

GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	17APR2013 17:28:13
Data source version	GOMOS/6.01
Start time of products	21-04-2002 (21APR2002 00:00:00)
Stop time of products	22-04-2002 (22APR2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	11
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

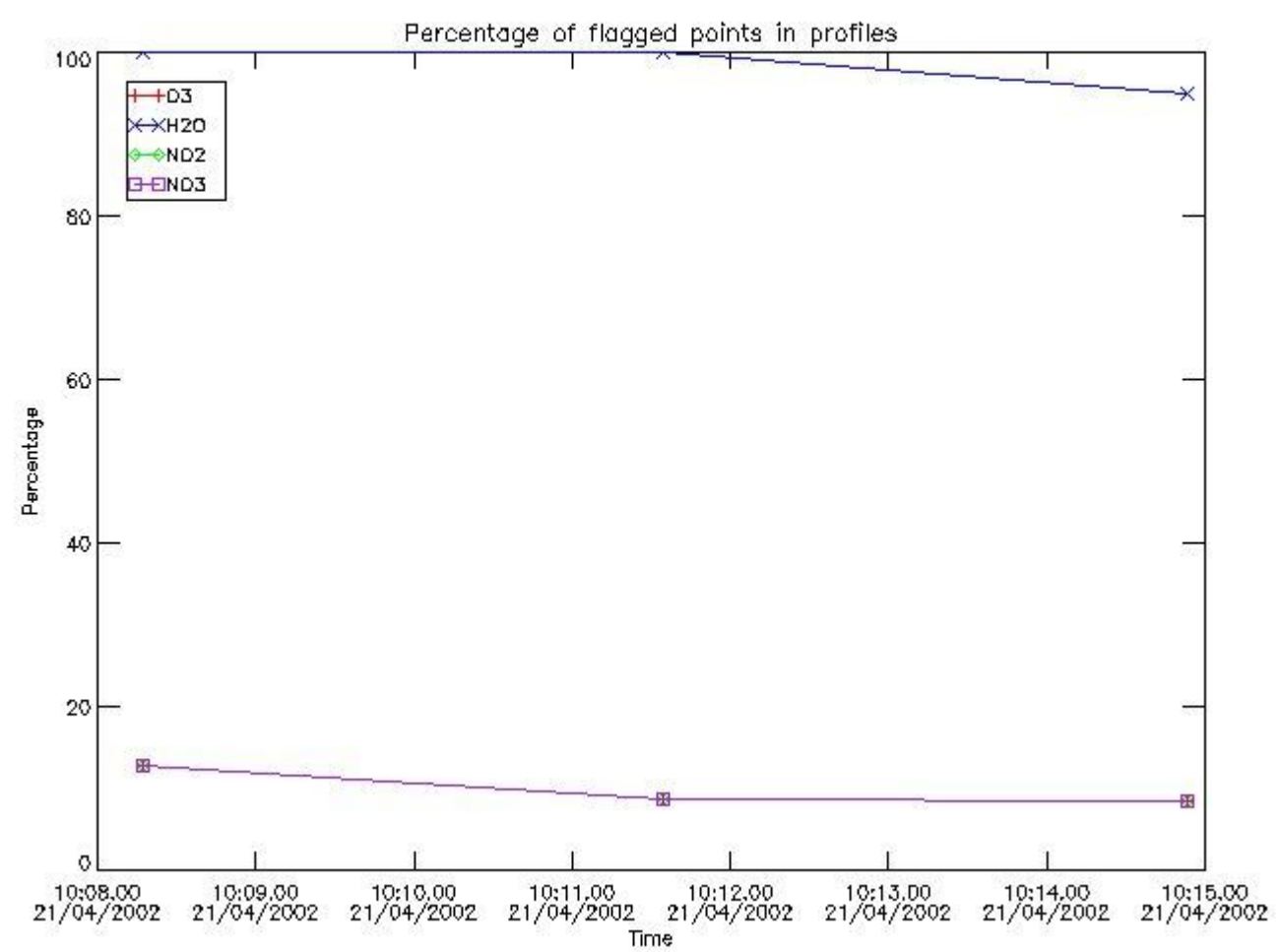
!Warning: No products without errors in BRIGHT limb conditions found

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020421_100817_000000362005_00180_00735_0767.N1	21-APR-2002 10:08:17	Dark	36.000	45	Alp Pav	1.9400	26000.	72	735	No
2	GOM_NL__2PRFIN20020421_101134_000000602005_00180_00735_0768.N1	21-APR-2002 10:11:34	Dark	59.500	103	38Zet Sgr	2.6000	9700.0	119	735	No
3	GOM_NL__2PRFIN20020421_101452_000000602005_00180_00735_0769.N1	21-APR-2002 10:14:52	Dark	60.000	38	20Eps Sgr	1.8360	11000.	120	735	No
4	GOM_NL__2PRFIN20020421_101656_000000462005_00180_00735_0770.N1	21-APR-2002 10:16:56	Straylight	46.000	40	The Sco	1.8590	7100.0	92	735	No
5	GOM_NL__2PRFIN20020421_101826_000000592005_00180_00735_0771.N1	21-APR-2002 10:18:26	Straylight	59.000	25	35Lam Sco	1.6200	28000.	118	735	No
6	GOM_NL__2PRFIN20020421_102038_000000432005_00180_00735_0772.N1	21-APR-2002 10:20:38	Straylight	42.500	10	Bet Cen	0.61000	28000.	85	735	No
7	GOM_NL__2PRFIN20020421_102219_000000352005_00180_00735_0773.N1	21-APR-2002 10:22:19	Straylight	34.500	129	Del Cru	2.7930	26000.	69	735	No
8	GOM_NL__2PRFIN20020421_102352_000000402005_00180_00735_0774.N1	21-APR-2002 10:23:52	Straylight	40.000	109	Bet Lup	2.6770	26000.	80	735	No
9	GOM_NL__2PRFIN20020421_102708_000000632005_00180_00735_0775.N1	21-APR-2002 10:27:08	Twilight	63.000	156	20Sig Sco	2.9030	28000.	126	735	No
10	GOM_NL__2PRFIN20020421_102914_000000702005_00180_00735_0776.N1	21-APR-2002 10:29:14	Twilight	69.500	80	7Del Sco	2.3160	30000.	139	735	No
11	GOM_NL__2PRFIN20020421_103154_000000182005_00180_00735_0777.N1	21-APR-2002 10:31:54	Twilight	18.000	106	9Bet Crv	2.6480	5600.0	36	735	No

3. Quality information per product

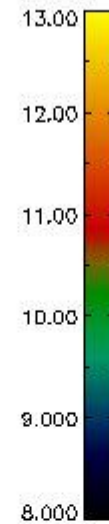
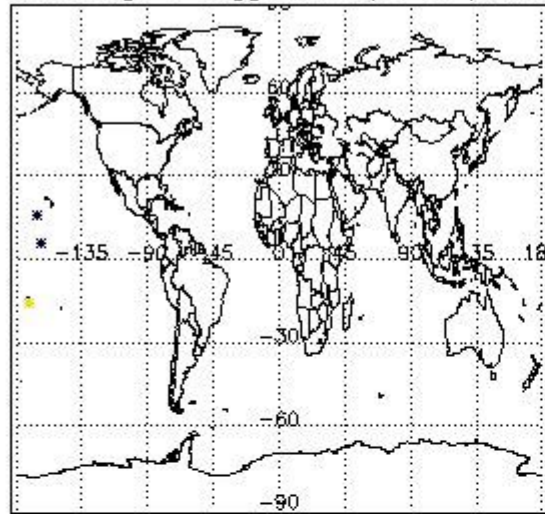
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

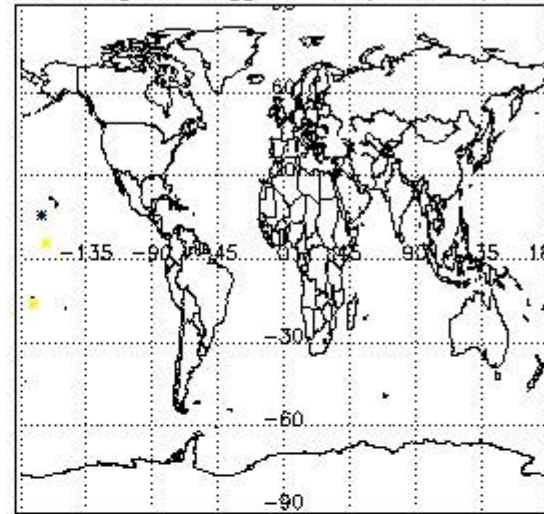


3.2 Plot quality information per product (world map)

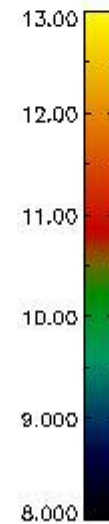
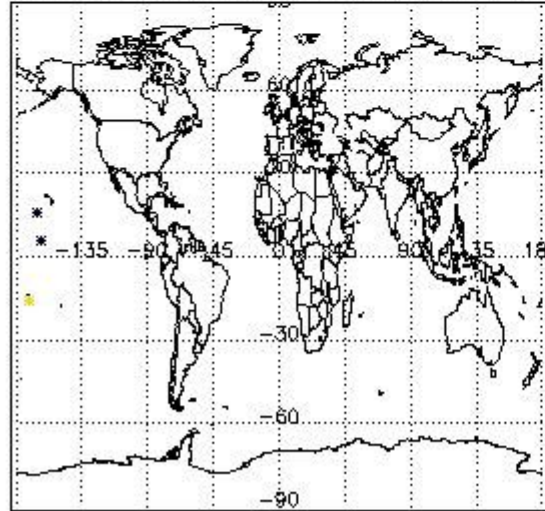
Percentage of flagged data per O3 profile



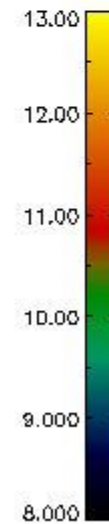
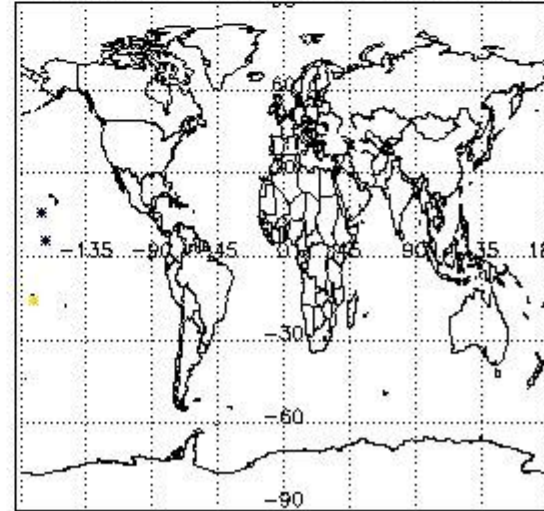
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

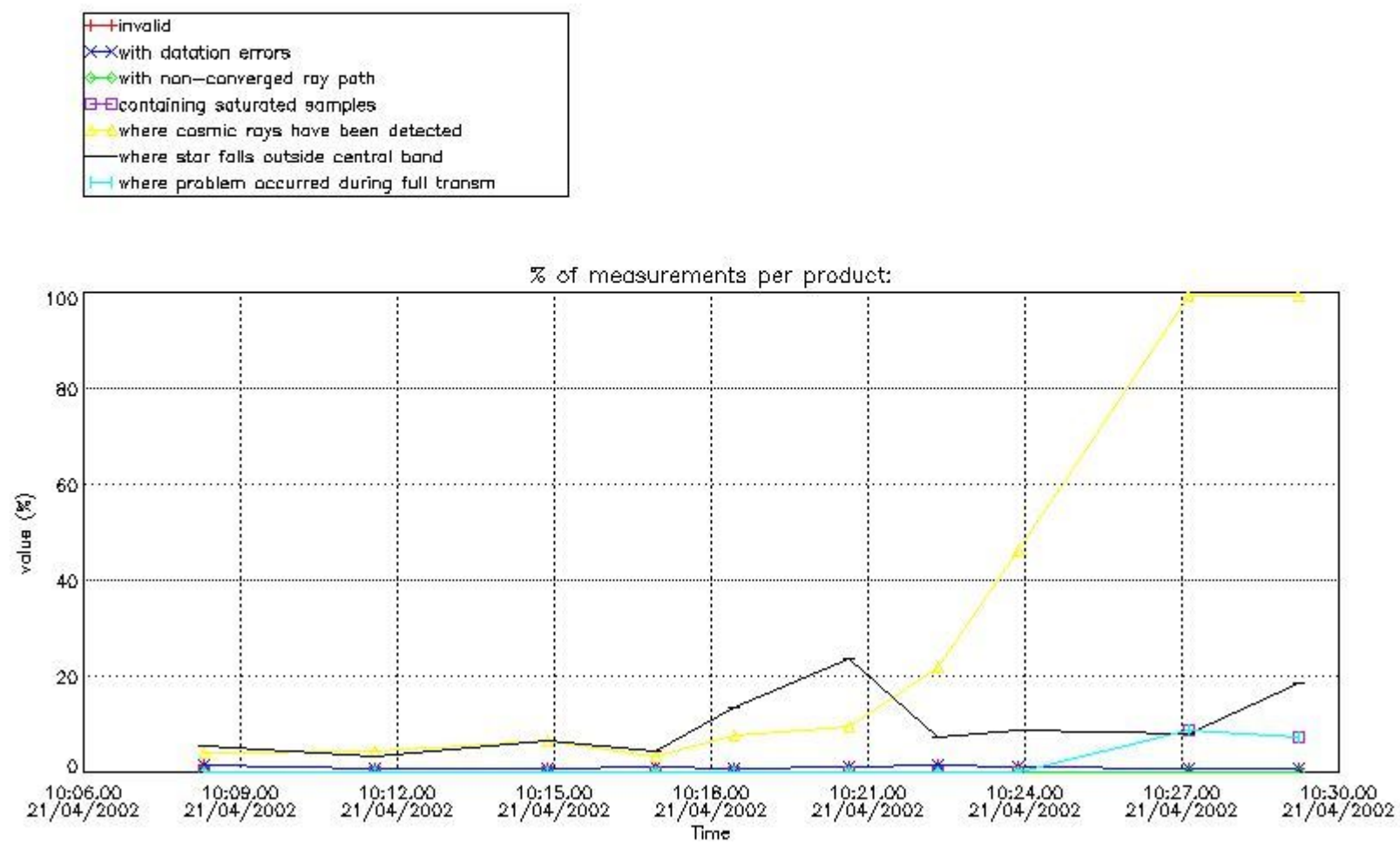


4. Level 1 quality information per product

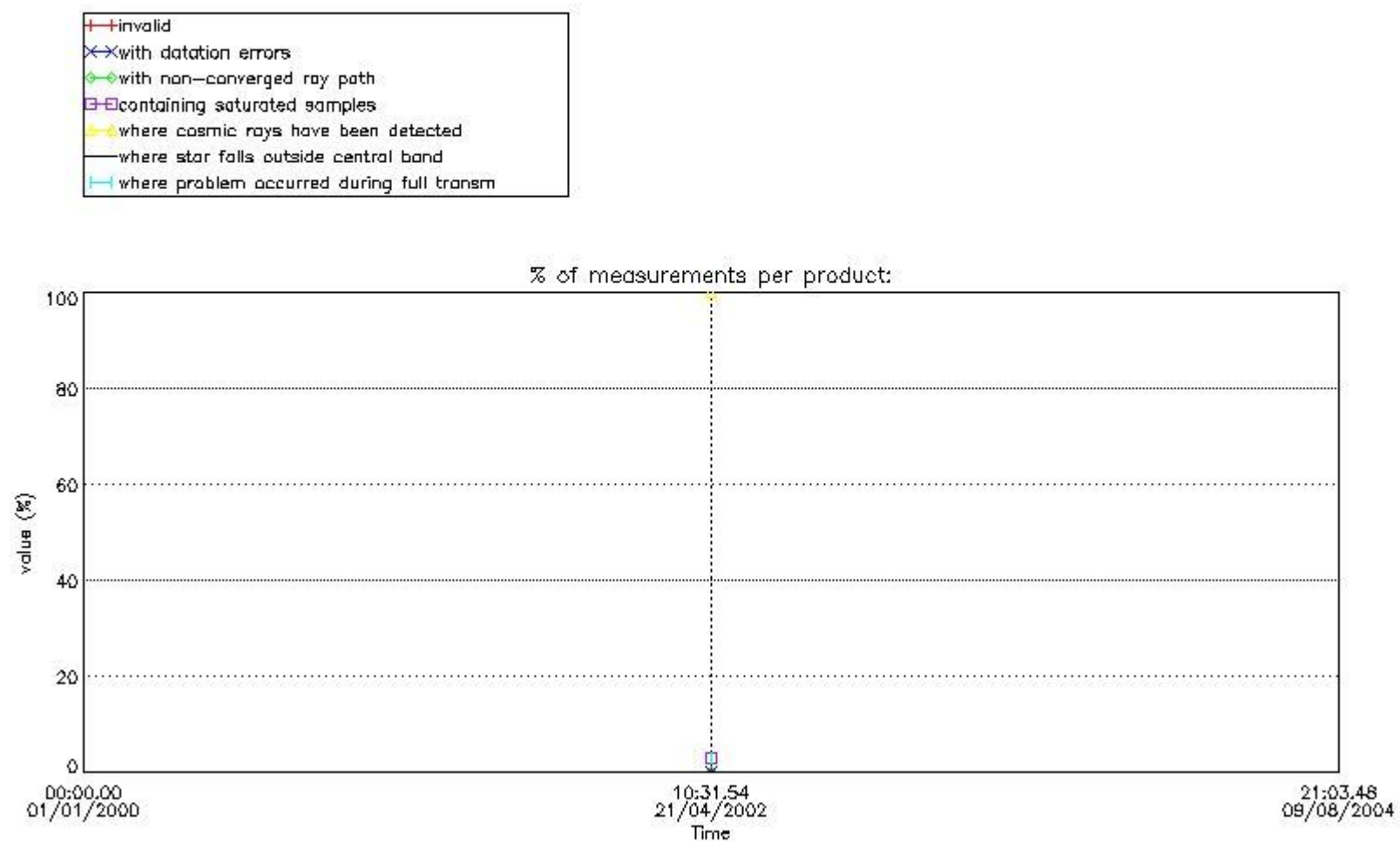
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



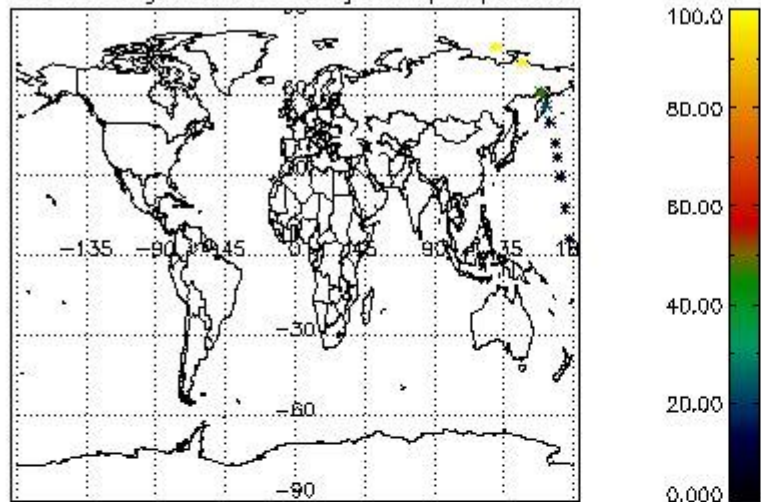
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



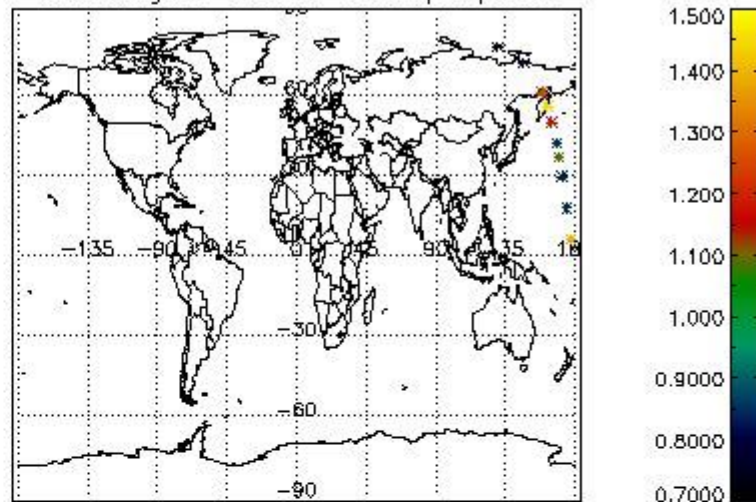
4.2 Plot quality information per product coming from level 1b processing (world map)

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

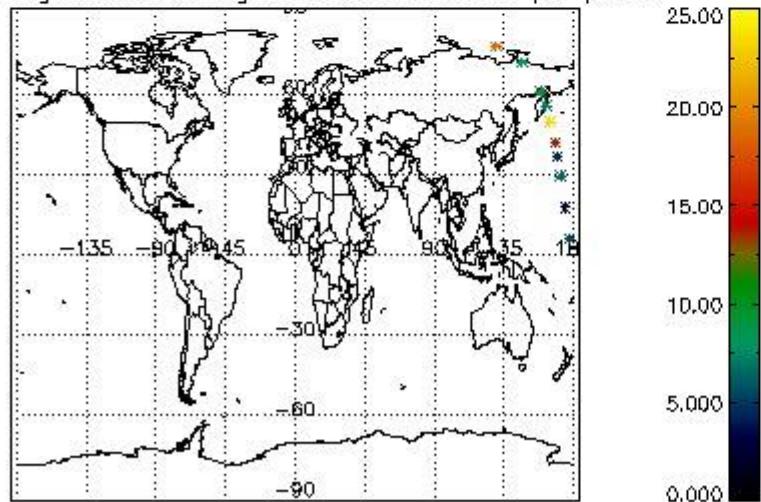
Percentage of cosmic ray hits per profile



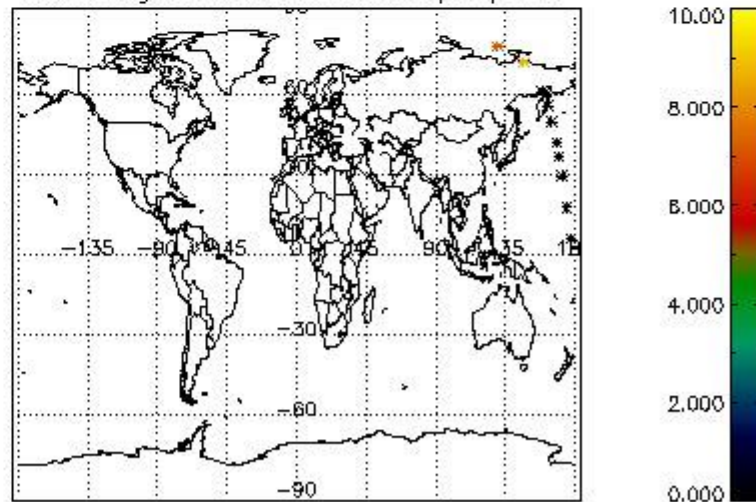
Percentage of datation errors per profile



