

GOMOS Level 2 Daily Report

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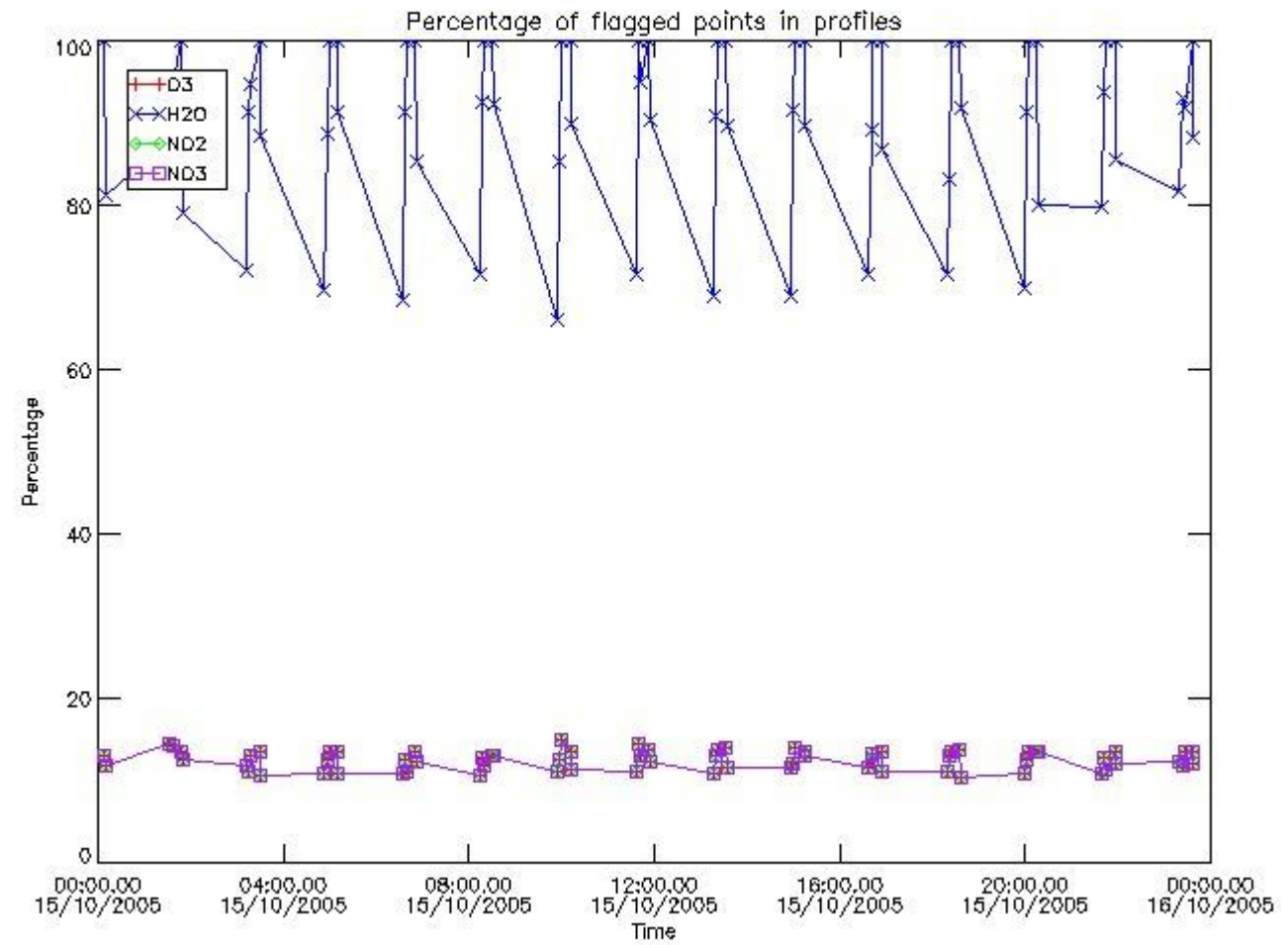
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220	GOM_NL__2PRFIN20051015_214450_000000452041_00373_18964_7639.N1	15-OCT-2005 21:44:50	Dark	45.000	29	Bet Car	1.6720	10200.	90	18964	No
221	GOM_NL__2PRFIN20051015_215552_000000382041_00373_18964_7640.N1	15-OCT-2005 21:55:52	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	18964	No
222	GOM_NL__2PRFIN20051015_215718_000000422041_00373_18964_7641.N1	15-OCT-2005 21:57:18	Dark	42.000	9	Alp Eri	0.45300	24000.	84	18964	No
223	GOM_NL__2PRFIN20051015_220219_000000432041_00373_18964_7642.N1	15-OCT-2005 22:02:19	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	18964	No
224	GOM_NL__2PRFIN20051015_220855_000000432041_00373_18964_7643.N1	15-OCT-2005 22:08:55	Straylight	43.000	52	16Bet Cet	2.0370	4500.0	86	18964	No
225	GOM_NL__2PRFIN20051015_221834_000000352041_00373_18964_7644.N1	15-OCT-2005 22:18:34	Bright	34.500	140	88Gam Peg	2.8340	26000.	69	18964	No
226	GOM_NL__2PRFIN20051015_222231_000000362041_00373_18964_7645.N1	15-OCT-2005 22:22:31	Bright	35.500	58	21Alp And	2.0730	11000.	71	18964	No
227	GOM_NL__2PRFIN20051015_223103_000000372041_00373_18964_7646.N1	15-OCT-2005 22:31:03	Bright	36.500	74	11Bet Cas	2.2680	6600.0	73	18964	No
228	GOM_NL__2PRFIN20051015_223324_000000362041_00373_18964_7647.N1	15-OCT-2005 22:33:24	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18964	No
229	GOM_NL__2PRFIN20051015_223933_000000362041_00373_18964_7648.N1	15-OCT-2005 22:39:33	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	18964	No
230	GOM_NL__2PRFIN20051015_224234_000000332041_00373_18964_7649.N1	15-OCT-2005 22:42:34	Bright	33.000	60	7Bet UMi	2.0810	3950.0	66	18964	No
231	GOM_NL__2PRFIN20051015_224747_000000342041_00373_18964_7650.N1	15-OCT-2005 22:47:47	Bright	33.500	36	50Alp UMa	1.8000	6300.0	67	18964	No
232	GOM_NL__2PRFIN20051015_224921_000000362041_00373_18964_7651.N1	15-OCT-2005 22:49:21	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	18964	No
233	GOM_NL__2PRFIN20051015_225244_000000412041_00373_18964_7652.N1	15-OCT-2005 22:52:44	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	18964	No
234	GOM_NL__2PRFIN20051015_225930_000000332041_00373_18964_7653.N1	15-OCT-2005 22:59:30	Bright	33.000	96	68Del Leo	2.5600	9300.0	66	18964	No
235	GOM_NL__2PRFIN20051015_231955_000000422041_00373_18964_7654.N1	15-OCT-2005 23:19:55	Dark	41.500	65	Lam Vel	2.2040	4400.0	83	18964	No
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240	GOM_NL__2PRFIN20051015_234255_000000412041_00374_18965_7642.N1	15-OCT-2005 23:42:55	Straylight	41.000	84	Alp Phe	2.3970	4500.0	82	18965	No
241	GOM_NL__2PRFIN20051015_234931_000000452041_00374_18965_7643.N1	15-OCT-2005 23:49:31	Straylight	44.500	52	16Bet Cet	2.0370	4500.0	89	18965	No
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3. Quality information per product

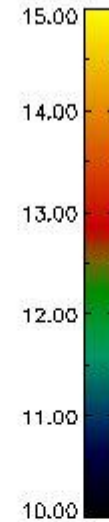
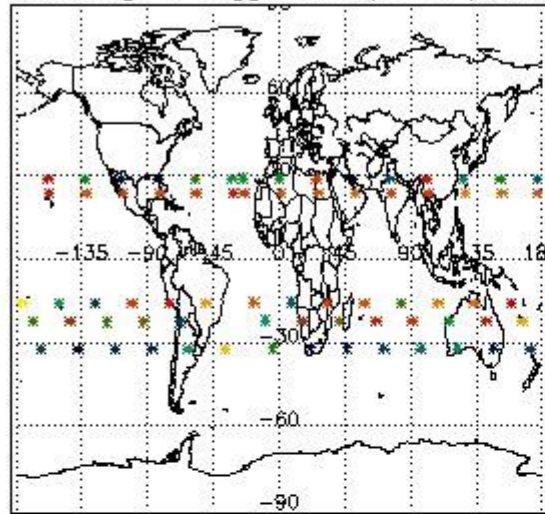
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

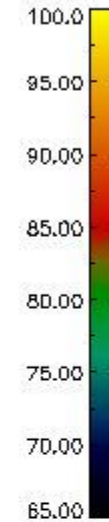
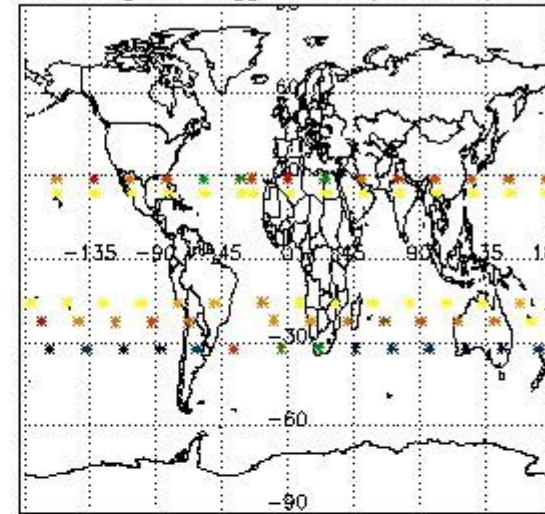


3.2 Plot quality information per product (world map)

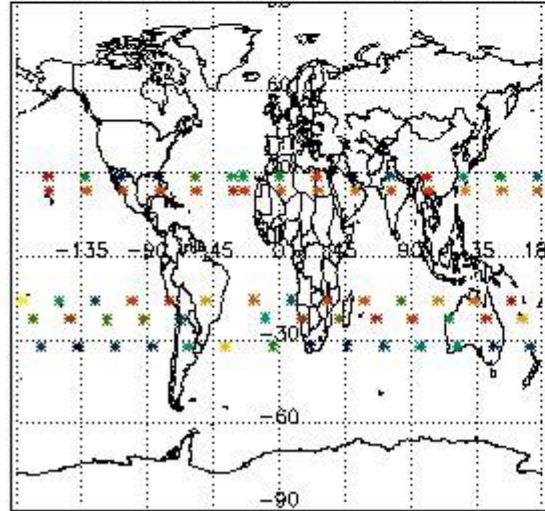
Percentage of flagged data per O3 profile



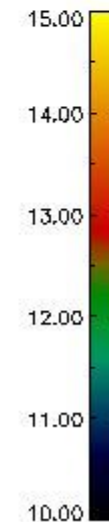
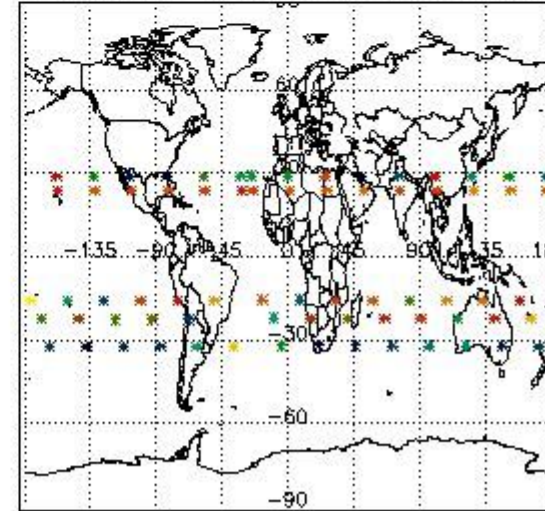
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

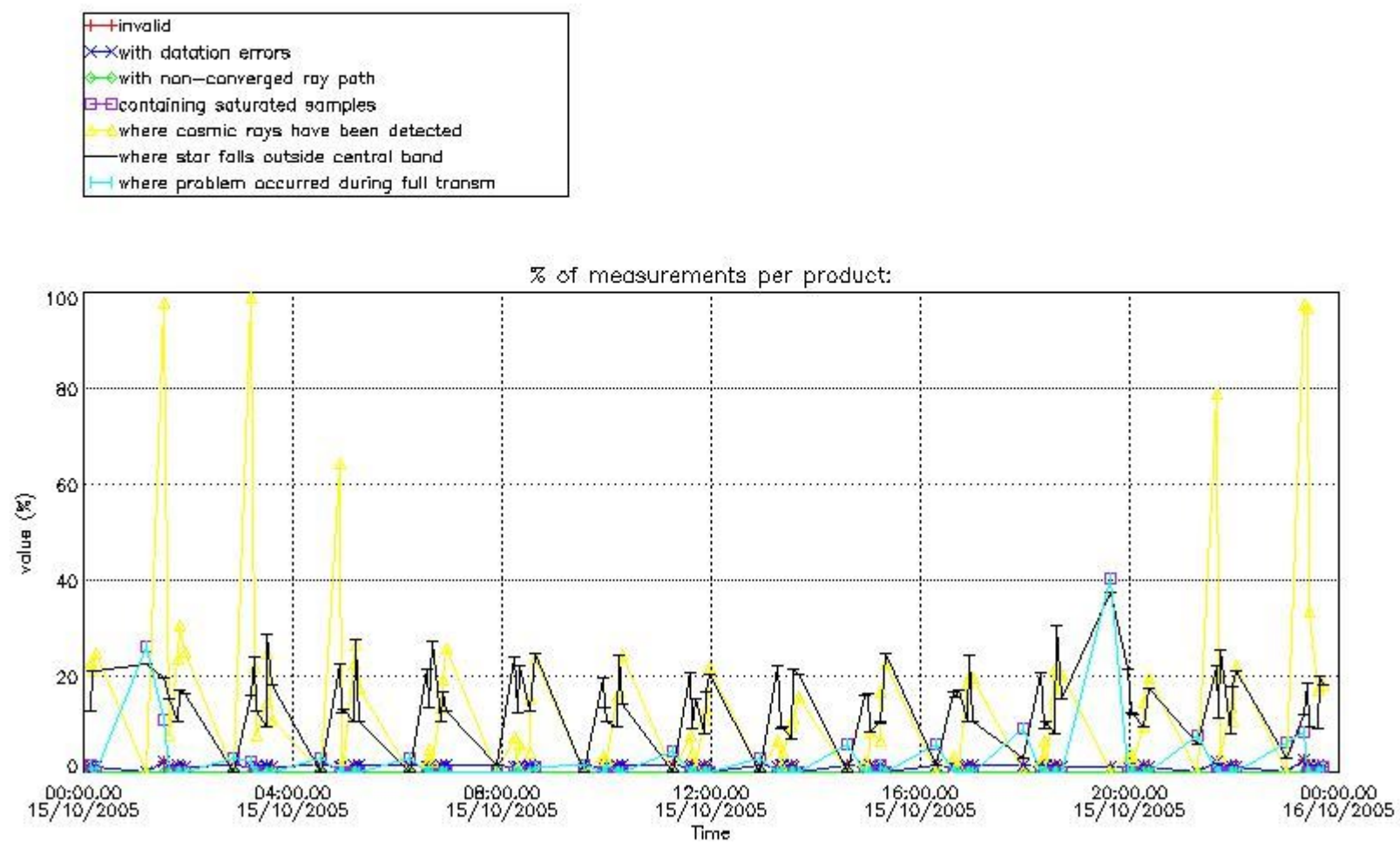


4. Level 1 quality information per product

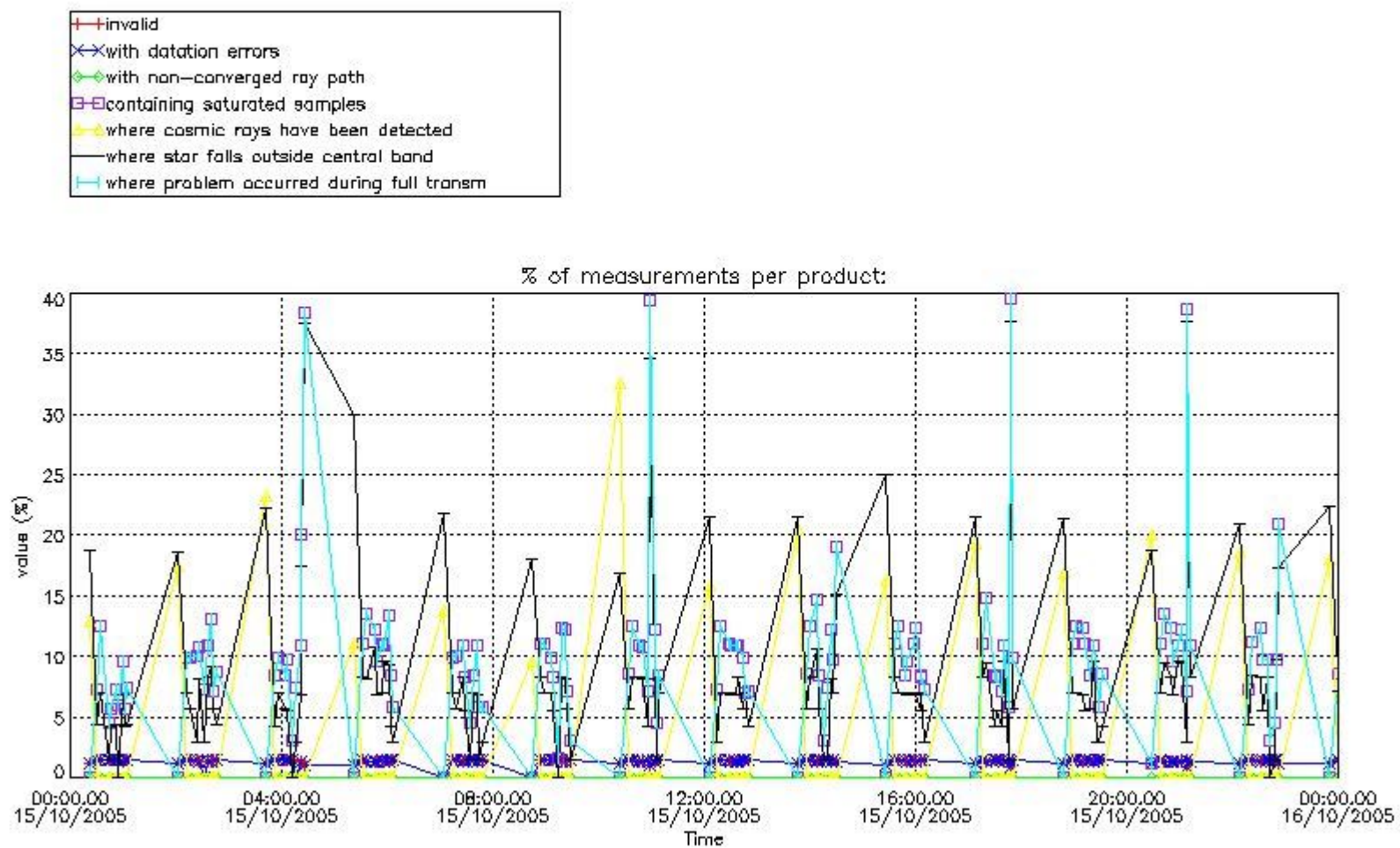
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



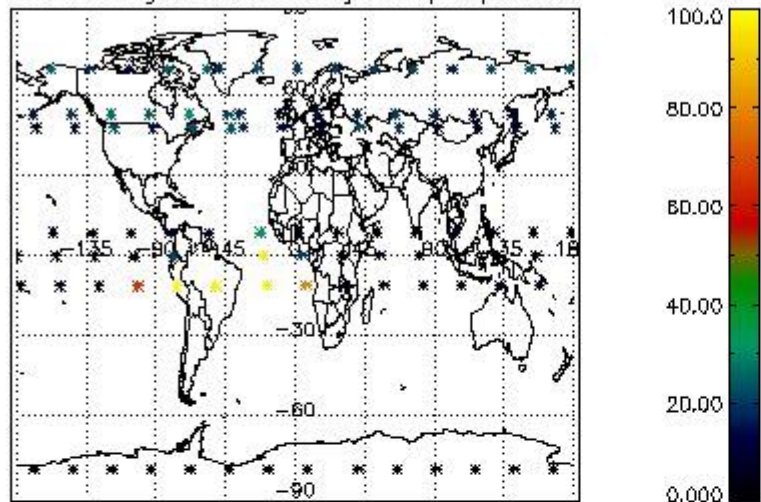
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



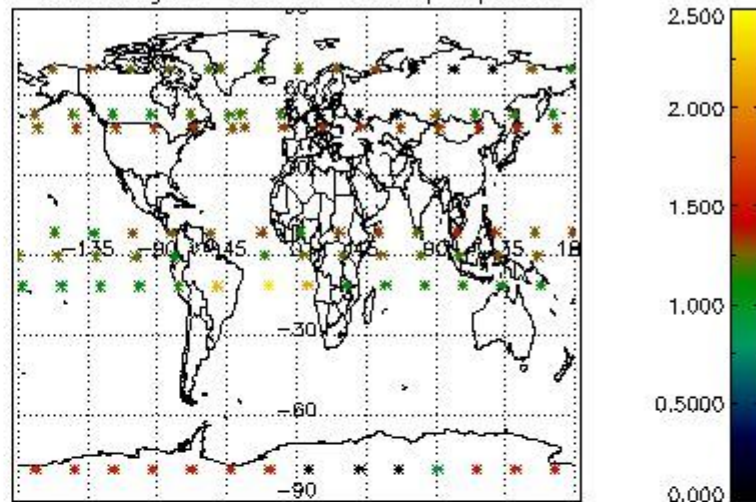
4.2 Plot quality information per product coming from level 1b processing (world map)

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

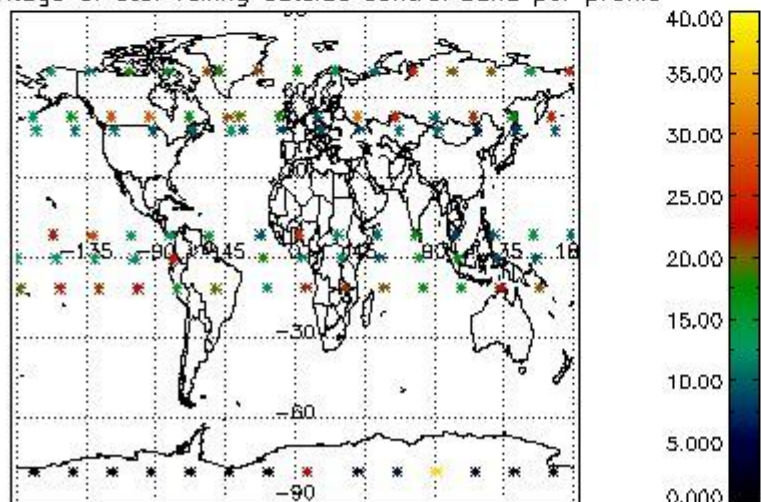
Percentage of cosmic ray hits per profile



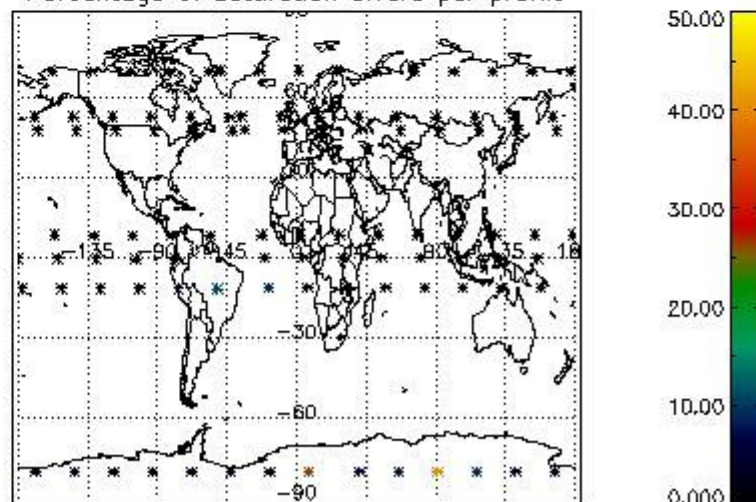
Percentage of datation errors per profile



