

GOMOS Level 2 Daily Report

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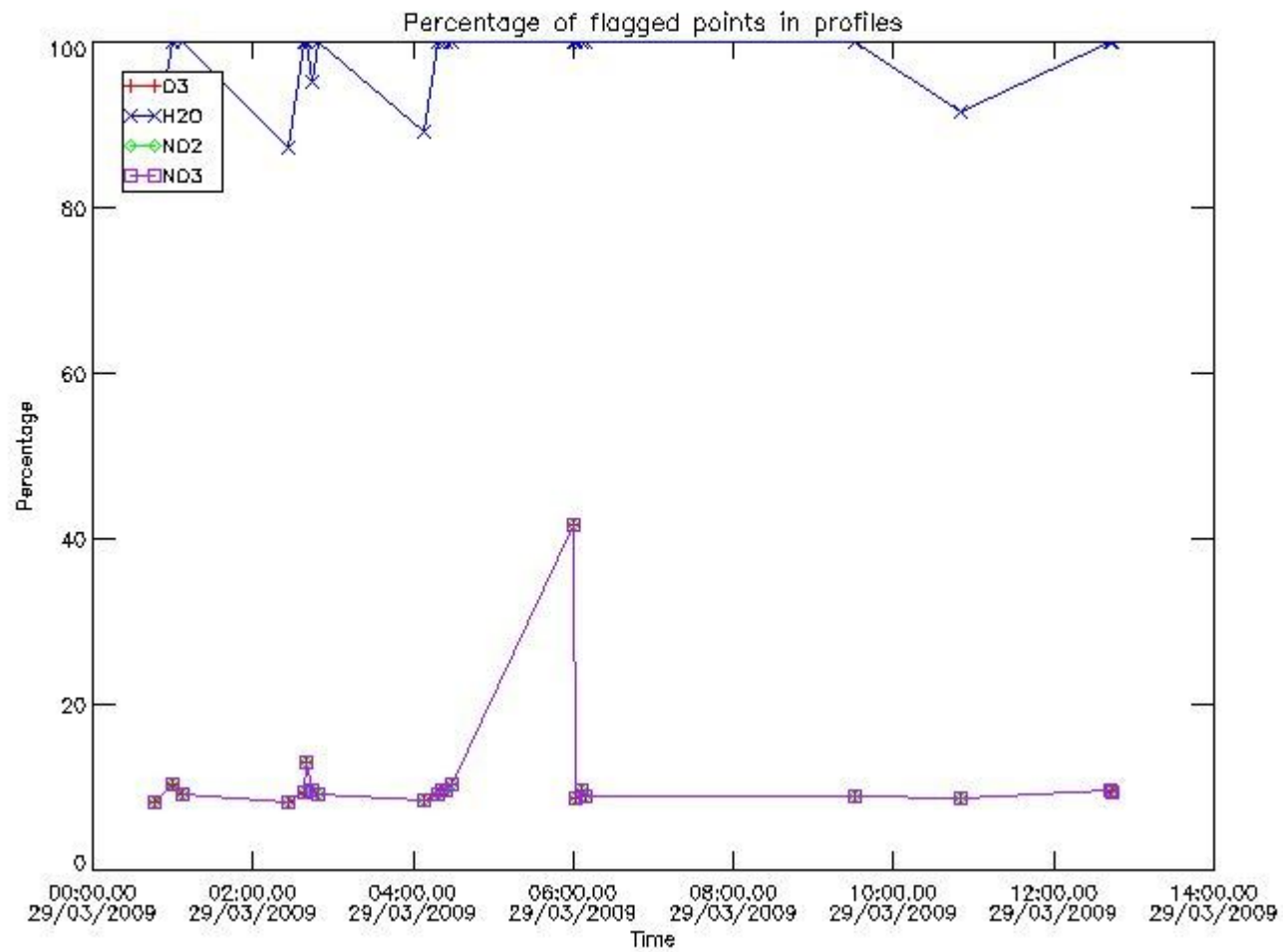
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43	GOM_NL__2PRFIN20090329_095004_000000522077_00380_37007_2962.N1	29-MAR-2009 09:50:04	Straylight	51.500	169	46Gam Hya	2.9910	4700.0	103	37007	No
44	GOM_NL__2PRFIN20090329_095433_000000752077_00380_37007_2963.N1	29-MAR-2009 09:54:33	Bright	75.000	15	67Alp Vir	0.97600	28000.	150	37007	No
45	GOM_NL__2PRFIN20090329_104956_000000592077_00380_37007_2964.N1	29-MAR-2009 10:49:56	Dark	59.000	11	53Alp Aql	0.76500	8000.0	118	37007	No
46	GOM_NL__2PRFIN20090329_124210_000000542077_00381_37008_2979.N1	29-MAR-2009 12:42:10	Dark	53.500	155	41Pi Sgr	2.9000	6600.0	107	37008	No
47	GOM_NL__2PRFIN20090329_124422_000000552077_00381_37008_2980.N1	29-MAR-2009 12:44:22	Dark	54.500	57	34Sig Sgr	2.0660	26000.	109	37008	No
48	GOM_NL__2PRFIN20090329_130009_000000512077_00382_37009_2996.N1	29-MAR-2009 13:00:09	Straylight	51.000	131	Gam Lup	2.8000	26000.	102	37009	No
49	GOM_NL__2PRFIN20090329_130248_000000432077_00382_37009_2997.N1	29-MAR-2009 13:02:48	Straylight	43.000	81	Eta Cen	2.3560	28000.	86	37009	No
50	GOM_NL__2PRFIN20090329_130536_000000532077_00382_37009_2998.N1	29-MAR-2009 13:05:36	Straylight	52.500	54	5The Cen	2.0550	4500.0	105	37009	No
51	GOM_NL__2PRFIN20090329_131116_000000522077_00382_37009_2999.N1	29-MAR-2009 13:11:16	Straylight	52.000	169	46Gam Hya	2.9910	4700.0	104	37009	No
52	GOM_NL__2PRFIN20090329_131544_000000742077_00382_37009_3000.N1	29-MAR-2009 13:15:44	Bright	74.000	15	67Alp Vir	0.97600	28000.	148	37009	No
53	GOM_NL__2PRFIN20090329_131902_000000472077_00382_37009_3001.N1	29-MAR-2009 13:19:02	Bright	46.500	121	29Gam Vir	2.7400	7200.0	93	37009	No
54	GOM_NL__2PRFIN20090329_132353_000000512077_00382_37009_3002.N1	29-MAR-2009 13:23:53	Bright	51.000	138	47Eps Vir	2.8280	4700.0	102	37009	No
55	GOM_NL__2PRFIN20090329_133235_000000432077_00382_37009_3003.N1	29-MAR-2009 13:32:35	Bright	42.500	152	12Alp2CVn	2.8900	11000.	85	37009	No

3. Quality information per product

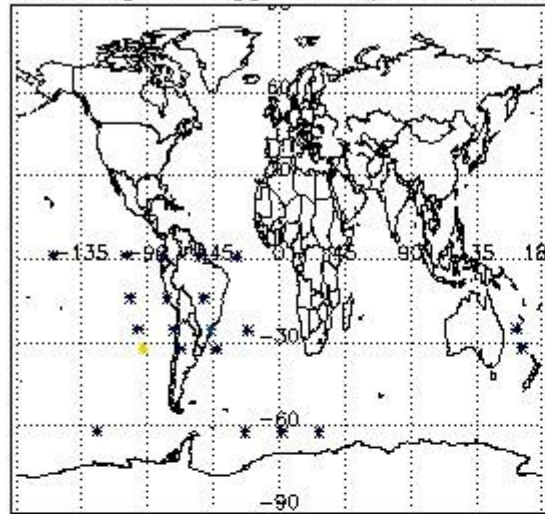
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

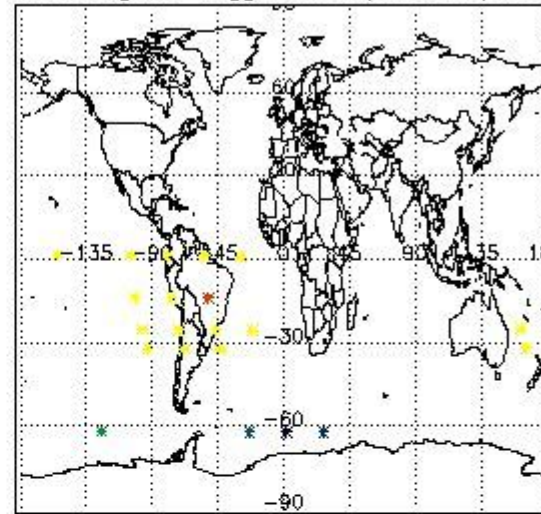


3.2 Plot quality information per product (world map)

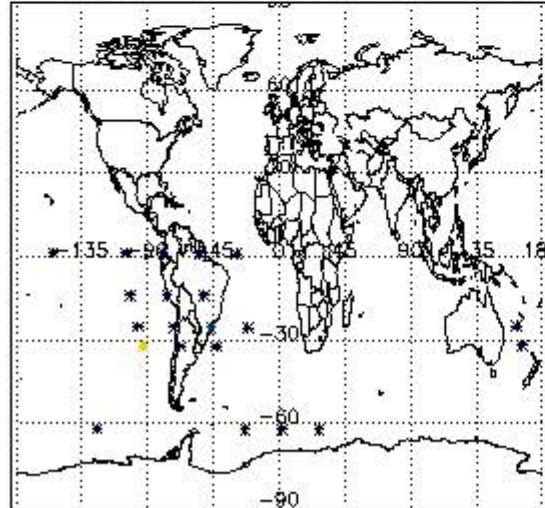
Percentage of flagged data per O3 profile



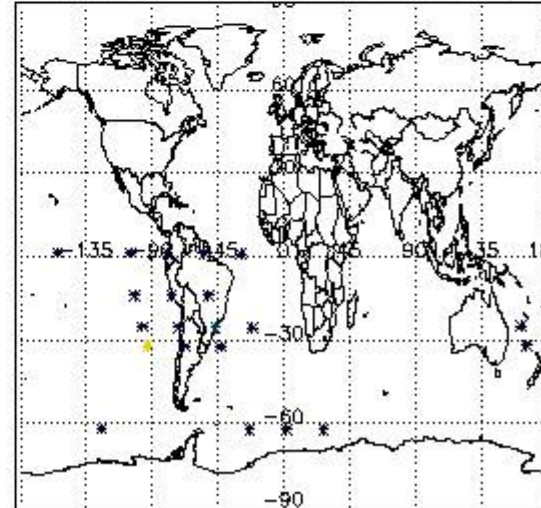
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

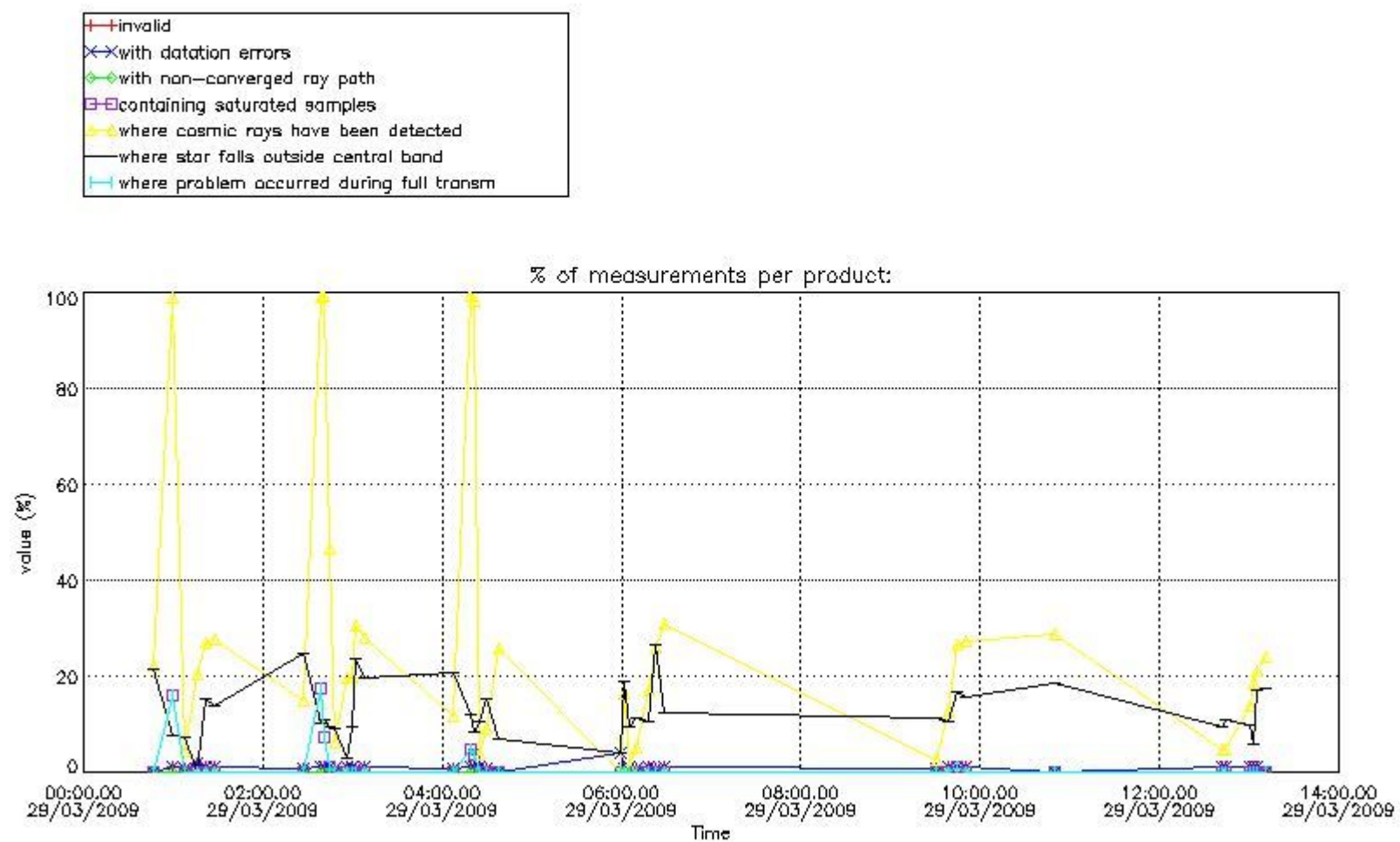


4. Level 1 quality information per product

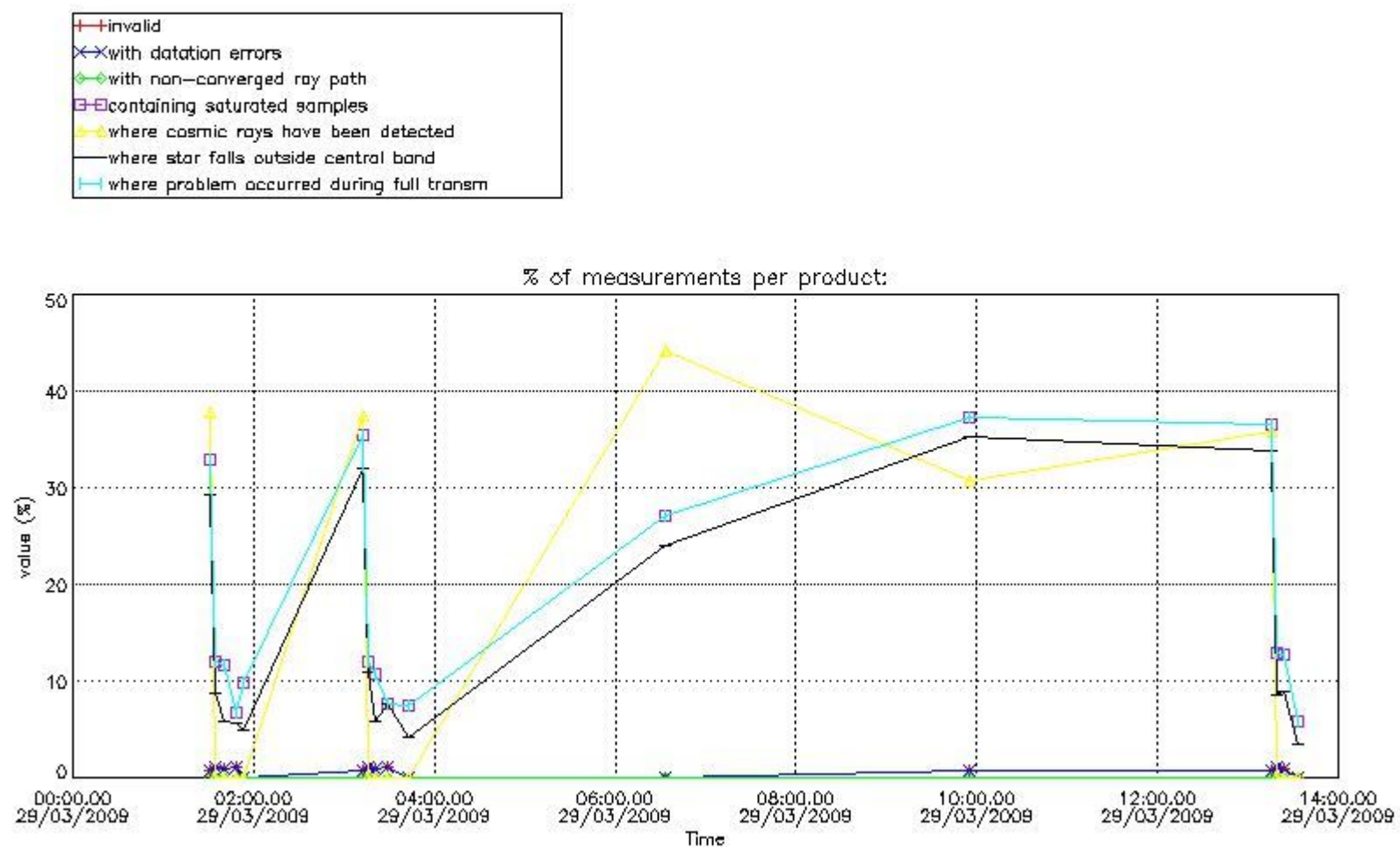
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

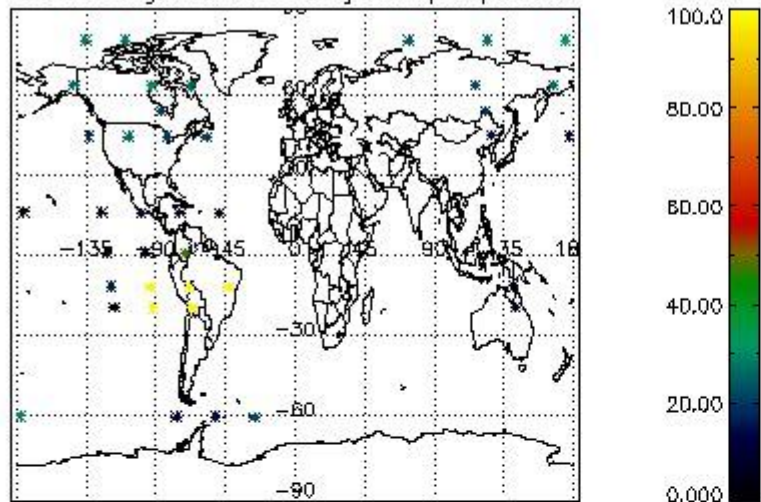


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

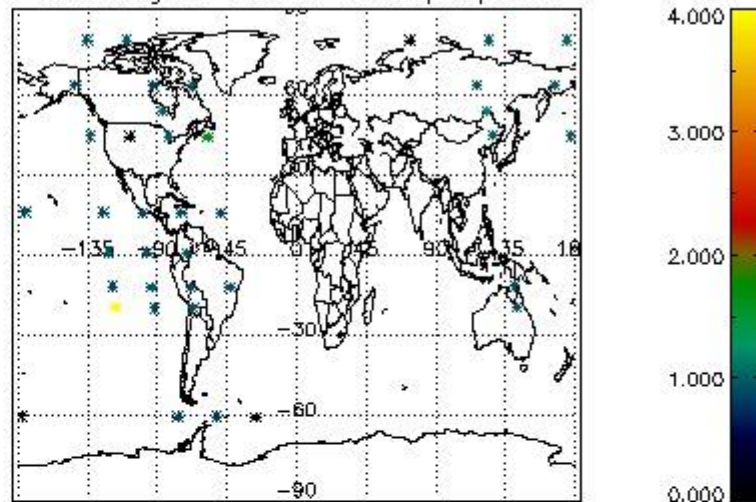


4.2 Plot quality information per product coming from level 1b processing (world map)
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

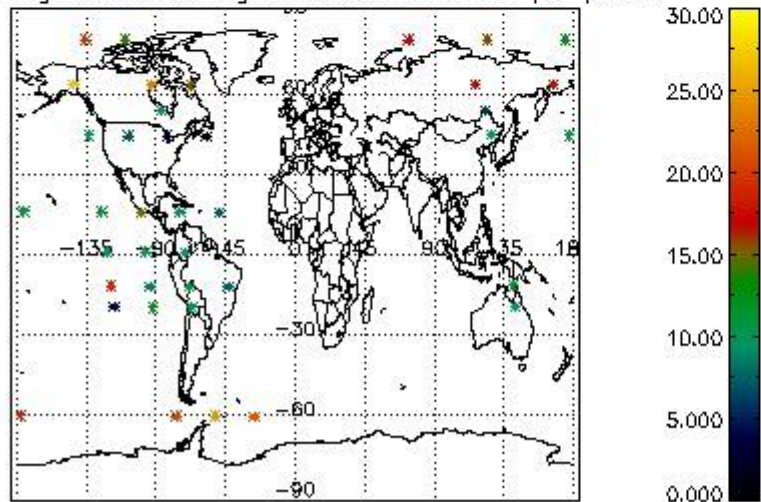
Percentage of cosmic ray hits per profile



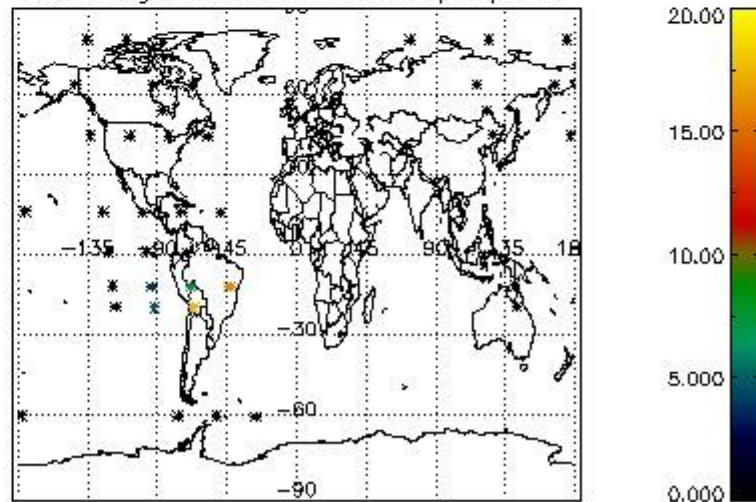
Percentage of datation errors per profile



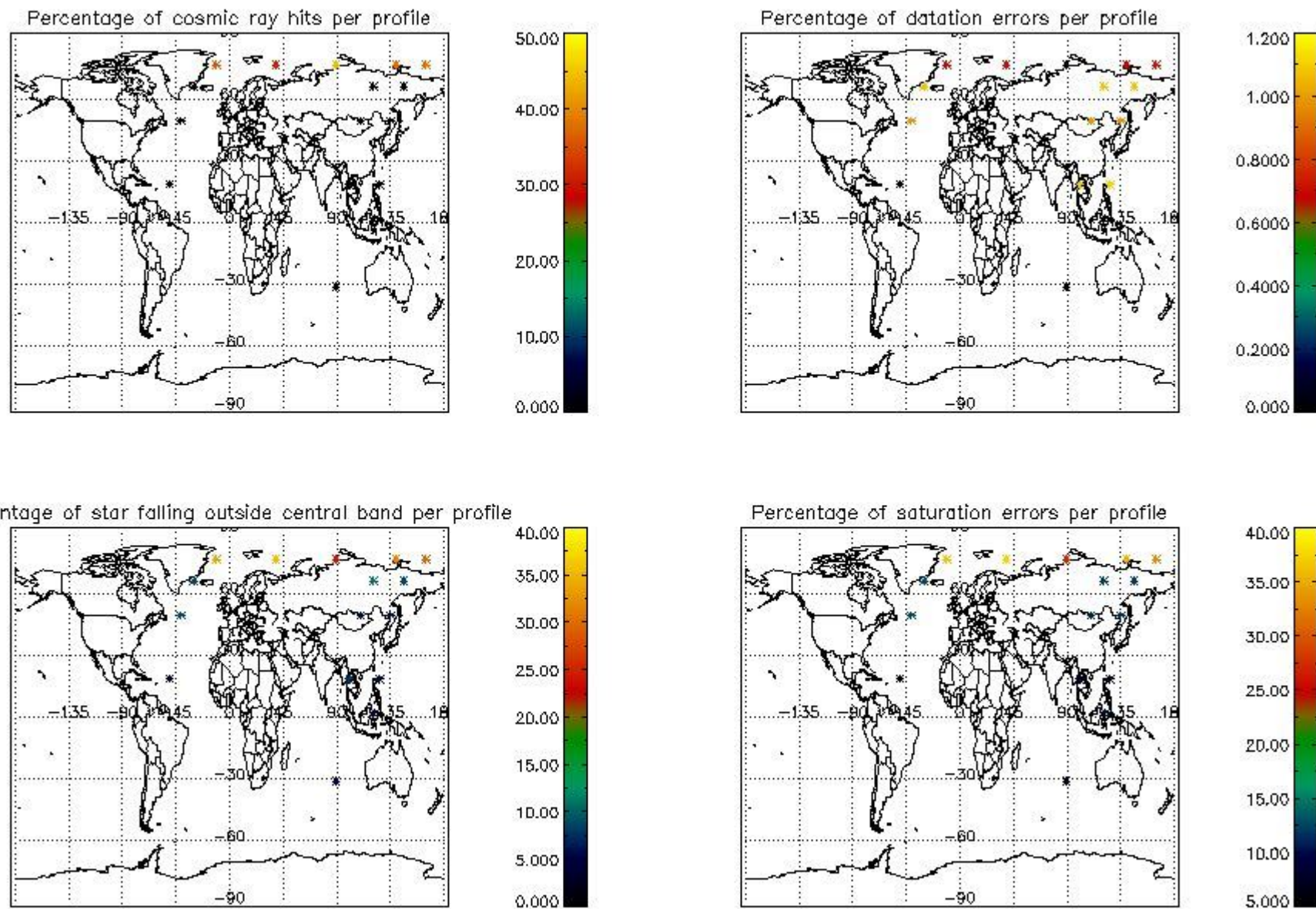
Percentage of star falling outside central band per profile



