

GOMOS Level 2 Daily Report

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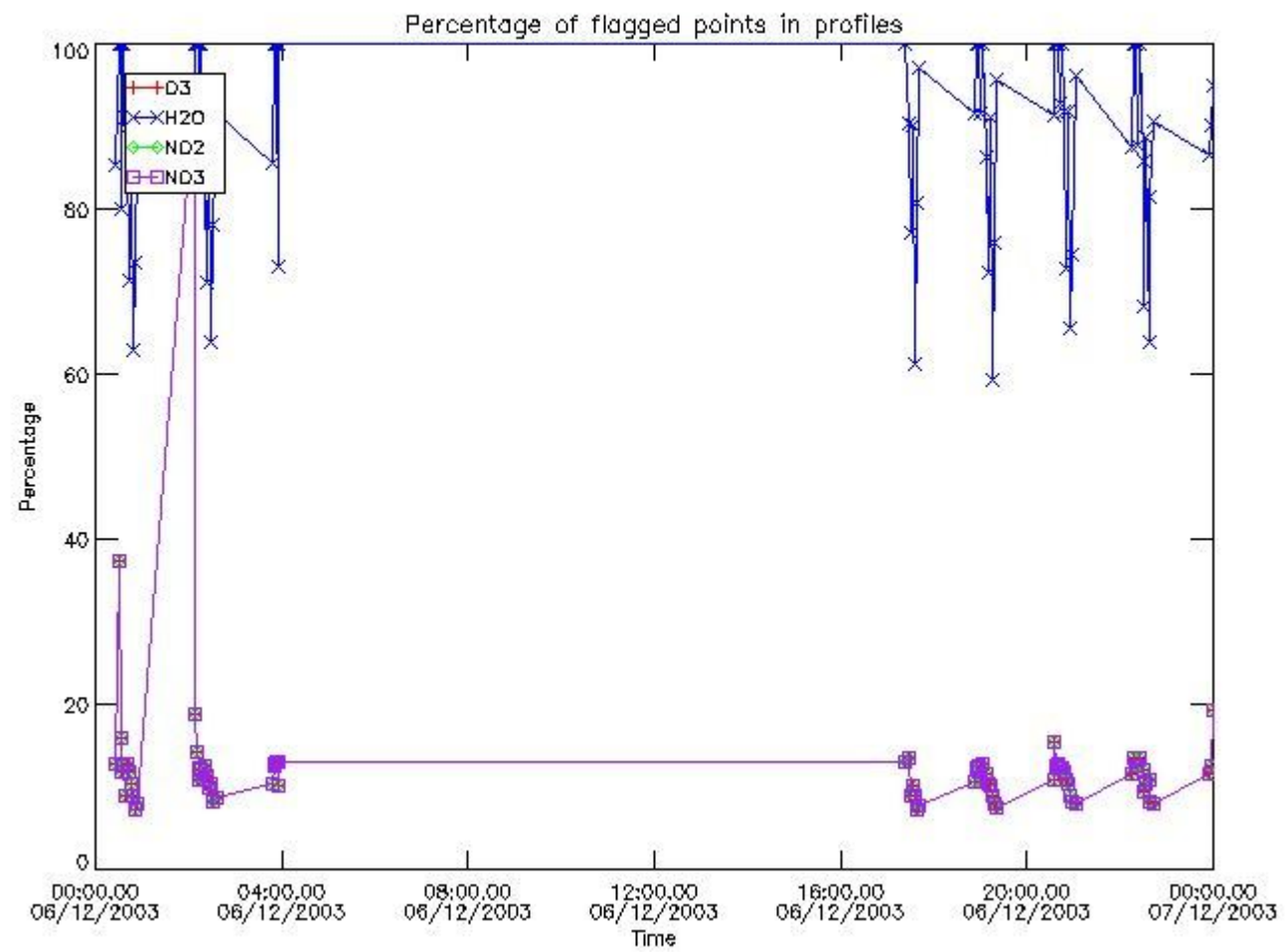
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220	GOM_NL__2PRFIN20031206_233138_000000382022_00173_09245_9451.N1	06-DEC-2003 23:31:38	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	9245	No
221	GOM_NL__2PRFIN20031206_233441_000000382022_00173_09245_9452.N1	06-DEC-2003 23:34:41	Bright	37.500	180	27Gam Boo	3.0400	8000.0	75	9245	No
222	GOM_NL__2PRFIN20031206_233745_000000522022_00173_09245_9453.N1	06-DEC-2003 23:37:45	Bright	52.000	83		2.3780	11000.	104	9245	No
223	GOM_NL__2PRFIN20031206_234051_000000552022_00173_09245_9454.N1	06-DEC-2003 23:40:51	Bright	55.000	111	8Eta Boo	2.6800	6000.0	110	9245	No
224	GOM_NL__2PRFIN20031206_234459_000000952022_00173_09245_9455.N1	06-DEC-2003 23:44:59	Twilight	95.000	96	68Del Leo	2.5600	9300.0	190	9245	No
225	GOM_NL__2PRFIN20031206_234849_000000532022_00173_09245_9456.N1	06-DEC-2003 23:48:49	Bright	53.000	121	29Gam Vir	2.7400	7200.0	106	9245	No
226	GOM_NL__2PRFIN20031206_235344_000000472022_00173_09245_9457.N1	06-DEC-2003 23:53:44	Twilight	47.000	163	7Del Crv	2.9450	11000.	94	9245	No
227	GOM_NL__2PRFIN20031206_235518_000000492022_00173_09245_9458.N1	06-DEC-2003 23:55:18	Dark	48.500	106	9Bet Crv	2.6480	5600.0	97	9245	No
228	GOM_NL__2PRFIN20031206_235653_000000412022_00173_09245_9459.N1	06-DEC-2003 23:56:53	Dark	41.000	123	1ot Cen	2.7500	10200.	82	9245	No
229	GOM_NL__2PRFIN20031206_235849_000000402022_00173_09245_9460.N1	06-DEC-2003 23:58:49	Dark	39.500	95	Zet Cen	2.5450	26000.	79	9245	No

3. Quality information per product

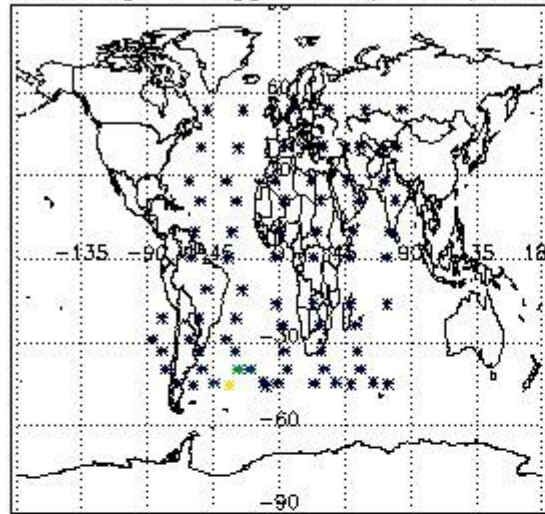
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

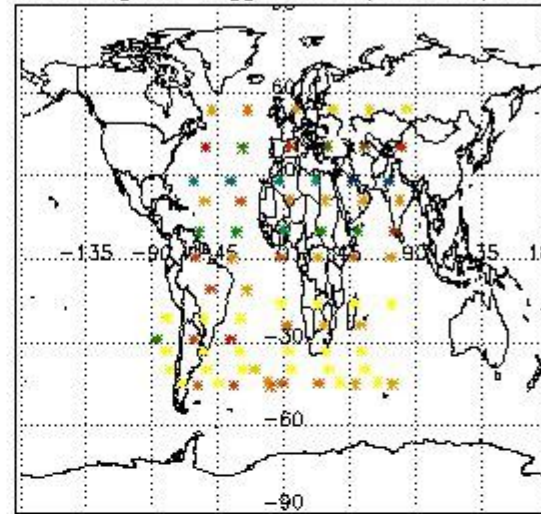


3.2 Plot quality information per product (world map)

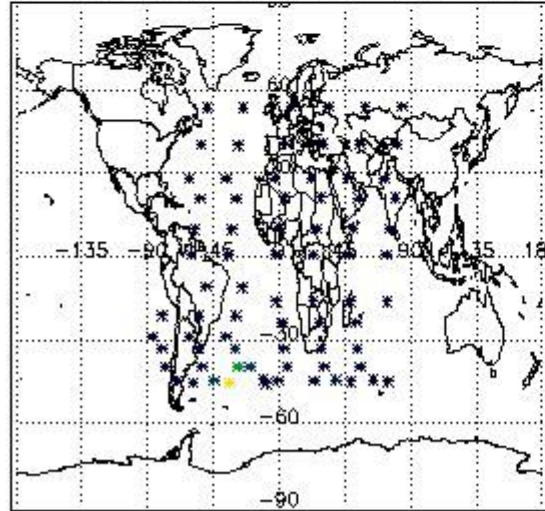
Percentage of flagged data per O3 profile



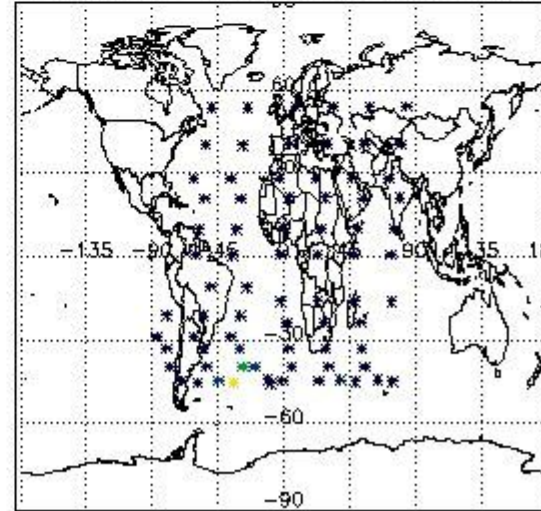
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

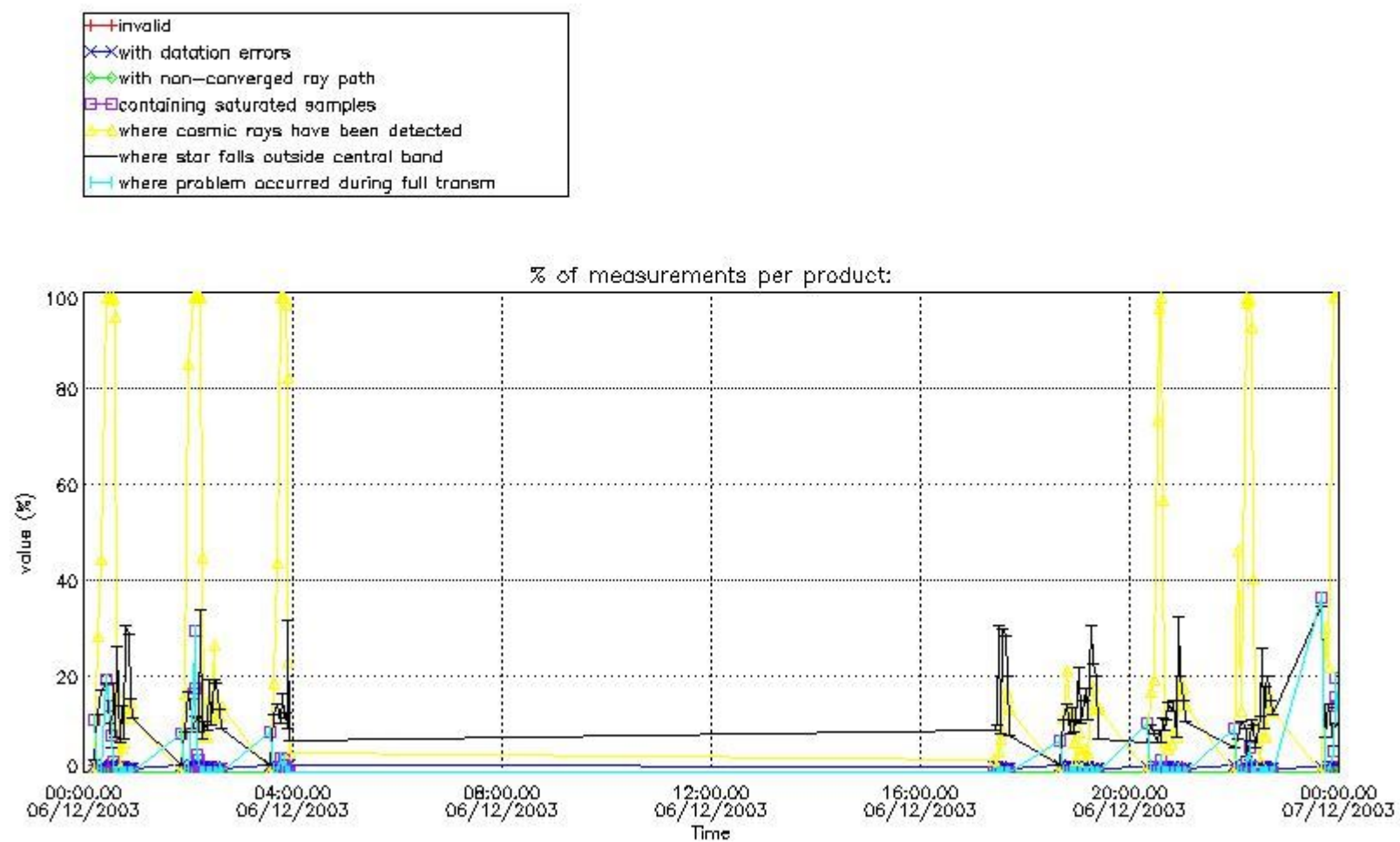


4. Level 1 quality information per product

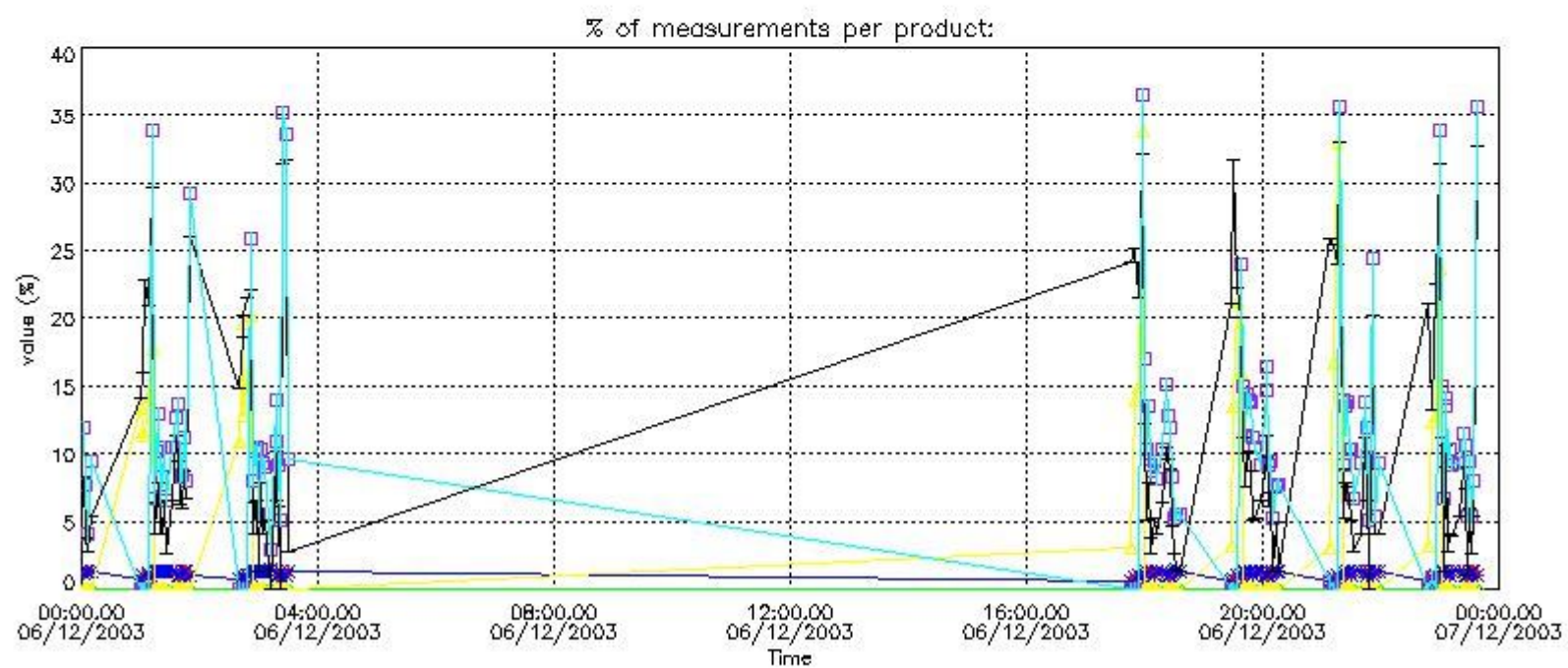
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

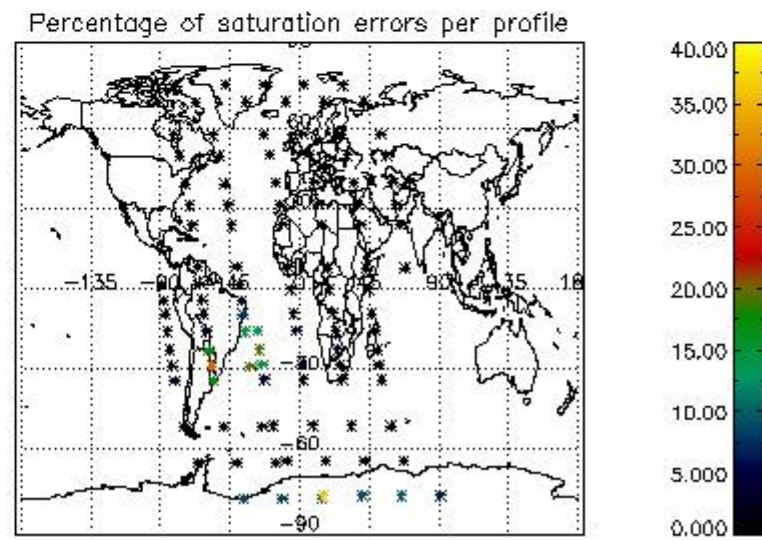
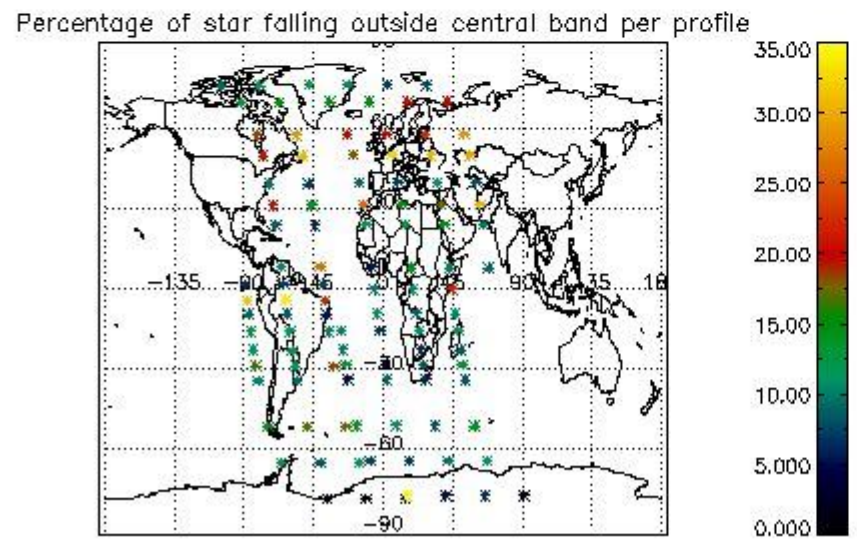
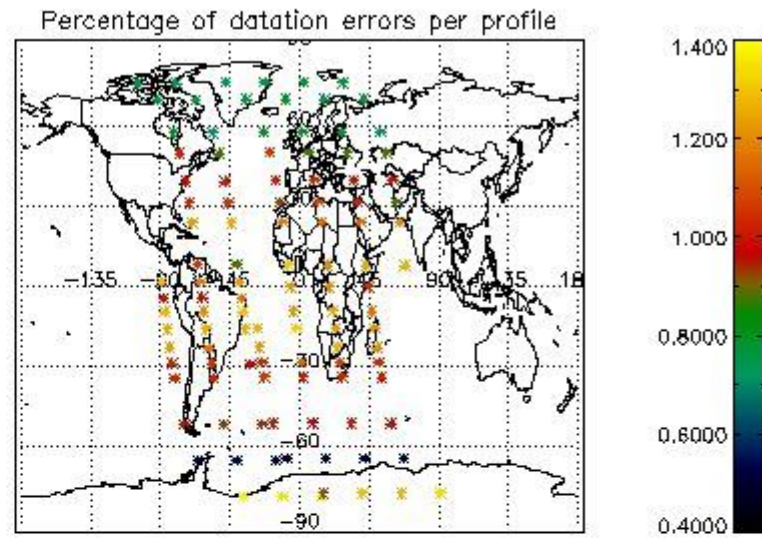
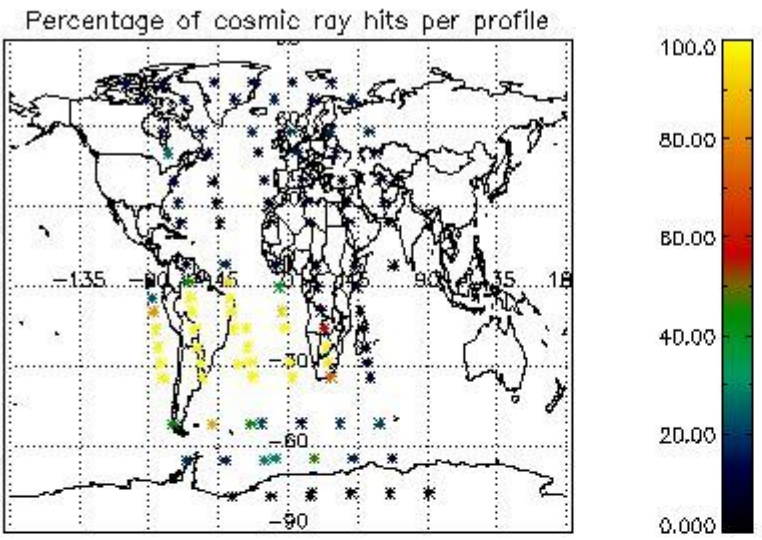


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

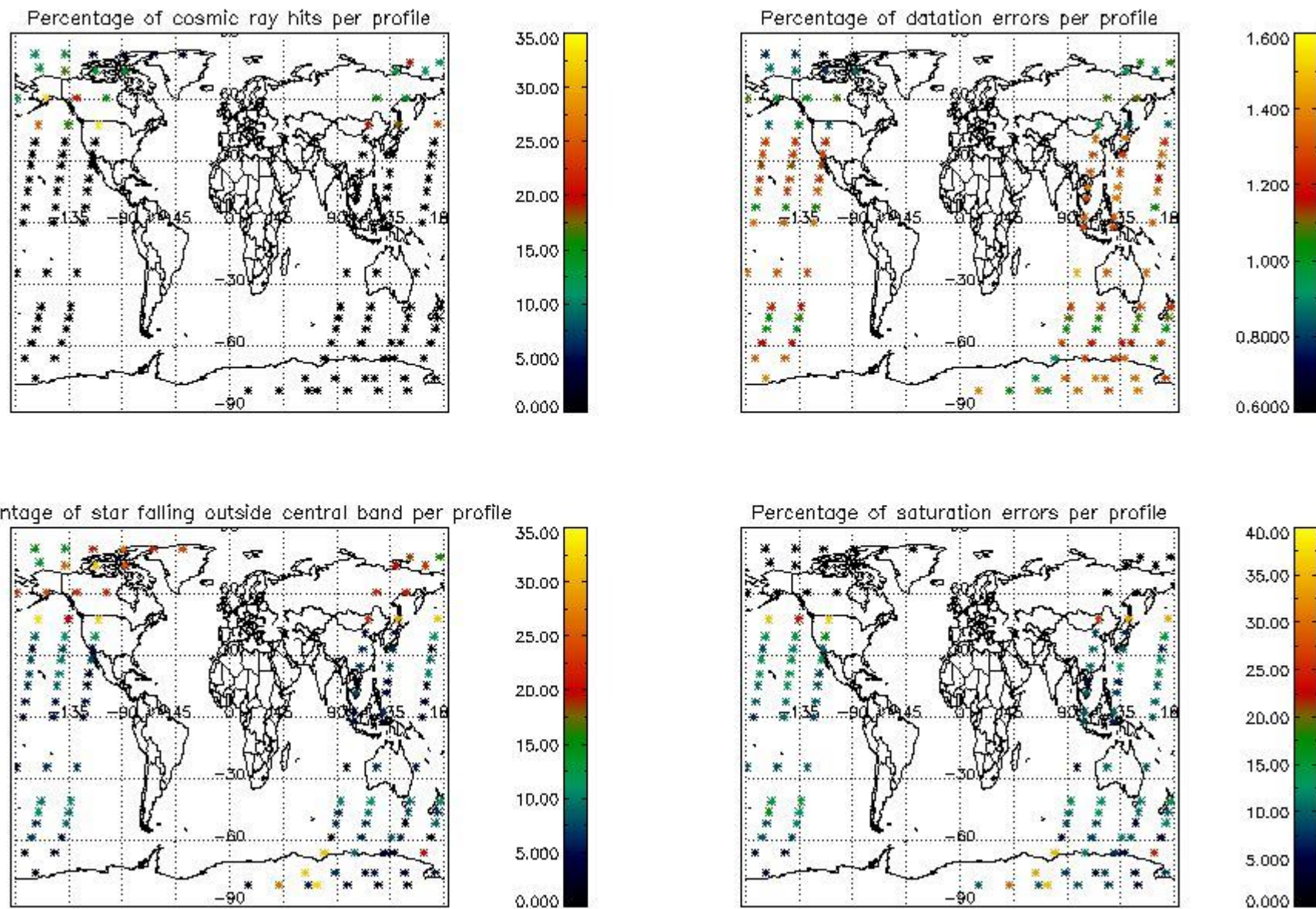


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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

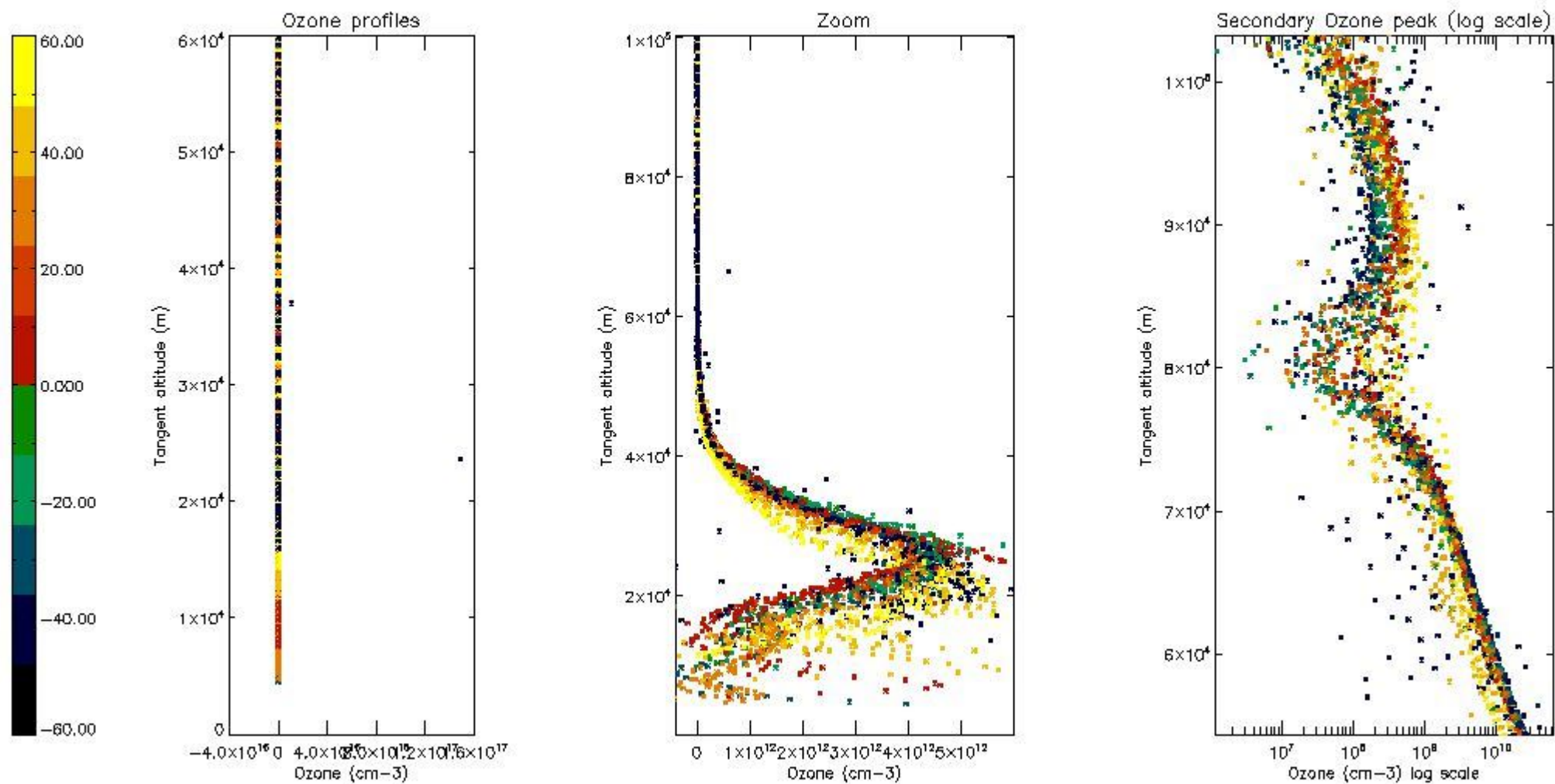
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	19

