

GOMOS Level 2 Daily Report

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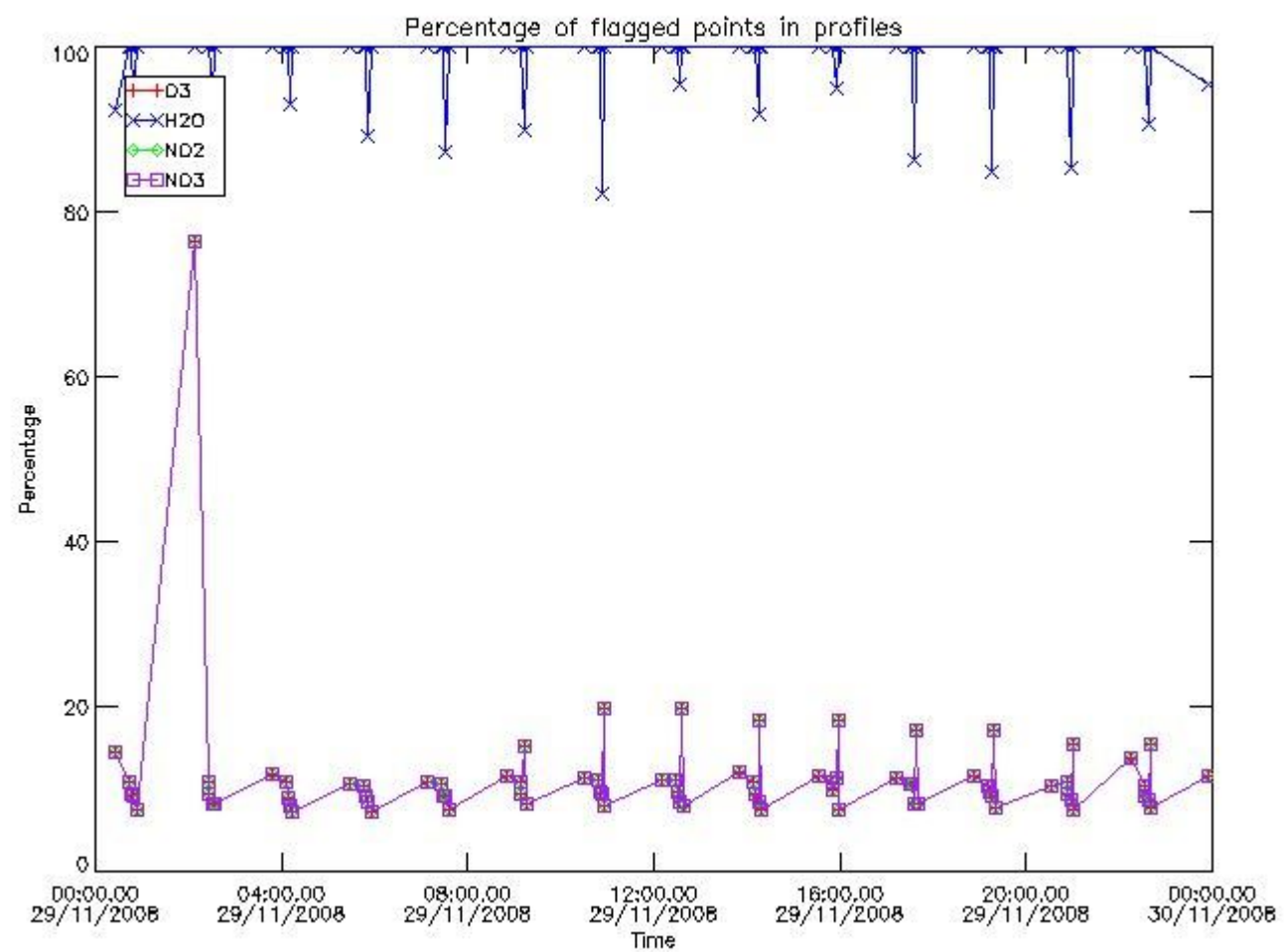
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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that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

Item	Value
Time of report generation	25APR2013 22:57:03
Data source version	GOMOS/6.01
Start time of products	29-11-2008 (29NOV2008 00:00:00)
Stop time of products	30-11-2008 (30NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	327
Nb of prods with errors	0

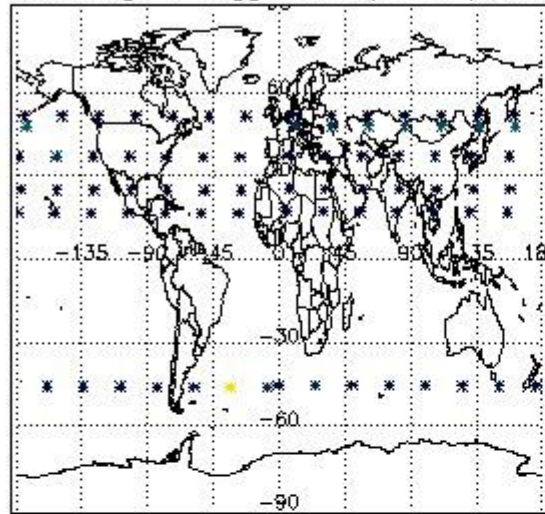
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081129_000116_000000432074_00159_35283_4092.N1	29-NOV-2008 00:01:16	Bright	42.500	87	64Gam UMa	2.4330	11000.	85	35283	No
2	GOM_NL__2PRFIN20081129_000358_000000542074_00159_35283_4093.N1	29-NOV-2008 00:03:58	Bright	53.500	174	52Psi UMa	3.0040	4400.0	107	35283	No
3	GOM_NL__2PRFIN20081129_000631_000000402074_00159_35283_4094.N1	29-NOV-2008 00:06:31	Bright	40.000	152	12Alp2CVn	2.8900	11000.	80	35283	No
4	GOM_NL__2PRFIN20081129_001550_000000532074_00159_35283_4095.N1	29-NOV-2008 00:15:50	Bright	53.000	62	94Bet Leo	2.1360	9700.0	106	35283	No
5	GOM_NL__2PRFIN20081129_001911_000000422074_00159_35283_4096.N1	29-NOV-2008 00:19:11	Bright	42.000	121	29Gam Vir	2.7400	7200.0	84	35283	No
6	GOM_NL__2PRFIN20081129_002445_000000442074_00159_35283_4097.N1	29-NOV-2008 00:24:45	Twilight	43.500	100	4Gam Crv	2.5800	13100.	87	35283	No
7	GOM_NL__2PRFIN20081129_002620_000000462074_00159_35283_4098.N1	29-NOV-2008 00:26:20	Dark	45.500	171	2Eps Crv	3.0010	4250.0	91	35283	No
8	GOM_NL__2PRFIN20081129_004424_000000472074_00160_35284_4124.N1	29-NOV-2008 00:44:24	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	35284	No
9	GOM_NL__2PRFIN20081129_004605_000000552074_00160_35284_4125.N1	29-NOV-2008 00:46:05	Dark	54.500	70	Zet Pup	2.2460	39000.	109	35284	No
10	GOM_NL__2PRFIN20081129_004938_000000612074_00160_35284_4126.N1	29-NOV-2008 00:49:38	Dark	60.500	117	Pi Pup	2.7060	3800.0	121	35284	No
11	GOM_NL__2PRFIN20081129_005330_000000692074_00160_35284_4127.N1	29-NOV-2008 00:53:30	Dark	69.000	23	21Eps CMa	1.5020	26000.	138	35284	No
12	GOM_NL__2PRFIN20081129_010013_000000572074_00160_35284_4128.N1	29-NOV-2008 01:00:13	Straylight	56.500	101	11Alp Lep	2.5820	7000.0	113	35284	No
13	GOM_NL__2PRFIN20081129_010355_000000602074_00160_35284_4129.N1	29-NOV-2008 01:03:55	Straylight	60.000	7	19Bet Ori	0.10000	14000.	120	35284	No
14	GOM_NL__2PRFIN20081129_010704_000000622074_00160_35284_4130.N1	29-NOV-2008 01:07:04	Twilight	62.000	30	46Eps Ori	1.6940	30000.	124	35284	No
15	GOM_NL__2PRFIN20081129_010951_000000632074_00160_35284_4131.N1	29-NOV-2008 01:09:51	Twilight	63.000	27	24Gam Ori	1.6360	26000.	126	35284	No
16	GOM_NL__2PRFIN20081129_011202_000000592074_00160_35284_4132.N1	29-NOV-2008 01:12:02	Bright	59.000	13	87Alp Tau	0.86700	3800.0	118	35284	No
17	GOM_NL__2PRFIN20081129_011333_000000402074_00160_35284_4133.N1	29-NOV-2008 01:13:33	Bright	40.000	146	25Eta Tau	2.8730	15200.	80	35284	No
18	GOM_NL__2PRFIN20081129_011557_000000392074_00160_35284_4134.N1	29-NOV-2008 01:15:57	Bright	39.000	150	44Zet Per	2.8900	28000.	78	35284	No
19	GOM_NL__2PRFIN20081129_011824_000000382074_00160_35284_4135.N1	29-NOV-2008 01:18:24	Bright	37.500	149	45Eps Per	2.8880	30000.	75	35284	No
20	GOM_NL__2PRFIN20081129_012225_000000492074_00160_35284_4136.N1	29-NOV-2008 01:22:25	Bright	49.000	6	13Alp Aur	0.080000	3400.0	98	35284	No
21	GOM_NL__2PRFIN20081129_012423_000000532074_00160_35284_4137.N1	29-NOV-2008 01:24:23	Bright	52.500	42	34Bet Aur	1.9000	10200.	105	35284	No
22	GOM_NL__2PRFIN20081129_013830_000000442074_00160_35284_4138.N1	29-NOV-2008 01:38:30	Bright	44.000	36	50Alp UMa	1.8000	6300.0	88	35284	No
23	GOM_NL__2PRFIN20081129_014007_000000462074_00160_35284_4139.N1	29-NOV-2008 01:40:07	Bright	45.500	82	48Bet UMa	2.3650	10600.	91	35284	No
24	GOM_NL__2PRFIN20081129_014151_000000432074_00160_35284_4140.N1	29-NOV-2008 01:41:51	Bright	43.000	87	64Gam UMa	2.4330	11000.	86	35284	No
25	GOM_NL__2PRFIN20081129_014434_000000502074_00160_35284_4141.N1	29-NOV-2008 01:44:34	Bright	49.500	174	52Psi UMa	3.0040	4400.0	99	35284	No
26	GOM_NL__2PRFIN20081129_014707_000000382074_00160_35284_4142.N1	29-NOV-2008 01:47:07	Bright	38.000	152	12Alp2CVn	2.8900	11000.	76	35284	No
27	GOM_NL__2PRFIN20081129_015627_000000532074_00160_35284_4143.N1	29-NOV-2008 01:56:27	Bright	53.000	62	94Bet Leo	2.1360	9700.0	106	35284	No
28	GOM_NL__2PRFIN20081129_015947_000000432074_00160_35284_4144.N1	29-NOV-2008 01:59:47	Bright	42.500	121	29Gam Vir	2.7400	7200.0	85	35284	No
29	GOM_NL__2PRFIN20081129_020522_000000442074_00160_35284_4145.N1	29-NOV-2008 02:05:22	Twilight	43.500	100	4Gam Crv	2.5800	13100.	87	35284	No
30	GOM_NL__2PRFIN20081129_020657_000000472074_00160_35284_4146.N1	29-NOV-2008 02:06:57	Dark	47.000	171	2Eps Crv	3.0010	4250.0	94	35284	No
31	GOM_NL__2PRFIN20081129_022501_000000472074_00161_35285_4149.N1	29-NOV-2008 02:25:01	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	35285	No
32	GOM_NL__2PRFIN20081129_022642_000000542074_00161_35285_4150.N1	29-NOV-2008 02:26:42	Dark	54.000	70	Zet Pup	2.2460	39000.	108	35285	No
33	GOM_NL__2PRFIN20081129_023015_000000622074_00161_35285_4151.N1	29-NOV-2008 02:30:15	Dark	62.000	117	Pi Pup	2.7060	3800.0	124	35285	No
34	GOM_NL__2PRFIN20081129_023406_000000682074_00161_35285_4152.N1	29-NOV-2008 02:34:06	Dark	68.000	23	21Eps CMa	1.5020	26000.	136	35285	No
35	GOM_NL__2PRFIN20081129_024049_000000552074_00161_35285_4153.N1	29-NOV-2008 02:40:49	Straylight	54.500	101	11Alp Lep	2.5820	7000.0	109	35285	No
36	GOM_NL__2PRFIN20081129_024431_000000602074_00161_35285_4154.N1	29-NOV-2008 02:44:31	Straylight	60.000	7	19Bet Ori	0.10000	14000.	120	35285	No
37	GOM_NL__2PRFIN20081129_024740_000000622074_00161_35285_4155.N1	29-NOV-2008 02:47:40	Twilight	62.000	30	46Eps Ori	1.6940	30000.	124	35285	No
38	GOM_NL__2PRFIN20081129_025027_000000672074_00161_35285_4156.N1	29-NOV-2008 02:50:27	Twilight	66.500	27	24Gam Ori	1.6360	26000.	133	35285	No
39	GOM_NL__2PRFIN20081129_025238_000000542074_00161_35285_4157.N1	29-NOV-2008 02:52:38	Bright	53.500	13	87Alp Tau	0.86700	3800.0	107	35285	No
40	GOM_NL__2PRFIN20081129_025409_000000412074_00161_35285_4158.N1	29-NOV-2008 02:54:09	Bright	40.500	146	25Eta Tau	2.8730	15200.	81	35285	No
41	GOM_NL__2PRFIN20081129_025633_000000392074_00161_35285_4159.N1	29-NOV-2008 02:56:33	Bright	38.500	150	44Zet Per	2.8900	28000.	77	35285	No
42	GOM_NL__2PRFIN20081129_025900_000000382074_00161_35285_4160.N1	29-NOV-2008 02:59:00	Bright	37.500	149	45Eps Per	2.8880	30000.	75	35285	No

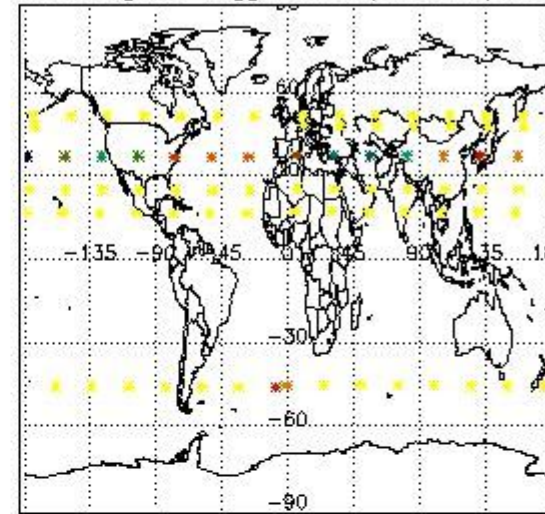


3.2 Plot quality information per product (world map)

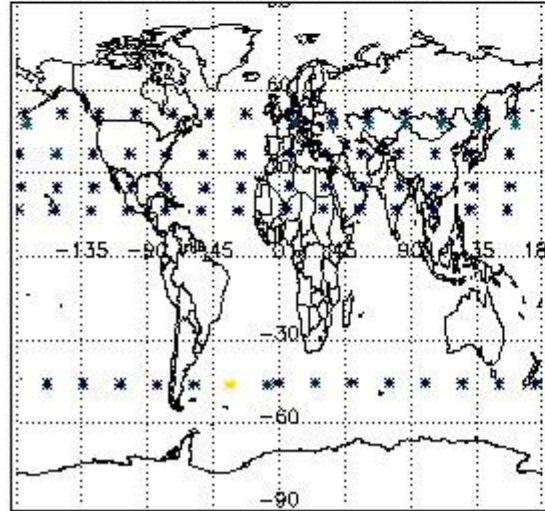
Percentage of flagged data per O3 profile



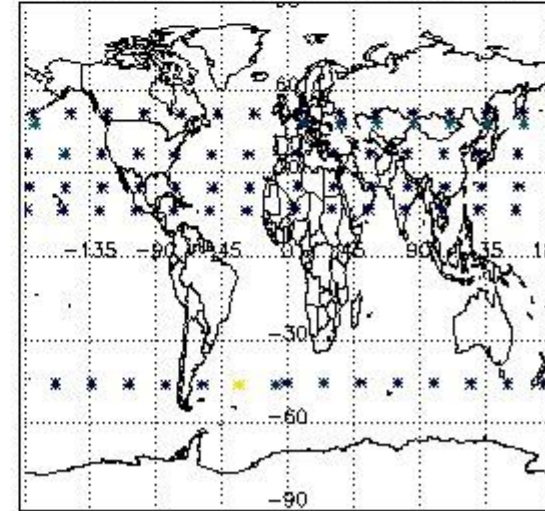
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

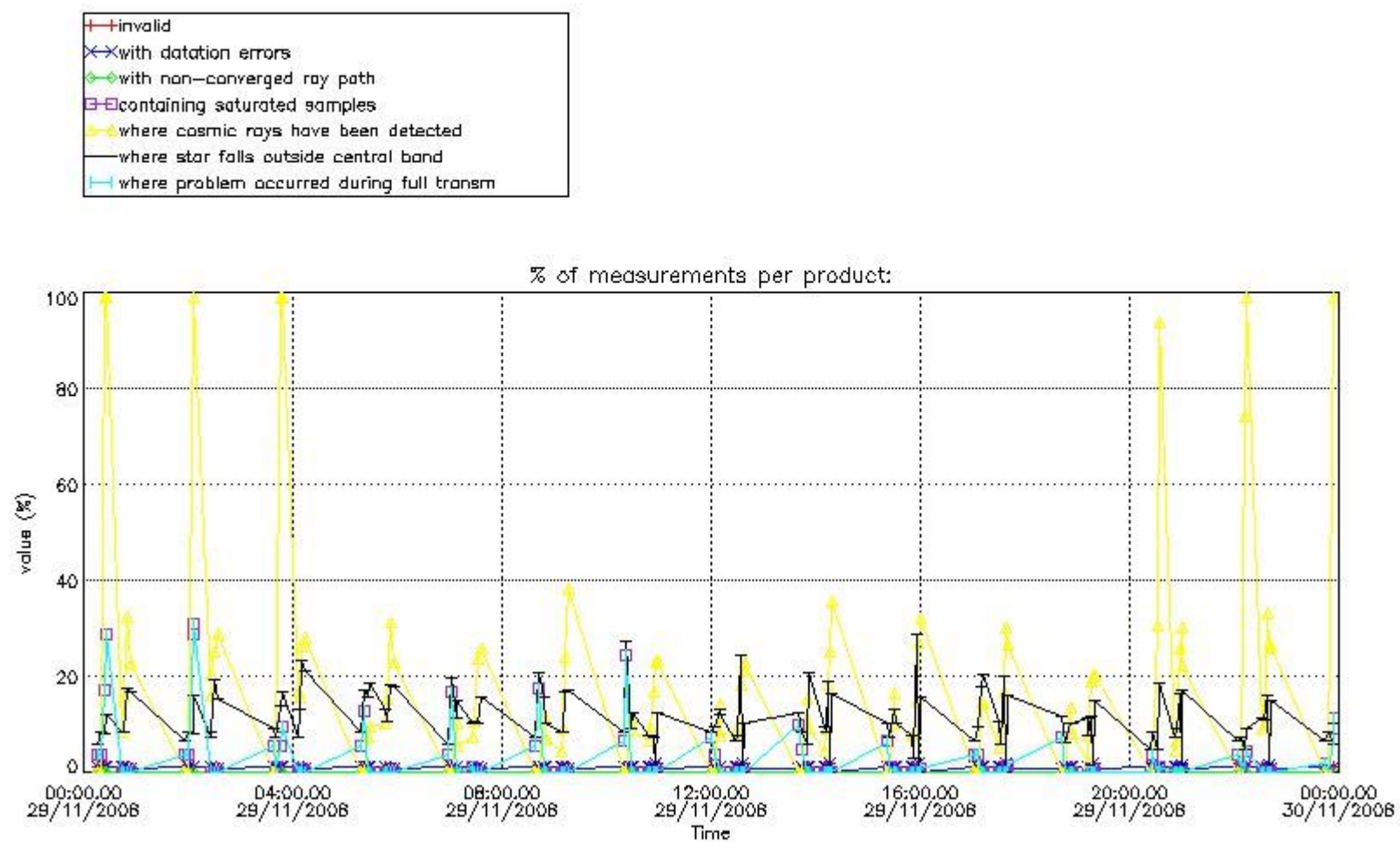


4. Level 1 quality information per product

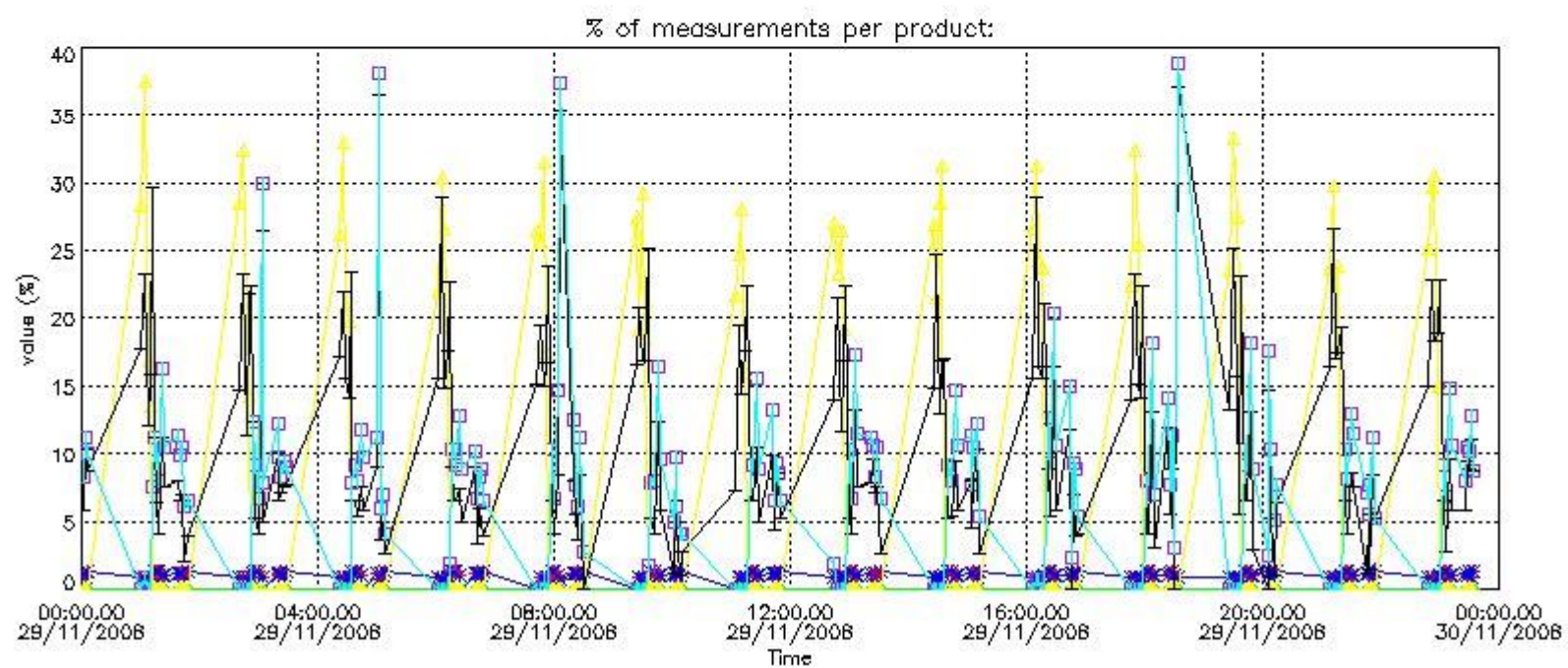
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



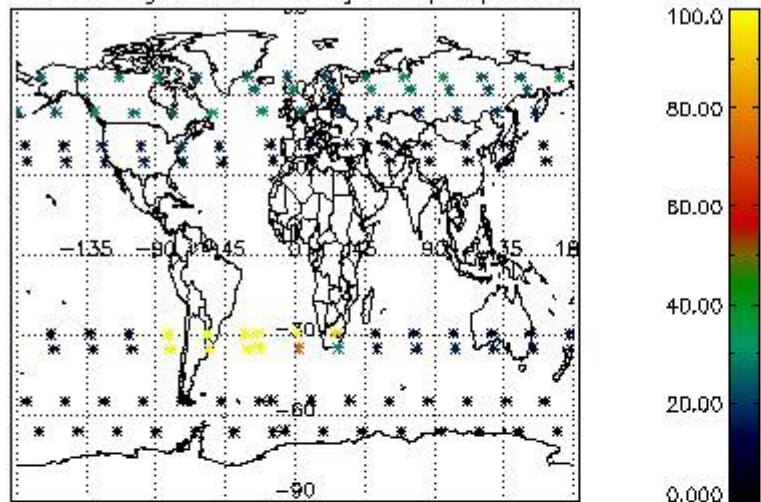
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



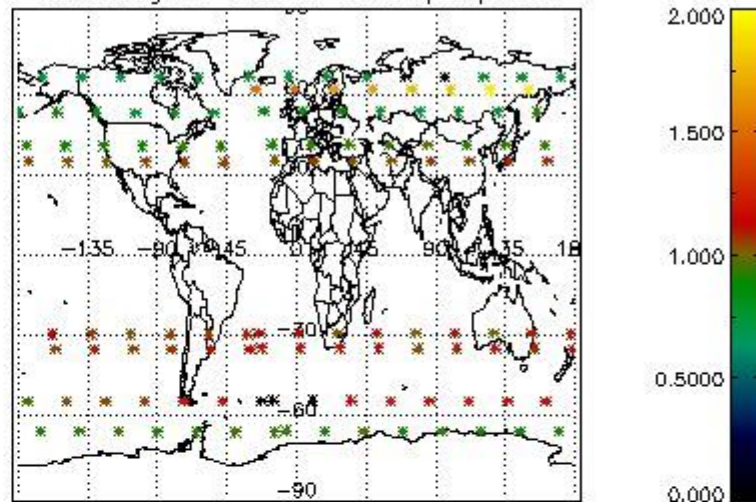
4.2 Plot quality information per product coming from level 1b processing (world map)

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

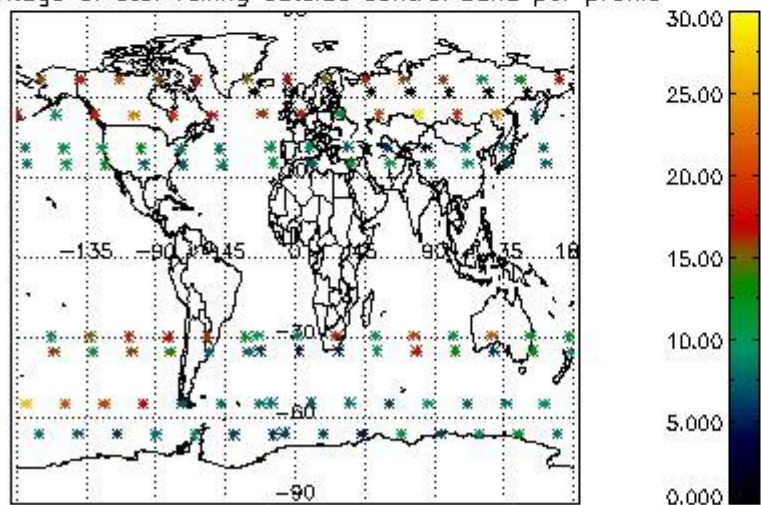
Percentage of cosmic ray hits per profile



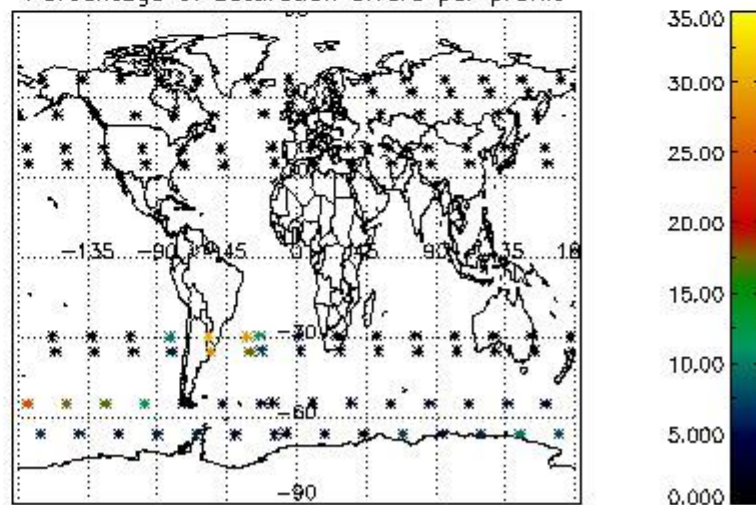
Percentage of datation errors per profile



