

# 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 14:12:12
Data source version	GOMOS/6.01
Start time of products	16-03-2012 (16MAR2012 00:00:00)
Stop time of products	17-03-2012 (17MAR2012 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	15
Nb of prods with errors	0

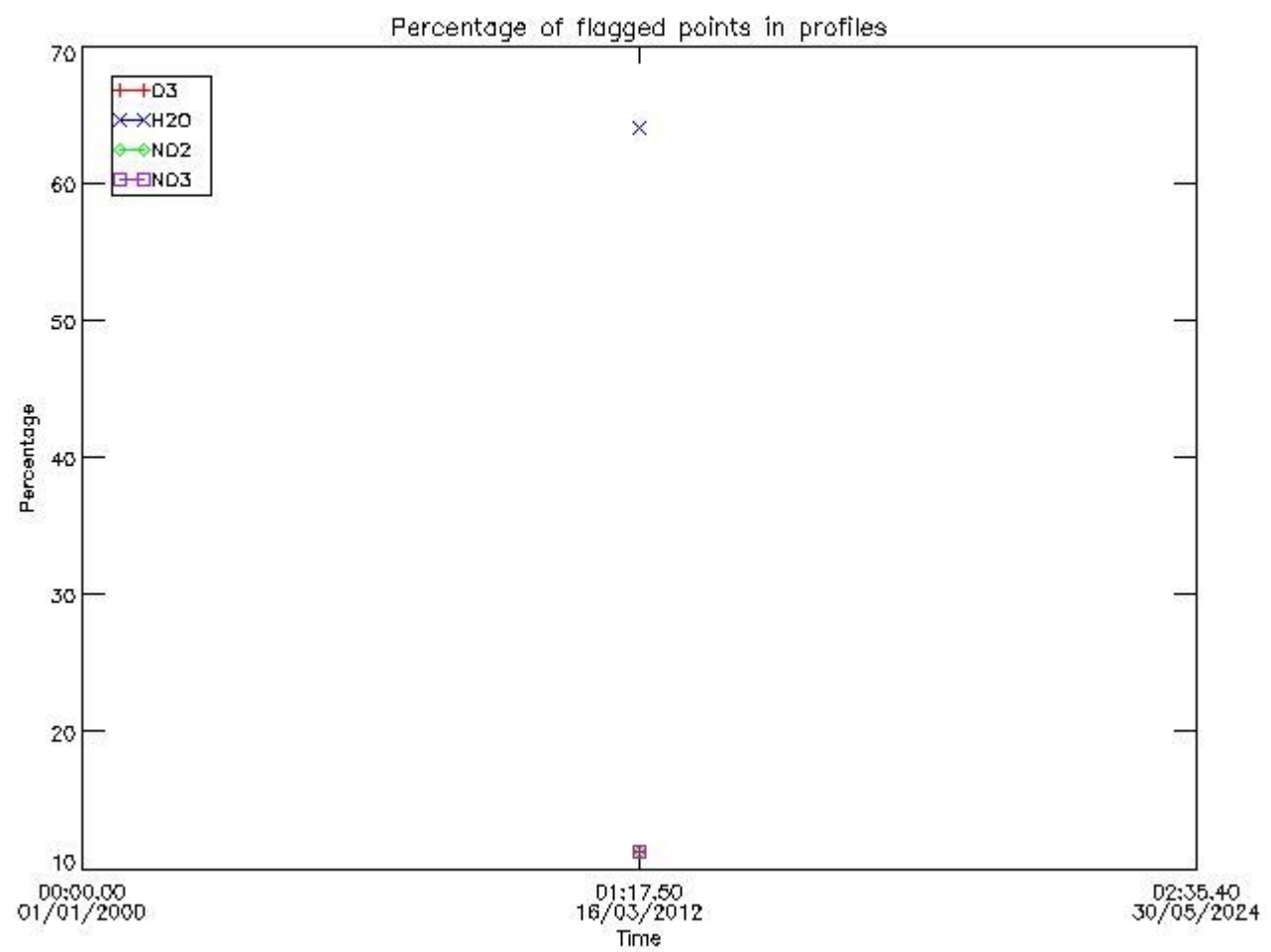
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20120316_004117_000000373112_00361_52530_5386.N1	16-MAR-2012 00:41:17	Bright	36.500	92	53Eps Cyg	2.5000	4500.0	73	52530	No
2	GOM_NL__2PRFIN20120316_011750_000000453112_00362_52531_5389.N1	16-MAR-2012 01:17:50	Dark	45.000	4	Alp1Cen	-0.010000	5800.0	90	52531	No
3	GOM_NL__2PRFIN20120316_022131_000000543112_00362_52531_5390.N1	16-MAR-2012 02:21:31	Bright	53.500	92	53Eps Cyg	2.5000	4500.0	107	52531	No
4	GOM_NL__2PRFIN20120316_040145_000000363112_00363_52532_5404.N1	16-MAR-2012 04:01:45	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	52532	No
5	GOM_NL__2PRFIN20120316_054159_000000373112_00364_52533_5413.N1	16-MAR-2012 05:41:59	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	52533	No
6	GOM_NL__2PRFIN20120316_072213_000000543112_00365_52534_5516.N1	16-MAR-2012 07:22:13	Bright	53.500	92	53Eps Cyg	2.5000	4500.0	107	52534	No
7	GOM_NL__2PRFIN20120316_090227_000000393112_00366_52535_5558.N1	16-MAR-2012 09:02:27	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	52535	No
8	GOM_NL__2PRFIN20120316_104241_000000373112_00367_52536_5591.N1	16-MAR-2012 10:42:41	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	52536	No
9	GOM_NL__2PRFIN20120316_122255_000000363112_00368_52537_5629.N1	16-MAR-2012 12:22:55	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	52537	No
10	GOM_NL__2PRFIN20120316_140309_000000383112_00369_52538_5660.N1	16-MAR-2012 14:03:09	Bright	37.500	92	53Eps Cyg	2.5000	4500.0	75	52538	No
11	GOM_NL__2PRFIN20120316_154323_000000363112_00370_52539_5760.N1	16-MAR-2012 15:43:23	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	52539	No
12	GOM_NL__2PRFIN20120316_172338_000000363112_00371_52540_5772.N1	16-MAR-2012 17:23:38	Bright	36.000	92	53Eps Cyg	2.5000	4500.0	72	52540	No
13	GOM_NL__2PRFIN20120316_190352_000000393112_00372_52541_5803.N1	16-MAR-2012 19:03:52	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	52541	No
14	GOM_NL__2PRFIN20120316_204406_000000353112_00373_52542_5831.N1	16-MAR-2012 20:44:06	Bright	34.500	92	53Eps Cyg	2.5000	4500.0	69	52542	No
15	GOM_NL__2PRFIN20120316_222420_000000343112_00374_52543_5856.N1	16-MAR-2012 22:24:20	Bright	33.500	92	53Eps Cyg	2.5000	4500.0	67	52543	No

## 3. Quality information per product

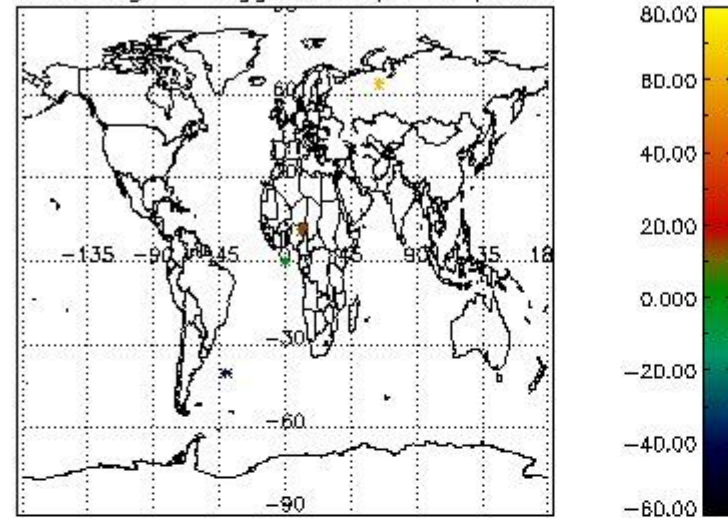
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

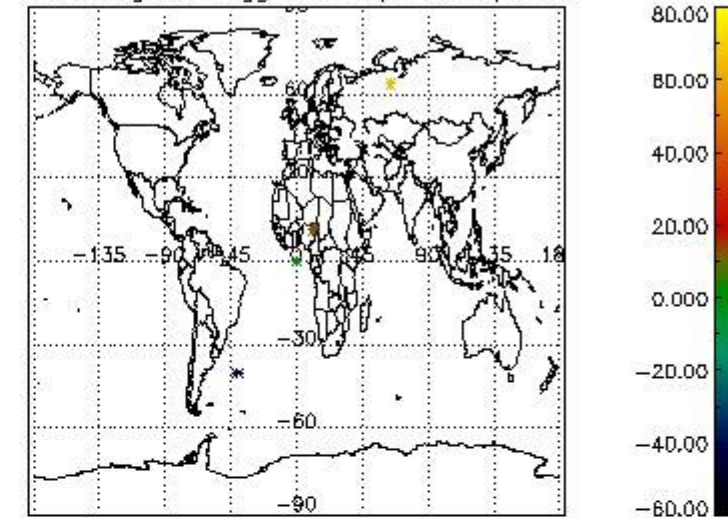


*3.2 Plot quality information per product (world map)*

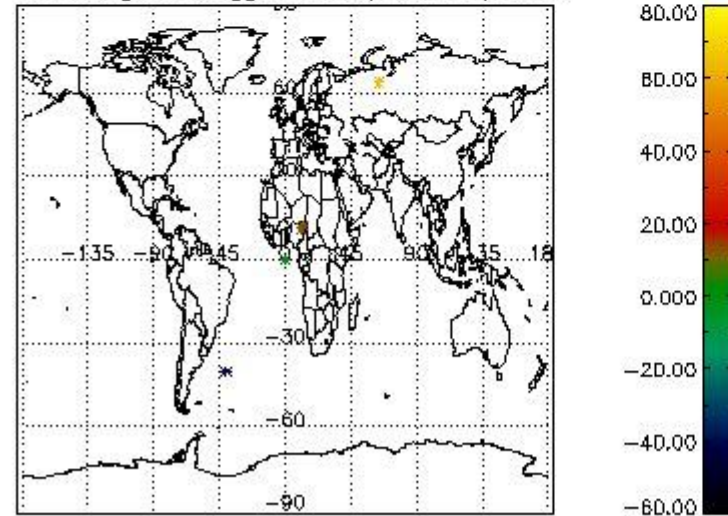
Percentage of flagged data per O3 profile



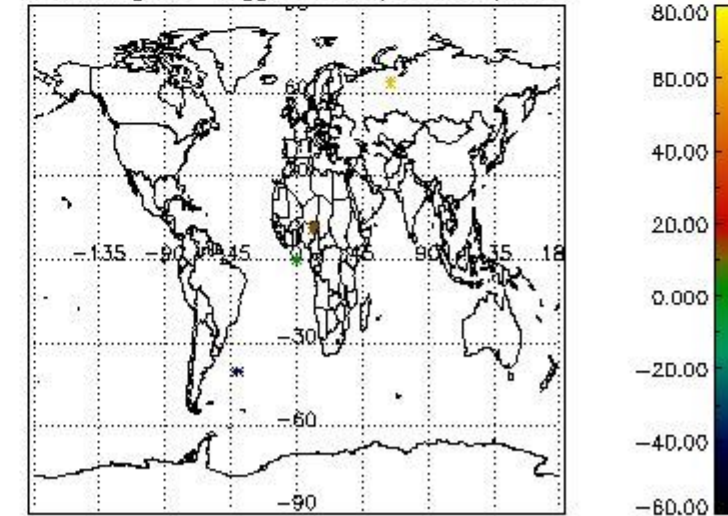
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

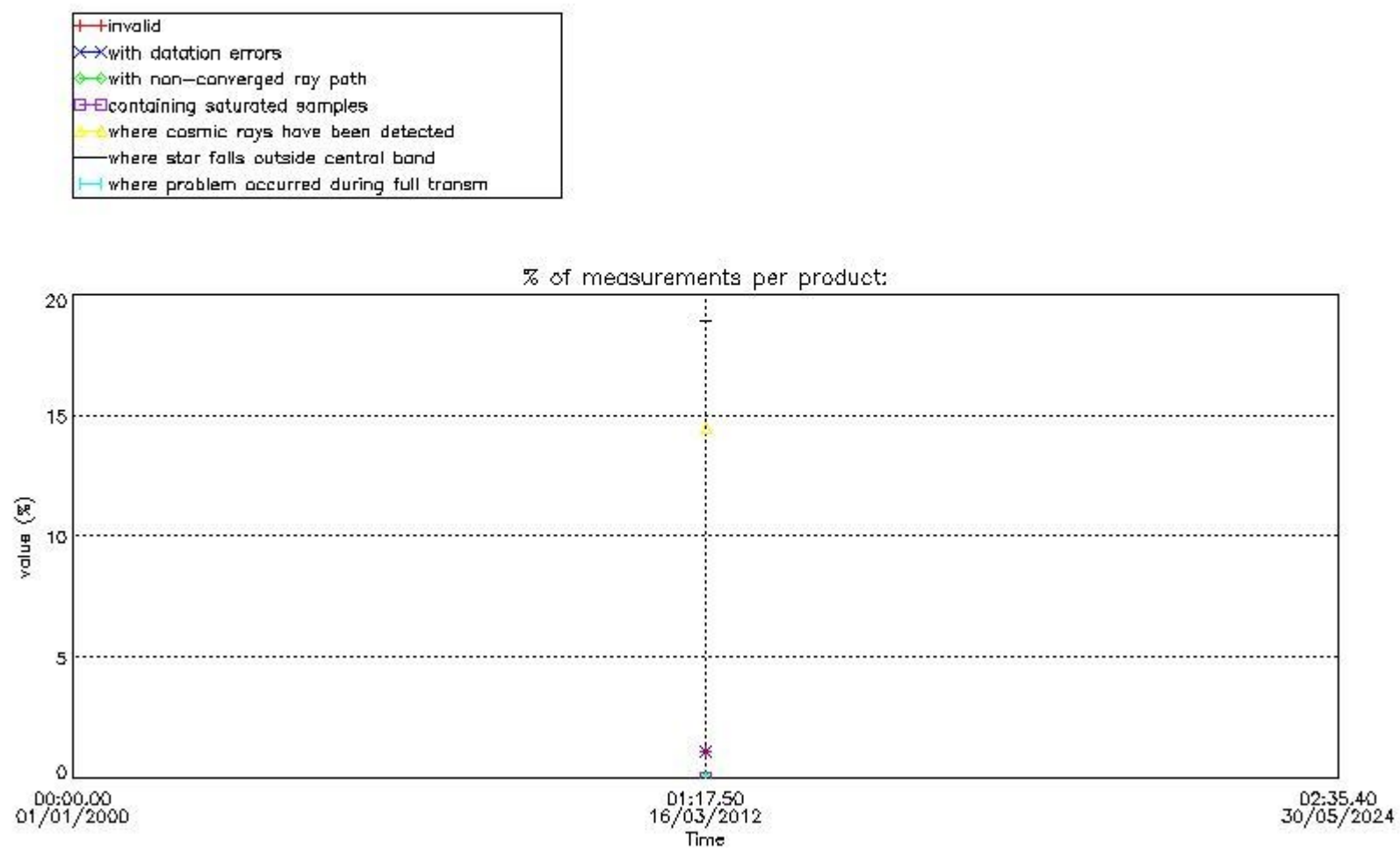


#### 4. Level 1 quality information per product

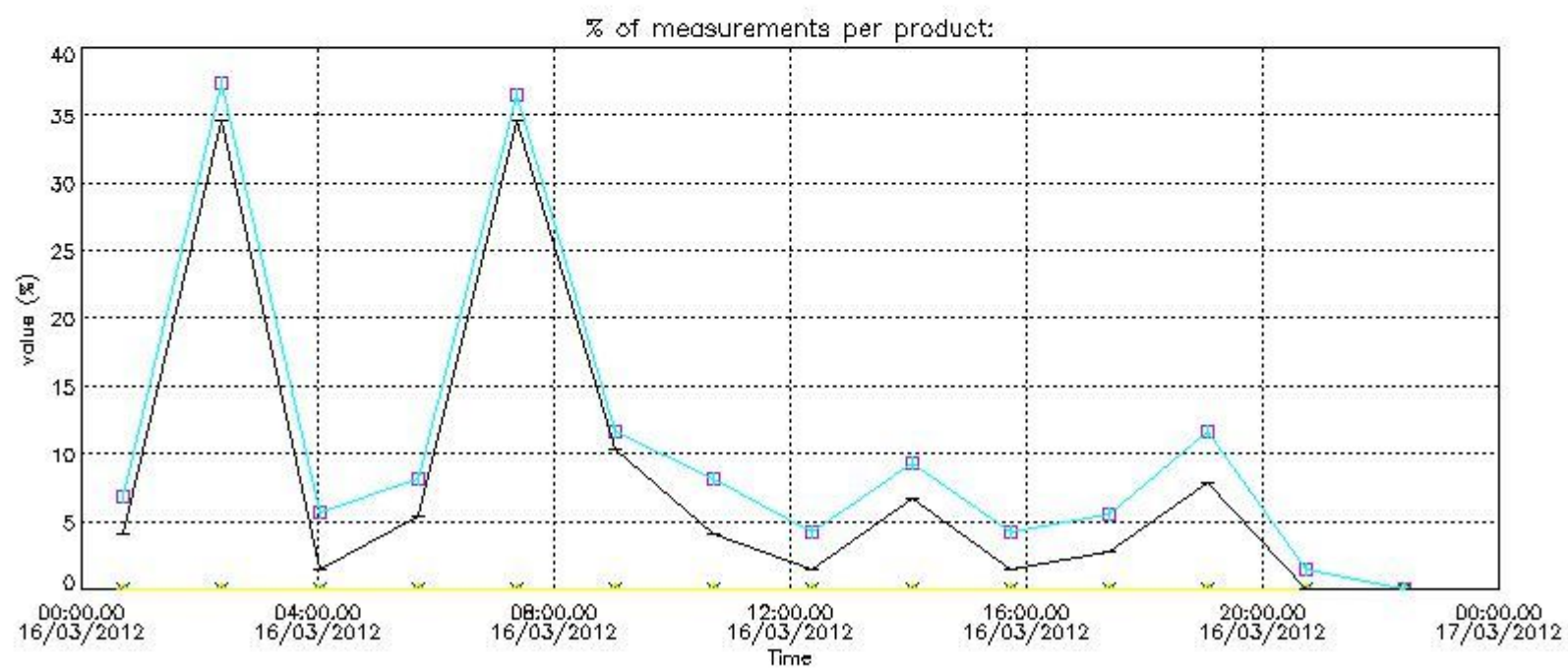
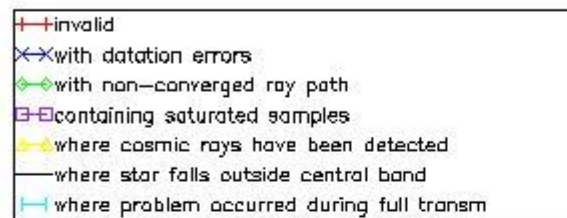
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



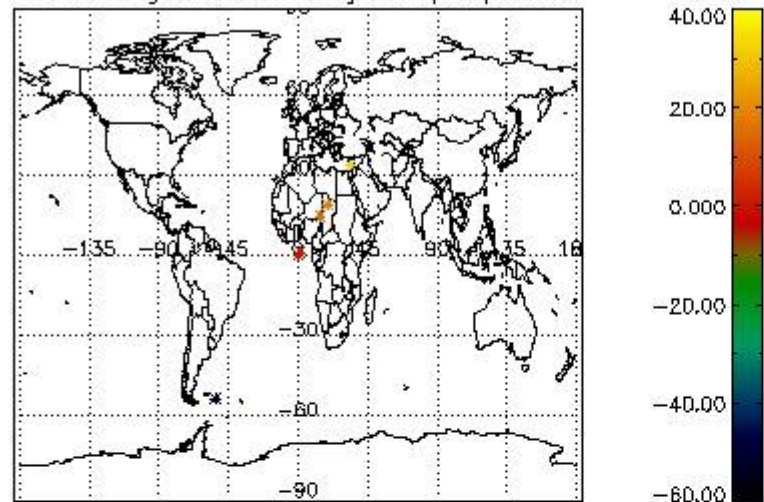
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



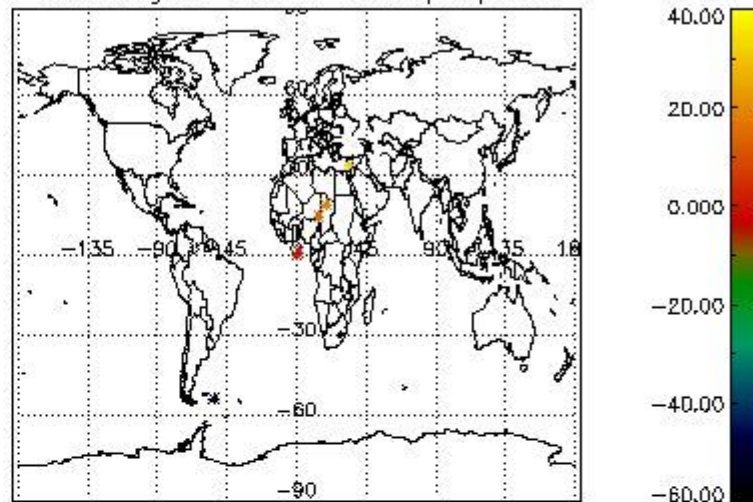
4.2 Plot quality information per product coming from level 1b processing (world map)

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

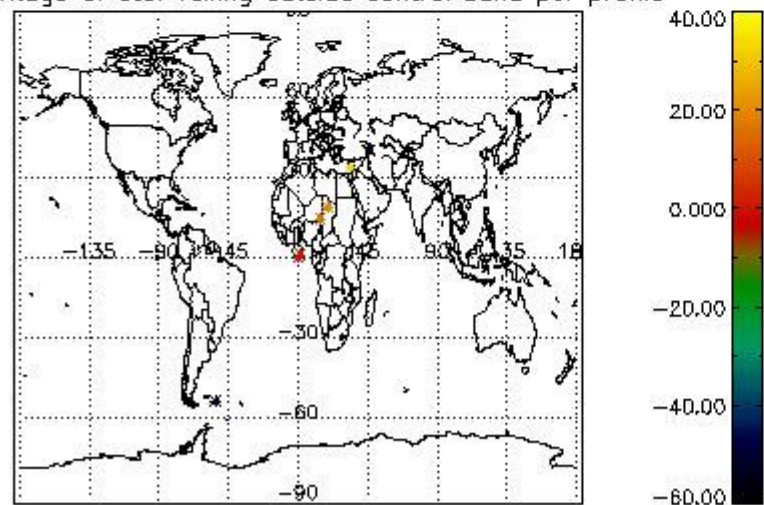
Percentage of cosmic ray hits per profile



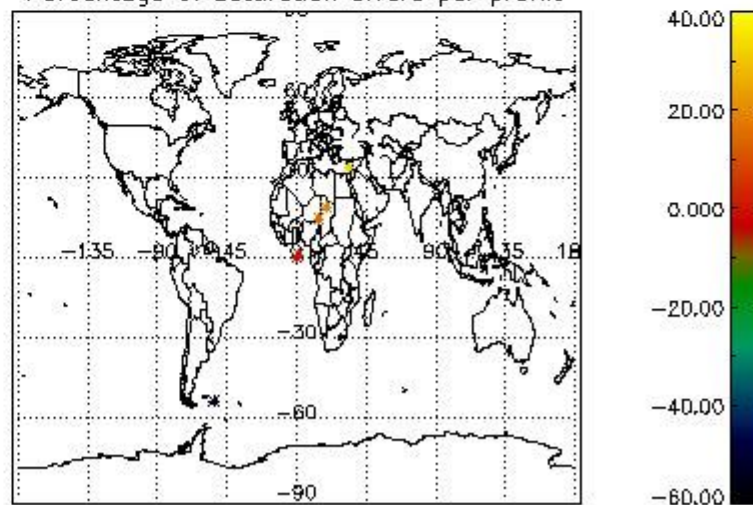
Percentage of datation errors per profile



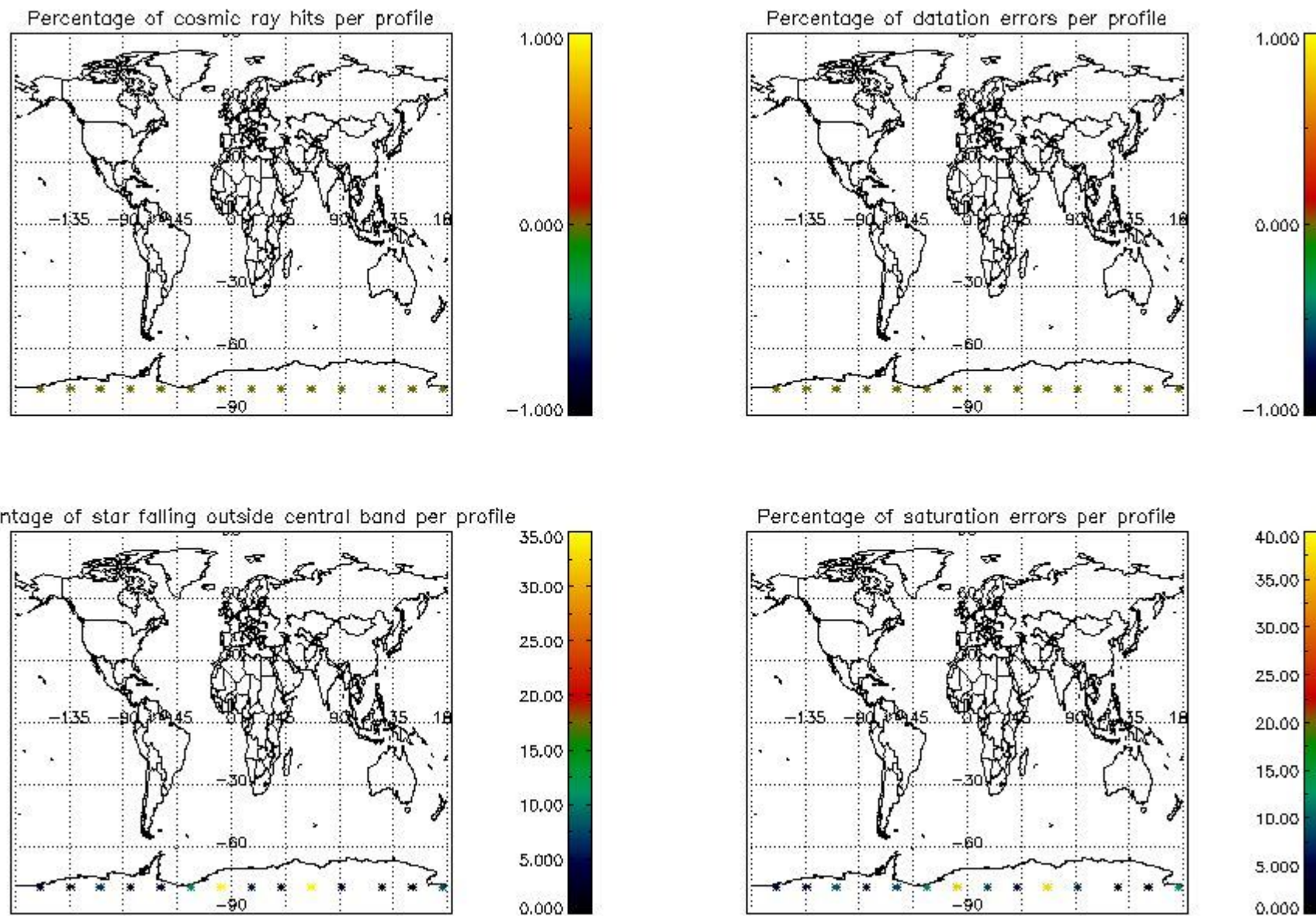
Percentage of star falling outside central band per profile



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.

