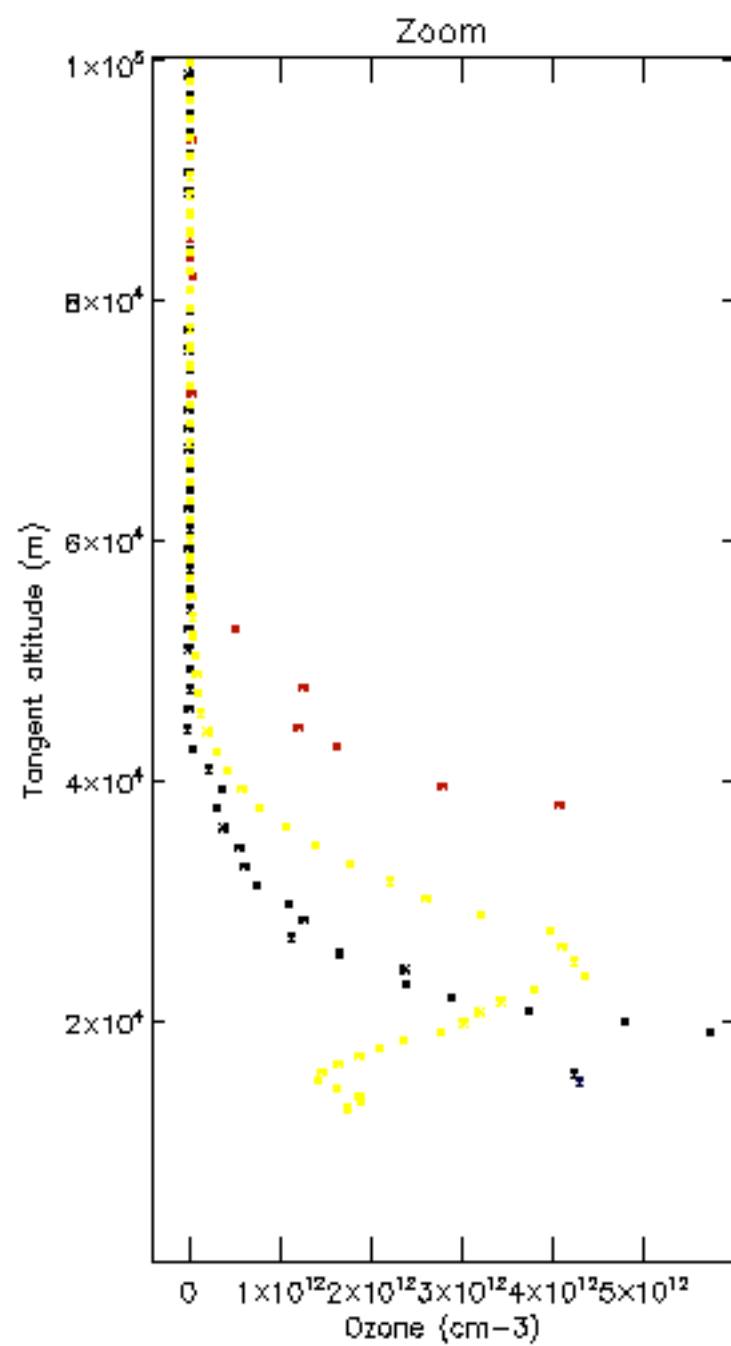
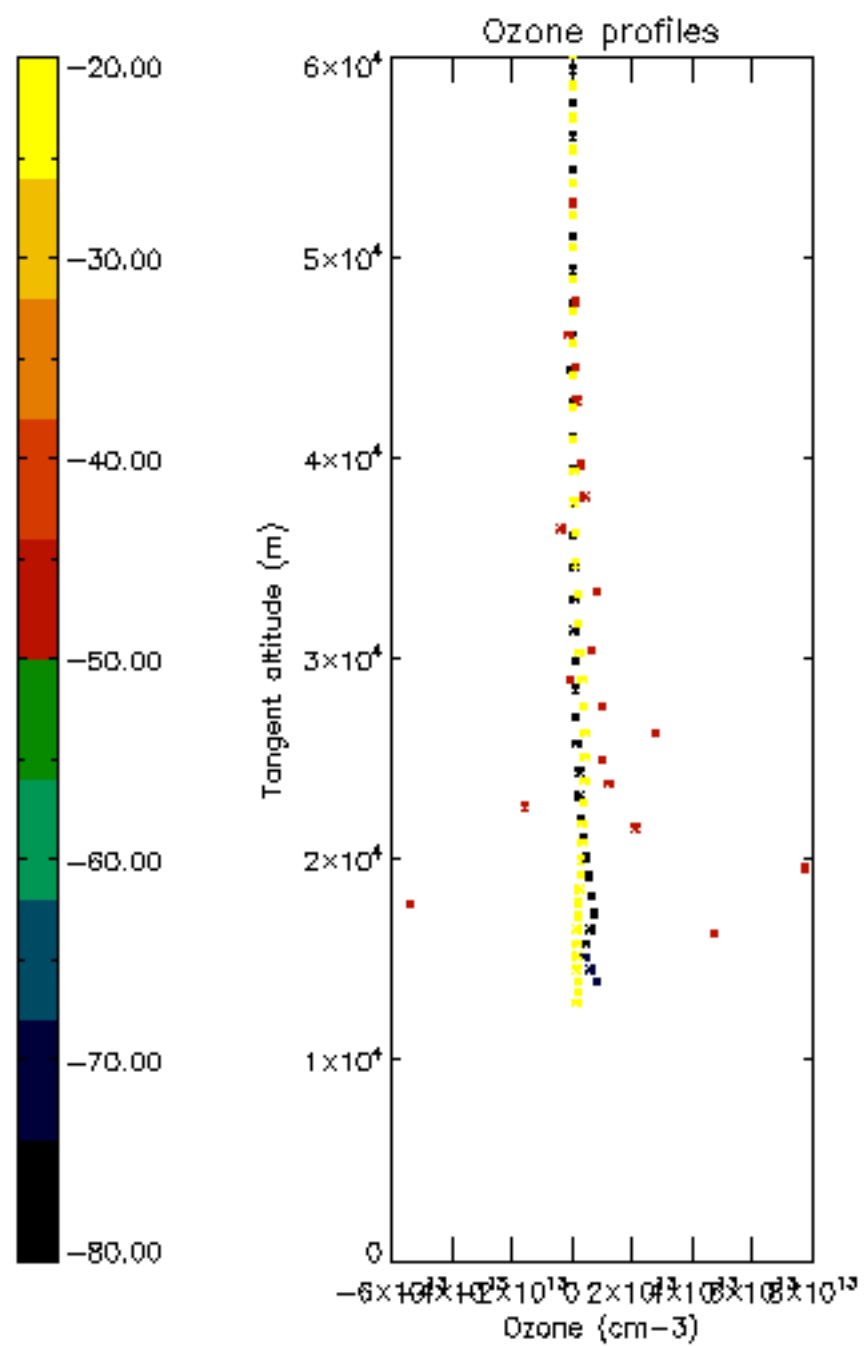


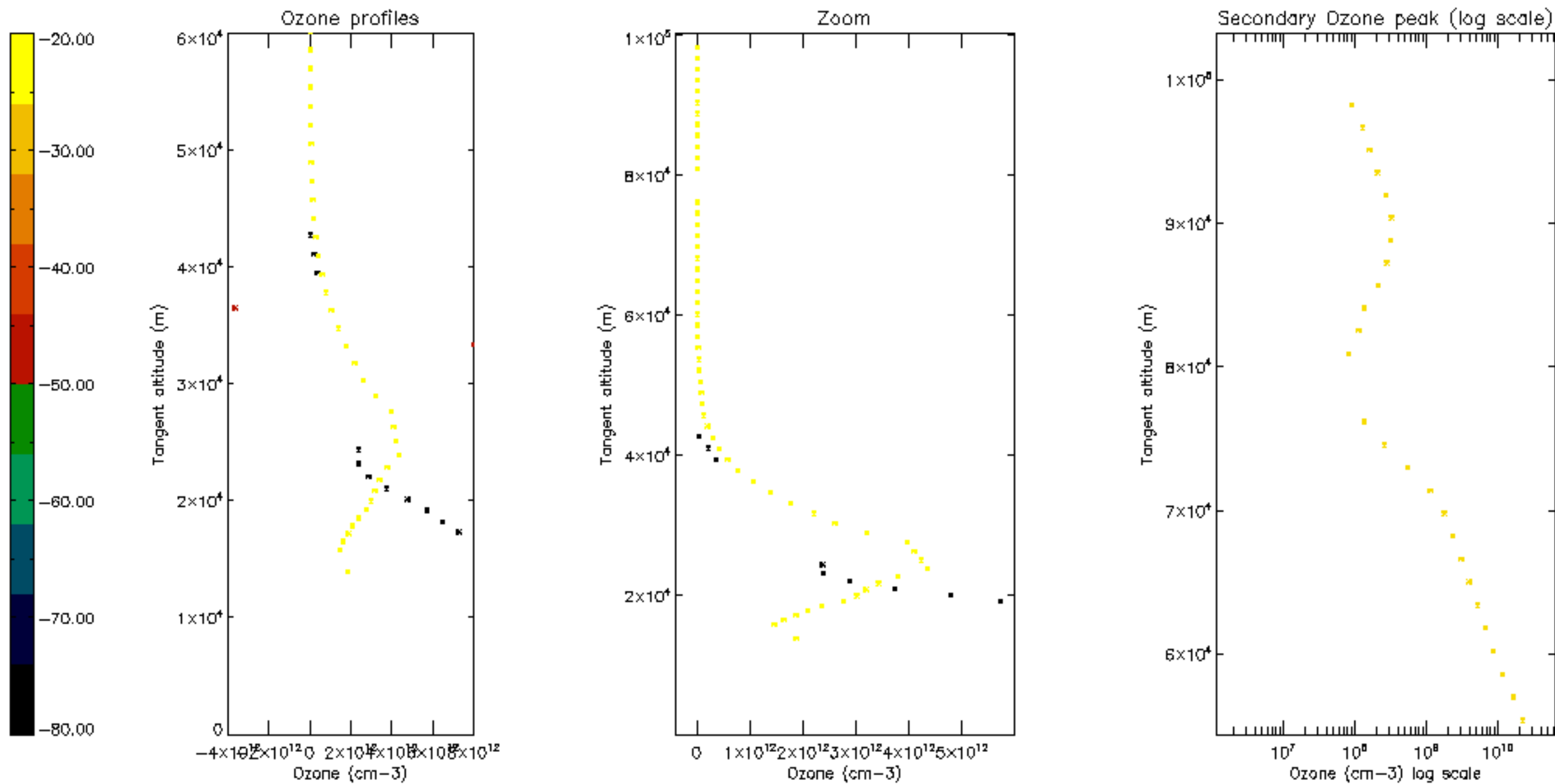
Percentage of star falling outside central band per profile



