

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 10:39:31
Data source version	GOMOS/6.01
Start time of products	01-01-2010 (01JAN2010 00:00:00)
Stop time of products	02-01-2010 (02JAN2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	409
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

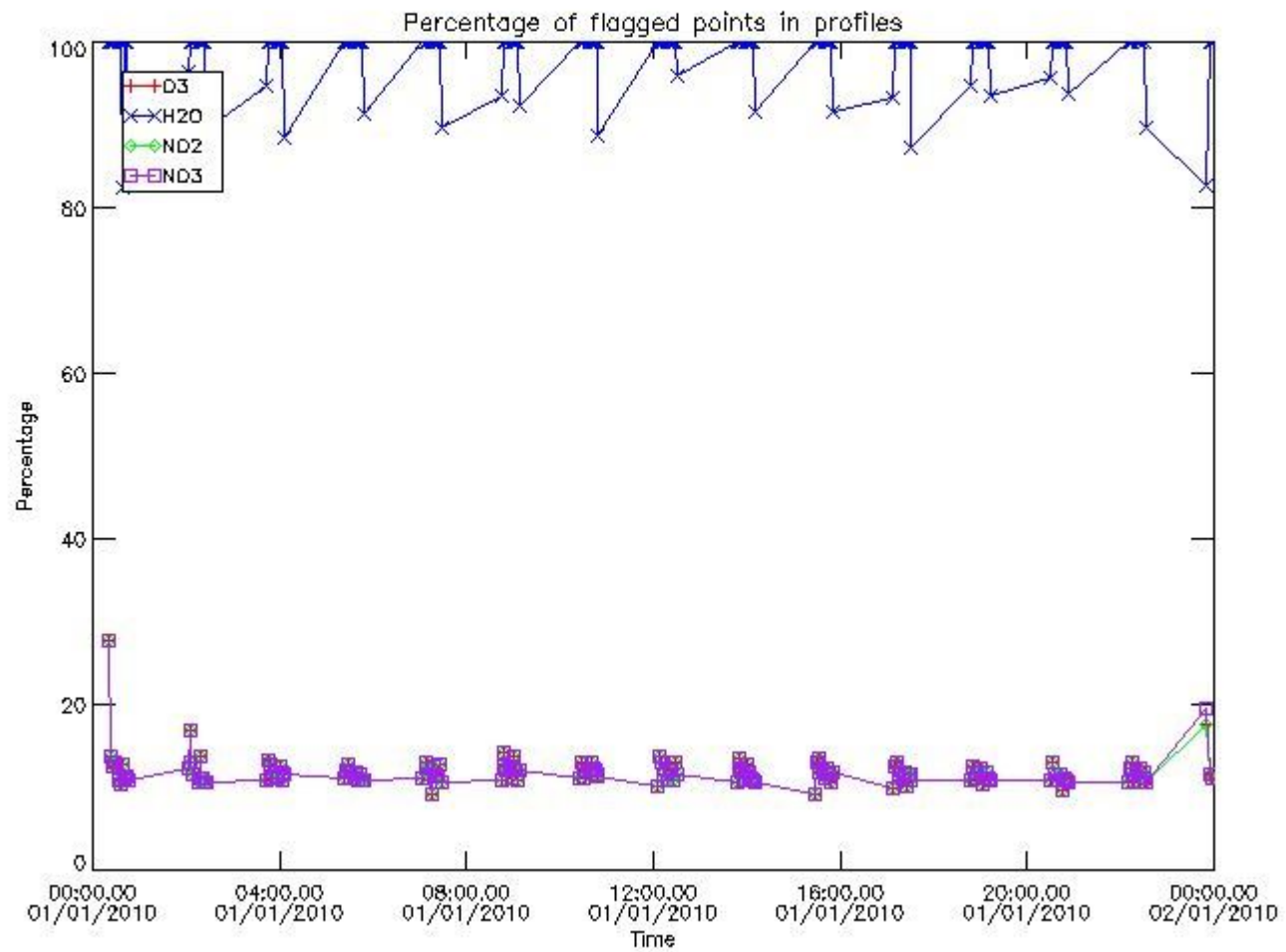
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100101_000137_000000622085_00345_40980_0135.N1	01-JAN-2010 00:01:37	Bright	62.000	83		2.3780	11000.	124	40980	No
2	GOM_NL__2PRFIN20100101_000453_000000552085_00345_40980_0136.N1	01-JAN-2010 00:04:53	Bright	55.000	3	16Alp Boo	-0.050000	4250.0	110	40980	No
3	GOM_NL__2PRFIN20100101_001157_000000362085_00345_40980_0137.N1	01-JAN-2010 00:11:57	Bright	36.000	104	27Bet Lib	2.6140	13100.	72	40980	No
4	GOM_NL__2PRFIN20100101_001436_000000432085_00345_40980_0138.N1	01-JAN-2010 00:14:36	Twi_and_stray	43.000	122	9Alp2Lib	2.7470	9700.0	86	40980	No
5	GOM_NL__2PRFIN20100101_002129_000000442085_00345_40980_0139.N1	01-JAN-2010 00:21:29	Dark	44.000	54	5The Cen	2.0550	4500.0	88	40980	No
6	GOM_NL__2PRFIN20100101_002415_000000412085_00345_40980_0140.N1	01-JAN-2010 00:24:15	Dark	40.500	95	Zet Cen	2.5450	26000.	81	40980	No
7	GOM_NL__2PRFIN20100101_002600_000000412085_00345_40980_7644.N1	01-JAN-2010 00:26:00	Dark	41.000	77	Eps Cen	2.3030	28000.	82	40980	No
8	GOM_NL__2PRFIN20100101_002745_000000432085_00346_40981_7645.N1	01-JAN-2010 00:27:45	Dark	43.000	64	Gam Cen	2.2000	10600.	86	40981	No
9	GOM_NL__2PRFIN20100101_003355_000000472085_00346_40981_7646.N1	01-JAN-2010 00:33:55	Dark	46.500	113	Mu Vel	2.6920	5000.0	93	40981	No
10	GOM_NL__2PRFIN20100101_003629_000000492085_00346_40981_7647.N1	01-JAN-2010 00:36:29	Dark	49.000	71	lot Car	2.2460	7700.0	98	40981	No
11	GOM_NL__2PRFIN20100101_003806_000000522085_00346_40981_7648.N1	01-JAN-2010 00:38:06	Dark	51.500	41	Eps Car	1.8600	4100.0	103	40981	No
12	GOM_NL__2PRFIN20100101_004115_000000462085_00346_40981_7649.N1	01-JAN-2010 00:41:15	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	40981	No
13	GOM_NL__2PRFIN20100101_004326_000000452085_00346_40981_7650.N1	01-JAN-2010 00:43:26	Dark	45.000	70	Zet Pup	2.2460	39000.	90	40981	No
14	GOM_NL__2PRFIN20100101_004531_000000472085_00346_40981_7651.N1	01-JAN-2010 00:45:31	Dark	47.000	117	Pi Pup	2.7060	3800.0	94	40981	No
15	GOM_NL__2PRFIN20100101_004819_000000462085_00346_40981_7652.N1	01-JAN-2010 00:48:19	Straylight	45.500	23	21Eps CMa	1.5020	26000.	91	40981	No
16	GOM_NL__2PRFIN20100101_004952_000000442085_00346_40981_7653.N1	01-JAN-2010 00:49:52	Straylight	44.000	179	24Omi2CMa	3.0320	24000.	88	40981	No
17	GOM_NL__2PRFIN20100101_005220_000000452085_00346_40981_7654.N1	01-JAN-2010 00:52:20	Straylight	45.000	1	9Alp CMa	-1.4400	11000.	90	40981	No
18	GOM_NL__2PRFIN20100101_005449_000000362085_00346_40981_7655.N1	01-JAN-2010 00:54:49	Straylight	36.000	56	53Kap Ori	2.0650	30000.	72	40981	No
19	GOM_NL__2PRFIN20100101_005720_000000422085_00346_40981_7656.N1	01-JAN-2010 00:57:20	Straylight	41.500	30	46Eps Ori	1.6940	30000.	83	40981	No
20	GOM_NL__2PRFIN20100101_005951_000000552085_00346_40981_7657.N1	01-JAN-2010 00:59:51	Twi_and_stray	55.000	14	58Alp Ori	0.87000	3000.0	110	40981	No
21	GOM_NL__2PRFIN20100101_010308_000000532085_00346_40981_7658.N1	01-JAN-2010 01:03:08	Bright	53.000	44	24Gam Gem	1.9280	11000.	106	40981	No
22	GOM_NL__2PRFIN20100101_010446_000000442085_00346_40981_7659.N1	01-JAN-2010 01:04:46	Bright	44.000	151	13Mu Gem	2.8900	3000.0	88	40981	No
23	GOM_NL__2PRFIN20100101_010845_000000402085_00346_40981_7660.N1	01-JAN-2010 01:08:45	Bright	39.500	107	37The Aur	2.6490	11000.	79	40981	No
24	GOM_NL__2PRFIN20100101_011051_000000422085_00346_40981_7661.N1	01-JAN-2010 01:10:51	Bright	42.000	6	13Alp Aur	0.080000	3400.0	84	40981	No
25	GOM_NL__2PRFIN20100101_012730_000000402085_00346_40981_7662.N1	01-JAN-2010 01:27:30	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	40981	No
26	GOM_NL__2PRFIN20100101_013110_000000512085_00346_40981_7663.N1	01-JAN-2010 01:31:10	Bright	50.500	32	77Eps UMa	1.7630	11000.	101	40981	No
27	GOM_NL__2PRFIN20100101_013427_000000662085_00346_40981_7664.N1	01-JAN-2010 01:34:27	Bright	66.000	39	85Eta UMa	1.8540	24000.	132	40981	No
28	GOM_NL__2PRFIN20100101_013832_000000412085_00346_40981_7665.N1	01-JAN-2010 01:38:32	Bright	40.500	180	27Gam Boo	3.0400	8000.0	81	40981	No
29	GOM_NL__2PRFIN20100101_014213_000000622085_00346_40981_7666.N1	01-JAN-2010 01:42:13	Bright	62.000	83		2.3780	11000.	124	40981	No
30	GOM_NL__2PRFIN20100101_014529_000000542085_00346_40981_7667.N1	01-JAN-2010 01:45:29	Bright	53.500	3	16Alp Boo	-0.050000	4250.0	107	40981	No
31	GOM_NL__2PRFIN20100101_015233_000000562085_00346_40981_7668.N1	01-JAN-2010 01:52:33	Bright	56.000	104	27Bet Lib	2.6140	13100.	112	40981	No
32	GOM_NL__2PRFIN20100101_015513_000000442085_00346_40981_7669.N1	01-JAN-2010 01:55:13	Twi_and_stray	43.500	122	9Alp2Lib	2.7470	9700.0	87	40981	No
33	GOM_NL__2PRFIN20100101_020206_000000542085_00346_40981_7670.N1	01-JAN-2010 02:02:06	Dark	54.000	54	5The Cen	2.0550	4500.0	108	40981	No
34	GOM_NL__2PRFIN20100101_020452_000000402085_00346_40981_7671.N1	01-JAN-2010 02:04:52	Dark	39.500	95	Zet Cen	2.5450	26000.	79	40981	No
35	GOM_NL__2PRFIN20100101_020636_000000402085_00346_40981_7652.N1	01-JAN-2010 02:06:36	Dark	39.500	77	Eps Cen	2.3030	28000.	79	40981	No
36	GOM_NL__2PRFIN20100101_020822_000000442085_00347_40982_7653.N1	01-JAN-2010 02:08:22	Dark	44.000	64	Gam Cen	2.2000	10600.	88	40982	No
37	GOM_NL__2PRFIN20100101_021432_000000482085_00347_40982_7654.N1	01-JAN-2010 02:14:32	Dark	48.000	113	Mu Vel	2.6920	5000.0	96	40982	No
38	GOM_NL__2PRFIN20100101_021705_000000412085_00347_40982_7655.N1	01-JAN-2010 02:17:05	Dark	41.000	71	lot Car	2.2460	7700.0	82	40982	No
39	GOM_NL__2PRFIN20100101_021900_000000462085_00347_40982_7656.N1	01-JAN-2010 02:19:00	Dark	46.000	46	Del Vel	1.9540	10600.	92	40982	No
40	GOM_NL__2PRFIN20100101_022151_000000462085_00347_40982_7657.N1	01-JAN-2010 02:21:51	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	40982	No
41	GOM_NL__2PRFIN20100101_022403_000000492085_00347_40982_7658.N1	01-JAN-2010 02:24:03	Dark	48.500	70	Zet Pup	2.2460	39000.	97	40982	No
42	GOM_NL__2PRFIN20100101_022607_000000482085_00347_40982_7659.N1	01-JAN-2010 02:26:07	Dark	48.000	117	Pi Pup	2.7060	3800.0	96	40982	No

397	GOM_NL__2PRFIN20100101_225630_000000382085_00359_40994_7876.N1	01-JAN-2010 22:56:30	Bright	38.000	107	37The Aur	2.6490	11000.	76	40994	No
398	GOM_NL__2PRFIN20100101_225837_000000452085_00359_40994_7877.N1	01-JAN-2010 22:58:37	Bright	44.500	6	13Alp Aur	0.080000	3400.0	89	40994	No
399	GOM_NL__2PRFIN20100101_231515_000000402085_00359_40994_7878.N1	01-JAN-2010 23:15:15	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	40994	No
400	GOM_NL__2PRFIN20100101_231852_000000502085_00359_40994_7879.N1	01-JAN-2010 23:18:52	Bright	50.000	32	77Eps UMa	1.7630	11000.	100	40994	No
401	GOM_NL__2PRFIN20100101_232212_000000462085_00359_40994_7880.N1	01-JAN-2010 23:22:12	Bright	45.500	39	85Eta UMa	1.8540	24000.	91	40994	No
402	GOM_NL__2PRFIN20100101_232619_000000422085_00359_40994_7881.N1	01-JAN-2010 23:26:19	Bright	41.500	180	27Gam Boo	3.0400	8000.0	83	40994	No
403	GOM_NL__2PRFIN20100101_233003_000000622085_00359_40994_7882.N1	01-JAN-2010 23:30:03	Bright	62.000	83		2.3780	11000.	124	40994	No
404	GOM_NL__2PRFIN20100101_233520_000000542085_00359_40994_7883.N1	01-JAN-2010 23:35:20	Bright	54.000	102	24Alp Ser	2.6000	4250.0	108	40994	No
405	GOM_NL__2PRFIN20100101_234026_000000562085_00359_40994_7884.N1	01-JAN-2010 23:40:26	Bright	55.500	104	27Bet Lib	2.6140	13100.	111	40994	No
406	GOM_NL__2PRFIN20100101_234307_000000462085_00359_40994_7885.N1	01-JAN-2010 23:43:07	Twilight_stray	45.500	122	9Alp2Lib	2.7470	9700.0	91	40994	No
407	GOM_NL__2PRFIN20100101_235002_000000522085_00359_40994_7886.N1	01-JAN-2010 23:50:02	Dark	52.000	54	5The Cen	2.0550	4500.0	104	40994	No
408	GOM_NL__2PRFIN20100101_235431_000000442085_00360_40995_7869.N1	01-JAN-2010 23:54:31	Dark	44.000	77	Eps Cen	2.3030	28000.	88	40995	No
409	GOM_NL__2PRFIN20100101_235619_000000462085_00360_40995_7870.N1	01-JAN-2010 23:56:19	Dark	45.500	64	Gam Cen	2.2000	10600.	91	40995	No

3. Quality information per product

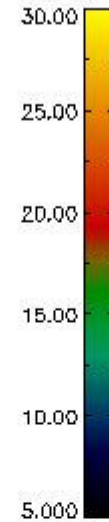
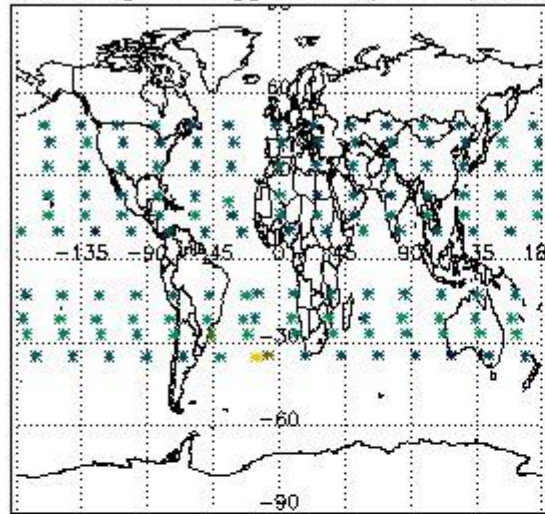
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

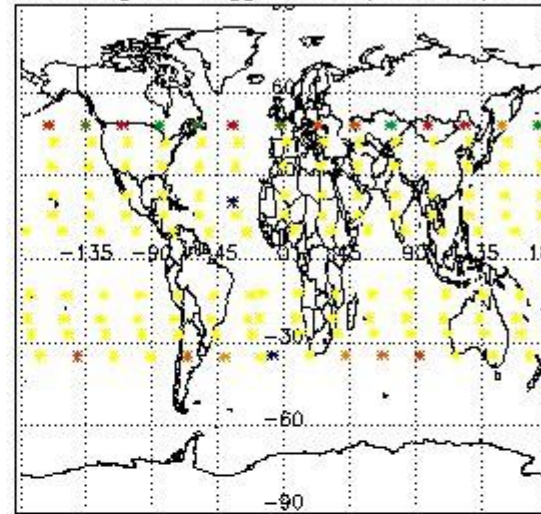


3.2 Plot quality information per product (world map)

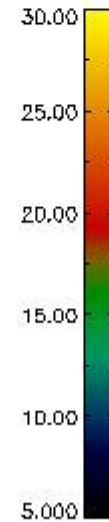
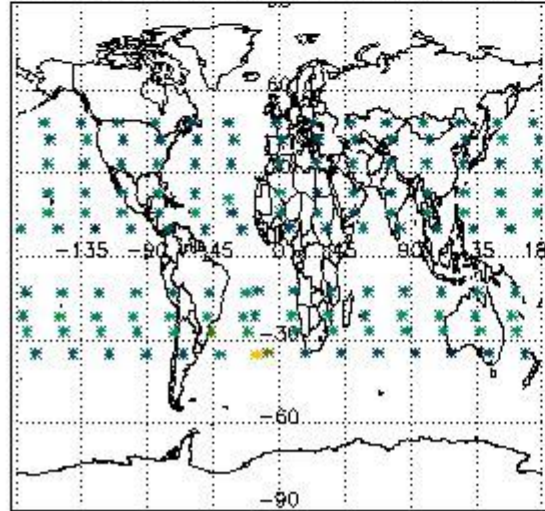
Percentage of flagged data per O3 profile



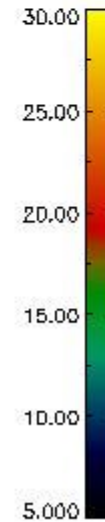
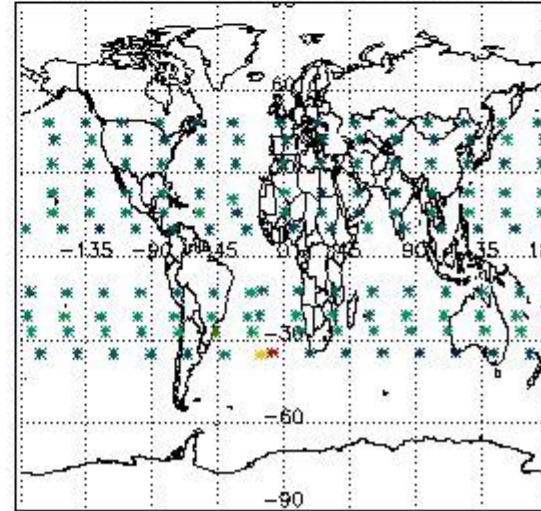
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

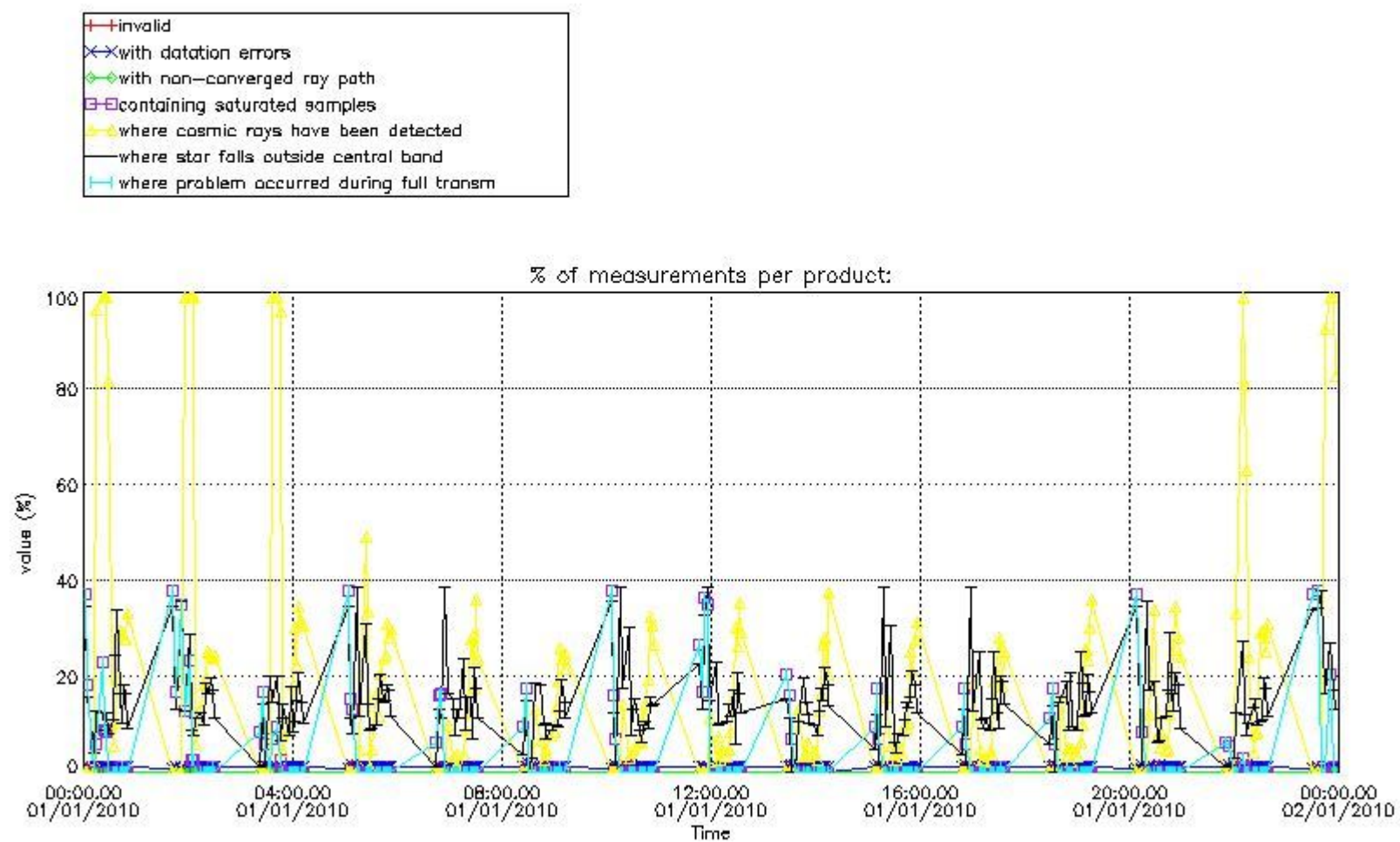


4. Level 1 quality information per product

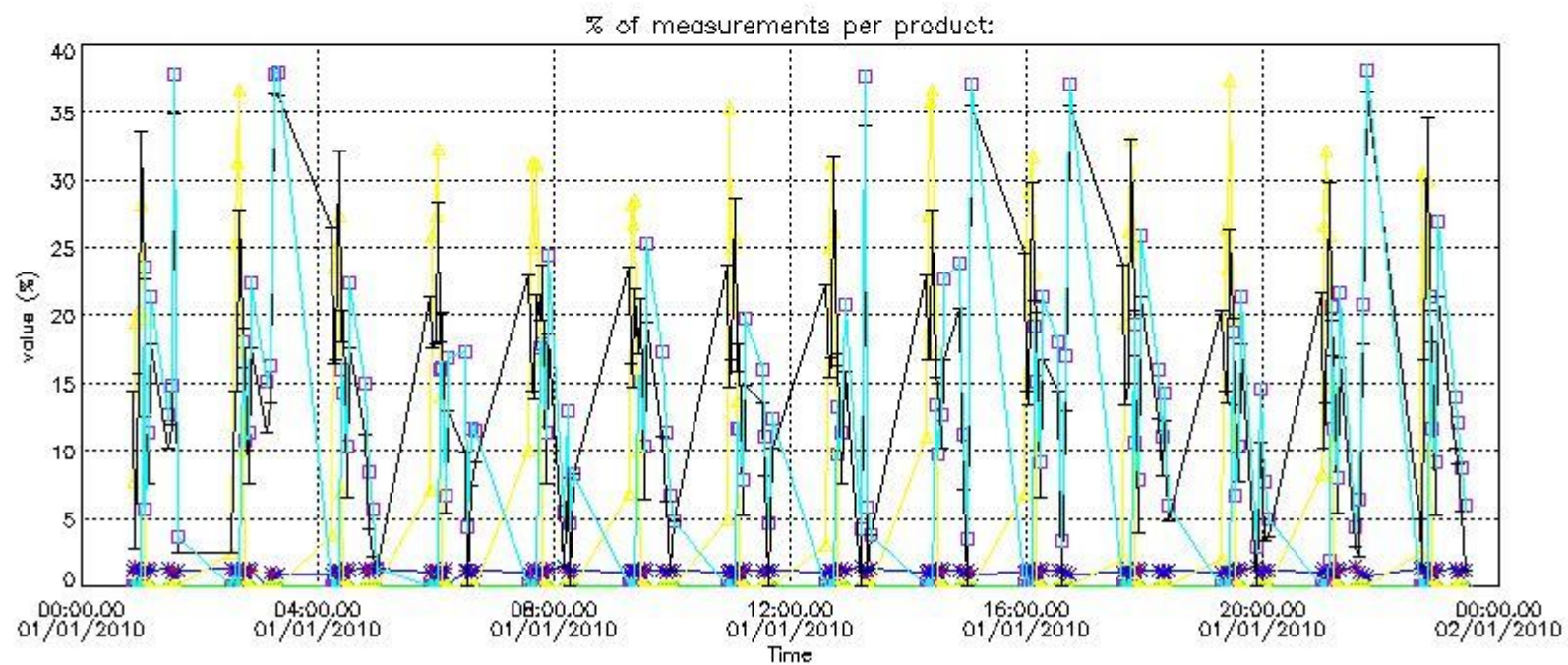
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

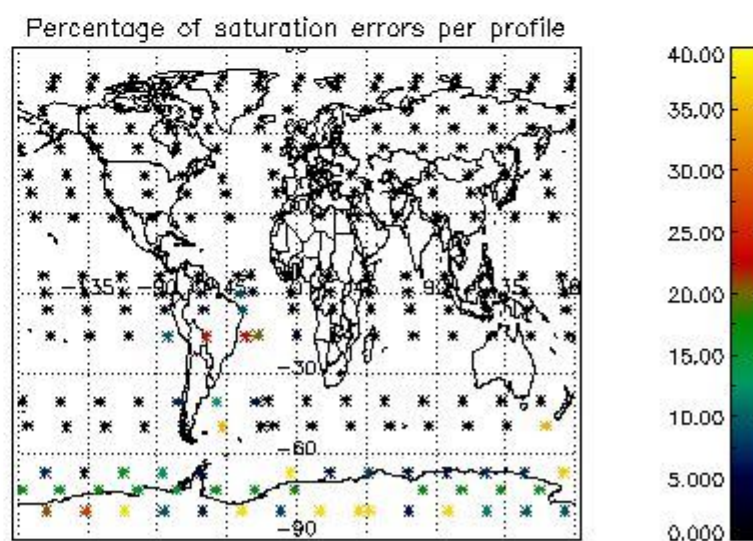
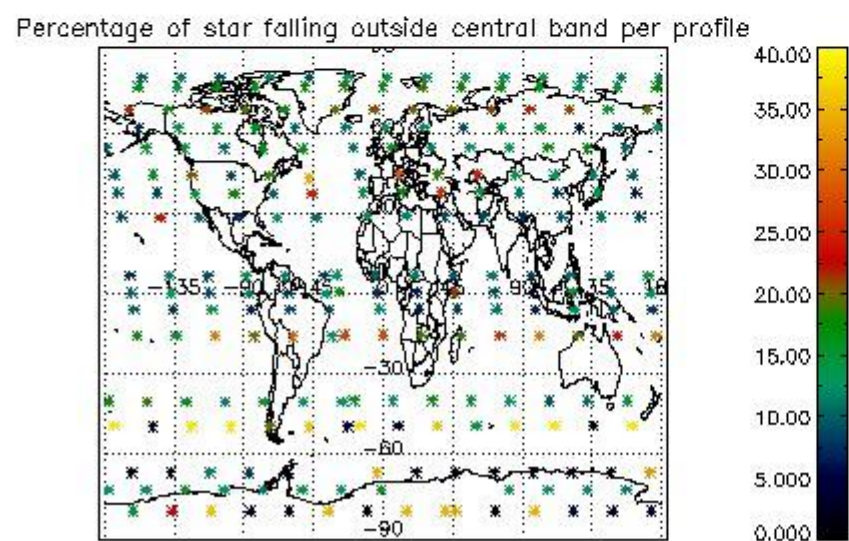
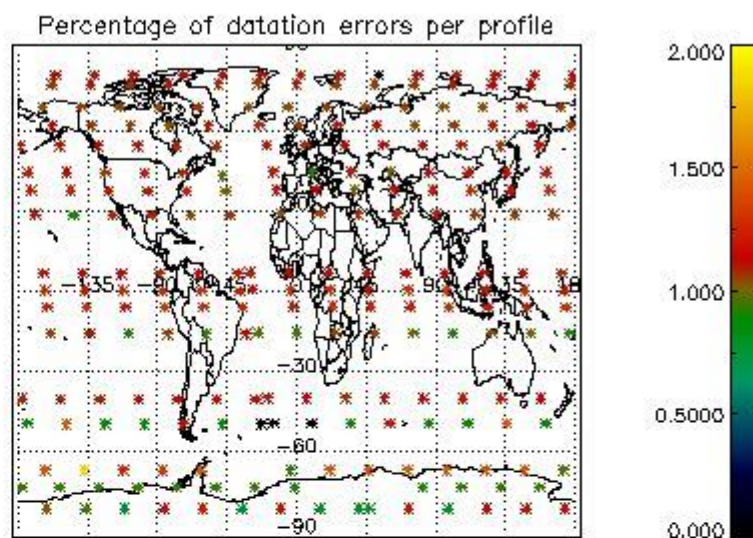
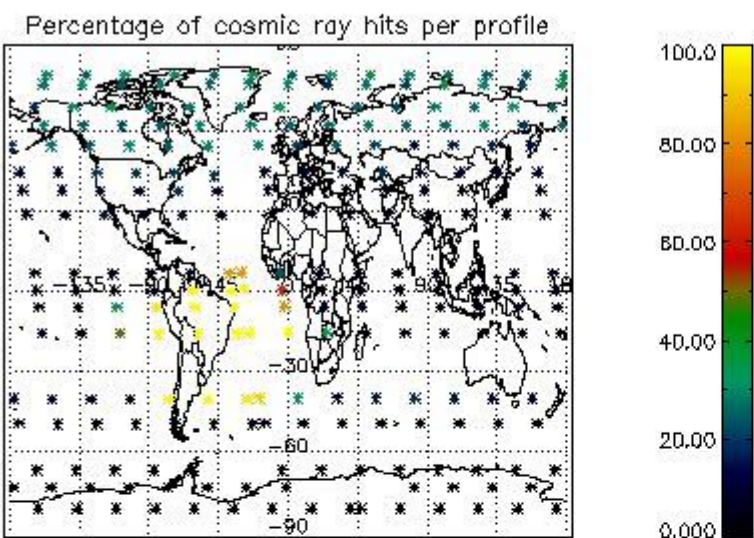


