

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	22APR2013 11:51:25
Data source version	GOMOS/6.01
Start time of products	09-01-2006 (09JAN2006 00:00:00)
Stop time of products	10-01-2006 (10JAN2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	16
Nb of prods with errors	1

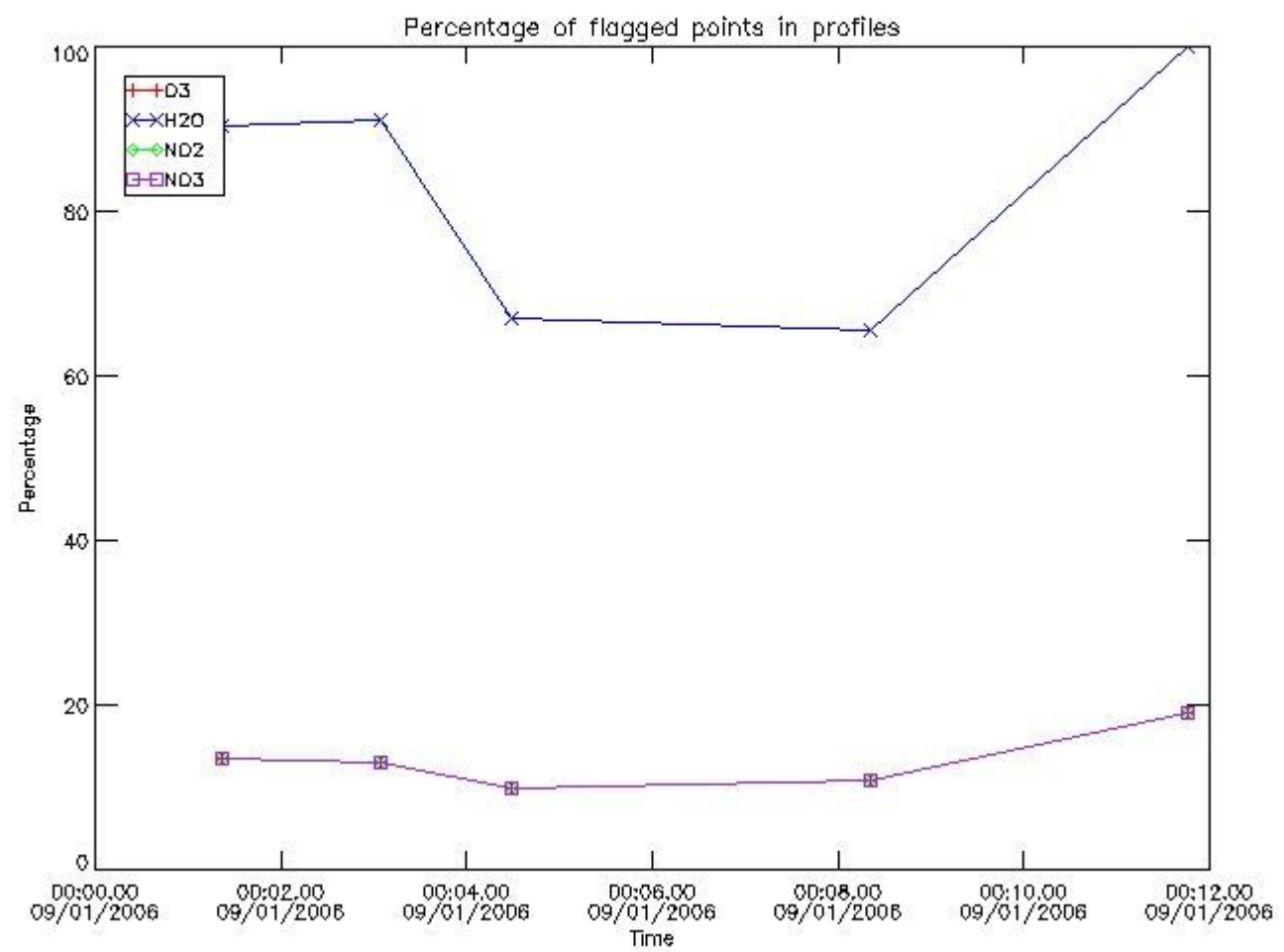
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20060109_000122_000000422044_00088_20182_7362.N1	09-JAN-2006 00:01:22	Dark	41.500	29	Bet Car	1.6720	10200.	83	20182	No
2	GOM_NL__2PRFIN20060109_000304_000000402044_00088_20182_7363.N1	09-JAN-2006 00:03:04	Dark	39.500	71	Iot Car	2.2460	7700.0	79	20182	No
3	GOM_NL__2PRFIN20060109_000428_000000522044_00088_20182_7364.N1	09-JAN-2006 00:04:28	Dark	52.000	41	Eps Car	1.8600	4100.0	104	20182	No
4	GOM_NL__2PRFIN20060109_000821_000000472044_00088_20182_7365.N1	09-JAN-2006 00:08:21	Dark	47.000	2	Alp Car	-0.73600	7000.0	94	20182	No
5	GOM_NL__2PRFIN20060109_001145_000000272044_00088_20182_7366.N1	09-JAN-2006 00:11:45	Dark	27.000	117	Pi Pup	2.7060	3800.0	54	20182	No
6	GOM_NL__2PRFIN20060109_001424_00000012044_00088_20182_7367.N1	09-JAN-2006 00:14:24	Dark	1.0000	23	21Eps CMa	1.5020	26000.	2	20182	Yes
7	GOM_NL__2PRFIN20060109_001800_000000432044_00088_20182_7368.N1	09-JAN-2006 00:18:00	Straylight	42.500	47	2Bet CMa	1.9760	28000.	85	20182	No
8	GOM_NL__2PRFIN20060109_002122_000000432044_00088_20182_7369.N1	09-JAN-2006 00:21:22	Straylight	42.500	7	19Bet Ori	0.10000	14000.	85	20182	No
9	GOM_NL__2PRFIN20060109_002306_000000412044_00088_20182_7370.N1	09-JAN-2006 00:23:06	Straylight	40.500	30	46Eps Ori	1.6940	30000.	81	20182	No
10	GOM_NL__2PRFIN20060109_002526_000000492044_00088_20182_7371.N1	09-JAN-2006 00:25:26	Twilight	48.500	14	58Alp Ori	0.87000	3000.0	97	20182	No
11	GOM_NL__2PRFIN20060109_002923_000000352044_00088_20182_7372.N1	09-JAN-2006 00:29:23	Bright	34.500	176	23Zet Tau	3.0200	22000.	69	20182	No
12	GOM_NL__2PRFIN20060109_003130_000000372044_00088_20182_7373.N1	09-JAN-2006 00:31:30	Bright	37.000	28	12Bet Tau	1.6500	15200.	74	20182	No
13	GOM_NL__2PRFIN20060109_003256_000000372044_00088_20182_7374.N1	09-JAN-2006 00:32:56	Bright	37.000	114	3Iot Aur	2.6930	4600.0	74	20182	No
14	GOM_NL__2PRFIN20060109_003614_000000242044_00088_20182_7375.N1	09-JAN-2006 00:36:14	Twilight	24.000	42	34Bet Aur	1.9000	10200.	48	20182	No
15	GOM_NL__2PRFIN20060109_004839_000000352044_00088_20182_7376.N1	09-JAN-2006 00:48:39	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	20182	No
16	GOM_NL__2PRFIN20060109_005659_000000342044_00088_20182_7377.N1	09-JAN-2006 00:56:59	Bright	33.500	119	14Eta Dra	2.7270	4700.0	67	20182	No

3. Quality information per product

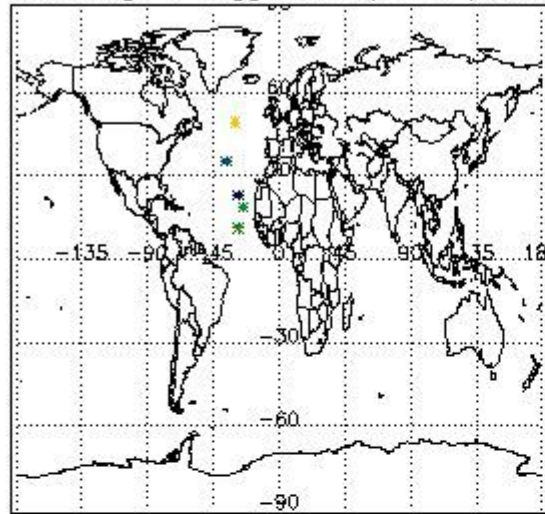
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

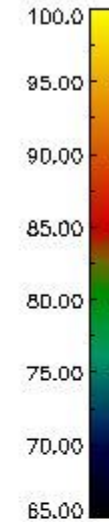
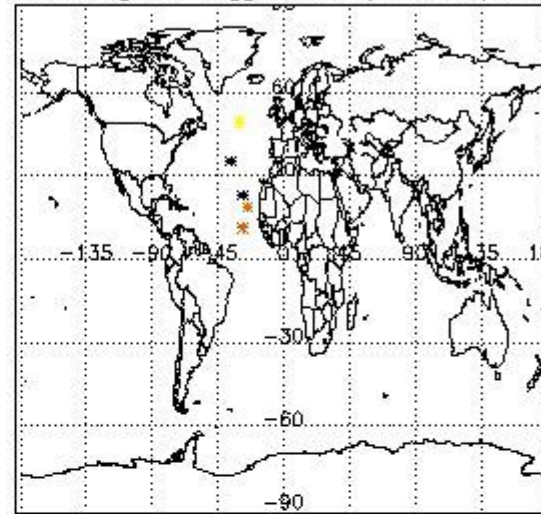


3.2 Plot quality information per product (world map)

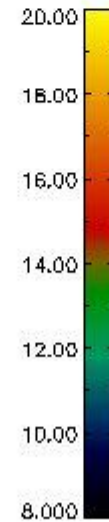
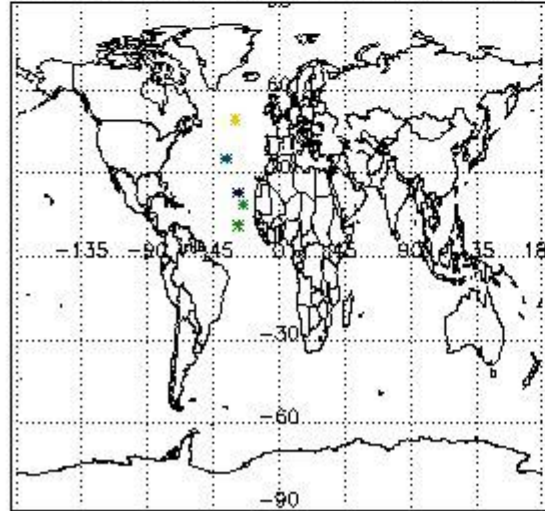
Percentage of flagged data per O3 profile



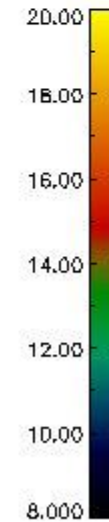
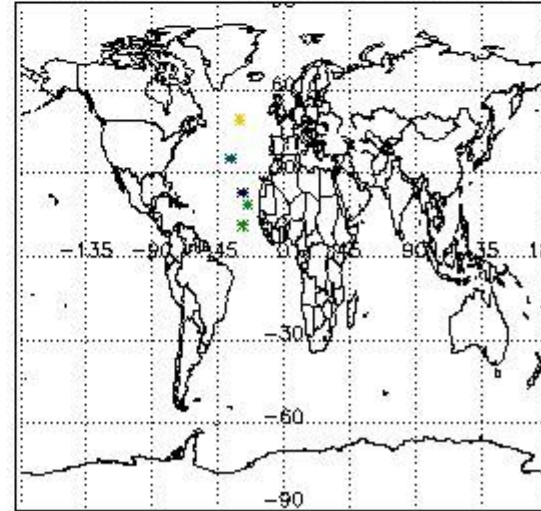
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

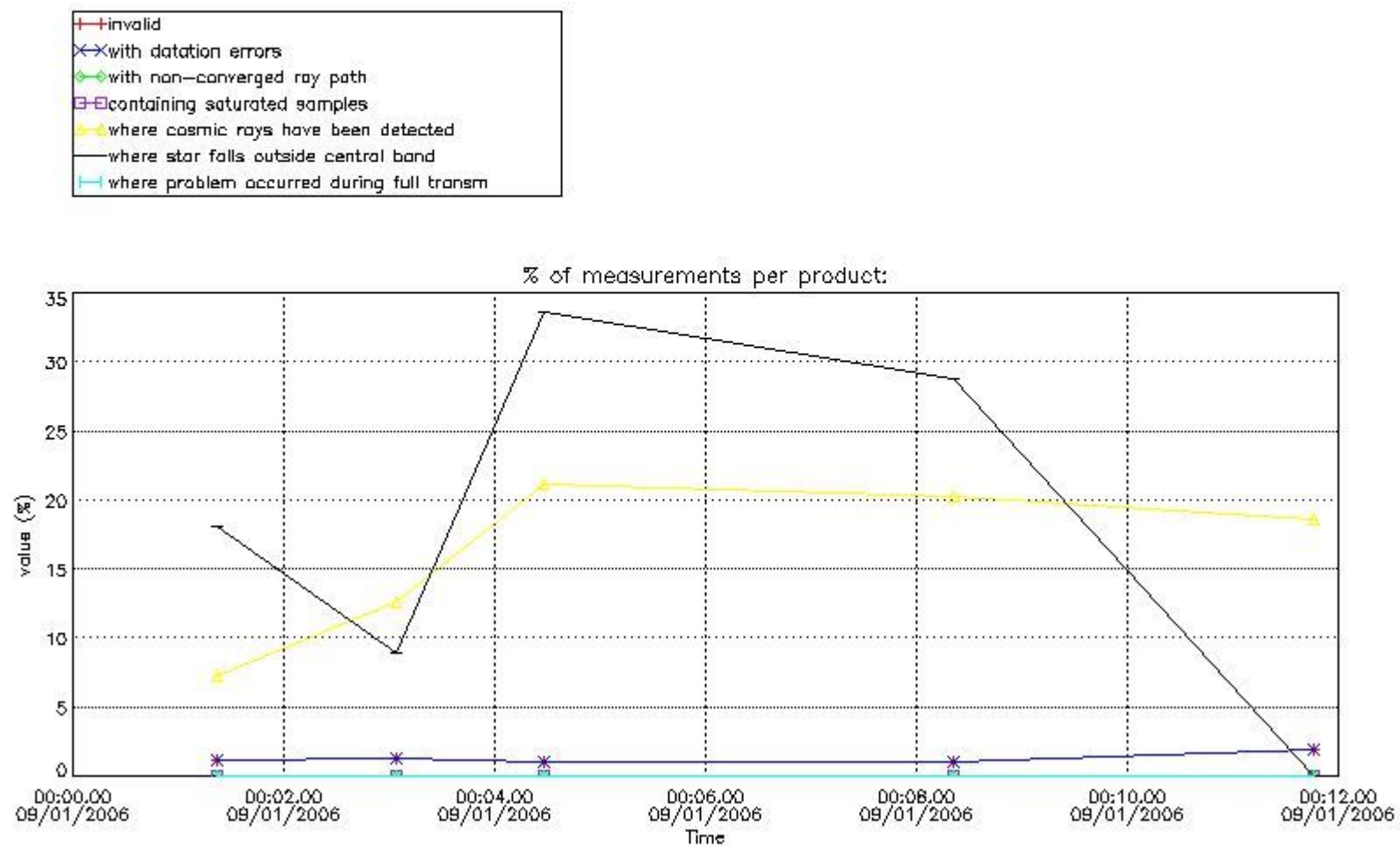


4. Level 1 quality information per product

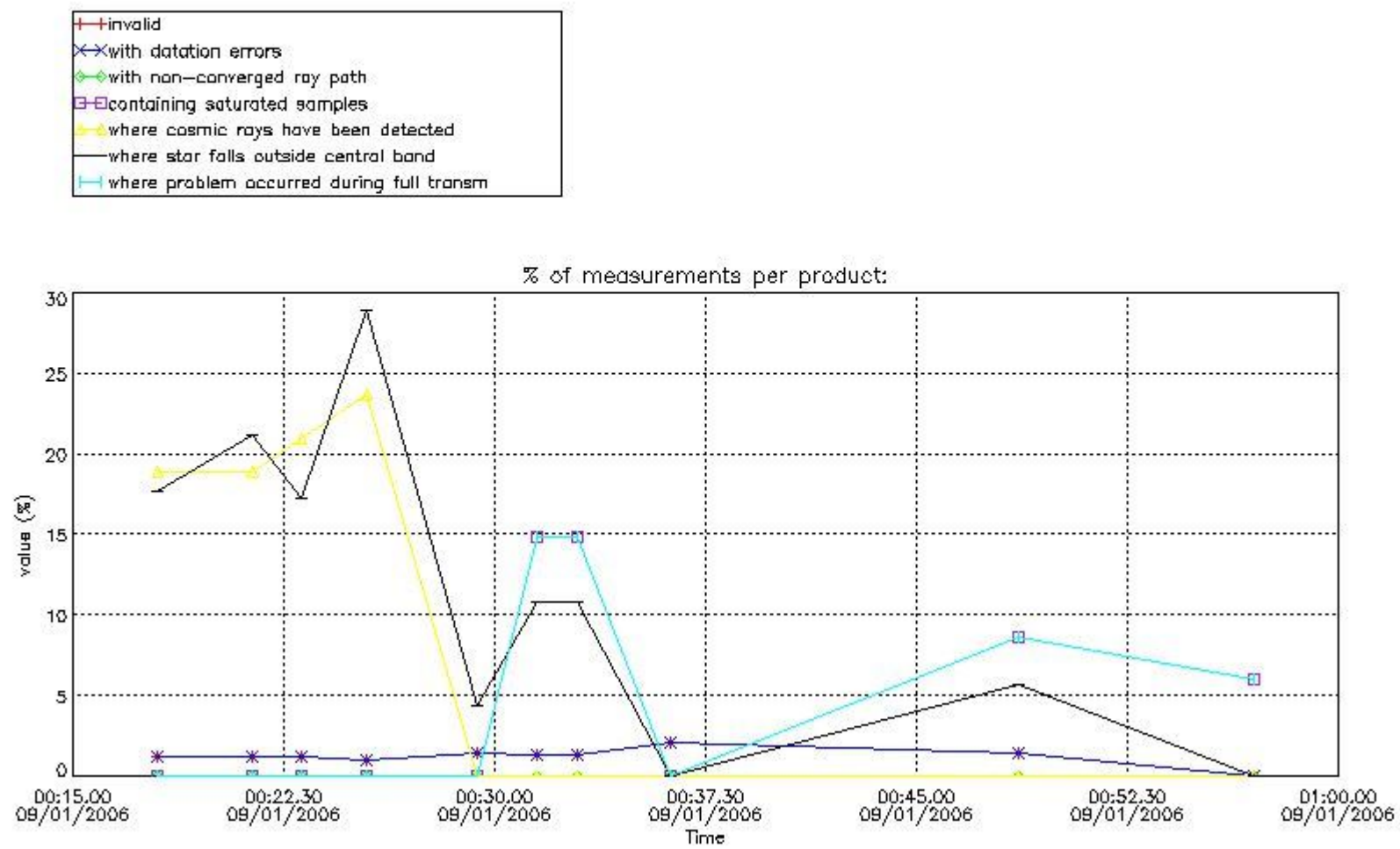
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



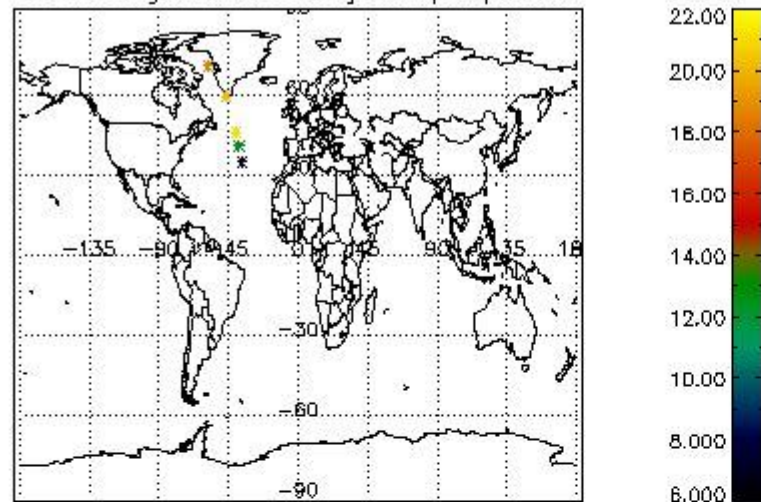
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



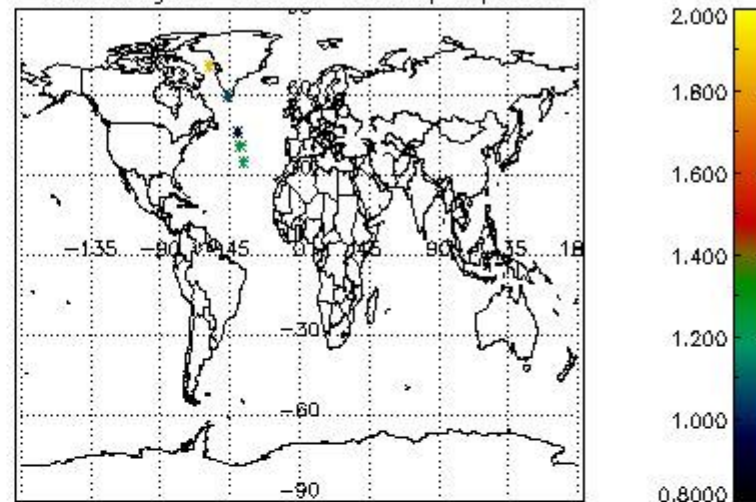
4.2 Plot quality information per product coming from level 1b processing (world map)

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

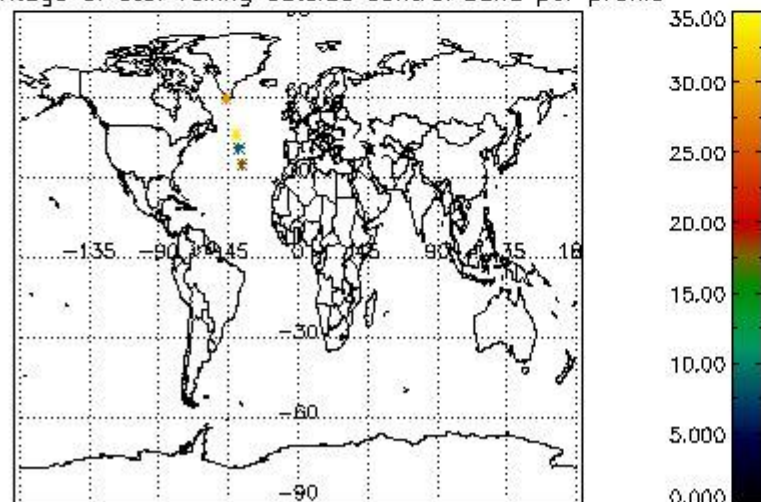
Percentage of cosmic ray hits per profile



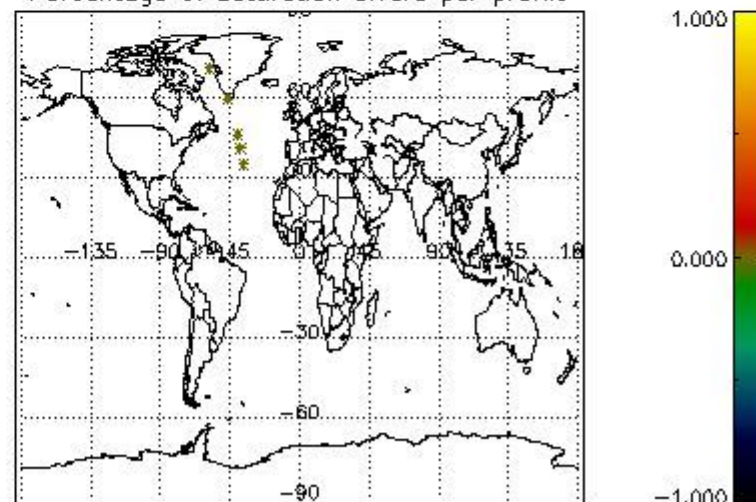
Percentage of datation errors per profile



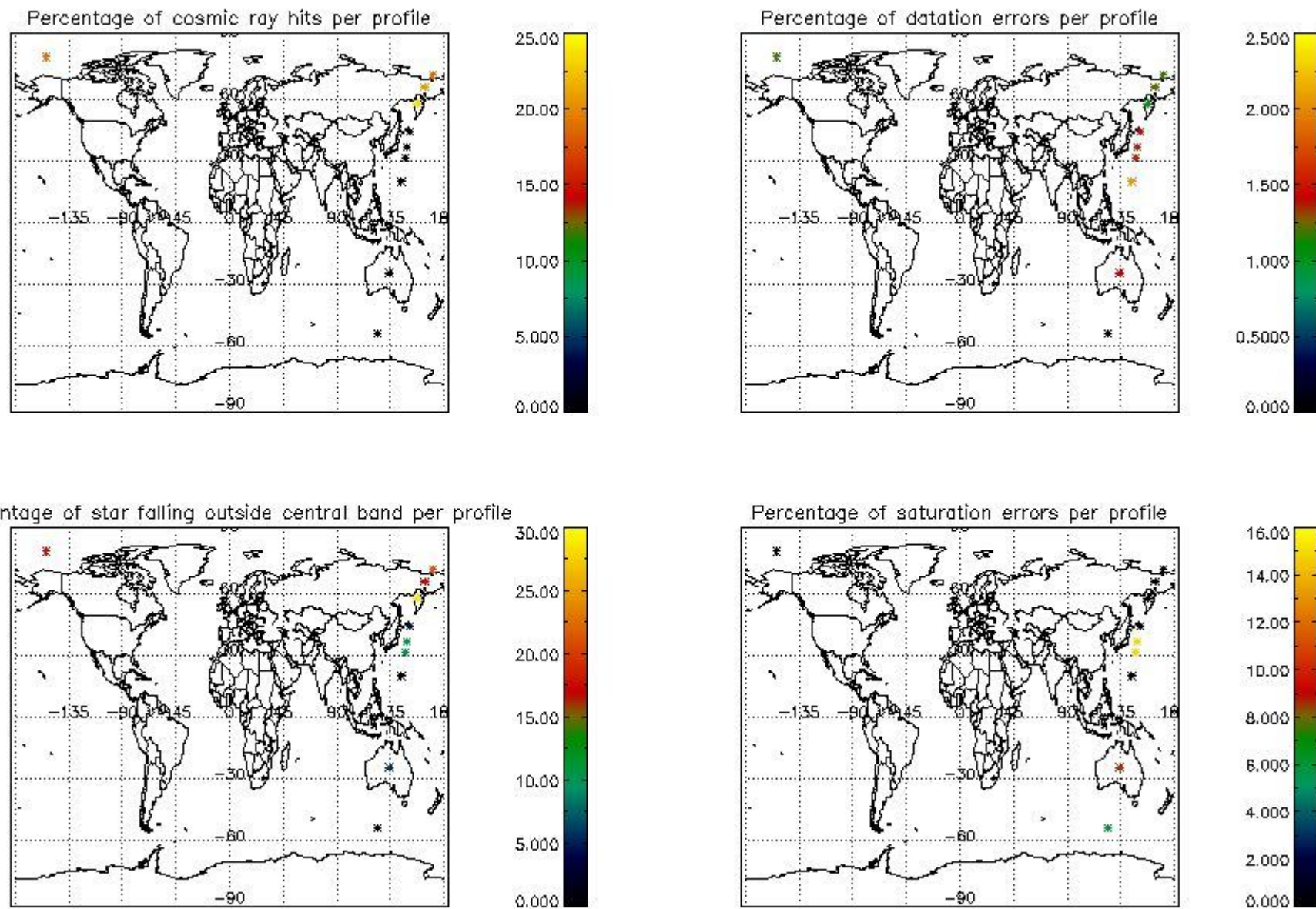
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