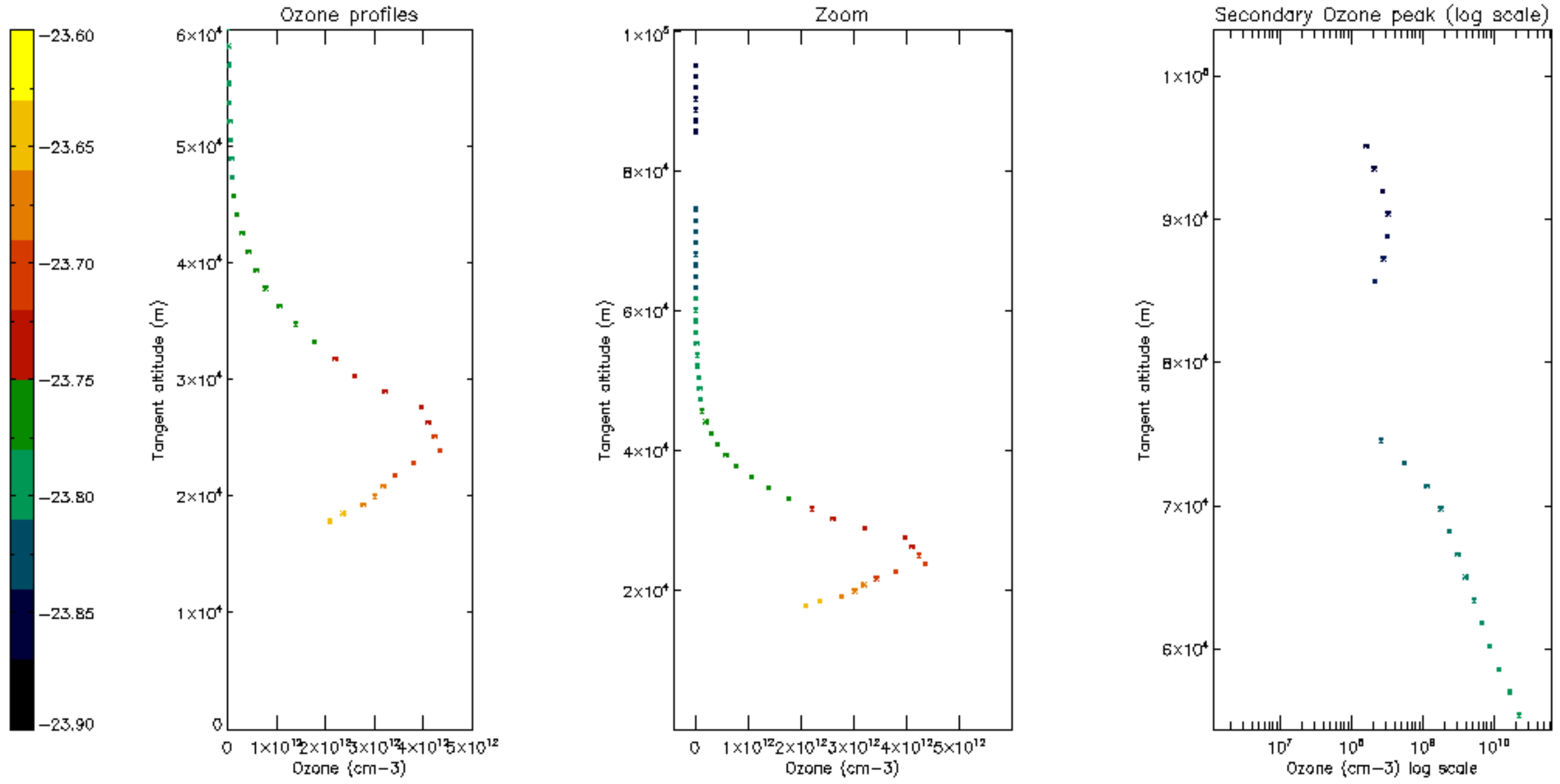
Percentage of saturation errors per profile