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

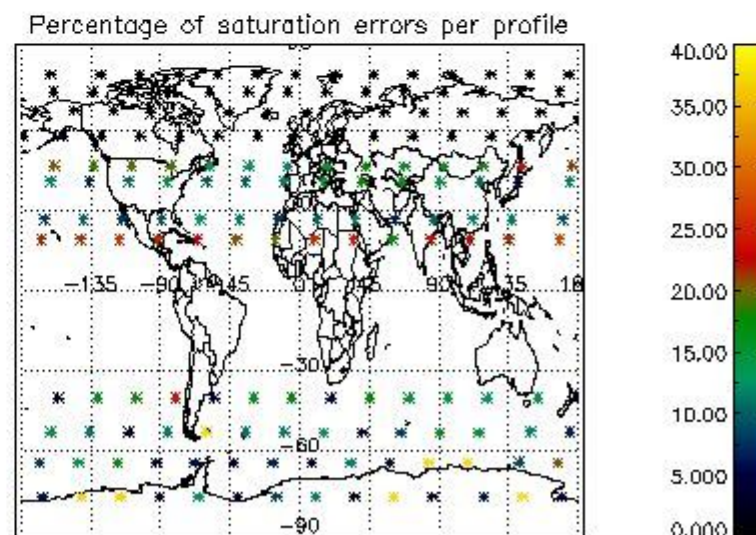
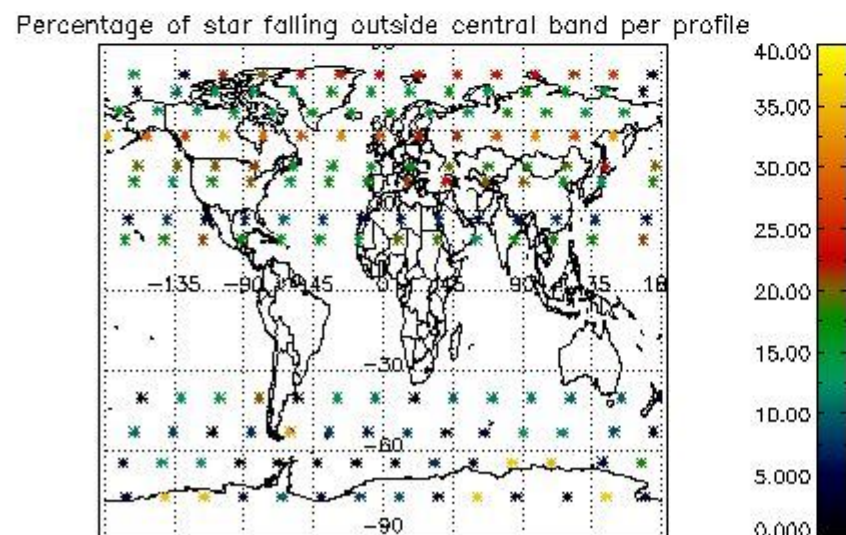
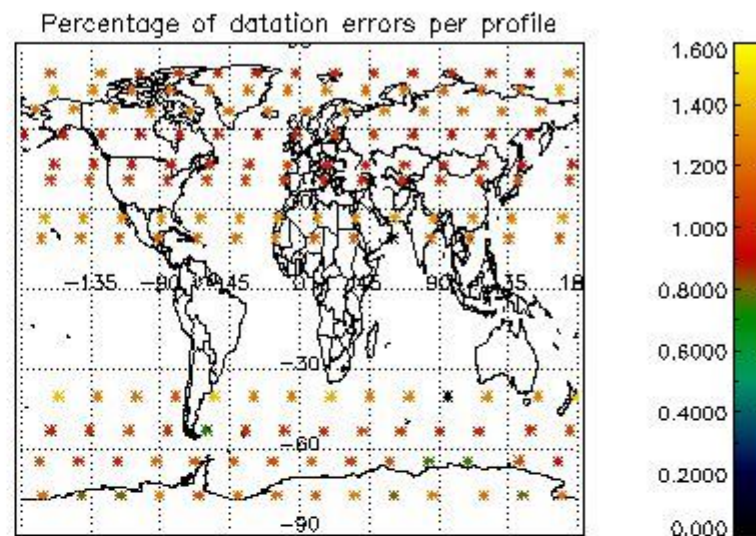
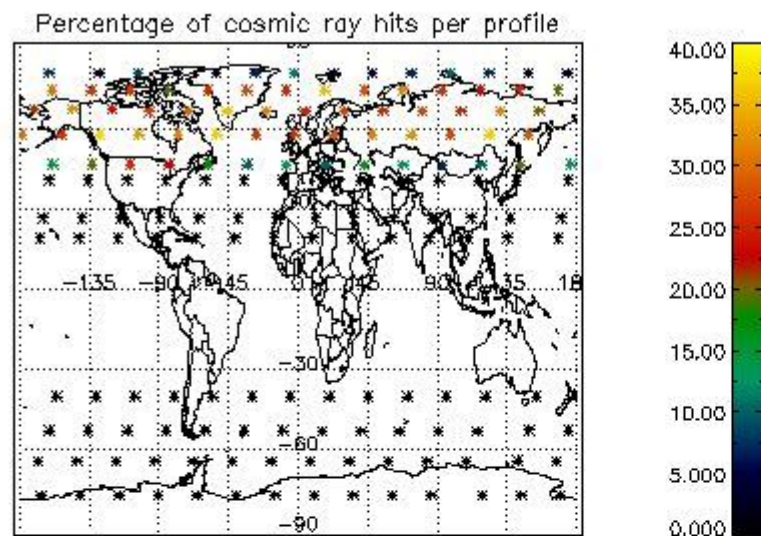


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

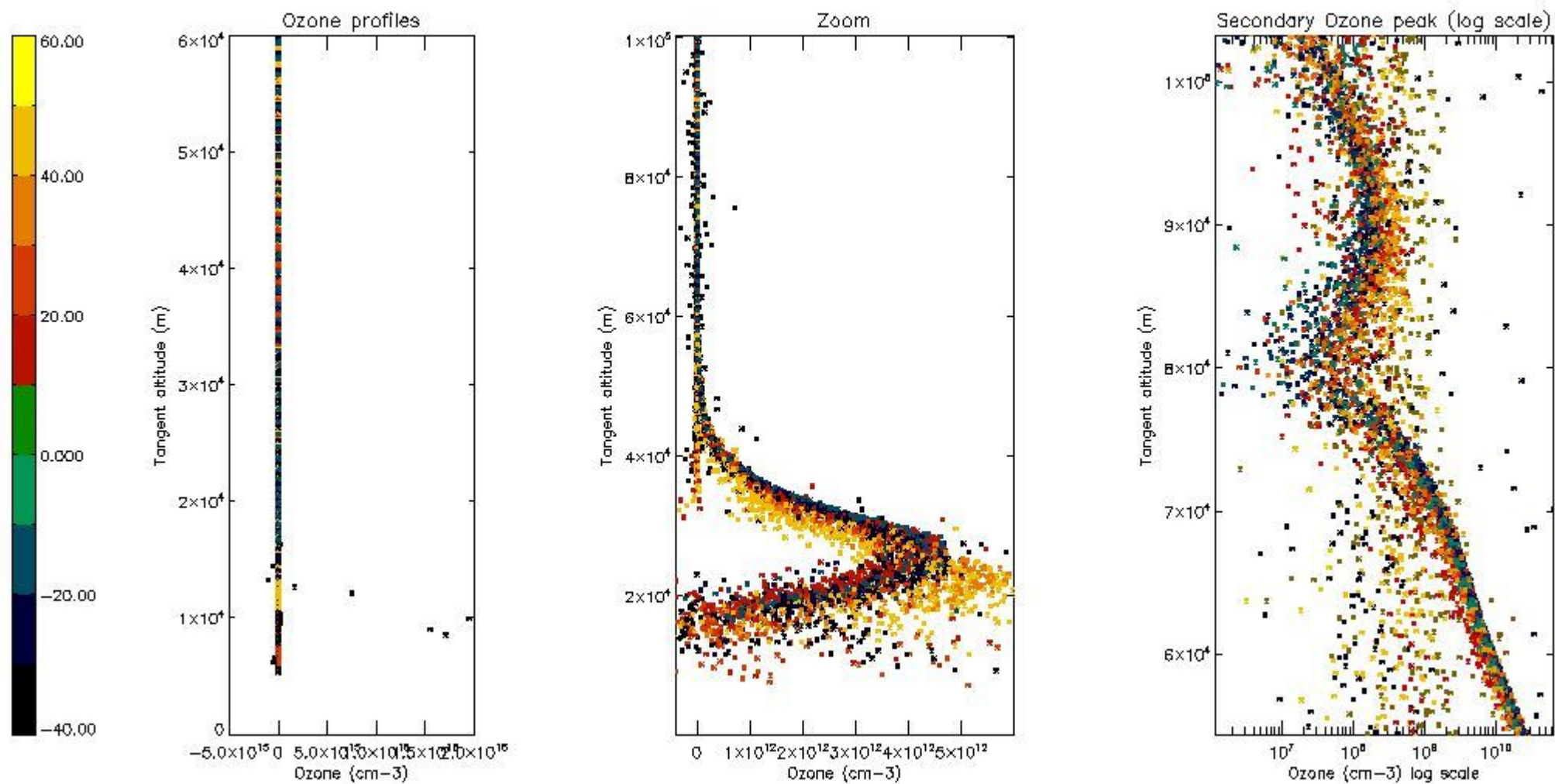
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	35
STD < 20	16

STD < 10	13
STD < 5	7

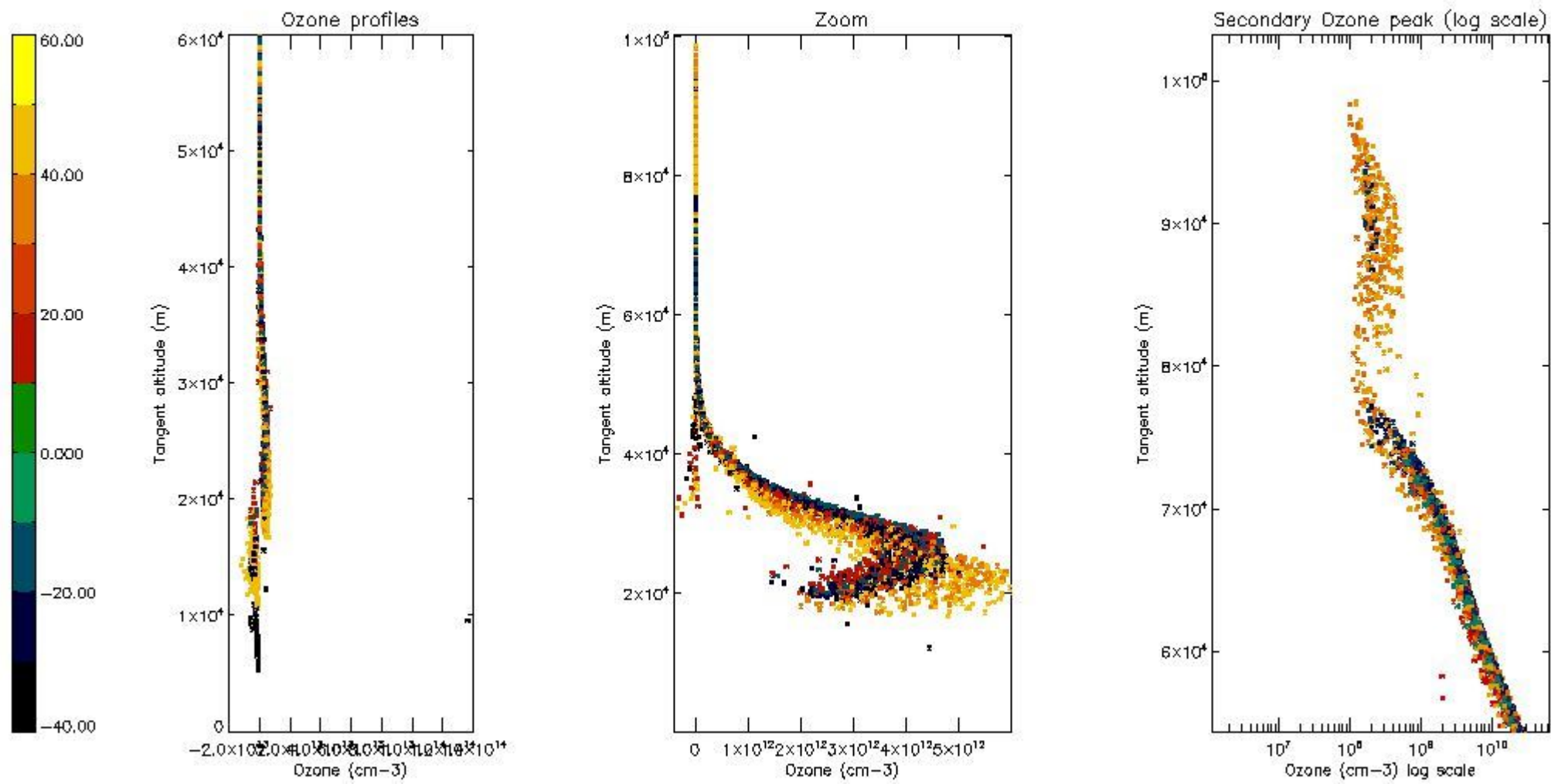
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



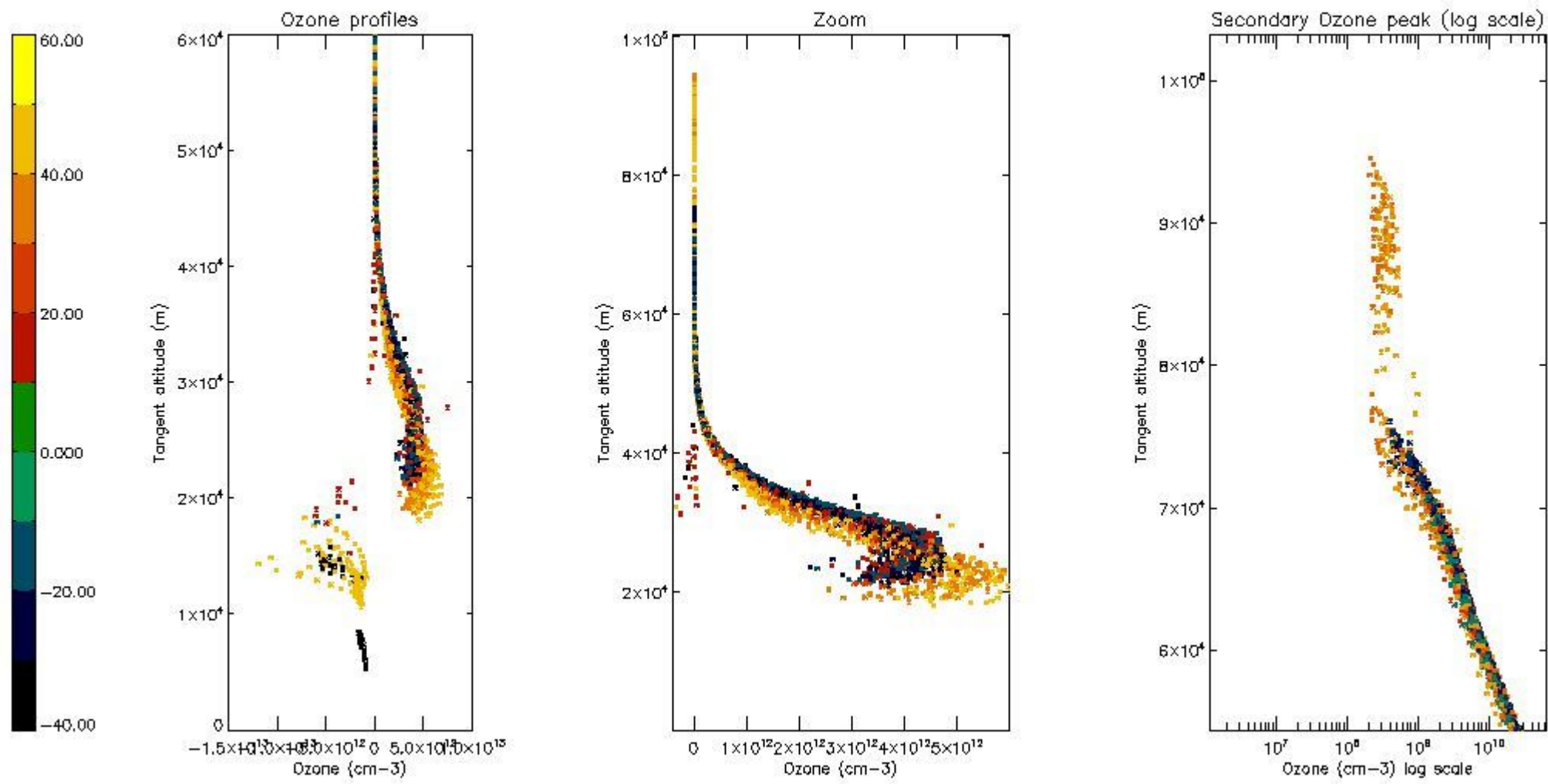
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



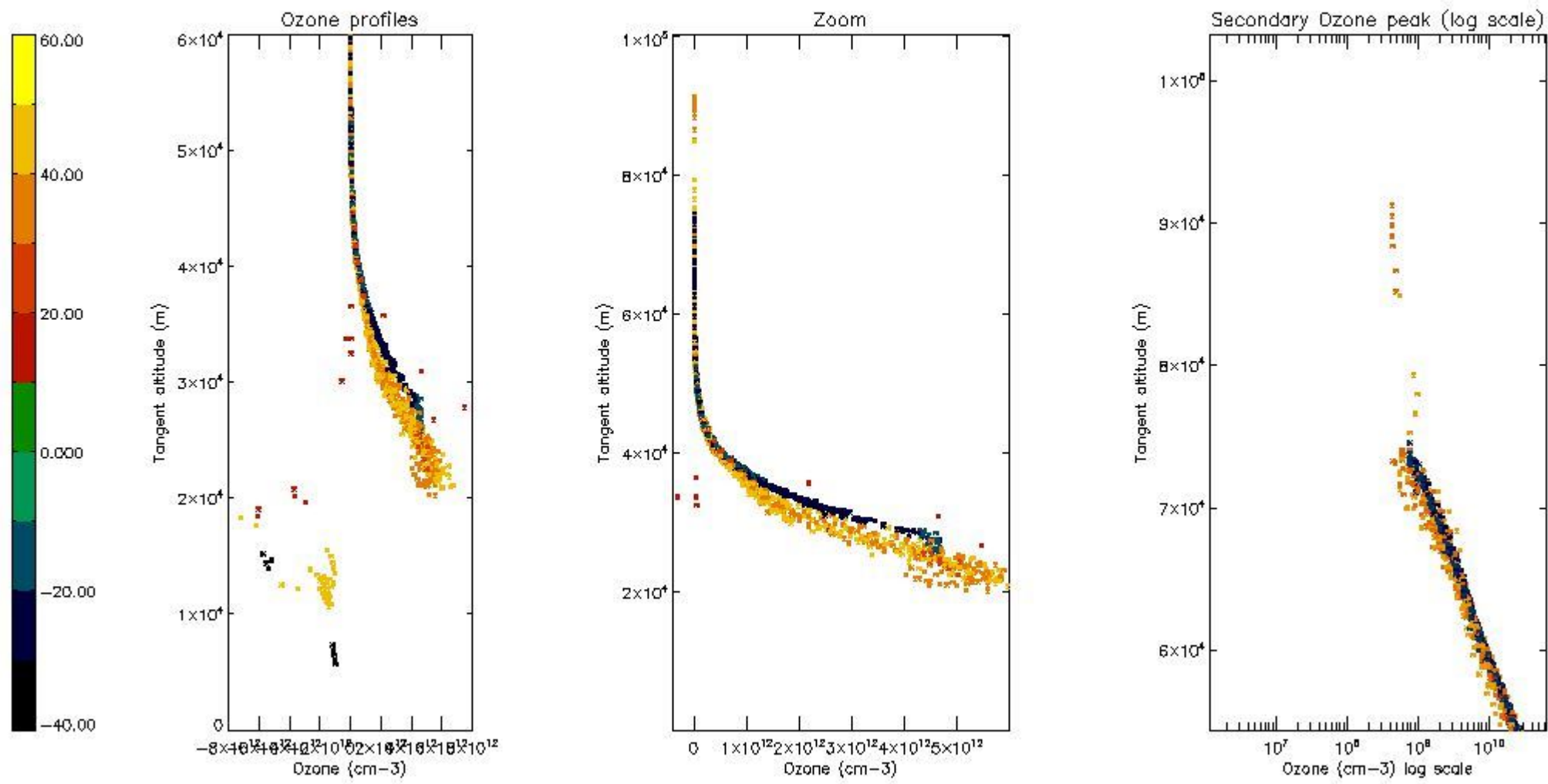
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



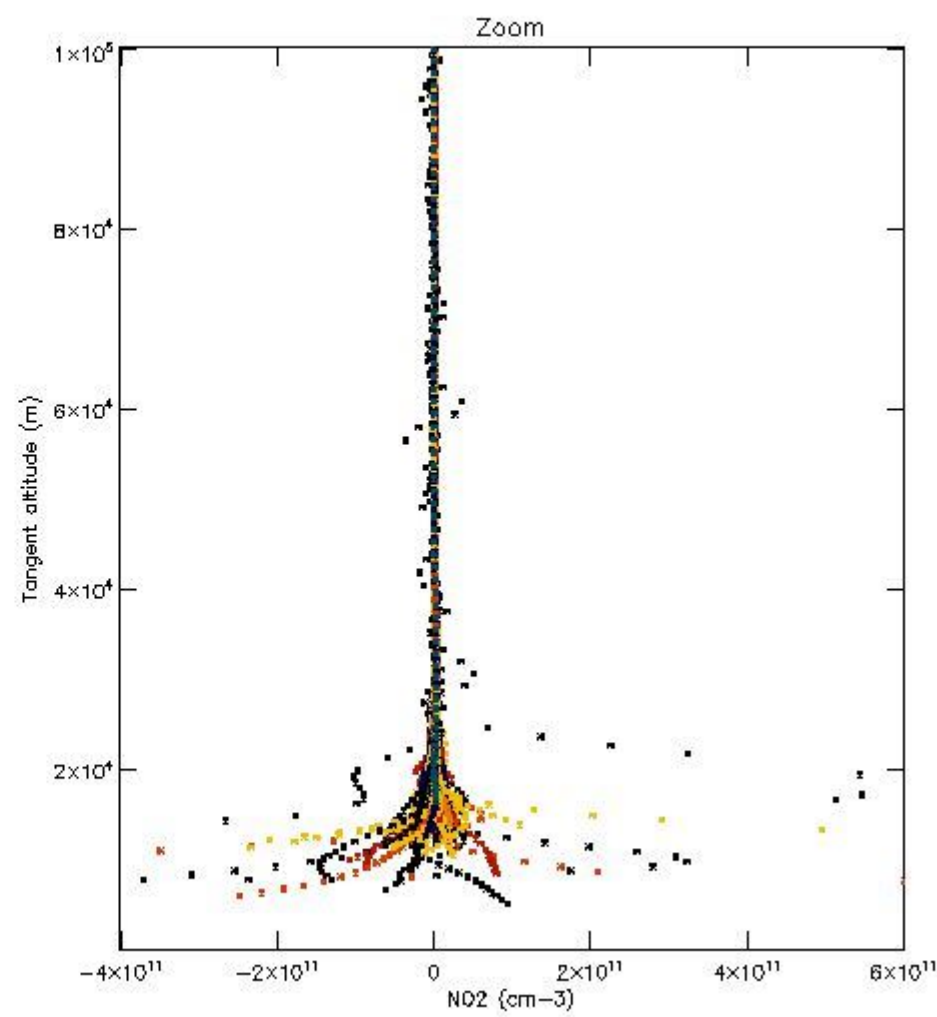
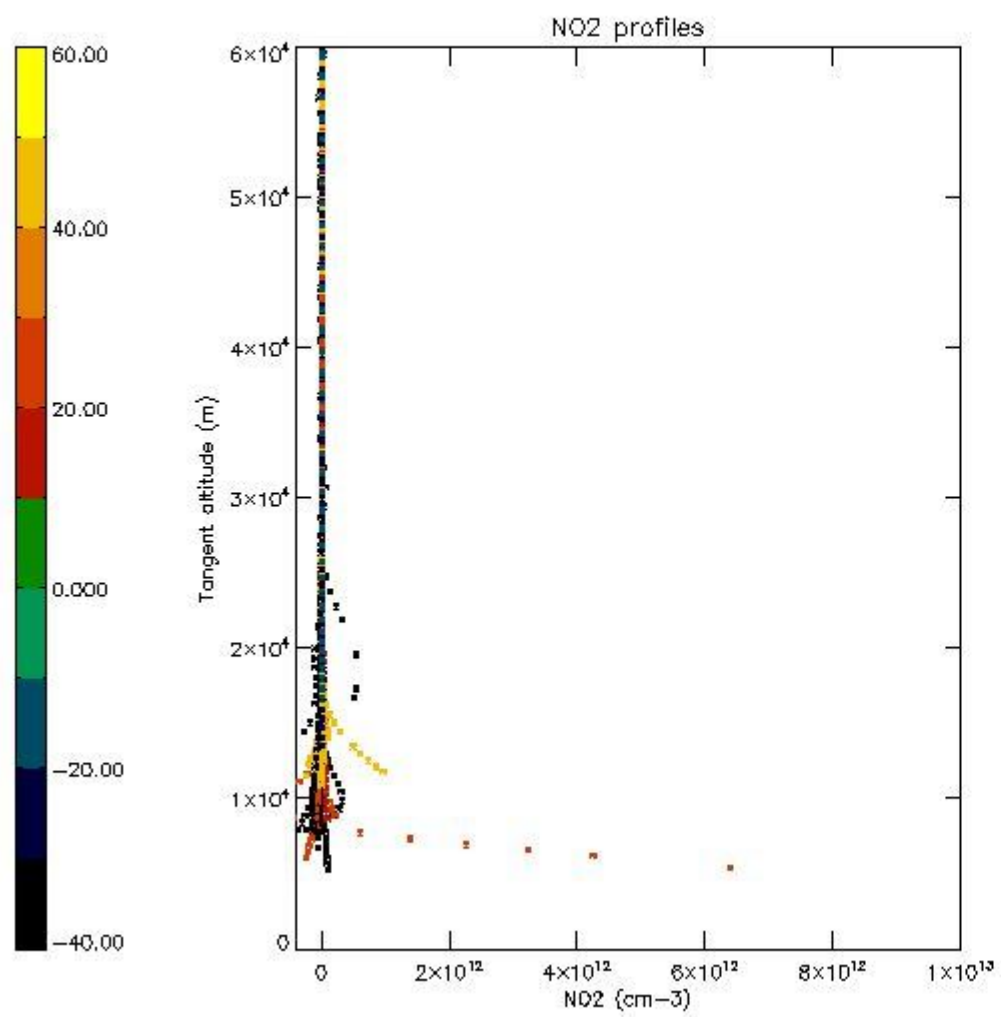
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



