

GOMOS Level 2 Daily Report

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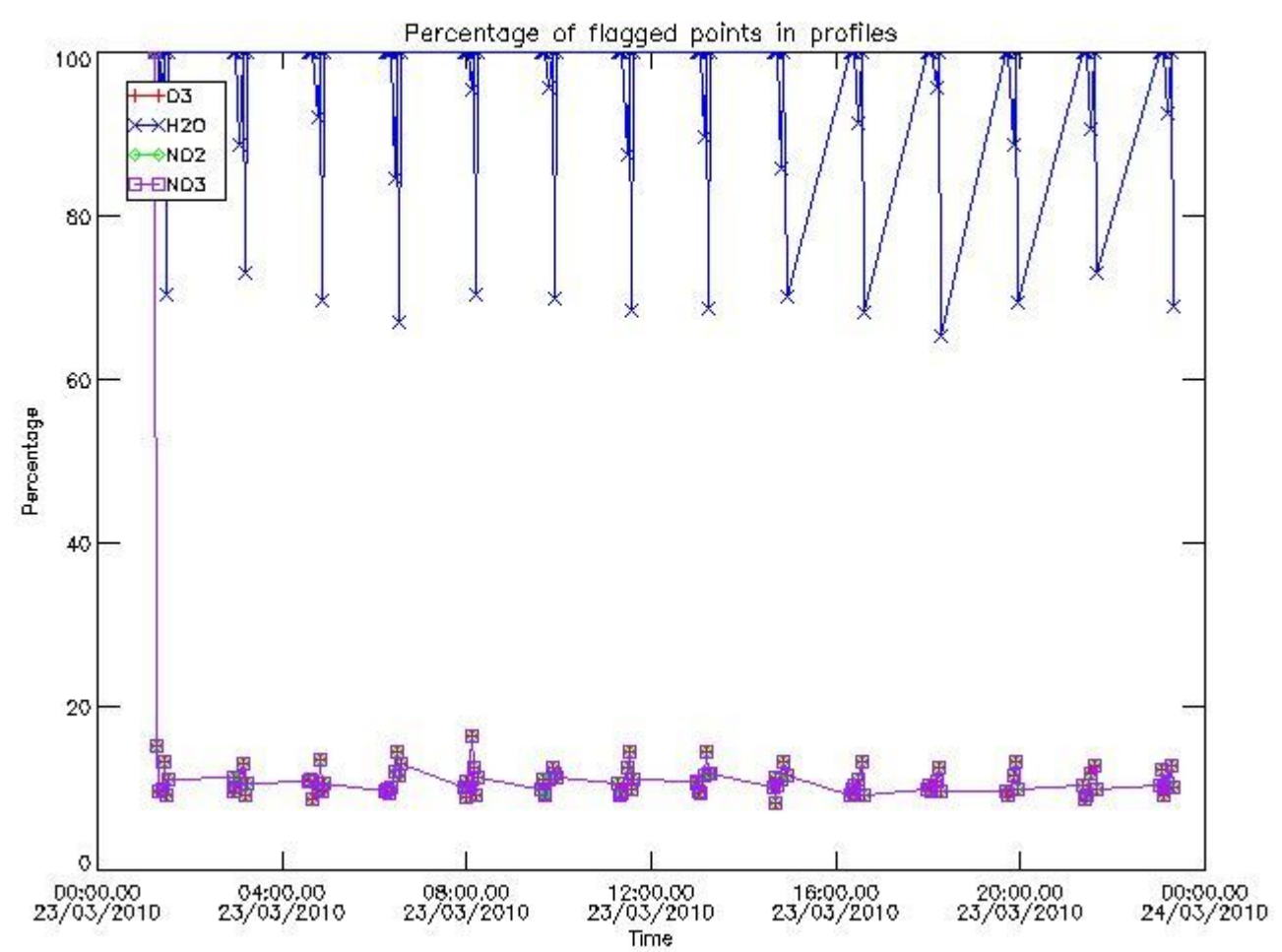
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338	GOM_NL__2PRFIN20100323_225026_000000572088_00015_42153_0891.N1	23-MAR-2010 22:50:26	Twilight	56.500	11	53Alp Aql	0.76500	8000.0	113	42153	No
339	GOM_NL__2PRFIN20100323_230122_000000492088_00015_42153_0892.N1	23-MAR-2010 23:01:22	Dark	49.000	155	41Pi Sgr	2.9000	6600.0	98	42153	No
340	GOM_NL__2PRFIN20100323_230330_000000502088_00015_42153_0893.N1	23-MAR-2010 23:03:30	Dark	50.000	57	34Sig Sgr	2.0660	26000.	100	42153	No
341	GOM_NL__2PRFIN20100323_230520_000000562088_00015_42153_0894.N1	23-MAR-2010 23:05:20	Dark	55.500	137	22Lam Sgr	2.8240	4400.0	111	42153	No
342	GOM_NL__2PRFIN20100323_230706_000000502088_00015_42153_0895.N1	23-MAR-2010 23:07:06	Dark	50.000	38	20Eps Sgr	1.8360	11000.	100	42153	No
343	GOM_NL__2PRFIN20100323_231229_000000482088_00016_42154_0877.N1	23-MAR-2010 23:12:29	Dark	48.000	141	Bet Ara	2.8400	4600.0	96	42154	No
344	GOM_NL__2PRFIN20100323_231555_000000402088_00016_42154_0878.N1	23-MAR-2010 23:15:55	Dark	40.000	134	Bet TrA	2.8100	6600.0	80	42154	No
345	GOM_NL__2PRFIN20100323_231838_000000552088_00016_42154_0879.N1	23-MAR-2010 23:18:38	Dark	55.000	4	Alp1Cen	-0.010000	5800.0	110	42154	No
346	GOM_NL__2PRFIN20100323_232101_000000462088_00016_42154_0880.N1	23-MAR-2010 23:21:01	Straylight	45.500	78	Alp Lup	2.3040	28000.	91	42154	No
347	GOM_NL__2PRFIN20100323_232234_000000502088_00016_42154_0881.N1	23-MAR-2010 23:22:34	Straylight	49.500	81	Eta Cen	2.3560	28000.	99	42154	No
348	GOM_NL__2PRFIN20100323_232434_000000432088_00016_42154_0882.N1	23-MAR-2010 23:24:34	Straylight	43.000	64	Gam Cen	2.2000	10600.	86	42154	No
349	GOM_NL__2PRFIN20100323_232659_000000492088_00016_42154_0883.N1	23-MAR-2010 23:26:59	Straylight	48.500	123	Iot Cen	2.7500	10200.	97	42154	No
350	GOM_NL__2PRFIN20100323_233216_000000492088_00016_42154_0884.N1	23-MAR-2010 23:32:16	Straylight	48.500	106	9Bet Crv	2.6480	5600.0	97	42154	No
351	GOM_NL__2PRFIN20100323_233423_000000482088_00016_42154_0885.N1	23-MAR-2010 23:34:23	Twilight	47.500	100	4Gam Crv	2.5800	13100.	95	42154	No
352	GOM_NL__2PRFIN20100323_234005_000000332088_00016_42154_0886.N1	23-MAR-2010 23:40:05	Twilight	33.000	121	29Gam Vir	2.7400	7200.0	66	42154	No
353	GOM_NL__2PRFIN20100323_234442_000000432088_00016_42154_0887.N1	23-MAR-2010 23:44:42	Bright	43.000	62	94Bet Leo	2.1360	9700.0	86	42154	No
354	GOM_NL__2PRFIN20100323_234606_000000402088_00016_42154_0888.N1	23-MAR-2010 23:46:06	Bright	39.500	96	68Del Leo	2.5600	9300.0	79	42154	No
355	GOM_NL__2PRFIN20100323_235303_000000402088_00016_42154_0889.N1	23-MAR-2010 23:53:03	Bright	39.500	174	52Psi UMa	3.0040	4400.0	79	42154	No
356	GOM_NL__2PRFIN20100323_235620_000000382088_00016_42154_0890.N1	23-MAR-2010 23:56:20	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	42154	No
357	GOM_NL__2PRFIN20100323_235752_000000392088_00016_42154_0891.N1	23-MAR-2010 23:57:52	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	42154	No
358	GOM_NL__2PRFIN20100323_235936_000000432088_00016_42154_0892.N1	23-MAR-2010 23:59:36	Bright	42.500	55	79Zet UMa	2.0600	10200.	85	42154	No

3. Quality information per product

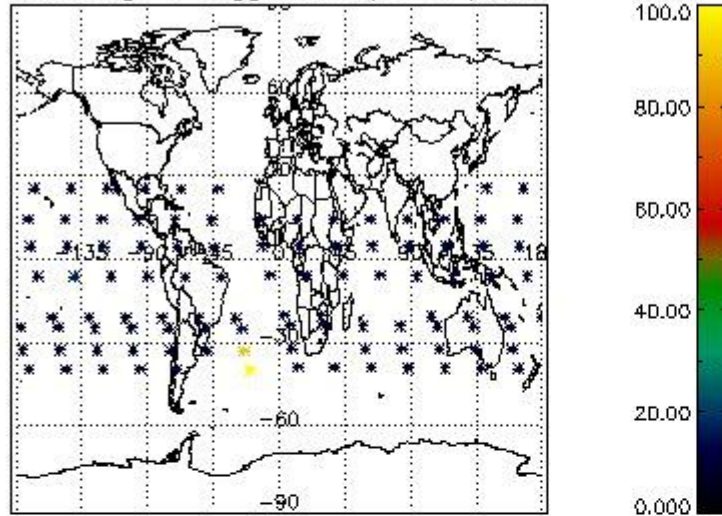
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

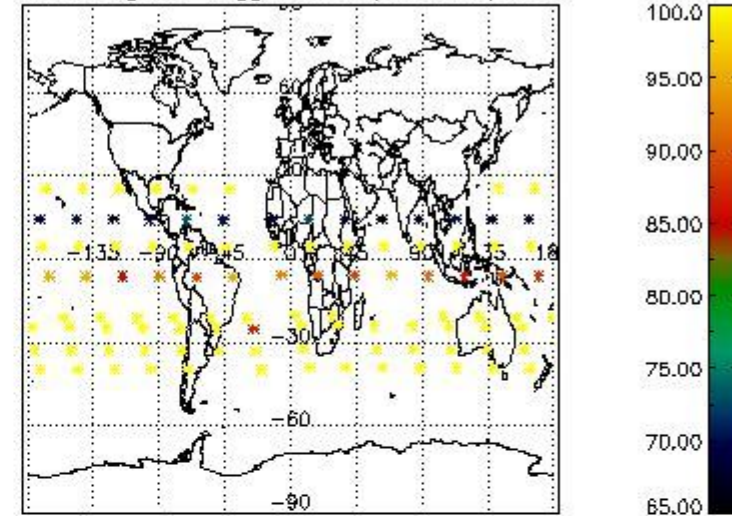


3.2 Plot quality information per product (world map)

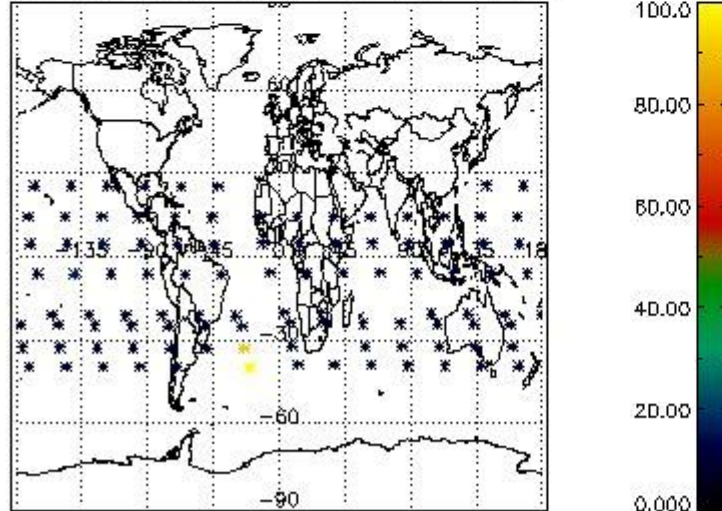
Percentage of flagged data per O3 profile



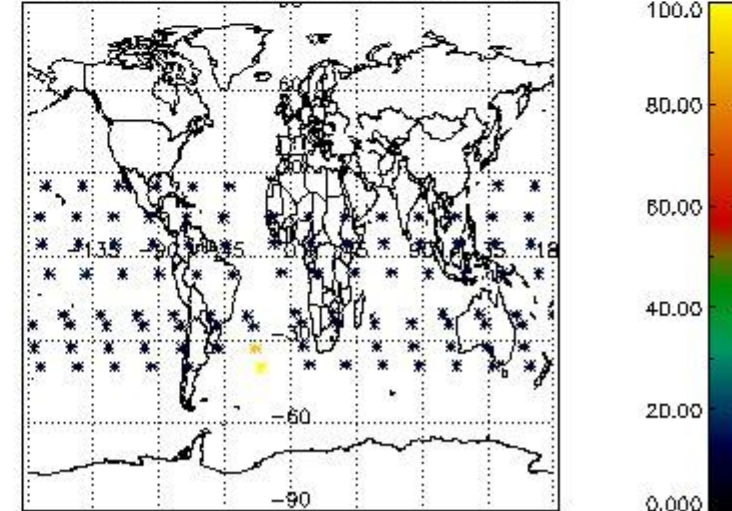
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

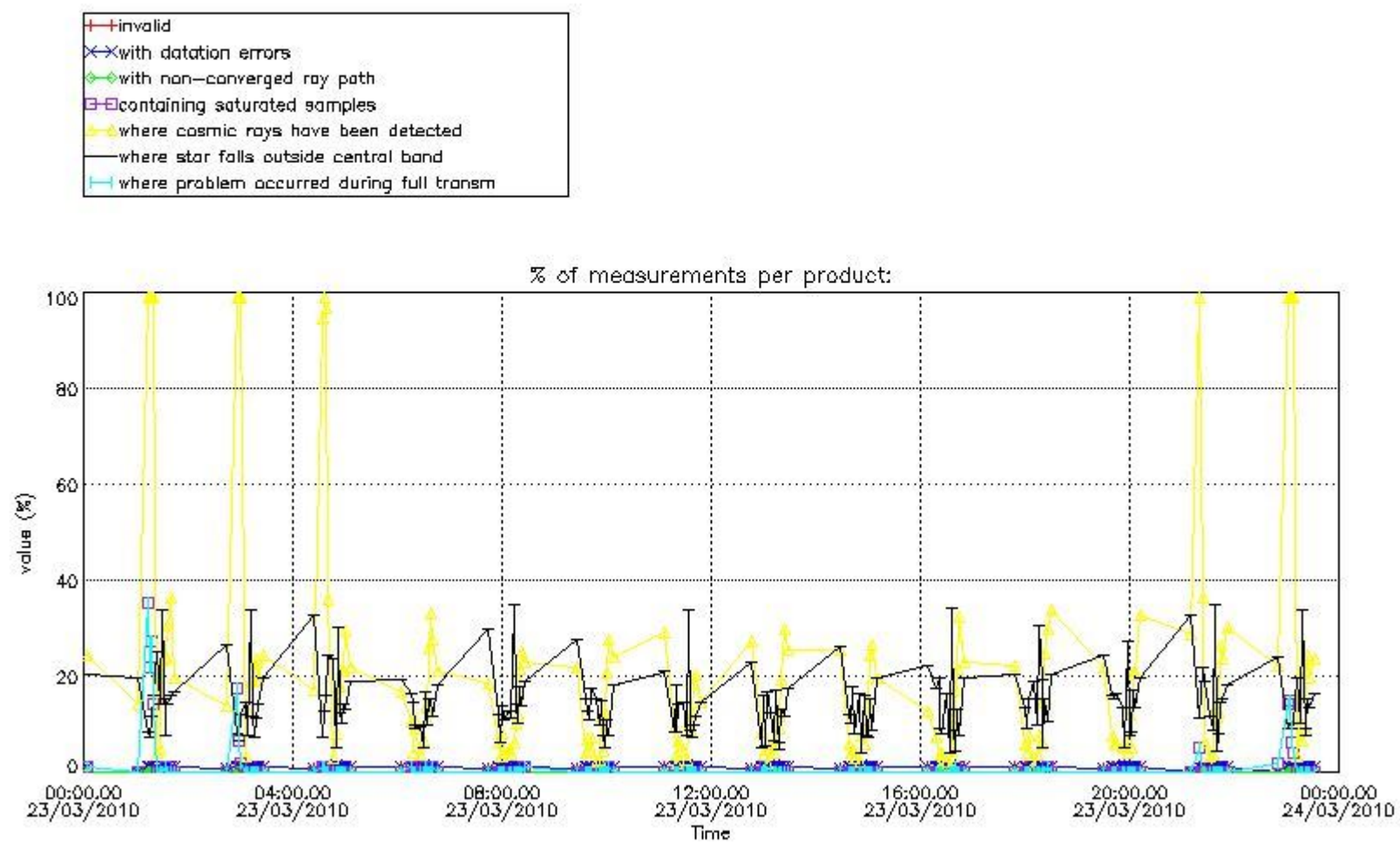


4. Level 1 quality information per product

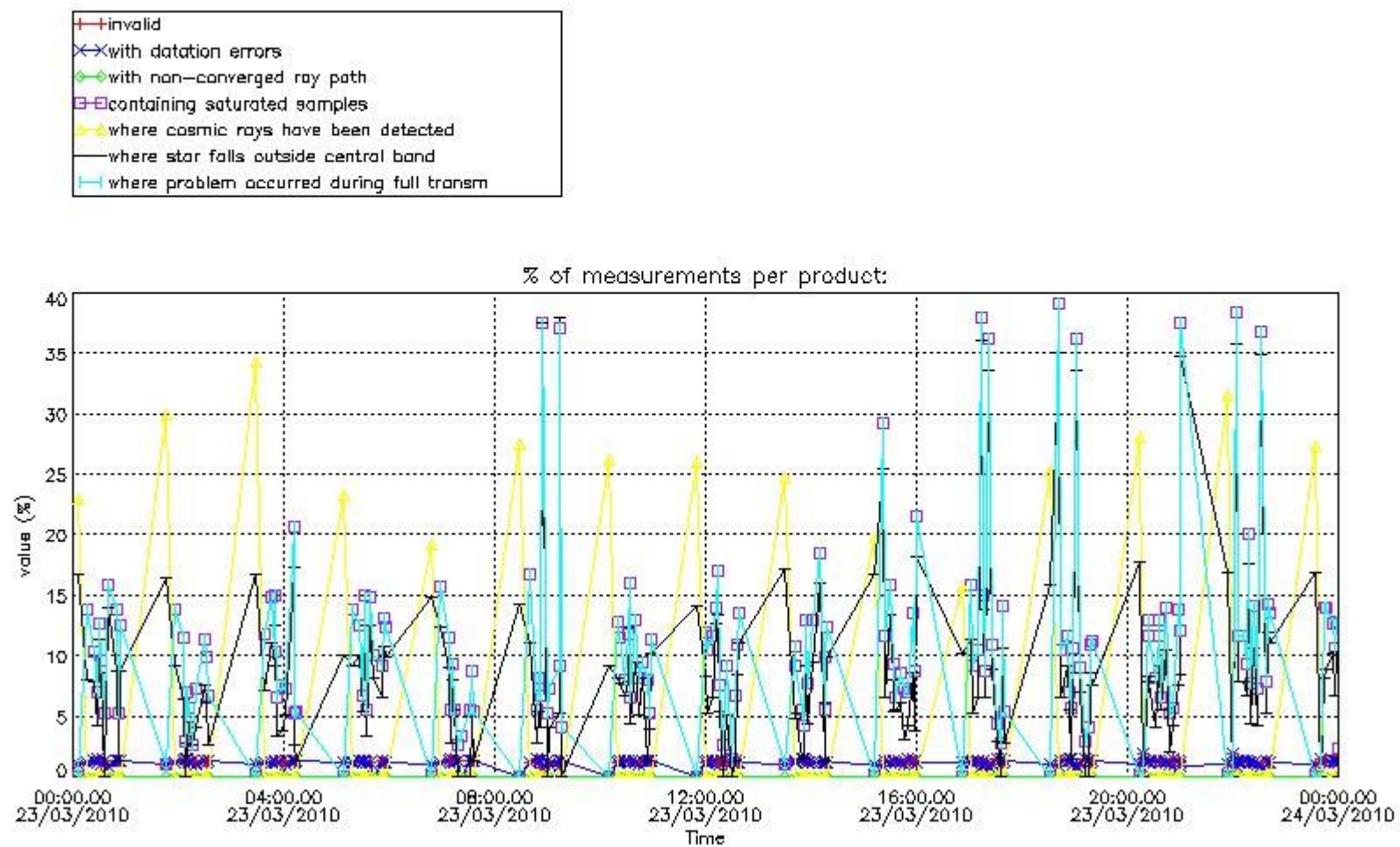
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



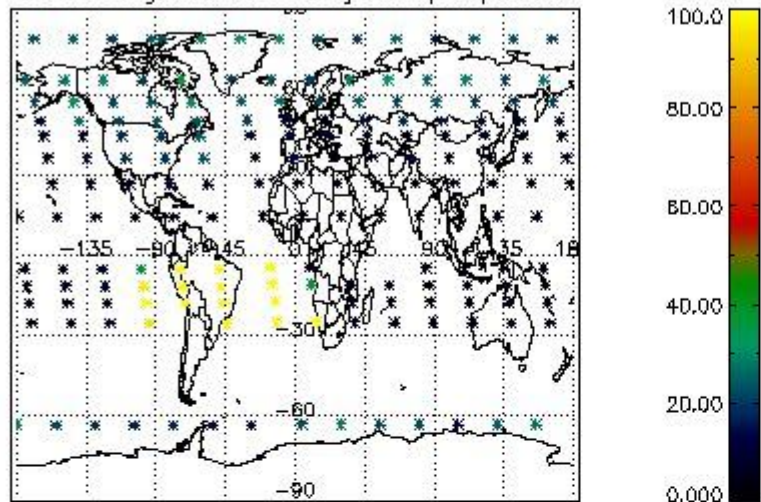
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



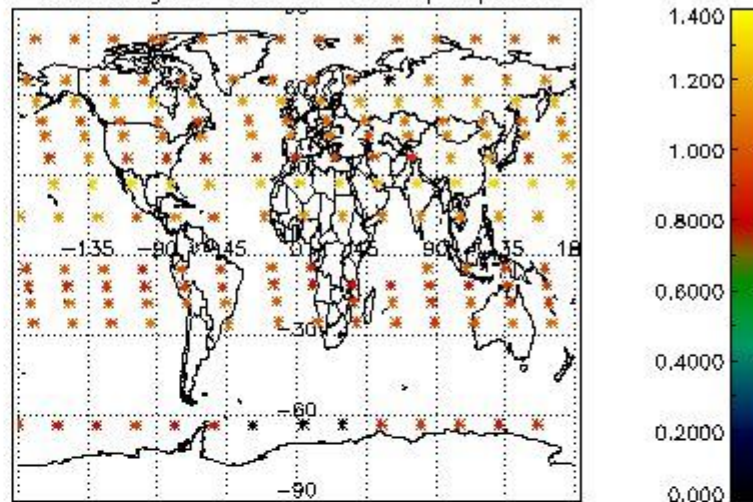
4.2 Plot quality information per product coming from level 1b processing (world map)

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

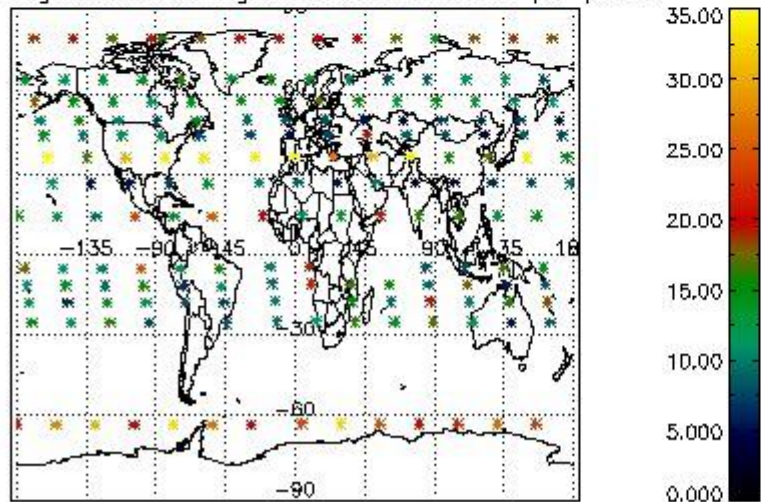
Percentage of cosmic ray hits per profile



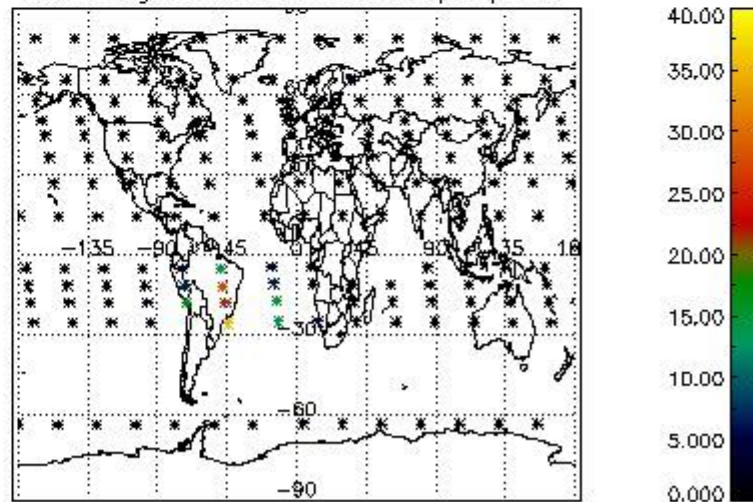
Percentage of datation errors per profile



