

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 09:33:46
Data source version	GOMOS/6.01
Start time of products	26-01-2008 (26JAN2008 00:00:00)
Stop time of products	27-01-2008 (27JAN2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	361
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

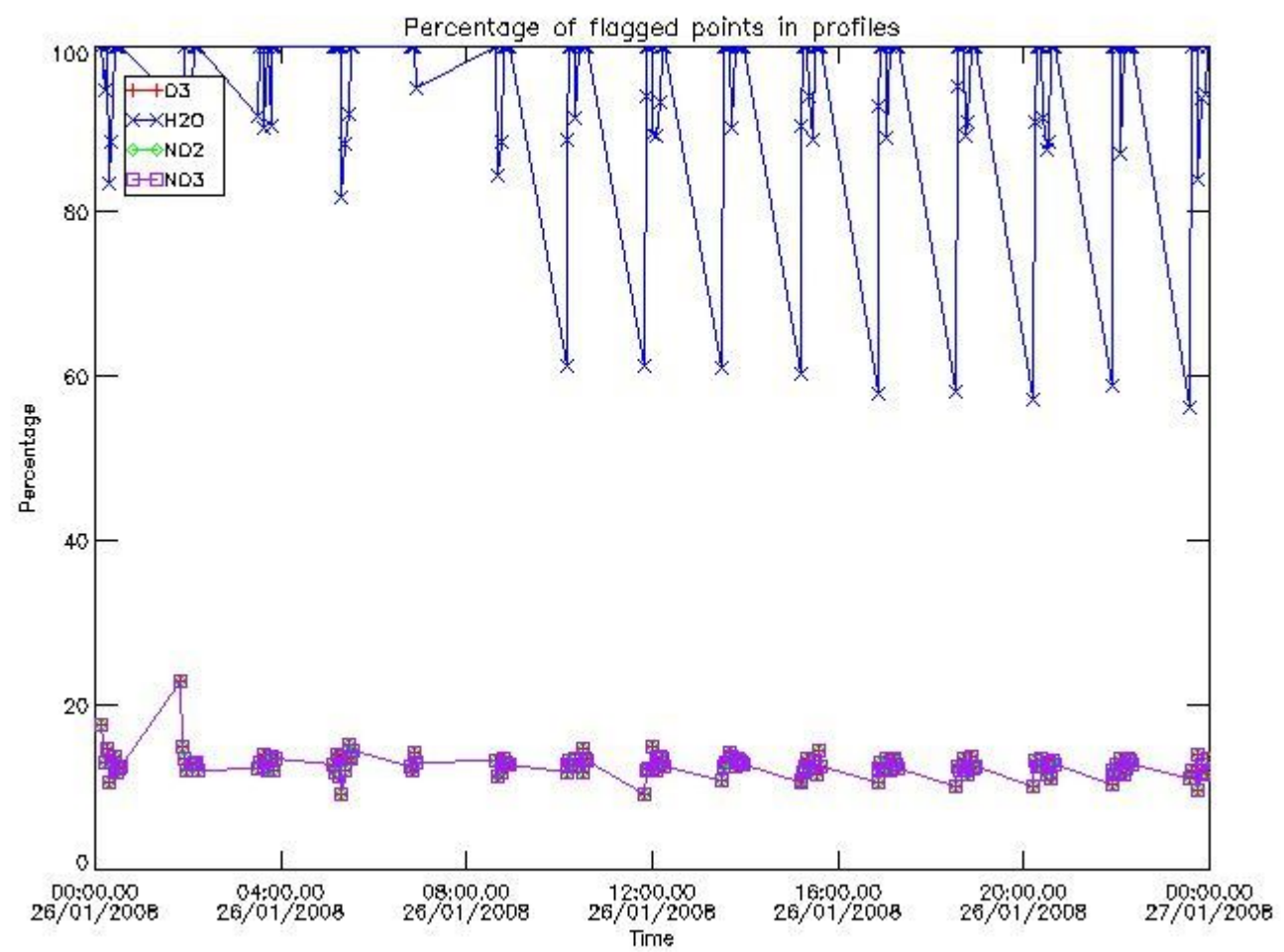
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20080126_000152_000000402065_00259_30874_0866.N1	26-JAN-2008 00:01:52	Bright	39.500	86	35Eta Oph	2.4300	10200.	79	30874	No
2	GOM_NL__2PRFIN20080126_000734_000000392065_00259_30874_0867.N1	26-JAN-2008 00:07:34	Twilight	39.000	85	Kap Sco	2.4070	28000.	78	30874	No
3	GOM_NL__2PRFIN20080126_000842_000000412065_00259_30874_0868.N1	26-JAN-2008 00:08:42	Dark	40.500	40	The Sco	1.8590	7100.0	81	30874	No
4	GOM_NL__2PRFIN20080126_001212_000000392065_00259_30874_0869.N1	26-JAN-2008 00:12:12	Dark	39.000	141	Bet Ara	2.8400	4600.0	78	30874	No
5	GOM_NL__2PRFIN20080126_001534_000000382065_00260_30875_0861.N1	26-JAN-2008 00:15:34	Dark	38.000	134	Bet TrA	2.8100	6600.0	76	30875	No
6	GOM_NL__2PRFIN20080126_001701_000000492065_00260_30875_0862.N1	26-JAN-2008 00:17:01	Dark	48.500	4	Alp1Cen	-0.010000	5800.0	97	30875	No
7	GOM_NL__2PRFIN20080126_002135_000000392065_00260_30875_0863.N1	26-JAN-2008 00:21:35	Dark	39.000	12	Alp1Cru	0.77500	30000.	78	30875	No
8	GOM_NL__2PRFIN20080126_002534_000000372065_00260_30875_0864.N1	26-JAN-2008 00:25:34	Dark	37.000	29	Bet Car	1.6720	10200.	74	30875	No
9	GOM_NL__2PRFIN20080126_002747_000000442065_00260_30875_0865.N1	26-JAN-2008 00:27:47	Dark	43.500	71	lot Car	2.2460	7700.0	87	30875	No
10	GOM_NL__2PRFIN20080126_002935_000000422065_00260_30875_0866.N1	26-JAN-2008 00:29:35	Dark	41.500	46	Del Vel	1.9540	10600.	83	30875	No
11	GOM_NL__2PRFIN20080126_003211_000000412065_00260_30875_0867.N1	26-JAN-2008 00:32:11	Dark	40.500	34	Gam2Vel	1.7930	23000.	81	30875	No
12	GOM_NL__2PRFIN20080126_003417_000000412065_00260_30875_0868.N1	26-JAN-2008 00:34:17	Straylight	40.500	70	Zet Pup	2.2460	39000.	81	30875	No
13	GOM_NL__2PRFIN20080126_003545_000000422065_00260_30875_0869.N1	26-JAN-2008 00:35:45	Straylight	42.000	117	Pi Pup	2.7060	3800.0	84	30875	No
14	GOM_NL__2PRFIN20080126_003813_000000422065_00260_30875_0870.N1	26-JAN-2008 00:38:13	Straylight	41.500	23	21Eps CMa	1.5020	26000.	83	30875	No
15	GOM_NL__2PRFIN20080126_003936_000000392065_00260_30875_0871.N1	26-JAN-2008 00:39:36	Straylight	39.000	179	24Omi2CMa	3.0320	24000.	78	30875	No
16	GOM_NL__2PRFIN20080126_004146_000000412065_00260_30875_0872.N1	26-JAN-2008 00:41:46	Straylight	41.000	1	9Alp CMa	-1.4400	11000.	82	30875	No
17	GOM_NL__2PRFIN20080126_004858_000000522065_00260_30875_0873.N1	26-JAN-2008 00:48:58	Bright	52.000	14	58Alp Ori	0.87000	3000.0	104	30875	No
18	GOM_NL__2PRFIN20080126_005105_000000392065_00260_30875_0874.N1	26-JAN-2008 00:51:05	Bright	39.000	44	24Gam Gem	1.9280	11000.	78	30875	No
19	GOM_NL__2PRFIN20080126_005251_000000382065_00260_30875_0875.N1	26-JAN-2008 00:52:51	Bright	38.000	151	13Mu Gem	2.8900	3000.0	76	30875	No
20	GOM_NL__2PRFIN20080126_005512_000000372065_00260_30875_0876.N1	26-JAN-2008 00:55:12	Bright	37.000	28	12Bet Tau	1.6500	15200.	74	30875	No
21	GOM_NL__2PRFIN20080126_005706_000000352065_00260_30875_0877.N1	26-JAN-2008 00:57:06	Bright	34.500	107	37The Aur	2.6490	11000.	69	30875	No
22	GOM_NL__2PRFIN20080126_005914_000000362065_00260_30875_0878.N1	26-JAN-2008 00:59:14	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	30875	No
23	GOM_NL__2PRFIN20080126_011142_000000342065_00260_30875_0879.N1	26-JAN-2008 01:11:42	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	30875	No
24	GOM_NL__2PRFIN20080126_012241_000000362065_00260_30875_0880.N1	26-JAN-2008 01:22:41	Bright	36.000	130	23Bet Dra	2.7990	5800.0	72	30875	No
25	GOM_NL__2PRFIN20080126_012606_000000362065_00260_30875_0881.N1	26-JAN-2008 01:26:06	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	30875	No
26	GOM_NL__2PRFIN20080126_013408_000000352065_00260_30875_0882.N1	26-JAN-2008 01:34:08	Bright	34.500	59	55Alp Oph	2.0800	8900.0	69	30875	No
27	GOM_NL__2PRFIN20080126_013615_000000342065_00260_30875_0883.N1	26-JAN-2008 01:36:15	Bright	34.000	126	60Bet Oph	2.7700	4250.0	68	30875	No
28	GOM_NL__2PRFIN20080126_014229_000000412065_00260_30875_0884.N1	26-JAN-2008 01:42:29	Bright	41.000	86	35Eta Oph	2.4300	10200.	82	30875	No
29	GOM_NL__2PRFIN20080126_014810_000000382065_00260_30875_0885.N1	26-JAN-2008 01:48:10	Twilight	38.000	85	Kap Sco	2.4070	28000.	76	30875	No
30	GOM_NL__2PRFIN20080126_014918_000000402065_00260_30875_0886.N1	26-JAN-2008 01:49:18	Dark	40.000	40	The Sco	1.8590	7100.0	80	30875	No
31	GOM_NL__2PRFIN20080126_015248_000000382065_00260_30875_0887.N1	26-JAN-2008 01:52:48	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	30875	No
32	GOM_NL__2PRFIN20080126_015610_000000382065_00261_30876_0870.N1	26-JAN-2008 01:56:10	Dark	38.000	134	Bet TrA	2.8100	6600.0	76	30876	No
33	GOM_NL__2PRFIN20080126_015737_000000432065_00261_30876_0871.N1	26-JAN-2008 01:57:37	Dark	42.500	4	Alp1Cen	-0.010000	5800.0	85	30876	No
34	GOM_NL__2PRFIN20080126_020212_000000402065_00261_30876_0872.N1	26-JAN-2008 02:02:12	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	30876	No
35	GOM_NL__2PRFIN20080126_020610_000000402065_00261_30876_0873.N1	26-JAN-2008 02:06:10	Dark	40.000	29	Bet Car	1.6720	10200.	80	30876	No
36	GOM_NL__2PRFIN20080126_020823_000000392065_00261_30876_0874.N1	26-JAN-2008 02:08:23	Dark	39.000	71	lot Car	2.2460	7700.0	78	30876	No
37	GOM_NL__2PRFIN20080126_021011_000000402065_00261_30876_0875.N1	26-JAN-2008 02:10:11	Dark	39.500	46	Del Vel	1.9540	10600.	79	30876	No
38	GOM_NL__2PRFIN20080126_021247_000000422065_00261_30876_0876.N1	26-JAN-2008 02:12:47	Dark	42.000	34	Gam2Vel	1.7930	23000.	84	30876	No
39	GOM_NL__2PRFIN20080126_021453_000000402065_00261_30876_0877.N1	26-JAN-2008 02:14:53	Straylight	40.000	70	Zet Pup	2.2460	39000.	80	30876	No
40	GOM_NL__2PRFIN20080126_021622_000000442065_00261_30876_0878.N1	26-JAN-2008 02:16:22	Straylight	44.000	117	Pi Pup	2.7060	3800.0	88	30876	No
41	GOM_NL__2PRFIN20080126_021849_000000412065_00261_30876_0879.N1	26-JAN-2008 02:18:49	Straylight	40.500	23	21Eps CMa	1.5020	26000.	81	30876	No
42	GOM_NL__2PRFIN20080126_022012_000000382065_00261_30876_0880.N1	26-JAN-2008 02:20:12	Straylight	37.500	179	24Omi2CMa	3.0320	24000.	75	30876	No

338	GOM_NL__2PRFIN20080126_222208_000000382065_00273_30888_1076.N1	26-JAN-2008 22:22:08	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	30888	No
339	GOM_NL__2PRFIN20080126_222335_000000392065_00273_30888_1077.N1	26-JAN-2008 22:23:35	Straylight	39.000	117	Pi Pup	2.7060	3800.0	78	30888	No
340	GOM_NL__2PRFIN20080126_222603_000000412065_00273_30888_1078.N1	26-JAN-2008 22:26:03	Straylight	40.500	23	21Eps CMa	1.5020	26000.	81	30888	No
341	GOM_NL__2PRFIN20080126_222726_000000382065_00273_30888_1079.N1	26-JAN-2008 22:27:26	Straylight	38.000	179	24Omi2CMa	3.0320	24000.	76	30888	No
342	GOM_NL__2PRFIN20080126_222935_000000472065_00273_30888_1080.N1	26-JAN-2008 22:29:35	Straylight	47.000	1	9Alp CMa	-1.4400	11000.	94	30888	No
343	GOM_NL__2PRFIN20080126_223630_000000422065_00273_30888_1081.N1	26-JAN-2008 22:36:30	Twilight_stray	41.500	153	3Bet CMi	2.8940	13100.	83	30888	No
344	GOM_NL__2PRFIN20080126_223853_000000372065_00273_30888_1082.N1	26-JAN-2008 22:38:53	Bright	36.500	44	24Gam Gem	1.9280	11000.	73	30888	No
345	GOM_NL__2PRFIN20080126_224040_000000372065_00273_30888_1083.N1	26-JAN-2008 22:40:40	Bright	37.000	151	13Mu Gem	2.8900	3000.0	74	30888	No
346	GOM_NL__2PRFIN20080126_224455_000000352065_00273_30888_1084.N1	26-JAN-2008 22:44:55	Bright	34.500	107	37The Aur	2.6490	11000.	69	30888	No
347	GOM_NL__2PRFIN20080126_224702_000000362065_00273_30888_1085.N1	26-JAN-2008 22:47:02	Bright	36.000	42	34Bet Aur	1.9000	10200.	72	30888	No
348	GOM_NL__2PRFIN20080126_225929_000000372065_00273_30888_1086.N1	26-JAN-2008 22:59:29	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	30888	No
349	GOM_NL__2PRFIN20080126_231029_000000342065_00273_30888_1087.N1	26-JAN-2008 23:10:29	Bright	34.000	130	23Bet Dra	2.7990	5800.0	68	30888	No
350	GOM_NL__2PRFIN20080126_231356_000000342065_00273_30888_1088.N1	26-JAN-2008 23:13:56	Bright	33.500	5	3Alp Lyr	0.033000	11000.	67	30888	No
351	GOM_NL__2PRFIN20080126_232159_000000362065_00273_30888_1089.N1	26-JAN-2008 23:21:59	Bright	36.000	59	55Alp Oph	2.0800	8900.0	72	30888	No
352	GOM_NL__2PRFIN20080126_232405_000000342065_00273_30888_1090.N1	26-JAN-2008 23:24:05	Bright	34.000	126	60Bet Oph	2.7700	4250.0	68	30888	No
353	GOM_NL__2PRFIN20080126_233021_000000432065_00273_30888_1091.N1	26-JAN-2008 23:30:21	Twilight_stray	42.500	86	35Eta Oph	2.4300	10200.	85	30888	No
354	GOM_NL__2PRFIN20080126_233425_000000512065_00273_30888_1092.N1	26-JAN-2008 23:34:25	Dark	50.500	16	21Alp Sco	1.0200	3000.0	101	30888	No
355	GOM_NL__2PRFIN20080126_233547_000000432065_00273_30888_1093.N1	26-JAN-2008 23:35:47	Dark	42.500	75	26Eps Sco	2.2910	4250.0	85	30888	No
356	GOM_NL__2PRFIN20080126_234402_000000372065_00274_30889_1085.N1	26-JAN-2008 23:44:02	Dark	36.500	134	Bet TrA	2.8100	6600.0	73	30889	No
357	GOM_NL__2PRFIN20080126_234531_000000532065_00274_30889_1086.N1	26-JAN-2008 23:45:31	Dark	53.000	4	Alp1Cen	-0.010000	5800.0	106	30889	No
358	GOM_NL__2PRFIN20080126_235006_000000402065_00274_30889_1087.N1	26-JAN-2008 23:50:06	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	30889	No
359	GOM_NL__2PRFIN20080126_235401_000000452065_00274_30889_1088.N1	26-JAN-2008 23:54:01	Dark	44.500	29	Bet Car	1.6720	10200.	89	30889	No
360	GOM_NL__2PRFIN20080126_235615_000000382065_00274_30889_1089.N1	26-JAN-2008 23:56:15	Dark	38.000	71	lot Car	2.2460	7700.0	76	30889	No
361	GOM_NL__2PRFIN20080126_235802_000000432065_00274_30889_1090.N1	26-JAN-2008 23:58:02	Dark	43.000	46	Del Vel	1.9540	10600.	86	30889	No

3. Quality information per product

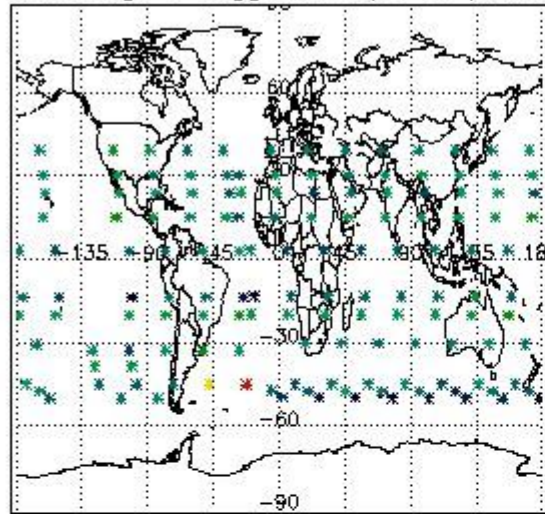
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

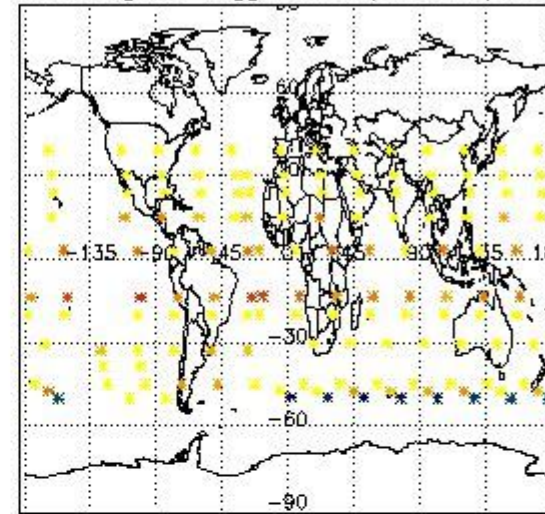


3.2 Plot quality information per product (world map)

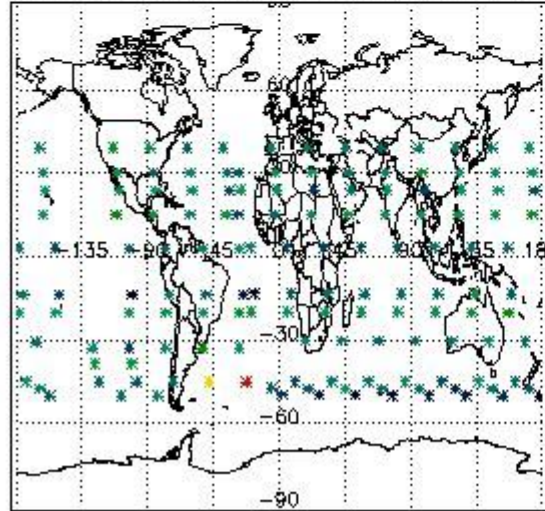
Percentage of flagged data per O3 profile



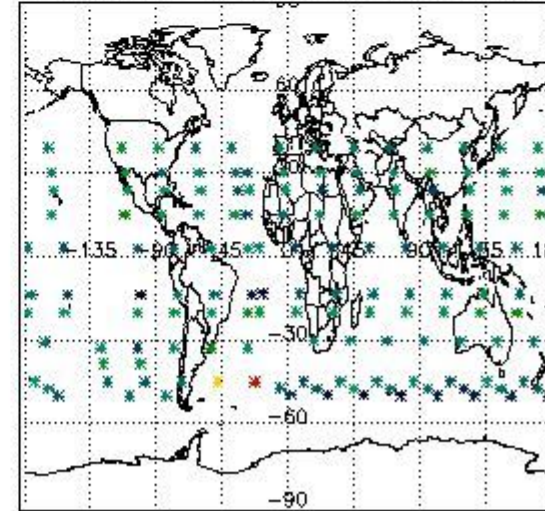
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

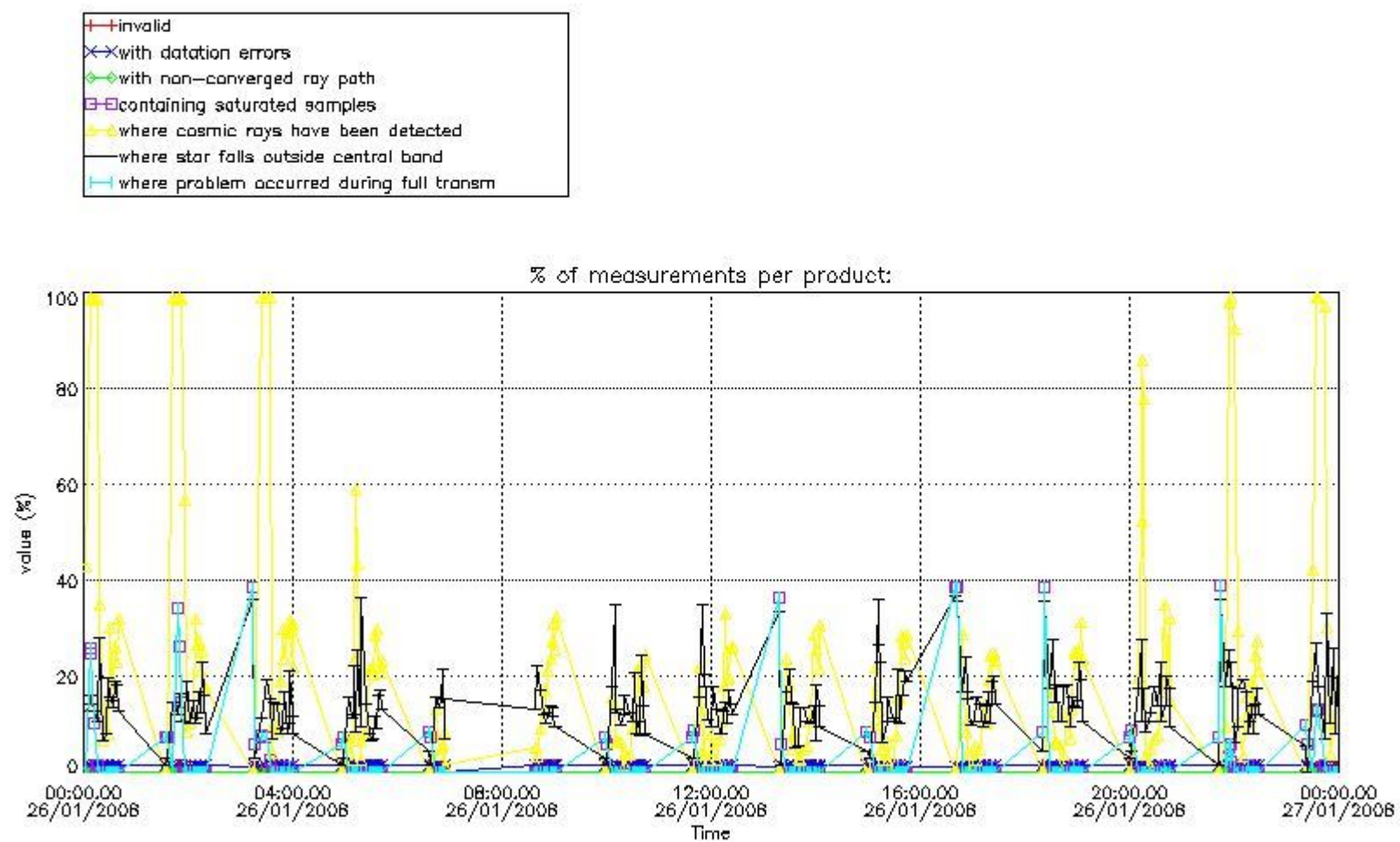


4. Level 1 quality information per product

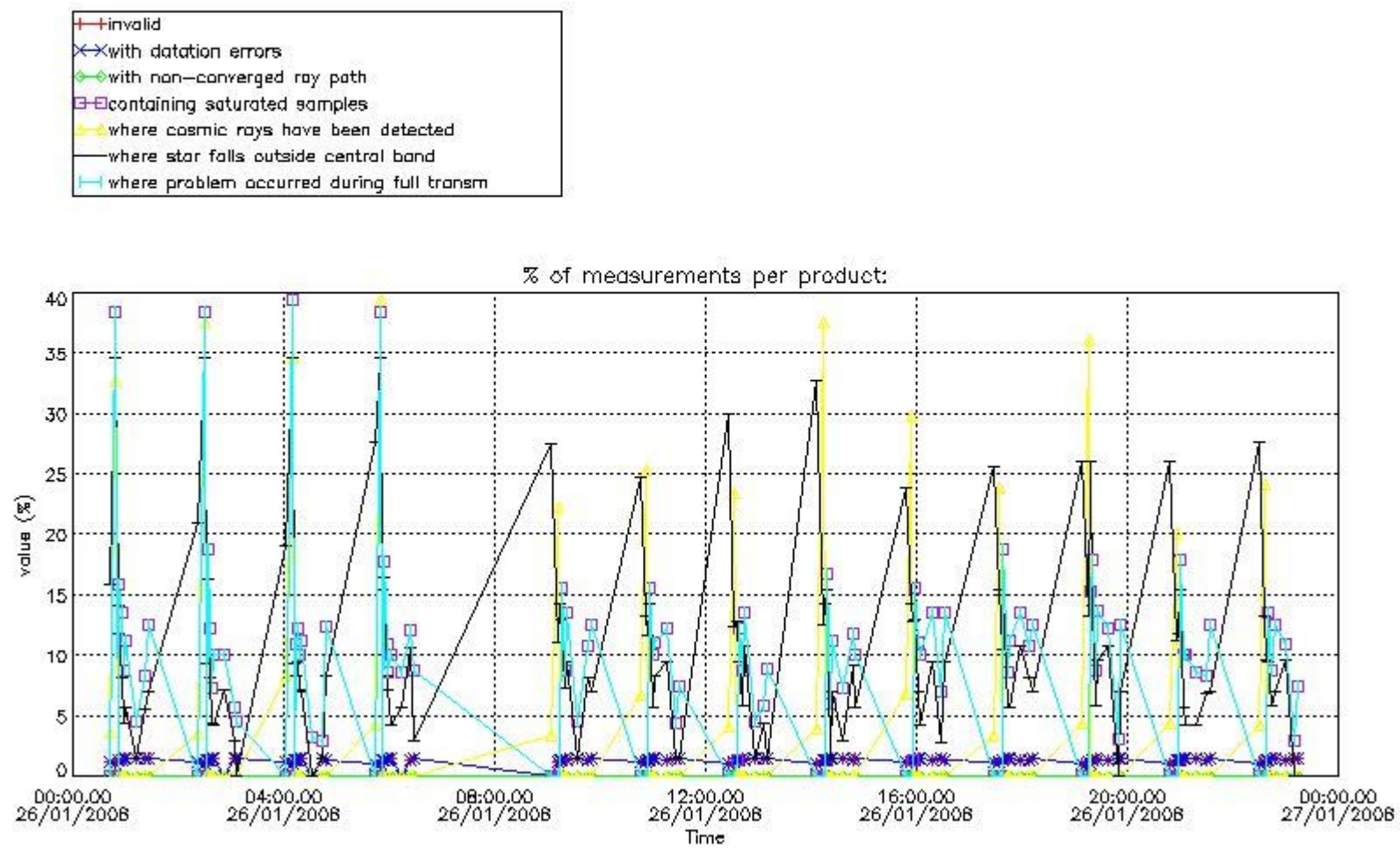
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



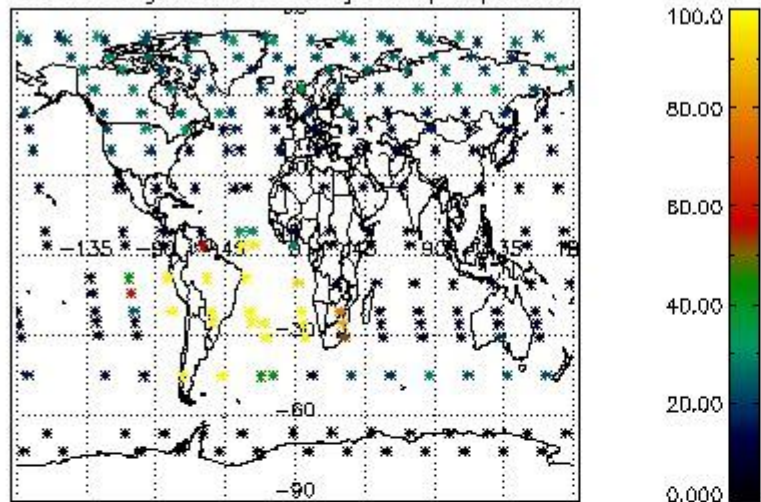
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



