

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	26APR2013 09:29:04
Data source version	GOMOS/6.01
Start time of products	14-05-2009 (14MAY2009 00:00:00)
Stop time of products	15-05-2009 (15MAY2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	13
Nb of prods with errors	0

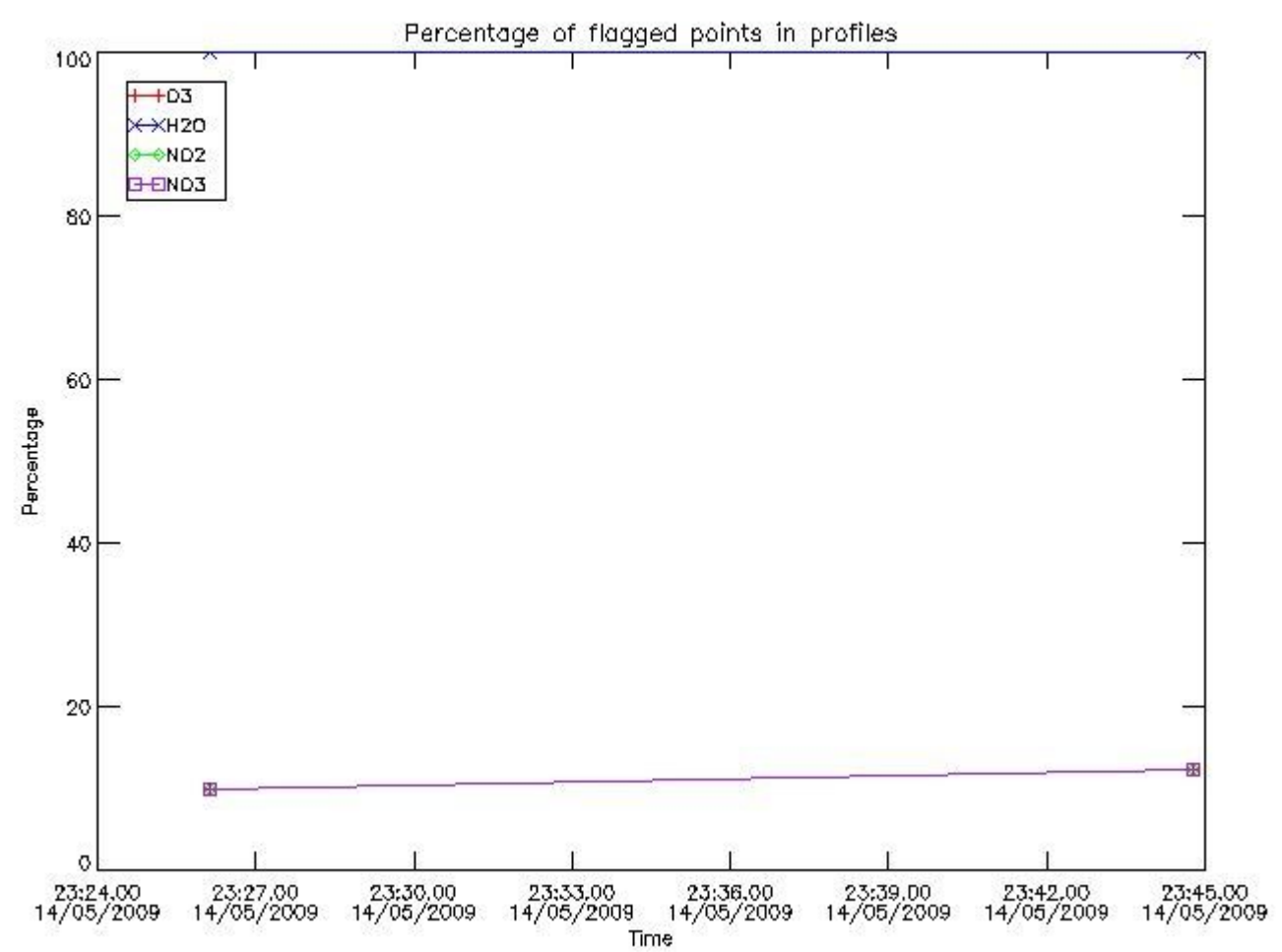
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090514_222033_000000572079_00044_37673_5052.N1	14-MAY-2009 22:20:33	Straylight	57.000	38	20Eps Sgr	1.8360	11000.	114	37673	No
2	GOM_NL__2PRFIN20090514_222208_000000542079_00044_37673_5053.N1	14-MAY-2009 22:22:08	Straylight	53.500	25	35Lam Sco	1.6200	28000.	107	37673	No
3	GOM_NL__2PRFIN20090514_222431_000000522079_00044_37673_5054.N1	14-MAY-2009 22:24:31	Twilight	52.000	75	26Eps Sco	2.2910	4250.0	104	37673	No
4	GOM_NL__2PRFIN20090514_222739_000000602079_00044_37673_5055.N1	14-MAY-2009 22:27:39	Twilight	60.000	16	21Alp Sco	1.0200	3000.0	120	37673	No
5	GOM_NL__2PRFIN20090514_223018_000000462079_00044_37673_5056.N1	14-MAY-2009 22:30:18	Bright	46.000	97	8Bet1Sco	2.5610	30000.	92	37673	No
6	GOM_NL__2PRFIN20090514_223613_000000502079_00044_37673_5057.N1	14-MAY-2009 22:36:13	Bright	50.000	120	1Del Oph	2.7340	3200.0	100	37673	No
7	GOM_NL__2PRFIN20090514_223924_000000442079_00044_37673_5058.N1	14-MAY-2009 22:39:24	Bright	44.000	102	24Alp Ser	2.6000	4250.0	88	37673	No
8	GOM_NL__2PRFIN20090514_224552_000000432079_00044_37673_5059.N1	14-MAY-2009 22:45:52	Bright	43.000	67	5Alp CrB	2.2210	11000.	86	37673	No
9	GOM_NL__2PRFIN20090514_225652_000000422079_00044_37673_5060.N1	14-MAY-2009 22:56:52	Bright	42.000	119	14Eta Dra	2.7270	4700.0	84	37673	No
10	GOM_NL__2PRFIN20090514_230748_000000442079_00044_37673_5061.N1	14-MAY-2009 23:07:48	Bright	44.000	89	5Alp Cep	2.4510	8000.0	88	37673	No
11	GOM_NL__2PRFIN20090514_232129_000000582079_00044_37673_5062.N1	14-MAY-2009 23:21:29	Twilight	58.000	93	53Bet Peg	2.5200	3100.0	116	37673	No
12	GOM_NL__2PRFIN20090514_232607_000000522079_00044_37673_5063.N1	14-MAY-2009 23:26:07	Dark	51.500	90	54Alp Peg	2.4870	11000.	103	37673	No
13	GOM_NL__2PRFIN20090514_234447_000000462079_00044_37673_5064.N1	14-MAY-2009 23:44:47	Dark	45.500	172	Gam Gru	3.0030	13100.	91	37673	No

3. Quality information per product

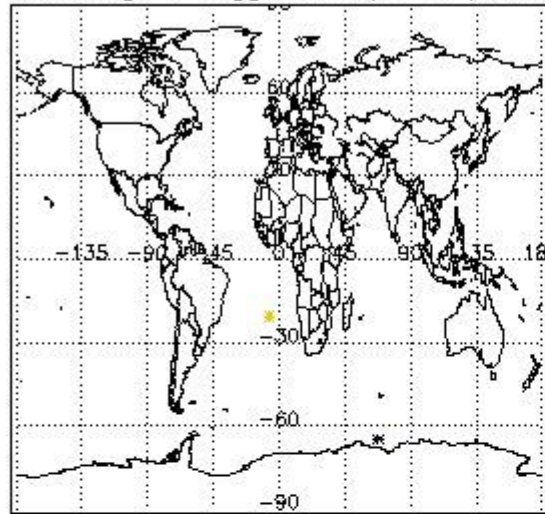
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

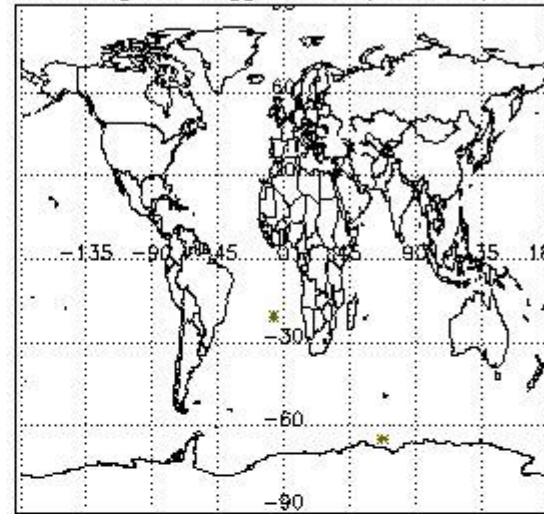


3.2 Plot quality information per product (world map)

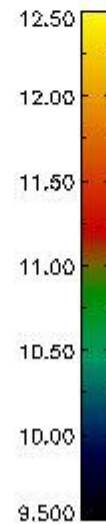
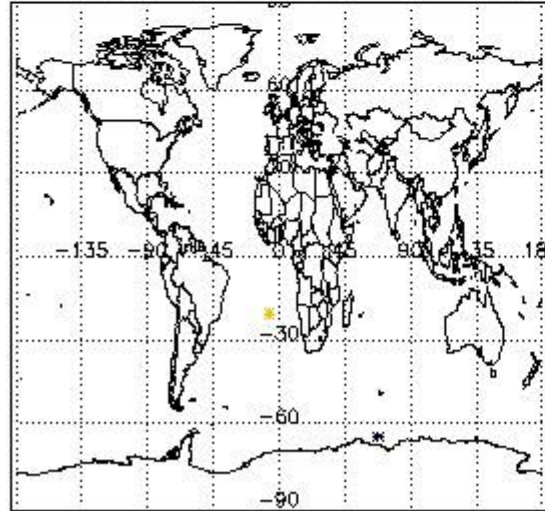
Percentage of flagged data per O3 profile



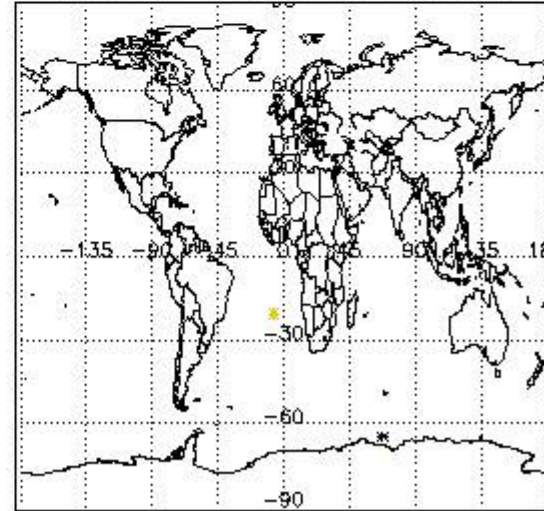
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

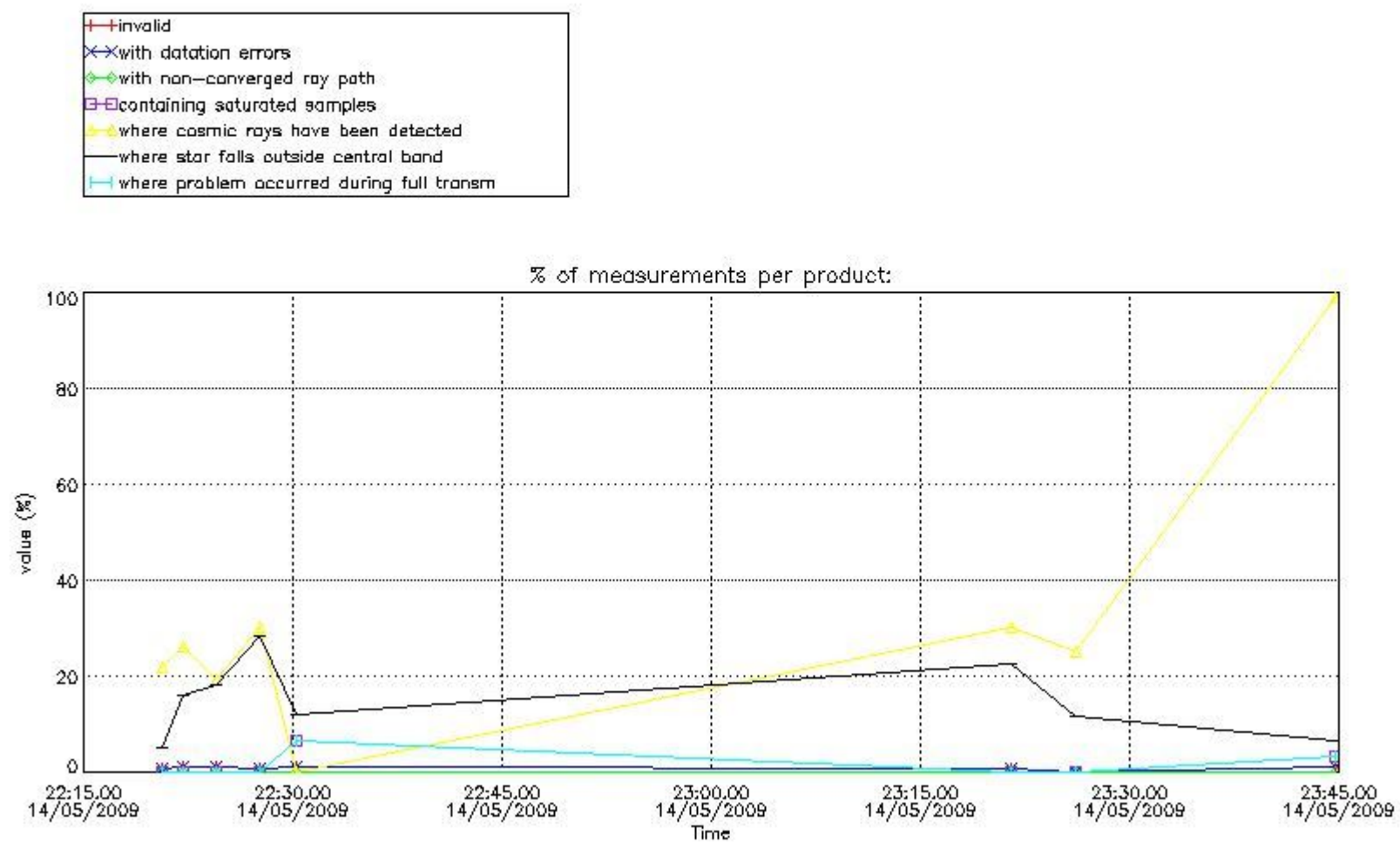


4. Level 1 quality information per product

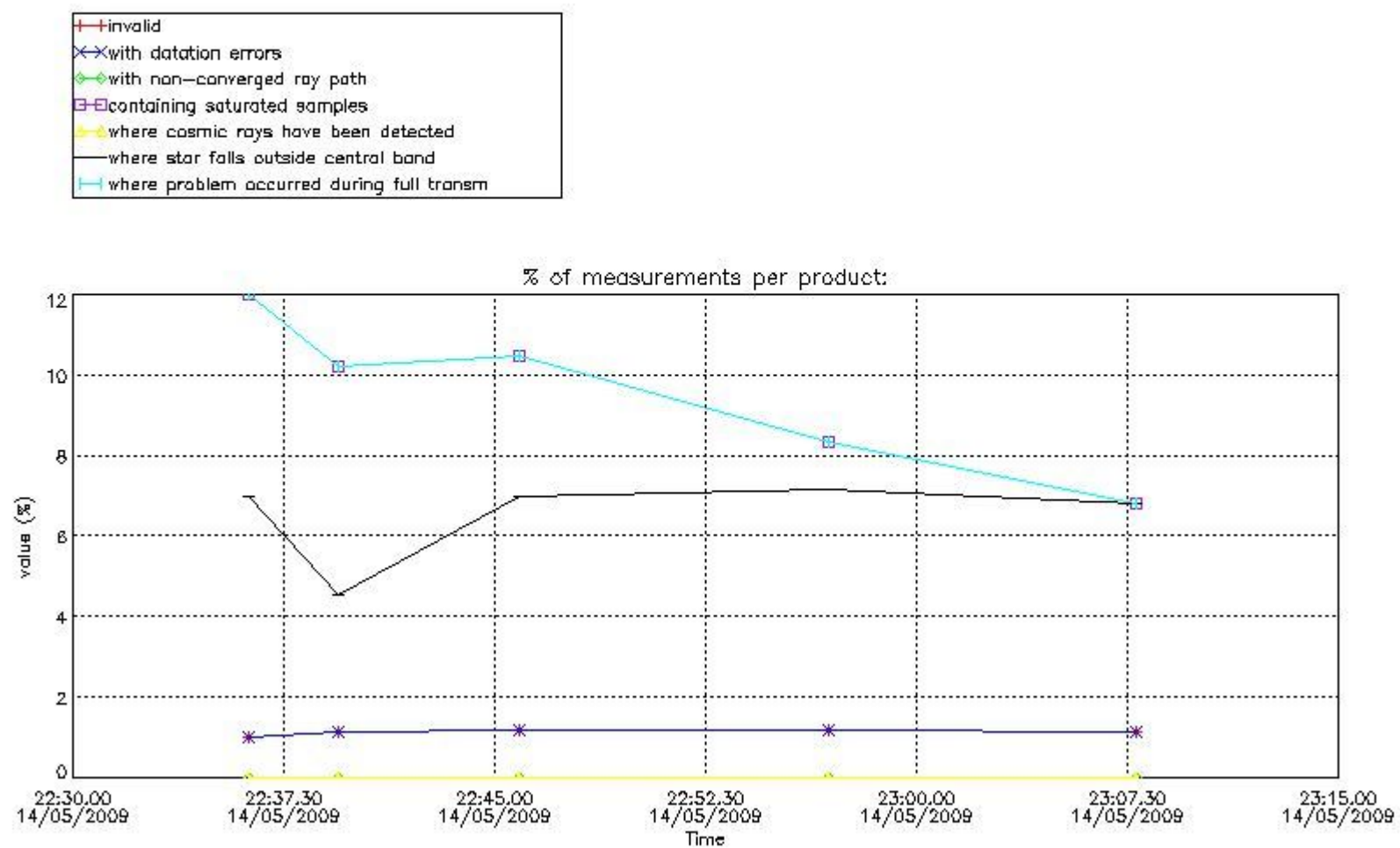
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

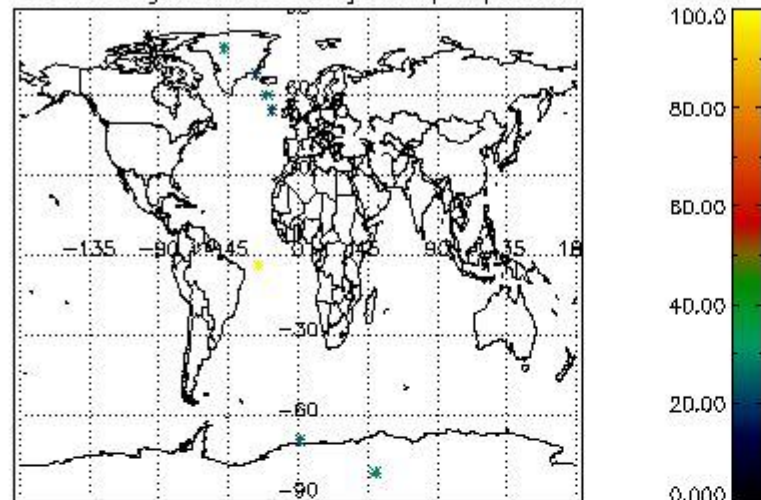


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

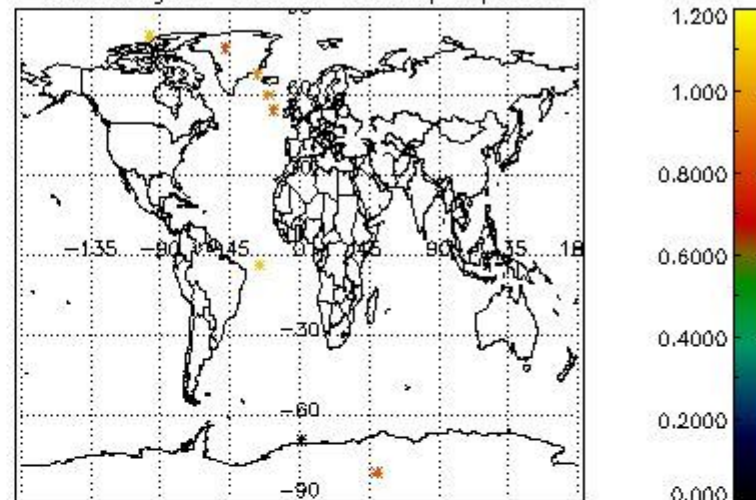


4.2 Plot quality information per product coming from level 1b processing (world map)
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

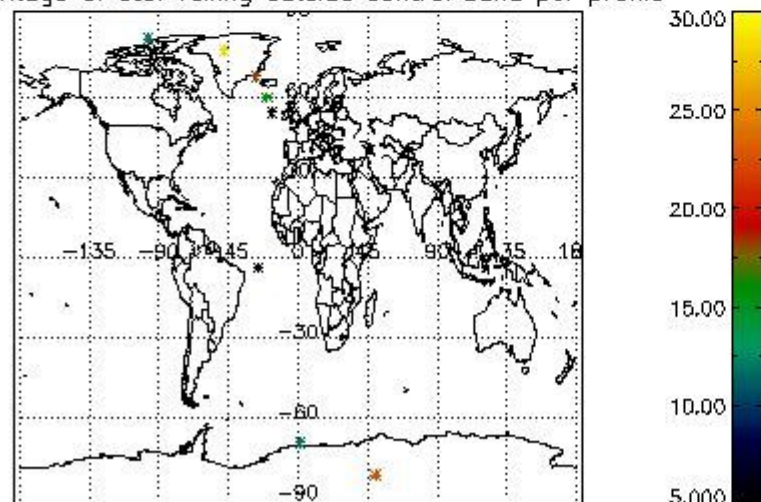
Percentage of cosmic ray hits per profile



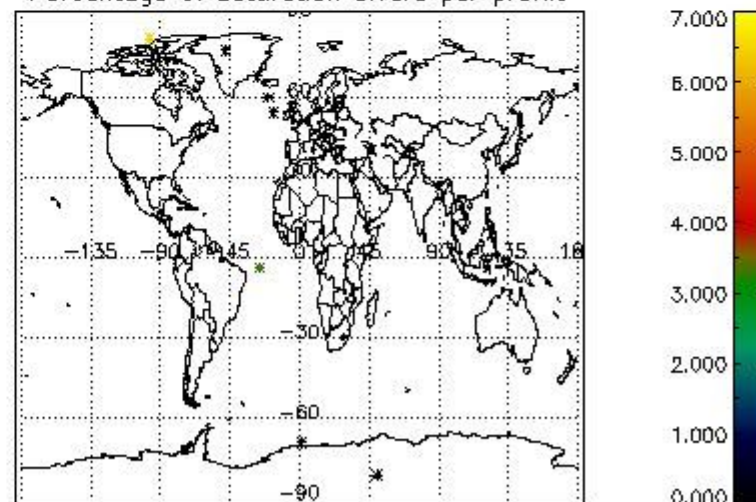
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

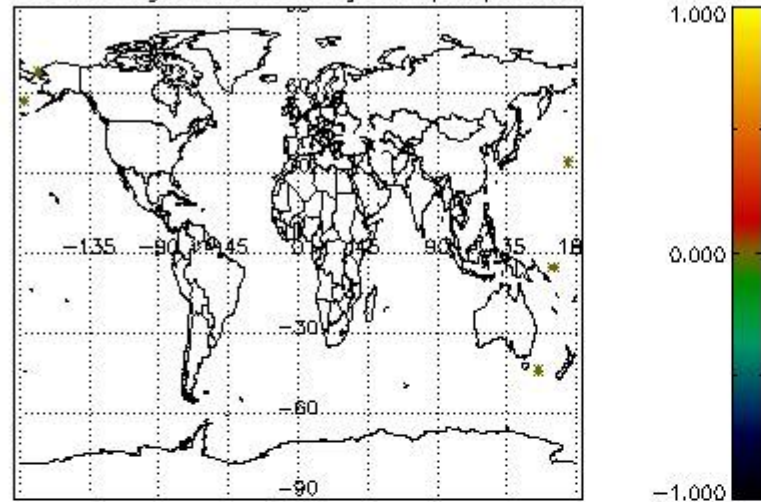


Percentage of saturation errors per profile

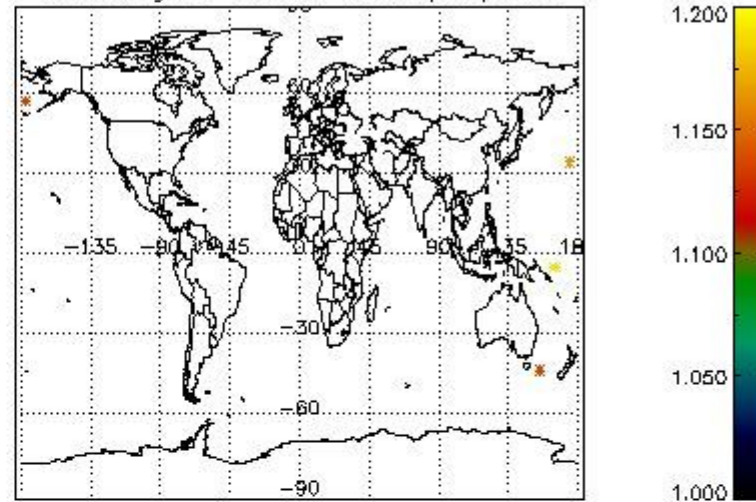


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

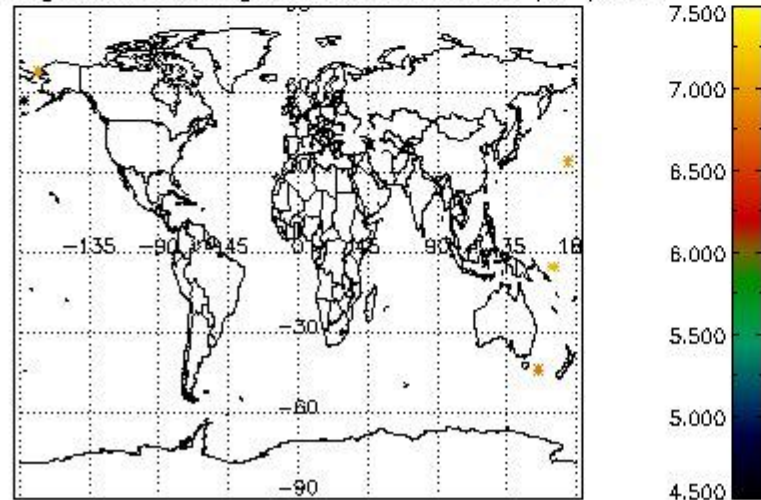
Percentage of cosmic ray hits per profile