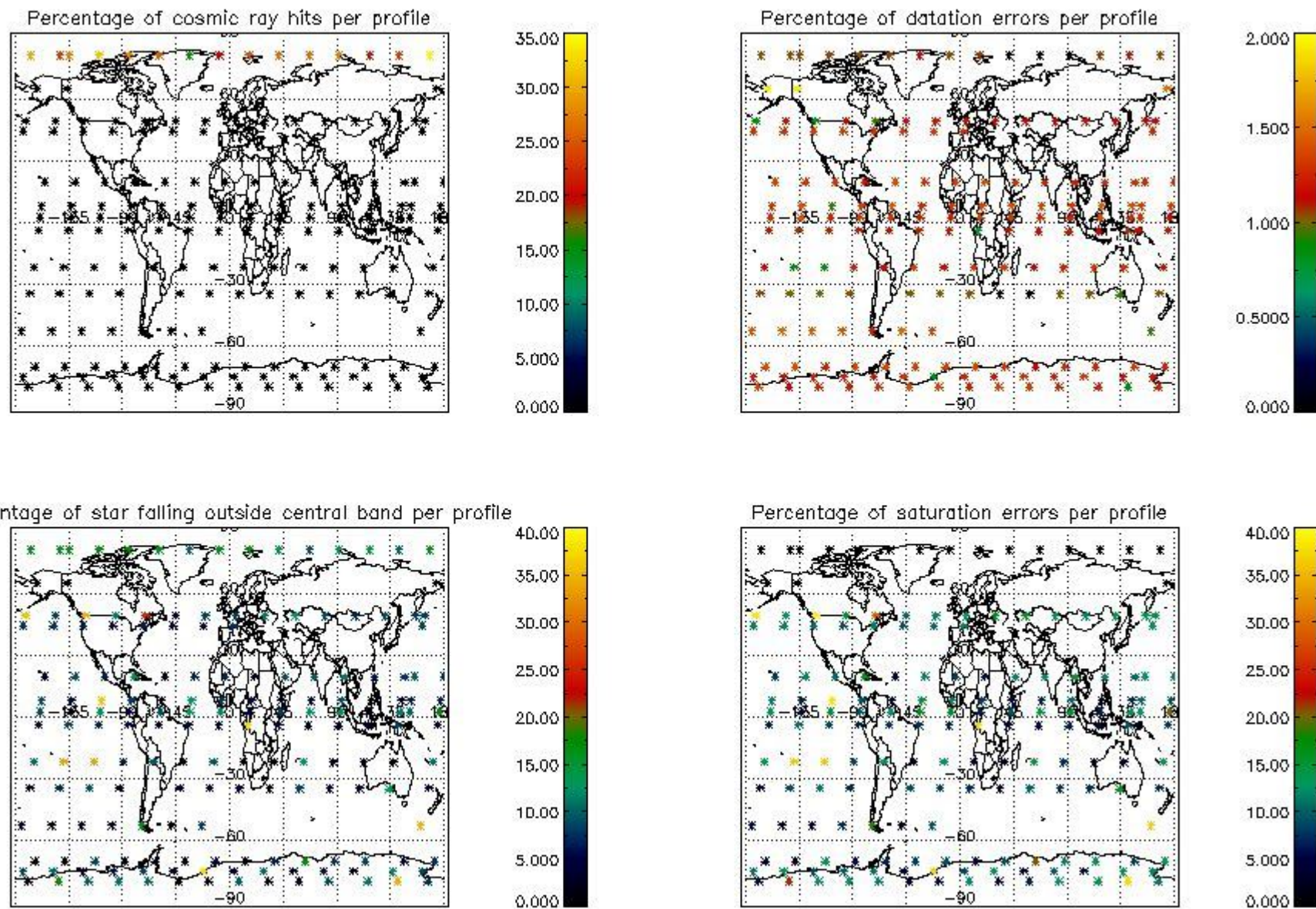
Percentage of star falling outside central band per profile



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

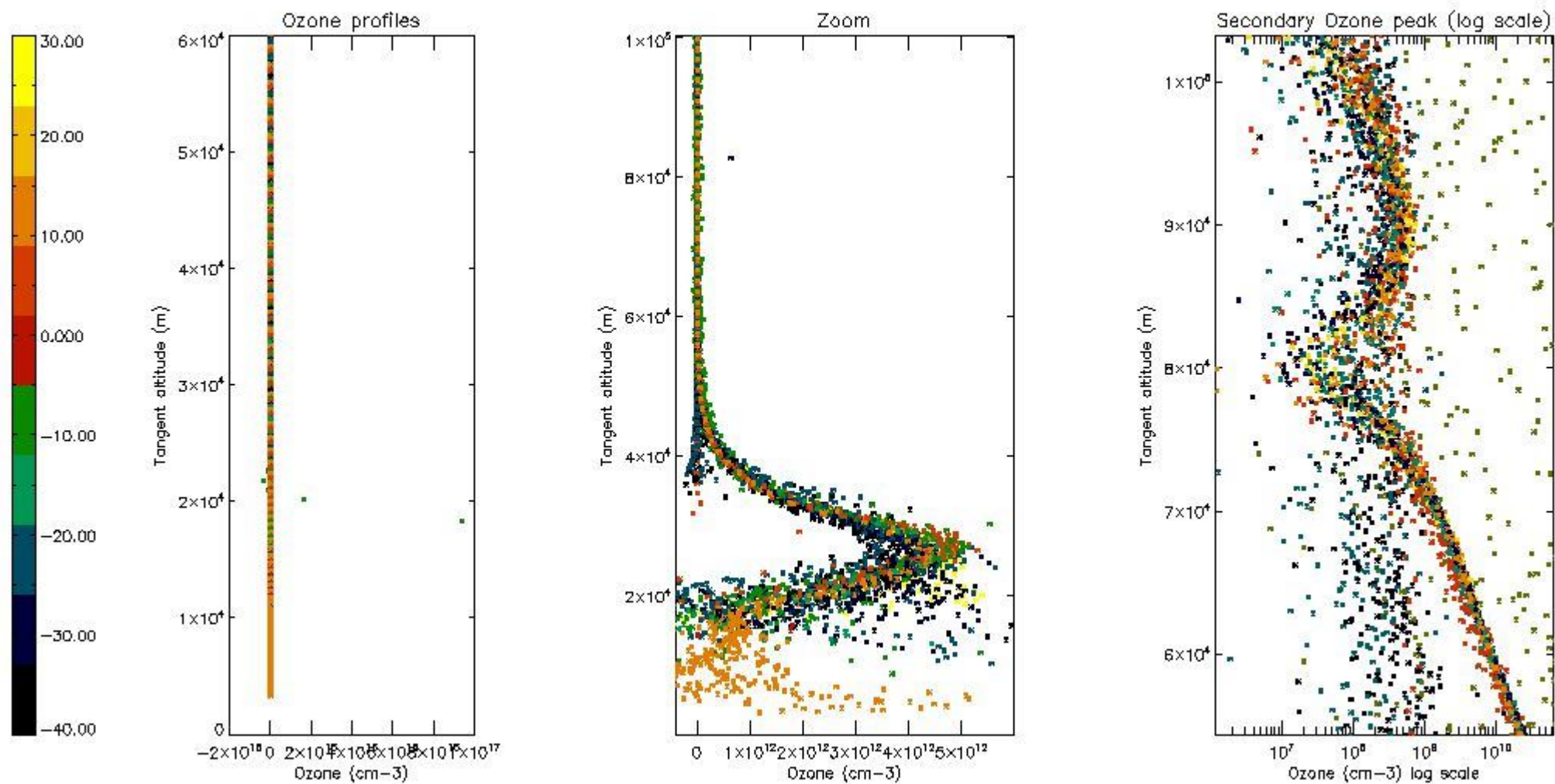
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	13

STD < 10	9
STD < 5	6

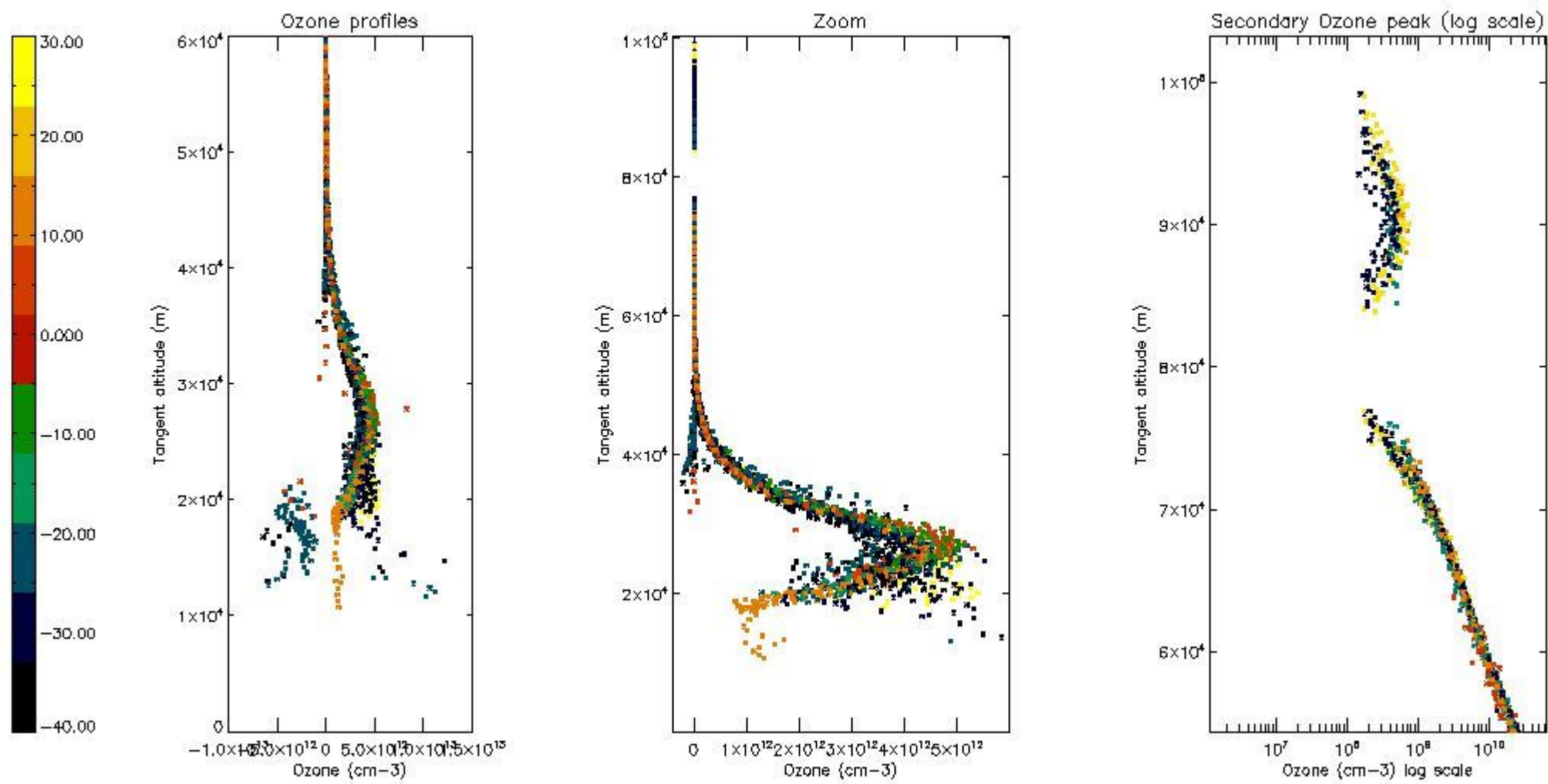
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



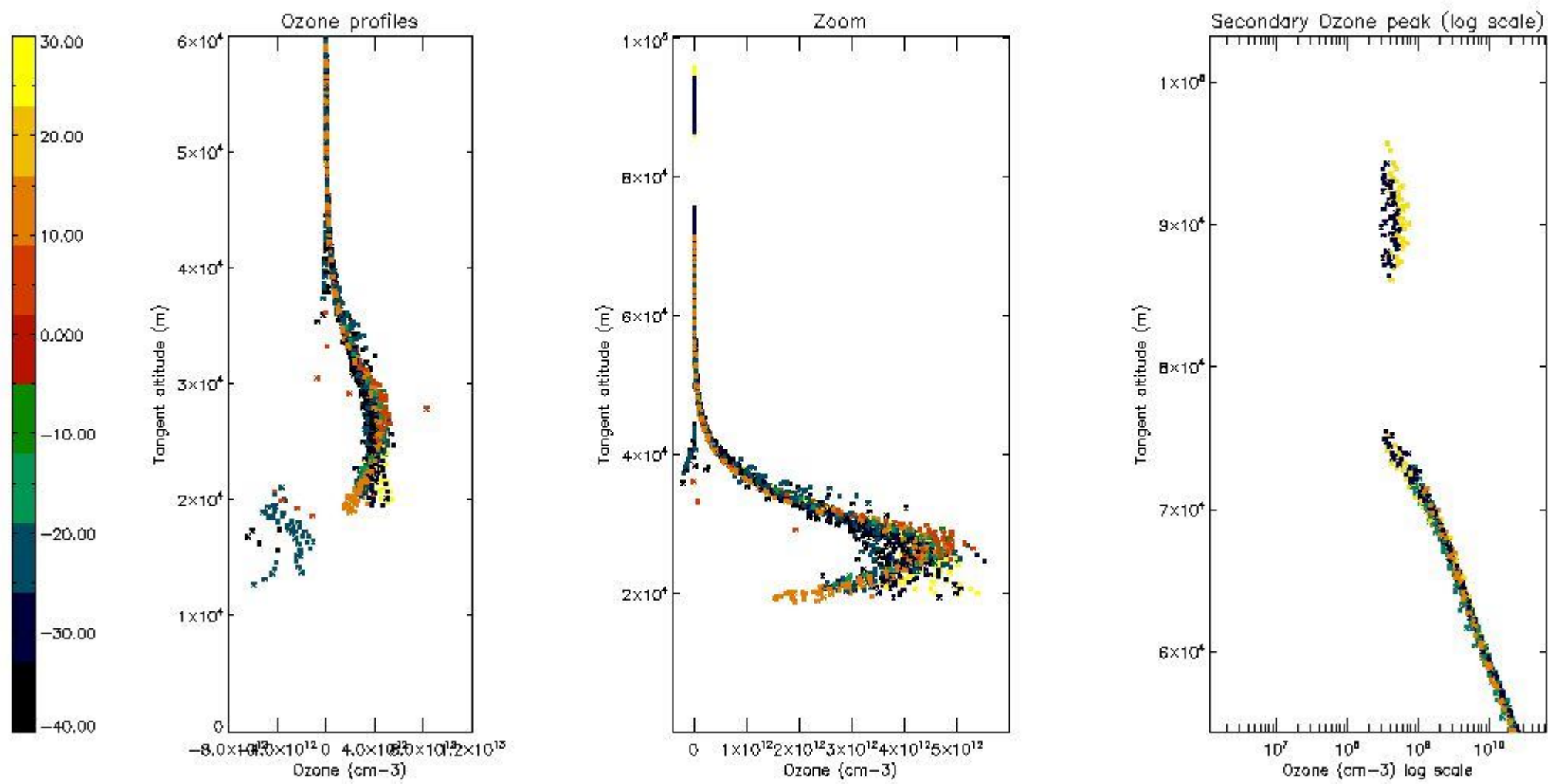
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



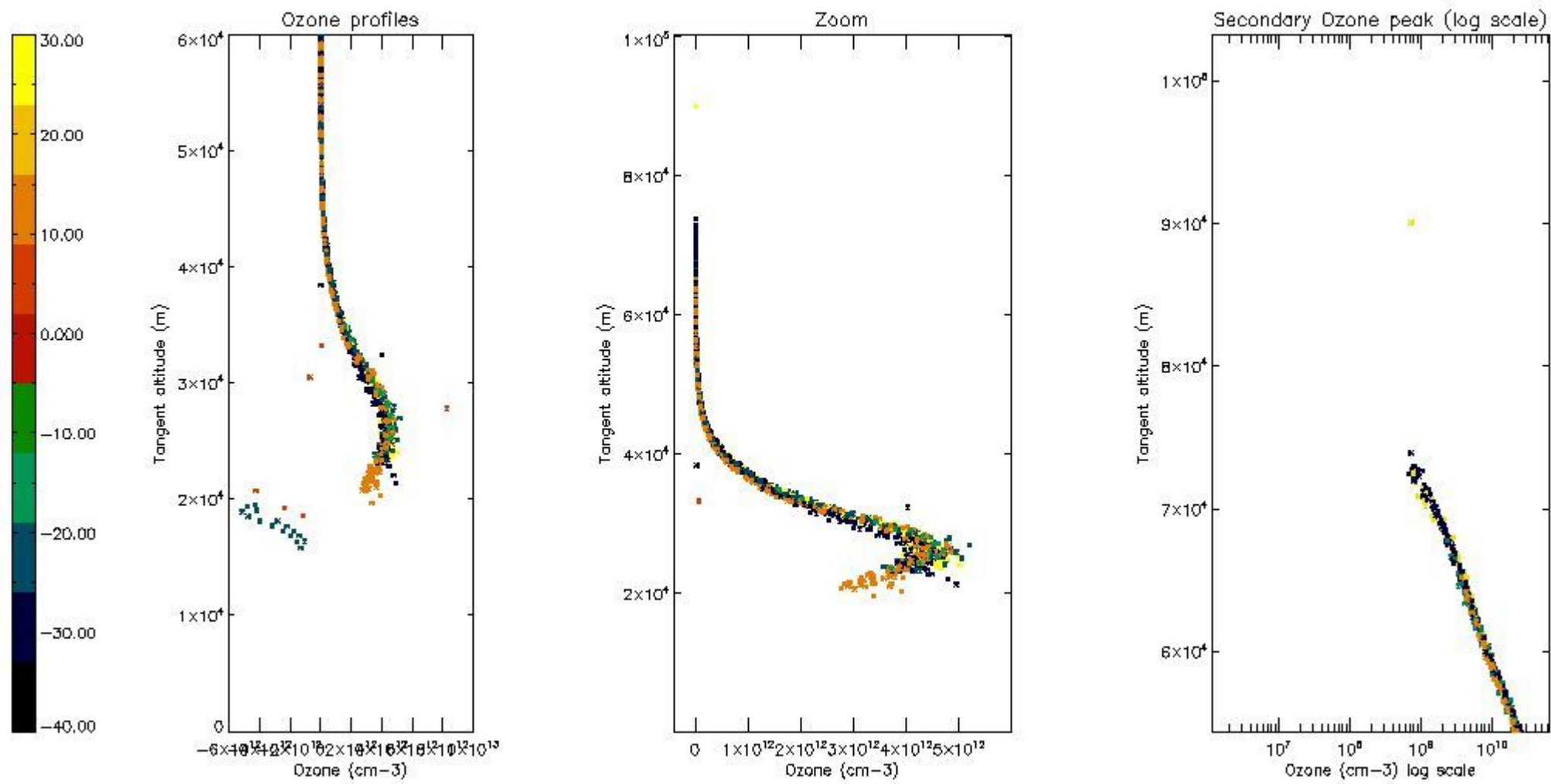
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



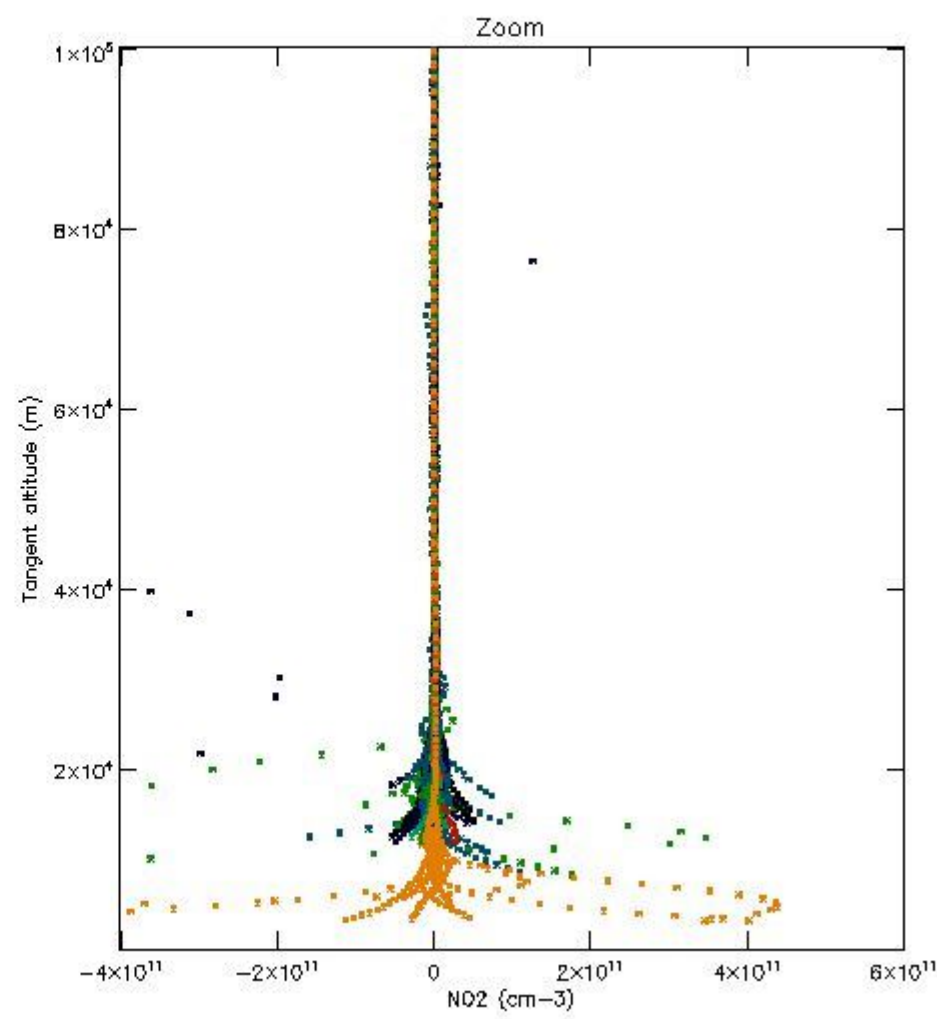
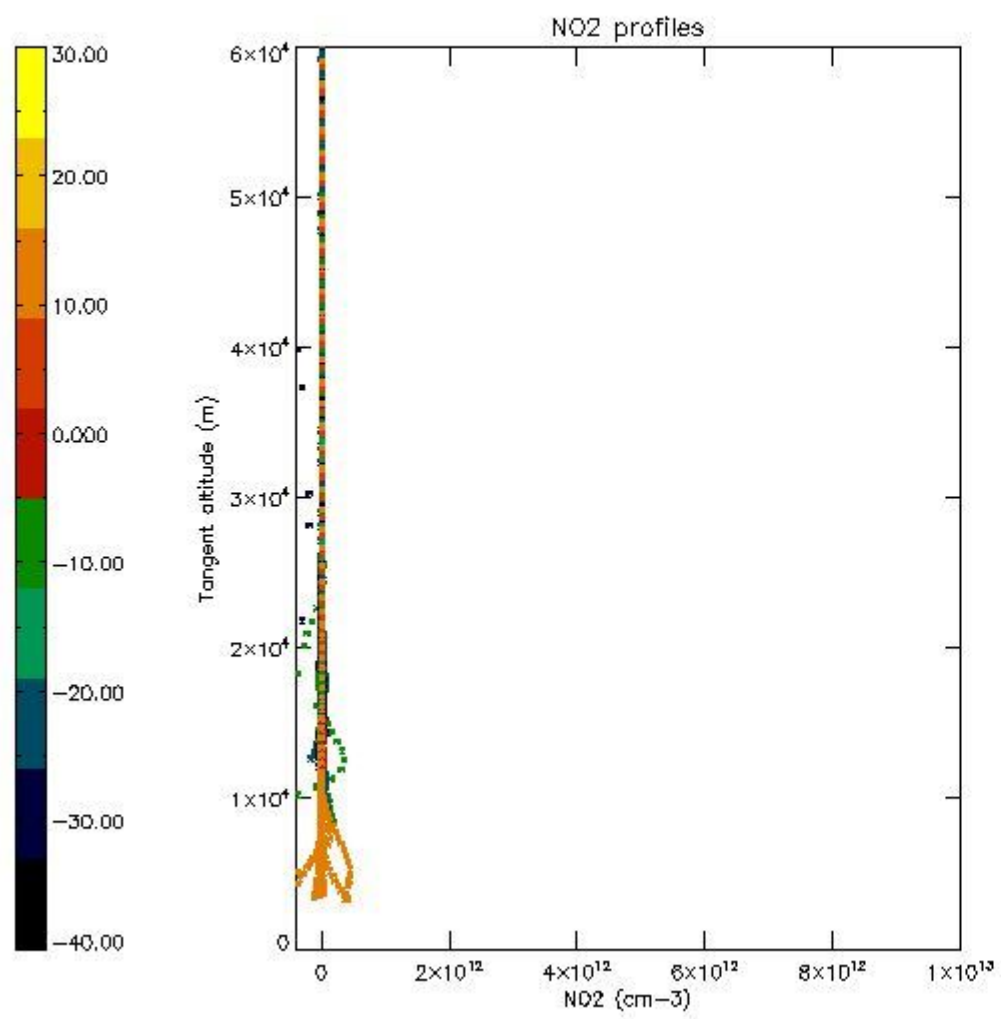
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



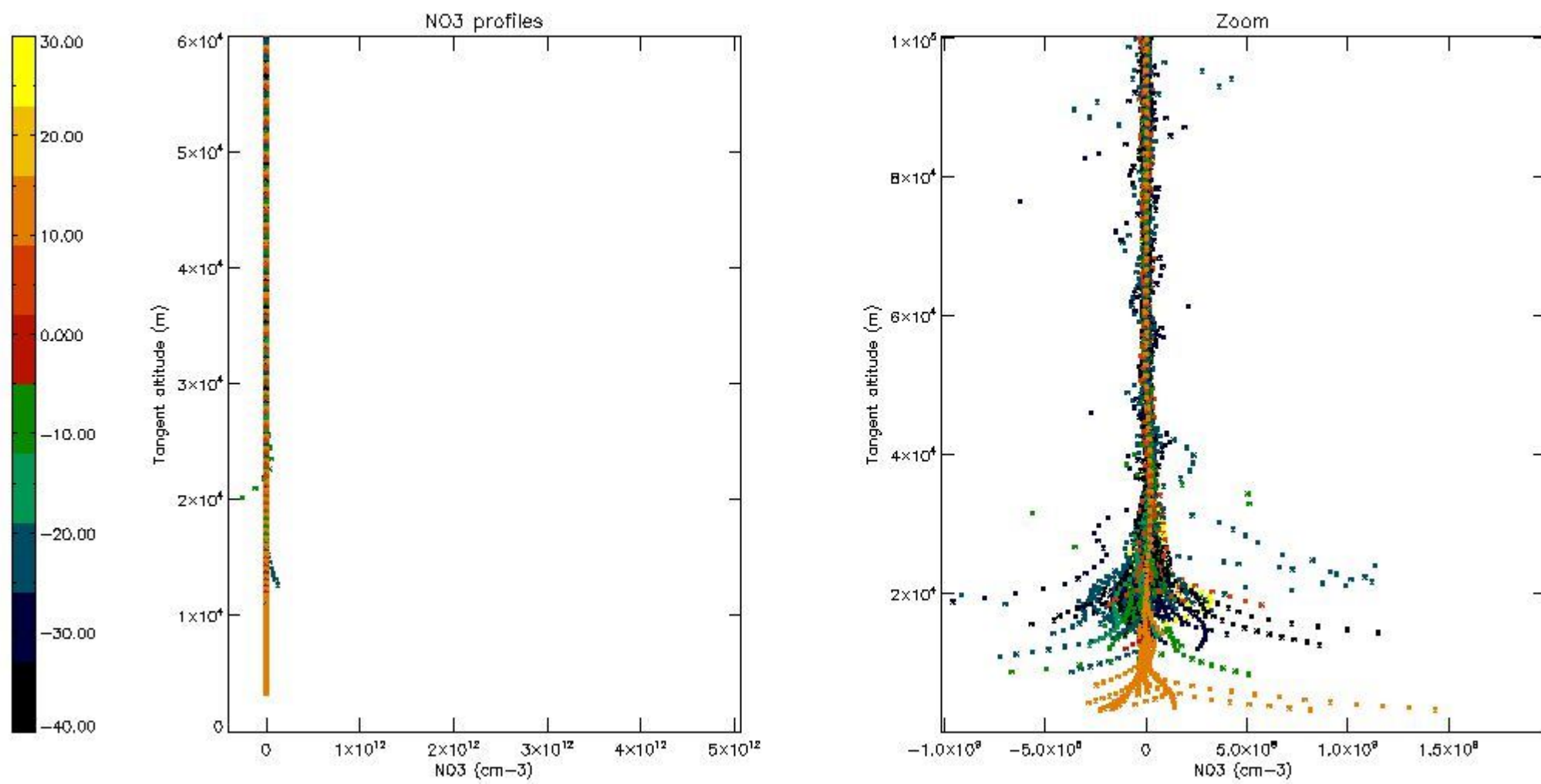
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