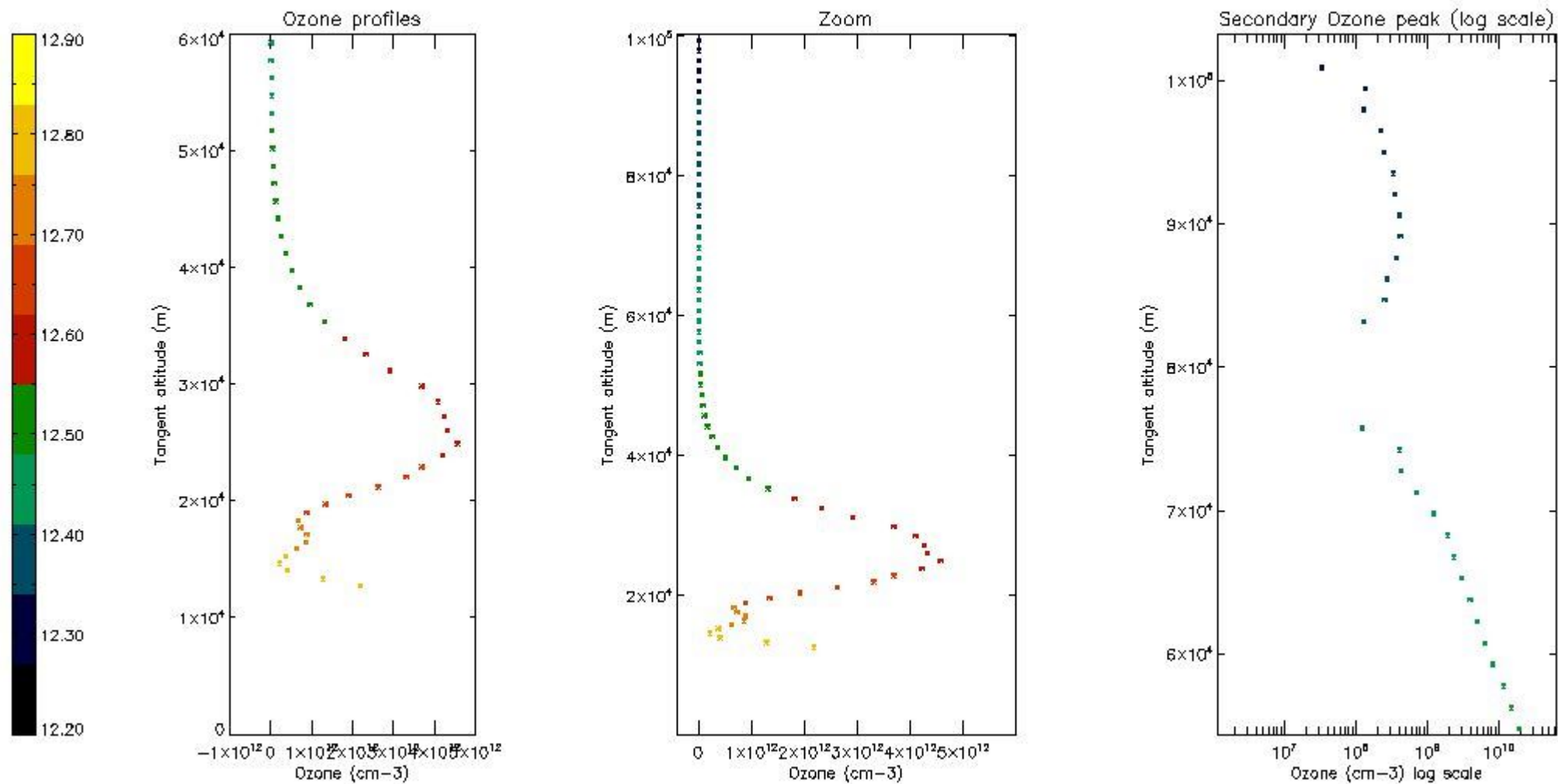
Criteria	% of total production
All STD	8
STD < 20	4



STD < 10	4
STD < 5	3

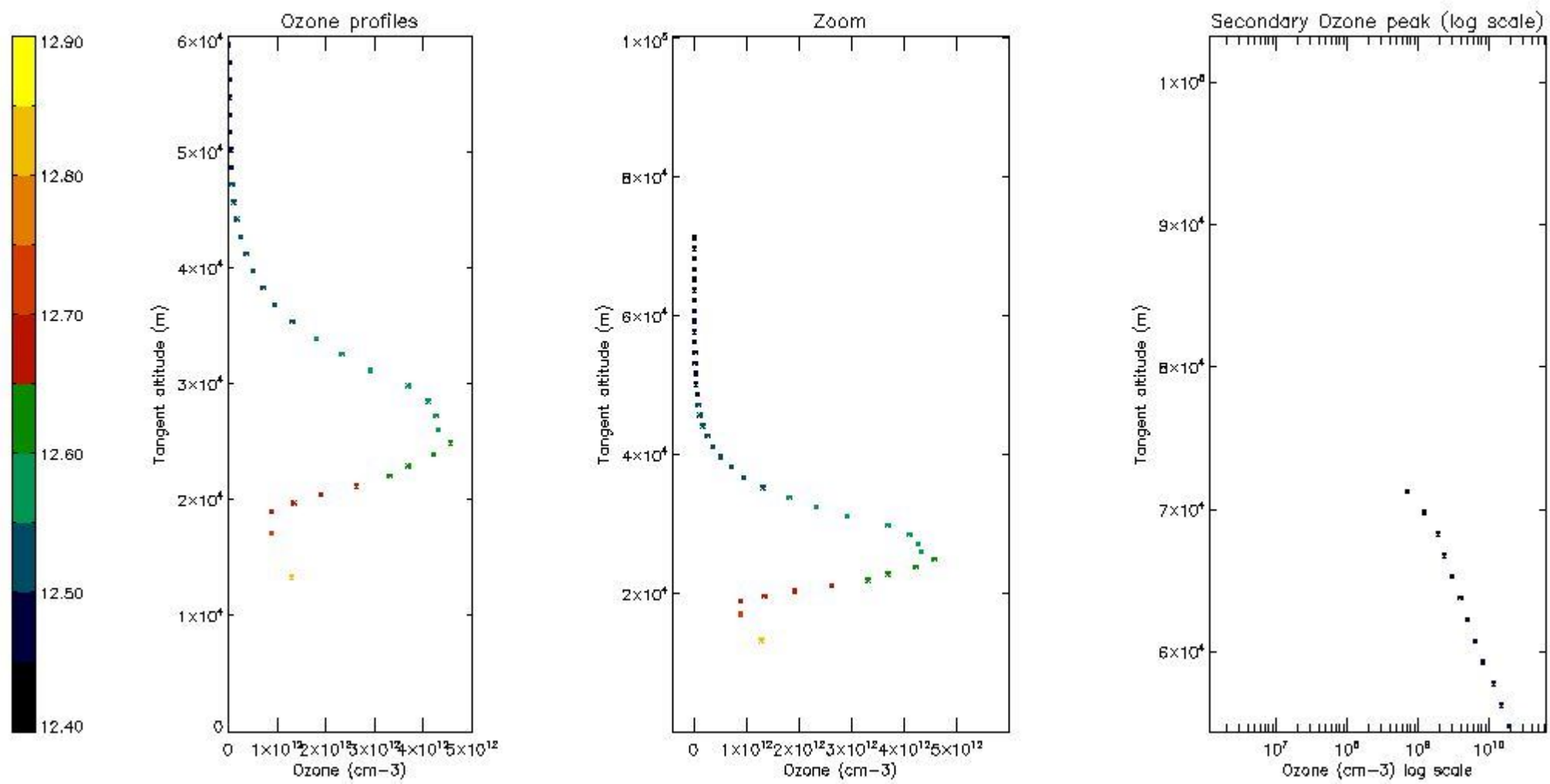
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



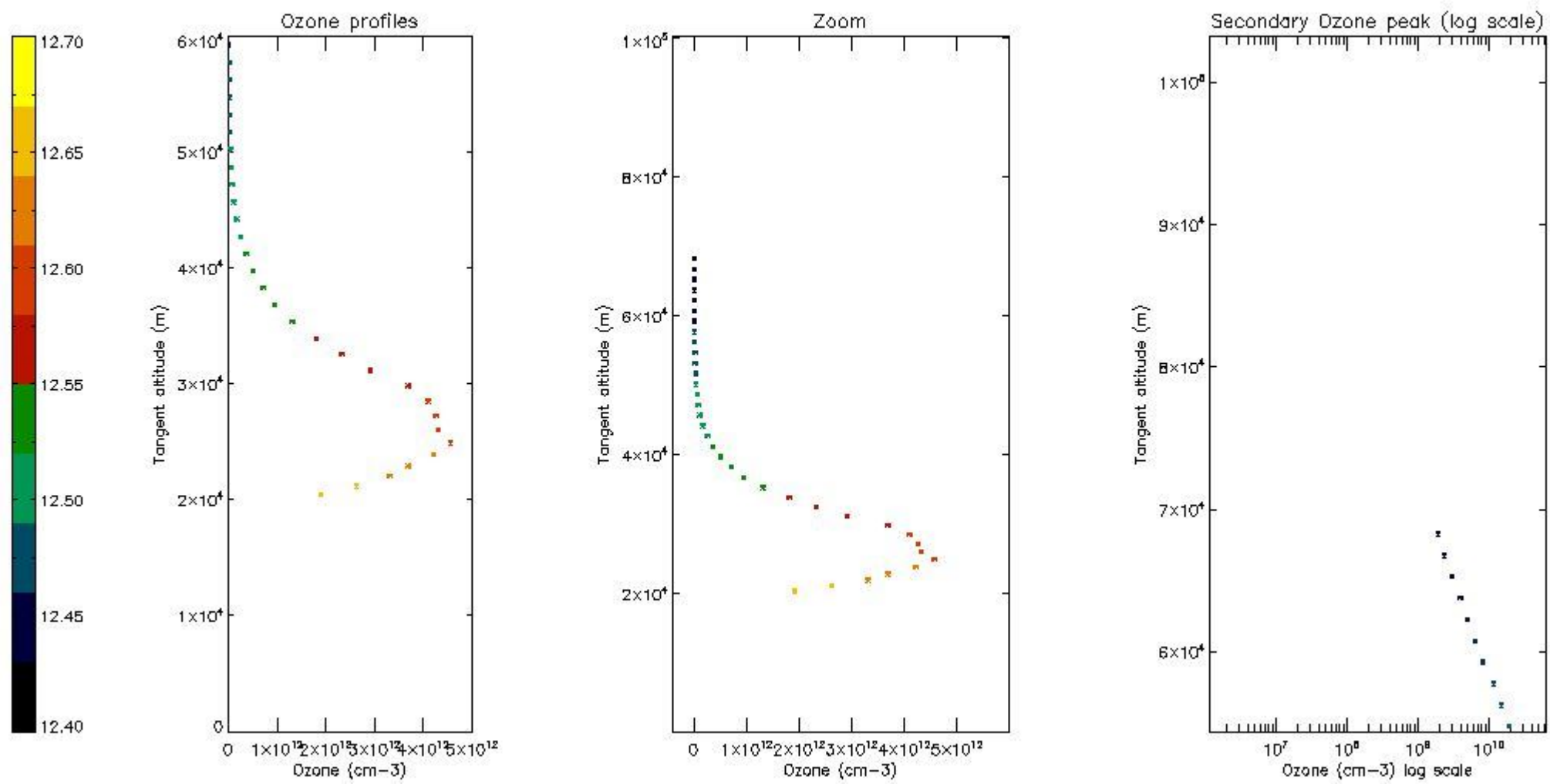
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



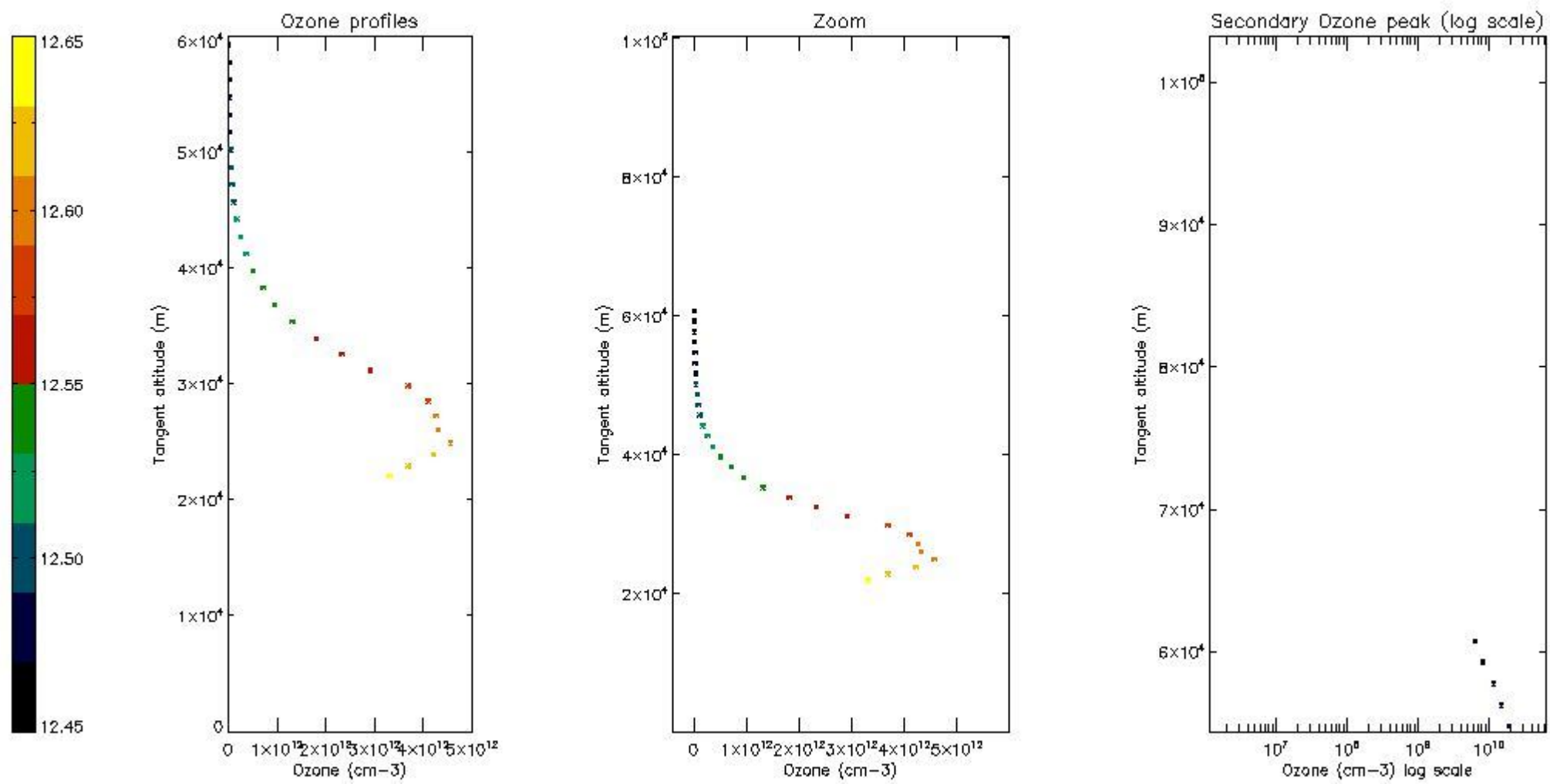
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



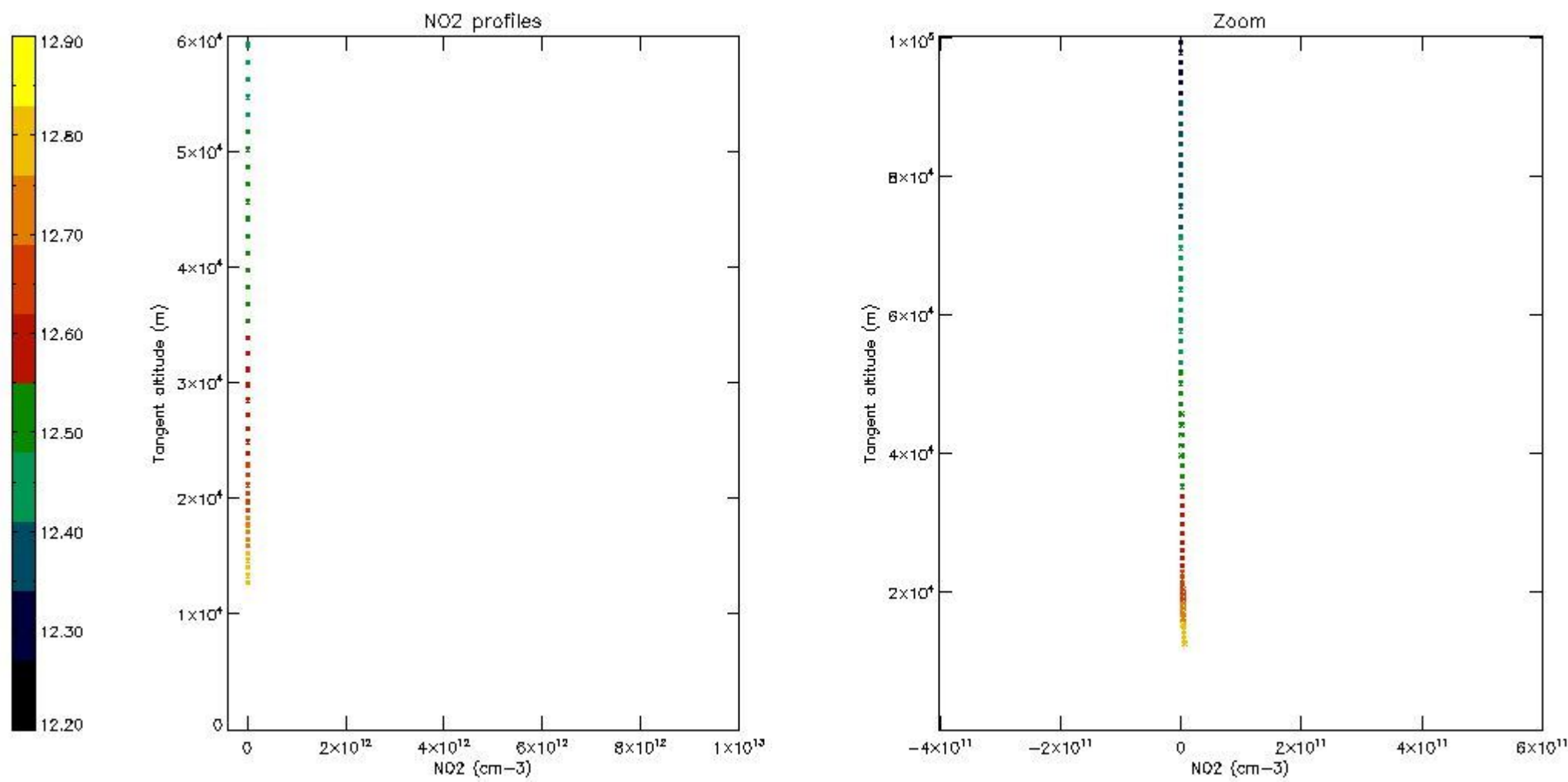
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



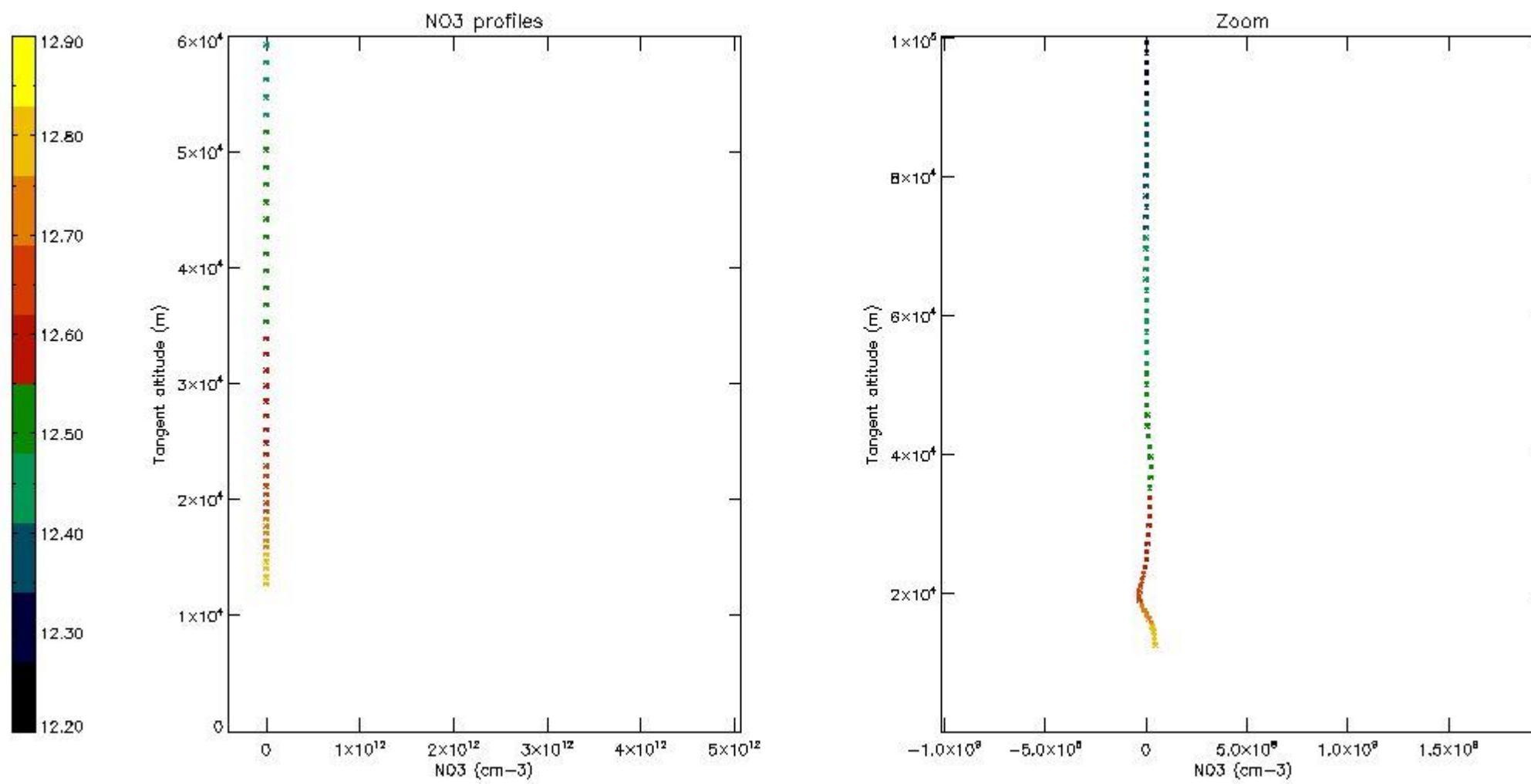
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	16-MAR-2012 00:41:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-MAR-2012 00:41:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-MAR-2012 00:41:17

