

GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	26APR2013 13:26:52
Data source version	GOMOS/6.01
Start time of products	25-10-2009 (25OCT2009 00:00:00)
Stop time of products	26-10-2009 (26OCT2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	50
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

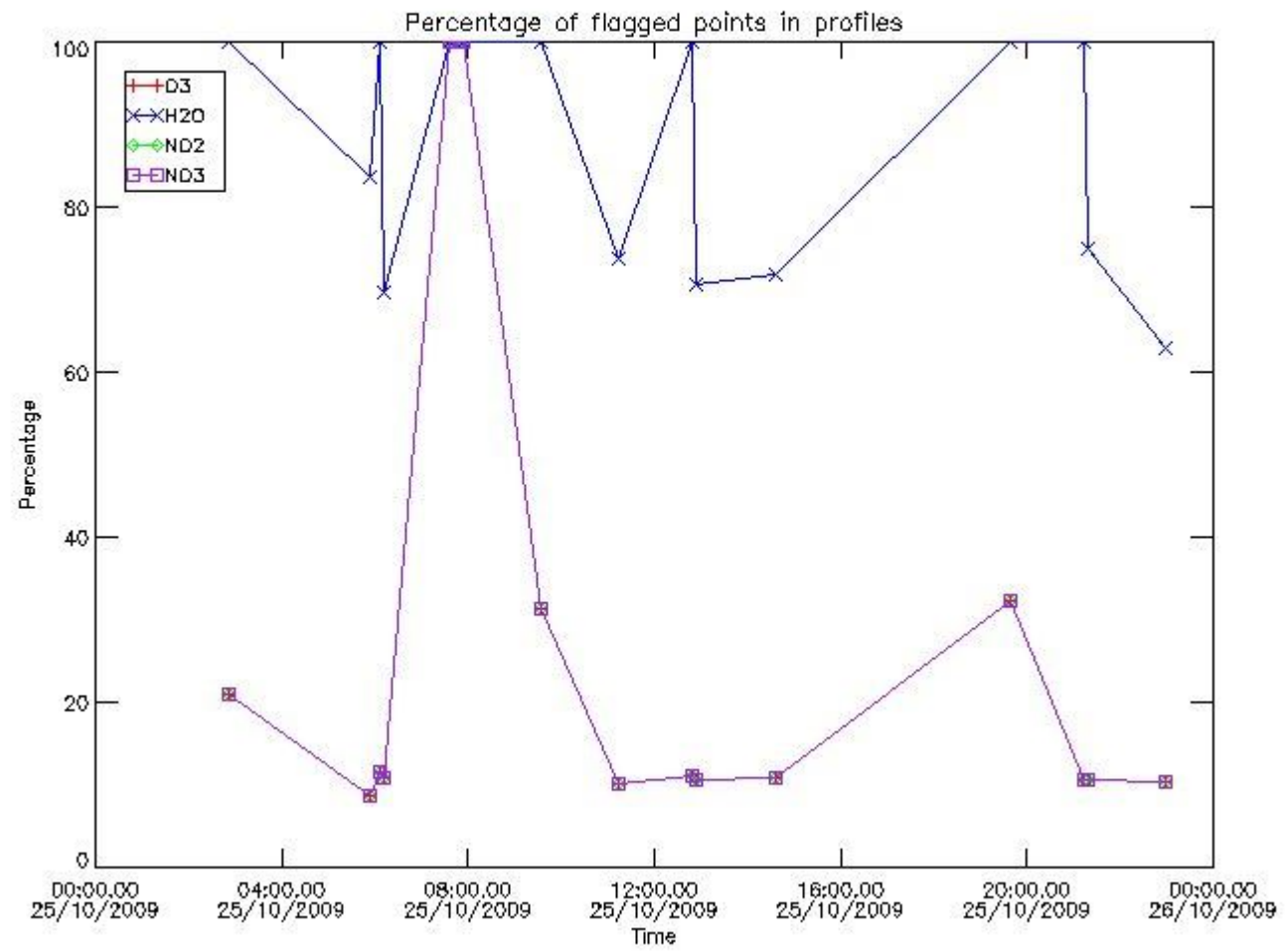
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091025_000102_000000052083_00374_40007_6093.N1	25-OCT-2009 00:01:02	Straylight	4.5000	105	6Bet Ari	2.6450	8900.0	9	40007	No
2	GOM_NL__2PRFIN20091025_000543_000000052083_00374_40007_6094.N1	25-OCT-2009 00:05:43	Straylight	4.5000	173	4Bet Tri	3.0040	8900.0	9	40007	No
3	GOM_NL__2PRFIN20091025_000742_000000042083_00374_40007_6095.N1	25-OCT-2009 00:07:42	Straylight	4.0000	73	57Gam1And	2.2600	13100.	8	40007	No
4	GOM_NL__2PRFIN20091025_025123_000000252083_00376_40009_6113.N1	25-OCT-2009 02:51:23	Dark	24.500	2	Alp Car	-0.73600	7000.0	49	40009	No
5	GOM_NL__2PRFIN20091025_032213_000000162083_00376_40009_6114.N1	25-OCT-2009 03:22:13	Twi_and_stray	15.500	105	6Bet Ari	2.6450	8900.0	31	40009	No
6	GOM_NL__2PRFIN20091025_032654_000000182083_00376_40009_6115.N1	25-OCT-2009 03:26:54	Twi_and_stray	18.000	173	4Bet Tri	3.0040	8900.0	36	40009	No
7	GOM_NL__2PRFIN20091025_032853_000000142083_00376_40009_6116.N1	25-OCT-2009 03:28:53	Twi_and_stray	14.000	73	57Gam1And	2.2600	13100.	28	40009	No
8	GOM_NL__2PRFIN20091025_055421_000000592083_00377_40010_6124.N1	25-OCT-2009 05:54:21	Dark	58.500	48	30Alp Hya	1.9770	4100.0	117	40010	No
9	GOM_NL__2PRFIN20091025_060700_000000442083_00378_40011_6138.N1	25-OCT-2009 06:07:00	Dark	44.000	34	Gam2Vel	1.7930	23000.	88	40011	No
10	GOM_NL__2PRFIN20091025_061238_000000472083_00378_40011_6139.N1	25-OCT-2009 06:12:38	Dark	46.500	2	Alp Car	-0.73600	7000.0	93	40011	No
11	GOM_NL__2PRFIN20091025_064325_000000432083_00378_40011_6140.N1	25-OCT-2009 06:43:25	Bright	43.000	105	6Bet Ari	2.6450	8900.0	86	40011	No
12	GOM_NL__2PRFIN20091025_064805_000000432083_00378_40011_6141.N1	25-OCT-2009 06:48:05	Bright	42.500	173	4Bet Tri	3.0040	8900.0	85	40011	No
13	GOM_NL__2PRFIN20091025_065004_000000432083_00378_40011_6142.N1	25-OCT-2009 06:50:04	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40011	No
14	GOM_NL__2PRFIN20091025_073458_000000072083_00378_40011_6143.N1	25-OCT-2009 07:34:58	Dark	7.0000	48	30Alp Hya	1.9770	4100.0	14	40011	No
15	GOM_NL__2PRFIN20091025_074737_000000062083_00379_40012_6149.N1	25-OCT-2009 07:47:37	Dark	6.0000	34	Gam2Vel	1.7930	23000.	12	40012	No
16	GOM_NL__2PRFIN20091025_075314_000000062083_00379_40012_6150.N1	25-OCT-2009 07:53:14	Dark	6.0000	2	Alp Car	-0.73600	7000.0	12	40012	No
17	GOM_NL__2PRFIN20091025_082400_000000432083_00379_40012_6151.N1	25-OCT-2009 08:24:00	Bright	42.500	105	6Bet Ari	2.6450	8900.0	85	40012	No
18	GOM_NL__2PRFIN20091025_082840_000000422083_00379_40012_6152.N1	25-OCT-2009 08:28:40	Bright	42.000	173	4Bet Tri	3.0040	8900.0	84	40012	No
19	GOM_NL__2PRFIN20091025_083039_000000122083_00379_40012_6153.N1	25-OCT-2009 08:30:39	Twi_and_stray	12.000	73	57Gam1And	2.2600	13100.	24	40012	No
20	GOM_NL__2PRFIN20091025_093350_000000162083_00380_40013_6166.N1	25-OCT-2009 09:33:50	Dark	16.000	2	Alp Car	-0.73600	7000.0	32	40013	No
21	GOM_NL__2PRFIN20091025_100436_000000272083_00380_40013_6167.N1	25-OCT-2009 10:04:36	Twi_and_stray	26.500	105	6Bet Ari	2.6450	8900.0	53	40013	No
22	GOM_NL__2PRFIN20091025_100915_000000412083_00380_40013_6168.N1	25-OCT-2009 10:09:15	Bright	40.500	173	4Bet Tri	3.0040	8900.0	81	40013	No
23	GOM_NL__2PRFIN20091025_101115_000000432083_00380_40013_6169.N1	25-OCT-2009 10:11:15	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40013	No
24	GOM_NL__2PRFIN20091025_111427_000000502083_00381_40014_6177.N1	25-OCT-2009 11:14:27	Dark	49.500	2	Alp Car	-0.73600	7000.0	99	40014	No
25	GOM_NL__2PRFIN20091025_114512_000000432083_00381_40014_6178.N1	25-OCT-2009 11:45:12	Bright	42.500	105	6Bet Ari	2.6450	8900.0	85	40014	No
26	GOM_NL__2PRFIN20091025_114951_000000392083_00381_40014_6179.N1	25-OCT-2009 11:49:51	Bright	39.000	173	4Bet Tri	3.0040	8900.0	78	40014	No
27	GOM_NL__2PRFIN20091025_115151_000000422083_00381_40014_6180.N1	25-OCT-2009 11:51:51	Bright	42.000	73	57Gam1And	2.2600	13100.	84	40014	No
28	GOM_NL__2PRFIN20091025_124927_000000462083_00382_40015_6188.N1	25-OCT-2009 12:49:27	Dark	45.500	34	Gam2Vel	1.7930	23000.	91	40015	No
29	GOM_NL__2PRFIN20091025_125504_000000482083_00382_40015_6189.N1	25-OCT-2009 12:55:04	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	40015	No
30	GOM_NL__2PRFIN20091025_132547_000000432083_00382_40015_6190.N1	25-OCT-2009 13:25:47	Bright	43.000	105	6Bet Ari	2.6450	8900.0	86	40015	No
31	GOM_NL__2PRFIN20091025_133026_000000422083_00382_40015_6191.N1	25-OCT-2009 13:30:26	Bright	42.000	173	4Bet Tri	3.0040	8900.0	84	40015	No
32	GOM_NL__2PRFIN20091025_133226_000000392083_00382_40015_6192.N1	25-OCT-2009 13:32:26	Bright	39.000	73	57Gam1And	2.2600	13100.	78	40015	No
33	GOM_NL__2PRFIN20091025_143541_000000462083_00383_40016_6199.N1	25-OCT-2009 14:35:41	Dark	46.000	2	Alp Car	-0.73600	7000.0	92	40016	No
34	GOM_NL__2PRFIN20091025_150623_000000432083_00383_40016_6200.N1	25-OCT-2009 15:06:23	Bright	42.500	105	6Bet Ari	2.6450	8900.0	85	40016	No
35	GOM_NL__2PRFIN20091025_151102_000000412083_00383_40016_6201.N1	25-OCT-2009 15:11:02	Bright	41.000	173	4Bet Tri	3.0040	8900.0	82	40016	No
36	GOM_NL__2PRFIN20091025_151302_000000432083_00383_40016_6202.N1	25-OCT-2009 15:13:02	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40016	No
37	GOM_NL__2PRFIN20091025_154937_000000452083_00383_40016_6203.N1	25-OCT-2009 15:49:37	Bright	45.000	22	32Alp Leo	1.3600	15200.	90	40016	No
38	GOM_NL__2PRFIN20091025_164659_000000422083_00384_40017_6230.N1	25-OCT-2009 16:46:59	Bright	41.500	105	6Bet Ari	2.6450	8900.0	83	40017	No
39	GOM_NL__2PRFIN20091025_165138_000000432083_00384_40017_6231.N1	25-OCT-2009 16:51:38	Bright	43.000	173	4Bet Tri	3.0040	8900.0	86	40017	No
40	GOM_NL__2PRFIN20091025_165337_000000432083_00384_40017_6232.N1	25-OCT-2009 16:53:37	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40017	No
41	GOM_NL__2PRFIN20091025_193731_000000162083_00386_40019_6251.N1	25-OCT-2009 19:37:31	Dark	15.500	2	Alp Car	-0.73600	7000.0	31	40019	No
42	GOM_NL__2PRFIN20091025_200810_000000422083_00386_40019_6252.N1	25-OCT-2009 20:08:10	Bright	42.000	105	6Bet Ari	2.6450	8900.0	84	40019	No

43	GOM_NL__2PRFIN20091025_201248_000000412083_00386_40019_6253.N1	25-OCT-2009 20:12:48	Bright	40.500	173	4Bet Tri	3.0040	8900.0	81	40019	No
44	GOM_NL__2PRFIN20091025_201448_000000412083_00386_40019_6254.N1	25-OCT-2009 20:14:48	Bright	41.000	73	57Gam1And	2.2600	13100.	82	40019	No
45	GOM_NL__2PRFIN20091025_211232_000000482083_00387_40020_6262.N1	25-OCT-2009 21:12:32	Dark	48.000	34	Gam2Vel	1.7930	23000.	96	40020	No
46	GOM_NL__2PRFIN20091025_211808_000000492083_00387_40020_6263.N1	25-OCT-2009 21:18:08	Dark	48.500	2	Alp Car	-0.73600	7000.0	97	40020	No
47	GOM_NL__2PRFIN20091025_215524_000000152083_00387_40020_6264.N1	25-OCT-2009 21:55:24	Twilight	15.000	73	57Gam1And	2.2600	13100.	30	40020	No
48	GOM_NL__2PRFIN20091025_225845_000000492083_00388_40021_6273.N1	25-OCT-2009 22:58:45	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	40021	No
49	GOM_NL__2PRFIN20091025_233400_000000422083_00388_40021_6274.N1	25-OCT-2009 23:34:00	Bright	41.500	173	4Bet Tri	3.0040	8900.0	83	40021	No
50	GOM_NL__2PRFIN20091025_233559_000000412083_00388_40021_6275.N1	25-OCT-2009 23:35:59	Bright	41.000	73	57Gam1And	2.2600	13100.	82	40021	No

3. Quality information per product

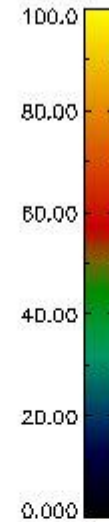
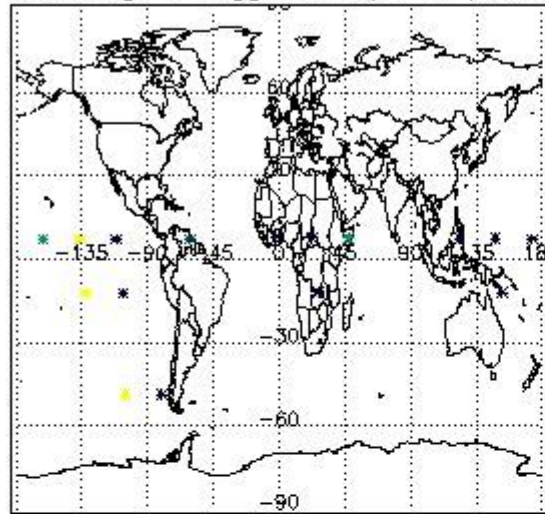
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

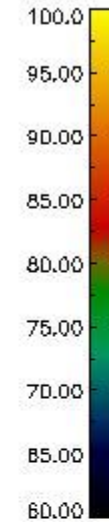
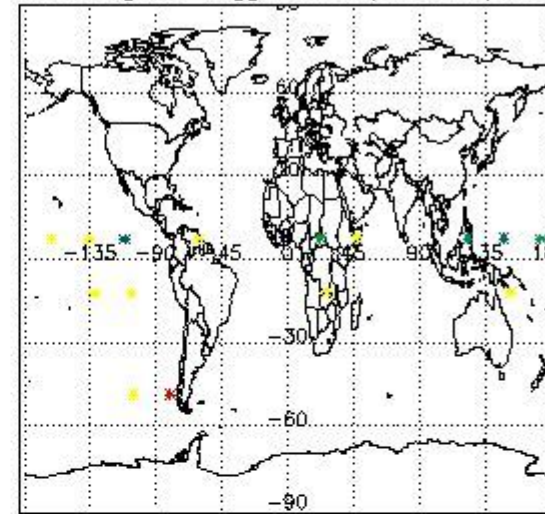


3.2 Plot quality information per product (world map)

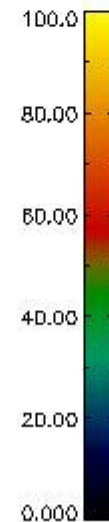
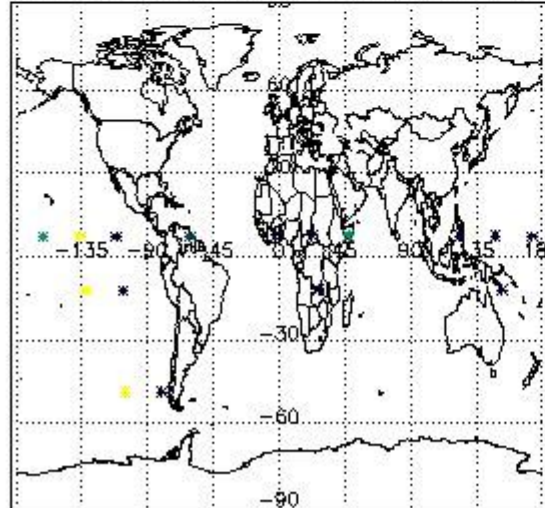
Percentage of flagged data per O3 profile



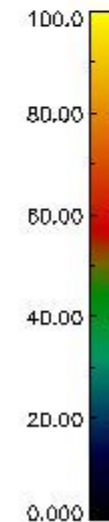
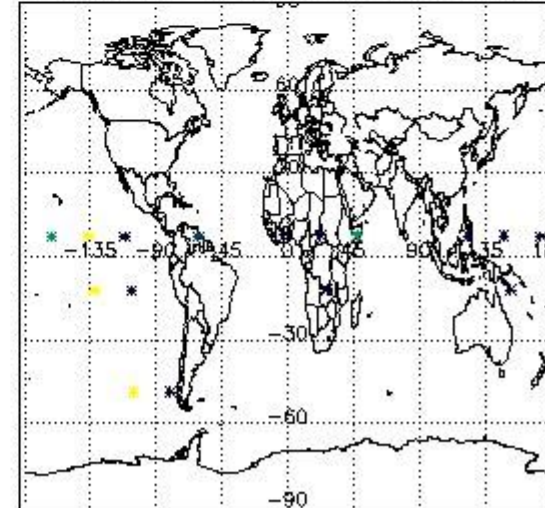
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

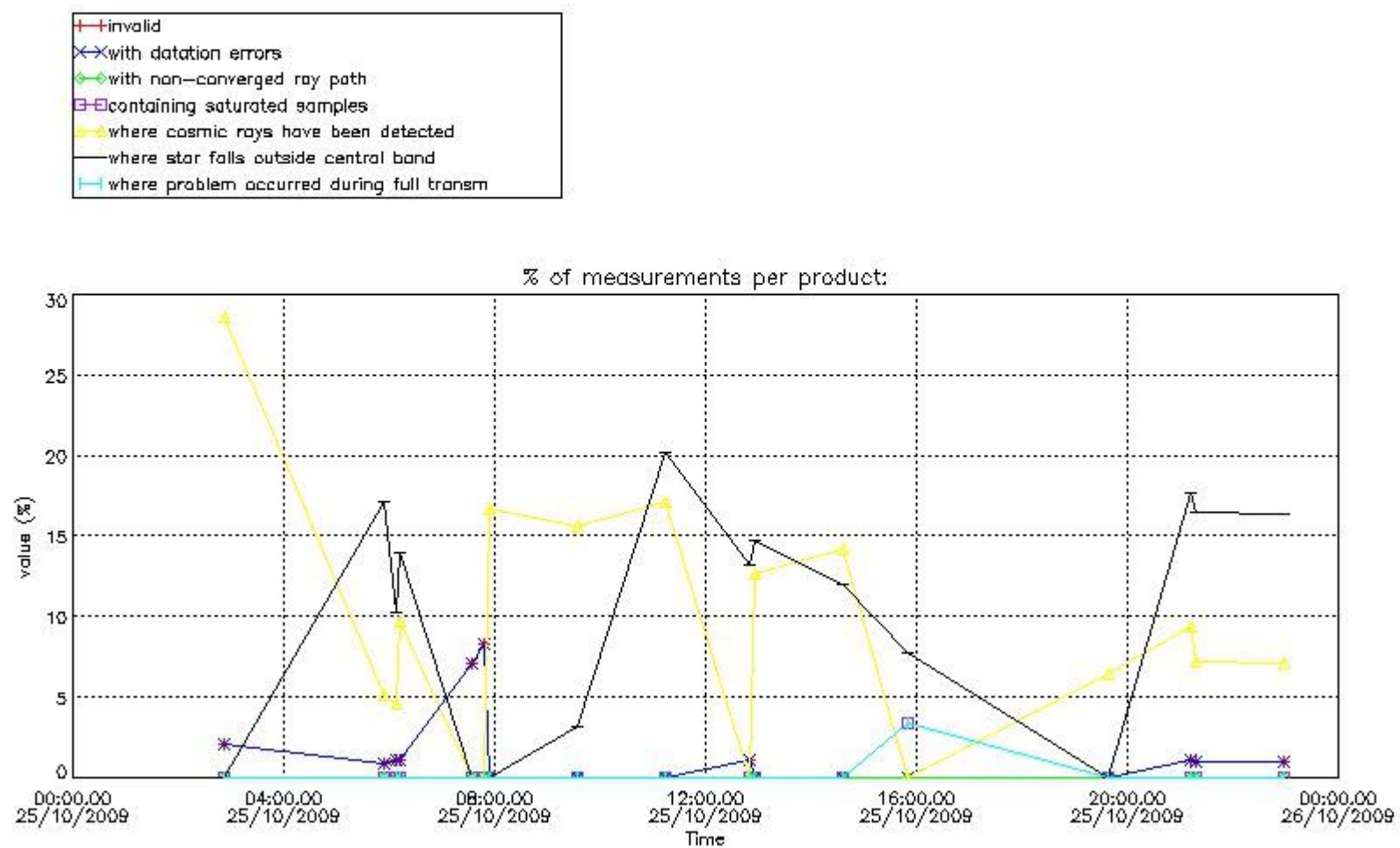


4. Level 1 quality information per product

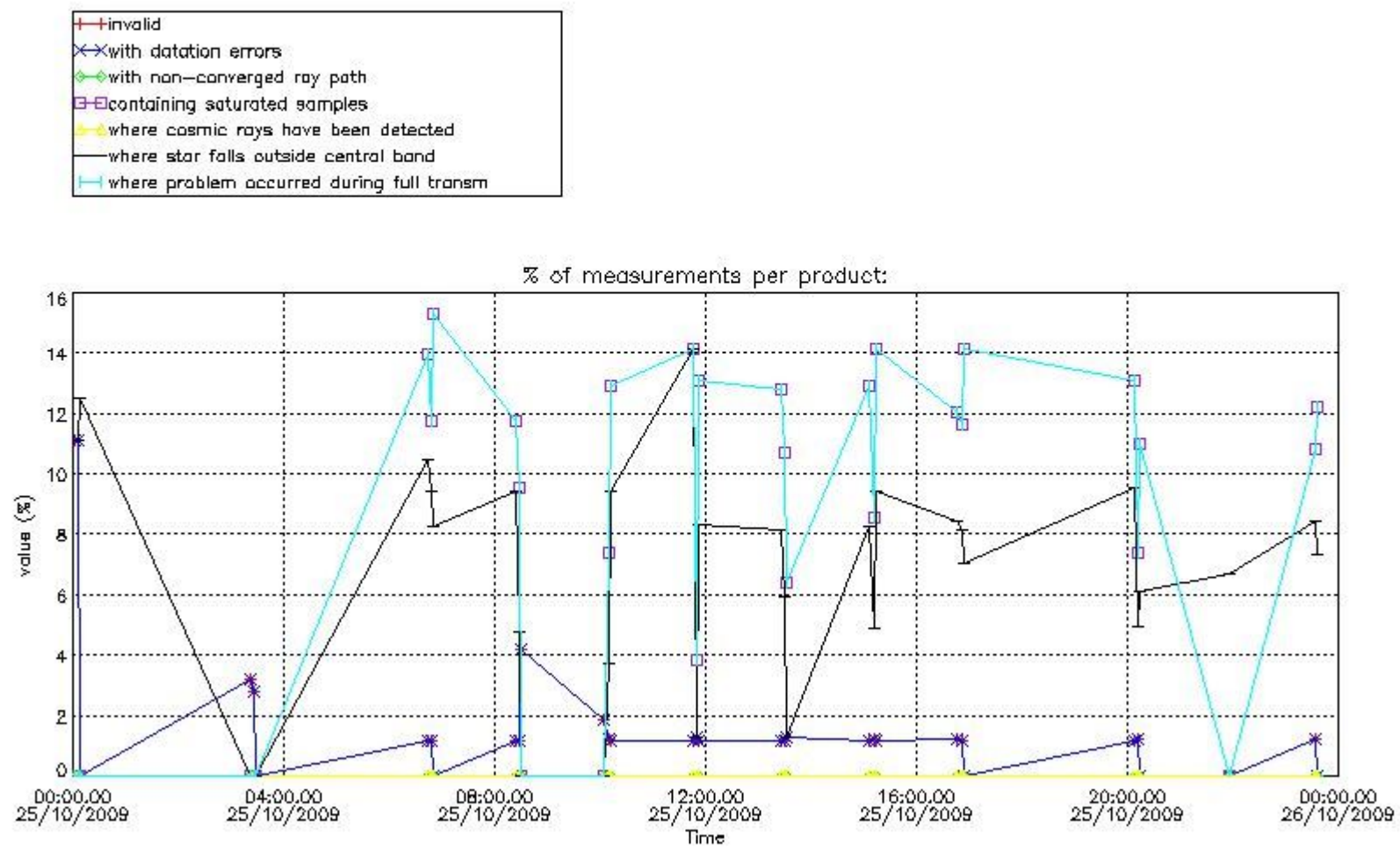
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



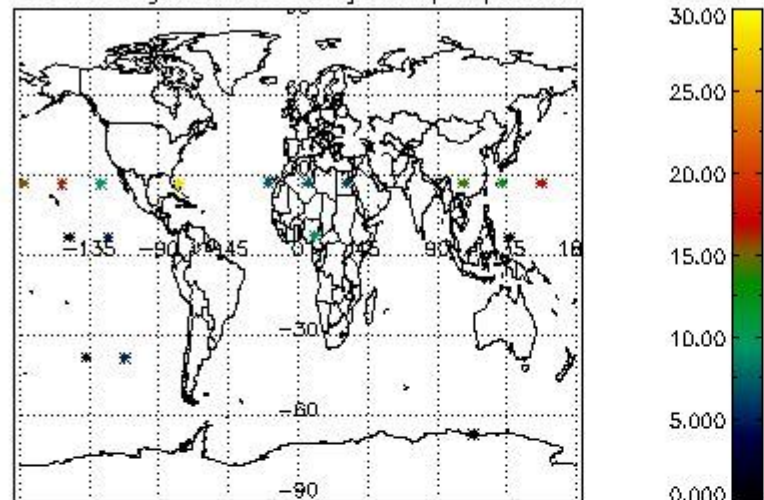
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



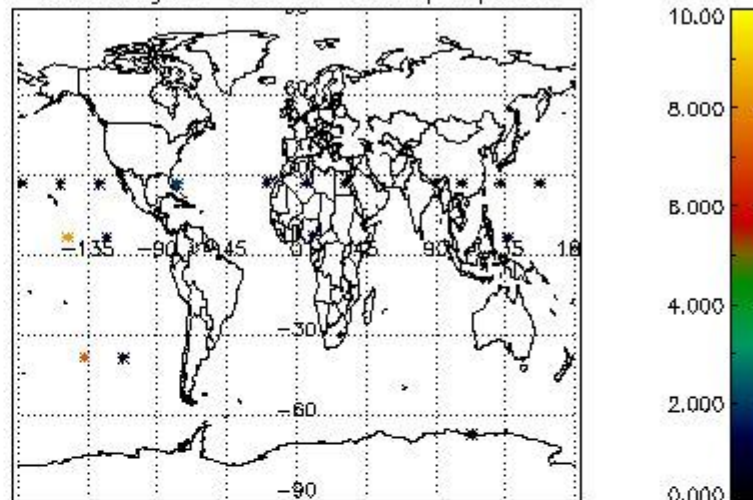
4.2 Plot quality information per product coming from level 1b processing (world map)

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

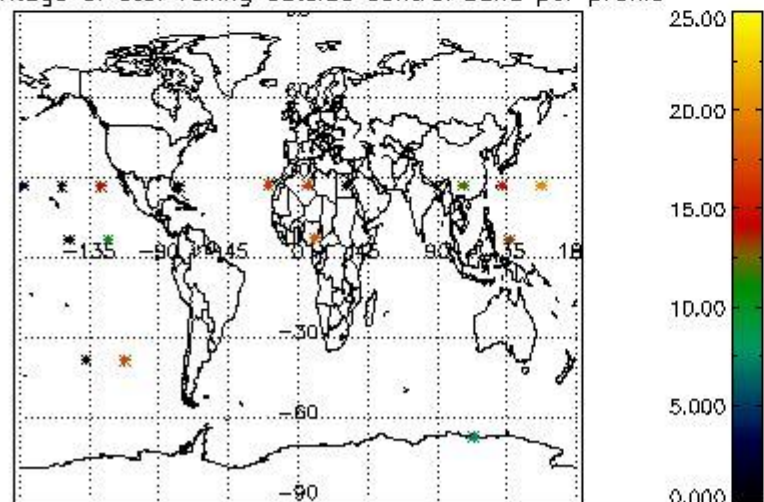
Percentage of cosmic ray hits per profile