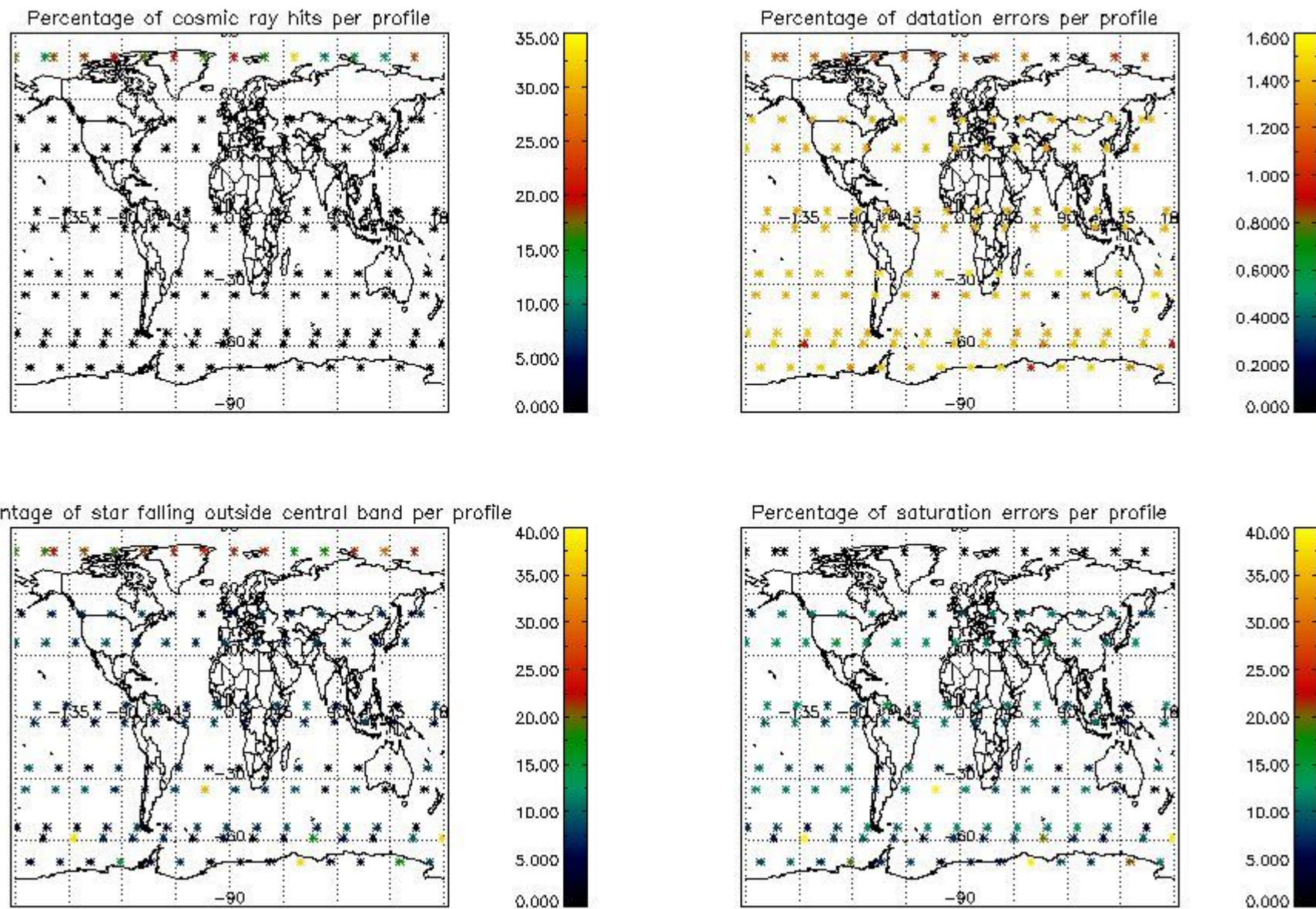
Percentage of star falling outside central band per profile



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

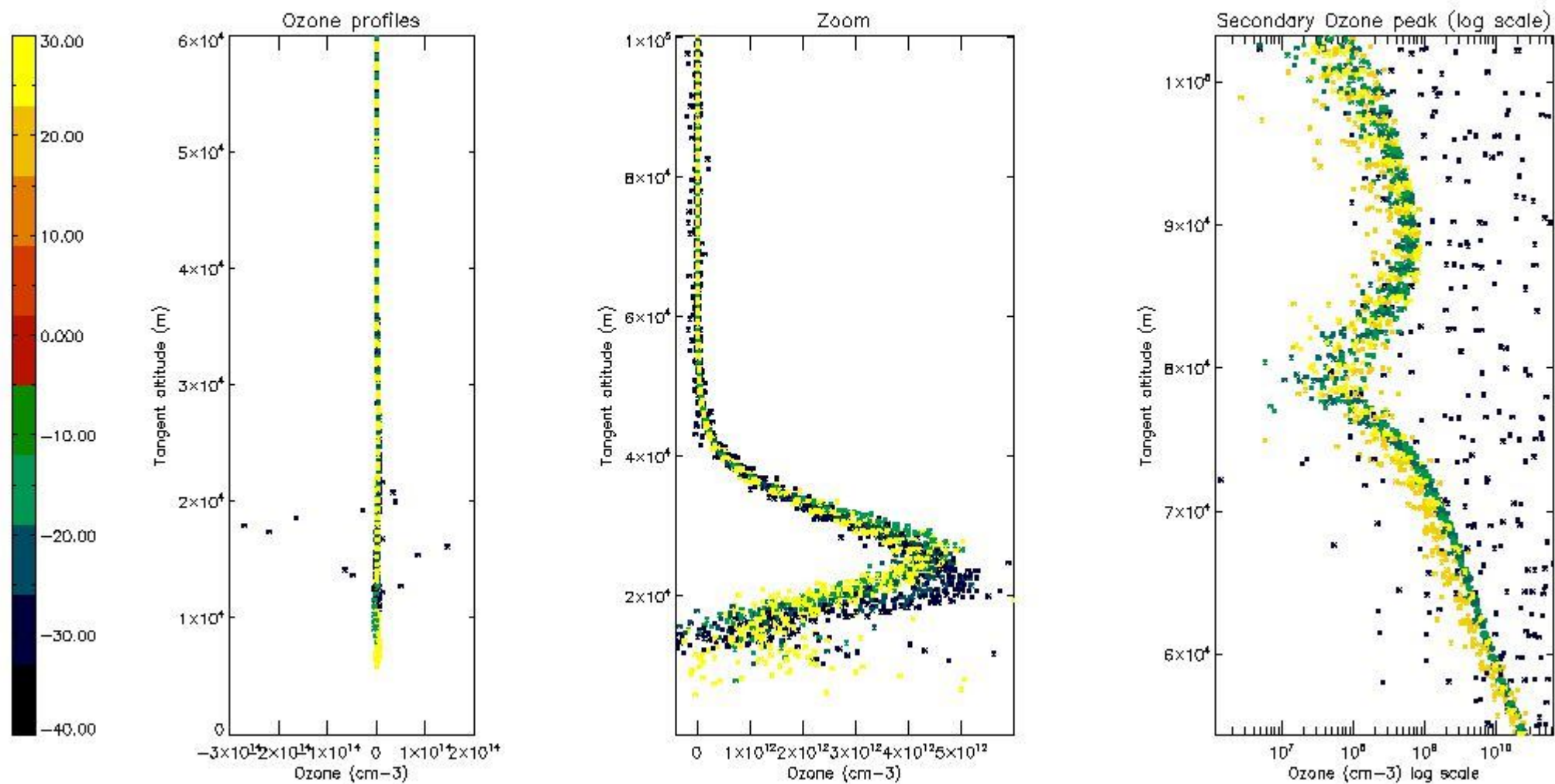
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	14
STD < 5	9

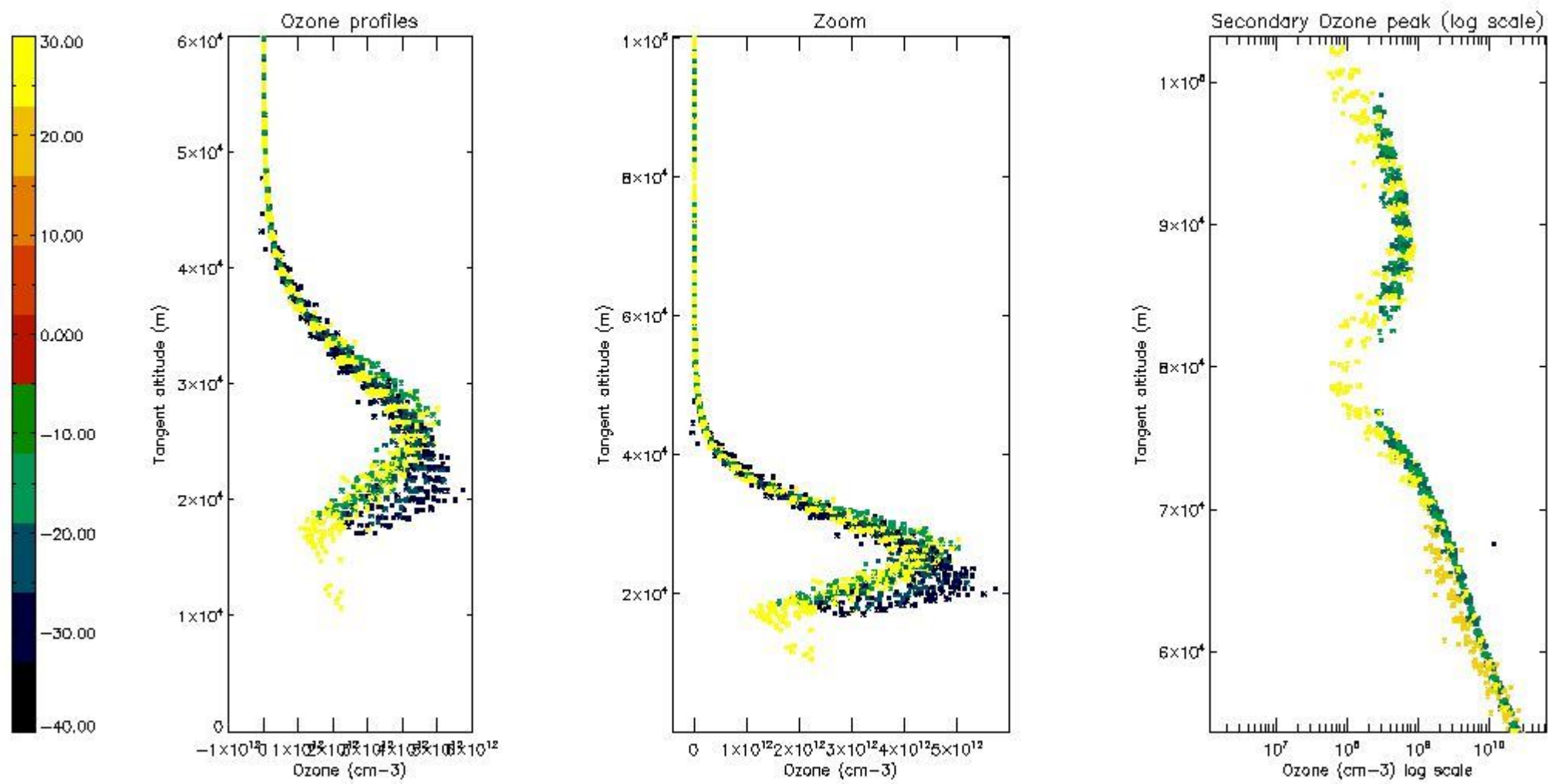
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



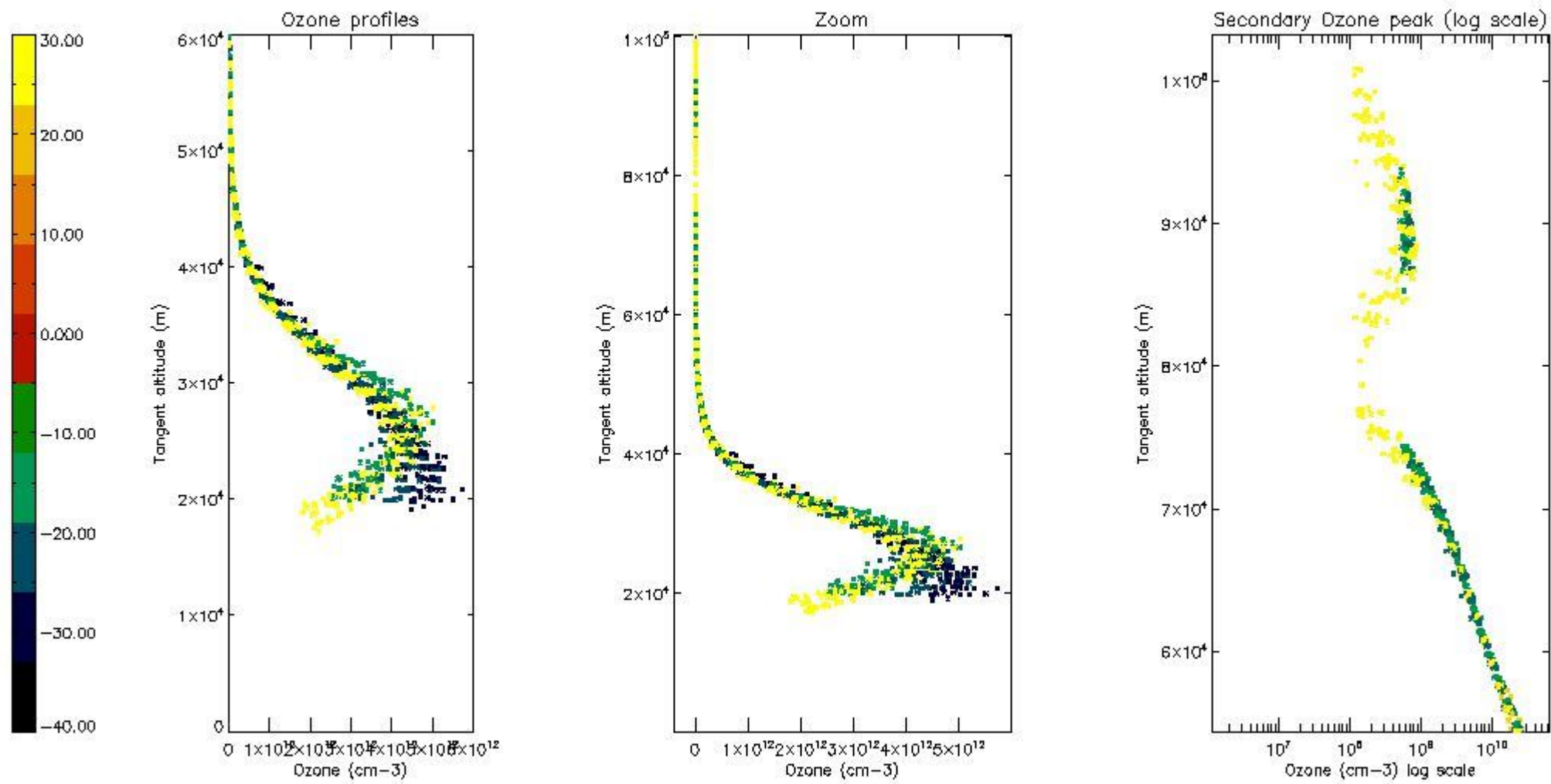
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



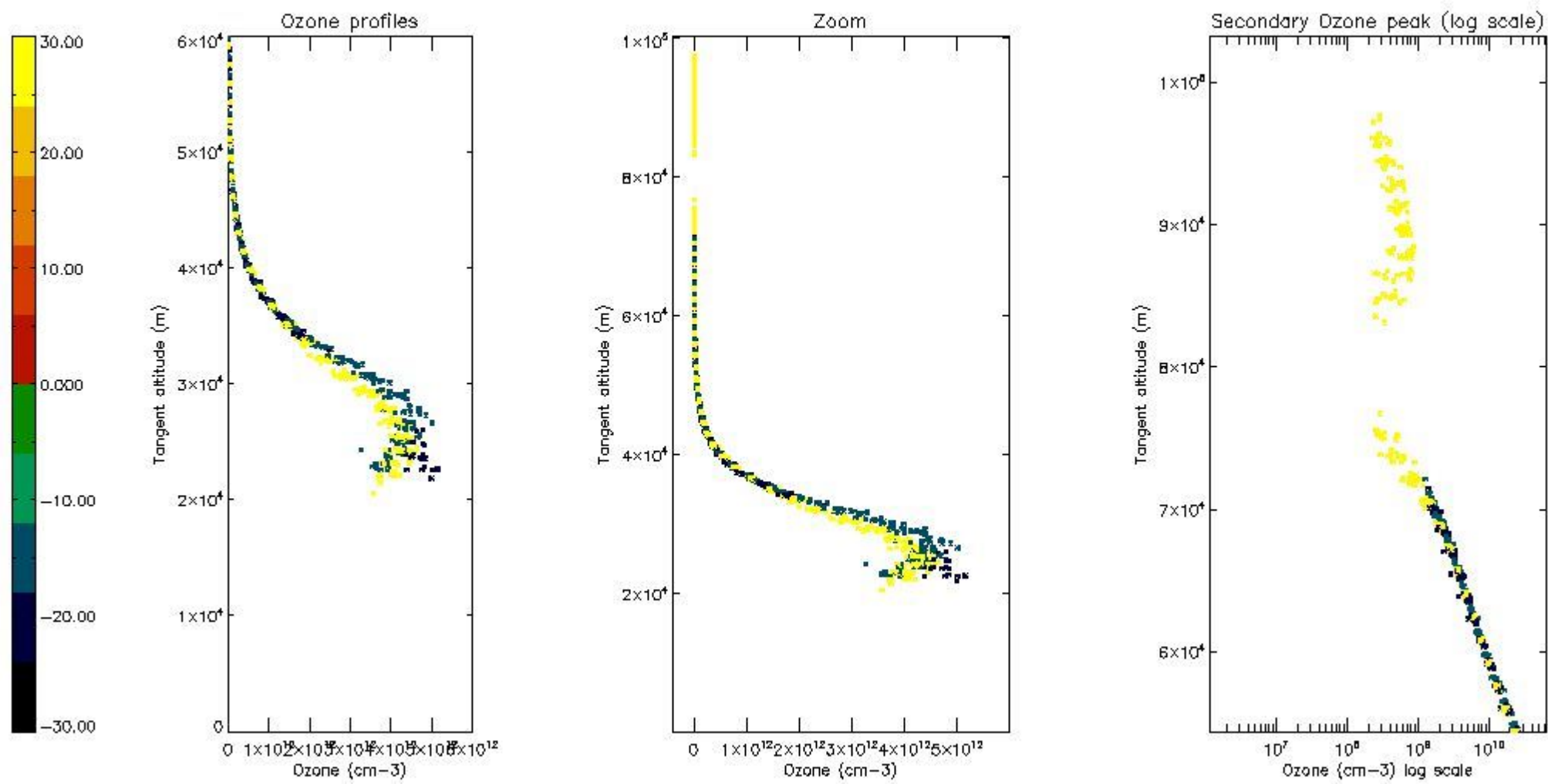
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



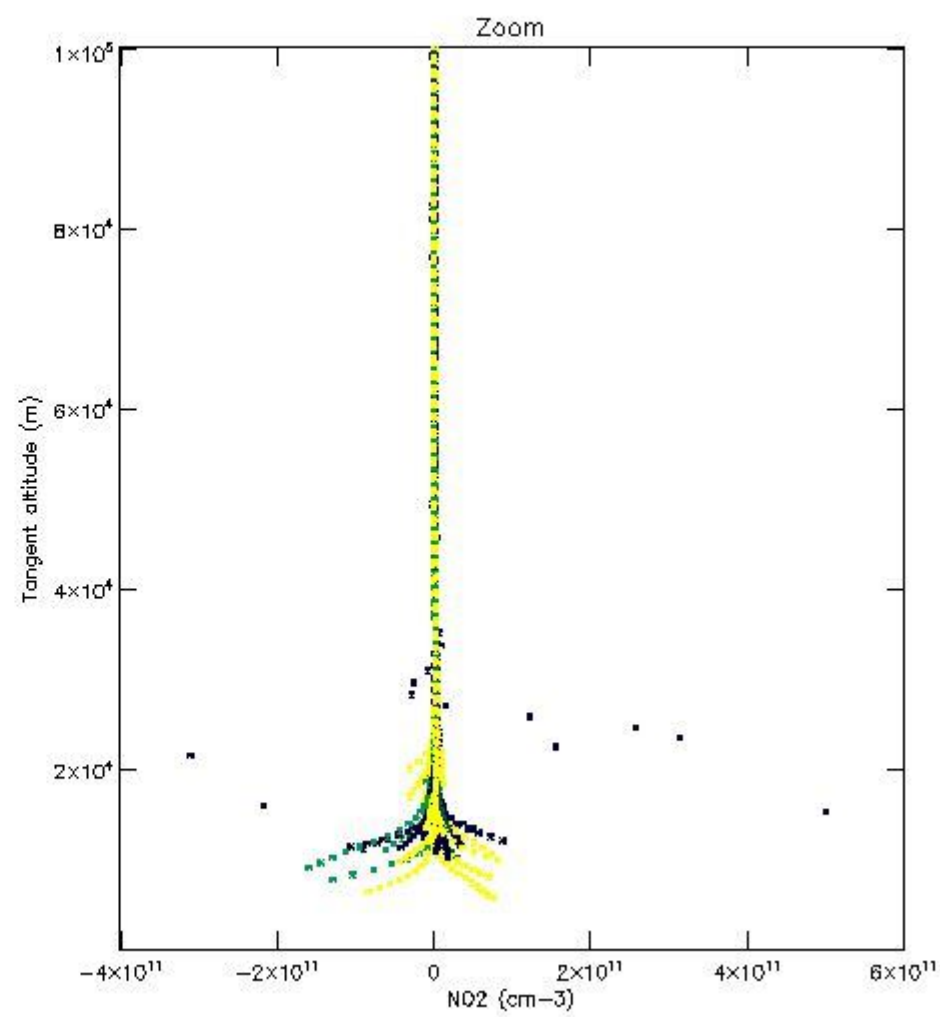
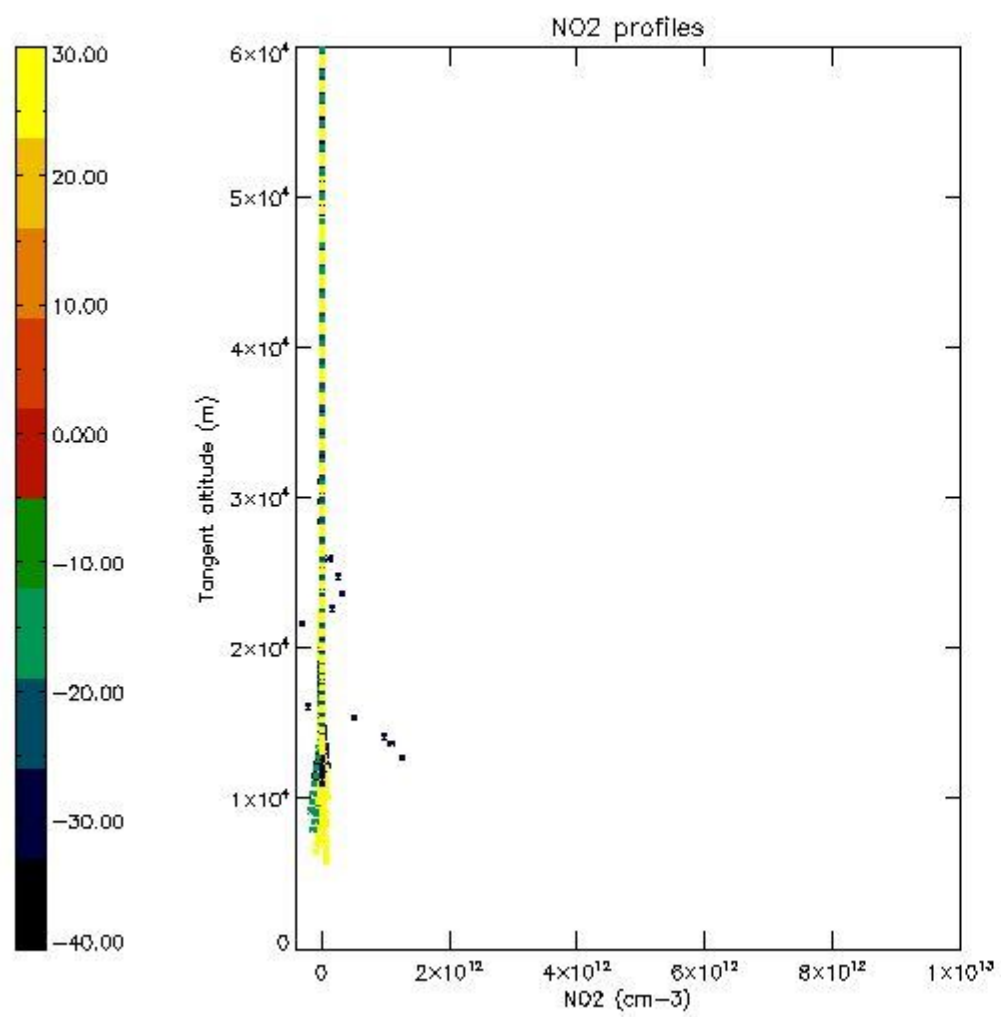
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



