

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[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	25APR2013 23:39:18
Data source version	GOMOS/6.01
Start time of products	14-12-2008 (14DEC2008 00:00:00)
Stop time of products	15-12-2008 (15DEC2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	404
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

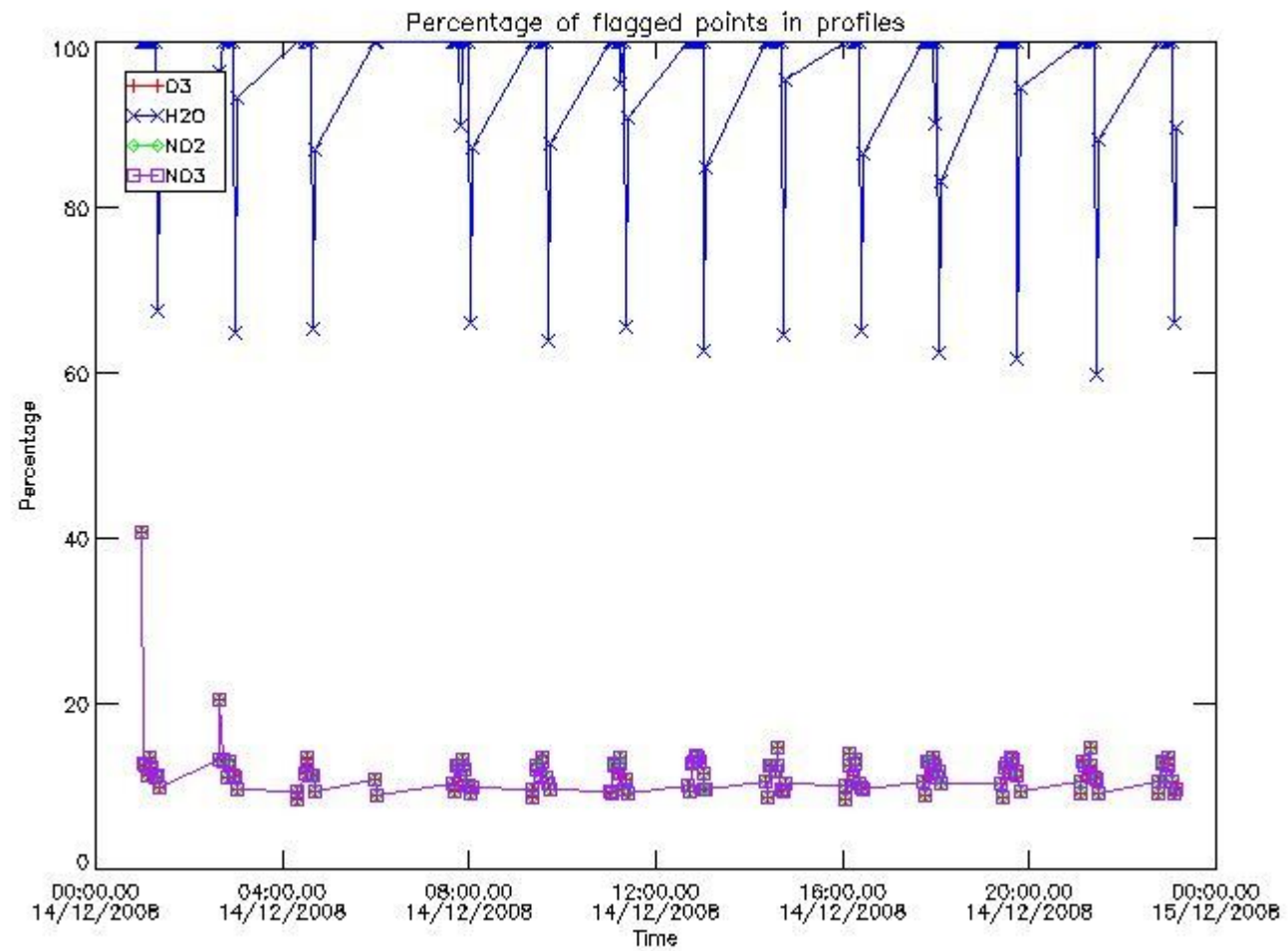
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081214_000146_000000452074_00374_35498_1945.N1	14-DEC-2008 00:01:46	Bright	44.500	176	23Zet Tau	3.0200	22000.	89	35498	No
2	GOM_NL__2PRFIN20081214_000349_000000422074_00374_35498_1946.N1	14-DEC-2008 00:03:49	Bright	41.500	28	12Bet Tau	1.6500	15200.	83	35498	No
3	GOM_NL__2PRFIN20081214_000559_000000352074_00374_35498_1947.N1	14-DEC-2008 00:05:59	Bright	34.500	149	45Eps Per	2.8880	30000.	69	35498	No
4	GOM_NL__2PRFIN20081214_000731_000000462074_00374_35498_1948.N1	14-DEC-2008 00:07:31	Bright	45.500	107	37The Aur	2.6490	11000.	91	35498	No
5	GOM_NL__2PRFIN20081214_000940_000000442074_00374_35498_1949.N1	14-DEC-2008 00:09:40	Bright	44.000	42	34Bet Aur	1.9000	10200.	88	35498	No
6	GOM_NL__2PRFIN20081214_002435_000000332074_00374_35498_1950.N1	14-DEC-2008 00:24:35	Bright	33.000	60	7Bet UMi	2.0810	3950.0	66	35498	No
7	GOM_NL__2PRFIN20081214_002918_000000422074_00374_35498_1951.N1	14-DEC-2008 00:29:18	Bright	41.500	32	77Eps UMa	1.7630	11000.	83	35498	No
8	GOM_NL__2PRFIN20081214_003149_000000382074_00374_35498_1952.N1	14-DEC-2008 00:31:49	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	35498	No
9	GOM_NL__2PRFIN20081214_003506_000000542074_00374_35498_1953.N1	14-DEC-2008 00:35:06	Bright	54.000	180	27Gam Boo	3.0400	8000.0	108	35498	No
10	GOM_NL__2PRFIN20081214_003816_000000362074_00374_35498_1954.N1	14-DEC-2008 00:38:16	Bright	35.500	83		2.3780	11000.	71	35498	No
11	GOM_NL__2PRFIN20081214_004133_000000402074_00374_35498_1955.N1	14-DEC-2008 00:41:33	Bright	39.500	111	8Eta Boo	2.6800	6000.0	79	35498	No
12	GOM_NL__2PRFIN20081214_004522_000000702074_00374_35498_1956.N1	14-DEC-2008 00:45:22	Bright	69.500	138	47Eps Vir	2.8280	4700.0	139	35498	No
13	GOM_NL__2PRFIN20081214_005119_000000542074_00374_35498_1957.N1	14-DEC-2008 00:51:19	Twilight	54.000	15	67Alp Vir	0.97600	28000.	108	35498	No
14	GOM_NL__2PRFIN20081214_005449_000000432074_00374_35498_1958.N1	14-DEC-2008 00:54:49	Twilight	42.500	169	46Gam Hya	2.9910	4700.0	85	35498	No
15	GOM_NL__2PRFIN20081214_005840_000000552074_00374_35498_1959.N1	14-DEC-2008 00:58:40	Dark	54.500	171	2Eps Crv	3.0010	4250.0	109	35498	No
16	GOM_NL__2PRFIN20081214_010212_000000402074_00374_35498_1960.N1	14-DEC-2008 01:02:12	Dark	40.000	64	Gam Cen	2.2000	10600.	80	35498	No
17	GOM_NL__2PRFIN20081214_010348_000000412074_00375_35499_1940.N1	14-DEC-2008 01:03:48	Dark	41.000	99	Del Cen	2.5750	26000.	82	35499	No
18	GOM_NL__2PRFIN20081214_010733_000000452074_00375_35499_1941.N1	14-DEC-2008 01:07:33	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	35499	No
19	GOM_NL__2PRFIN20081214_011009_000000382074_00375_35499_1942.N1	14-DEC-2008 01:10:09	Dark	38.000	159	Ups Car	2.9200	7200.0	76	35499	No
20	GOM_NL__2PRFIN20081214_011128_000000422074_00375_35499_1943.N1	14-DEC-2008 01:11:28	Dark	41.500	71	Iot Car	2.2460	7700.0	83	35499	No
21	GOM_NL__2PRFIN20081214_011605_000000462074_00375_35499_1944.N1	14-DEC-2008 01:16:05	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	35499	No
22	GOM_NL__2PRFIN20081214_011821_000000452074_00375_35499_1945.N1	14-DEC-2008 01:18:21	Dark	45.000	2	Alp Car	-0.73600	7000.0	90	35499	No
23	GOM_NL__2PRFIN20081214_012100_000000512074_00375_35499_1946.N1	14-DEC-2008 01:21:00	Dark	51.000	117	Pi Pup	2.7060	3800.0	102	35499	No
24	GOM_NL__2PRFIN20081214_012419_000000522074_00375_35499_1947.N1	14-DEC-2008 01:24:19	Straylight	52.000	23	21Eps CMa	1.5020	26000.	104	35499	No
25	GOM_NL__2PRFIN20081214_012900_000000512074_00375_35499_1948.N1	14-DEC-2008 01:29:00	Straylight	51.000	47	2Bet CMa	1.9760	28000.	102	35499	No
26	GOM_NL__2PRFIN20081214_013235_000000472074_00375_35499_1949.N1	14-DEC-2008 01:32:35	Straylight	46.500	7	19Bet Ori	0.10000	14000.	93	35499	No
27	GOM_NL__2PRFIN20081214_013454_000000502074_00375_35499_1950.N1	14-DEC-2008 01:34:54	Straylight	49.500	30	46Eps Ori	1.6940	30000.	99	35499	No
28	GOM_NL__2PRFIN20081214_013717_000000482074_00375_35499_1951.N1	14-DEC-2008 01:37:17	Twilight	47.500	27	24Gam Ori	1.6360	26000.	95	35499	No
29	GOM_NL__2PRFIN20081214_013958_000000552074_00375_35499_1952.N1	14-DEC-2008 01:39:58	Twilight	55.000	13	87Alp Tau	0.86700	3800.0	110	35499	No
30	GOM_NL__2PRFIN20081214_014222_000000452074_00375_35499_1953.N1	14-DEC-2008 01:42:22	Bright	45.000	176	23Zet Tau	3.0200	22000.	90	35499	No
31	GOM_NL__2PRFIN20081214_014424_000000452074_00375_35499_1954.N1	14-DEC-2008 01:44:24	Bright	45.000	28	12Bet Tau	1.6500	15200.	90	35499	No
32	GOM_NL__2PRFIN20081214_014635_000000352074_00375_35499_1955.N1	14-DEC-2008 01:46:35	Bright	34.500	149	45Eps Per	2.8880	30000.	69	35499	No
33	GOM_NL__2PRFIN20081214_014807_000000452074_00375_35499_1956.N1	14-DEC-2008 01:48:07	Bright	45.000	107	37The Aur	2.6490	11000.	90	35499	No
34	GOM_NL__2PRFIN20081214_015015_000000432074_00375_35499_1957.N1	14-DEC-2008 01:50:15	Bright	42.500	42	34Bet Aur	1.9000	10200.	85	35499	No
35	GOM_NL__2PRFIN20081214_020511_000000372074_00375_35499_1958.N1	14-DEC-2008 02:05:11	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	35499	No
36	GOM_NL__2PRFIN20081214_020954_000000432074_00375_35499_1959.N1	14-DEC-2008 02:09:54	Bright	43.000	32	77Eps UMa	1.7630	11000.	86	35499	No
37	GOM_NL__2PRFIN20081214_021225_000000572074_00375_35499_1960.N1	14-DEC-2008 02:12:25	Bright	57.000	39	85Eta UMa	1.8540	24000.	114	35499	No
38	GOM_NL__2PRFIN20081214_021542_000000362074_00375_35499_1961.N1	14-DEC-2008 02:15:42	Bright	36.000	180	27Gam Boo	3.0400	8000.0	72	35499	No
39	GOM_NL__2PRFIN20081214_021853_000000362074_00375_35499_1962.N1	14-DEC-2008 02:18:53	Bright	36.000	83		2.3780	11000.	72	35499	No
40	GOM_NL__2PRFIN20081214_022209_000000392074_00375_35499_1963.N1	14-DEC-2008 02:22:09	Bright	39.000	111	8Eta Boo	2.6800	6000.0	78	35499	No
41	GOM_NL__2PRFIN20081214_022559_000000512074_00375_35499_1964.N1	14-DEC-2008 02:25:59	Bright	51.000	138	47Eps Vir	2.8280	4700.0	102	35499	No
42	GOM_NL__2PRFIN20081214_023156_000000532074_00375_35499_1965.N1	14-DEC-2008 02:31:56	Twilight	53.000	15	67Alp Vir	0.97600	28000.	106	35499	No

397	GOM_NL__2PRFIN20081214_232552_000000682074_00388_35512_9048.N1	14-DEC-2008 23:25:52	Twilight_stray	68.000	14	58Alp Ori	0.87000	3000.0	136	35512	No
398	GOM_NL__2PRFIN20081214_232744_000000462074_00388_35512_9049.N1	14-DEC-2008 23:27:44	Twilight_stray	46.000	13	87Alp Tau	0.86700	3800.0	92	35512	No
399	GOM_NL__2PRFIN20081214_233003_000000412074_00388_35512_9050.N1	14-DEC-2008 23:30:03	Bright	41.000	176	23Zet Tau	3.0200	22000.	82	35512	No
400	GOM_NL__2PRFIN20081214_233206_000000442074_00388_35512_9051.N1	14-DEC-2008 23:32:06	Bright	43.500	28	12Bet Tau	1.6500	15200.	87	35512	No
401	GOM_NL__2PRFIN20081214_233545_000000432074_00388_35512_9052.N1	14-DEC-2008 23:35:45	Bright	43.000	107	37The Aur	2.6490	11000.	86	35512	No
402	GOM_NL__2PRFIN20081214_233755_000000432074_00388_35512_9053.N1	14-DEC-2008 23:37:55	Bright	42.500	42	34Bet Aur	1.9000	10200.	85	35512	No
403	GOM_NL__2PRFIN20081214_235258_000000372074_00388_35512_9054.N1	14-DEC-2008 23:52:58	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	35512	No
404	GOM_NL__2PRFIN20081214_235738_000000442074_00388_35512_9055.N1	14-DEC-2008 23:57:38	Bright	44.000	32	77Eps UMa	1.7630	11000.	88	35512	No

3. Quality information per product

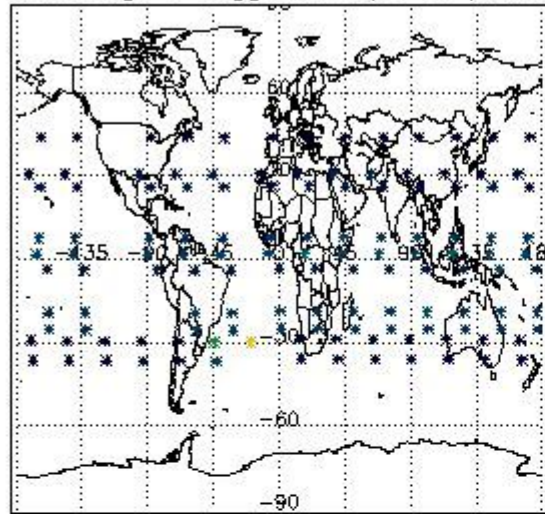
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

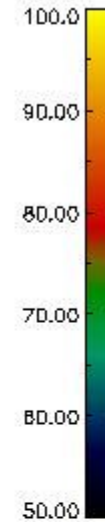
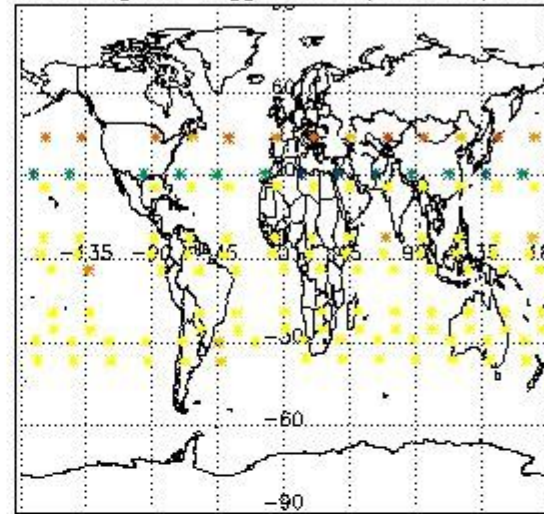


3.2 Plot quality information per product (world map)

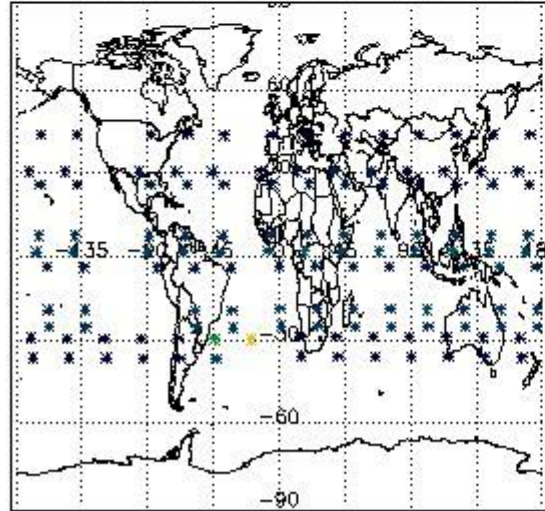
Percentage of flagged data per O3 profile



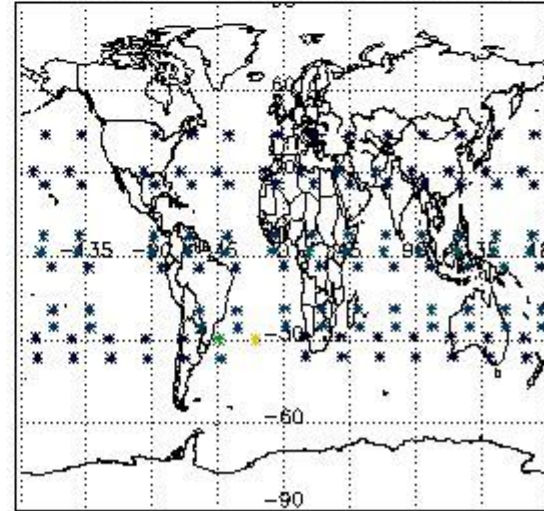
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

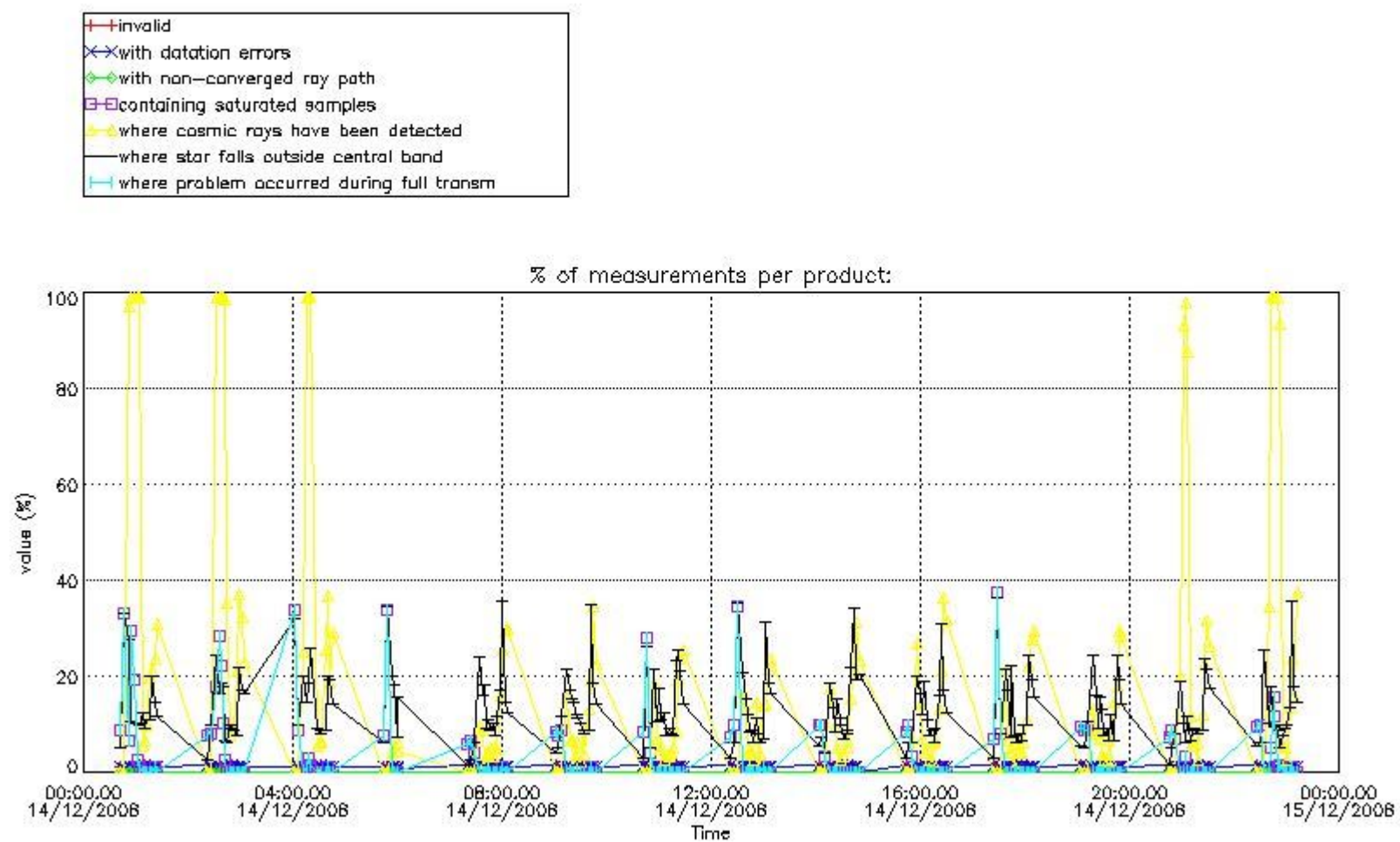


4. Level 1 quality information per product

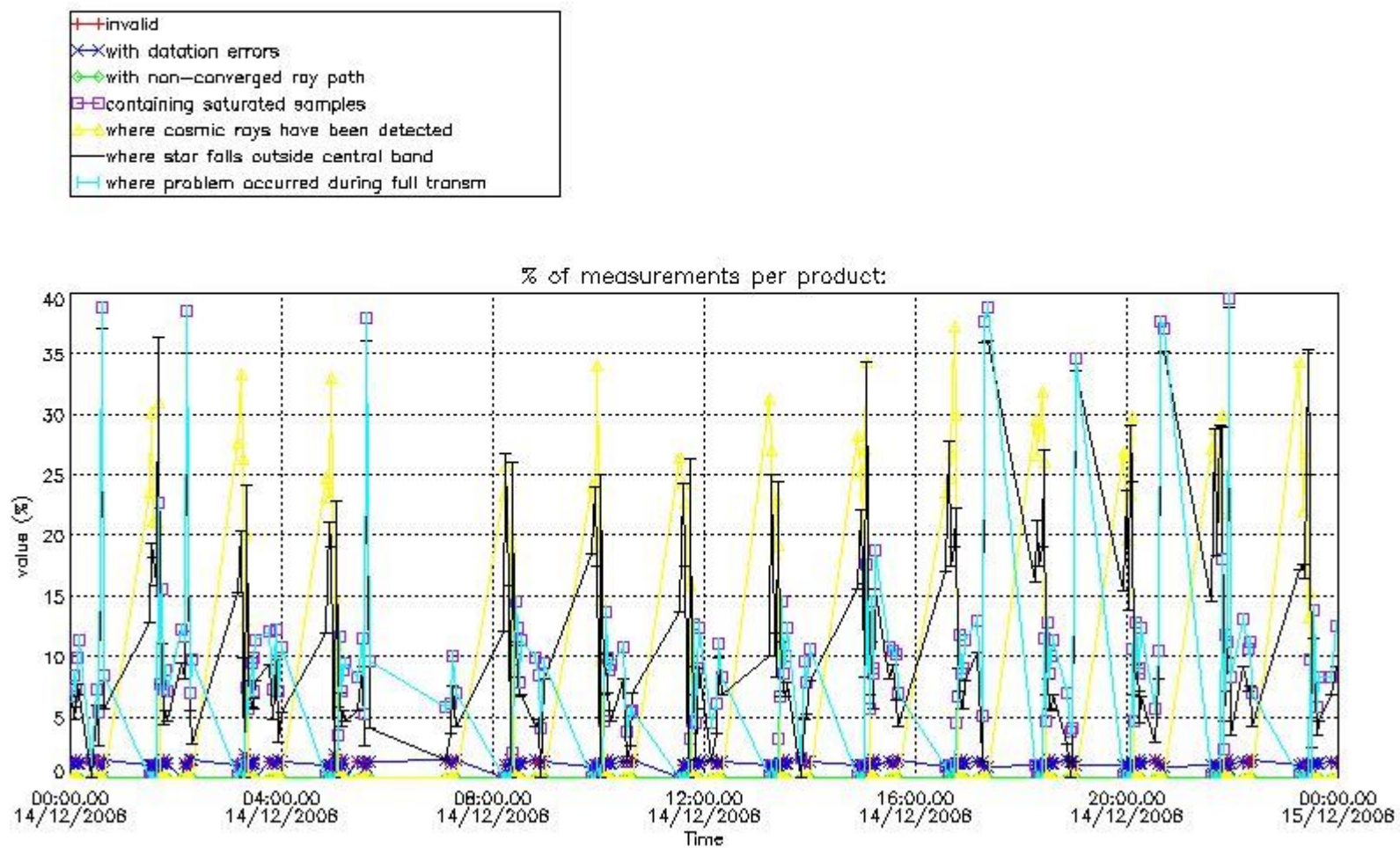
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



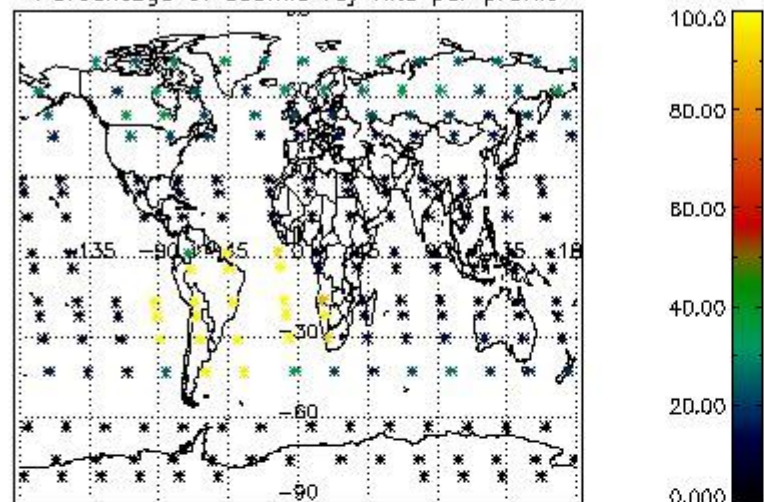
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



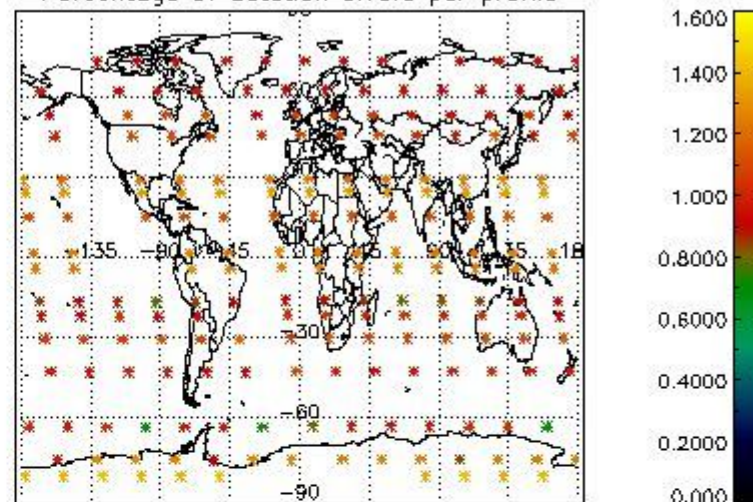
4.2 Plot quality information per product coming from level 1b processing (world map)

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

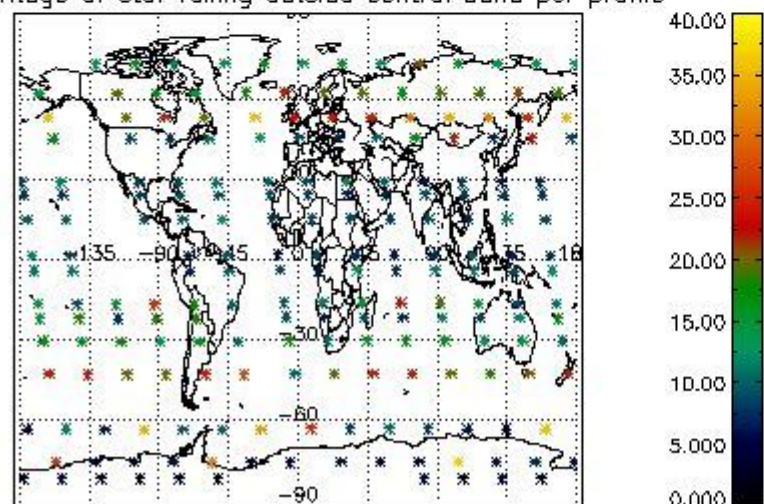
Percentage of cosmic ray hits per profile