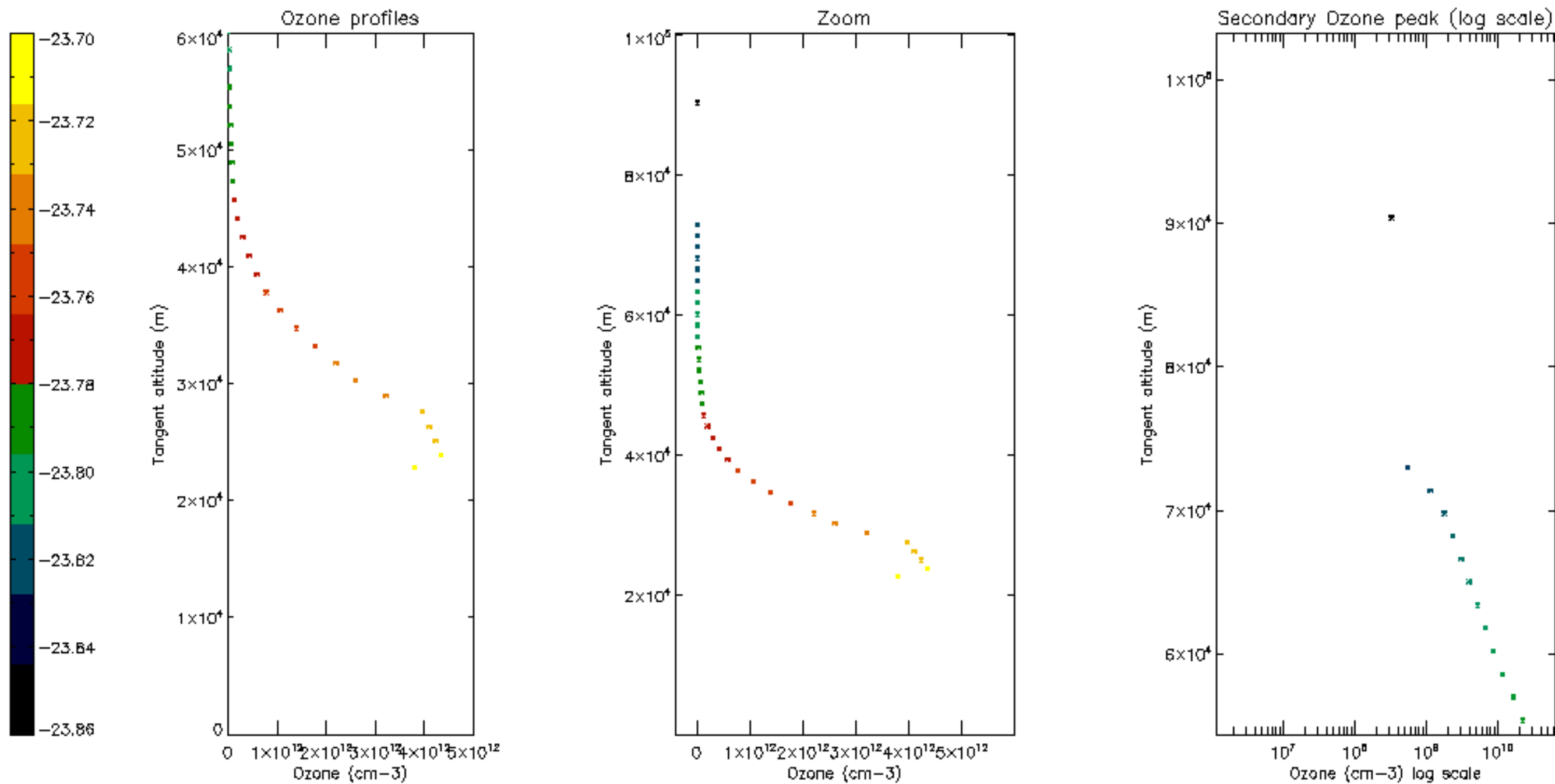


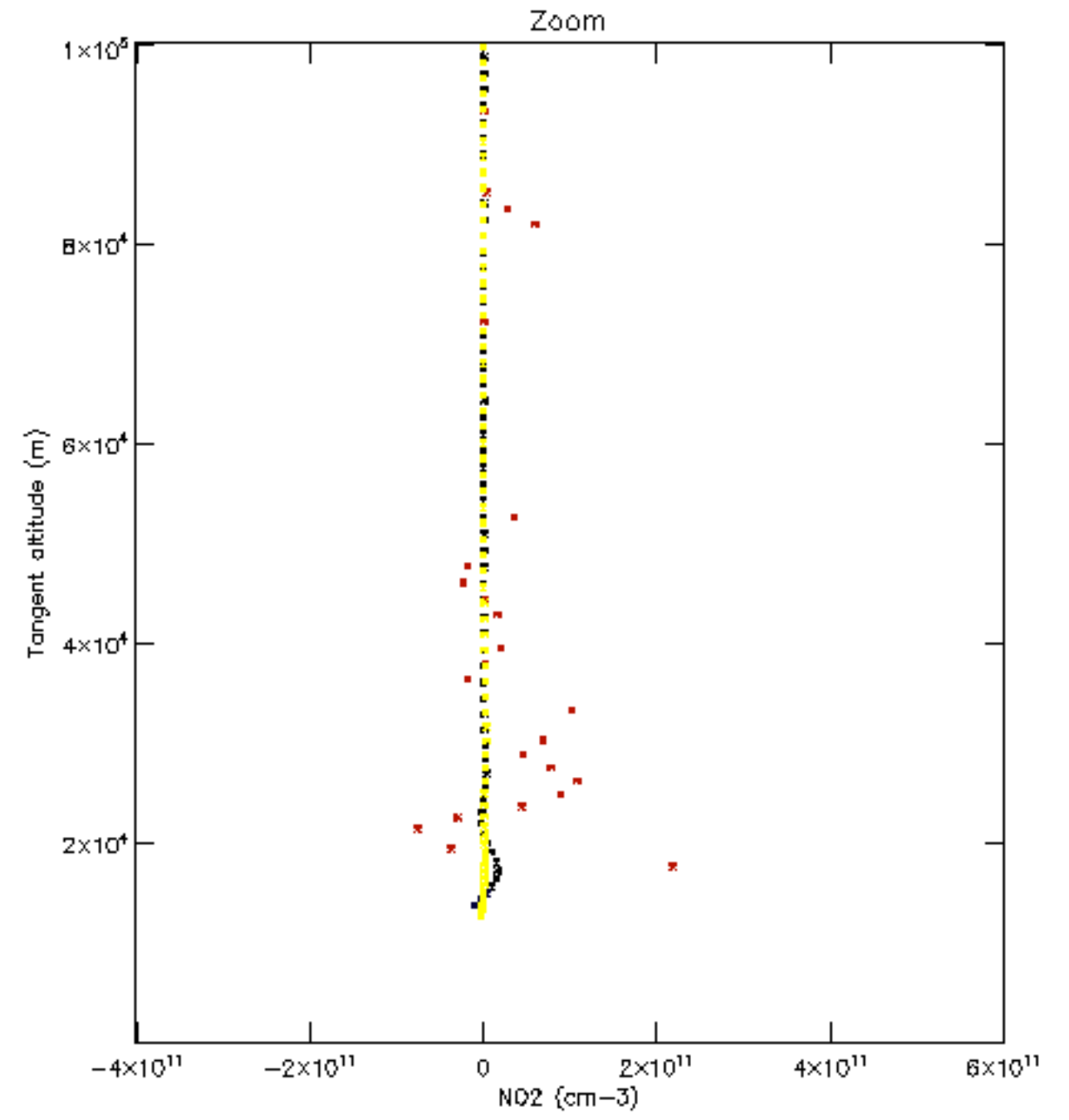
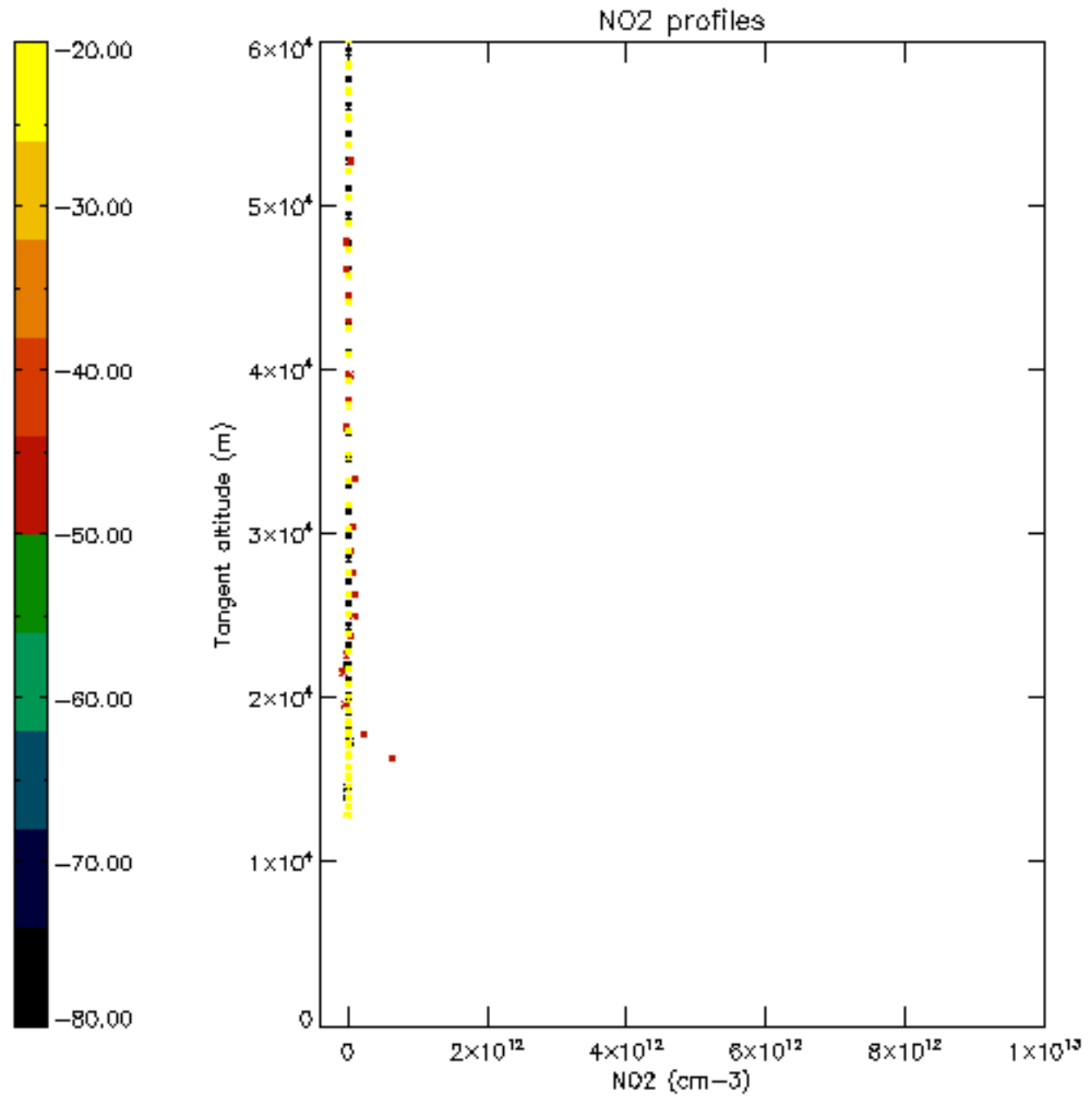