STD < 10	16
STD < 5	12

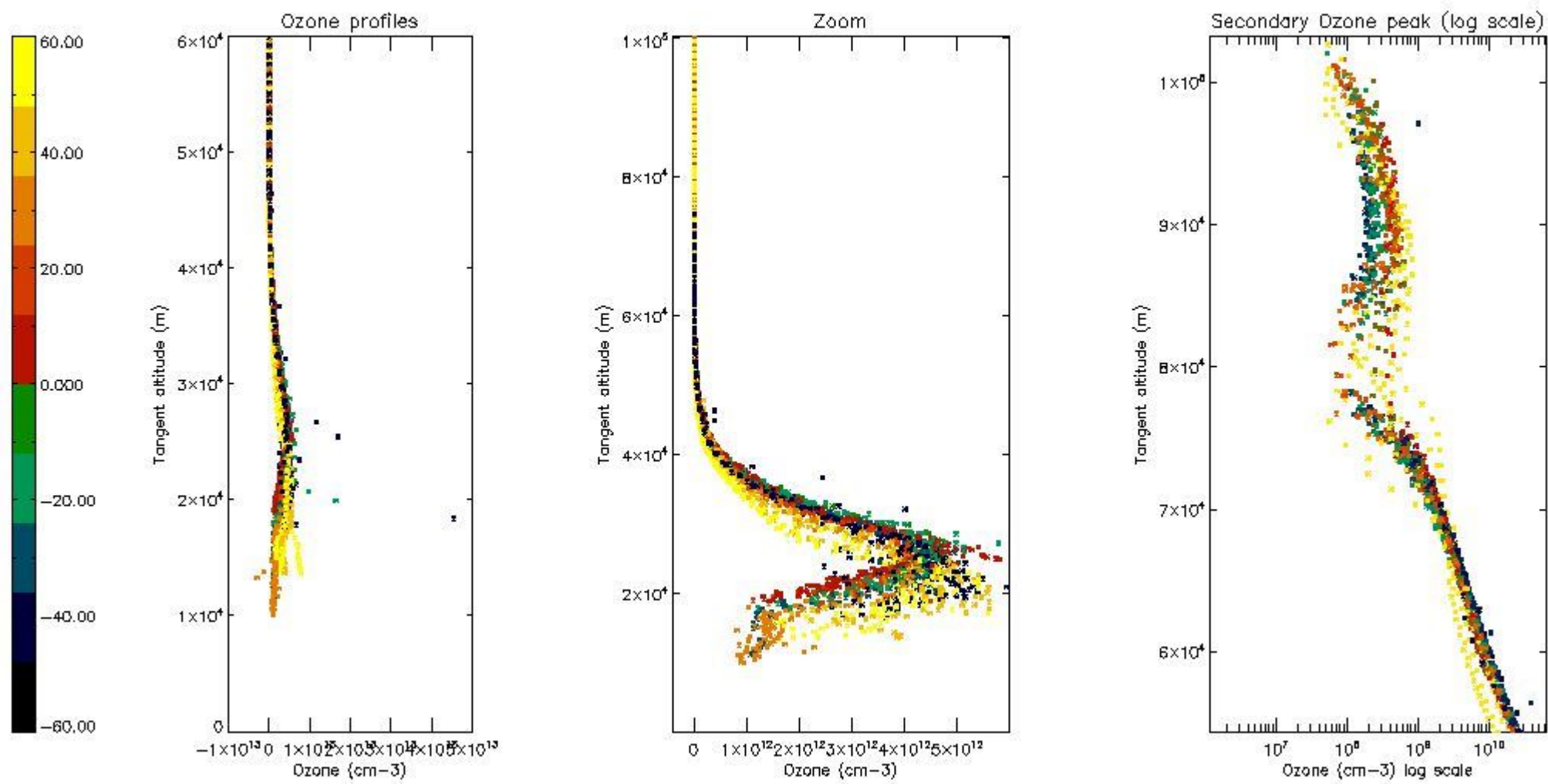
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



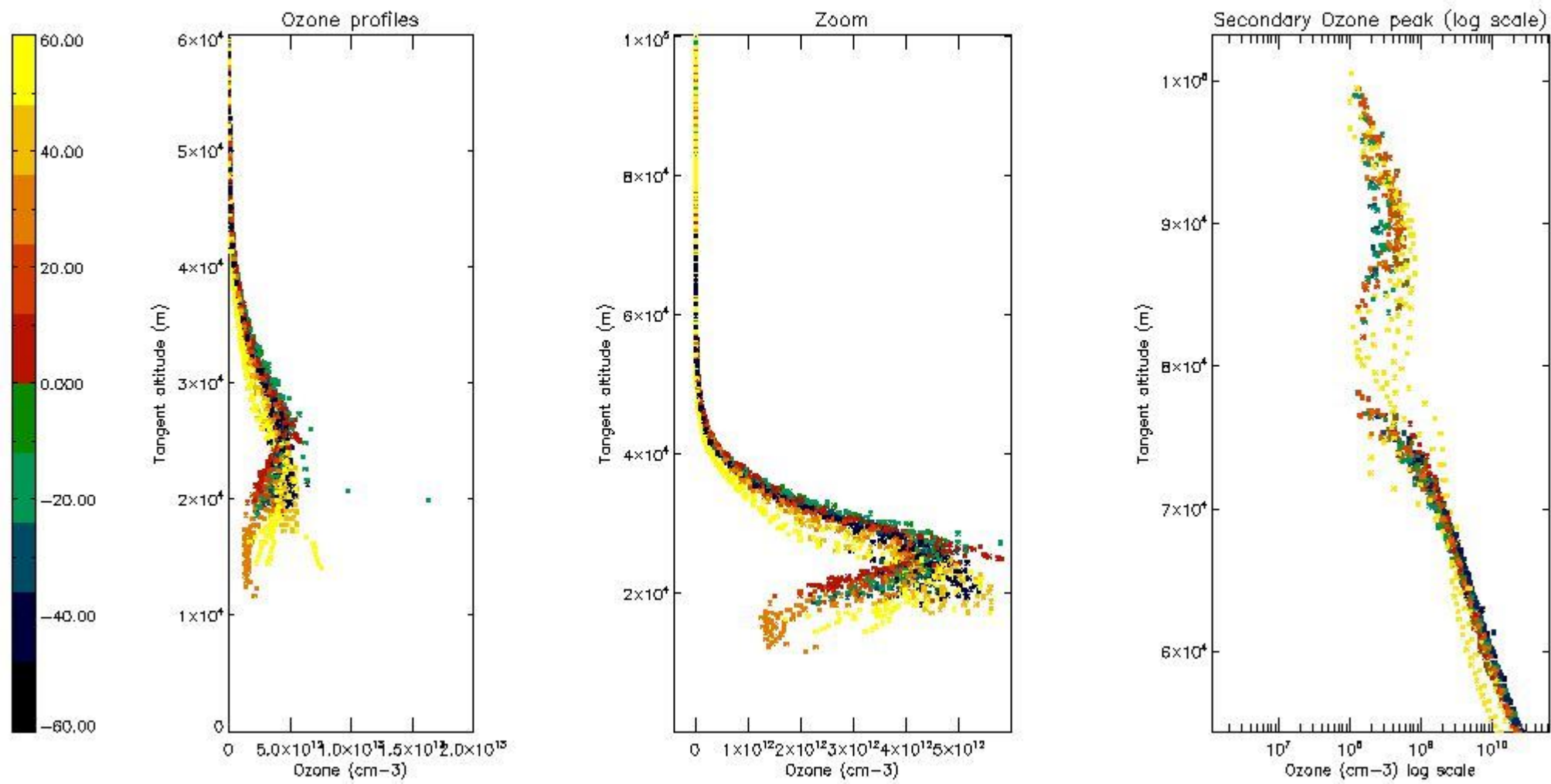
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



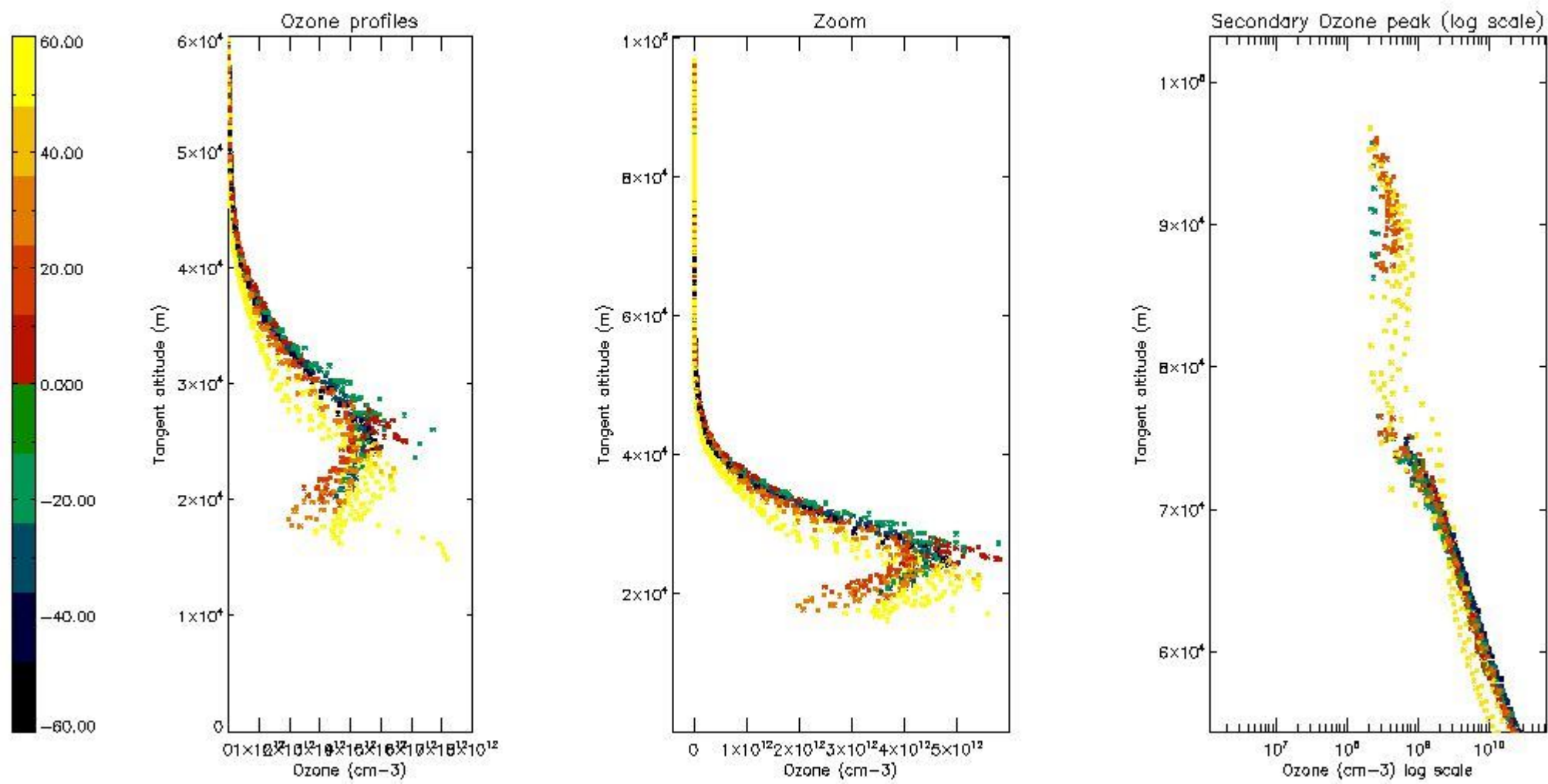
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



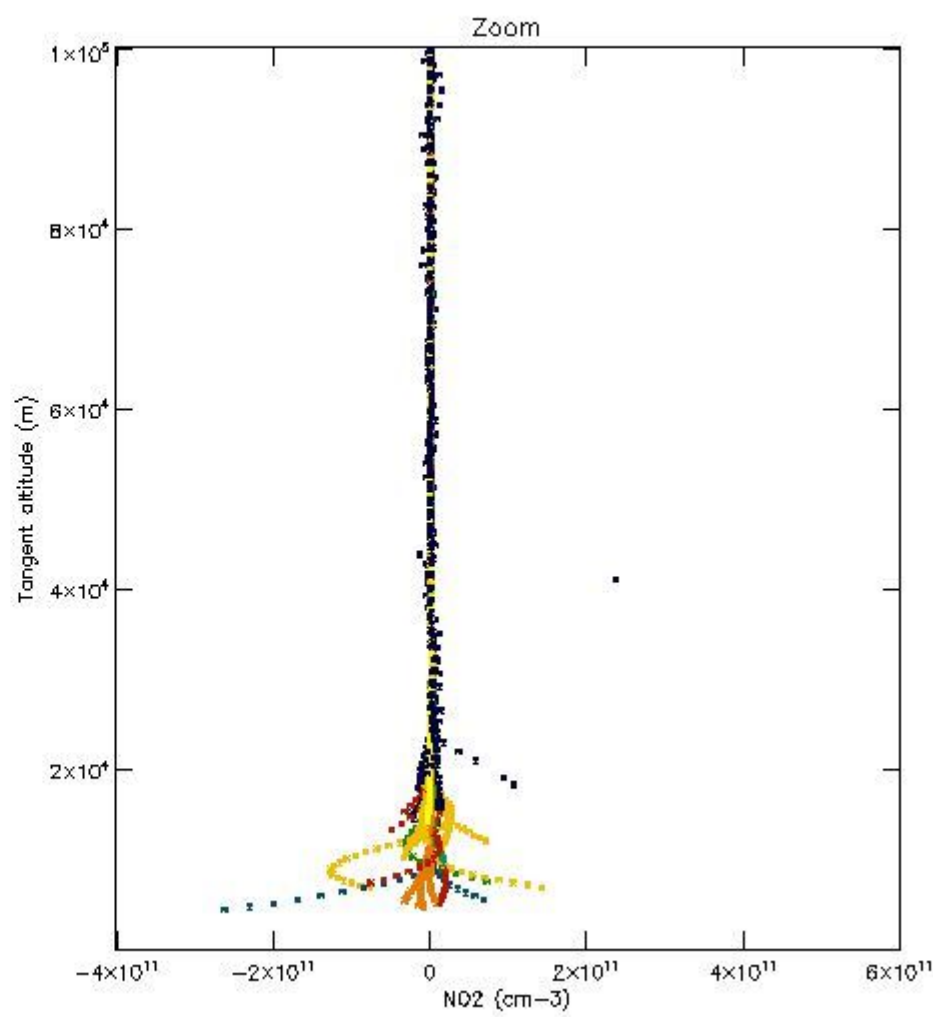
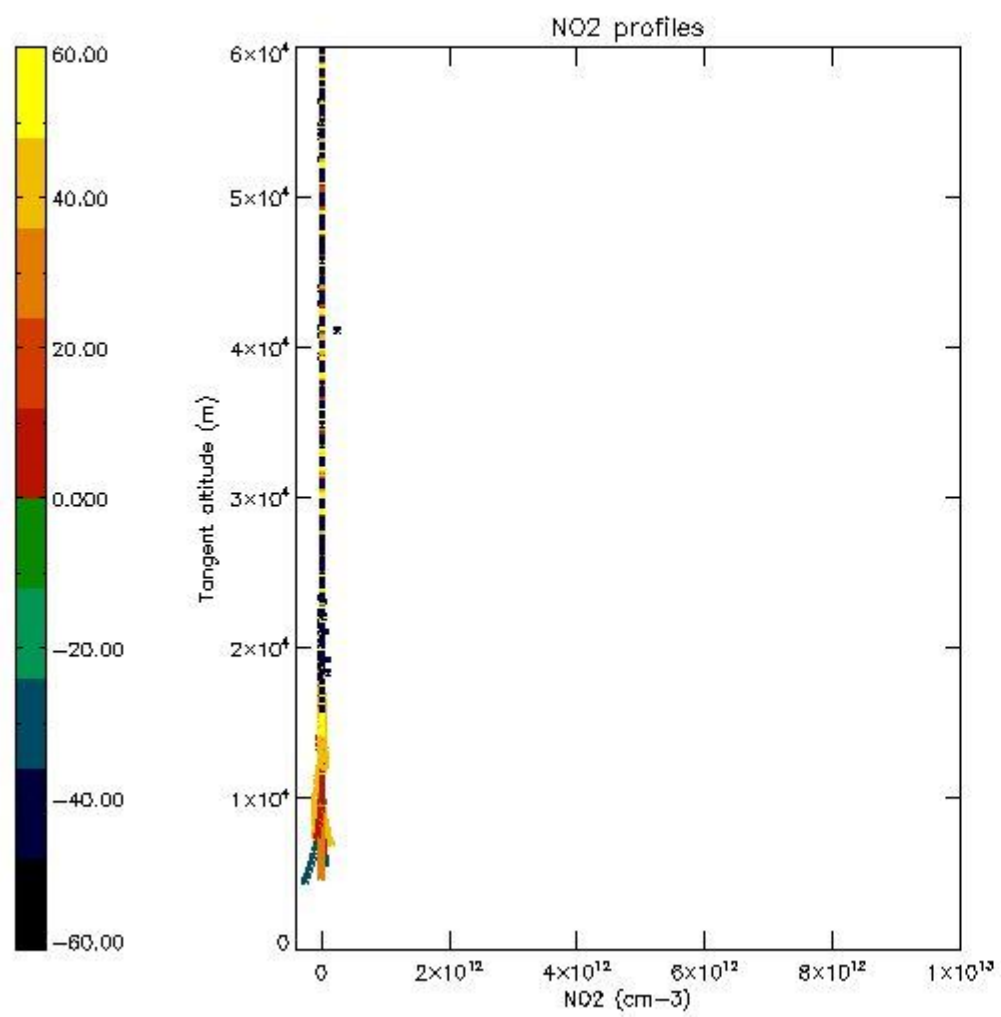
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



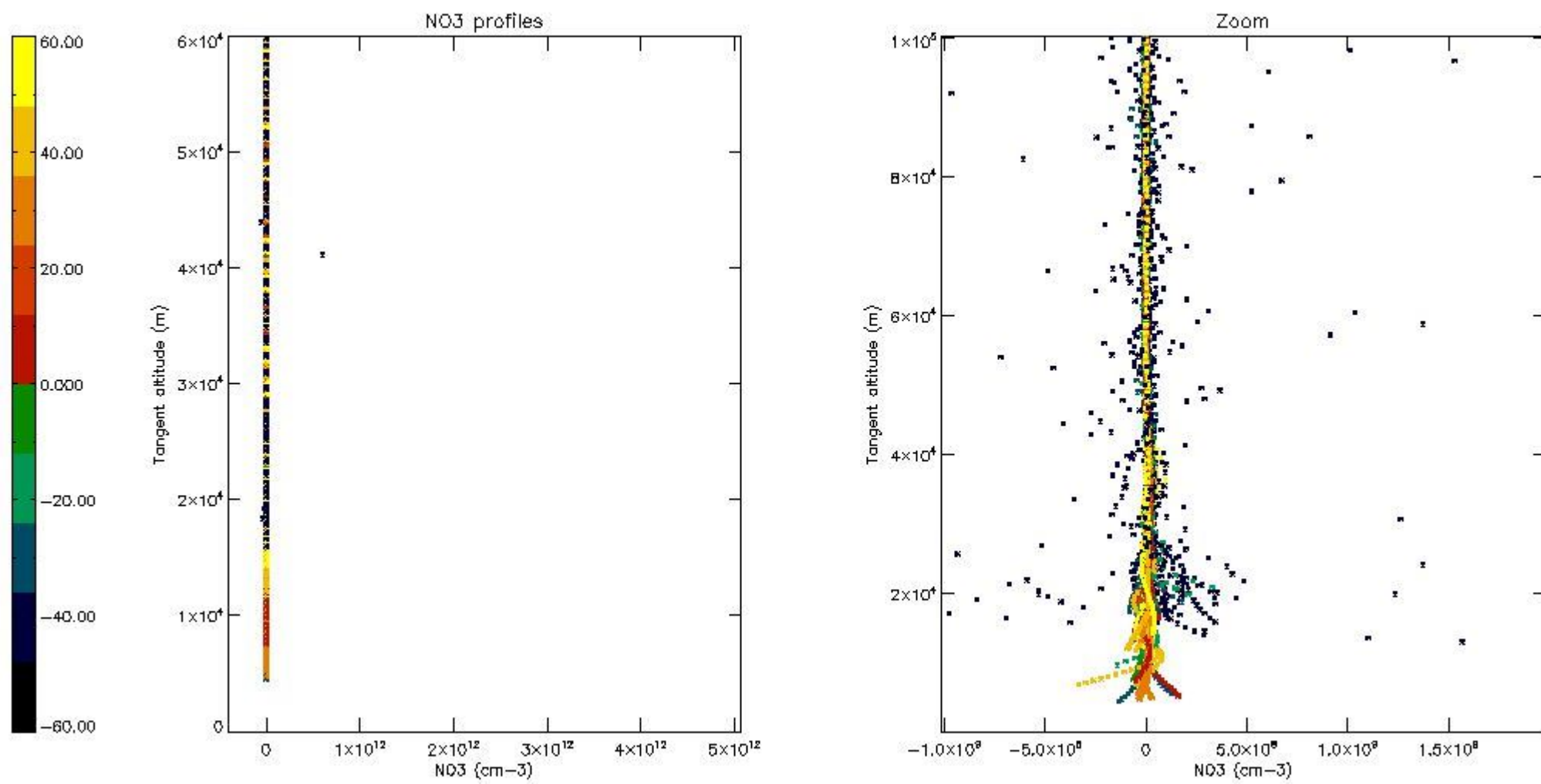
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



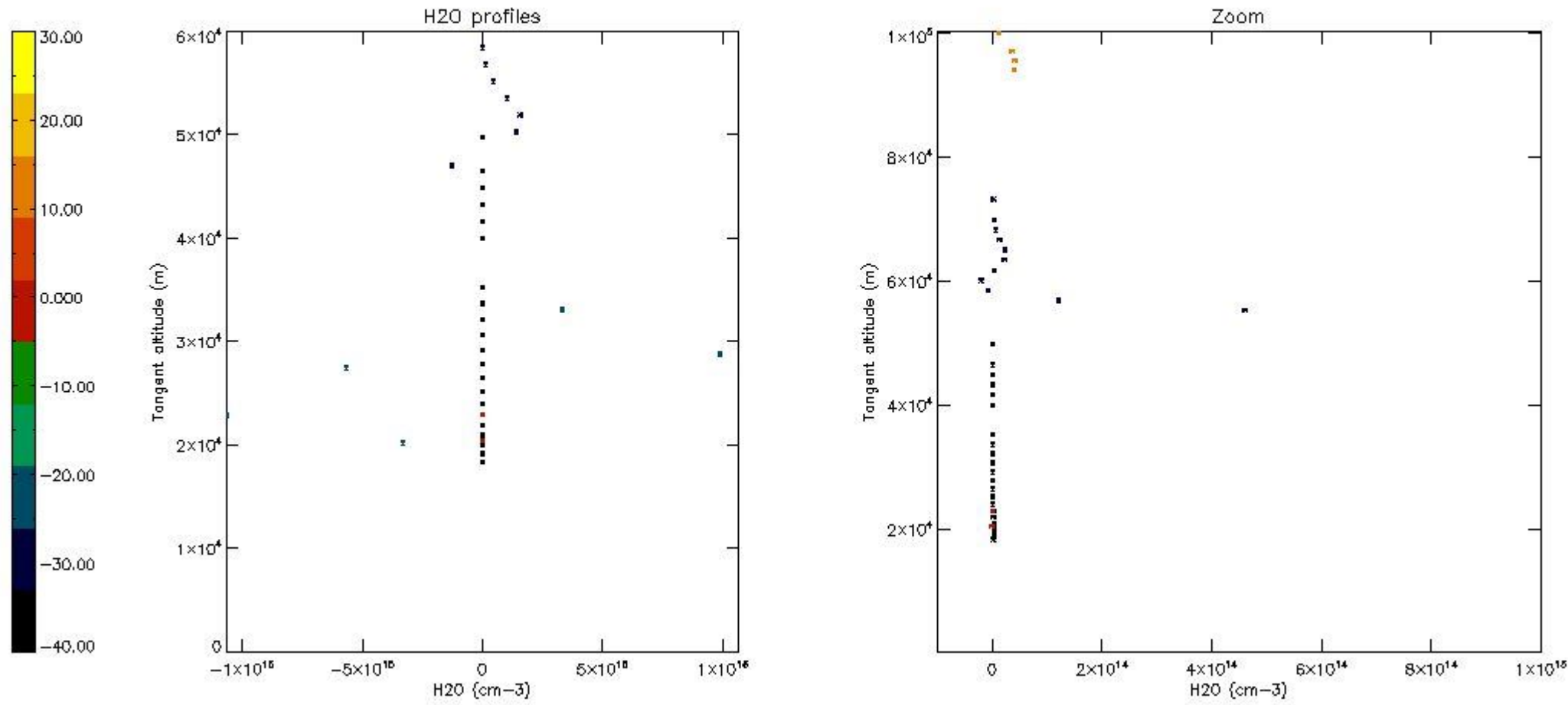
5.7 Plot NO3 profiles for all STD (dark without errors)

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	06-DEC-2003 00:01:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	06-DEC-2003 00:01:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	06-DEC-2003 00:01:03

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

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

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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 \(dark without errors\)](#)

[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](#)