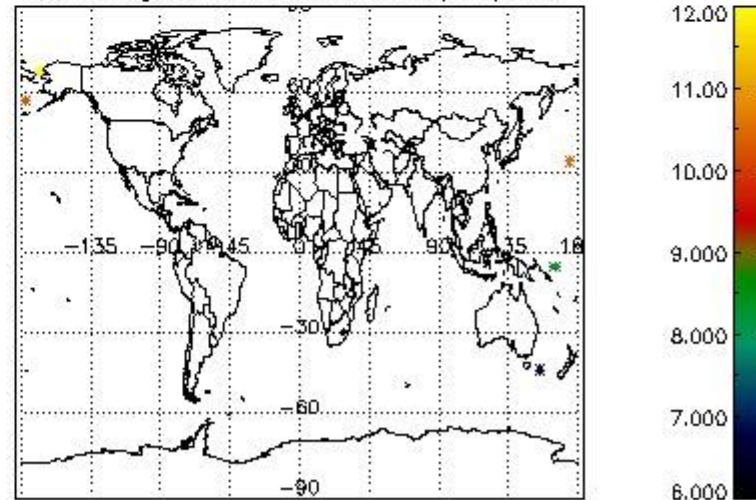
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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

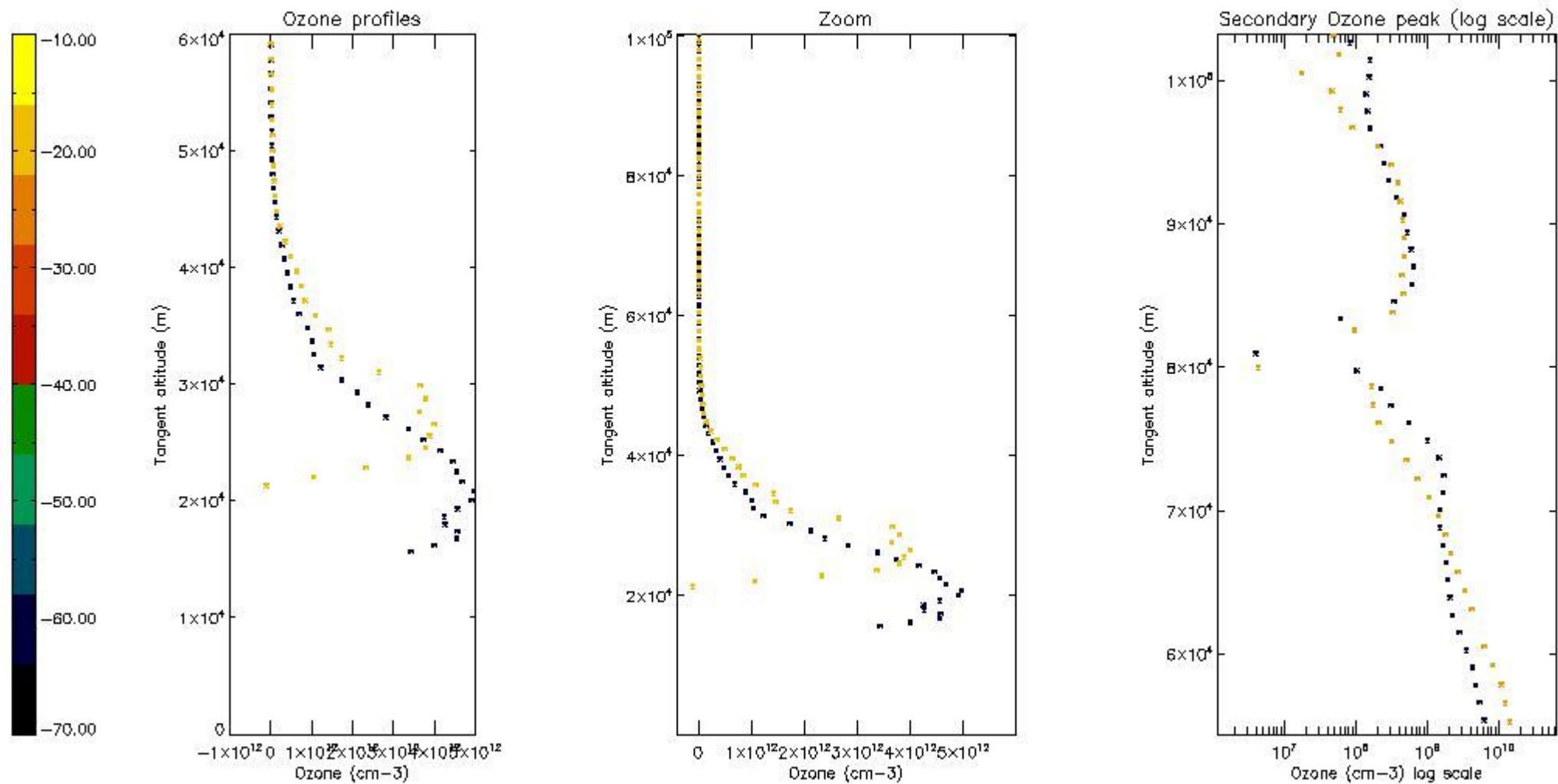
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	15
STD < 20	8

STD < 10	7
STD < 5	1

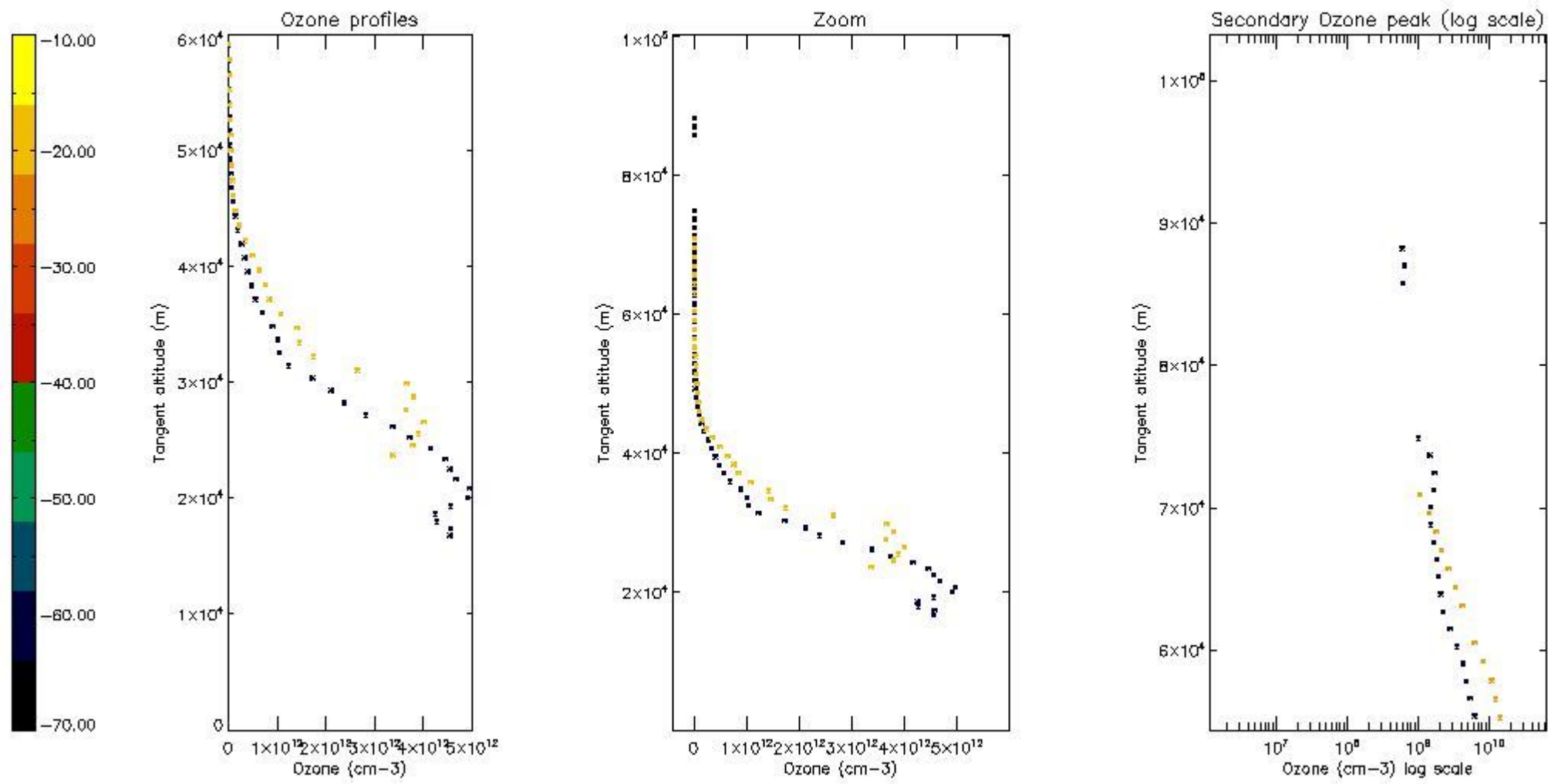
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



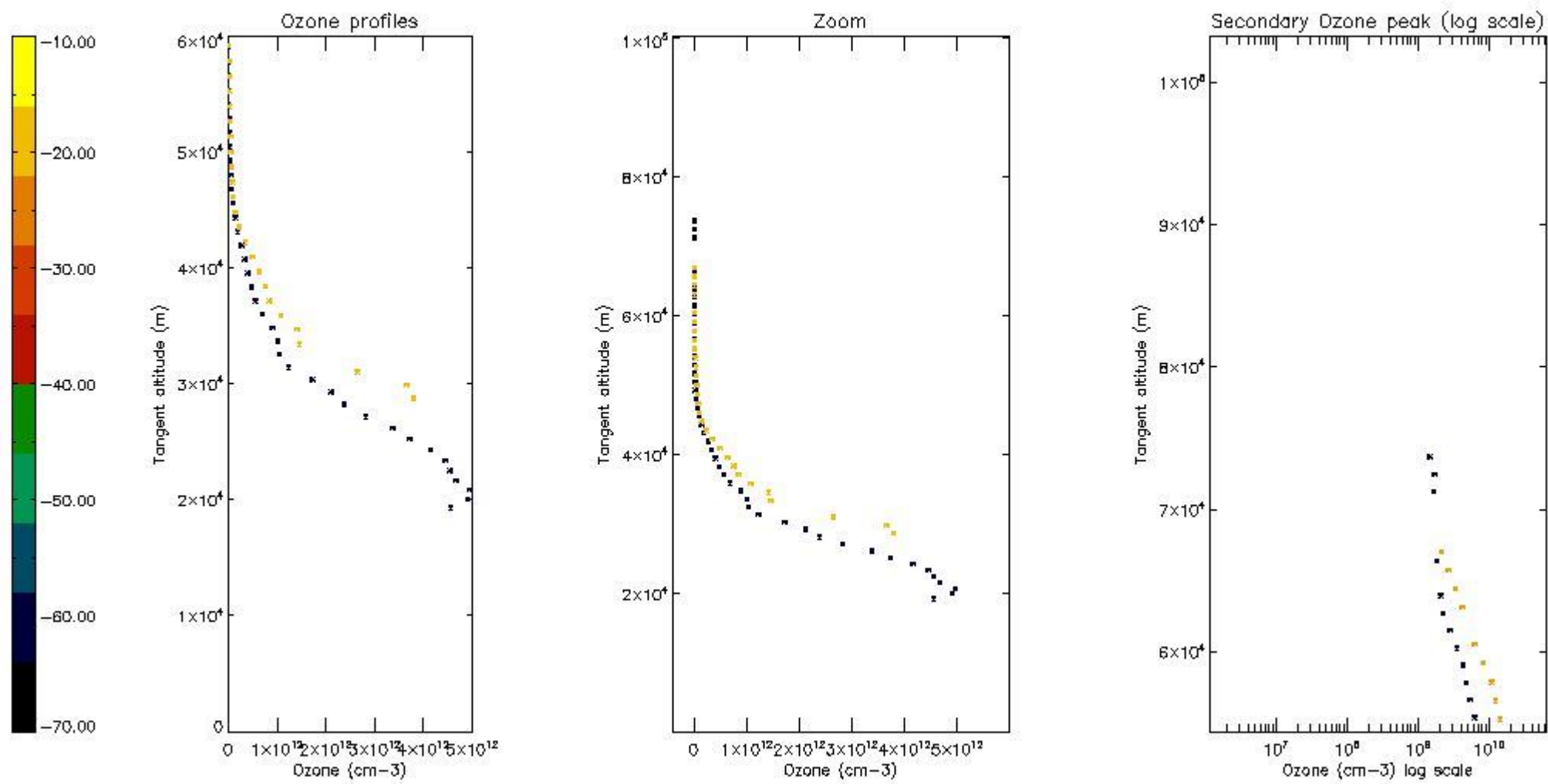
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



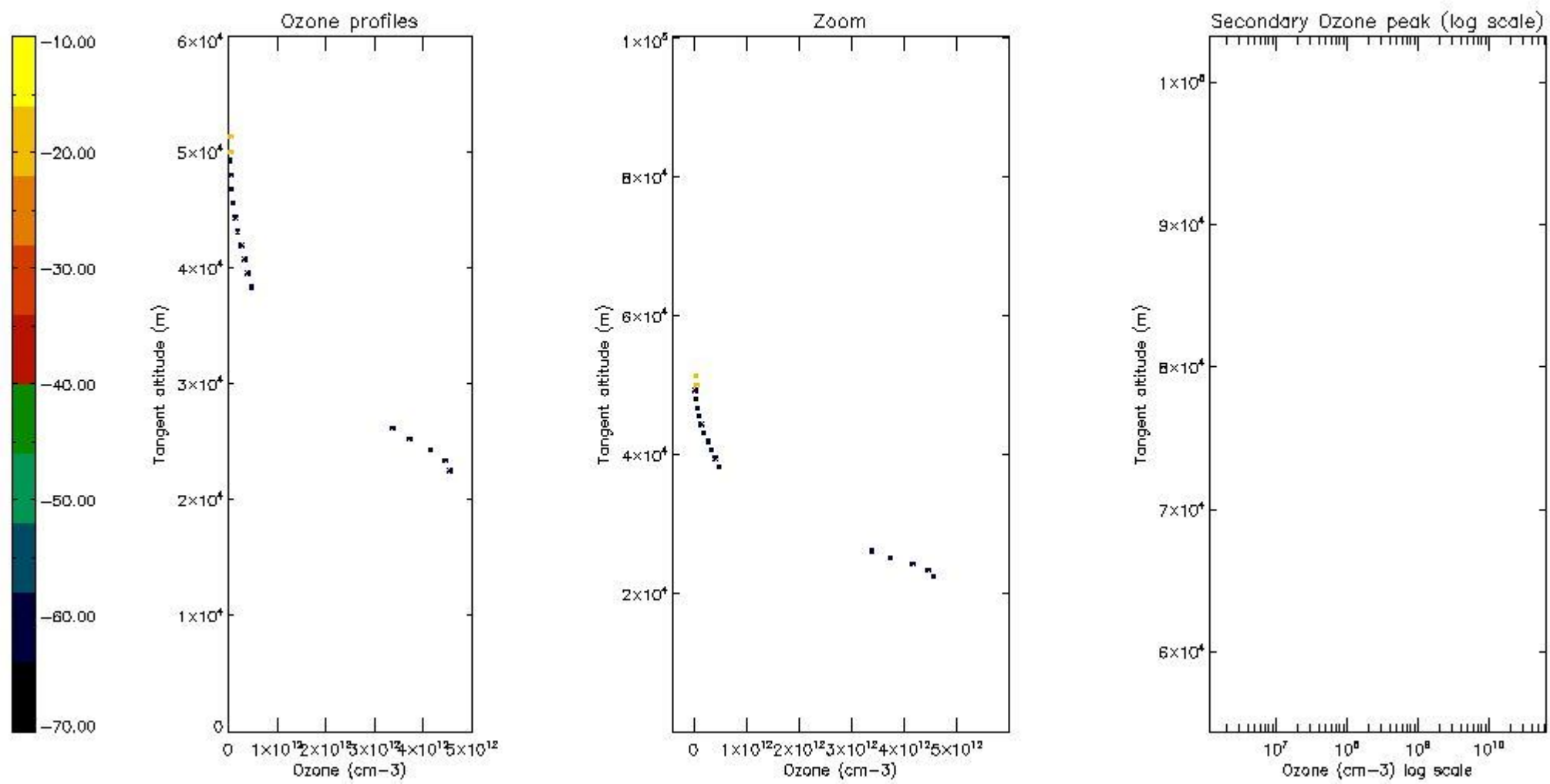
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



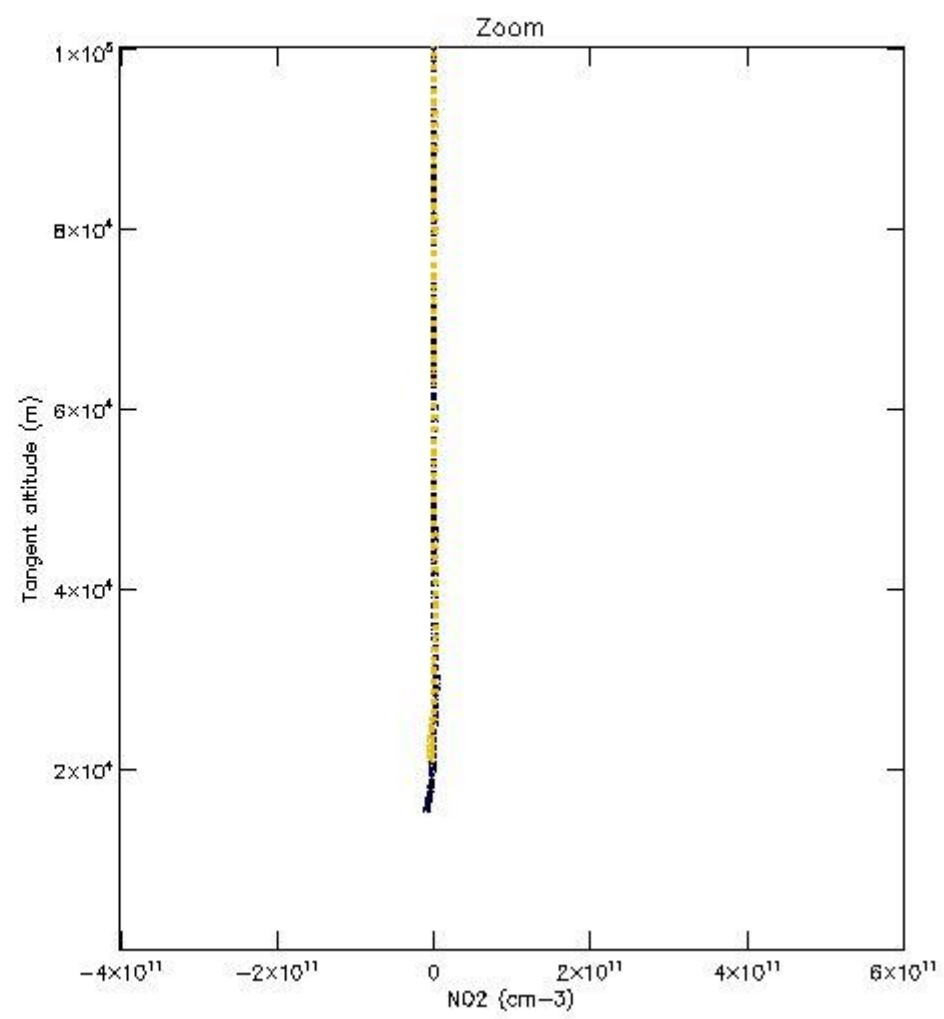
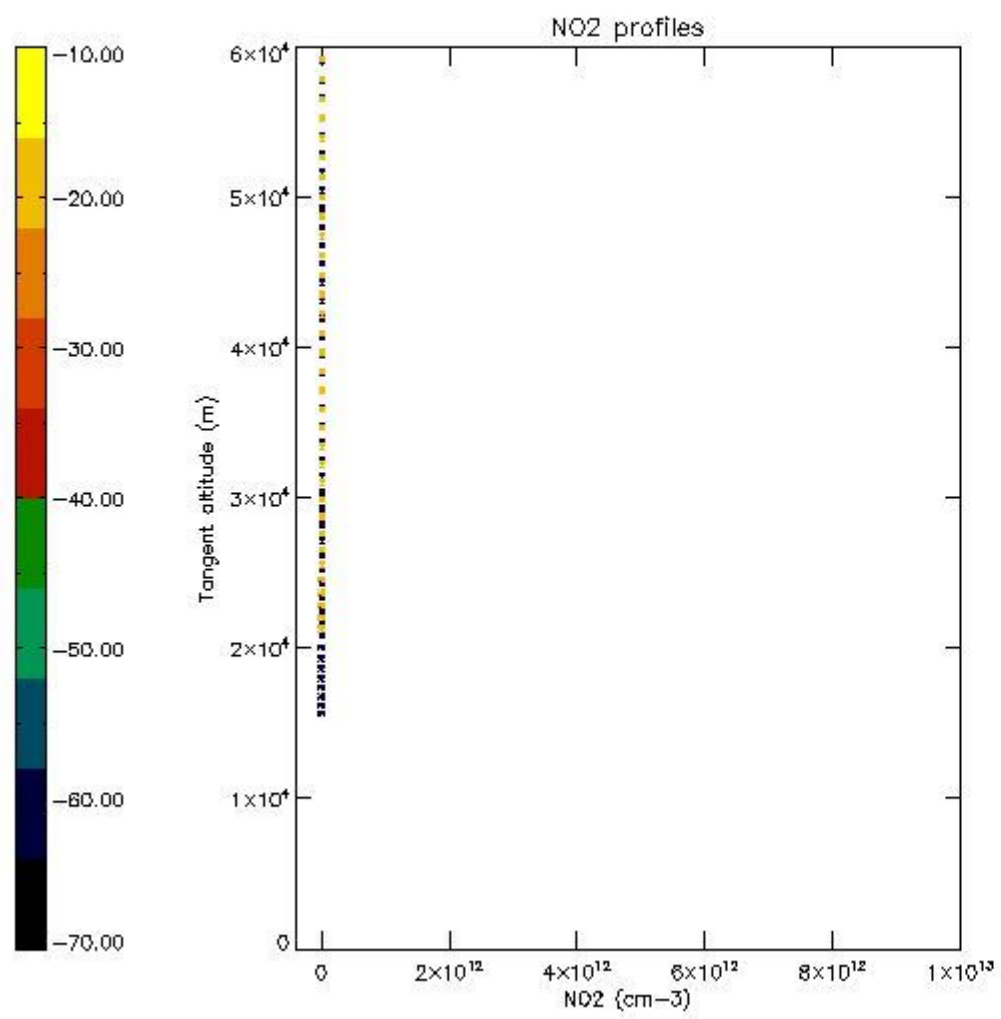
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



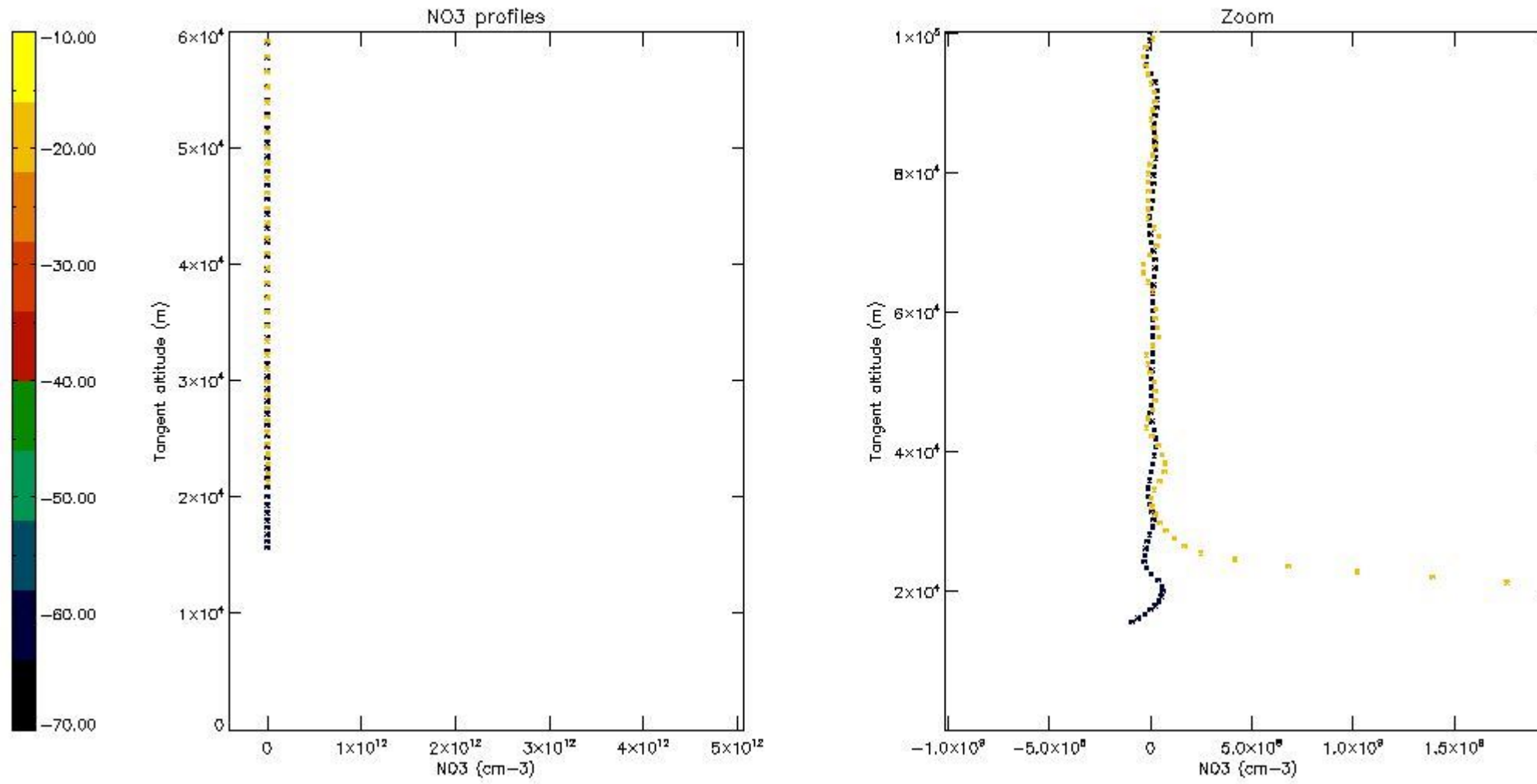
5.6 Plot NO₂ profiles for all STD (dark without errors)