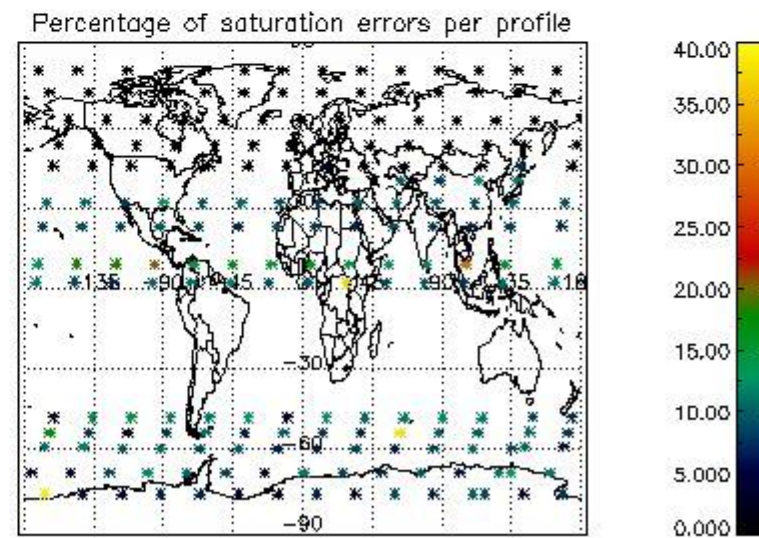
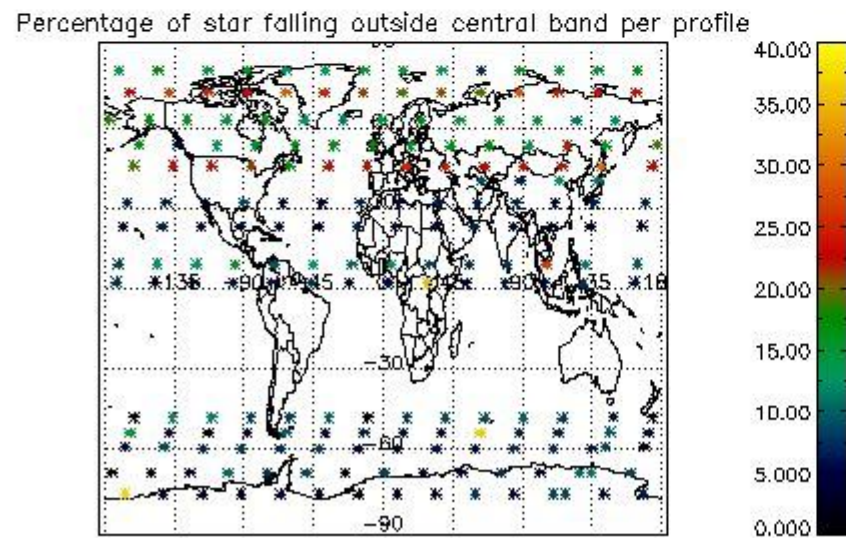
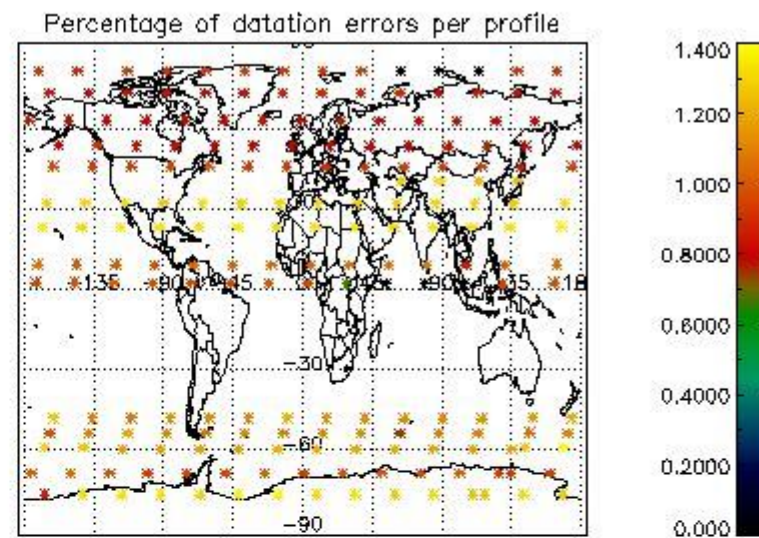
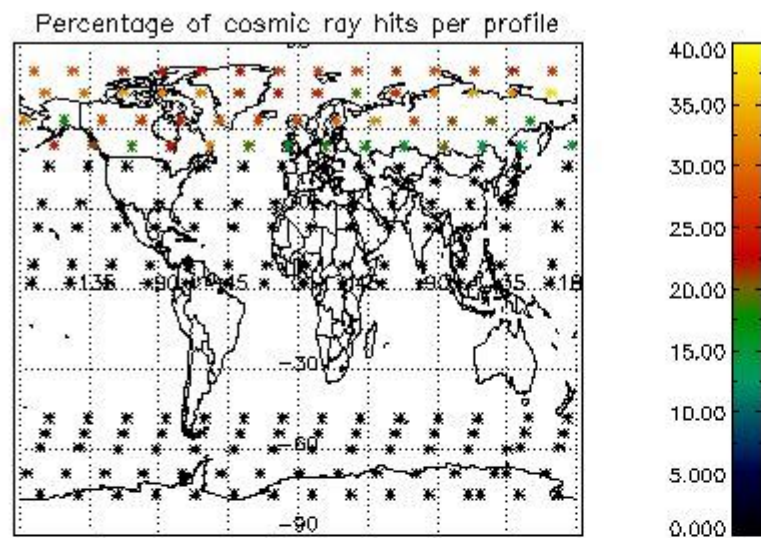
Percentage of star falling outside central band per profile



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

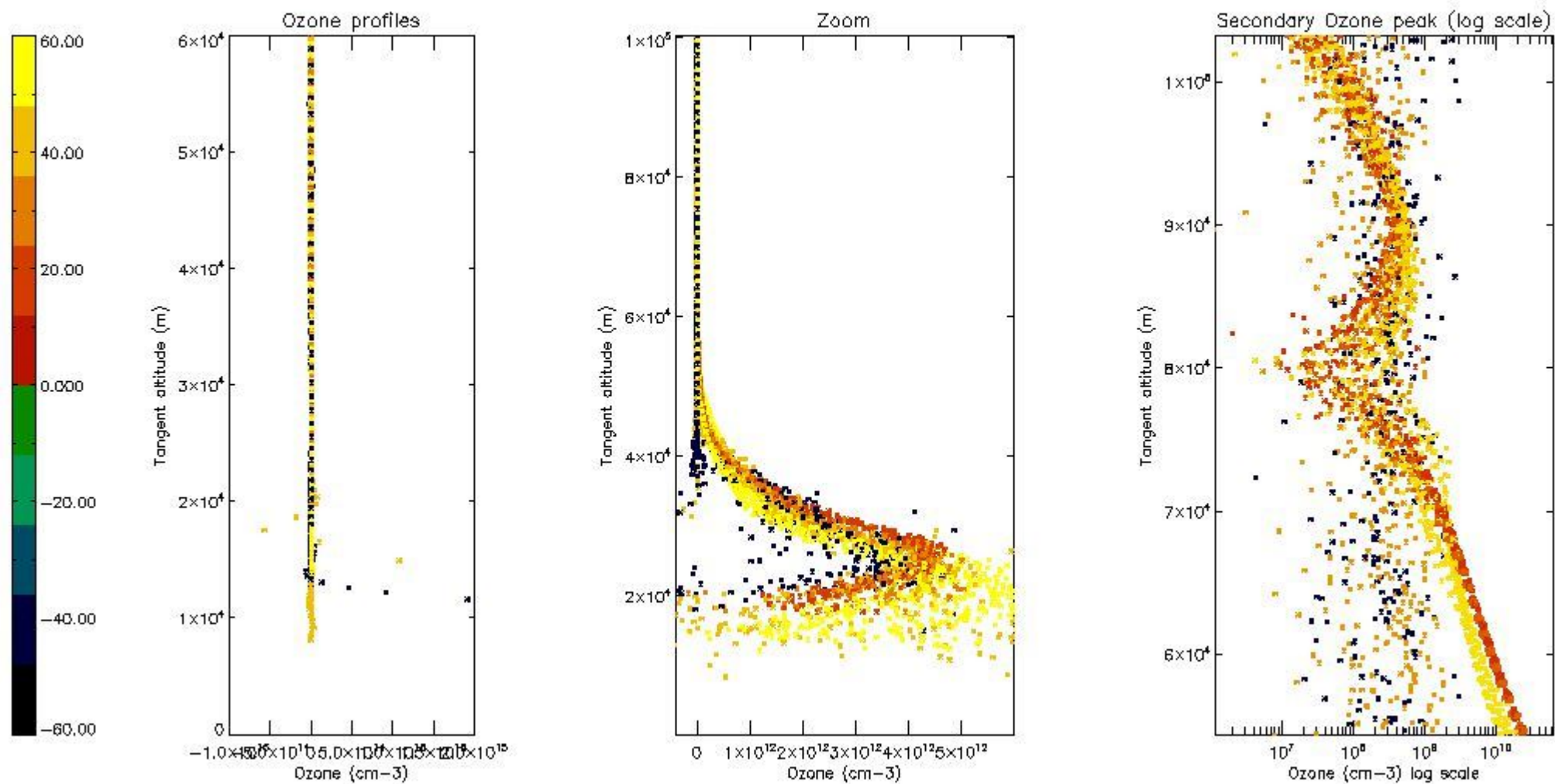
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	14

STD < 10	11
STD < 5	9

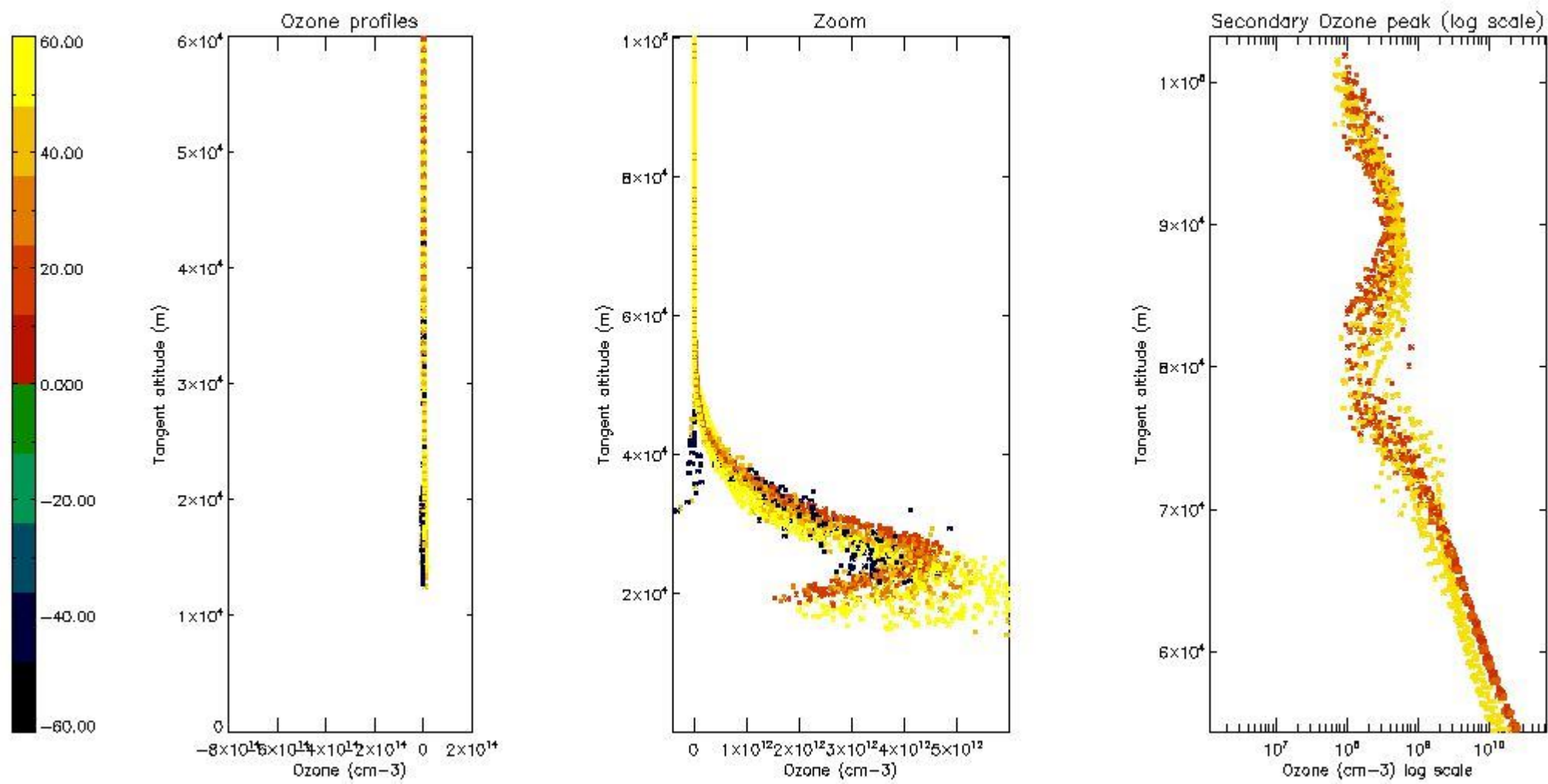
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



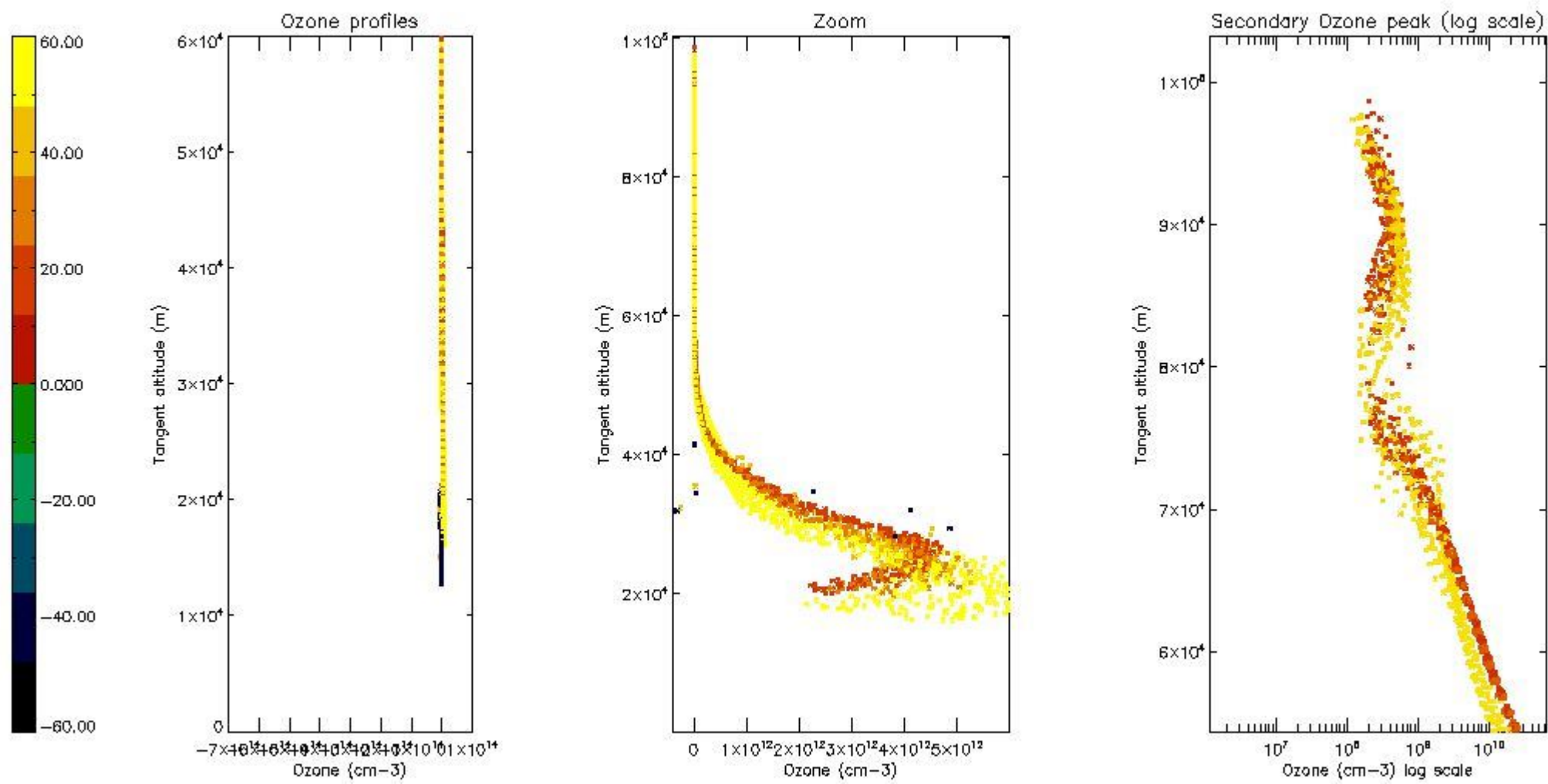
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



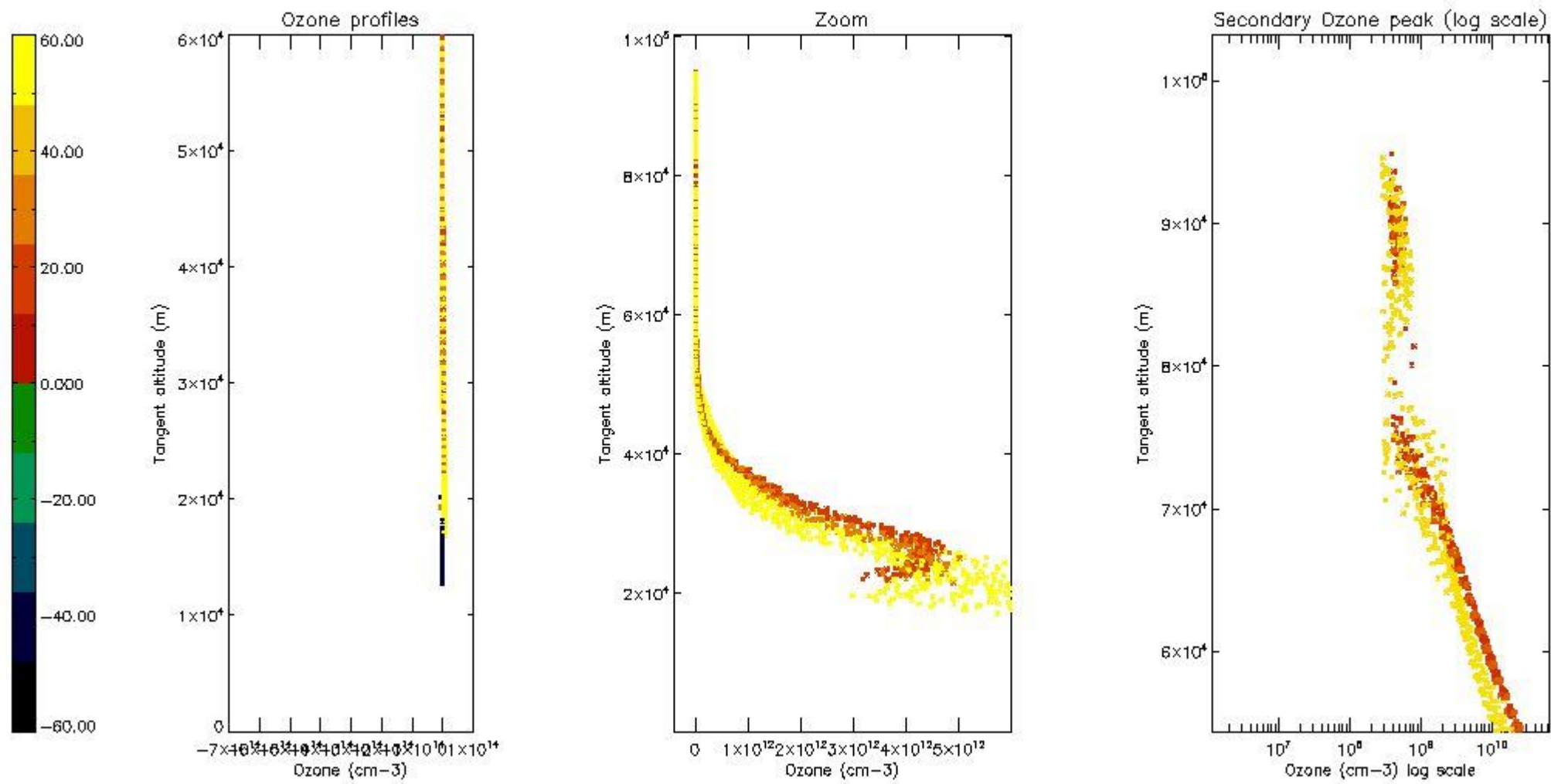
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



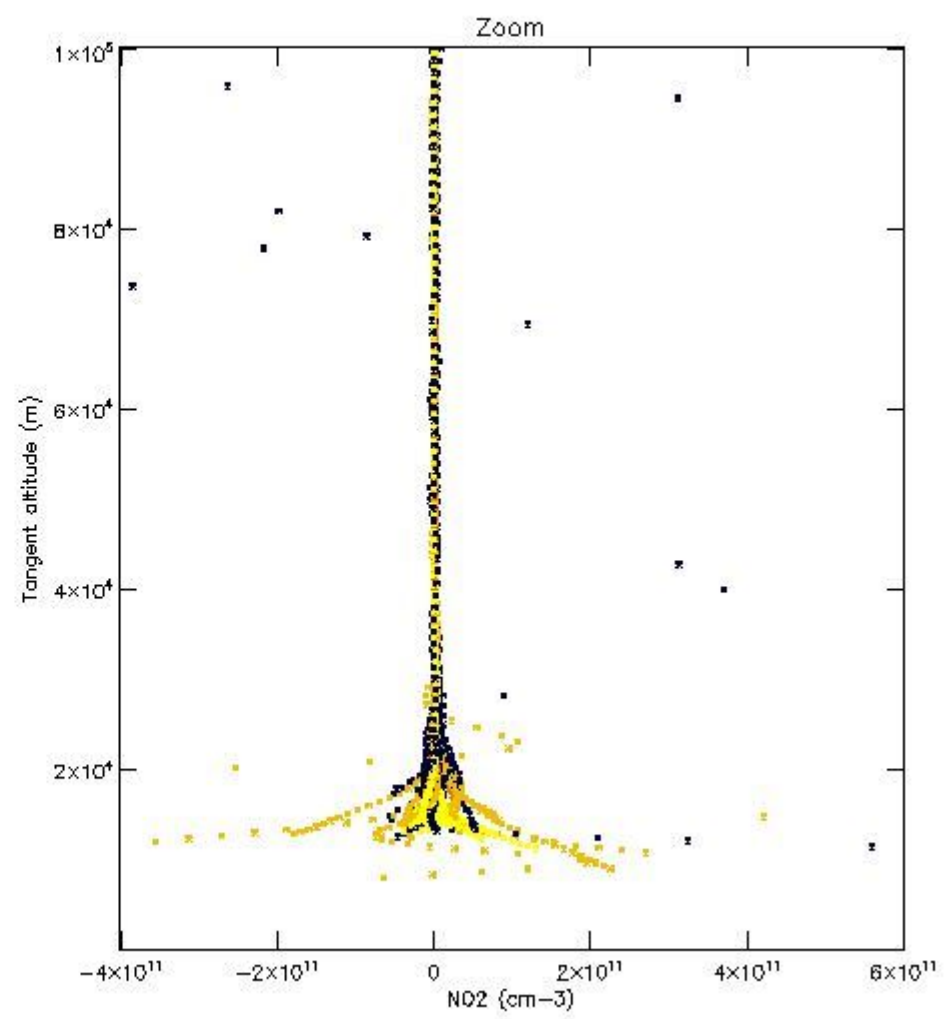
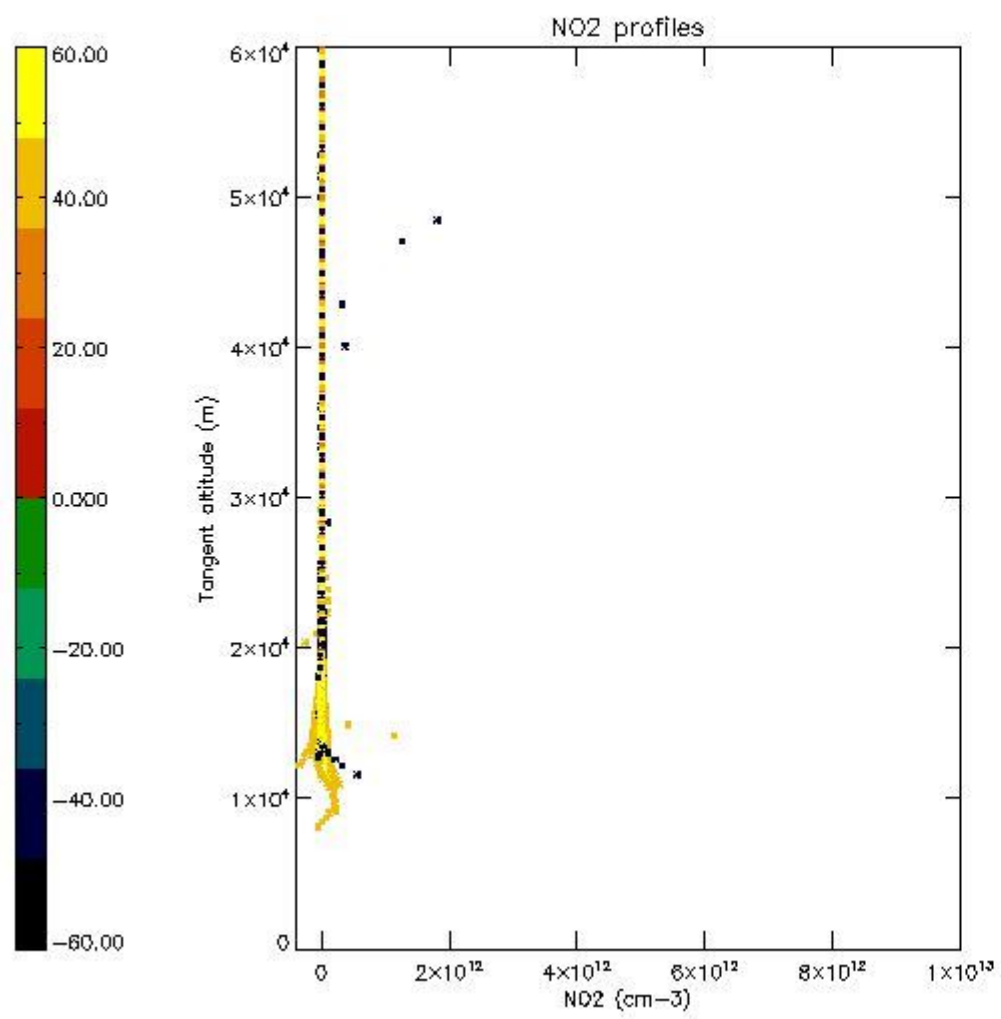
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



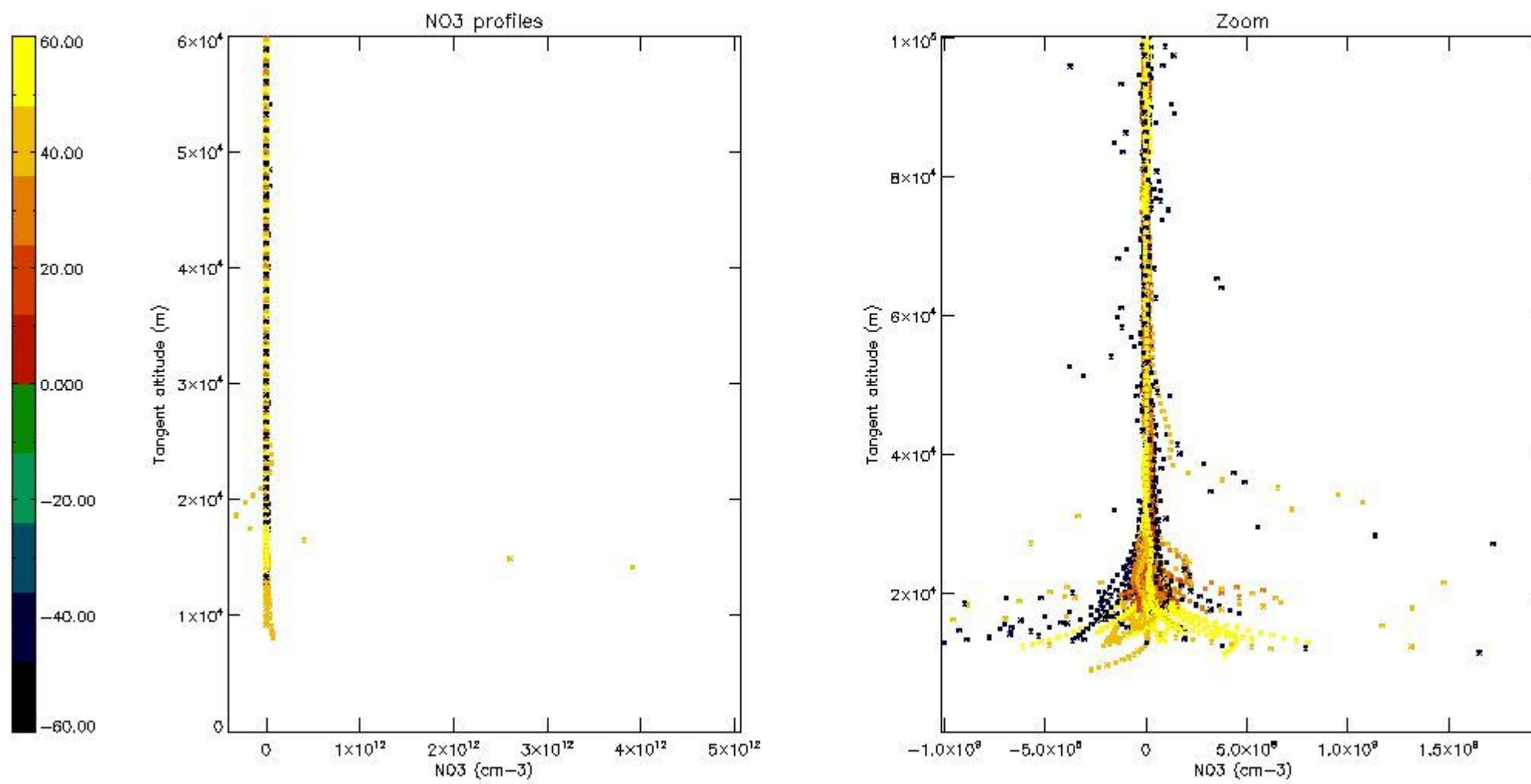
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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	29-NOV-2008 00:01:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	29-NOV-2008 00:01:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	29-NOV-2008 00:01:16

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[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 22:57:03
Data source version	GOMOS/6.01
Start time of products	29-11-2008 (29NOV2008 00:00:00)
Stop time of products	30-11-2008 (30NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	327
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