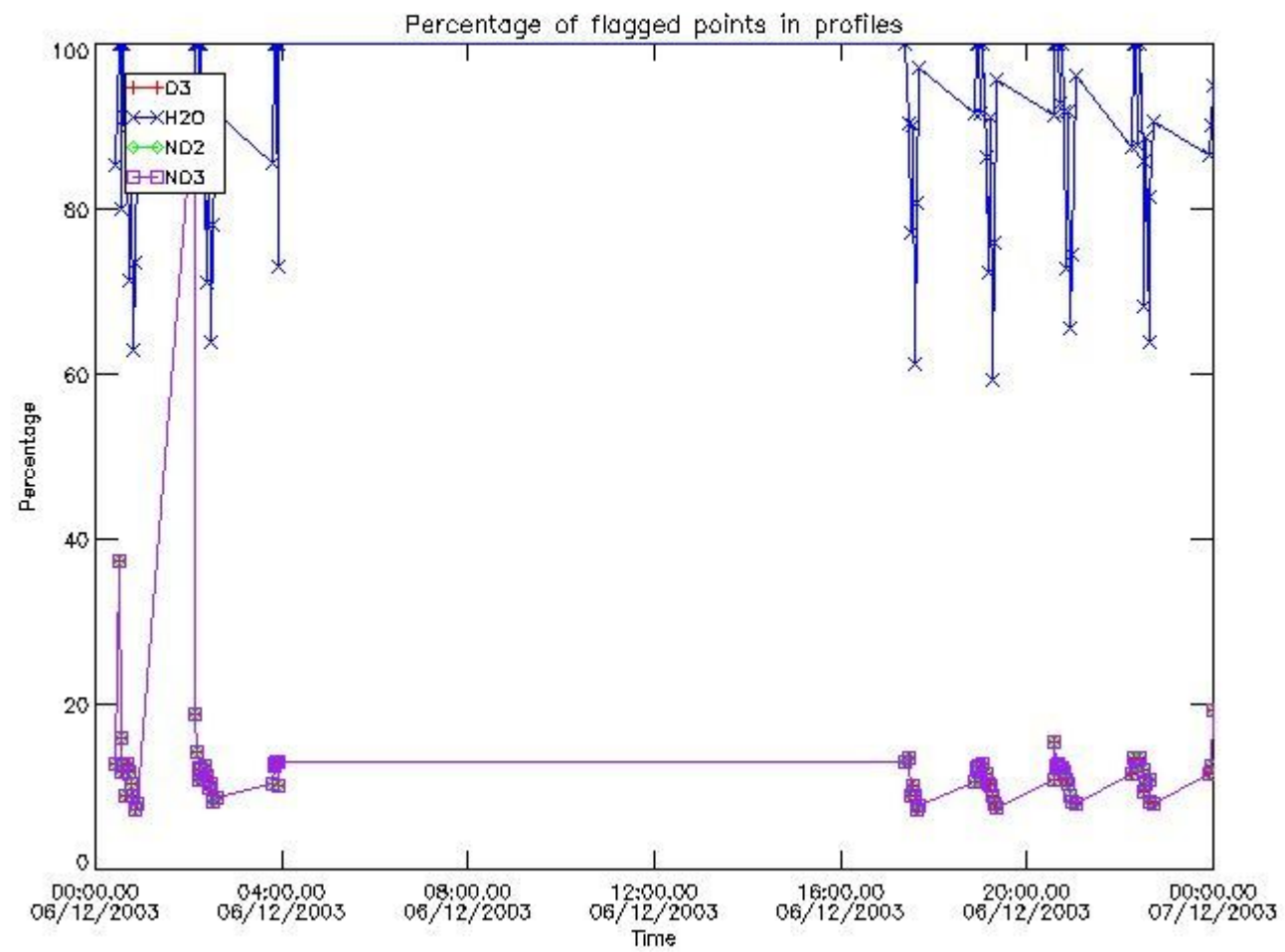
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222	GOM_NL__2PRFIN20031206_233745_000000522022_00173_09245_9453.N1	06-DEC-2003 23:37:45	Bright	52.000	83		2.3780	11000.	104	9245	No
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224	GOM_NL__2PRFIN20031206_234459_000000952022_00173_09245_9455.N1	06-DEC-2003 23:44:59	Twilight	95.000	96	68Del Leo	2.5600	9300.0	190	9245	No
225	GOM_NL__2PRFIN20031206_234849_000000532022_00173_09245_9456.N1	06-DEC-2003 23:48:49	Bright	53.000	121	29Gam Vir	2.7400	7200.0	106	9245	No
226	GOM_NL__2PRFIN20031206_235344_000000472022_00173_09245_9457.N1	06-DEC-2003 23:53:44	Twilight	47.000	163	7Del Crv	2.9450	11000.	94	9245	No
227	GOM_NL__2PRFIN20031206_235518_000000492022_00173_09245_9458.N1	06-DEC-2003 23:55:18	Dark	48.500	106	9Bet Crv	2.6480	5600.0	97	9245	No
228	GOM_NL__2PRFIN20031206_235653_000000412022_00173_09245_9459.N1	06-DEC-2003 23:56:53	Dark	41.000	123	1ot Cen	2.7500	10200.	82	9245	No
229	GOM_NL__2PRFIN20031206_235849_000000402022_00173_09245_9460.N1	06-DEC-2003 23:58:49	Dark	39.500	95	Zet Cen	2.5450	26000.	79	9245	No

3. Quality information per product

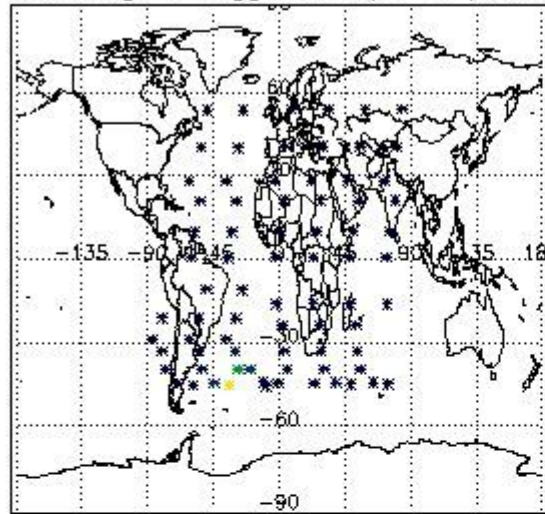
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3.1 Plot quality information per product (time dependant)

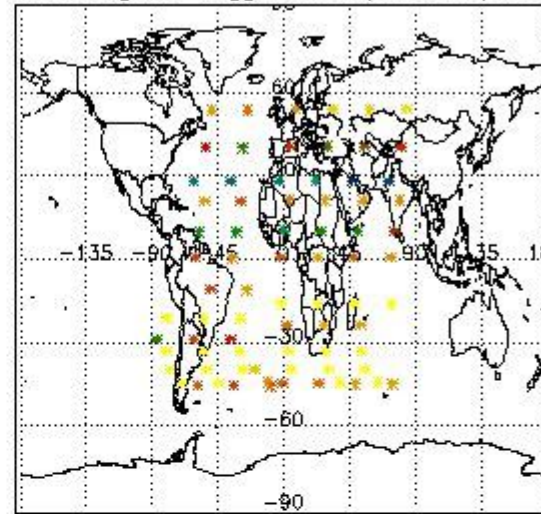


3.2 Plot quality information per product (world map)

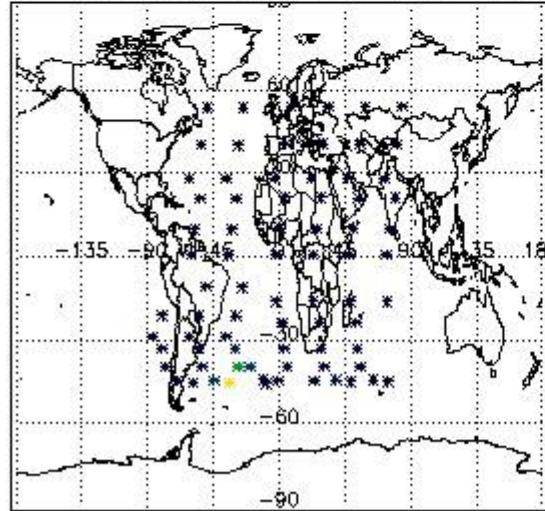
Percentage of flagged data per O3 profile



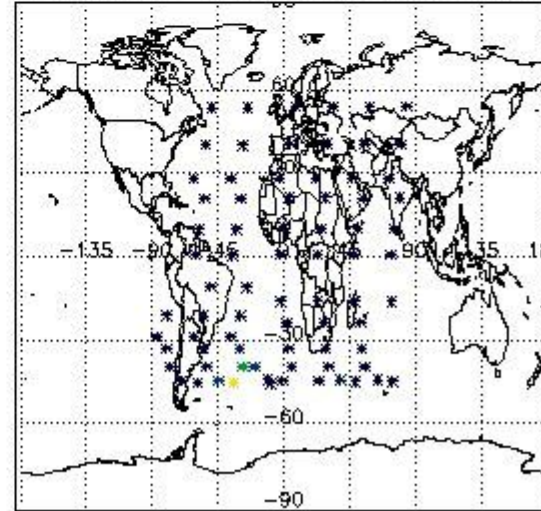
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

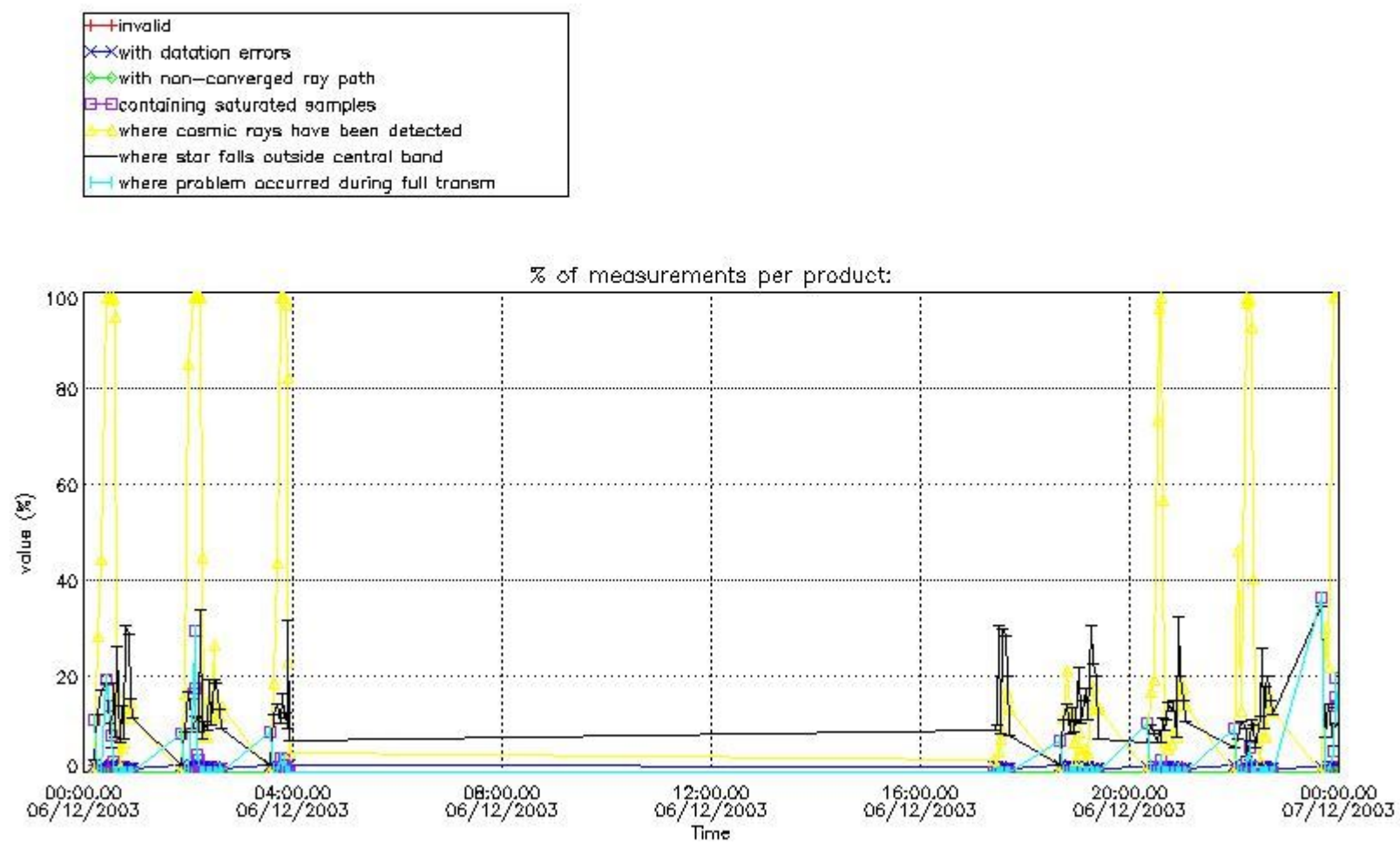


4. Level 1 quality information per product

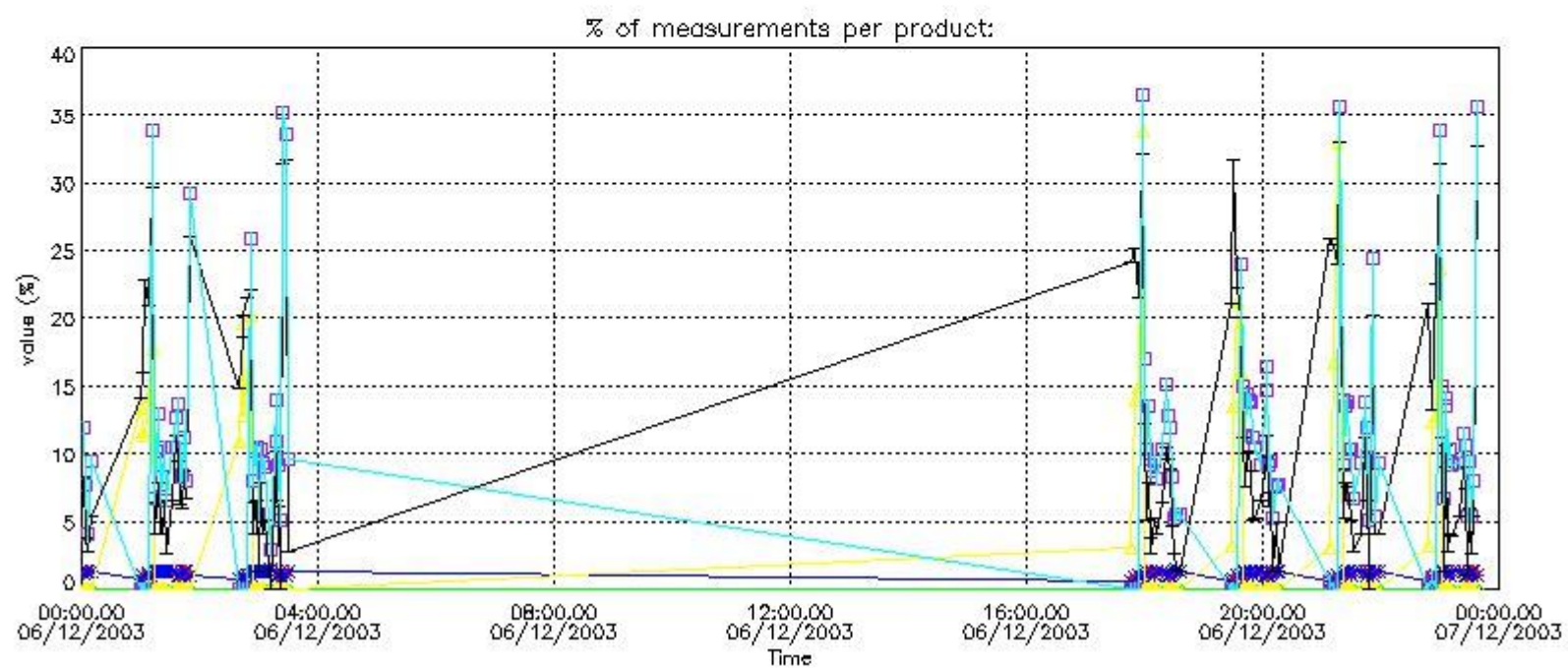
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



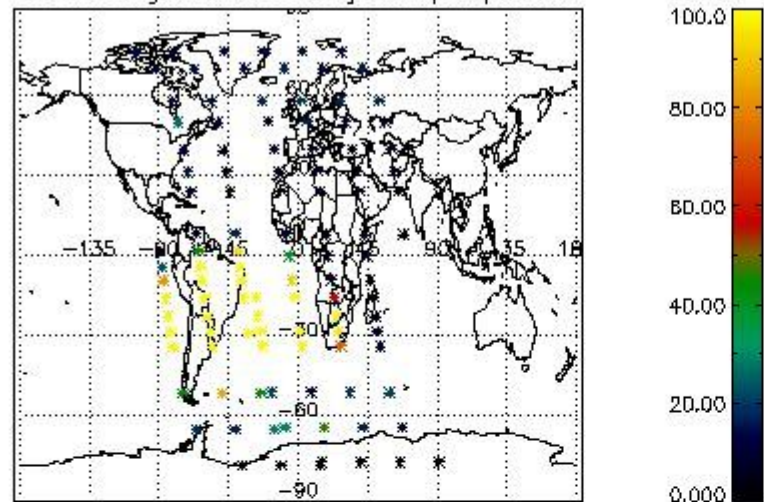
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



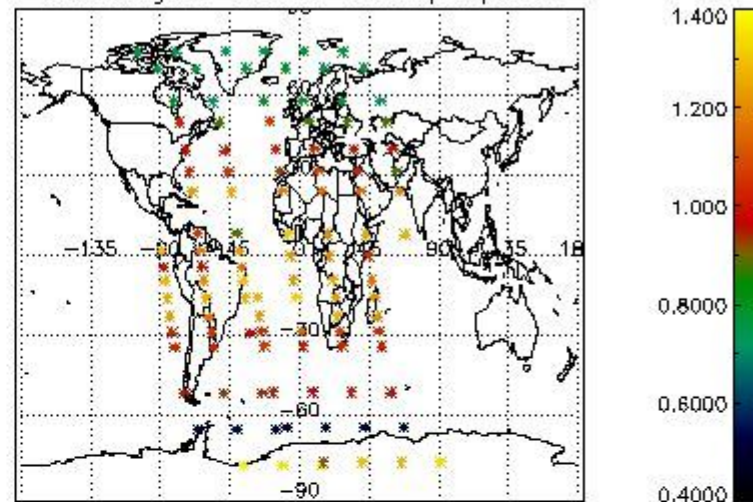
4.2 Plot quality information per product coming from level 1b processing (world map)

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

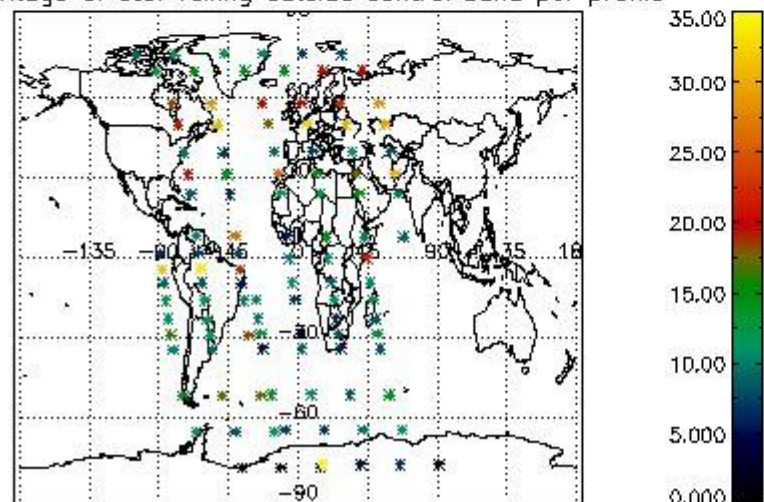
Percentage of cosmic ray hits per profile



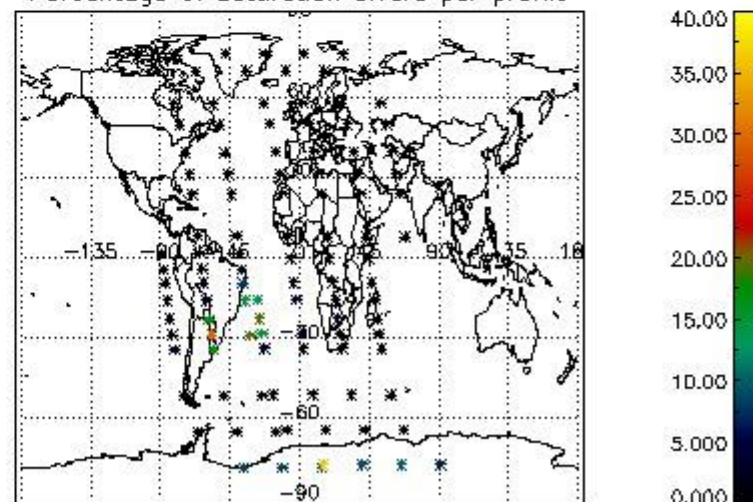
Percentage of datation errors per profile



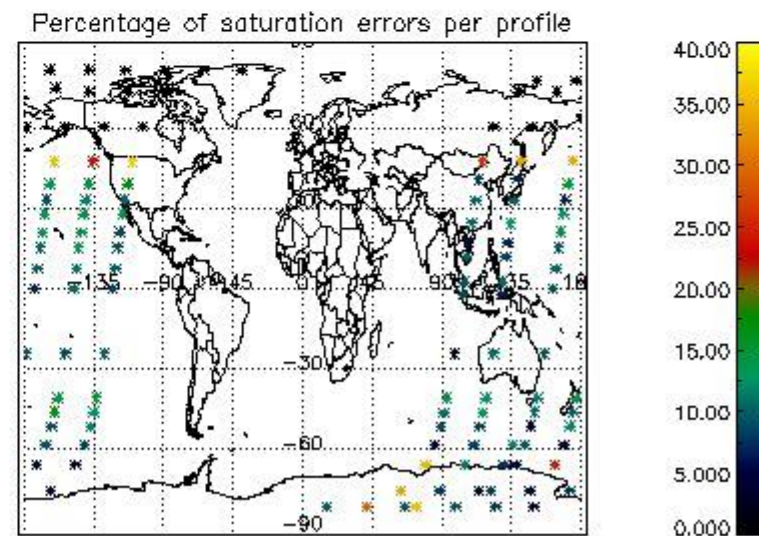
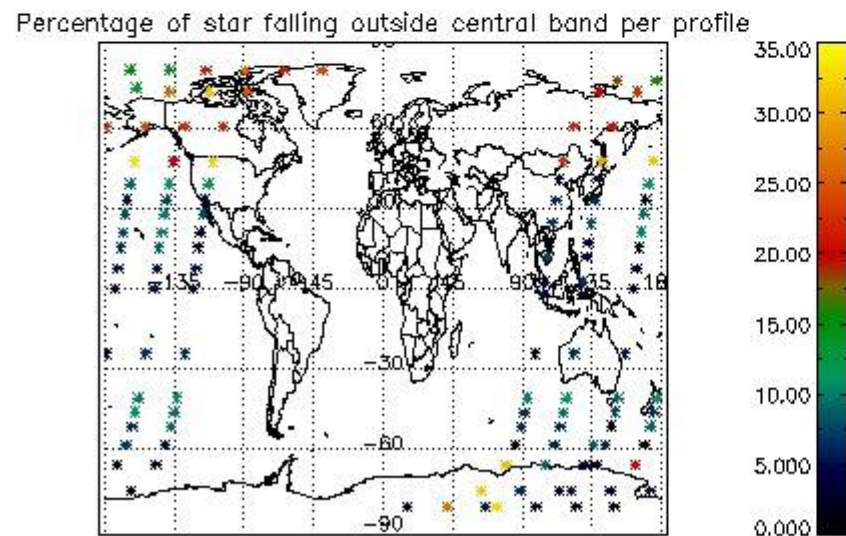
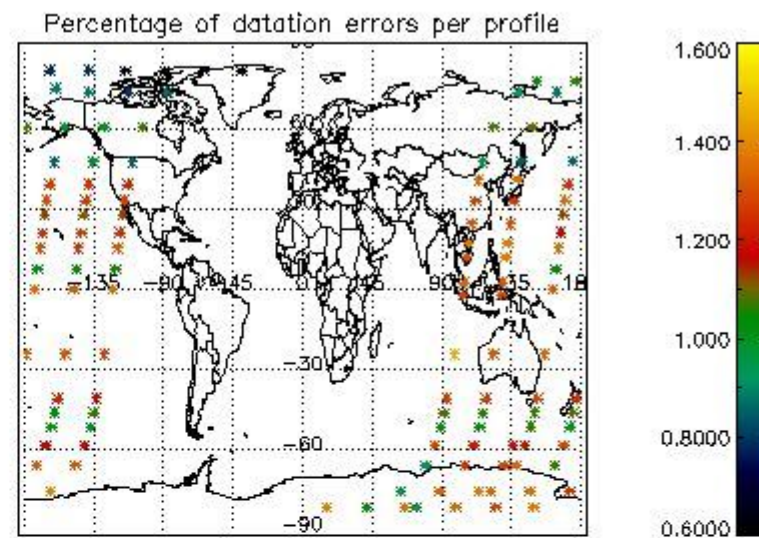
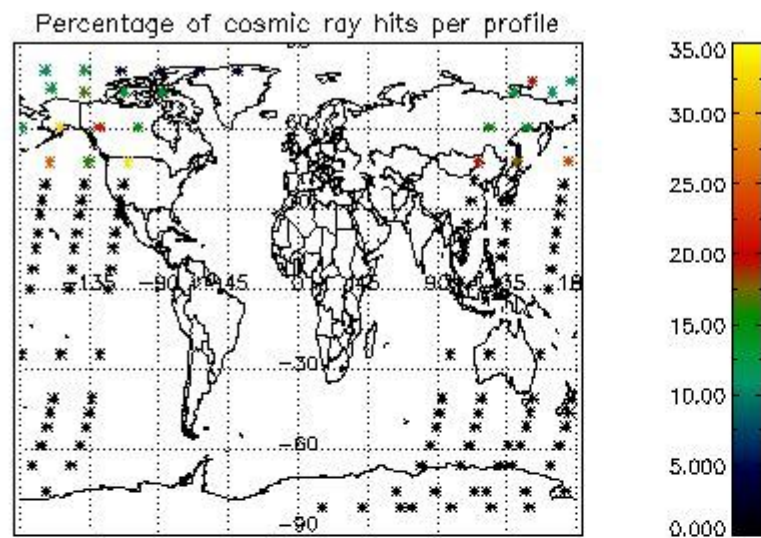
Percentage of star falling outside central band per profile



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

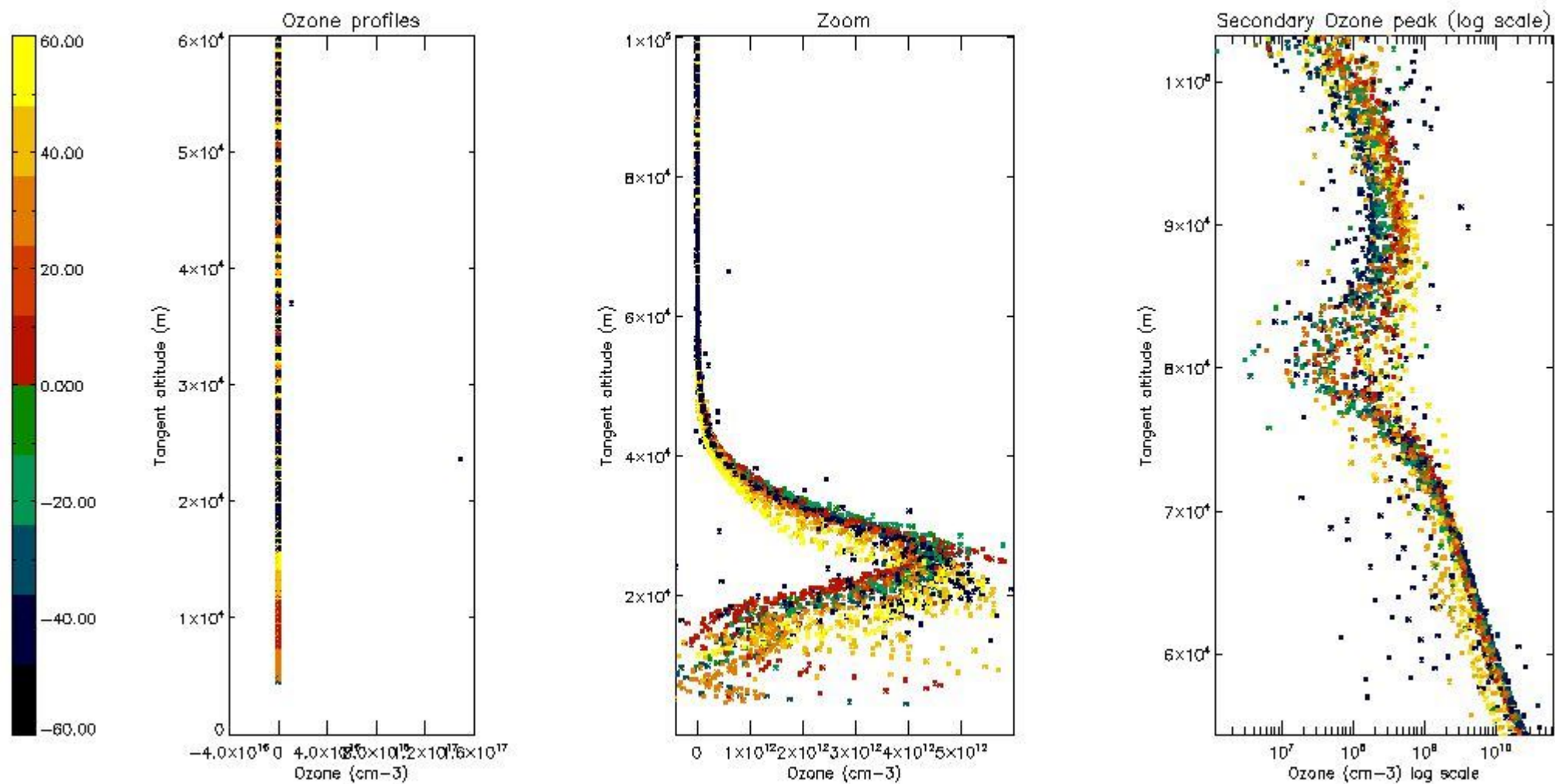
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	19