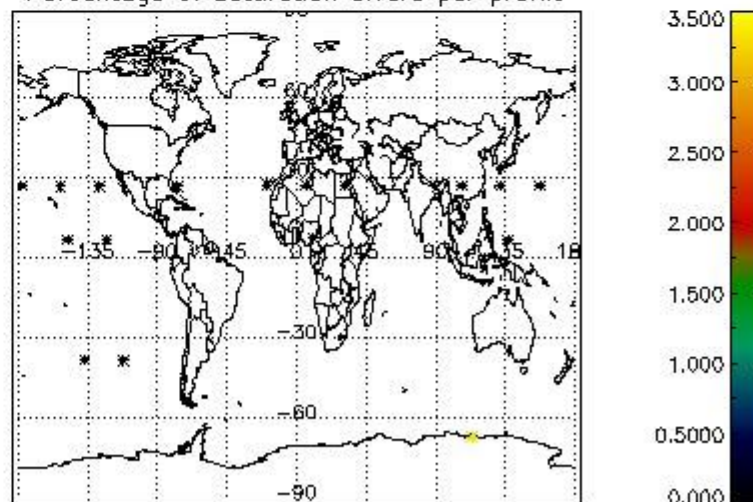
Percentage of datation errors per profile



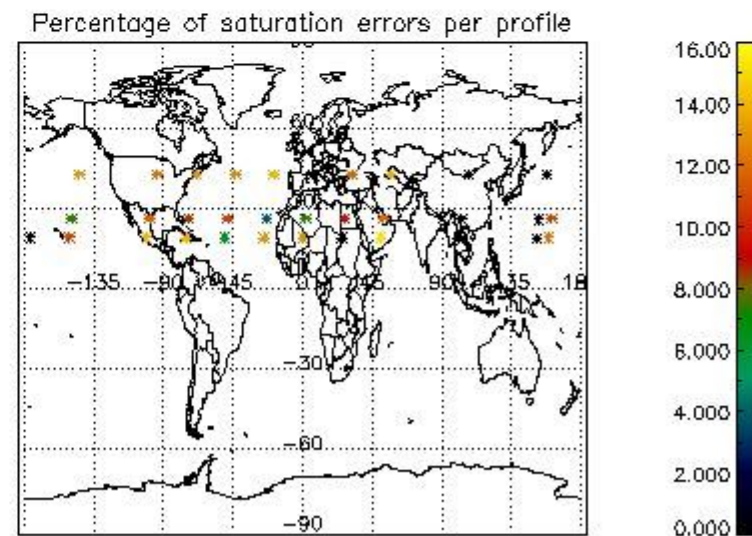
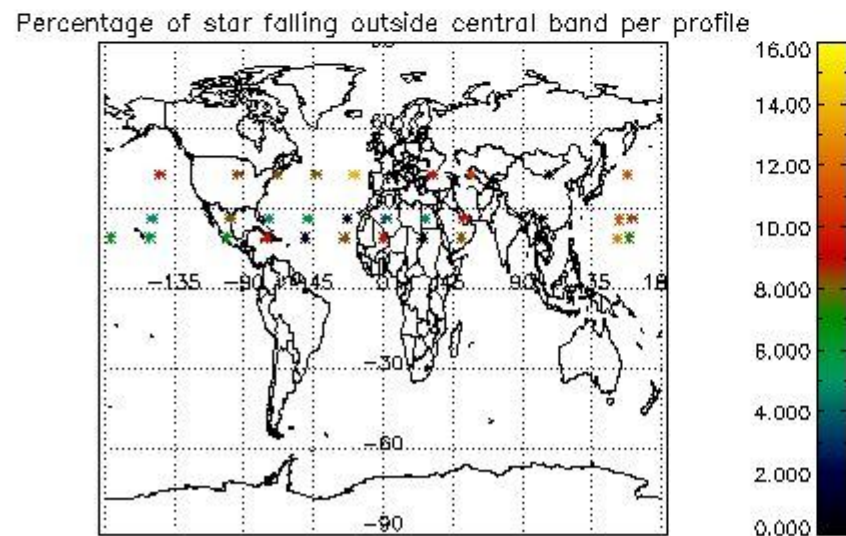
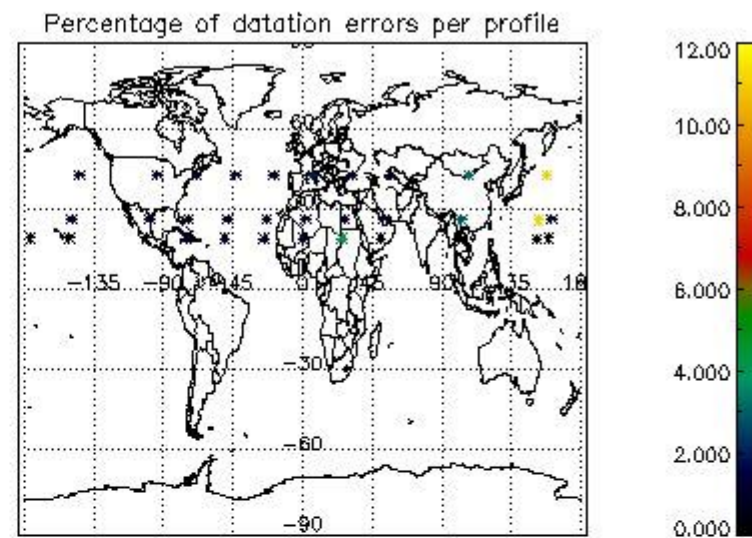
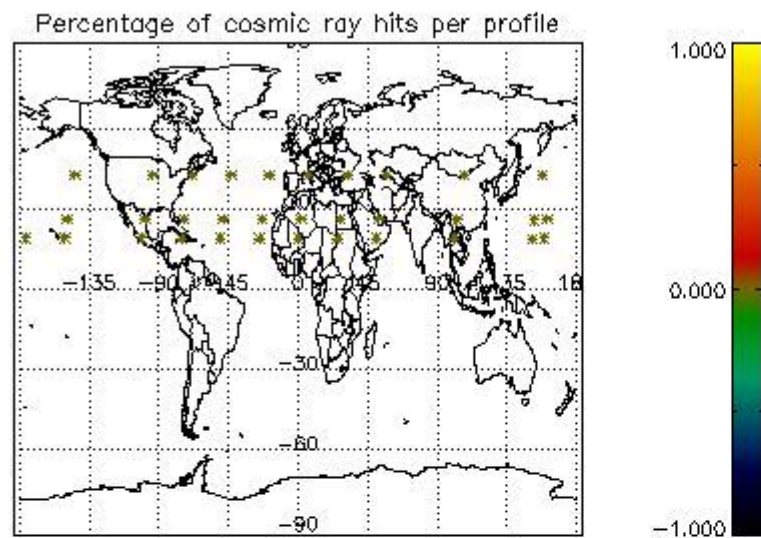
Percentage of star falling outside central band per profile



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

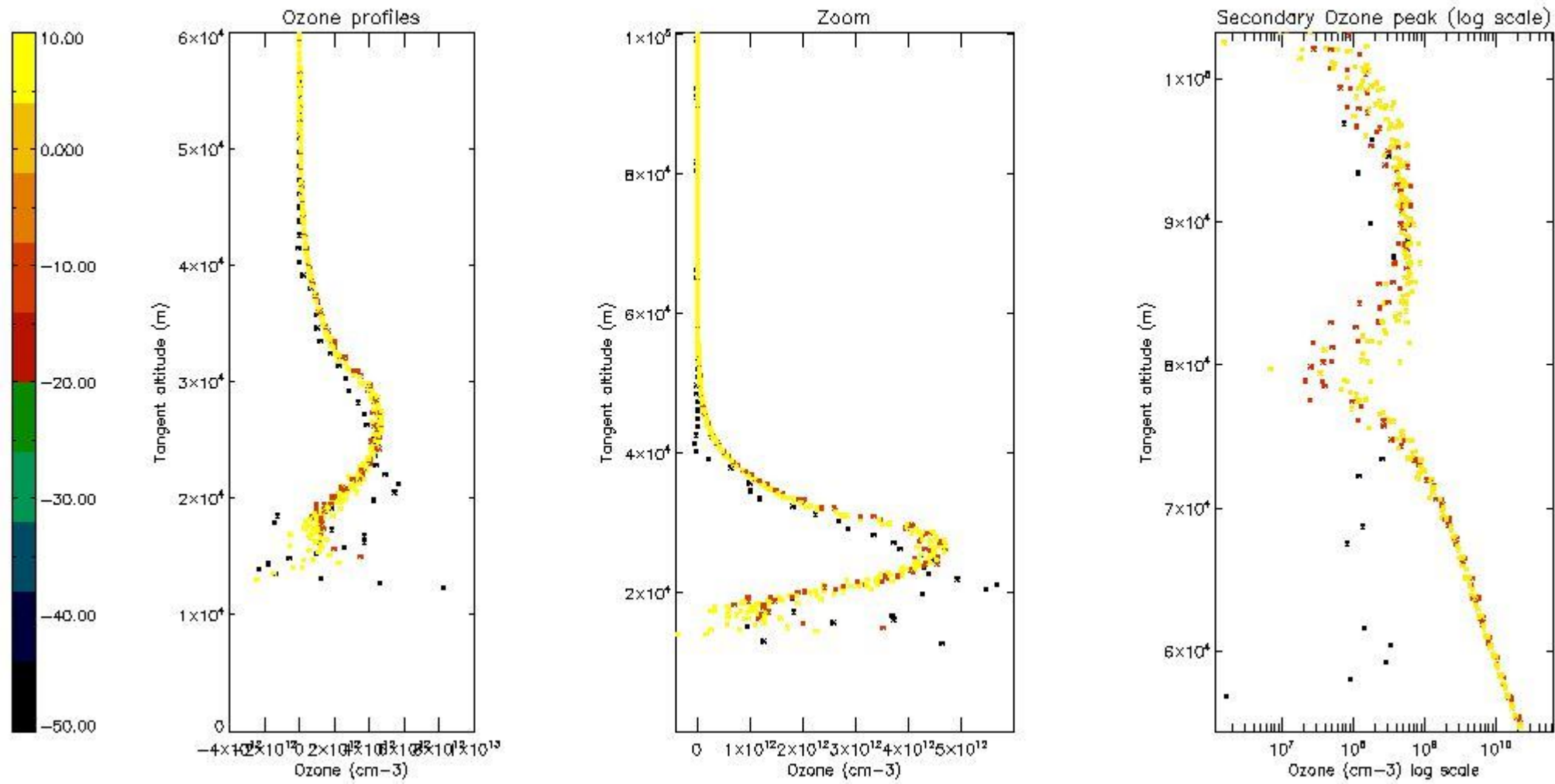
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	22

STD < 10	20
STD < 5	15

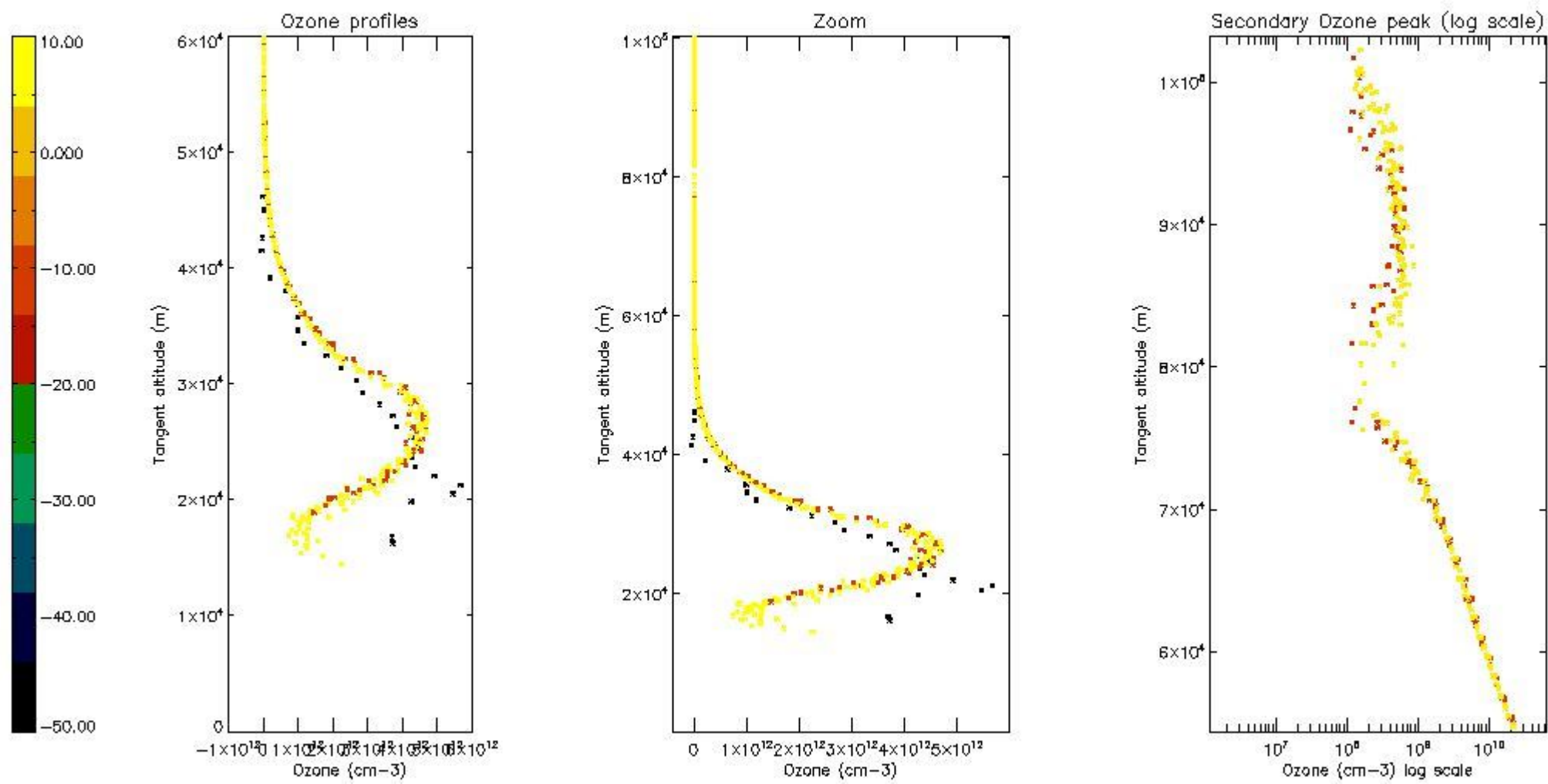
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



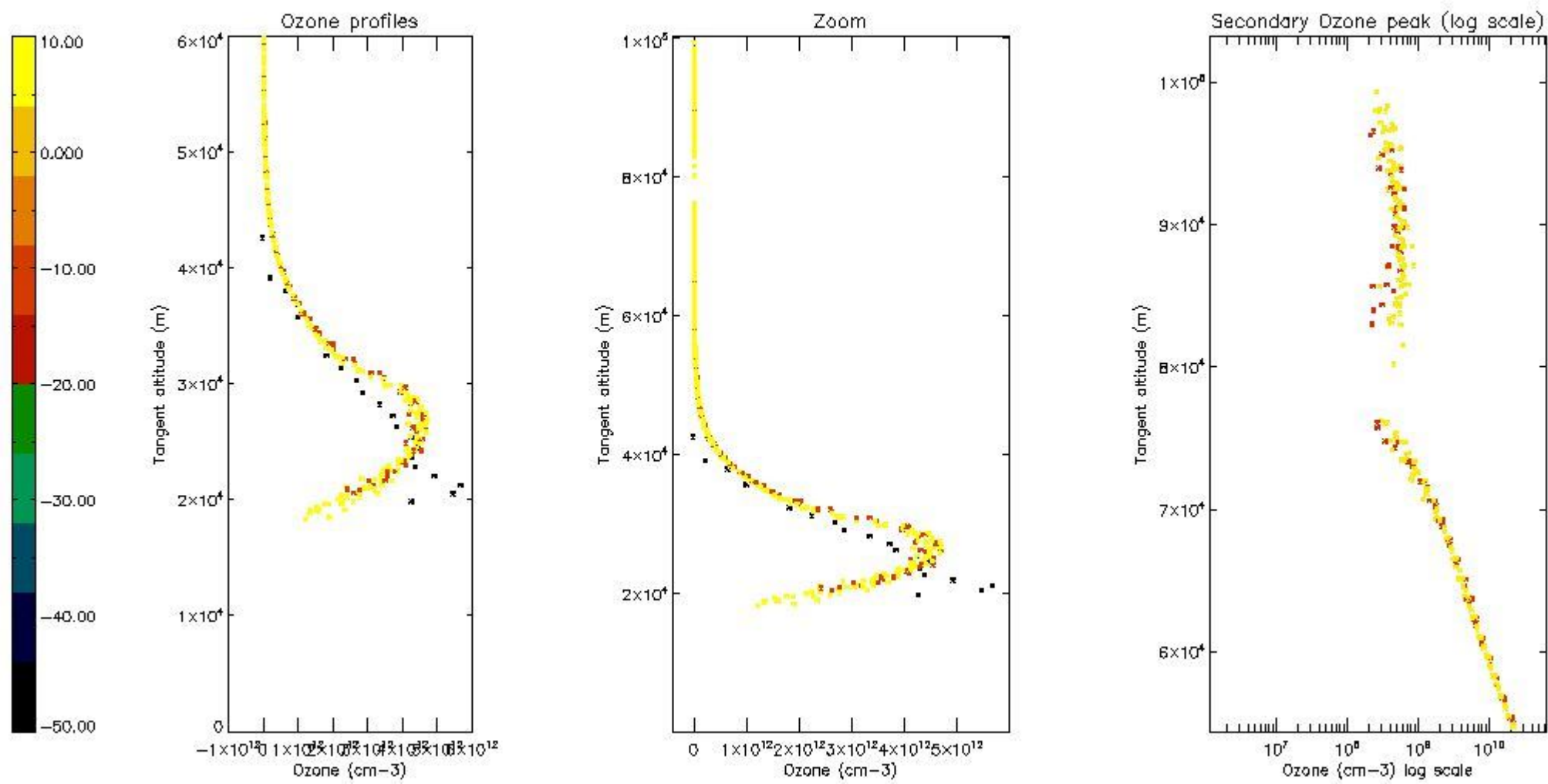
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



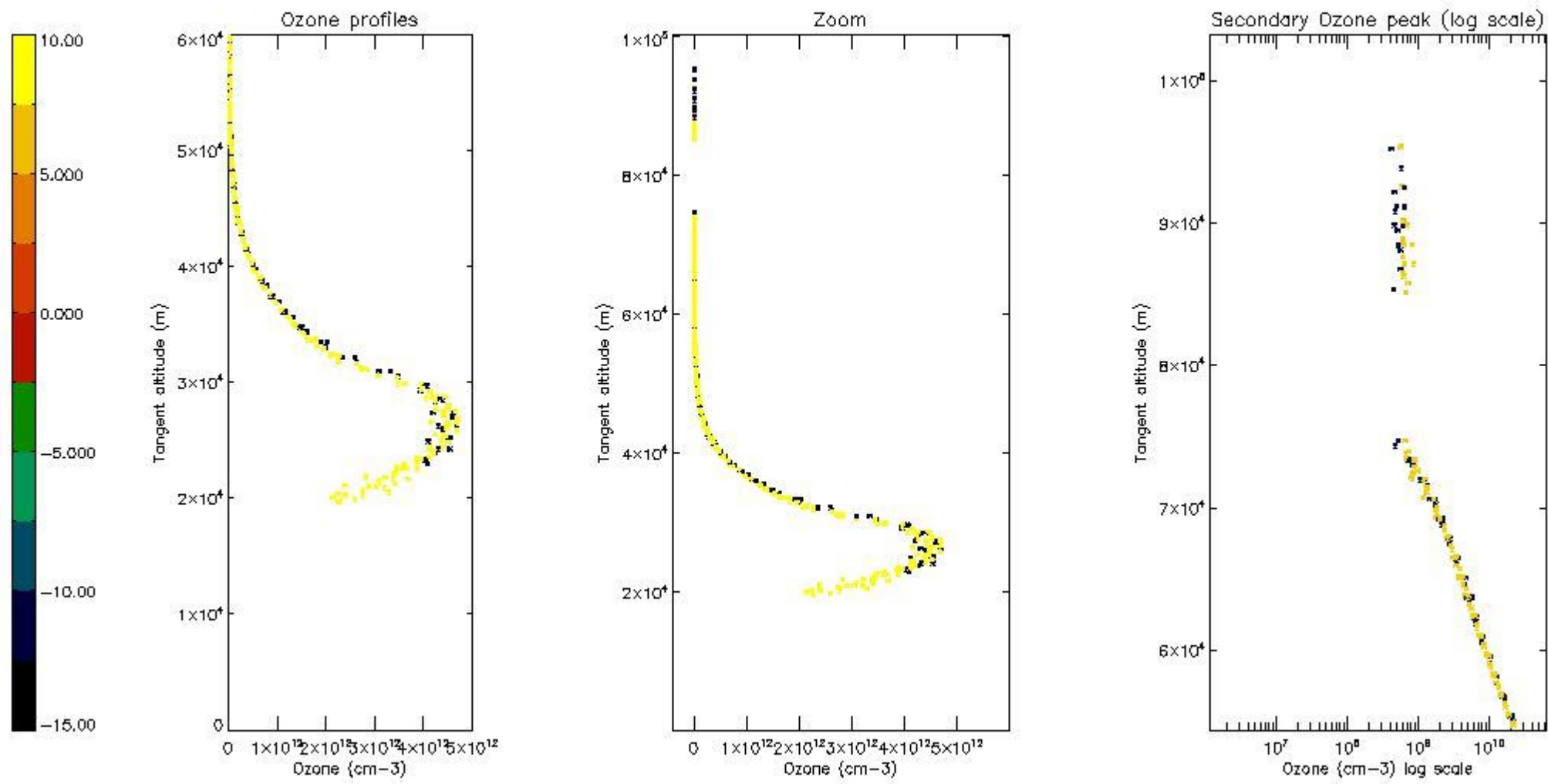
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



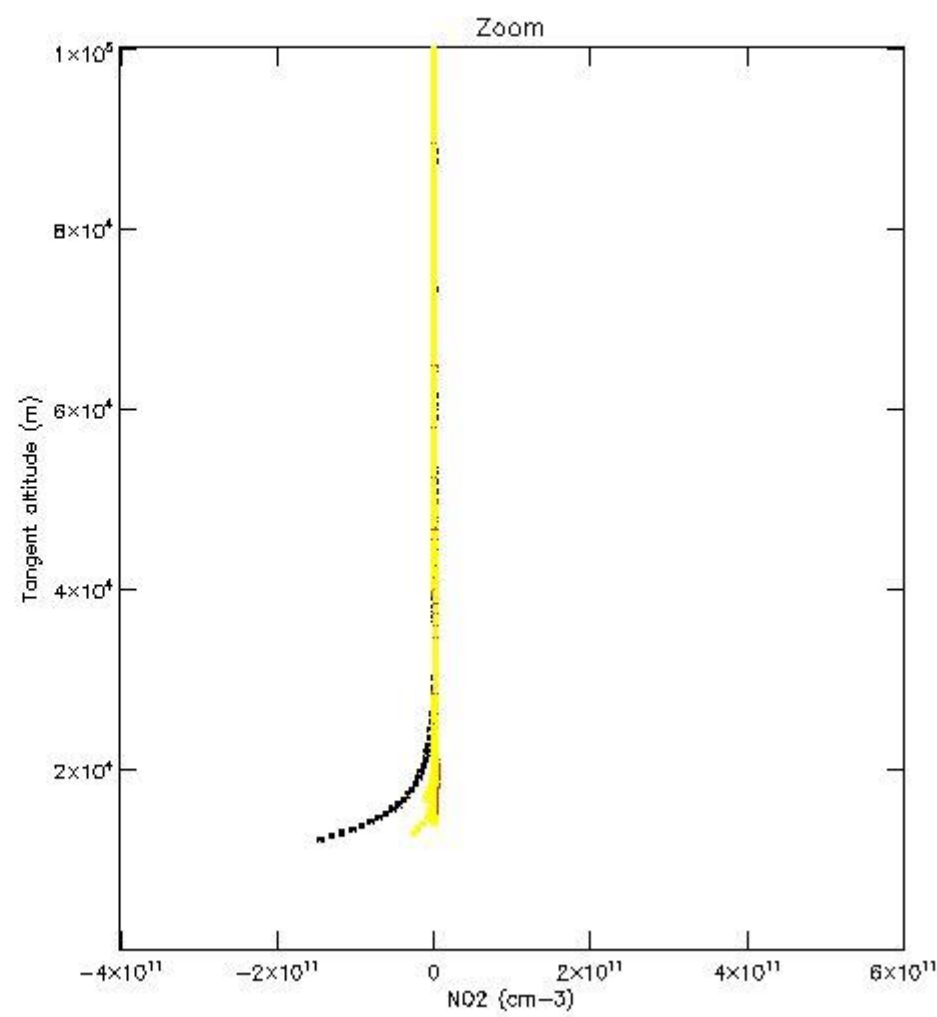
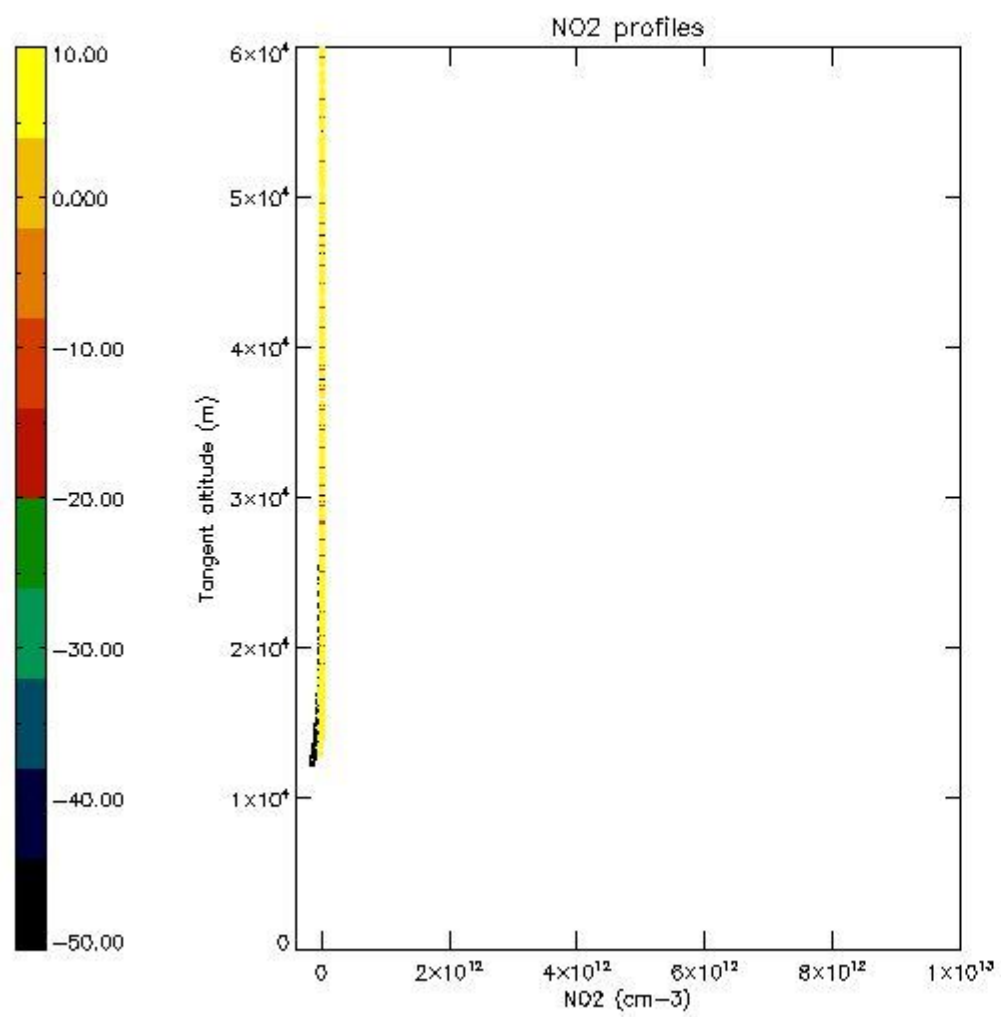
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