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

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

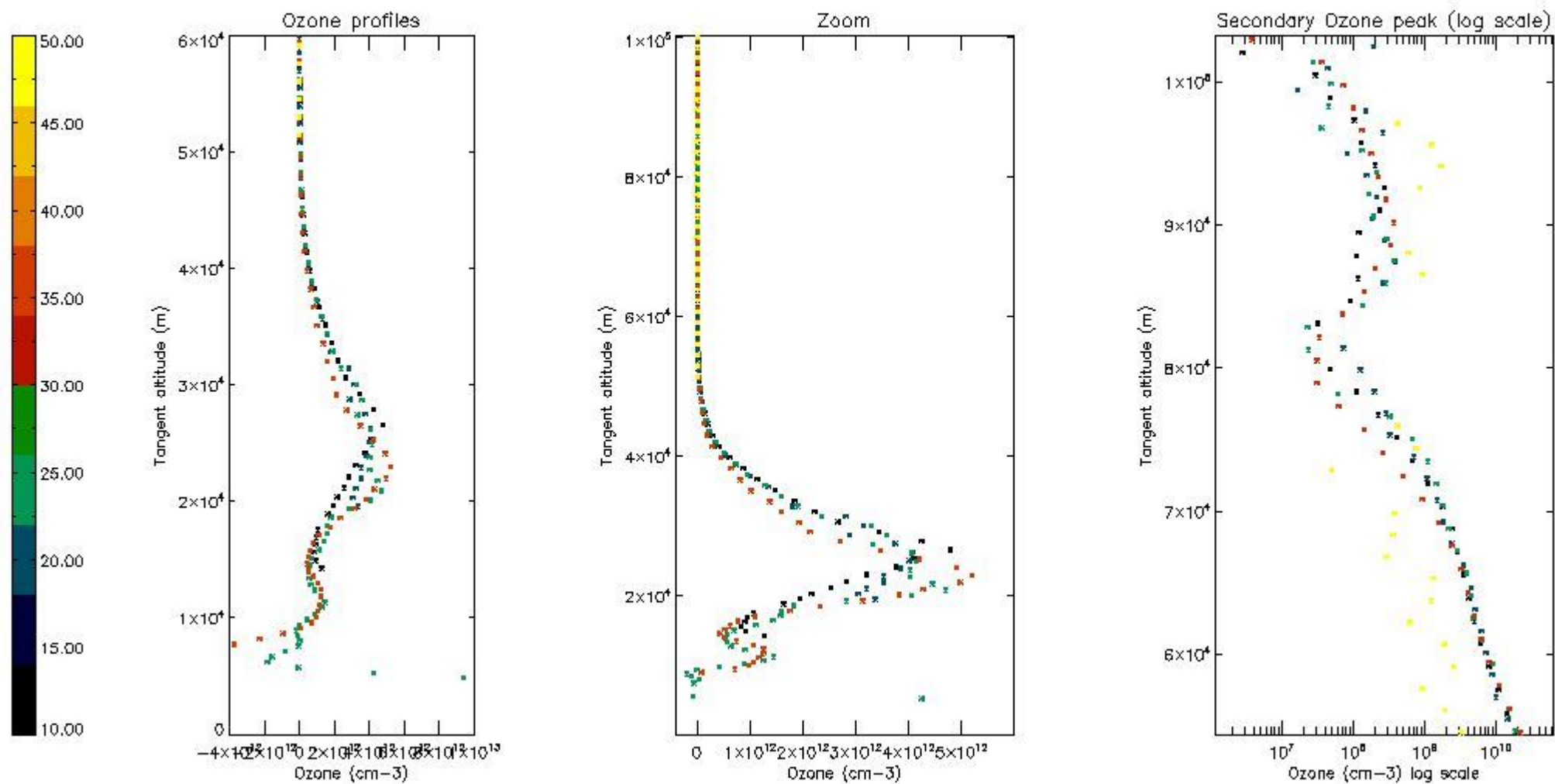
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	36
STD < 20	18

STD < 10	14
STD < 5	7

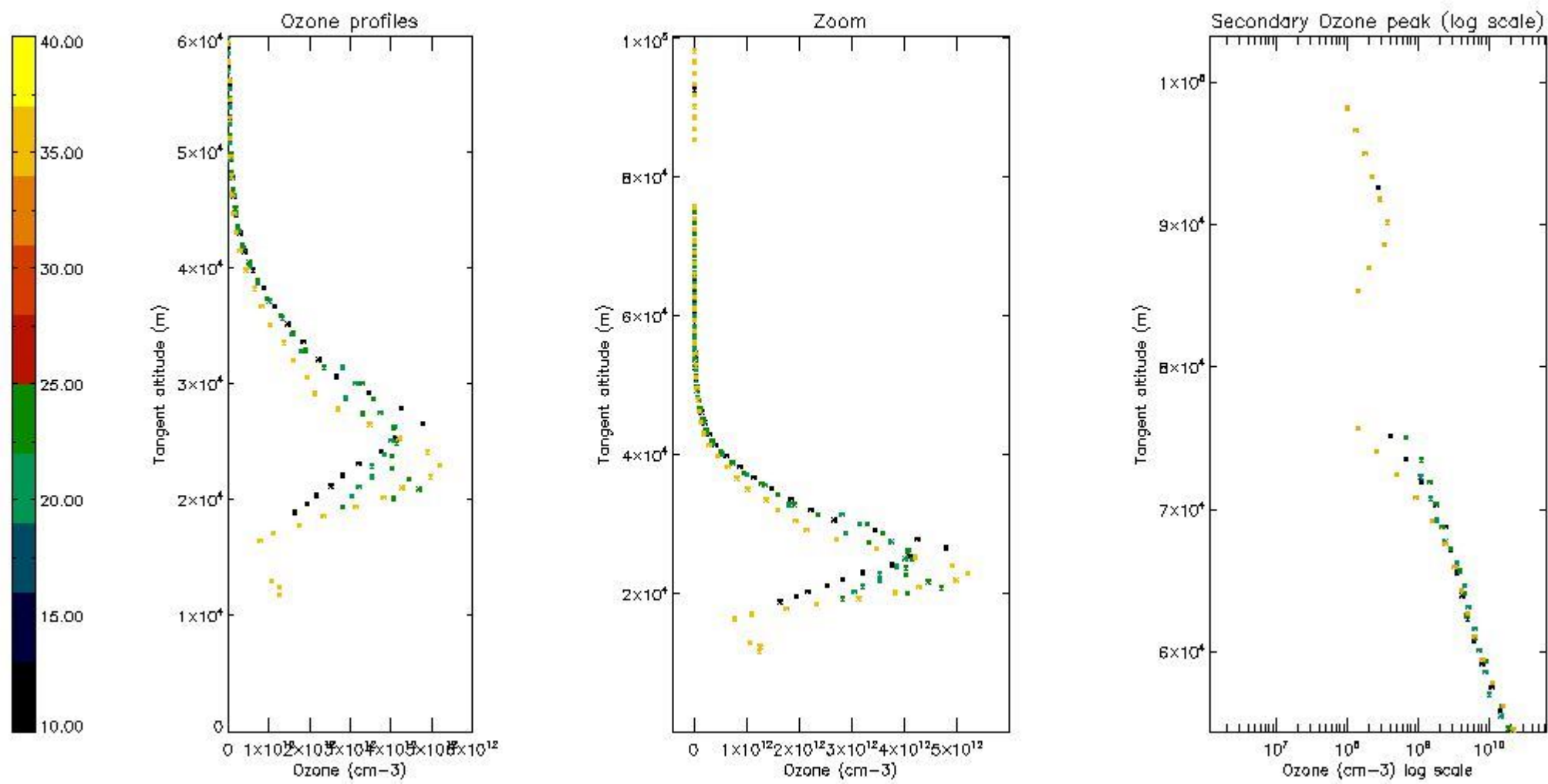
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



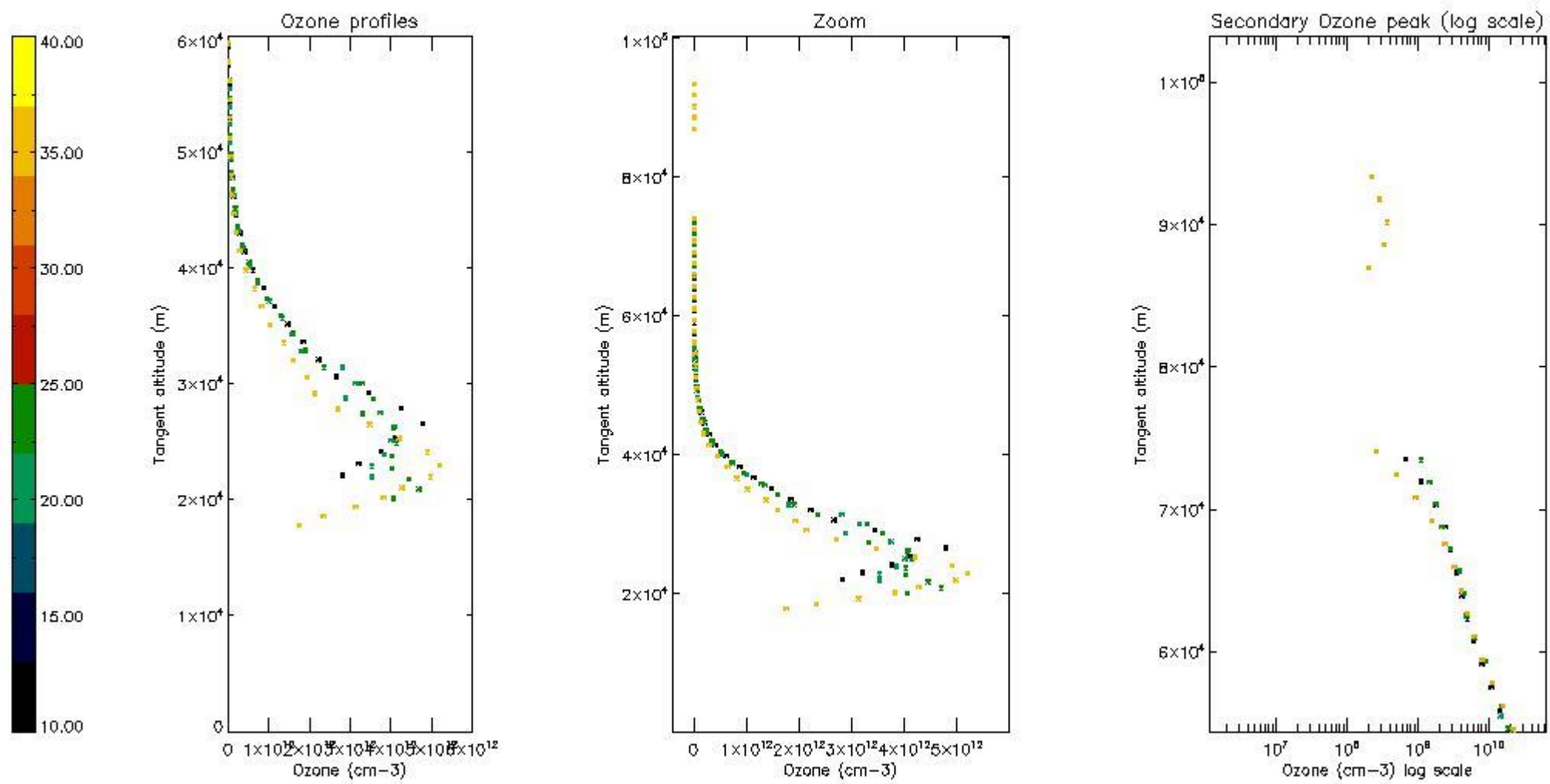
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



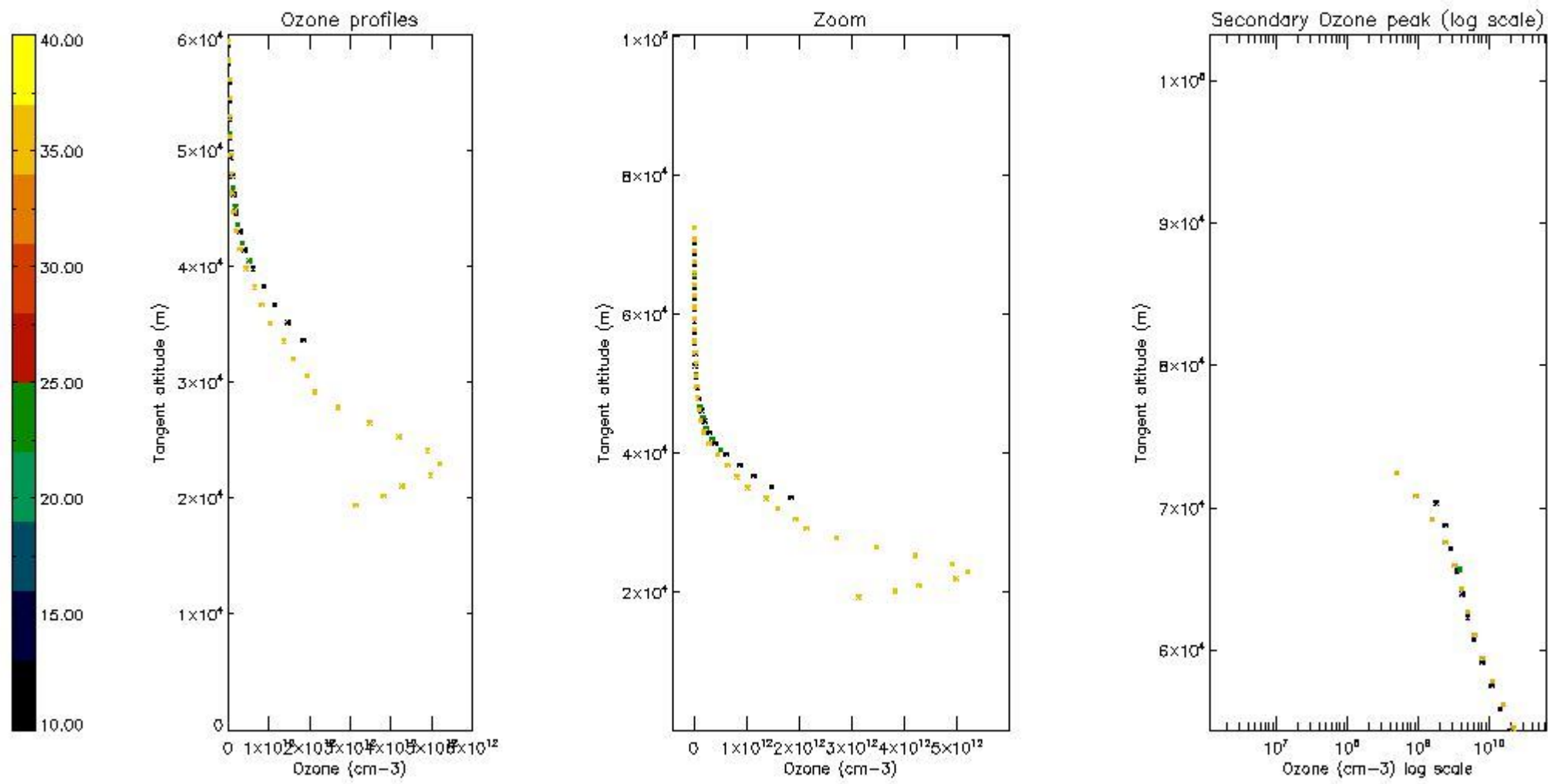
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



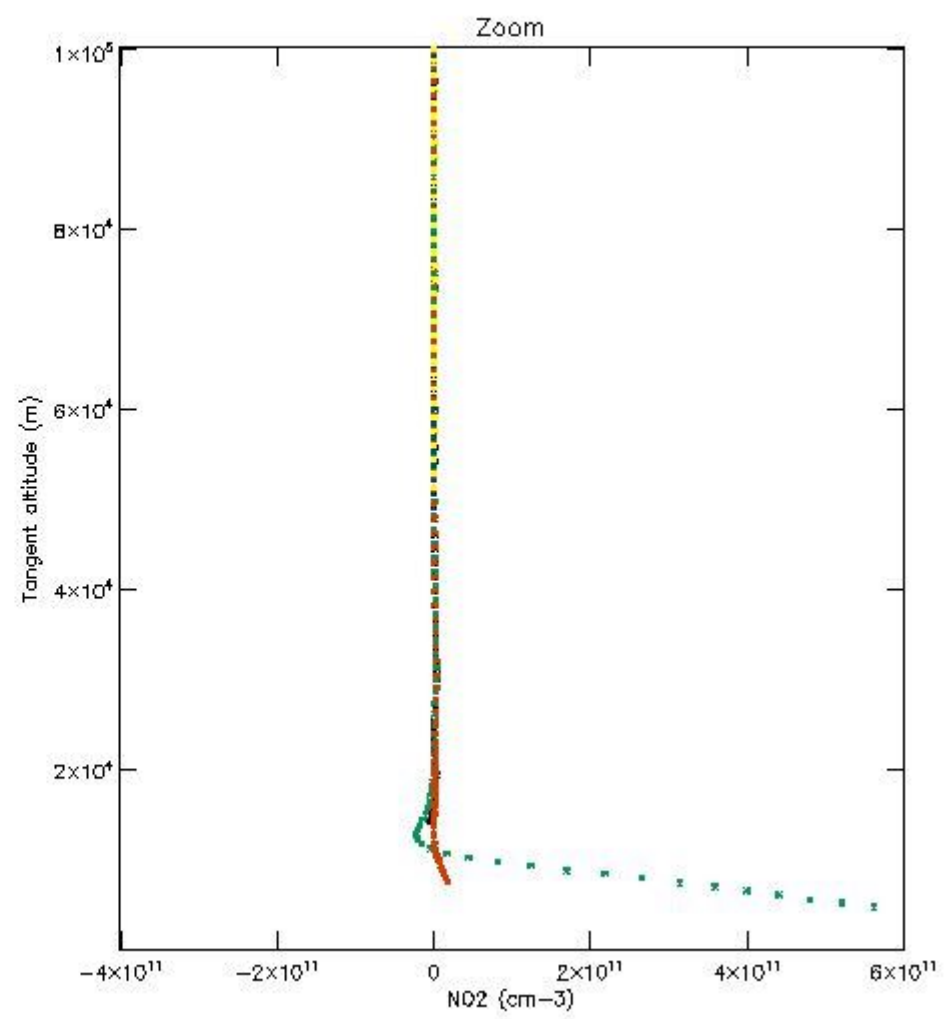
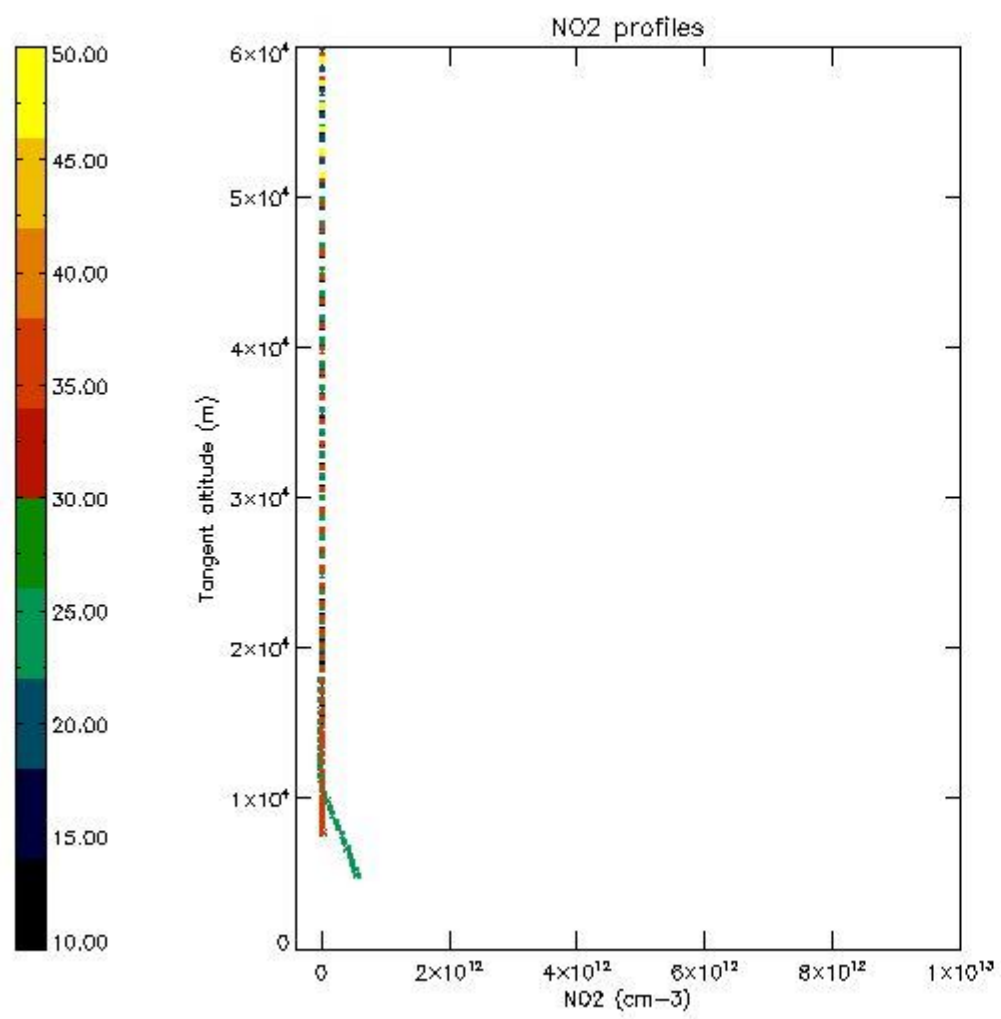
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



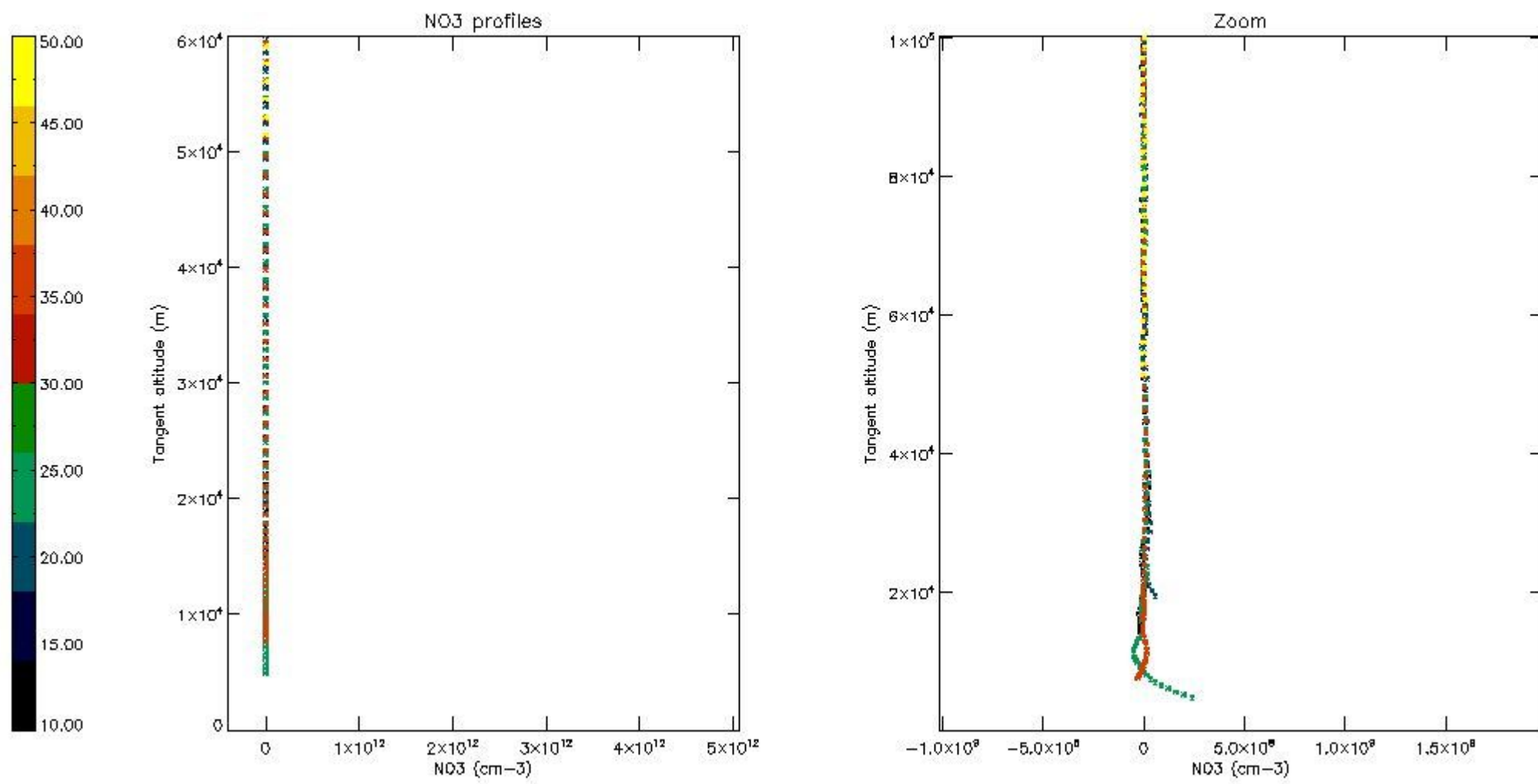
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



