

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 14:11:35
Data source version	GOMOS/6.01
Start time of products	13-03-2012 (13MAR2012 00:00:00)
Stop time of products	14-03-2012 (14MAR2012 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	13
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

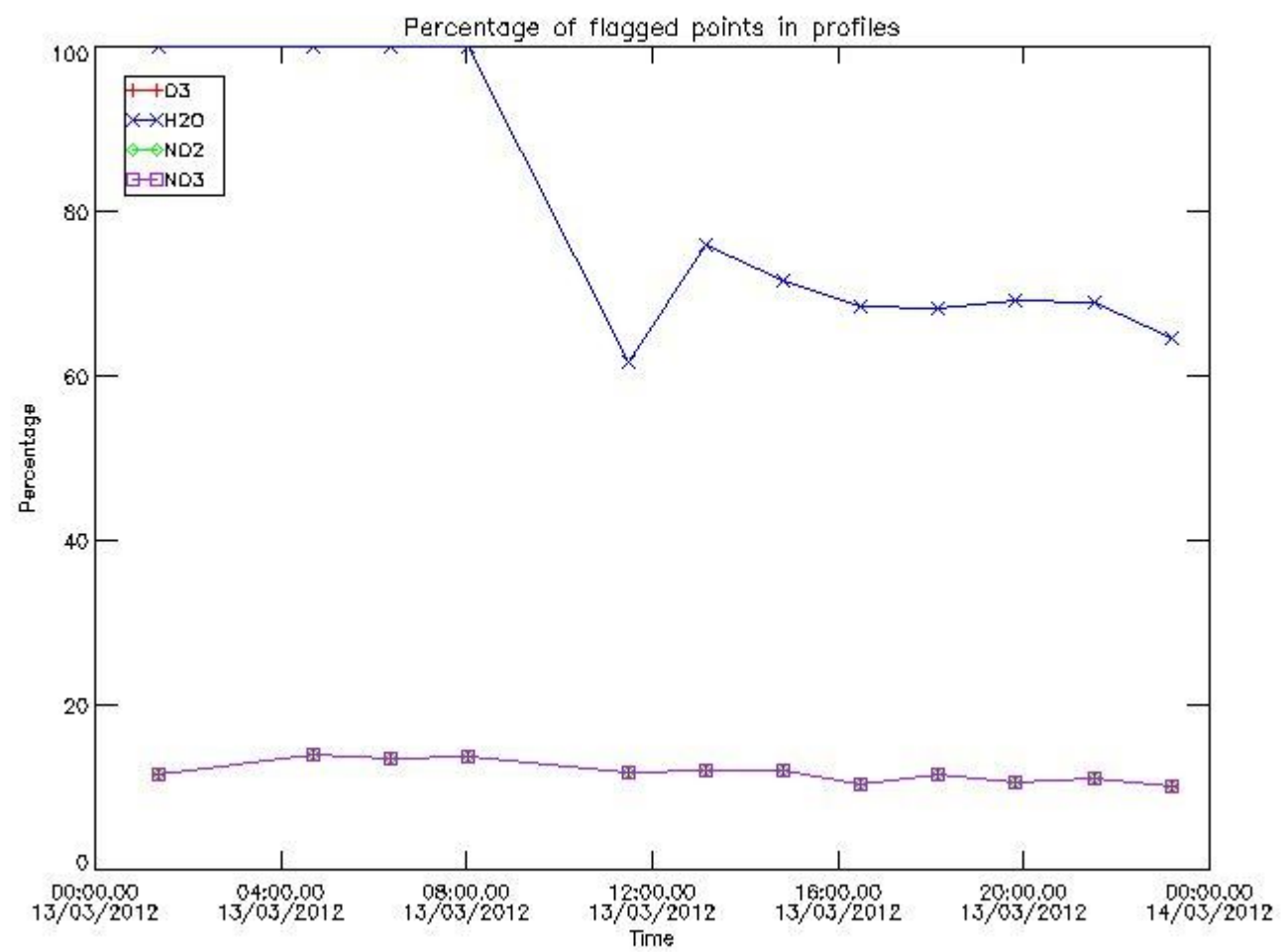
!Warning: No products without errors in BRIGHT limb conditions found

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20120313_012059_000000443112_00319_52488_4216.N1	13-MAR-2012 01:20:59	Dark	44.000	141	Bet Ara	2.8400	4600.0	88	52488	No
2	GOM_NL__2PRFIN20120313_030114_000000423112_00320_52489_4217.N1	13-MAR-2012 03:01:14	Dark	41.500	141	Bet Ara	2.8400	4600.0	83	52489	Yes
3	GOM_NL__2PRFIN20120313_044128_000000403112_00321_52490_4226.N1	13-MAR-2012 04:41:28	Dark	39.500	141	Bet Ara	2.8400	4600.0	79	52490	No
4	GOM_NL__2PRFIN20120313_062143_000000383112_00322_52491_4239.N1	13-MAR-2012 06:21:43	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	52491	No
5	GOM_NL__2PRFIN20120313_080158_000000373112_00323_52492_4264.N1	13-MAR-2012 08:01:58	Dark	36.500	141	Bet Ara	2.8400	4600.0	73	52492	No
6	GOM_NL__2PRFIN20120313_112853_000000473112_00325_52494_4380.N1	13-MAR-2012 11:28:53	Dark	47.000	4	Alp1Cen	-0.010000	5800.0	94	52494	No
7	GOM_NL__2PRFIN20120313_130907_000000423112_00326_52495_4408.N1	13-MAR-2012 13:09:07	Dark	41.500	4	Alp1Cen	-0.010000	5800.0	83	52495	No
8	GOM_NL__2PRFIN20120313_144922_000000423112_00327_52496_4435.N1	13-MAR-2012 14:49:22	Dark	42.000	4	Alp1Cen	-0.010000	5800.0	84	52496	No
9	GOM_NL__2PRFIN20120313_162936_000000493112_00328_52497_4462.N1	13-MAR-2012 16:29:36	Dark	49.000	4	Alp1Cen	-0.010000	5800.0	98	52497	No
10	GOM_NL__2PRFIN20120313_180951_000000443112_00329_52498_4486.N1	13-MAR-2012 18:09:51	Dark	44.000	4	Alp1Cen	-0.010000	5800.0	88	52498	No
11	GOM_NL__2PRFIN20120313_195005_000000573112_00330_52499_4542.N1	13-MAR-2012 19:50:05	Dark	56.500	4	Alp1Cen	-0.010000	5800.0	113	52499	No
12	GOM_NL__2PRFIN20120313_213020_000000453112_00331_52500_4553.N1	13-MAR-2012 21:30:20	Dark	45.000	4	Alp1Cen	-0.010000	5800.0	90	52500	No
13	GOM_NL__2PRFIN20120313_231034_000000503112_00332_52501_4558.N1	13-MAR-2012 23:10:34	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	52501	No

3. Quality information per product

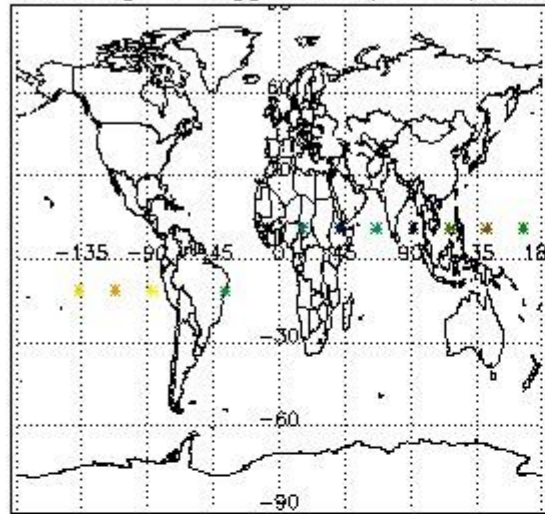
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

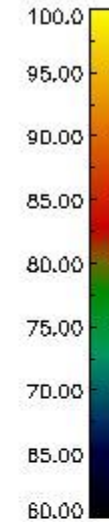
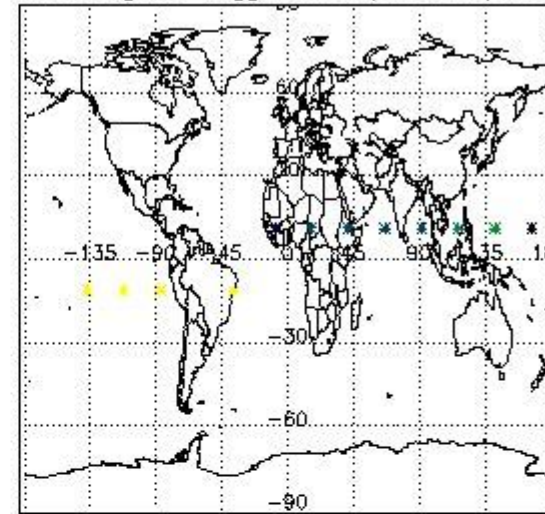


3.2 Plot quality information per product (world map)

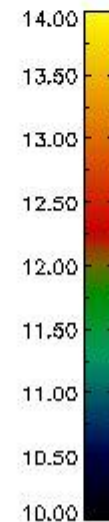
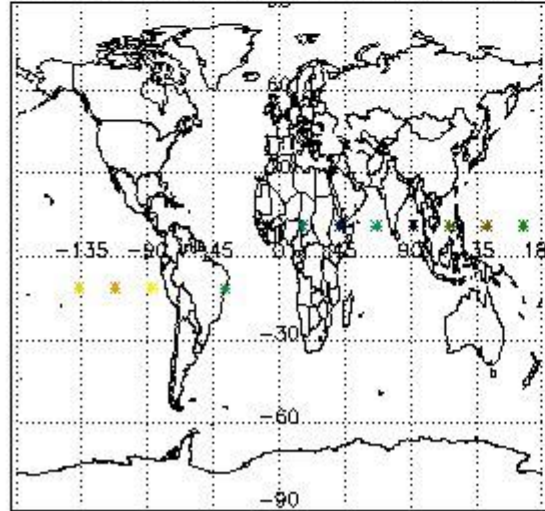
Percentage of flagged data per O3 profile



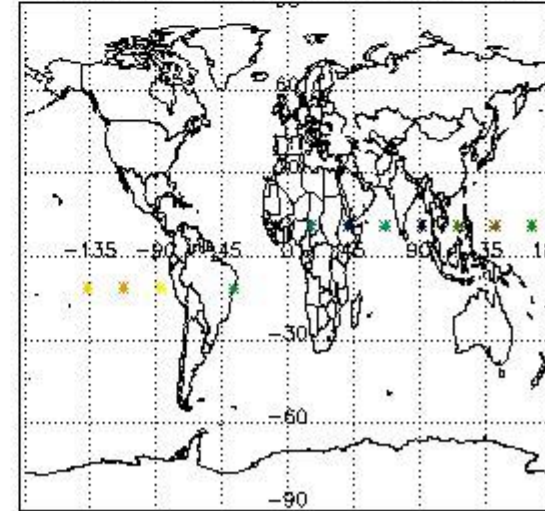
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

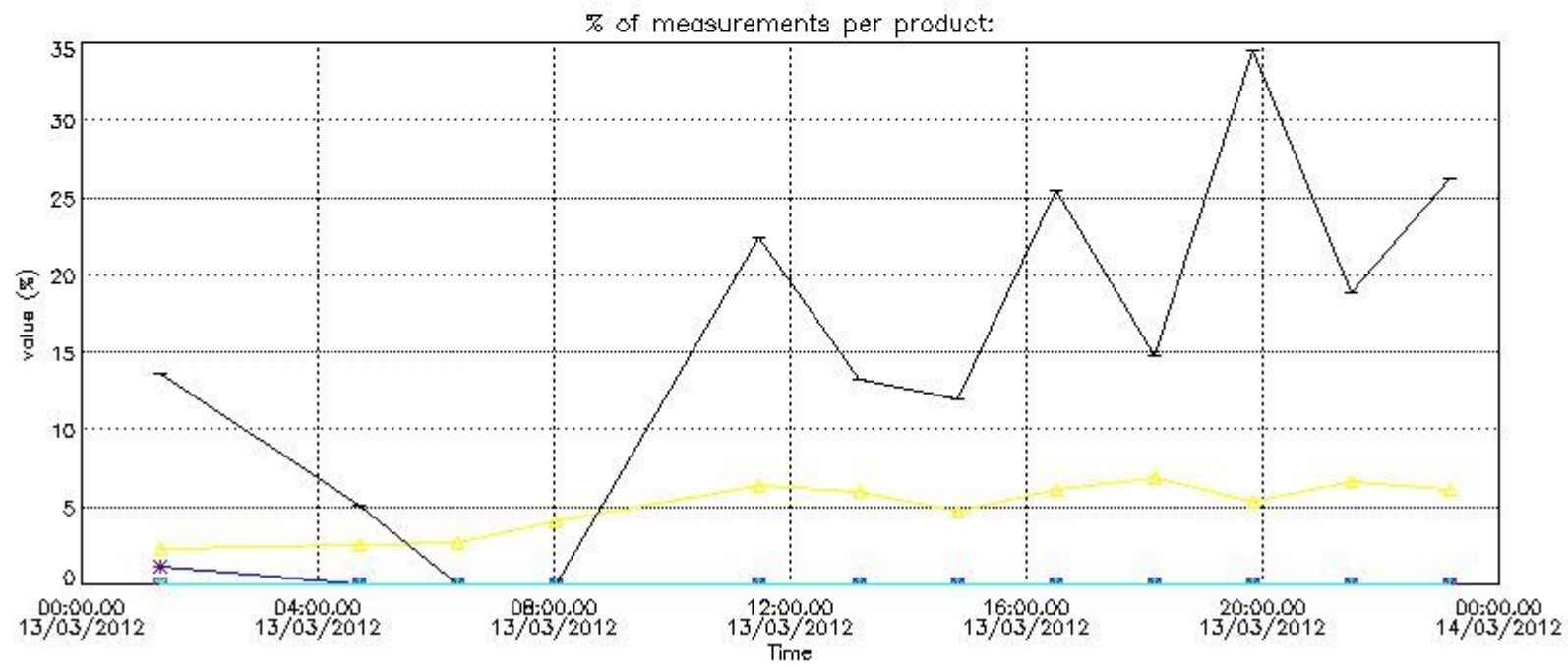
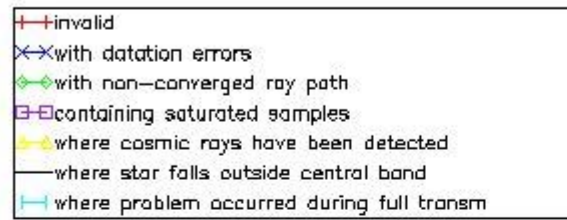


4. Level 1 quality information per product

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

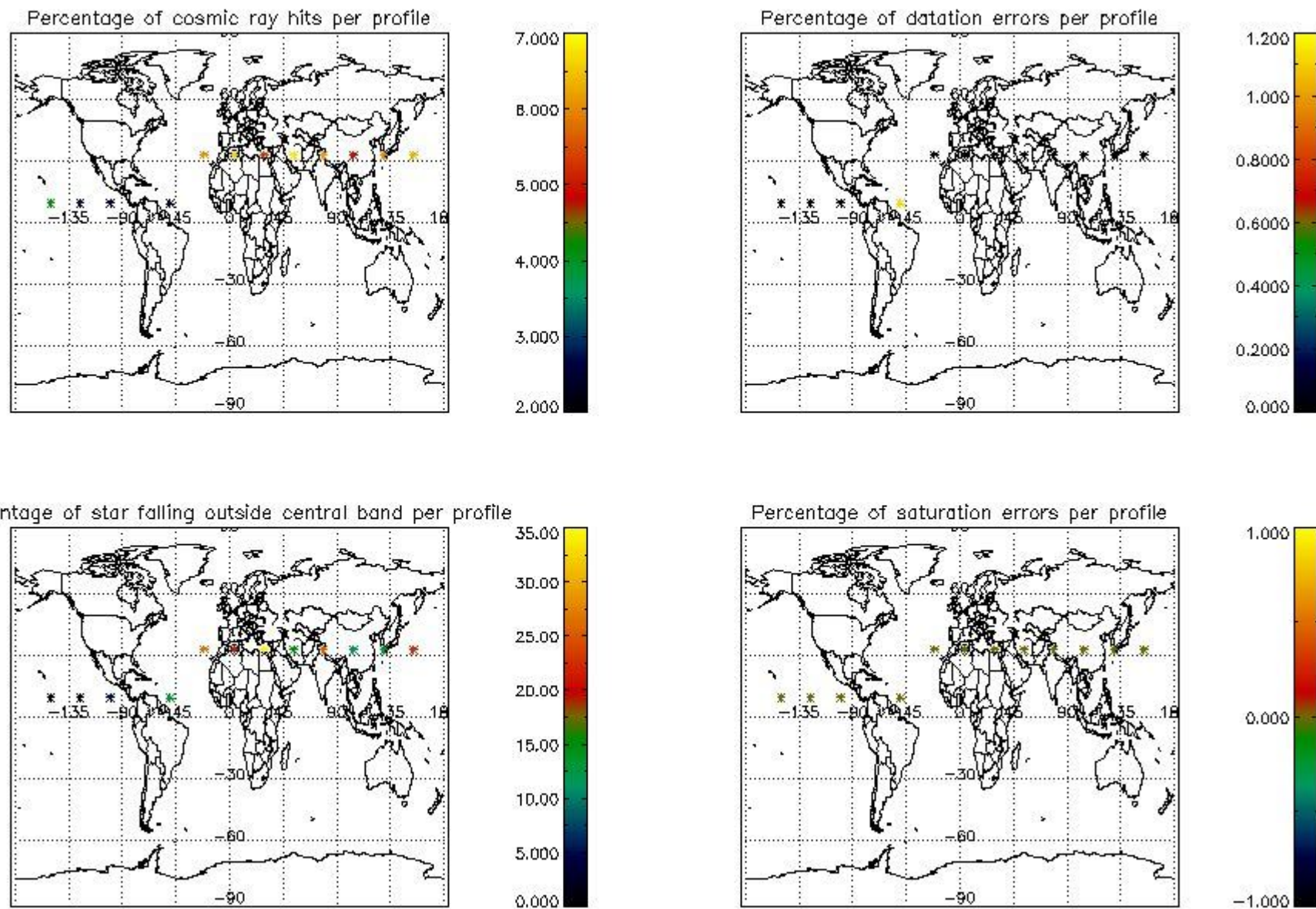


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

!Warning: No products without errors in descending found

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

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



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

!Warning: No products without errors in descending found

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:

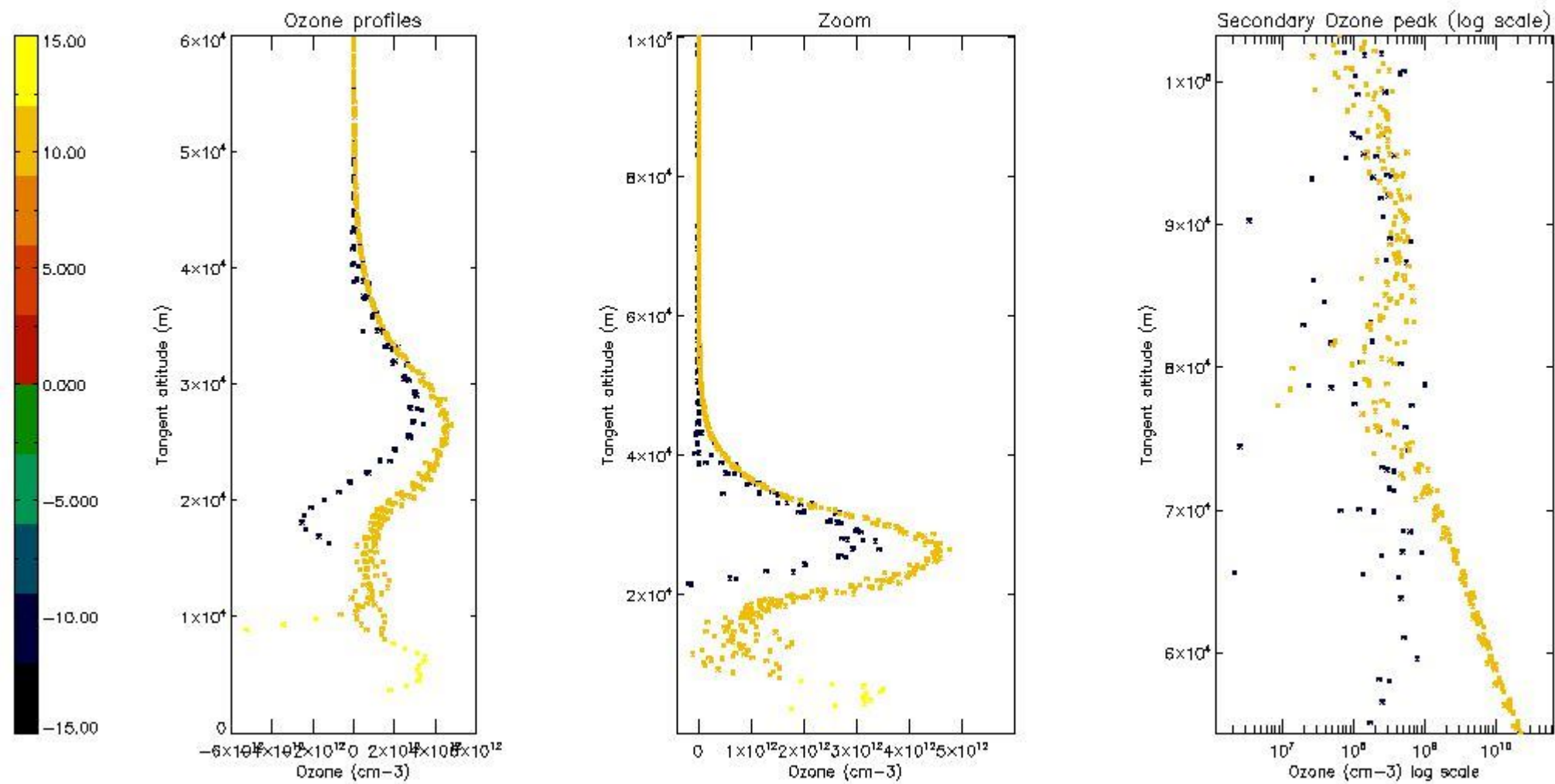
- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

