

GOMOS Level 2 Daily Report

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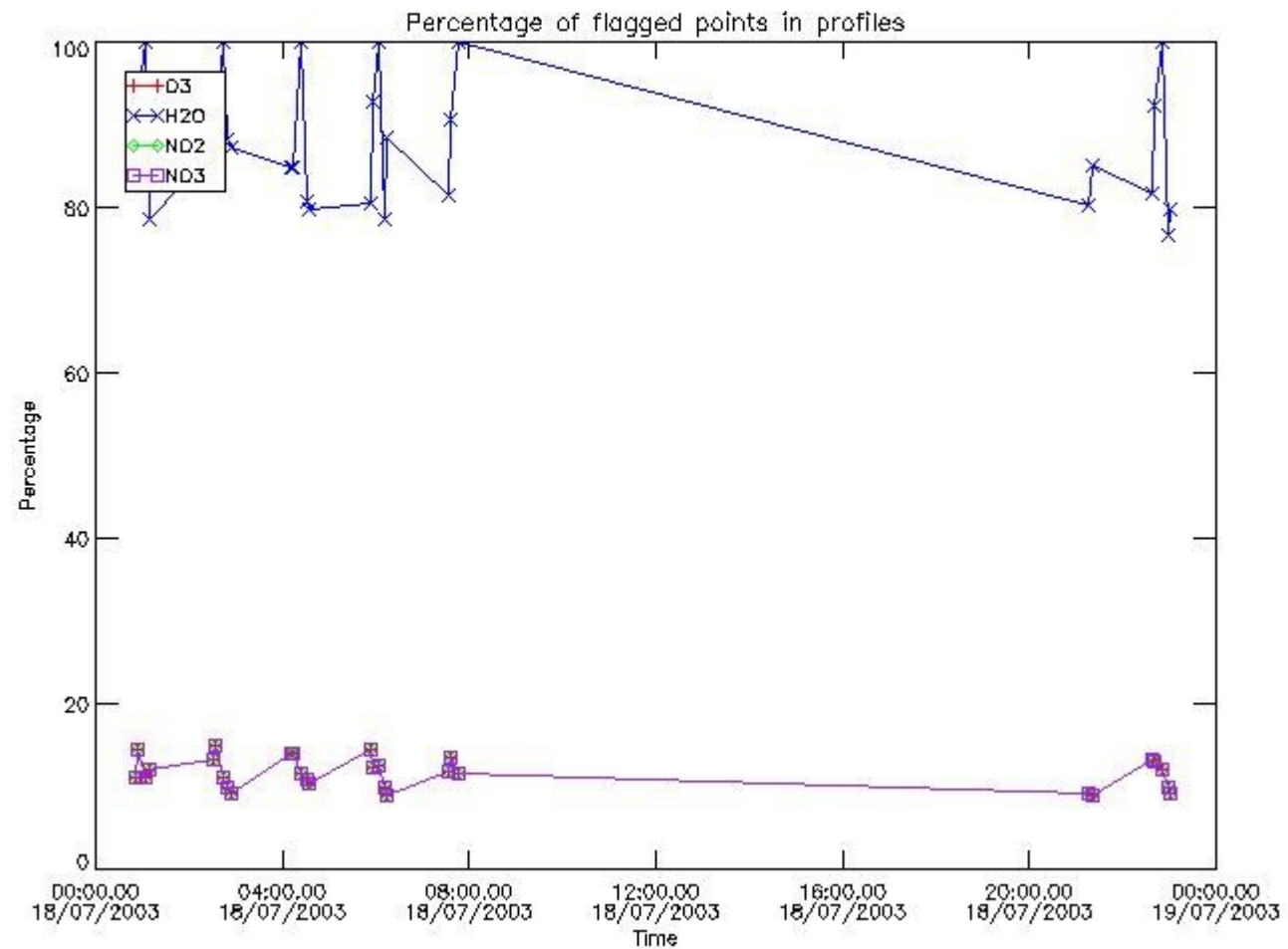
[6. Auxiliary Data Files used for the production reported in section 2](#)

161	GOM_NL__2PRFIN20030718_231009_000000832018_00159_07227_6198.N1	18-JUL-2003 23:10:09	Straylight	83.000	18	24Alp PsA	1.1660	9700.0	166	7227	No
162	GOM_NL__2PRFIN20030718_231428_000000442018_00159_07227_6199.N1	18-JUL-2003 23:14:28	Twilight_stray	43.500	40	The Sco	1.8590	7100.0	87	7227	No
163	GOM_NL__2PRFIN20030718_231624_000000442018_00159_07227_6200.N1	18-JUL-2003 23:16:24	Twilight_stray	43.500	38	20Eps Sgr	1.8360	11000.	87	7227	No
164	GOM_NL__2PRFIN20030718_231818_000000392018_00159_07227_6201.N1	18-JUL-2003 23:18:18	Bright	39.000	57	34Sig Sgr	2.0660	26000.	78	7227	No
165	GOM_NL__2PRFIN20030718_232007_000000752018_00159_07227_6202.N1	18-JUL-2003 23:20:07	Bright	74.500	142	49Del Cap	2.8500	8900.0	149	7227	No
166	GOM_NL__2PRFIN20030718_232736_000000362018_00159_07227_6203.N1	18-JUL-2003 23:27:36	Bright	36.000	126	60Bet Oph	2.7700	4250.0	72	7227	No
167	GOM_NL__2PRFIN20030718_232954_000000382018_00159_07227_6204.N1	18-JUL-2003 23:29:54	Bright	38.000	59	55Alp Oph	2.0800	8900.0	76	7227	No
168	GOM_NL__2PRFIN20030718_233553_000000382018_00159_07227_6205.N1	18-JUL-2003 23:35:53	Bright	38.000	133	40Zet Her	2.8070	6000.0	76	7227	No
169	GOM_NL__2PRFIN20030718_234038_000000352018_00159_07227_6206.N1	18-JUL-2003 23:40:38	Bright	35.000	69	33Gam Dra	2.2310	3800.0	70	7227	No
170	GOM_NL__2PRFIN20030718_234222_000000492018_00159_07227_6207.N1	18-JUL-2003 23:42:22	Bright	49.000	19	50Alp Cyg	1.2460	10500.	98	7227	No
171	GOM_NL__2PRFIN20030718_234722_000000402018_00159_07227_6208.N1	18-JUL-2003 23:47:22	Bright	40.000	89	5Alp Cep	2.4510	8000.0	80	7227	No
172	GOM_NL__2PRFIN20030718_235139_000000372018_00159_07227_6209.N1	18-JUL-2003 23:51:39	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	7227	No
173	GOM_NL__2PRFIN20030718_235444_000000502018_00159_07227_6210.N1	18-JUL-2003 23:54:44	Bright	49.500	74	11Bet Cas	2.2680	6600.0	99	7227	No
174	GOM_NL__2PRFIN20030718_235641_000000562018_00159_07227_6211.N1	18-JUL-2003 23:56:41	Bright	56.000	68	18Alp Cas	2.2250	4500.0	112	7227	No

3. Quality information per product

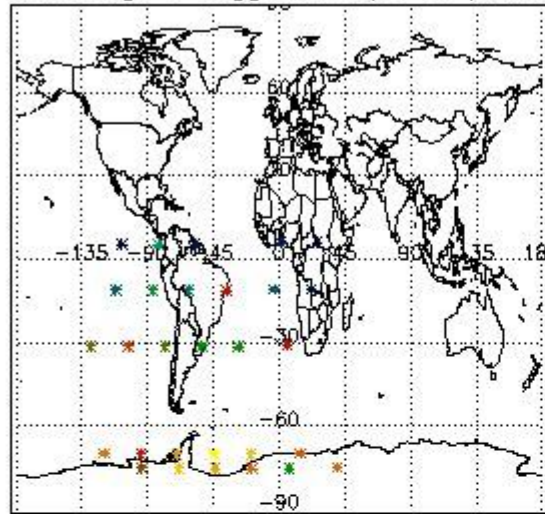
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

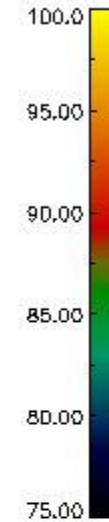
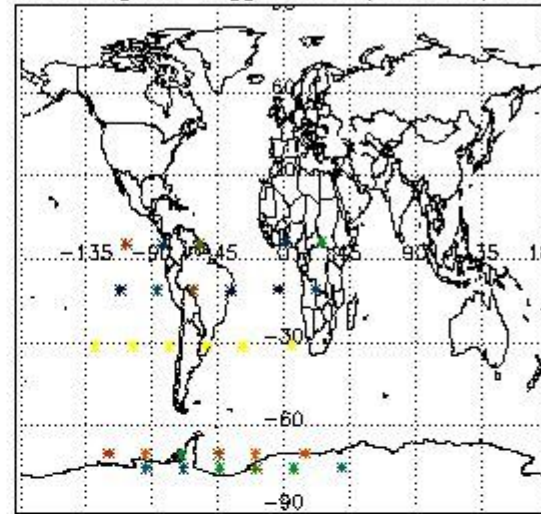


3.2 Plot quality information per product (world map)

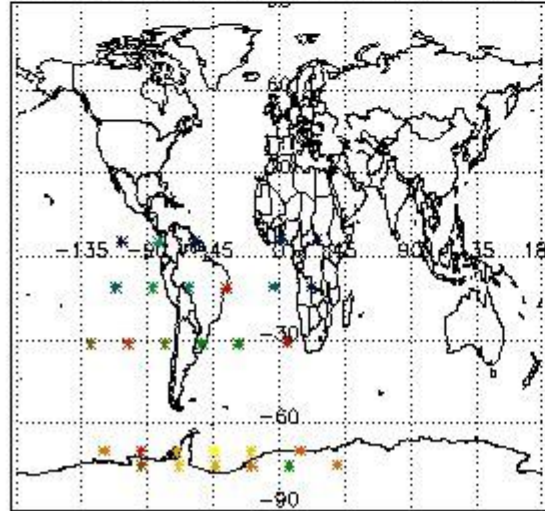
Percentage of flagged data per O3 profile



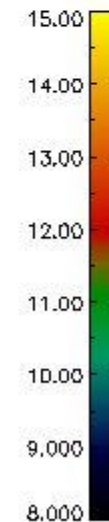
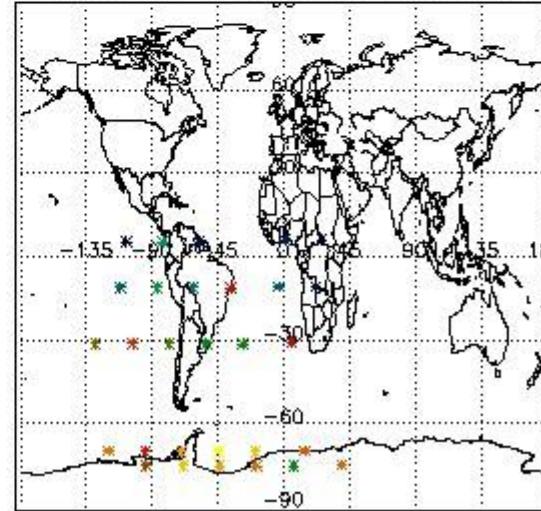
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

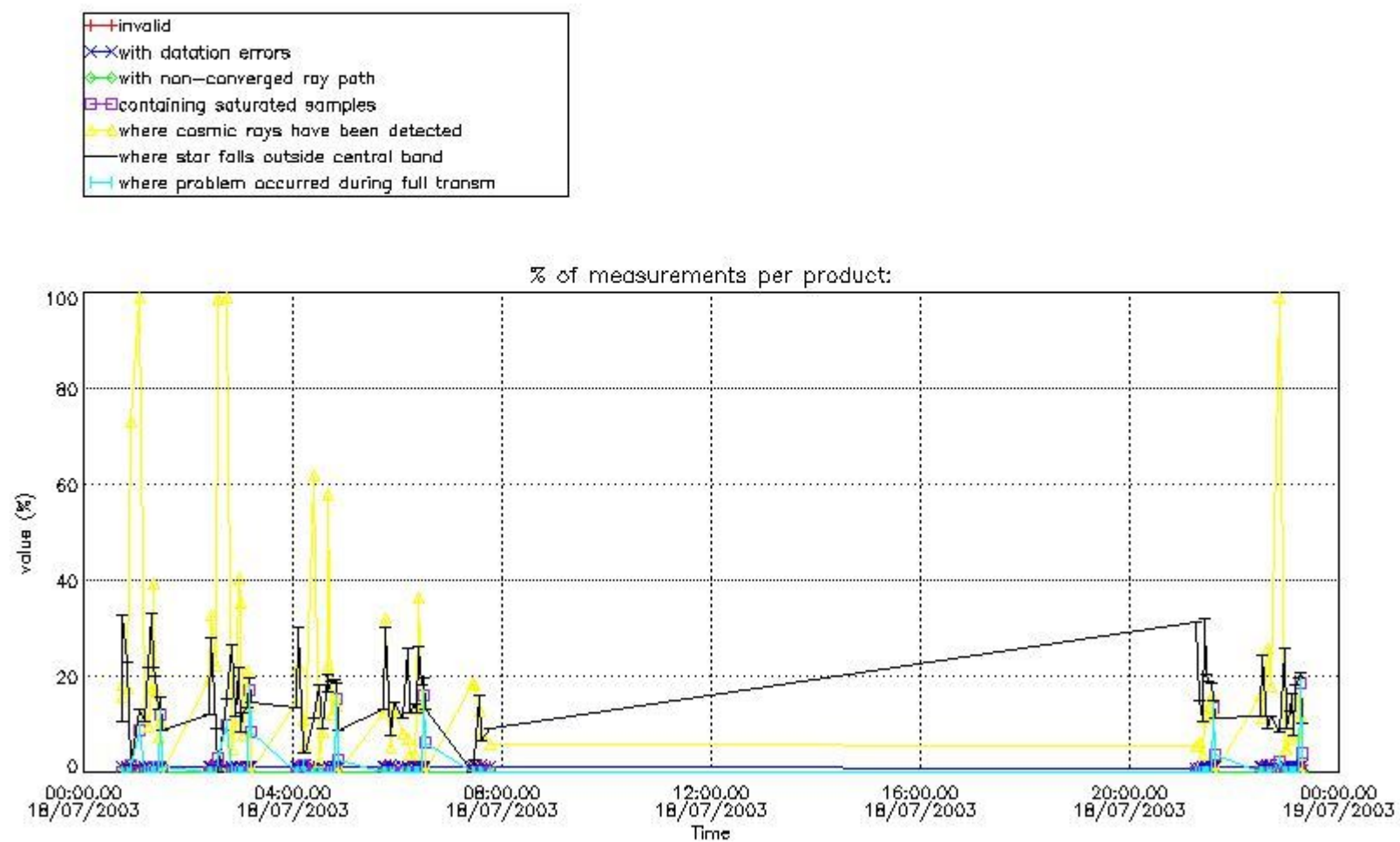


4. Level 1 quality information per product

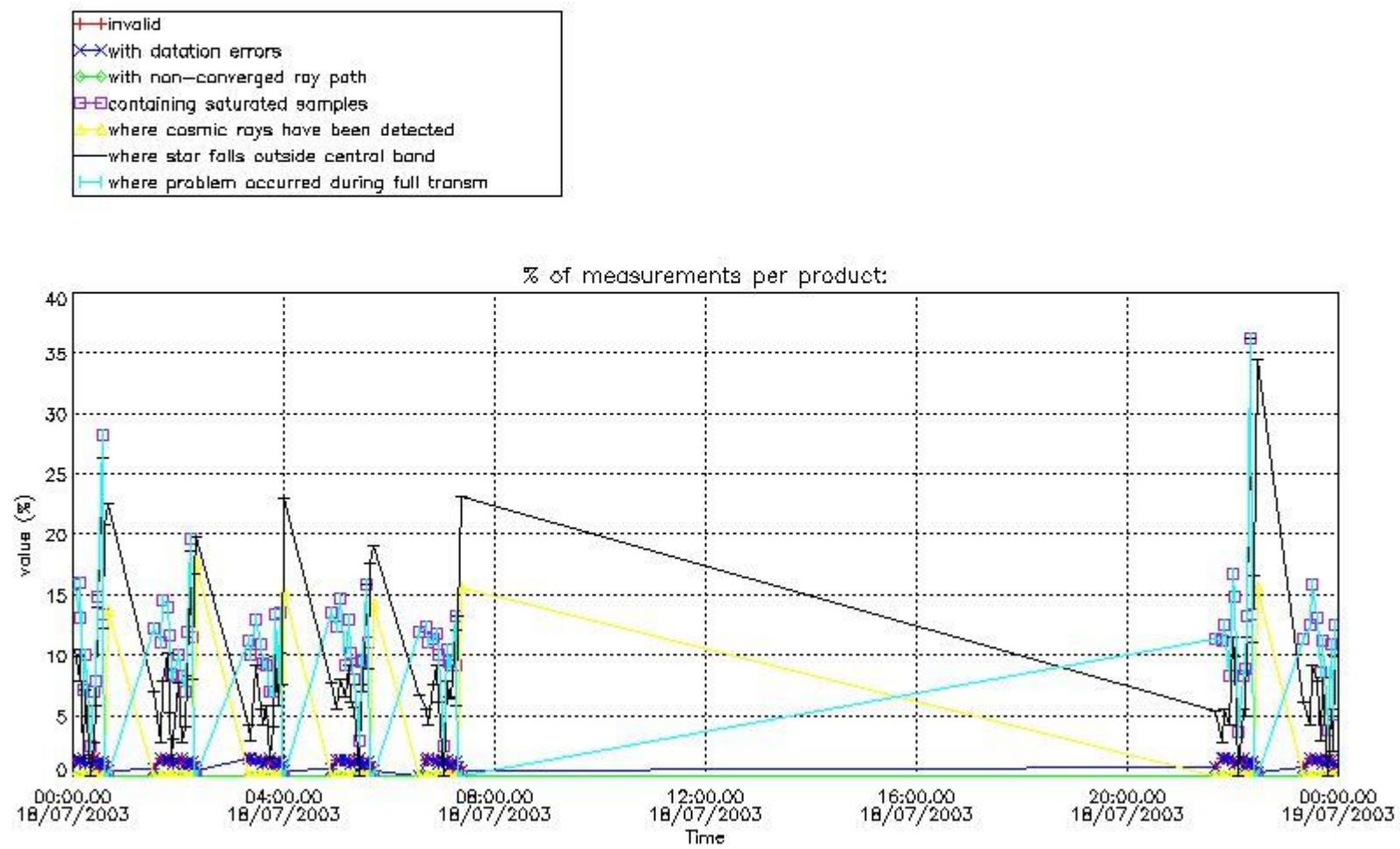
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



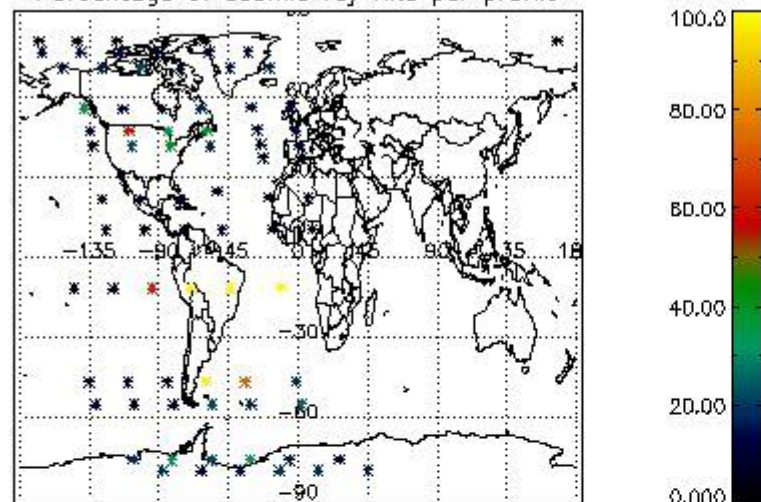
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



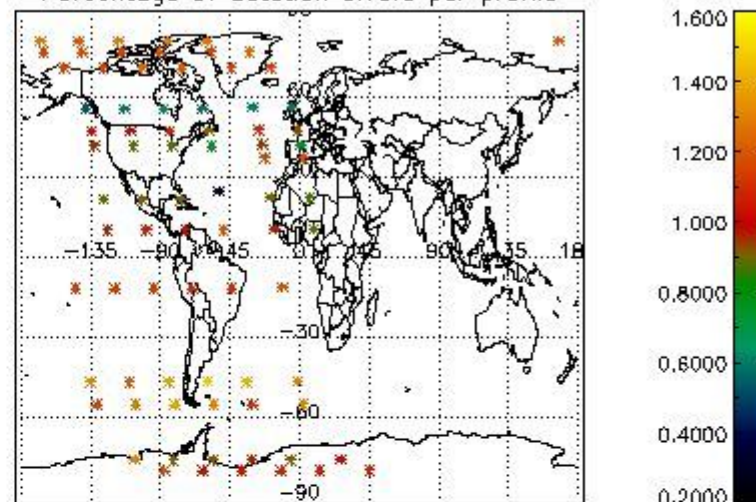
4.2 Plot quality information per product coming from level 1b processing (world map)

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

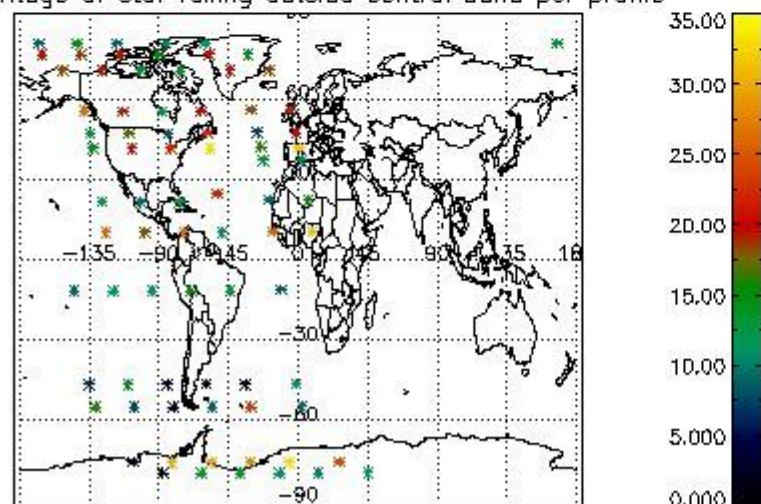
Percentage of cosmic ray hits per profile



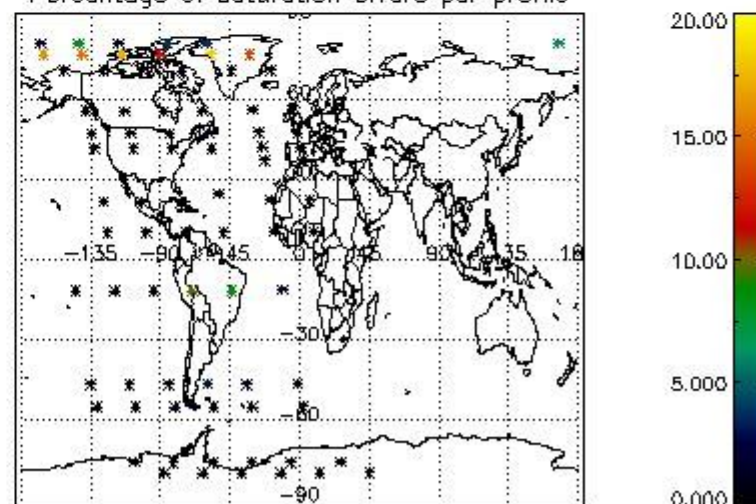
Percentage of datation errors per profile



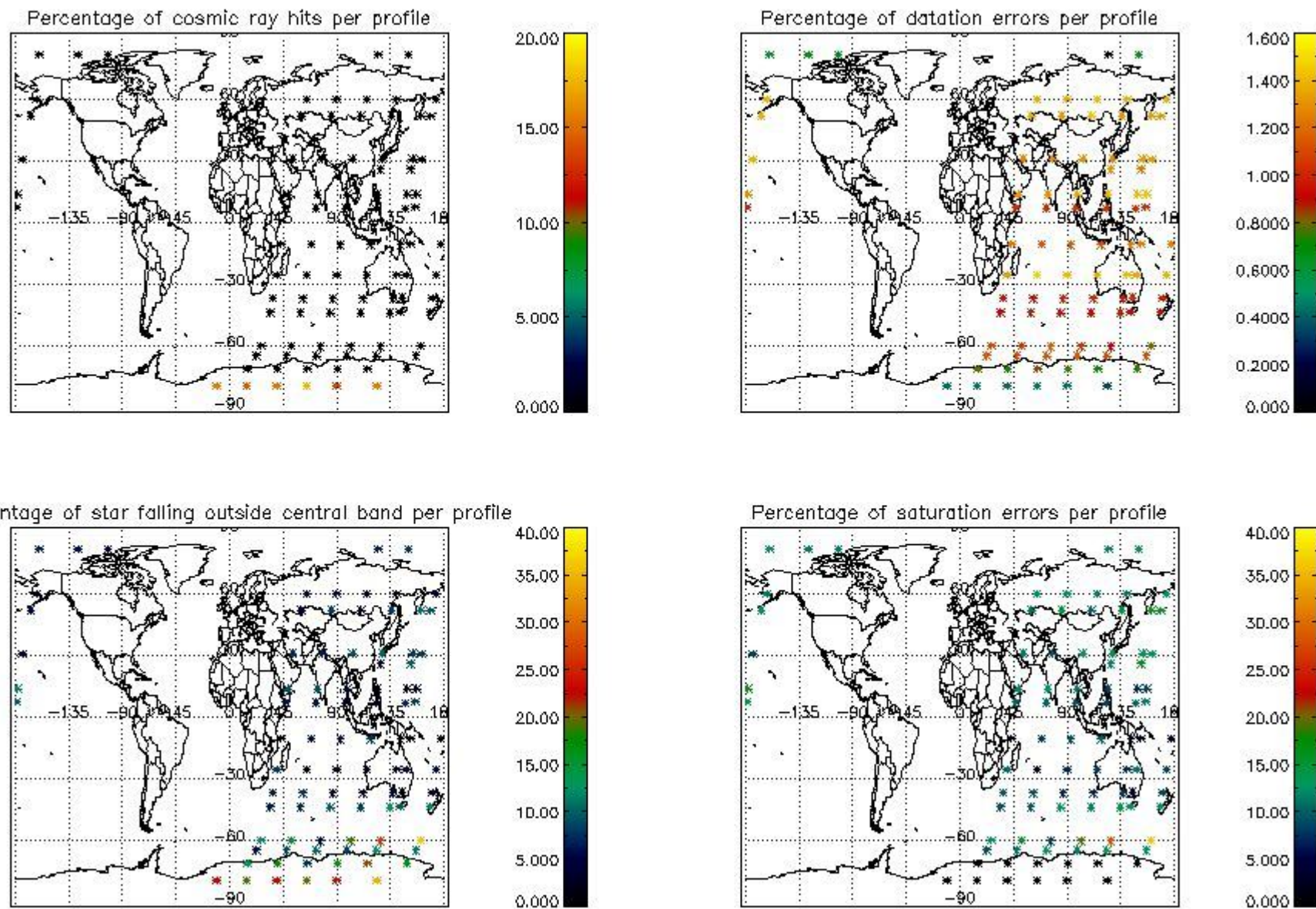
Percentage of star falling outside central band per profile