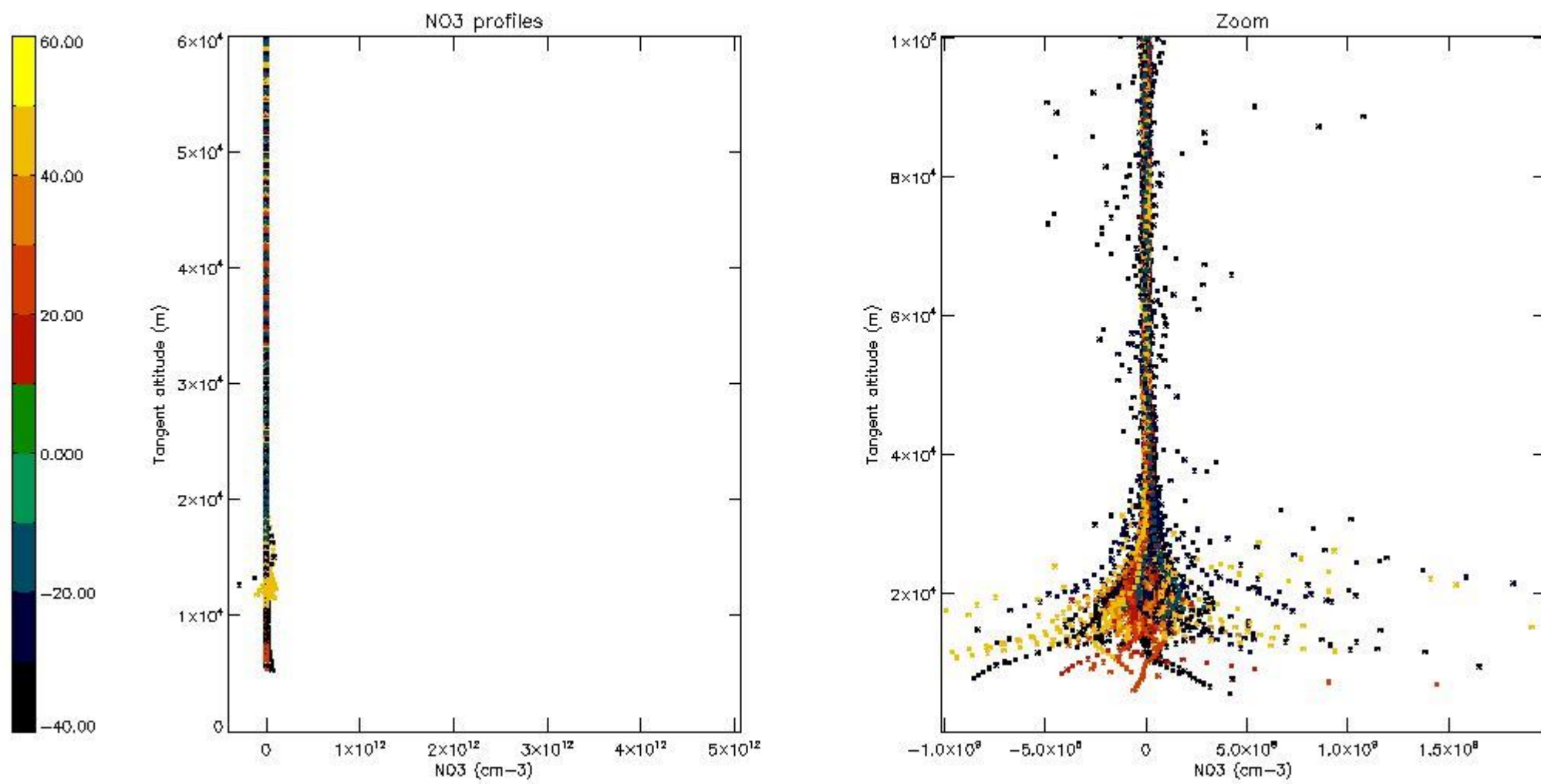
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



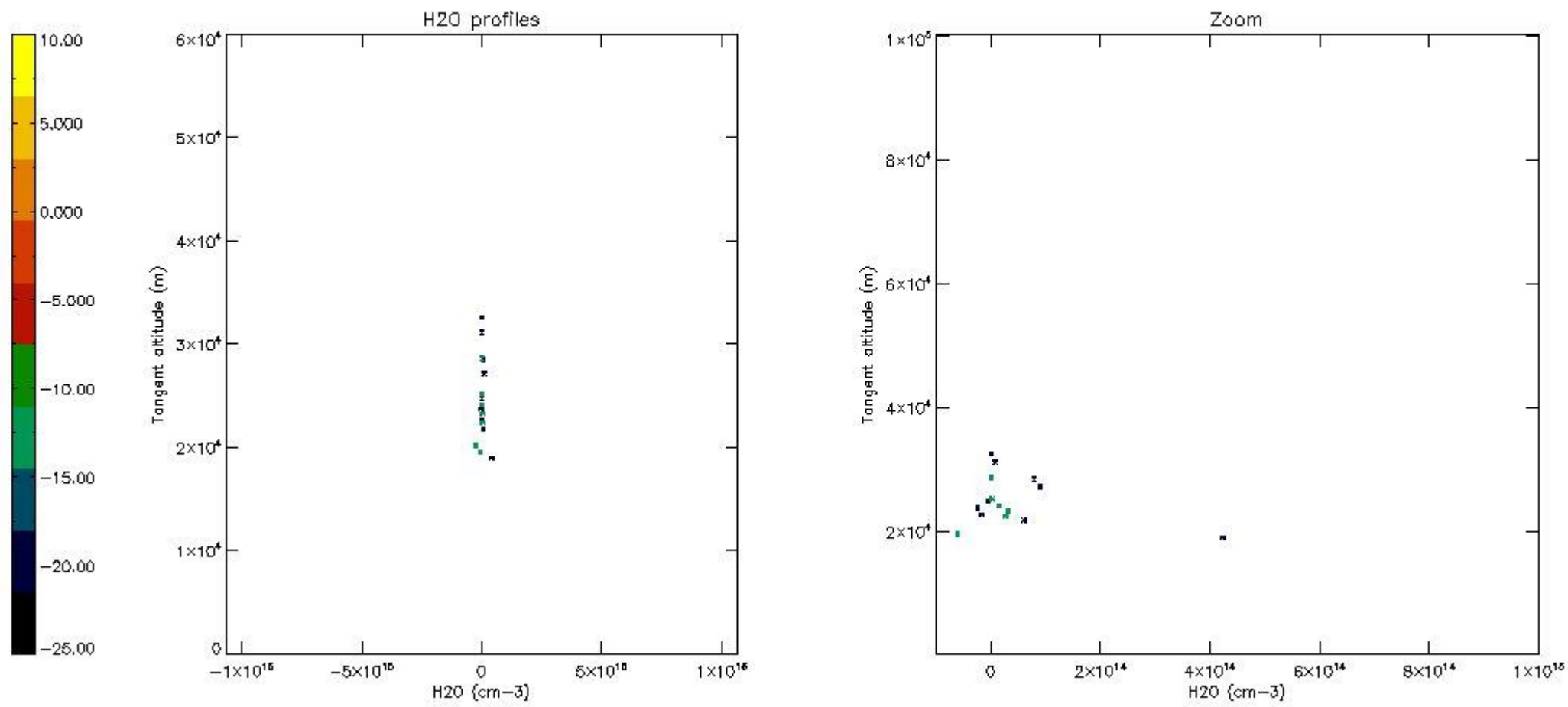
5.7 Plot NO3 profiles for all STD (dark without errors)

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	01-JAN-2010 00:01:37
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	01-JAN-2010 00:01:37
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	01-JAN-2010 00:01:37

GOMOS Level 2 Daily Report

SUMMARY

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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 10:39:31
Data source version	GOMOS/6.01
Start time of products	01-01-2010 (01JAN2010 00:00:00)
Stop time of products	02-01-2010 (02JAN2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	409
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

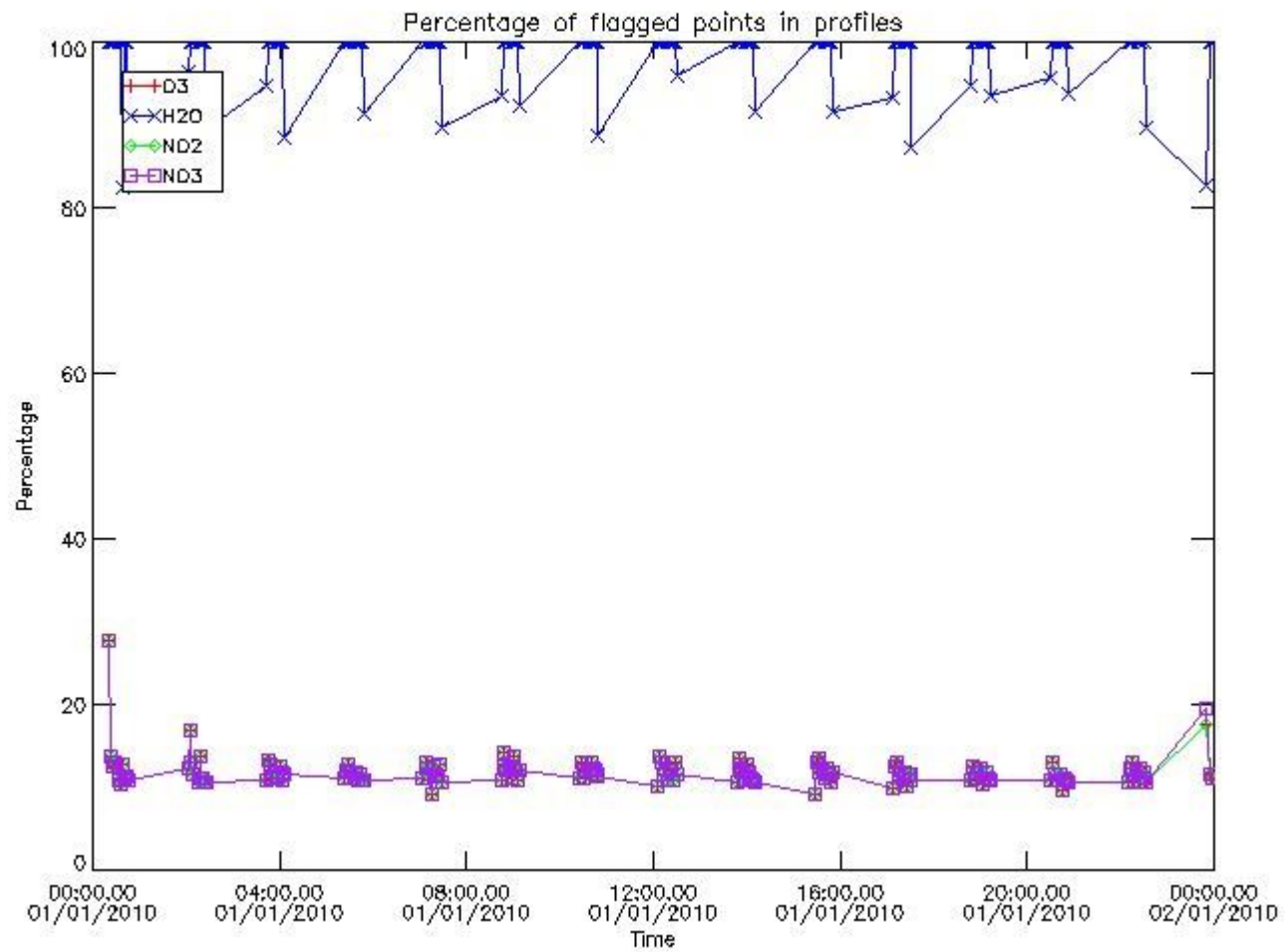
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100101_000137_000000622085_00345_40980_0135.N1	01-JAN-2010 00:01:37	Bright	62.000	83		2.3780	11000.	124	40980	No
2	GOM_NL__2PRFIN20100101_000453_000000552085_00345_40980_0136.N1	01-JAN-2010 00:04:53	Bright	55.000	3	16Alp Boo	-0.050000	4250.0	110	40980	No
3	GOM_NL__2PRFIN20100101_001157_000000362085_00345_40980_0137.N1	01-JAN-2010 00:11:57	Bright	36.000	104	27Bet Lib	2.6140	13100.	72	40980	No
4	GOM_NL__2PRFIN20100101_001436_000000432085_00345_40980_0138.N1	01-JAN-2010 00:14:36	Twilight	43.000	122	9Alp2Lib	2.7470	9700.0	86	40980	No
5	GOM_NL__2PRFIN20100101_002129_000000442085_00345_40980_0139.N1	01-JAN-2010 00:21:29	Dark	44.000	54	5The Cen	2.0550	4500.0	88	40980	No
6	GOM_NL__2PRFIN20100101_002415_000000412085_00345_40980_0140.N1	01-JAN-2010 00:24:15	Dark	40.500	95	Zet Cen	2.5450	26000.	81	40980	No
7	GOM_NL__2PRFIN20100101_002600_000000412085_00345_40980_7644.N1	01-JAN-2010 00:26:00	Dark	41.000	77	Eps Cen	2.3030	28000.	82	40980	No
8	GOM_NL__2PRFIN20100101_002745_000000432085_00346_40981_7645.N1	01-JAN-2010 00:27:45	Dark	43.000	64	Gam Cen	2.2000	10600.	86	40981	No
9	GOM_NL__2PRFIN20100101_003355_000000472085_00346_40981_7646.N1	01-JAN-2010 00:33:55	Dark	46.500	113	Mu Vel	2.6920	5000.0	93	40981	No
10	GOM_NL__2PRFIN20100101_003629_000000492085_00346_40981_7647.N1	01-JAN-2010 00:36:29	Dark	49.000	71	lot Car	2.2460	7700.0	98	40981	No
11	GOM_NL__2PRFIN20100101_003806_000000522085_00346_40981_7648.N1	01-JAN-2010 00:38:06	Dark	51.500	41	Eps Car	1.8600	4100.0	103	40981	No
12	GOM_NL__2PRFIN20100101_004115_000000462085_00346_40981_7649.N1	01-JAN-2010 00:41:15	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	40981	No
13	GOM_NL__2PRFIN20100101_004326_000000452085_00346_40981_7650.N1	01-JAN-2010 00:43:26	Dark	45.000	70	Zet Pup	2.2460	39000.	90	40981	No
14	GOM_NL__2PRFIN20100101_004531_000000472085_00346_40981_7651.N1	01-JAN-2010 00:45:31	Dark	47.000	117	Pi Pup	2.7060	3800.0	94	40981	No
15	GOM_NL__2PRFIN20100101_004819_000000462085_00346_40981_7652.N1	01-JAN-2010 00:48:19	Straylight	45.500	23	21Eps CMa	1.5020	26000.	91	40981	No
16	GOM_NL__2PRFIN20100101_004952_000000442085_00346_40981_7653.N1	01-JAN-2010 00:49:52	Straylight	44.000	179	24Omi2CMa	3.0320	24000.	88	40981	No
17	GOM_NL__2PRFIN20100101_005220_000000452085_00346_40981_7654.N1	01-JAN-2010 00:52:20	Straylight	45.000	1	9Alp CMa	-1.4400	11000.	90	40981	No
18	GOM_NL__2PRFIN20100101_005449_000000362085_00346_40981_7655.N1	01-JAN-2010 00:54:49	Straylight	36.000	56	53Kap Ori	2.0650	30000.	72	40981	No
19	GOM_NL__2PRFIN20100101_005720_000000422085_00346_40981_7656.N1	01-JAN-2010 00:57:20	Straylight	41.500	30	46Eps Ori	1.6940	30000.	83	40981	No
20	GOM_NL__2PRFIN20100101_005951_000000552085_00346_40981_7657.N1	01-JAN-2010 00:59:51	Twilight	55.000	14	58Alp Ori	0.87000	3000.0	110	40981	No
21	GOM_NL__2PRFIN20100101_010308_000000532085_00346_40981_7658.N1	01-JAN-2010 01:03:08	Bright	53.000	44	24Gam Gem	1.9280	11000.	106	40981	No
22	GOM_NL__2PRFIN20100101_010446_000000442085_00346_40981_7659.N1	01-JAN-2010 01:04:46	Bright	44.000	151	13Mu Gem	2.8900	3000.0	88	40981	No
23	GOM_NL__2PRFIN20100101_010845_000000402085_00346_40981_7660.N1	01-JAN-2010 01:08:45	Bright	39.500	107	37The Aur	2.6490	11000.	79	40981	No
24	GOM_NL__2PRFIN20100101_011051_000000422085_00346_40981_7661.N1	01-JAN-2010 01:10:51	Bright	42.000	6	13Alp Aur	0.080000	3400.0	84	40981	No
25	GOM_NL__2PRFIN20100101_012730_000000402085_00346_40981_7662.N1	01-JAN-2010 01:27:30	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	40981	No
26	GOM_NL__2PRFIN20100101_013110_000000512085_00346_40981_7663.N1	01-JAN-2010 01:31:10	Bright	50.500	32	77Eps UMa	1.7630	11000.	101	40981	No
27	GOM_NL__2PRFIN20100101_013427_000000662085_00346_40981_7664.N1	01-JAN-2010 01:34:27	Bright	66.000	39	85Eta UMa	1.8540	24000.	132	40981	No
28	GOM_NL__2PRFIN20100101_013832_000000412085_00346_40981_7665.N1	01-JAN-2010 01:38:32	Bright	40.500	180	27Gam Boo	3.0400	8000.0	81	40981	No
29	GOM_NL__2PRFIN20100101_014213_000000622085_00346_40981_7666.N1	01-JAN-2010 01:42:13	Bright	62.000	83		2.3780	11000.	124	40981	No
30	GOM_NL__2PRFIN20100101_014529_000000542085_00346_40981_7667.N1	01-JAN-2010 01:45:29	Bright	53.500	3	16Alp Boo	-0.050000	4250.0	107	40981	No
31	GOM_NL__2PRFIN20100101_015233_000000562085_00346_40981_7668.N1	01-JAN-2010 01:52:33	Bright	56.000	104	27Bet Lib	2.6140	13100.	112	40981	No
32	GOM_NL__2PRFIN20100101_015513_000000442085_00346_40981_7669.N1	01-JAN-2010 01:55:13	Twilight	43.500	122	9Alp2Lib	2.7470	9700.0	87	40981	No
33	GOM_NL__2PRFIN20100101_020206_000000542085_00346_40981_7670.N1	01-JAN-2010 02:02:06	Dark	54.000	54	5The Cen	2.0550	4500.0	108	40981	No
34	GOM_NL__2PRFIN20100101_020452_000000402085_00346_40981_7671.N1	01-JAN-2010 02:04:52	Dark	39.500	95	Zet Cen	2.5450	26000.	79	40981	No
35	GOM_NL__2PRFIN20100101_020636_000000402085_00346_40981_7652.N1	01-JAN-2010 02:06:36	Dark	39.500	77	Eps Cen	2.3030	28000.	79	40981	No
36	GOM_NL__2PRFIN20100101_020822_000000442085_00347_40982_7653.N1	01-JAN-2010 02:08:22	Dark	44.000	64	Gam Cen	2.2000	10600.	88	40982	No
37	GOM_NL__2PRFIN20100101_021432_000000482085_00347_40982_7654.N1	01-JAN-2010 02:14:32	Dark	48.000	113	Mu Vel	2.6920	5000.0	96	40982	No
38	GOM_NL__2PRFIN20100101_021705_000000412085_00347_40982_7655.N1	01-JAN-2010 02:17:05	Dark	41.000	71	lot Car	2.2460	7700.0	82	40982	No
39	GOM_NL__2PRFIN20100101_021900_000000462085_00347_40982_7656.N1	01-JAN-2010 02:19:00	Dark	46.000	46	Del Vel	1.9540	10600.	92	40982	No
40	GOM_NL__2PRFIN20100101_022151_000000462085_00347_40982_7657.N1	01-JAN-2010 02:21:51	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	40982	No
41	GOM_NL__2PRFIN20100101_022403_000000492085_00347_40982_7658.N1	01-JAN-2010 02:24:03	Dark	48.500	70	Zet Pup	2.2460	39000.	97	40982	No
42	GOM_NL__2PRFIN20100101_022607_000000482085_00347_40982_7659.N1	01-JAN-2010 02:26:07	Dark	48.000	117	Pi Pup	2.7060	3800.0	96	40982	No

397	GOM_NL__2PRFIN20100101_225630_000000382085_00359_40994_7876.N1	01-JAN-2010 22:56:30	Bright	38.000	107	37The Aur	2.6490	11000.	76	40994	No
398	GOM_NL__2PRFIN20100101_225837_000000452085_00359_40994_7877.N1	01-JAN-2010 22:58:37	Bright	44.500	6	13Alp Aur	0.080000	3400.0	89	40994	No
399	GOM_NL__2PRFIN20100101_231515_000000402085_00359_40994_7878.N1	01-JAN-2010 23:15:15	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	40994	No
400	GOM_NL__2PRFIN20100101_231852_000000502085_00359_40994_7879.N1	01-JAN-2010 23:18:52	Bright	50.000	32	77Eps UMa	1.7630	11000.	100	40994	No
401	GOM_NL__2PRFIN20100101_232212_000000462085_00359_40994_7880.N1	01-JAN-2010 23:22:12	Bright	45.500	39	85Eta UMa	1.8540	24000.	91	40994	No
402	GOM_NL__2PRFIN20100101_232619_000000422085_00359_40994_7881.N1	01-JAN-2010 23:26:19	Bright	41.500	180	27Gam Boo	3.0400	8000.0	83	40994	No
403	GOM_NL__2PRFIN20100101_233003_000000622085_00359_40994_7882.N1	01-JAN-2010 23:30:03	Bright	62.000	83		2.3780	11000.	124	40994	No
404	GOM_NL__2PRFIN20100101_233520_000000542085_00359_40994_7883.N1	01-JAN-2010 23:35:20	Bright	54.000	102	24Alp Ser	2.6000	4250.0	108	40994	No
405	GOM_NL__2PRFIN20100101_234026_000000562085_00359_40994_7884.N1	01-JAN-2010 23:40:26	Bright	55.500	104	27Bet Lib	2.6140	13100.	111	40994	No
406	GOM_NL__2PRFIN20100101_234307_000000462085_00359_40994_7885.N1	01-JAN-2010 23:43:07	Twilight_stray	45.500	122	9Alp2Lib	2.7470	9700.0	91	40994	No
407	GOM_NL__2PRFIN20100101_235002_000000522085_00359_40994_7886.N1	01-JAN-2010 23:50:02	Dark	52.000	54	5The Cen	2.0550	4500.0	104	40994	No
408	GOM_NL__2PRFIN20100101_235431_000000442085_00360_40995_7869.N1	01-JAN-2010 23:54:31	Dark	44.000	77	Eps Cen	2.3030	28000.	88	40995	No
409	GOM_NL__2PRFIN20100101_235619_000000462085_00360_40995_7870.N1	01-JAN-2010 23:56:19	Dark	45.500	64	Gam Cen	2.2000	10600.	91	40995	No

3. Quality information per product

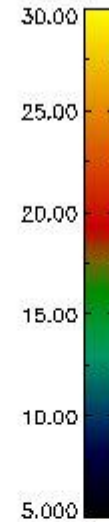
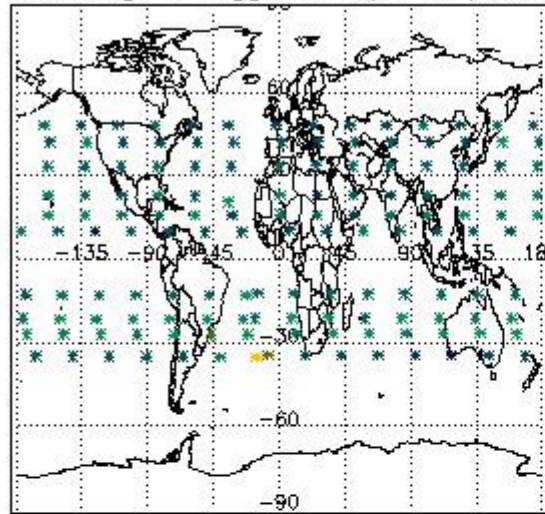
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

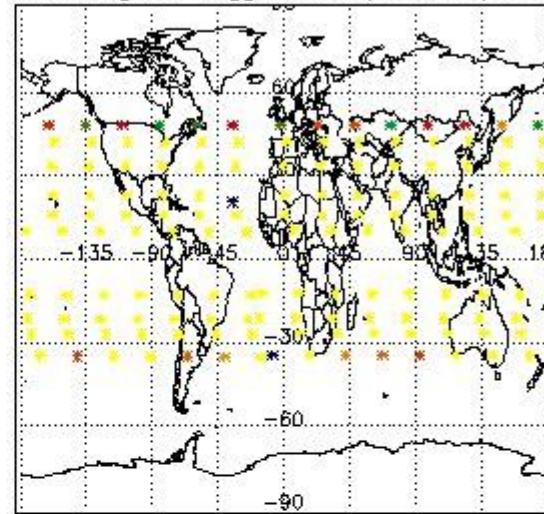


3.2 Plot quality information per product (world map)

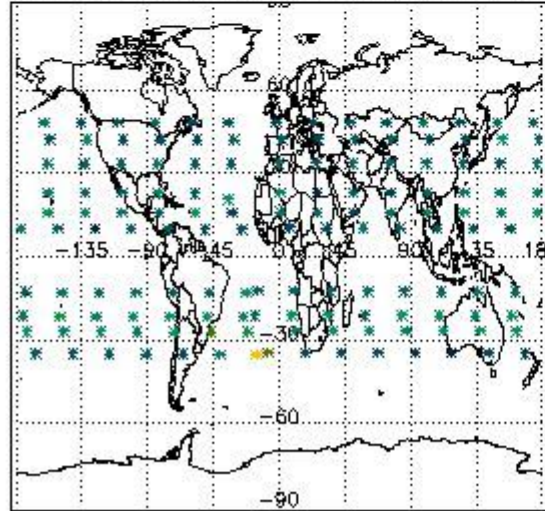
Percentage of flagged data per O3 profile



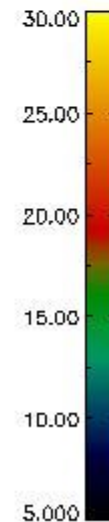
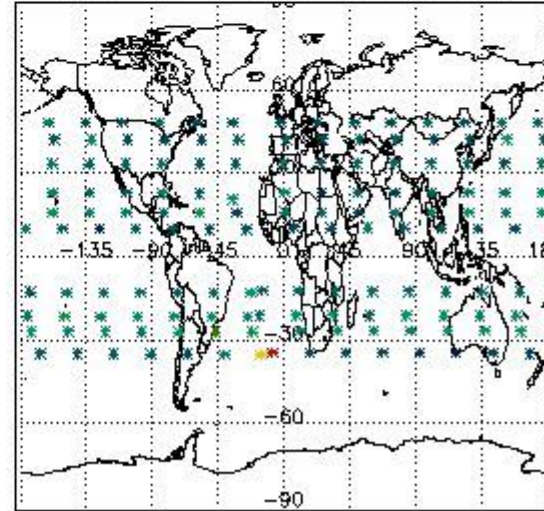
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