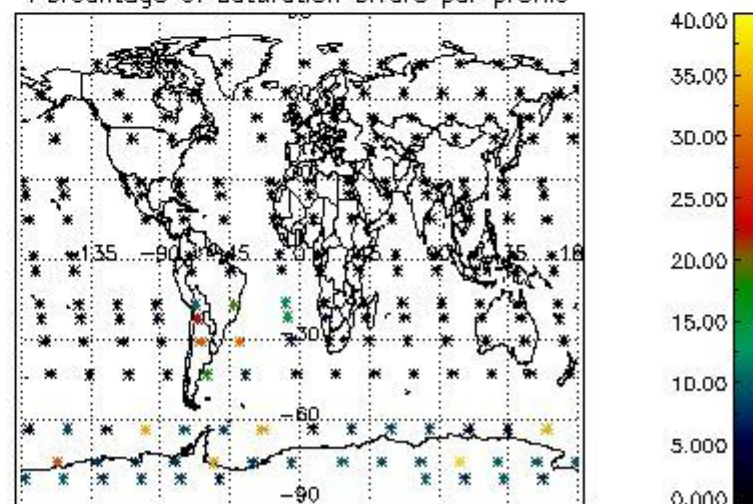
Percentage of datation errors per profile



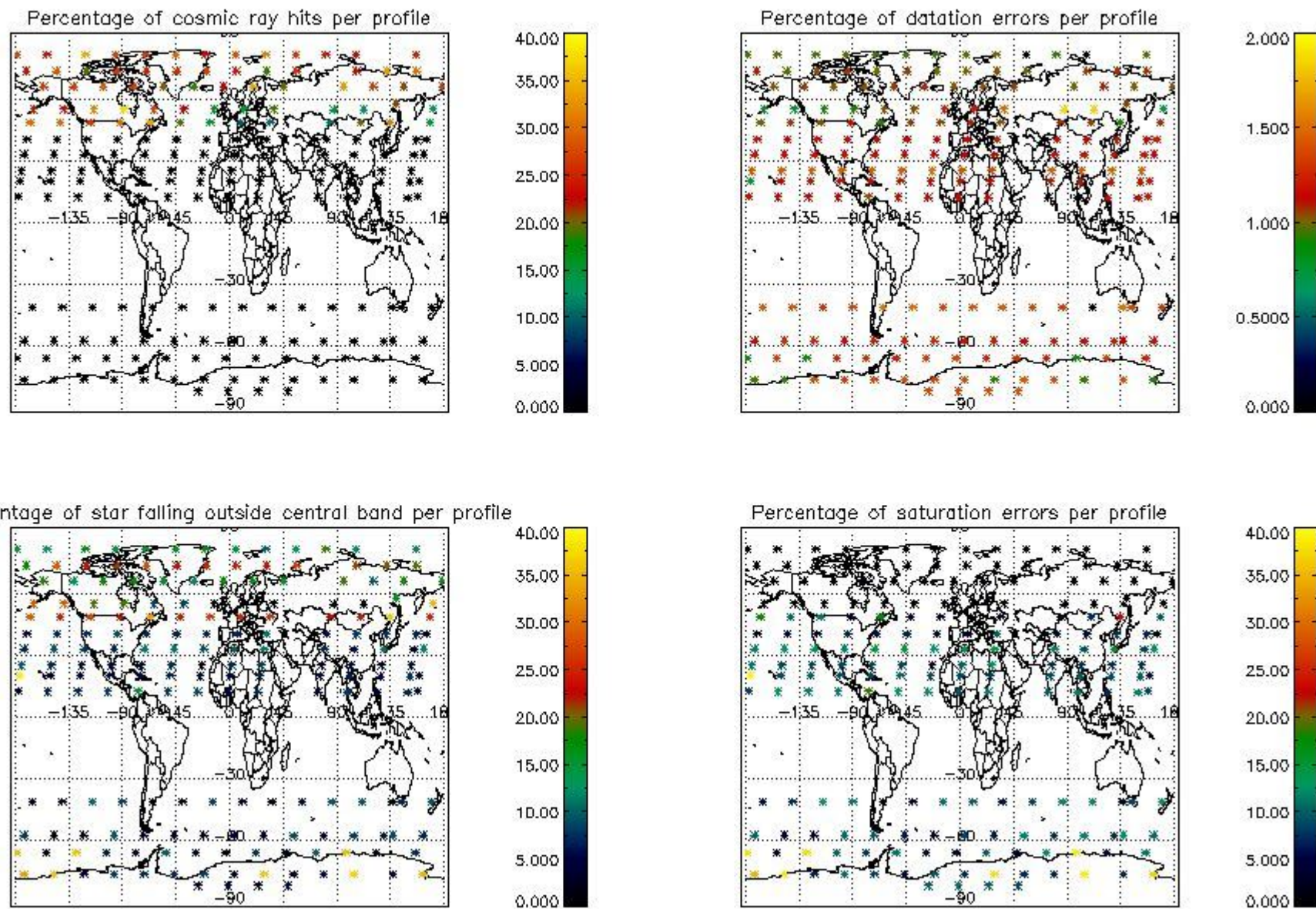
Percentage of star falling outside central band per profile



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

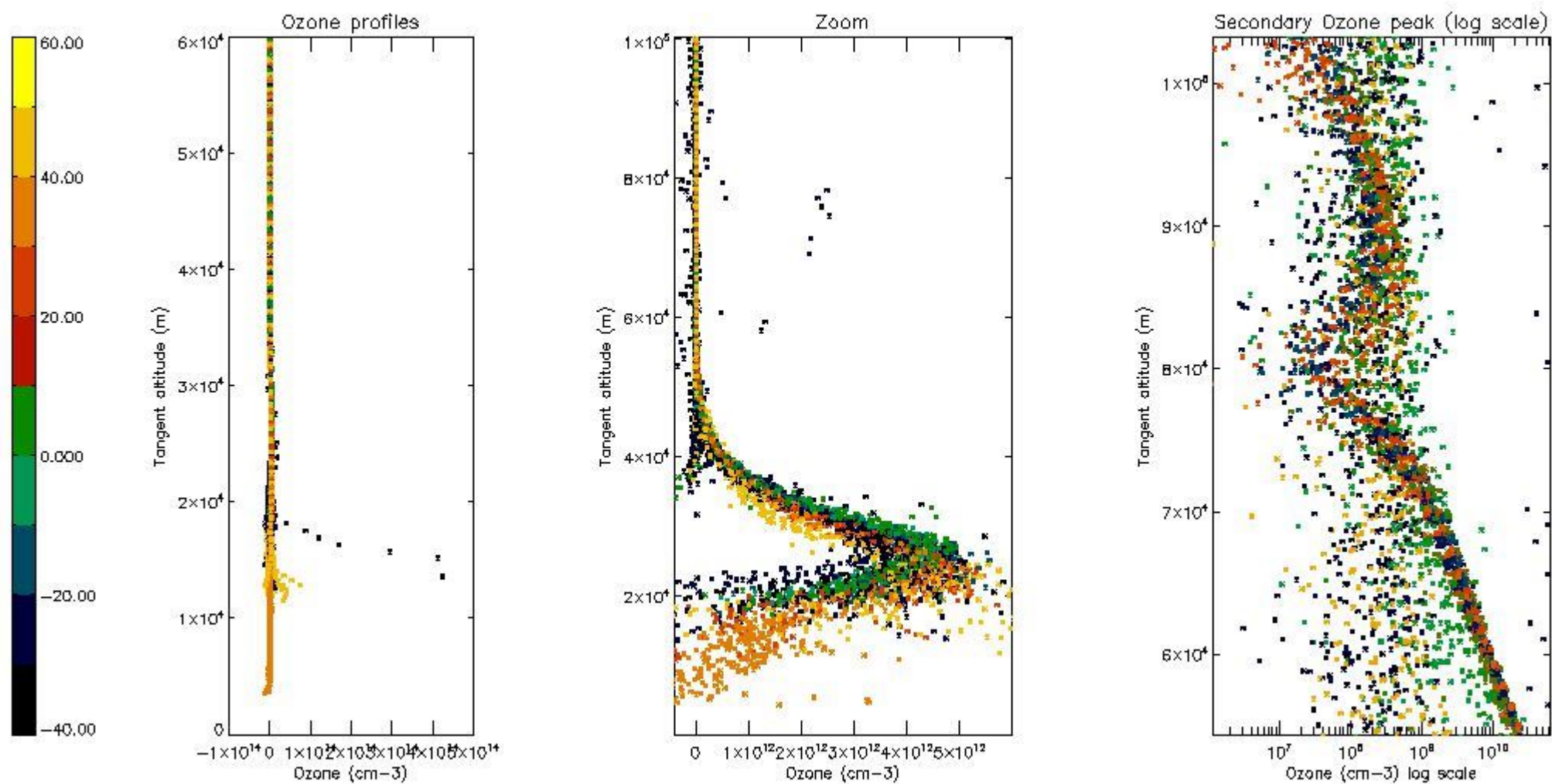
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	14

STD < 10	9
STD < 5	5

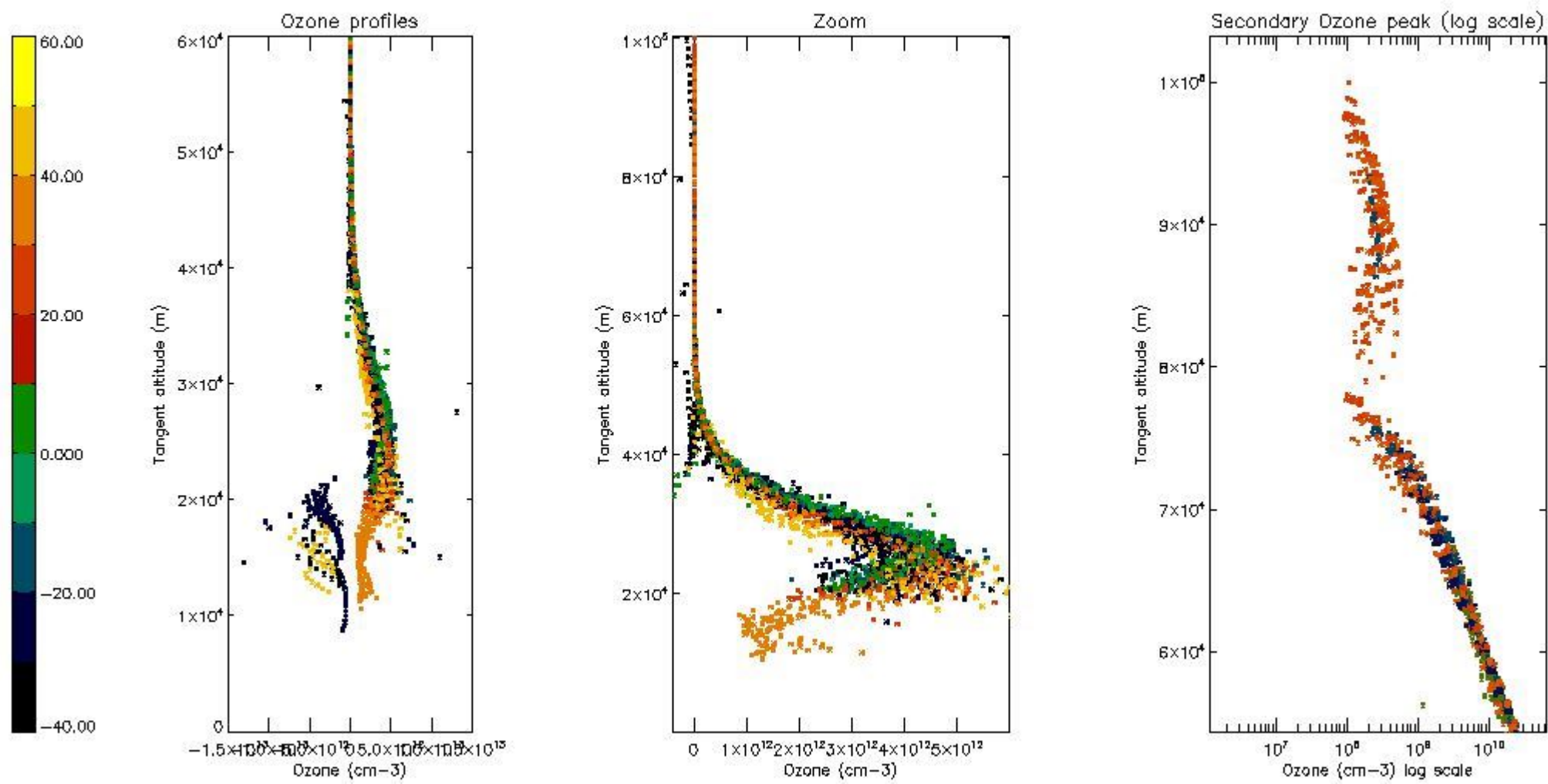
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



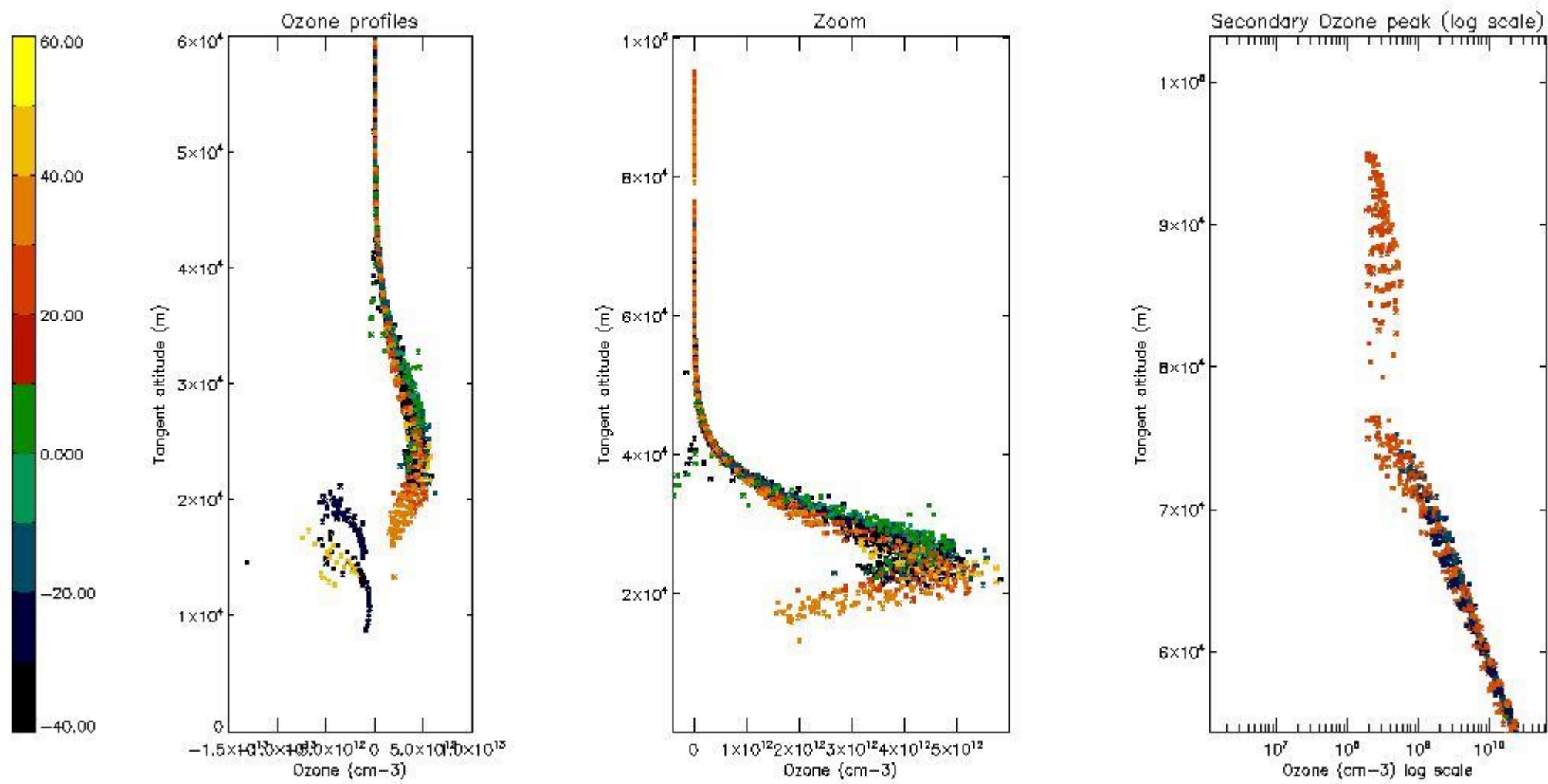
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



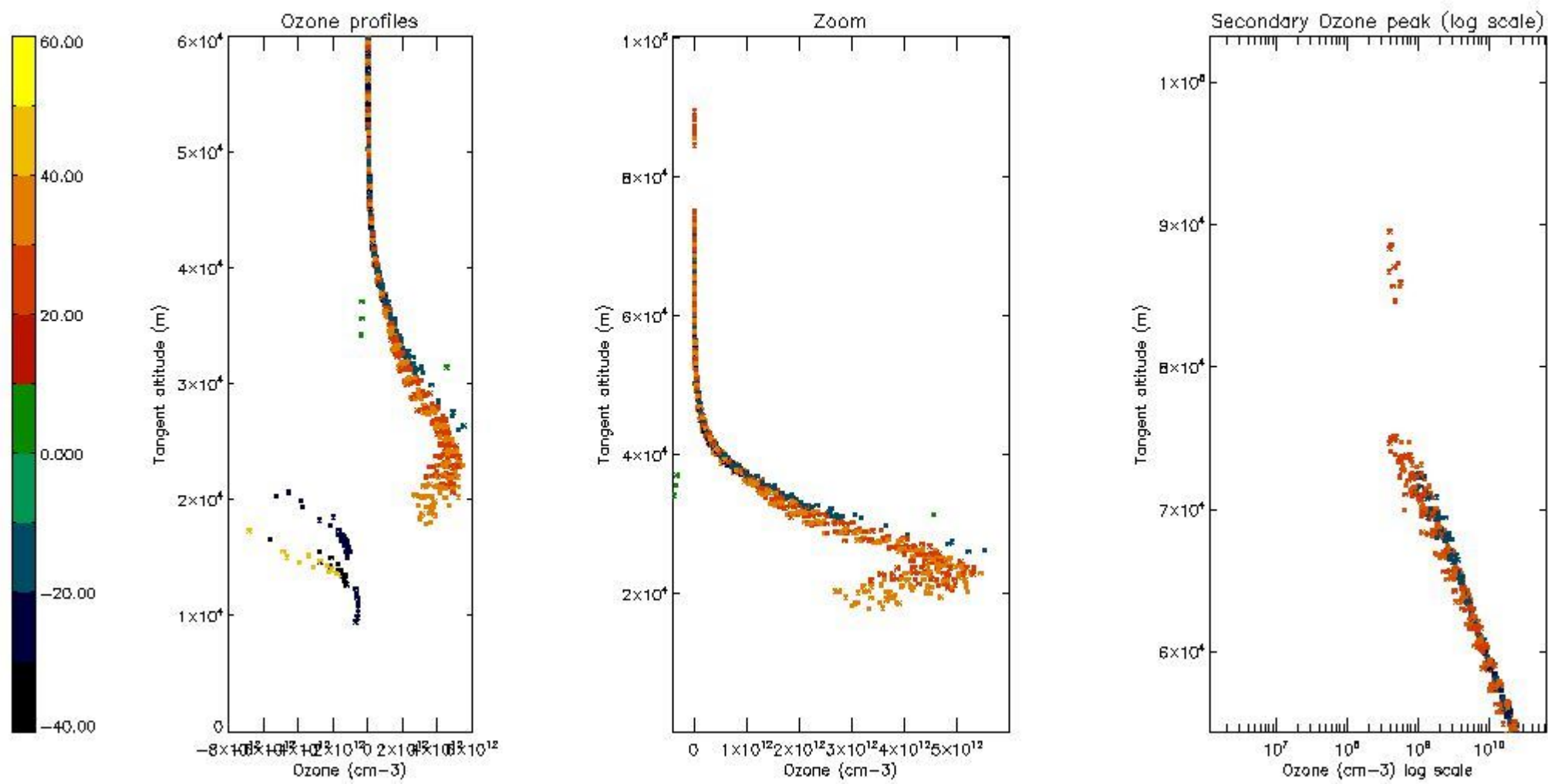
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



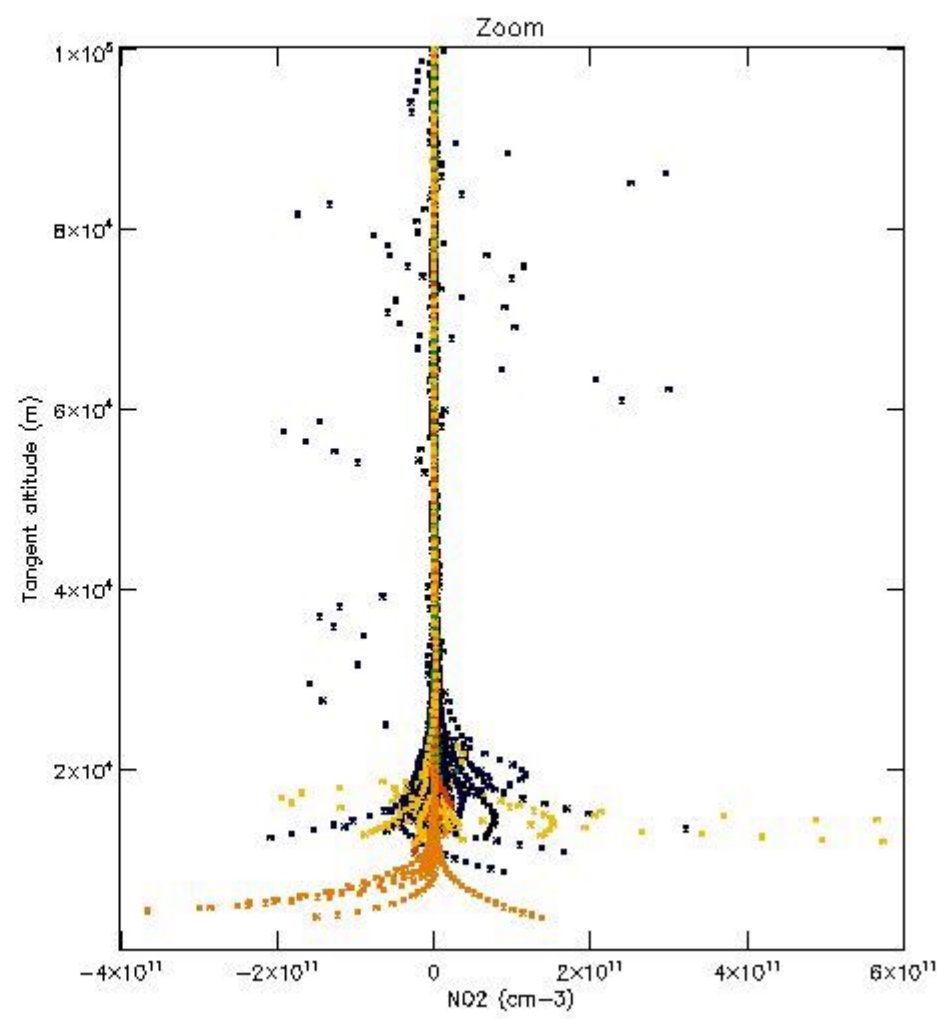
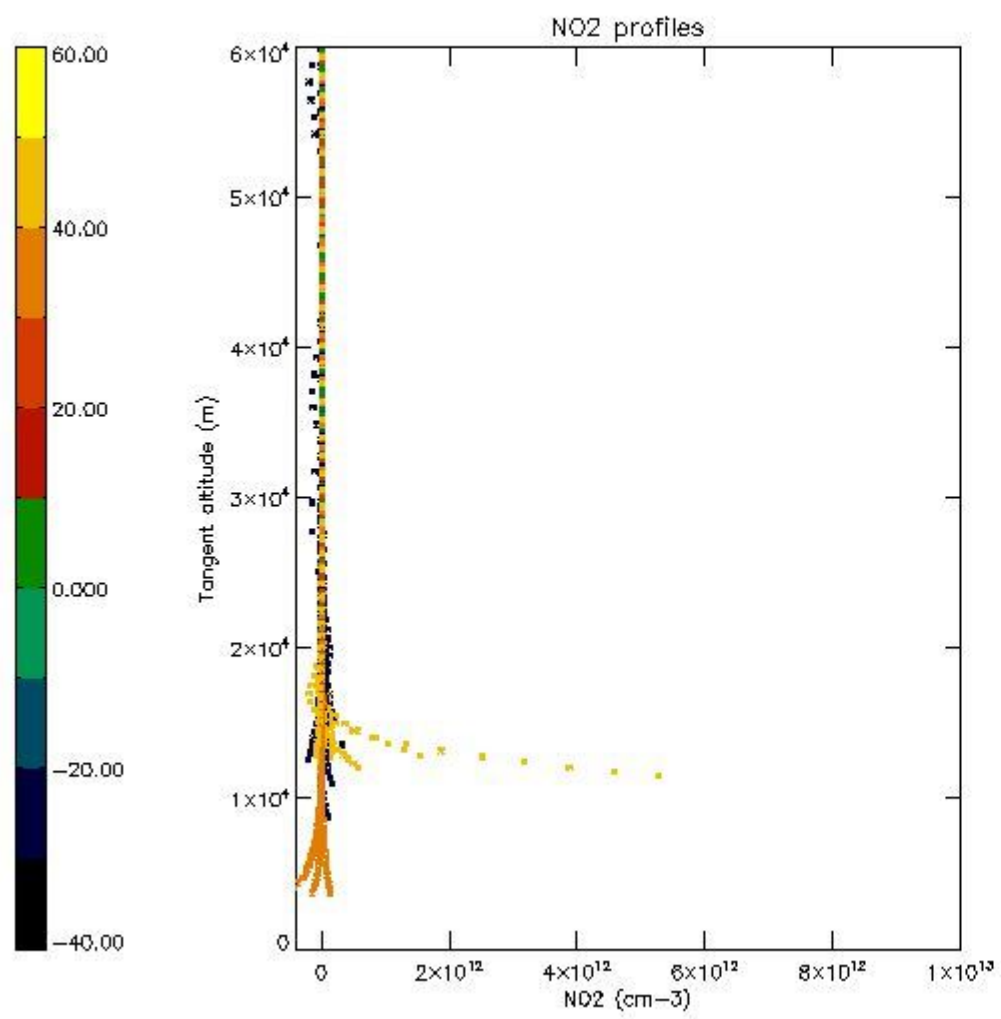
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



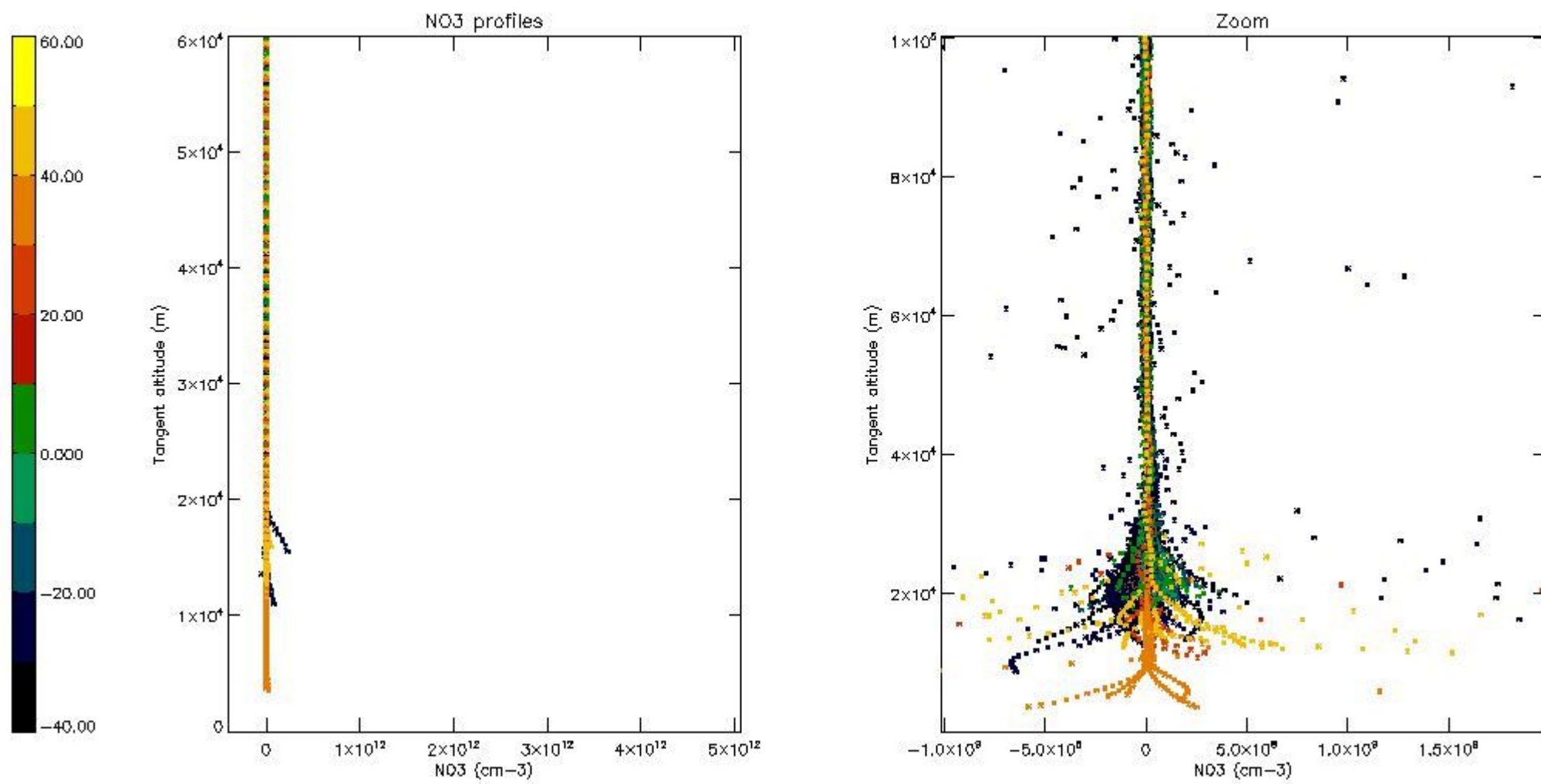
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