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

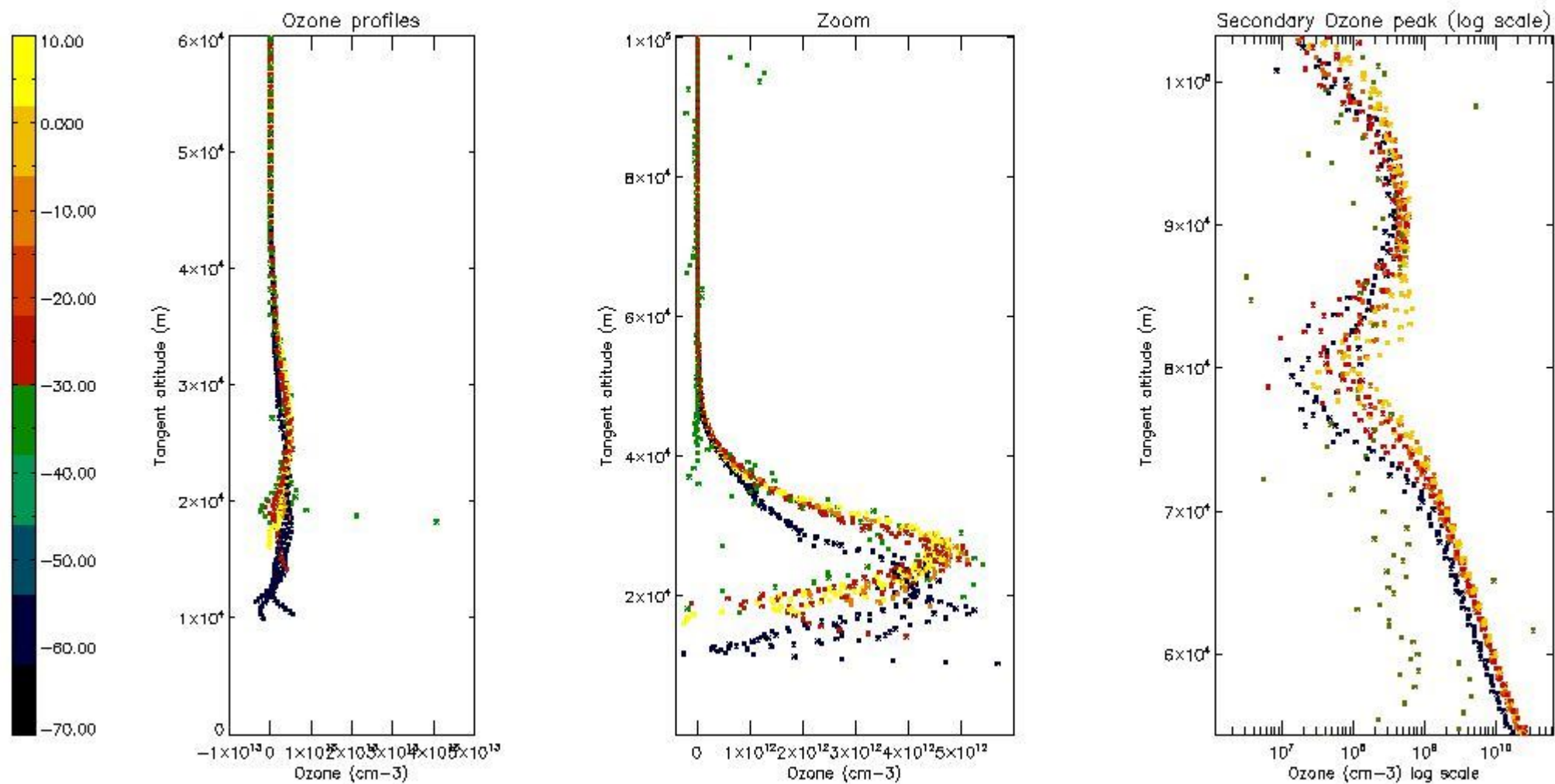
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	40
STD < 20	24

STD < 10	21
STD < 5	17

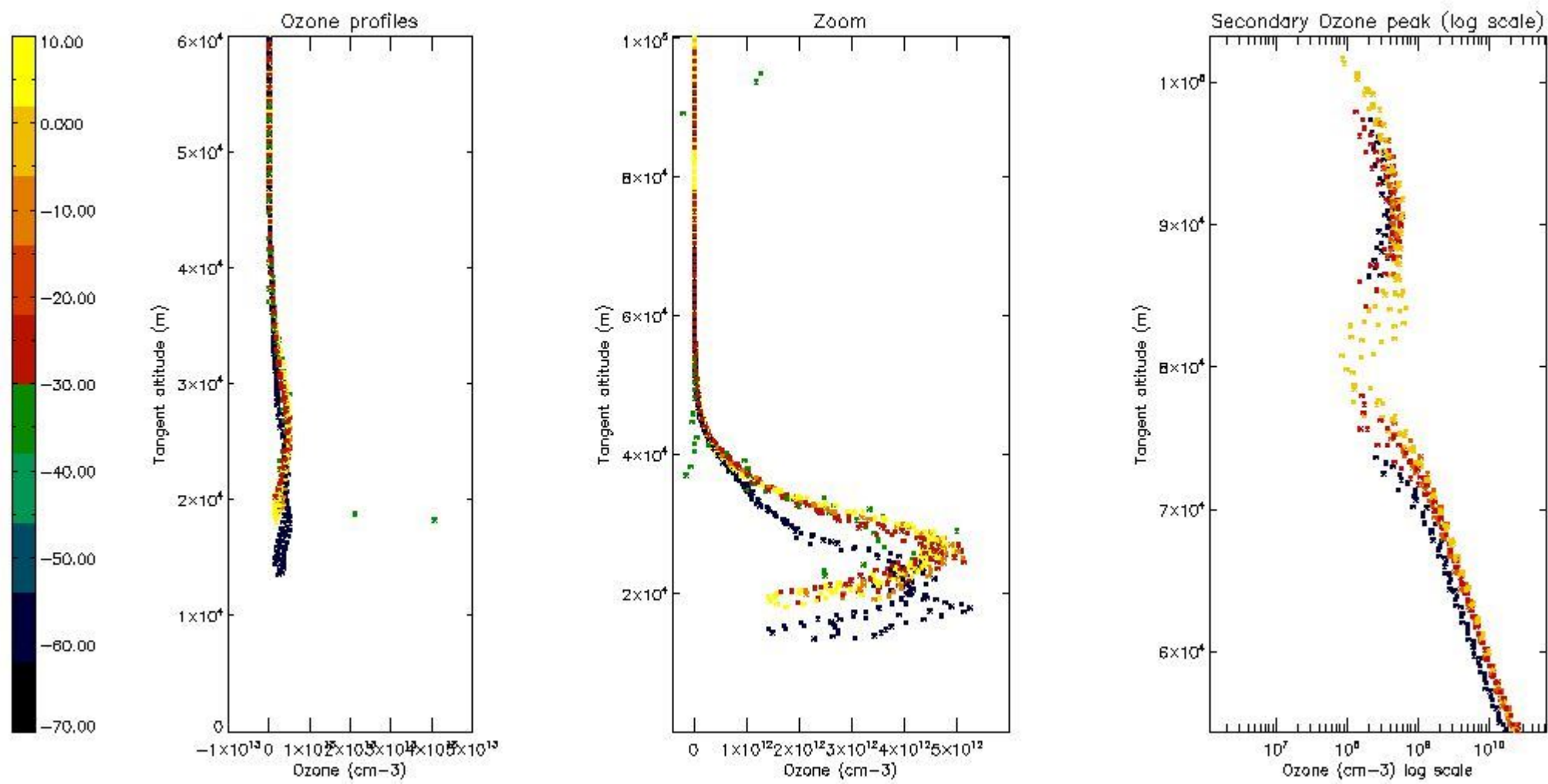
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



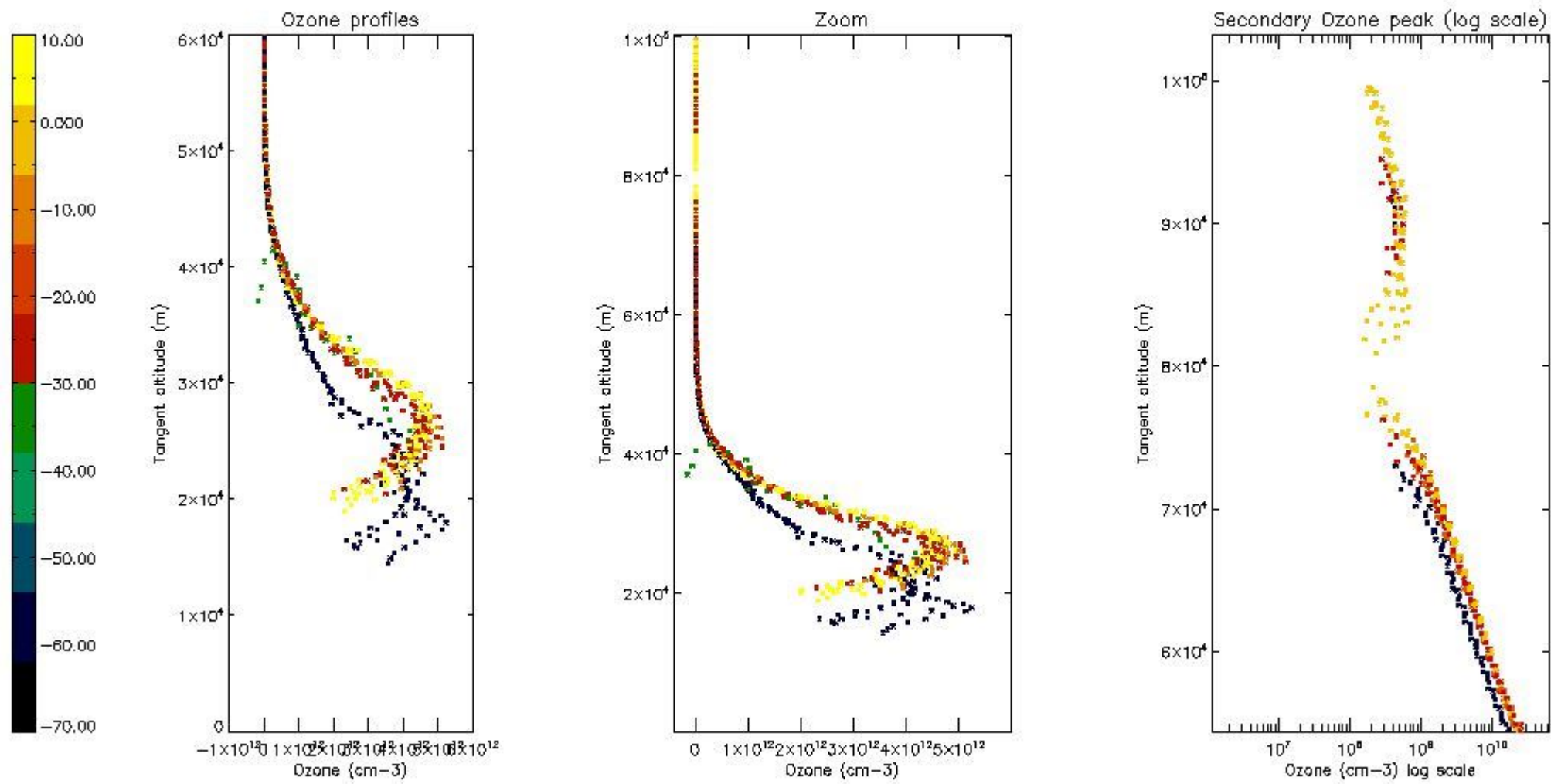
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



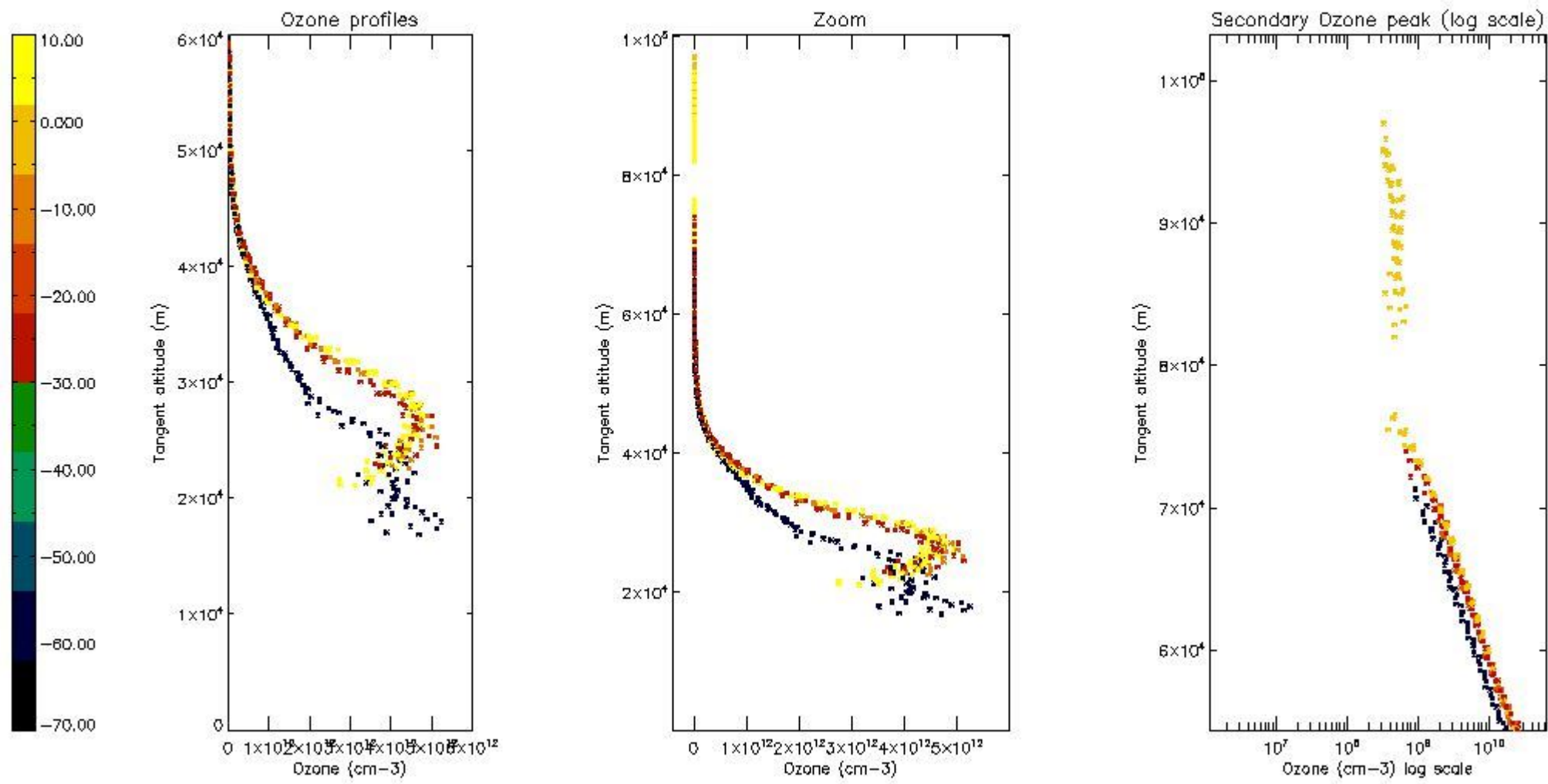
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



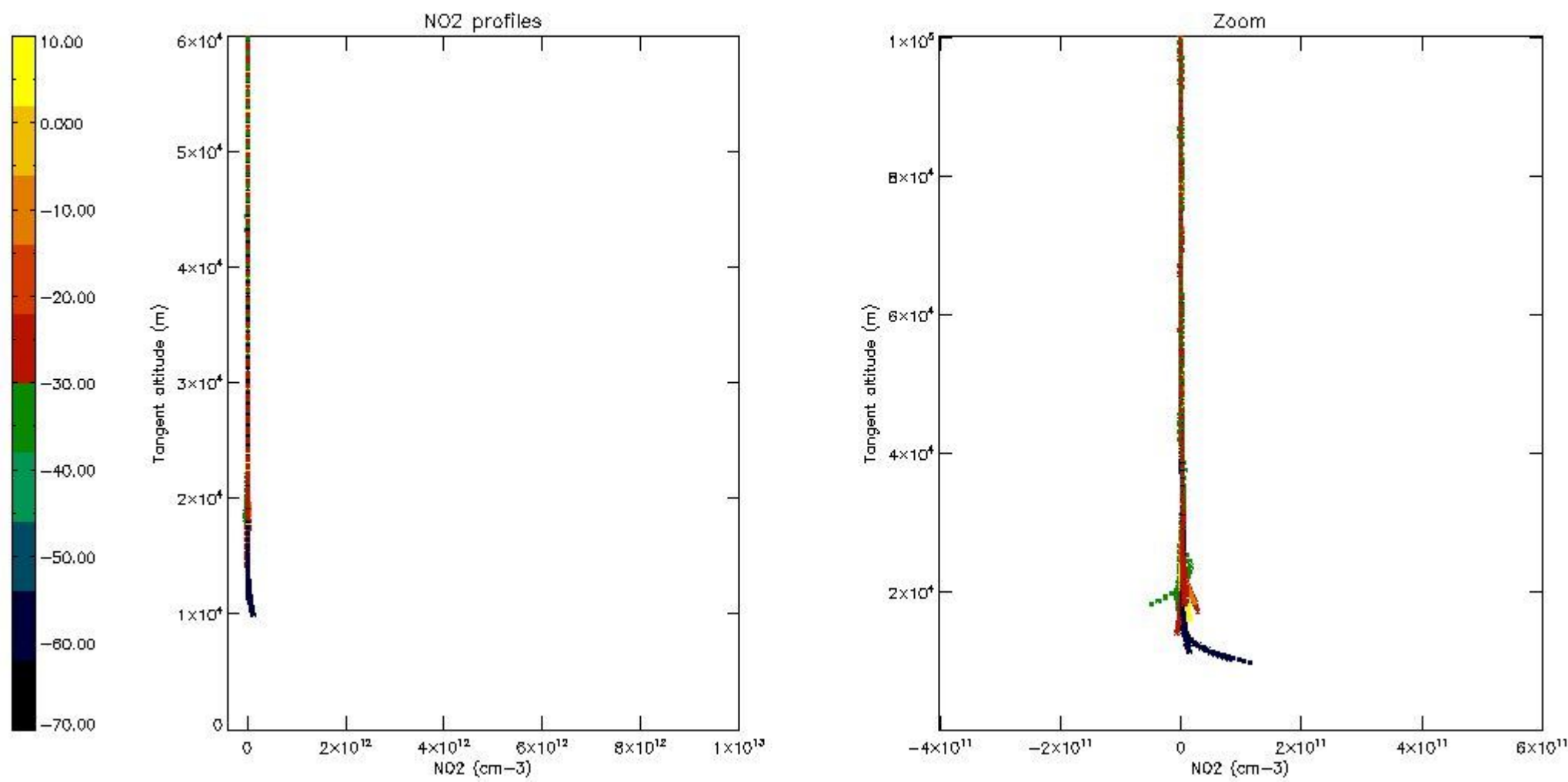
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



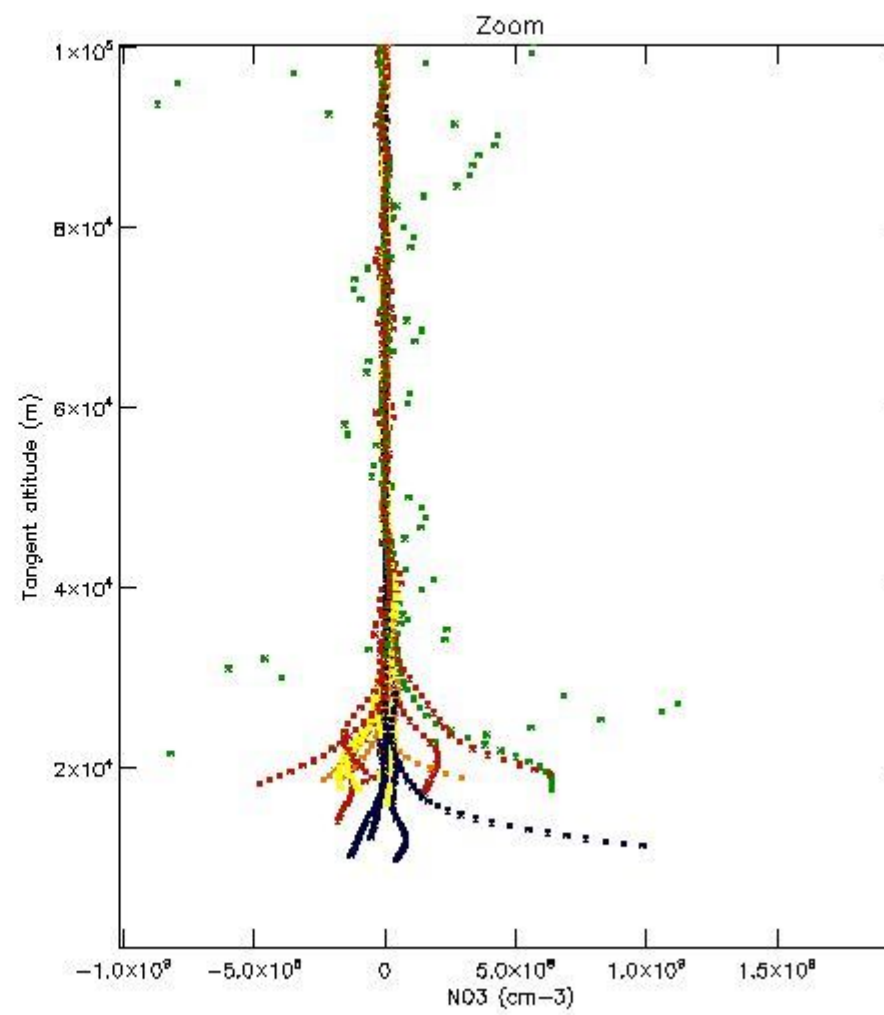
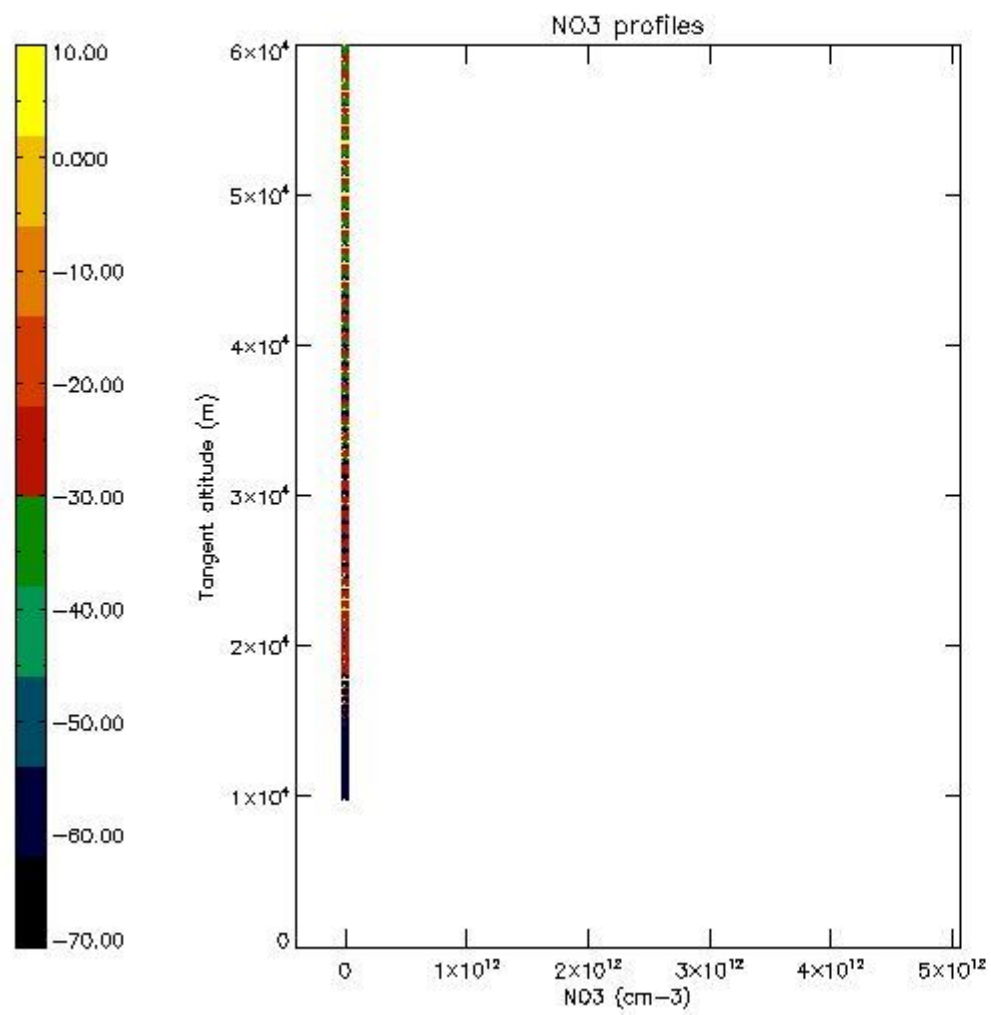
5.6 Plot NO₂ profiles for all STD (dark without errors)