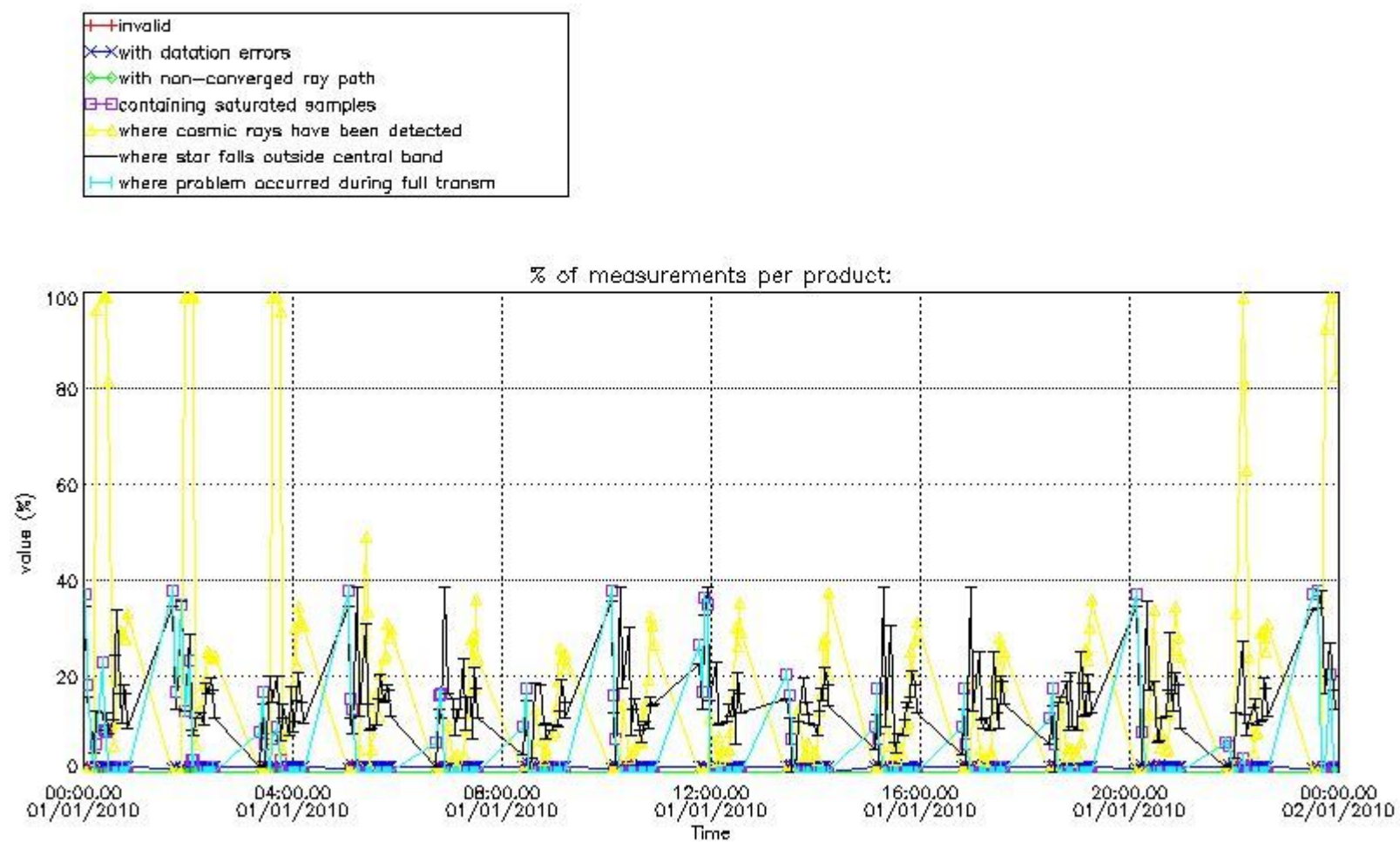


4. Level 1 quality information per product

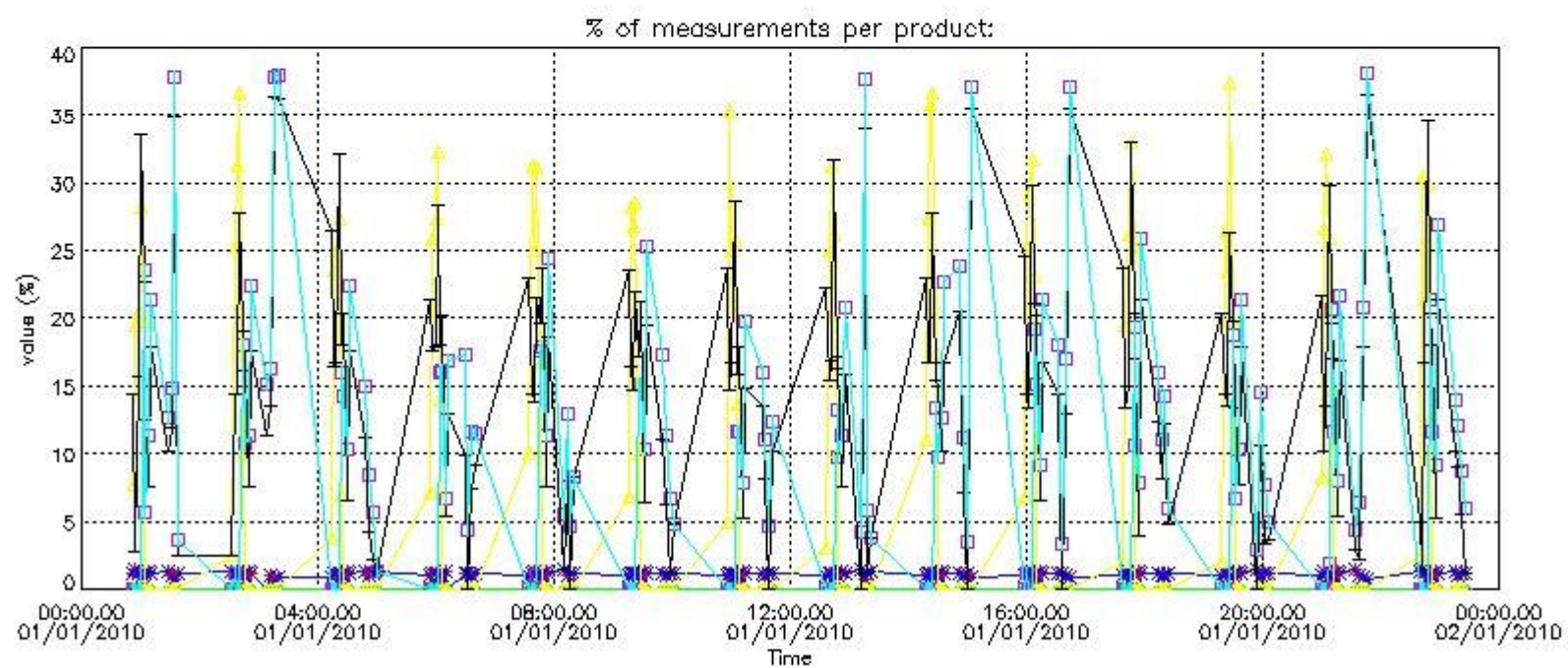
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

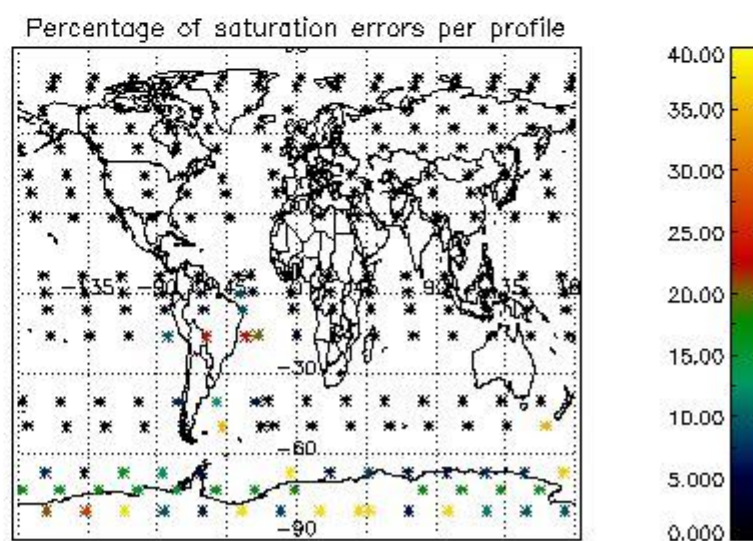
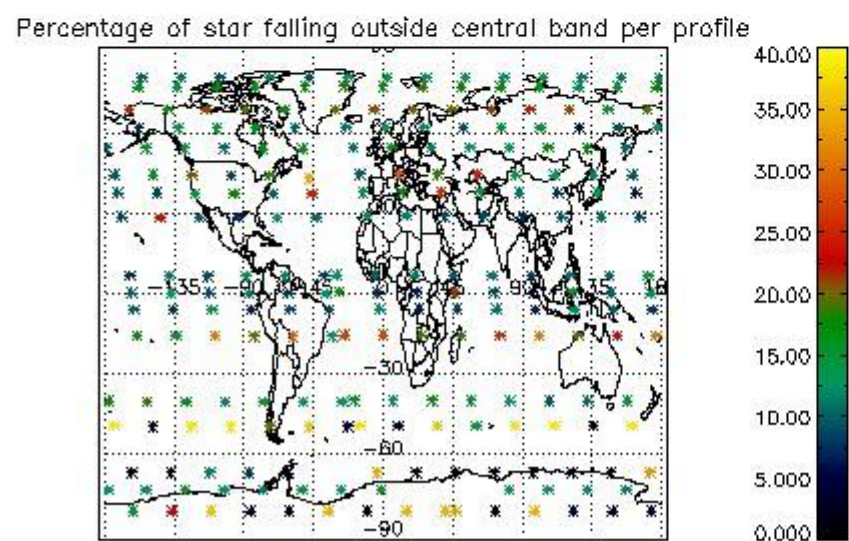
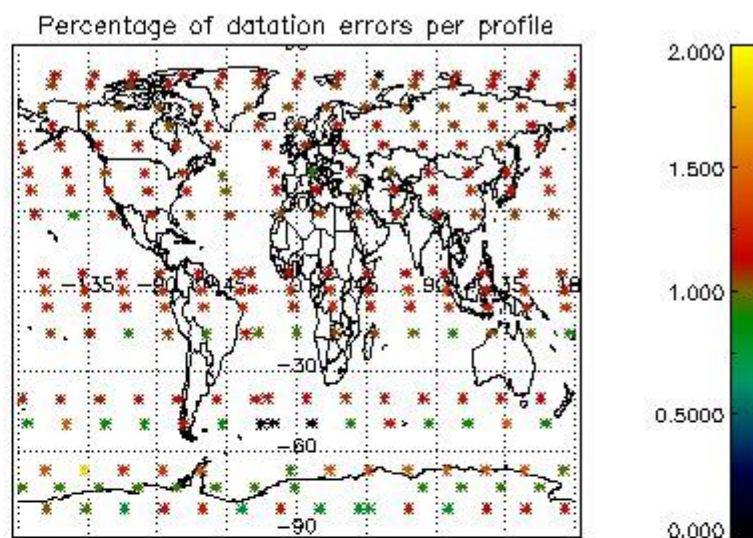
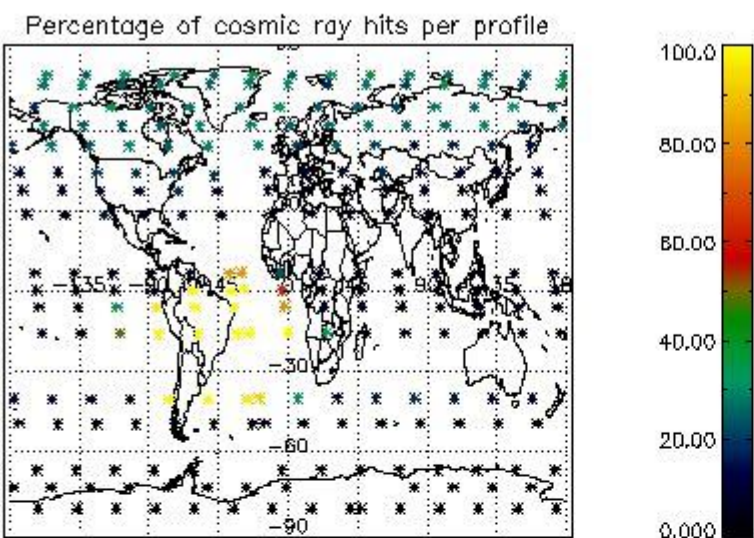


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

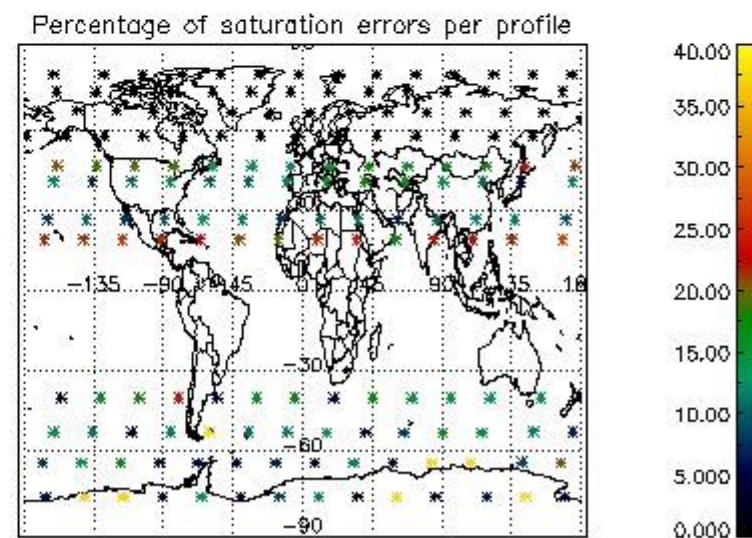
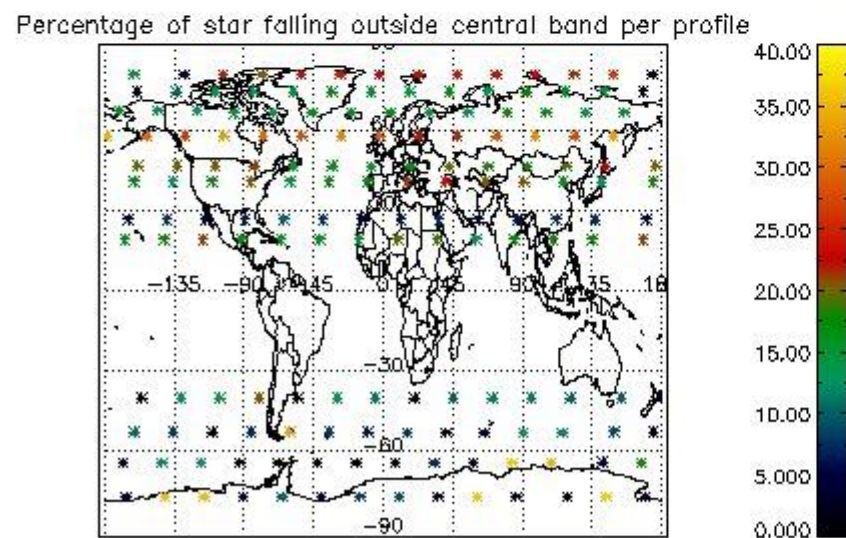
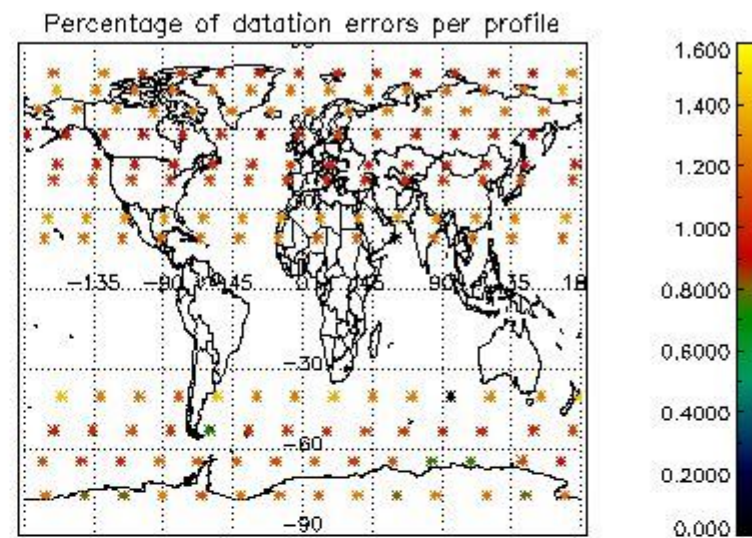
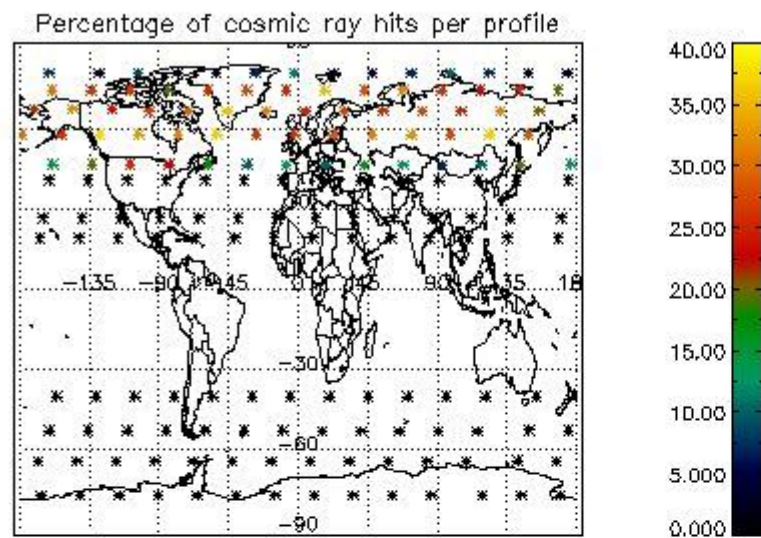


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

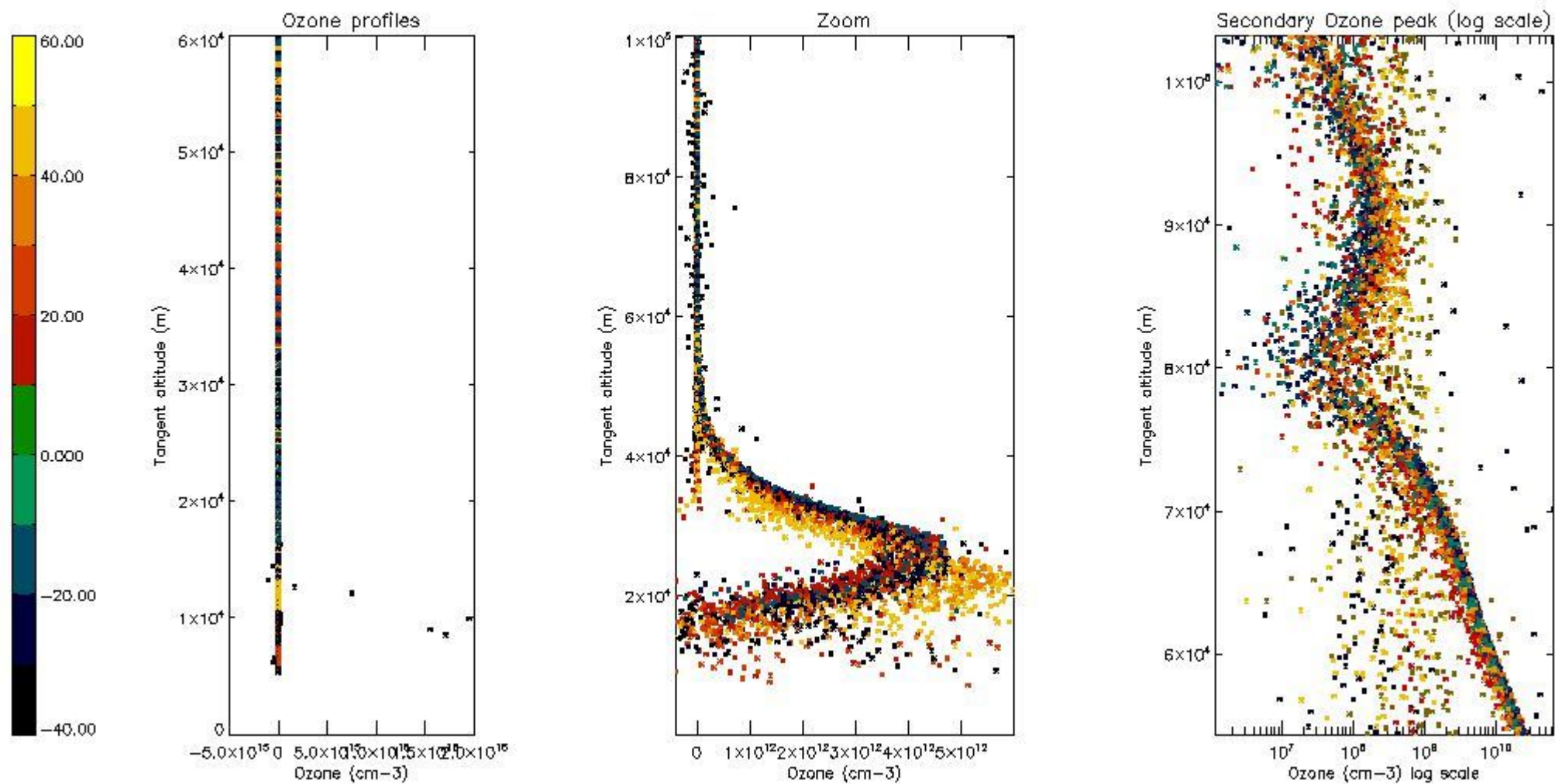
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	35
STD < 20	16

STD < 10	13
STD < 5	7

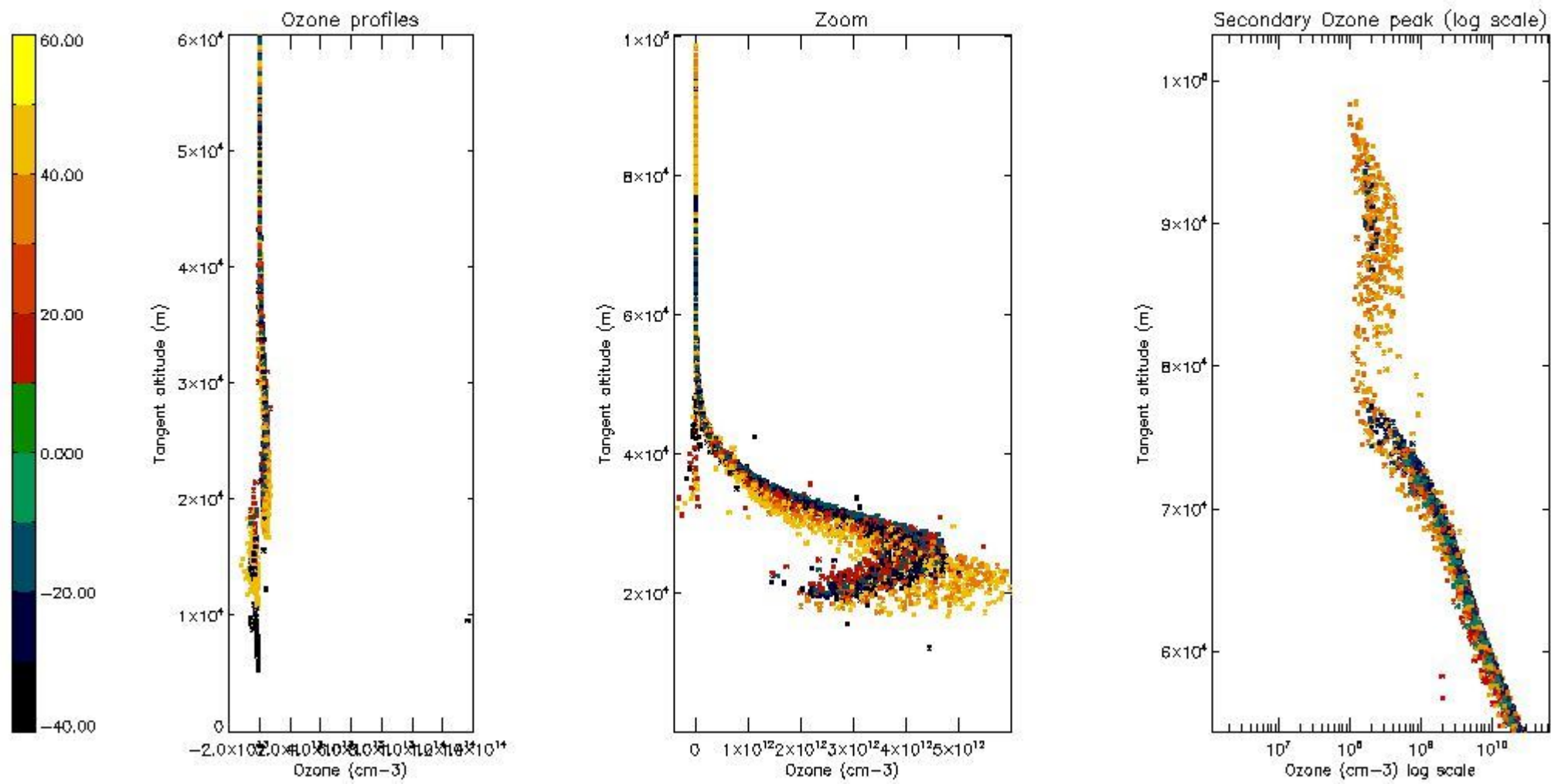
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



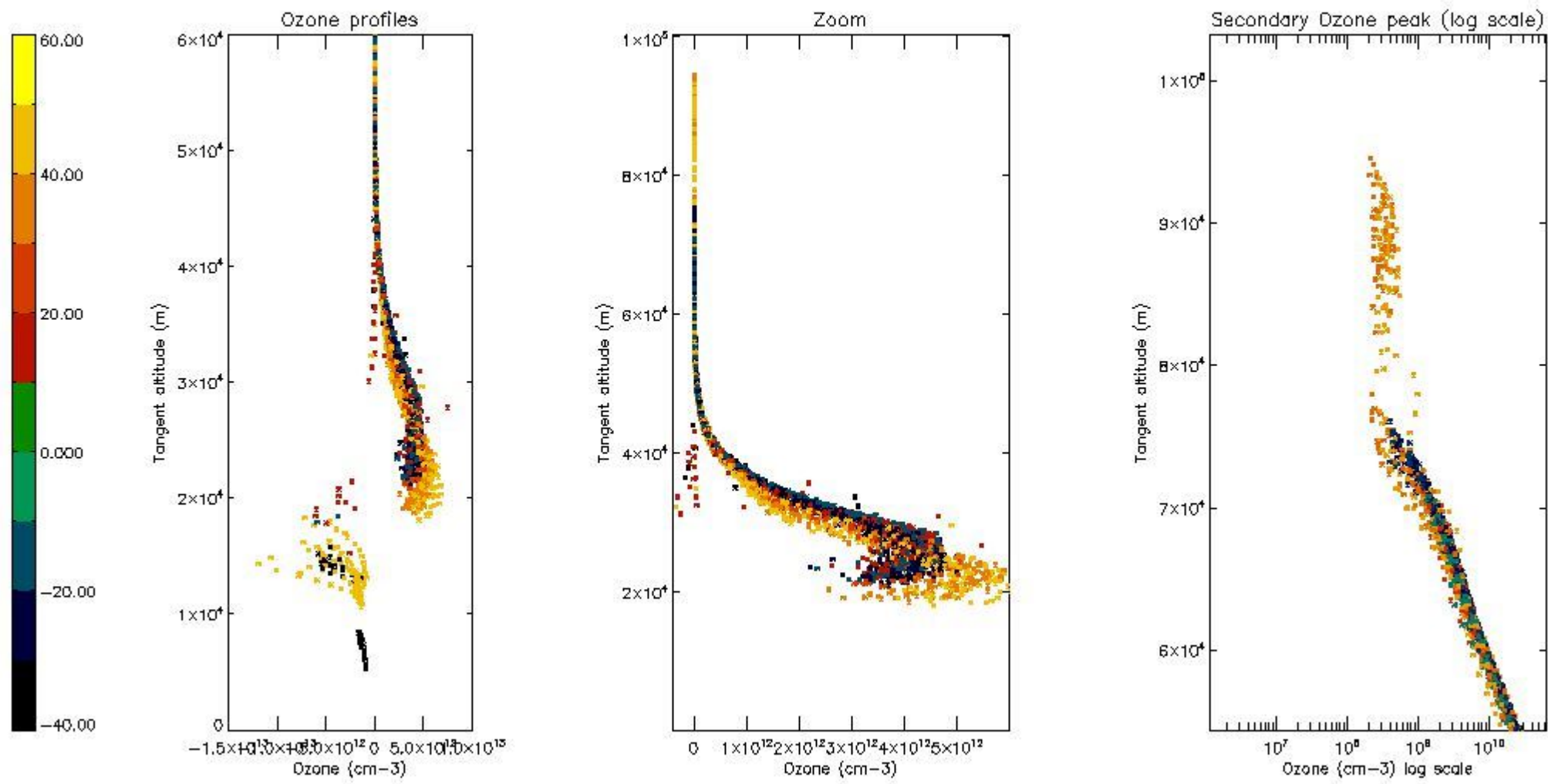
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



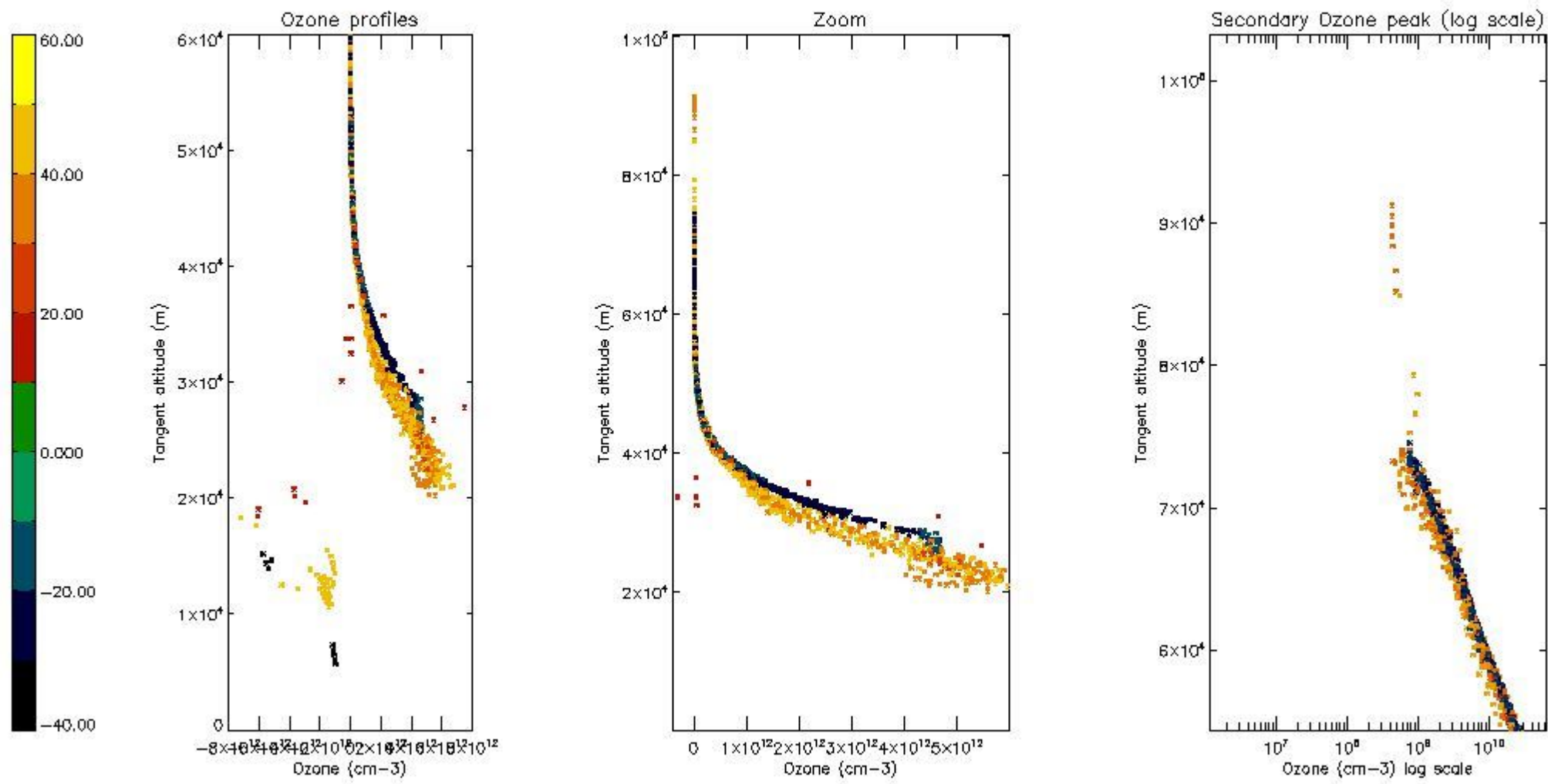
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