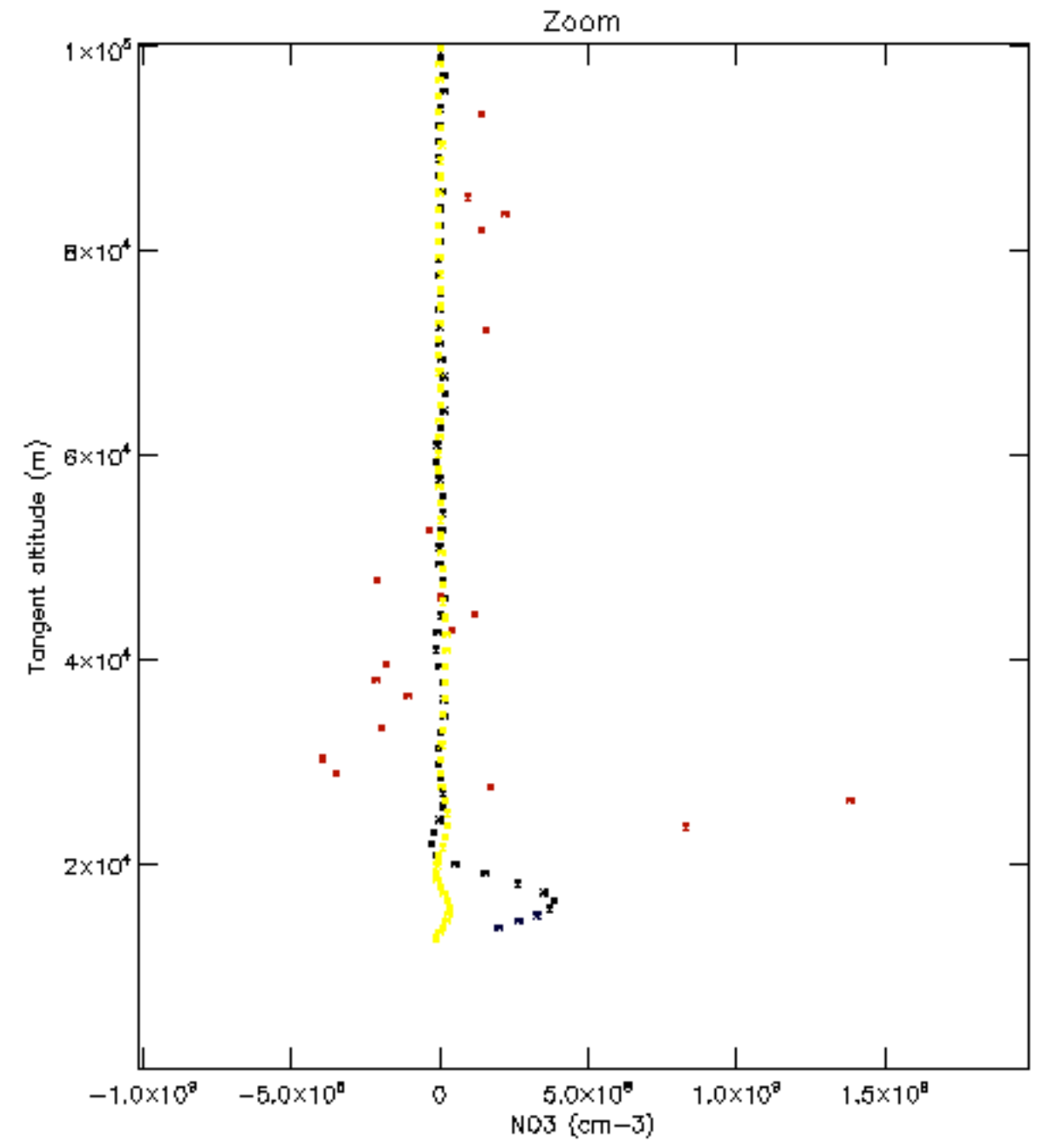
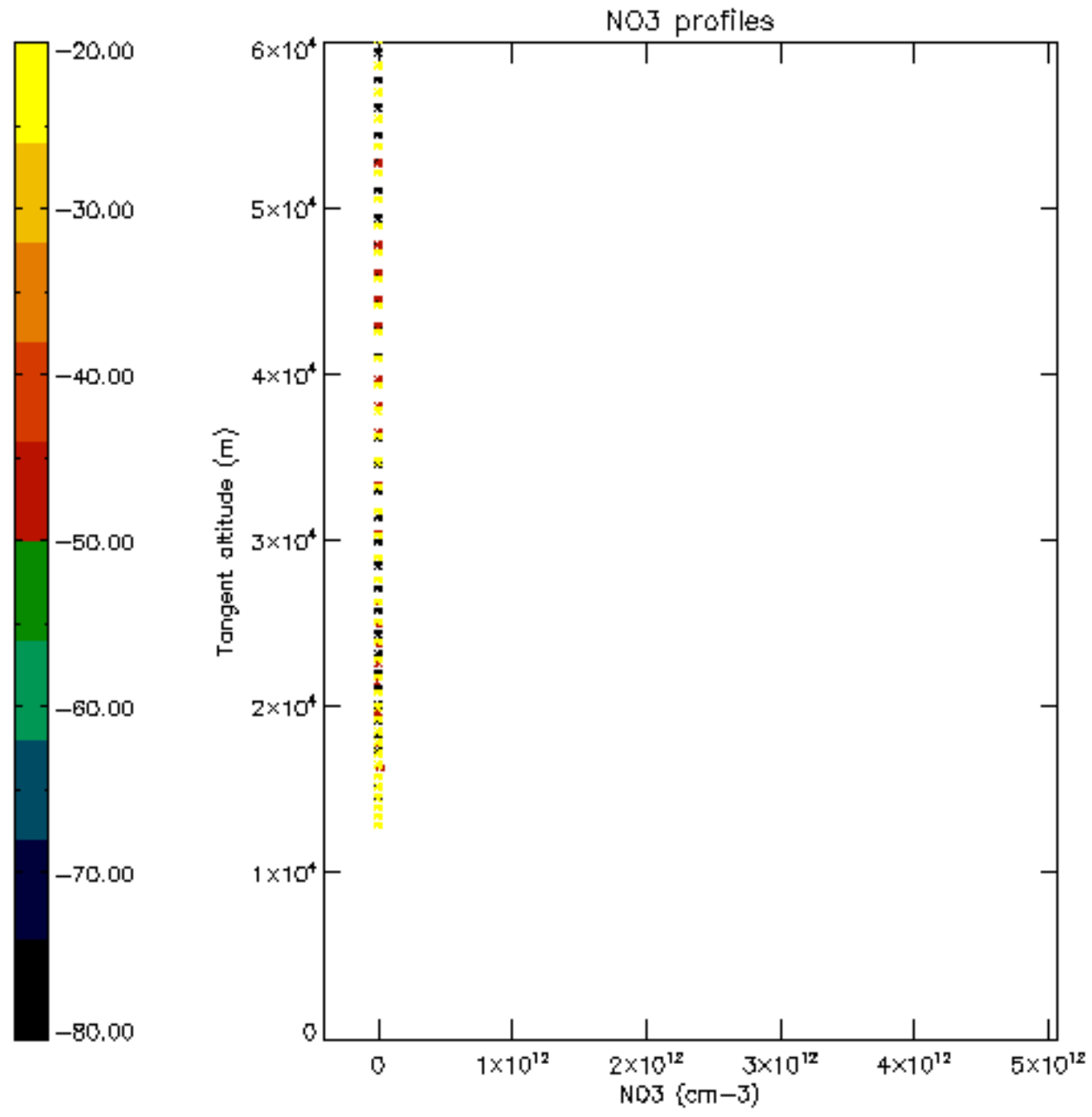