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	29-MAR-2009 00:46:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	29-MAR-2009 00:46:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	29-MAR-2009 00:46:16

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[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](#)

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

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

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

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

[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](#)

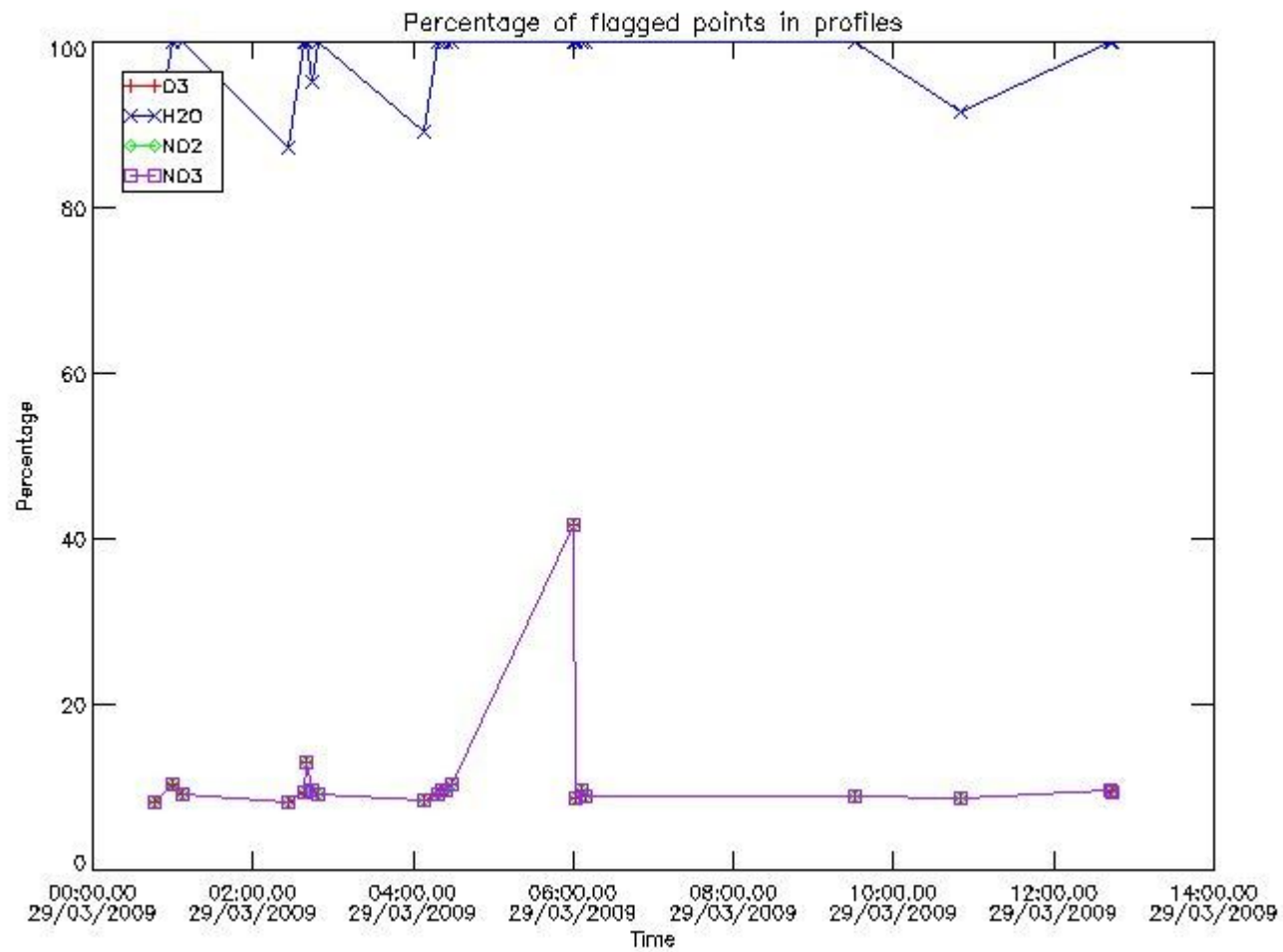
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45	GOM_NL__2PRFIN20090329_104956_000000592077_00380_37007_2964.N1	29-MAR-2009 10:49:56	Dark	59.000	11	53Alp Aql	0.76500	8000.0	118	37007	No
46	GOM_NL__2PRFIN20090329_124210_000000542077_00381_37008_2979.N1	29-MAR-2009 12:42:10	Dark	53.500	155	41Pi Sgr	2.9000	6600.0	107	37008	No
47	GOM_NL__2PRFIN20090329_124422_000000552077_00381_37008_2980.N1	29-MAR-2009 12:44:22	Dark	54.500	57	34Sig Sgr	2.0660	26000.	109	37008	No
48	GOM_NL__2PRFIN20090329_130009_000000512077_00382_37009_2996.N1	29-MAR-2009 13:00:09	Straylight	51.000	131	Gam Lup	2.8000	26000.	102	37009	No
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51	GOM_NL__2PRFIN20090329_131116_000000522077_00382_37009_2999.N1	29-MAR-2009 13:11:16	Straylight	52.000	169	46Gam Hya	2.9910	4700.0	104	37009	No
52	GOM_NL__2PRFIN20090329_131544_000000742077_00382_37009_3000.N1	29-MAR-2009 13:15:44	Bright	74.000	15	67Alp Vir	0.97600	28000.	148	37009	No
53	GOM_NL__2PRFIN20090329_131902_000000472077_00382_37009_3001.N1	29-MAR-2009 13:19:02	Bright	46.500	121	29Gam Vir	2.7400	7200.0	93	37009	No
54	GOM_NL__2PRFIN20090329_132353_000000512077_00382_37009_3002.N1	29-MAR-2009 13:23:53	Bright	51.000	138	47Eps Vir	2.8280	4700.0	102	37009	No
55	GOM_NL__2PRFIN20090329_133235_000000432077_00382_37009_3003.N1	29-MAR-2009 13:32:35	Bright	42.500	152	12Alp2CVn	2.8900	11000.	85	37009	No

3. Quality information per product

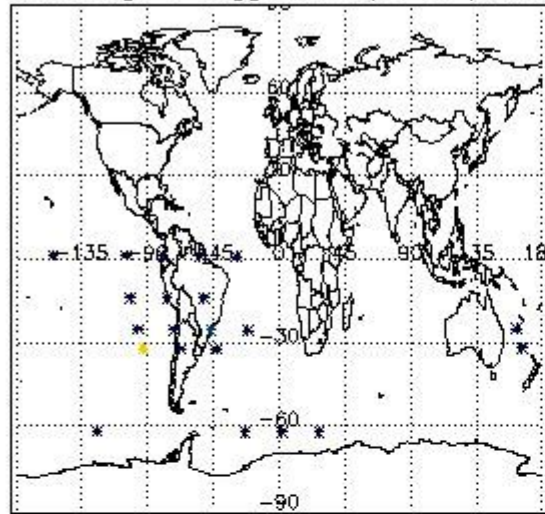
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

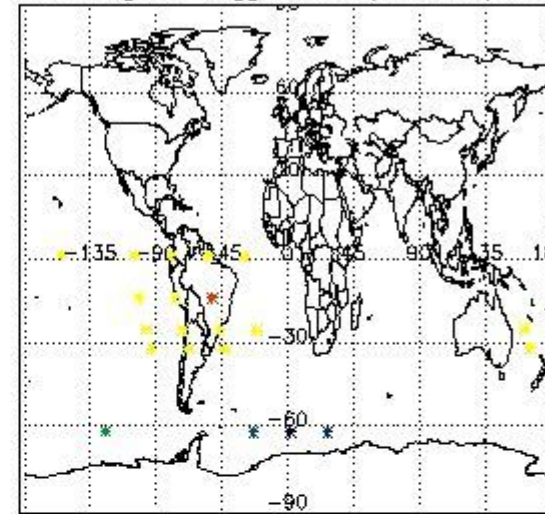


3.2 Plot quality information per product (world map)

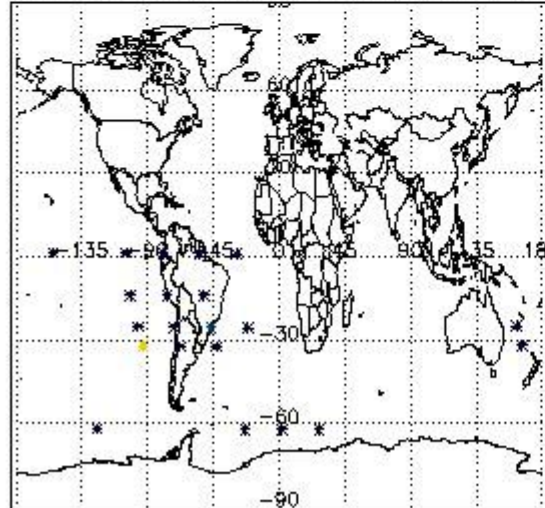
Percentage of flagged data per O3 profile



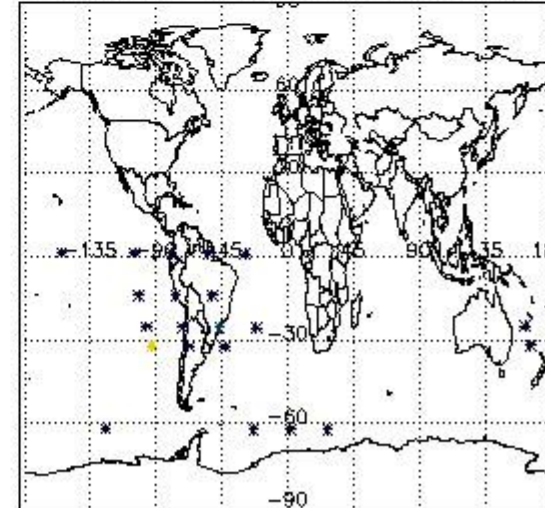
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

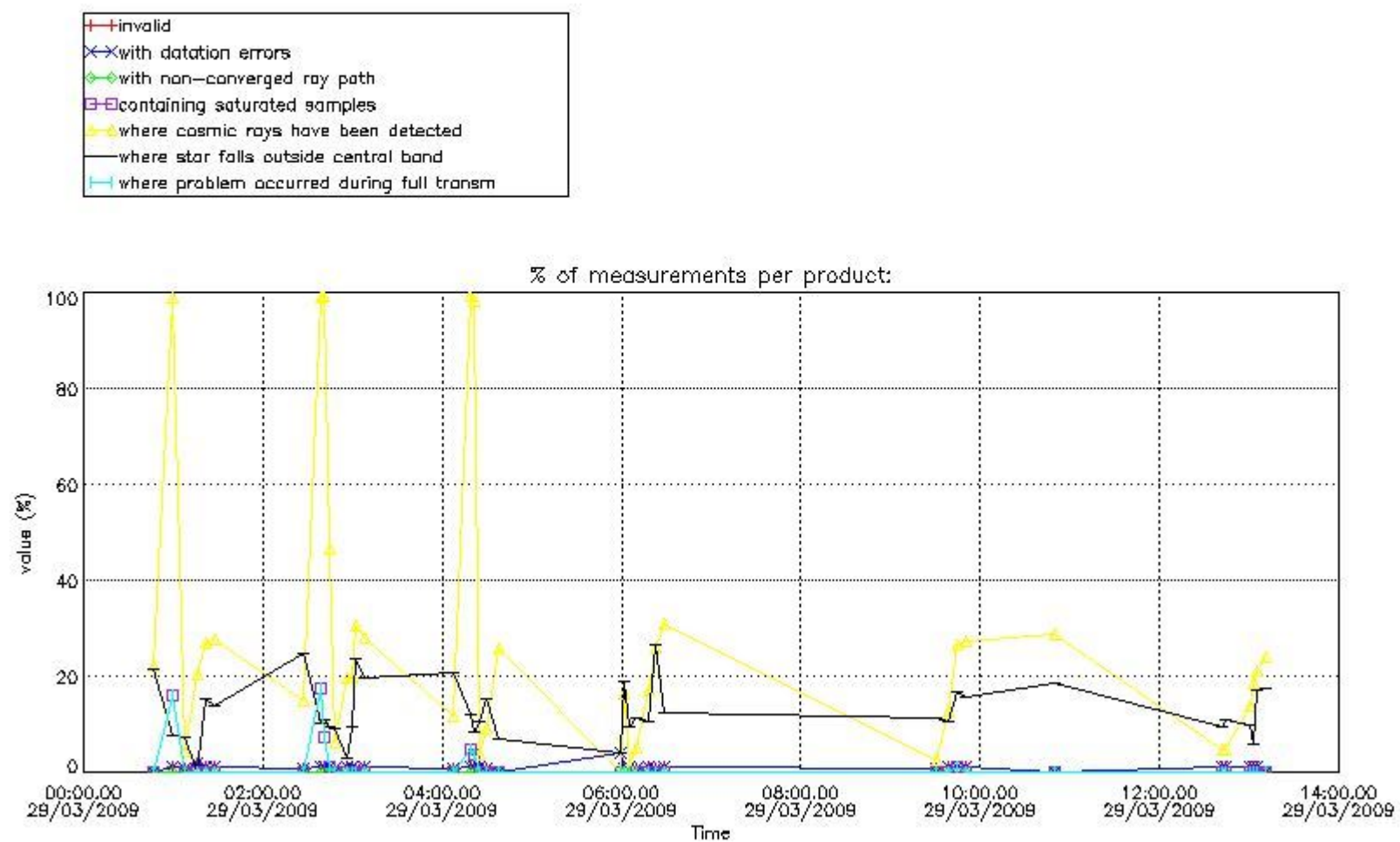


4. Level 1 quality information per product

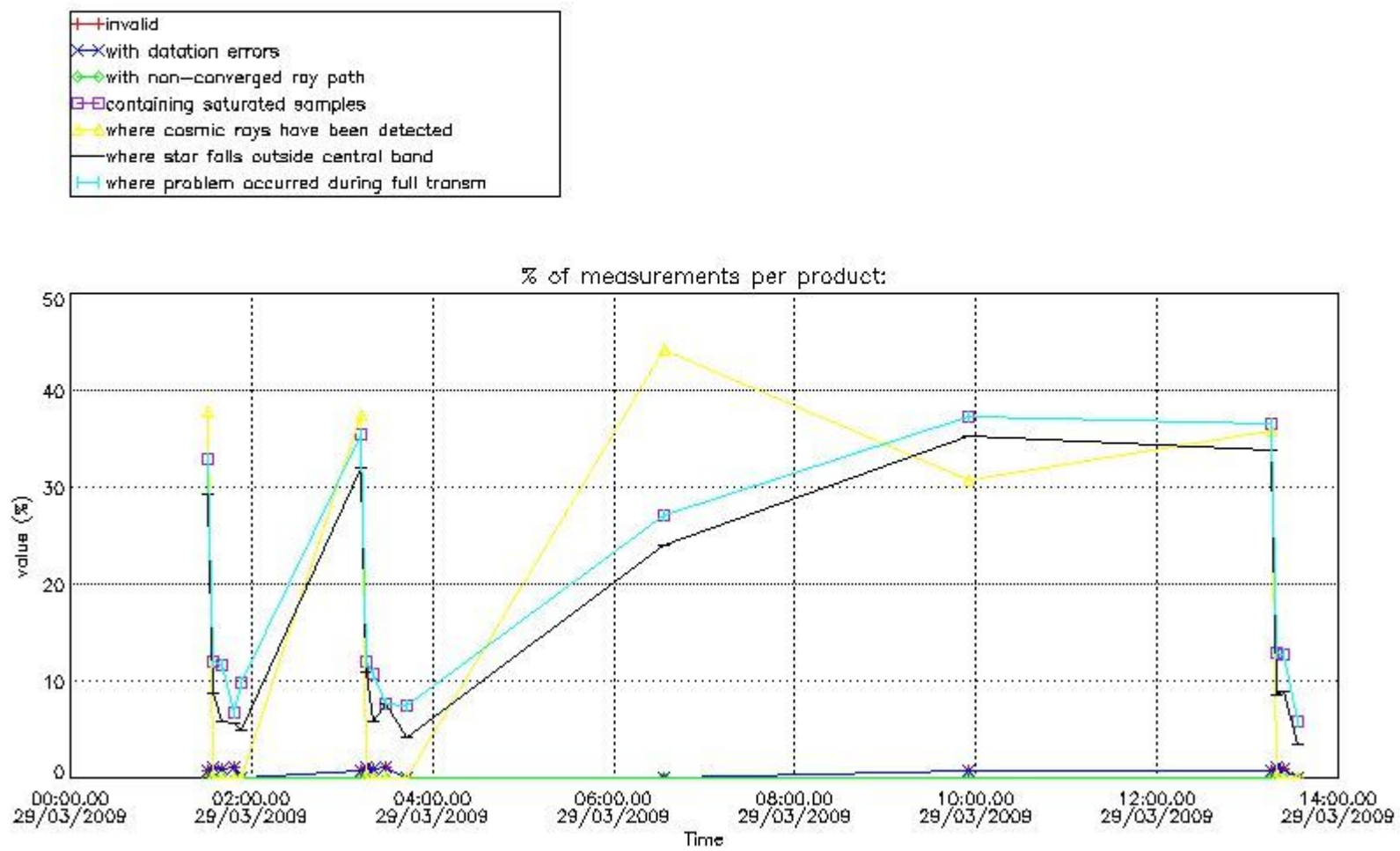
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



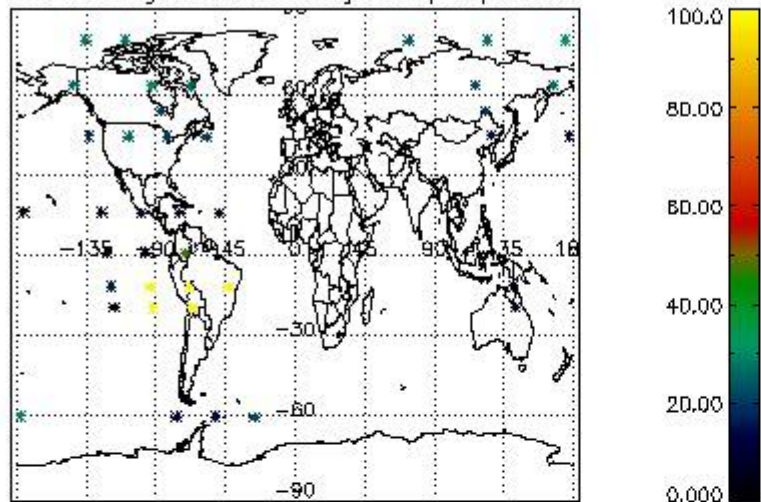
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



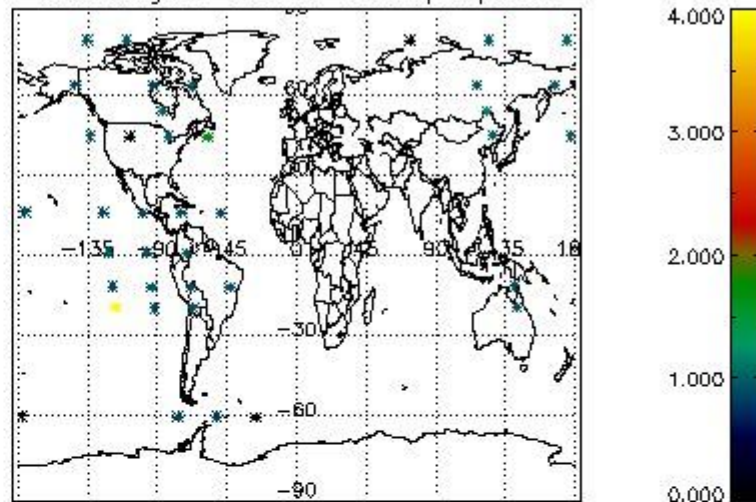
4.2 Plot quality information per product coming from level 1b processing (world map)

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

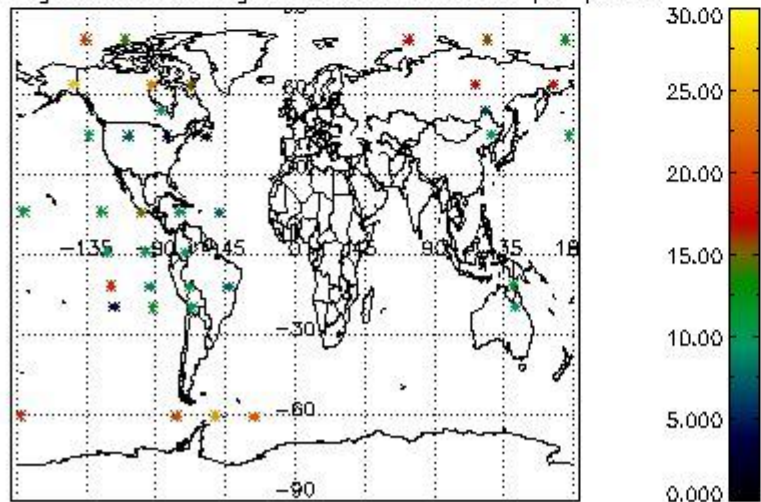
Percentage of cosmic ray hits per profile



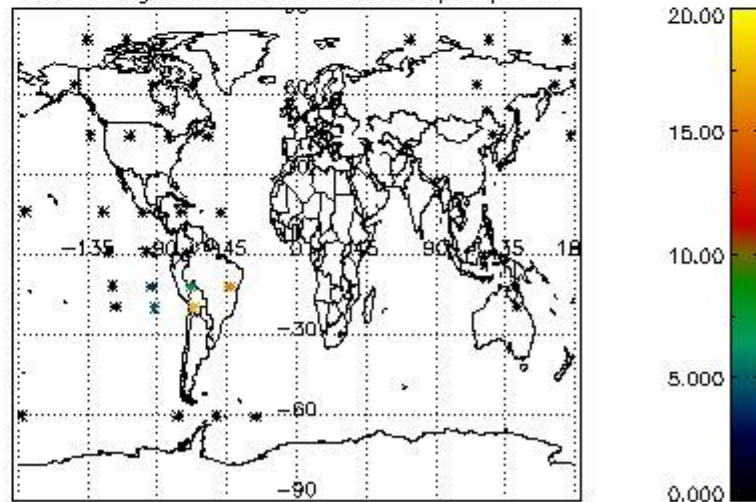
Percentage of datation errors per profile



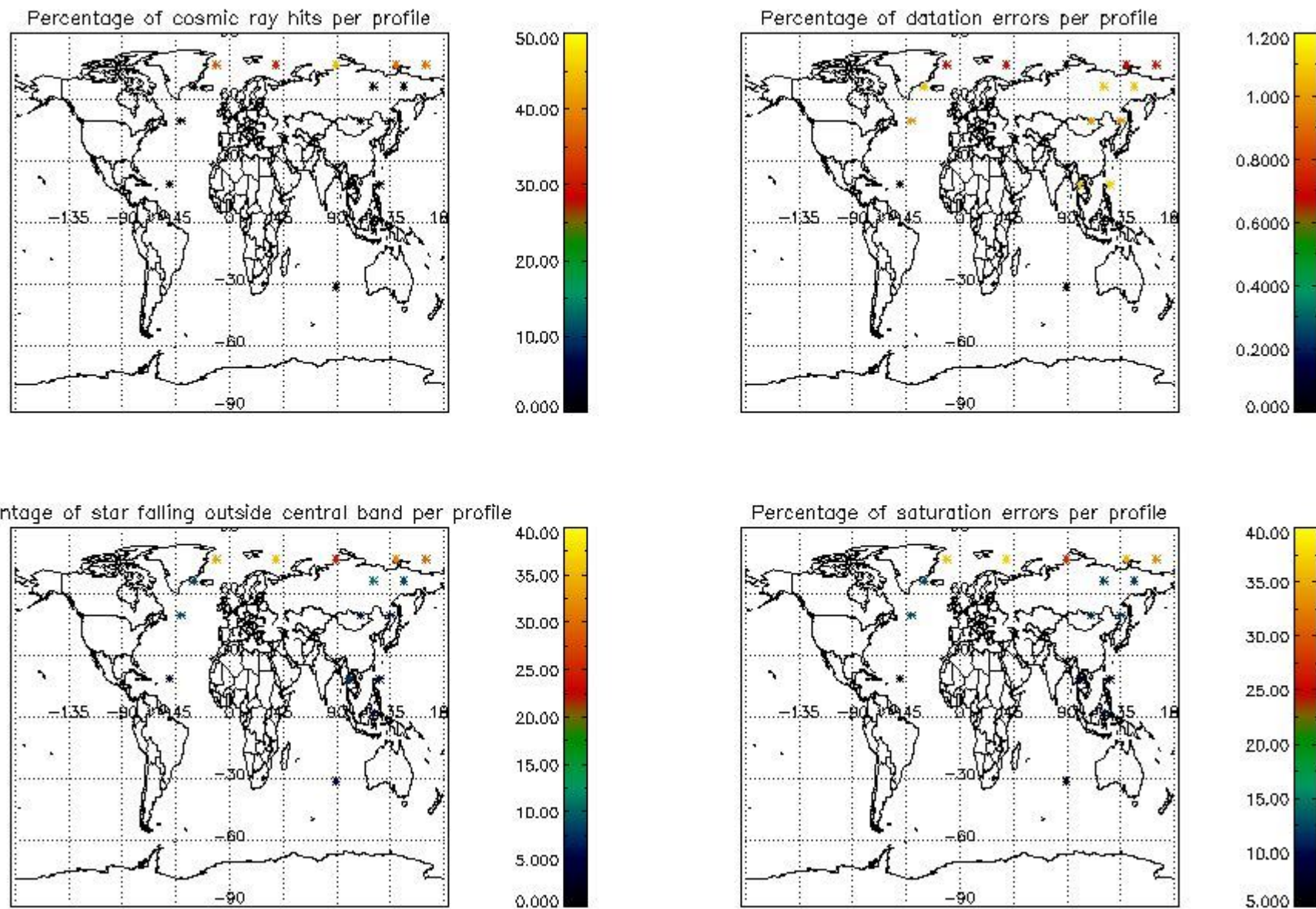
Percentage of star falling outside central band per profile