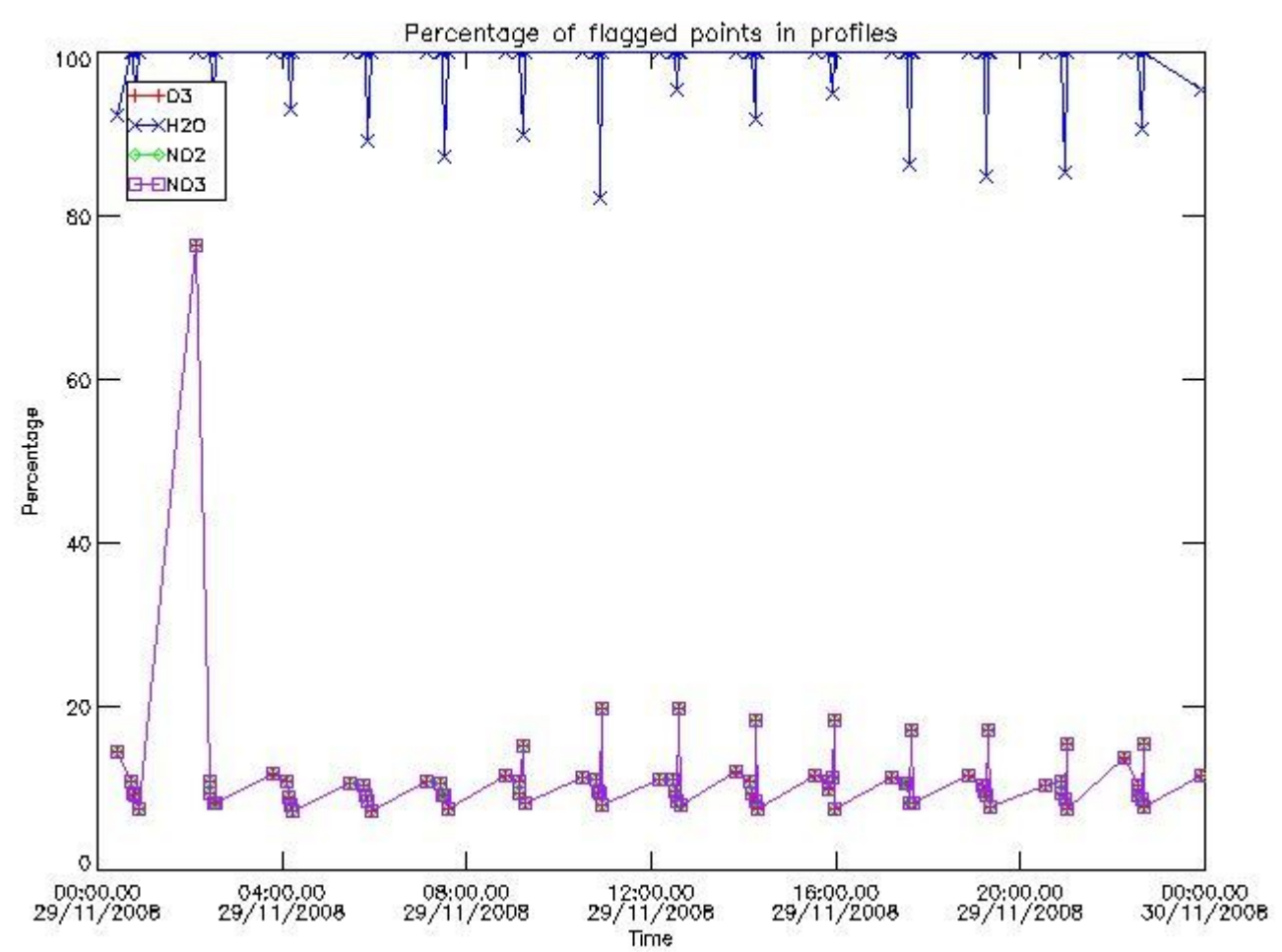
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081129_000116_000000432074_00159_35283_4092.N1	29-NOV-2008 00:01:16	Bright	42.500	87	64Gam UMa	2.4330	11000.	85	35283	No
2	GOM_NL__2PRFIN20081129_000358_000000542074_00159_35283_4093.N1	29-NOV-2008 00:03:58	Bright	53.500	174	52Psi UMa	3.0040	4400.0	107	35283	No
3	GOM_NL__2PRFIN20081129_000631_000000402074_00159_35283_4094.N1	29-NOV-2008 00:06:31	Bright	40.000	152	12Alp2CVn	2.8900	11000.	80	35283	No
4	GOM_NL__2PRFIN20081129_001550_000000532074_00159_35283_4095.N1	29-NOV-2008 00:15:50	Bright	53.000	62	94Bet Leo	2.1360	9700.0	106	35283	No
5	GOM_NL__2PRFIN20081129_001911_000000422074_00159_35283_4096.N1	29-NOV-2008 00:19:11	Bright	42.000	121	29Gam Vir	2.7400	7200.0	84	35283	No
6	GOM_NL__2PRFIN20081129_002445_000000442074_00159_35283_4097.N1	29-NOV-2008 00:24:45	Twilight	43.500	100	4Gam Crv	2.5800	13100.	87	35283	No
7	GOM_NL__2PRFIN20081129_002620_000000462074_00159_35283_4098.N1	29-NOV-2008 00:26:20	Dark	45.500	171	2Eps Crv	3.0010	4250.0	91	35283	No
8	GOM_NL__2PRFIN20081129_004424_000000472074_00160_35284_4124.N1	29-NOV-2008 00:44:24	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	35284	No
9	GOM_NL__2PRFIN20081129_004605_000000552074_00160_35284_4125.N1	29-NOV-2008 00:46:05	Dark	54.500	70	Zet Pup	2.2460	39000.	109	35284	No
10	GOM_NL__2PRFIN20081129_004938_000000612074_00160_35284_4126.N1	29-NOV-2008 00:49:38	Dark	60.500	117	Pi Pup	2.7060	3800.0	121	35284	No
11	GOM_NL__2PRFIN20081129_005330_000000692074_00160_35284_4127.N1	29-NOV-2008 00:53:30	Dark	69.000	23	21Eps CMa	1.5020	26000.	138	35284	No
12	GOM_NL__2PRFIN20081129_010013_000000572074_00160_35284_4128.N1	29-NOV-2008 01:00:13	Straylight	56.500	101	11Alp Lep	2.5820	7000.0	113	35284	No
13	GOM_NL__2PRFIN20081129_010355_000000602074_00160_35284_4129.N1	29-NOV-2008 01:03:55	Straylight	60.000	7	19Bet Ori	0.10000	14000.	120	35284	No
14	GOM_NL__2PRFIN20081129_010704_000000622074_00160_35284_4130.N1	29-NOV-2008 01:07:04	Tw_i_and_stray	62.000	30	46Eps Ori	1.6940	30000.	124	35284	No
15	GOM_NL__2PRFIN20081129_010951_000000632074_00160_35284_4131.N1	29-NOV-2008 01:09:51	Tw_i_and_stray	63.000	27	24Gam Ori	1.6360	26000.	126	35284	No
16	GOM_NL__2PRFIN20081129_011202_000000592074_00160_35284_4132.N1	29-NOV-2008 01:12:02	Bright	59.000	13	87Alp Tau	0.86700	3800.0	118	35284	No
17	GOM_NL__2PRFIN20081129_011333_000000402074_00160_35284_4133.N1	29-NOV-2008 01:13:33	Bright	40.000	146	25Eta Tau	2.8730	15200.	80	35284	No
18	GOM_NL__2PRFIN20081129_011557_000000392074_00160_35284_4134.N1	29-NOV-2008 01:15:57	Bright	39.000	150	44Zet Per	2.8900	28000.	78	35284	No
19	GOM_NL__2PRFIN20081129_011824_000000382074_00160_35284_4135.N1	29-NOV-2008 01:18:24	Bright	37.500	149	45Eps Per	2.8880	30000.	75	35284	No
20	GOM_NL__2PRFIN20081129_012225_000000492074_00160_35284_4136.N1	29-NOV-2008 01:22:25	Bright	49.000	6	13Alp Aur	0.080000	3400.0	98	35284	No
21	GOM_NL__2PRFIN20081129_012423_000000532074_00160_35284_4137.N1	29-NOV-2008 01:24:23	Bright	52.500	42	34Bet Aur	1.9000	10200.	105	35284	No
22	GOM_NL__2PRFIN20081129_013830_000000442074_00160_35284_4138.N1	29-NOV-2008 01:38:30	Bright	44.000	36	50Alp UMa	1.8000	6300.0	88	35284	No
23	GOM_NL__2PRFIN20081129_014007_000000462074_00160_35284_4139.N1	29-NOV-2008 01:40:07	Bright	45.500	82	48Bet UMa	2.3650	10600.	91	35284	No
24	GOM_NL__2PRFIN20081129_014151_000000432074_00160_35284_4140.N1	29-NOV-2008 01:41:51	Bright	43.000	87	64Gam UMa	2.4330	11000.	86	35284	No
25	GOM_NL__2PRFIN20081129_014434_000000502074_00160_35284_4141.N1	29-NOV-2008 01:44:34	Bright	49.500	174	52Psi UMa	3.0040	4400.0	99	35284	No
26	GOM_NL__2PRFIN20081129_014707_000000382074_00160_35284_4142.N1	29-NOV-2008 01:47:07	Bright	38.000	152	12Alp2CVn	2.8900	11000.	76	35284	No
27	GOM_NL__2PRFIN20081129_015627_000000532074_00160_35284_4143.N1	29-NOV-2008 01:56:27	Bright	53.000	62	94Bet Leo	2.1360	9700.0	106	35284	No
28	GOM_NL__2PRFIN20081129_015947_000000432074_00160_35284_4144.N1	29-NOV-2008 01:59:47	Bright	42.500	121	29Gam Vir	2.7400	7200.0	85	35284	No
29	GOM_NL__2PRFIN20081129_020522_000000442074_00160_35284_4145.N1	29-NOV-2008 02:05:22	Twilight	43.500	100	4Gam Crv	2.5800	13100.	87	35284	No
30	GOM_NL__2PRFIN20081129_020657_000000472074_00160_35284_4146.N1	29-NOV-2008 02:06:57	Dark	47.000	171	2Eps Crv	3.0010	4250.0	94	35284	No
31	GOM_NL__2PRFIN20081129_022501_000000472074_00161_35285_4149.N1	29-NOV-2008 02:25:01	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	35285	No
32	GOM_NL__2PRFIN20081129_022642_000000542074_00161_35285_4150.N1	29-NOV-2008 02:26:42	Dark	54.000	70	Zet Pup	2.2460	39000.	108	35285	No
33	GOM_NL__2PRFIN20081129_023015_000000622074_00161_35285_4151.N1	29-NOV-2008 02:30:15	Dark	62.000	117	Pi Pup	2.7060	3800.0	124	35285	No
34	GOM_NL__2PRFIN20081129_023406_000000682074_00161_35285_4152.N1	29-NOV-2008 02:34:06	Dark	68.000	23	21Eps CMa	1.5020	26000.	136	35285	No
35	GOM_NL__2PRFIN20081129_024049_000000552074_00161_35285_4153.N1	29-NOV-2008 02:40:49	Straylight	54.500	101	11Alp Lep	2.5820	7000.0	109	35285	No
36	GOM_NL__2PRFIN20081129_024431_000000602074_00161_35285_4154.N1	29-NOV-2008 02:44:31	Straylight	60.000	7	19Bet Ori	0.10000	14000.	120	35285	No
37	GOM_NL__2PRFIN20081129_024740_000000622074_00161_35285_4155.N1	29-NOV-2008 02:47:40	Tw_i_and_stray	62.000	30	46Eps Ori	1.6940	30000.	124	35285	No
38	GOM_NL__2PRFIN20081129_025027_000000672074_00161_35285_4156.N1	29-NOV-2008 02:50:27	Tw_i_and_stray	66.500	27	24Gam Ori	1.6360	26000.	133	35285	No
39	GOM_NL__2PRFIN20081129_025238_000000542074_00161_35285_4157.N1	29-NOV-2008 02:52:38	Bright	53.500	13	87Alp Tau	0.86700	3800.0	107	35285	No
40	GOM_NL__2PRFIN20081129_025409_000000412074_00161_35285_4158.N1	29-NOV-2008 02:54:09	Bright	40.500	146	25Eta Tau	2.8730	15200.	81	35285	No
41	GOM_NL__2PRFIN20081129_025633_000000392074_00161_35285_4159.N1	29-NOV-2008 02:56:33	Bright	38.500	150	44Zet Per	2.8900	28000.	77	35285	No
42	GOM_NL__2PRFIN20081129_025900_000000382074_00161_35285_4160.N1	29-NOV-2008 02:59:00	Bright	37.500	149	45Eps Per	2.8880	30000.	75	35285	No

279	GOM_NL_2PRFIN20081129_202629_000000432074_00171_35295_4372.N1	29-NOV-2008 20:26:29	Bright	42.500	121	29Gam Vir	2.7400	7200.0	85	35295	No
280	GOM_NL_2PRFIN20081129_203206_000000432074_00171_35295_4373.N1	29-NOV-2008 20:32:06	Twilight	42.500	100	4Gam Crv	2.5800	13100.	85	35295	No
281	GOM_NL_2PRFIN20081129_203341_000000492074_00171_35295_4374.N1	29-NOV-2008 20:33:41	Dark	49.000	171	2Eps Crv	3.0010	4250.0	98	35295	No
282	GOM_NL_2PRFIN20081129_205146_000000472074_00172_35296_4366.N1	29-NOV-2008 20:51:46	Dark	47.000	34	Gam2Vel	1.7930	23000.	94	35296	No
283	GOM_NL_2PRFIN20081129_205329_000000542074_00172_35296_4367.N1	29-NOV-2008 20:53:29	Dark	54.000	70	Zet Pup	2.2460	39000.	108	35296	No
284	GOM_NL_2PRFIN20081129_205700_000000592074_00172_35296_4368.N1	29-NOV-2008 20:57:00	Dark	58.500	117	Pi Pup	2.7060	3800.0	117	35296	No
285	GOM_NL_2PRFIN20081129_205925_000000332074_00172_35296_4369.N1	29-NOV-2008 20:59:25	Dark	33.000	88	31Eta CMa	2.4480	20000.	66	35296	No
286	GOM_NL_2PRFIN20081129_210050_000000682074_00172_35296_4370.N1	29-NOV-2008 21:00:50	Dark	67.500	23	21Eps CMa	1.5020	26000.	135	35296	No
287	GOM_NL_2PRFIN20081129_210726_000000552074_00172_35296_4371.N1	29-NOV-2008 21:07:26	Straylight	55.000	101	11Alp Lep	2.5820	7000.0	110	35296	No
288	GOM_NL_2PRFIN20081129_211106_000000622074_00172_35296_4372.N1	29-NOV-2008 21:11:06	Straylight	62.000	7	19Bet Ori	0.10000	14000.	124	35296	No
289	GOM_NL_2PRFIN20081129_211411_000000652074_00172_35296_4373.N1	29-NOV-2008 21:14:11	Tw_and_stray	64.500	30	46Eps Ori	1.6940	30000.	129	35296	No
290	GOM_NL_2PRFIN20081129_211656_000000632074_00172_35296_4374.N1	29-NOV-2008 21:16:56	Tw_and_stray	63.000	27	24Gam Ori	1.6360	26000.	126	35296	No
291	GOM_NL_2PRFIN20081129_211909_000000522074_00172_35296_4375.N1	29-NOV-2008 21:19:09	Bright	51.500	13	87Alp Tau	0.86700	3800.0	103	35296	No
292	GOM_NL_2PRFIN20081129_212306_000000392074_00172_35296_4376.N1	29-NOV-2008 21:23:06	Bright	38.500	150	44Zet Per	2.8900	28000.	77	35296	No
293	GOM_NL_2PRFIN20081129_212532_000000372074_00172_35296_4377.N1	29-NOV-2008 21:25:32	Bright	37.000	149	45Eps Per	2.8880	30000.	74	35296	No
294	GOM_NL_2PRFIN20081129_212929_000000472074_00172_35296_4378.N1	29-NOV-2008 21:29:29	Bright	46.500	6	13Alp Aur	0.080000	3400.0	93	35296	No
295	GOM_NL_2PRFIN20081129_213122_000000532074_00172_35296_4379.N1	29-NOV-2008 21:31:22	Bright	52.500	42	34Bet Aur	1.9000	10200.	105	35296	No
296	GOM_NL_2PRFIN20081129_214538_000000422074_00172_35296_4380.N1	29-NOV-2008 21:45:38	Bright	42.000	36	50Alp UMa	1.8000	6300.0	84	35296	No
297	GOM_NL_2PRFIN20081129_214714_000000462074_00172_35296_4381.N1	29-NOV-2008 21:47:14	Bright	45.500	82	48Bet UMa	2.3650	10600.	91	35296	No
298	GOM_NL_2PRFIN20081129_214848_000000362074_00172_35296_4382.N1	29-NOV-2008 21:48:48	Bright	36.000	32	77Eps UMa	1.7630	11000.	72	35296	No
299	GOM_NL_2PRFIN20081129_215142_000000542074_00172_35296_4383.N1	29-NOV-2008 21:51:42	Bright	53.500	174	52Psi UMa	3.0040	4400.0	107	35296	No
300	GOM_NL_2PRFIN20081129_215419_000000382074_00172_35296_4384.N1	29-NOV-2008 21:54:19	Bright	38.000	152	12Alp2CVn	2.8900	11000.	76	35296	No
301	GOM_NL_2PRFIN20081129_220346_000000552074_00172_35296_4385.N1	29-NOV-2008 22:03:46	Bright	54.500	62	94Bet Leo	2.1360	9700.0	109	35296	No
302	GOM_NL_2PRFIN20081129_220705_000000412074_00172_35296_4386.N1	29-NOV-2008 22:07:05	Bright	41.000	121	29Gam Vir	2.7400	7200.0	82	35296	No
303	GOM_NL_2PRFIN20081129_221242_000000432074_00172_35296_4387.N1	29-NOV-2008 22:12:42	Twilight	42.500	100	4Gam Crv	2.5800	13100.	85	35296	No
304	GOM_NL_2PRFIN20081129_221418_000000452074_00172_35296_4388.N1	29-NOV-2008 22:14:18	Dark	44.500	171	2Eps Crv	3.0010	4250.0	89	35296	No
305	GOM_NL_2PRFIN20081129_223223_000000492074_00173_35297_4382.N1	29-NOV-2008 22:32:23	Dark	49.000	34	Gam2Vel	1.7930	23000.	98	35297	No
306	GOM_NL_2PRFIN20081129_223406_000000562074_00173_35297_4383.N1	29-NOV-2008 22:34:06	Dark	55.500	70	Zet Pup	2.2460	39000.	111	35297	No
307	GOM_NL_2PRFIN20081129_223737_000000592074_00173_35297_4384.N1	29-NOV-2008 22:37:37	Dark	59.000	117	Pi Pup	2.7060	3800.0	118	35297	No
308	GOM_NL_2PRFIN20081129_224002_000000332074_00173_35297_4385.N1	29-NOV-2008 22:40:02	Dark	33.000	88	31Eta CMa	2.4480	20000.	66	35297	No
309	GOM_NL_2PRFIN20081129_224126_000000672074_00173_35297_4386.N1	29-NOV-2008 22:41:26	Dark	66.500	23	21Eps CMa	1.5020	26000.	133	35297	No
310	GOM_NL_2PRFIN20081129_224802_000000542074_00173_35297_4387.N1	29-NOV-2008 22:48:02	Straylight	53.500	101	11Alp Lep	2.5820	7000.0	107	35297	No
311	GOM_NL_2PRFIN20081129_225141_000000592074_00173_35297_4388.N1	29-NOV-2008 22:51:41	Straylight	59.000	7	19Bet Ori	0.10000	14000.	118	35297	No
312	GOM_NL_2PRFIN20081129_225446_000000662074_00173_35297_4389.N1	29-NOV-2008 22:54:46	Tw_and_stray	65.500	30	46Eps Ori	1.6940	30000.	131	35297	No
313	GOM_NL_2PRFIN20081129_225731_000000642074_00173_35297_4390.N1	29-NOV-2008 22:57:31	Tw_and_stray	63.500	27	24Gam Ori	1.6360	26000.	127	35297	No
314	GOM_NL_2PRFIN20081129_225944_000000532074_00173_35297_4391.N1	29-NOV-2008 22:59:44	Bright	52.500	13	87Alp Tau	0.86700	3800.0	105	35297	No
315	GOM_NL_2PRFIN20081129_230341_000000382074_00173_35297_4392.N1	29-NOV-2008 23:03:41	Bright	38.000	150	44Zet Per	2.8900	28000.	76	35297	No
316	GOM_NL_2PRFIN20081129_230607_000000372074_00173_35297_4393.N1	29-NOV-2008 23:06:07	Bright	36.500	149	45Eps Per	2.8880	30000.	73	35297	No
317	GOM_NL_2PRFIN20081129_231004_000000472074_00173_35297_4394.N1	29-NOV-2008 23:10:04	Bright	47.000	6	13Alp Aur	0.080000	3400.0	94	35297	No
318	GOM_NL_2PRFIN20081129_231157_000000522074_00173_35297_4395.N1	29-NOV-2008 23:11:57	Bright	51.500	42	34Bet Aur	1.9000	10200.	103	35297	No
319	GOM_NL_2PRFIN20081129_232613_000000442074_00173_35297_4396.N1	29-NOV-2008 23:26:13	Bright	43.500	36	50Alp UMa	1.8000	6300.0	87	35297	No
320	GOM_NL_2PRFIN20081129_232750_000000482074_00173_35297_4397.N1	29-NOV-2008 23:27:50	Bright	47.500	82	48Bet UMa	2.3650	10600.	95	35297	No
321	GOM_NL_2PRFIN20081129_232923_000000402074_00173_35297_4398.N1	29-NOV-2008 23:29:23	Bright	39.500	32	77Eps UMa	1.7630	11000.	79	35297	No
322	GOM_NL_2PRFIN20081129_233218_000000552074_00173_35297_4399.N1	29-NOV-2008 23:32:18	Bright	54.500	174	52Psi UMa	3.0040	4400.0	109	35297	No
323	GOM_NL_2PRFIN20081129_233455_000000402074_00173_35297_4400.N1	29-NOV-2008 23:34:55	Bright	40.000	152	12Alp2CVn	2.8900	11000.	80	35297	No
324	GOM_NL_2PRFIN20081129_234423_000000542074_00173_35297_4401.N1	29-NOV-2008 23:44:23	Bright	54.000	62	94Bet Leo	2.1360	9700.0	108	35297	No
325	GOM_NL_2PRFIN20081129_234741_000000432074_00173_35297_4402.N1	29-NOV-2008 23:47:41	Bright	42.500	121	29Gam Vir	2.7400	7200.0	85	35297	No
326	GOM_NL_2PRFIN20081129_235319_000000432074_00173_35297_4403.N1	29-NOV-2008 23:53:19	Twilight	43.000	100	4Gam Crv	2.5800	13100.	86	35297	No
327	GOM_NL_2PRFIN20081129_235454_000000452074_00173_35297_4404.N1	29-NOV-2008 23:54:54	Dark	44.500	171	2Eps Crv	3.0010	4250.0	89	35297	No

3. Quality information per product

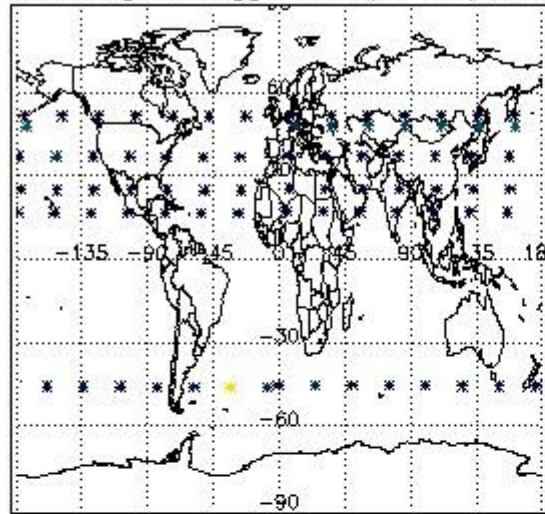
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

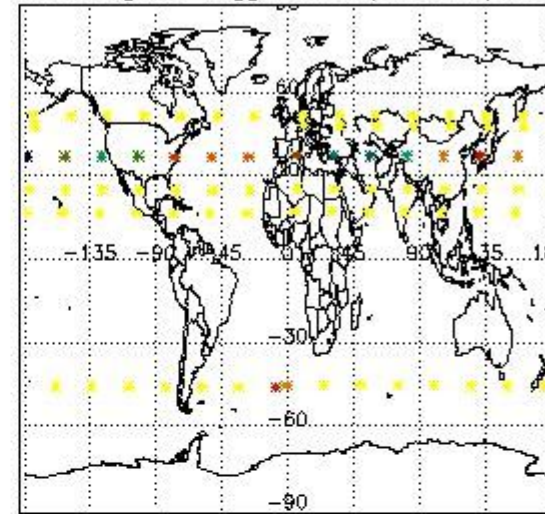


3.2 Plot quality information per product (world map)

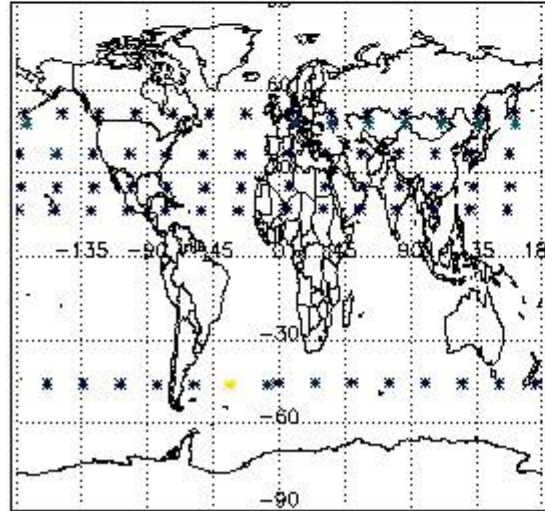
Percentage of flagged data per O3 profile



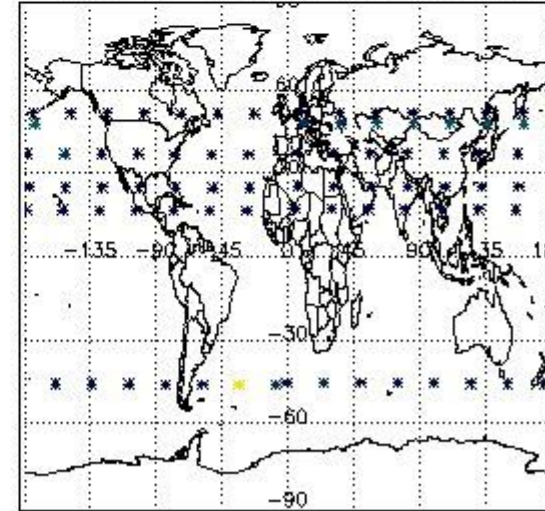
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

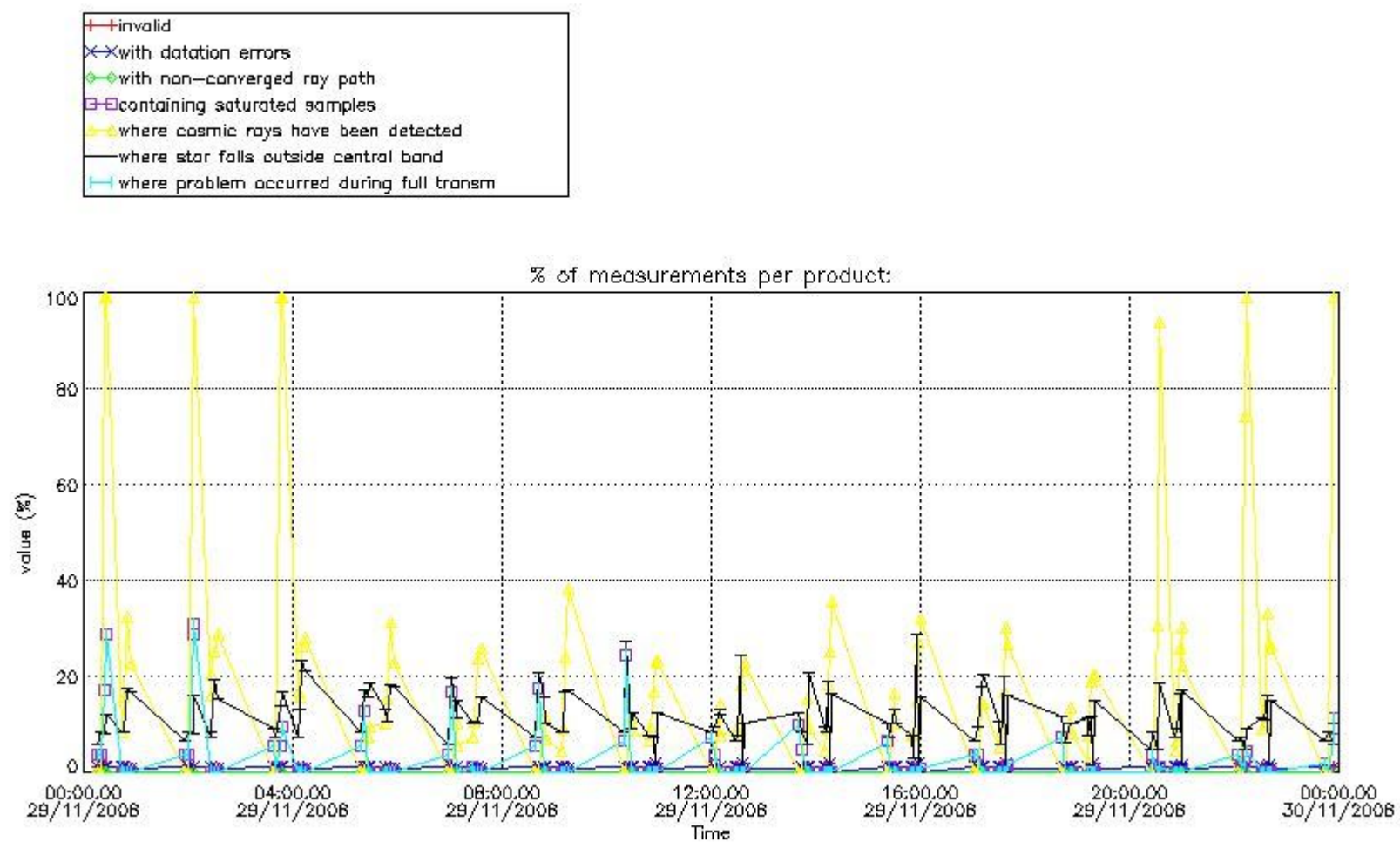


4. Level 1 quality information per product

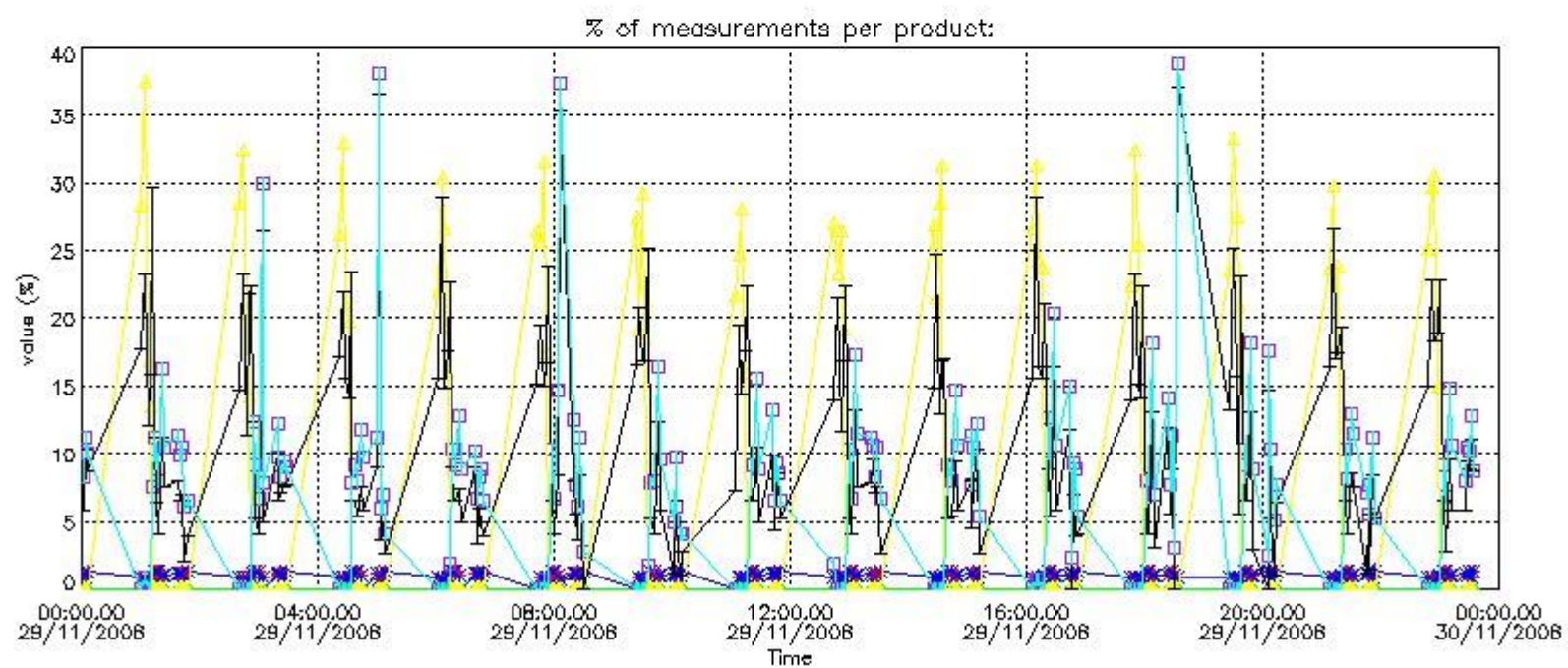
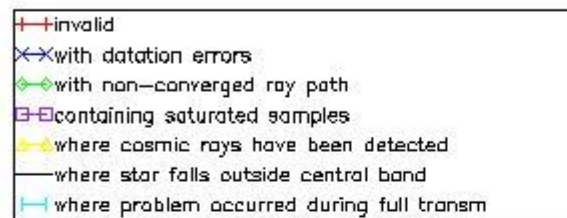
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



