

GOMOS Level 2 Daily Report

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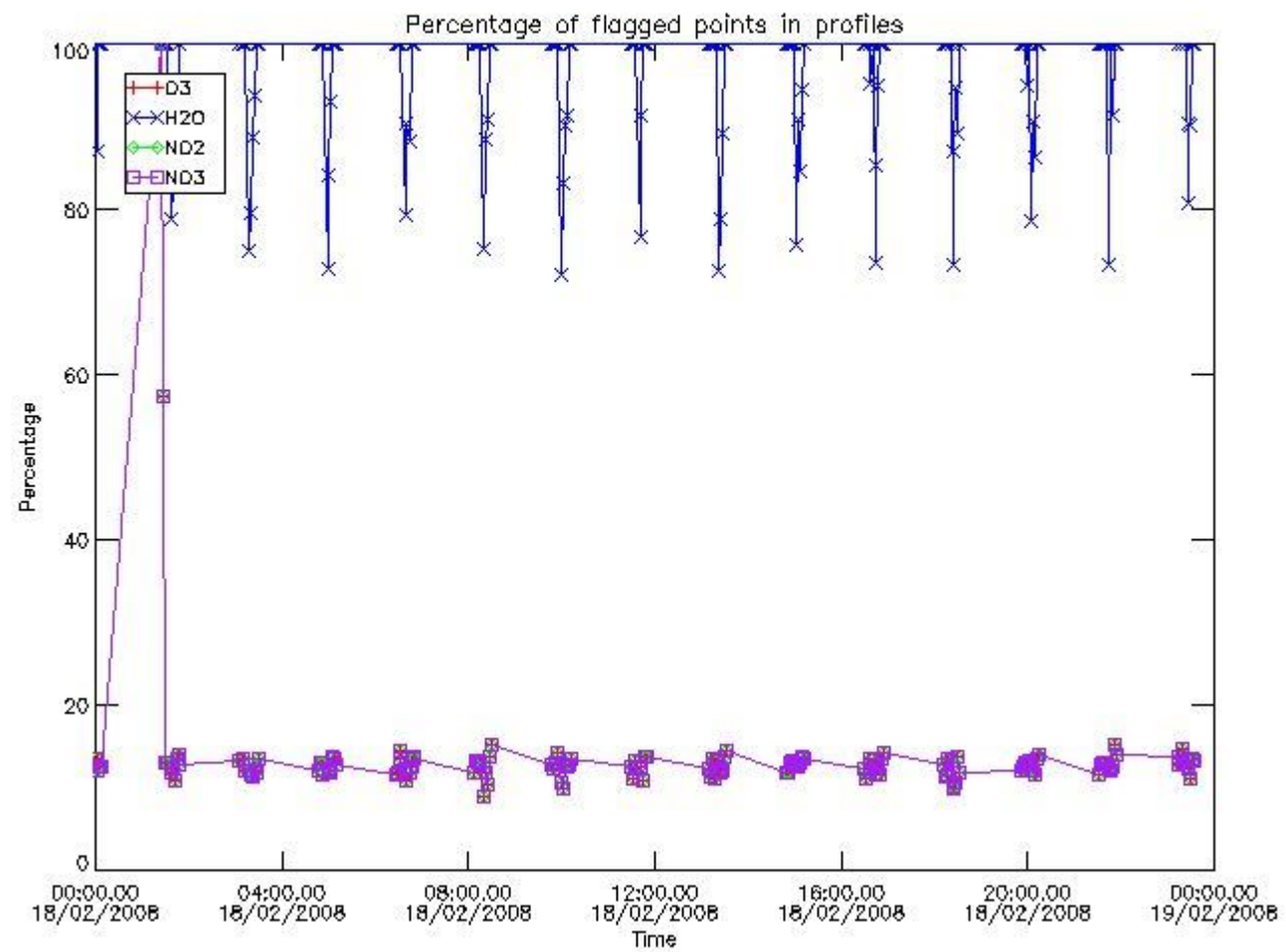
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338	GOM_NL__2PRFIN20080218_231921_000000392066_00101_31217_6766.N1	18-FEB-2008 23:19:21	Dark	39.000	141	Bet Ara	2.8400	4600.0	78	31217	No
339	GOM_NL__2PRFIN20080218_232318_000000392066_00102_31218_6756.N1	18-FEB-2008 23:23:18	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	31218	No
340	GOM_NL__2PRFIN20080218_232538_000000422066_00102_31218_6757.N1	18-FEB-2008 23:25:38	Dark	42.000	4	Alp1Cen	-0.010000	5800.0	84	31218	No
341	GOM_NL__2PRFIN20080218_232658_000000422066_00102_31218_6758.N1	18-FEB-2008 23:26:58	Dark	41.500	10	Bet Cen	0.61000	28000.	83	31218	No
342	GOM_NL__2PRFIN20080218_232956_000000462066_00102_31218_6759.N1	18-FEB-2008 23:29:56	Dark	46.000	12	Alp1Cru	0.77500	30000.	92	31218	No
343	GOM_NL__2PRFIN20080218_233209_000000382066_00102_31218_6760.N1	18-FEB-2008 23:32:09	Dark	37.500	29	Bet Car	1.6720	10200.	75	31218	No
344	GOM_NL__2PRFIN20080218_233449_000000392066_00102_31218_6761.N1	18-FEB-2008 23:34:49	Dark	38.500	71	lot Car	2.2460	7700.0	77	31218	No
345	GOM_NL__2PRFIN20080218_233625_000000372066_00102_31218_6762.N1	18-FEB-2008 23:36:25	Straylight	37.000	46	Del Vel	1.9540	10600.	74	31218	No
346	GOM_NL__2PRFIN20080218_233846_000000412066_00102_31218_6763.N1	18-FEB-2008 23:38:46	Straylight	40.500	34	Gam2Vel	1.7930	23000.	81	31218	No
347	GOM_NL__2PRFIN20080218_234051_000000412066_00102_31218_6764.N1	18-FEB-2008 23:40:51	Straylight	41.000	70	Zet Pup	2.2460	39000.	82	31218	No
348	GOM_NL__2PRFIN20080218_234510_000000402066_00102_31218_6765.N1	18-FEB-2008 23:45:10	Straylight	40.000	132	15Rho Pup	2.8030	6900.0	80	31218	No
349	GOM_NL__2PRFIN20080218_235338_000000412066_00102_31218_6766.N1	18-FEB-2008 23:53:38	Bright	40.500	8	10Alp CMi	0.40000	6500.0	81	31218	No
350	GOM_NL__2PRFIN20080218_235951_000000372066_00102_31218_6767.N1	18-FEB-2008 23:59:51	Bright	37.000	17	78Bet Gem	1.1610	4500.0	74	31218	No

3. Quality information per product

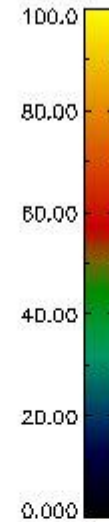
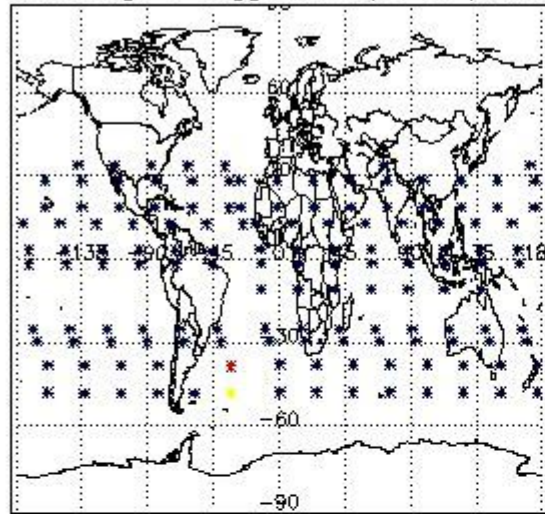
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

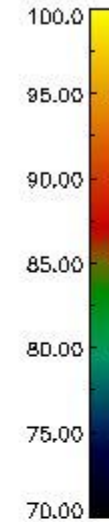
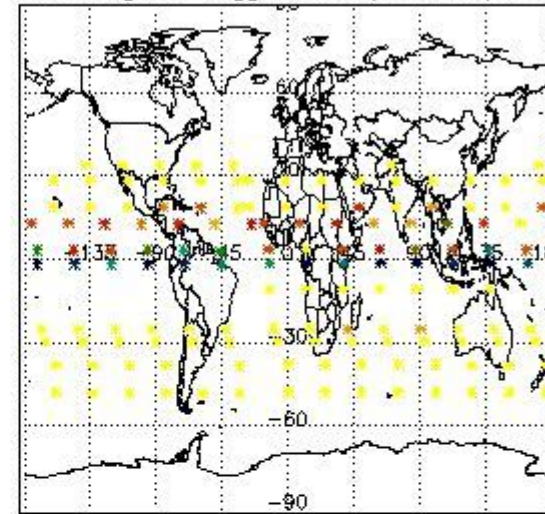


3.2 Plot quality information per product (world map)

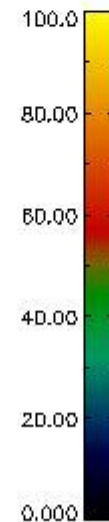
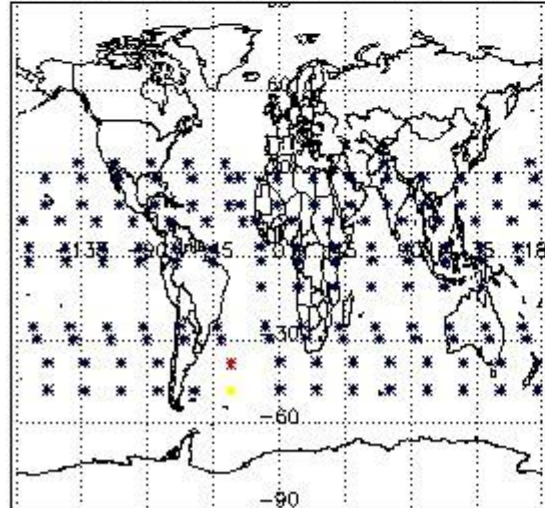
Percentage of flagged data per O3 profile



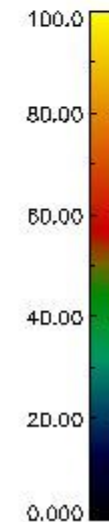
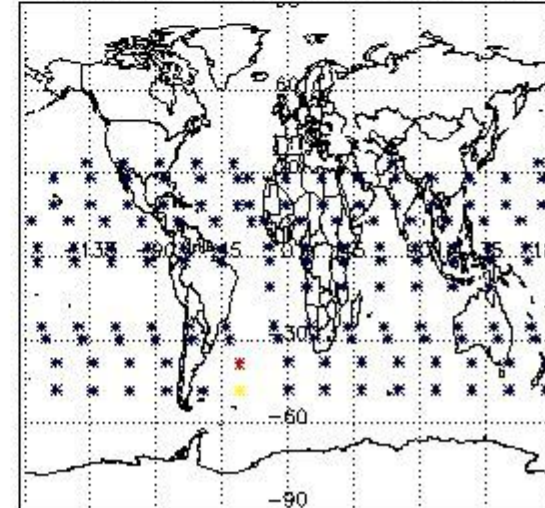
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

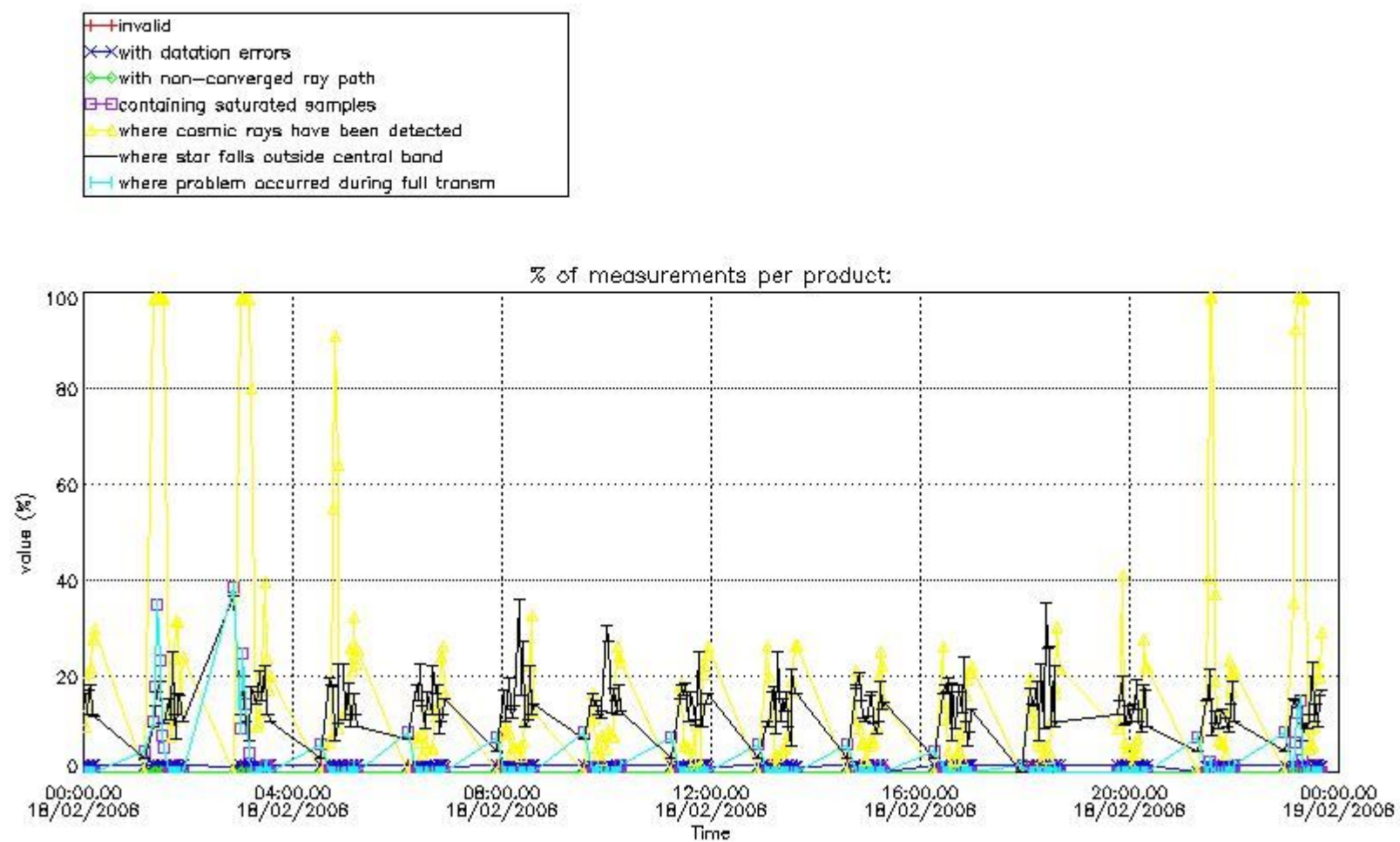


4. Level 1 quality information per product

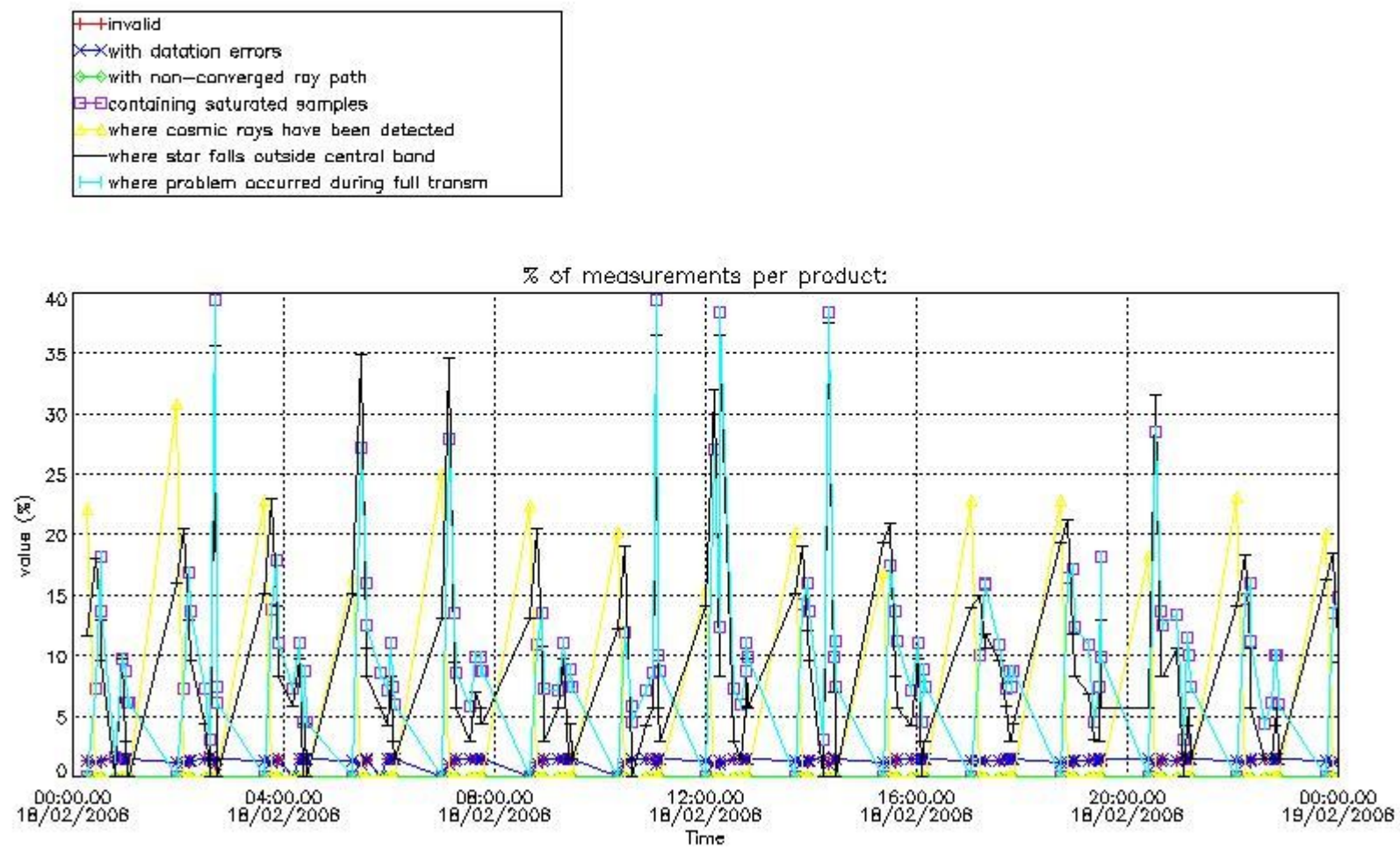
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes

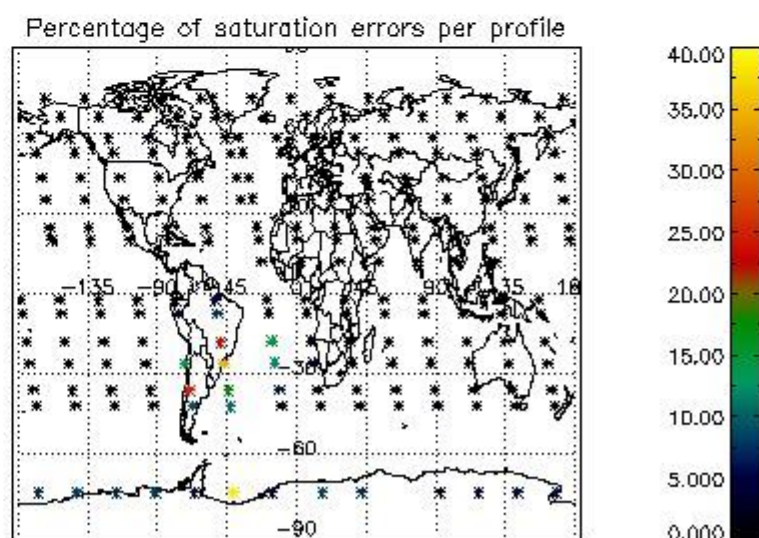
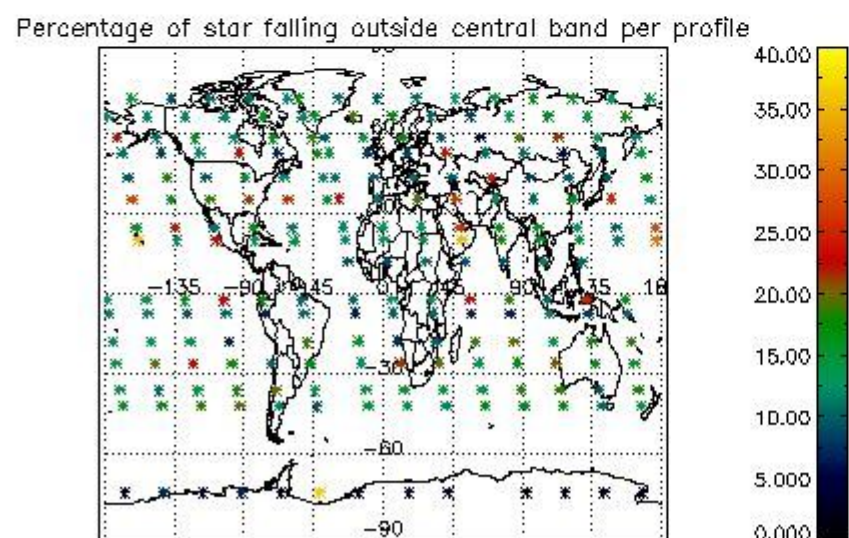
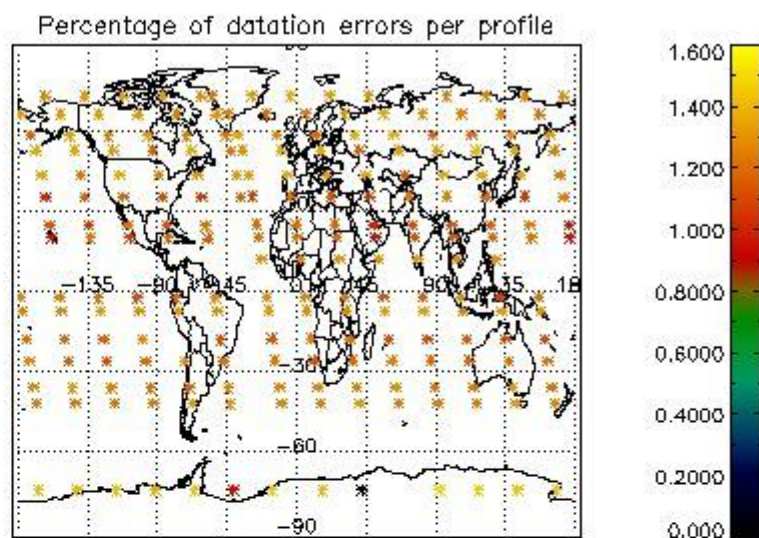
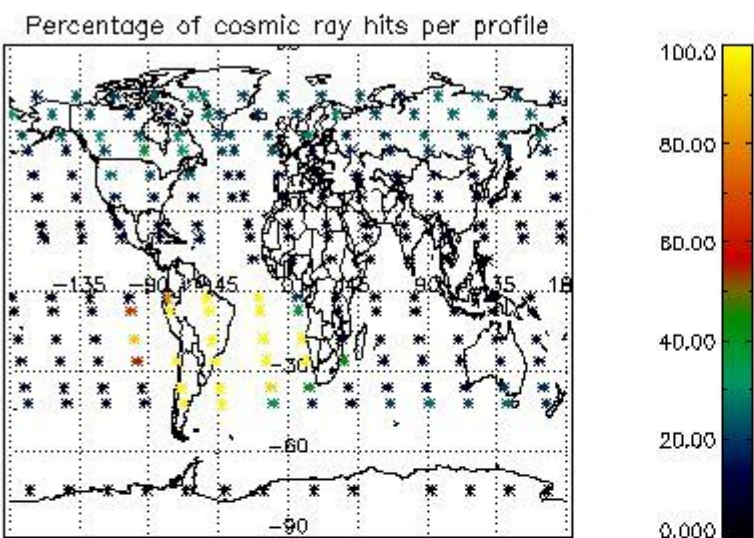


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

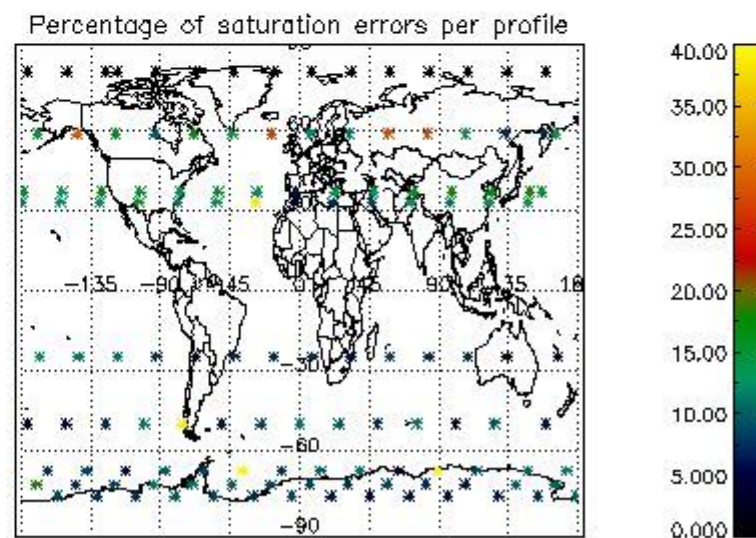
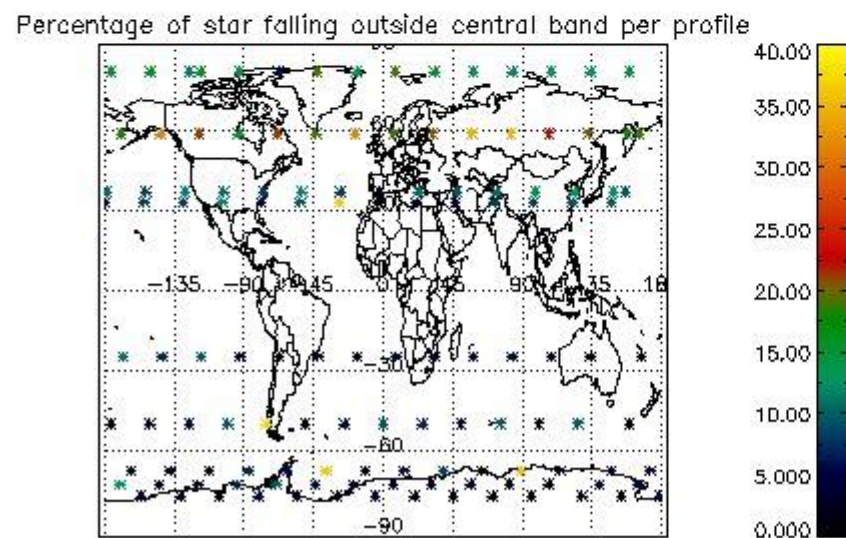
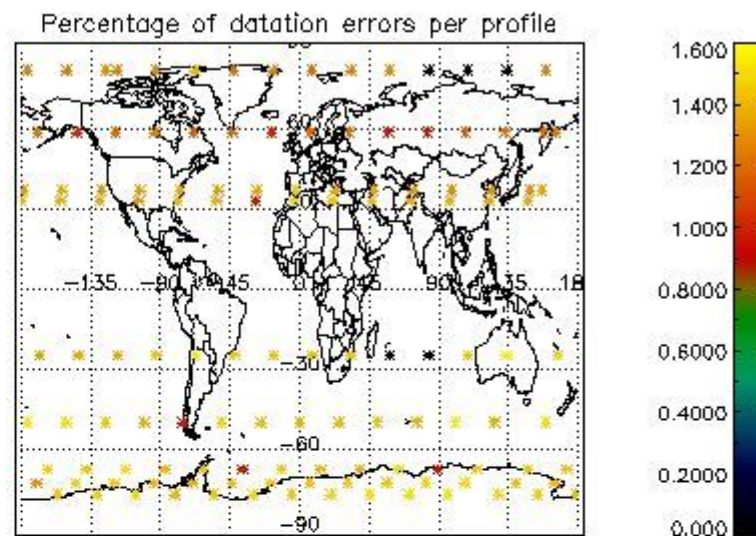
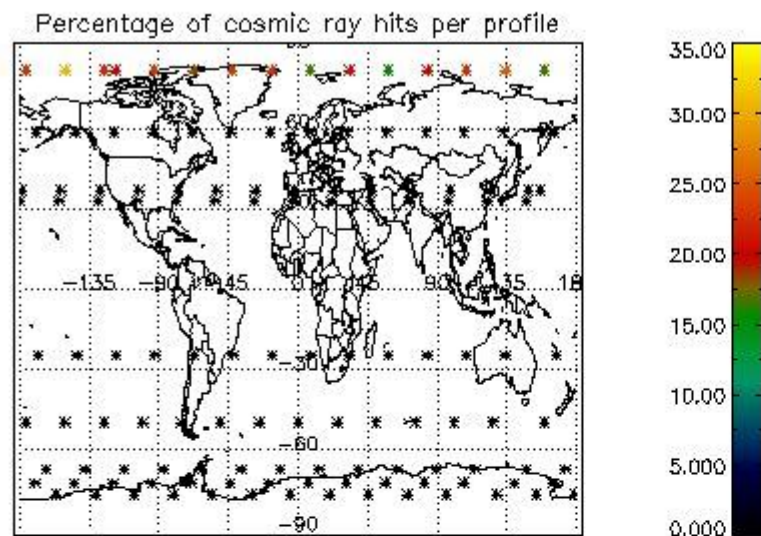