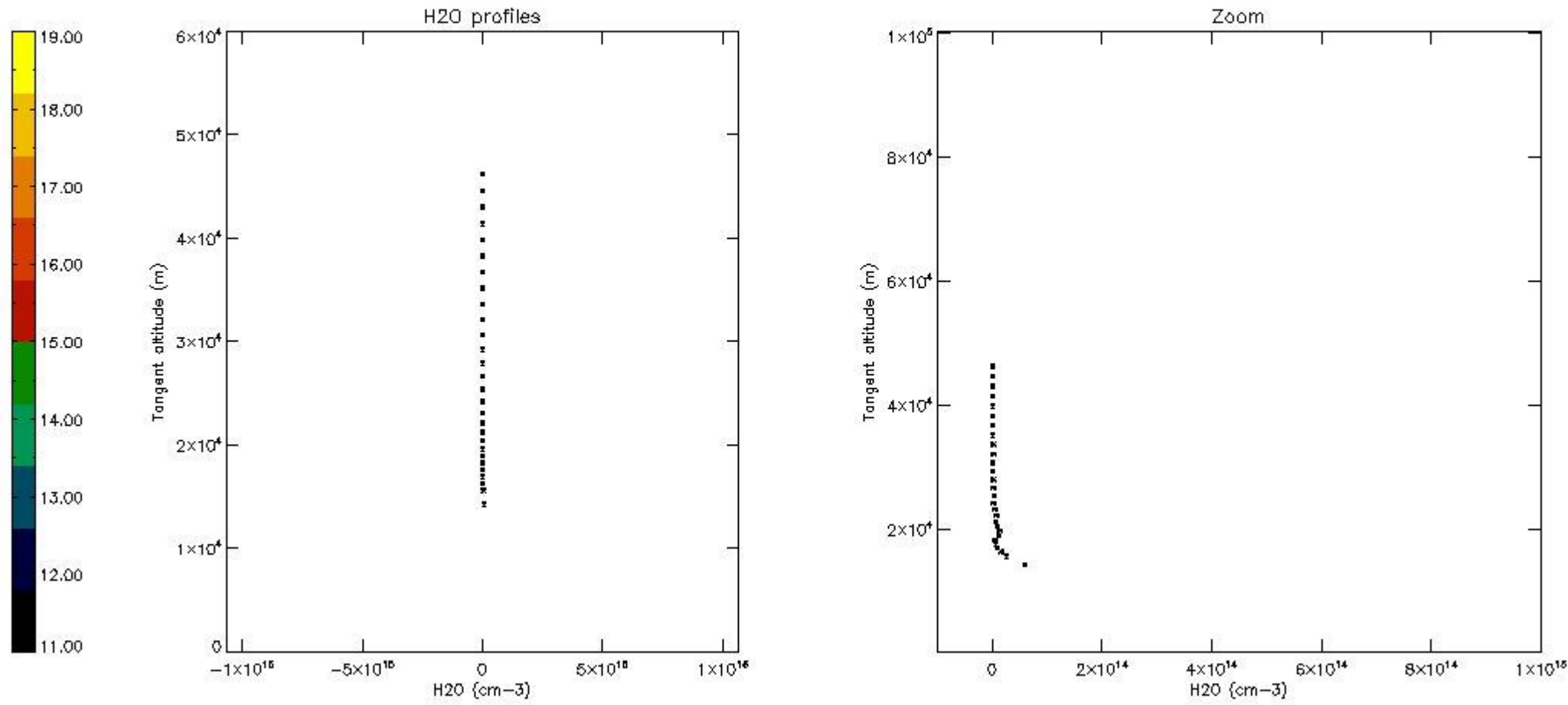
5.7 Plot NO3 profiles for all STD (dark without errors)

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_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	09-JAN-2006 00:01:22
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-JAN-2006 00:01:22
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-JAN-2006 00:01:22

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[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 \(dark without errors\)](#)

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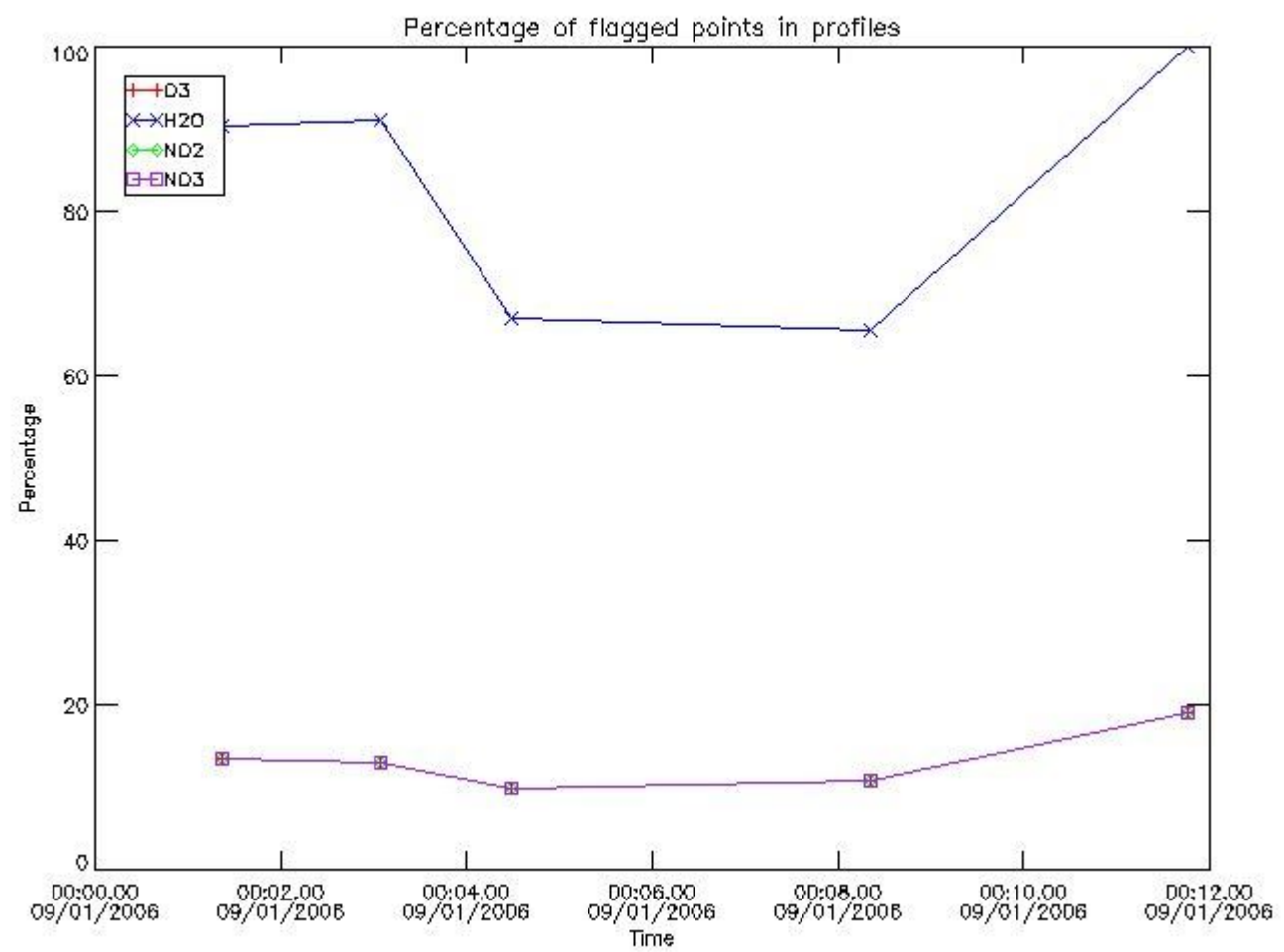
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12	GOM_NL__2PRFIN20060109_003130_000000372044_00088_20182_7373.N1	09-JAN-2006 00:31:30	Bright	37.000	28	12Bet Tau	1.6500	15200.	74	20182	No
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15	GOM_NL__2PRFIN20060109_004839_000000352044_00088_20182_7376.N1	09-JAN-2006 00:48:39	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	20182	No
16	GOM_NL__2PRFIN20060109_005659_000000342044_00088_20182_7377.N1	09-JAN-2006 00:56:59	Bright	33.500	119	14Eta Dra	2.7270	4700.0	67	20182	No

3. Quality information per product

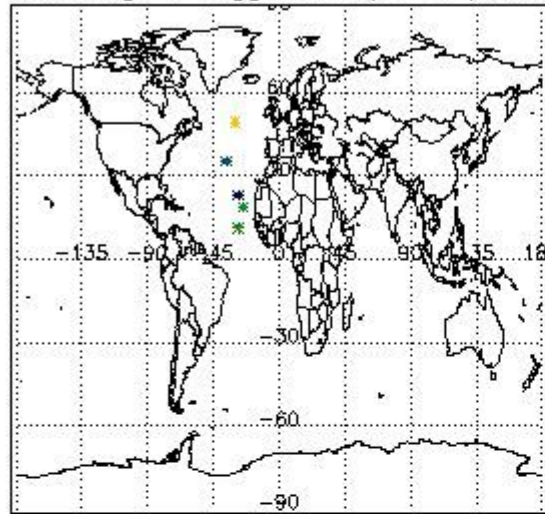
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3.1 Plot quality information per product (time dependant)

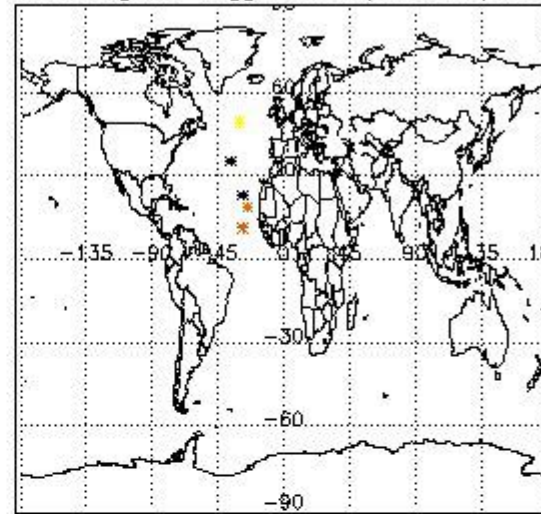


3.2 Plot quality information per product (world map)

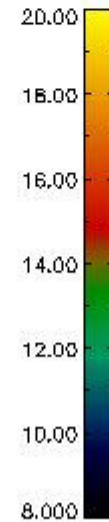
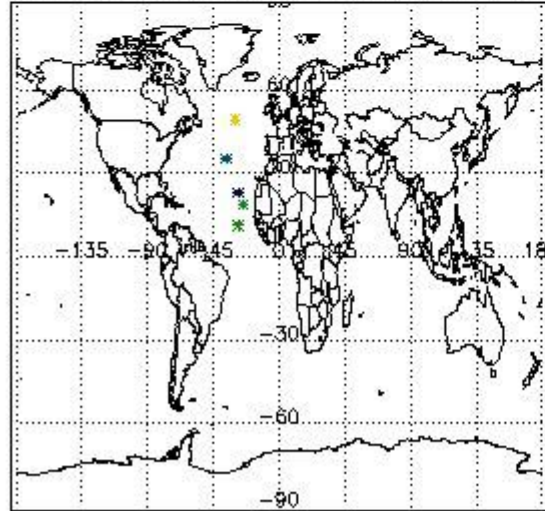
Percentage of flagged data per O3 profile



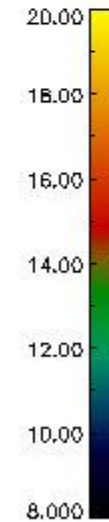
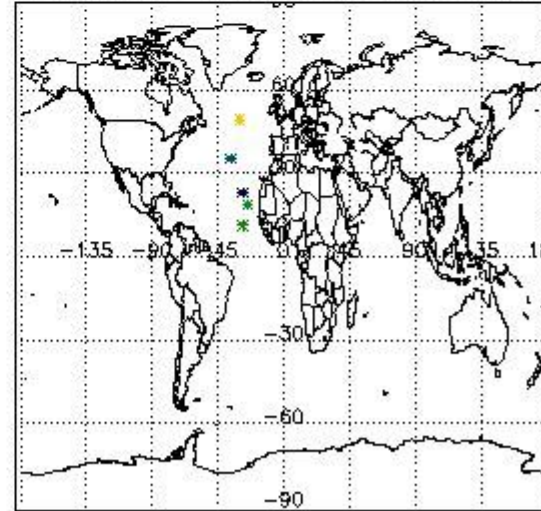
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

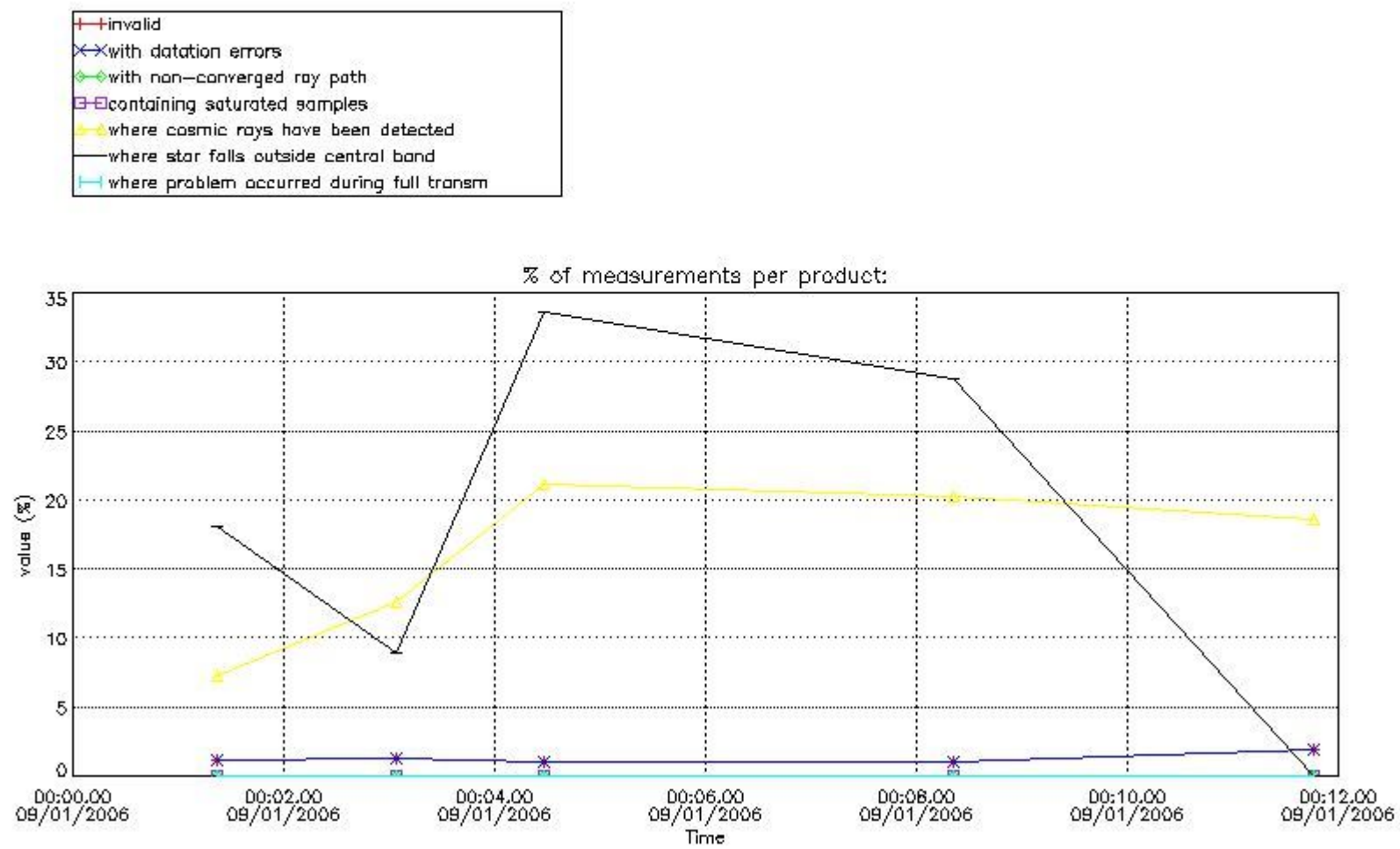


4. Level 1 quality information per product

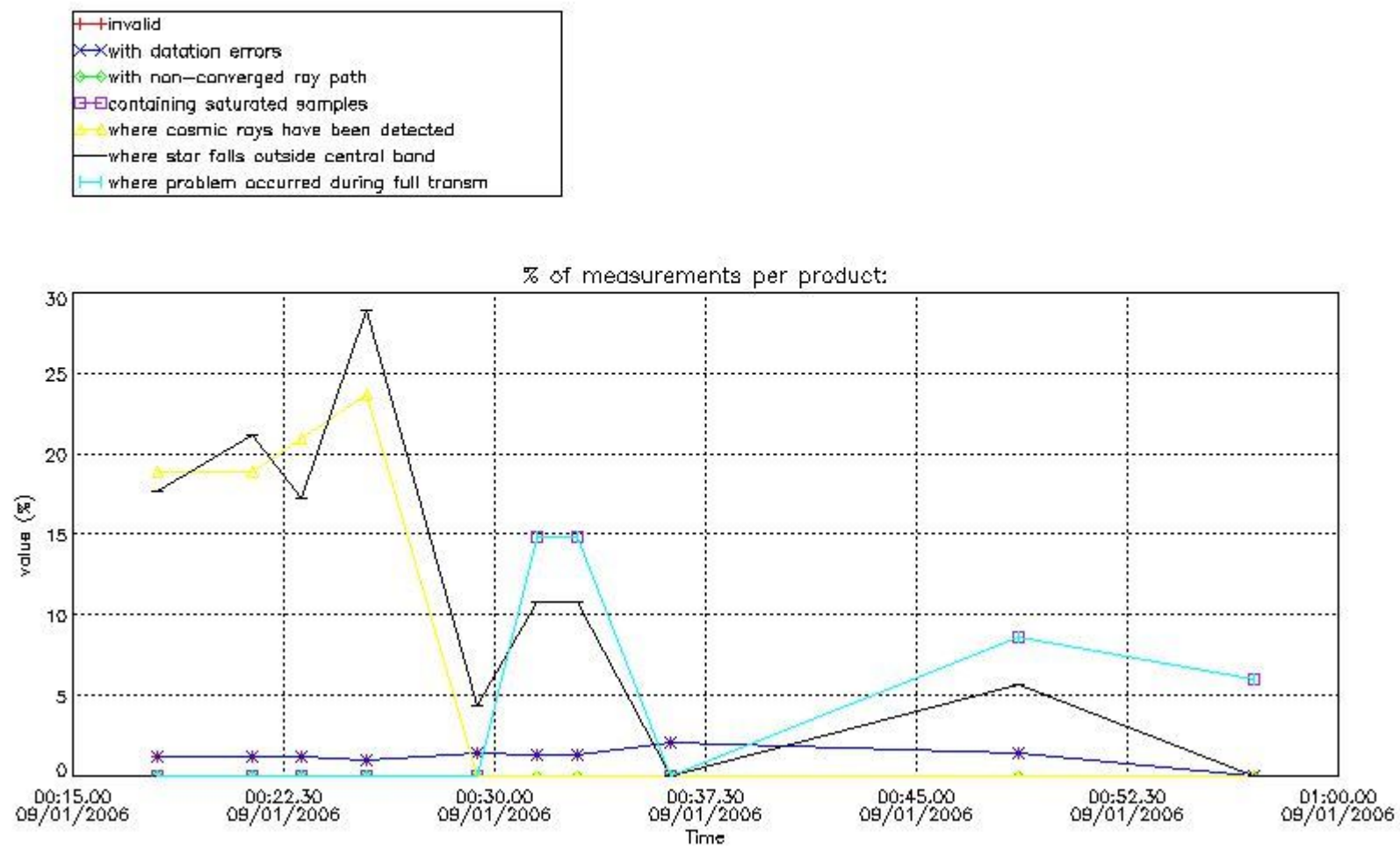
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



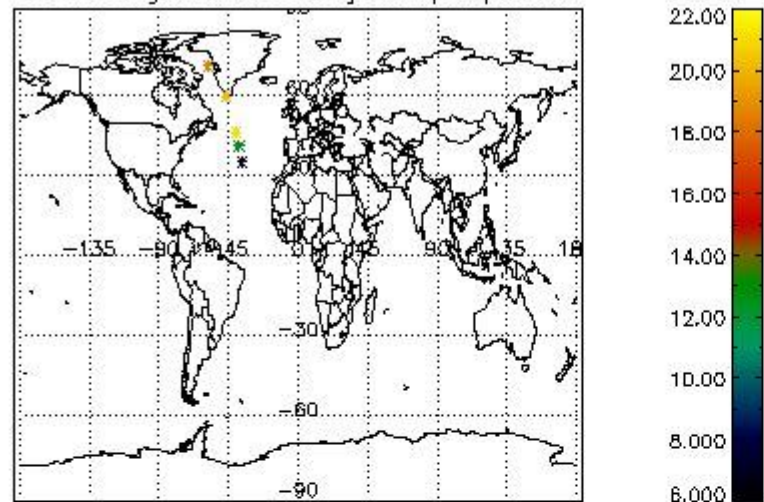
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



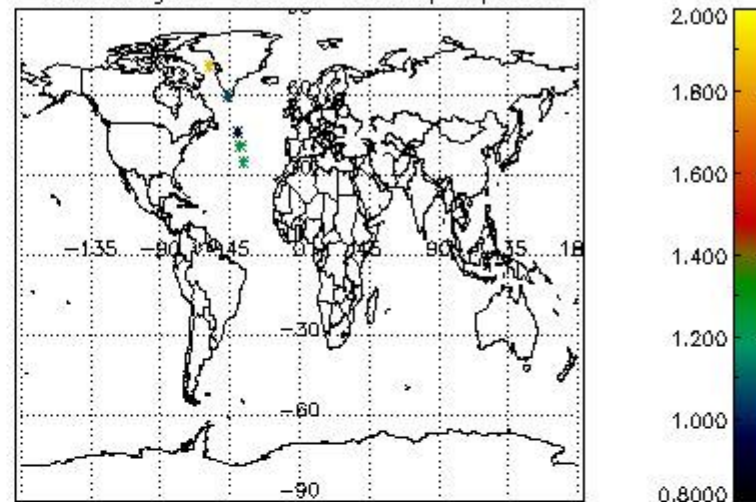
4.2 Plot quality information per product coming from level 1b processing (world map)

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

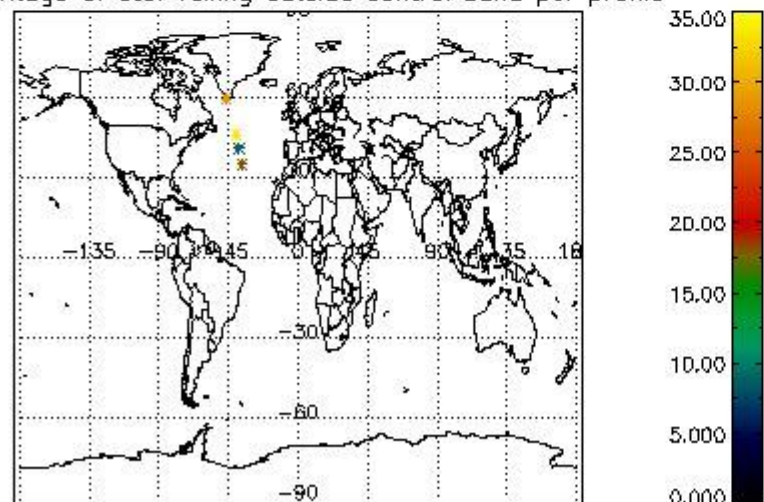
Percentage of cosmic ray hits per profile



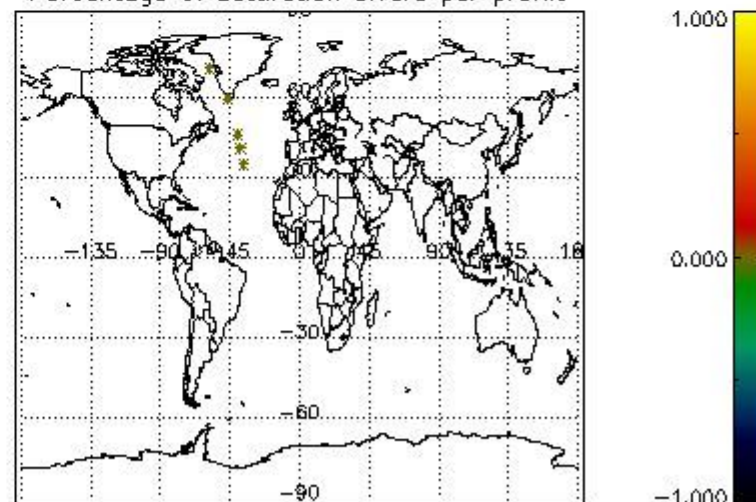
Percentage of datation errors per profile



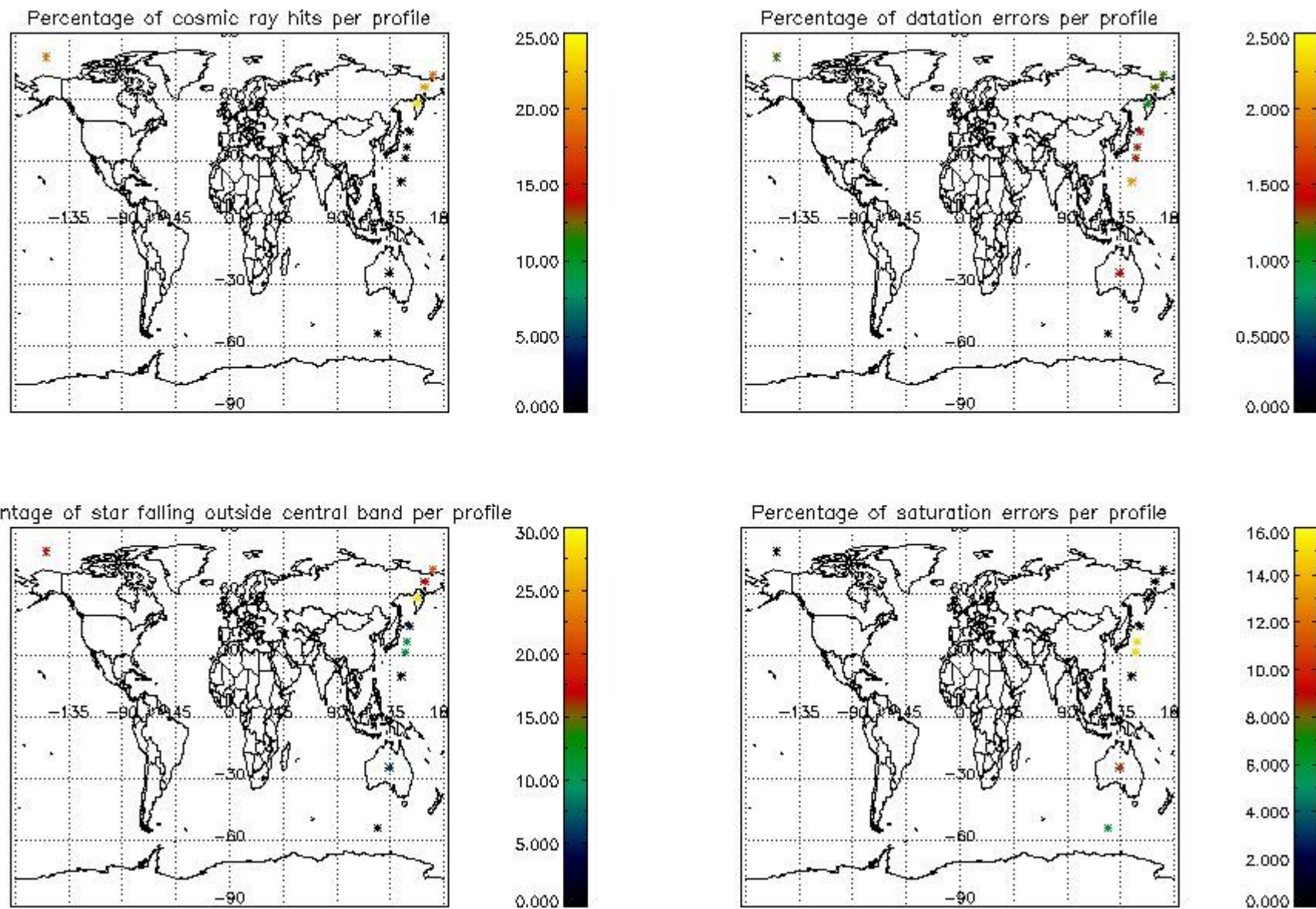
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