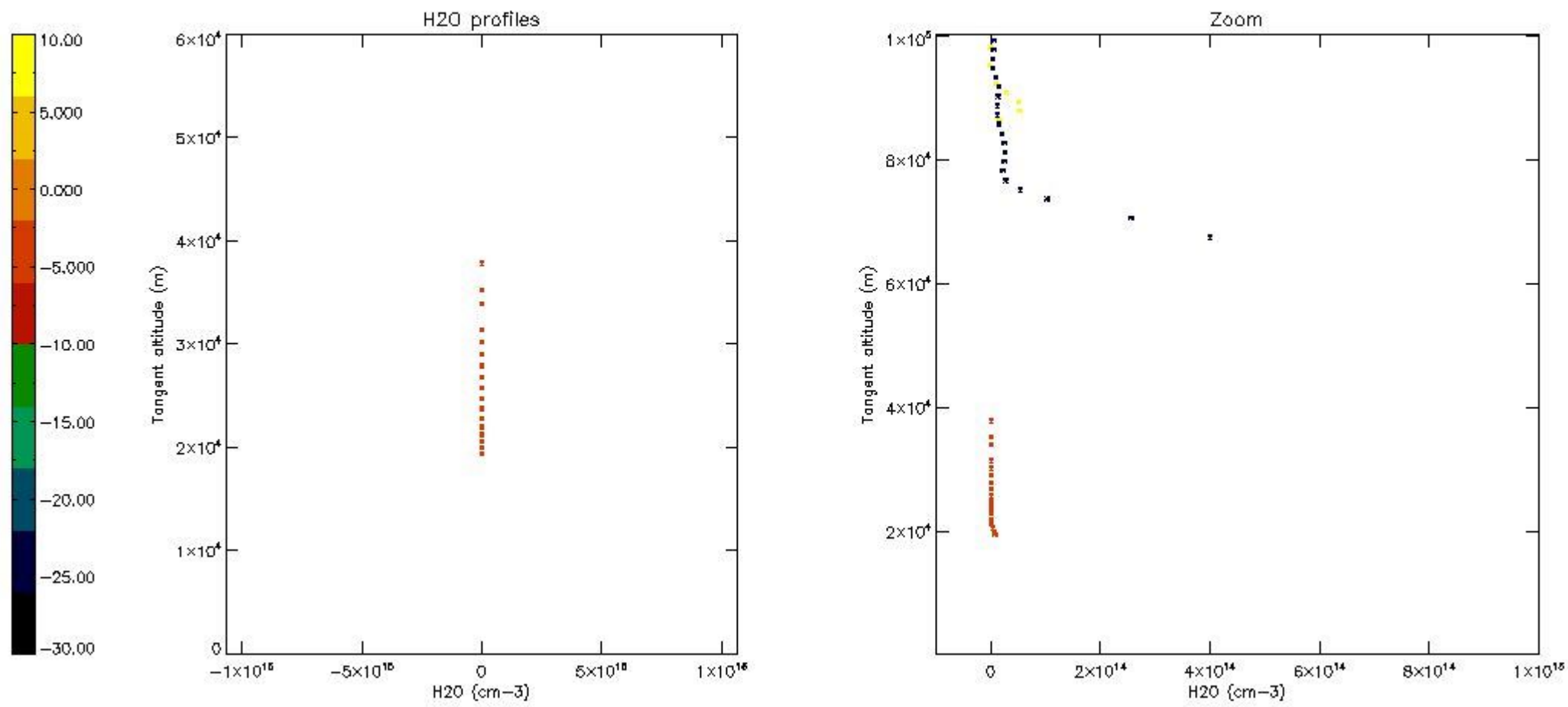
5.7 Plot NO3 profiles for all STD (dark without errors)

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	14-DEC-2008 00:01:46
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-DEC-2008 00:01:46
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-DEC-2008 00:01:46

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[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	25APR2013 23:39:18
Data source version	GOMOS/6.01
Start time of products	14-12-2008 (14DEC2008 00:00:00)
Stop time of products	15-12-2008 (15DEC2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	404
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

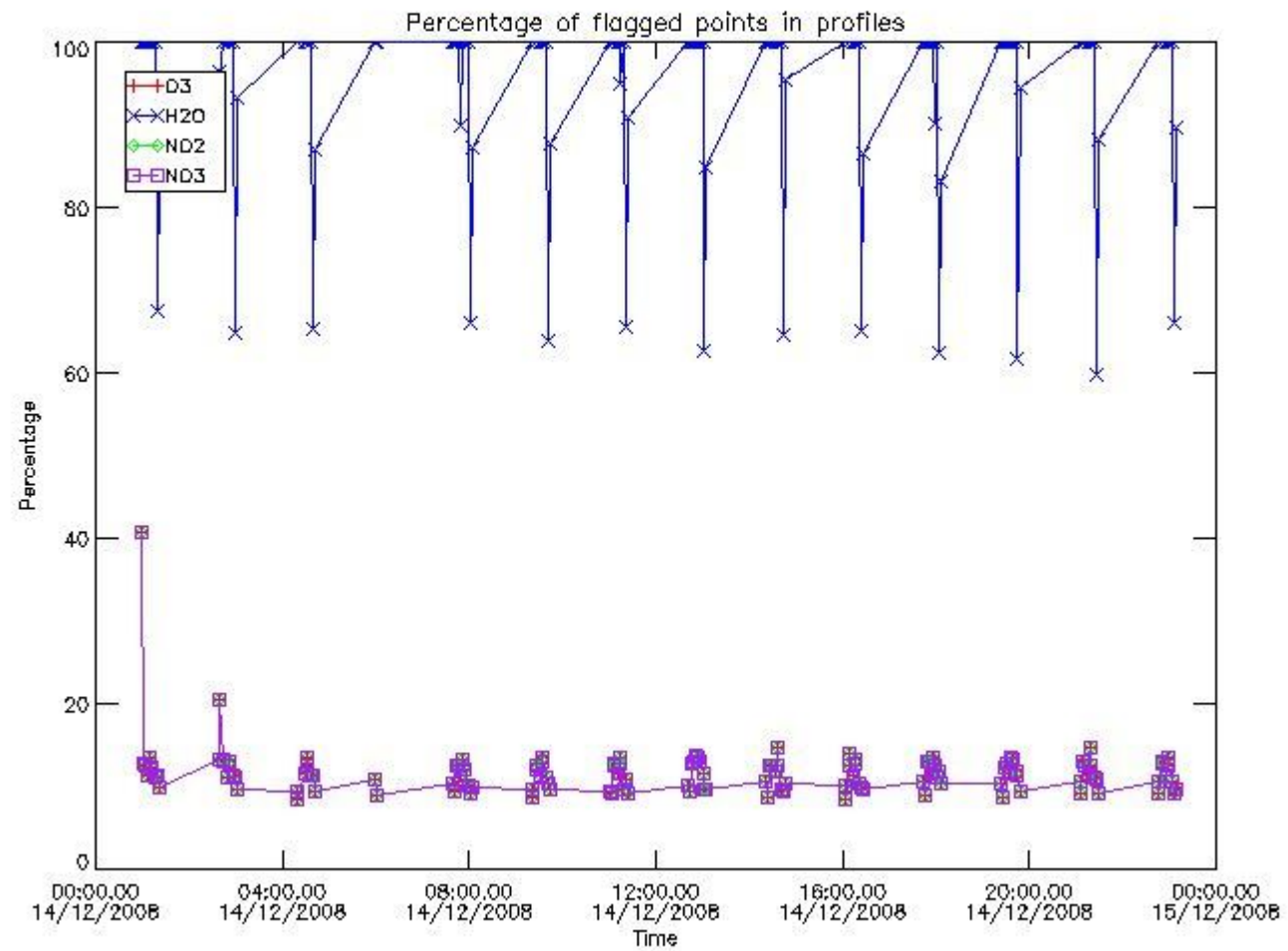
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081214_000146_000000452074_00374_35498_1945.N1	14-DEC-2008 00:01:46	Bright	44.500	176	23Zet Tau	3.0200	22000.	89	35498	No
2	GOM_NL__2PRFIN20081214_000349_000000422074_00374_35498_1946.N1	14-DEC-2008 00:03:49	Bright	41.500	28	12Bet Tau	1.6500	15200.	83	35498	No
3	GOM_NL__2PRFIN20081214_000559_000000352074_00374_35498_1947.N1	14-DEC-2008 00:05:59	Bright	34.500	149	45Eps Per	2.8880	30000.	69	35498	No
4	GOM_NL__2PRFIN20081214_000731_000000462074_00374_35498_1948.N1	14-DEC-2008 00:07:31	Bright	45.500	107	37The Aur	2.6490	11000.	91	35498	No
5	GOM_NL__2PRFIN20081214_000940_000000442074_00374_35498_1949.N1	14-DEC-2008 00:09:40	Bright	44.000	42	34Bet Aur	1.9000	10200.	88	35498	No
6	GOM_NL__2PRFIN20081214_002435_000000332074_00374_35498_1950.N1	14-DEC-2008 00:24:35	Bright	33.000	60	7Bet UMi	2.0810	3950.0	66	35498	No
7	GOM_NL__2PRFIN20081214_002918_000000422074_00374_35498_1951.N1	14-DEC-2008 00:29:18	Bright	41.500	32	77Eps UMa	1.7630	11000.	83	35498	No
8	GOM_NL__2PRFIN20081214_003149_000000382074_00374_35498_1952.N1	14-DEC-2008 00:31:49	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	35498	No
9	GOM_NL__2PRFIN20081214_003506_000000542074_00374_35498_1953.N1	14-DEC-2008 00:35:06	Bright	54.000	180	27Gam Boo	3.0400	8000.0	108	35498	No
10	GOM_NL__2PRFIN20081214_003816_000000362074_00374_35498_1954.N1	14-DEC-2008 00:38:16	Bright	35.500	83		2.3780	11000.	71	35498	No
11	GOM_NL__2PRFIN20081214_004133_000000402074_00374_35498_1955.N1	14-DEC-2008 00:41:33	Bright	39.500	111	8Eta Boo	2.6800	6000.0	79	35498	No
12	GOM_NL__2PRFIN20081214_004522_000000702074_00374_35498_1956.N1	14-DEC-2008 00:45:22	Bright	69.500	138	47Eps Vir	2.8280	4700.0	139	35498	No
13	GOM_NL__2PRFIN20081214_005119_000000542074_00374_35498_1957.N1	14-DEC-2008 00:51:19	Twilight	54.000	15	67Alp Vir	0.97600	28000.	108	35498	No
14	GOM_NL__2PRFIN20081214_005449_000000432074_00374_35498_1958.N1	14-DEC-2008 00:54:49	Twilight	42.500	169	46Gam Hya	2.9910	4700.0	85	35498	No
15	GOM_NL__2PRFIN20081214_005840_000000552074_00374_35498_1959.N1	14-DEC-2008 00:58:40	Dark	54.500	171	2Eps Crv	3.0010	4250.0	109	35498	No
16	GOM_NL__2PRFIN20081214_010212_000000402074_00374_35498_1960.N1	14-DEC-2008 01:02:12	Dark	40.000	64	Gam Cen	2.2000	10600.	80	35498	No
17	GOM_NL__2PRFIN20081214_010348_000000412074_00375_35499_1940.N1	14-DEC-2008 01:03:48	Dark	41.000	99	Del Cen	2.5750	26000.	82	35499	No
18	GOM_NL__2PRFIN20081214_010733_000000452074_00375_35499_1941.N1	14-DEC-2008 01:07:33	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	35499	No
19	GOM_NL__2PRFIN20081214_011009_000000382074_00375_35499_1942.N1	14-DEC-2008 01:10:09	Dark	38.000	159	Ups Car	2.9200	7200.0	76	35499	No
20	GOM_NL__2PRFIN20081214_011128_000000422074_00375_35499_1943.N1	14-DEC-2008 01:11:28	Dark	41.500	71	Iot Car	2.2460	7700.0	83	35499	No
21	GOM_NL__2PRFIN20081214_011605_000000462074_00375_35499_1944.N1	14-DEC-2008 01:16:05	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	35499	No
22	GOM_NL__2PRFIN20081214_011821_000000452074_00375_35499_1945.N1	14-DEC-2008 01:18:21	Dark	45.000	2	Alp Car	-0.73600	7000.0	90	35499	No
23	GOM_NL__2PRFIN20081214_012100_000000512074_00375_35499_1946.N1	14-DEC-2008 01:21:00	Dark	51.000	117	Pi Pup	2.7060	3800.0	102	35499	No
24	GOM_NL__2PRFIN20081214_012419_000000522074_00375_35499_1947.N1	14-DEC-2008 01:24:19	Straylight	52.000	23	21Eps CMa	1.5020	26000.	104	35499	No
25	GOM_NL__2PRFIN20081214_012900_000000512074_00375_35499_1948.N1	14-DEC-2008 01:29:00	Straylight	51.000	47	2Bet CMa	1.9760	28000.	102	35499	No
26	GOM_NL__2PRFIN20081214_013235_000000472074_00375_35499_1949.N1	14-DEC-2008 01:32:35	Straylight	46.500	7	19Bet Ori	0.10000	14000.	93	35499	No
27	GOM_NL__2PRFIN20081214_013454_000000502074_00375_35499_1950.N1	14-DEC-2008 01:34:54	Straylight	49.500	30	46Eps Ori	1.6940	30000.	99	35499	No
28	GOM_NL__2PRFIN20081214_013717_000000482074_00375_35499_1951.N1	14-DEC-2008 01:37:17	Twilight	47.500	27	24Gam Ori	1.6360	26000.	95	35499	No
29	GOM_NL__2PRFIN20081214_013958_000000552074_00375_35499_1952.N1	14-DEC-2008 01:39:58	Twilight	55.000	13	87Alp Tau	0.86700	3800.0	110	35499	No
30	GOM_NL__2PRFIN20081214_014222_000000452074_00375_35499_1953.N1	14-DEC-2008 01:42:22	Bright	45.000	176	23Zet Tau	3.0200	22000.	90	35499	No
31	GOM_NL__2PRFIN20081214_014424_000000452074_00375_35499_1954.N1	14-DEC-2008 01:44:24	Bright	45.000	28	12Bet Tau	1.6500	15200.	90	35499	No
32	GOM_NL__2PRFIN20081214_014635_000000352074_00375_35499_1955.N1	14-DEC-2008 01:46:35	Bright	34.500	149	45Eps Per	2.8880	30000.	69	35499	No
33	GOM_NL__2PRFIN20081214_014807_000000452074_00375_35499_1956.N1	14-DEC-2008 01:48:07	Bright	45.000	107	37The Aur	2.6490	11000.	90	35499	No
34	GOM_NL__2PRFIN20081214_015015_000000432074_00375_35499_1957.N1	14-DEC-2008 01:50:15	Bright	42.500	42	34Bet Aur	1.9000	10200.	85	35499	No
35	GOM_NL__2PRFIN20081214_020511_000000372074_00375_35499_1958.N1	14-DEC-2008 02:05:11	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	35499	No
36	GOM_NL__2PRFIN20081214_020954_000000432074_00375_35499_1959.N1	14-DEC-2008 02:09:54	Bright	43.000	32	77Eps UMa	1.7630	11000.	86	35499	No
37	GOM_NL__2PRFIN20081214_021225_000000572074_00375_35499_1960.N1	14-DEC-2008 02:12:25	Bright	57.000	39	85Eta UMa	1.8540	24000.	114	35499	No
38	GOM_NL__2PRFIN20081214_021542_000000362074_00375_35499_1961.N1	14-DEC-2008 02:15:42	Bright	36.000	180	27Gam Boo	3.0400	8000.0	72	35499	No
39	GOM_NL__2PRFIN20081214_021853_000000362074_00375_35499_1962.N1	14-DEC-2008 02:18:53	Bright	36.000	83		2.3780	11000.	72	35499	No
40	GOM_NL__2PRFIN20081214_022209_000000392074_00375_35499_1963.N1	14-DEC-2008 02:22:09	Bright	39.000	111	8Eta Boo	2.6800	6000.0	78	35499	No
41	GOM_NL__2PRFIN20081214_022559_000000512074_00375_35499_1964.N1	14-DEC-2008 02:25:59	Bright	51.000	138	47Eps Vir	2.8280	4700.0	102	35499	No
42	GOM_NL__2PRFIN20081214_023156_000000532074_00375_35499_1965.N1	14-DEC-2008 02:31:56	Twilight	53.000	15	67Alp Vir	0.97600	28000.	106	35499	No

397	GOM_NL__2PRFIN20081214_232552_000000682074_00388_35512_9048.N1	14-DEC-2008 23:25:52	Twilight_stray	68.000	14	58Alp Ori	0.87000	3000.0	136	35512	No
398	GOM_NL__2PRFIN20081214_232744_000000462074_00388_35512_9049.N1	14-DEC-2008 23:27:44	Twilight_stray	46.000	13	87Alp Tau	0.86700	3800.0	92	35512	No
399	GOM_NL__2PRFIN20081214_233003_000000412074_00388_35512_9050.N1	14-DEC-2008 23:30:03	Bright	41.000	176	23Zet Tau	3.0200	22000.	82	35512	No
400	GOM_NL__2PRFIN20081214_233206_000000442074_00388_35512_9051.N1	14-DEC-2008 23:32:06	Bright	43.500	28	12Bet Tau	1.6500	15200.	87	35512	No
401	GOM_NL__2PRFIN20081214_233545_000000432074_00388_35512_9052.N1	14-DEC-2008 23:35:45	Bright	43.000	107	37The Aur	2.6490	11000.	86	35512	No
402	GOM_NL__2PRFIN20081214_233755_000000432074_00388_35512_9053.N1	14-DEC-2008 23:37:55	Bright	42.500	42	34Bet Aur	1.9000	10200.	85	35512	No
403	GOM_NL__2PRFIN20081214_235258_000000372074_00388_35512_9054.N1	14-DEC-2008 23:52:58	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	35512	No
404	GOM_NL__2PRFIN20081214_235738_000000442074_00388_35512_9055.N1	14-DEC-2008 23:57:38	Bright	44.000	32	77Eps UMa	1.7630	11000.	88	35512	No

3. Quality information per product

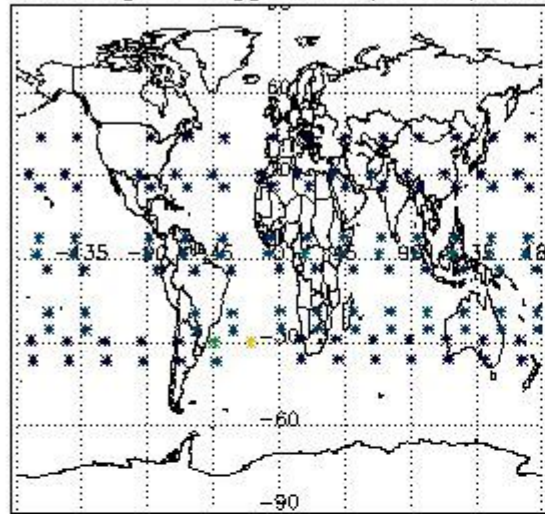
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

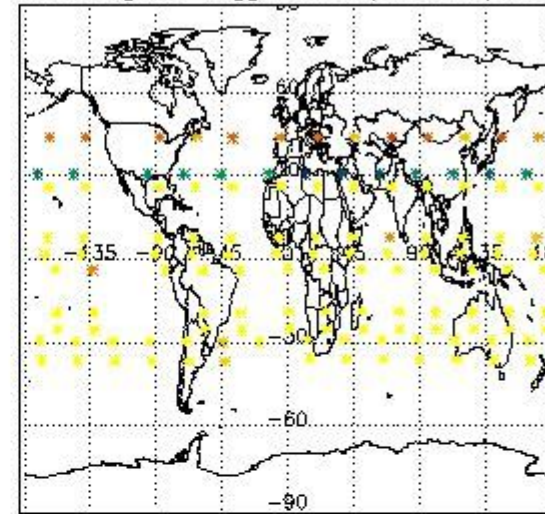


3.2 Plot quality information per product (world map)

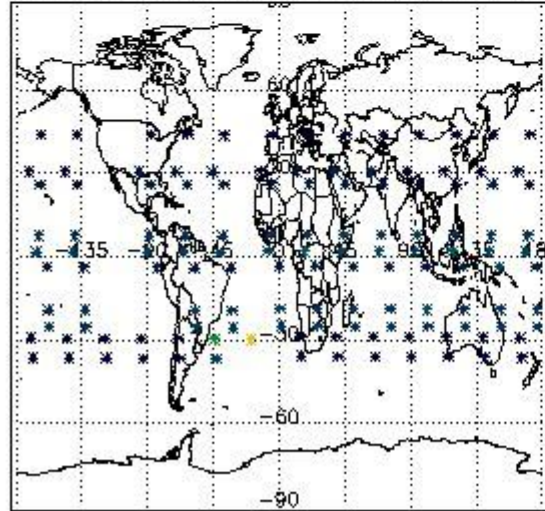
Percentage of flagged data per O3 profile



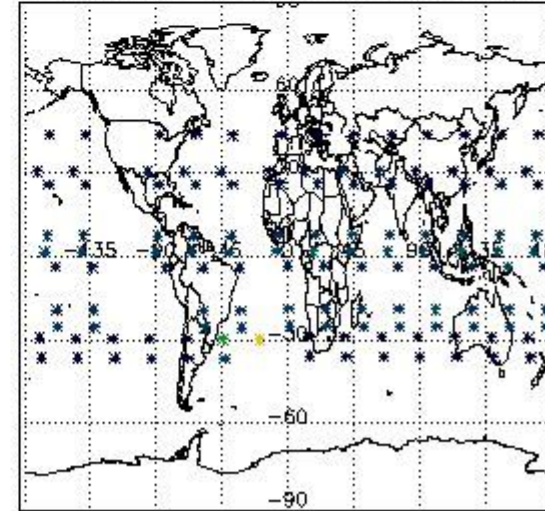
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

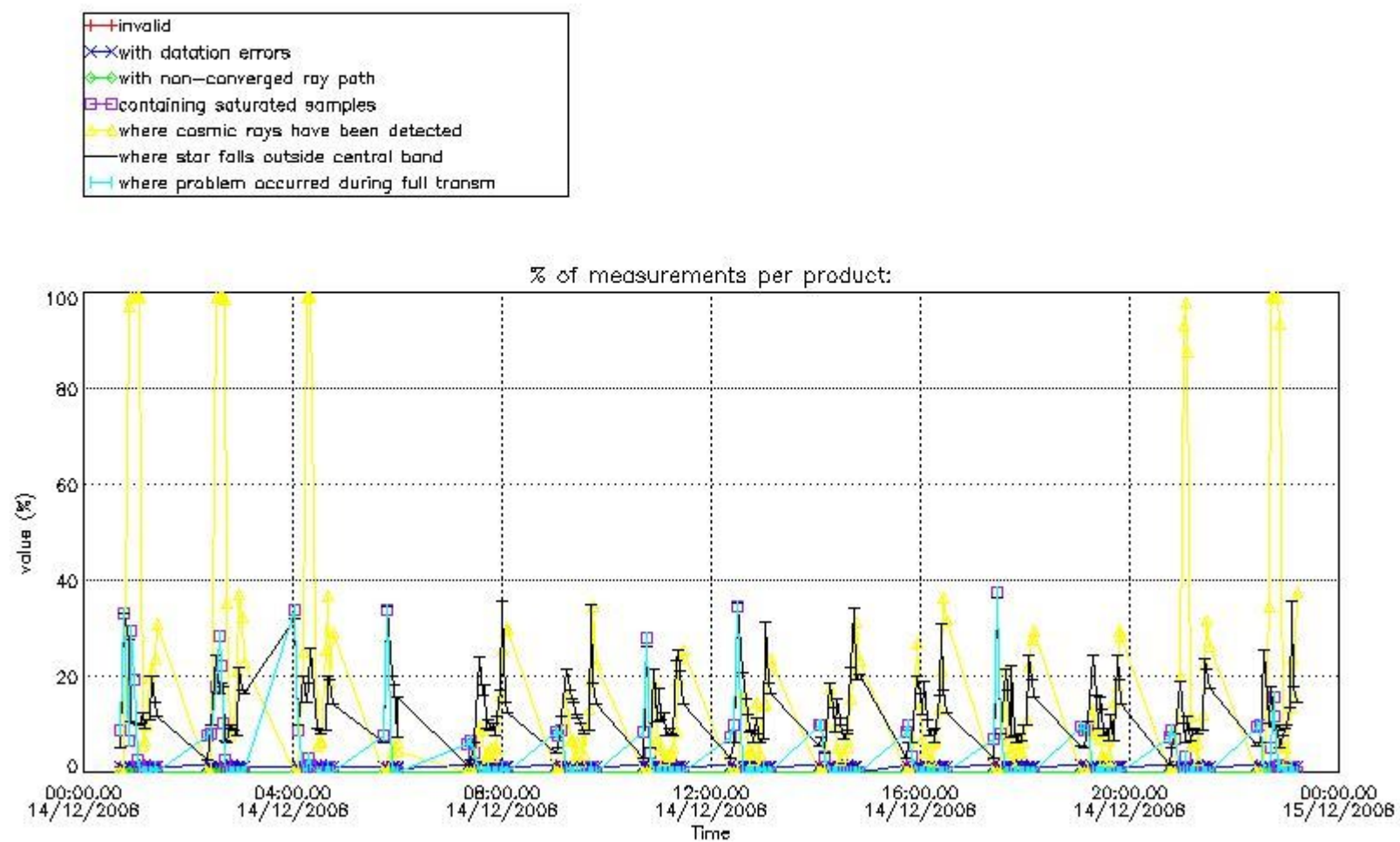


4. Level 1 quality information per product

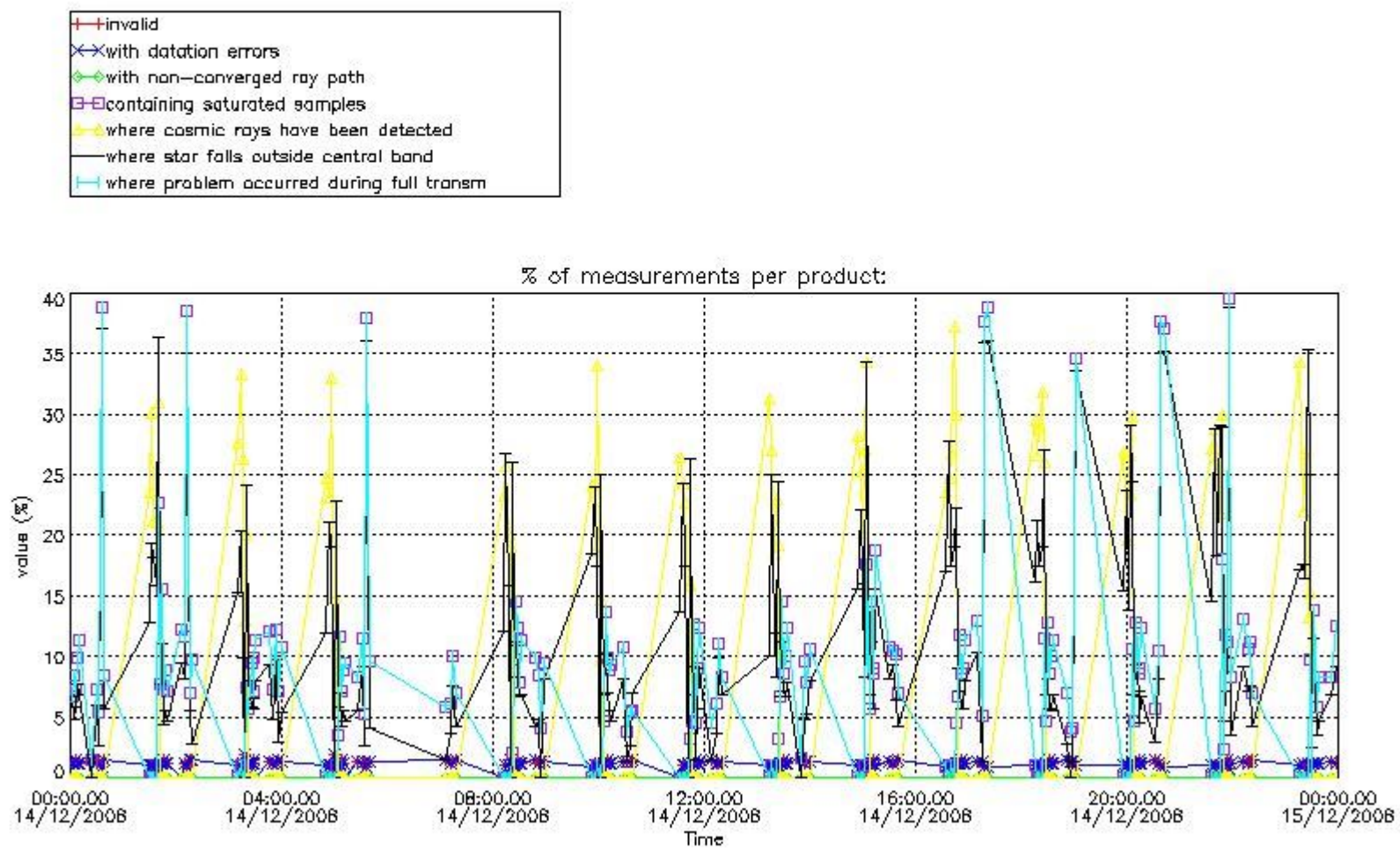
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