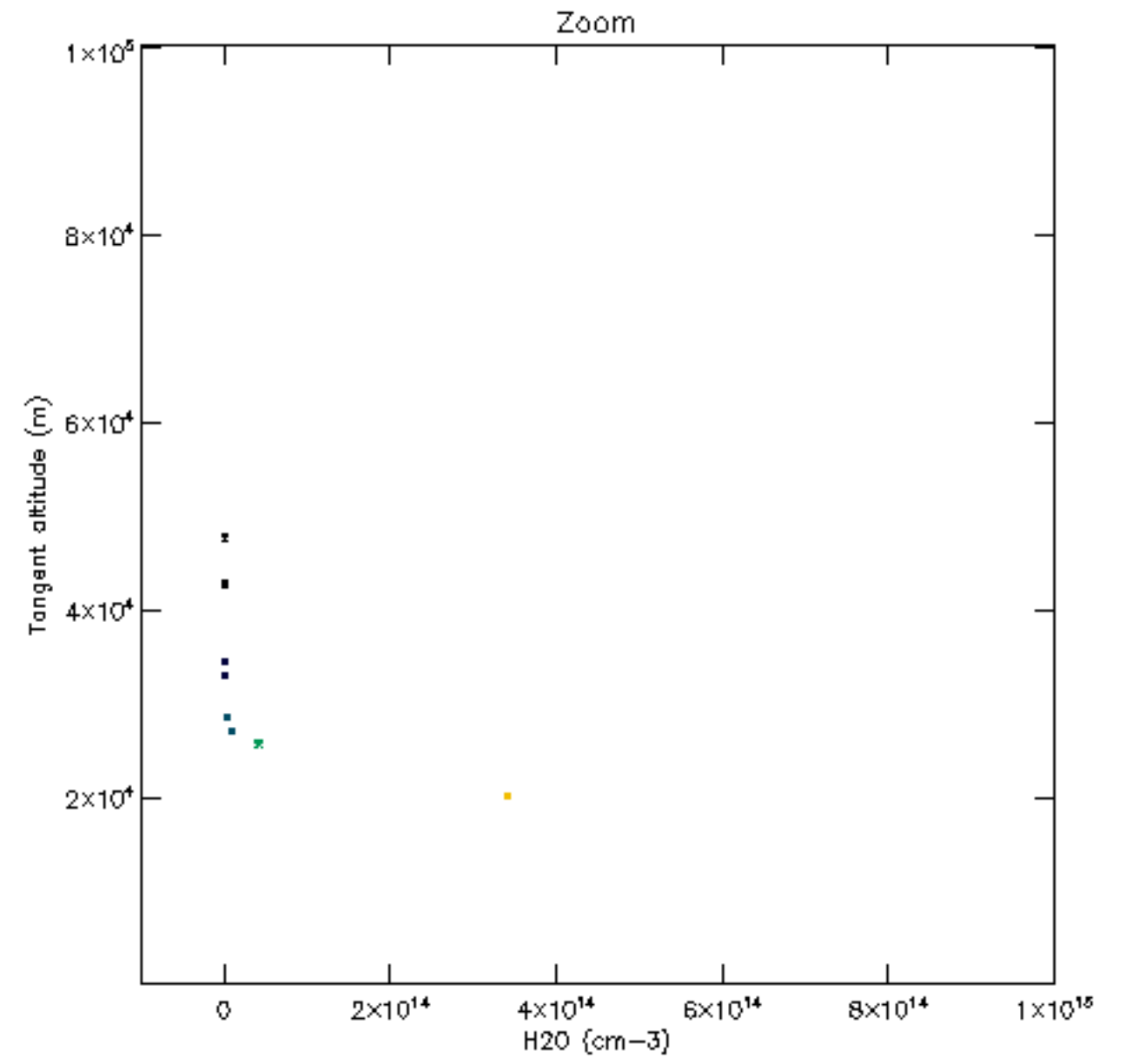
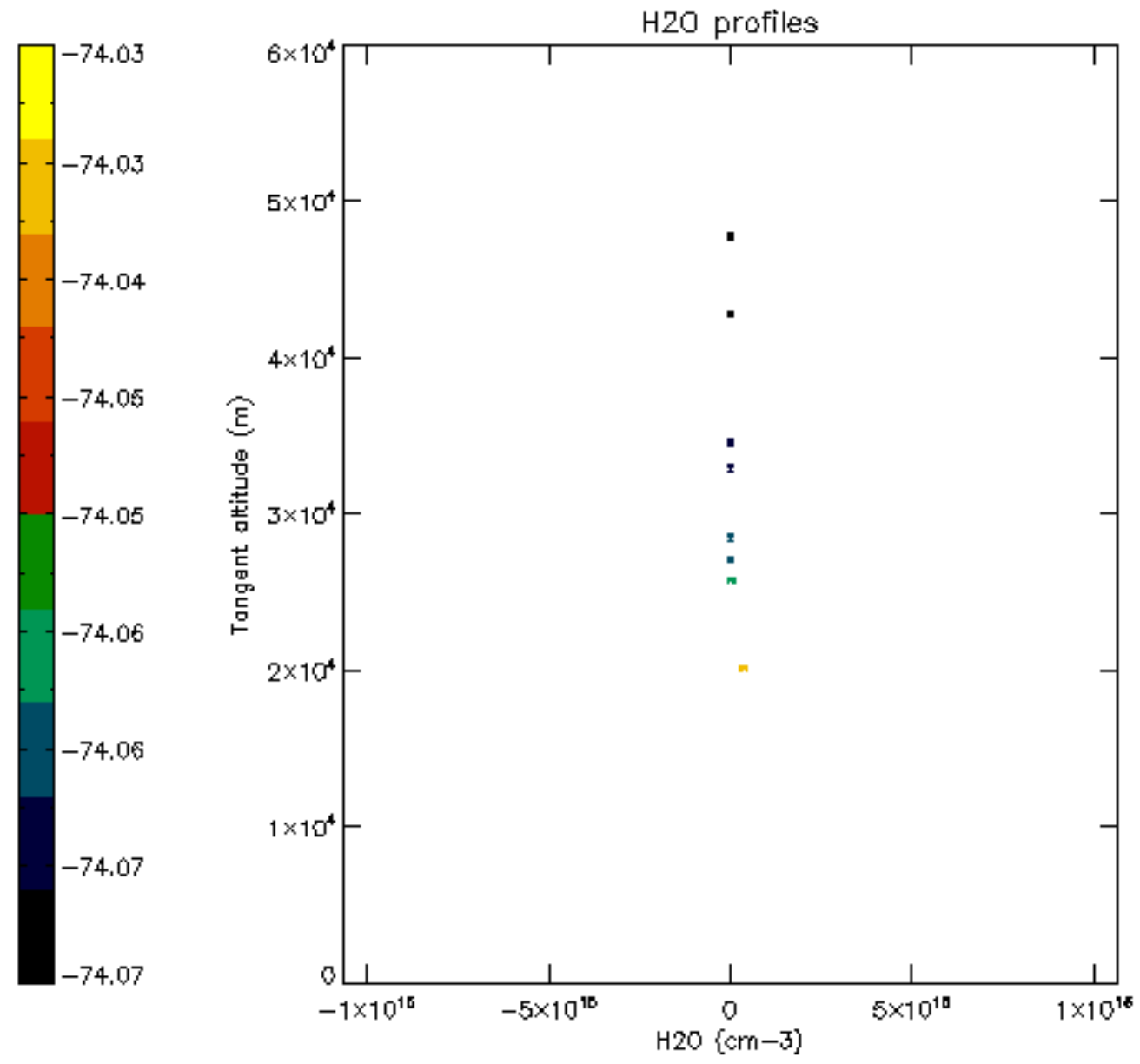




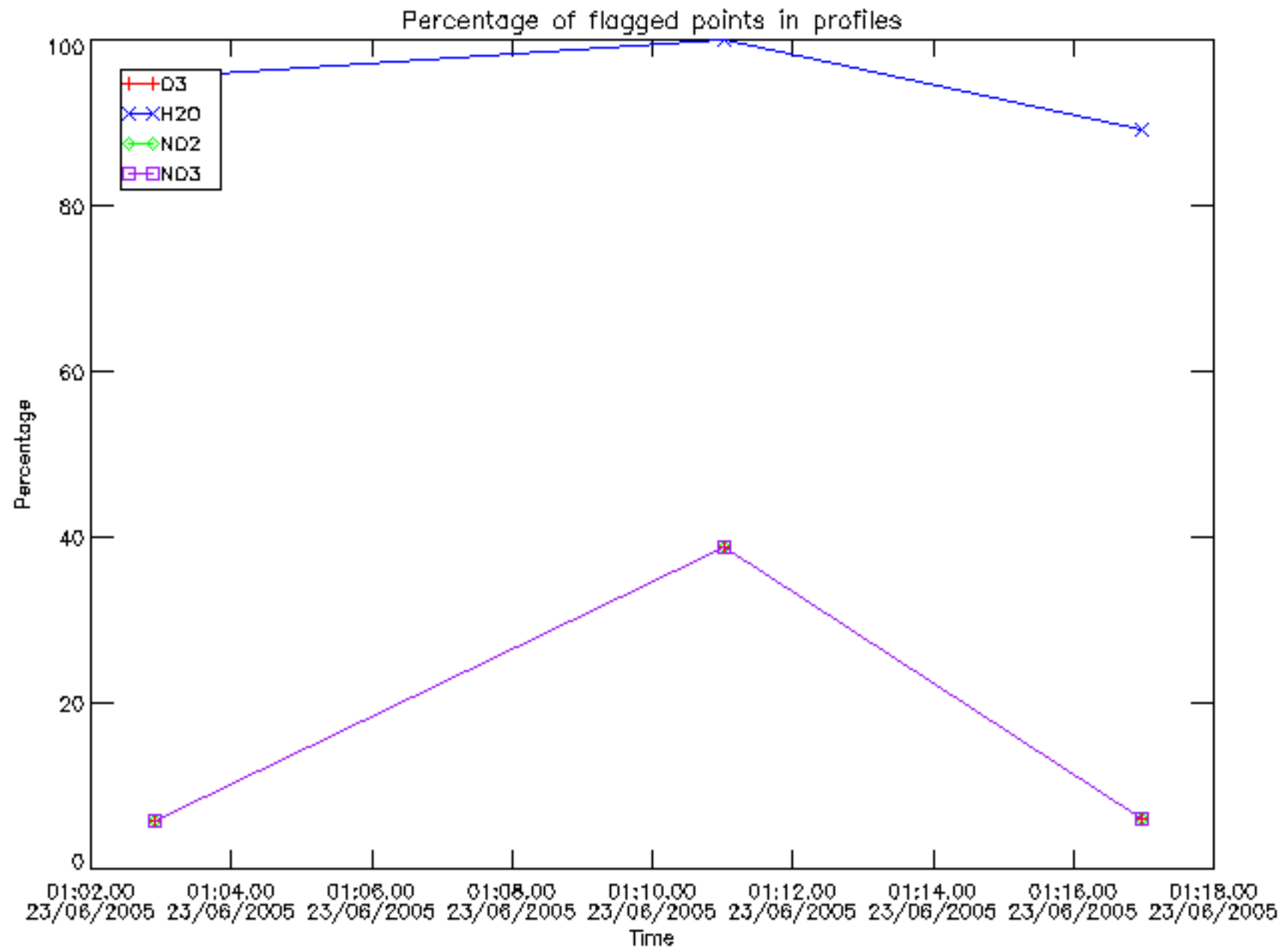




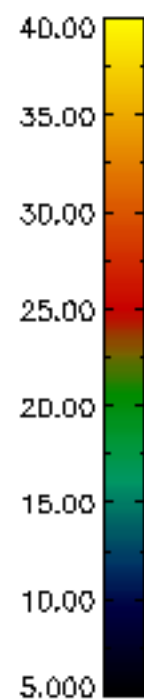
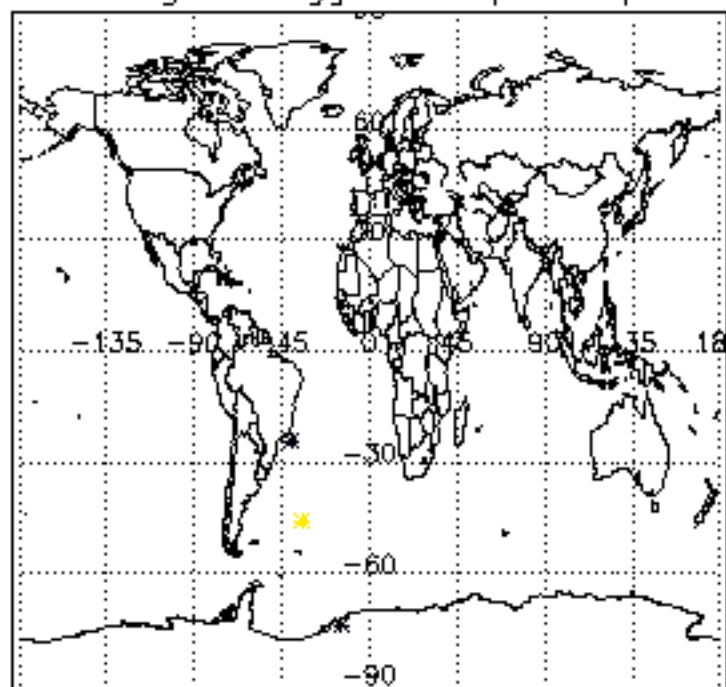