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	100
STD < 20	42
STD < 10	31
STD < 5	25

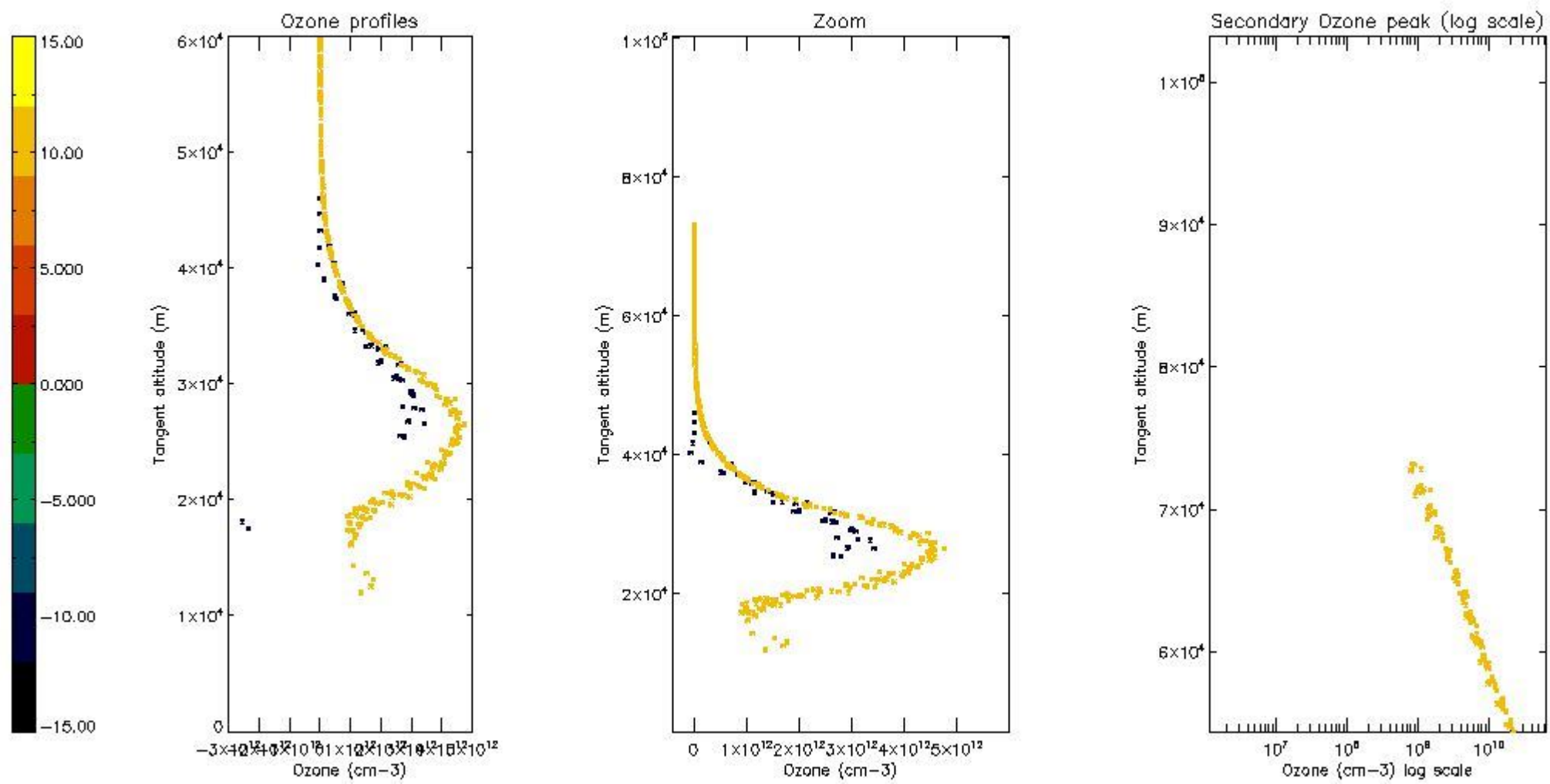
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



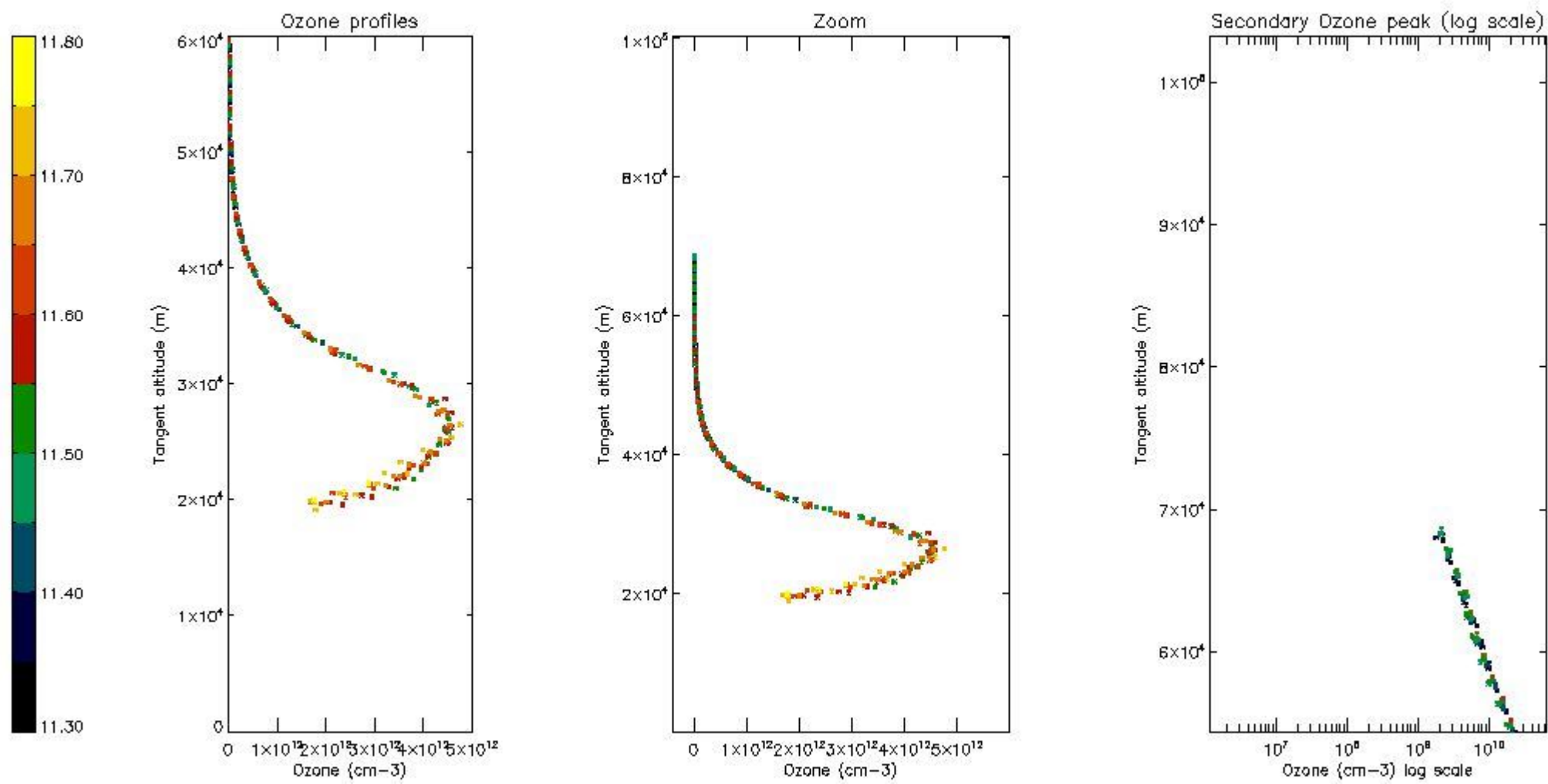
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



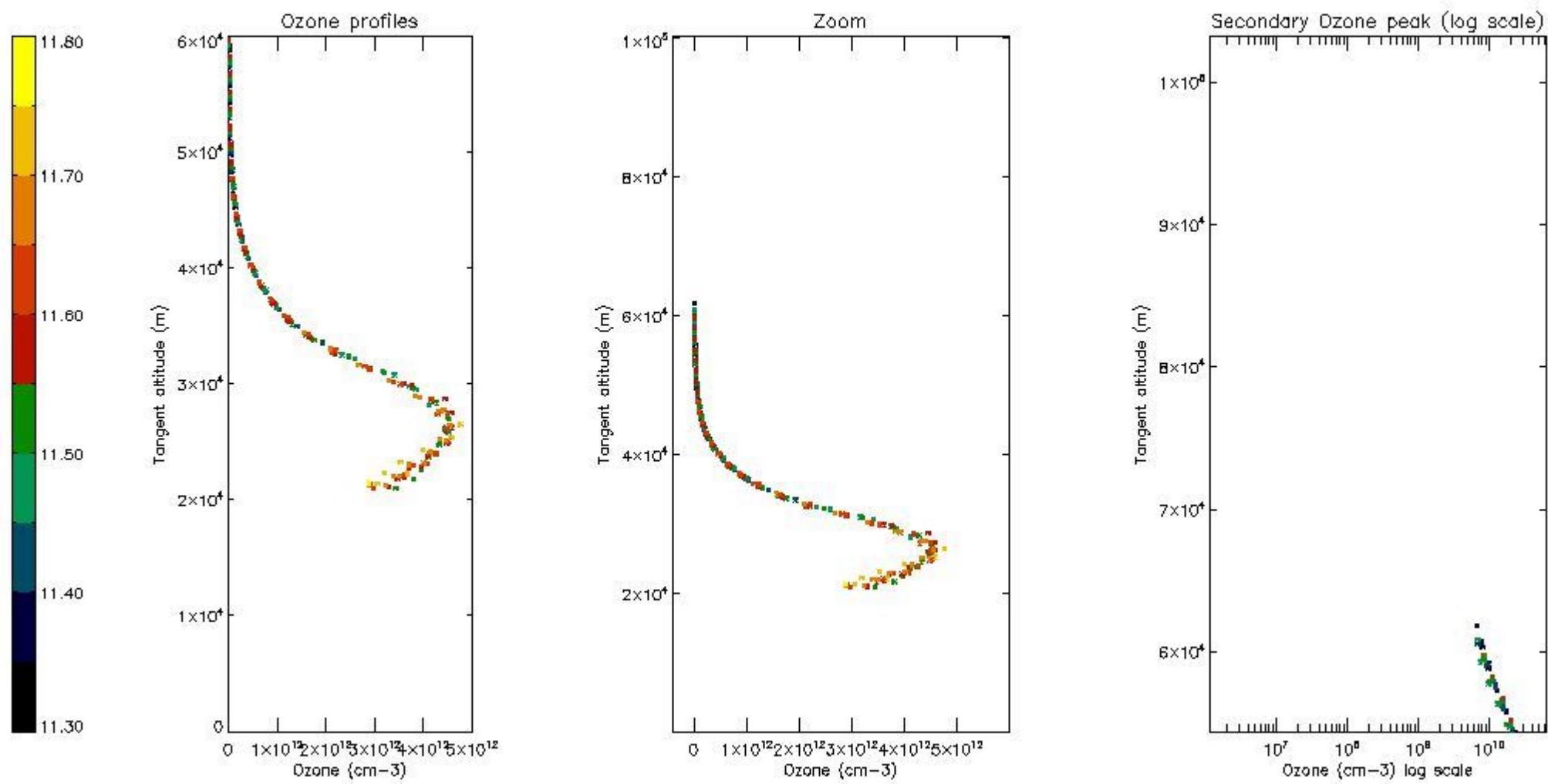
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



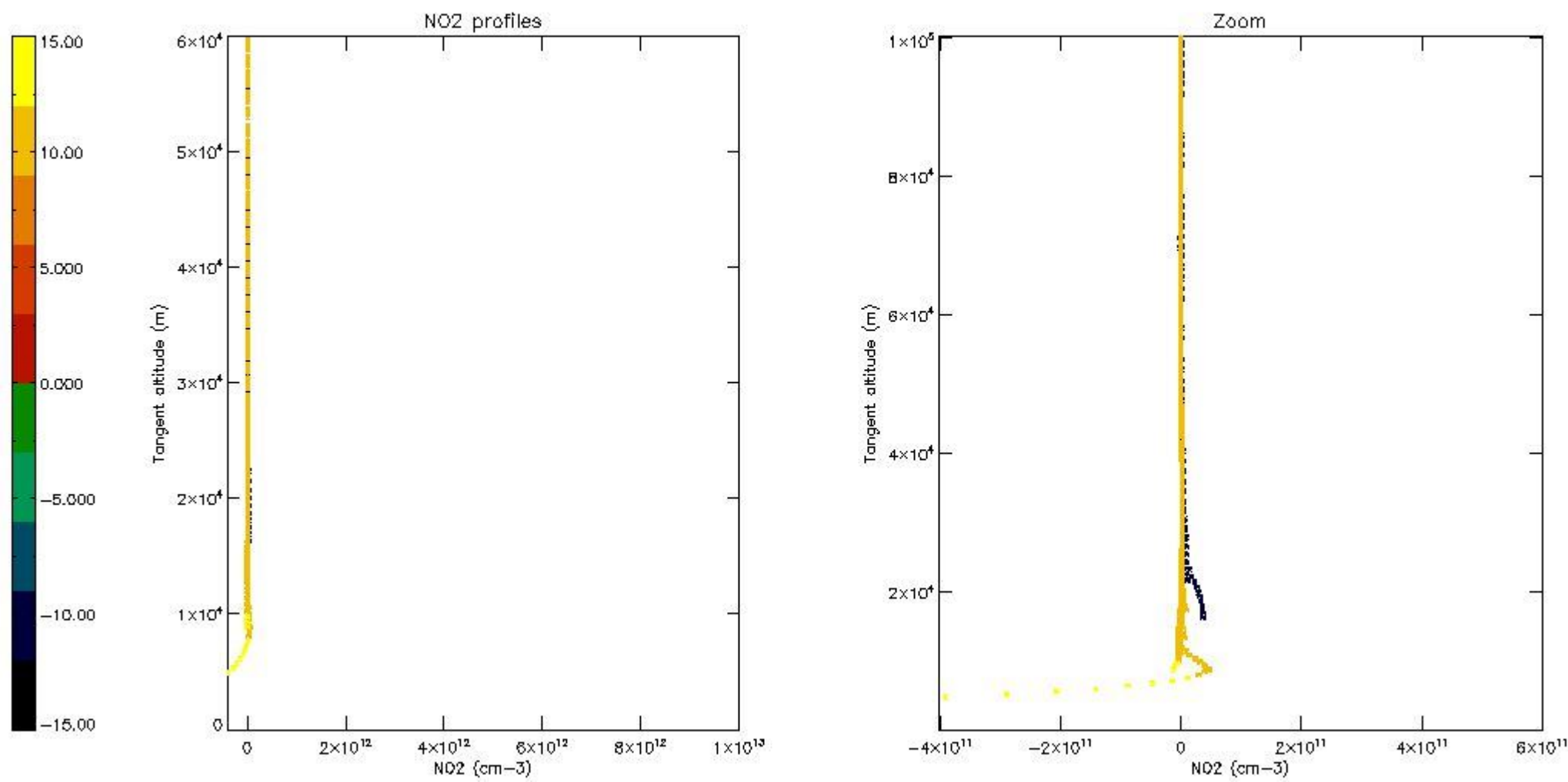
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



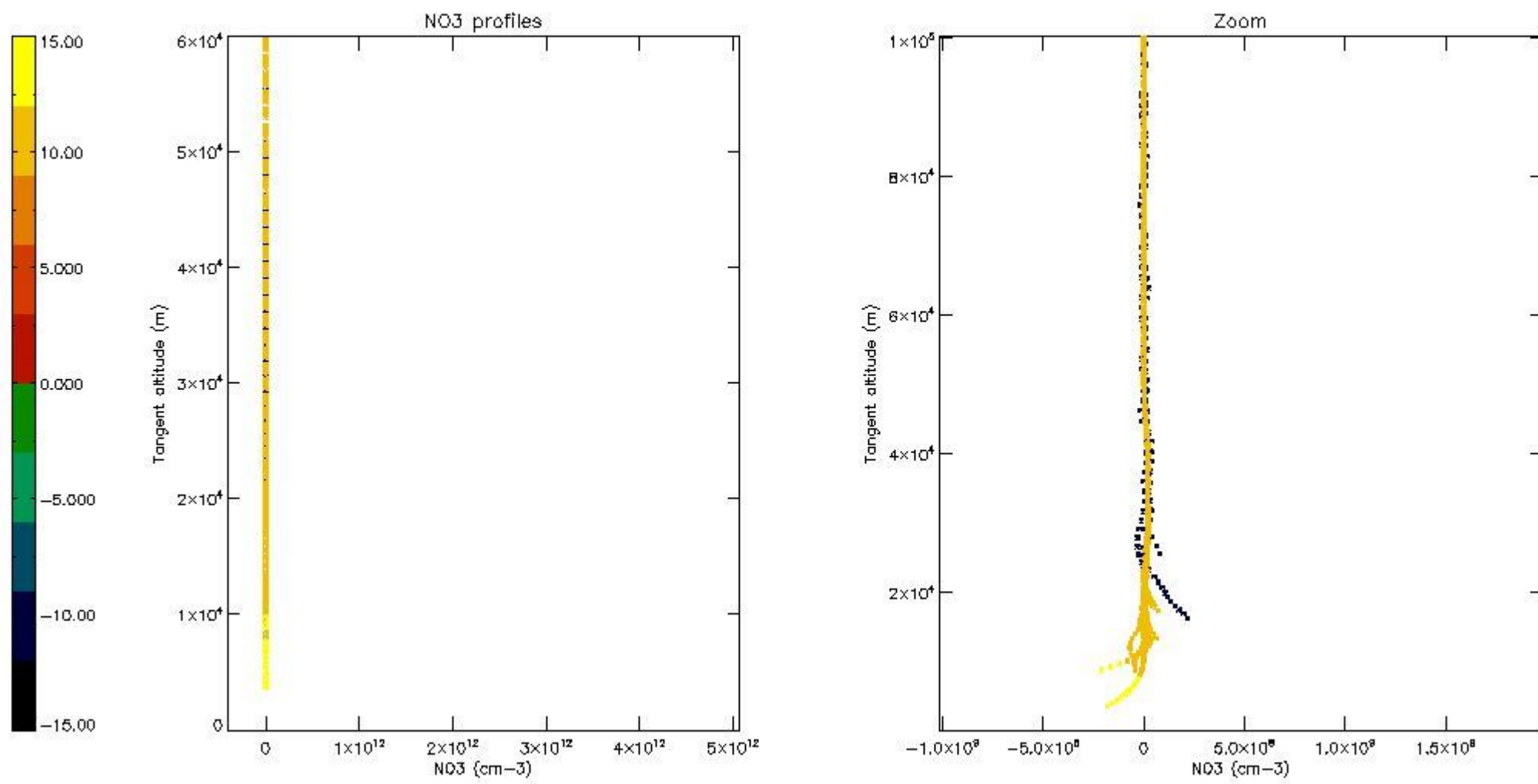
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



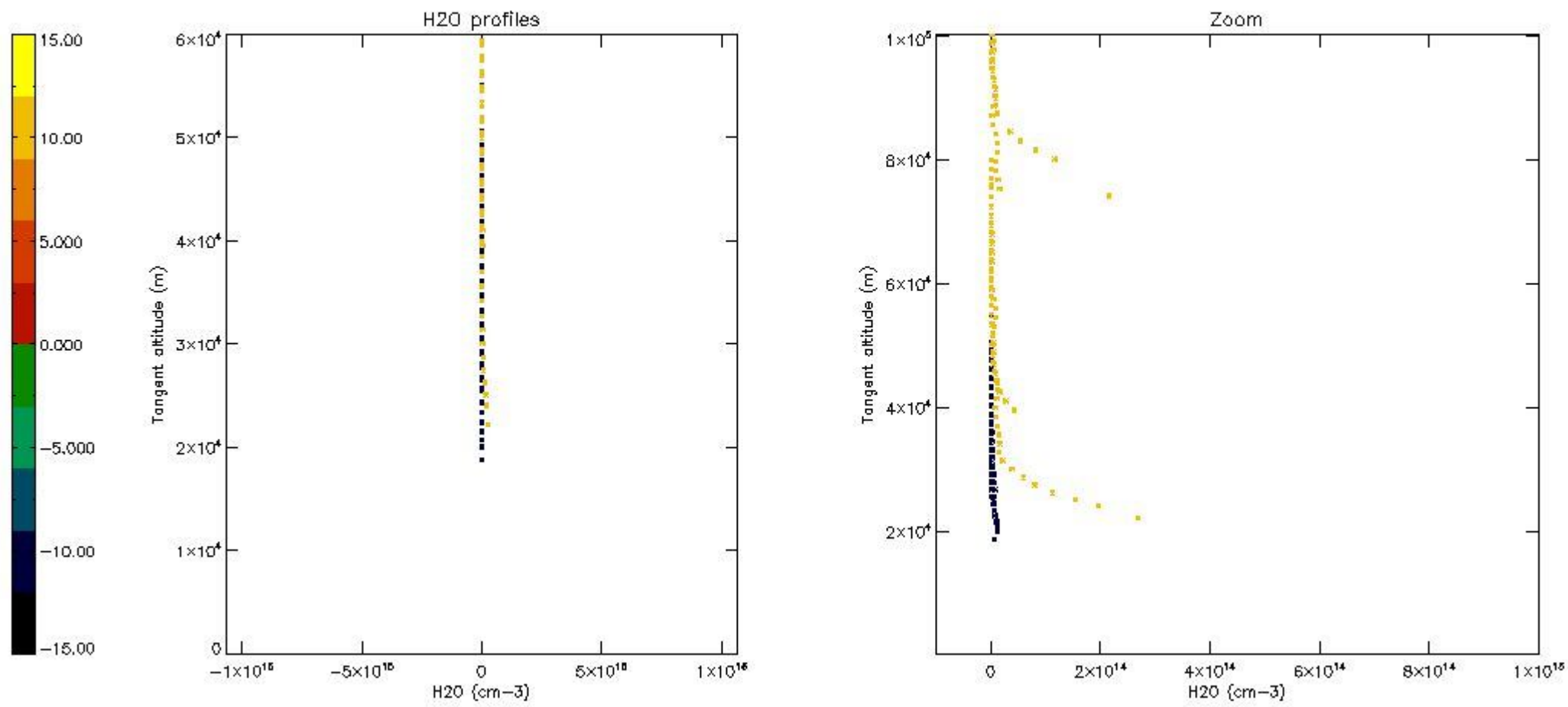
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	13-MAR-2012 01:20:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-MAR-2012 01:20:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-MAR-2012 01:20:59