4.2 Plot quality information per product coming from level 1b processing (world map)

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



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

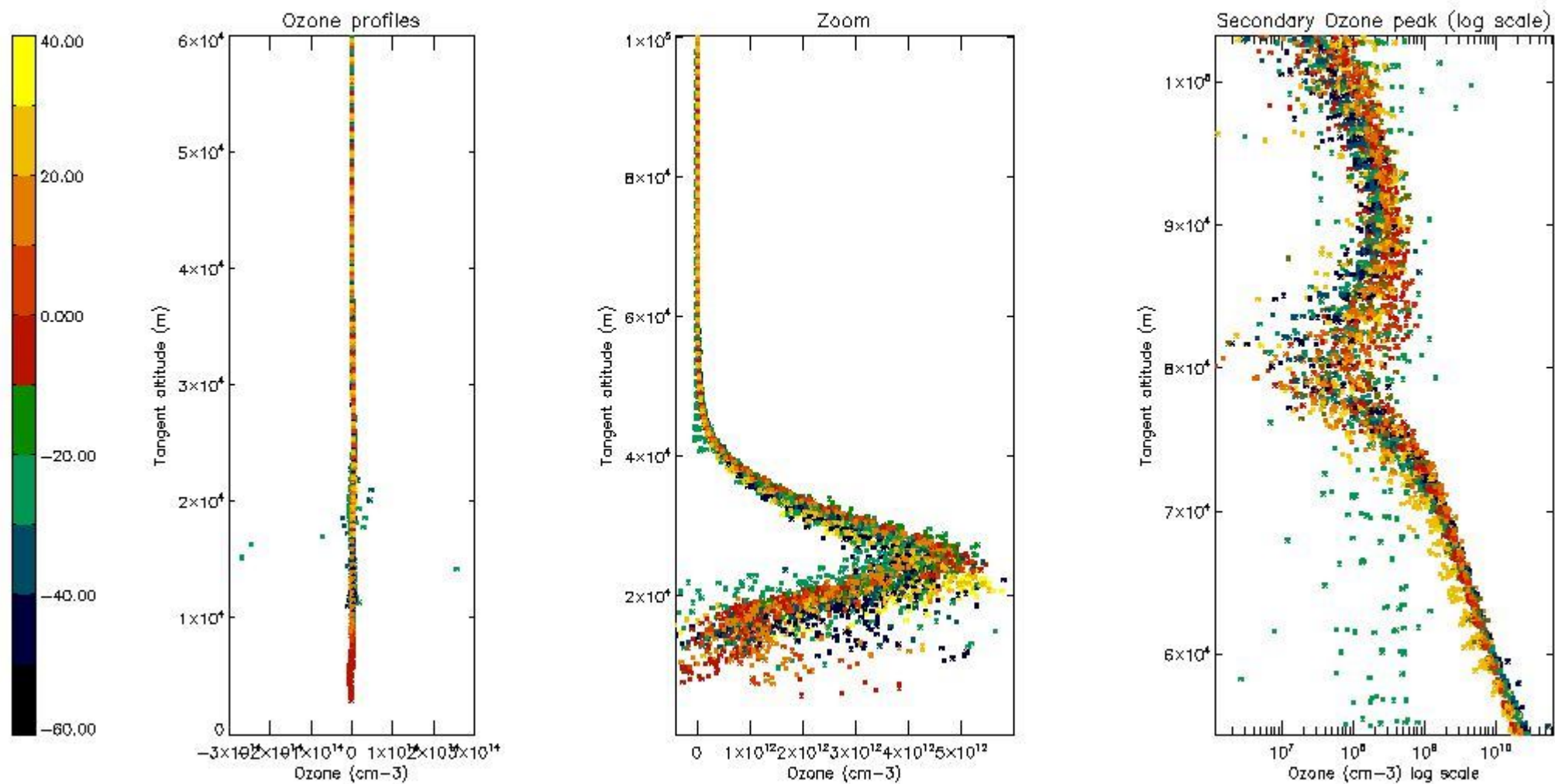
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	43
STD < 20	25

STD < 10	21
STD < 5	15

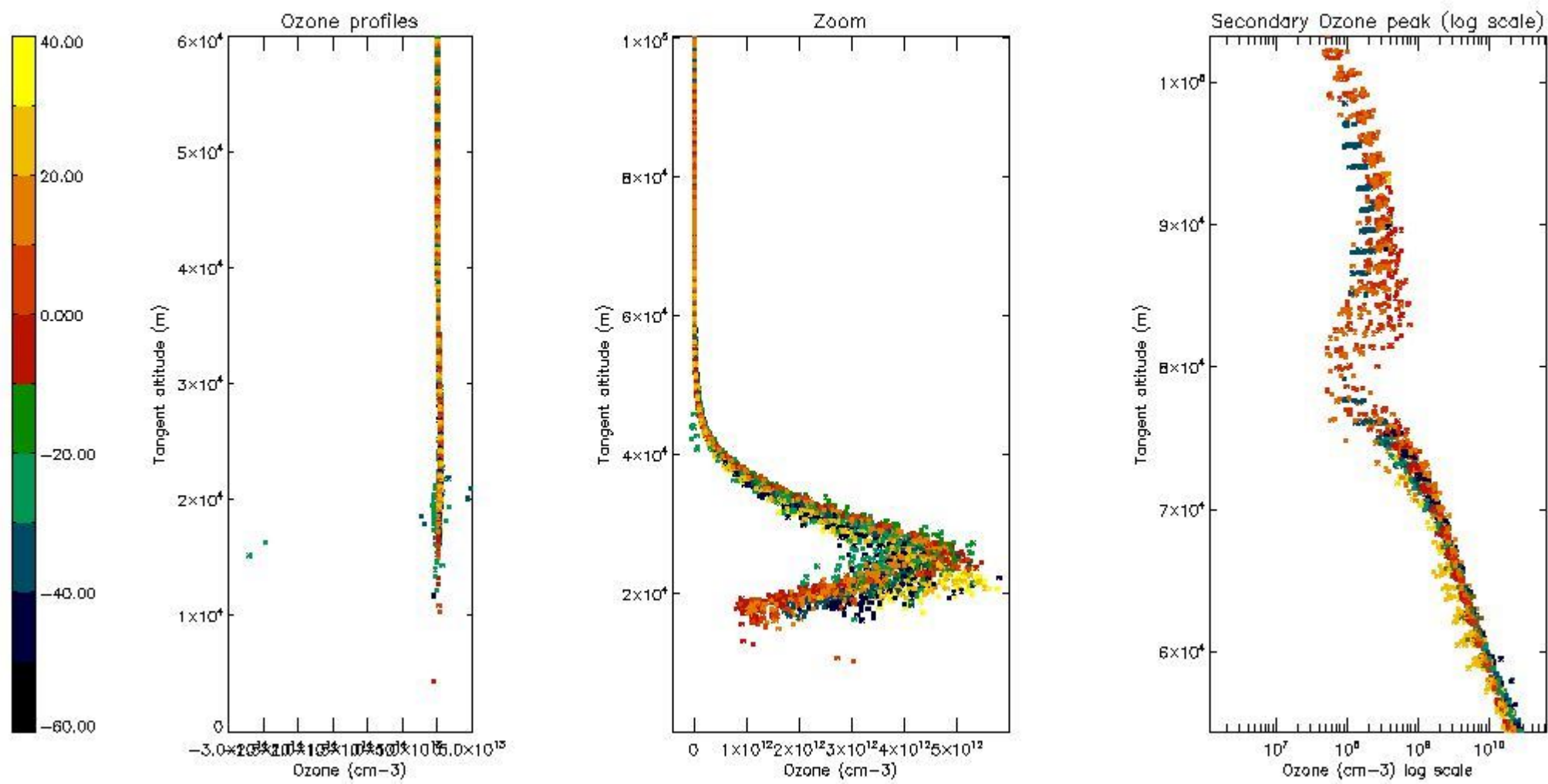
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



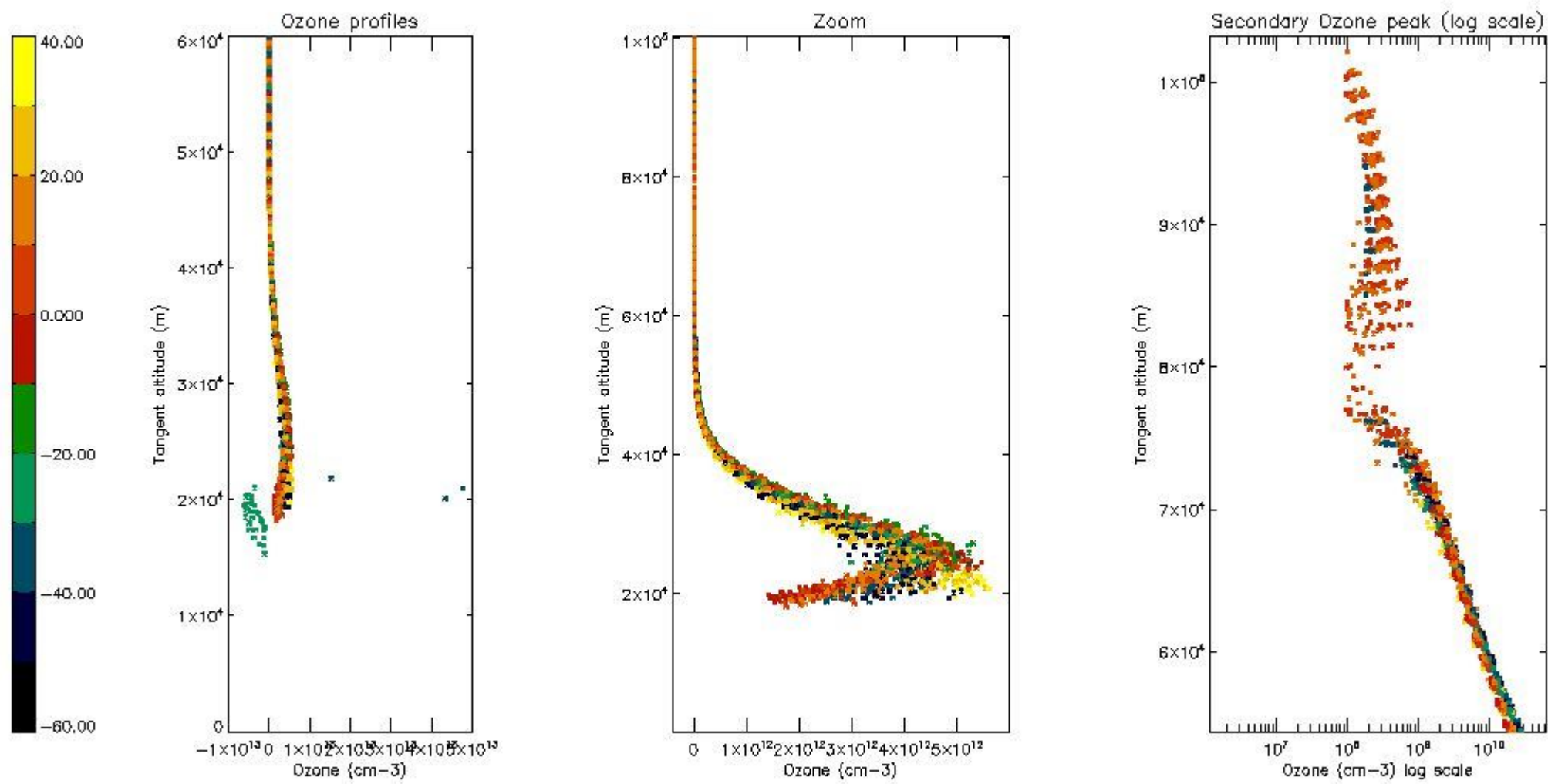
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



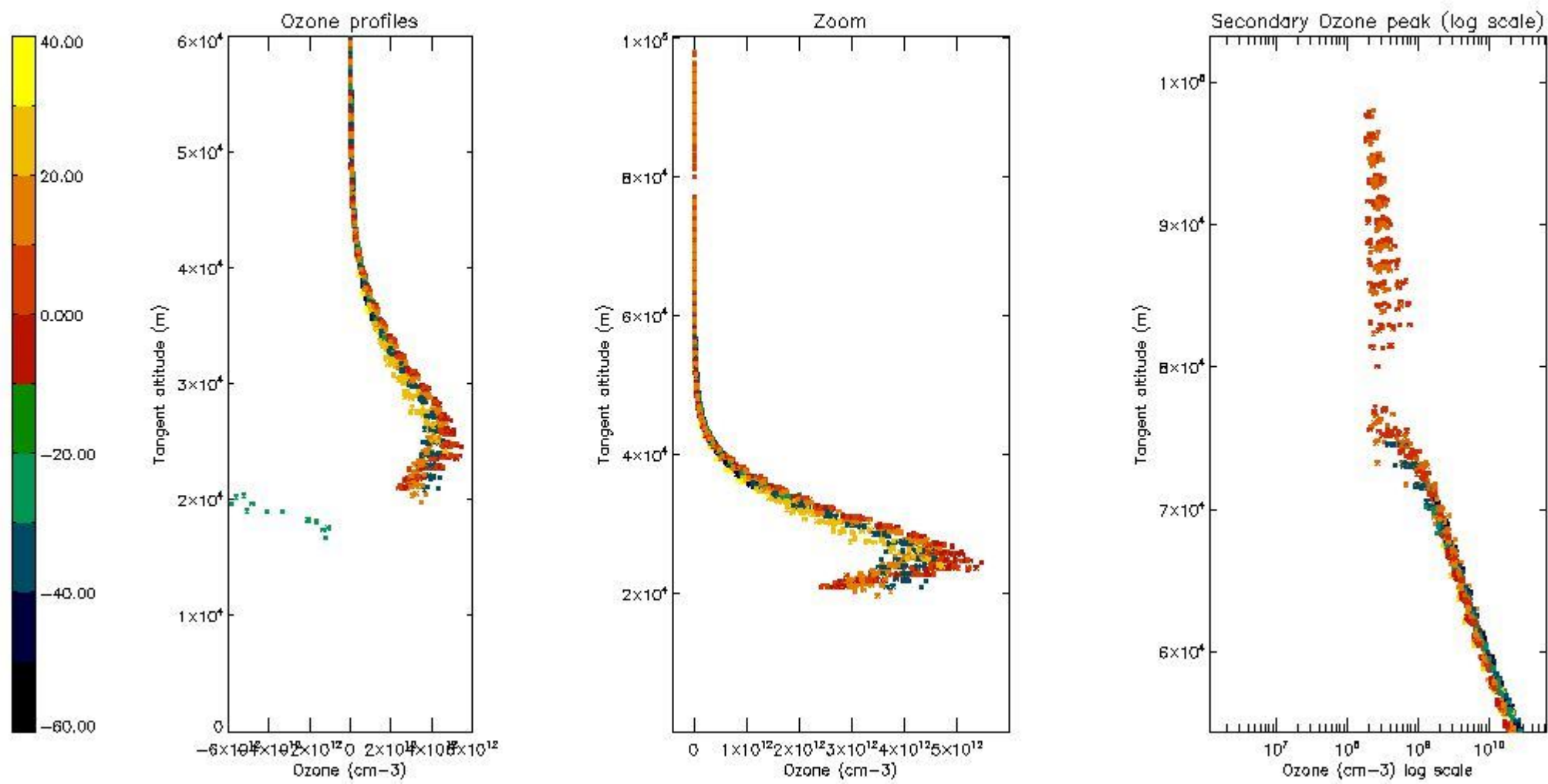
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



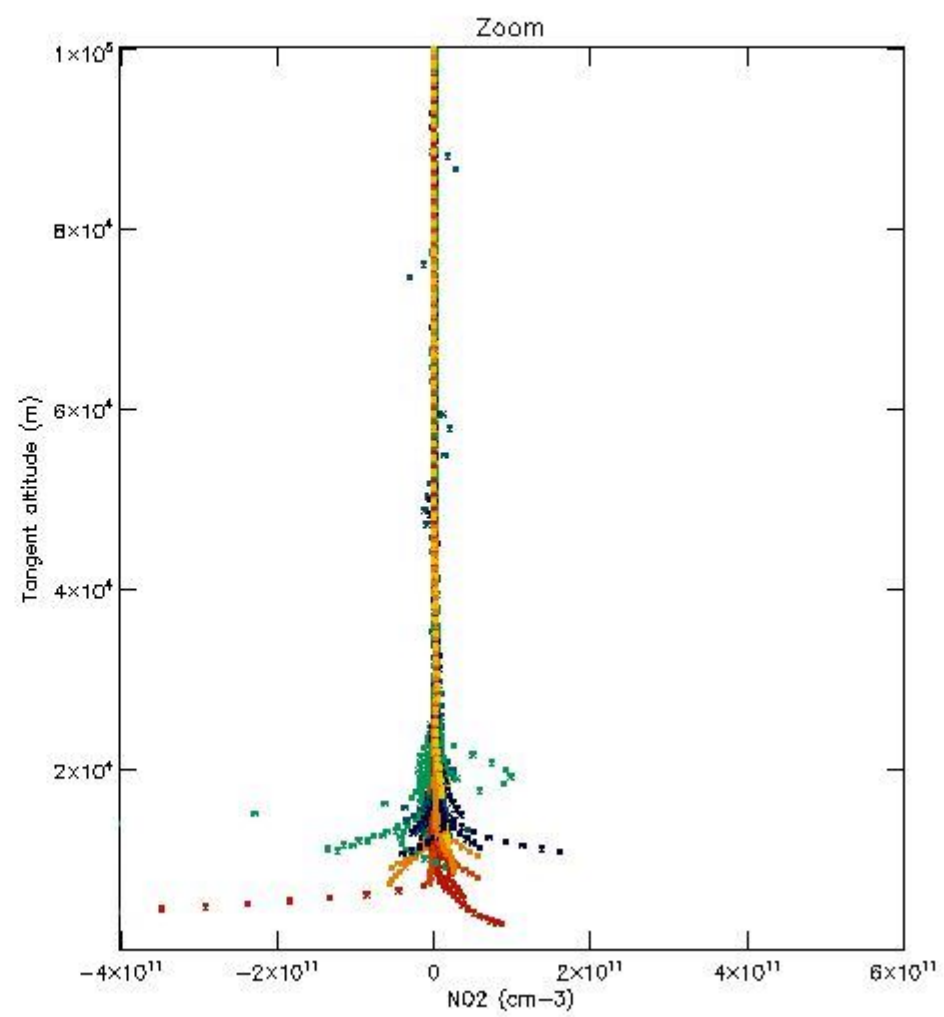
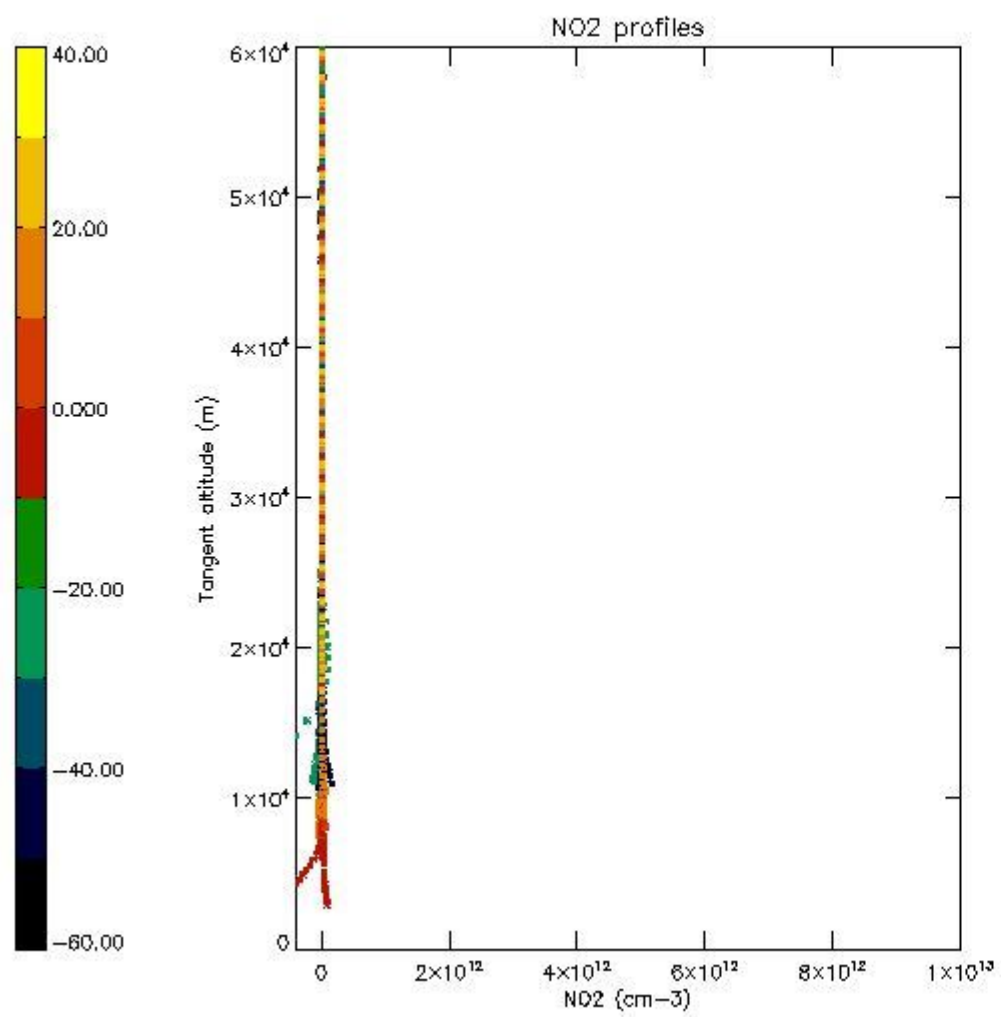
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



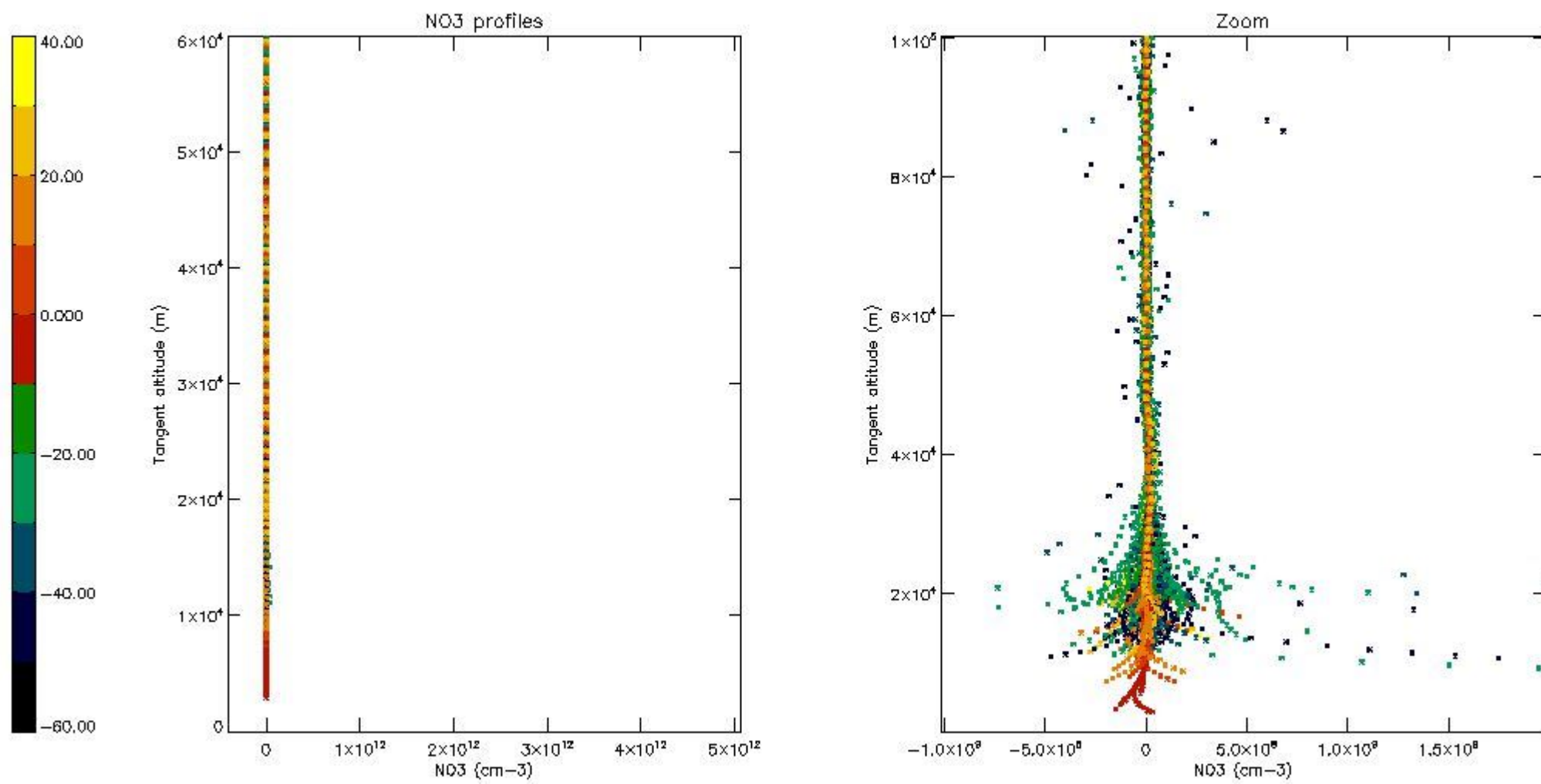
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