STD < 10	16
STD < 5	12

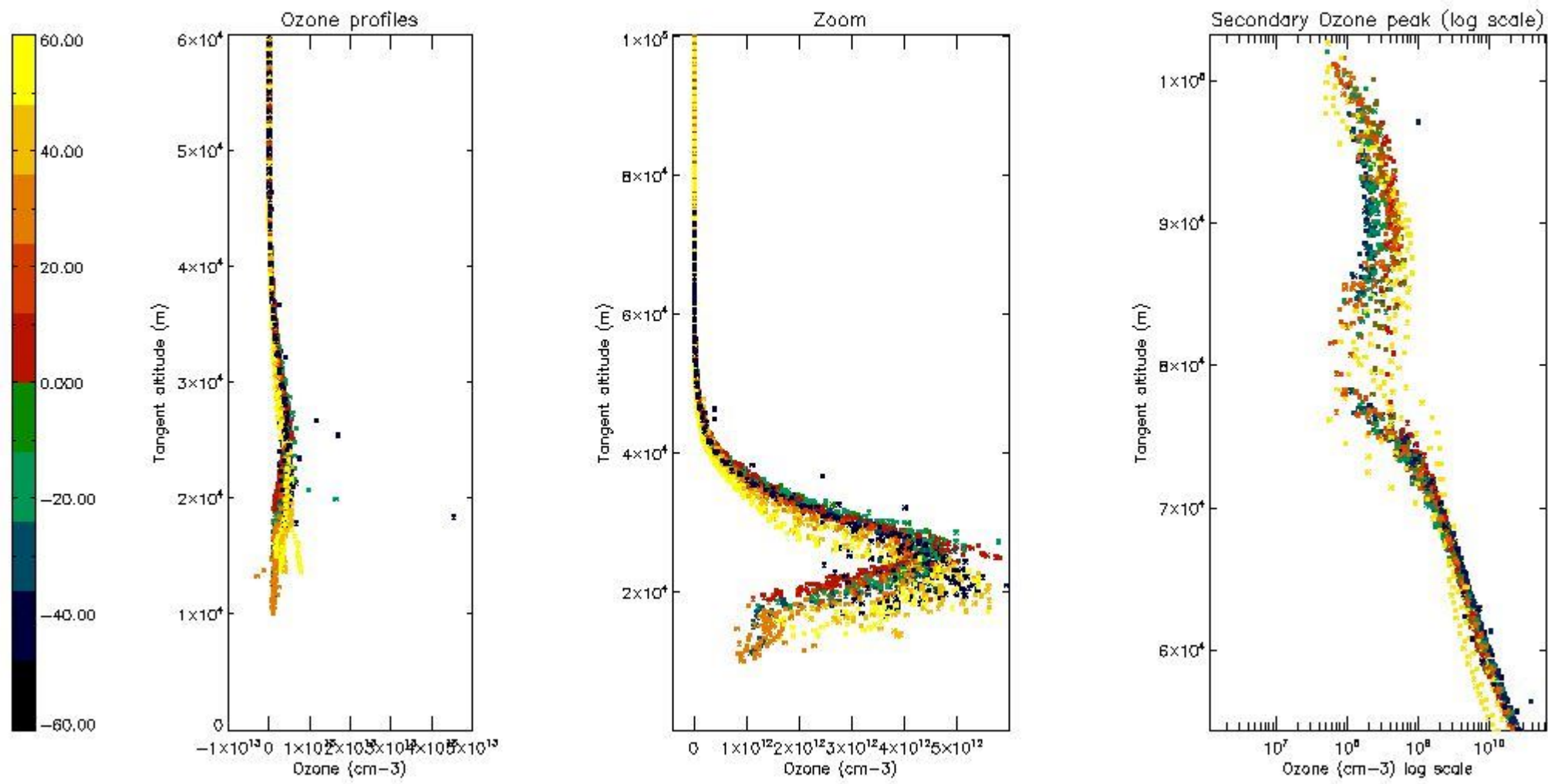
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



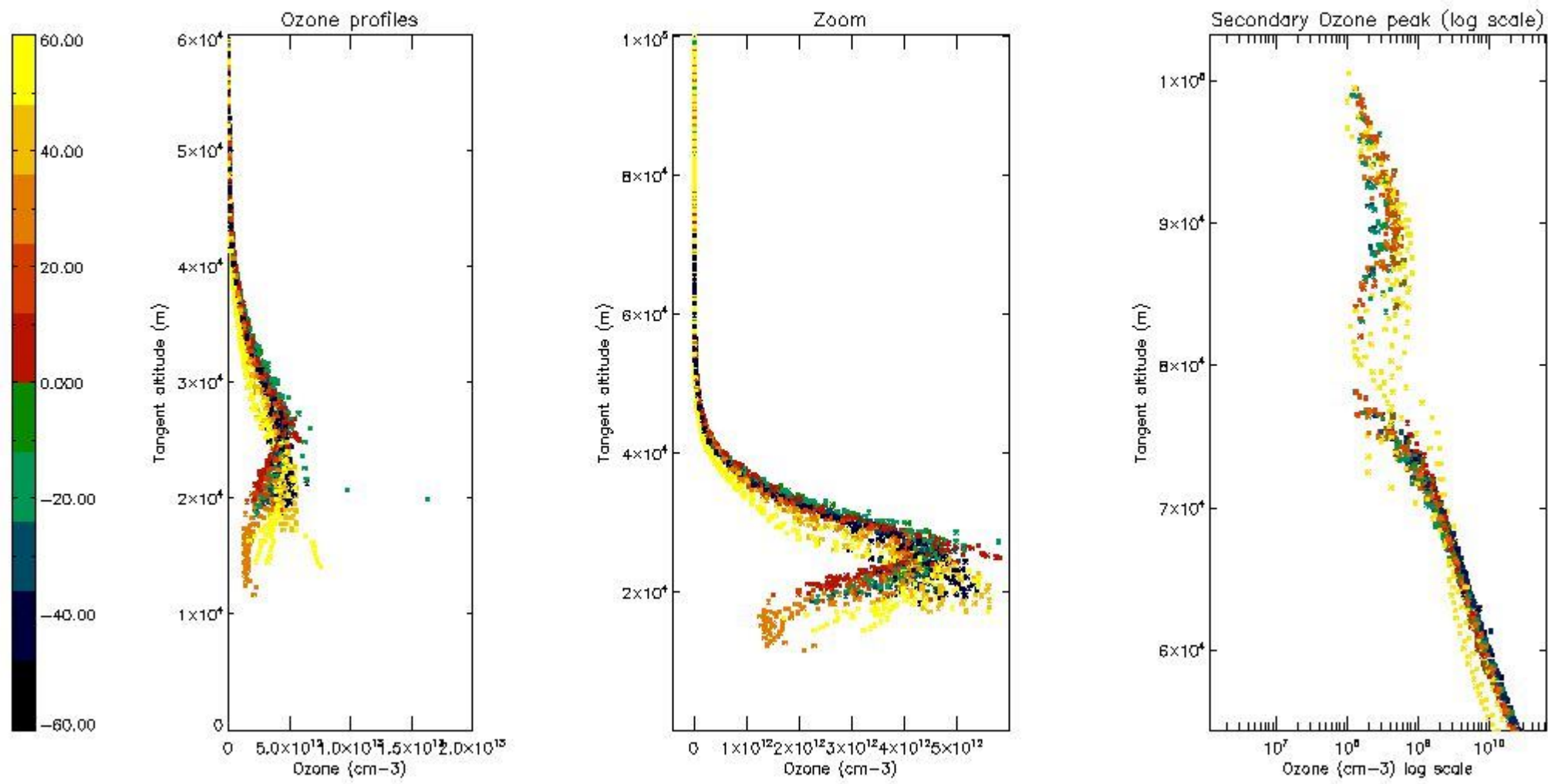
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



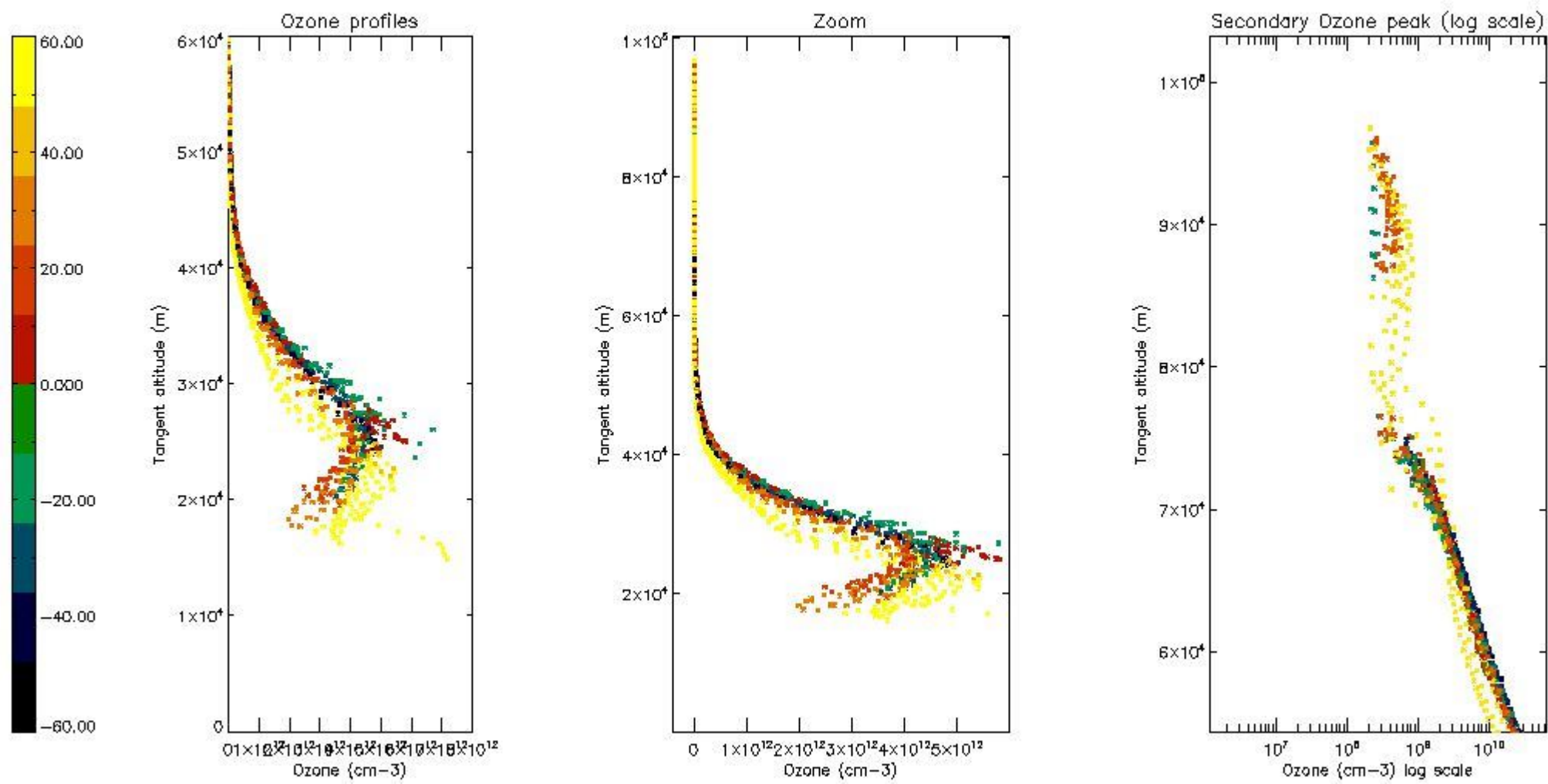
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



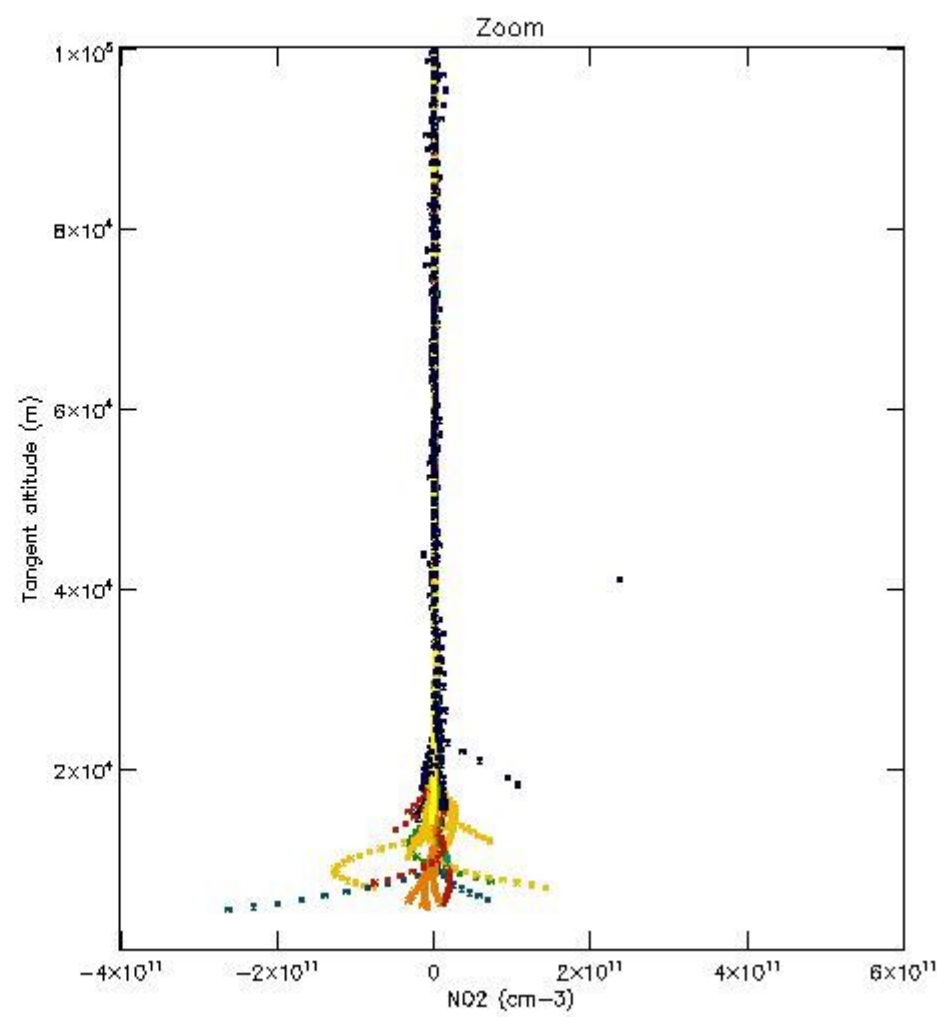
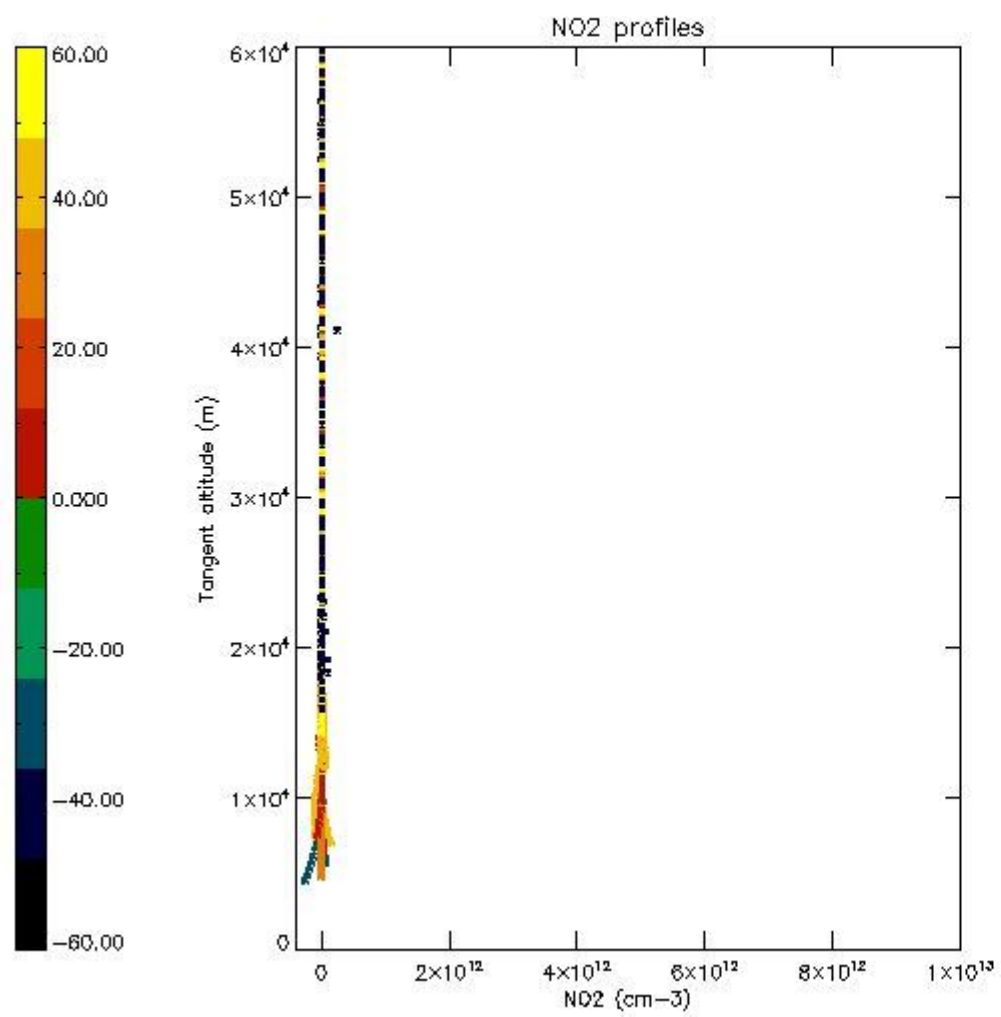
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



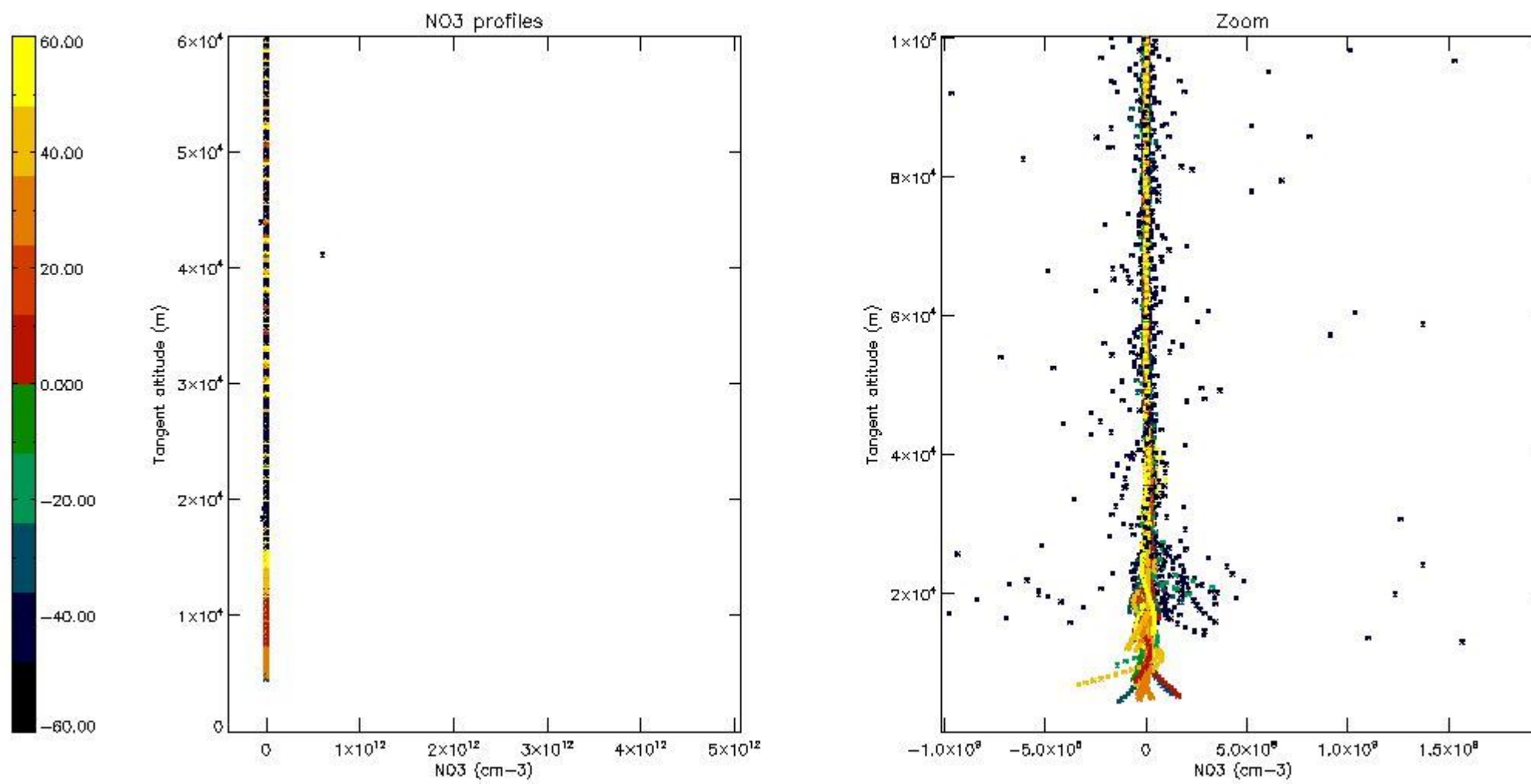
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



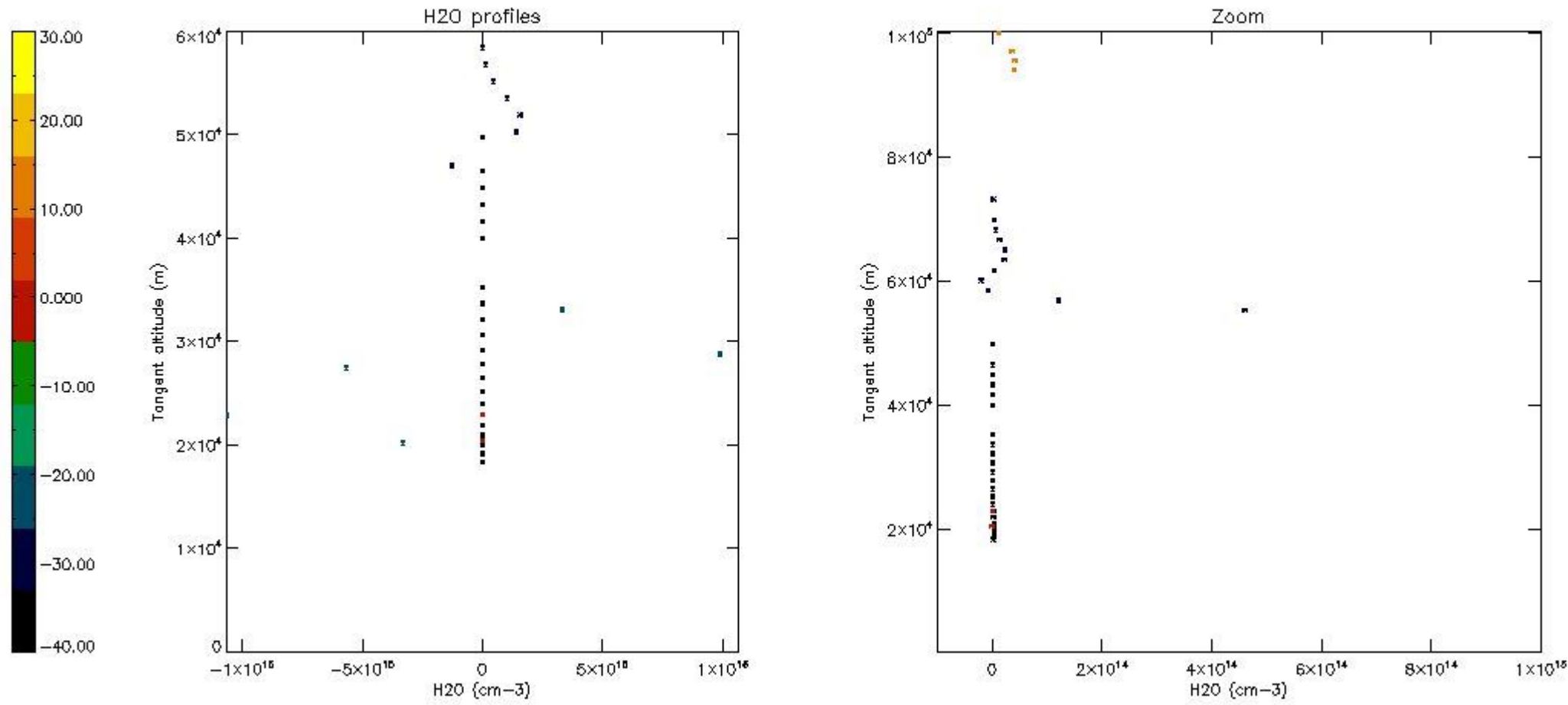
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

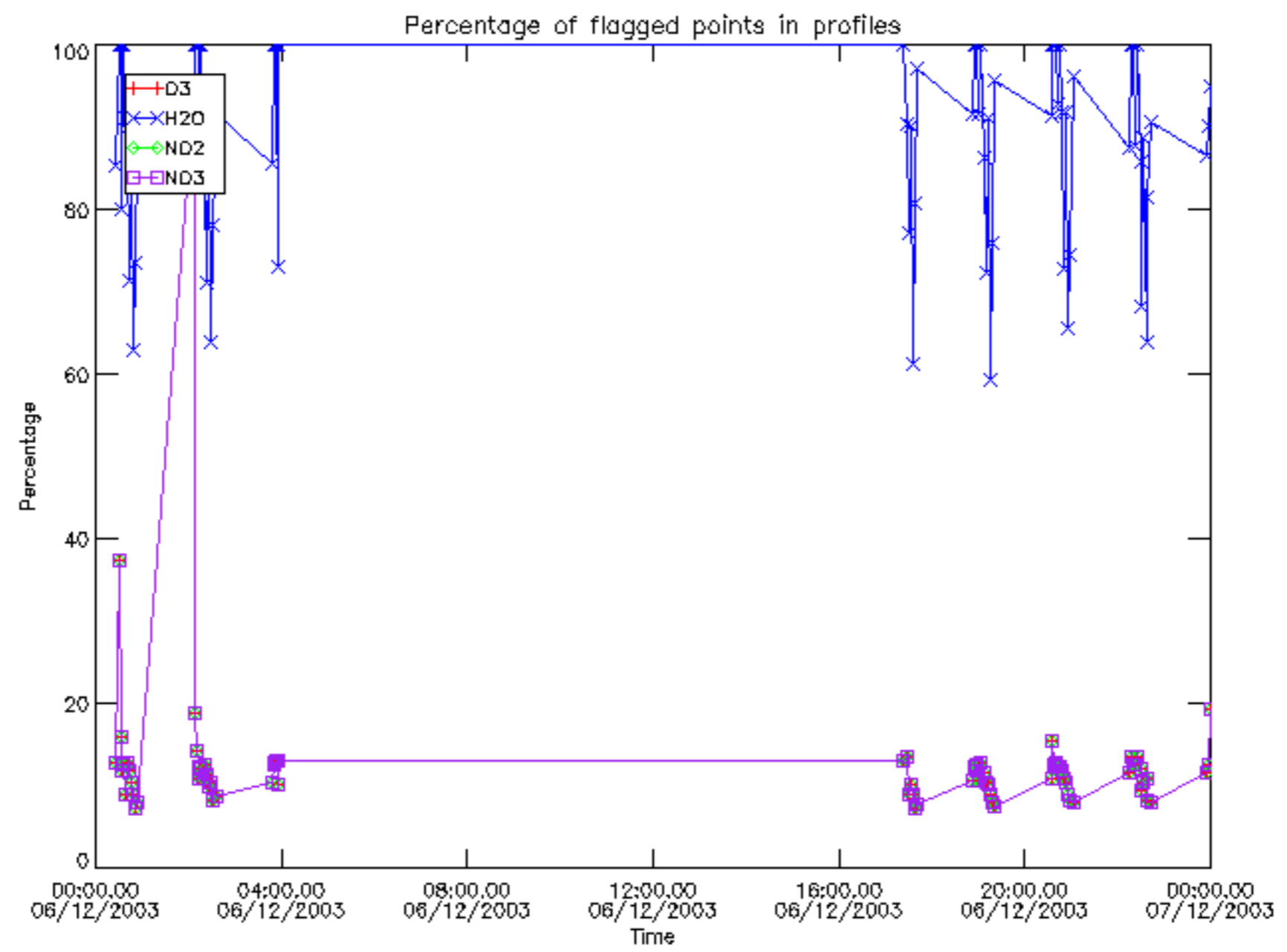
The colorbar represents the latitude.