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[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](#)

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Time of report generation	18APR2013 14:11:35
Data source version	GOMOS/6.01
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Stop time of products	14-03-2012 (14MAR2012 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	13
Nb of prods with errors	1

2. Summary of processed GOM_NL__2P products.

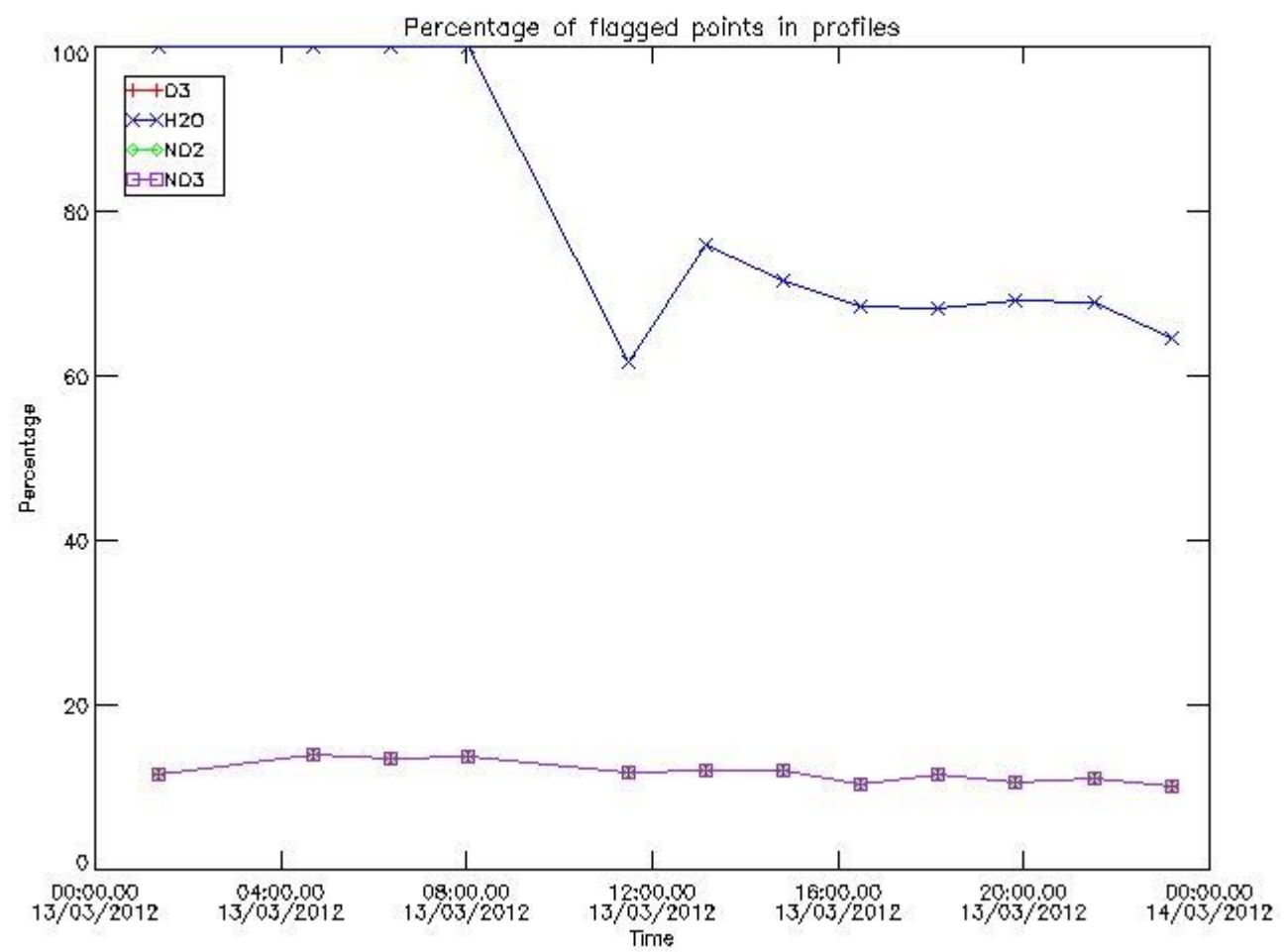
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Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
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2	GOM_NL__2PRFIN20120313_030114_000000423112_00320_52489_4217.N1	13-MAR-2012 03:01:14	Dark	41.500	141	Bet Ara	2.8400	4600.0	83	52489	Yes
3	GOM_NL__2PRFIN20120313_044128_000000403112_00321_52490_4226.N1	13-MAR-2012 04:41:28	Dark	39.500	141	Bet Ara	2.8400	4600.0	79	52490	No
4	GOM_NL__2PRFIN20120313_062143_000000383112_00322_52491_4239.N1	13-MAR-2012 06:21:43	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	52491	No
5	GOM_NL__2PRFIN20120313_080158_000000373112_00323_52492_4264.N1	13-MAR-2012 08:01:58	Dark	36.500	141	Bet Ara	2.8400	4600.0	73	52492	No
6	GOM_NL__2PRFIN20120313_112853_000000473112_00325_52494_4380.N1	13-MAR-2012 11:28:53	Dark	47.000	4	Alp1Cen	-0.010000	5800.0	94	52494	No
7	GOM_NL__2PRFIN20120313_130907_000000423112_00326_52495_4408.N1	13-MAR-2012 13:09:07	Dark	41.500	4	Alp1Cen	-0.010000	5800.0	83	52495	No
8	GOM_NL__2PRFIN20120313_144922_000000423112_00327_52496_4435.N1	13-MAR-2012 14:49:22	Dark	42.000	4	Alp1Cen	-0.010000	5800.0	84	52496	No
9	GOM_NL__2PRFIN20120313_162936_000000493112_00328_52497_4462.N1	13-MAR-2012 16:29:36	Dark	49.000	4	Alp1Cen	-0.010000	5800.0	98	52497	No
10	GOM_NL__2PRFIN20120313_180951_000000443112_00329_52498_4486.N1	13-MAR-2012 18:09:51	Dark	44.000	4	Alp1Cen	-0.010000	5800.0	88	52498	No
11	GOM_NL__2PRFIN20120313_195005_000000573112_00330_52499_4542.N1	13-MAR-2012 19:50:05	Dark	56.500	4	Alp1Cen	-0.010000	5800.0	113	52499	No
12	GOM_NL__2PRFIN20120313_213020_000000453112_00331_52500_4553.N1	13-MAR-2012 21:30:20	Dark	45.000	4	Alp1Cen	-0.010000	5800.0	90	52500	No
13	GOM_NL__2PRFIN20120313_231034_000000503112_00332_52501_4558.N1	13-MAR-2012 23:10:34	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	52501	No

3. Quality information per product

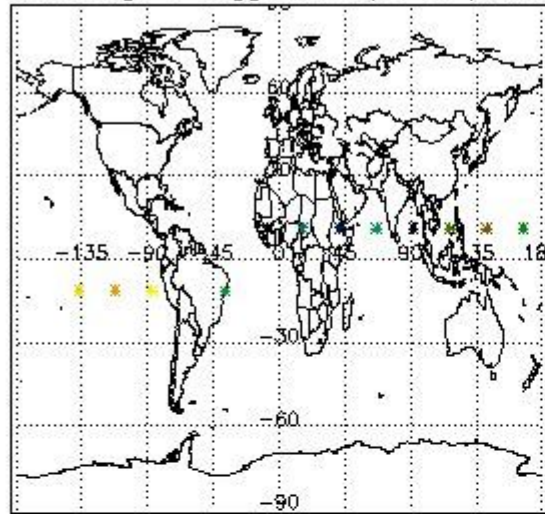
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

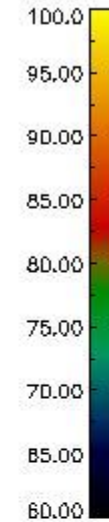
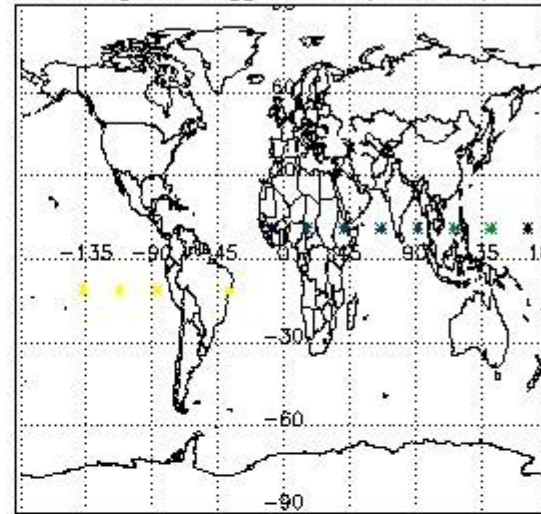


3.2 Plot quality information per product (world map)

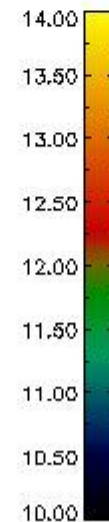
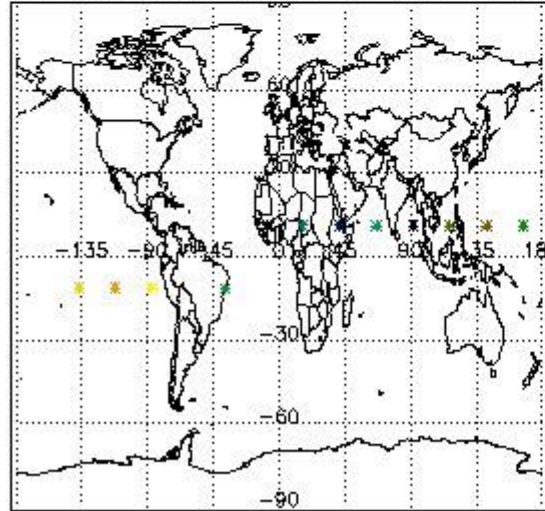
Percentage of flagged data per O3 profile



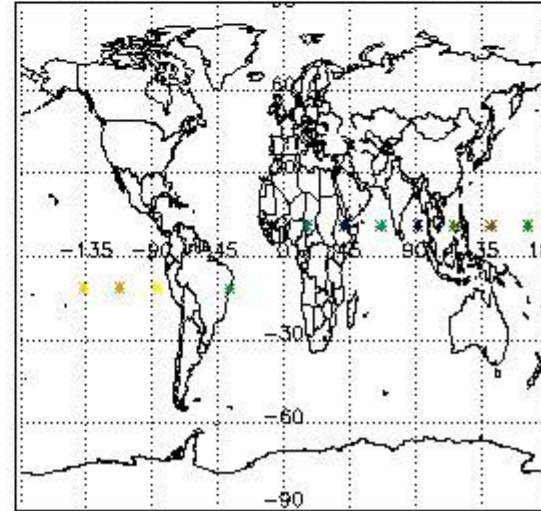
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

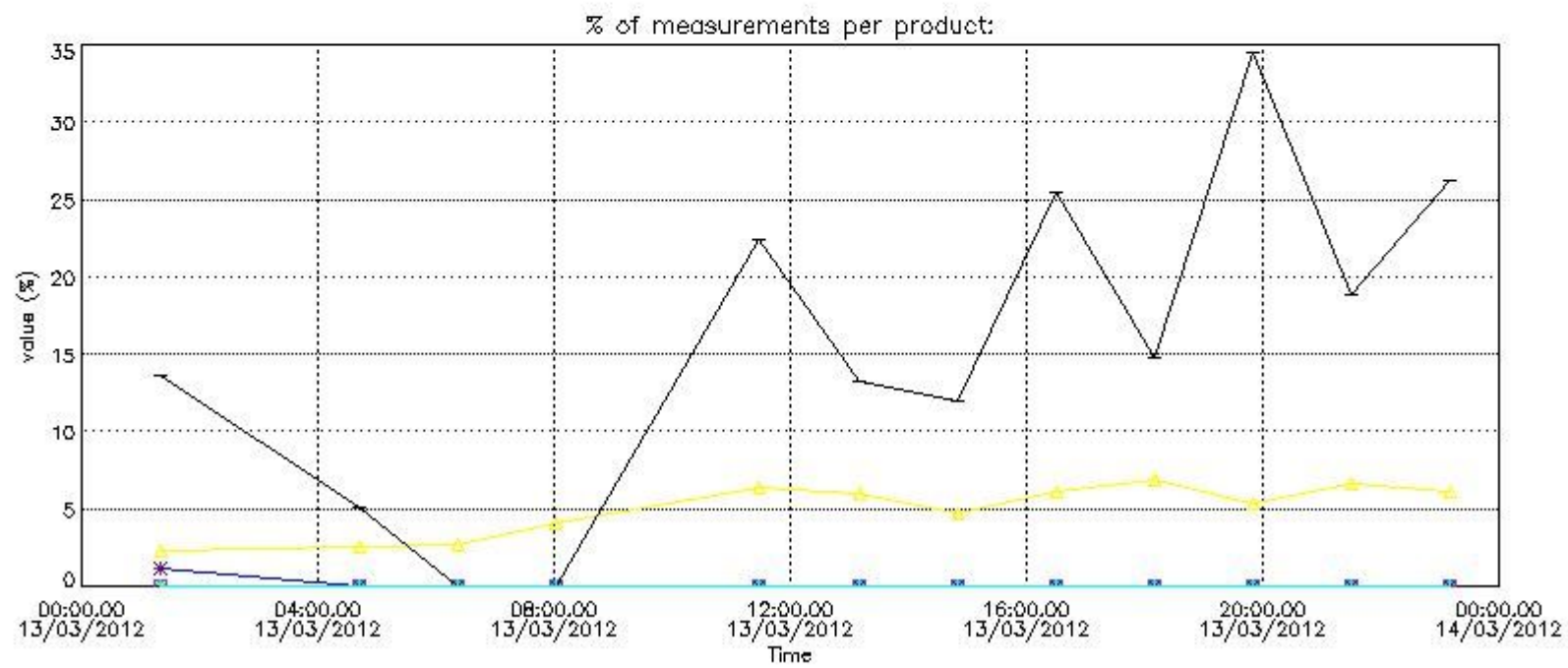
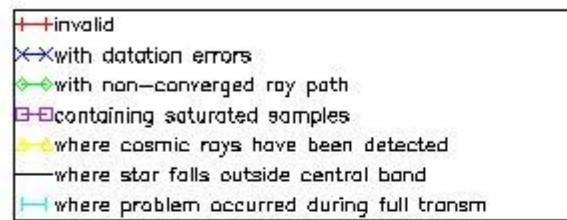


4. Level 1 quality information per product

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

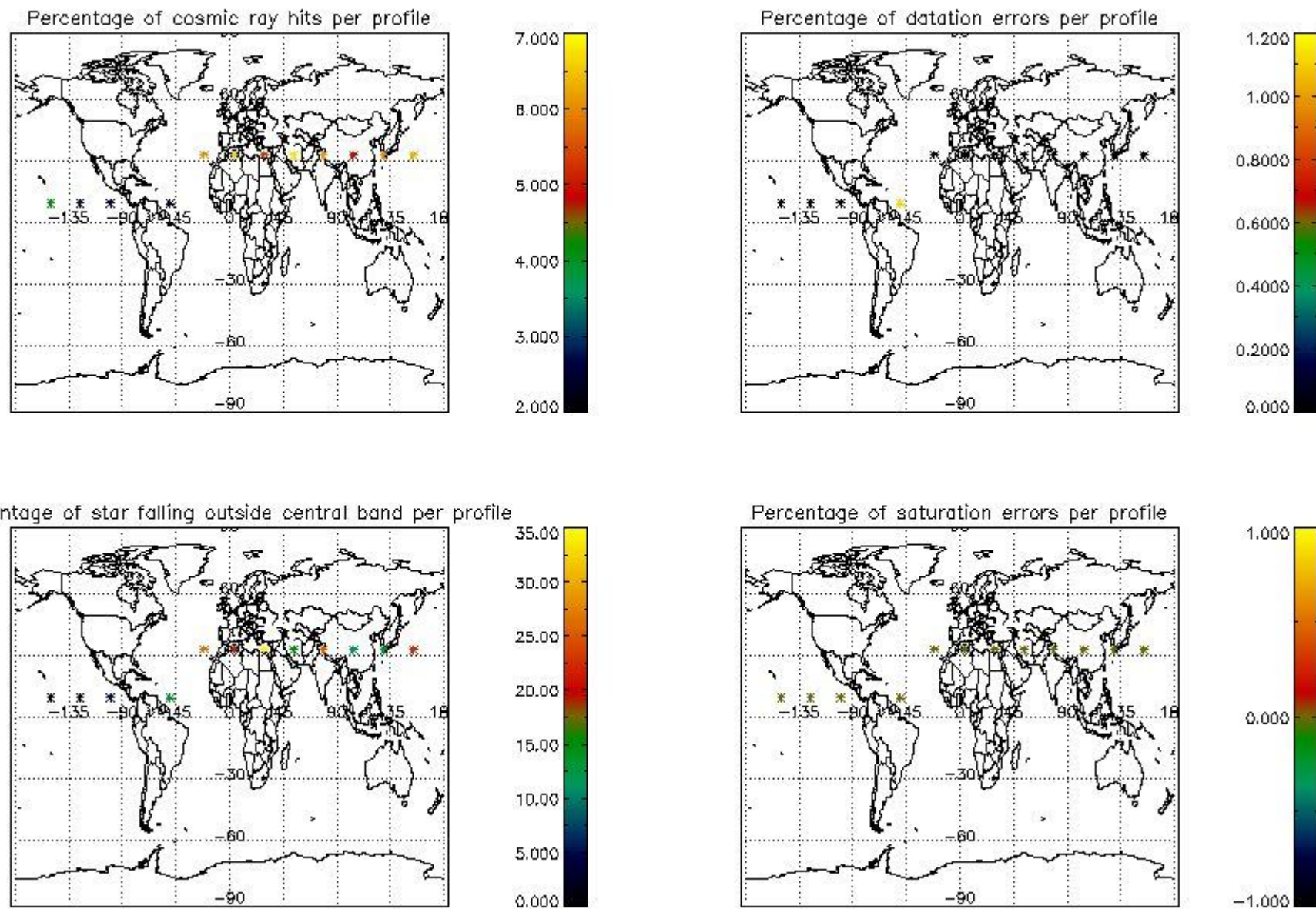


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

!Warning: No products without errors in descending found

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

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



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

!Warning: No products without errors in descending found

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:

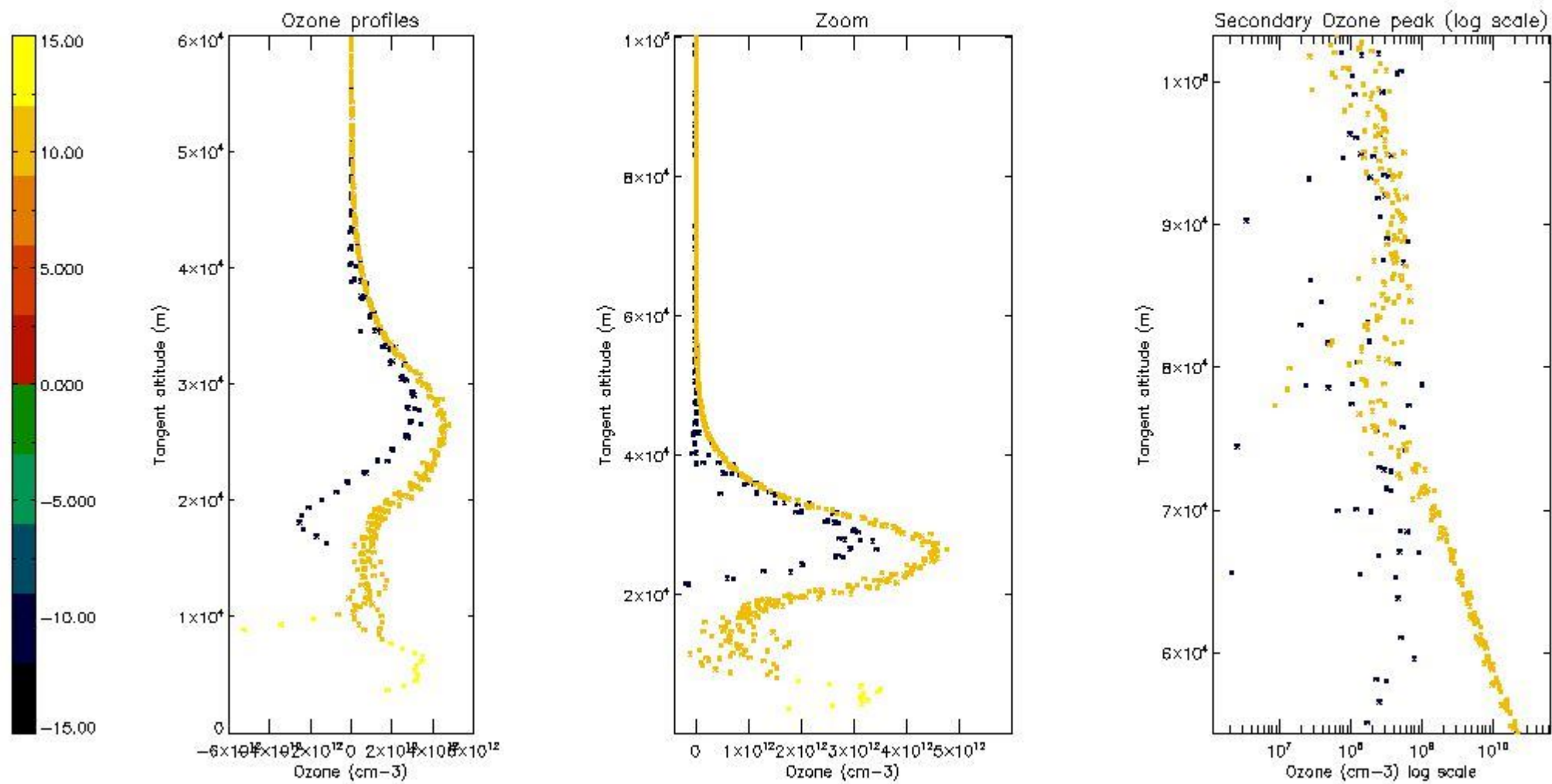
- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

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	100
STD < 20	42
STD < 10	31
STD < 5	25

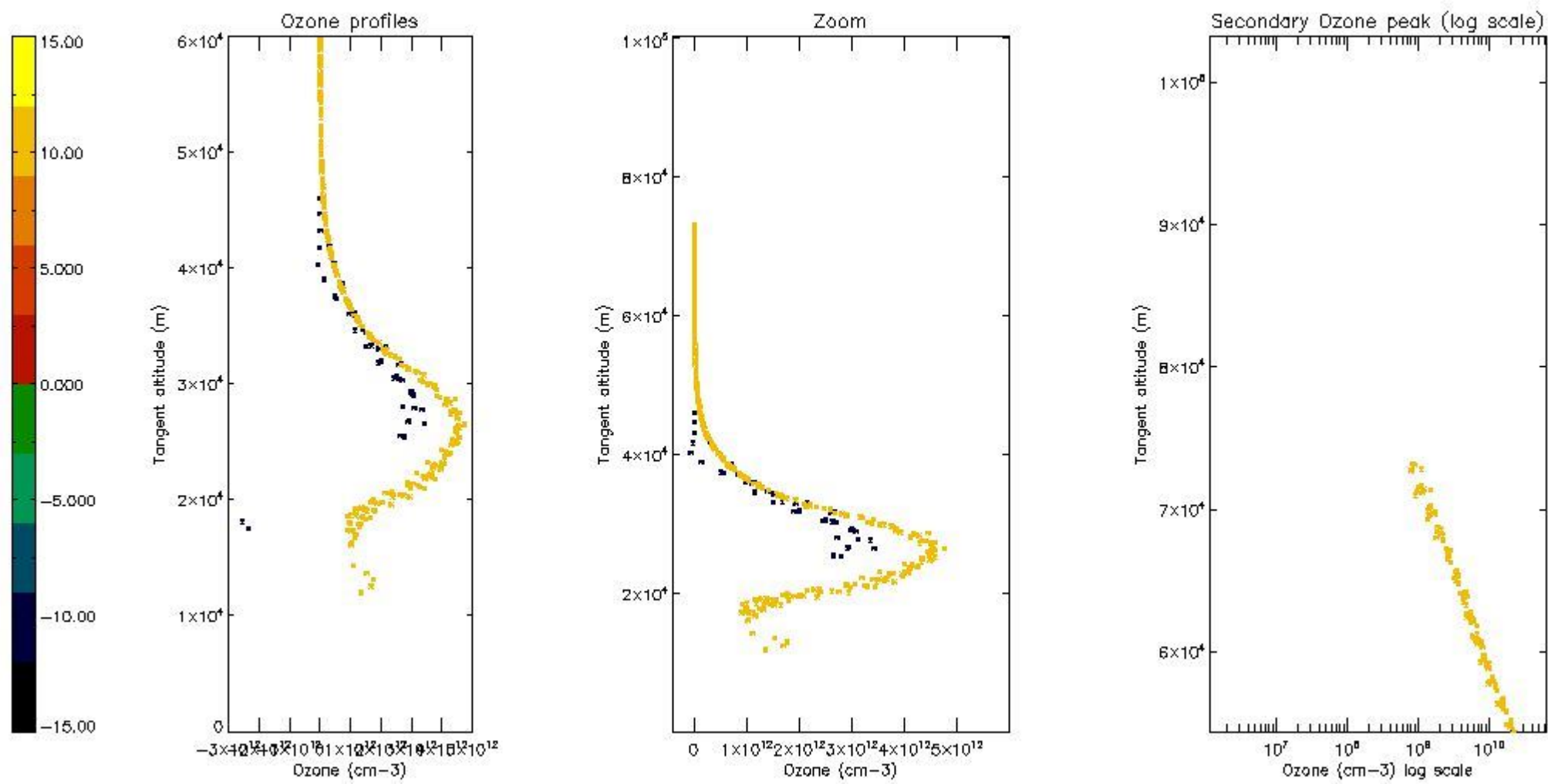
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



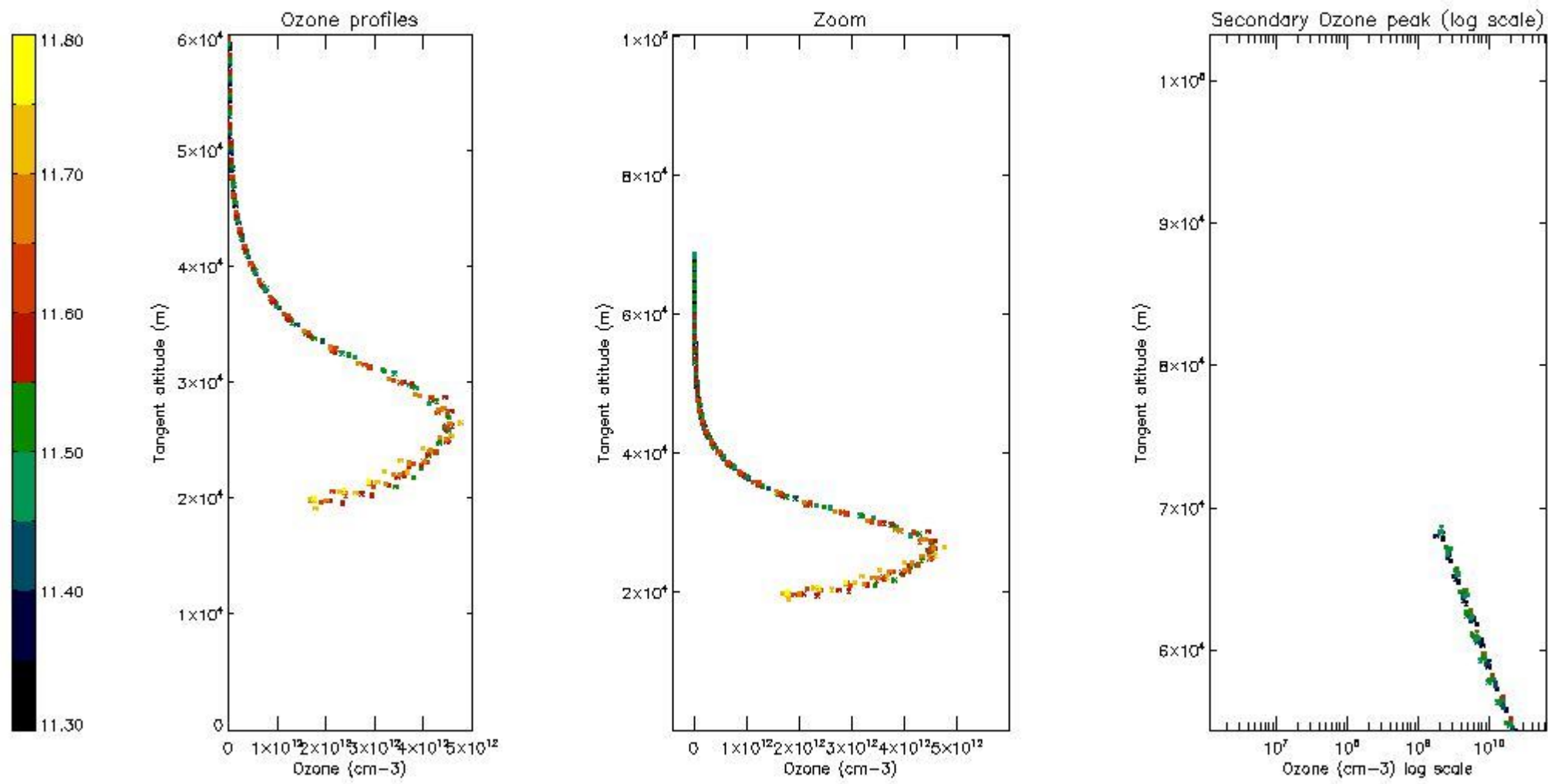
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



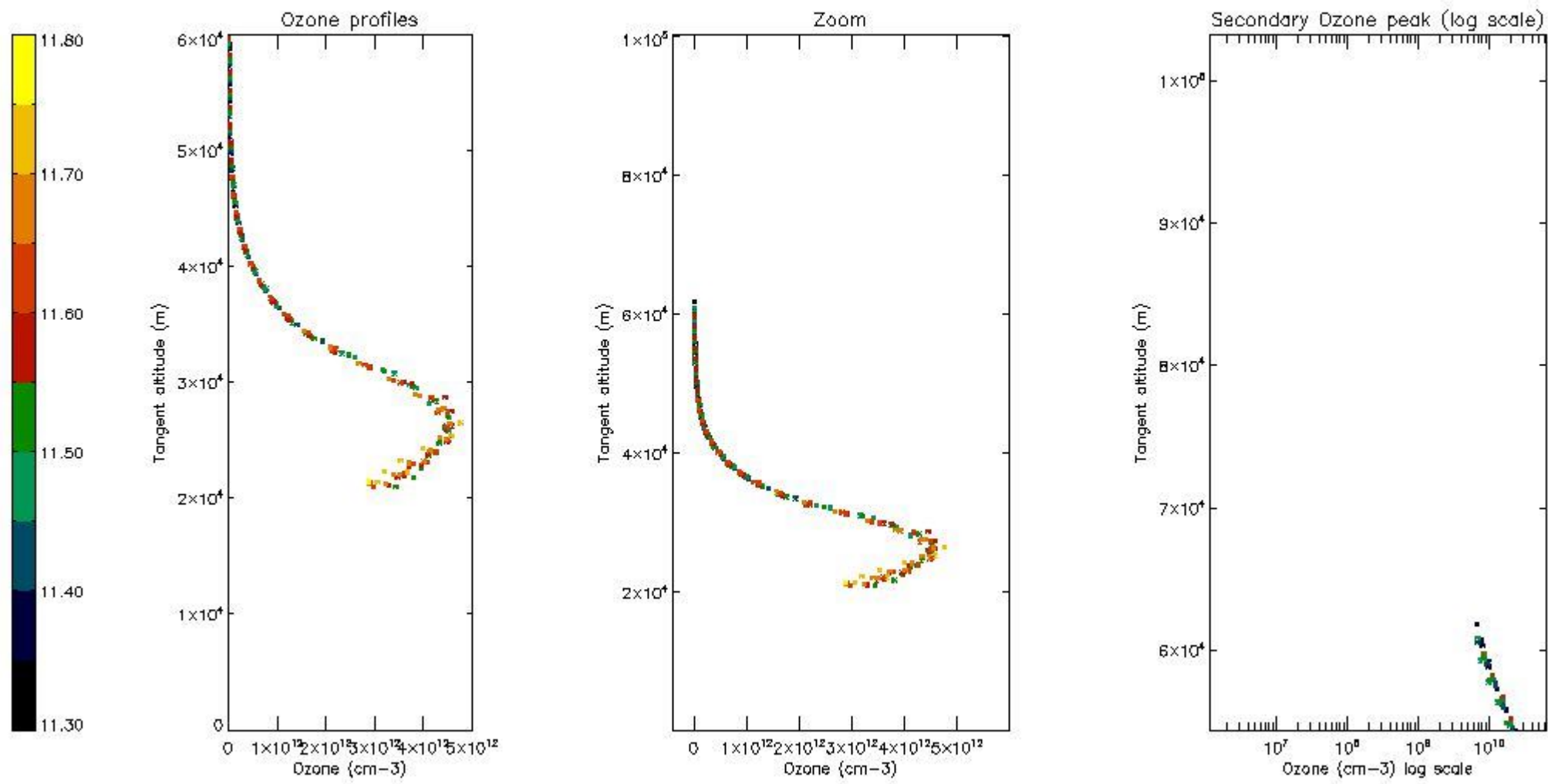
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



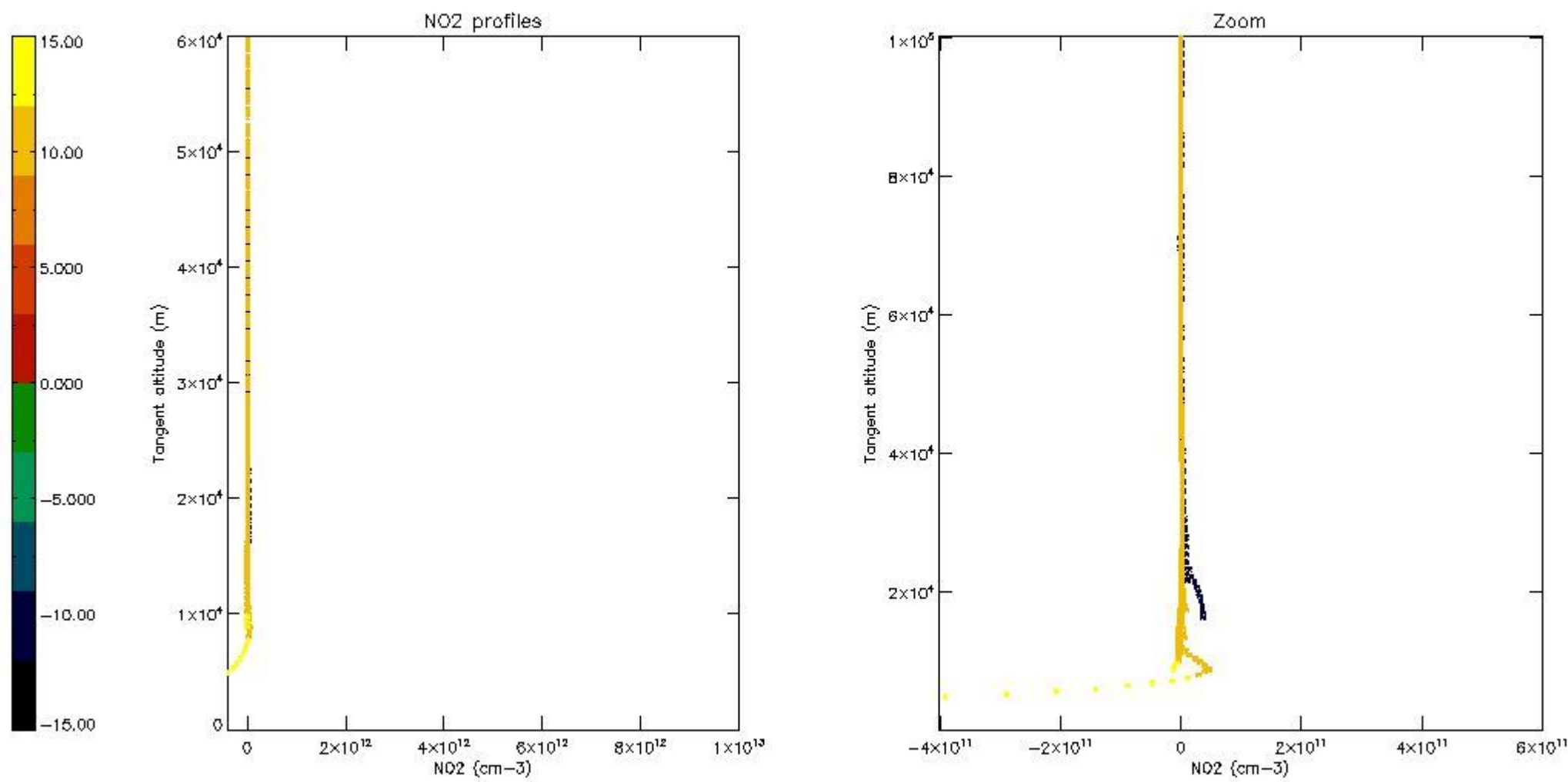
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



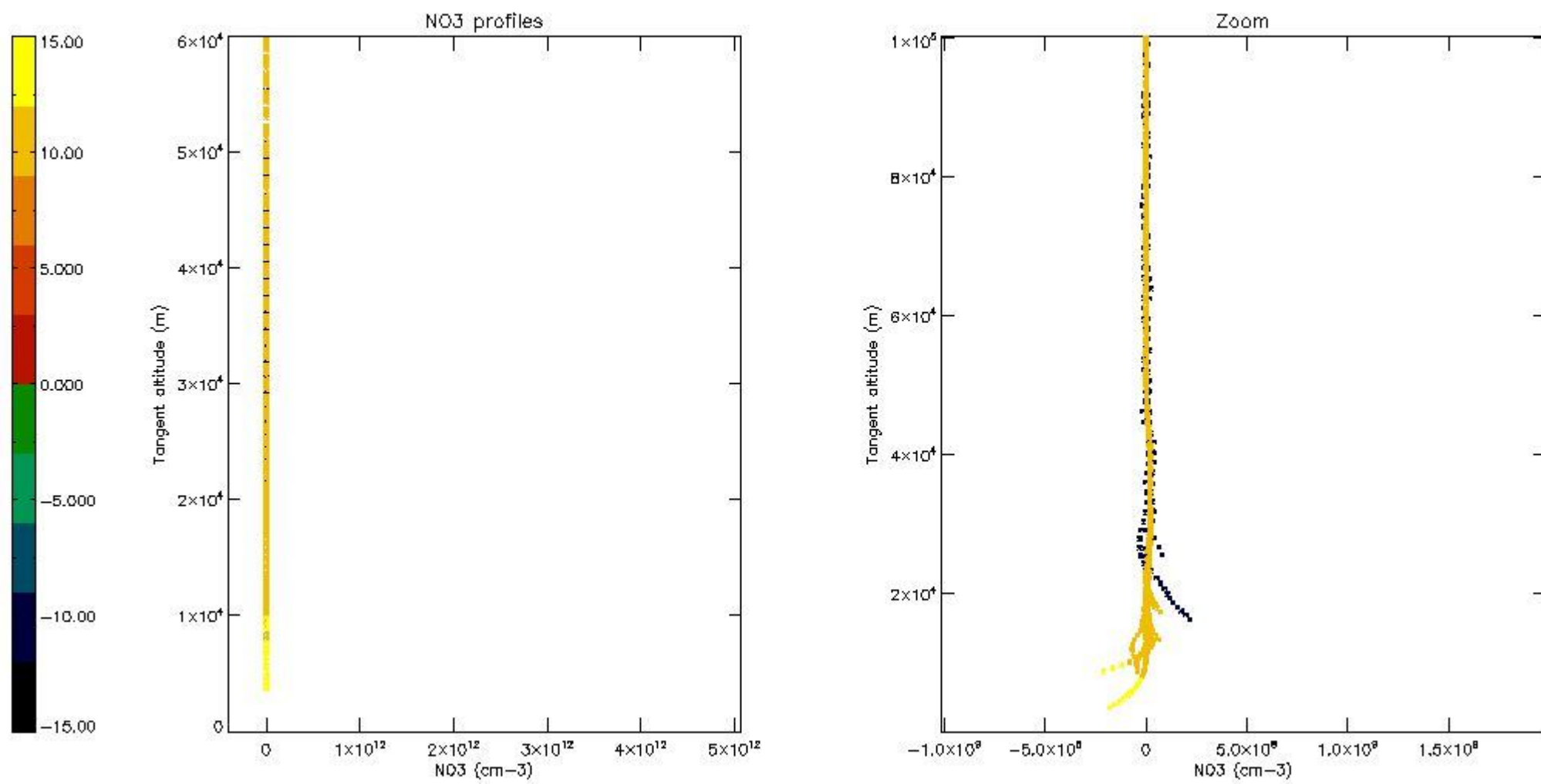
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