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

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

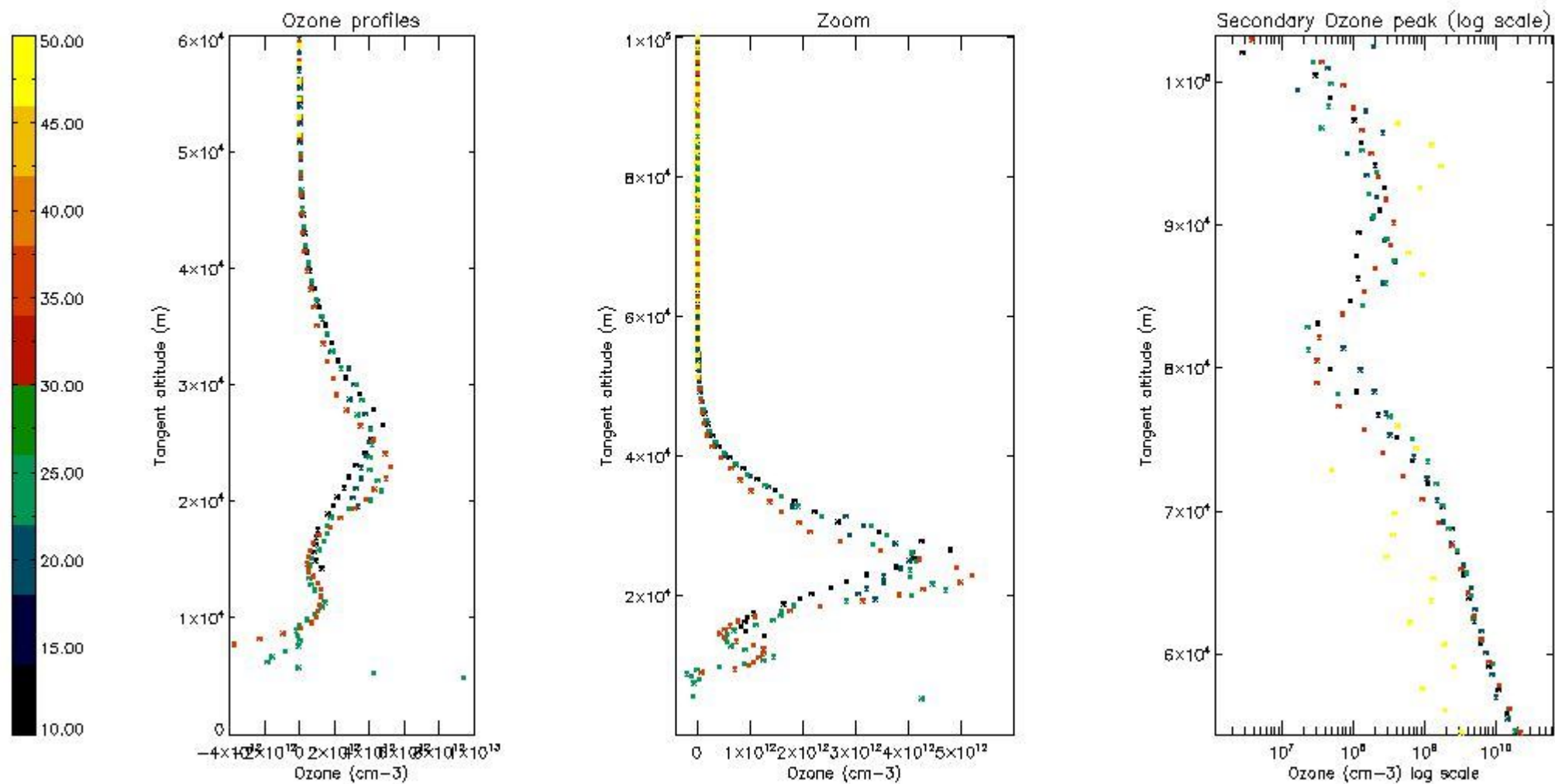
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	36
STD < 20	18

STD < 10	14
STD < 5	7

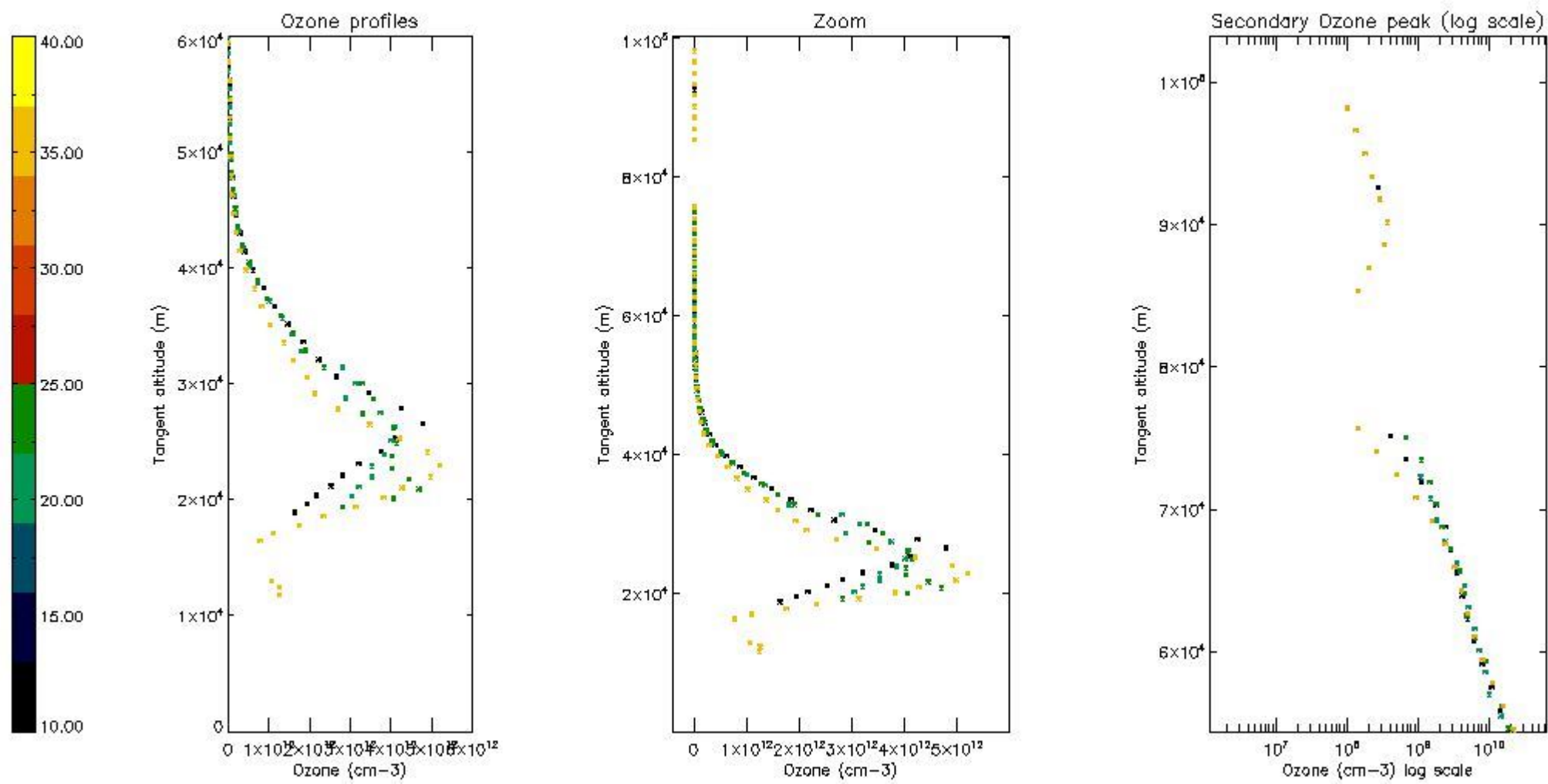
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



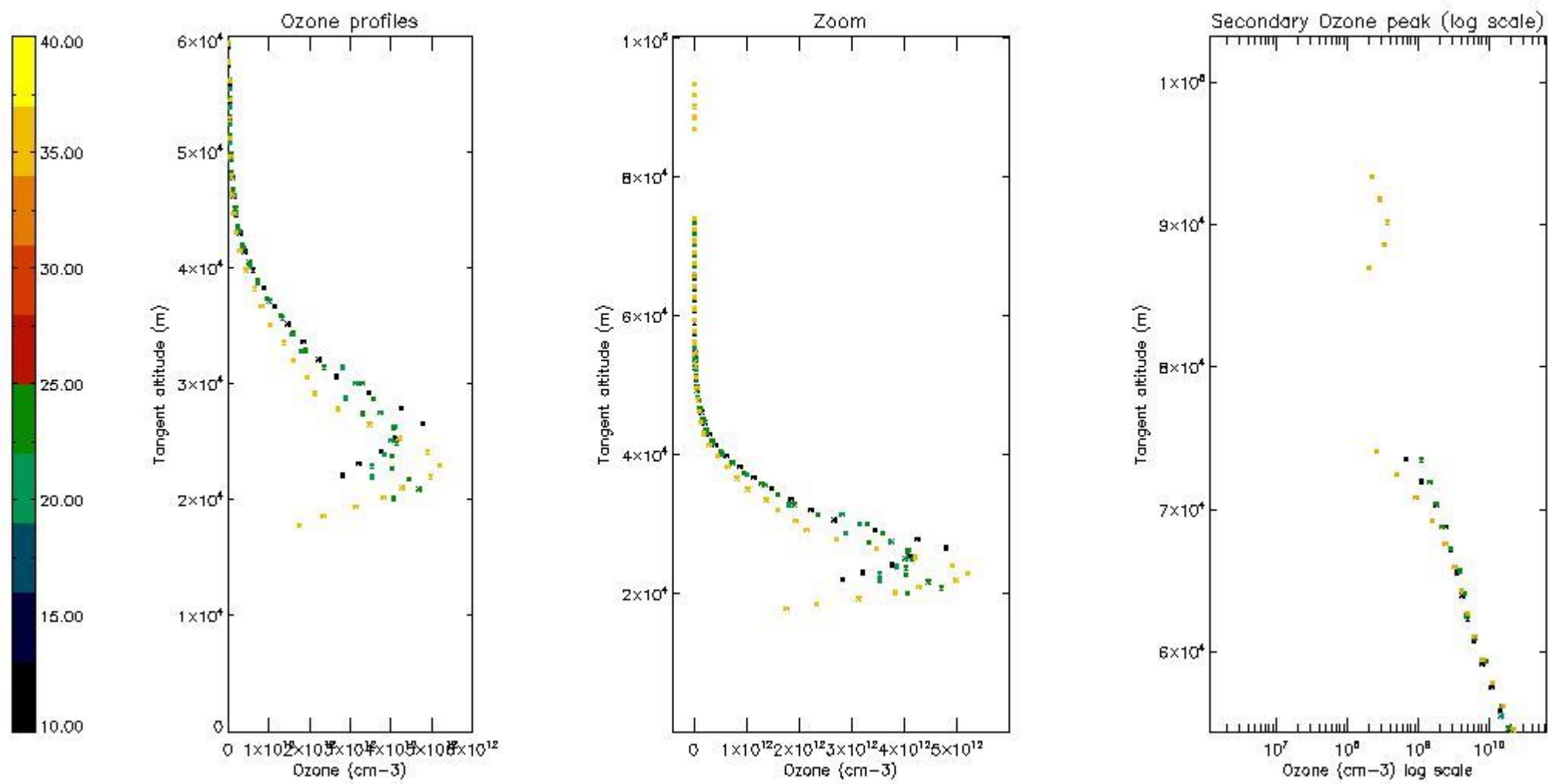
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



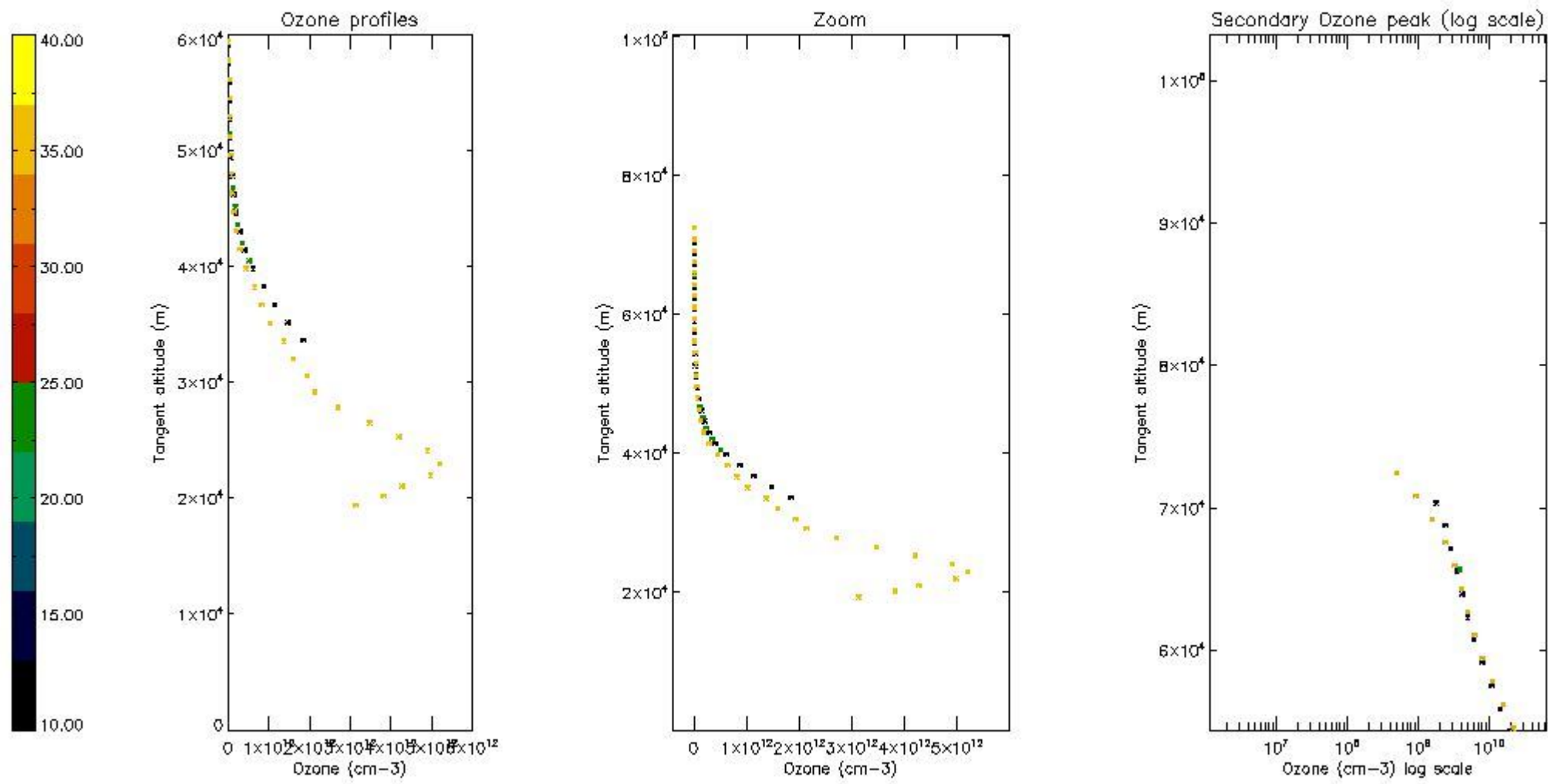
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



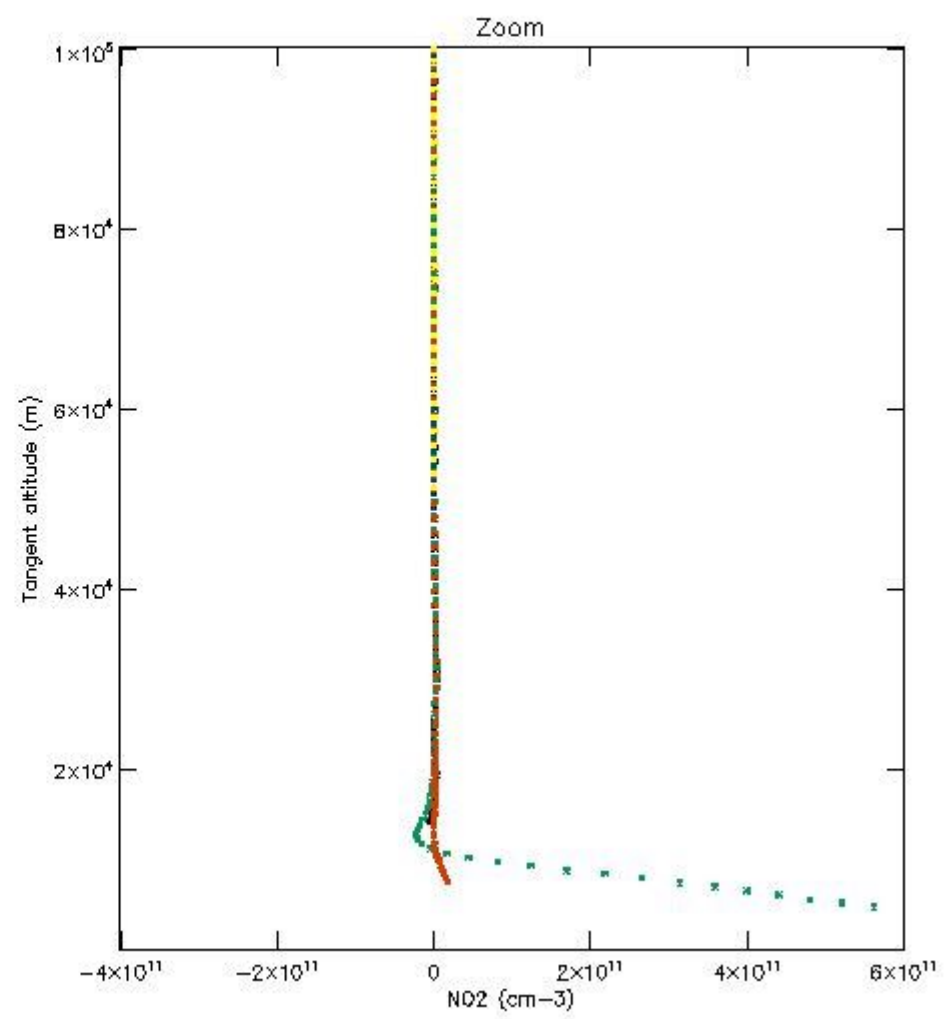
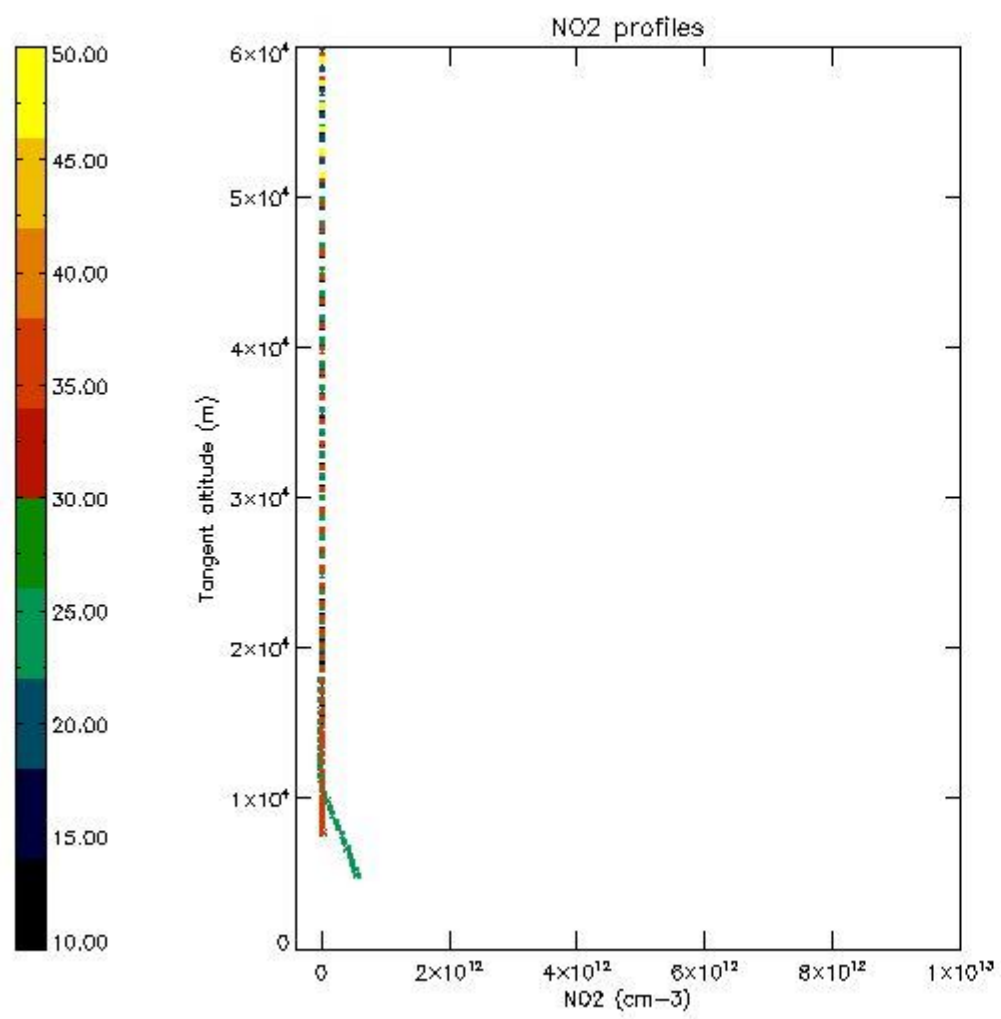
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



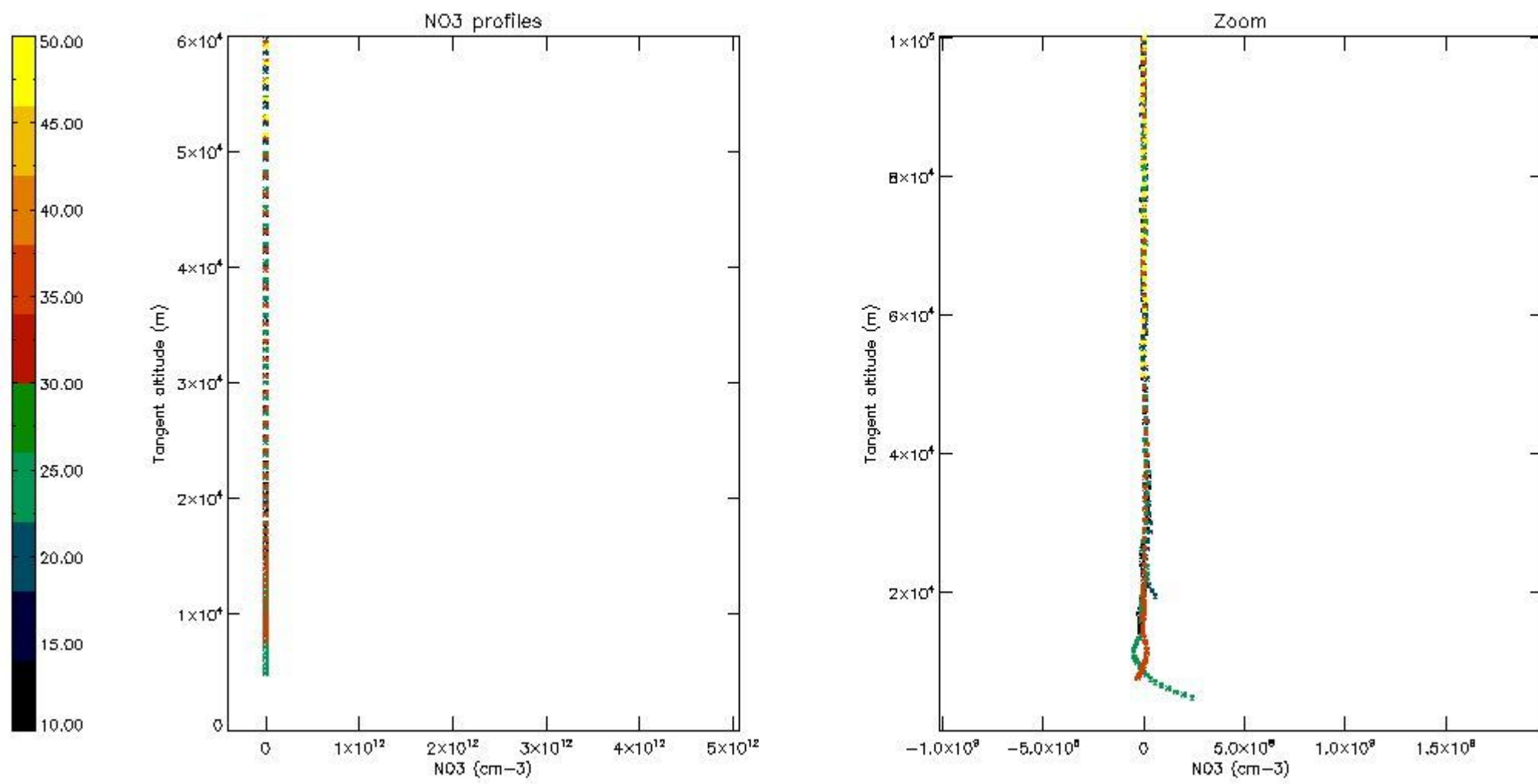
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



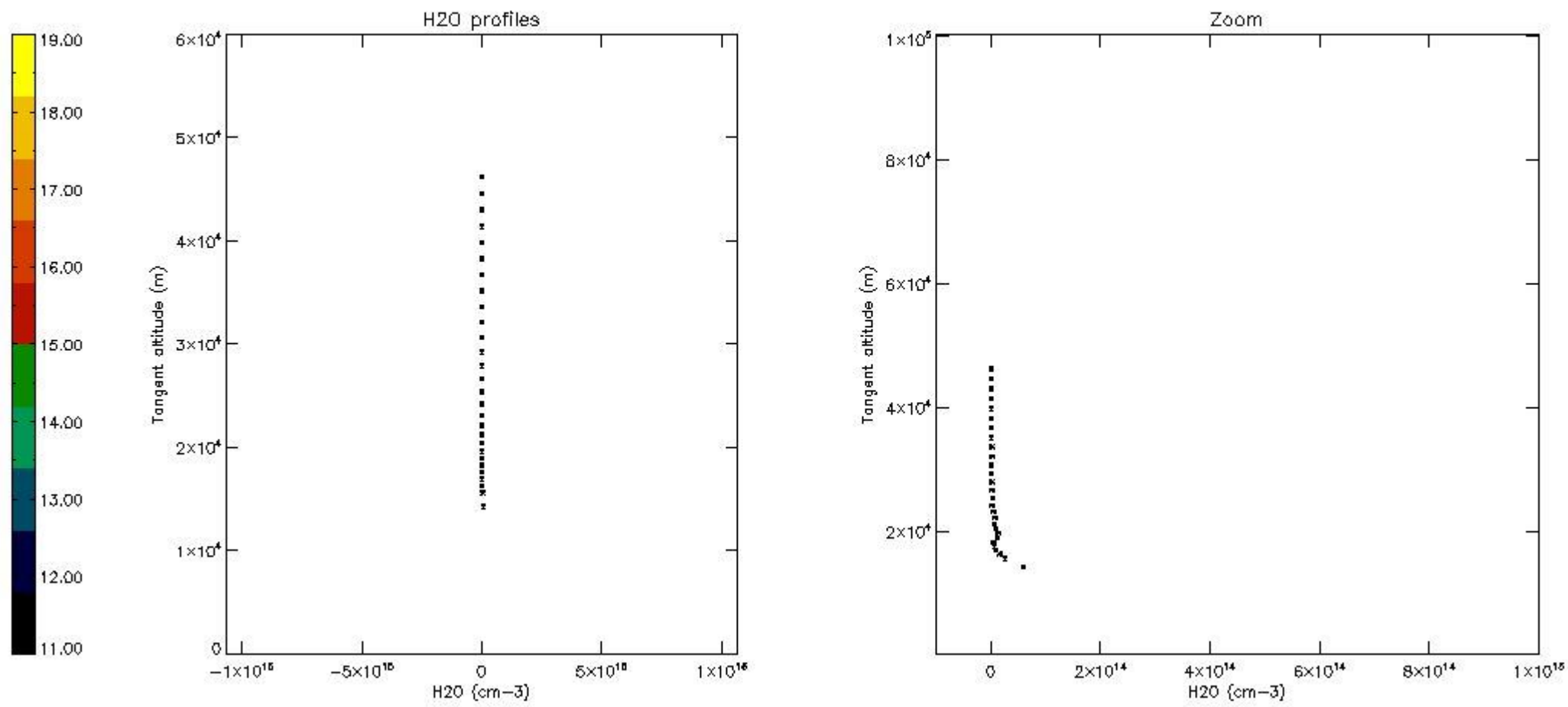
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