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_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	14-MAY-2009 22:20:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-MAY-2009 22:20:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-MAY-2009 22:20:33

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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](#)

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

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[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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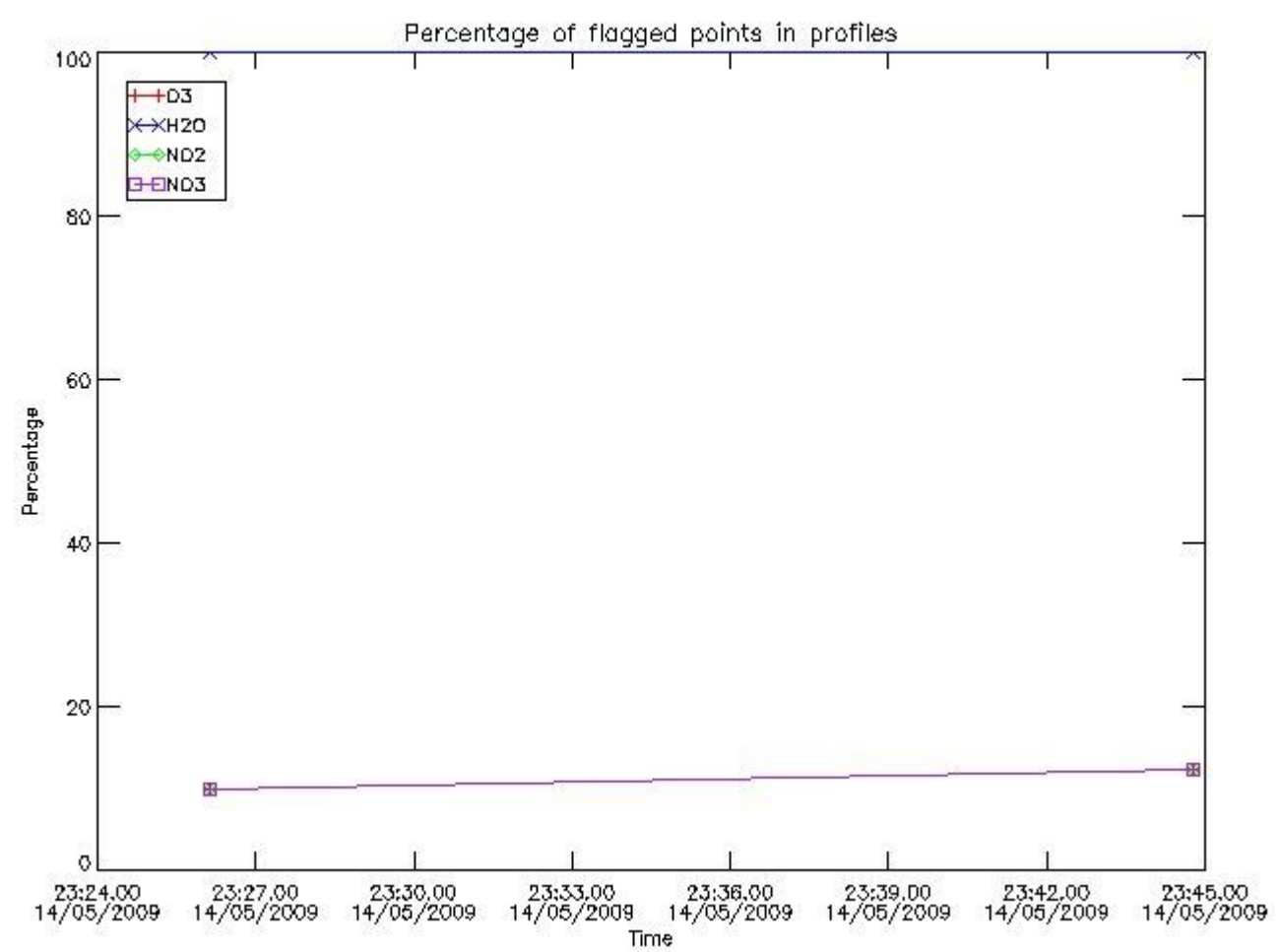
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3	GOM_NL__2PRFIN20090514_222431_000000522079_00044_37673_5054.N1	14-MAY-2009 22:24:31	Twilight_stray	52.000	75	26Eps Sco	2.2910	4250.0	104	37673	No
4	GOM_NL__2PRFIN20090514_222739_000000602079_00044_37673_5055.N1	14-MAY-2009 22:27:39	Twilight_stray	60.000	16	21Alp Sco	1.0200	3000.0	120	37673	No
5	GOM_NL__2PRFIN20090514_223018_000000462079_00044_37673_5056.N1	14-MAY-2009 22:30:18	Bright	46.000	97	8Bet1Sco	2.5610	30000.	92	37673	No
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12	GOM_NL__2PRFIN20090514_232607_000000522079_00044_37673_5063.N1	14-MAY-2009 23:26:07	Dark	51.500	90	54Alp Peg	2.4870	11000.	103	37673	No
13	GOM_NL__2PRFIN20090514_234447_000000462079_00044_37673_5064.N1	14-MAY-2009 23:44:47	Dark	45.500	172	Gam Gru	3.0030	13100.	91	37673	No

3. Quality information per product

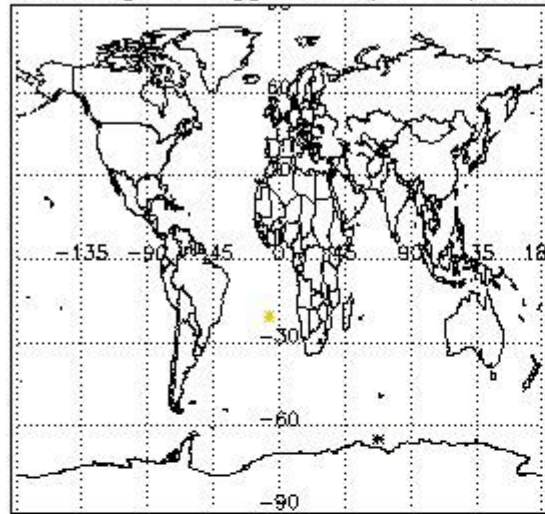
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3.1 Plot quality information per product (time dependant)

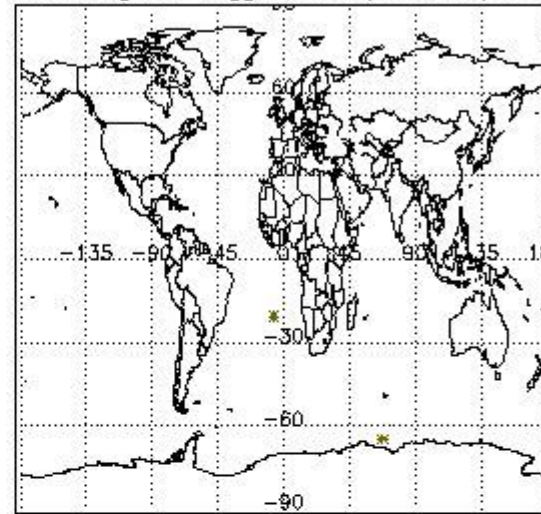


3.2 Plot quality information per product (world map)

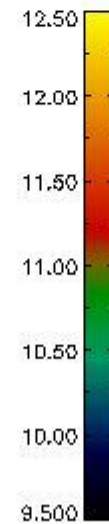
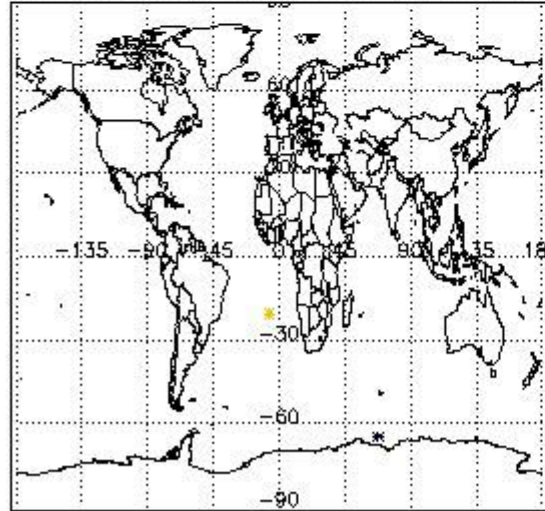
Percentage of flagged data per O3 profile



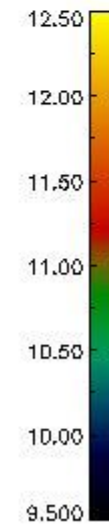
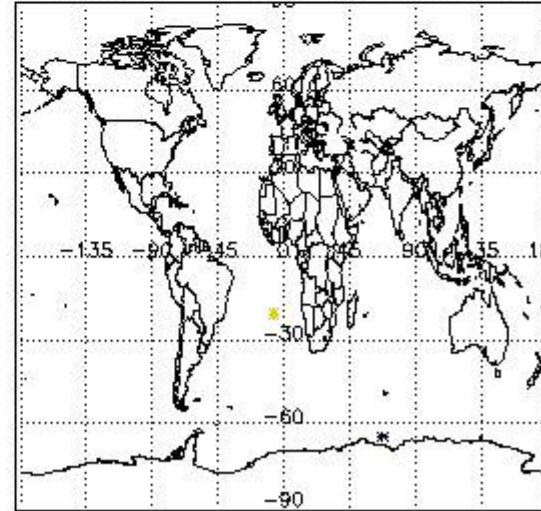
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

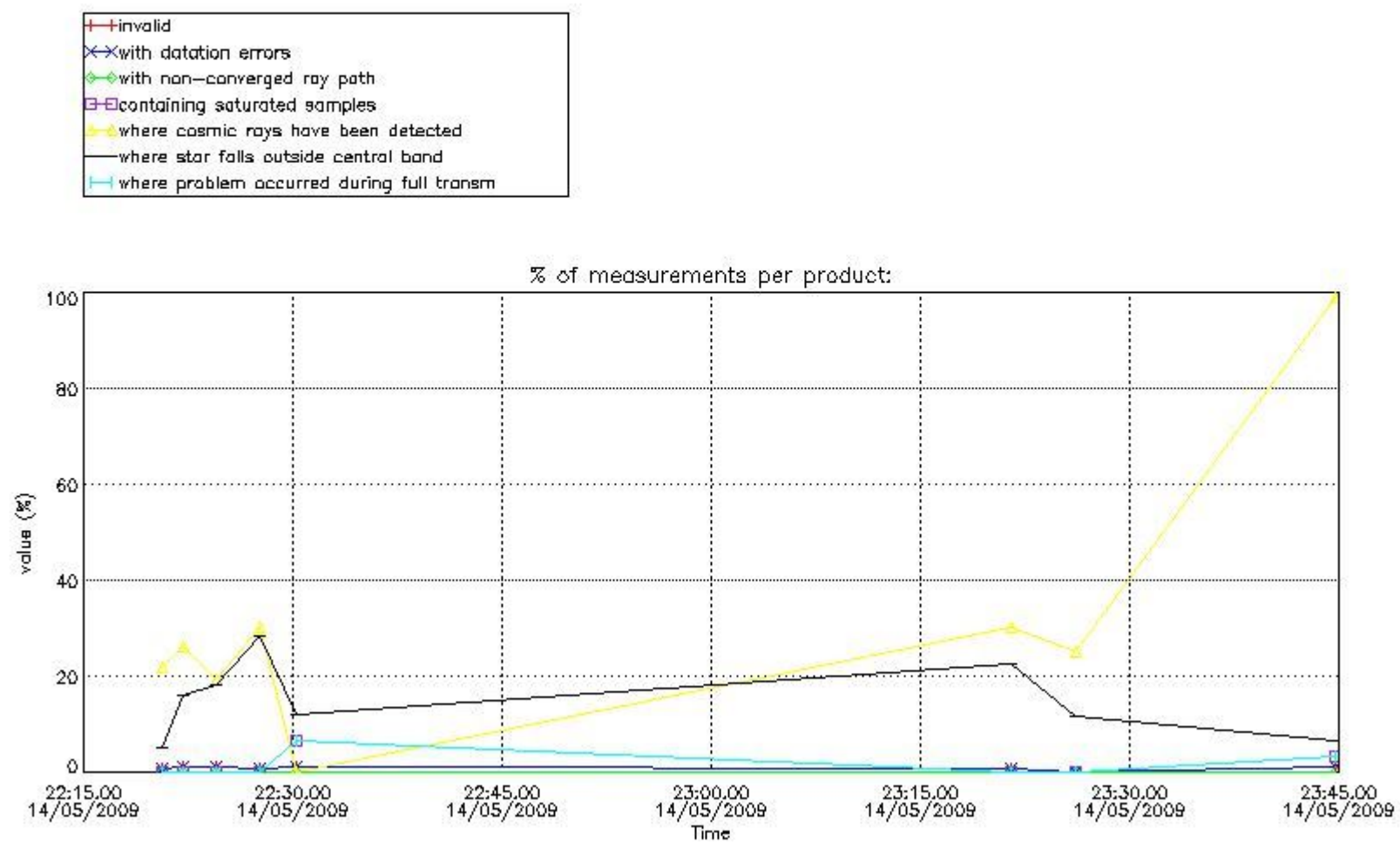


4. Level 1 quality information per product

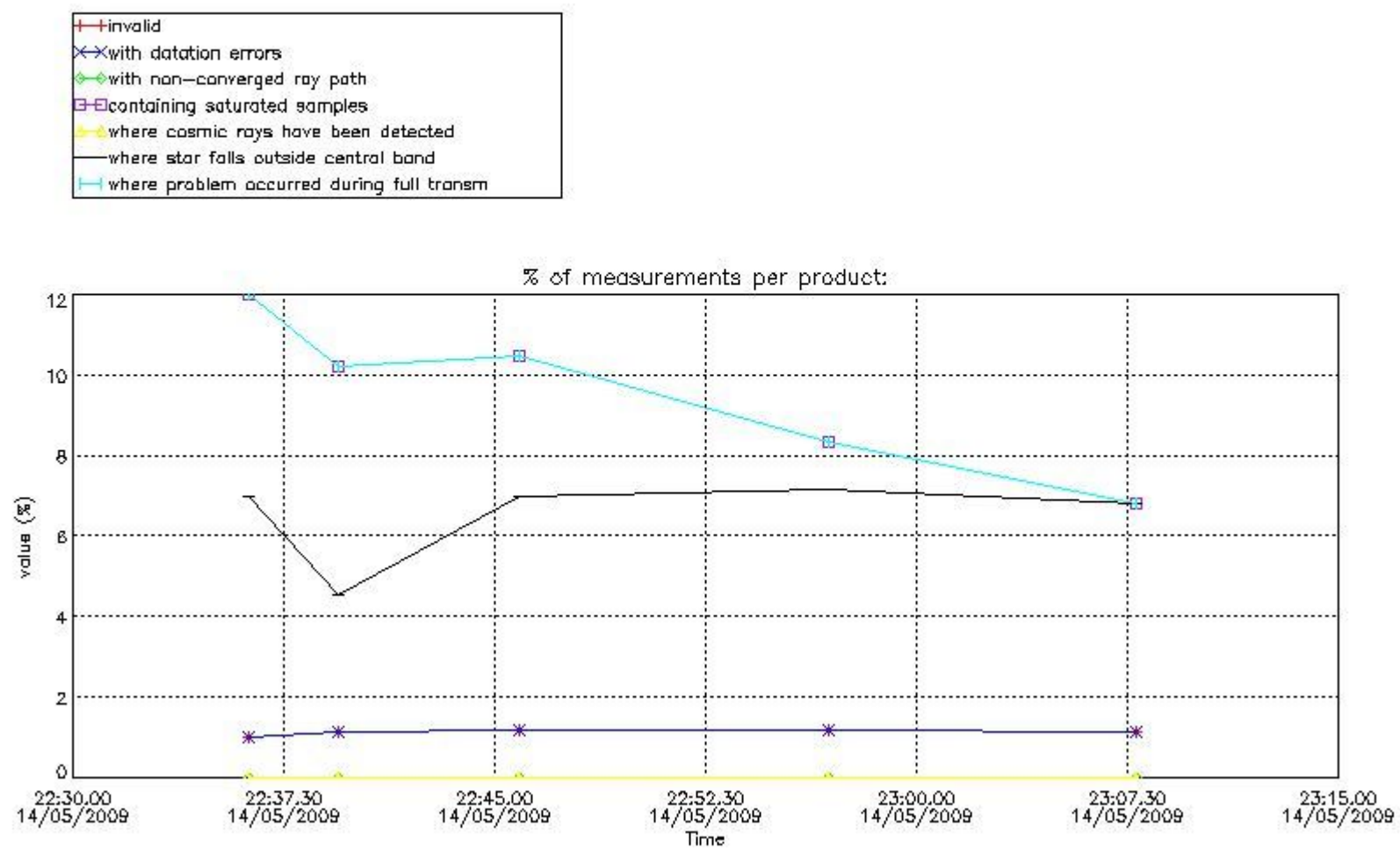
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

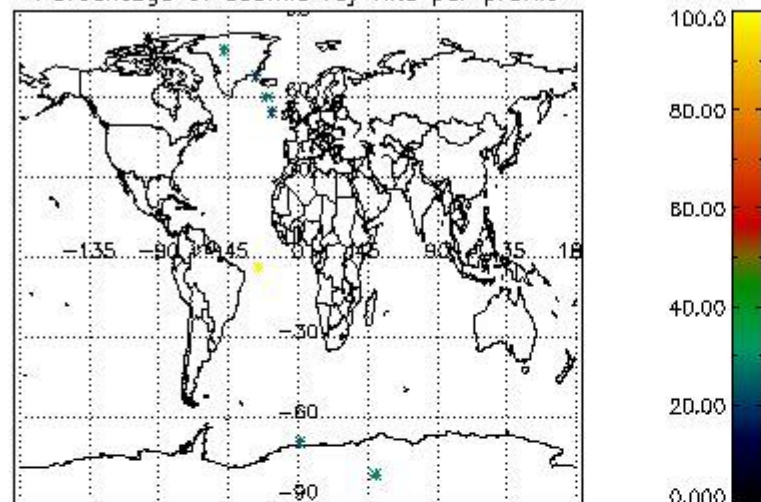


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

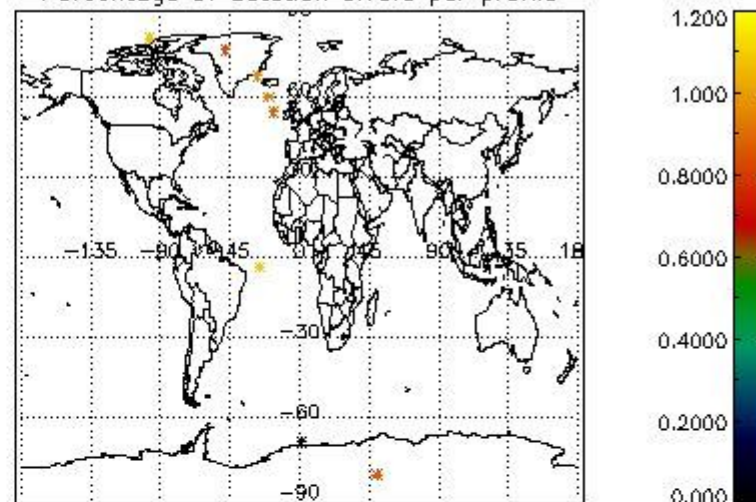


4.2 Plot quality information per product coming from level 1b processing (world map)
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

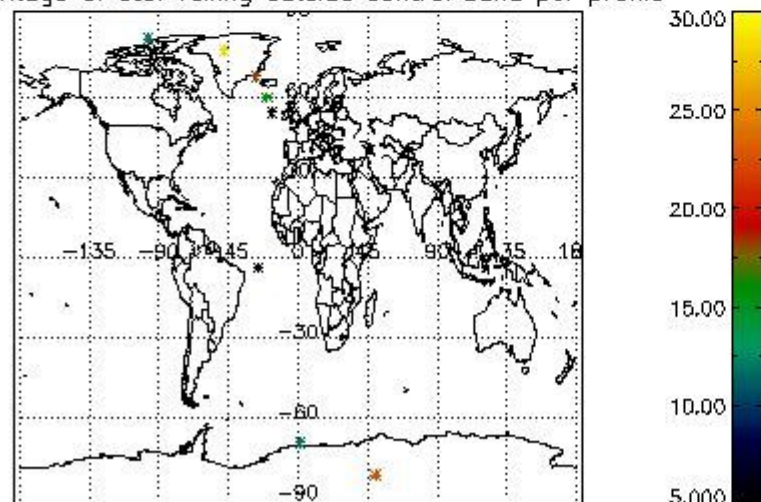
Percentage of cosmic ray hits per profile



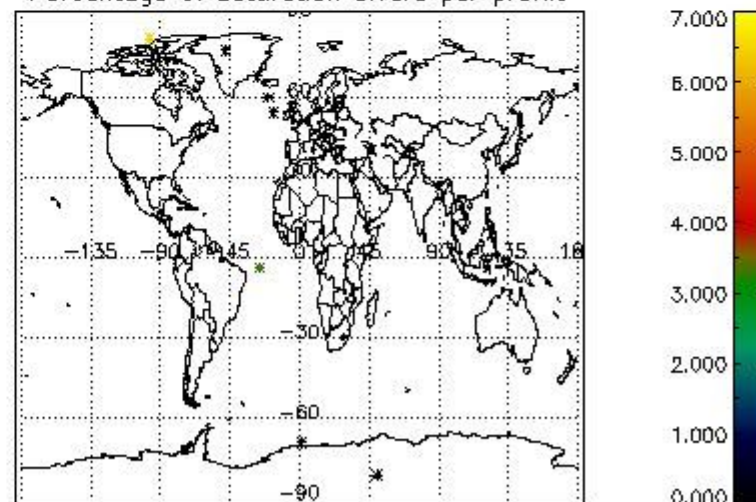
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

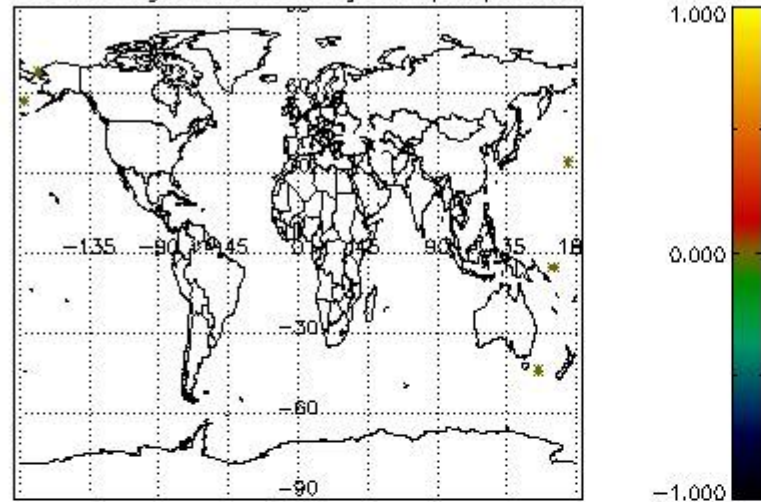


Percentage of saturation errors per profile

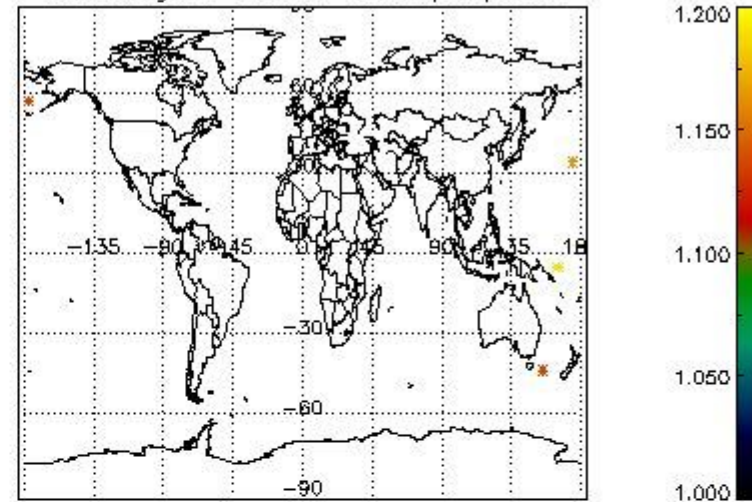


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

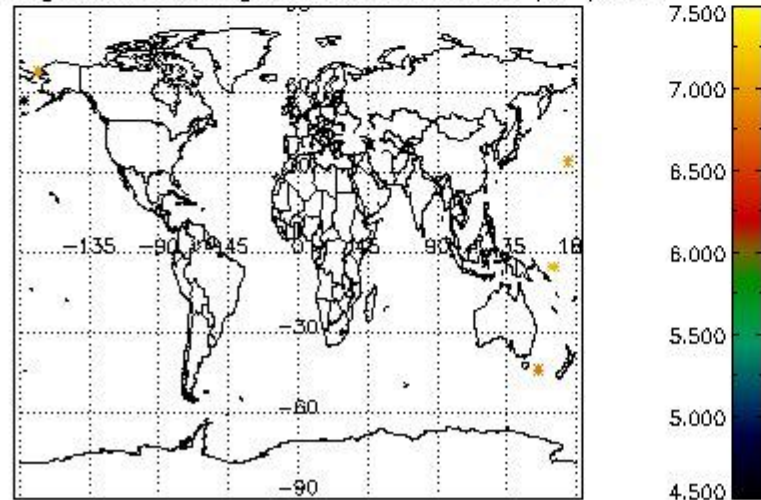
Percentage of cosmic ray hits per profile