# GOMOS Level 2 Daily Report

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

#### [3.1 Plot of level 2 quality information per product \(time dependant\)](#)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Time of report generation	18APR2013 14:12:12
Data source version	GOMOS/6.01
Start time of products	16-03-2012 (16MAR2012 00:00:00)
Stop time of products	17-03-2012 (17MAR2012 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	15
Nb of prods with errors	0

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

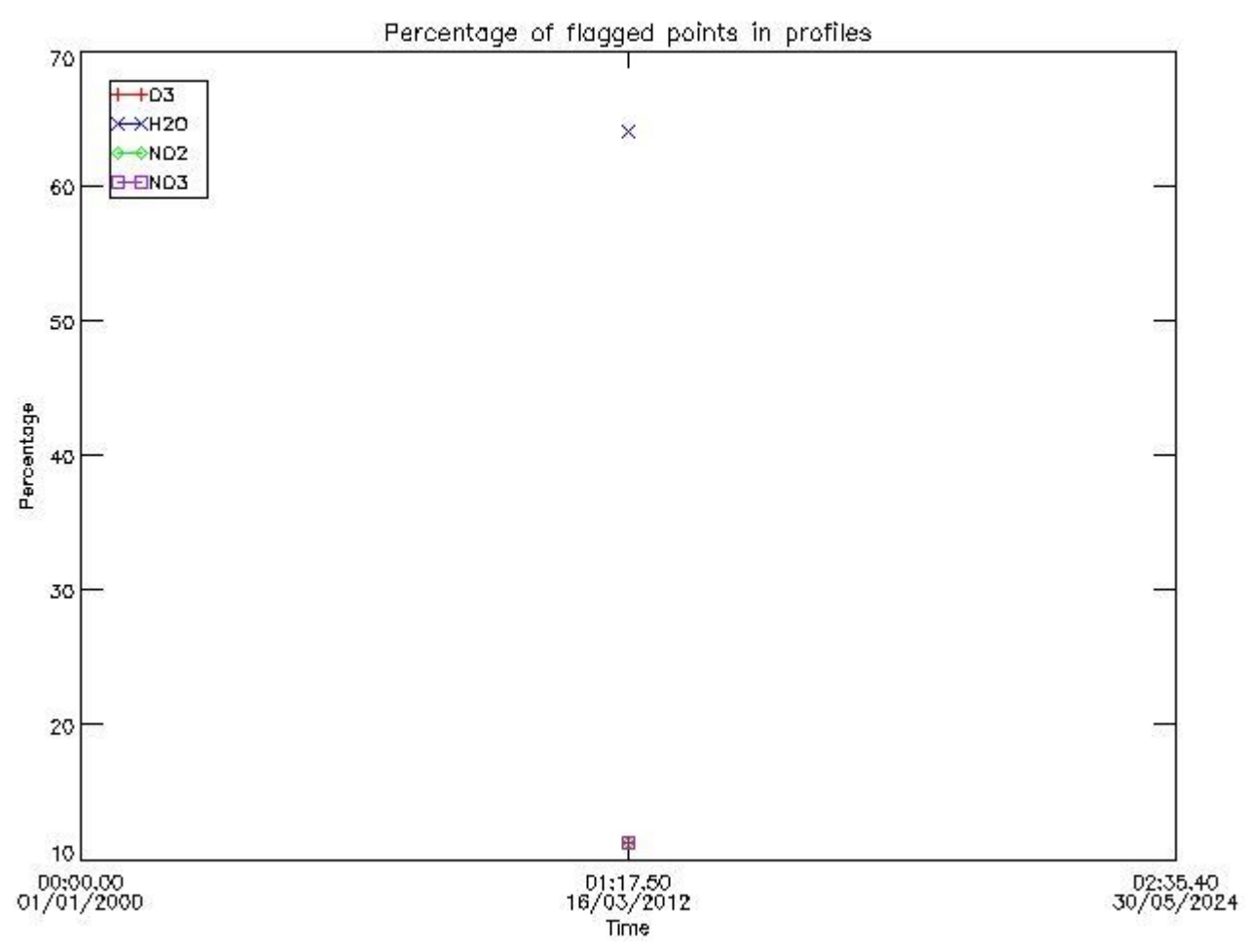
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
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2	GOM_NL__2PRFIN20120316_011750_000000453112_00362_52531_5389.N1	16-MAR-2012 01:17:50	Dark	45.000	4	Alp1Cen	-0.010000	5800.0	90	52531	No
3	GOM_NL__2PRFIN20120316_022131_000000543112_00362_52531_5390.N1	16-MAR-2012 02:21:31	Bright	53.500	92	53Eps Cyg	2.5000	4500.0	107	52531	No
4	GOM_NL__2PRFIN20120316_040145_000000363112_00363_52532_5404.N1	16-MAR-2012 04:01:45	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	52532	No
5	GOM_NL__2PRFIN20120316_054159_000000373112_00364_52533_5413.N1	16-MAR-2012 05:41:59	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	52533	No
6	GOM_NL__2PRFIN20120316_072213_000000543112_00365_52534_5516.N1	16-MAR-2012 07:22:13	Bright	53.500	92	53Eps Cyg	2.5000	4500.0	107	52534	No
7	GOM_NL__2PRFIN20120316_090227_000000393112_00366_52535_5558.N1	16-MAR-2012 09:02:27	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	52535	No
8	GOM_NL__2PRFIN20120316_104241_000000373112_00367_52536_5591.N1	16-MAR-2012 10:42:41	Bright	37.000	92	53Eps Cyg	2.5000	4500.0	74	52536	No
9	GOM_NL__2PRFIN20120316_122255_000000363112_00368_52537_5629.N1	16-MAR-2012 12:22:55	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	52537	No
10	GOM_NL__2PRFIN20120316_140309_000000383112_00369_52538_5660.N1	16-MAR-2012 14:03:09	Bright	37.500	92	53Eps Cyg	2.5000	4500.0	75	52538	No
11	GOM_NL__2PRFIN20120316_154323_000000363112_00370_52539_5760.N1	16-MAR-2012 15:43:23	Bright	35.500	92	53Eps Cyg	2.5000	4500.0	71	52539	No
12	GOM_NL__2PRFIN20120316_172338_000000363112_00371_52540_5772.N1	16-MAR-2012 17:23:38	Bright	36.000	92	53Eps Cyg	2.5000	4500.0	72	52540	No
13	GOM_NL__2PRFIN20120316_190352_000000393112_00372_52541_5803.N1	16-MAR-2012 19:03:52	Bright	38.500	92	53Eps Cyg	2.5000	4500.0	77	52541	No
14	GOM_NL__2PRFIN20120316_204406_000000353112_00373_52542_5831.N1	16-MAR-2012 20:44:06	Bright	34.500	92	53Eps Cyg	2.5000	4500.0	69	52542	No
15	GOM_NL__2PRFIN20120316_222420_000000343112_00374_52543_5856.N1	16-MAR-2012 22:24:20	Bright	33.500	92	53Eps Cyg	2.5000	4500.0	67	52543	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.

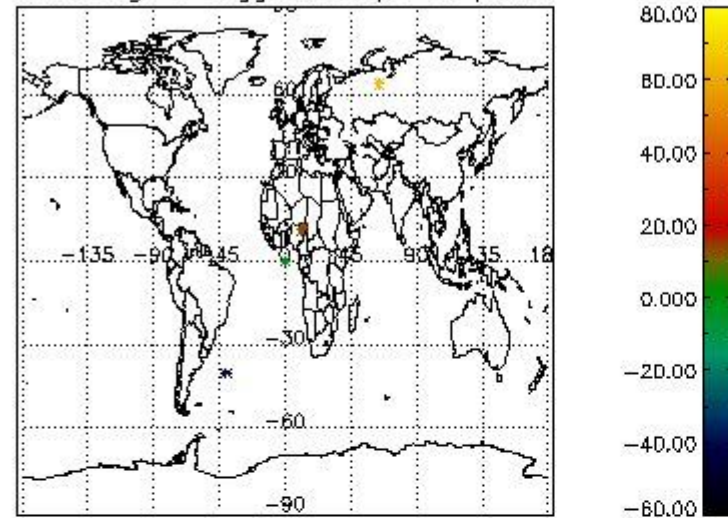
### 3.1 Plot quality information per product (time dependant)



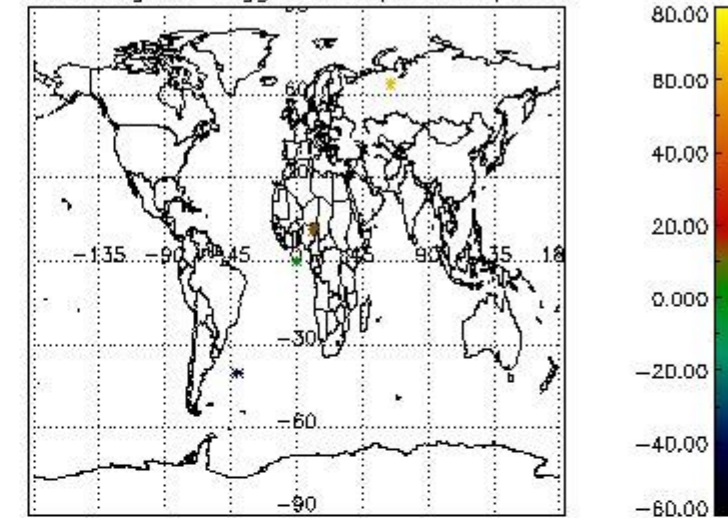


*3.2 Plot quality information per product (world map)*

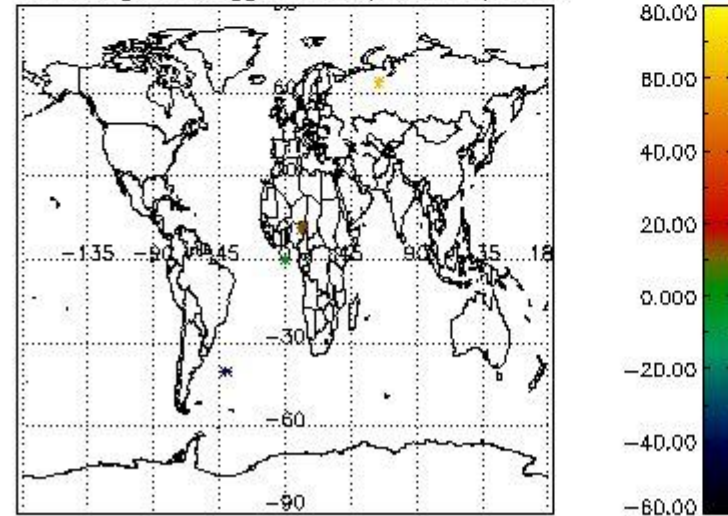
Percentage of flagged data per O3 profile



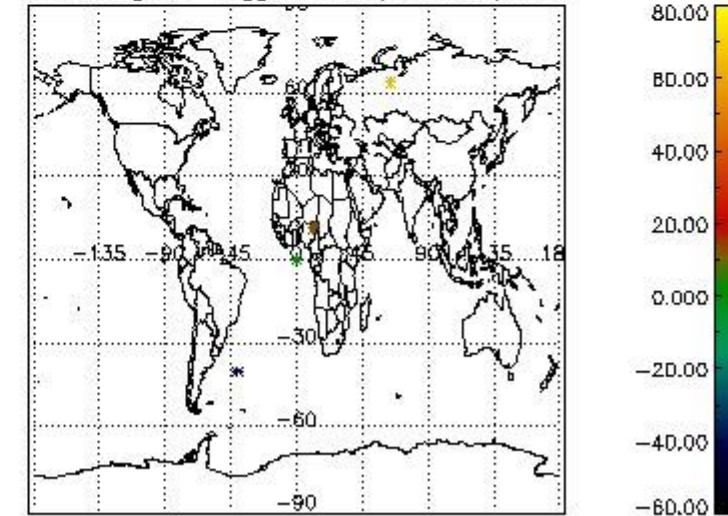
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

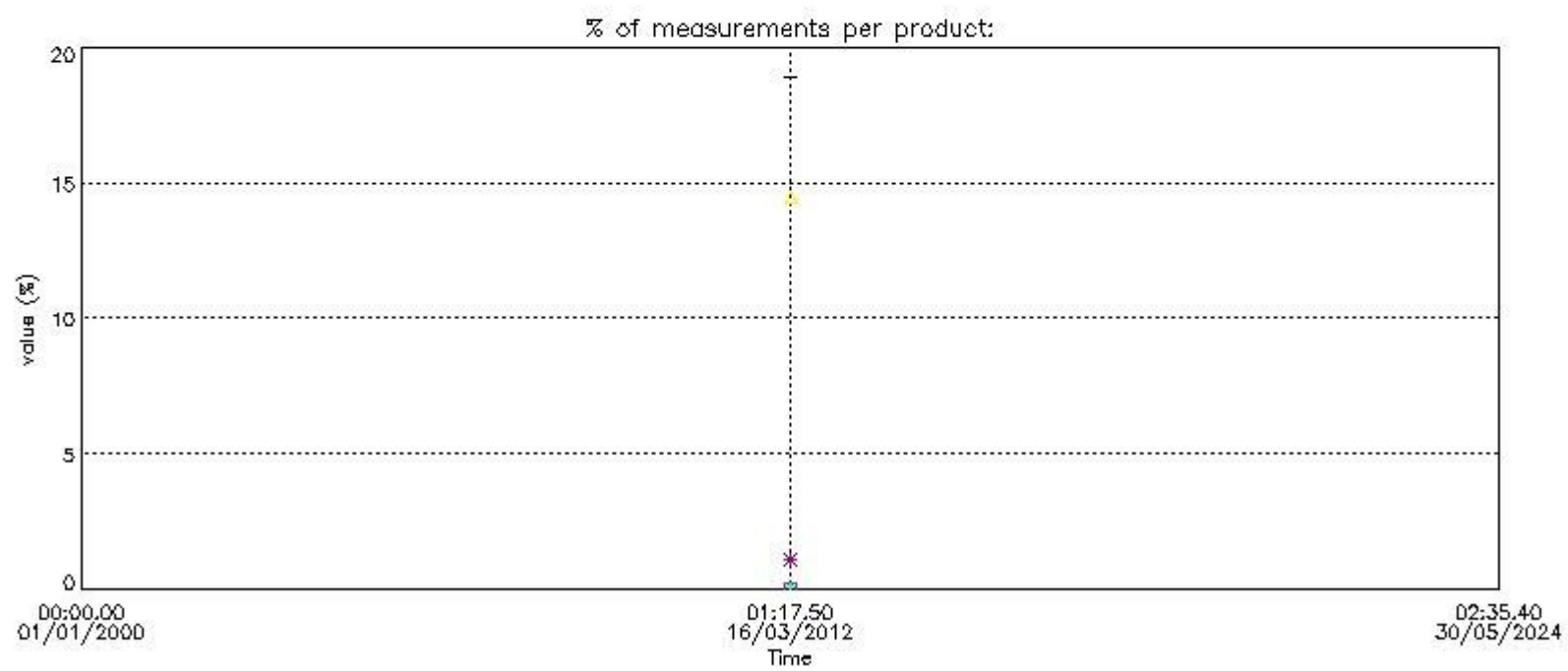


#### 4. Level 1 quality information per product

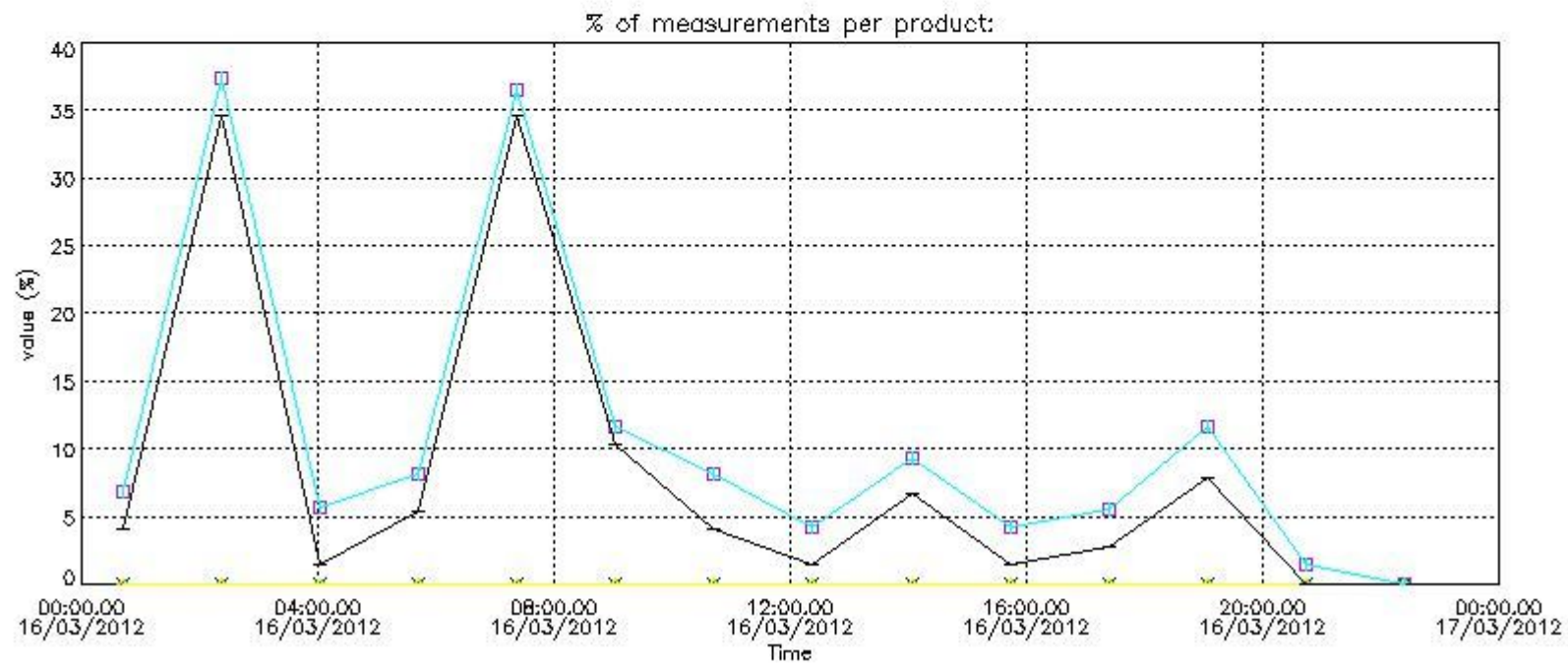
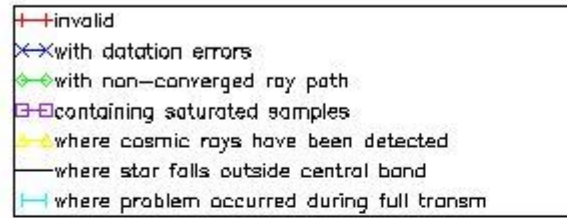
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



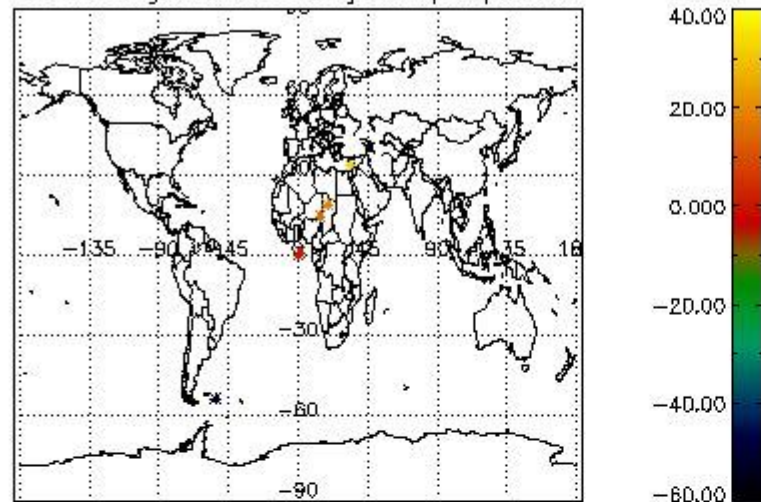
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



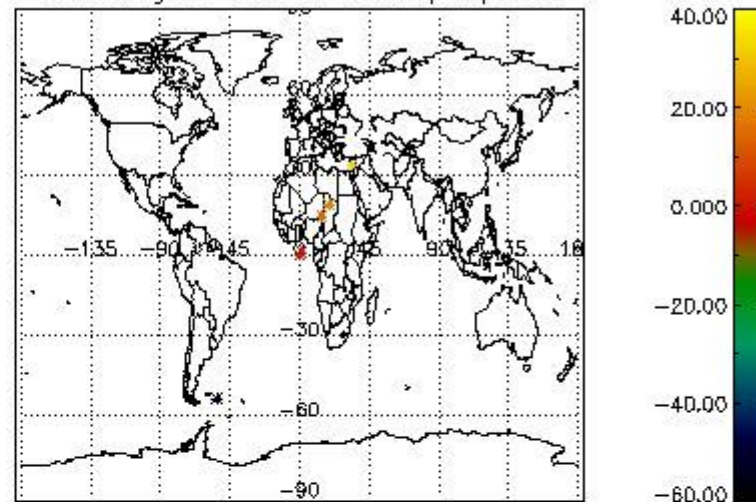
4.2 Plot quality information per product coming from level 1b processing (world map)

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

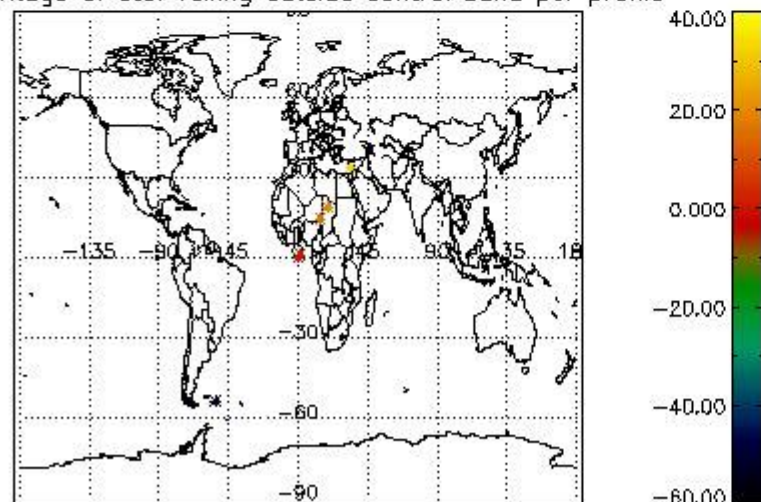
Percentage of cosmic ray hits per profile



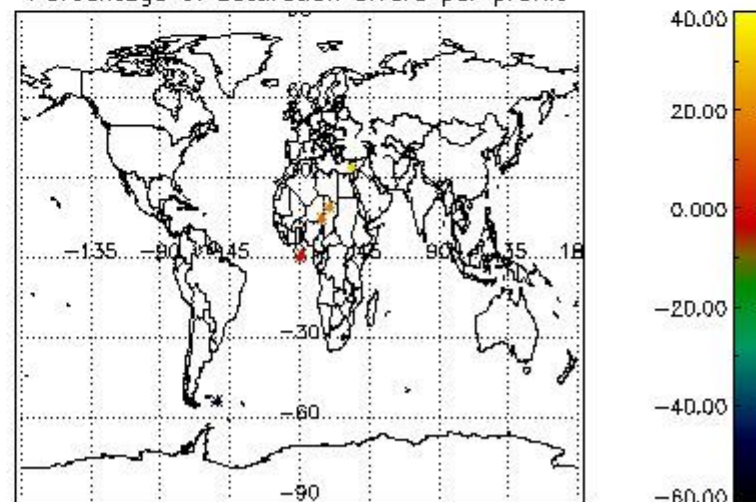
Percentage of datation errors per profile