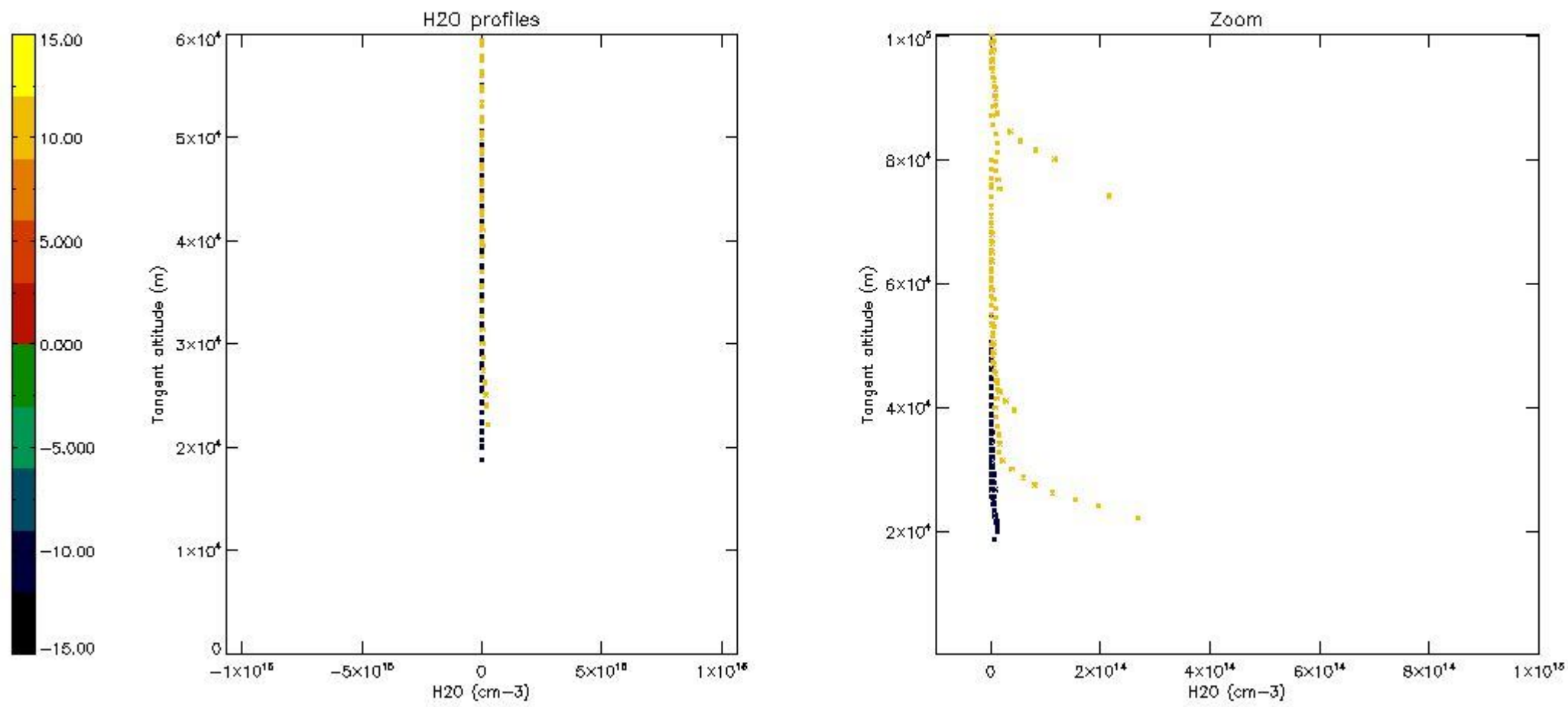
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

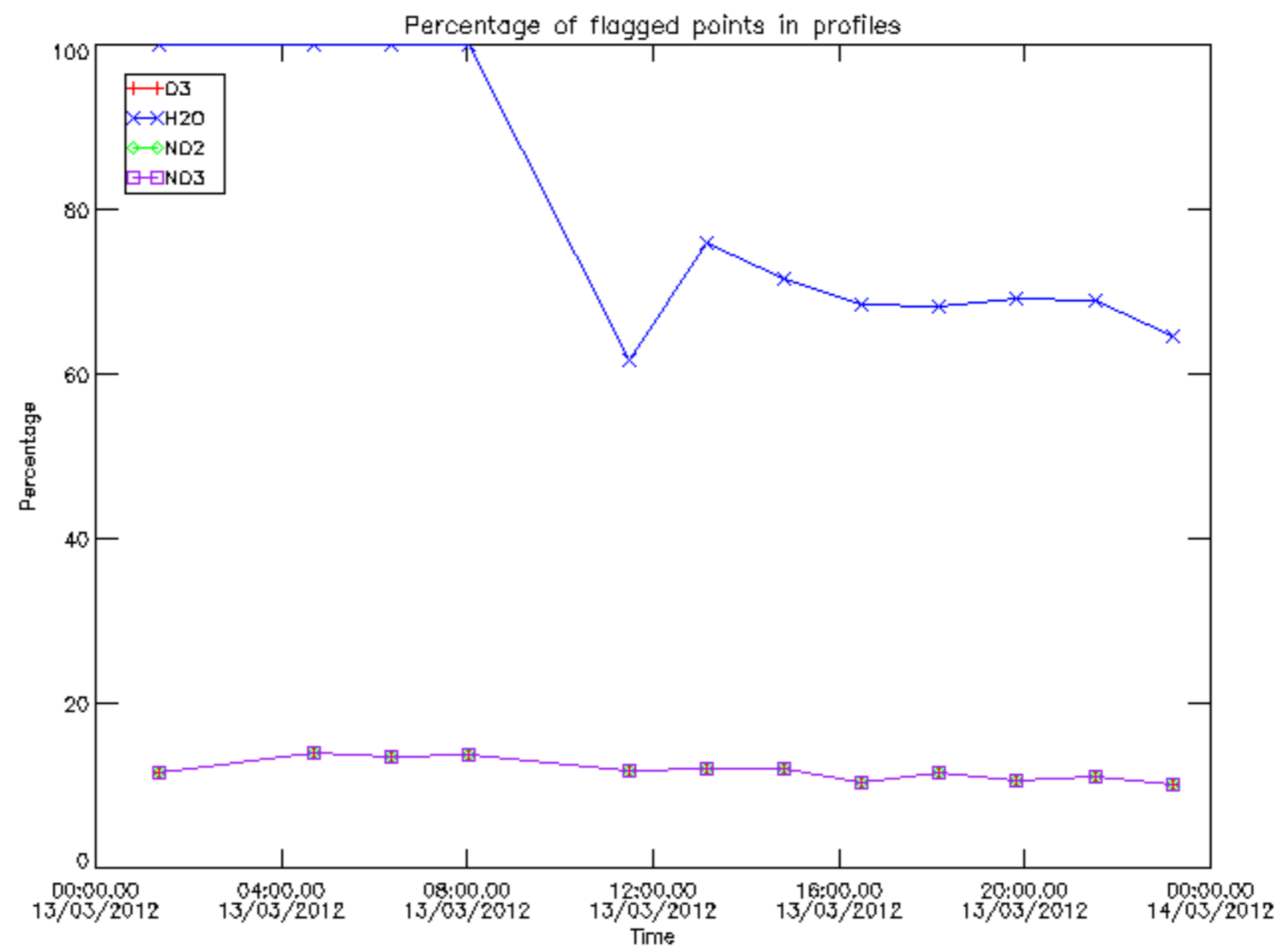
The colorbar represents the latitude.



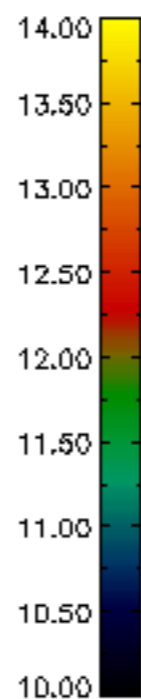
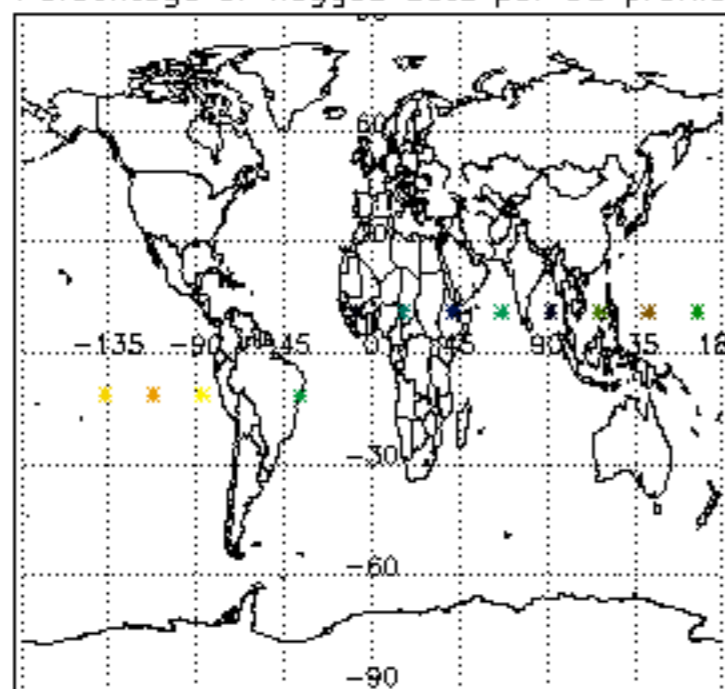
6. Auxiliary Data Files used for the production reported in section 2

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

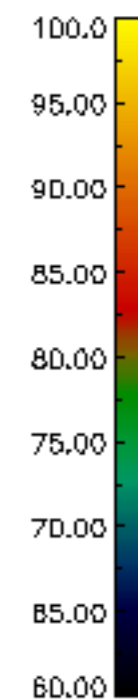
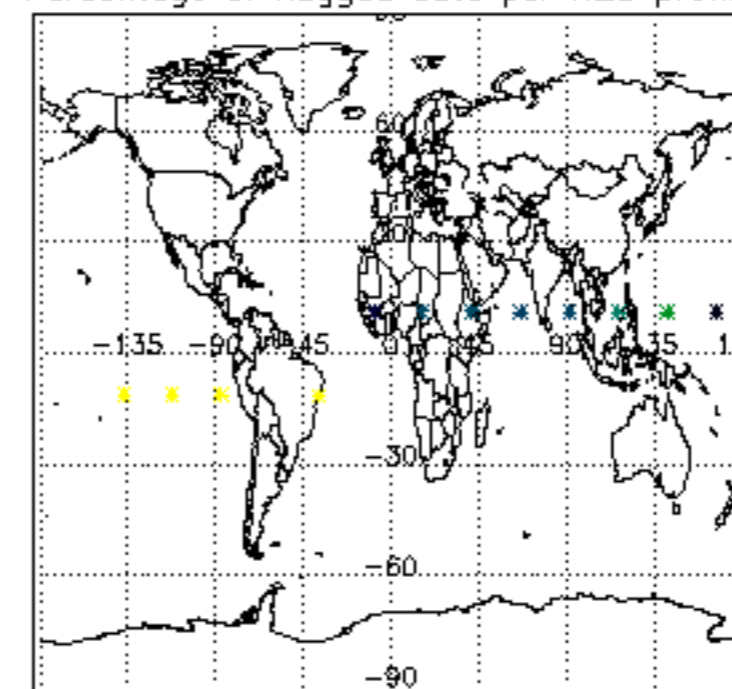
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20111213_163131_20111215_000000_20500101_000000	1	13-MAR-2012 01:20:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-MAR-2012 01:20:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-MAR-2012 01:20:59



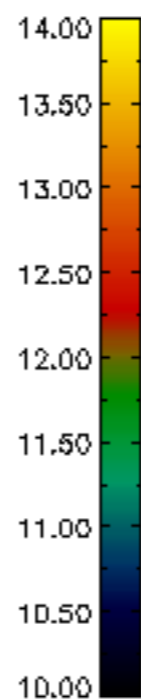
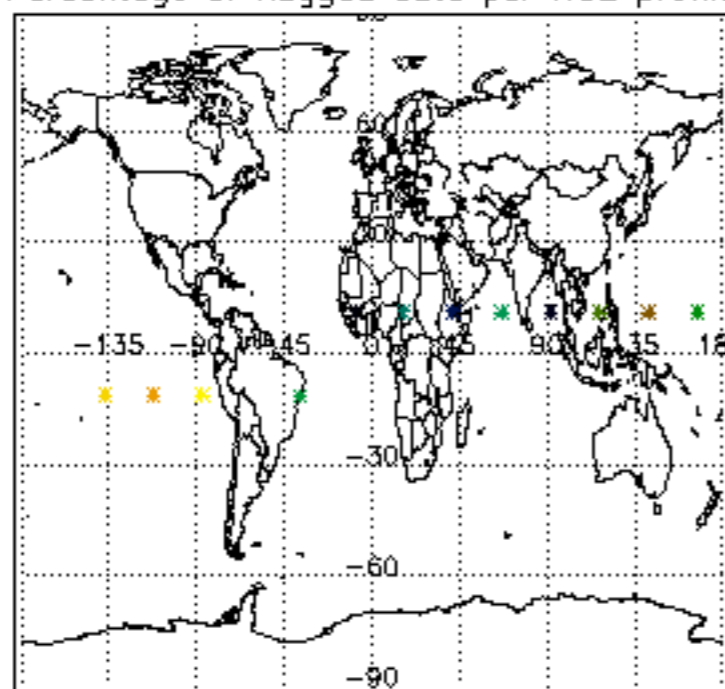
Percentage of flagged data per D3 profile



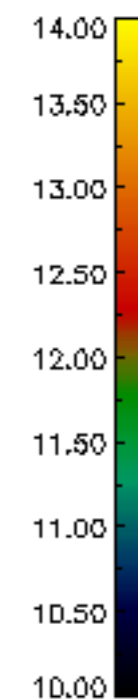
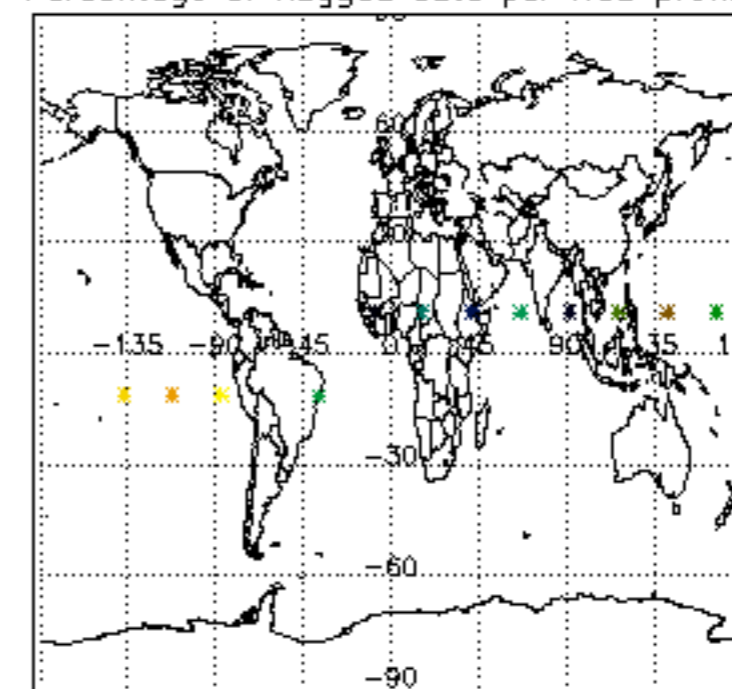
Percentage of flagged data per H2O profile

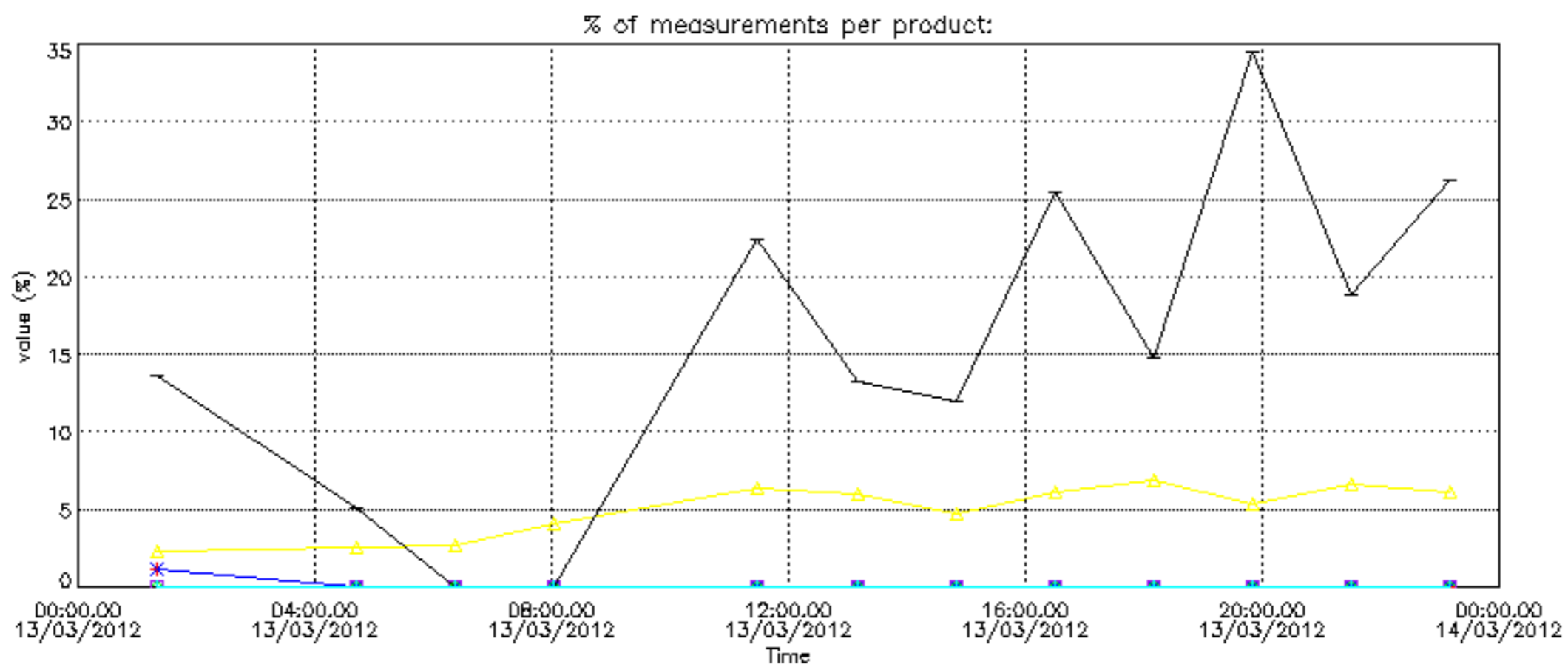
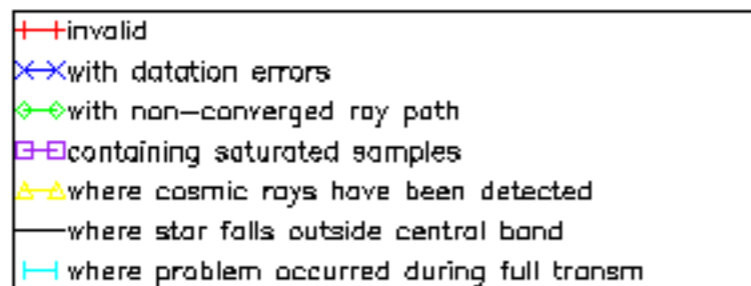


Percentage of flagged data per NO2 profile

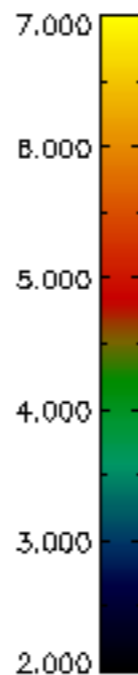
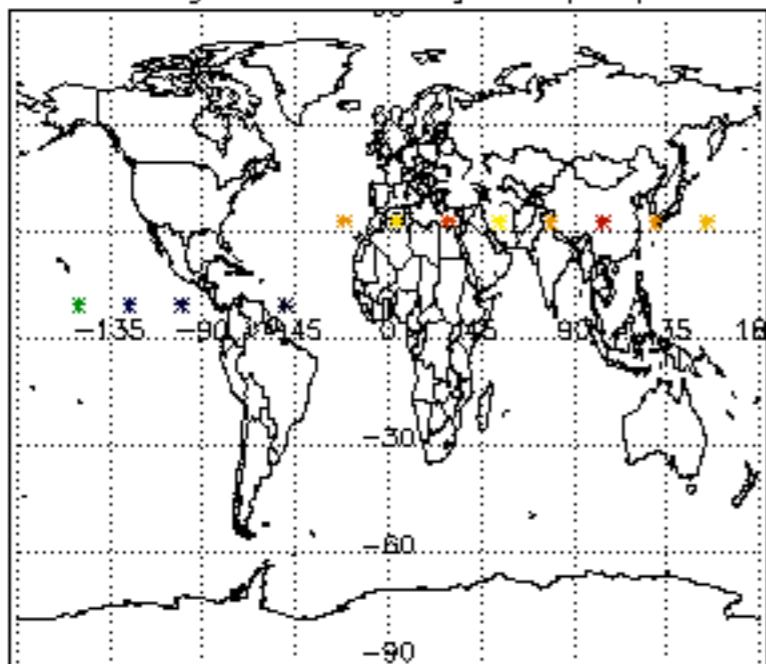