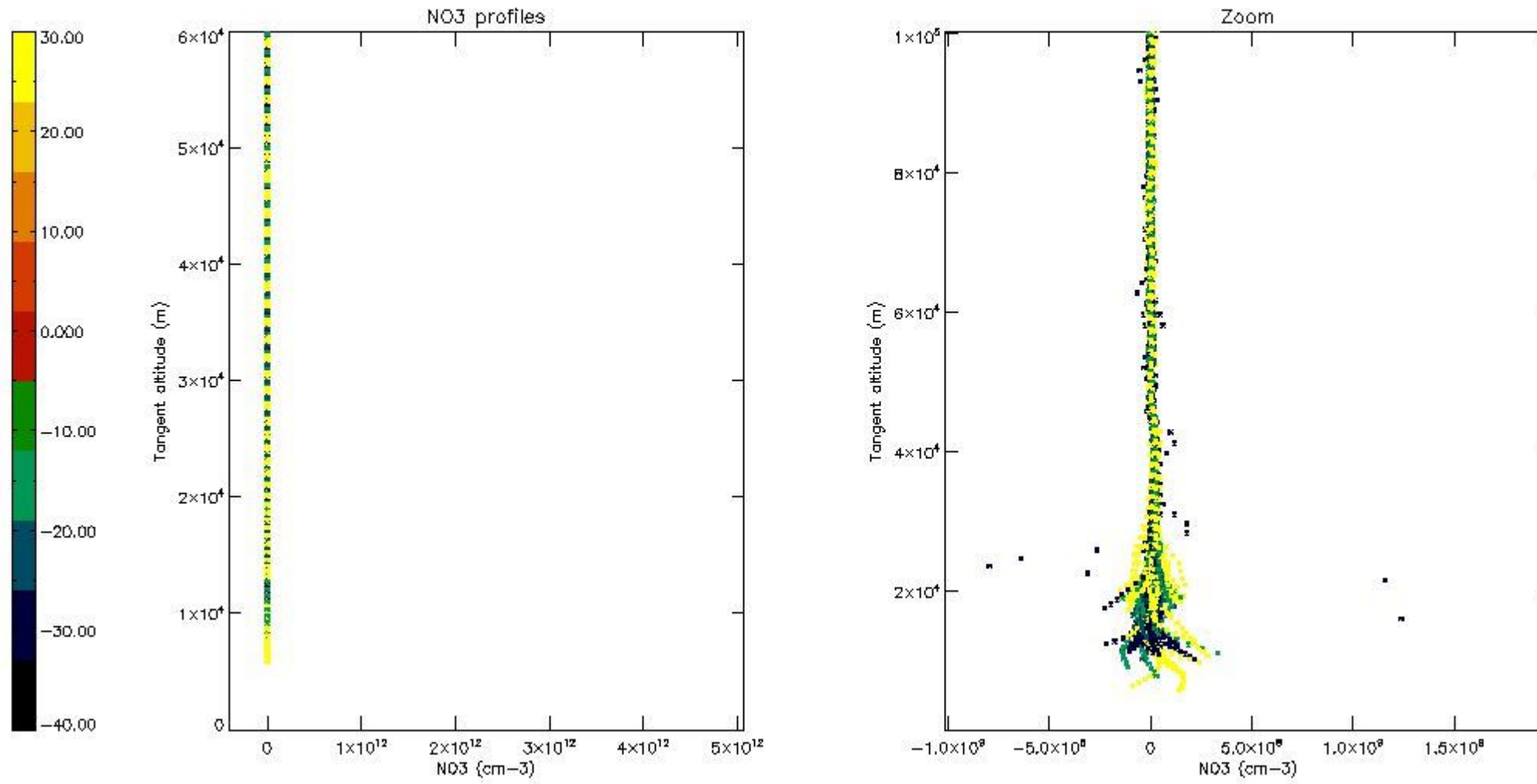
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-OCT-2005 00:08:01
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-OCT-2005 00:08:01
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-OCT-2005 00:08:01

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

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

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

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[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](#)

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

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

[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](#)

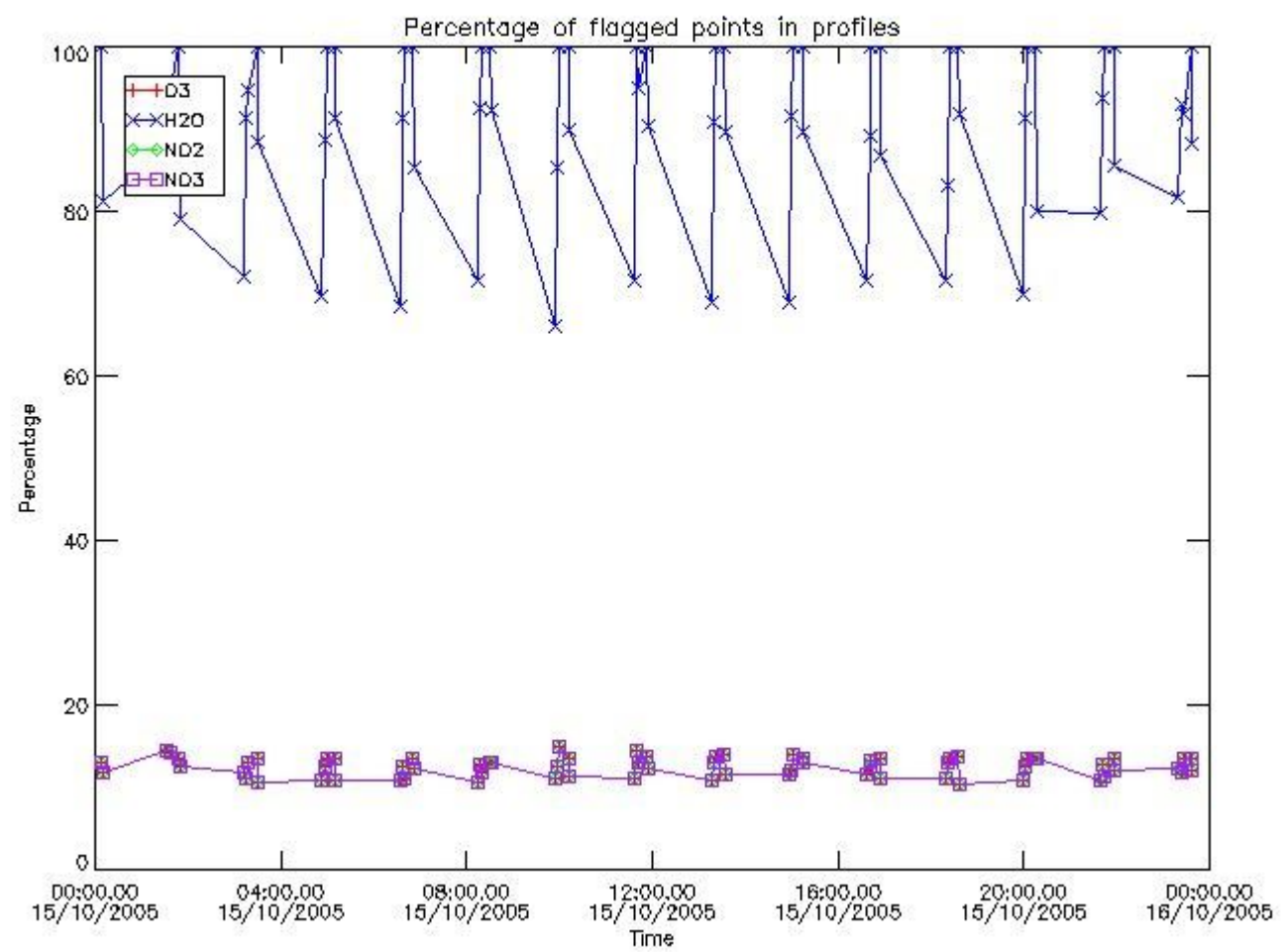
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220	GOM_NL__2PRFIN20051015_214450_000000452041_00373_18964_7639.N1	15-OCT-2005 21:44:50	Dark	45.000	29	Bet Car	1.6720	10200.	90	18964	No
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242	GOM_NL__2PRFIN20051015_235910_000000352041_00374_18965_7644.N1	15-OCT-2005 23:59:10	Bright	35.000	140	88Gam Peg	2.8340	26000.	70	18965	No

3. Quality information per product

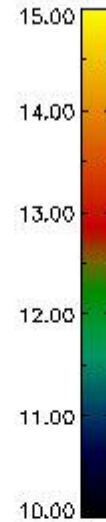
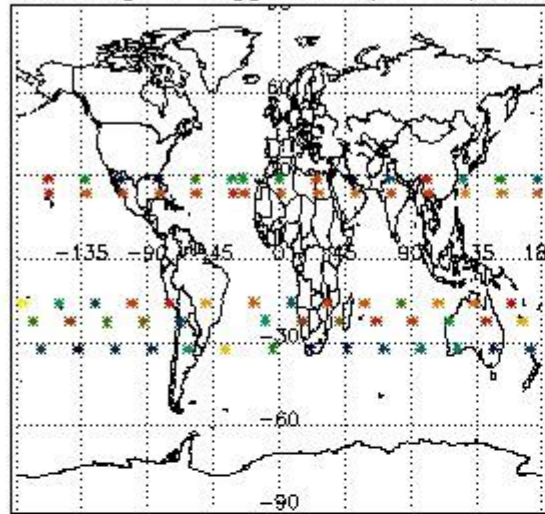
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3.1 Plot quality information per product (time dependant)

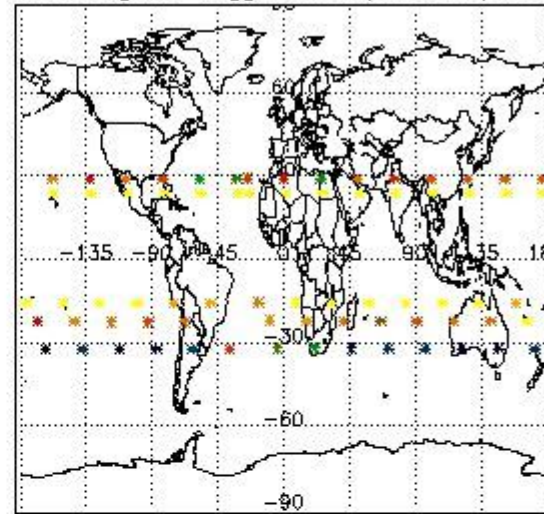


3.2 Plot quality information per product (world map)

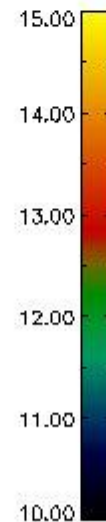
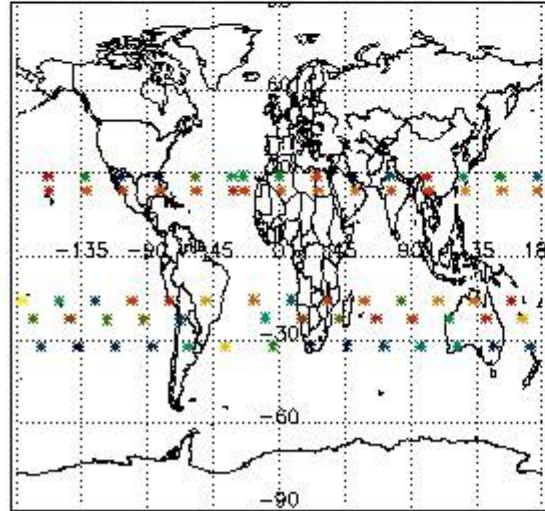
Percentage of flagged data per O3 profile



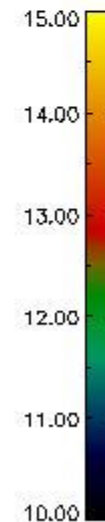
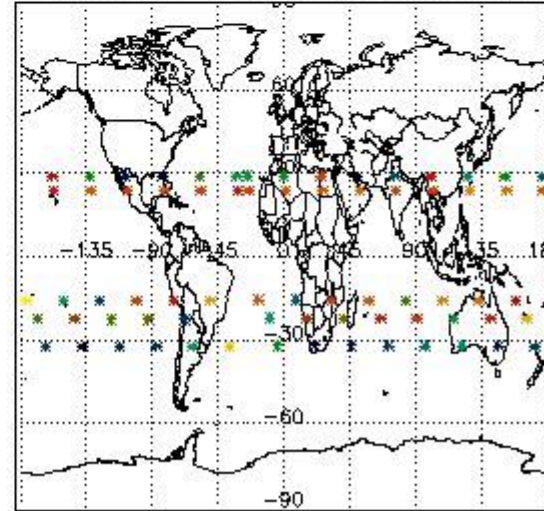
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

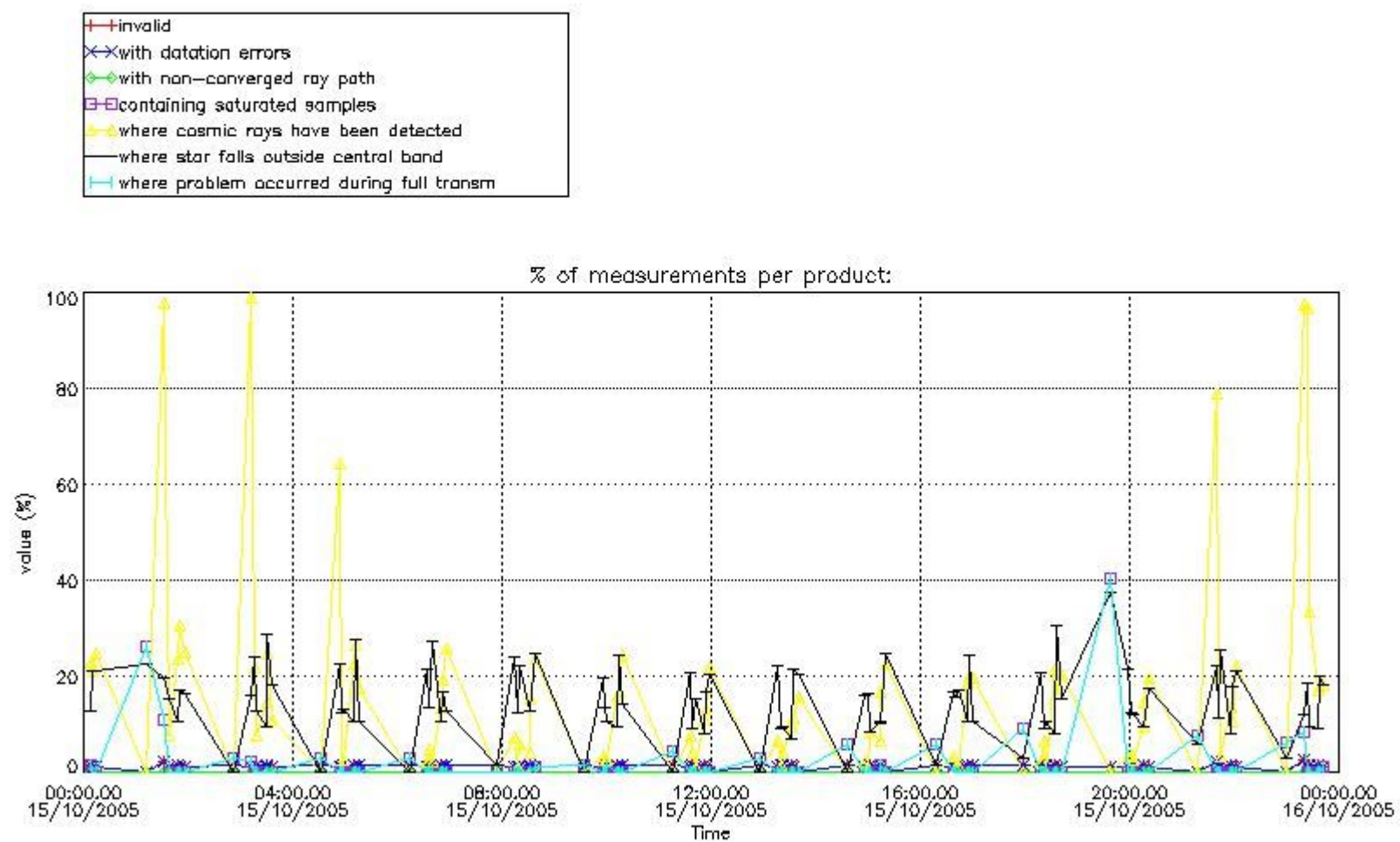


4. Level 1 quality information per product

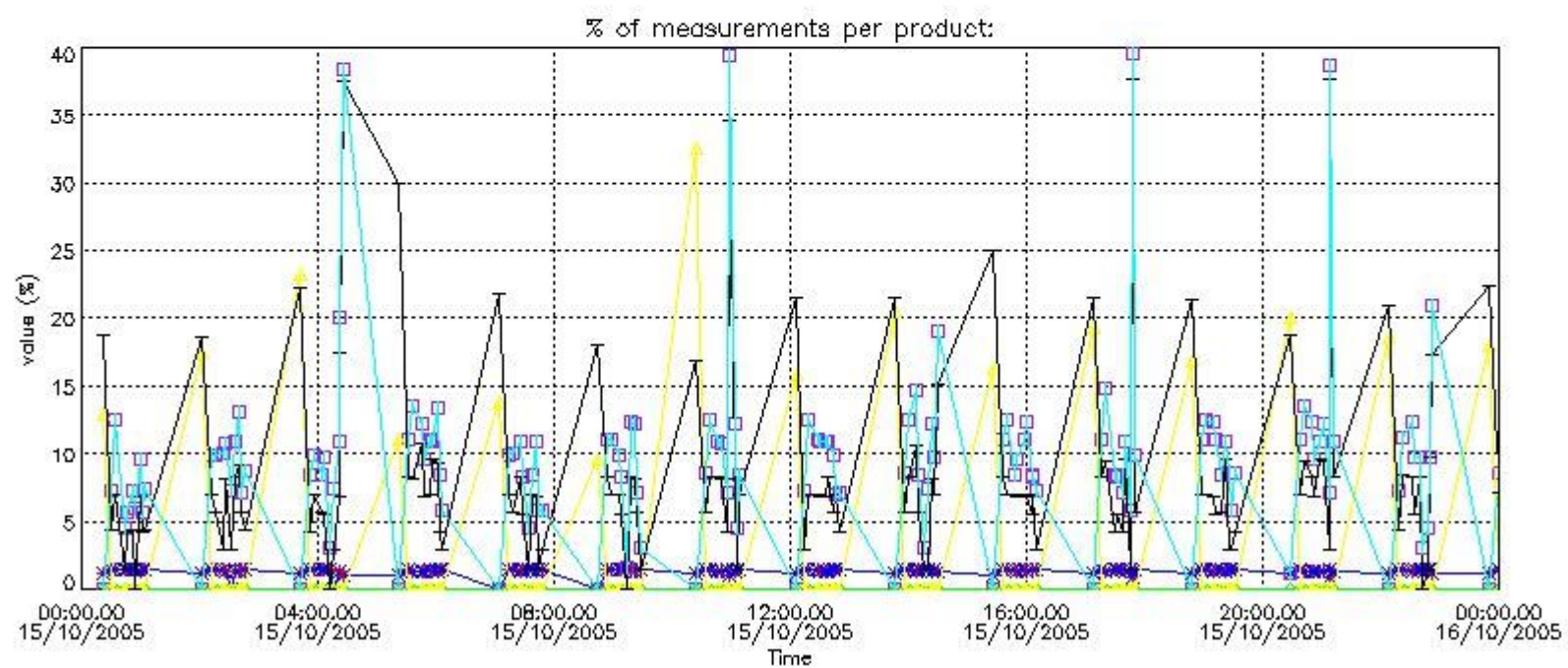
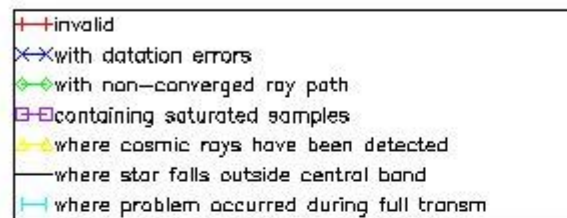
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



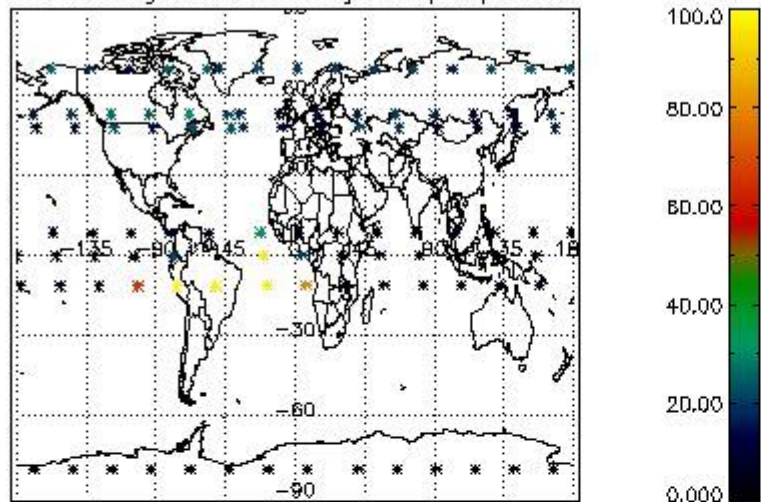
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



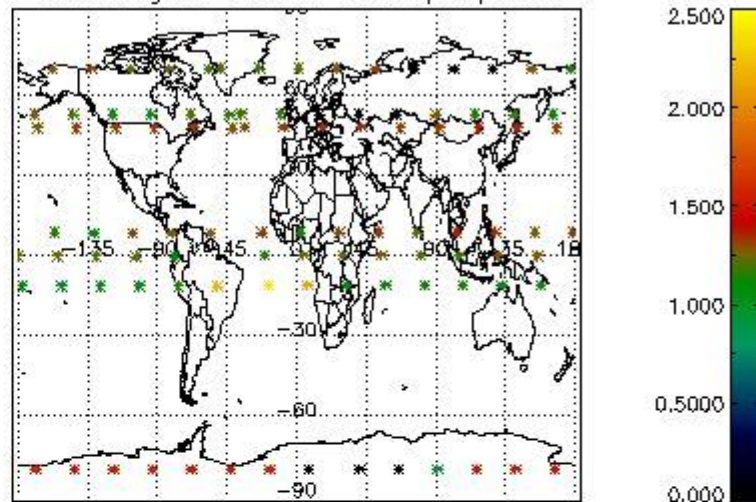
4.2 Plot quality information per product coming from level 1b processing (world map)

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

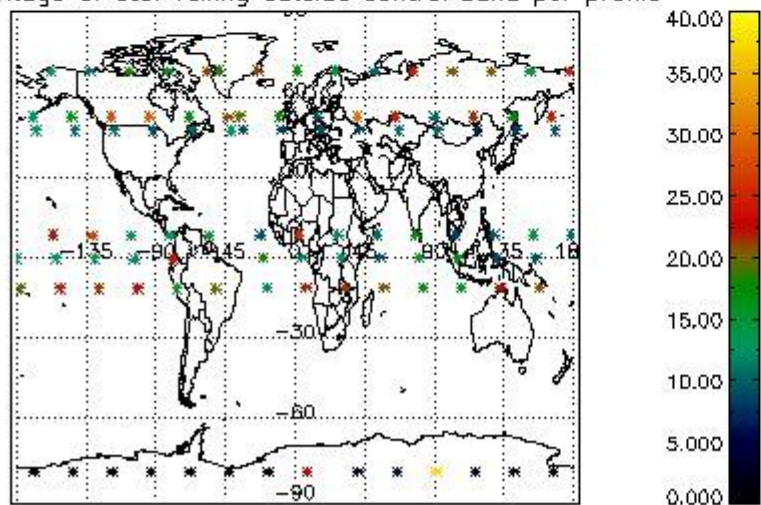
Percentage of cosmic ray hits per profile



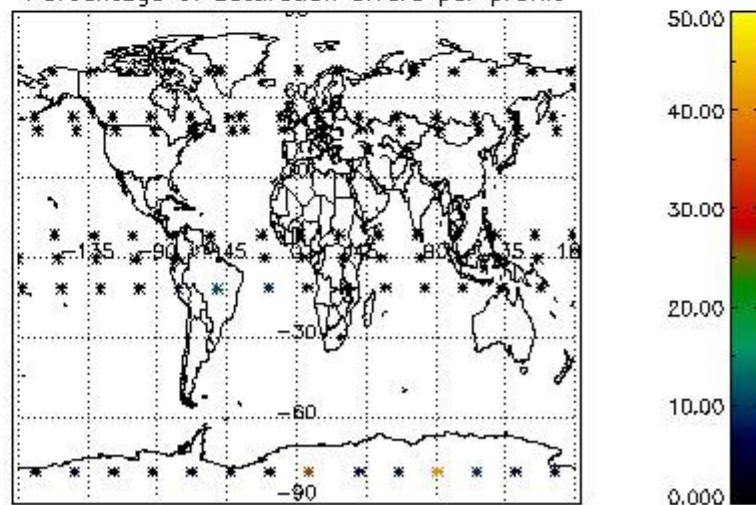
Percentage of datation errors per profile