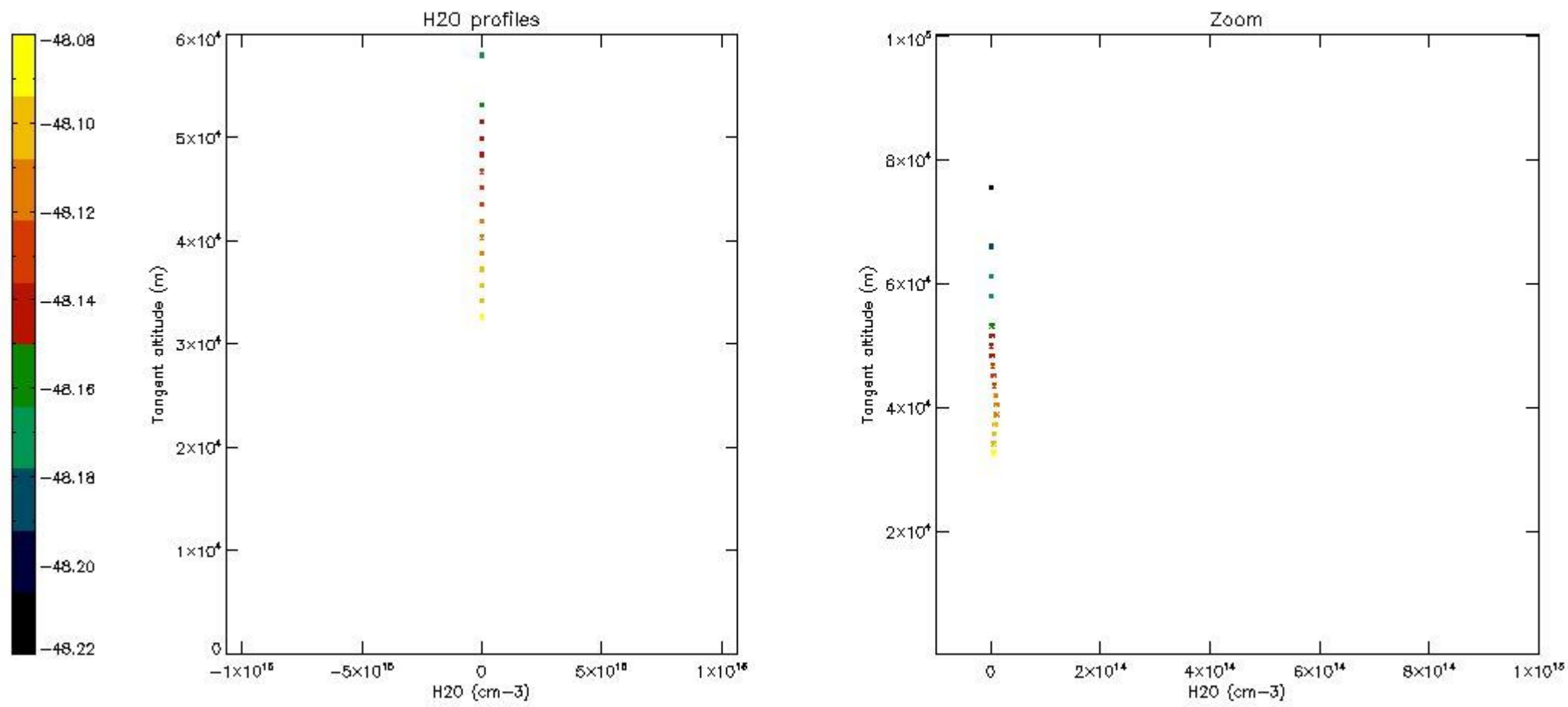
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-FEB-2008 00:01:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-FEB-2008 00:01:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-FEB-2008 00:01:27

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

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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](#)

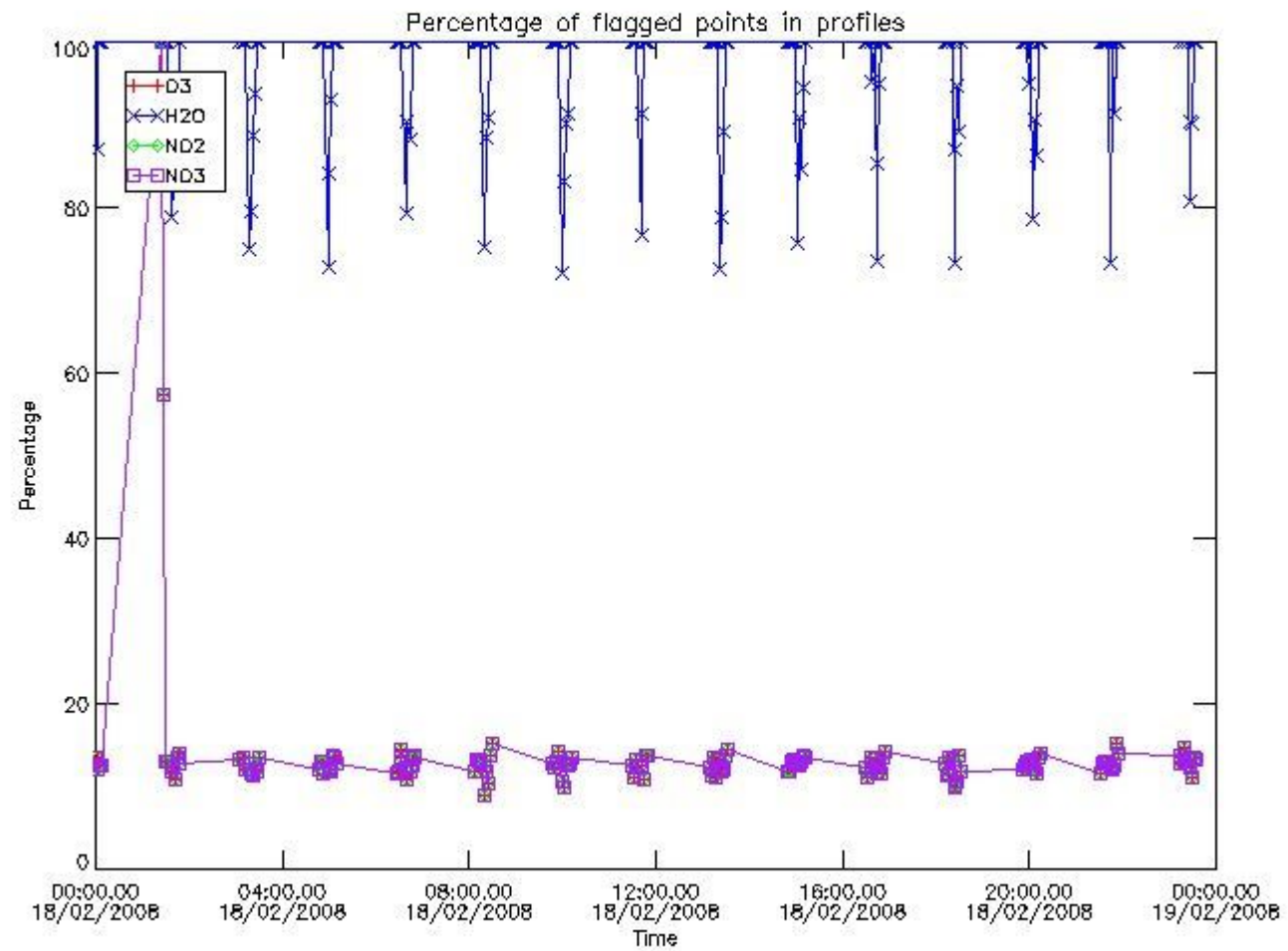
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350	GOM_NL__2PRFIN20080218_235951_000000372066_00102_31218_6767.N1	18-FEB-2008 23:59:51	Bright	37.000	17	78Bet Gem	1.1610	4500.0	74	31218	No

3. Quality information per product

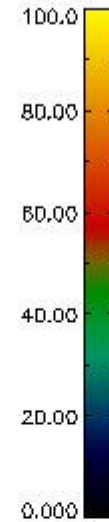
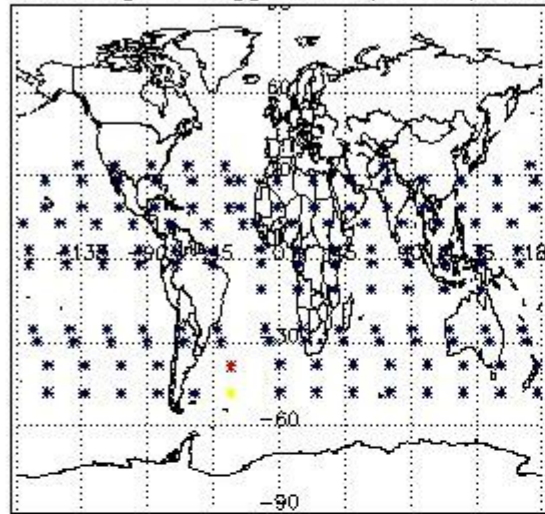
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3.1 Plot quality information per product (time dependant)

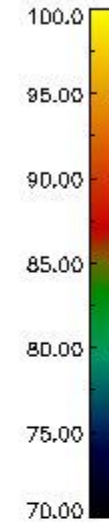
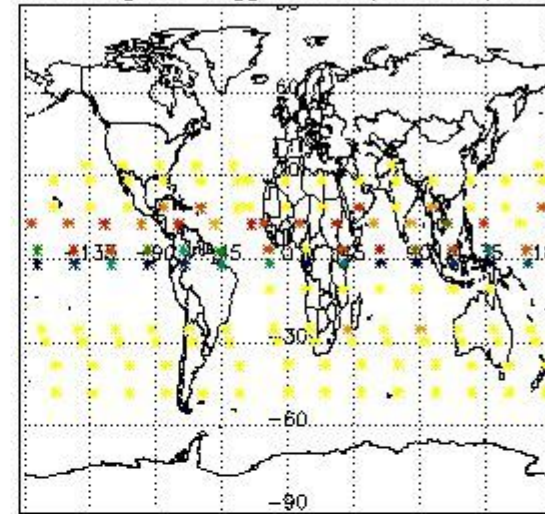


3.2 Plot quality information per product (world map)

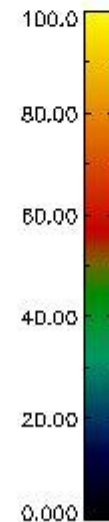
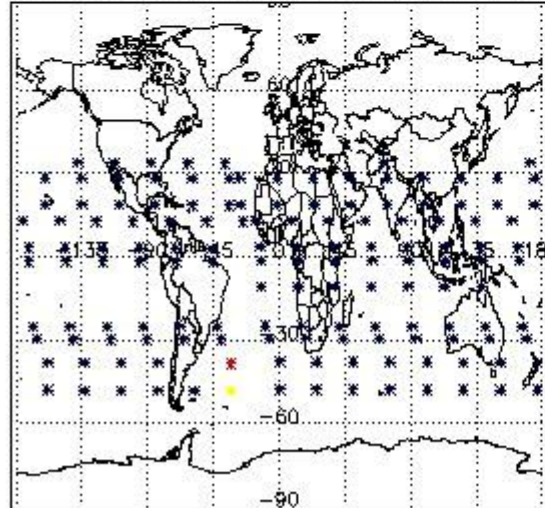
Percentage of flagged data per O3 profile



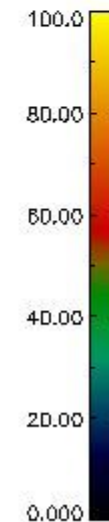
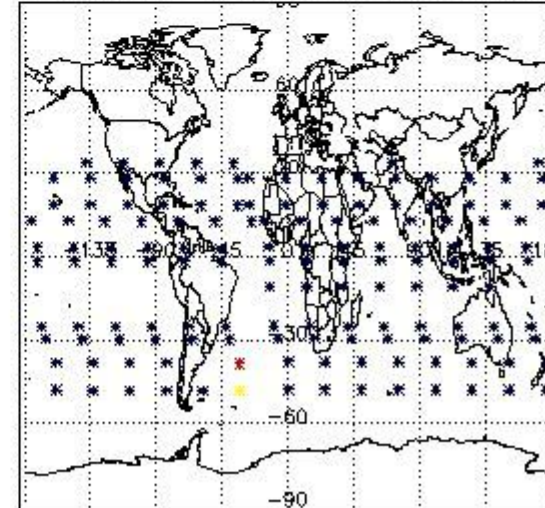
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

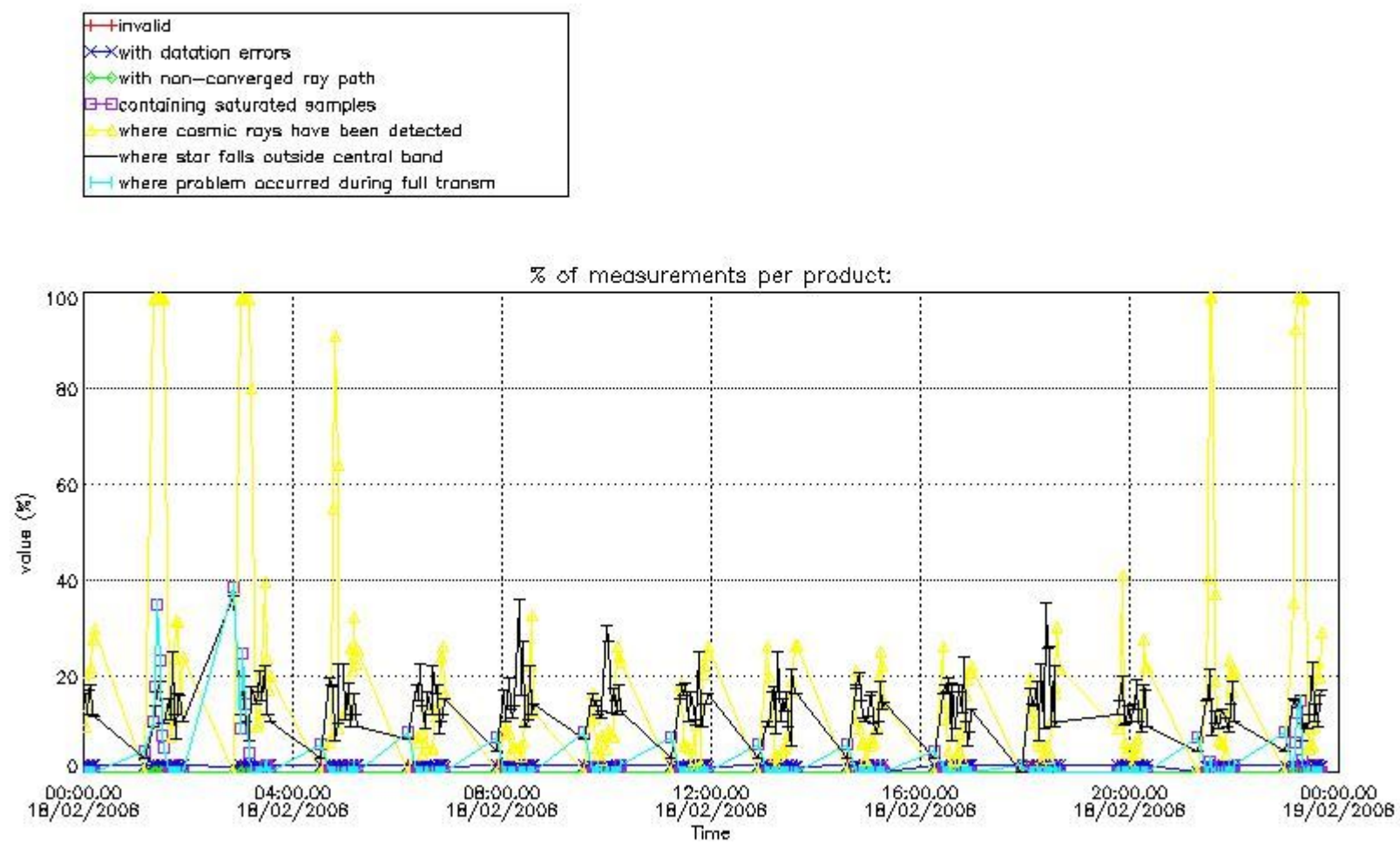


4. Level 1 quality information per product

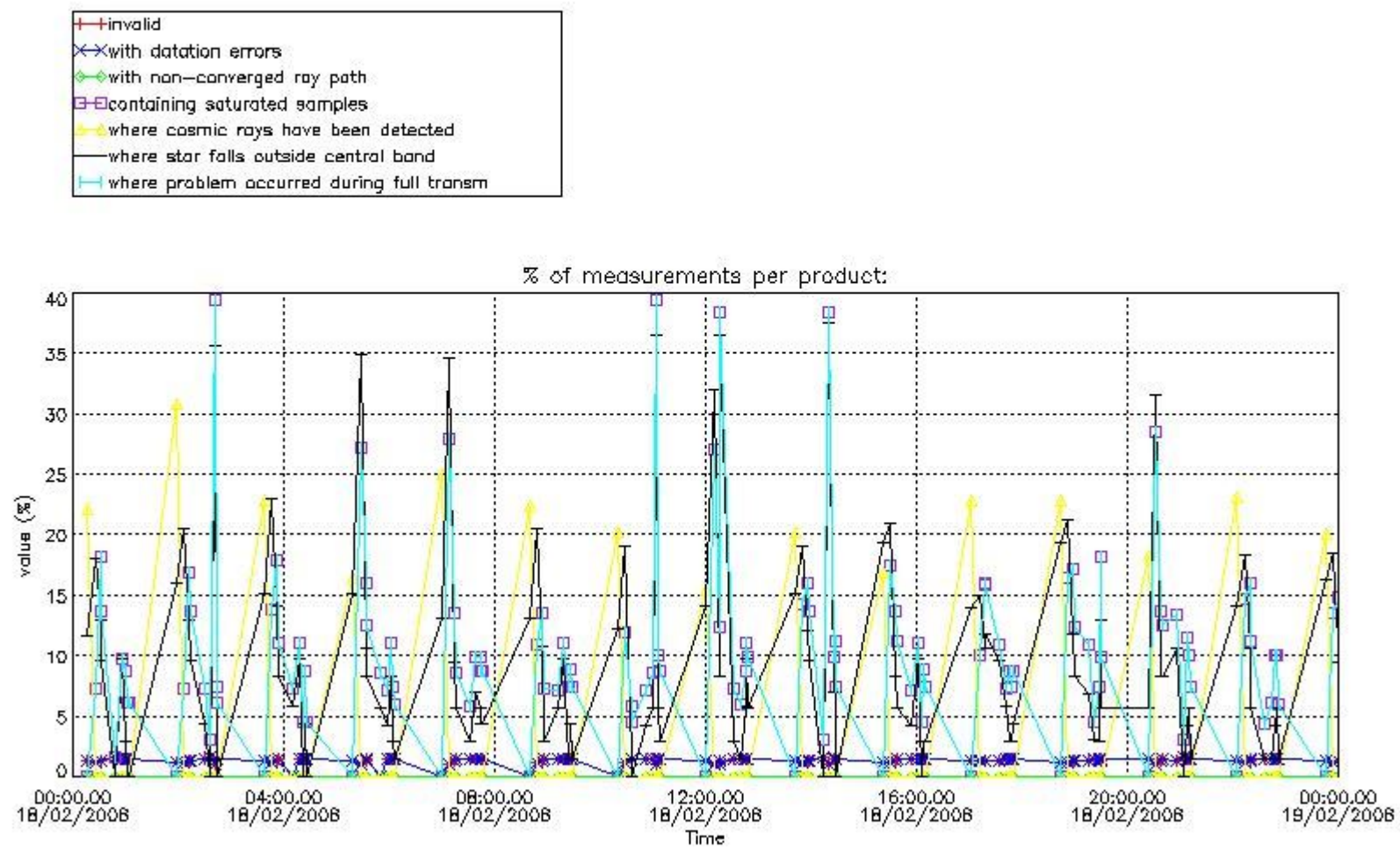
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



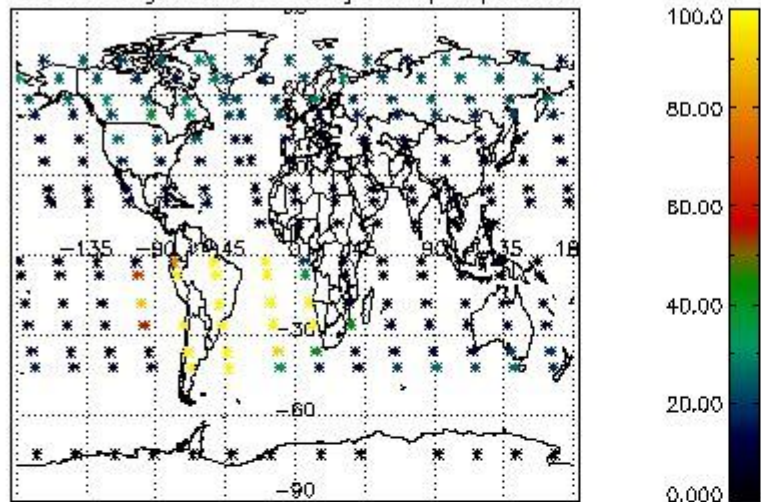
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



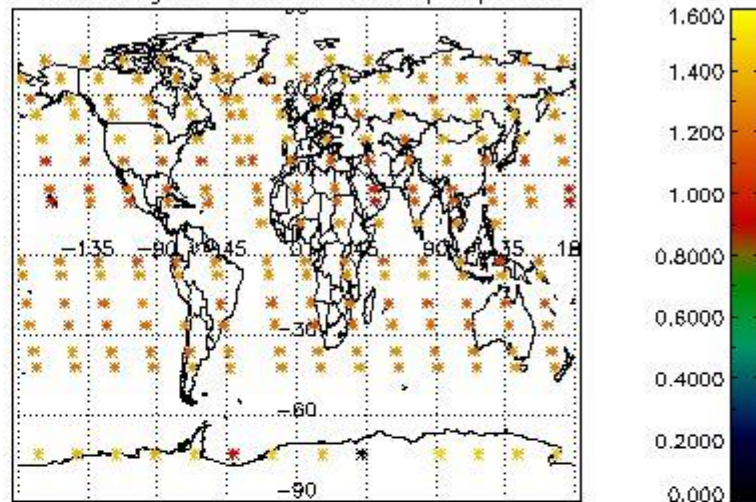
4.2 Plot quality information per product coming from level 1b processing (world map)

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

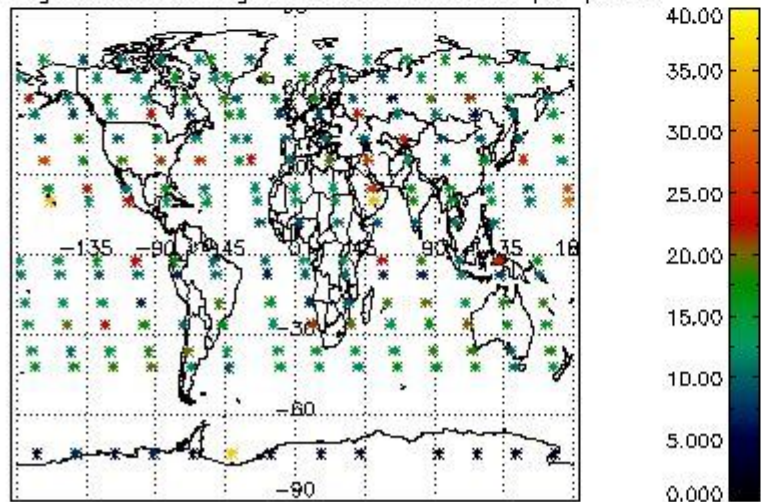
Percentage of cosmic ray hits per profile



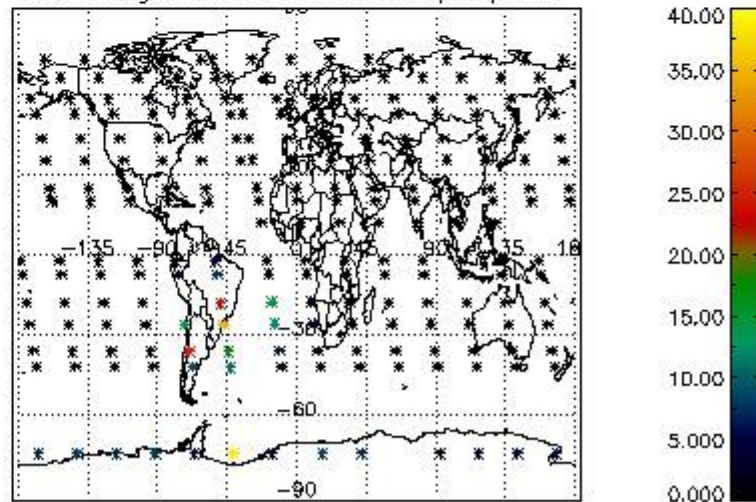
Percentage of datation errors per profile



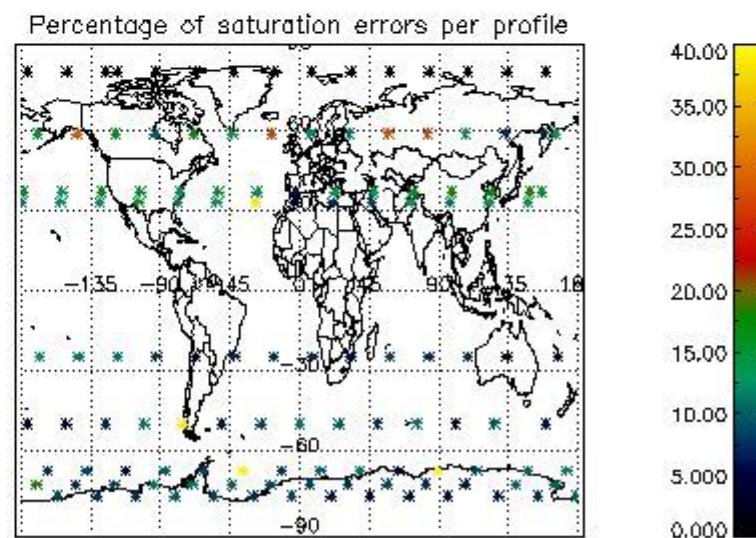
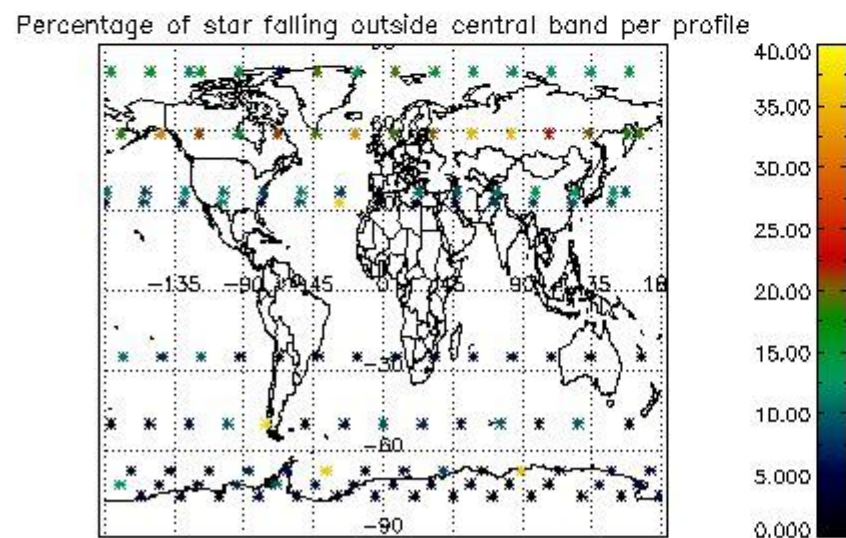
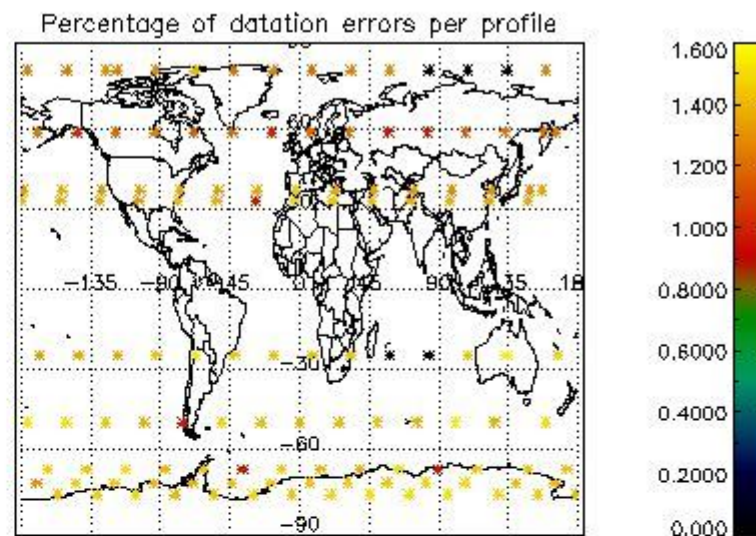
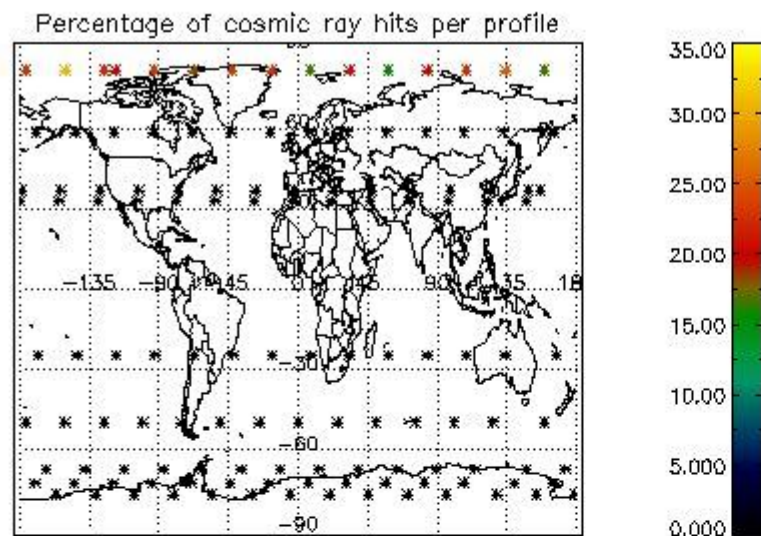
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