Percentage of flagged data per NO3 profile

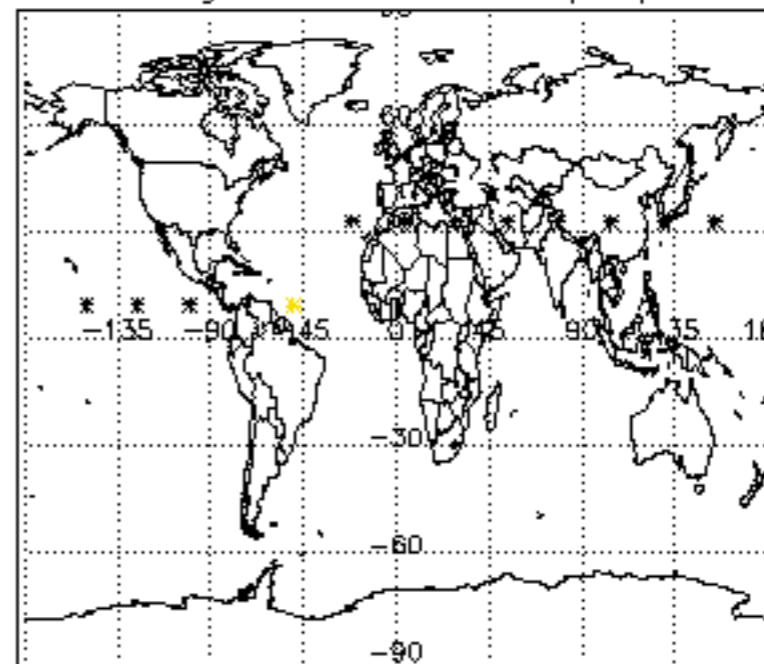




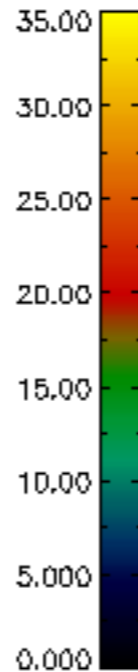
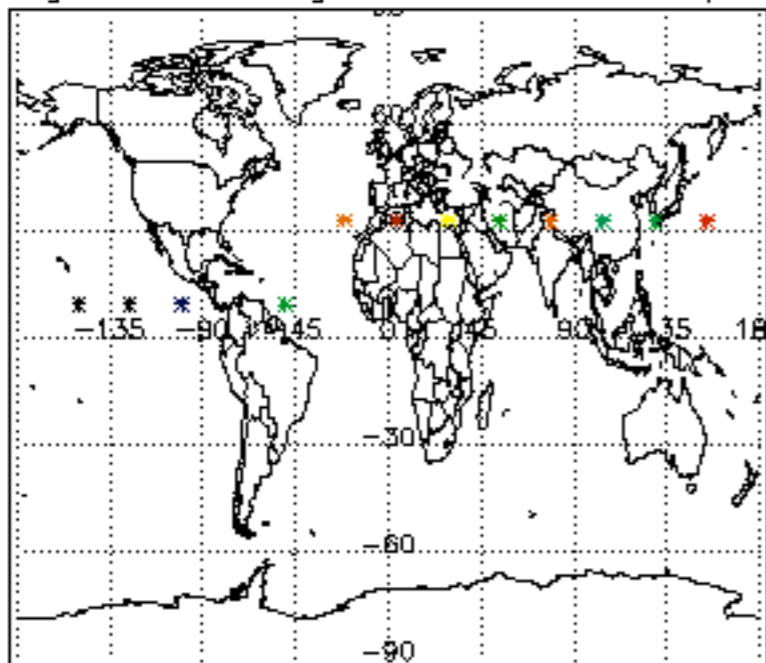
Percentage of cosmic ray hits per profile



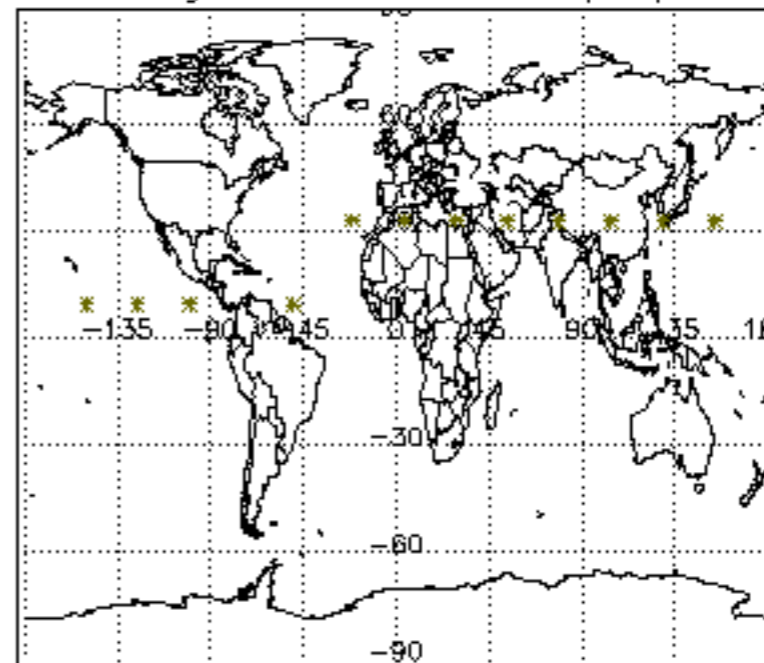
Percentage of datation errors per profile

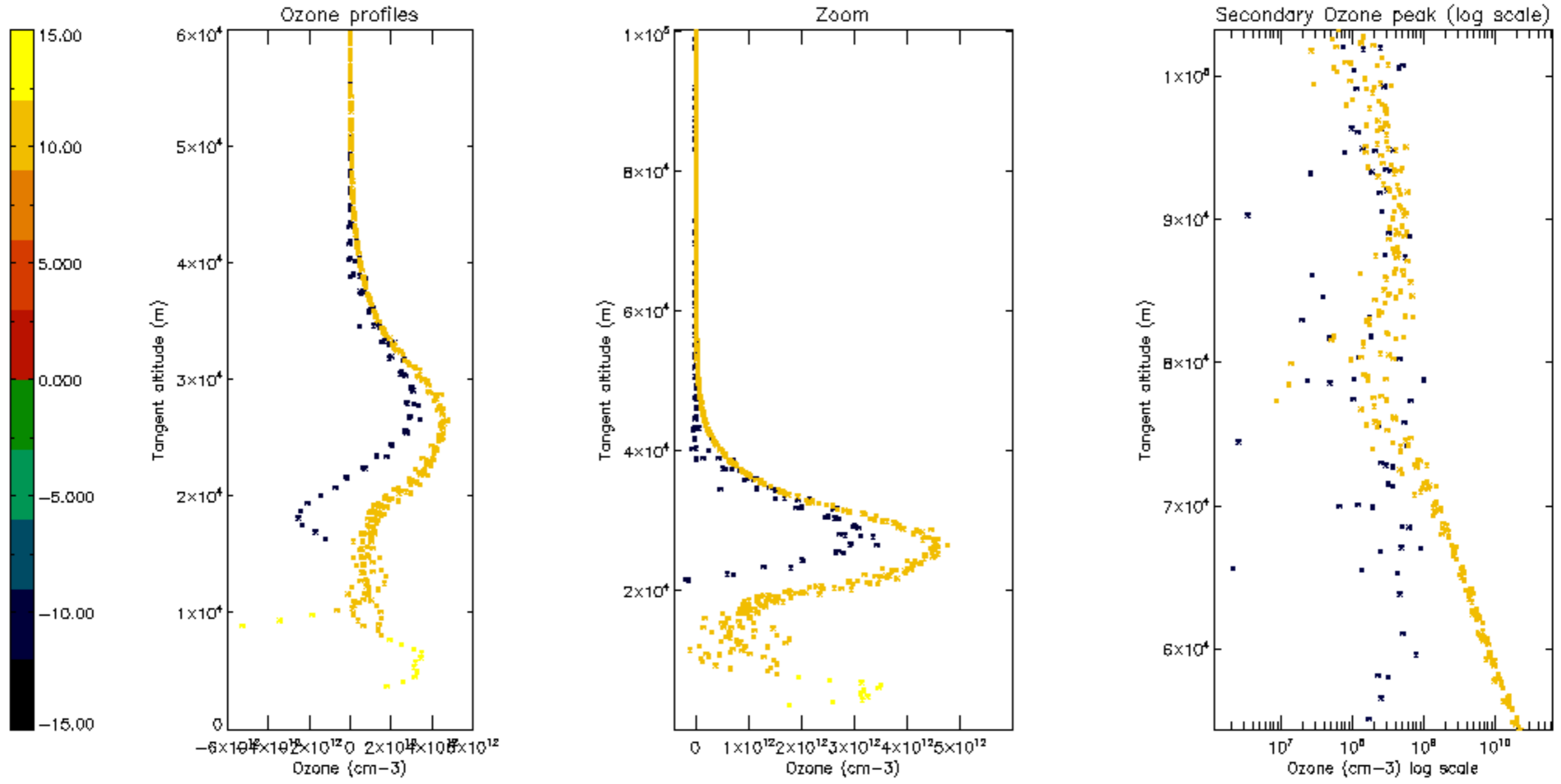


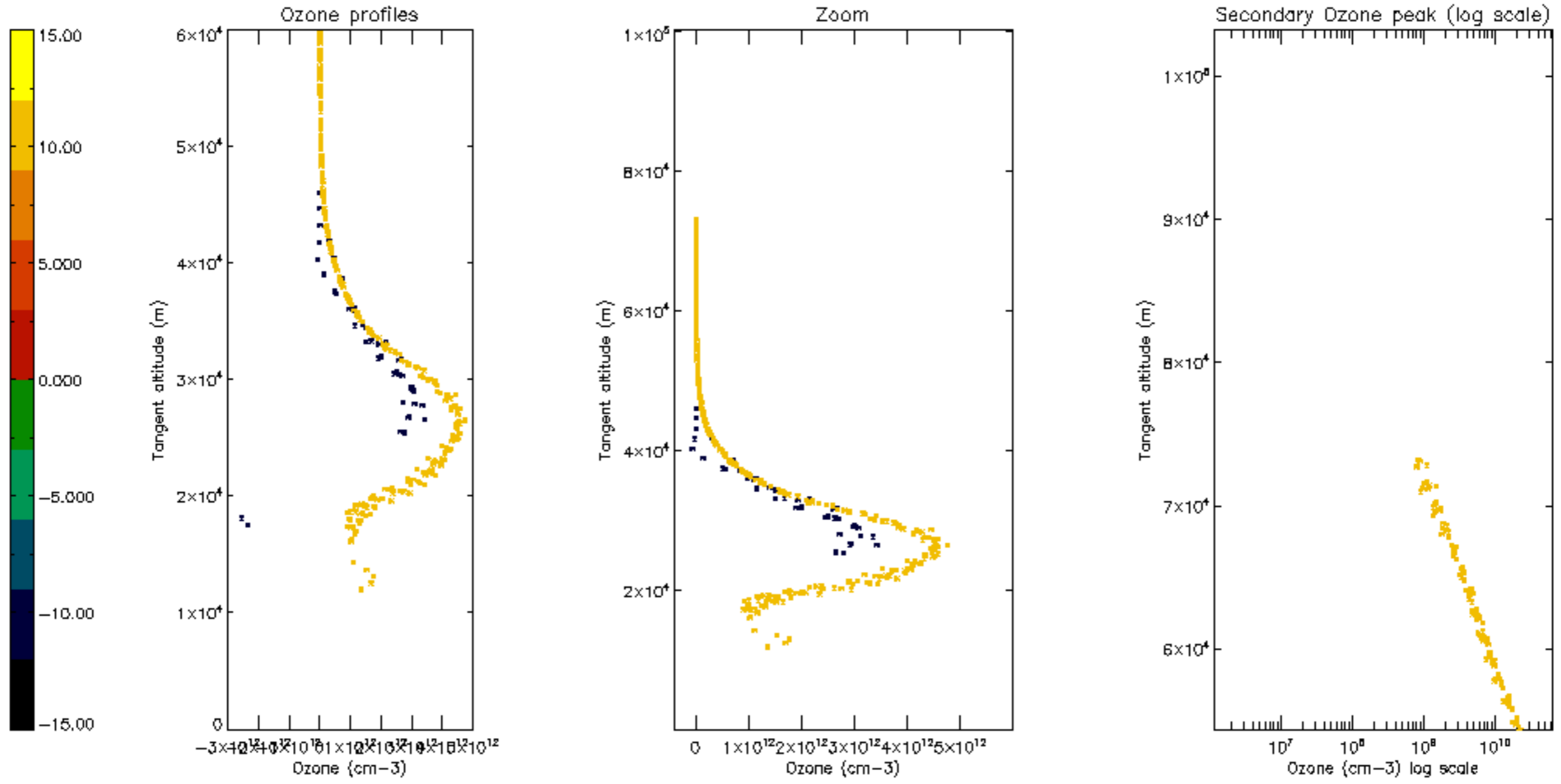
Percentage of star falling outside central band per profile

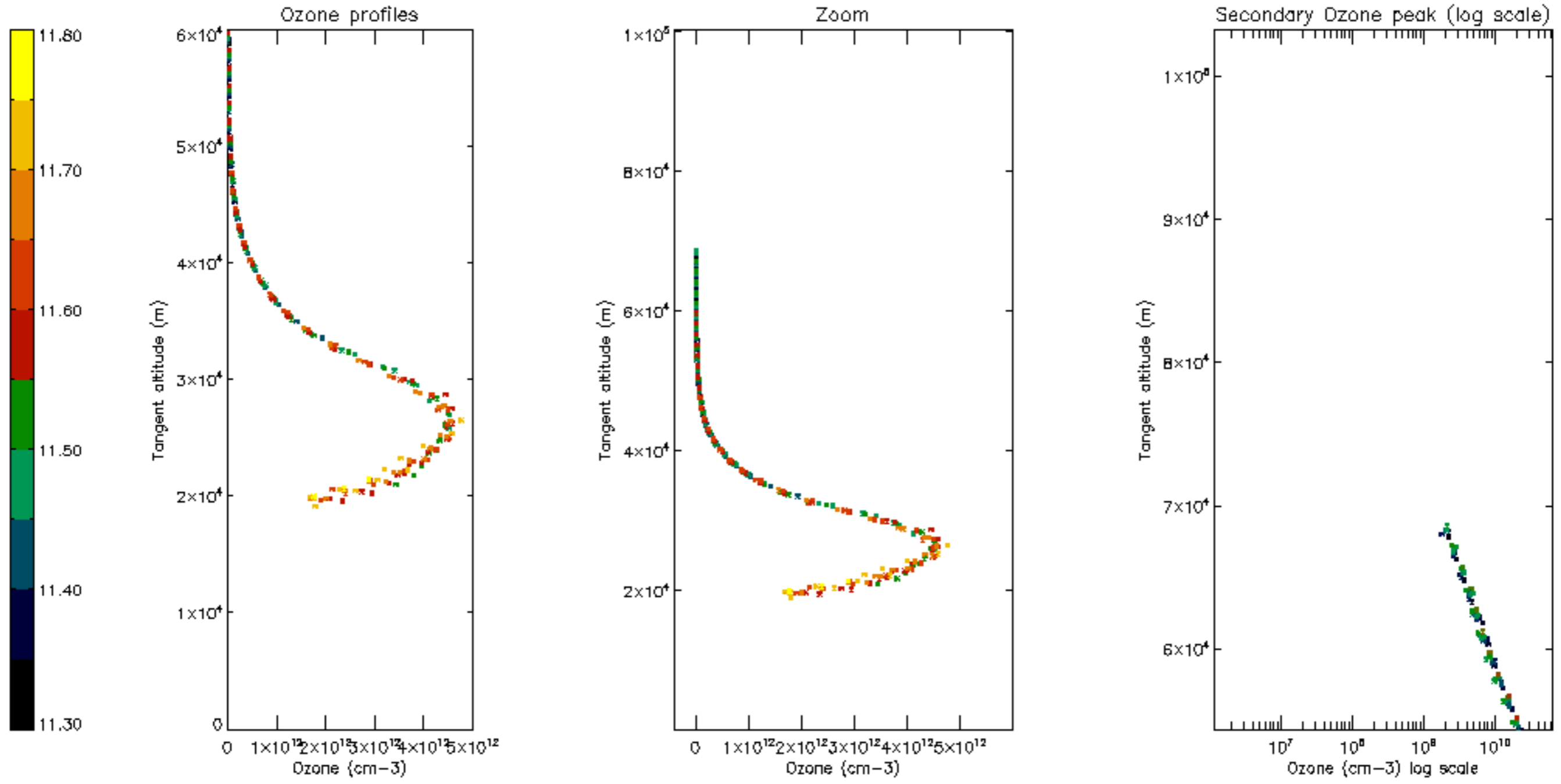


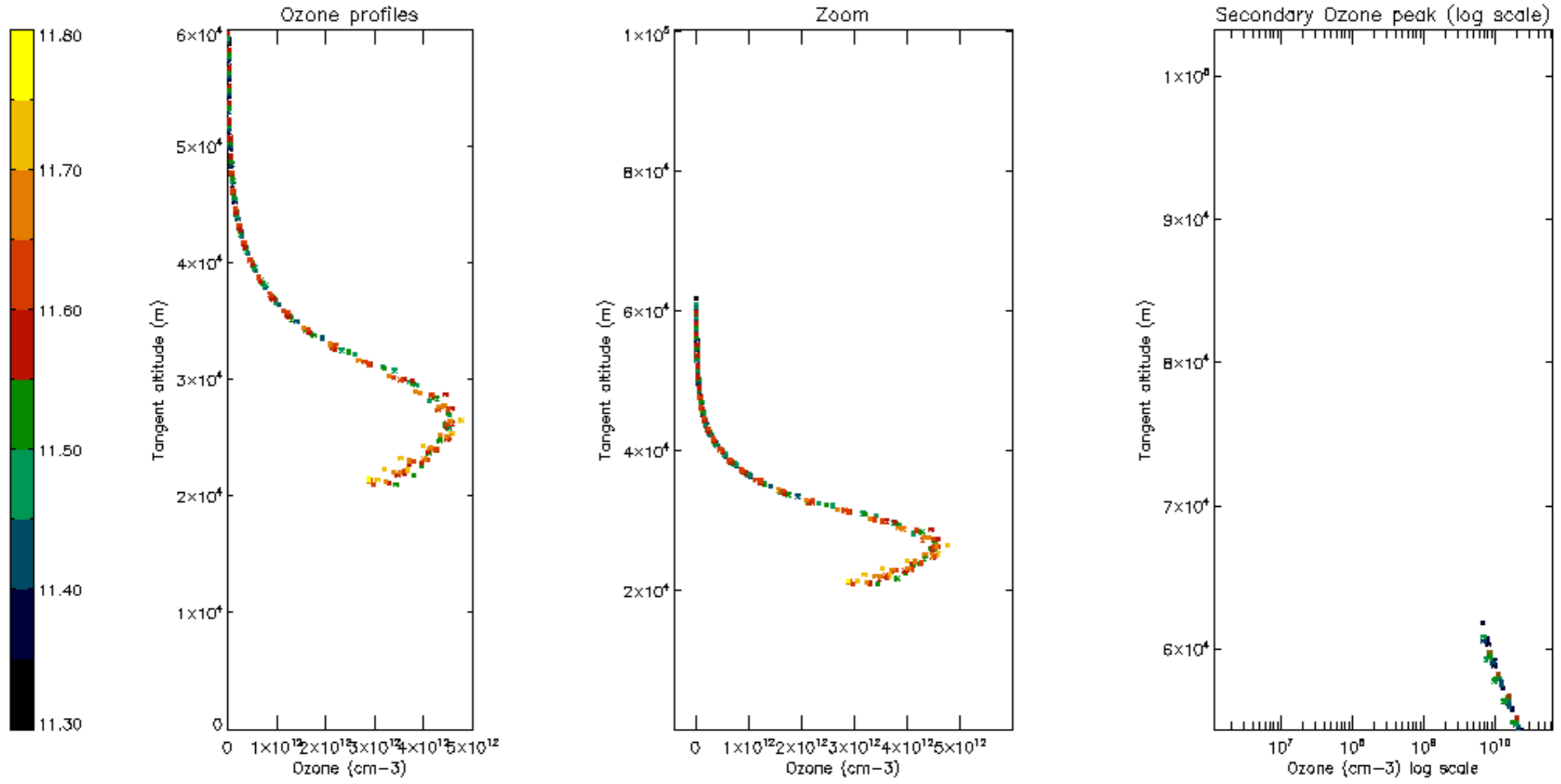
Percentage of saturation errors per profile