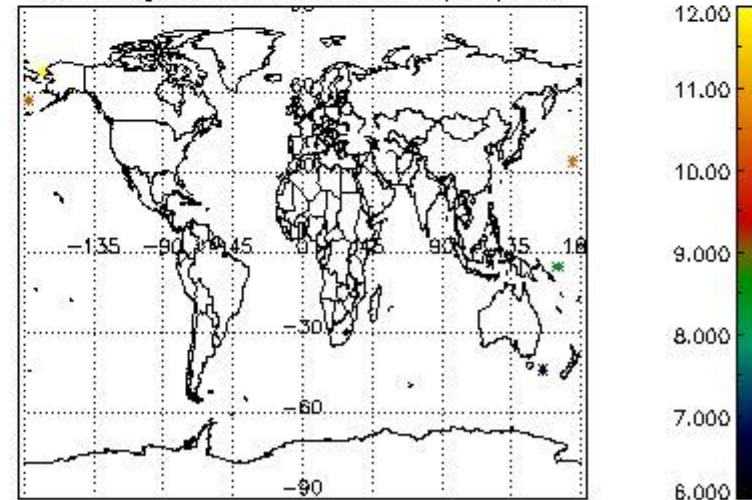
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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

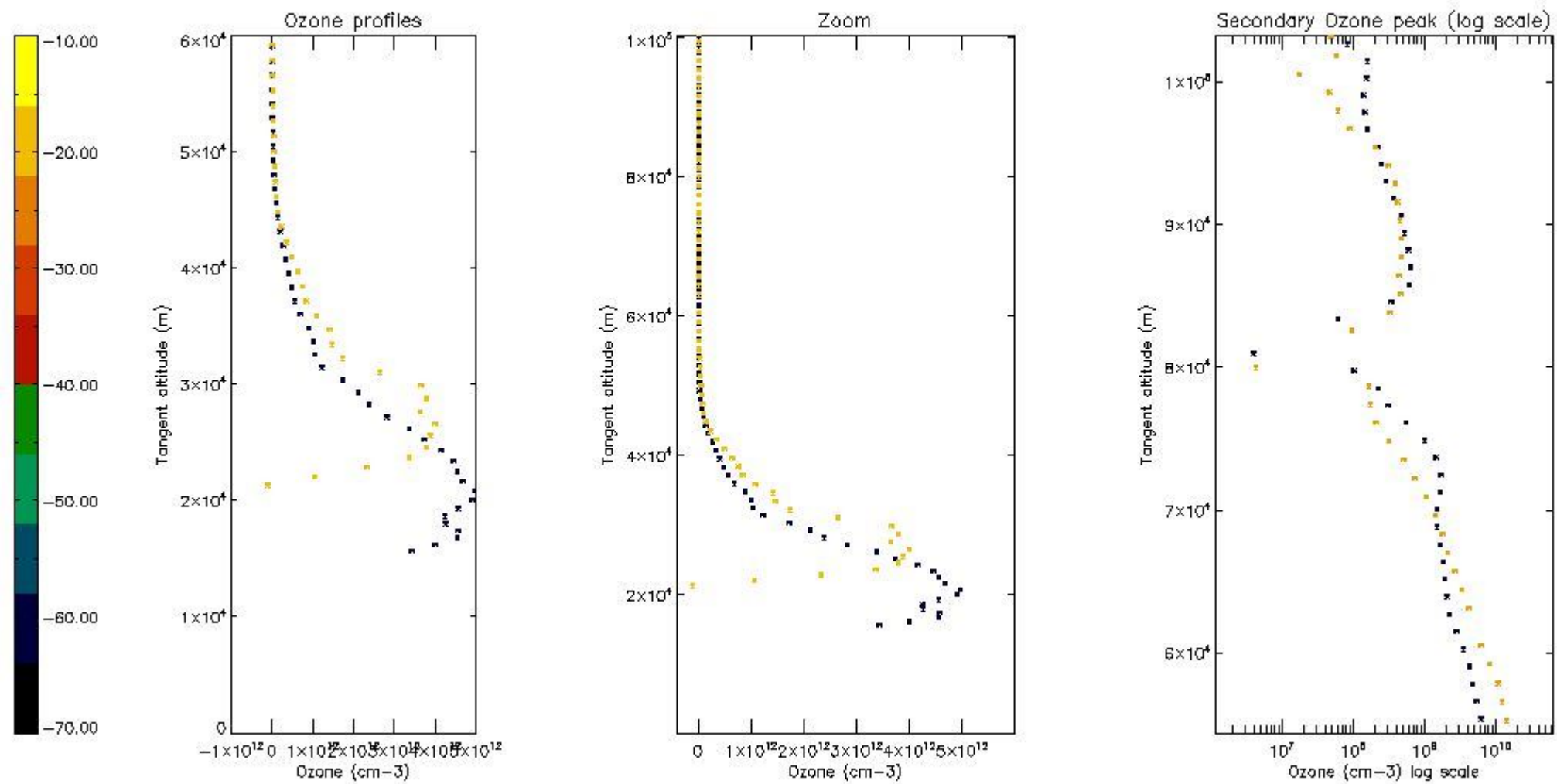
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	15
STD < 20	8

STD < 10	7
STD < 5	1

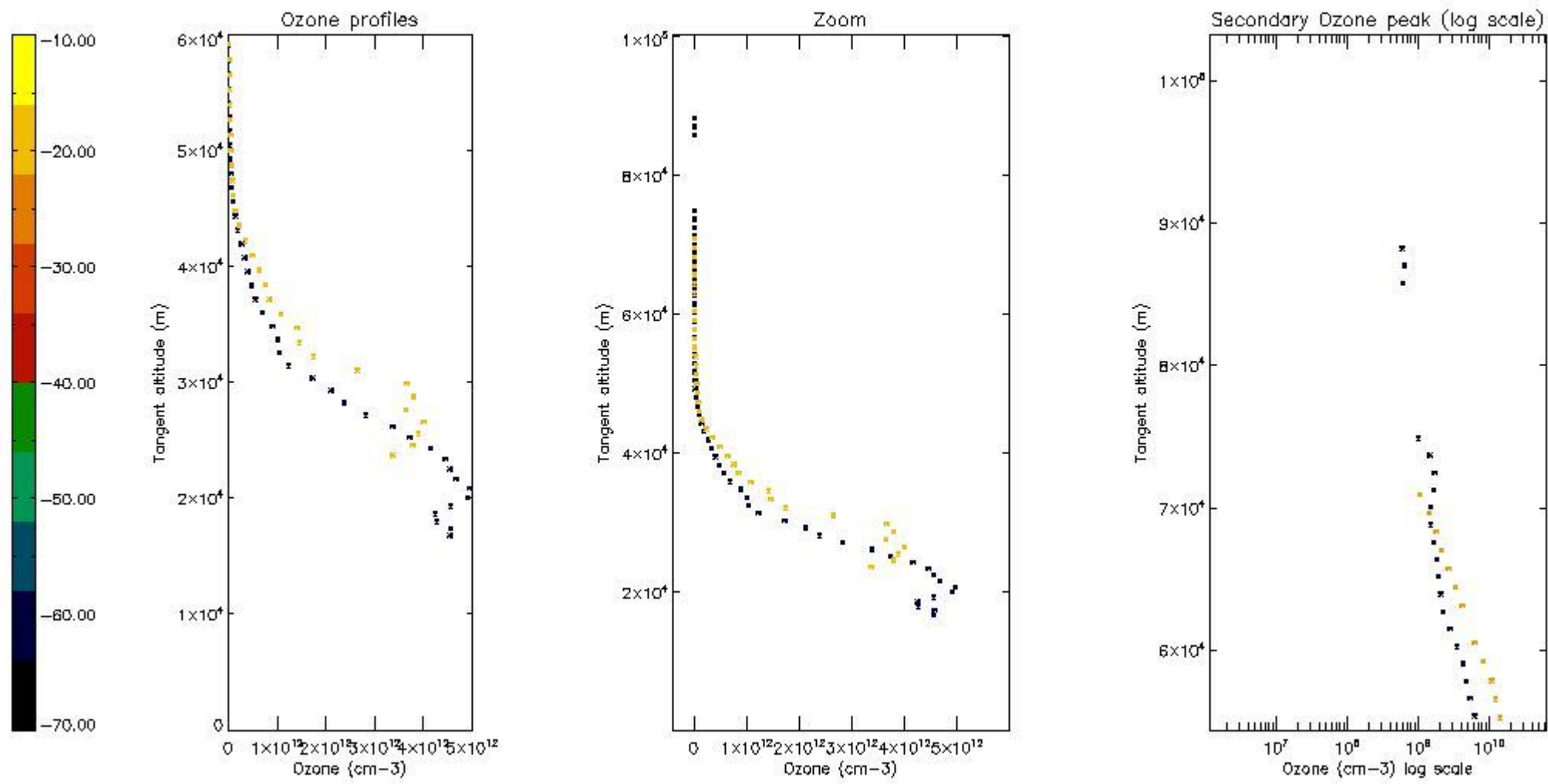
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



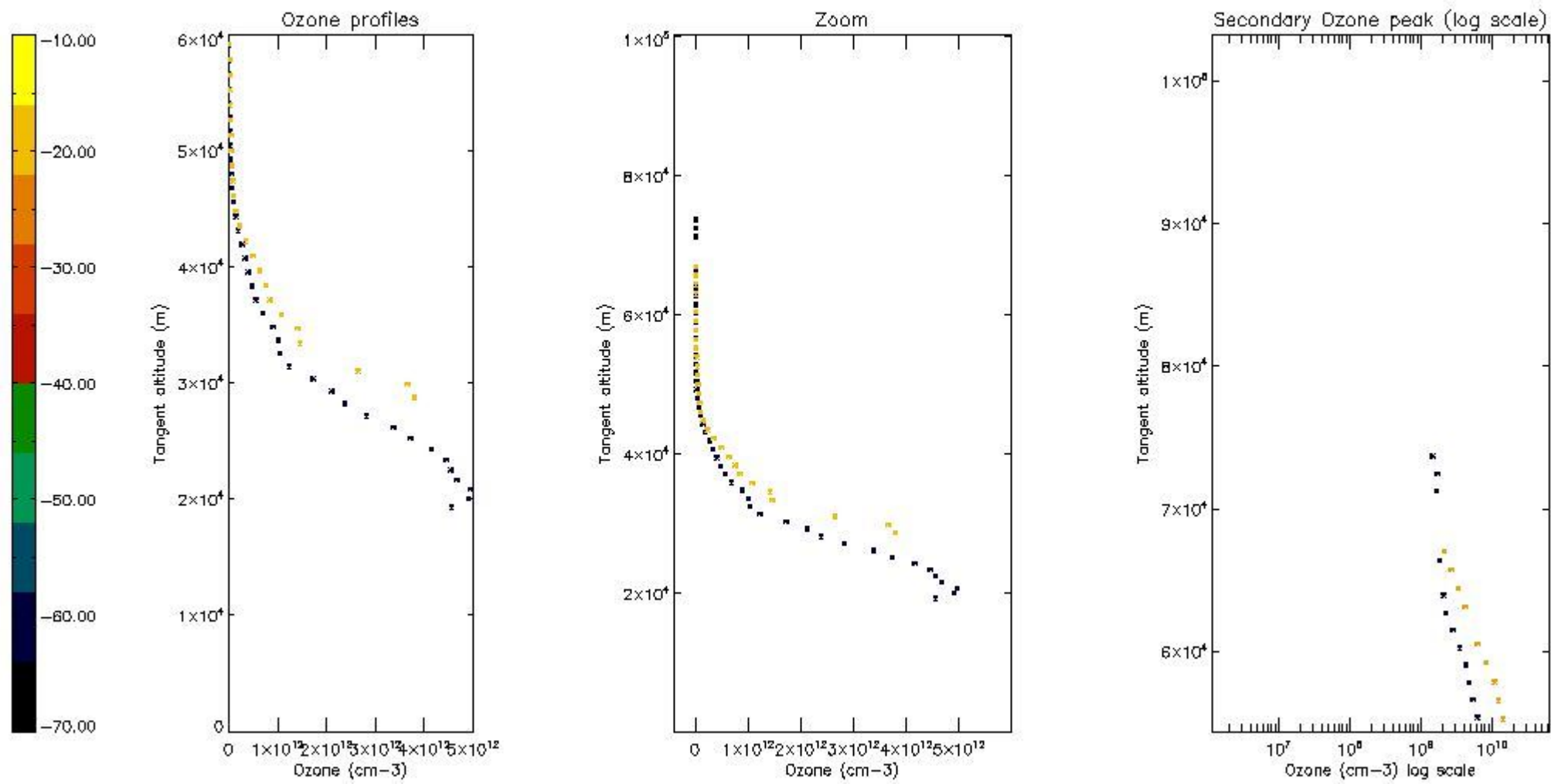
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



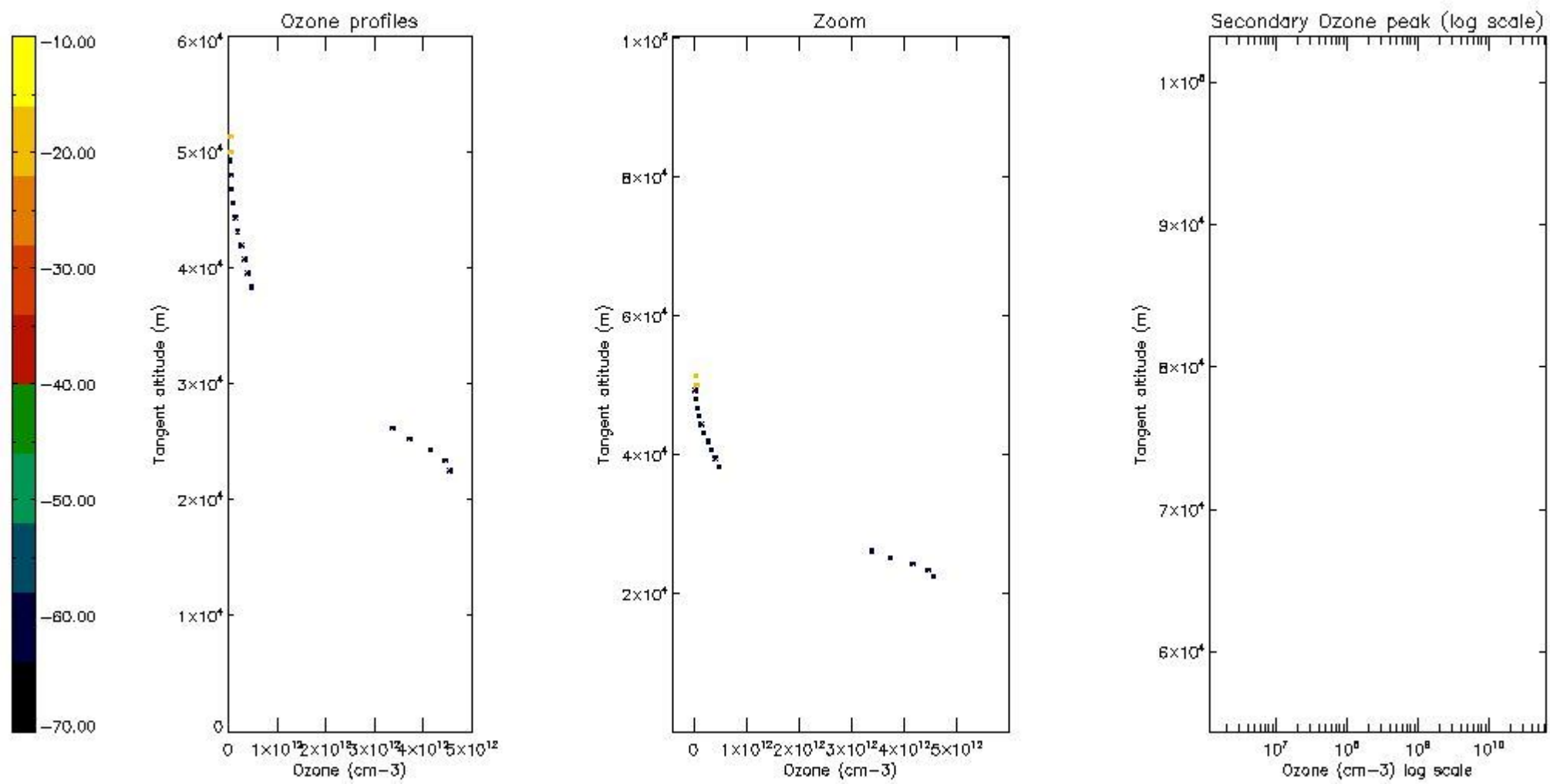
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



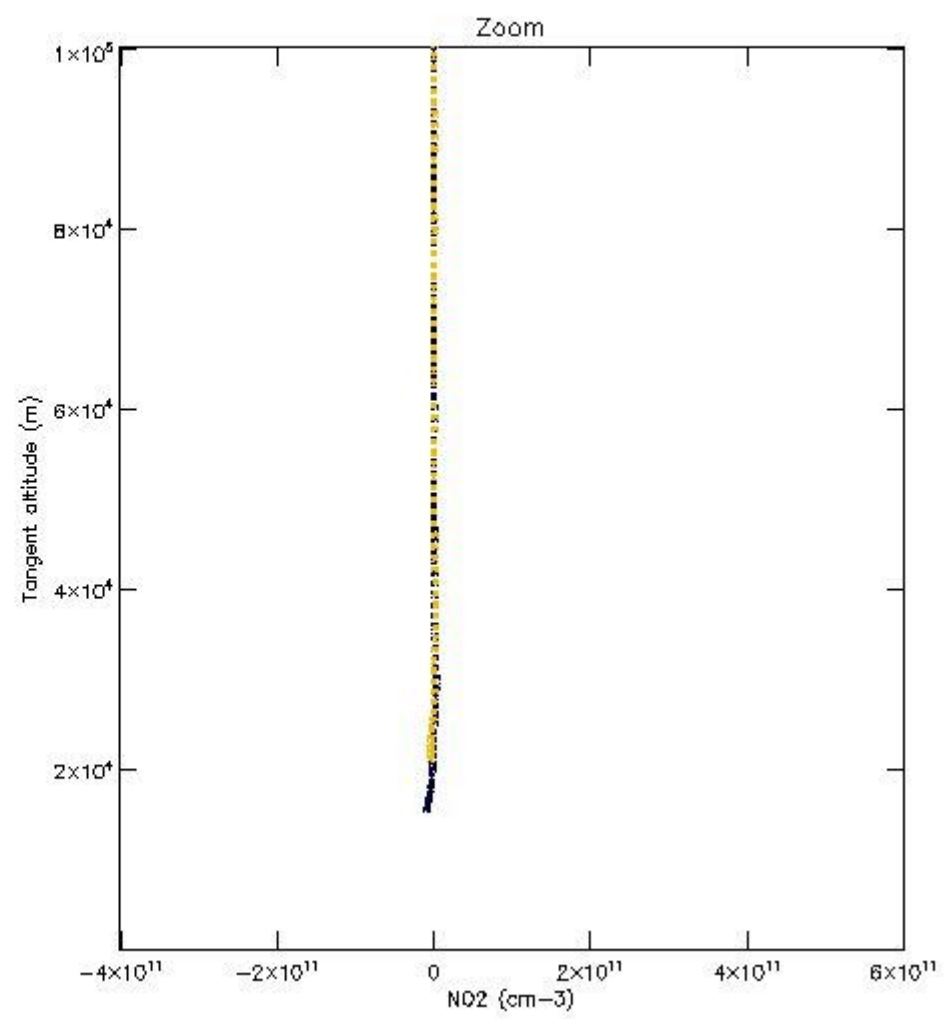
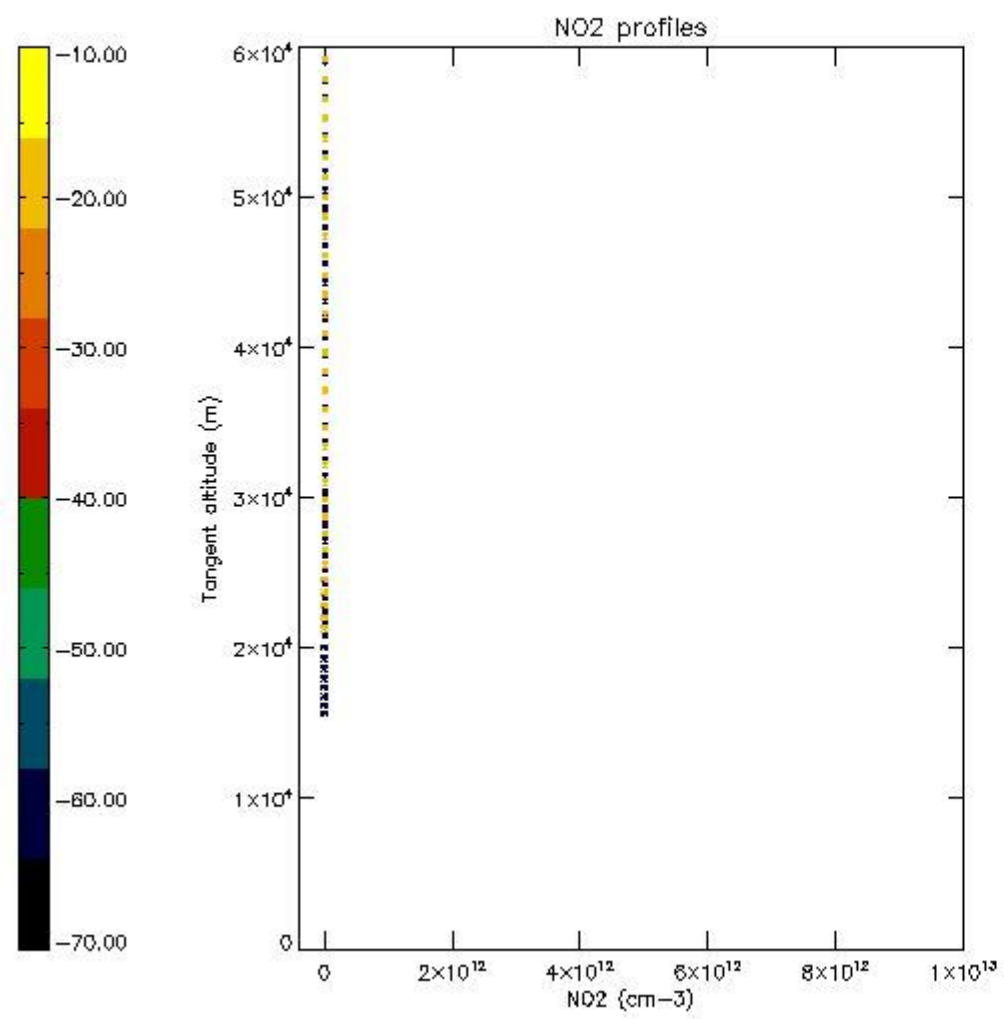
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



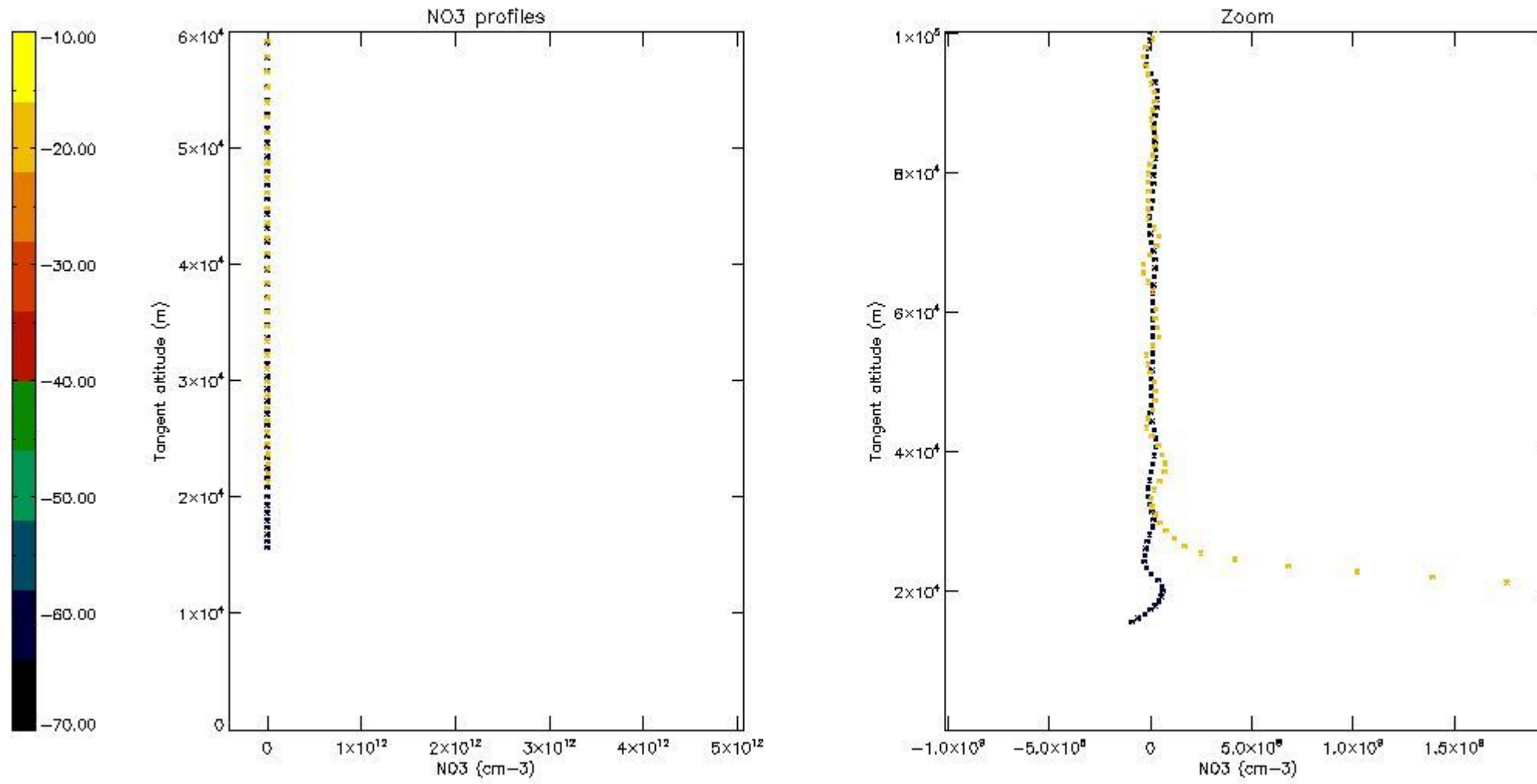
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