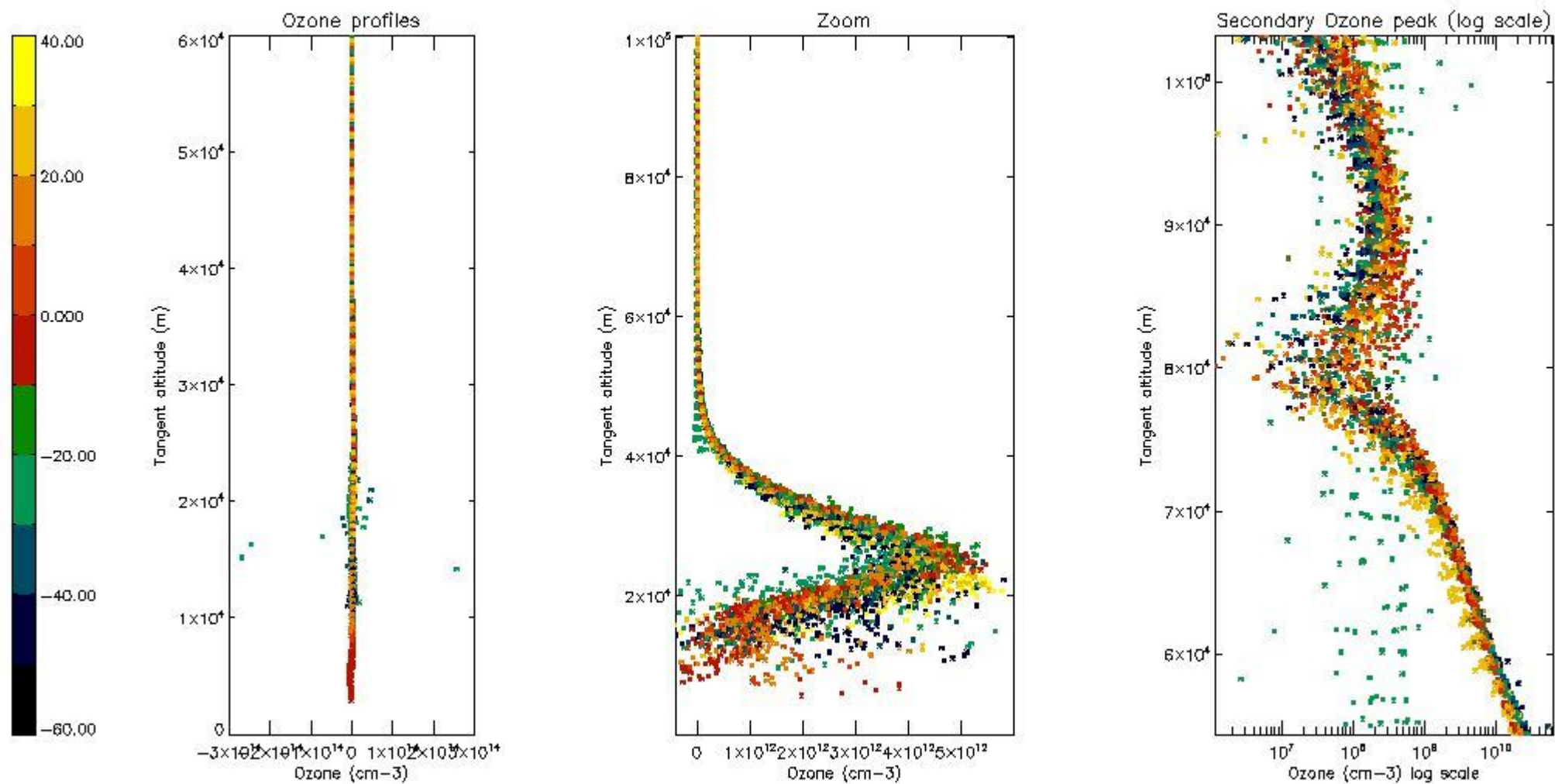
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	43
STD < 20	25

STD < 10	21
STD < 5	15

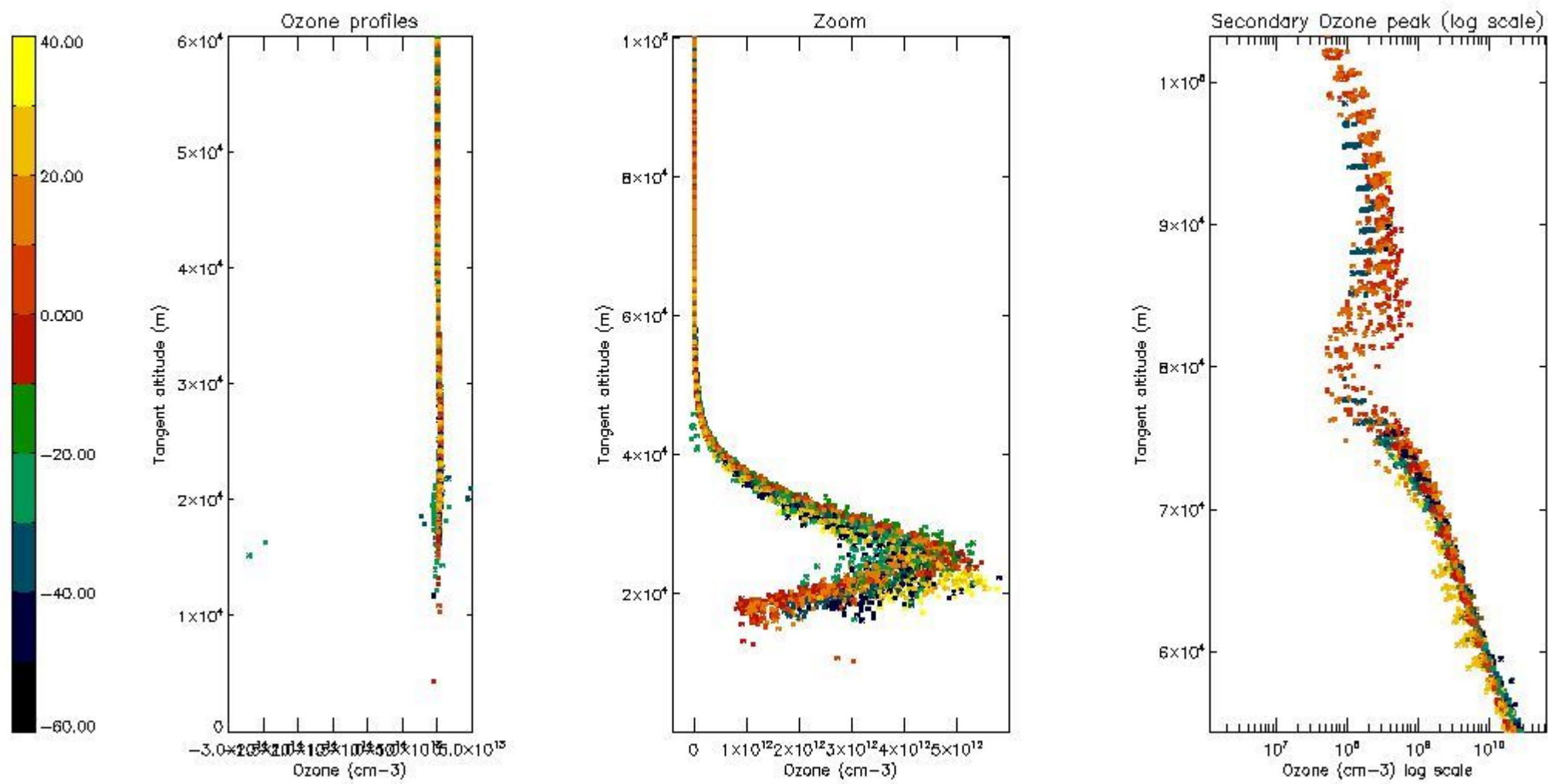
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



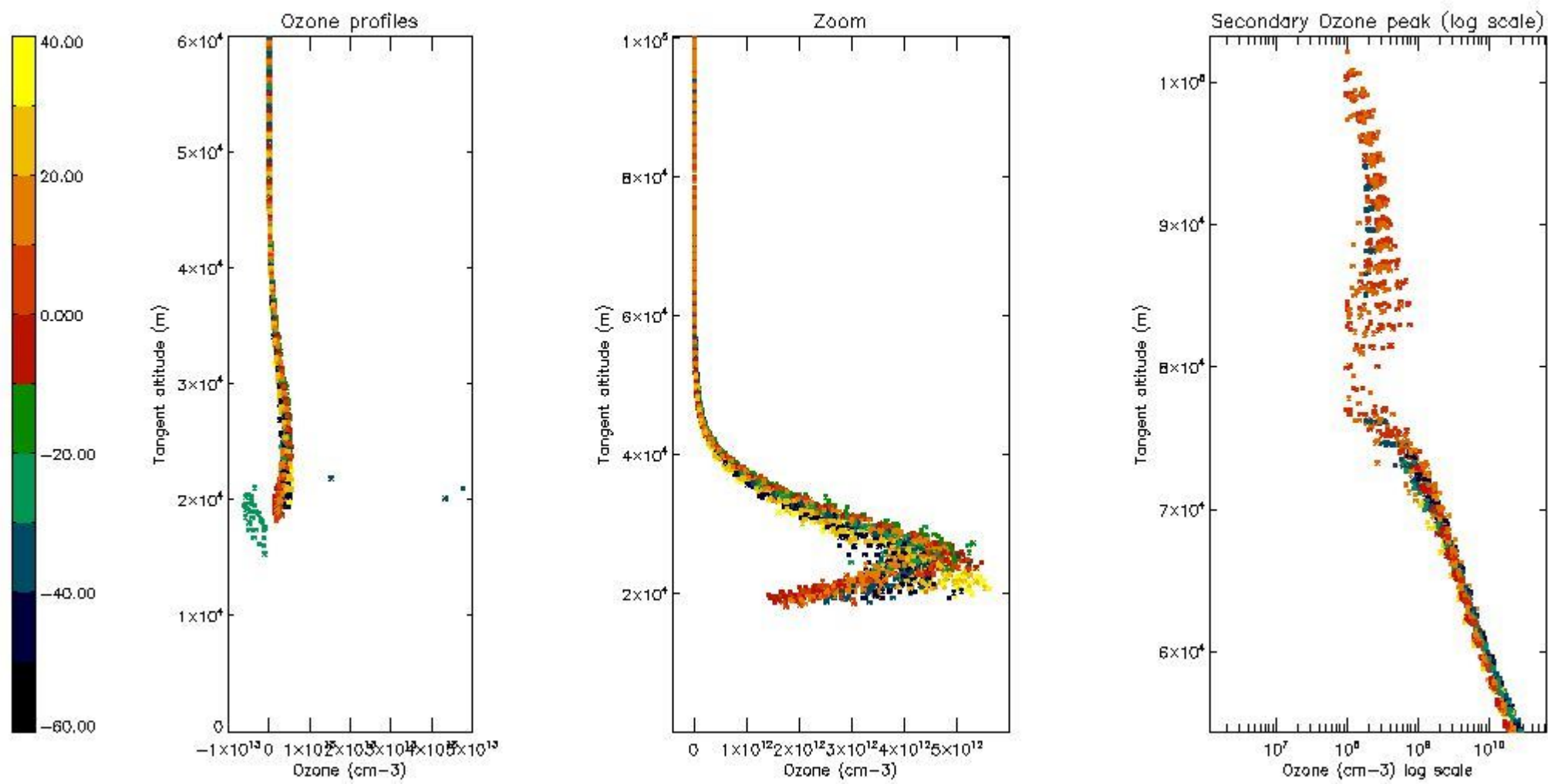
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



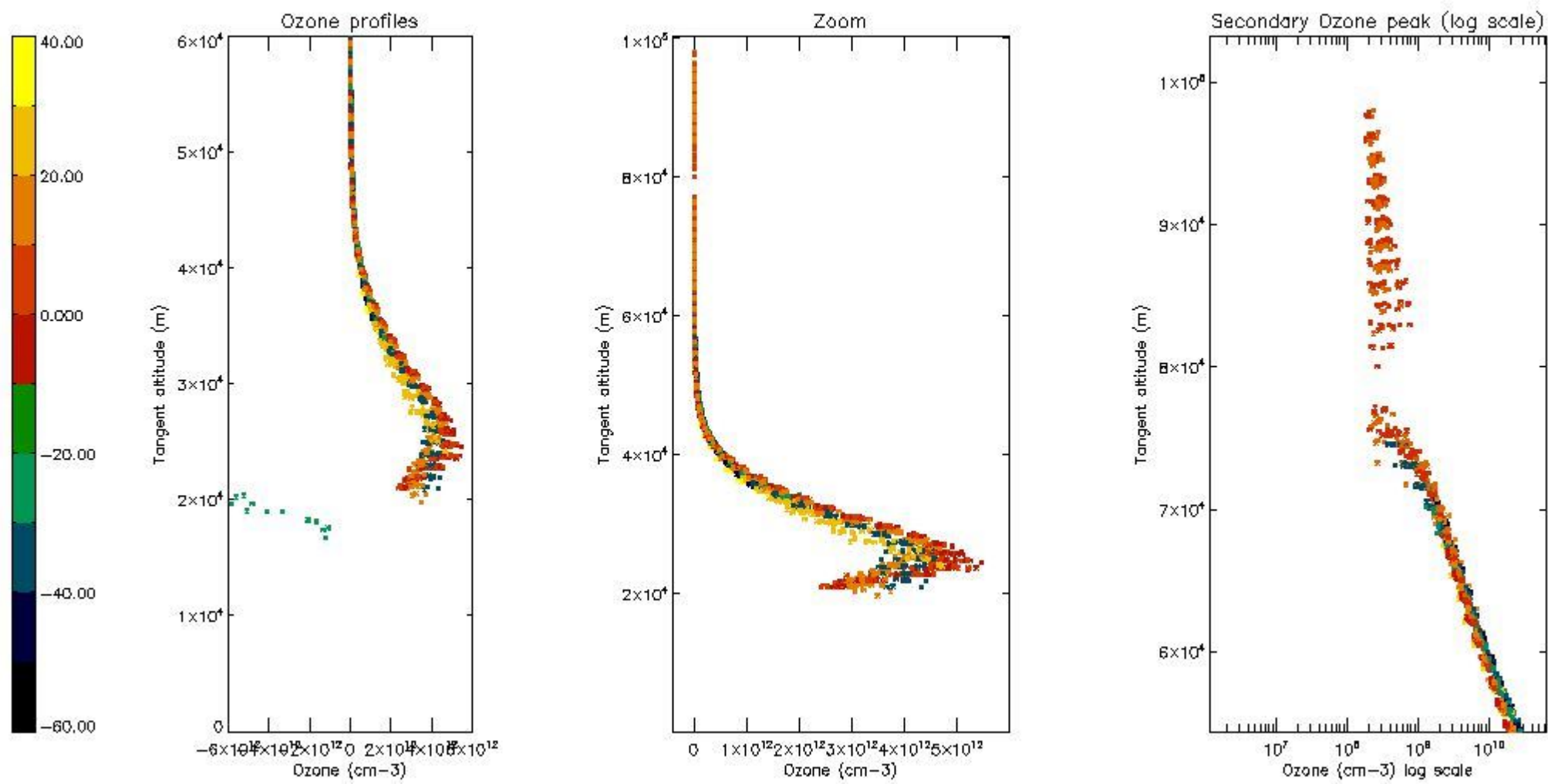
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



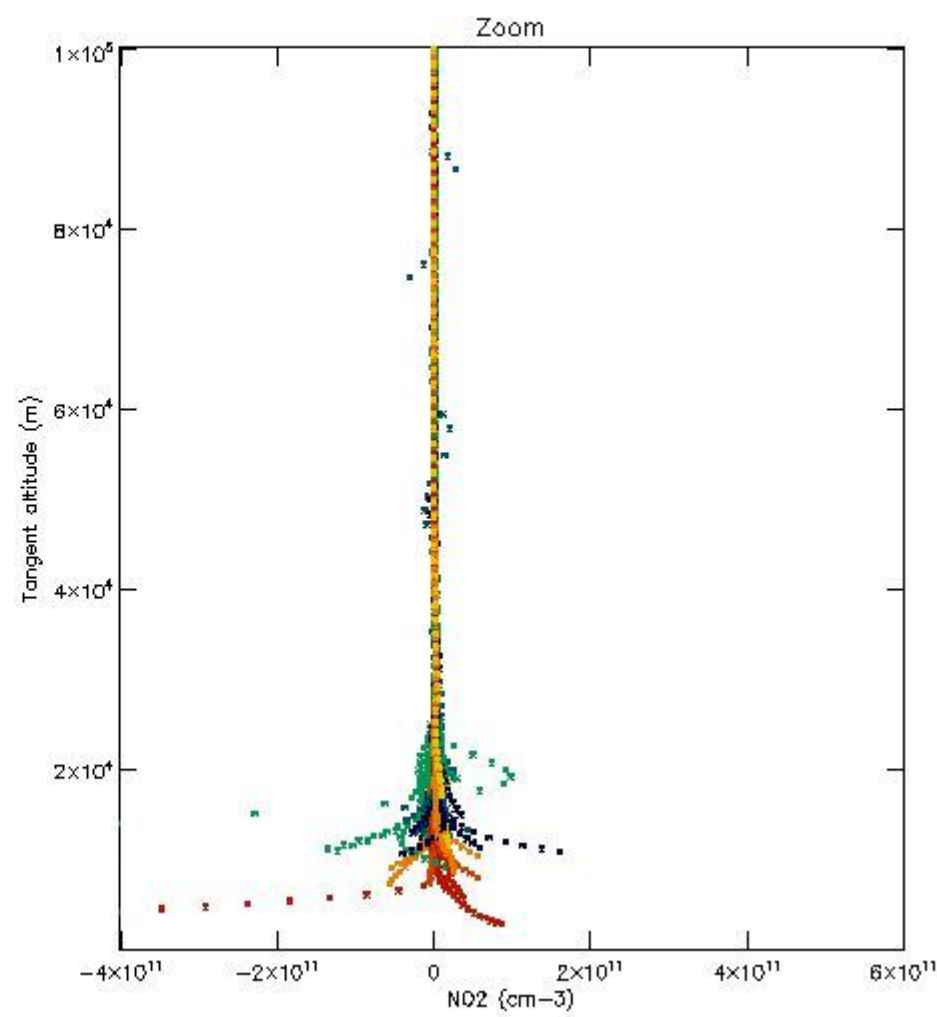
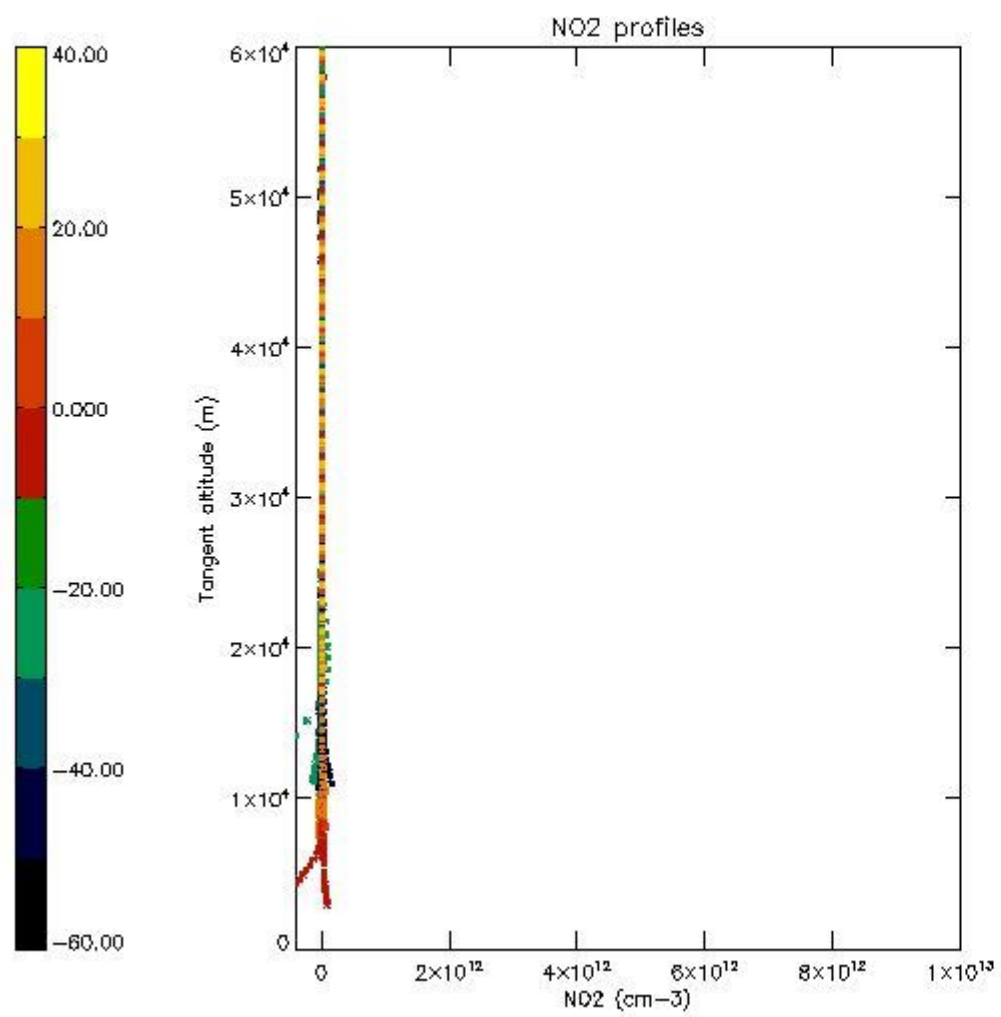
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



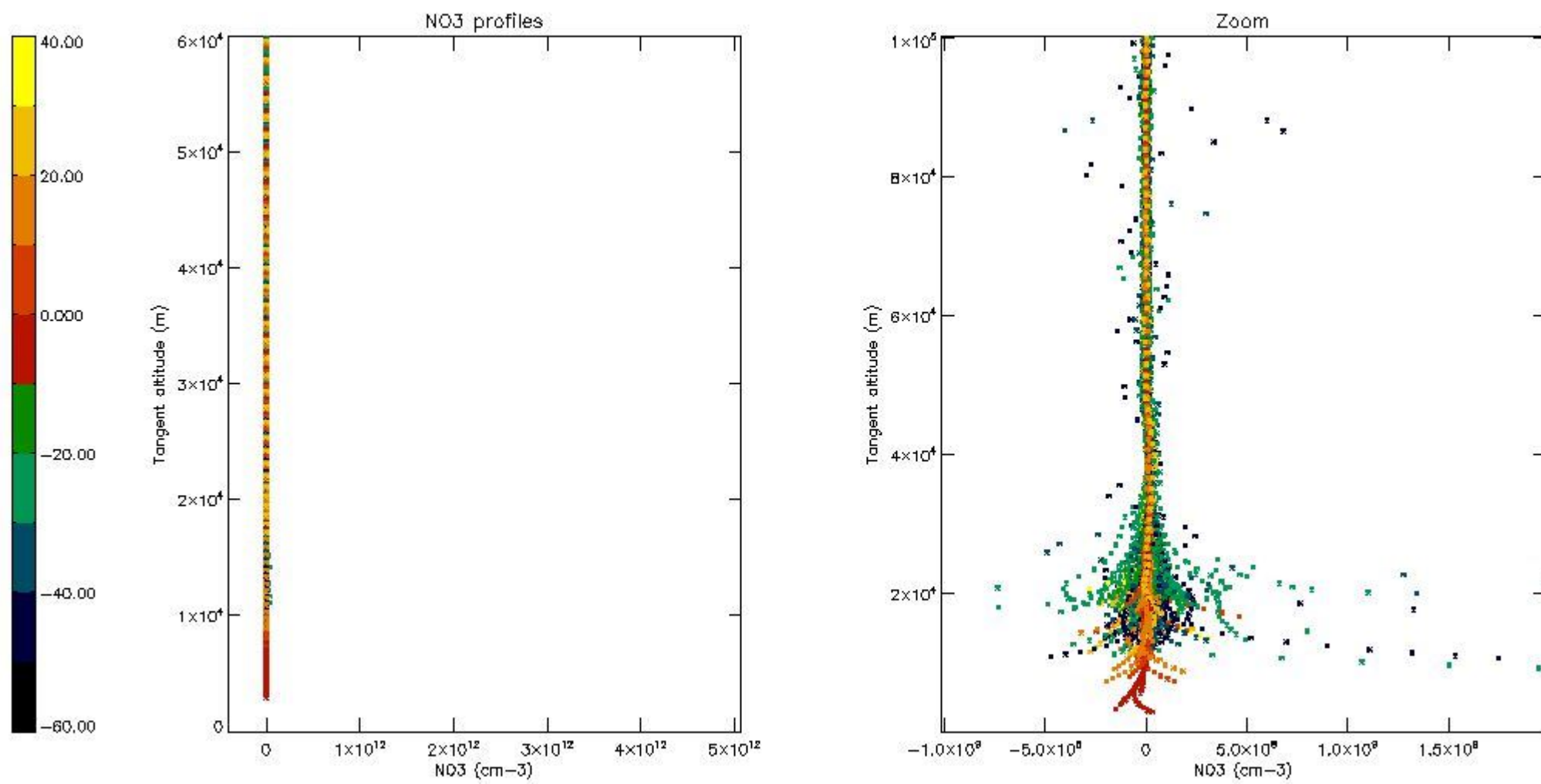
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