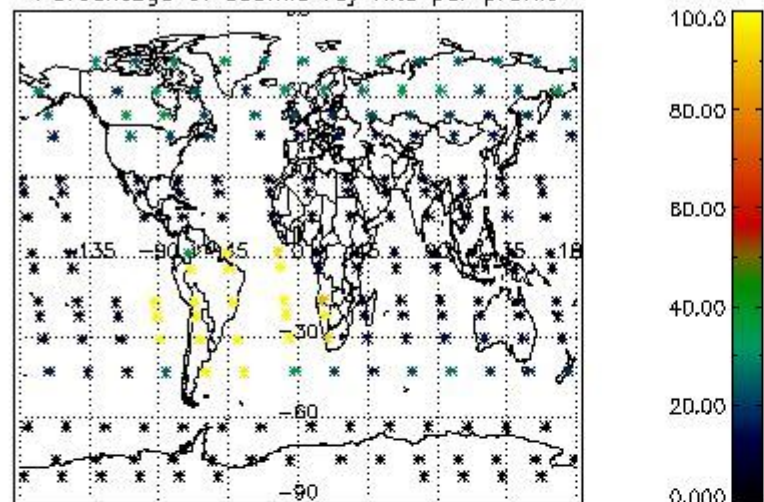
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



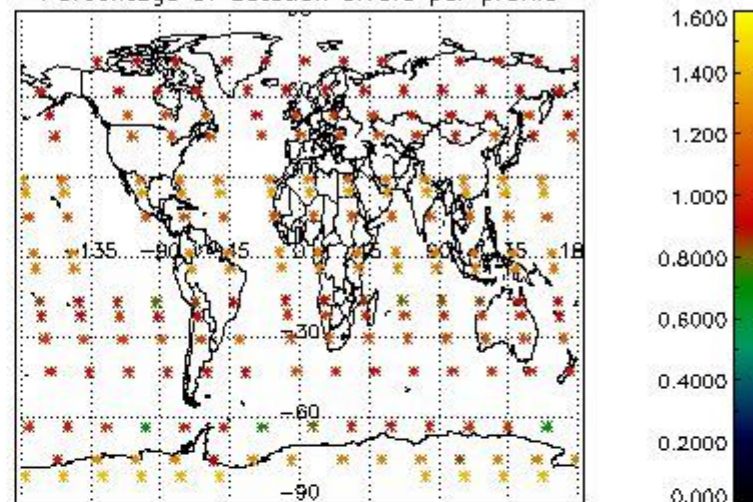
4.2 Plot quality information per product coming from level 1b processing (world map)

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

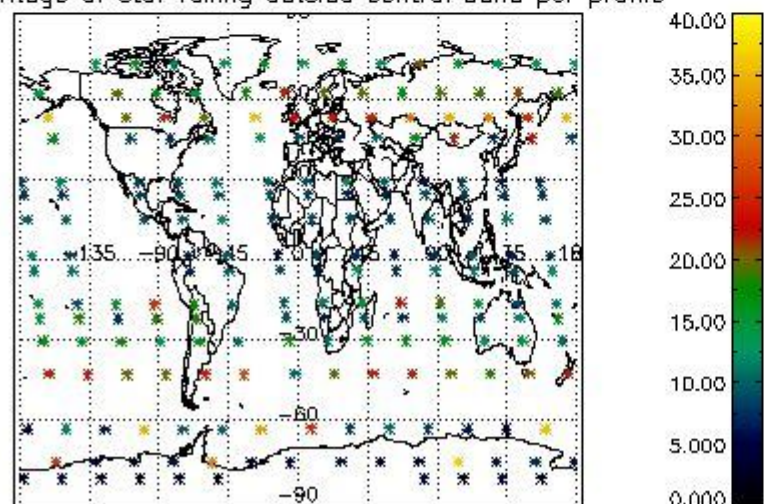
Percentage of cosmic ray hits per profile



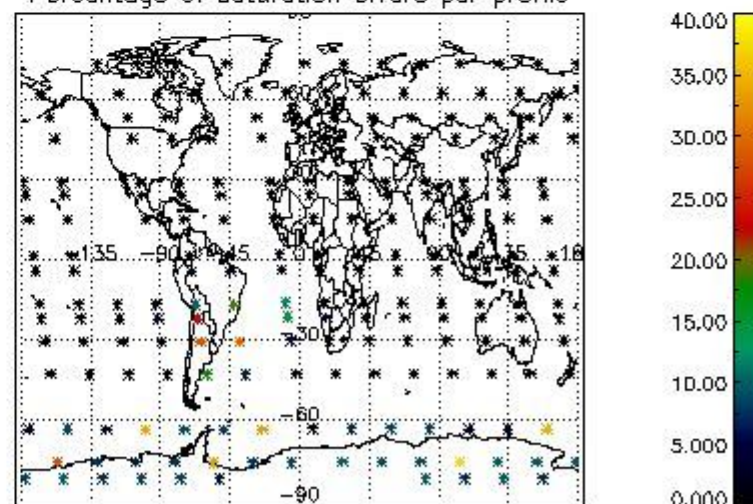
Percentage of datation errors per profile



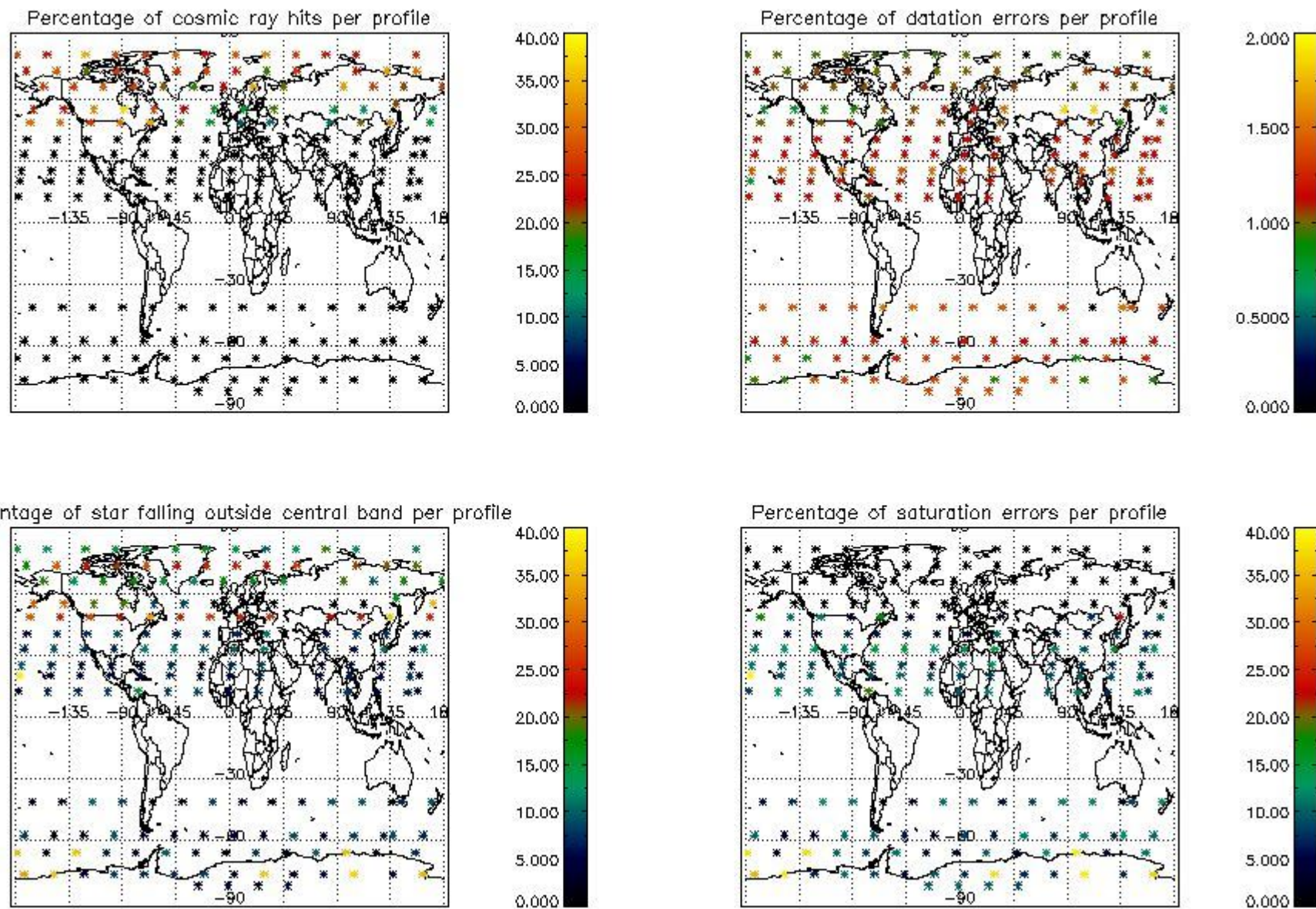
Percentage of star falling outside central band per profile



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

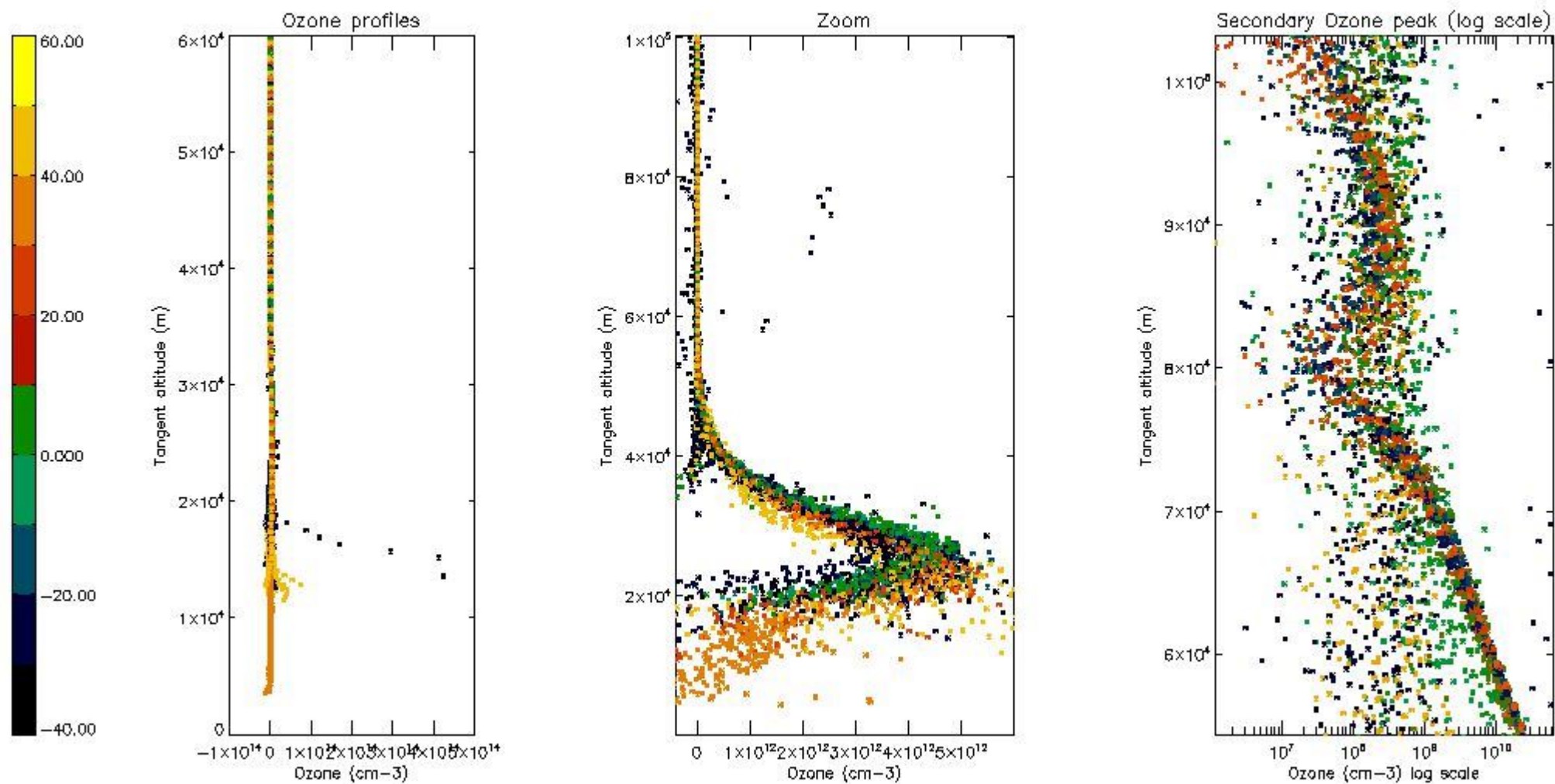
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	14

STD < 10	9
STD < 5	5

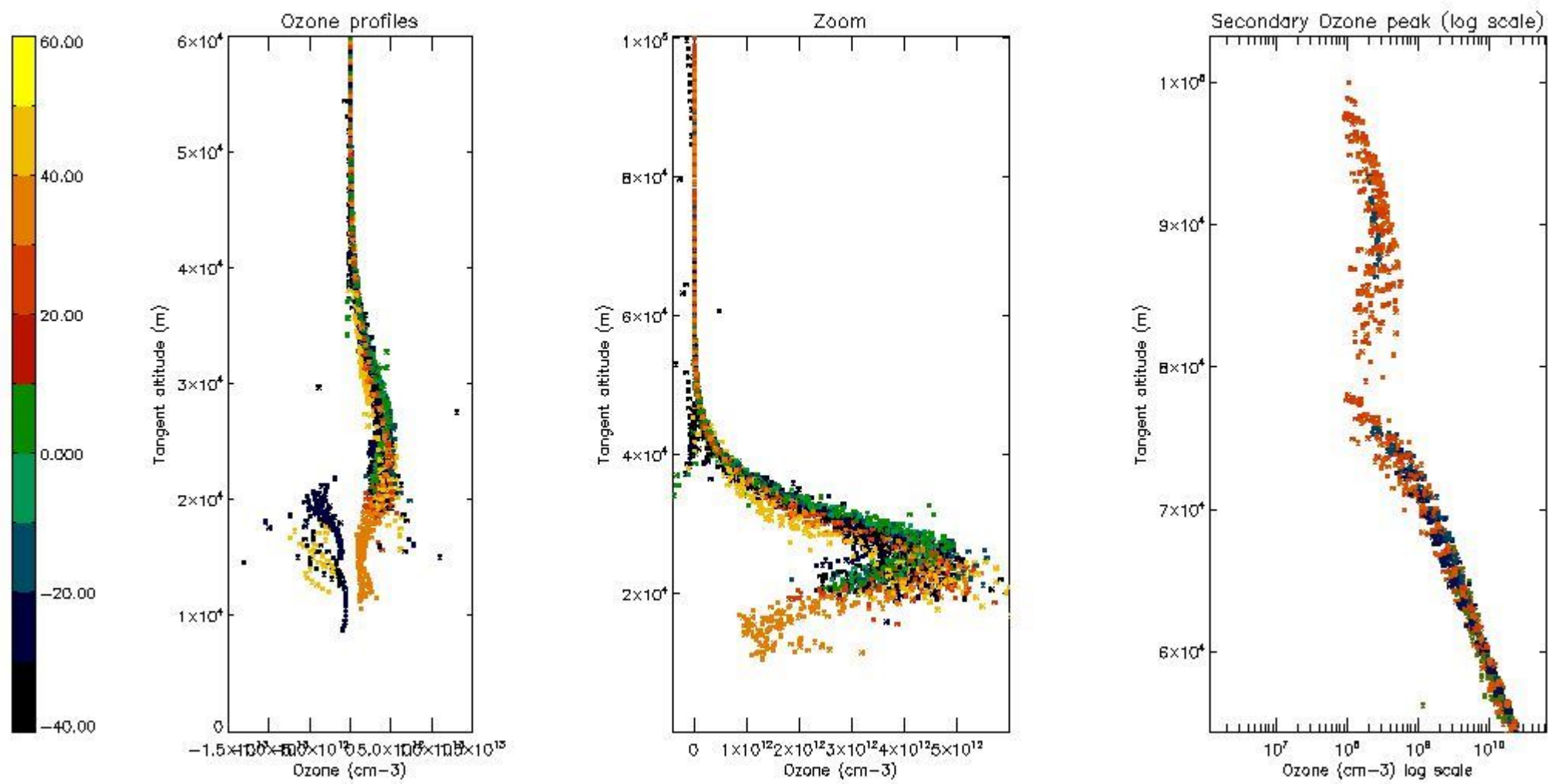
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



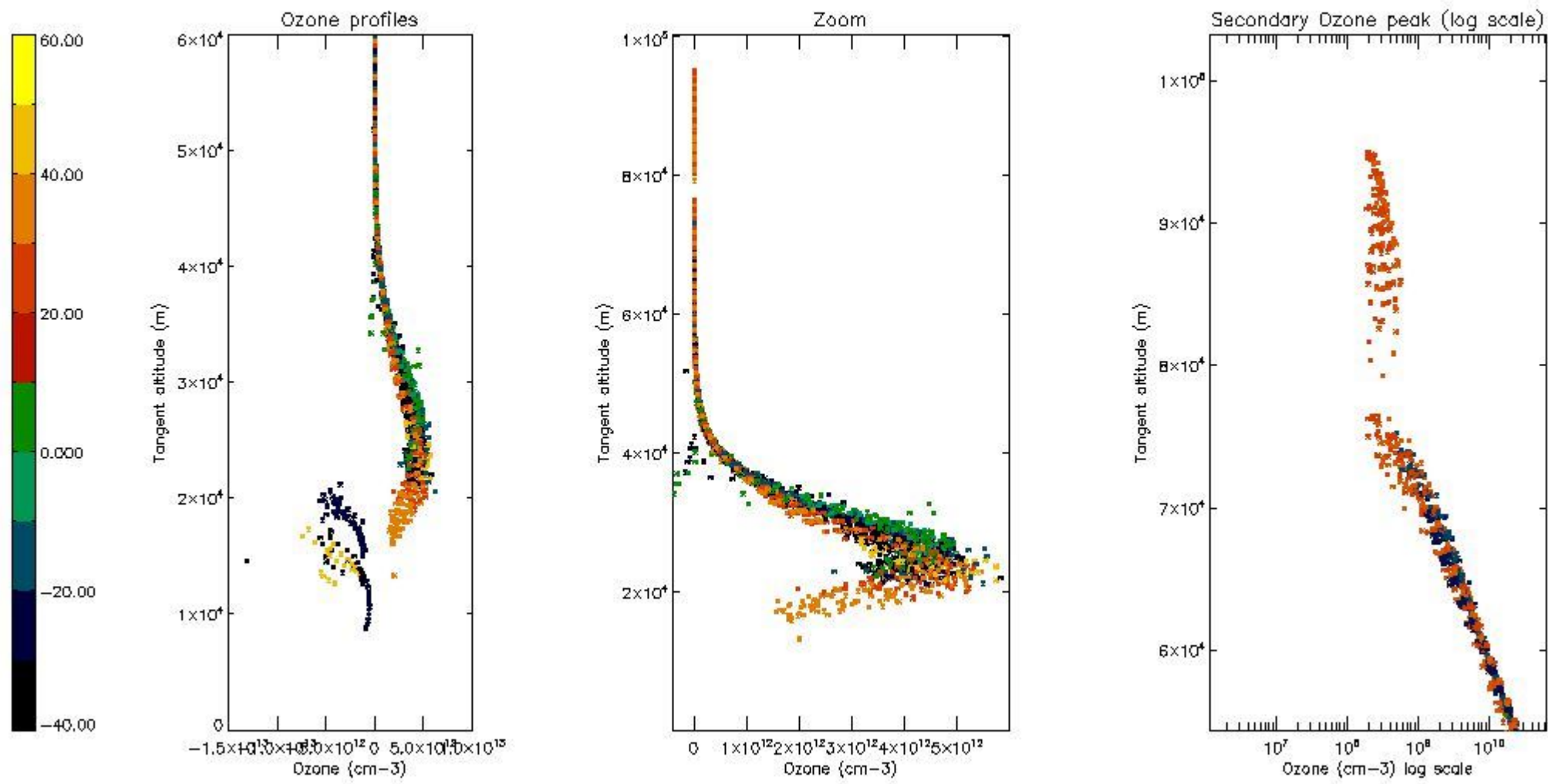
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



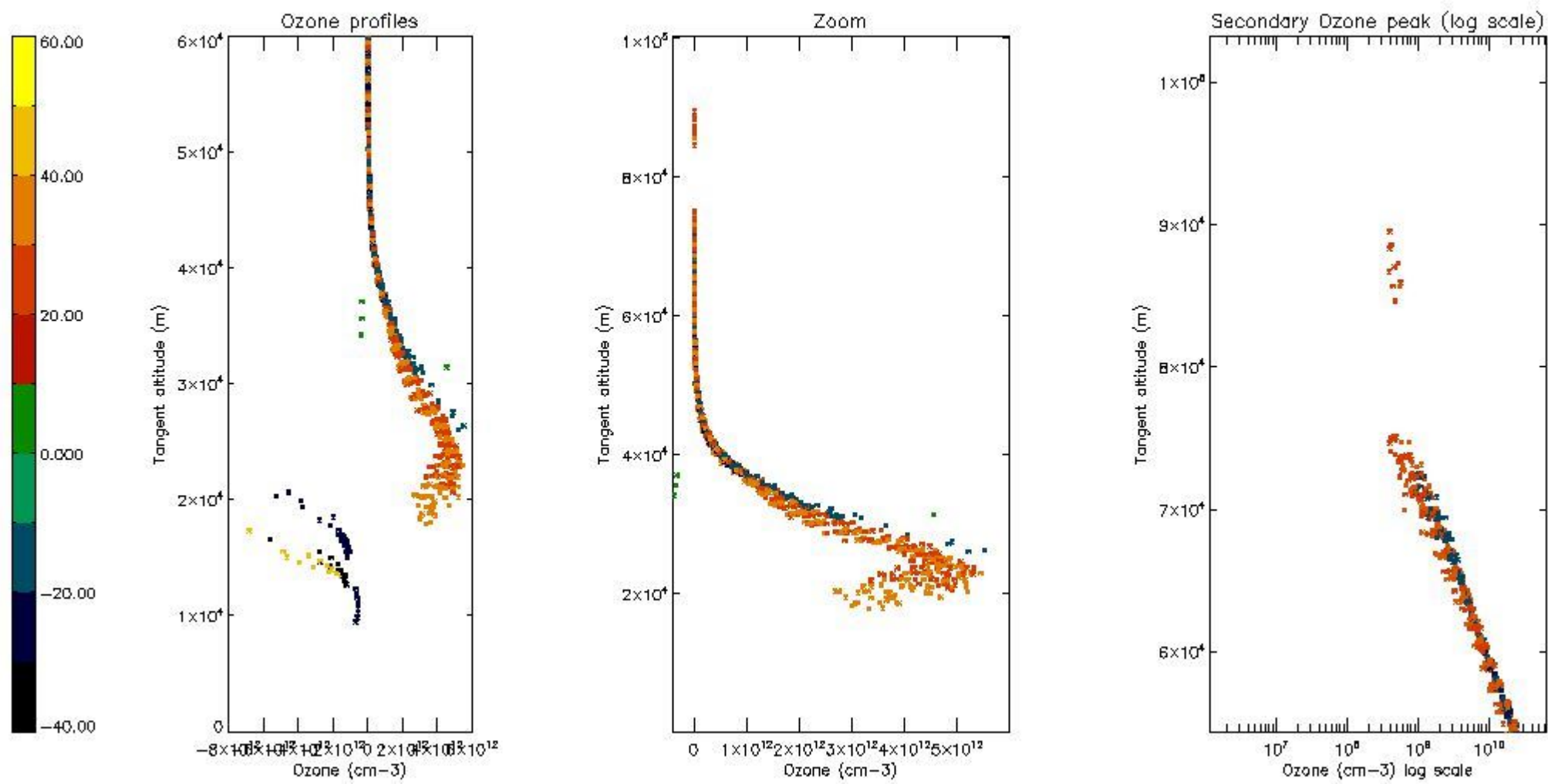
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



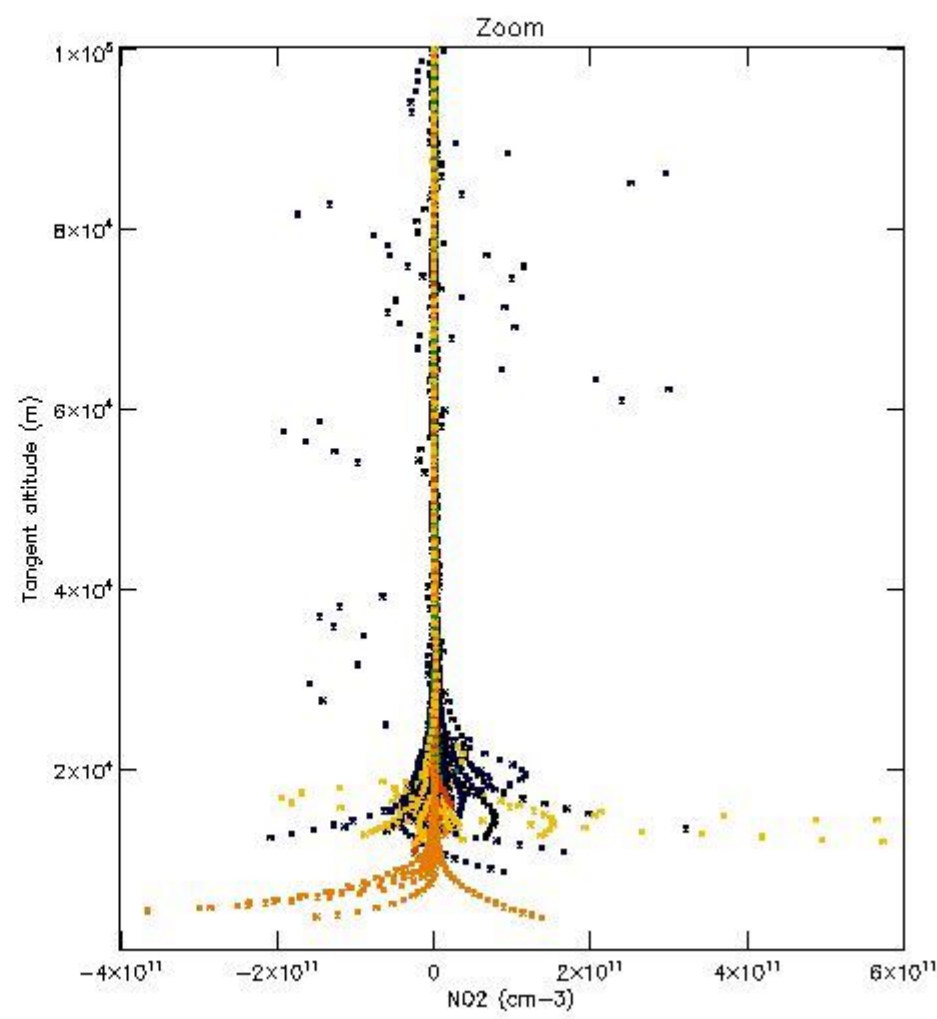
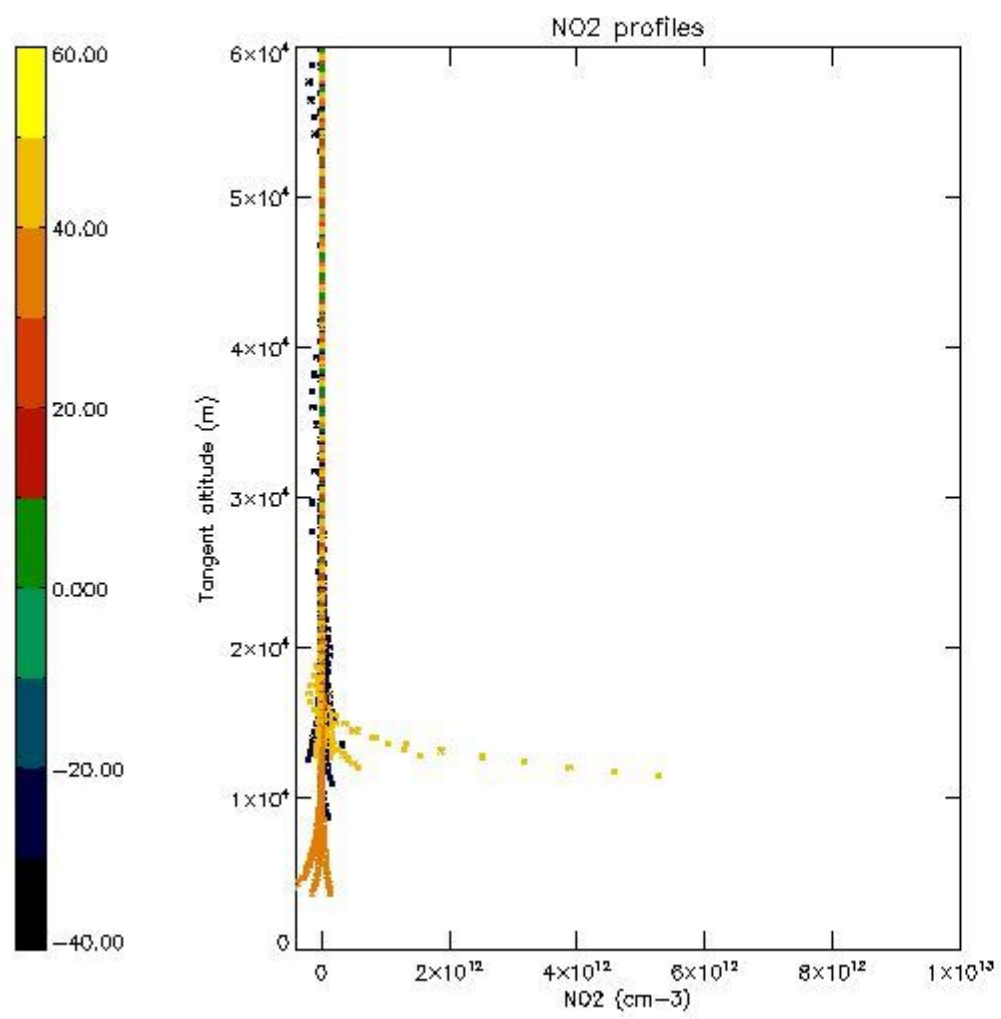
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