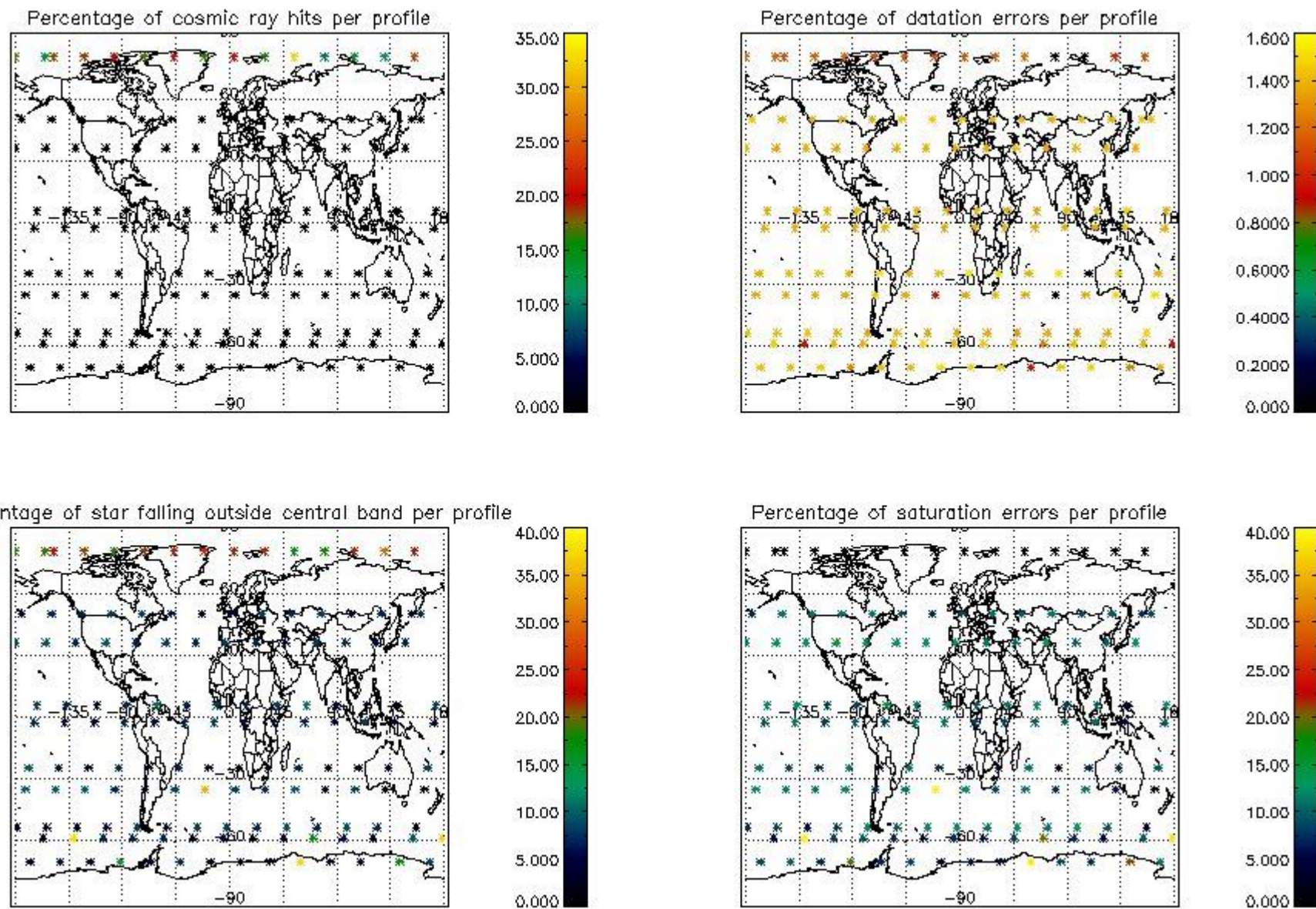
Percentage of star falling outside central band per profile



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

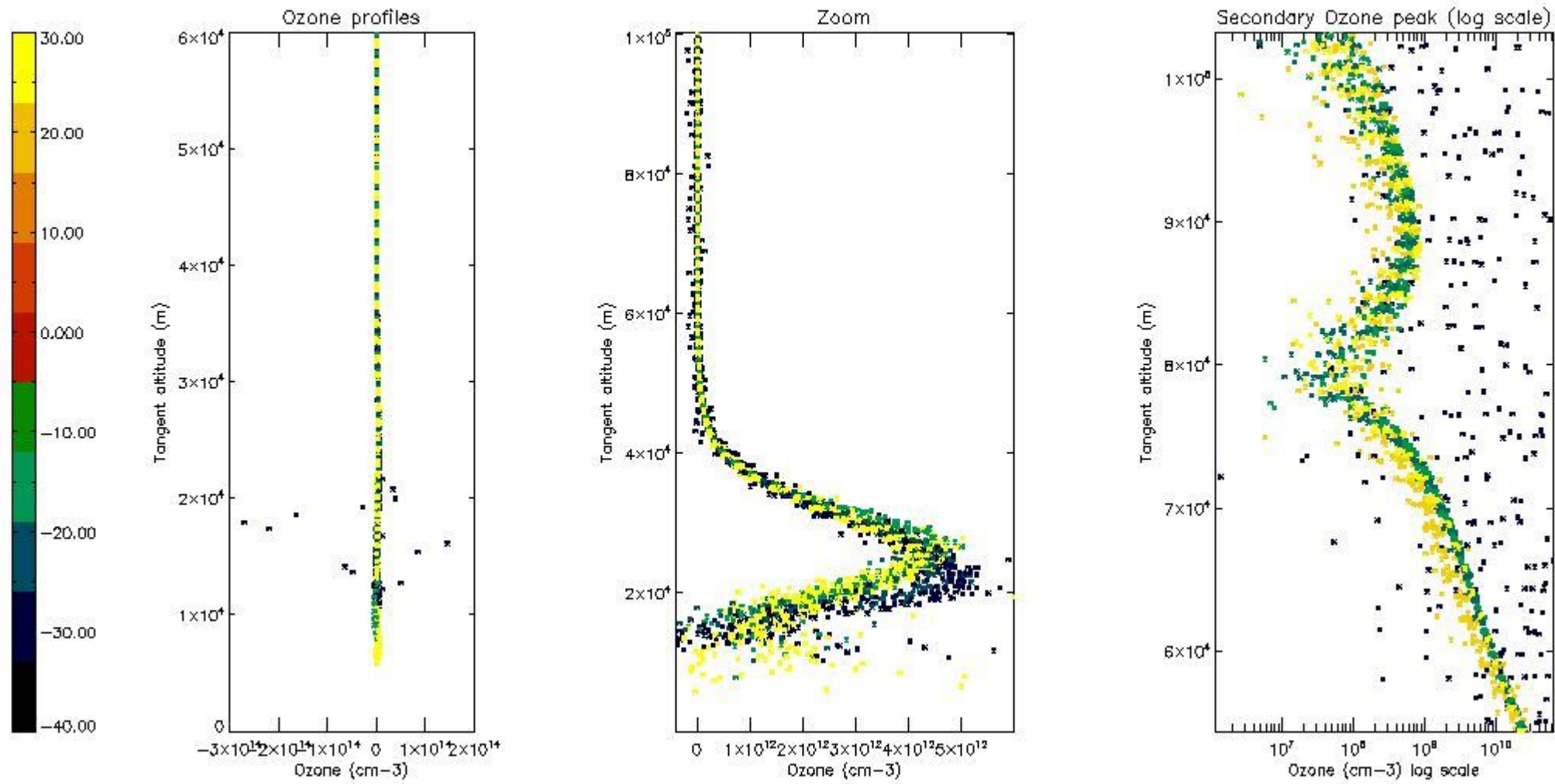
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	14
STD < 5	9

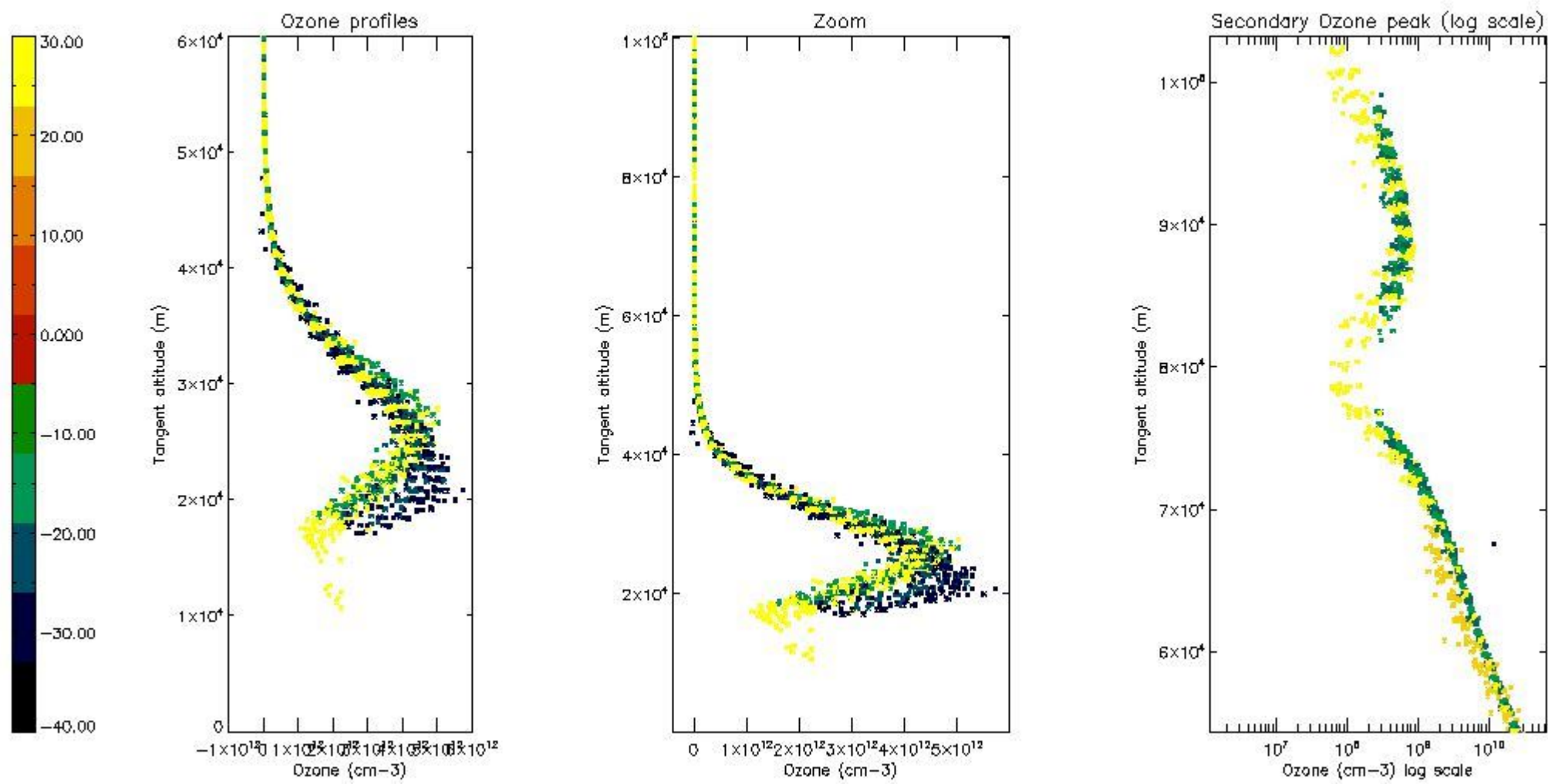
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



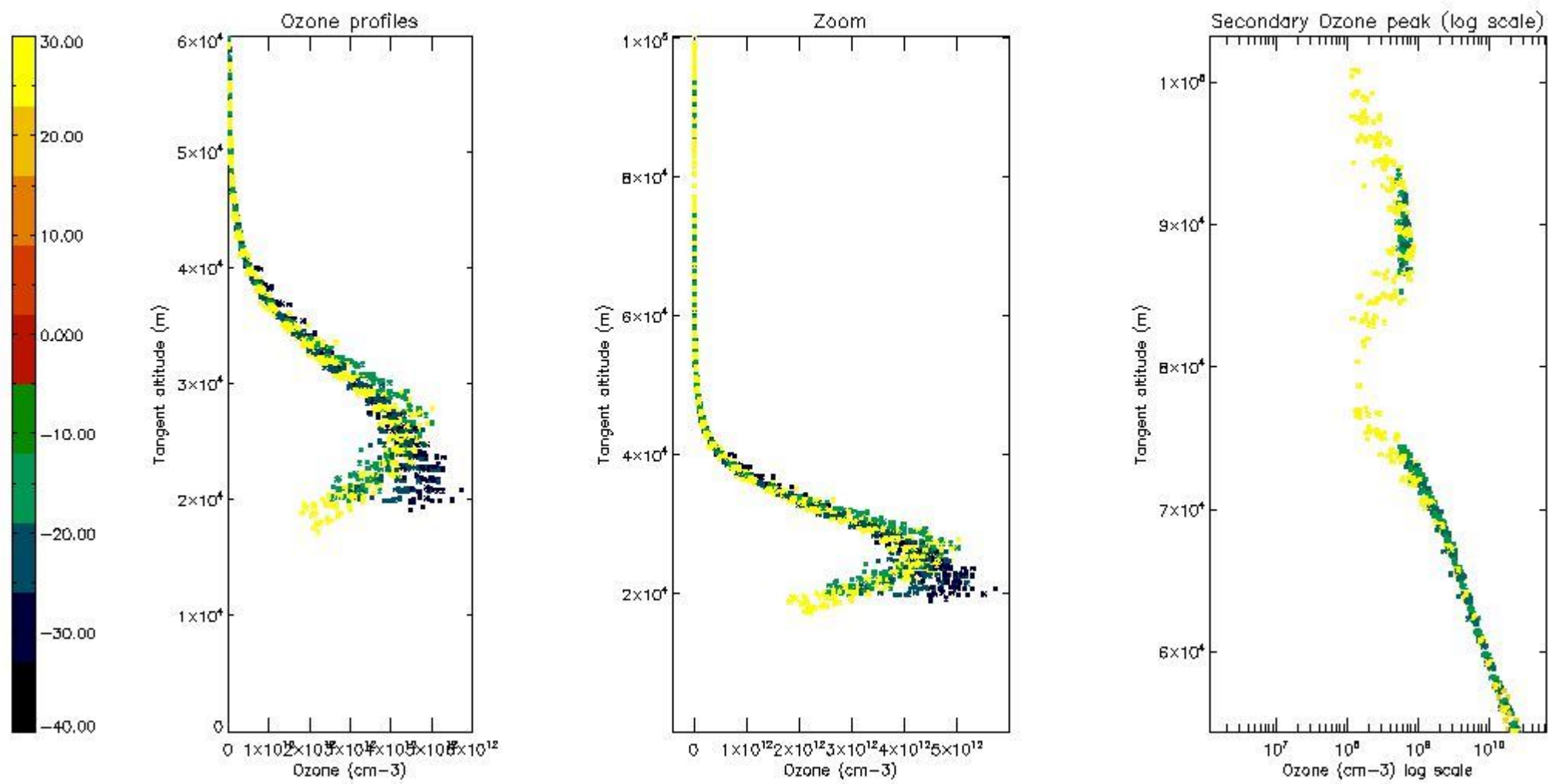
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



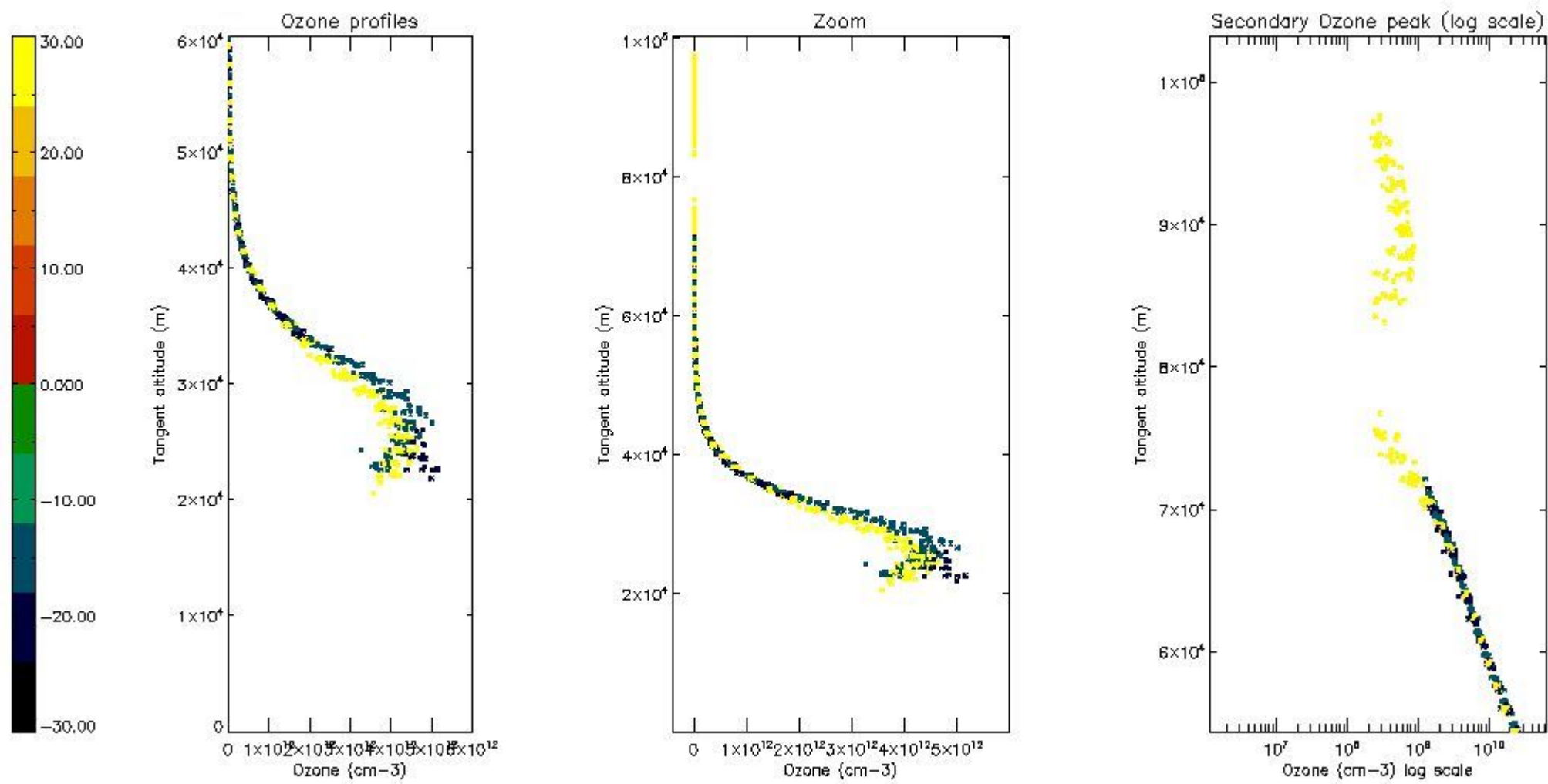
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



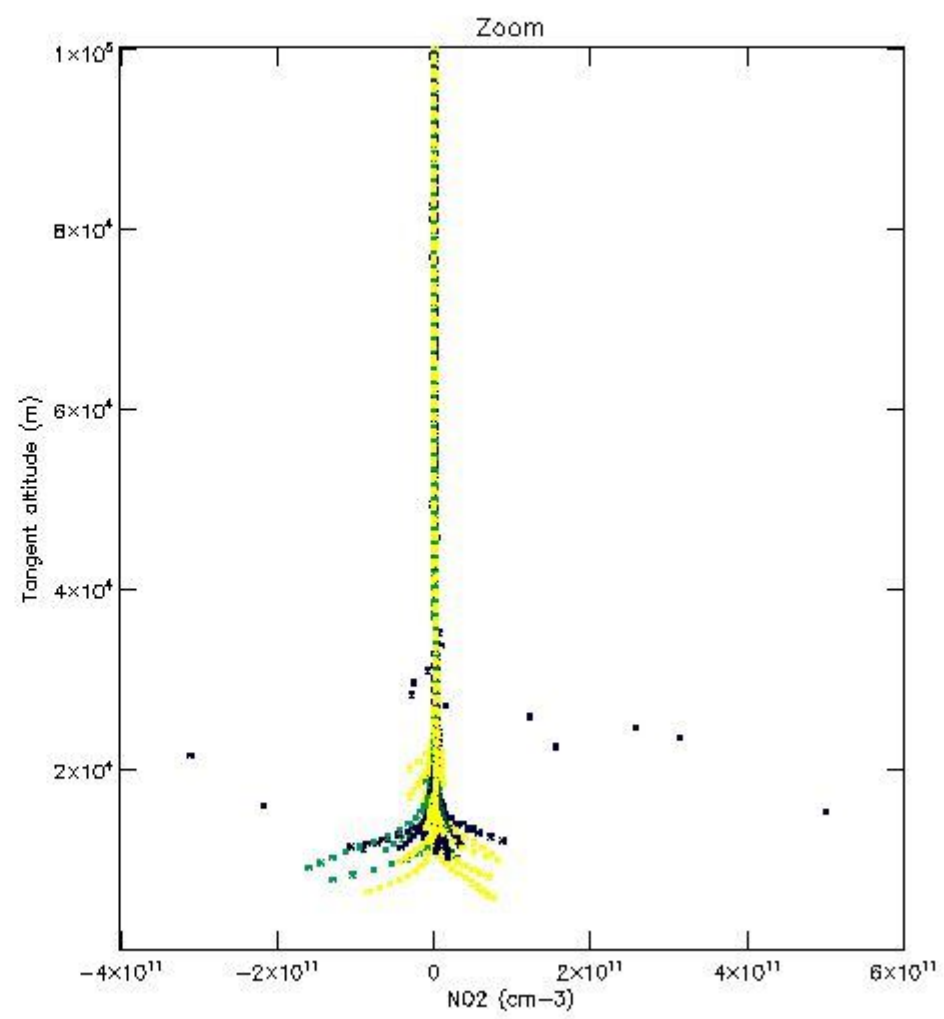
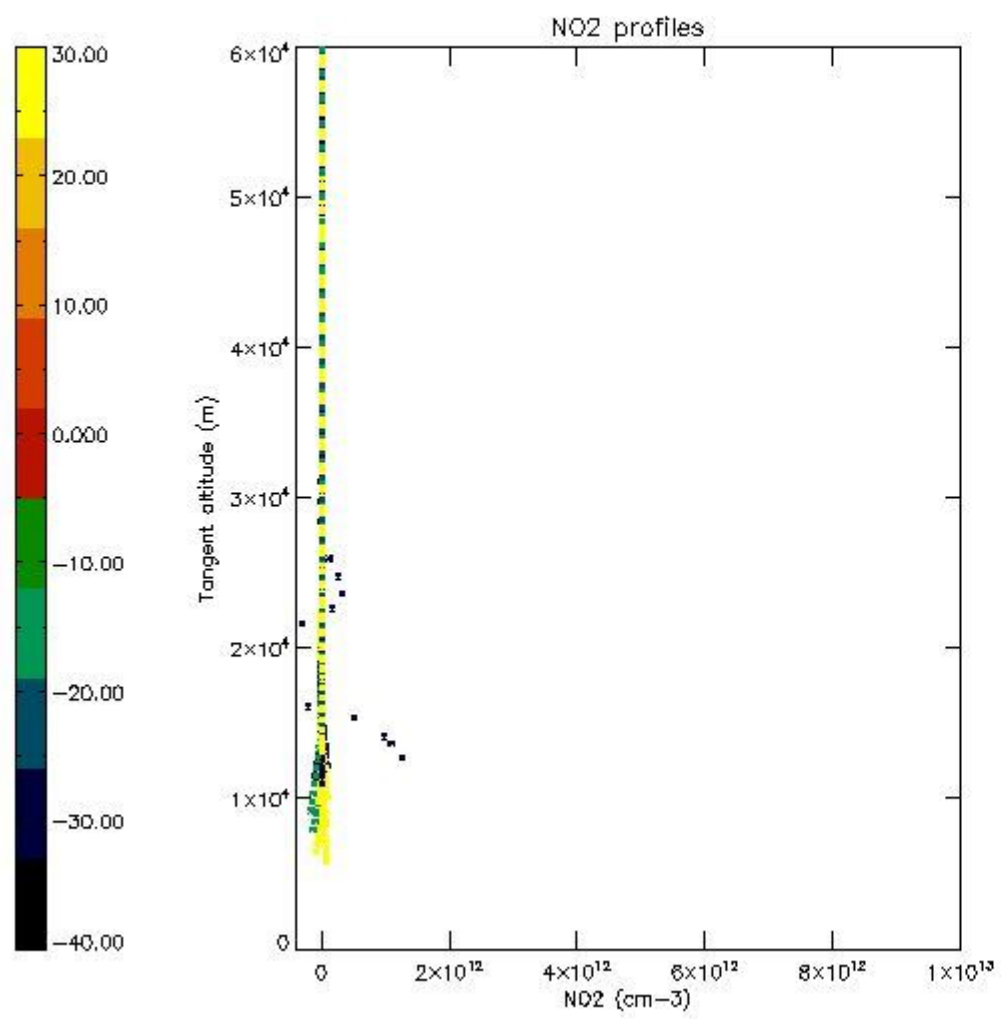
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