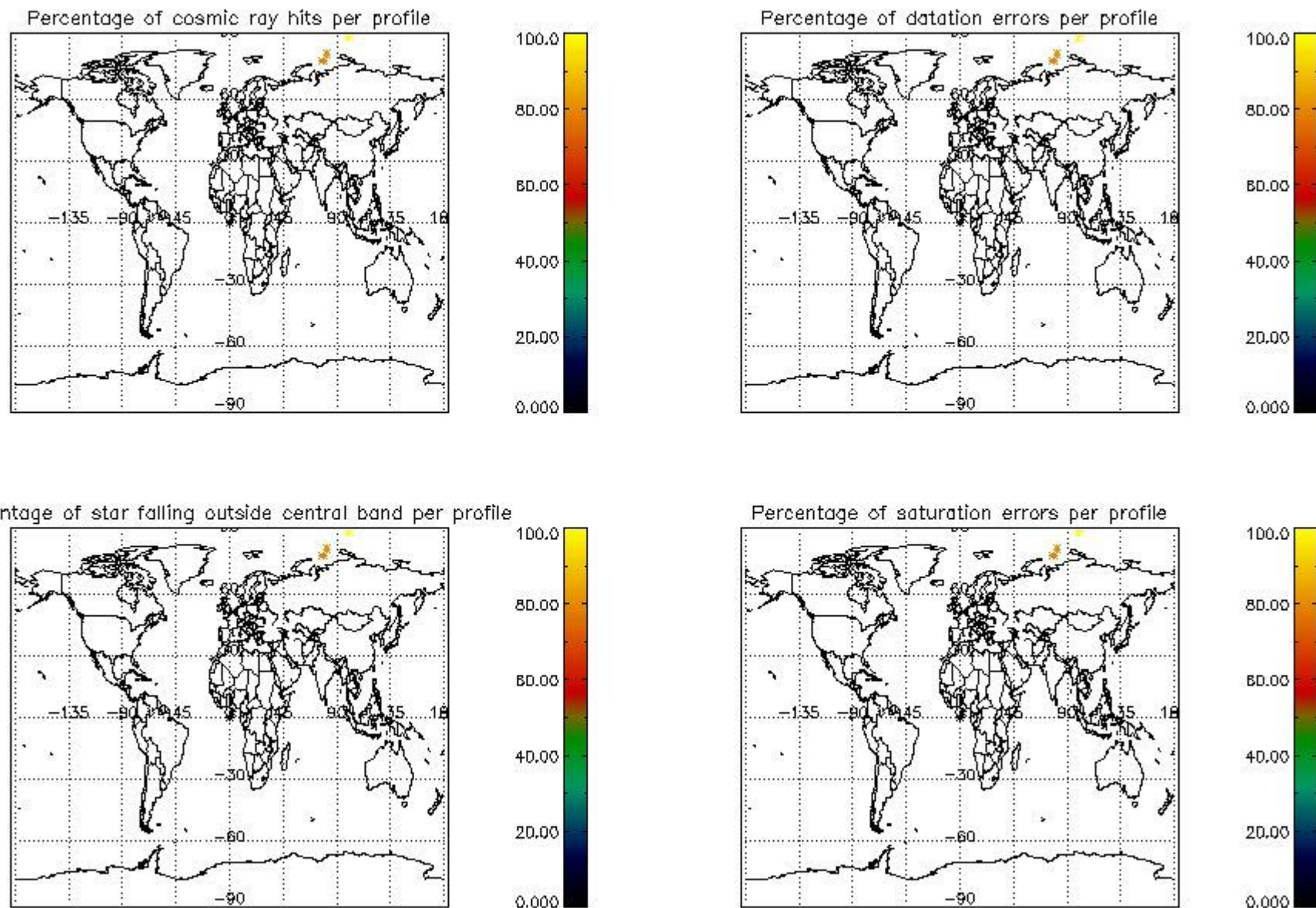
Percentage of star falling outside central band per profile



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

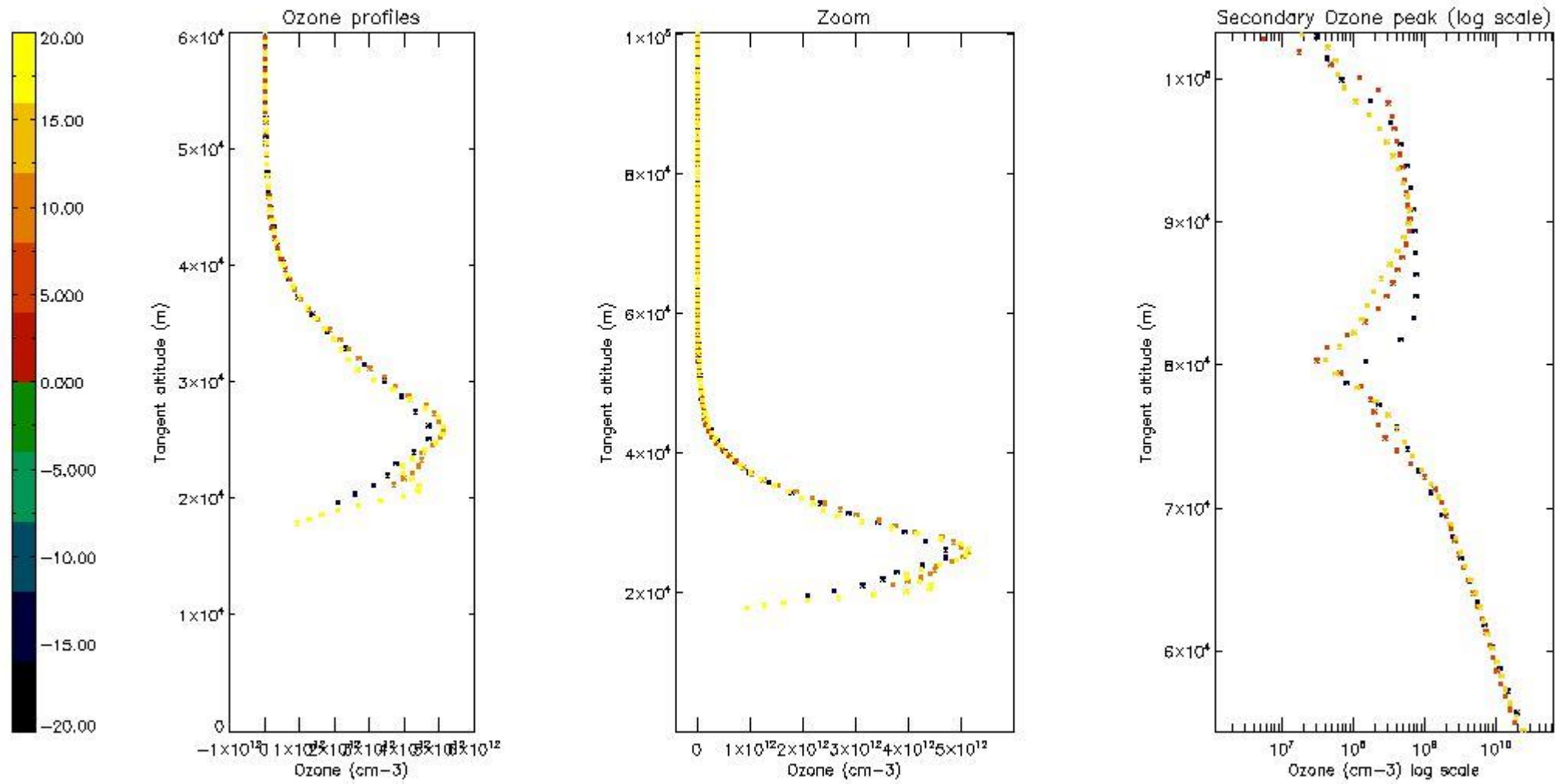
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	30
STD < 20	23

STD < 10	21
STD < 5	18

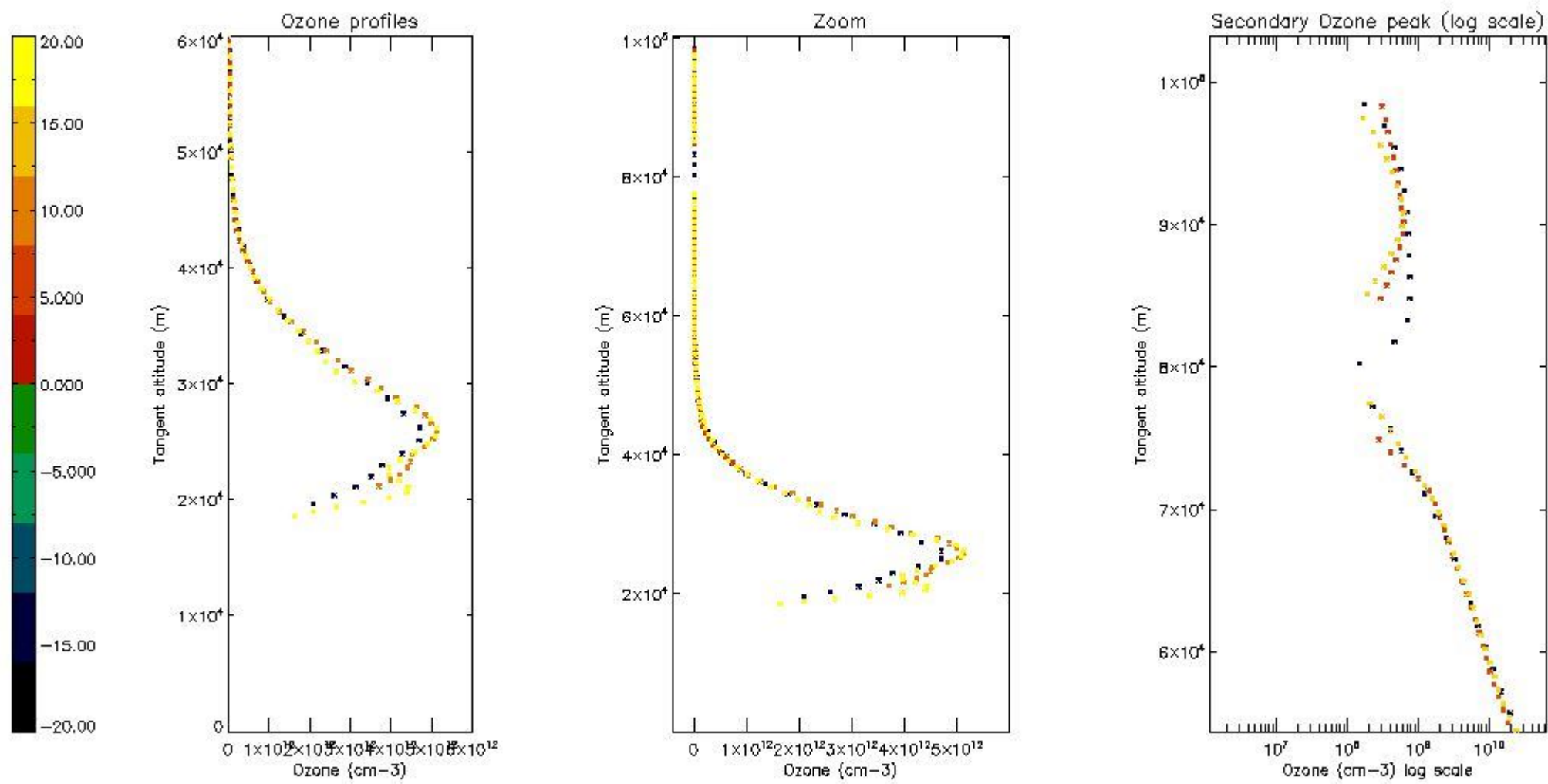
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



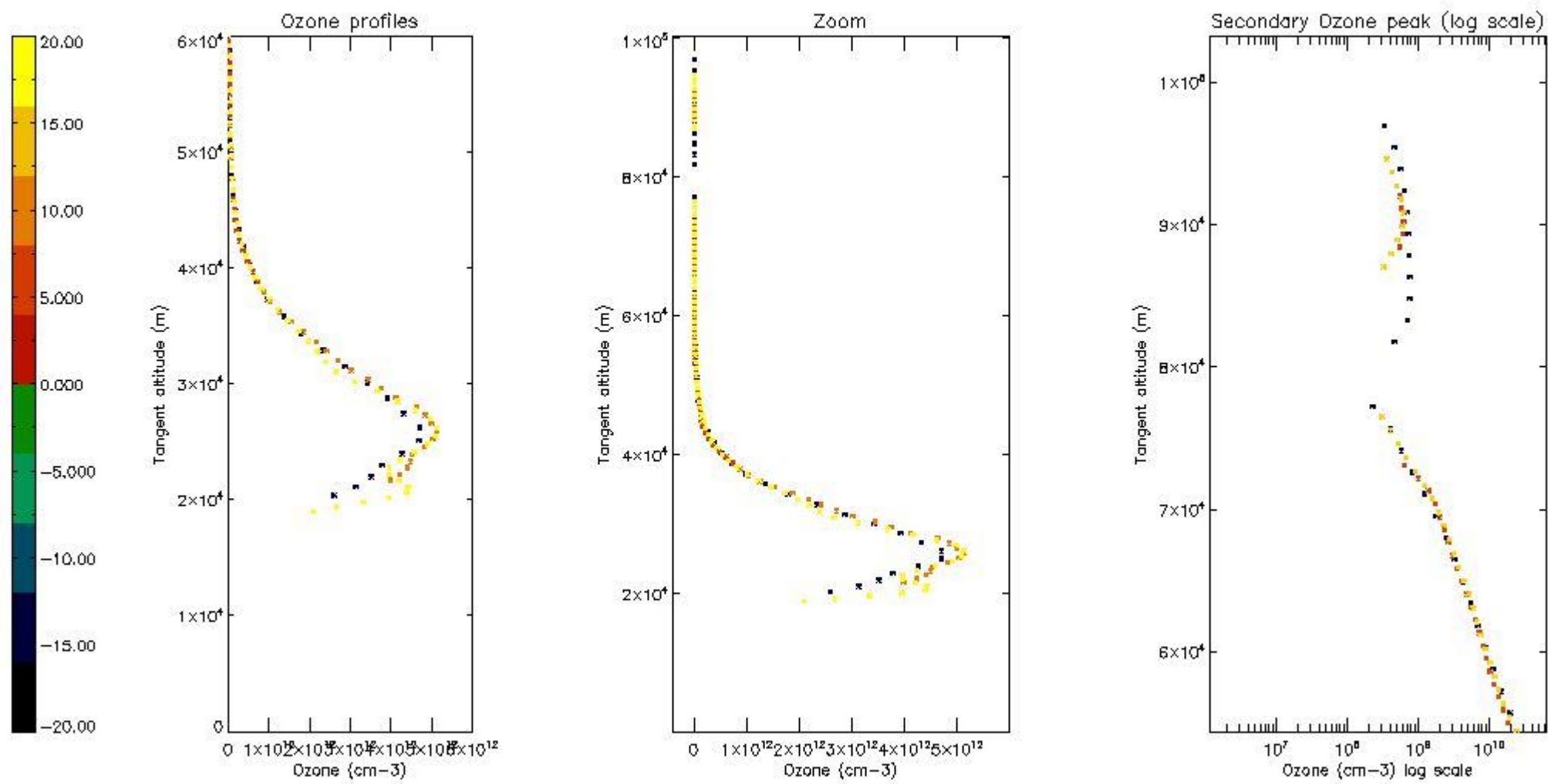
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



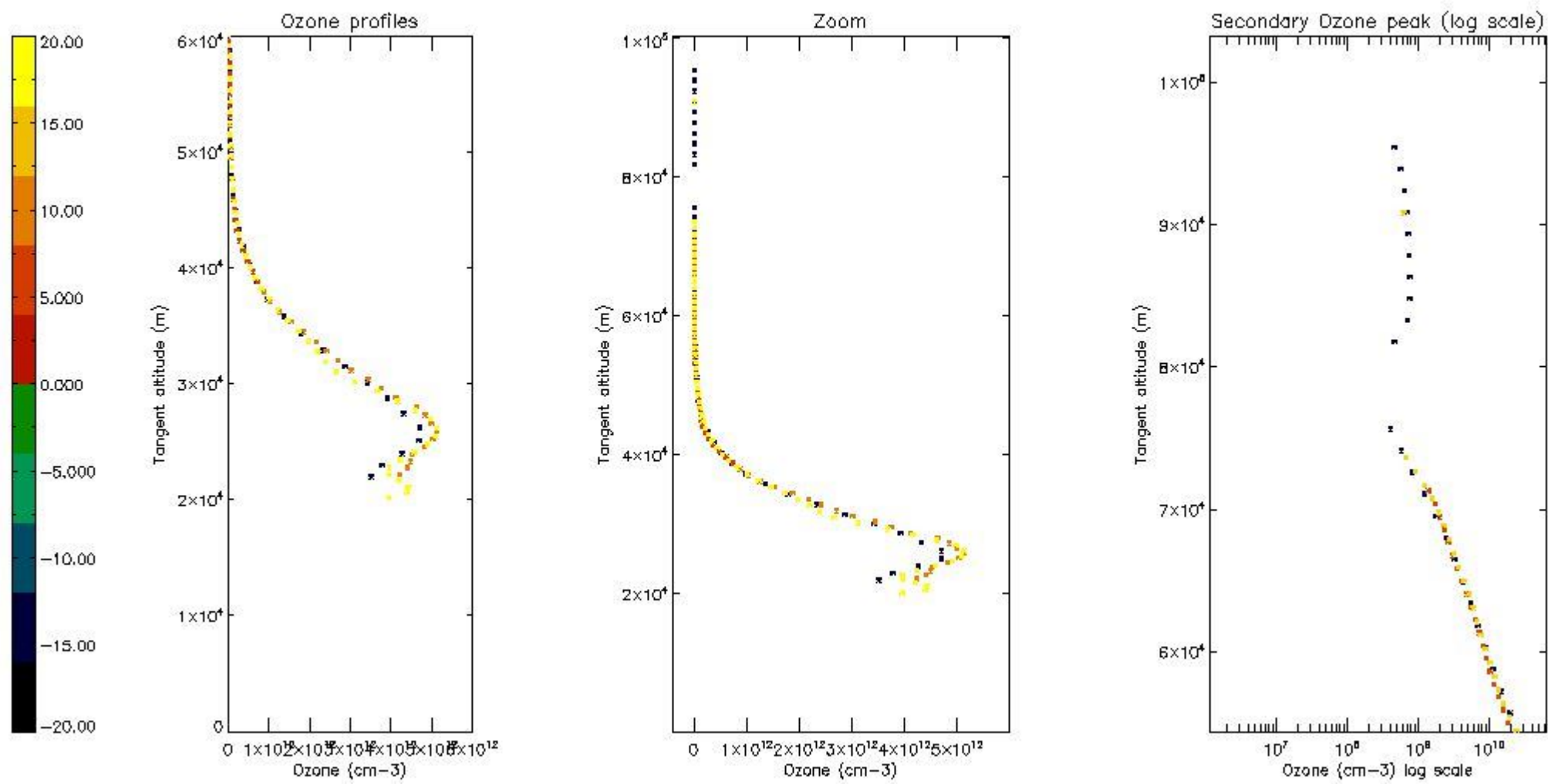
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



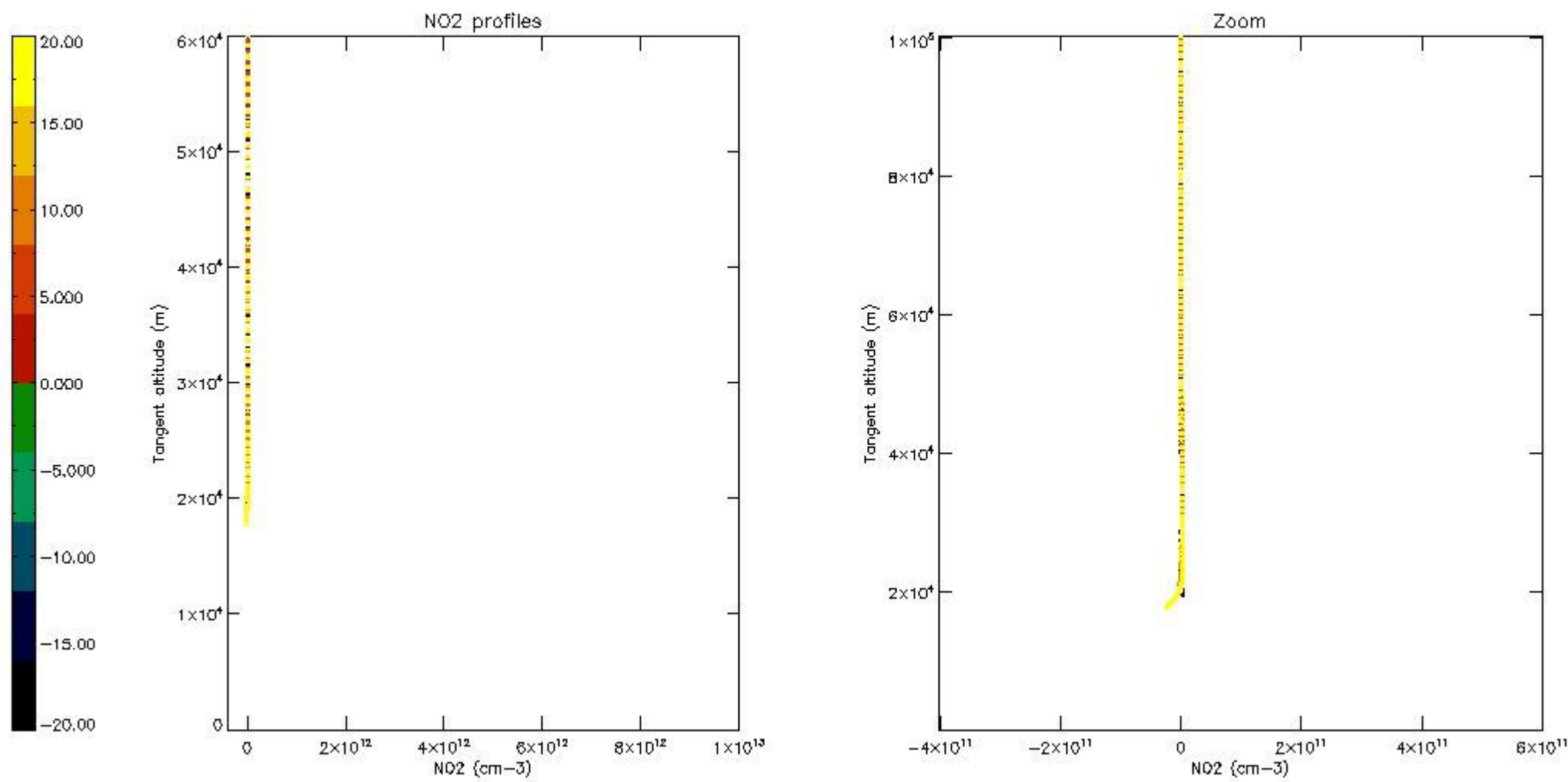
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



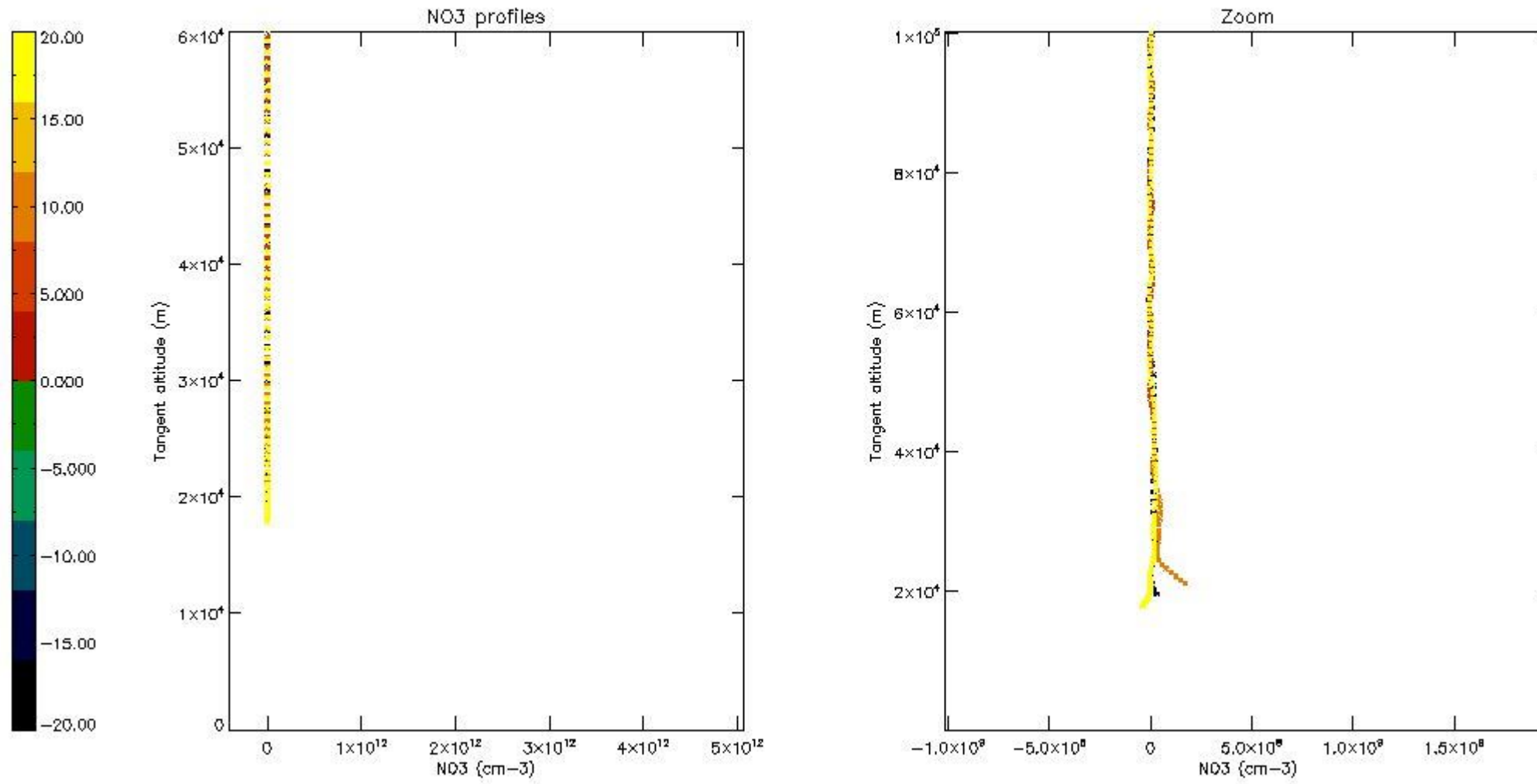
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	21-APR-2002 10:08:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-APR-2002 10:08:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-APR-2002 10:08:17