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

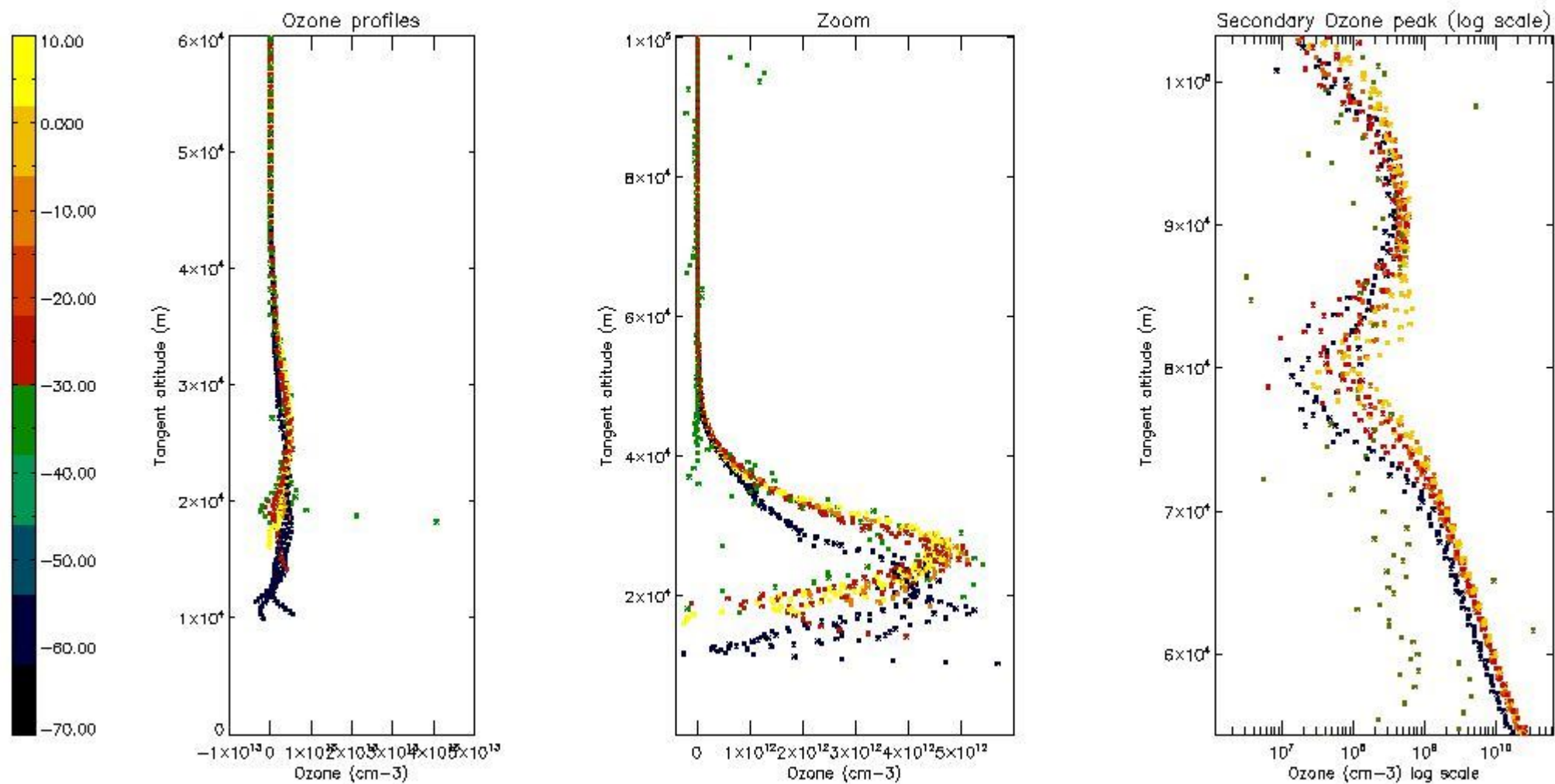
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	40
STD < 20	24

STD < 10	21
STD < 5	17

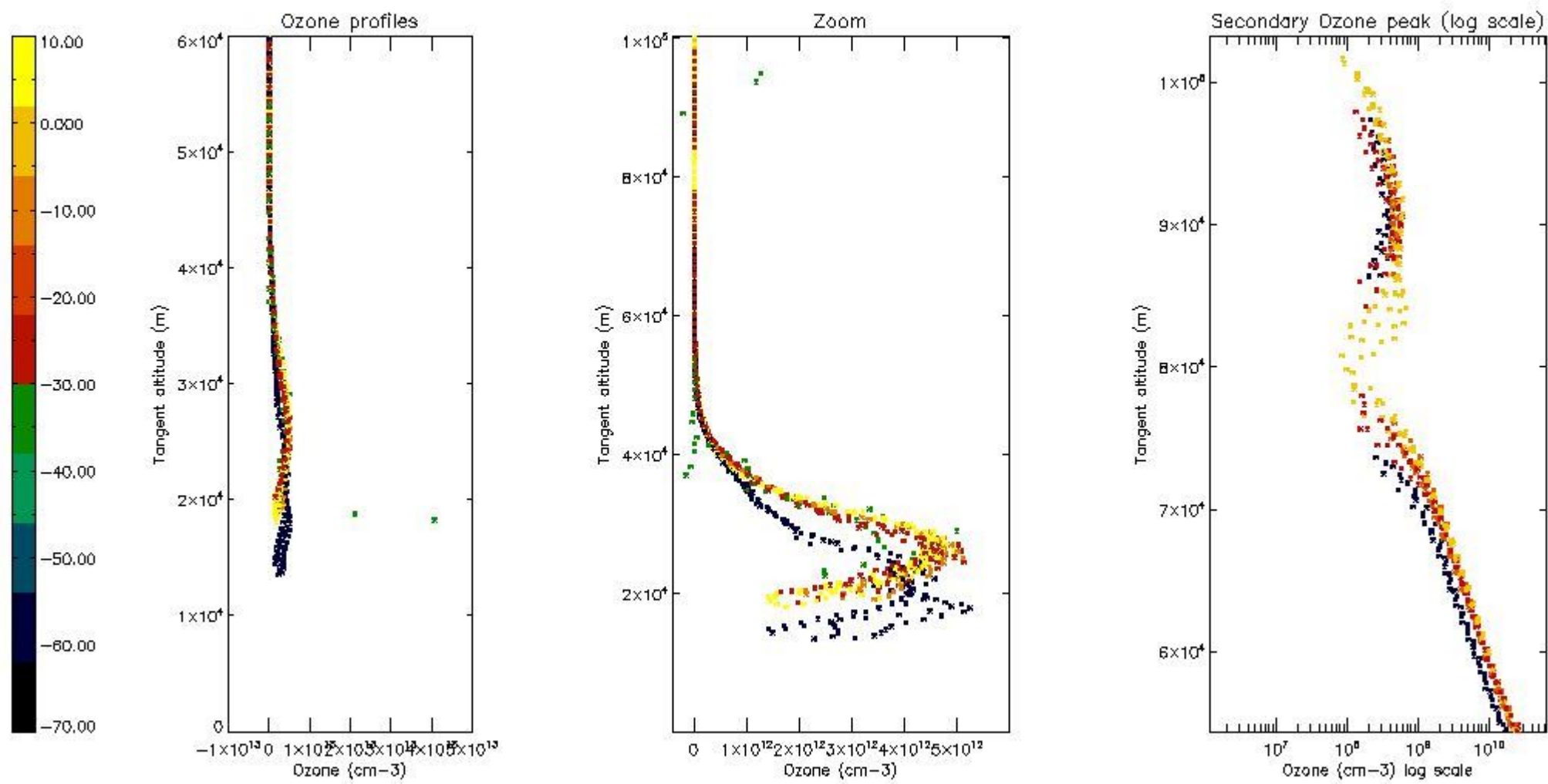
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



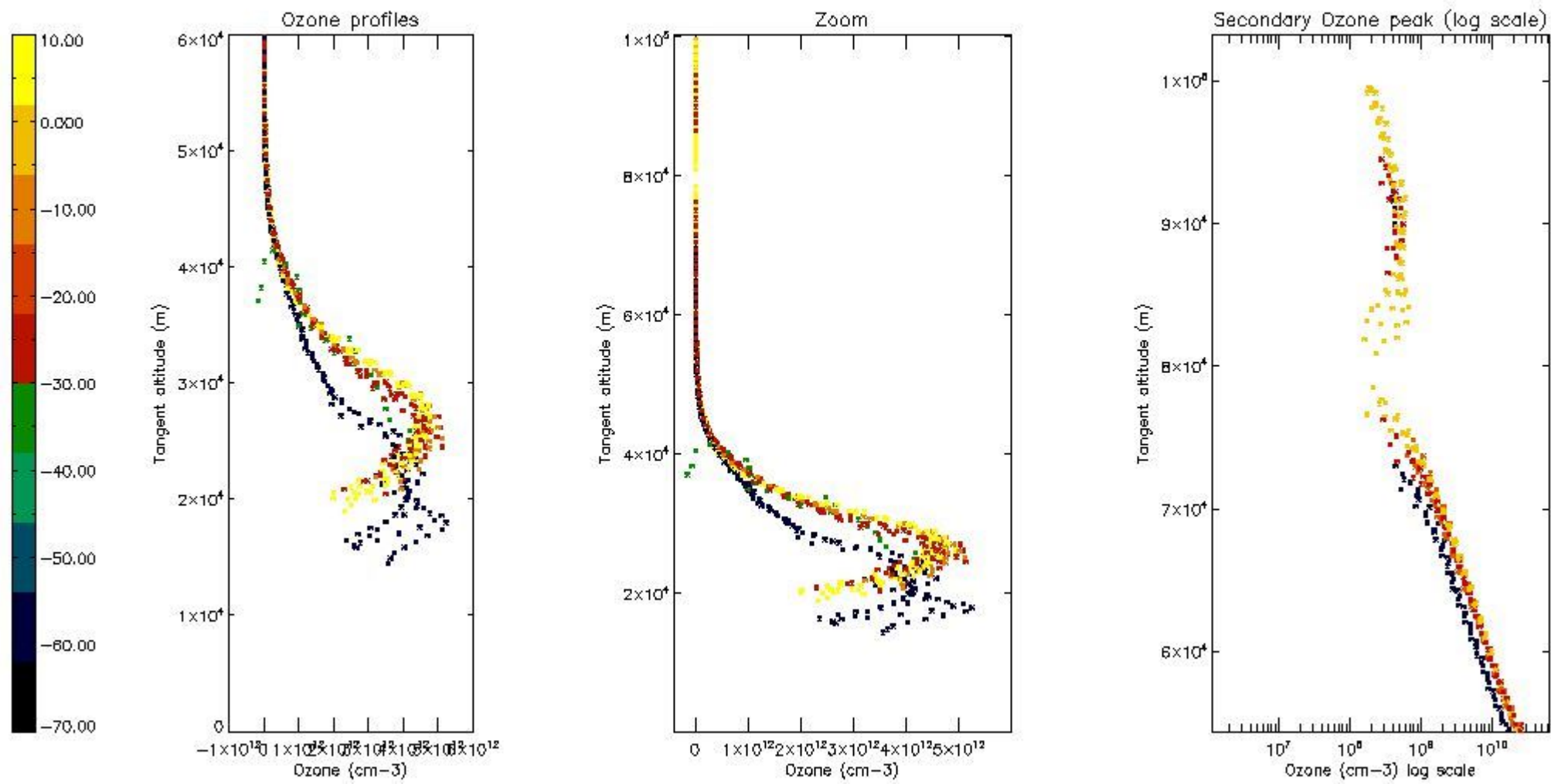
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



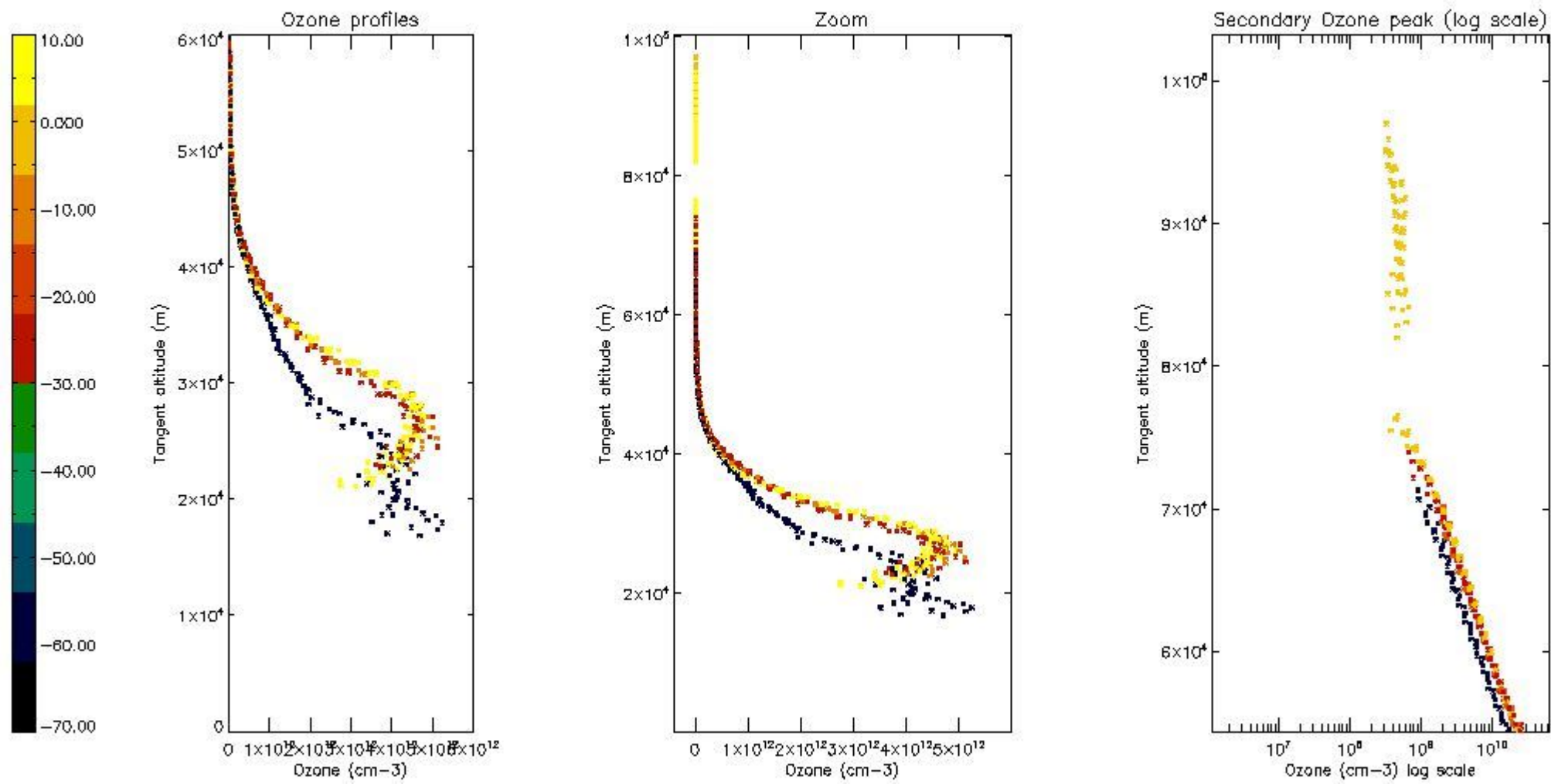
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



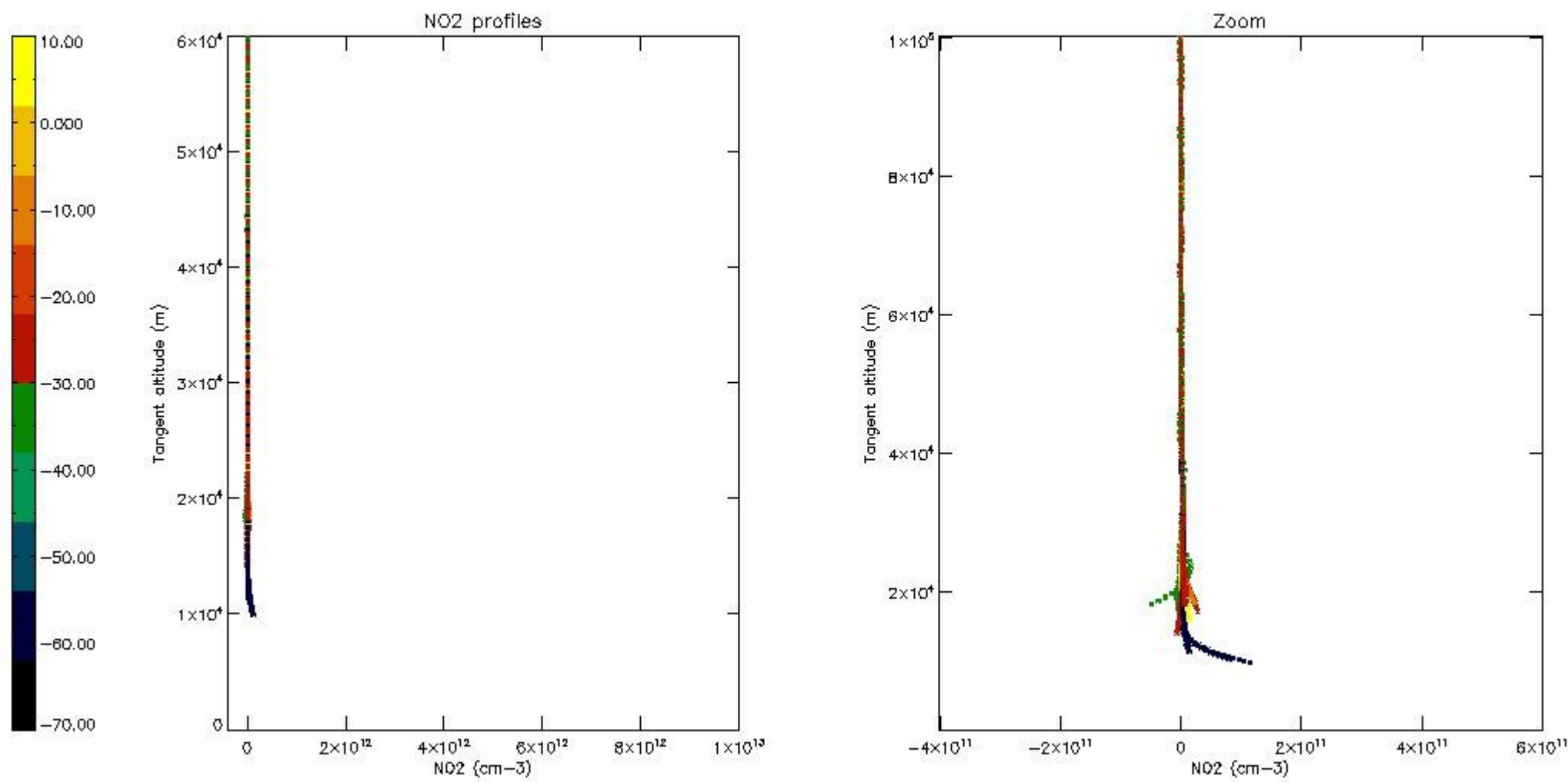
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



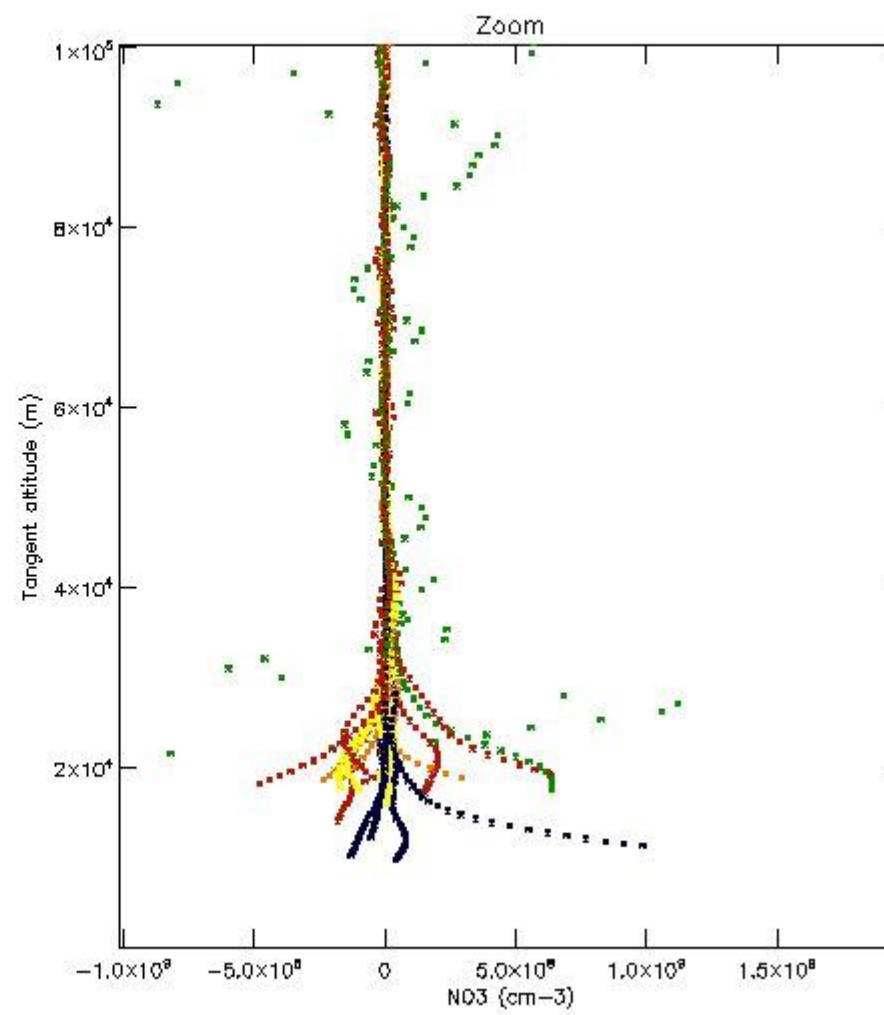
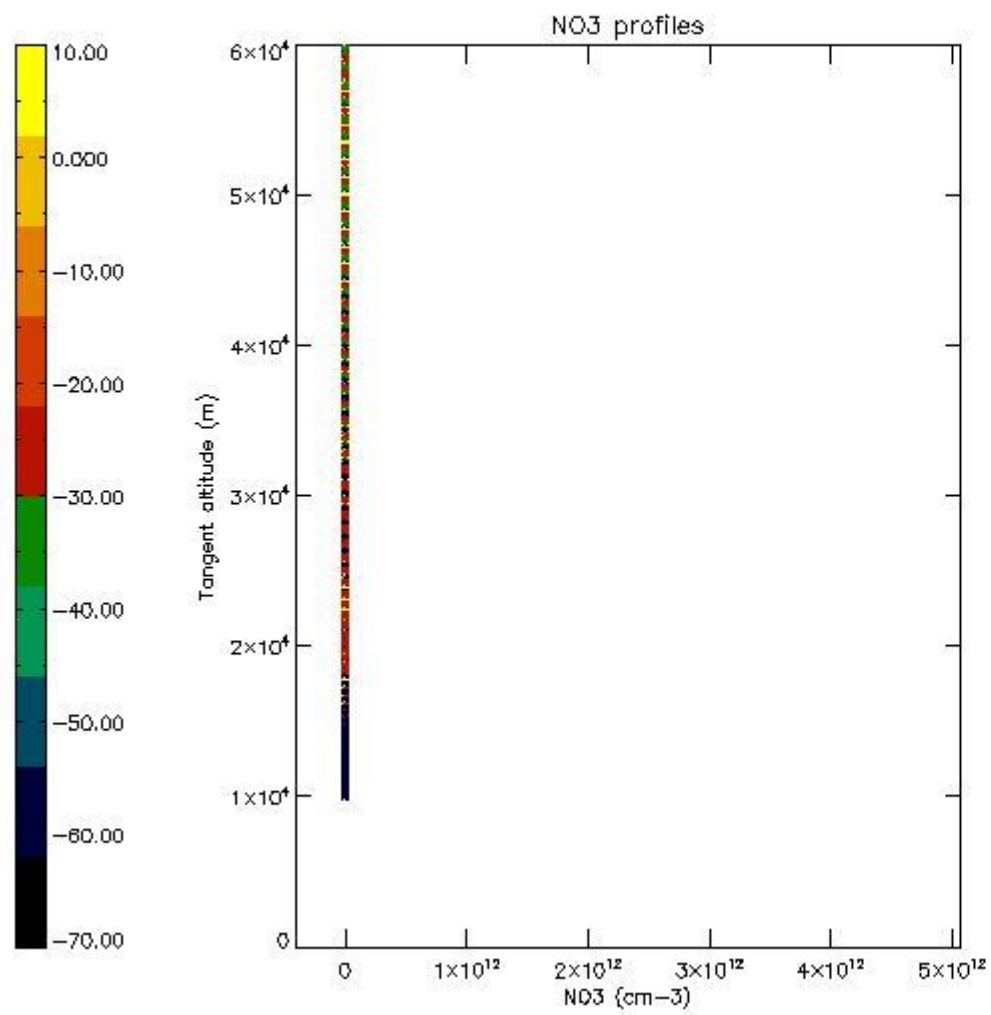
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