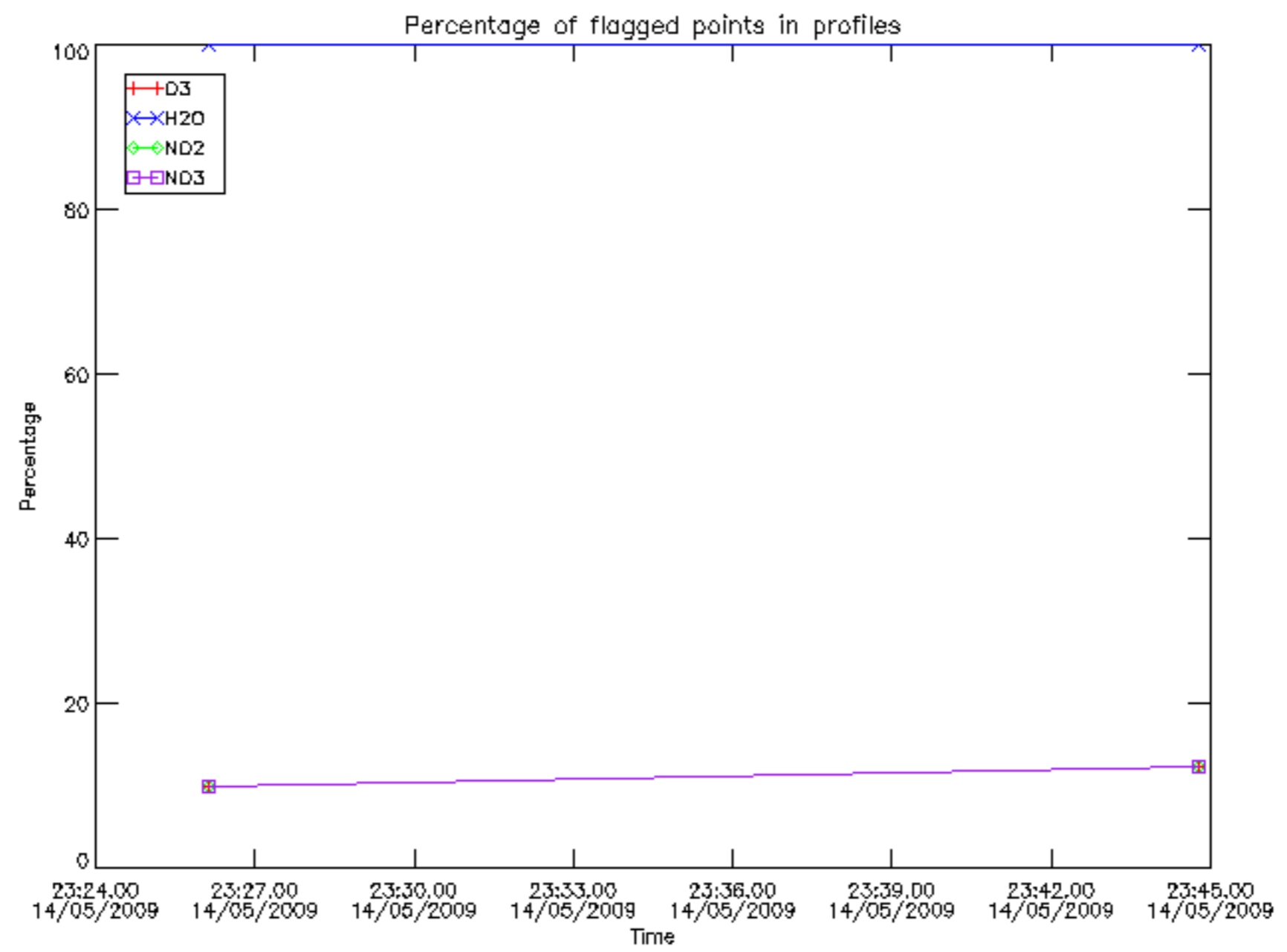
The colorbar represents the latitude.



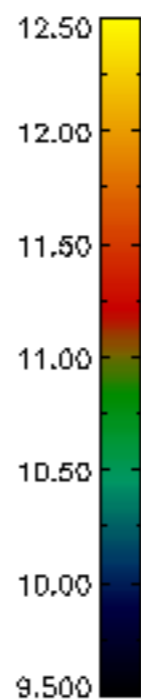
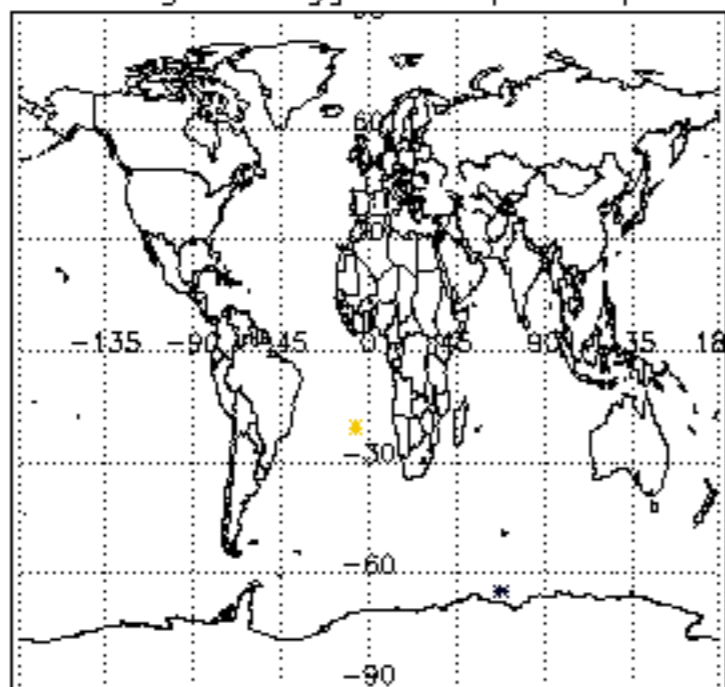
6. Auxiliary Data Files used for the production reported in section 2

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.

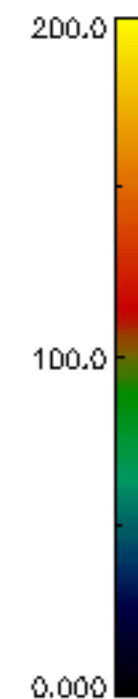
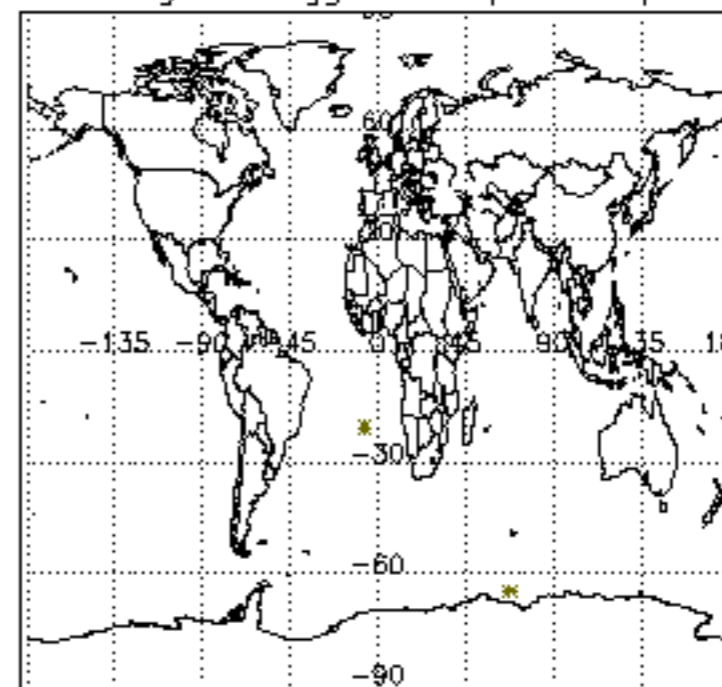
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	14-MAY-2009 22:20:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-MAY-2009 22:20:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-MAY-2009 22:20:33



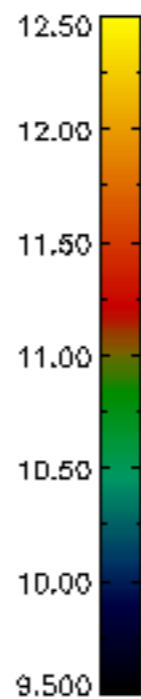
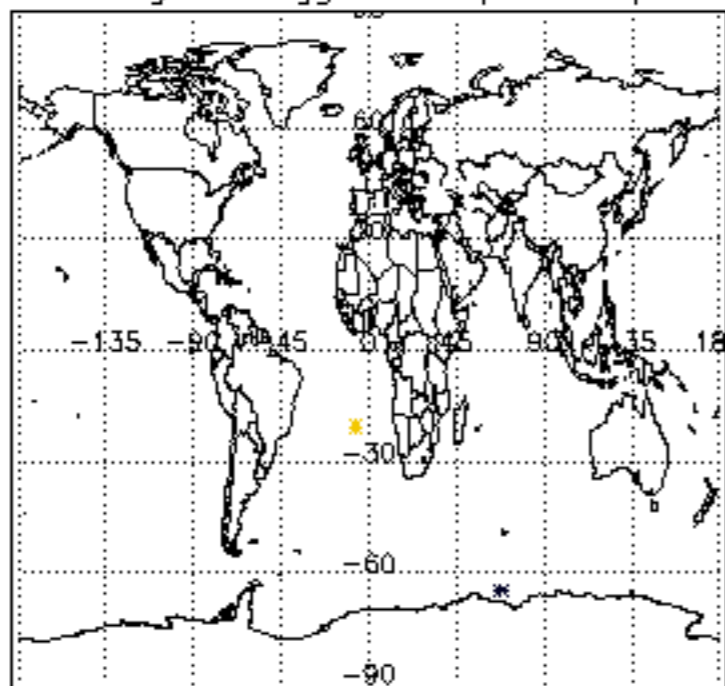
Percentage of flagged data per D3 profile



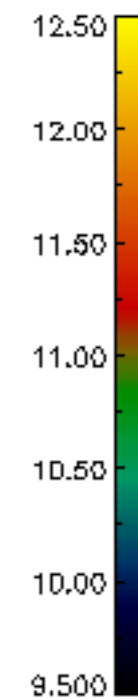
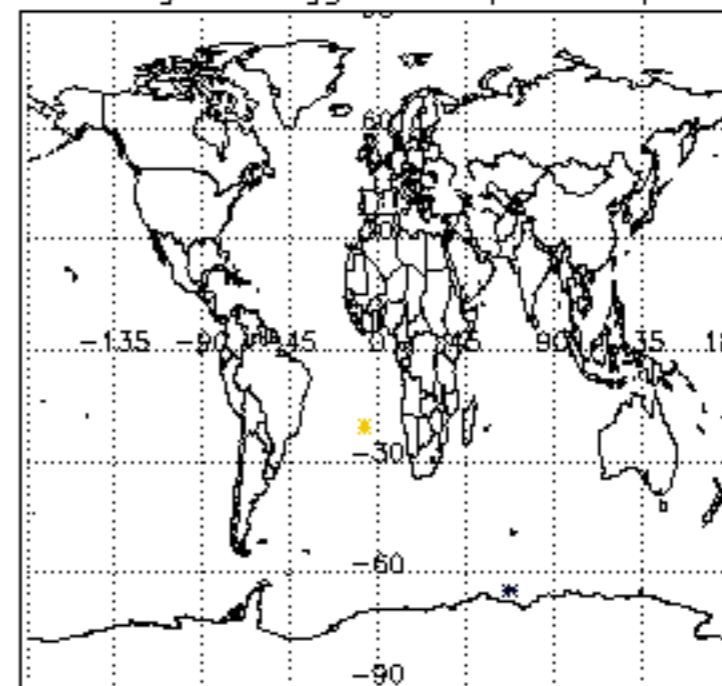
Percentage of flagged data per H2O profile

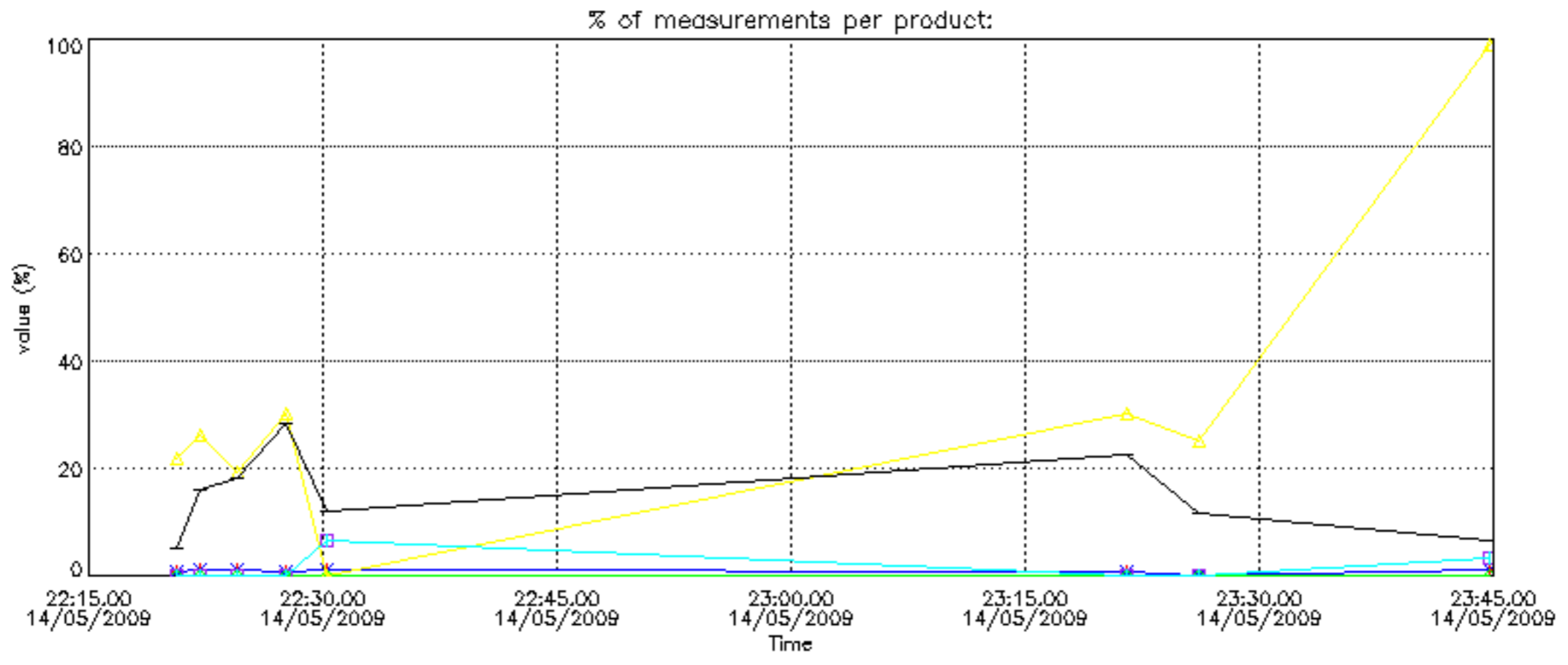


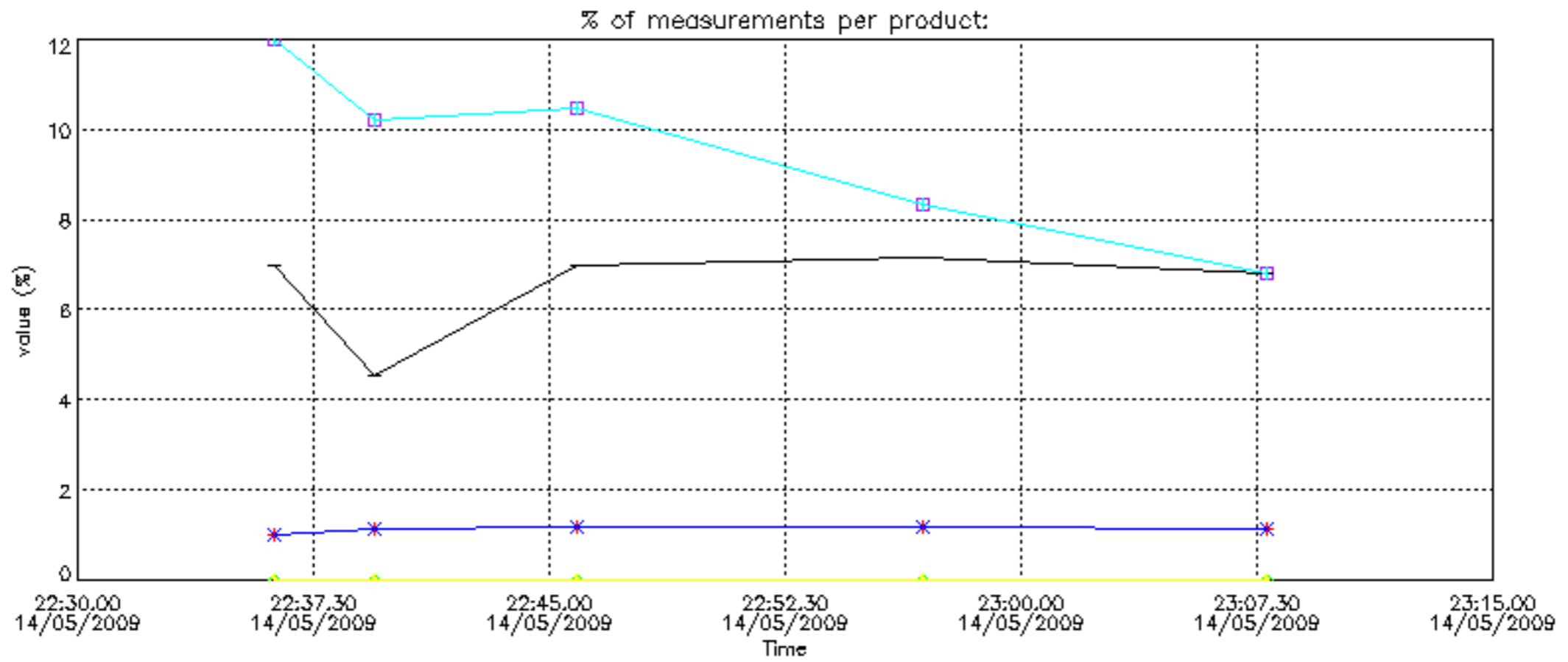
Percentage of flagged data per NO2 profile



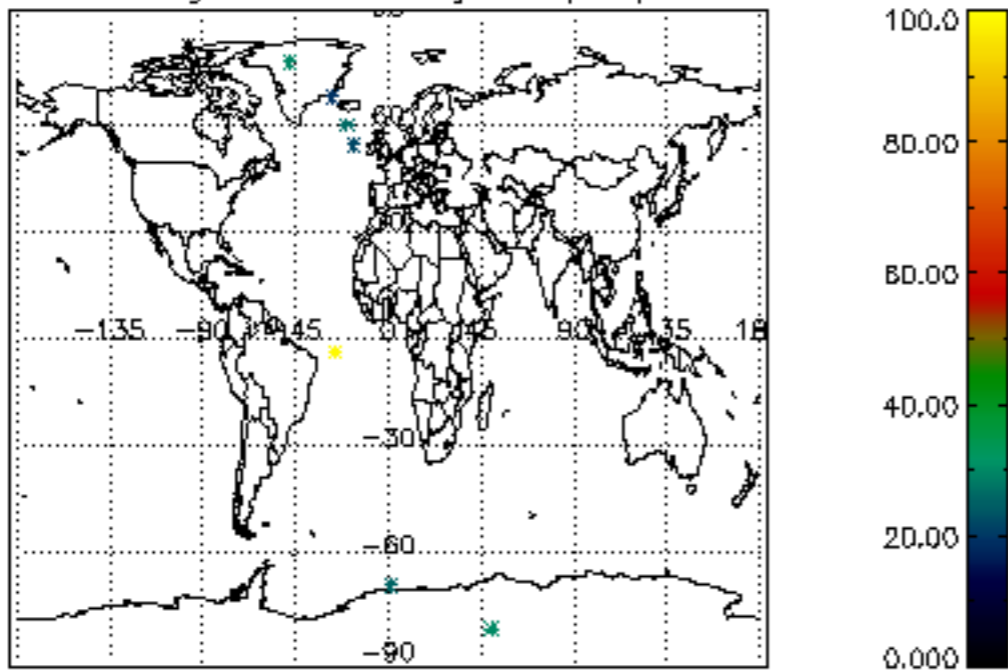
Percentage of flagged data per NO3 profile



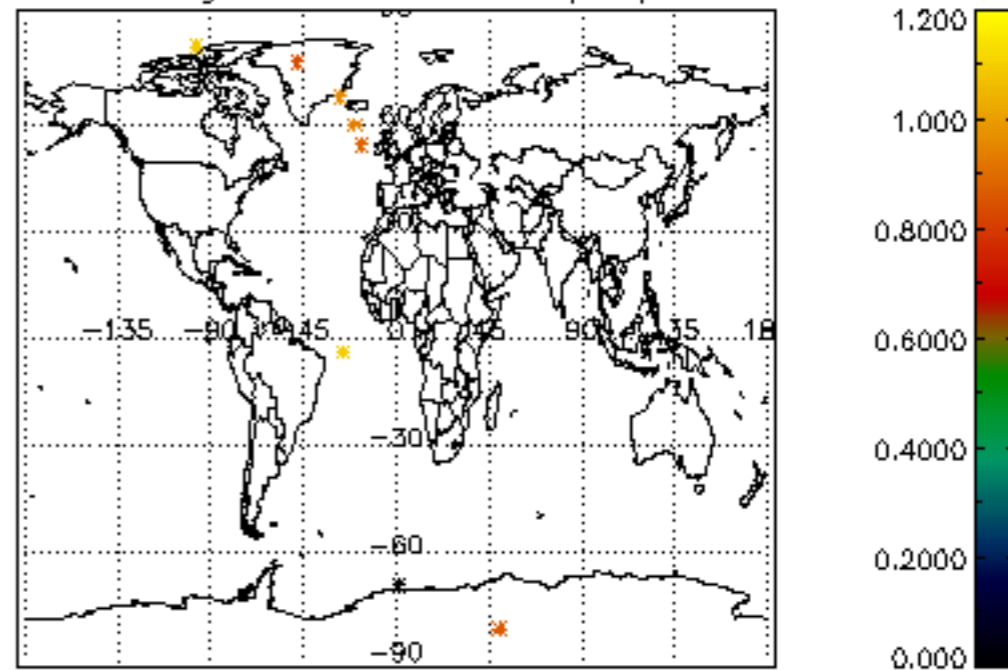




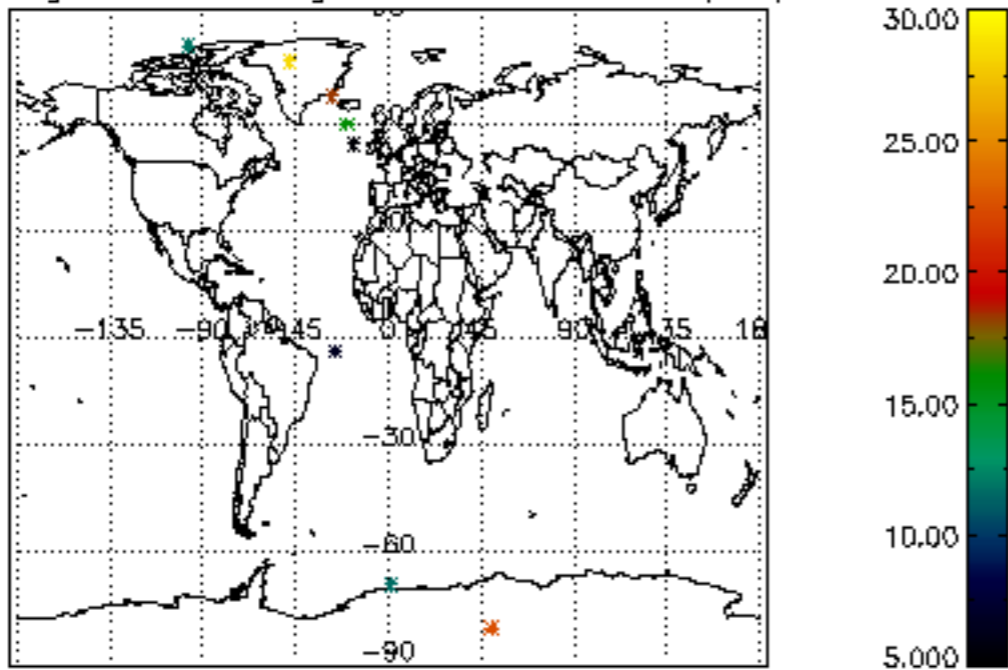
Percentage of cosmic ray hits per profile



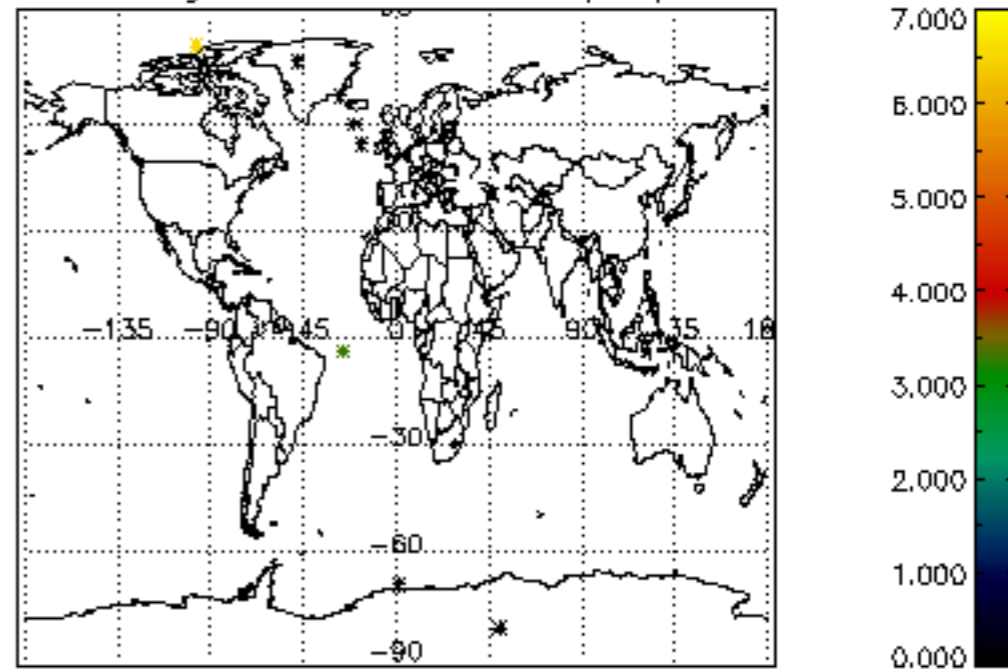
Percentage of datation errors per profile