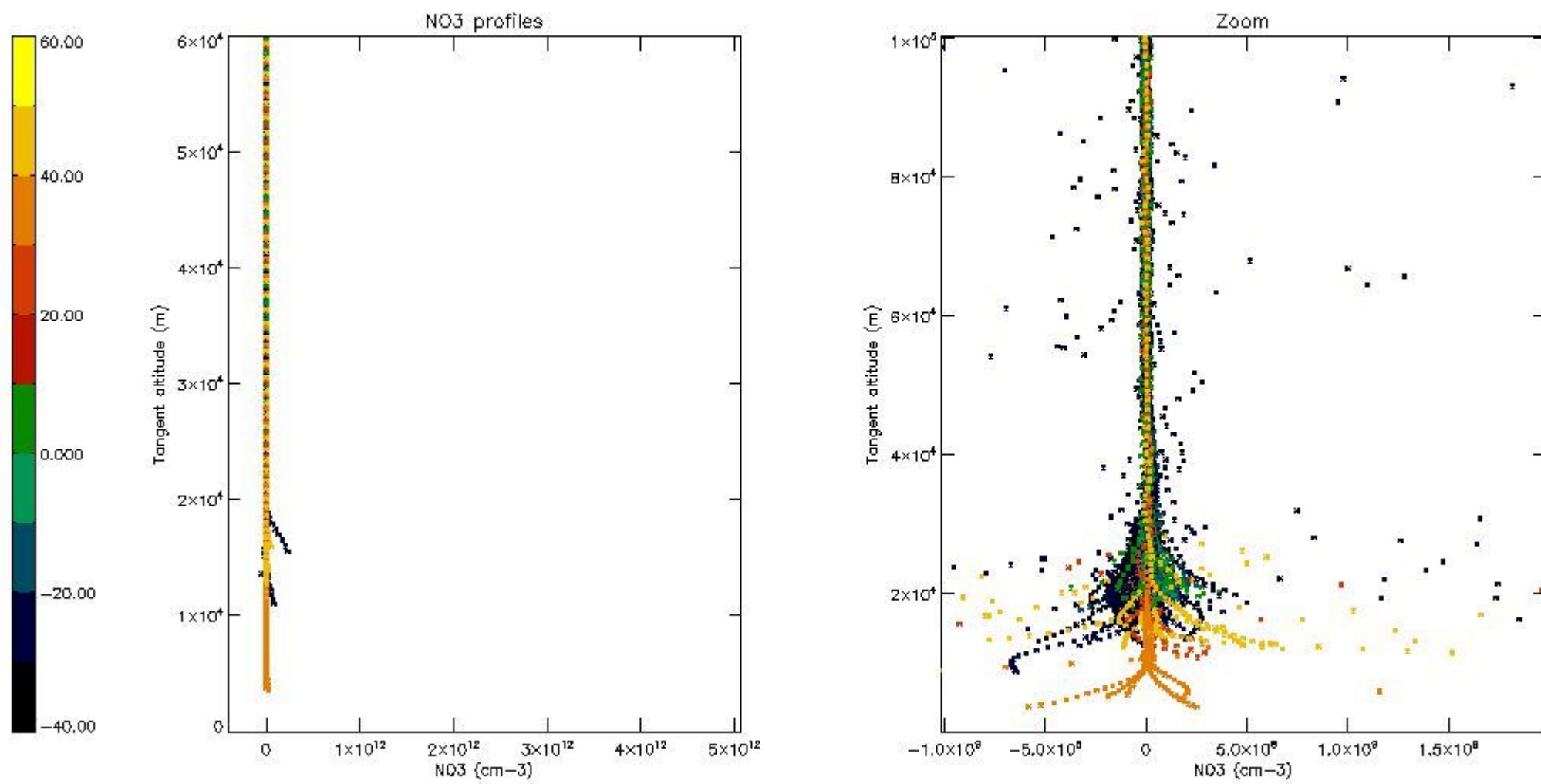
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



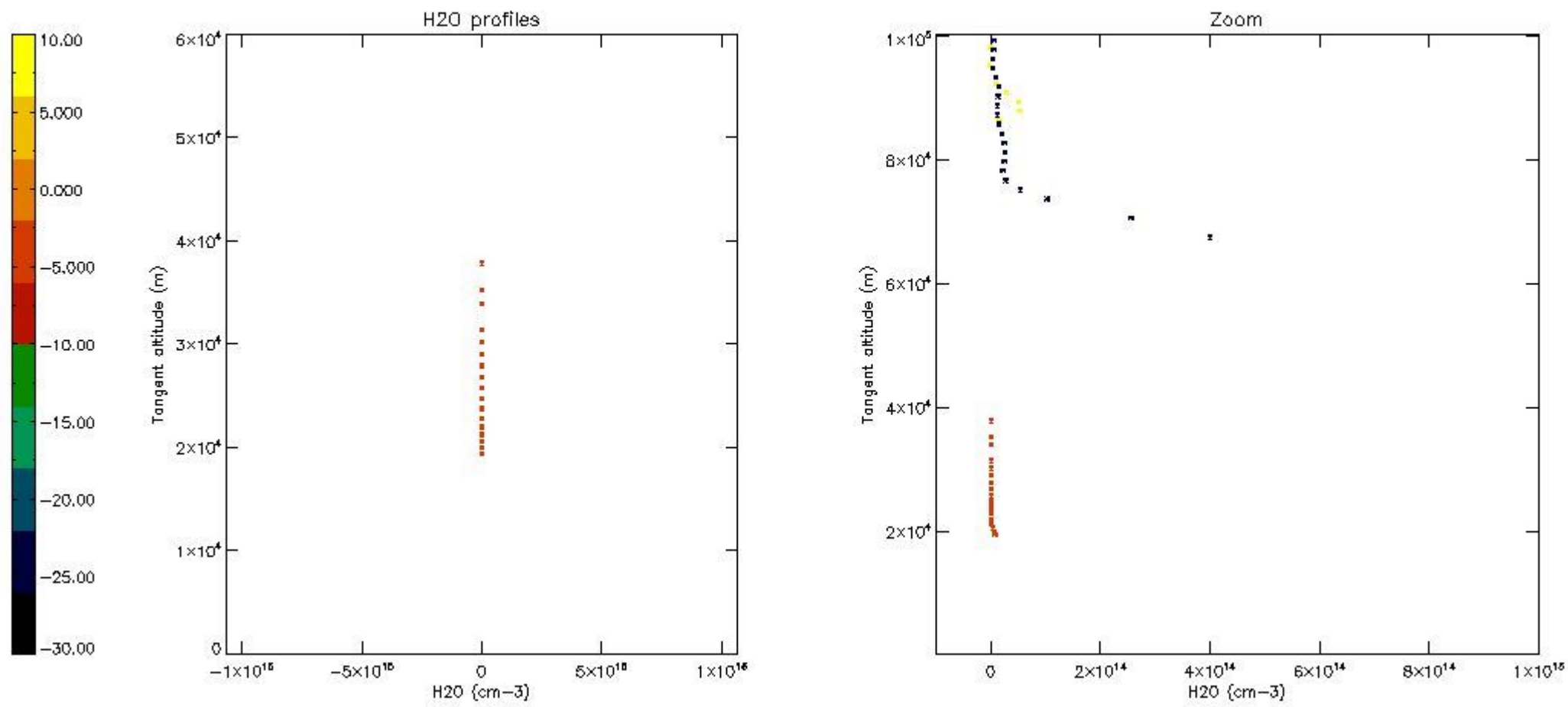
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

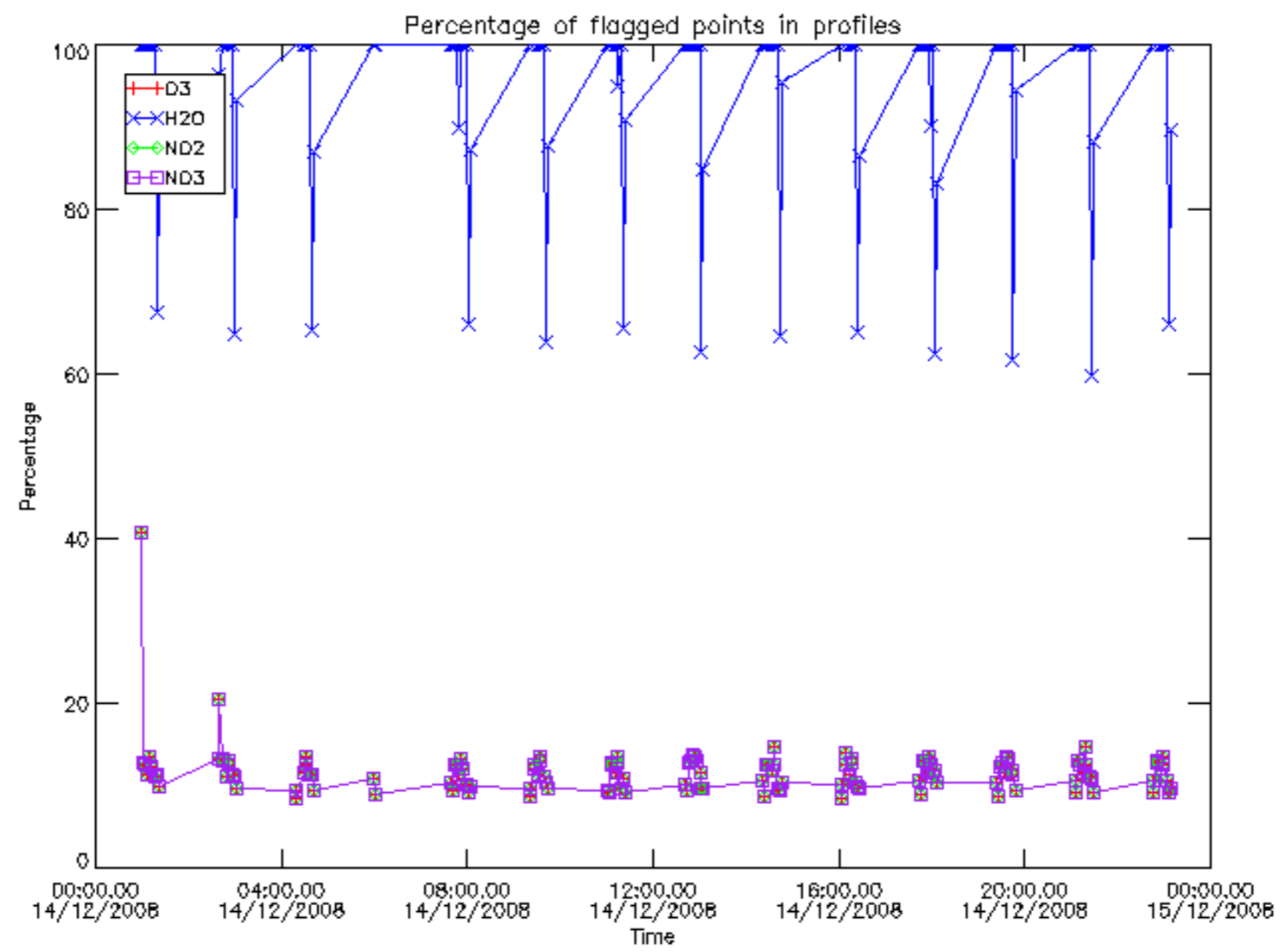
The colorbar represents the latitude.



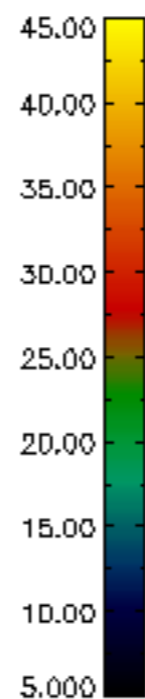
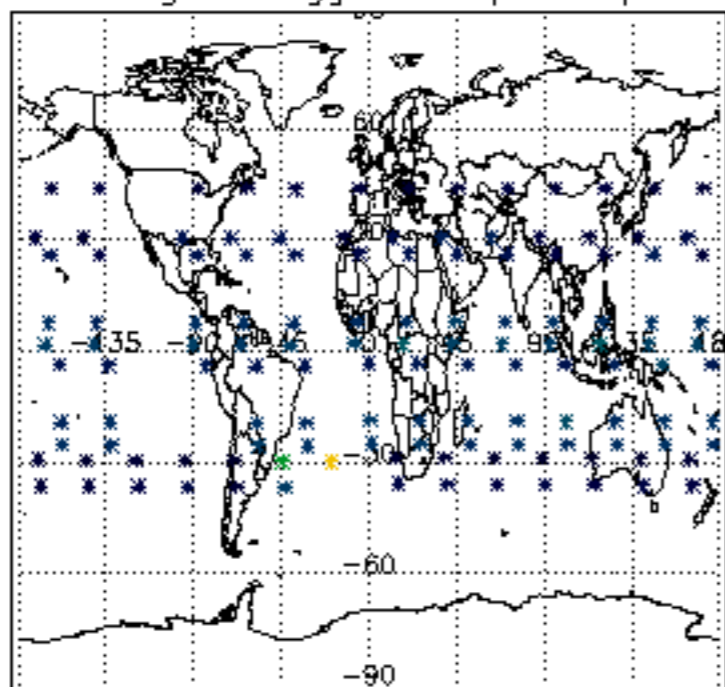
6. Auxiliary Data Files used for the production reported in section 2

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.

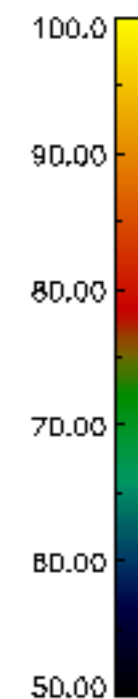
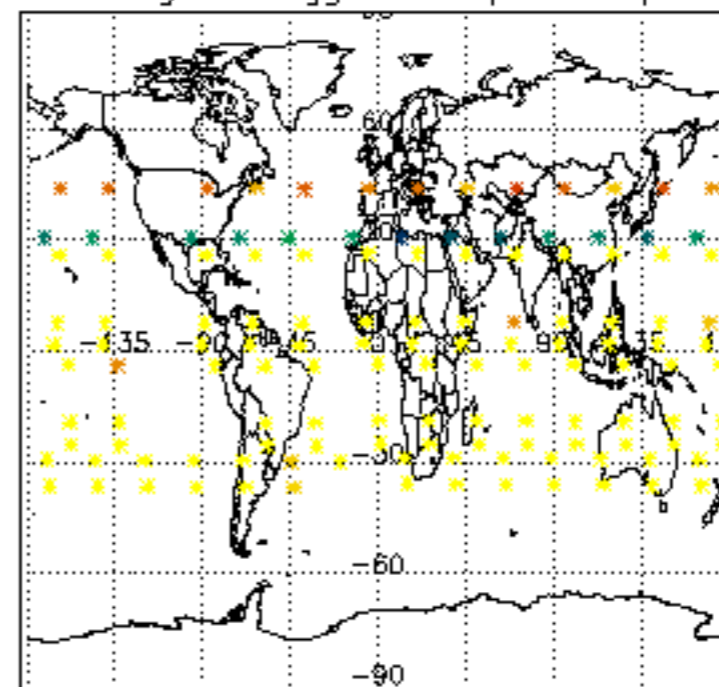
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	14-DEC-2008 00:01:46
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-DEC-2008 00:01:46
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-DEC-2008 00:01:46



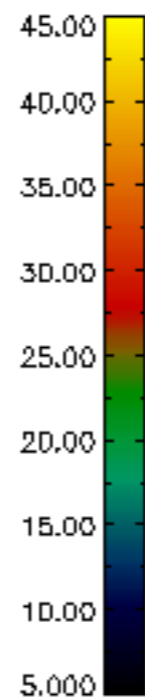
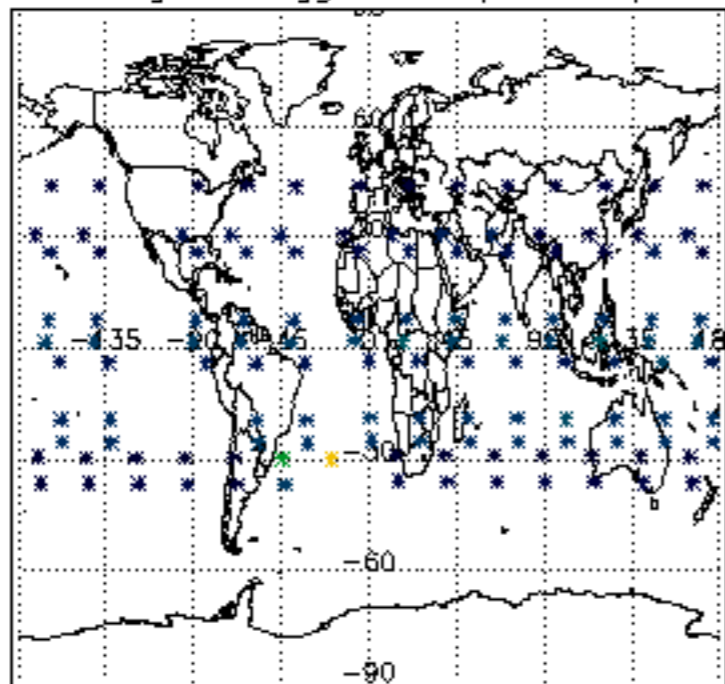
Percentage of flagged data per D3 profile



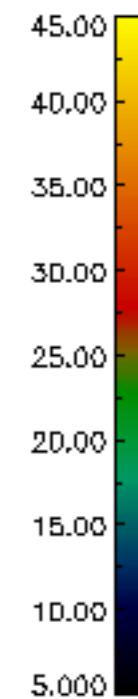
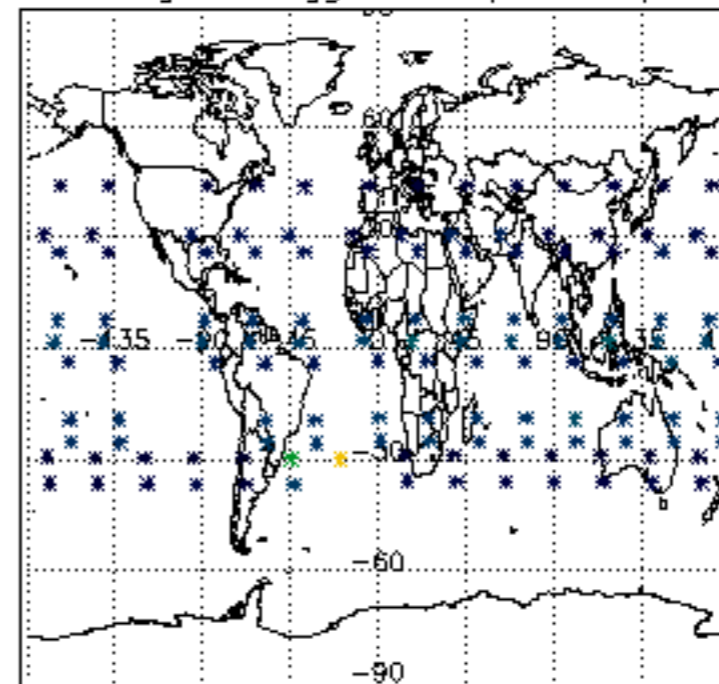
Percentage of flagged data per H2O profile

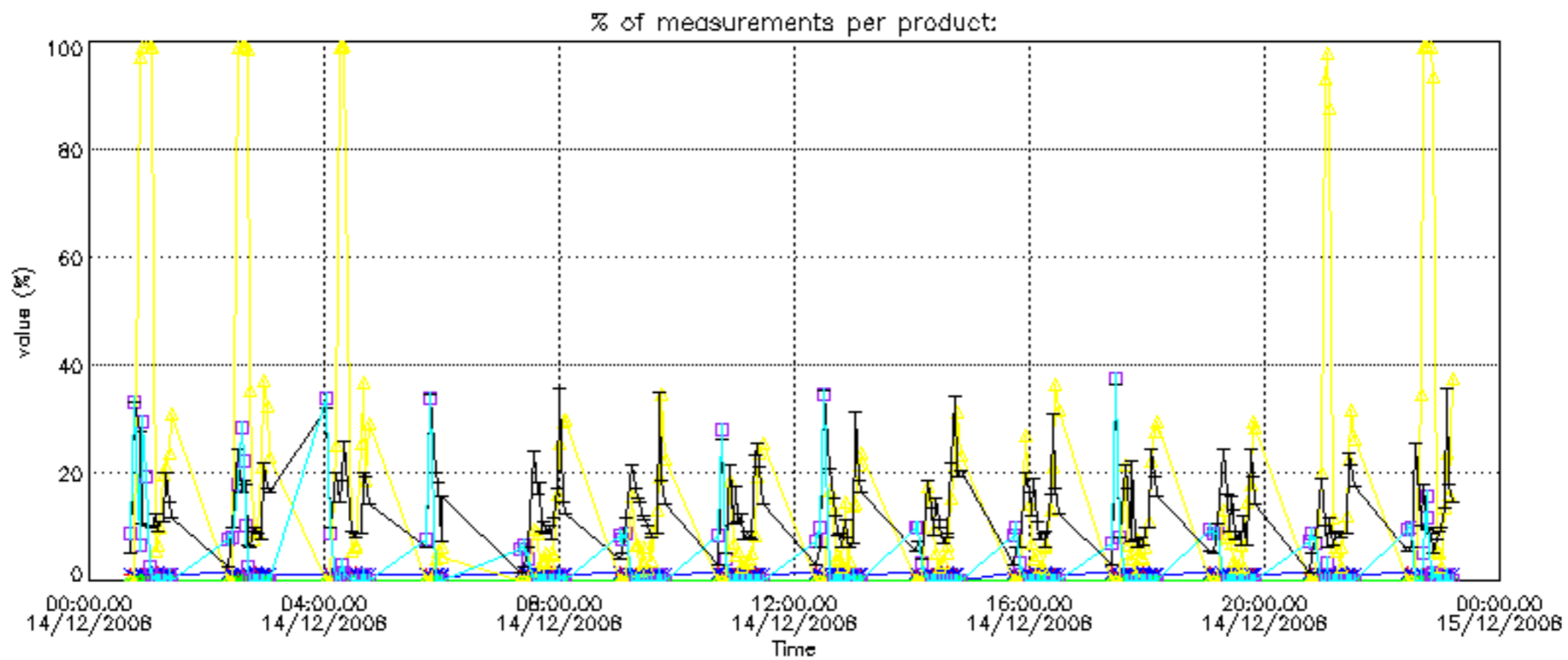


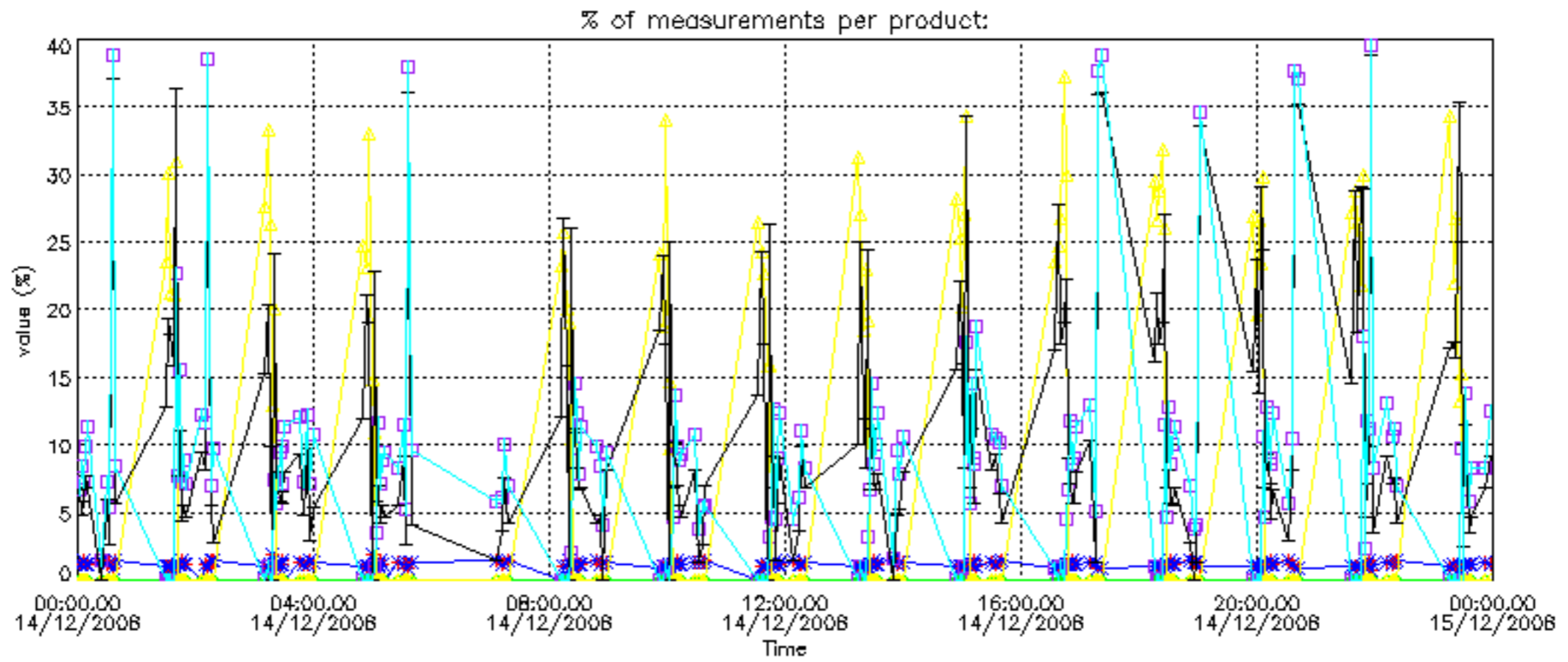
Percentage of flagged data per NO2 profile



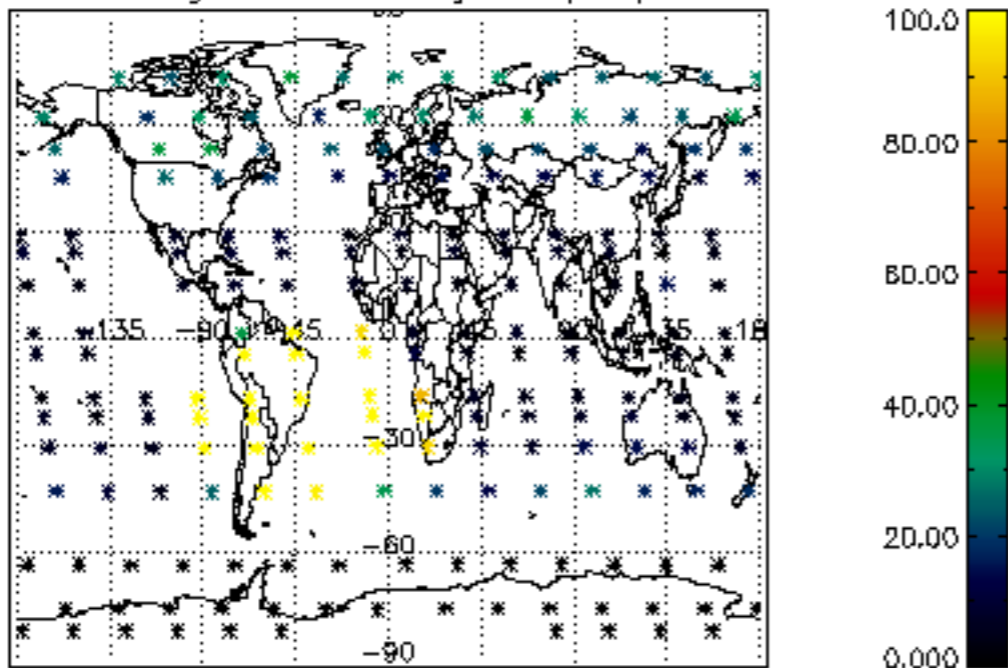
Percentage of flagged data per NO3 profile