GOMOS Level 2 Daily Report

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	17APR2013 17:28:13
Data source version	GOMOS/6.01
Start time of products	21-04-2002 (21APR2002 00:00:00)
Stop time of products	22-04-2002 (22APR2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	11
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

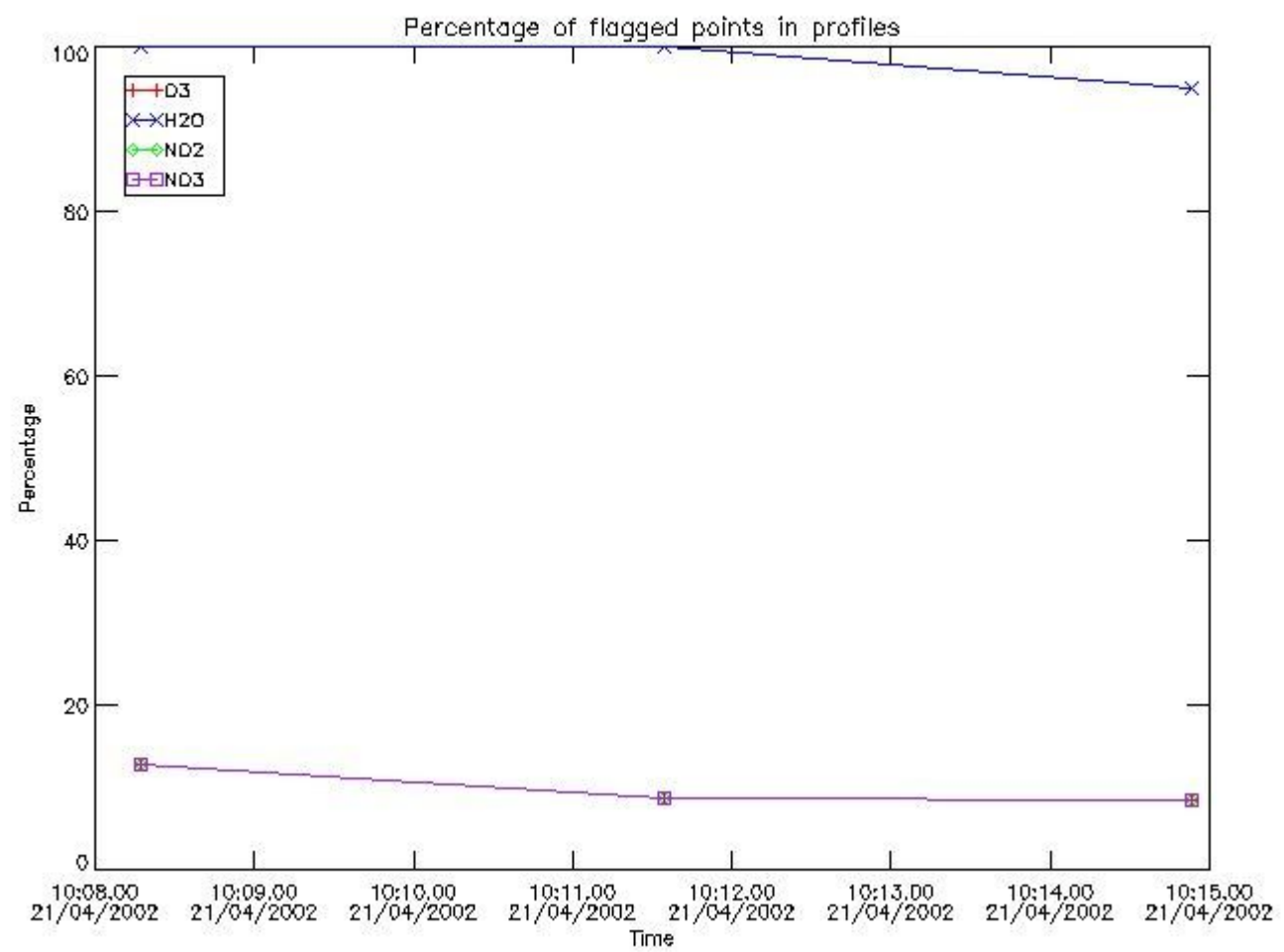
!Warning: No products without errors in BRIGHT limb contitions found

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020421_100817_000000362005_00180_00735_0767.N1	21-APR-2002 10:08:17	Dark	36.000	45	Alp Pav	1.9400	26000.	72	735	No
2	GOM_NL__2PRFIN20020421_101134_000000602005_00180_00735_0768.N1	21-APR-2002 10:11:34	Dark	59.500	103	38Zet Sgr	2.6000	9700.0	119	735	No
3	GOM_NL__2PRFIN20020421_101452_000000602005_00180_00735_0769.N1	21-APR-2002 10:14:52	Dark	60.000	38	20Eps Sgr	1.8360	11000.	120	735	No
4	GOM_NL__2PRFIN20020421_101656_000000462005_00180_00735_0770.N1	21-APR-2002 10:16:56	Straylight	46.000	40	The Sco	1.8590	7100.0	92	735	No
5	GOM_NL__2PRFIN20020421_101826_000000592005_00180_00735_0771.N1	21-APR-2002 10:18:26	Straylight	59.000	25	35Lam Sco	1.6200	28000.	118	735	No
6	GOM_NL__2PRFIN20020421_102038_000000432005_00180_00735_0772.N1	21-APR-2002 10:20:38	Straylight	42.500	10	Bet Cen	0.61000	28000.	85	735	No
7	GOM_NL__2PRFIN20020421_102219_000000352005_00180_00735_0773.N1	21-APR-2002 10:22:19	Straylight	34.500	129	Del Cru	2.7930	26000.	69	735	No
8	GOM_NL__2PRFIN20020421_102352_000000402005_00180_00735_0774.N1	21-APR-2002 10:23:52	Straylight	40.000	109	Bet Lup	2.6770	26000.	80	735	No
9	GOM_NL__2PRFIN20020421_102708_000000632005_00180_00735_0775.N1	21-APR-2002 10:27:08	Twilight	63.000	156	20Sig Sco	2.9030	28000.	126	735	No
10	GOM_NL__2PRFIN20020421_102914_000000702005_00180_00735_0776.N1	21-APR-2002 10:29:14	Twilight	69.500	80	7Del Sco	2.3160	30000.	139	735	No
11	GOM_NL__2PRFIN20020421_103154_000000182005_00180_00735_0777.N1	21-APR-2002 10:31:54	Twilight	18.000	106	9Bet Crv	2.6480	5600.0	36	735	No

3. Quality information per product

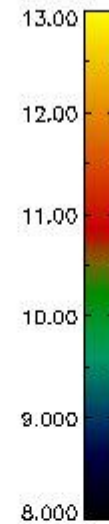
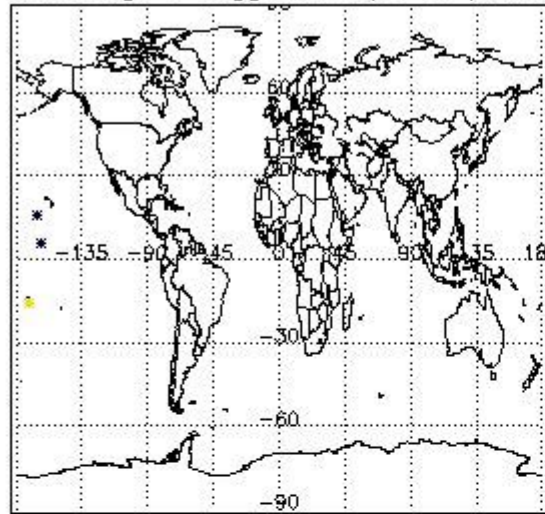
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

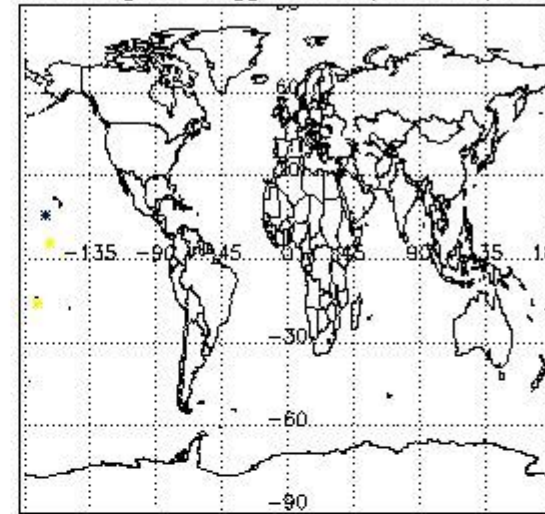


3.2 Plot quality information per product (world map)

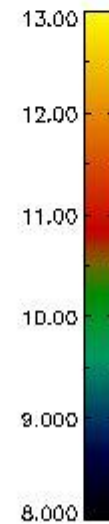
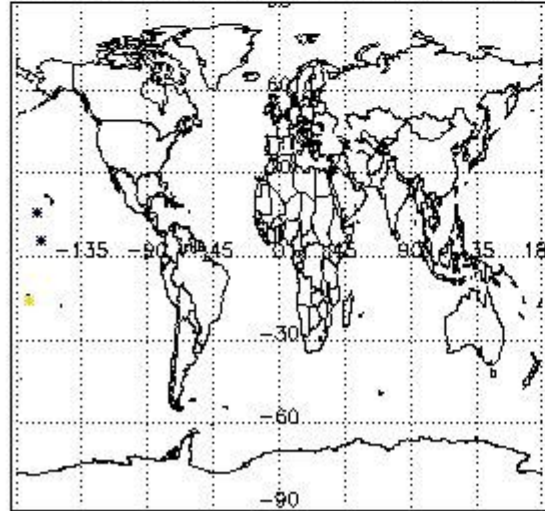
Percentage of flagged data per O3 profile



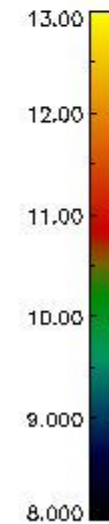
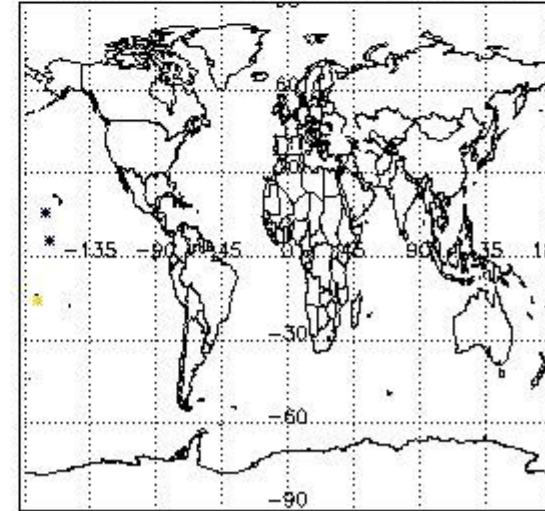
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

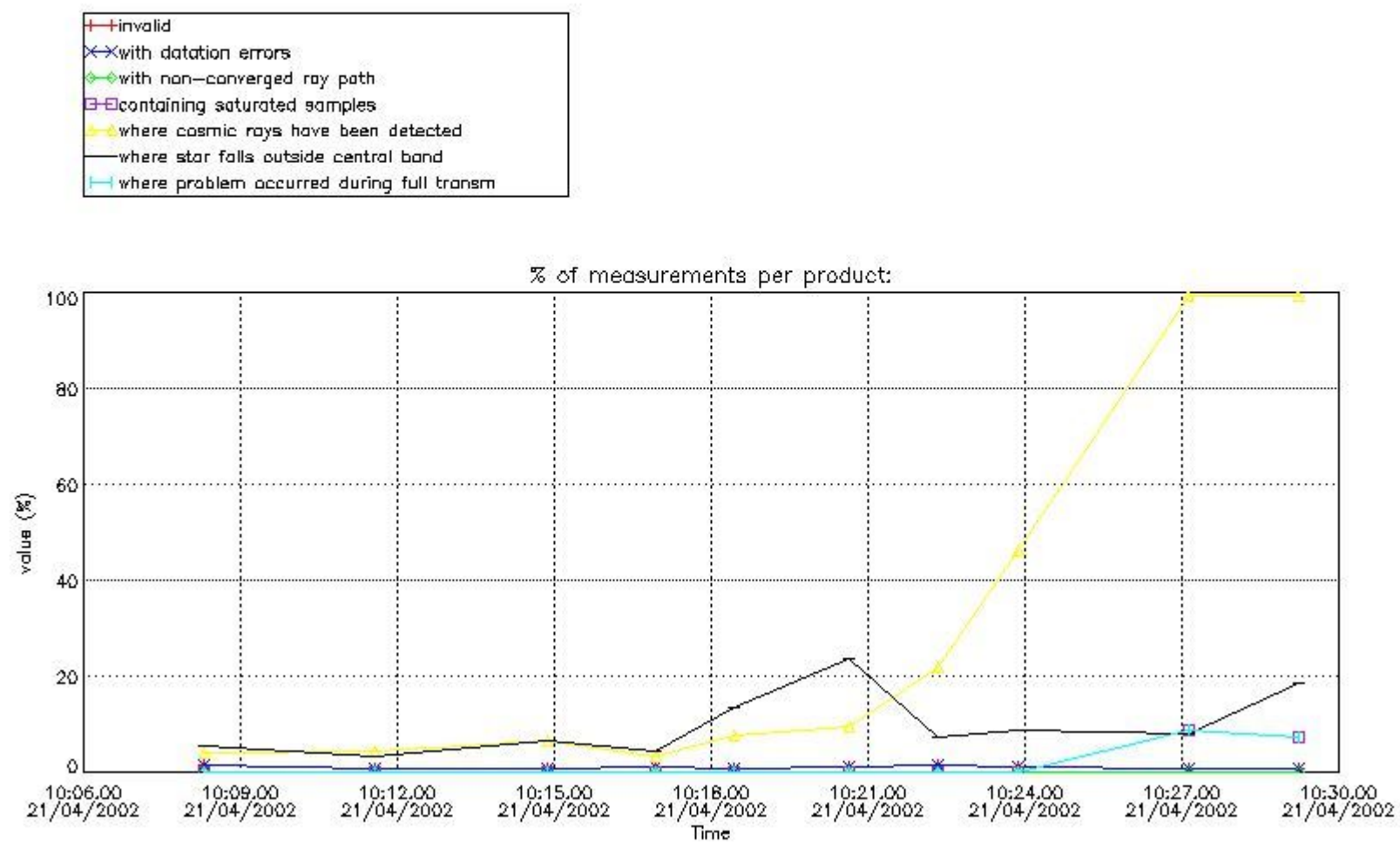


4. Level 1 quality information per product

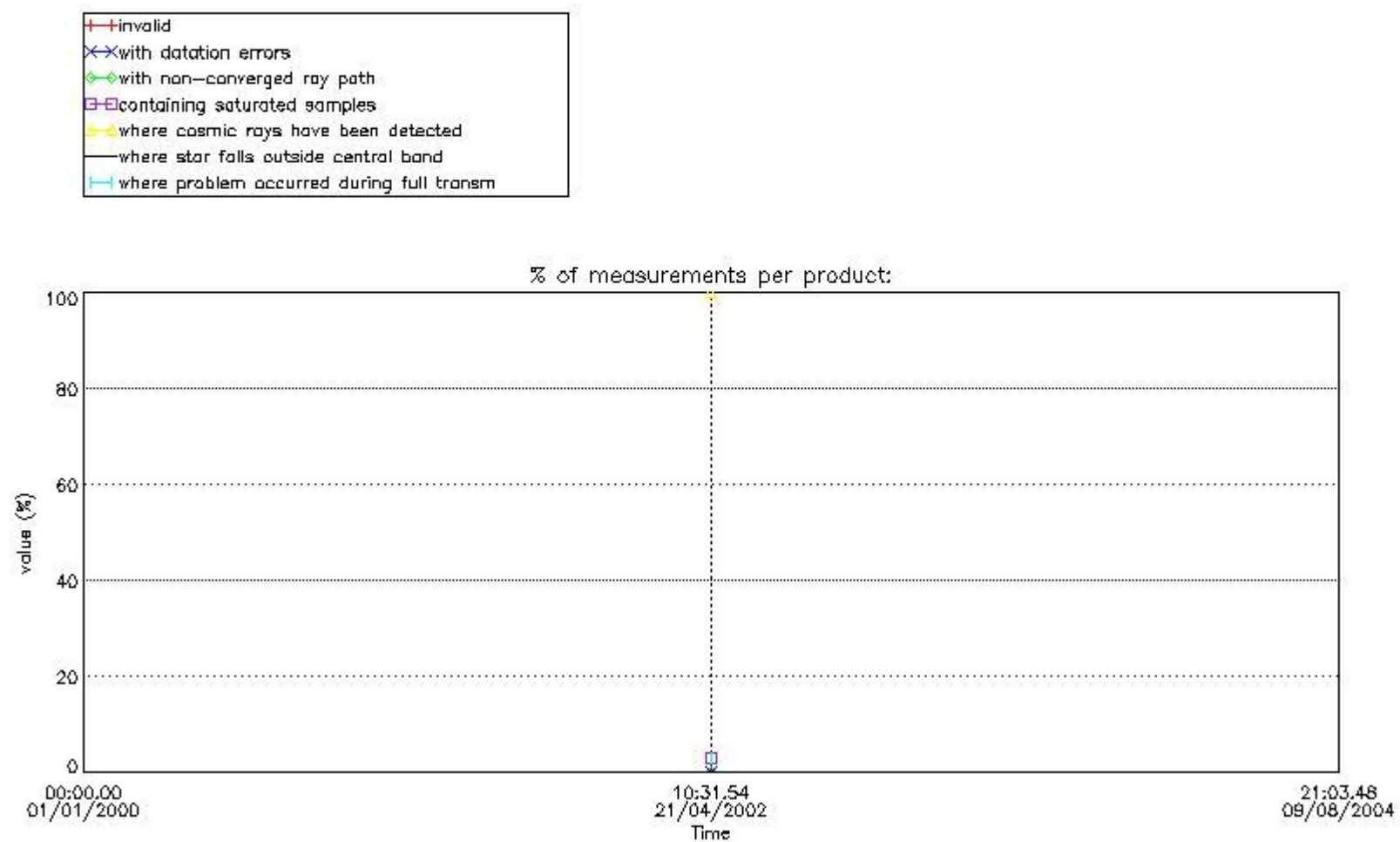
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



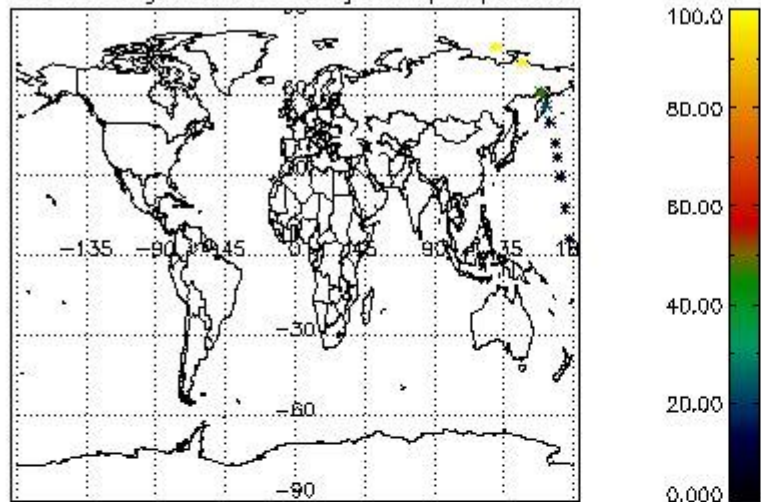
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



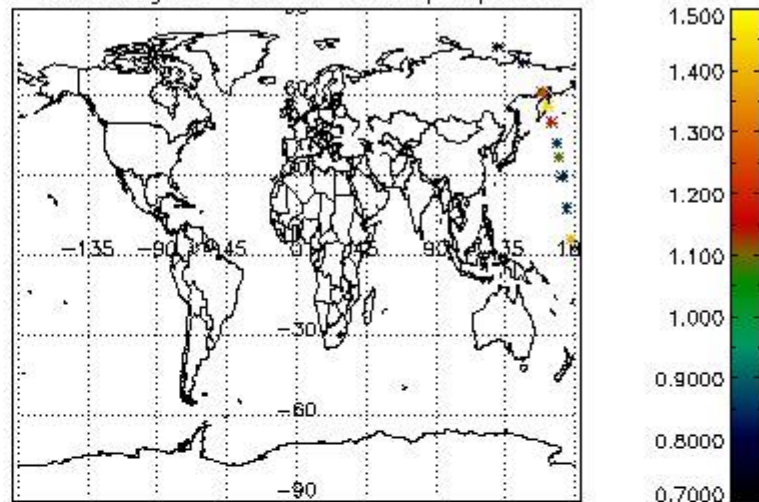
4.2 Plot quality information per product coming from level 1b processing (world map)

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

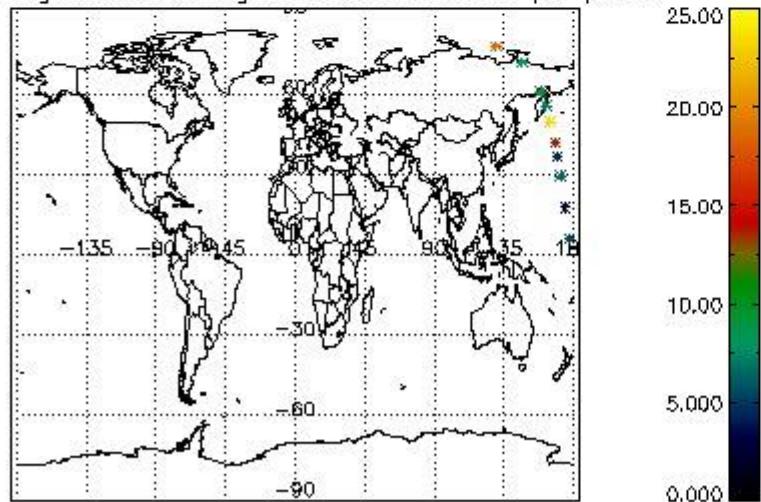
Percentage of cosmic ray hits per profile



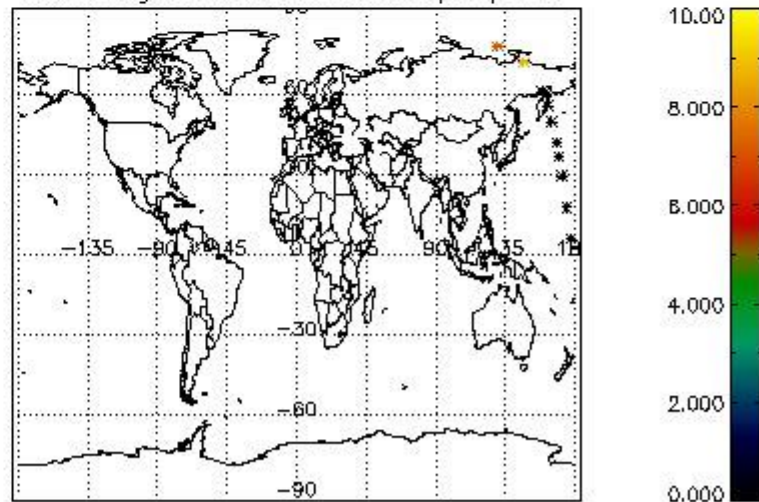
Percentage of datation errors per profile