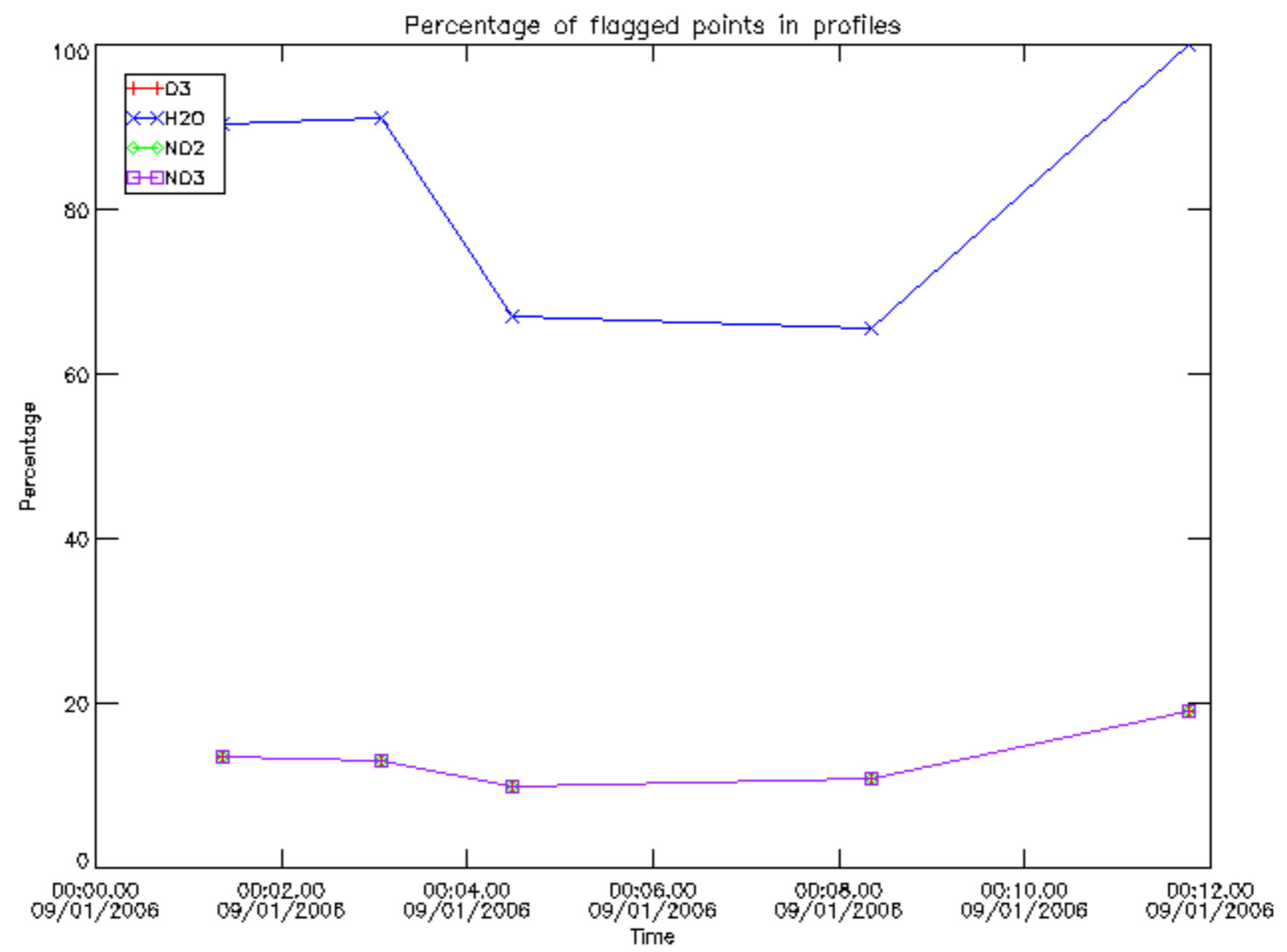
The colorbar represents the latitude.



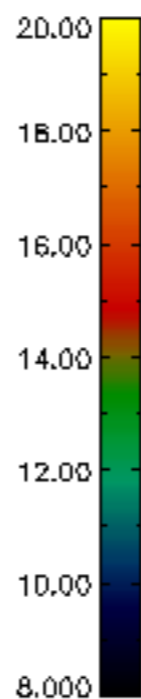
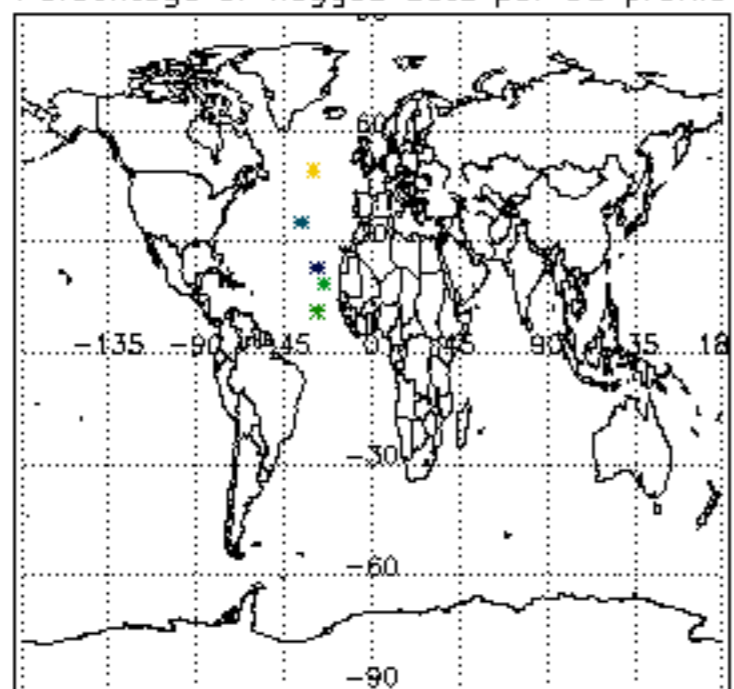
6. Auxiliary Data Files used for the production reported in section 2

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.

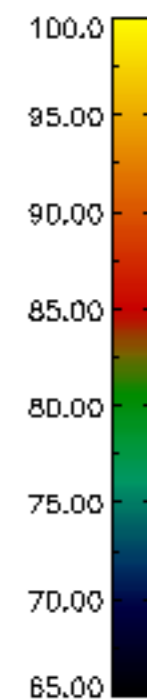
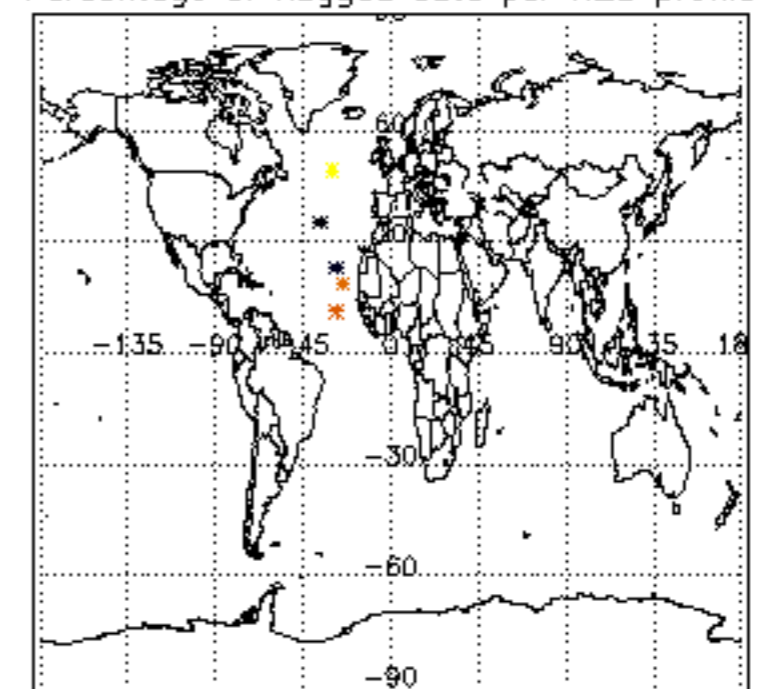
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	09-JAN-2006 00:01:22
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	09-JAN-2006 00:01:22
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	09-JAN-2006 00:01:22



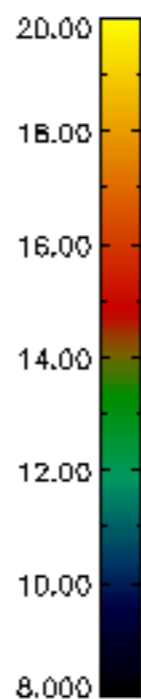
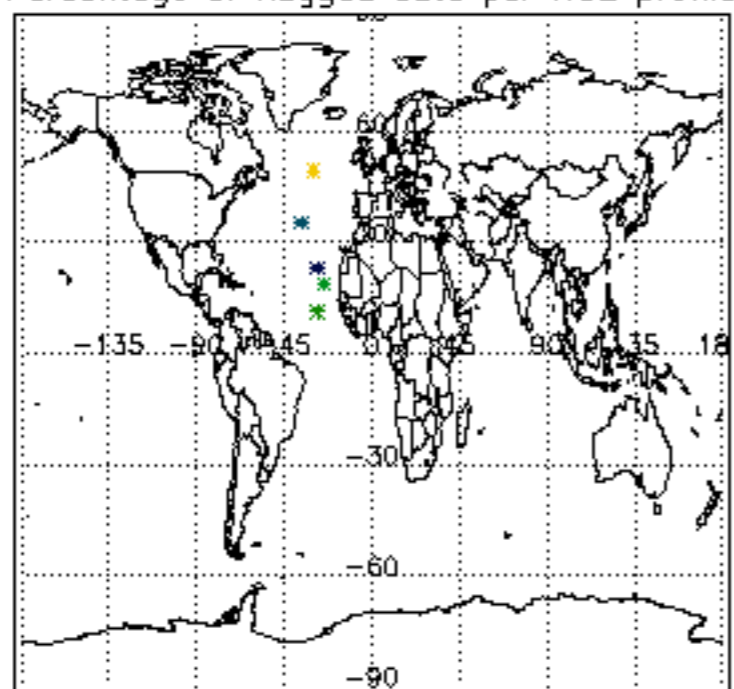
Percentage of flagged data per D3 profile



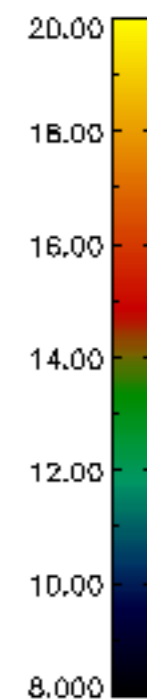
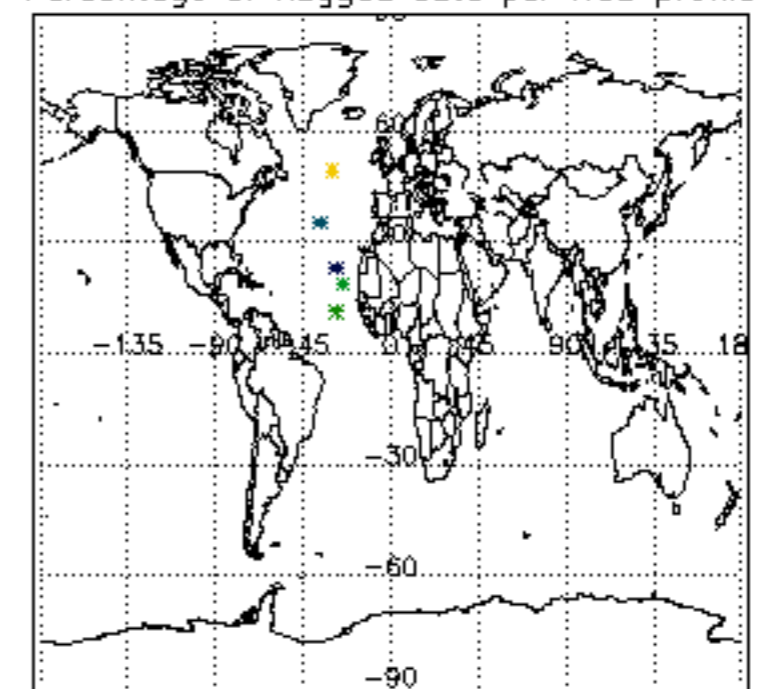
Percentage of flagged data per H2O profile

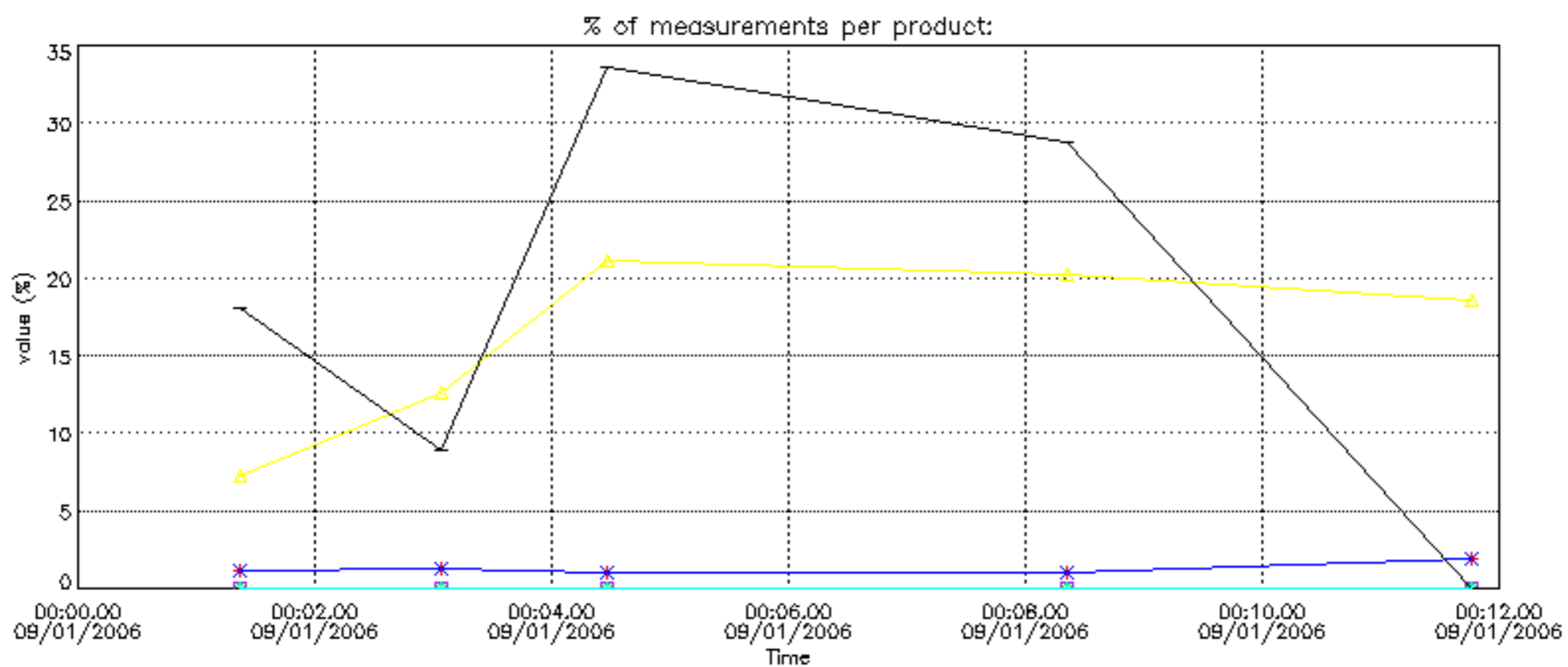


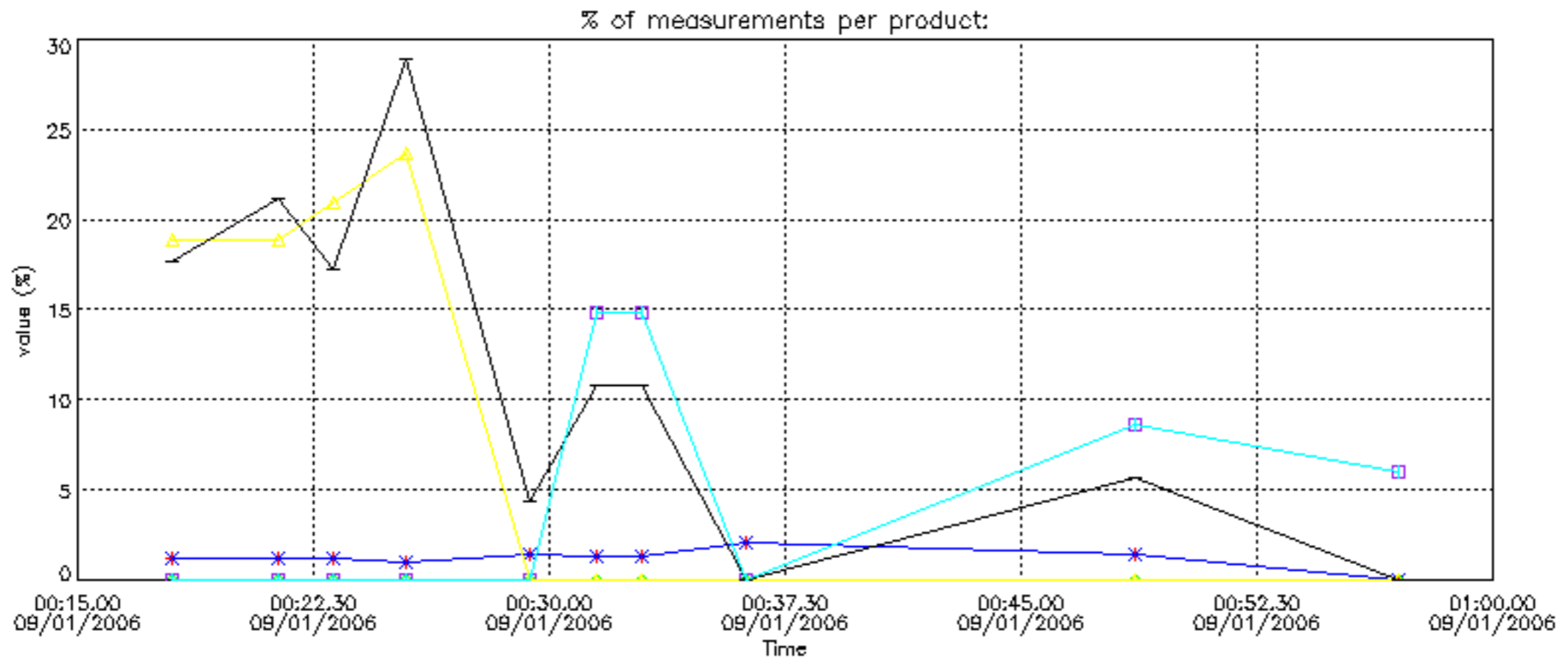
Percentage of flagged data per NO2 profile



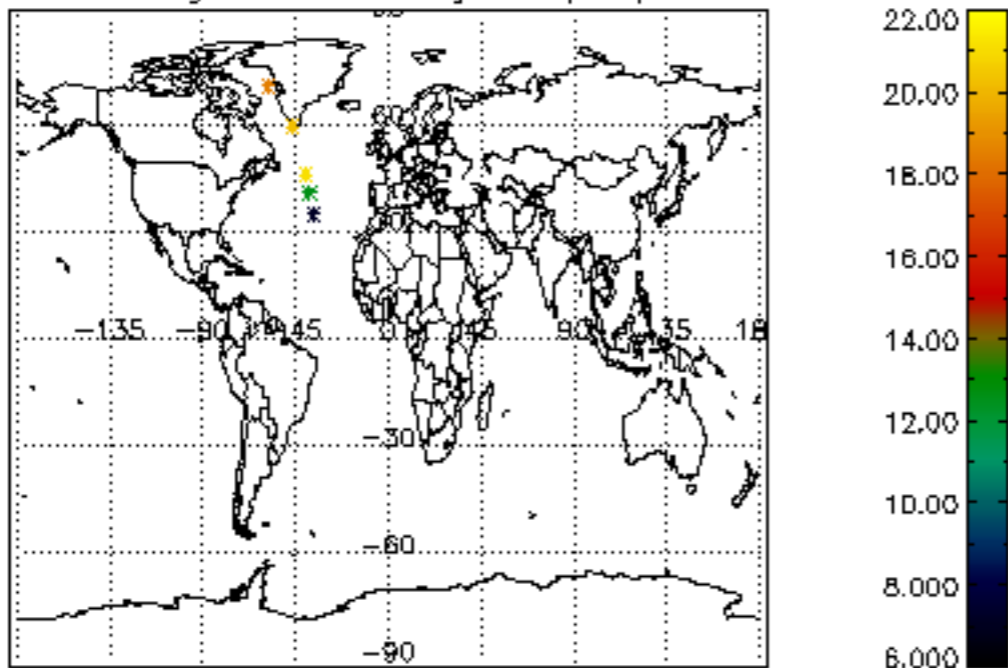
Percentage of flagged data per NO3 profile



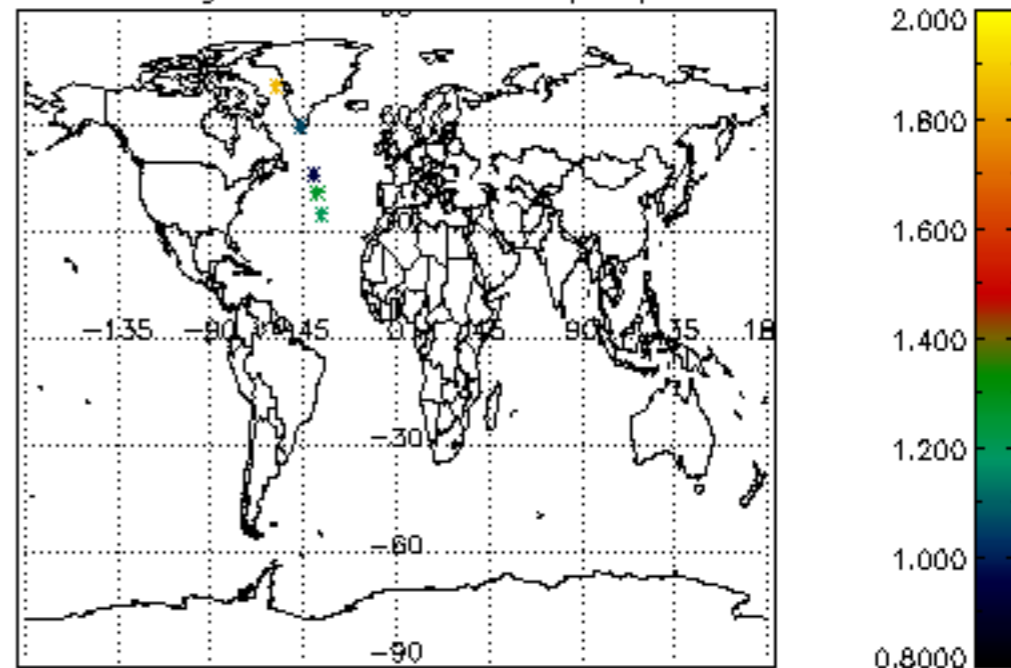




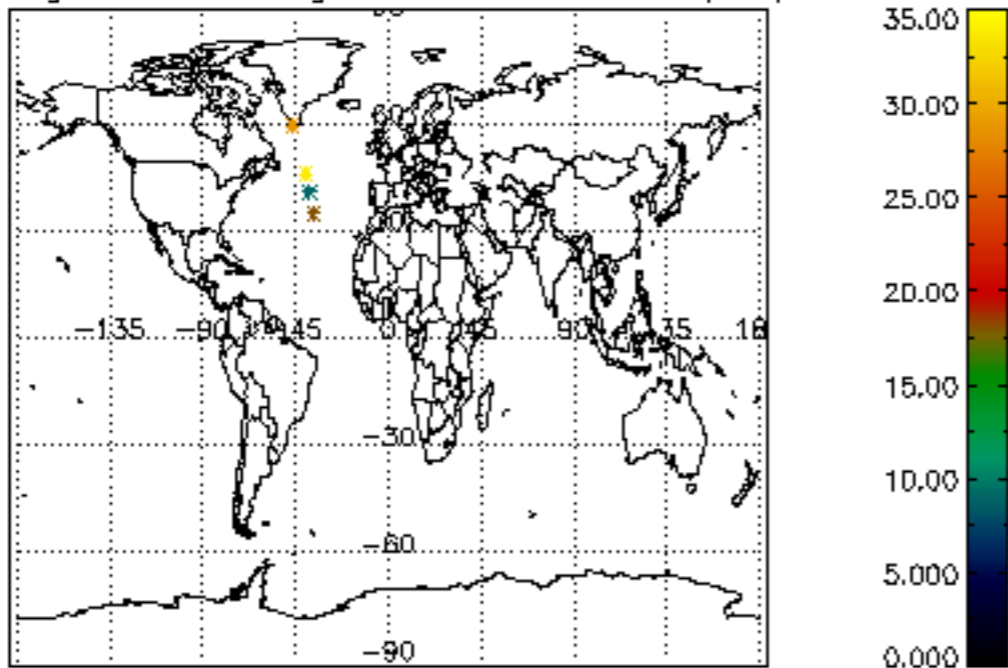
Percentage of cosmic ray hits per profile