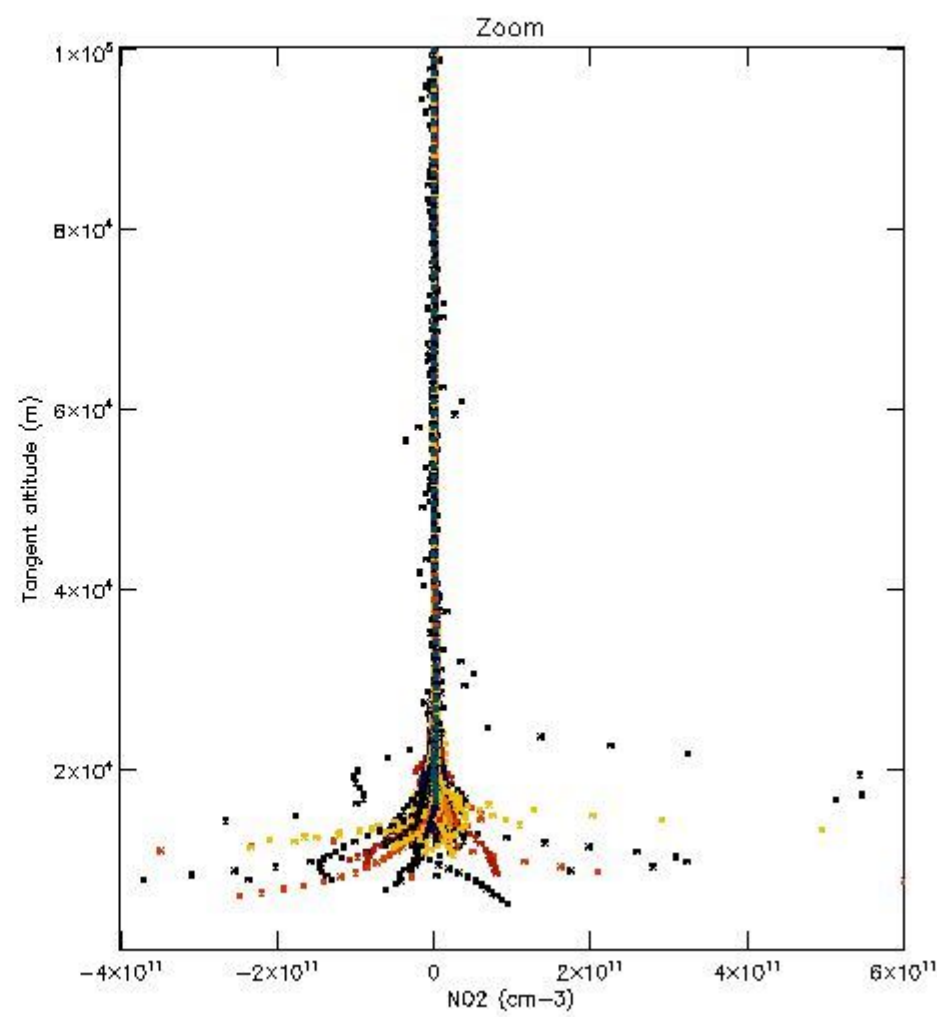
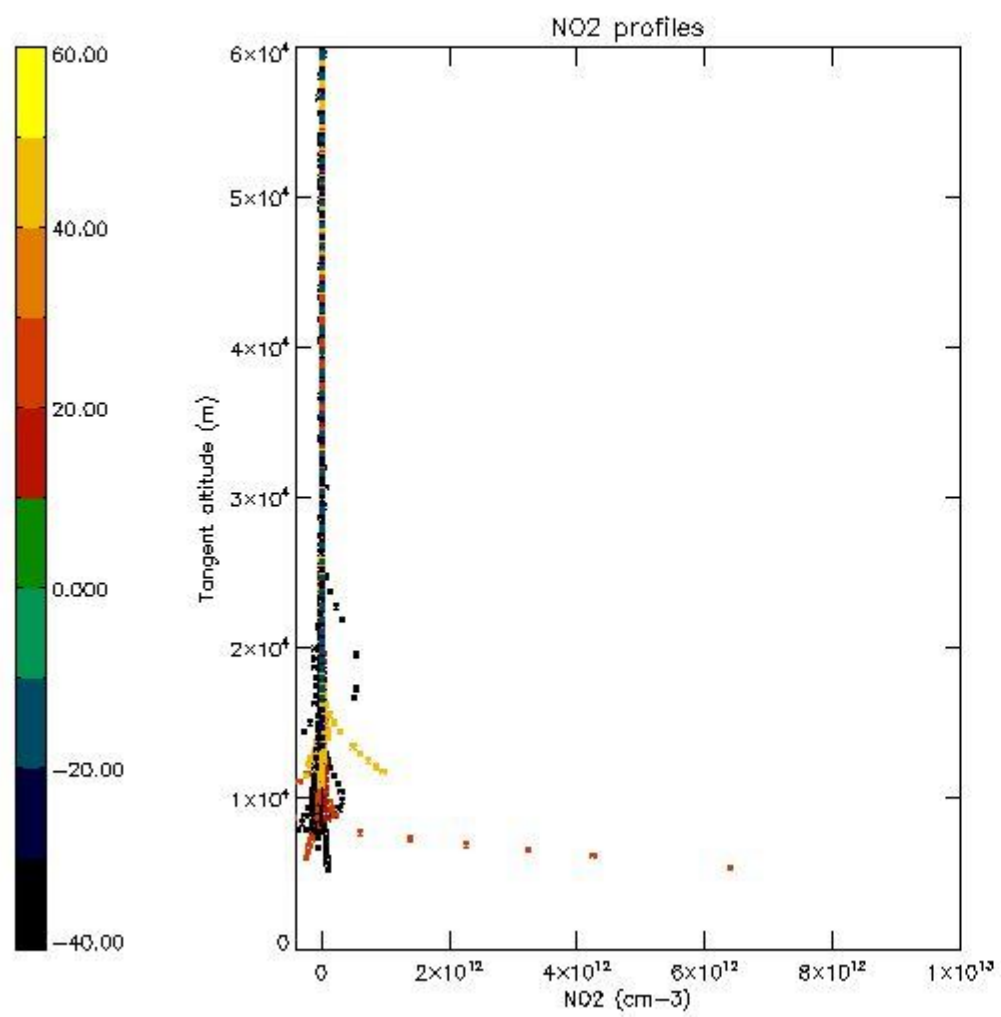
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



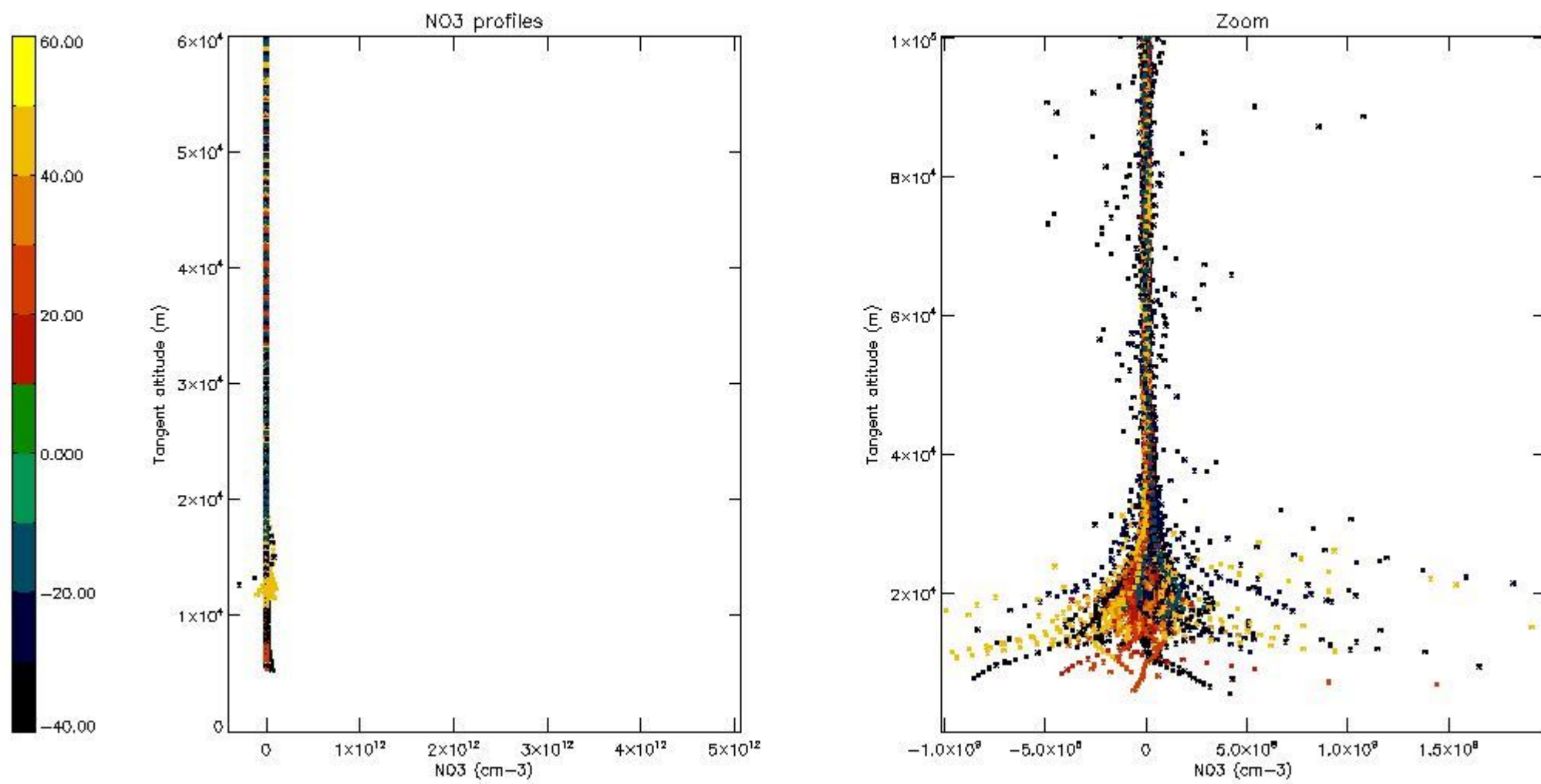
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



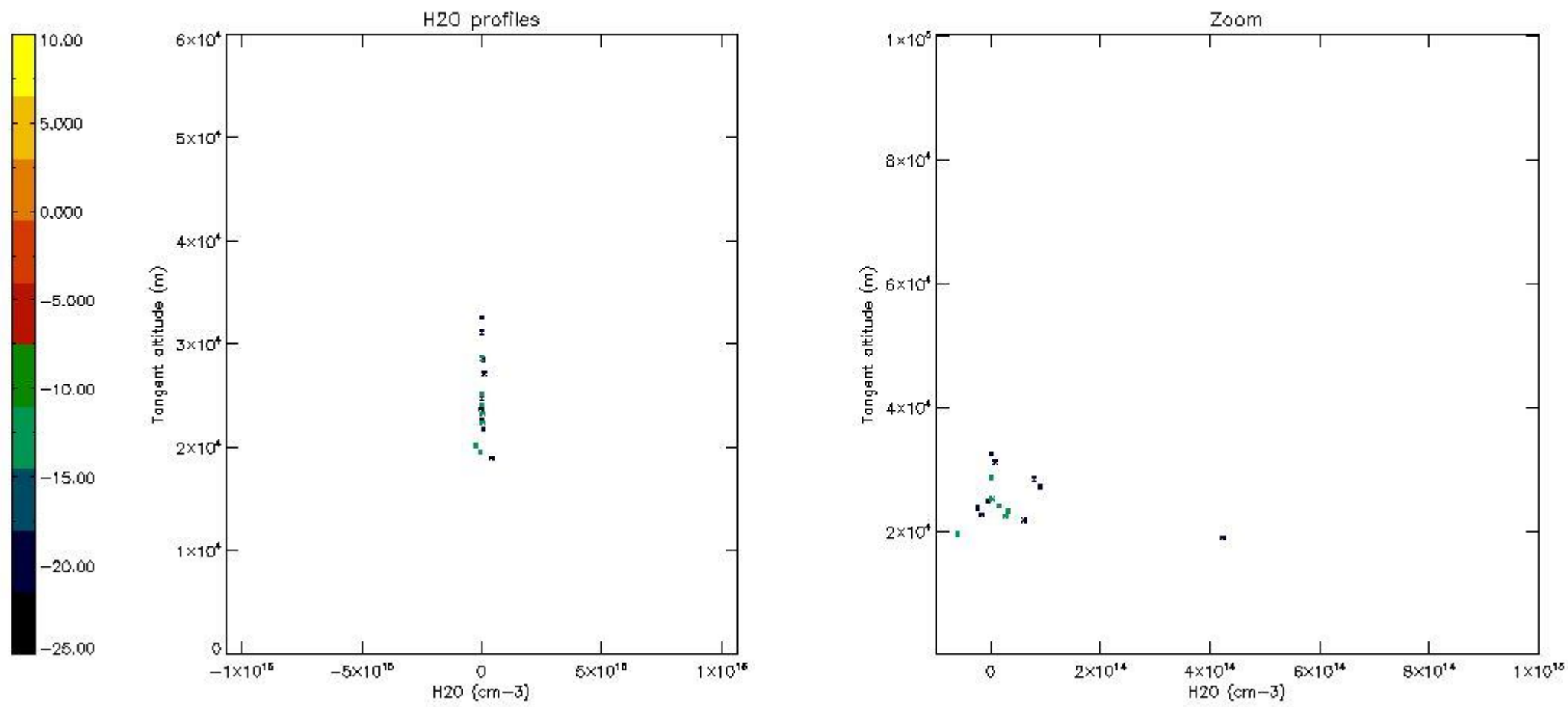
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

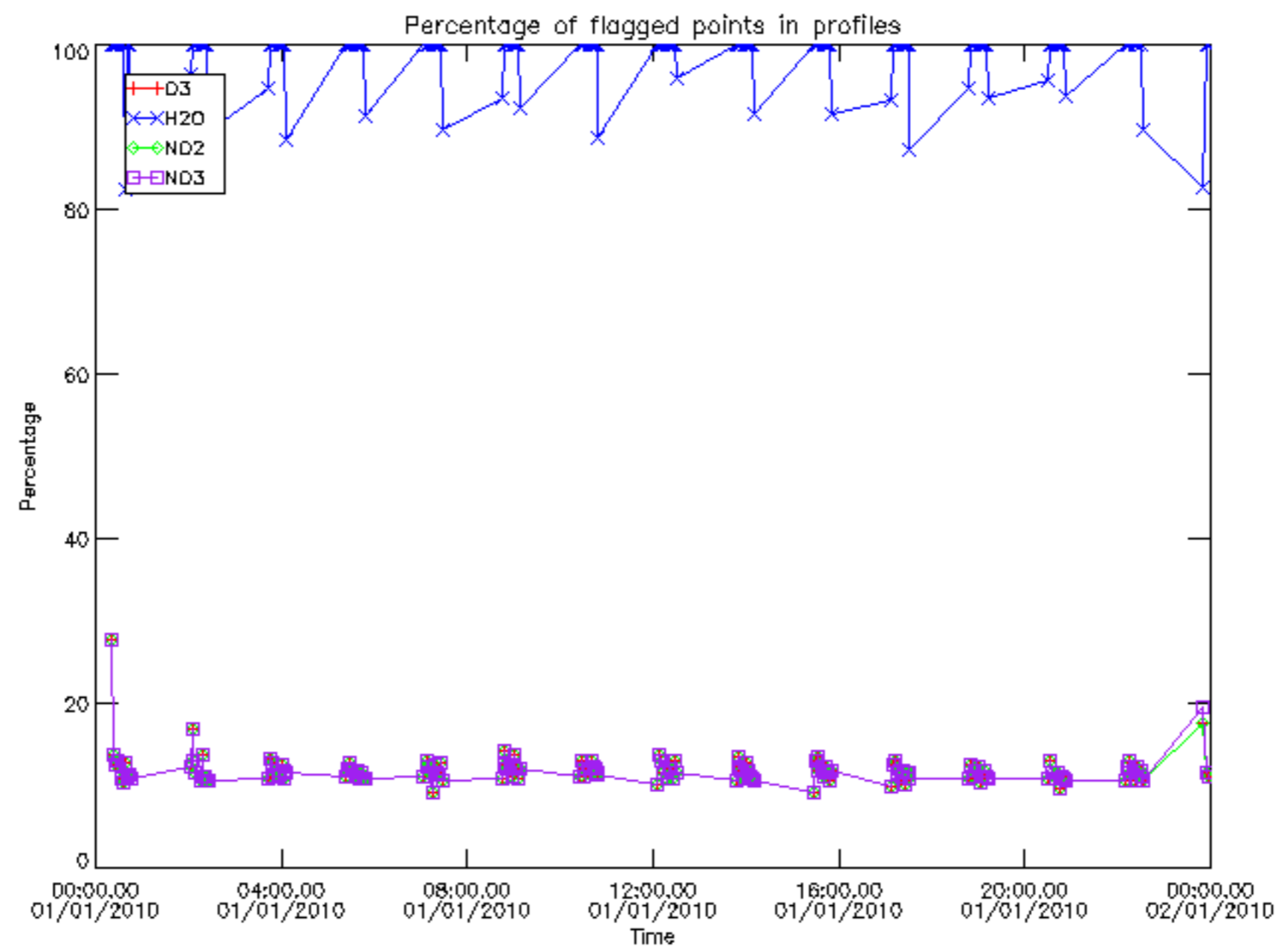
The colorbar represents the latitude.



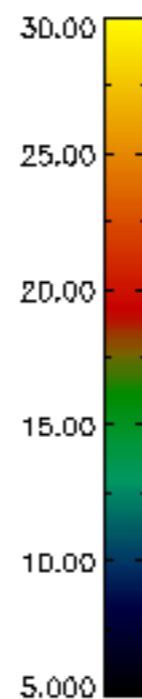
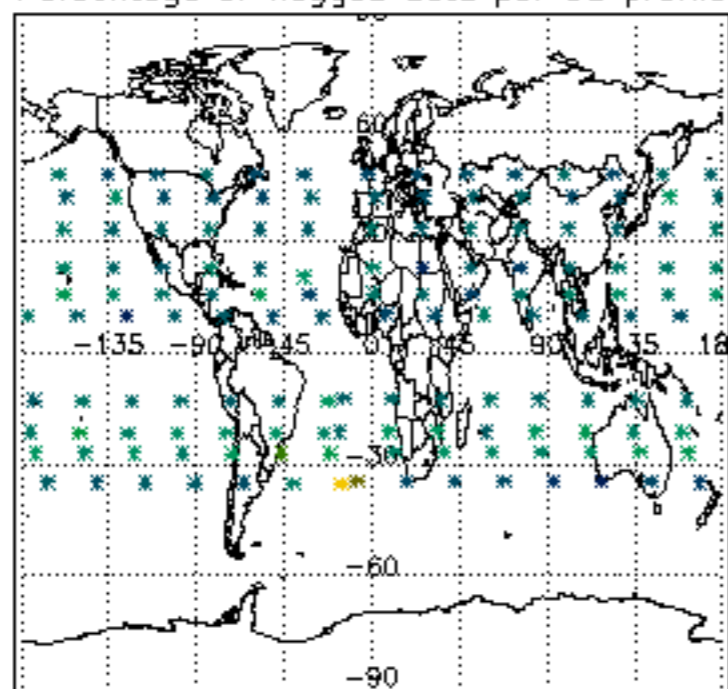
6. Auxiliary Data Files used for the production reported in section 2

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.

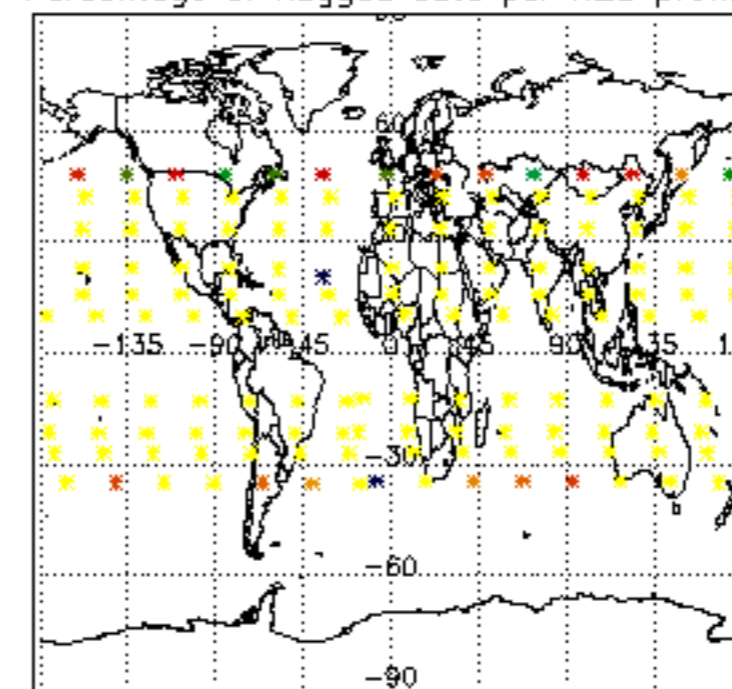
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	01-JAN-2010 00:01:37
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	01-JAN-2010 00:01:37
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	01-JAN-2010 00:01:37



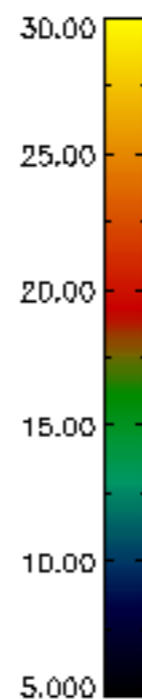
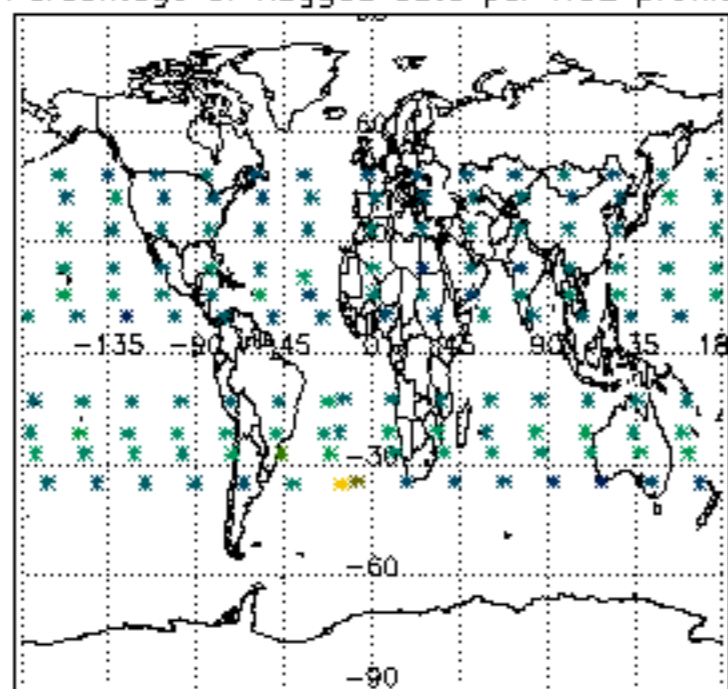
Percentage of flagged data per D3 profile



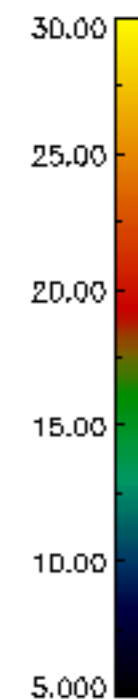
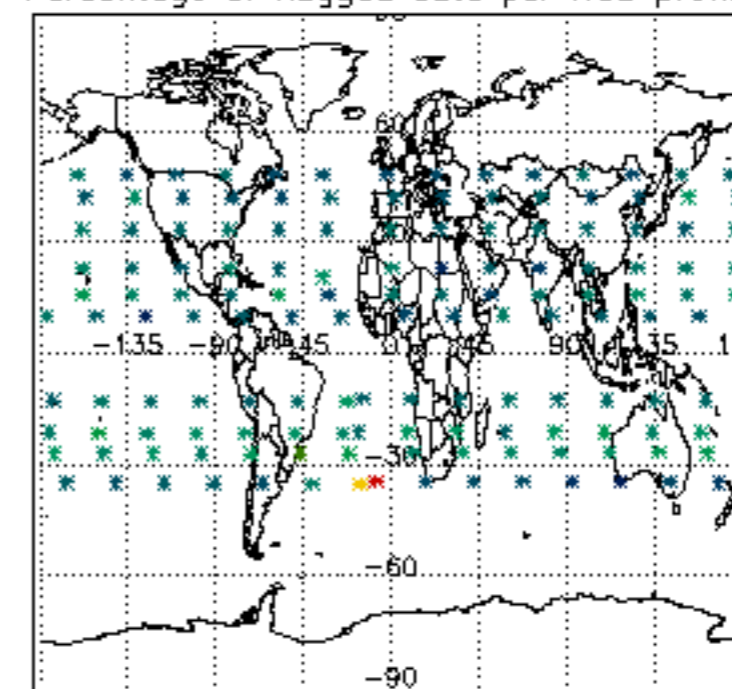
Percentage of flagged data per H2O profile

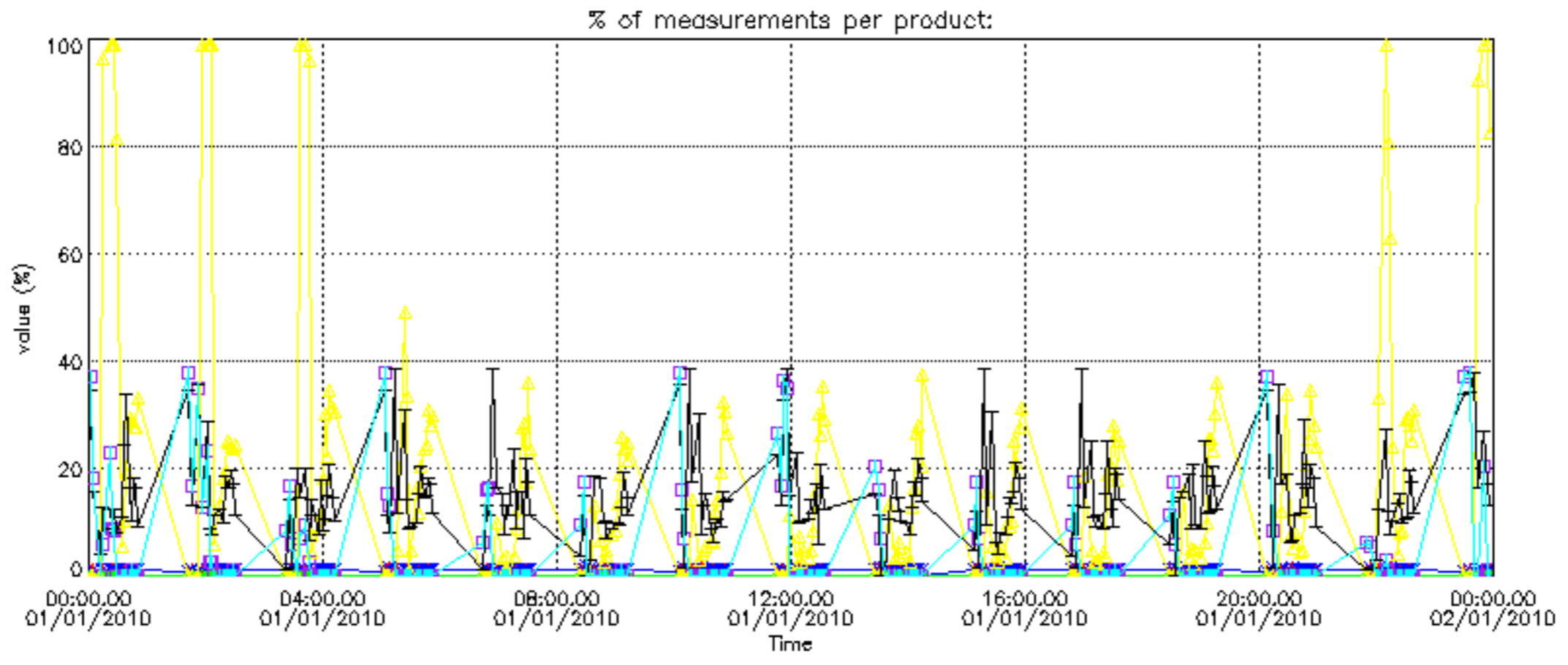


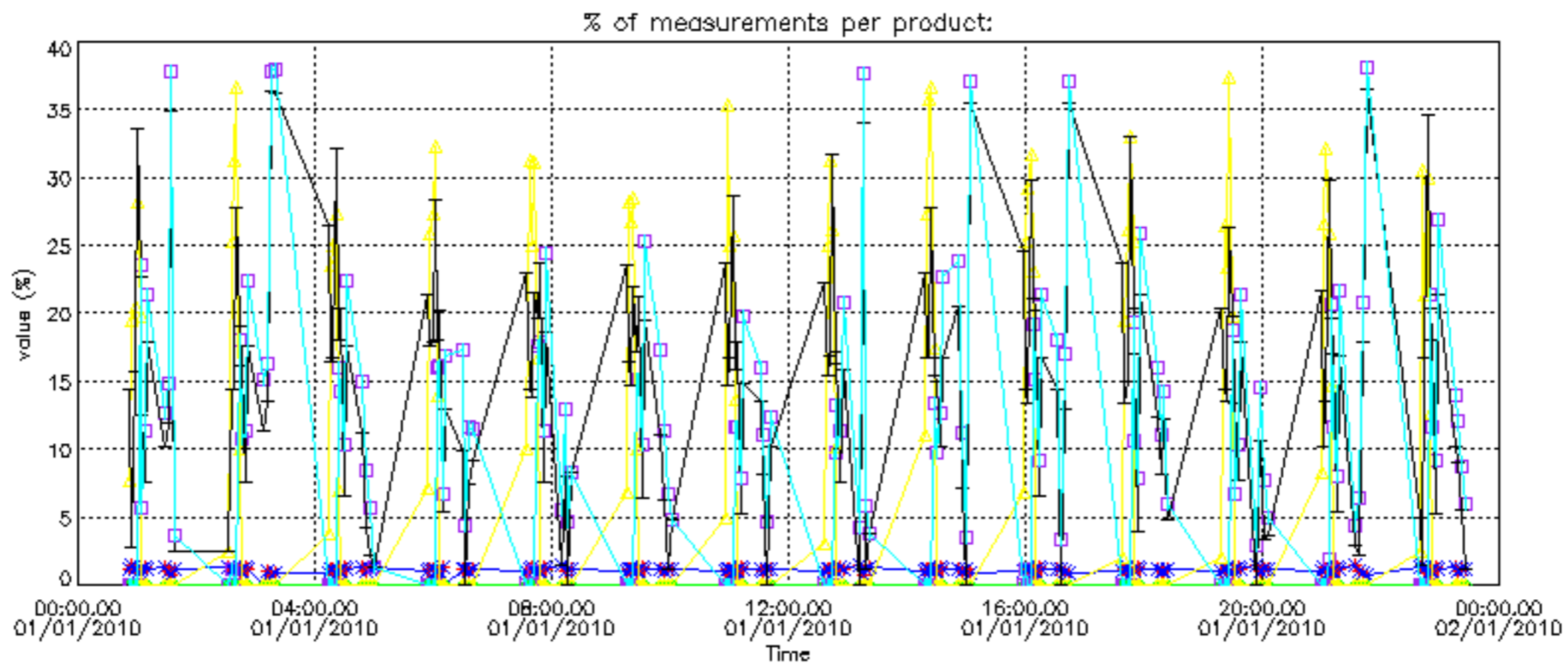
Percentage of flagged data per NO2 profile