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

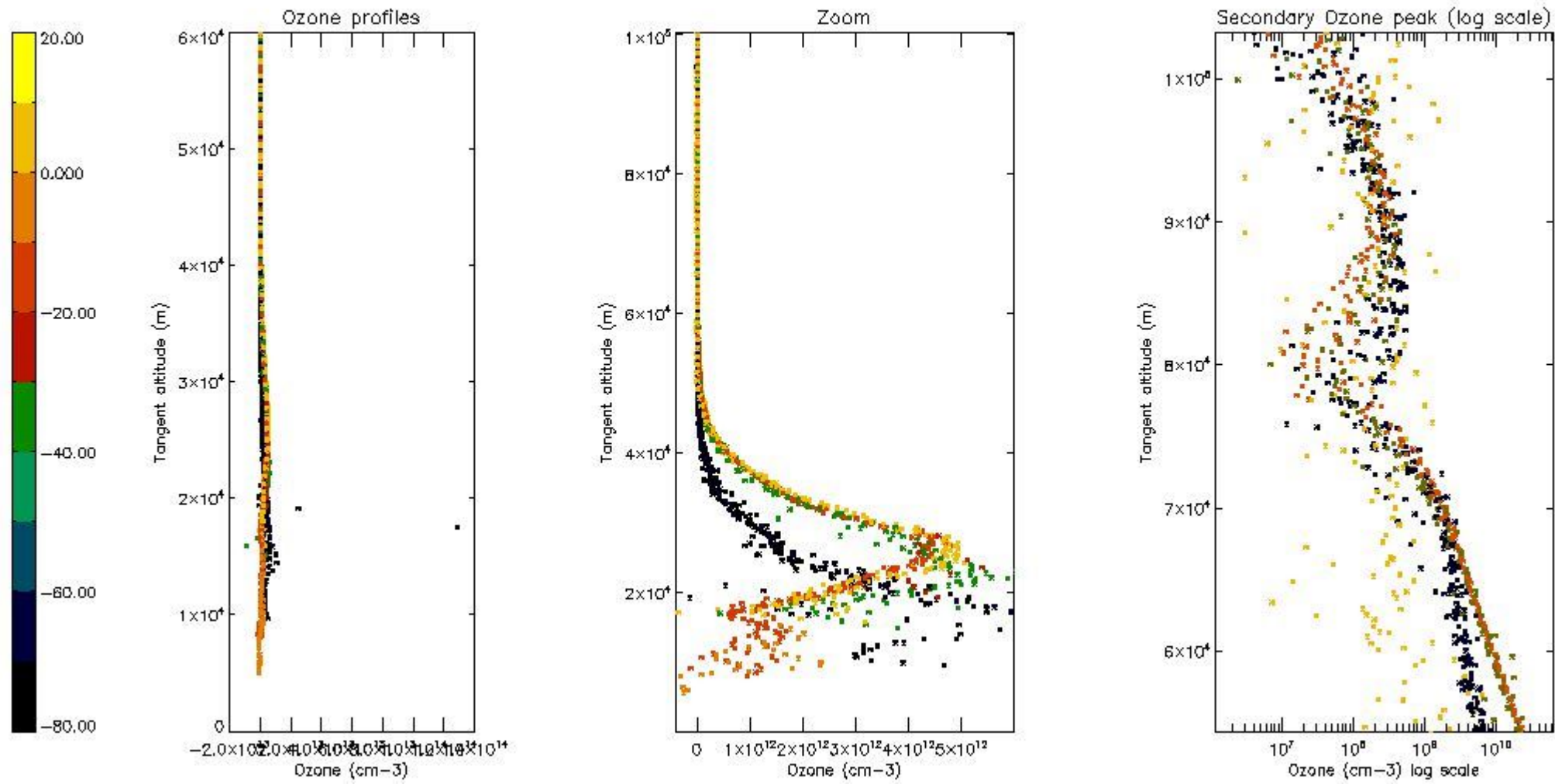
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	6
STD < 5	4

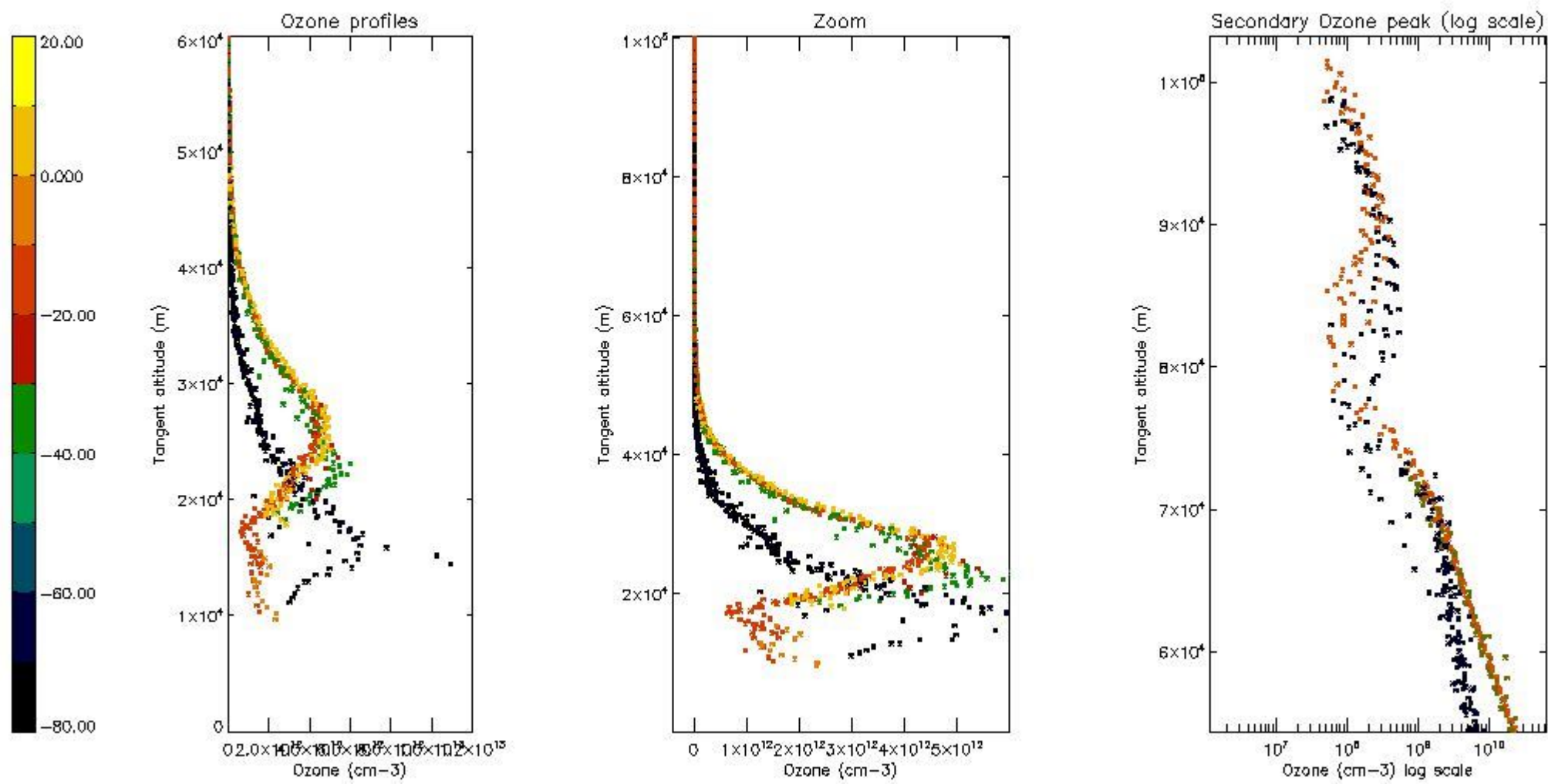
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



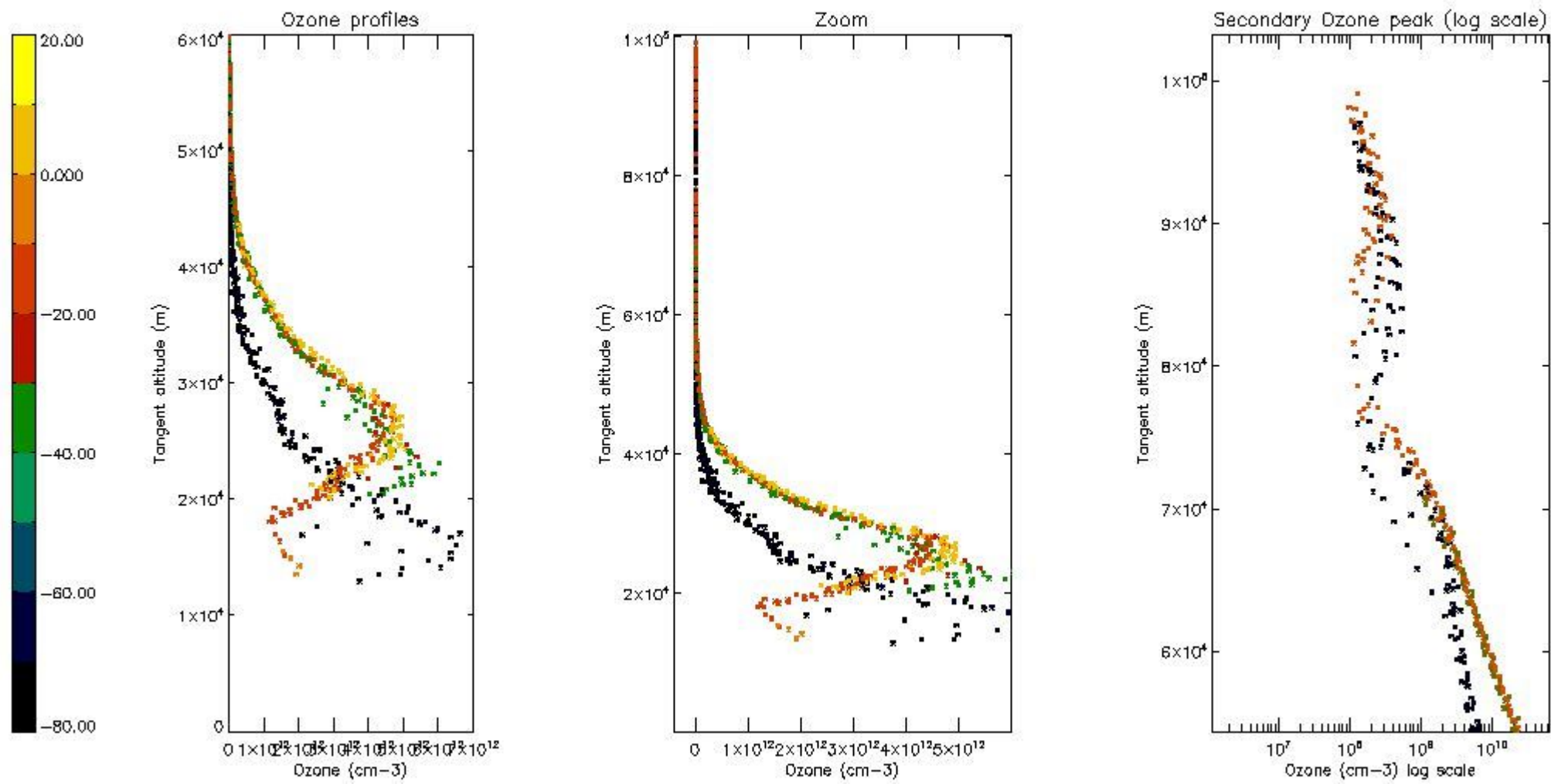
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



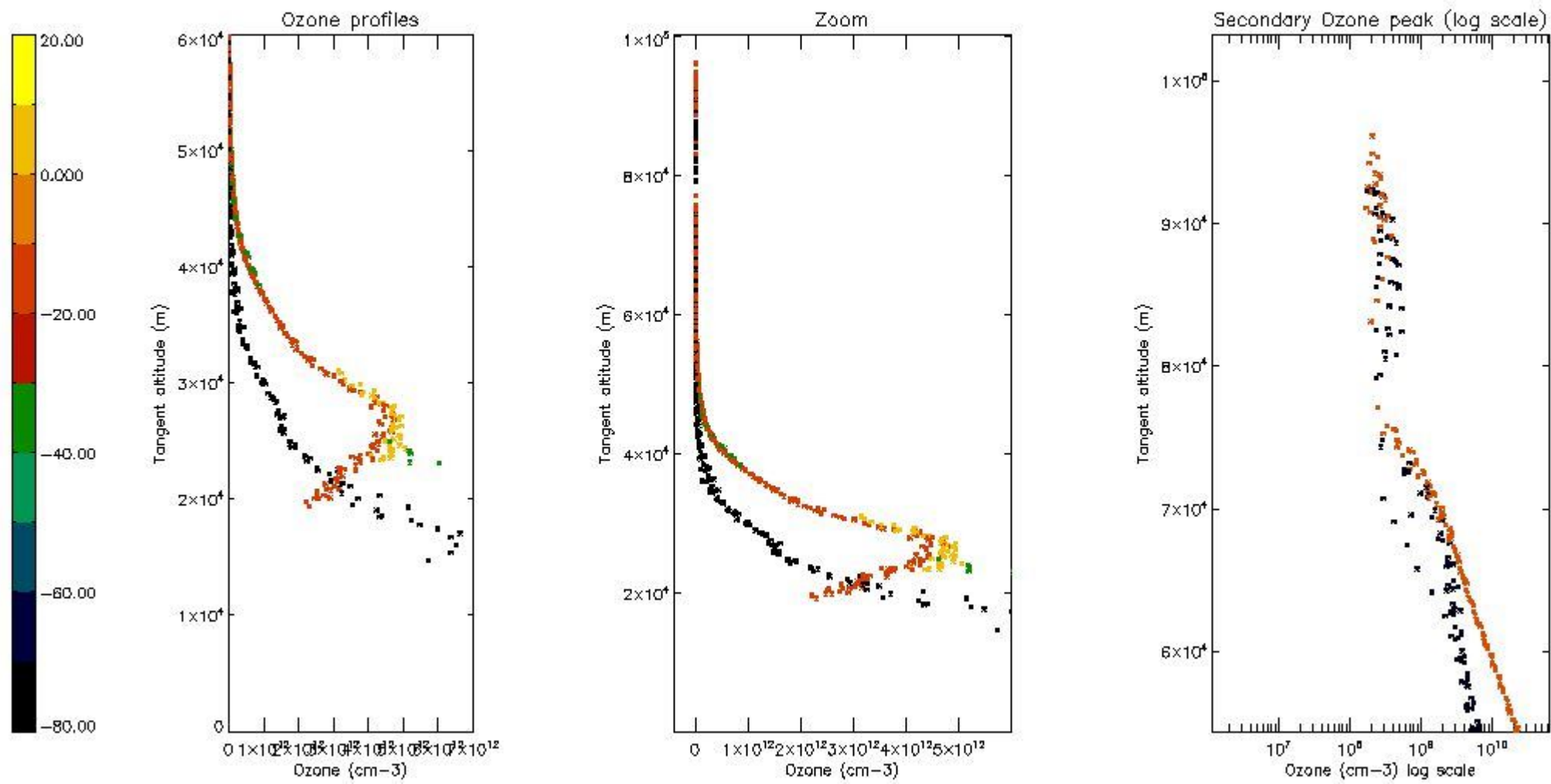
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



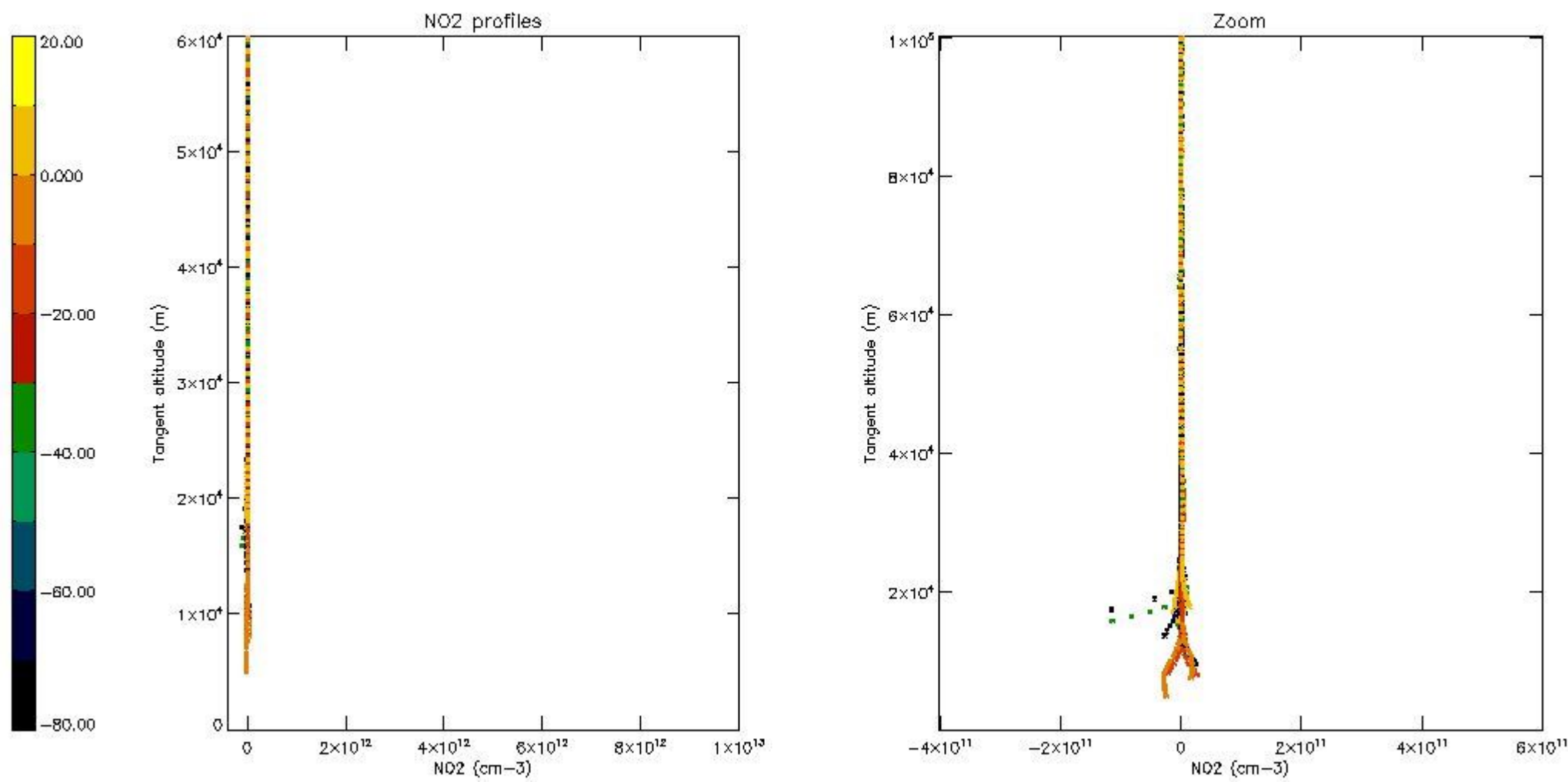
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



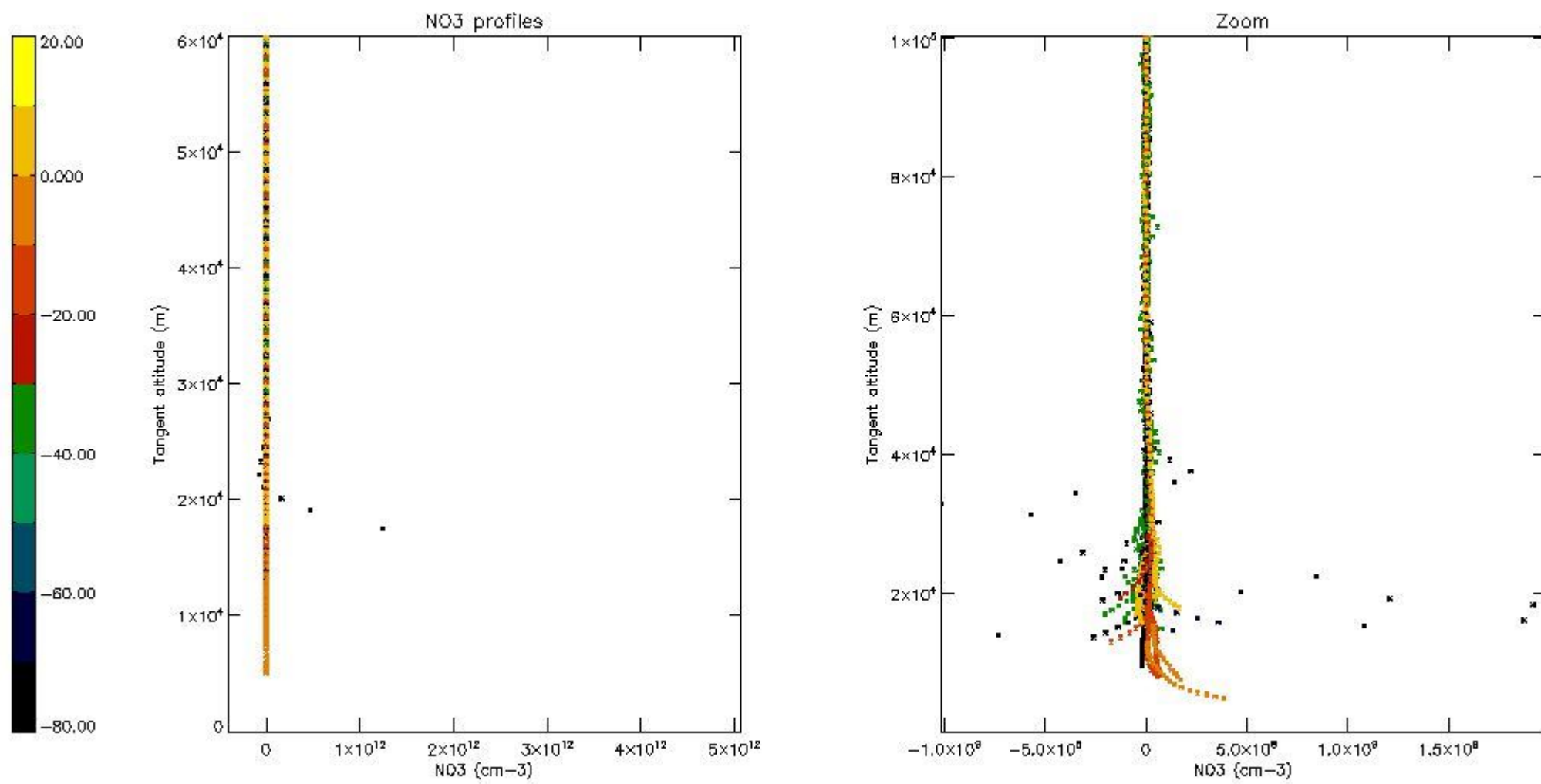
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



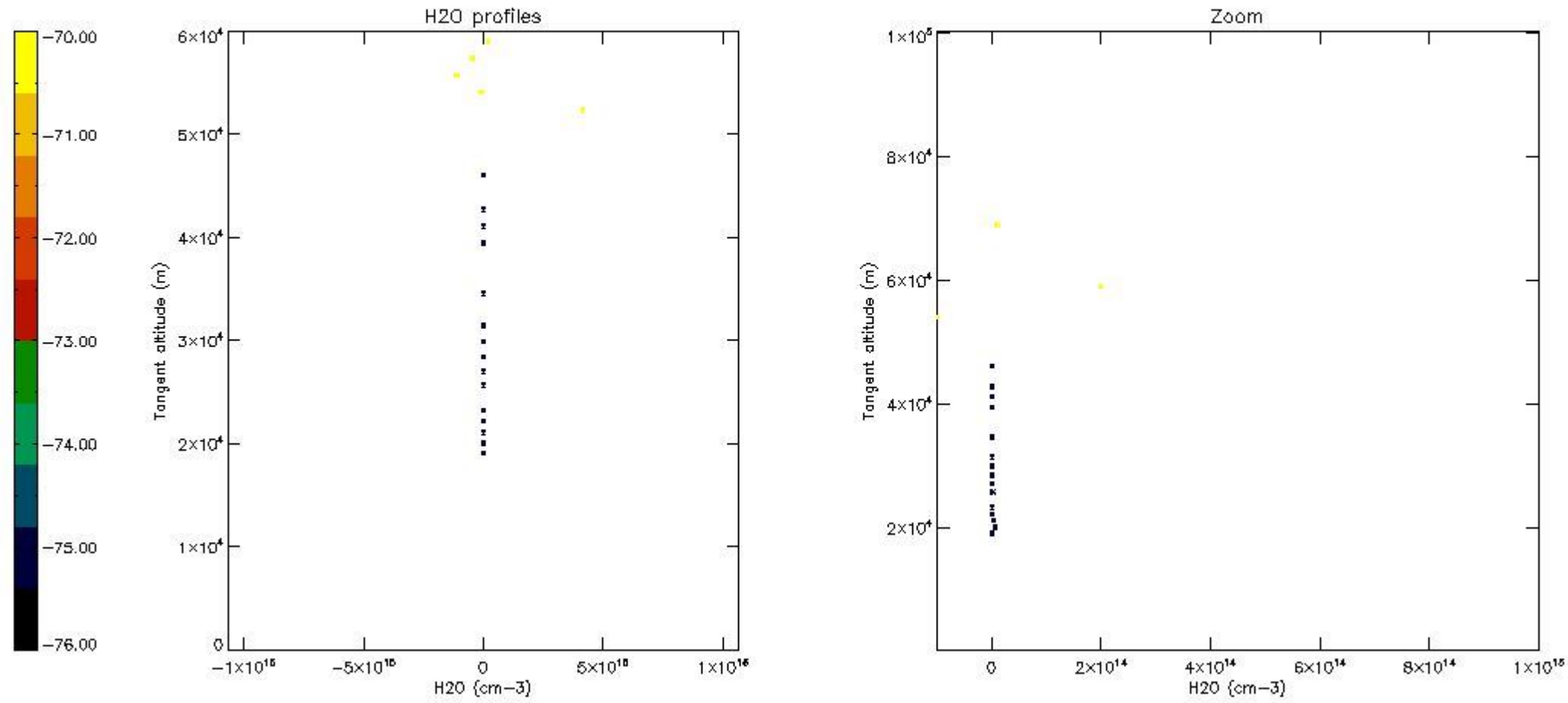
5.7 Plot NO3 profiles for all STD (dark without errors)