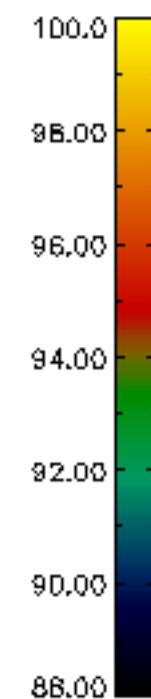
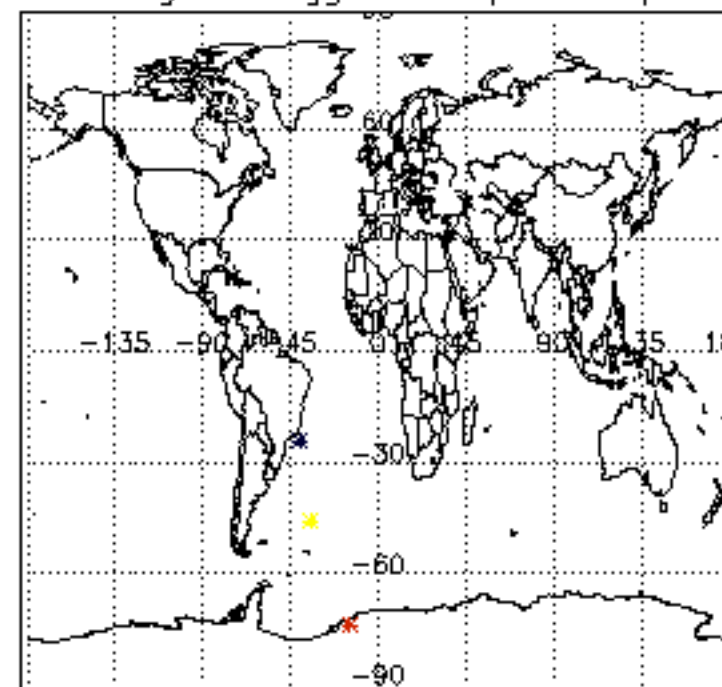




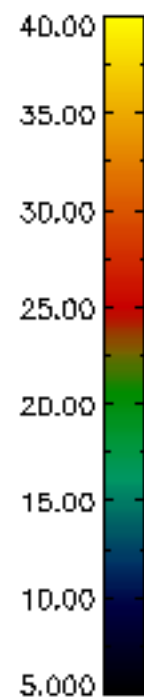
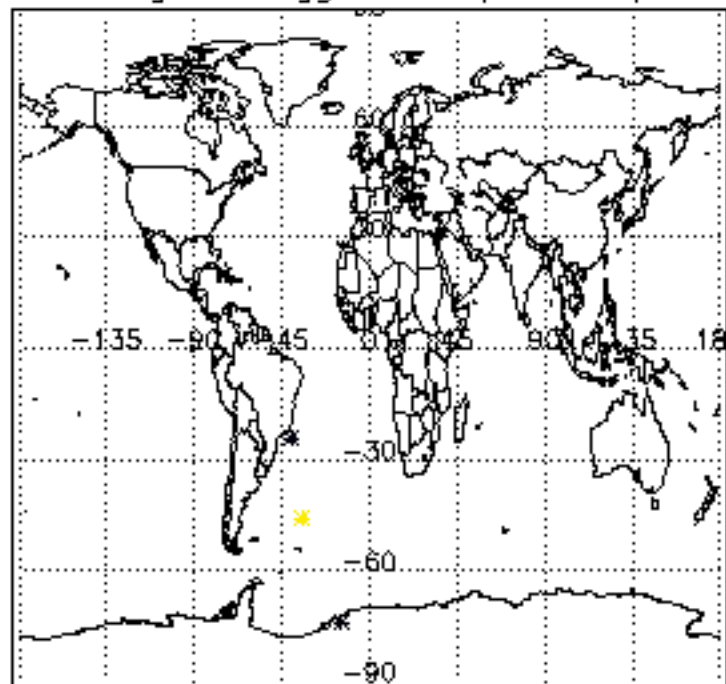
Percentage of flagged data per D3 profile



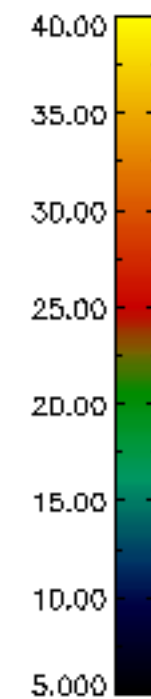
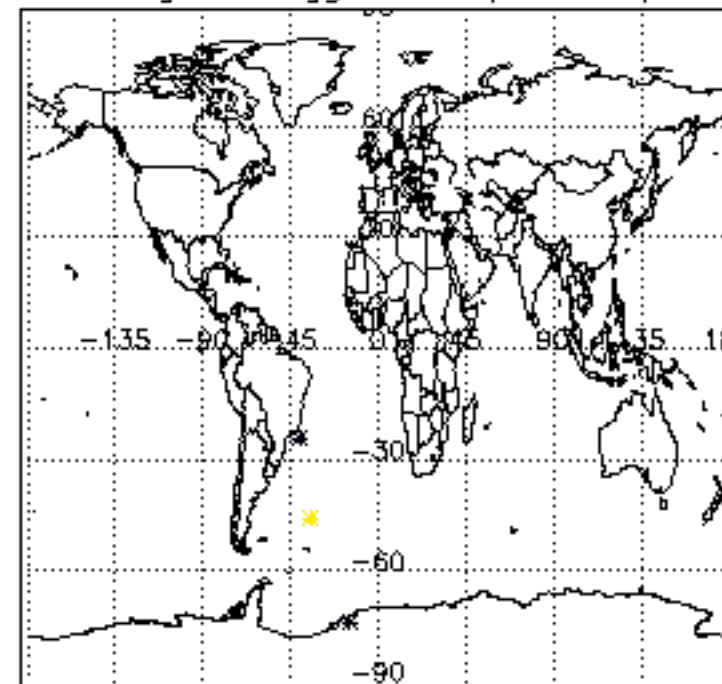
Percentage of flagged data per H2O profile