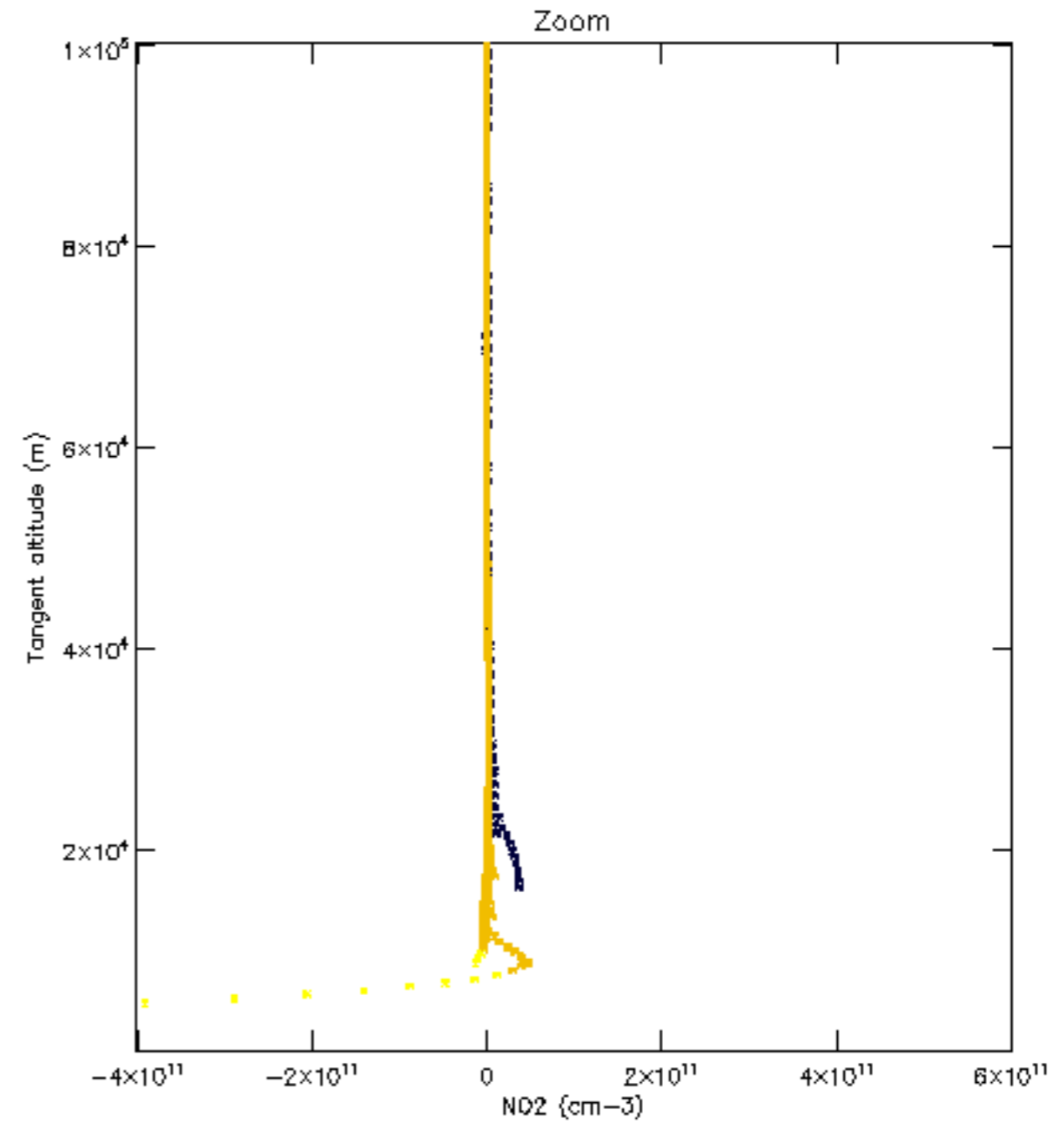
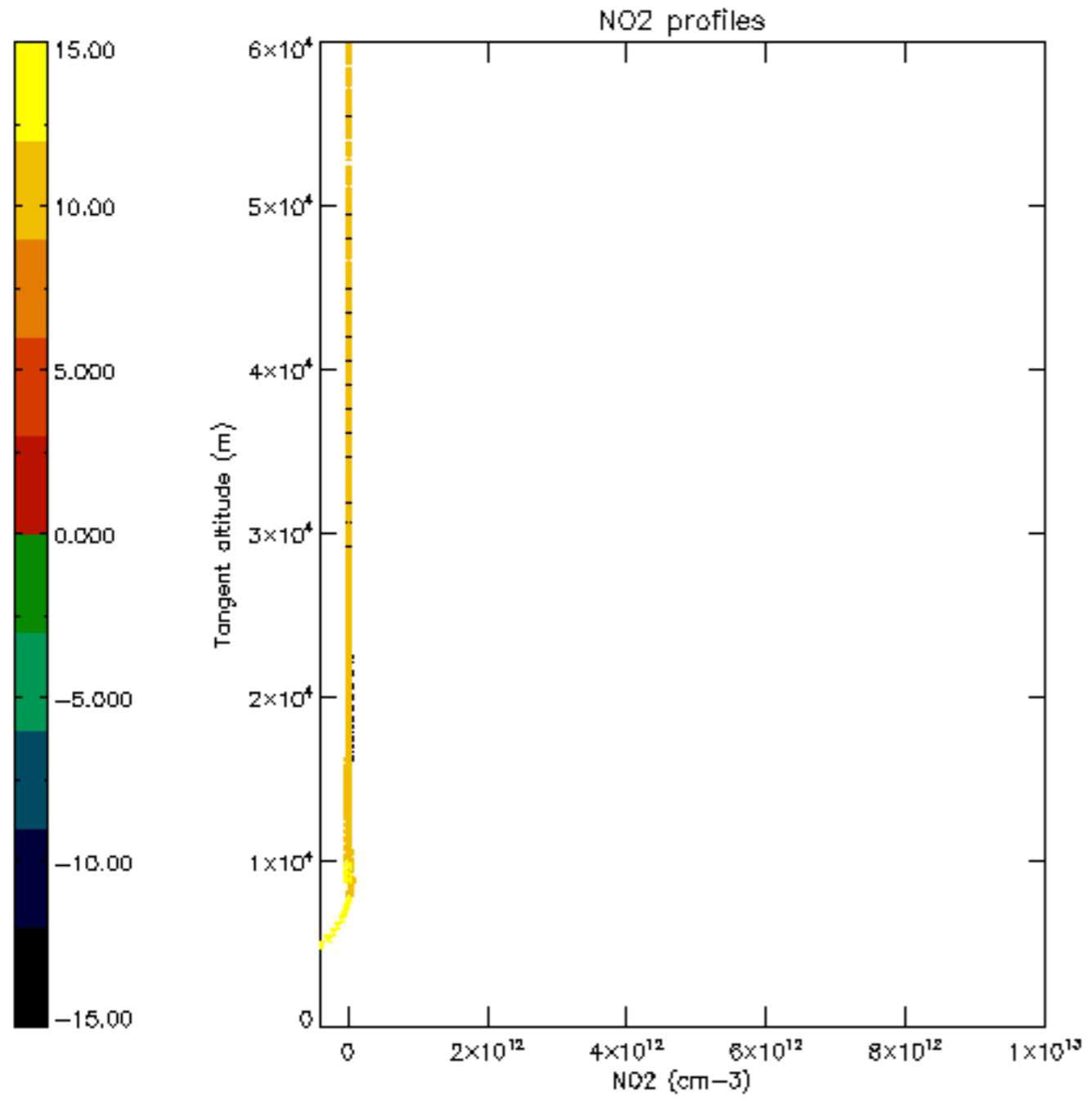


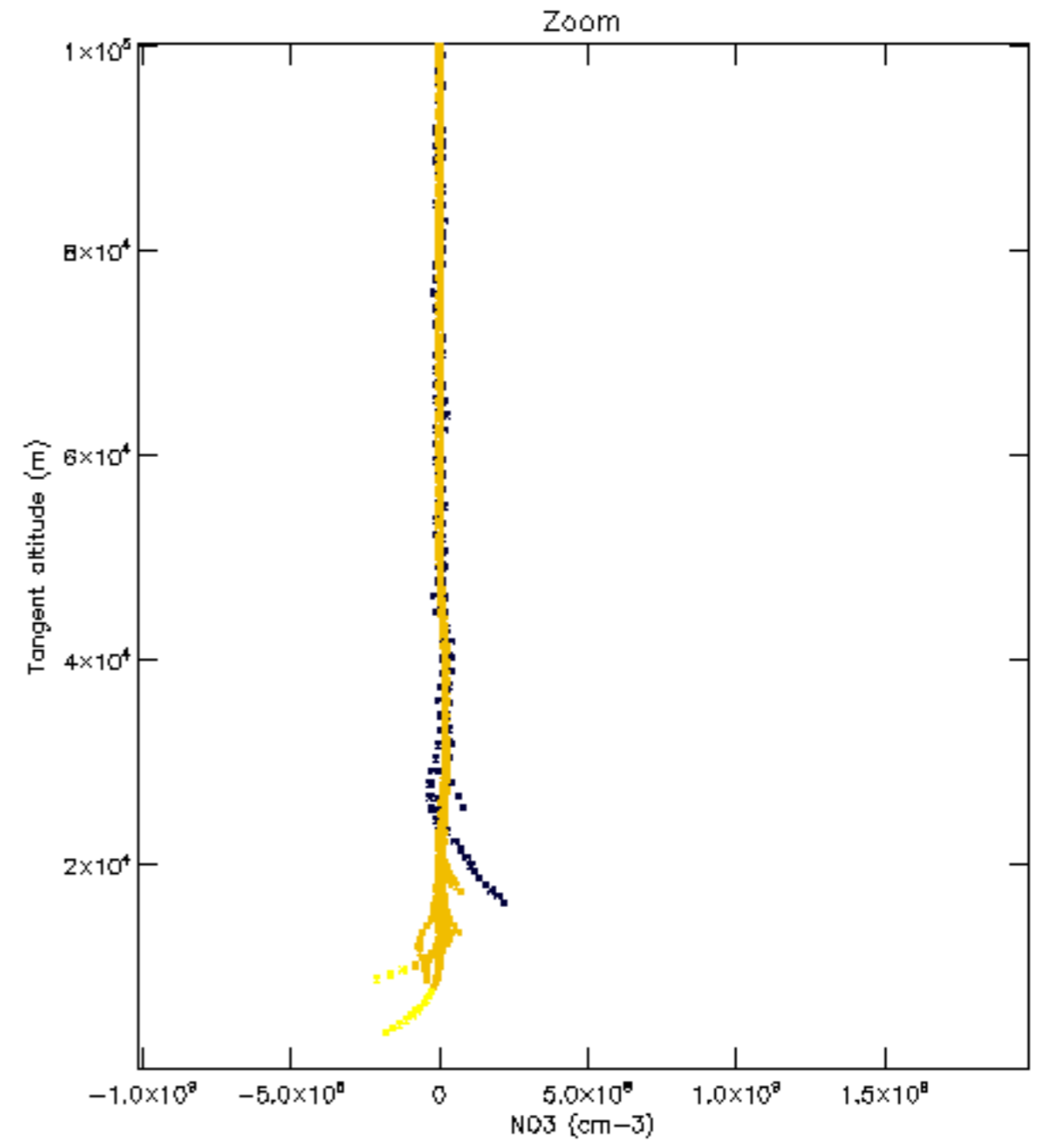
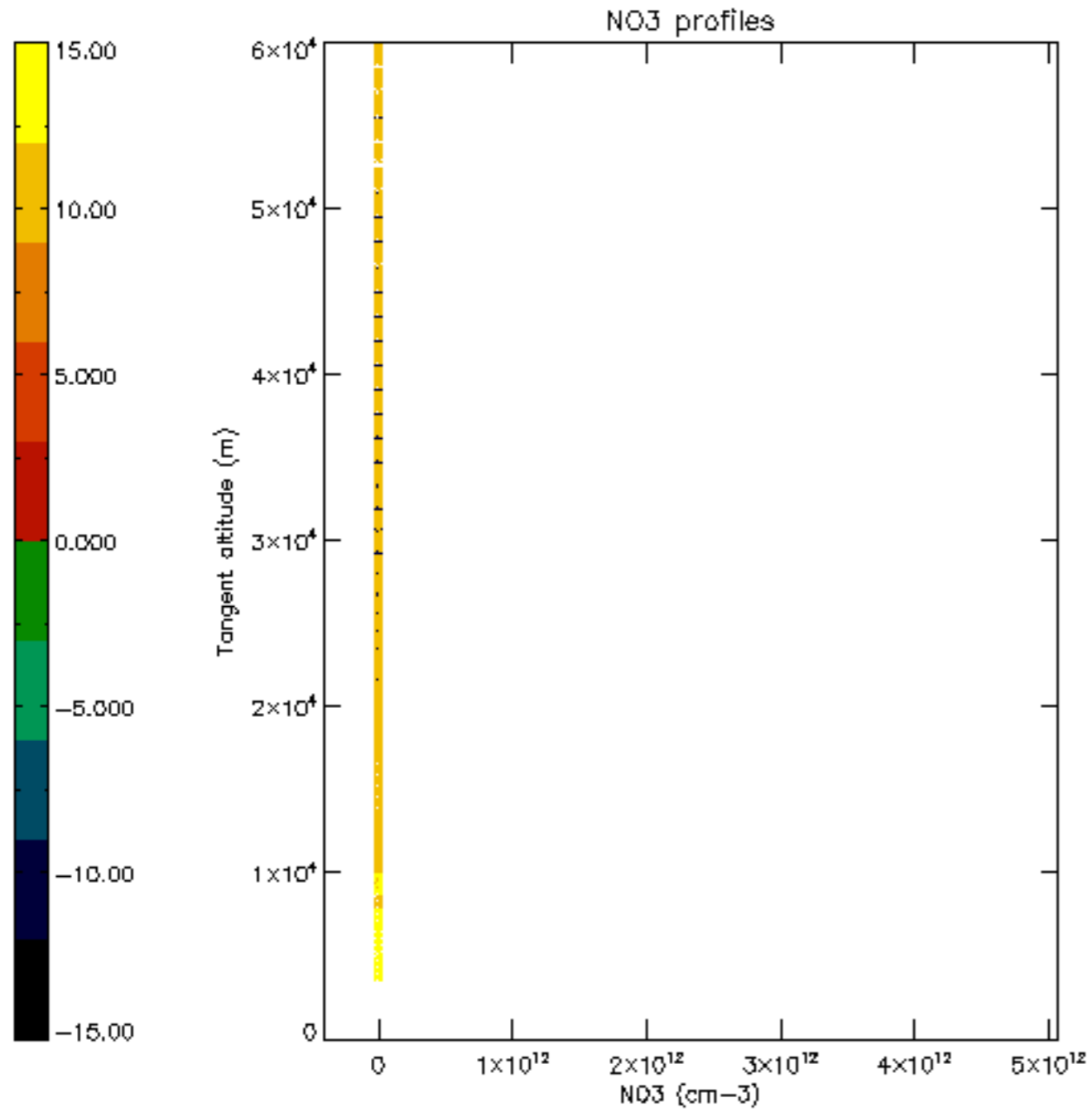


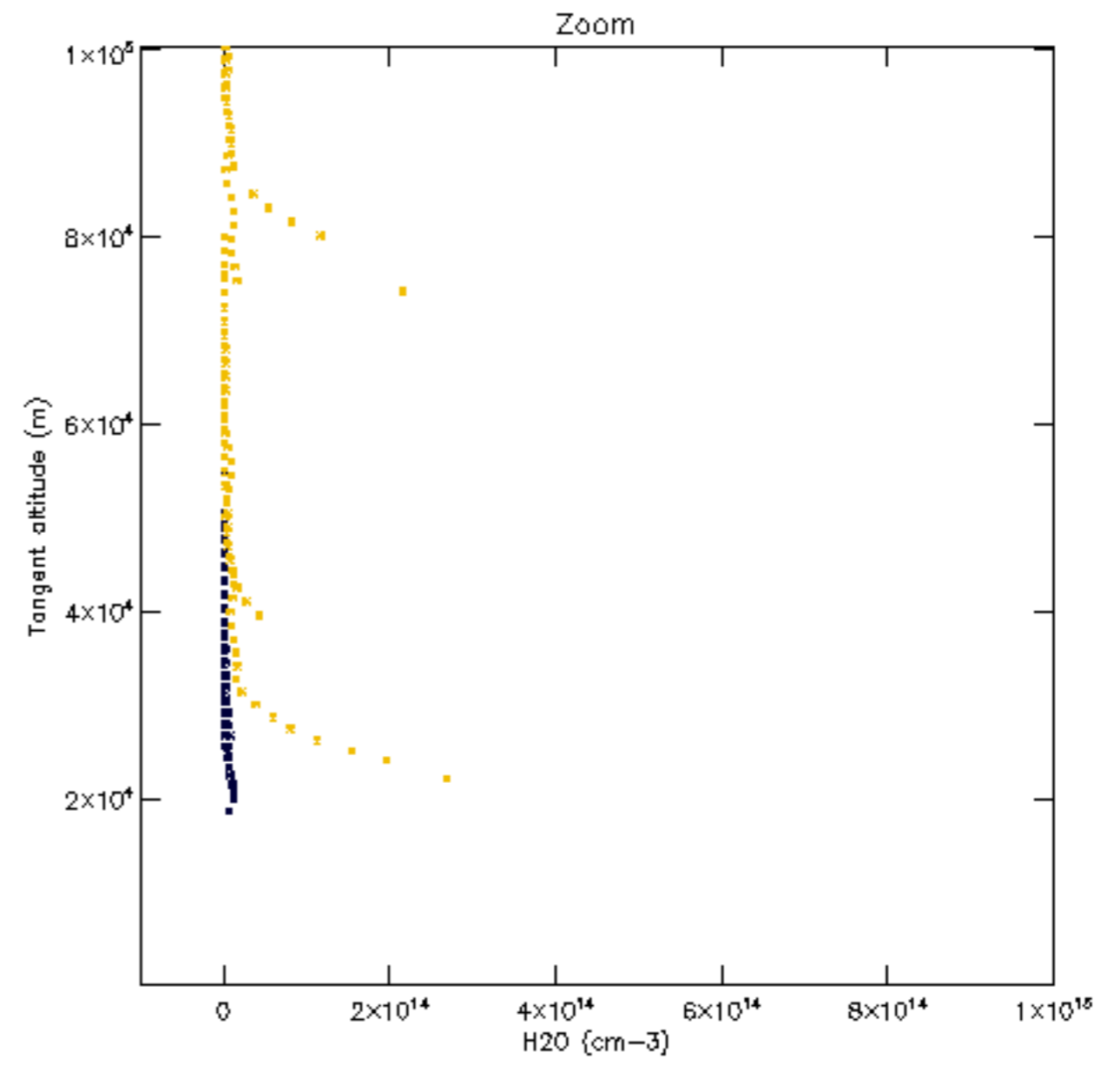
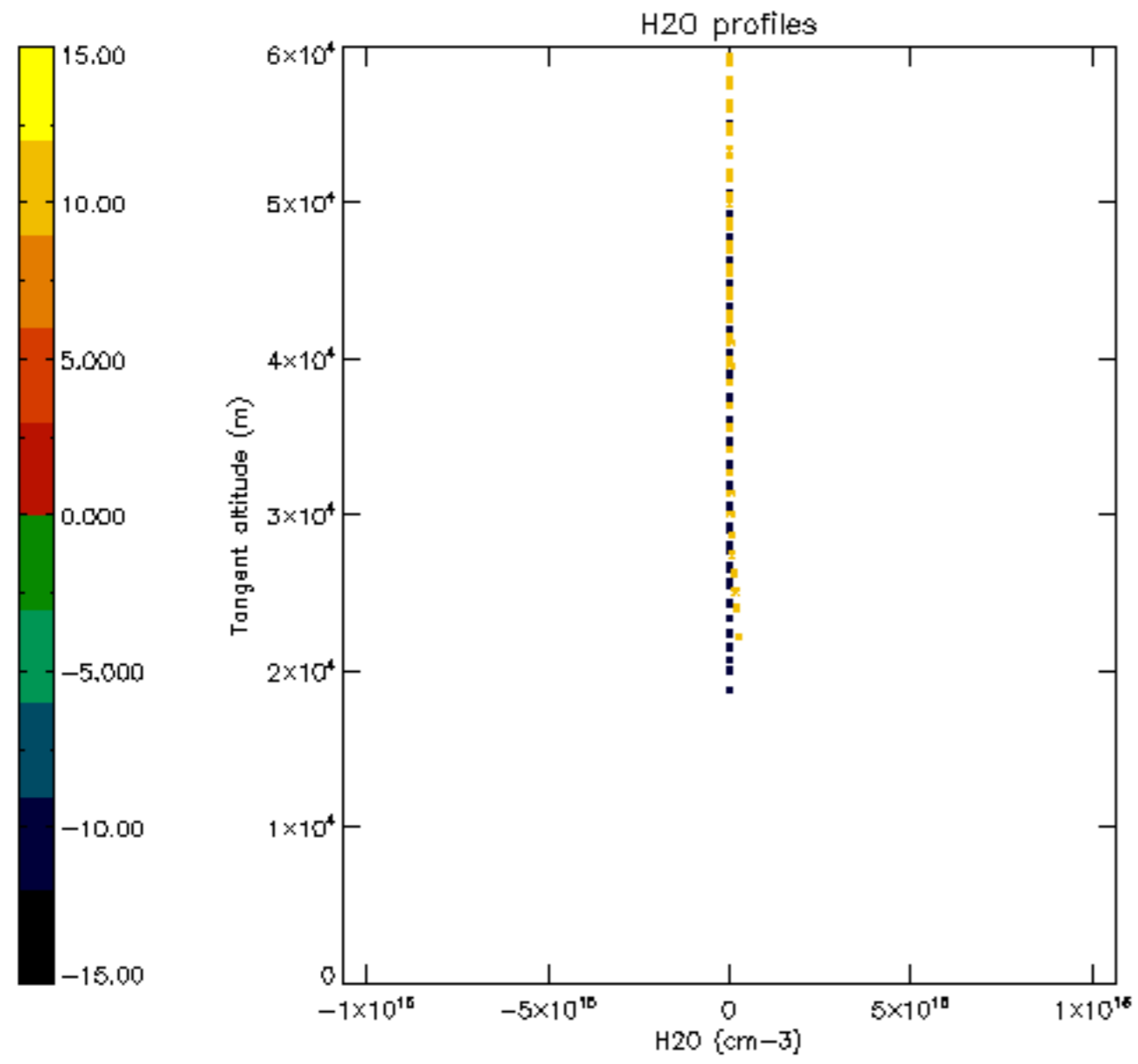