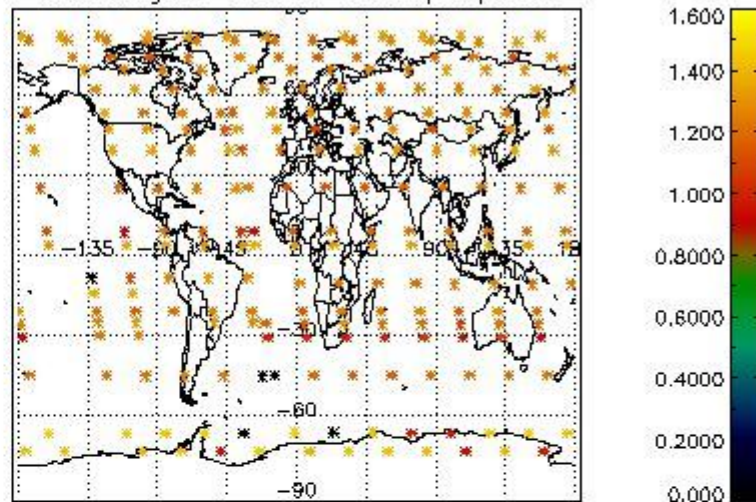
4.2 Plot quality information per product coming from level 1b processing (world map)

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

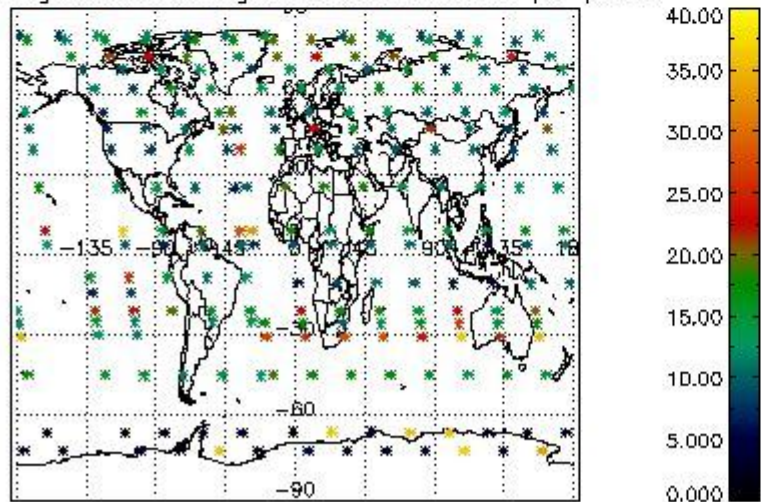
Percentage of cosmic ray hits per profile



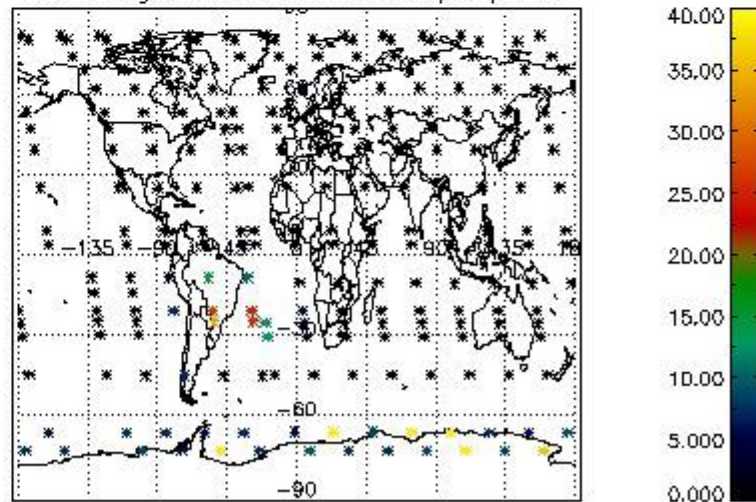
Percentage of datation errors per profile



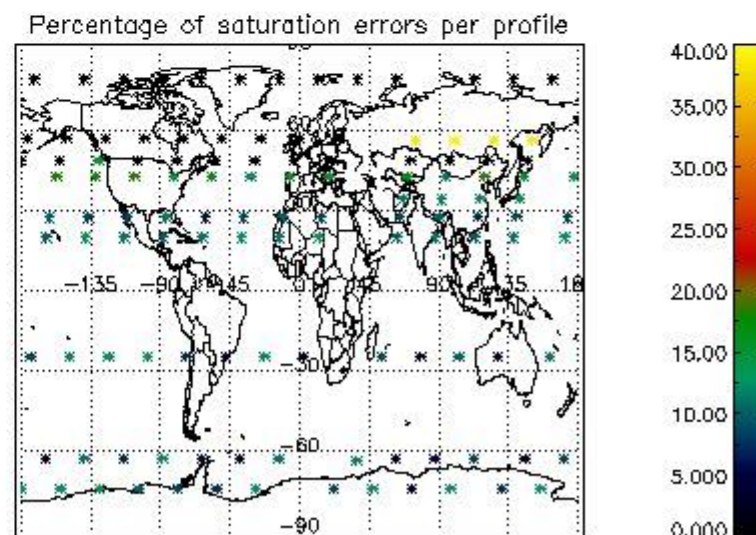
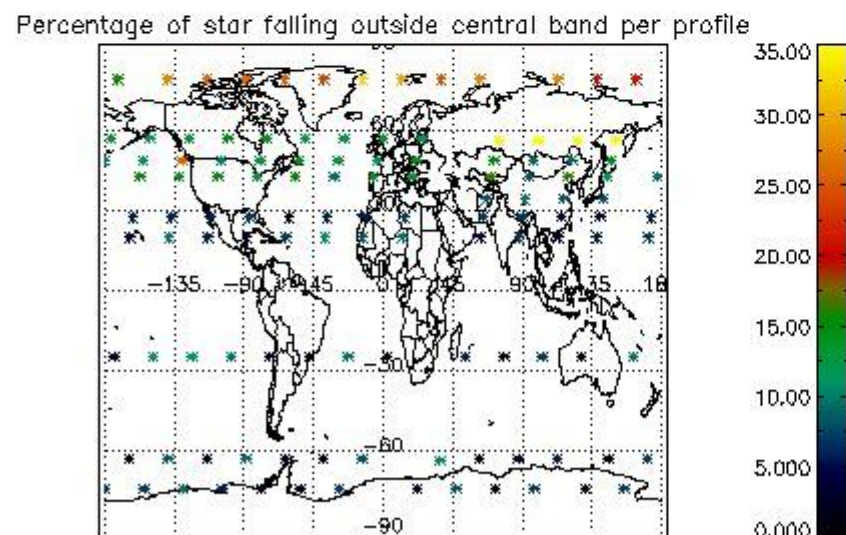
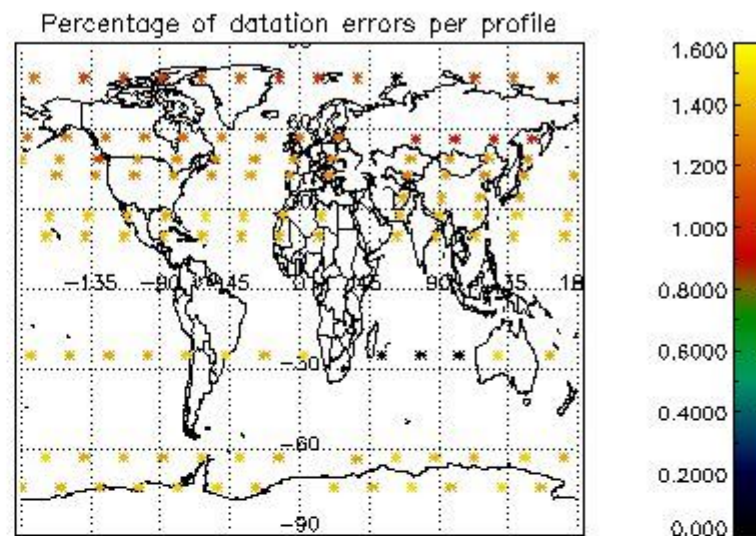
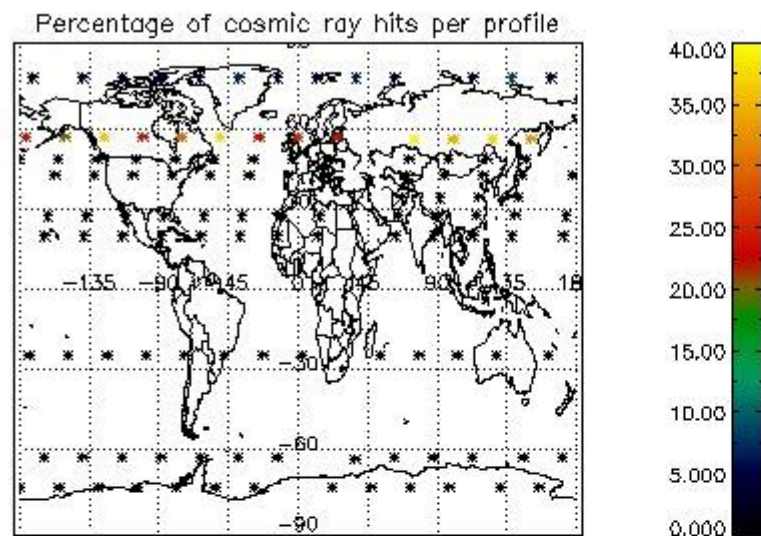
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

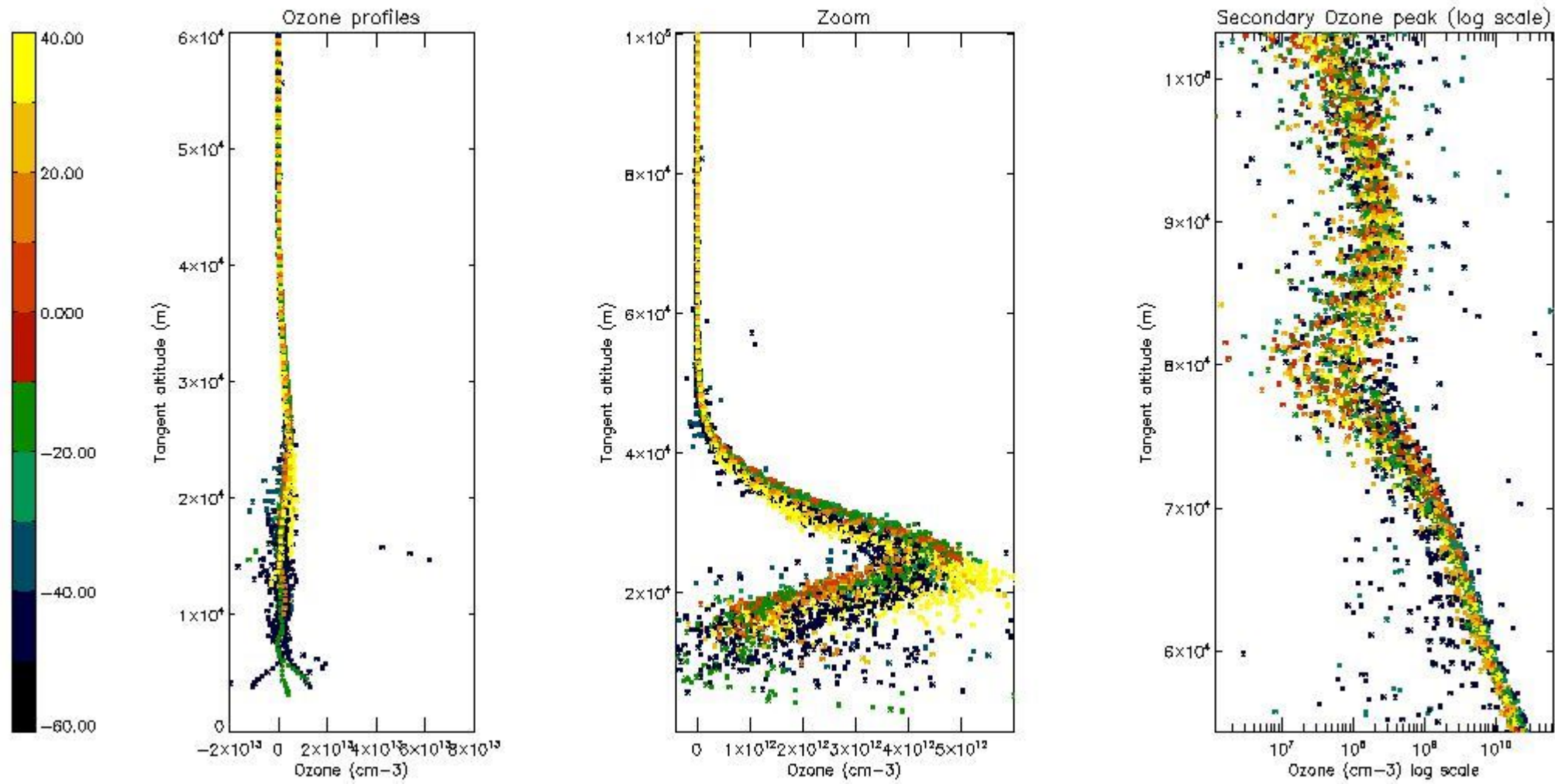
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	42
STD < 20	23

STD < 10	17
STD < 5	11

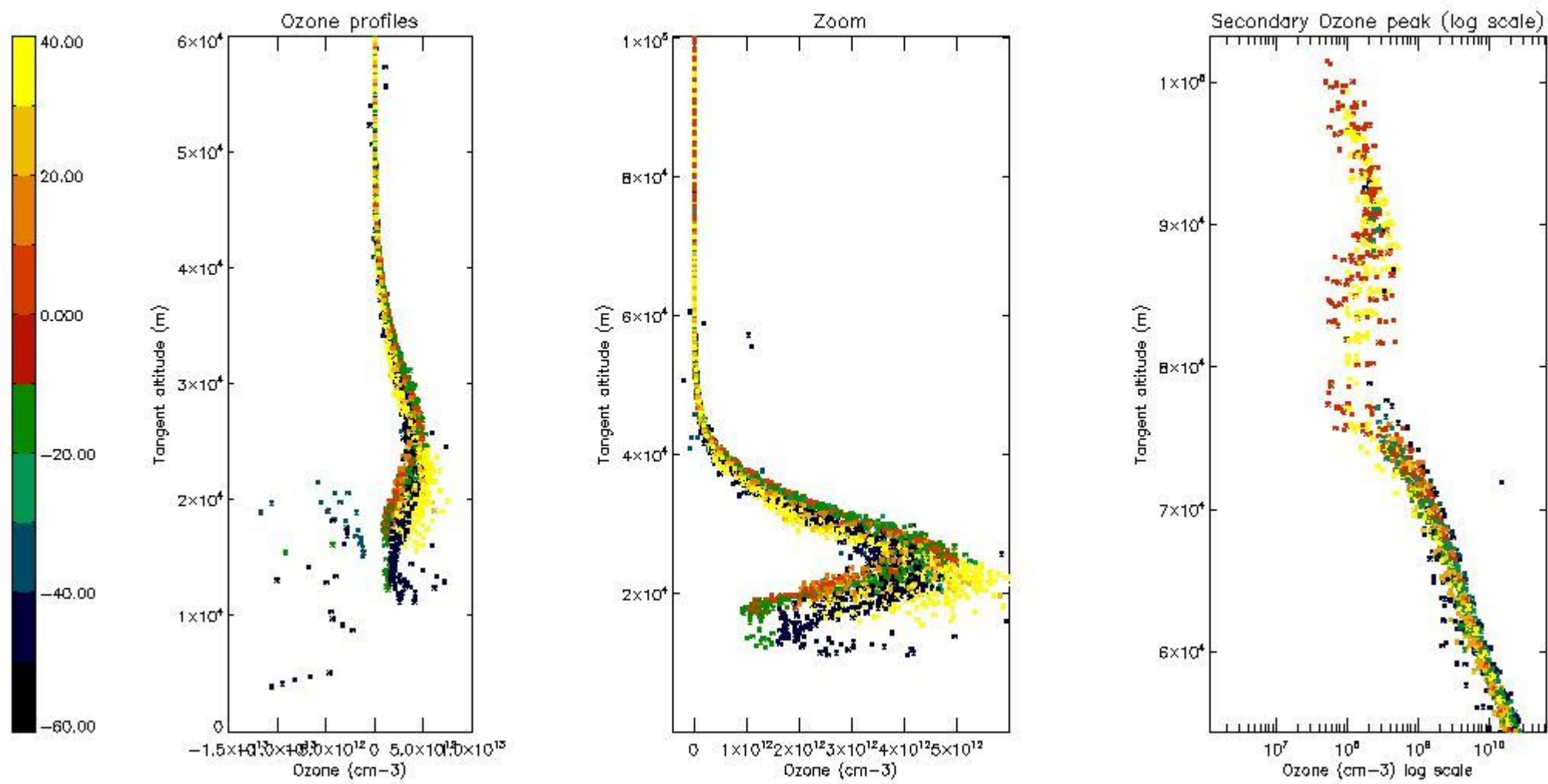
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



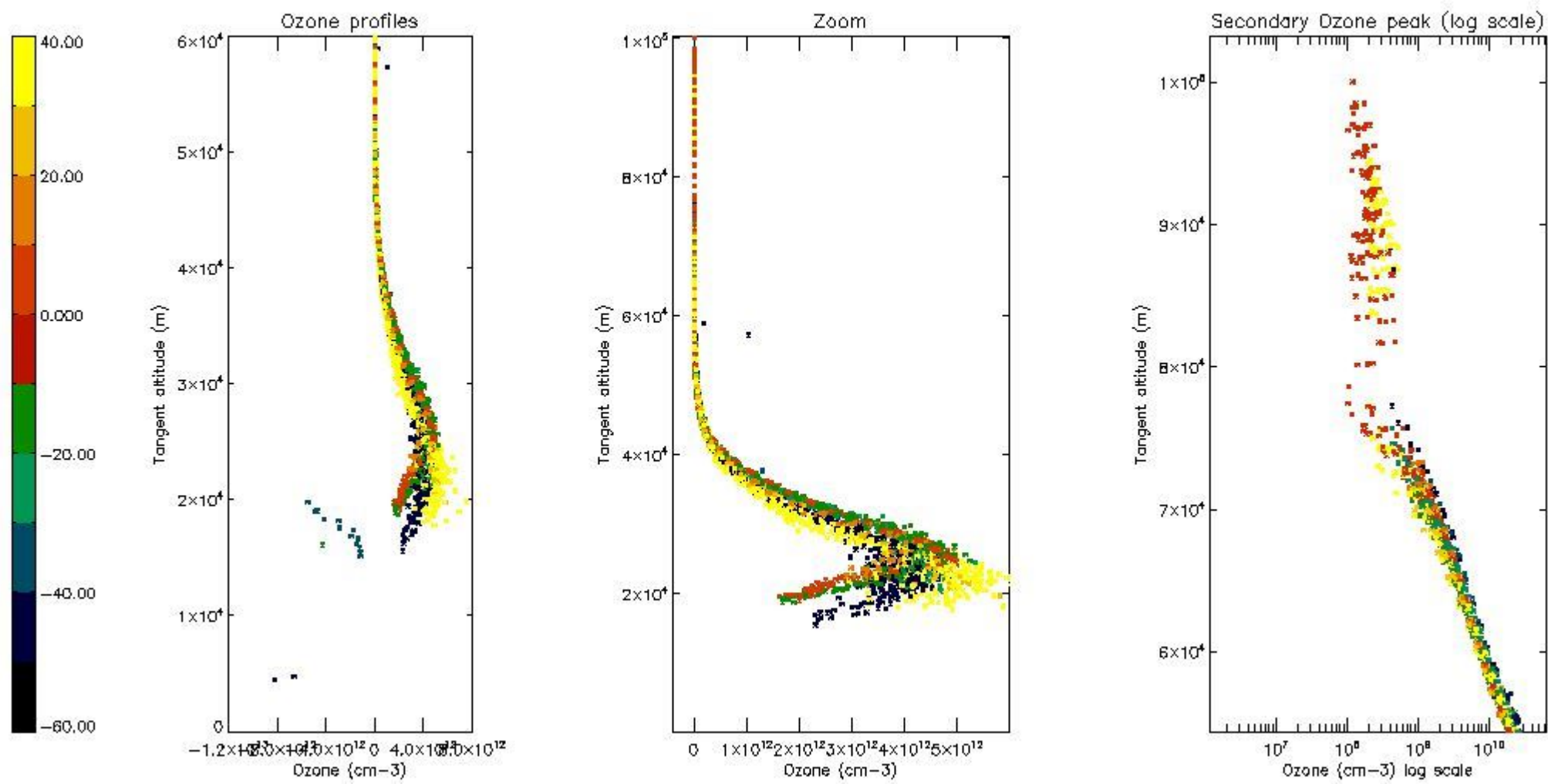
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



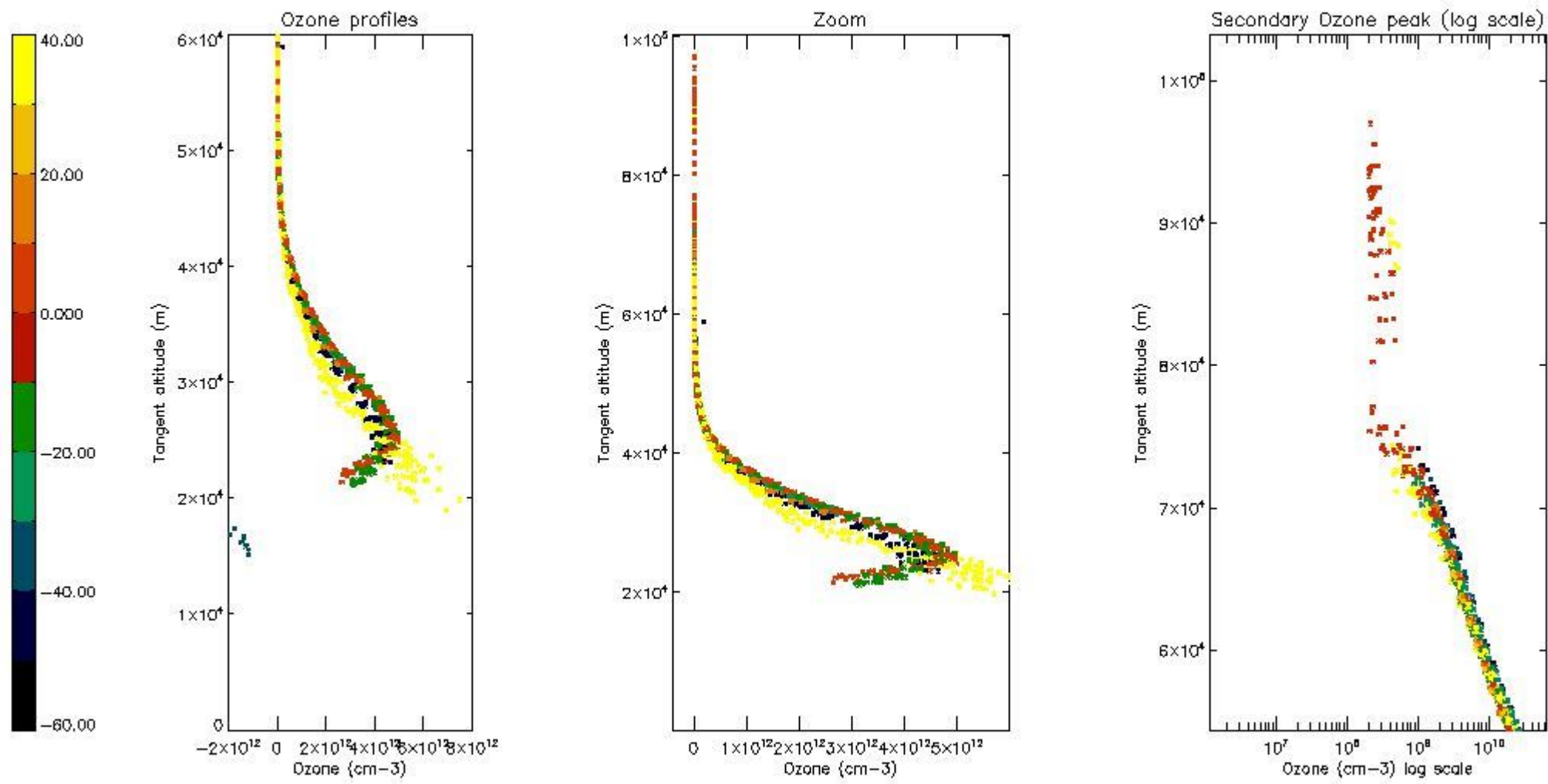
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



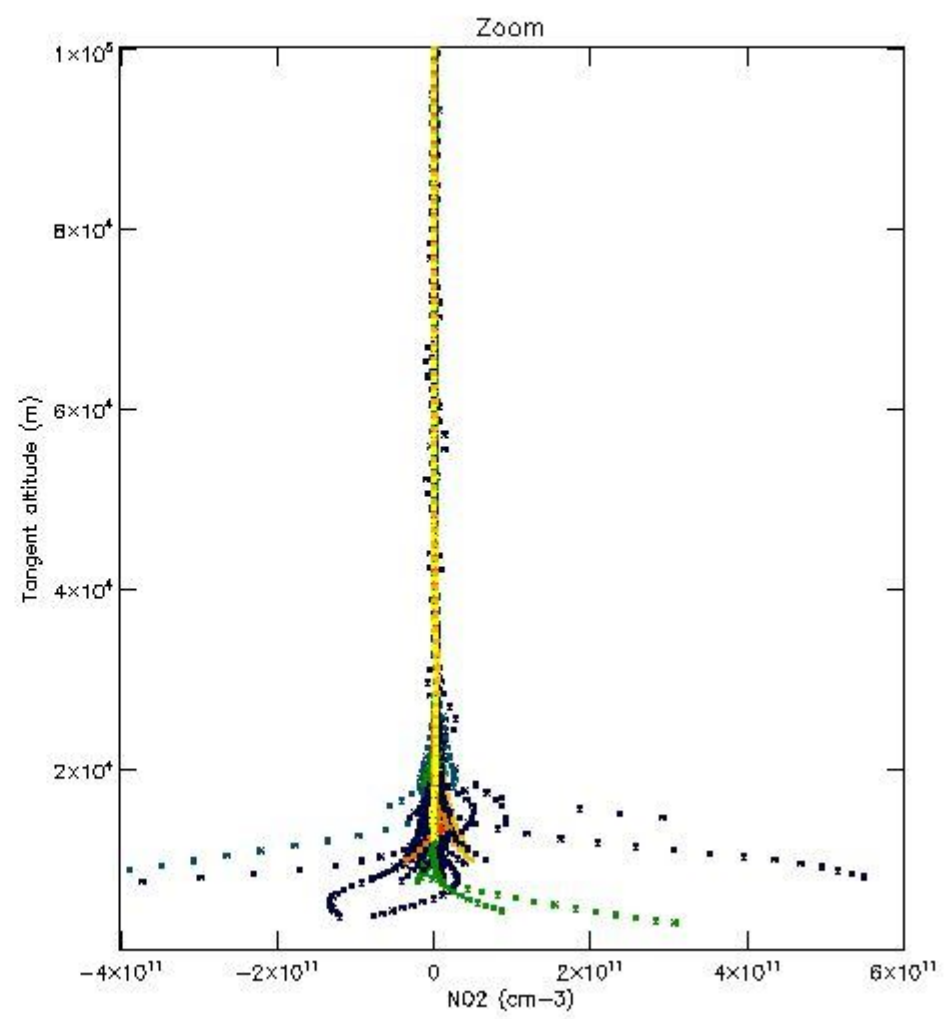
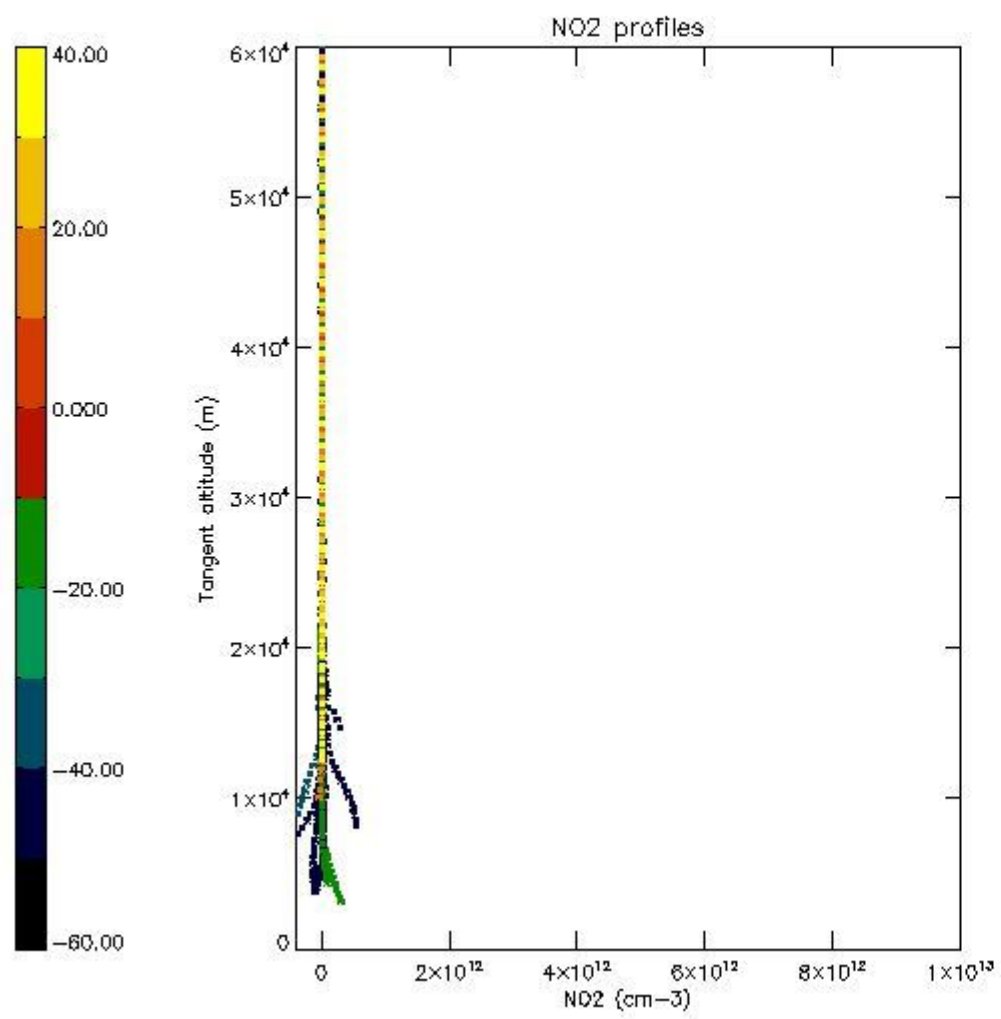
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