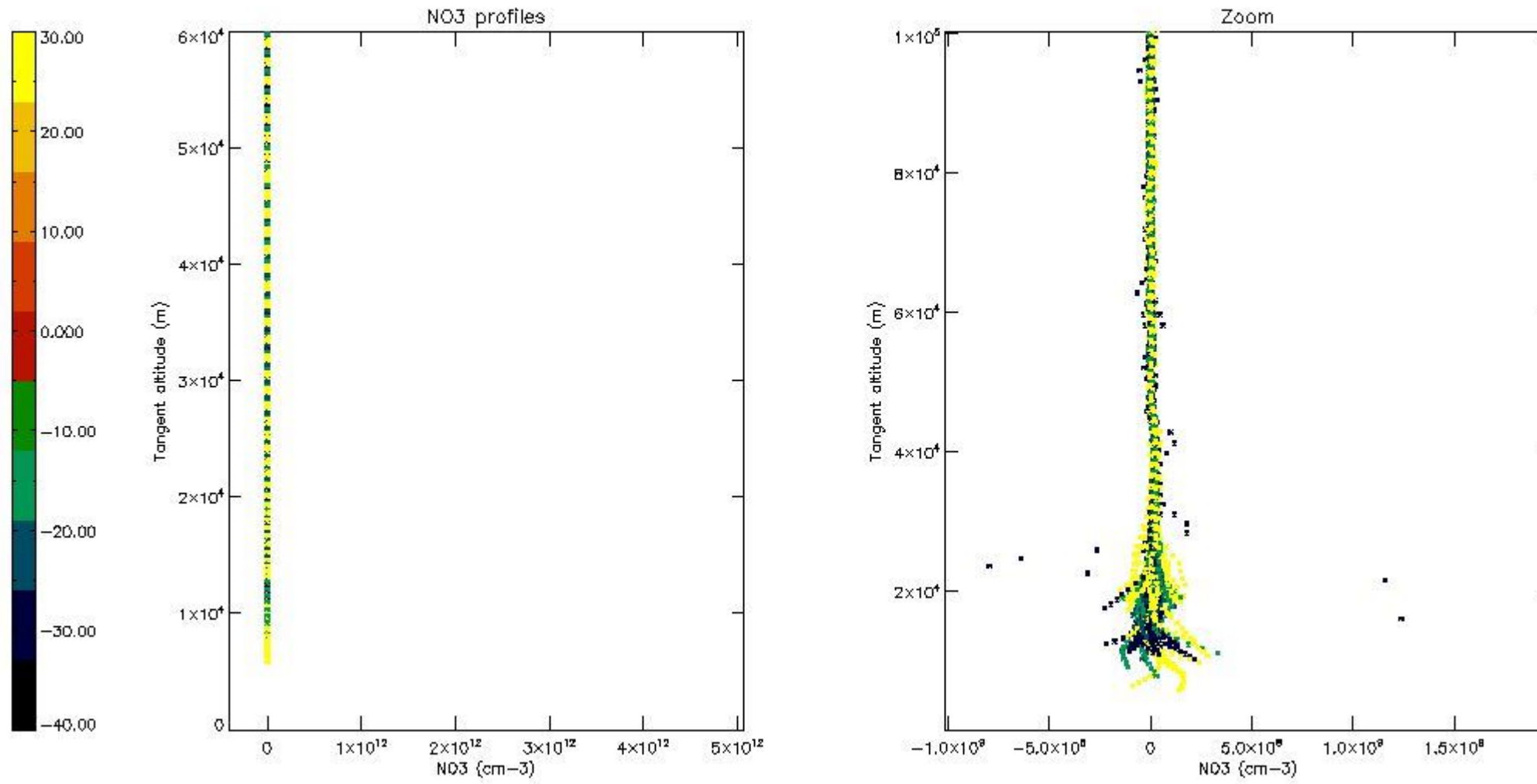
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

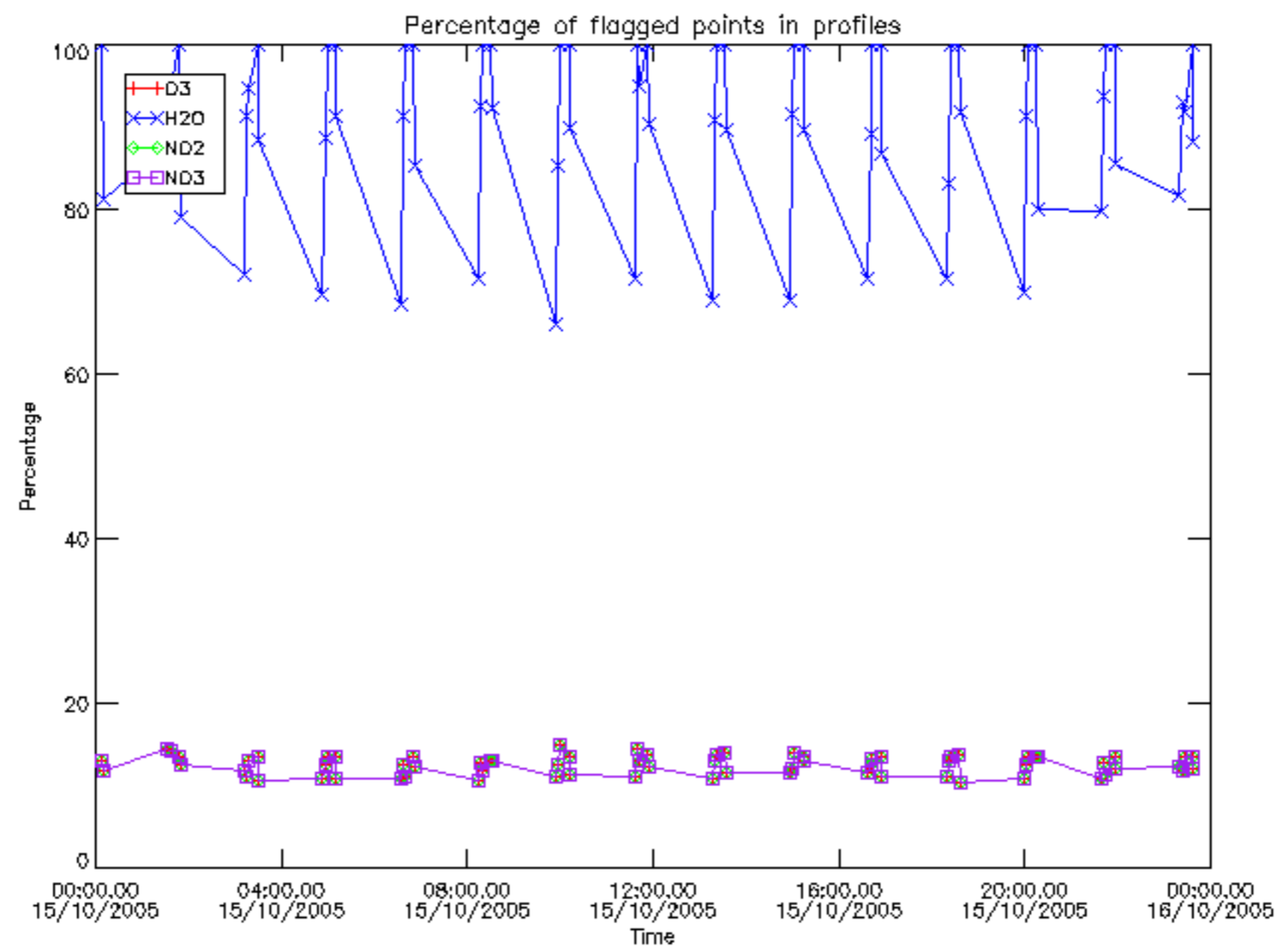
The colorbar represents the latitude.



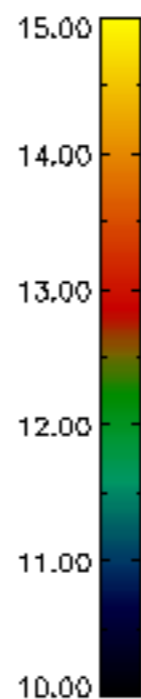
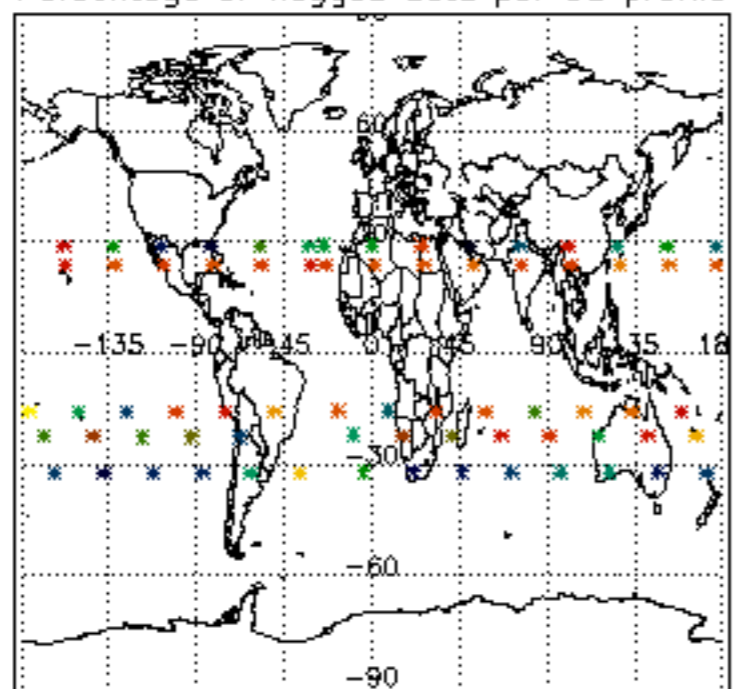
6. Auxiliary Data Files used for the production reported in section 2

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

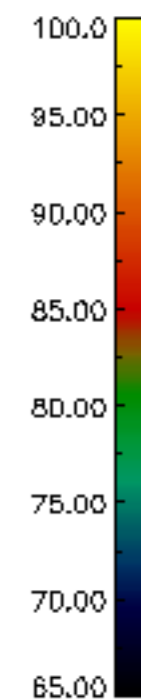
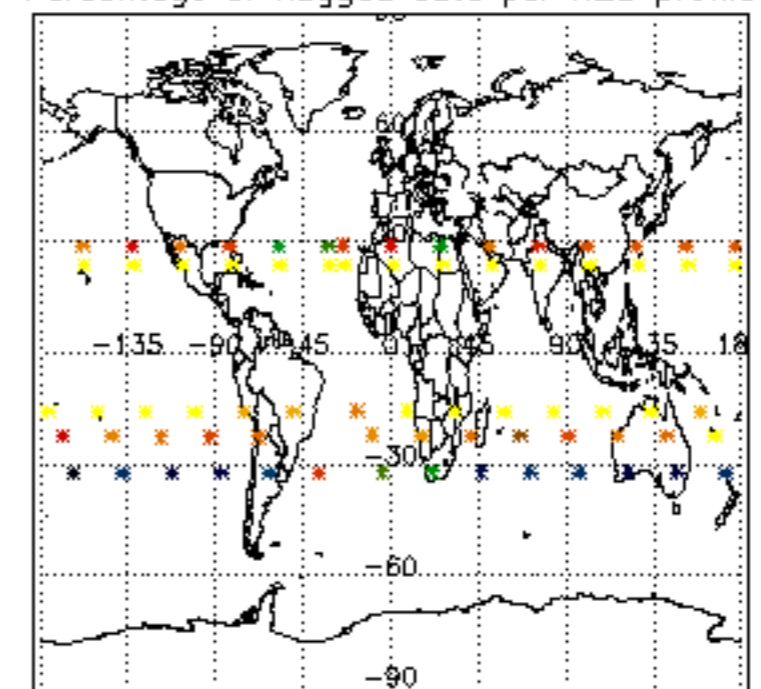
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	15-OCT-2005 00:08:01
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	15-OCT-2005 00:08:01
CROSS_SECTIONS_FILE	GOM_CR2_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	15-OCT-2005 00:08:01



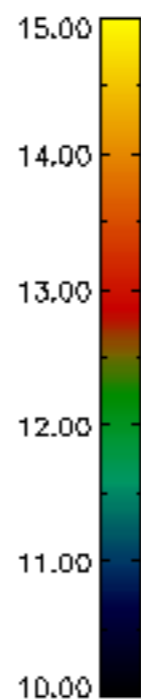
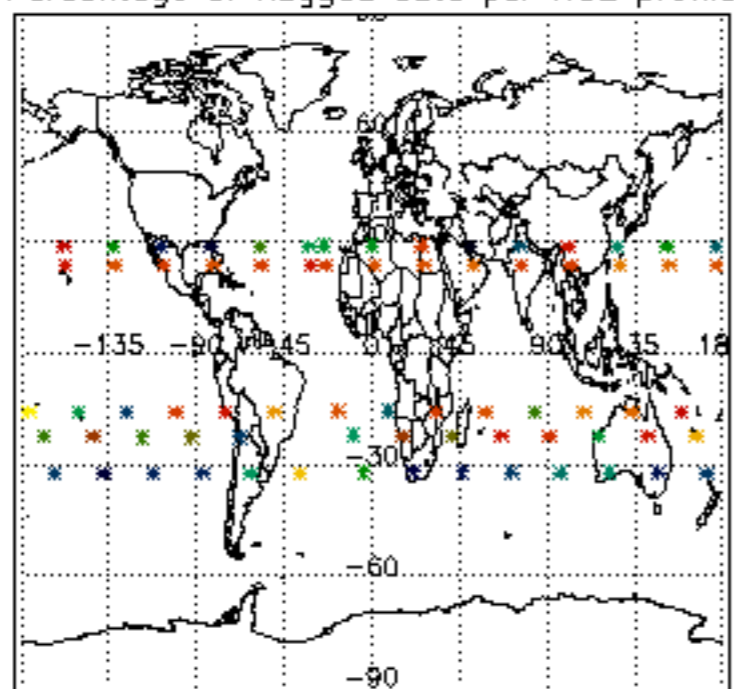
Percentage of flagged data per D3 profile



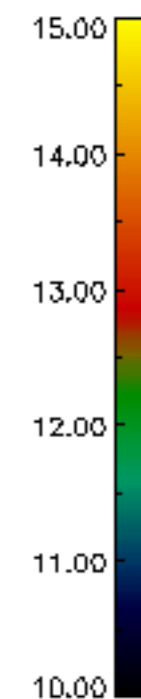
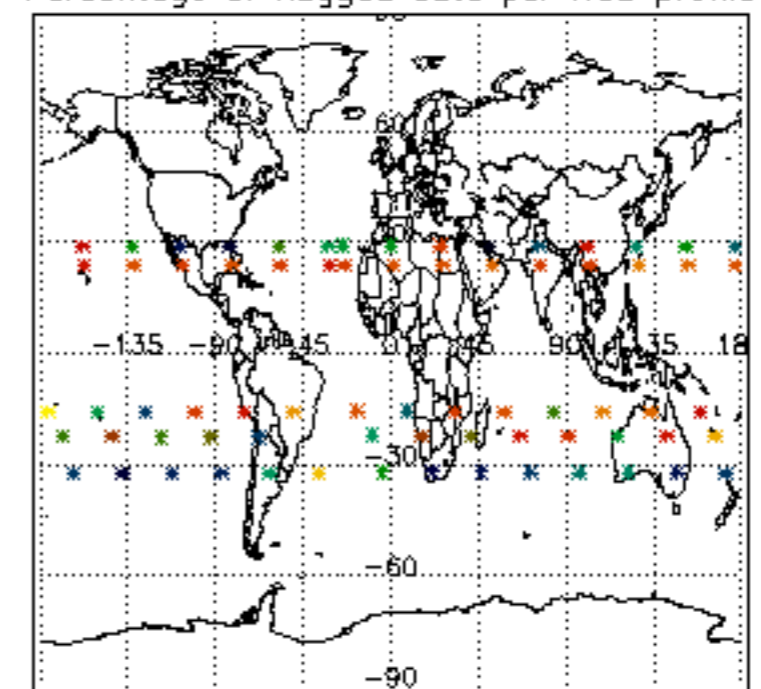
Percentage of flagged data per H2O profile

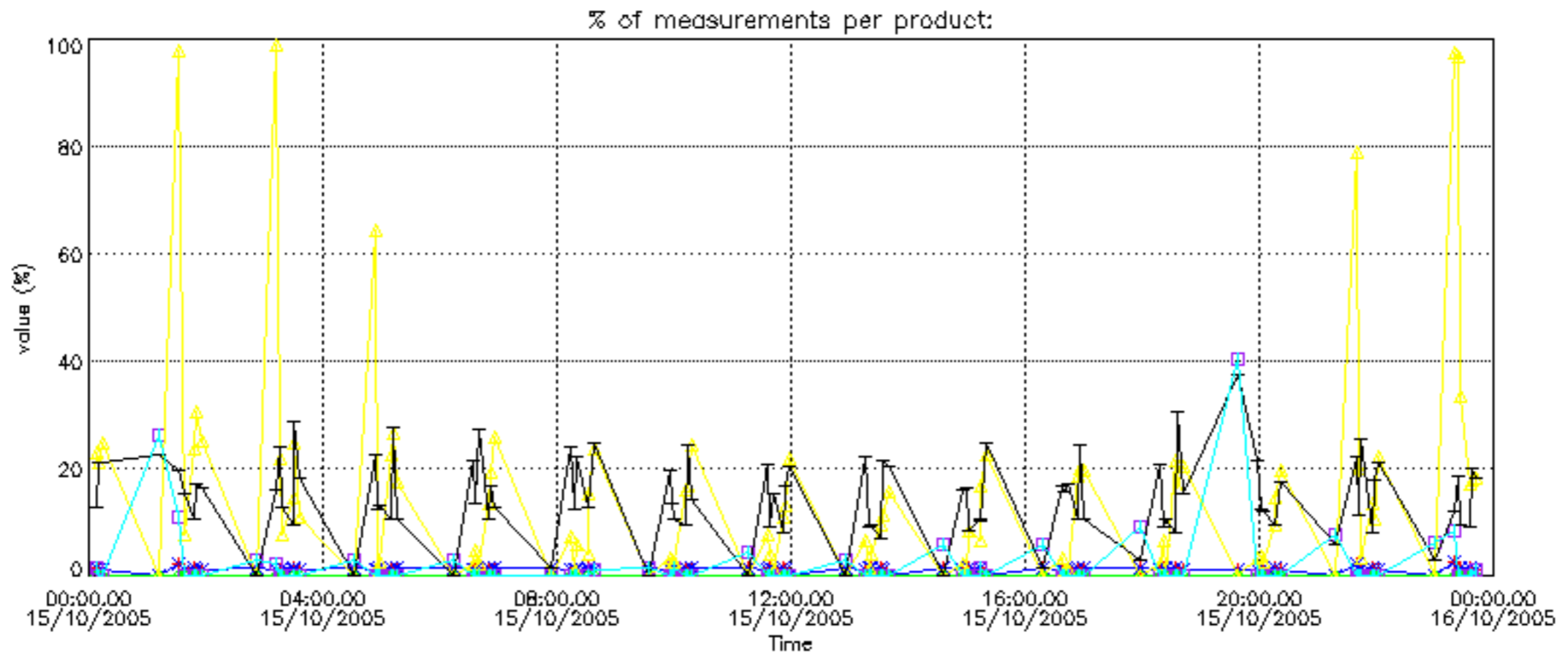


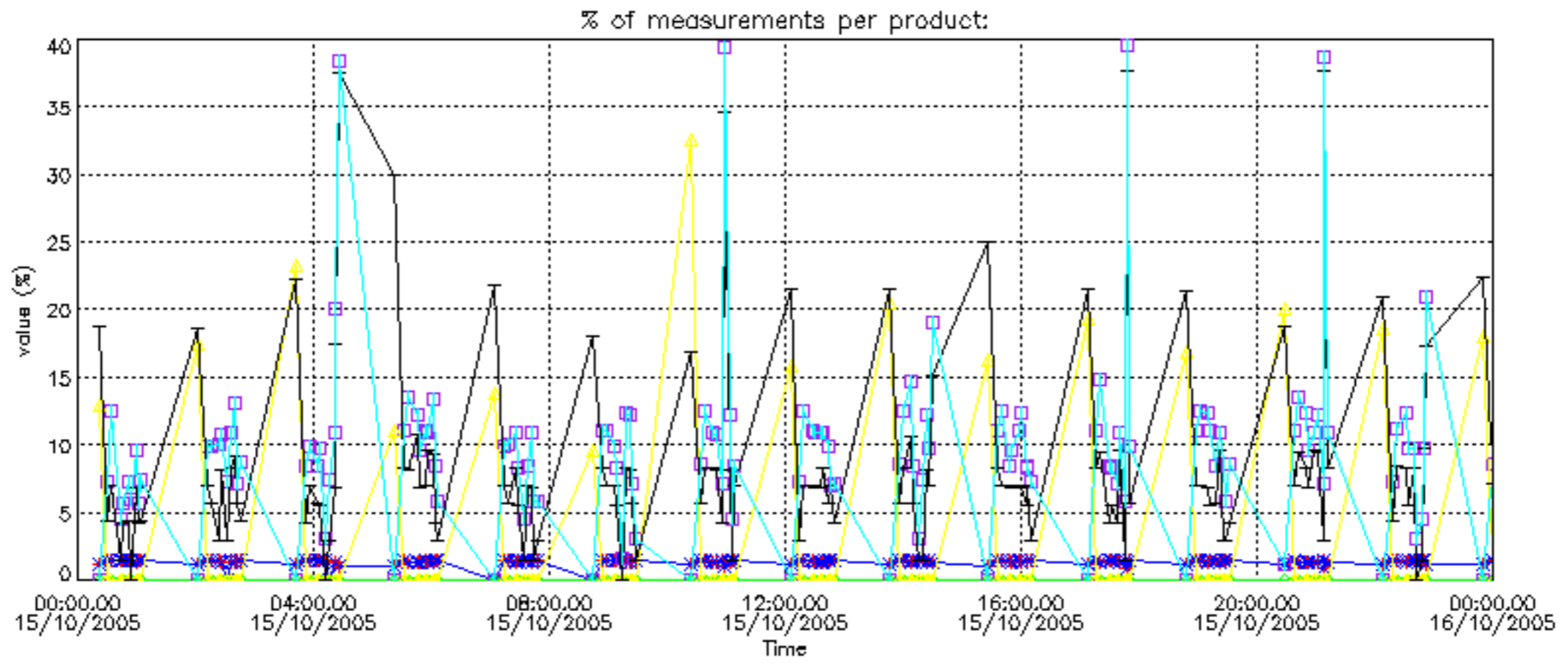
Percentage of flagged data per NO2 profile



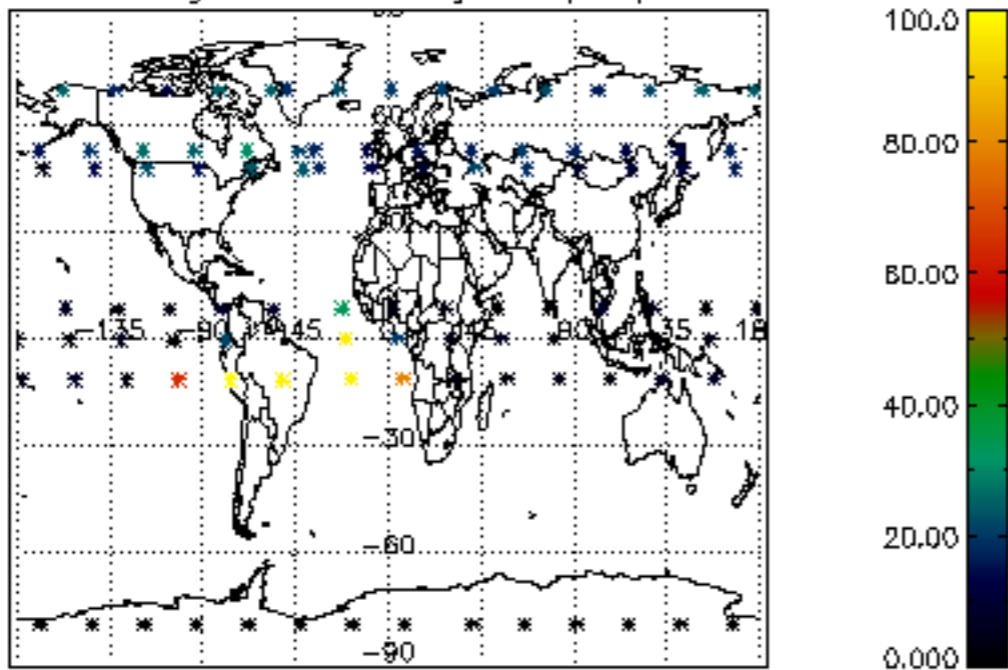
Percentage of flagged data per NO3 profile



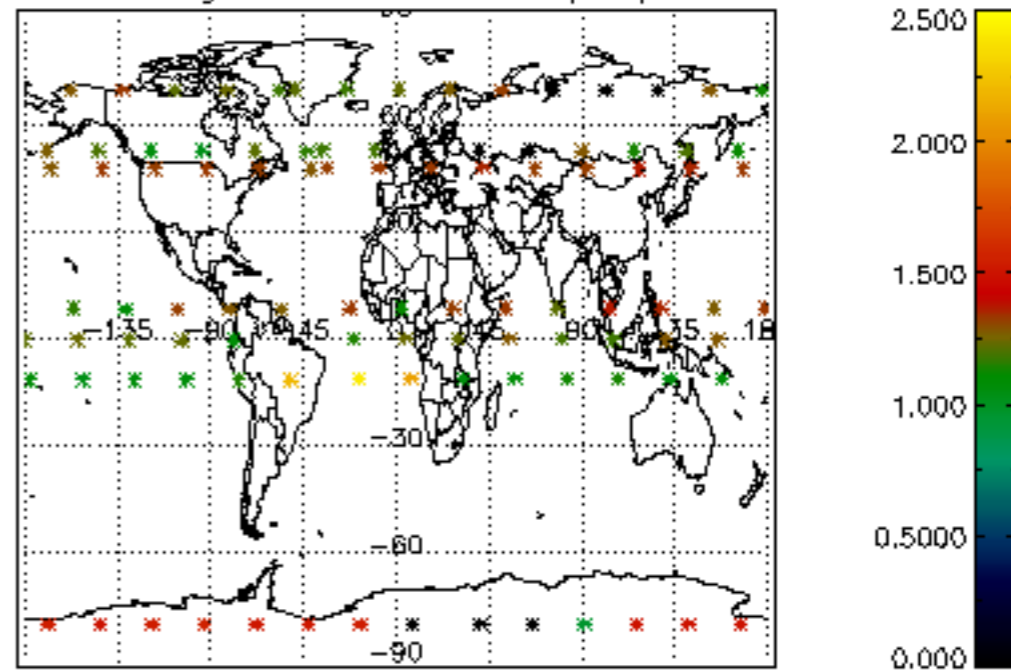




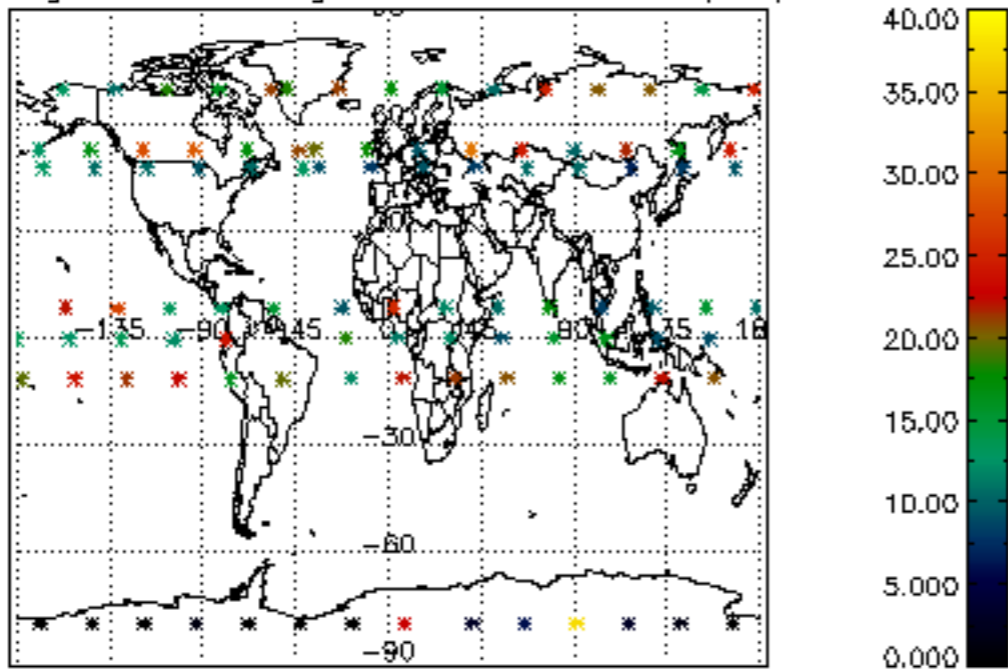
Percentage of cosmic ray hits per profile



