

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	26APR2013 17:14:49
Data source version	GOMOS/6.01
Start time of products	08-02-2010 (08FEB2010 00:00:00)
Stop time of products	09-02-2010 (09FEB2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	121
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

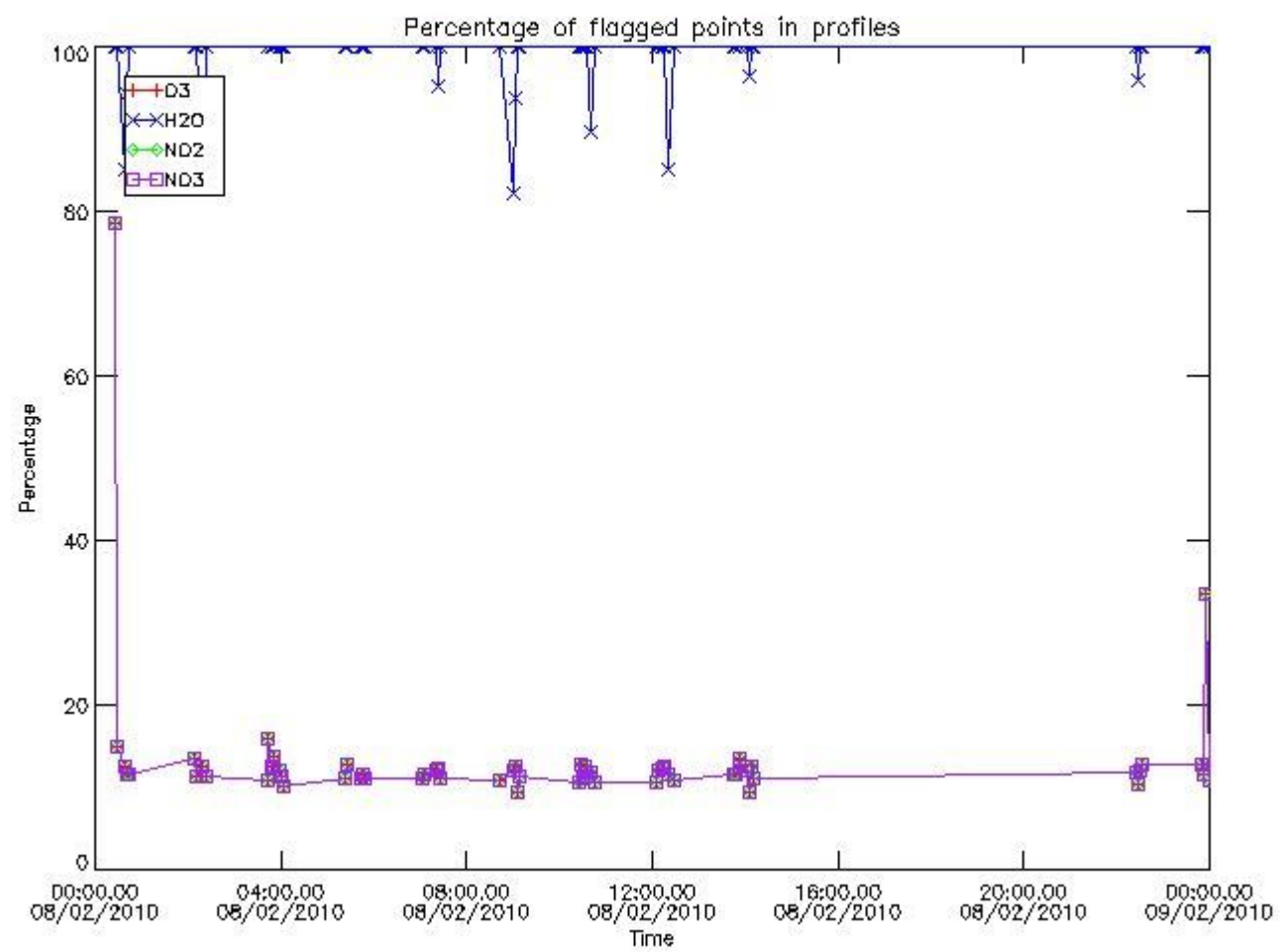
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100208_001135_000000442086_00388_41524_4042.N1	08-FEB-2010 00:11:35	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	41524	No
2	GOM_NL__2PRFIN20100208_001347_000000402086_00388_41524_4043.N1	08-FEB-2010 00:13:47	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	41524	No
3	GOM_NL__2PRFIN20100208_002037_000000502086_00388_41524_4044.N1	08-FEB-2010 00:20:37	Twilight	49.500	86	35Eta Oph	2.4300	10200.	99	41524	No
4	GOM_NL__2PRFIN20100208_002645_000000472086_00388_41524_4045.N1	08-FEB-2010 00:26:45	Dark	47.000	40	The Sco	1.8590	7100.0	94	41524	No
5	GOM_NL__2PRFIN20100208_002836_000000382086_00388_41524_4046.N1	08-FEB-2010 00:28:36	Dark	37.500	147	Alp Ara	2.8770	26000.	75	41524	No
6	GOM_NL__2PRFIN20100208_003709_000000412086_00389_41525_4080.N1	08-FEB-2010 00:37:09	Dark	40.500	10	Bet Cen	0.61000	28000.	81	41525	No
7	GOM_NL__2PRFIN20100208_004025_000000452086_00389_41525_4081.N1	08-FEB-2010 00:40:25	Dark	44.500	12	Alp1Cru	0.77500	30000.	89	41525	No
8	GOM_NL__2PRFIN20100208_004249_000000452086_00389_41525_4082.N1	08-FEB-2010 00:42:49	Dark	44.500	99	Del Cen	2.5750	26000.	89	41525	No
9	GOM_NL__2PRFIN20100208_013129_000000442086_00389_41525_4083.N1	08-FEB-2010 01:31:29	Bright	44.000	60	7Bet UMi	2.0810	3950.0	88	41525	No
10	GOM_NL__2PRFIN20100208_013618_000000602086_00389_41525_4084.N1	08-FEB-2010 01:36:18	Bright	60.000	119	14Eta Dra	2.7270	4700.0	120	41525	No
11	GOM_NL__2PRFIN20100208_013945_000000382086_00389_41525_4085.N1	08-FEB-2010 01:39:45	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	41525	No
12	GOM_NL__2PRFIN20100208_015212_000000442086_00389_41525_4086.N1	08-FEB-2010 01:52:12	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	41525	No