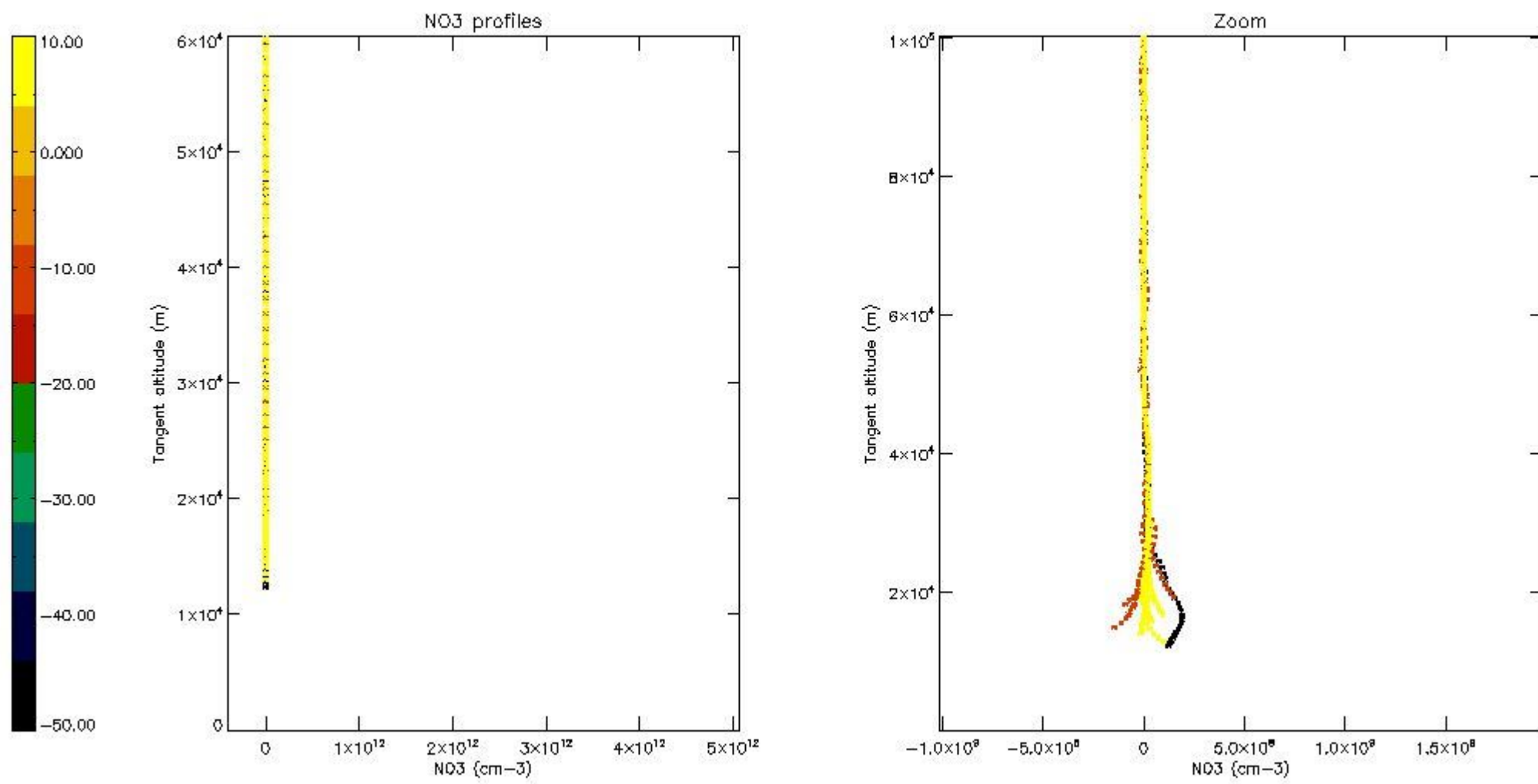
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



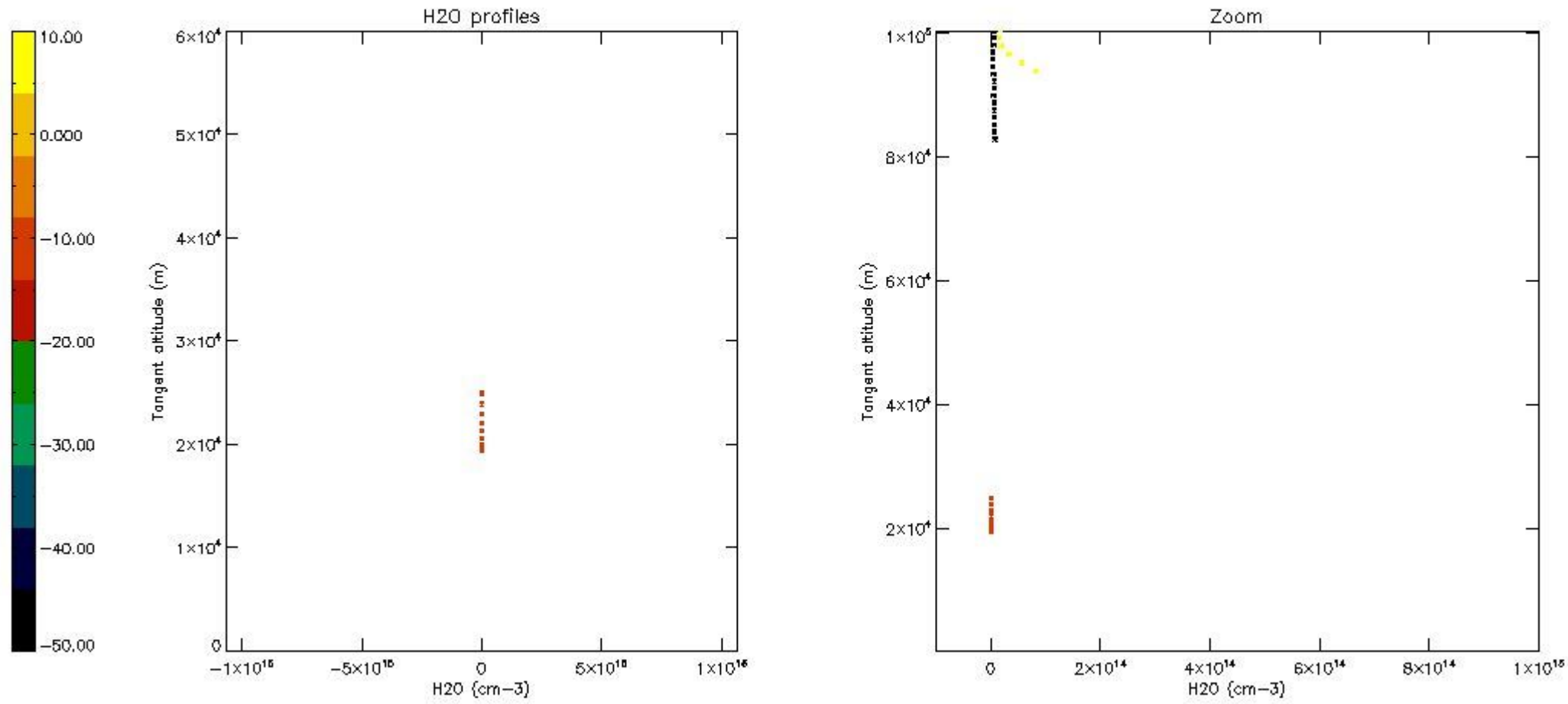
5.7 Plot NO3 profiles for all STD (dark without errors)

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	25-OCT-2009 00:01:02
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-OCT-2009 00:01:02
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-OCT-2009 00:01:02

GOMOS Level 2 Daily Report

SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	26APR2013 13:26:52
Data source version	GOMOS/6.01
Start time of products	25-10-2009 (25OCT2009 00:00:00)
Stop time of products	26-10-2009 (26OCT2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	50
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

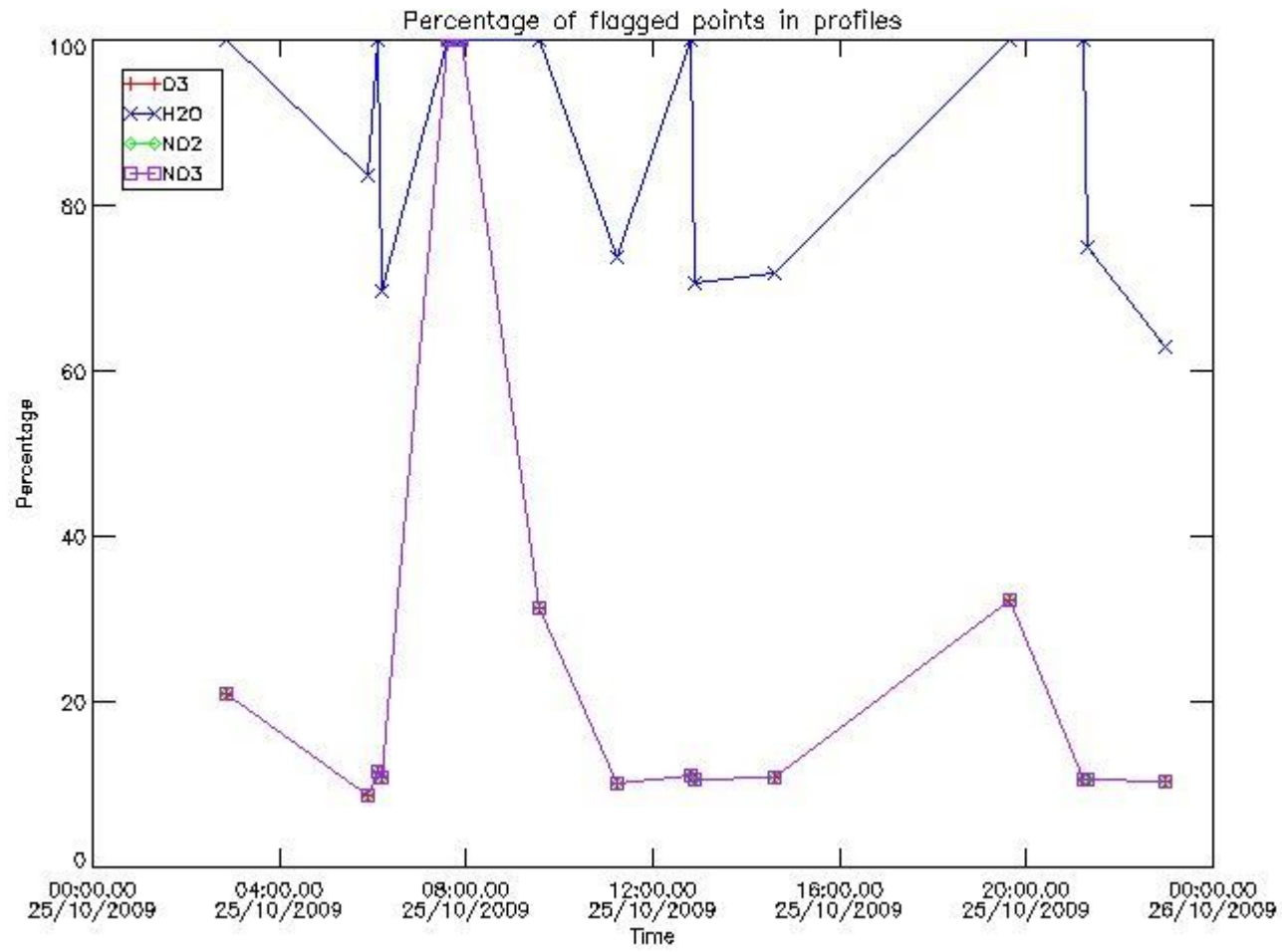
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091025_000102_000000052083_00374_40007_6093.N1	25-OCT-2009 00:01:02	Straylight	4.5000	105	6Bet Ari	2.6450	8900.0	9	40007	No
2	GOM_NL__2PRFIN20091025_000543_000000052083_00374_40007_6094.N1	25-OCT-2009 00:05:43	Straylight	4.5000	173	4Bet Tri	3.0040	8900.0	9	40007	No
3	GOM_NL__2PRFIN20091025_000742_000000042083_00374_40007_6095.N1	25-OCT-2009 00:07:42	Straylight	4.0000	73	57Gam1And	2.2600	13100.	8	40007	No
4	GOM_NL__2PRFIN20091025_025123_000000252083_00376_40009_6113.N1	25-OCT-2009 02:51:23	Dark	24.500	2	Alp Car	-0.73600	7000.0	49	40009	No
5	GOM_NL__2PRFIN20091025_032213_000000162083_00376_40009_6114.N1	25-OCT-2009 03:22:13	Twi_and_stray	15.500	105	6Bet Ari	2.6450	8900.0	31	40009	No
6	GOM_NL__2PRFIN20091025_032654_000000182083_00376_40009_6115.N1	25-OCT-2009 03:26:54	Twi_and_stray	18.000	173	4Bet Tri	3.0040	8900.0	36	40009	No
7	GOM_NL__2PRFIN20091025_032853_000000142083_00376_40009_6116.N1	25-OCT-2009 03:28:53	Twi_and_stray	14.000	73	57Gam1And	2.2600	13100.	28	40009	No
8	GOM_NL__2PRFIN20091025_055421_000000592083_00377_40010_6124.N1	25-OCT-2009 05:54:21	Dark	58.500	48	30Alp Hya	1.9770	4100.0	117	40010	No
9	GOM_NL__2PRFIN20091025_060700_000000442083_00378_40011_6138.N1	25-OCT-2009 06:07:00	Dark	44.000	34	Gam2Vel	1.7930	23000.	88	40011	No
10	GOM_NL__2PRFIN20091025_061238_000000472083_00378_40011_6139.N1	25-OCT-2009 06:12:38	Dark	46.500	2	Alp Car	-0.73600	7000.0	93	40011	No
11	GOM_NL__2PRFIN20091025_064325_000000432083_00378_40011_6140.N1	25-OCT-2009 06:43:25	Bright	43.000	105	6Bet Ari	2.6450	8900.0	86	40011	No
12	GOM_NL__2PRFIN20091025_064805_000000432083_00378_40011_6141.N1	25-OCT-2009 06:48:05	Bright	42.500	173	4Bet Tri	3.0040	8900.0	85	40011	No
13	GOM_NL__2PRFIN20091025_065004_000000432083_00378_40011_6142.N1	25-OCT-2009 06:50:04	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40011	No
14	GOM_NL__2PRFIN20091025_073458_000000072083_00378_40011_6143.N1	25-OCT-2009 07:34:58	Dark	7.0000	48	30Alp Hya	1.9770	4100.0	14	40011	No
15	GOM_NL__2PRFIN20091025_074737_000000062083_00379_40012_6149.N1	25-OCT-2009 07:47:37	Dark	6.0000	34	Gam2Vel	1.7930	23000.	12	40012	No
16	GOM_NL__2PRFIN20091025_075314_000000062083_00379_40012_6150.N1	25-OCT-2009 07:53:14	Dark	6.0000	2	Alp Car	-0.73600	7000.0	12	40012	No
17	GOM_NL__2PRFIN20091025_082400_000000432083_00379_40012_6151.N1	25-OCT-2009 08:24:00	Bright	42.500	105	6Bet Ari	2.6450	8900.0	85	40012	No
18	GOM_NL__2PRFIN20091025_082840_000000422083_00379_40012_6152.N1	25-OCT-2009 08:28:40	Bright	42.000	173	4Bet Tri	3.0040	8900.0	84	40012	No
19	GOM_NL__2PRFIN20091025_083039_000000122083_00379_40012_6153.N1	25-OCT-2009 08:30:39	Twi_and_stray	12.000	73	57Gam1And	2.2600	13100.	24	40012	No
20	GOM_NL__2PRFIN20091025_093350_000000162083_00380_40013_6166.N1	25-OCT-2009 09:33:50	Dark	16.000	2	Alp Car	-0.73600	7000.0	32	40013	No
21	GOM_NL__2PRFIN20091025_100436_000000272083_00380_40013_6167.N1	25-OCT-2009 10:04:36	Twi_and_stray	26.500	105	6Bet Ari	2.6450	8900.0	53	40013	No
22	GOM_NL__2PRFIN20091025_100915_000000412083_00380_40013_6168.N1	25-OCT-2009 10:09:15	Bright	40.500	173	4Bet Tri	3.0040	8900.0	81	40013	No
23	GOM_NL__2PRFIN20091025_101115_000000432083_00380_40013_6169.N1	25-OCT-2009 10:11:15	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40013	No
24	GOM_NL__2PRFIN20091025_111427_000000502083_00381_40014_6177.N1	25-OCT-2009 11:14:27	Dark	49.500	2	Alp Car	-0.73600	7000.0	99	40014	No
25	GOM_NL__2PRFIN20091025_114512_000000432083_00381_40014_6178.N1	25-OCT-2009 11:45:12	Bright	42.500	105	6Bet Ari	2.6450	8900.0	85	40014	No
26	GOM_NL__2PRFIN20091025_114951_000000392083_00381_40014_6179.N1	25-OCT-2009 11:49:51	Bright	39.000	173	4Bet Tri	3.0040	8900.0	78	40014	No
27	GOM_NL__2PRFIN20091025_115151_000000422083_00381_40014_6180.N1	25-OCT-2009 11:51:51	Bright	42.000	73	57Gam1And	2.2600	13100.	84	40014	No
28	GOM_NL__2PRFIN20091025_124927_000000462083_00382_40015_6188.N1	25-OCT-2009 12:49:27	Dark	45.500	34	Gam2Vel	1.7930	23000.	91	40015	No
29	GOM_NL__2PRFIN20091025_125504_000000482083_00382_40015_6189.N1	25-OCT-2009 12:55:04	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	40015	No
30	GOM_NL__2PRFIN20091025_132547_000000432083_00382_40015_6190.N1	25-OCT-2009 13:25:47	Bright	43.000	105	6Bet Ari	2.6450	8900.0	86	40015	No
31	GOM_NL__2PRFIN20091025_133026_000000422083_00382_40015_6191.N1	25-OCT-2009 13:30:26	Bright	42.000	173	4Bet Tri	3.0040	8900.0	84	40015	No
32	GOM_NL__2PRFIN20091025_133226_000000392083_00382_40015_6192.N1	25-OCT-2009 13:32:26	Bright	39.000	73	57Gam1And	2.2600	13100.	78	40015	No
33	GOM_NL__2PRFIN20091025_143541_000000462083_00383_40016_6199.N1	25-OCT-2009 14:35:41	Dark	46.000	2	Alp Car	-0.73600	7000.0	92	40016	No
34	GOM_NL__2PRFIN20091025_150623_000000432083_00383_40016_6200.N1	25-OCT-2009 15:06:23	Bright	42.500	105	6Bet Ari	2.6450	8900.0	85	40016	No
35	GOM_NL__2PRFIN20091025_151102_000000412083_00383_40016_6201.N1	25-OCT-2009 15:11:02	Bright	41.000	173	4Bet Tri	3.0040	8900.0	82	40016	No
36	GOM_NL__2PRFIN20091025_151302_000000432083_00383_40016_6202.N1	25-OCT-2009 15:13:02	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40016	No
37	GOM_NL__2PRFIN20091025_154937_000000452083_00383_40016_6203.N1	25-OCT-2009 15:49:37	Bright	45.000	22	32Alp Leo	1.3600	15200.	90	40016	No
38	GOM_NL__2PRFIN20091025_164659_000000422083_00384_40017_6230.N1	25-OCT-2009 16:46:59	Bright	41.500	105	6Bet Ari	2.6450	8900.0	83	40017	No
39	GOM_NL__2PRFIN20091025_165138_000000432083_00384_40017_6231.N1	25-OCT-2009 16:51:38	Bright	43.000	173	4Bet Tri	3.0040	8900.0	86	40017	No
40	GOM_NL__2PRFIN20091025_165337_000000432083_00384_40017_6232.N1	25-OCT-2009 16:53:37	Bright	42.500	73	57Gam1And	2.2600	13100.	85	40017	No
41	GOM_NL__2PRFIN20091025_193731_000000162083_00386_40019_6251.N1	25-OCT-2009 19:37:31	Dark	15.500	2	Alp Car	-0.73600	7000.0	31	40019	No
42	GOM_NL__2PRFIN20091025_200810_000000422083_00386_40019_6252.N1	25-OCT-2009 20:08:10	Bright	42.000	105	6Bet Ari	2.6450	8900.0	84	40019	No

43	GOM_NL__2PRFIN20091025_201248_000000412083_00386_40019_6253.N1	25-OCT-2009 20:12:48	Bright	40.500	173	4Bet Tri	3.0040	8900.0	81	40019	No
44	GOM_NL__2PRFIN20091025_201448_000000412083_00386_40019_6254.N1	25-OCT-2009 20:14:48	Bright	41.000	73	57Gam1And	2.2600	13100.	82	40019	No
45	GOM_NL__2PRFIN20091025_211232_000000482083_00387_40020_6262.N1	25-OCT-2009 21:12:32	Dark	48.000	34	Gam2Vel	1.7930	23000.	96	40020	No
46	GOM_NL__2PRFIN20091025_211808_000000492083_00387_40020_6263.N1	25-OCT-2009 21:18:08	Dark	48.500	2	Alp Car	-0.73600	7000.0	97	40020	No
47	GOM_NL__2PRFIN20091025_215524_000000152083_00387_40020_6264.N1	25-OCT-2009 21:55:24	Twilight_stray	15.000	73	57Gam1And	2.2600	13100.	30	40020	No
48	GOM_NL__2PRFIN20091025_225845_000000492083_00388_40021_6273.N1	25-OCT-2009 22:58:45	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	40021	No
49	GOM_NL__2PRFIN20091025_233400_000000422083_00388_40021_6274.N1	25-OCT-2009 23:34:00	Bright	41.500	173	4Bet Tri	3.0040	8900.0	83	40021	No
50	GOM_NL__2PRFIN20091025_233559_000000412083_00388_40021_6275.N1	25-OCT-2009 23:35:59	Bright	41.000	73	57Gam1And	2.2600	13100.	82	40021	No

3. Quality information per product

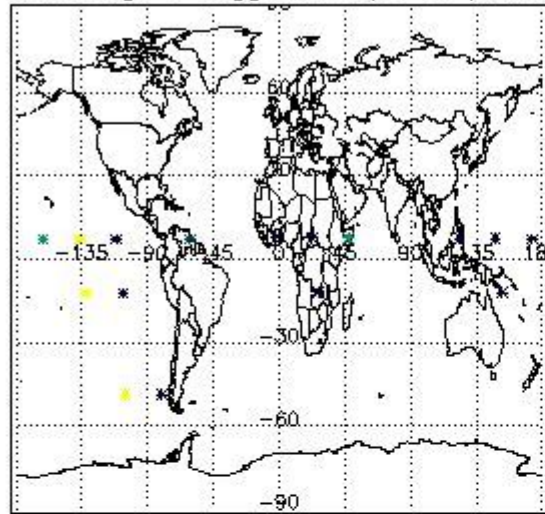
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

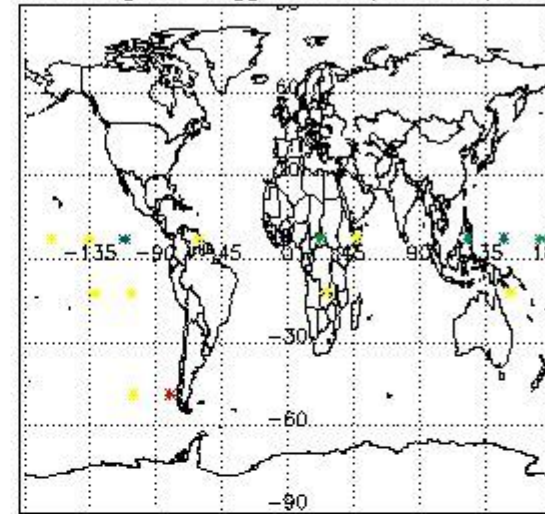


3.2 Plot quality information per product (world map)

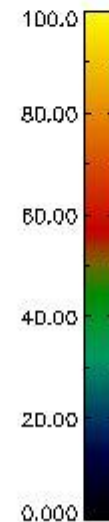
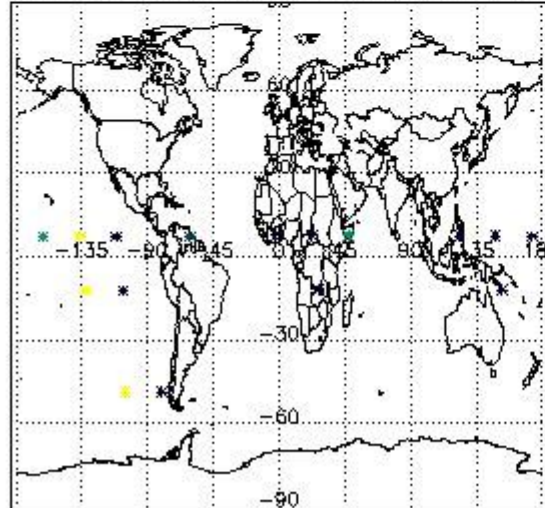
Percentage of flagged data per O3 profile



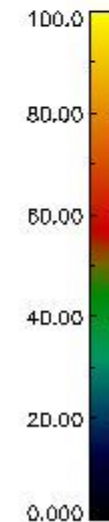
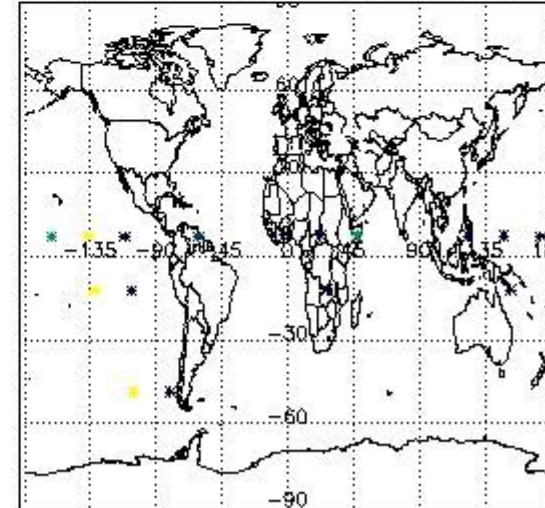
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

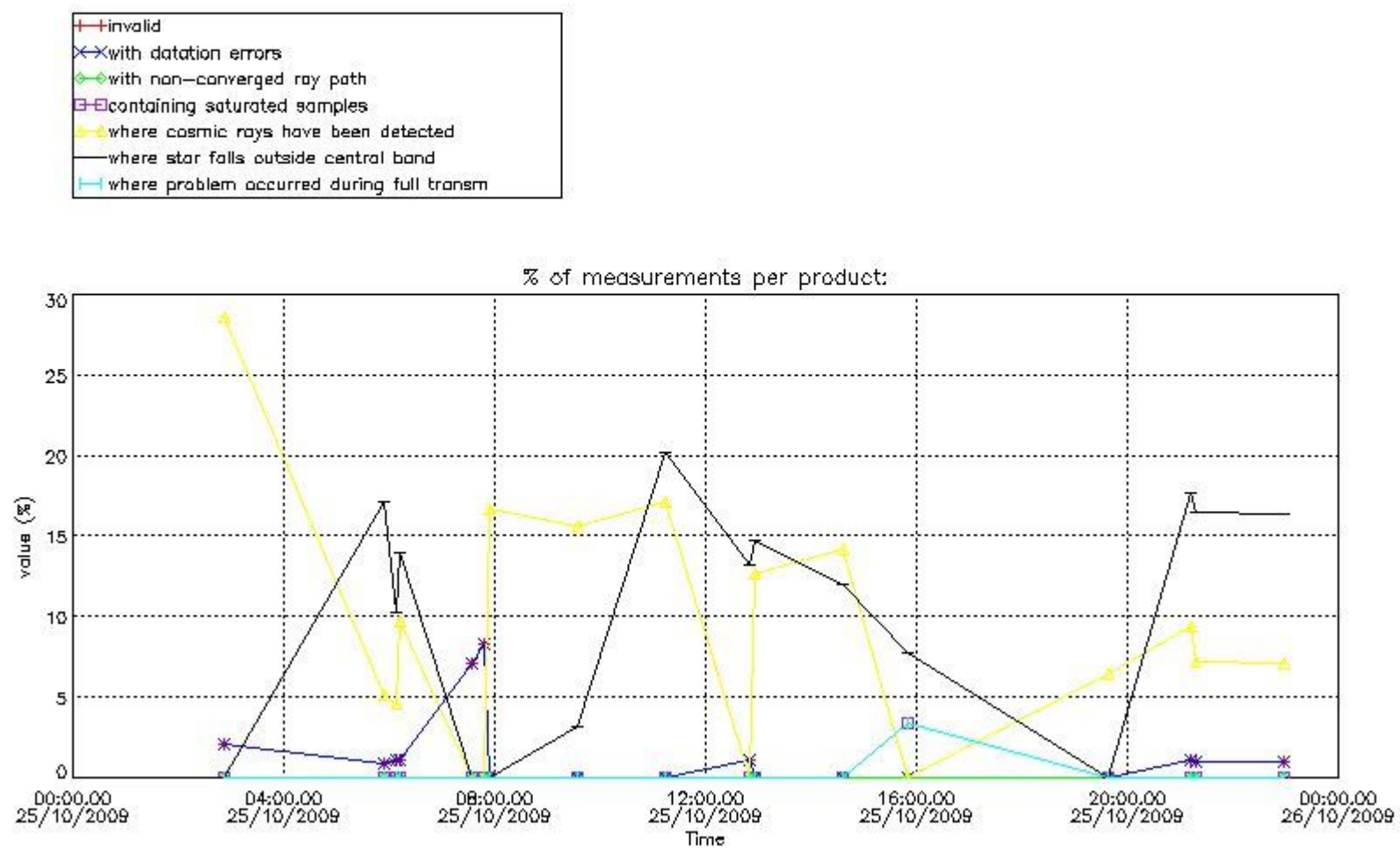


4. Level 1 quality information per product

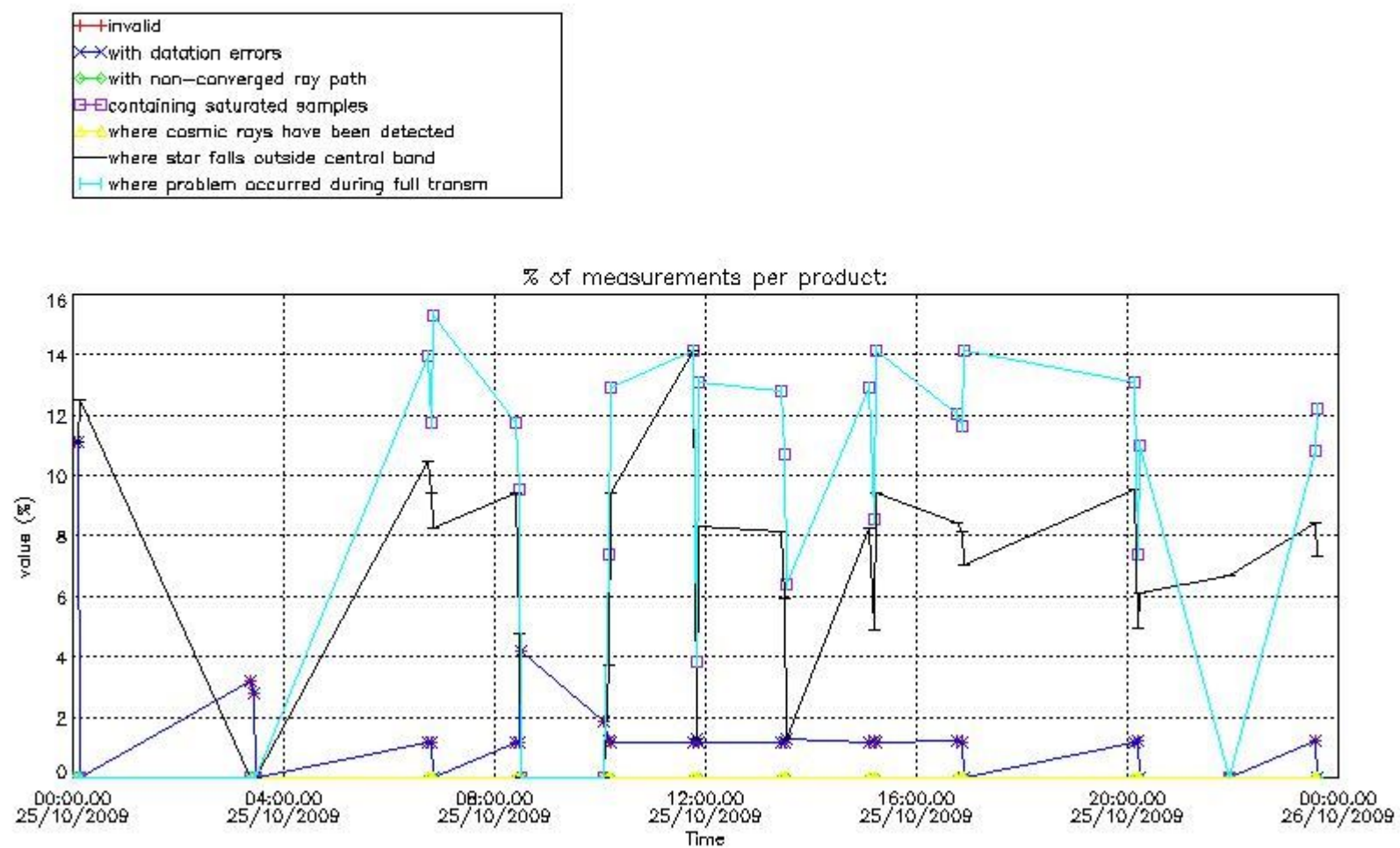
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