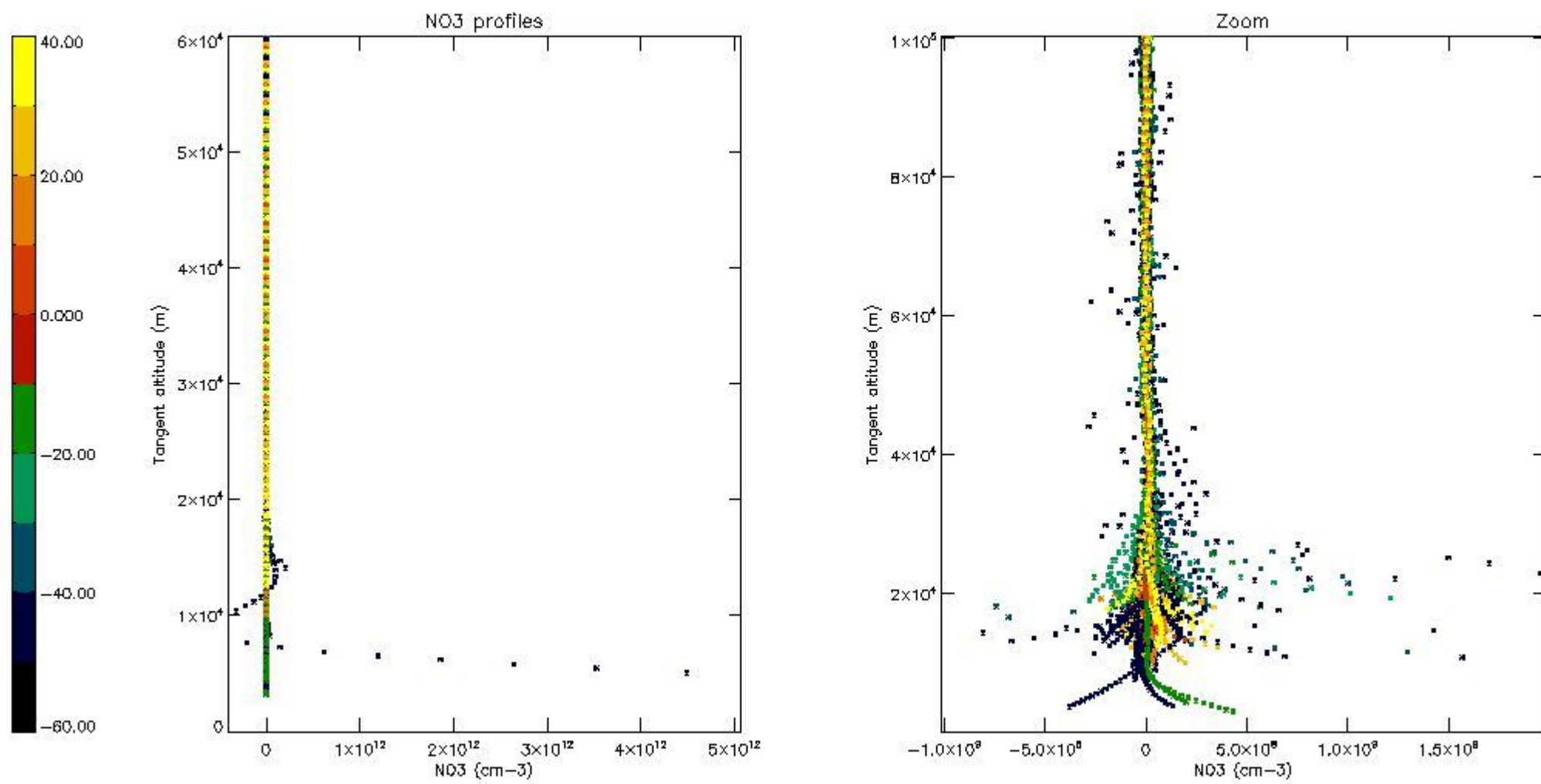
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



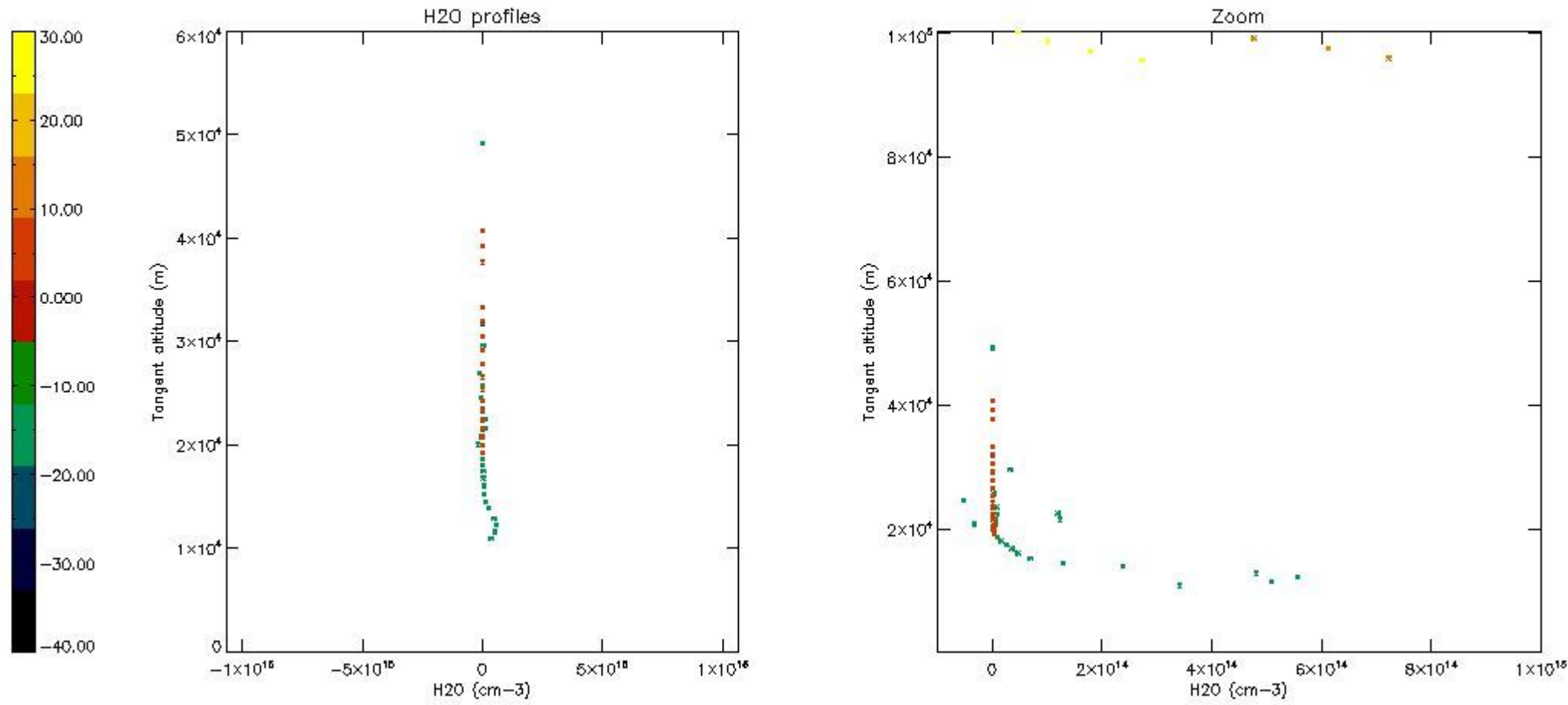
5.7 Plot NO3 profiles for all STD (dark without errors)

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	26-JAN-2008 00:01:52
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-JAN-2008 00:01:52
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-JAN-2008 00:01:52

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 09:33:46
Data source version	GOMOS/6.01
Start time of products	26-01-2008 (26JAN2008 00:00:00)
Stop time of products	27-01-2008 (27JAN2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	361
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

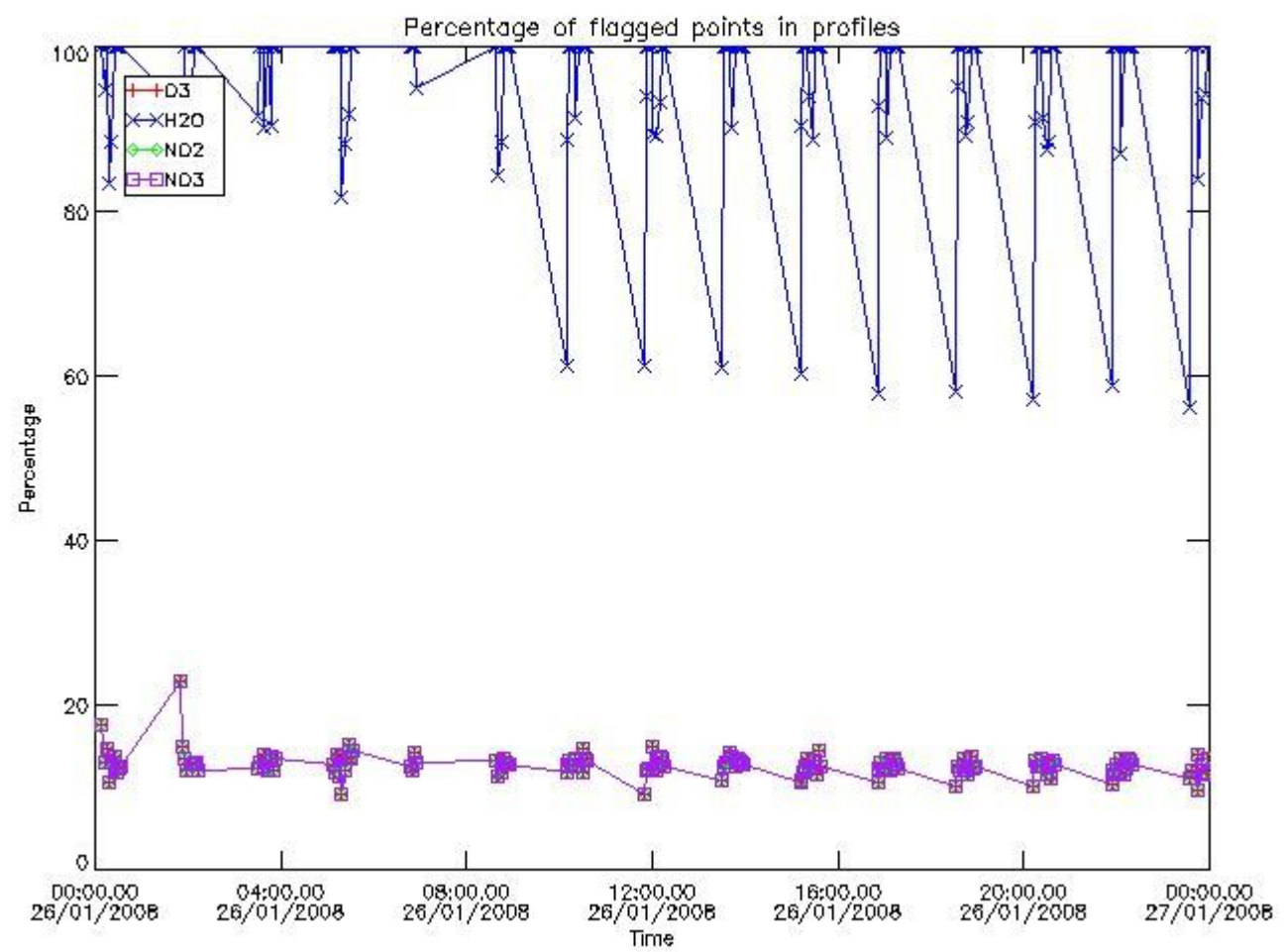
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20080126_000152_000000402065_00259_30874_0866.N1	26-JAN-2008 00:01:52	Bright	39.500	86	35Eta Oph	2.4300	10200.	79	30874	No
2	GOM_NL__2PRFIN20080126_000734_000000392065_00259_30874_0867.N1	26-JAN-2008 00:07:34	Twilight	39.000	85	Kap Sco	2.4070	28000.	78	30874	No
3	GOM_NL__2PRFIN20080126_000842_000000412065_00259_30874_0868.N1	26-JAN-2008 00:08:42	Dark	40.500	40	The Sco	1.8590	7100.0	81	30874	No
4	GOM_NL__2PRFIN20080126_001212_000000392065_00259_30874_0869.N1	26-JAN-2008 00:12:12	Dark	39.000	141	Bet Ara	2.8400	4600.0	78	30874	No
5	GOM_NL__2PRFIN20080126_001534_000000382065_00260_30875_0861.N1	26-JAN-2008 00:15:34	Dark	38.000	134	Bet TrA	2.8100	6600.0	76	30875	No
6	GOM_NL__2PRFIN20080126_001701_000000492065_00260_30875_0862.N1	26-JAN-2008 00:17:01	Dark	48.500	4	Alp1Cen	-0.010000	5800.0	97	30875	No
7	GOM_NL__2PRFIN20080126_002135_000000392065_00260_30875_0863.N1	26-JAN-2008 00:21:35	Dark	39.000	12	Alp1Cru	0.77500	30000.	78	30875	No
8	GOM_NL__2PRFIN20080126_002534_000000372065_00260_30875_0864.N1	26-JAN-2008 00:25:34	Dark	37.000	29	Bet Car	1.6720	10200.	74	30875	No
9	GOM_NL__2PRFIN20080126_002747_000000442065_00260_30875_0865.N1	26-JAN-2008 00:27:47	Dark	43.500	71	lot Car	2.2460	7700.0	87	30875	No
10	GOM_NL__2PRFIN20080126_002935_000000422065_00260_30875_0866.N1	26-JAN-2008 00:29:35	Dark	41.500	46	Del Vel	1.9540	10600.	83	30875	No
11	GOM_NL__2PRFIN20080126_003211_000000412065_00260_30875_0867.N1	26-JAN-2008 00:32:11	Dark	40.500	34	Gam2Vel	1.7930	23000.	81	30875	No
12	GOM_NL__2PRFIN20080126_003417_000000412065_00260_30875_0868.N1	26-JAN-2008 00:34:17	Straylight	40.500	70	Zet Pup	2.2460	39000.	81	30875	No
13	GOM_NL__2PRFIN20080126_003545_000000422065_00260_30875_0869.N1	26-JAN-2008 00:35:45	Straylight	42.000	117	Pi Pup	2.7060	3800.0	84	30875	No
14	GOM_NL__2PRFIN20080126_003813_000000422065_00260_30875_0870.N1	26-JAN-2008 00:38:13	Straylight	41.500	23	21Eps CMa	1.5020	26000.	83	30875	No
15	GOM_NL__2PRFIN20080126_003936_000000392065_00260_30875_0871.N1	26-JAN-2008 00:39:36	Straylight	39.000	179	24Omi2CMa	3.0320	24000.	78	30875	No
16	GOM_NL__2PRFIN20080126_004146_000000412065_00260_30875_0872.N1	26-JAN-2008 00:41:46	Straylight	41.000	1	9Alp CMa	-1.4400	11000.	82	30875	No
17	GOM_NL__2PRFIN20080126_004858_000000522065_00260_30875_0873.N1	26-JAN-2008 00:48:58	Bright	52.000	14	58Alp Ori	0.87000	3000.0	104	30875	No
18	GOM_NL__2PRFIN20080126_005105_000000392065_00260_30875_0874.N1	26-JAN-2008 00:51:05	Bright	39.000	44	24Gam Gem	1.9280	11000.	78	30875	No
19	GOM_NL__2PRFIN20080126_005251_000000382065_00260_30875_0875.N1	26-JAN-2008 00:52:51	Bright	38.000	151	13Mu Gem	2.8900	3000.0	76	30875	No
20	GOM_NL__2PRFIN20080126_005512_000000372065_00260_30875_0876.N1	26-JAN-2008 00:55:12	Bright	37.000	28	12Bet Tau	1.6500	15200.	74	30875	No
21	GOM_NL__2PRFIN20080126_005706_000000352065_00260_30875_0877.N1	26-JAN-2008 00:57:06	Bright	34.500	107	37The Aur	2.6490	11000.	69	30875	No
22	GOM_NL__2PRFIN20080126_005914_000000362065_00260_30875_0878.N1	26-JAN-2008 00:59:14	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	30875	No
23	GOM_NL__2PRFIN20080126_011142_000000342065_00260_30875_0879.N1	26-JAN-2008 01:11:42	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	30875	No
24	GOM_NL__2PRFIN20080126_012241_000000362065_00260_30875_0880.N1	26-JAN-2008 01:22:41	Bright	36.000	130	23Bet Dra	2.7990	5800.0	72	30875	No
25	GOM_NL__2PRFIN20080126_012606_000000362065_00260_30875_0881.N1	26-JAN-2008 01:26:06	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	30875	No
26	GOM_NL__2PRFIN20080126_013408_000000352065_00260_30875_0882.N1	26-JAN-2008 01:34:08	Bright	34.500	59	55Alp Oph	2.0800	8900.0	69	30875	No
27	GOM_NL__2PRFIN20080126_013615_000000342065_00260_30875_0883.N1	26-JAN-2008 01:36:15	Bright	34.000	126	60Bet Oph	2.7700	4250.0	68	30875	No
28	GOM_NL__2PRFIN20080126_014229_000000412065_00260_30875_0884.N1	26-JAN-2008 01:42:29	Bright	41.000	86	35Eta Oph	2.4300	10200.	82	30875	No
29	GOM_NL__2PRFIN20080126_014810_000000382065_00260_30875_0885.N1	26-JAN-2008 01:48:10	Twilight	38.000	85	Kap Sco	2.4070	28000.	76	30875	No
30	GOM_NL__2PRFIN20080126_014918_000000402065_00260_30875_0886.N1	26-JAN-2008 01:49:18	Dark	40.000	40	The Sco	1.8590	7100.0	80	30875	No
31	GOM_NL__2PRFIN20080126_015248_000000382065_00260_30875_0887.N1	26-JAN-2008 01:52:48	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	30875	No
32	GOM_NL__2PRFIN20080126_015610_000000382065_00261_30876_0870.N1	26-JAN-2008 01:56:10	Dark	38.000	134	Bet TrA	2.8100	6600.0	76	30876	No
33	GOM_NL__2PRFIN20080126_015737_000000432065_00261_30876_0871.N1	26-JAN-2008 01:57:37	Dark	42.500	4	Alp1Cen	-0.010000	5800.0	85	30876	No
34	GOM_NL__2PRFIN20080126_020212_000000402065_00261_30876_0872.N1	26-JAN-2008 02:02:12	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	30876	No
35	GOM_NL__2PRFIN20080126_020610_000000402065_00261_30876_0873.N1	26-JAN-2008 02:06:10	Dark	40.000	29	Bet Car	1.6720	10200.	80	30876	No
36	GOM_NL__2PRFIN20080126_020823_000000392065_00261_30876_0874.N1	26-JAN-2008 02:08:23	Dark	39.000	71	lot Car	2.2460	7700.0	78	30876	No
37	GOM_NL__2PRFIN20080126_021011_000000402065_00261_30876_0875.N1	26-JAN-2008 02:10:11	Dark	39.500	46	Del Vel	1.9540	10600.	79	30876	No
38	GOM_NL__2PRFIN20080126_021247_000000422065_00261_30876_0876.N1	26-JAN-2008 02:12:47	Dark	42.000	34	Gam2Vel	1.7930	23000.	84	30876	No
39	GOM_NL__2PRFIN20080126_021453_000000402065_00261_30876_0877.N1	26-JAN-2008 02:14:53	Straylight	40.000	70	Zet Pup	2.2460	39000.	80	30876	No
40	GOM_NL__2PRFIN20080126_021622_000000442065_00261_30876_0878.N1	26-JAN-2008 02:16:22	Straylight	44.000	117	Pi Pup	2.7060	3800.0	88	30876	No
41	GOM_NL__2PRFIN20080126_021849_000000412065_00261_30876_0879.N1	26-JAN-2008 02:18:49	Straylight	40.500	23	21Eps CMa	1.5020	26000.	81	30876	No
42	GOM_NL__2PRFIN20080126_022012_000000382065_00261_30876_0880.N1	26-JAN-2008 02:20:12	Straylight	37.500	179	24Omi2CMa	3.0320	24000.	75	30876	No

338	GOM_NL__2PRFIN20080126_222208_000000382065_00273_30888_1076.N1	26-JAN-2008 22:22:08	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	30888	No
339	GOM_NL__2PRFIN20080126_222335_000000392065_00273_30888_1077.N1	26-JAN-2008 22:23:35	Straylight	39.000	117	Pi Pup	2.7060	3800.0	78	30888	No
340	GOM_NL__2PRFIN20080126_222603_000000412065_00273_30888_1078.N1	26-JAN-2008 22:26:03	Straylight	40.500	23	21Eps CMa	1.5020	26000.	81	30888	No
341	GOM_NL__2PRFIN20080126_222726_000000382065_00273_30888_1079.N1	26-JAN-2008 22:27:26	Straylight	38.000	179	24Omi2CMa	3.0320	24000.	76	30888	No
342	GOM_NL__2PRFIN20080126_222935_000000472065_00273_30888_1080.N1	26-JAN-2008 22:29:35	Straylight	47.000	1	9Alp CMa	-1.4400	11000.	94	30888	No
343	GOM_NL__2PRFIN20080126_223630_000000422065_00273_30888_1081.N1	26-JAN-2008 22:36:30	Twilight_stray	41.500	153	3Bet CMi	2.8940	13100.	83	30888	No
344	GOM_NL__2PRFIN20080126_223853_000000372065_00273_30888_1082.N1	26-JAN-2008 22:38:53	Bright	36.500	44	24Gam Gem	1.9280	11000.	73	30888	No
345	GOM_NL__2PRFIN20080126_224040_000000372065_00273_30888_1083.N1	26-JAN-2008 22:40:40	Bright	37.000	151	13Mu Gem	2.8900	3000.0	74	30888	No
346	GOM_NL__2PRFIN20080126_224455_000000352065_00273_30888_1084.N1	26-JAN-2008 22:44:55	Bright	34.500	107	37The Aur	2.6490	11000.	69	30888	No
347	GOM_NL__2PRFIN20080126_224702_000000362065_00273_30888_1085.N1	26-JAN-2008 22:47:02	Bright	36.000	42	34Bet Aur	1.9000	10200.	72	30888	No
348	GOM_NL__2PRFIN20080126_225929_000000372065_00273_30888_1086.N1	26-JAN-2008 22:59:29	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	30888	No
349	GOM_NL__2PRFIN20080126_231029_000000342065_00273_30888_1087.N1	26-JAN-2008 23:10:29	Bright	34.000	130	23Bet Dra	2.7990	5800.0	68	30888	No
350	GOM_NL__2PRFIN20080126_231356_000000342065_00273_30888_1088.N1	26-JAN-2008 23:13:56	Bright	33.500	5	3Alp Lyr	0.033000	11000.	67	30888	No
351	GOM_NL__2PRFIN20080126_232159_000000362065_00273_30888_1089.N1	26-JAN-2008 23:21:59	Bright	36.000	59	55Alp Oph	2.0800	8900.0	72	30888	No
352	GOM_NL__2PRFIN20080126_232405_000000342065_00273_30888_1090.N1	26-JAN-2008 23:24:05	Bright	34.000	126	60Bet Oph	2.7700	4250.0	68	30888	No
353	GOM_NL__2PRFIN20080126_233021_000000432065_00273_30888_1091.N1	26-JAN-2008 23:30:21	Twilight_stray	42.500	86	35Eta Oph	2.4300	10200.	85	30888	No
354	GOM_NL__2PRFIN20080126_233425_000000512065_00273_30888_1092.N1	26-JAN-2008 23:34:25	Dark	50.500	16	21Alp Sco	1.0200	3000.0	101	30888	No
355	GOM_NL__2PRFIN20080126_233547_000000432065_00273_30888_1093.N1	26-JAN-2008 23:35:47	Dark	42.500	75	26Eps Sco	2.2910	4250.0	85	30888	No
356	GOM_NL__2PRFIN20080126_234402_000000372065_00274_30889_1085.N1	26-JAN-2008 23:44:02	Dark	36.500	134	Bet TrA	2.8100	6600.0	73	30889	No
357	GOM_NL__2PRFIN20080126_234531_000000532065_00274_30889_1086.N1	26-JAN-2008 23:45:31	Dark	53.000	4	Alp1Cen	-0.010000	5800.0	106	30889	No
358	GOM_NL__2PRFIN20080126_235006_000000402065_00274_30889_1087.N1	26-JAN-2008 23:50:06	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	30889	No
359	GOM_NL__2PRFIN20080126_235401_000000452065_00274_30889_1088.N1	26-JAN-2008 23:54:01	Dark	44.500	29	Bet Car	1.6720	10200.	89	30889	No
360	GOM_NL__2PRFIN20080126_235615_000000382065_00274_30889_1089.N1	26-JAN-2008 23:56:15	Dark	38.000	71	lot Car	2.2460	7700.0	76	30889	No
361	GOM_NL__2PRFIN20080126_235802_000000432065_00274_30889_1090.N1	26-JAN-2008 23:58:02	Dark	43.000	46	Del Vel	1.9540	10600.	86	30889	No

3. Quality information per product

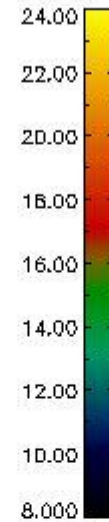
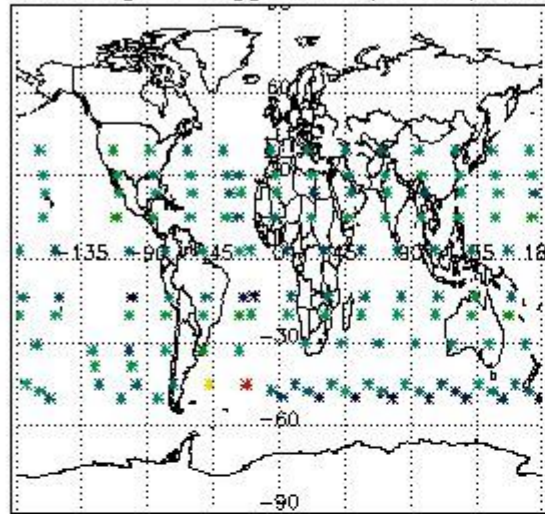
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

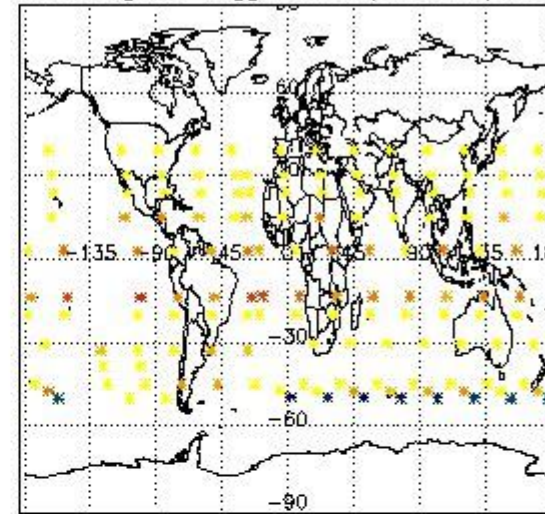


3.2 Plot quality information per product (world map)

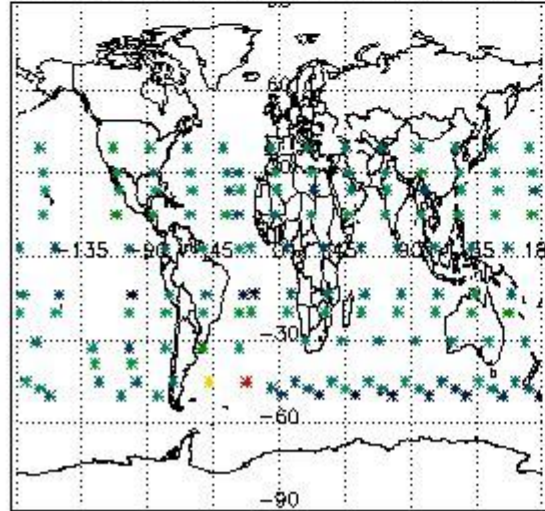
Percentage of flagged data per O3 profile



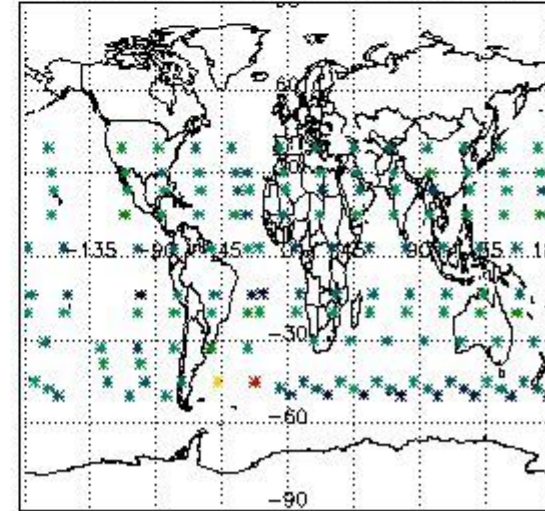
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