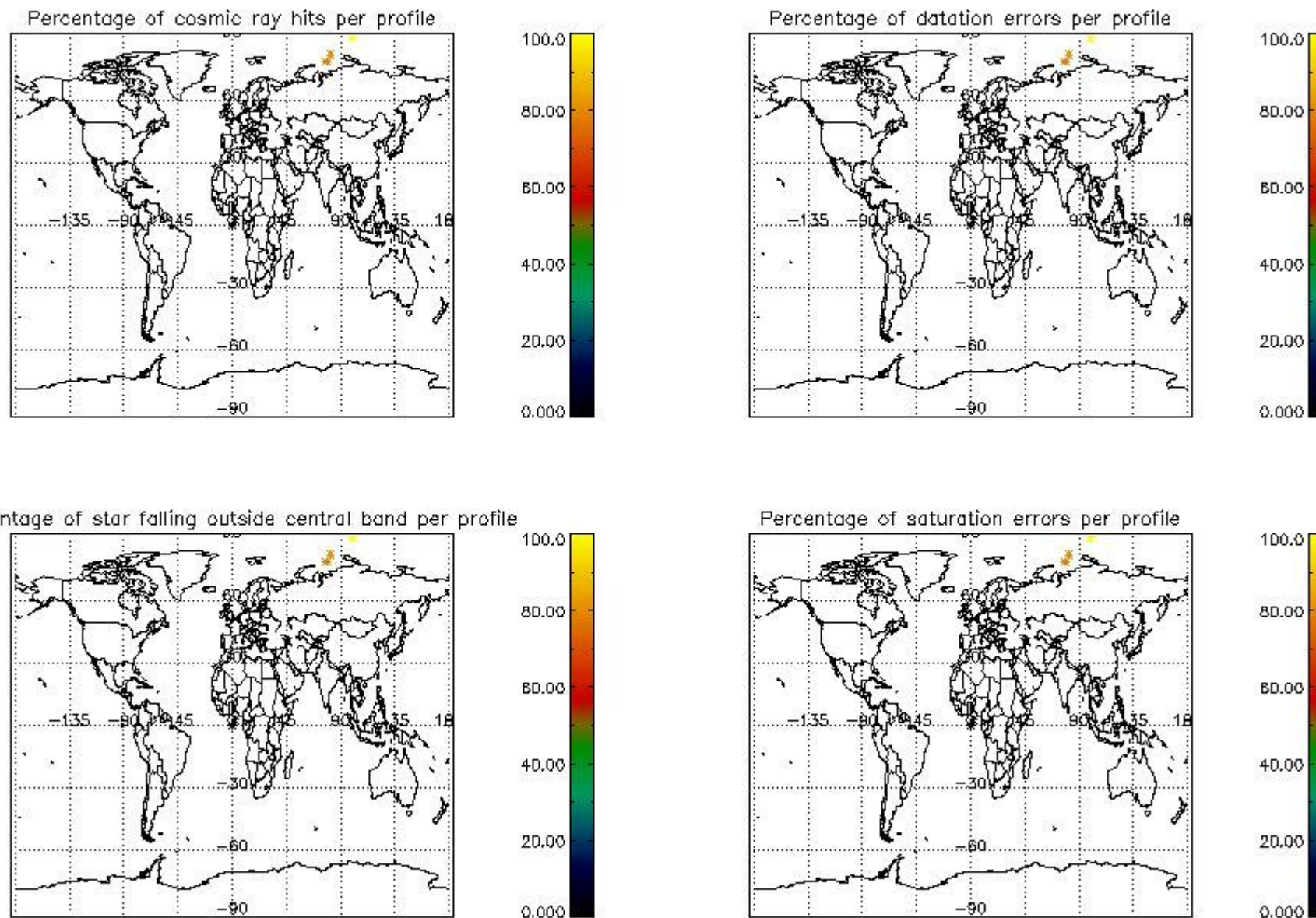
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

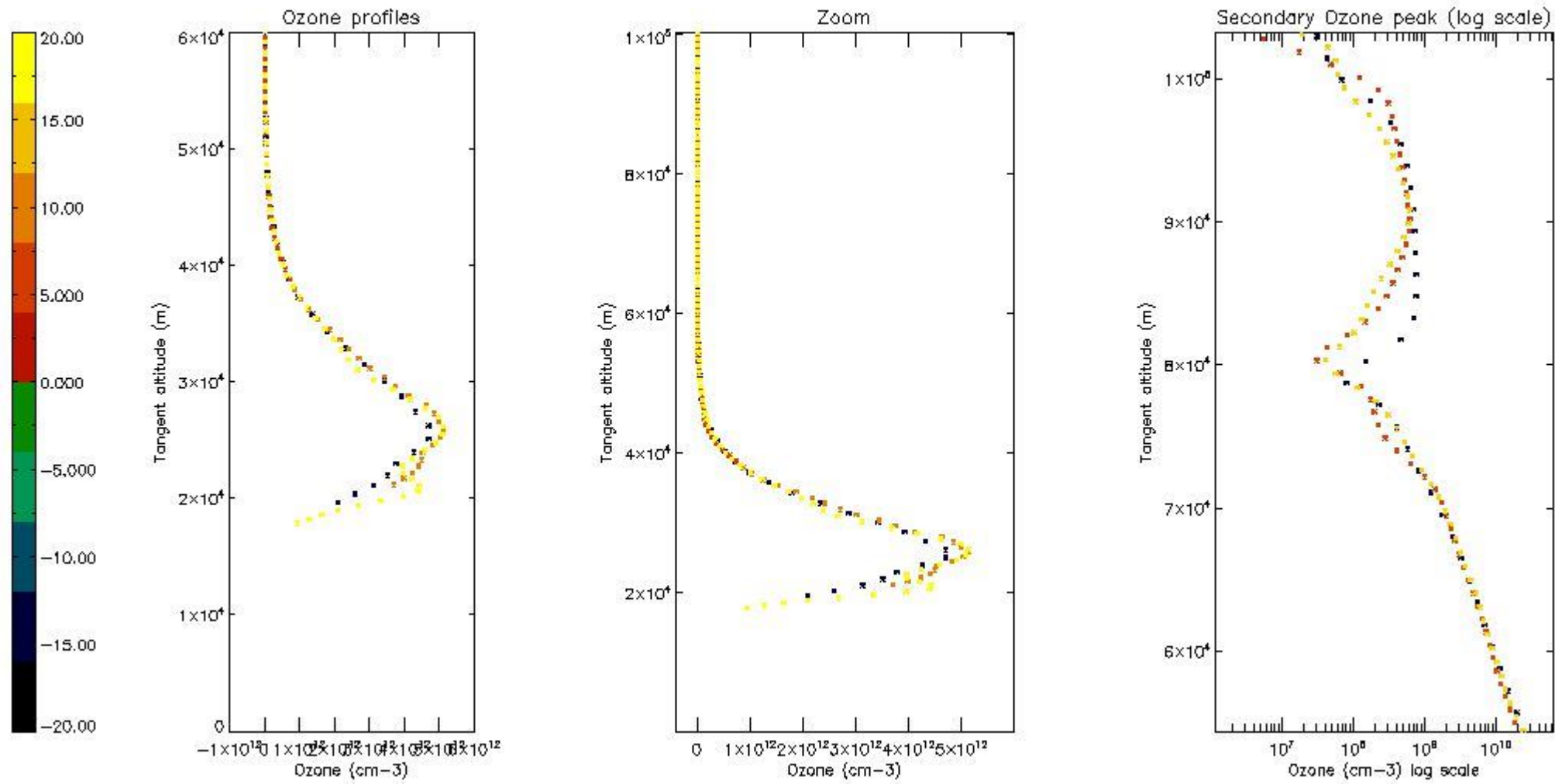
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	30
STD < 20	23

STD < 10	21
STD < 5	18

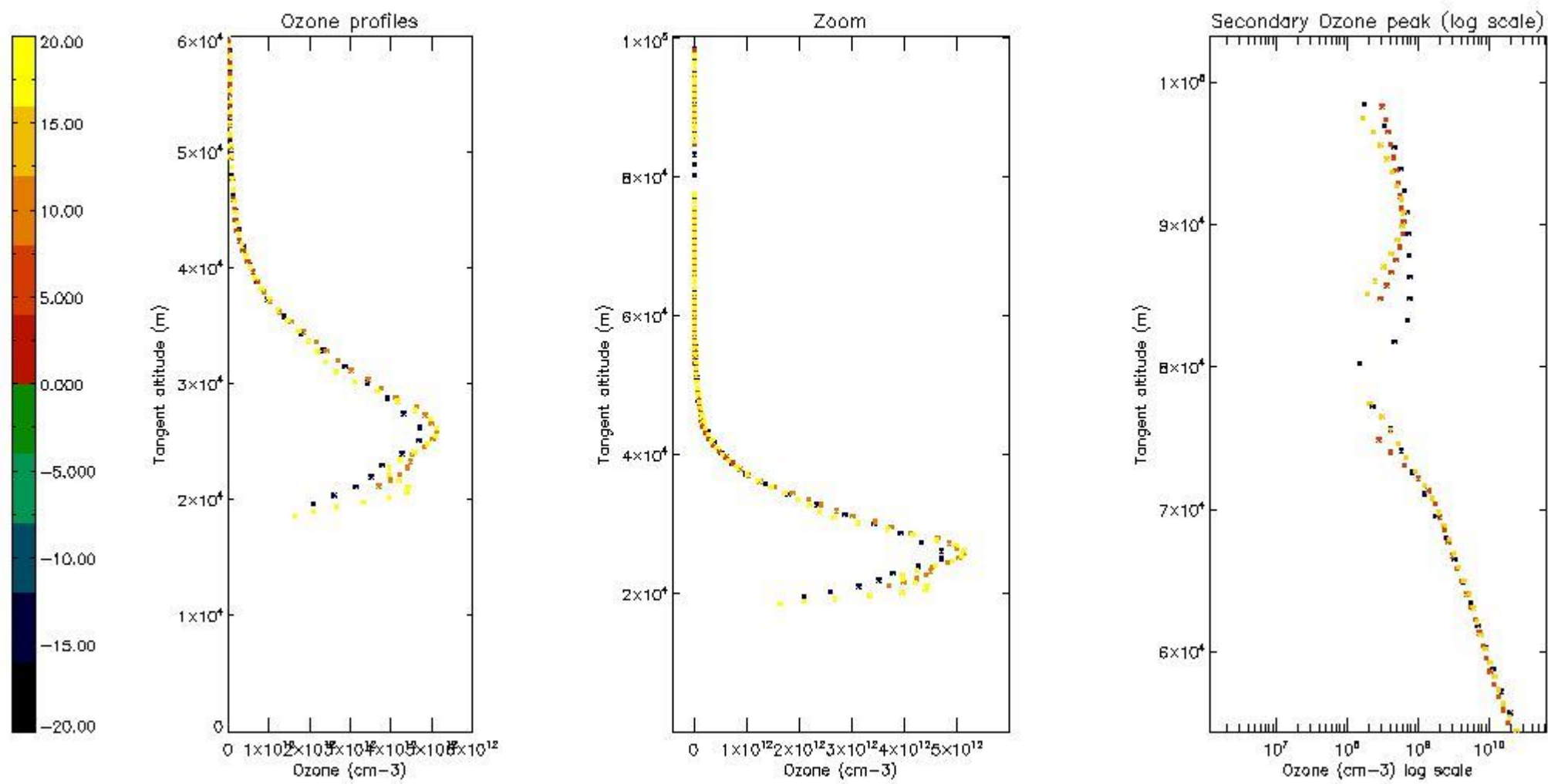
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



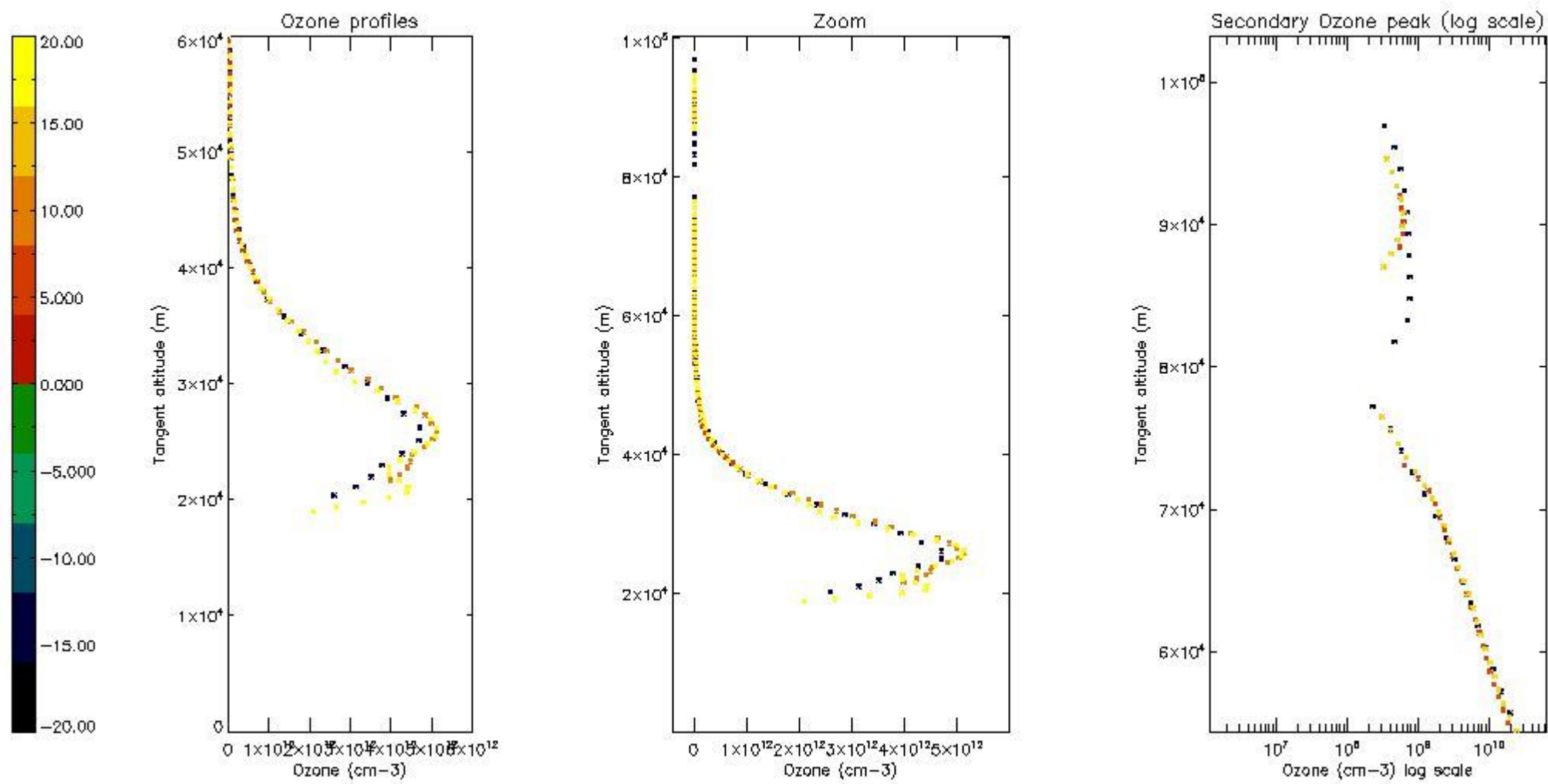
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



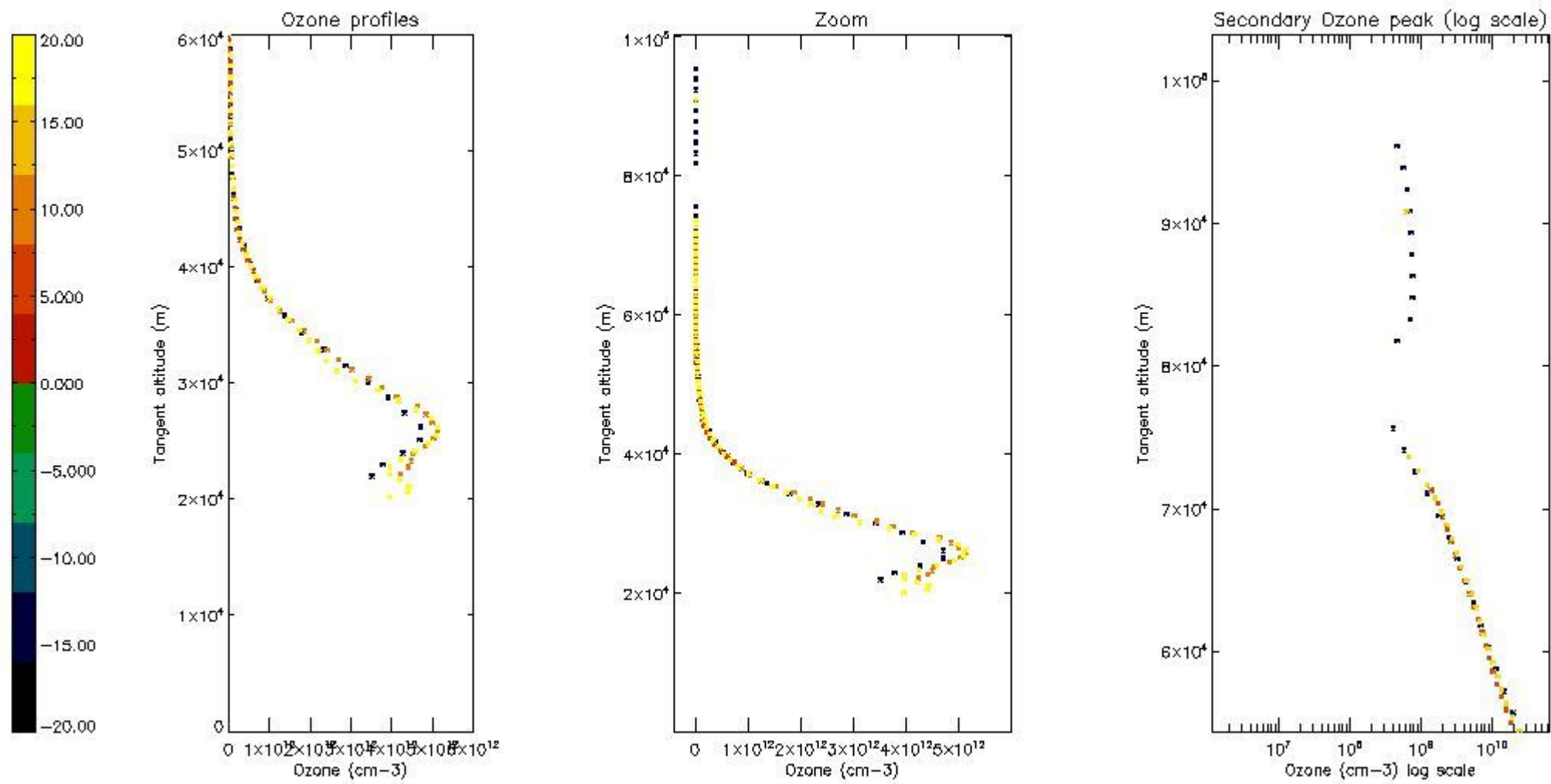
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



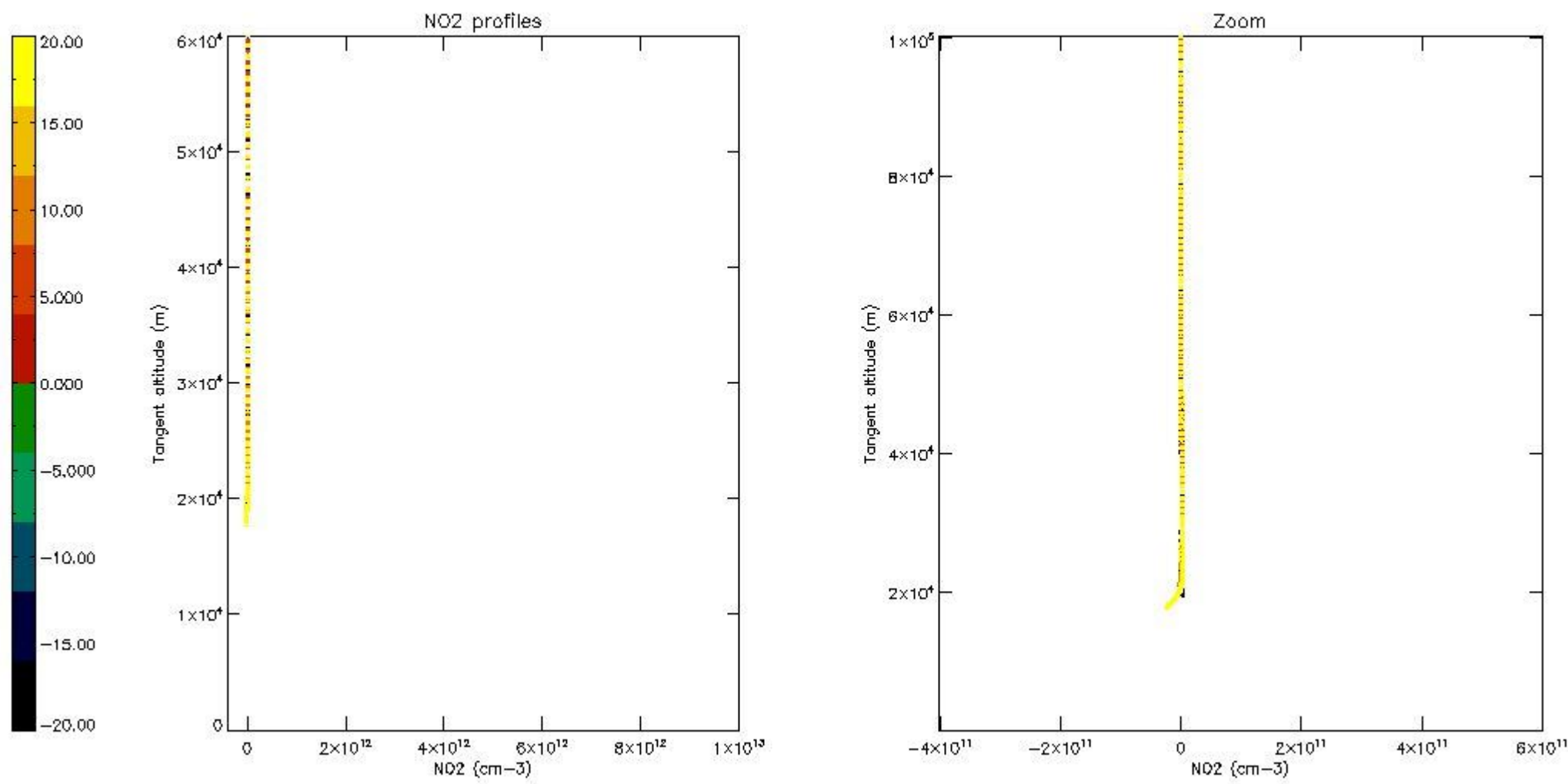
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



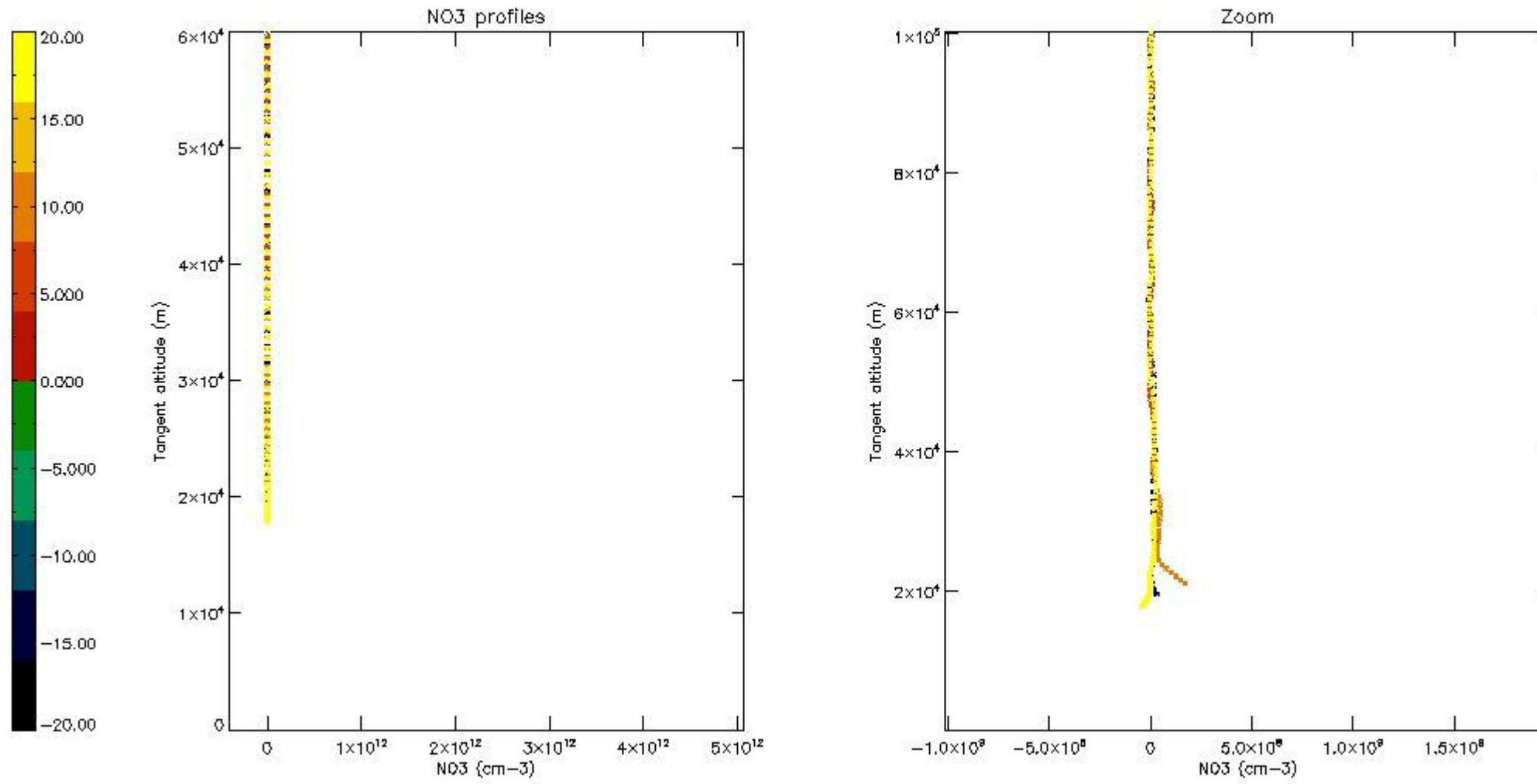
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