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	18-JUL-2003 00:01:28
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-JUL-2003 00:01:28
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-JUL-2003 00:01:28

GOMOS Level 2 Daily Report

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

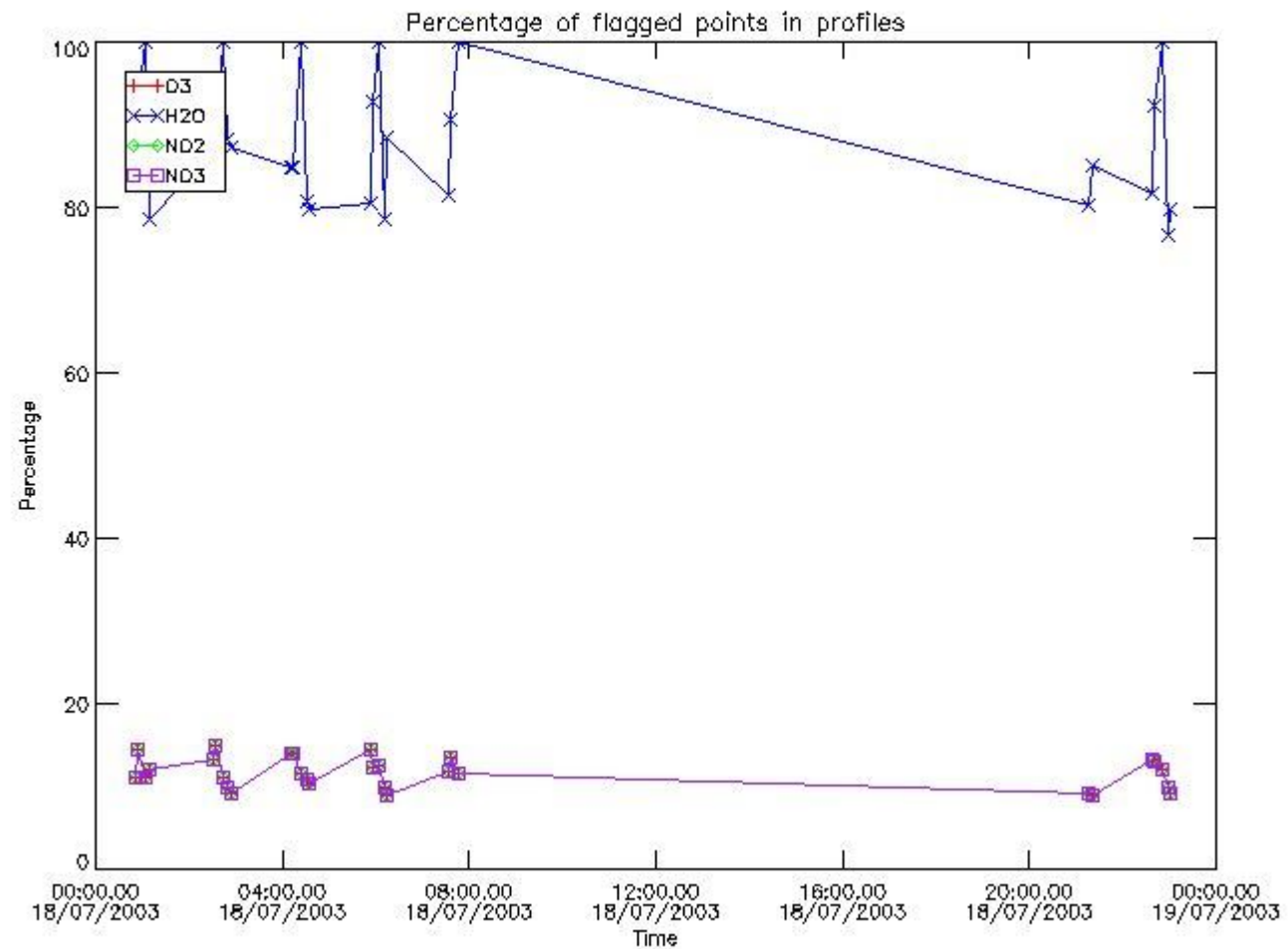
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161	GOM_NL__2PRFIN20030718_231009_000000832018_00159_07227_6198.N1	18-JUL-2003 23:10:09	Straylight	83.000	18	24Alp PsA	1.1660	9700.0	166	7227	No
162	GOM_NL__2PRFIN20030718_231428_000000442018_00159_07227_6199.N1	18-JUL-2003 23:14:28	Twilight_stray	43.500	40	The Sco	1.8590	7100.0	87	7227	No
163	GOM_NL__2PRFIN20030718_231624_000000442018_00159_07227_6200.N1	18-JUL-2003 23:16:24	Twilight_stray	43.500	38	20Eps Sgr	1.8360	11000.	87	7227	No
164	GOM_NL__2PRFIN20030718_231818_000000392018_00159_07227_6201.N1	18-JUL-2003 23:18:18	Bright	39.000	57	34Sig Sgr	2.0660	26000.	78	7227	No
165	GOM_NL__2PRFIN20030718_232007_000000752018_00159_07227_6202.N1	18-JUL-2003 23:20:07	Bright	74.500	142	49Del Cap	2.8500	8900.0	149	7227	No
166	GOM_NL__2PRFIN20030718_232736_000000362018_00159_07227_6203.N1	18-JUL-2003 23:27:36	Bright	36.000	126	60Bet Oph	2.7700	4250.0	72	7227	No
167	GOM_NL__2PRFIN20030718_232954_000000382018_00159_07227_6204.N1	18-JUL-2003 23:29:54	Bright	38.000	59	55Alp Oph	2.0800	8900.0	76	7227	No
168	GOM_NL__2PRFIN20030718_233553_000000382018_00159_07227_6205.N1	18-JUL-2003 23:35:53	Bright	38.000	133	40Zet Her	2.8070	6000.0	76	7227	No
169	GOM_NL__2PRFIN20030718_234038_000000352018_00159_07227_6206.N1	18-JUL-2003 23:40:38	Bright	35.000	69	33Gam Dra	2.2310	3800.0	70	7227	No
170	GOM_NL__2PRFIN20030718_234222_000000492018_00159_07227_6207.N1	18-JUL-2003 23:42:22	Bright	49.000	19	50Alp Cyg	1.2460	10500.	98	7227	No
171	GOM_NL__2PRFIN20030718_234722_000000402018_00159_07227_6208.N1	18-JUL-2003 23:47:22	Bright	40.000	89	5Alp Cep	2.4510	8000.0	80	7227	No
172	GOM_NL__2PRFIN20030718_235139_000000372018_00159_07227_6209.N1	18-JUL-2003 23:51:39	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	7227	No
173	GOM_NL__2PRFIN20030718_235444_000000502018_00159_07227_6210.N1	18-JUL-2003 23:54:44	Bright	49.500	74	11Bet Cas	2.2680	6600.0	99	7227	No
174	GOM_NL__2PRFIN20030718_235641_000000562018_00159_07227_6211.N1	18-JUL-2003 23:56:41	Bright	56.000	68	18Alp Cas	2.2250	4500.0	112	7227	No

3. Quality information per product

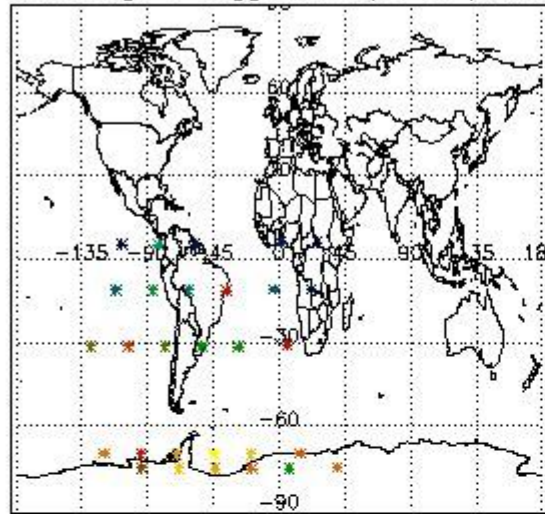
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

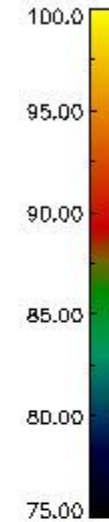
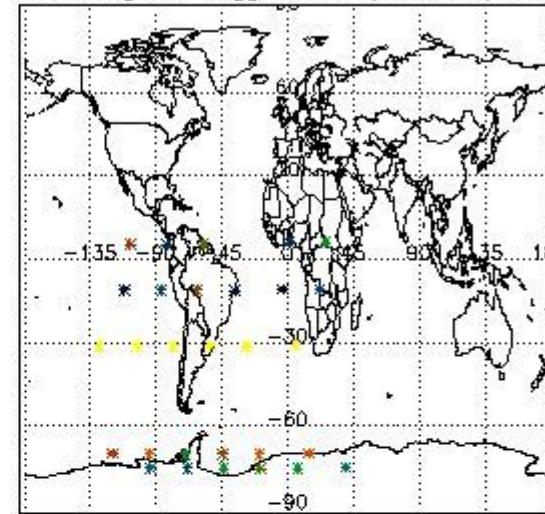


3.2 Plot quality information per product (world map)

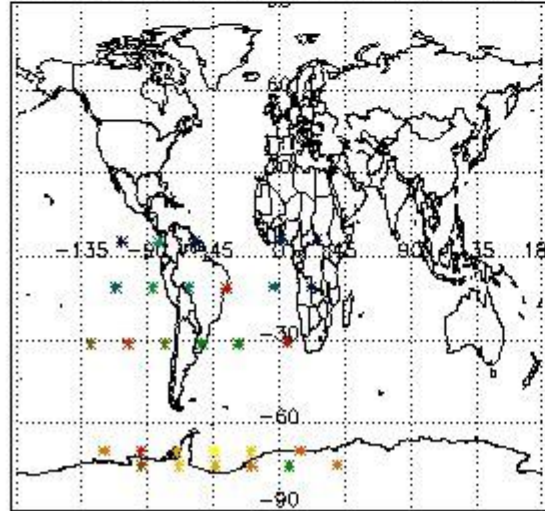
Percentage of flagged data per O3 profile



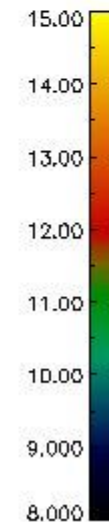
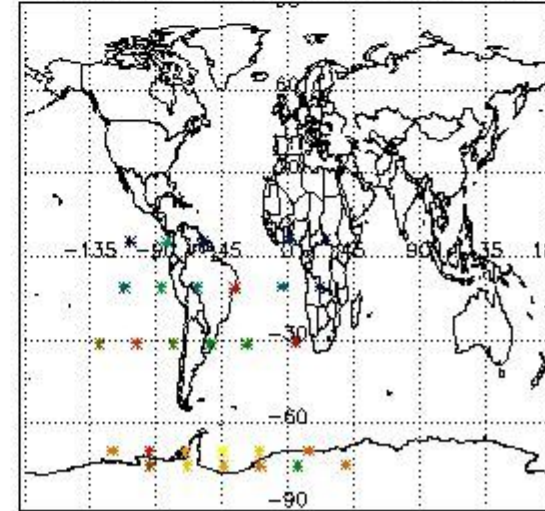
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

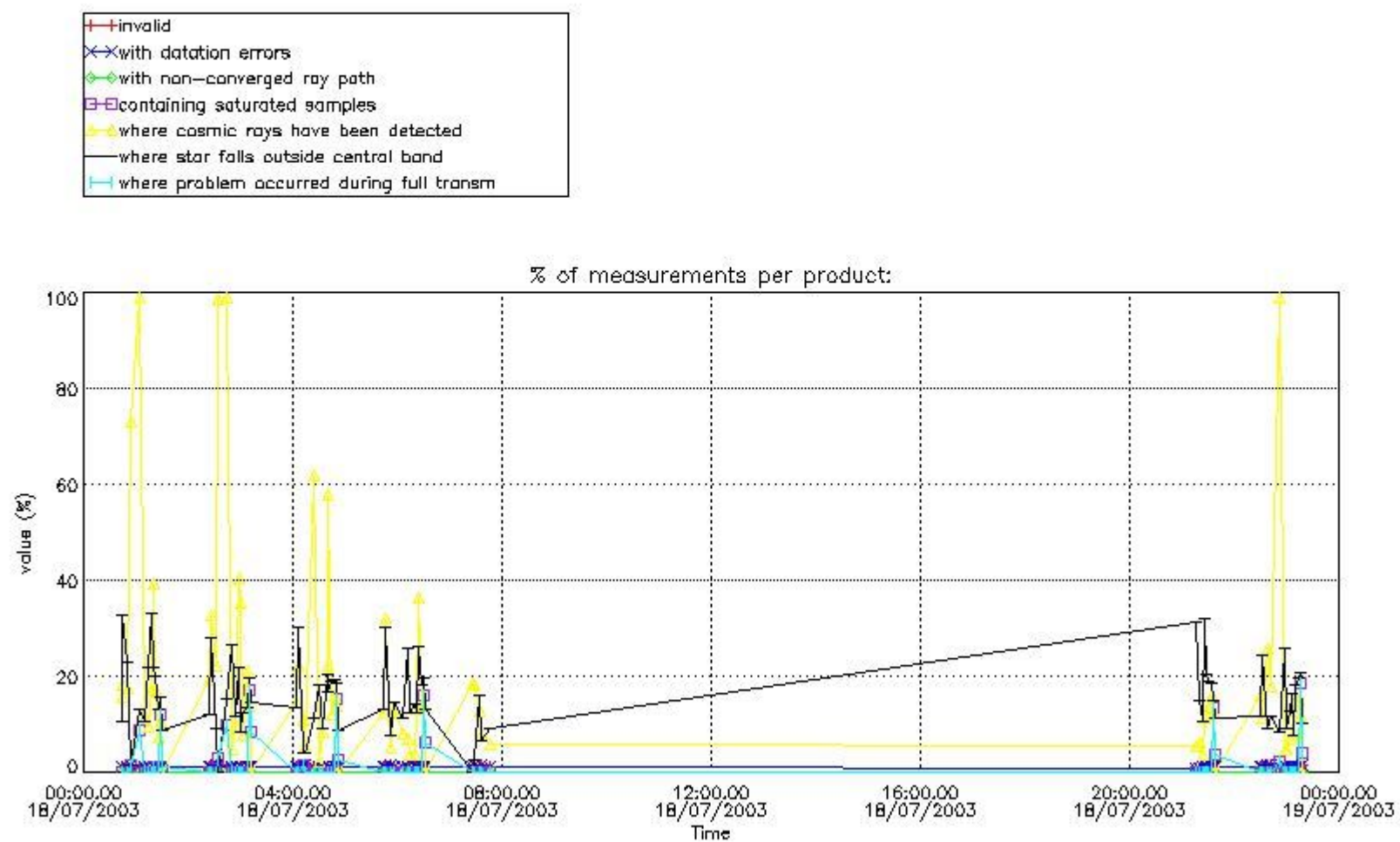


4. Level 1 quality information per product

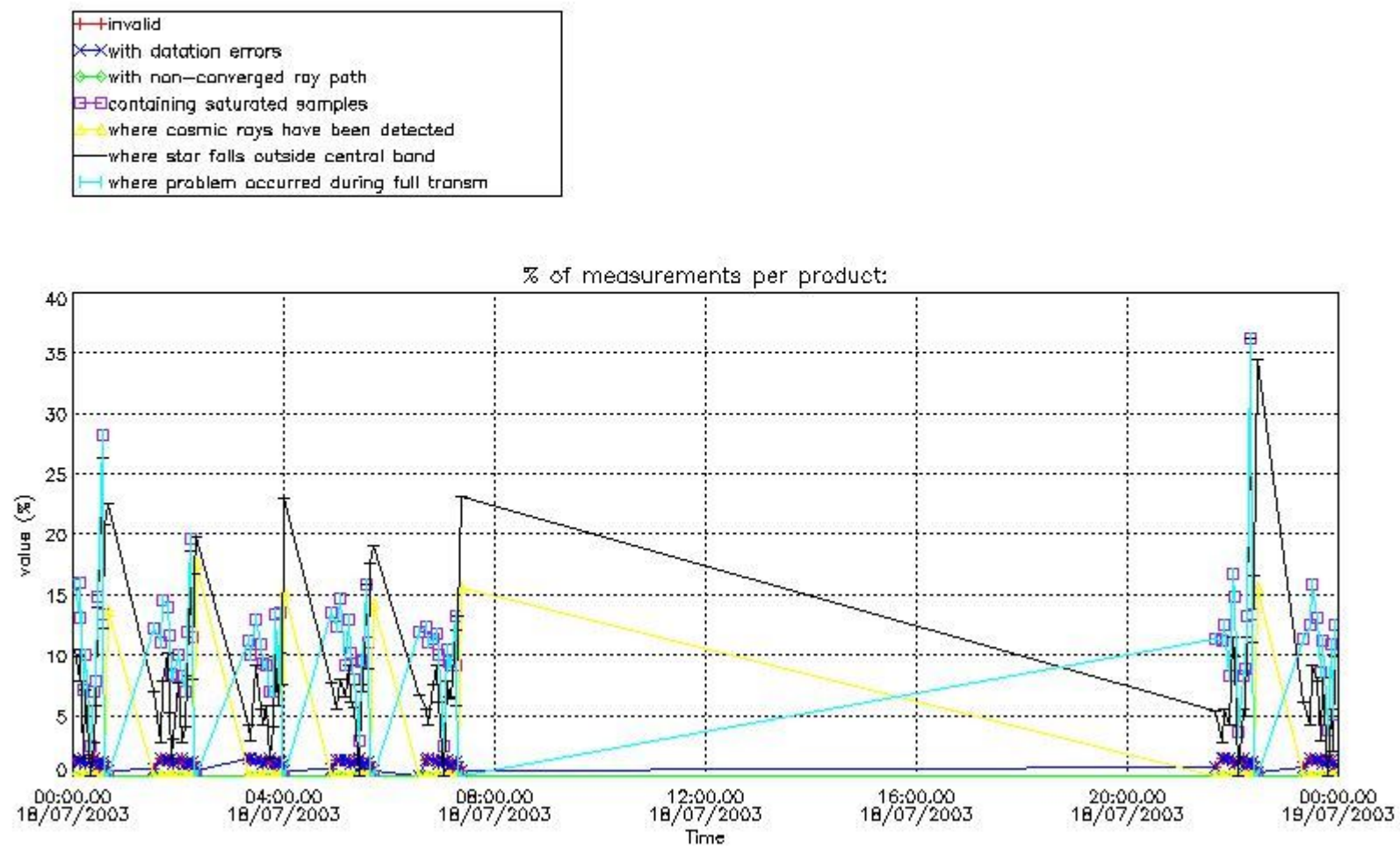
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



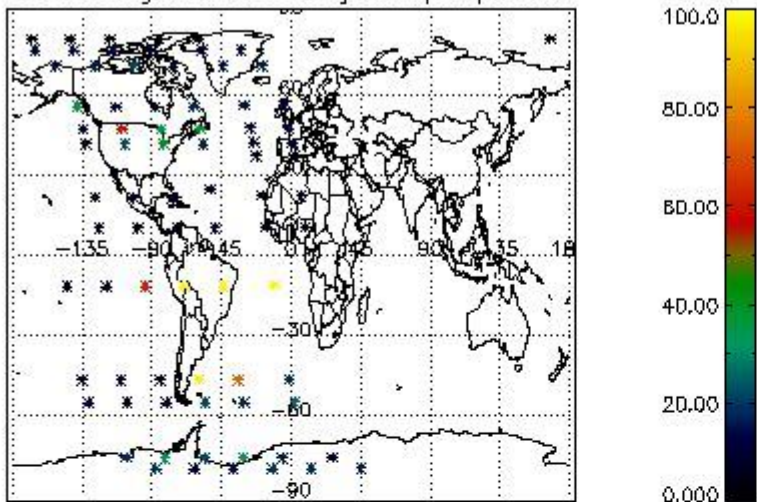
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



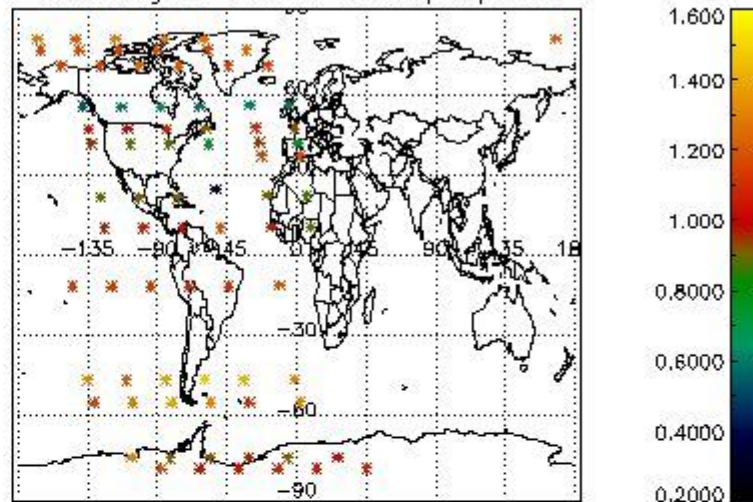
4.2 Plot quality information per product coming from level 1b processing (world map)

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

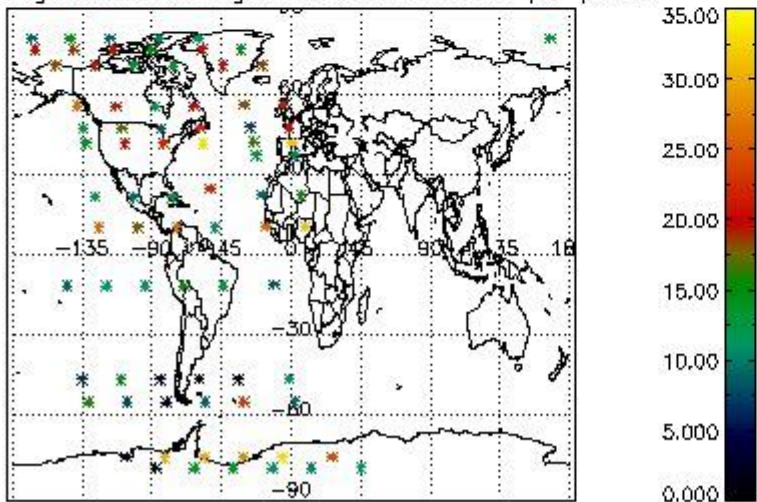
Percentage of cosmic ray hits per profile



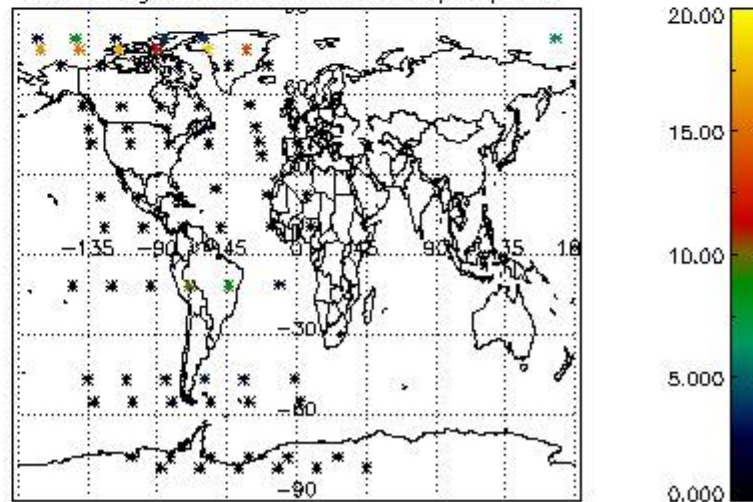
Percentage of datation errors per profile



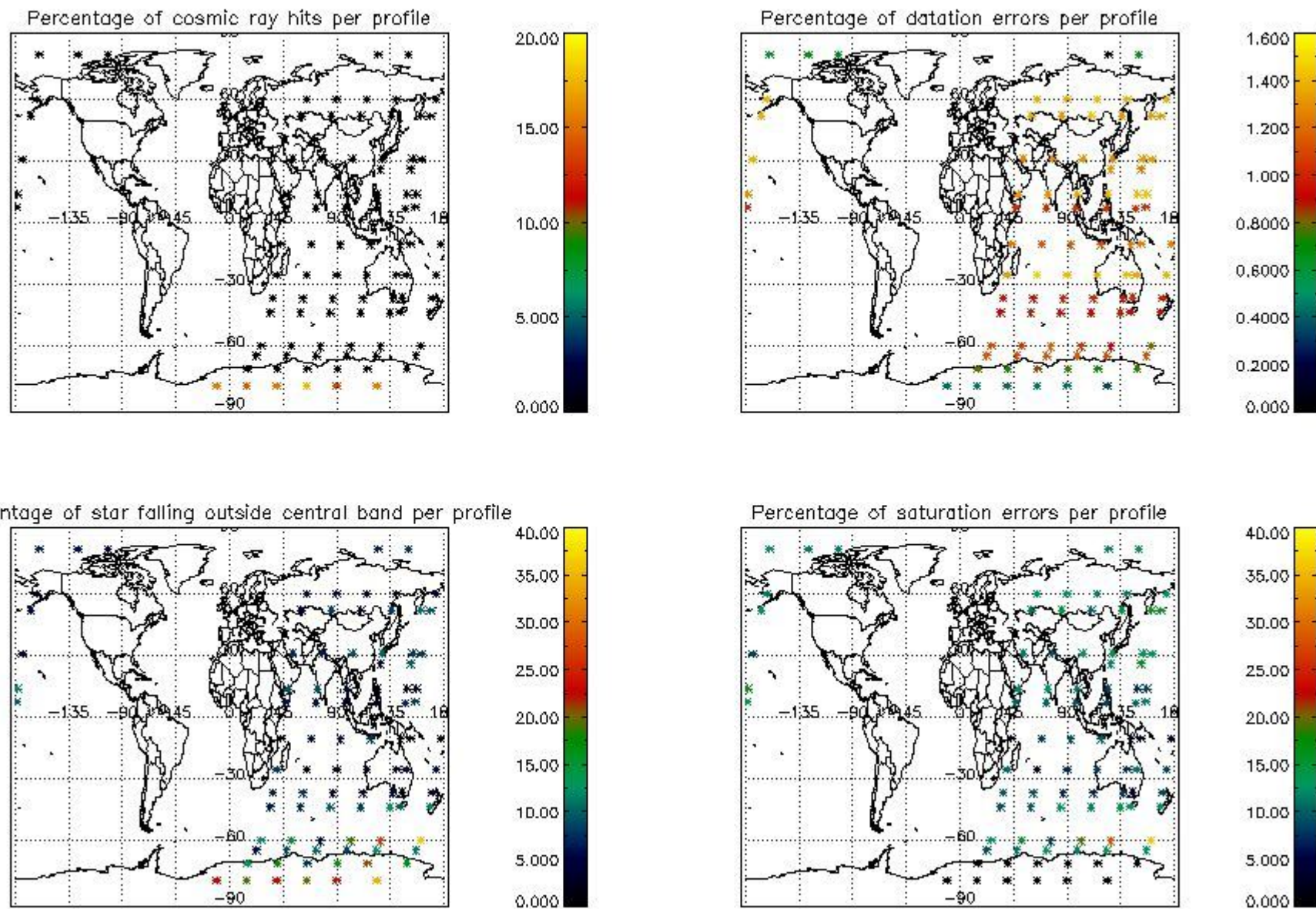
Percentage of star falling outside central band per profile