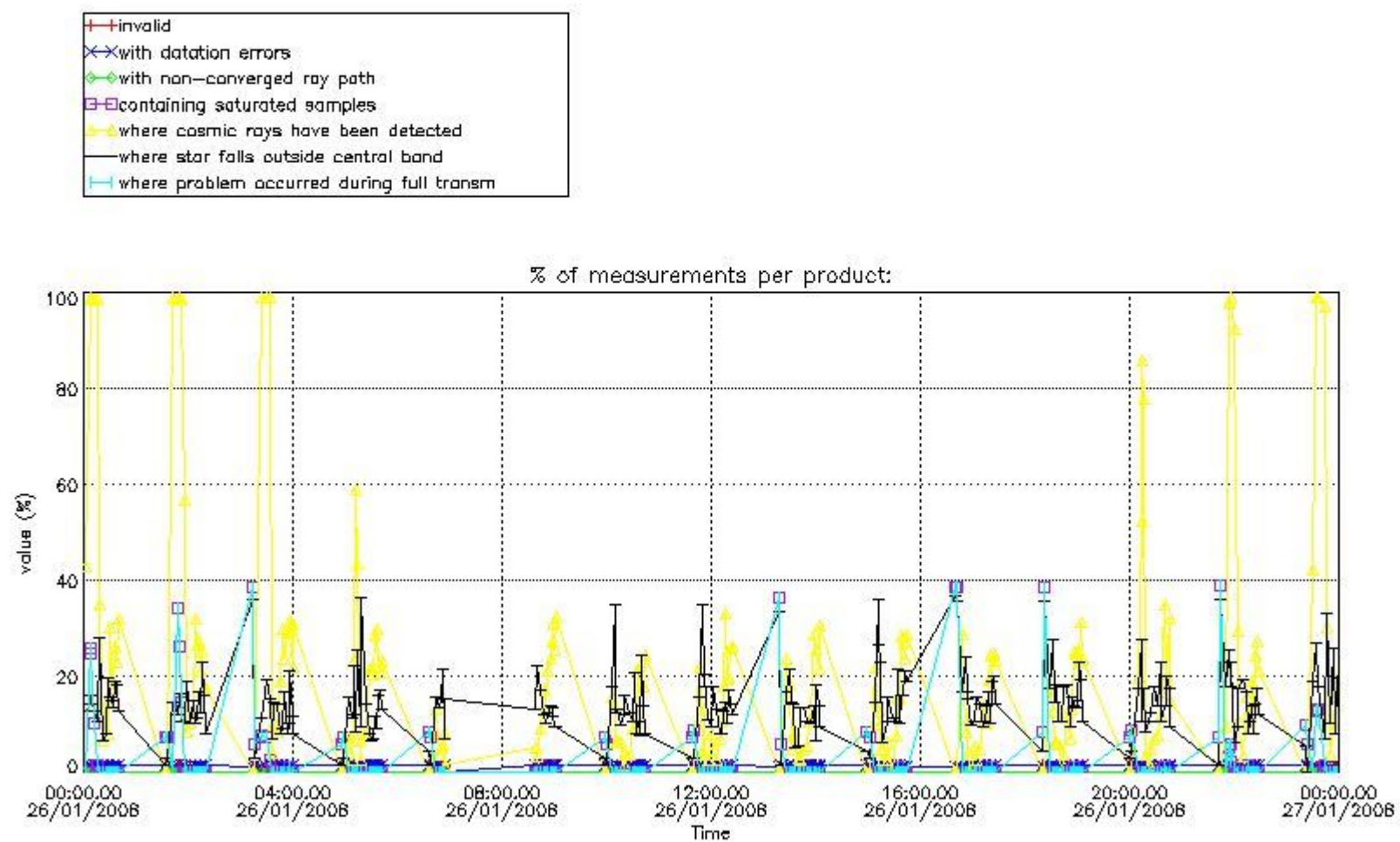


4. Level 1 quality information per product

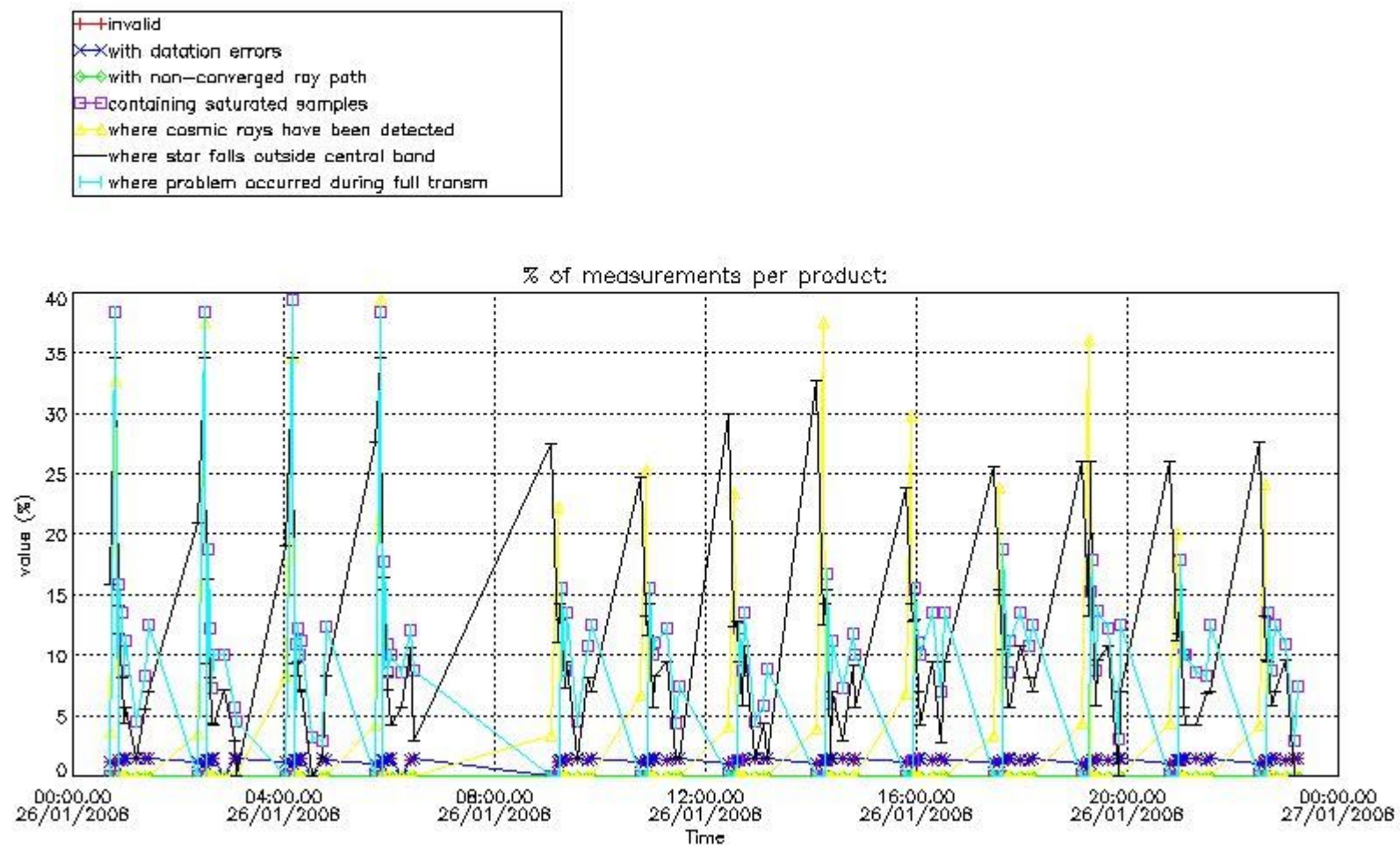
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



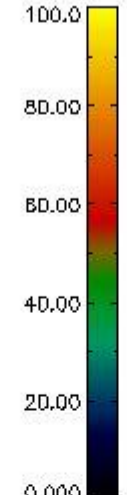
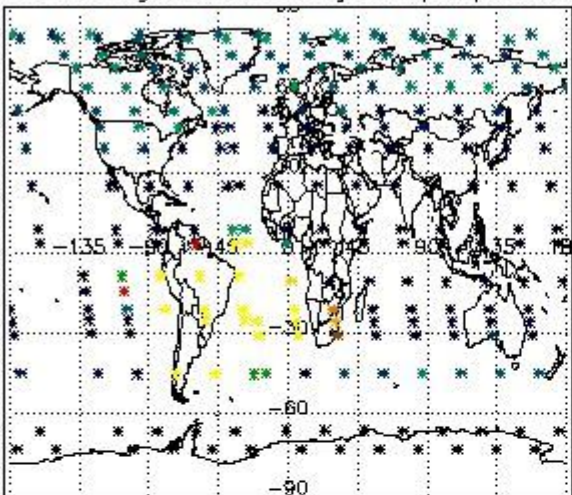
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



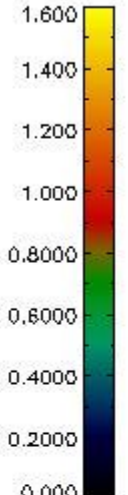
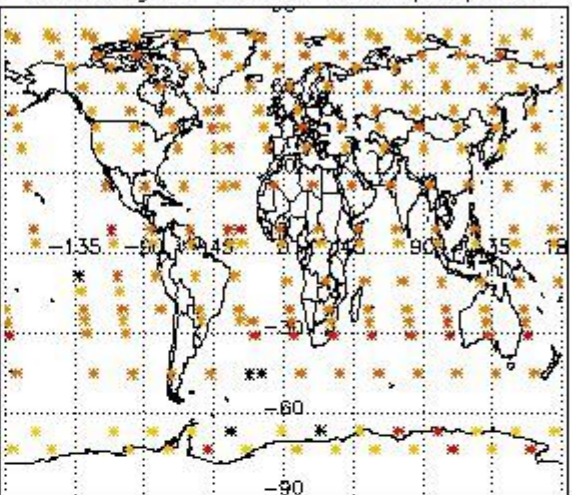
4.2 Plot quality information per product coming from level 1b processing (world map)

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

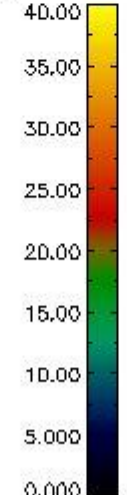
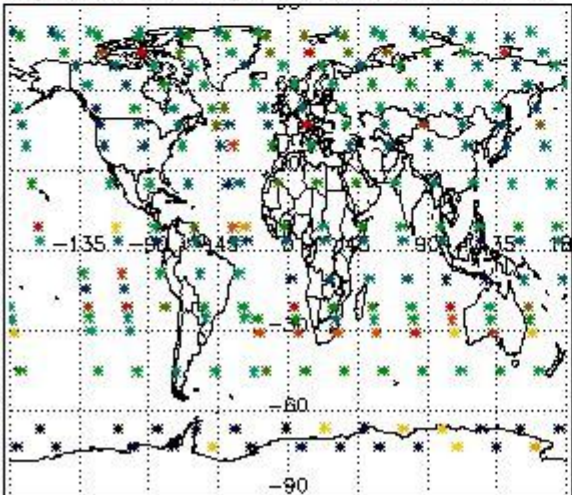
Percentage of cosmic ray hits per profile



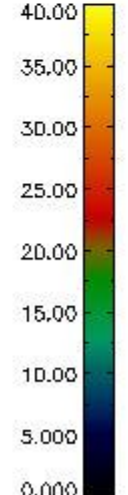
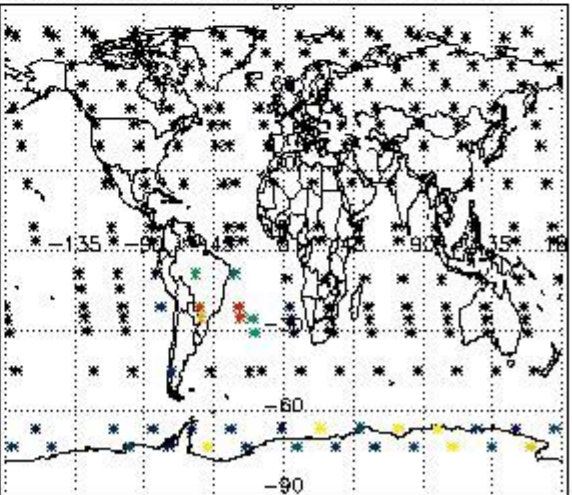
Percentage of datation errors per profile



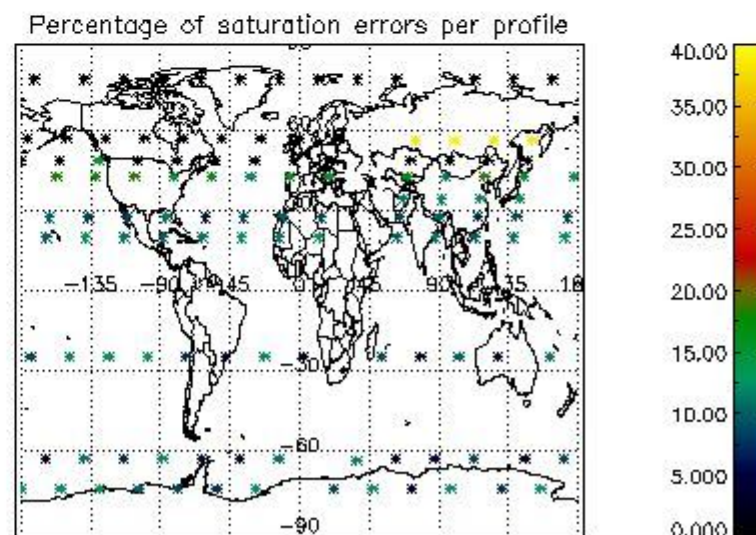
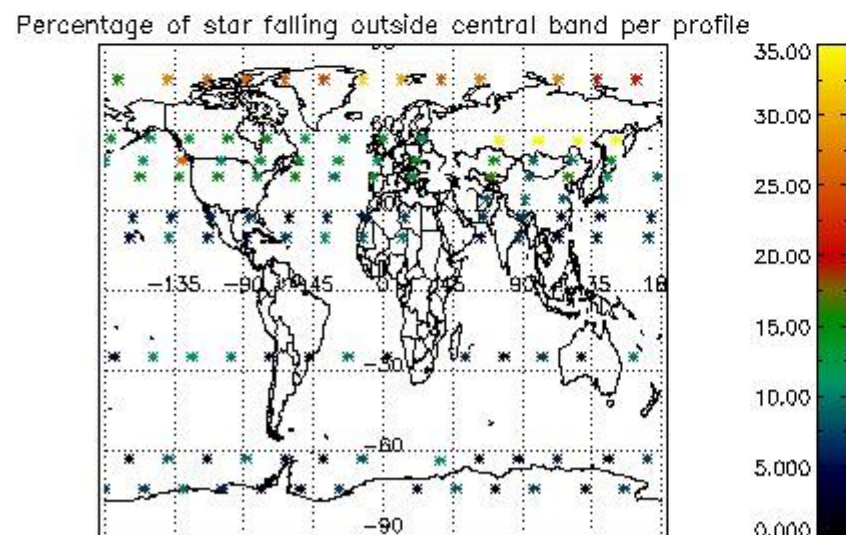
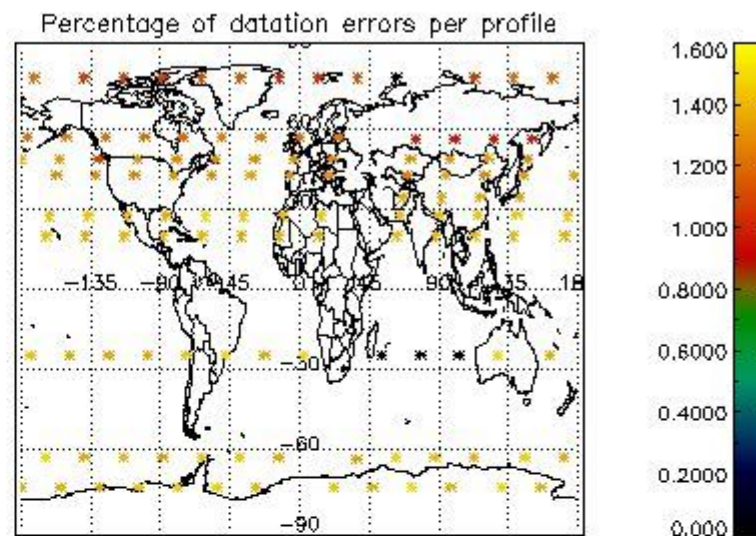
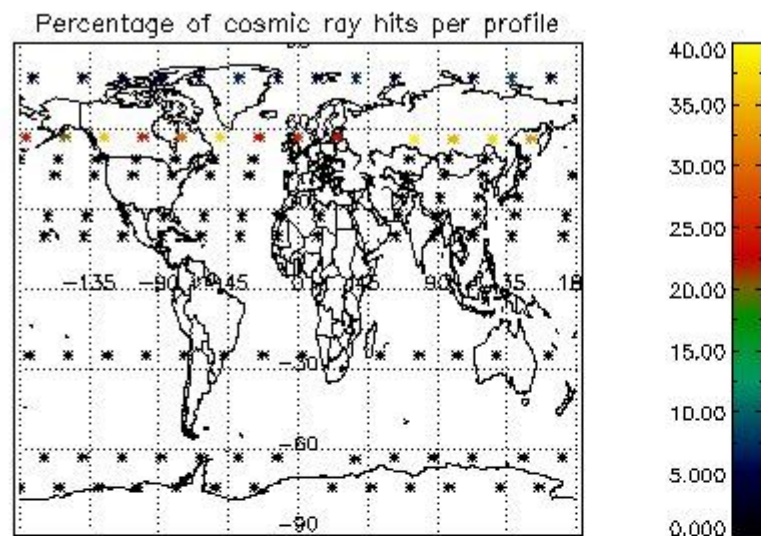
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

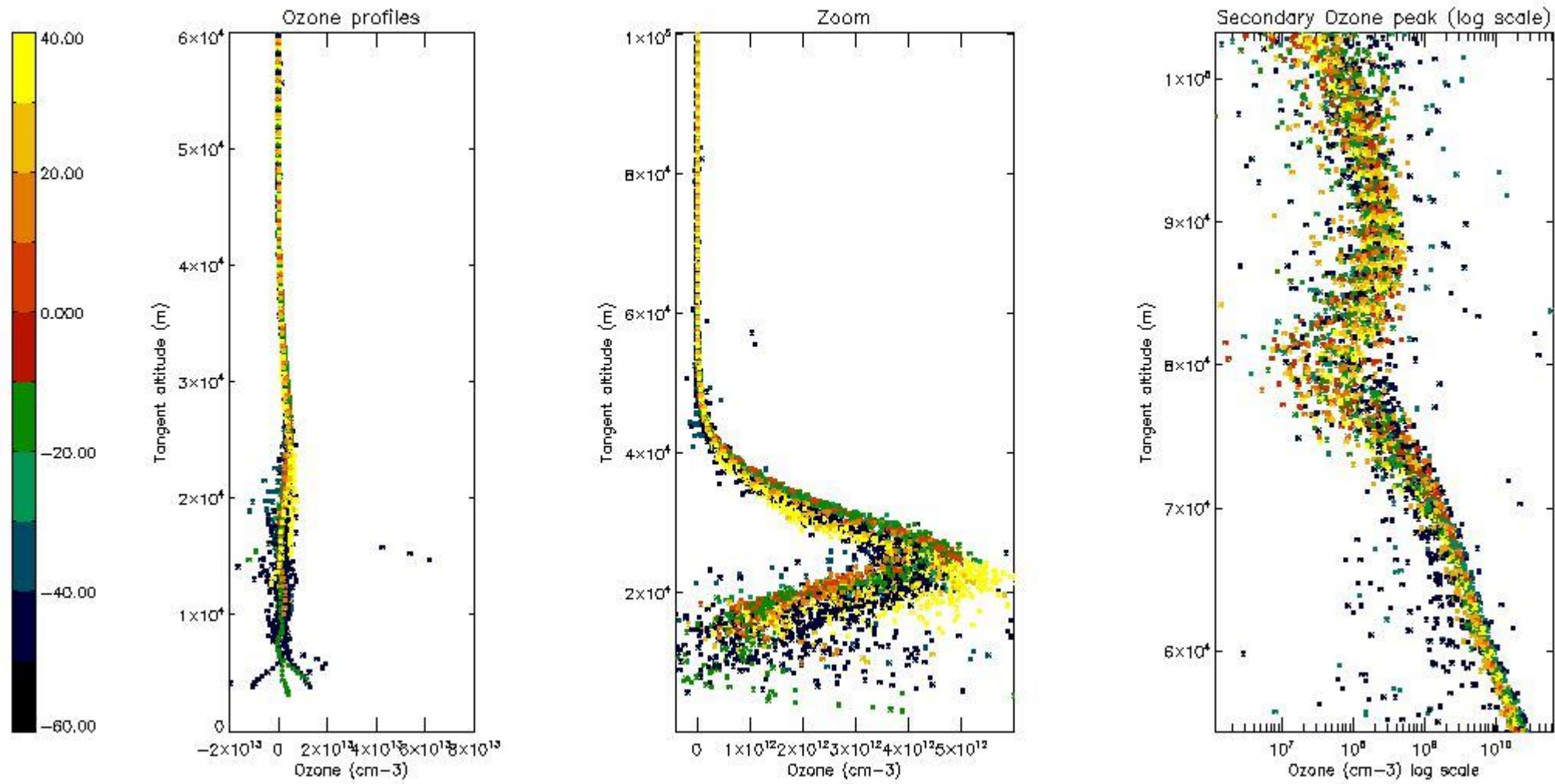
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	42
STD < 20	23

STD < 10	17
STD < 5	11

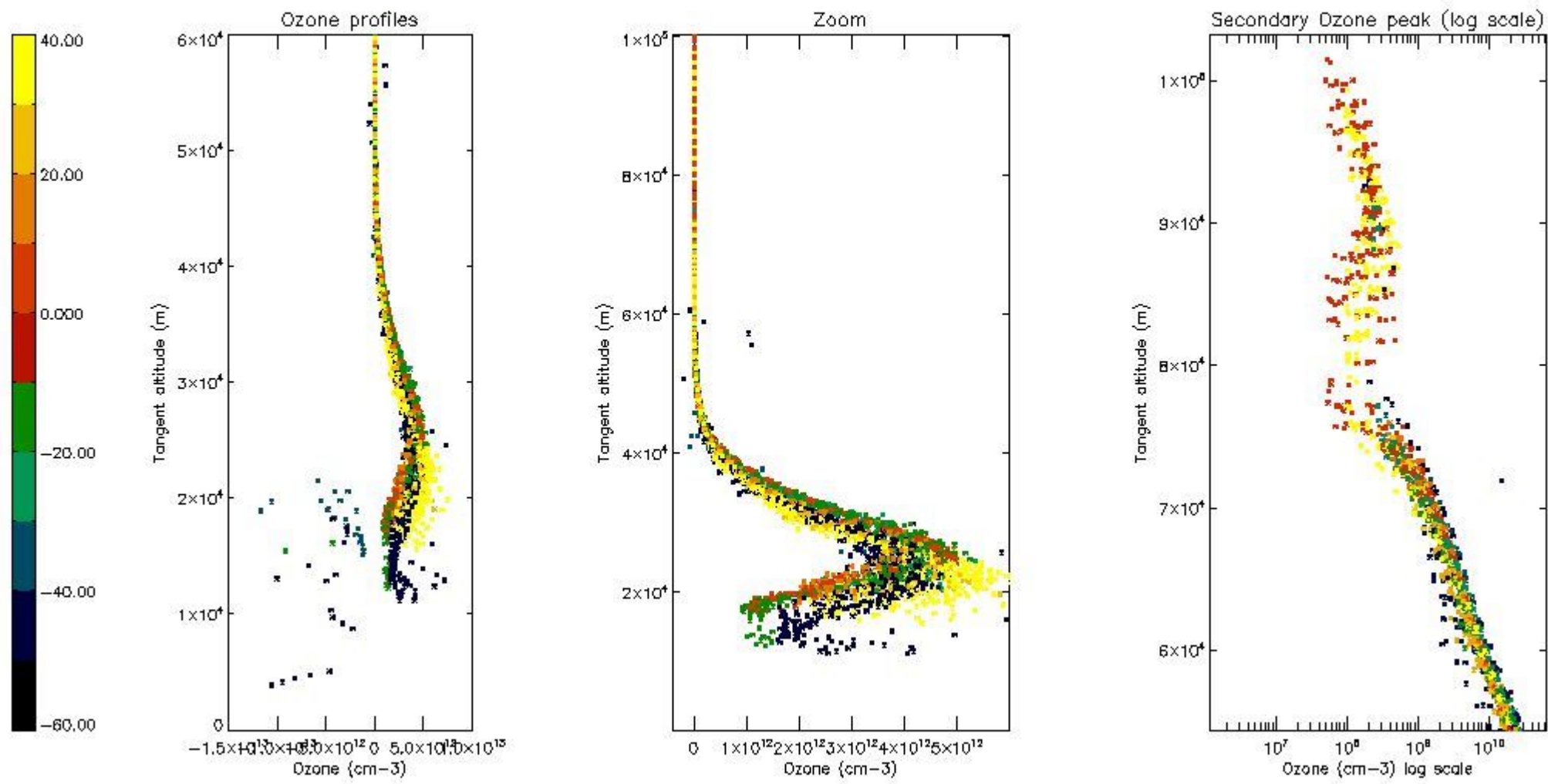
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



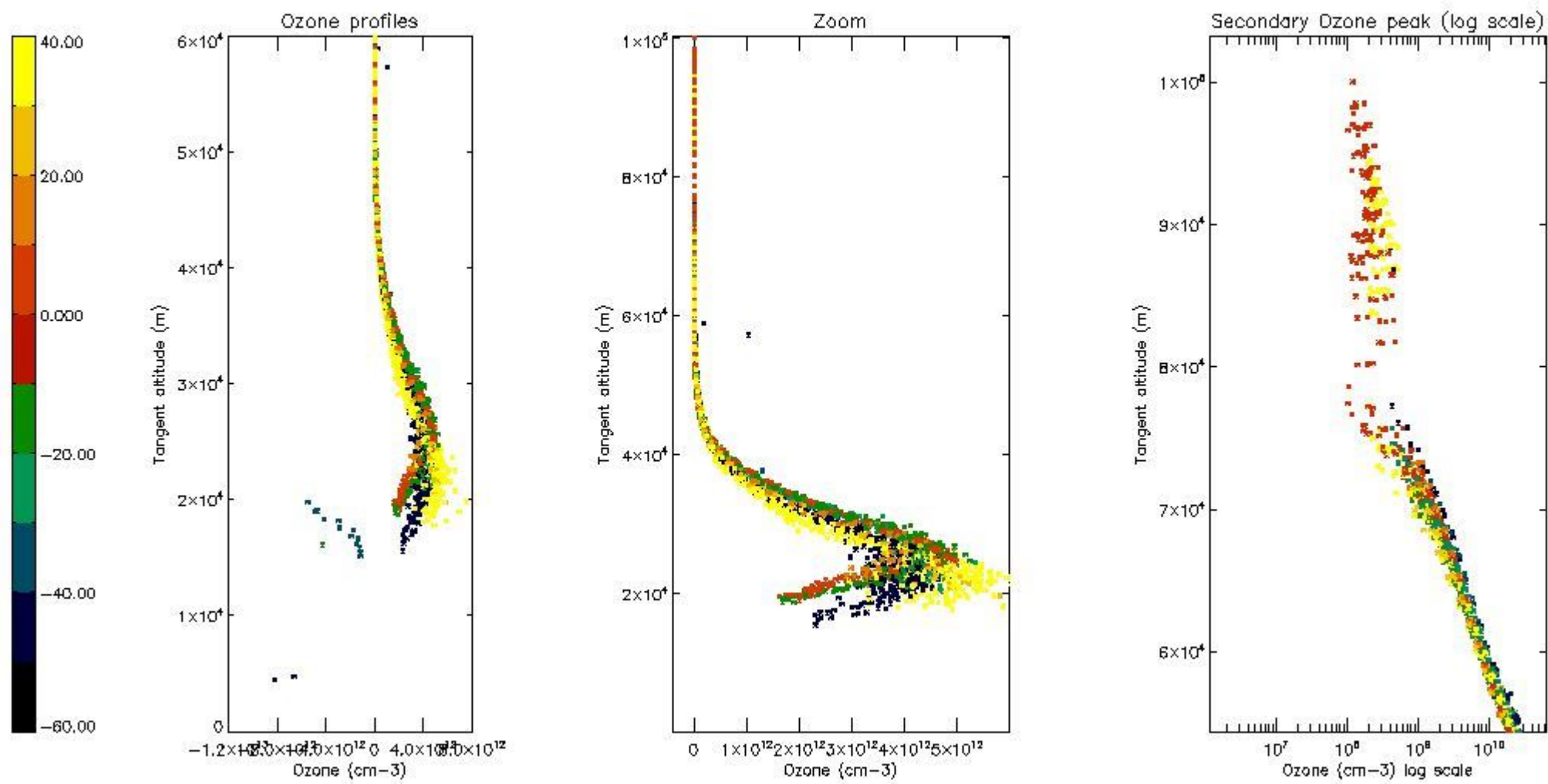
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



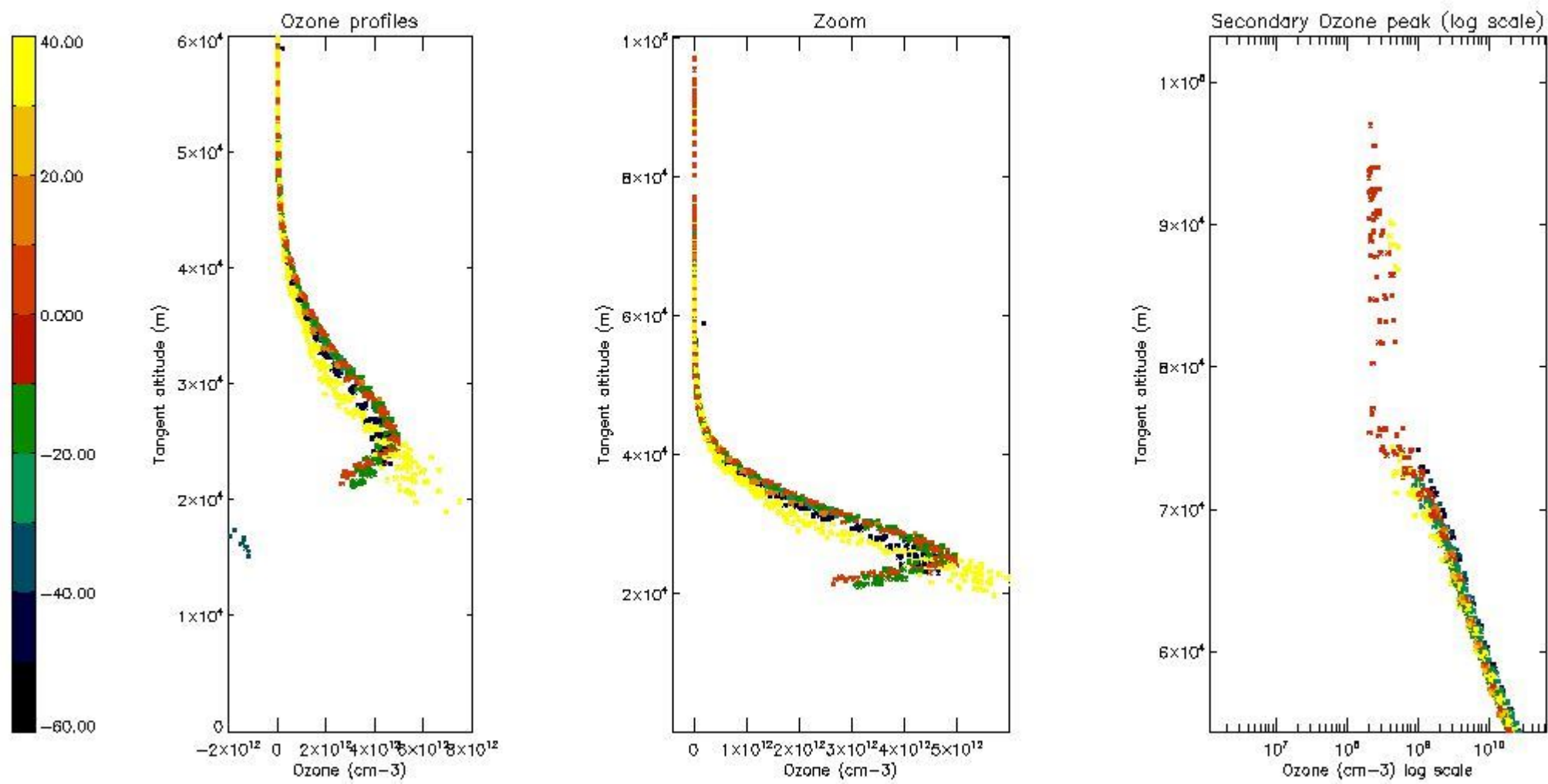
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