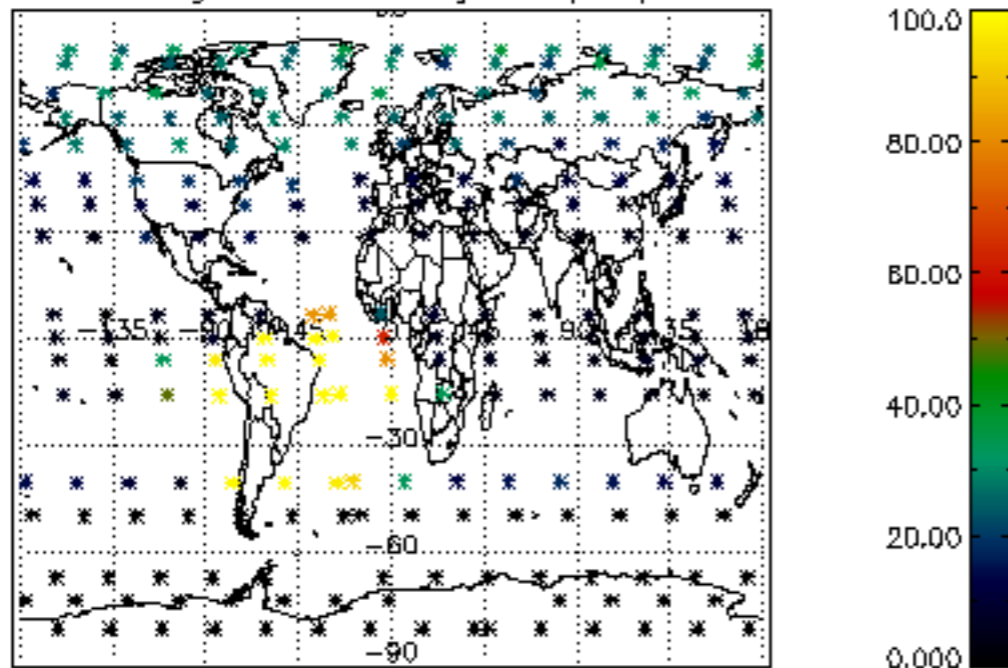
Percentage of flagged data per NO3 profile



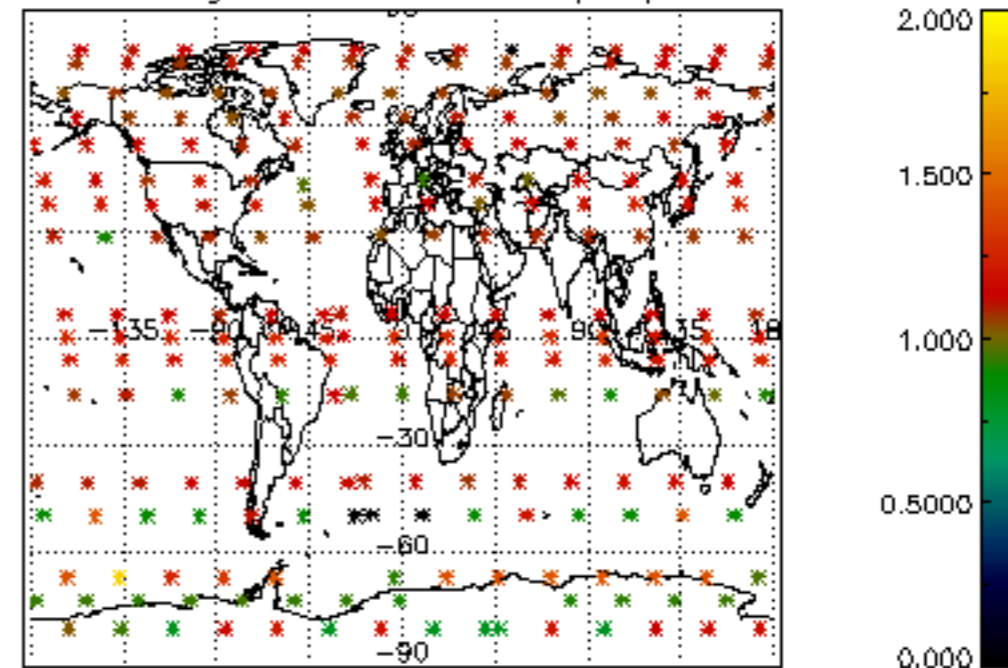




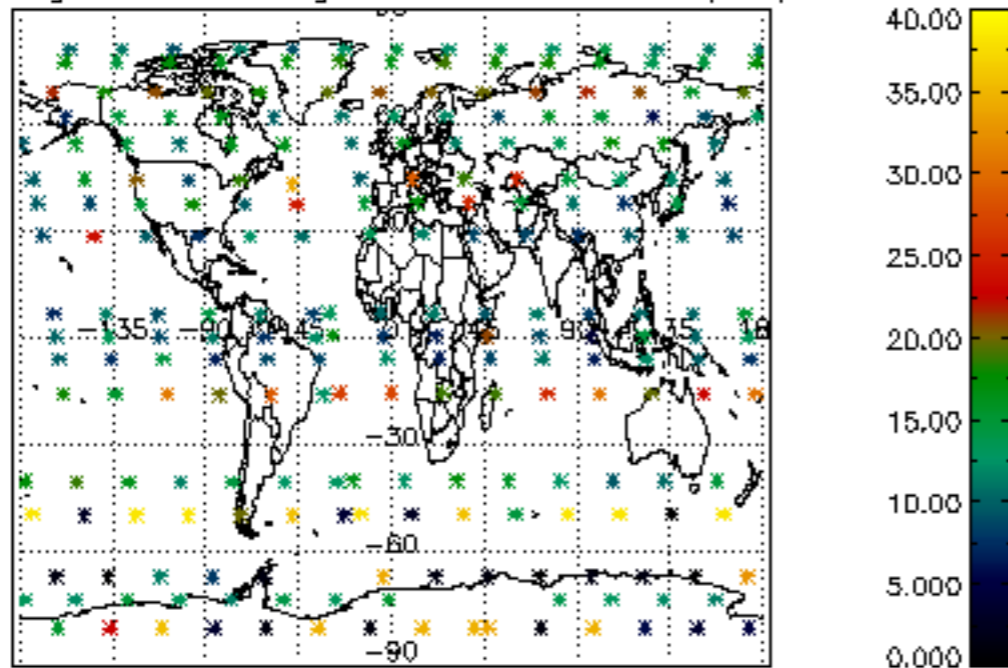
Percentage of cosmic ray hits per profile



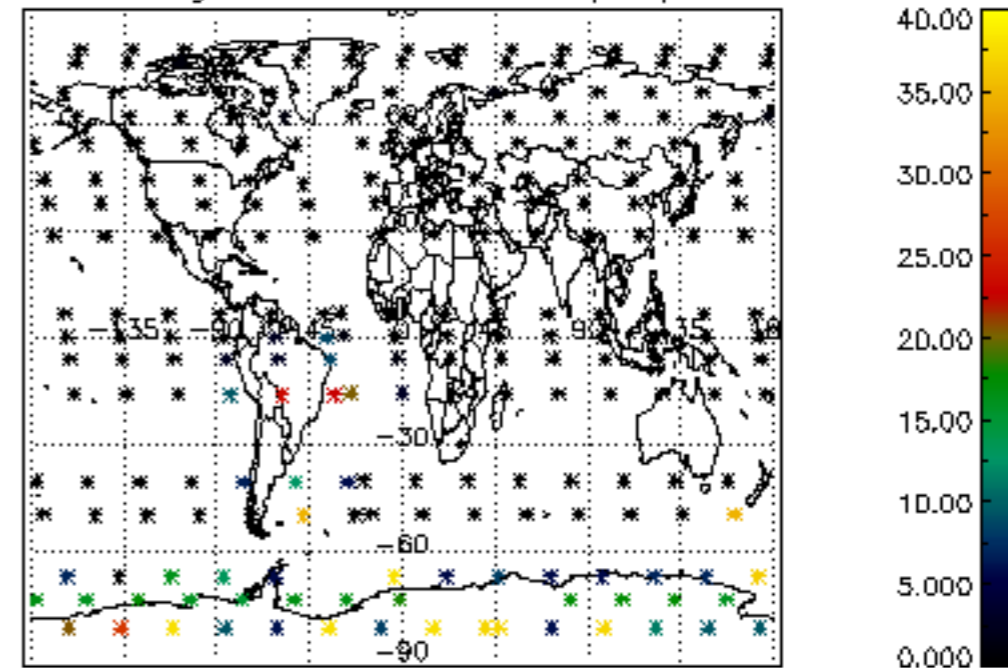
Percentage of datation errors per profile



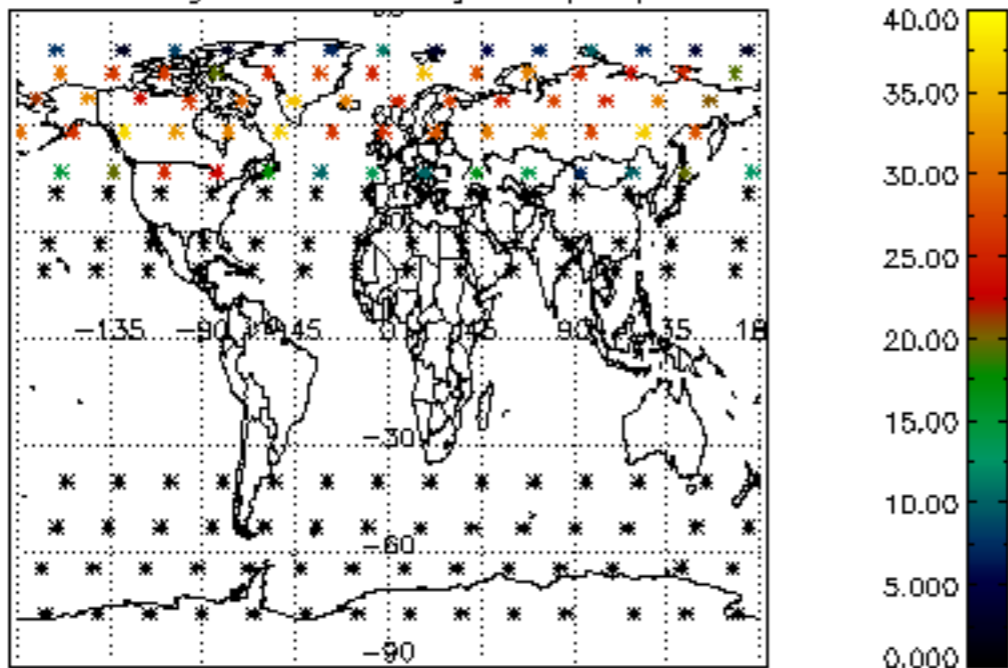
Percentage of star falling outside central band per profile



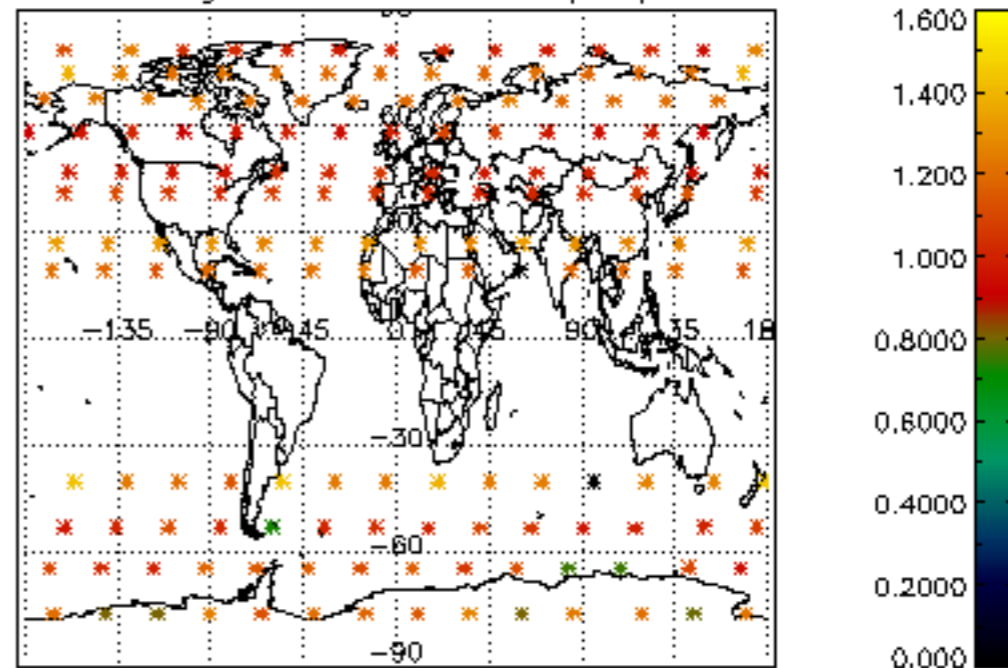
Percentage of saturation errors per profile



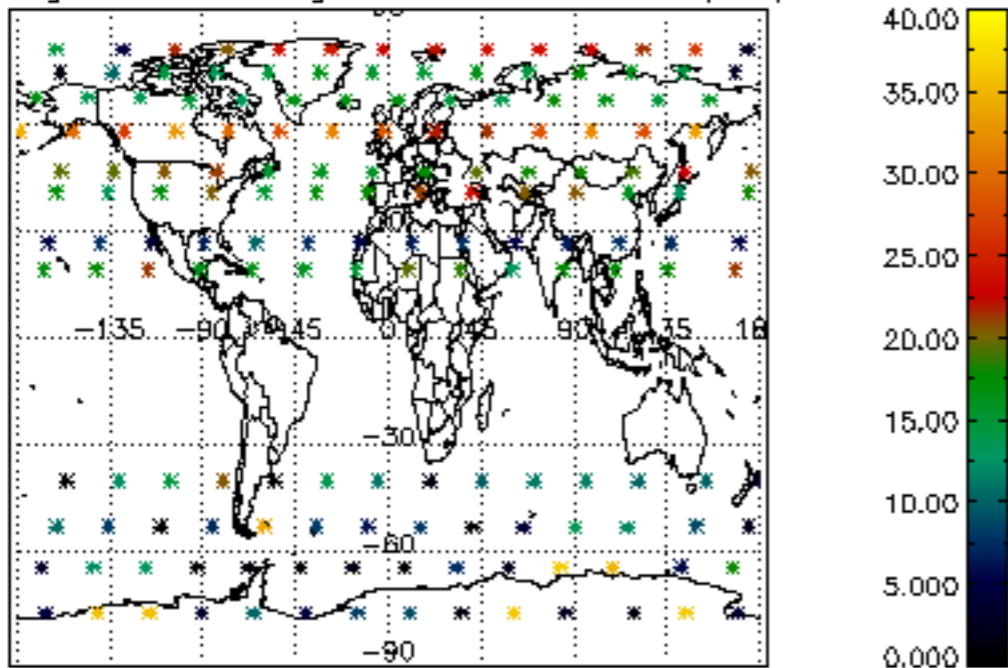
Percentage of cosmic ray hits per profile



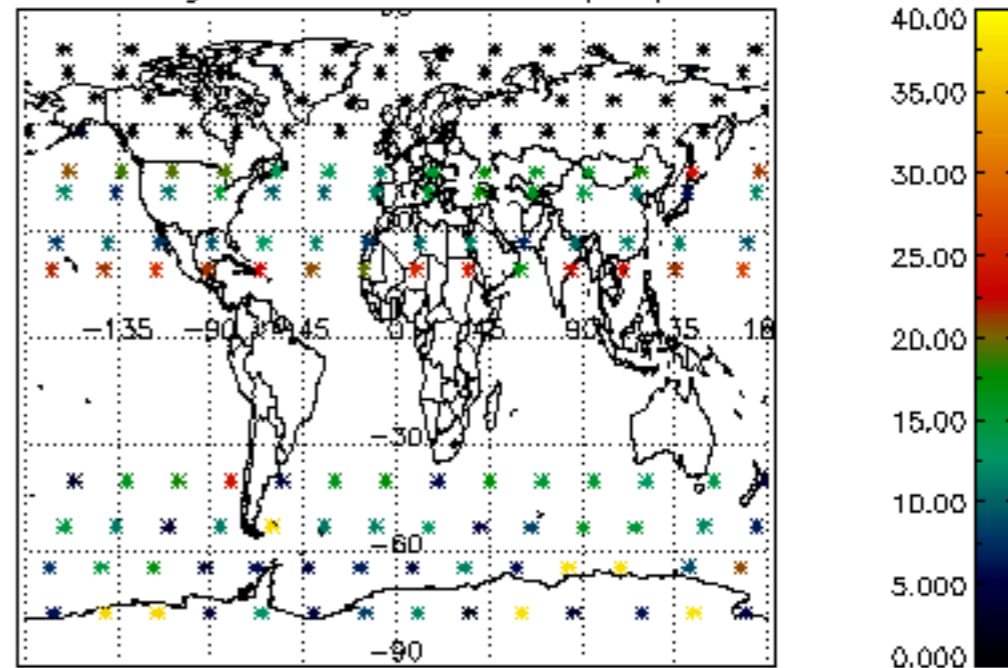
Percentage of datation errors per profile

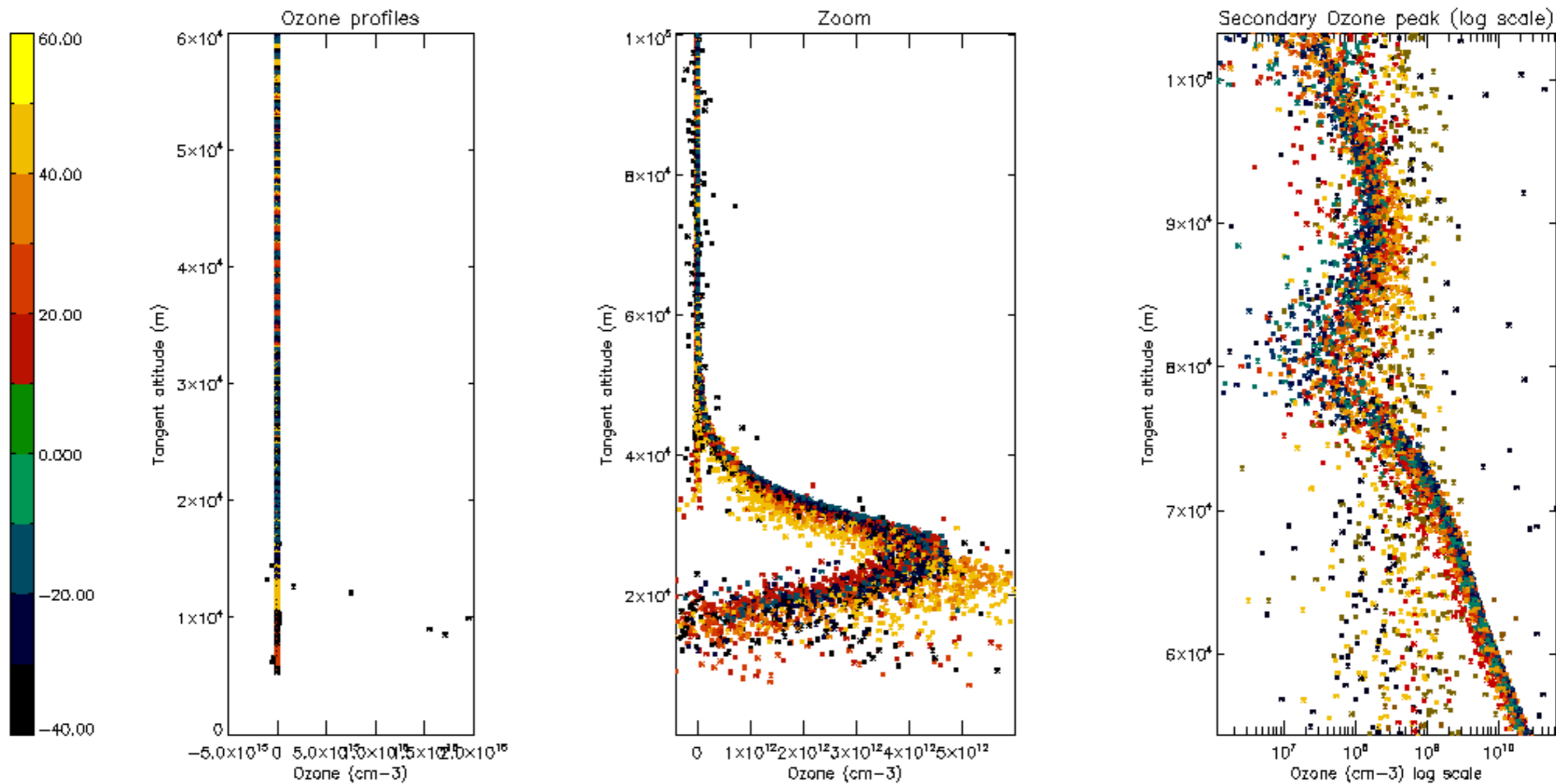


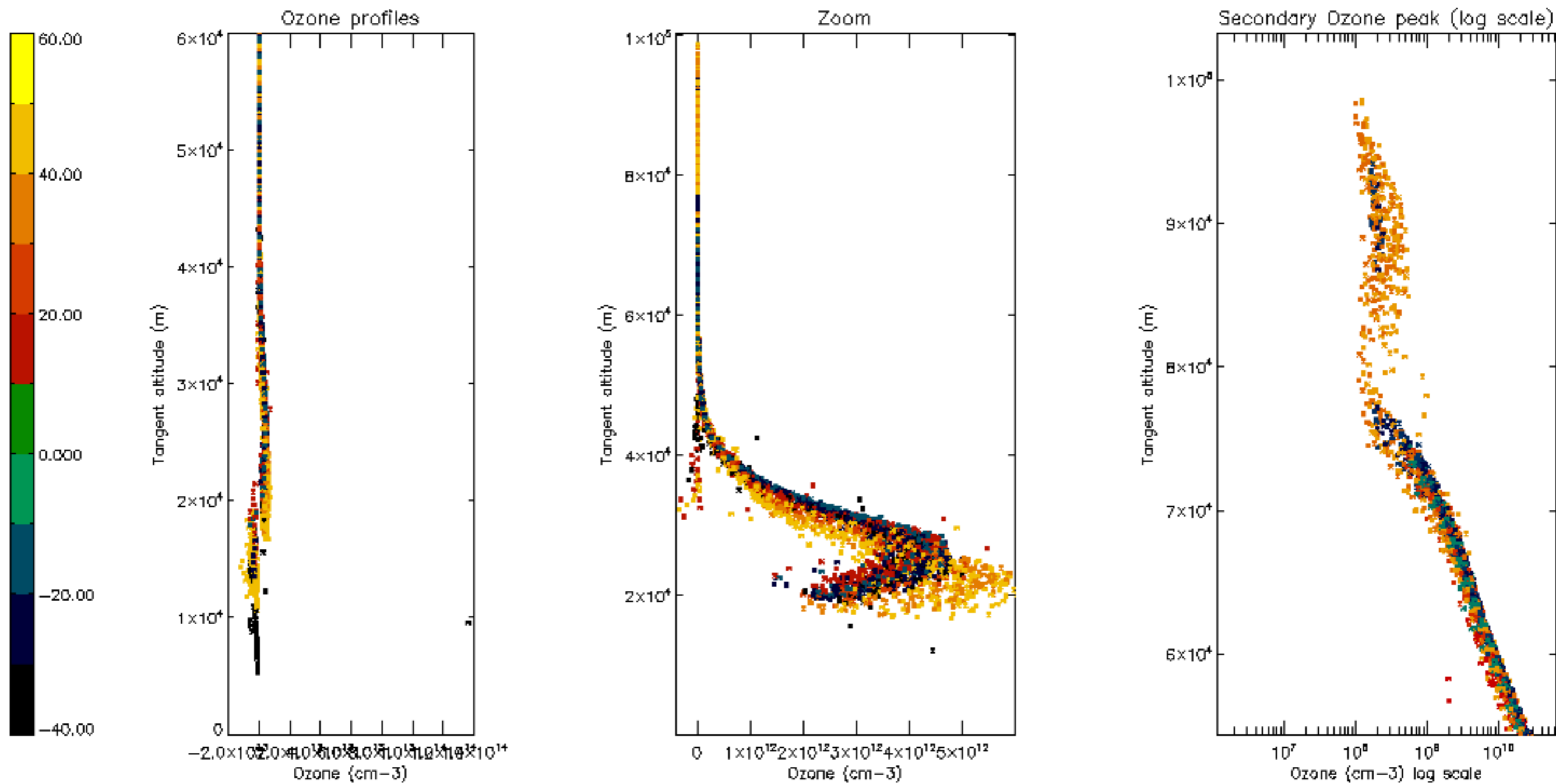
Percentage of star falling outside central band per profile