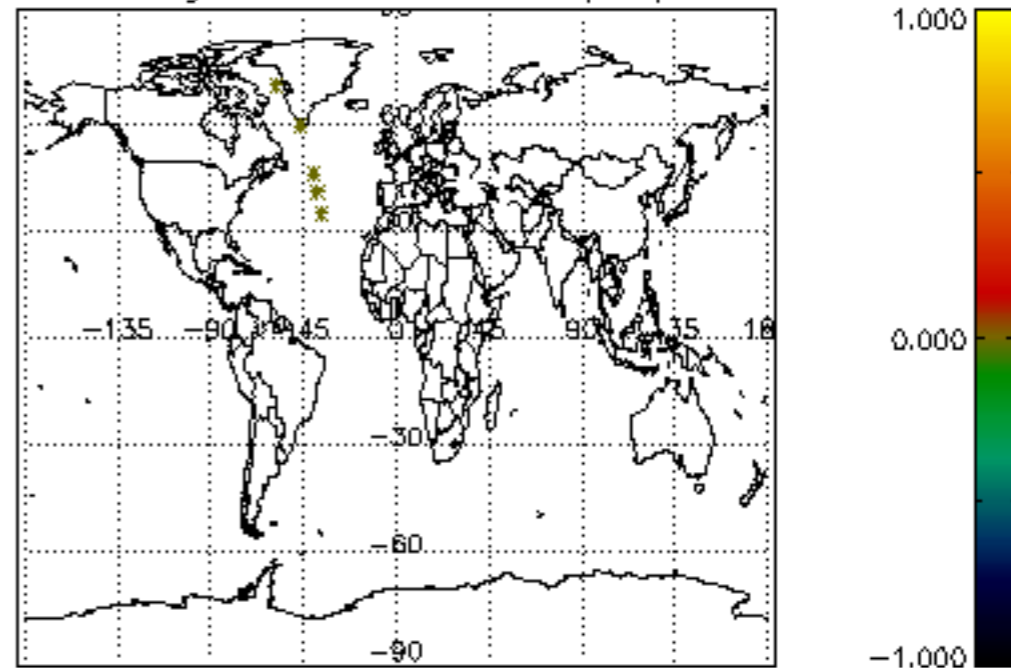
Percentage of datation errors per profile



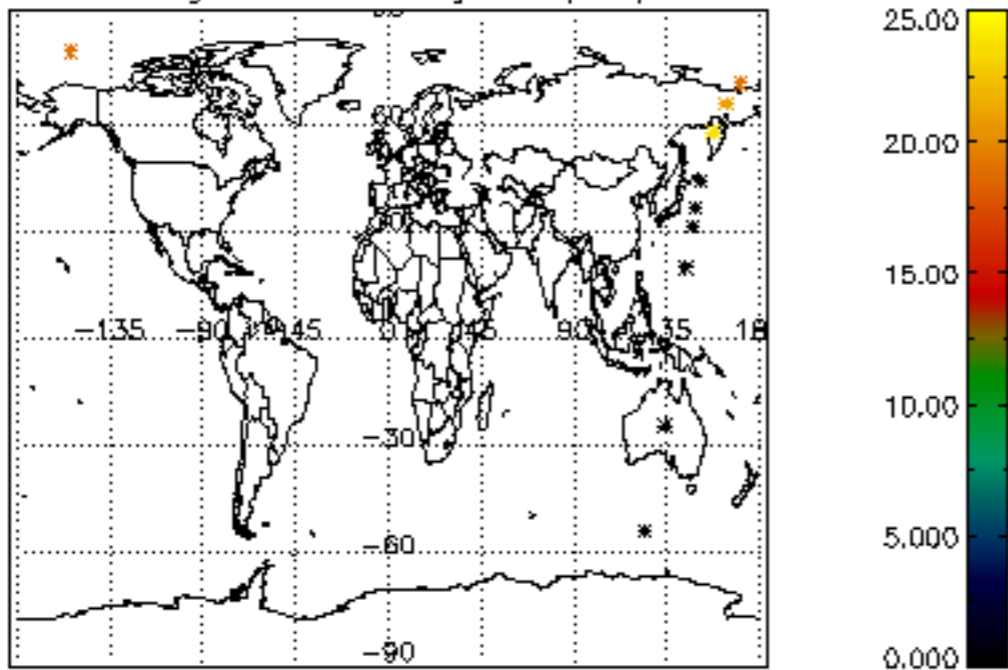
Percentage of star falling outside central band per profile



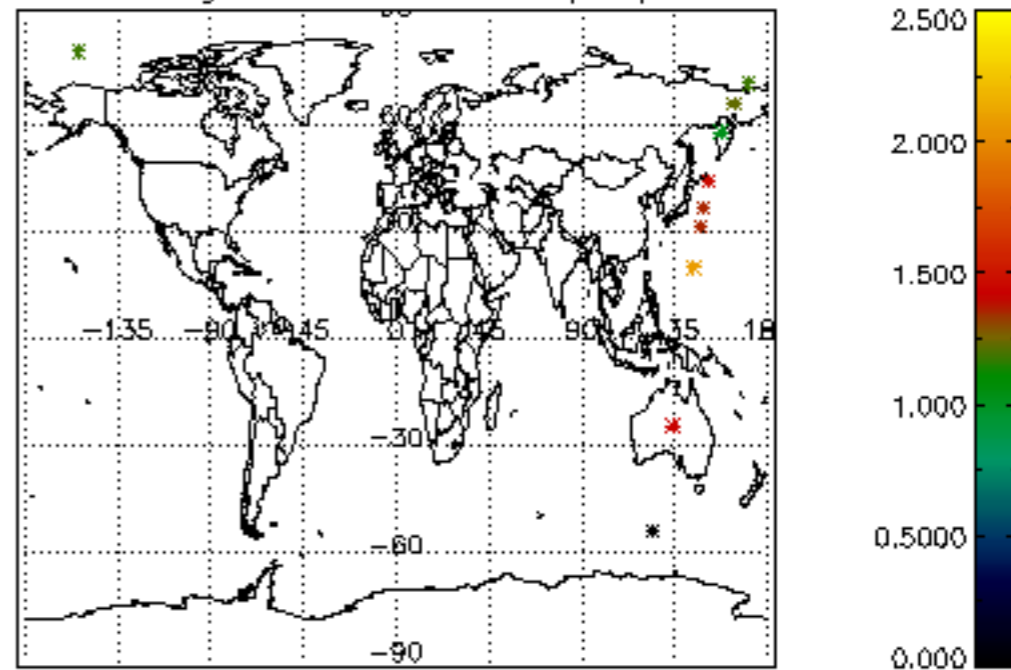
Percentage of saturation errors per profile



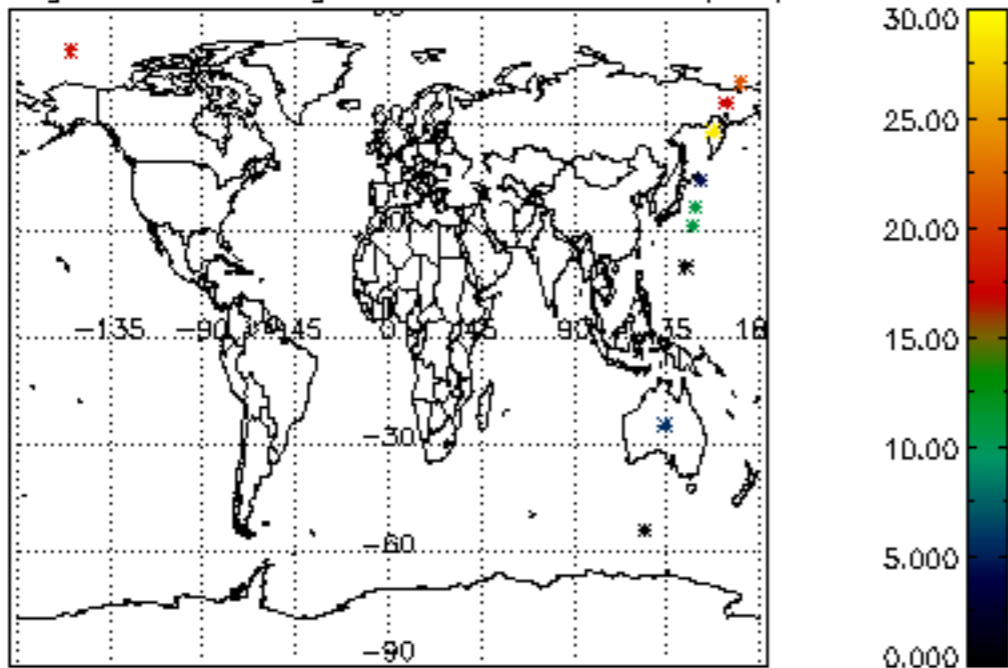
Percentage of cosmic ray hits per profile



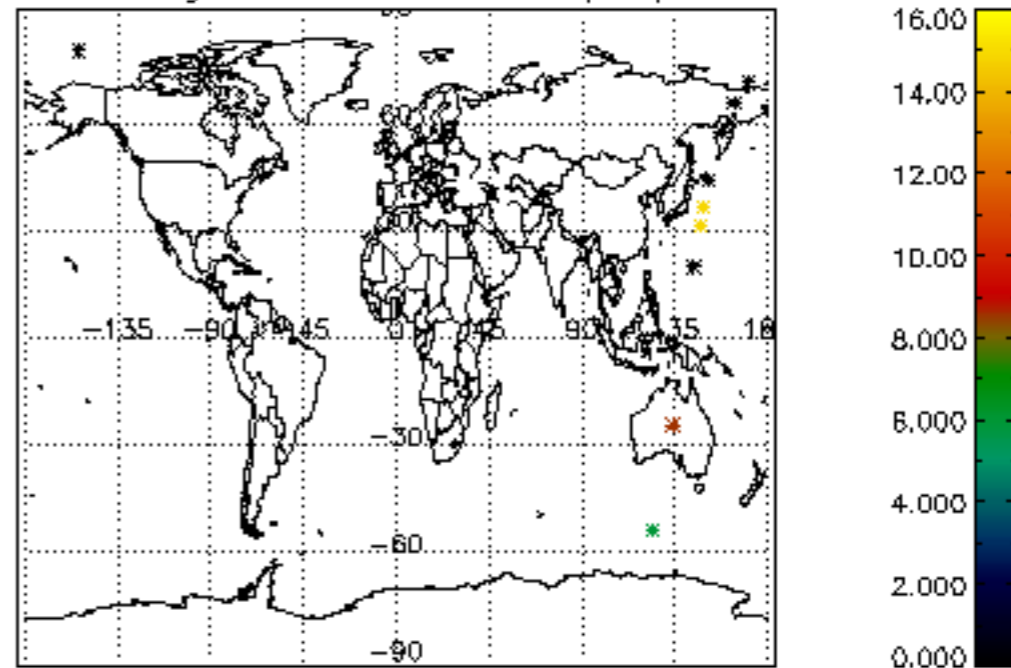
Percentage of datation errors per profile

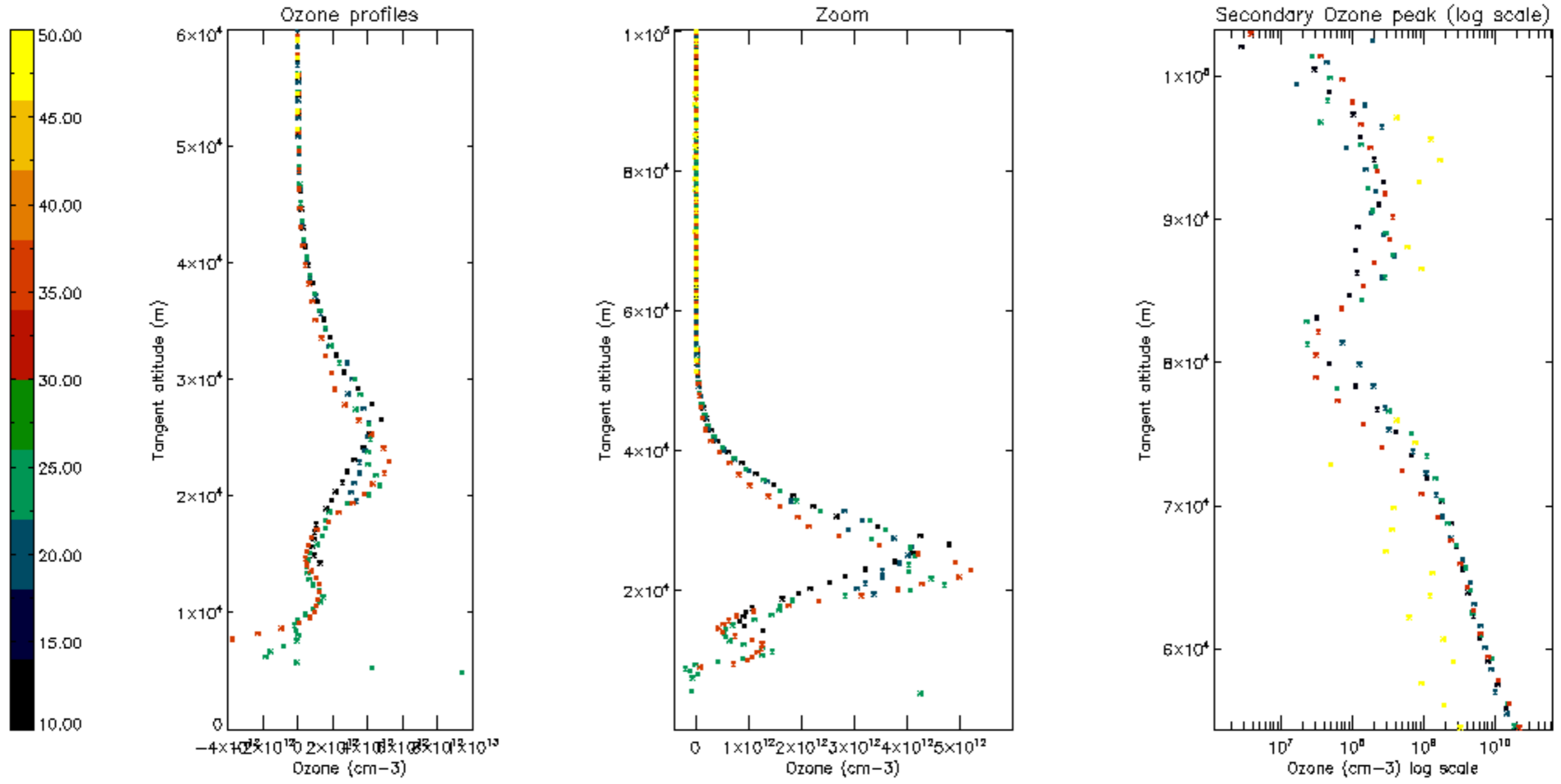


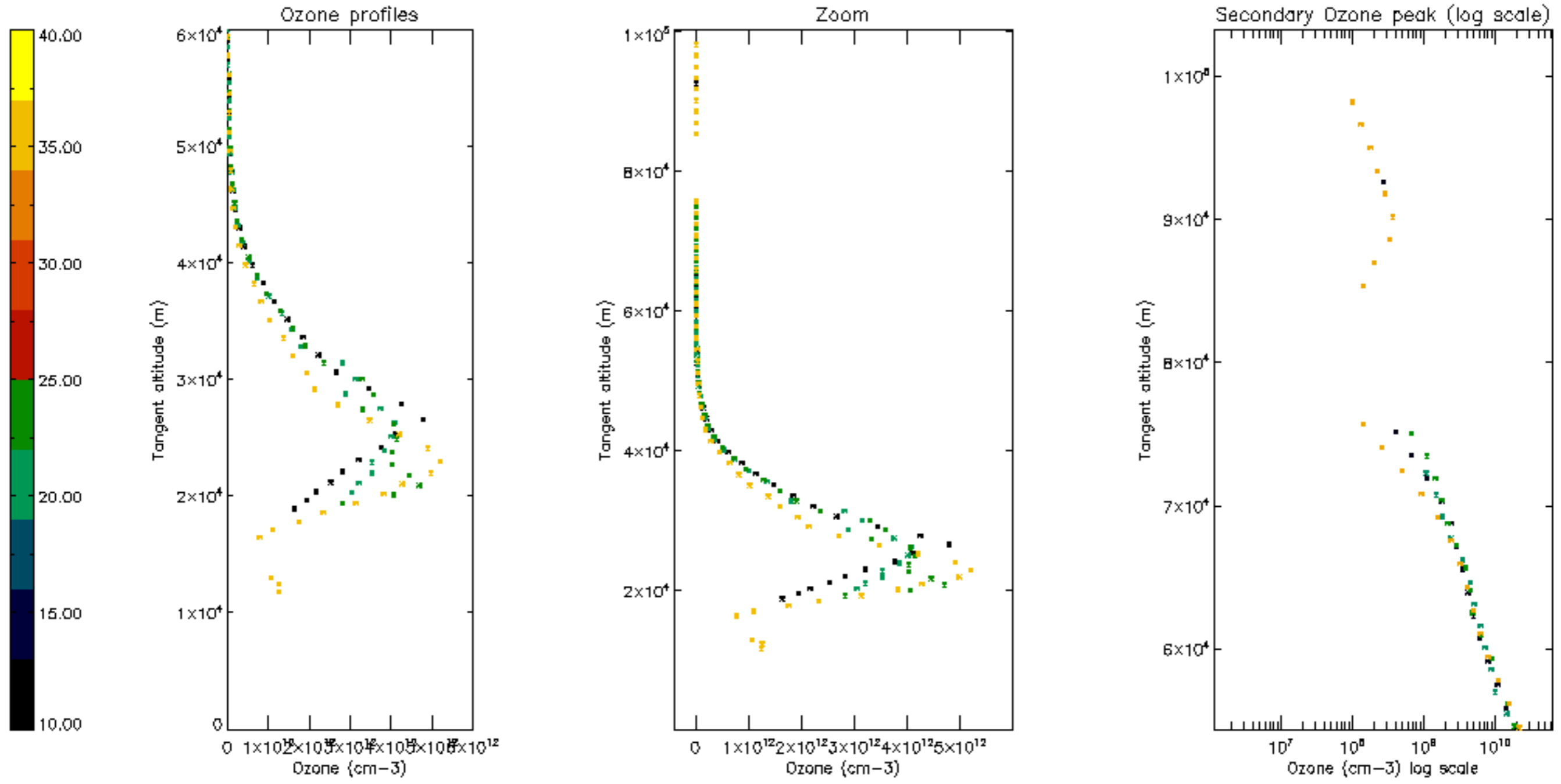
Percentage of star falling outside central band per profile

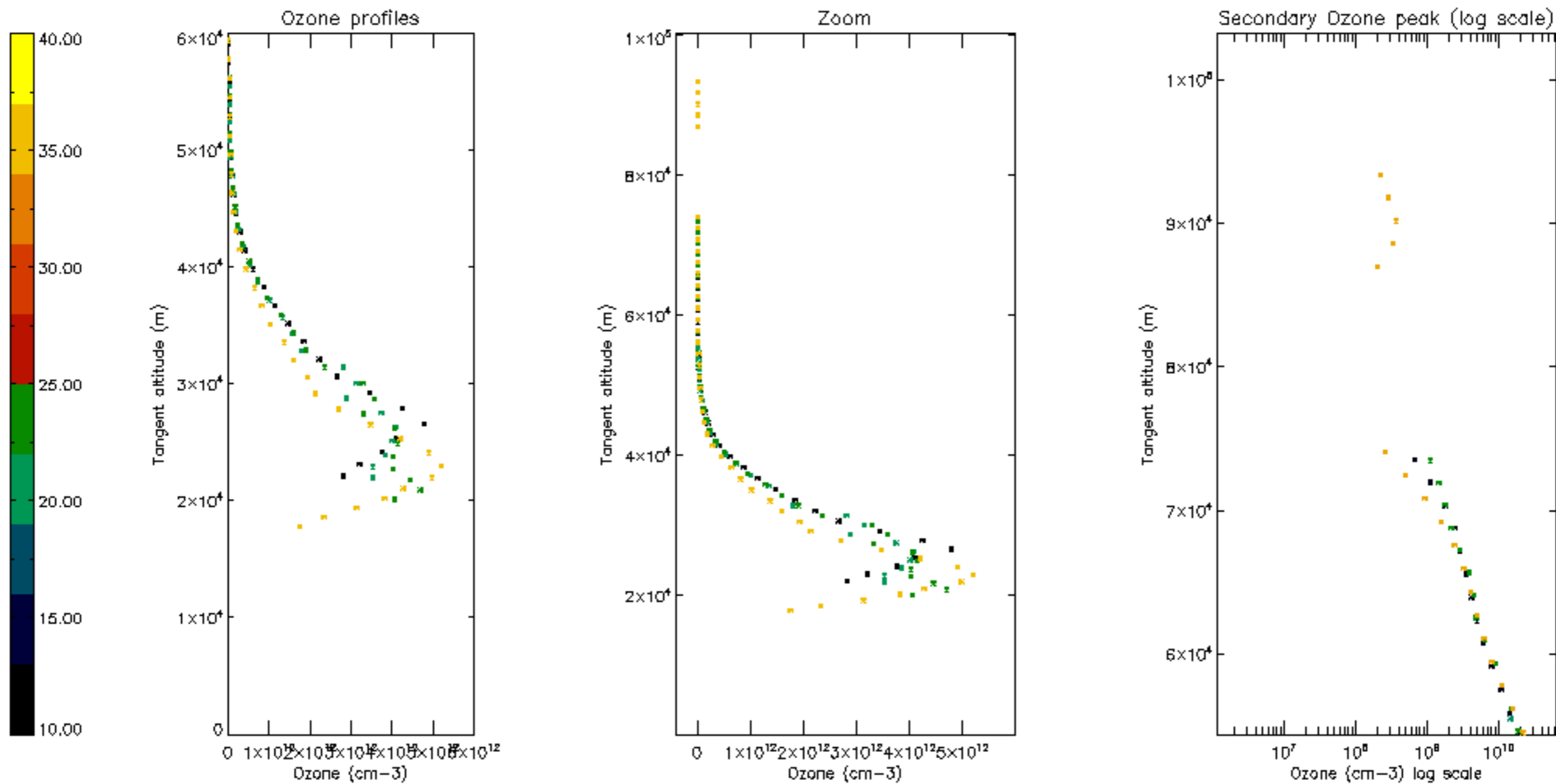


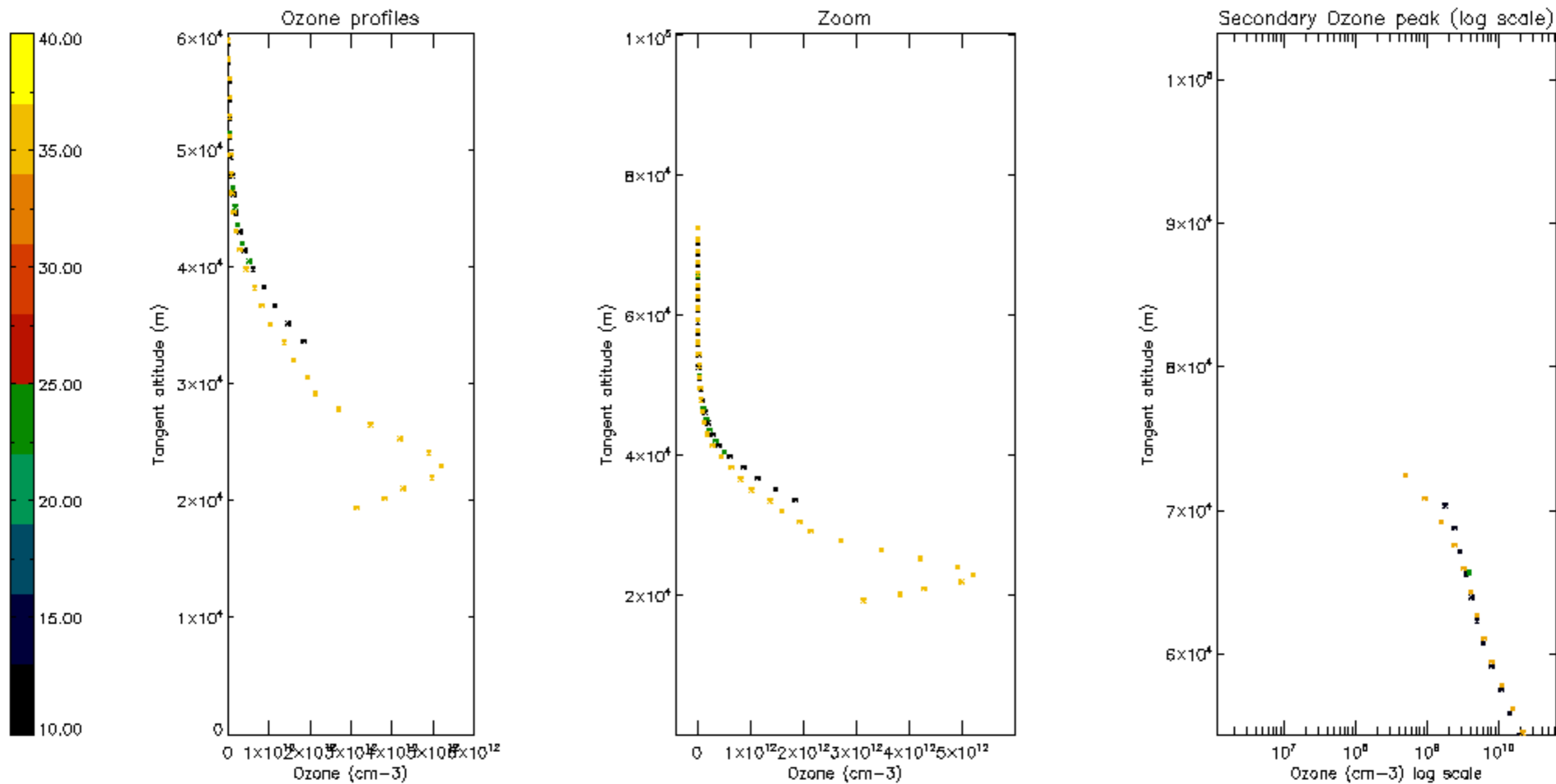
Percentage of saturation errors per profile