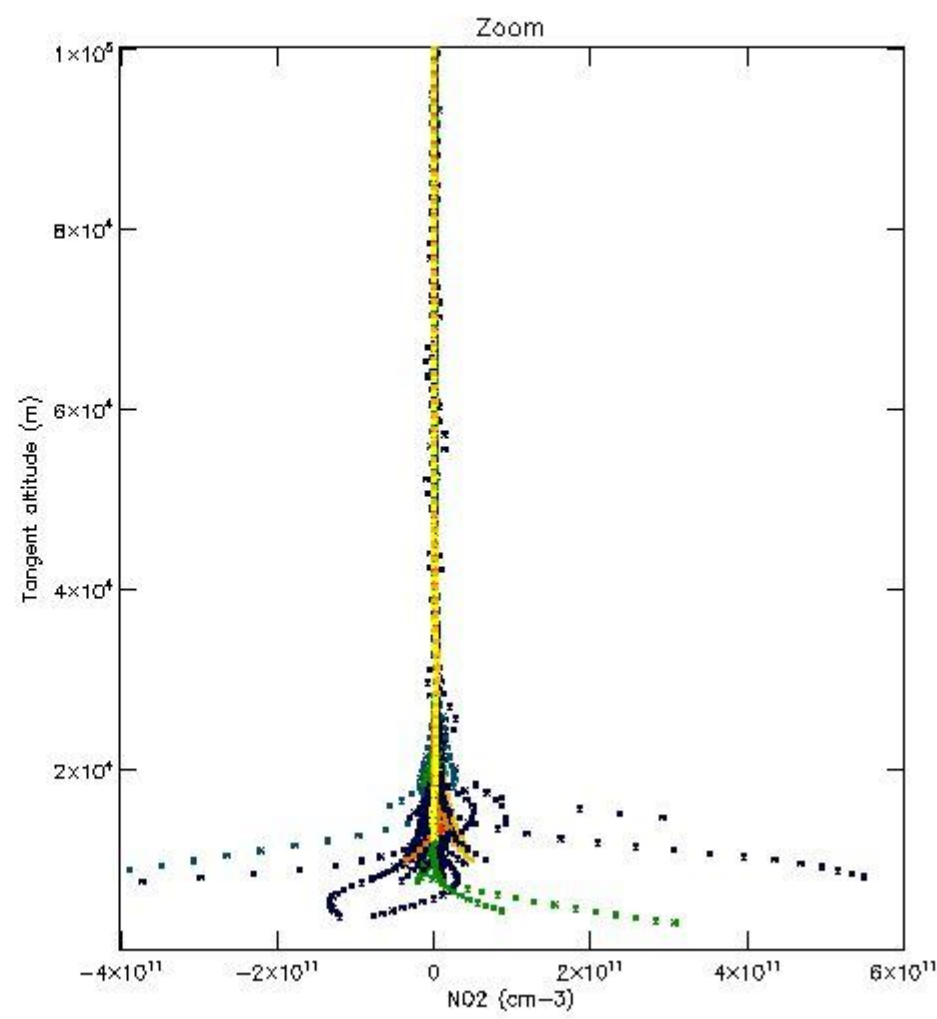
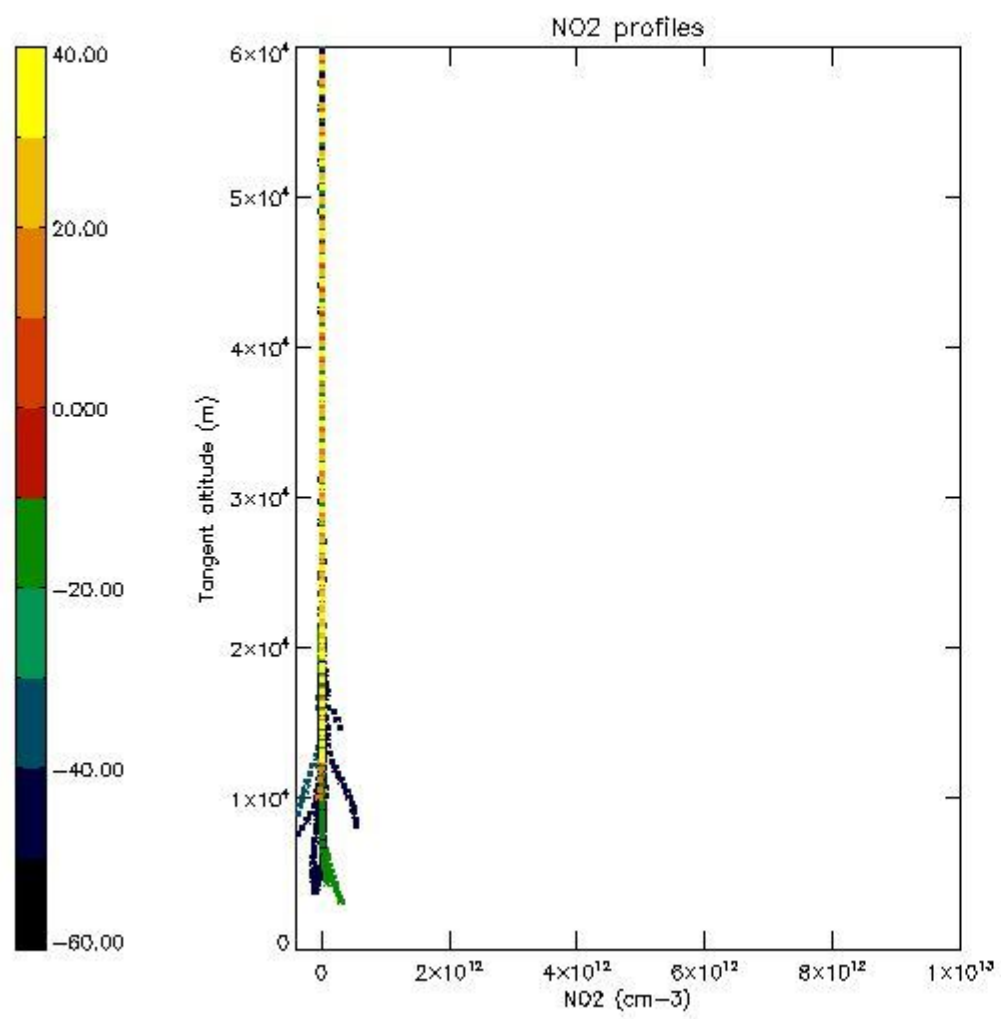
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



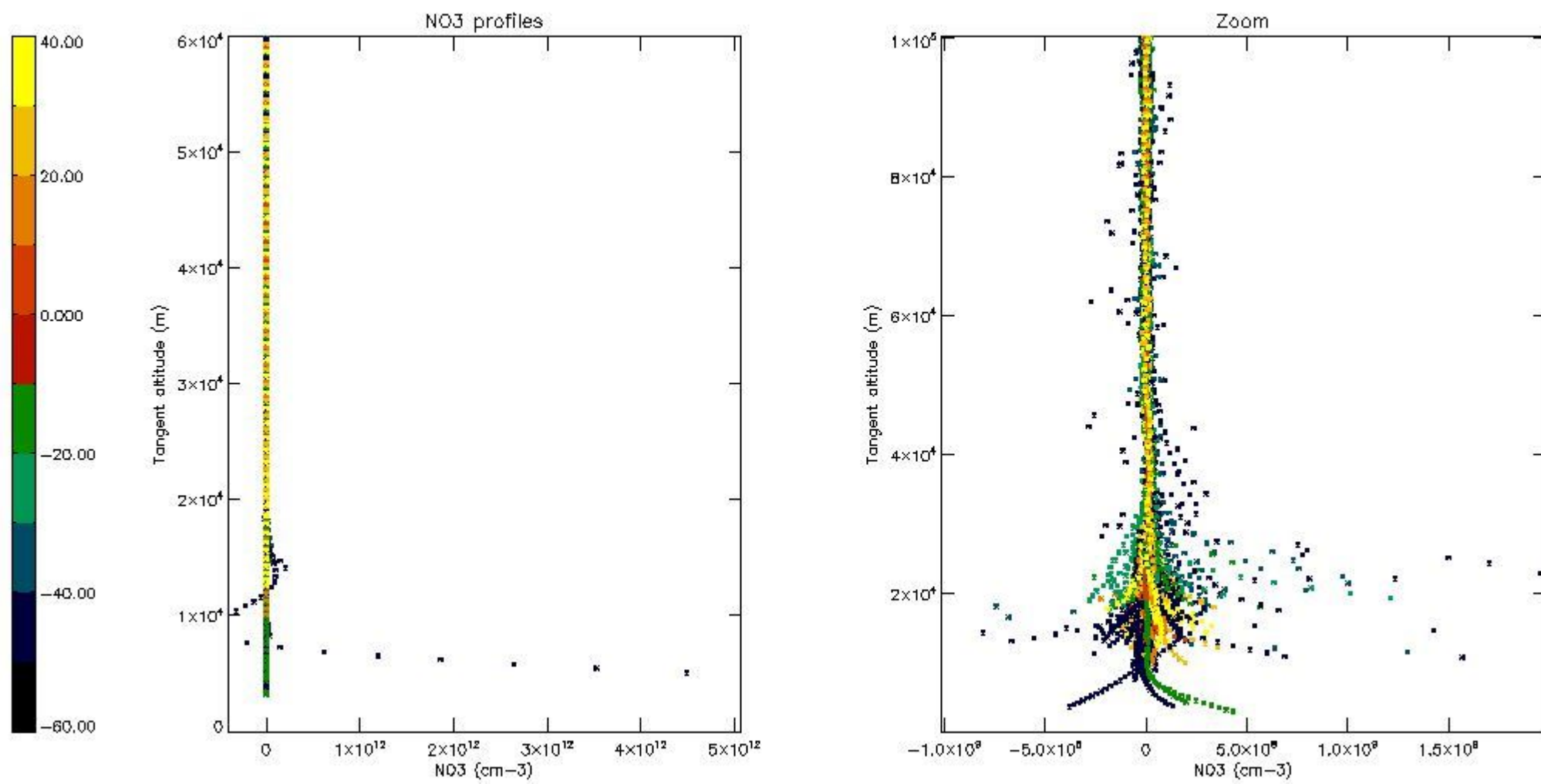
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



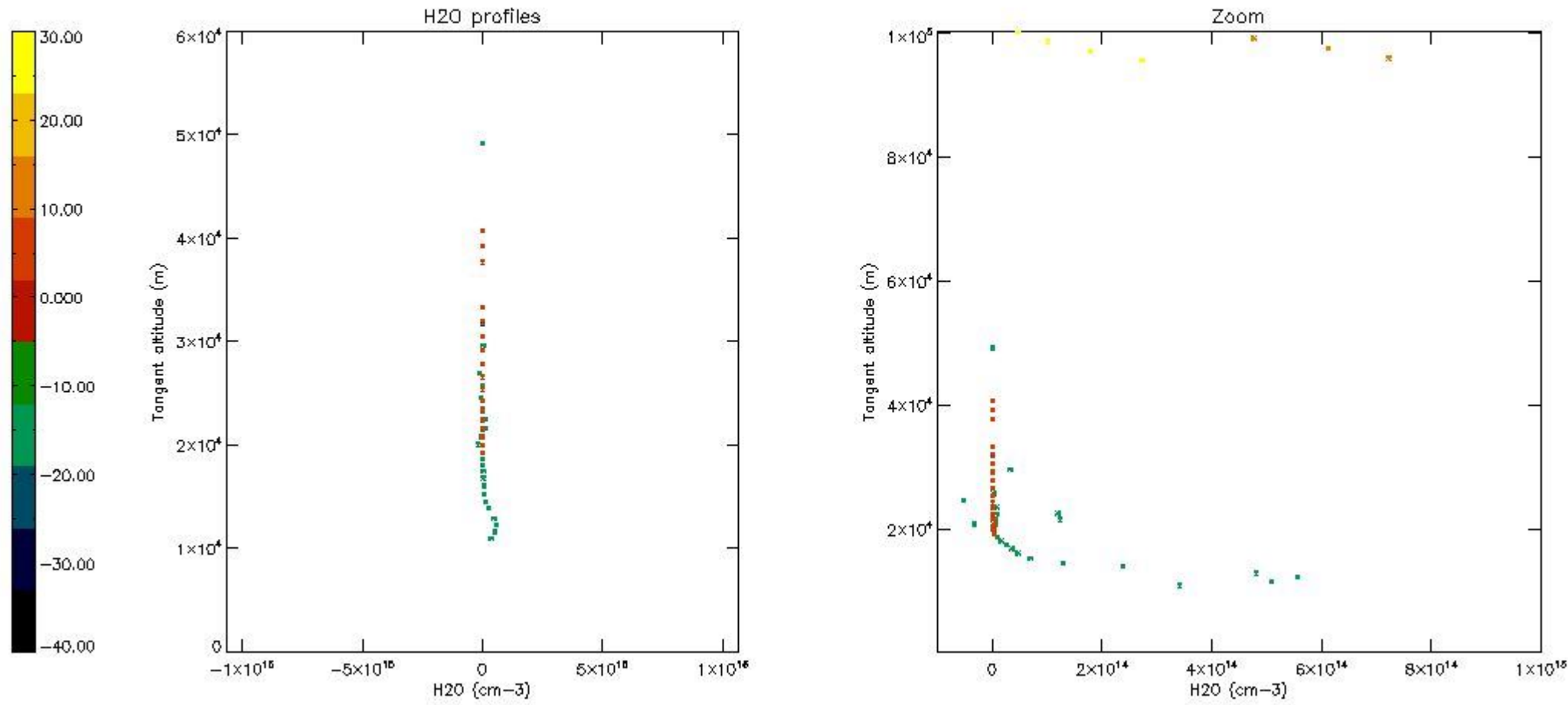
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

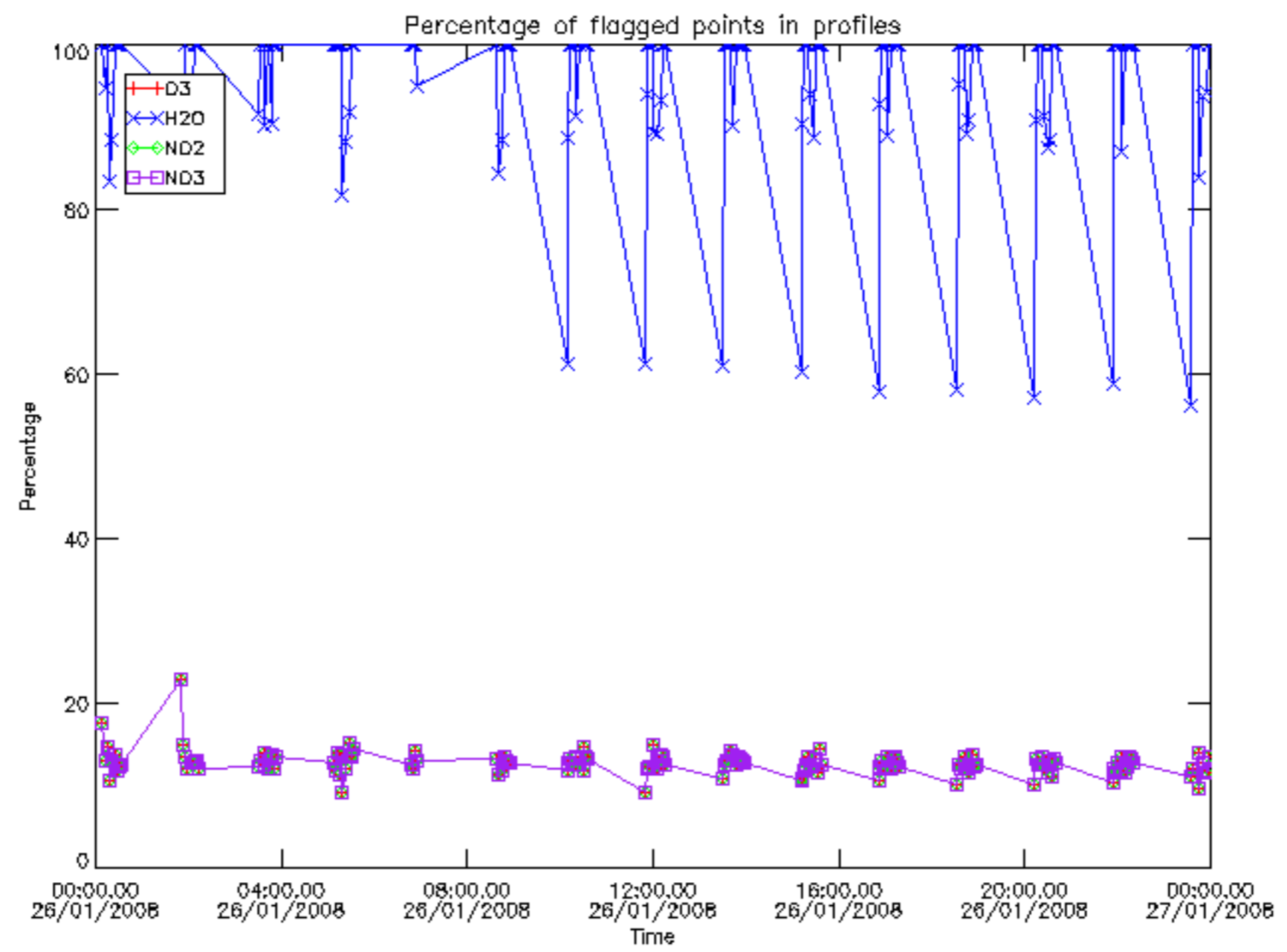
The colorbar represents the latitude.



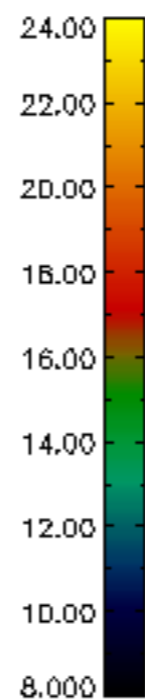
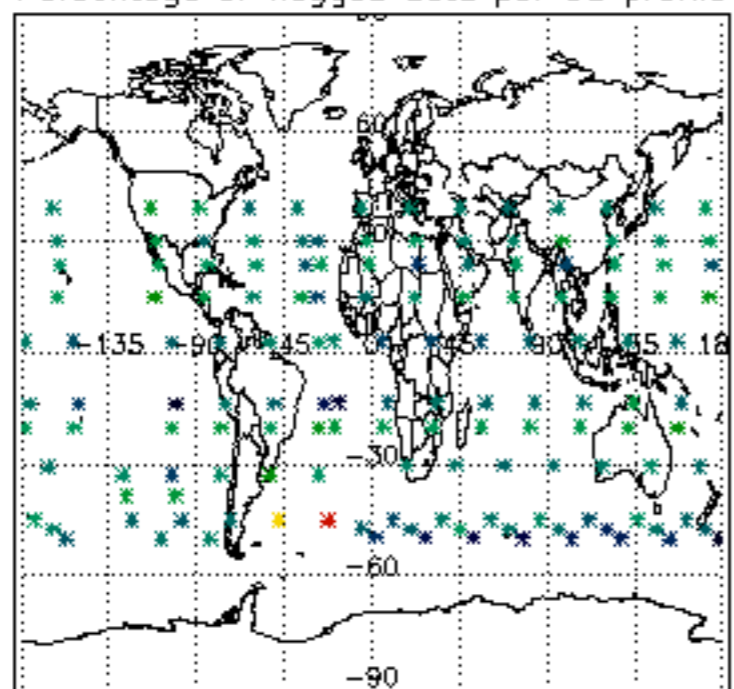
6. Auxiliary Data Files used for the production reported in section 2

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.

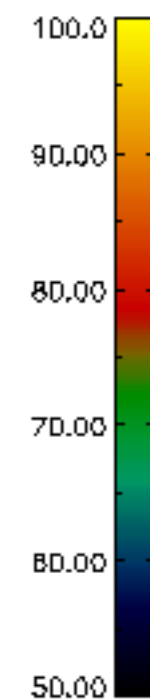
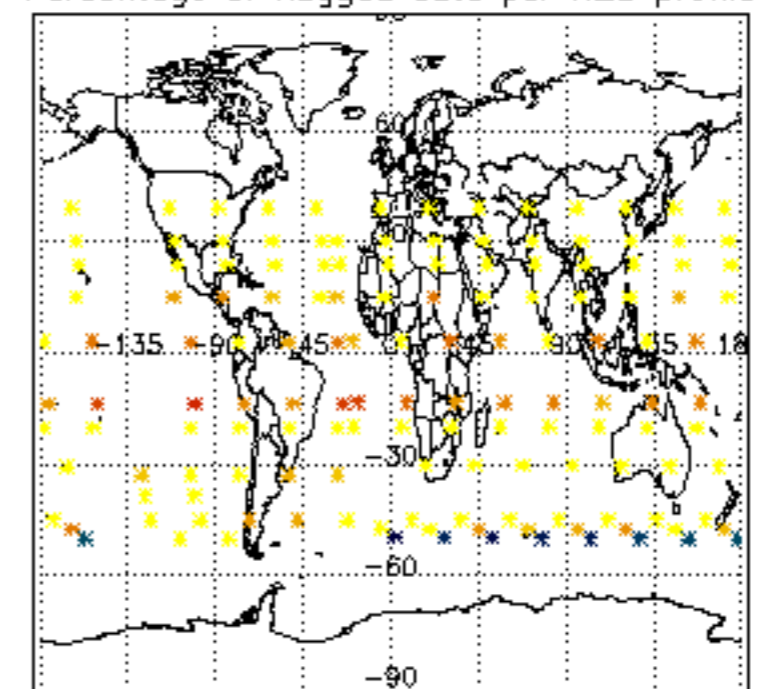
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	26-JAN-2008 00:01:52
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-JAN-2008 00:01:52
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-JAN-2008 00:01:52



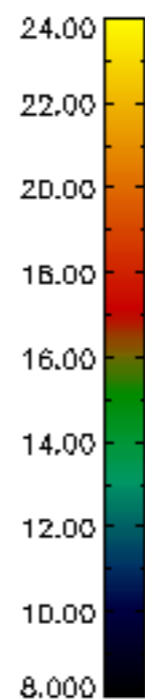
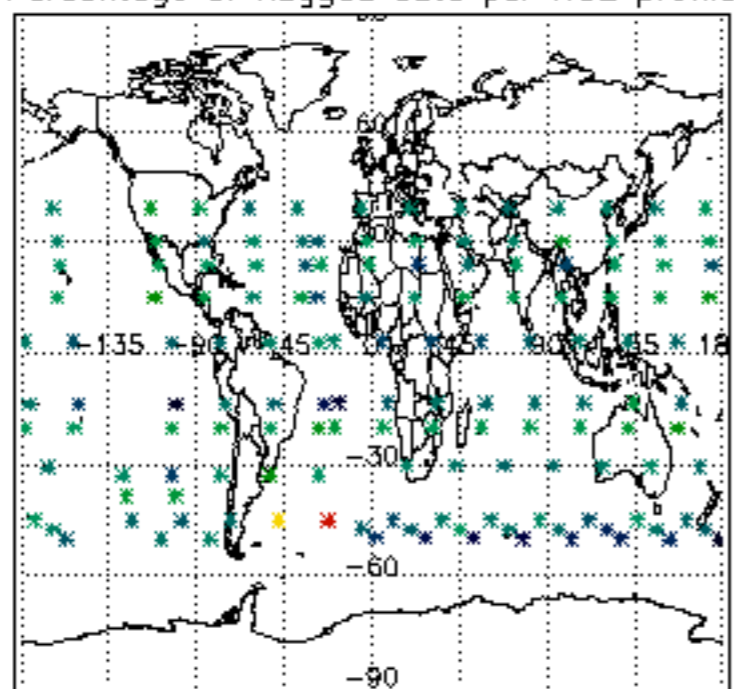
Percentage of flagged data per D3 profile



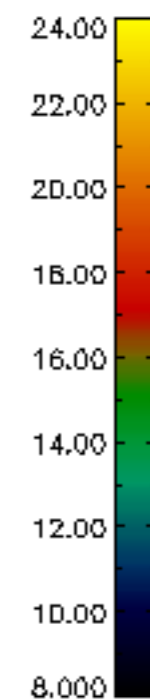
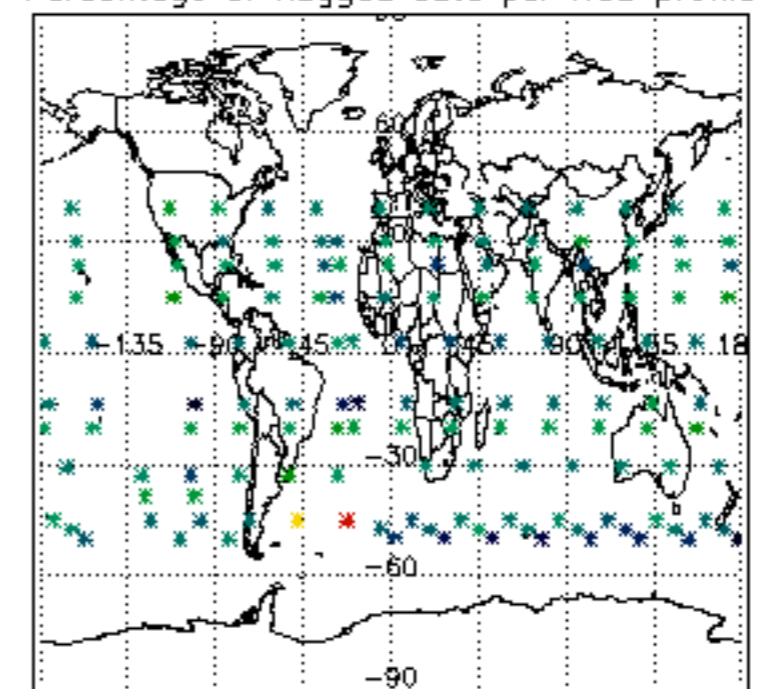
Percentage of flagged data per H2O profile