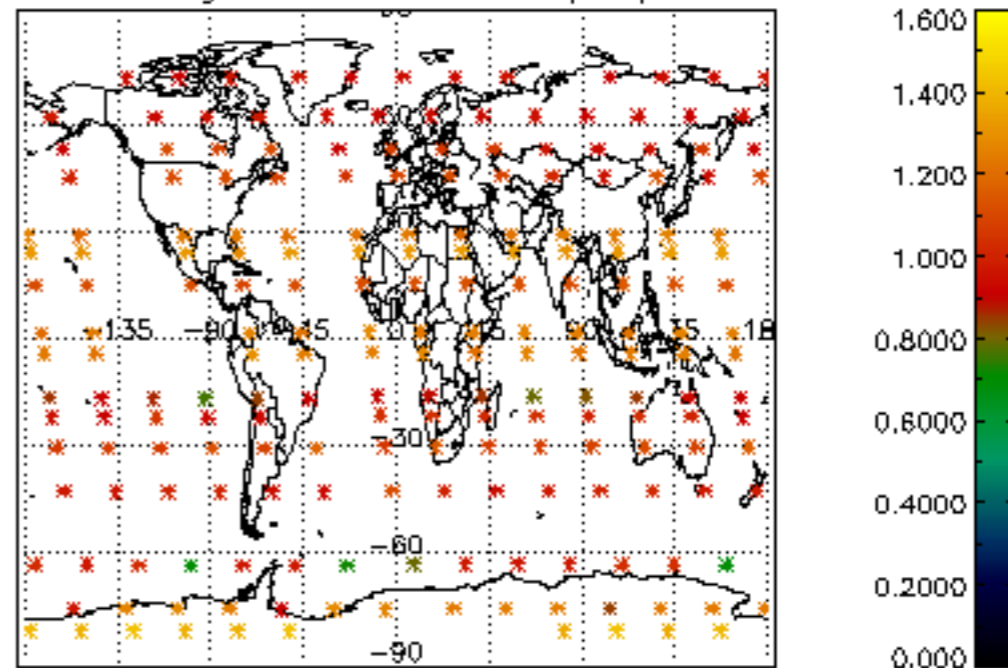




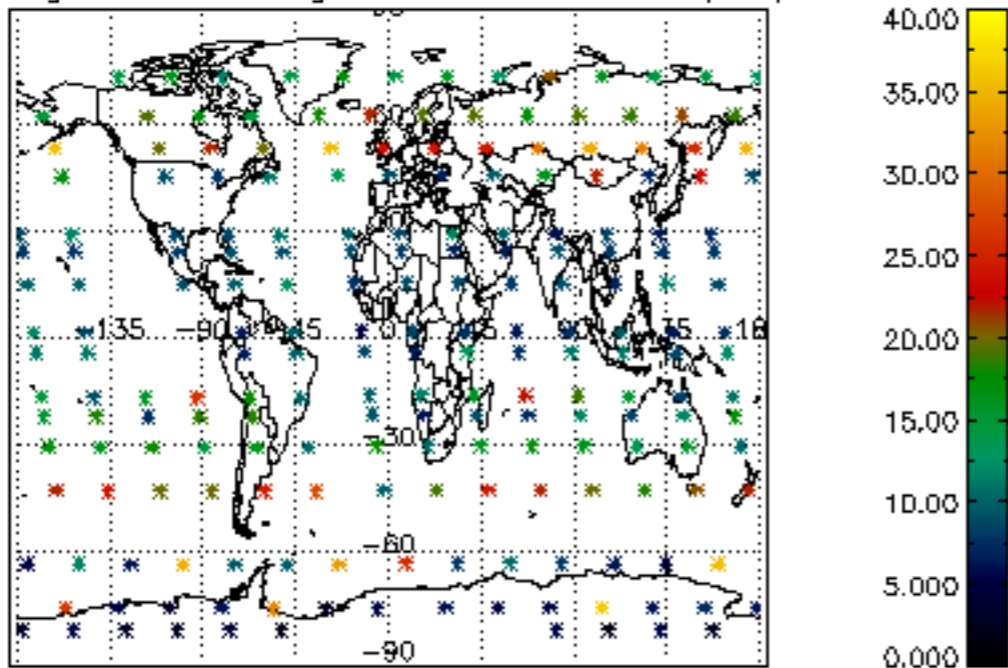
Percentage of cosmic ray hits per profile



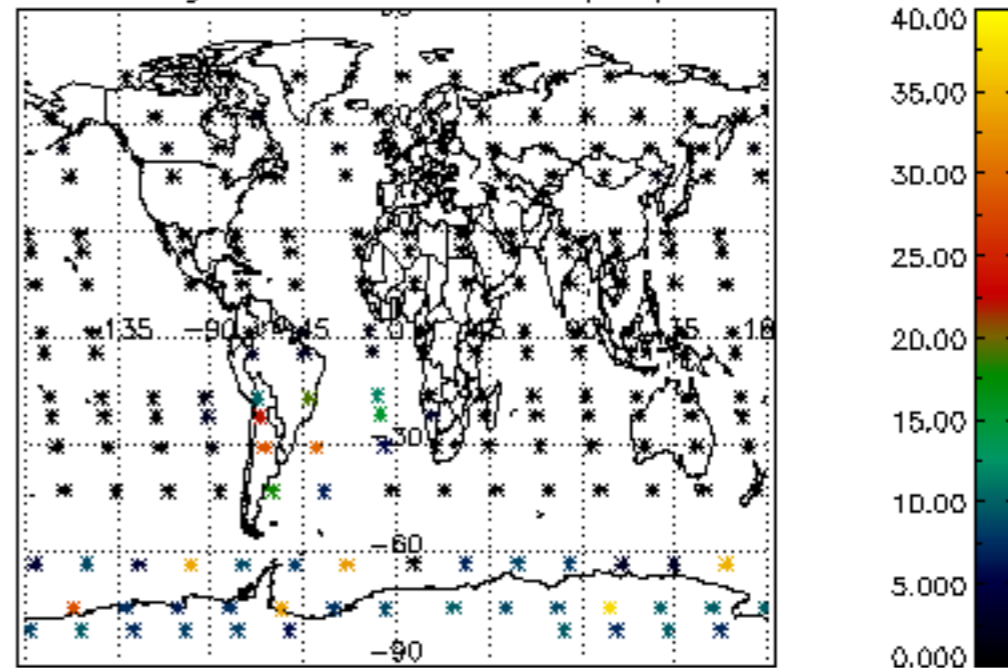
Percentage of datation errors per profile



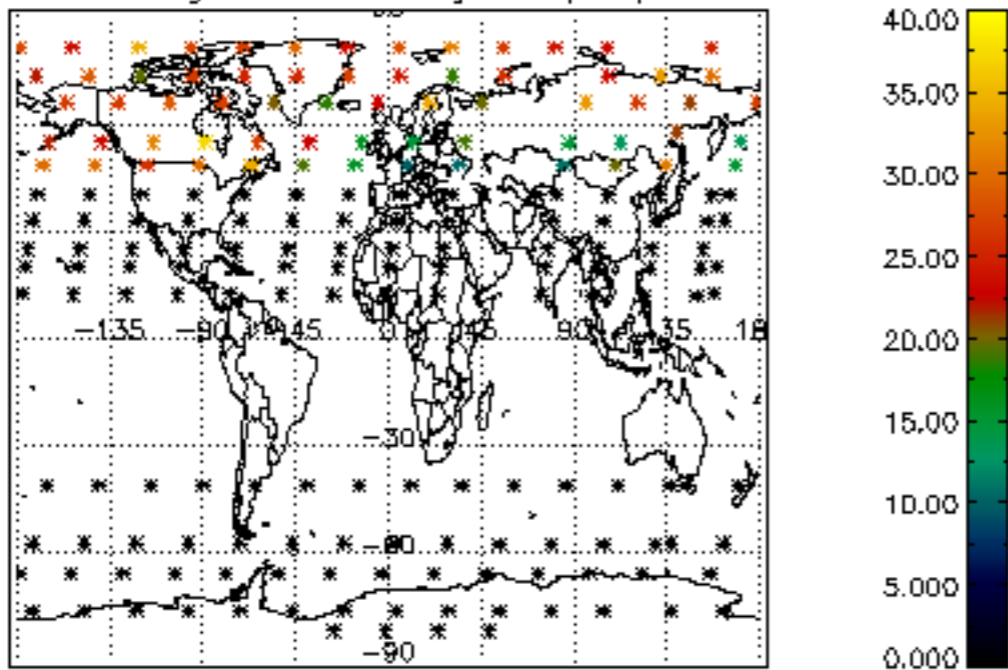
Percentage of star falling outside central band per profile



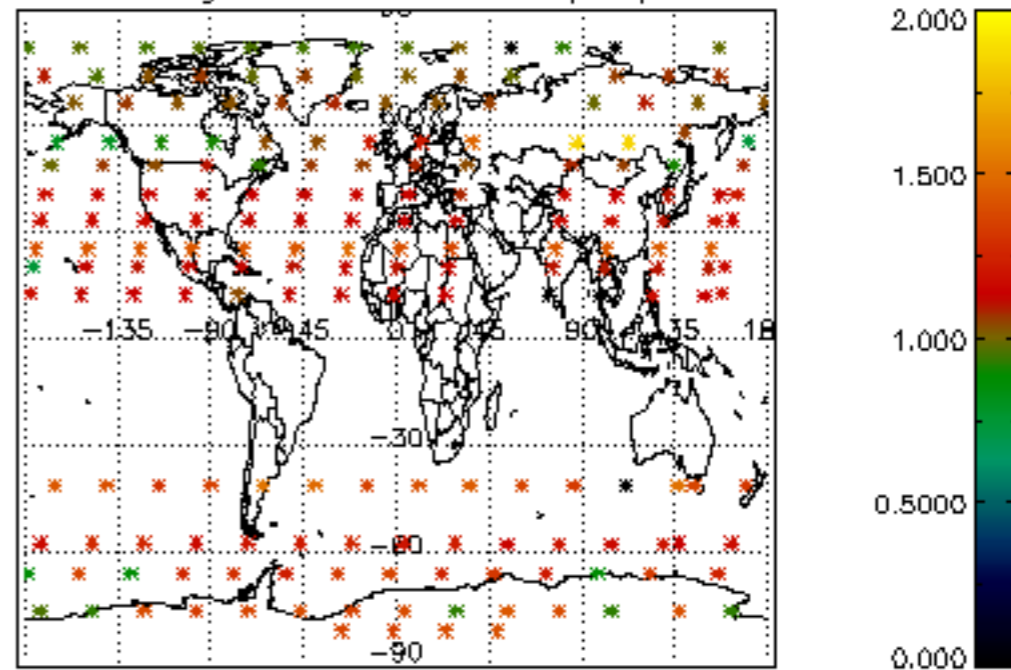
Percentage of saturation errors per profile



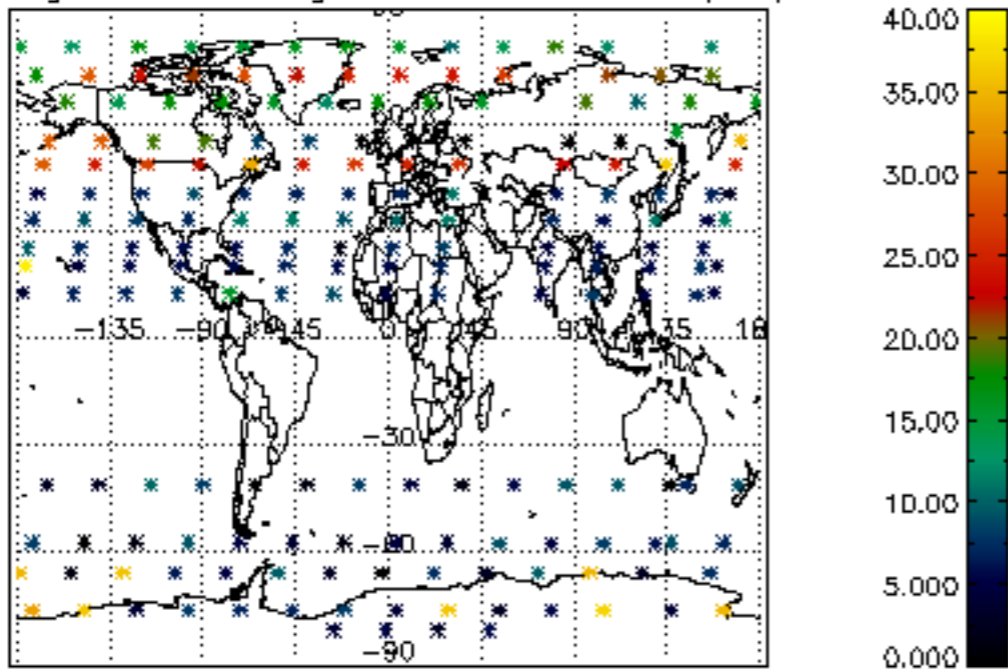
Percentage of cosmic ray hits per profile



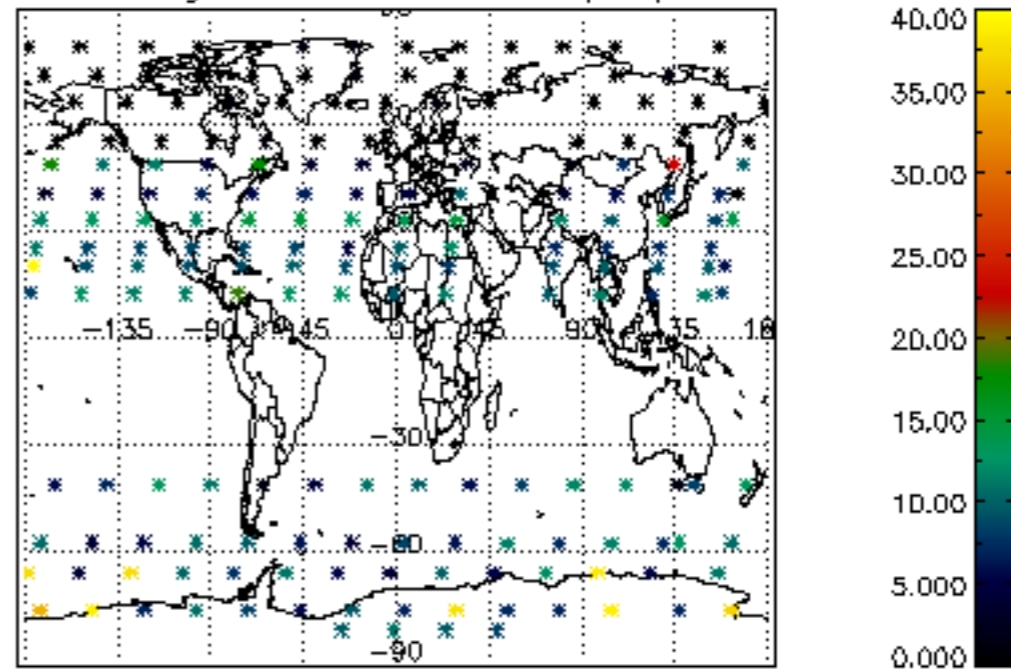
Percentage of datation errors per profile

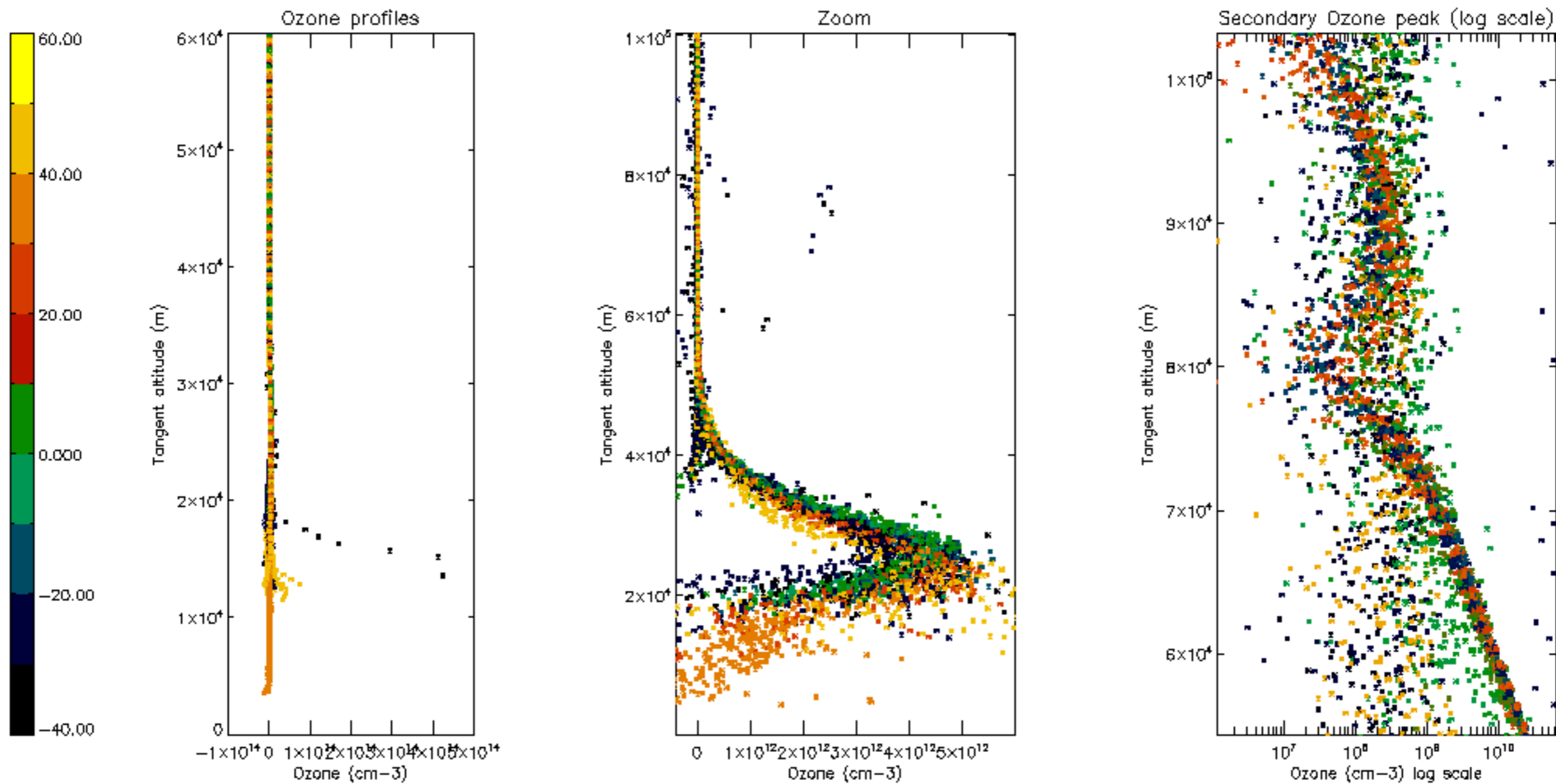


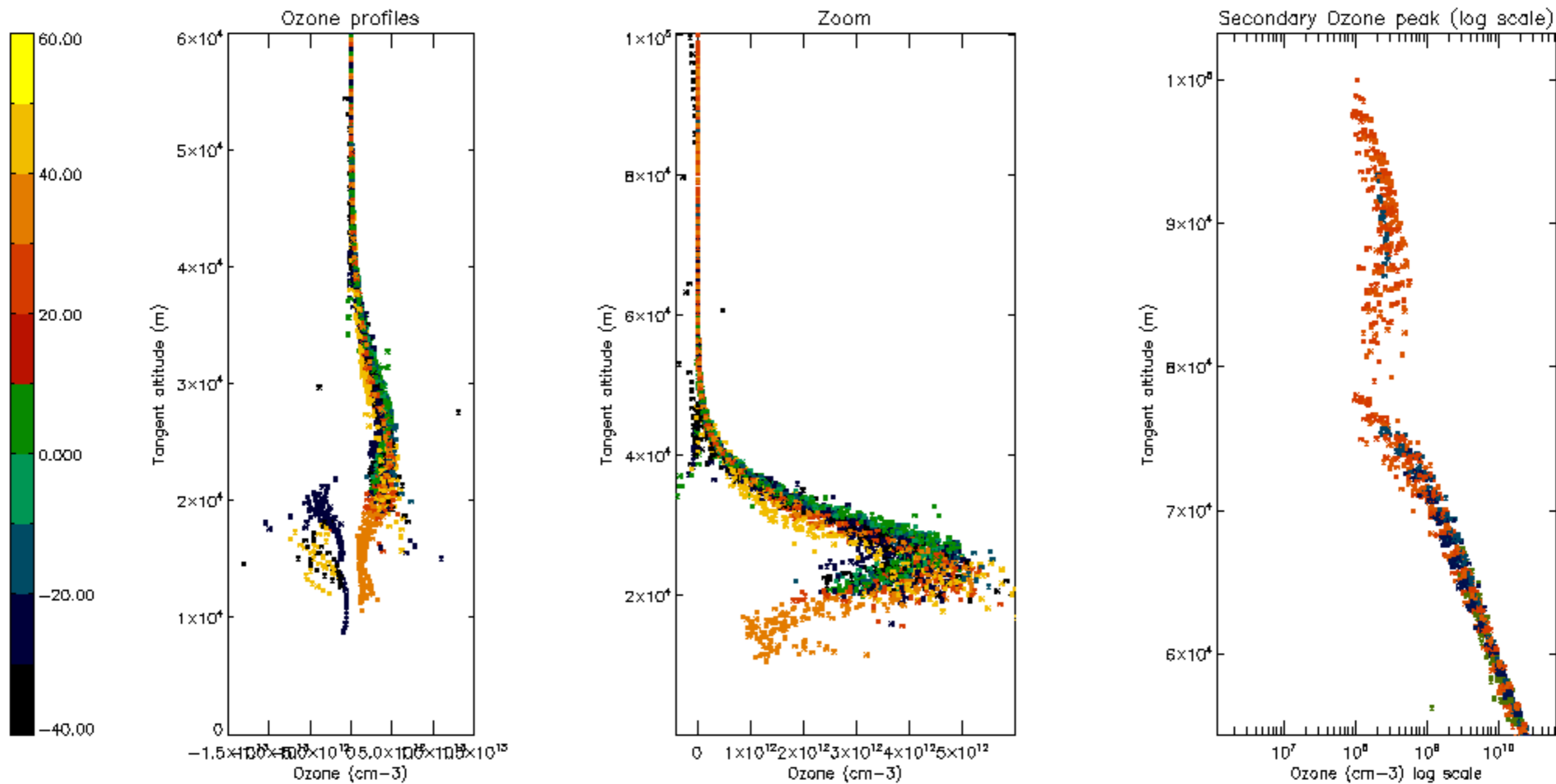
Percentage of star falling outside central band per profile

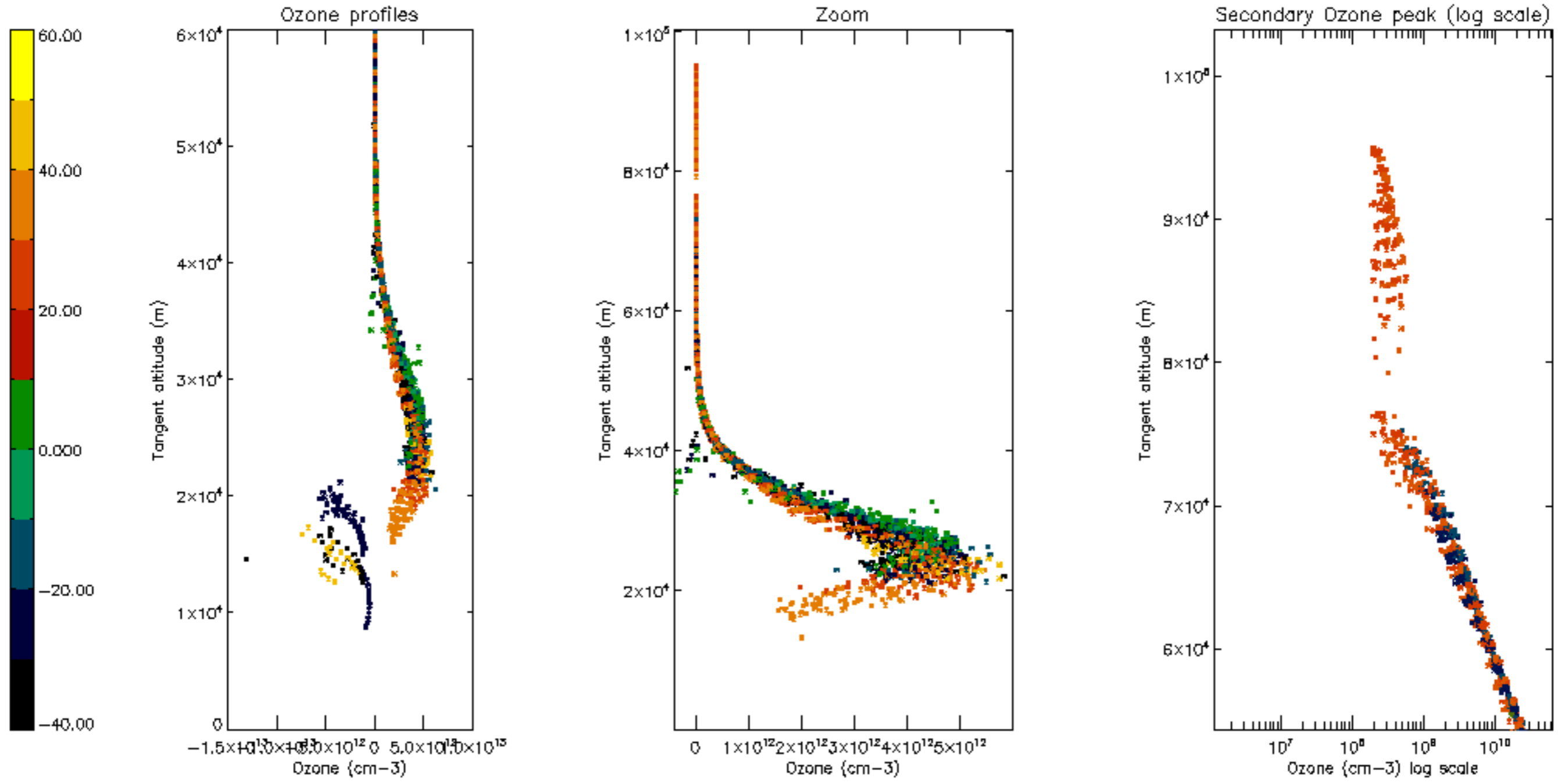


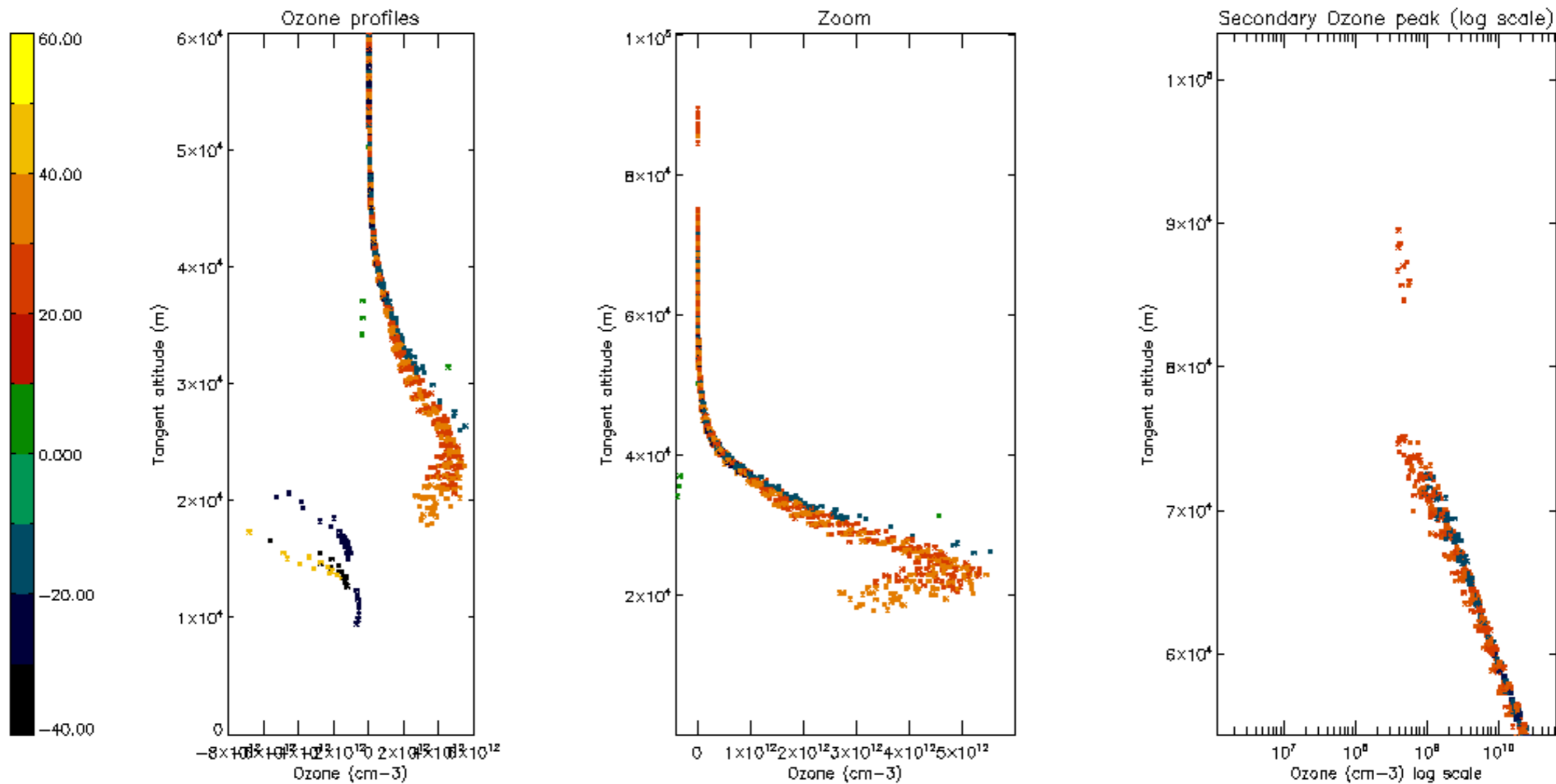
Percentage of saturation errors per profile