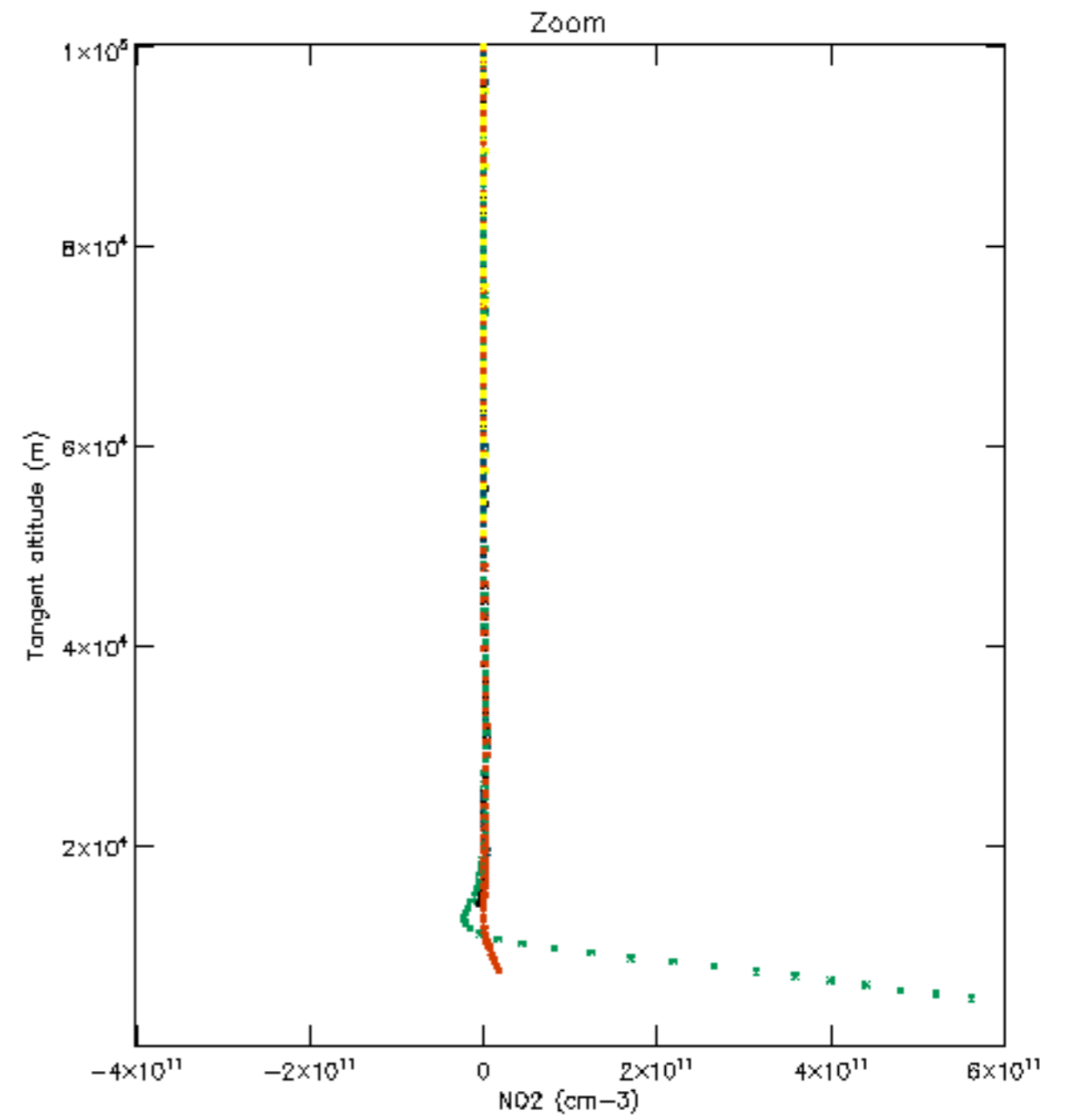
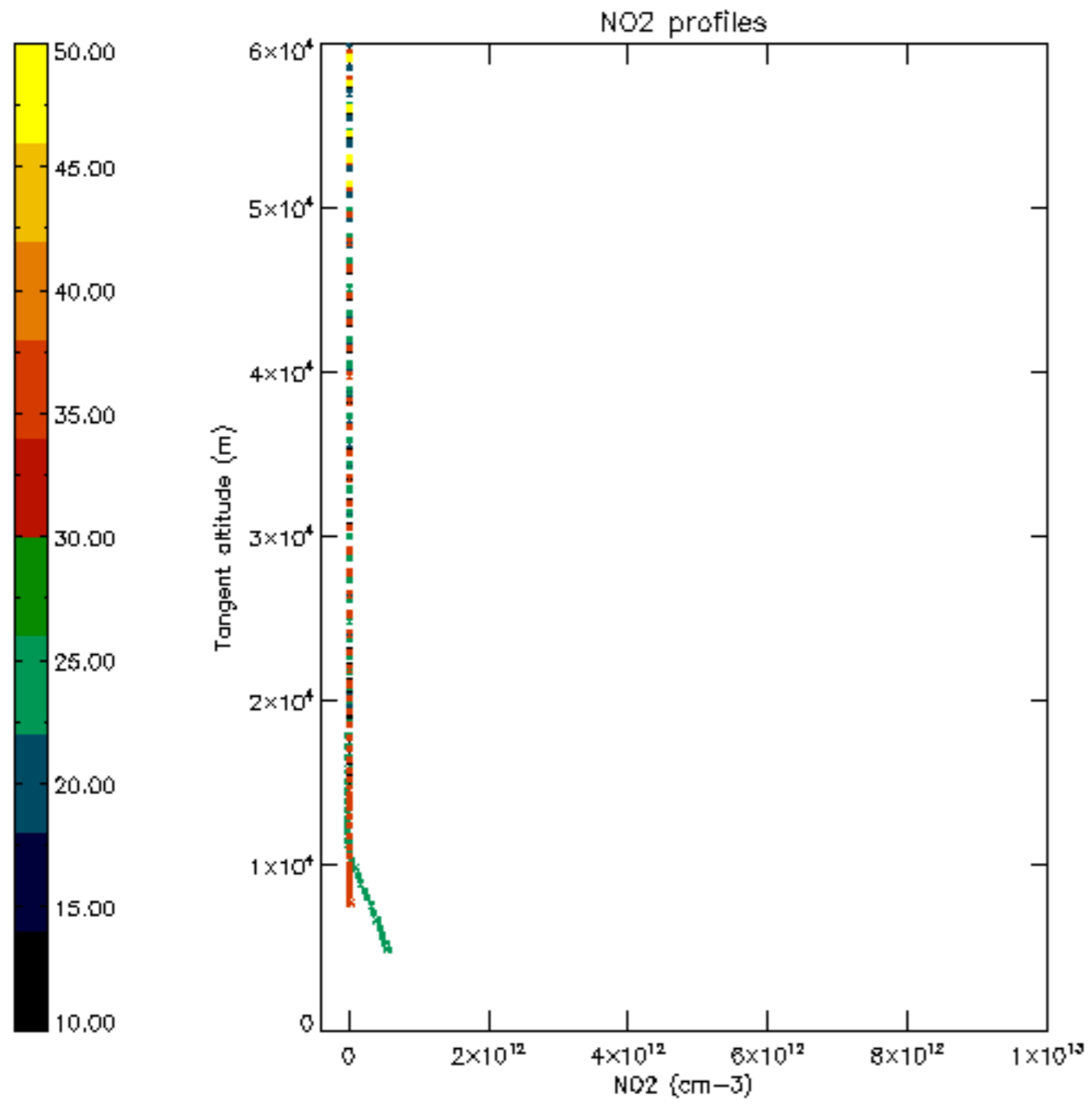


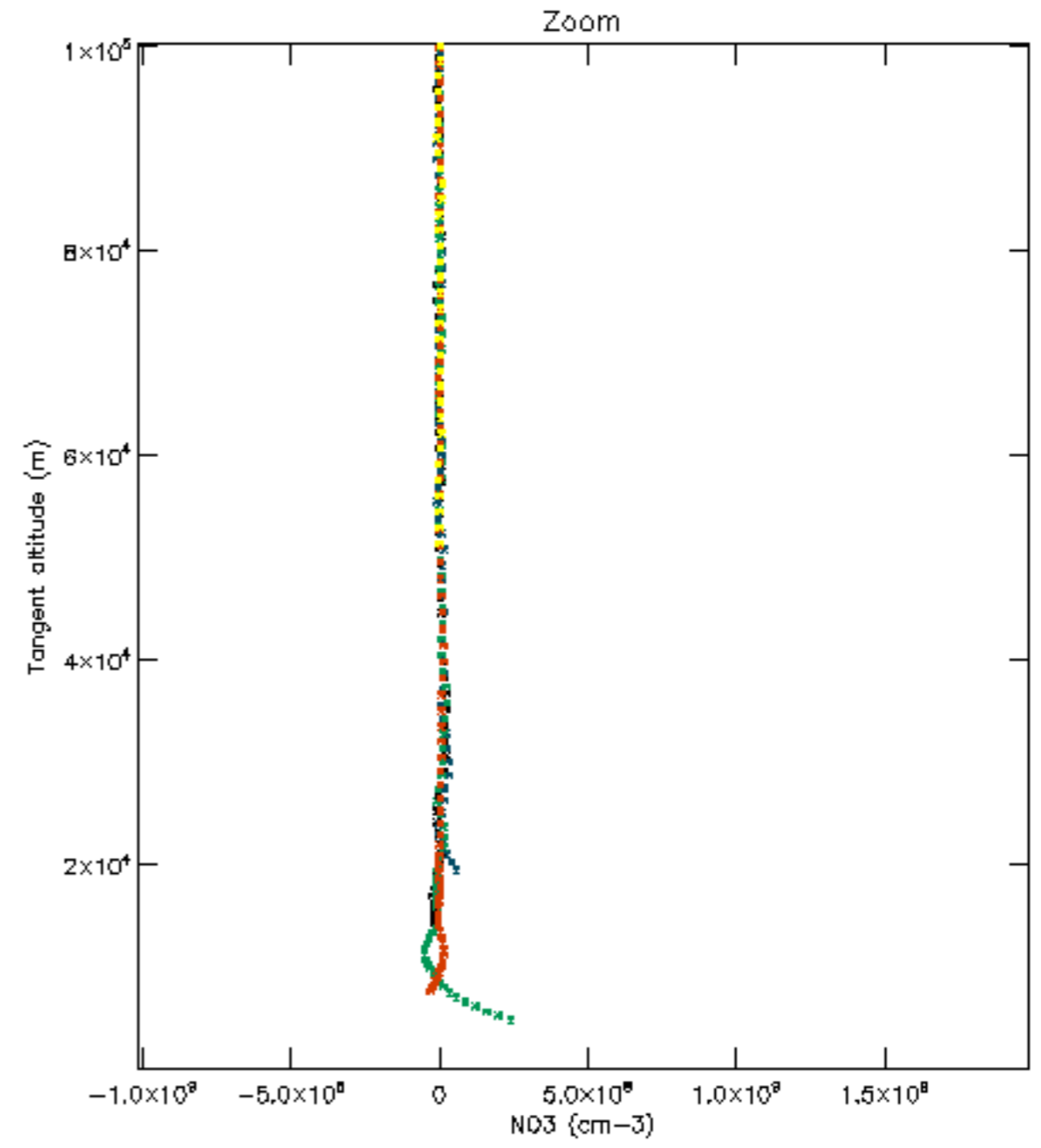
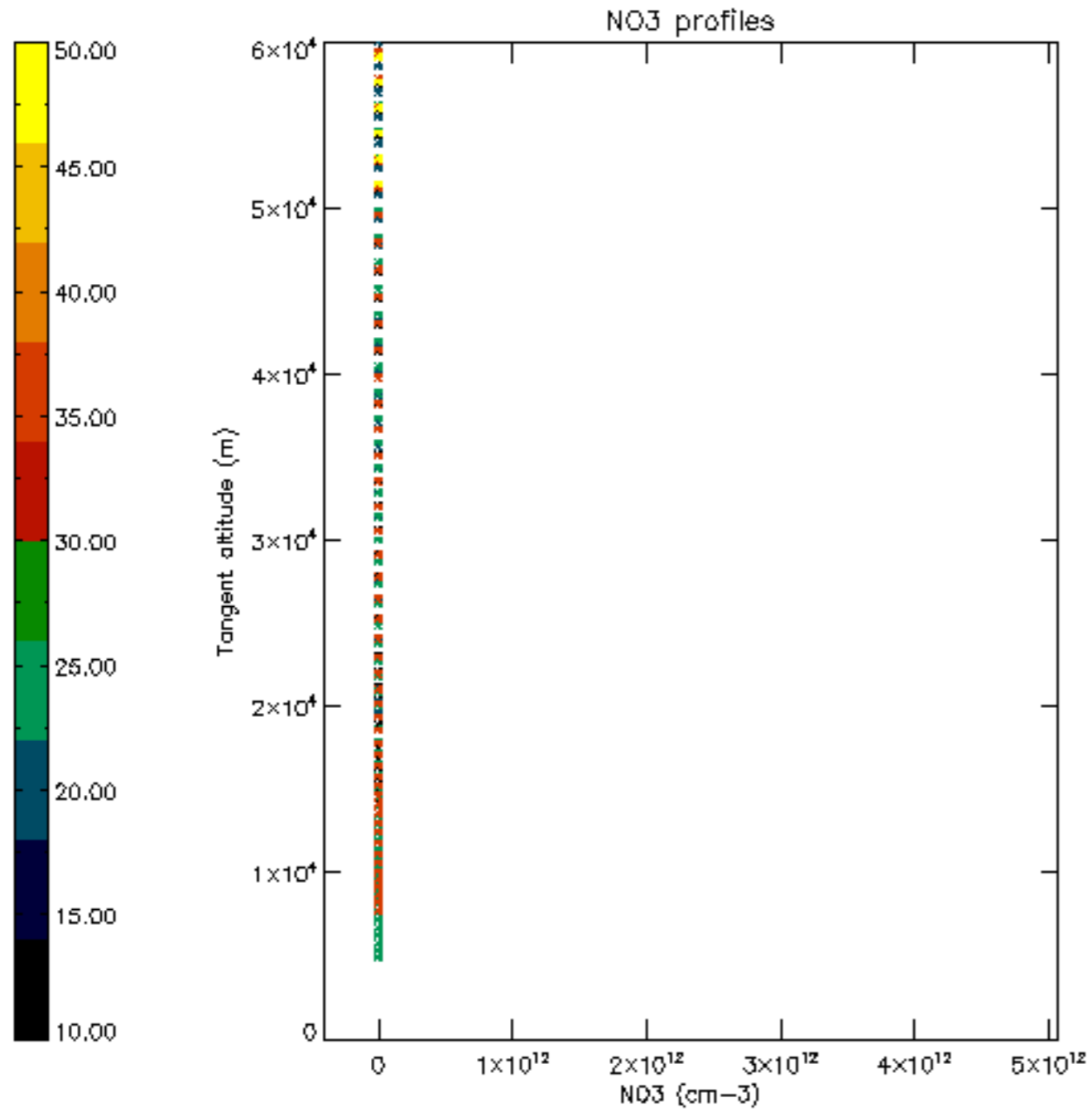


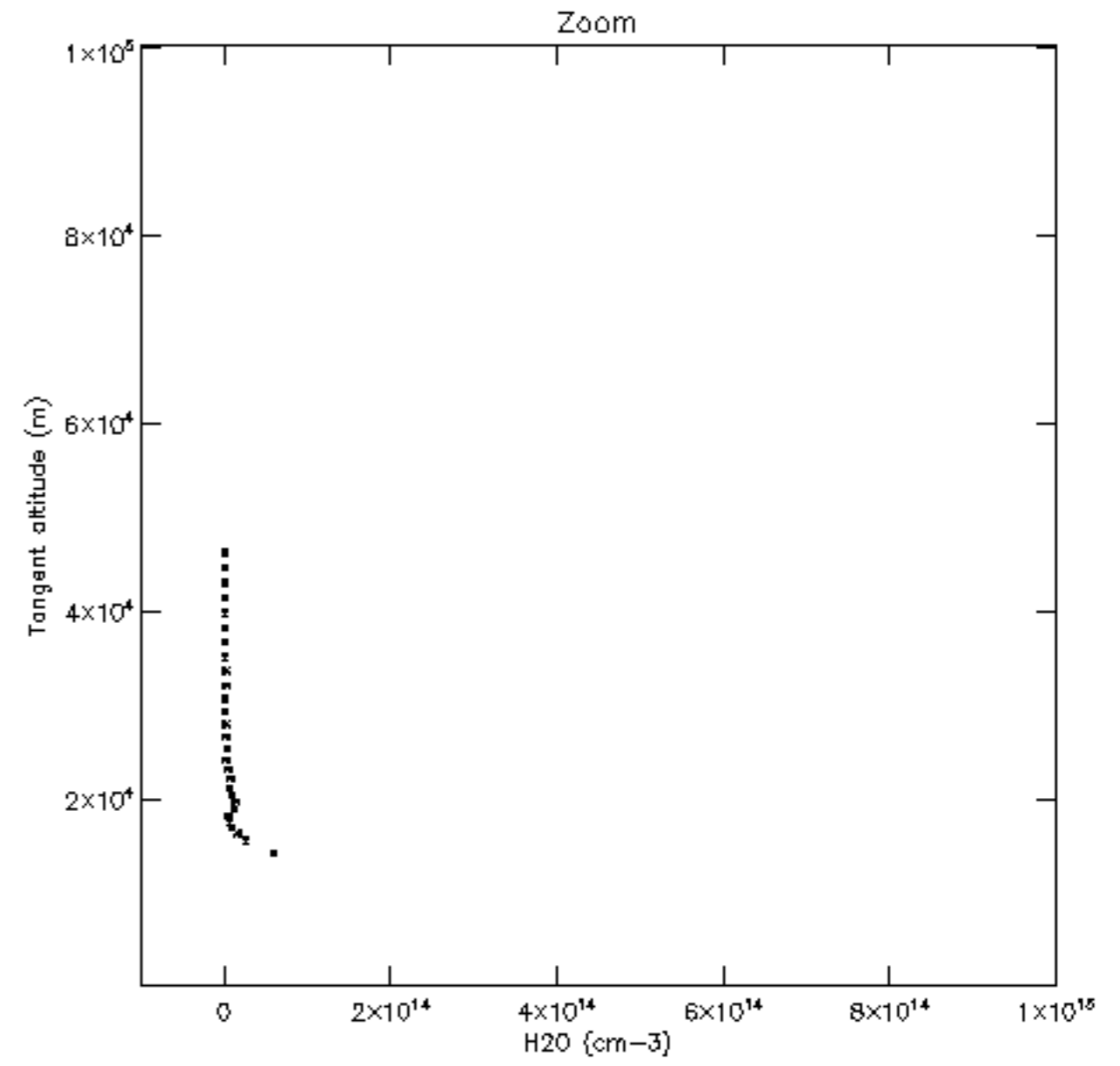
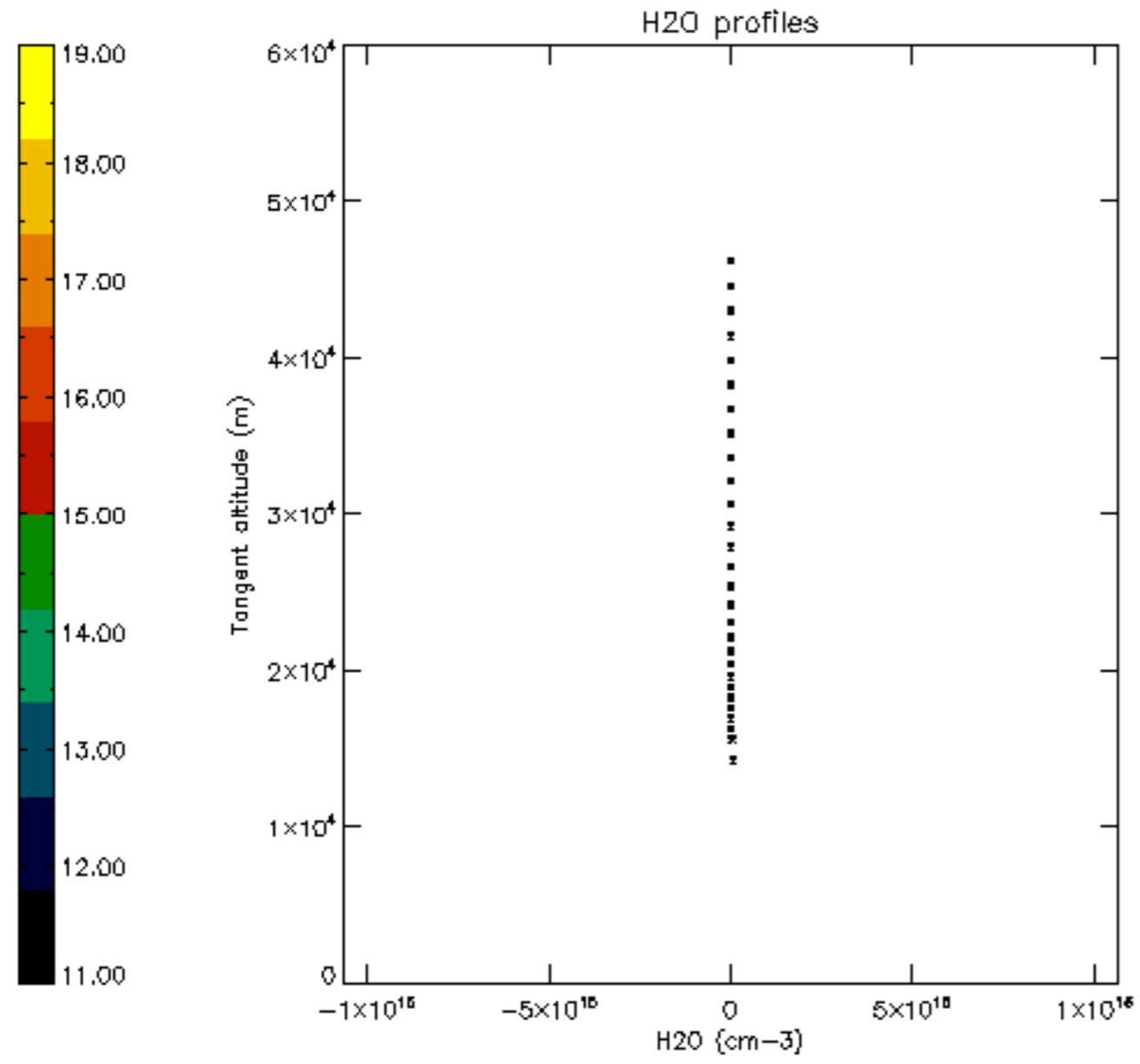


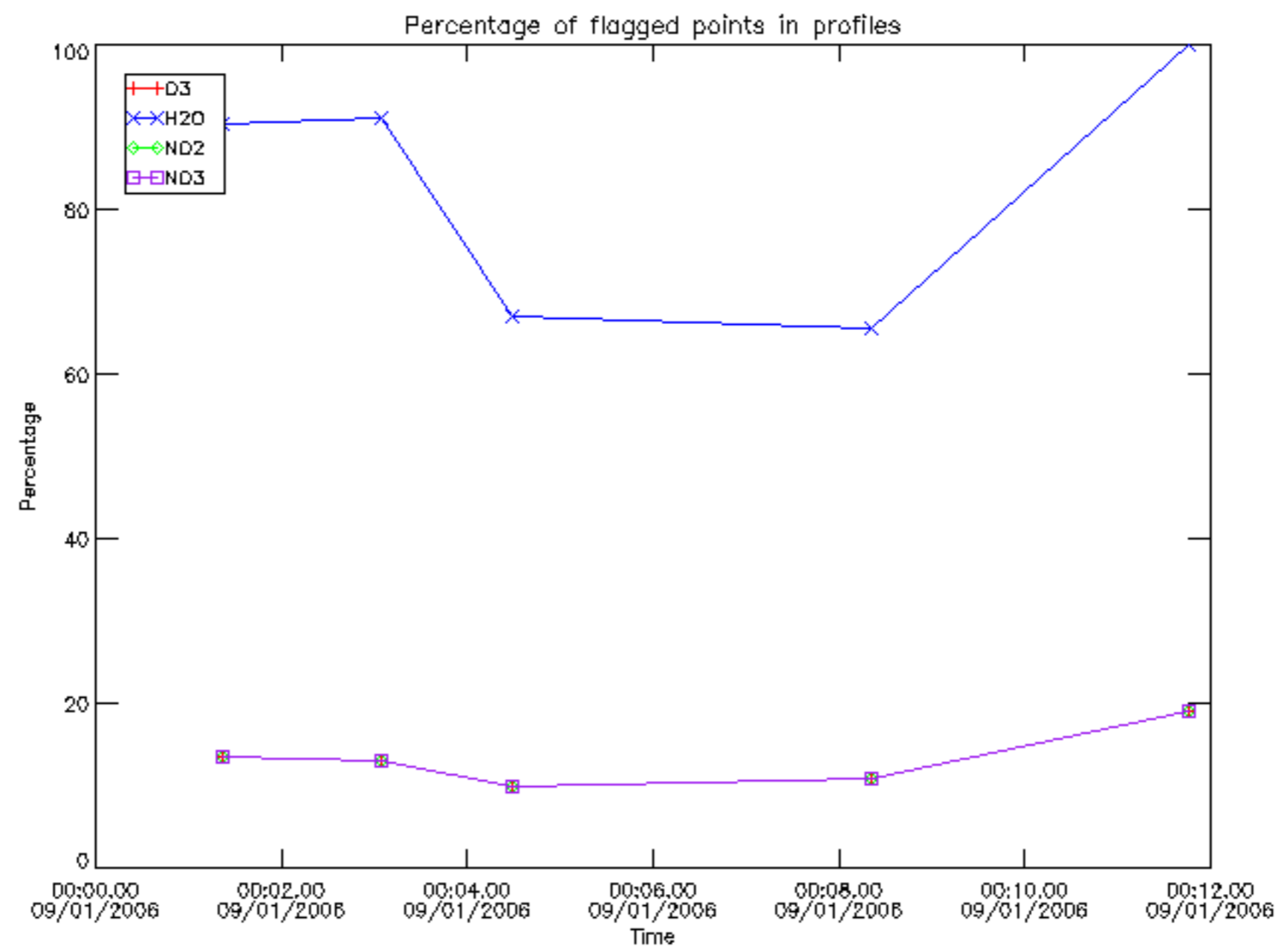




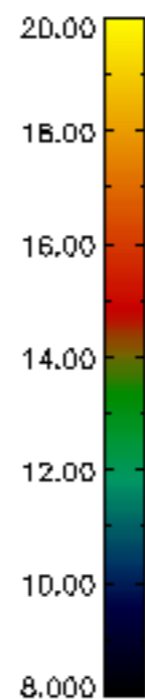
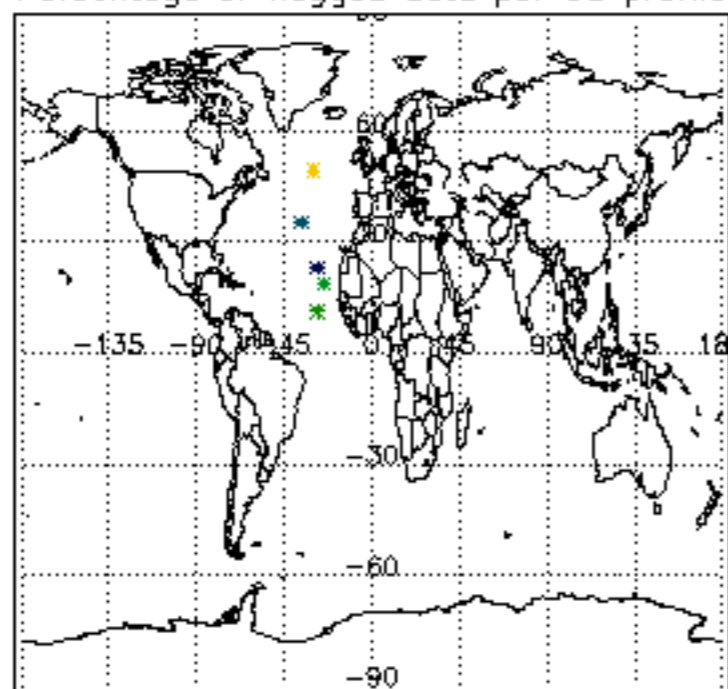