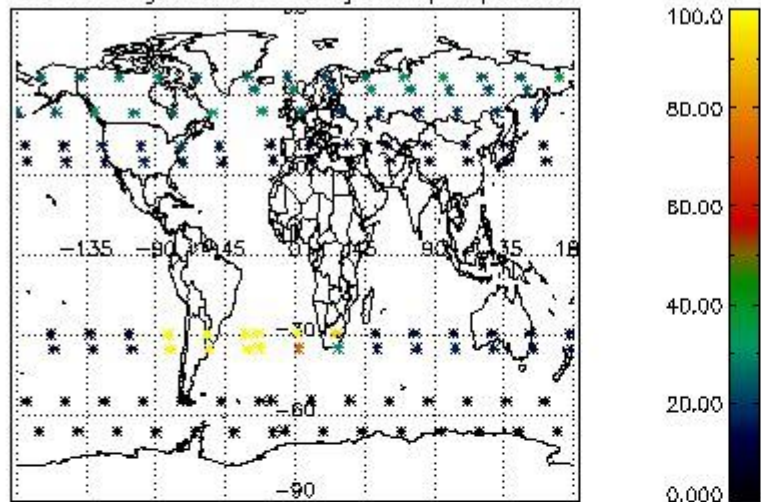
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



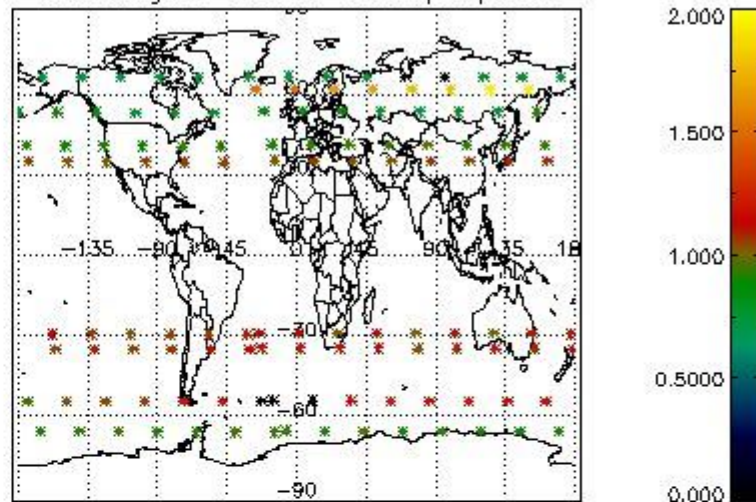
4.2 Plot quality information per product coming from level 1b processing (world map)

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

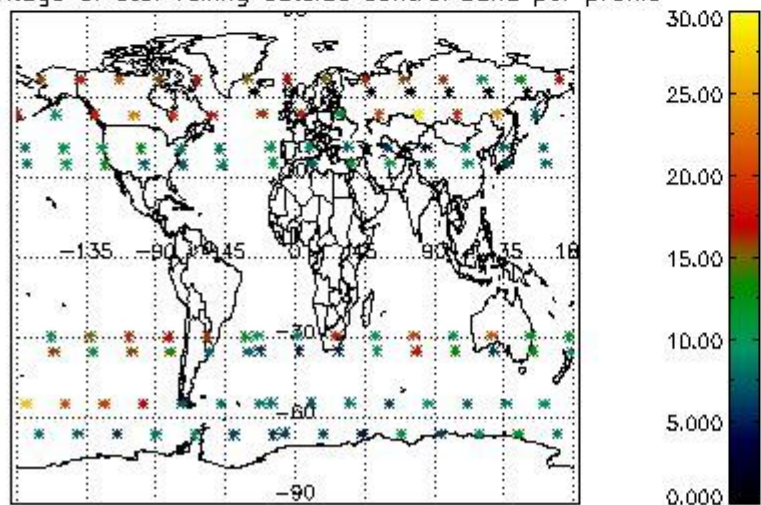
Percentage of cosmic ray hits per profile



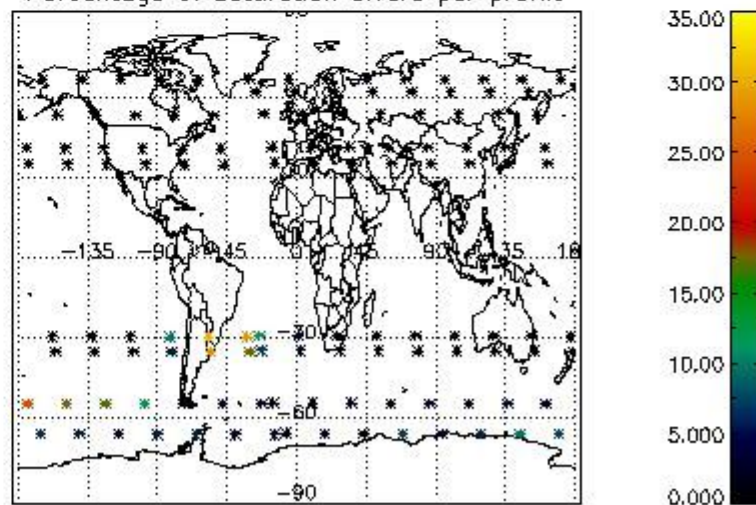
Percentage of datation errors per profile



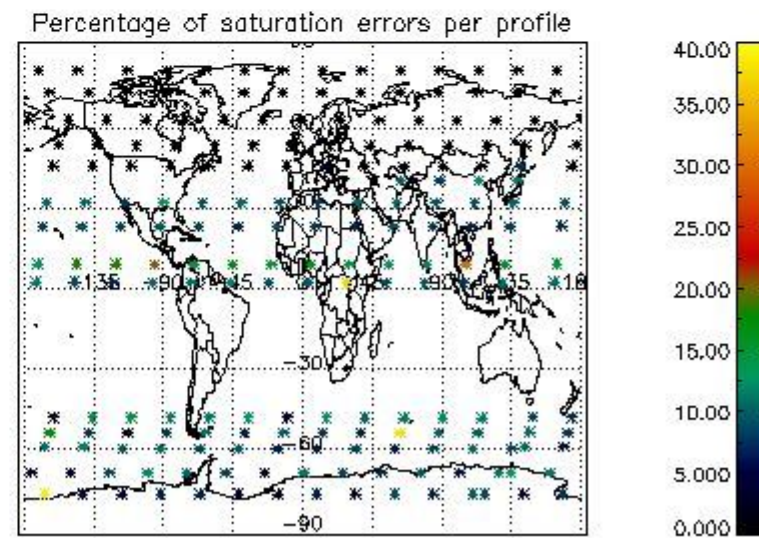
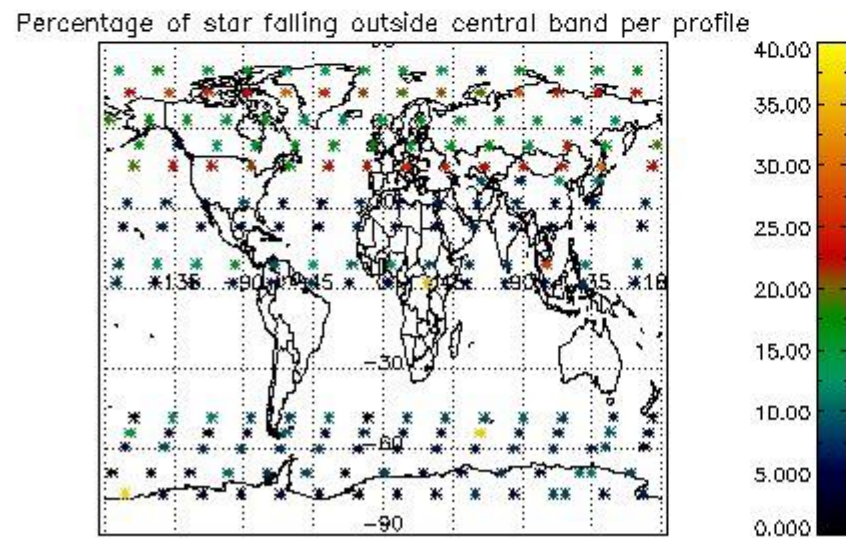
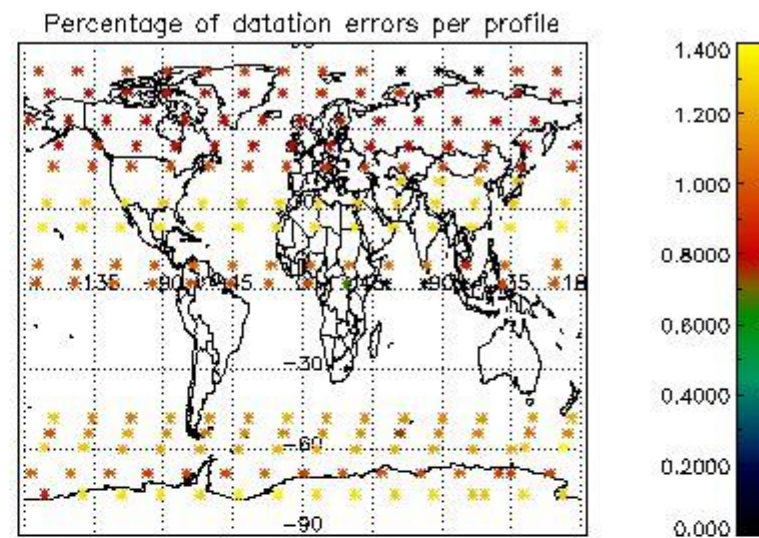
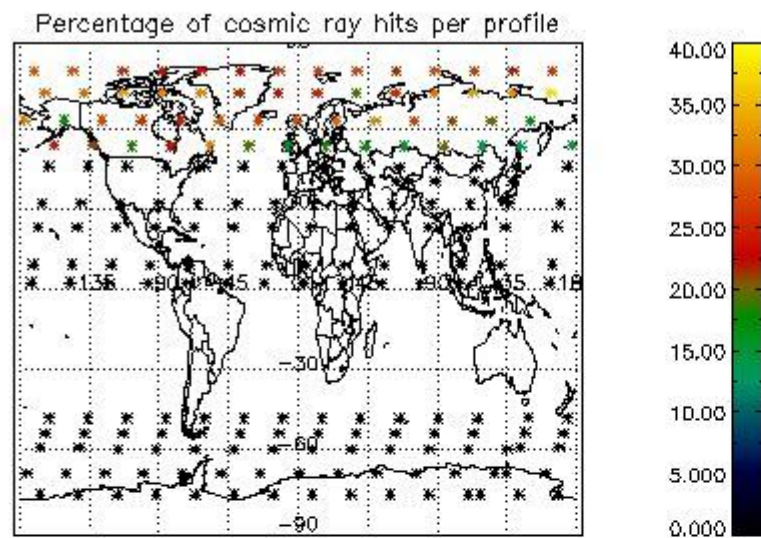
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

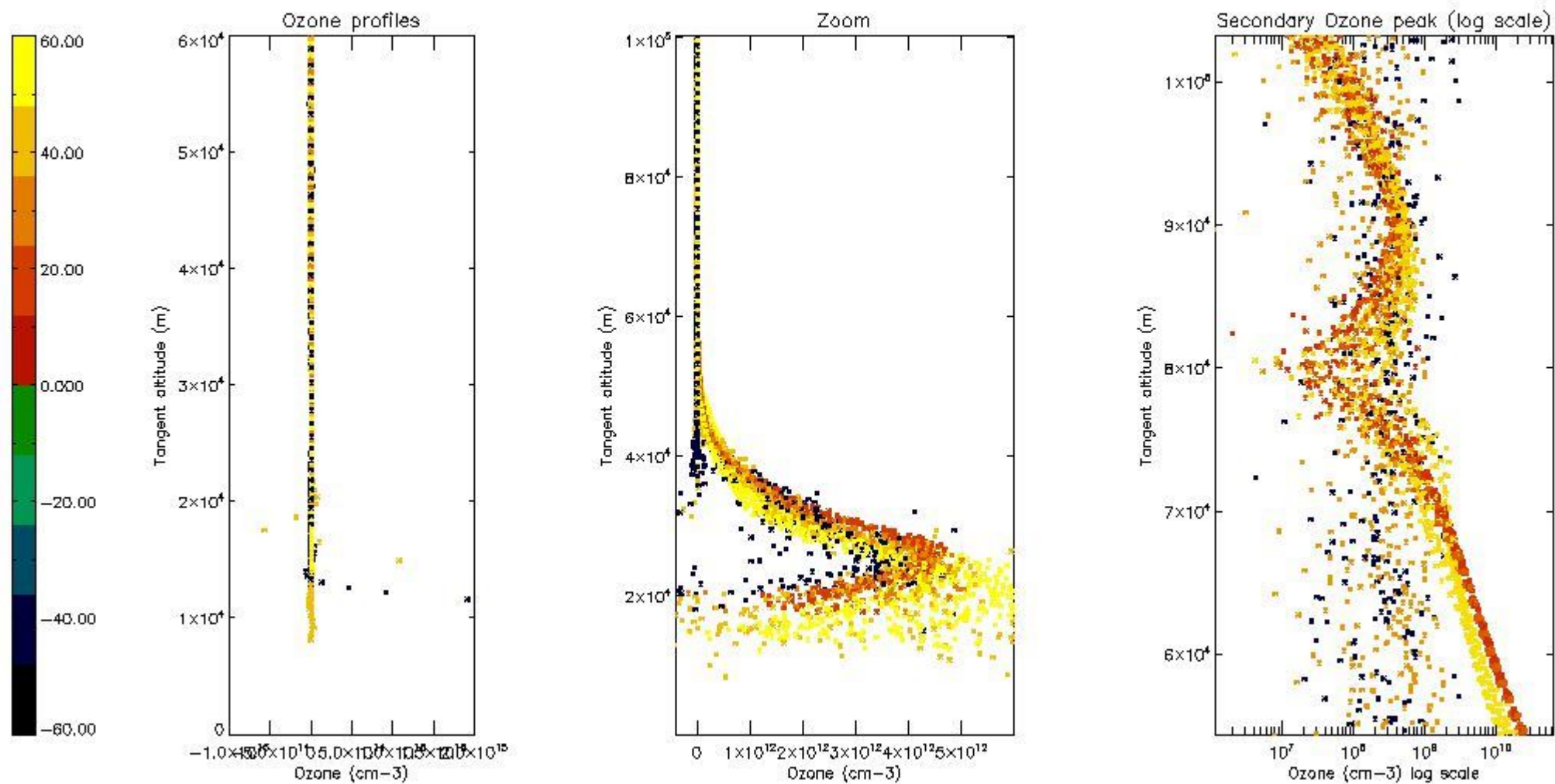
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	14

STD < 10	11
STD < 5	9

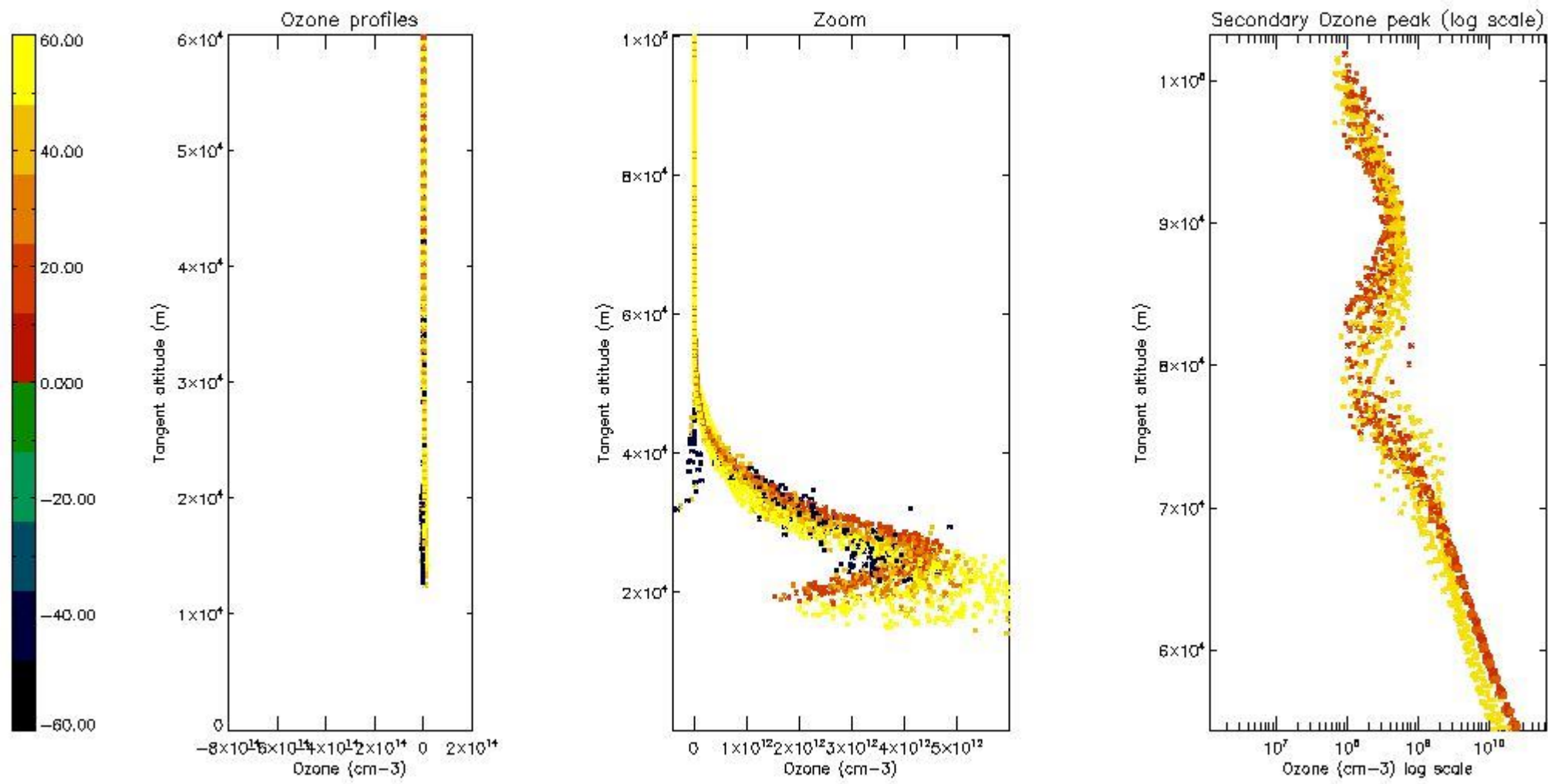
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



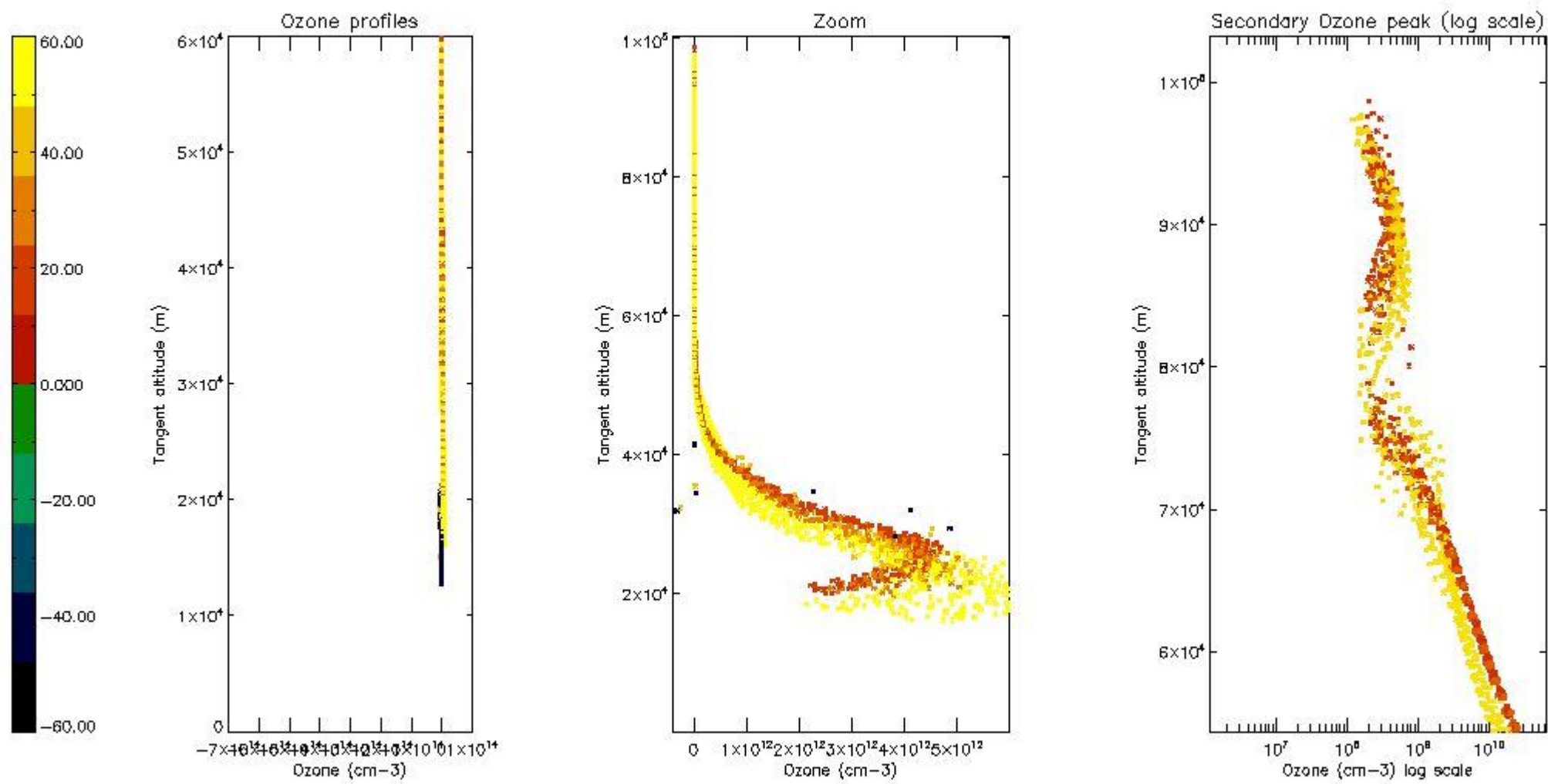
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



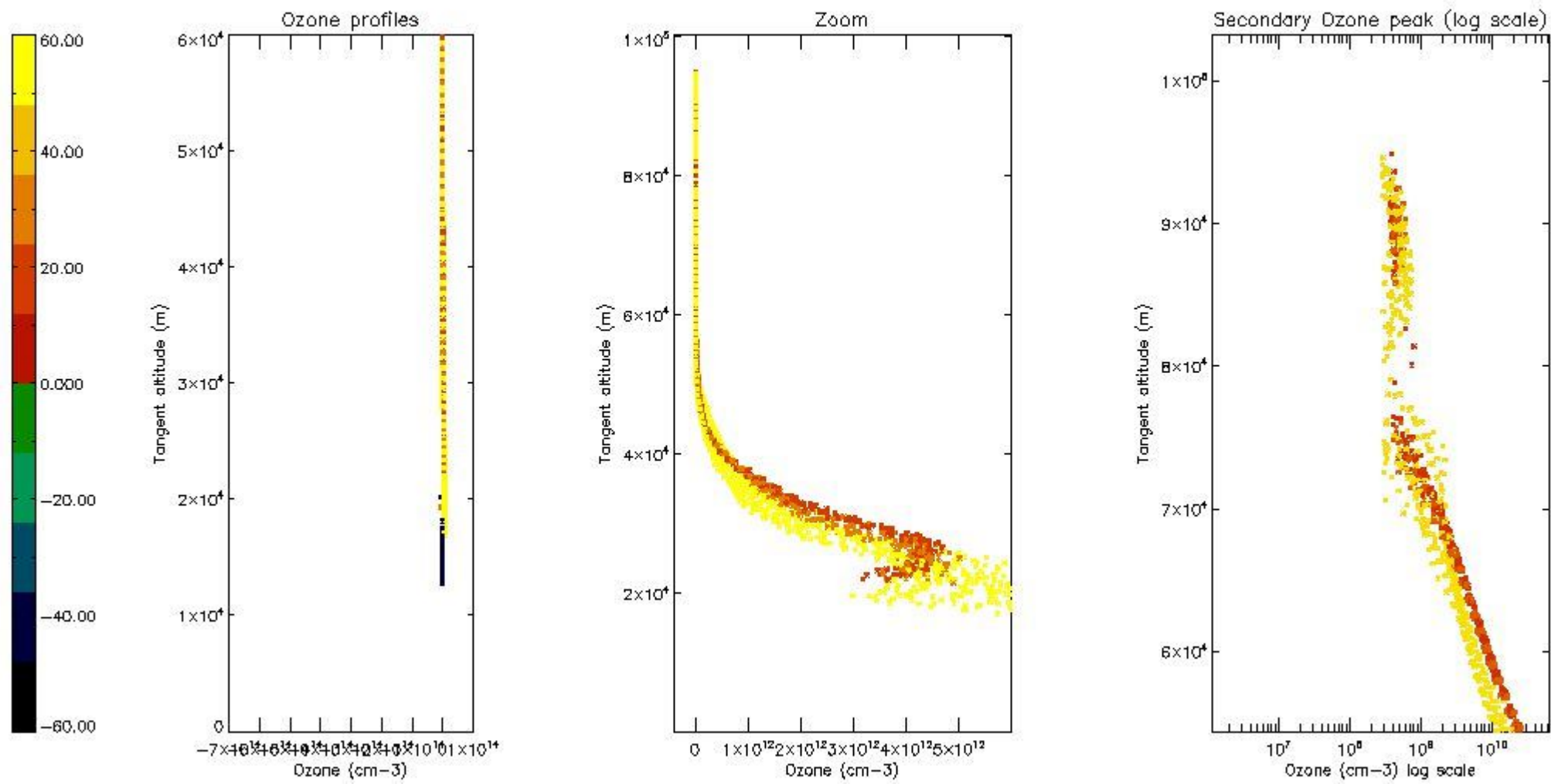
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



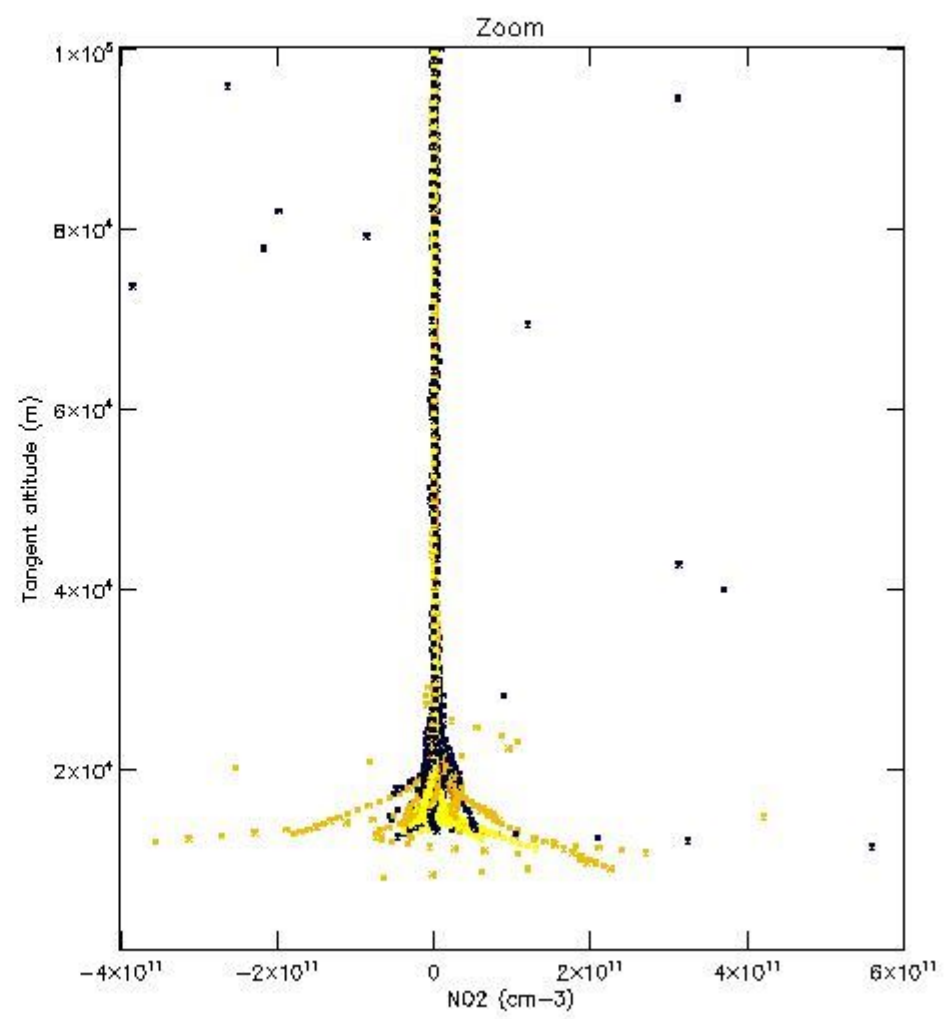
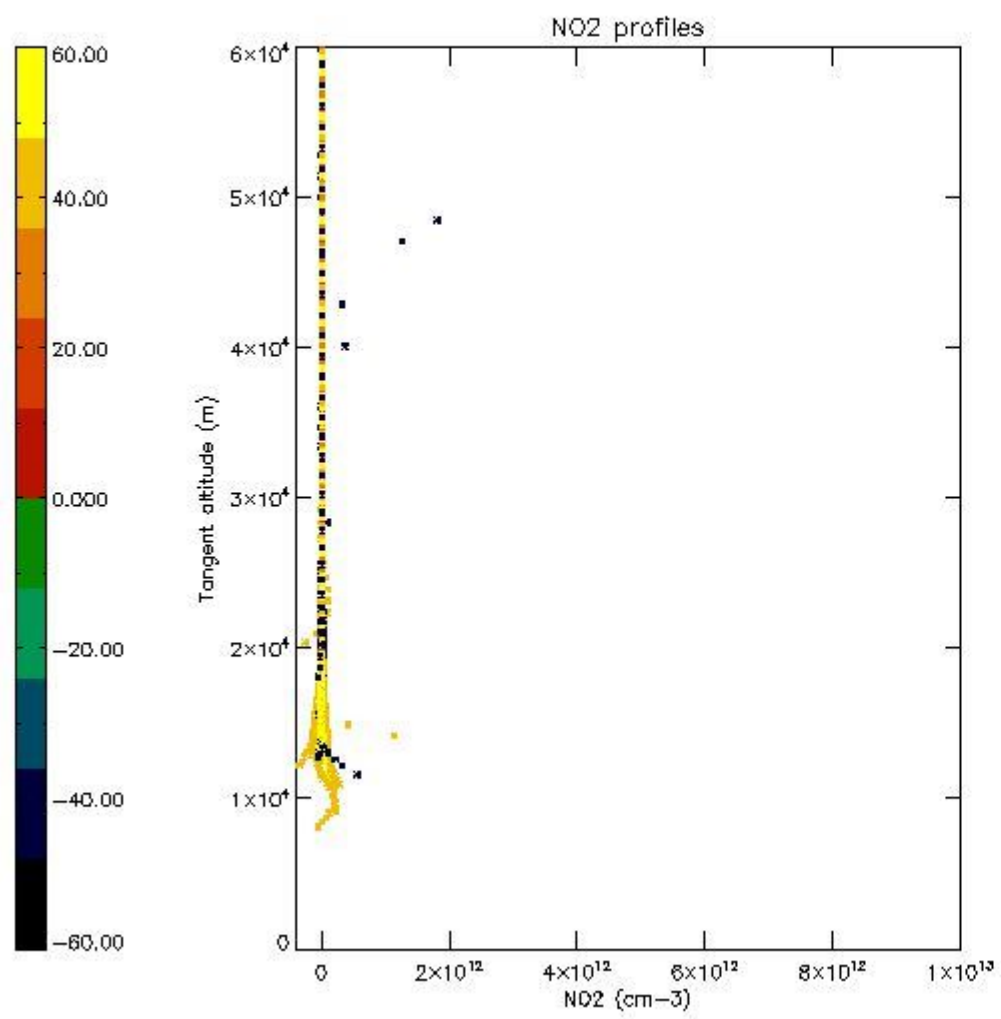
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