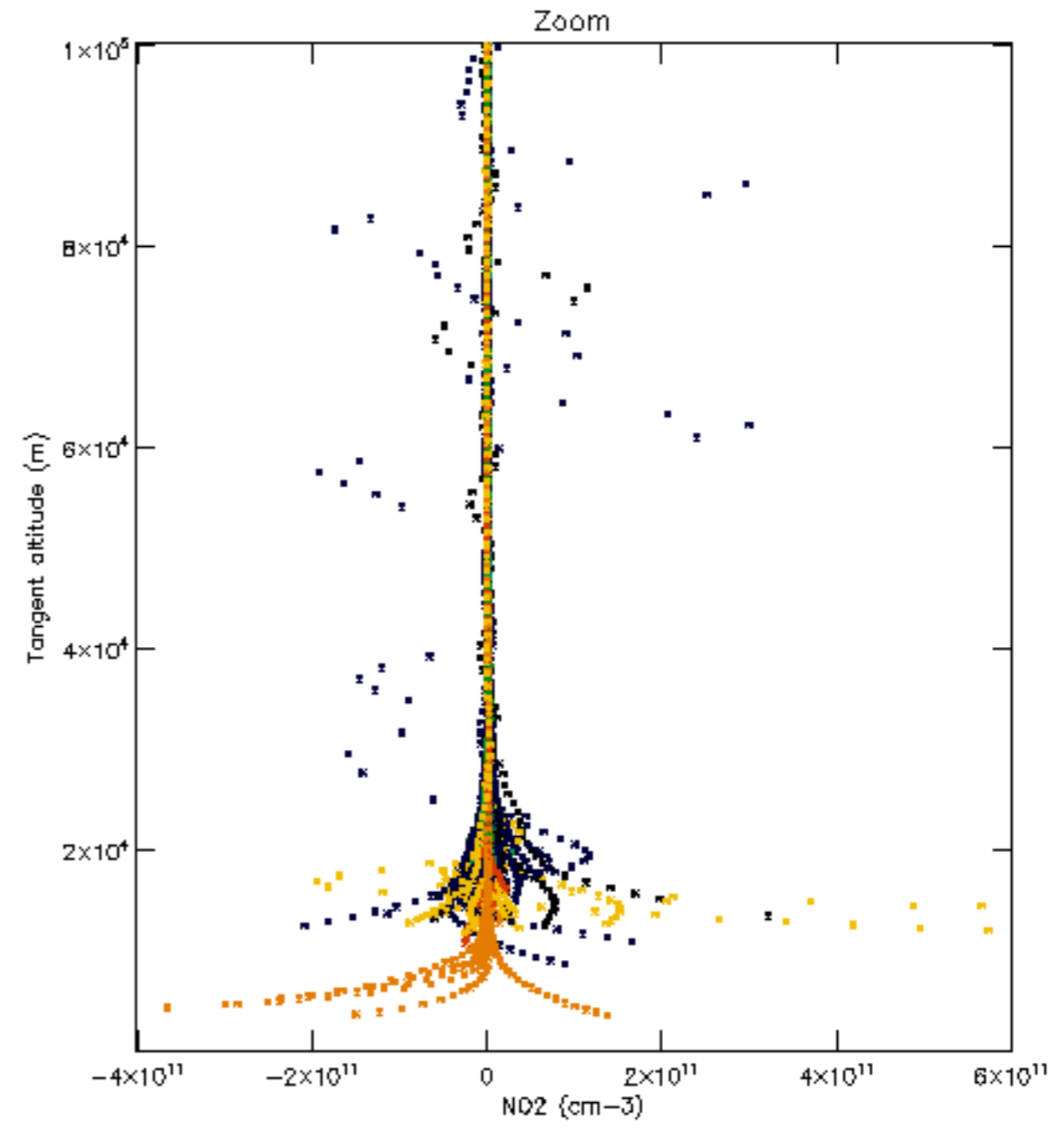
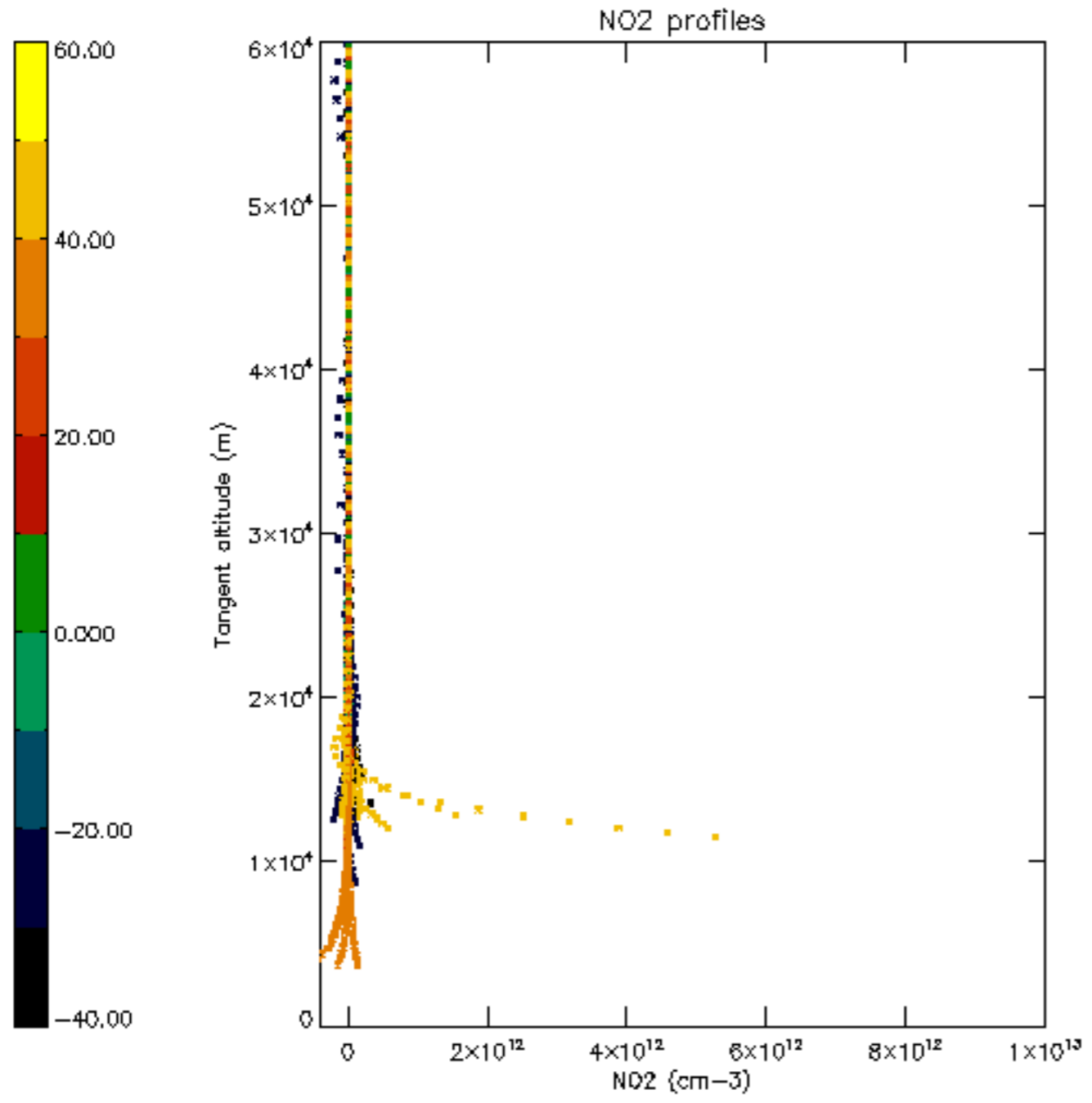


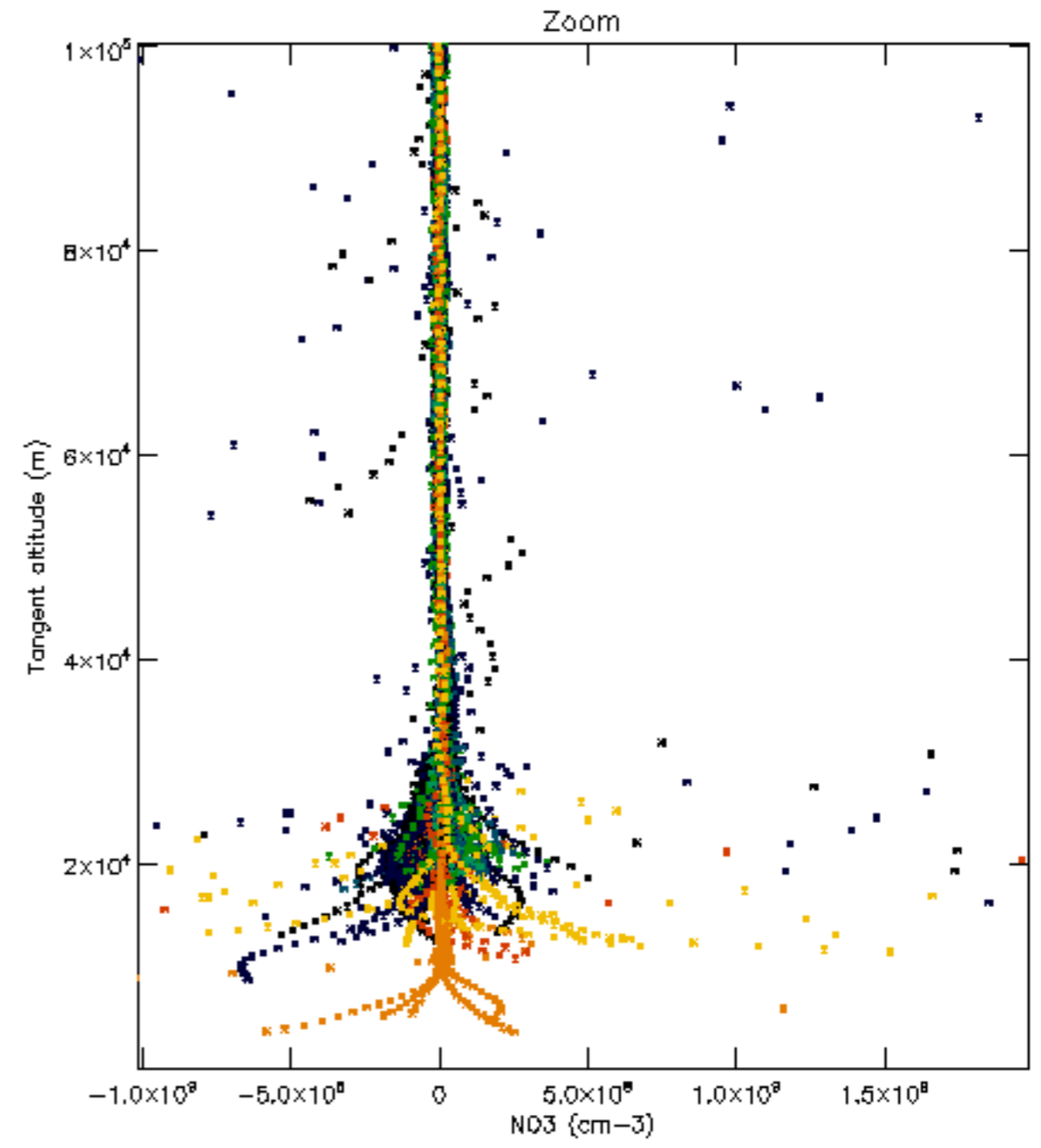
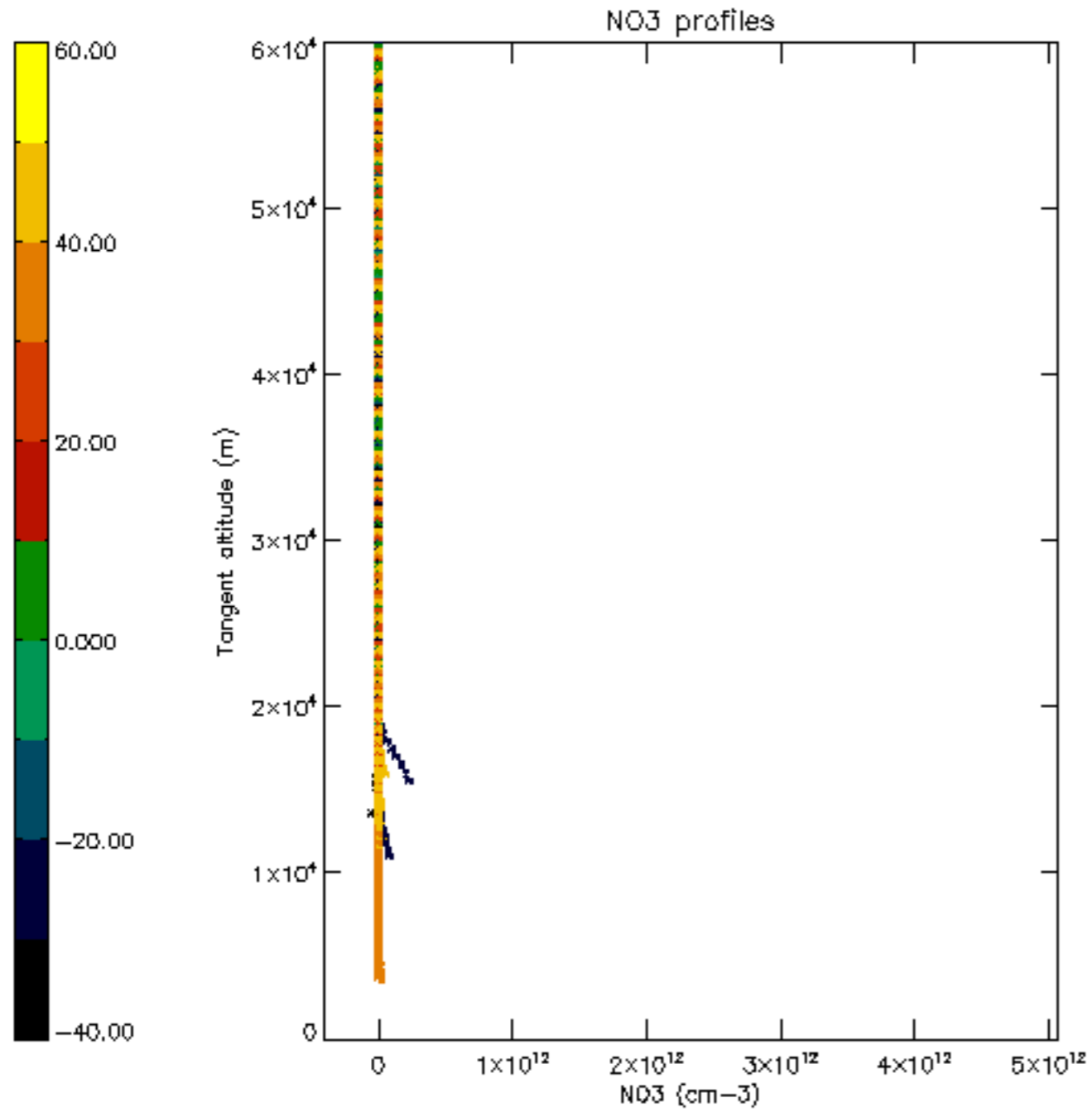


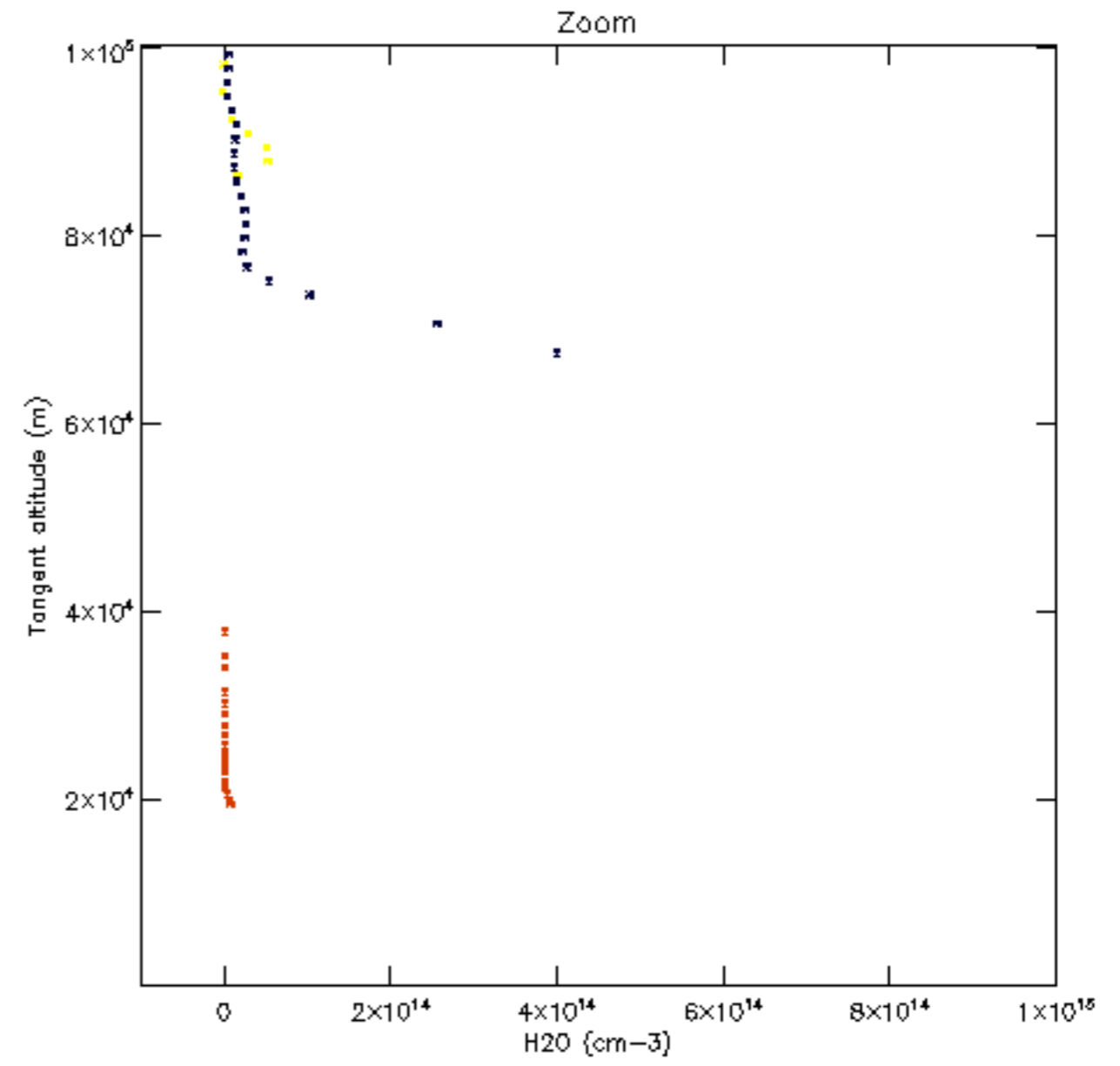
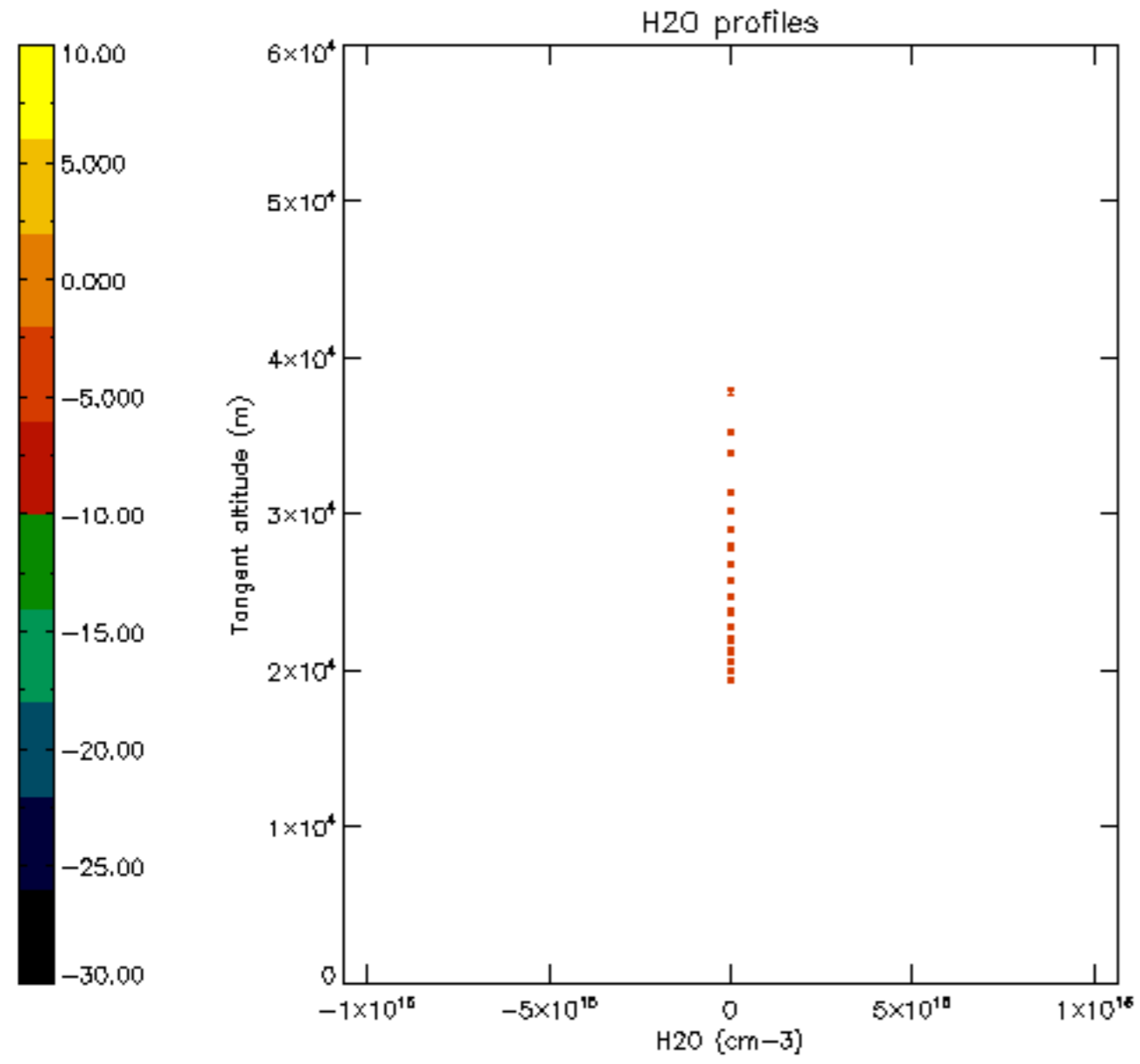