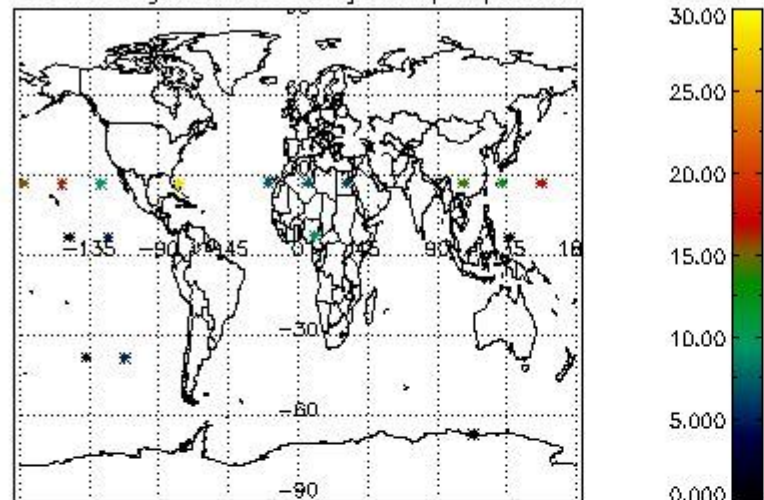


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

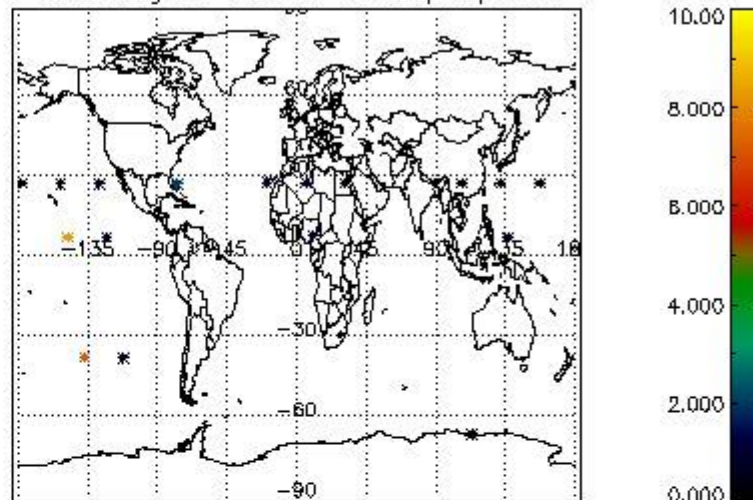


4.2 Plot quality information per product coming from level 1b processing (world map)
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

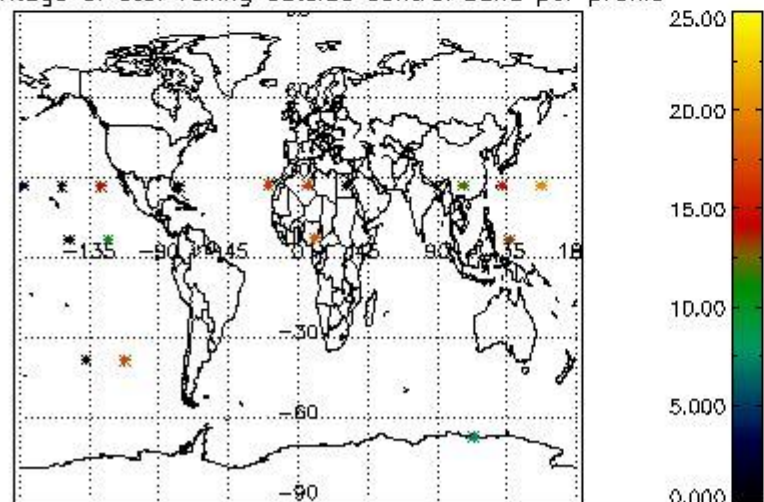
Percentage of cosmic ray hits per profile



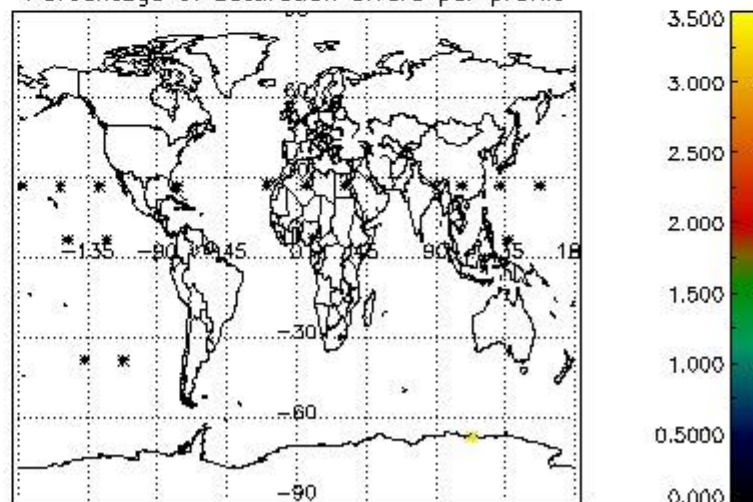
Percentage of datation errors per profile



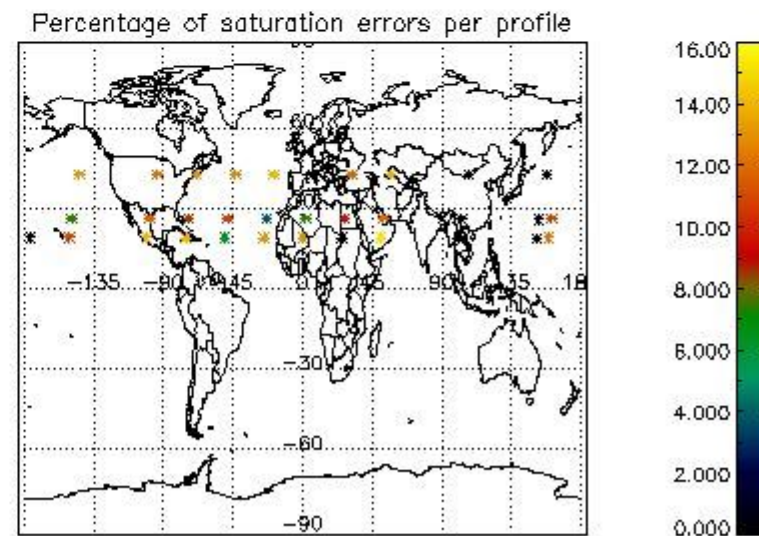
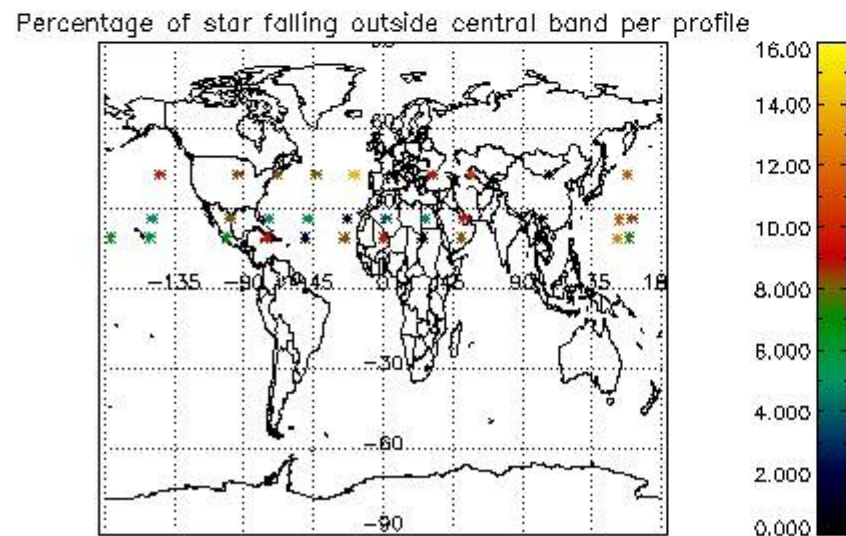
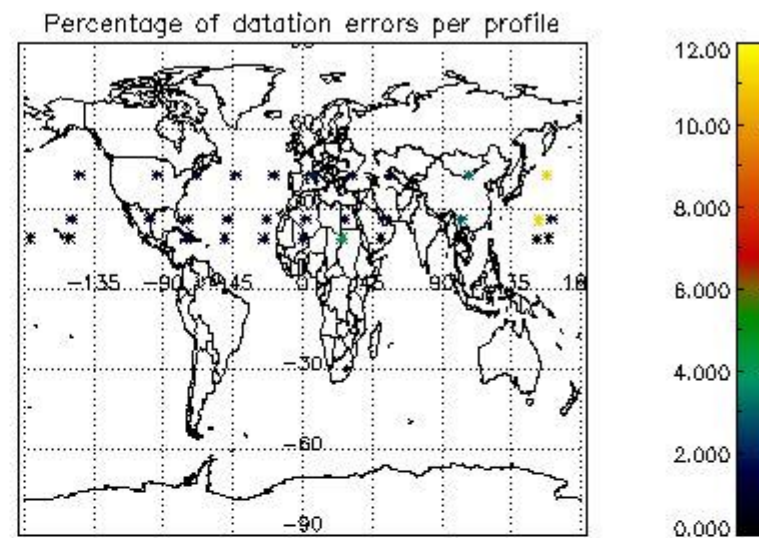
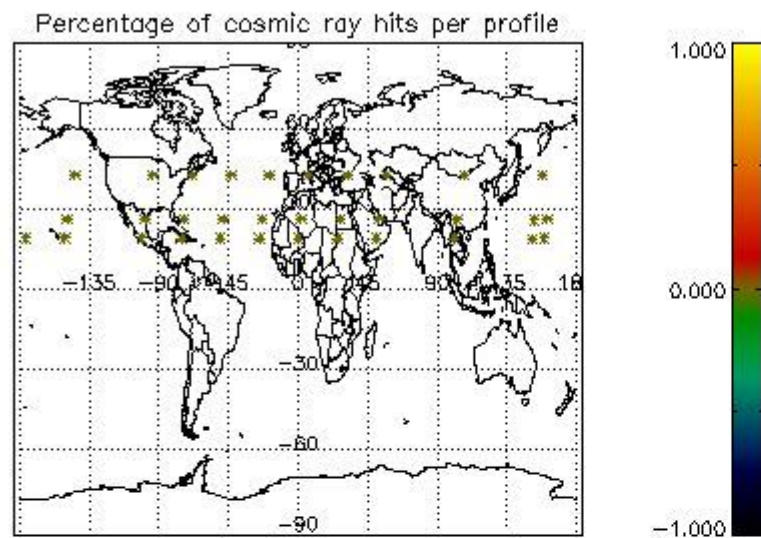
Percentage of star falling outside central band per profile



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

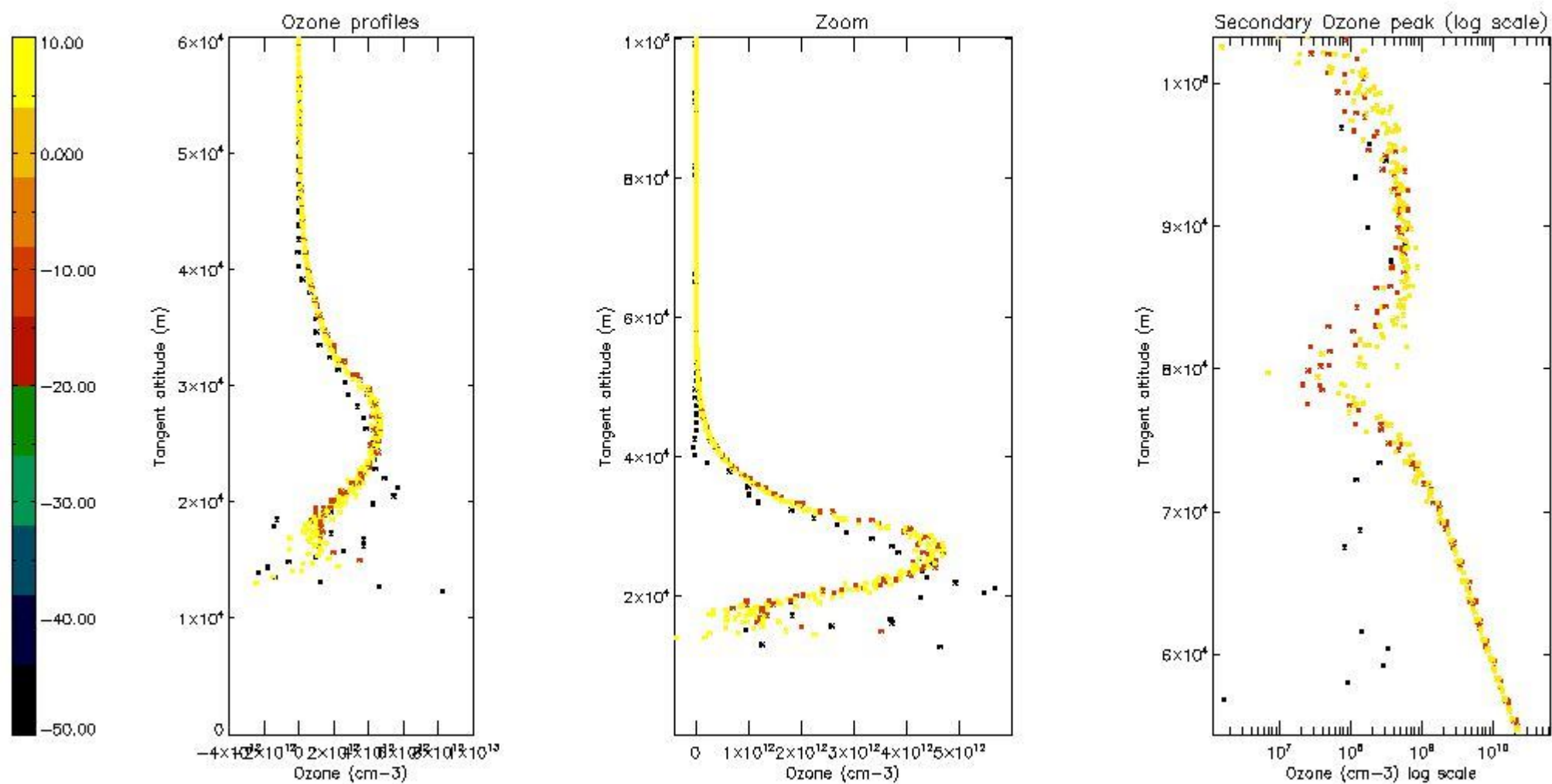
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	22

STD < 10	20
STD < 5	15

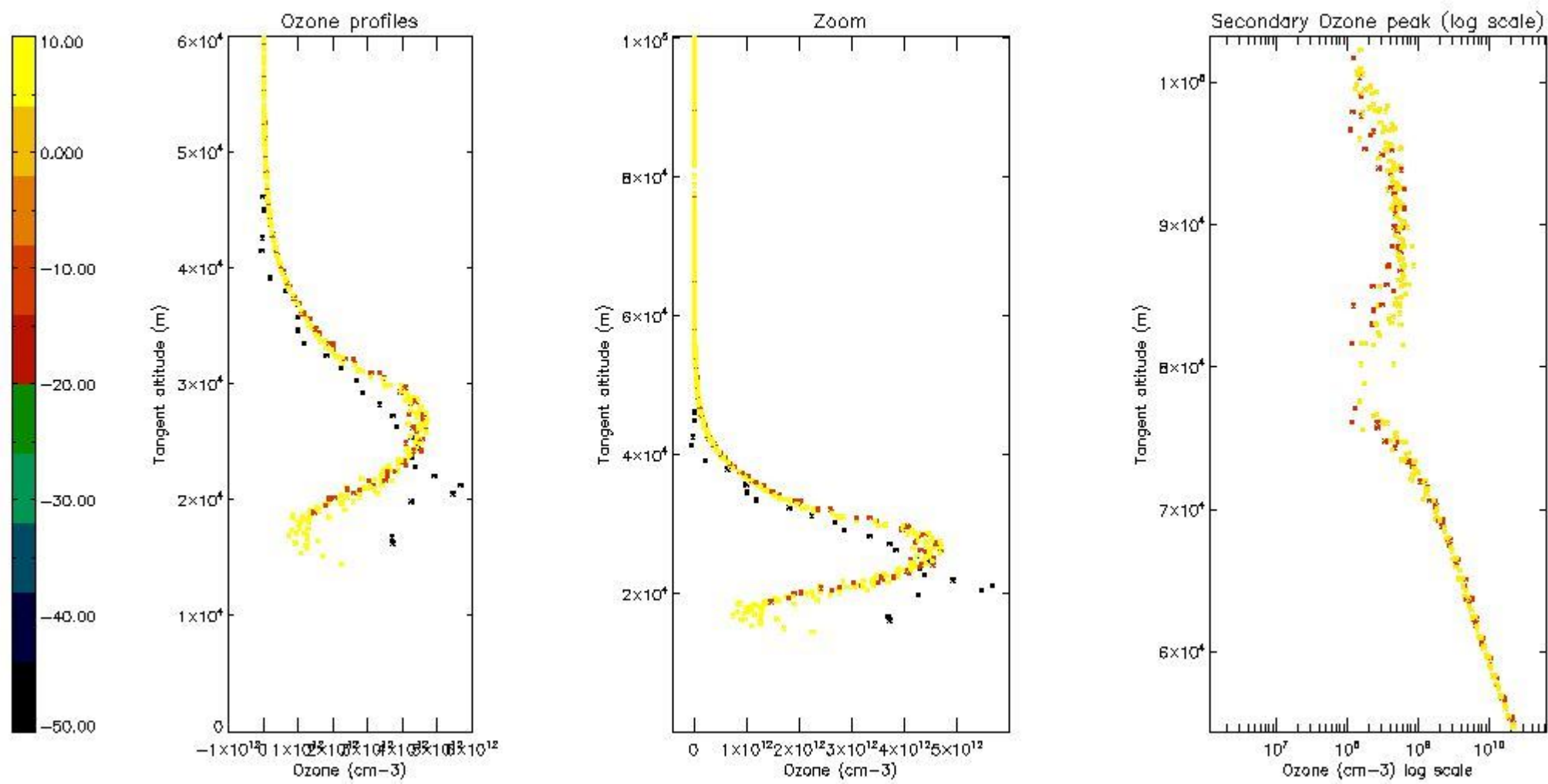
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



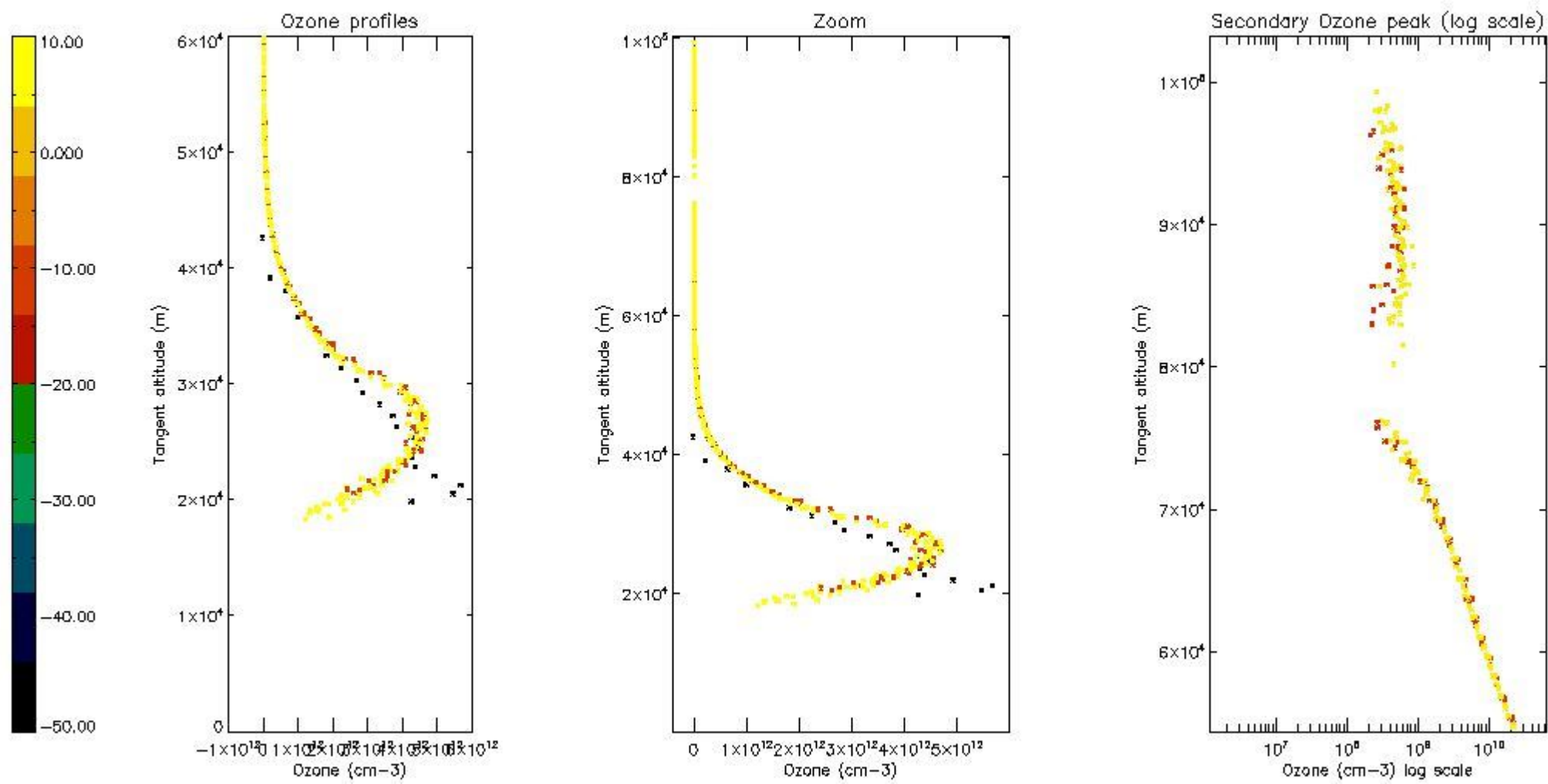
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



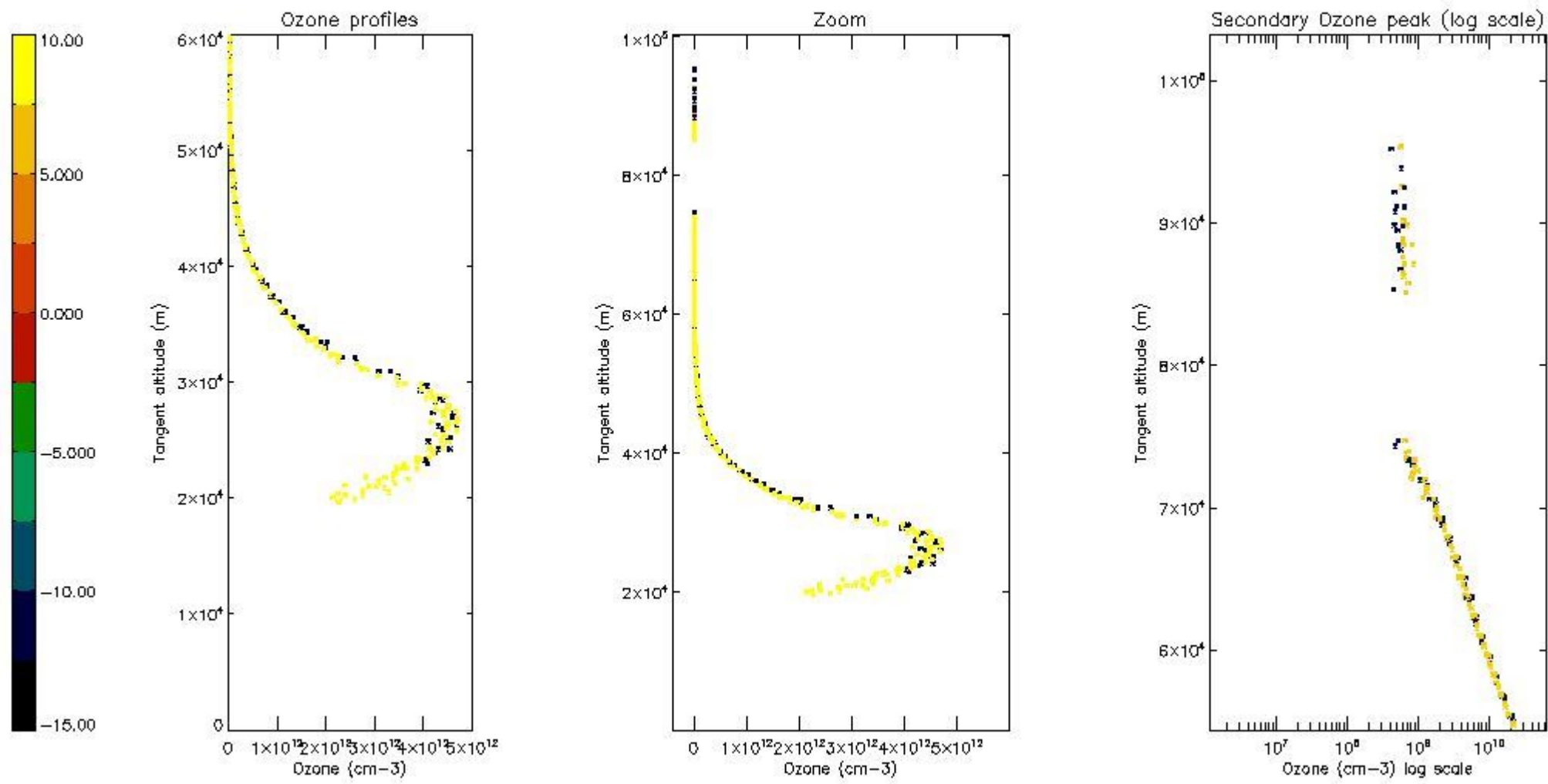
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