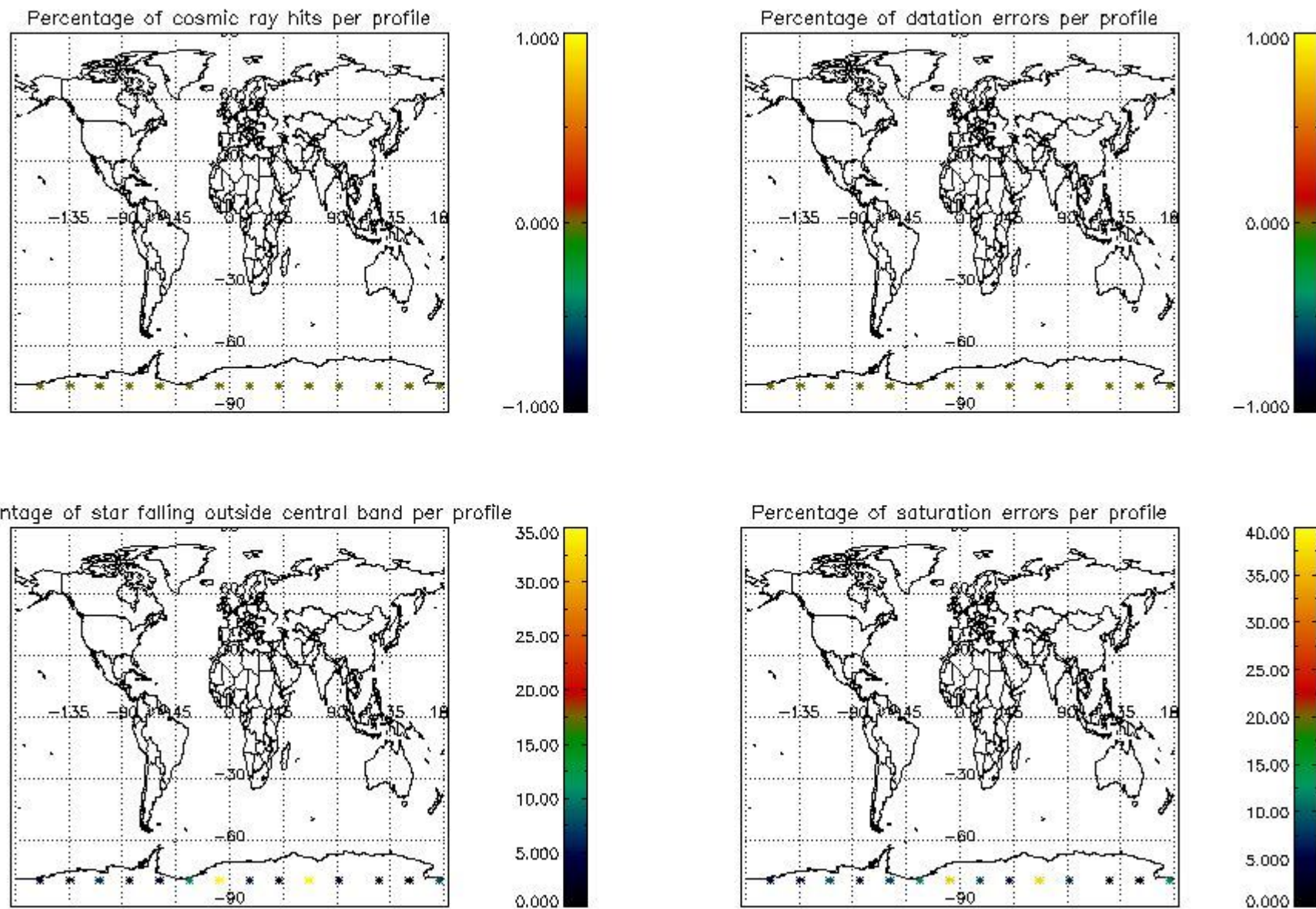
Percentage of star falling outside central band per profile



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

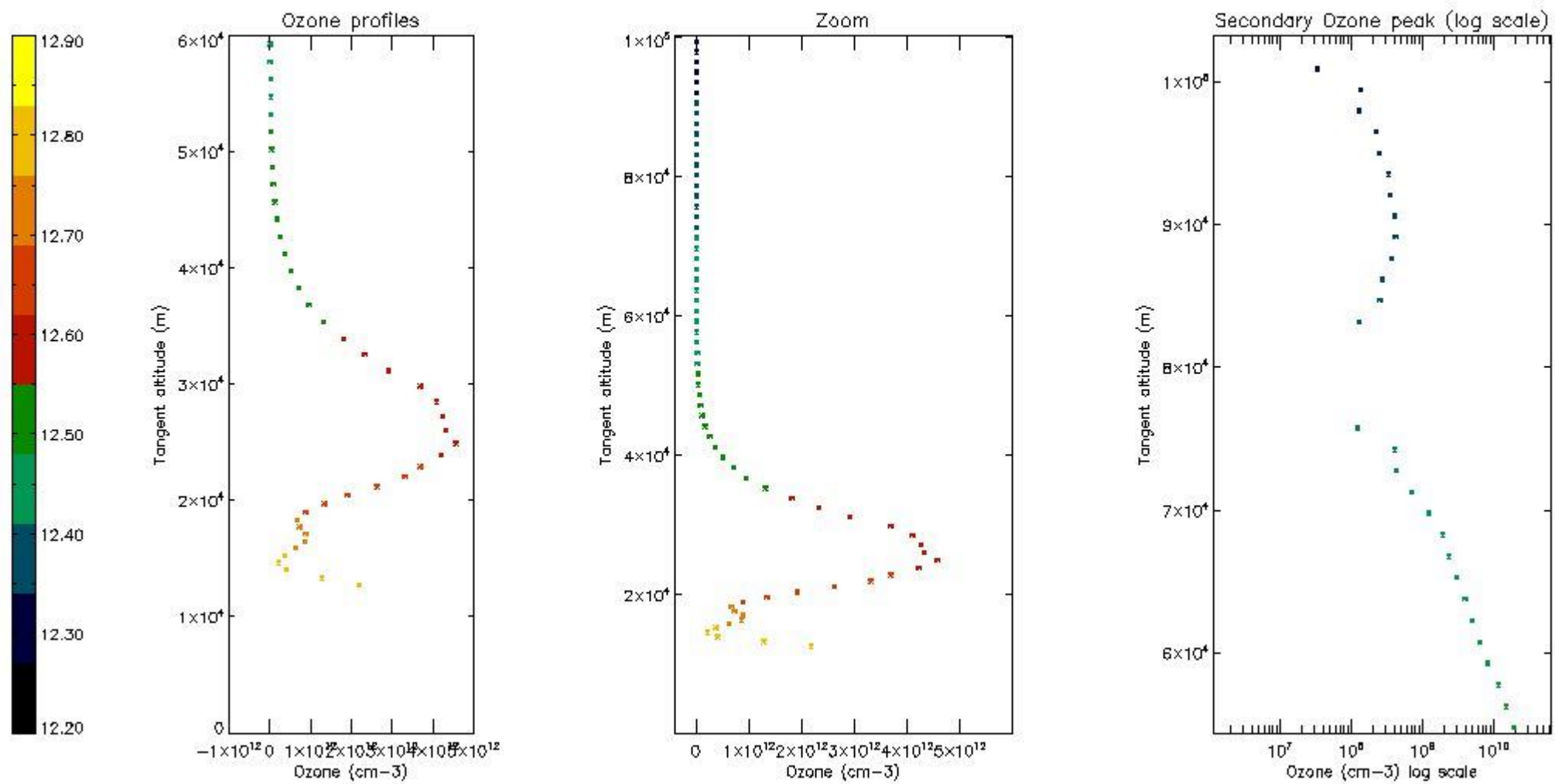
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	8
STD < 20	4

STD < 10	4
STD < 5	3

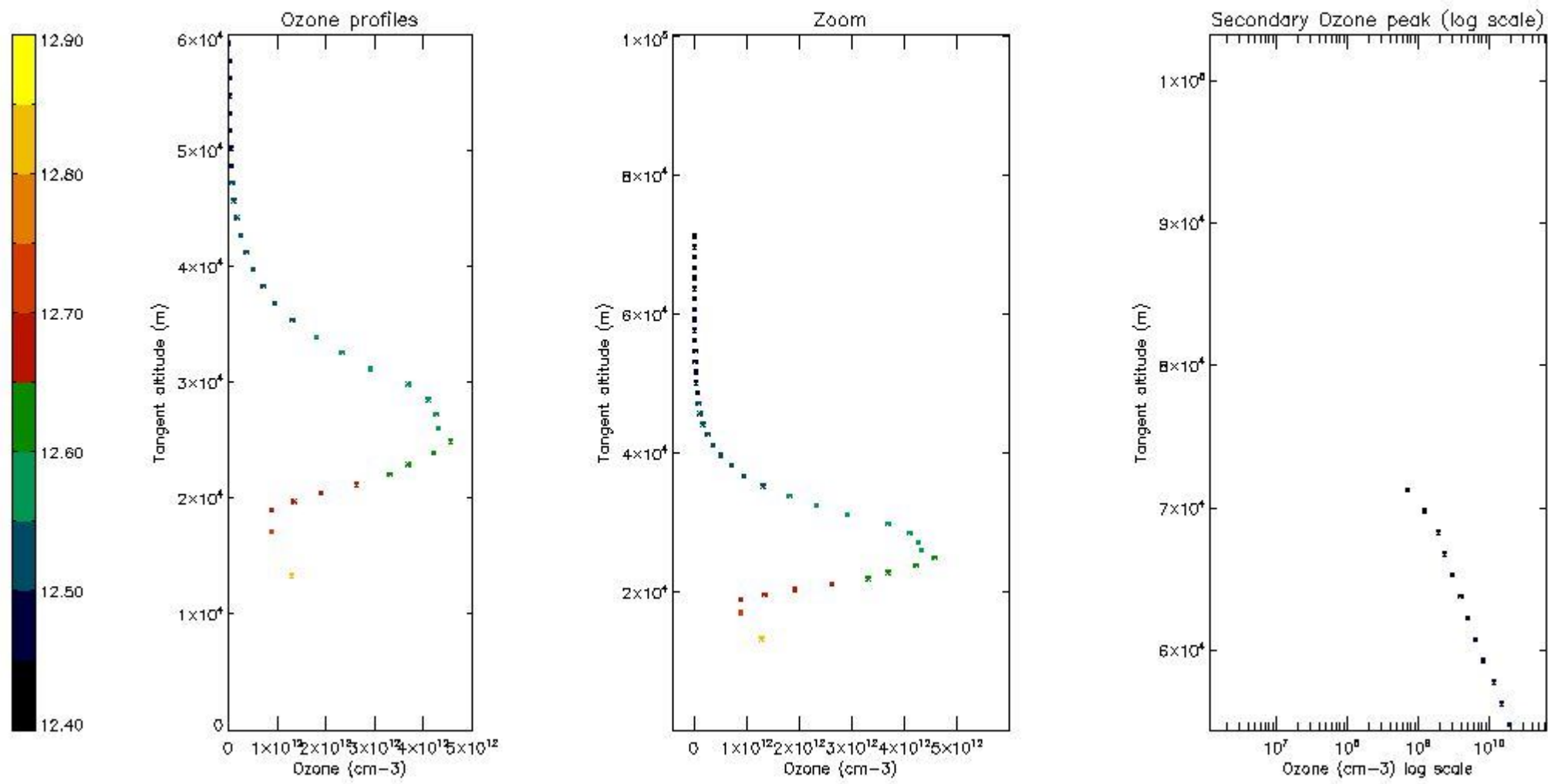
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

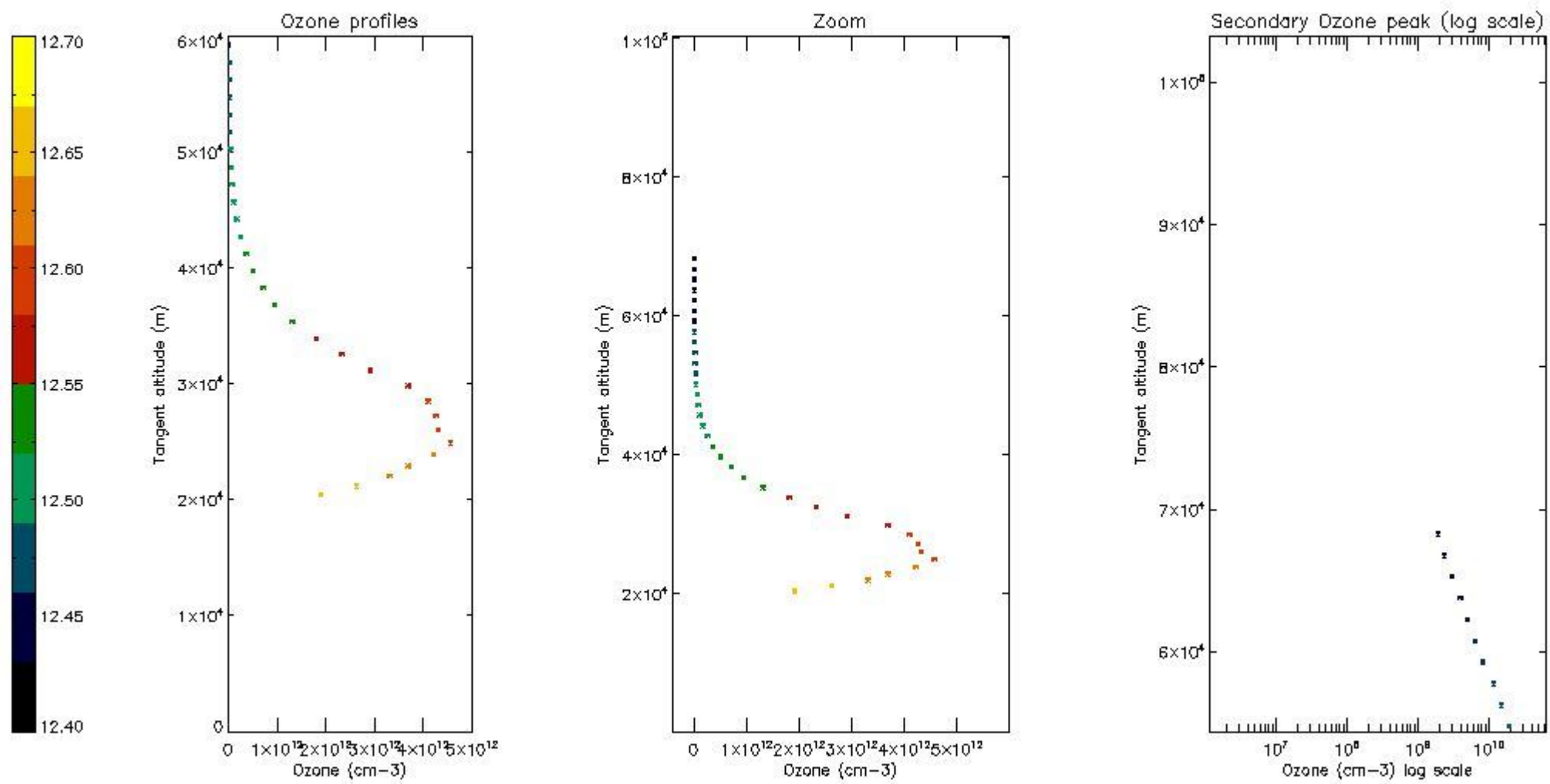
The colorbar represents the latitude.



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

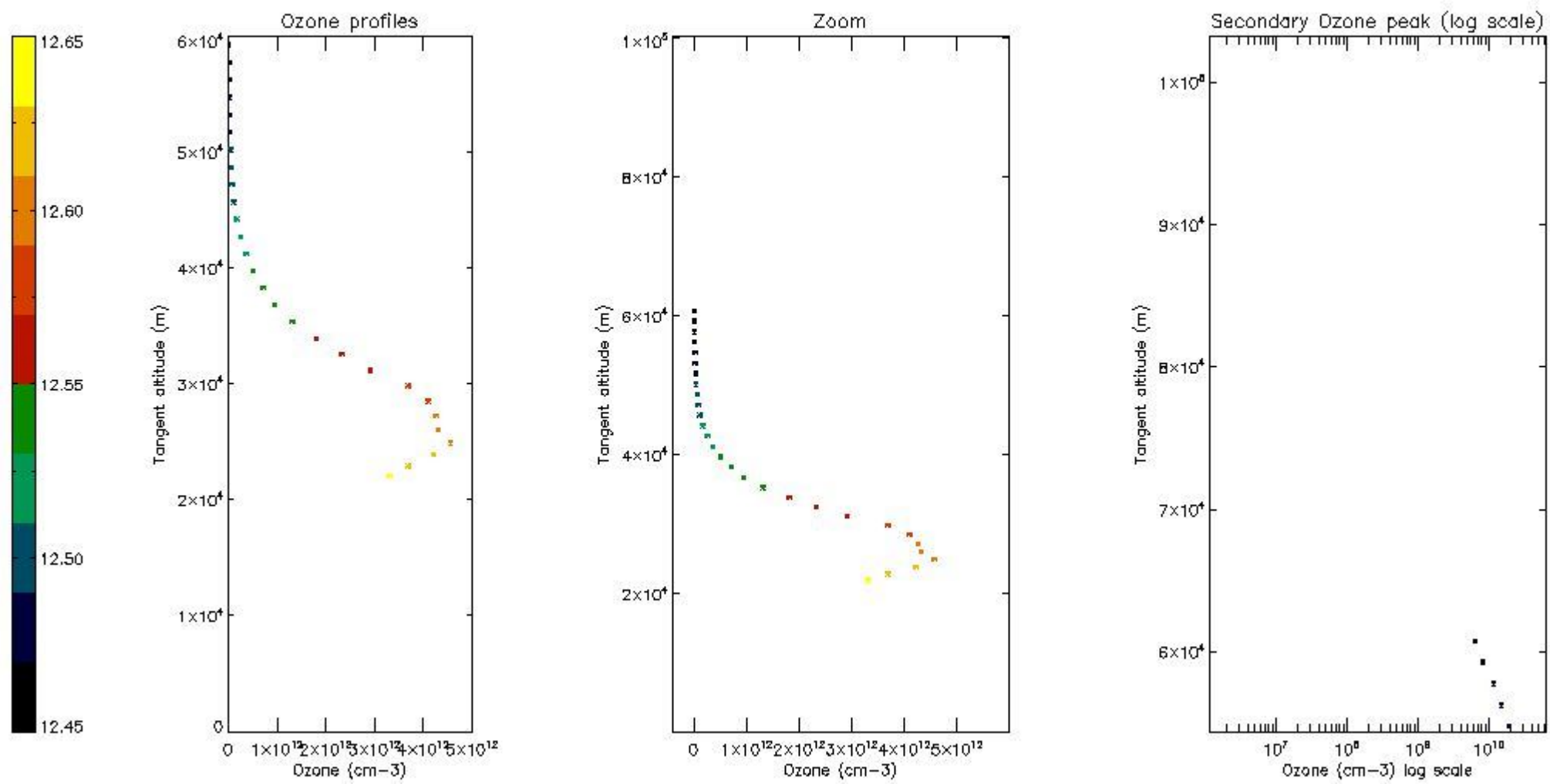
The colorbar represents the latitude.





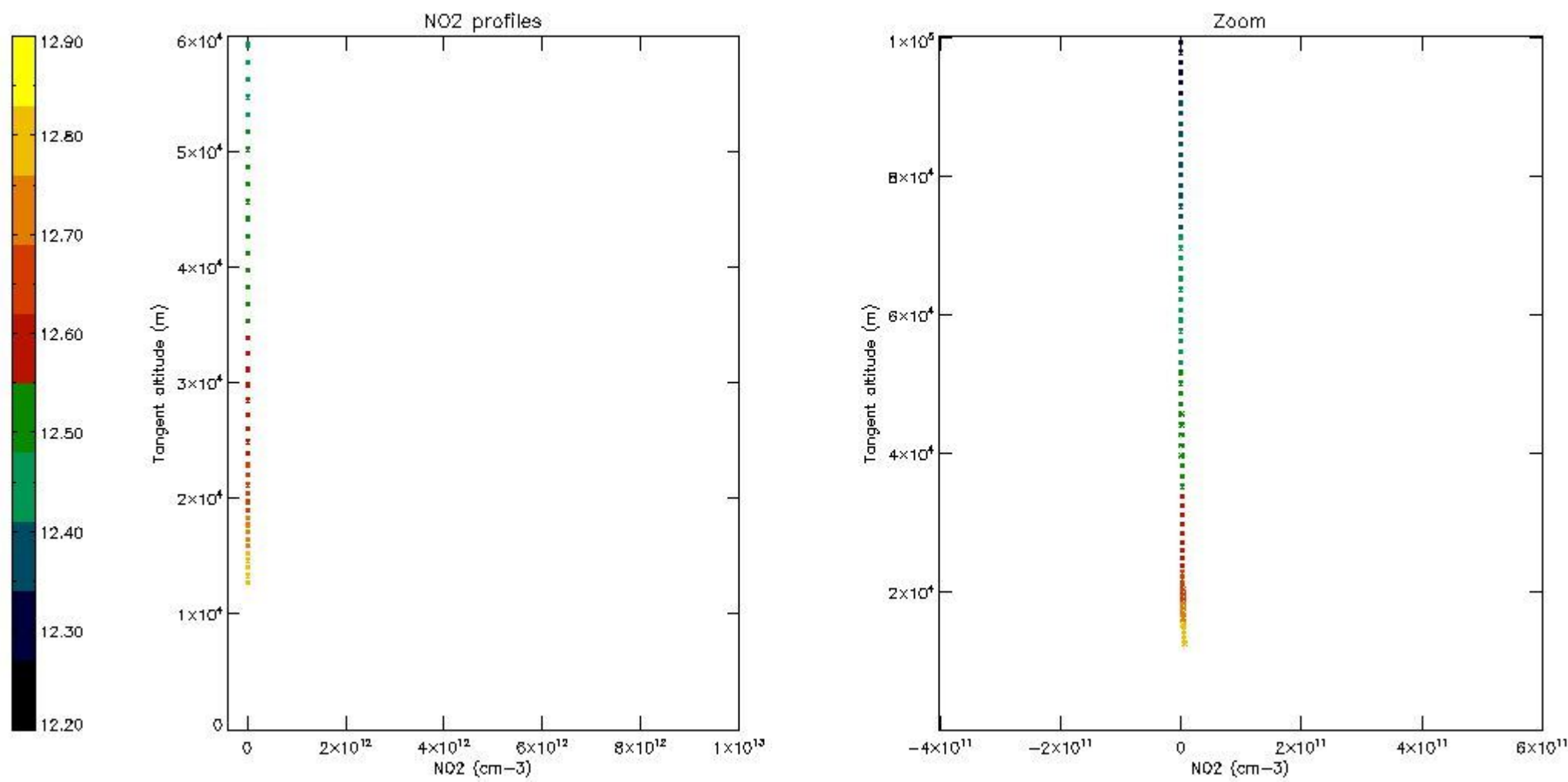
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