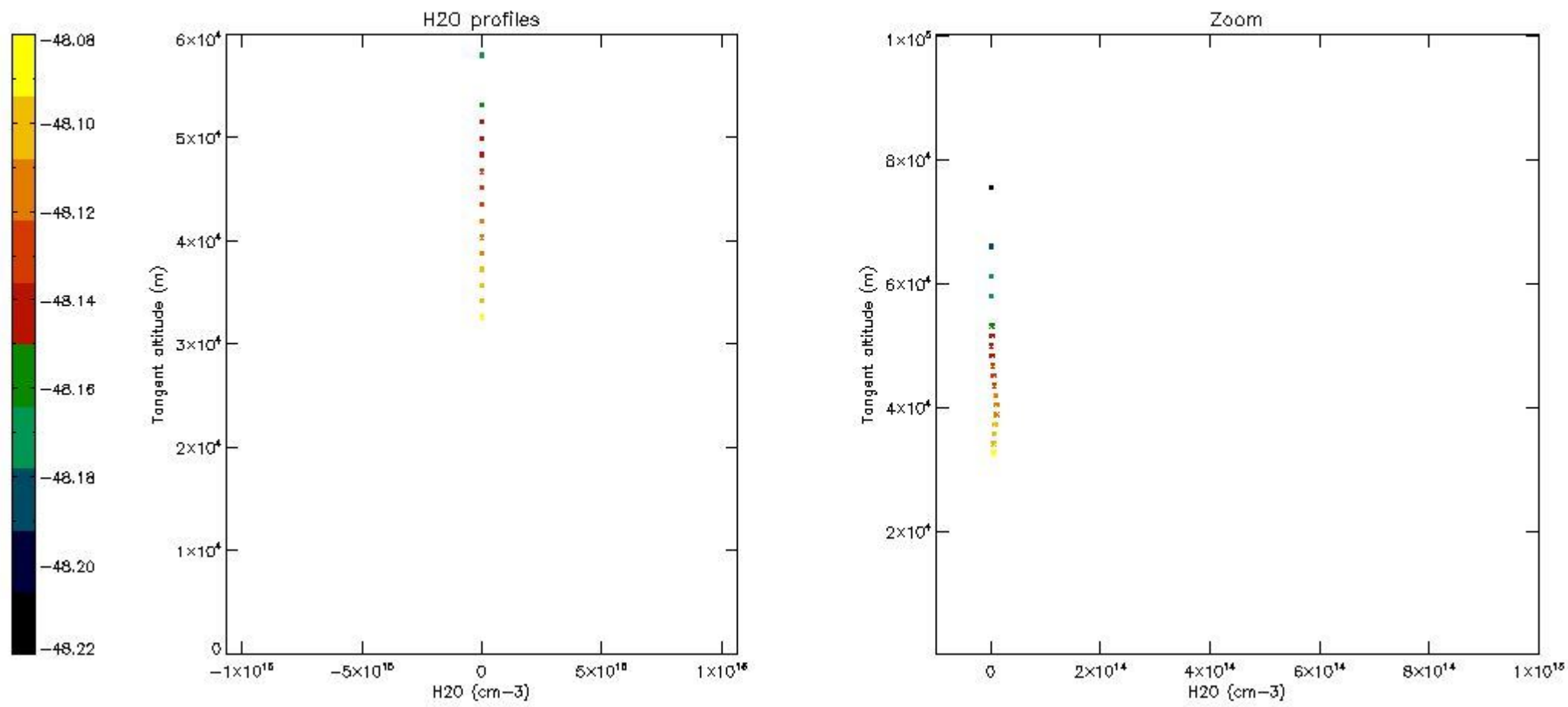
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

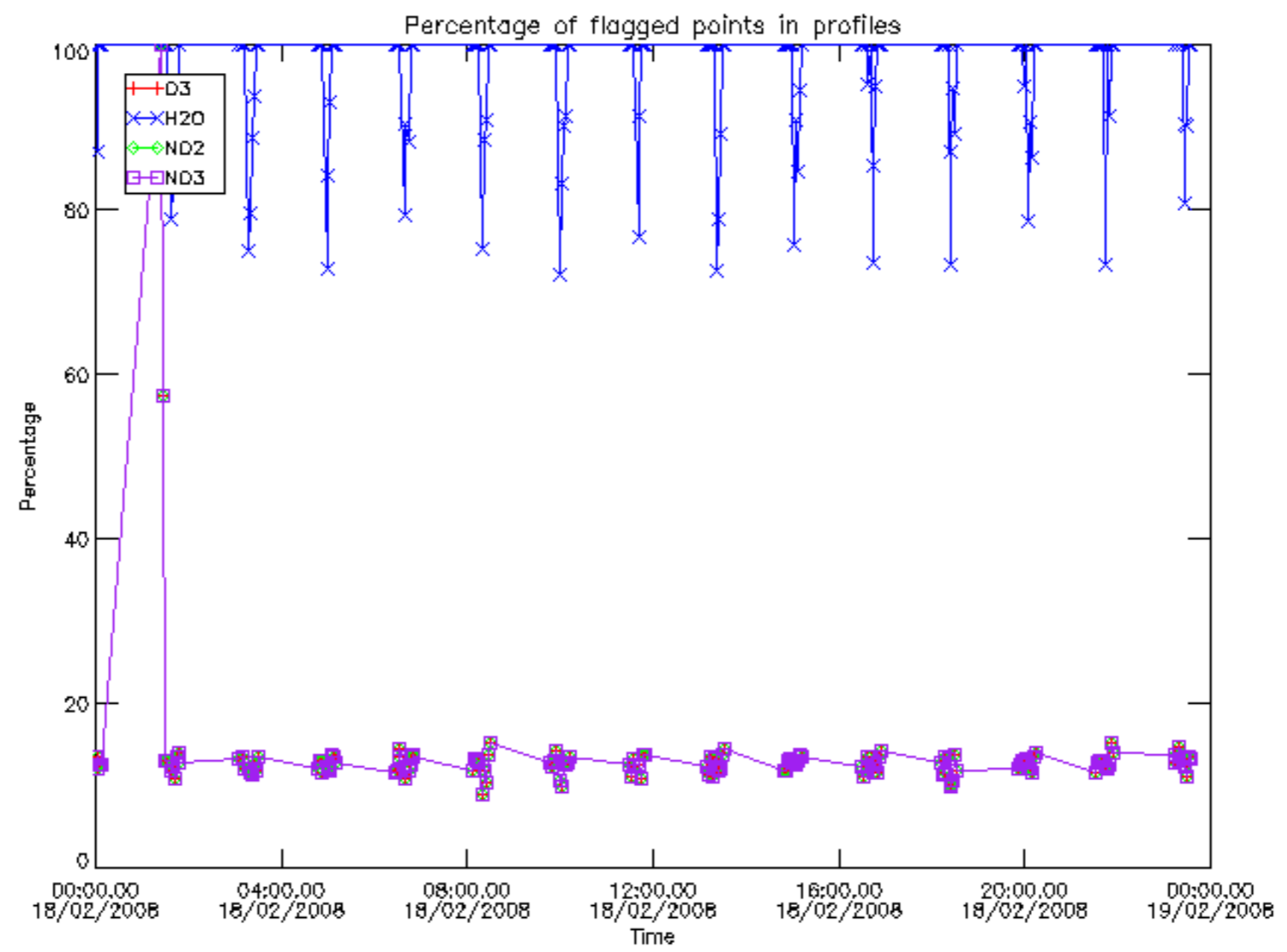
The colorbar represents the latitude.



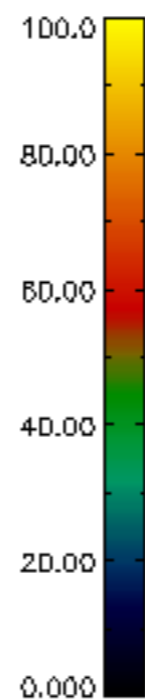
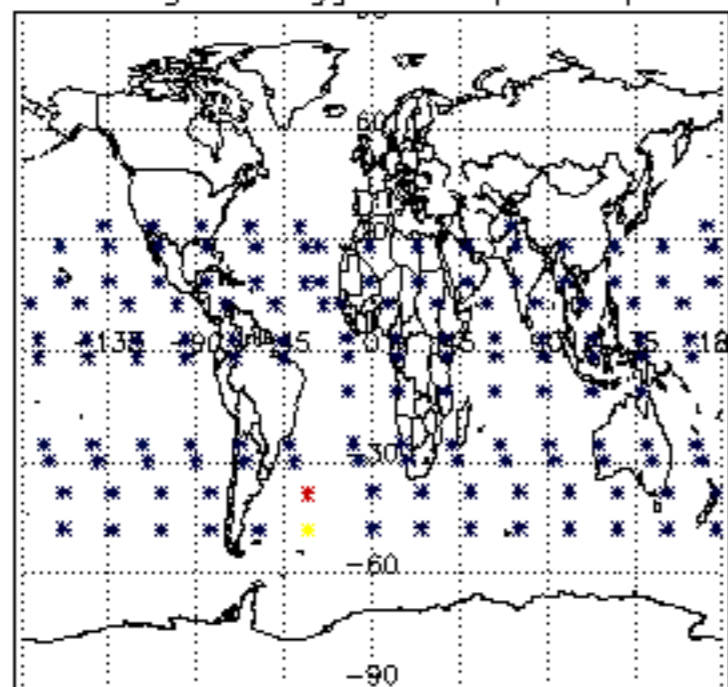
6. Auxiliary Data Files used for the production reported in section 2

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

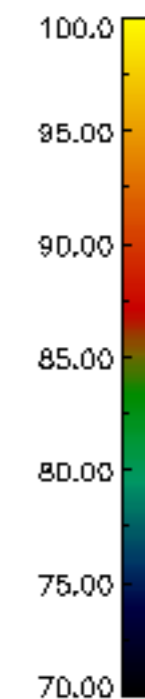
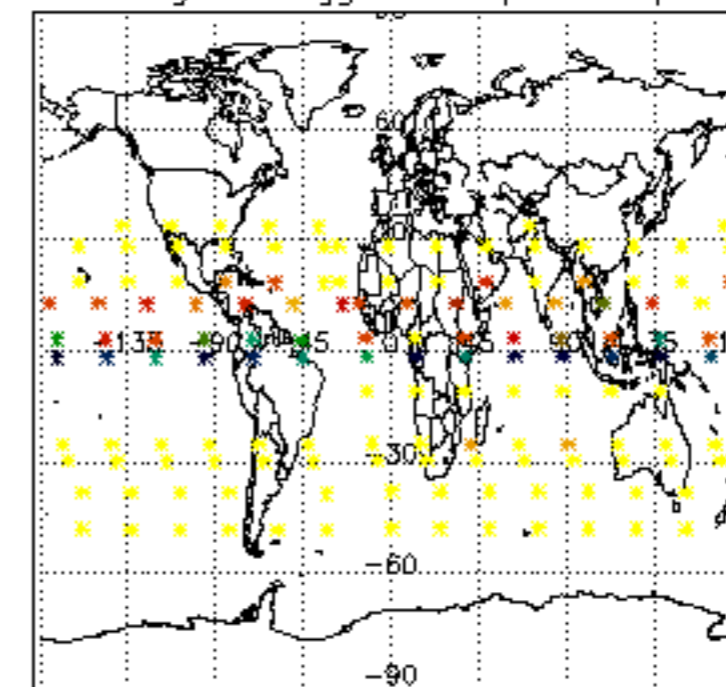
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-FEB-2008 00:01:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-FEB-2008 00:01:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-FEB-2008 00:01:27



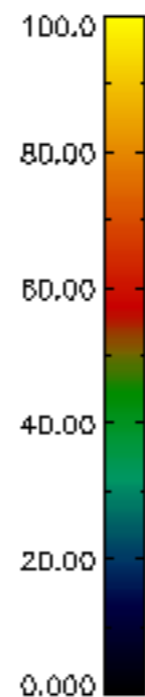
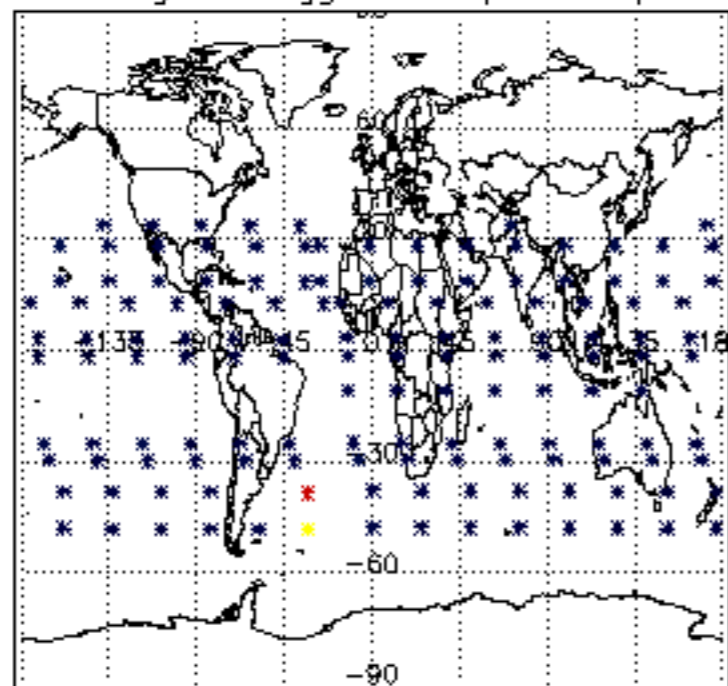
Percentage of flagged data per D3 profile



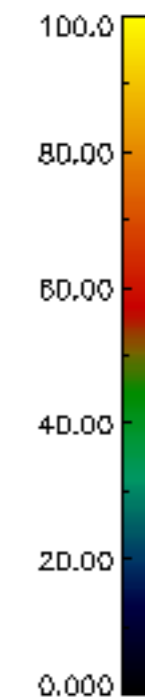
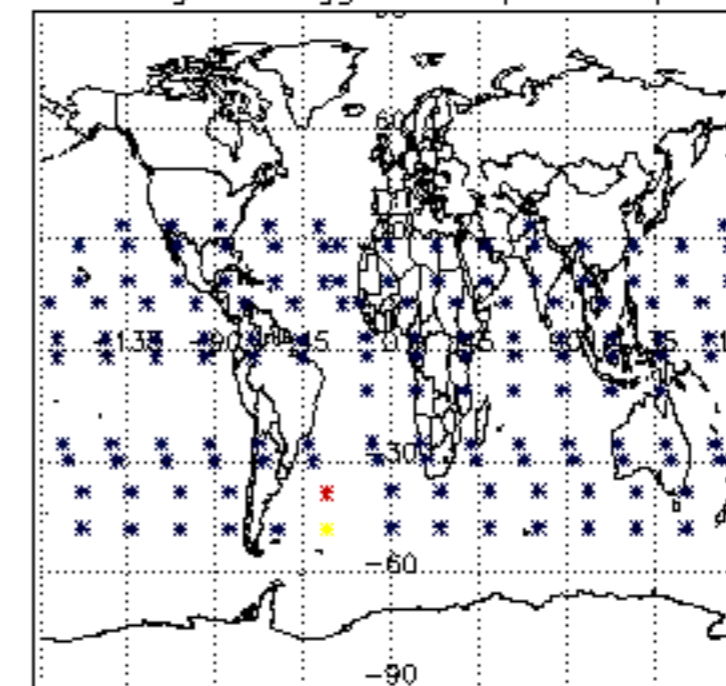
Percentage of flagged data per H2O profile

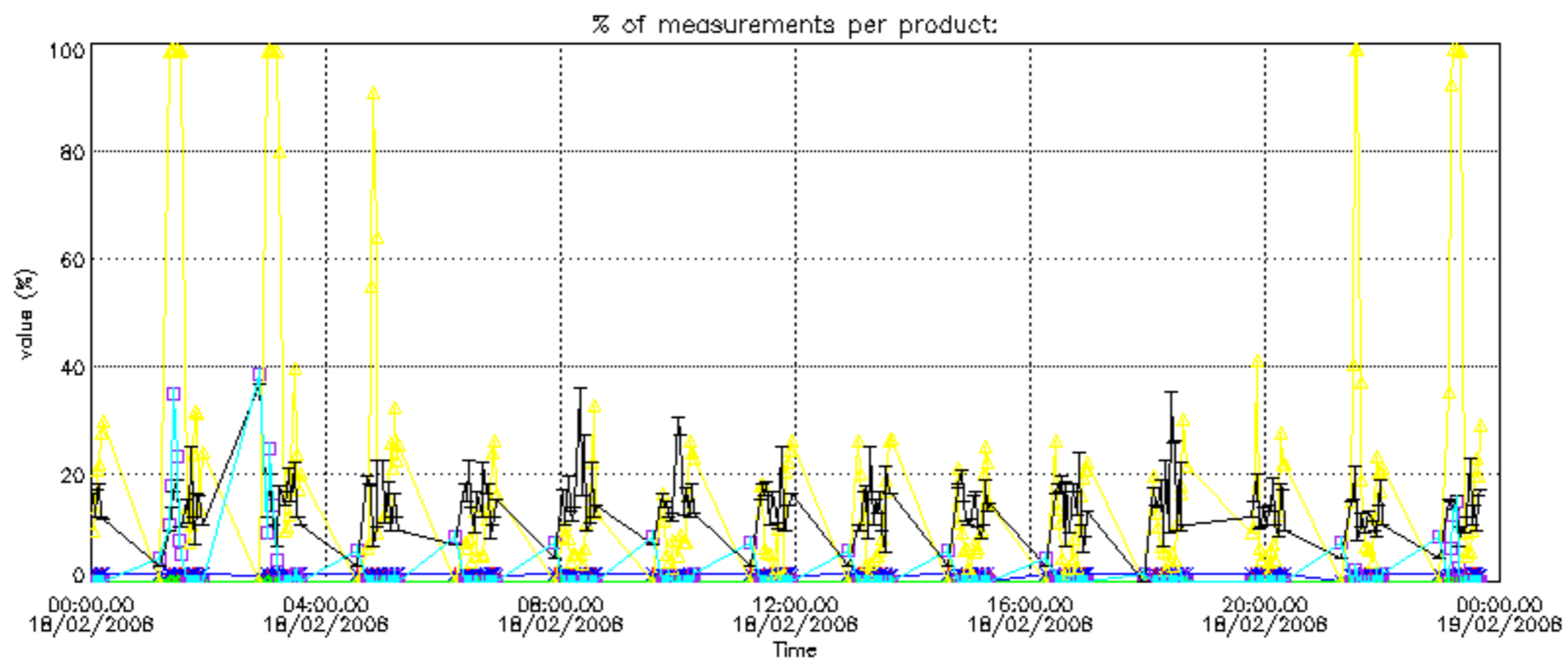
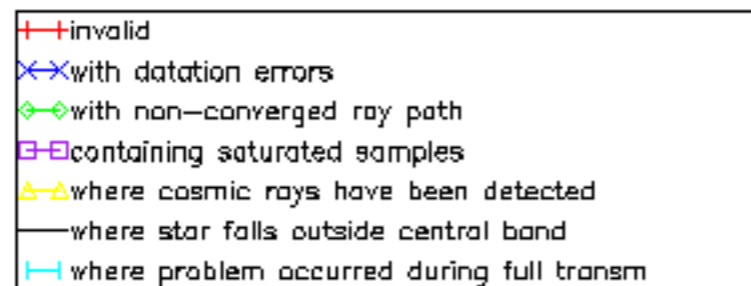


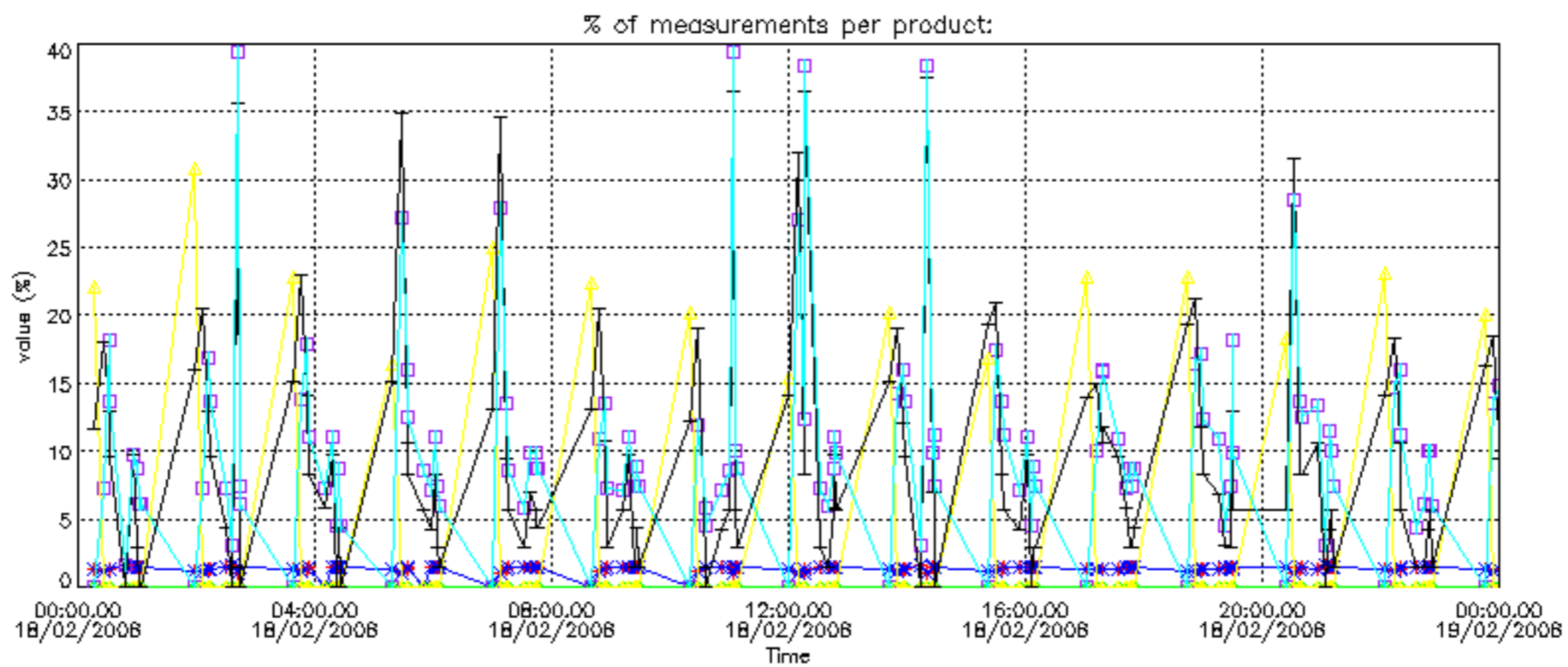
Percentage of flagged data per NO2 profile



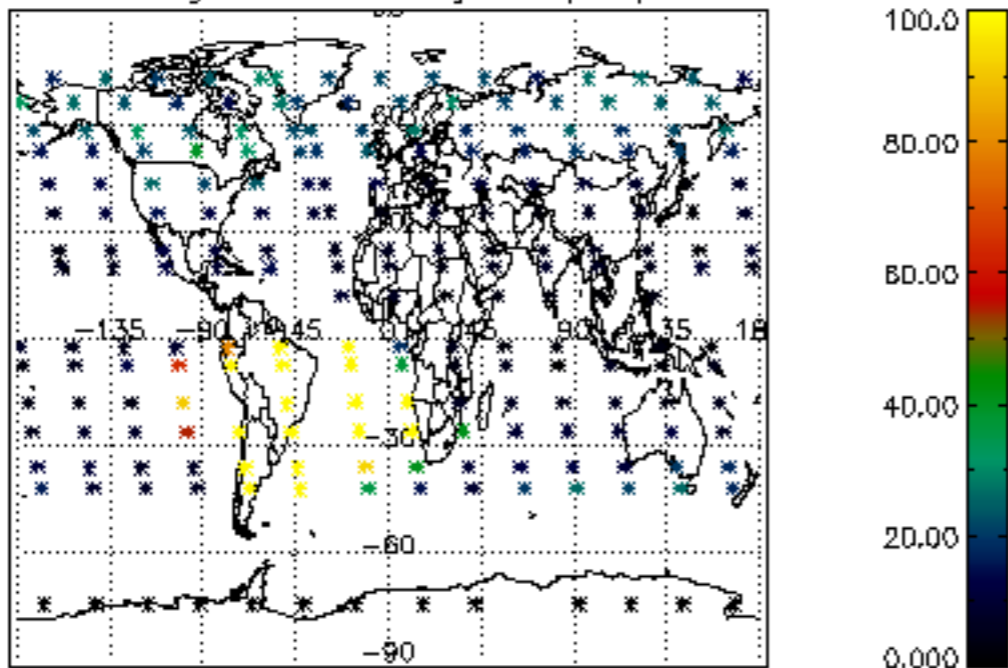
Percentage of flagged data per NO3 profile



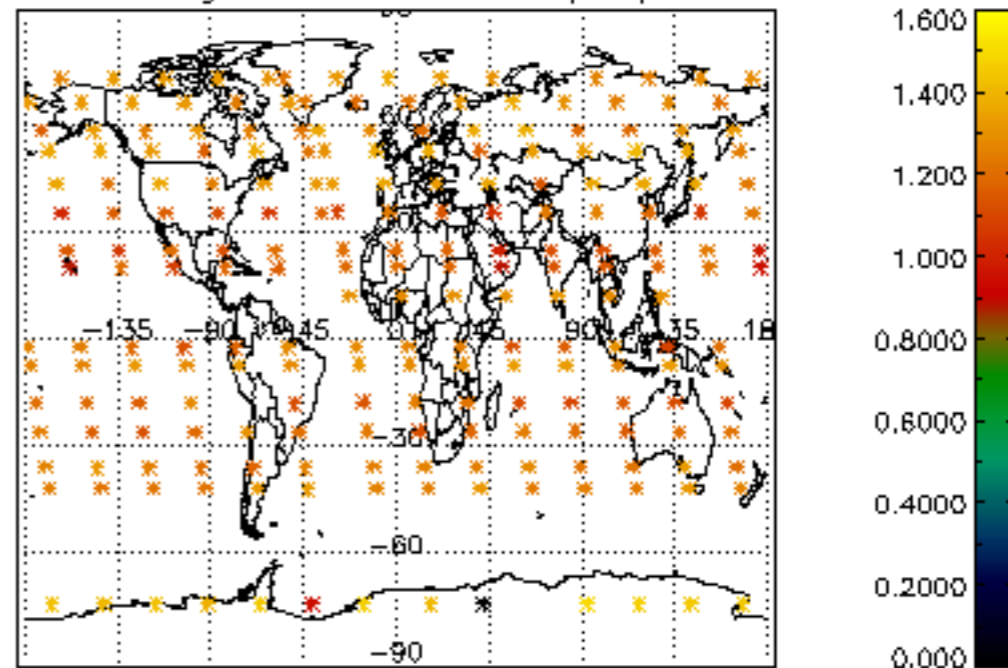




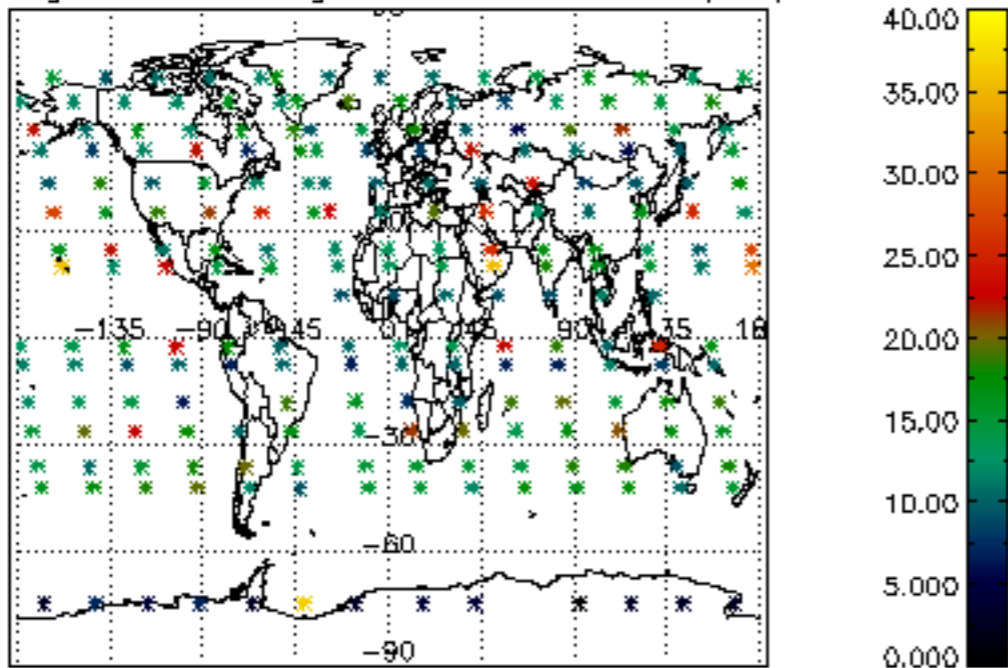
Percentage of cosmic ray hits per profile