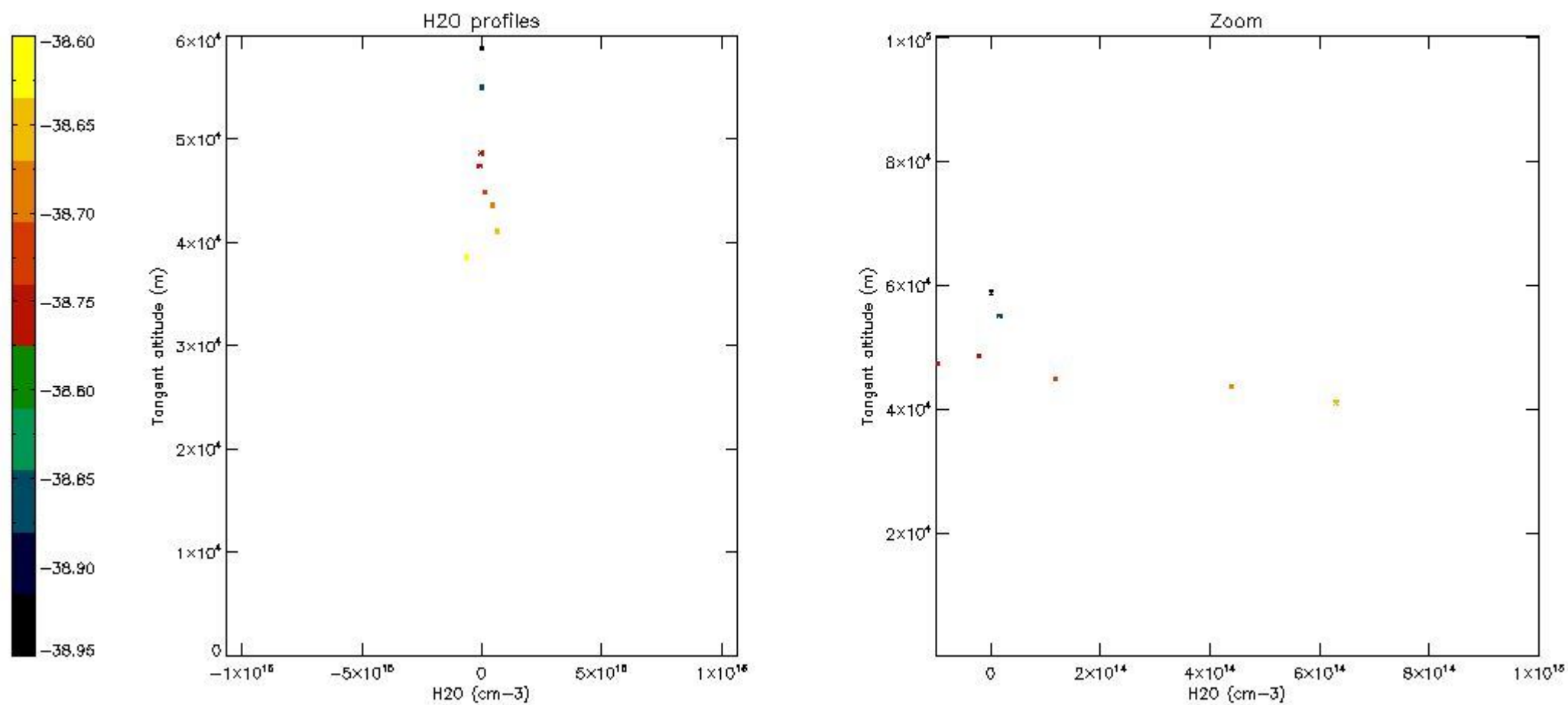
5.7 Plot NO3 profiles for all STD (dark without errors)

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	23-MAR-2010 00:03:50
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-MAR-2010 00:03:50
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-MAR-2010 00:03:50

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

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

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

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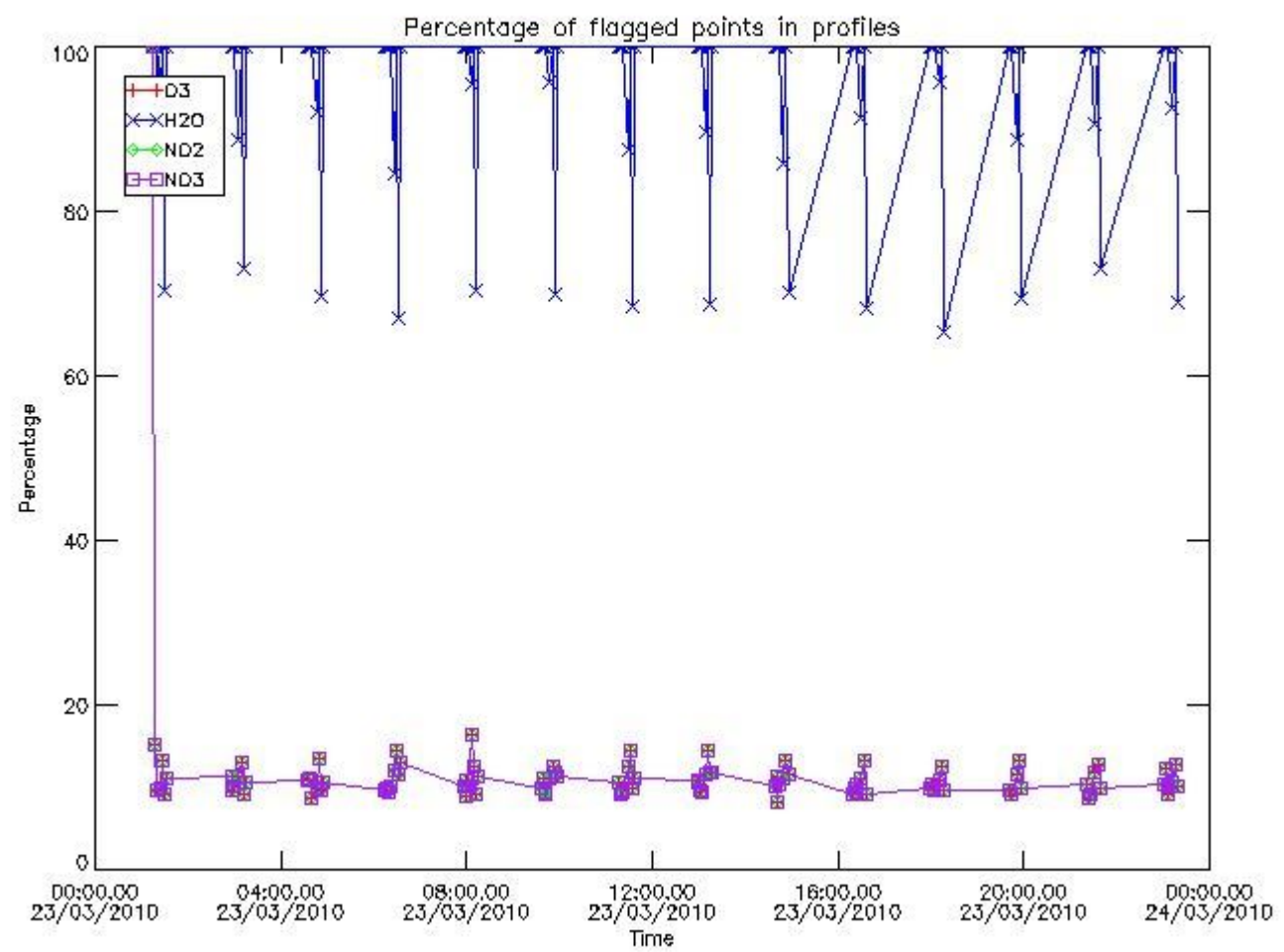
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3. Quality information per product

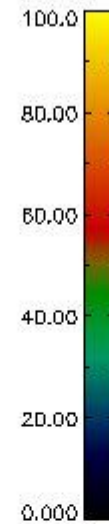
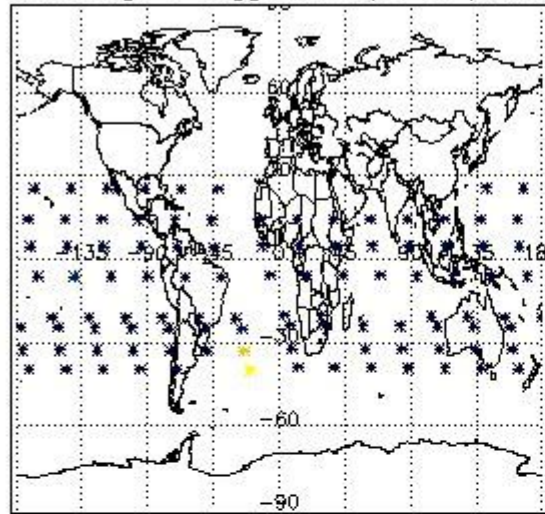
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

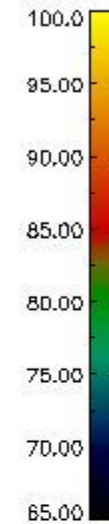
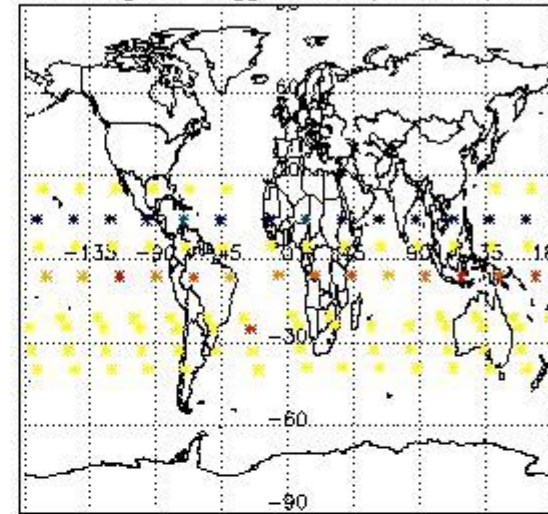


3.2 Plot quality information per product (world map)

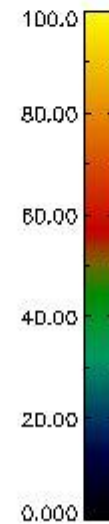
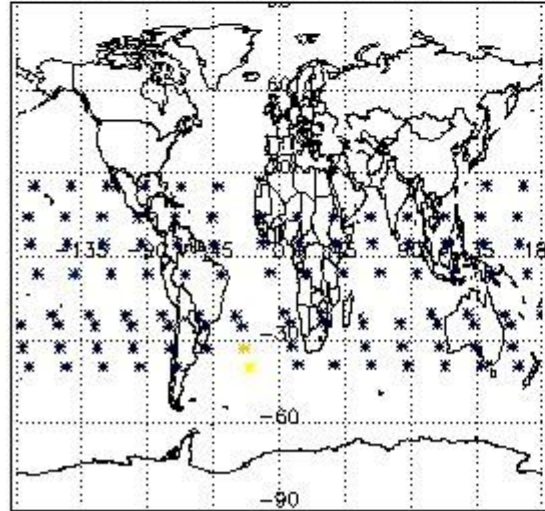
Percentage of flagged data per O3 profile



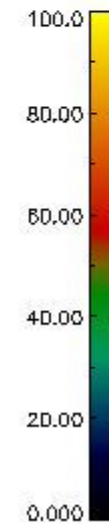
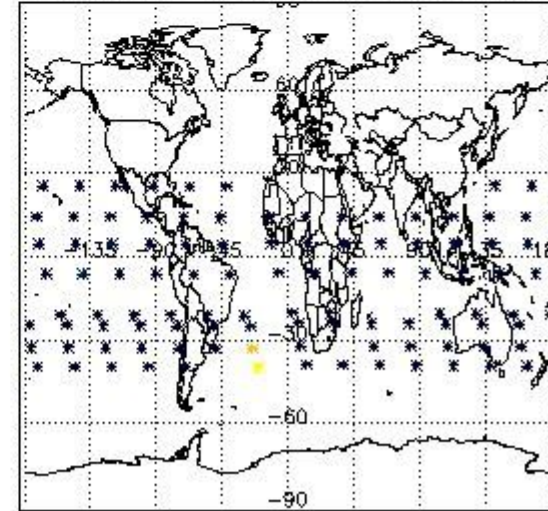
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

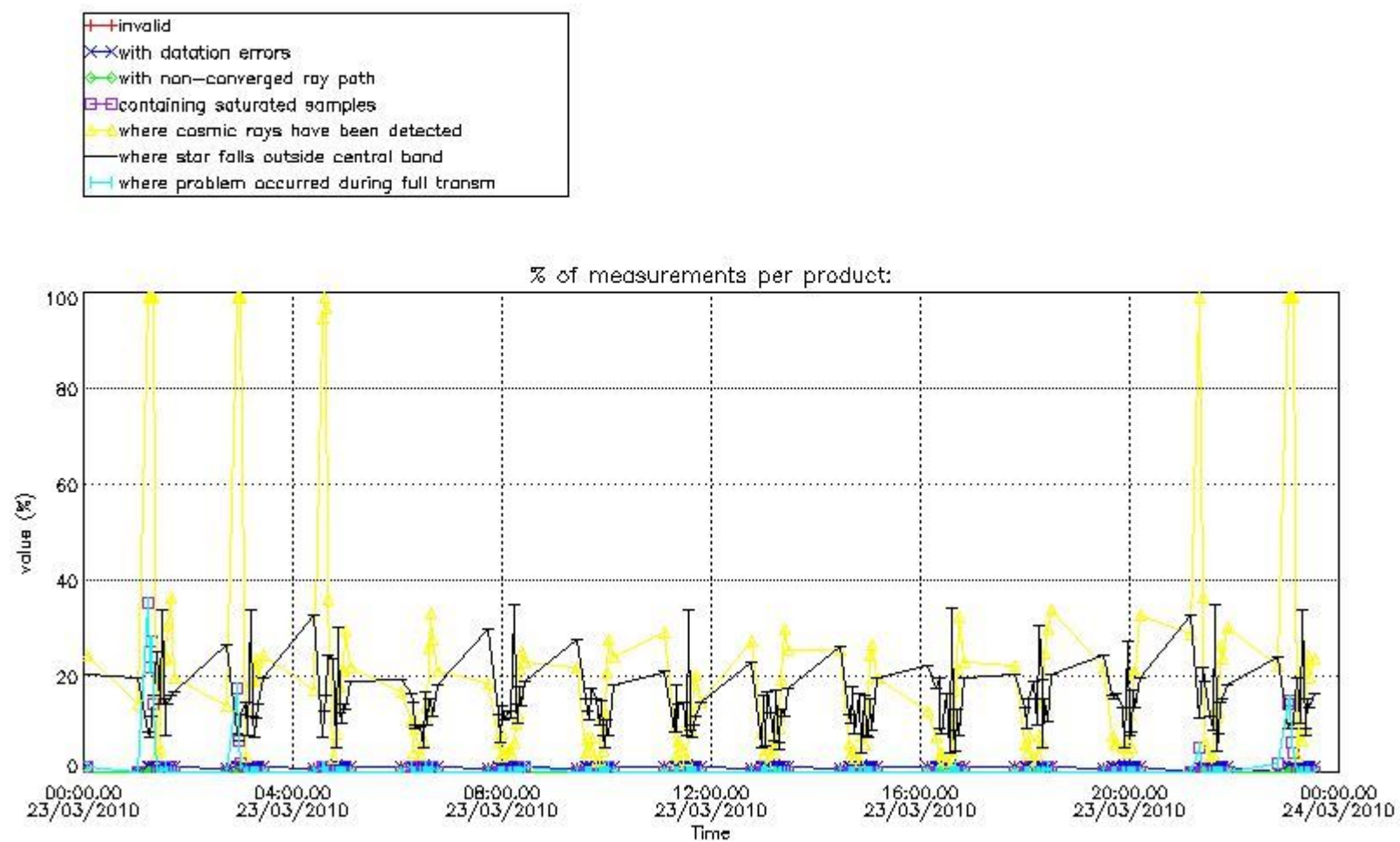


4. Level 1 quality information per product

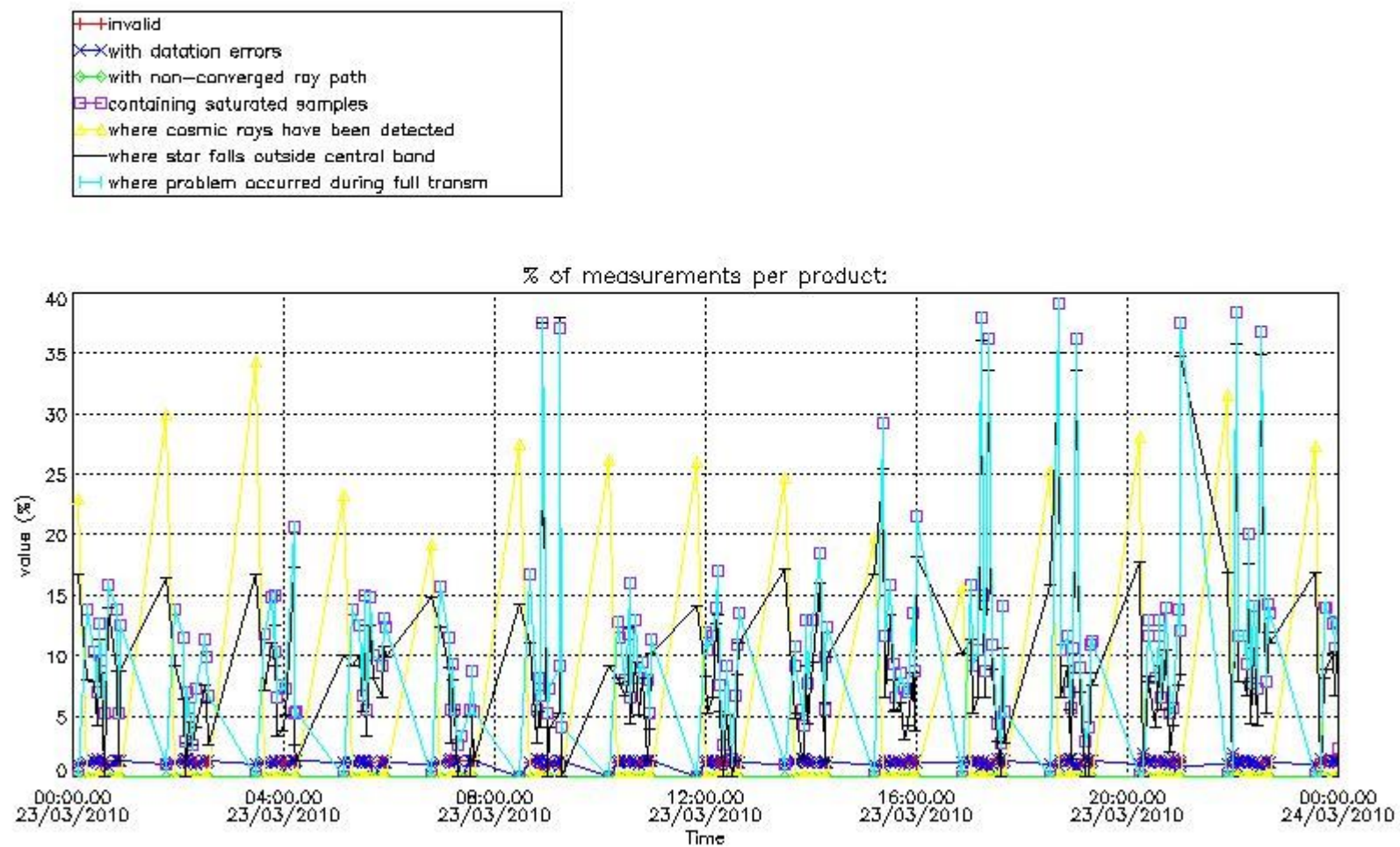
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



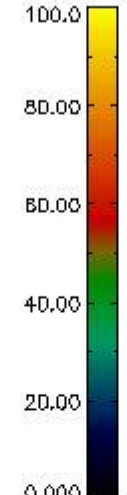
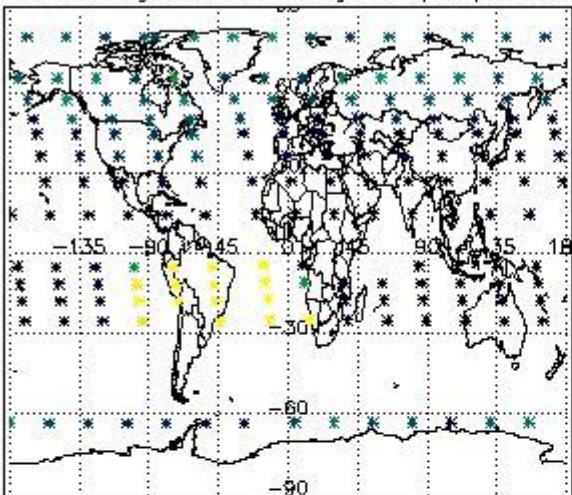
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



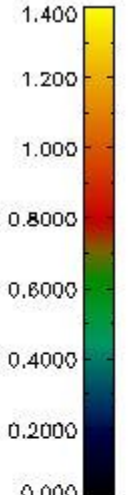
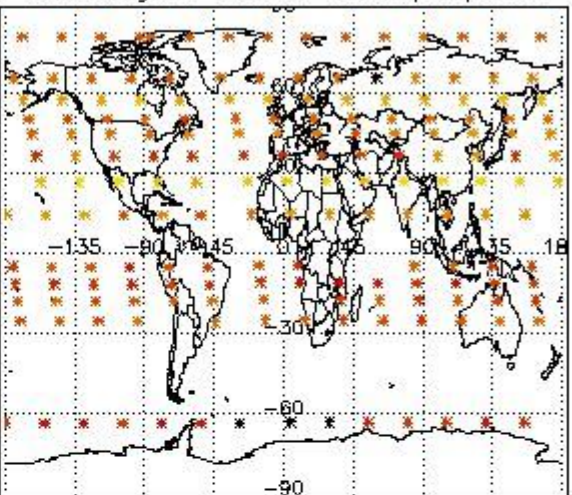
4.2 Plot quality information per product coming from level 1b processing (world map)

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

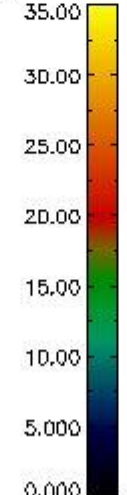
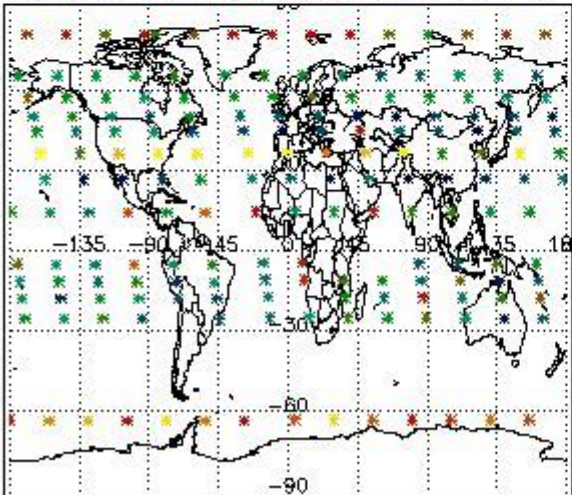
Percentage of cosmic ray hits per profile



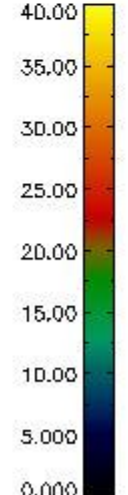
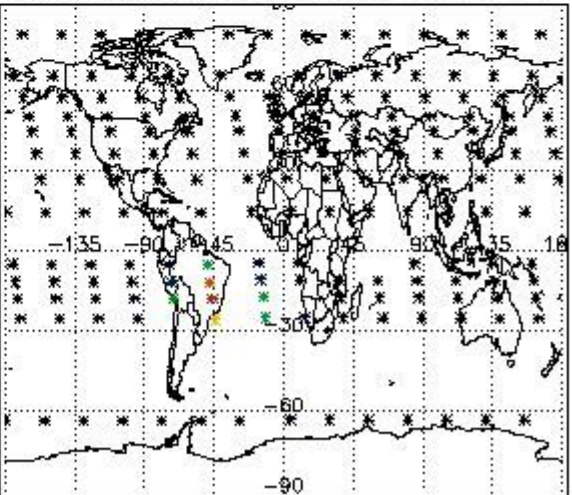
Percentage of datation errors per profile



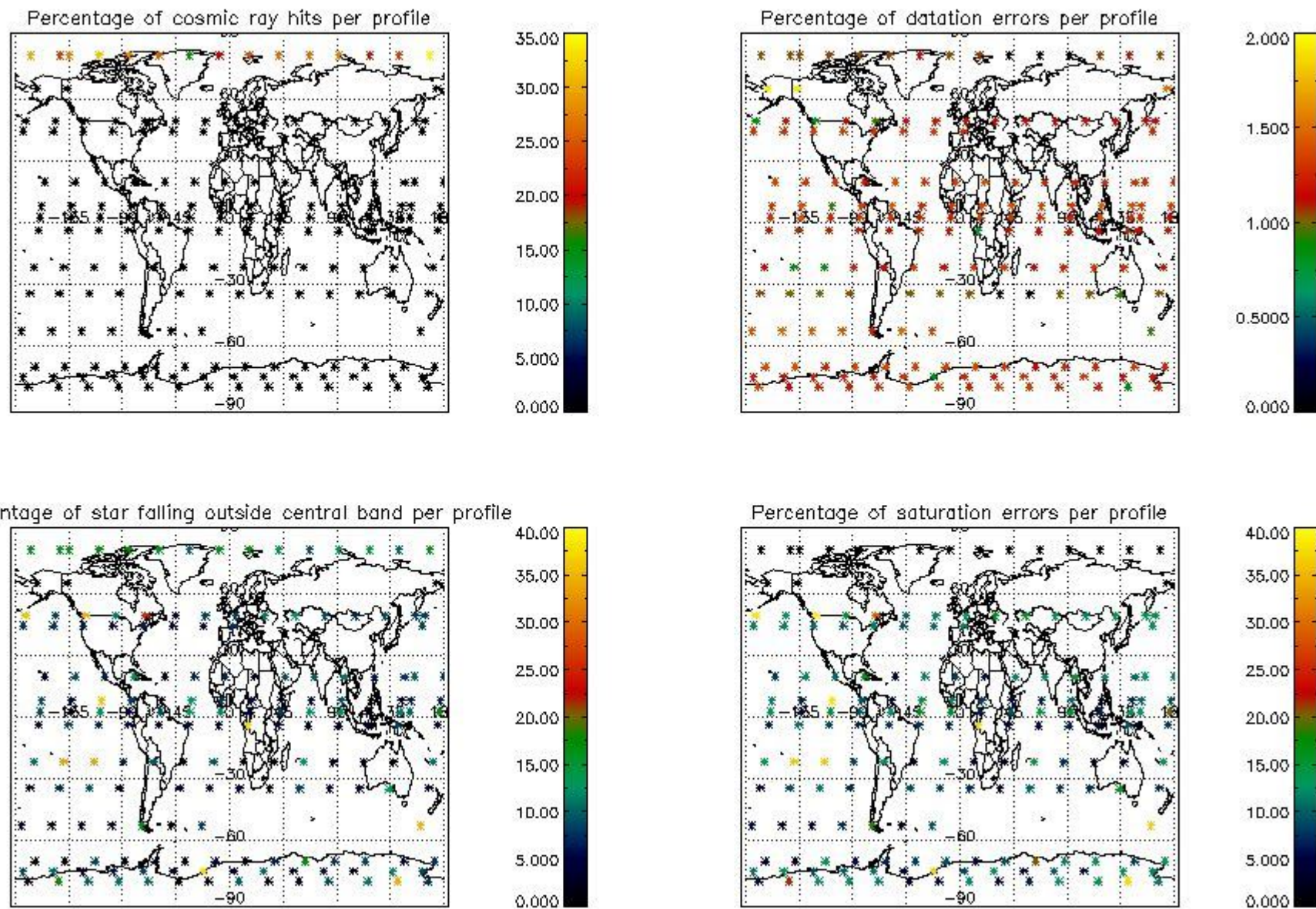
Percentage of star falling outside central band per profile