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

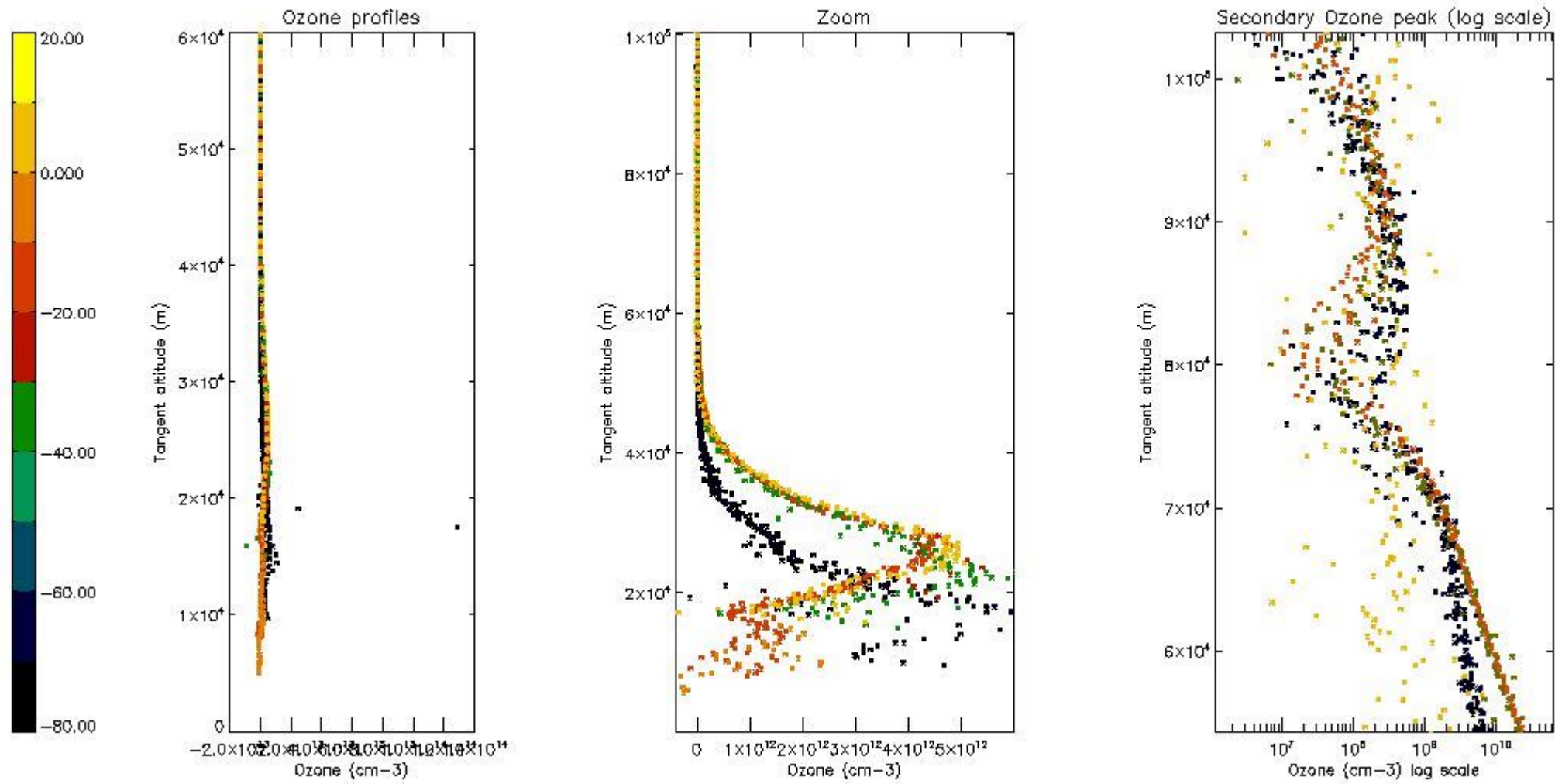
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	6
STD < 5	4

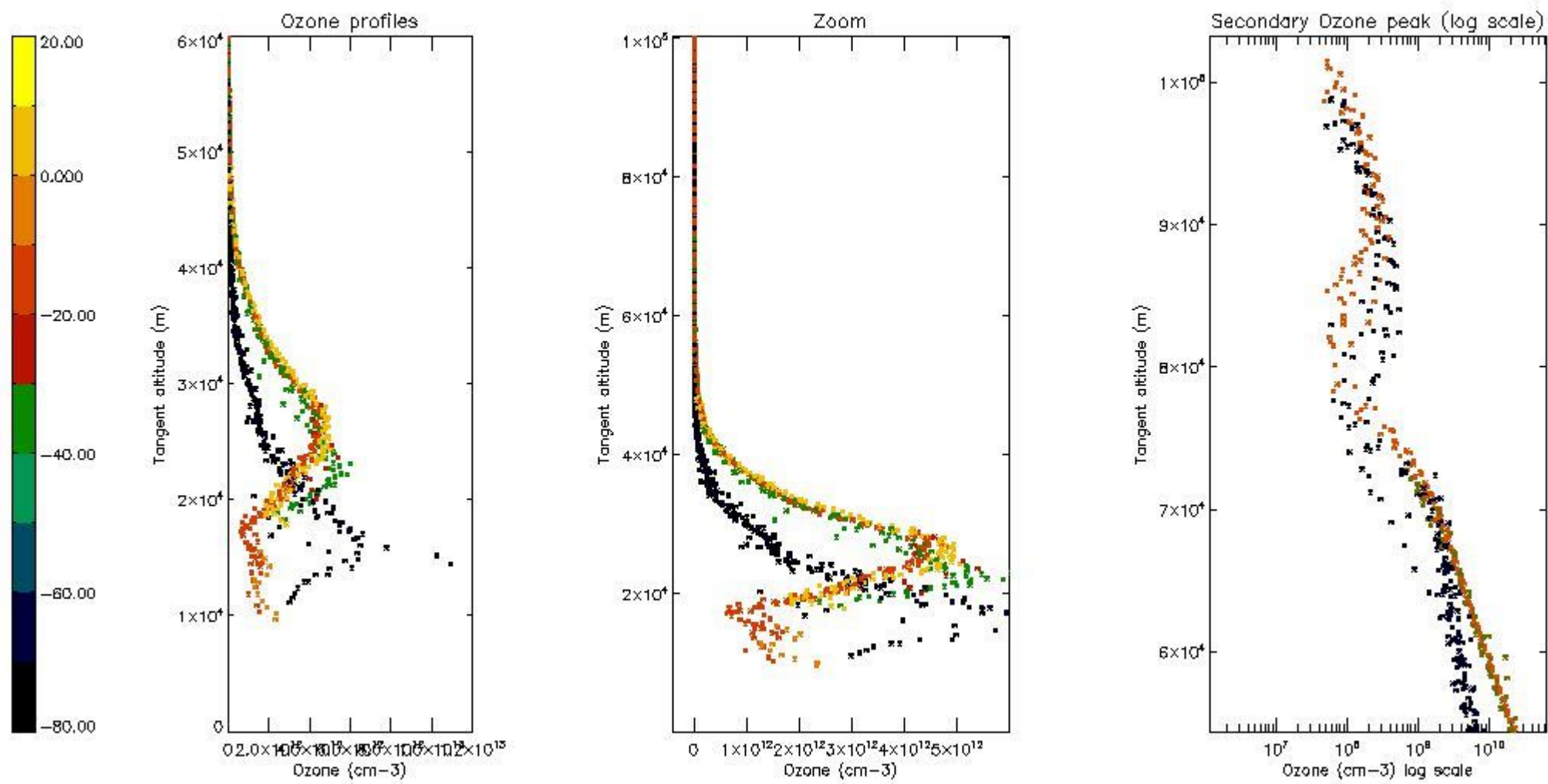
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



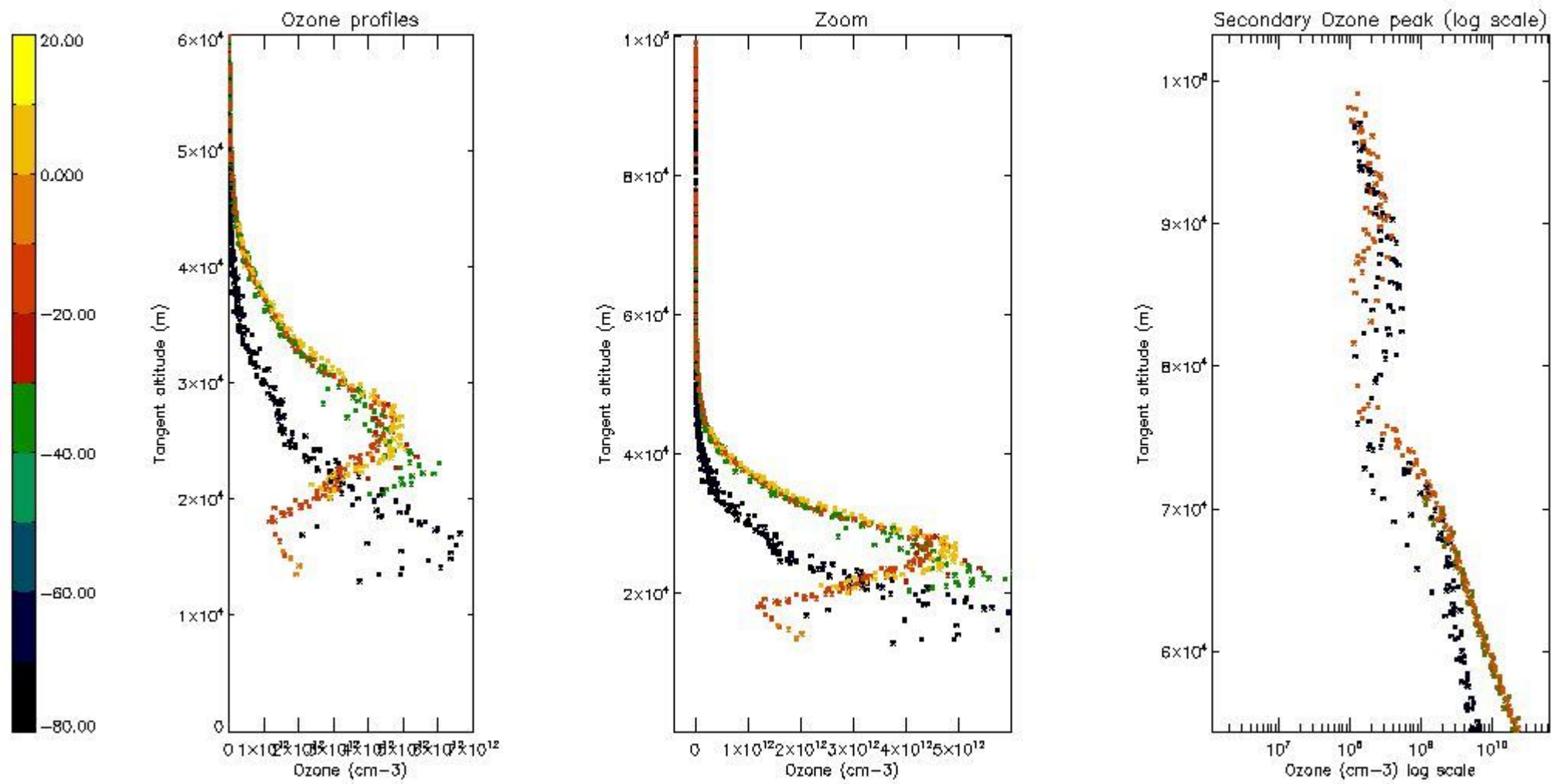
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



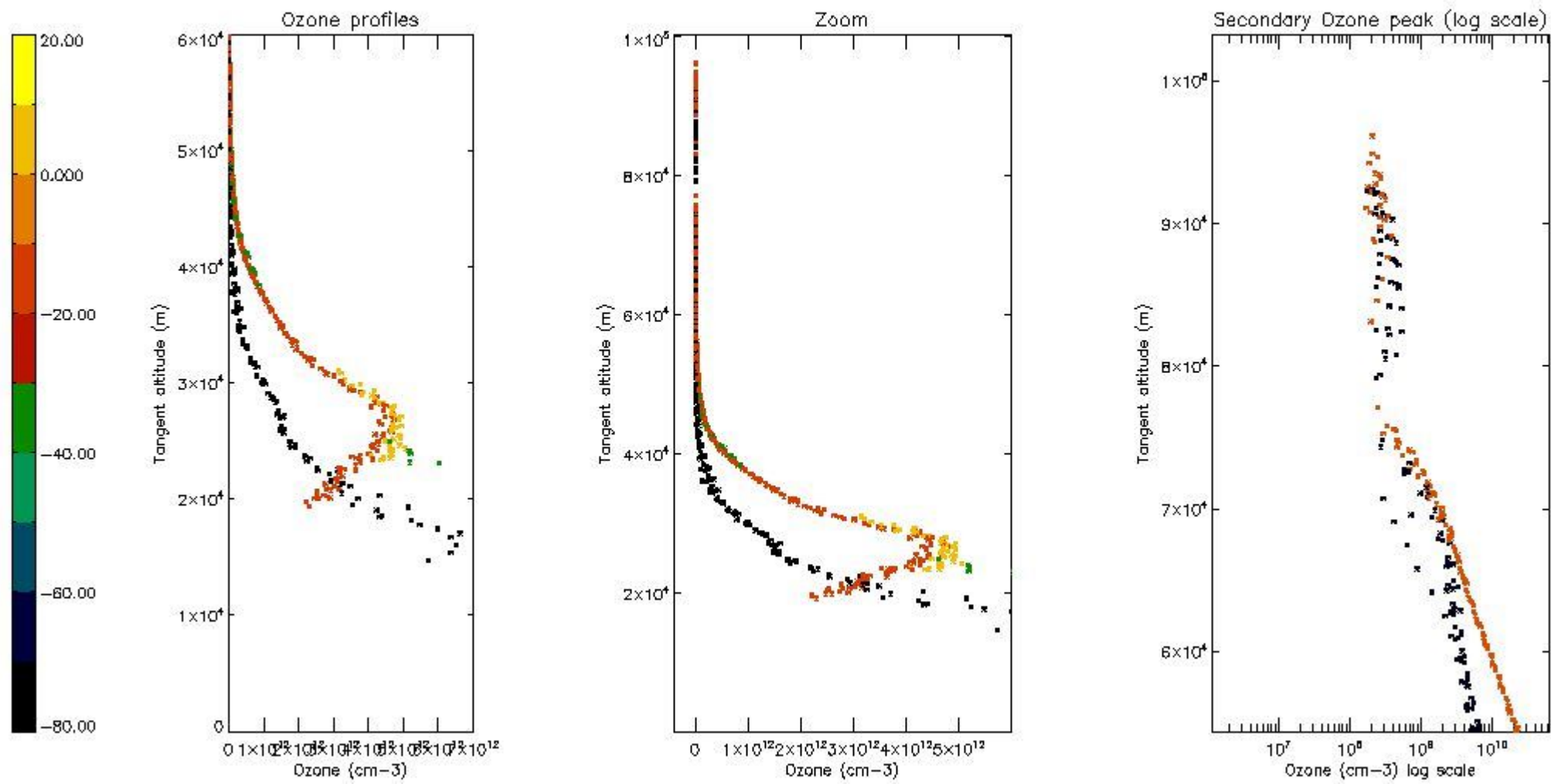
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



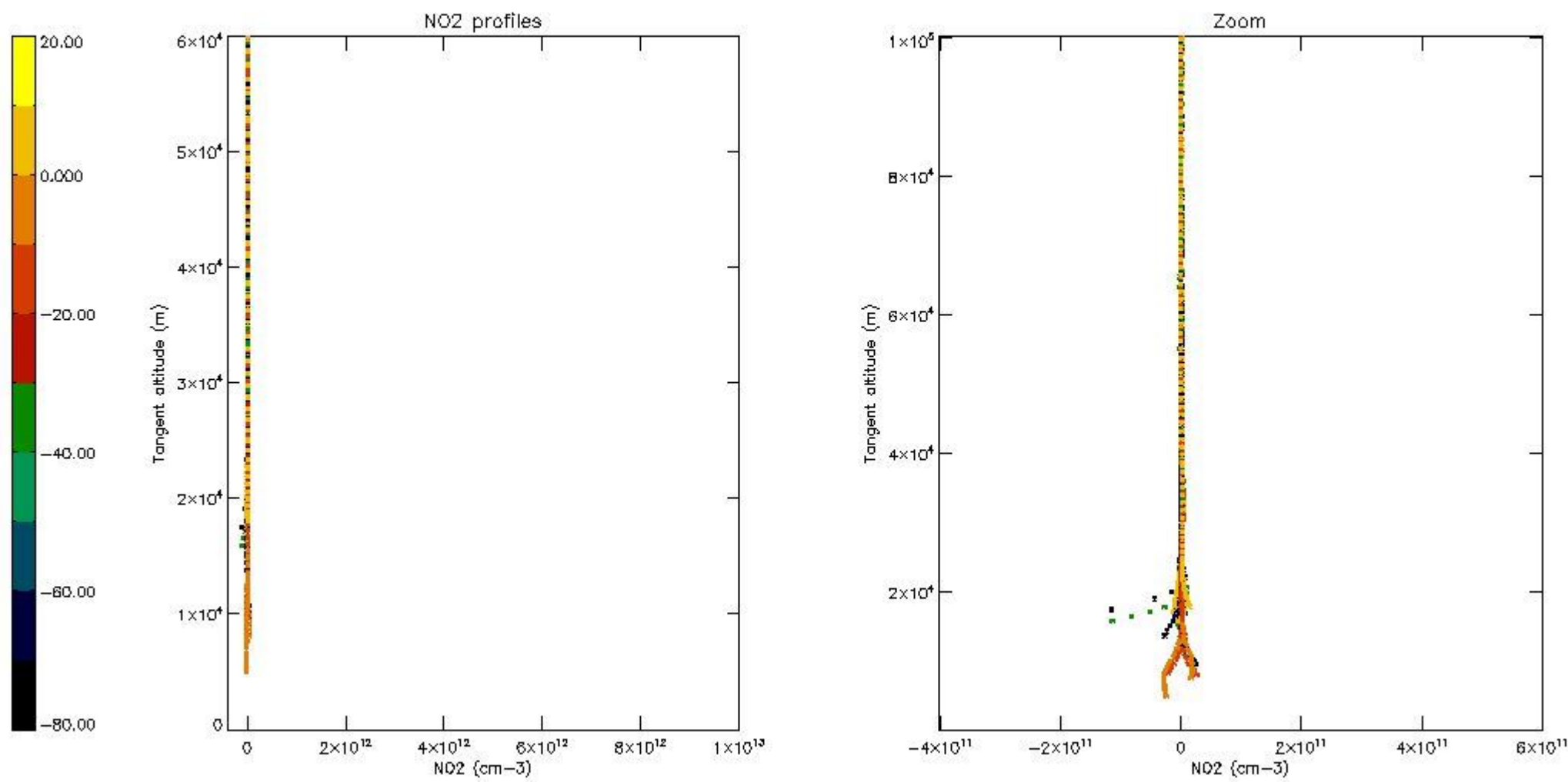
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



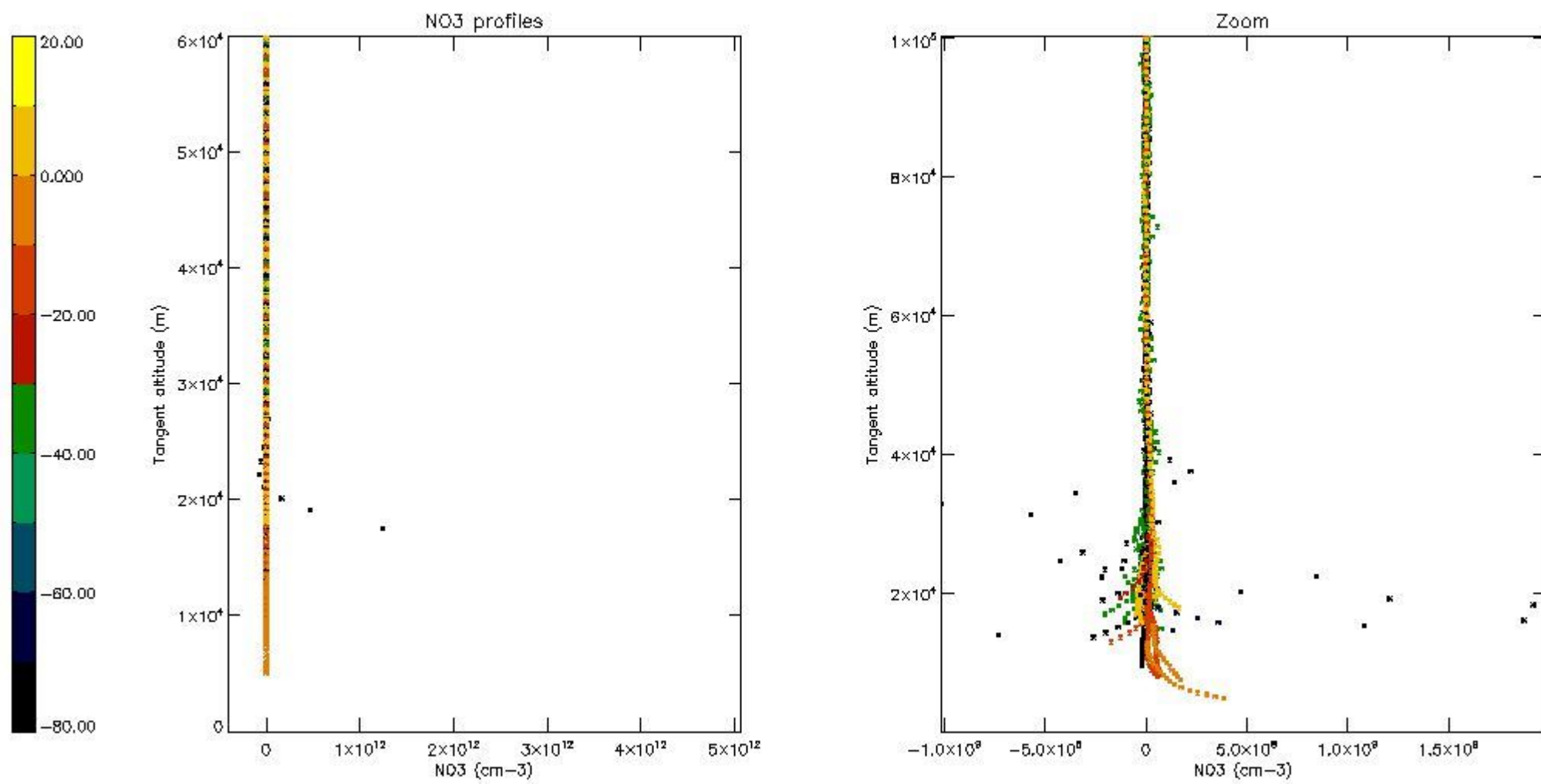
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



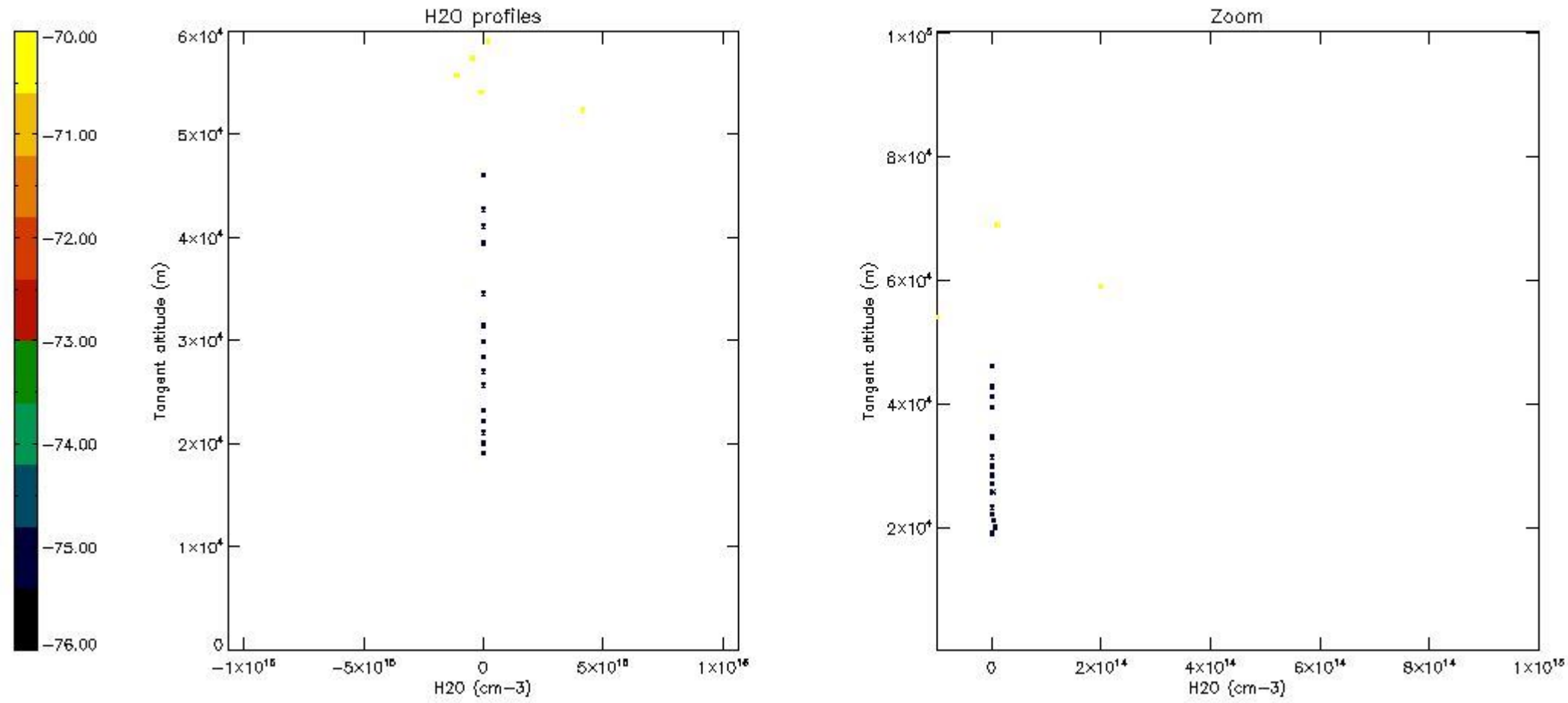
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