13	GOM_NL__2PRFIN20100208_015423_000000572086_00389_41525_4087.N1	08-FEB-2010 01:54:23	Bright	56.500	126	60Bet Oph	2.7700	4250.0	113	41525	No
14	GOM_NL__2PRFIN20100208_020114_000000502086_00389_41525_4088.N1	08-FEB-2010 02:01:14	Twilight	49.500	86	35Eta Oph	2.4300	10200.	99	41525	No
15	GOM_NL__2PRFIN20100208_020912_000000382086_00389_41525_4089.N1	08-FEB-2010 02:09:12	Dark	37.500	147	Alp Ara	2.8770	26000.	75	41525	No
16	GOM_NL__2PRFIN20100208_021149_000000452086_00389_41525_4090.N1	08-FEB-2010 02:11:49	Dark	45.000	131	Gam Lup	2.8000	26000.	90	41525	No
17	GOM_NL__2PRFIN20100208_021746_000000412086_00390_41526_4052.N1	08-FEB-2010 02:17:46	Dark	41.000	10	Bet Cen	0.61000	28000.	82	41526	No
18	GOM_NL__2PRFIN20100208_022326_000000452086_00390_41526_4053.N1	08-FEB-2010 02:23:26	Dark	45.000	99	Del Cen	2.5750	26000.	90	41526	No
19	GOM_NL__2PRFIN20100208_024535_000000522086_00390_41526_4054.N1	08-FEB-2010 02:45:35	Tw_and_stray	52.000	8	10Alp CMi	0.40000	6500.0	104	41526	No
20	GOM_NL__2PRFIN20100208_025202_000000412086_00390_41526_4055.N1	08-FEB-2010 02:52:02	Bright	40.500	17	78Bet Gem	1.1610	4500.0	81	41526	No
21	GOM_NL__2PRFIN20100208_030927_000000382086_00390_41526_4056.N1	08-FEB-2010 03:09:27	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	41526	No
22	GOM_NL__2PRFIN20100208_031204_000000432086_00390_41526_4057.N1	08-FEB-2010 03:12:04	Bright	42.500	60	7Bet UMi	2.0810	3950.0	85	41526	No
23	GOM_NL__2PRFIN20100208_031654_000000602086_00390_41526_4058.N1	08-FEB-2010 03:16:54	Bright	60.000	119	14Eta Dra	2.7270	4700.0	120	41526	No
24	GOM_NL__2PRFIN20100208_032021_000000412086_00390_41526_4059.N1	08-FEB-2010 03:20:21	Bright	40.500	130	23Bet Dra	2.7990	5800.0	81	41526	No
25	GOM_NL__2PRFIN20100208_033248_000000432086_00390_41526_4060.N1	08-FEB-2010 03:32:48	Bright	42.500	59	55Alp Oph	2.0800	8900.0	85	41526	No
26	GOM_NL__2PRFIN20100208_033459_000000572086_00390_41526_4061.N1	08-FEB-2010 03:34:59	Bright	57.000	126	60Bet Oph	2.7700	4250.0	114	41526	No
27	GOM_NL__2PRFIN20100208_034150_000000472086_00390_41526_4062.N1	08-FEB-2010 03:41:50	Dark	46.500	86	35Eta Oph	2.4300	10200.	93	41526	No