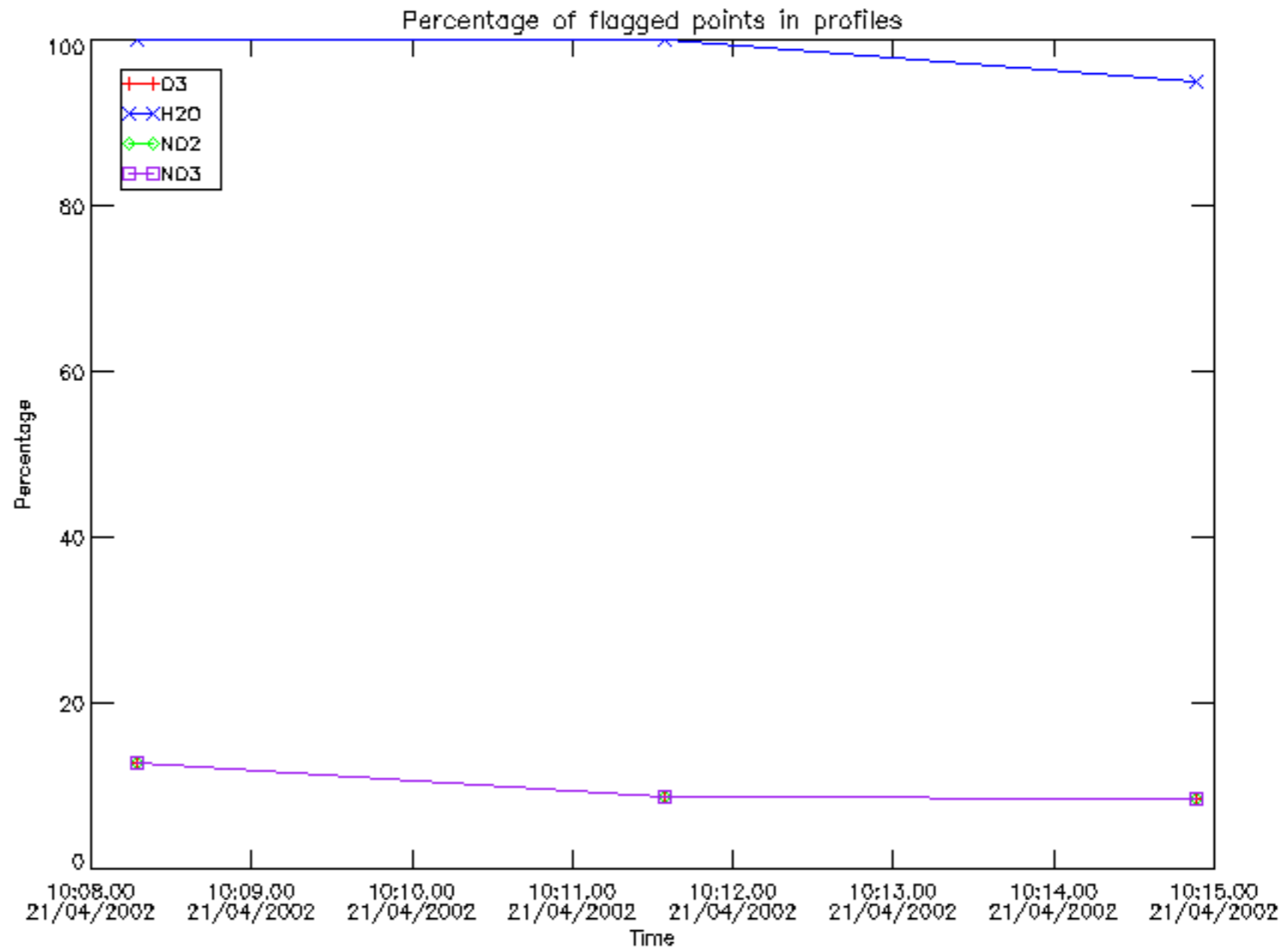
The colorbar represents the latitude.



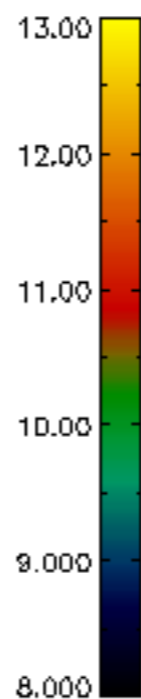
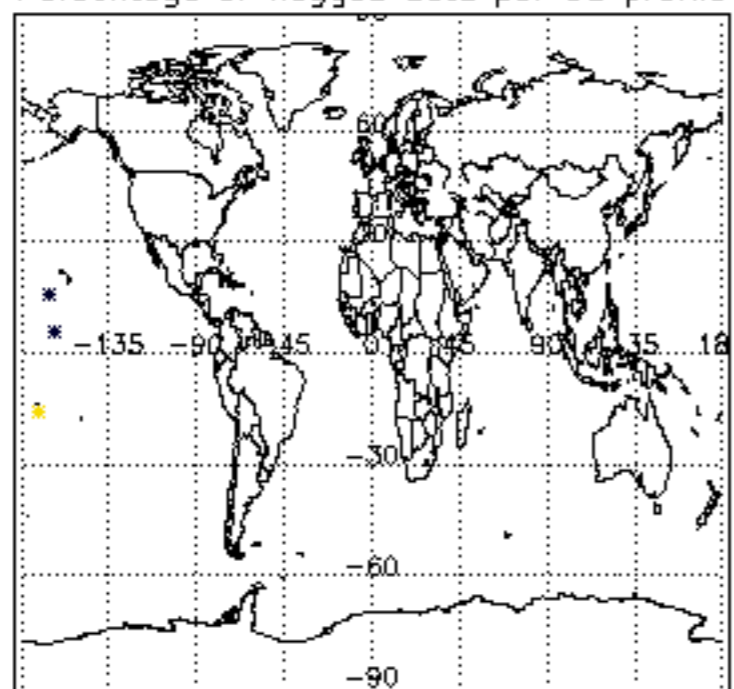
6. Auxiliary Data Files used for the production reported in section 2

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

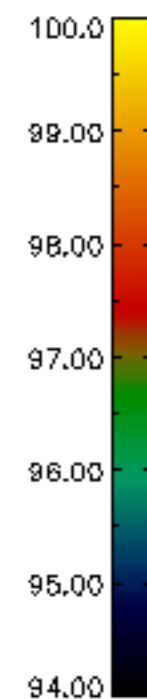
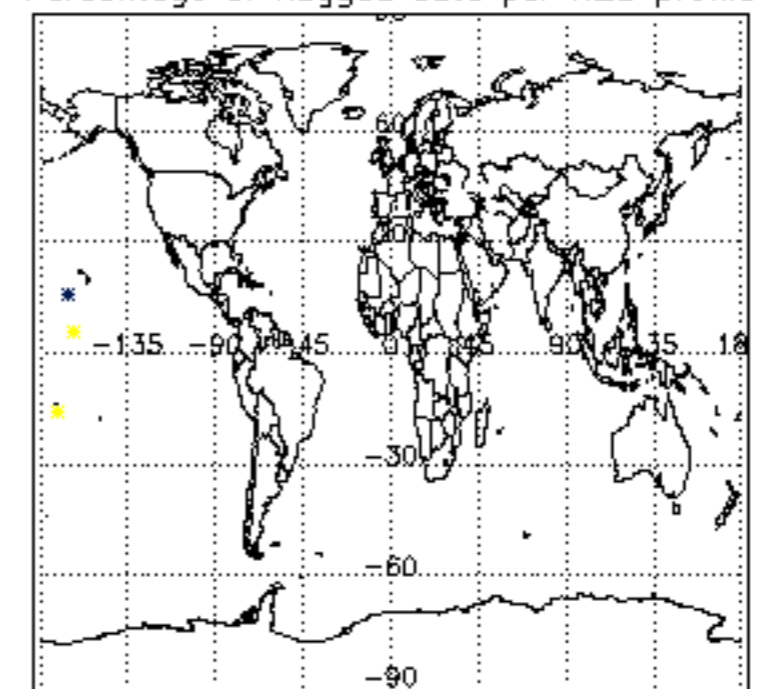
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	21-APR-2002 10:08:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-APR-2002 10:08:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-APR-2002 10:08:17



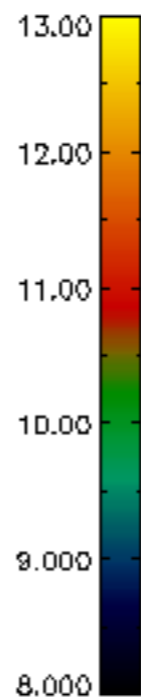
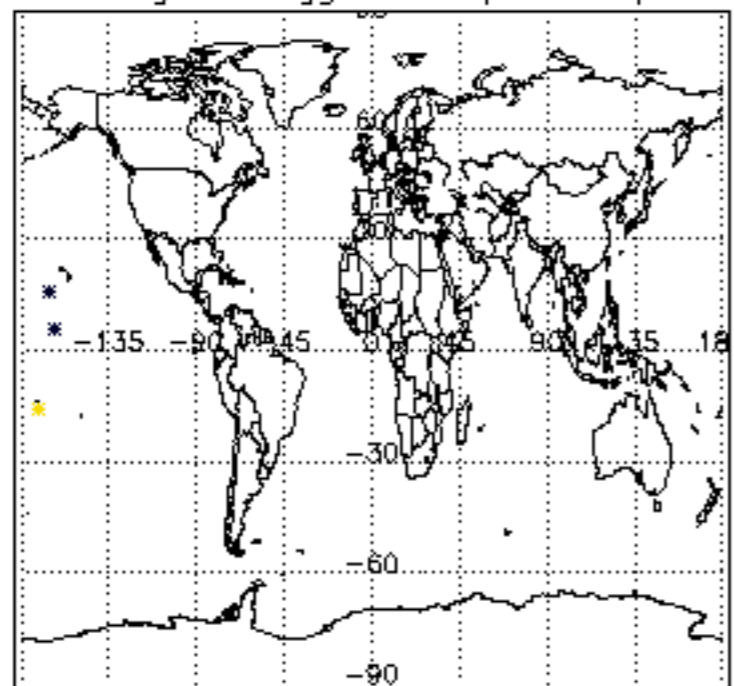
Percentage of flagged data per D3 profile



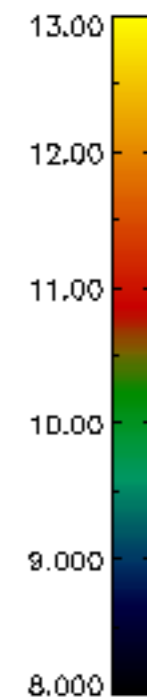
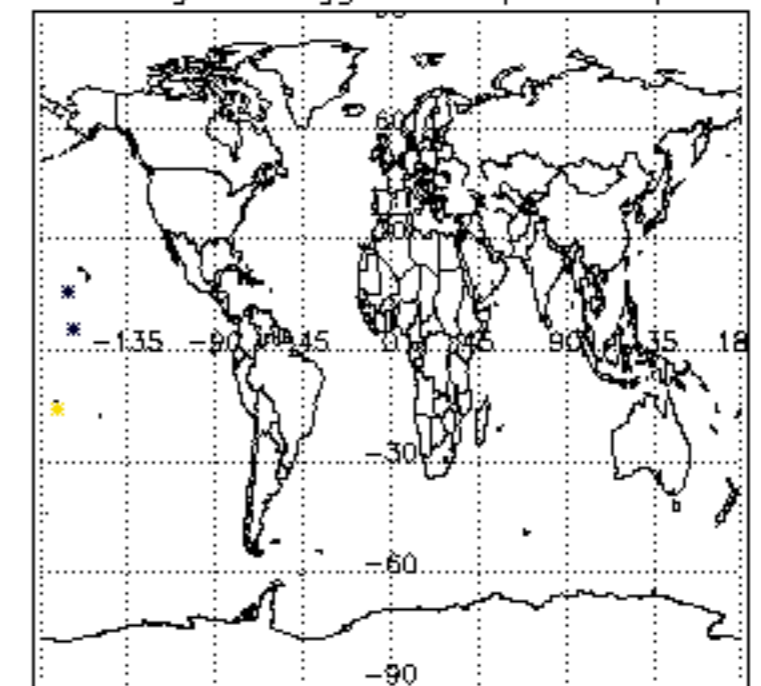
Percentage of flagged data per H2O profile

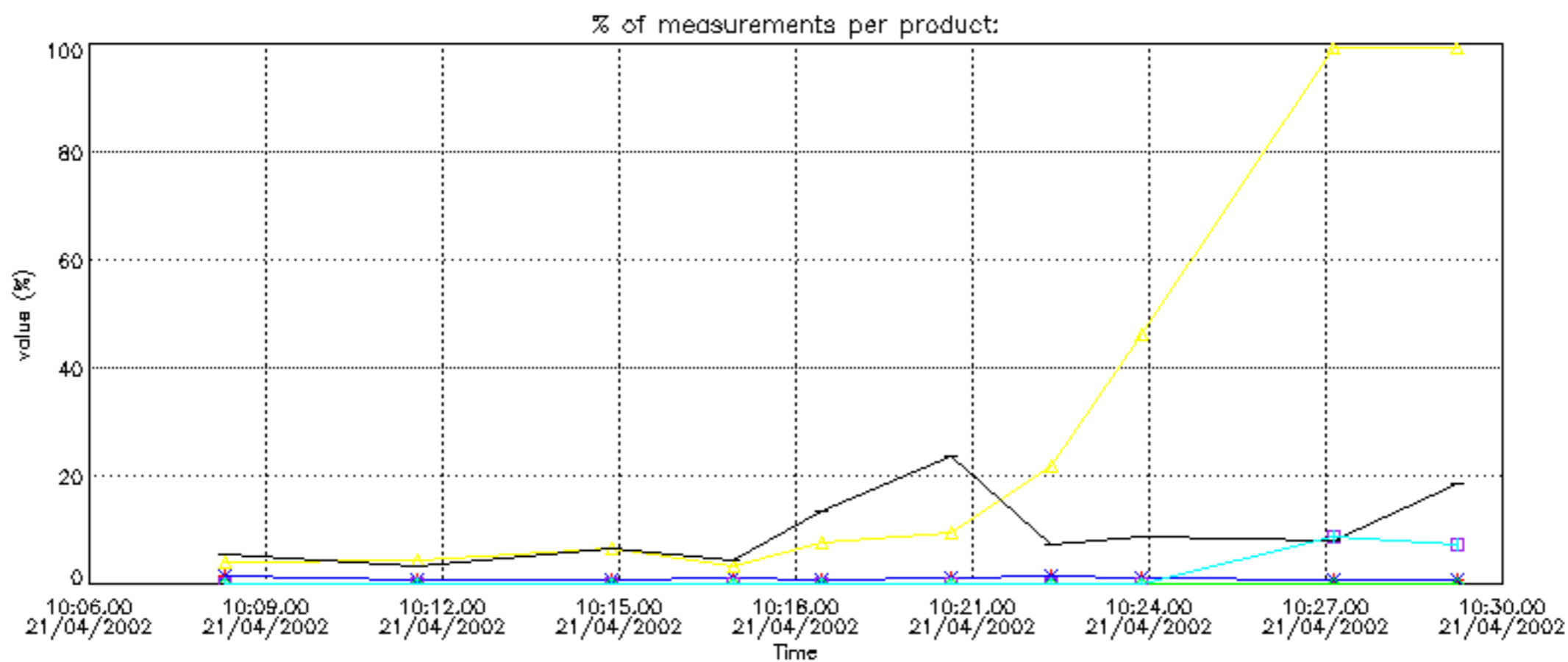


Percentage of flagged data per NO2 profile

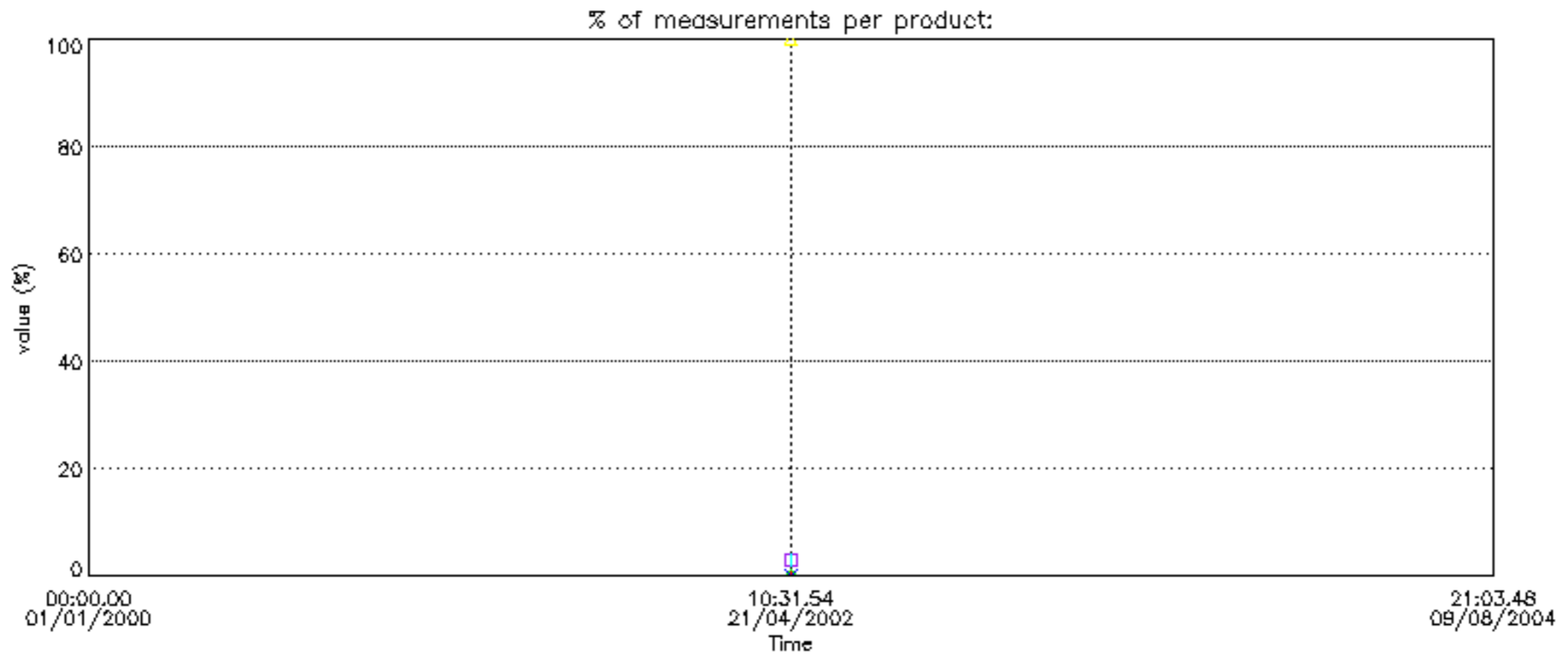


Percentage of flagged data per NO3 profile

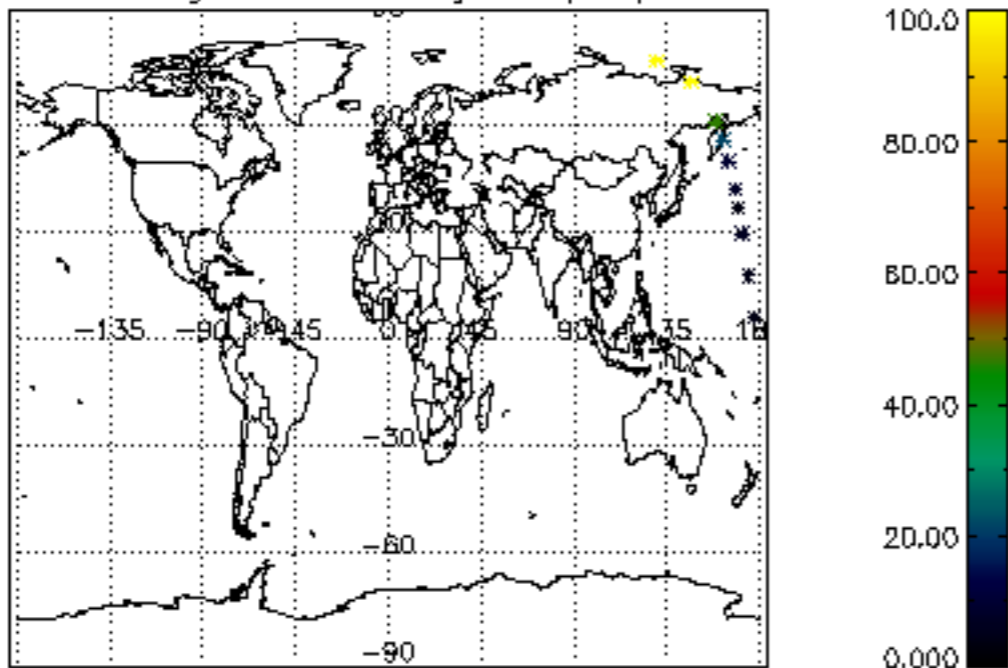




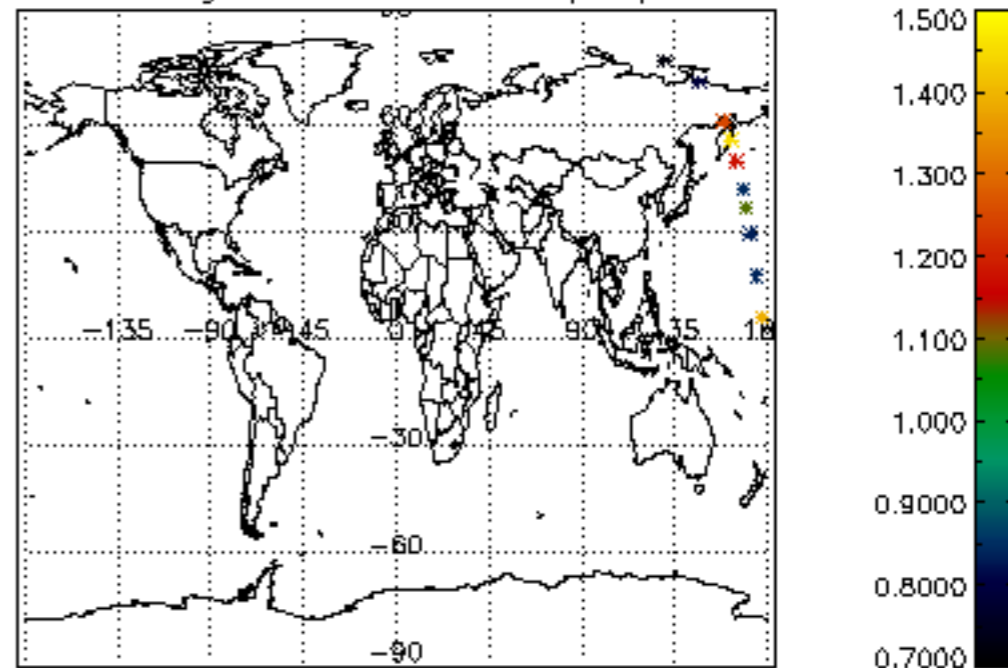
- + invalid
- x with datation errors
- ◇ with non-converged ray path
- containing saturated samples
- △ where cosmic rays have been detected
- where star falls outside central band
- ┌ where problem occurred during full transm



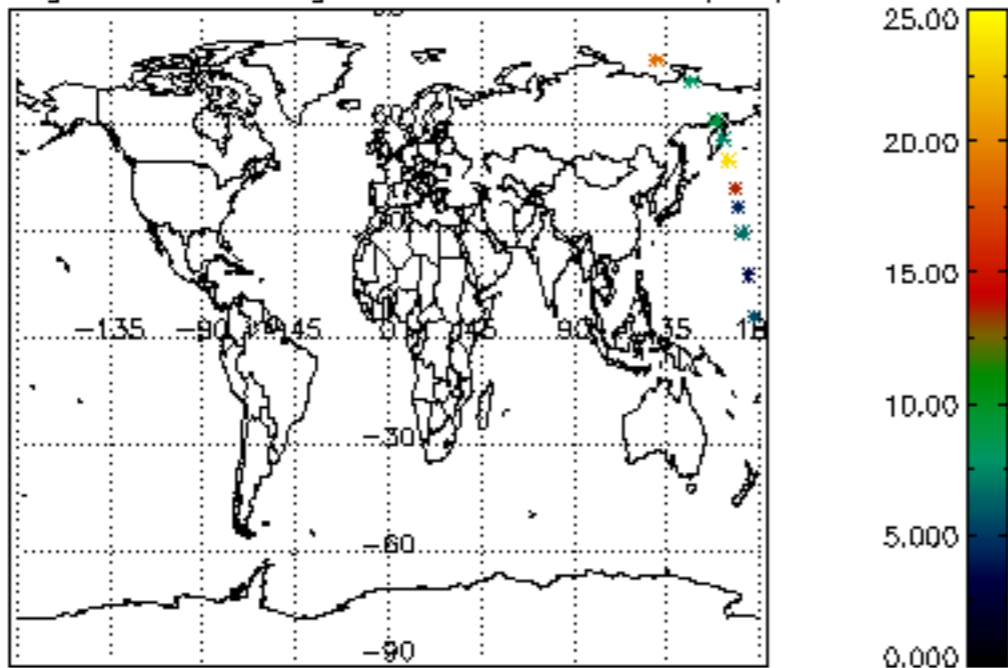
Percentage of cosmic ray hits per profile