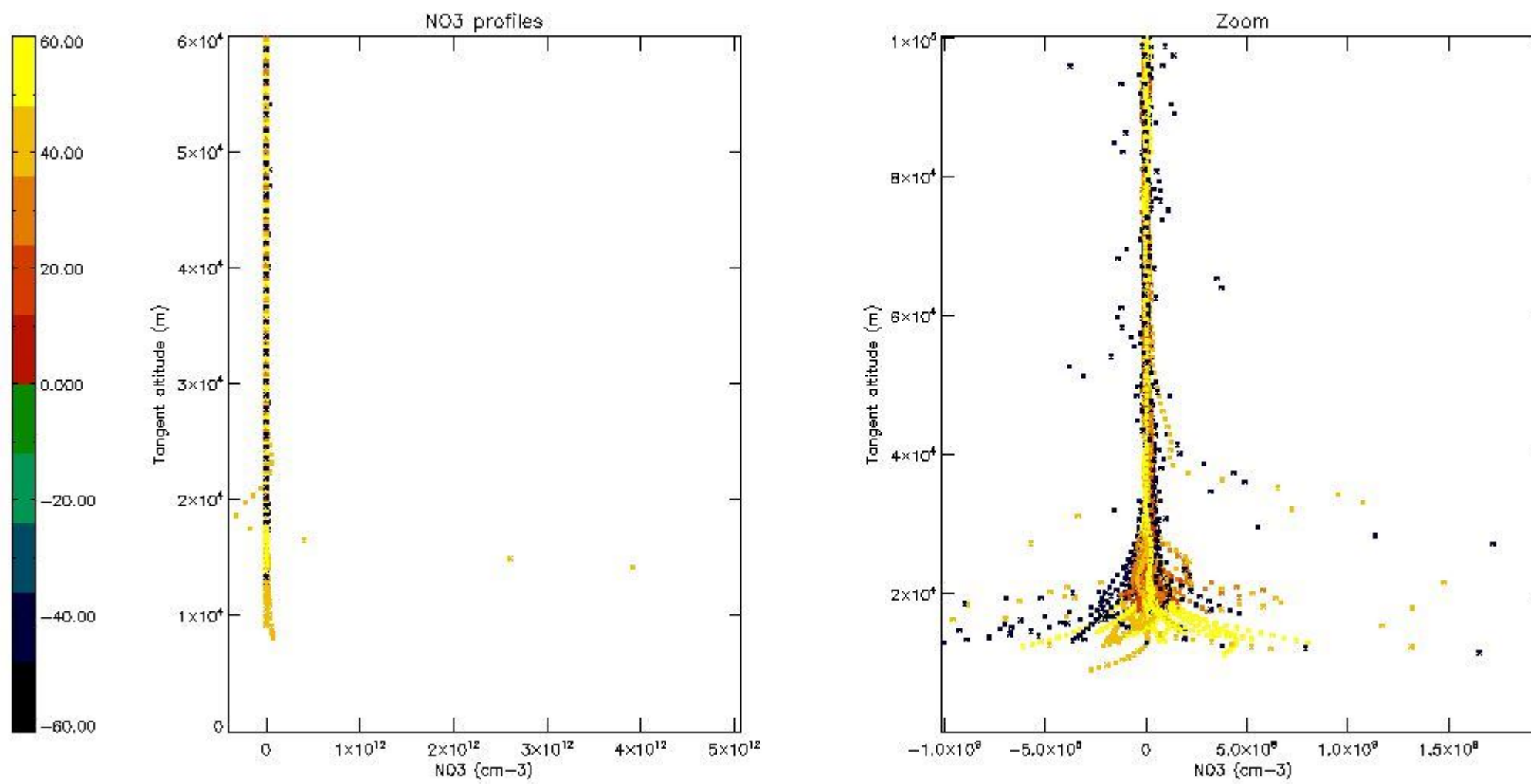
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

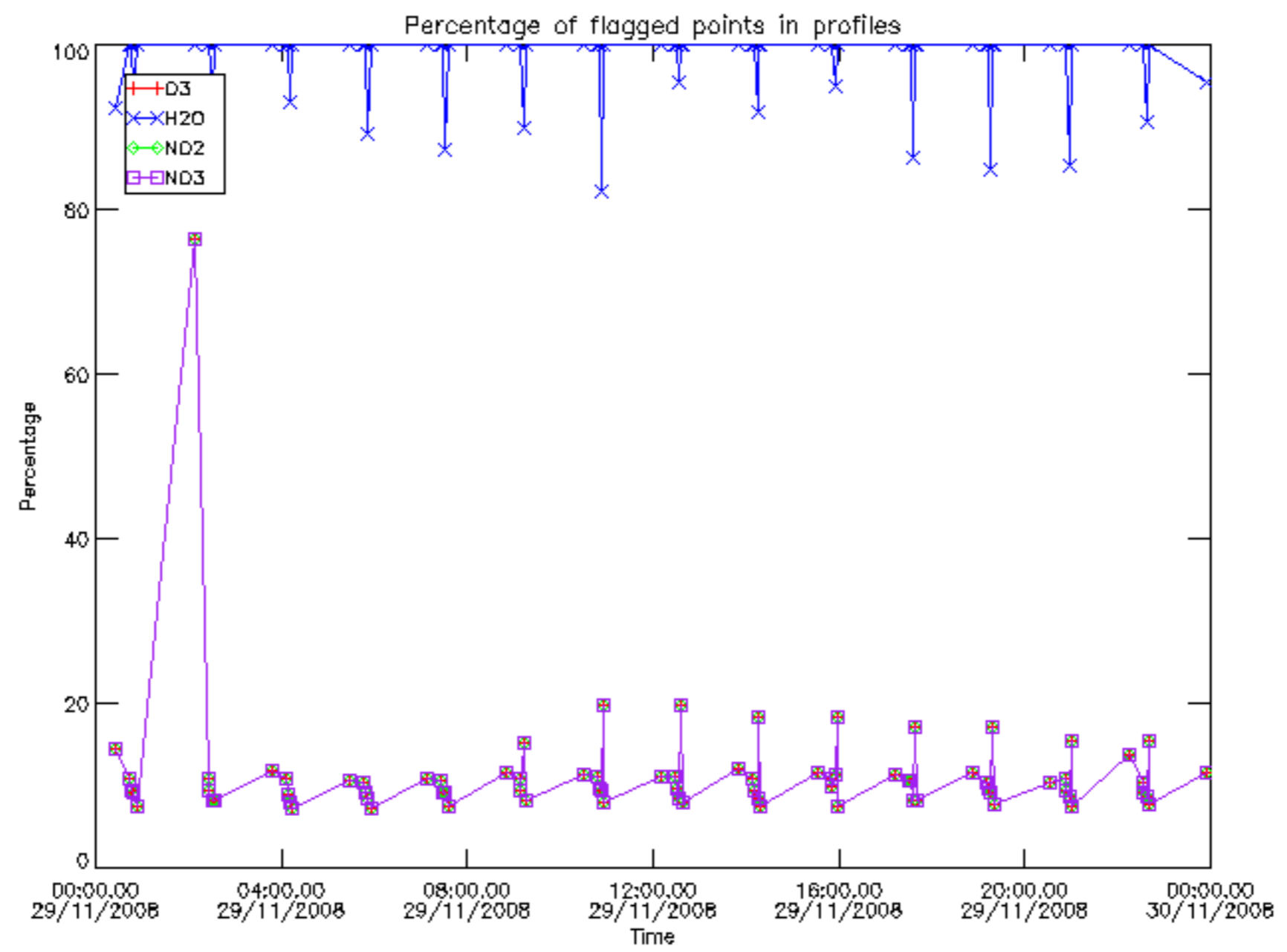
The colorbar represents the latitude.



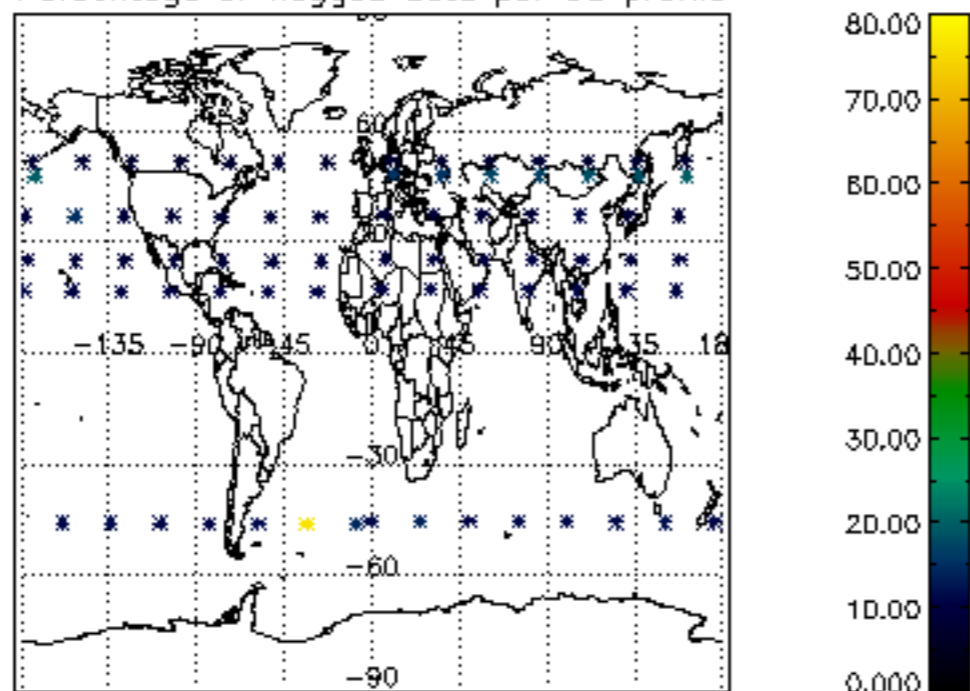
6. Auxiliary Data Files used for the production reported in section 2

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.

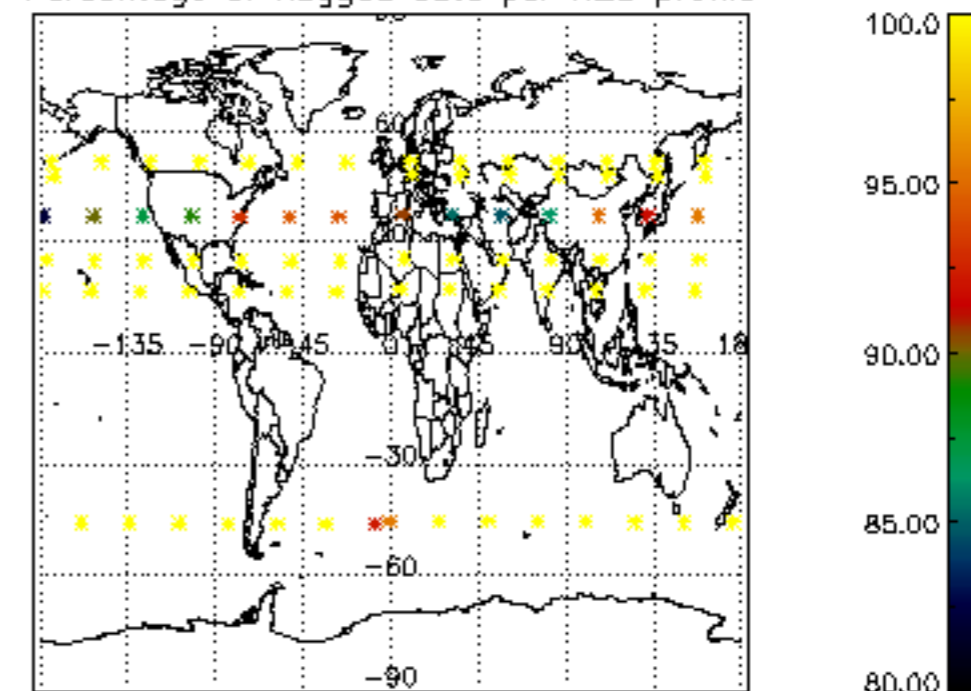
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	29-NOV-2008 00:01:16
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	29-NOV-2008 00:01:16
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	29-NOV-2008 00:01:16



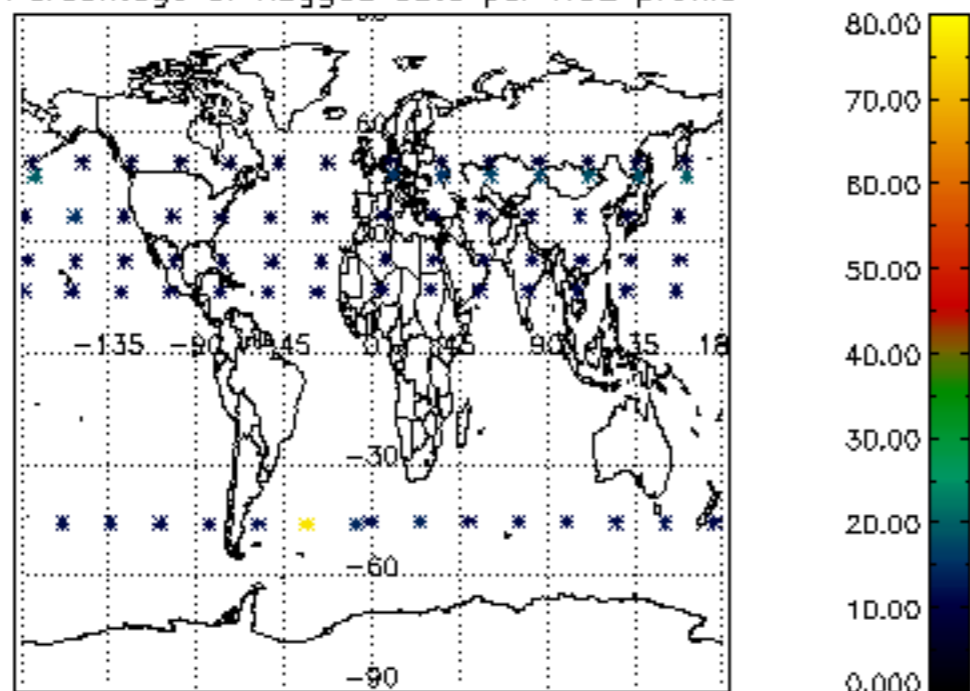
Percentage of flagged data per D3 profile



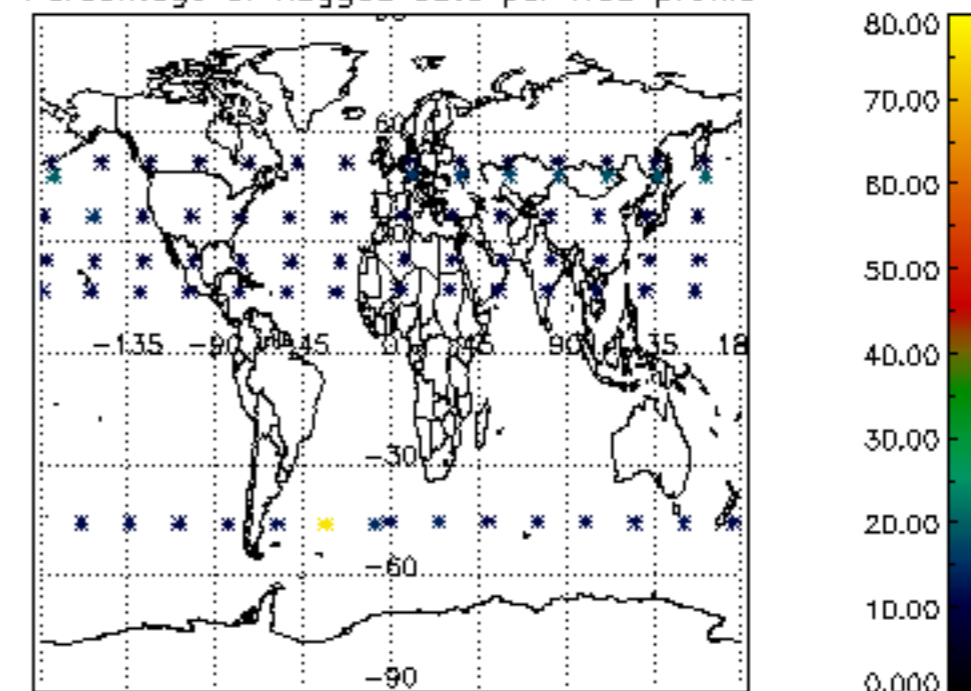
Percentage of flagged data per H2O profile

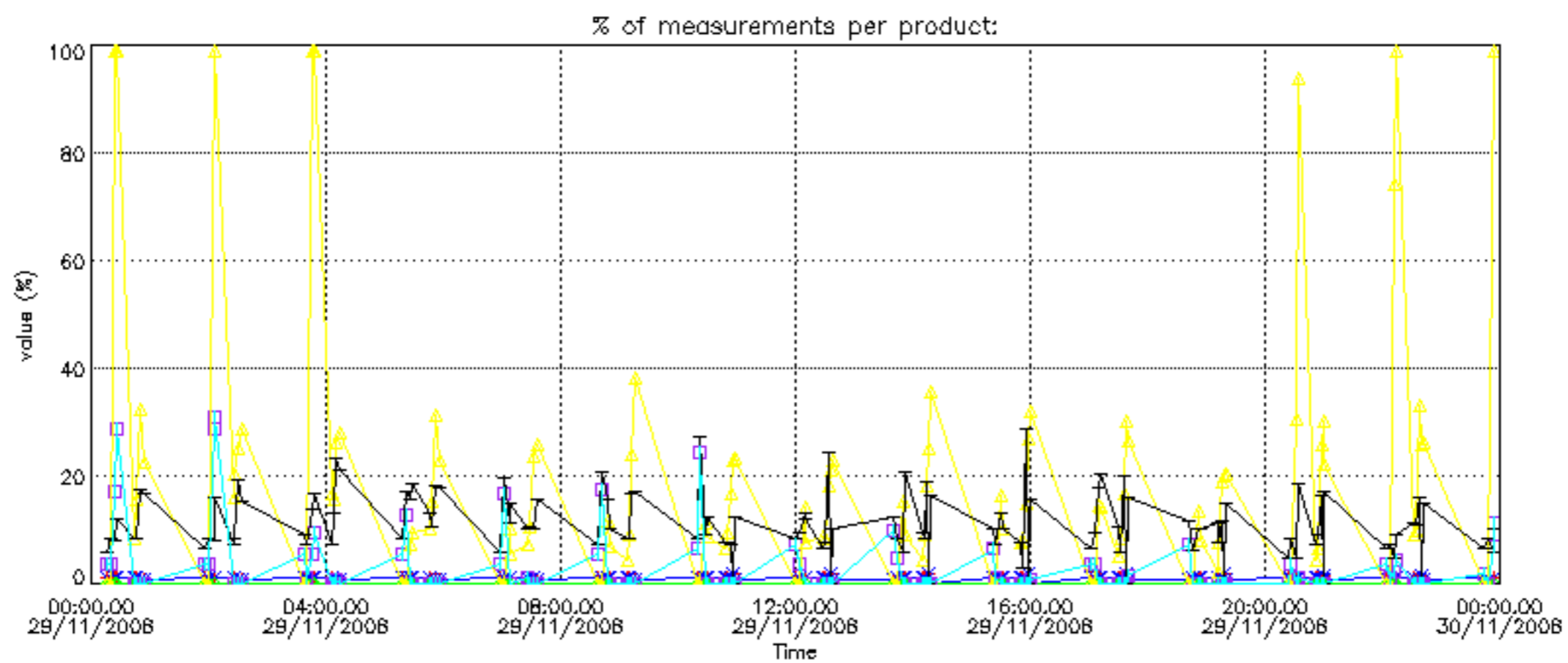


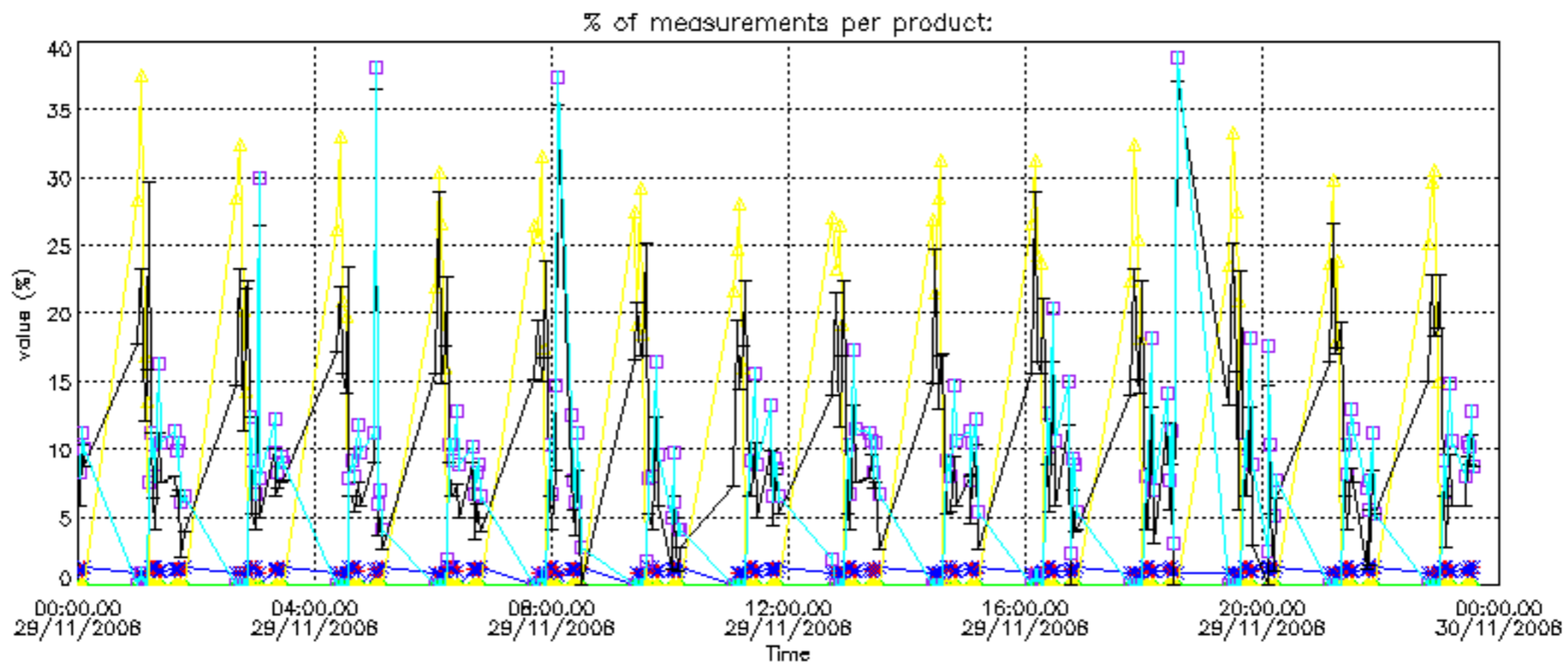
Percentage of flagged data per NO2 profile



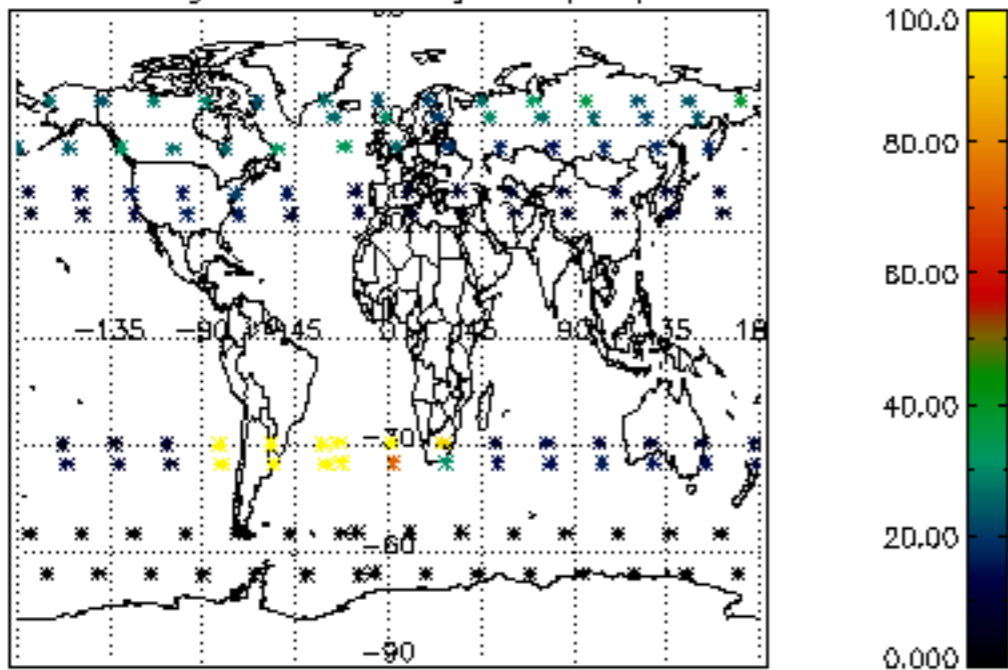
Percentage of flagged data per NO3 profile



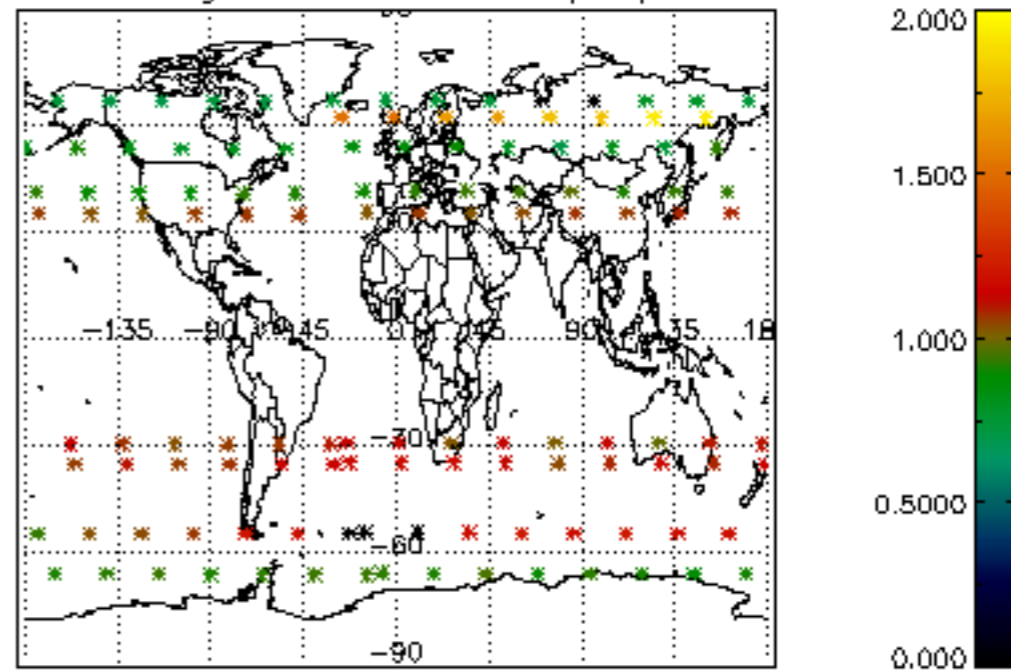




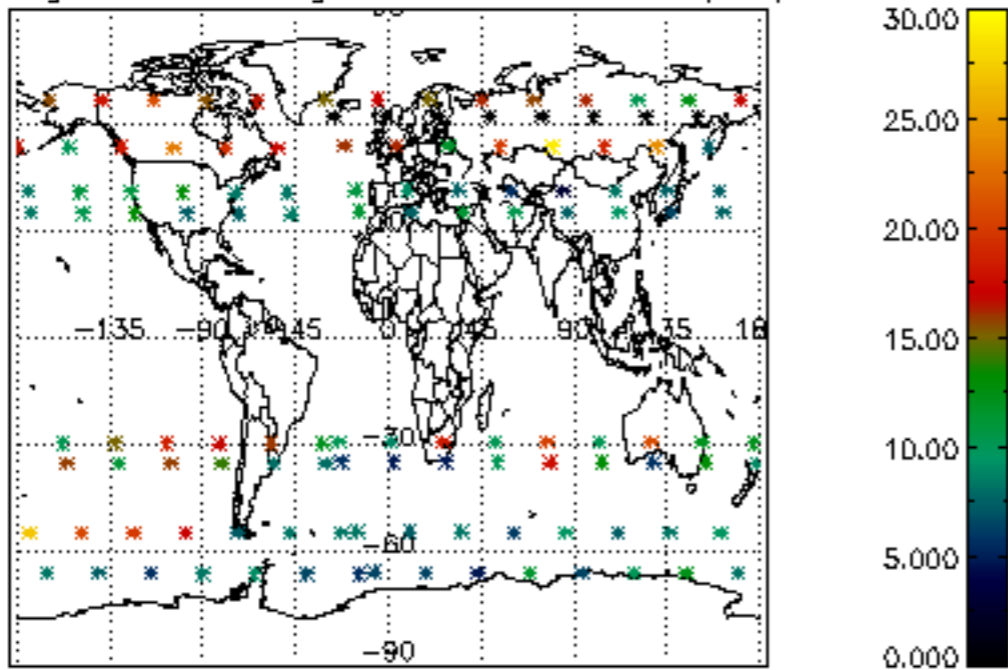
Percentage of cosmic ray hits per profile