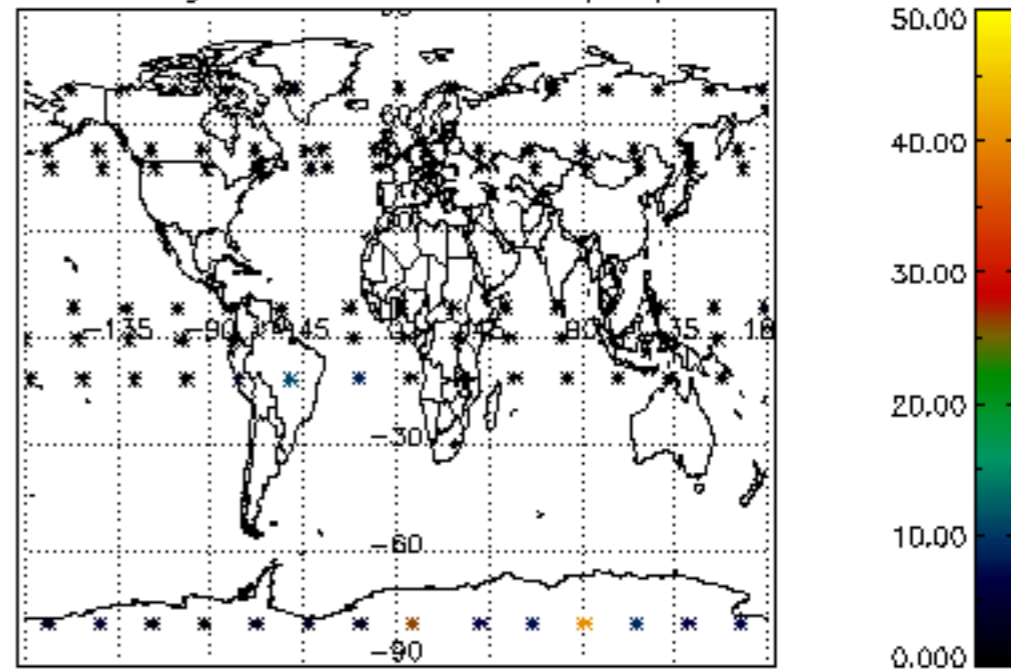
Percentage of datation errors per profile



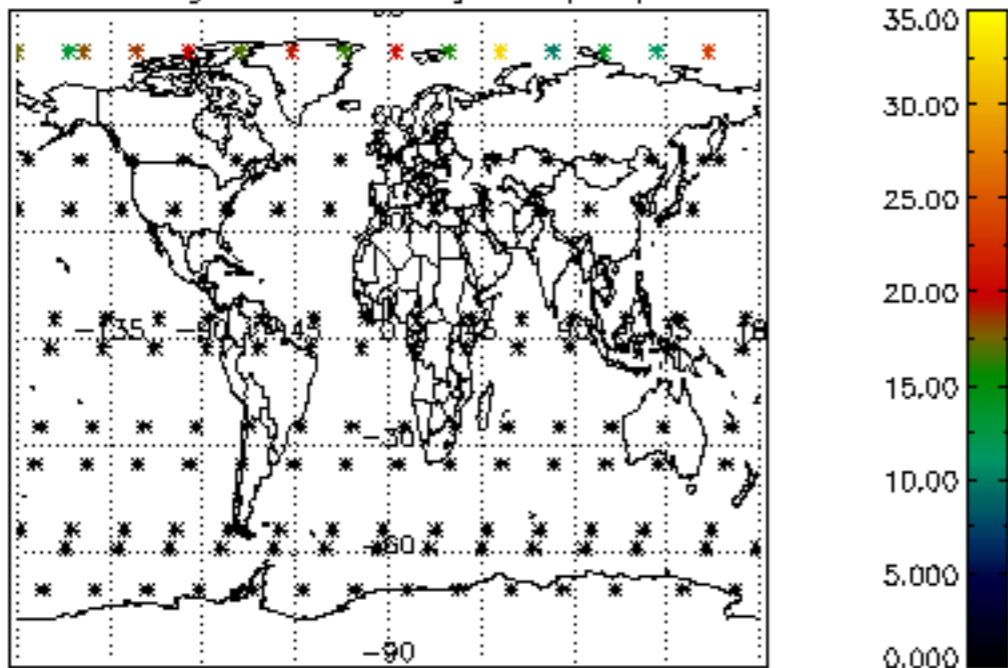
Percentage of star falling outside central band per profile



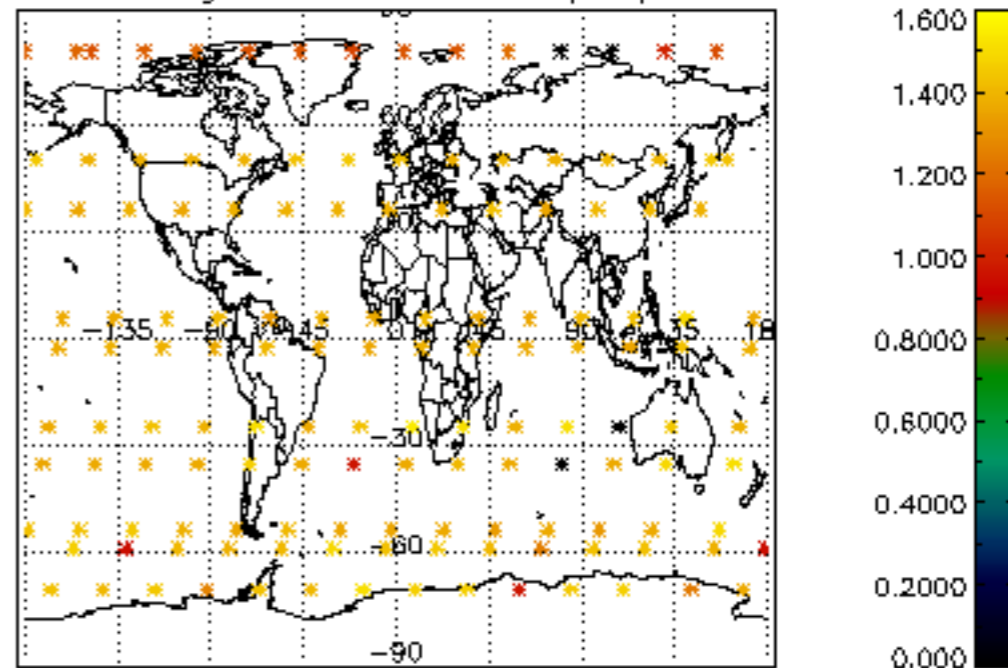
Percentage of saturation errors per profile



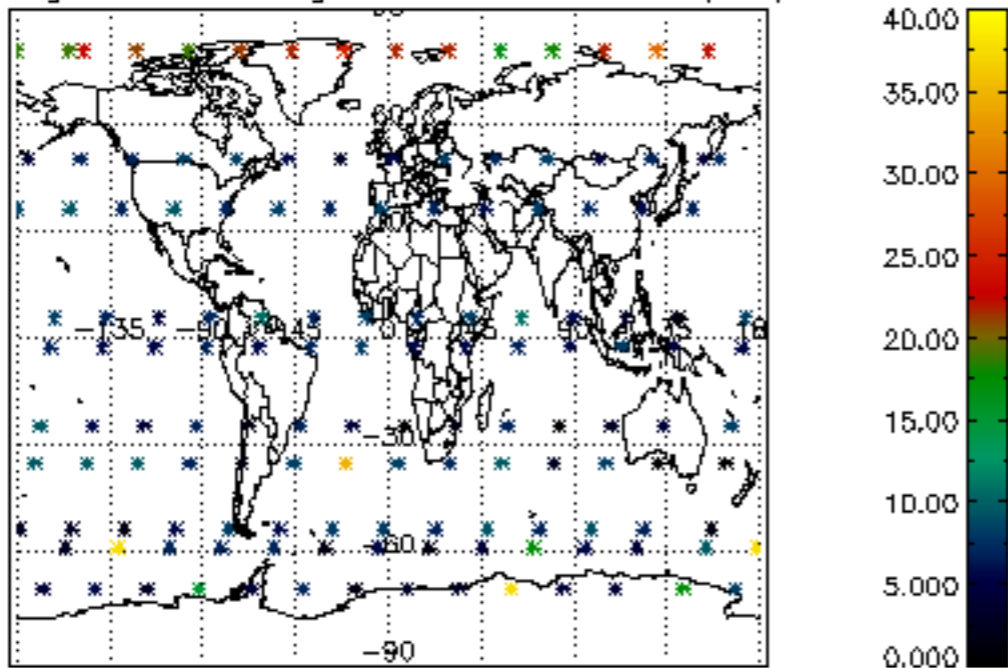
Percentage of cosmic ray hits per profile



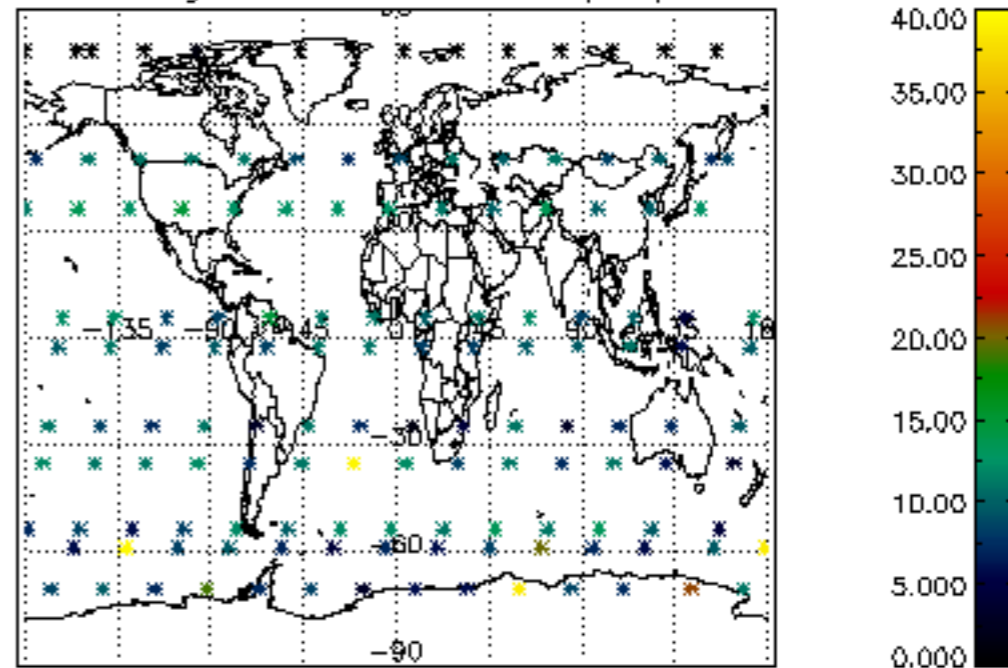
Percentage of datation errors per profile

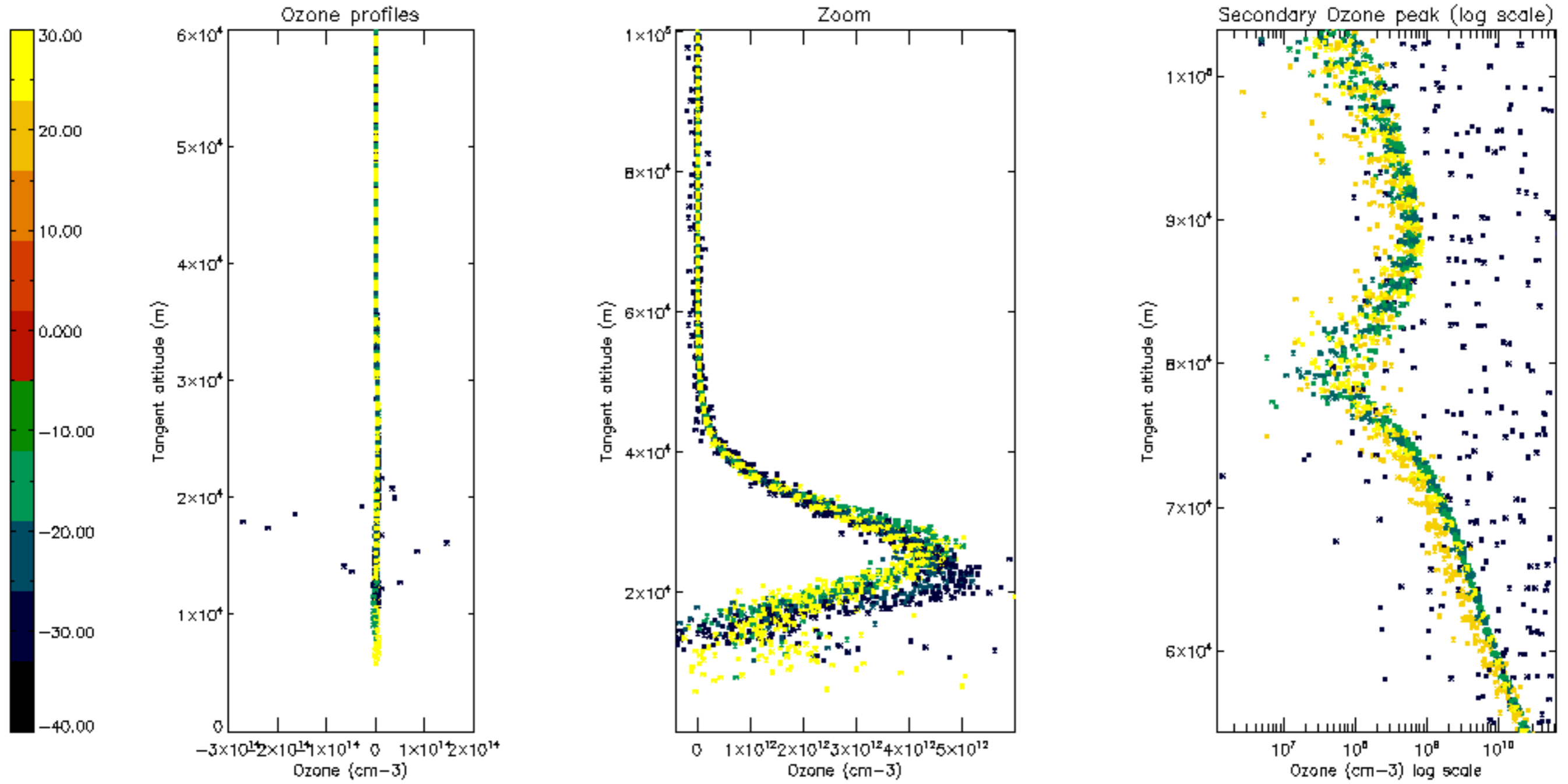


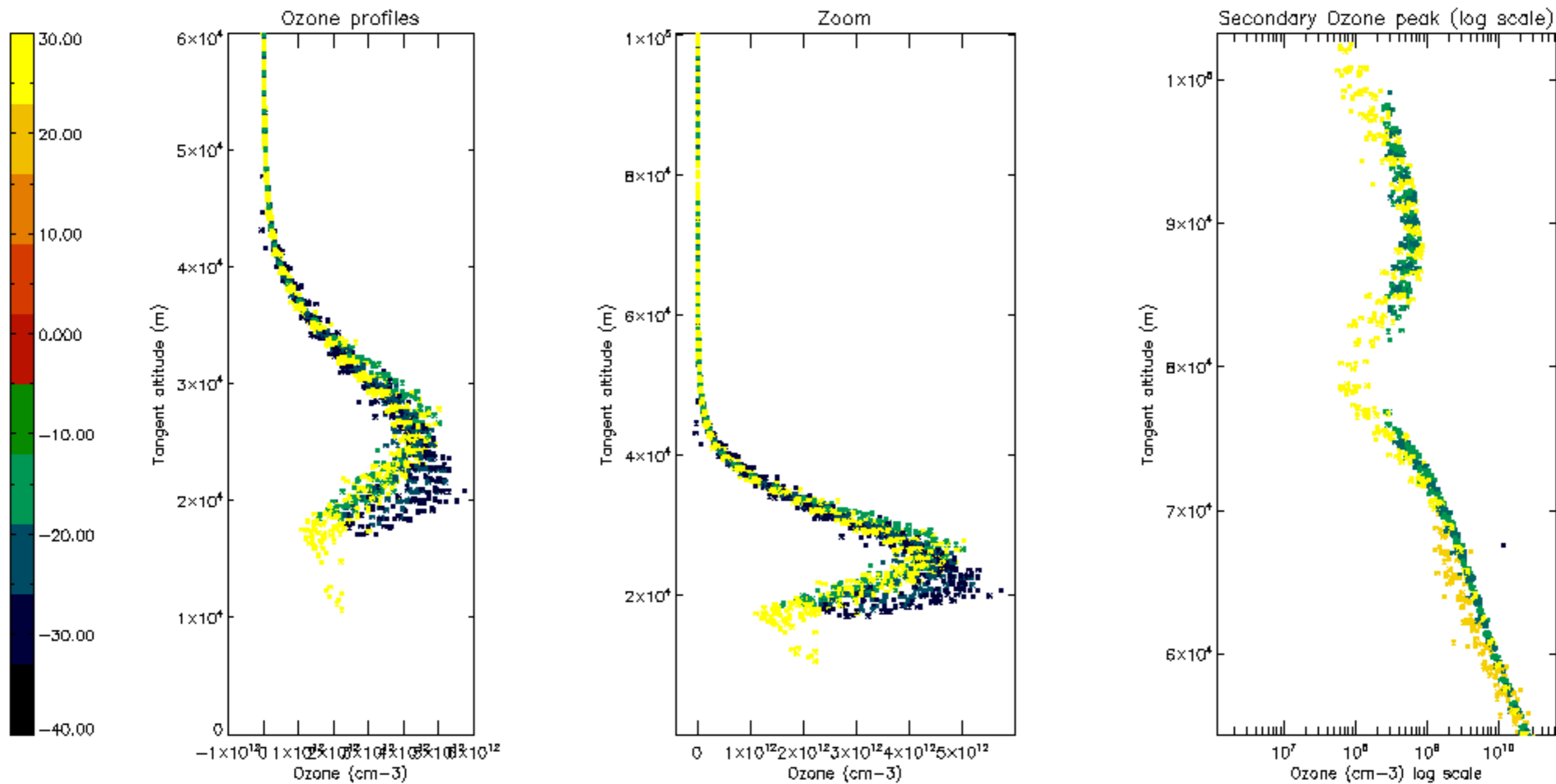
Percentage of star falling outside central band per profile

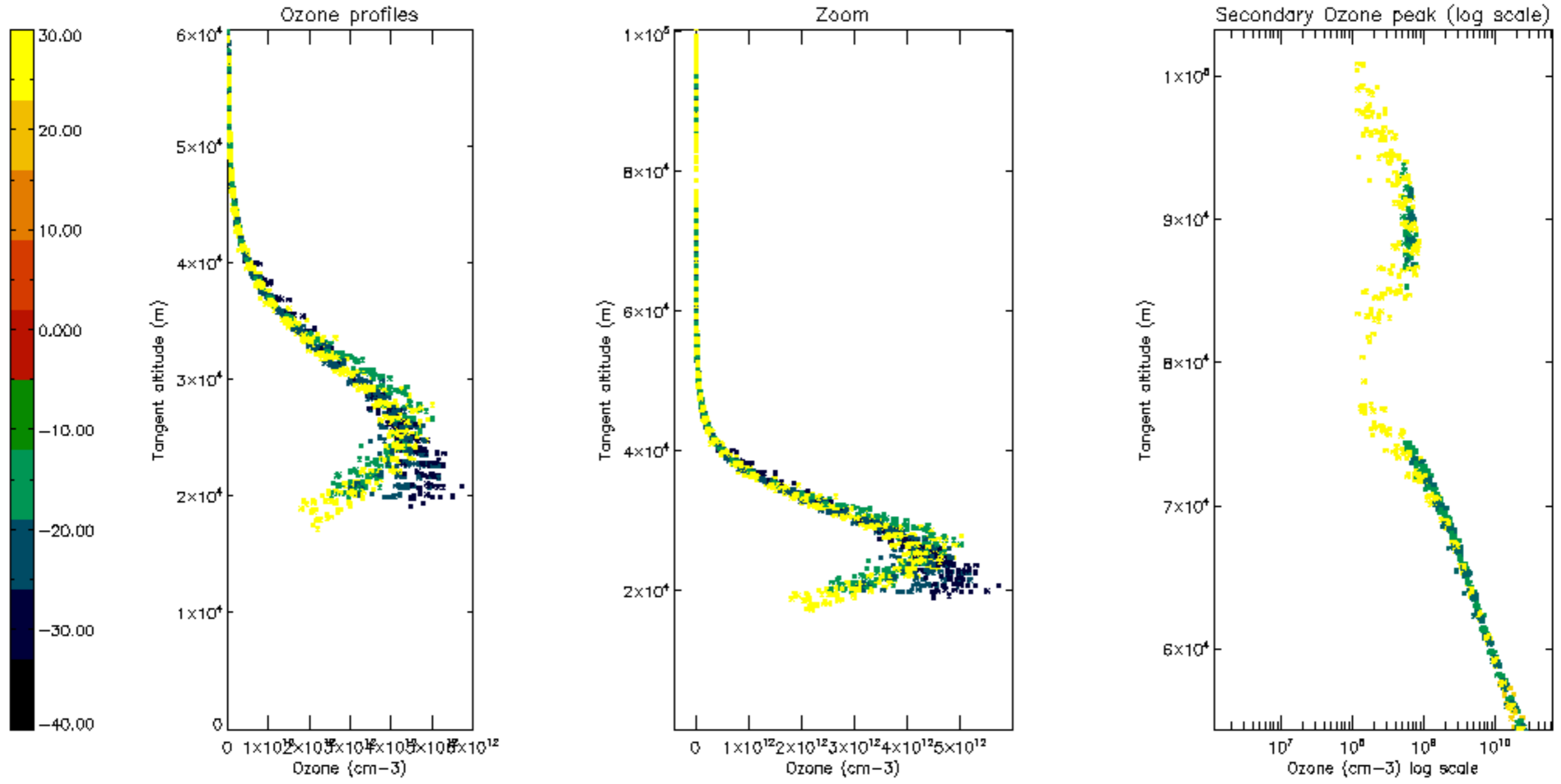


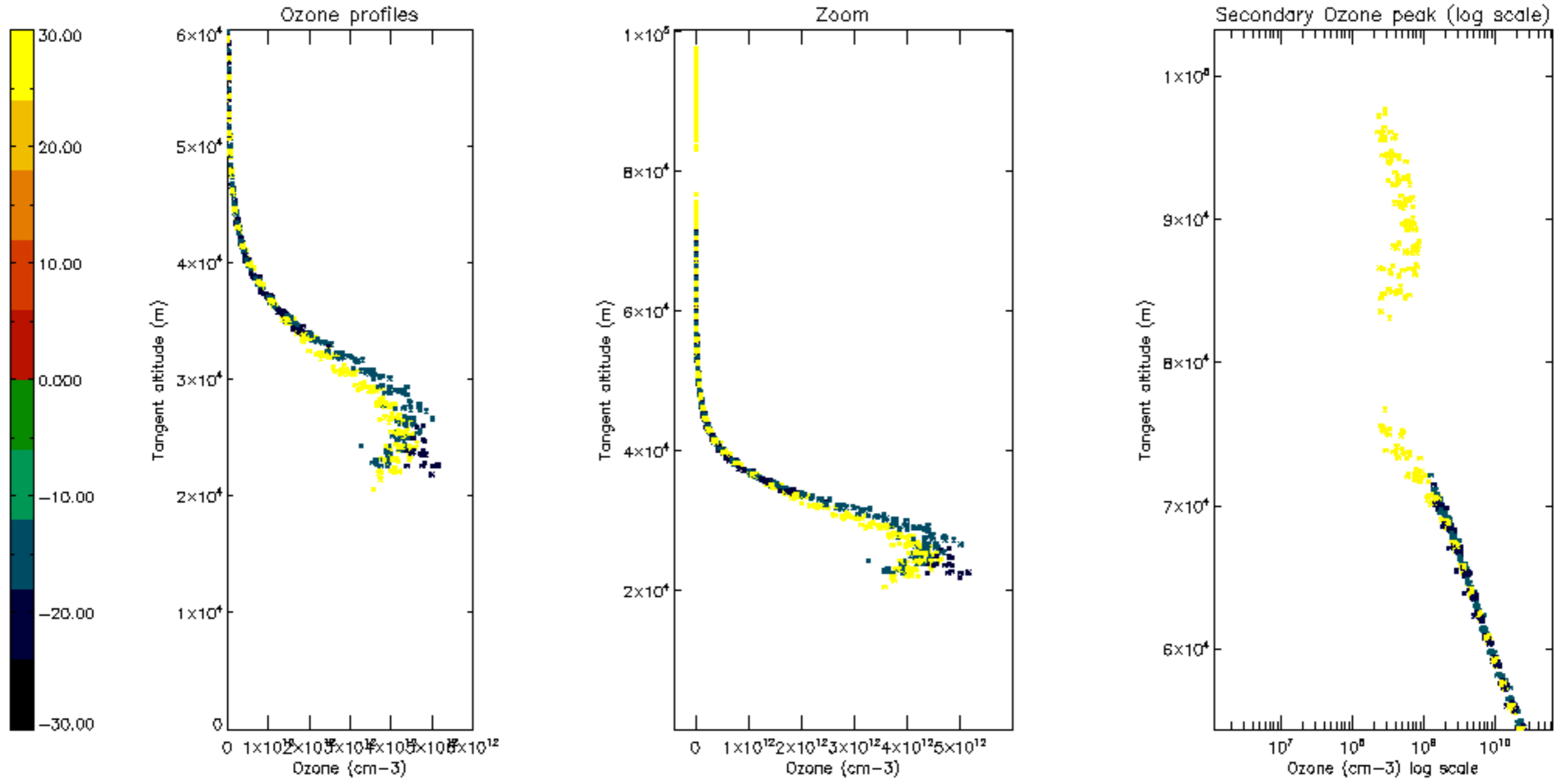
Percentage of saturation errors per profile