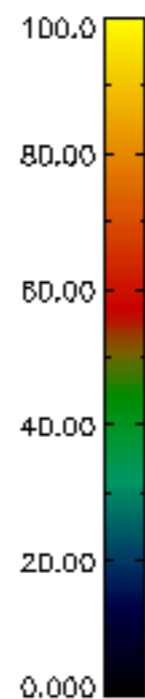
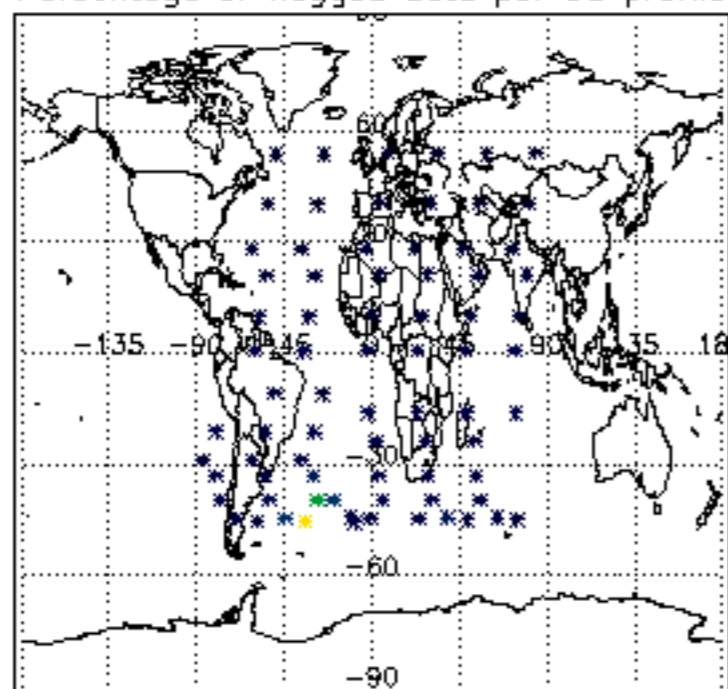
6. Auxiliary Data Files used for the production reported in section 2

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.

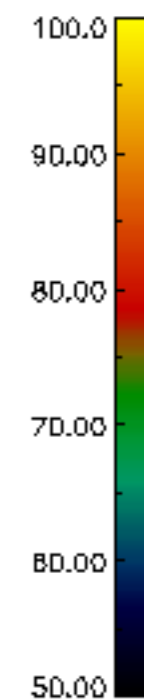
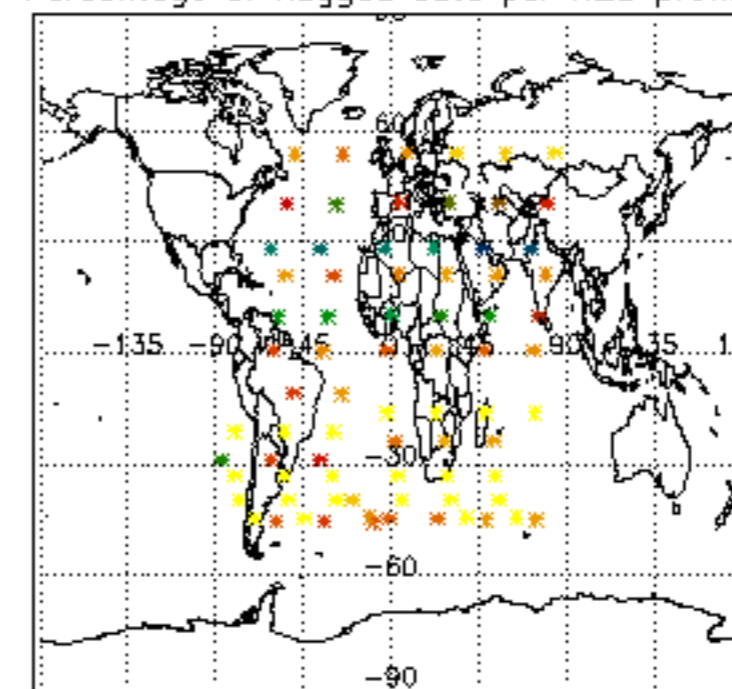
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	06-DEC-2003 00:01:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	06-DEC-2003 00:01:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	06-DEC-2003 00:01:03



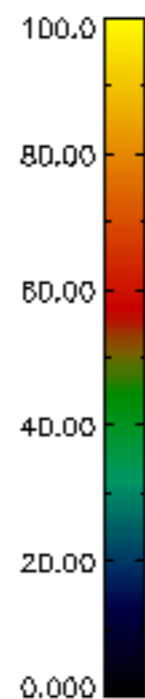
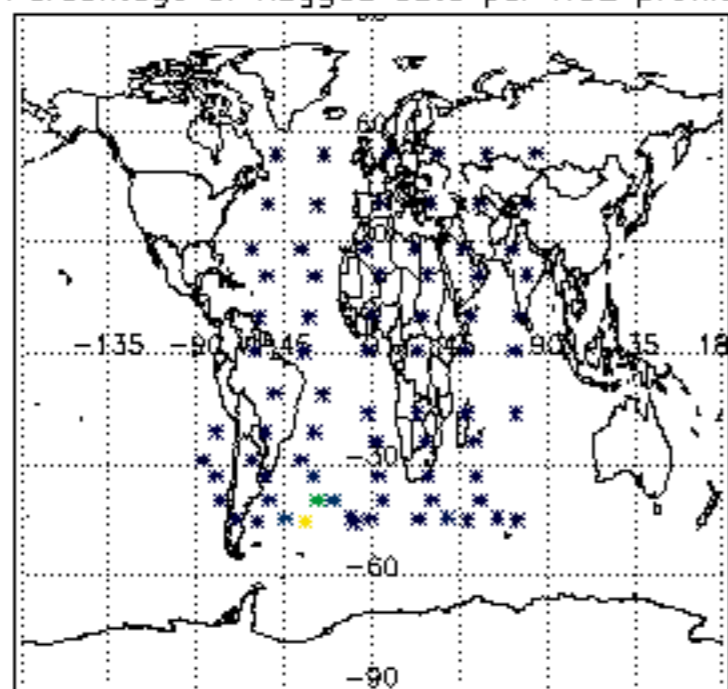
Percentage of flagged data per D3 profile



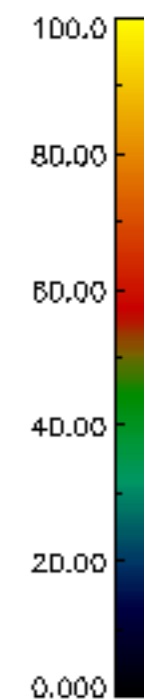
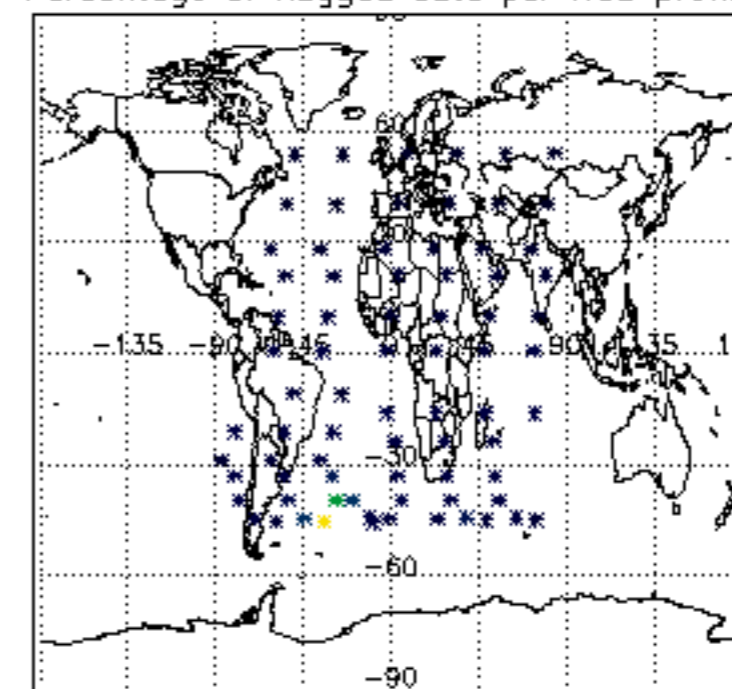
Percentage of flagged data per H2O profile

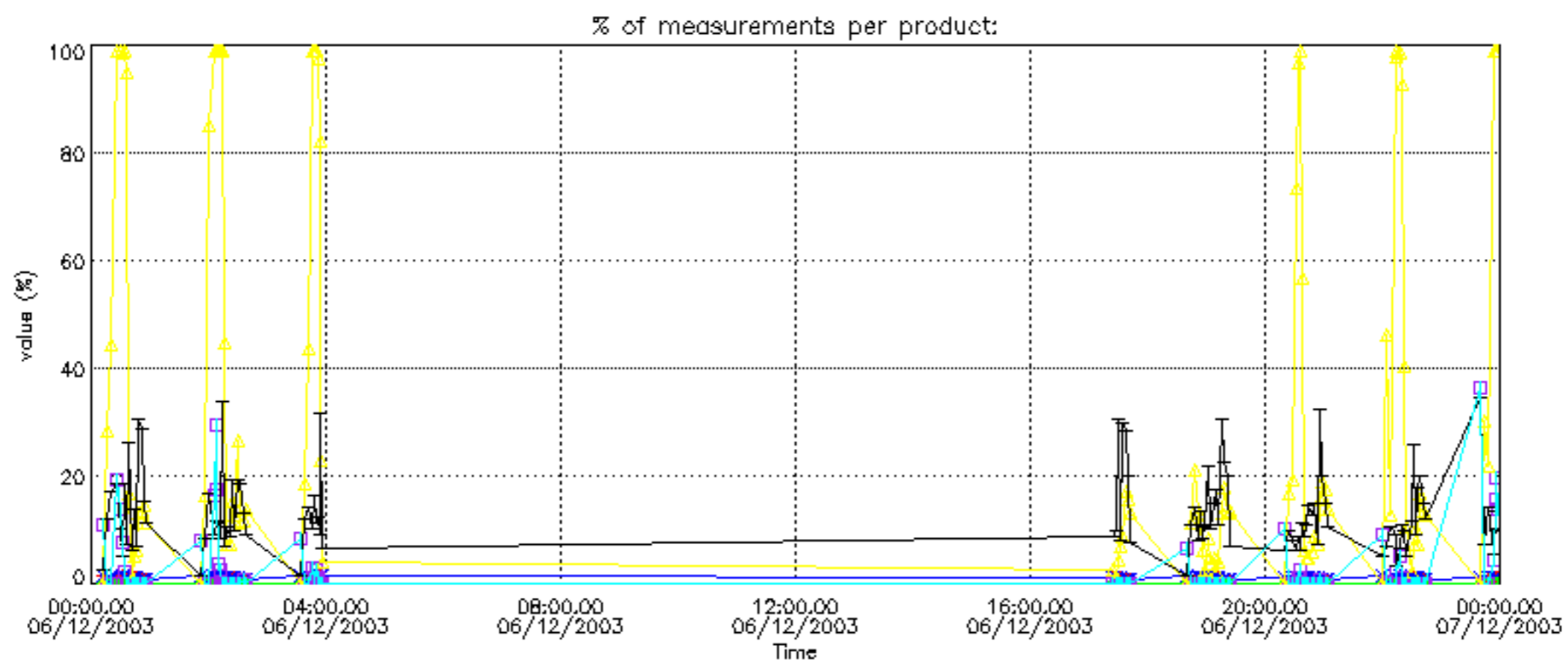
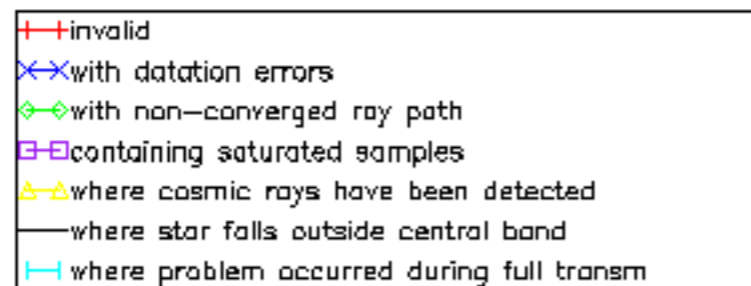


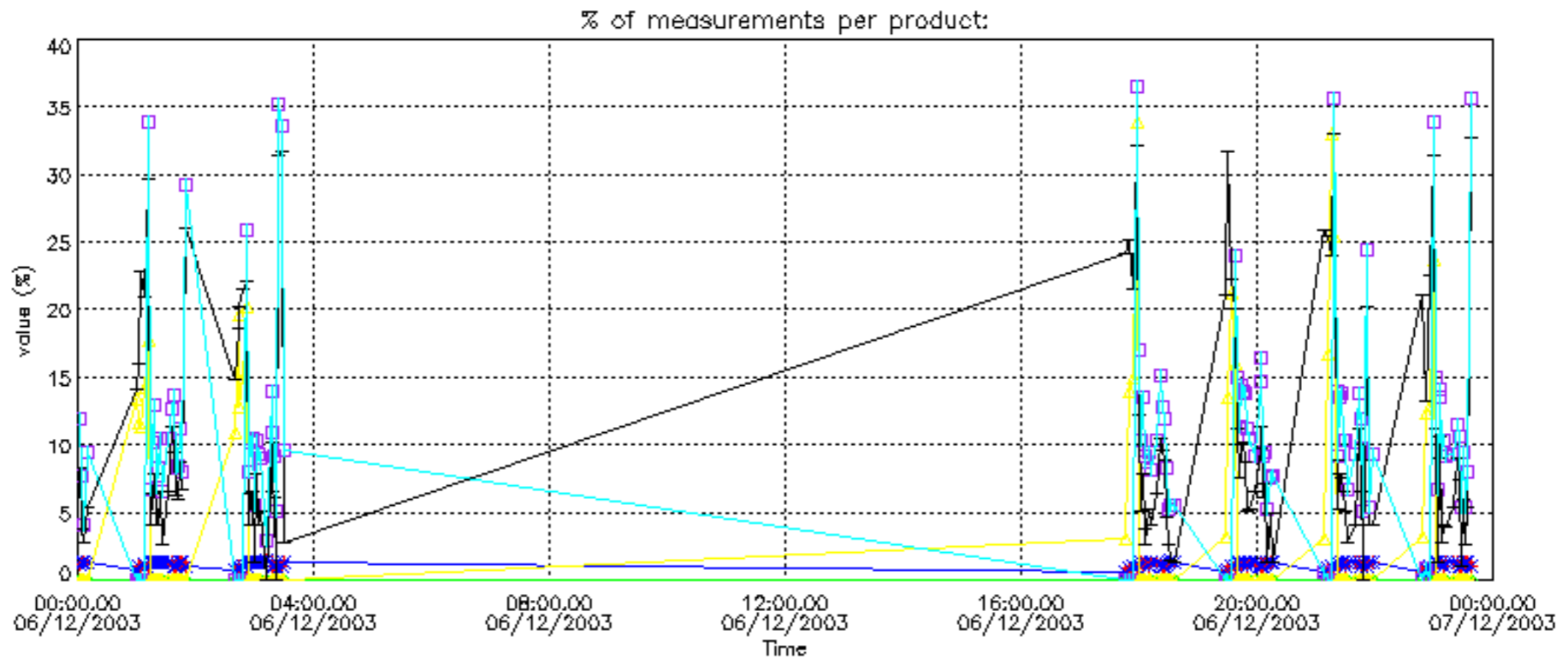
Percentage of flagged data per NO2 profile



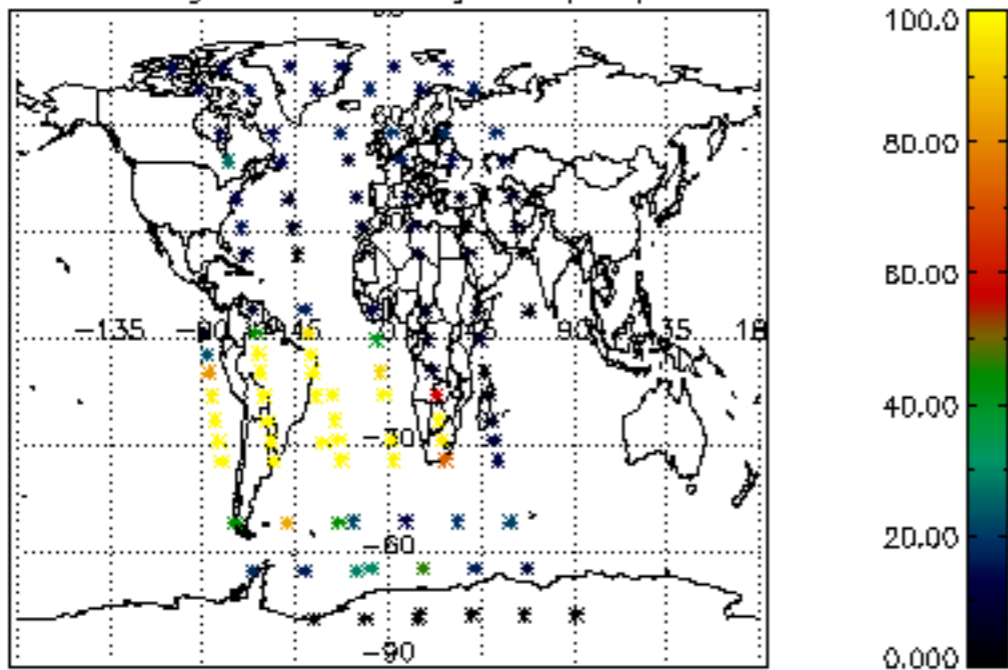
Percentage of flagged data per NO3 profile



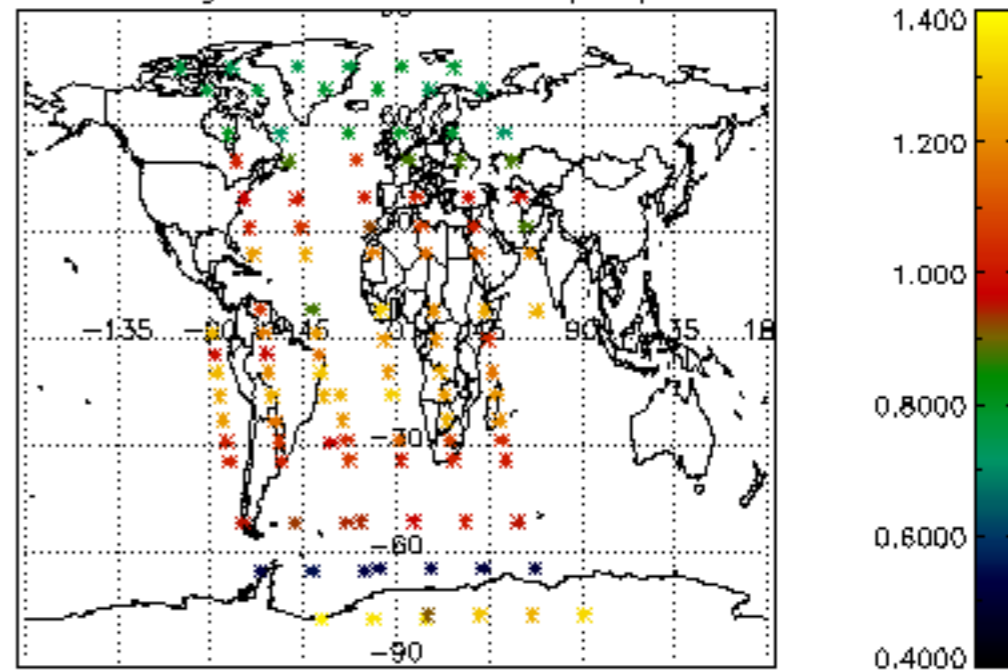




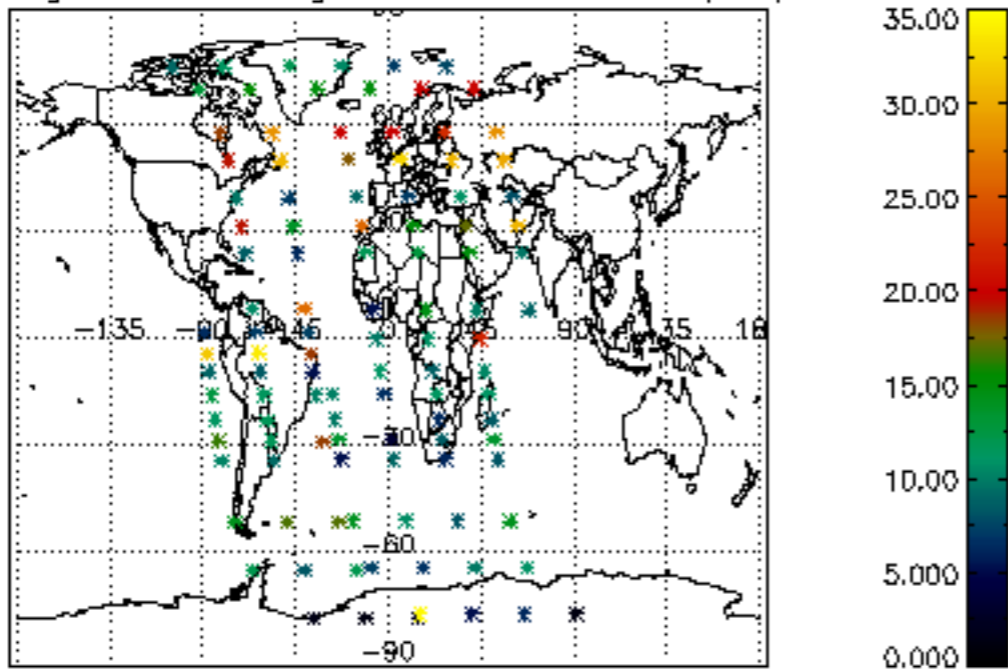
Percentage of cosmic ray hits per profile



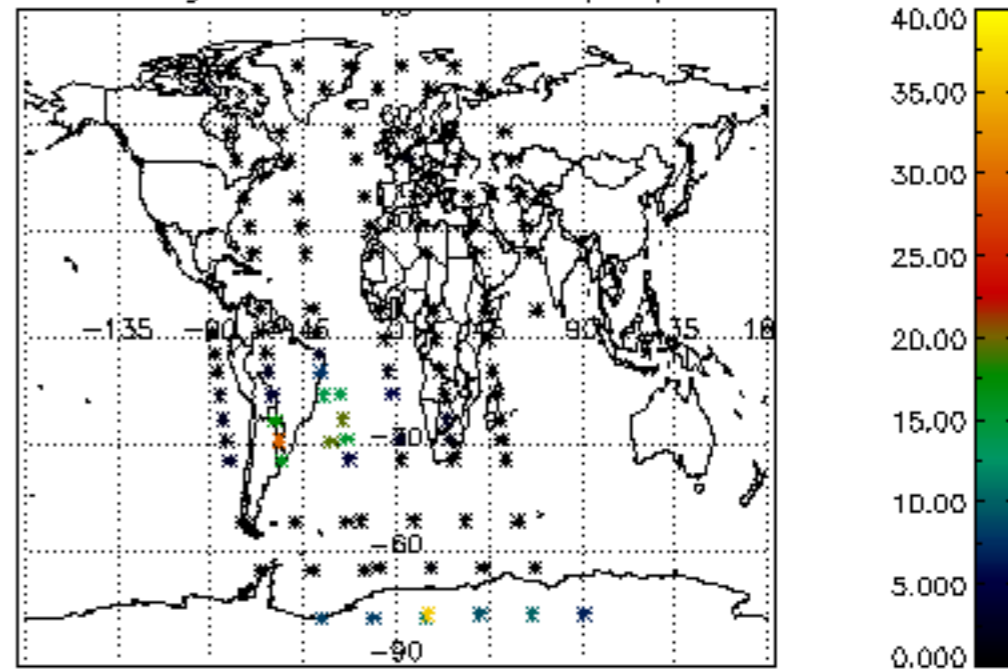
Percentage of datation errors per profile



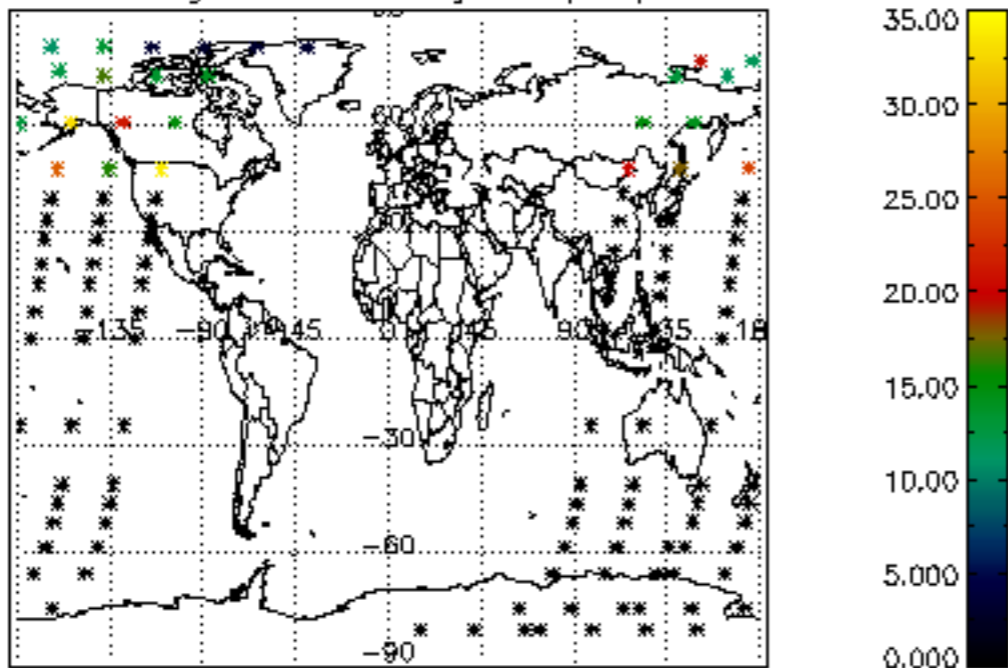
Percentage of star falling outside central band per profile