28	GOM_NL__2PRFIN20100208_034404_000000452086_00390_41526_4063.N1	08-FEB-2010 03:44:04	Dark	44.500	167	10Gam2Sgr	2.9840	4500.0	89	41526	No
29	GOM_NL__2PRFIN20100208_034759_000000412086_00390_41526_4064.N1	08-FEB-2010 03:47:59	Dark	40.500	40	The Sco	1.8590	7100.0	81	41526	No
30	GOM_NL__2PRFIN20100208_034948_000000372086_00390_41526_4065.N1	08-FEB-2010 03:49:48	Dark	37.000	147	Alp Ara	2.8770	26000.	74	41526	No
31	GOM_NL__2PRFIN20100208_035822_000000432086_00391_41527_4060.N1	08-FEB-2010 03:58:22	Dark	42.500	10	Bet Cen	0.61000	28000.	85	41527	No
32	GOM_NL__2PRFIN20100208_040138_000000452086_00391_41527_4061.N1	08-FEB-2010 04:01:38	Dark	45.000	12	Alp1Cru	0.77500	30000.	90	41527	No
33	GOM_NL__2PRFIN20100208_040403_000000502086_00391_41527_4062.N1	08-FEB-2010 04:04:03	Dark	50.000	99	Del Cen	2.5750	26000.	100	41527	No
34	GOM_NL__2PRFIN20100208_042612_000000522086_00391_41527_4063.N1	08-FEB-2010 04:26:12	Tw_and_stray	52.000	8	10Alp CMi	0.40000	6500.0	104	41527	No
35	GOM_NL__2PRFIN20100208_043239_000000412086_00391_41527_4064.N1	08-FEB-2010 04:32:39	Bright	40.500	17	78Bet Gem	1.1610	4500.0	81	41527	No
36	GOM_NL__2PRFIN20100208_045241_000000422086_00391_41527_4065.N1	08-FEB-2010 04:52:41	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	41527	No
37	GOM_NL__2PRFIN20100208_045729_000000442086_00391_41527_4066.N1	08-FEB-2010 04:57:29	Bright	44.000	119	14Eta Dra	2.7270	4700.0	88	41527	No
38	GOM_NL__2PRFIN20100208_050057_000000402086_00391_41527_4067.N1	08-FEB-2010 05:00:57	Bright	40.000	130	23Bet Dra	2.7990	5800.0	80	41527	No
39	GOM_NL__2PRFIN20100208_051325_000000442086_00391_41527_4068.N1	08-FEB-2010 05:13:25	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	41527	No
40	GOM_NL__2PRFIN20100208_051536_000000422086_00391_41527_4069.N1	08-FEB-2010 05:15:36	Bright	42.000	126	60Bet Oph	2.7700	4250.0	84	41527	No
41	GOM_NL__2PRFIN20100208_052227_000000502086_00391_41527_4070.N1	08-FEB-2010 05:22:27	Dark	50.000	86	35Eta Oph	2.4300	10200.	100	41527	No
42	GOM_NL__2PRFIN20100208_052441_000000402086_00391_41527_4071.N1	08-FEB-2010 05:24:41	Dark	40.000	167	10Gam2Sgr	2.9840	4500.0	80	41527	No