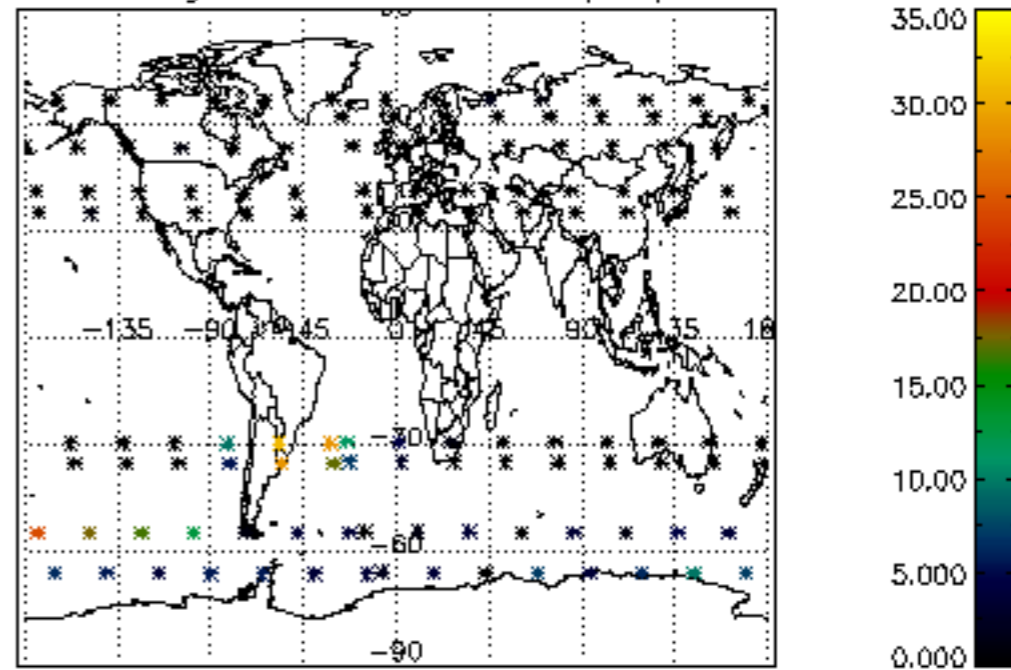
Percentage of datation errors per profile



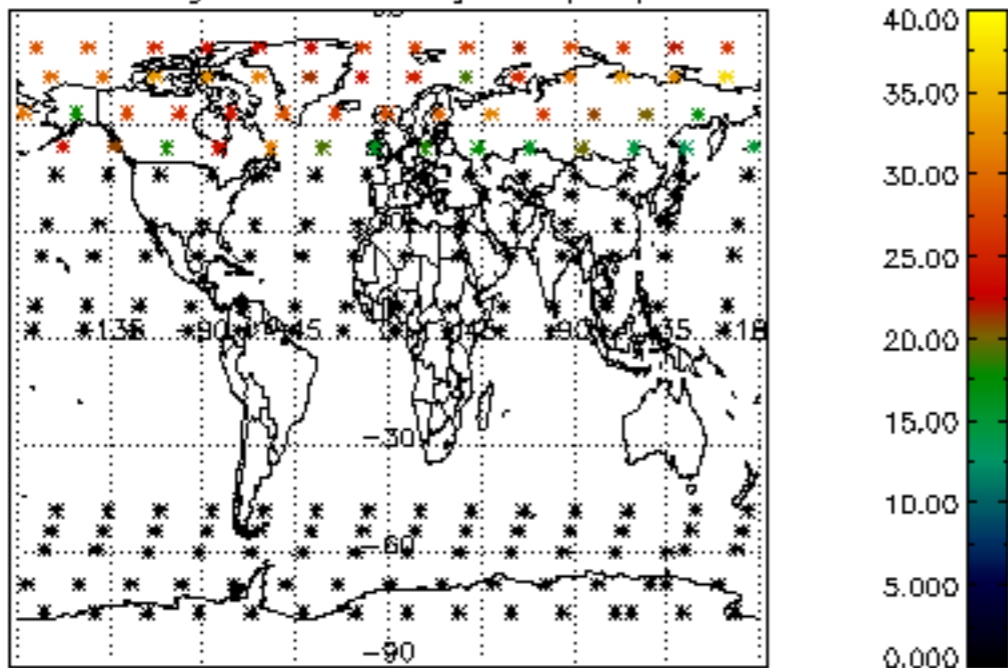
Percentage of star falling outside central band per profile



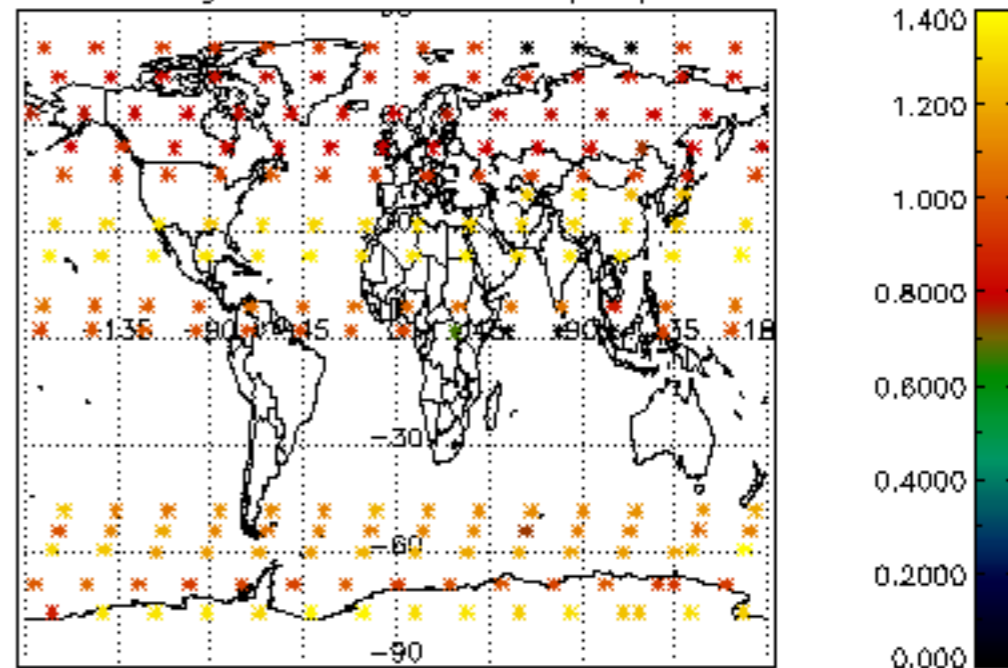
Percentage of saturation errors per profile



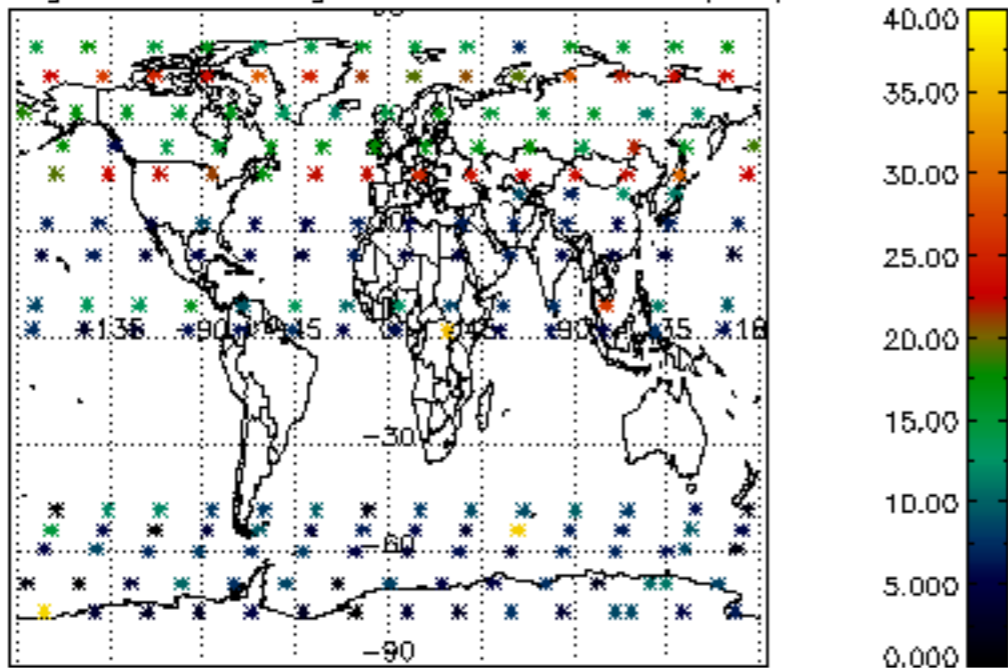
Percentage of cosmic ray hits per profile



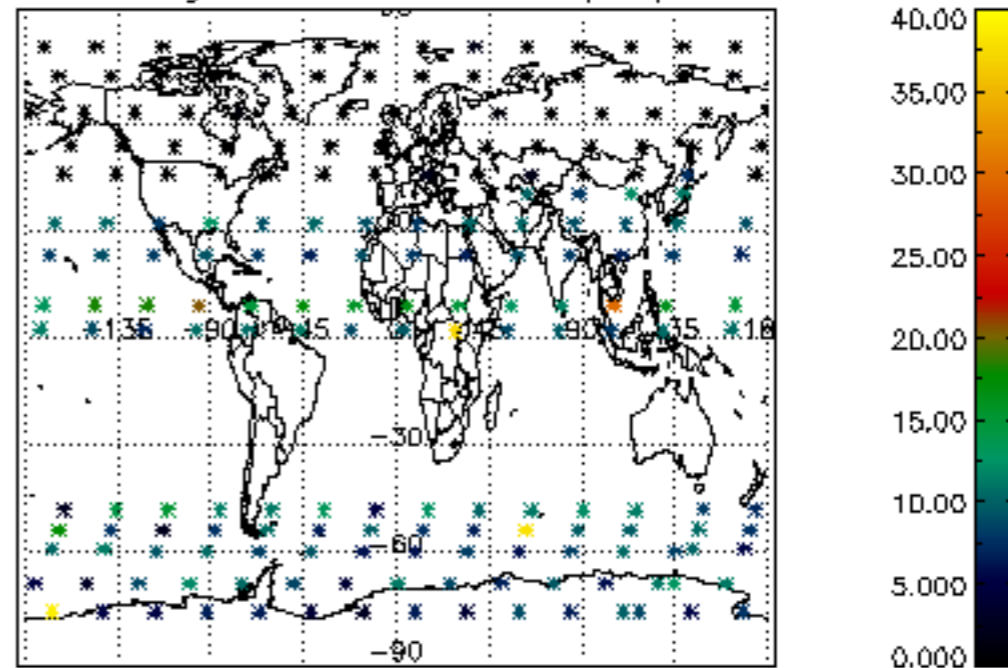
Percentage of datation errors per profile

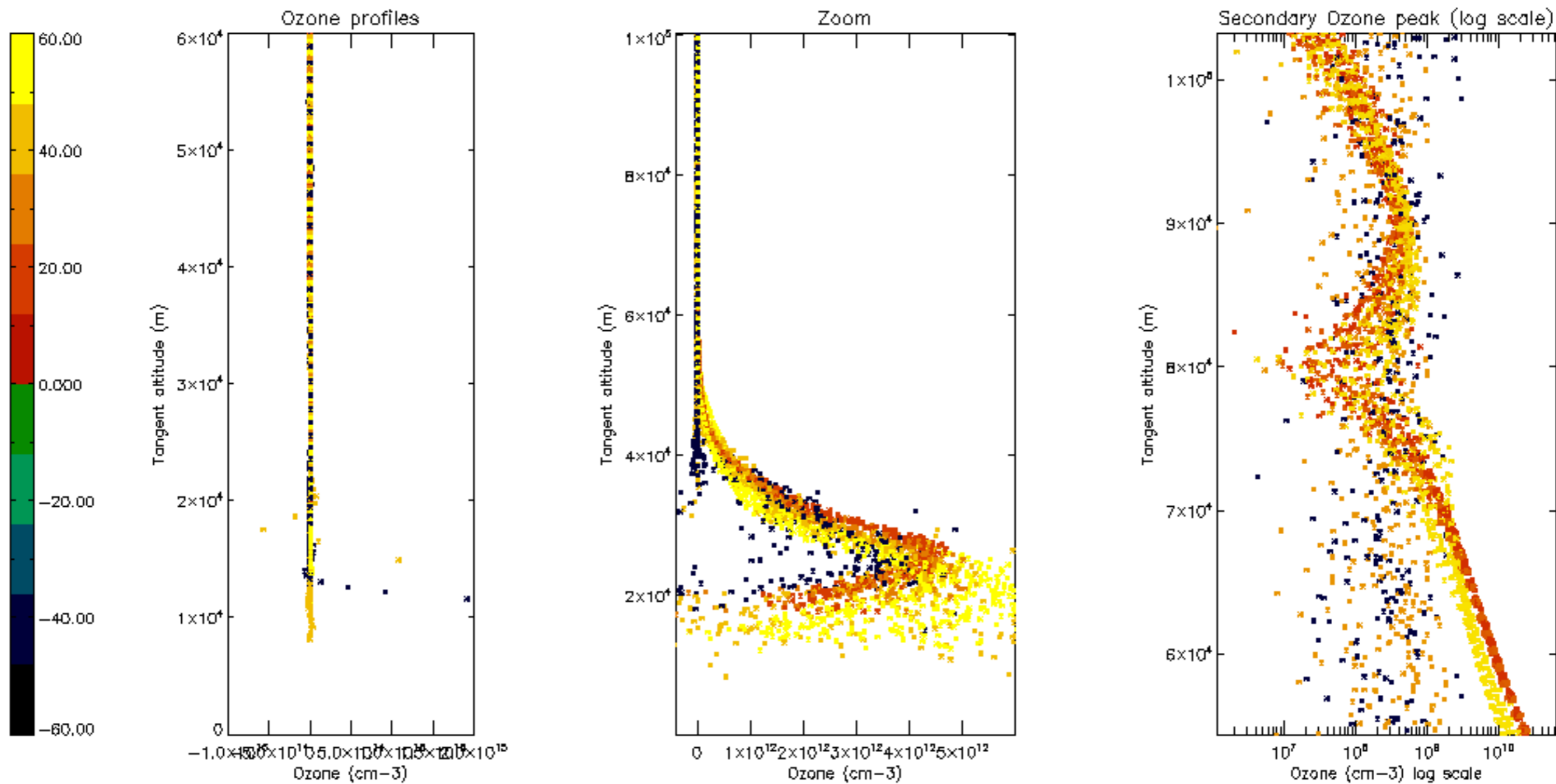


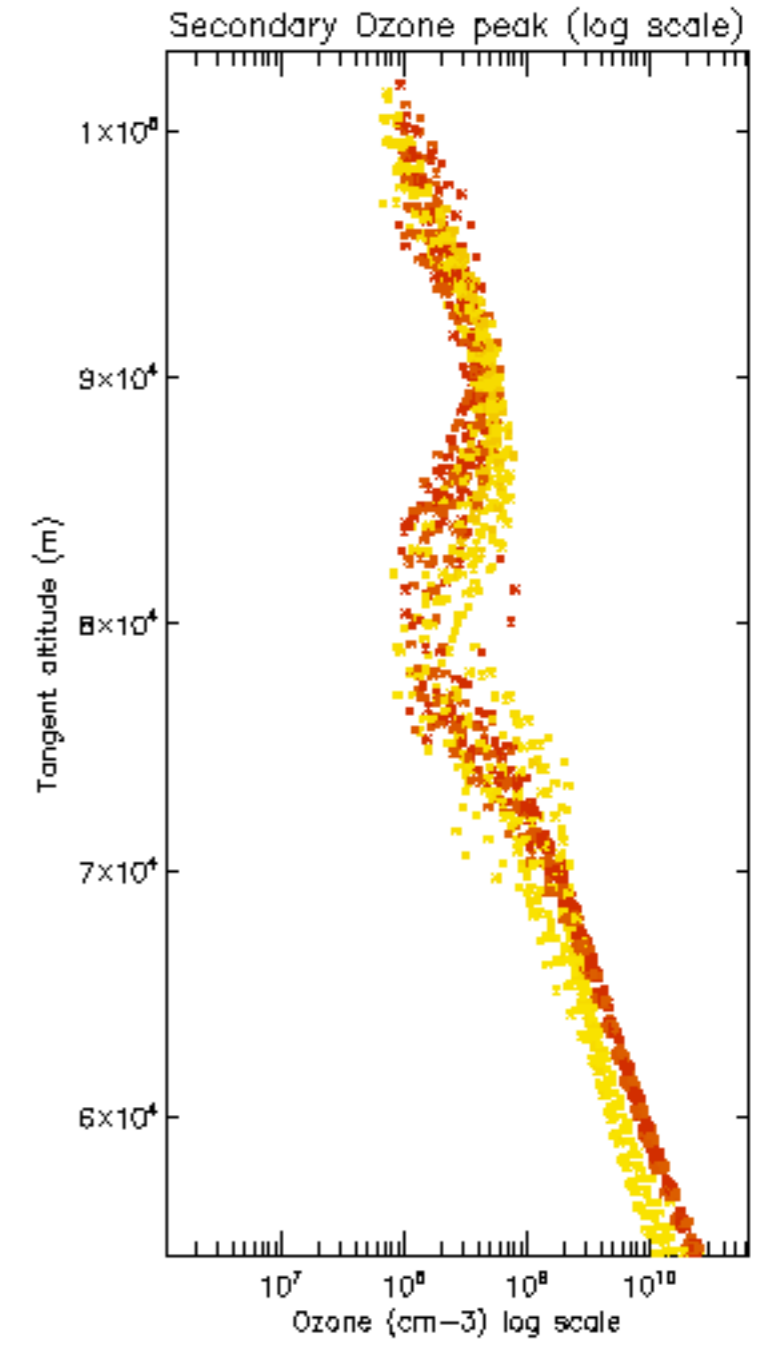
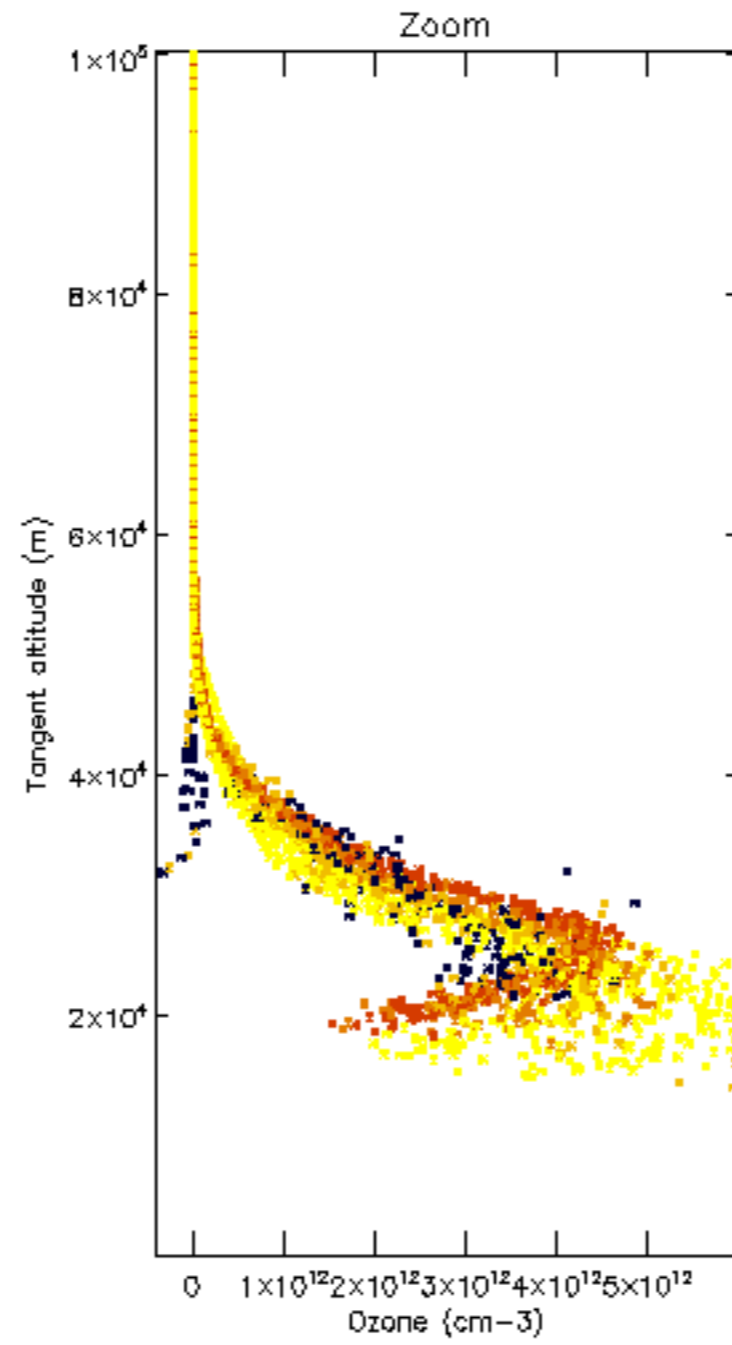
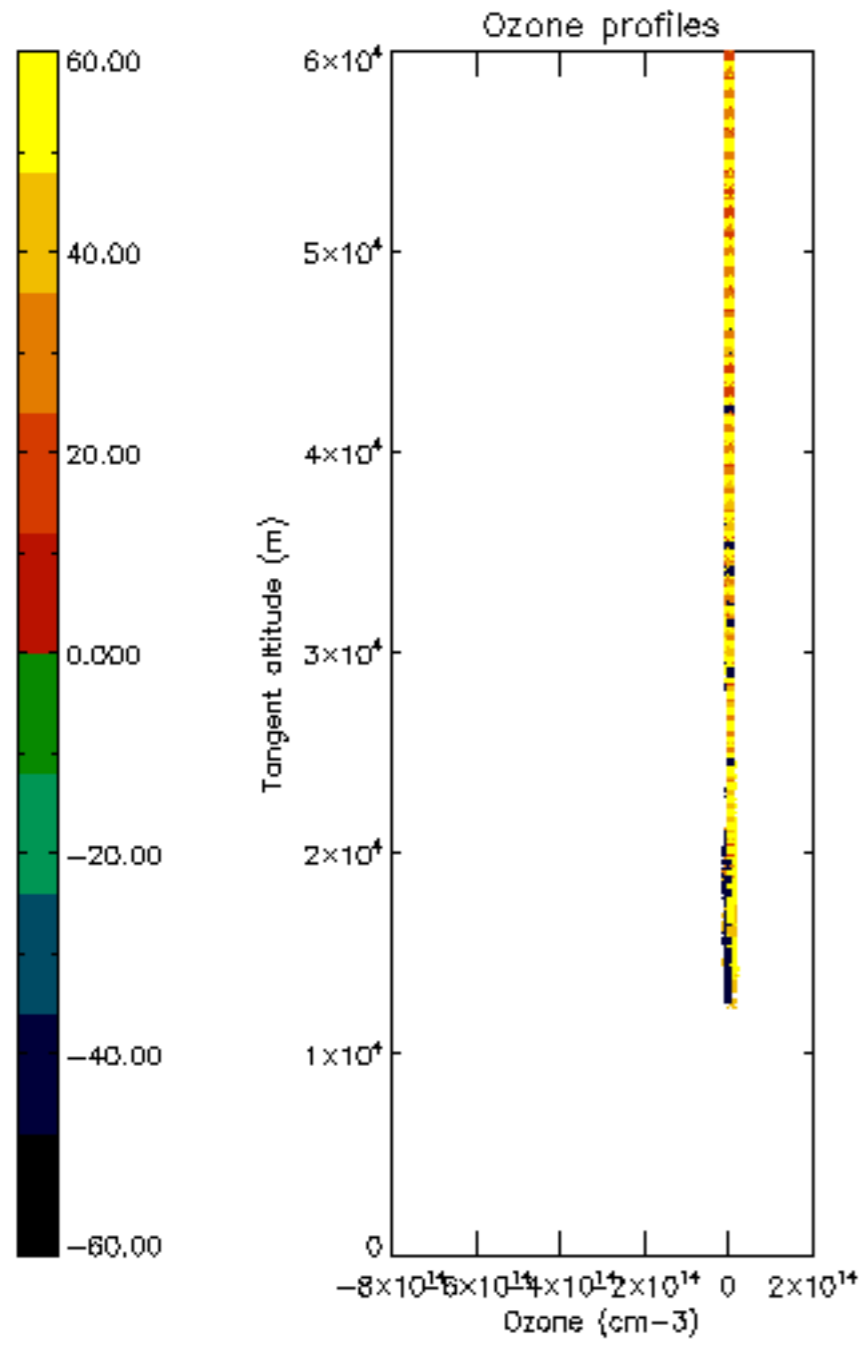
Percentage of star falling outside central band per profile

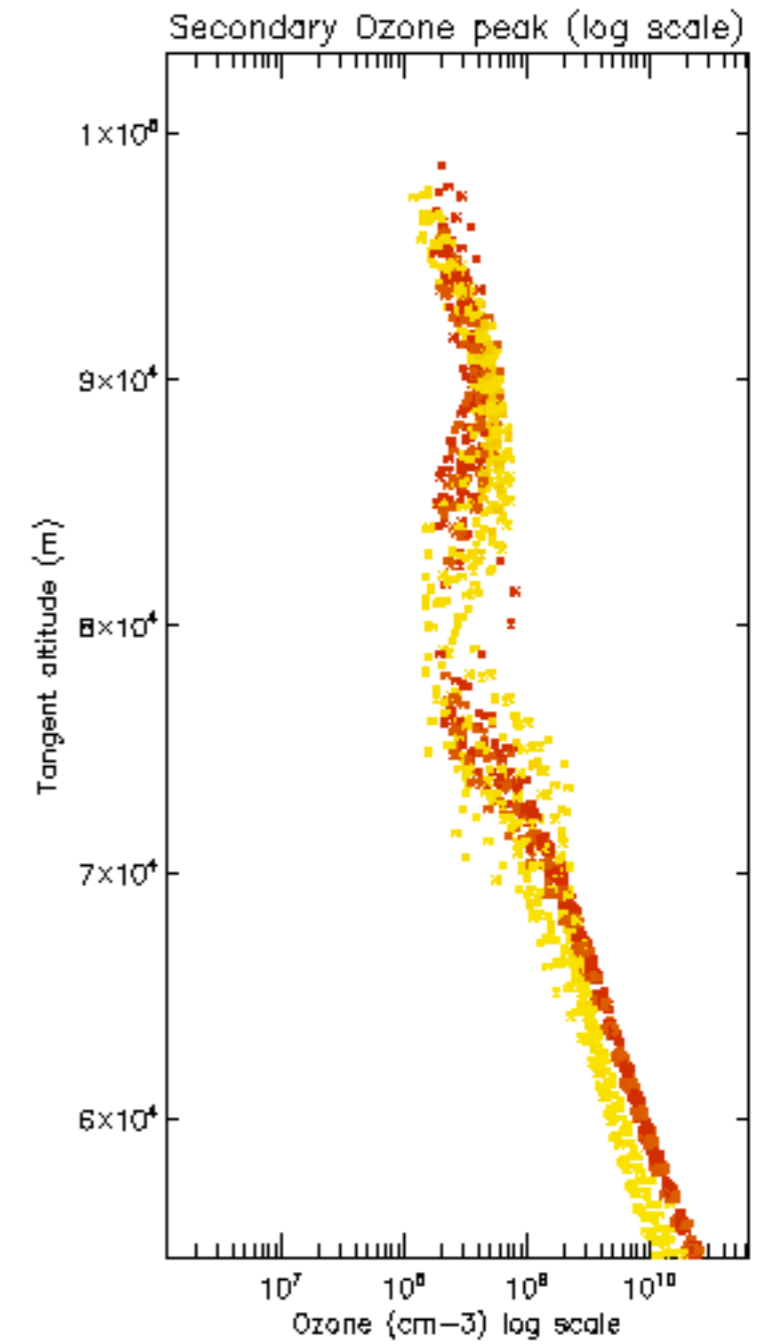
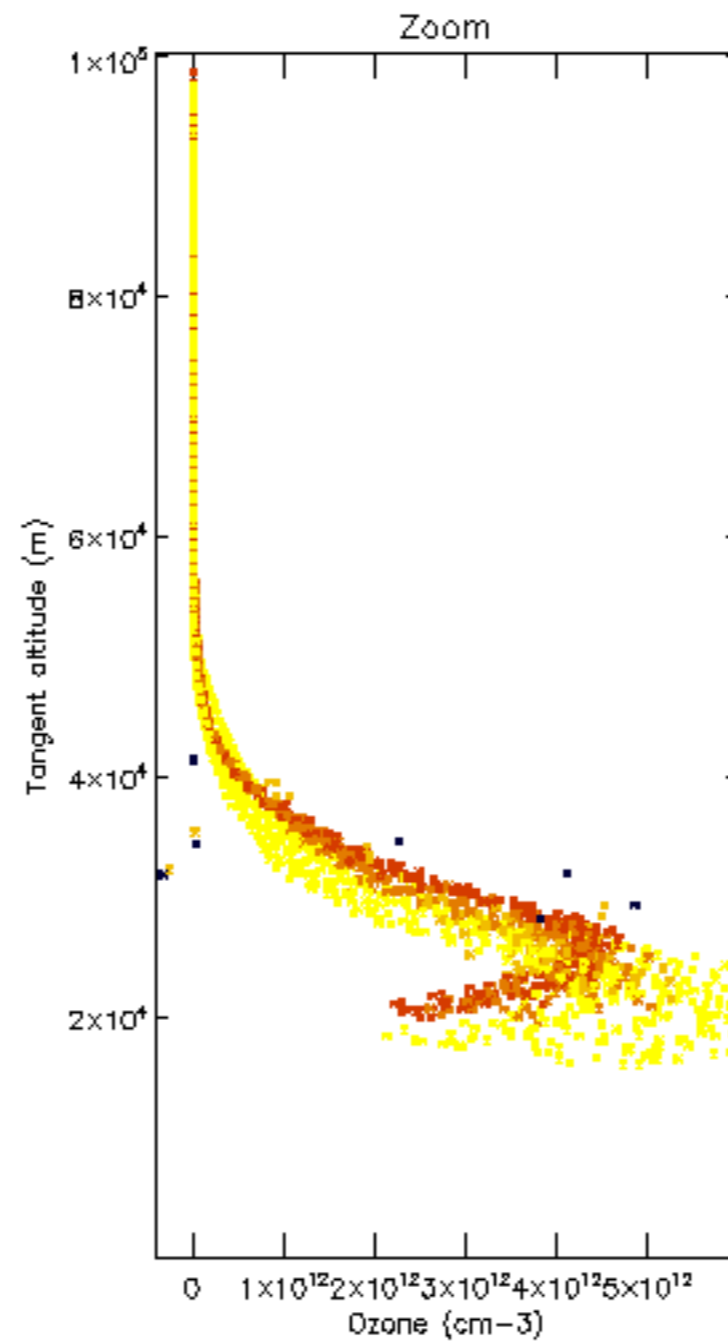
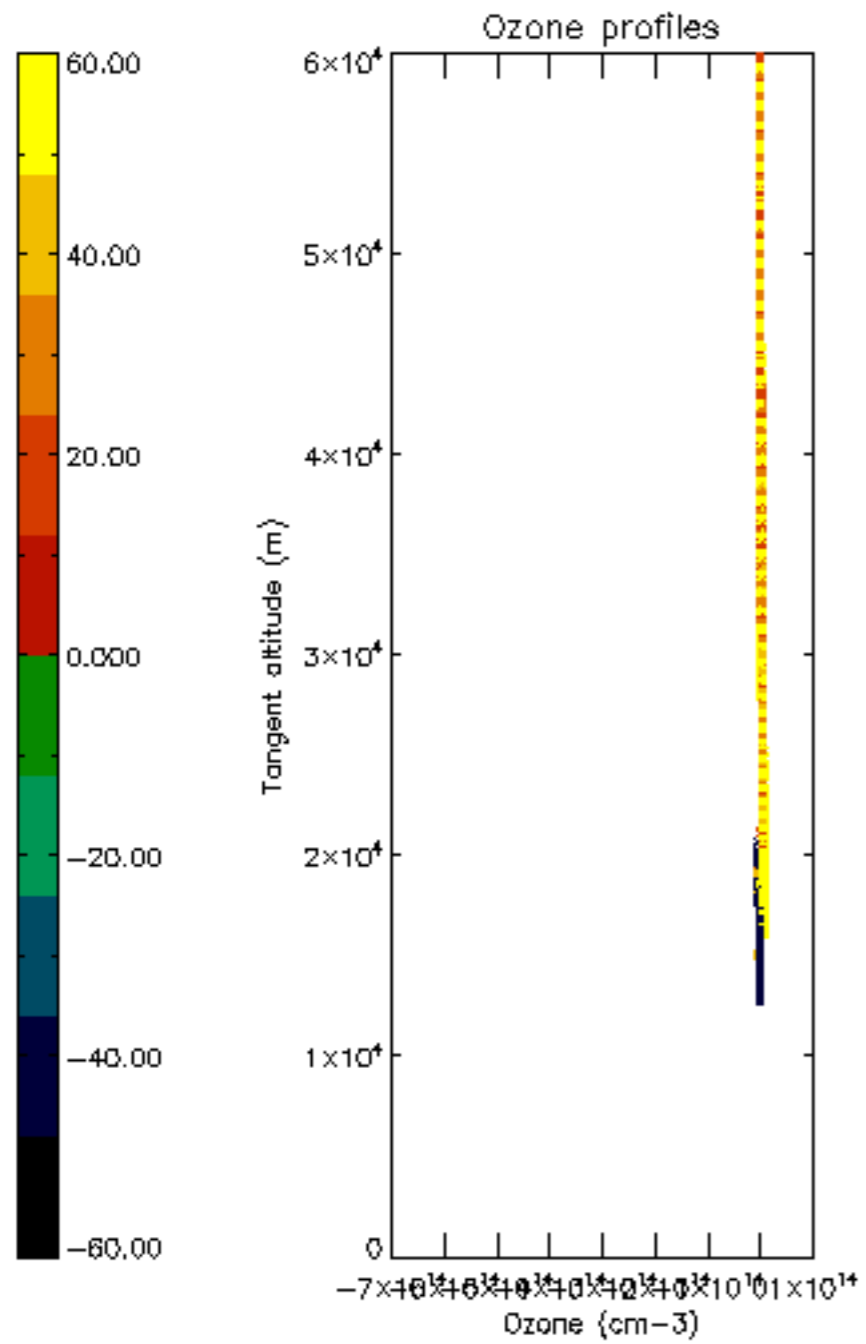