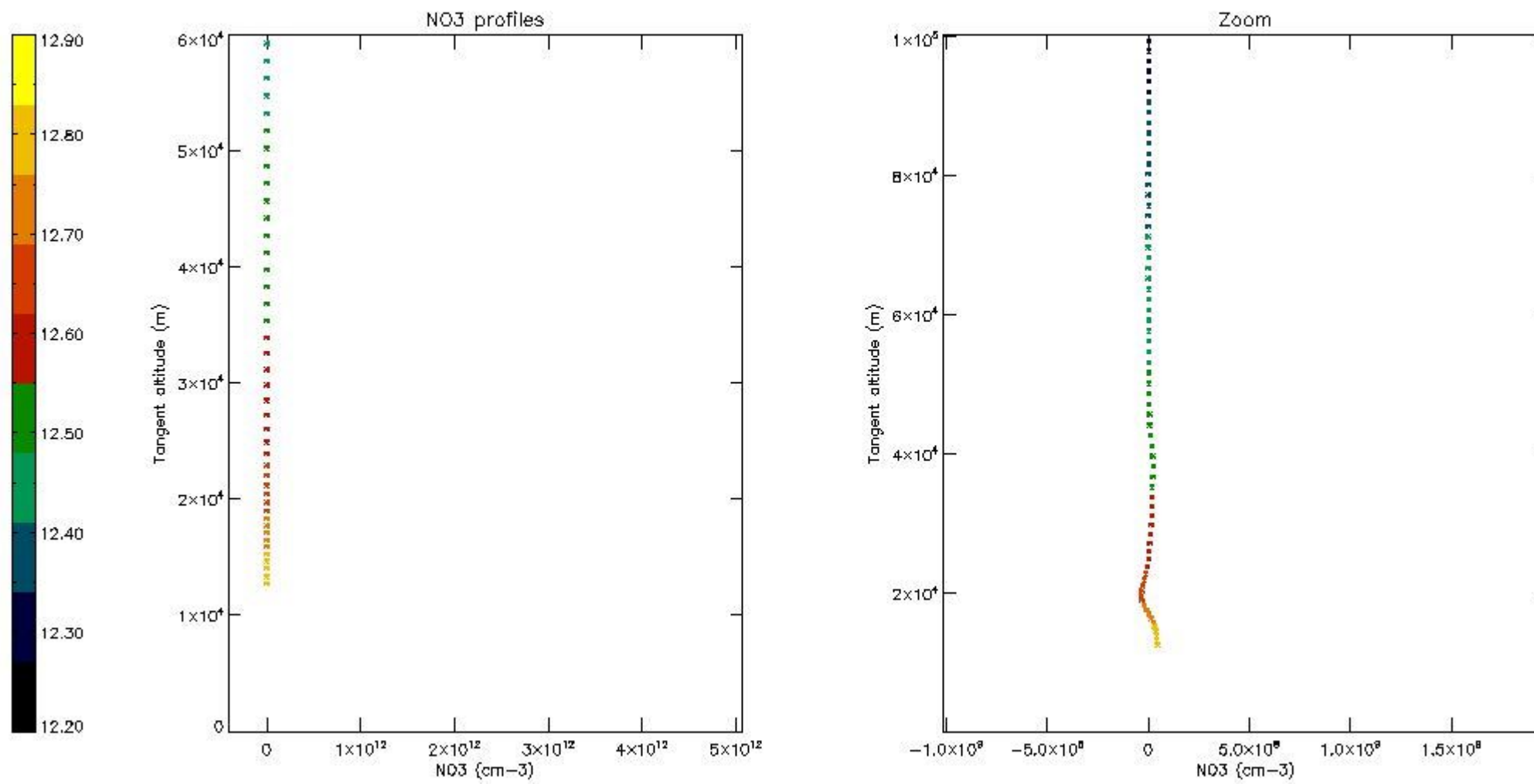
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

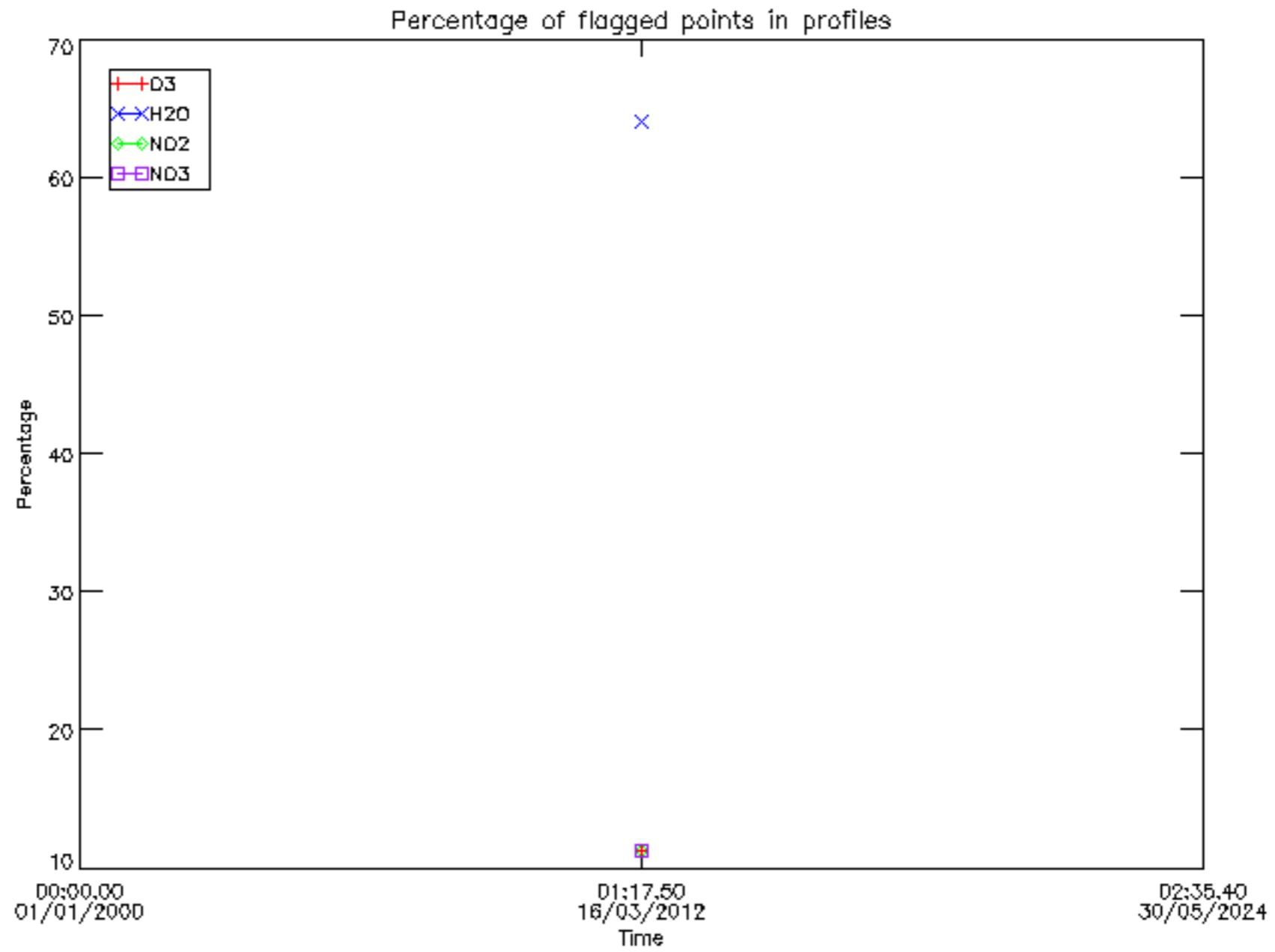
The colorbar represents the latitude.



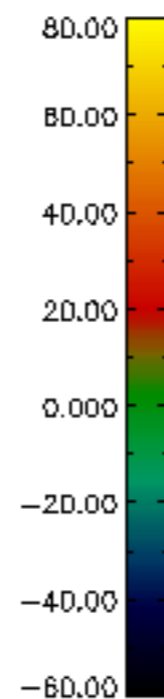
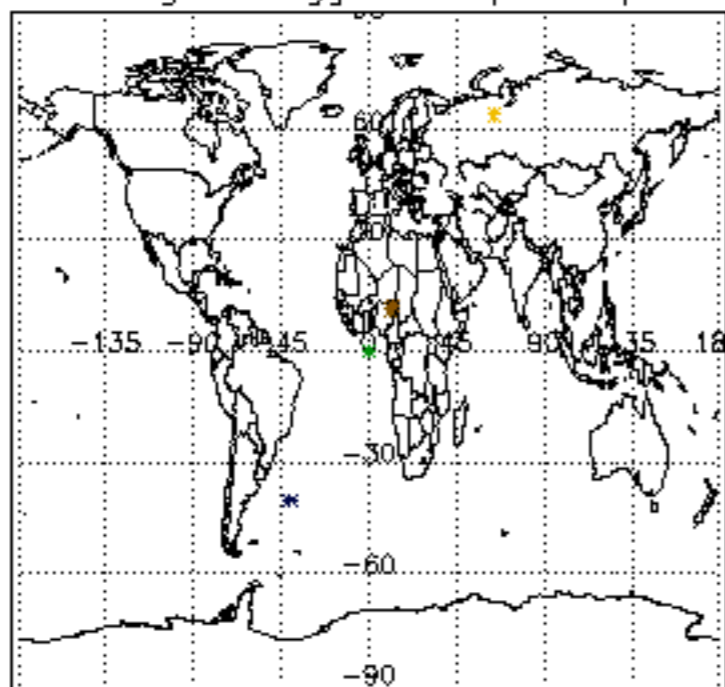
## 6. Auxiliary Data Files used for the production reported in section 2

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

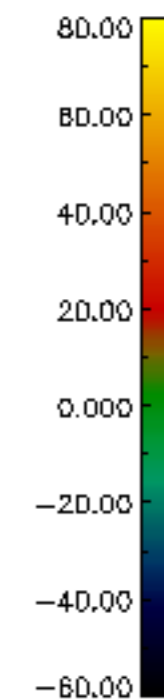
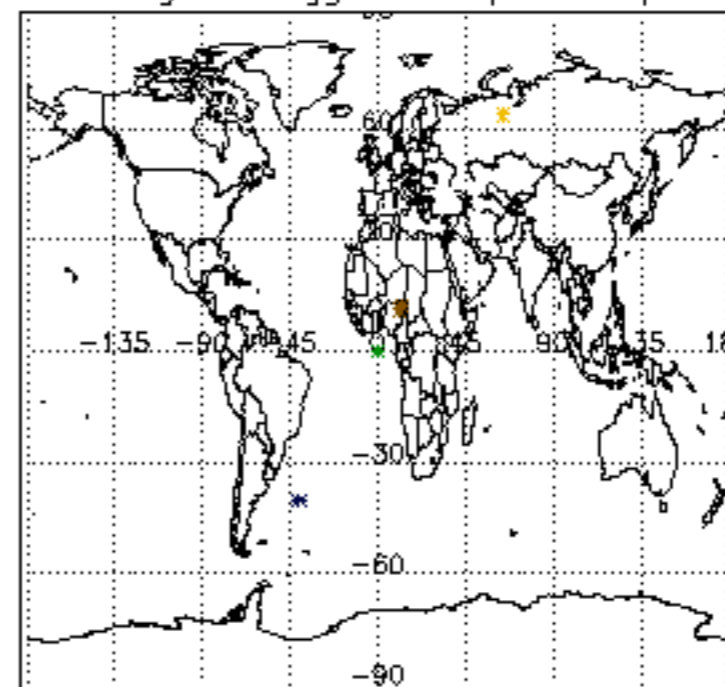
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	16-MAR-2012 00:41:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-MAR-2012 00:41:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-MAR-2012 00:41:17



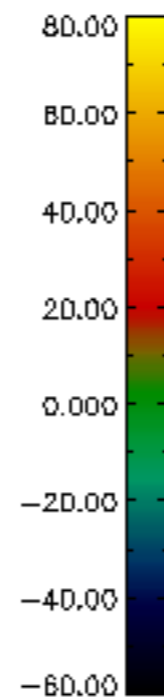
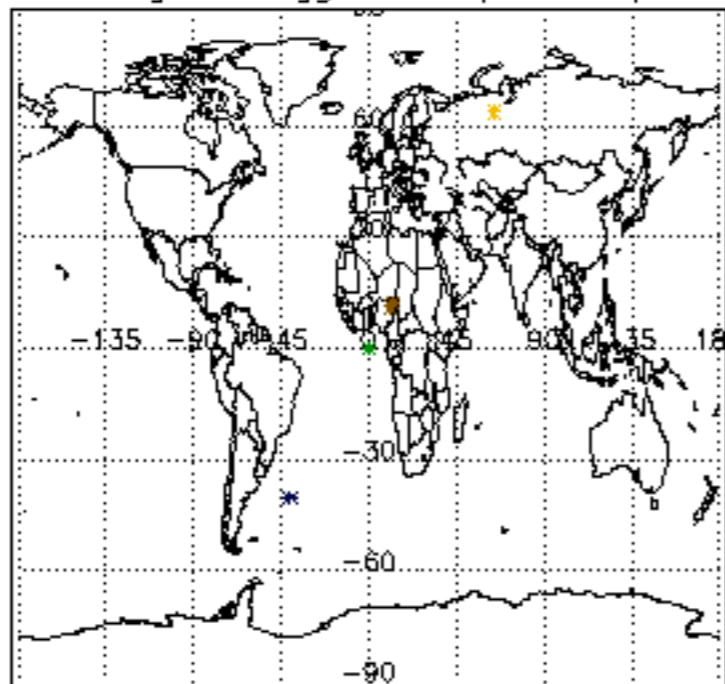
Percentage of flagged data per D3 profile



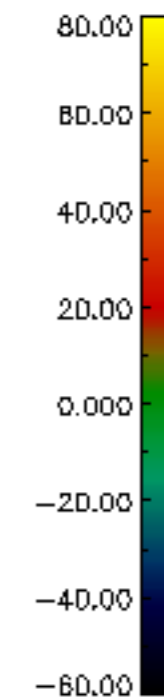
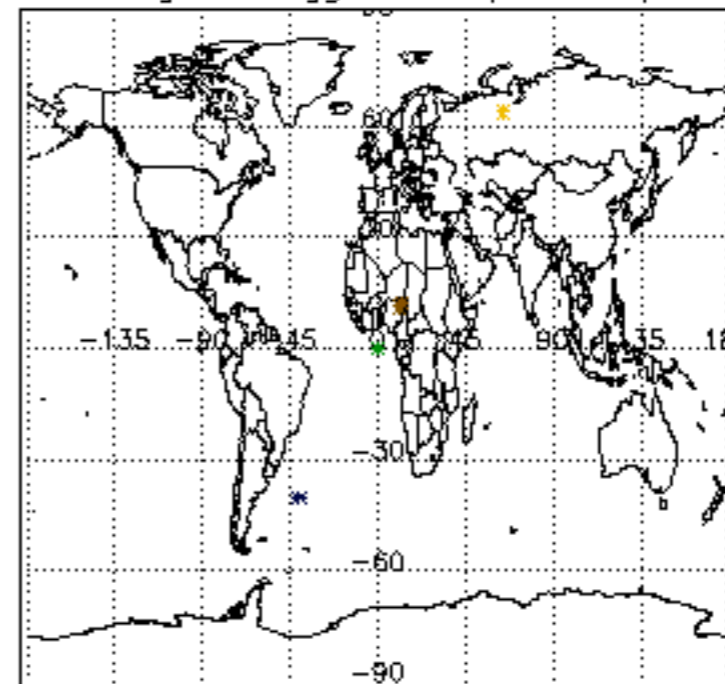
Percentage of flagged data per H2O profile

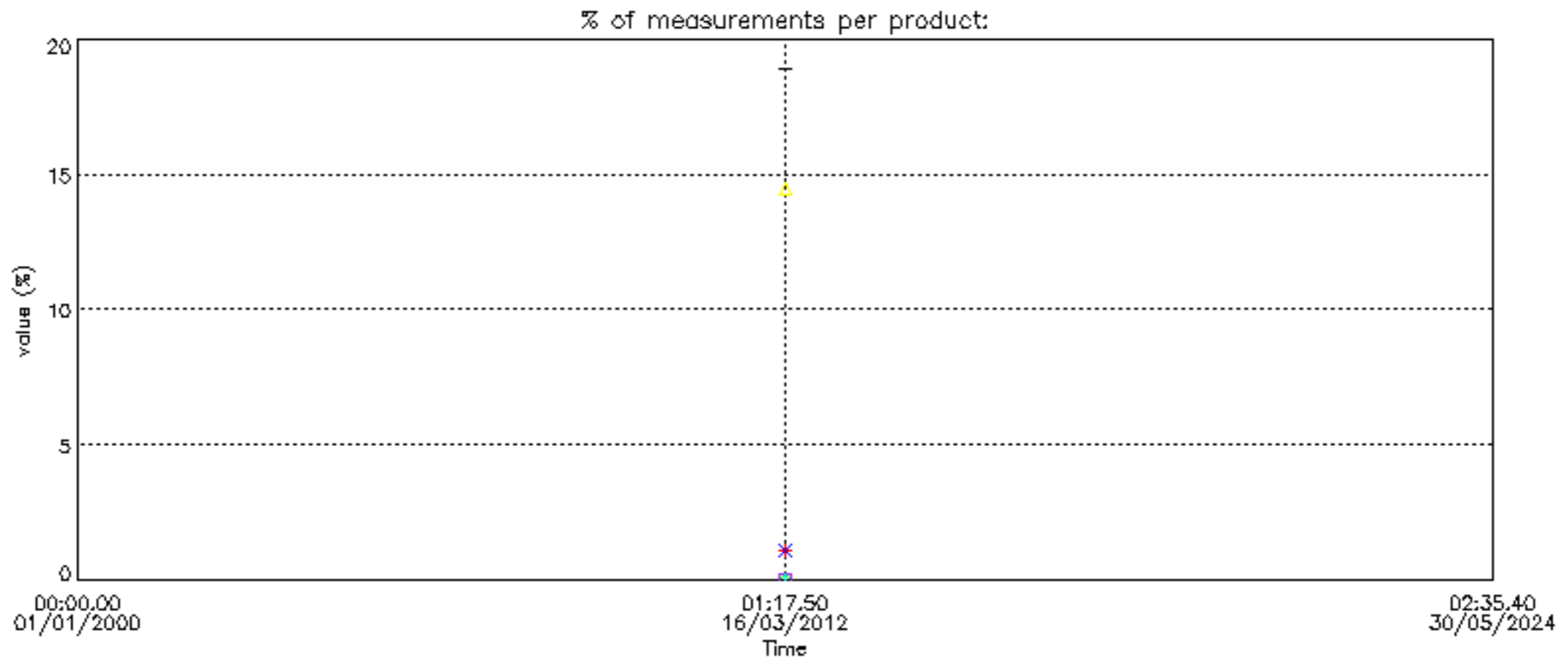


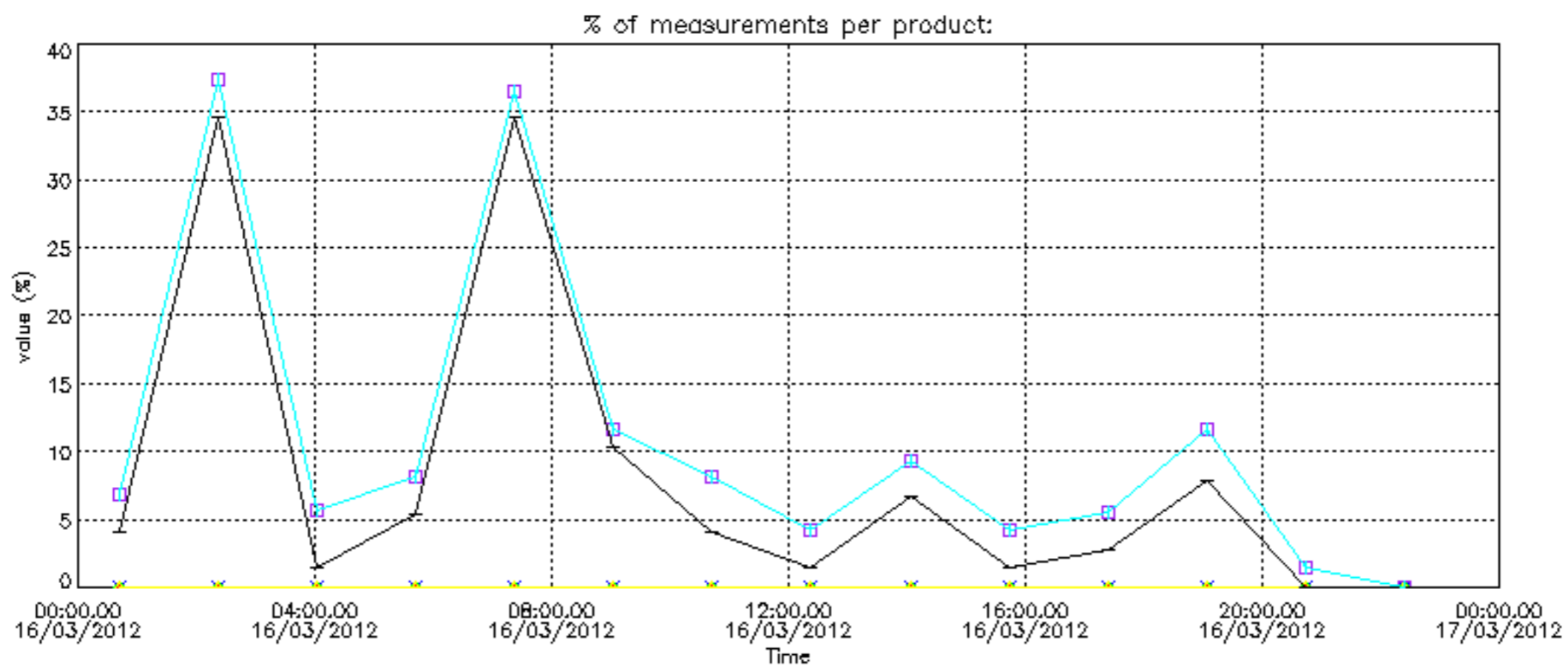
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

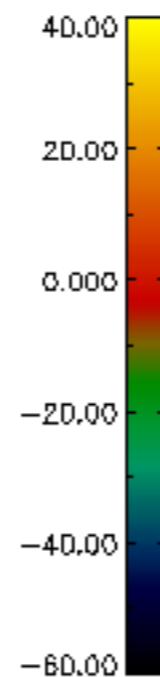
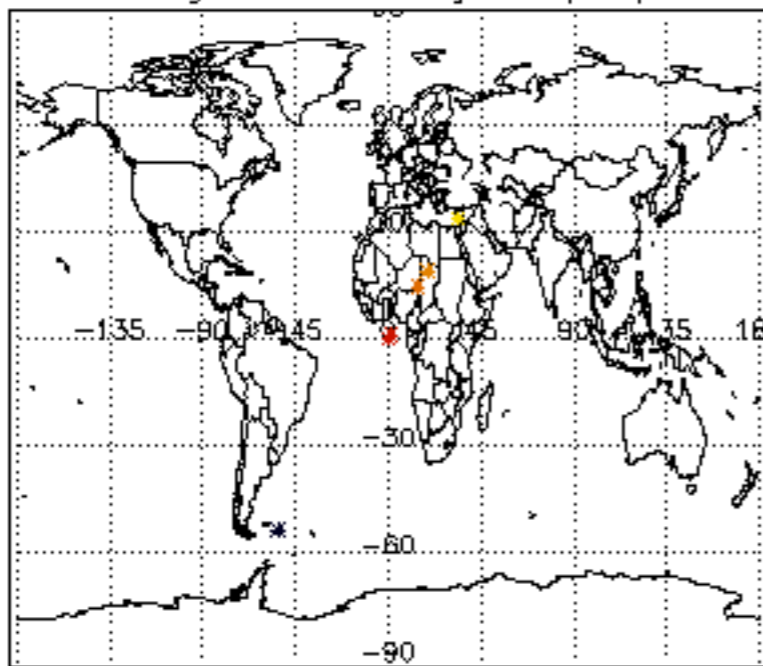




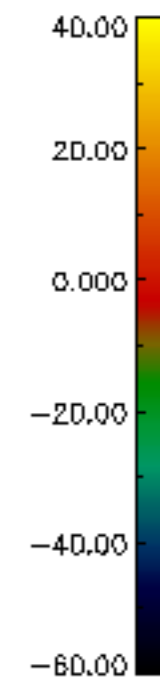
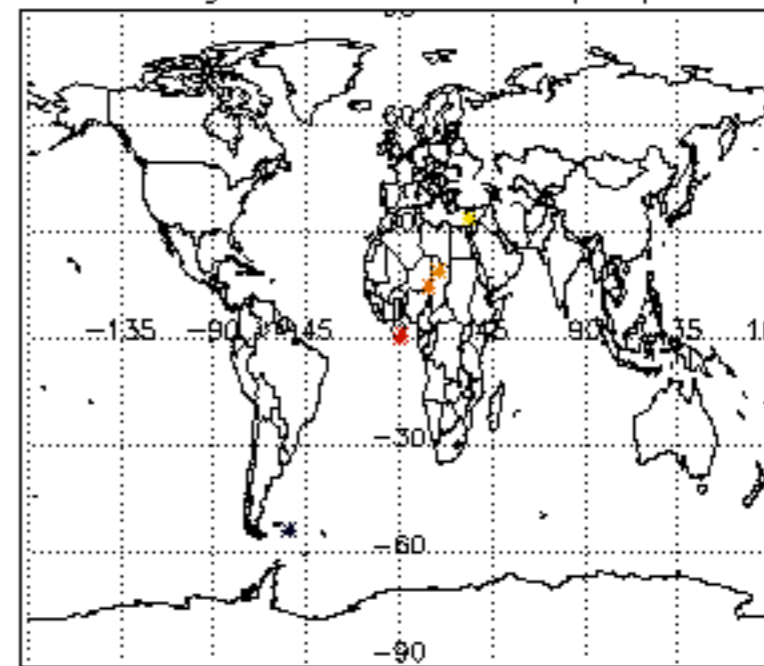