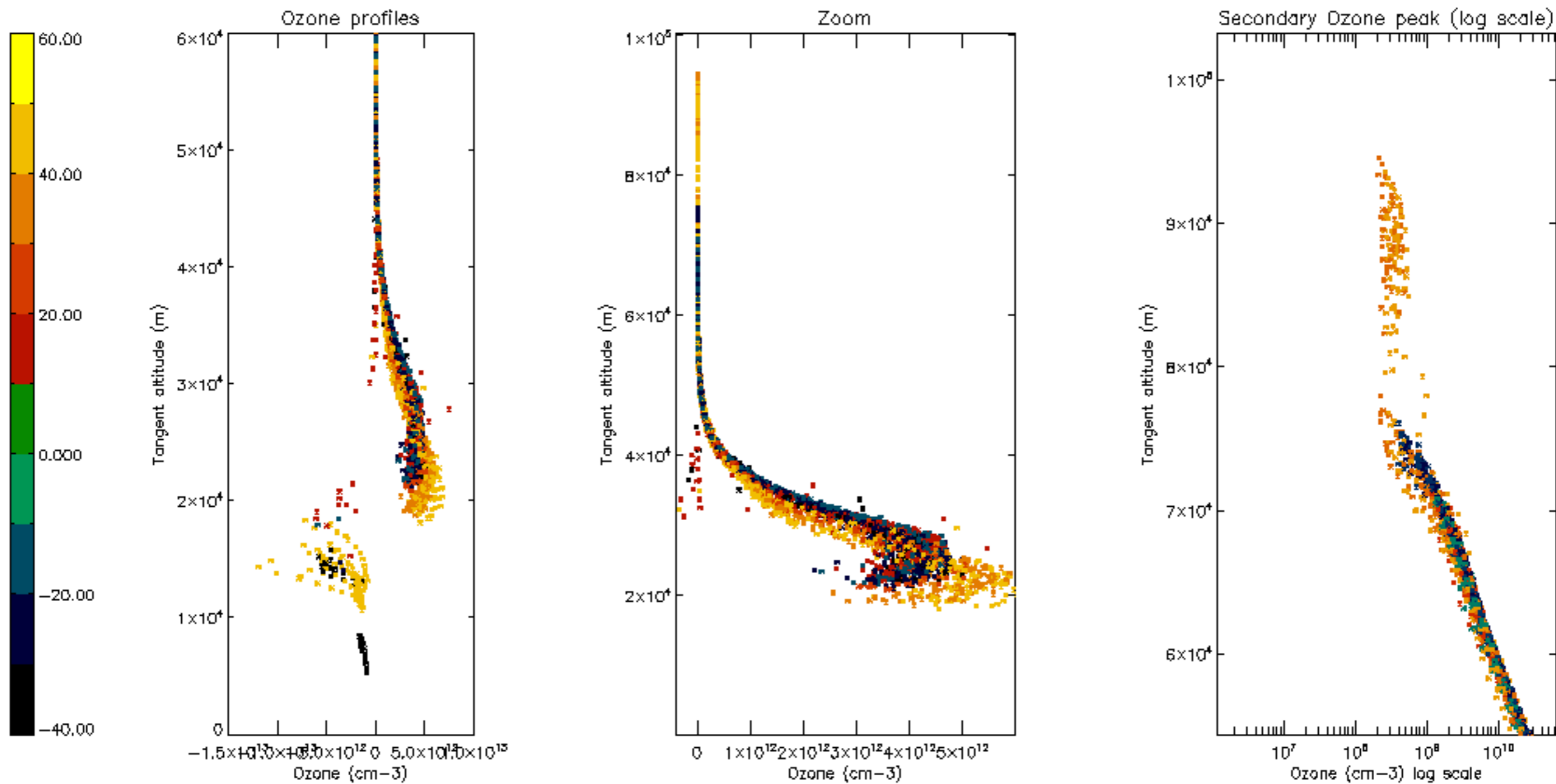


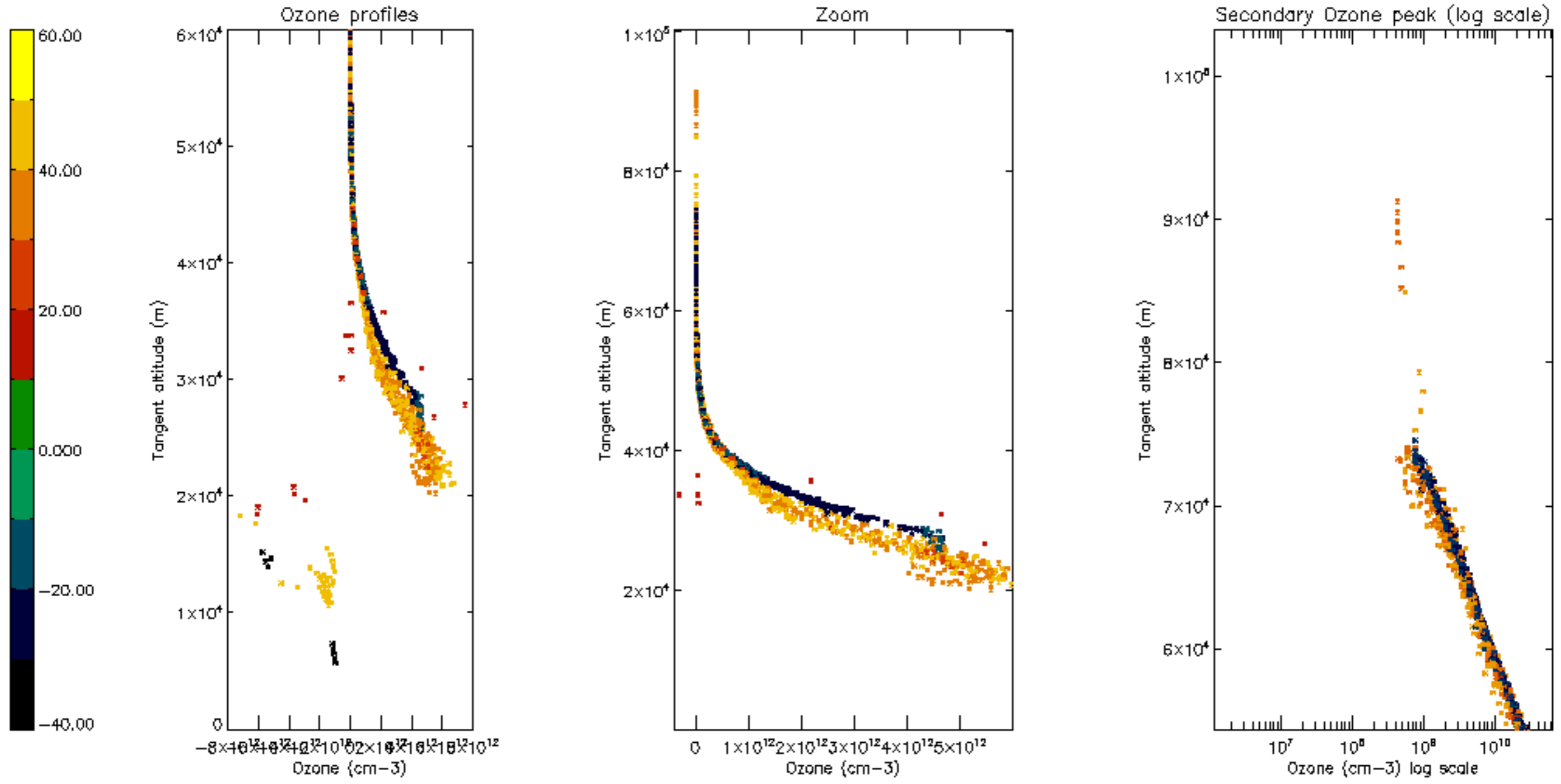
Percentage of saturation errors per profile

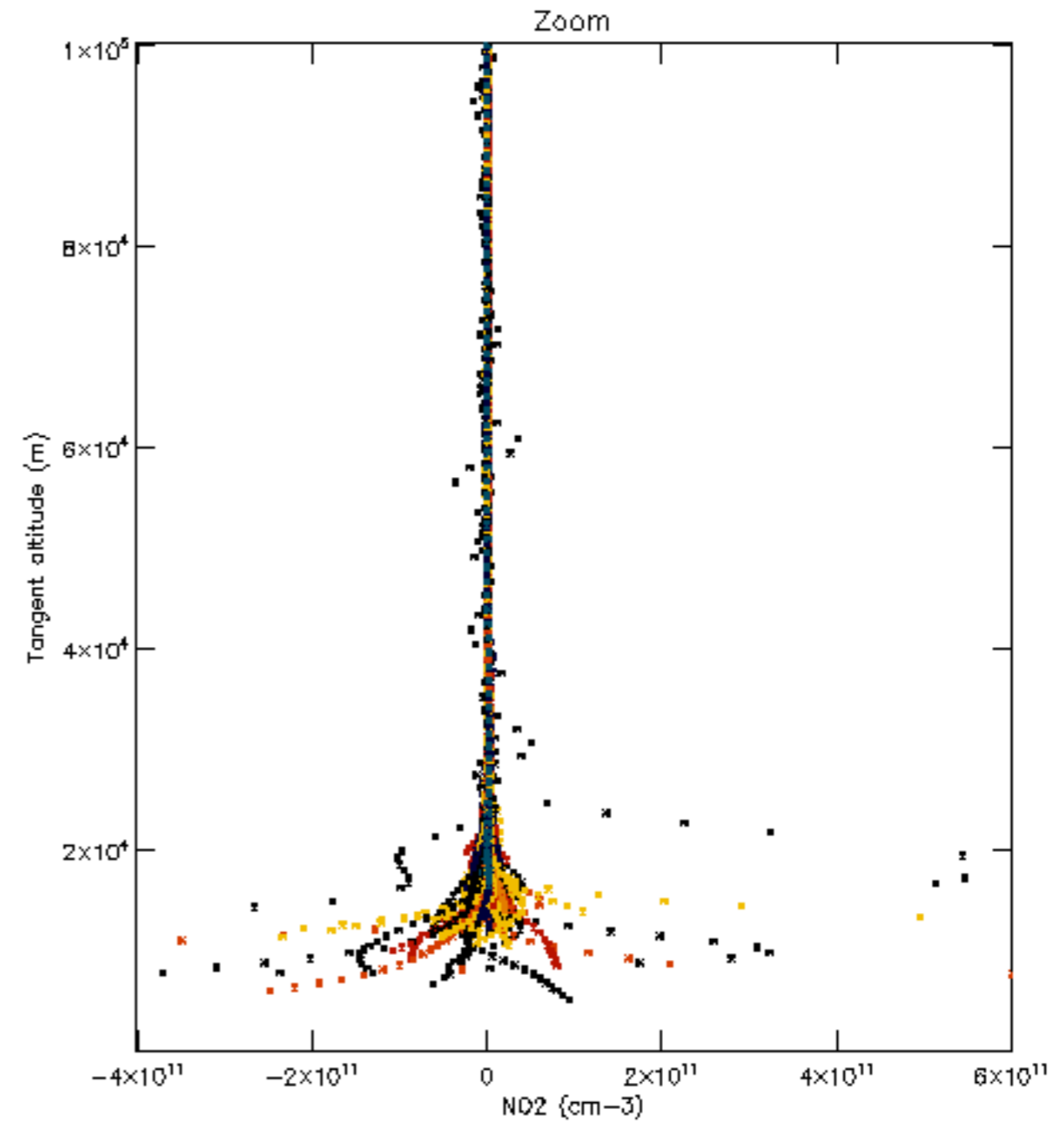
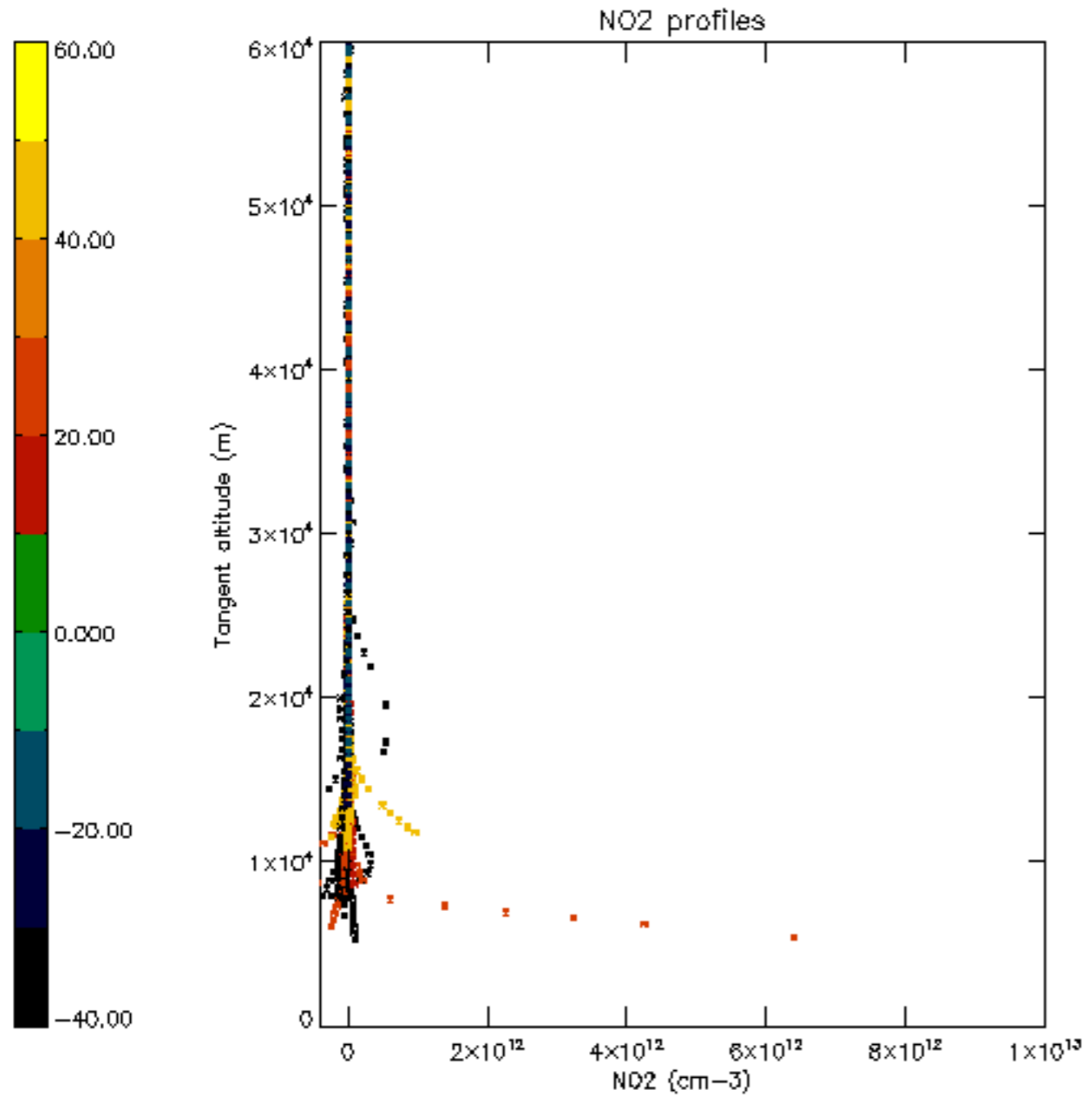


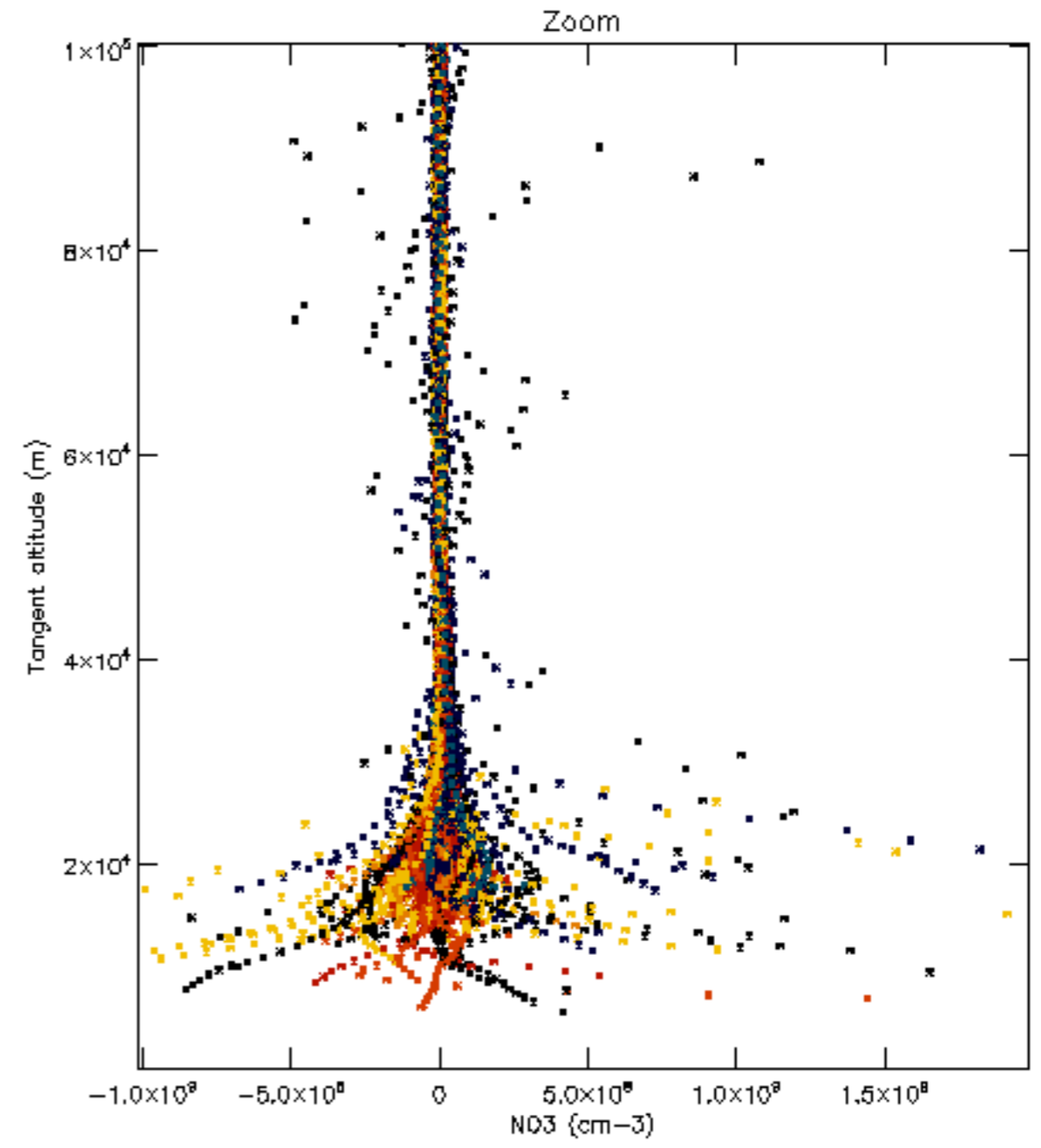
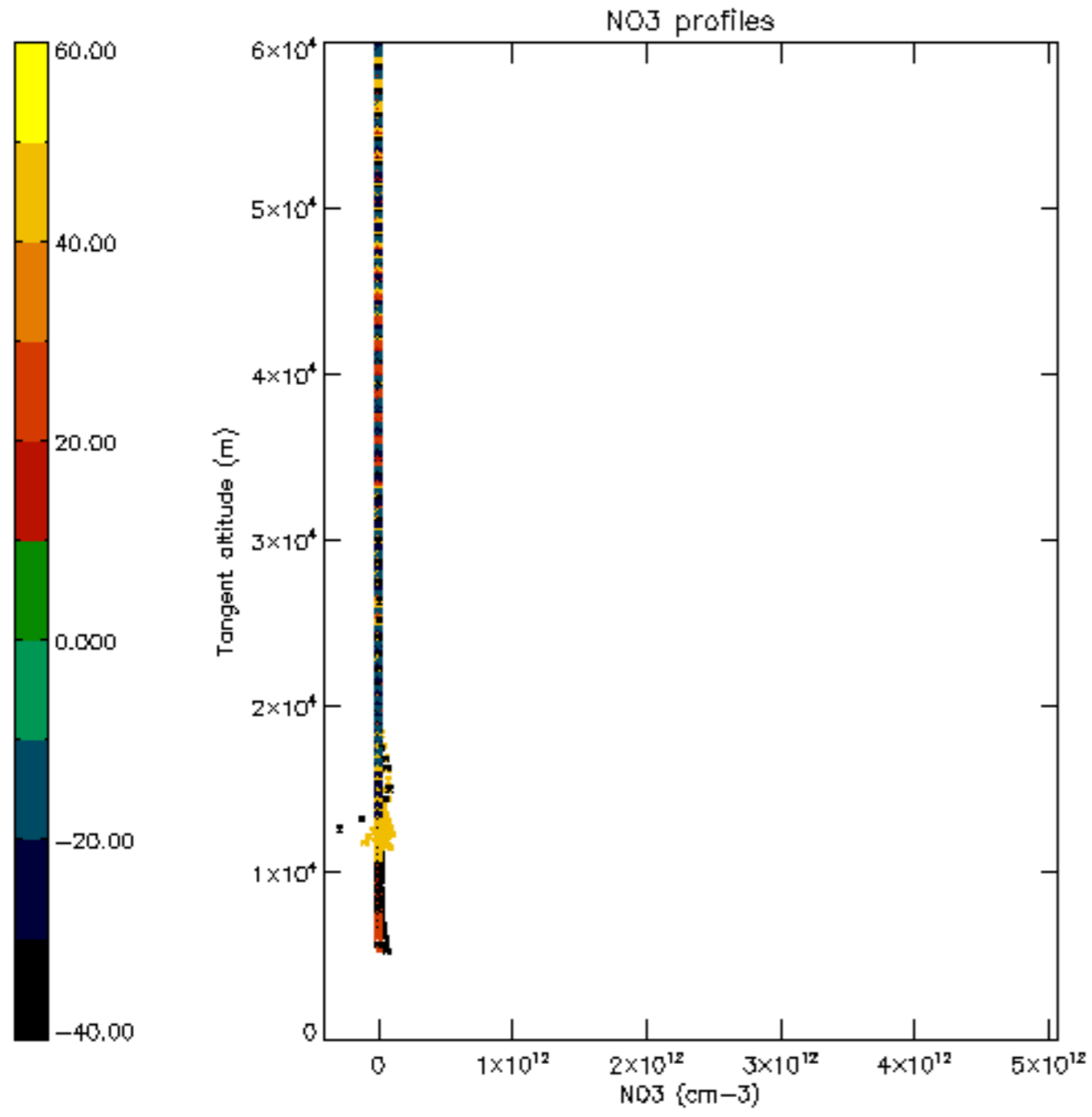


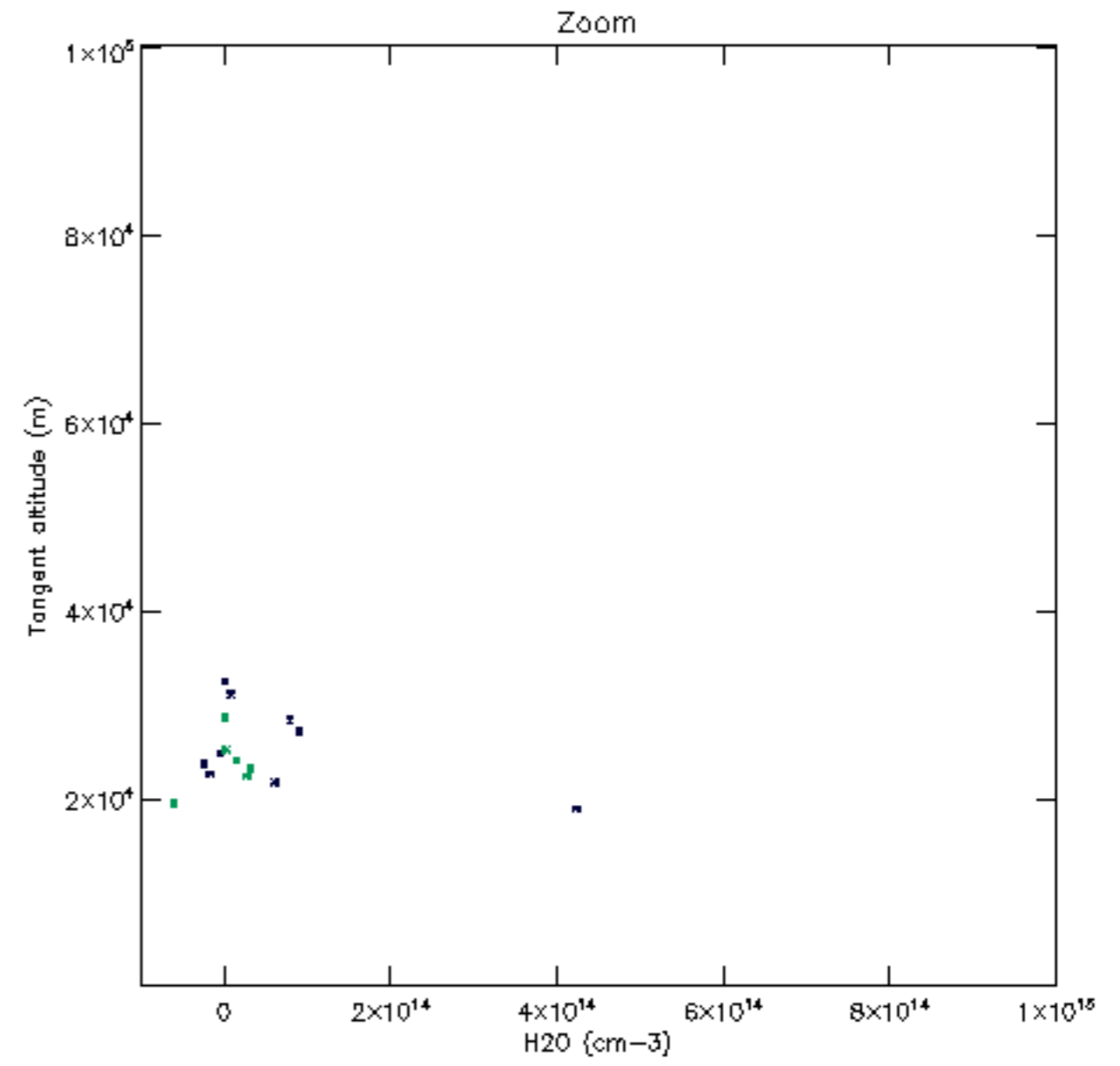
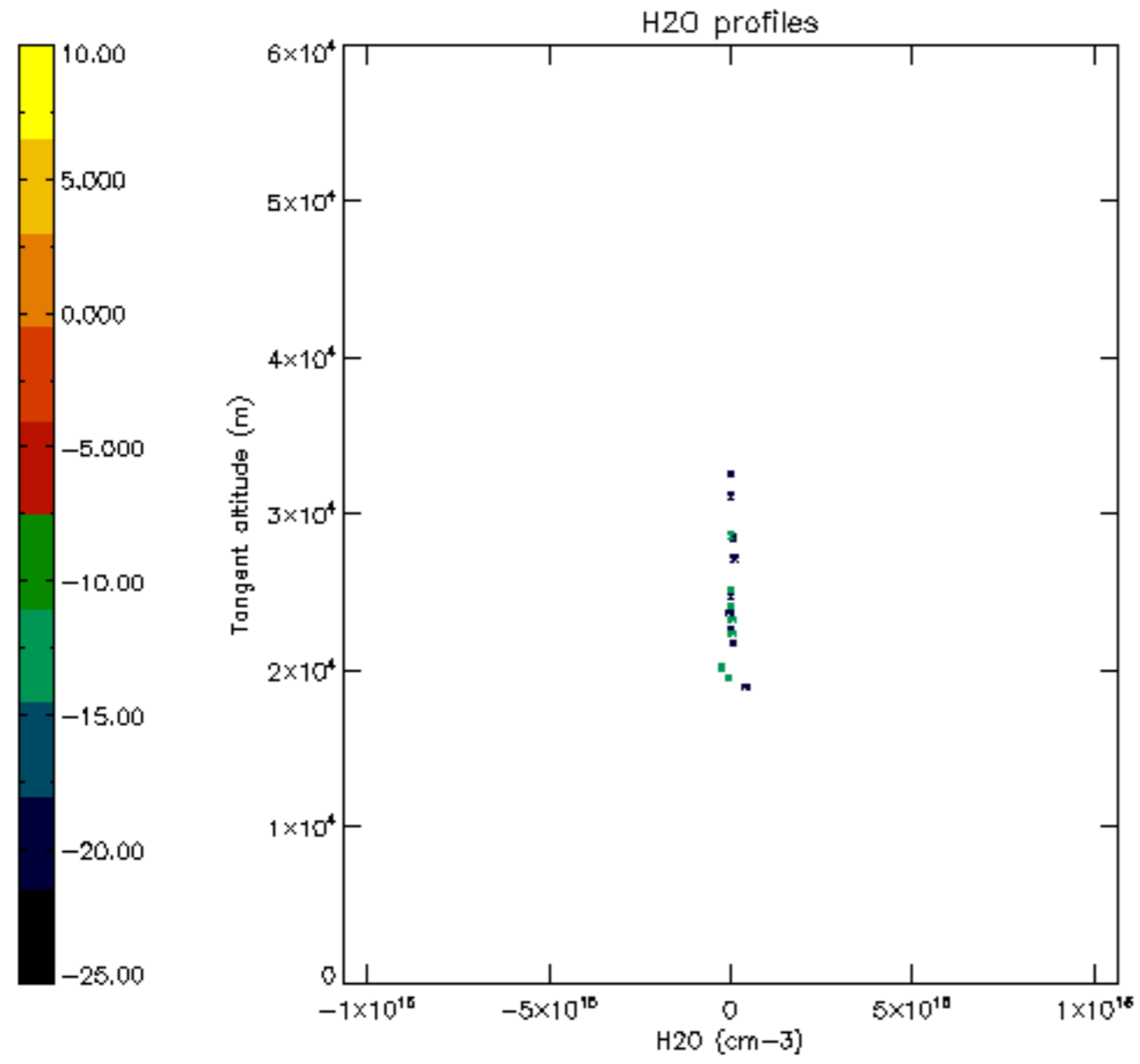


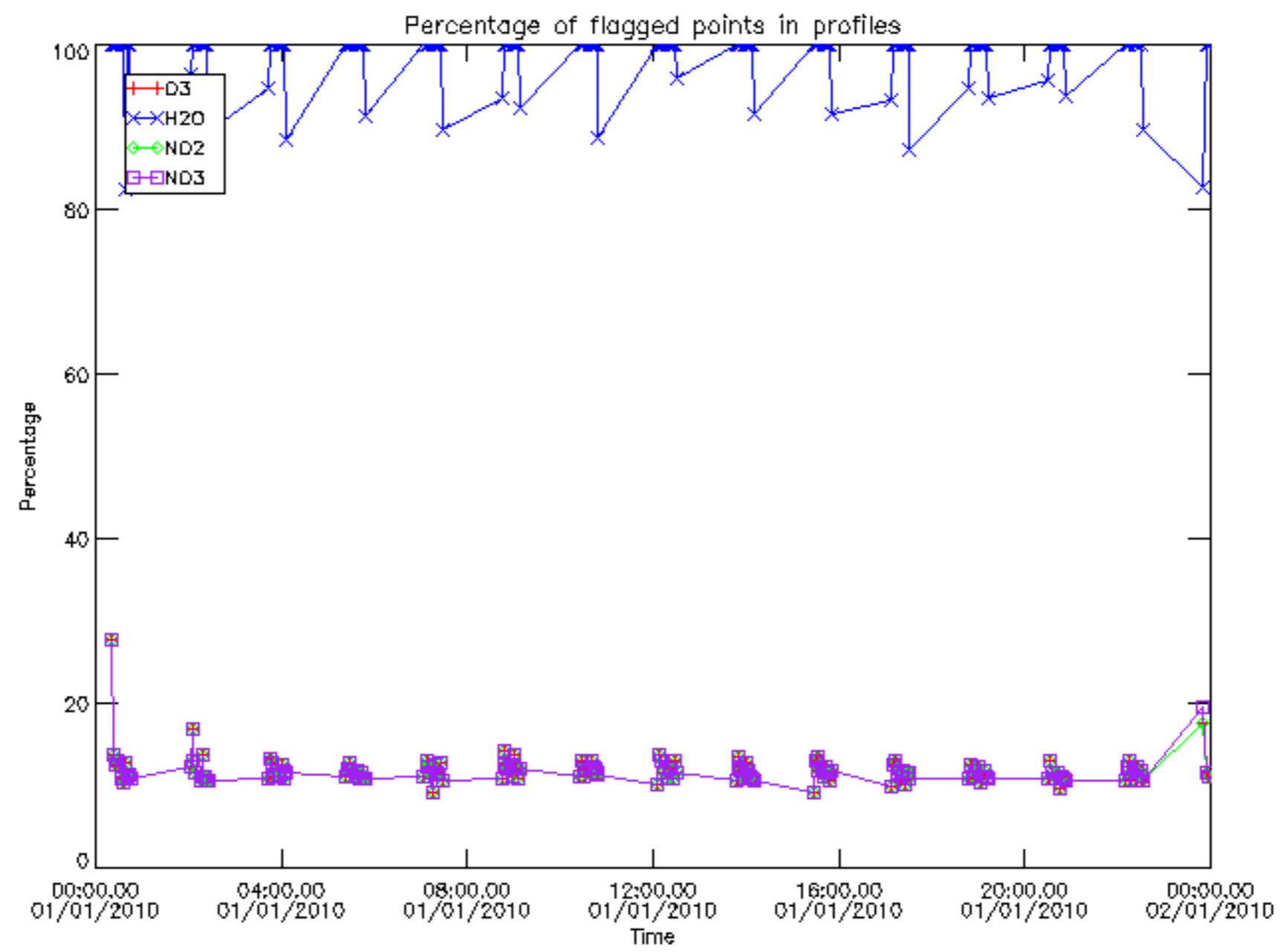




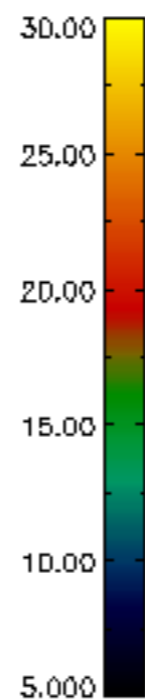
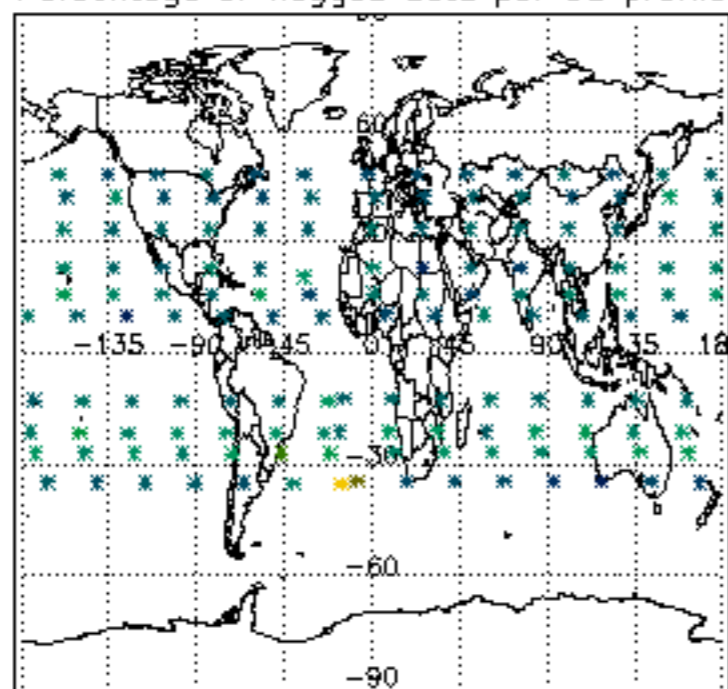