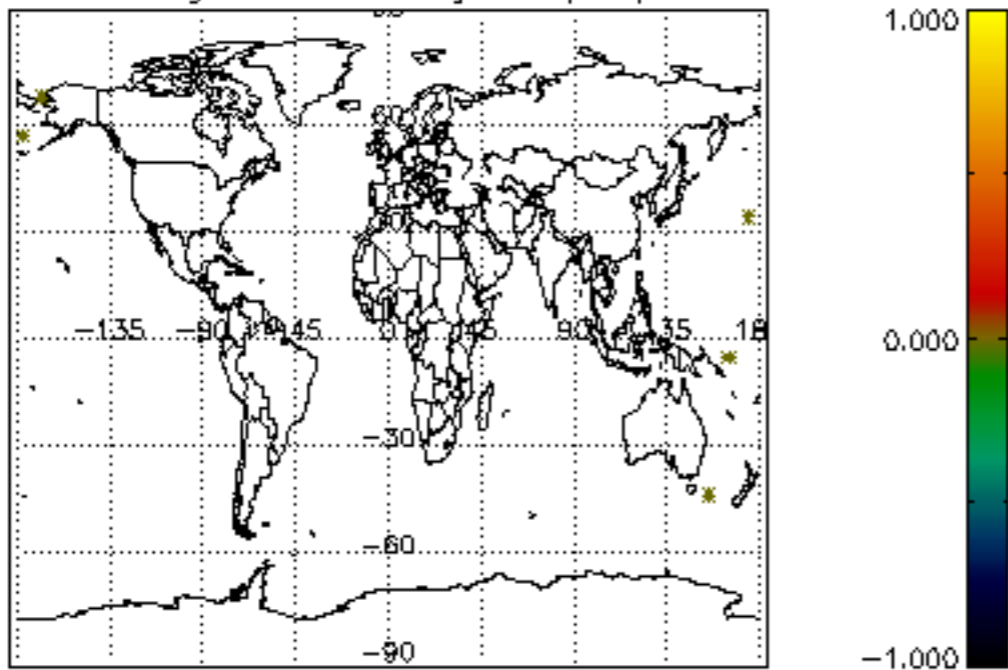
Percentage of star falling outside central band per profile



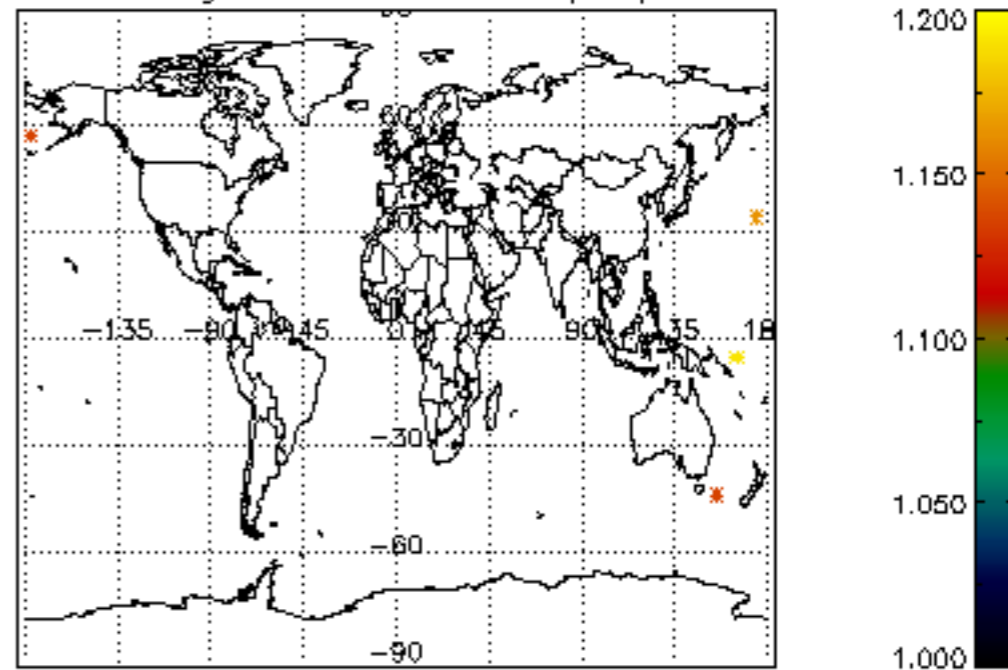
Percentage of saturation errors per profile



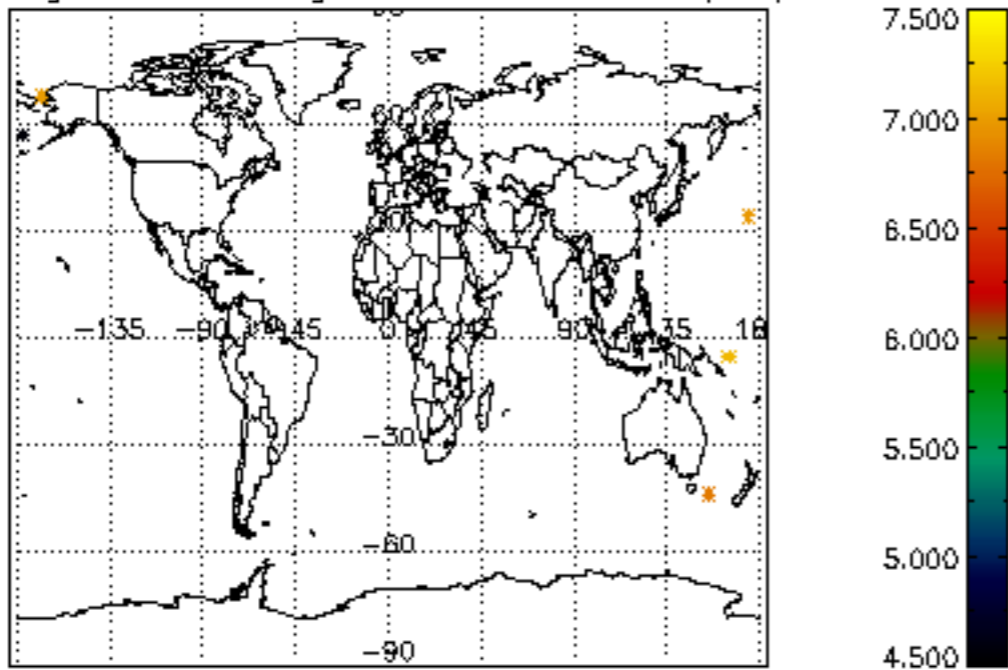
Percentage of cosmic ray hits per profile



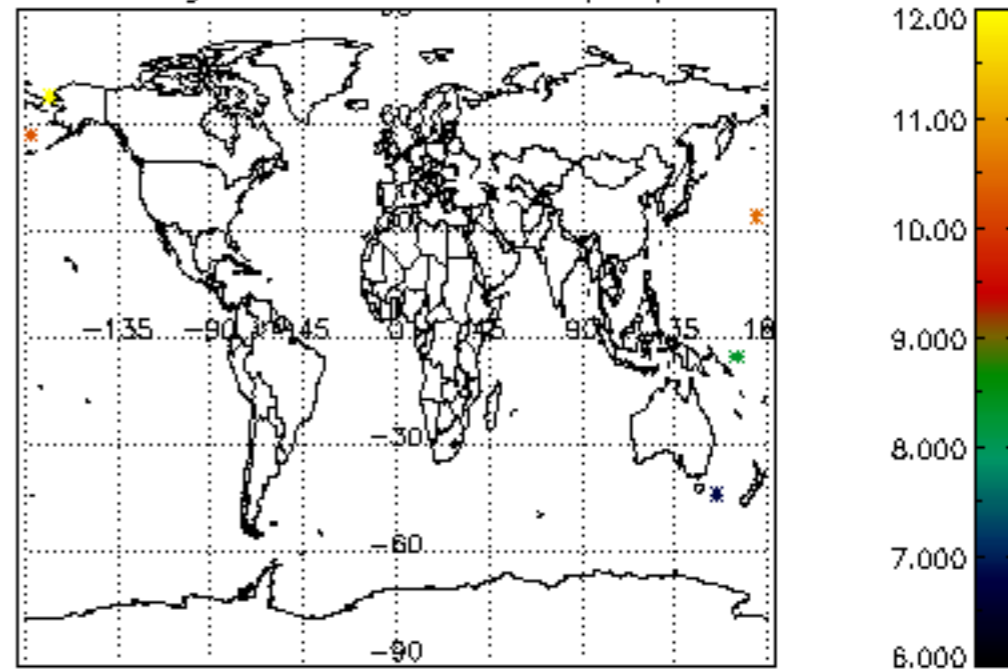
Percentage of datation errors per profile

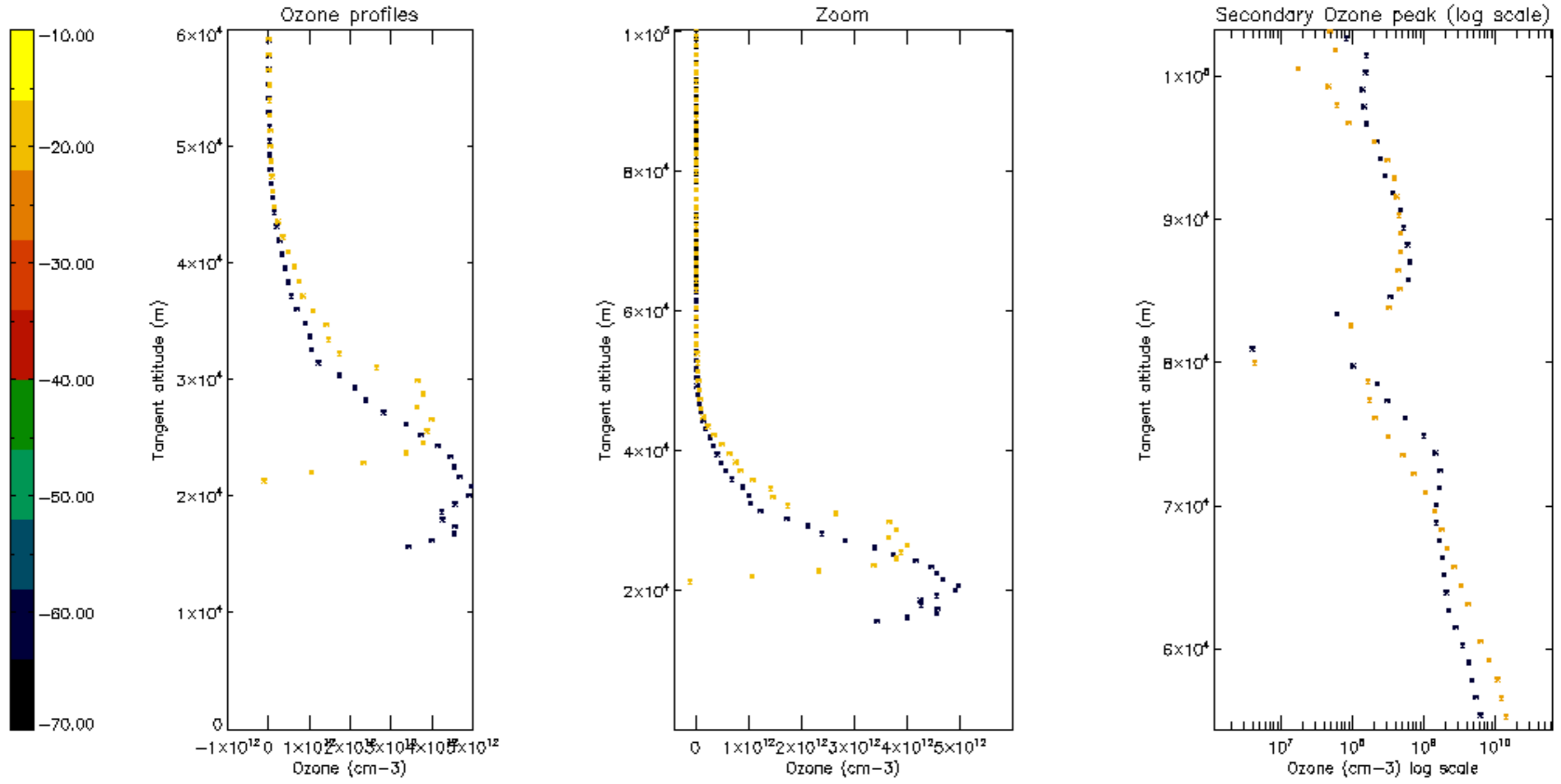


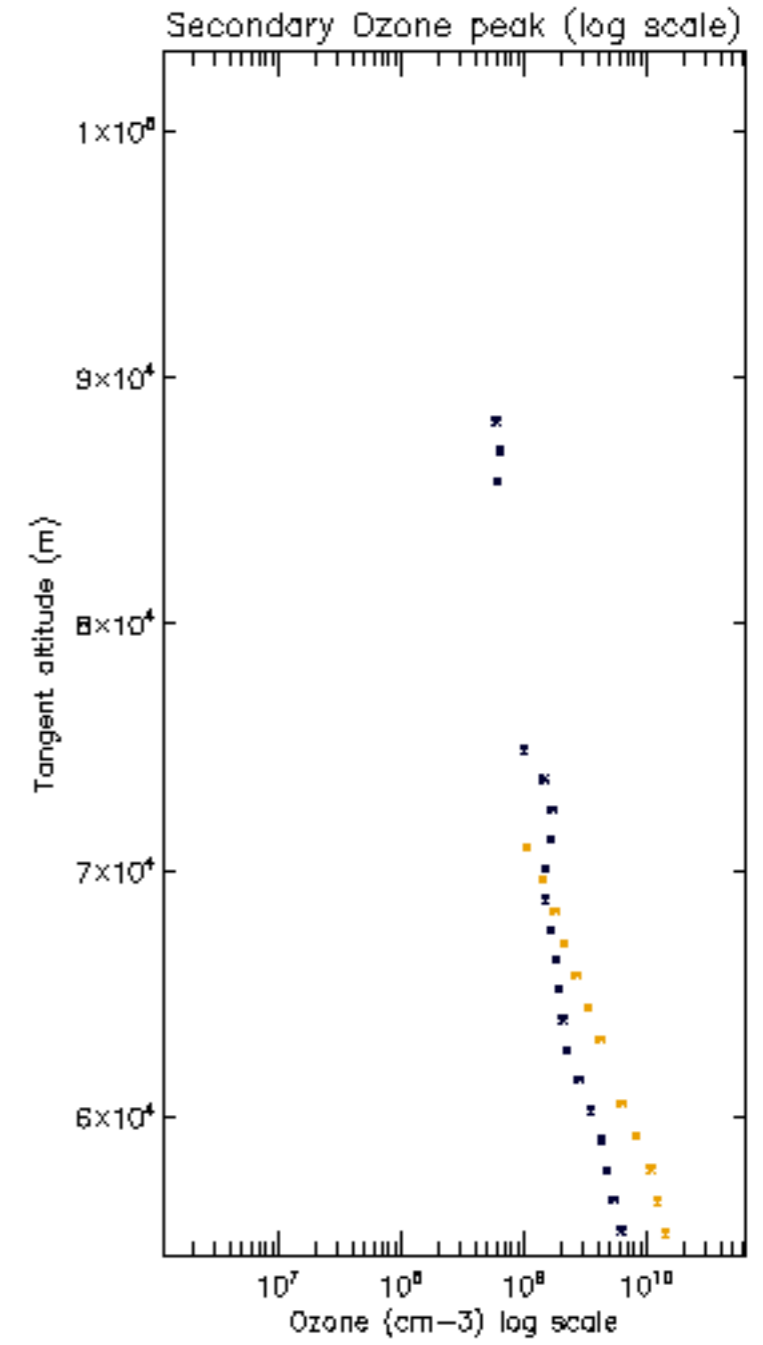
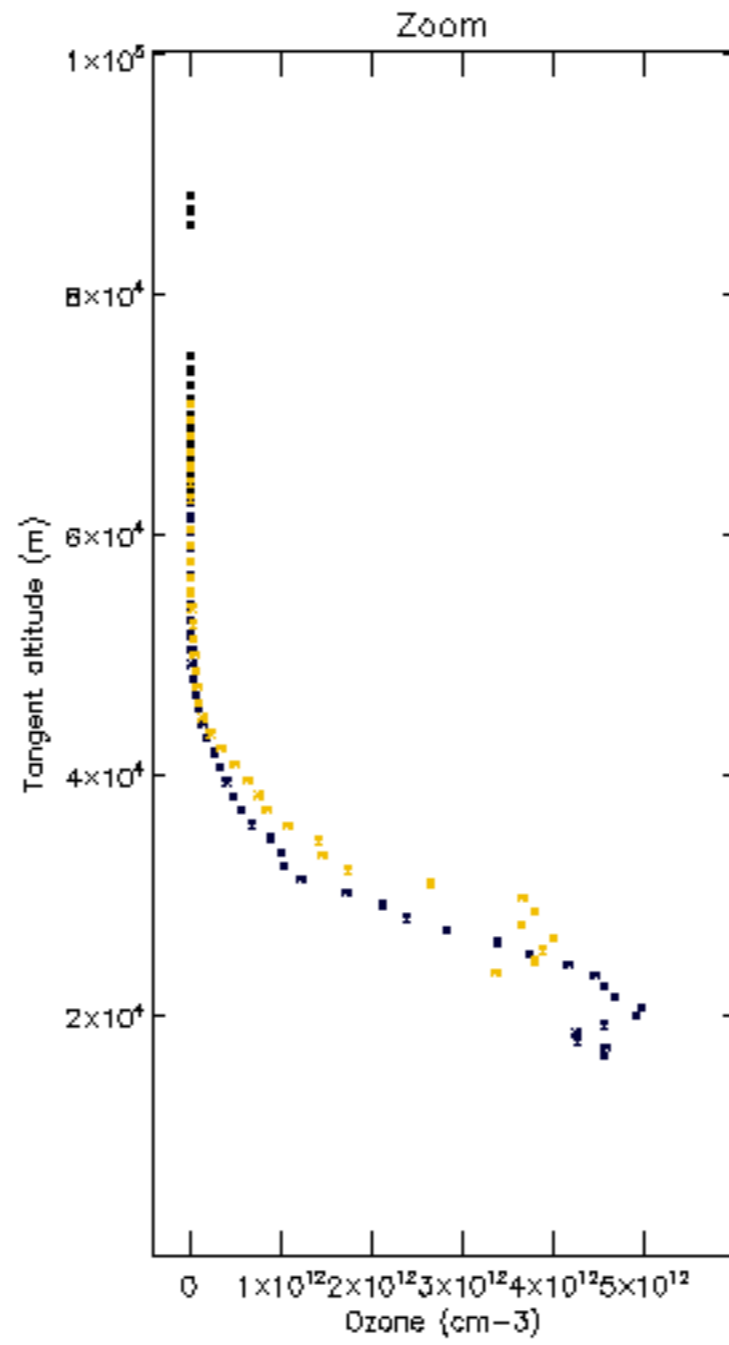
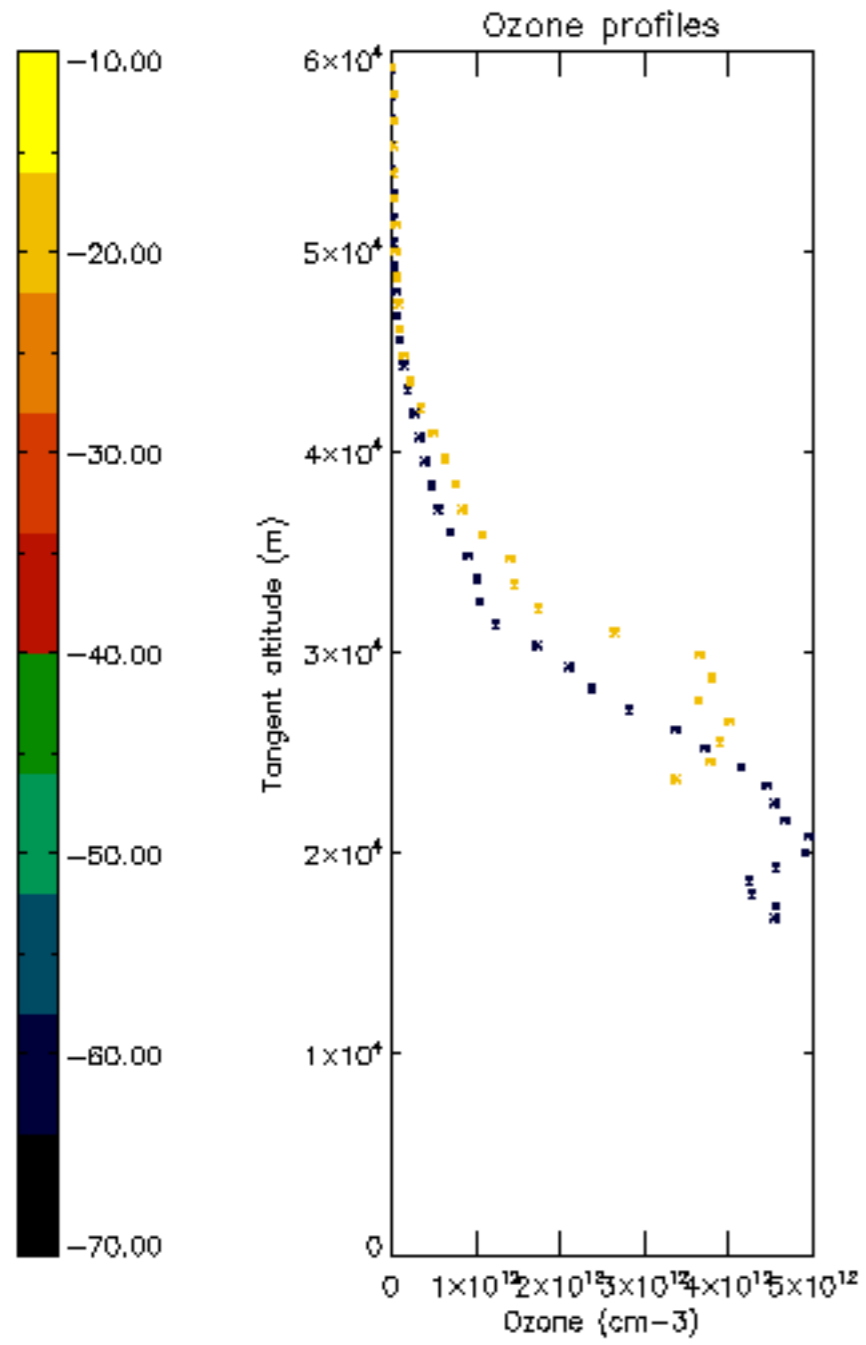
Percentage of star falling outside central band per profile