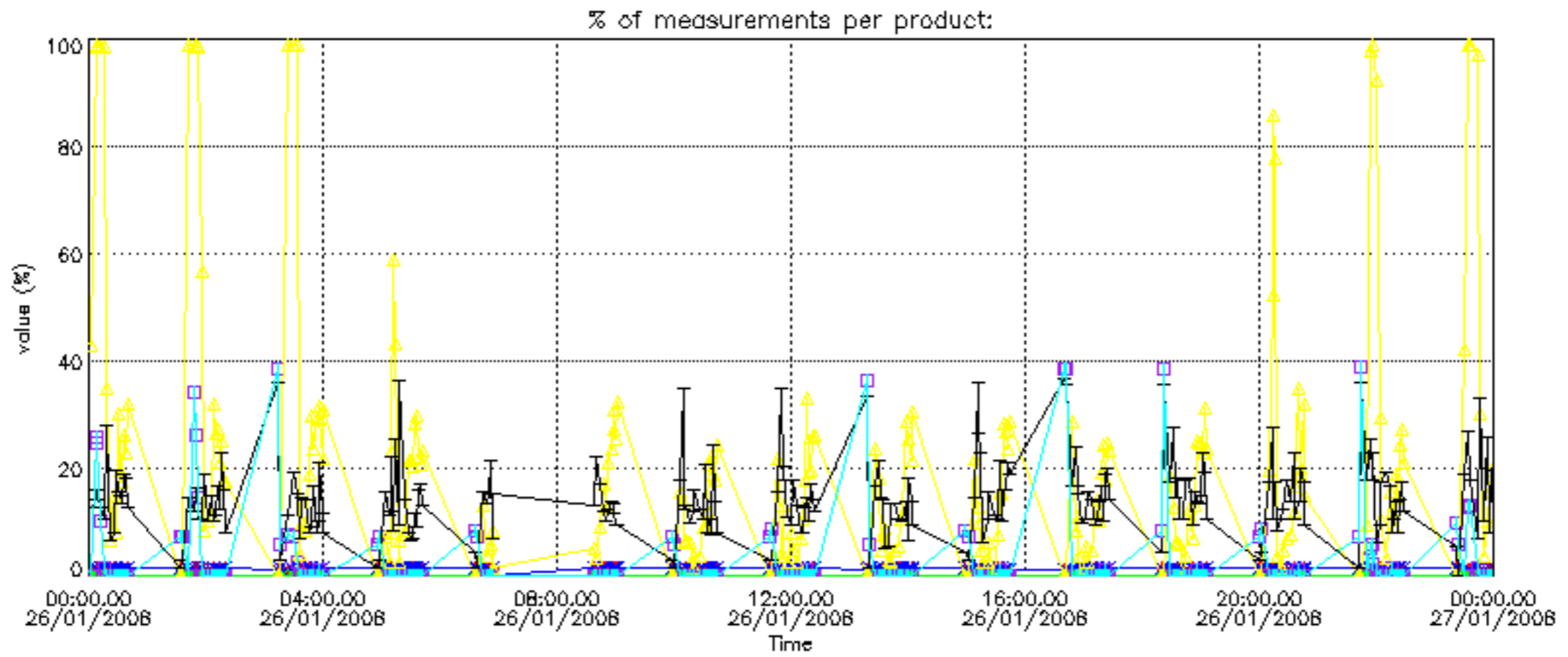


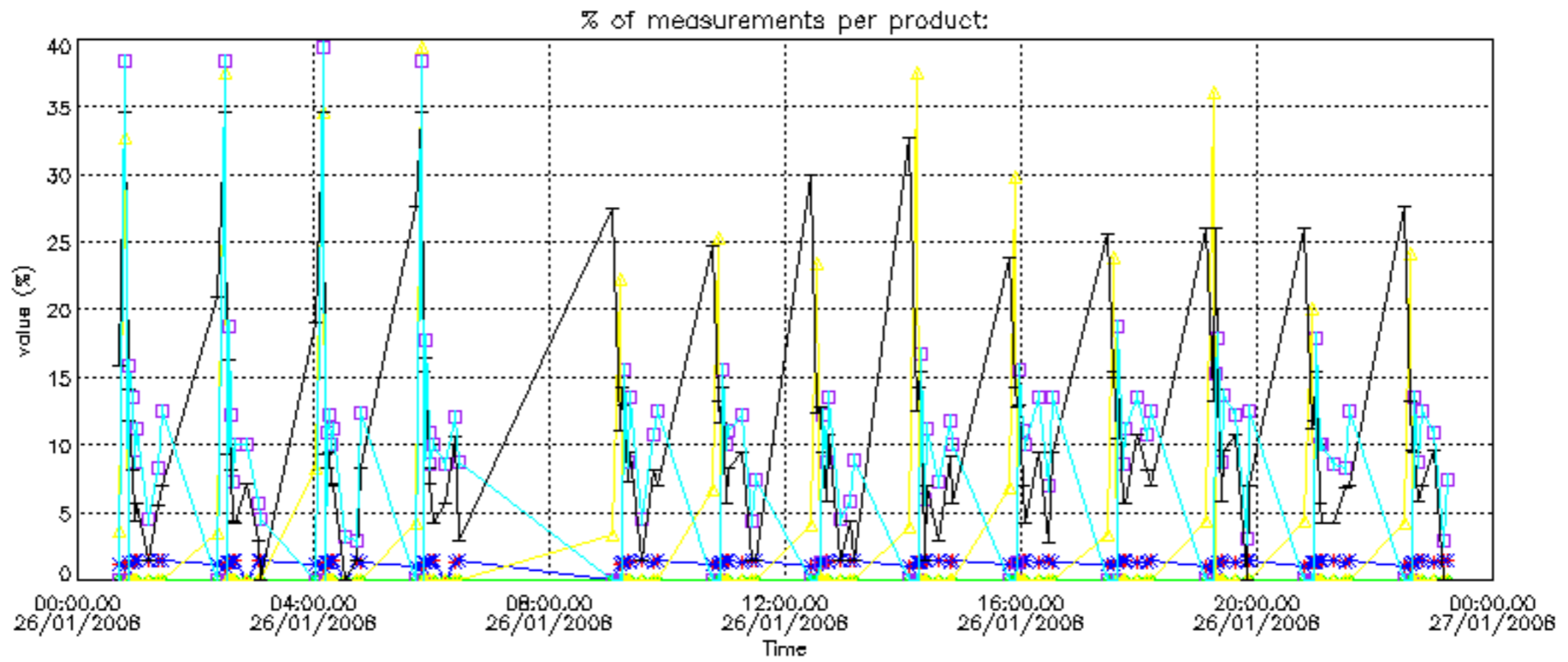
Percentage of flagged data per NO2 profile



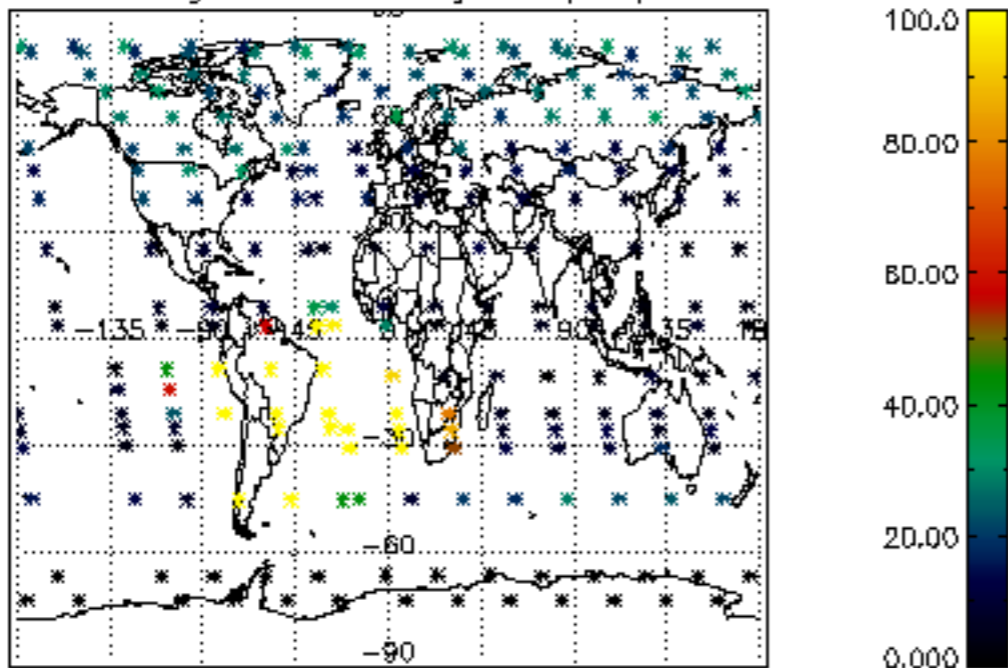
Percentage of flagged data per NO3 profile



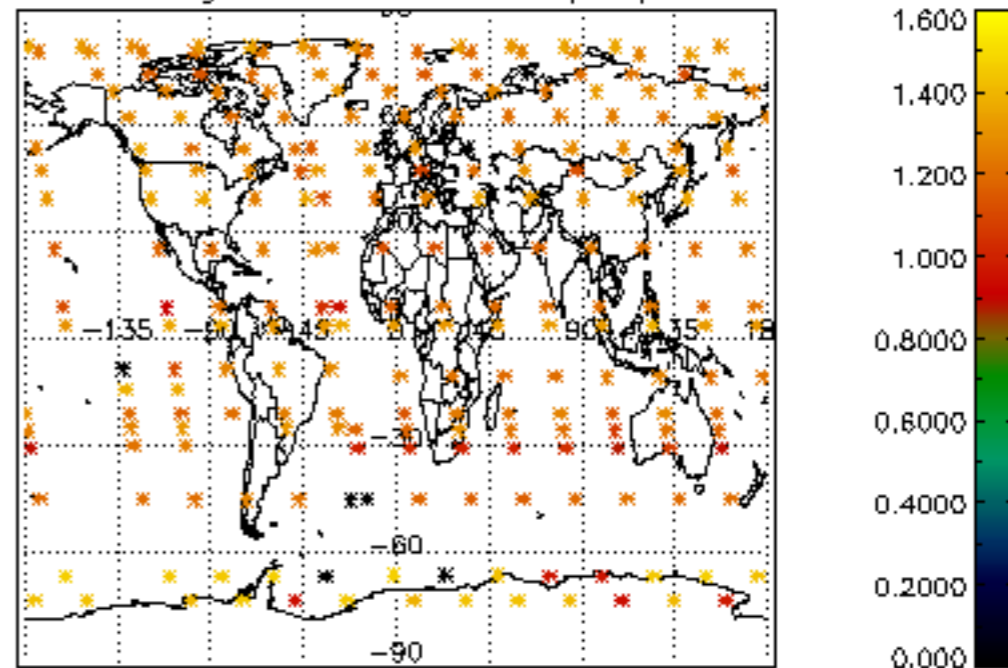




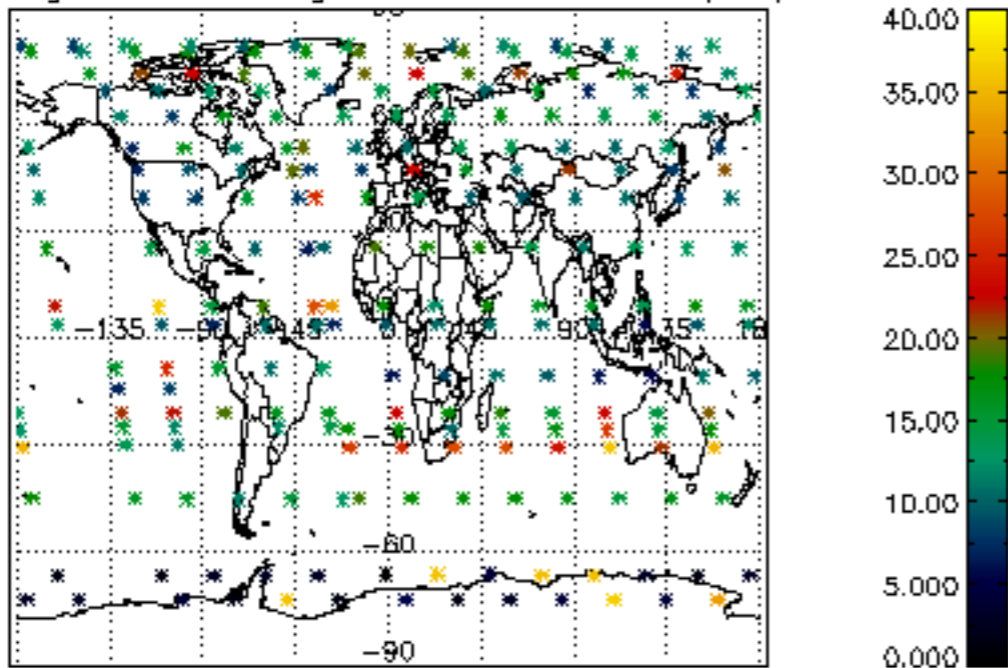
Percentage of cosmic ray hits per profile



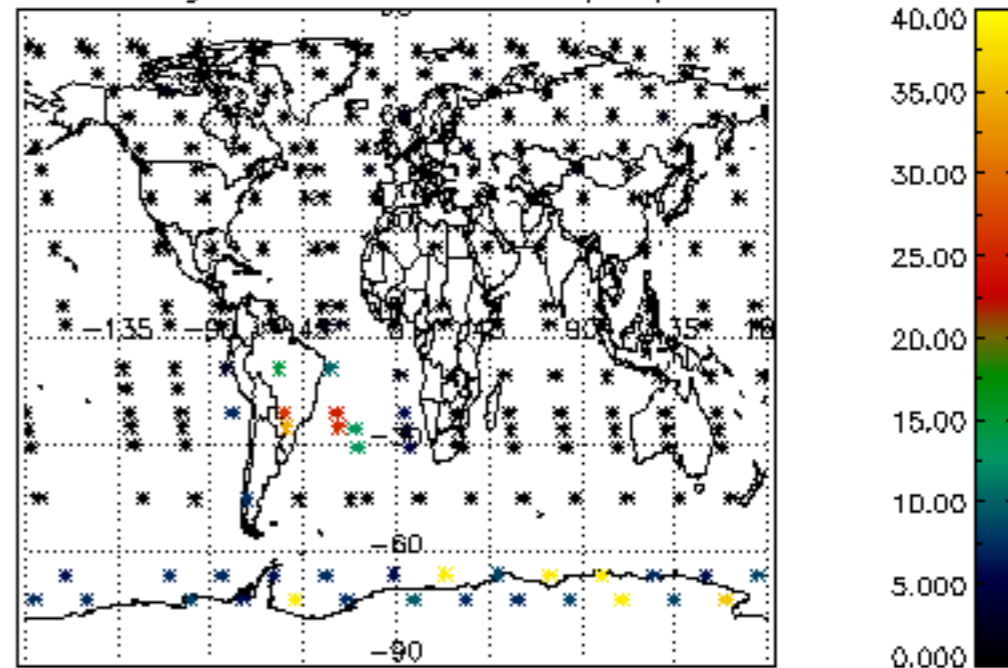
Percentage of datation errors per profile



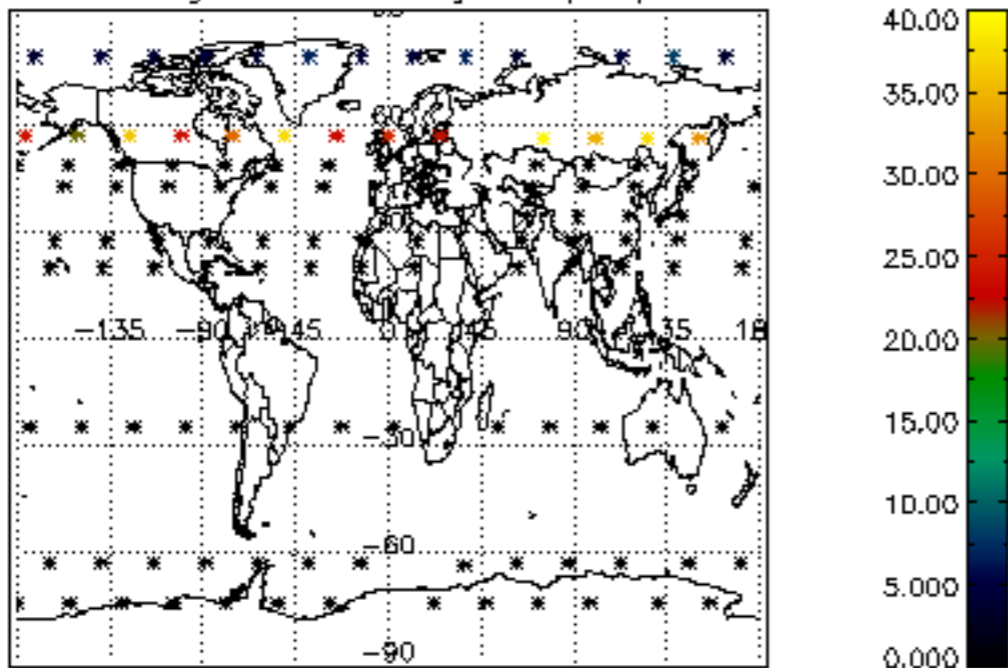
Percentage of star falling outside central band per profile



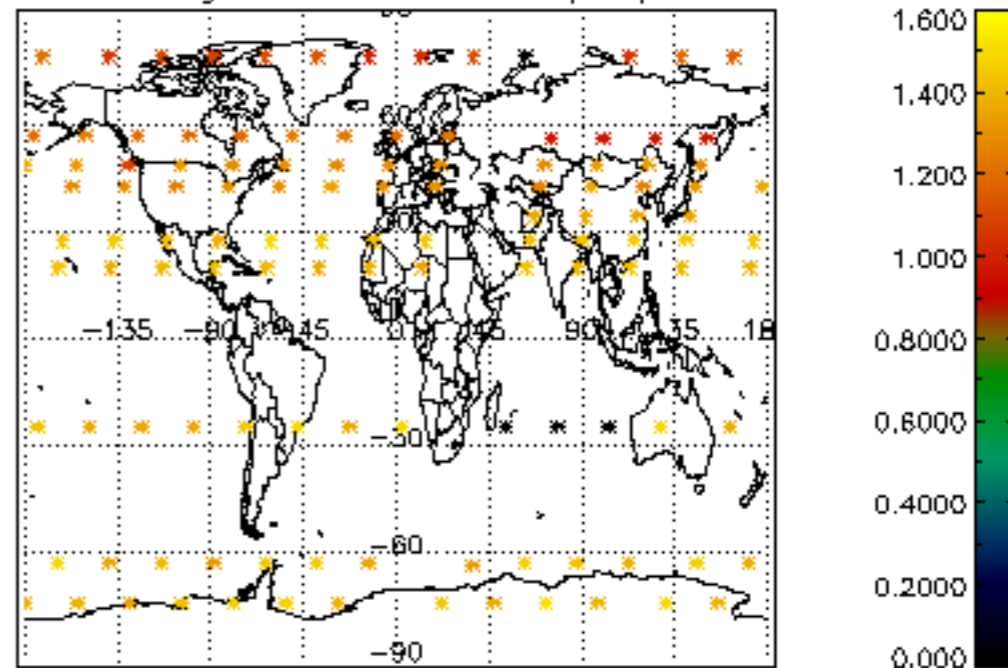
Percentage of saturation errors per profile



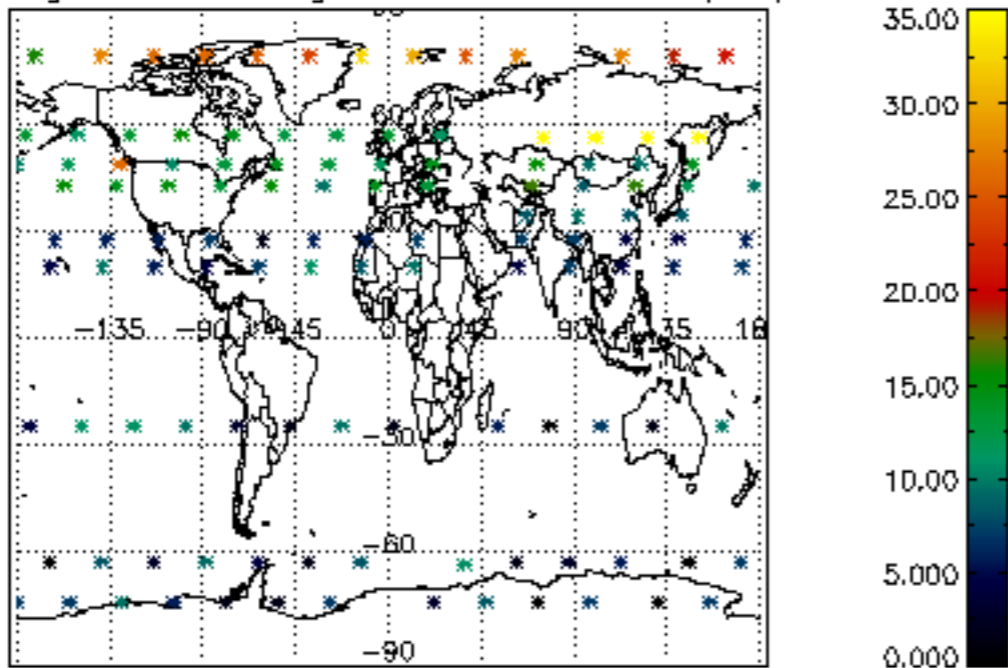
Percentage of cosmic ray hits per profile



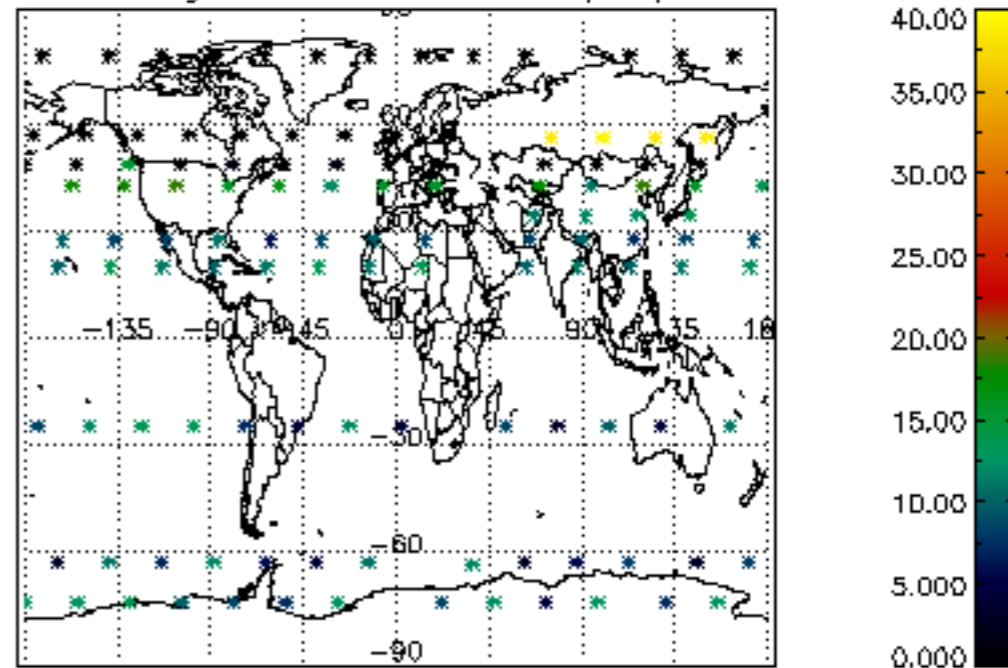
Percentage of datation errors per profile

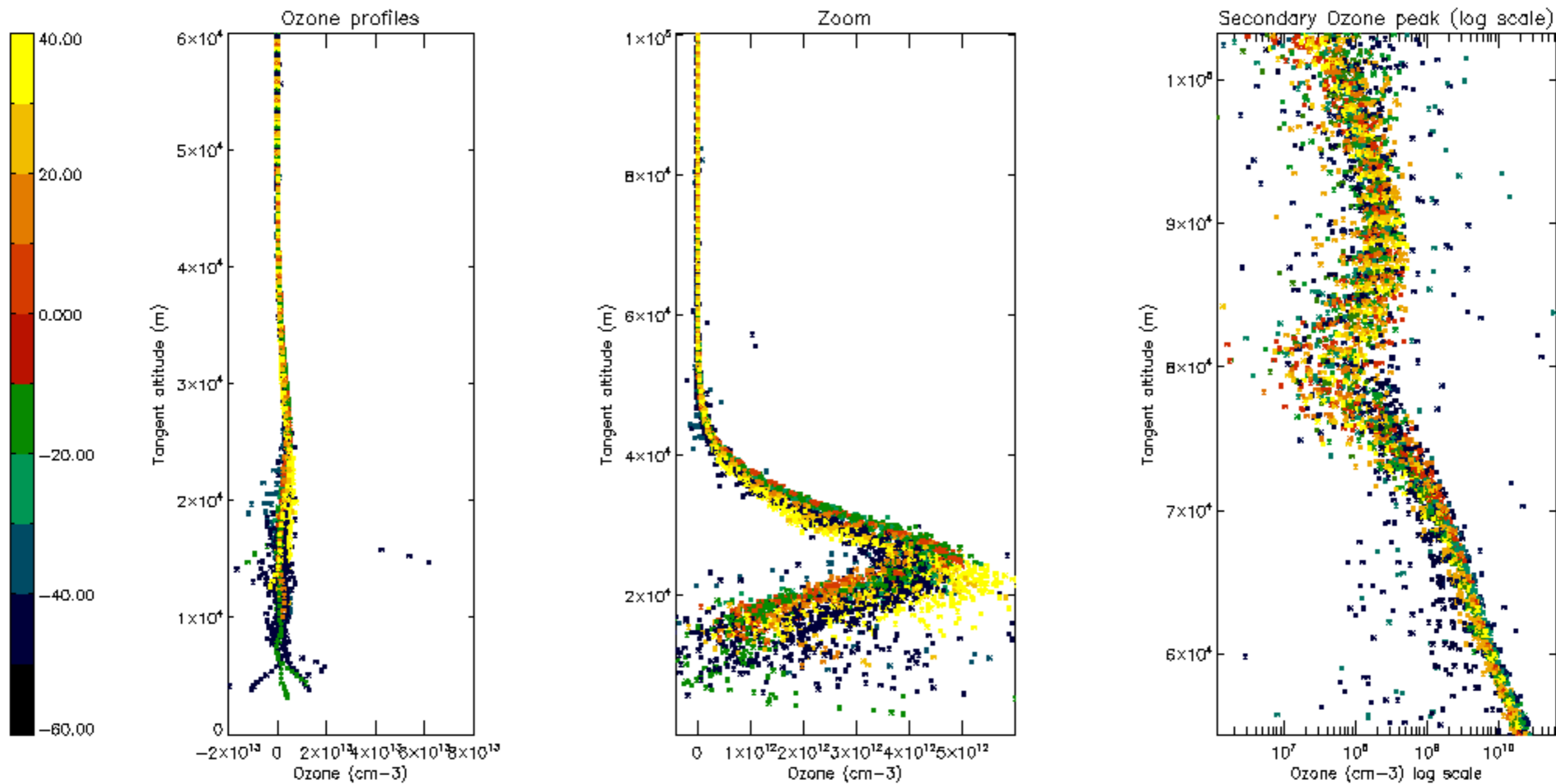


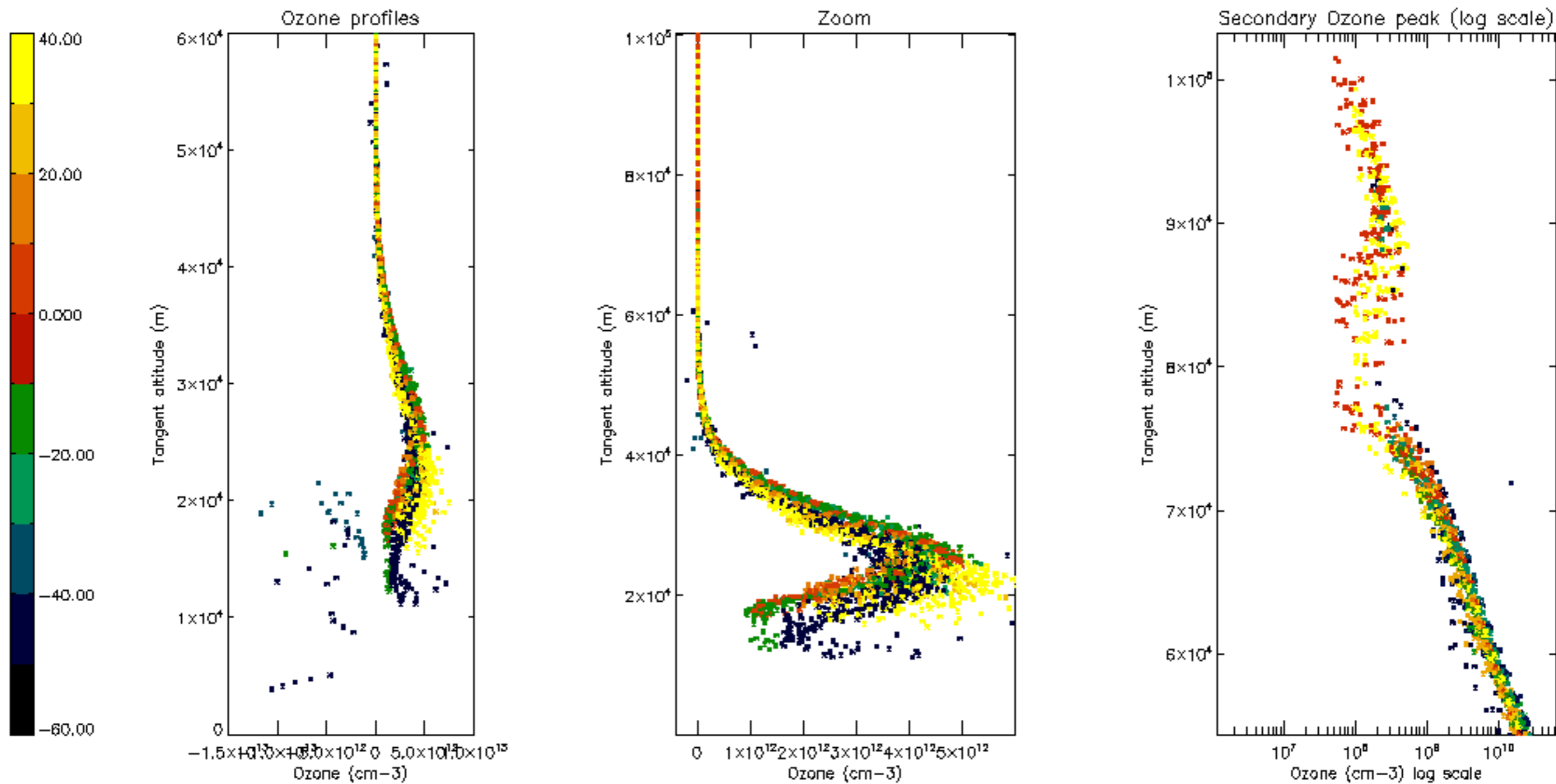
Percentage of star falling outside central band per profile