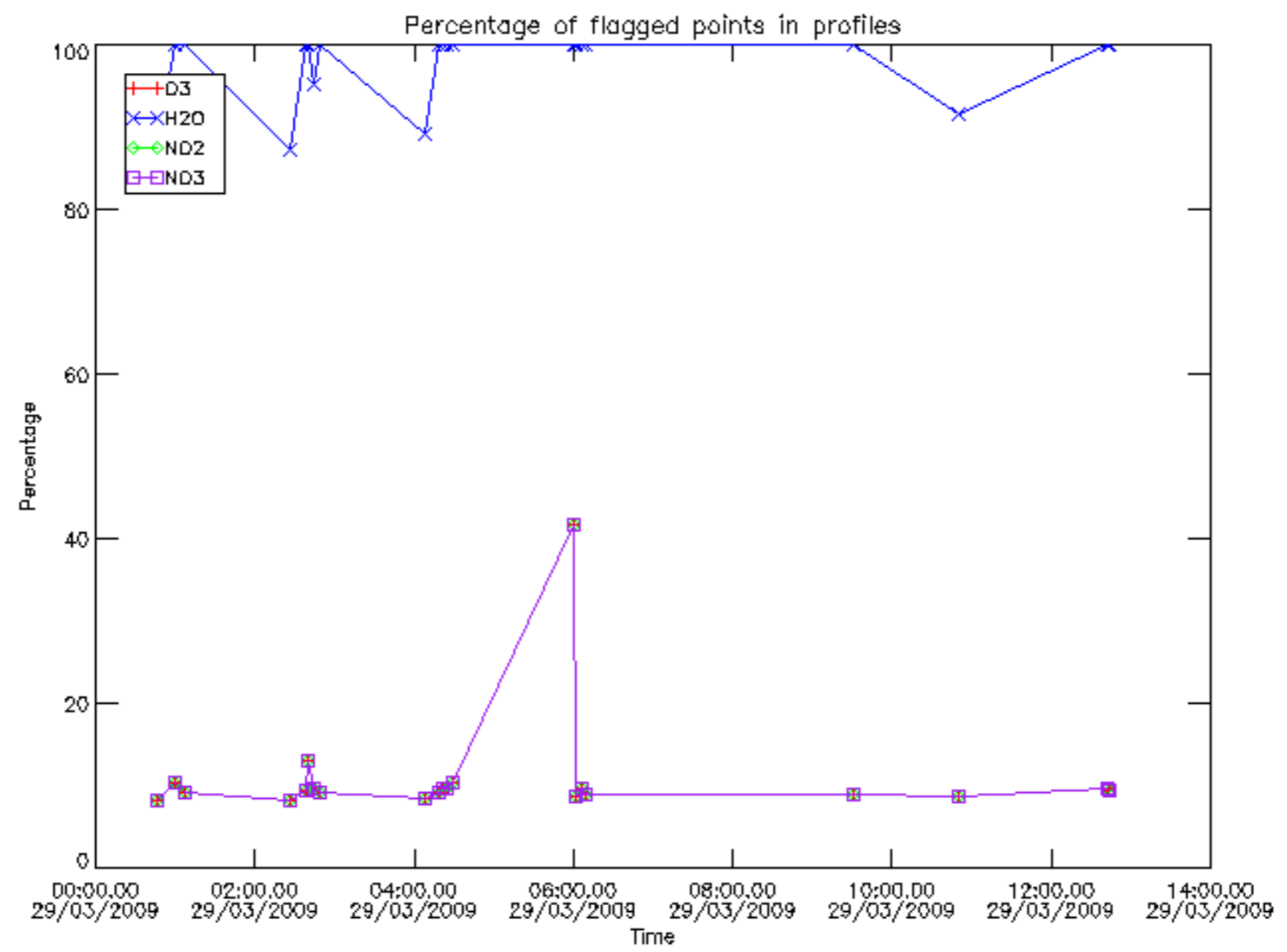
The colorbar represents the latitude.



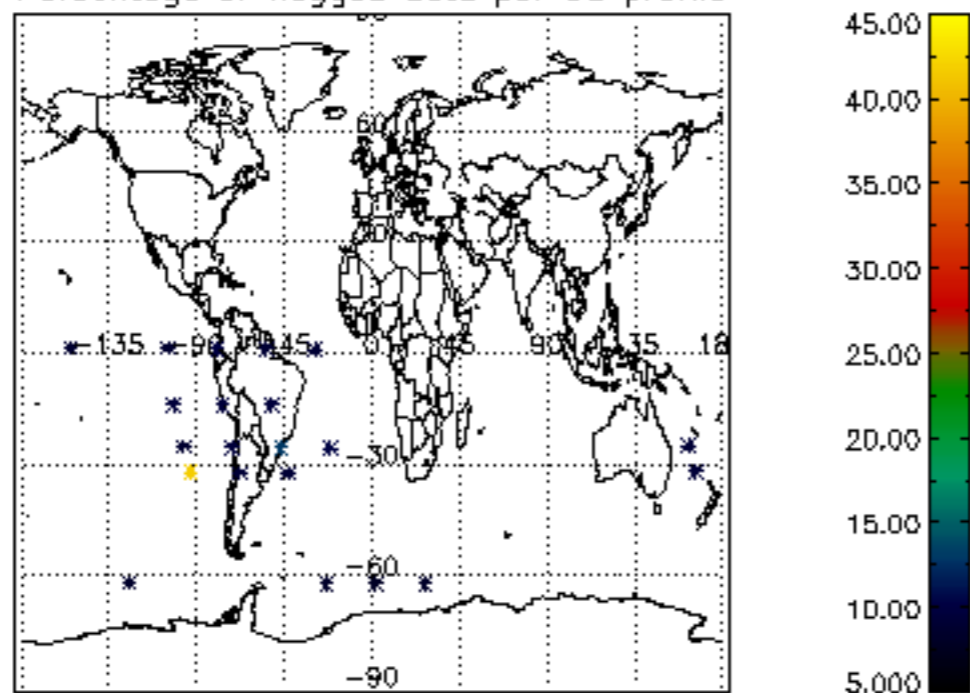
6. Auxiliary Data Files used for the production reported in section 2

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.

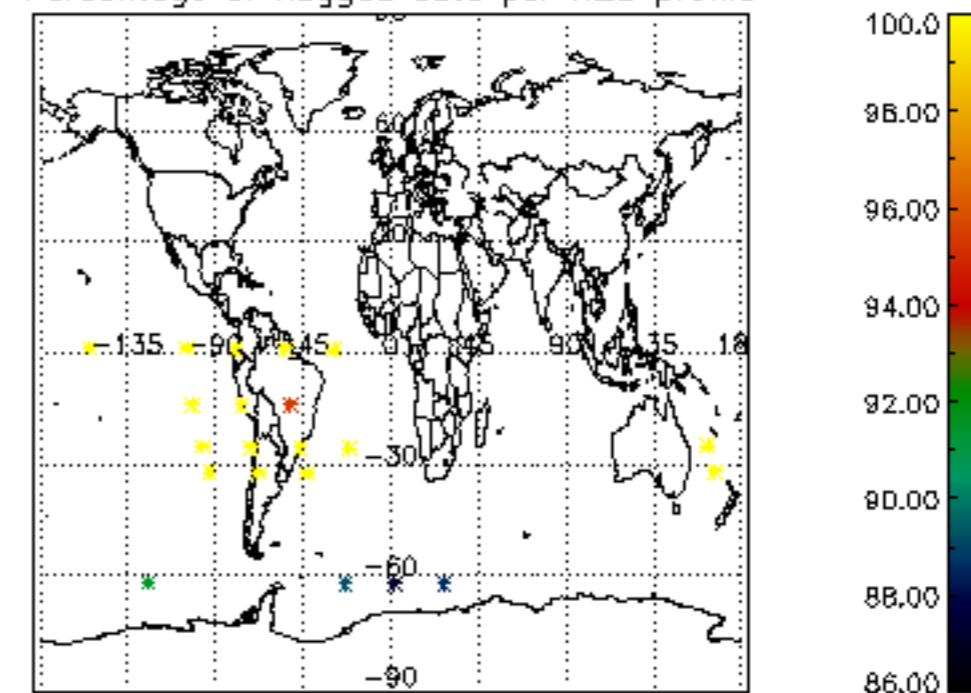
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	29-MAR-2009 00:46:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	29-MAR-2009 00:46:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	29-MAR-2009 00:46:16



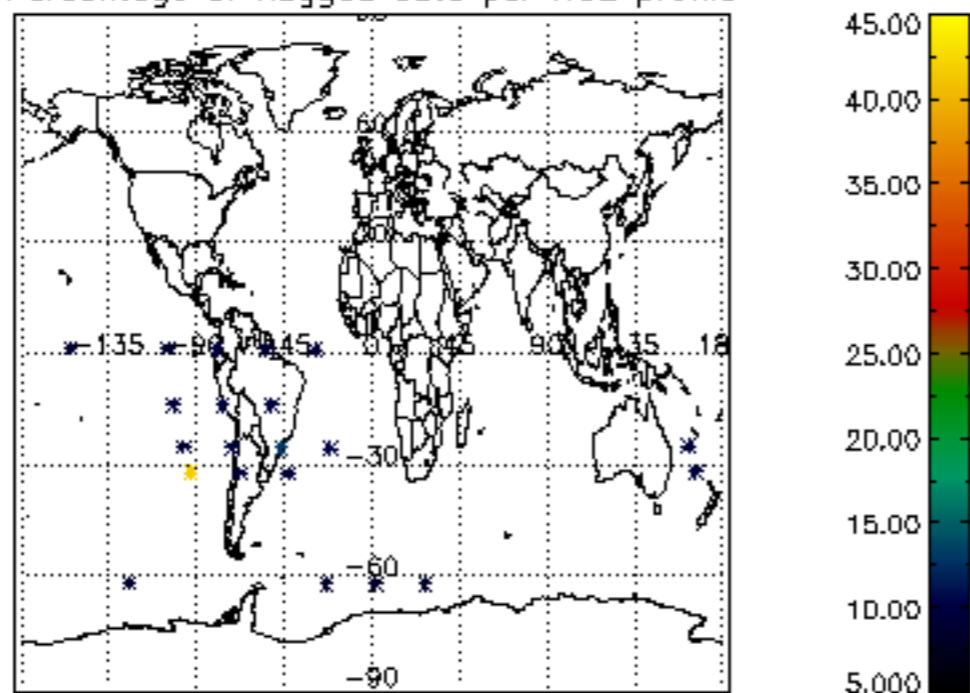
Percentage of flagged data per D3 profile



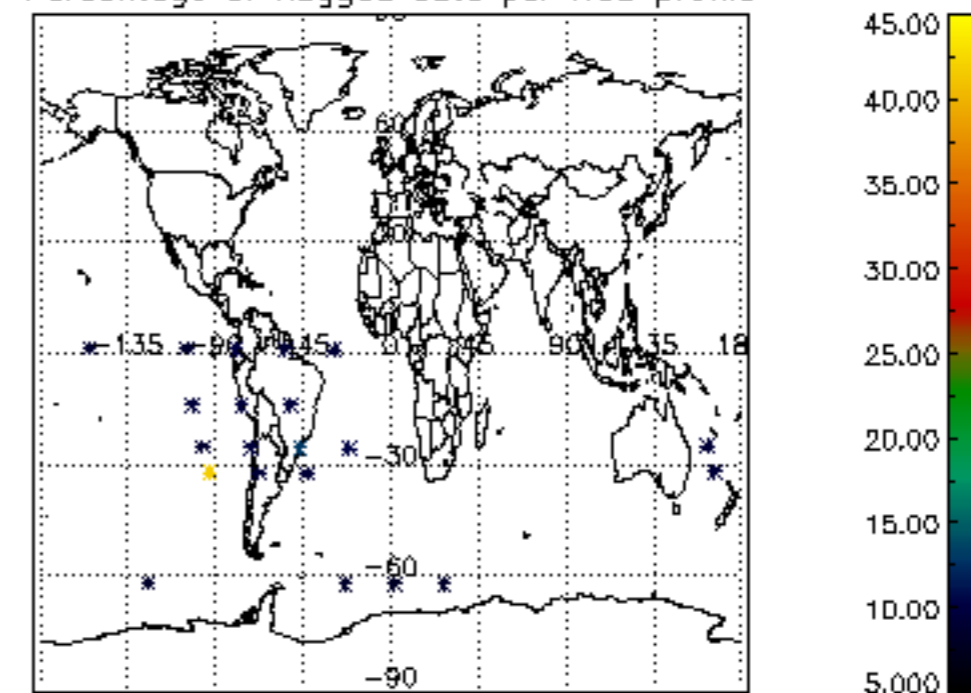
Percentage of flagged data per H2O profile

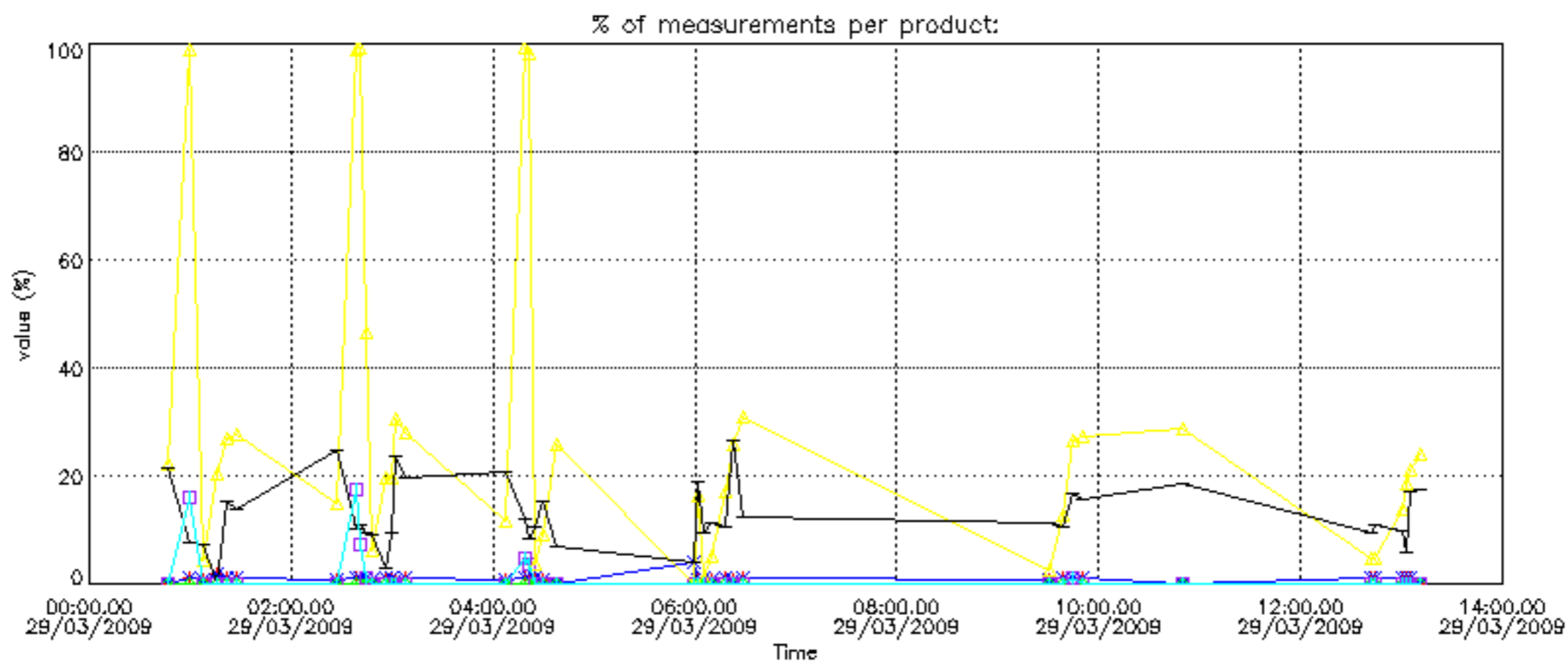


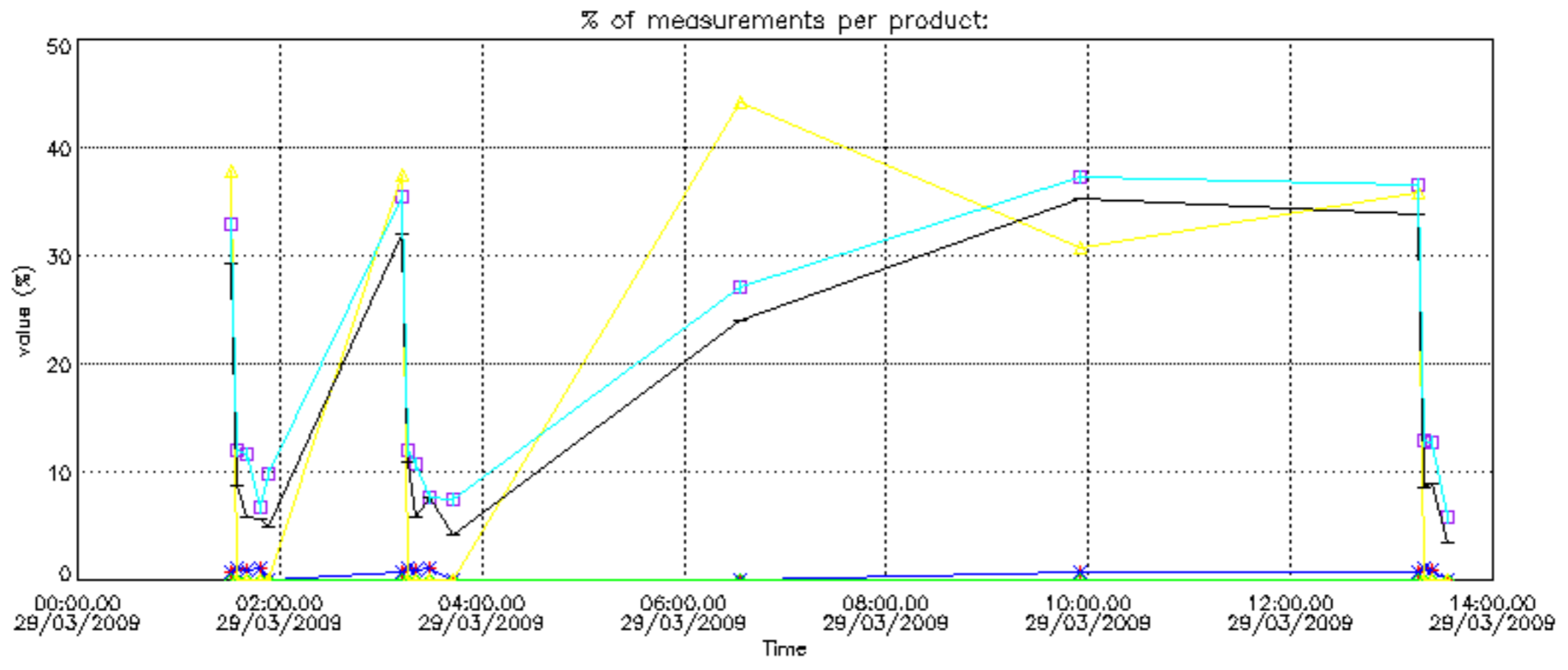
Percentage of flagged data per NO2 profile



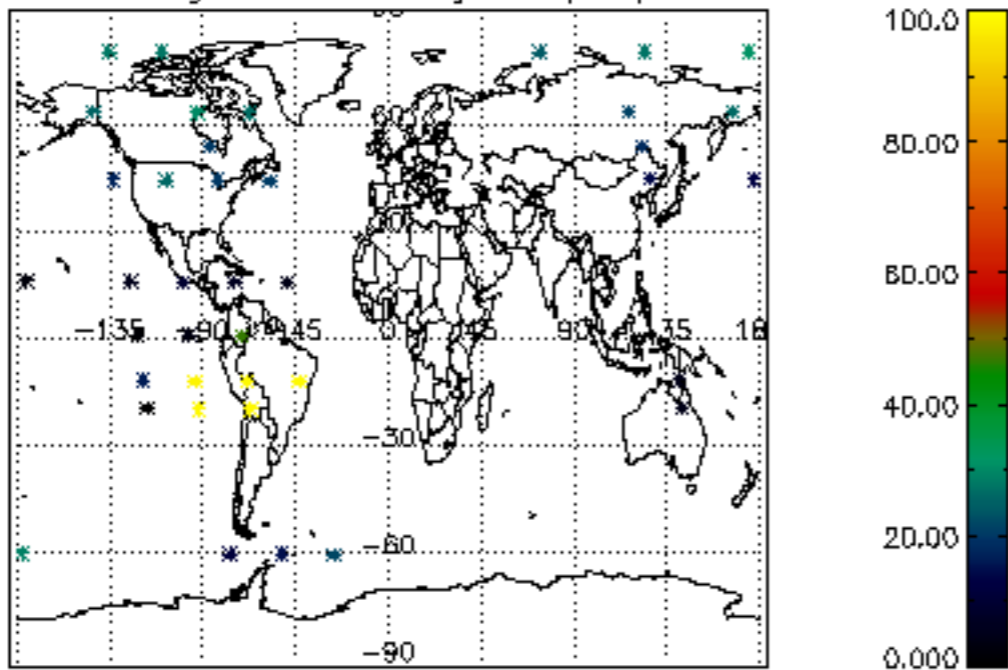
Percentage of flagged data per NO3 profile



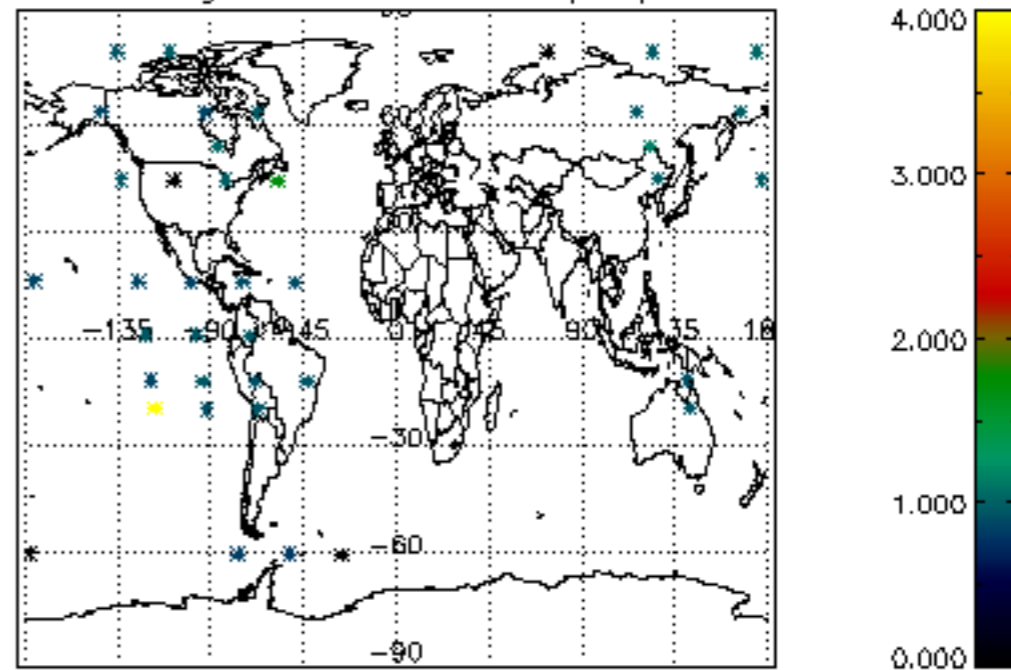




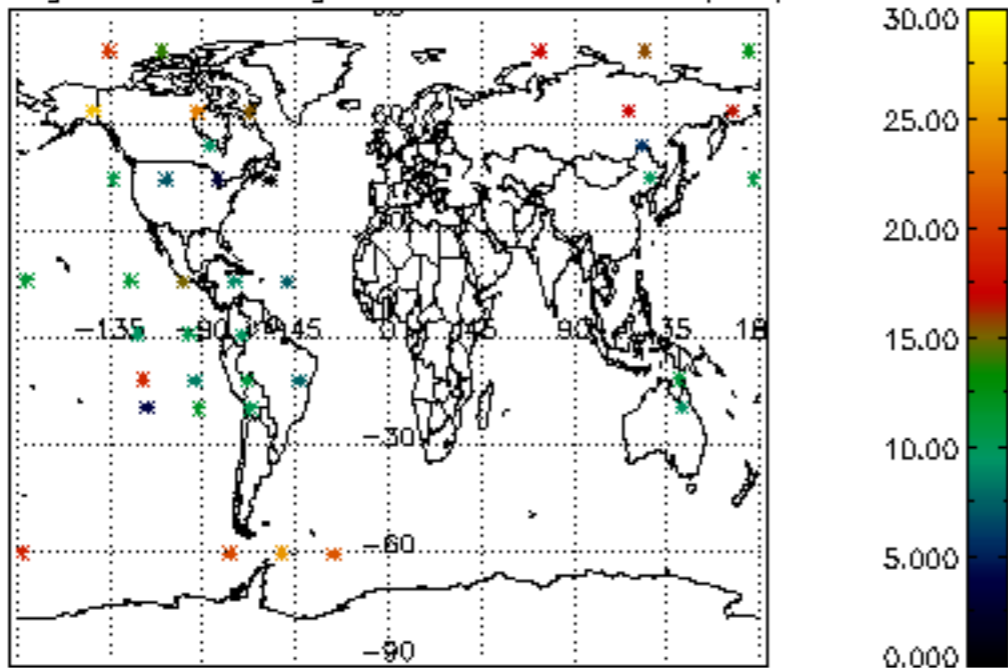
Percentage of cosmic ray hits per profile