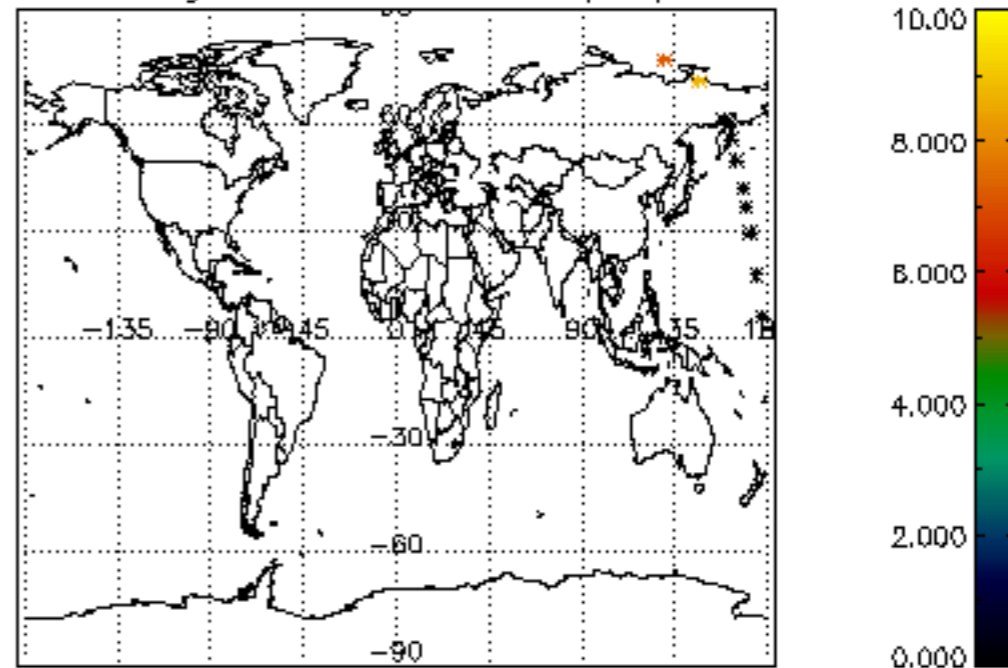
Percentage of datation errors per profile



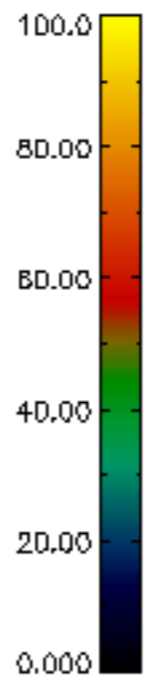
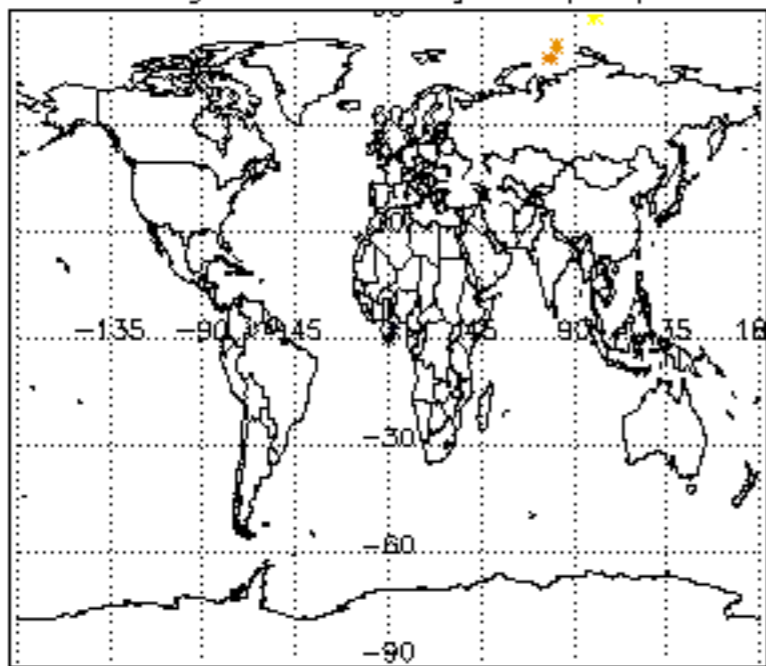
Percentage of star falling outside central band per profile



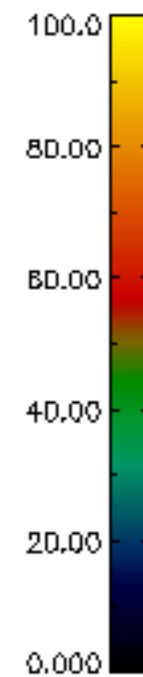
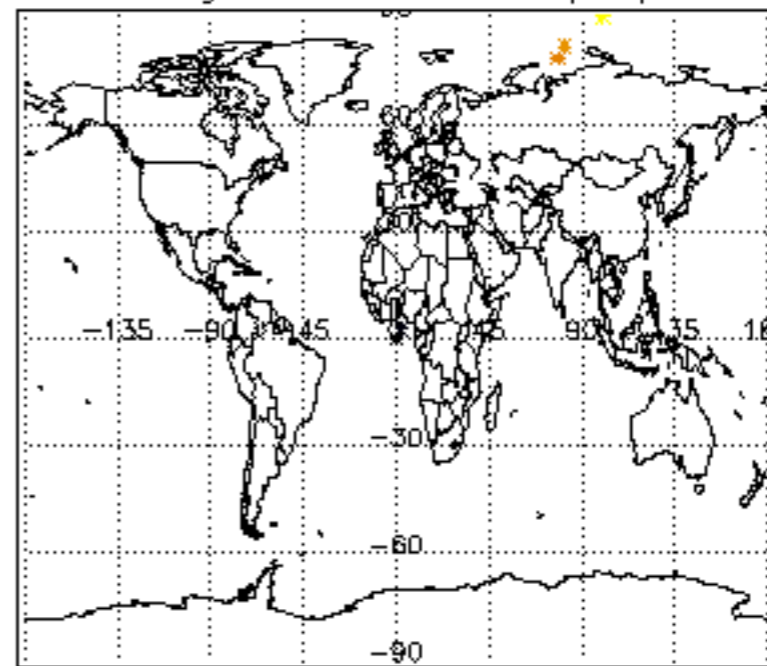
Percentage of saturation errors per profile



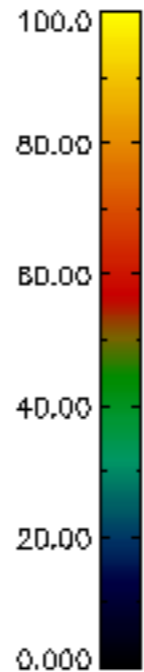
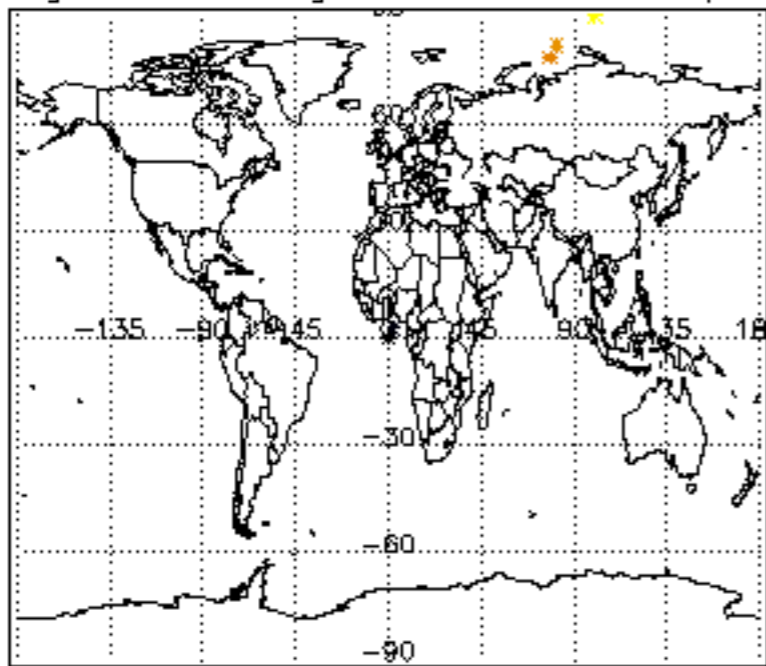
Percentage of cosmic ray hits per profile



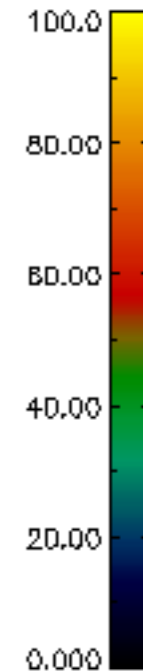
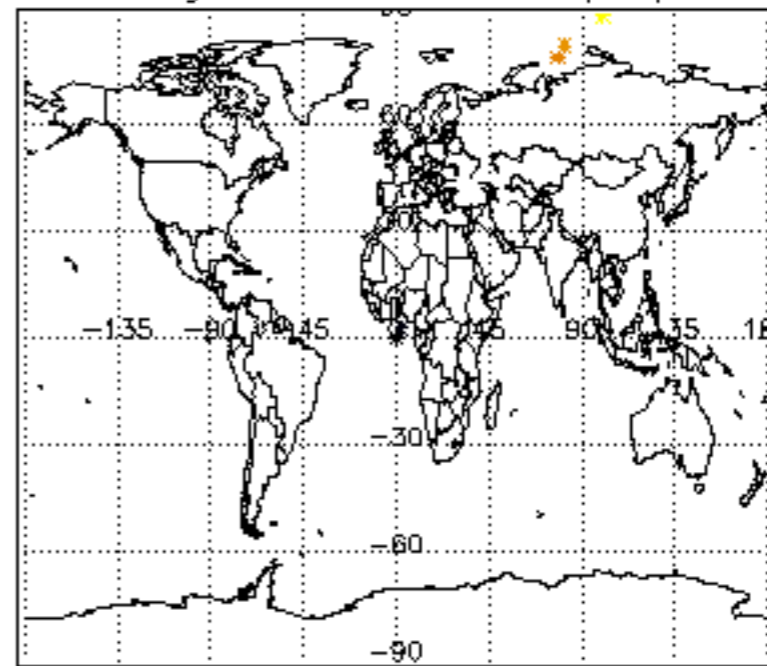
Percentage of datation errors per profile

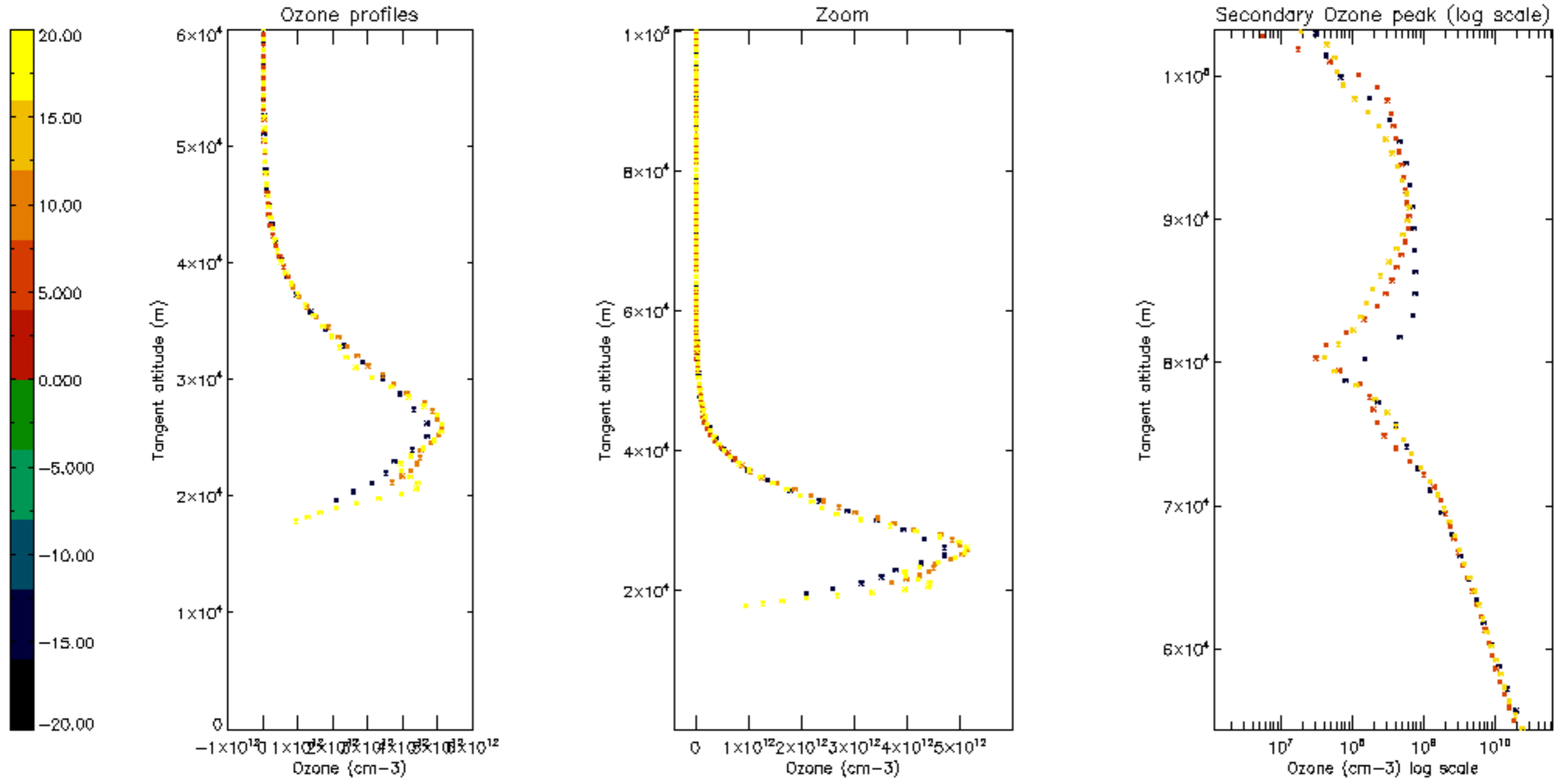


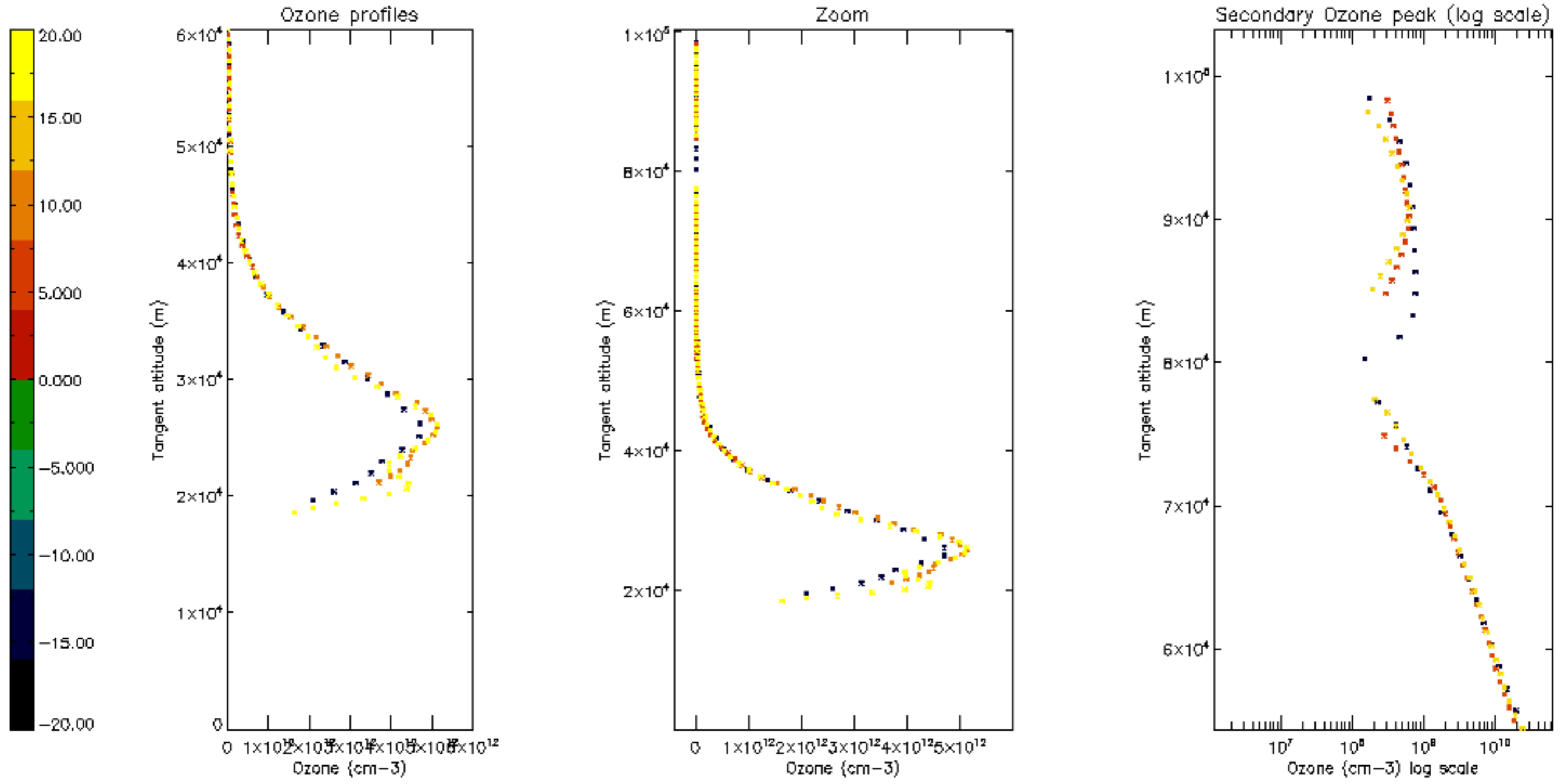
Percentage of star falling outside central band per profile

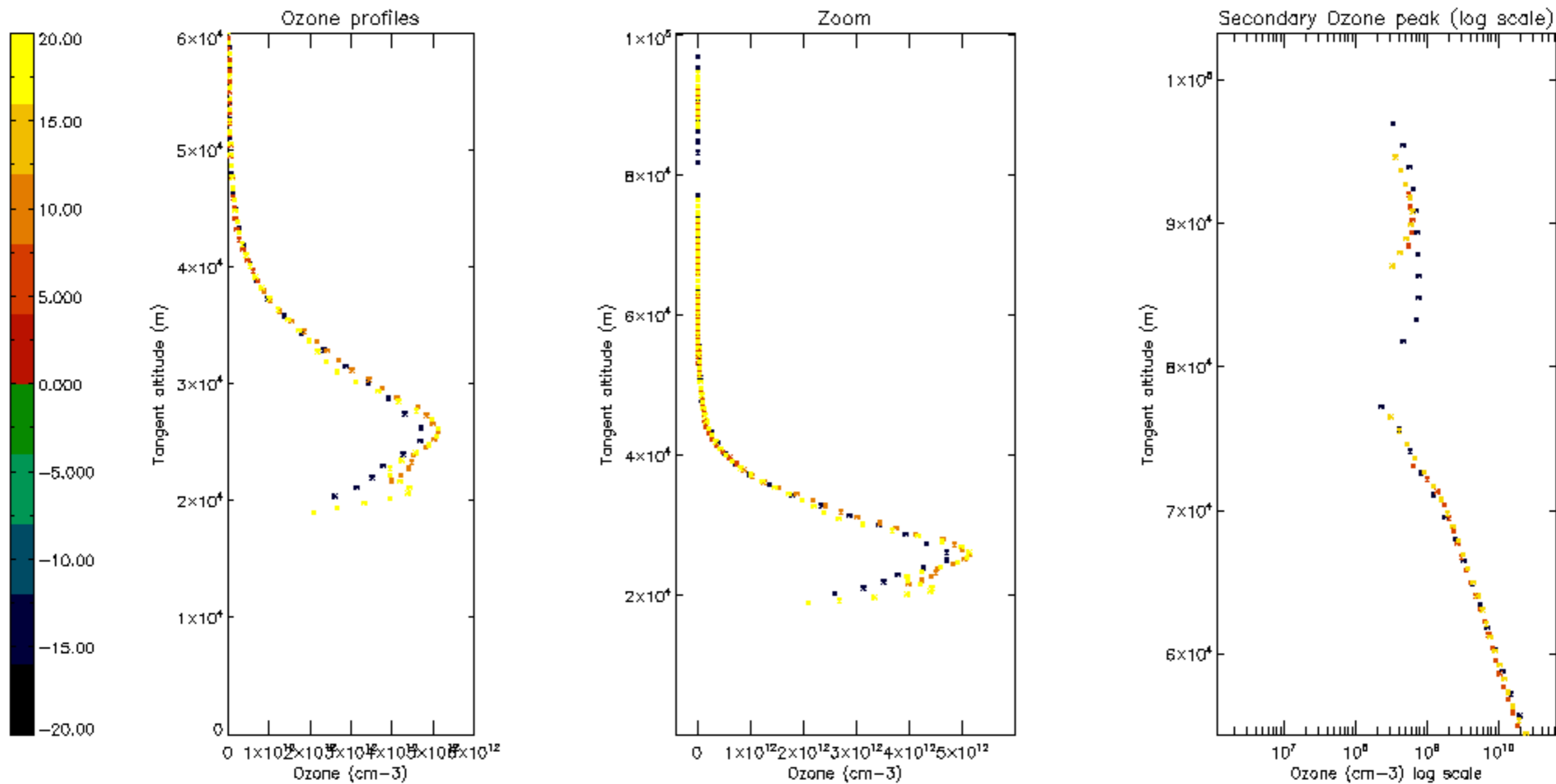


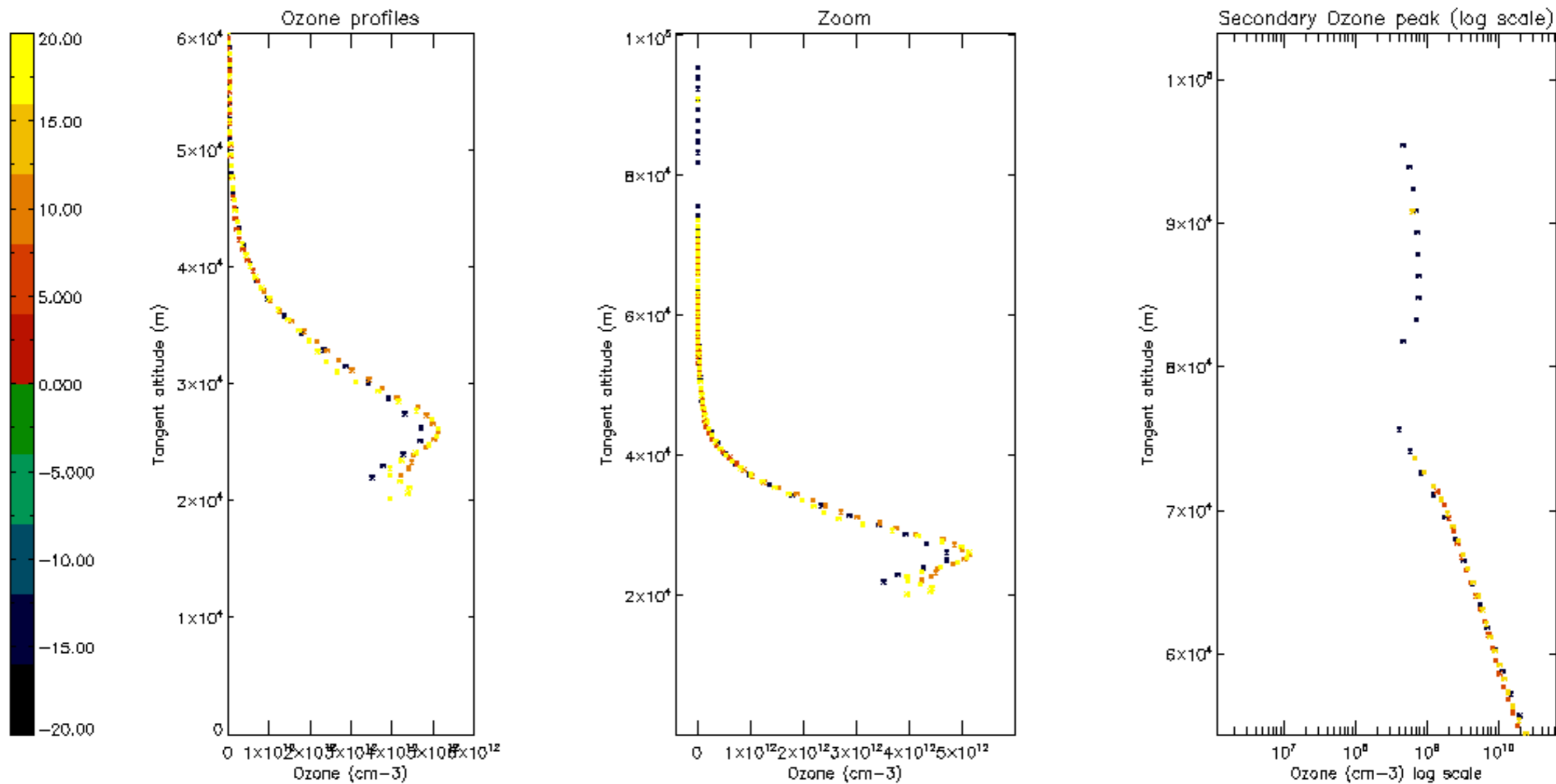
Percentage of saturation errors per profile