102	GOM_NL__2PRFIN20100208_140201_000000432086_00397_41533_4133.N1	08-FEB-2010 14:02:01	Dark	42.500	10	Bet Cen	0.61000	28000.	85	41533	No
103	GOM_NL__2PRFIN20100208_140517_000000552086_00397_41533_4134.N1	08-FEB-2010 14:05:17	Dark	54.500	12	Alp1Cru	0.77500	30000.	109	41533	No
104	GOM_NL__2PRFIN20100208_140743_000000452086_00397_41533_4135.N1	08-FEB-2010 14:07:43	Dark	44.500	99	Del Cen	2.5750	26000.	89	41533	No
105	GOM_NL__2PRFIN20100208_141045_000000462086_00397_41533_4136.N1	08-FEB-2010 14:10:45	Dark	45.500	71	lot Car	2.2460	7700.0	91	41533	No
106	GOM_NL__2PRFIN20100208_142948_000000512086_00397_41533_4137.N1	08-FEB-2010 14:29:48	Tw_i_and_stray	51.000	8	10Alp CMi	0.40000	6500.0	102	41533	No
107	GOM_NL__2PRFIN20100208_222504_000000432086_00402_41538_4218.N1	08-FEB-2010 22:25:04	Dark	43.000	10	Bet Cen	0.61000	28000.	86	41538	No
108	GOM_NL__2PRFIN20100208_222819_000000502086_00402_41538_4219.N1	08-FEB-2010 22:28:19	Dark	49.500	12	Alp1Cru	0.77500	30000.	99	41538	No
109	GOM_NL__2PRFIN20100208_223046_000000432086_00402_41538_4220.N1	08-FEB-2010 22:30:46	Dark	42.500	99	Del Cen	2.5750	26000.	85	41538	No
110	GOM_NL__2PRFIN20100208_223346_000000402086_00402_41538_4221.N1	08-FEB-2010 22:33:46	Dark	40.000	71	lot Car	2.2460	7700.0	80	41538	No
111	GOM_NL__2PRFIN20100208_225248_000000512086_00402_41538_4222.N1	08-FEB-2010 22:52:48	Tw_i_and_stray	51.000	8	10Alp CMi	0.40000	6500.0	102	41538	No
112	GOM_NL__2PRFIN20100208_225914_000000402086_00402_41538_4223.N1	08-FEB-2010 22:59:14	Bright	39.500	17	78Bet Gem	1.1610	4500.0	79	41538	No
113	GOM_NL__2PRFIN20100208_231912_000000422086_00402_41538_4224.N1	08-FEB-2010 23:19:12	Bright	41.500	60	7Bet UMi	2.0810	3950.0	83	41538	No
114	GOM_NL__2PRFIN20100208_232402_000000442086_00402_41538_4225.N1	08-FEB-2010 23:24:02	Bright	44.000	119	14Eta Dra	2.7270	4700.0	88	41538	No
115	GOM_NL__2PRFIN20100208_232732_000000422086_00402_41538_4226.N1	08-FEB-2010 23:27:32	Bright	41.500	130	23Bet Dra	2.7990	5800.0	83	41538	No
116	GOM_NL__2PRFIN20100208_234004_000000432086_00402_41538_4227.N1	08-FEB-2010 23:40:04	Bright	43.000	59	55Alp Oph	2.0800	8900.0	86	41538	No
117	GOM_NL__2PRFIN20100208_234215_000000442086_00402_41538_4228.N1	08-FEB-2010 23:42:15	Bright	43.500	126	60Bet Oph	2.7700	4250.0	87	41538	No
118	GOM_NL__2PRFIN20100208_234909_000000442086_00402_41538_4229.N1	08-FEB-2010 23:49:09	Dark	44.000	86	35Eta Oph	2.4300	10200.	88	41538	No
119	GOM_NL__2PRFIN20100208_235120_000000442086_00402_41538_4230.N1	08-FEB-2010 23:51:20	Dark	44.000	167	10Gam2Sgr	2.9840	4500.0	88	41538	No
120	GOM_NL__2PRFIN20100208_235514_000000442086_00402_41538_4231.N1	08-FEB-2010 23:55:14	Dark	44.000	40	The Sco	1.8590	7100.0	88	41538	No
121	GOM_NL__2PRFIN20100208_235948_000000482086_00402_41538_4232.N1	08-FEB-2010 23:59:48	Dark	47.500	131	Gam Lup	2.8000	26000.	95	41538	No