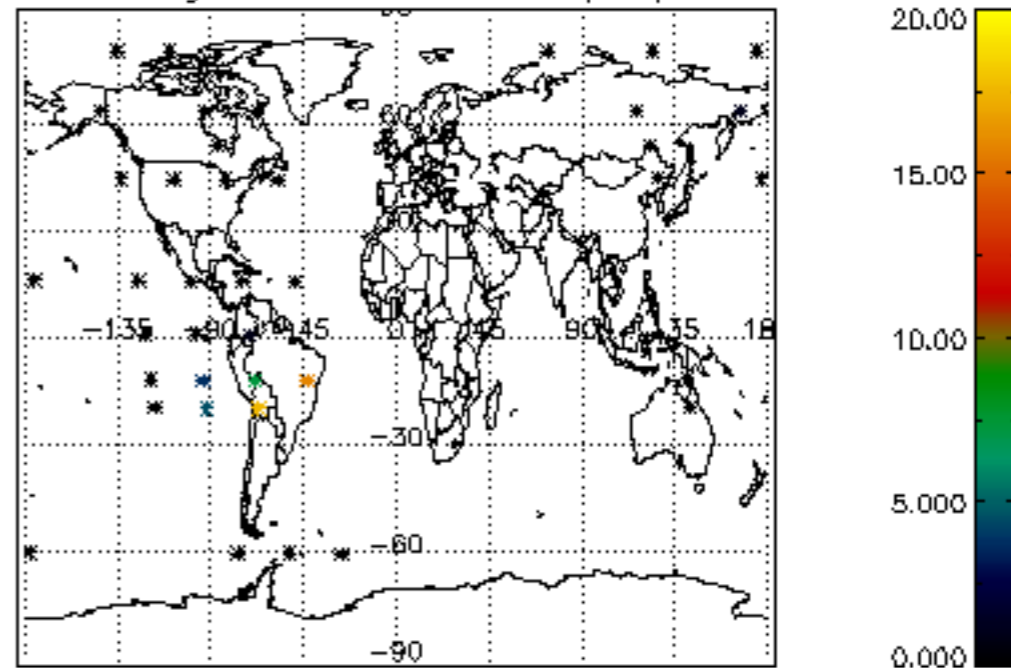
Percentage of datation errors per profile



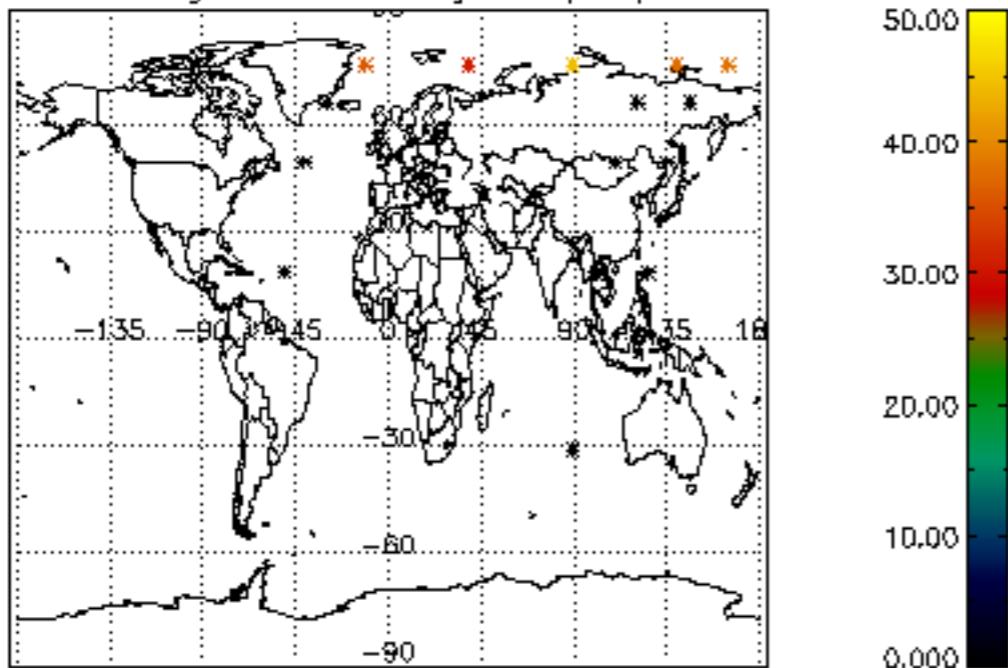
Percentage of star falling outside central band per profile



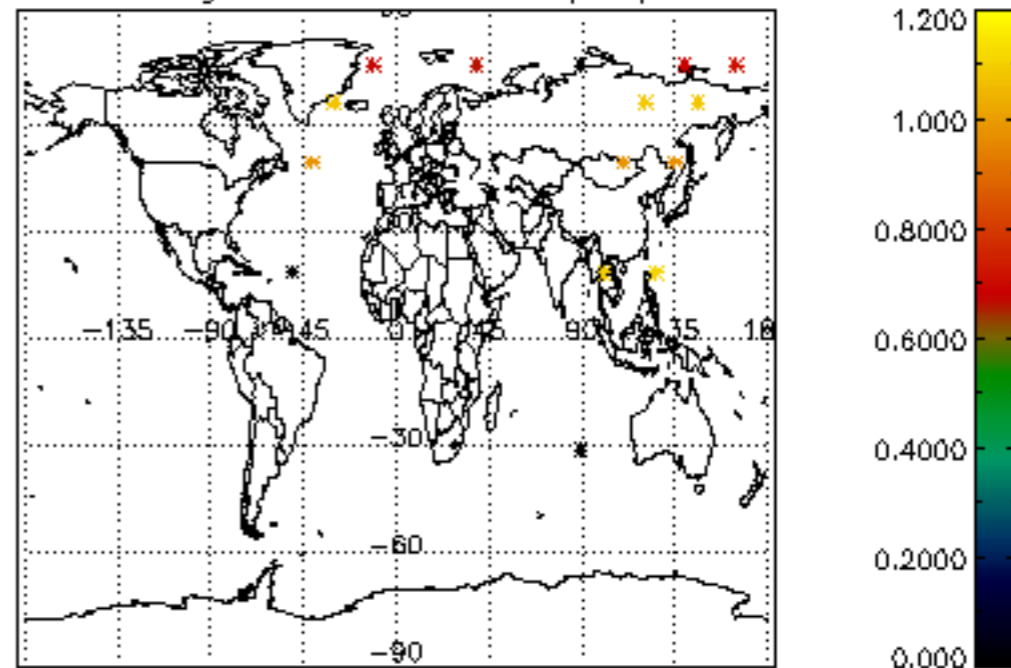
Percentage of saturation errors per profile



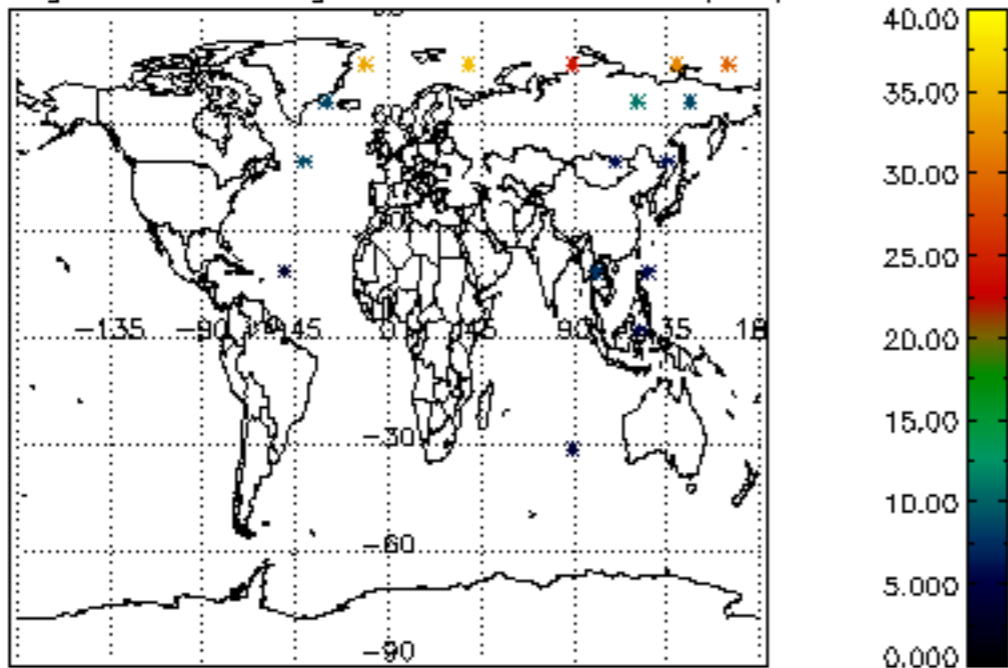
Percentage of cosmic ray hits per profile



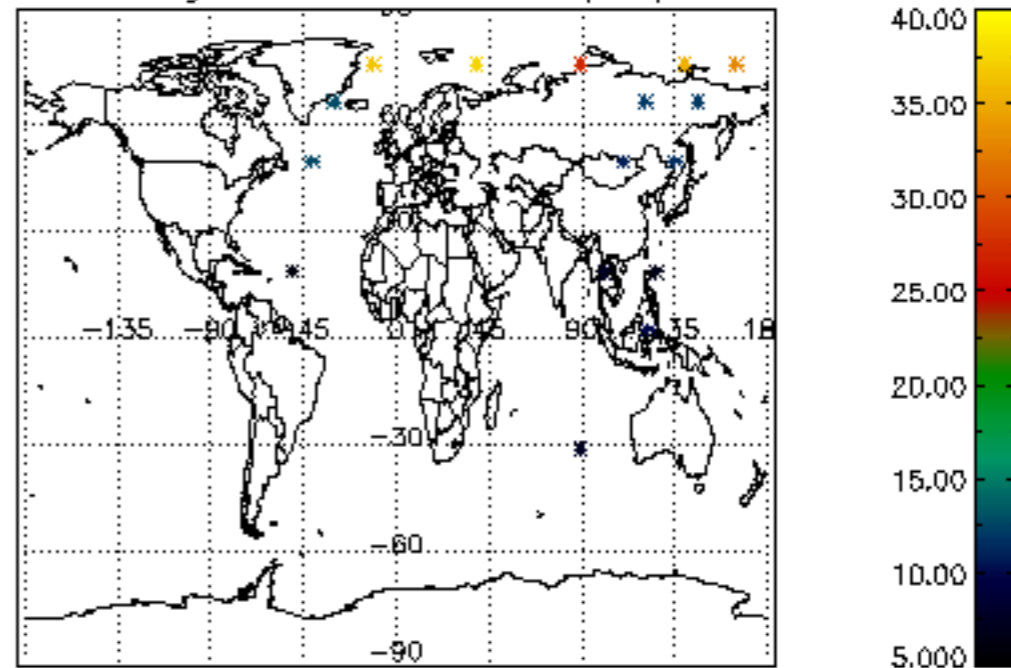
Percentage of datation errors per profile

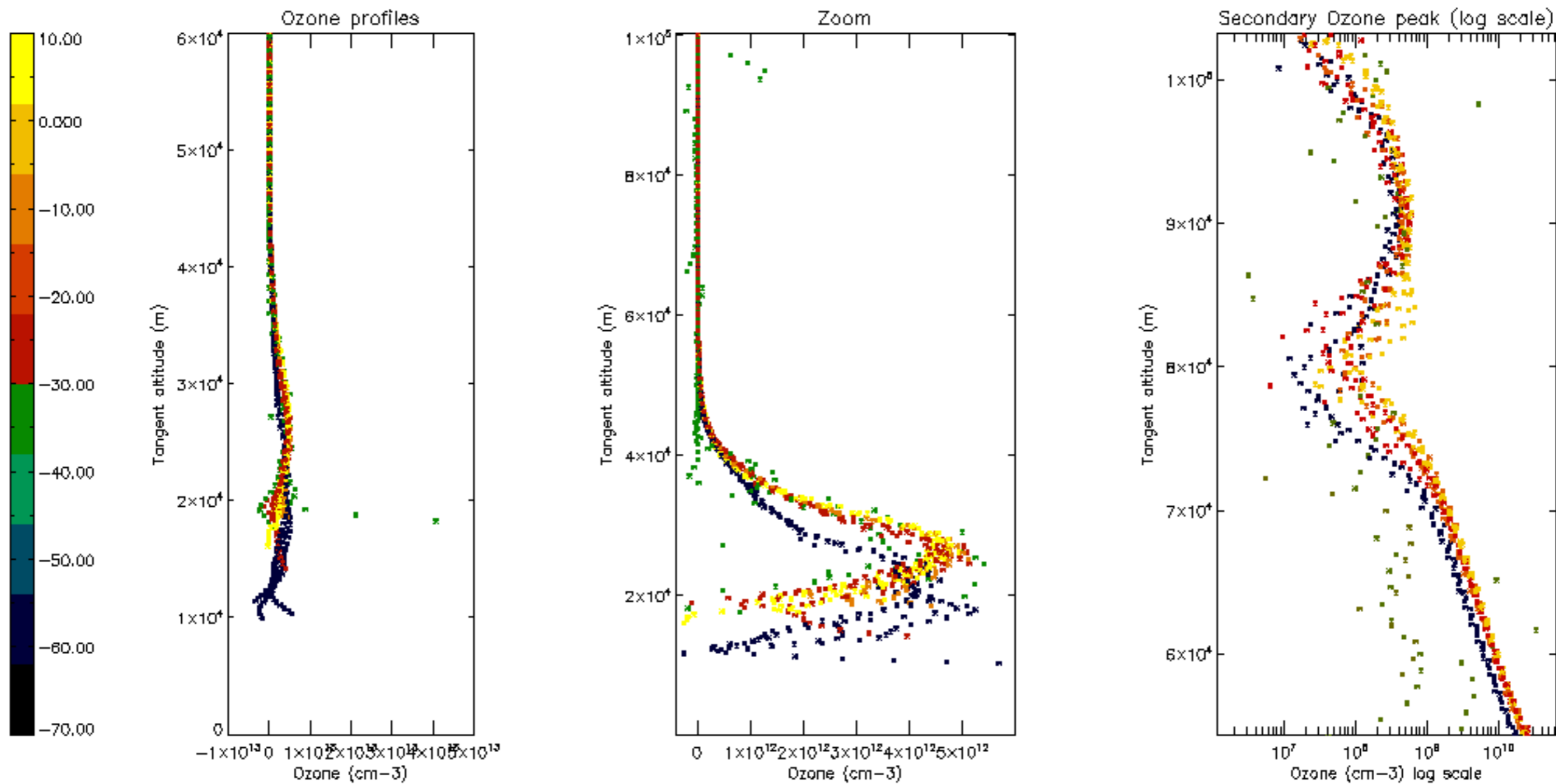


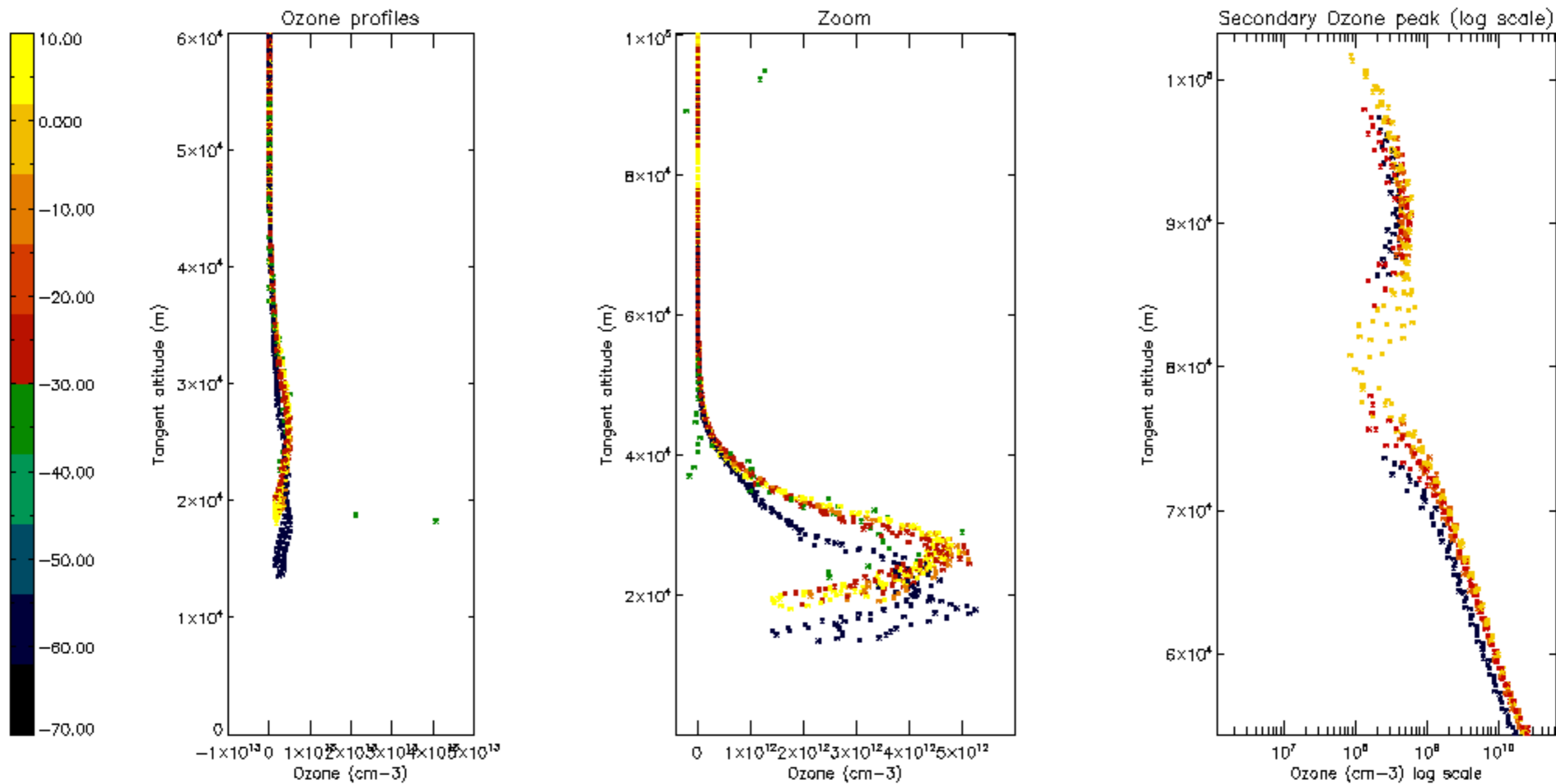
Percentage of star falling outside central band per profile

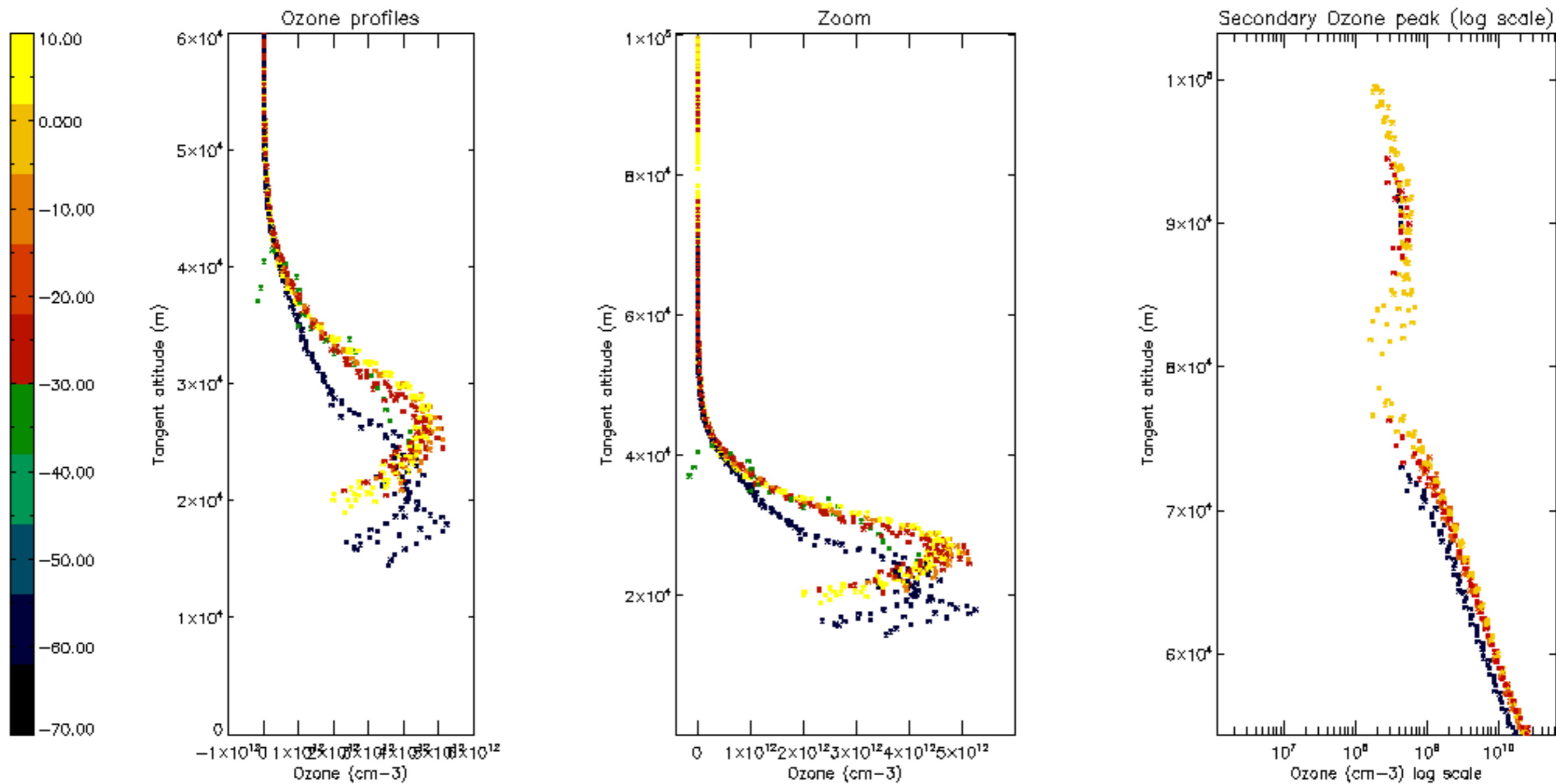


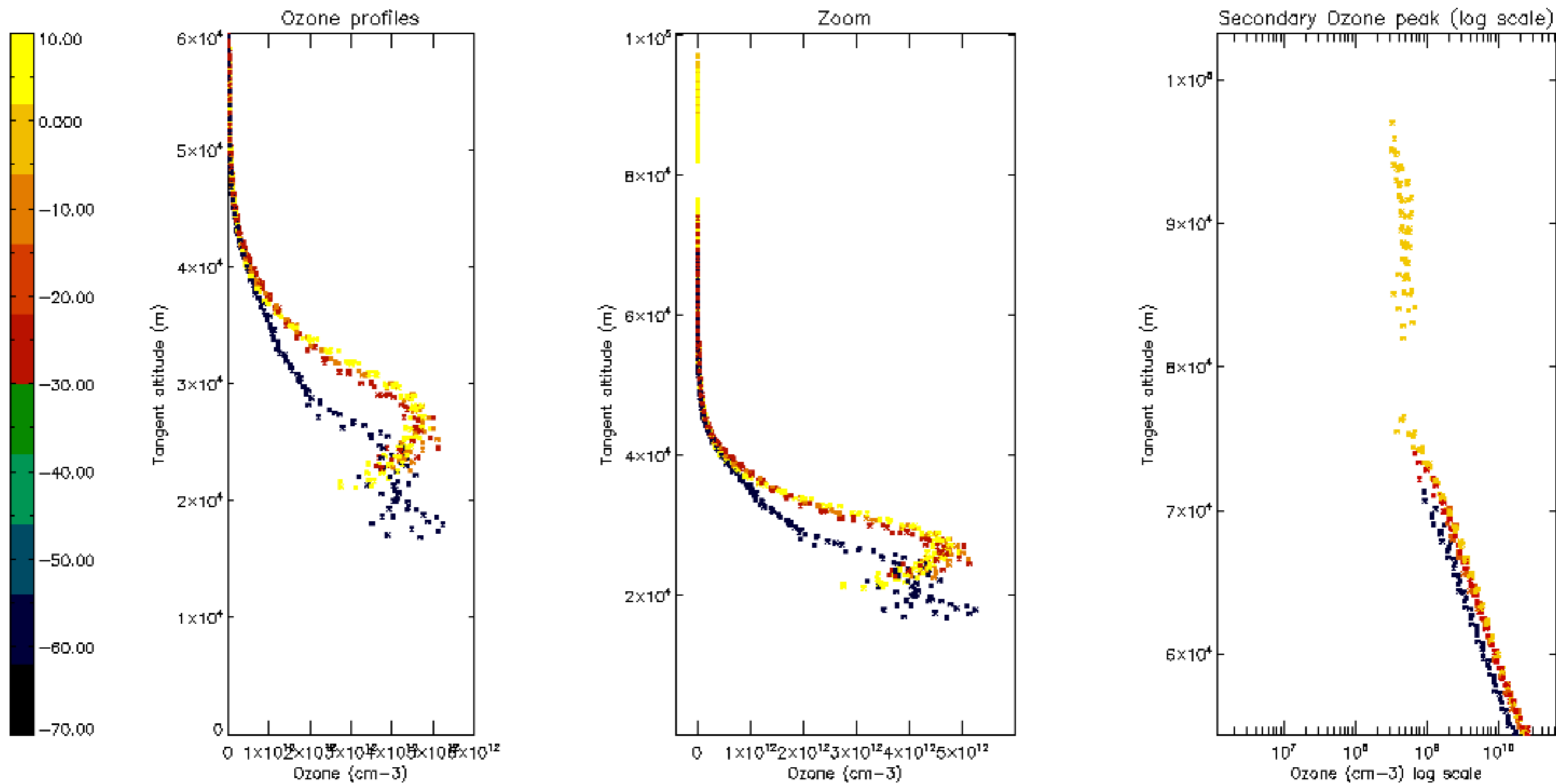
Percentage of saturation errors per profile