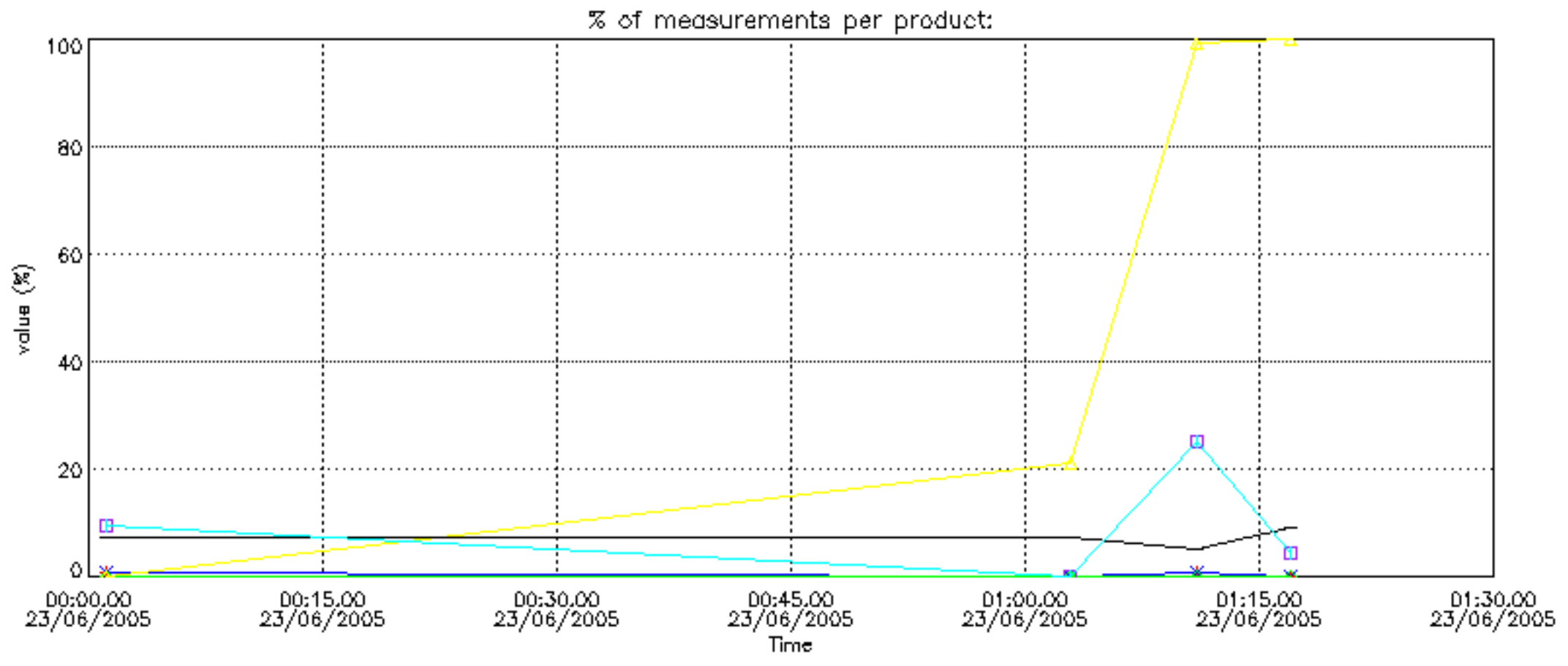


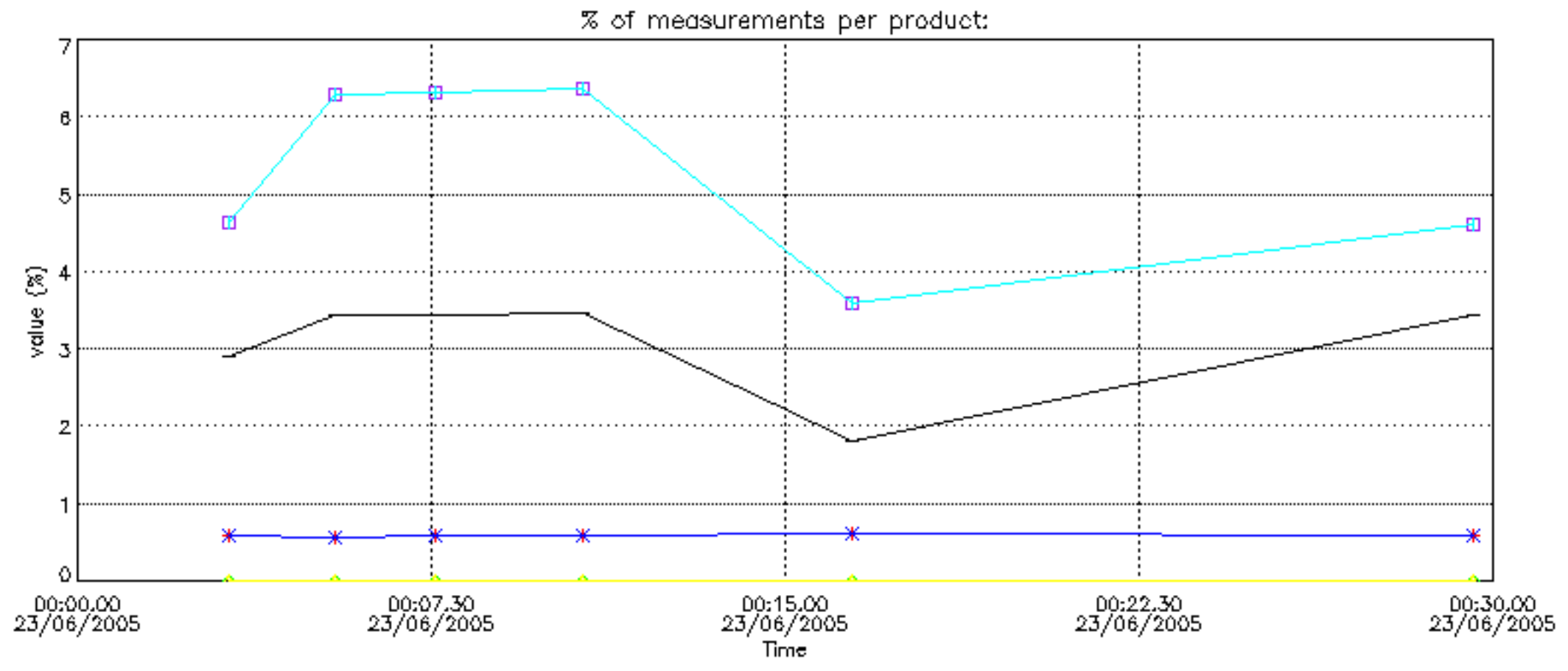
Percentage of flagged data per NO2 profile



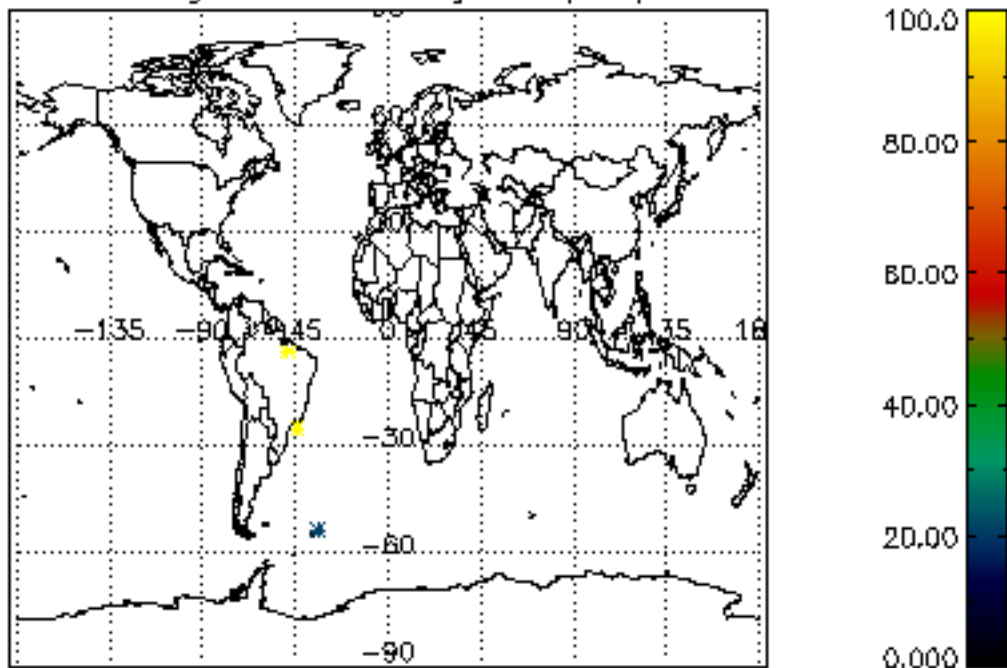
Percentage of flagged data per NO3 profile



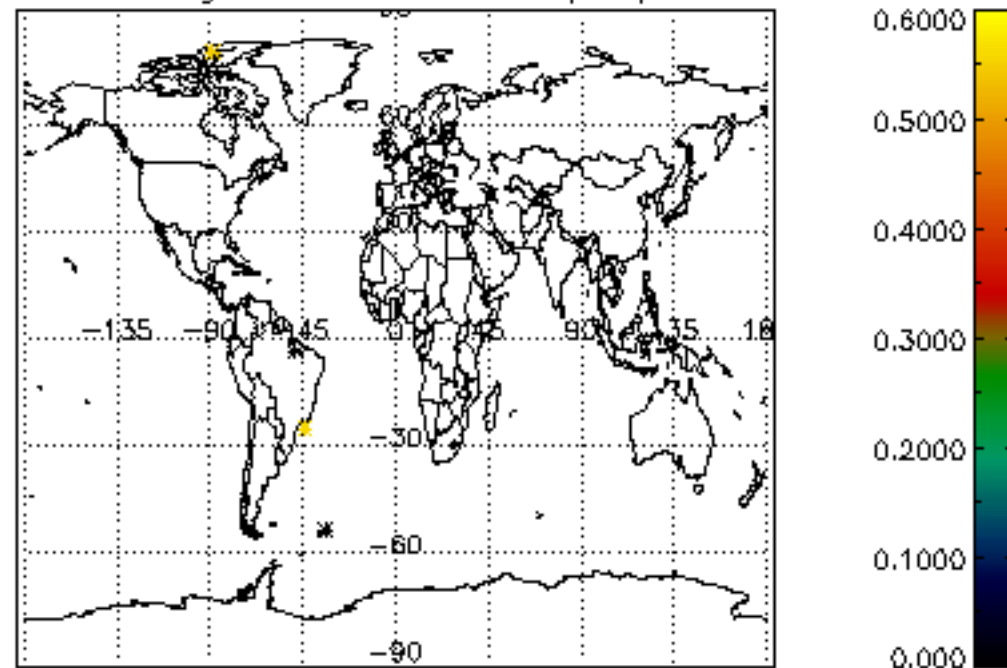




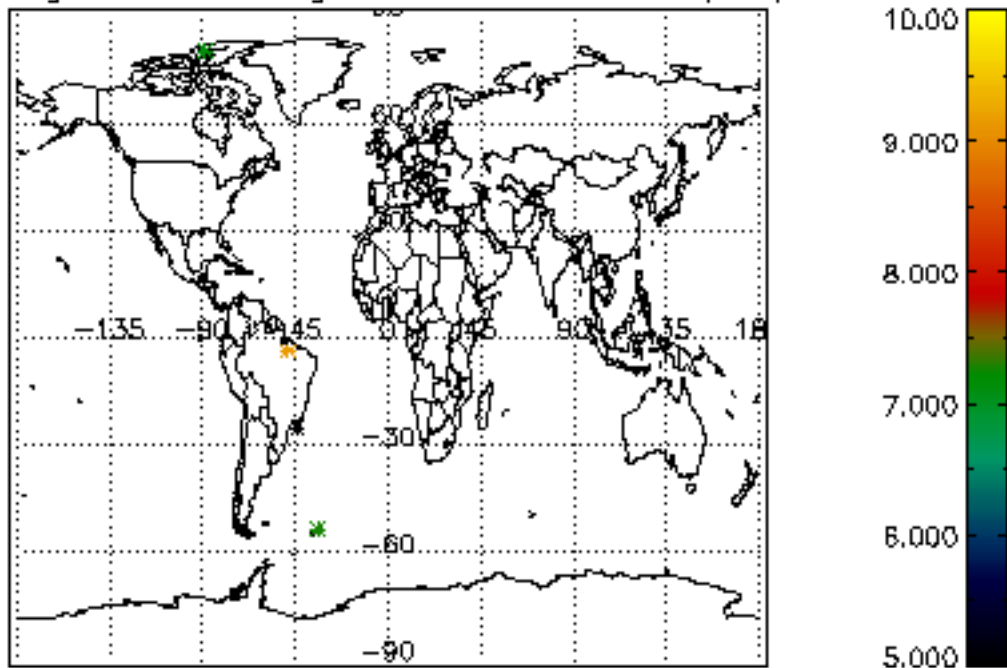
Percentage of cosmic ray hits per profile