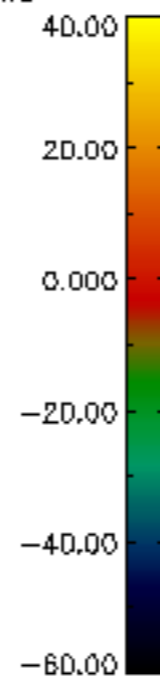
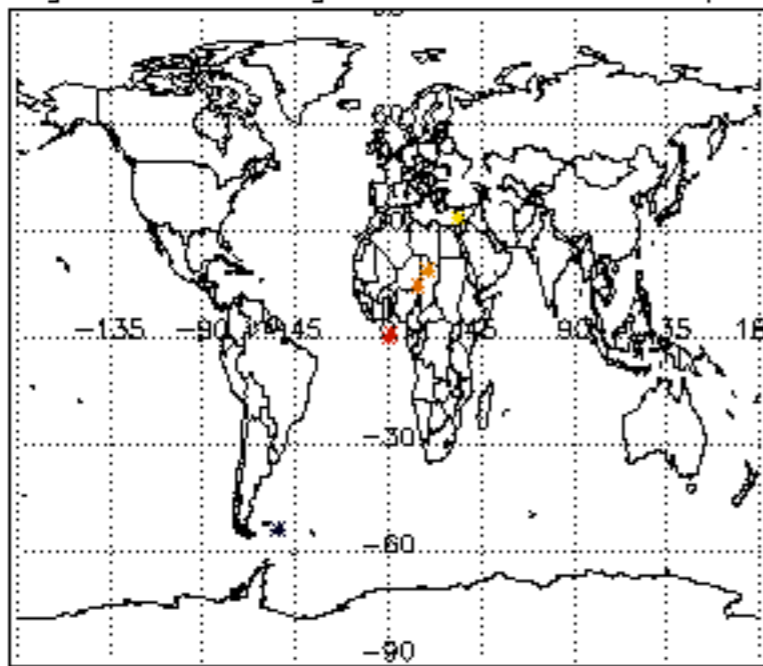
Percentage of cosmic ray hits per profile



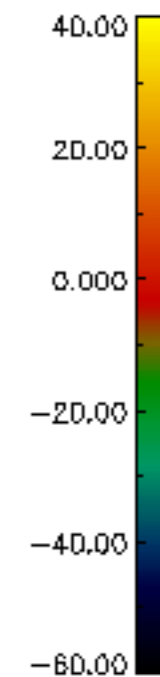
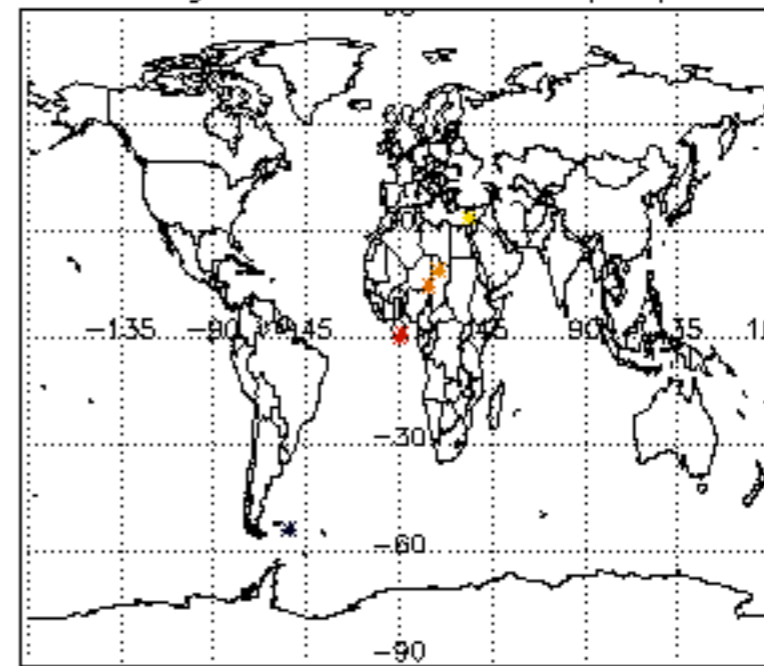
Percentage of datation errors per profile



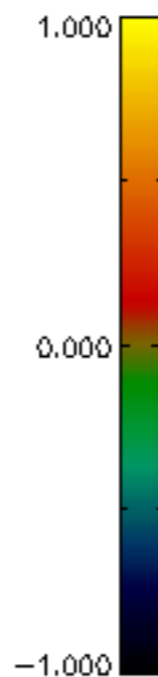
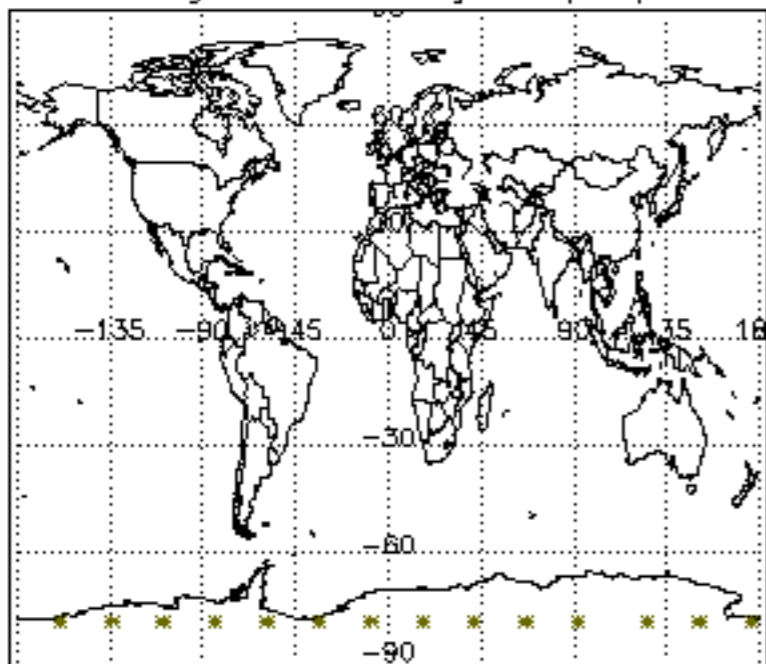
Percentage of star falling outside central band per profile



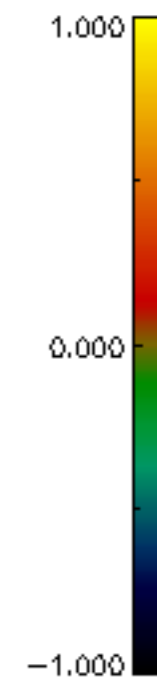
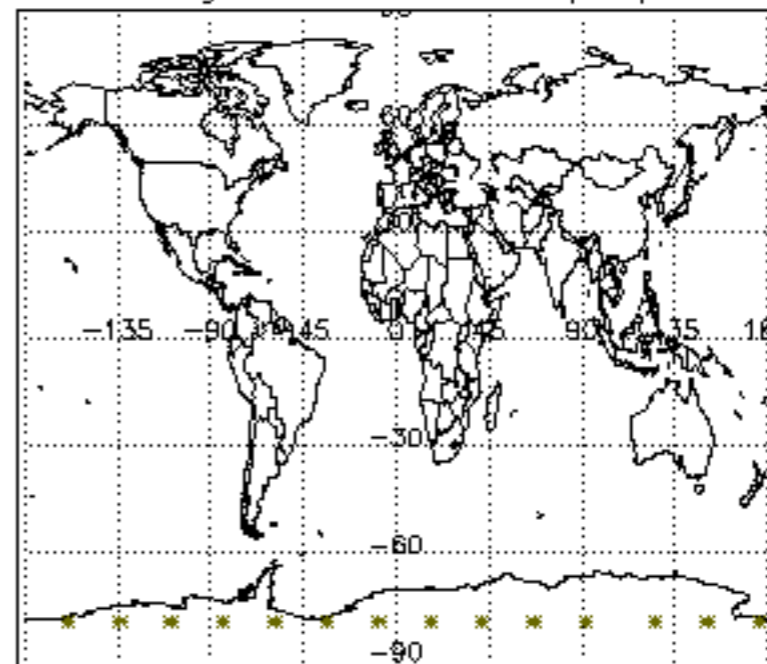
Percentage of saturation errors per profile



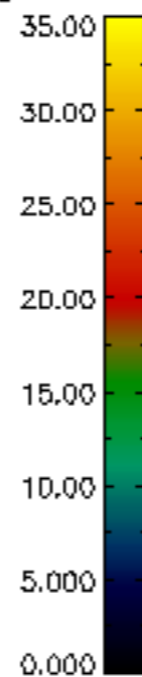
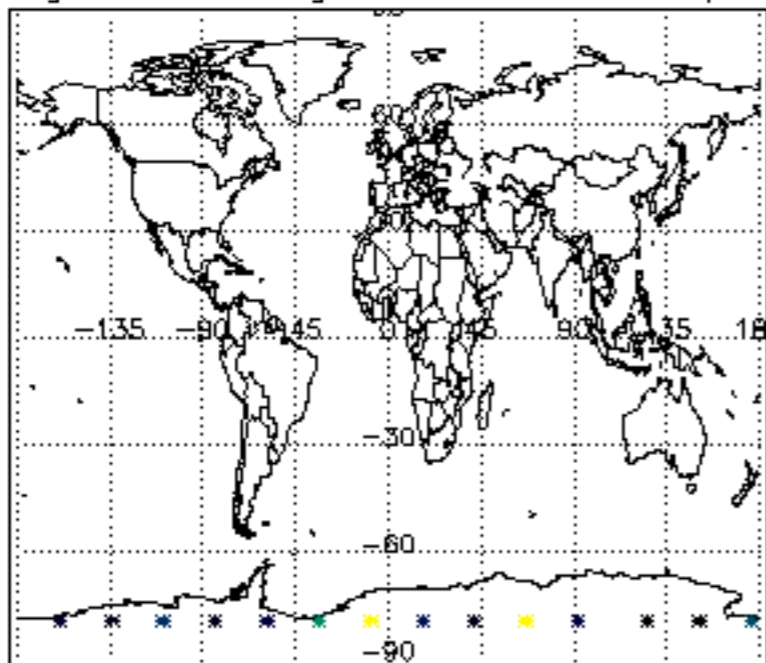
Percentage of cosmic ray hits per profile



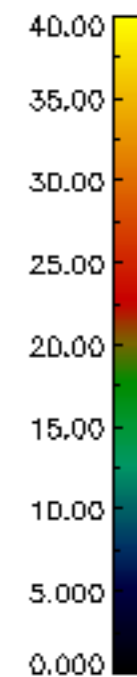
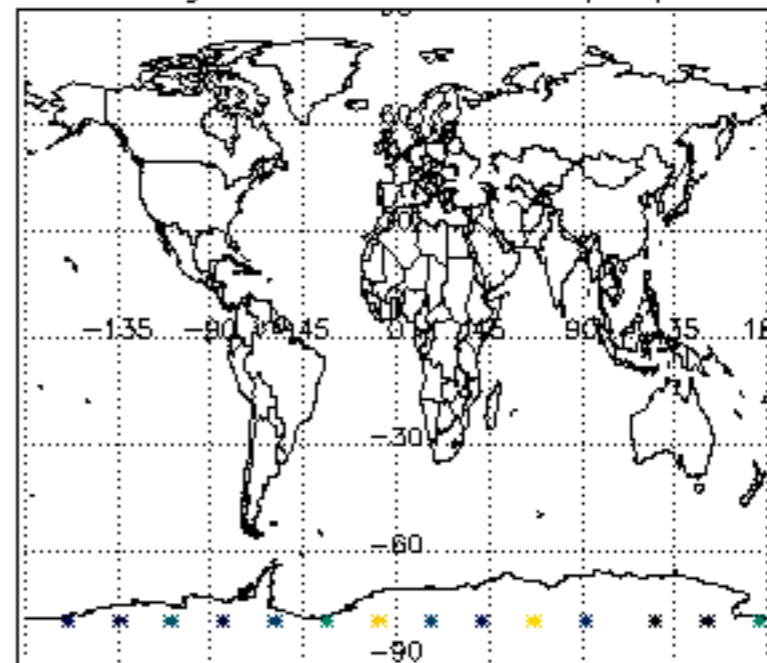
Percentage of datation errors per profile

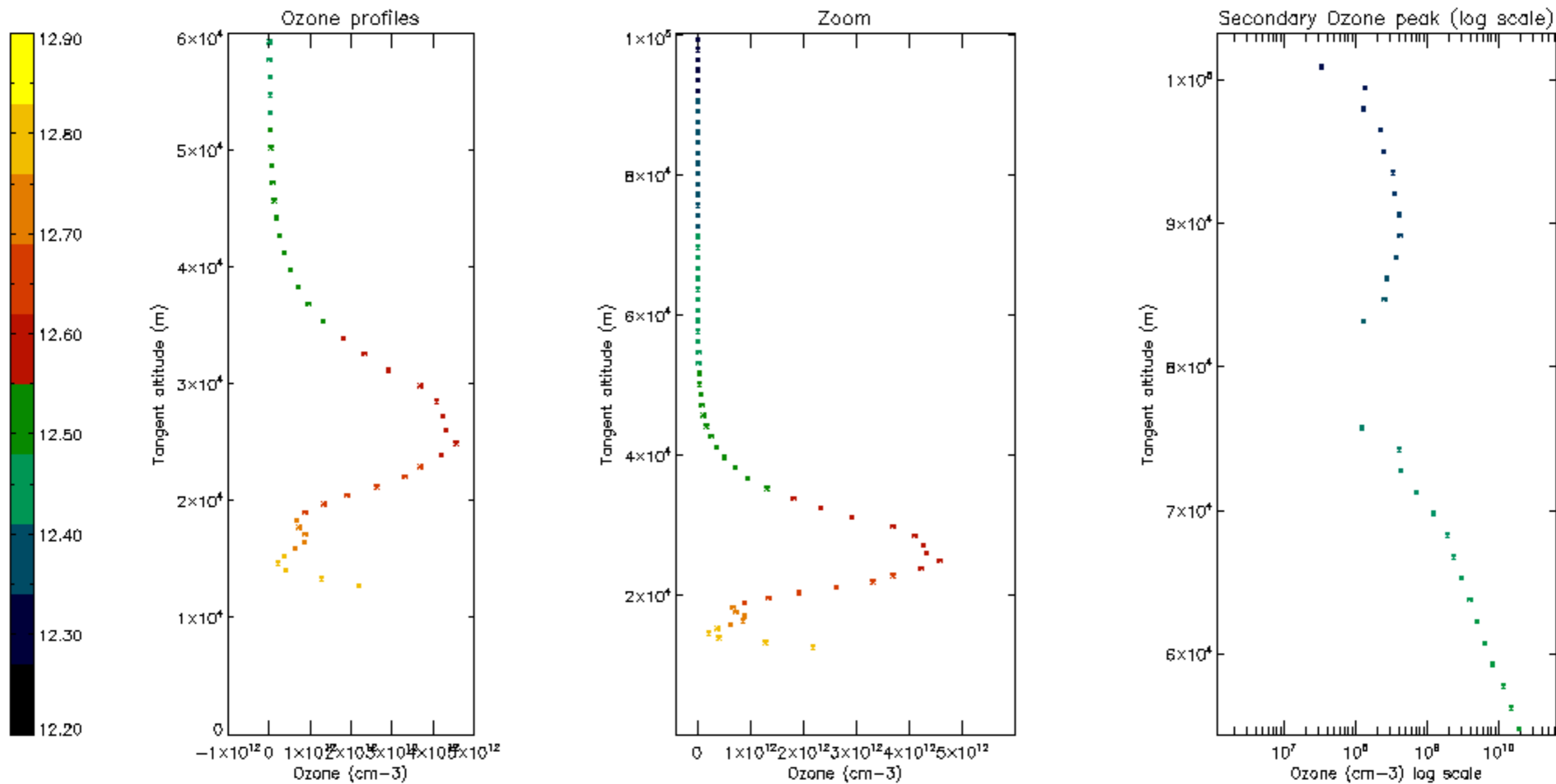


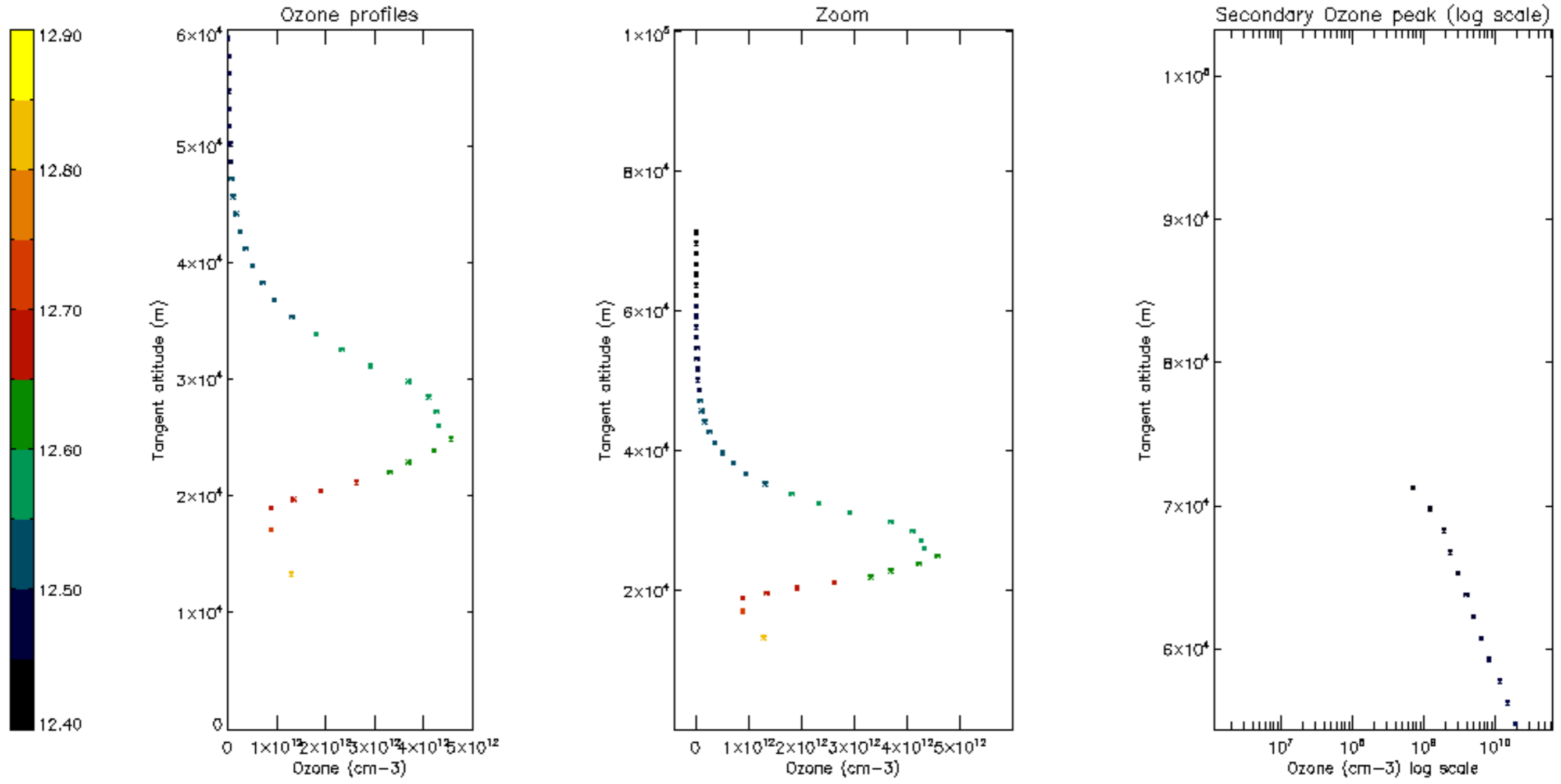
Percentage of star falling outside central band per profile

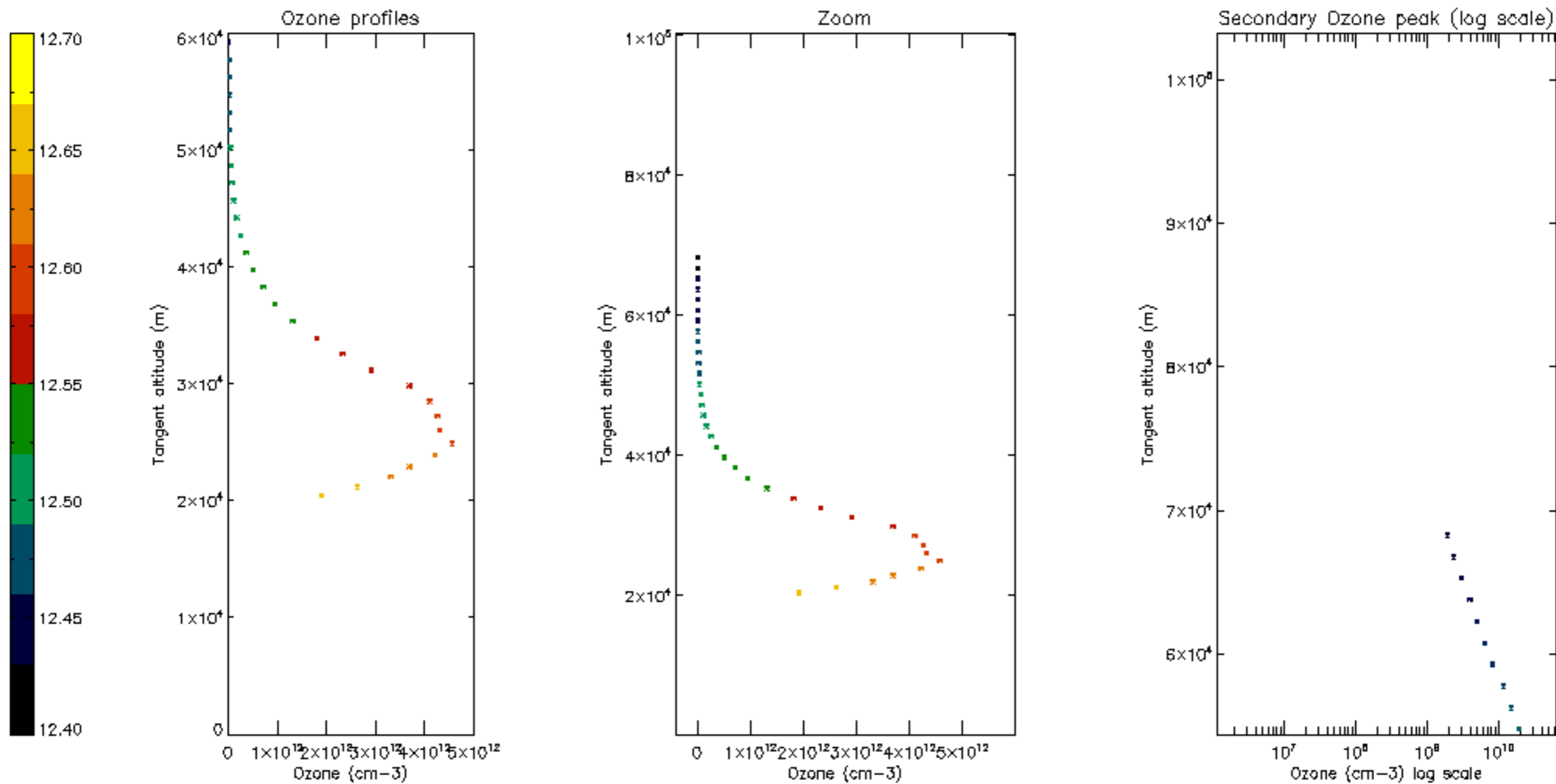


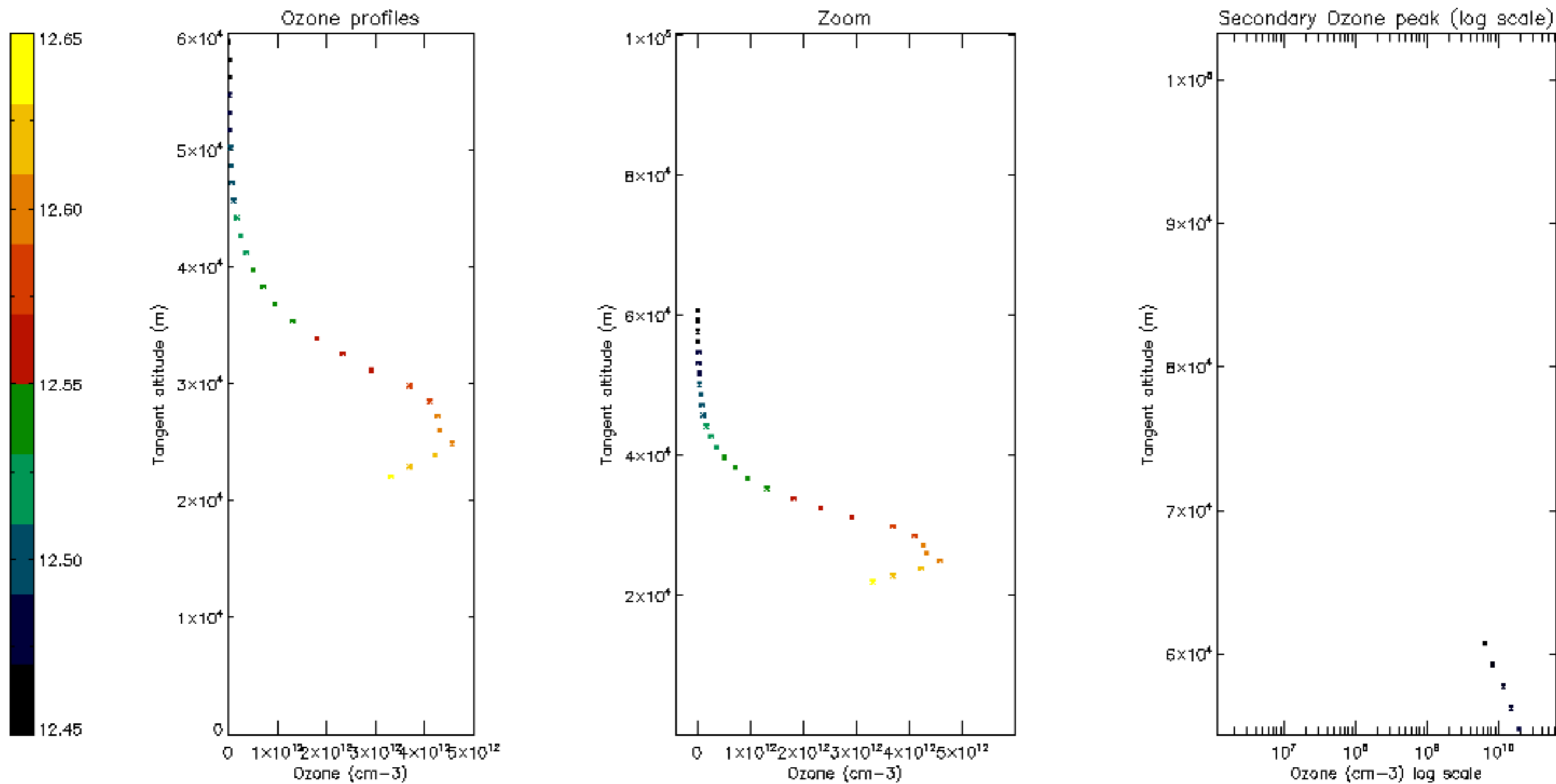
Percentage of saturation errors per profile