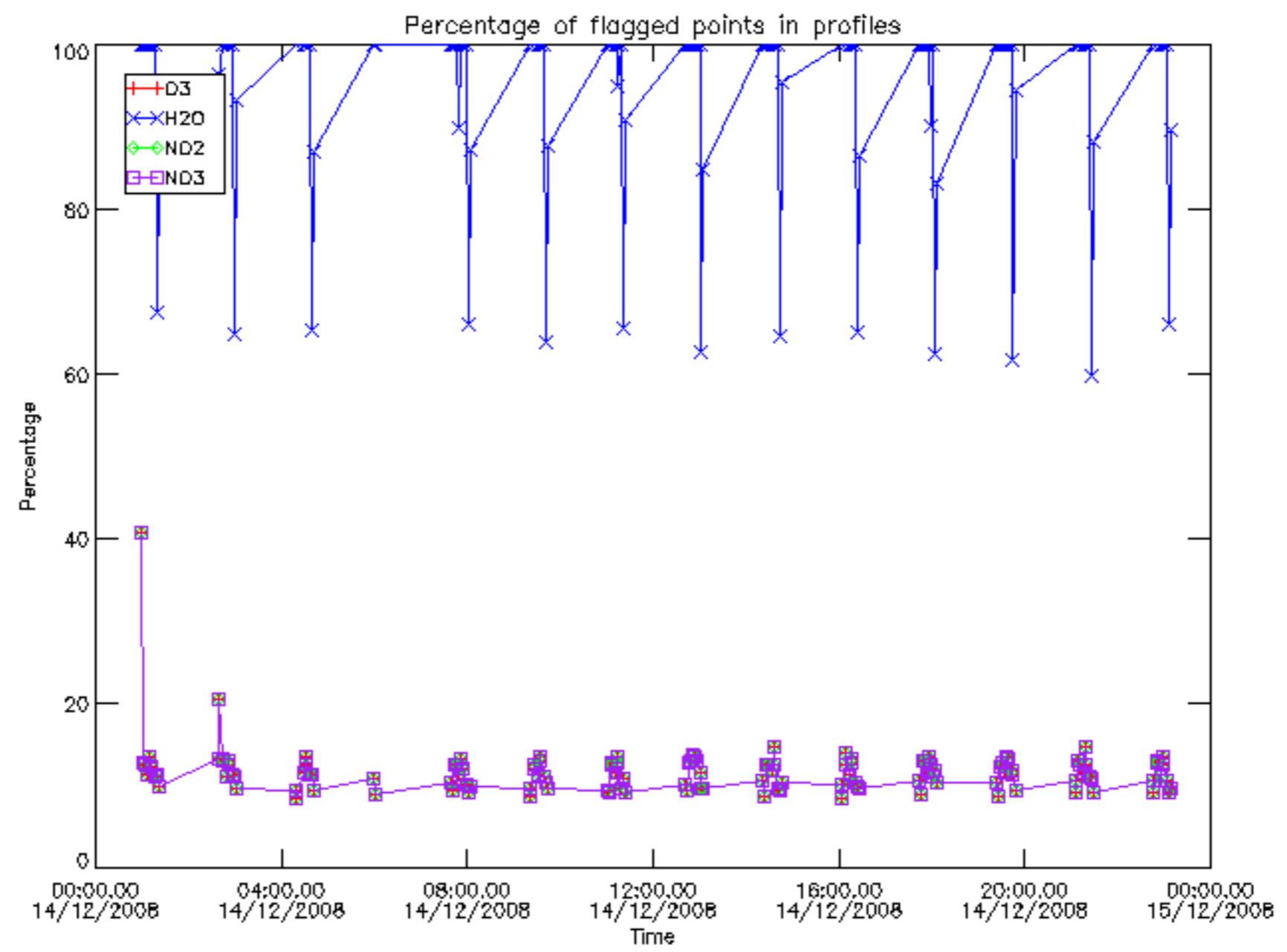




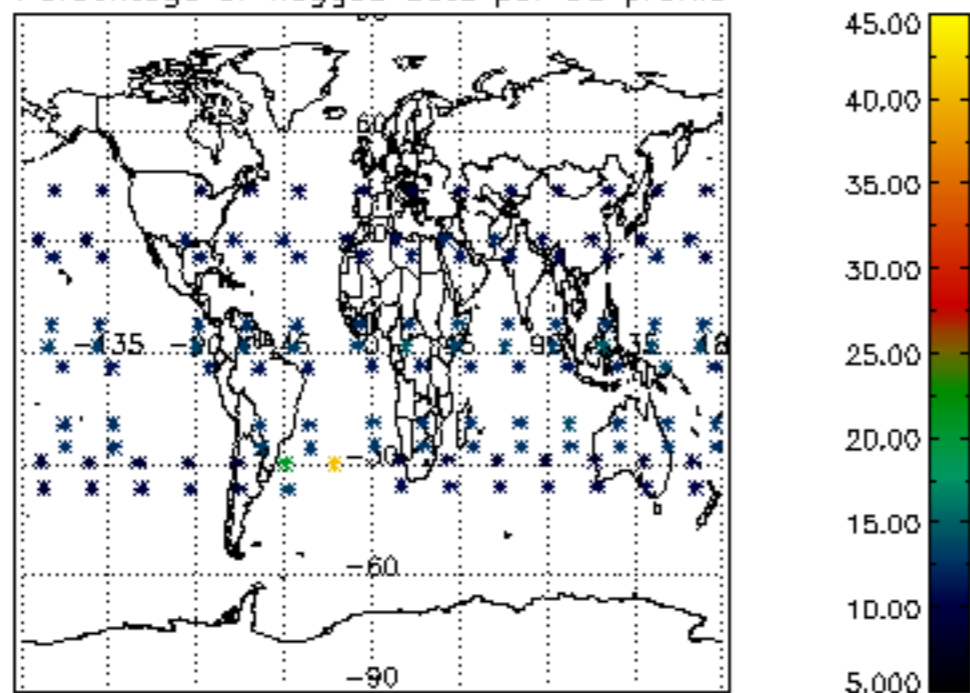




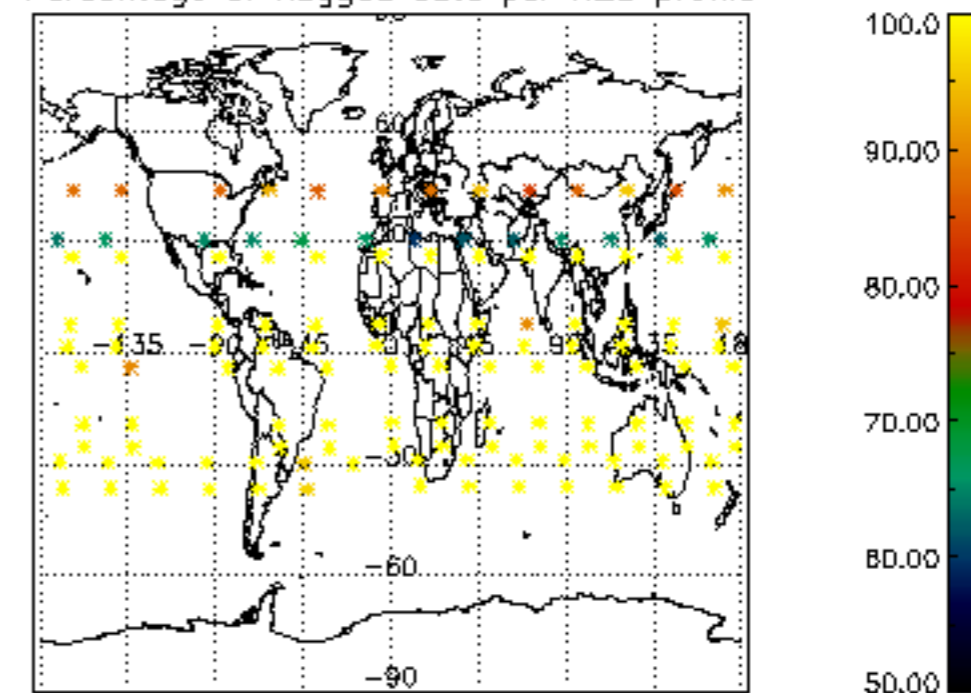




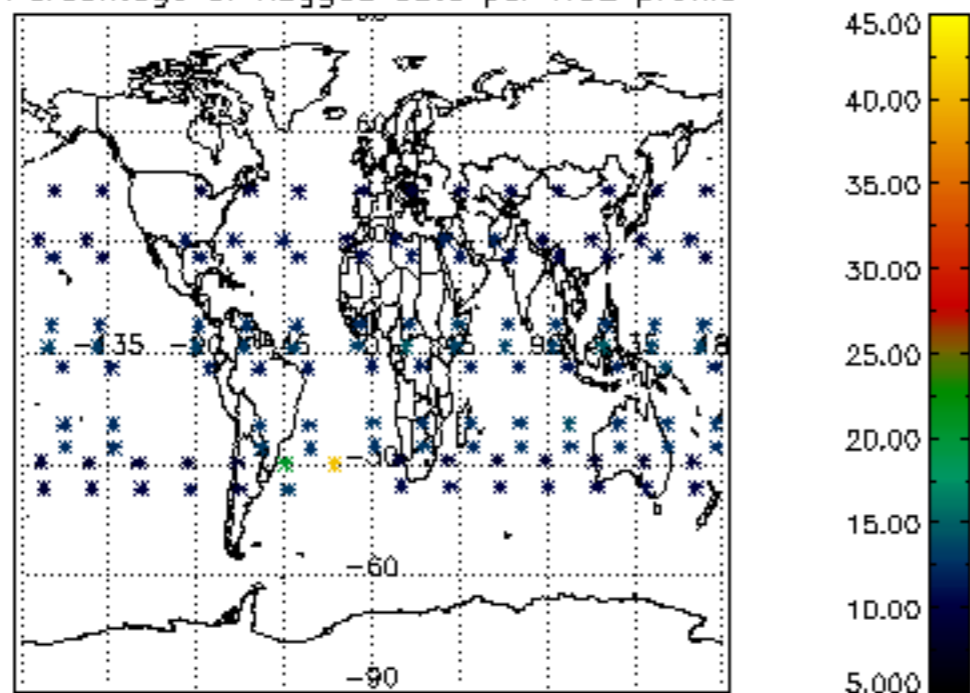
Percentage of flagged data per D3 profile



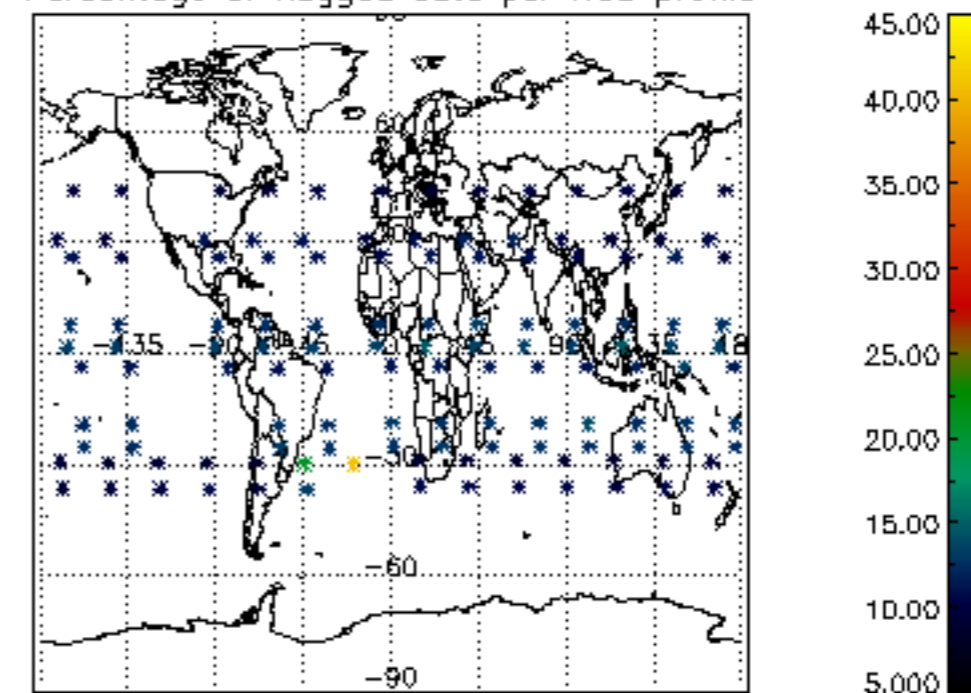
Percentage of flagged data per H2O profile

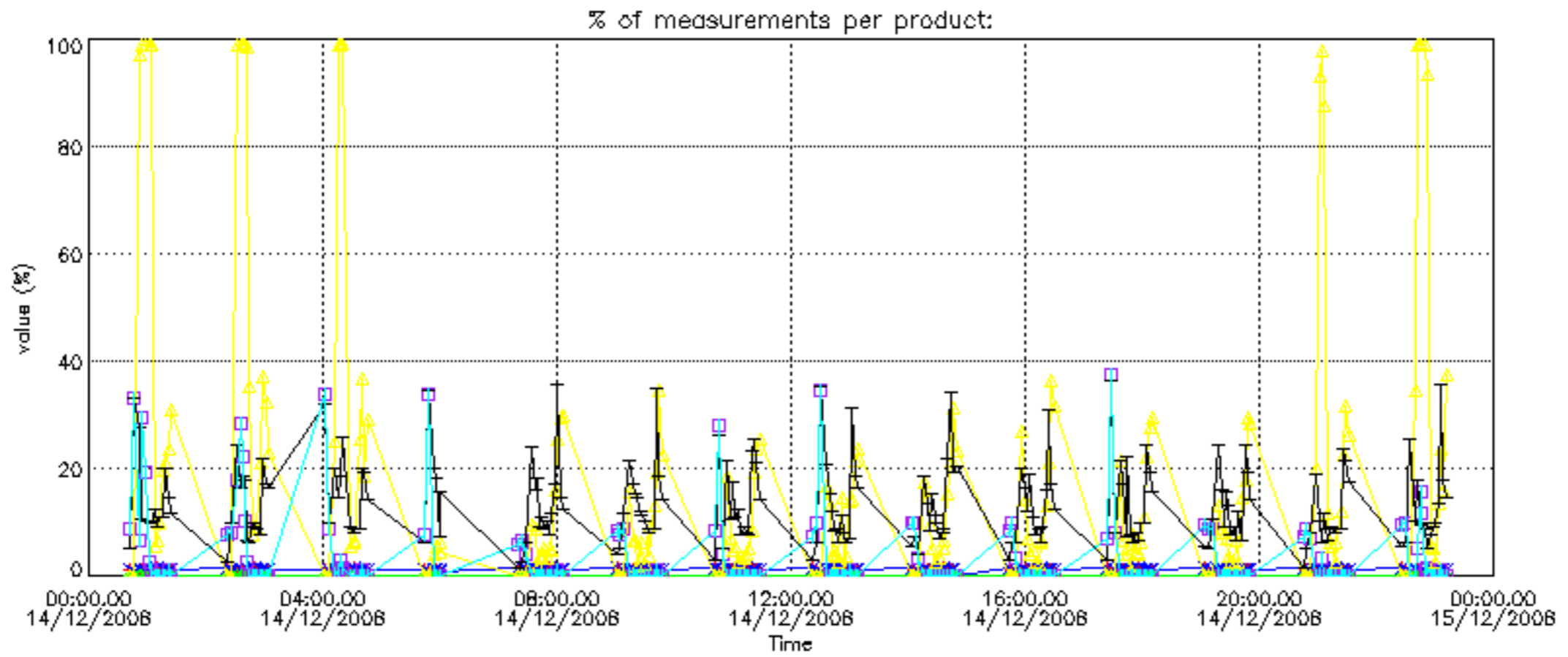


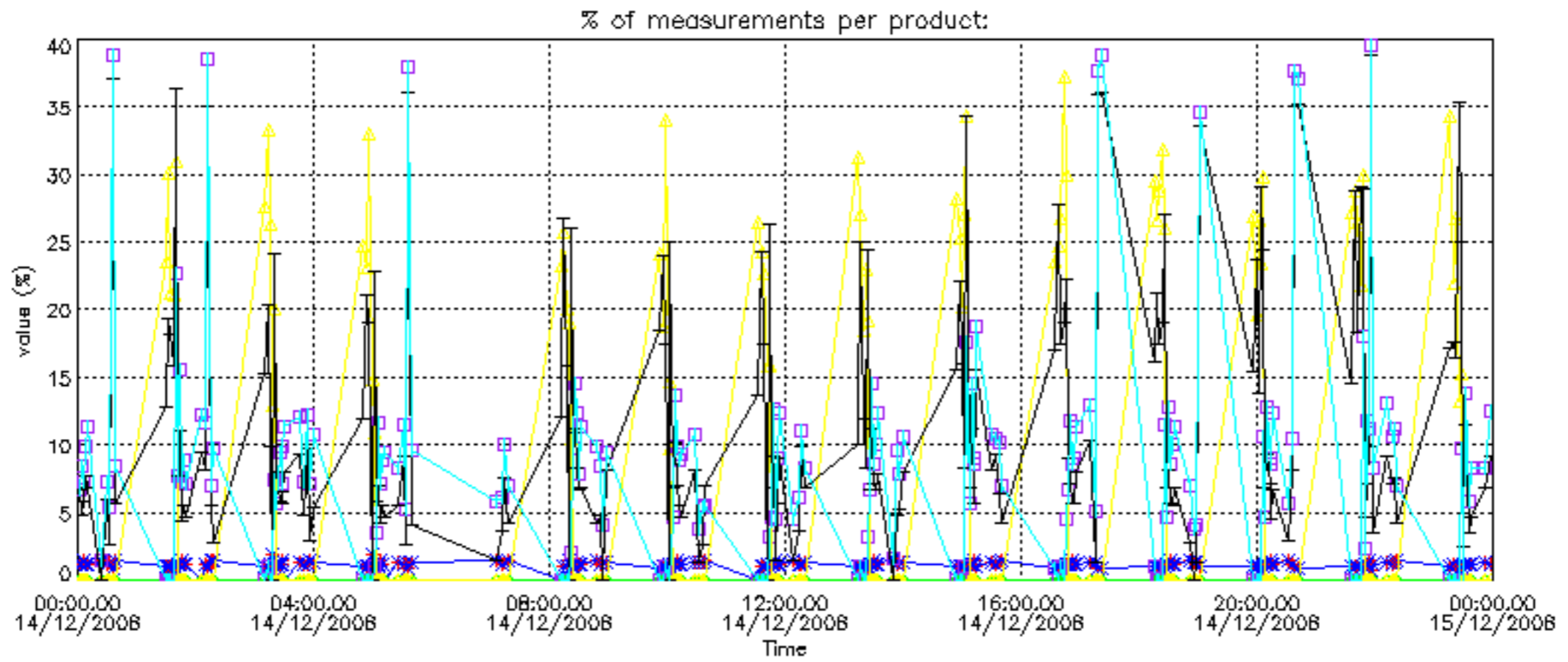
Percentage of flagged data per NO2 profile



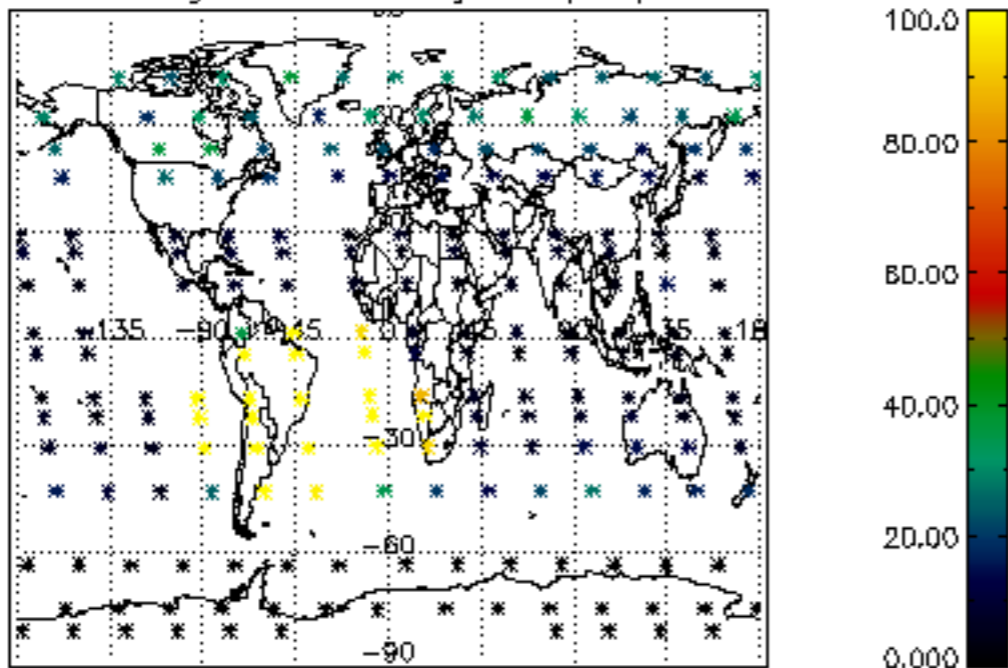
Percentage of flagged data per NO3 profile



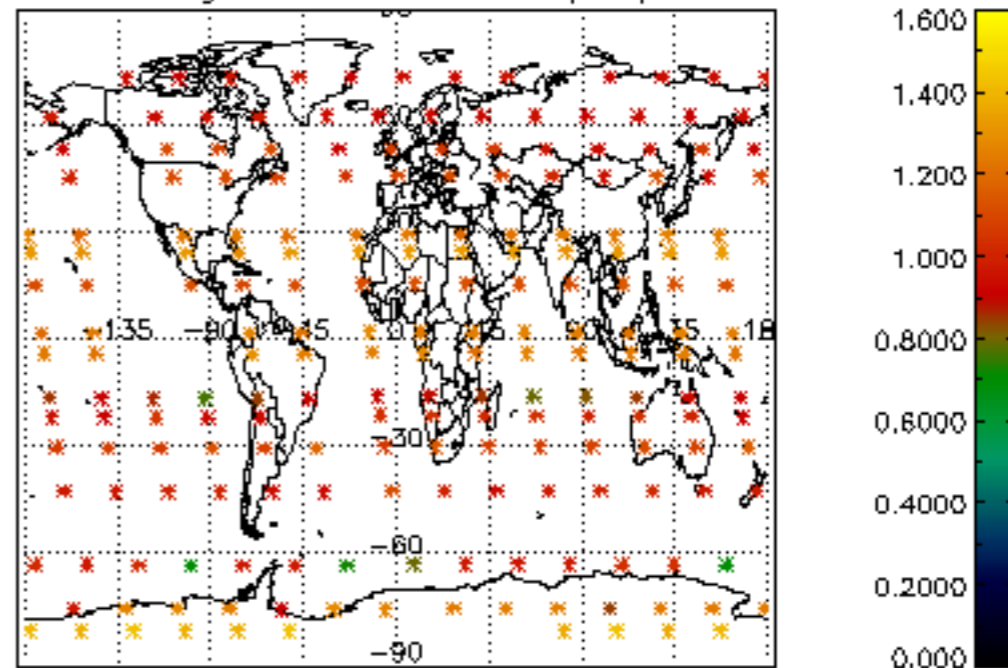




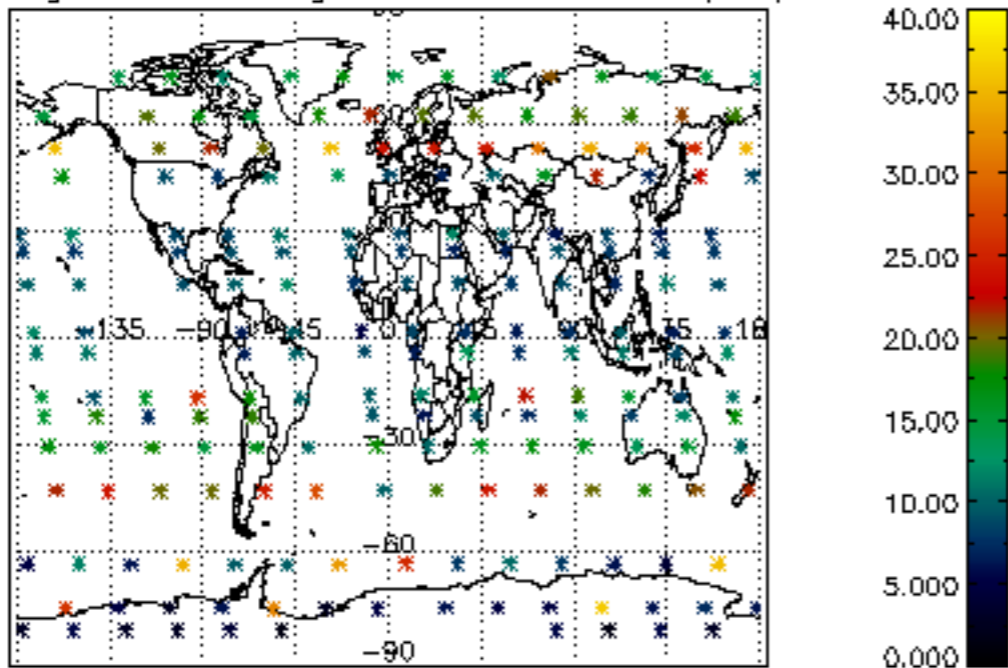
Percentage of cosmic ray hits per profile



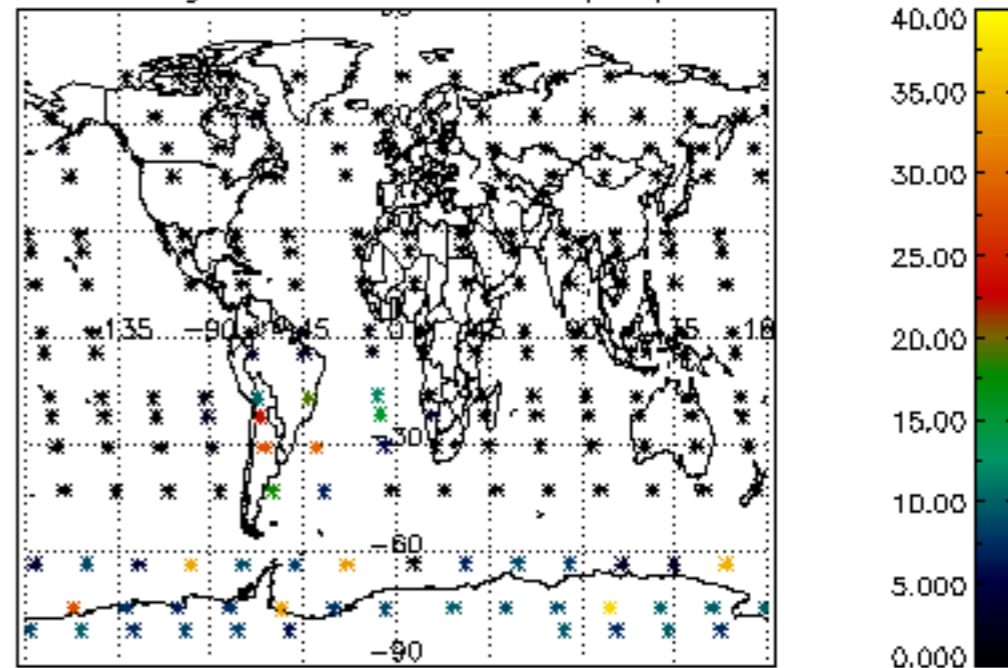
Percentage of datation errors per profile



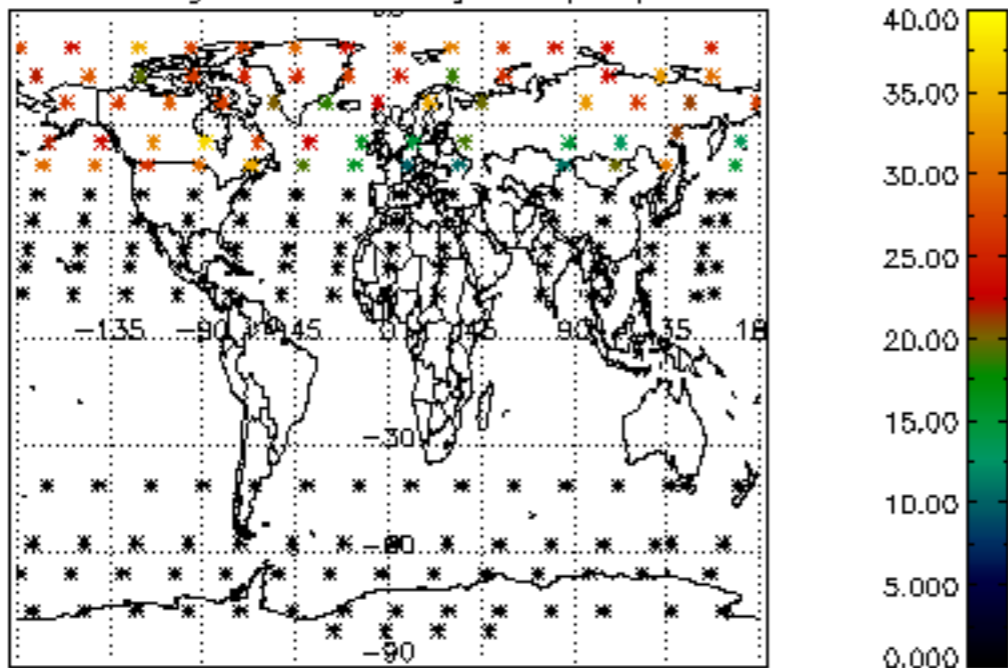
Percentage of star falling outside central band per profile



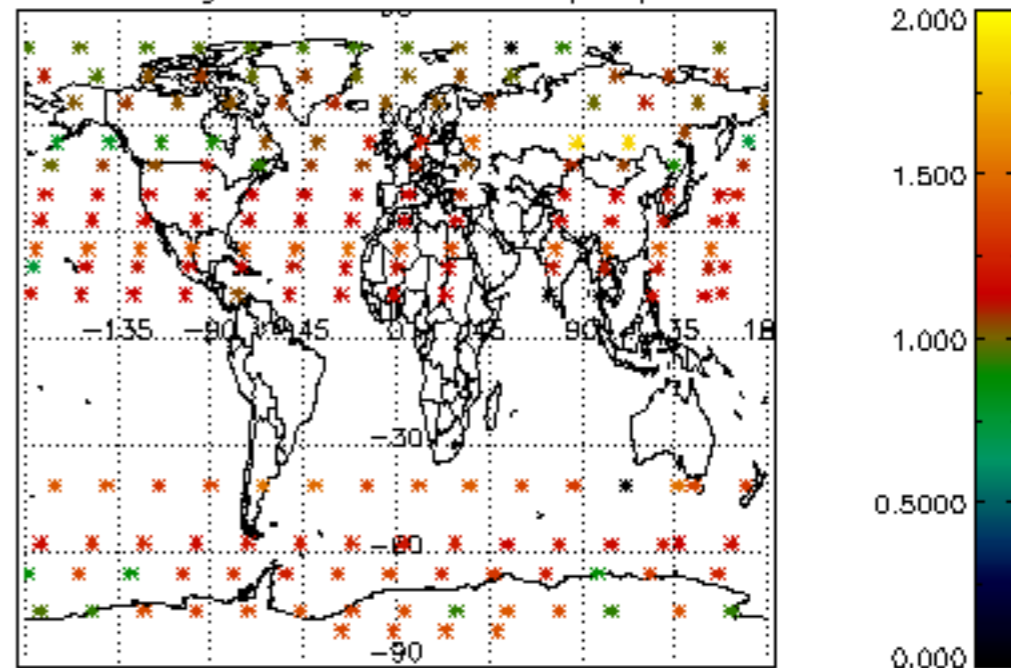
Percentage of saturation errors per profile



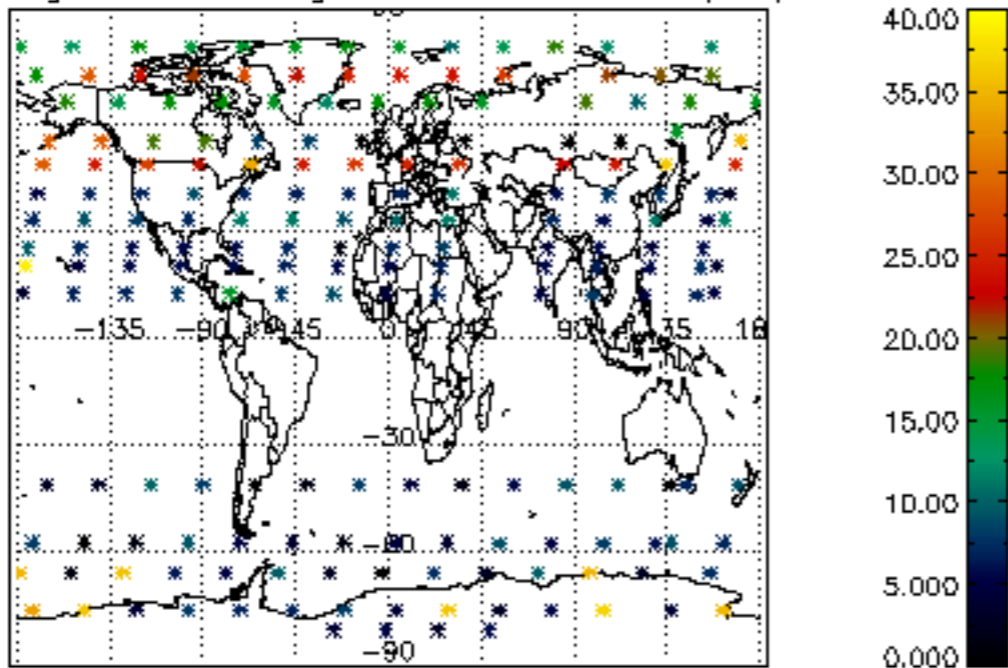
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