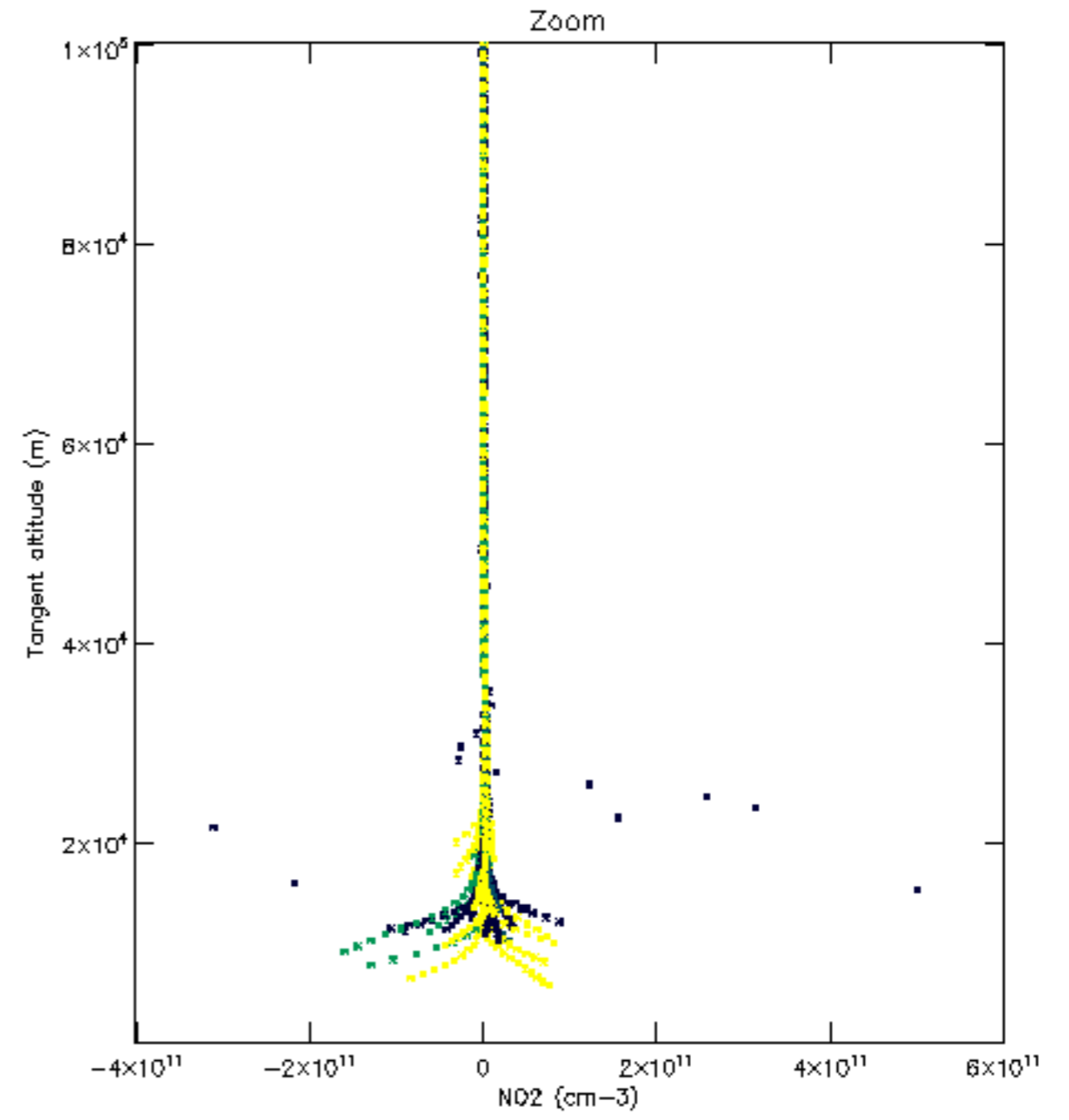
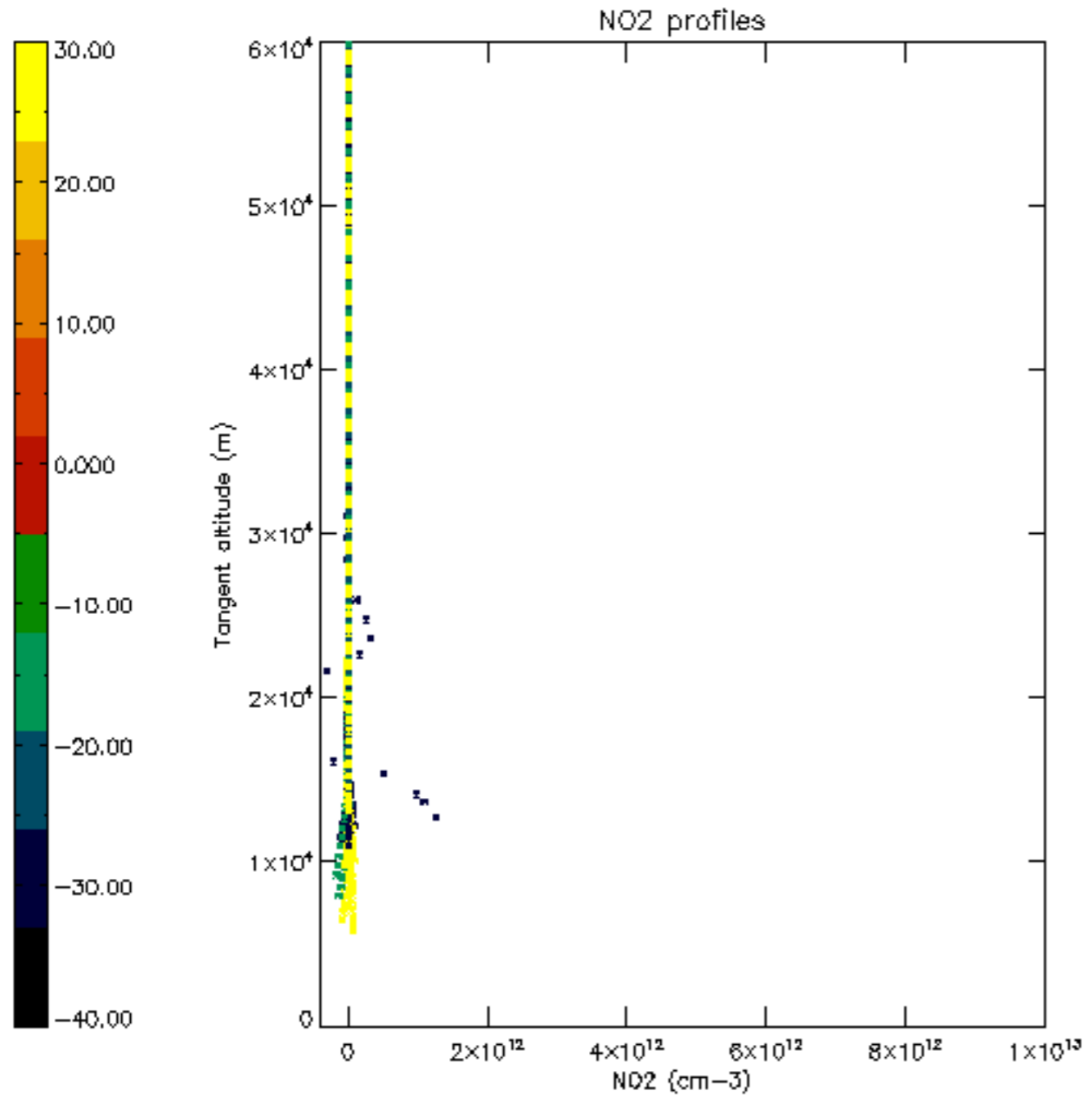


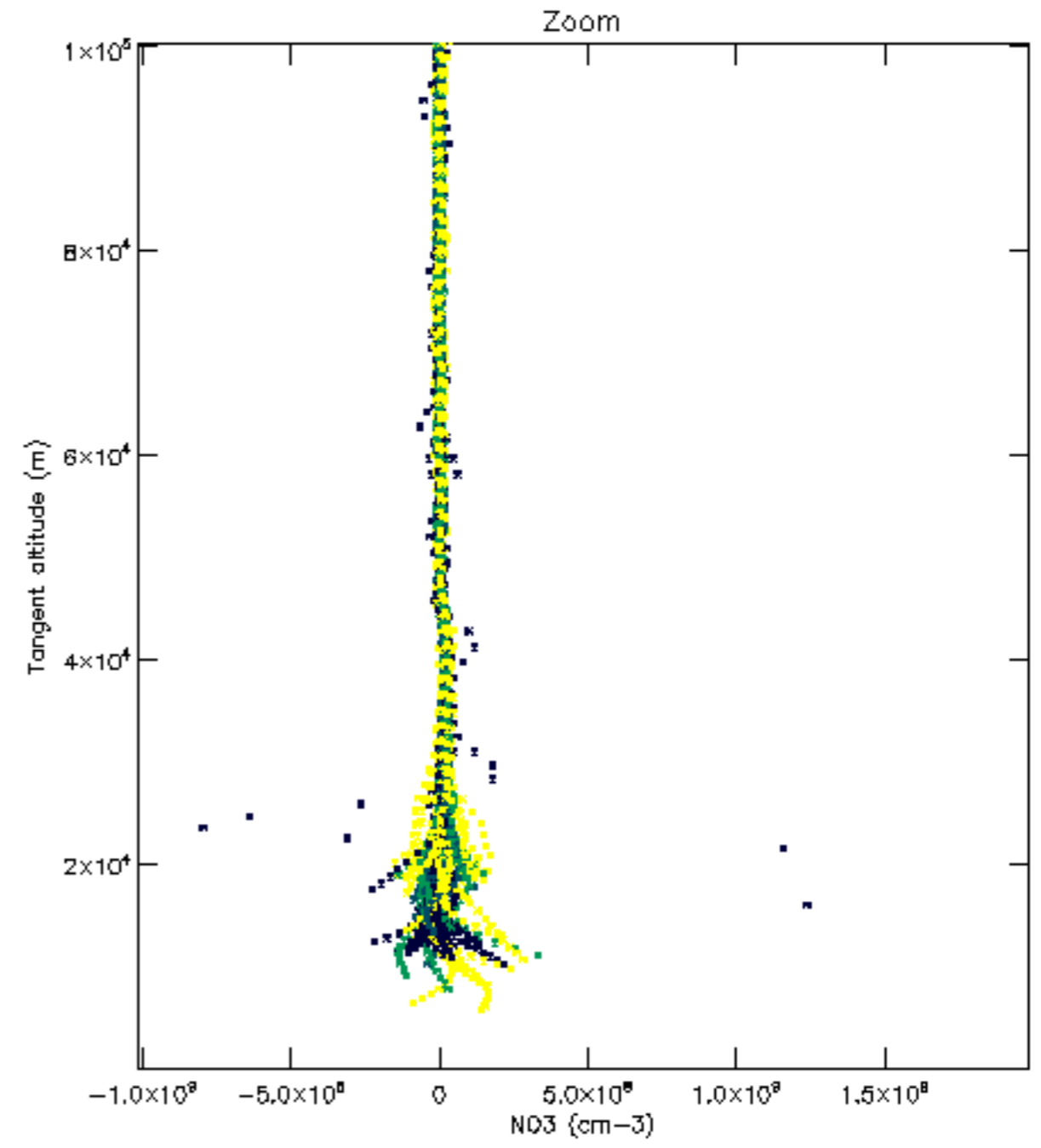
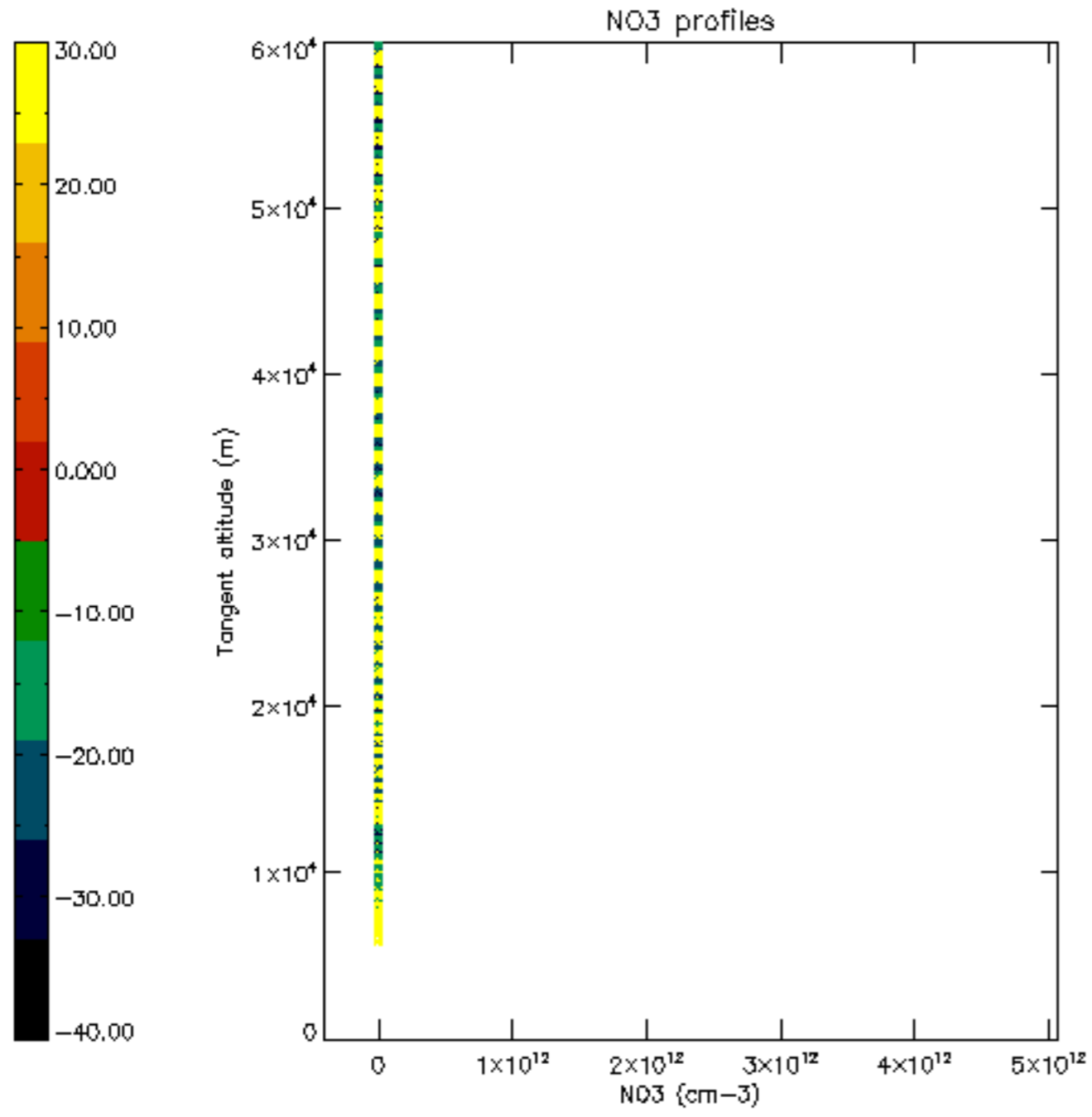


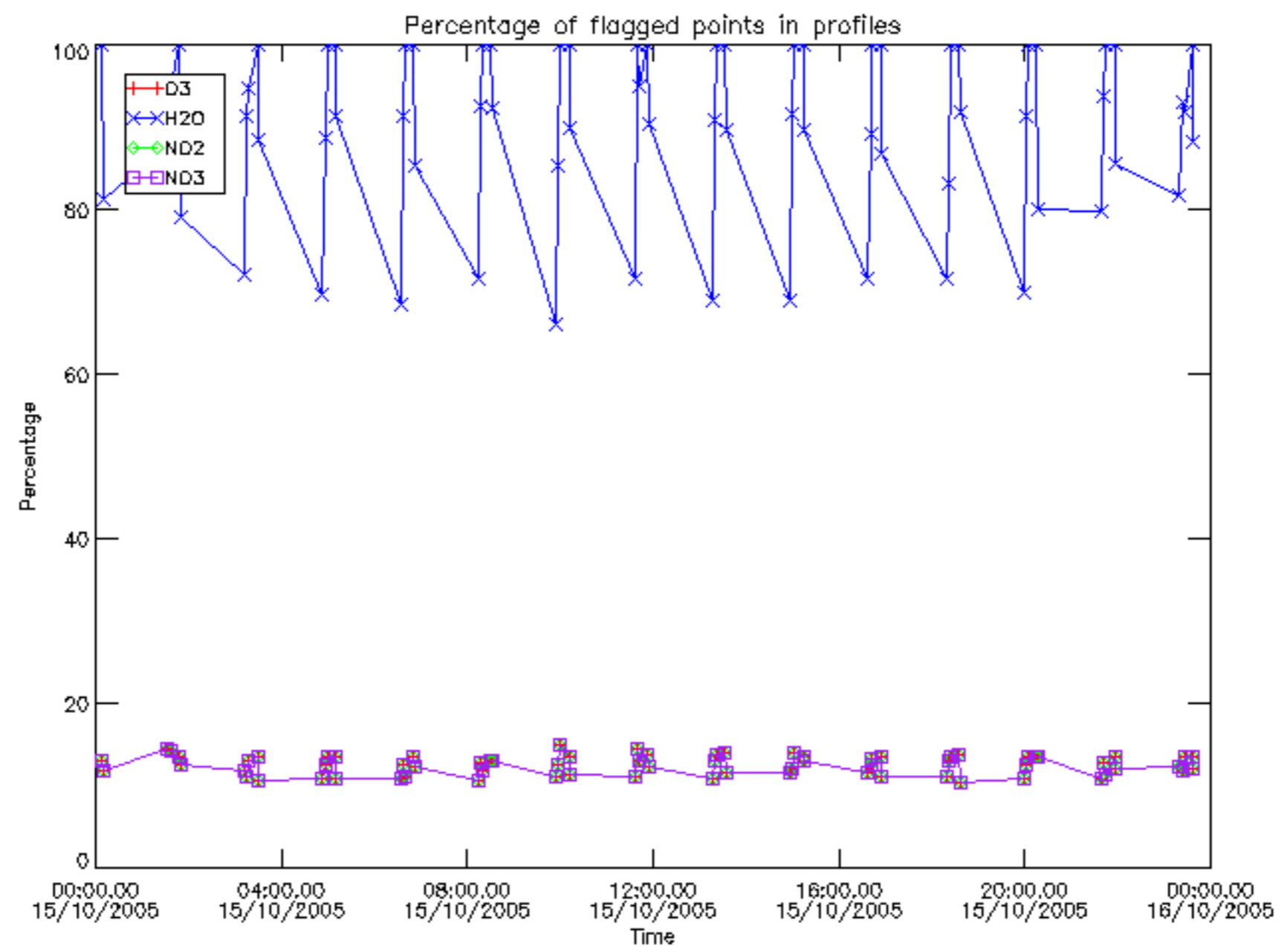




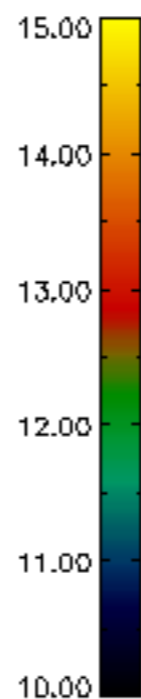
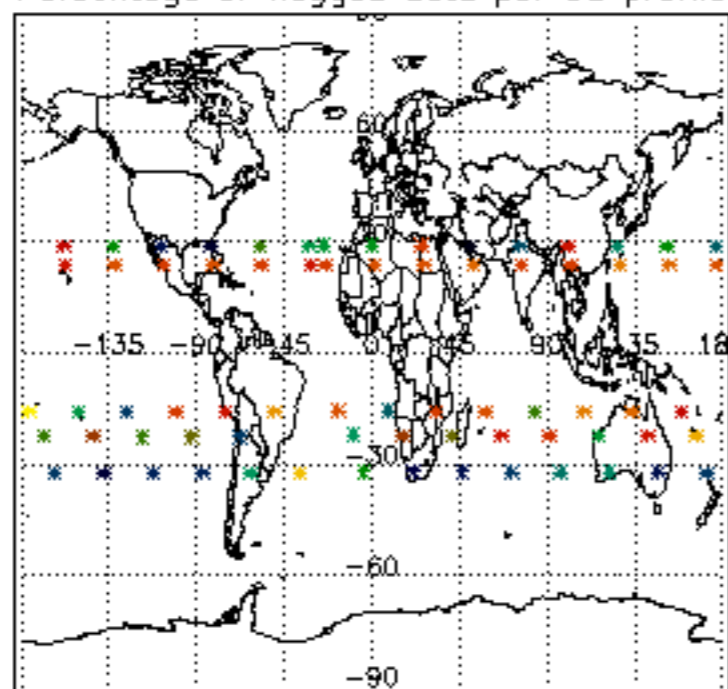




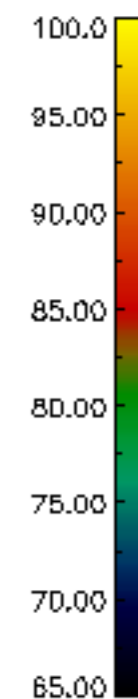
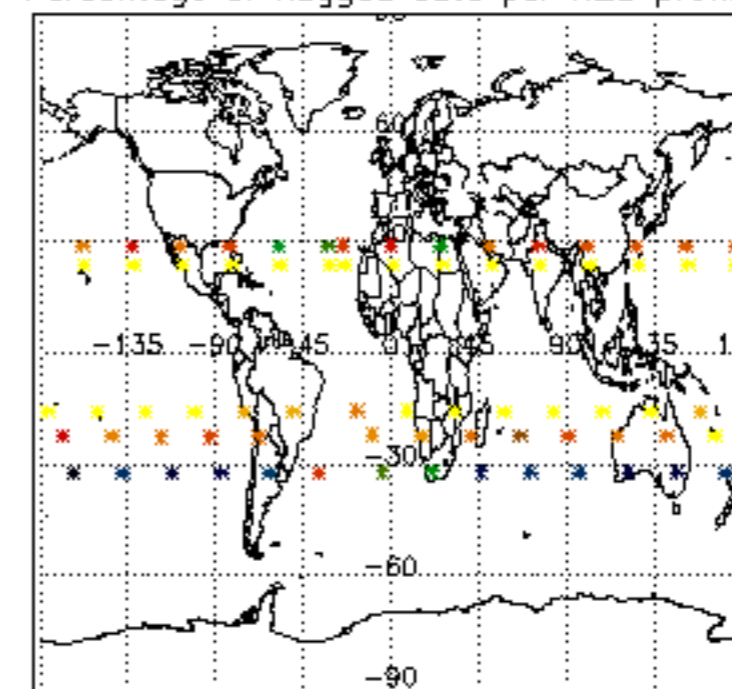