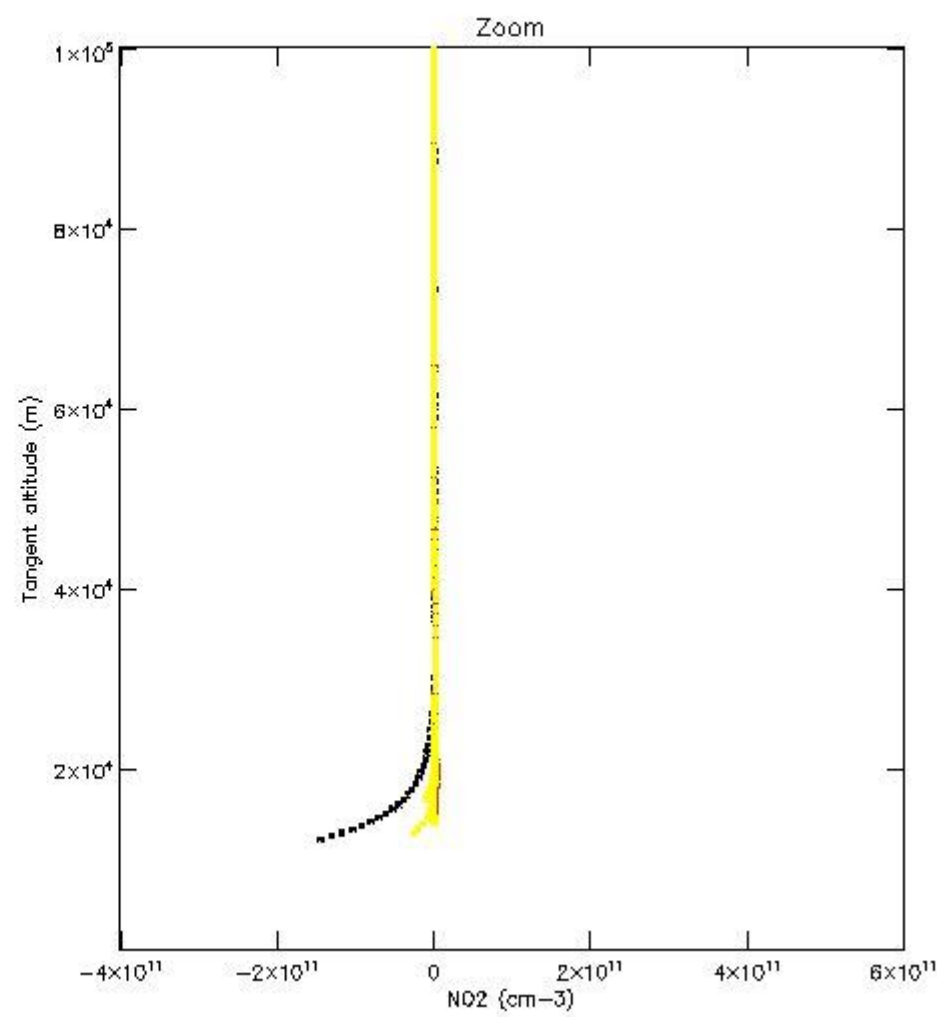
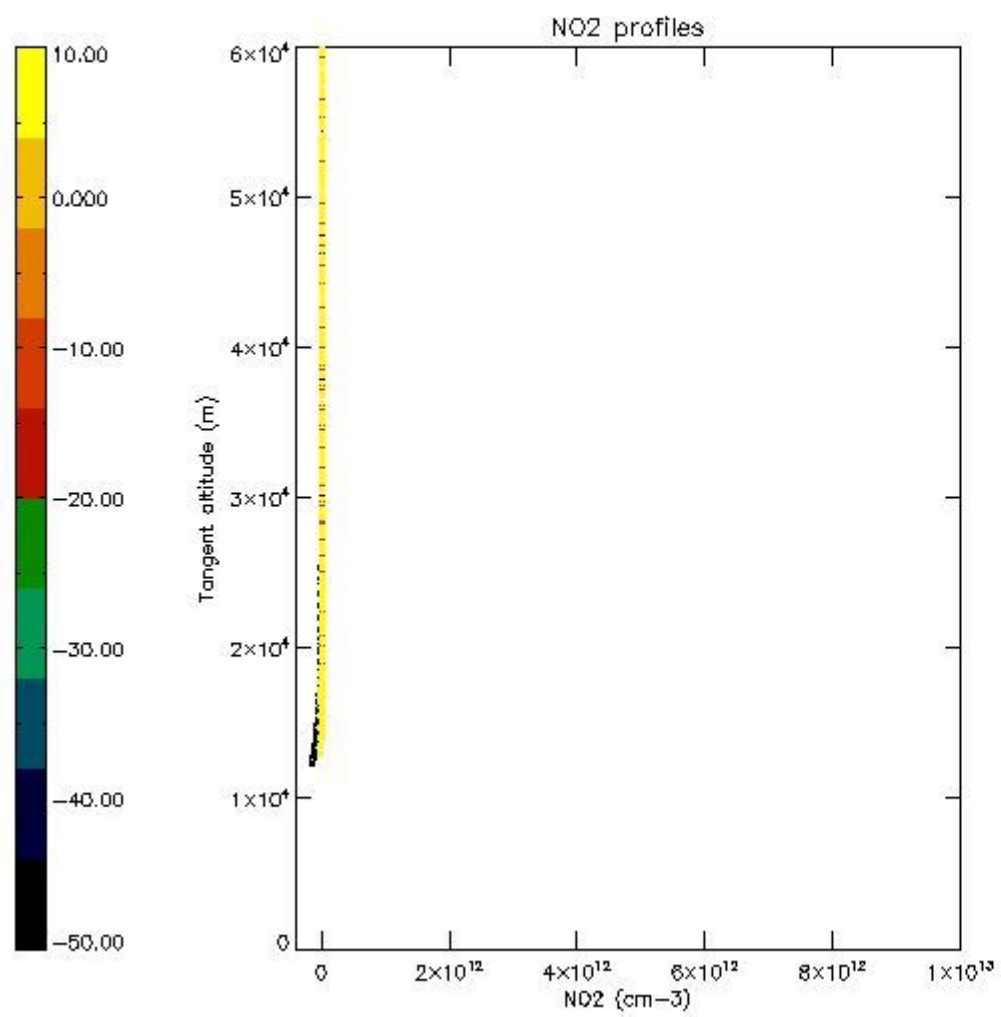
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



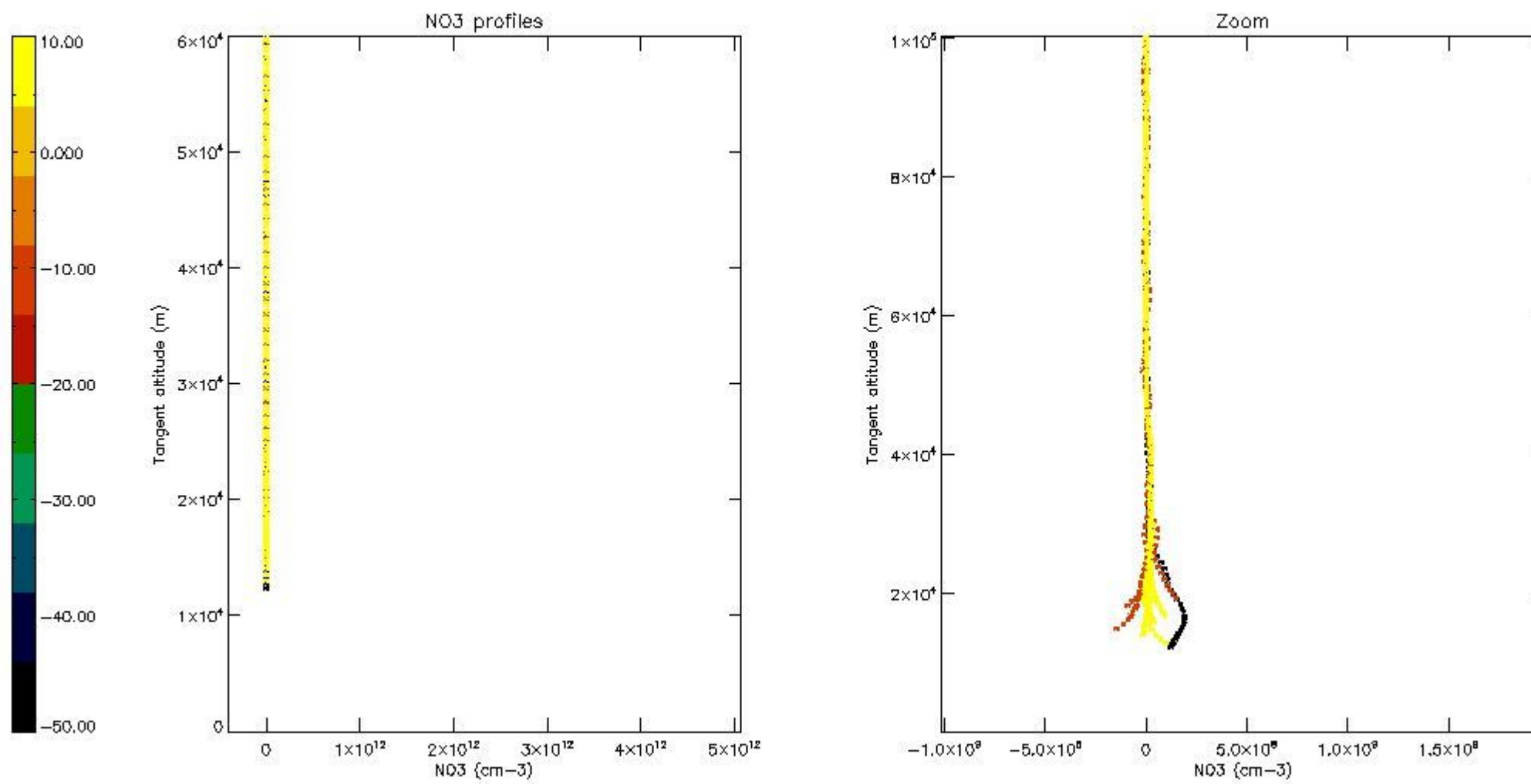
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



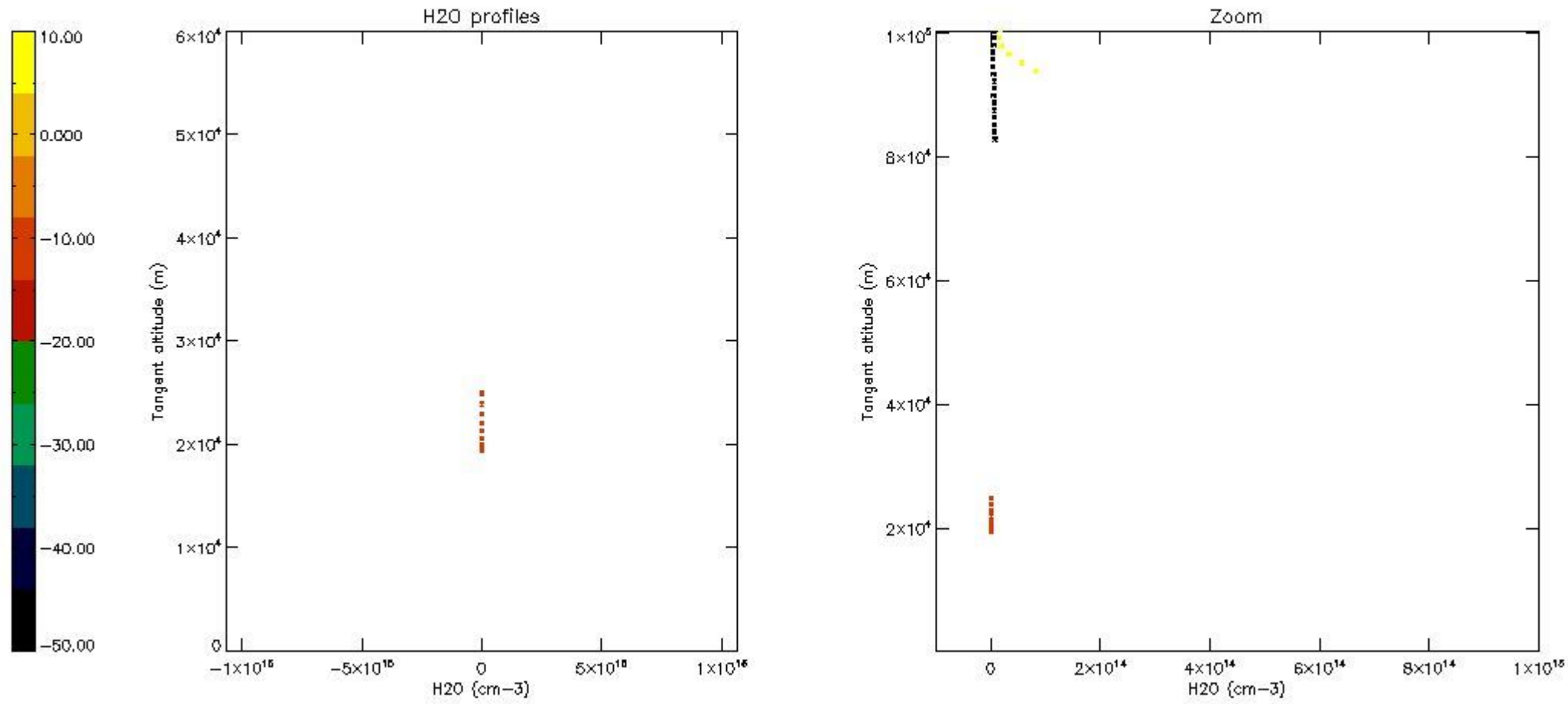
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

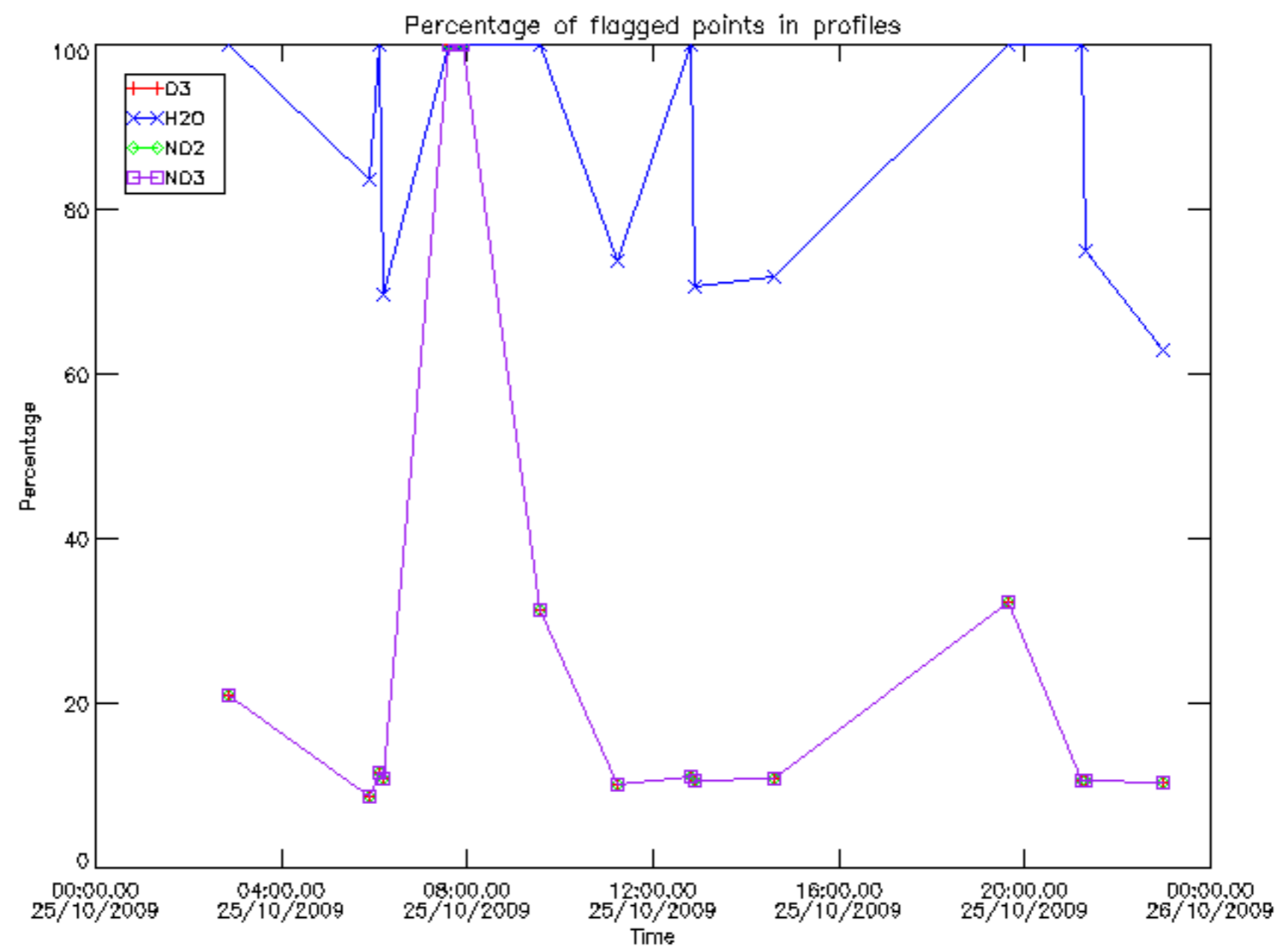
The colorbar represents the latitude.



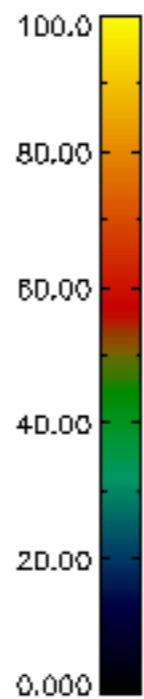
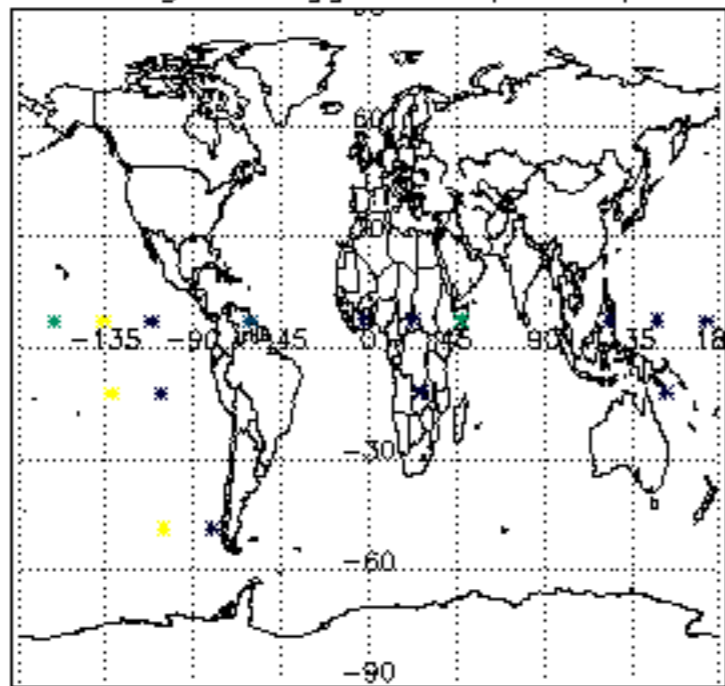
6. Auxiliary Data Files used for the production reported in section 2

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.

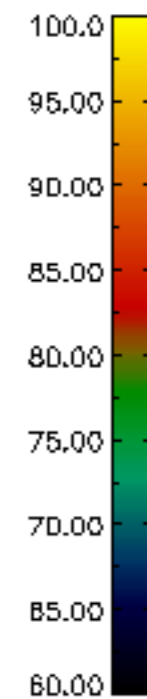
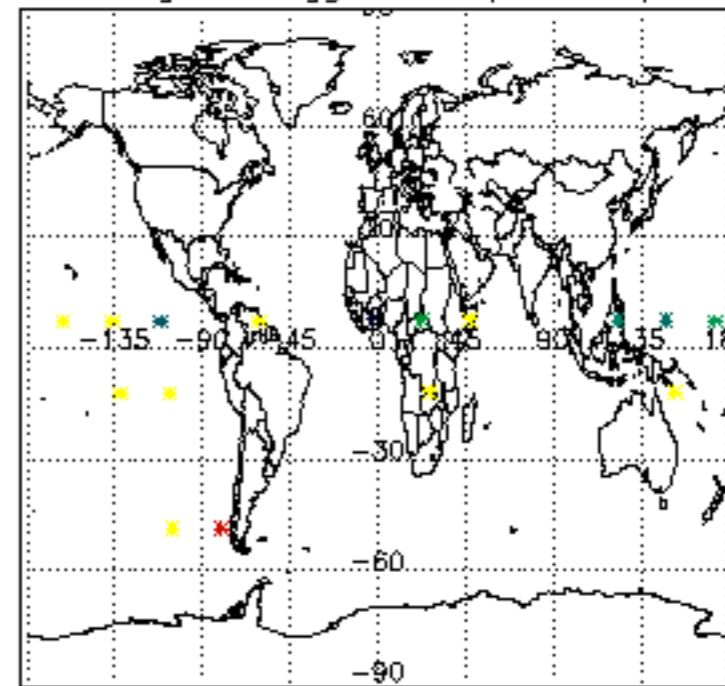
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	25-OCT-2009 00:01:02
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-OCT-2009 00:01:02
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-OCT-2009 00:01:02



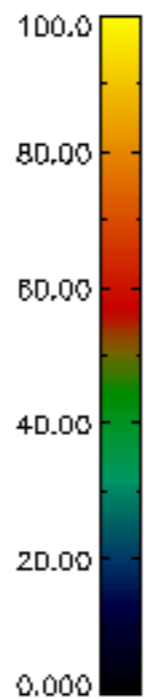
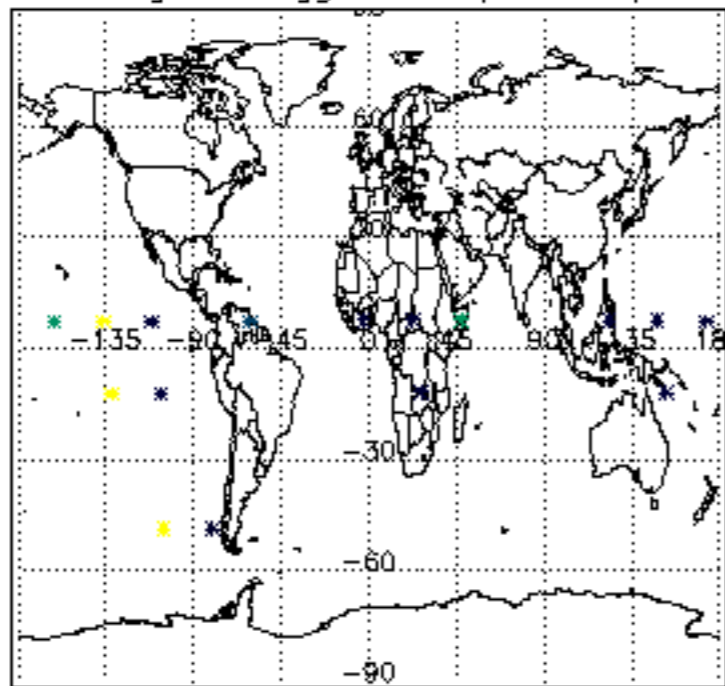
Percentage of flagged data per D3 profile



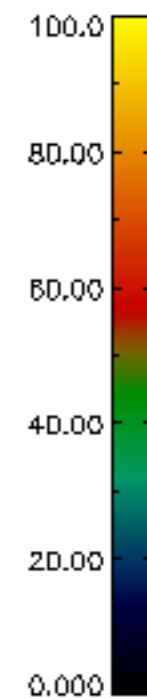
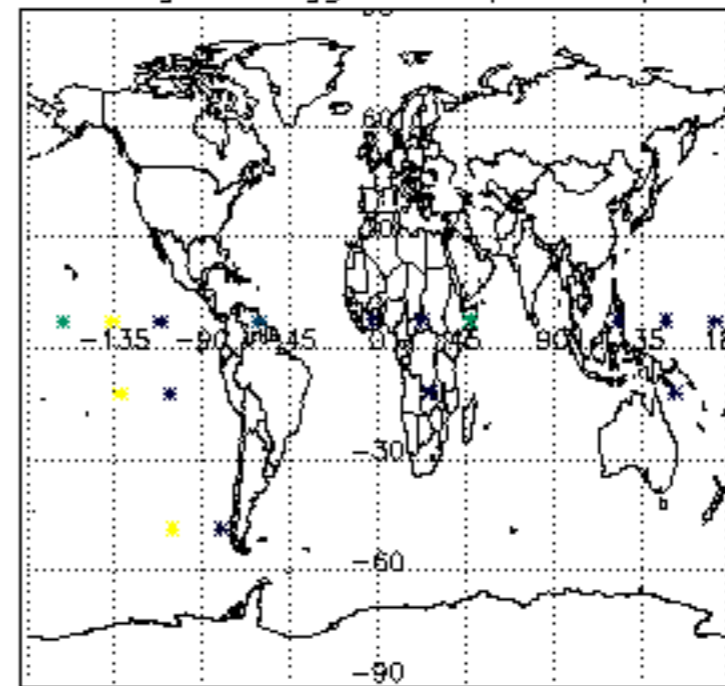
Percentage of flagged data per H2O profile

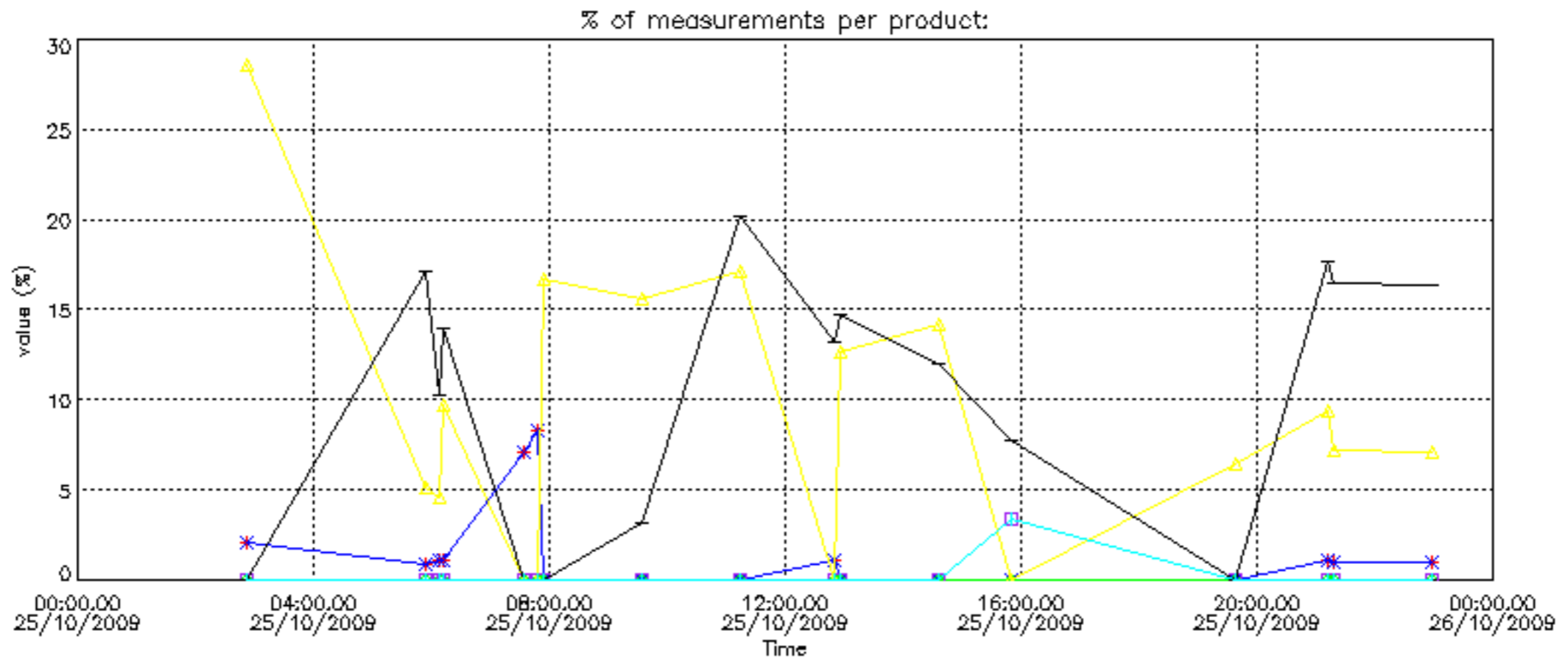


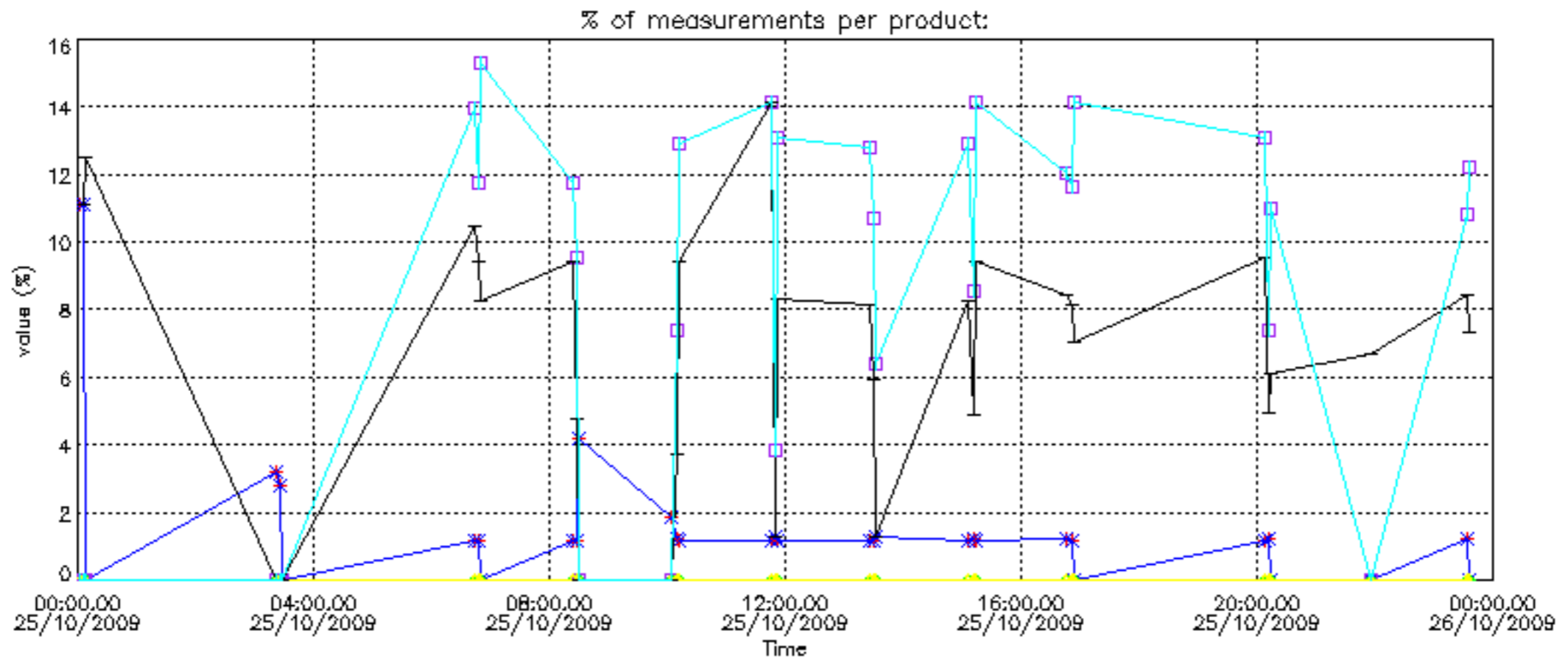
Percentage of flagged data per NO2 profile