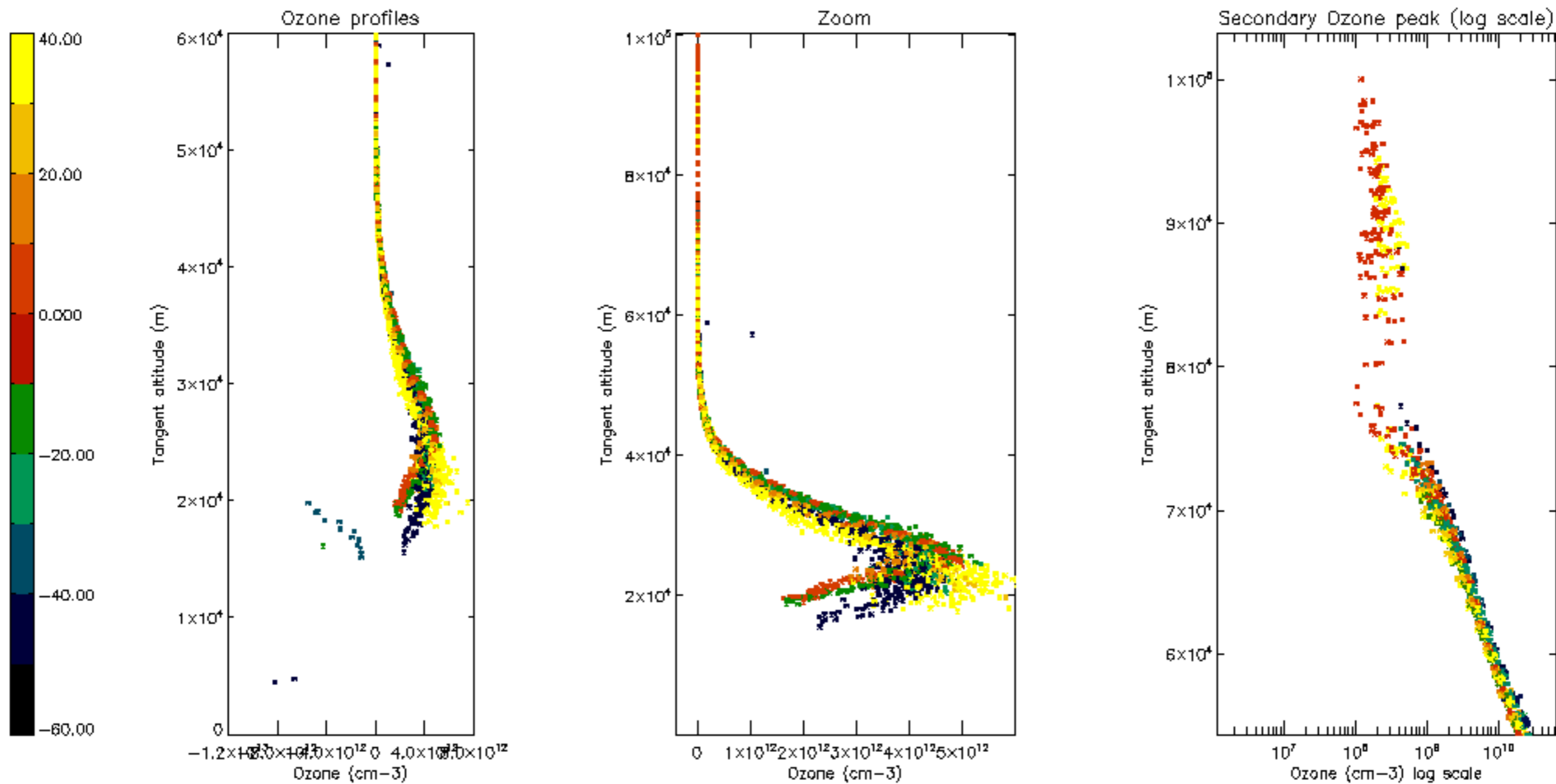


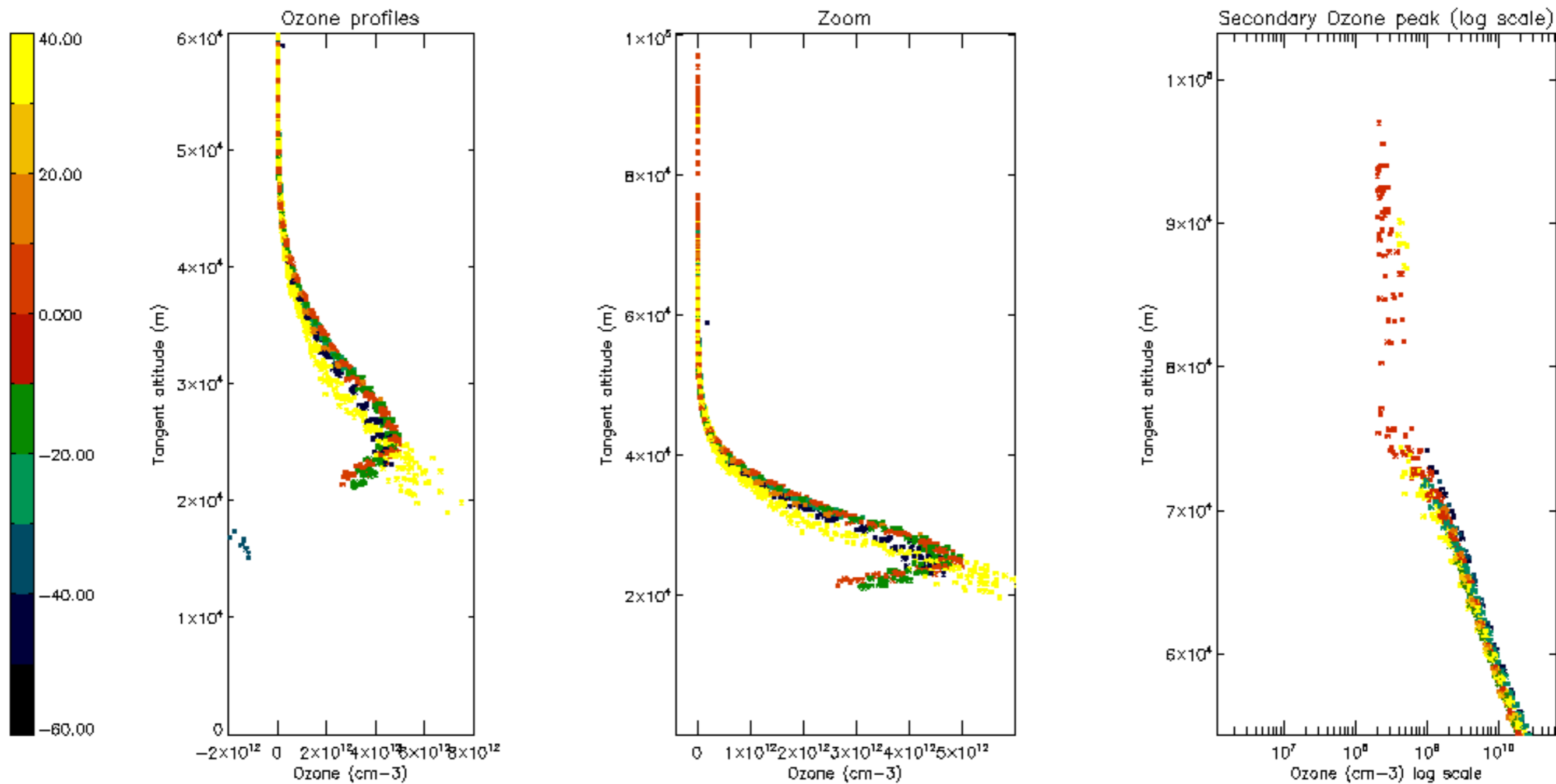
Percentage of saturation errors per profile

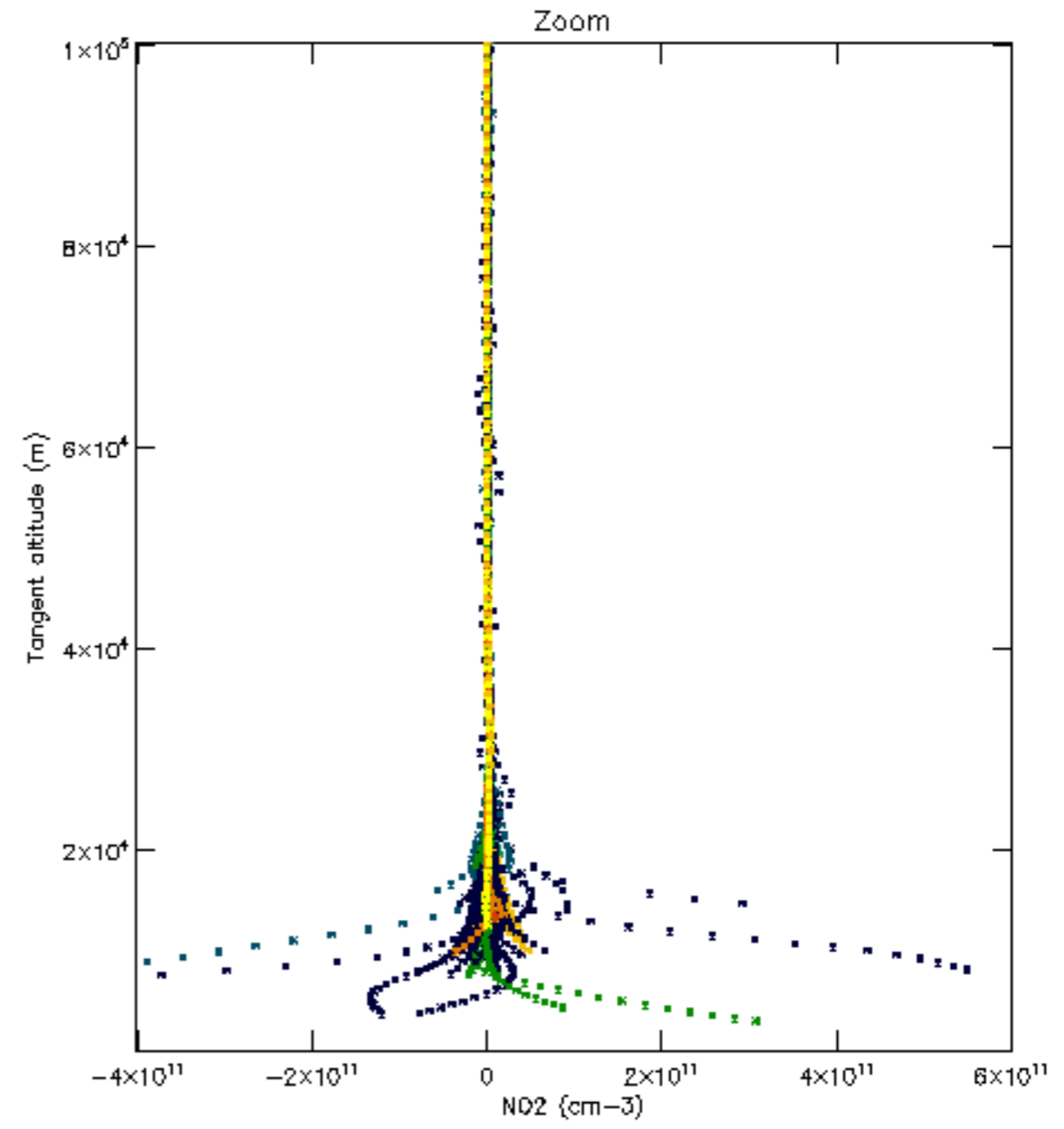
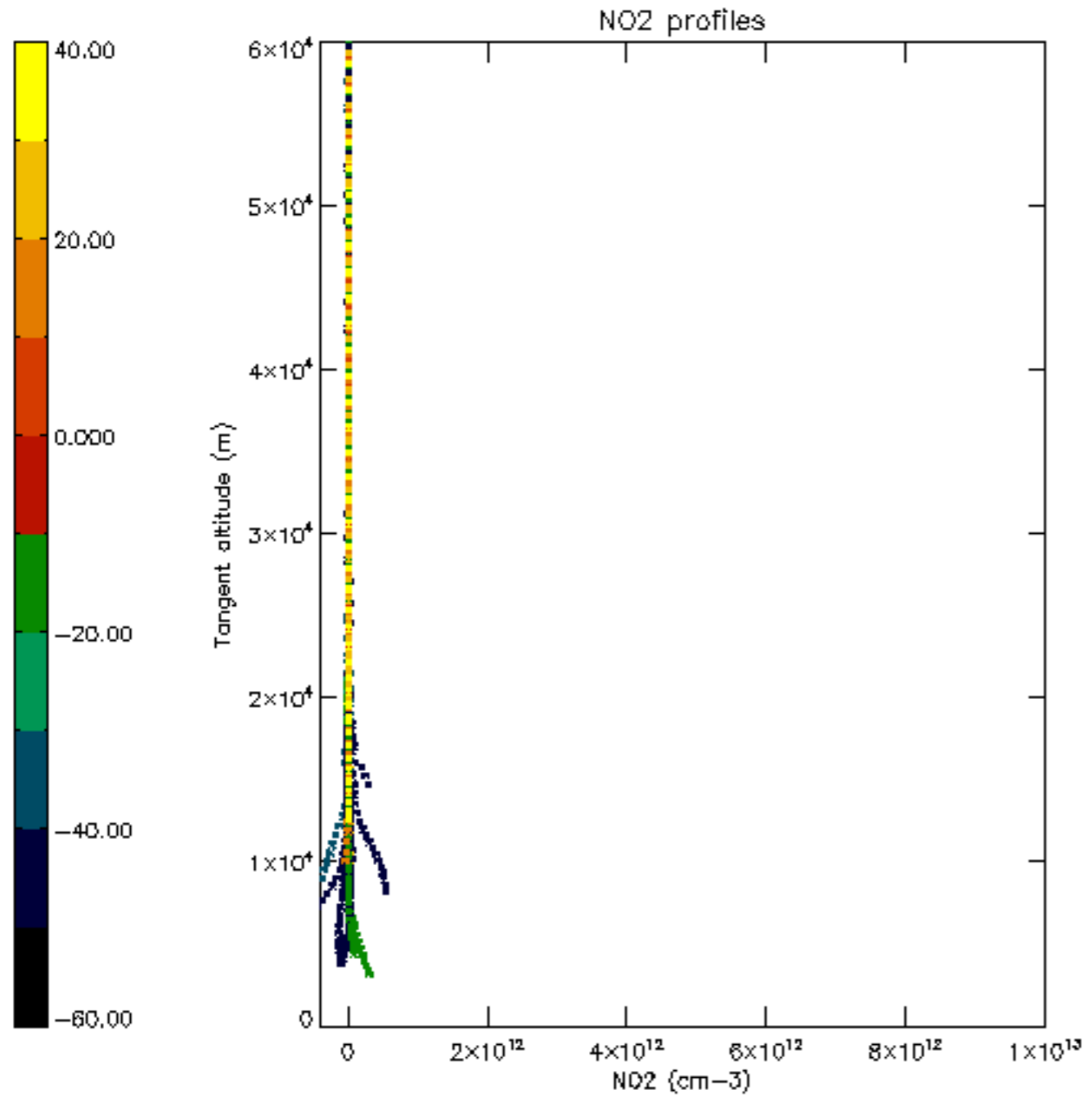


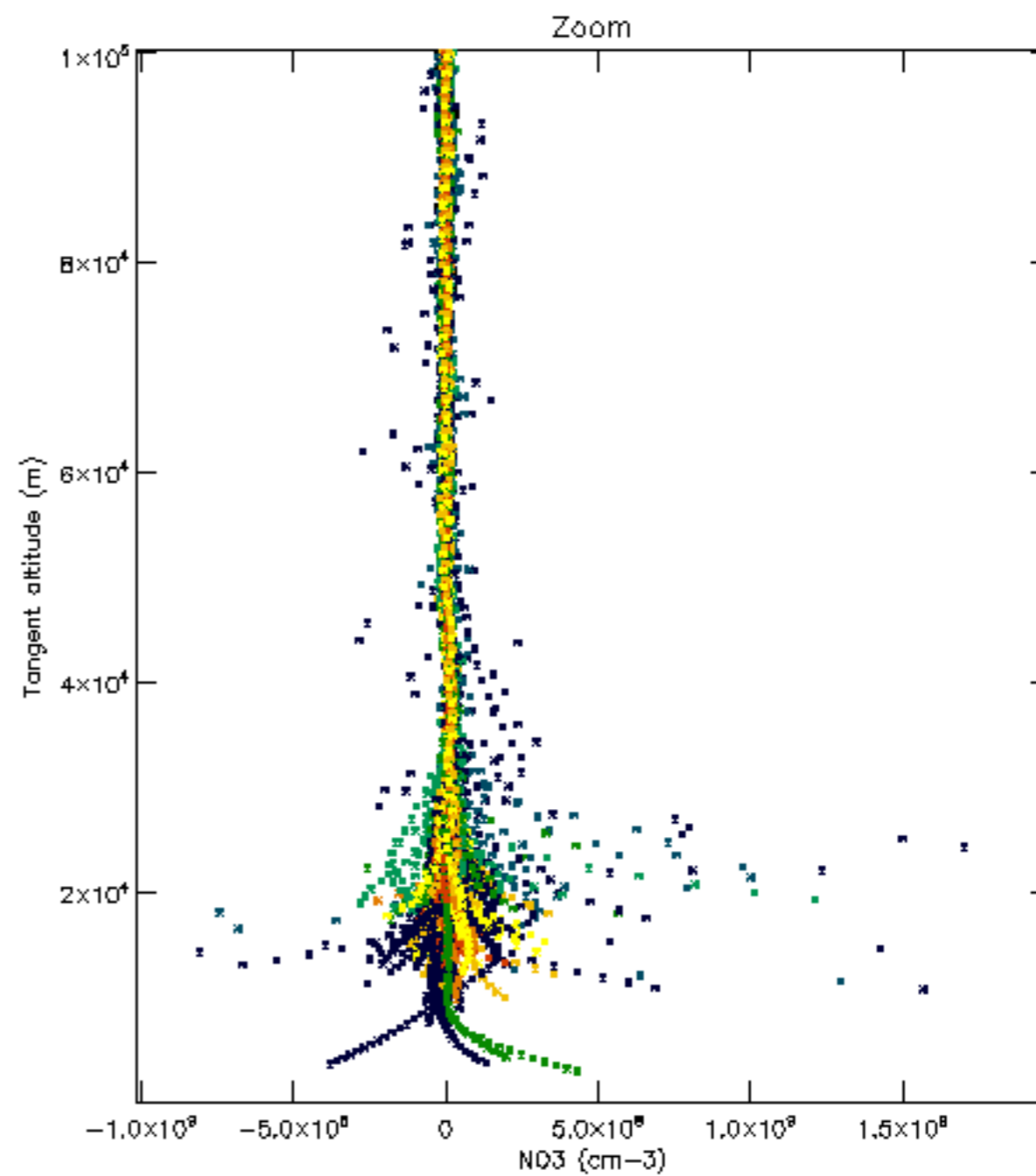
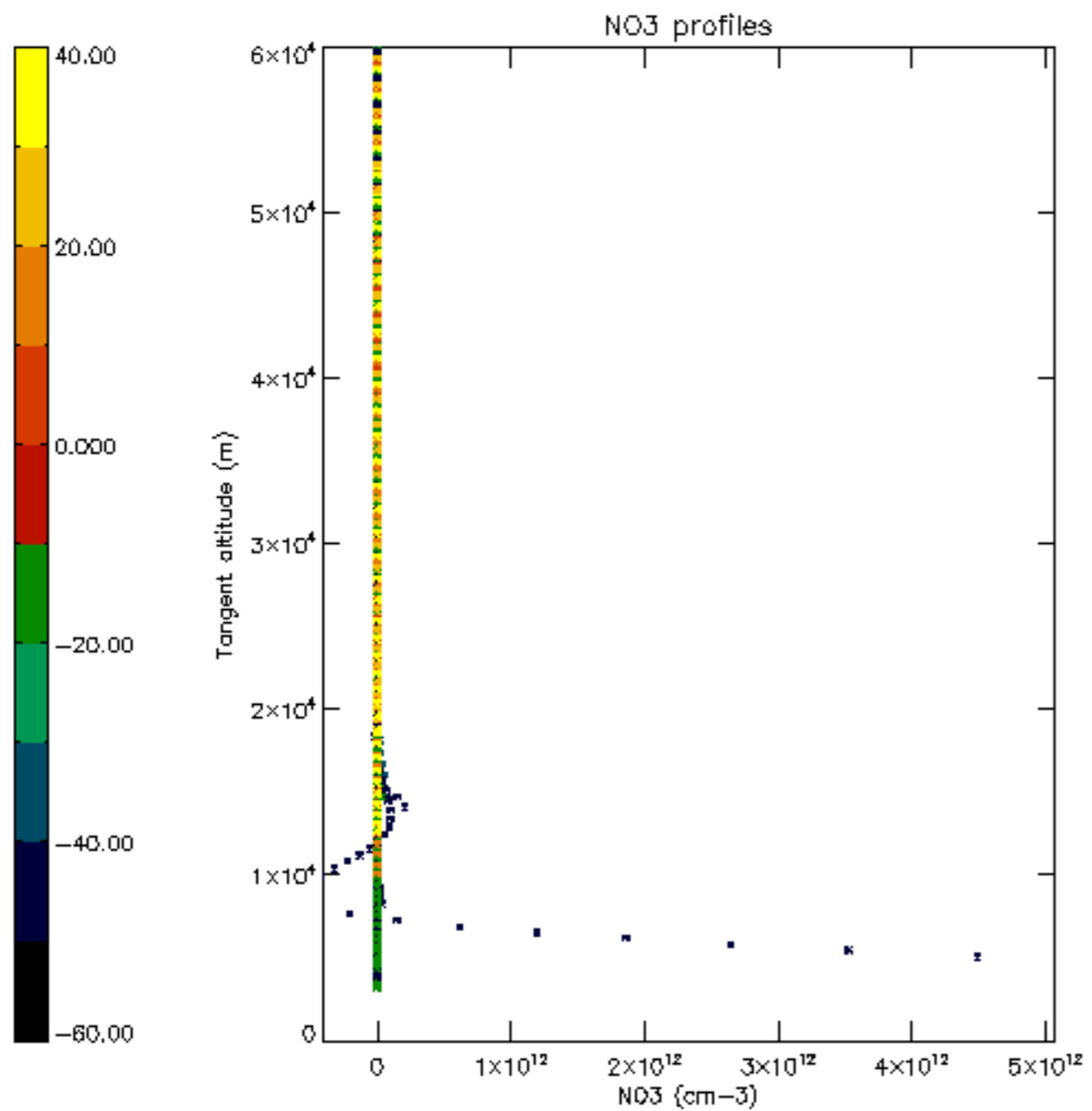


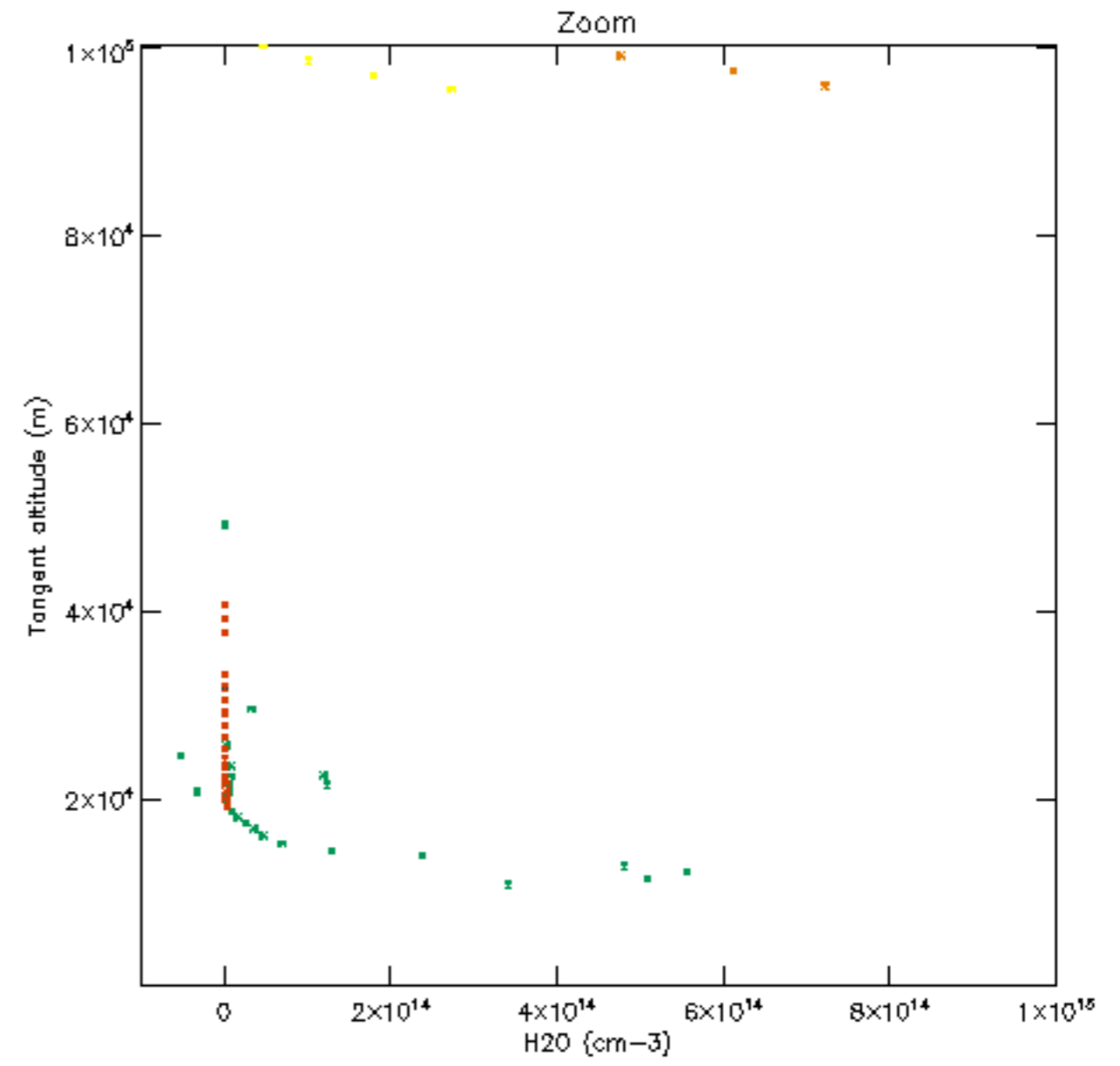
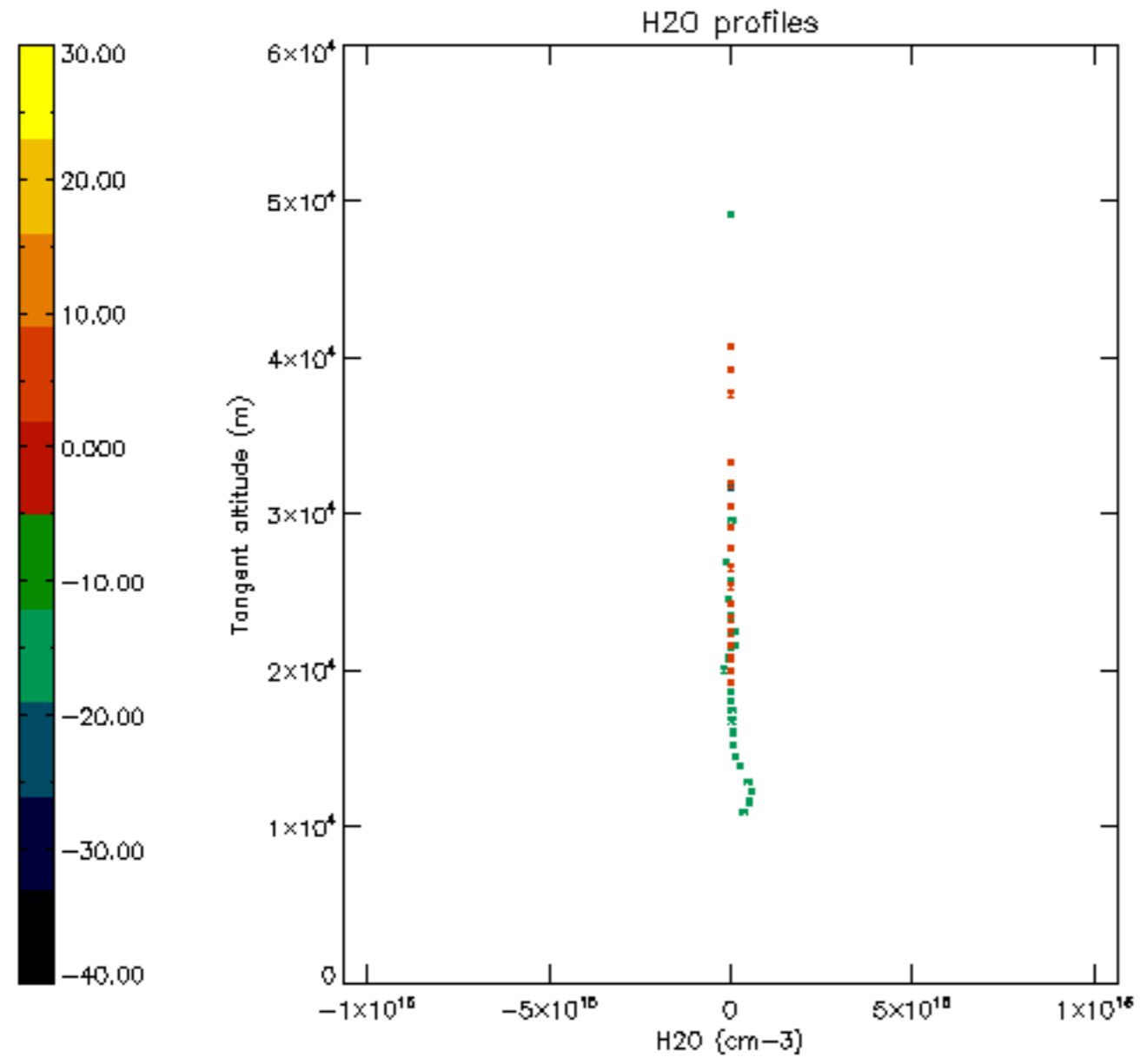