3. Quality information per product

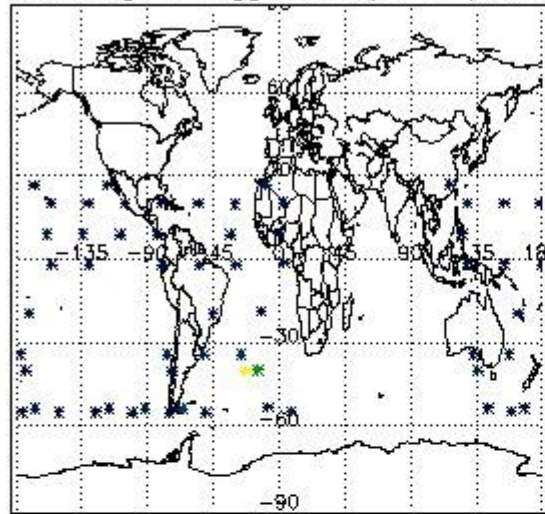
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

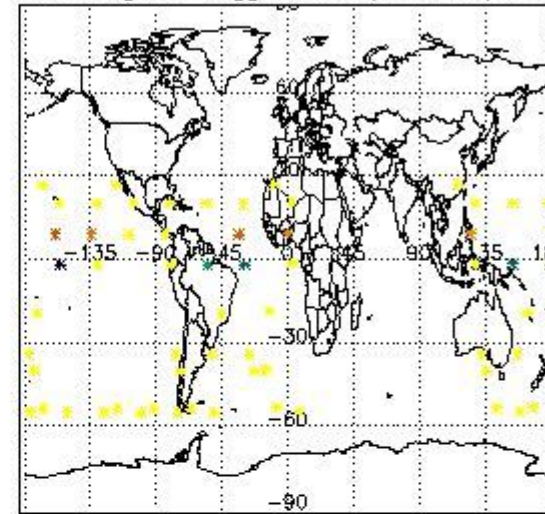


3.2 Plot quality information per product (world map)

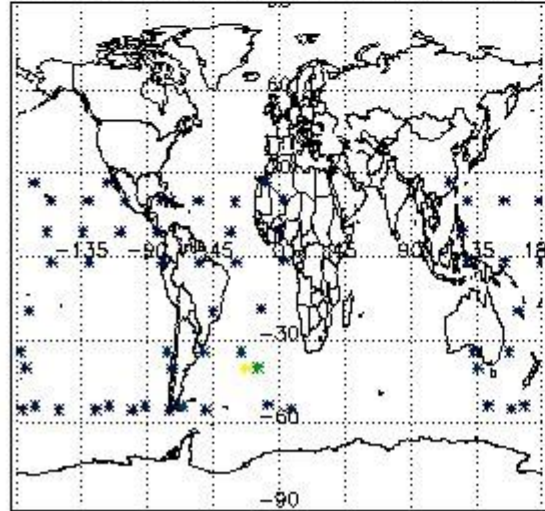
Percentage of flagged data per O3 profile



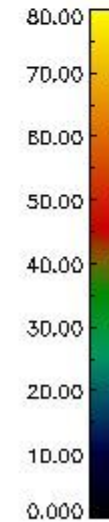
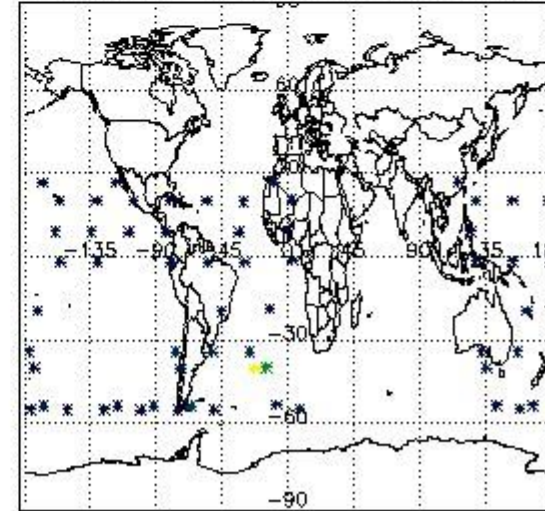
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