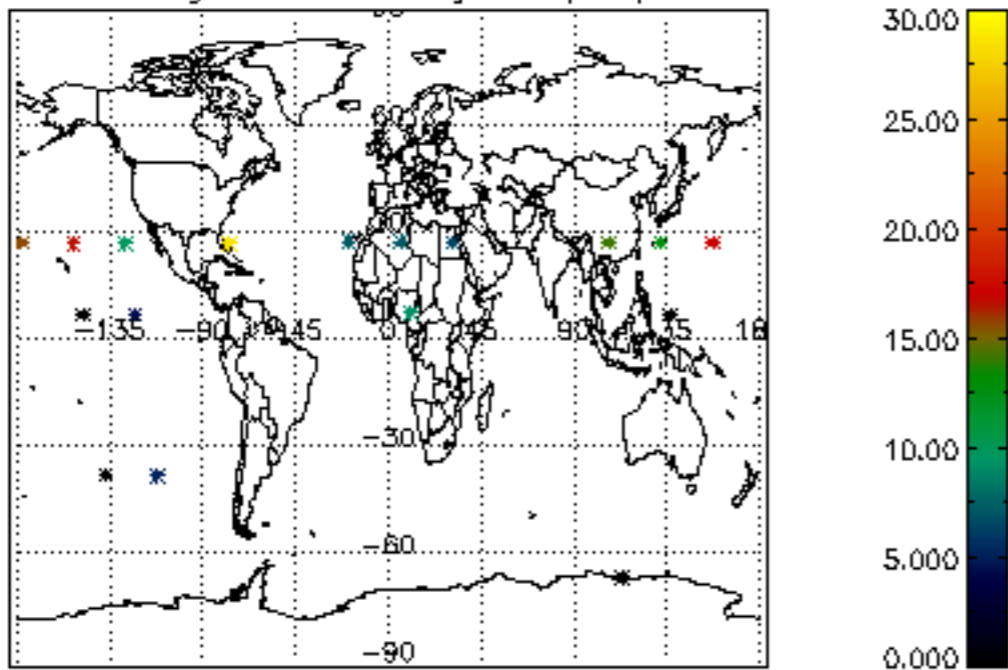
Percentage of flagged data per NO3 profile



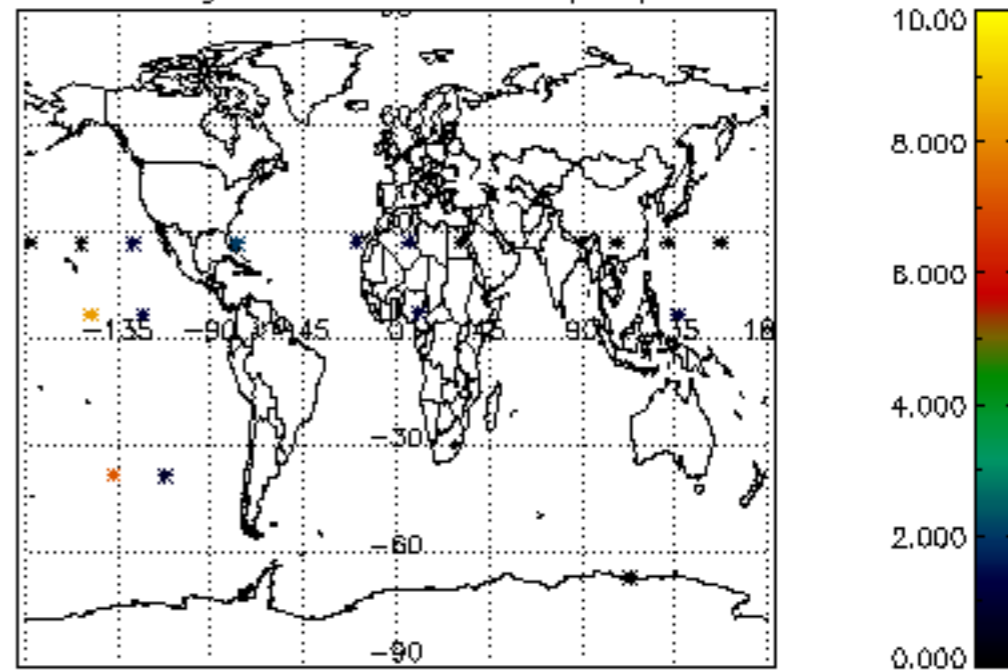




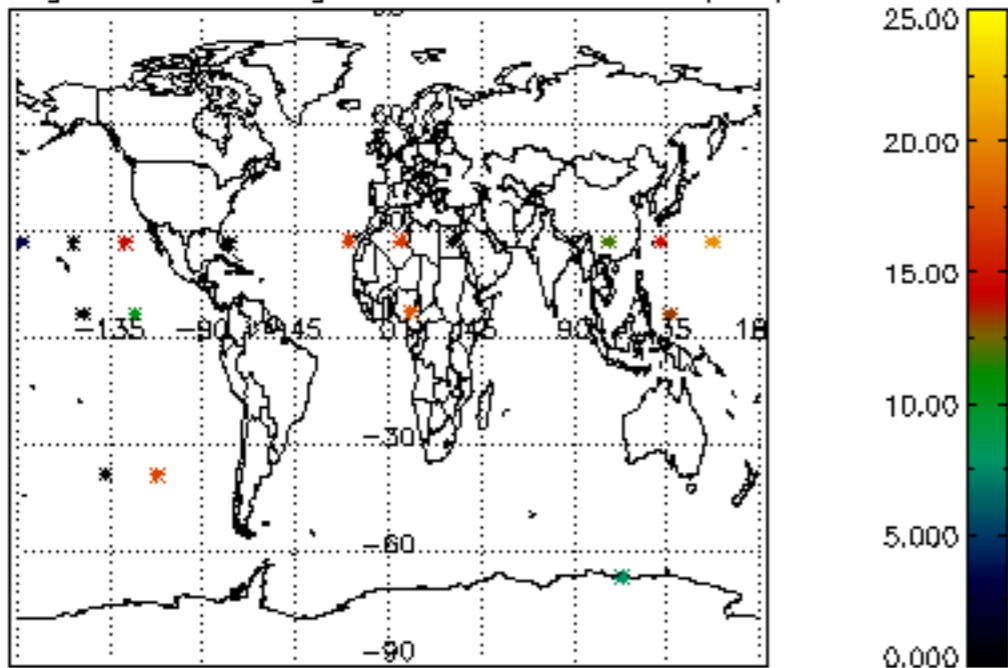
Percentage of cosmic ray hits per profile



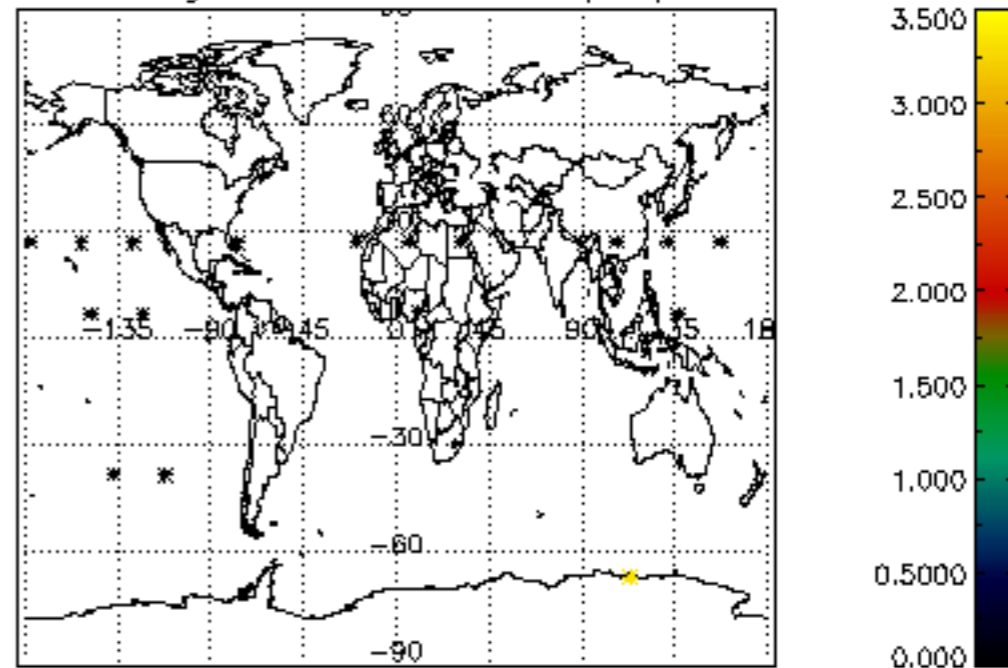
Percentage of datation errors per profile



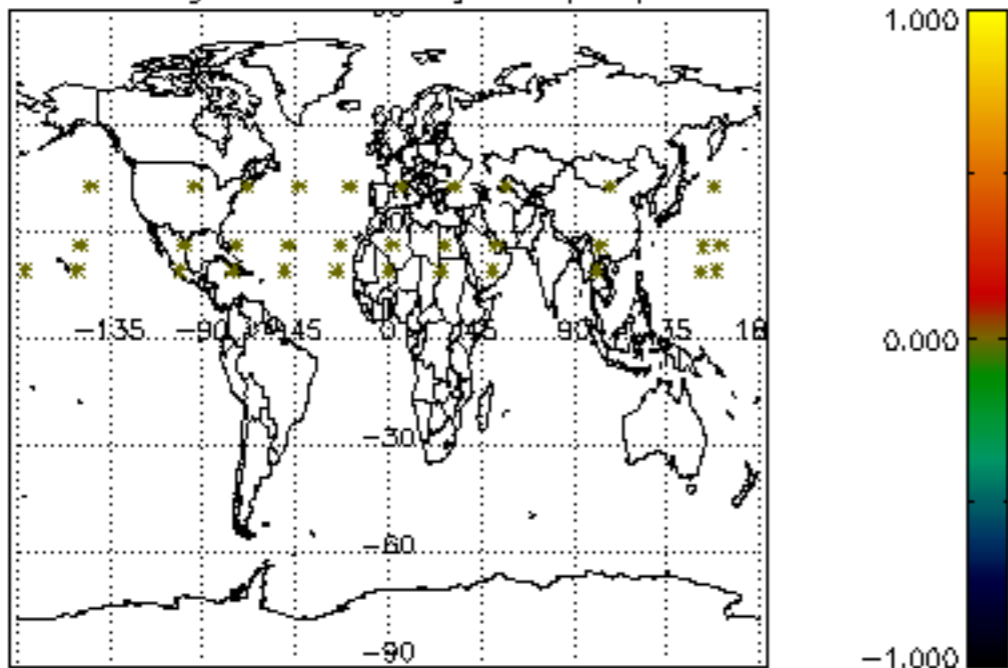
Percentage of star falling outside central band per profile



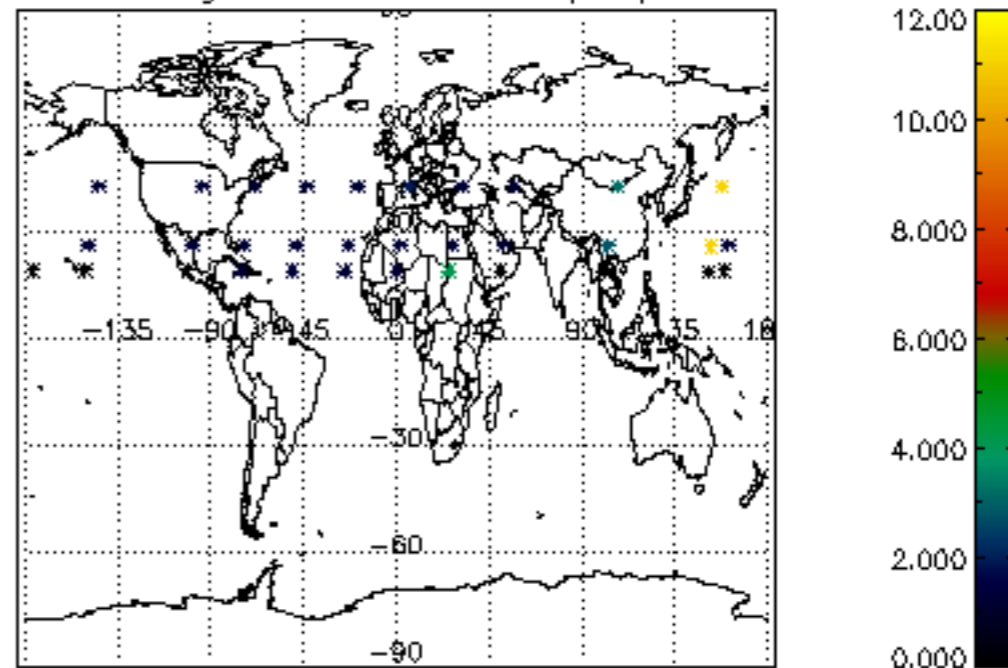
Percentage of saturation errors per profile



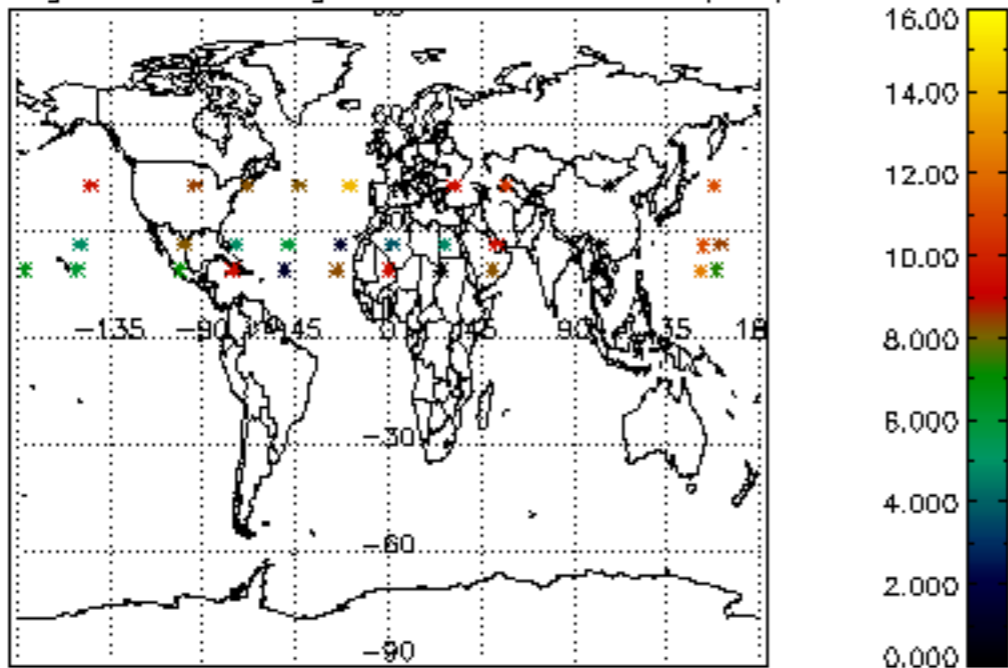
Percentage of cosmic ray hits per profile



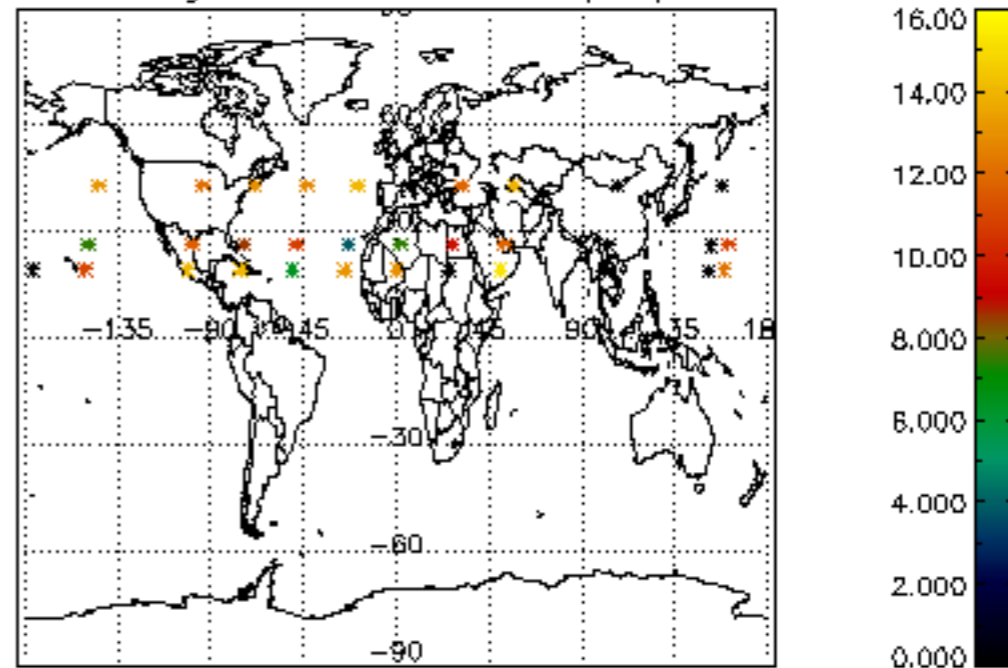
Percentage of datation errors per profile

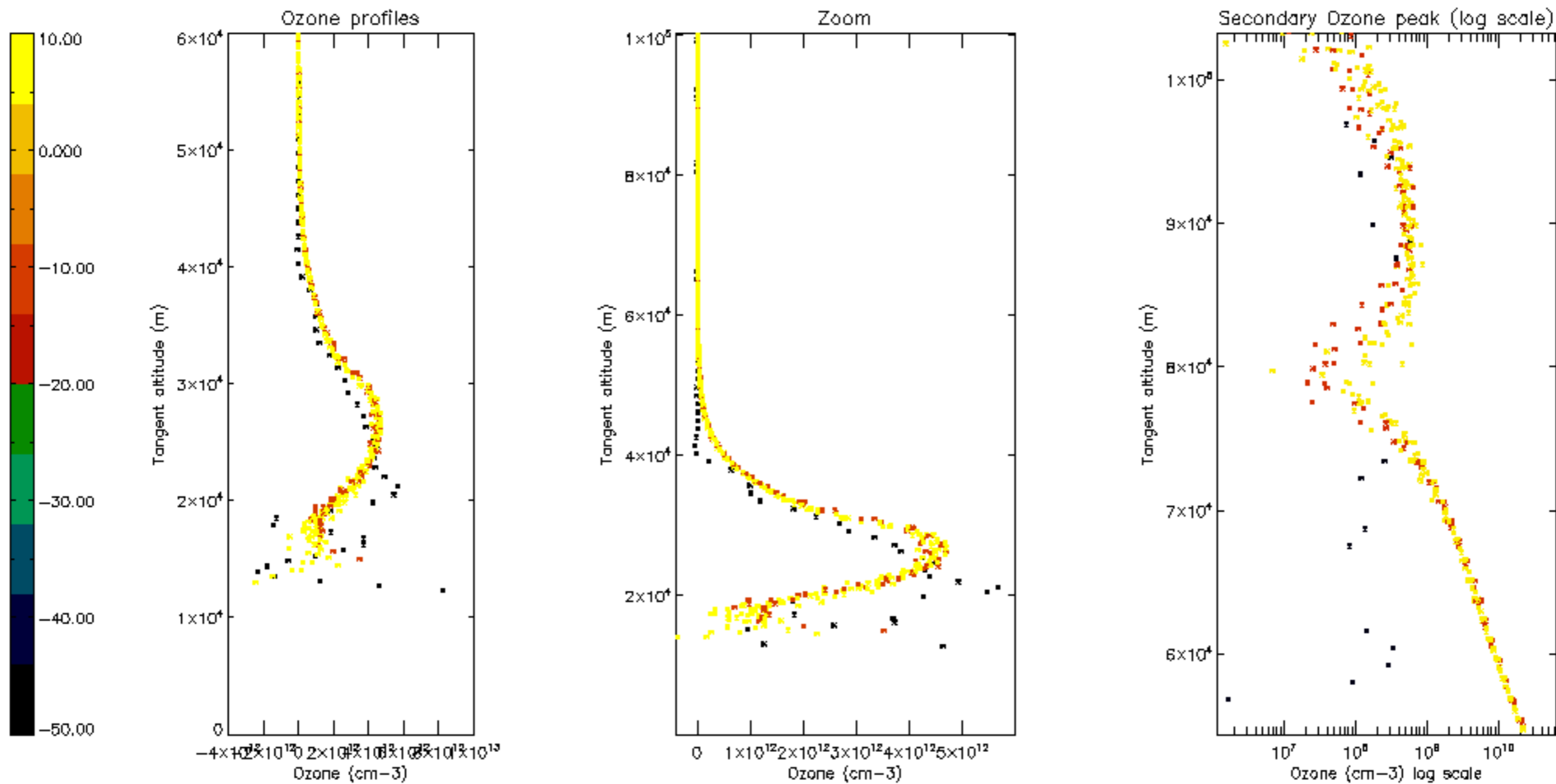


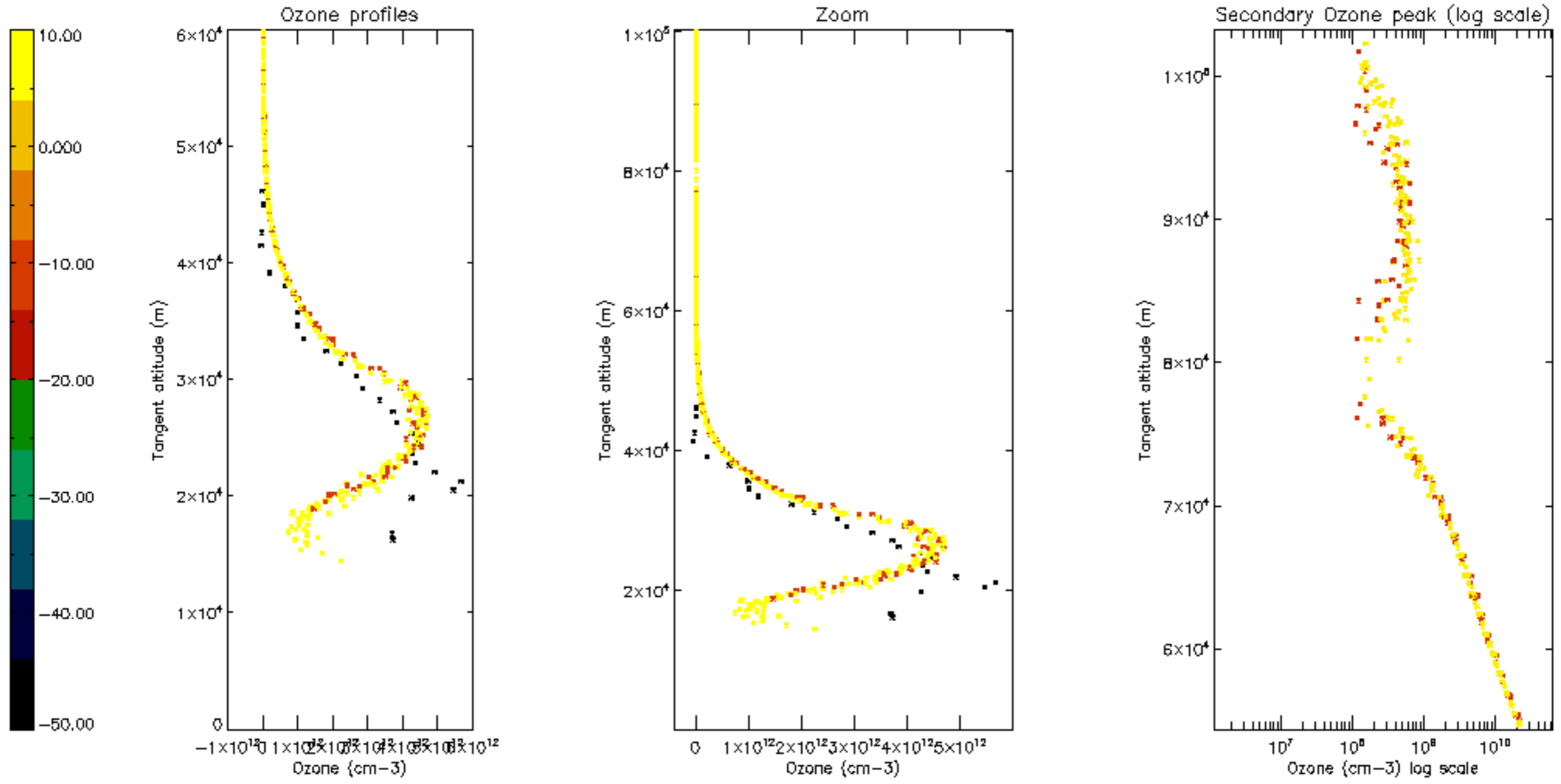
Percentage of star falling outside central band per profile

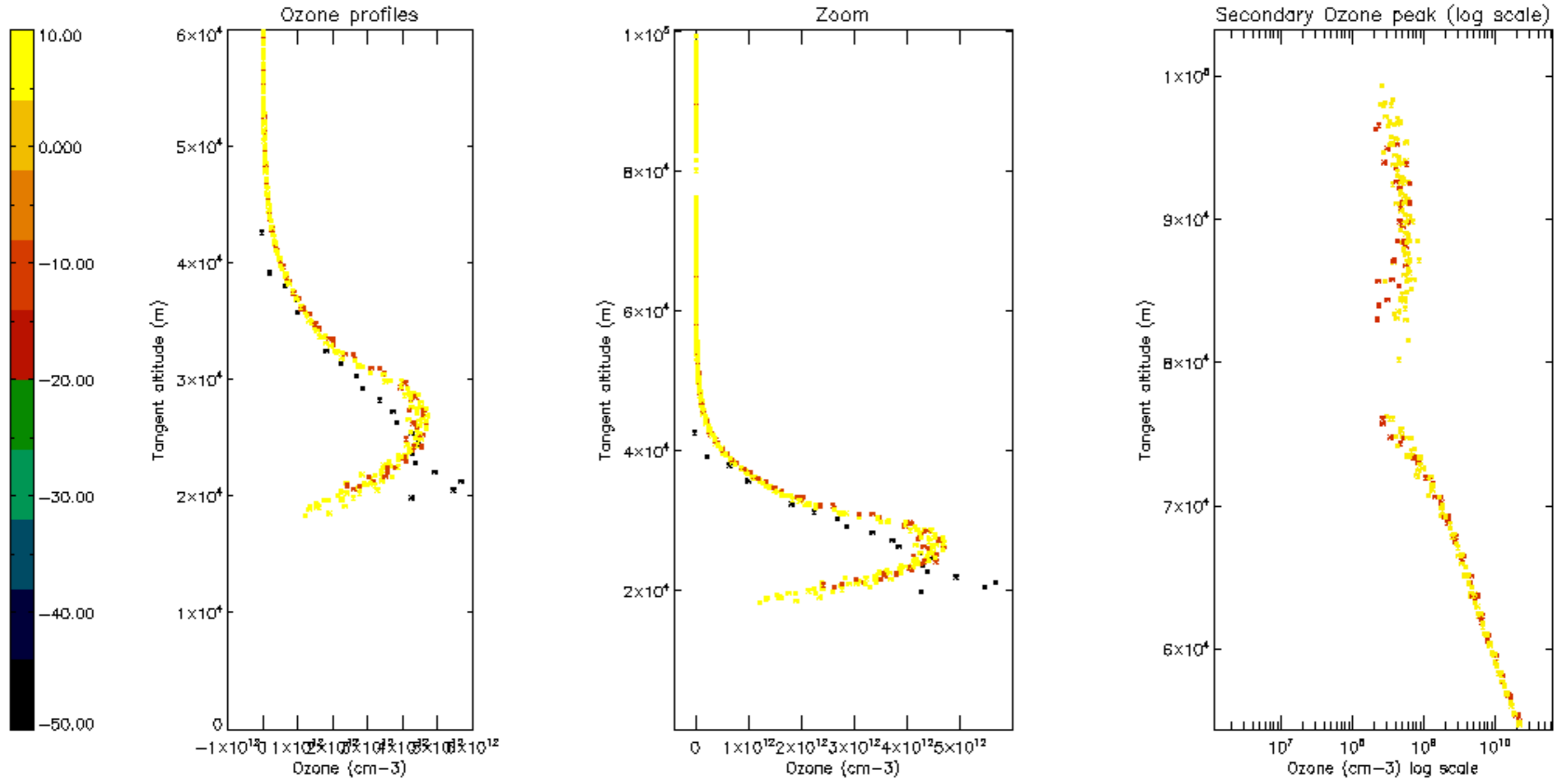


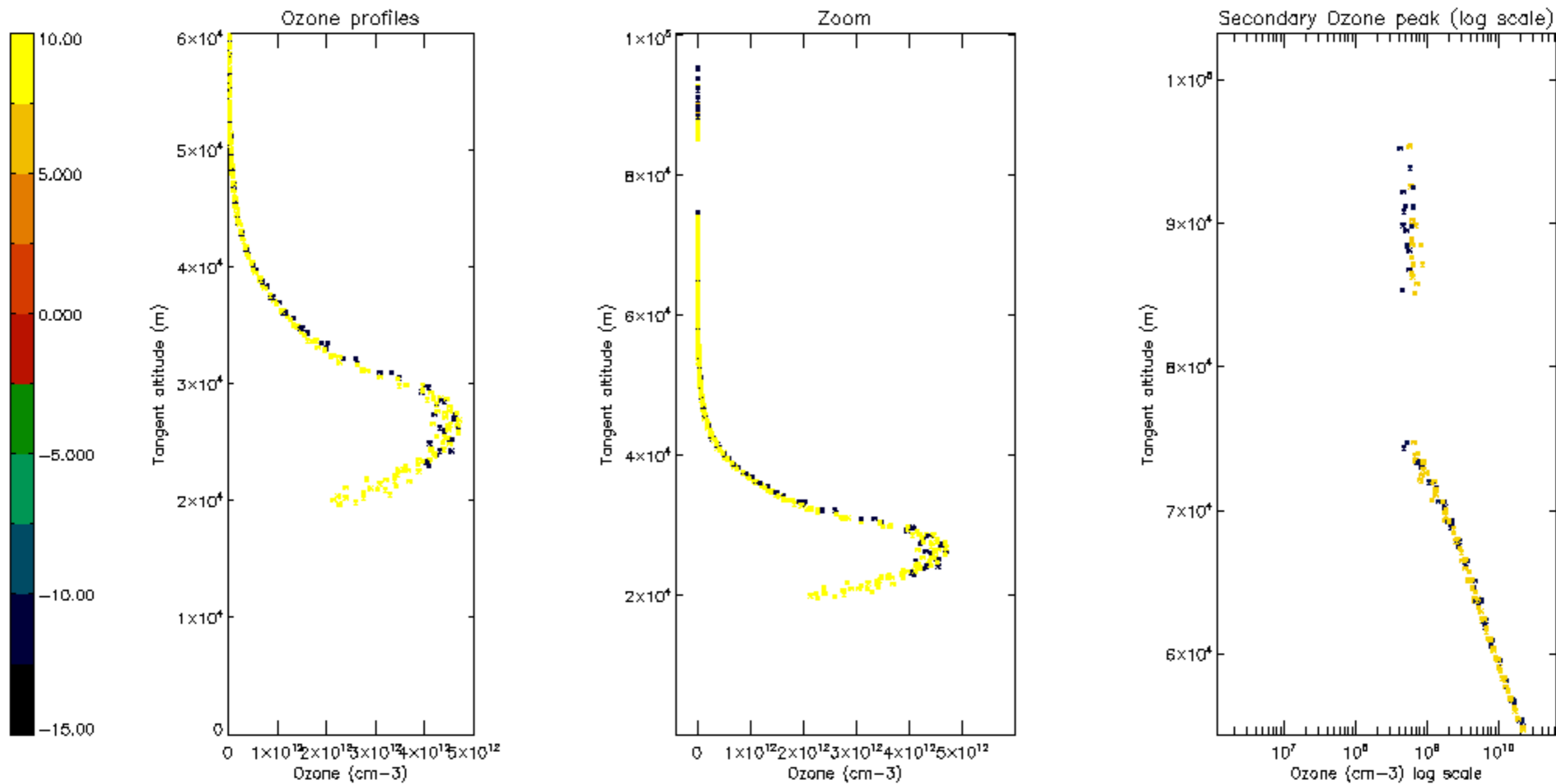
Percentage of saturation errors per profile