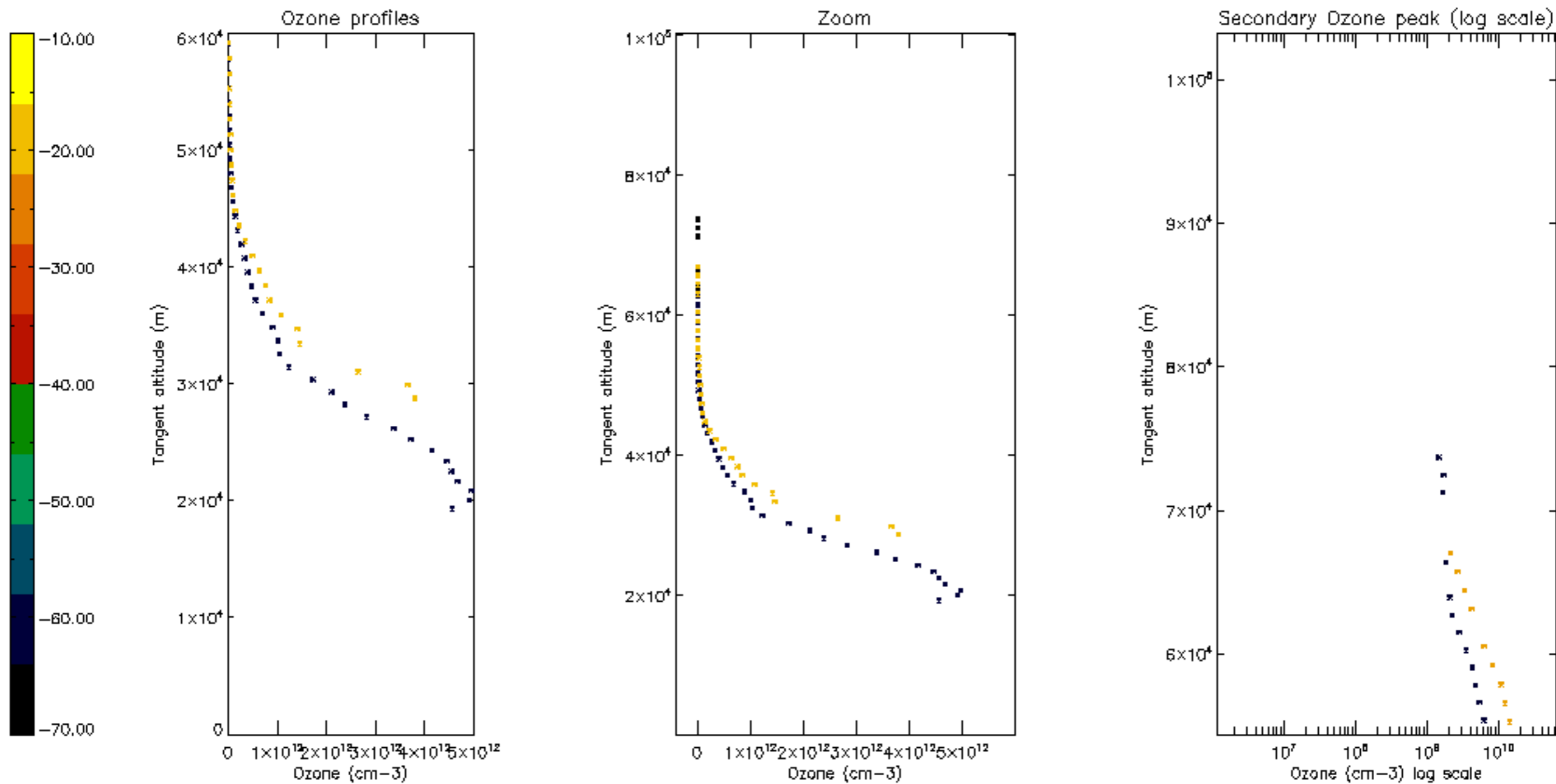


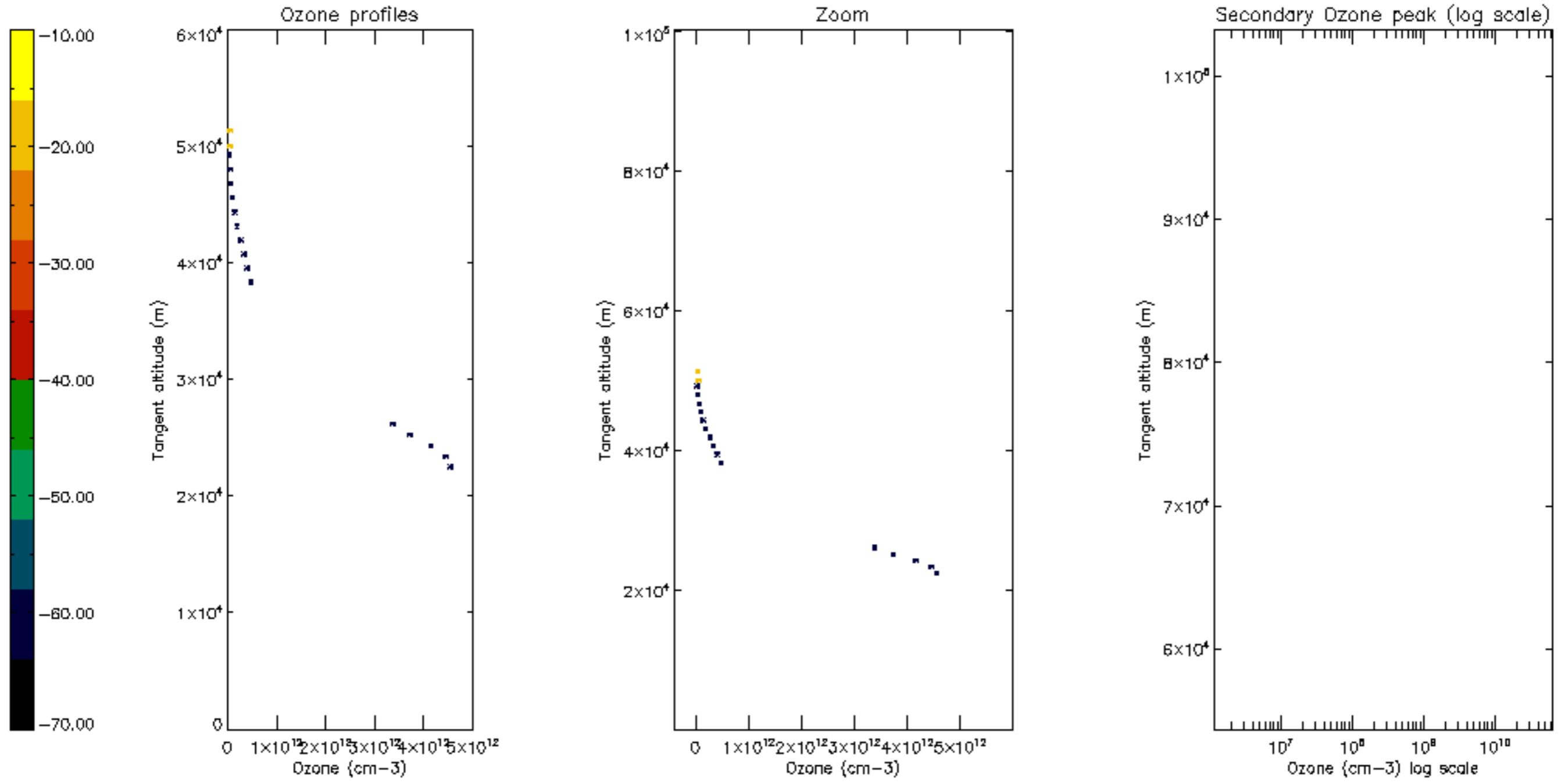
Percentage of saturation errors per profile

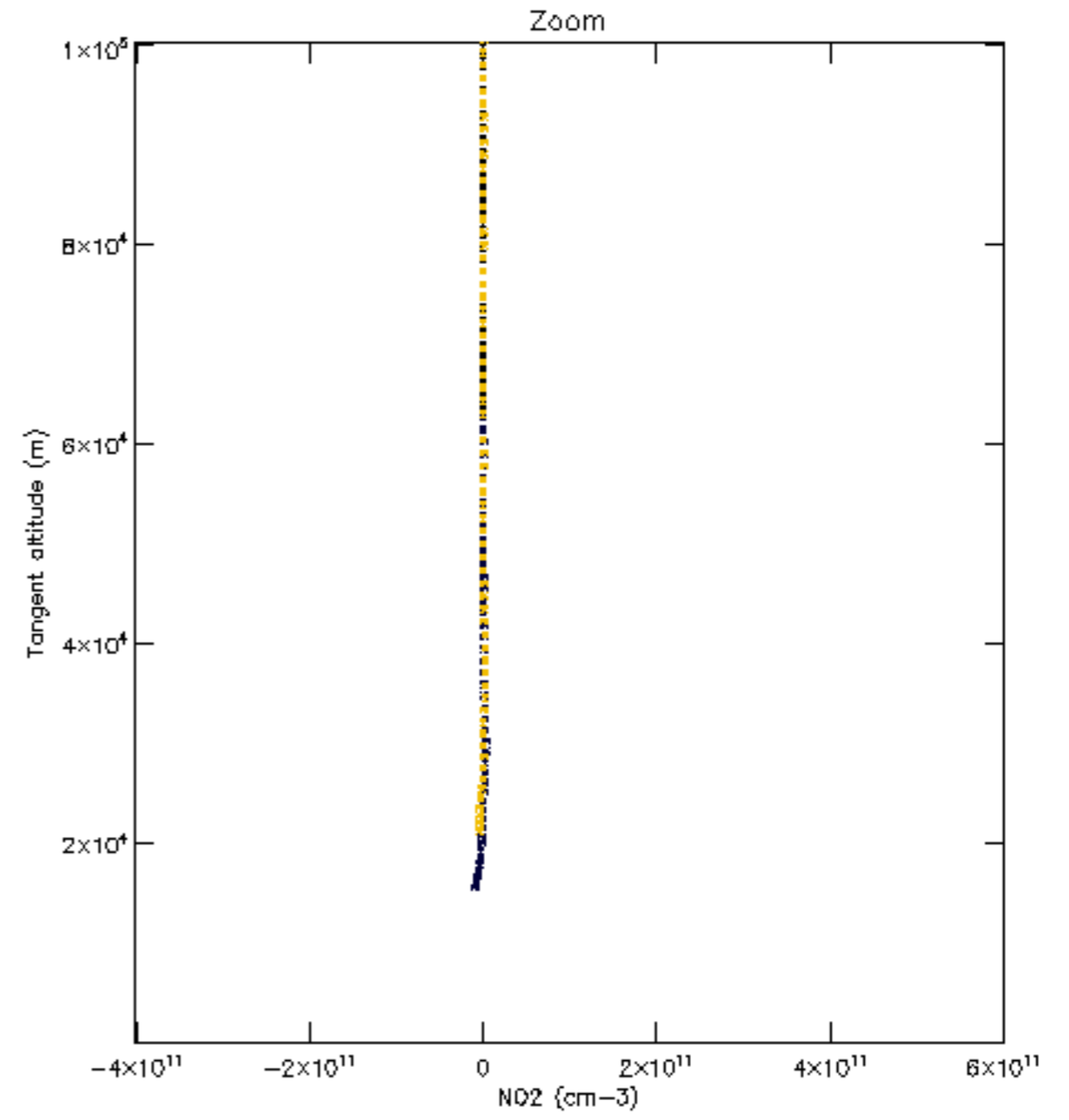
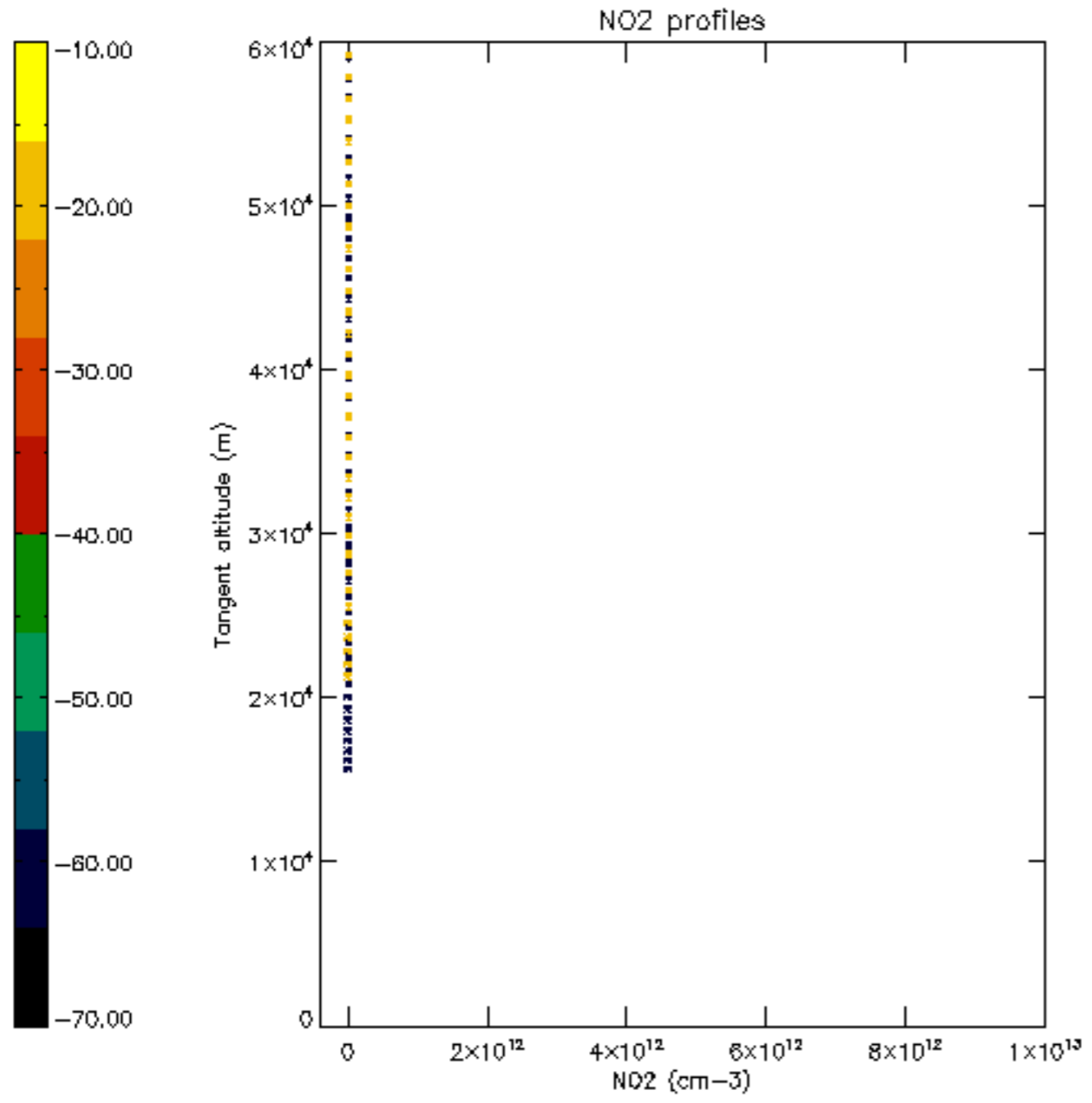


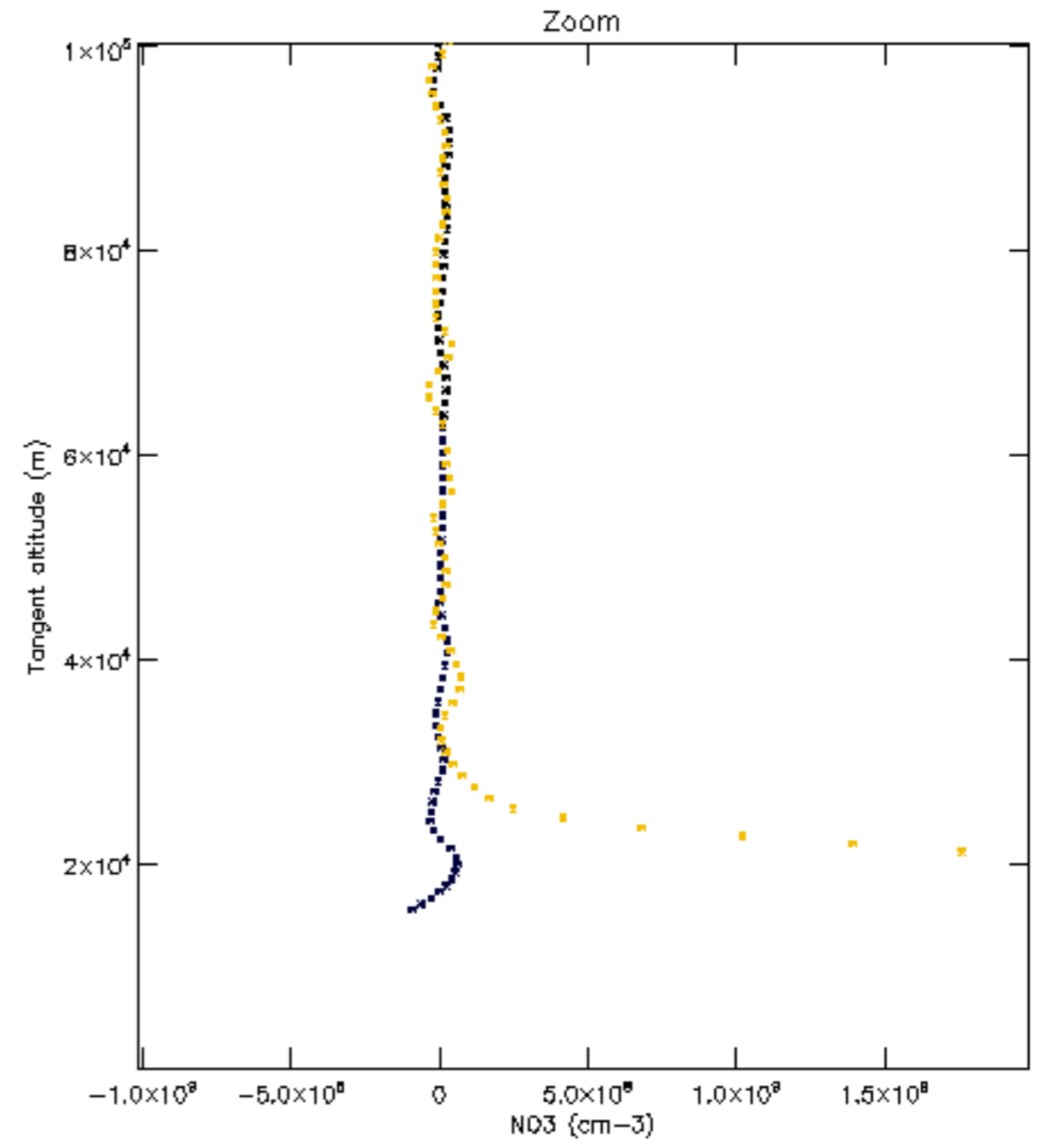
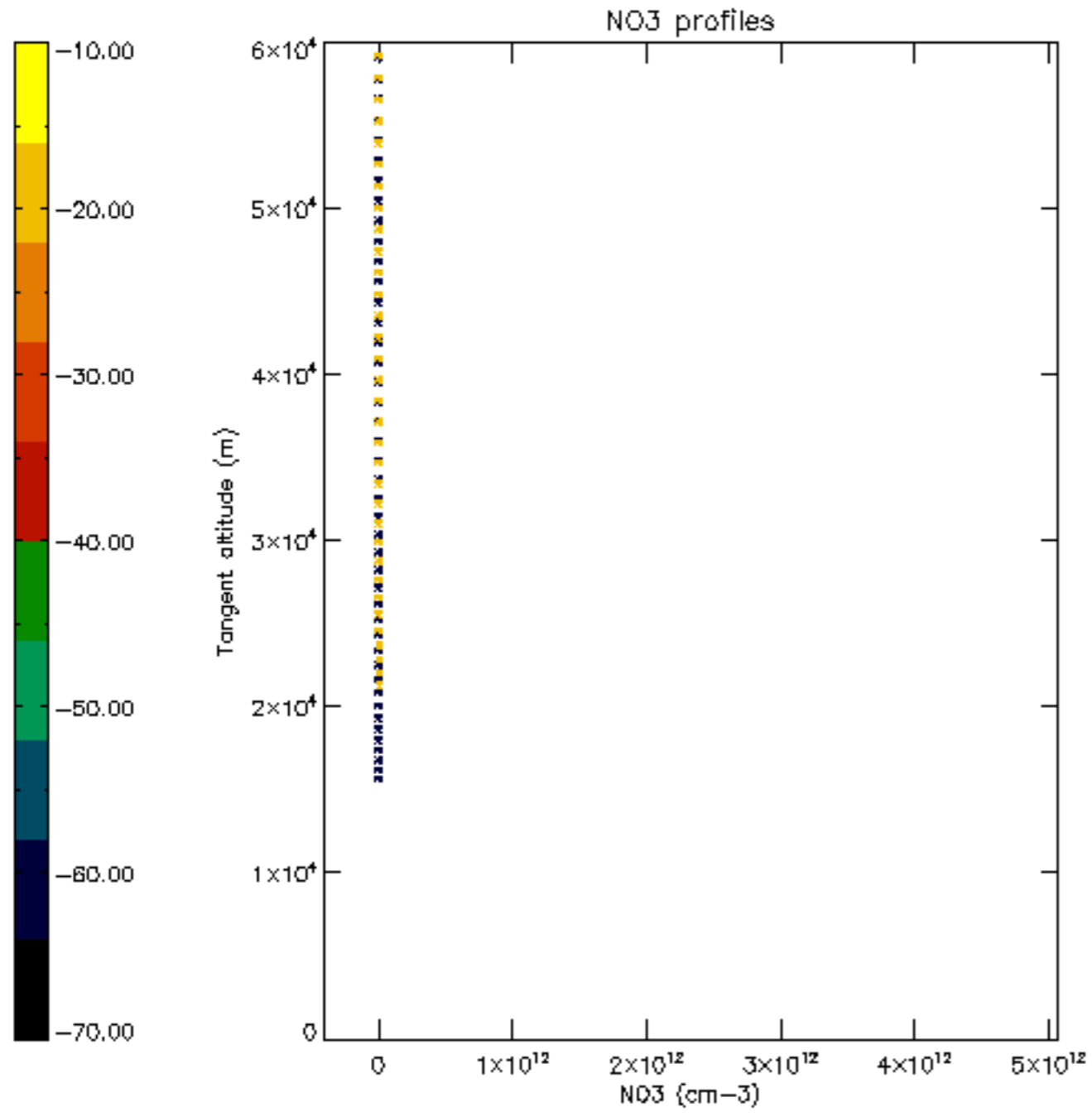


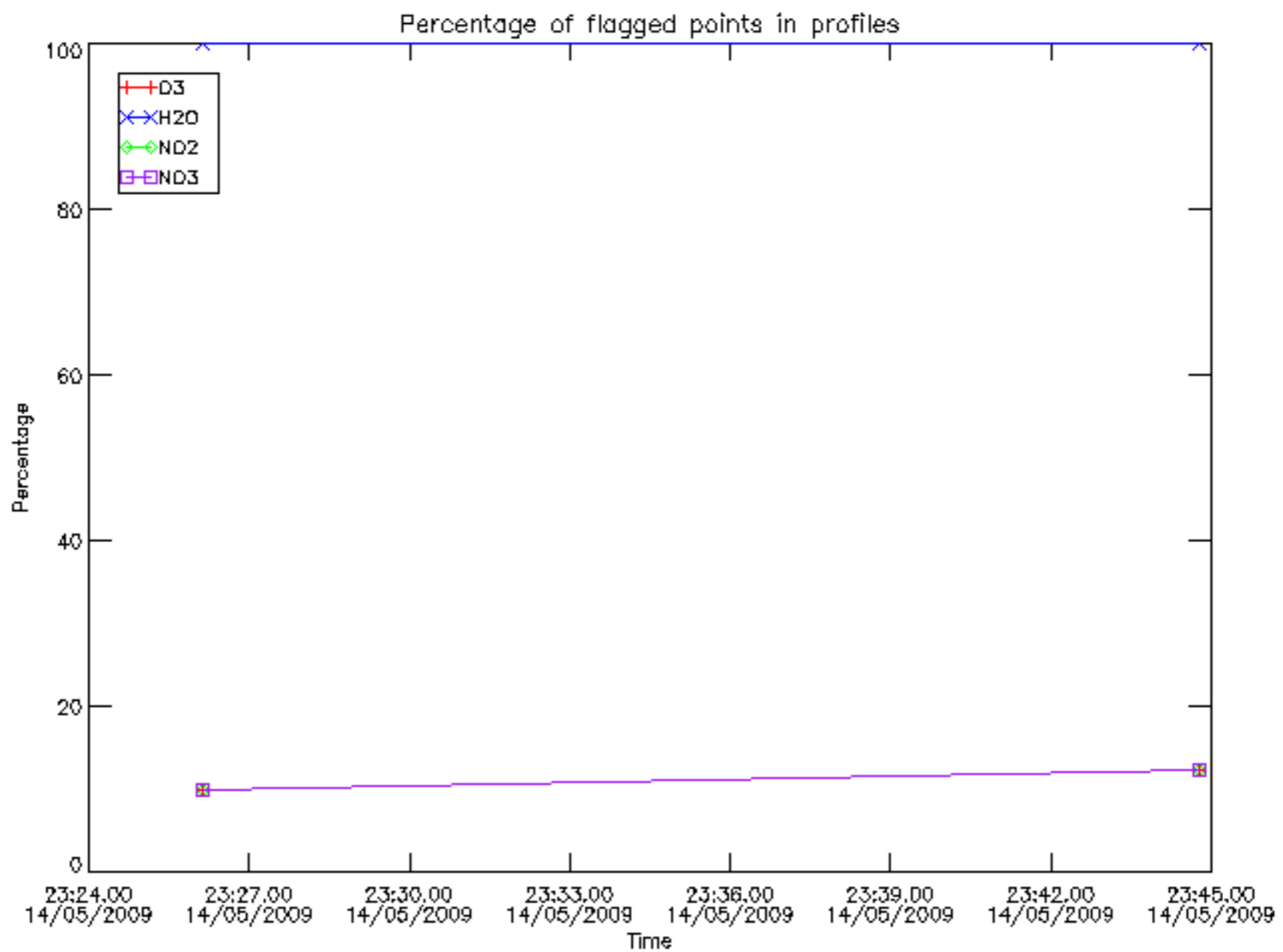




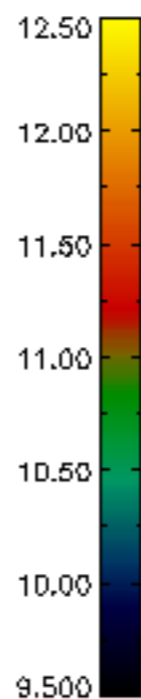
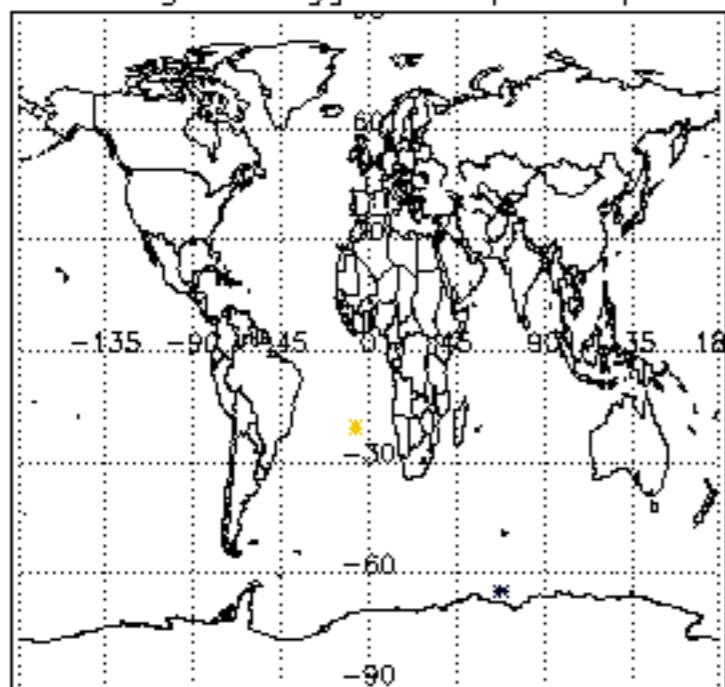