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

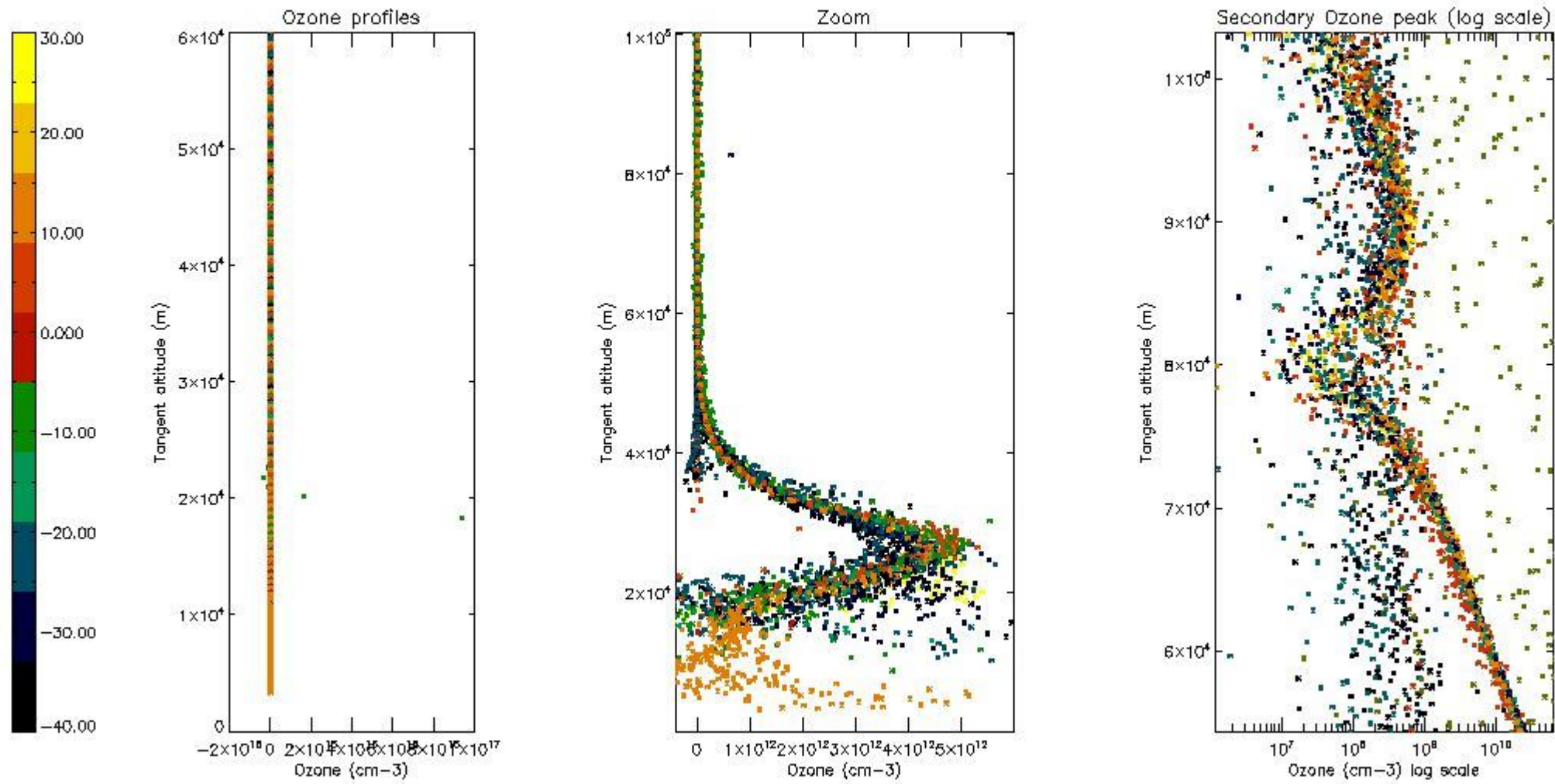
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	31
STD < 20	13

STD < 10	9
STD < 5	6

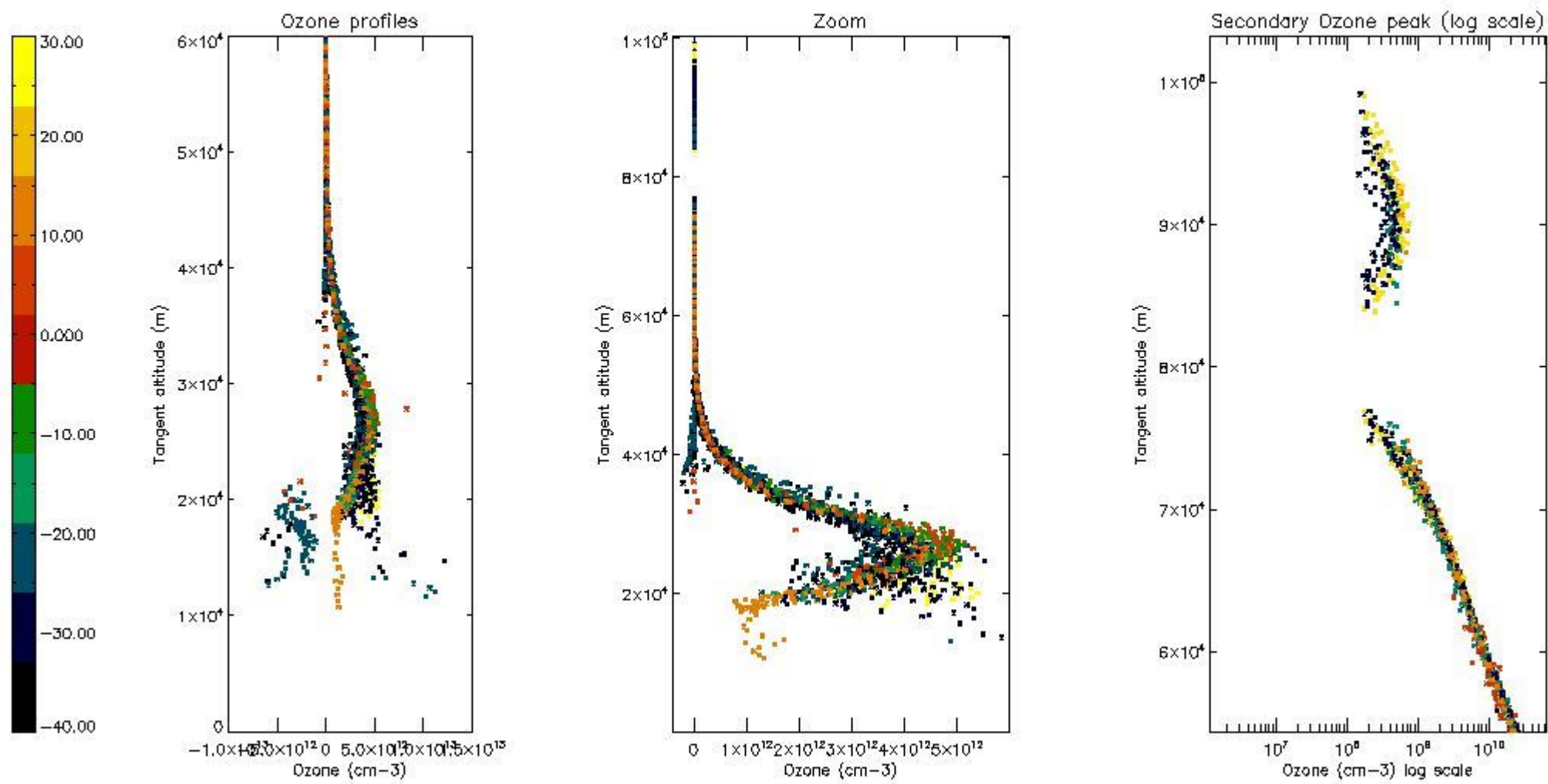
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



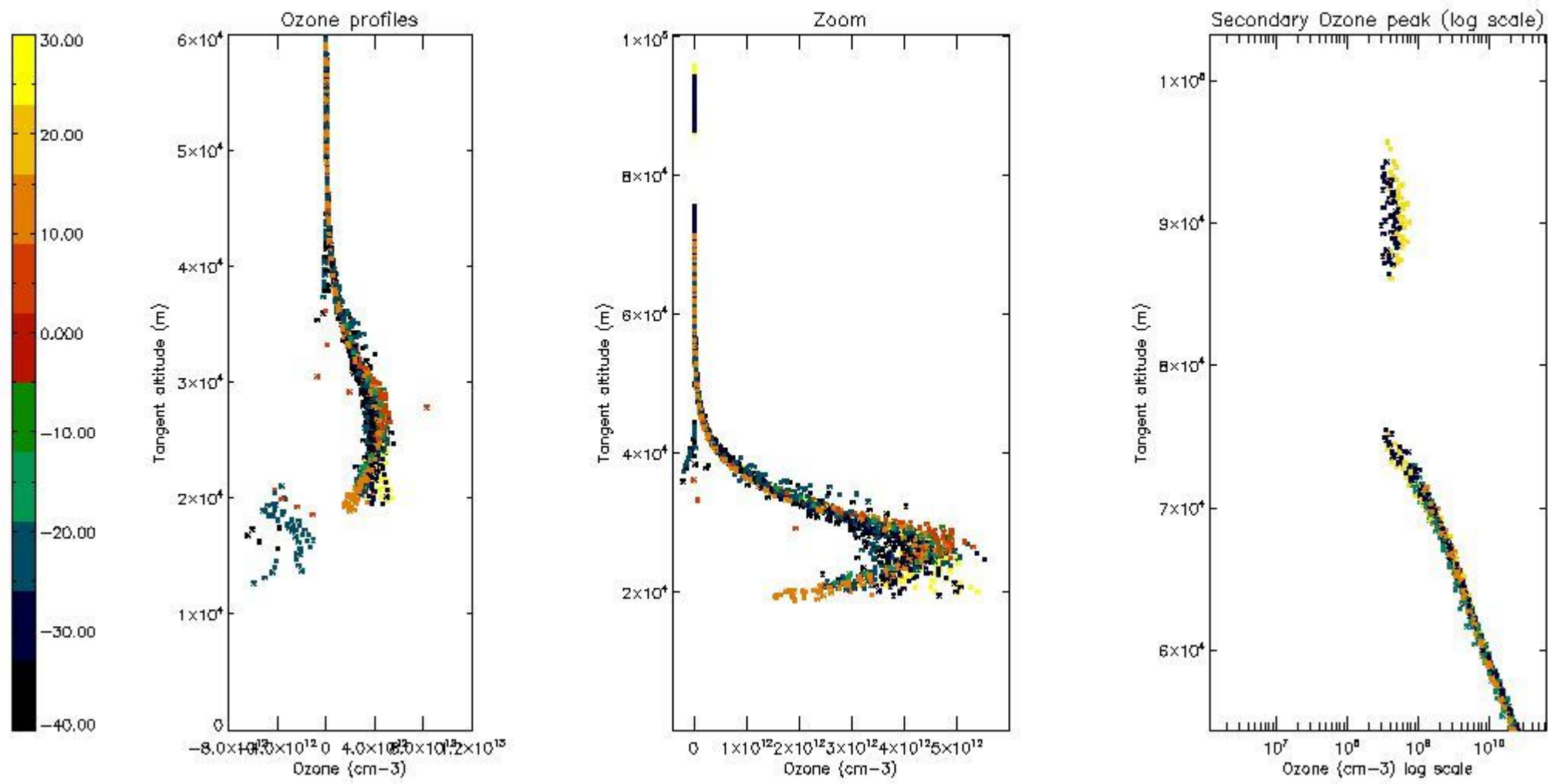
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



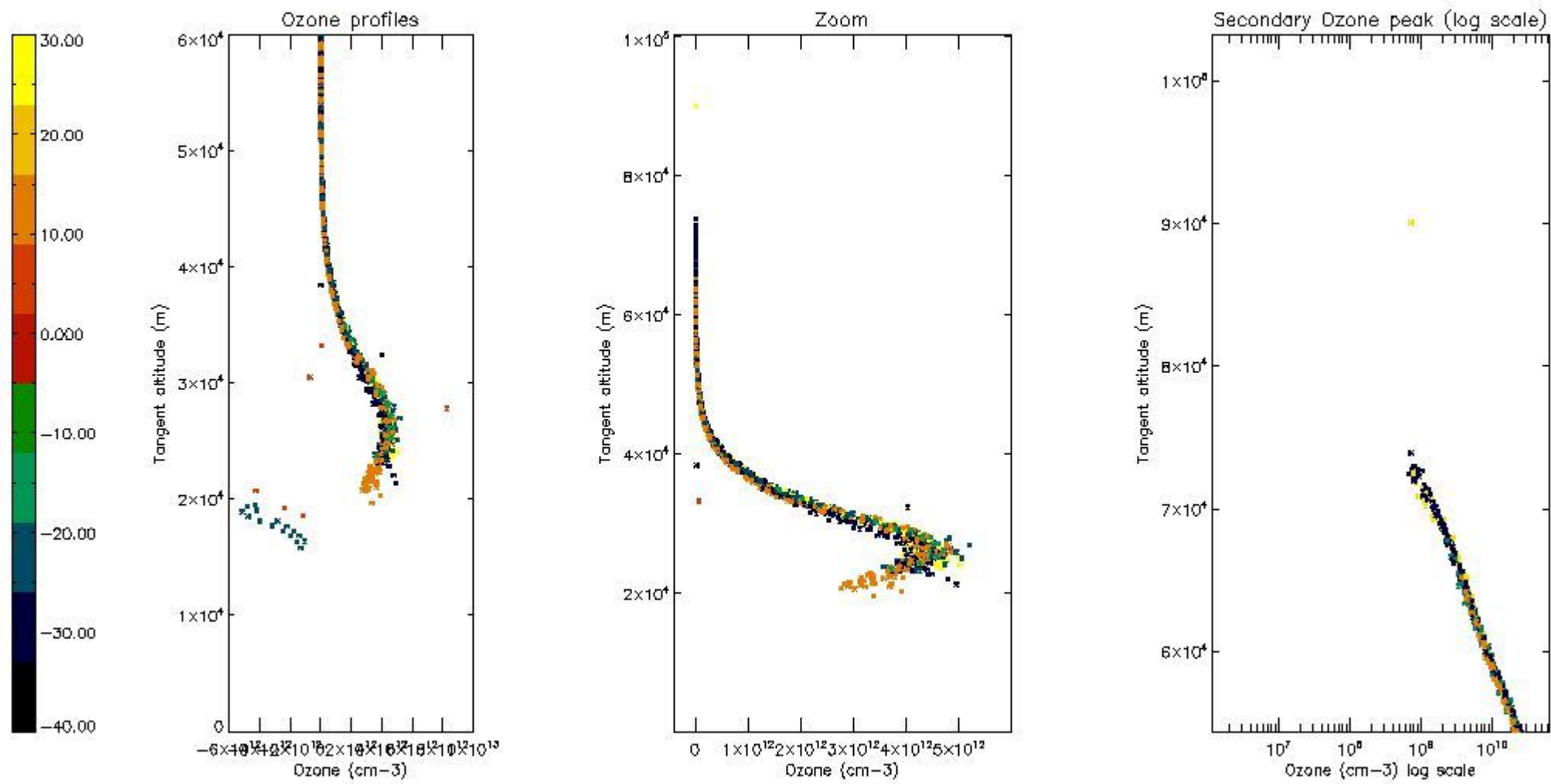
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



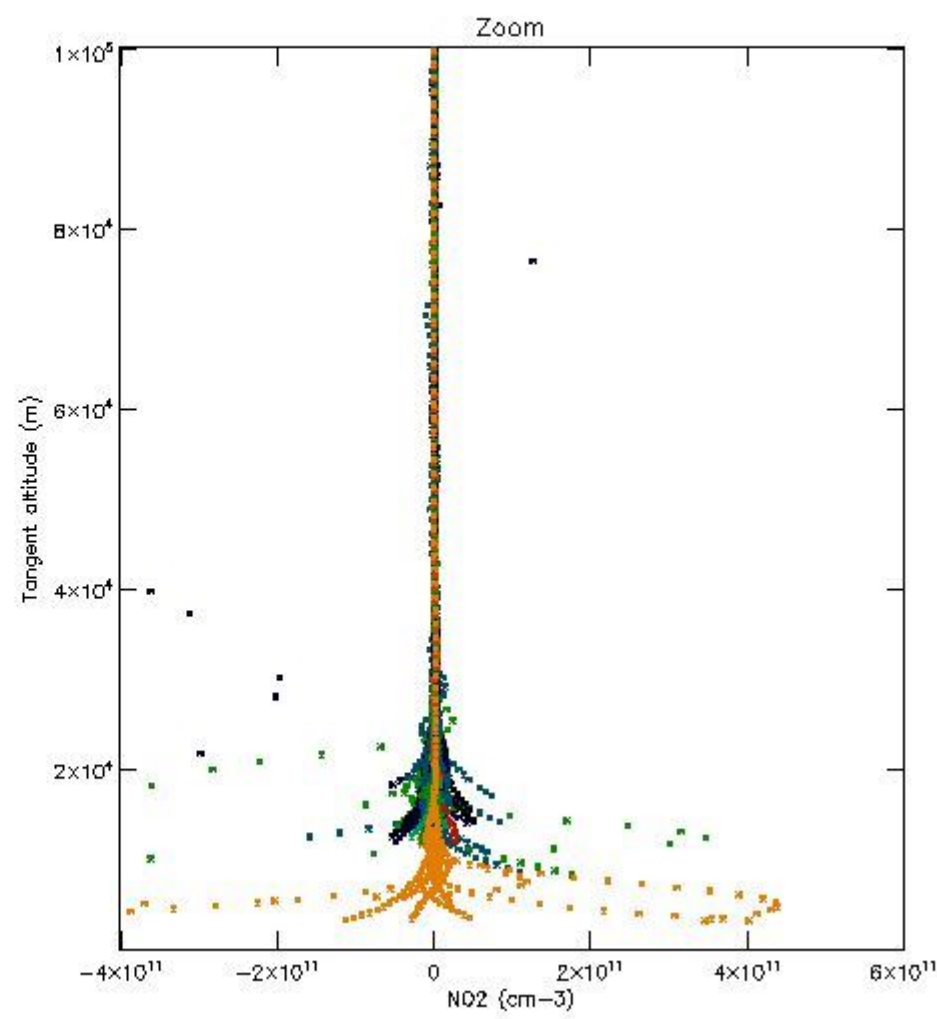
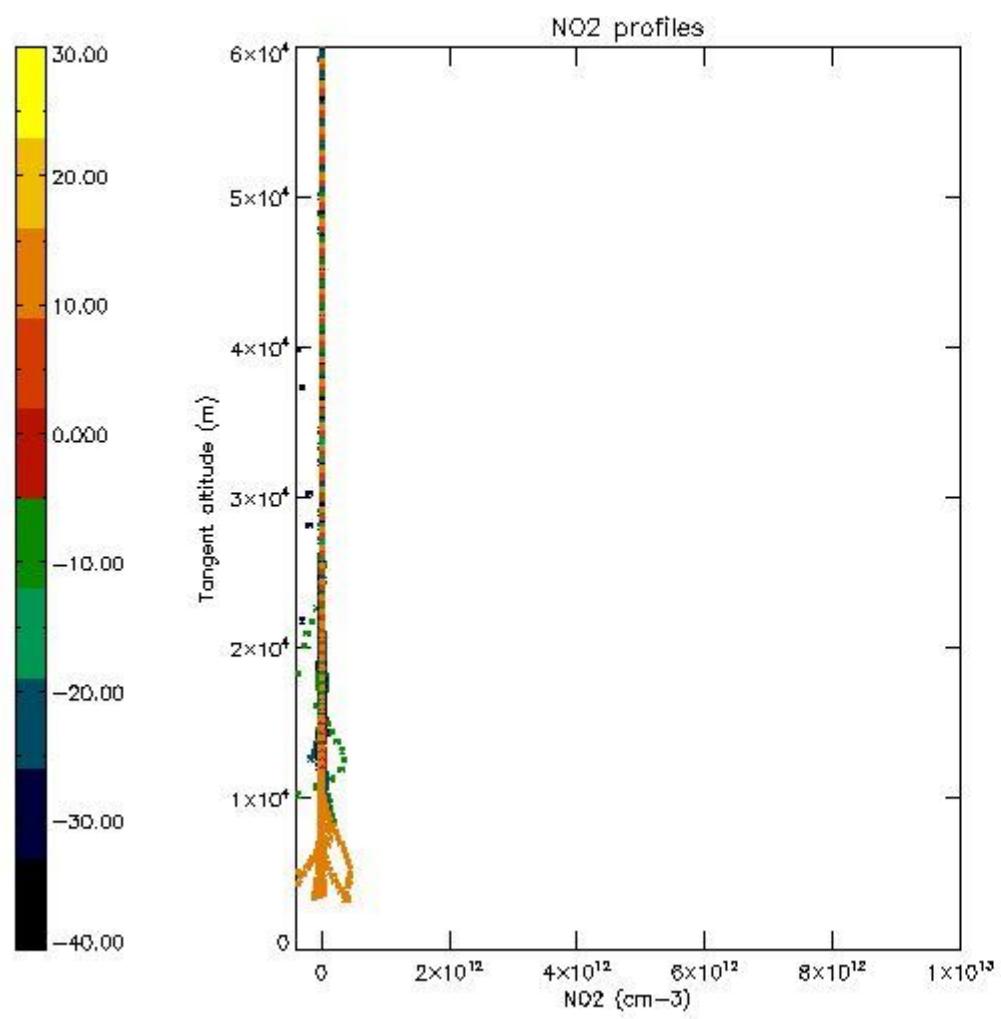
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



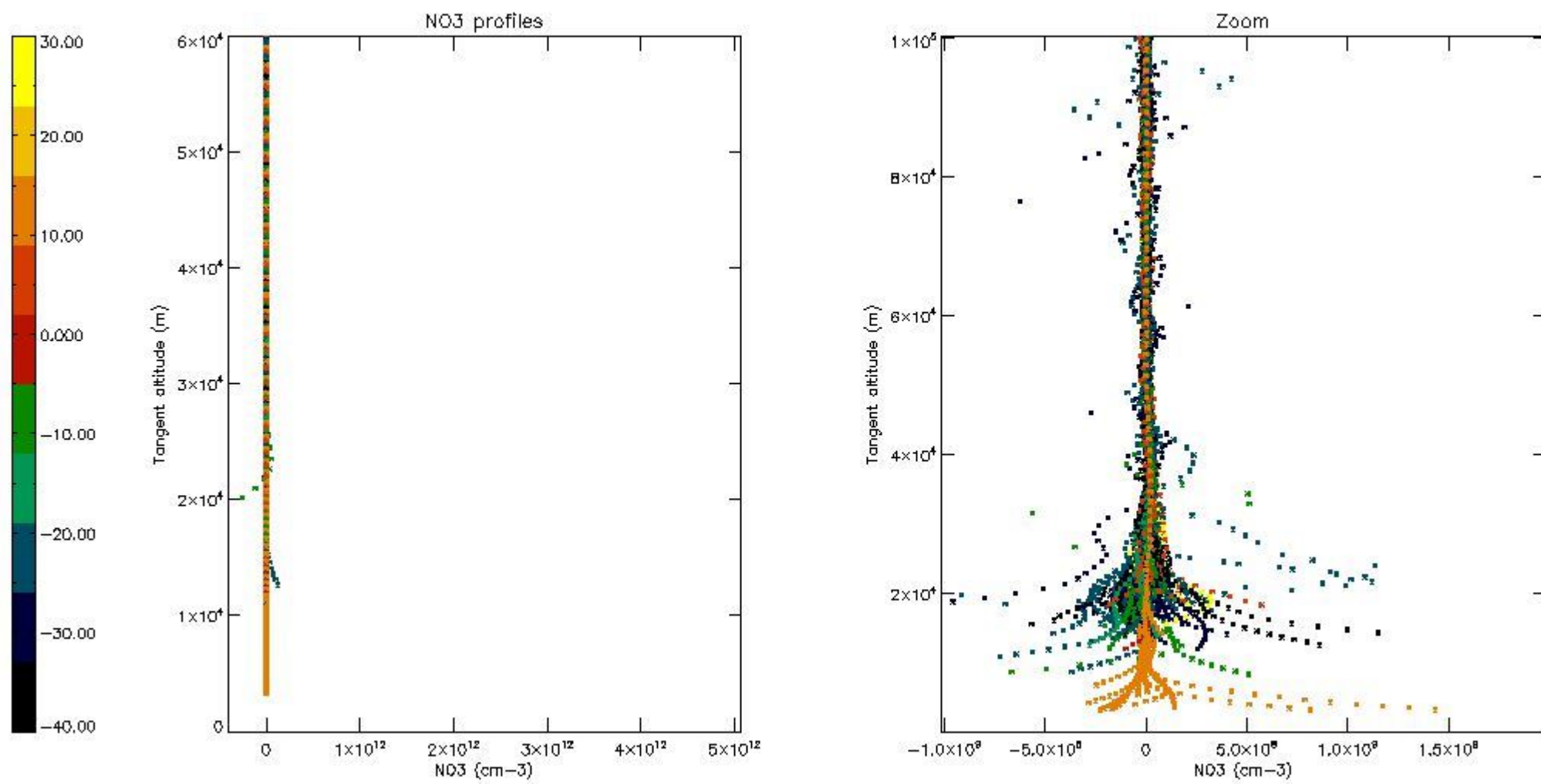
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



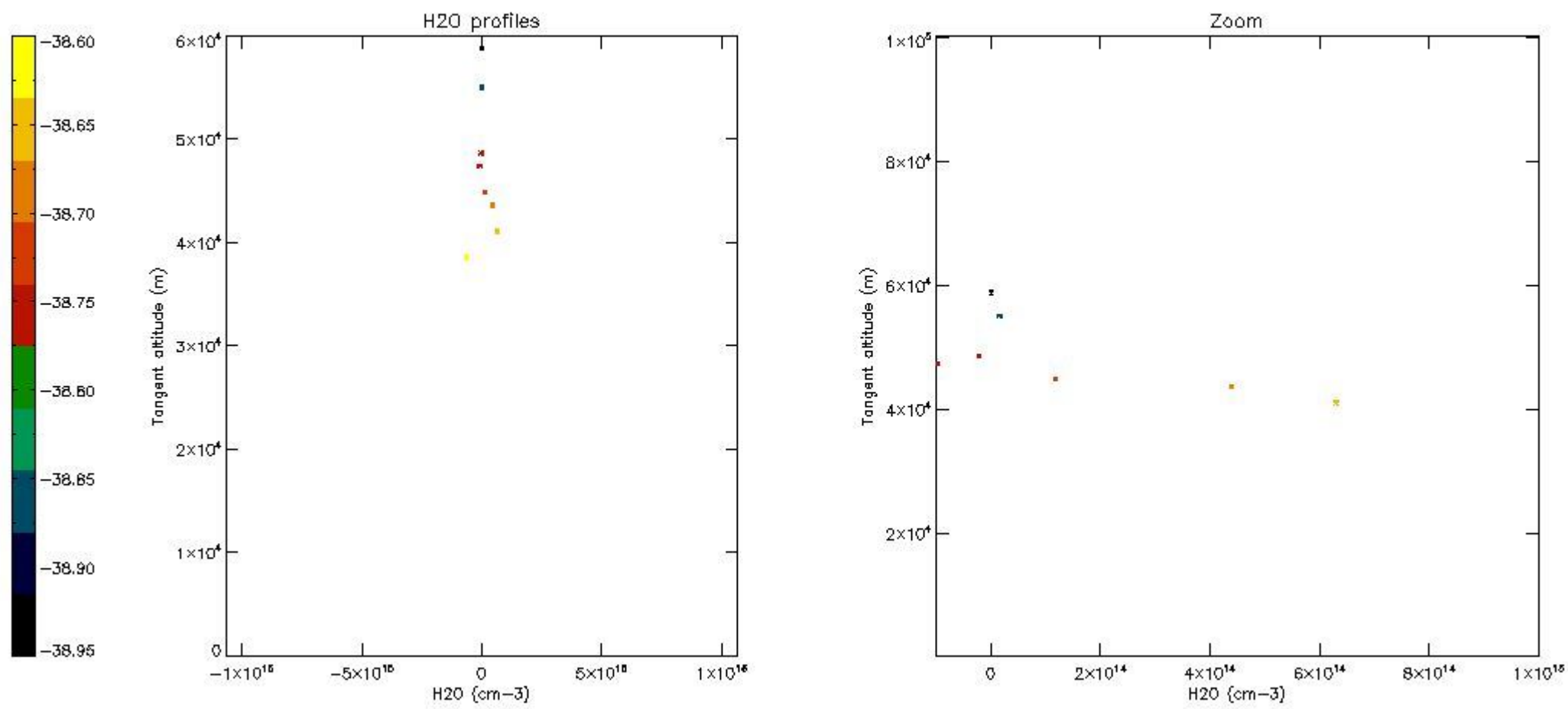
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