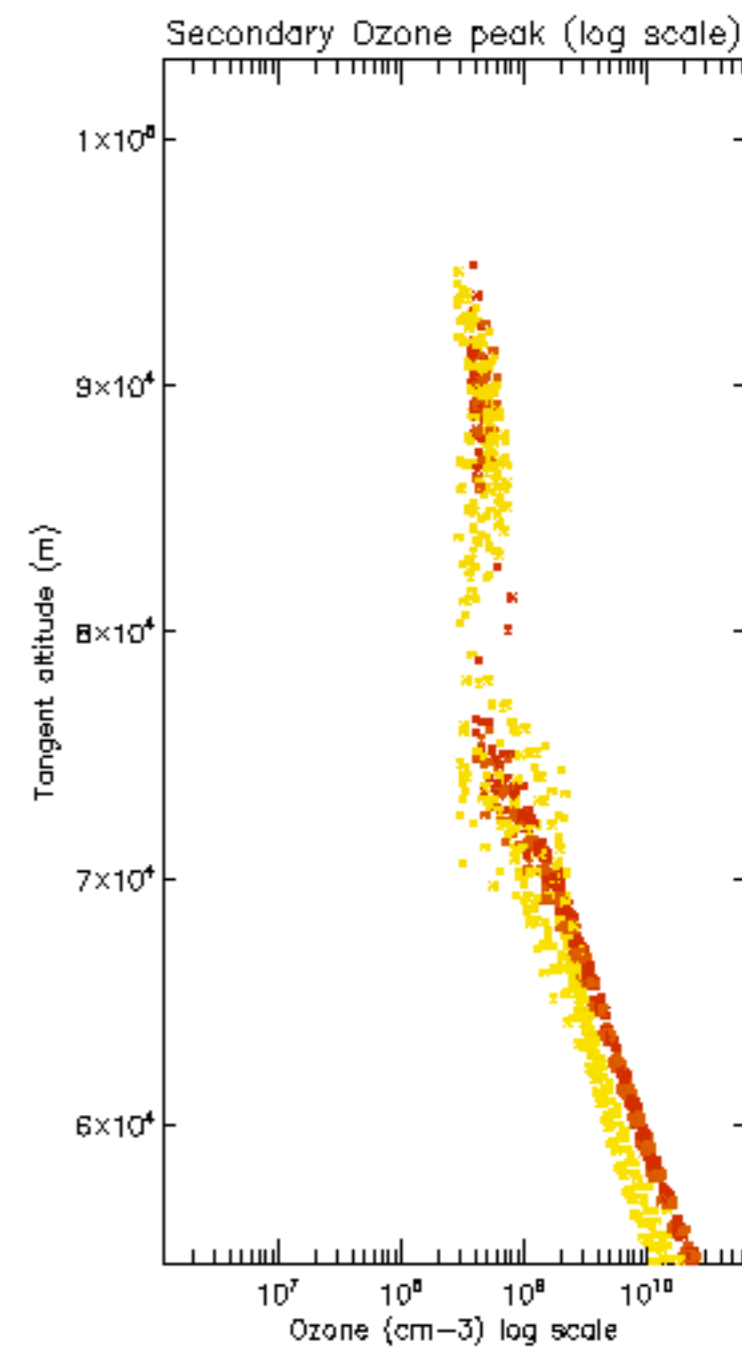
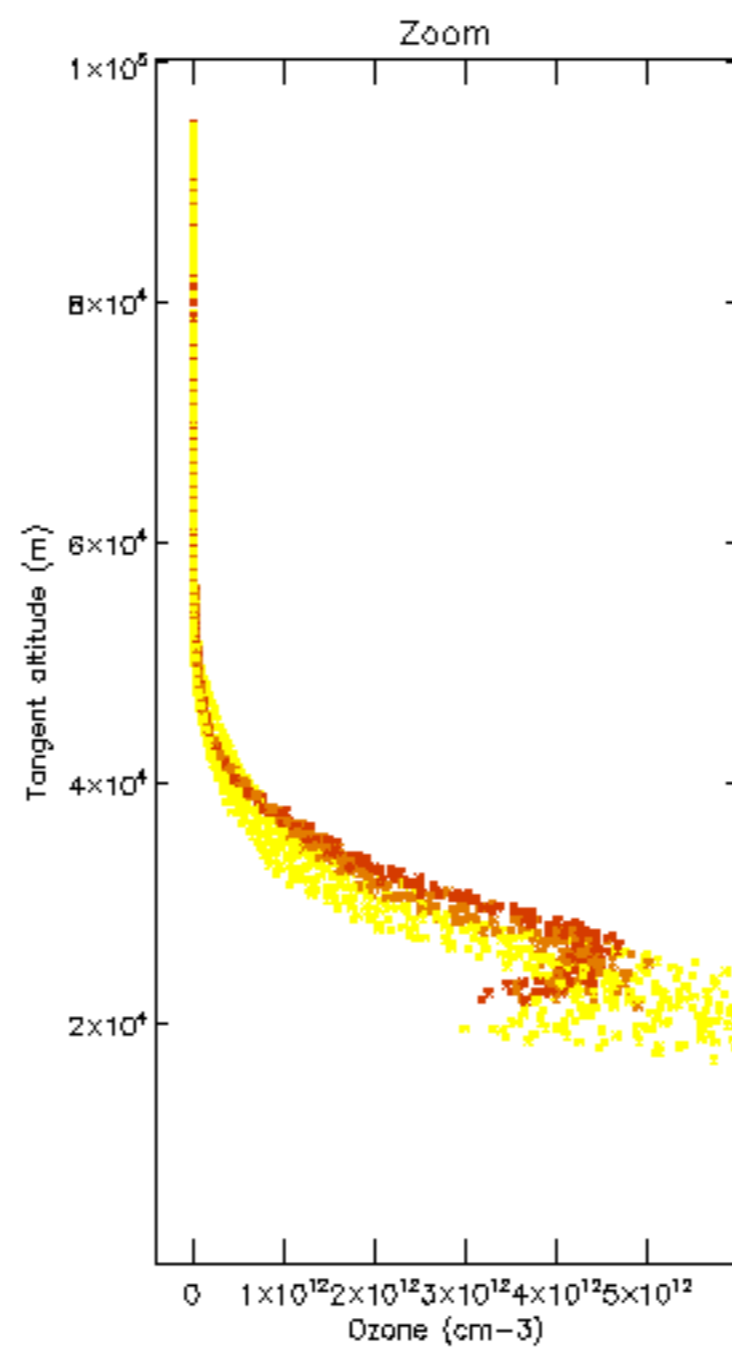
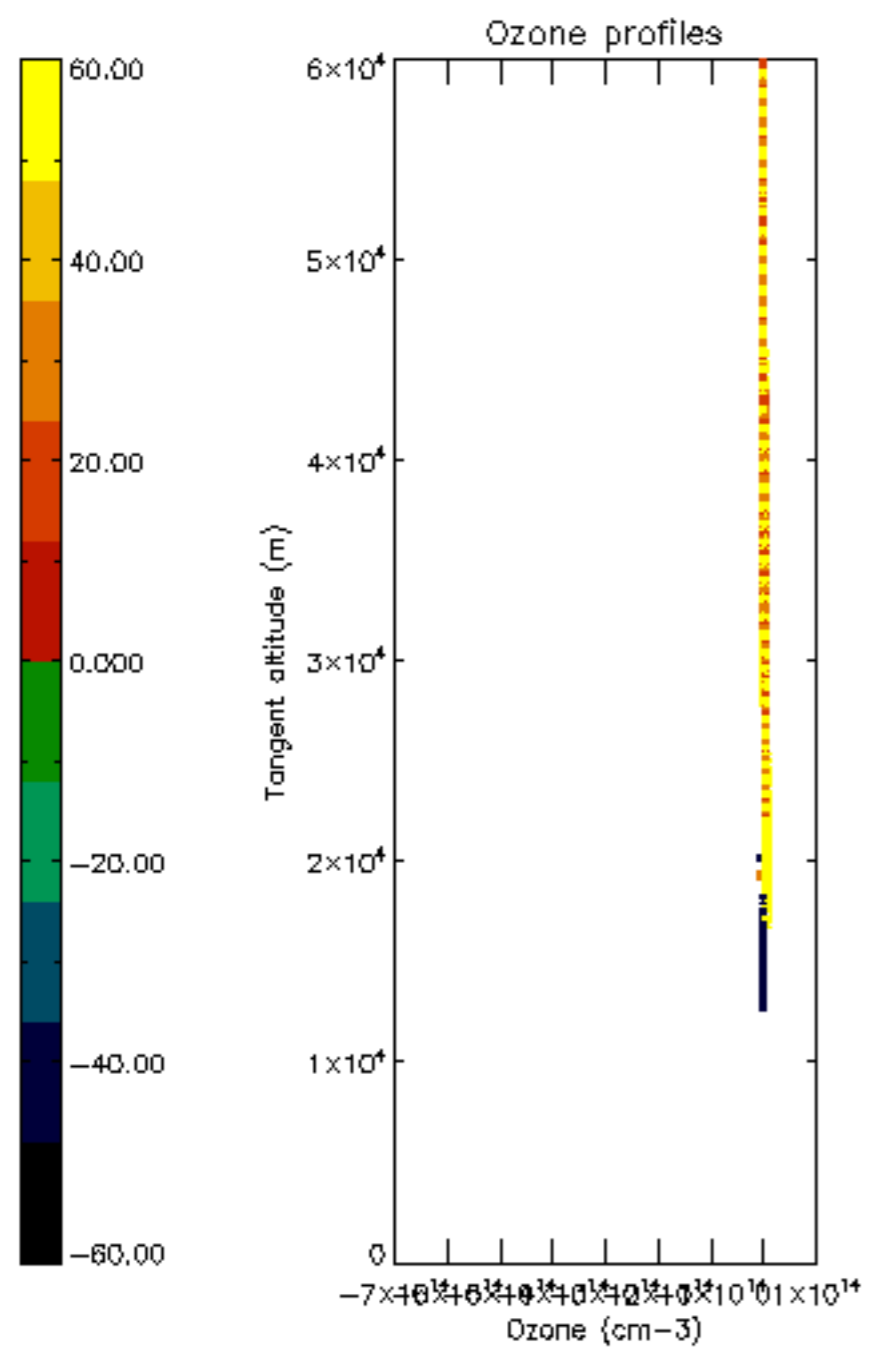
Percentage of saturation errors per profile

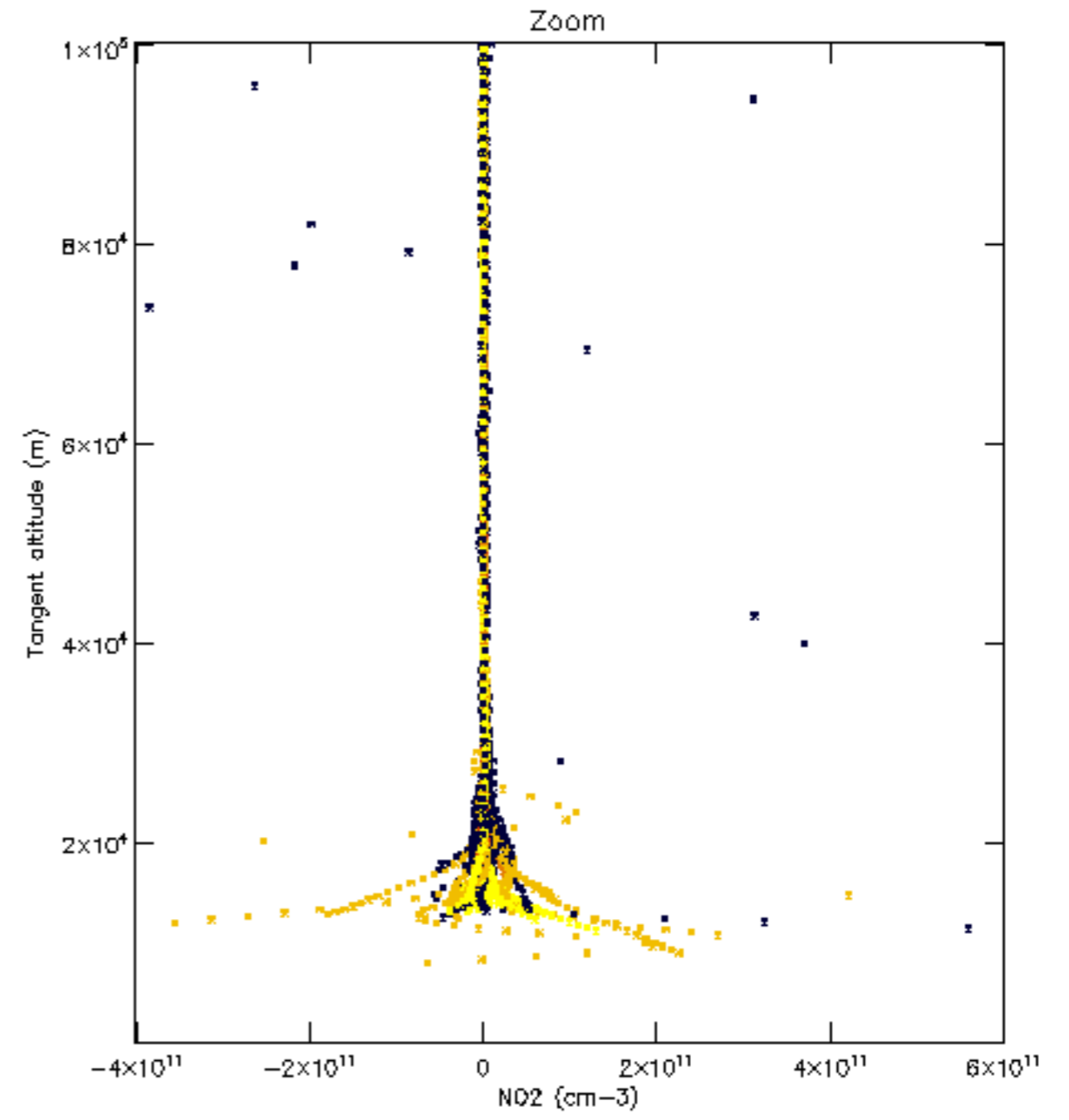
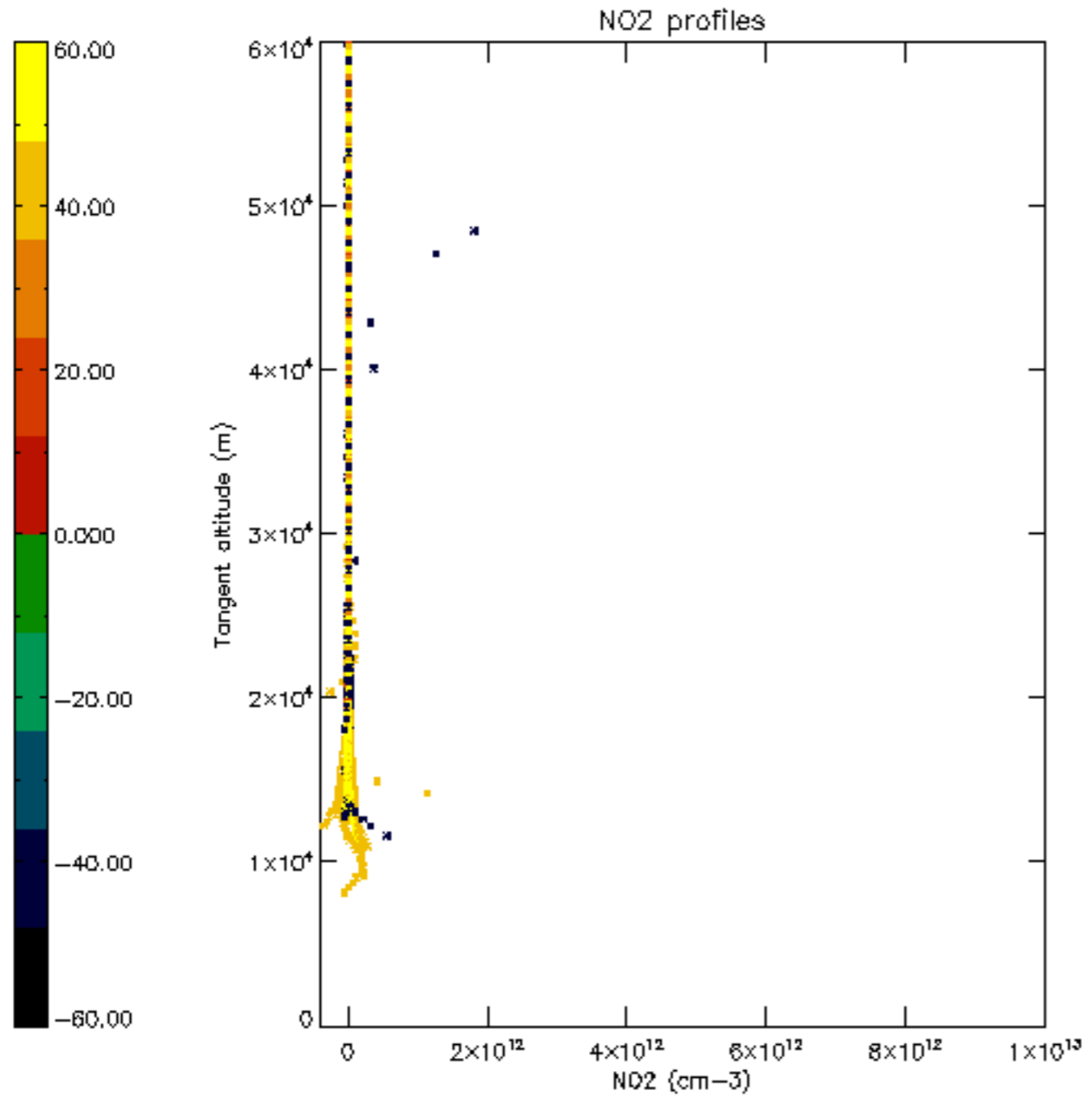


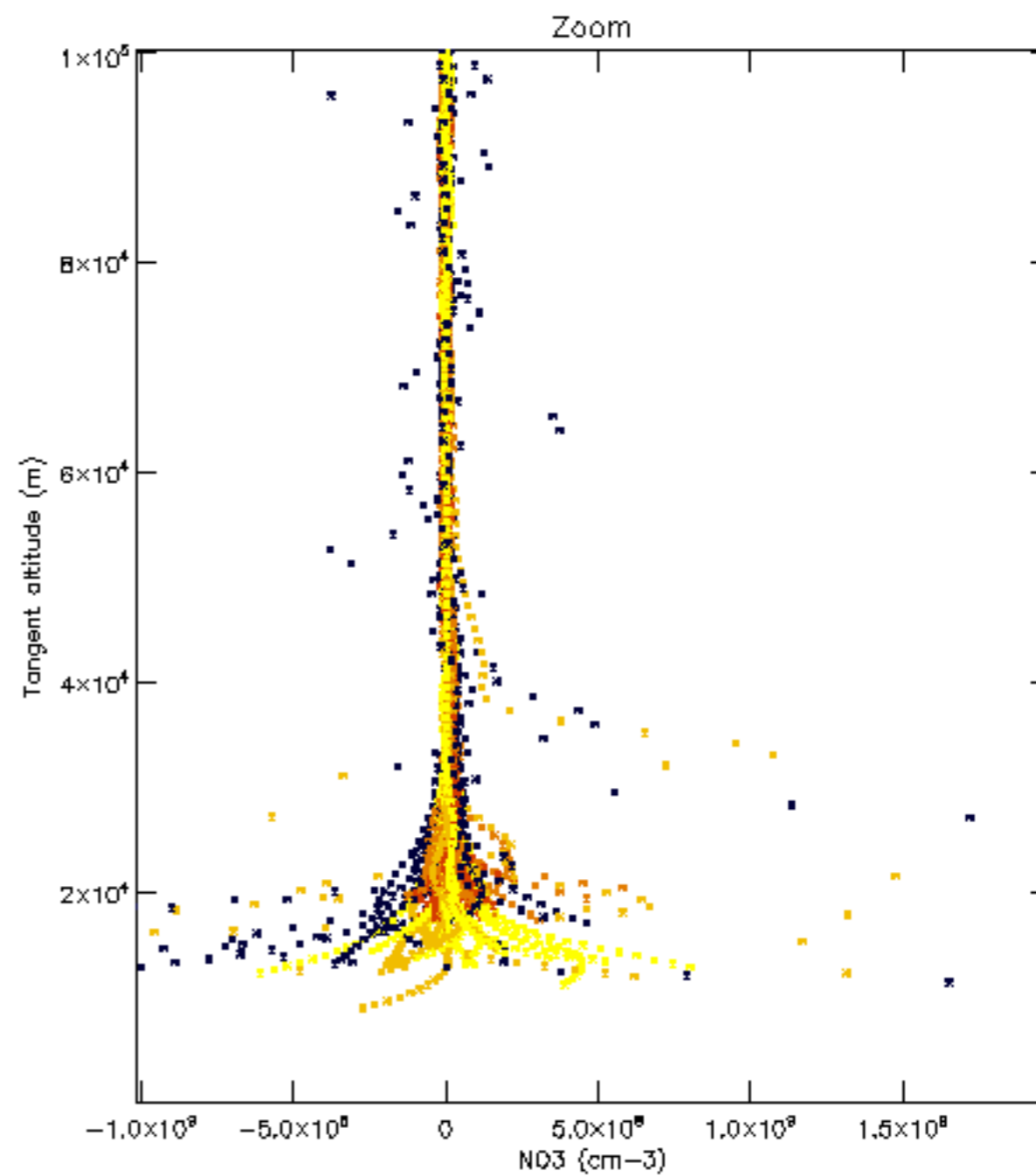
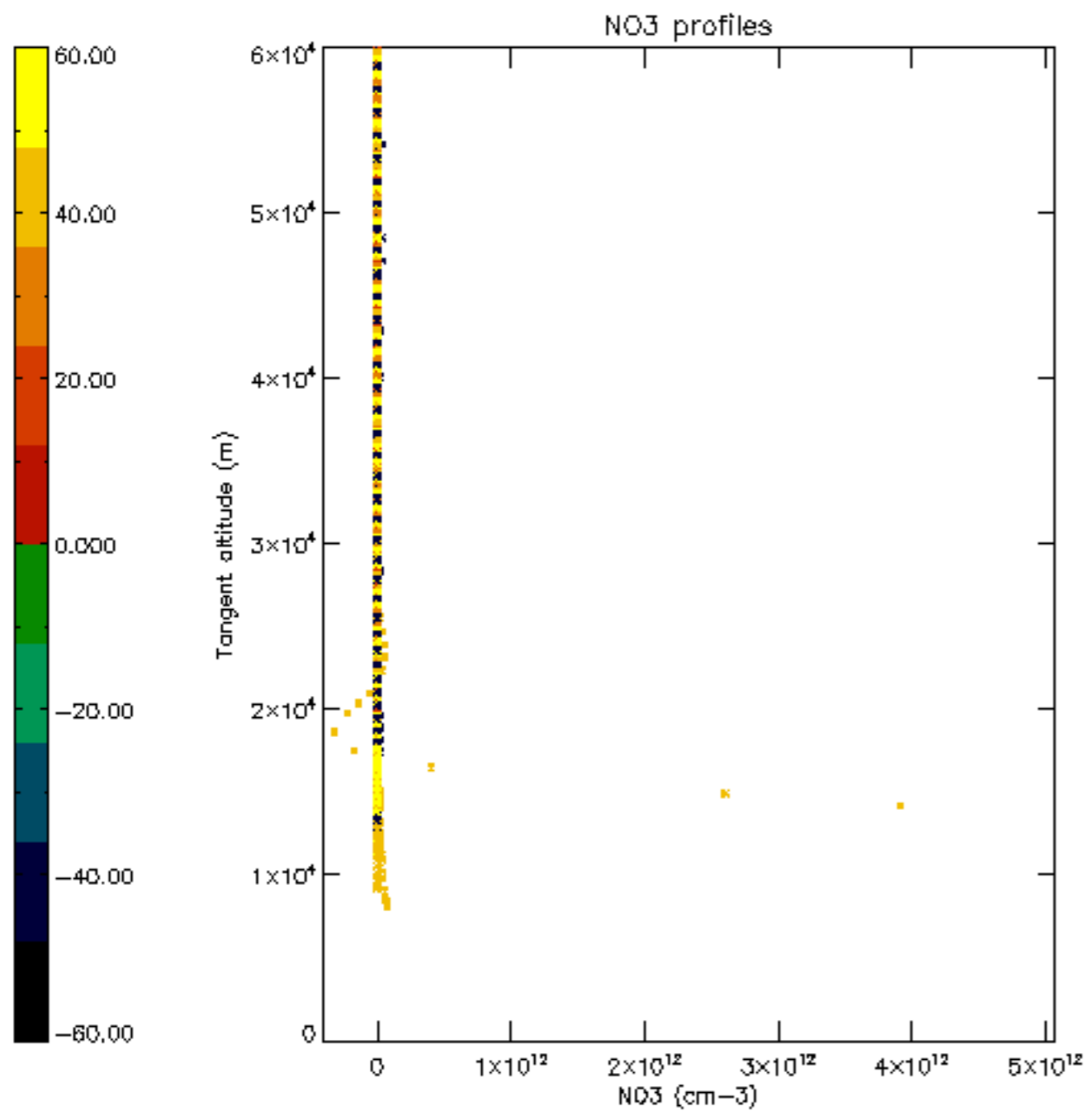