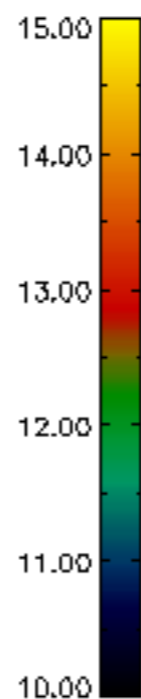
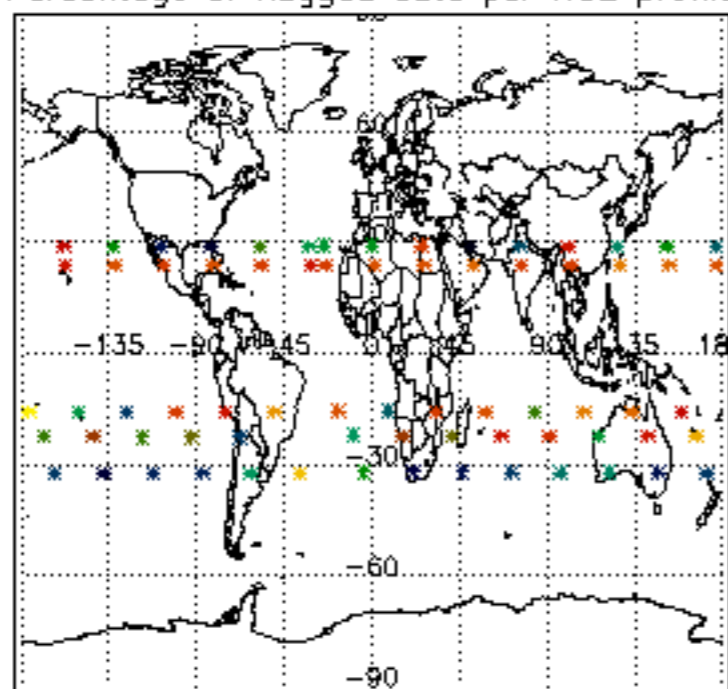
Percentage of flagged data per D3 profile



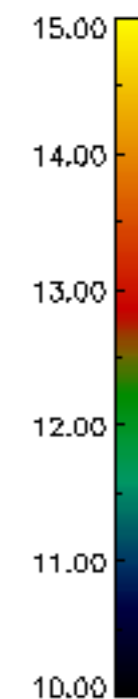
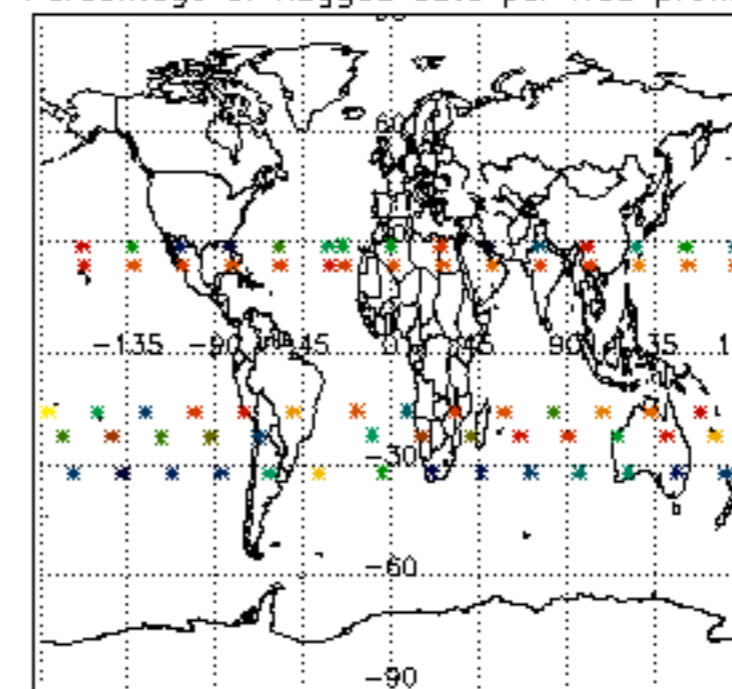
Percentage of flagged data per H2O profile

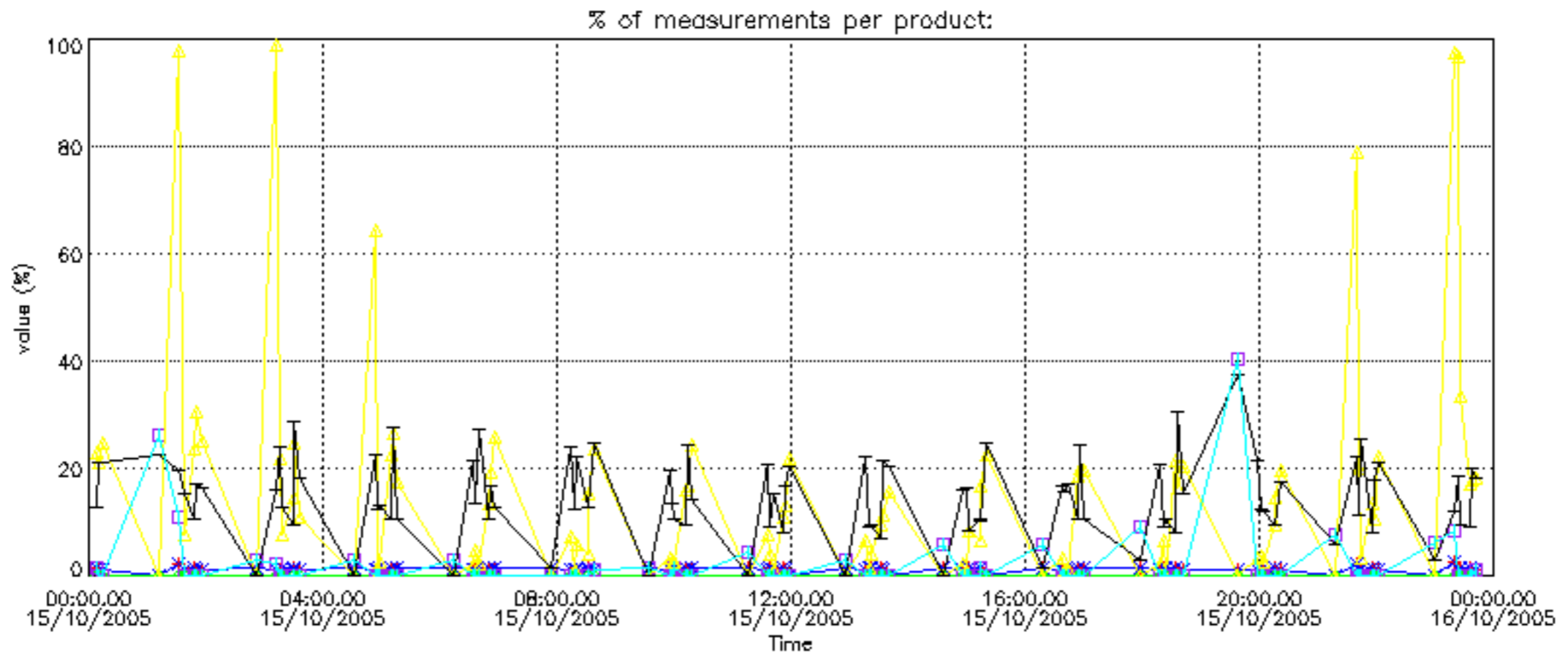


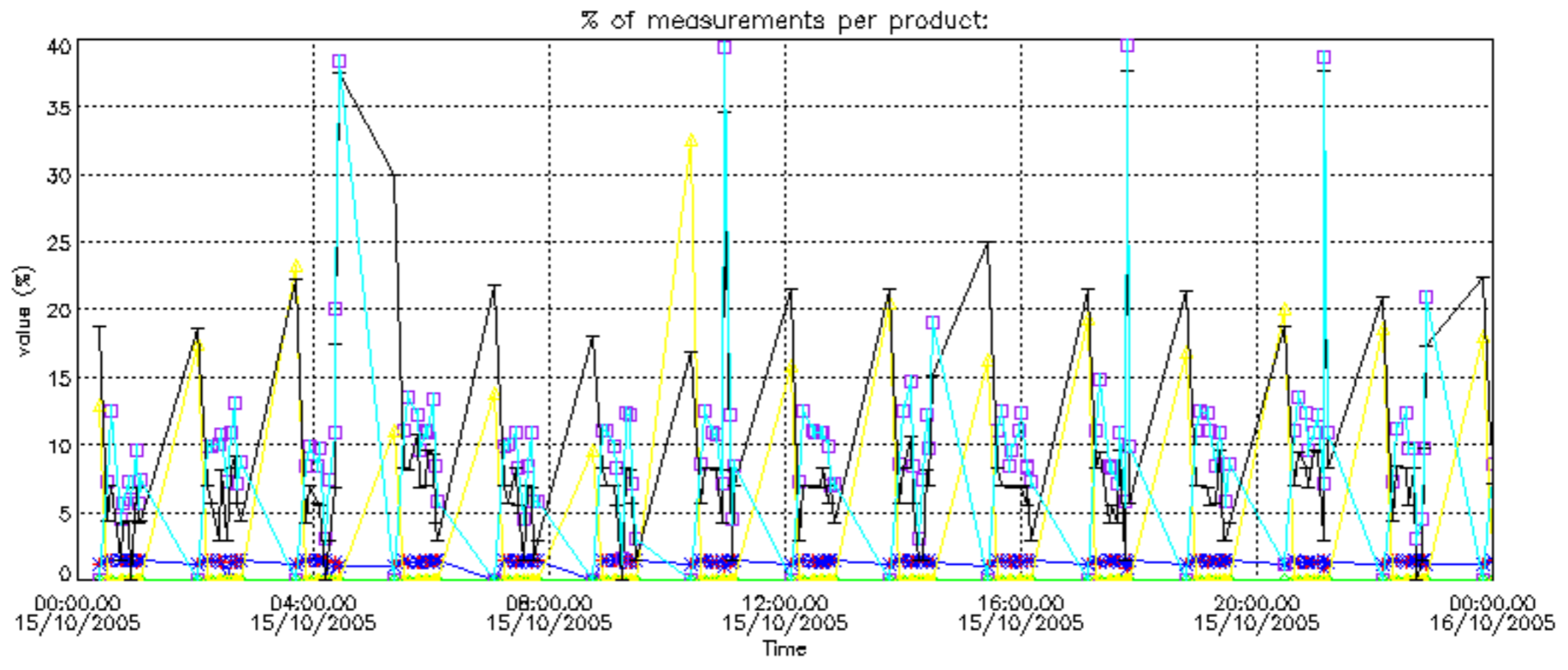
Percentage of flagged data per NO2 profile



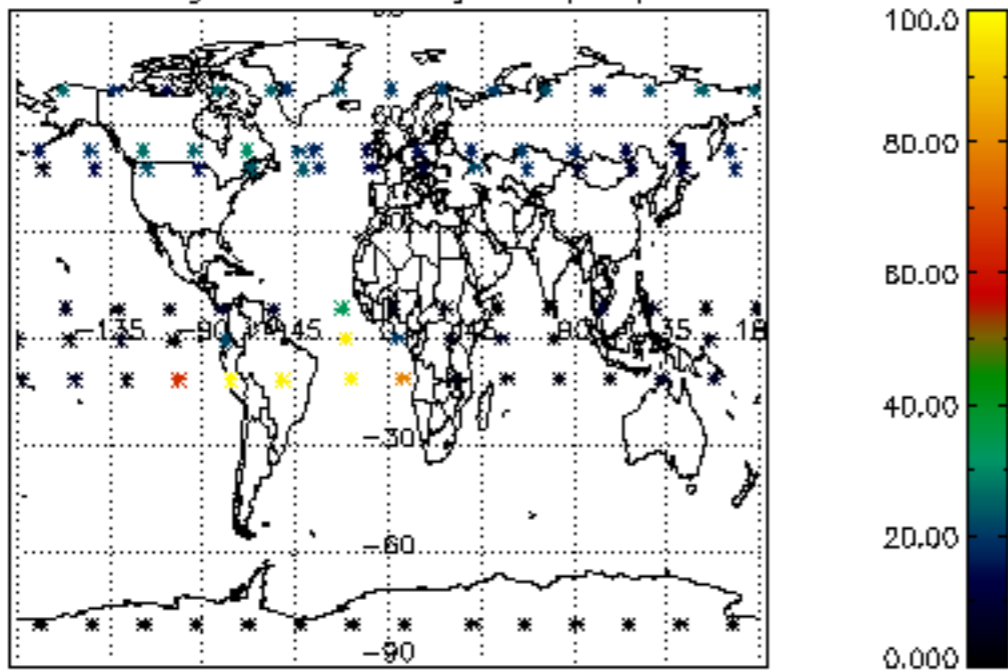
Percentage of flagged data per NO3 profile



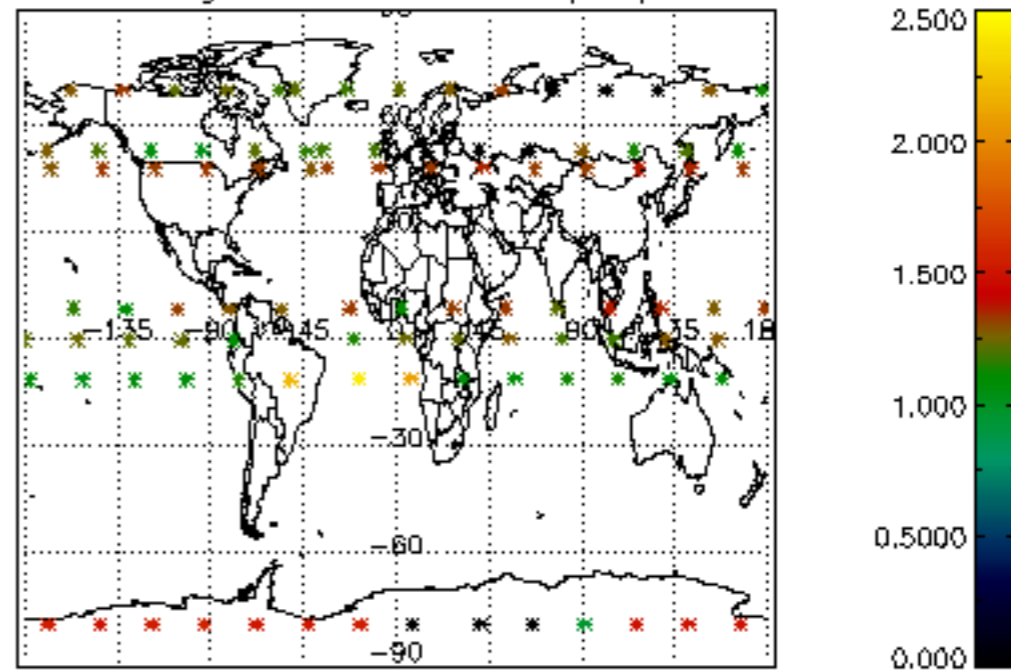




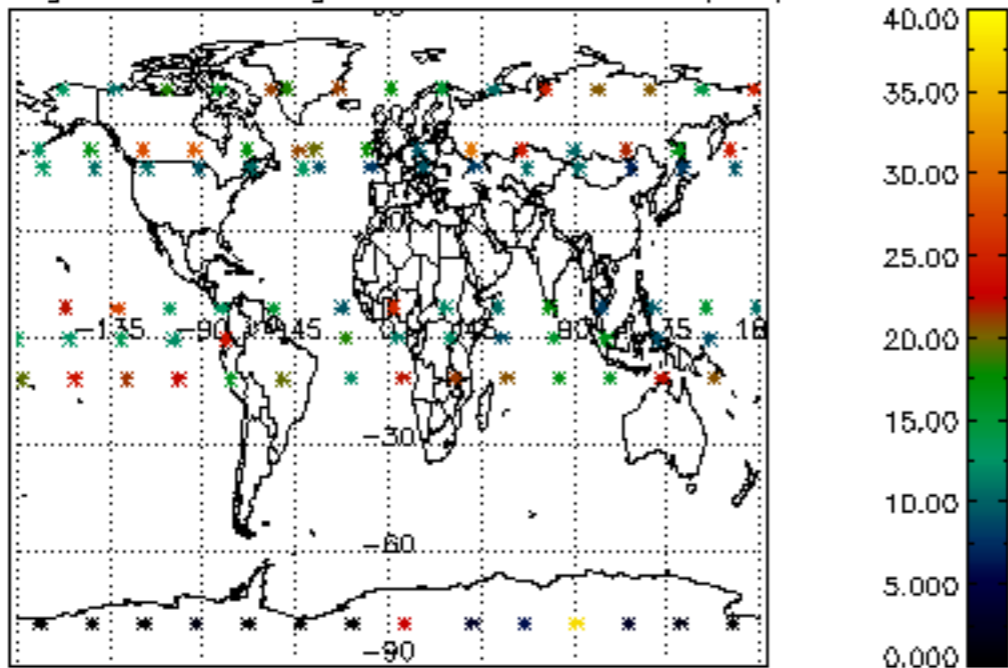
Percentage of cosmic ray hits per profile



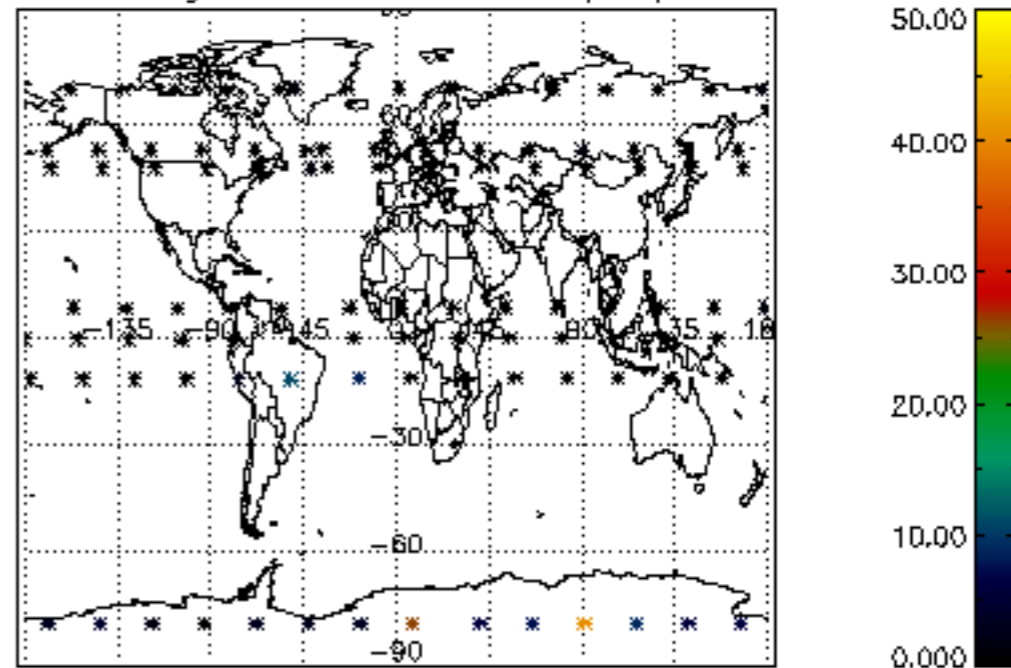
Percentage of datation errors per profile



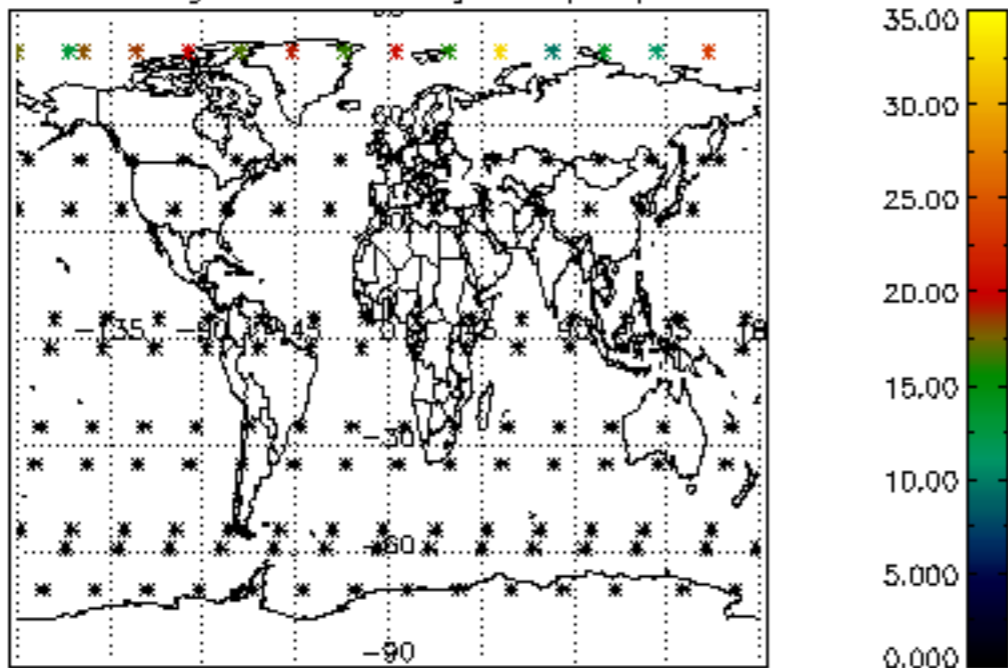
Percentage of star falling outside central band per profile



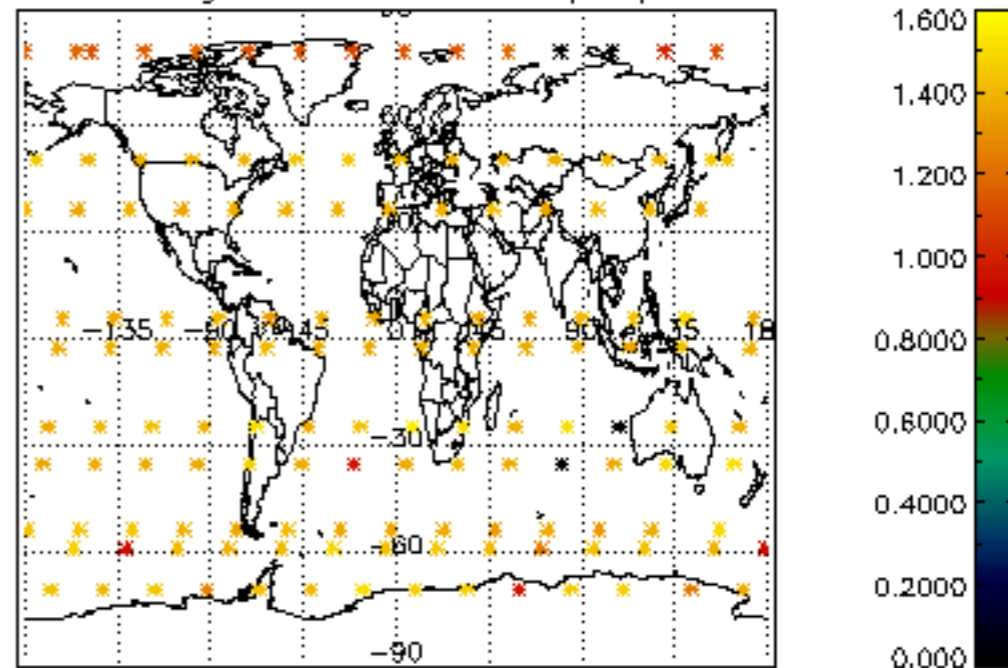
Percentage of saturation errors per profile



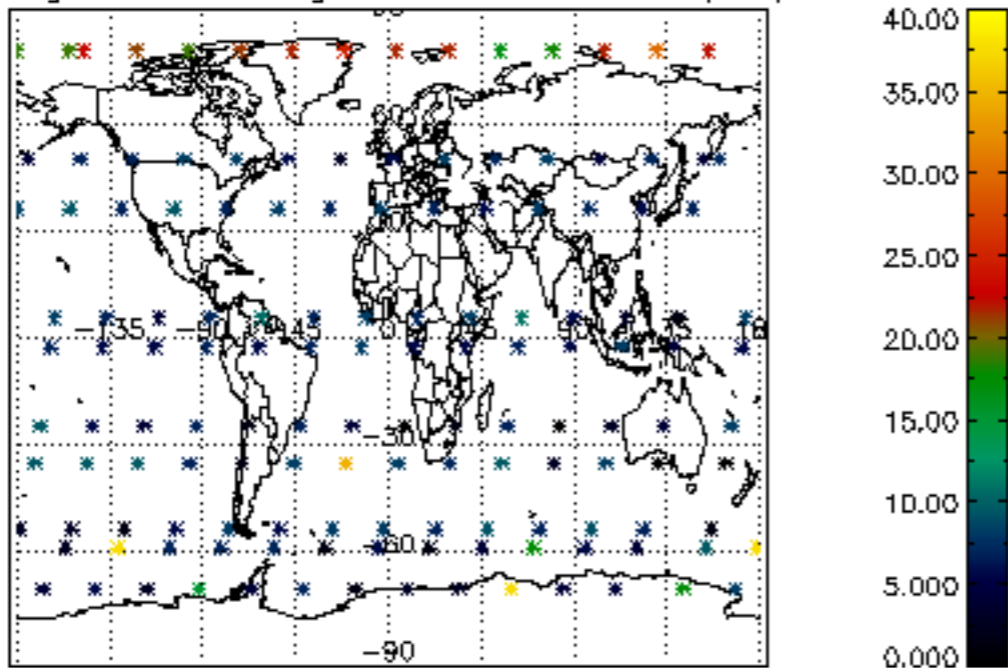
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