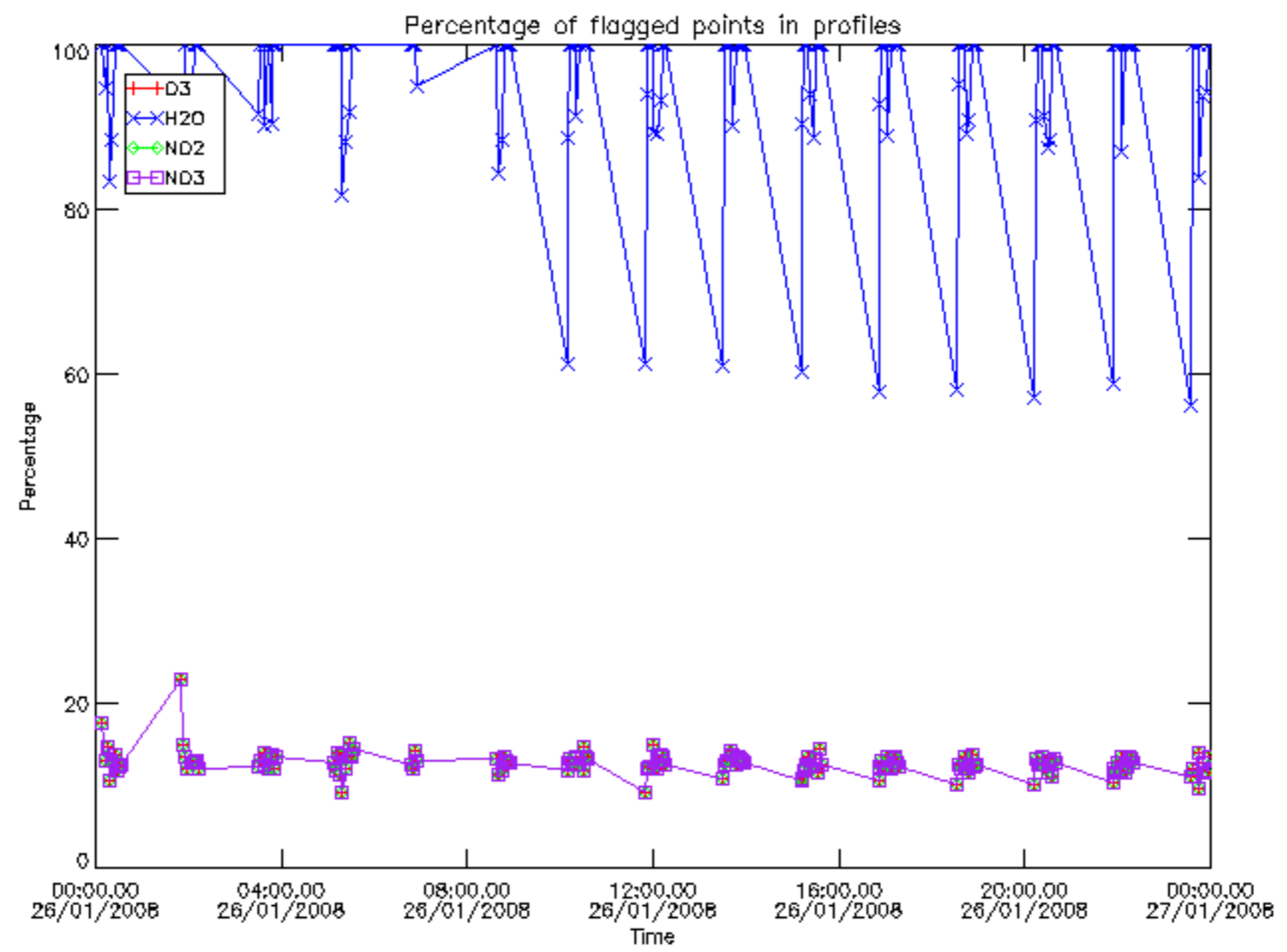




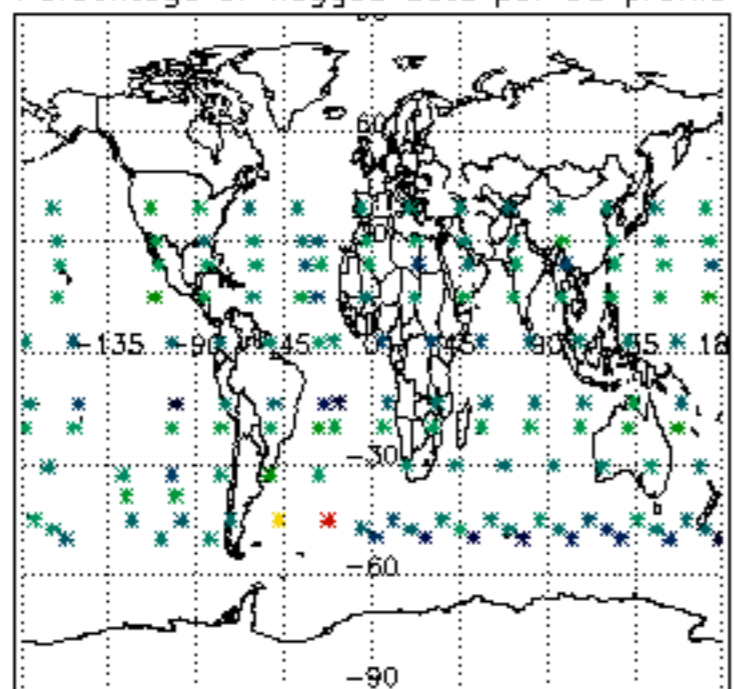




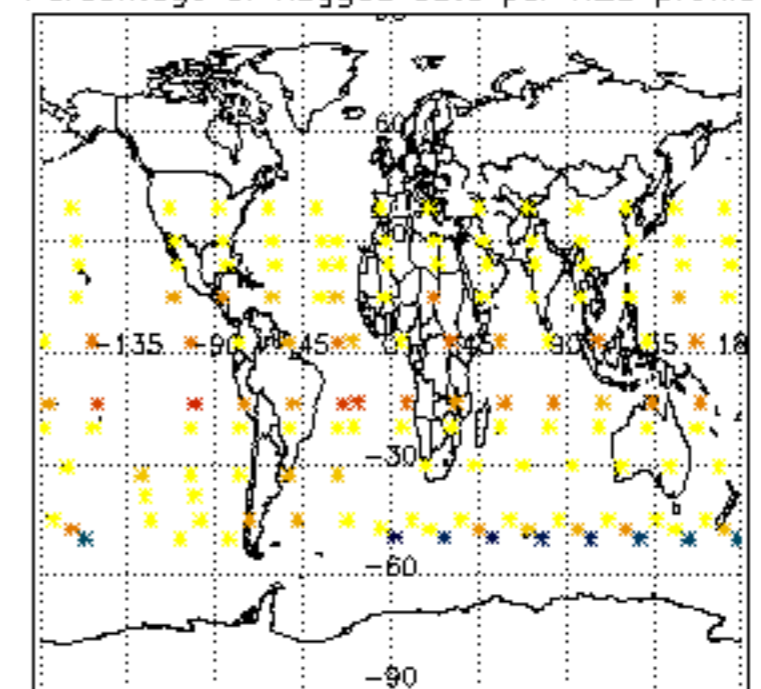




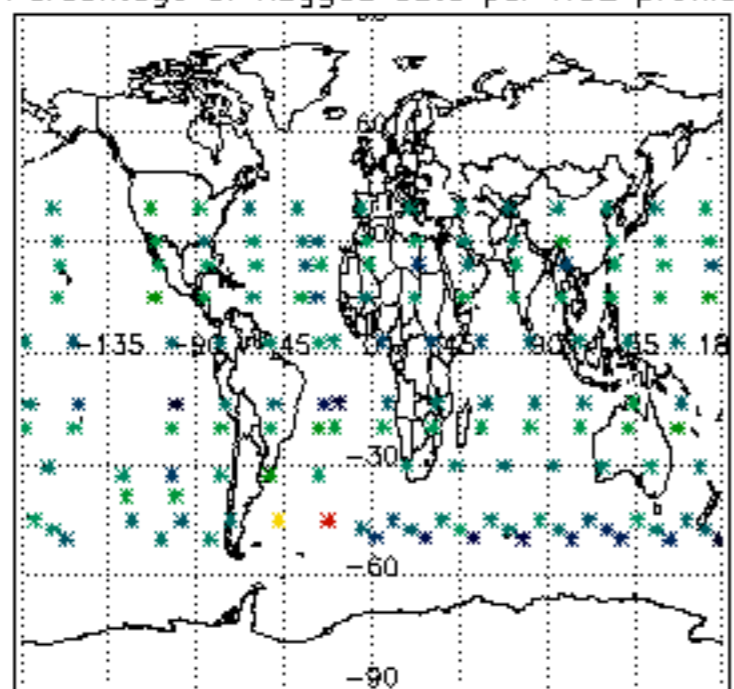
Percentage of flagged data per D3 profile



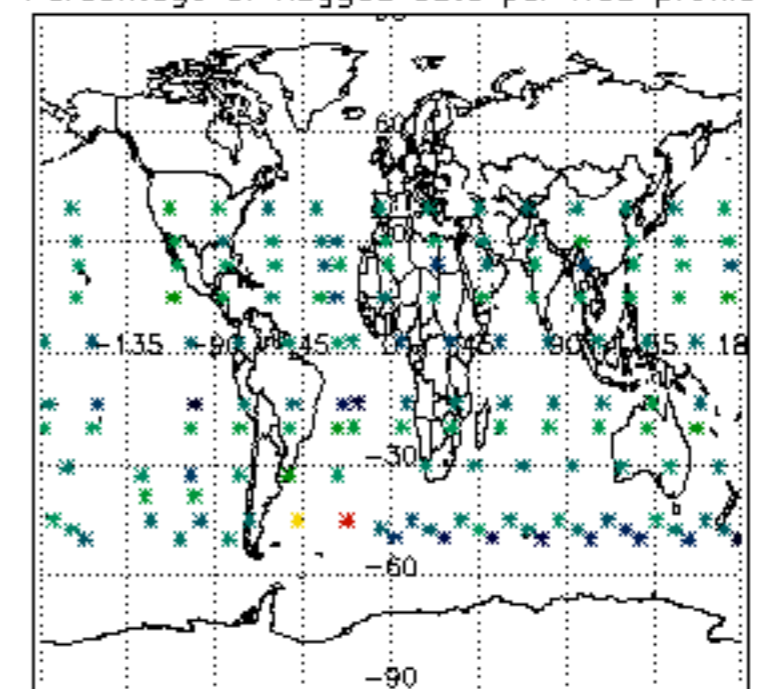
Percentage of flagged data per H2O profile

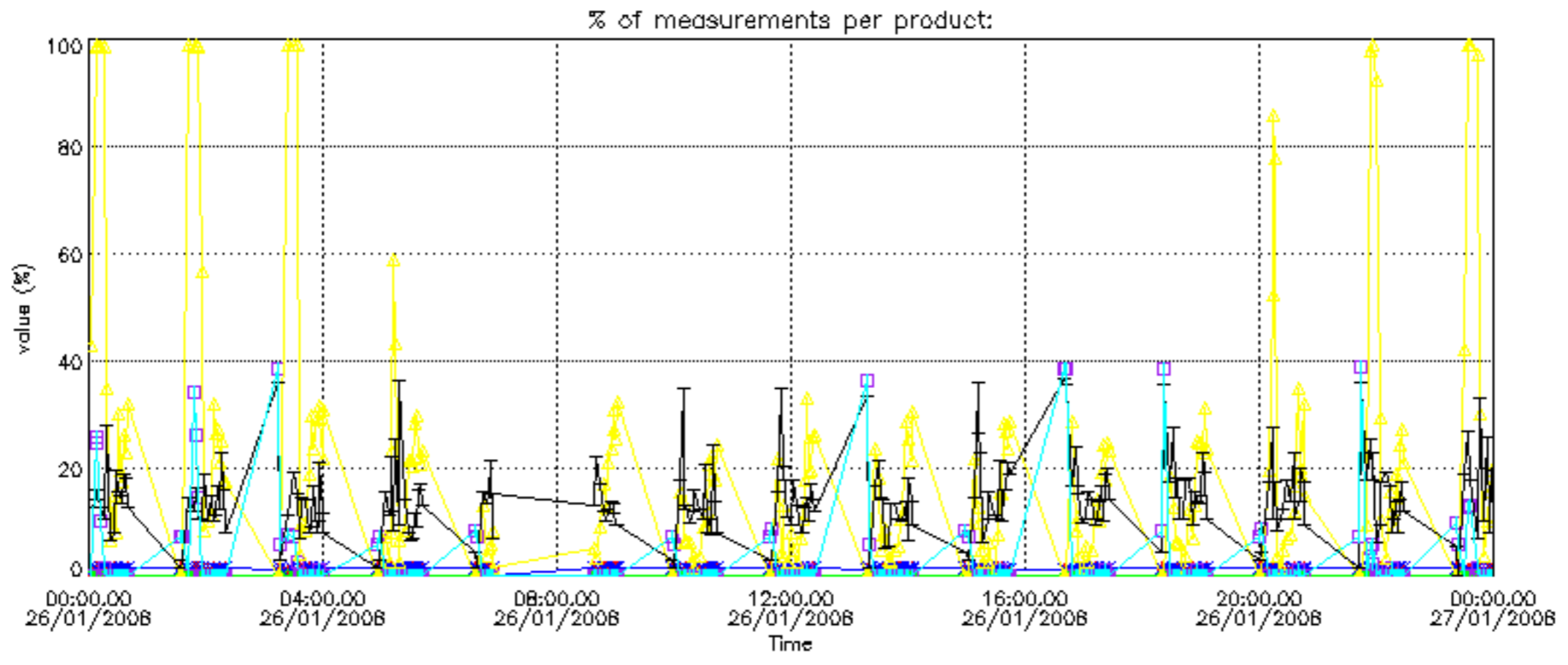


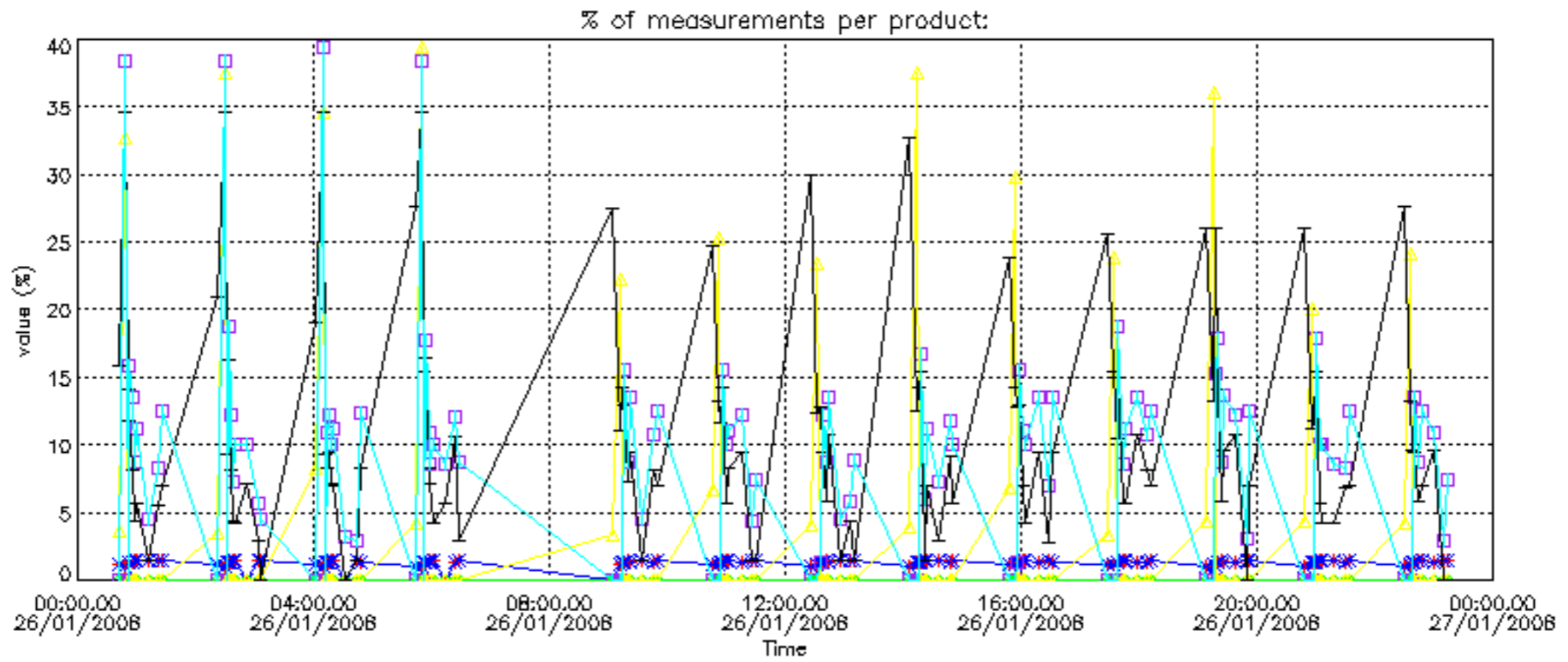
Percentage of flagged data per NO2 profile



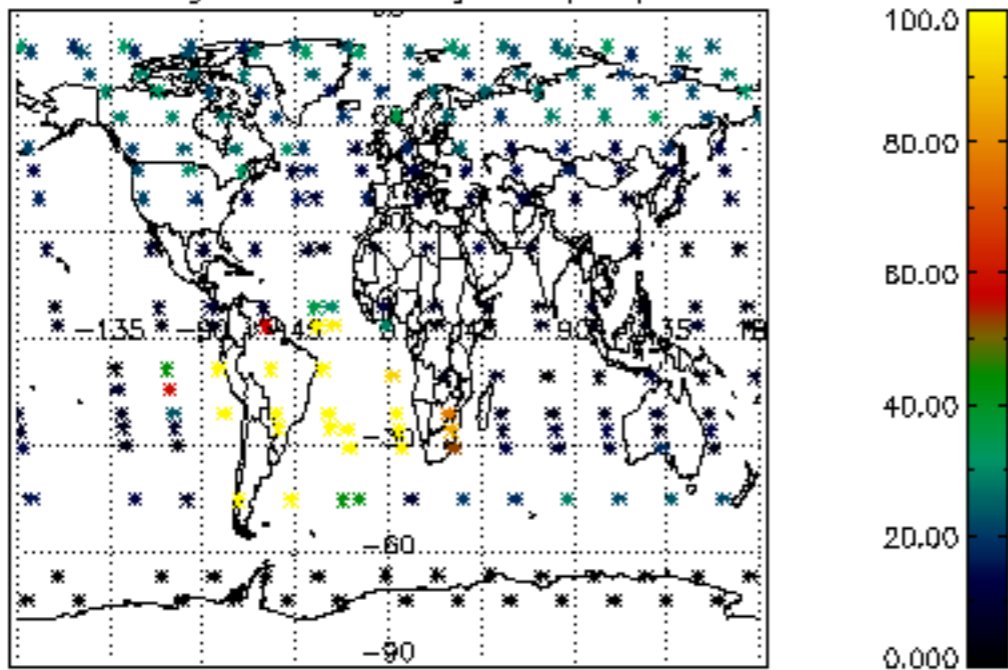
Percentage of flagged data per NO3 profile



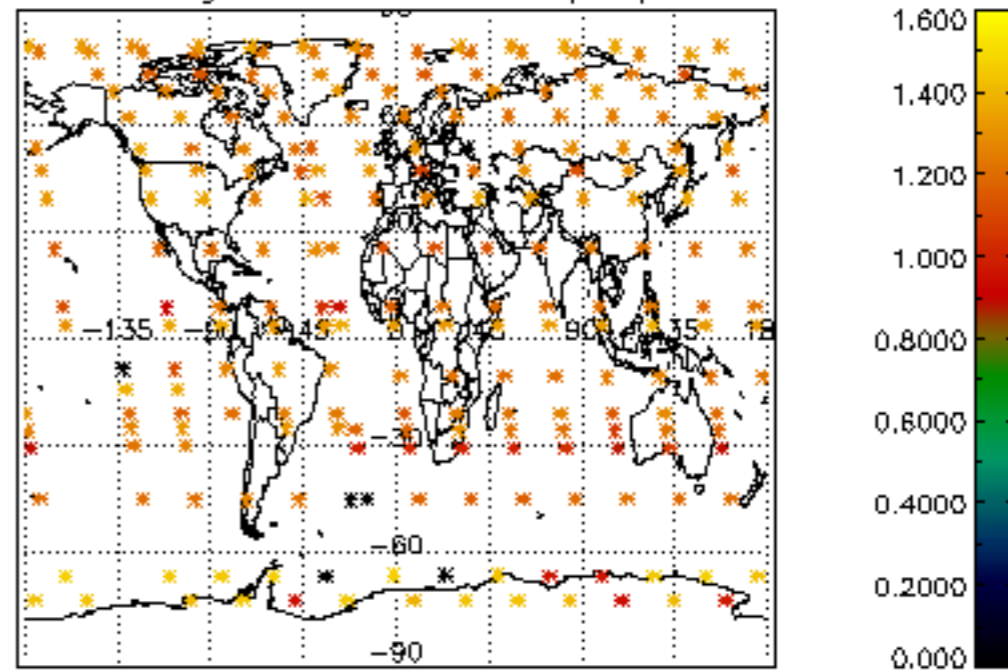




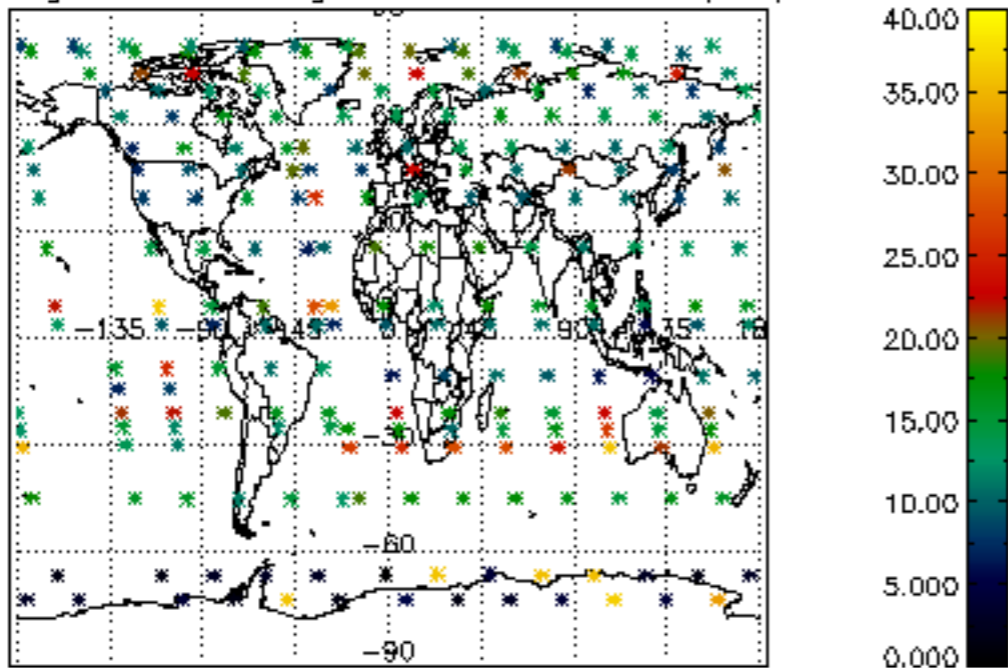
Percentage of cosmic ray hits per profile



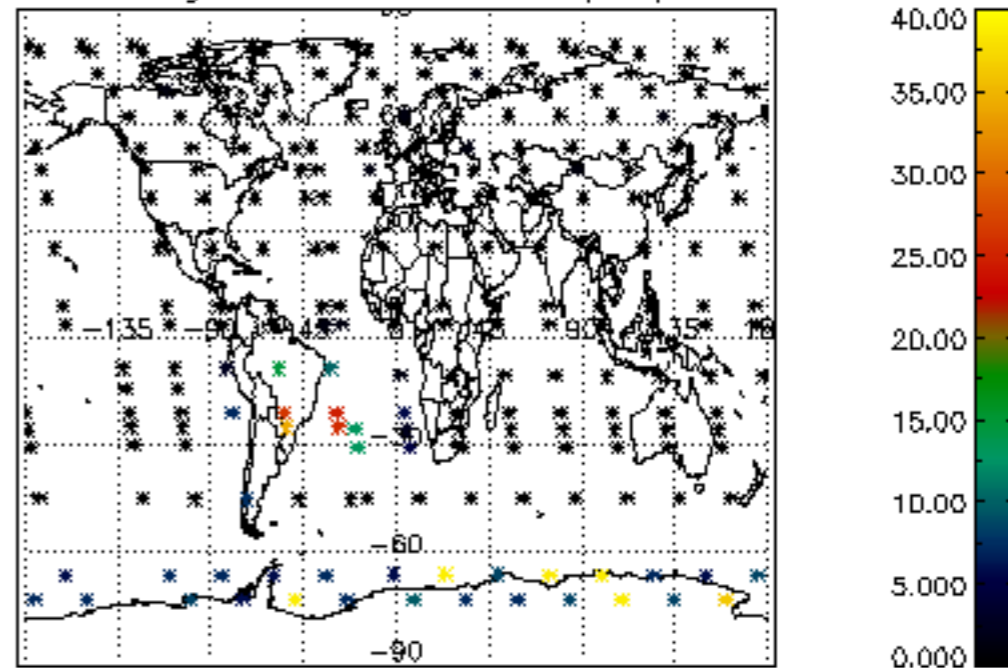
Percentage of datation errors per profile



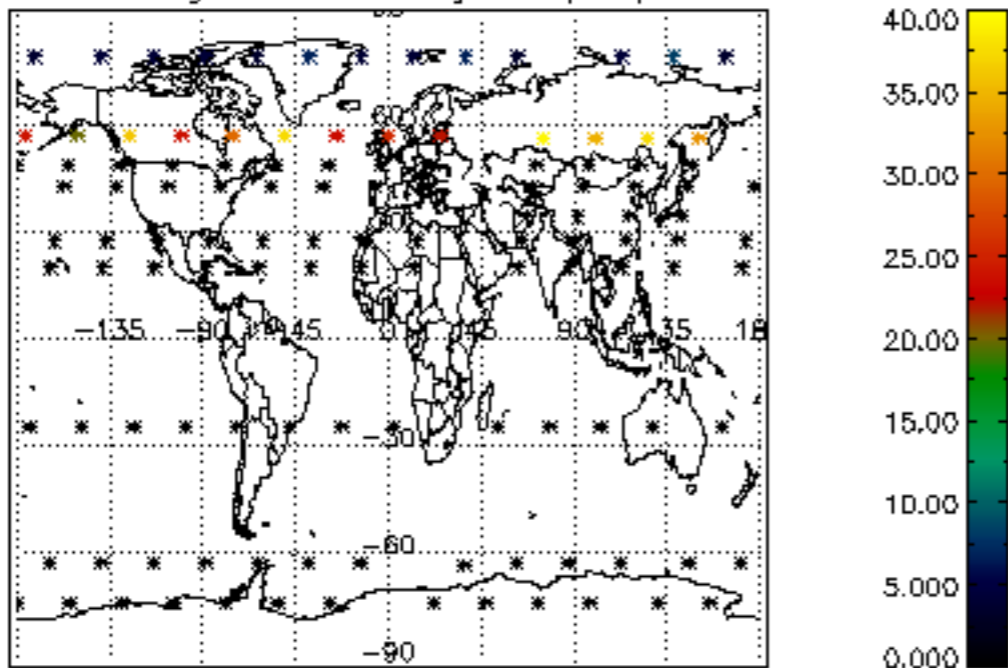
Percentage of star falling outside central band per profile



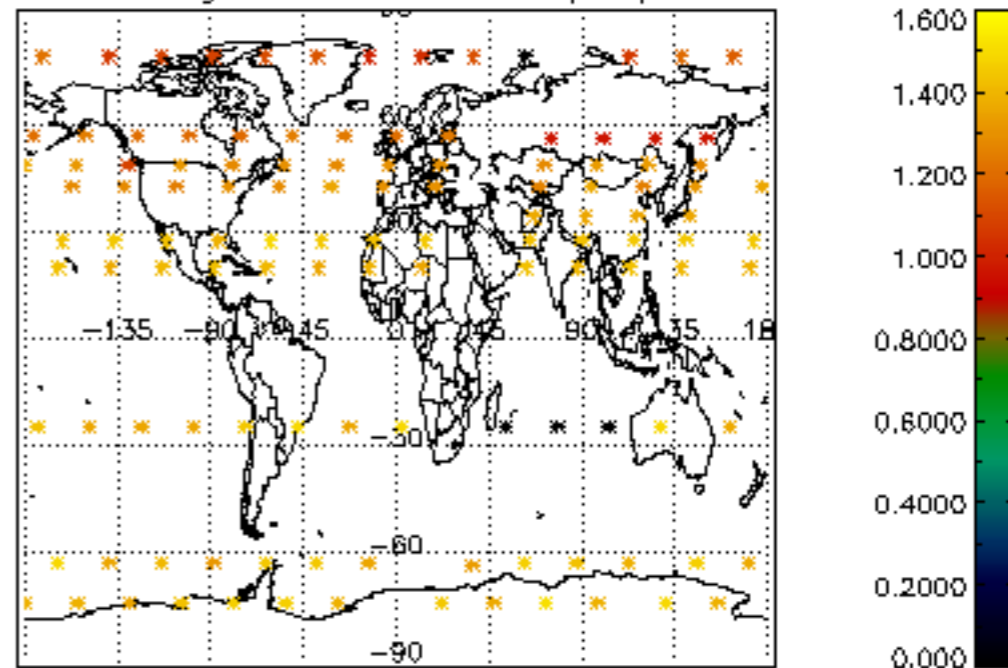
Percentage of saturation errors per profile



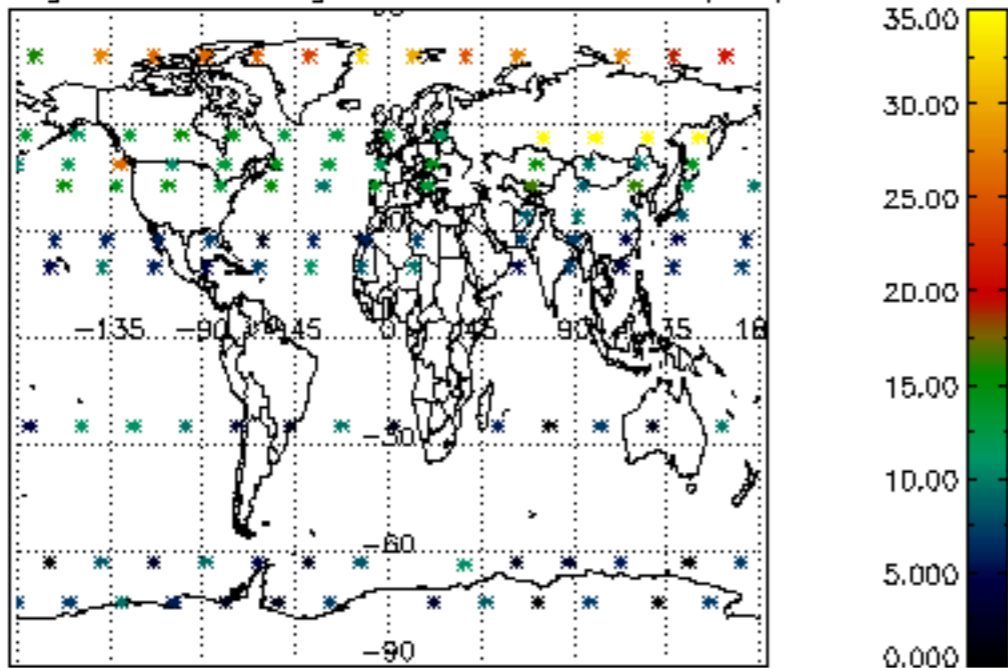
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