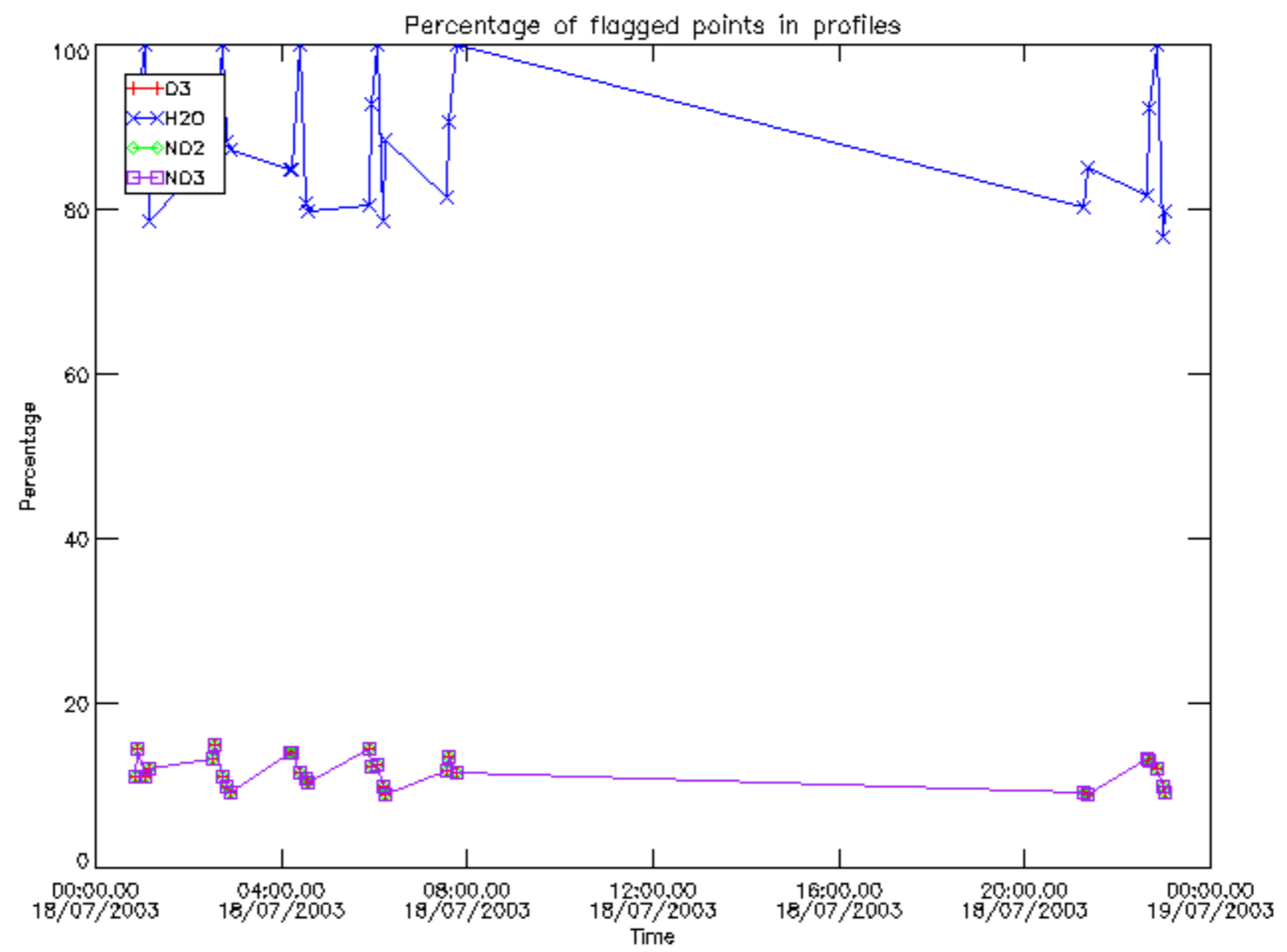
The colorbar represents the latitude.



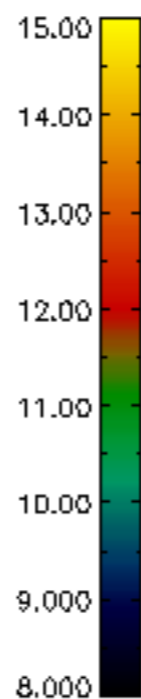
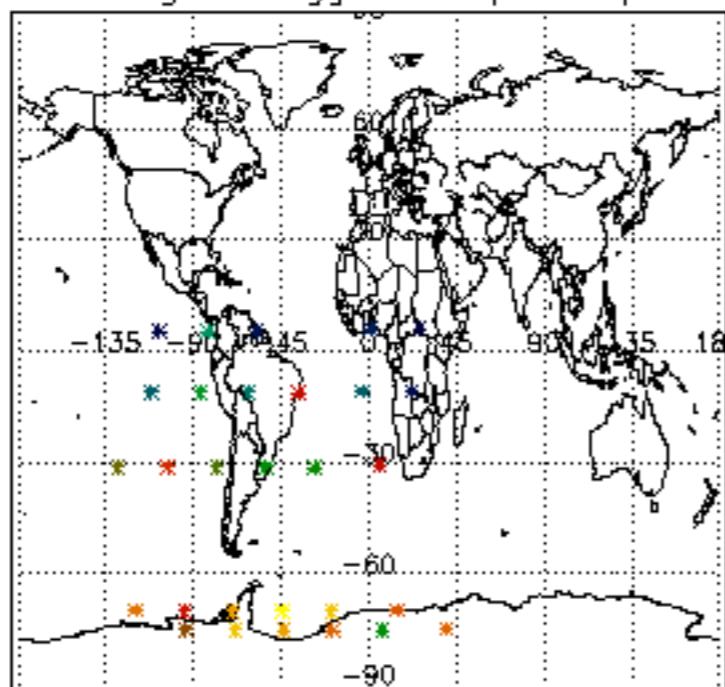
6. Auxiliary Data Files used for the production reported in section 2

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.

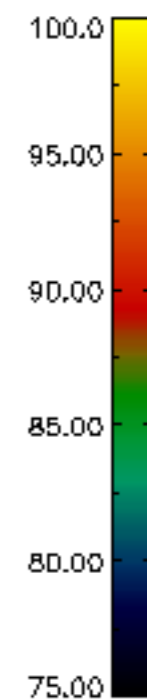
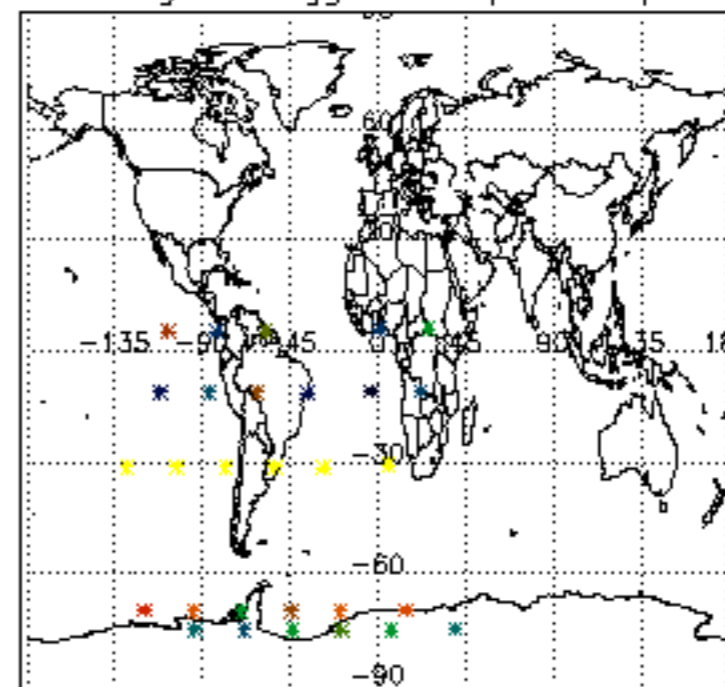
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-JUL-2003 00:01:28
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-JUL-2003 00:01:28
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-JUL-2003 00:01:28



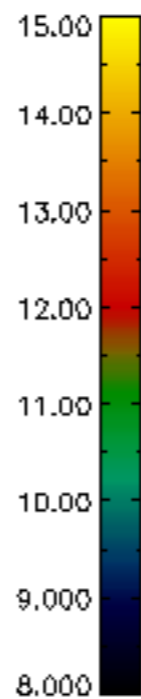
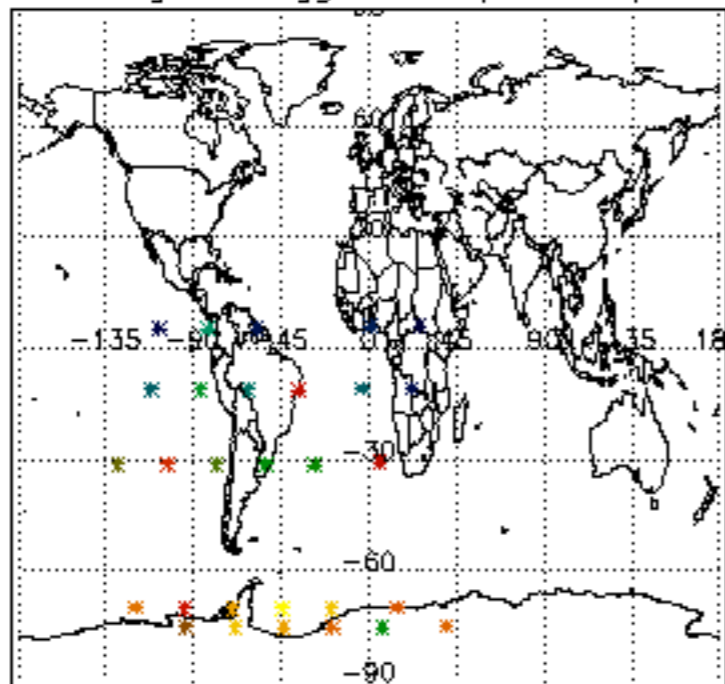
Percentage of flagged data per D3 profile



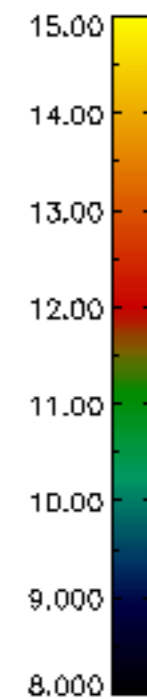
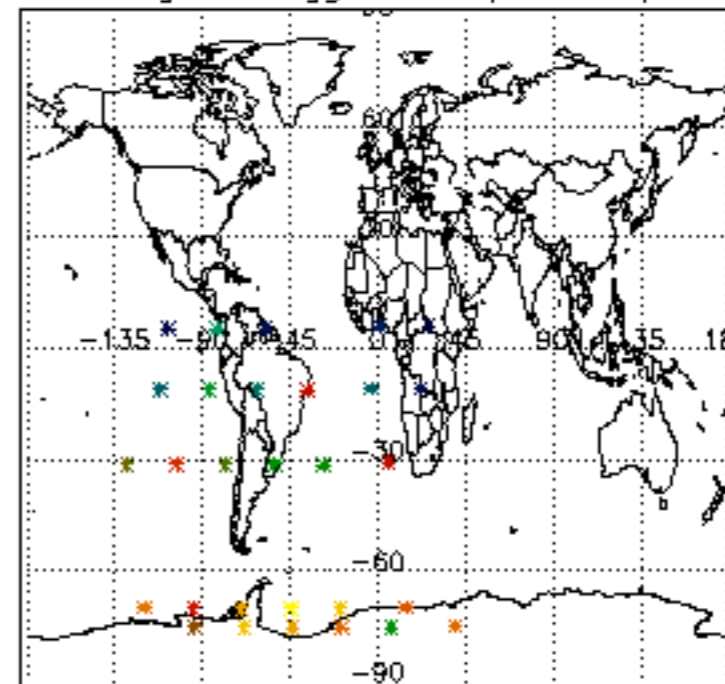
Percentage of flagged data per H2O profile

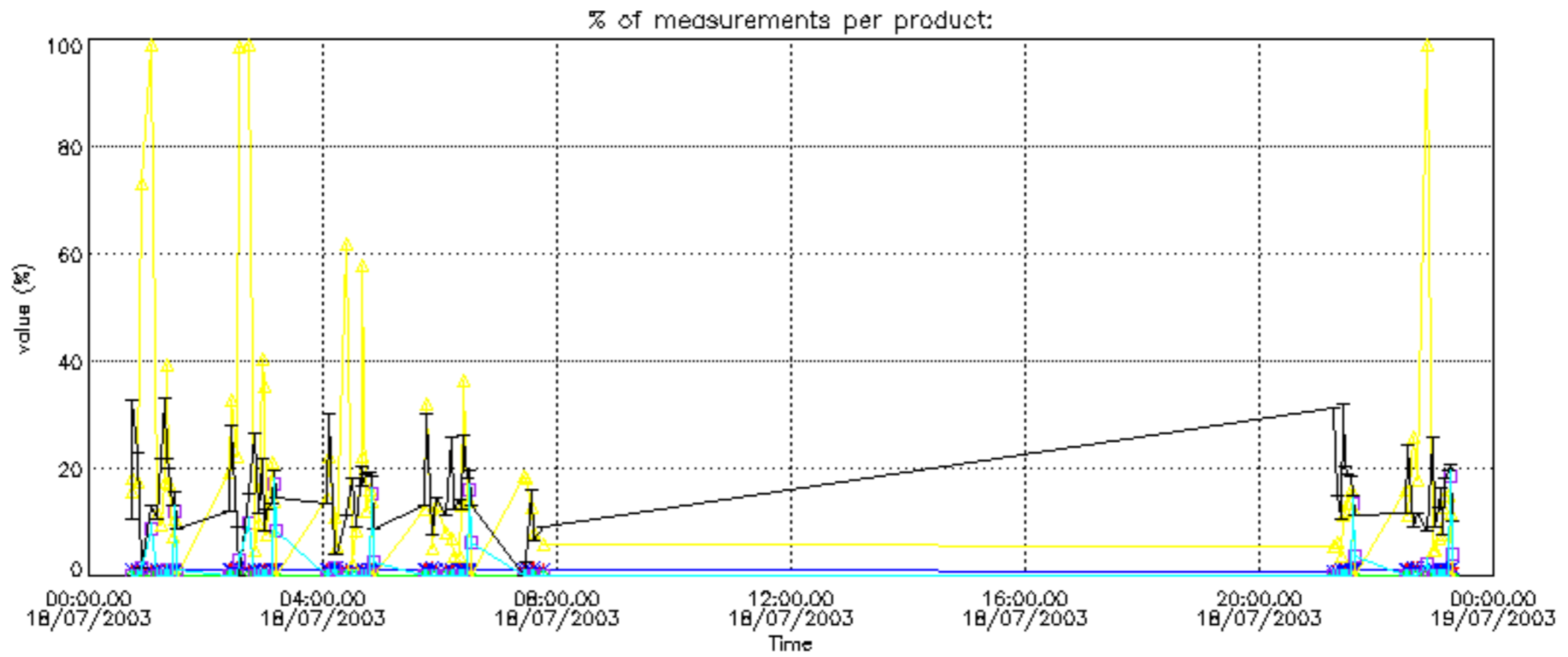


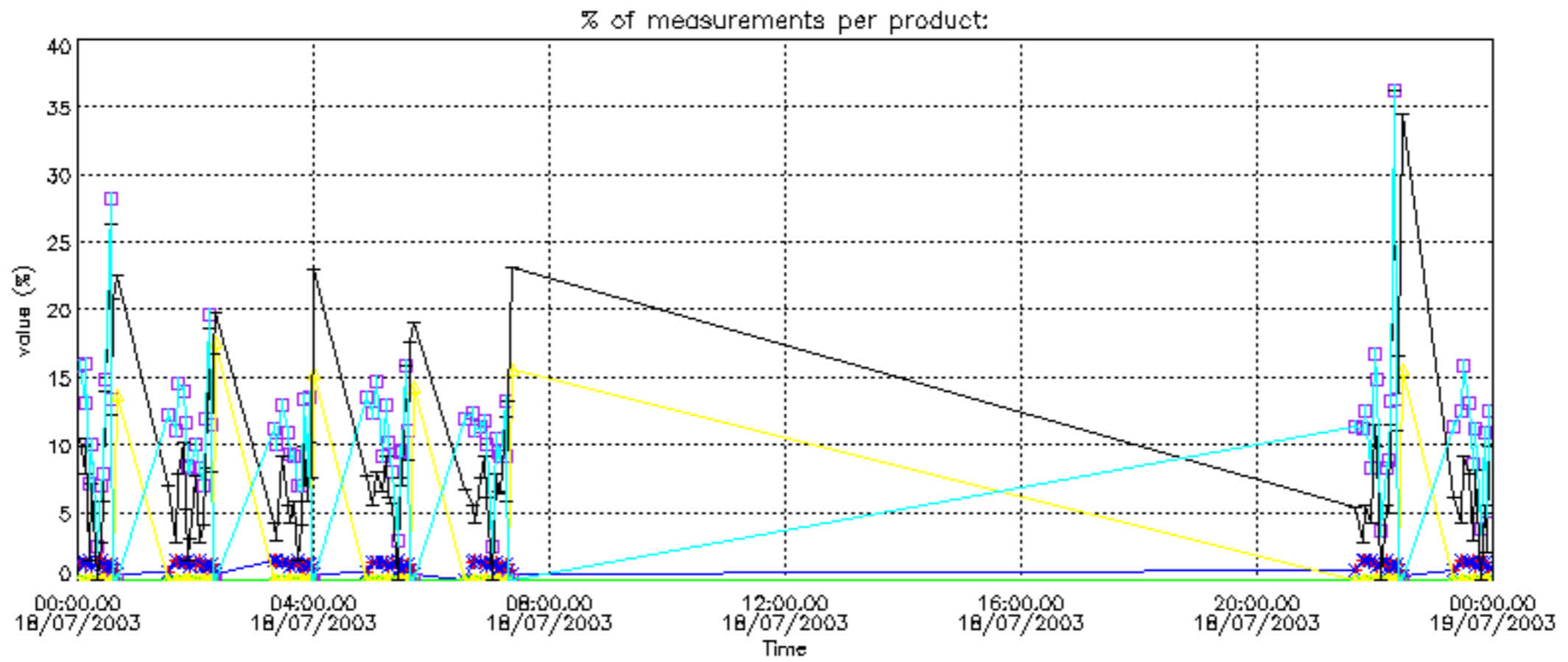
Percentage of flagged data per NO2 profile



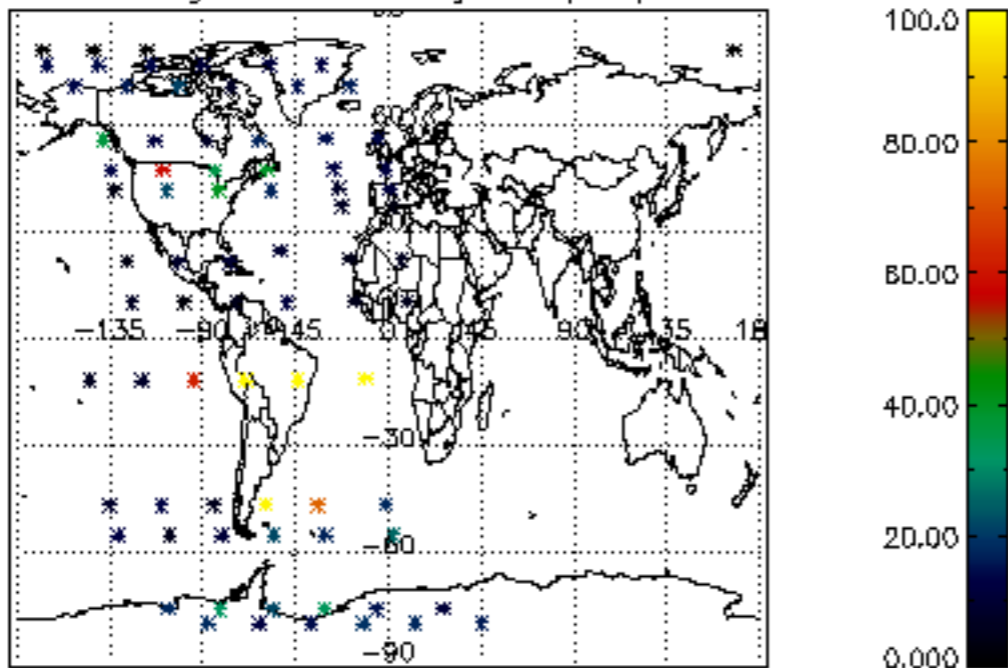
Percentage of flagged data per NO3 profile



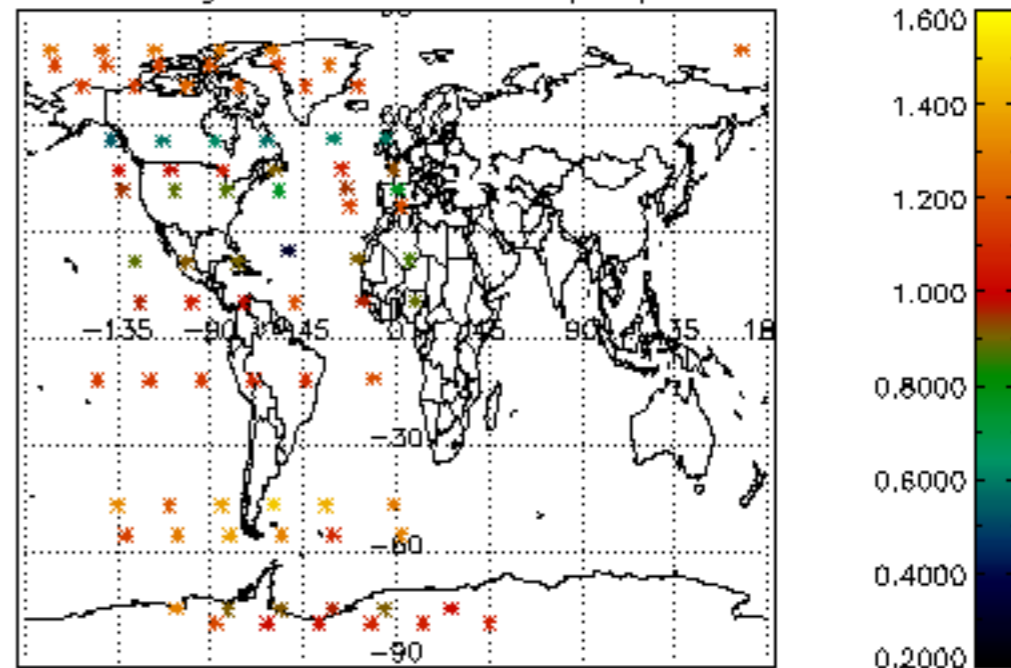




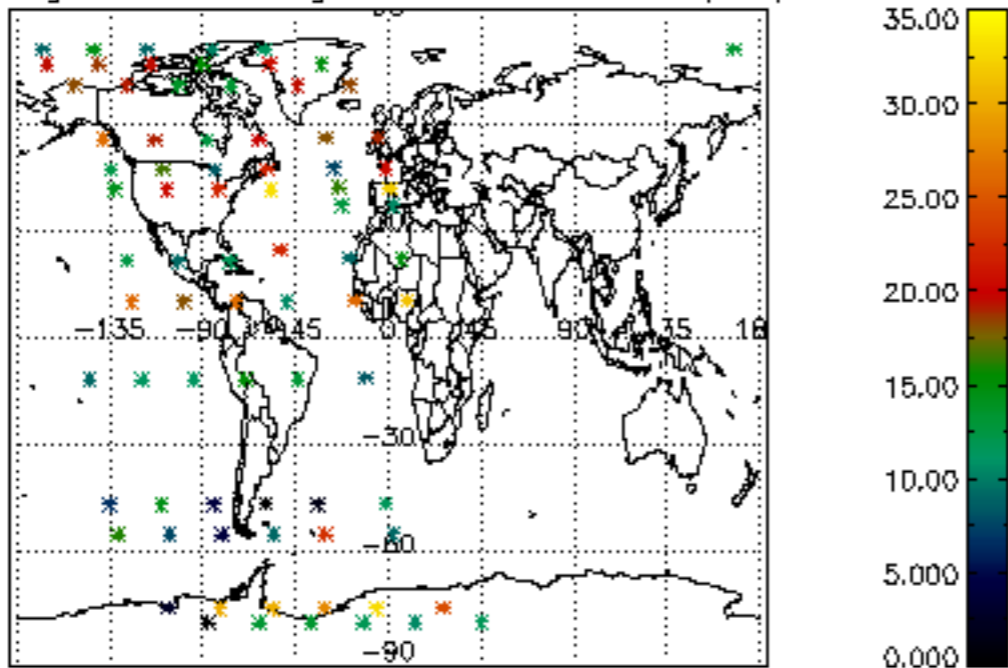
Percentage of cosmic ray hits per profile



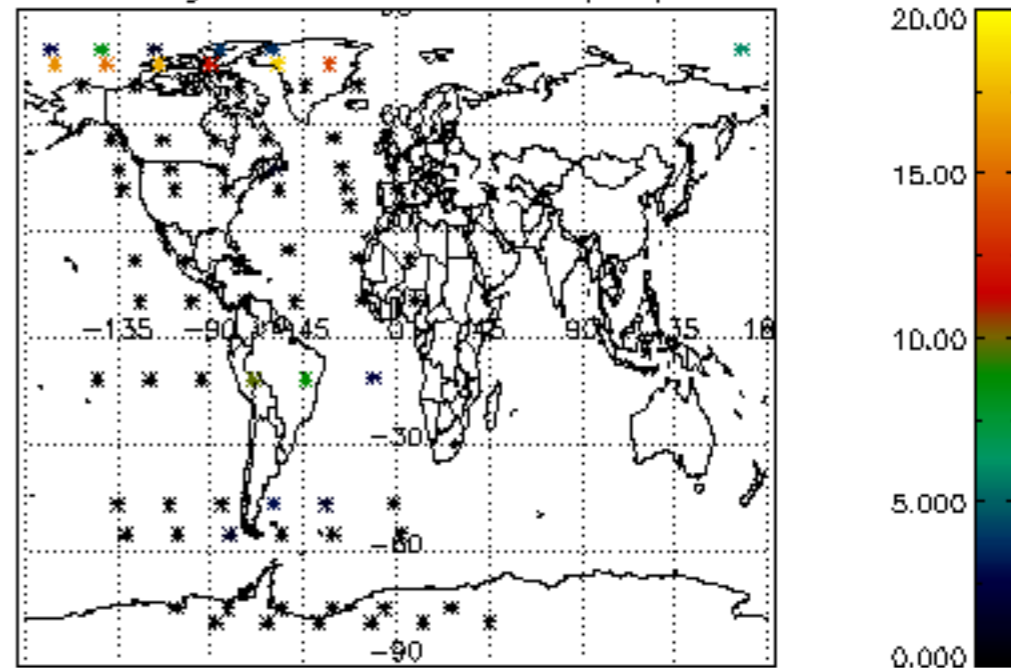
Percentage of datation errors per profile