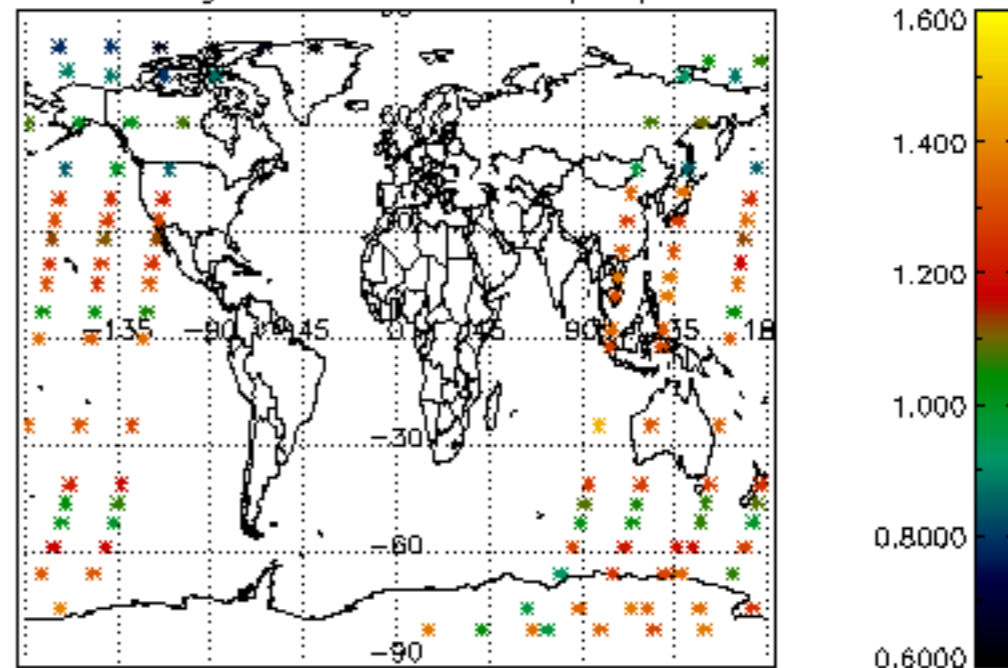
Percentage of saturation errors per profile



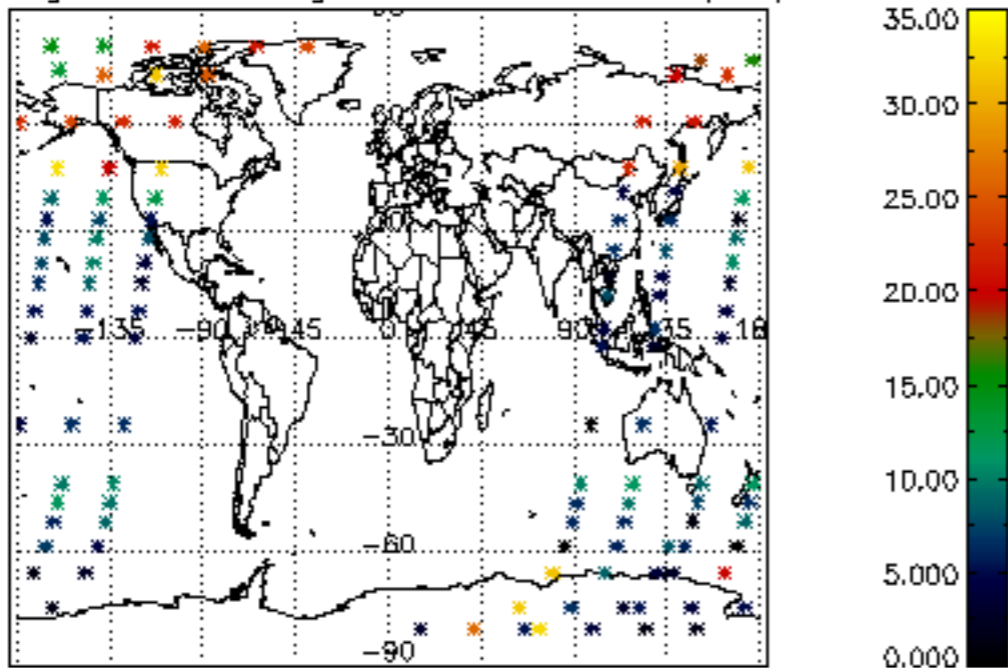
Percentage of cosmic ray hits per profile



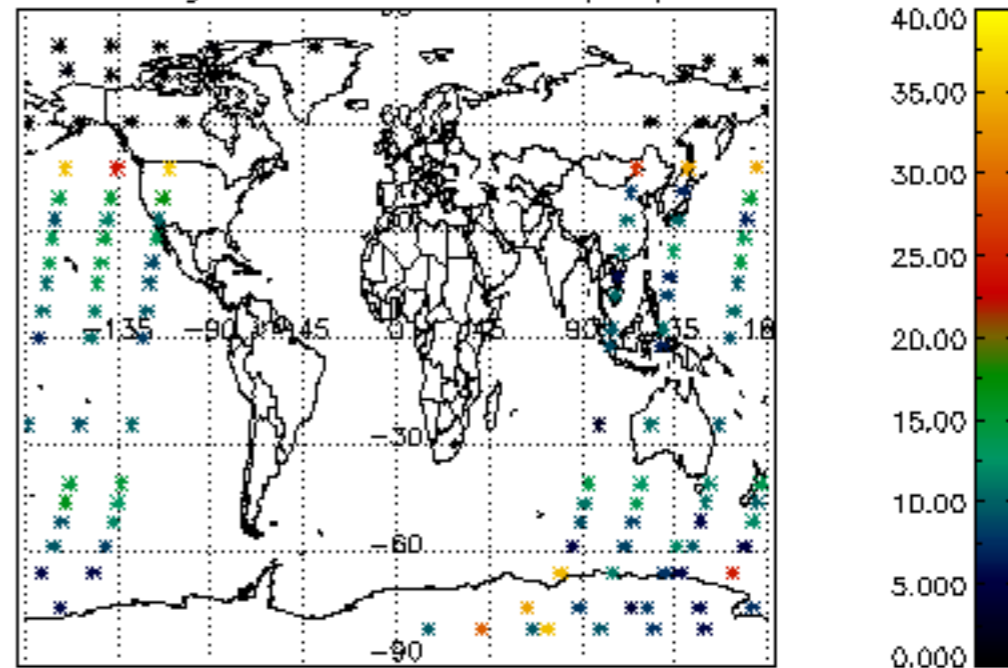
Percentage of datation errors per profile

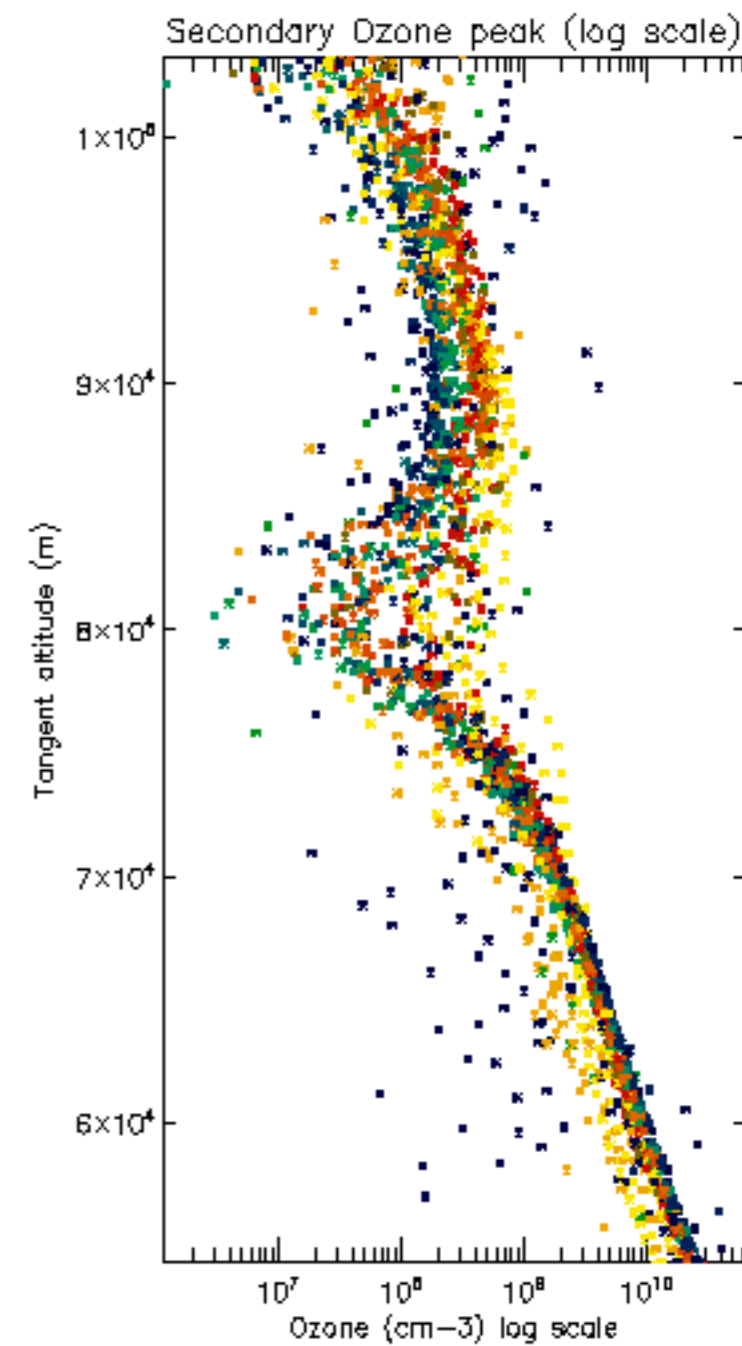
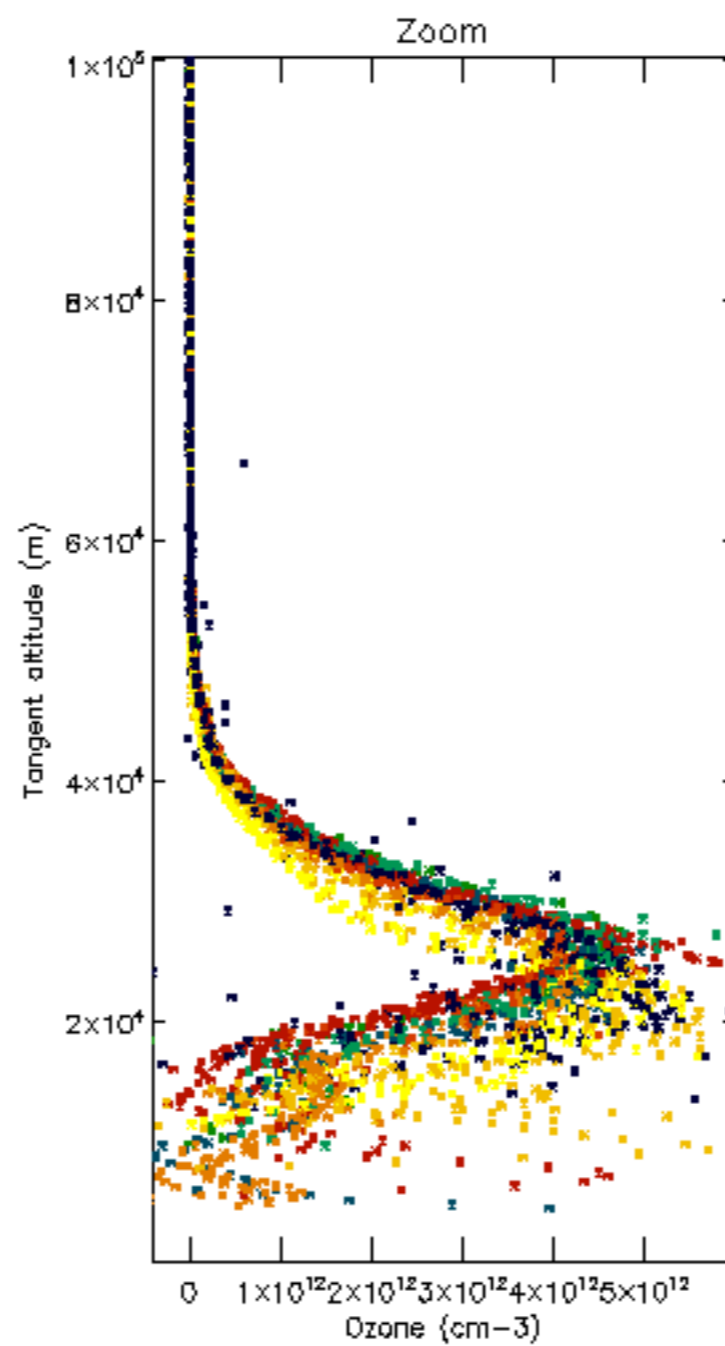
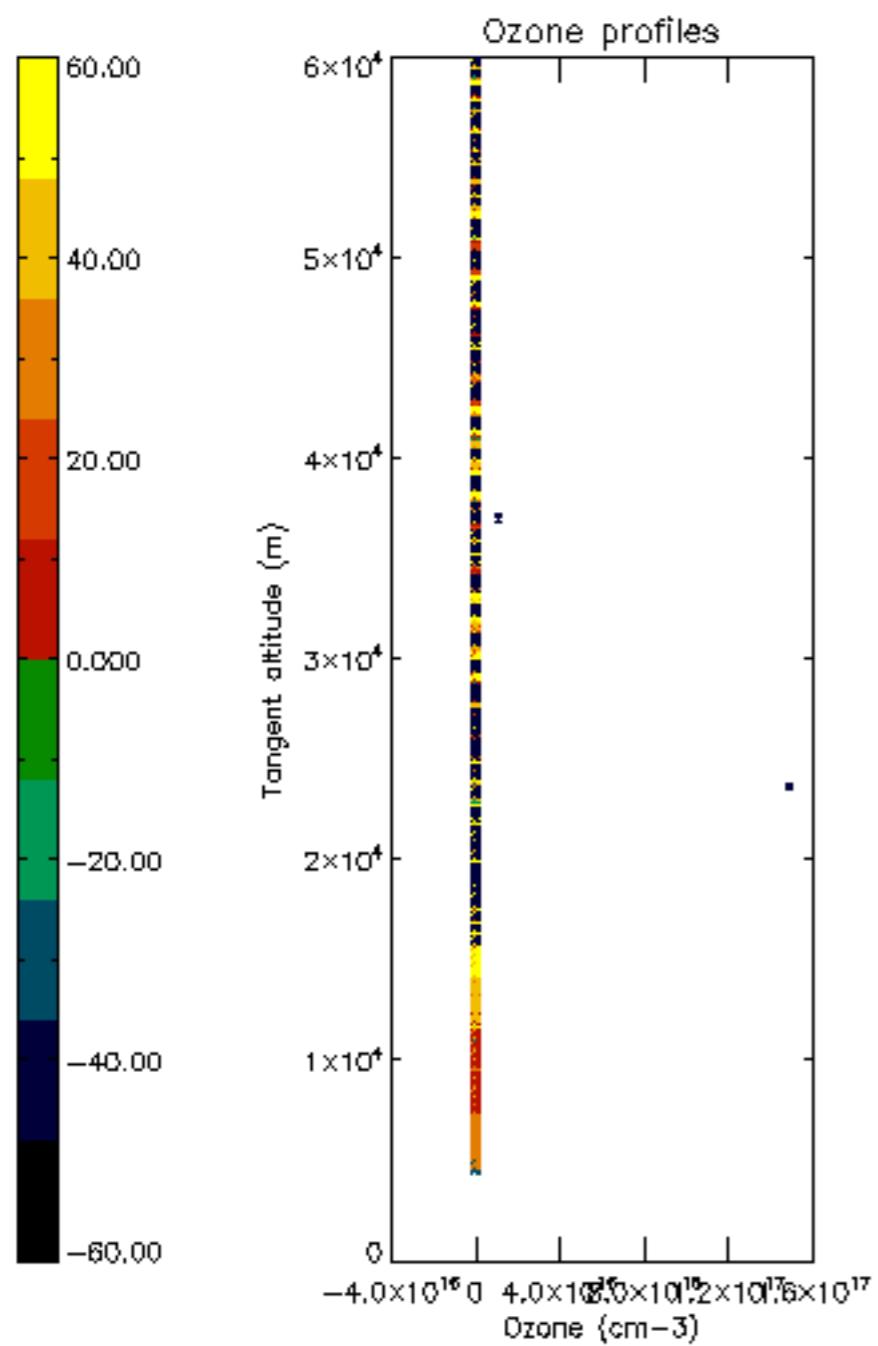


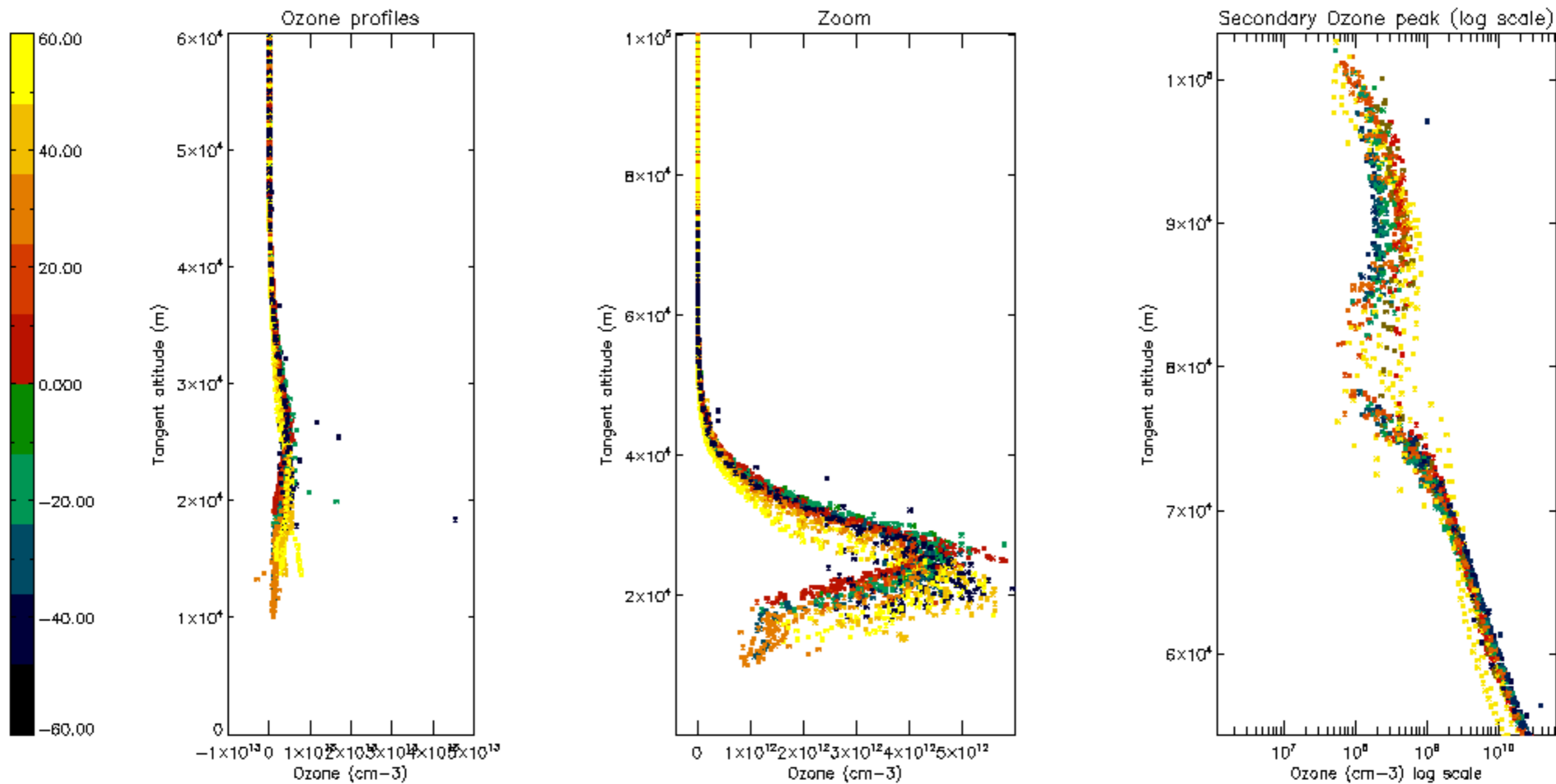
Percentage of star falling outside central band per profile

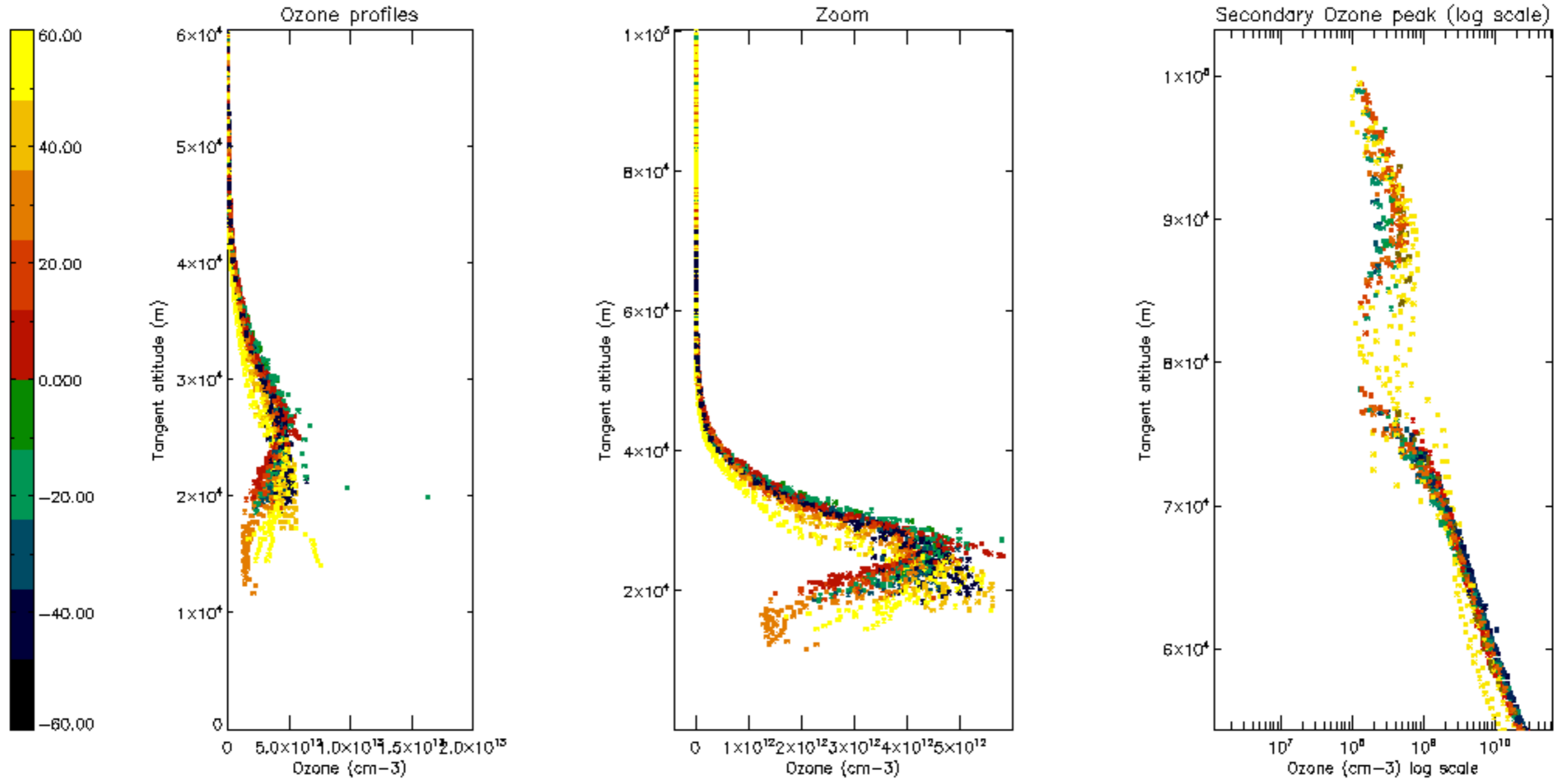


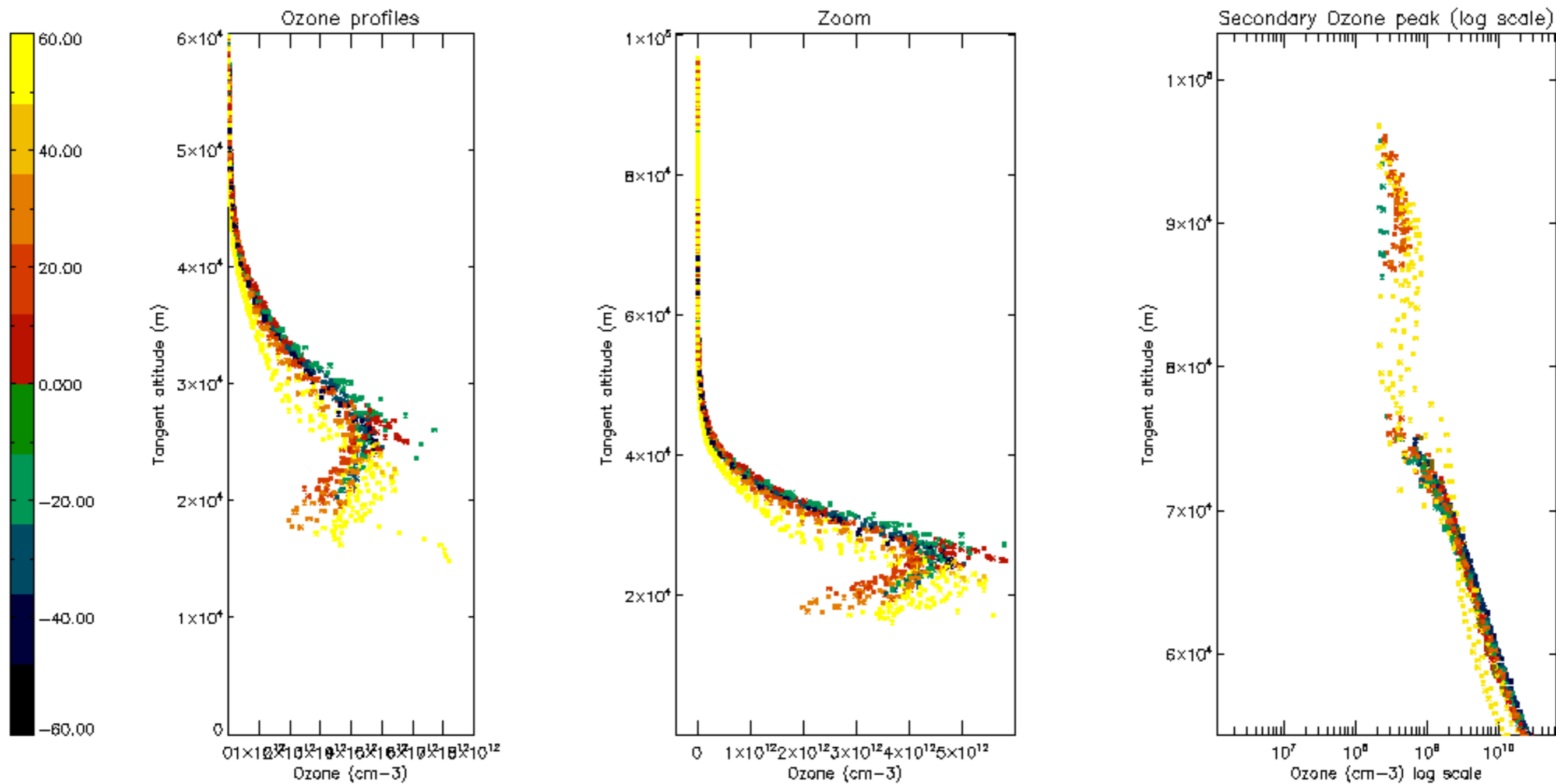
Percentage of saturation errors per profile