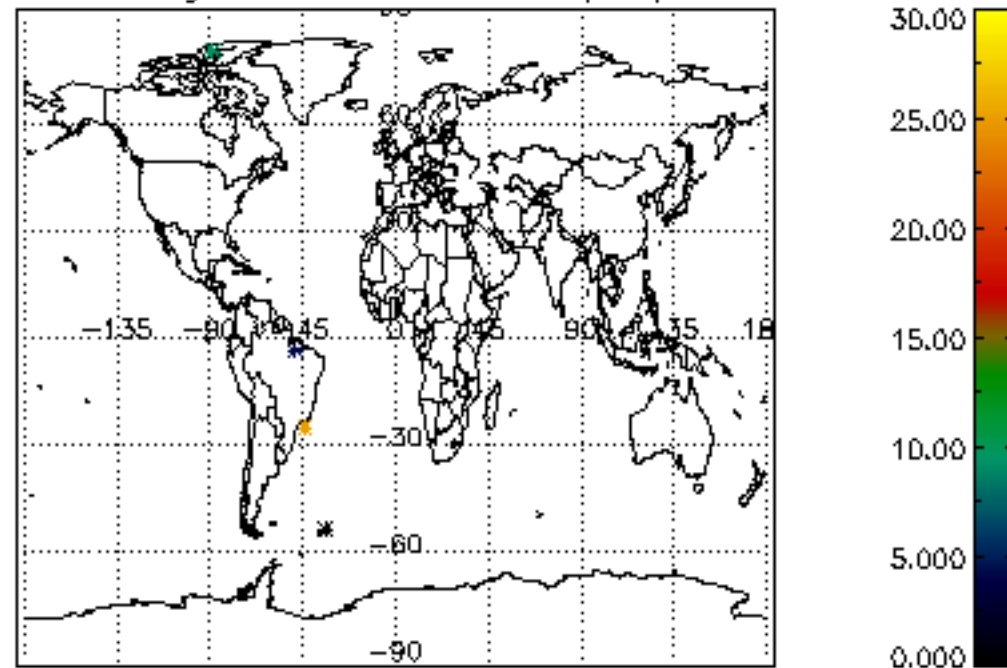
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

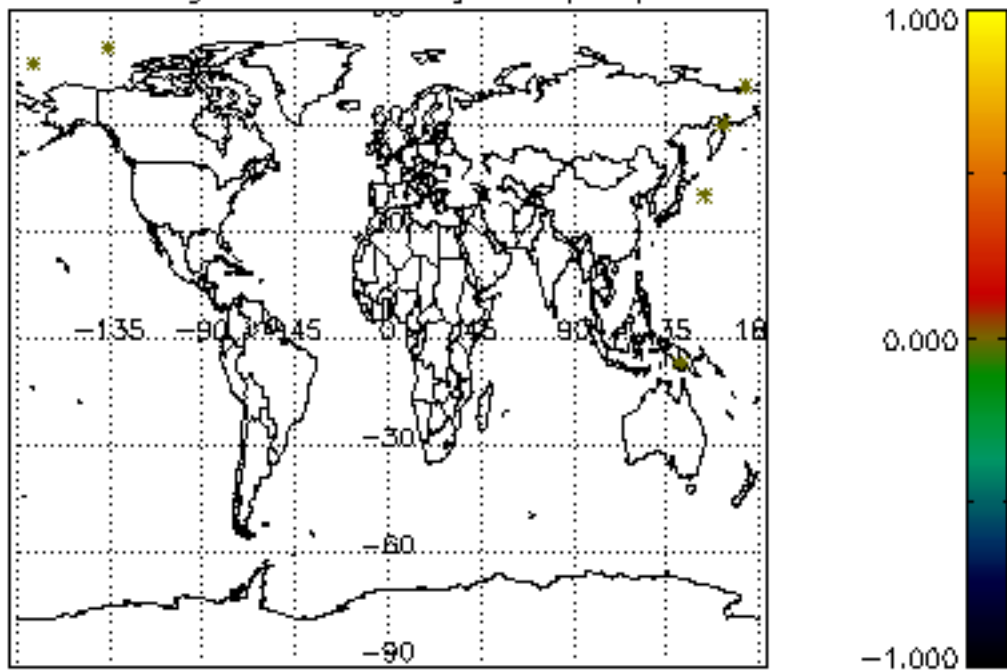


Percentage of saturation errors per profile

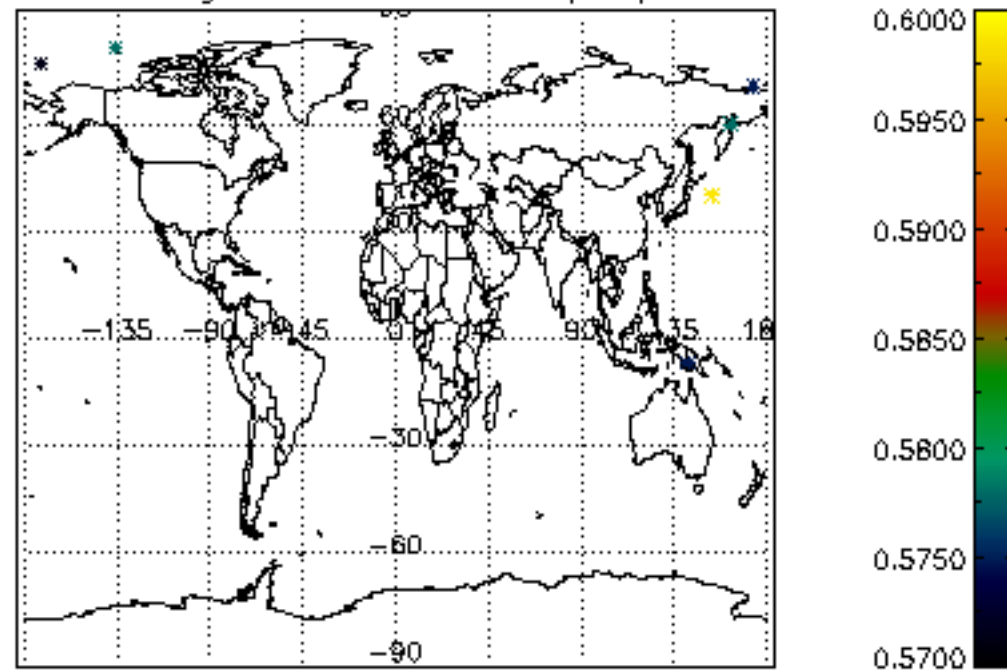




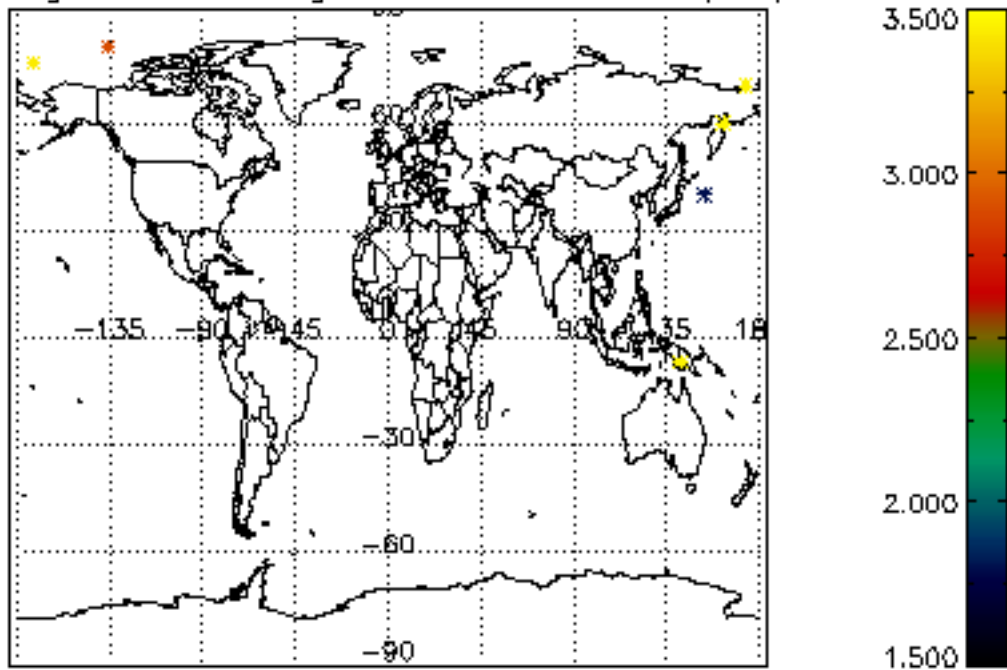
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