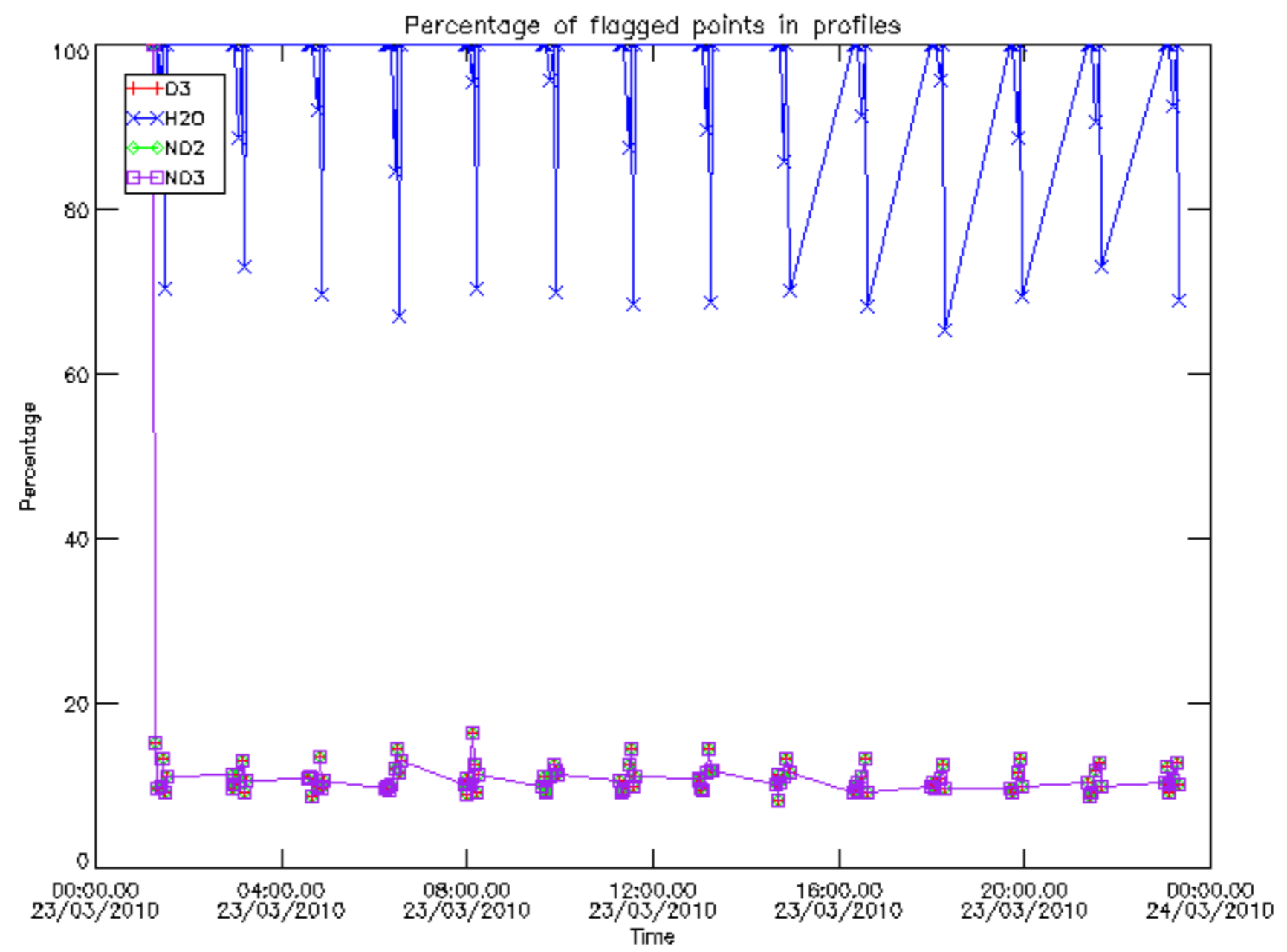
The colorbar represents the latitude.



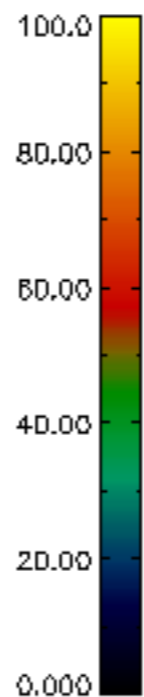
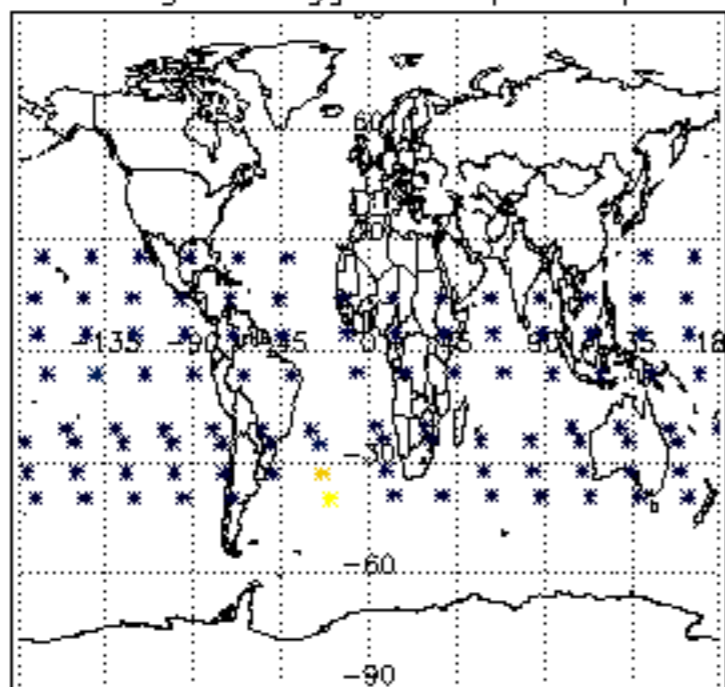
6. Auxiliary Data Files used for the production reported in section 2

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.

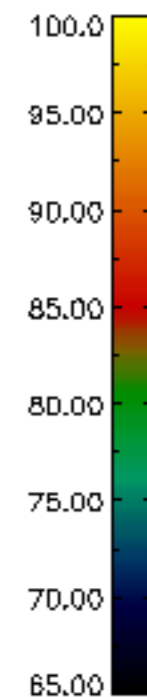
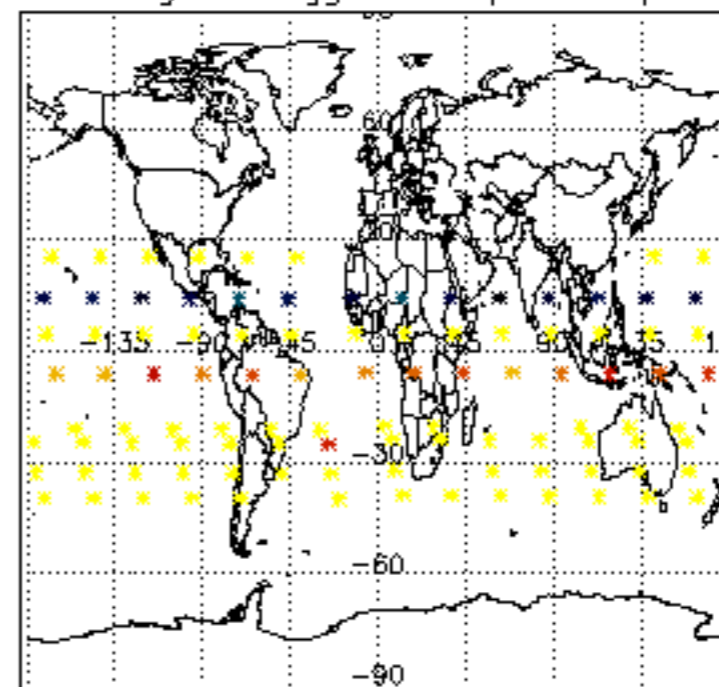
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	23-MAR-2010 00:03:50
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	23-MAR-2010 00:03:50
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	23-MAR-2010 00:03:50



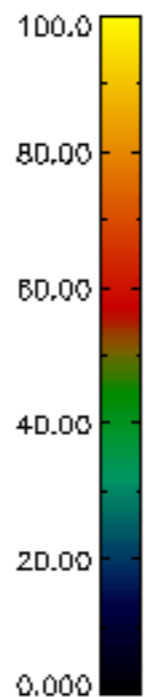
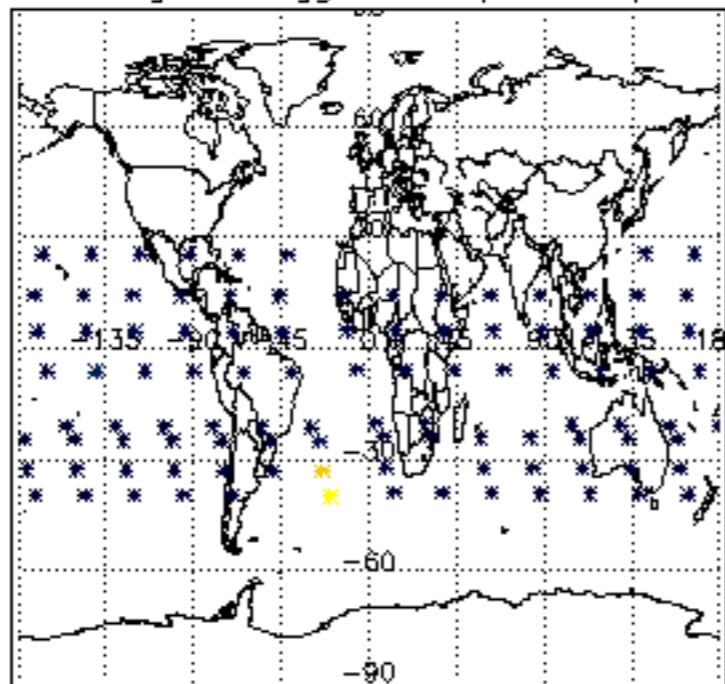
Percentage of flagged data per D3 profile



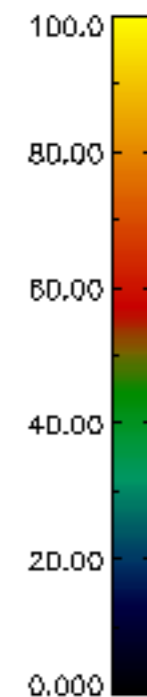
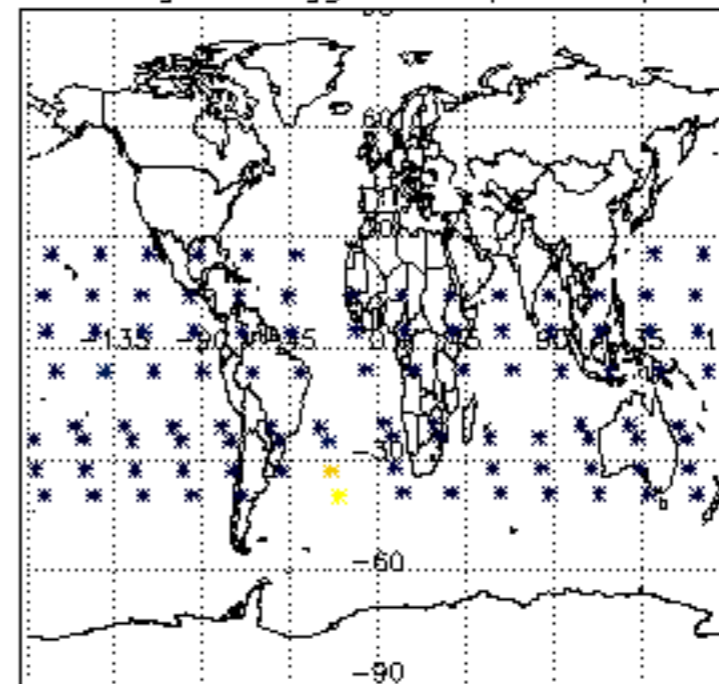
Percentage of flagged data per H2O profile

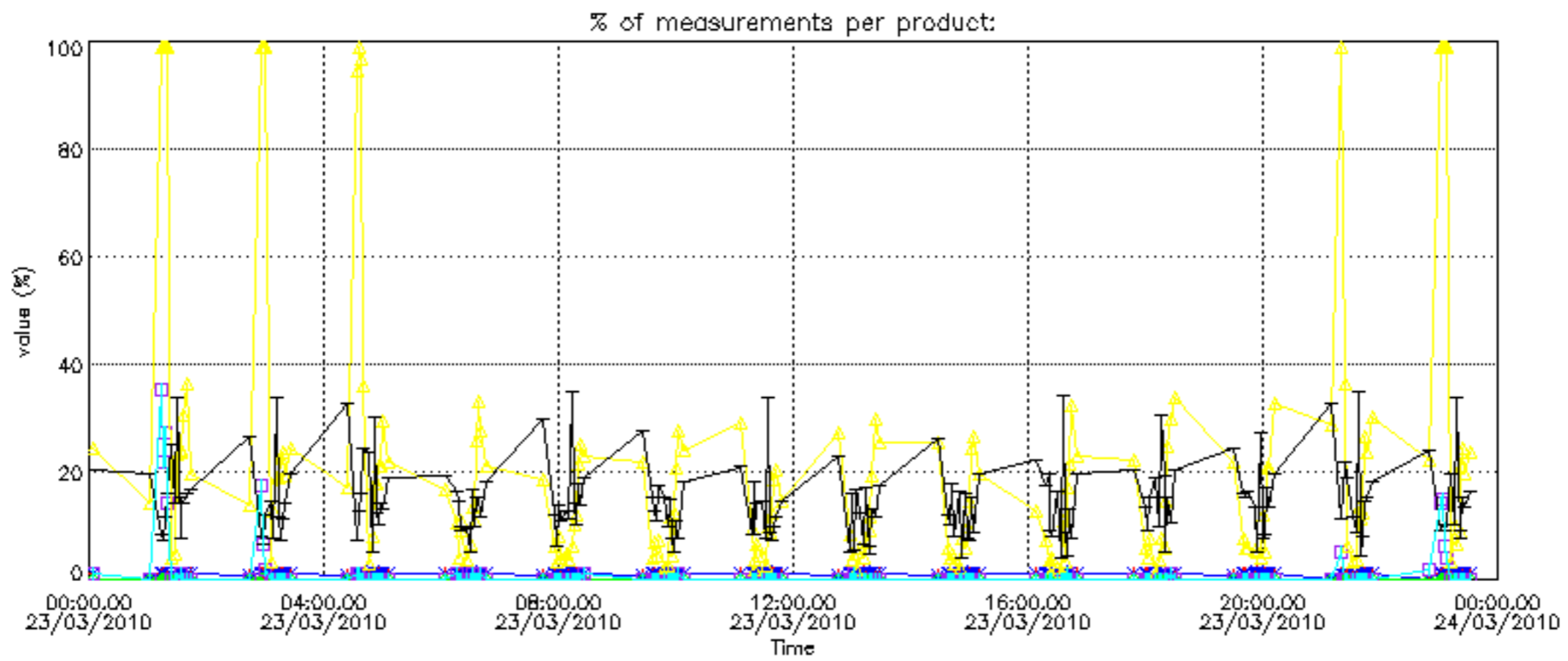
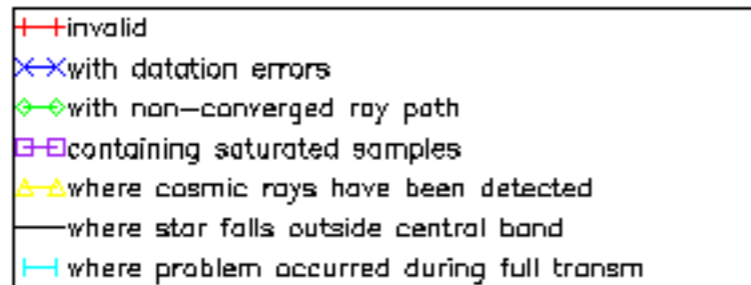


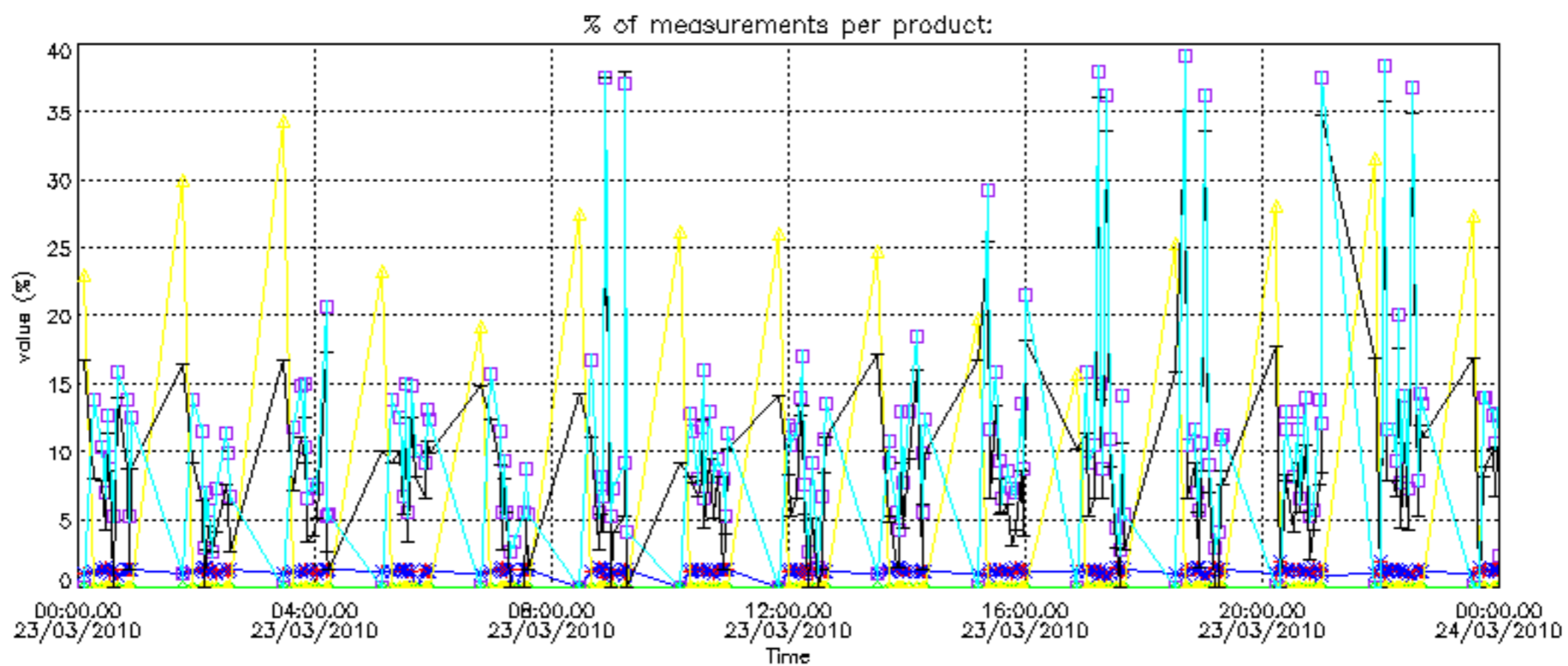
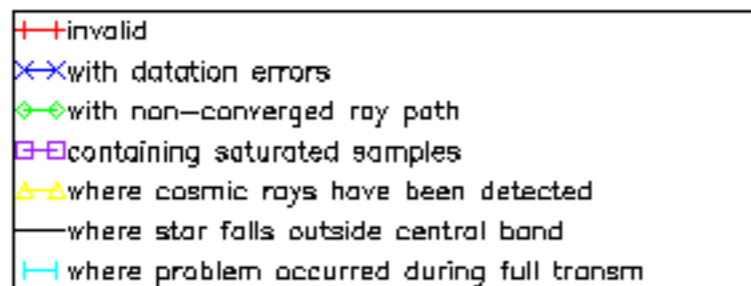
Percentage of flagged data per NO2 profile



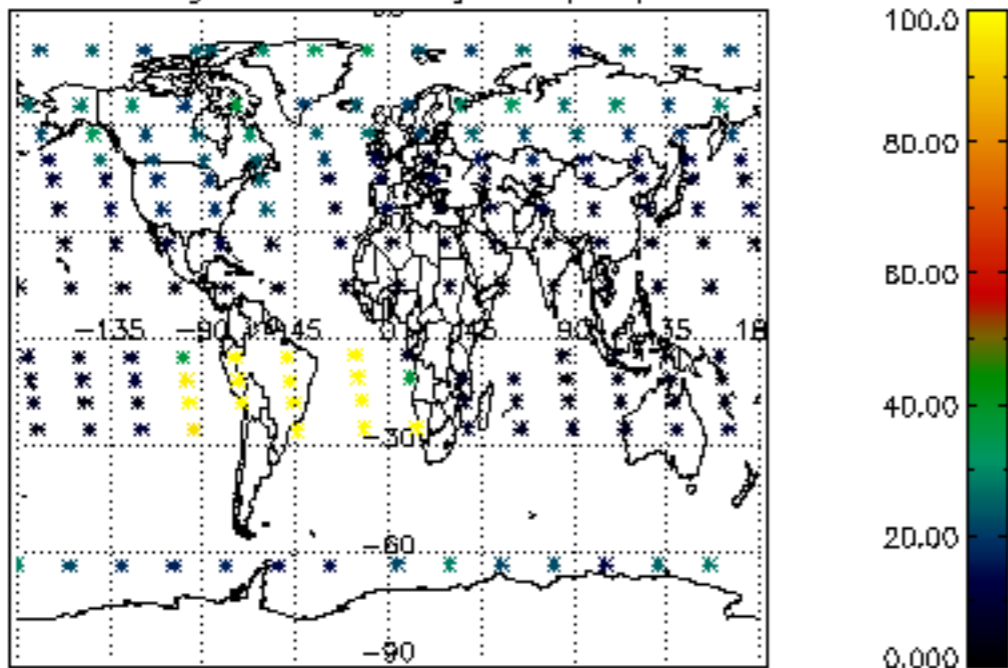
Percentage of flagged data per NO3 profile



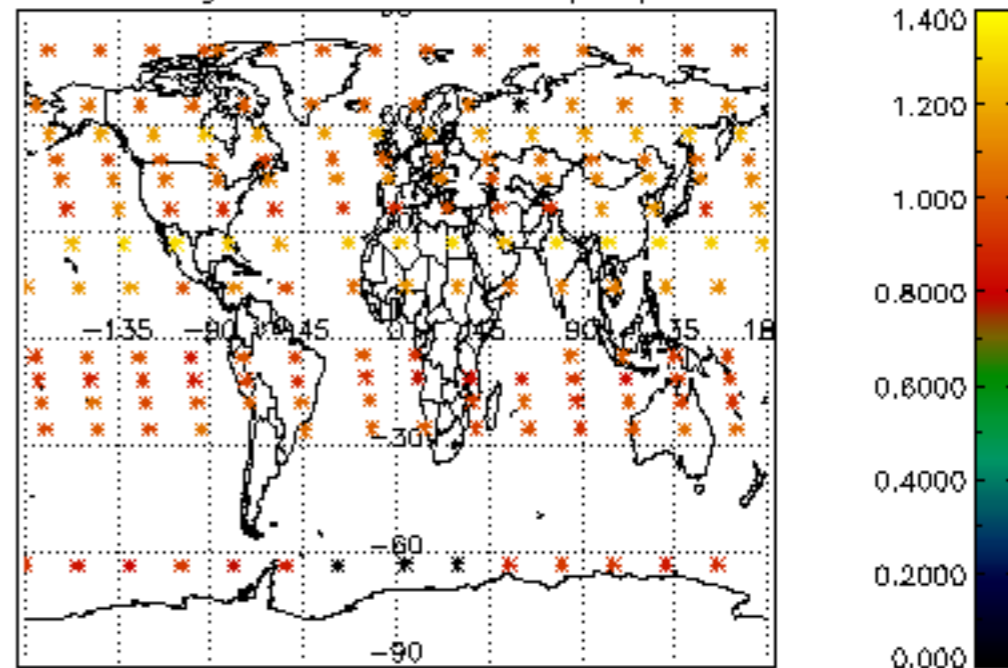




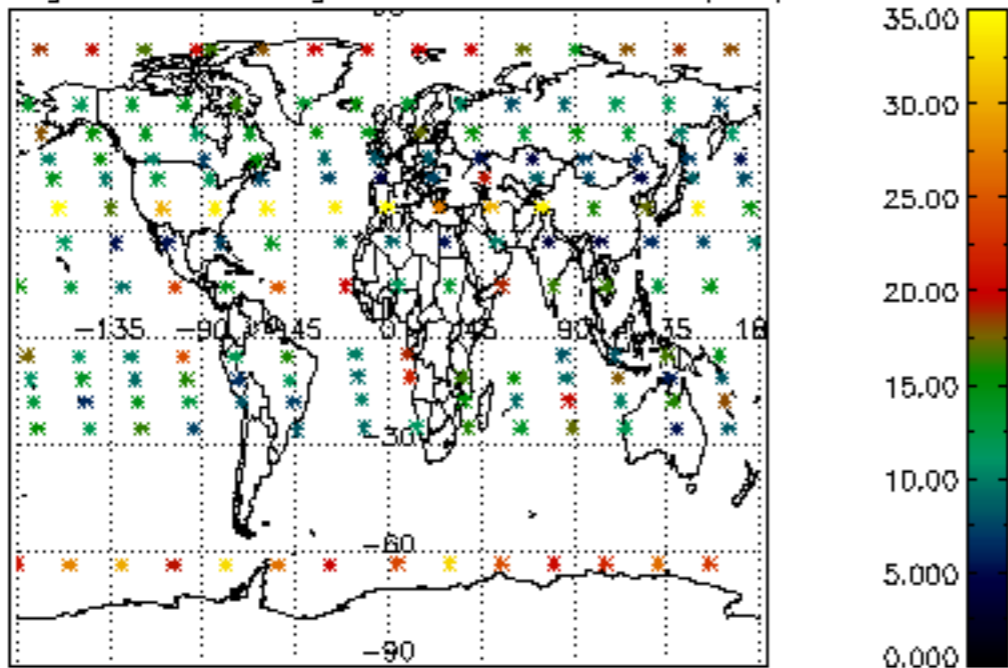
Percentage of cosmic ray hits per profile