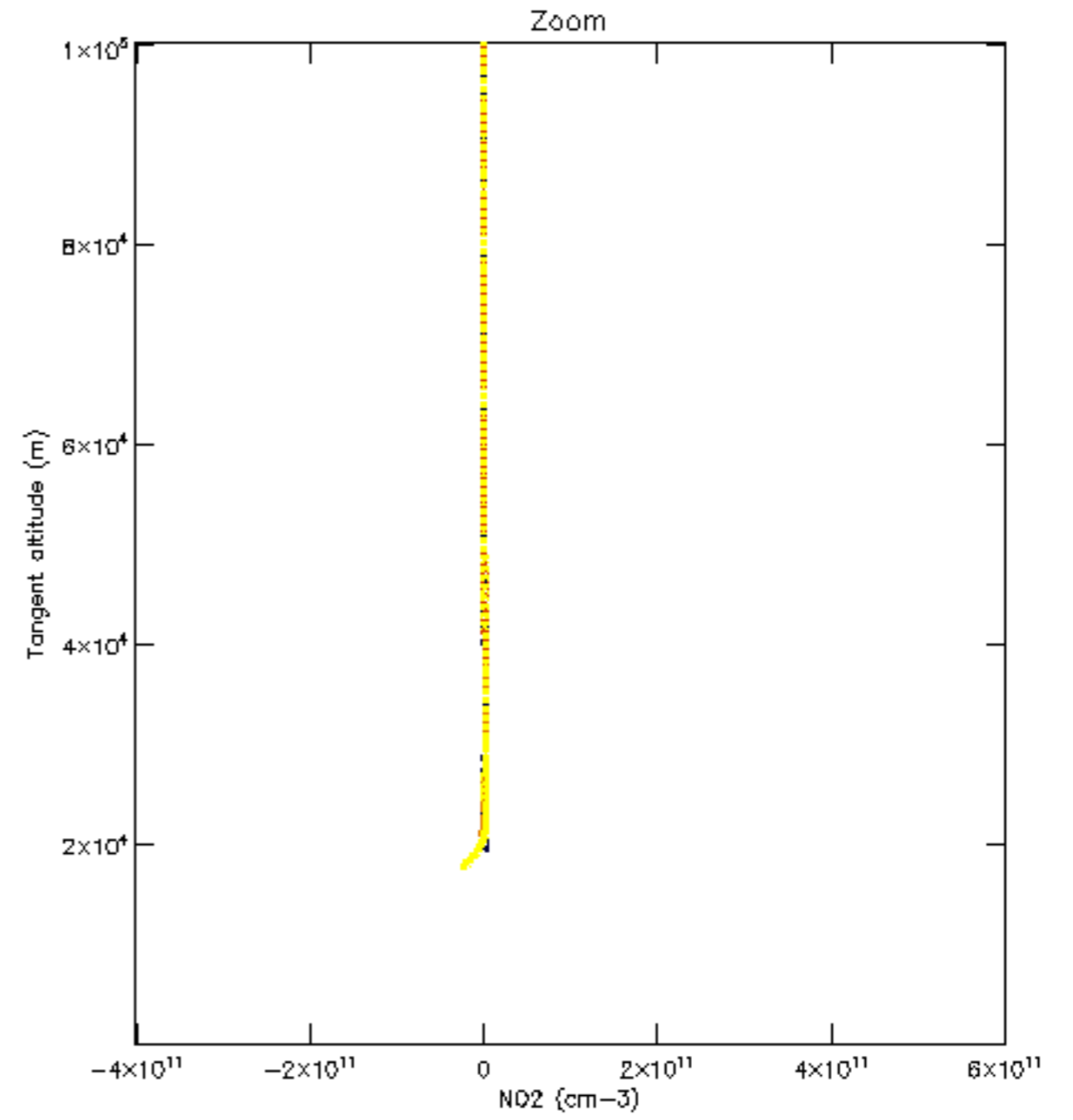
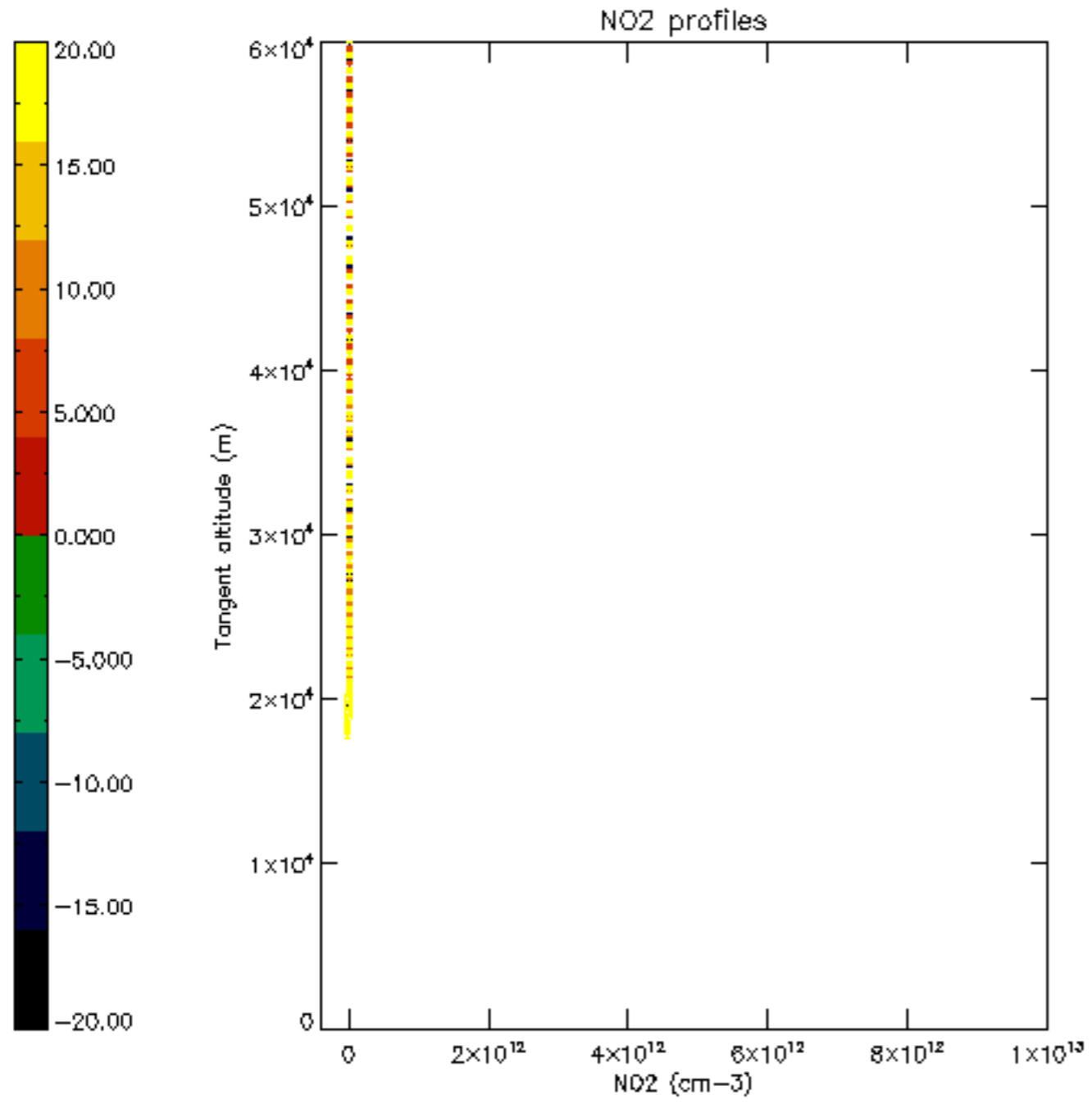


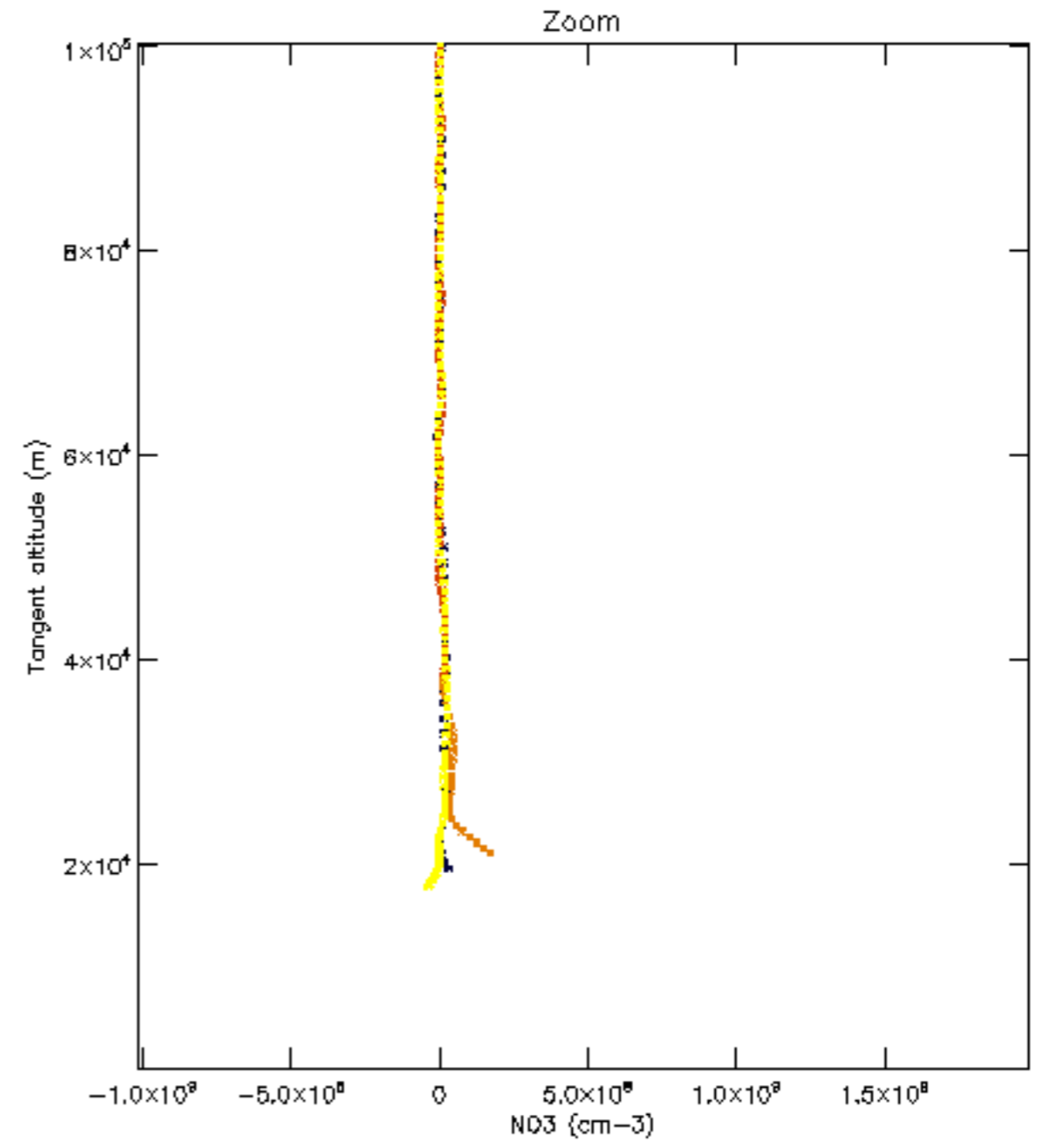
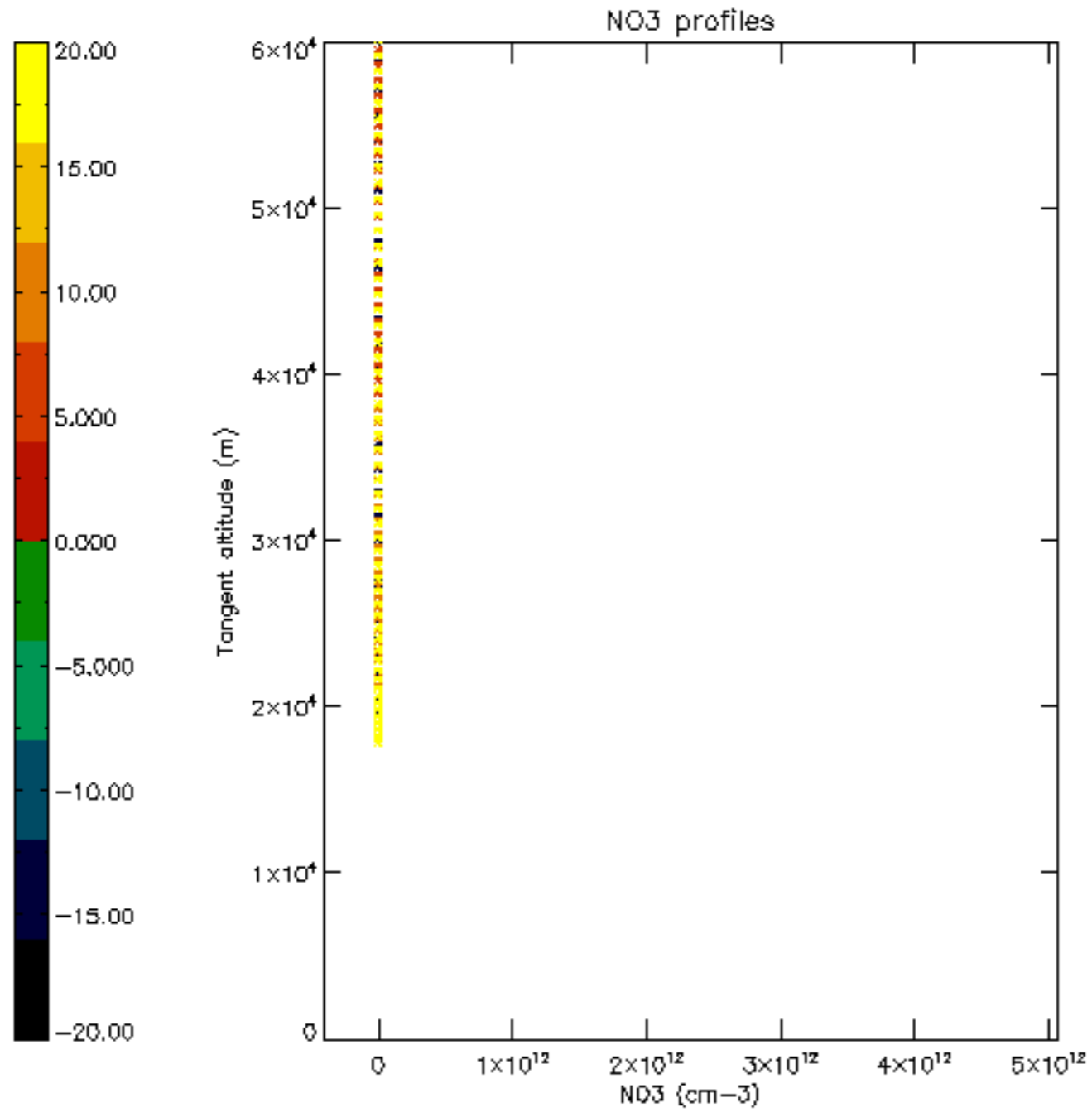


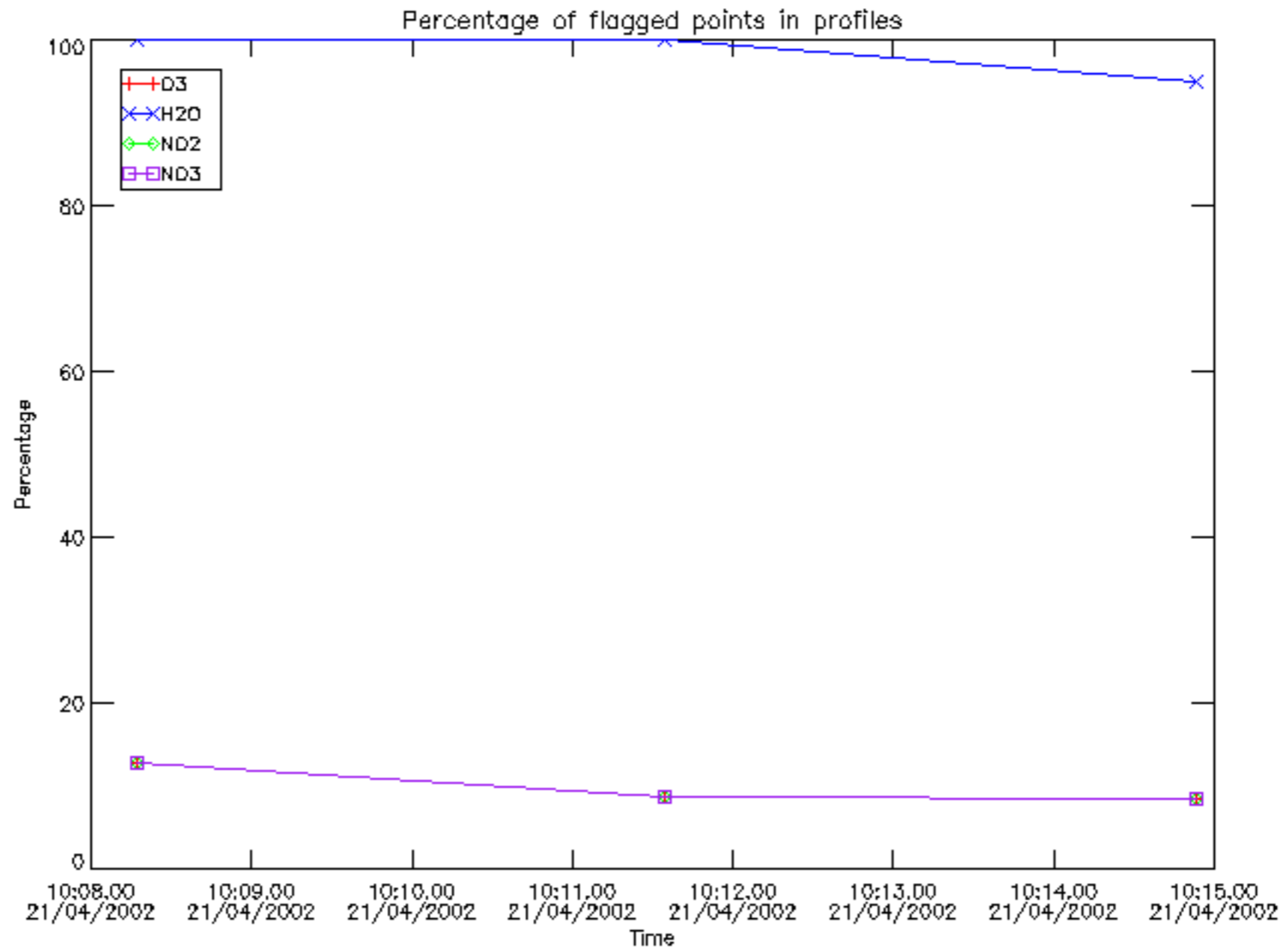




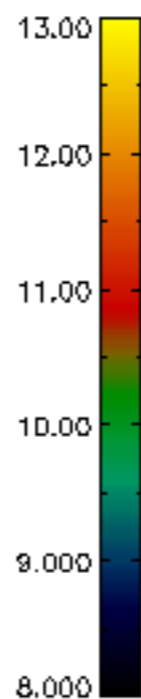
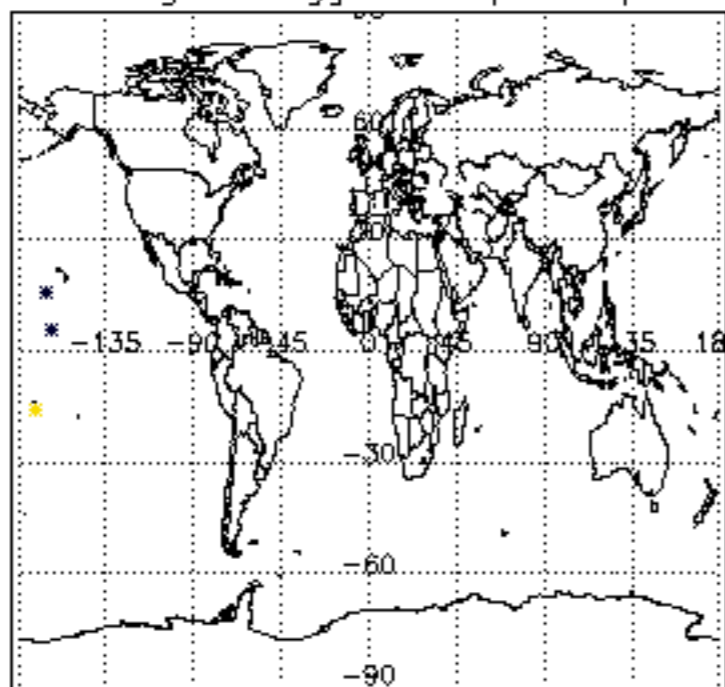




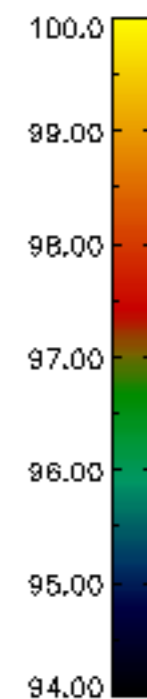
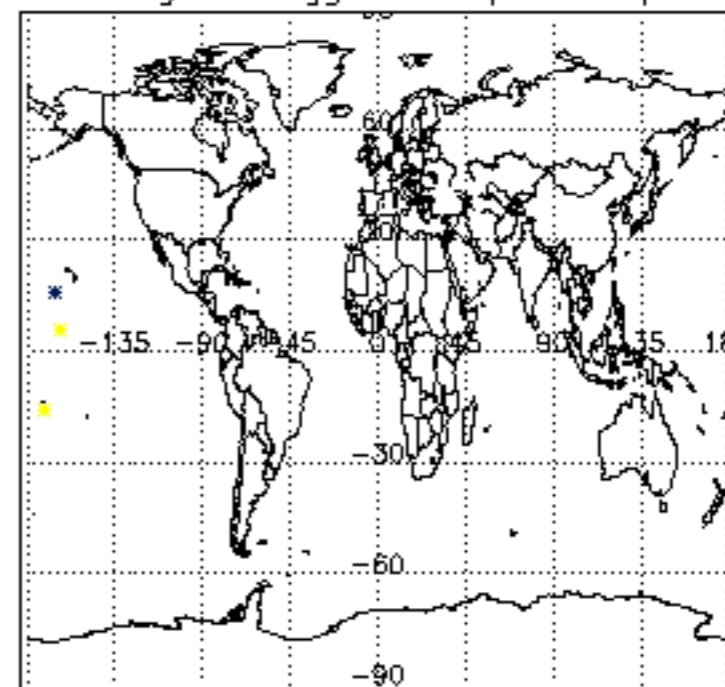