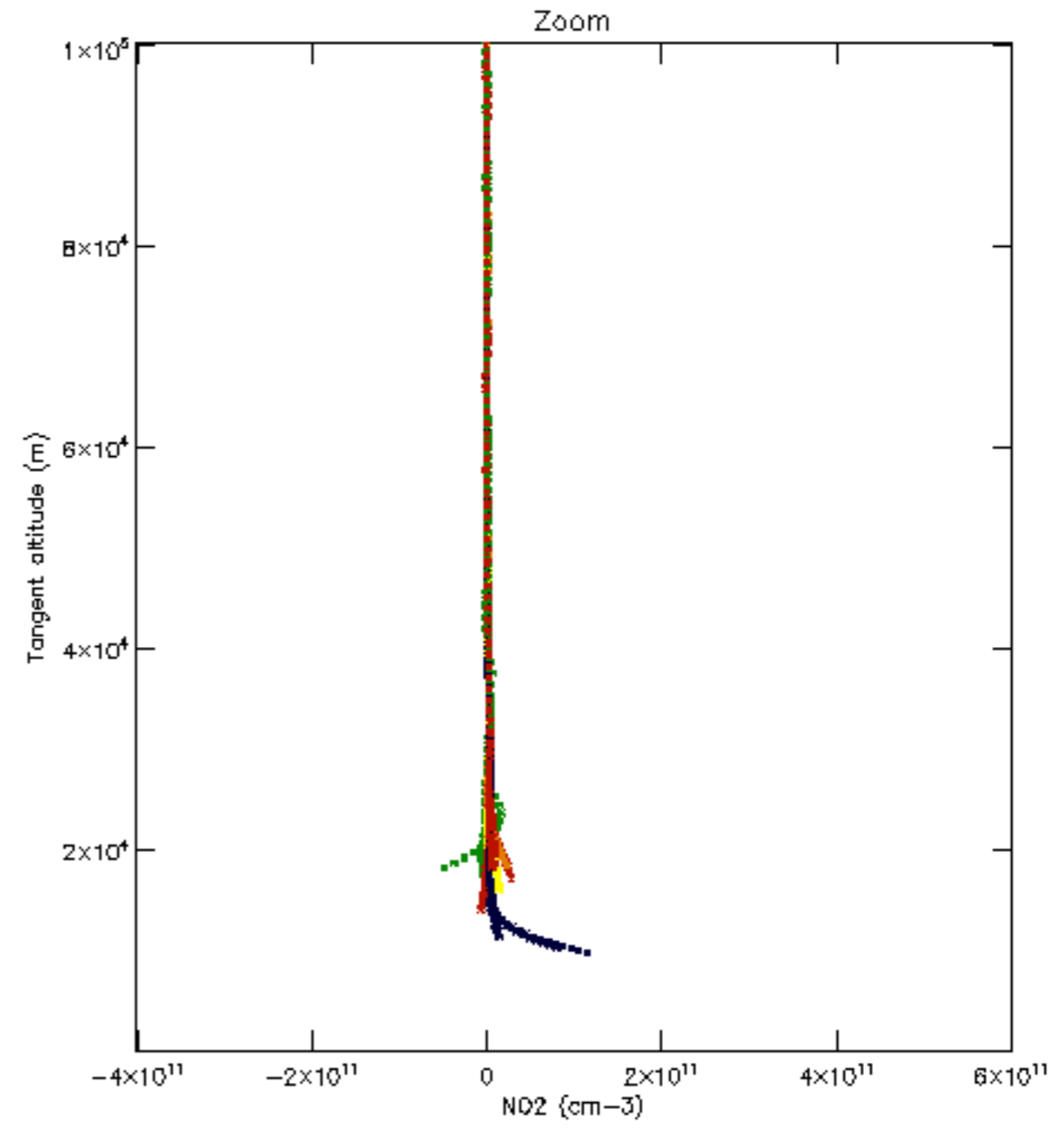
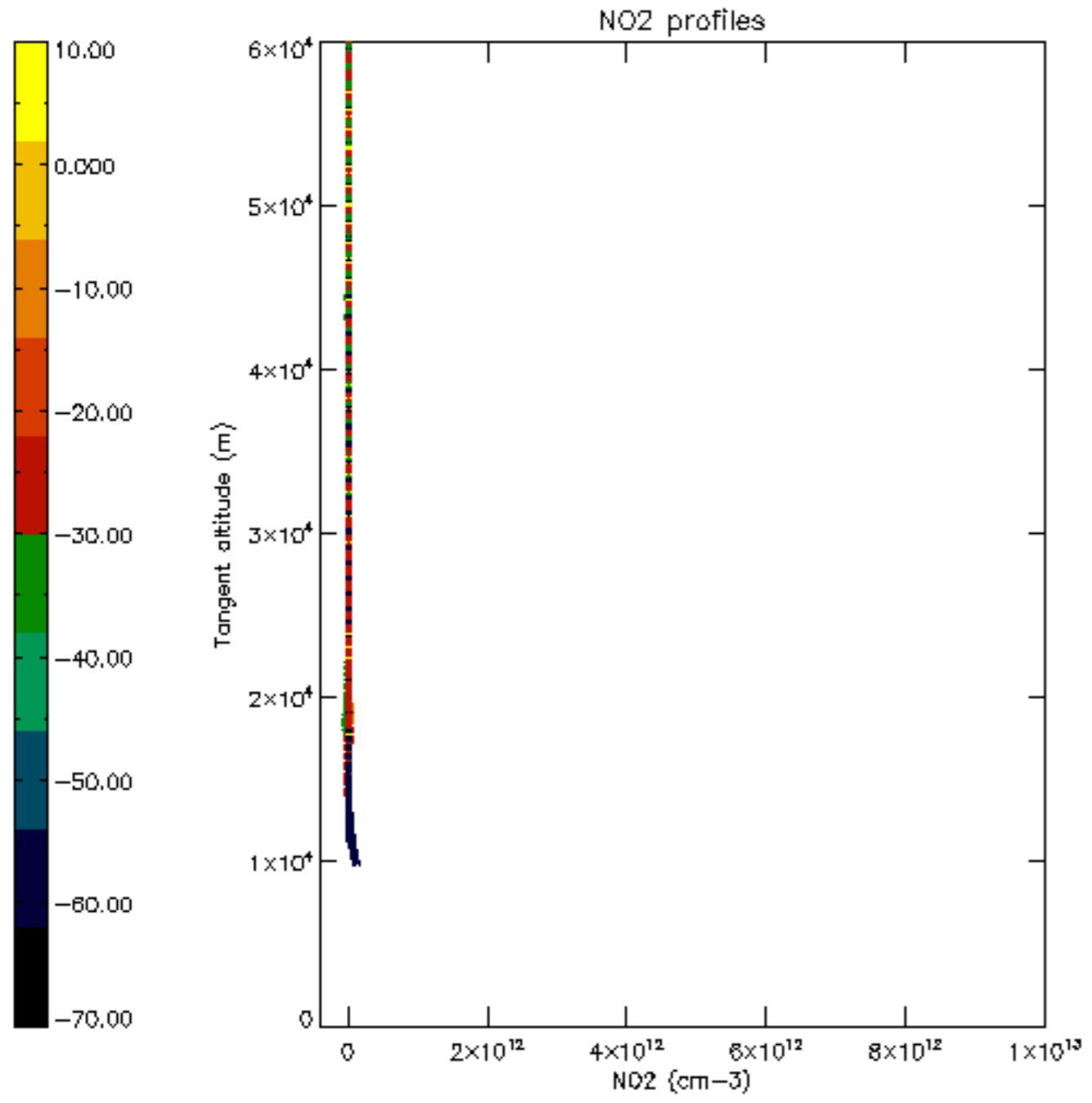


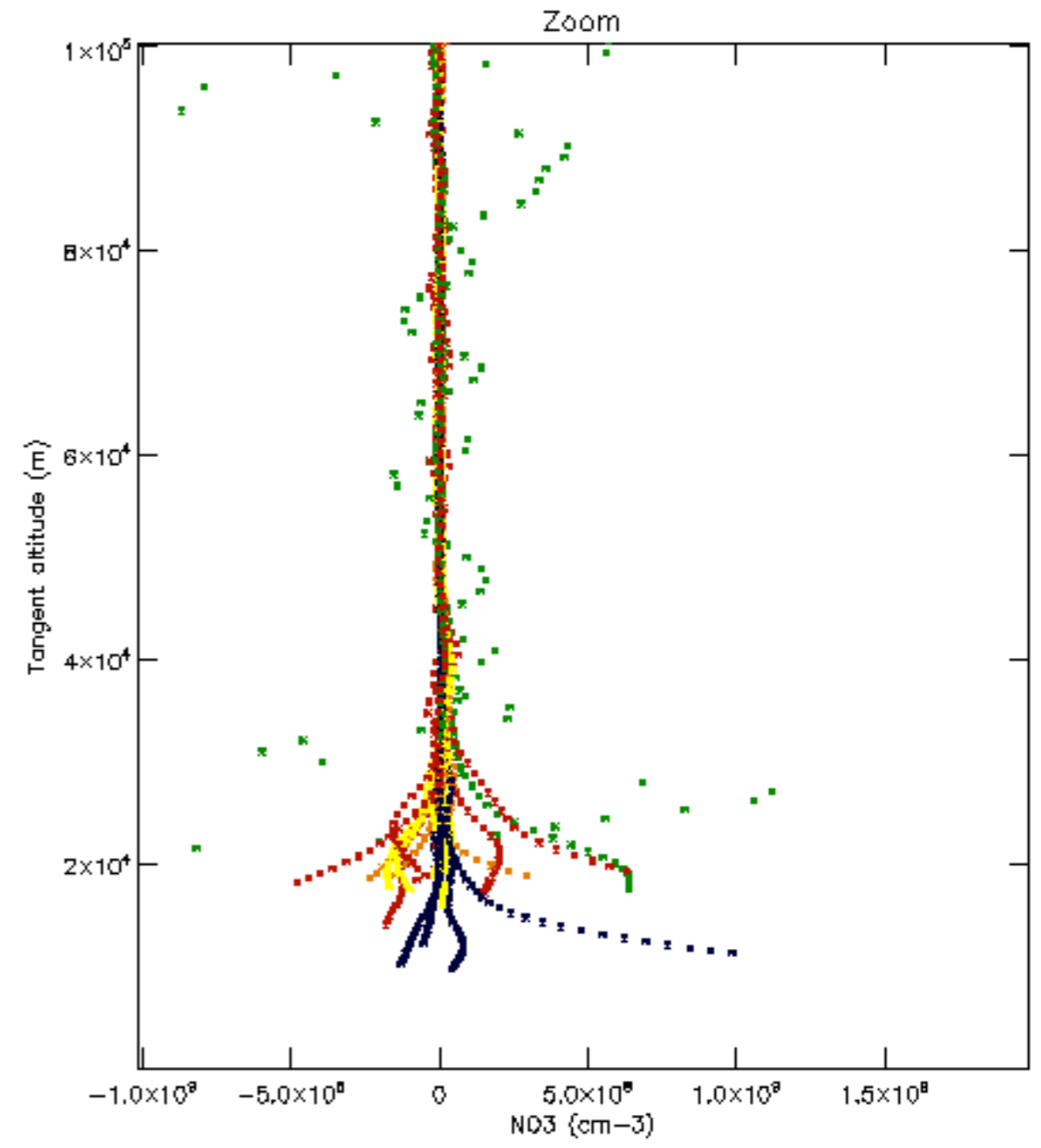
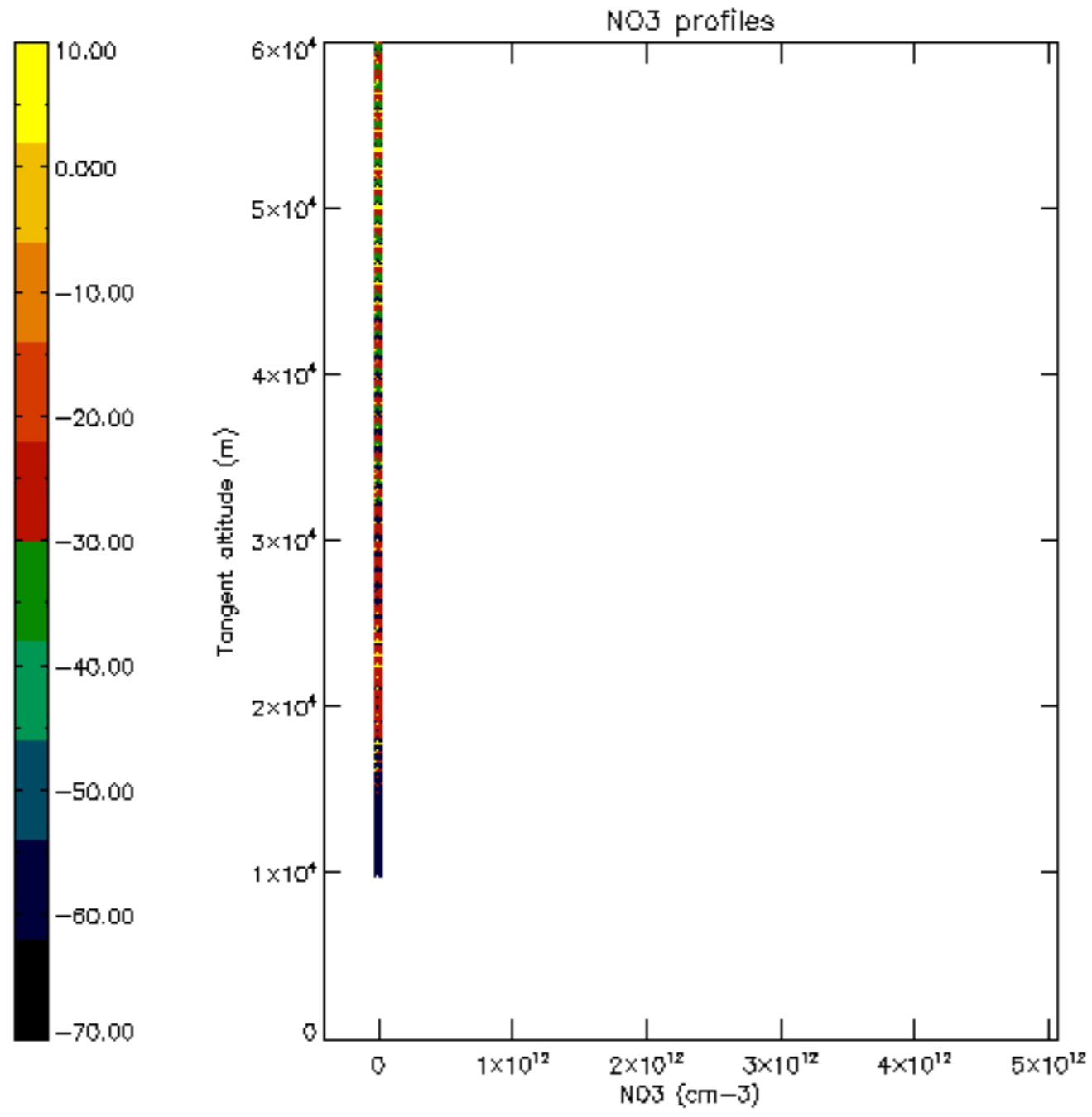


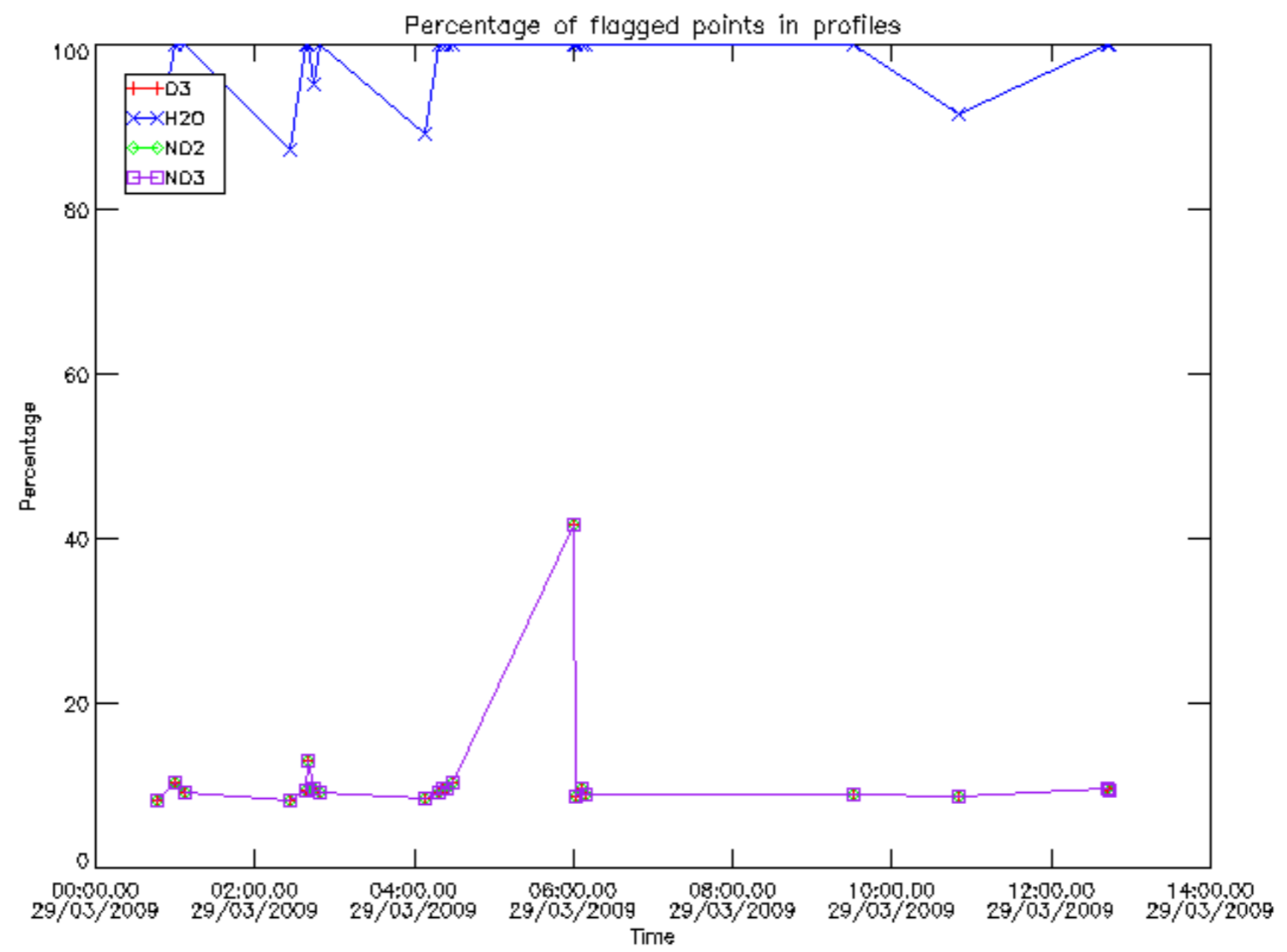




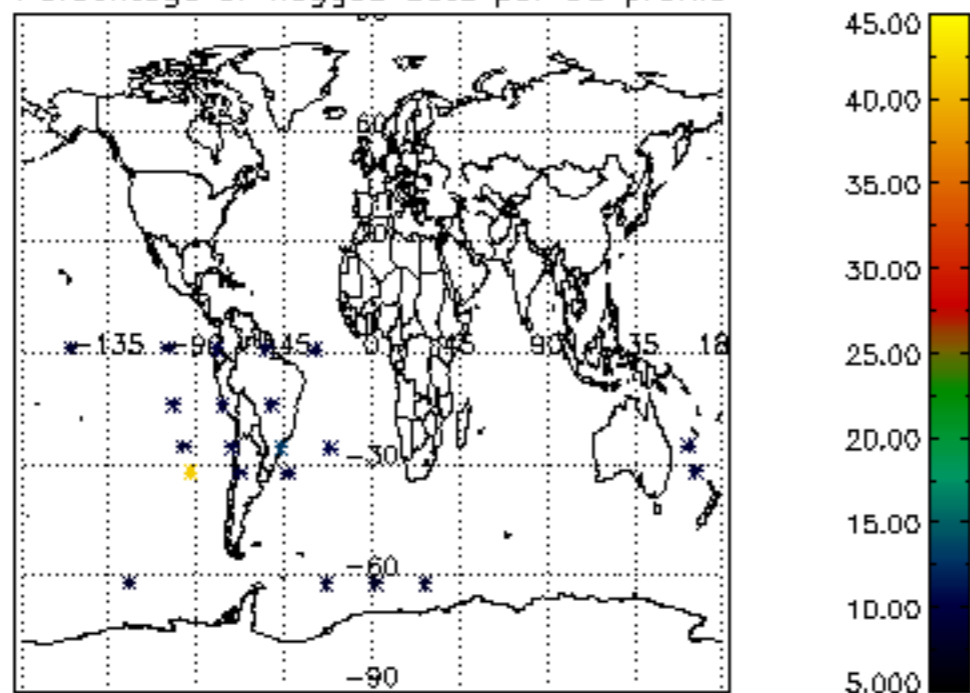




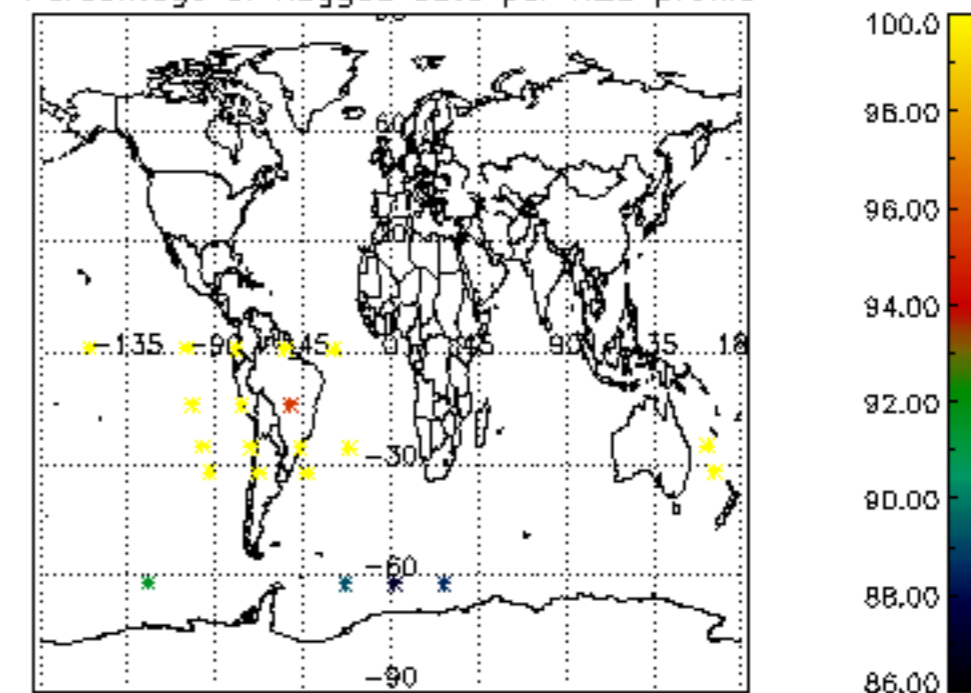




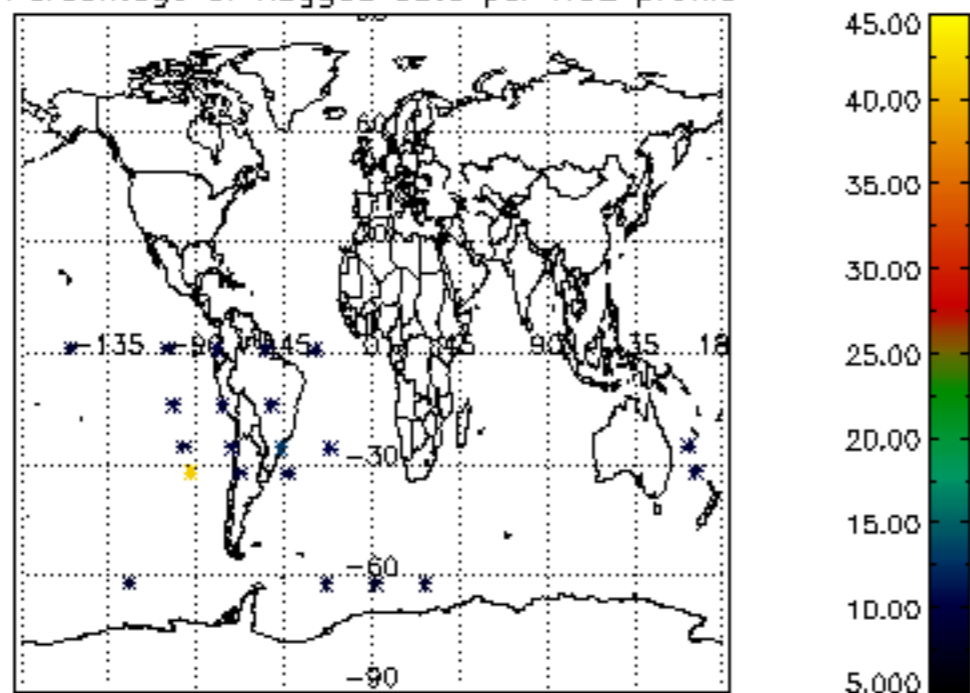
Percentage of flagged data per D3 profile