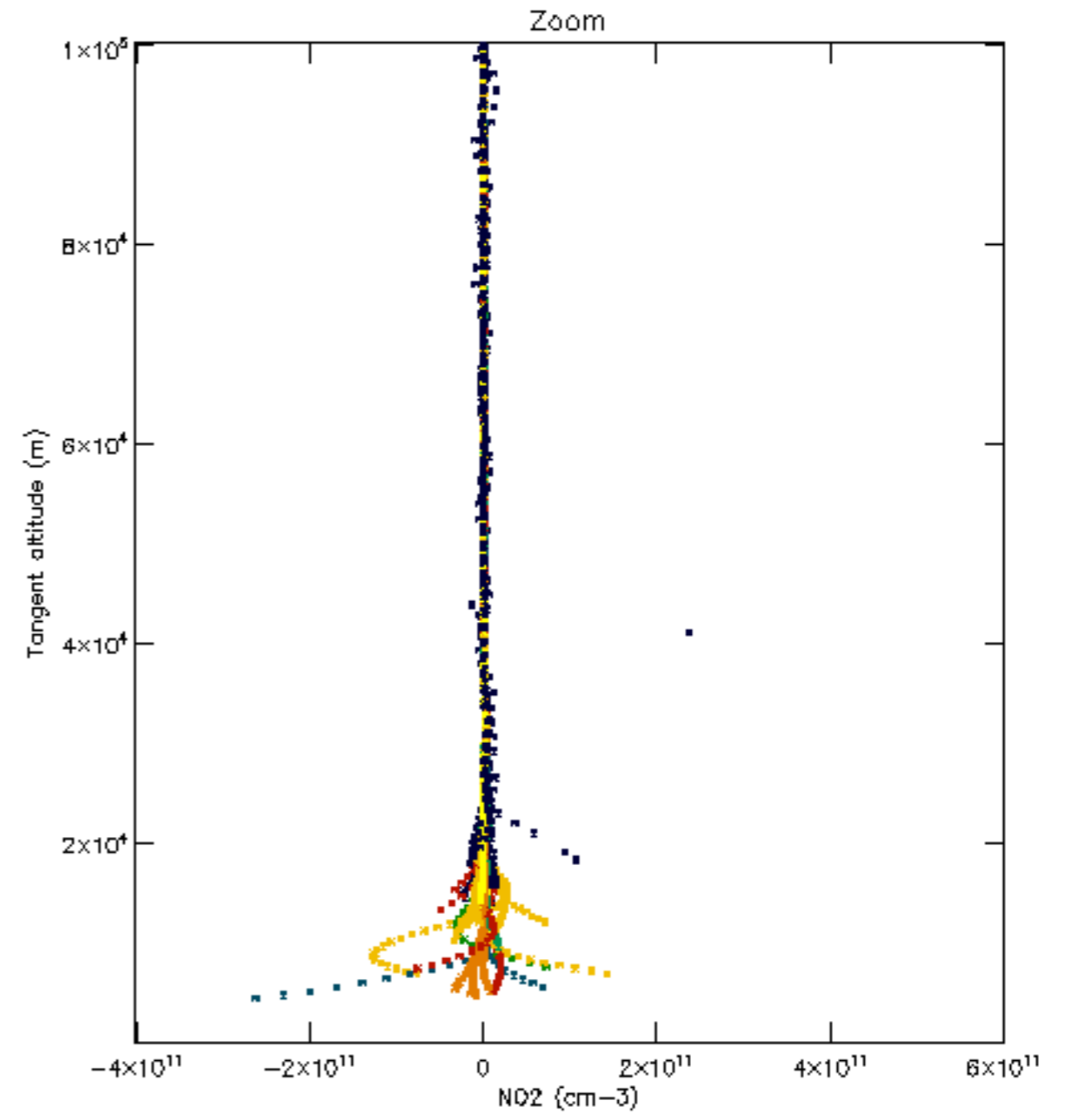
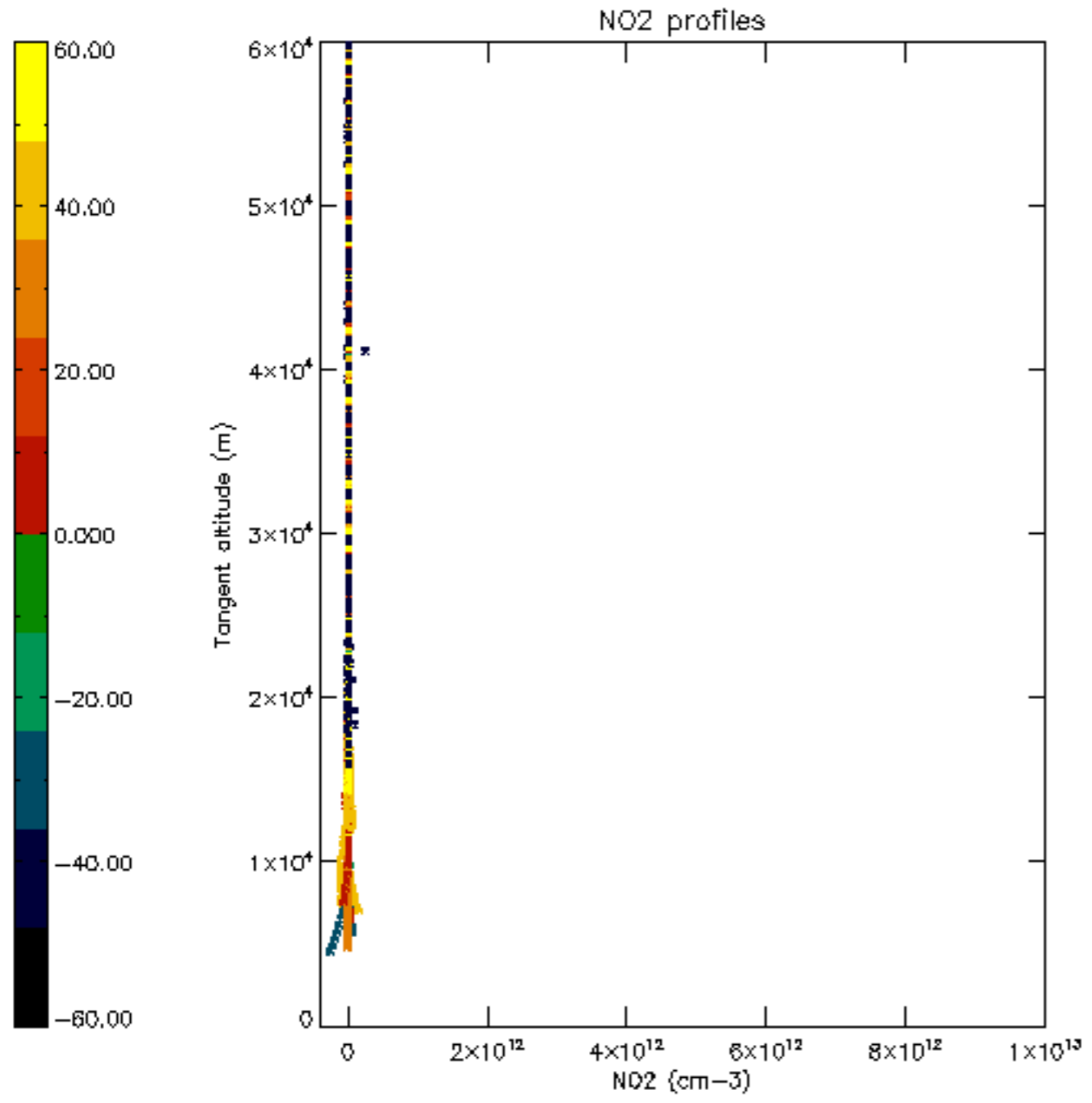


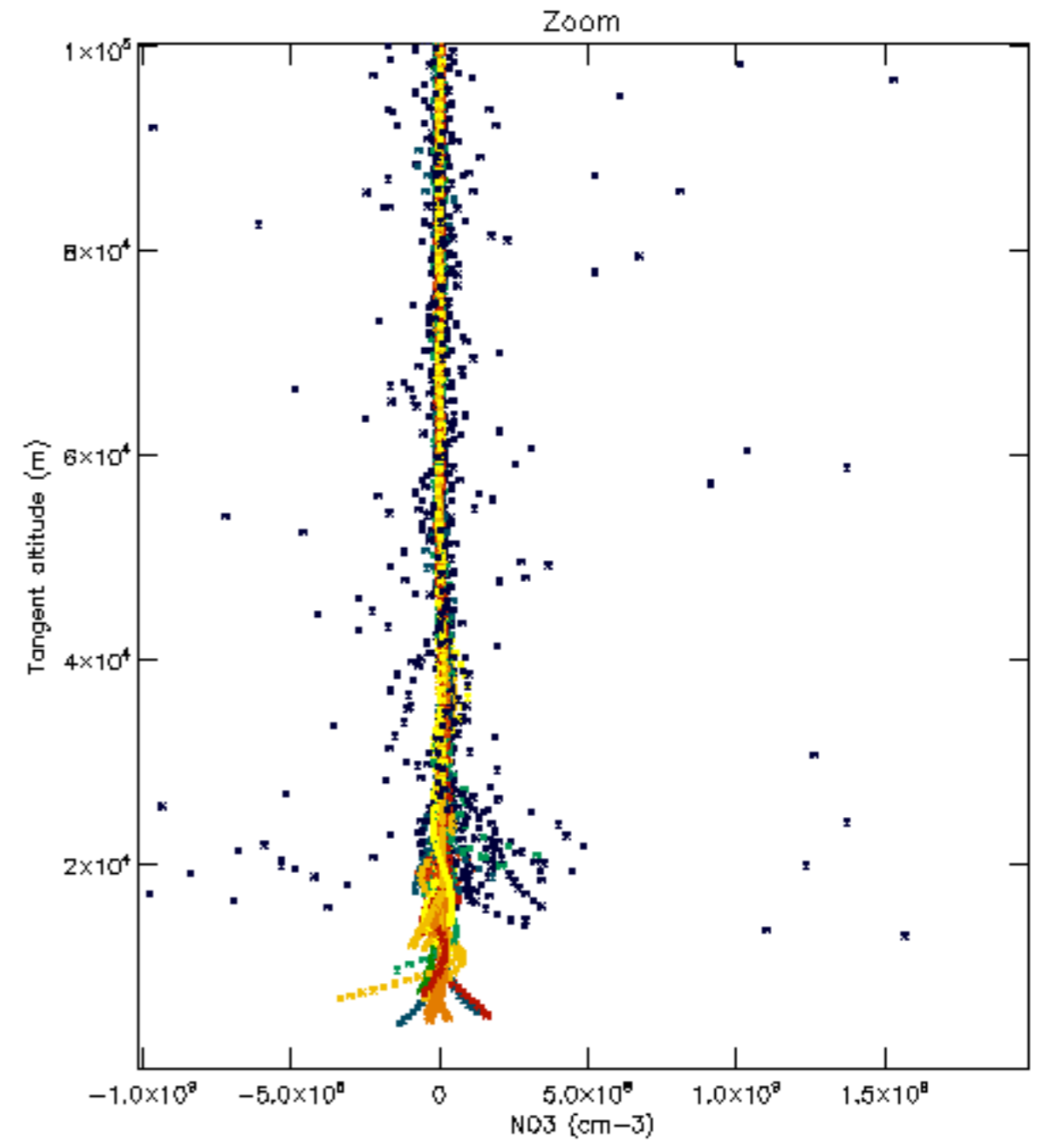
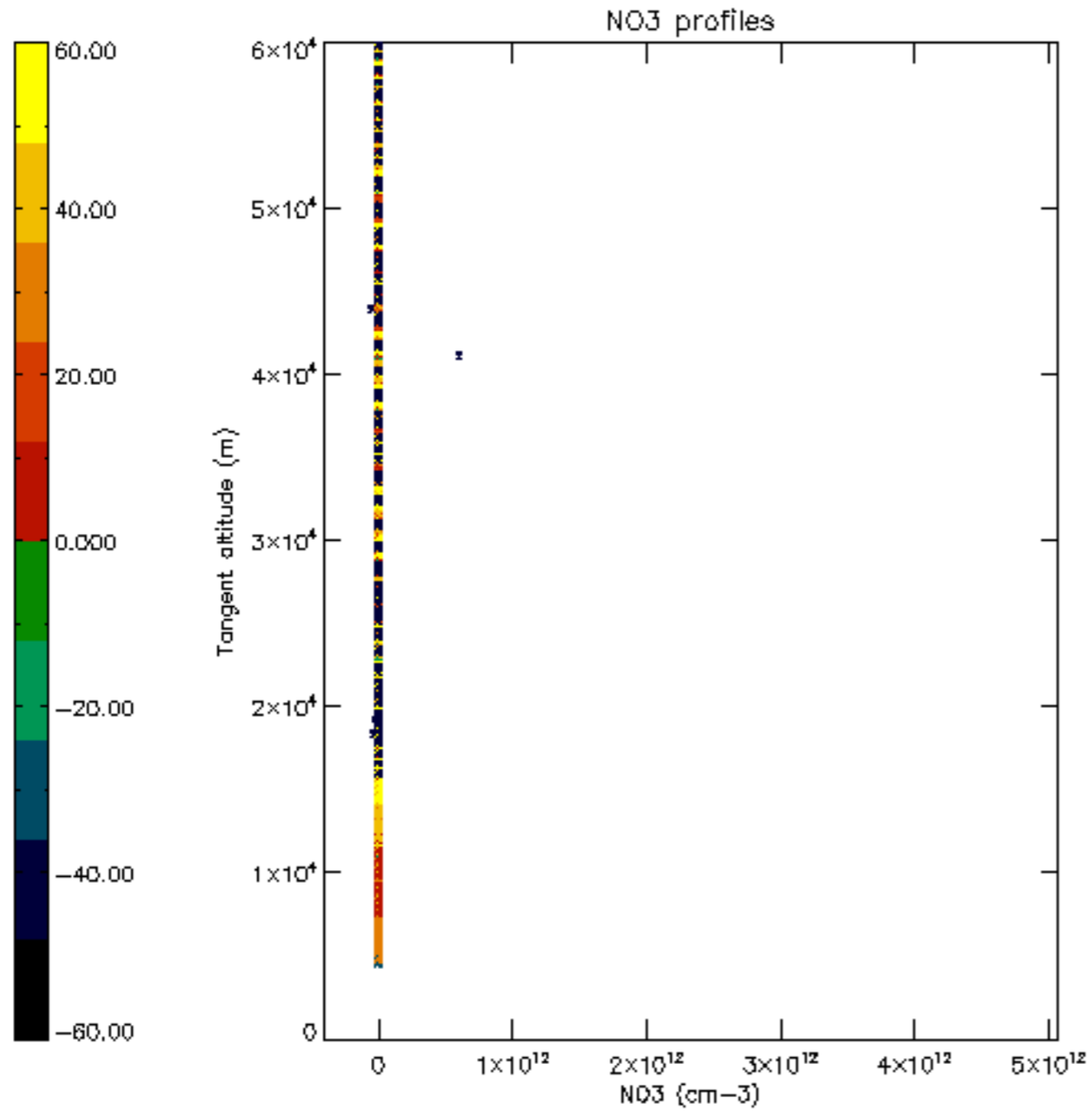


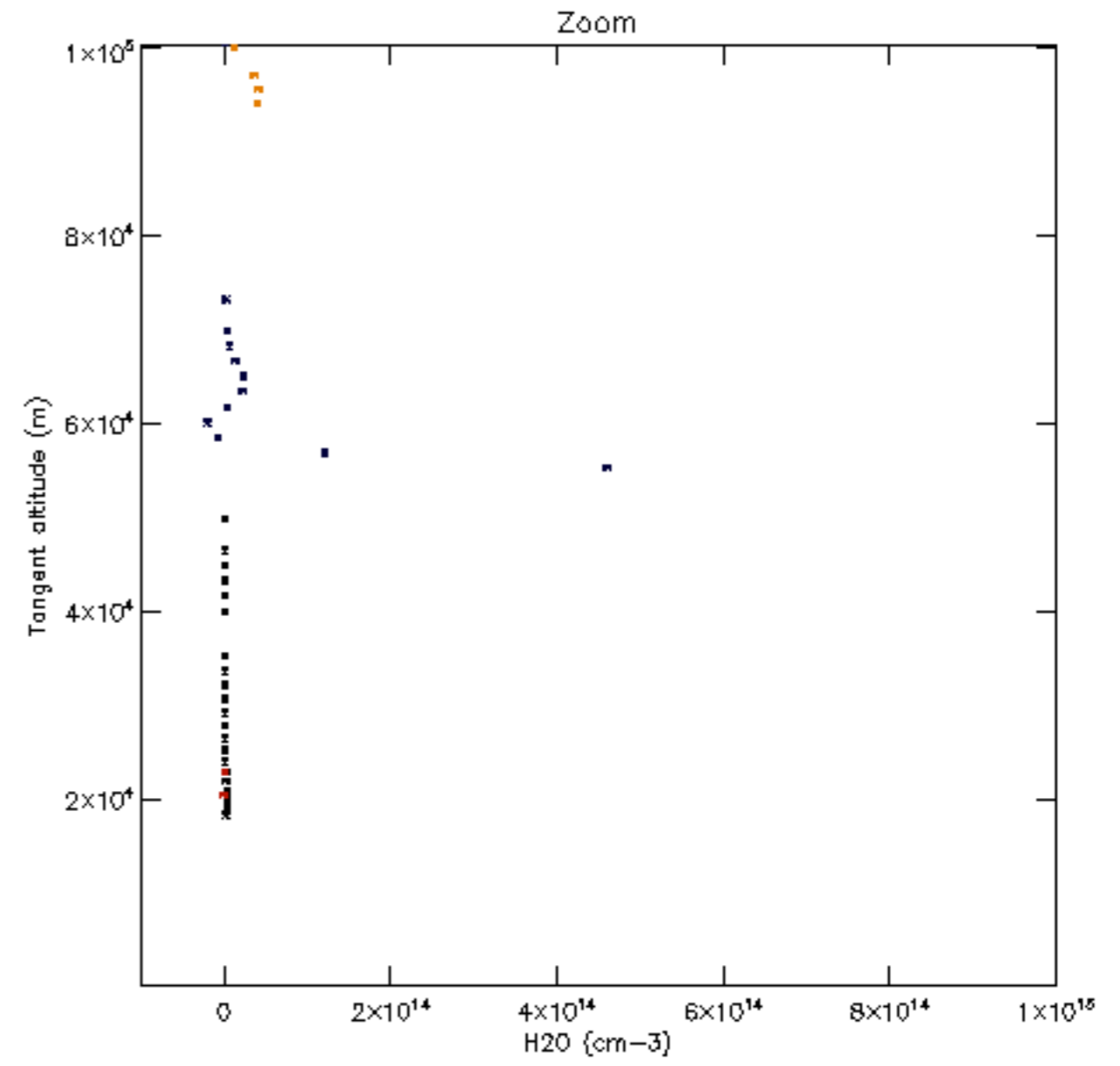
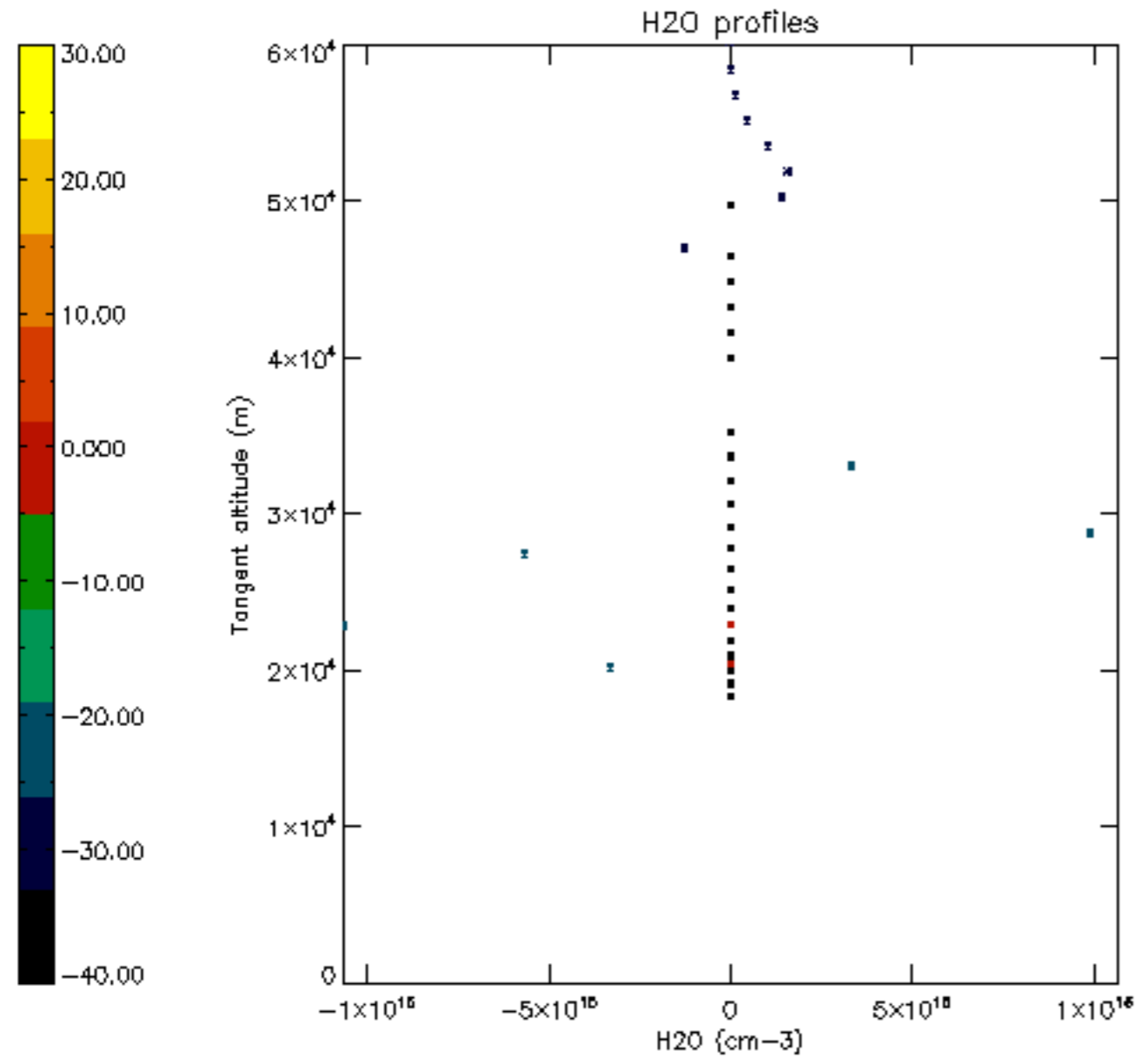


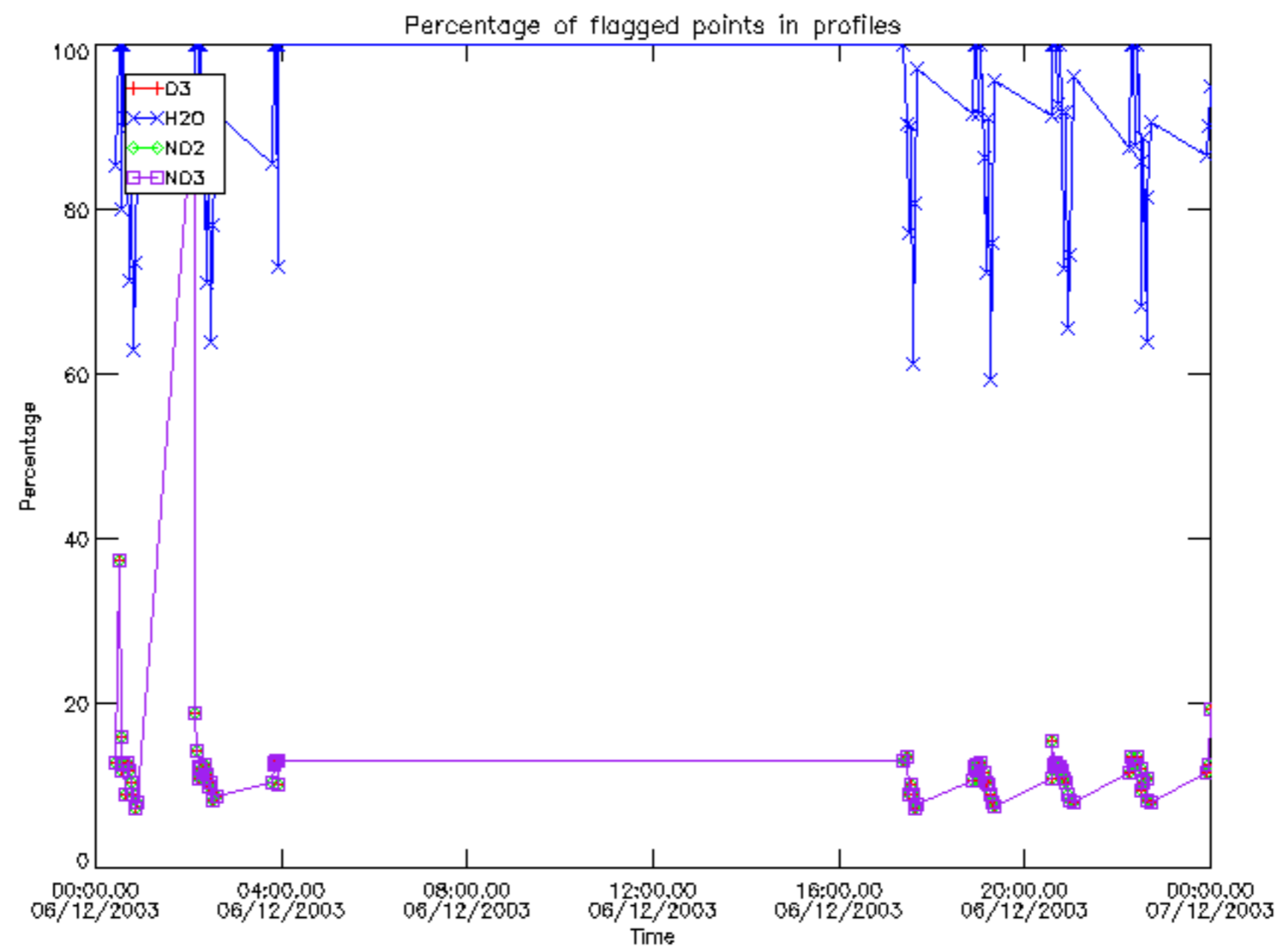




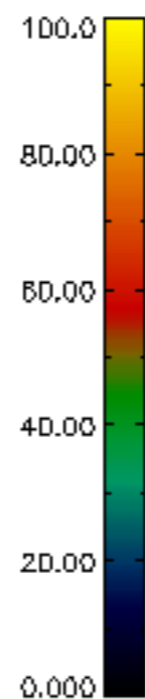
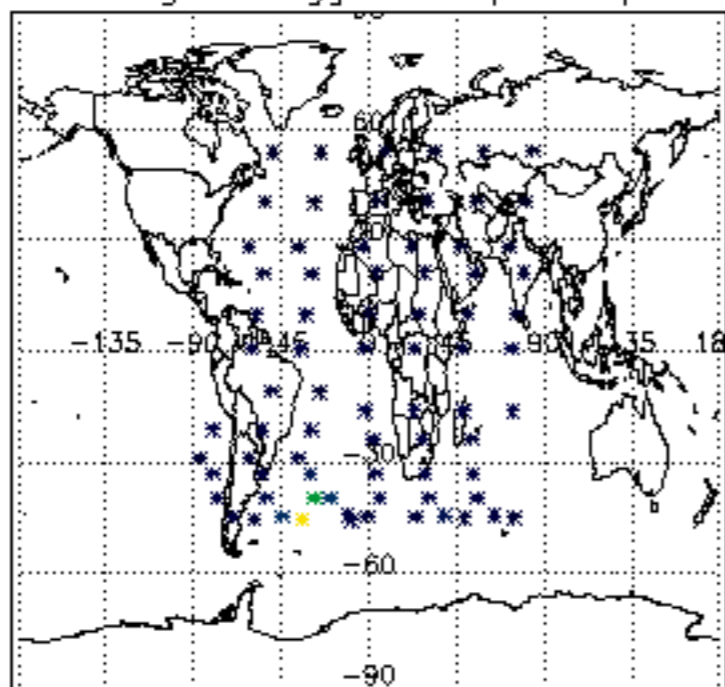