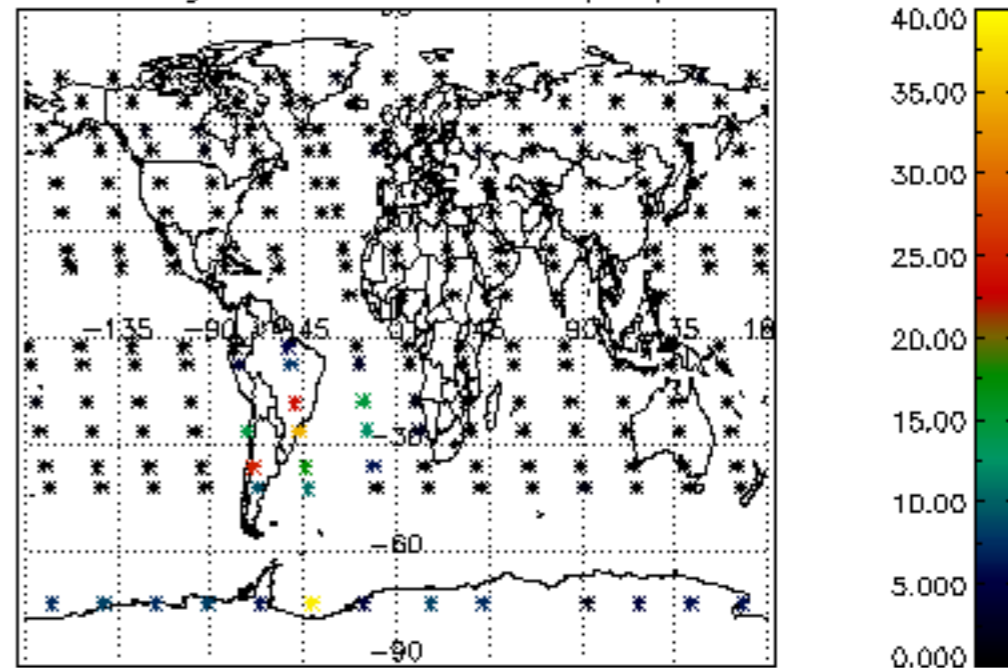
Percentage of datation errors per profile



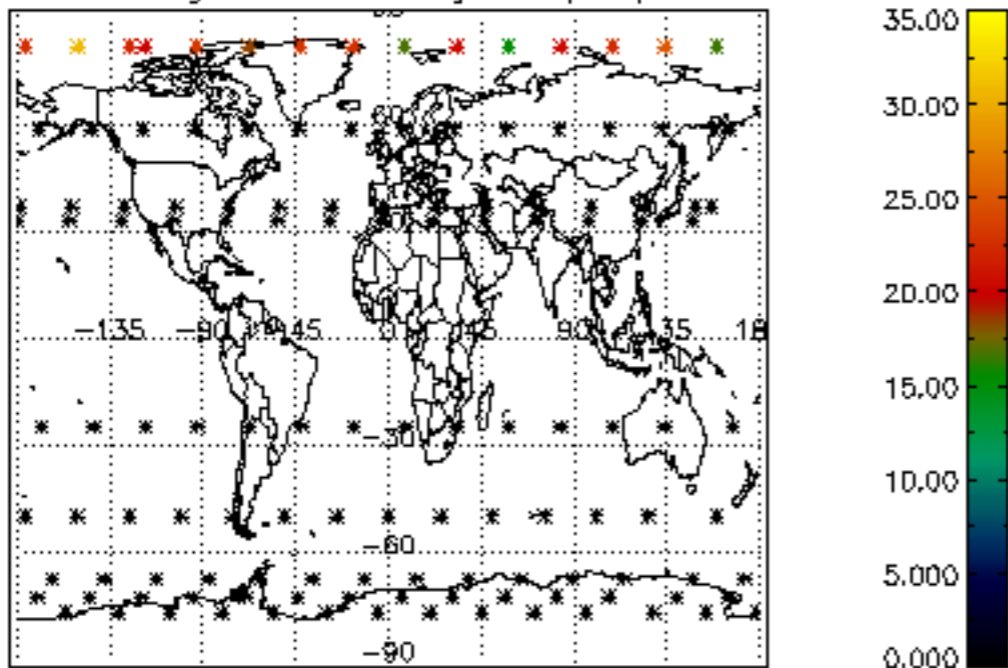
Percentage of star falling outside central band per profile



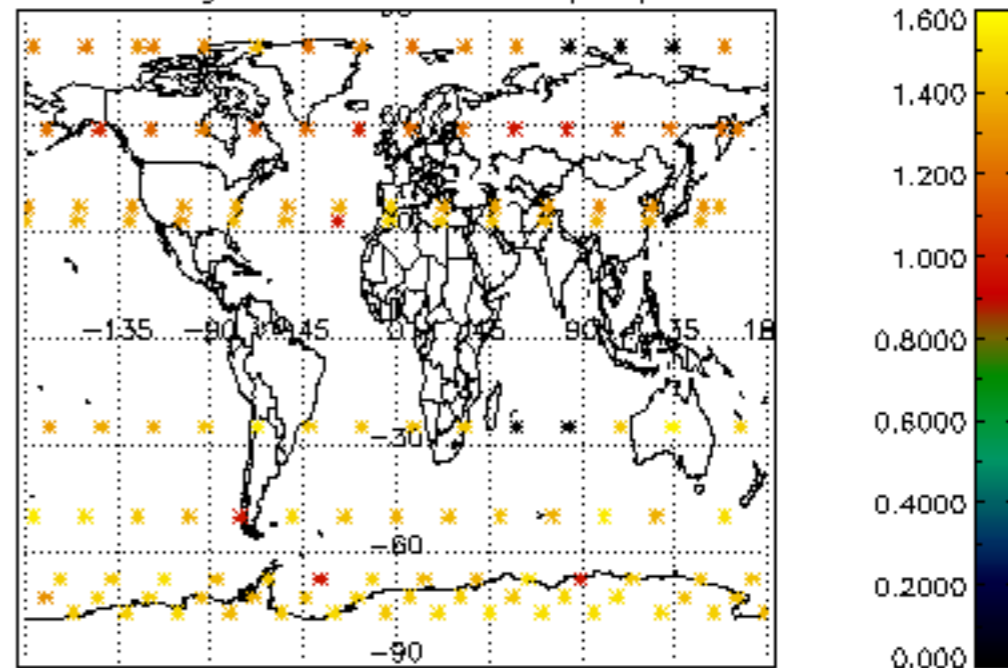
Percentage of saturation errors per profile



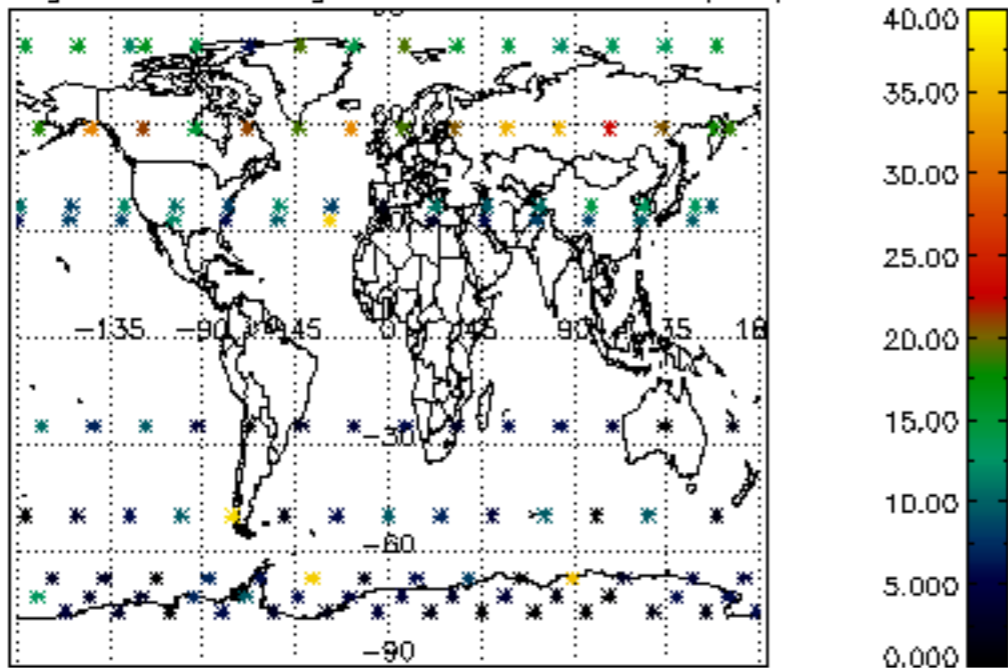
Percentage of cosmic ray hits per profile



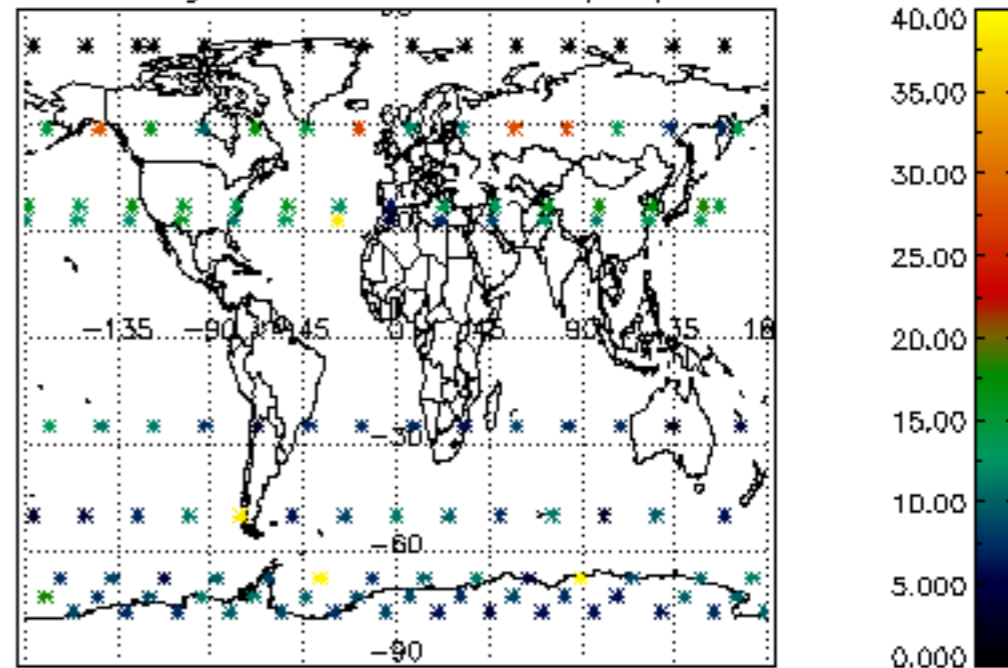
Percentage of datation errors per profile

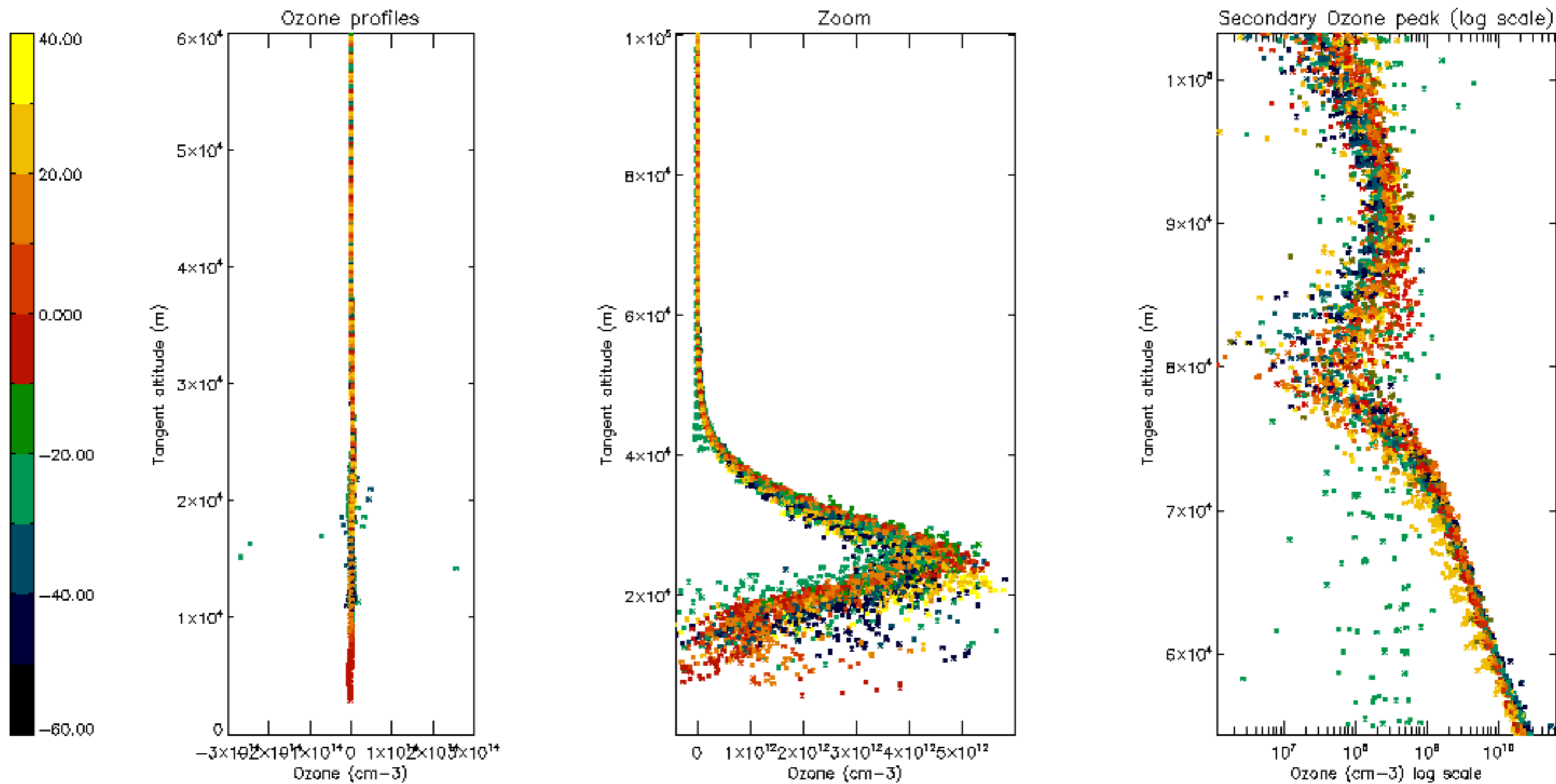


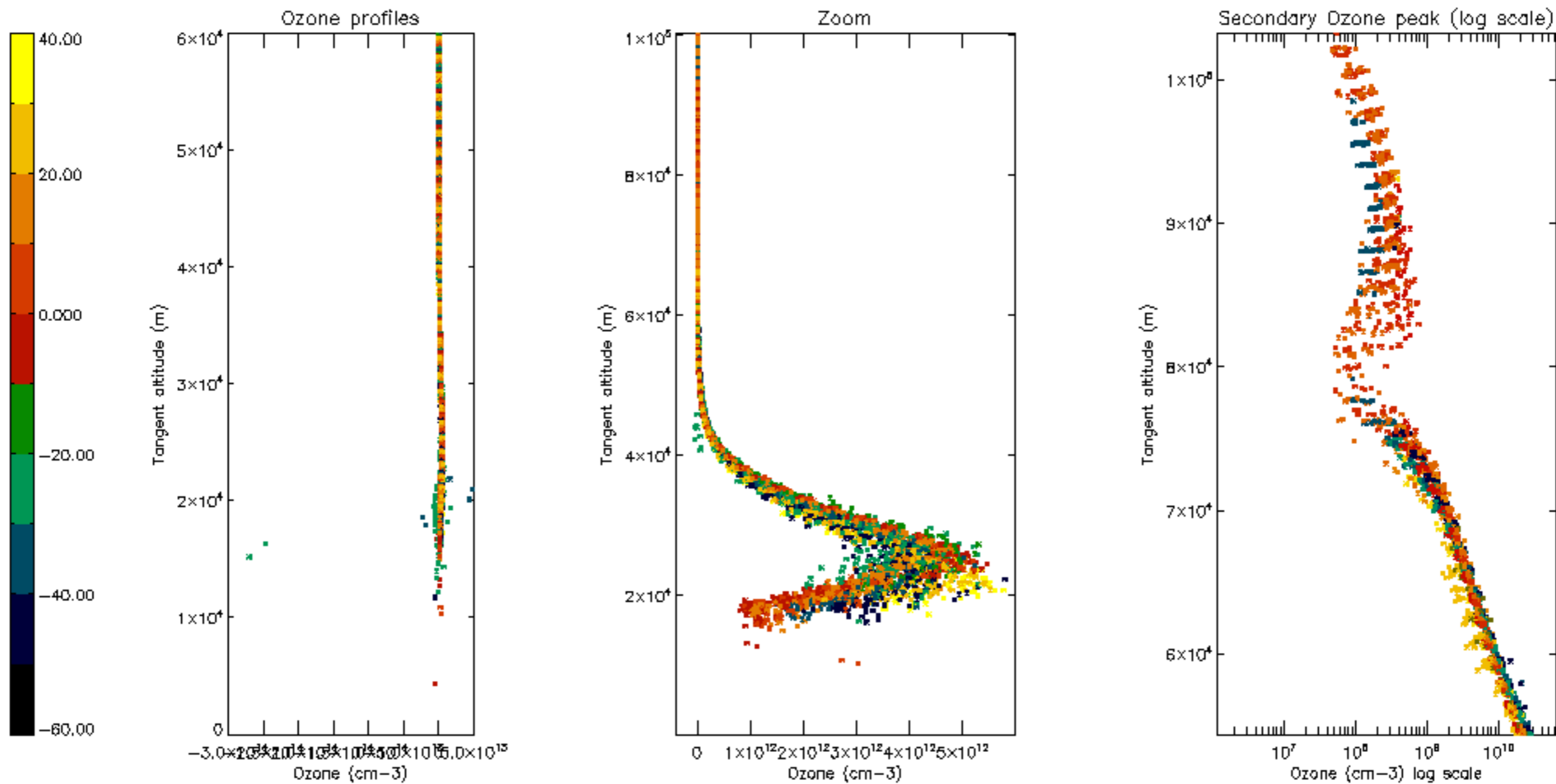
Percentage of star falling outside central band per profile

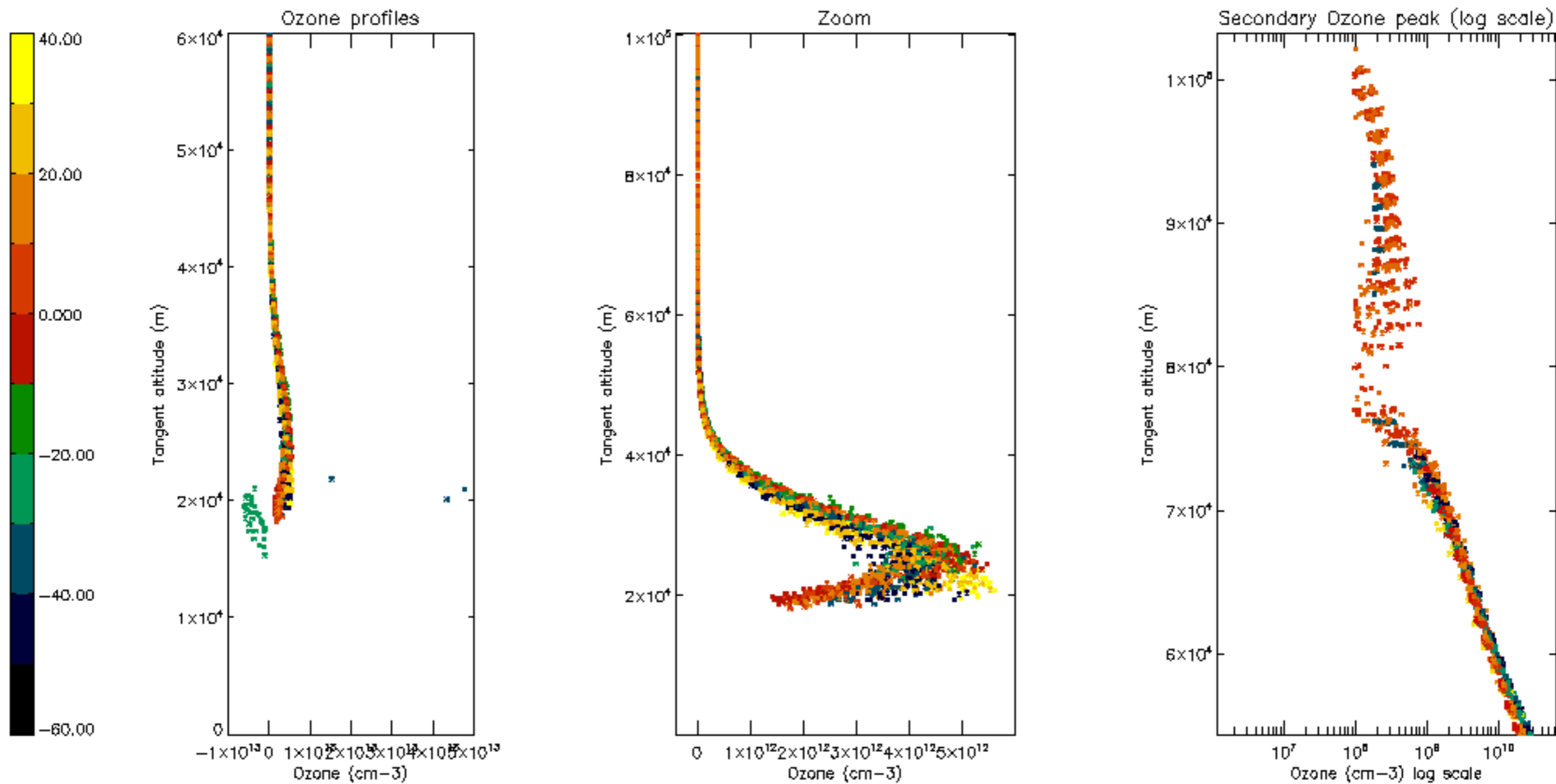


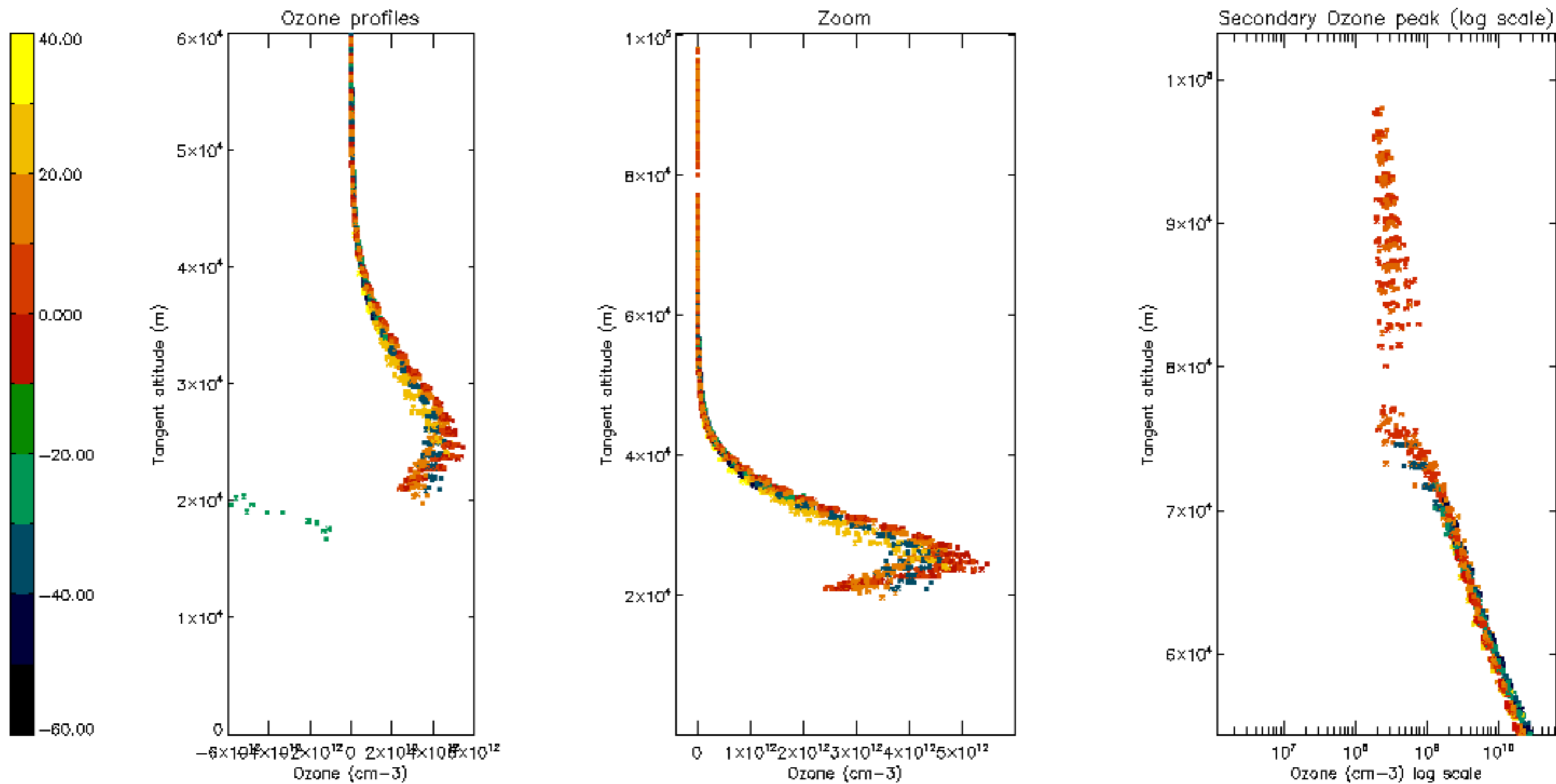
Percentage of saturation errors per profile