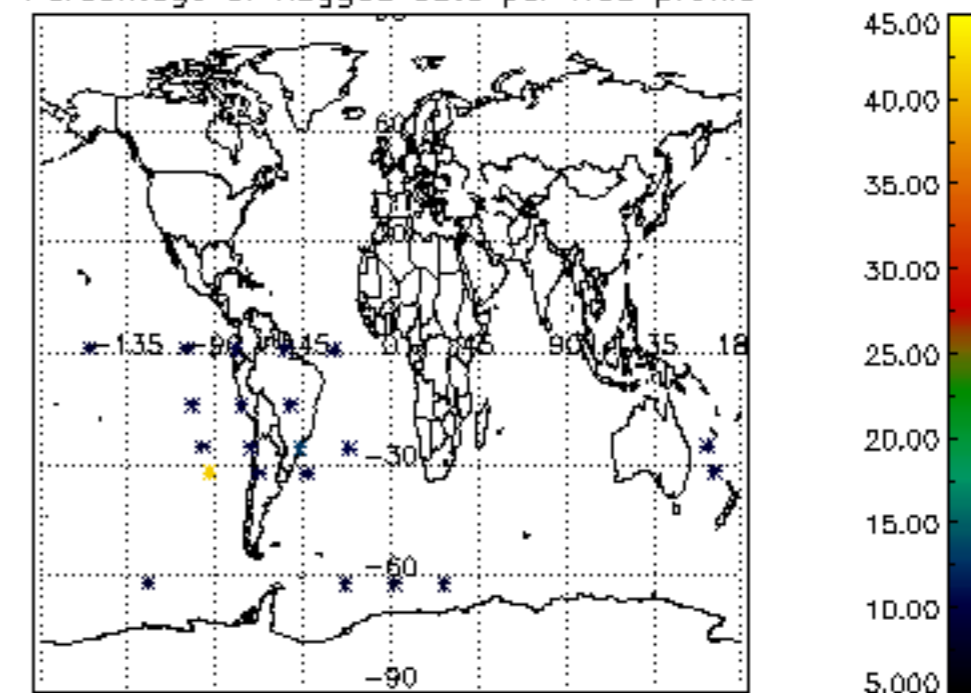
Percentage of flagged data per H2O profile

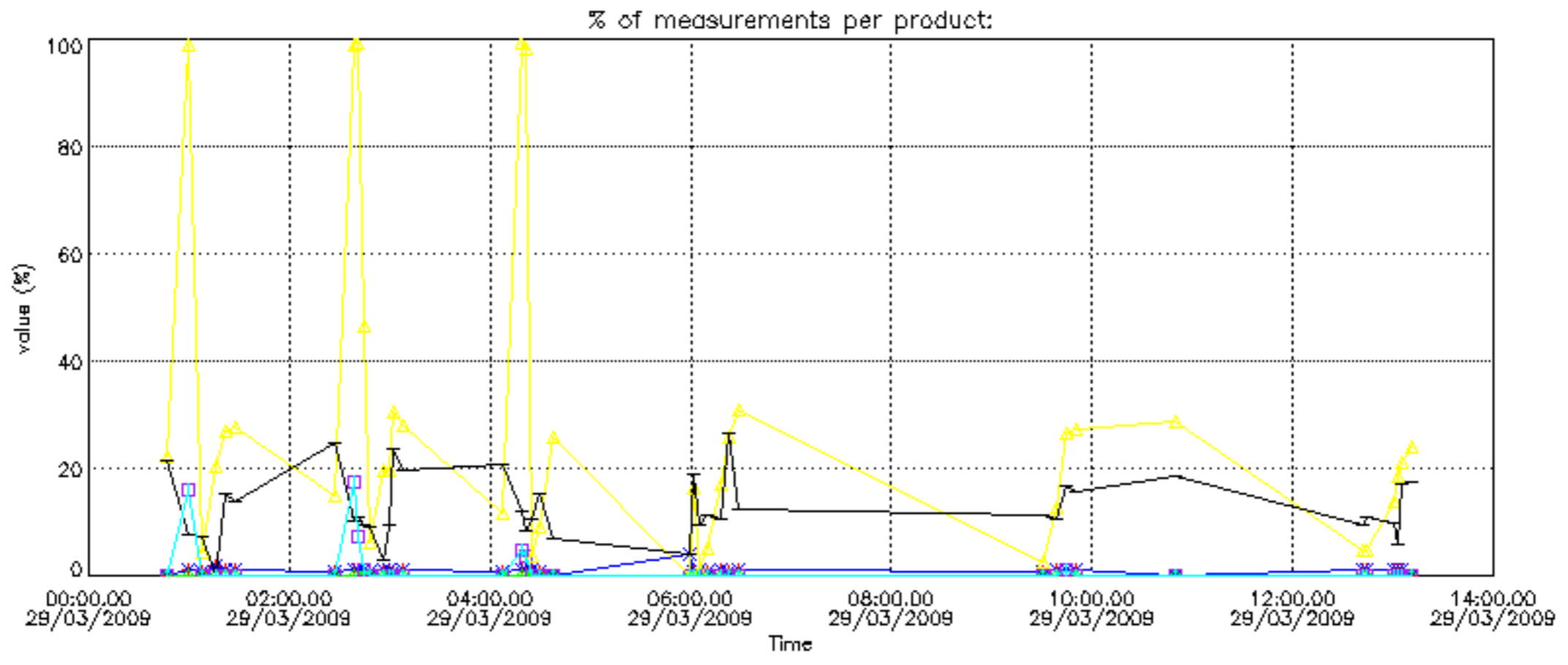


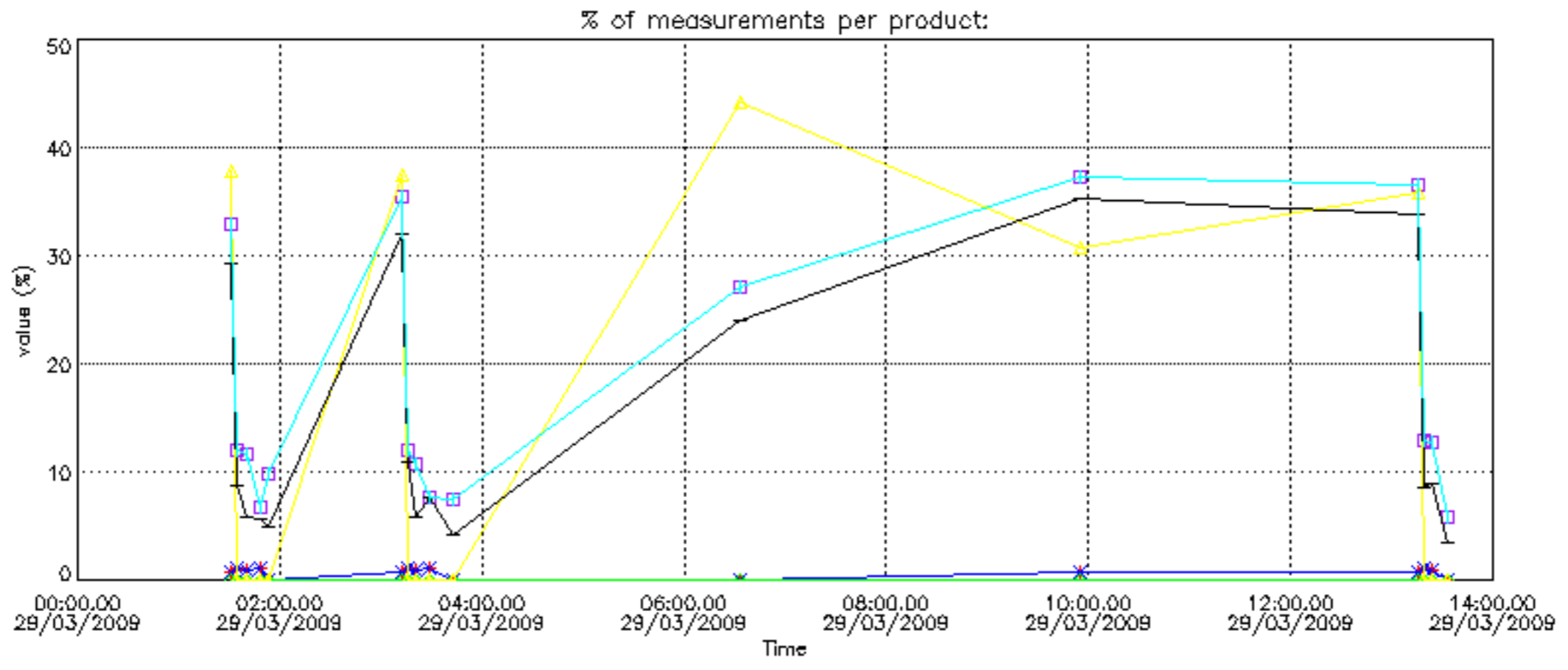
Percentage of flagged data per NO2 profile



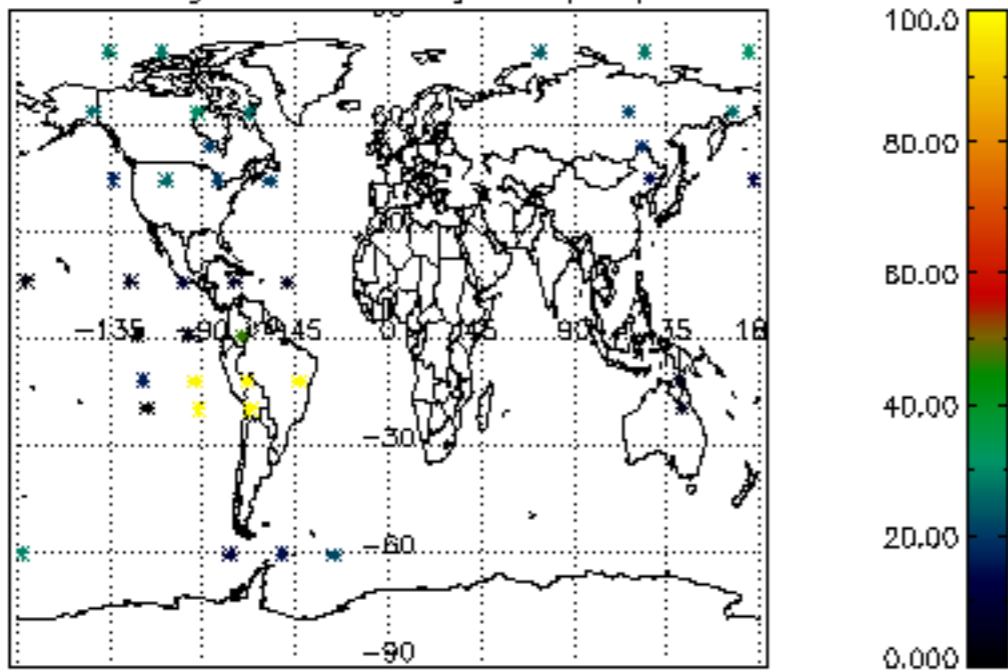
Percentage of flagged data per NO3 profile



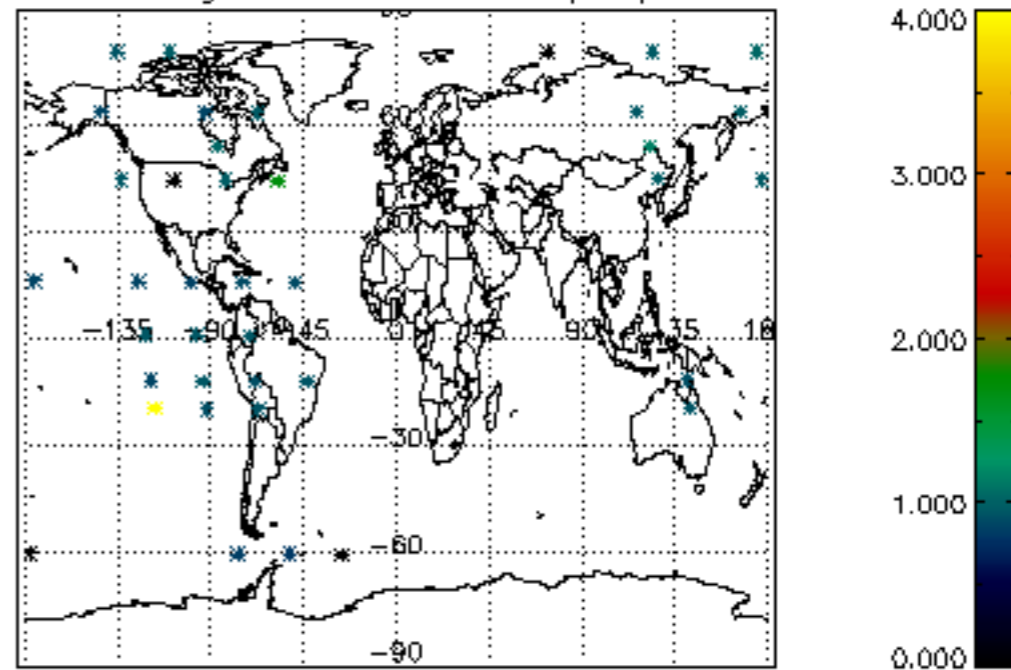




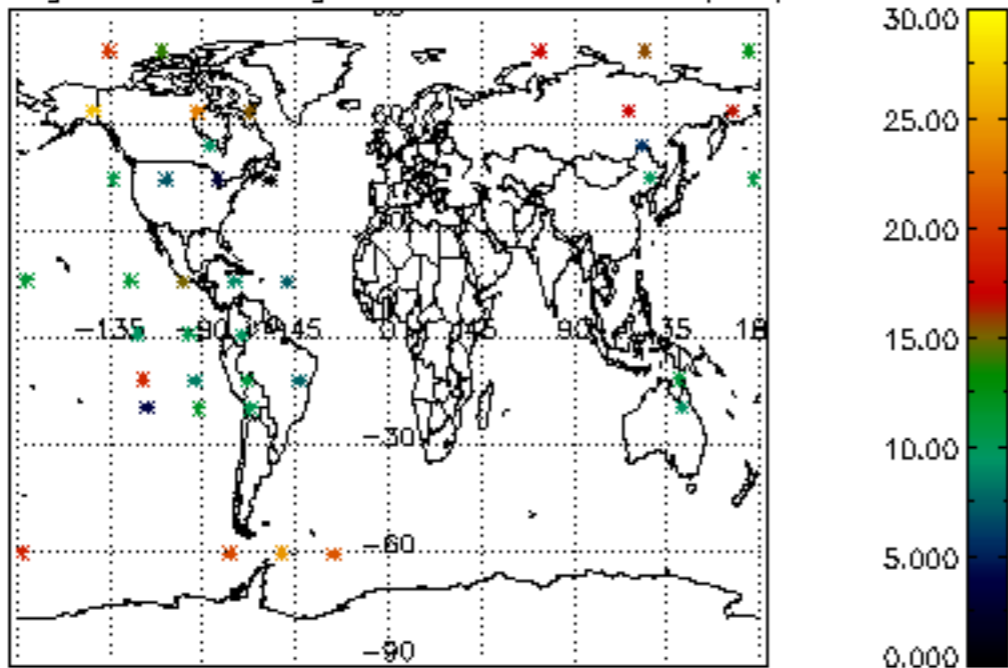
Percentage of cosmic ray hits per profile



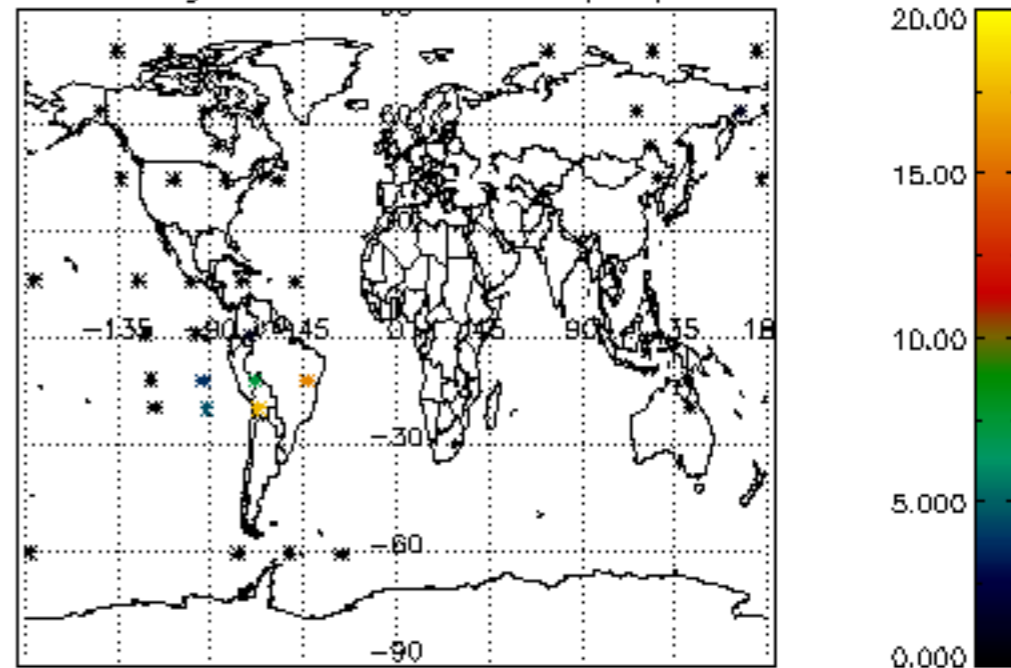
Percentage of datation errors per profile



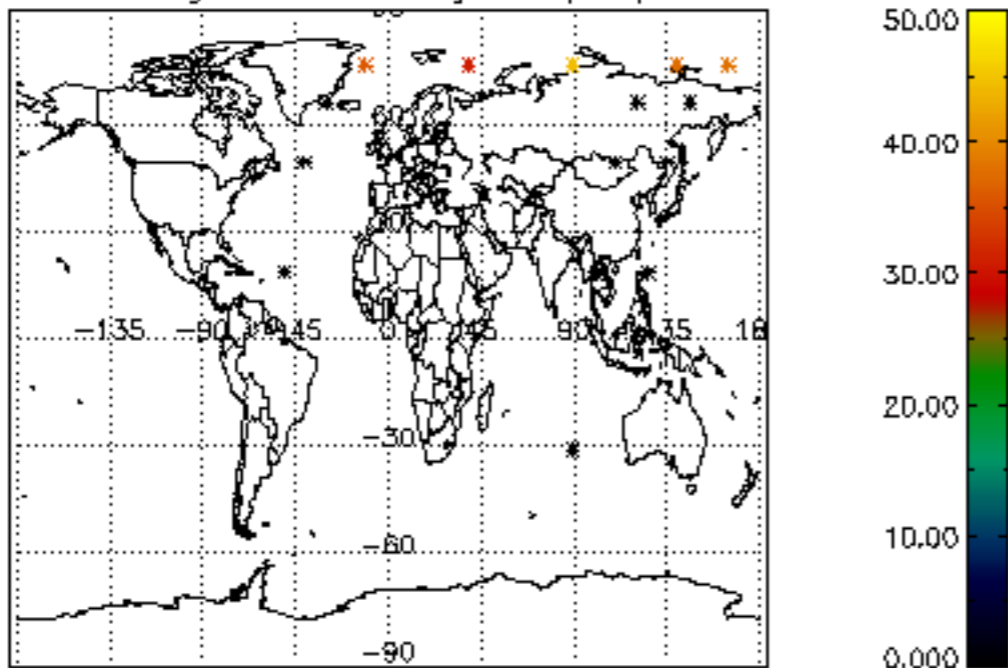
Percentage of star falling outside central band per profile



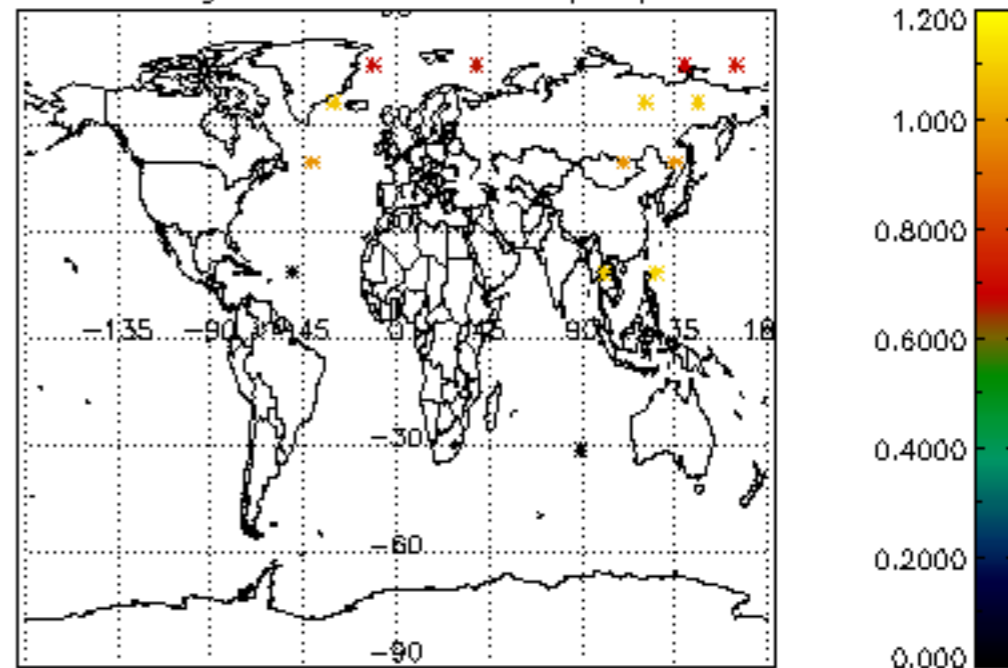
Percentage of saturation errors per profile



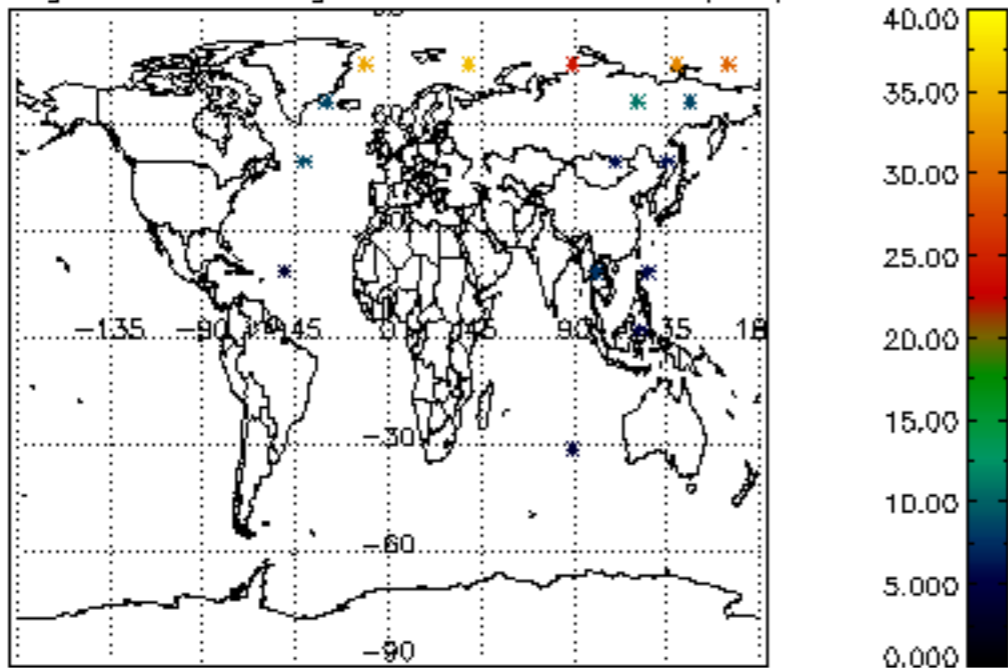
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