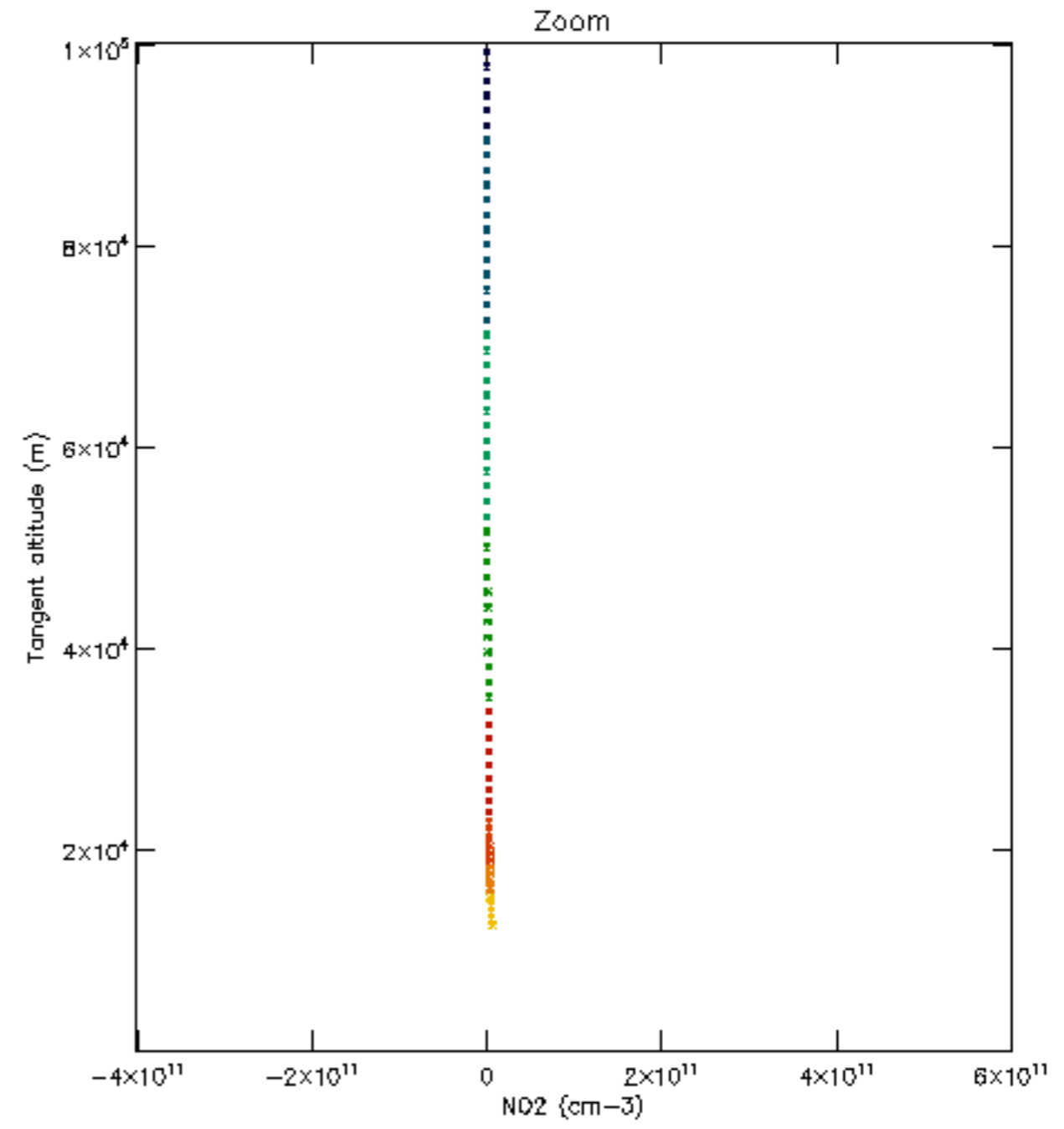
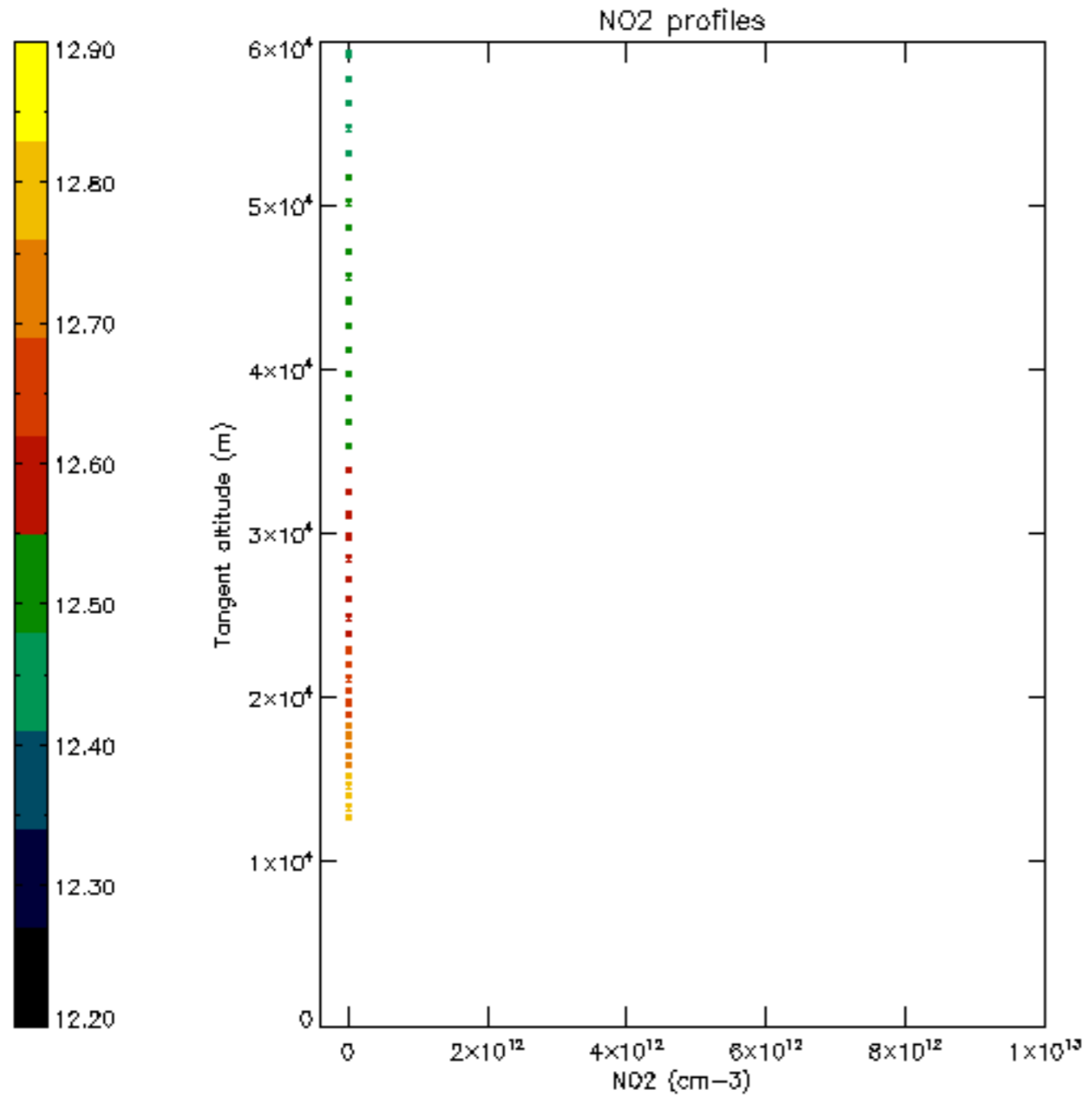


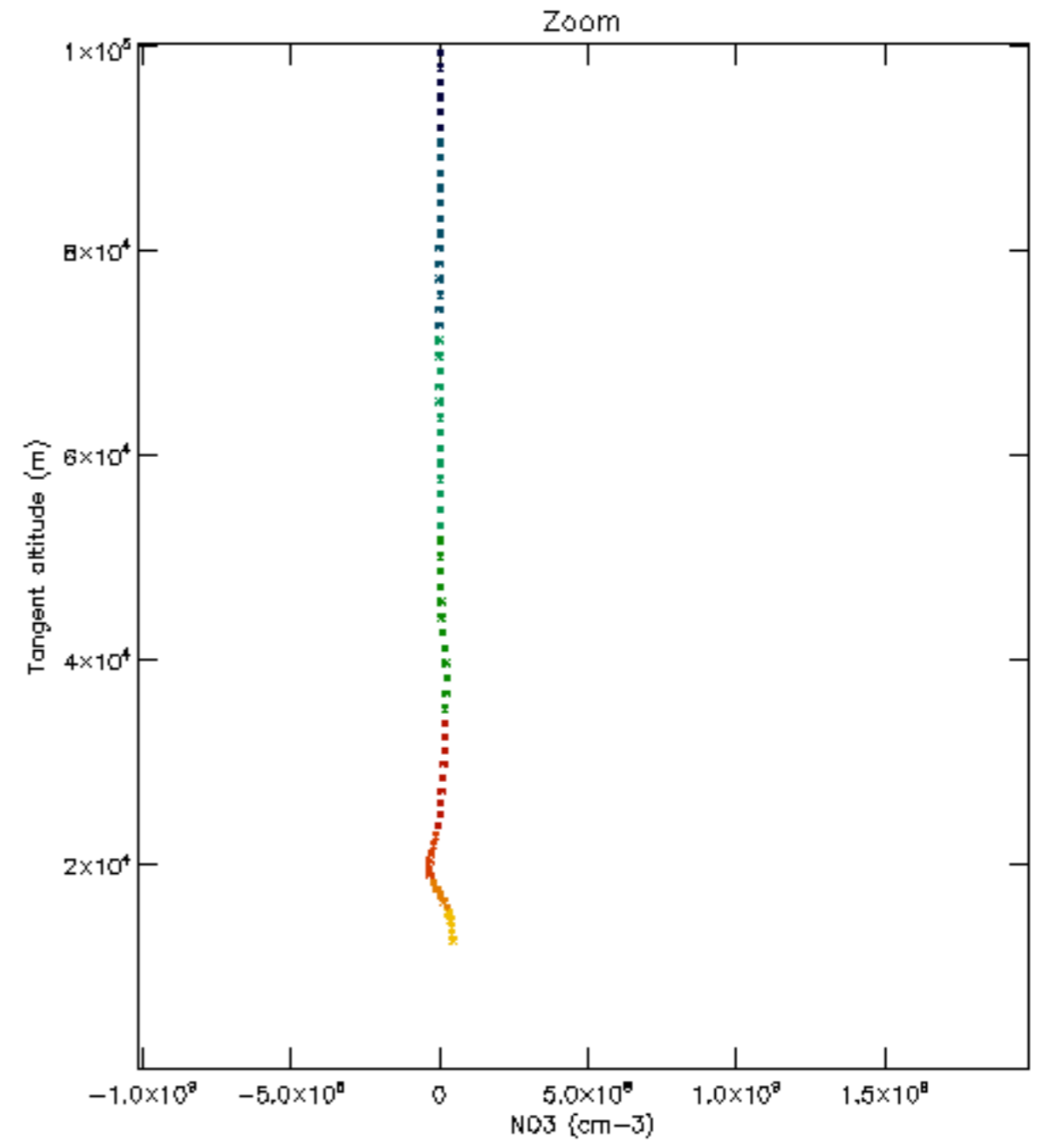
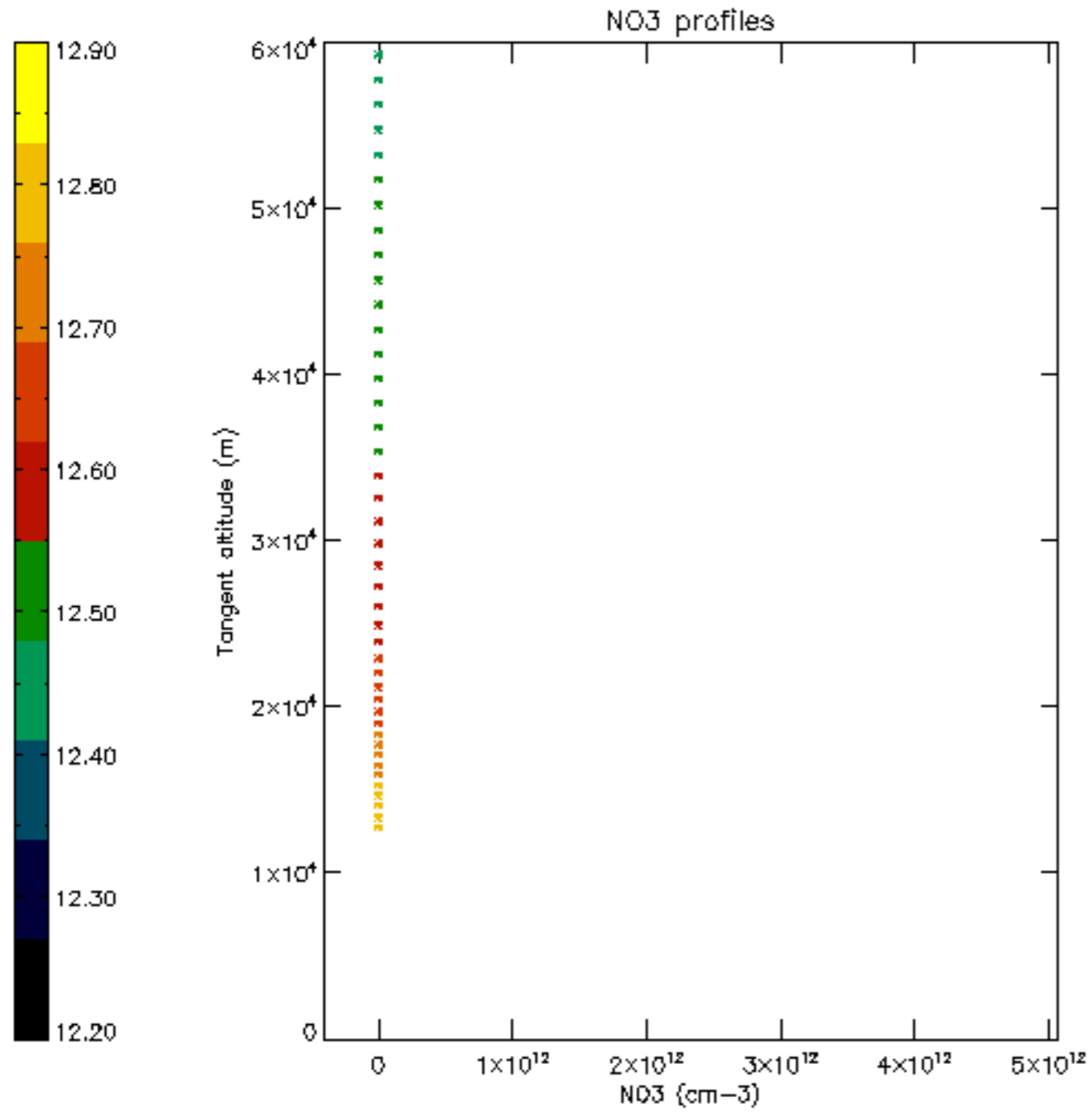




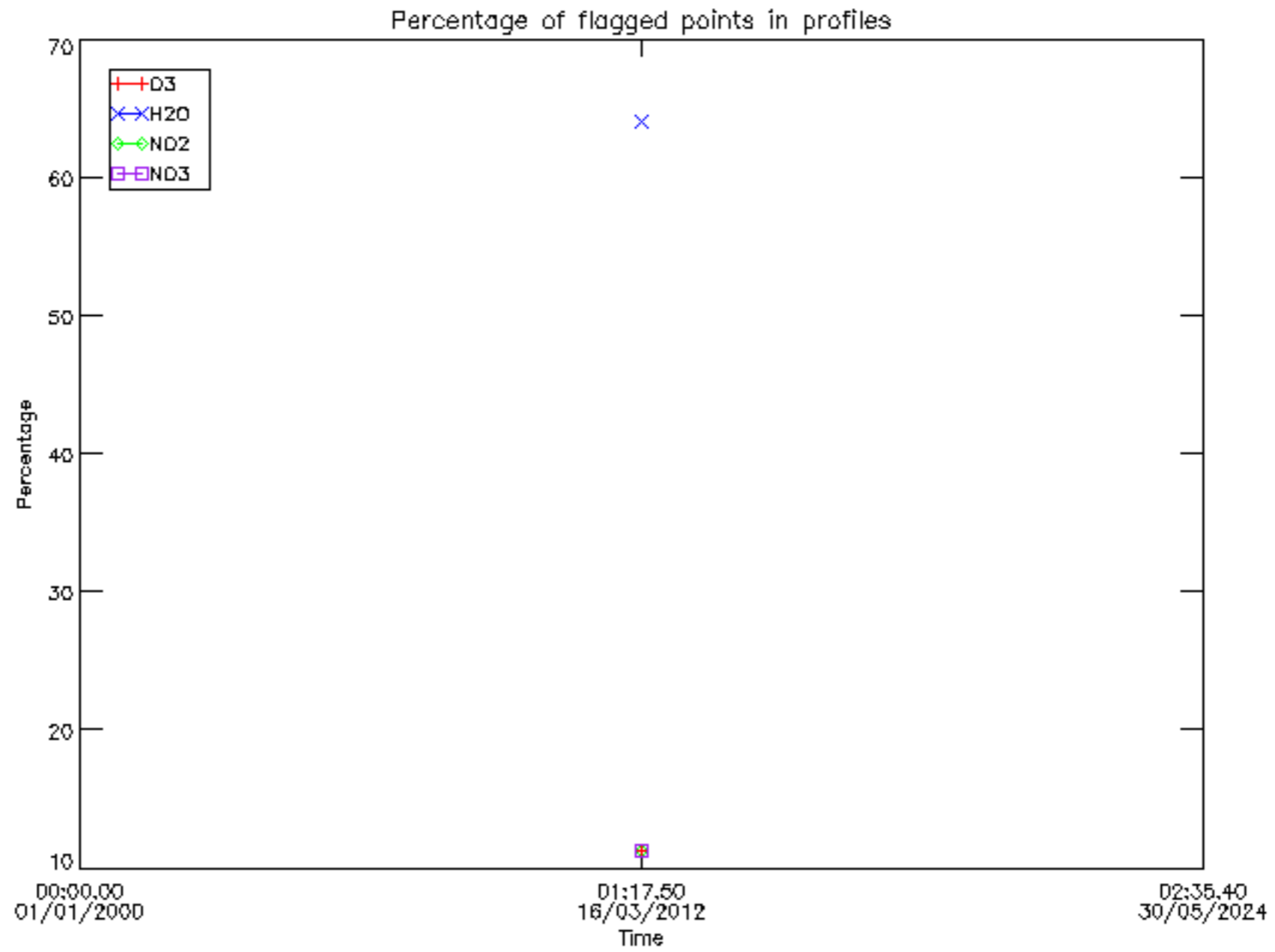




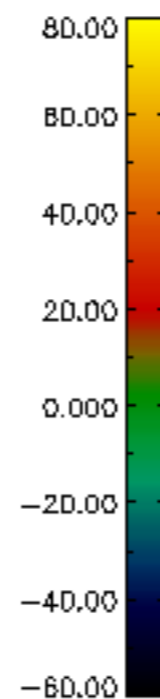
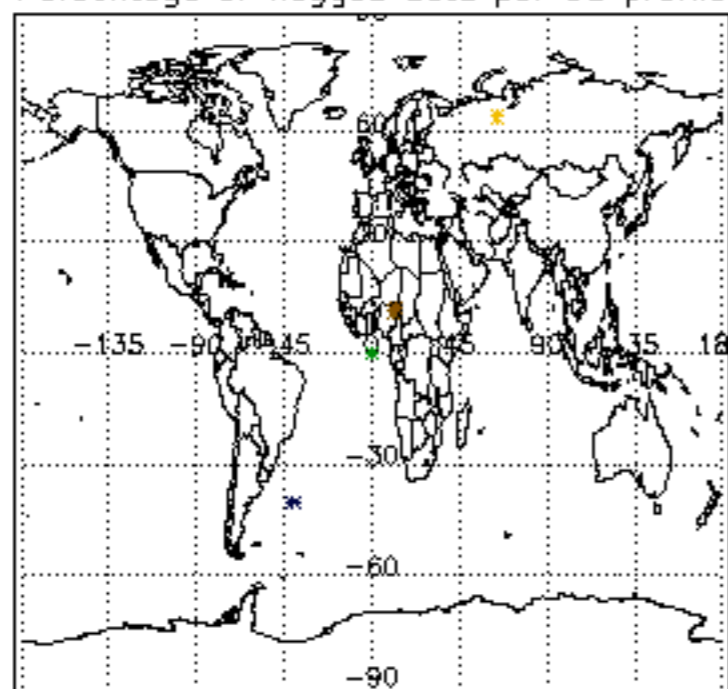




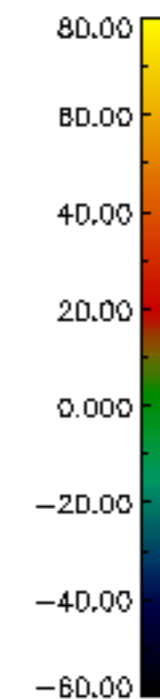
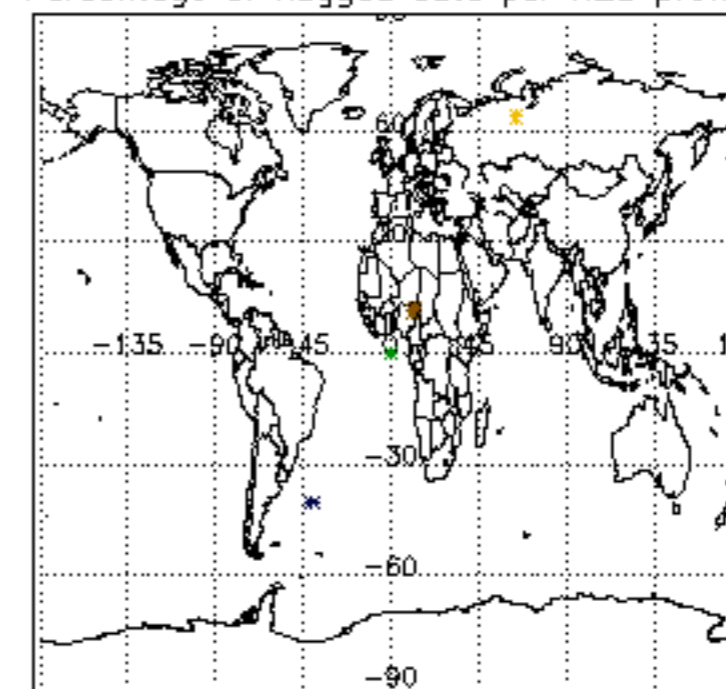