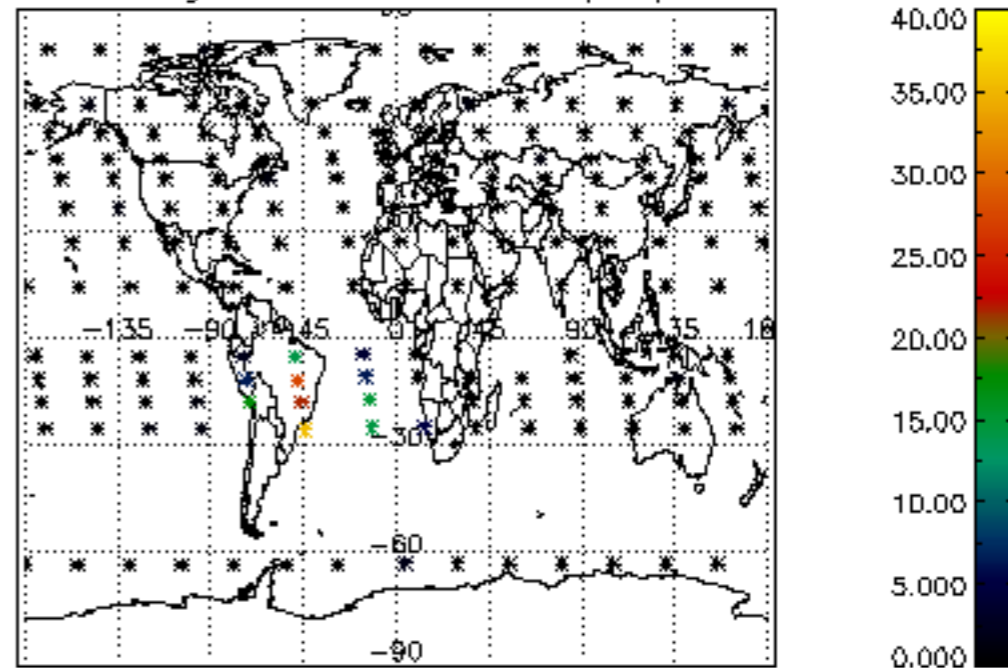
Percentage of datation errors per profile



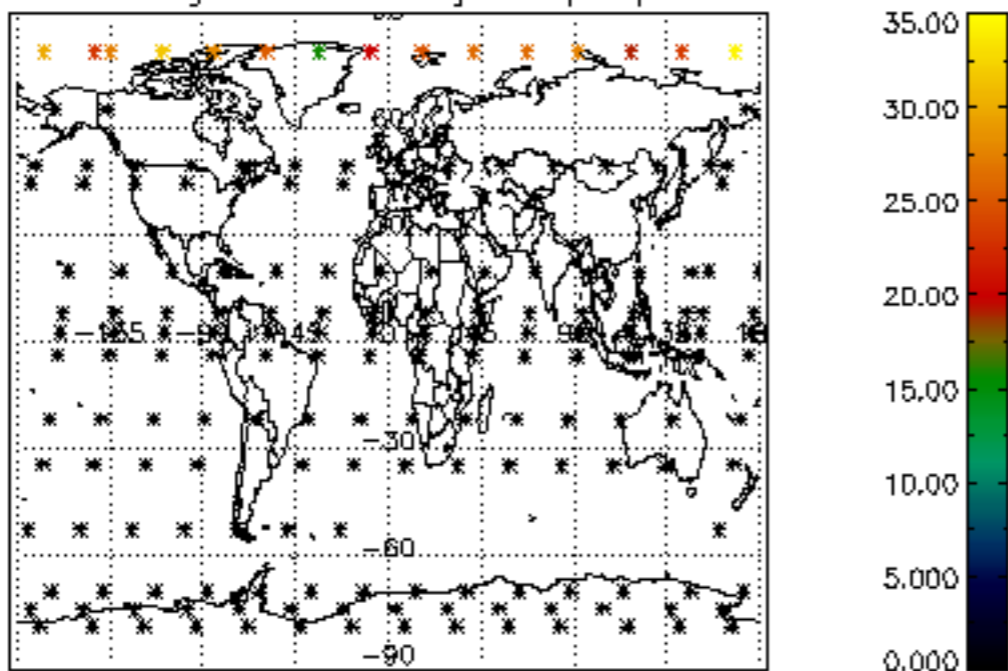
Percentage of star falling outside central band per profile



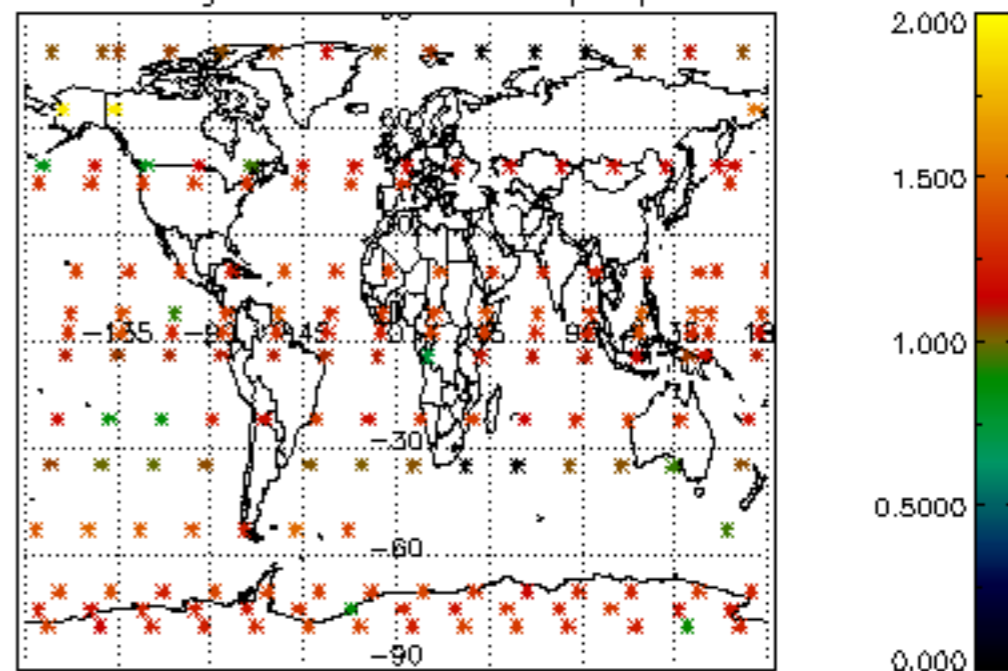
Percentage of saturation errors per profile



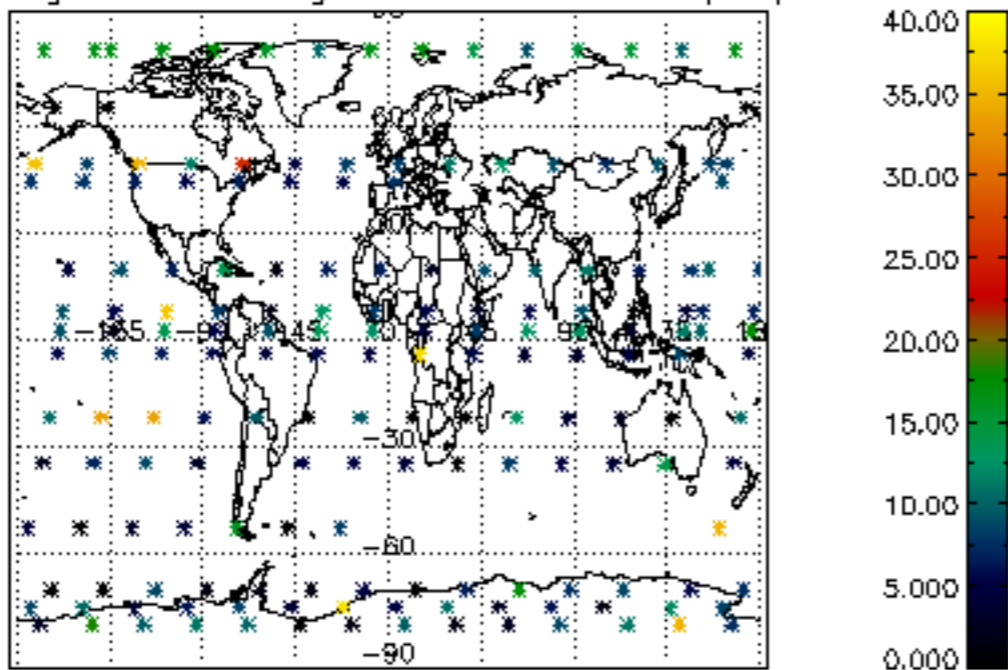
Percentage of cosmic ray hits per profile



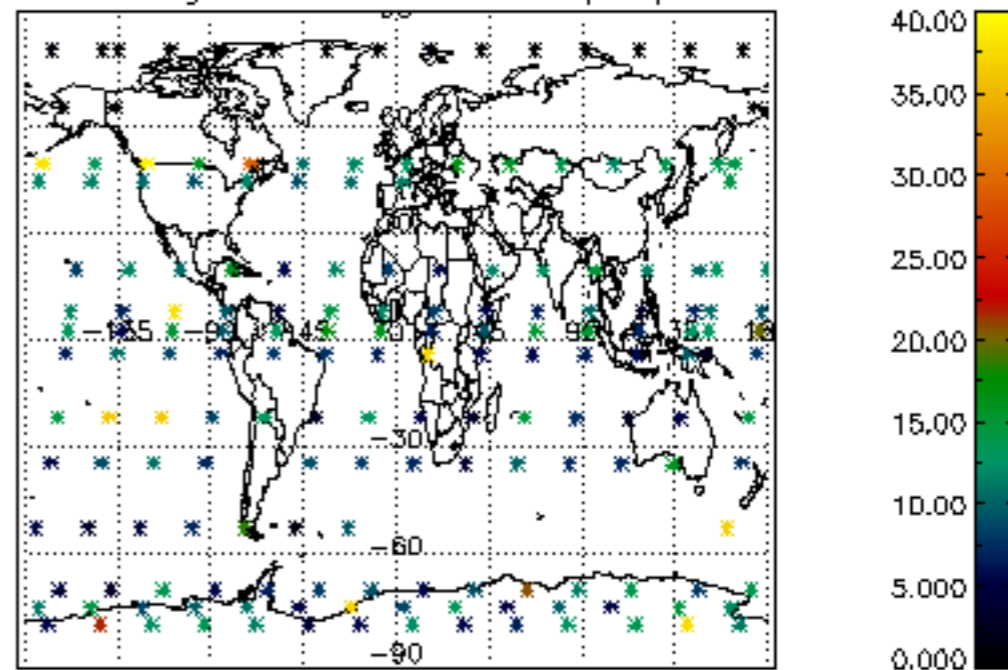
Percentage of datation errors per profile

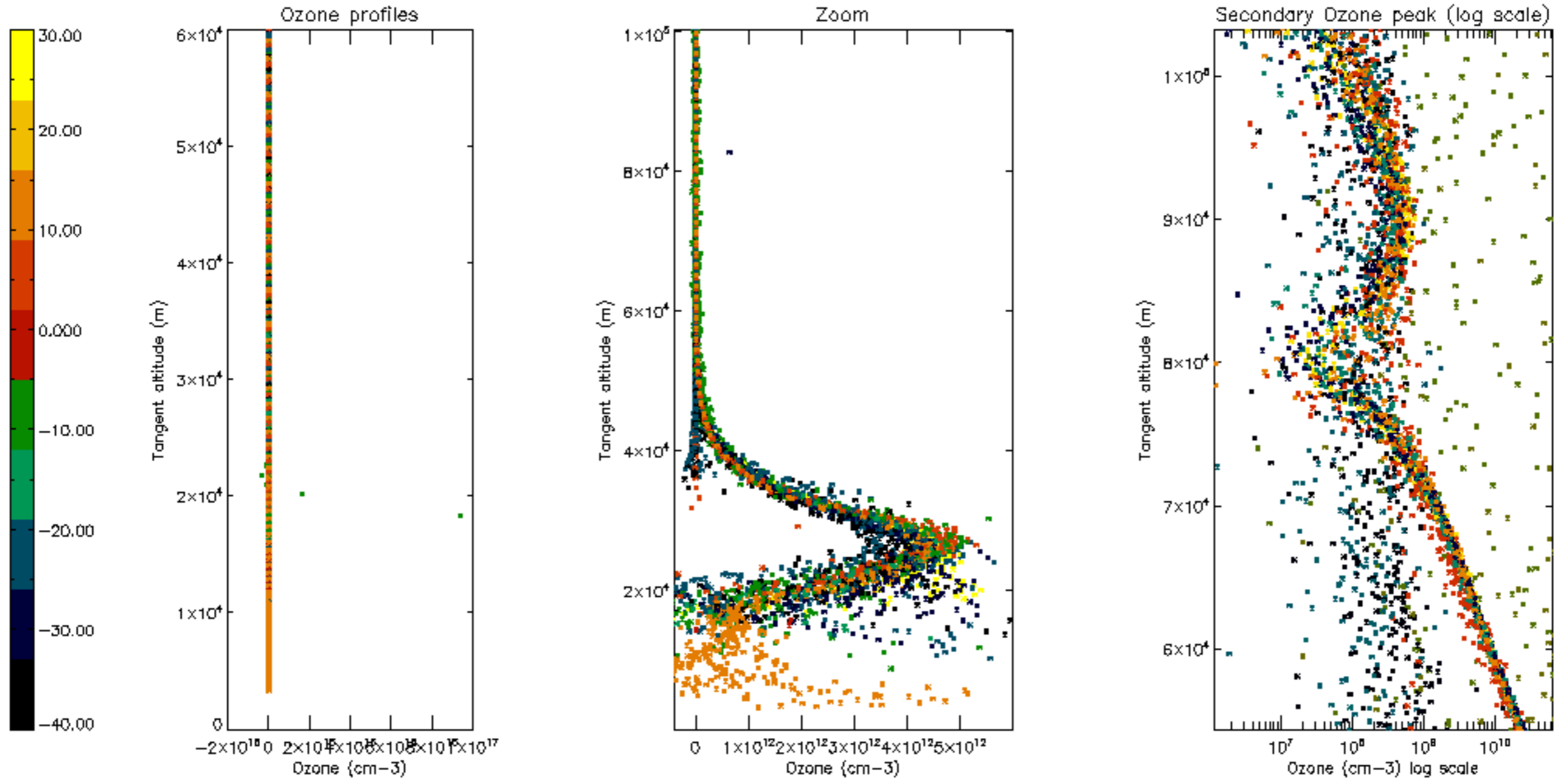


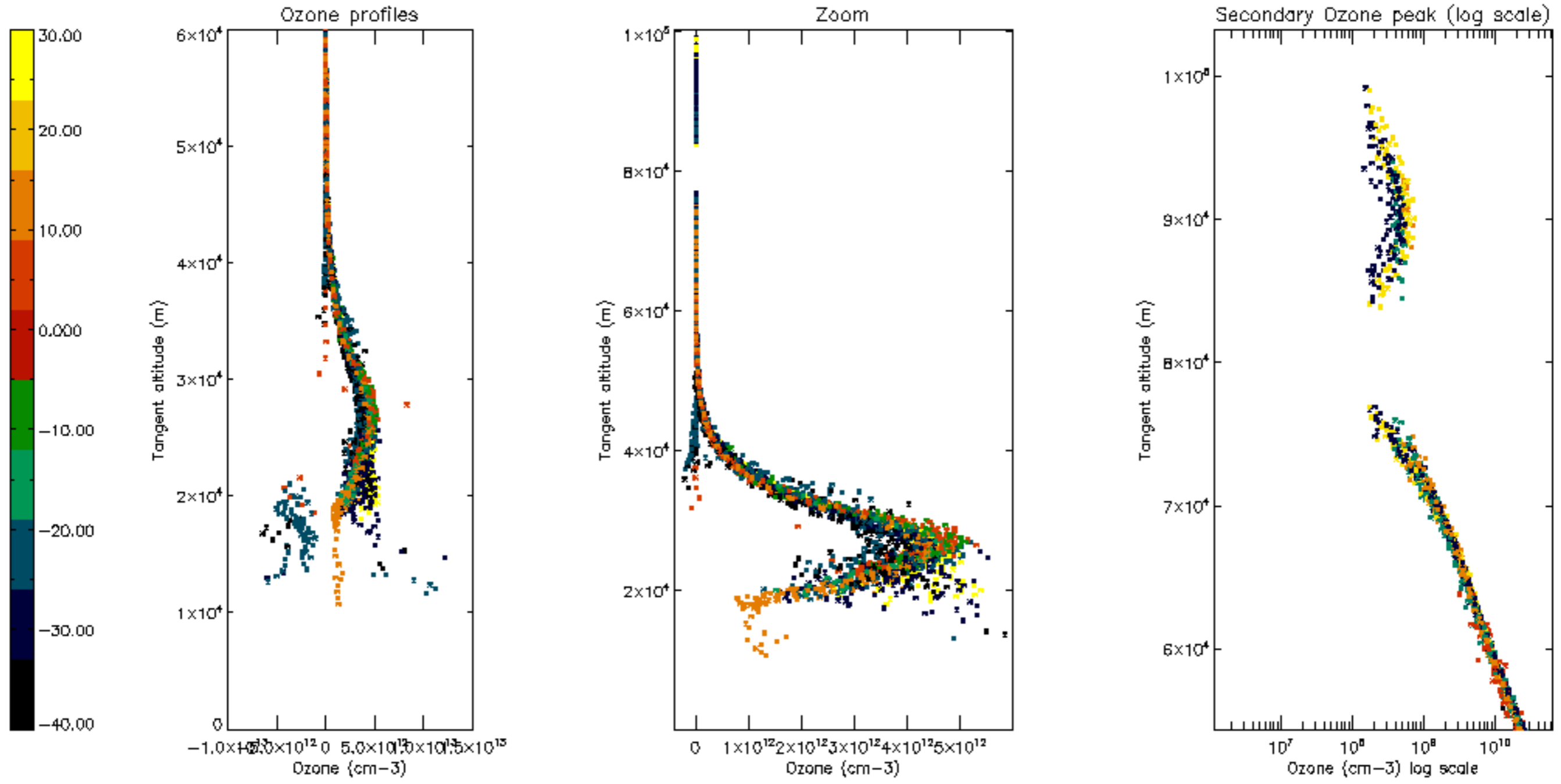
Percentage of star falling outside central band per profile

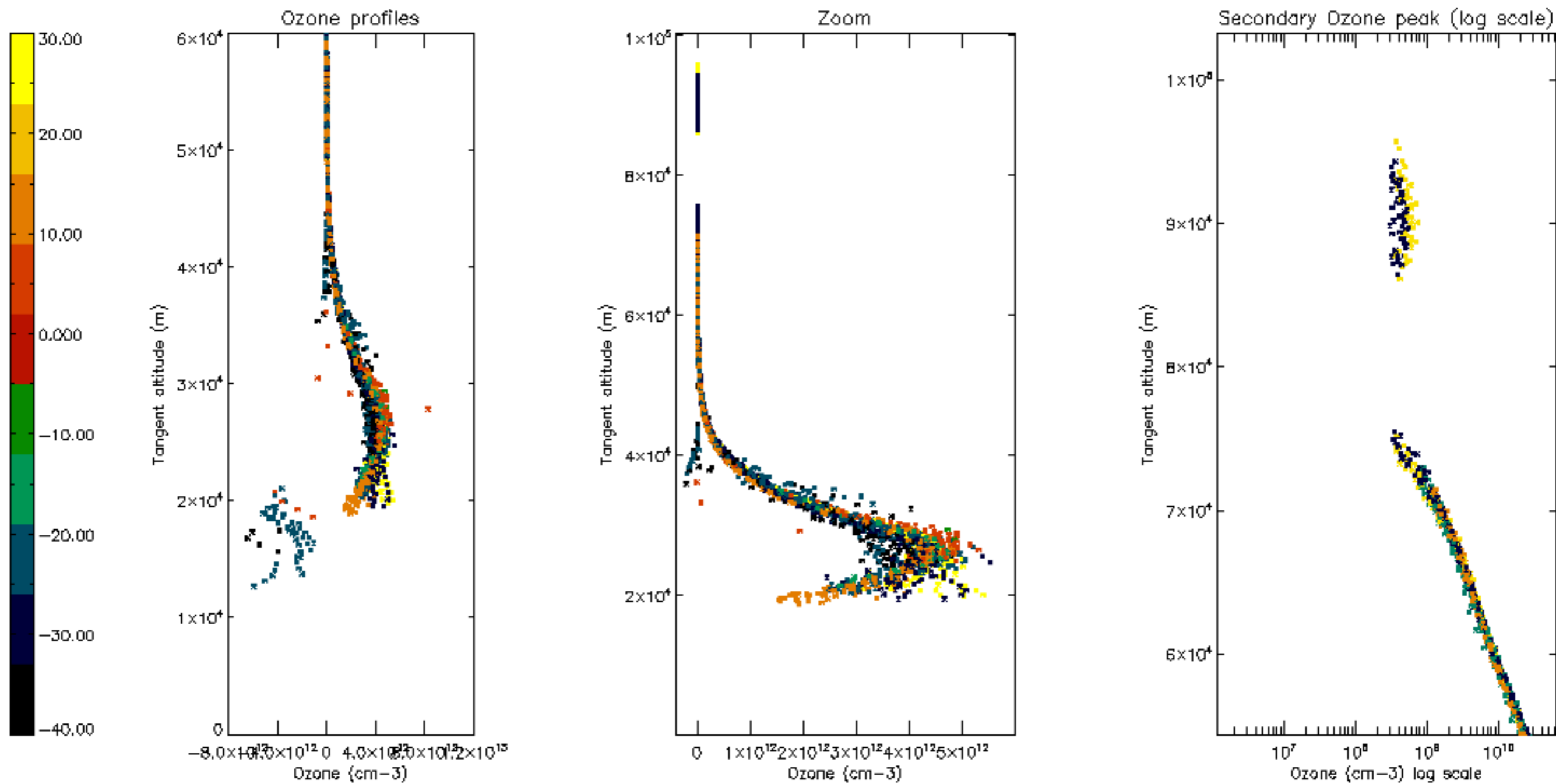


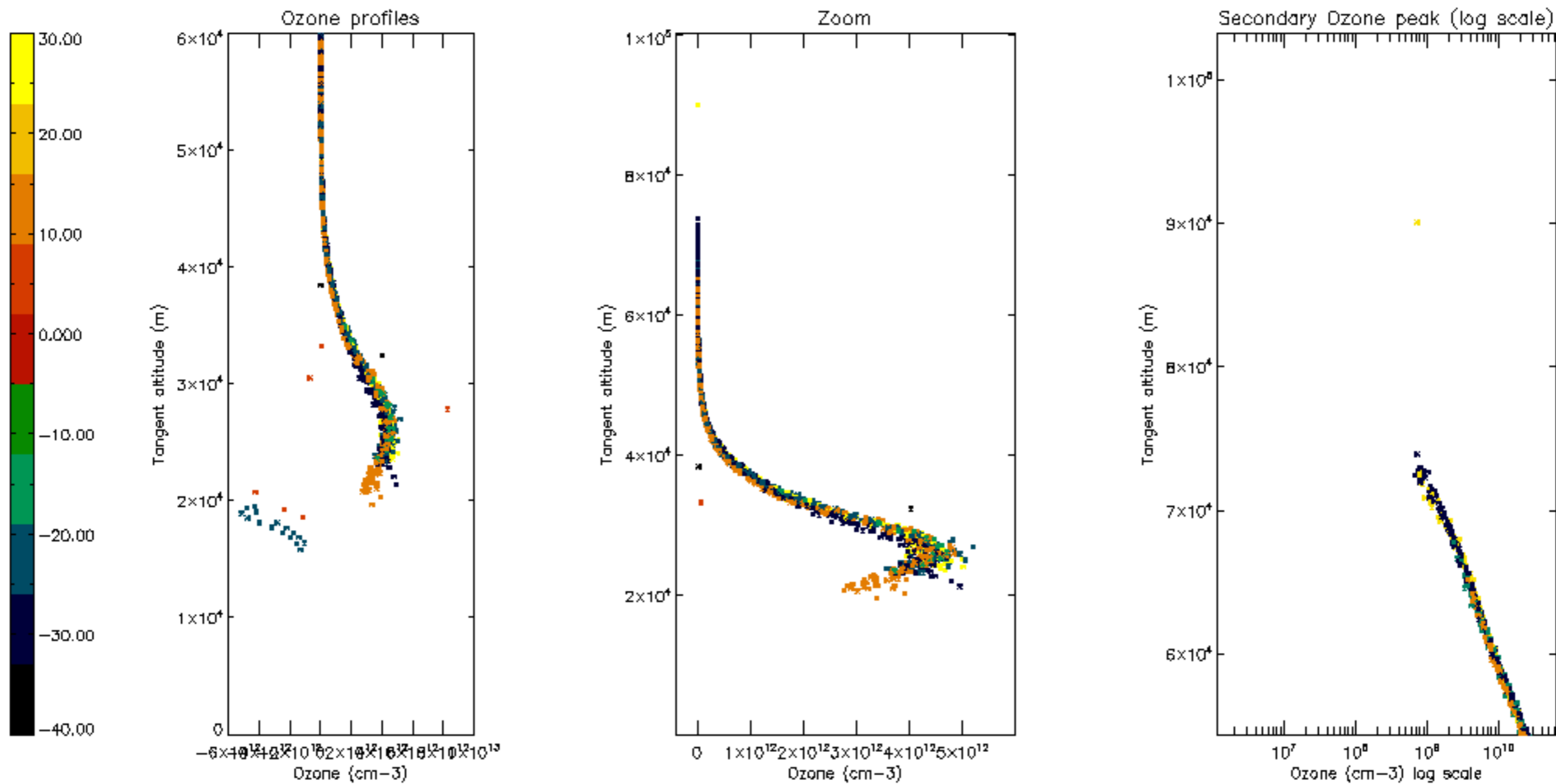
Percentage of saturation errors per profile