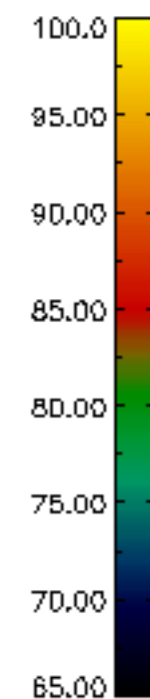
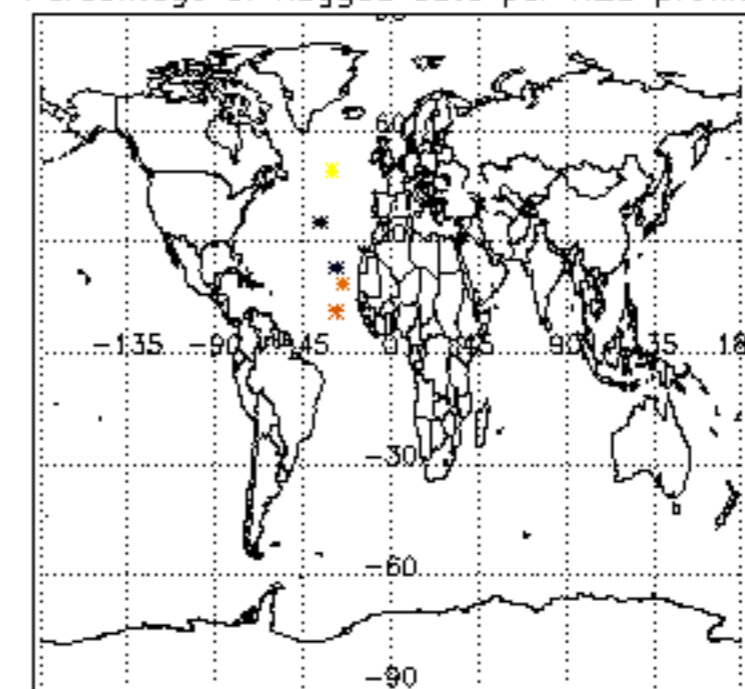




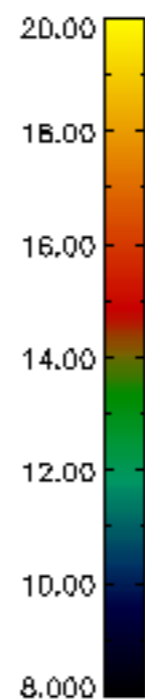
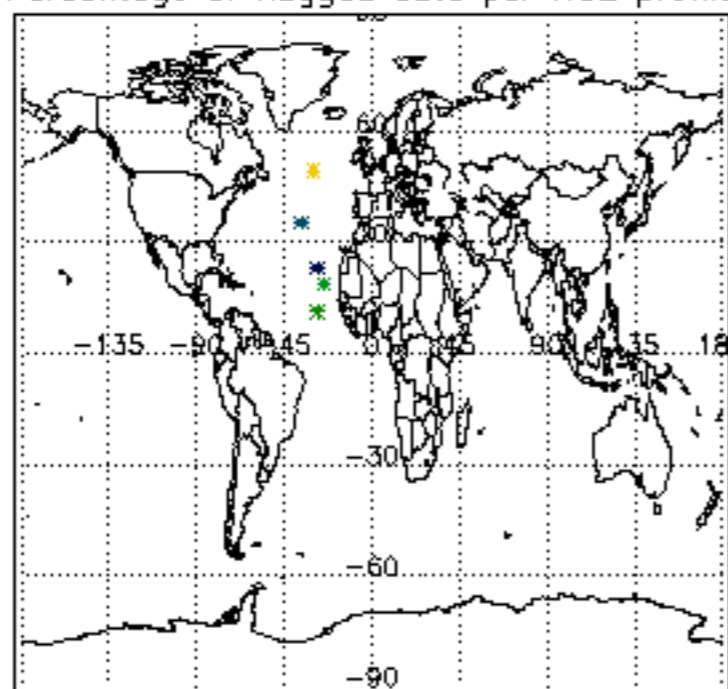
Percentage of flagged data per D3 profile



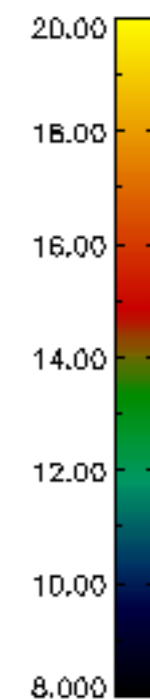
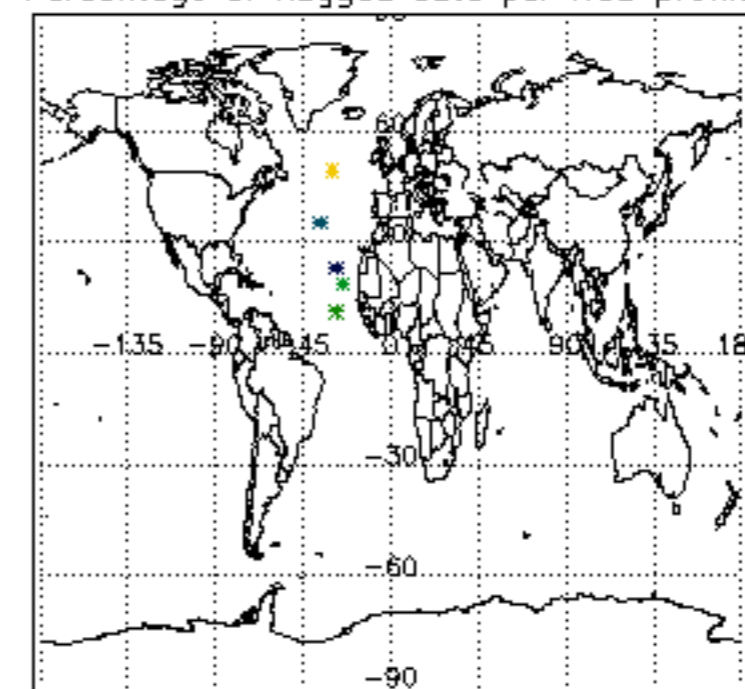
Percentage of flagged data per H2O profile

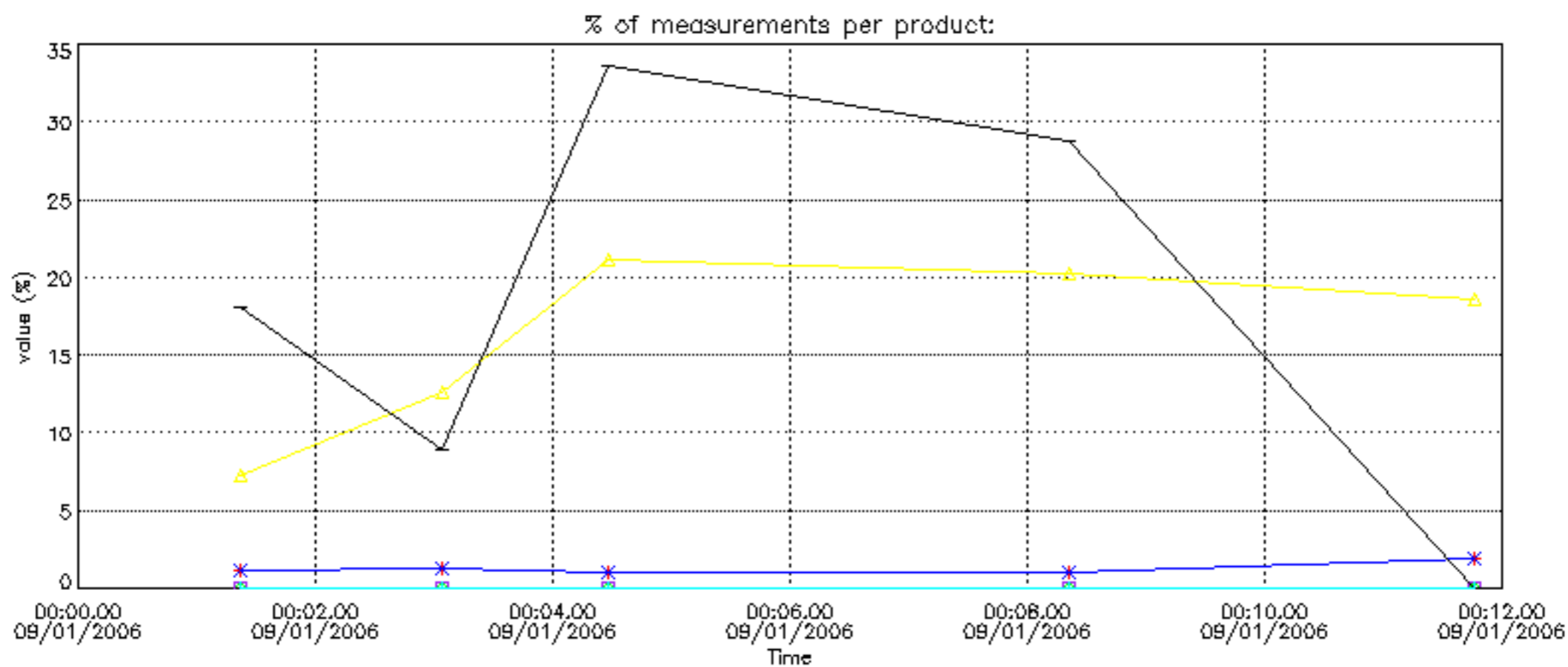


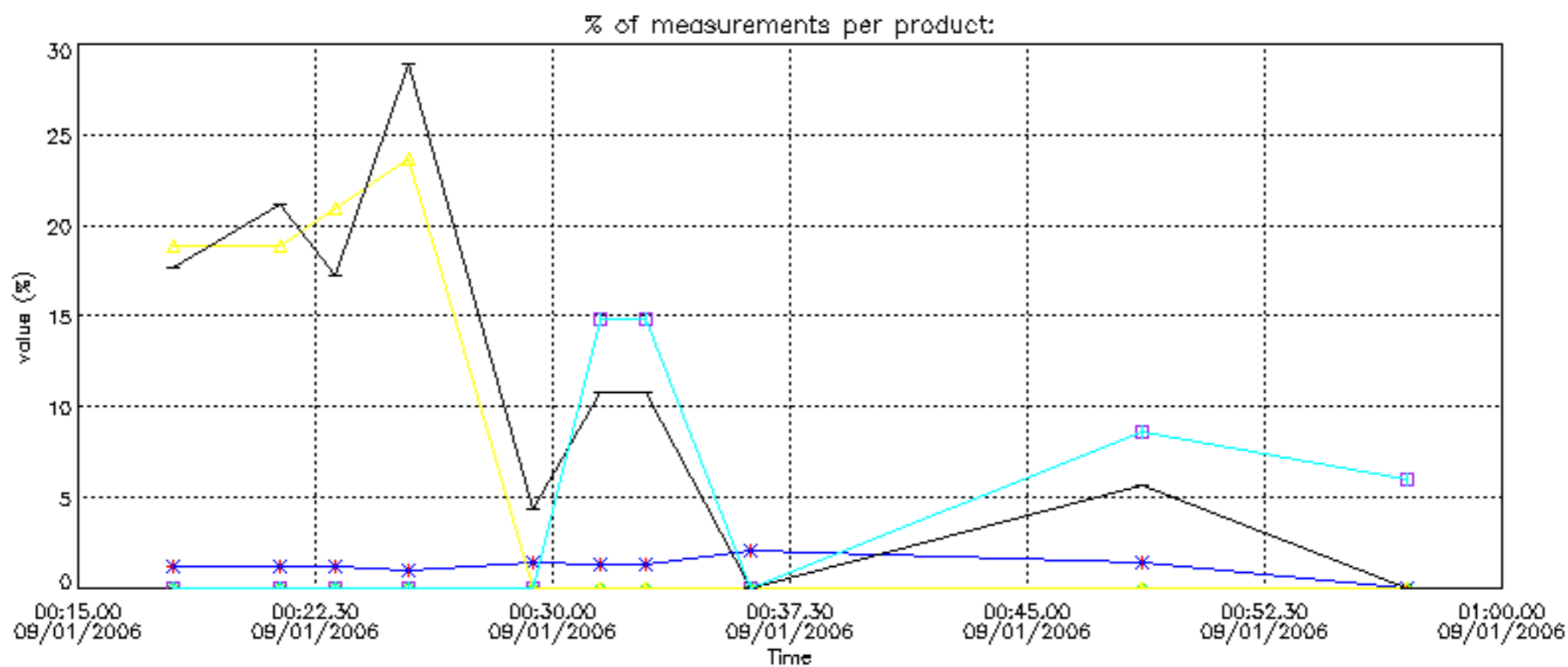
Percentage of flagged data per NO2 profile



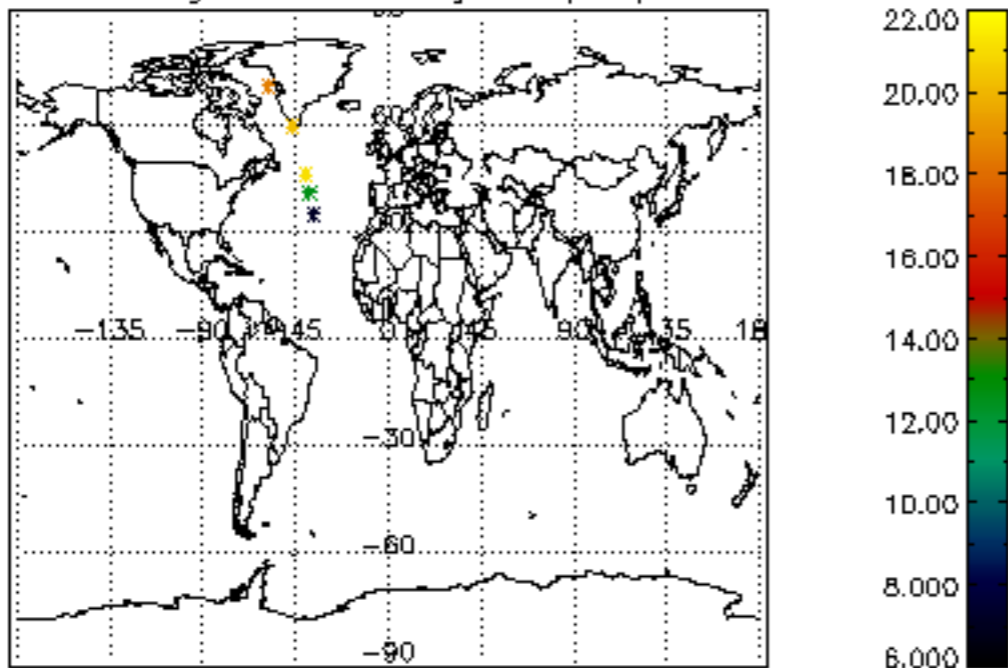
Percentage of flagged data per NO3 profile



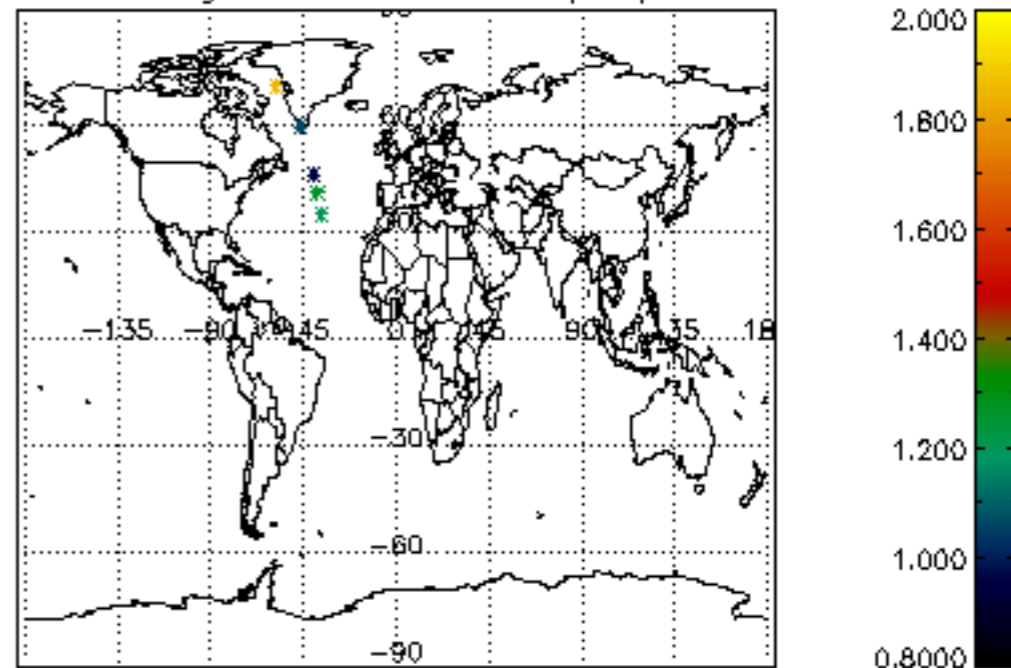




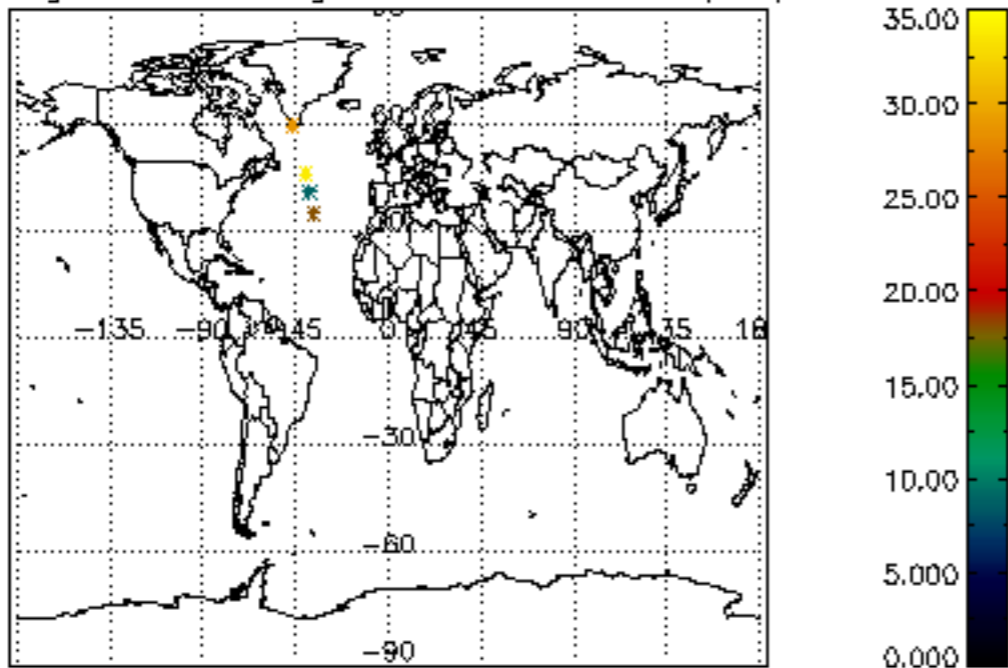
Percentage of cosmic ray hits per profile



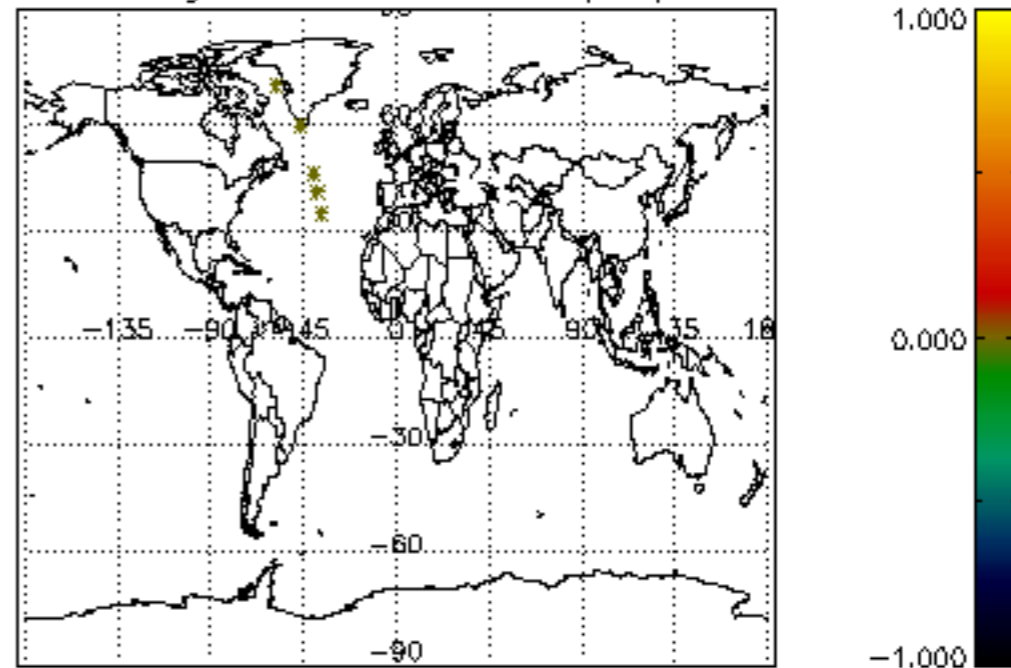
Percentage of datation errors per profile



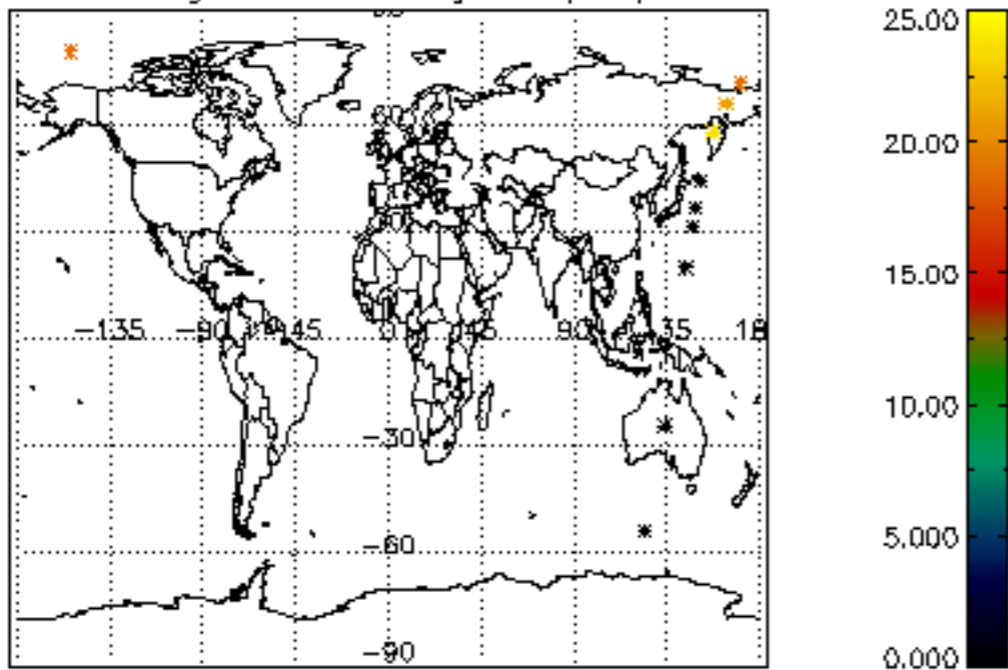
Percentage of star falling outside central band per profile



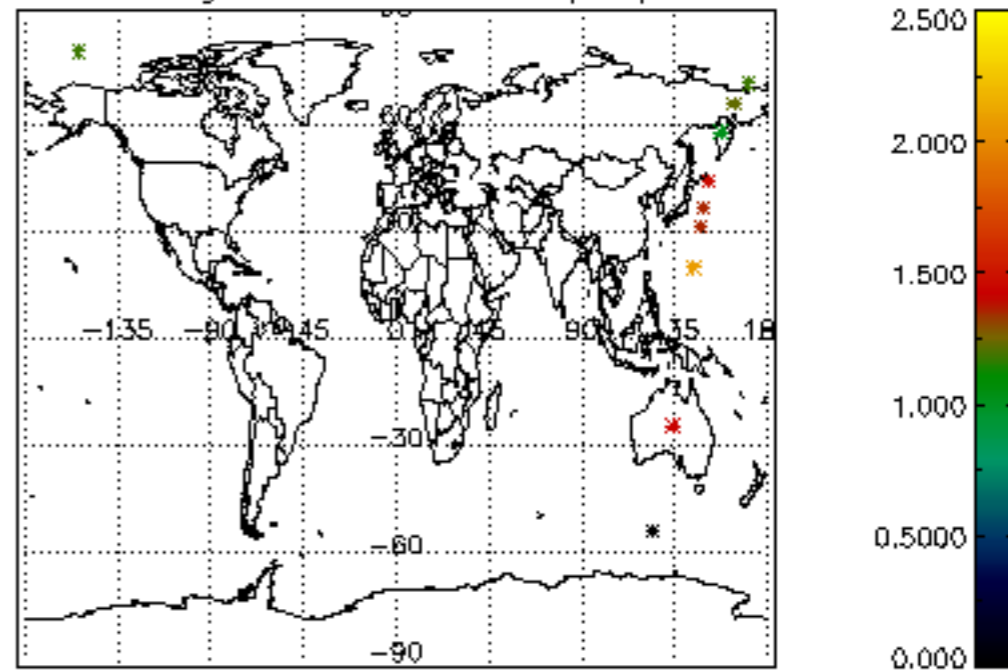
Percentage of saturation errors per profile



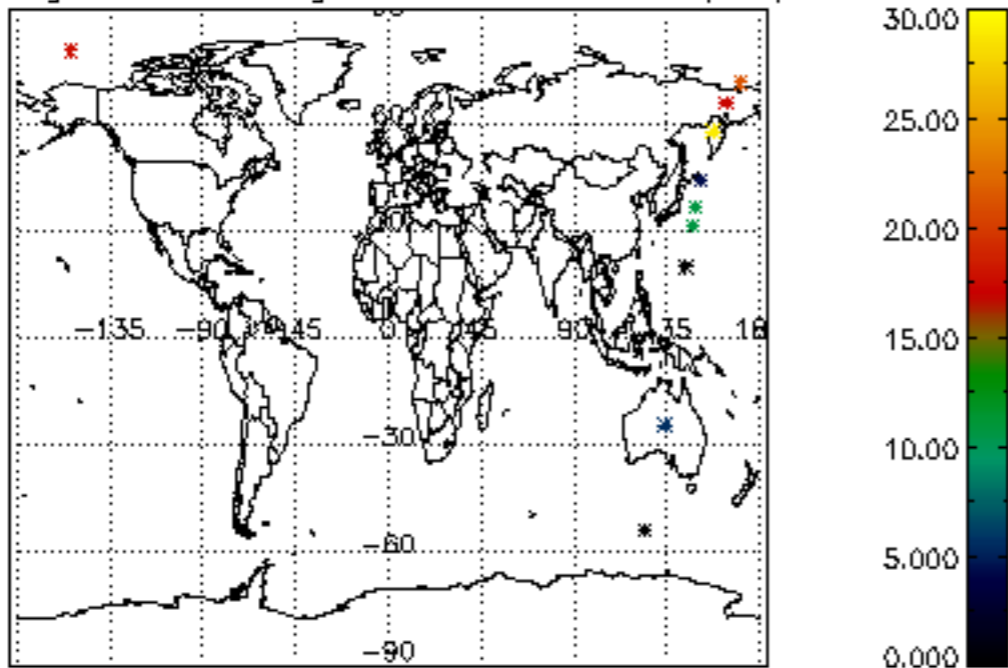
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