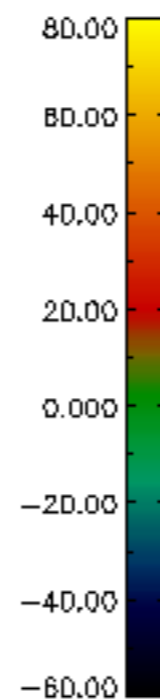
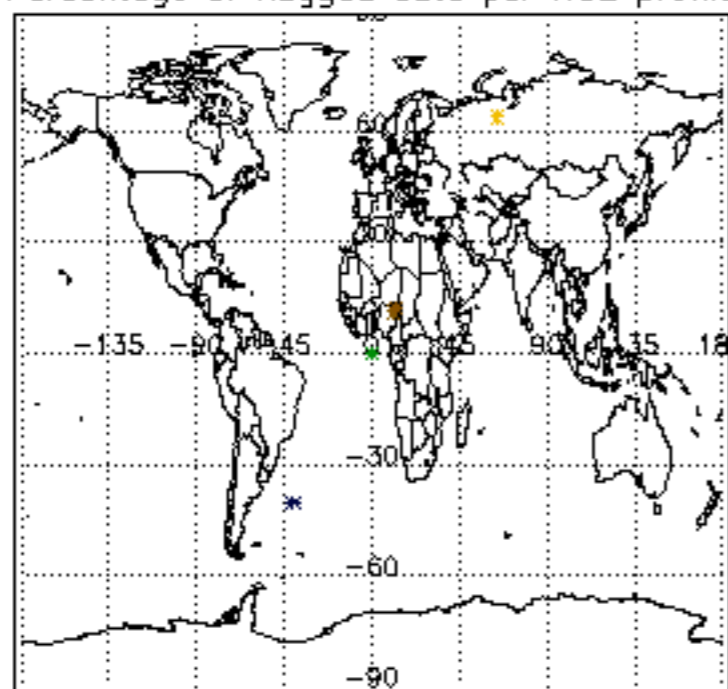
Percentage of flagged data per D3 profile



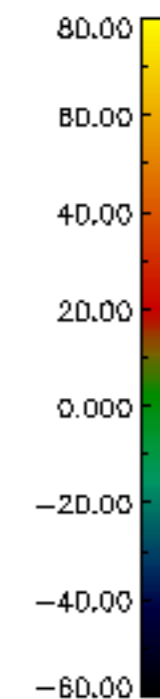
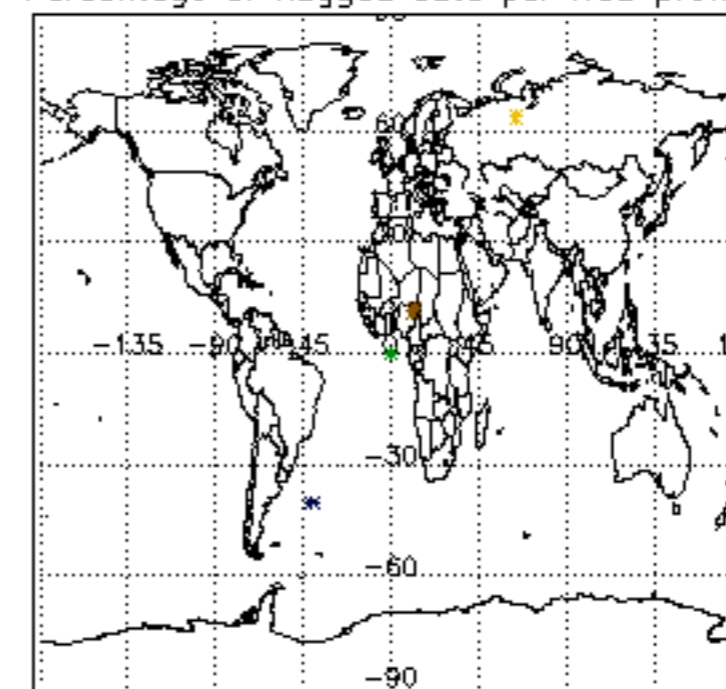
Percentage of flagged data per H2O profile

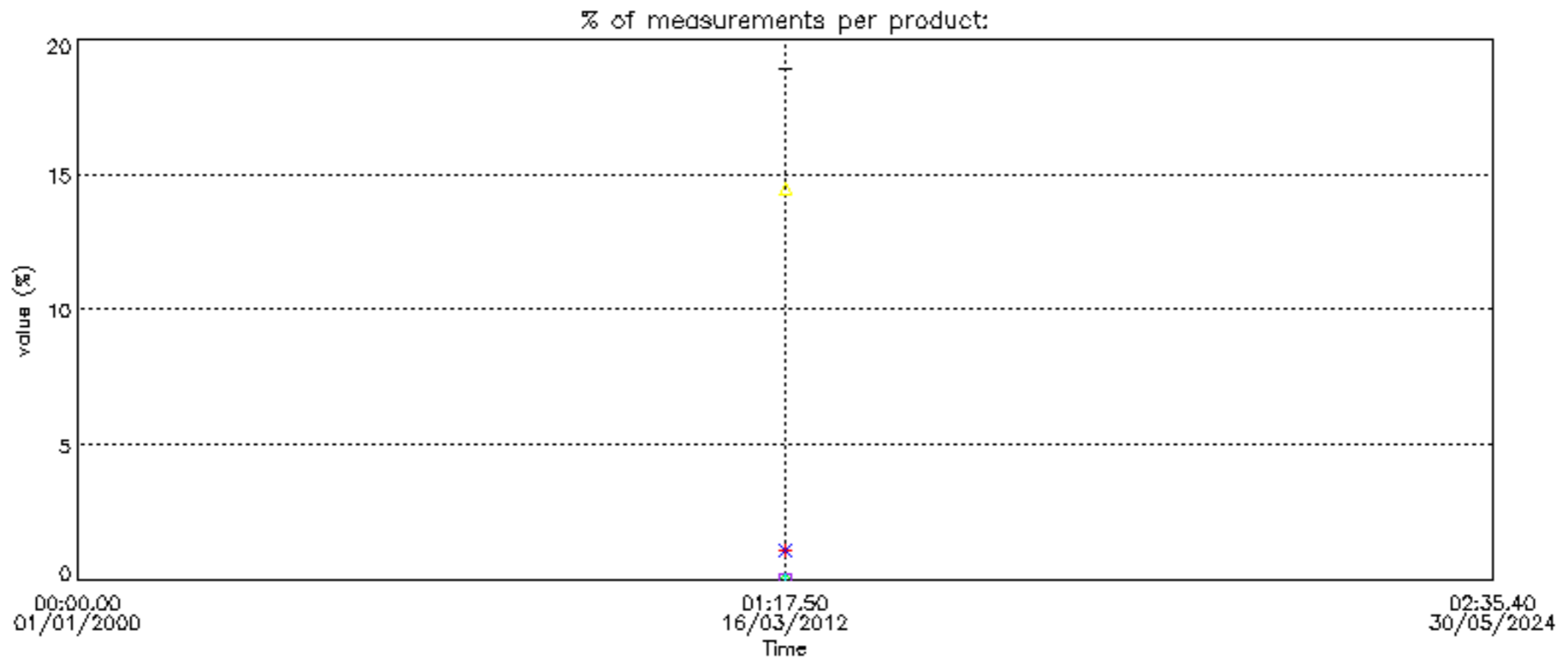


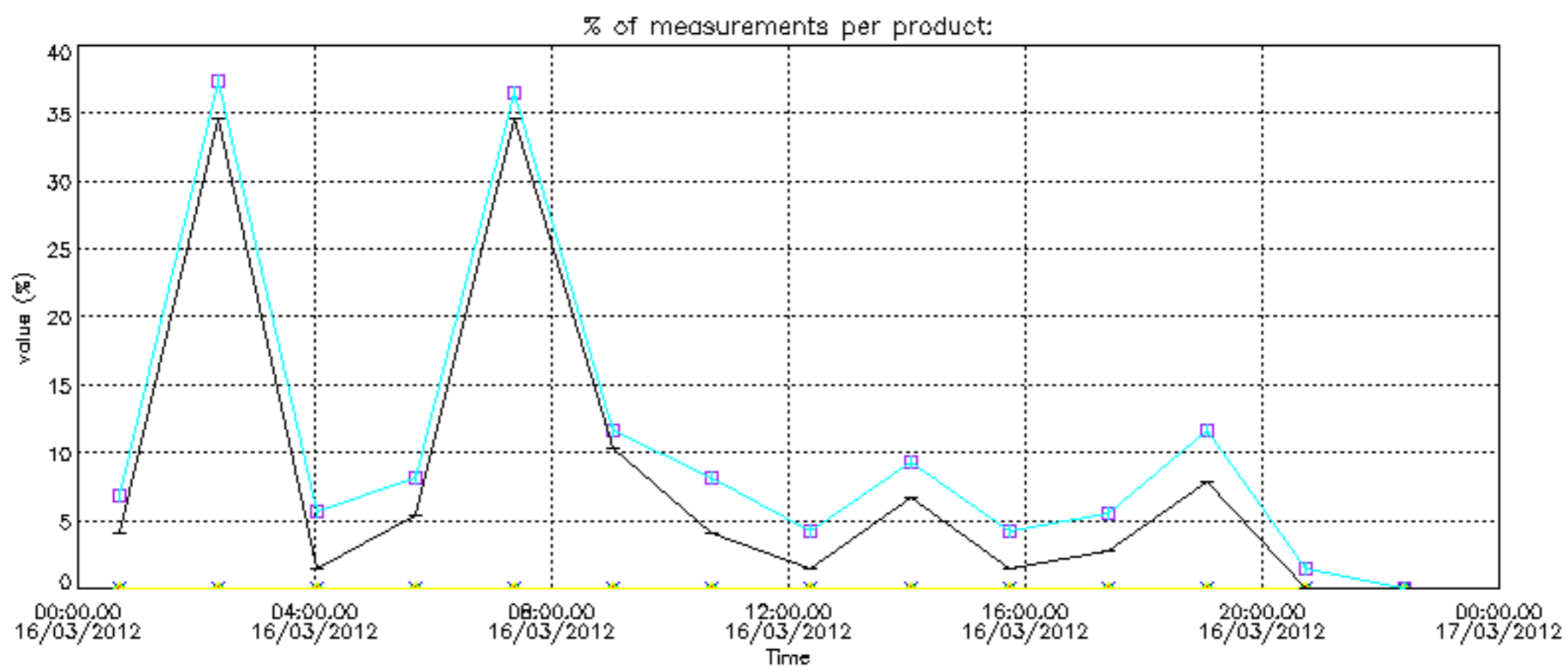
Percentage of flagged data per NO2 profile



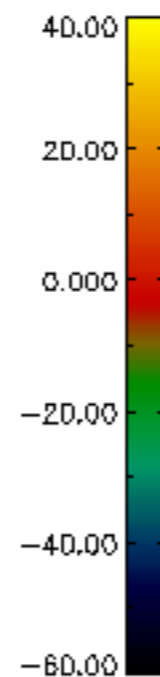
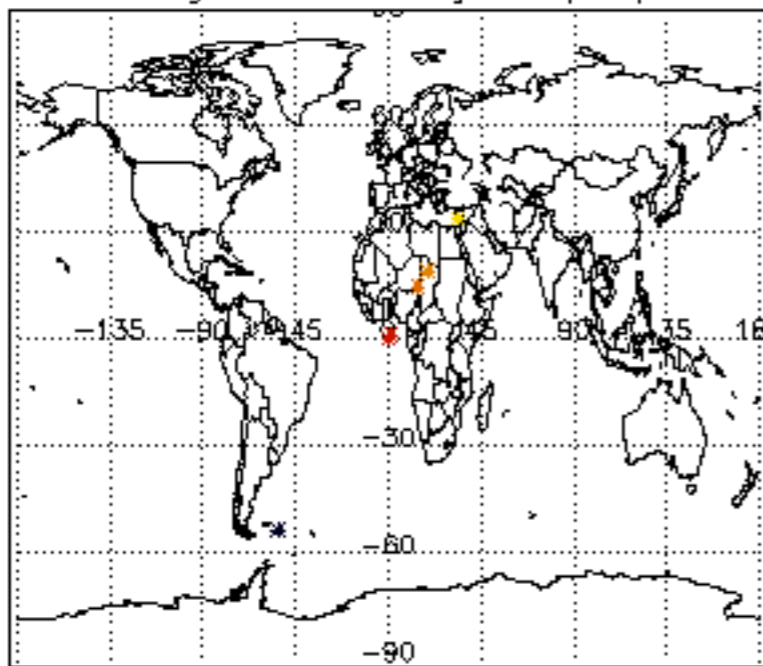
Percentage of flagged data per NO3 profile



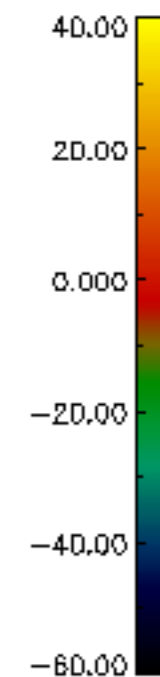
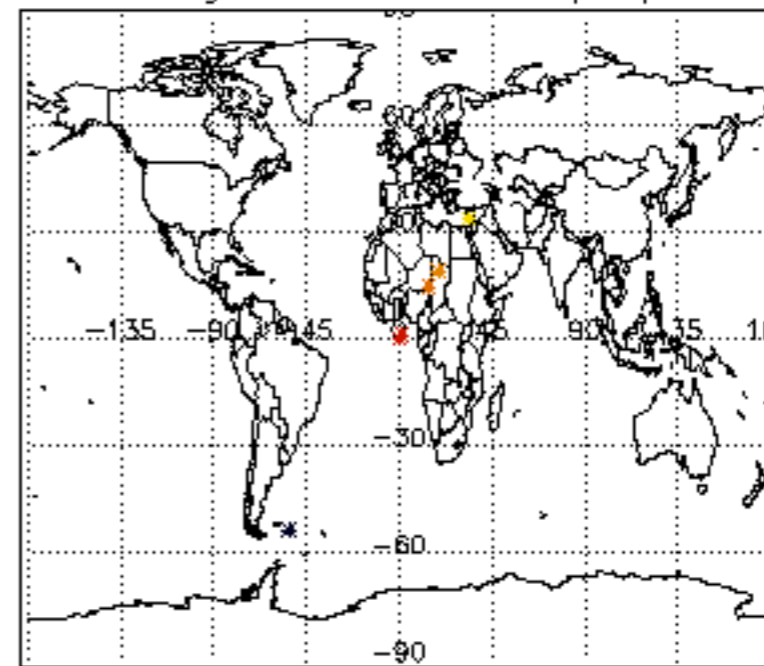




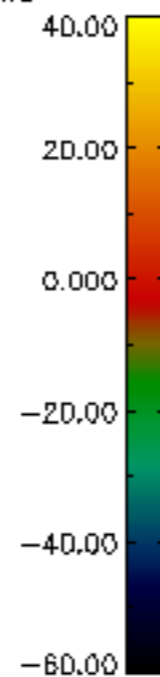
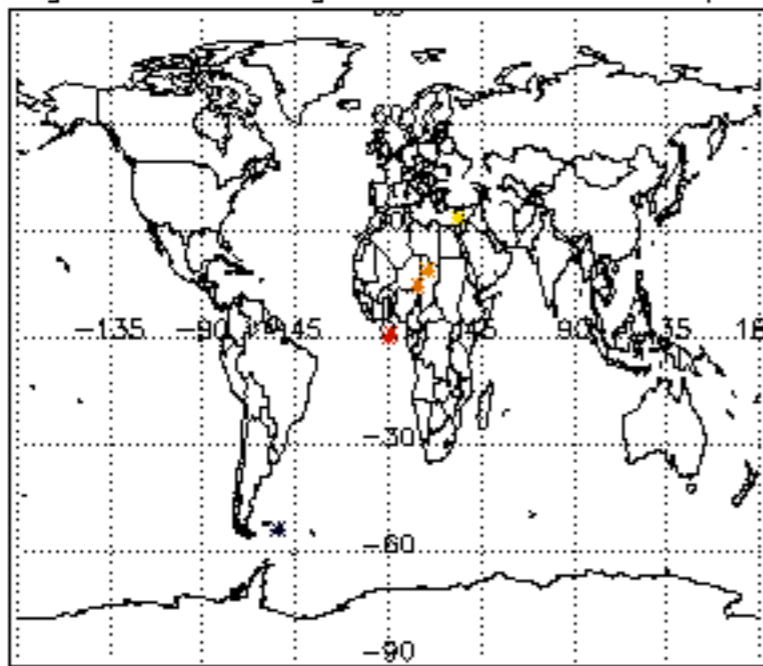
Percentage of cosmic ray hits per profile



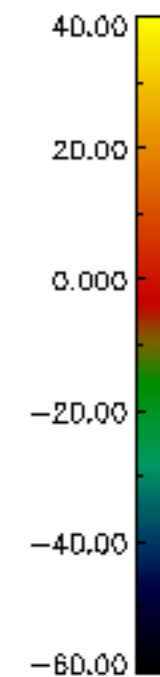
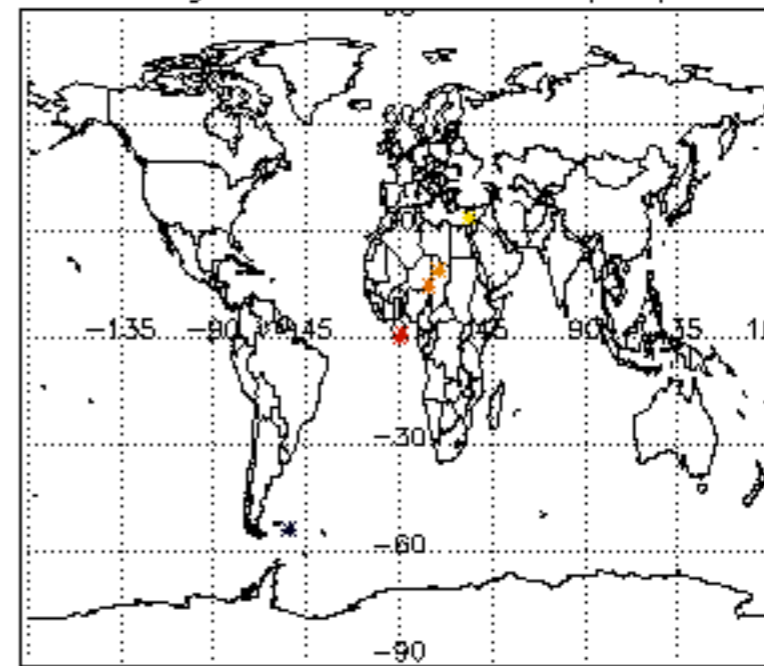
Percentage of datation errors per profile



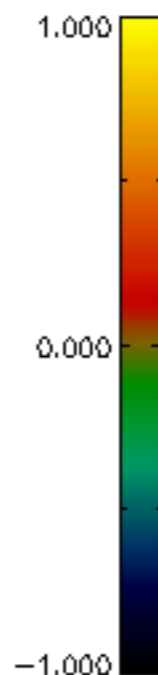
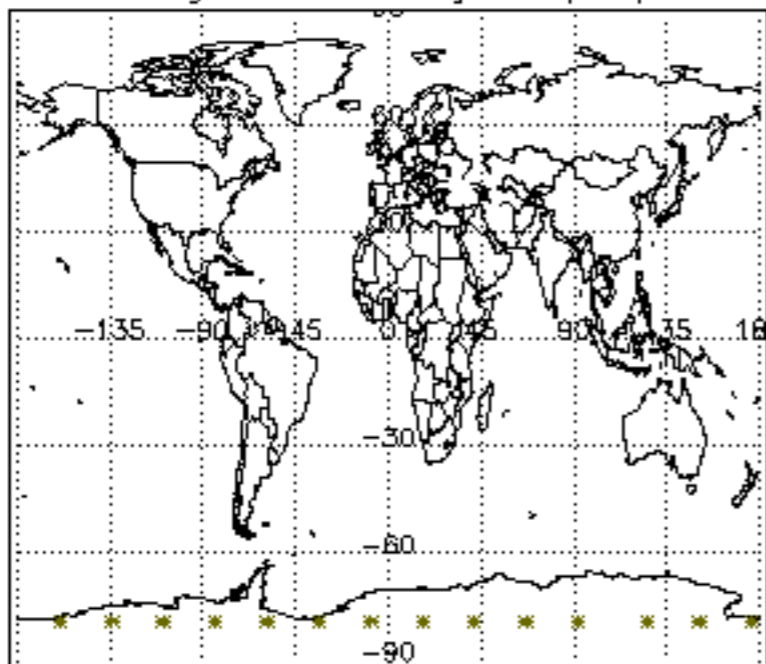
Percentage of star falling outside central band per profile



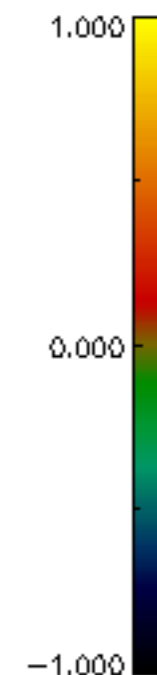
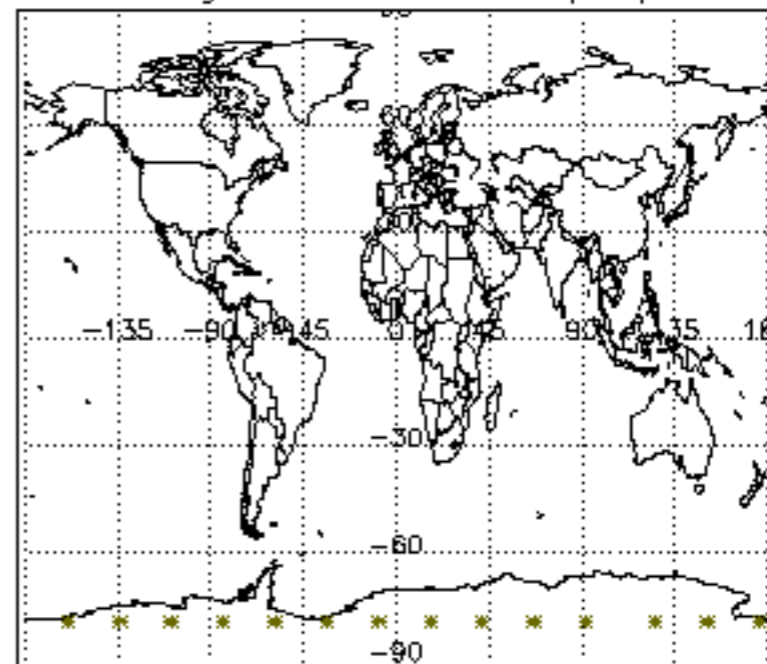
Percentage of saturation errors per profile



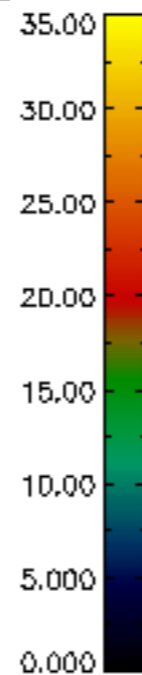
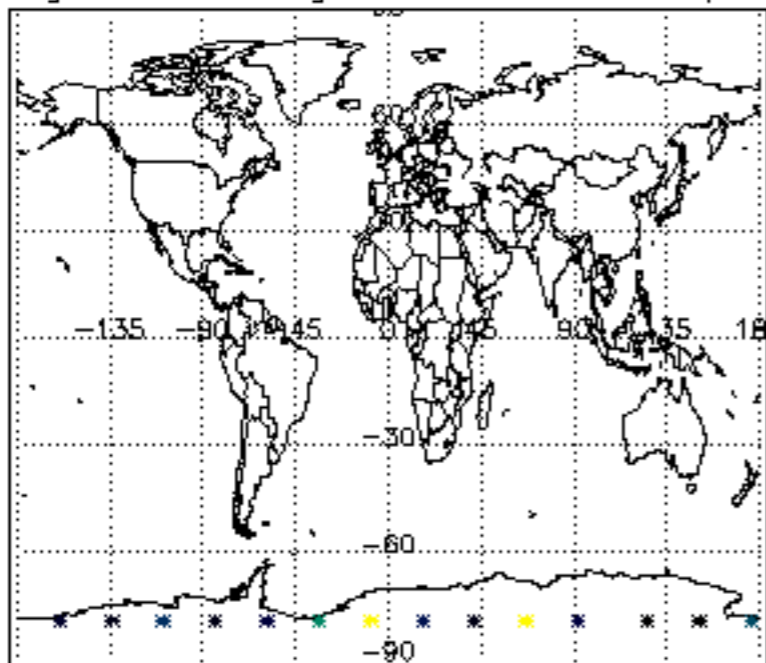
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