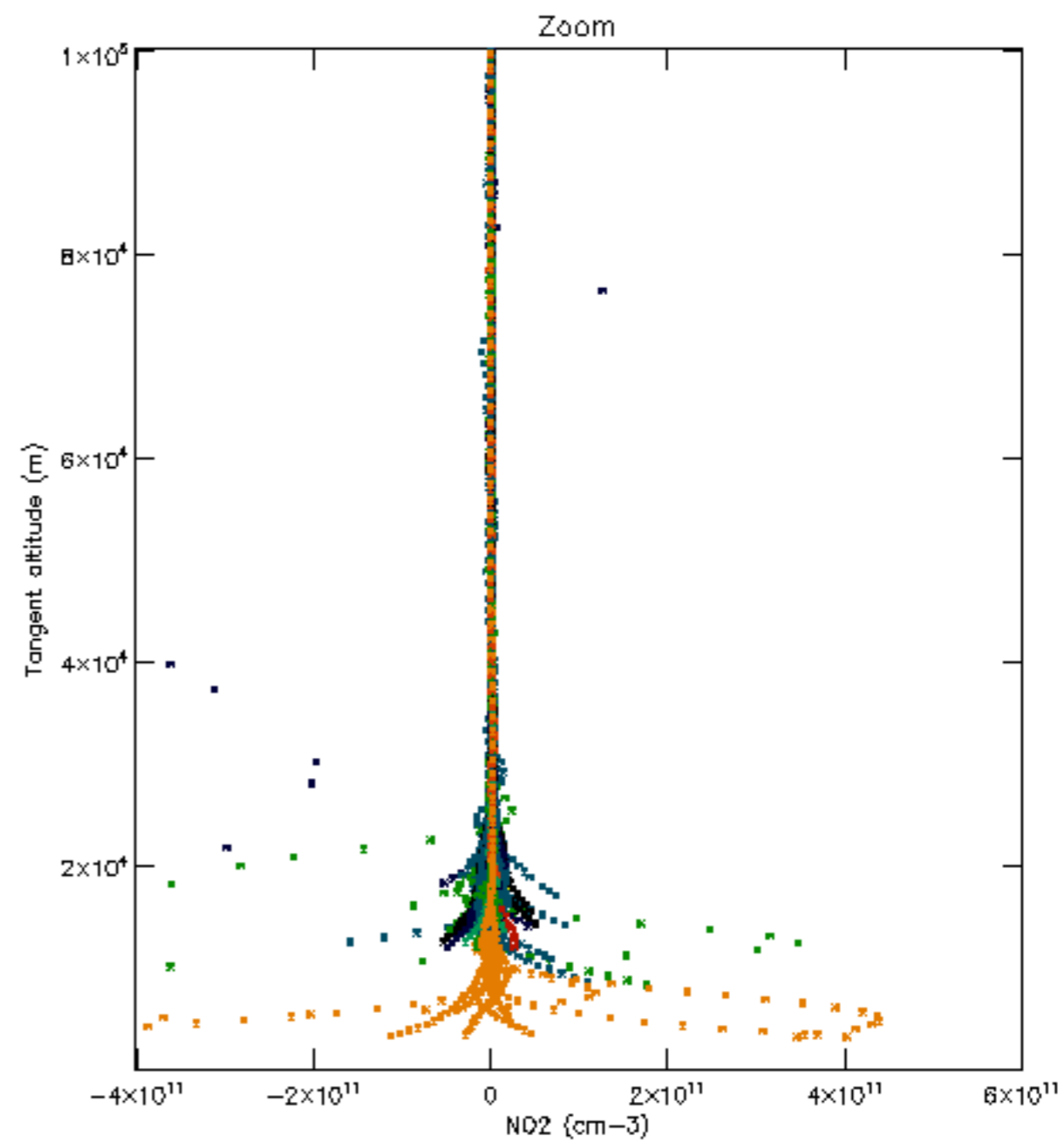
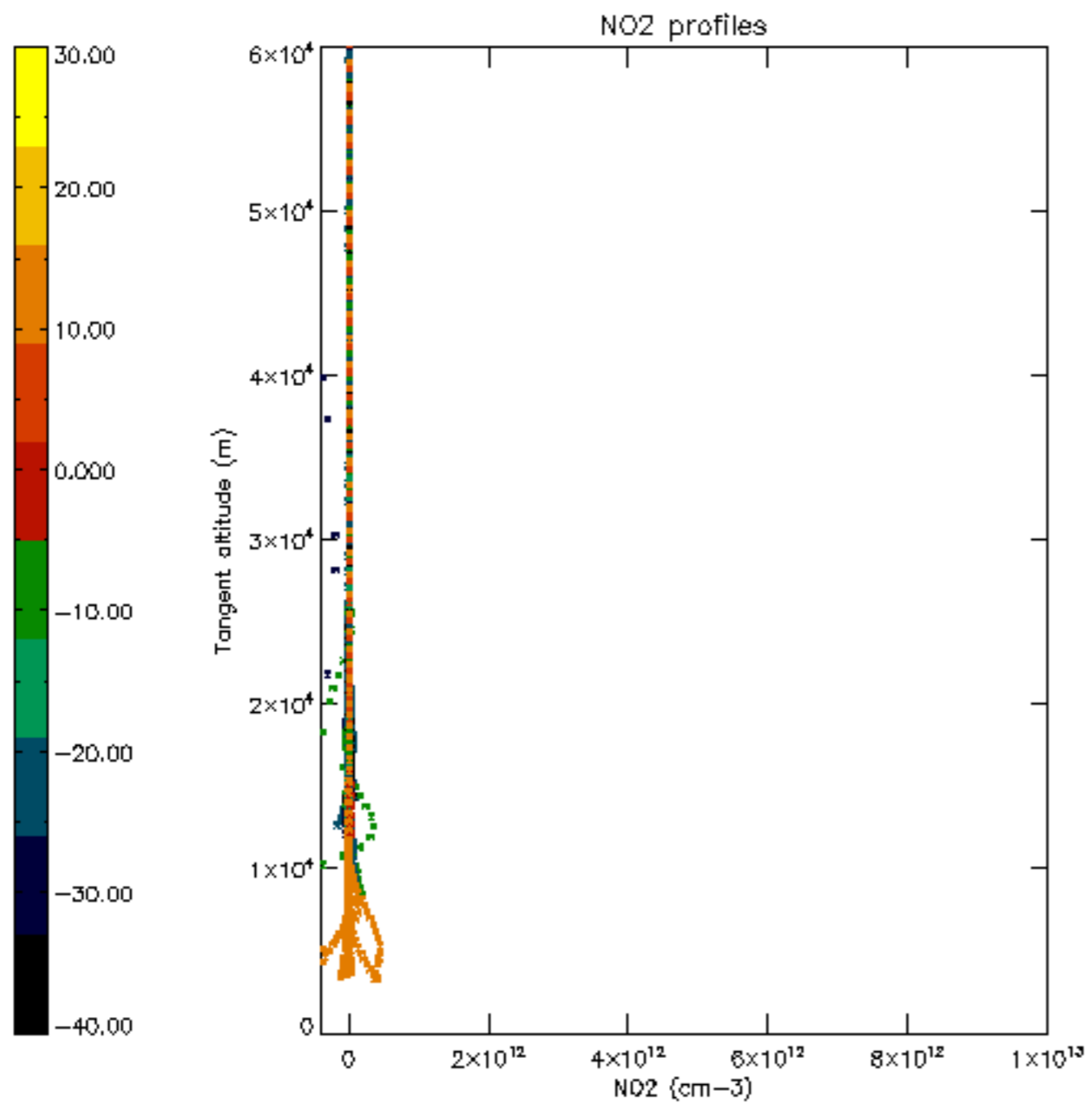


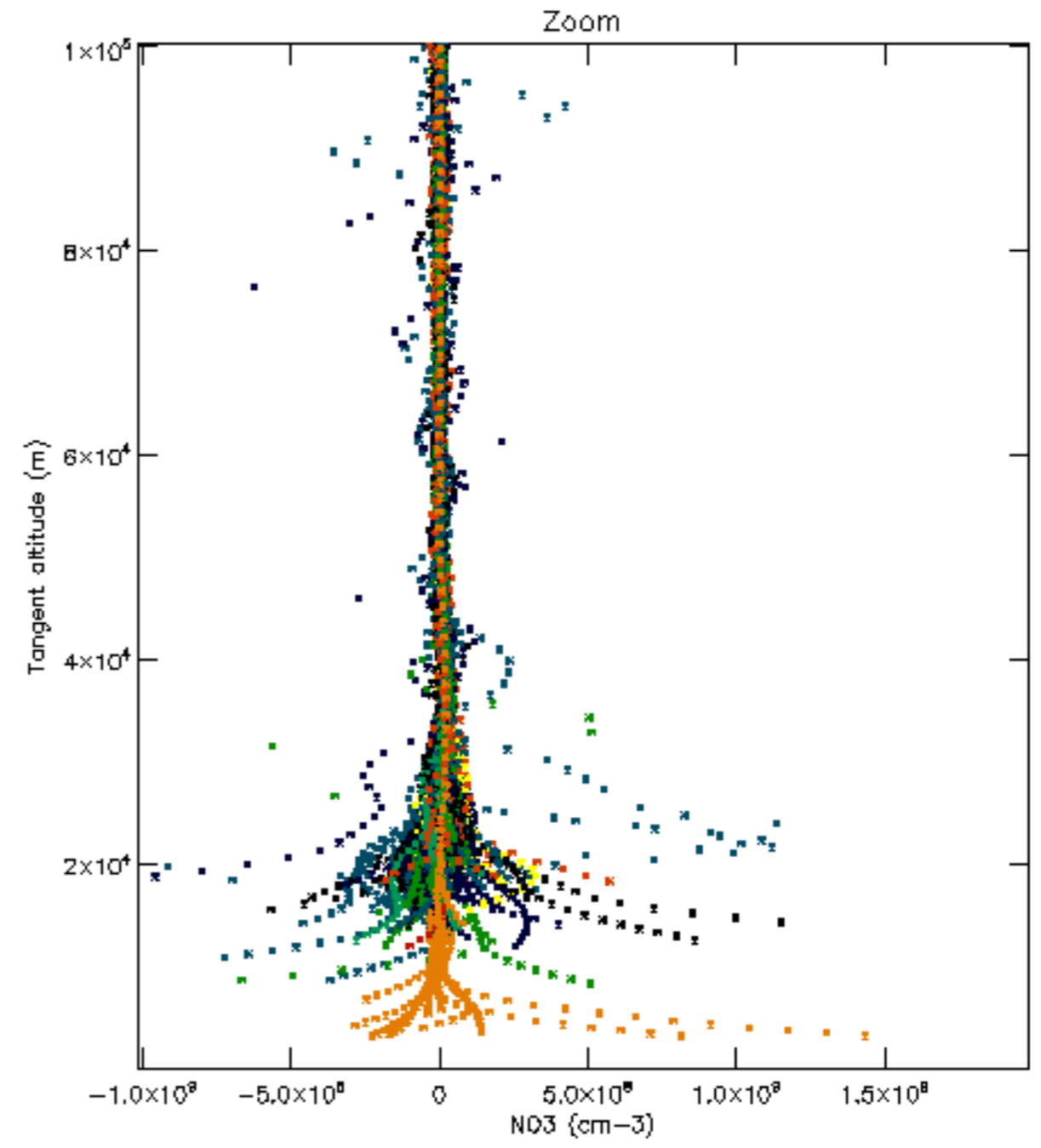
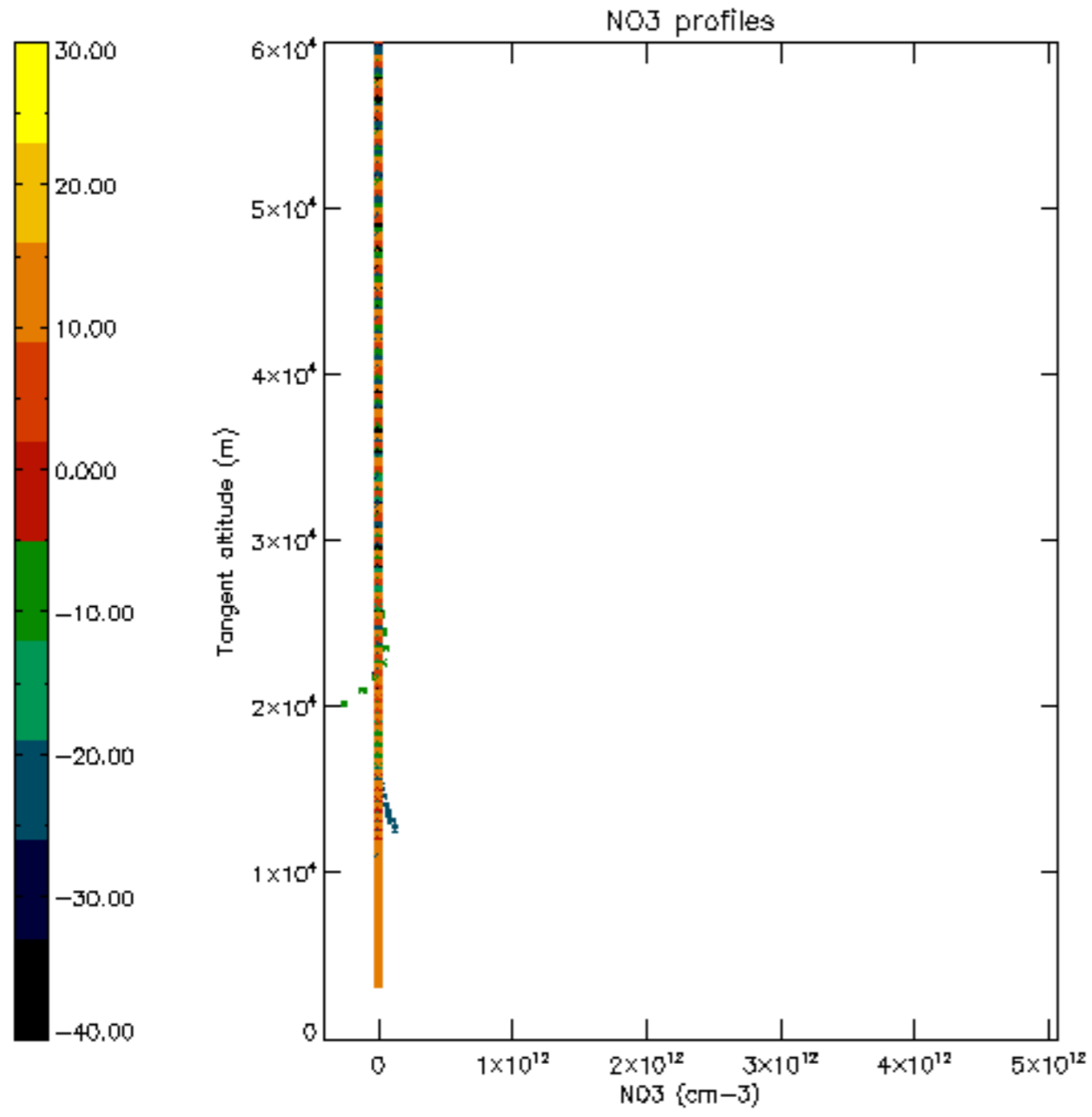


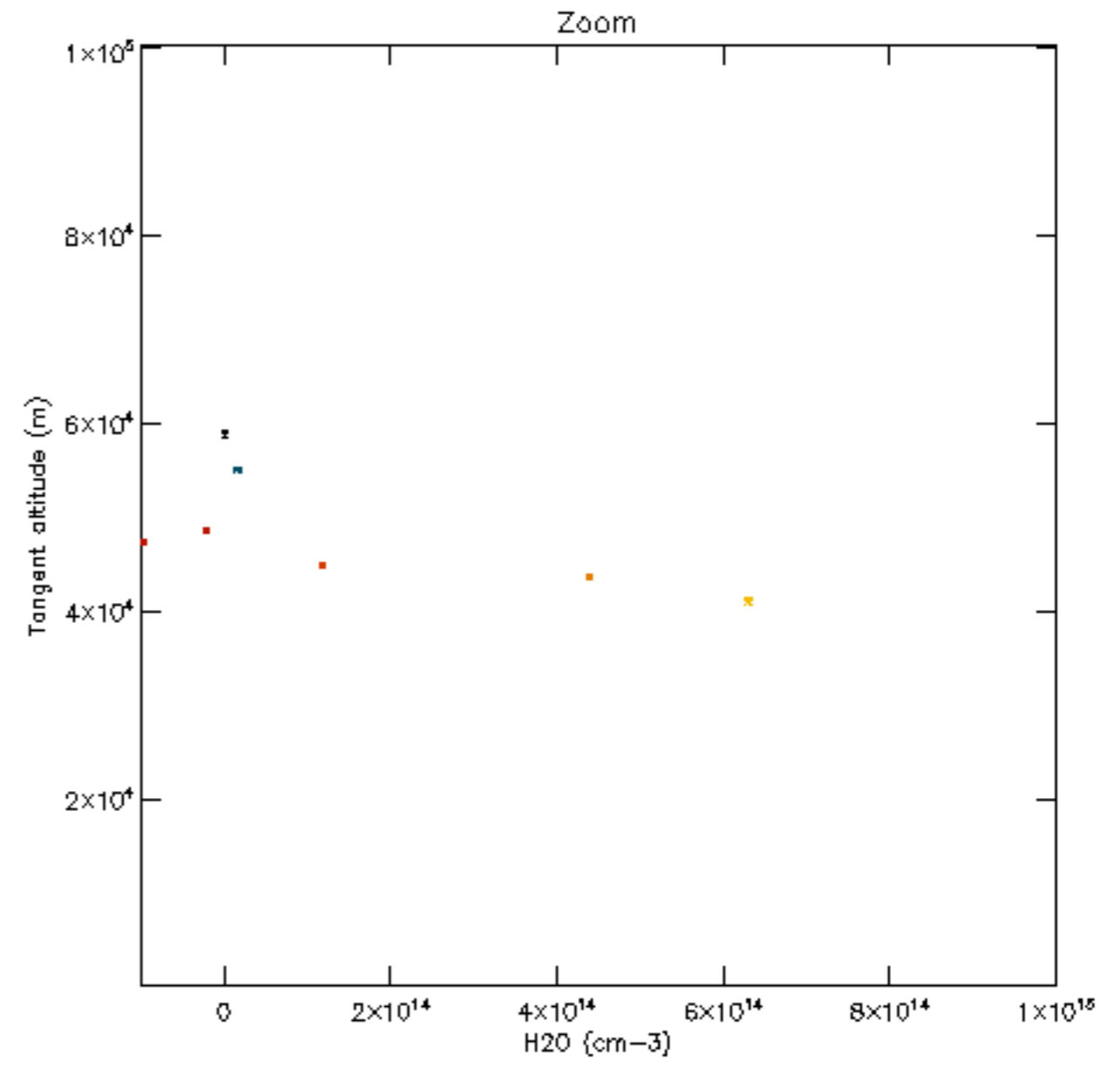
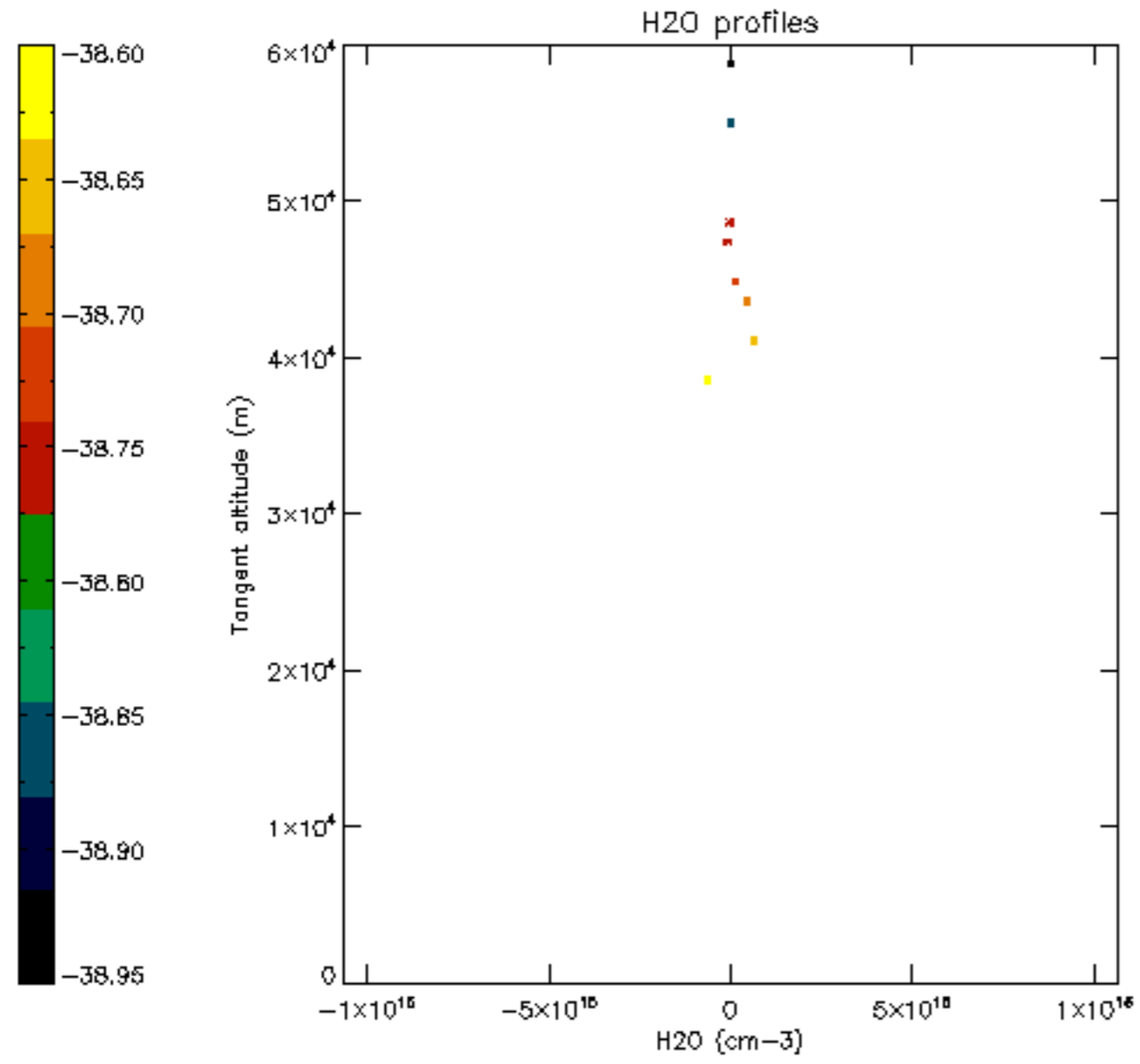


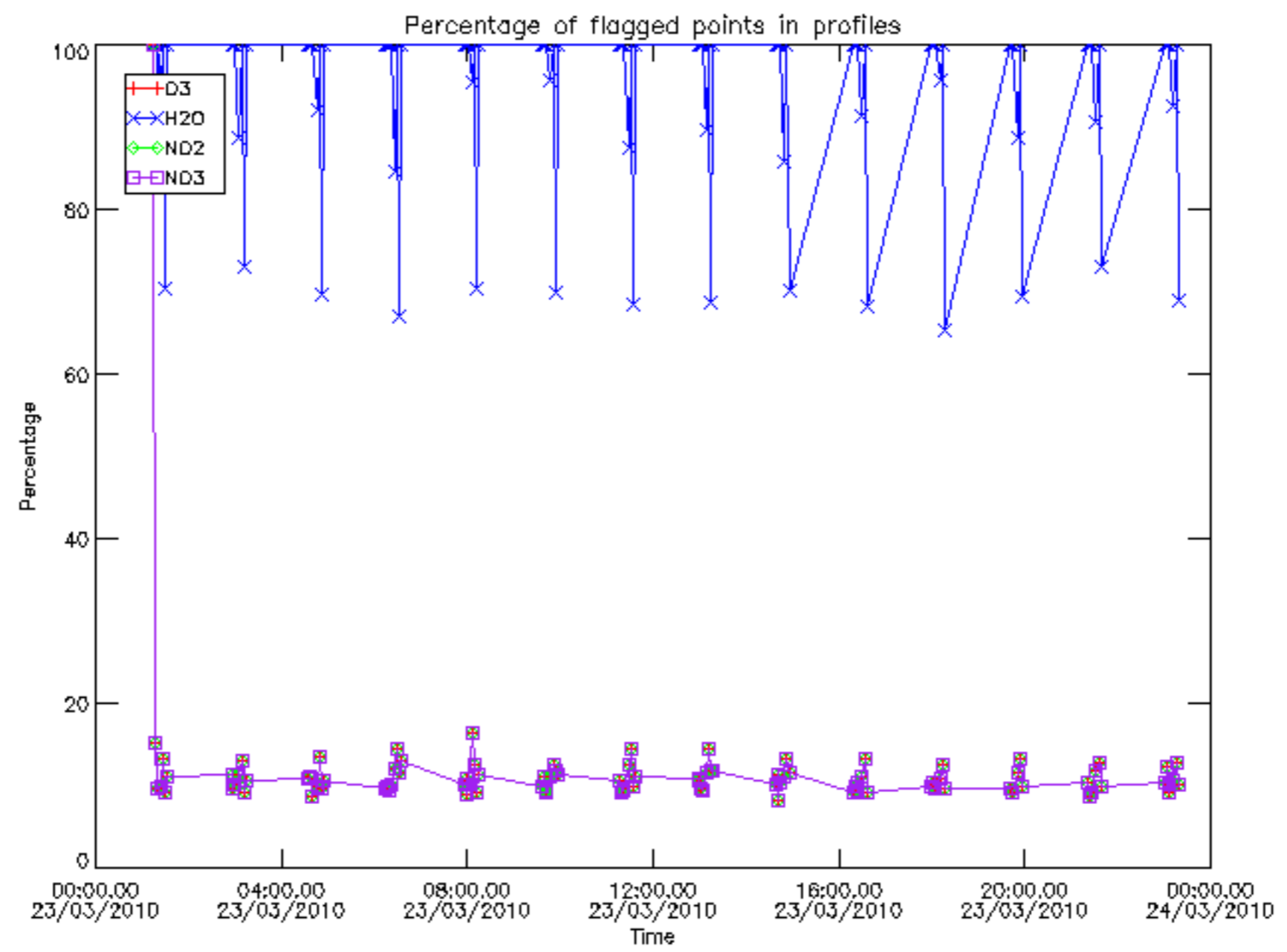




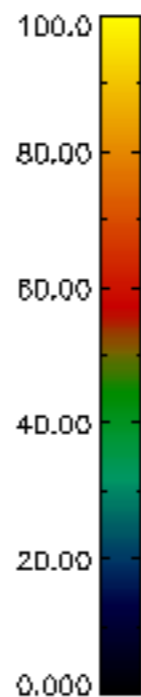
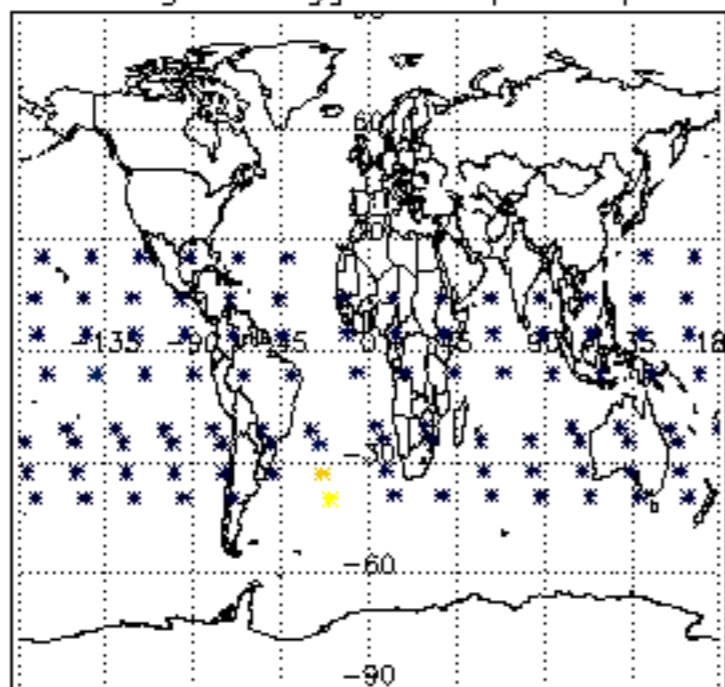