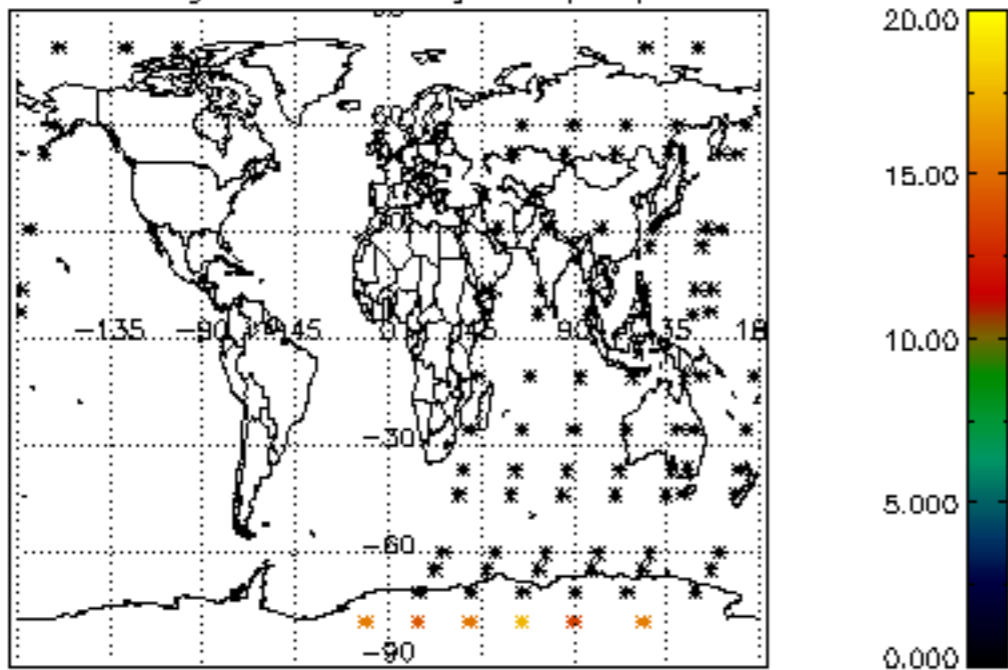
Percentage of star falling outside central band per profile



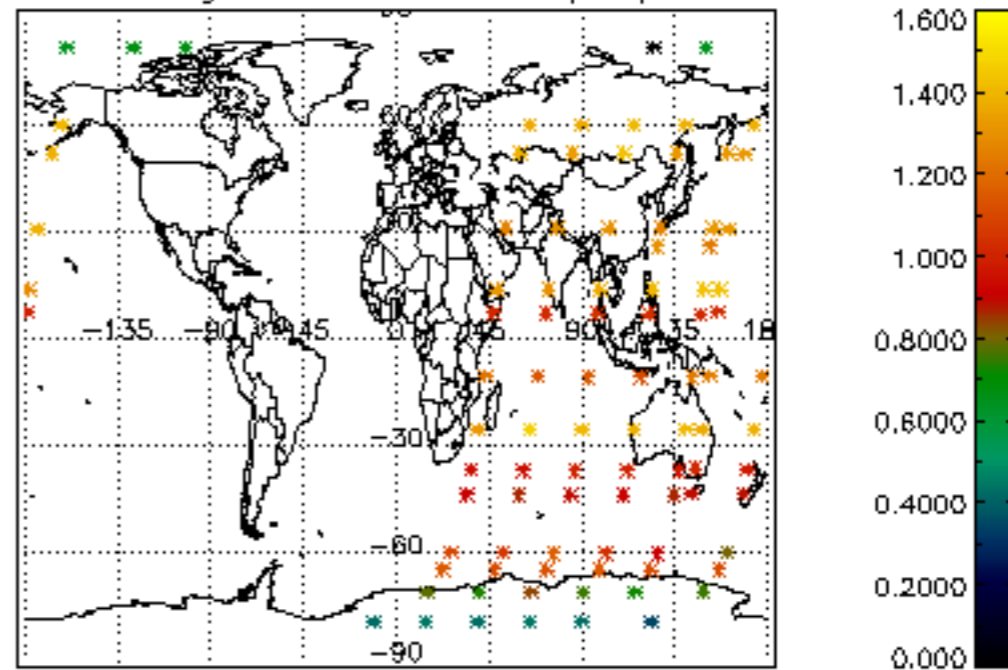
Percentage of saturation errors per profile



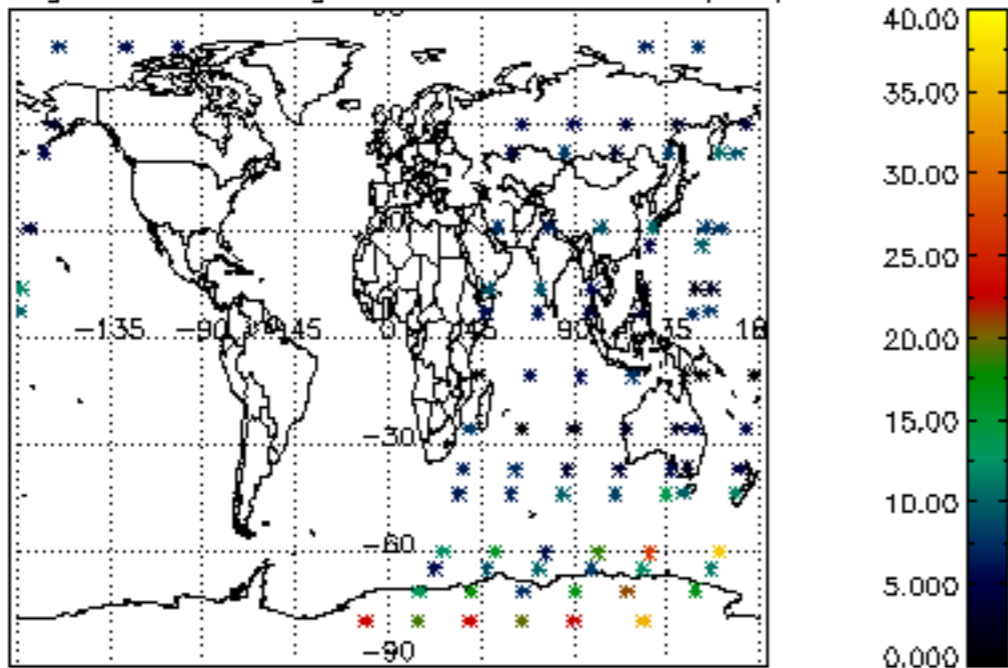
Percentage of cosmic ray hits per profile



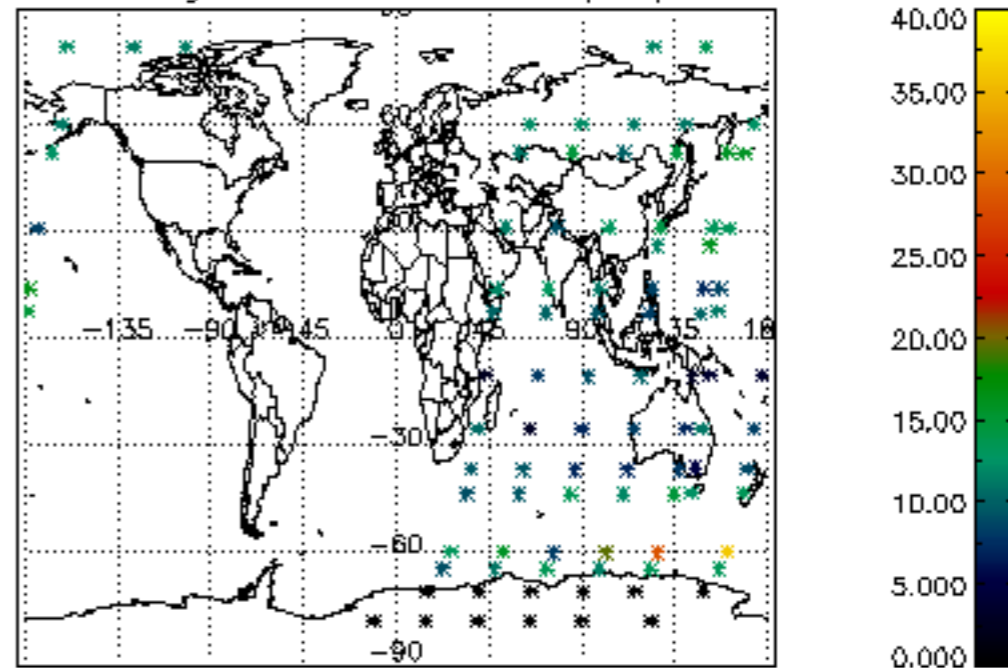
Percentage of datation errors per profile

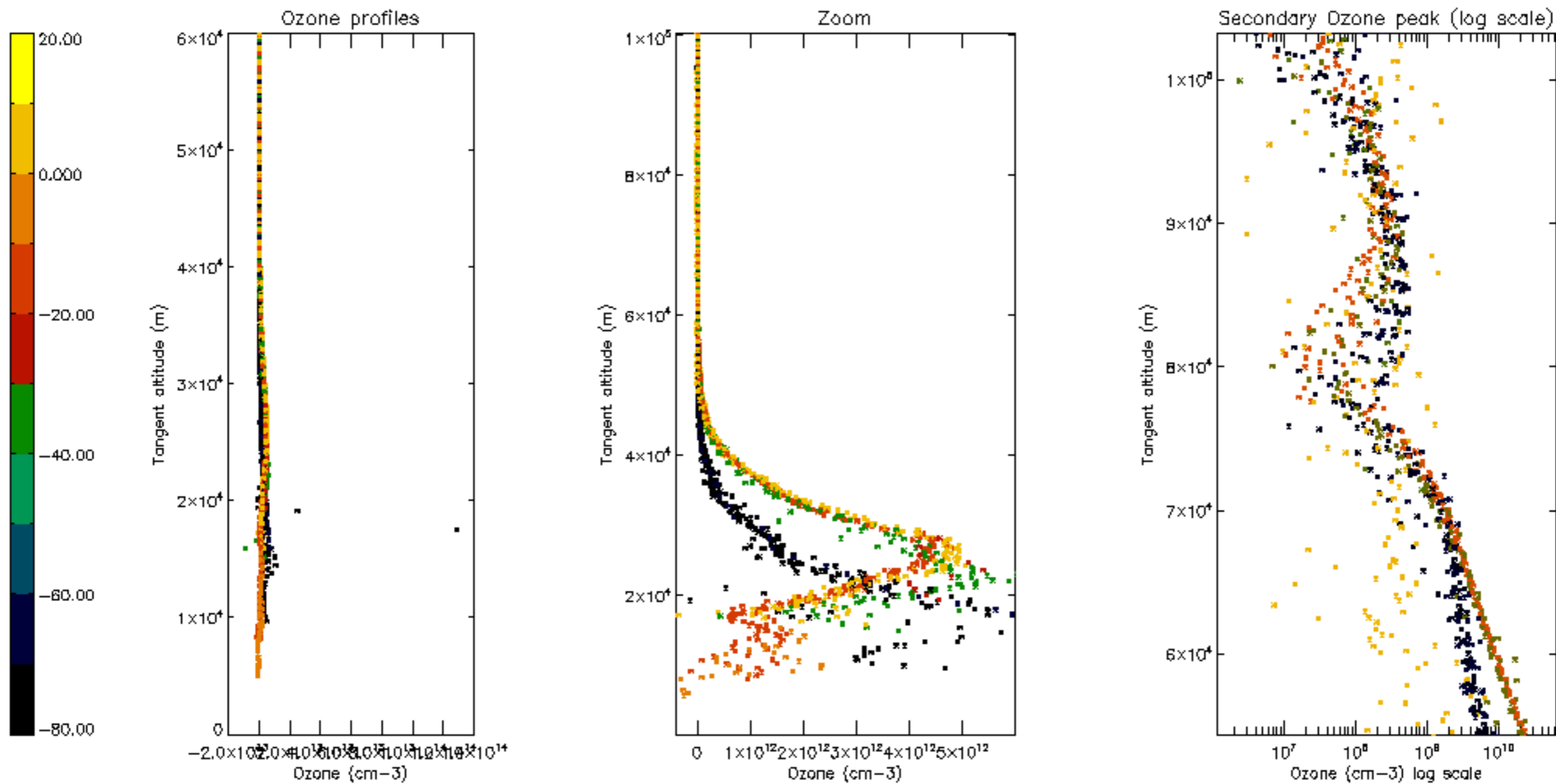


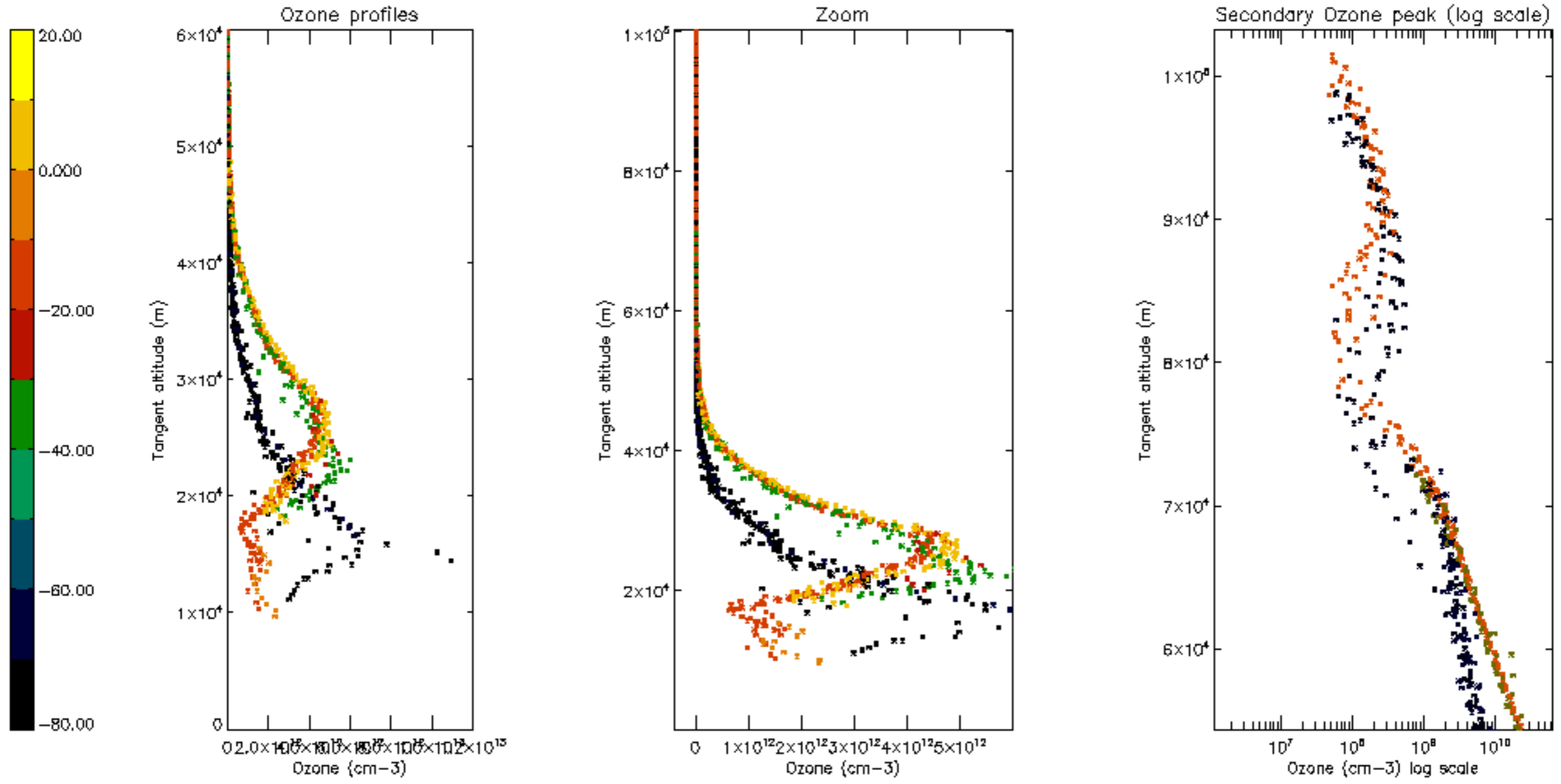
Percentage of star falling outside central band per profile

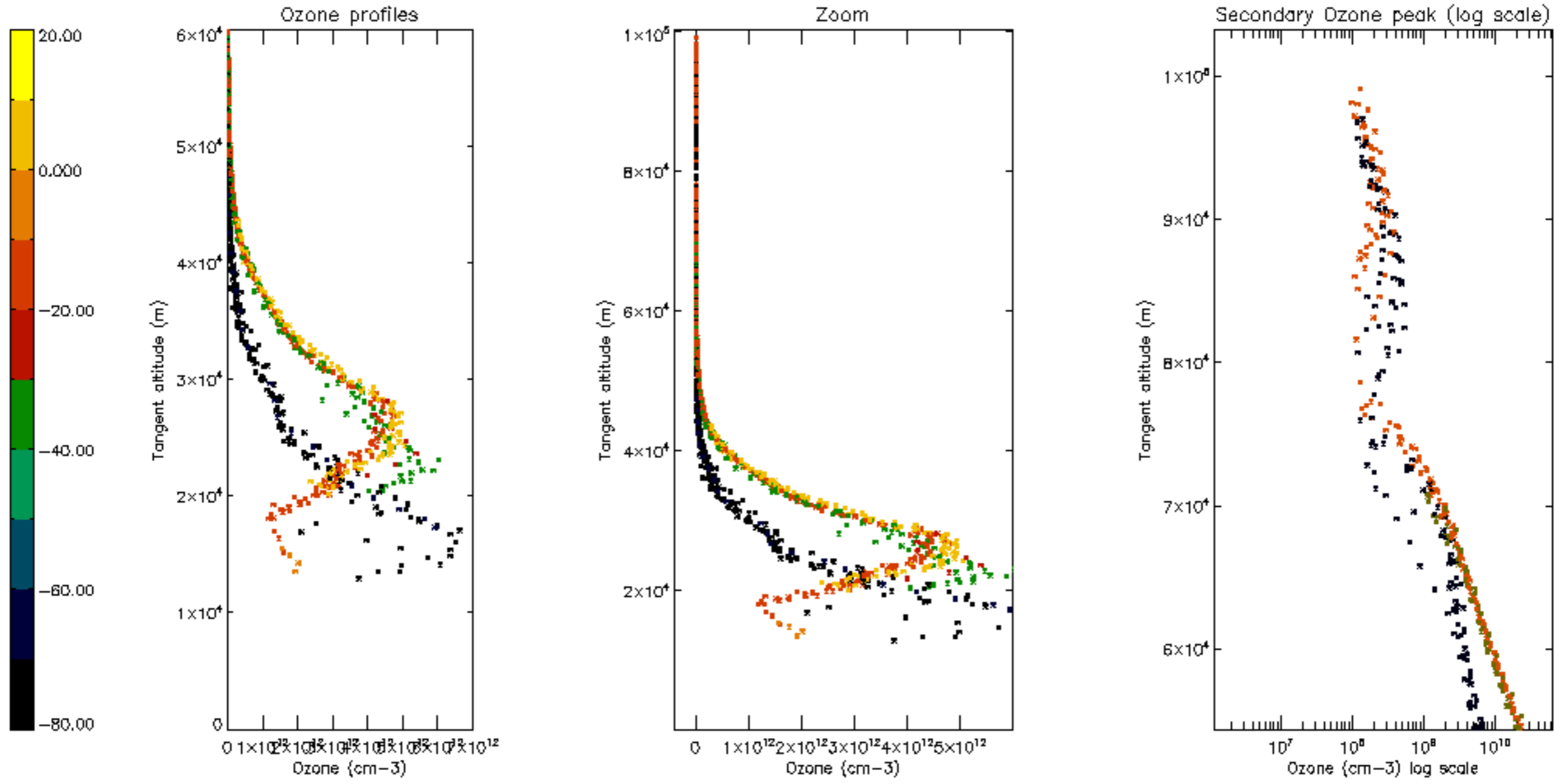


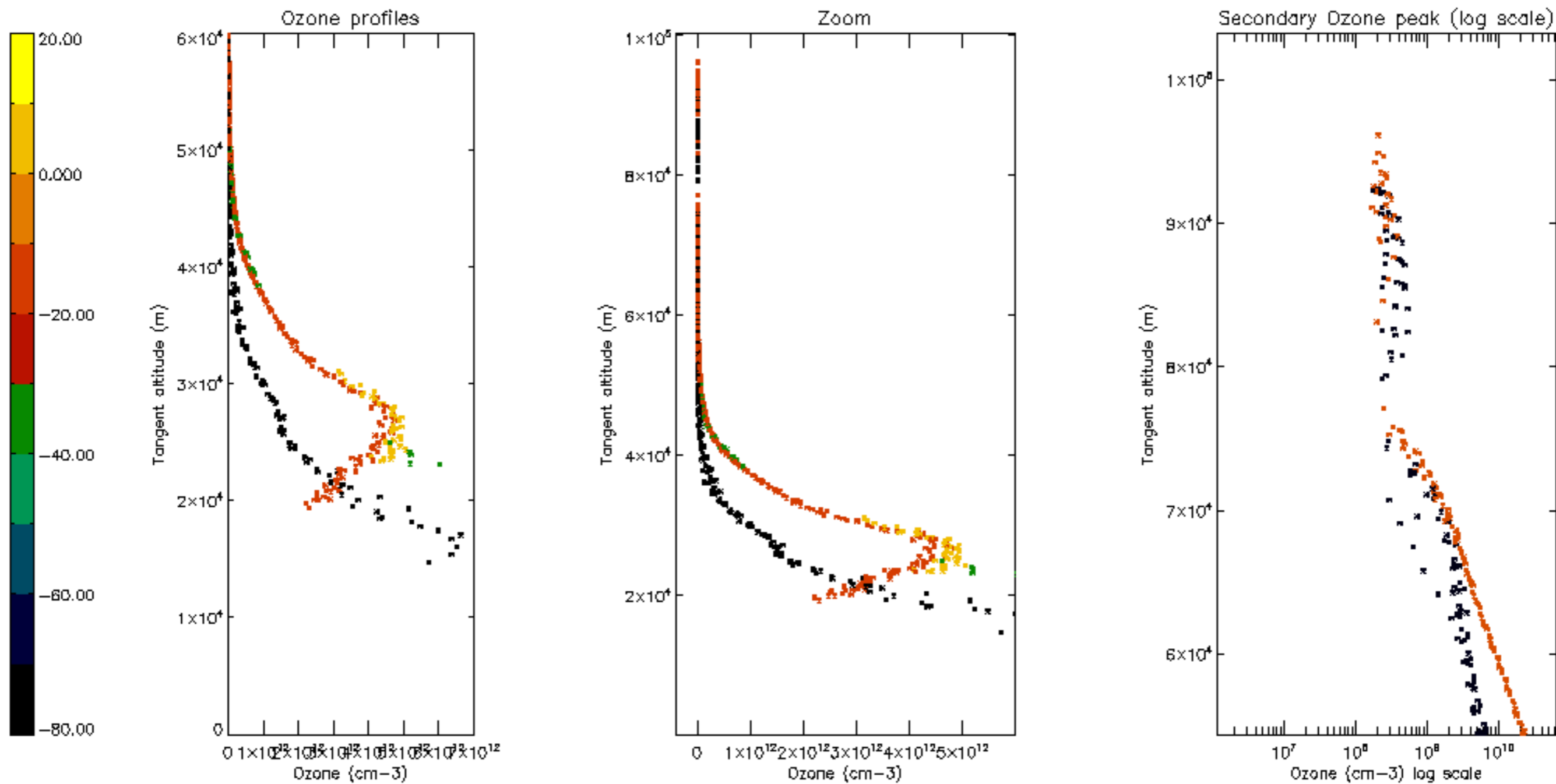
Percentage of saturation errors per profile