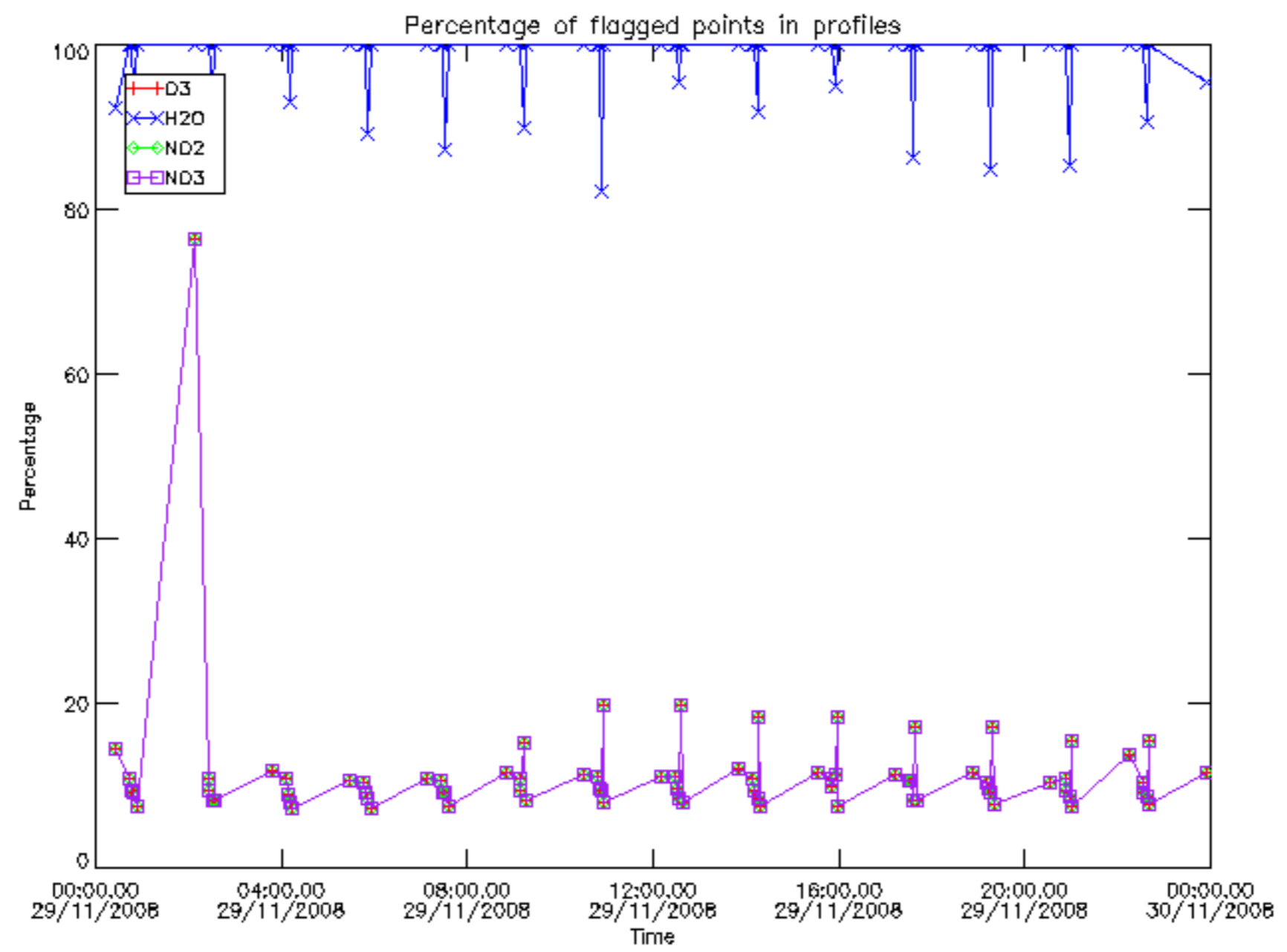




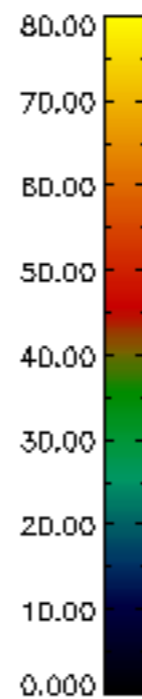
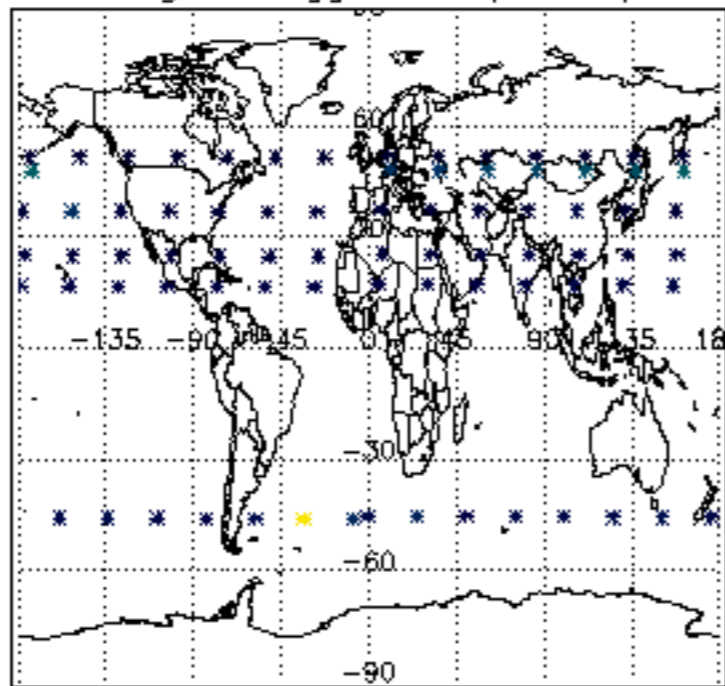




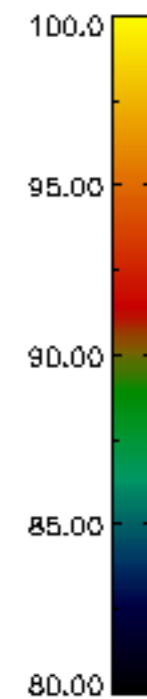
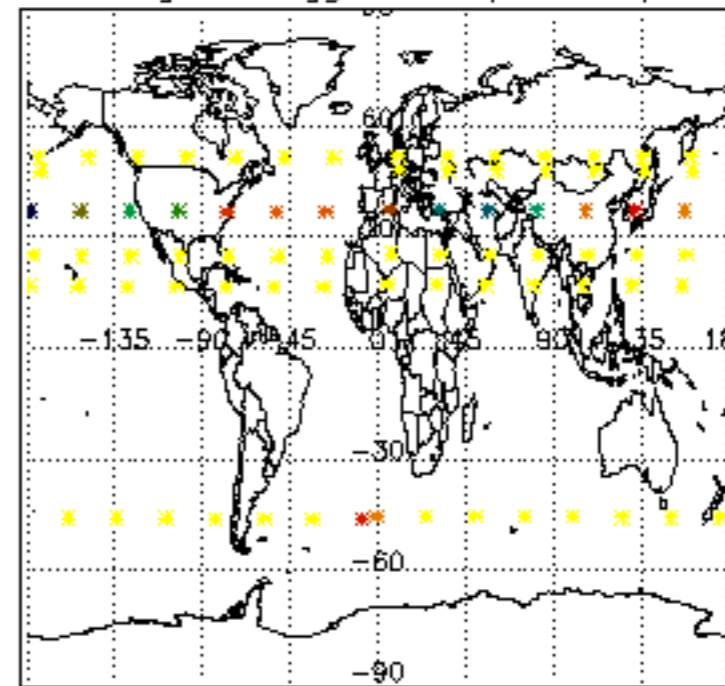




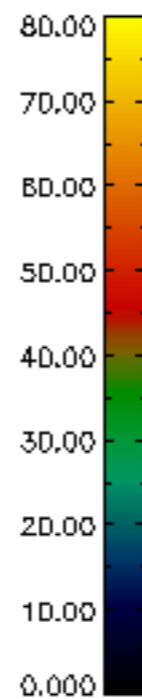
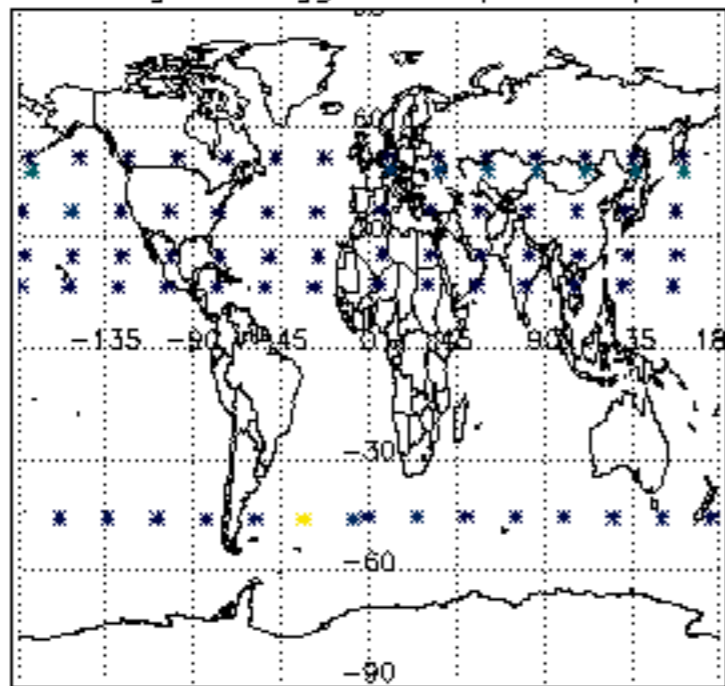
Percentage of flagged data per D3 profile



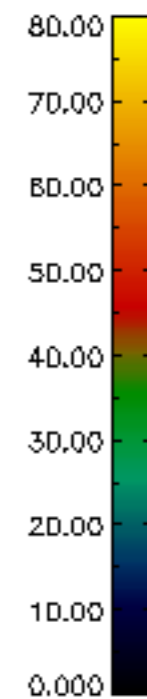
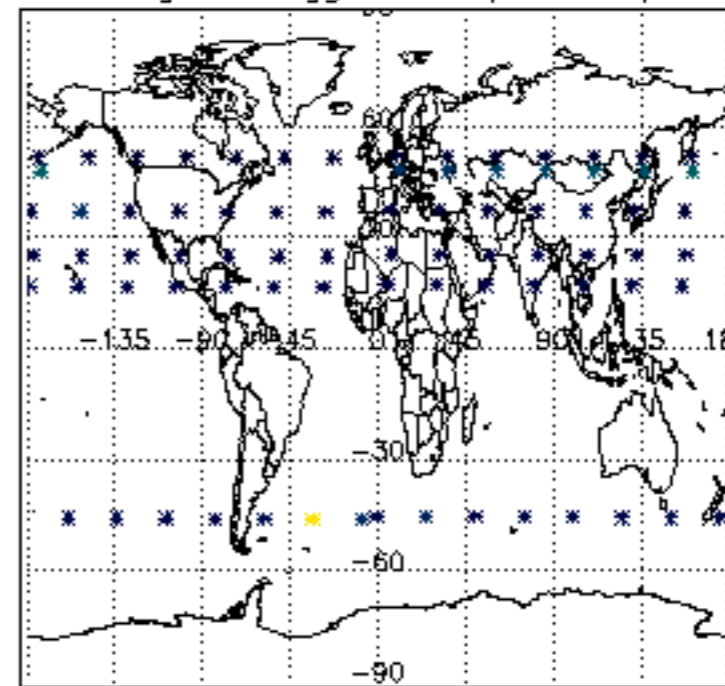
Percentage of flagged data per H2O profile

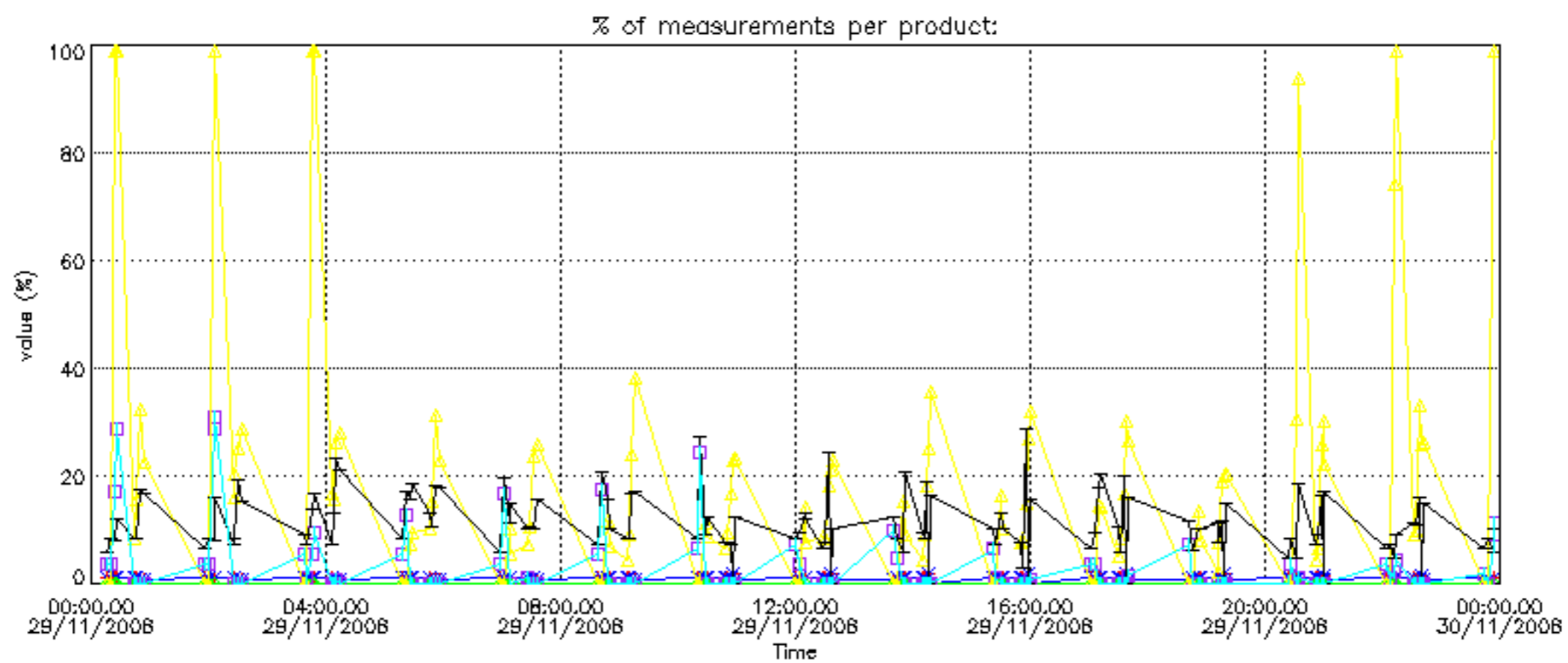
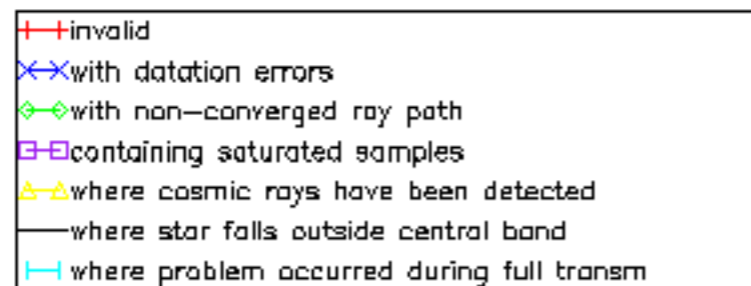


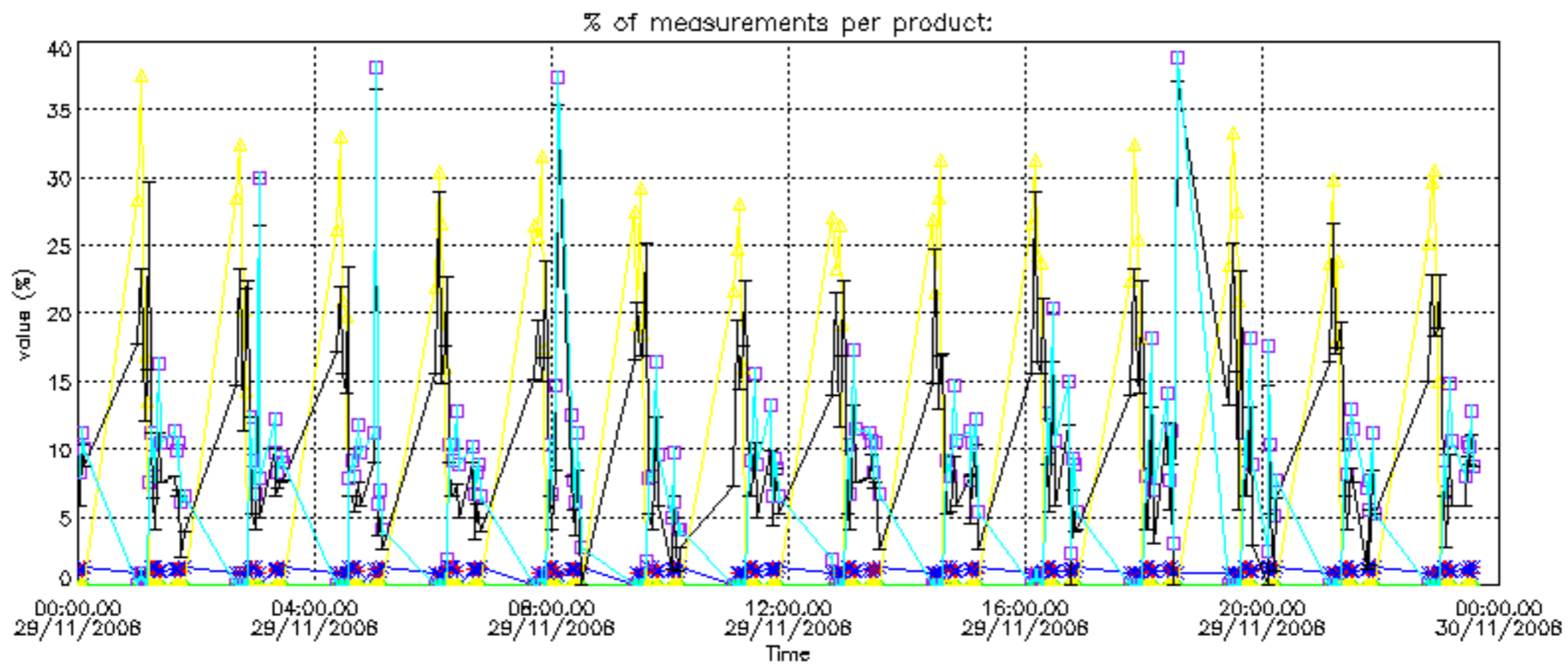
Percentage of flagged data per NO2 profile



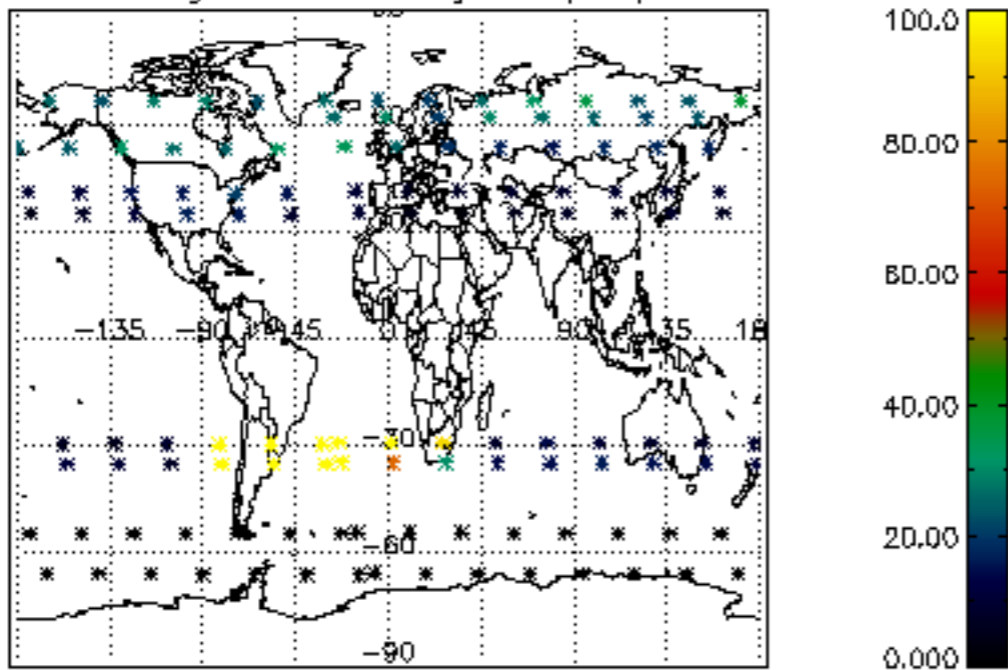
Percentage of flagged data per NO3 profile



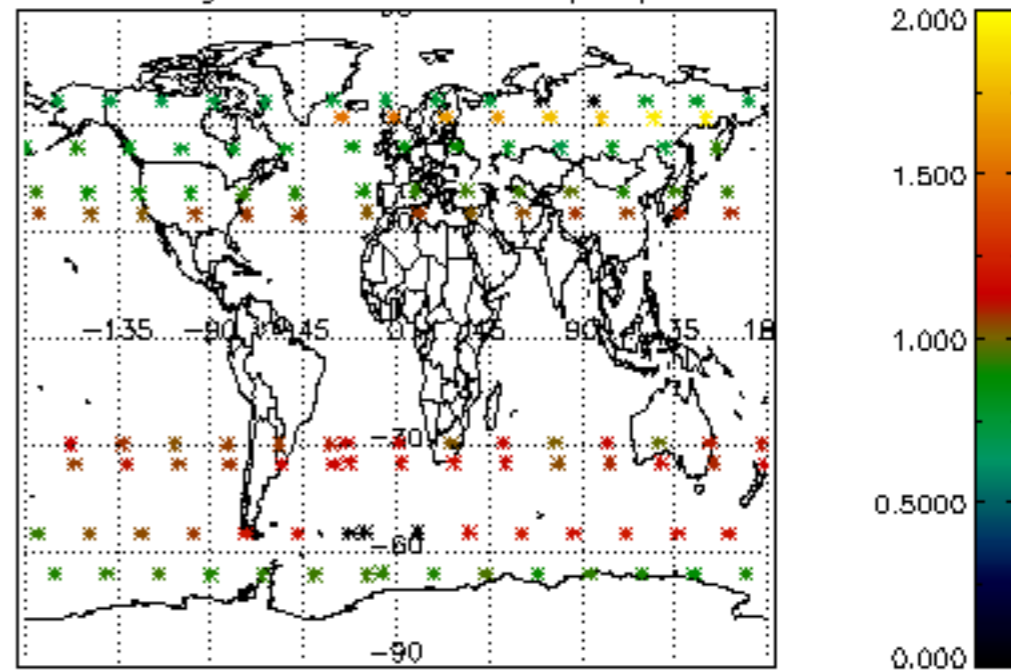




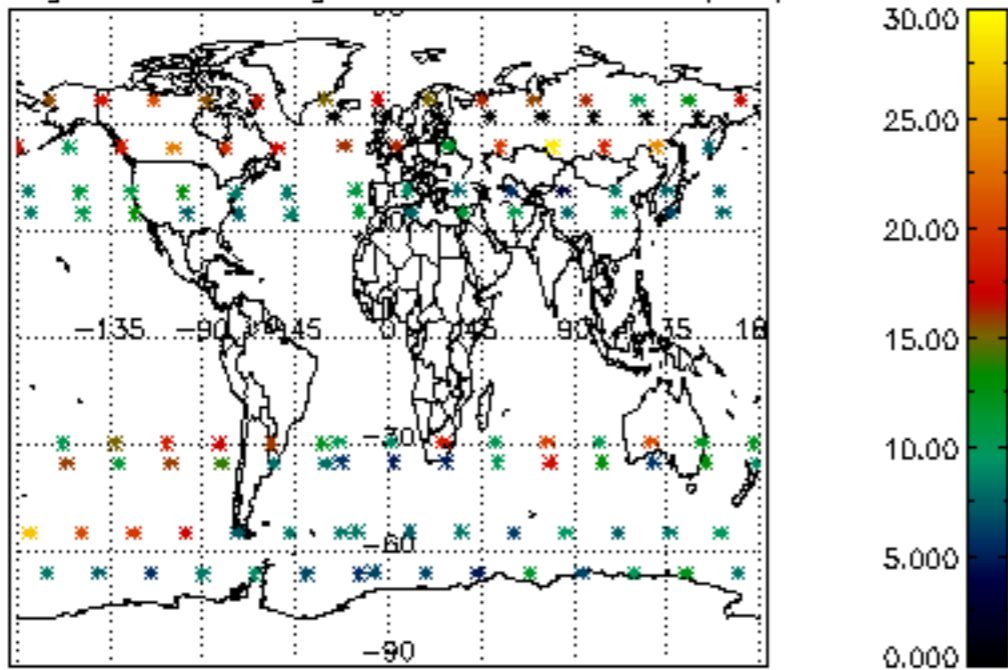
Percentage of cosmic ray hits per profile



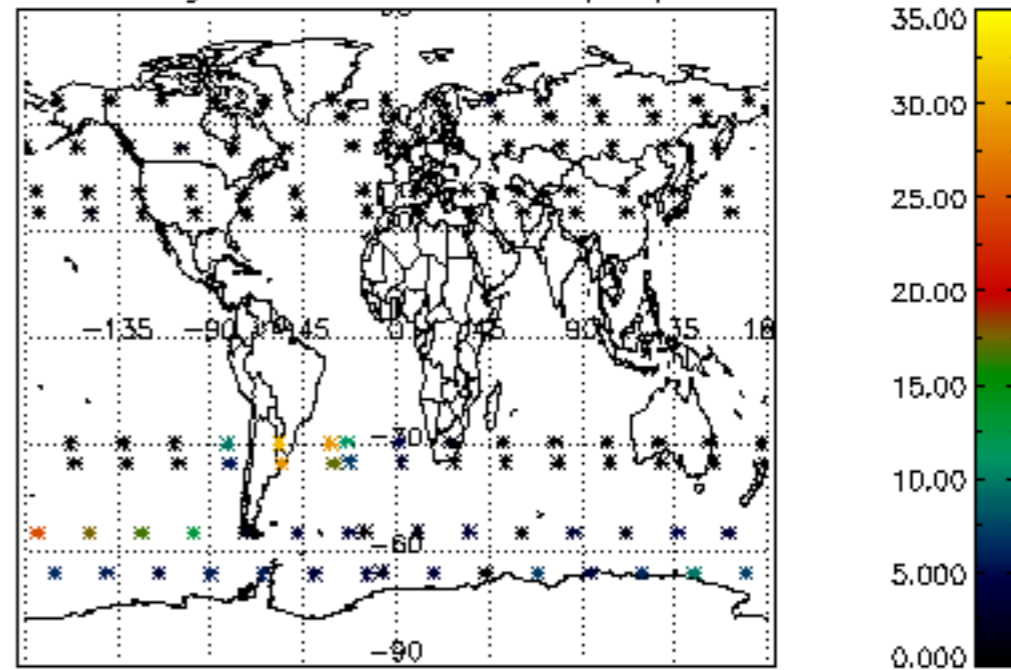
Percentage of datation errors per profile



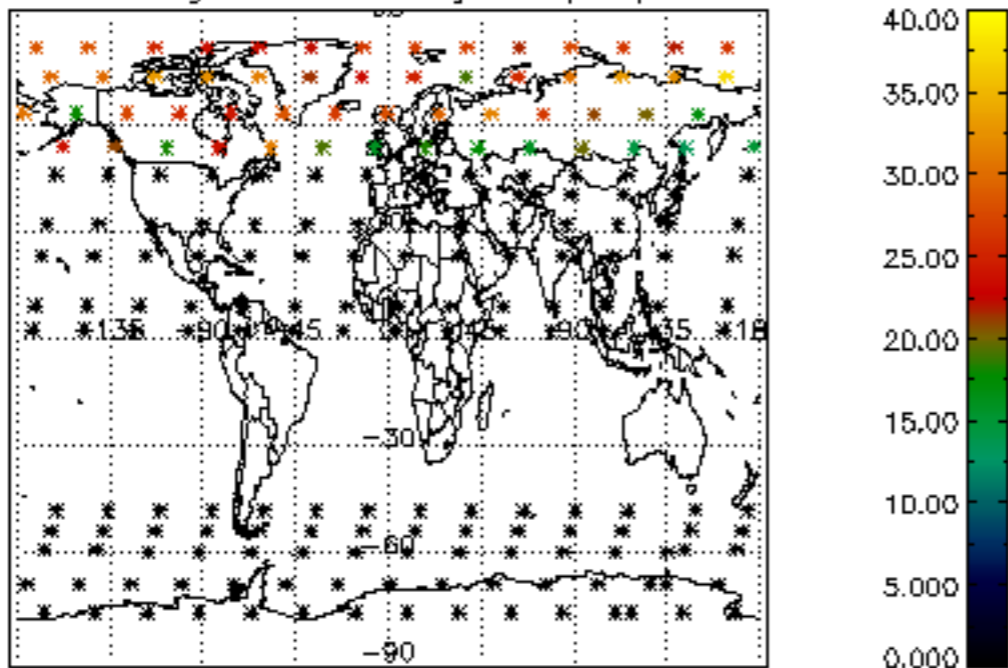
Percentage of star falling outside central band per profile



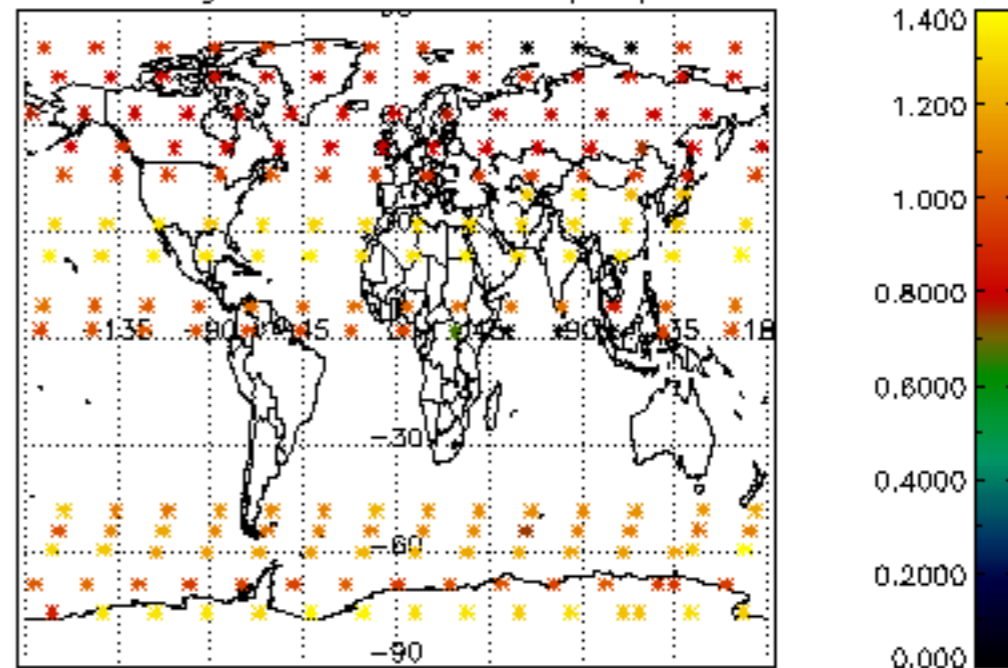
Percentage of saturation errors per profile



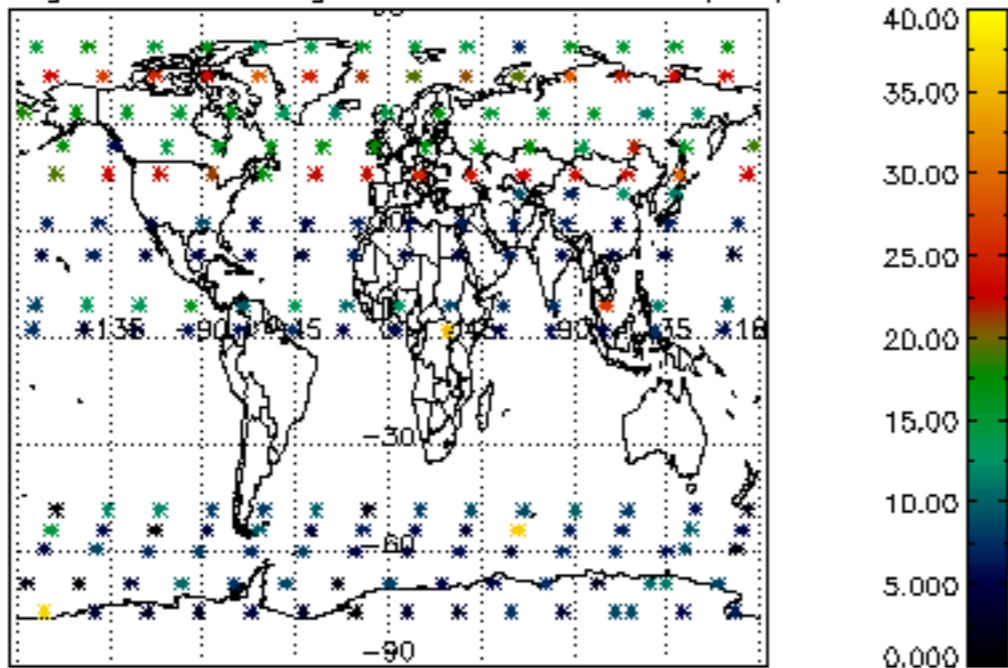
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