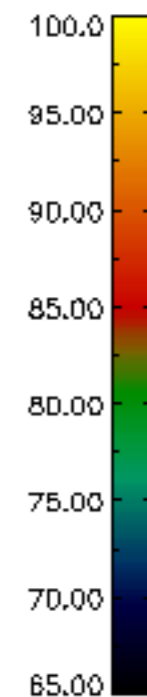
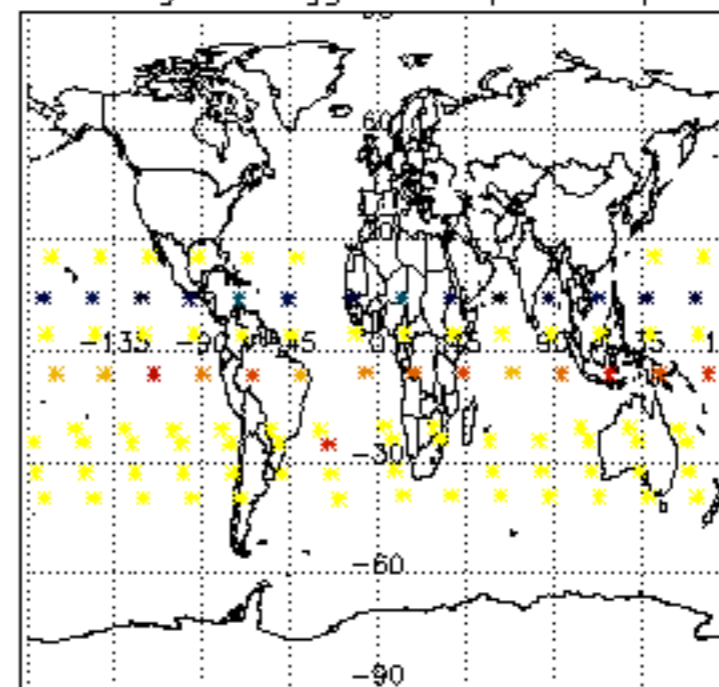




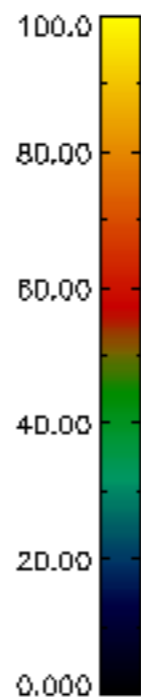
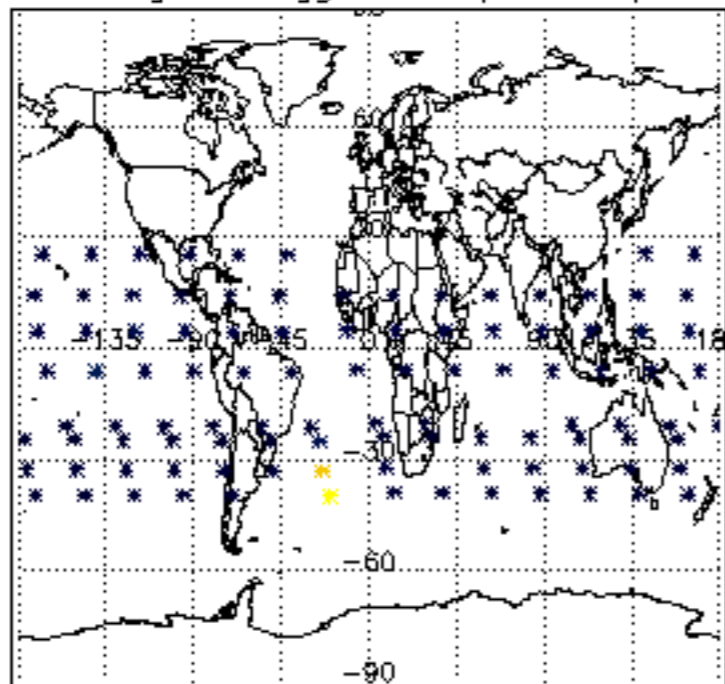
Percentage of flagged data per D3 profile



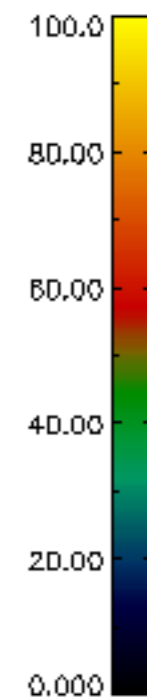
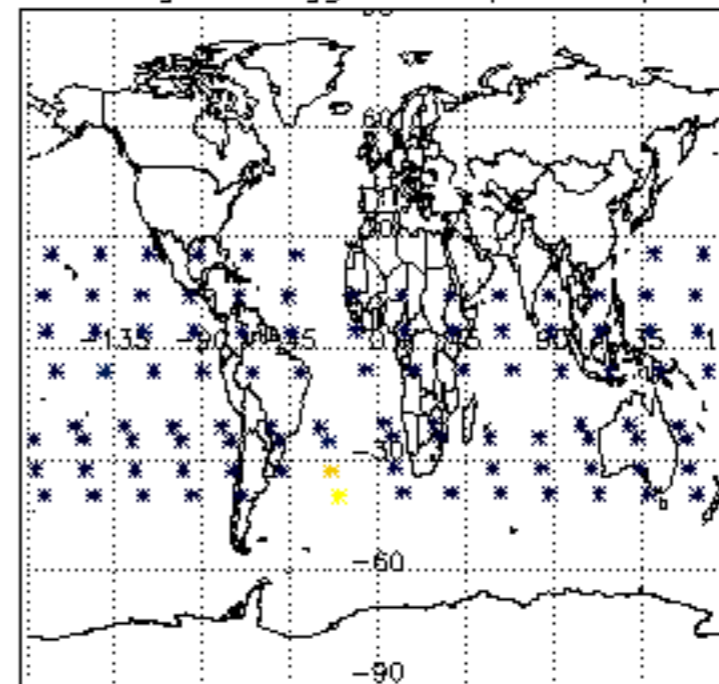
Percentage of flagged data per H2O profile

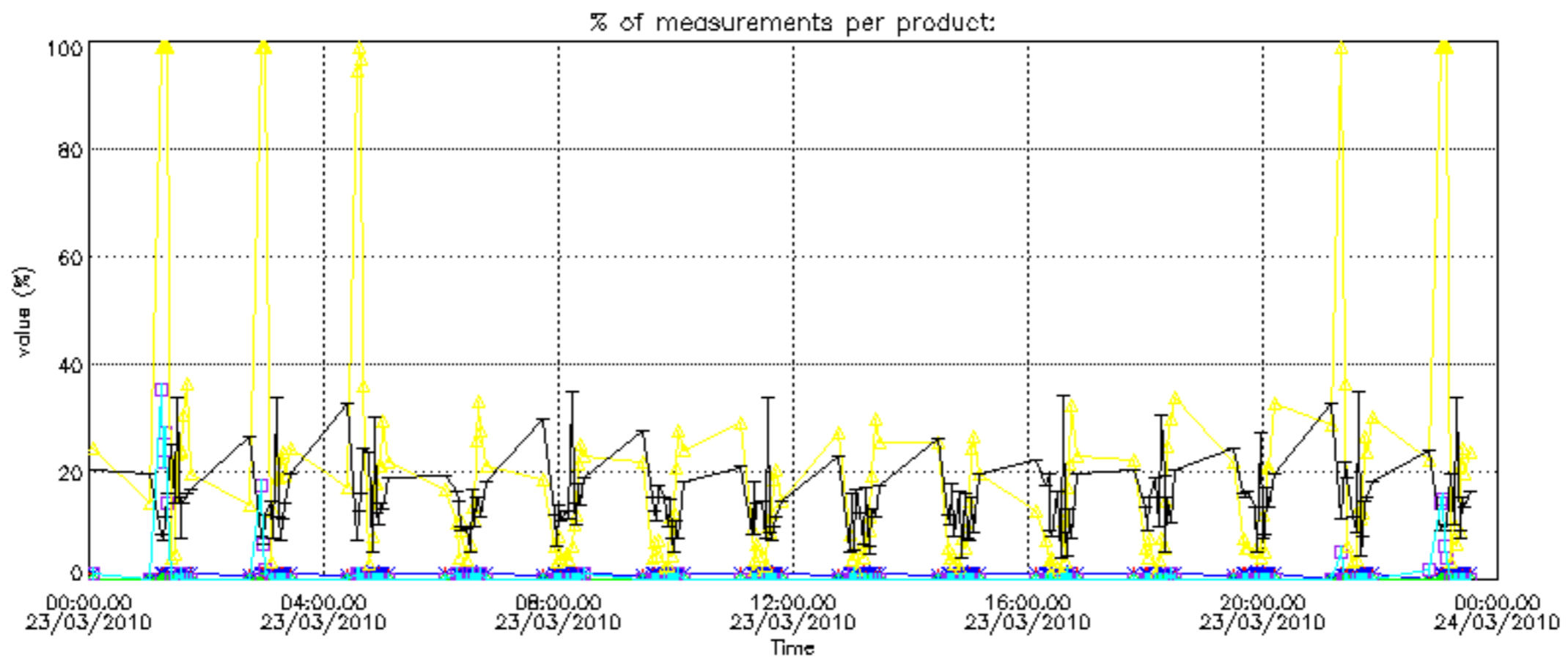
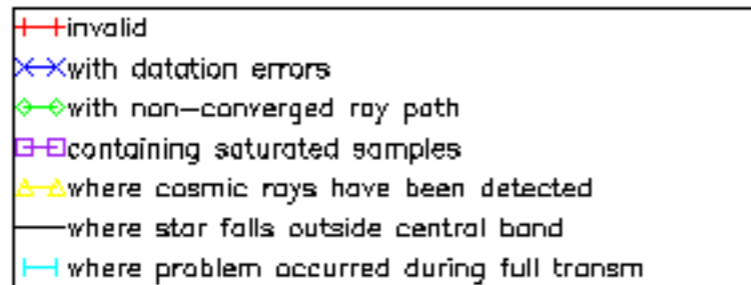


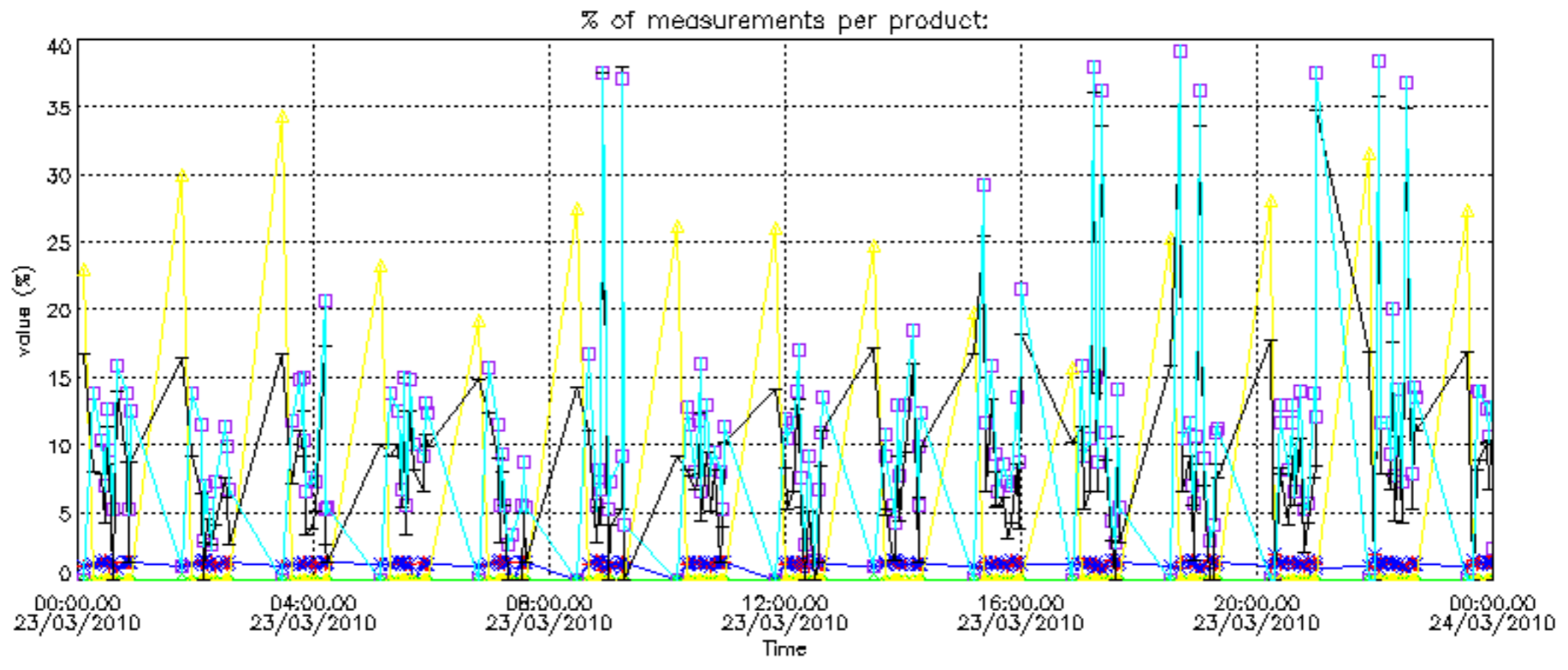
Percentage of flagged data per NO2 profile



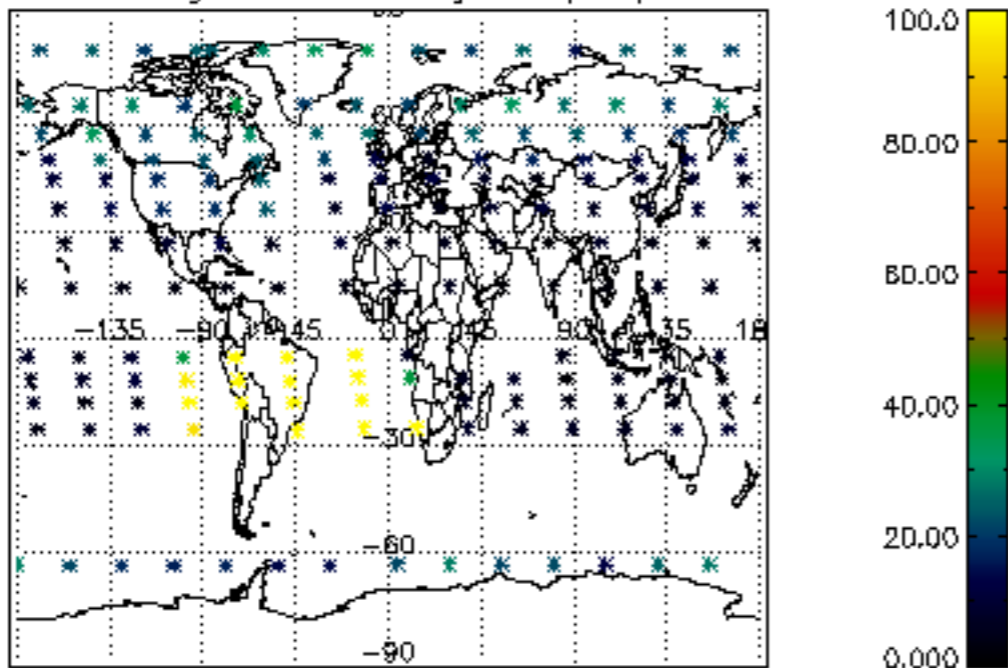
Percentage of flagged data per NO3 profile



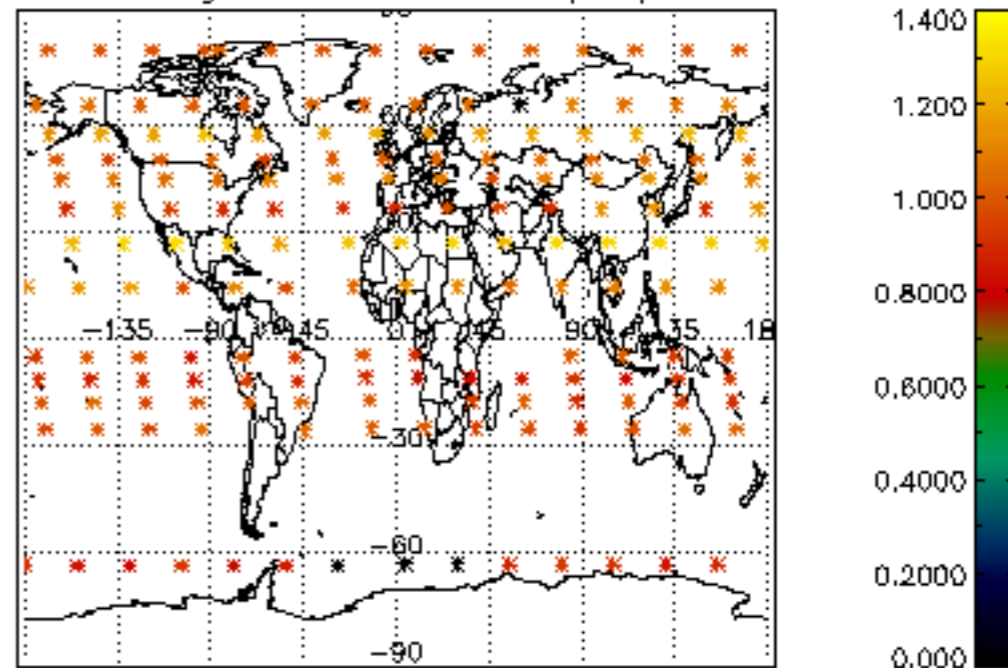




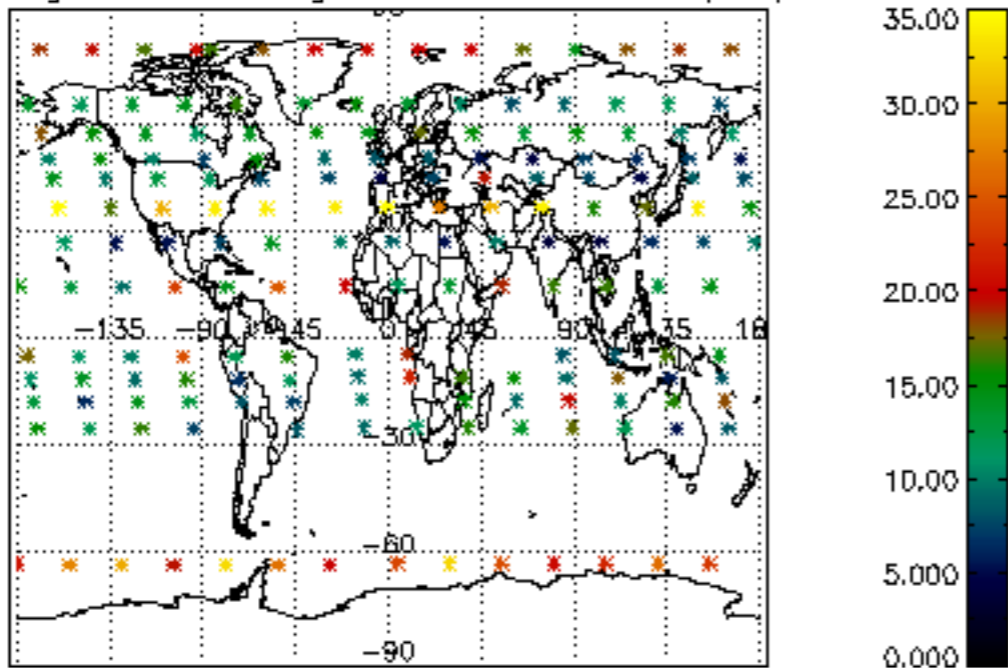
Percentage of cosmic ray hits per profile



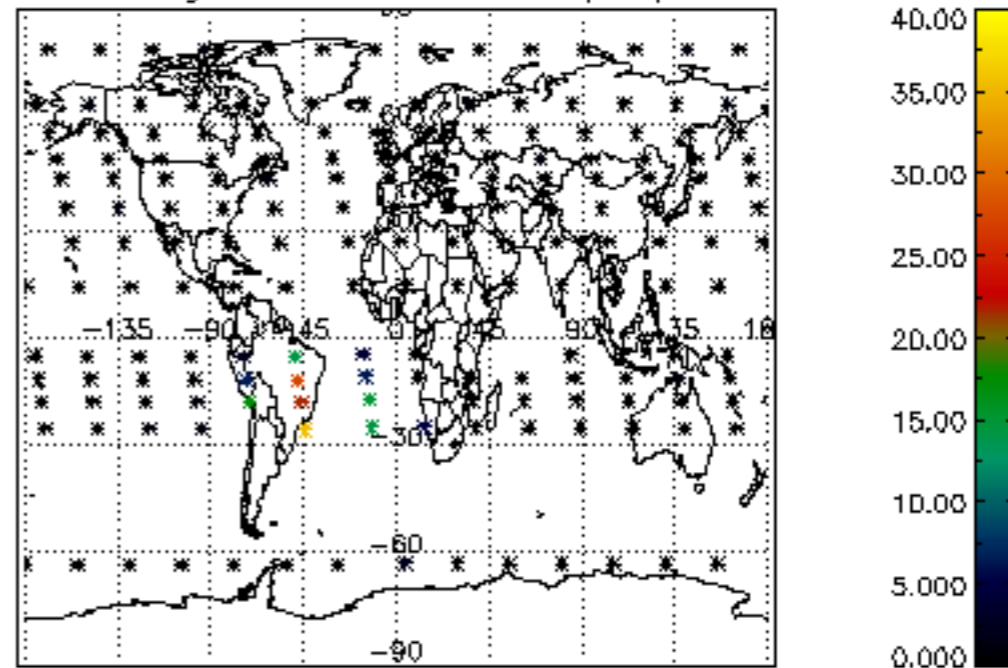
Percentage of datation errors per profile



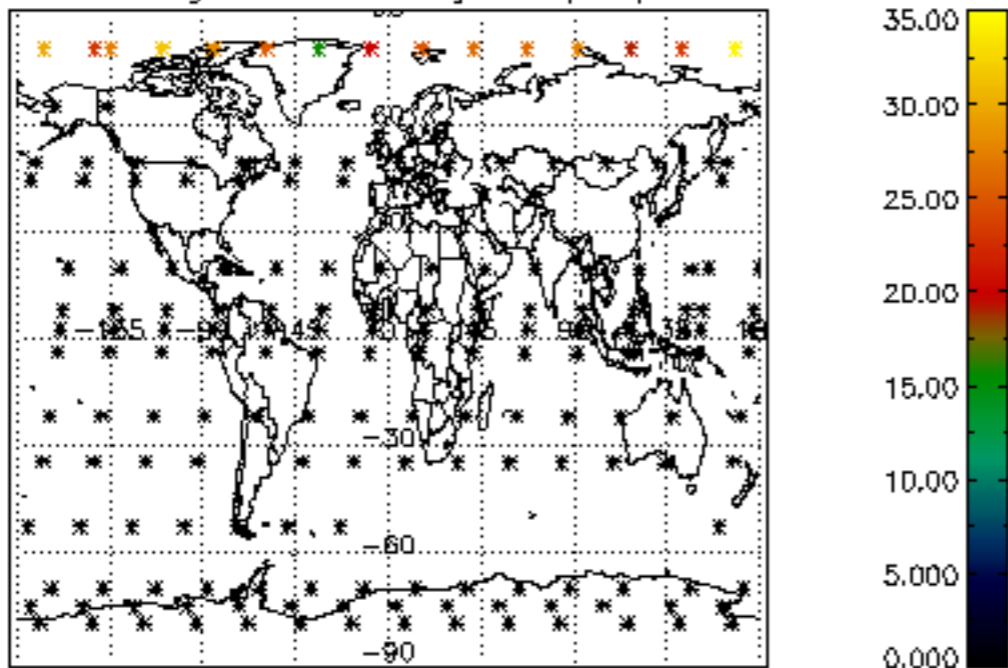
Percentage of star falling outside central band per profile



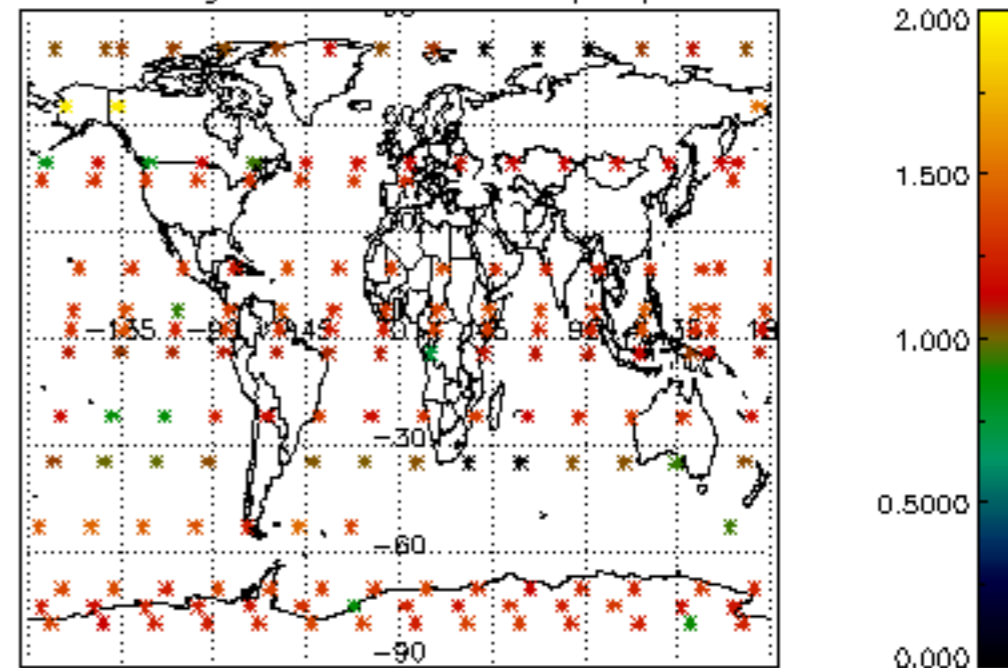
Percentage of saturation errors per profile



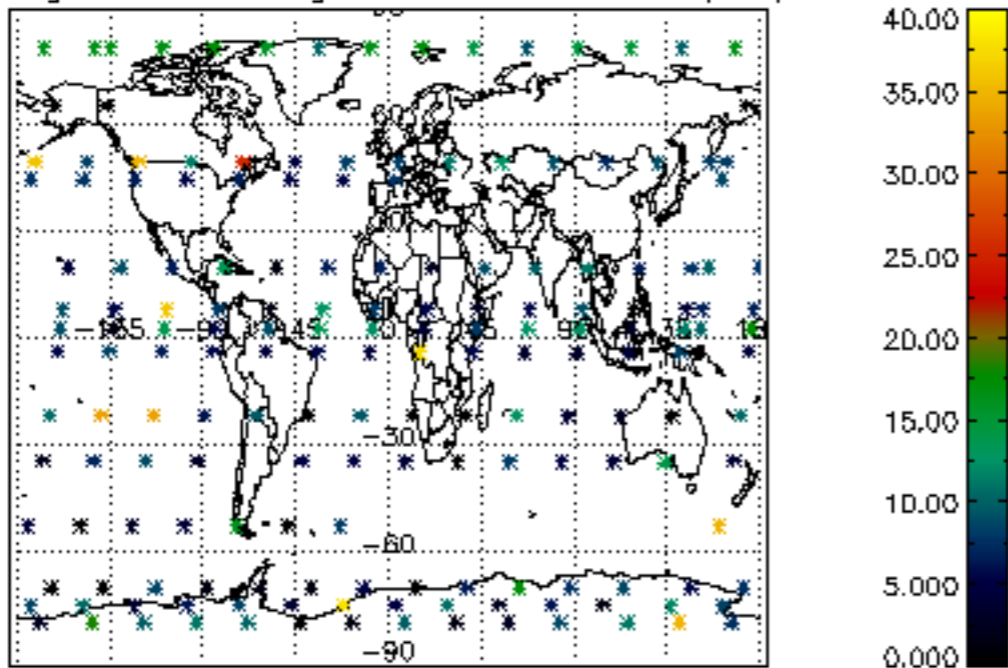
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