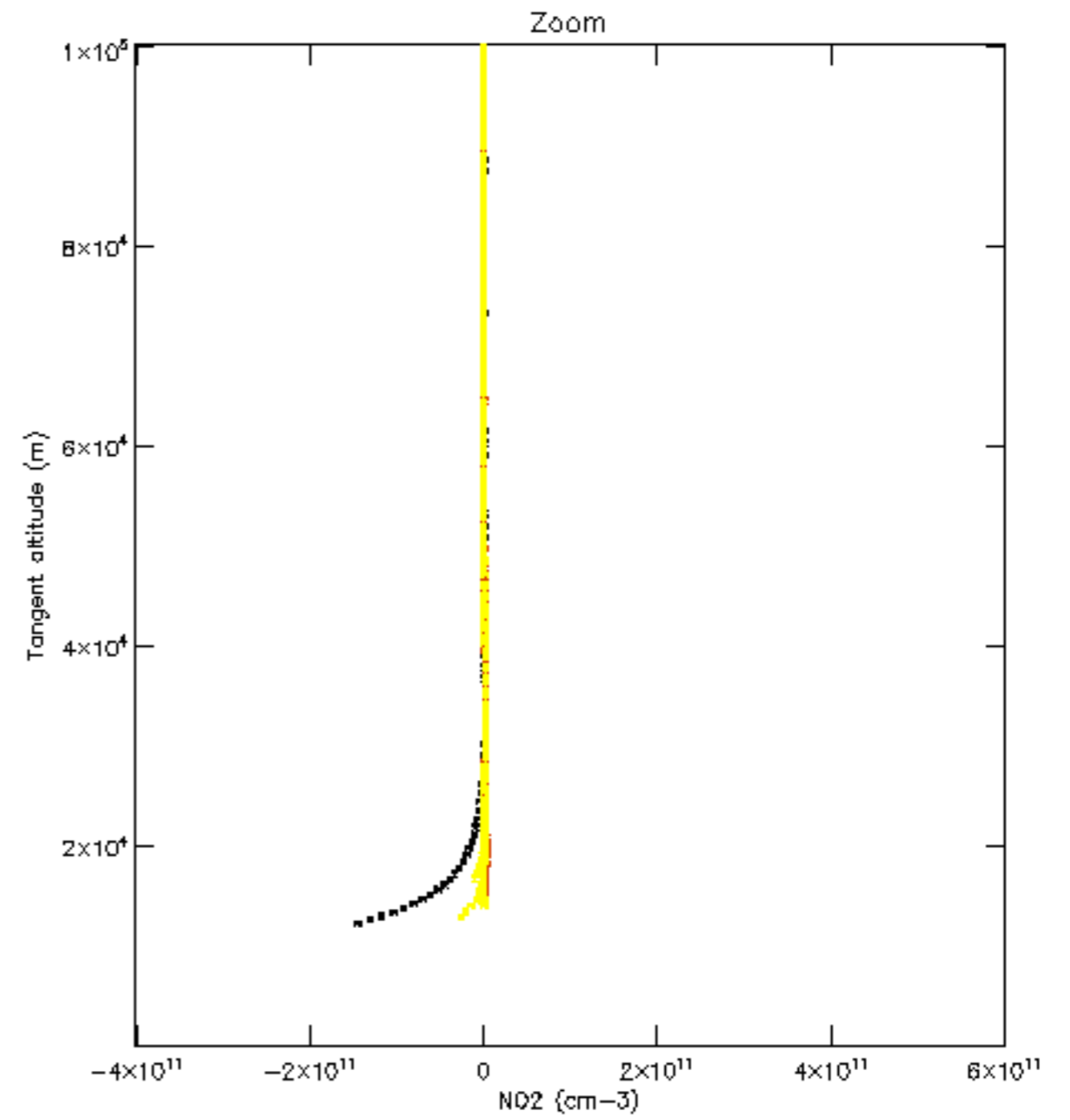
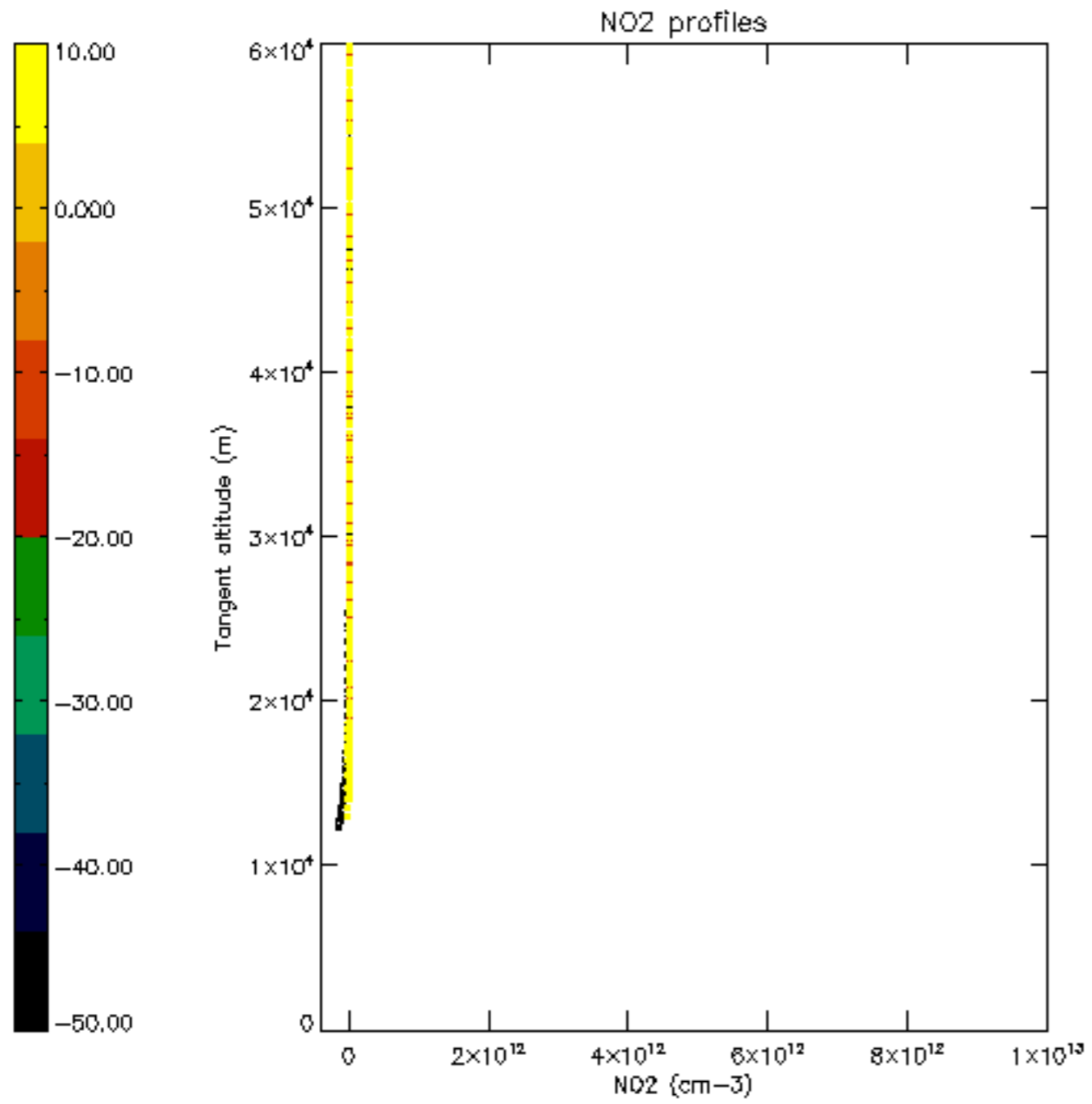


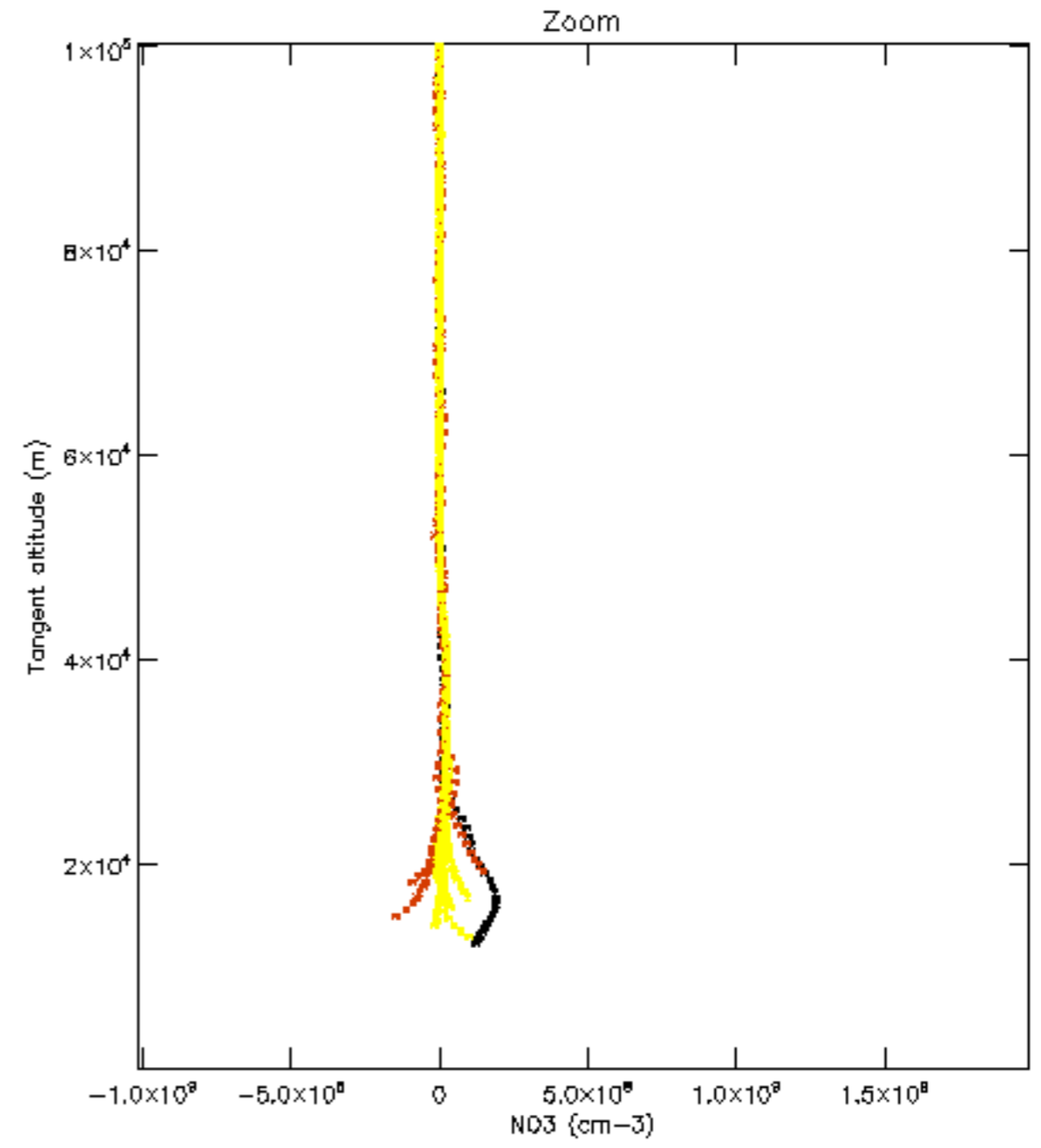
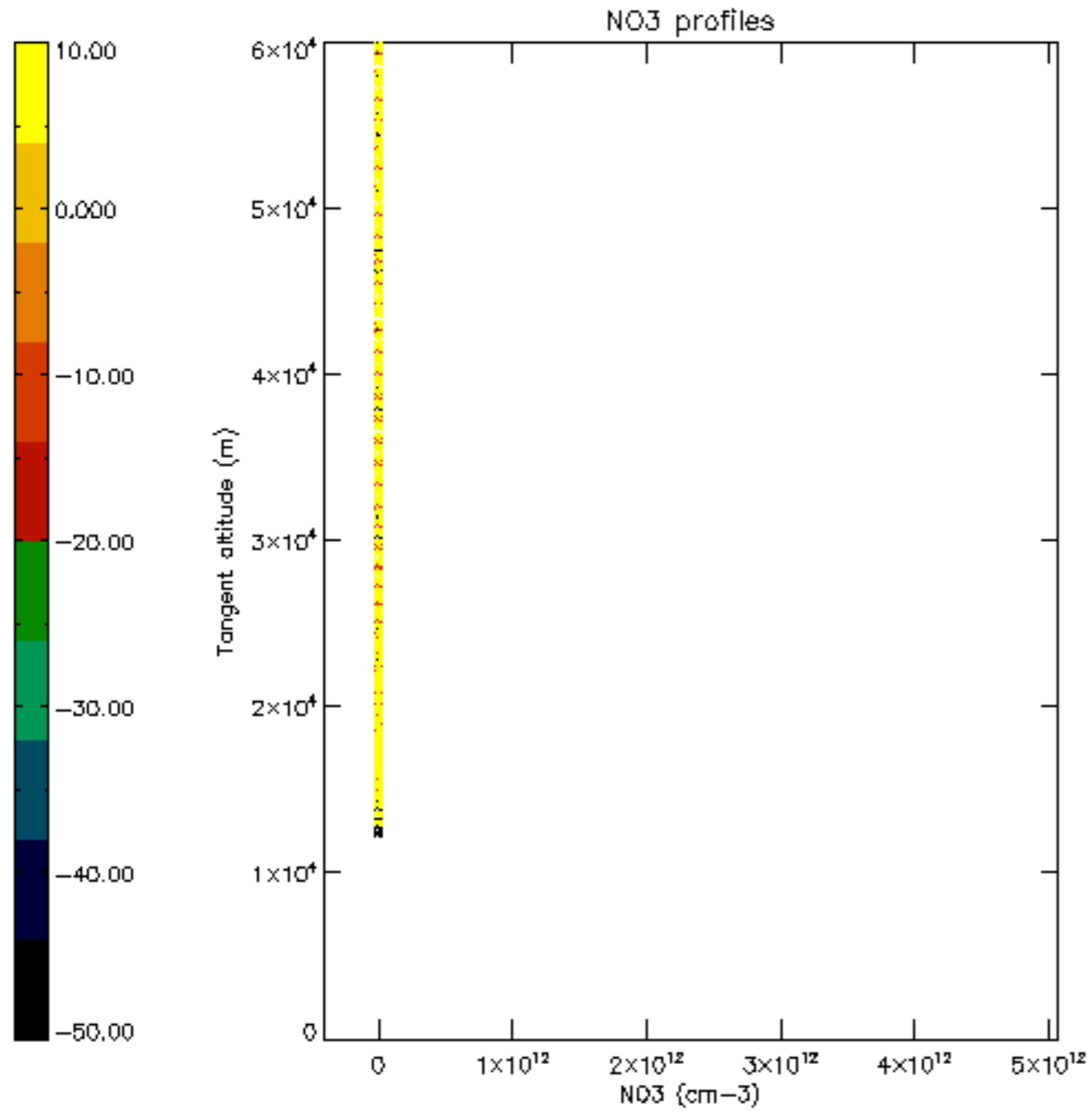


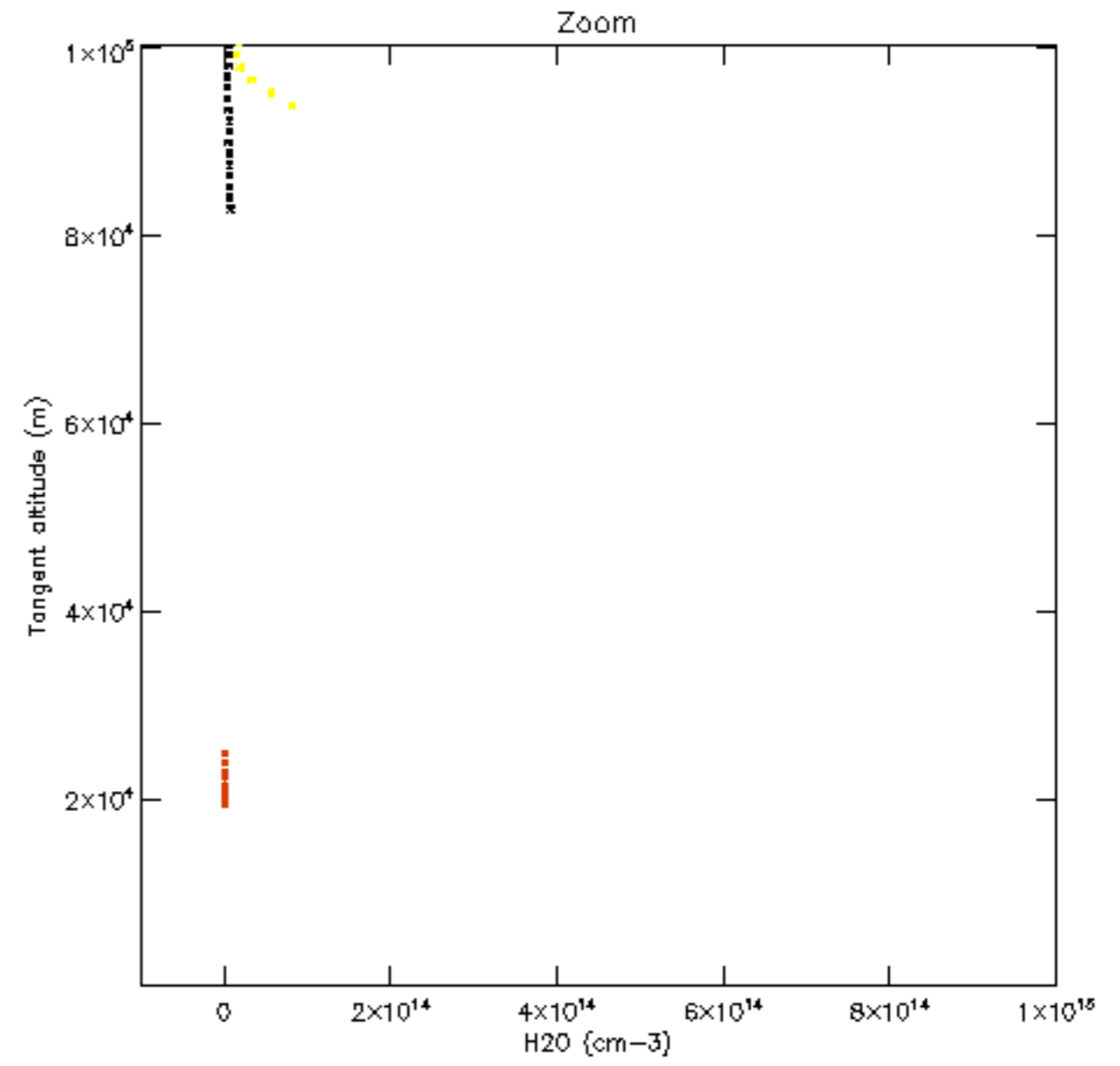
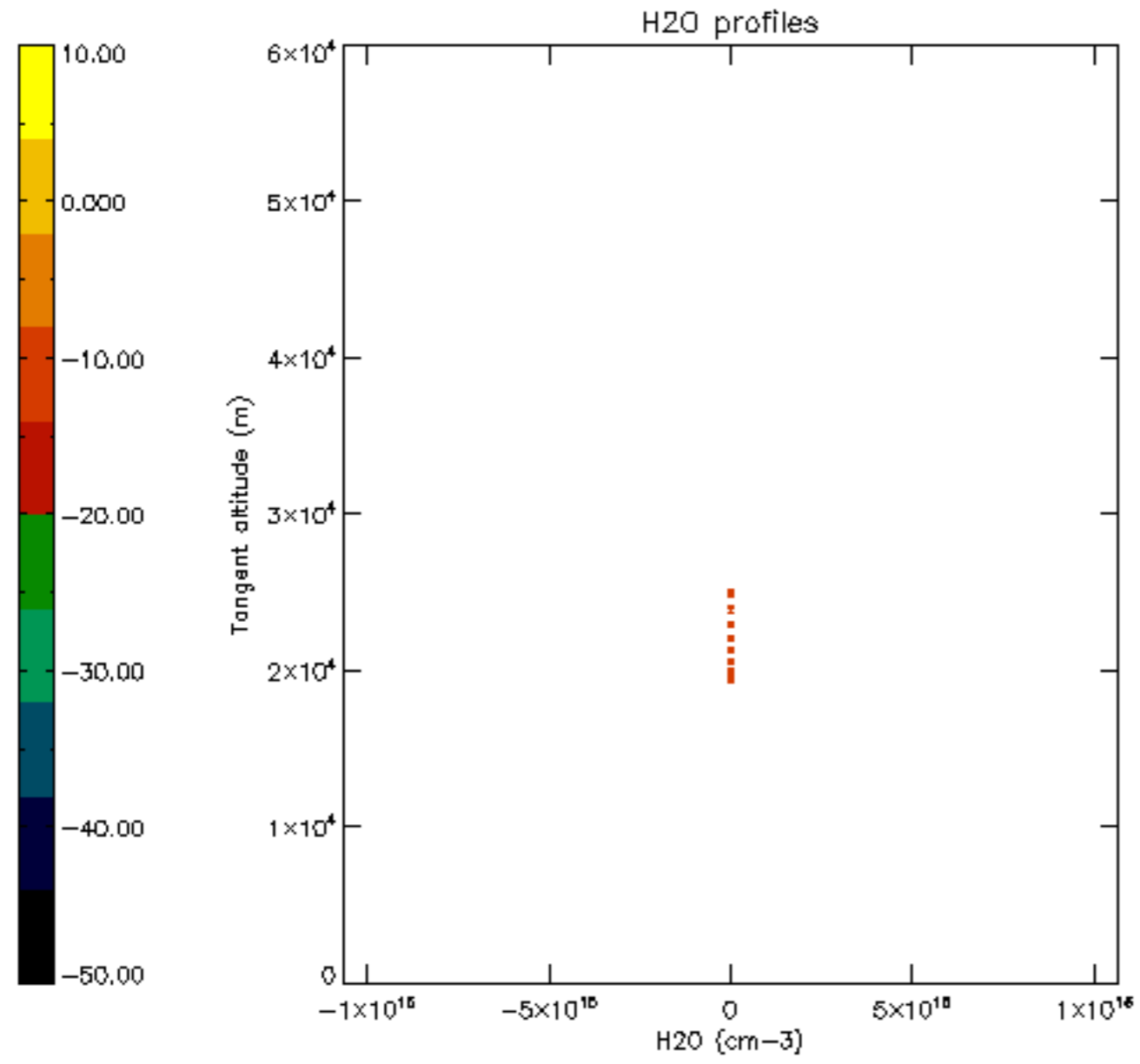


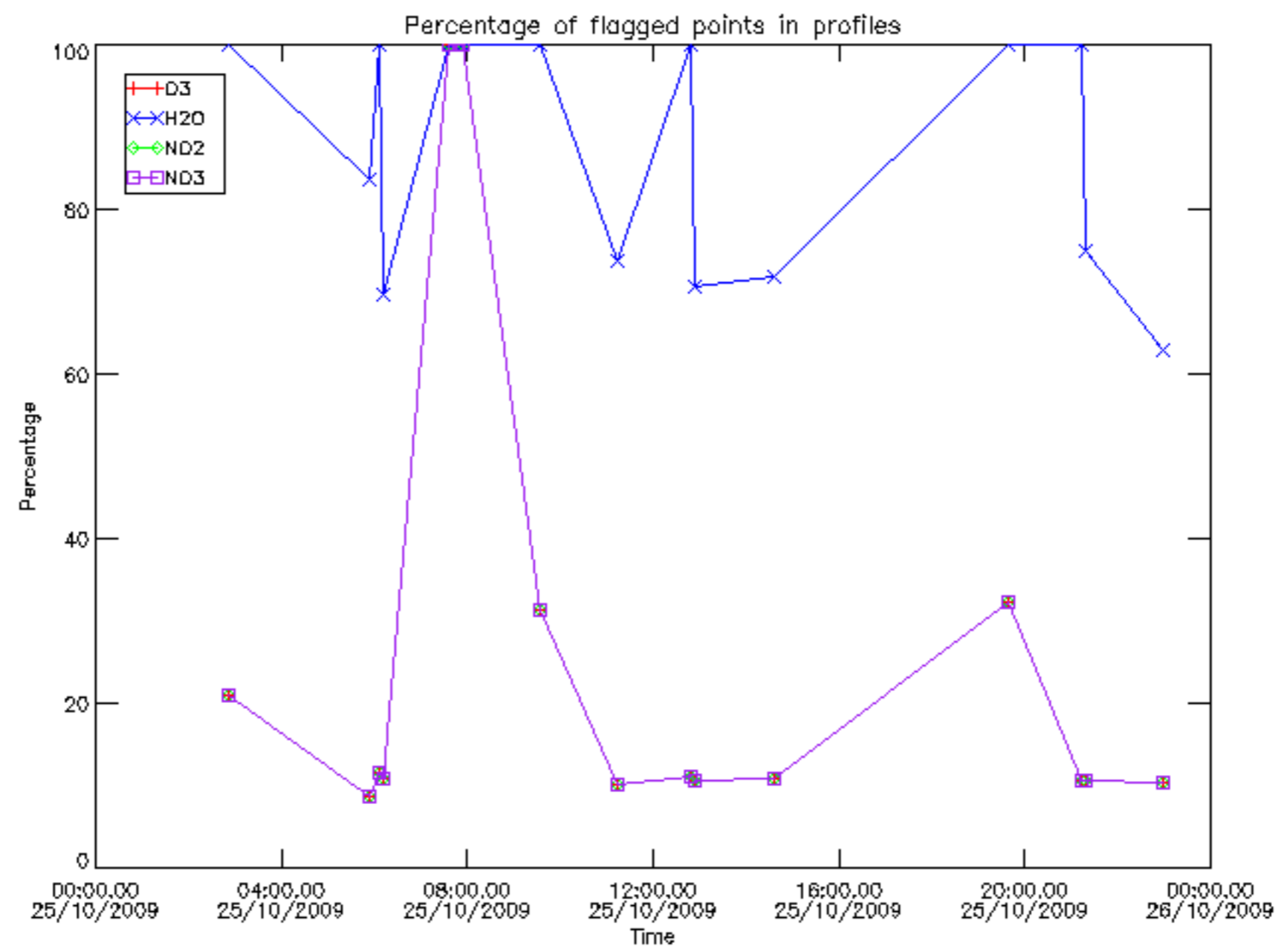




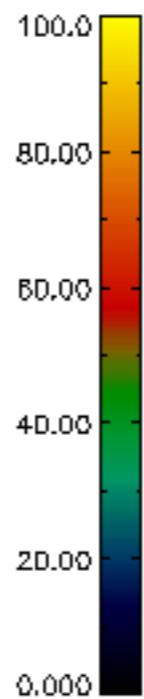
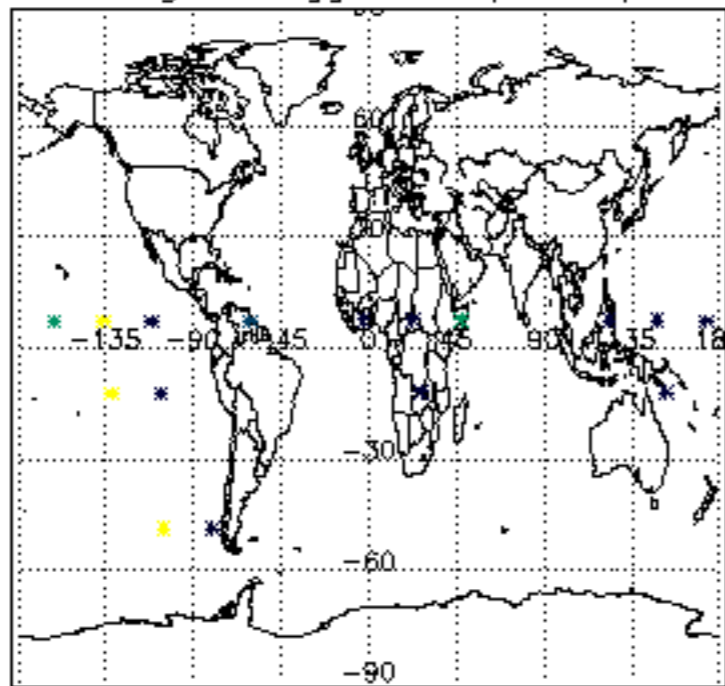