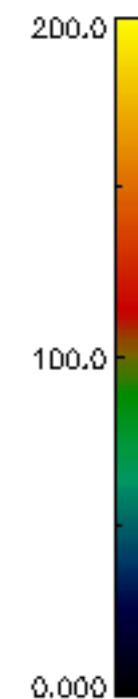
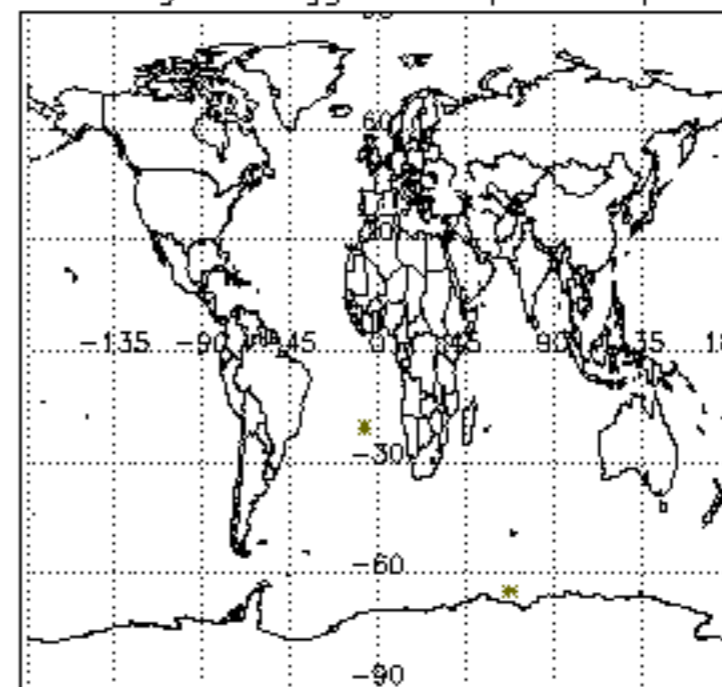




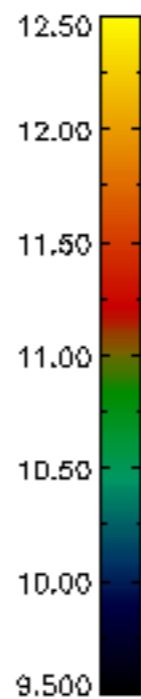
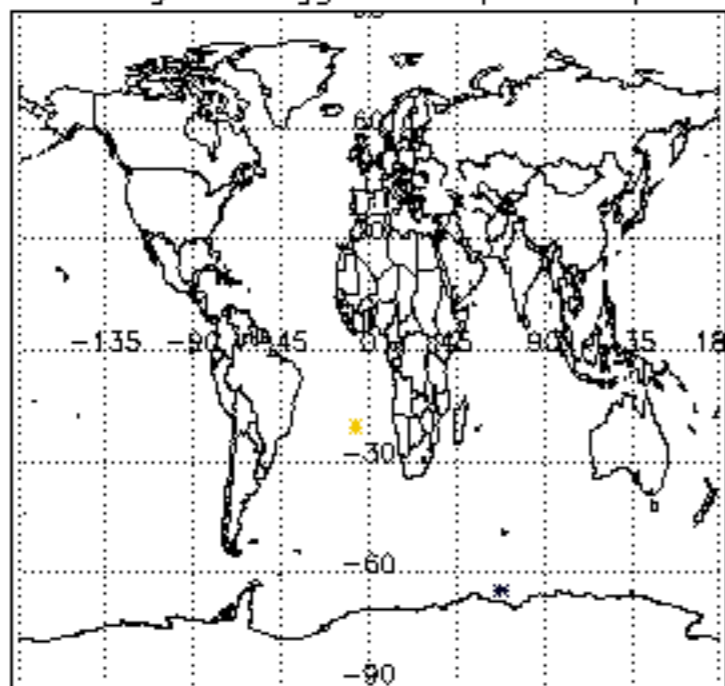
Percentage of flagged data per D3 profile



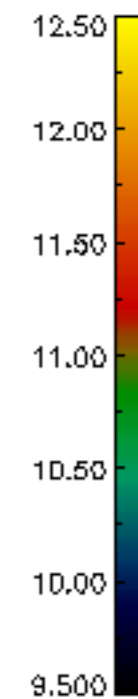
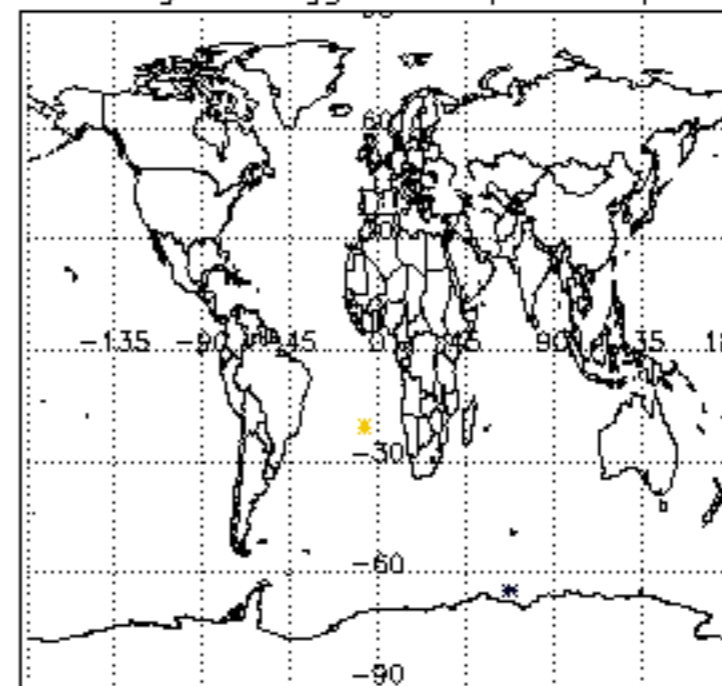
Percentage of flagged data per H2O profile

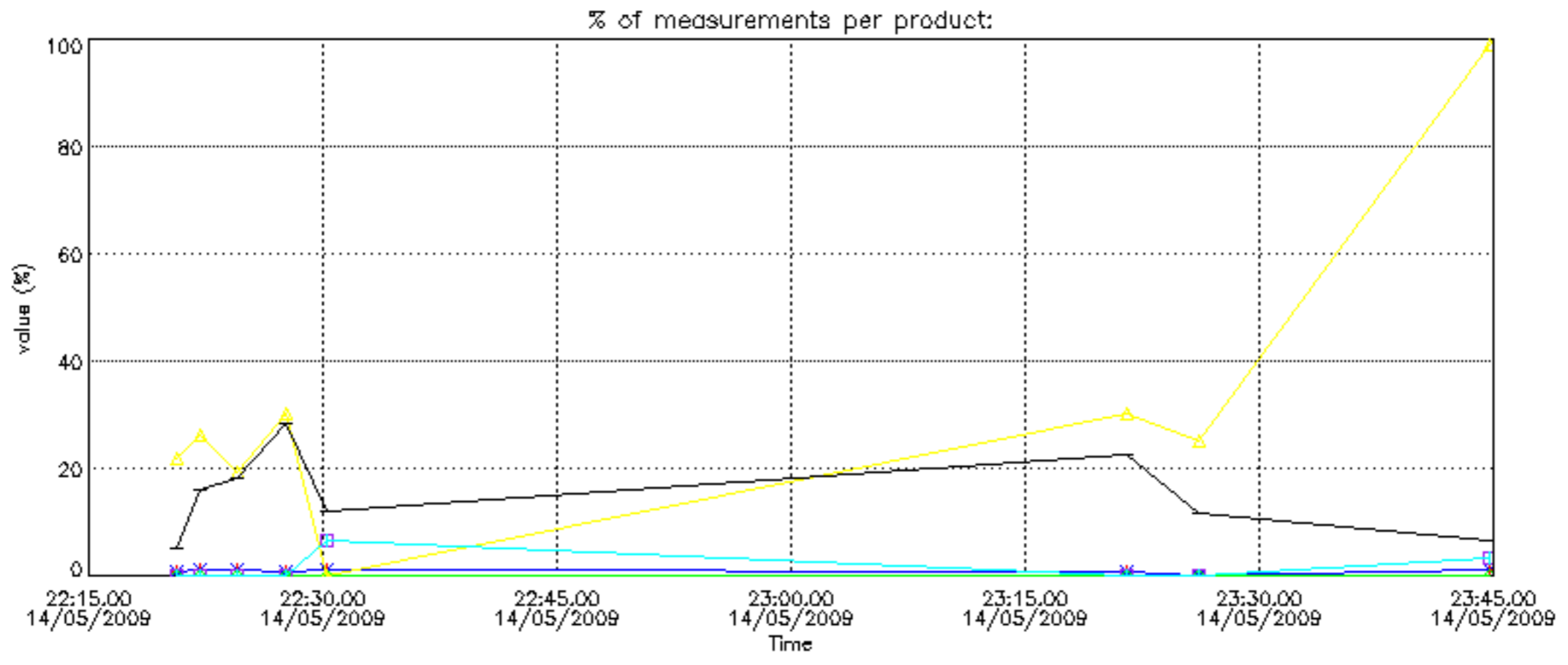


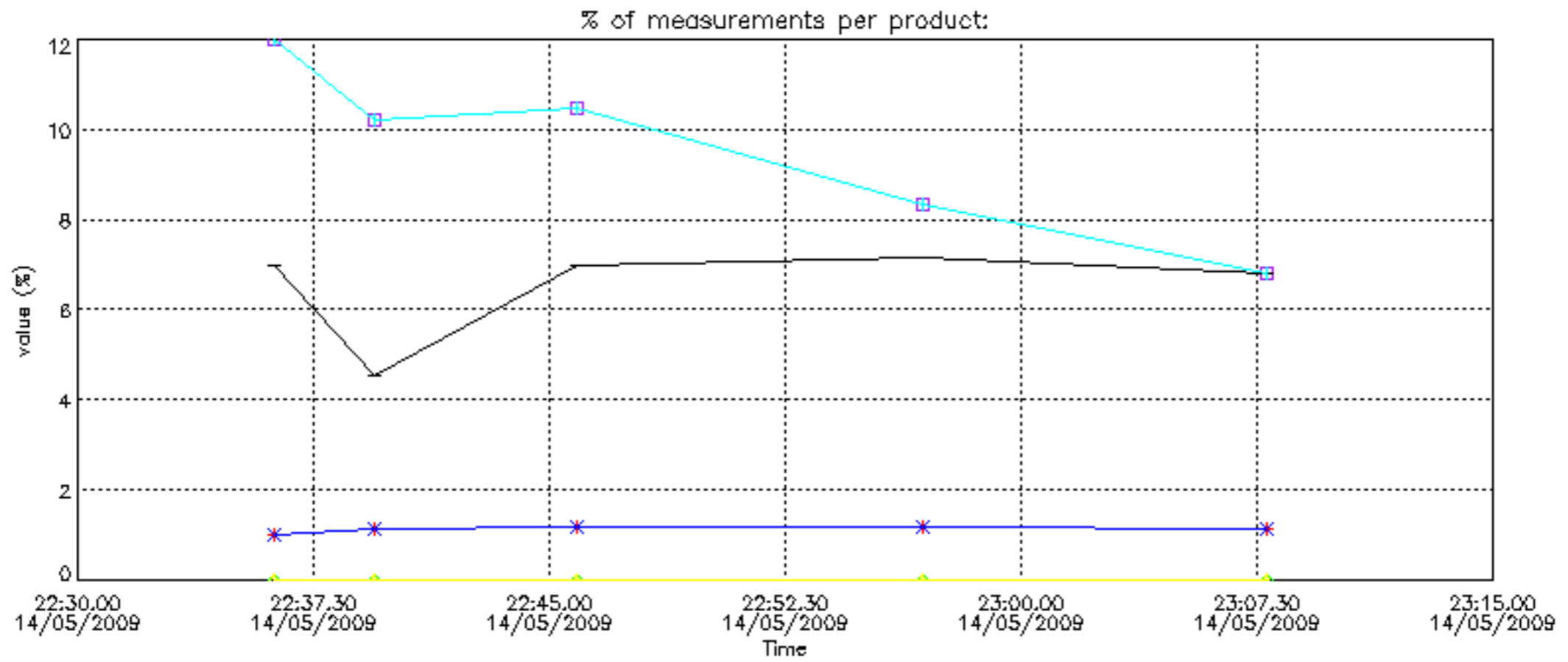
Percentage of flagged data per NO2 profile



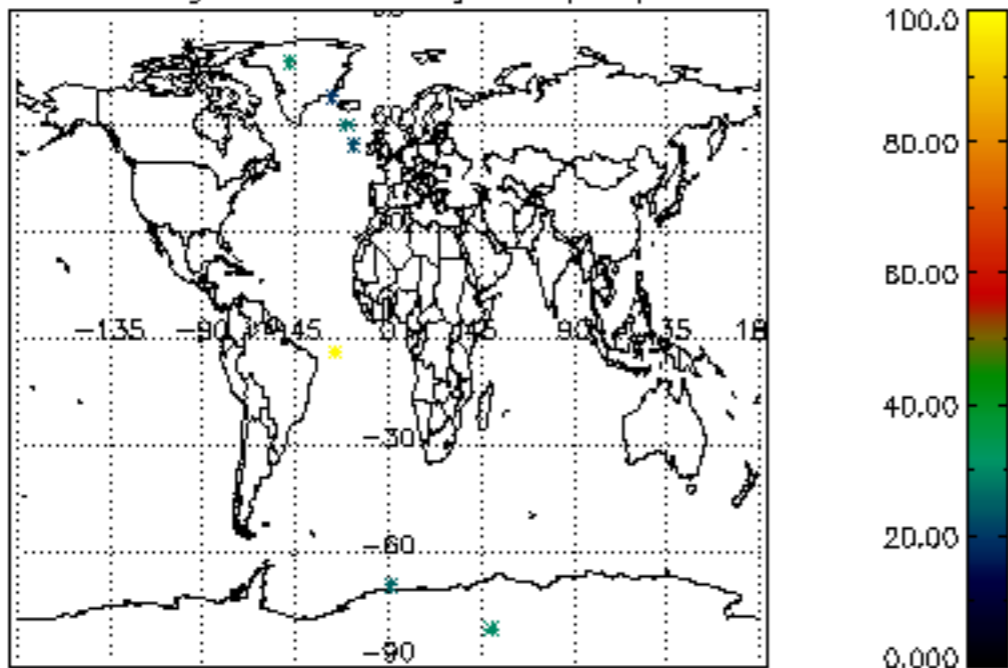
Percentage of flagged data per NO3 profile



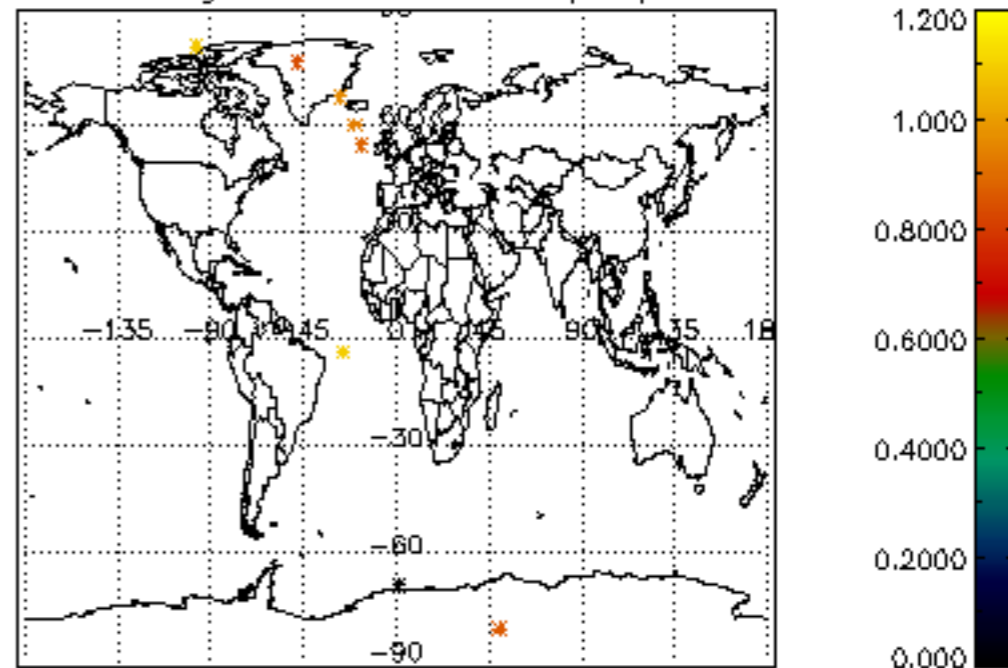




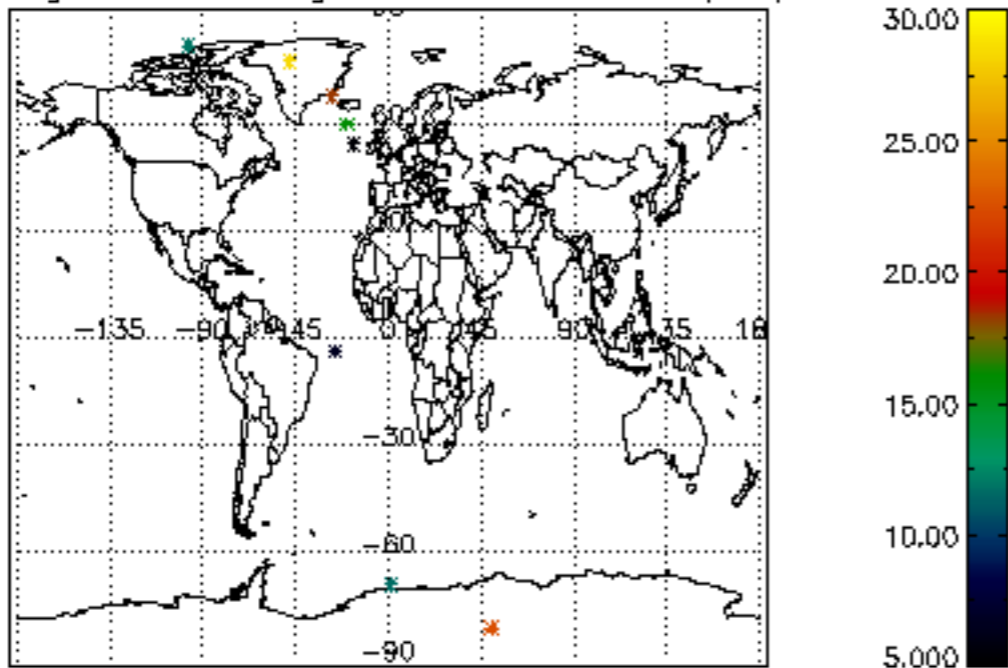
Percentage of cosmic ray hits per profile



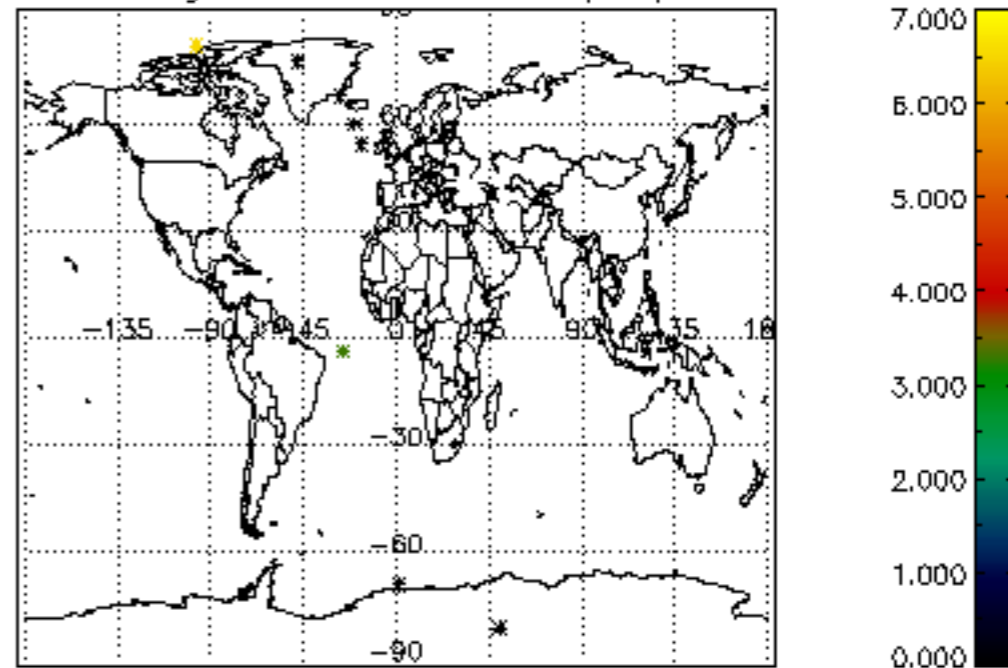
Percentage of datation errors per profile



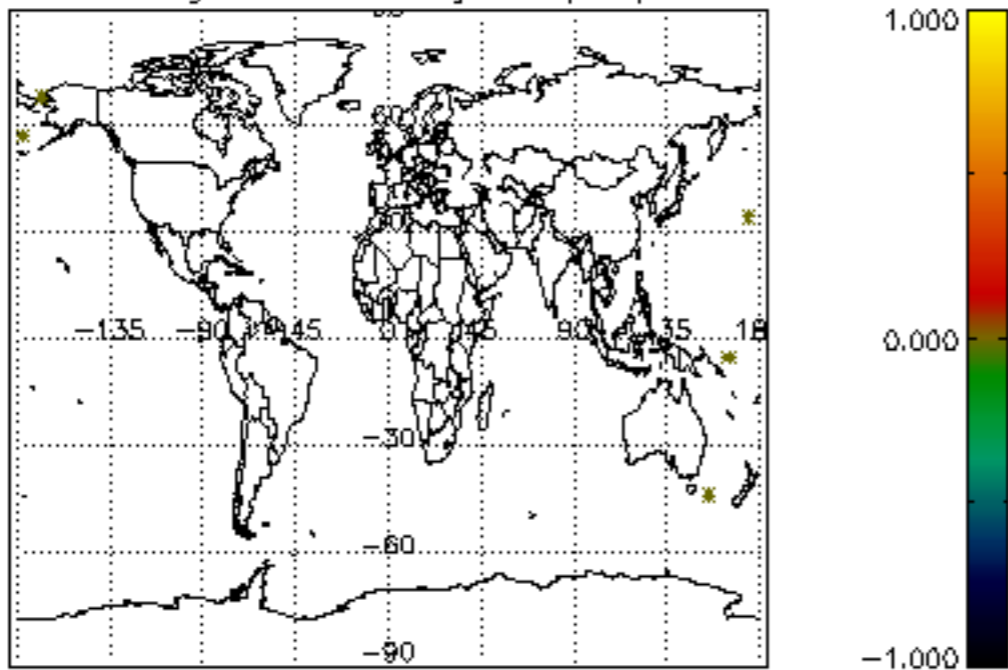
Percentage of star falling outside central band per profile



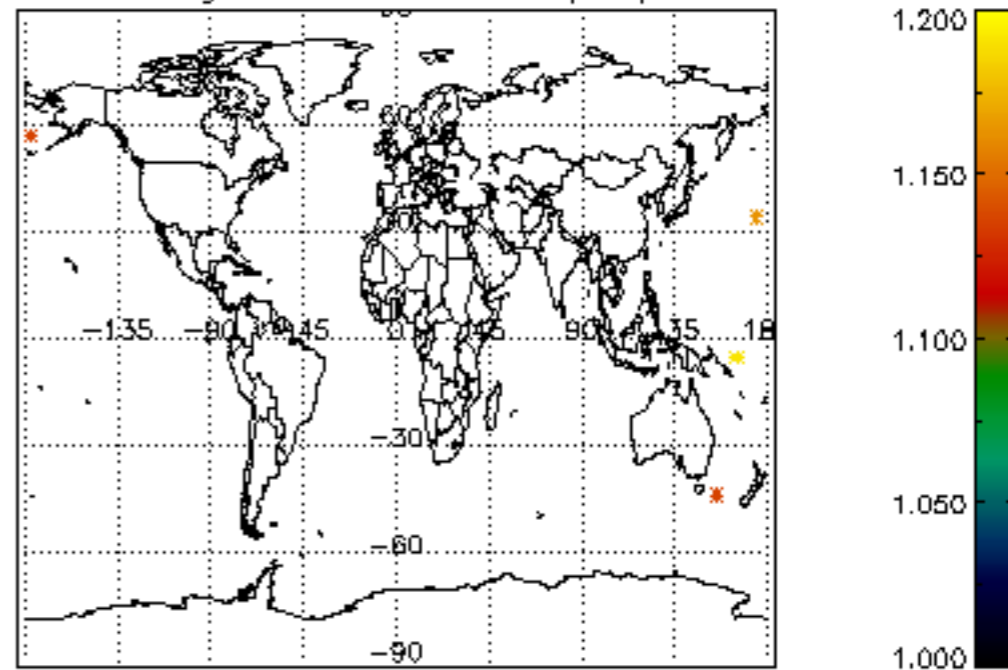
Percentage of saturation errors per profile



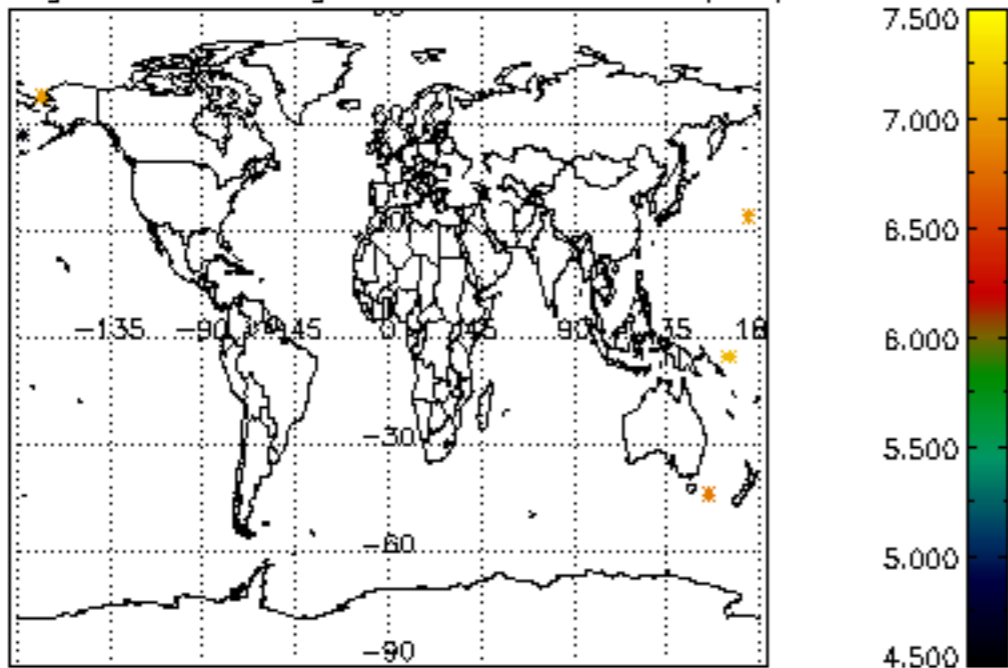
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