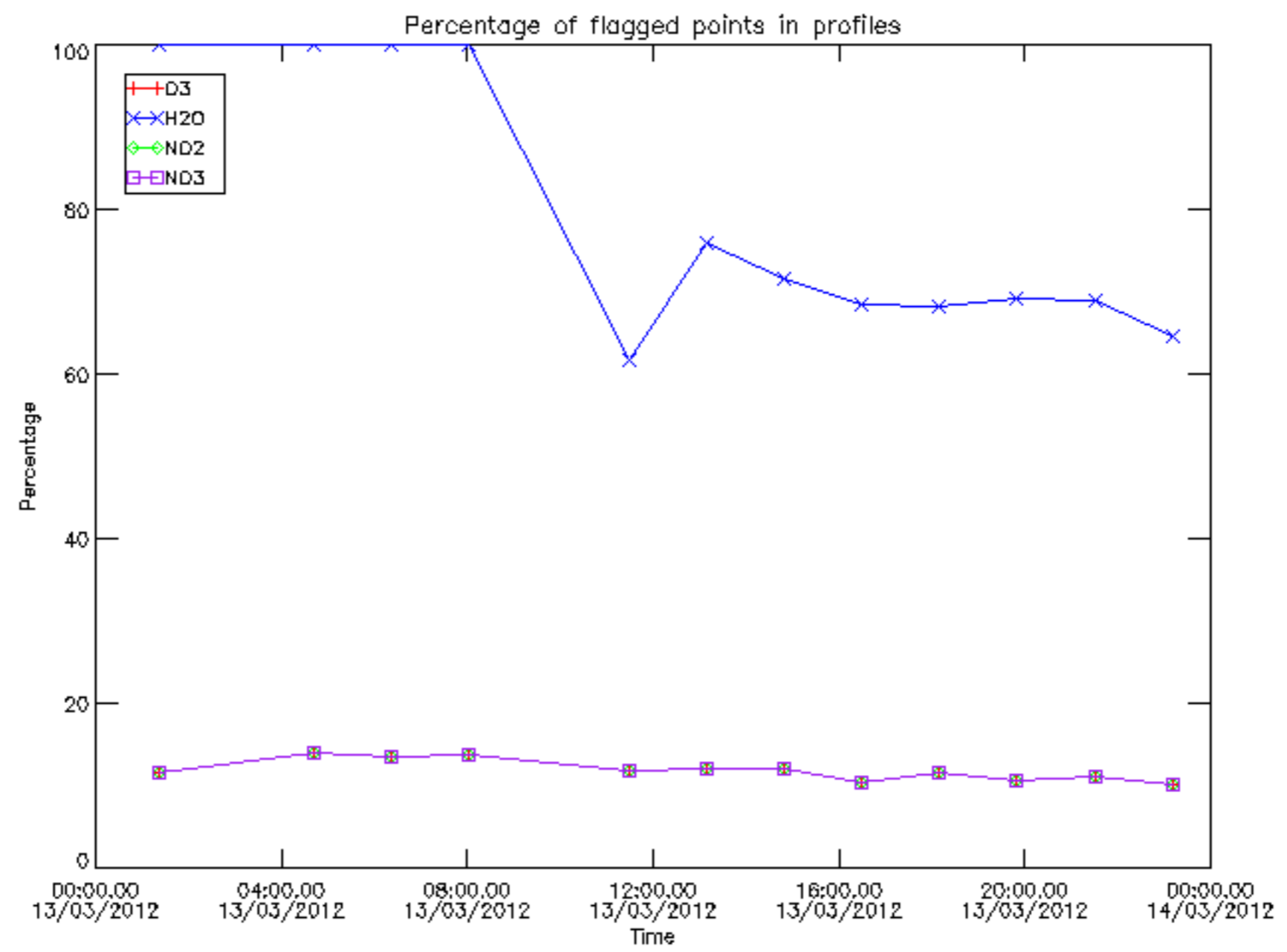




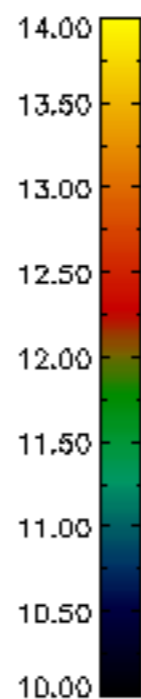
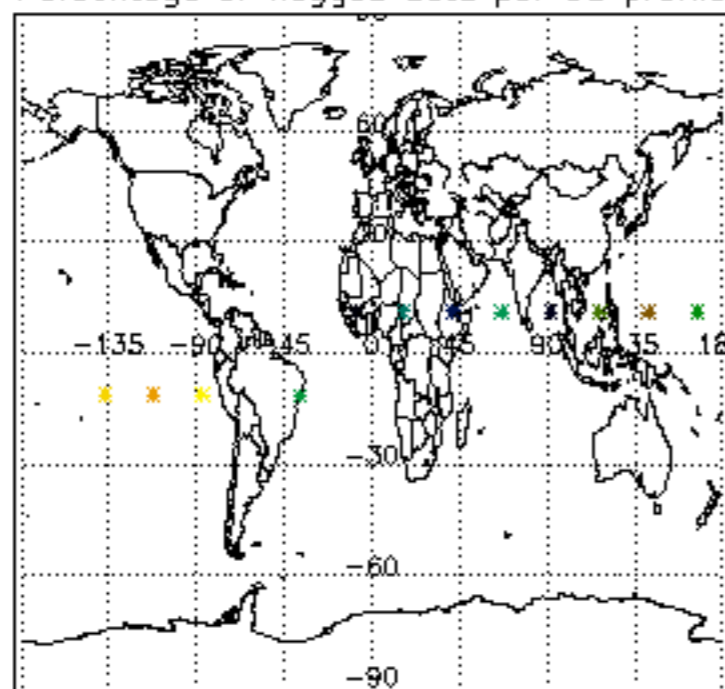




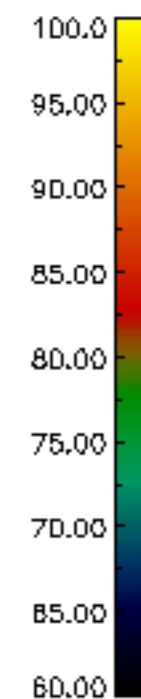
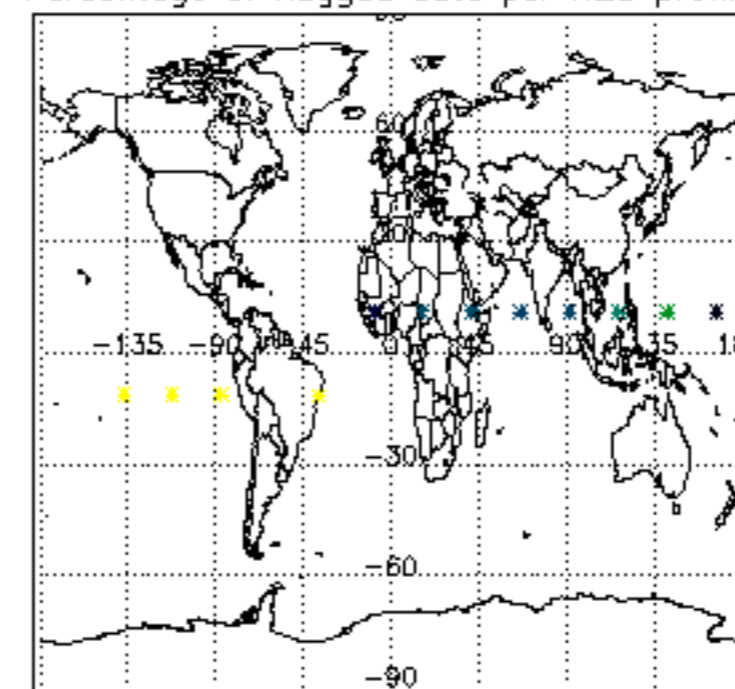




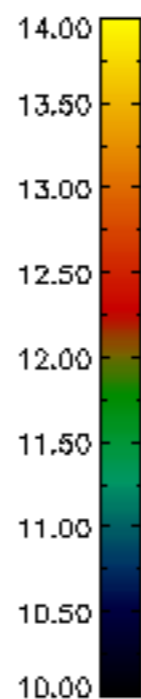
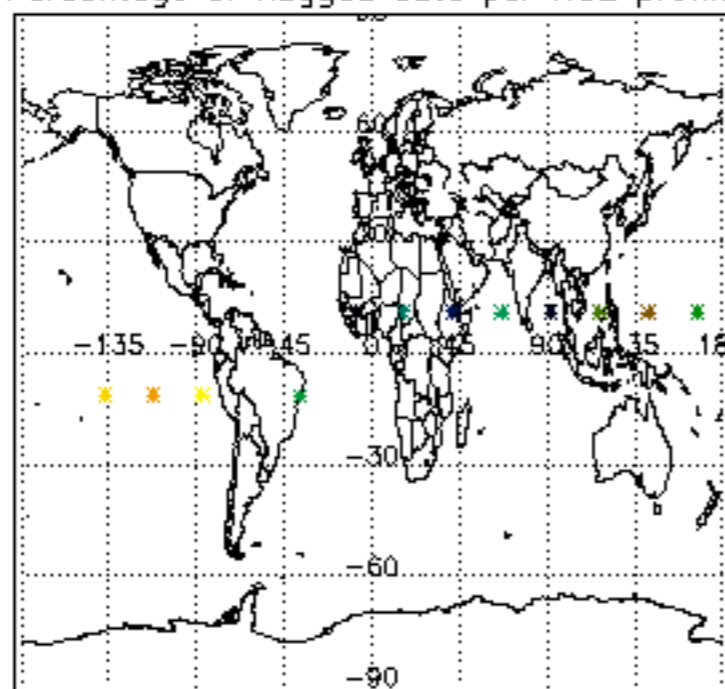
Percentage of flagged data per D3 profile



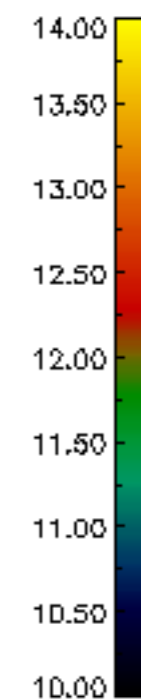
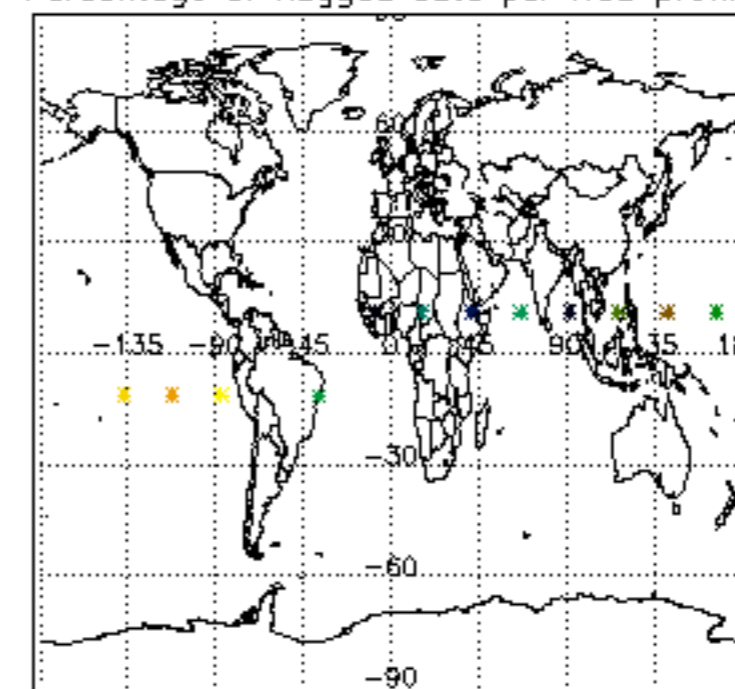
Percentage of flagged data per H2O profile

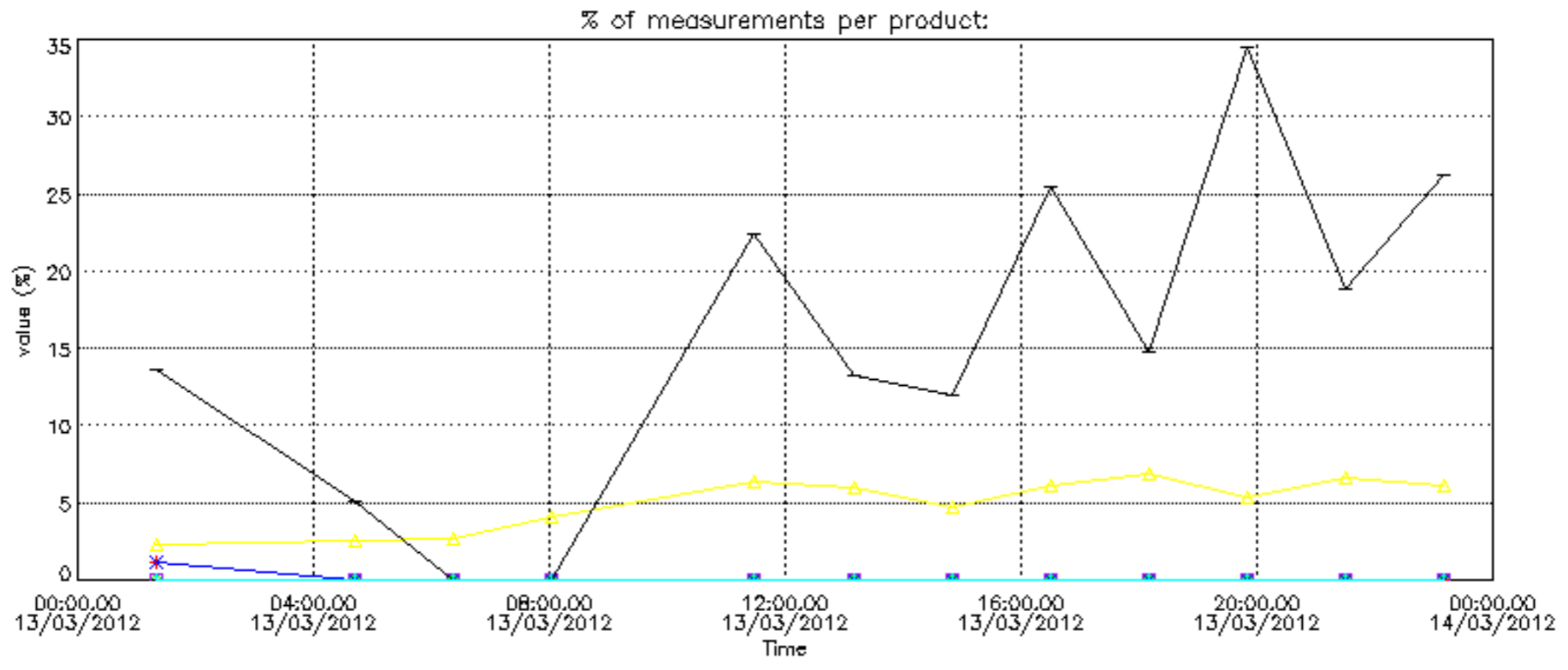
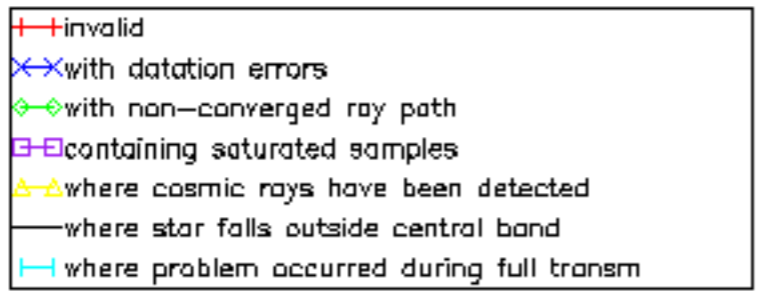


Percentage of flagged data per NO2 profile

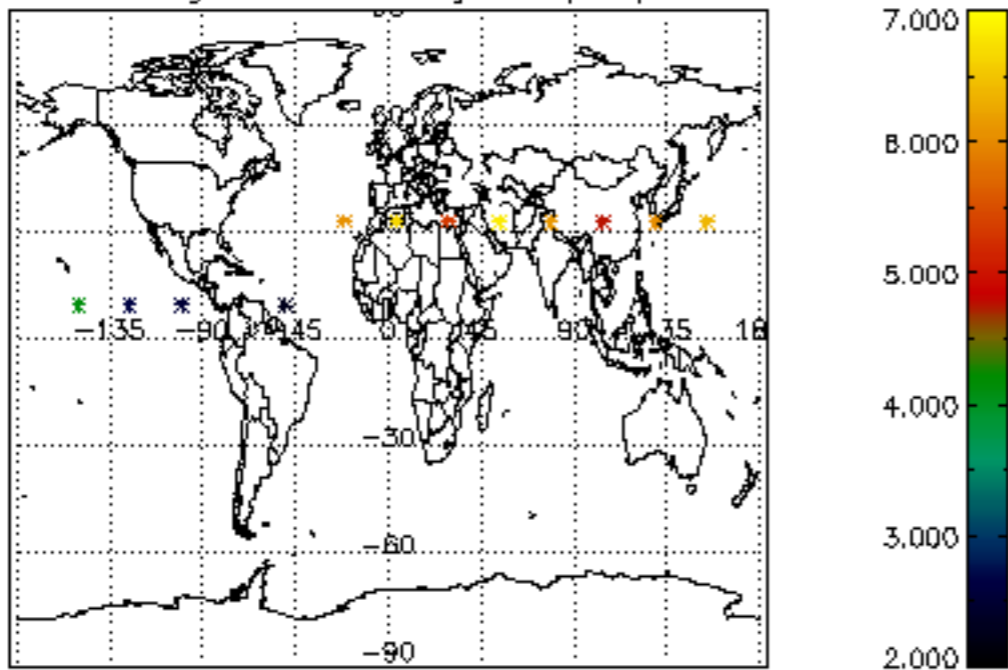


Percentage of flagged data per NO3 profile

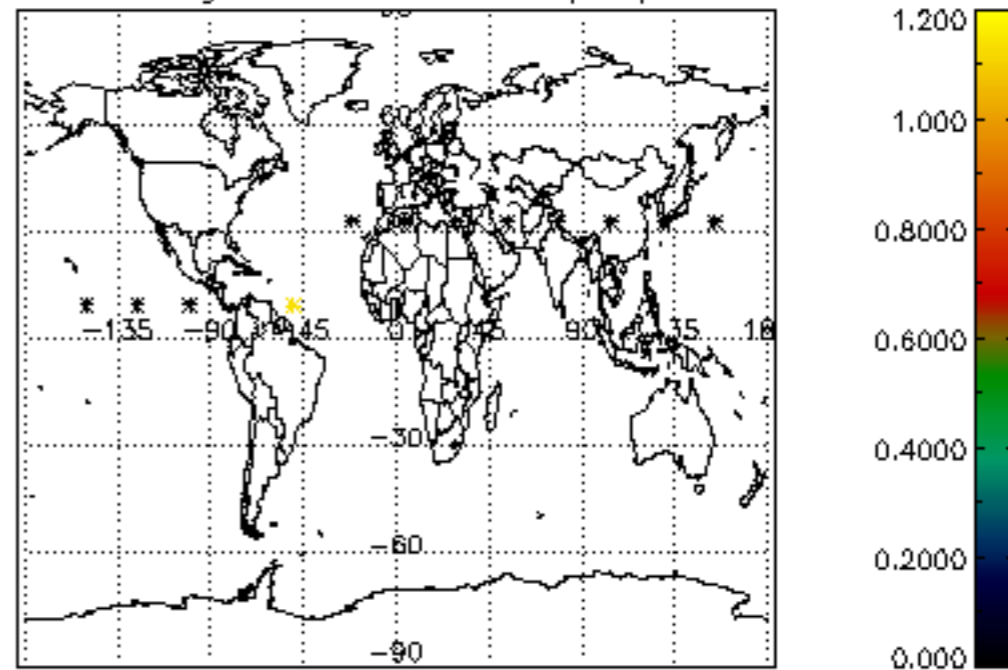




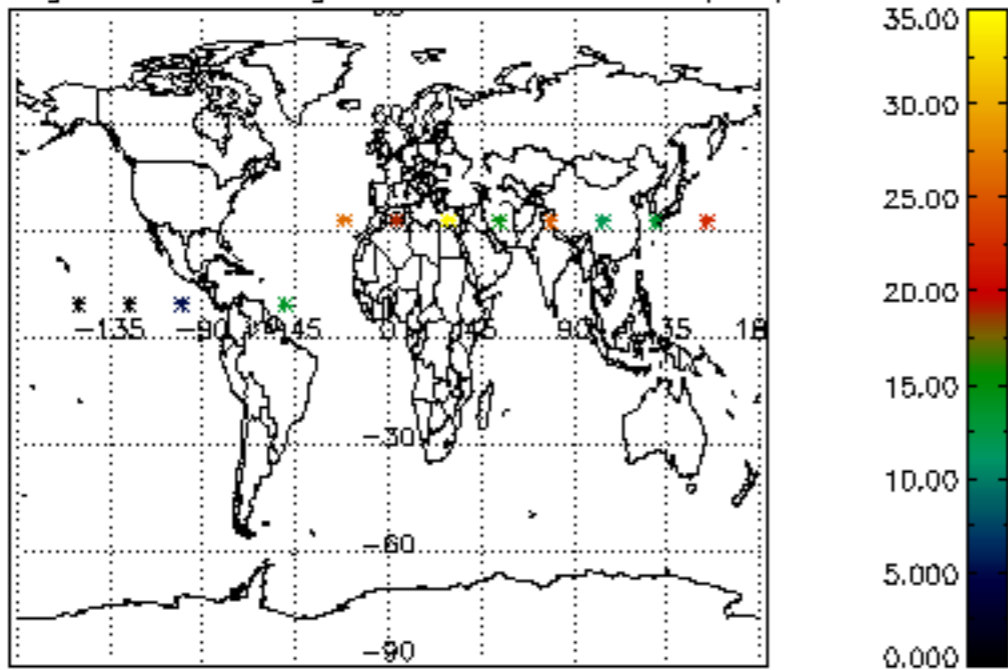
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