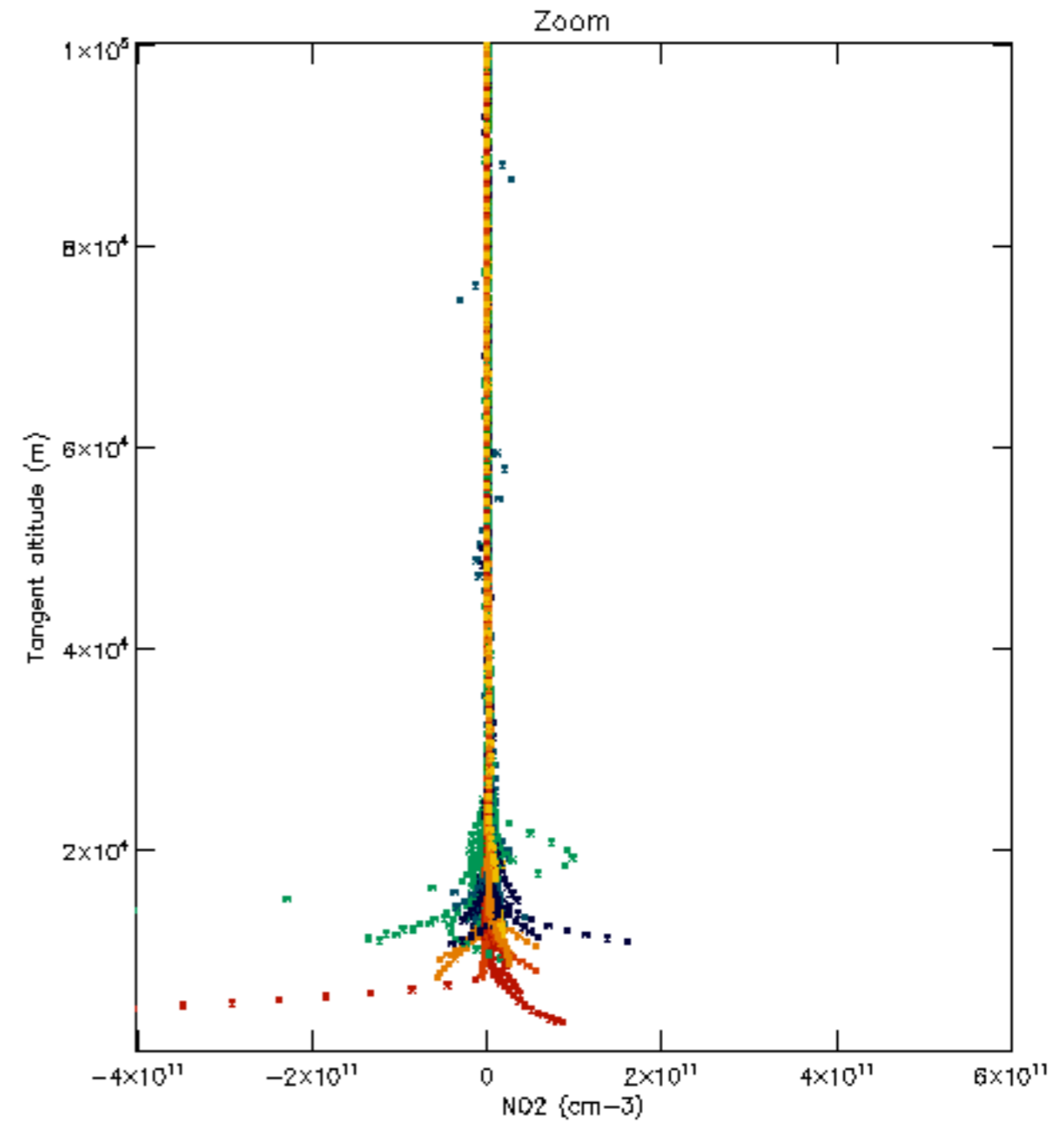
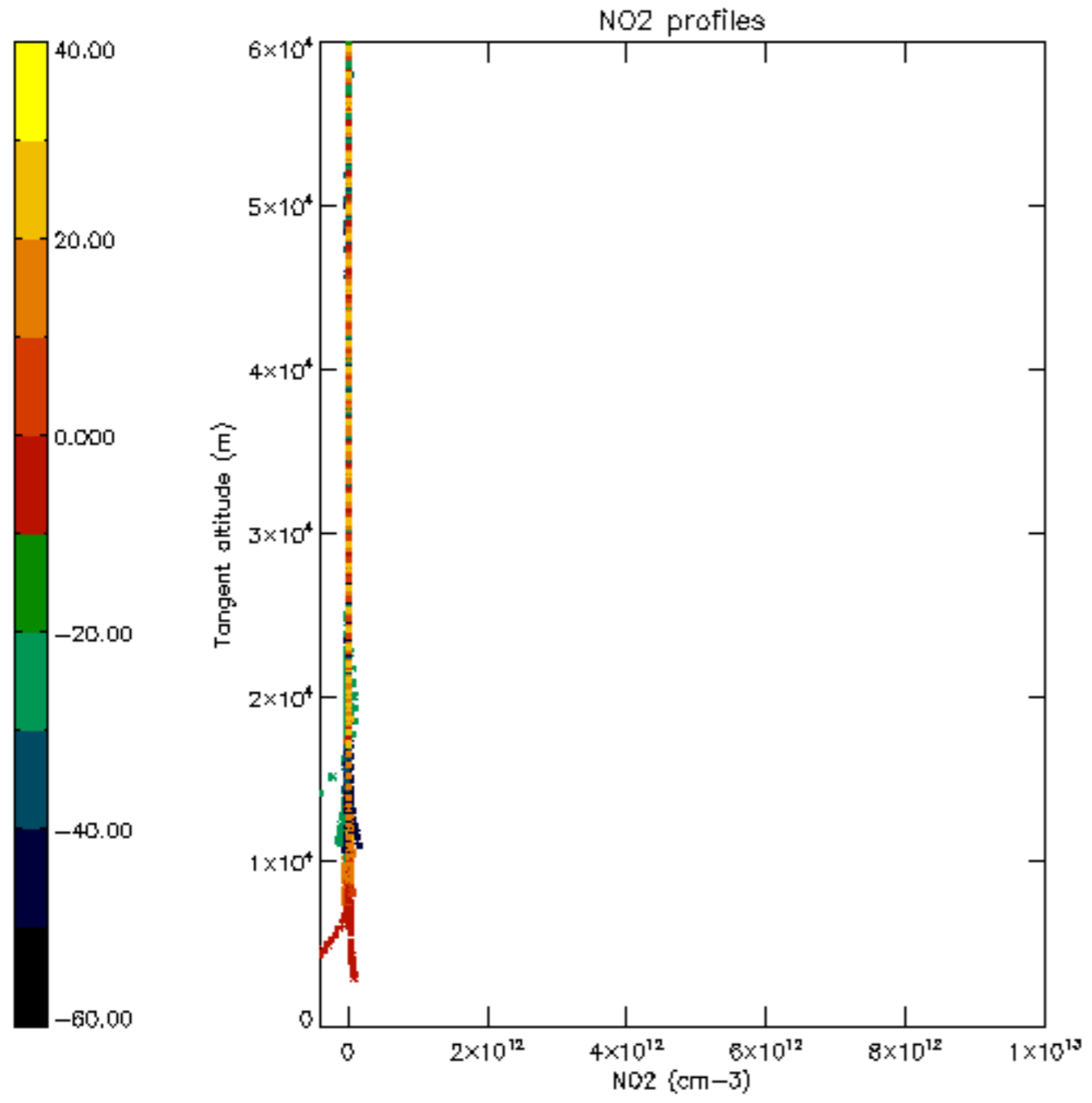


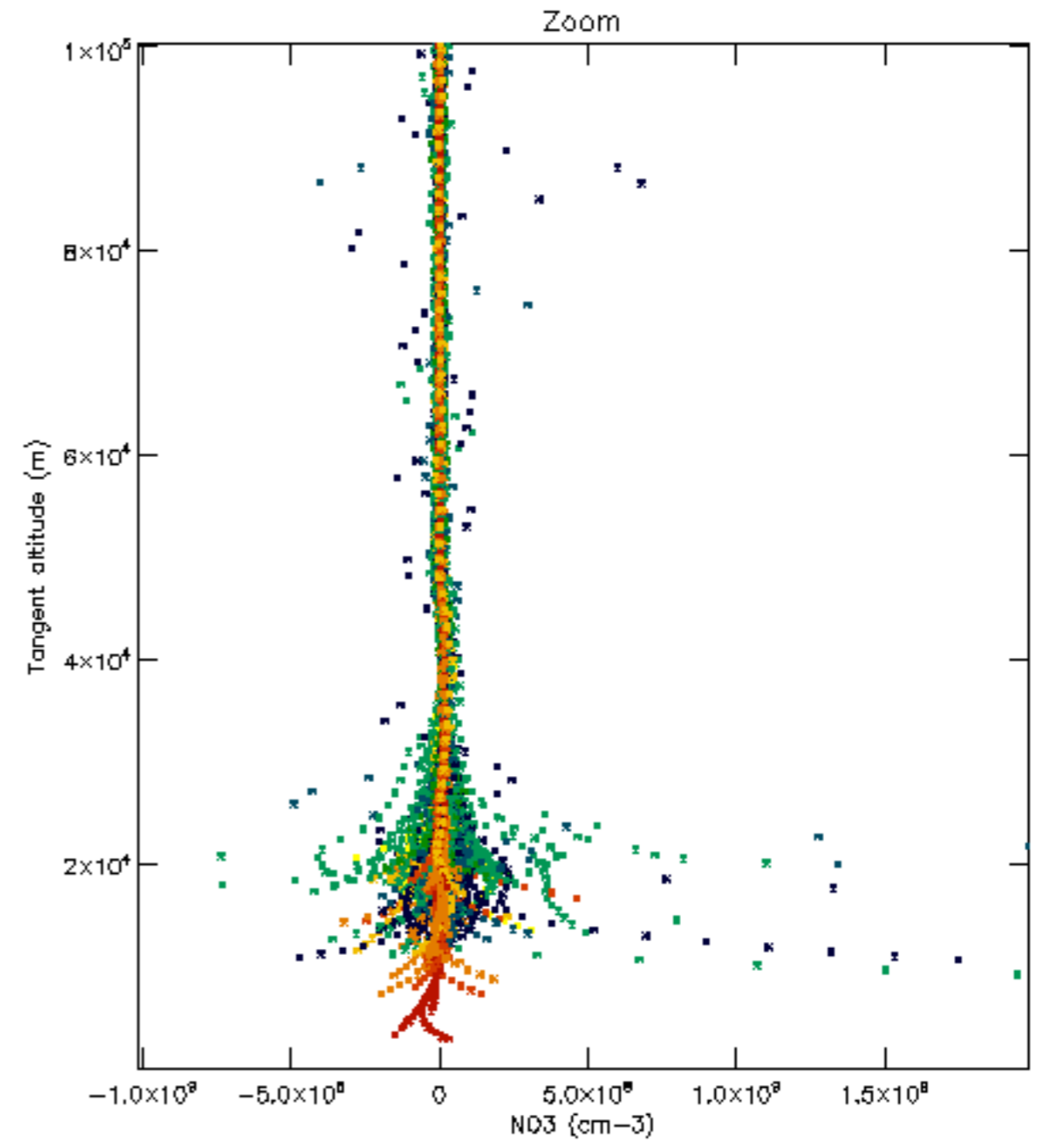
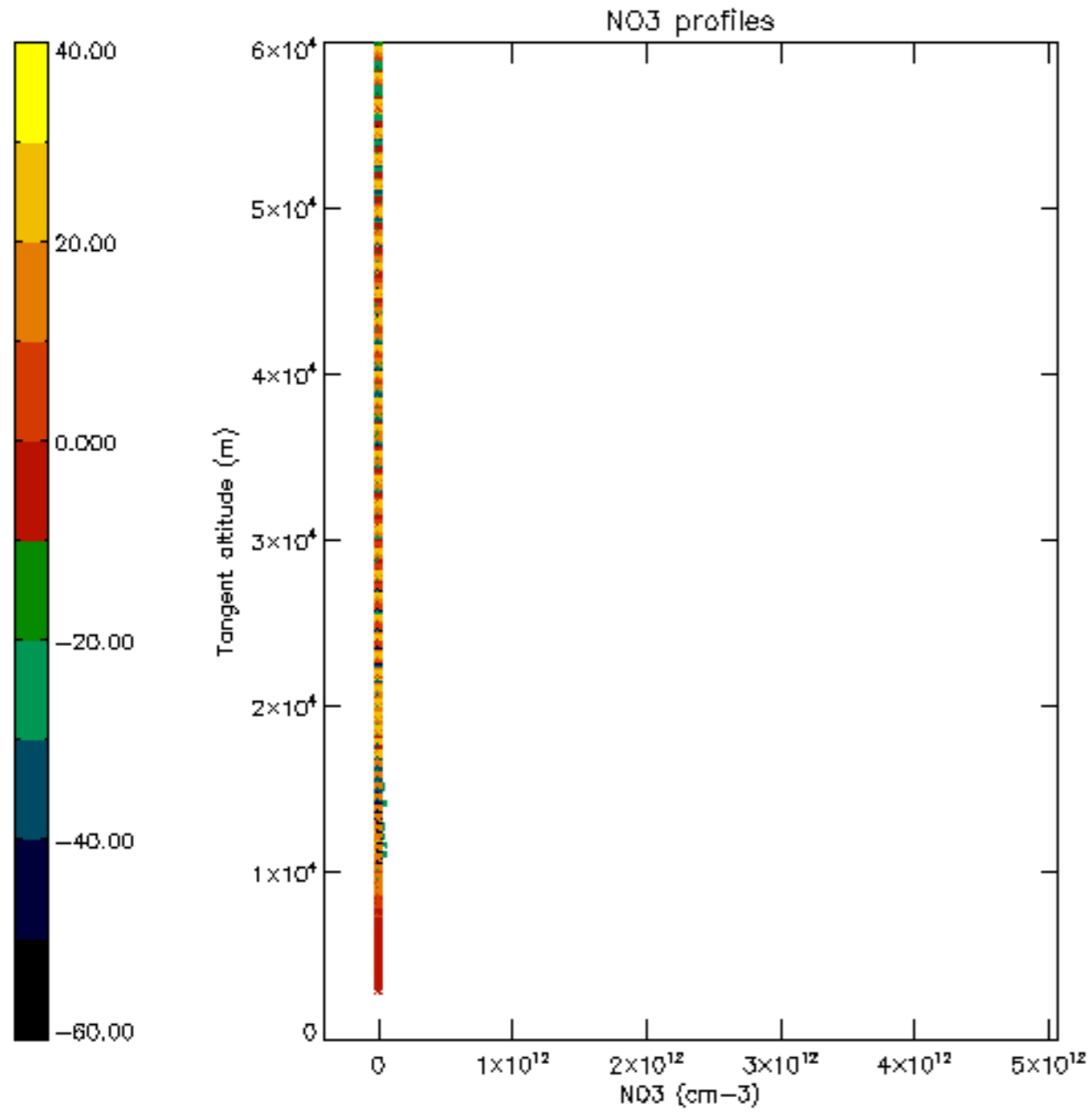


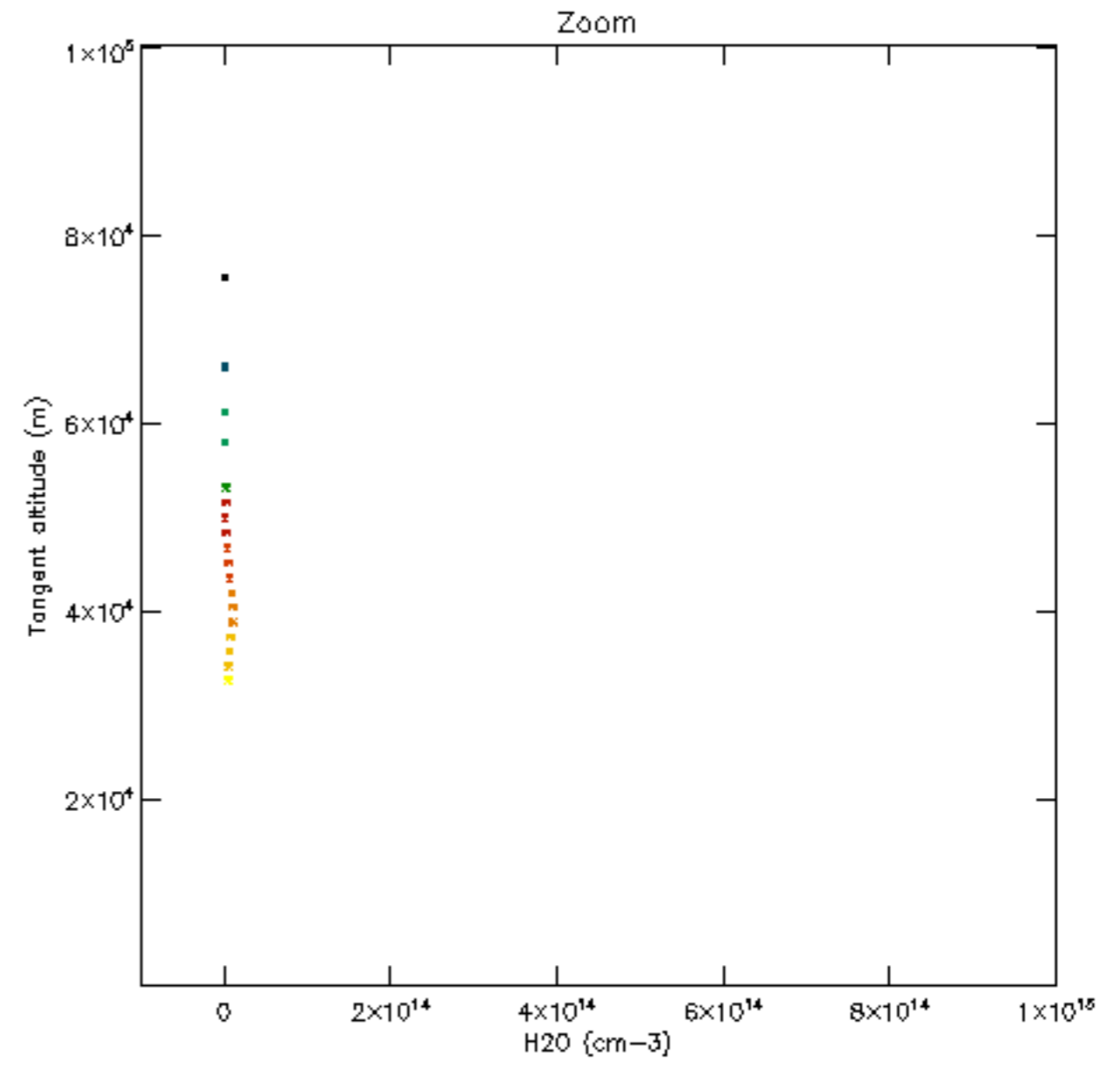
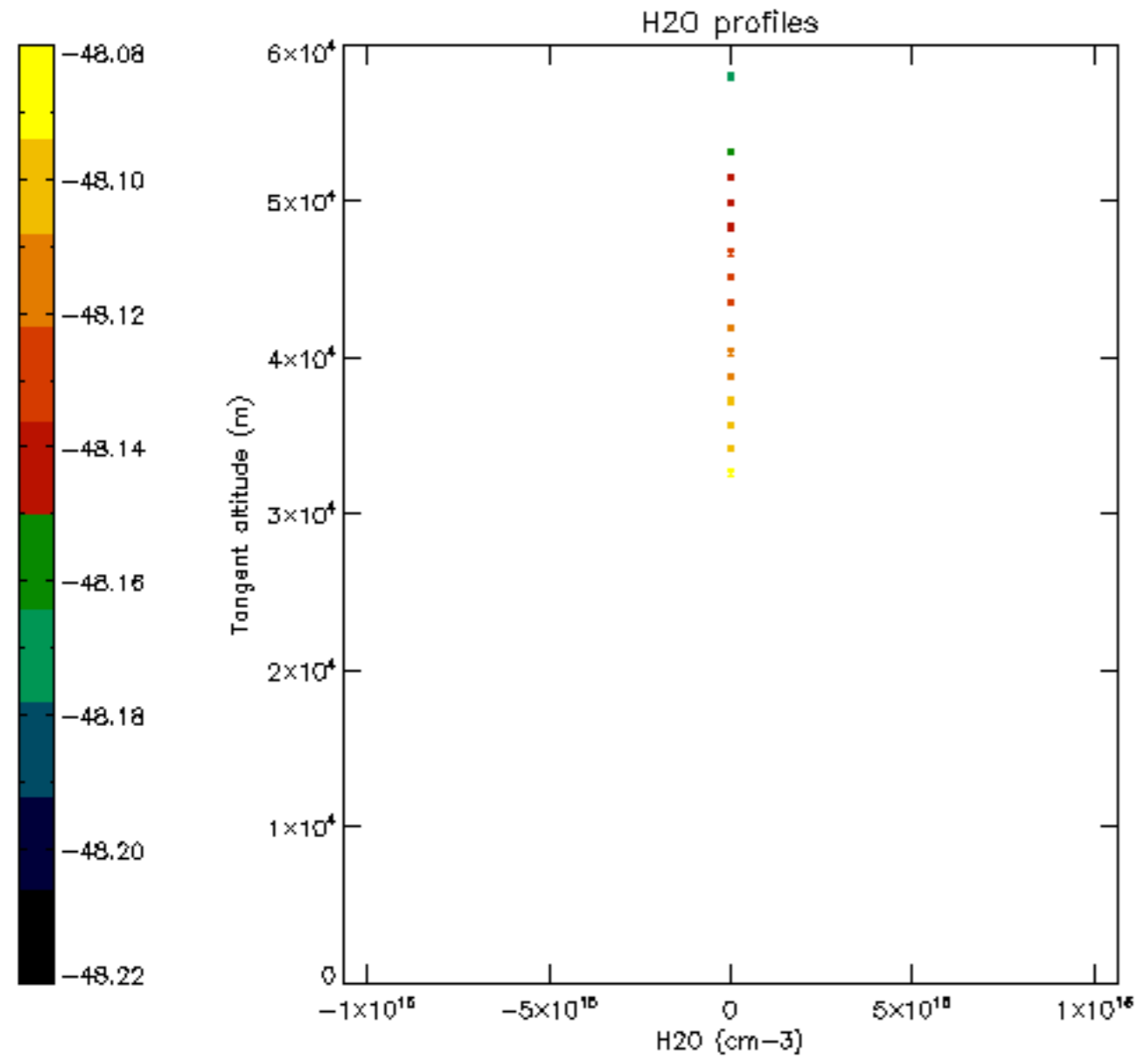


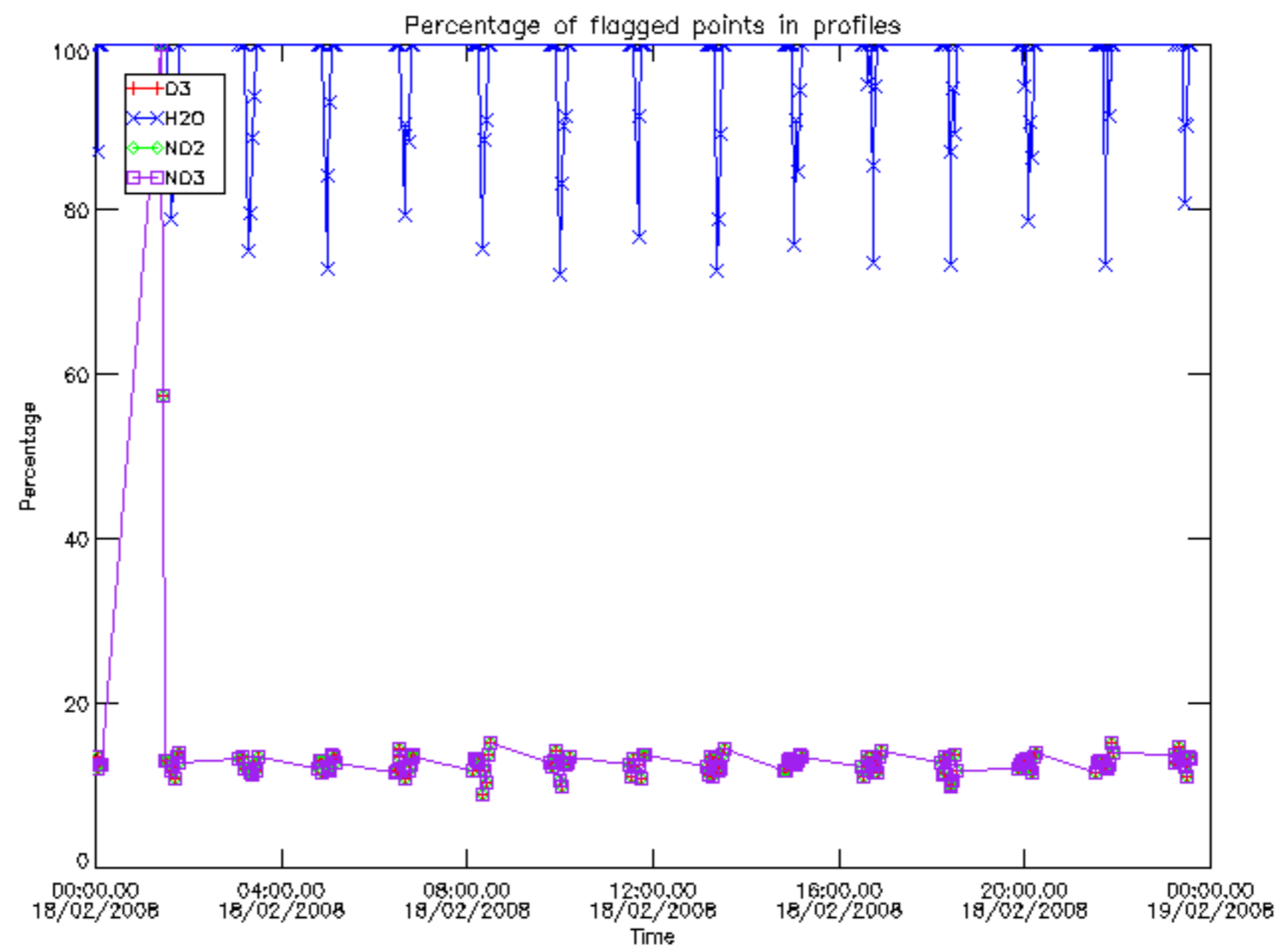




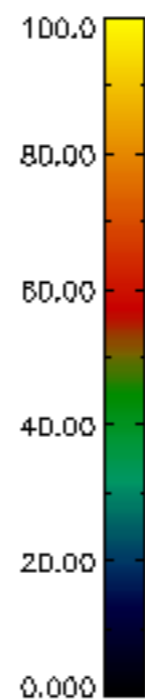
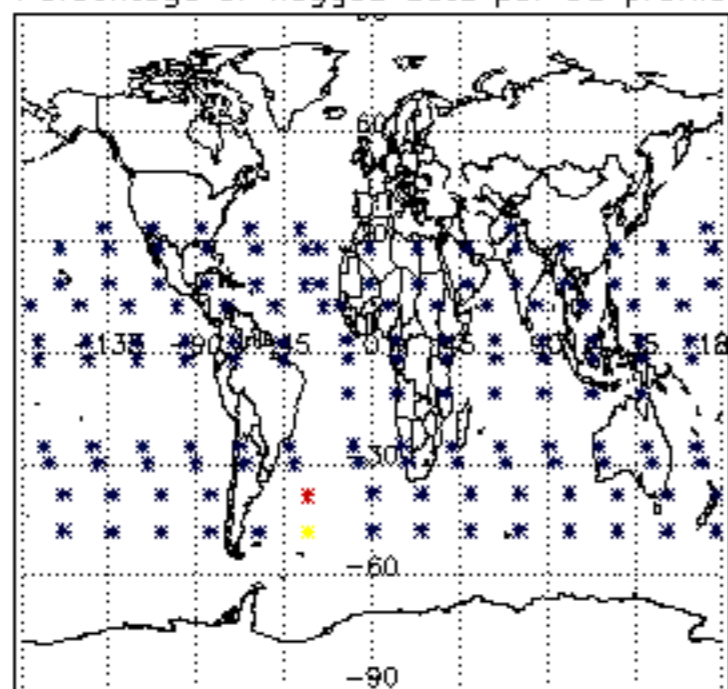