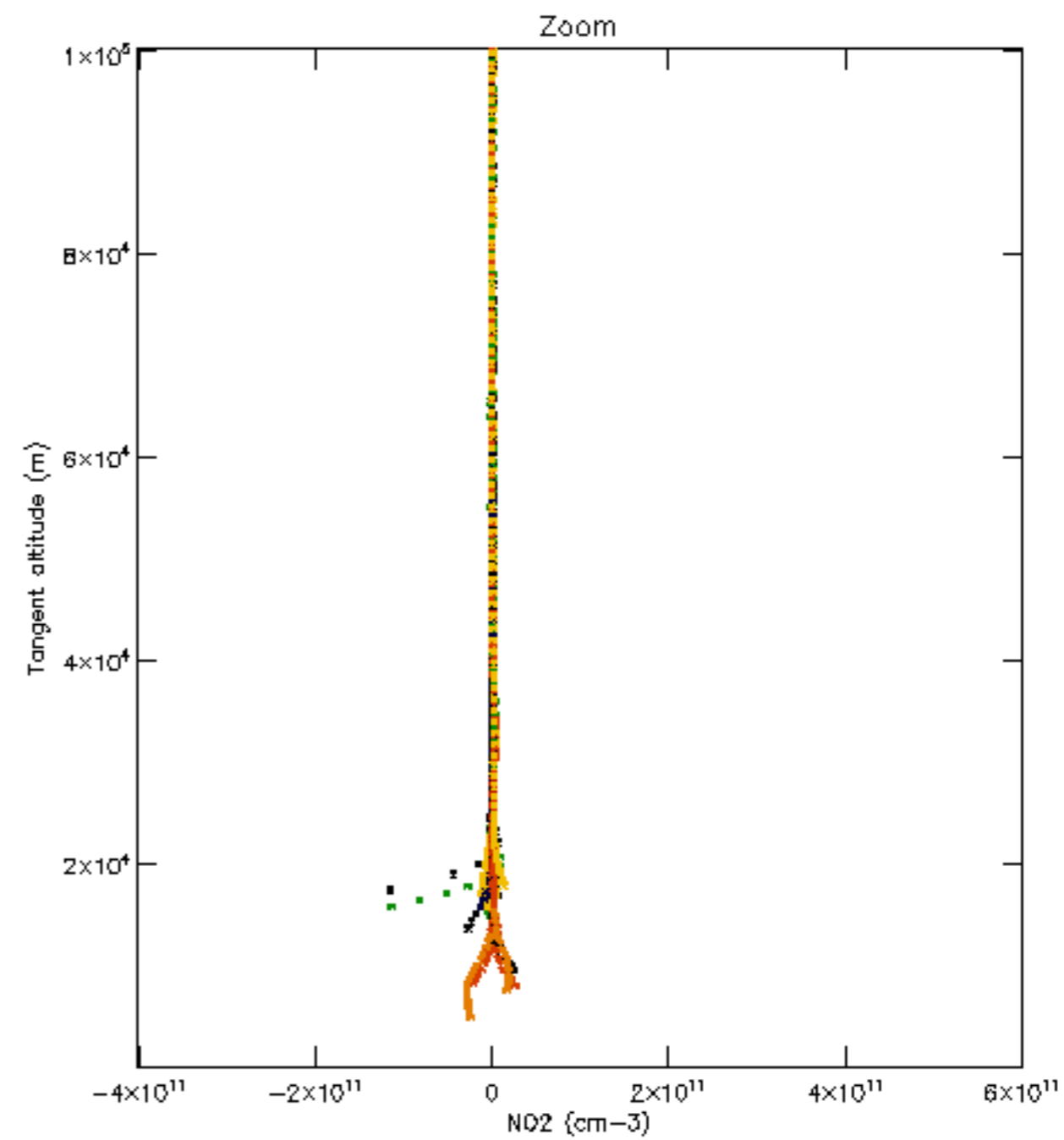
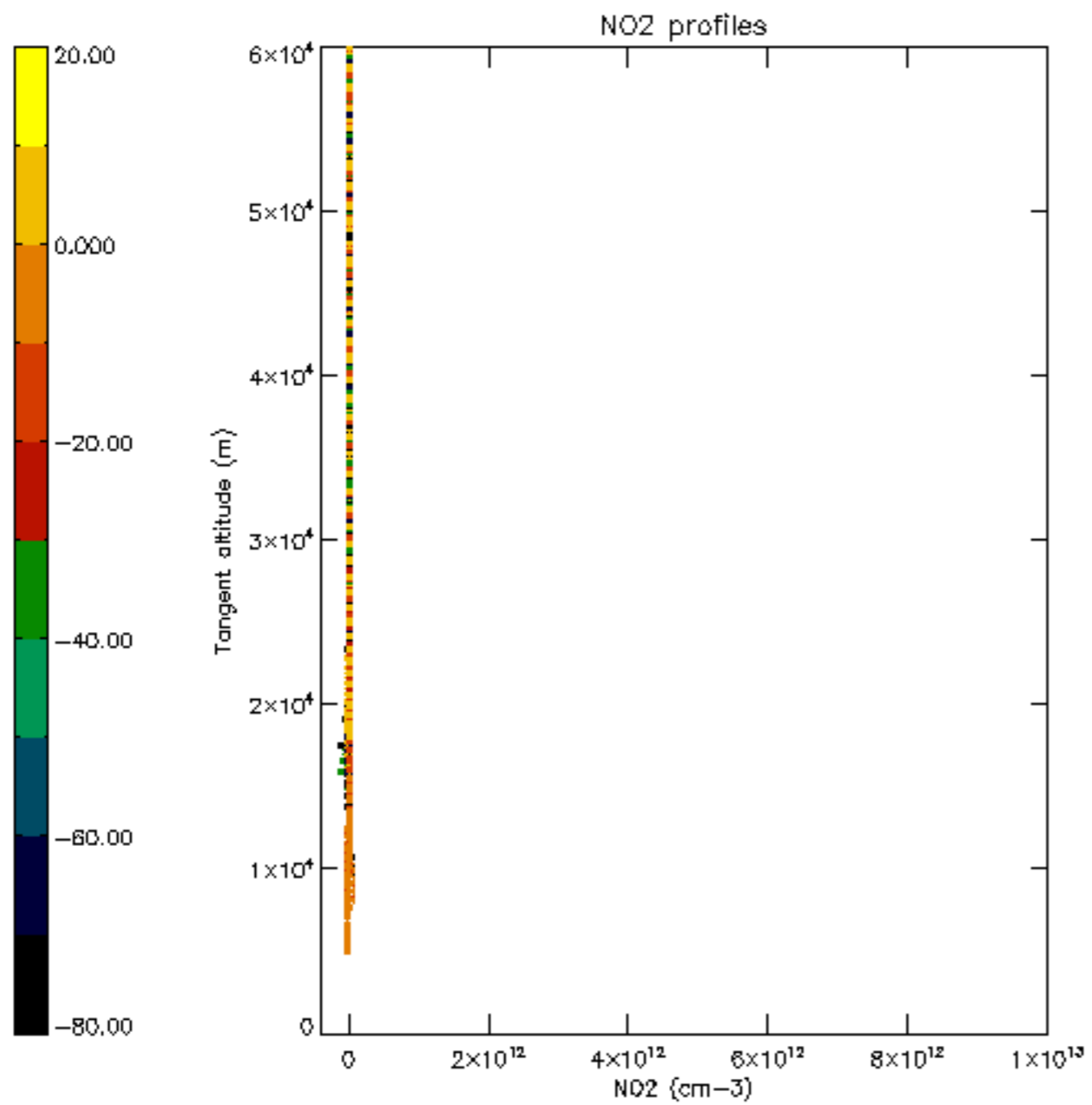


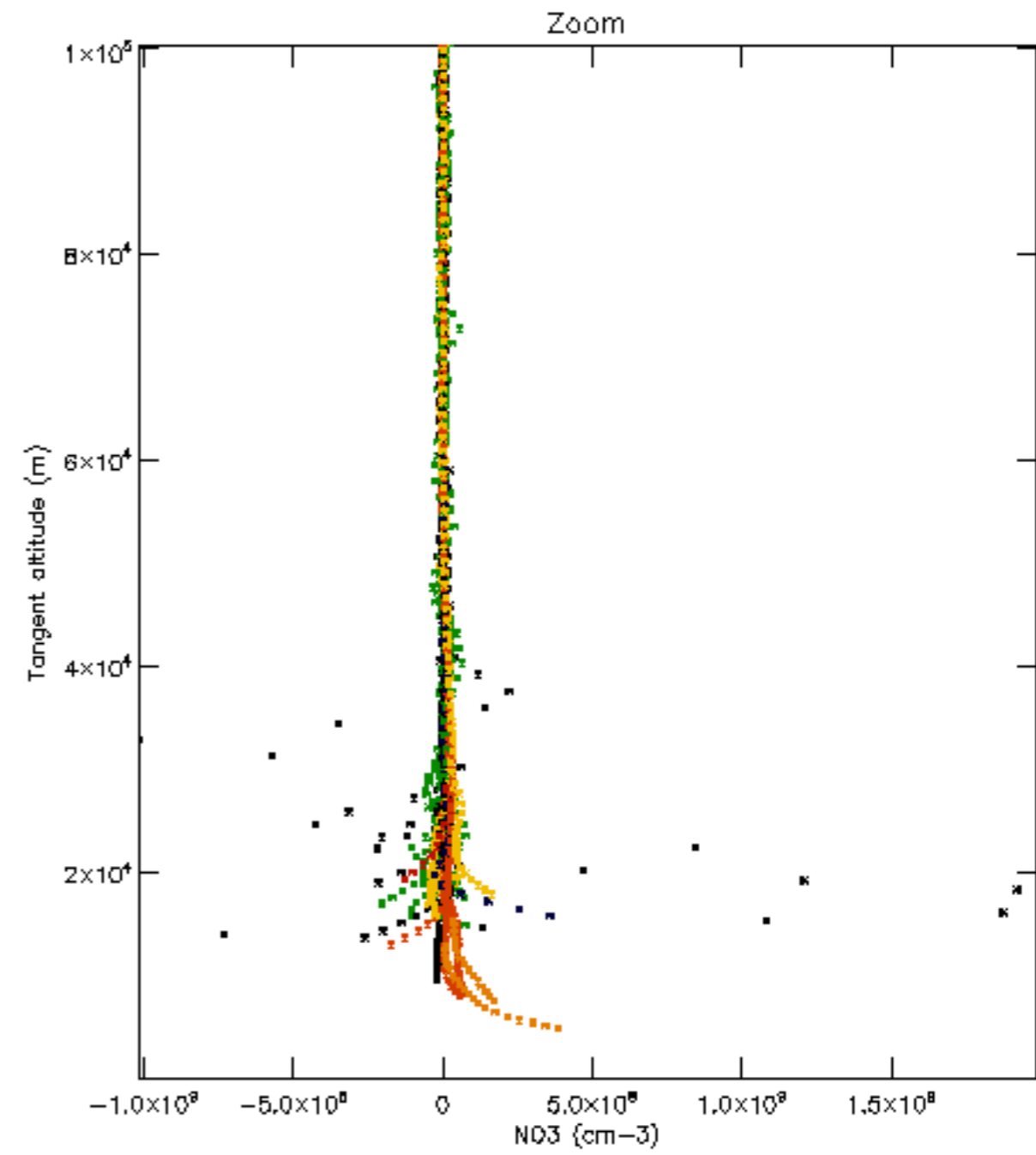
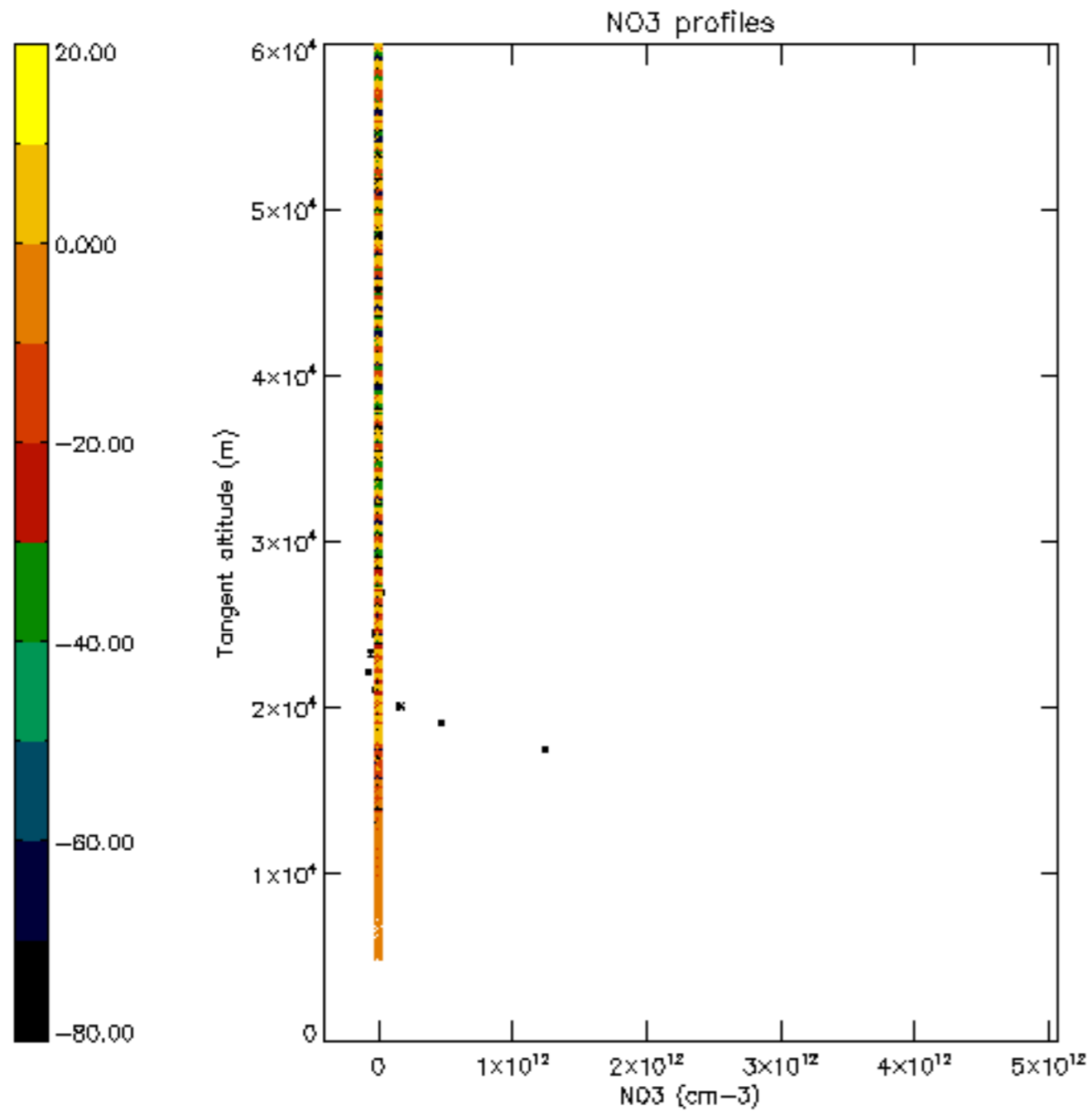


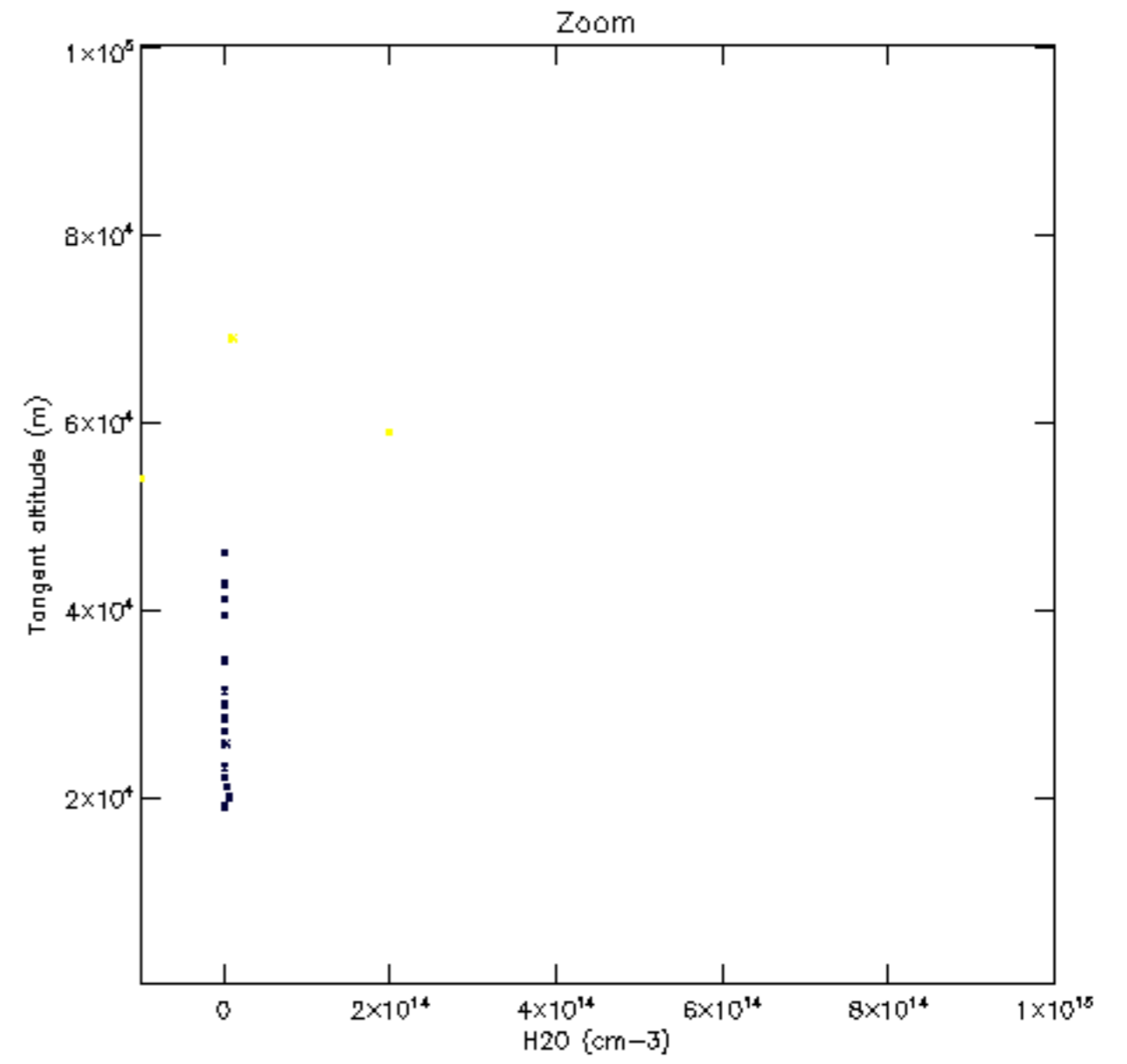
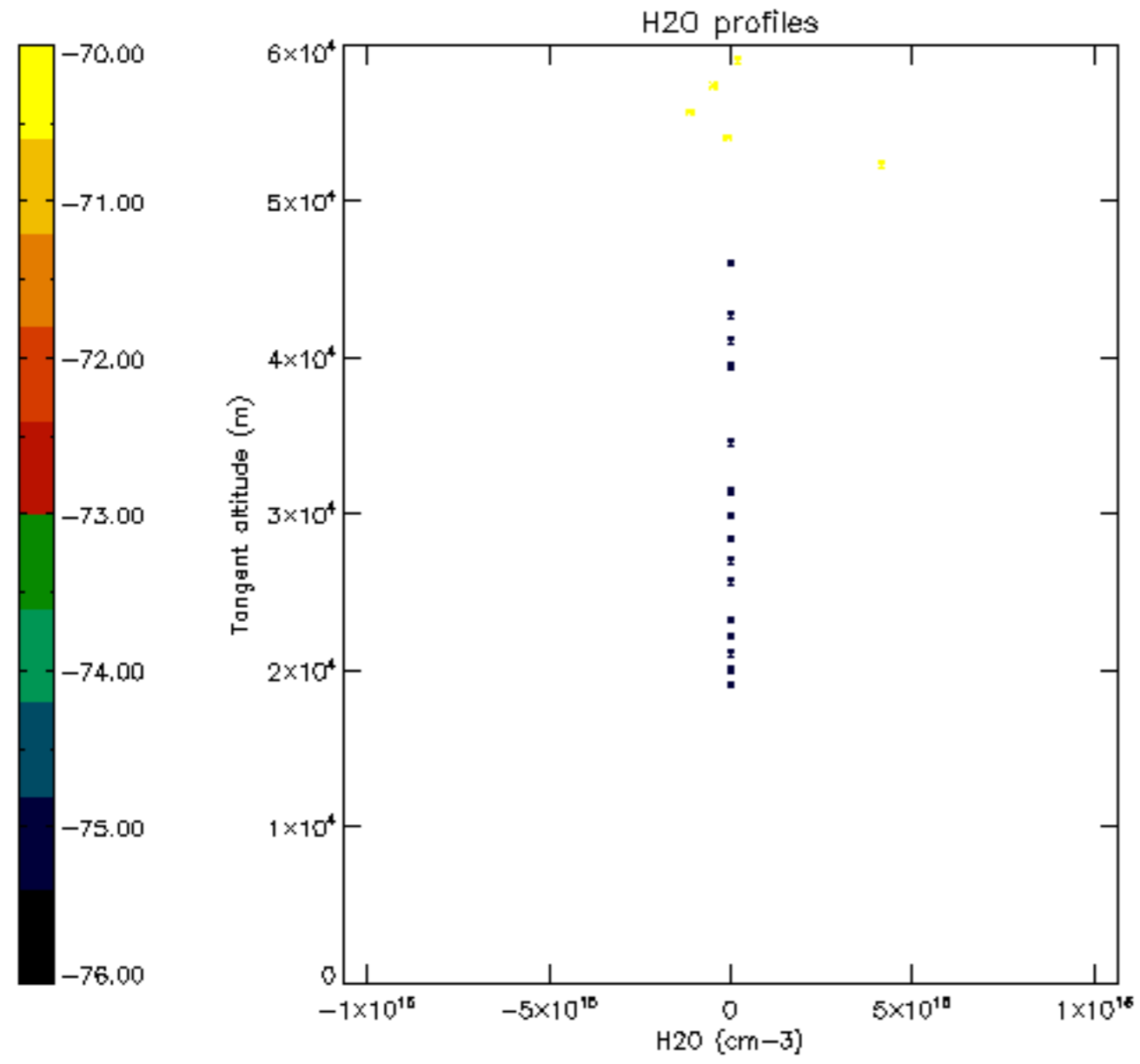


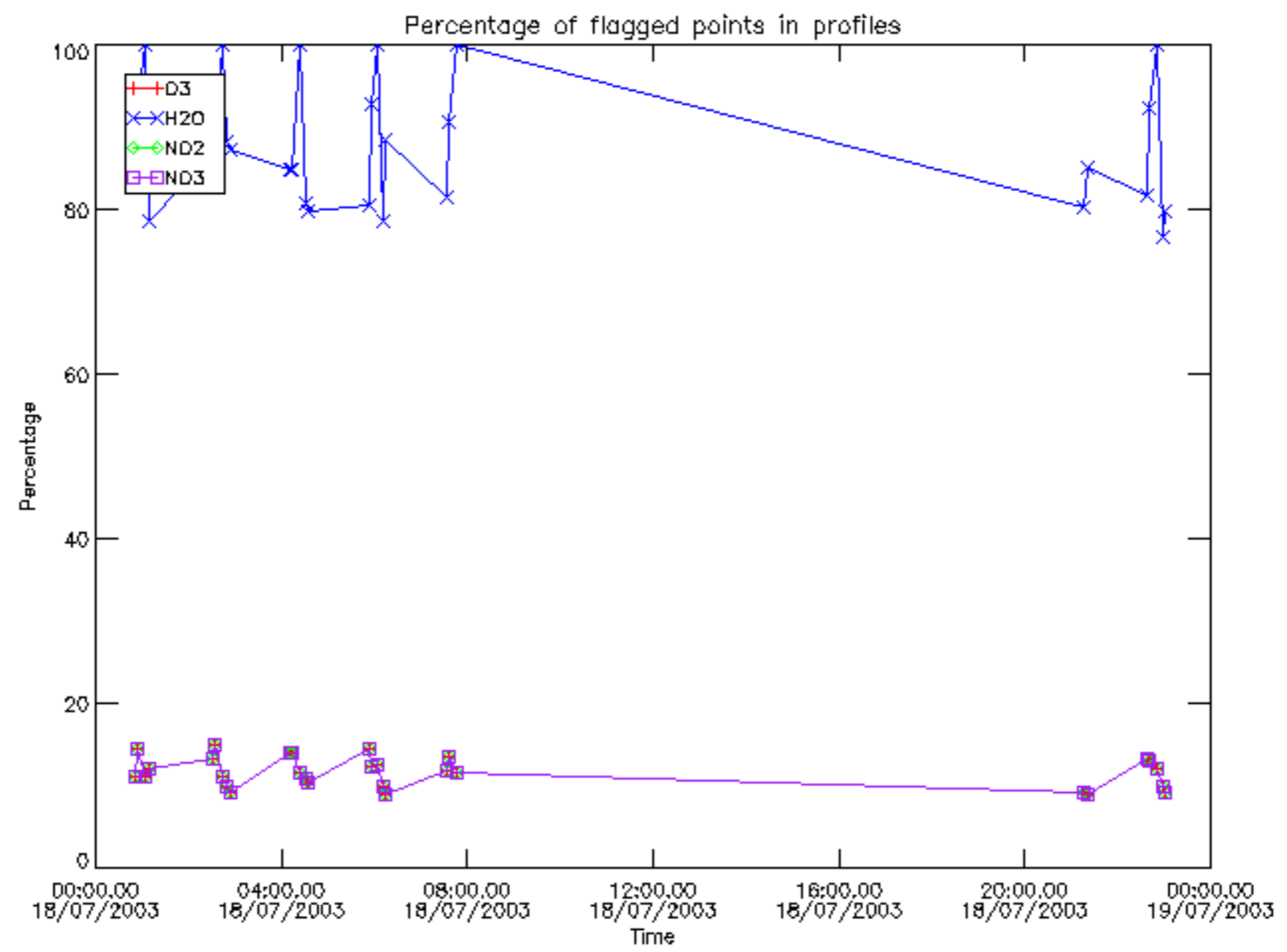




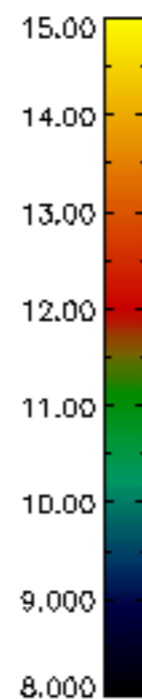
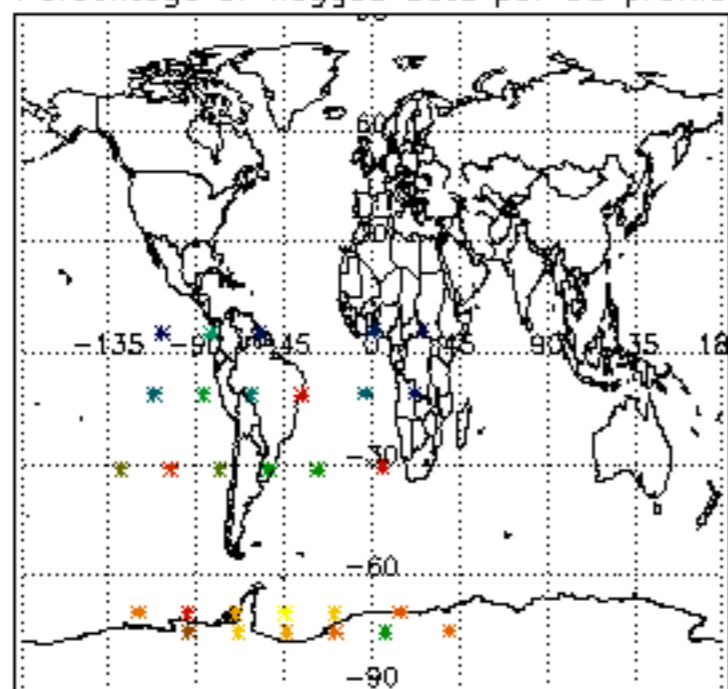