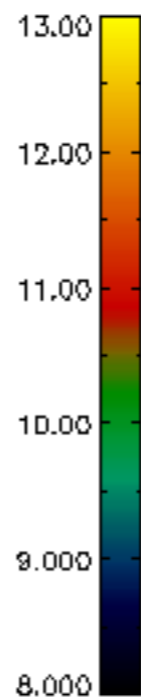
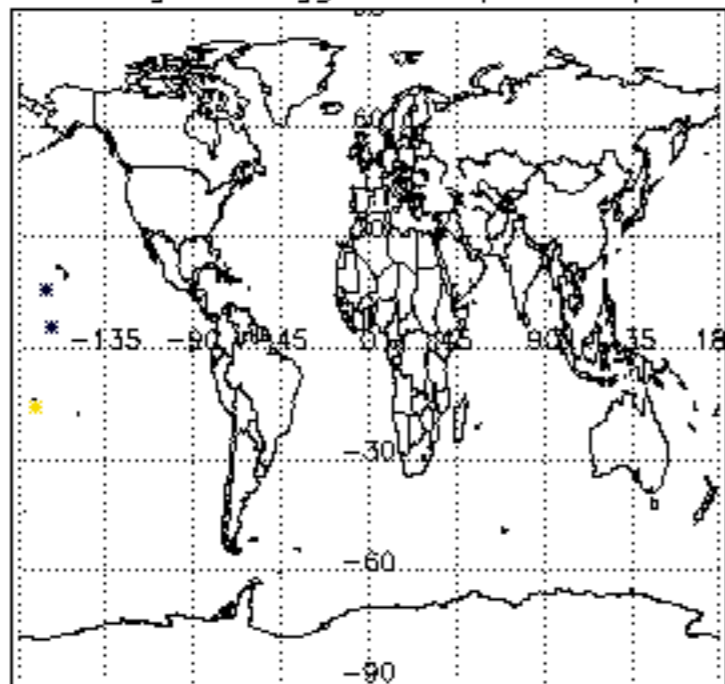
Percentage of flagged data per D3 profile



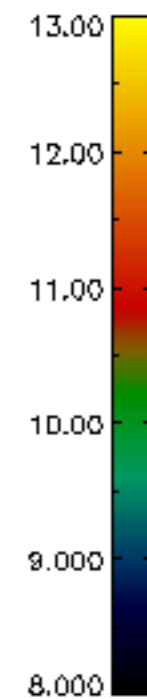
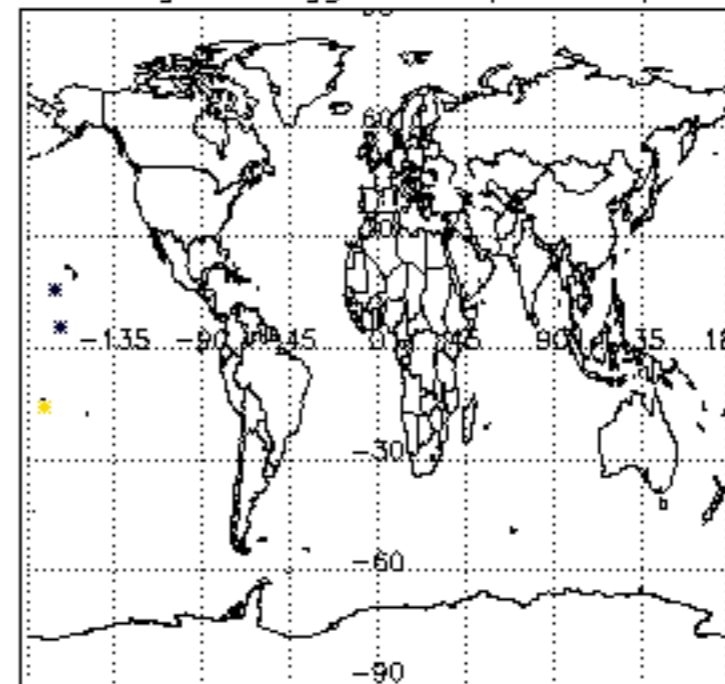
Percentage of flagged data per H2O profile

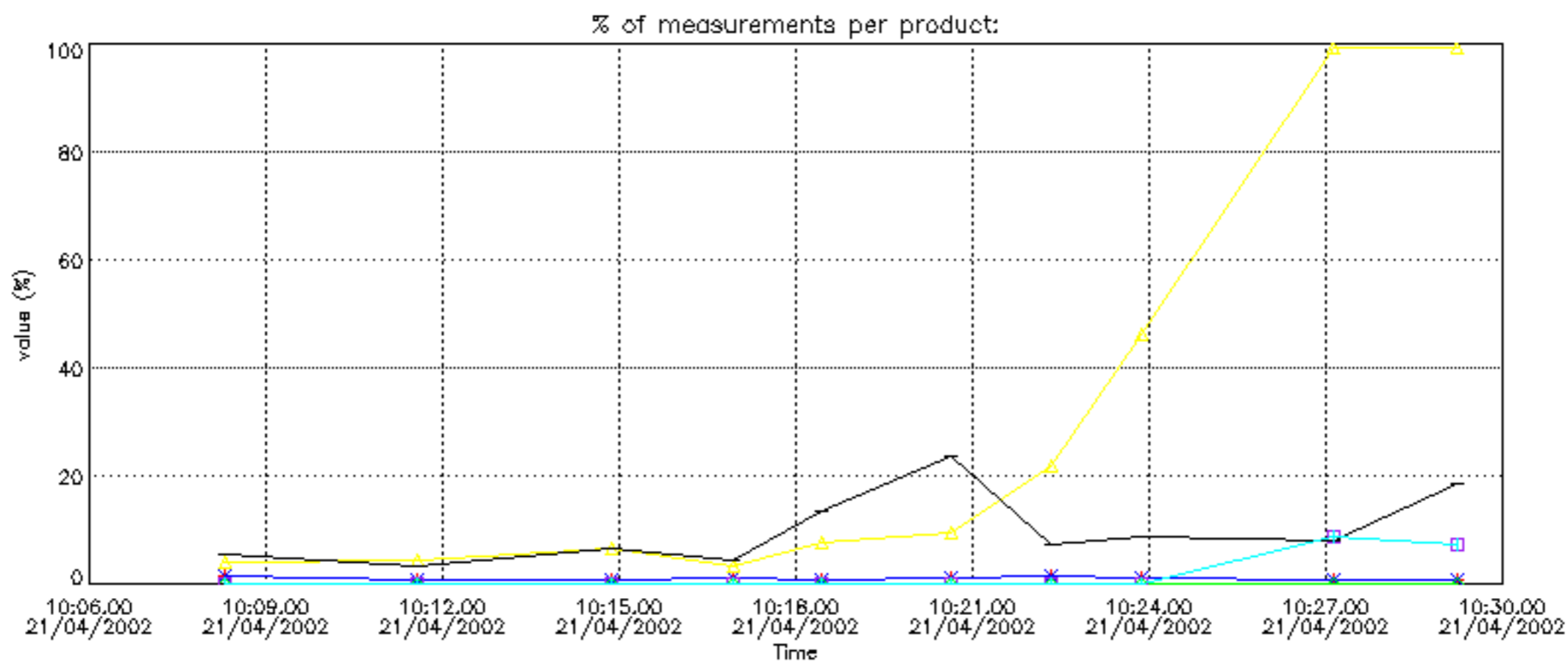


Percentage of flagged data per NO2 profile

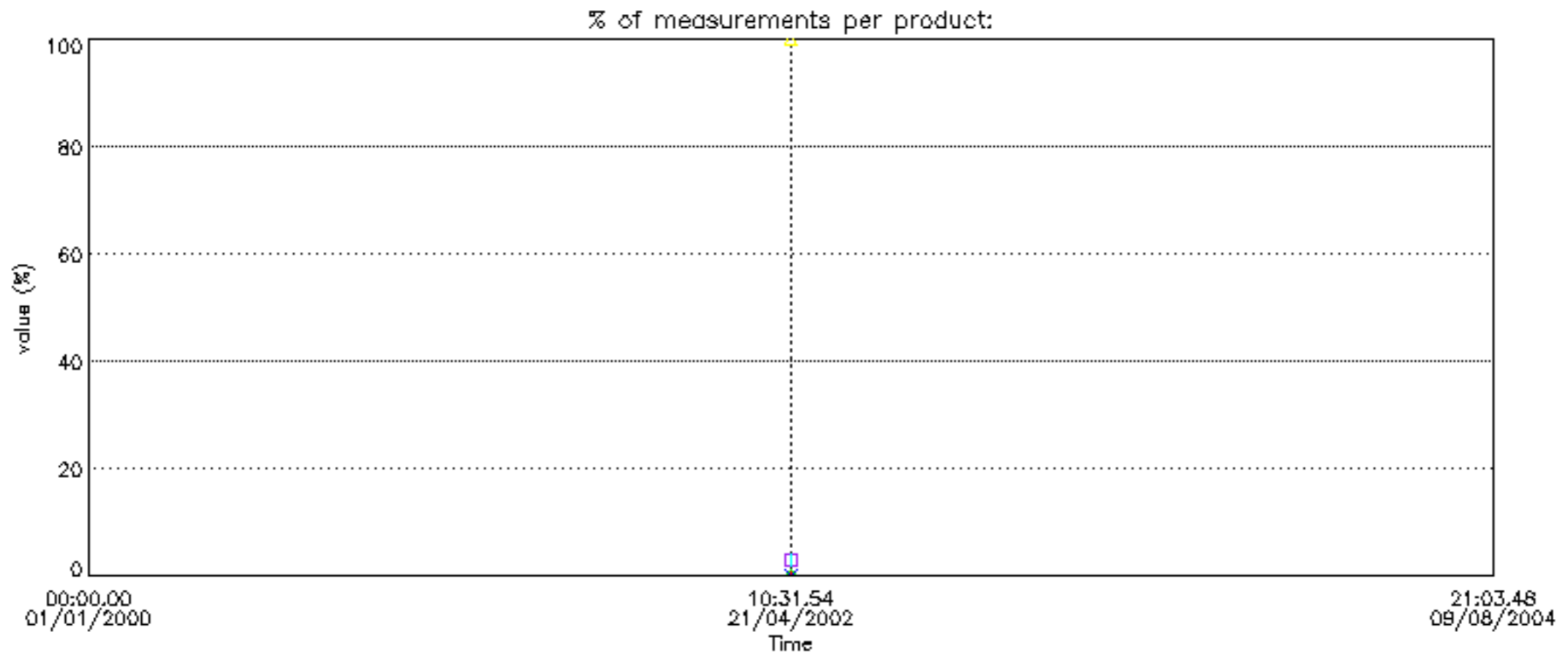


Percentage of flagged data per NO3 profile

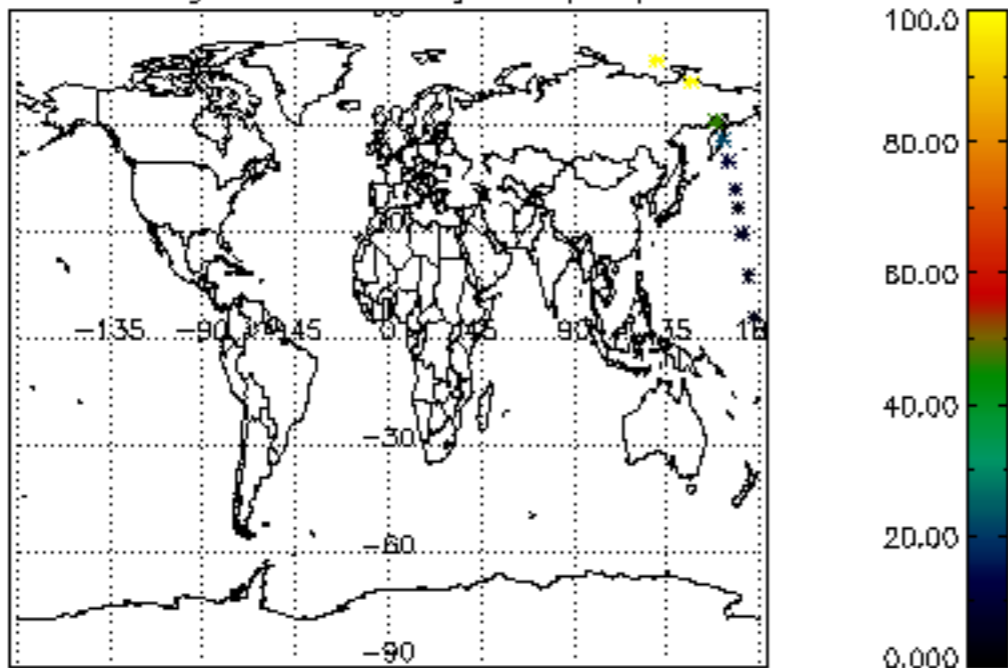




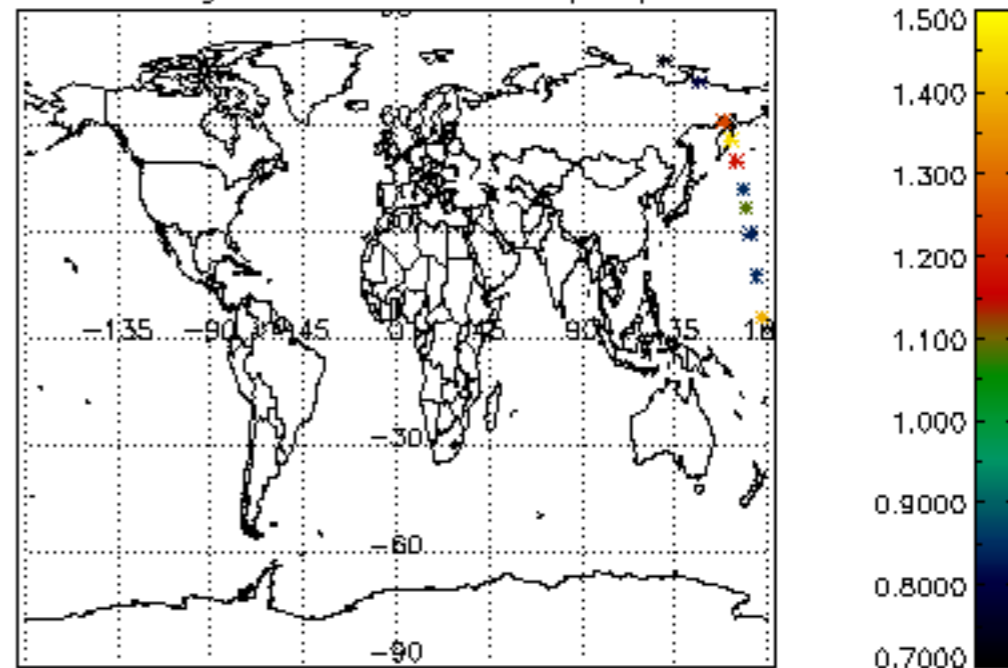
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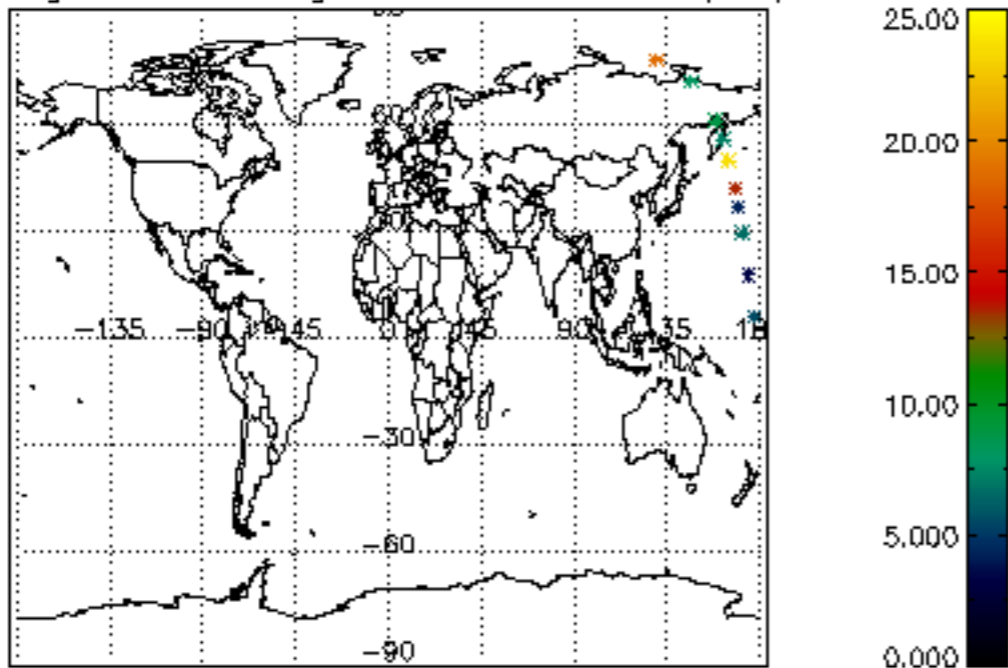
Percentage of cosmic ray hits per profile



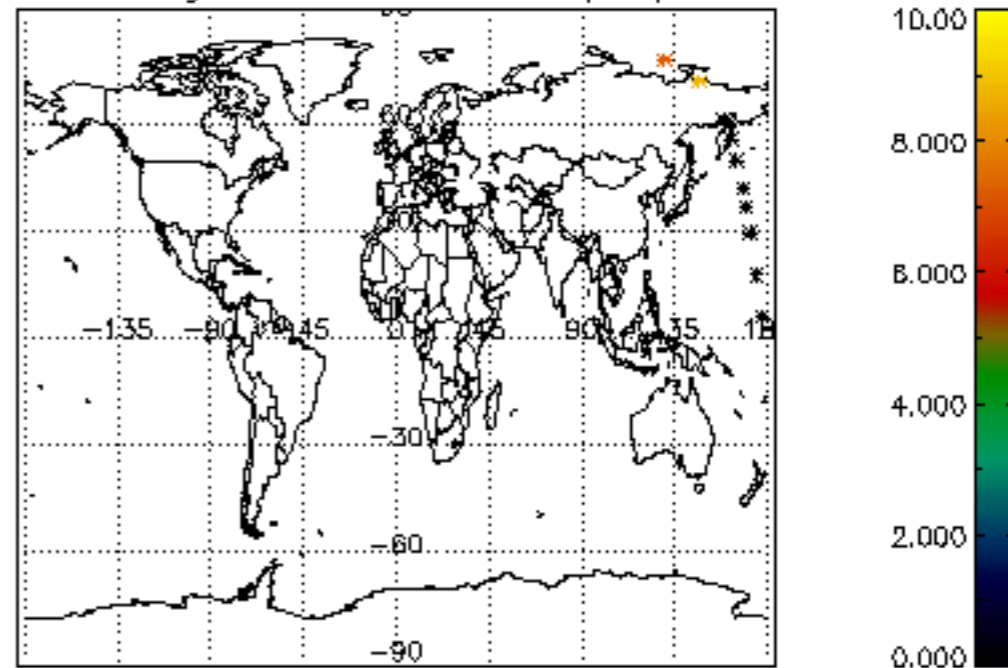
Percentage of datation errors per profile



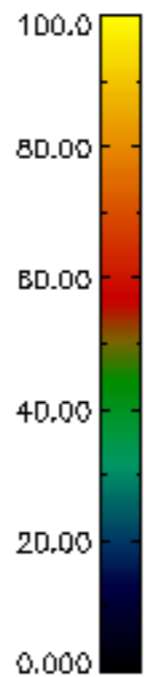
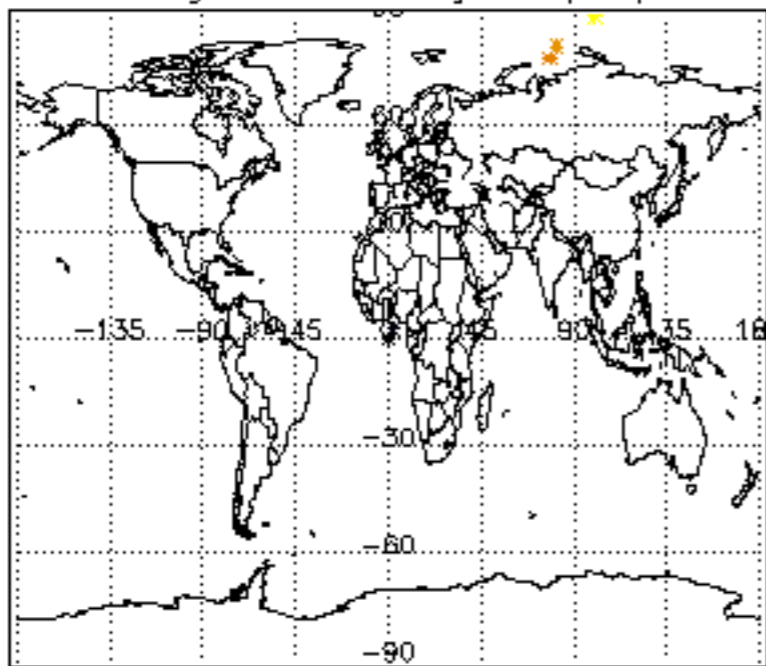
Percentage of star falling outside central band per profile



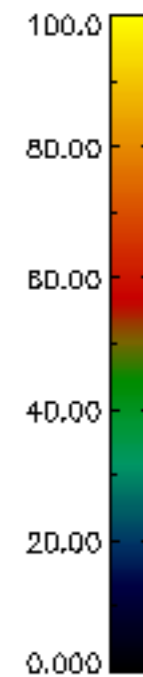
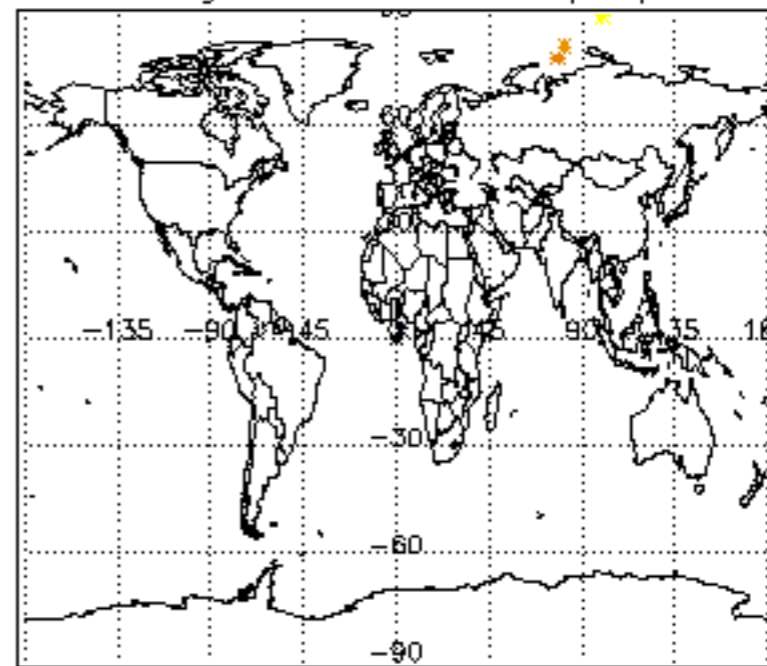
Percentage of saturation errors per profile



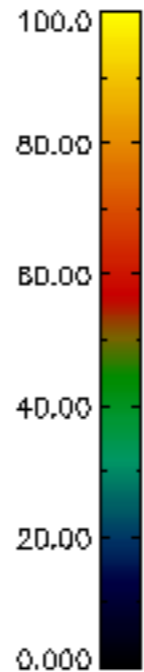
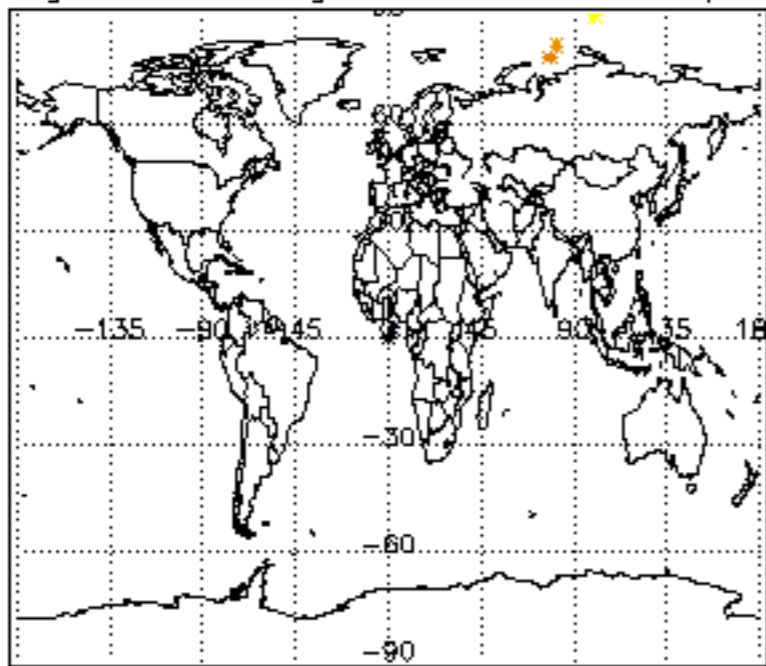
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