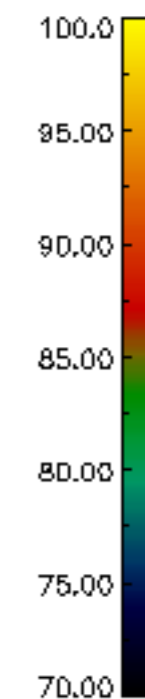
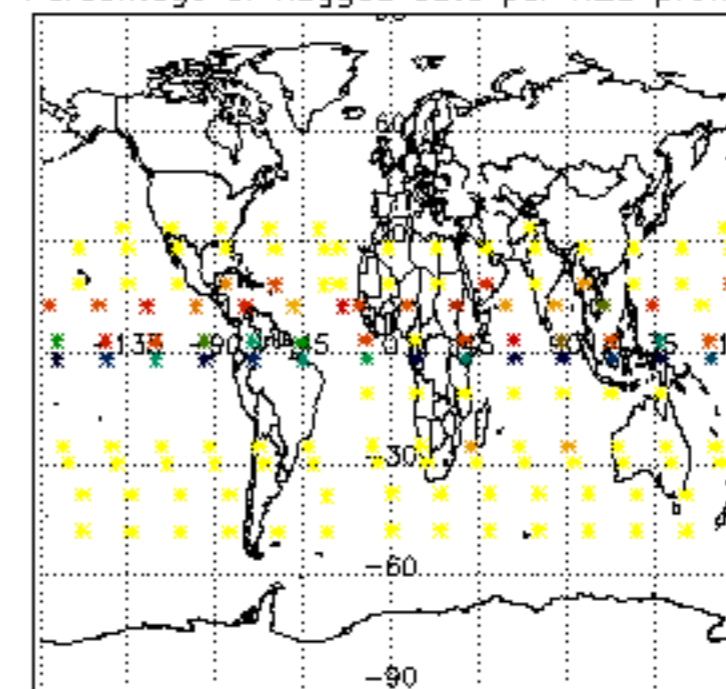




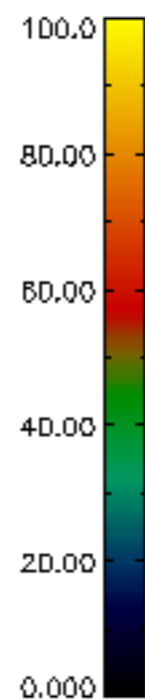
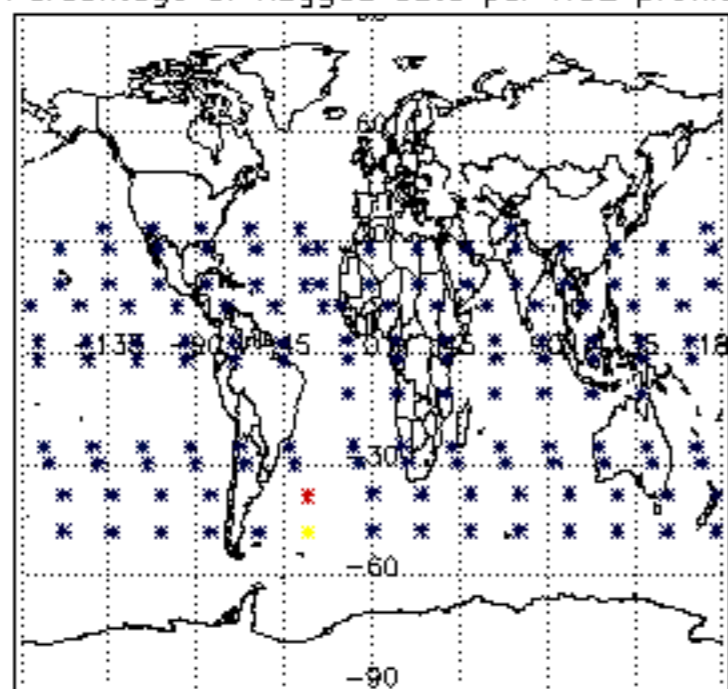
Percentage of flagged data per D3 profile



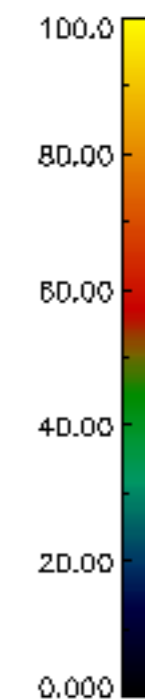
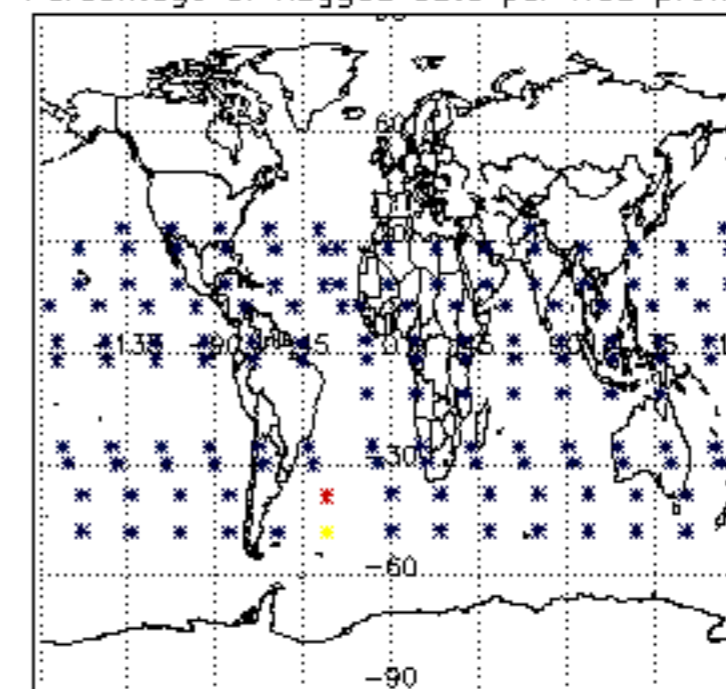
Percentage of flagged data per H2O profile

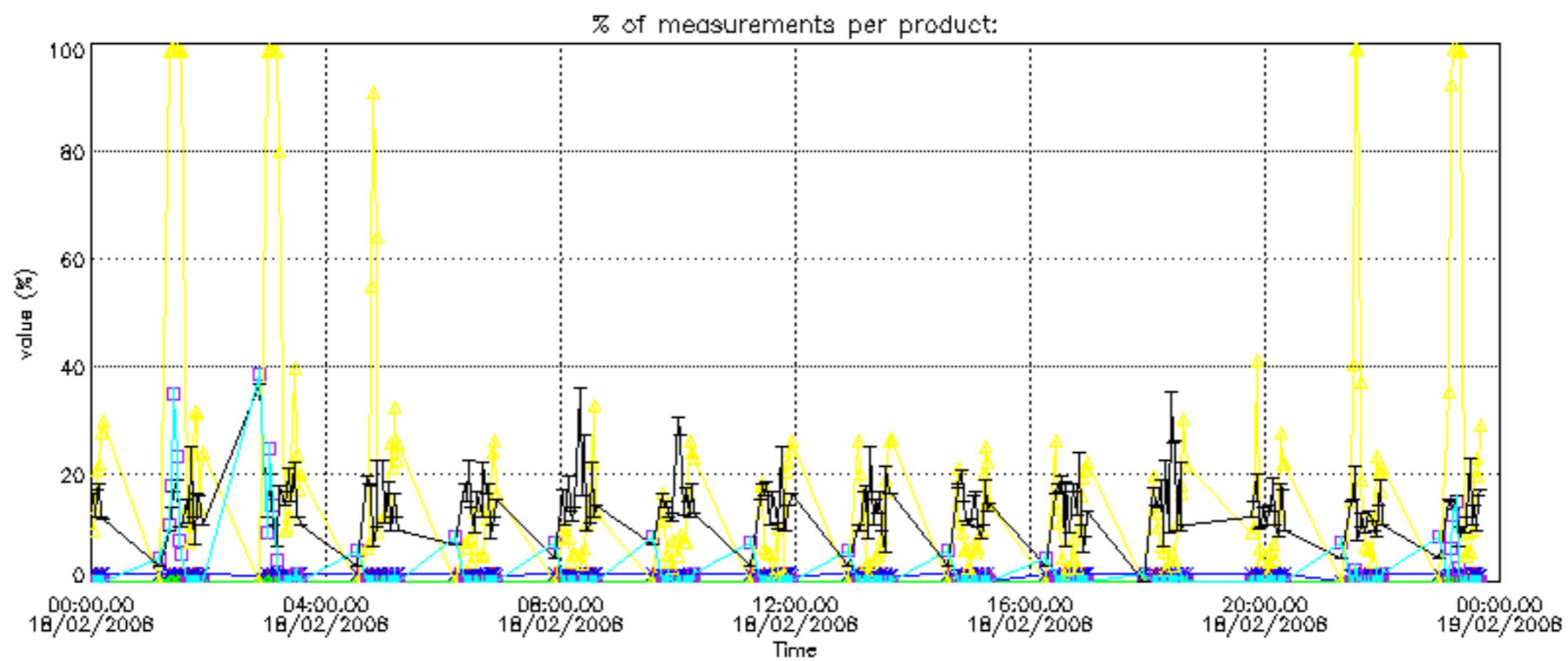
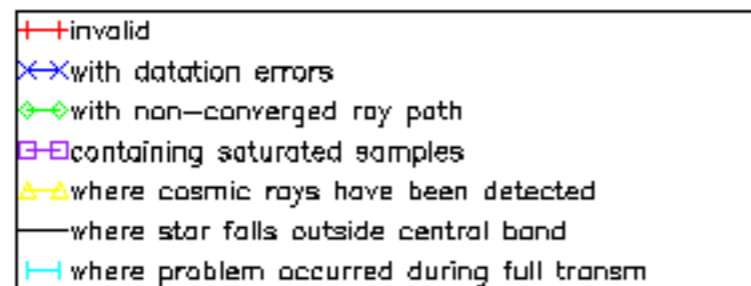


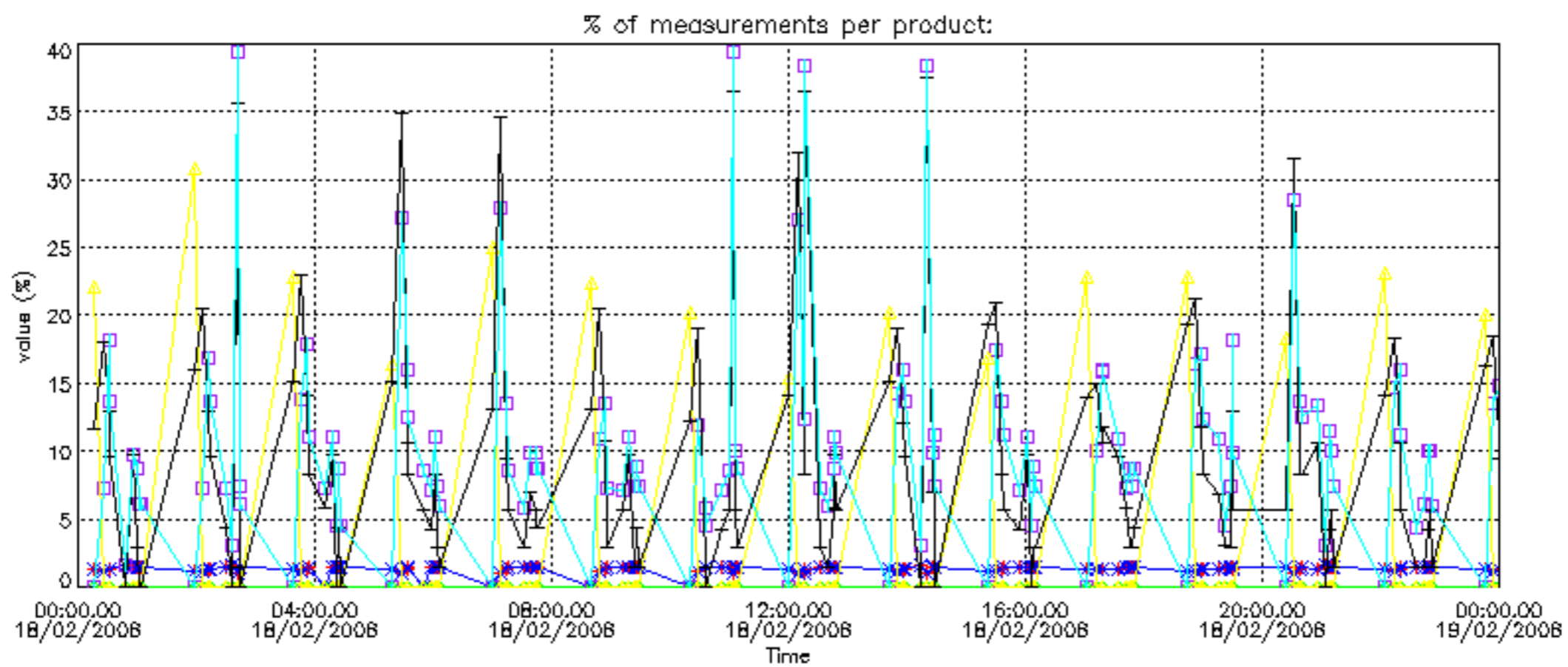
Percentage of flagged data per NO2 profile



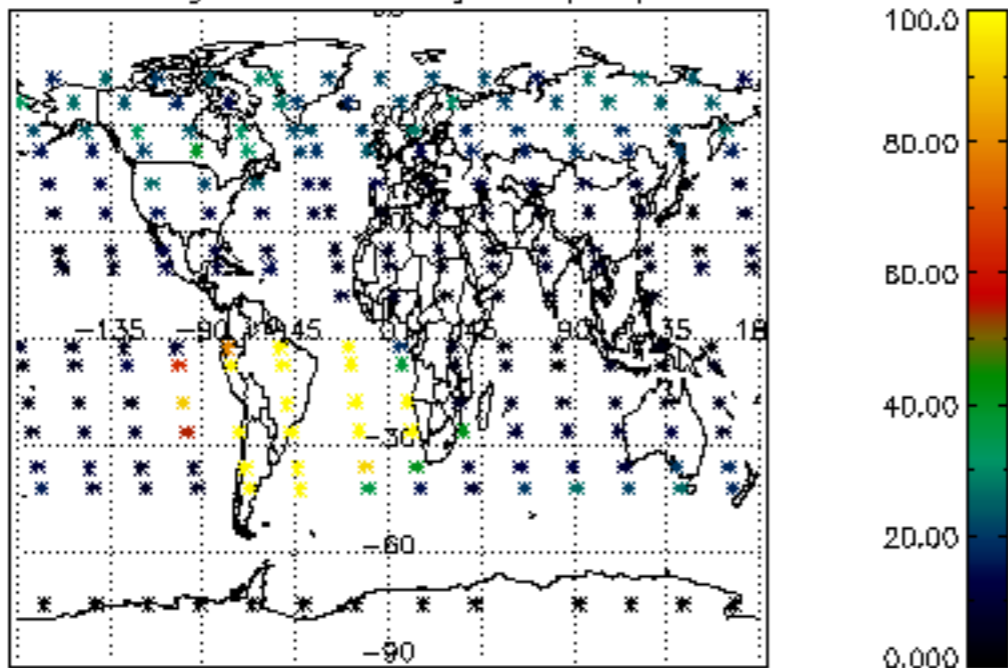
Percentage of flagged data per NO3 profile



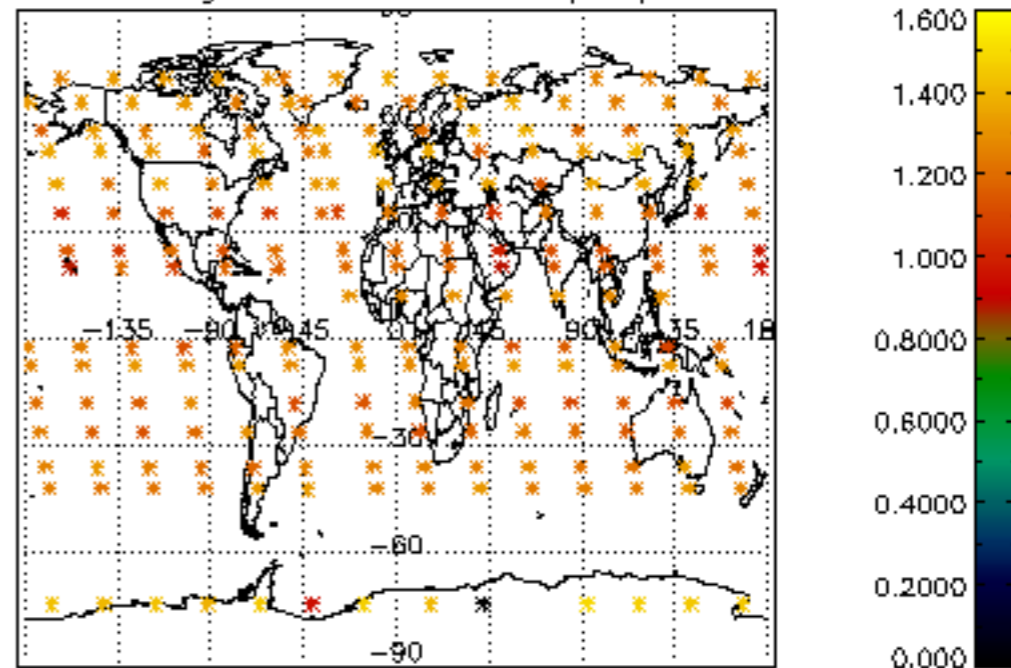




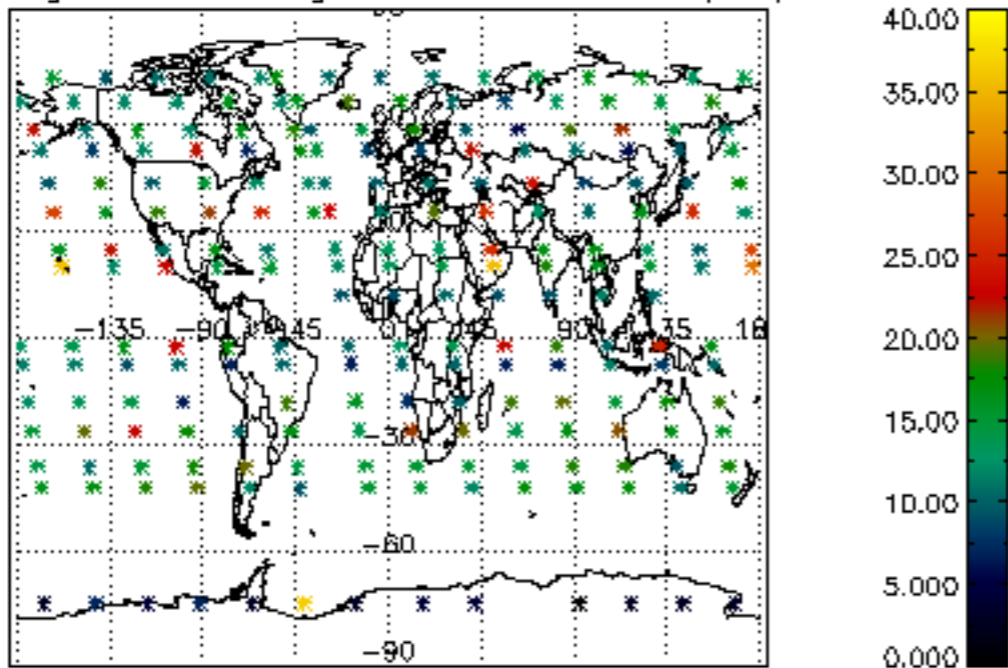
Percentage of cosmic ray hits per profile



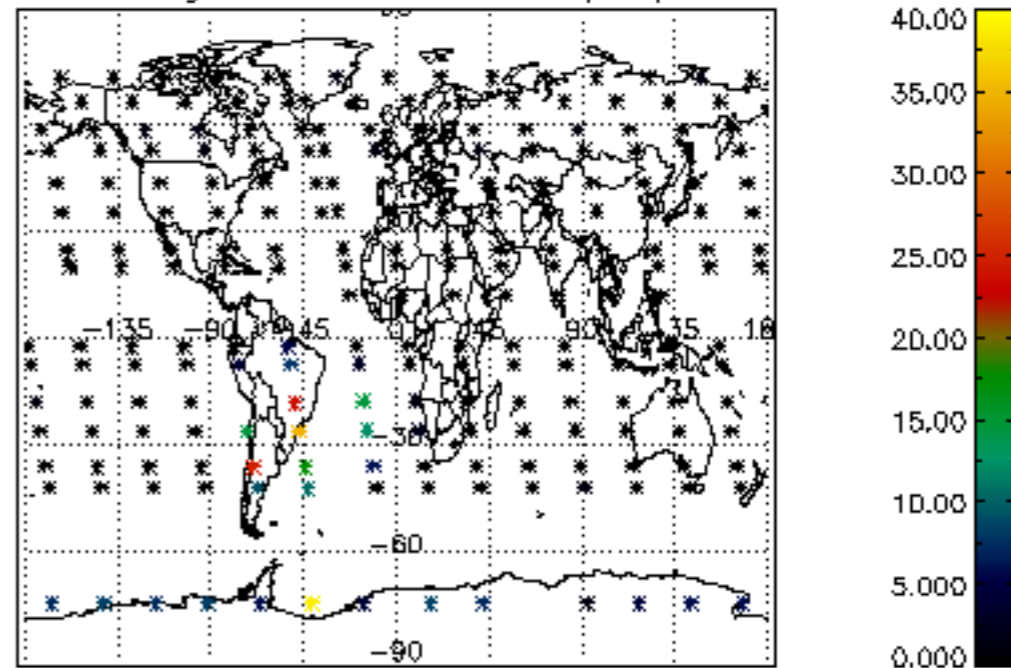
Percentage of datation errors per profile



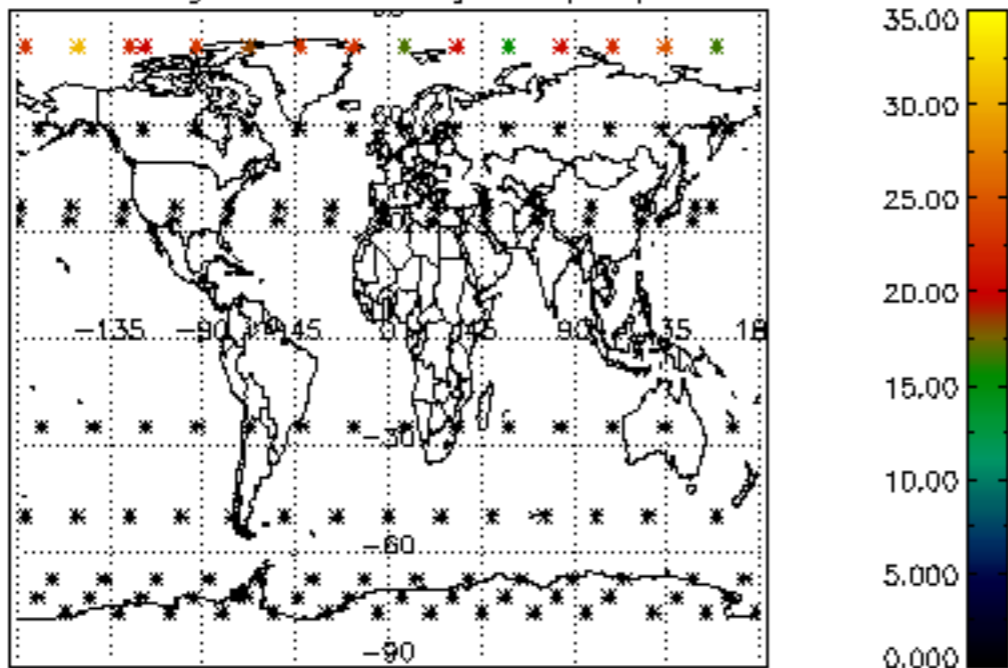
Percentage of star falling outside central band per profile



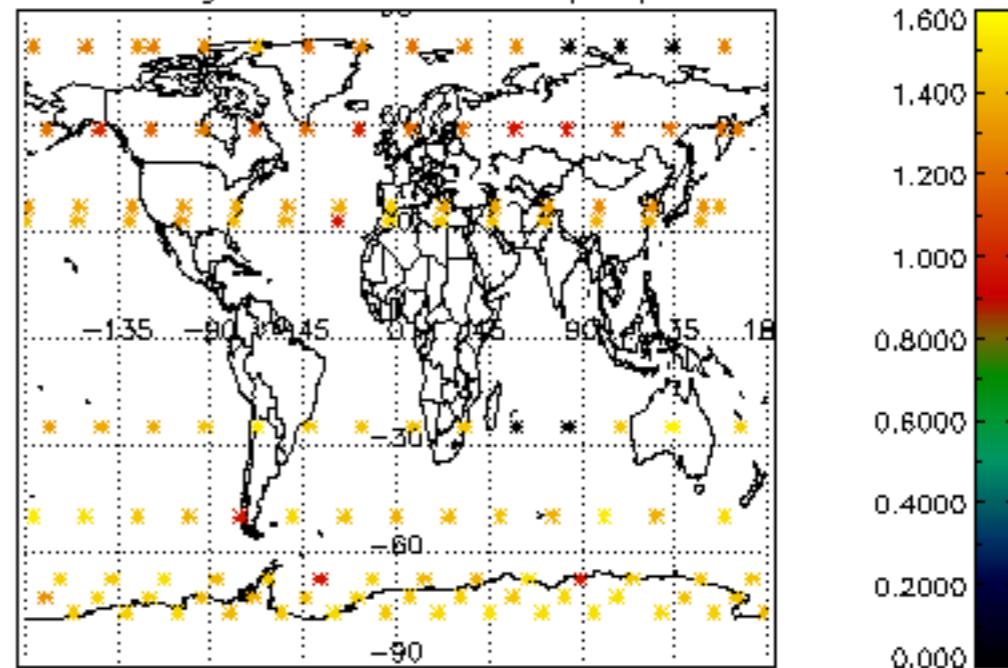
Percentage of saturation errors per profile



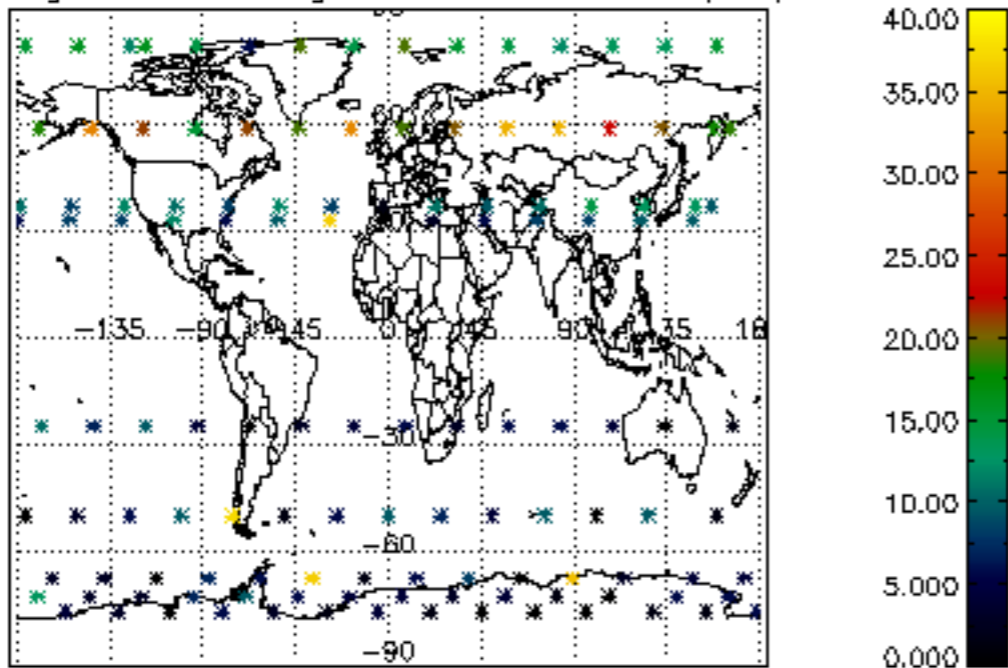
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