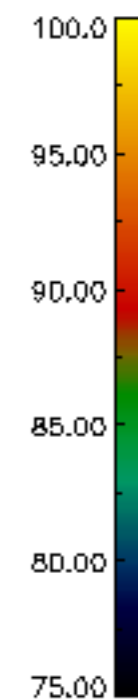
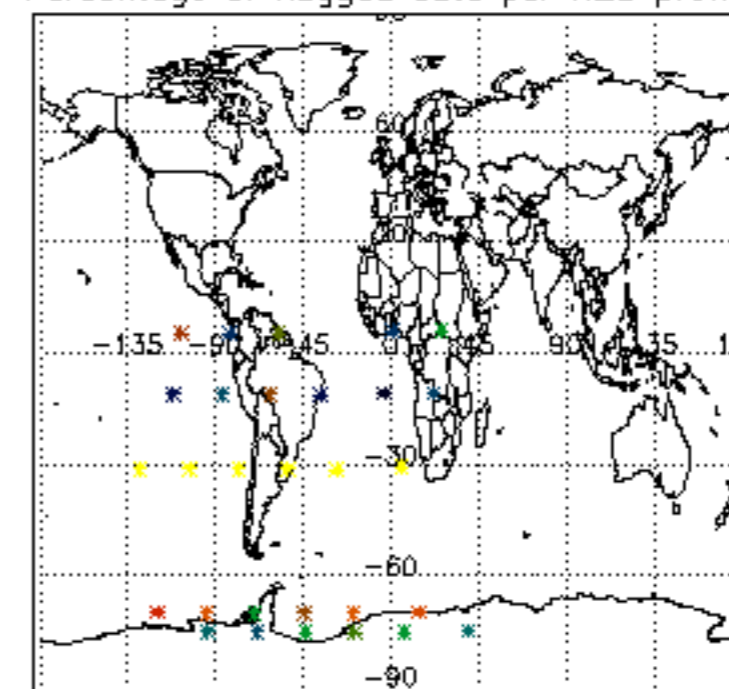




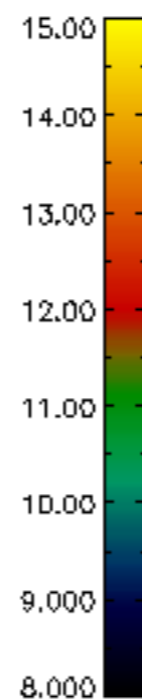
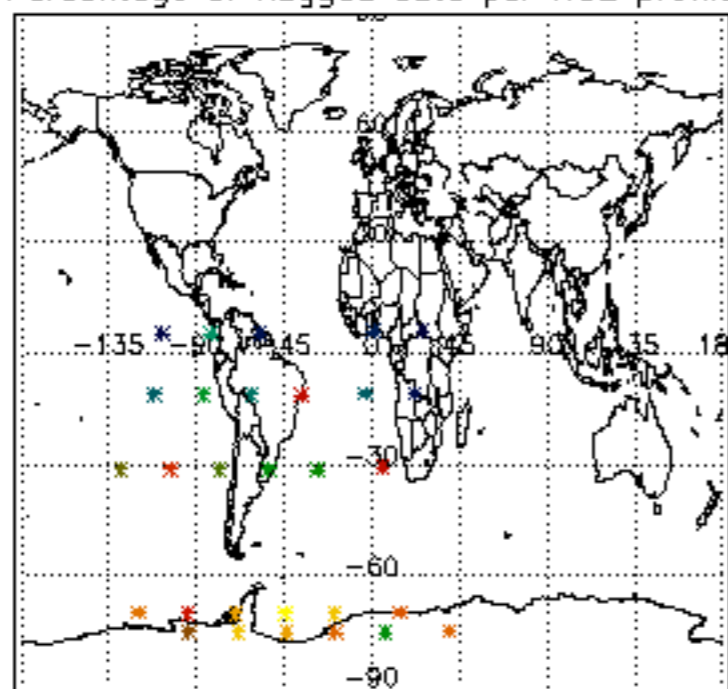
Percentage of flagged data per D3 profile



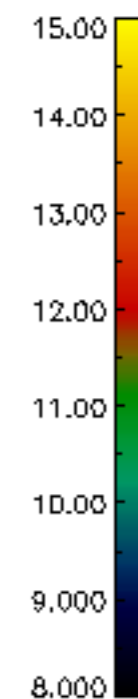
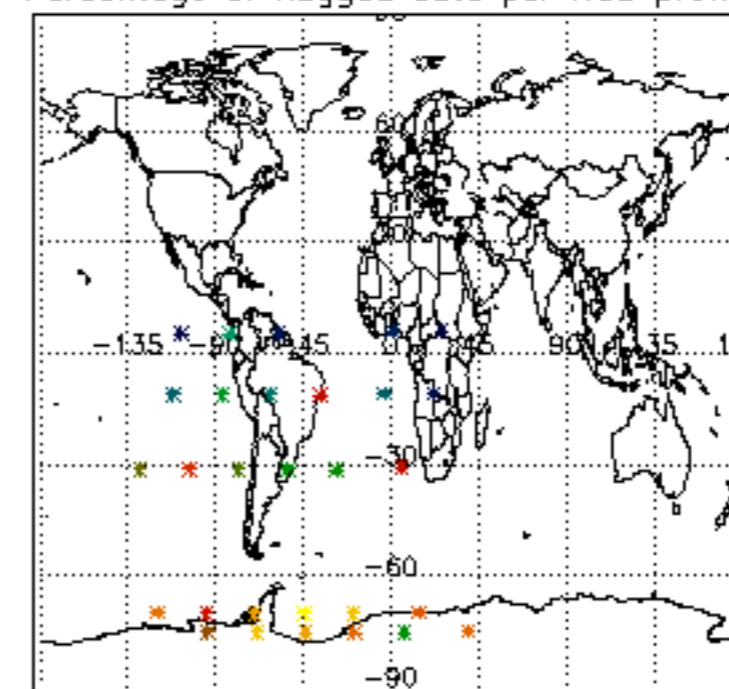
Percentage of flagged data per H2O profile

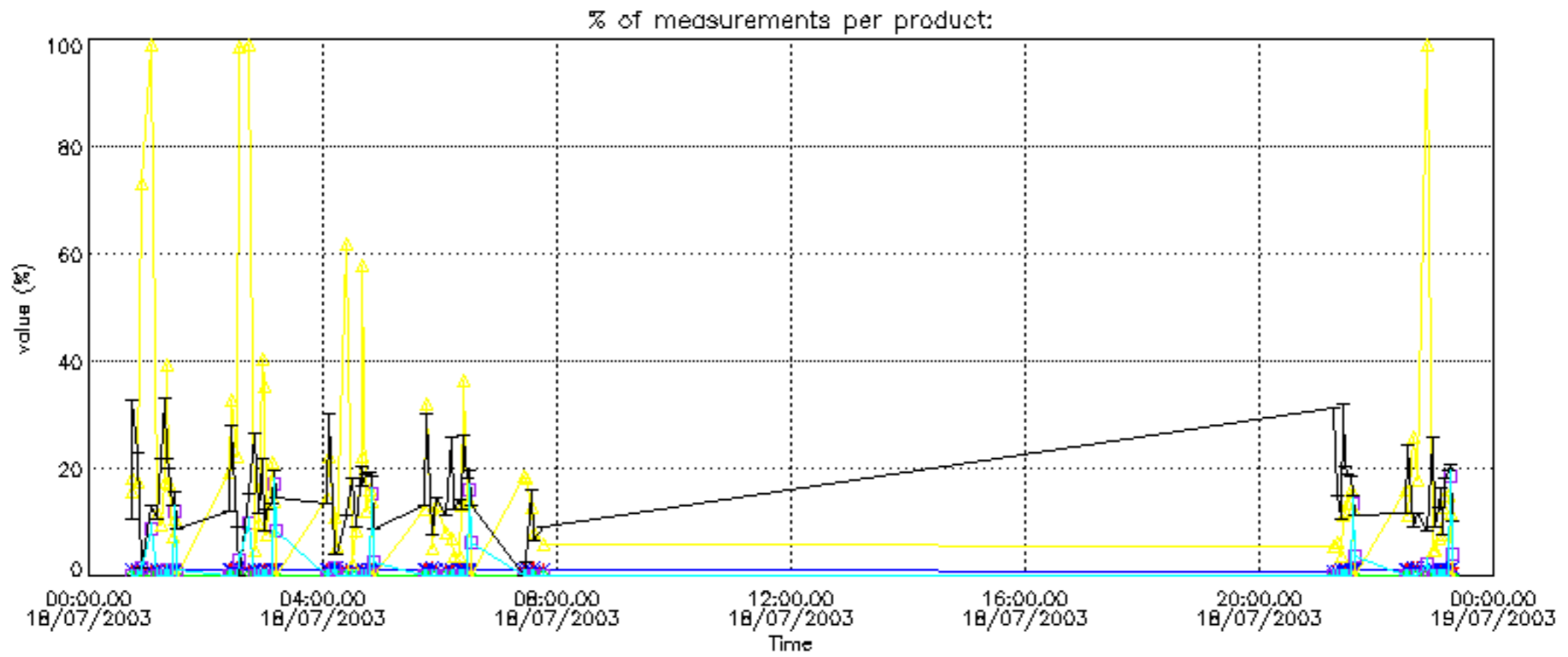


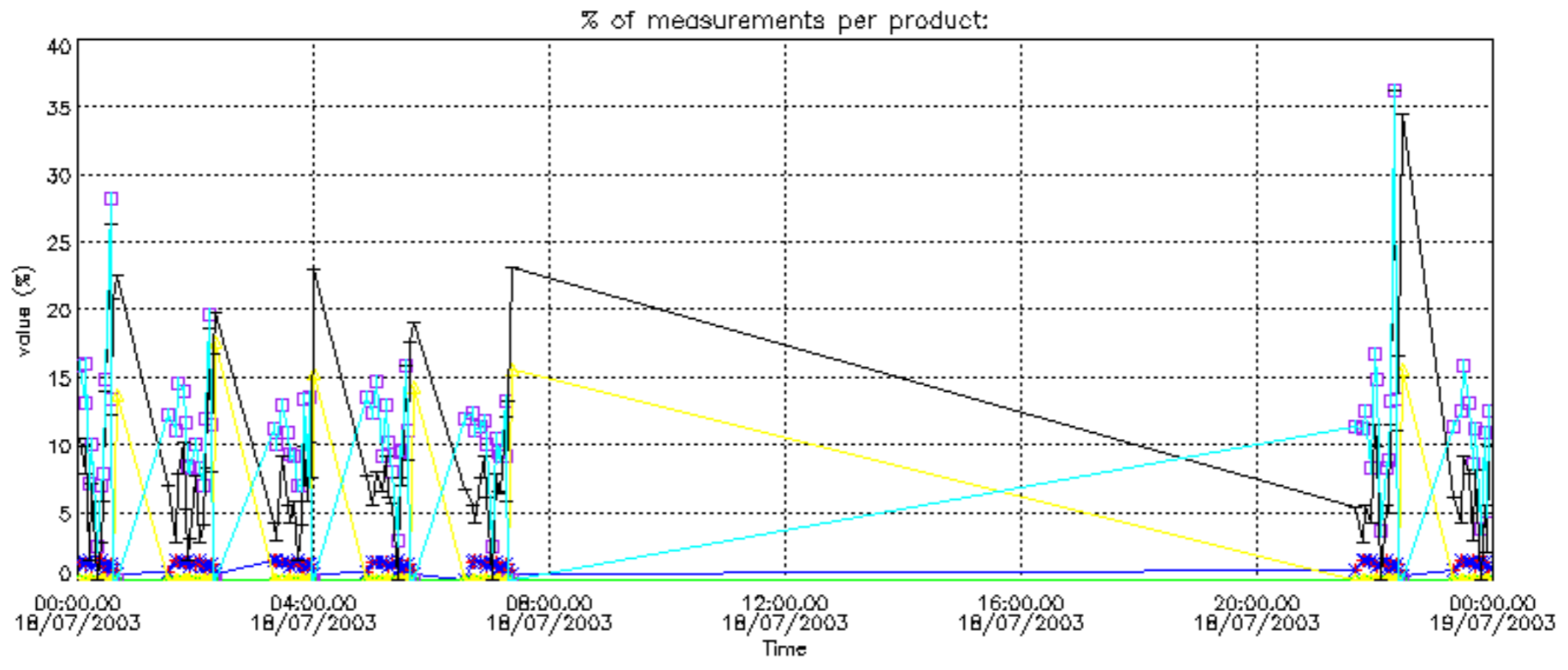
Percentage of flagged data per NO2 profile



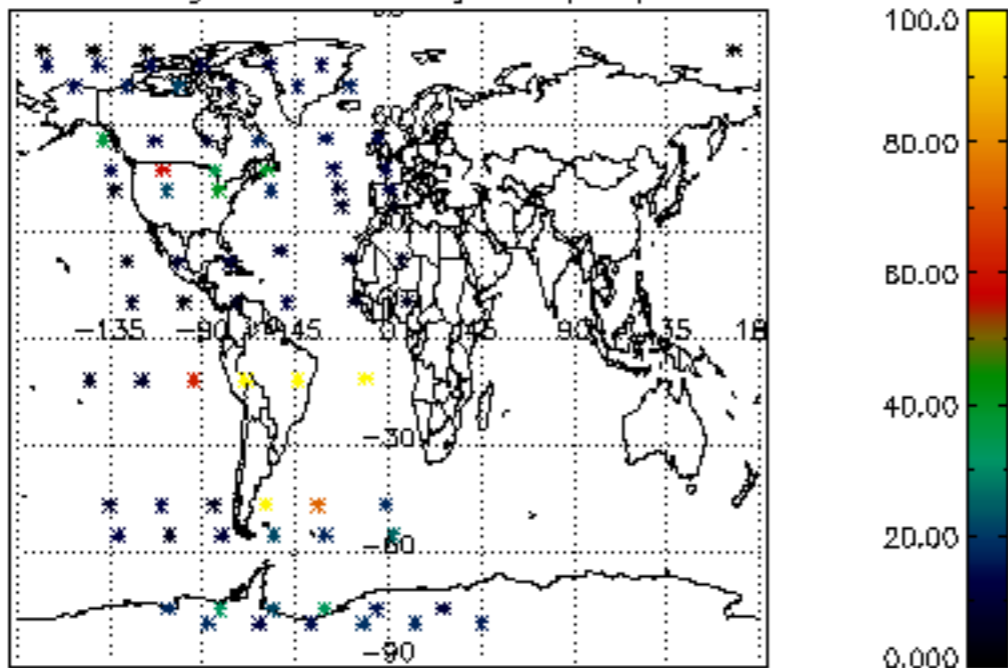
Percentage of flagged data per NO3 profile



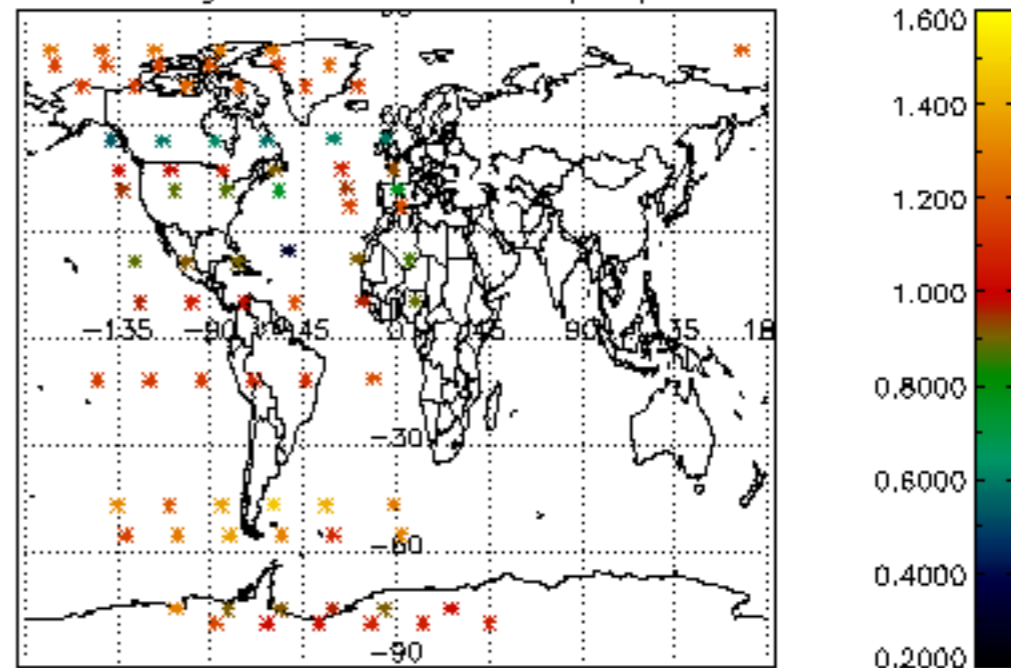




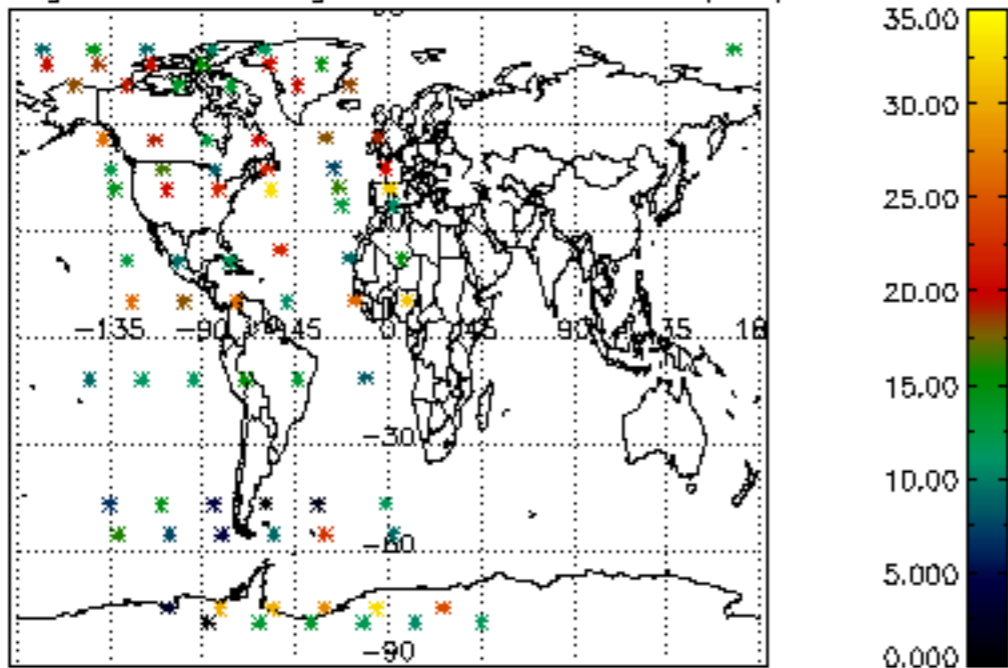
Percentage of cosmic ray hits per profile



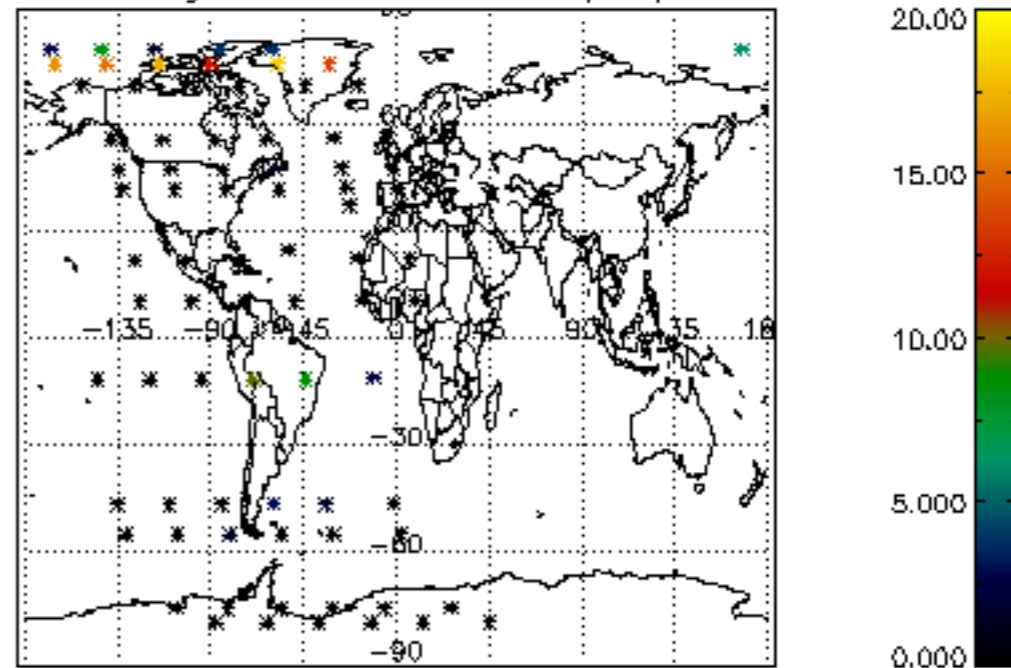
Percentage of datation errors per profile



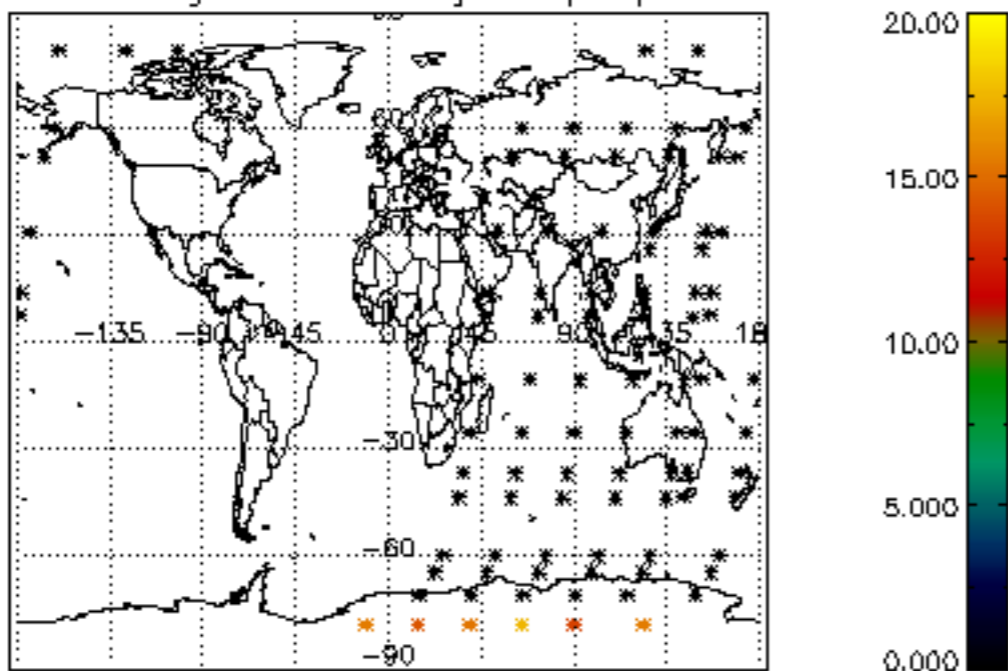
Percentage of star falling outside central band per profile



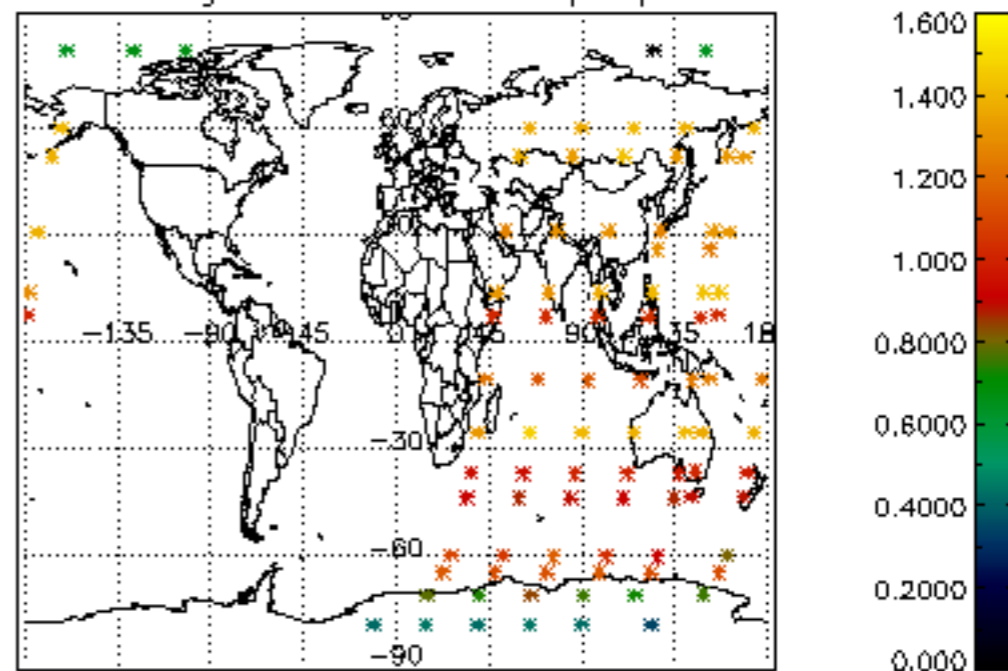
Percentage of saturation errors per profile



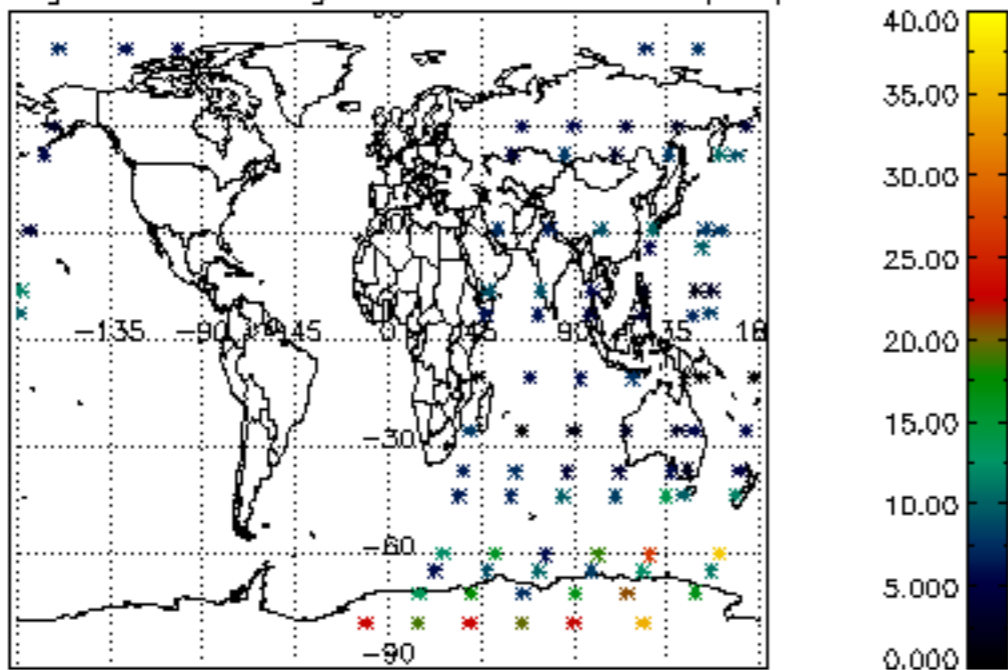
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