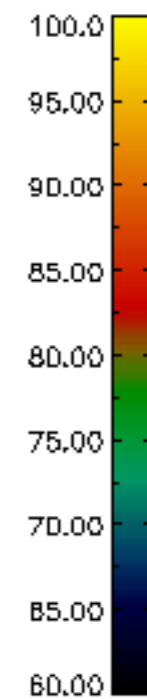
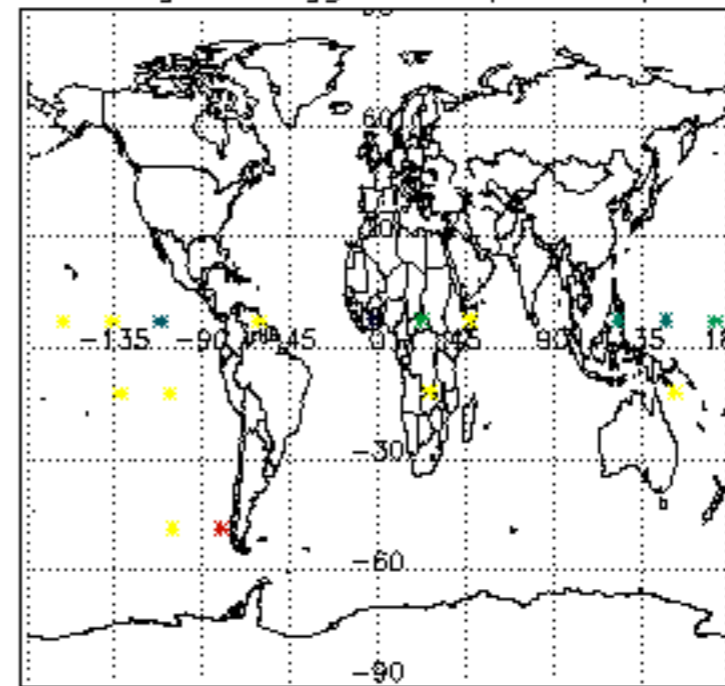




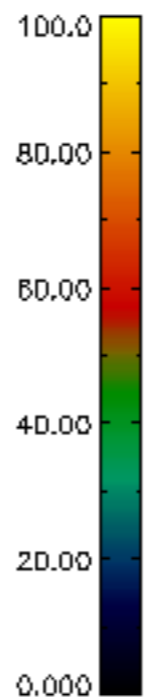
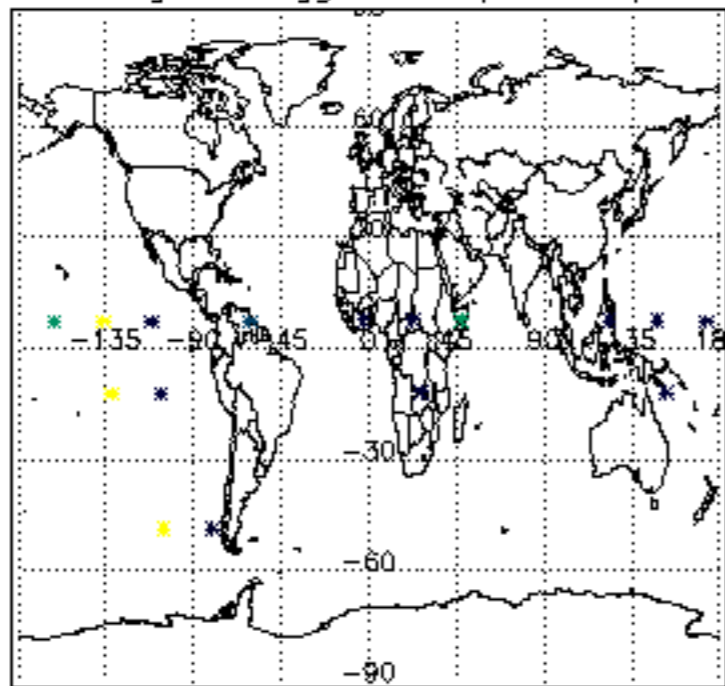
Percentage of flagged data per D3 profile



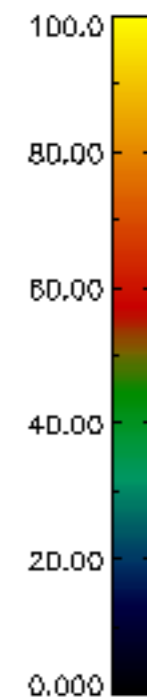
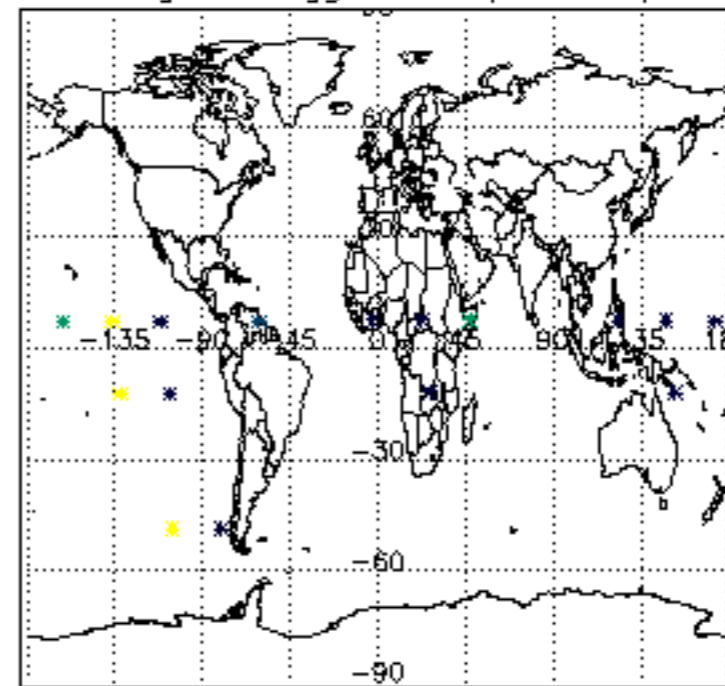
Percentage of flagged data per H2O profile

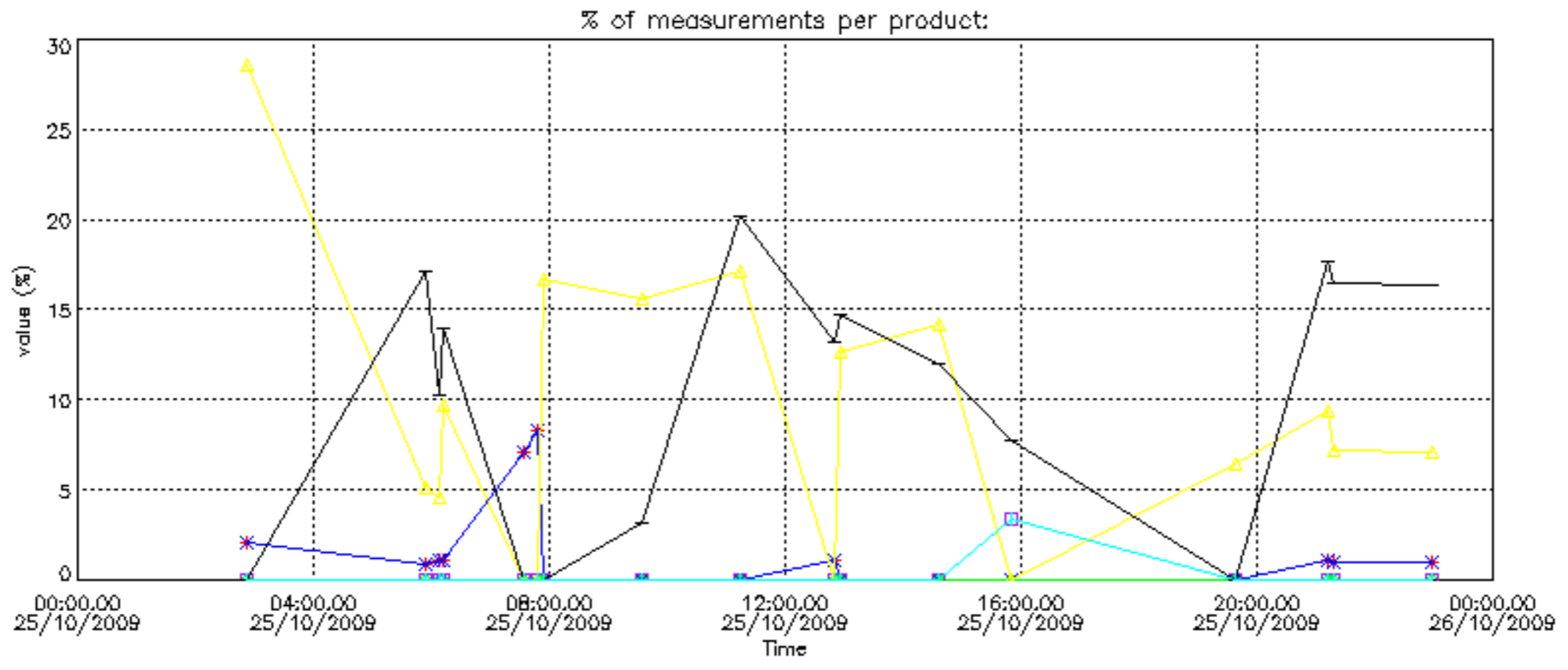


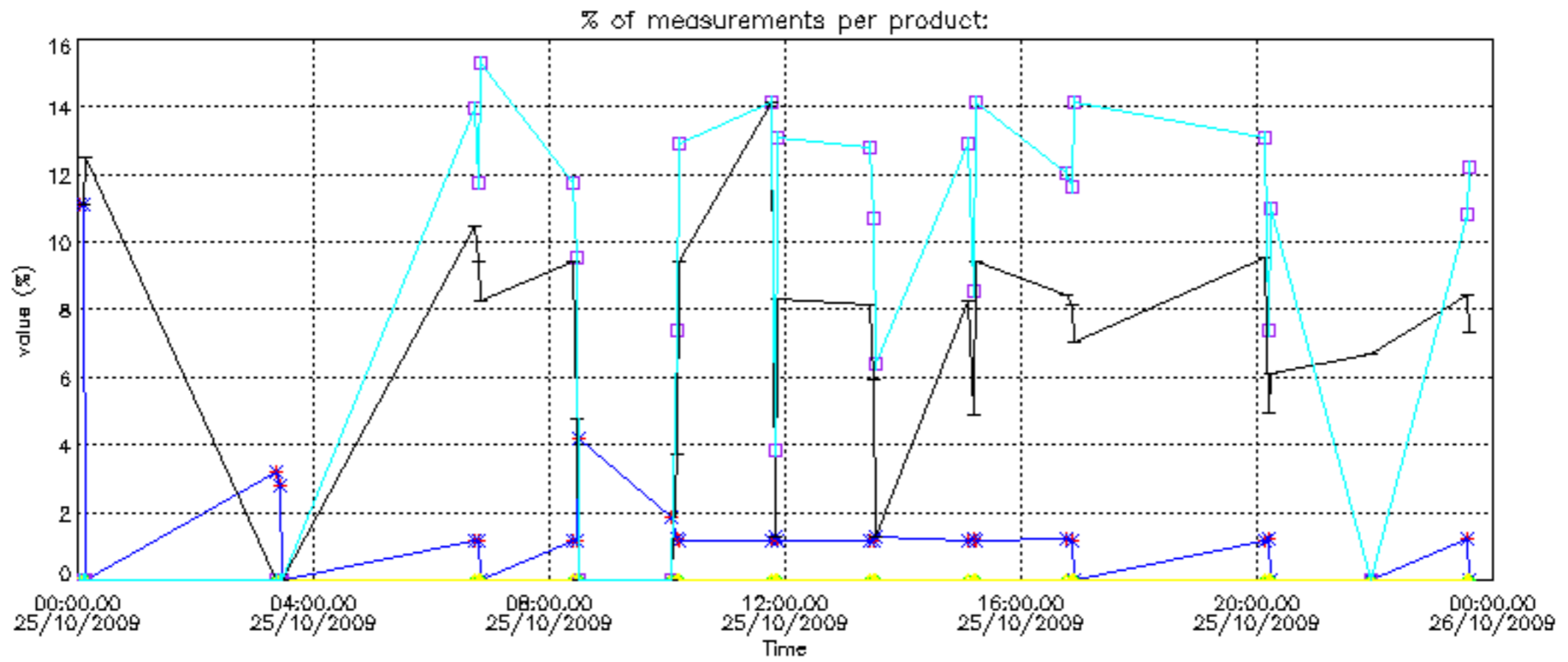
Percentage of flagged data per NO2 profile



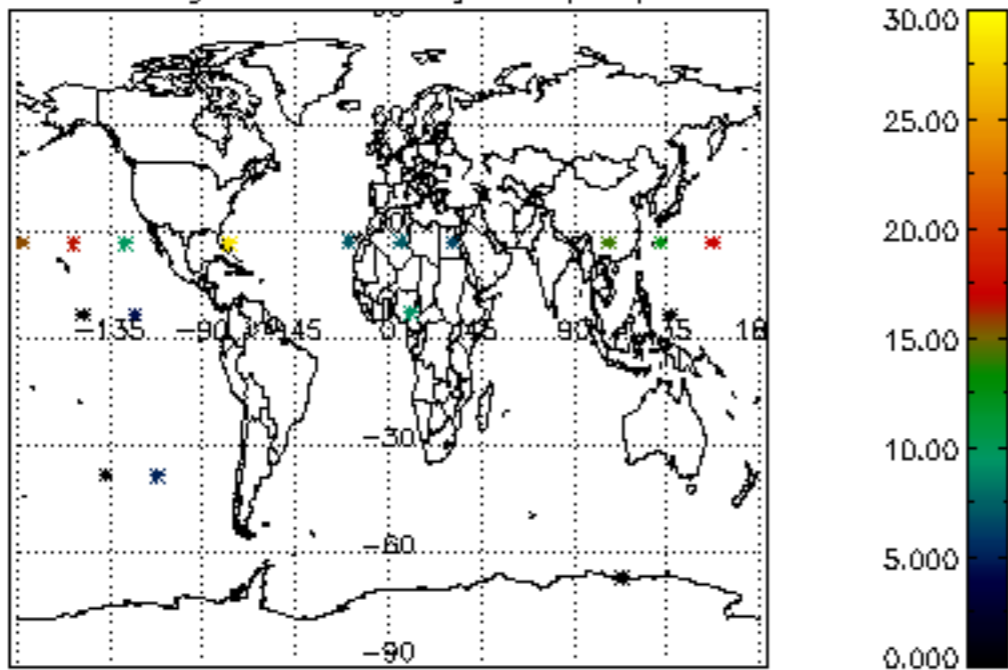
Percentage of flagged data per NO3 profile



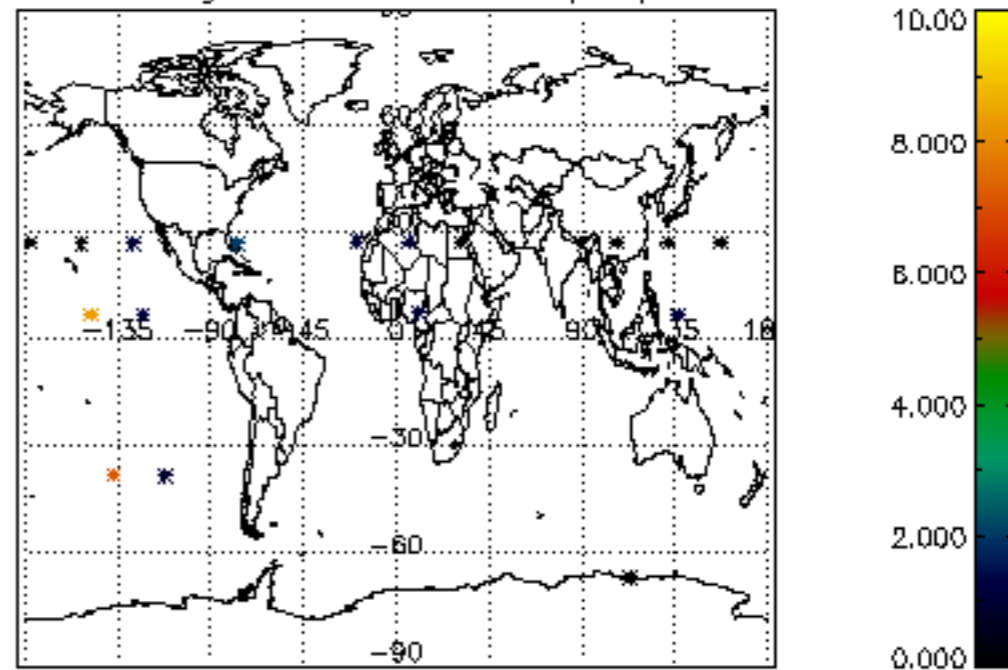




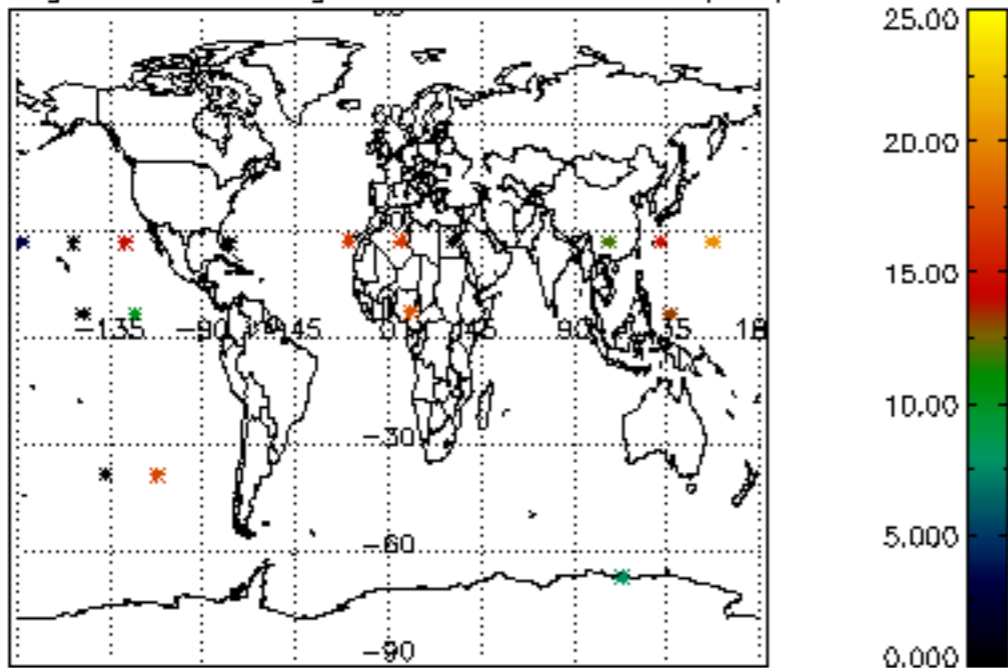
Percentage of cosmic ray hits per profile



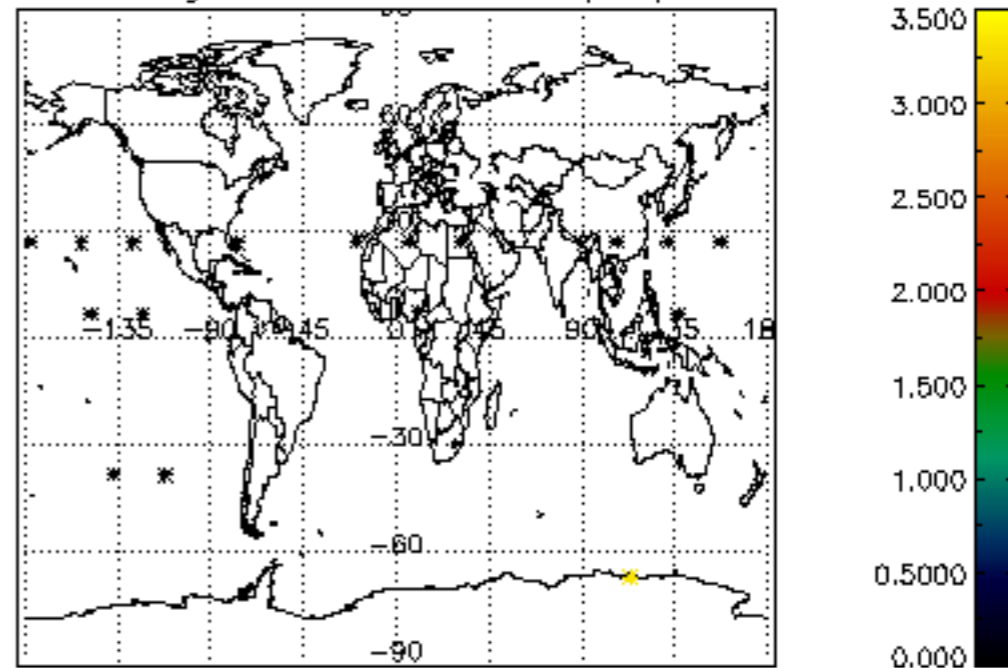
Percentage of datation errors per profile



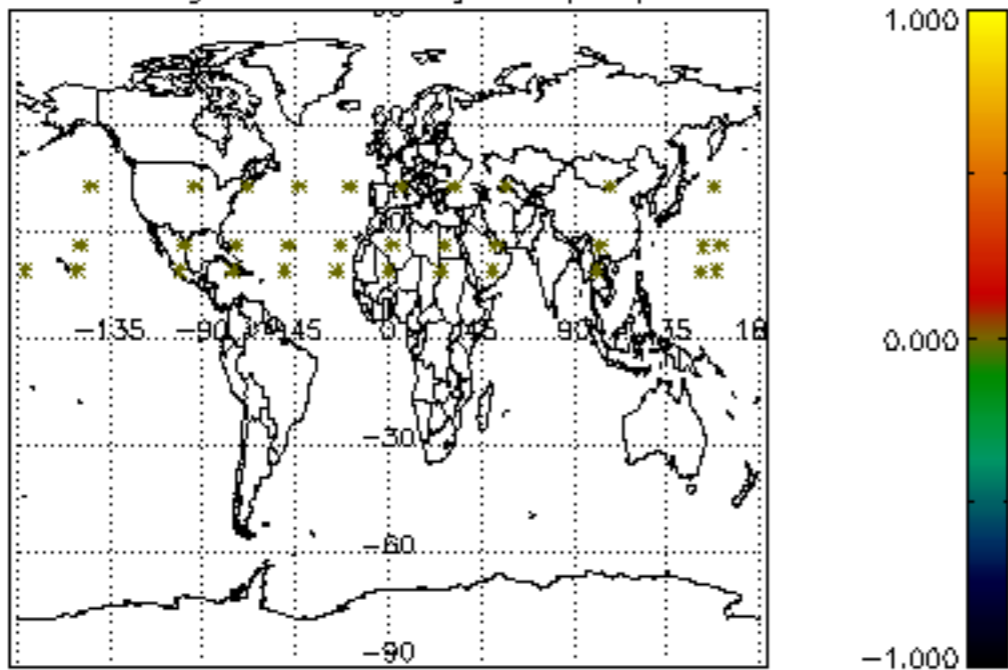
Percentage of star falling outside central band per profile



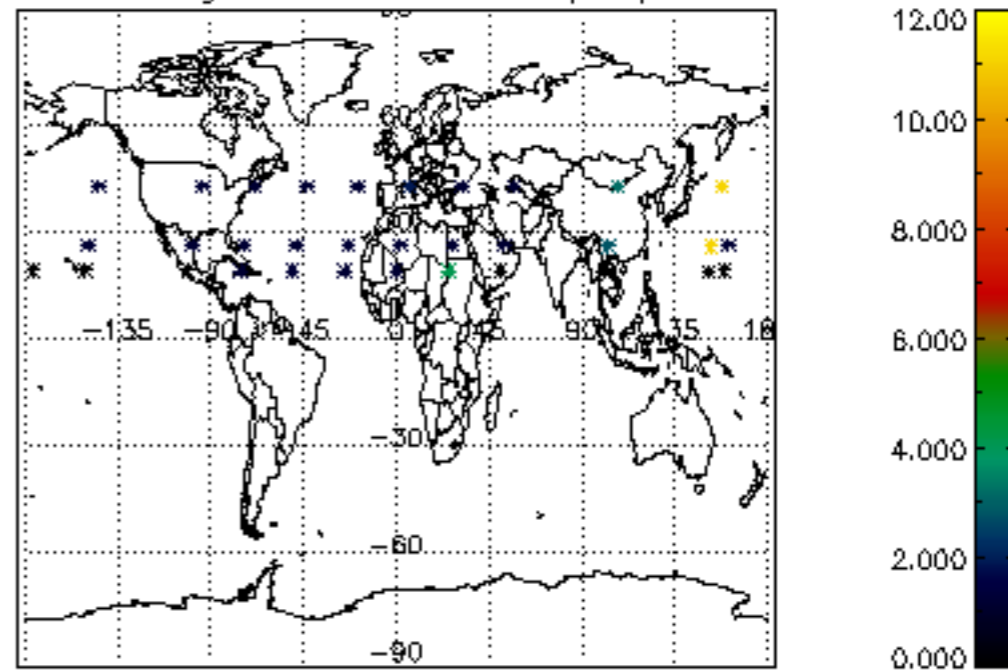
Percentage of saturation errors per profile



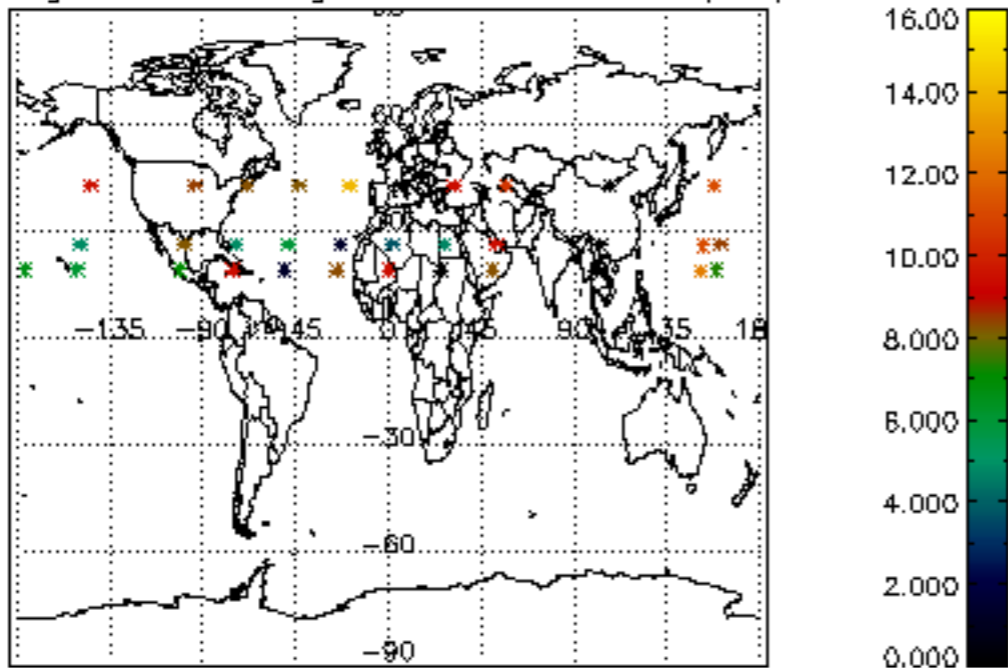
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