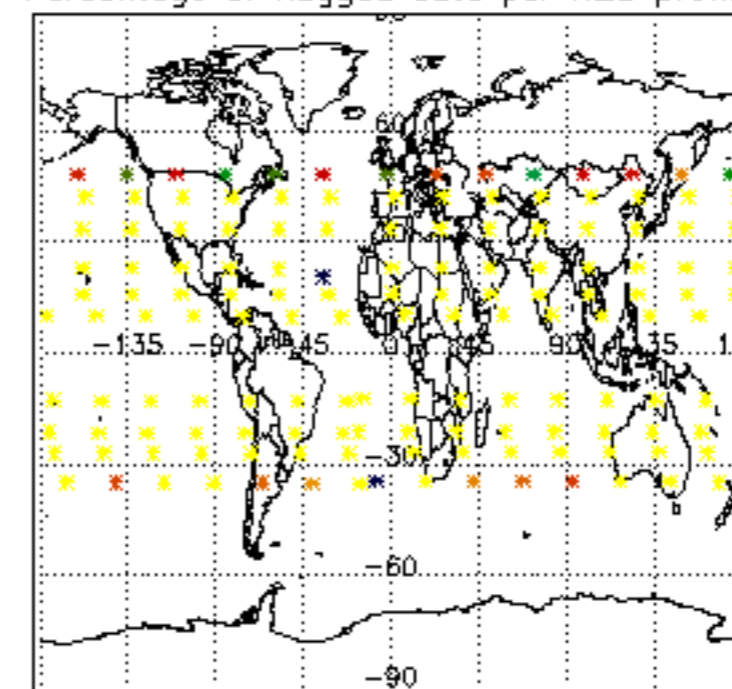




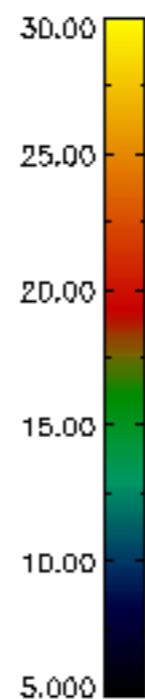
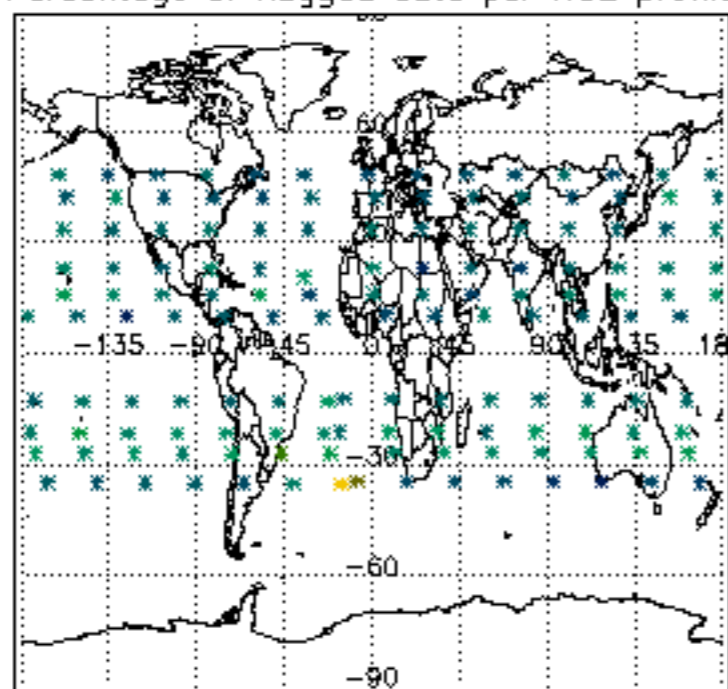
Percentage of flagged data per D3 profile



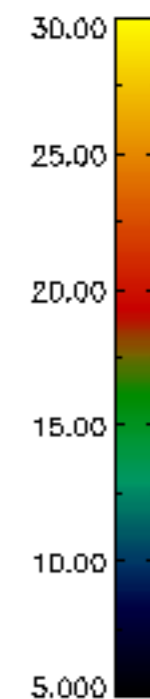
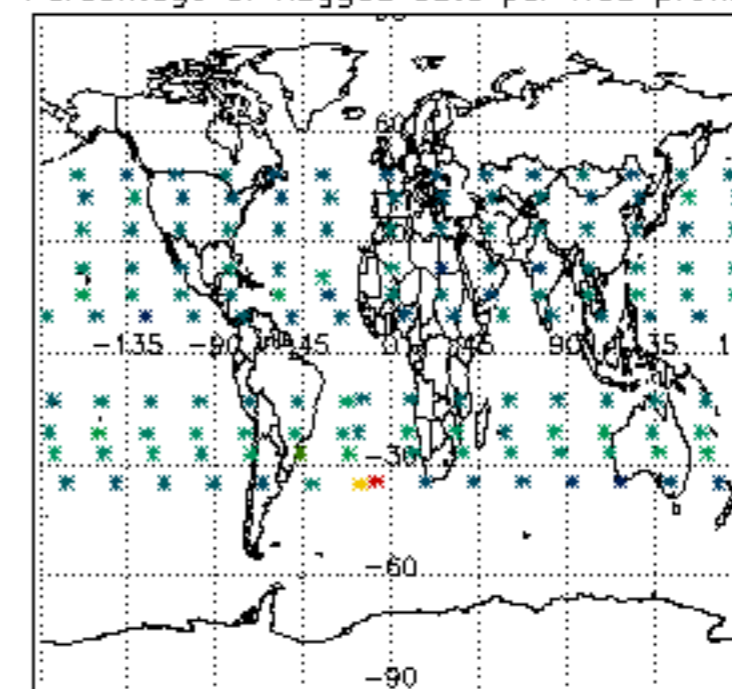
Percentage of flagged data per H2O profile

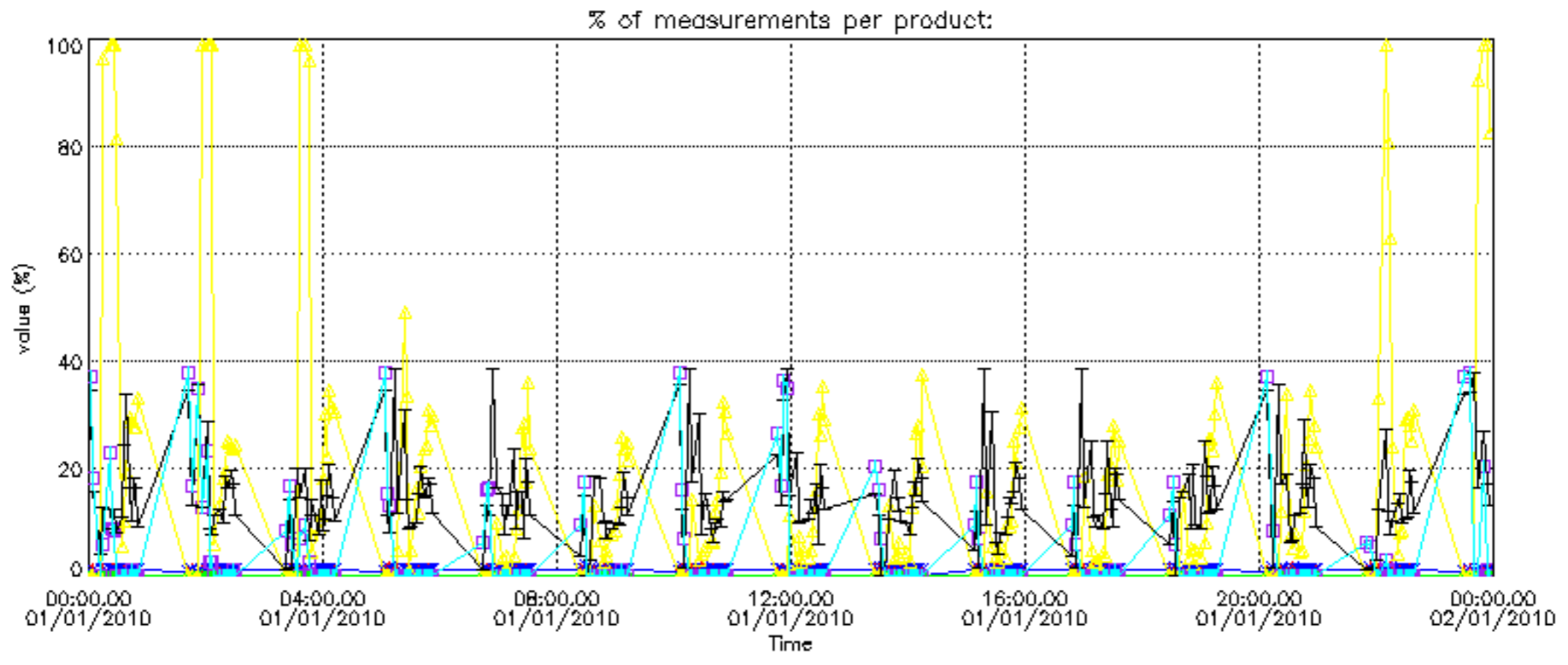


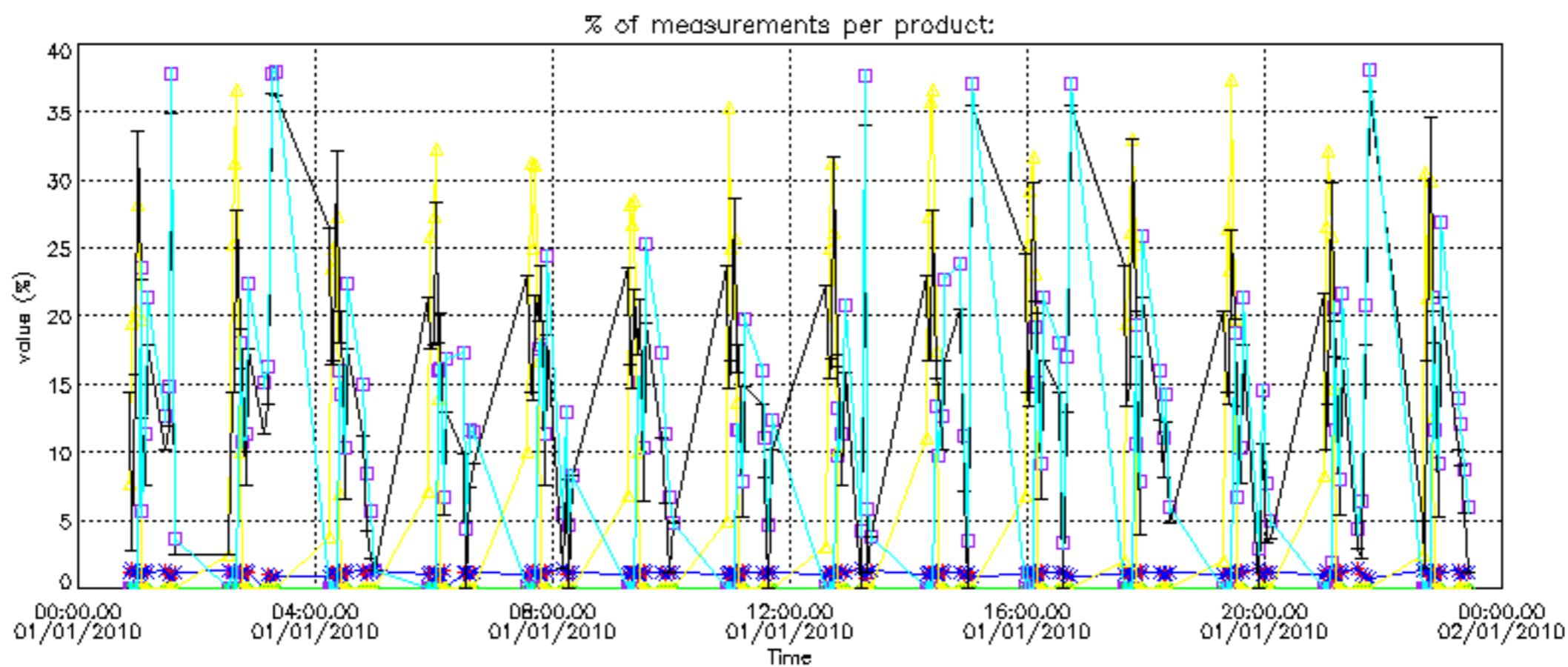
Percentage of flagged data per NO2 profile



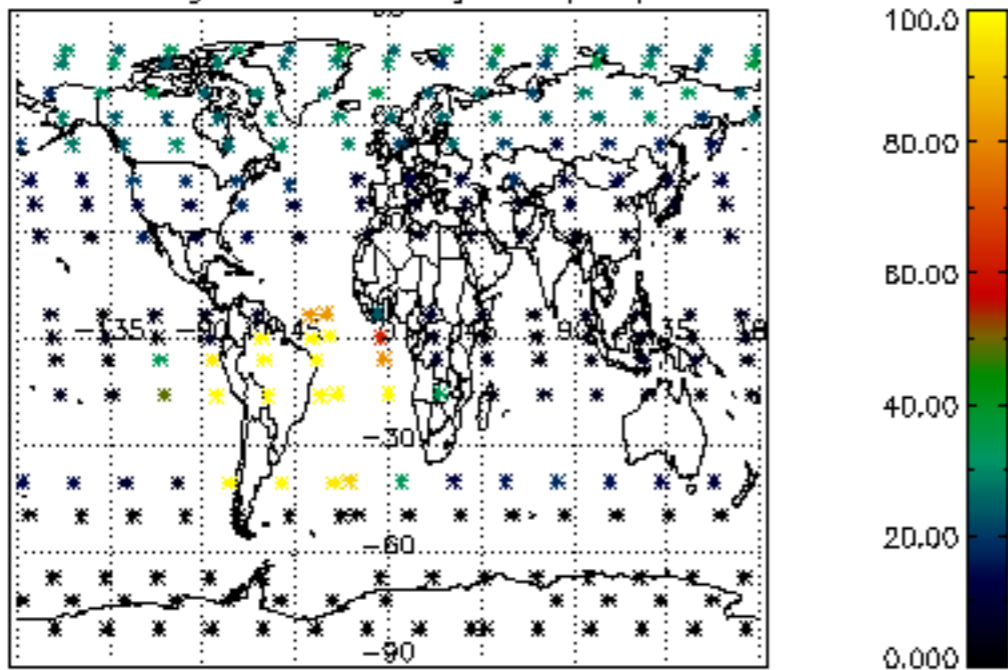
Percentage of flagged data per NO3 profile



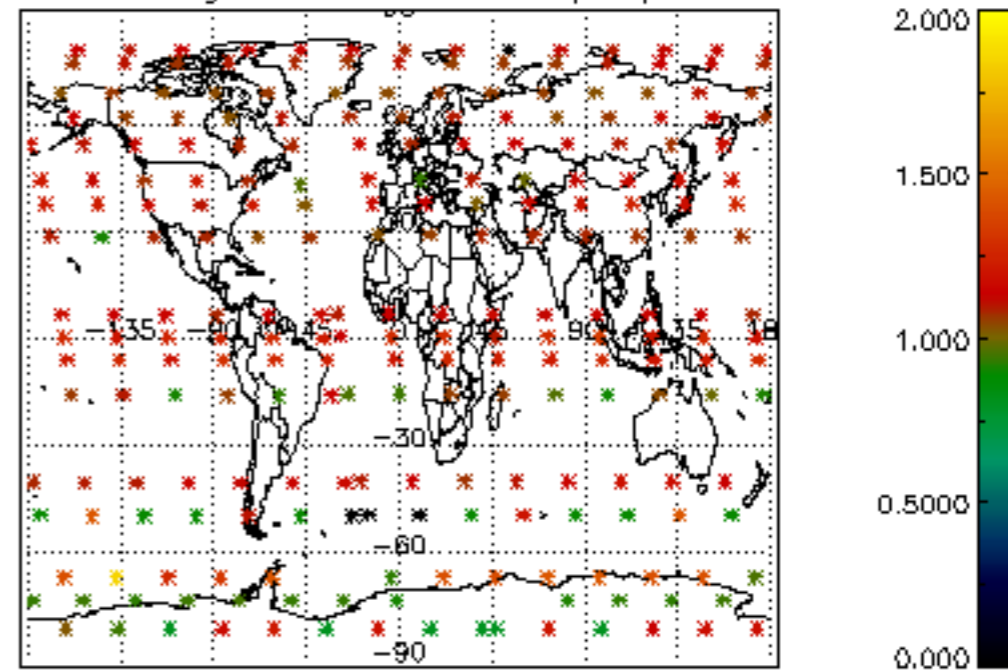




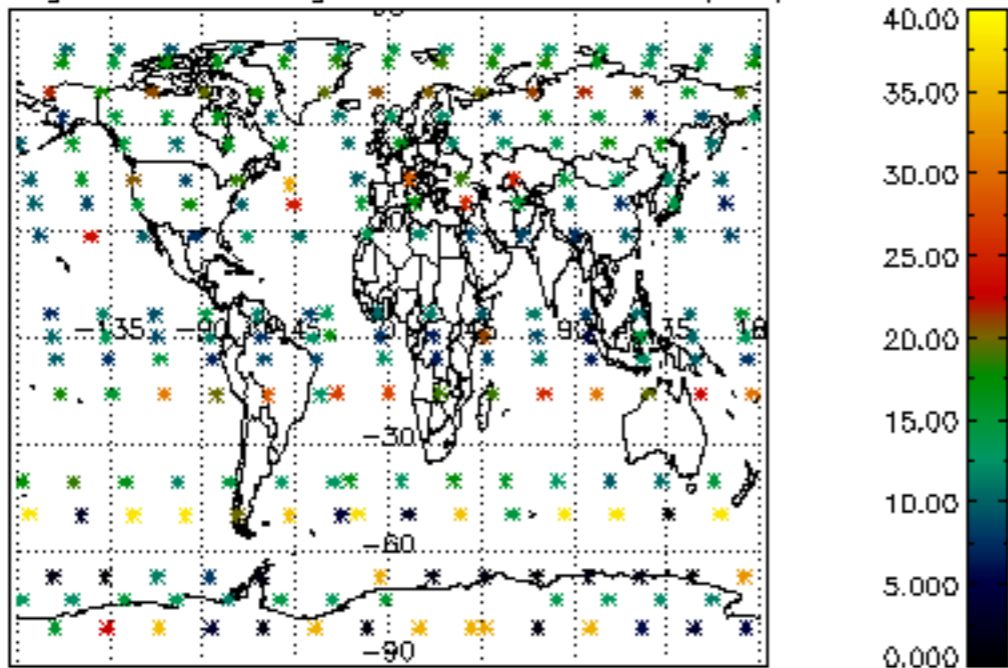
Percentage of cosmic ray hits per profile



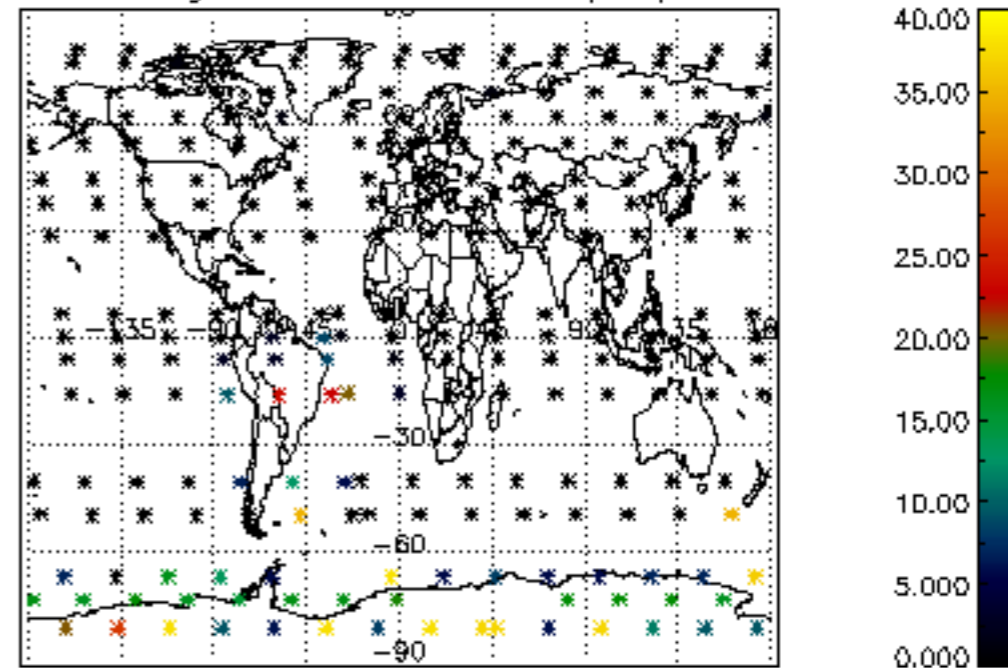
Percentage of datation errors per profile



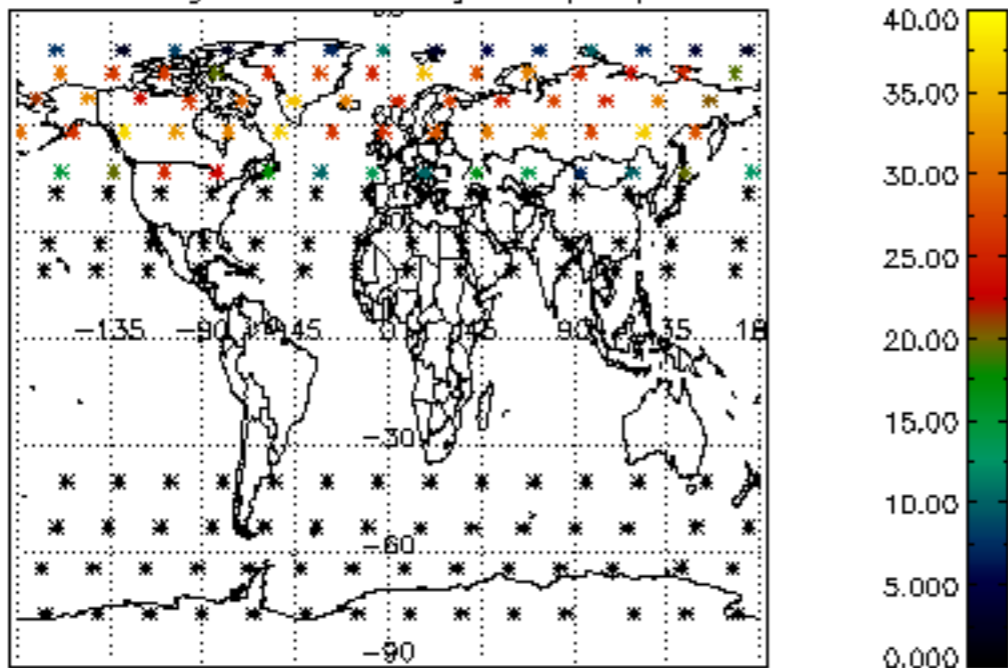
Percentage of star falling outside central band per profile



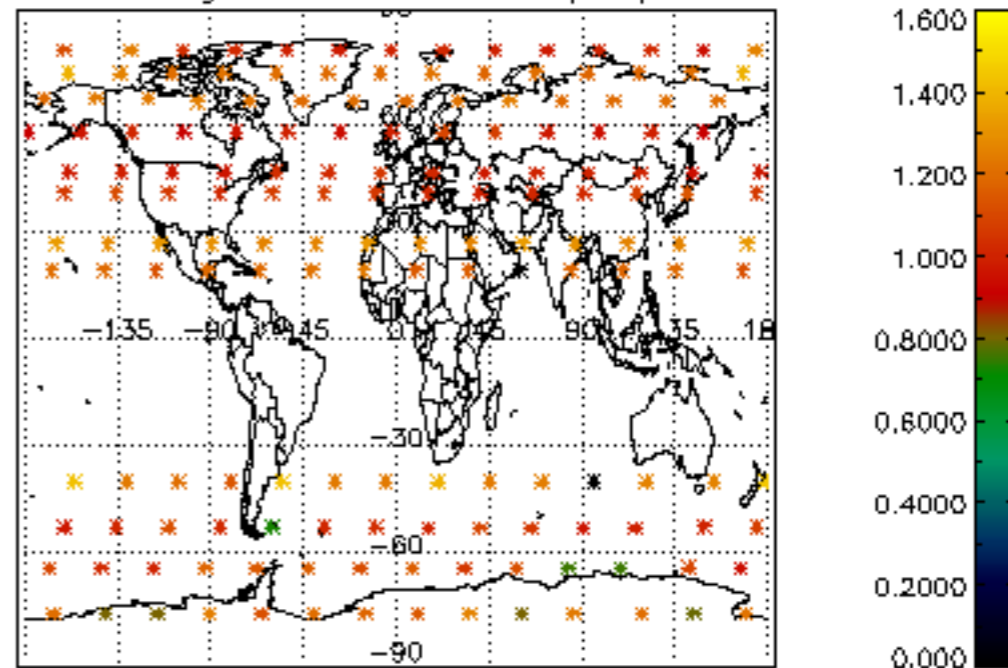
Percentage of saturation errors per profile



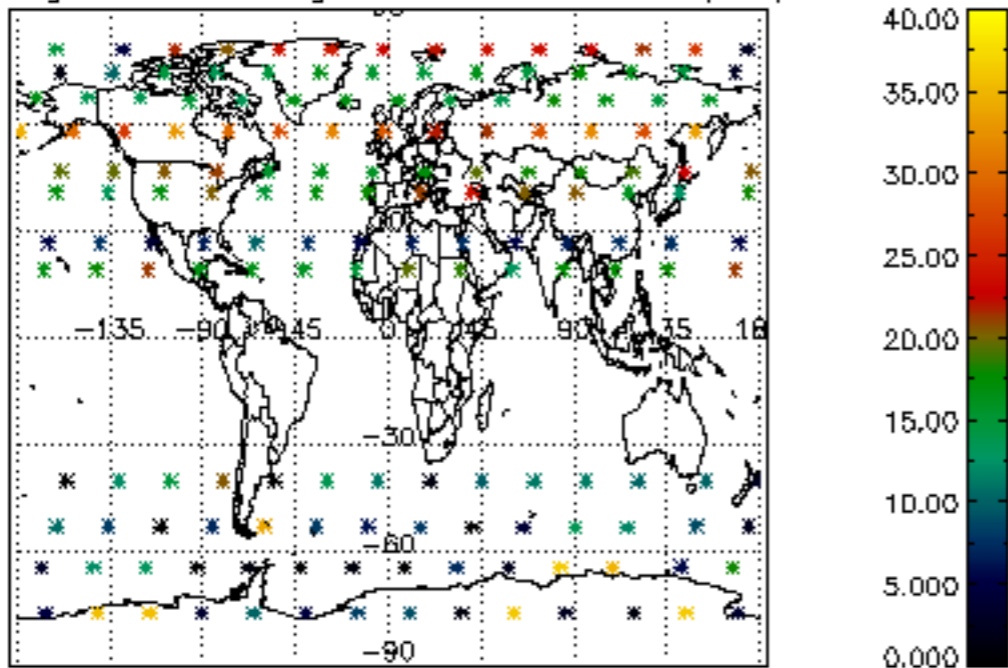
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