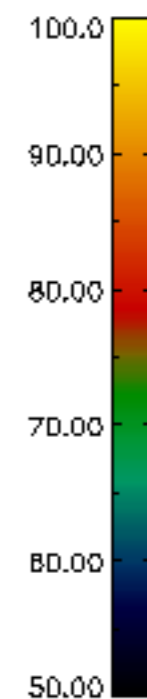
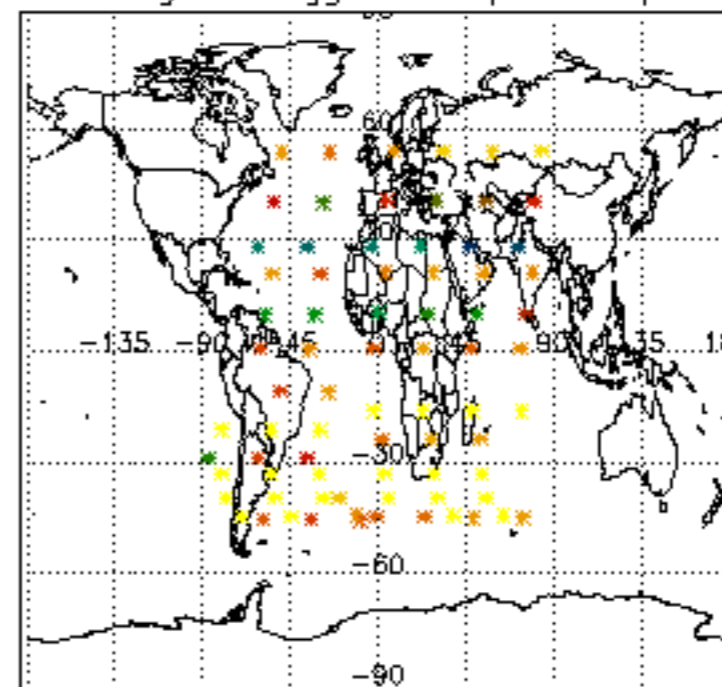




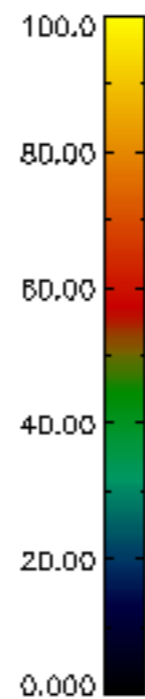
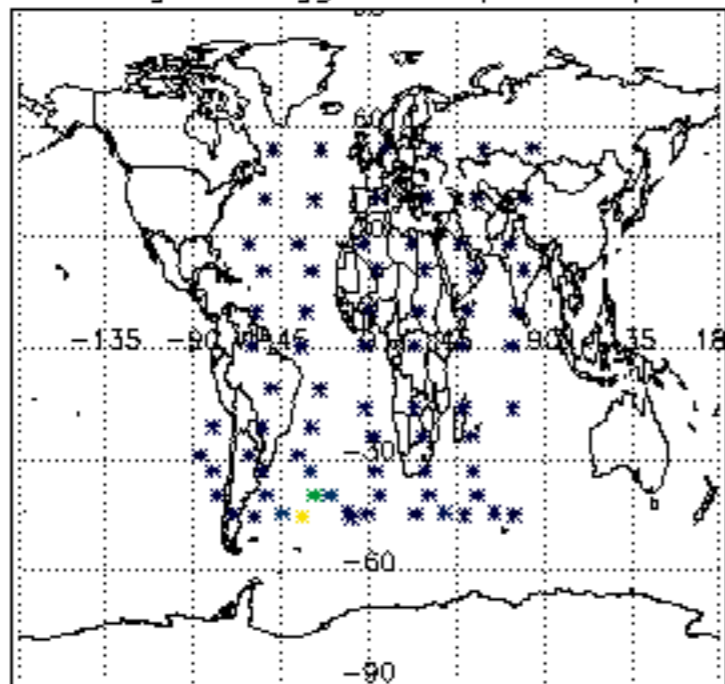
Percentage of flagged data per D3 profile



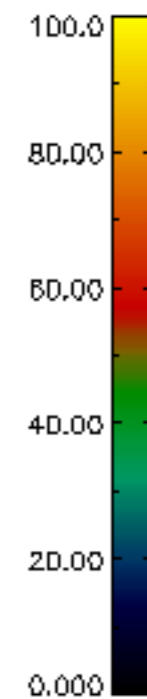
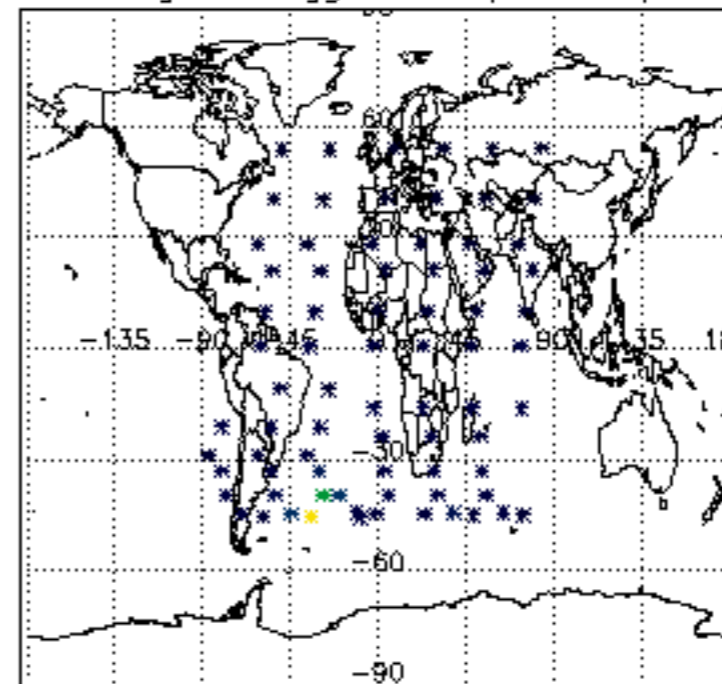
Percentage of flagged data per H2O profile

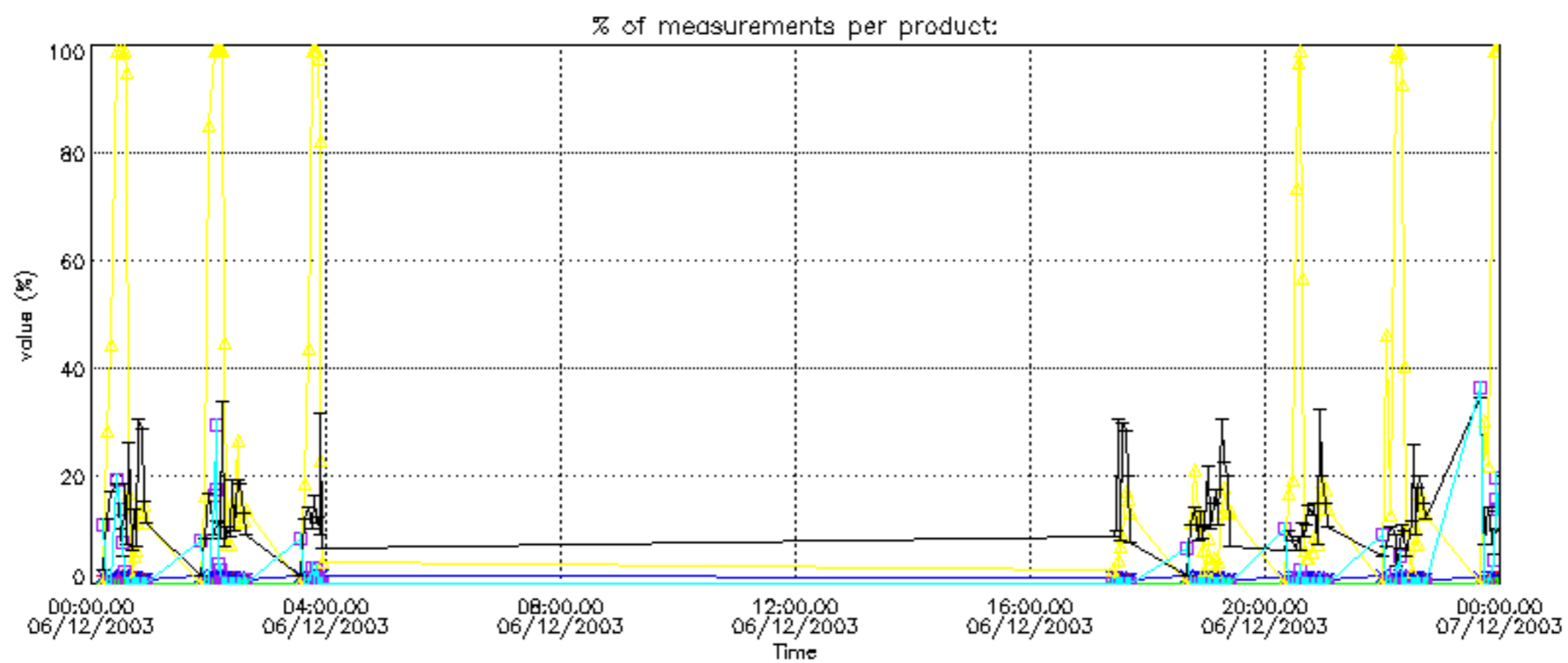


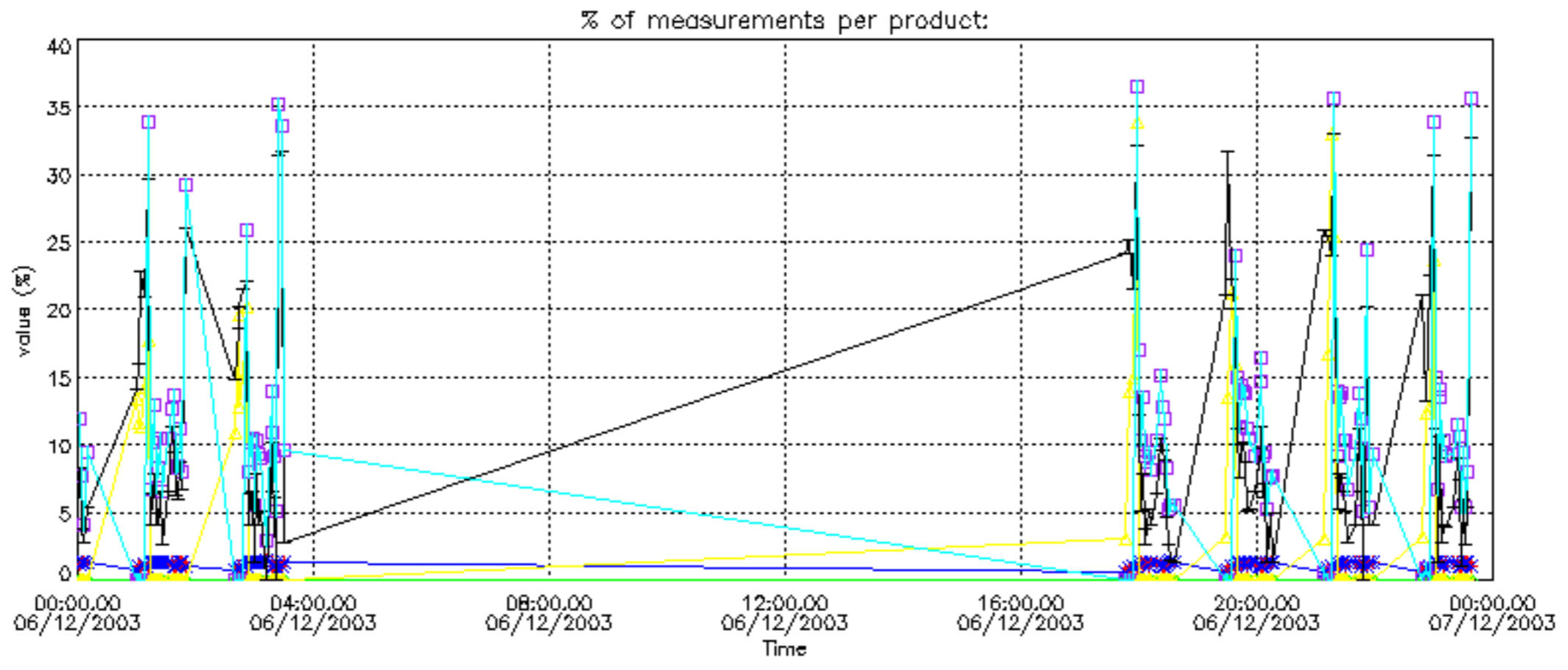
Percentage of flagged data per NO2 profile



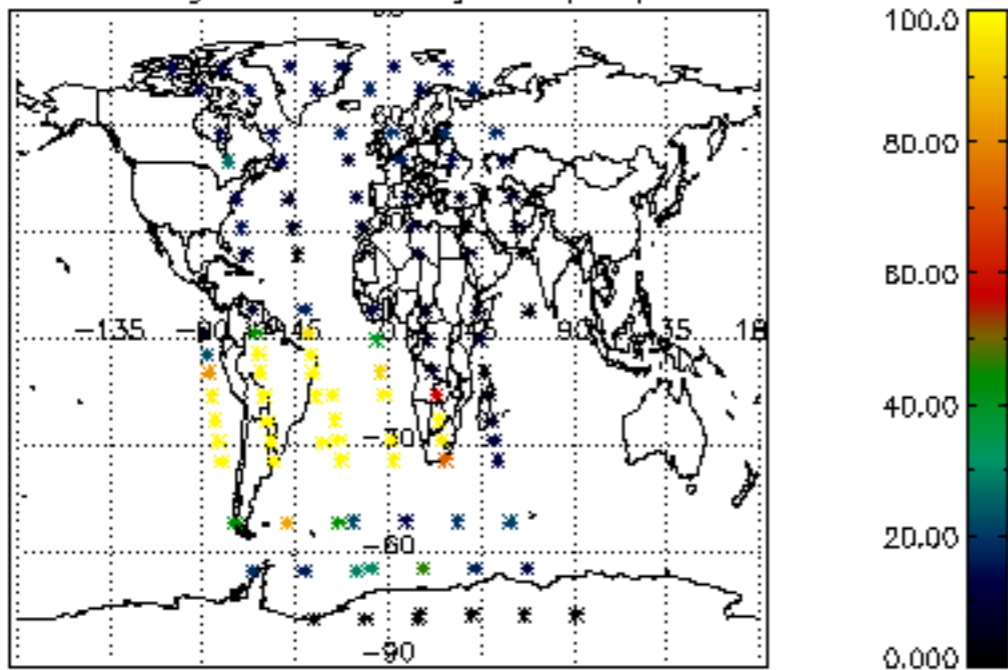
Percentage of flagged data per NO3 profile



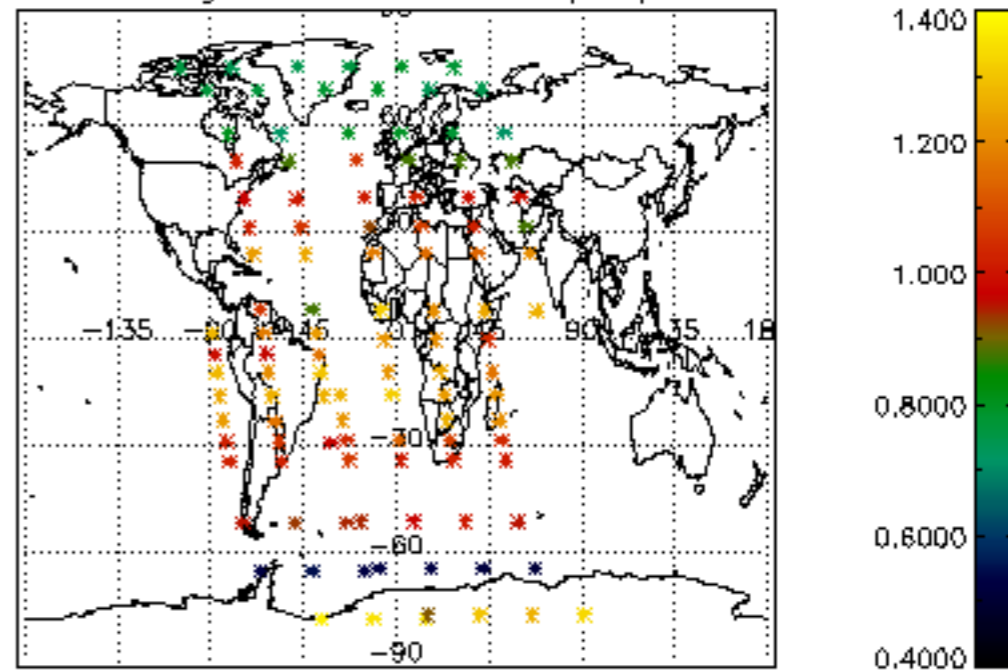




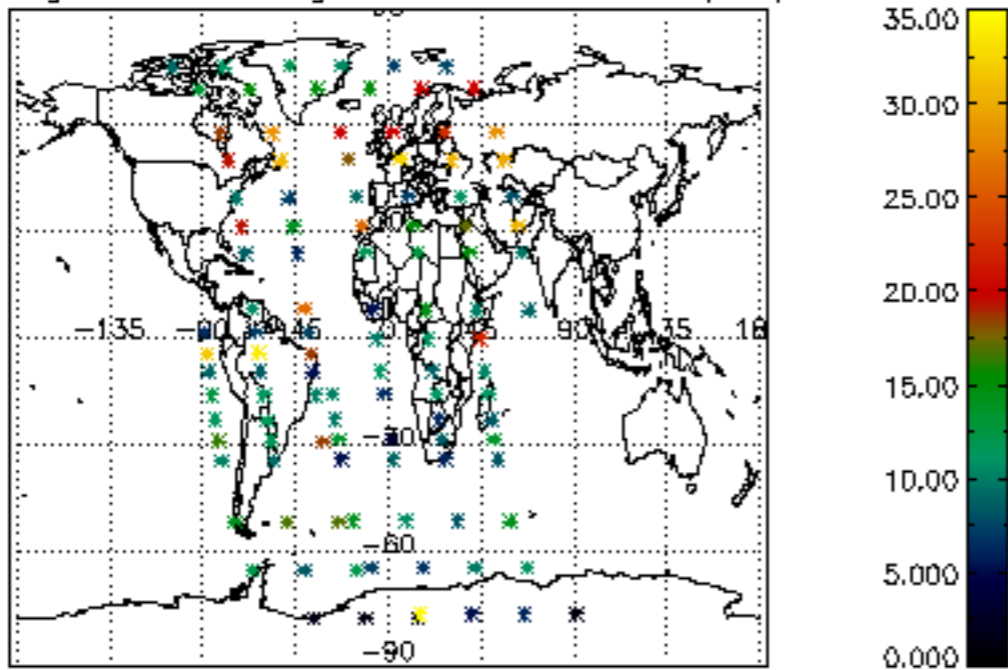
Percentage of cosmic ray hits per profile



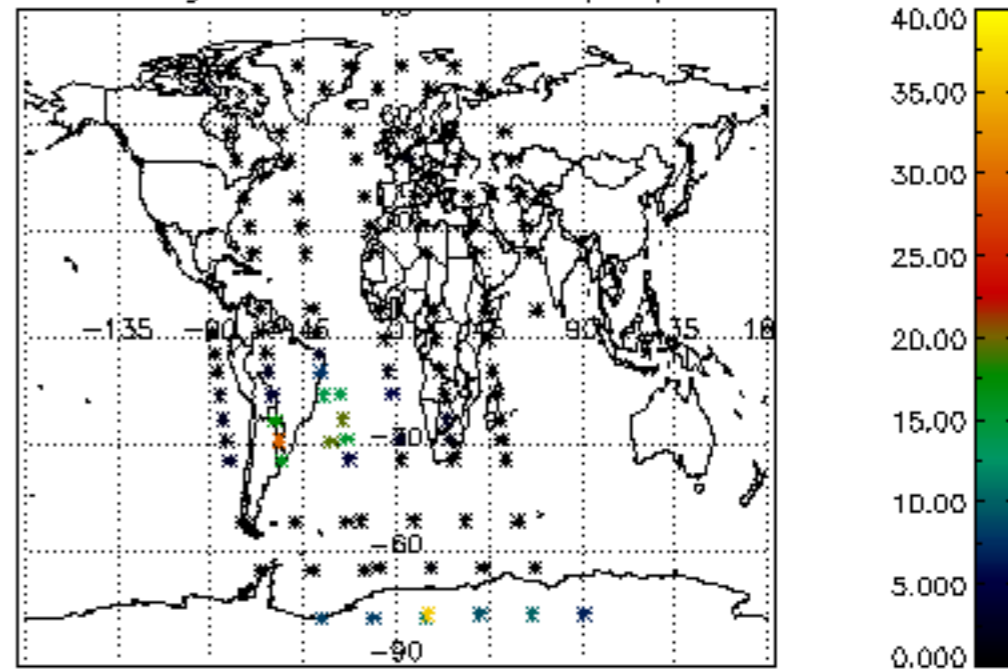
Percentage of datation errors per profile



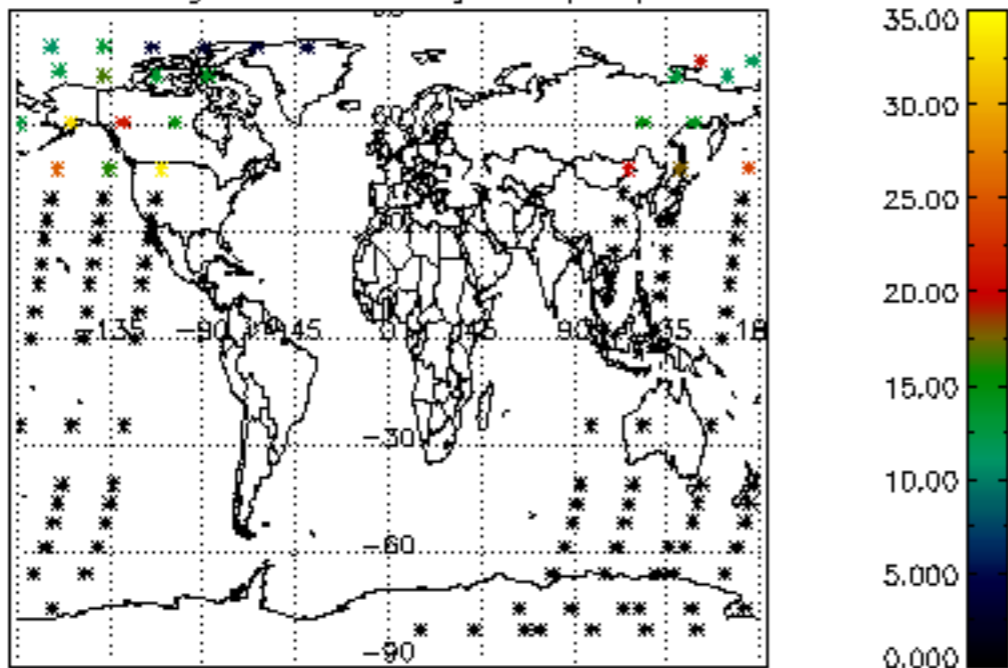
Percentage of star falling outside central band per profile



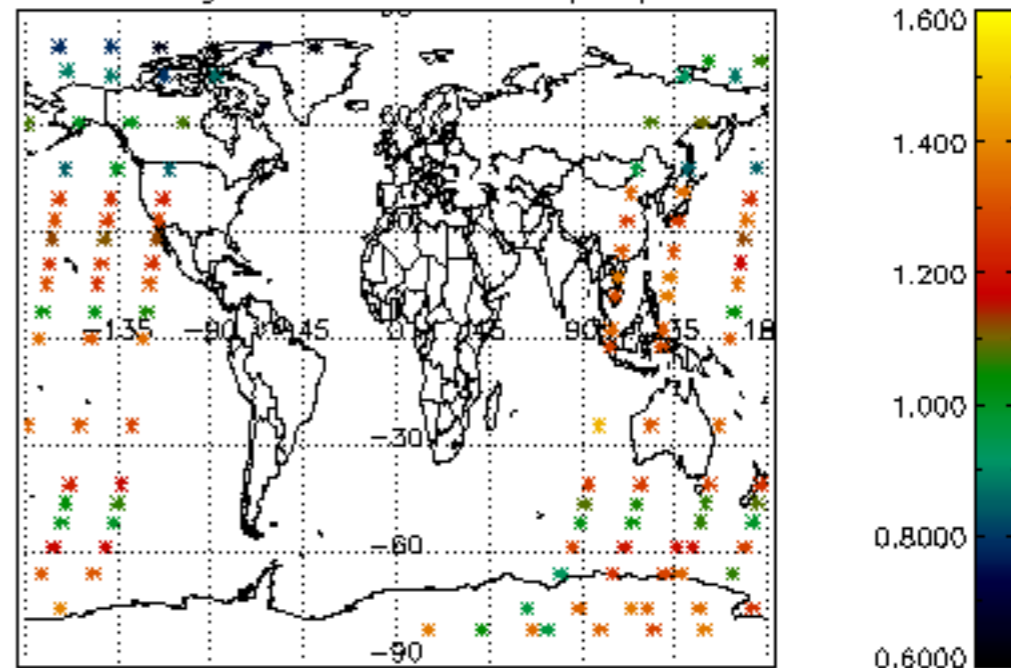
Percentage of saturation errors per profile



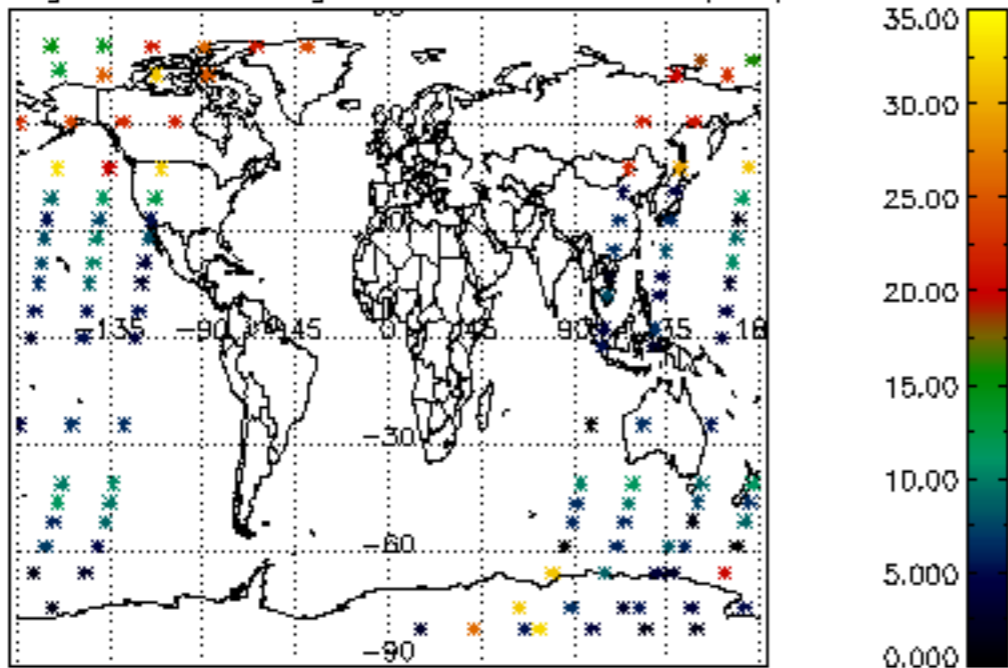
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