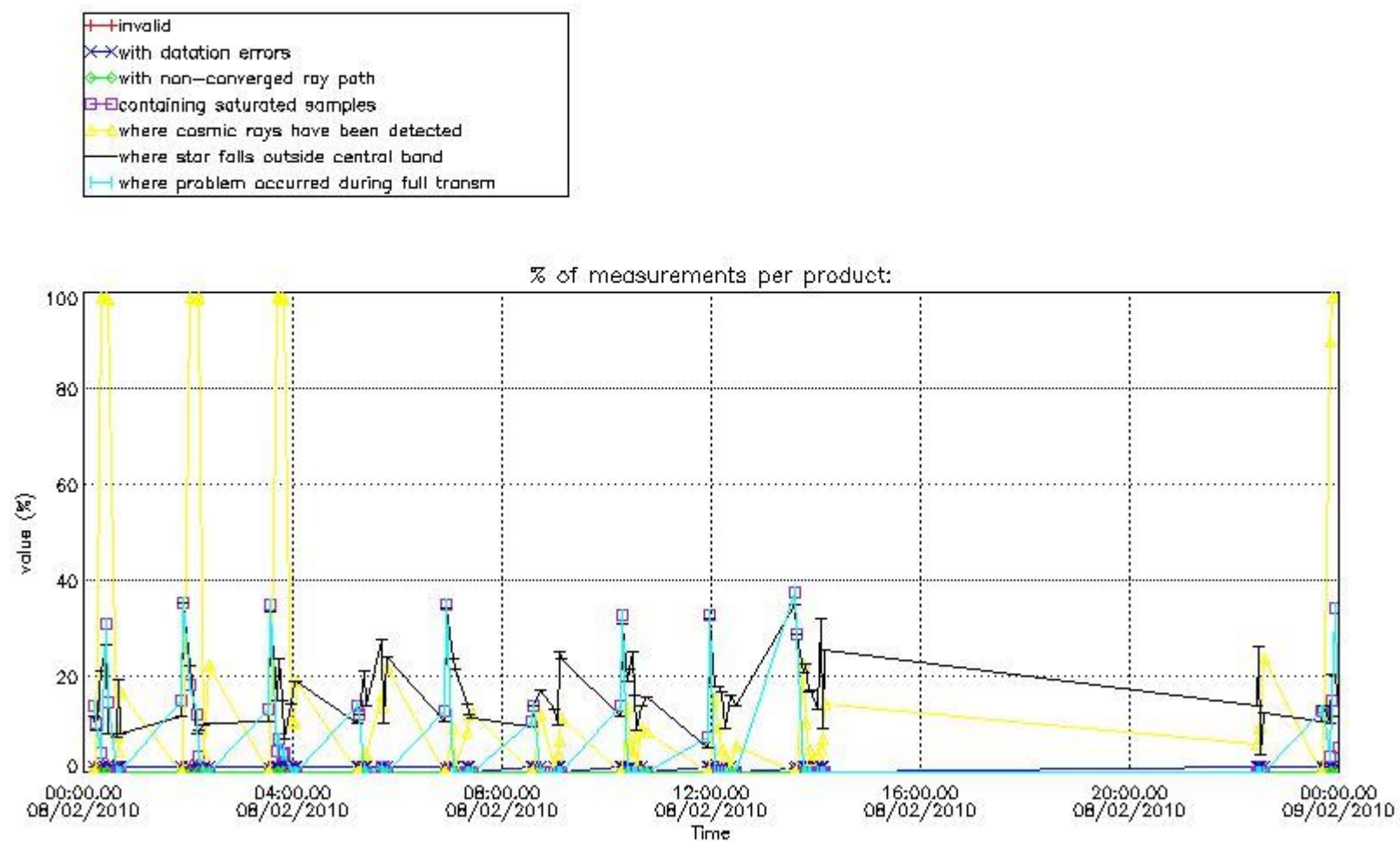


4. Level 1 quality information per product

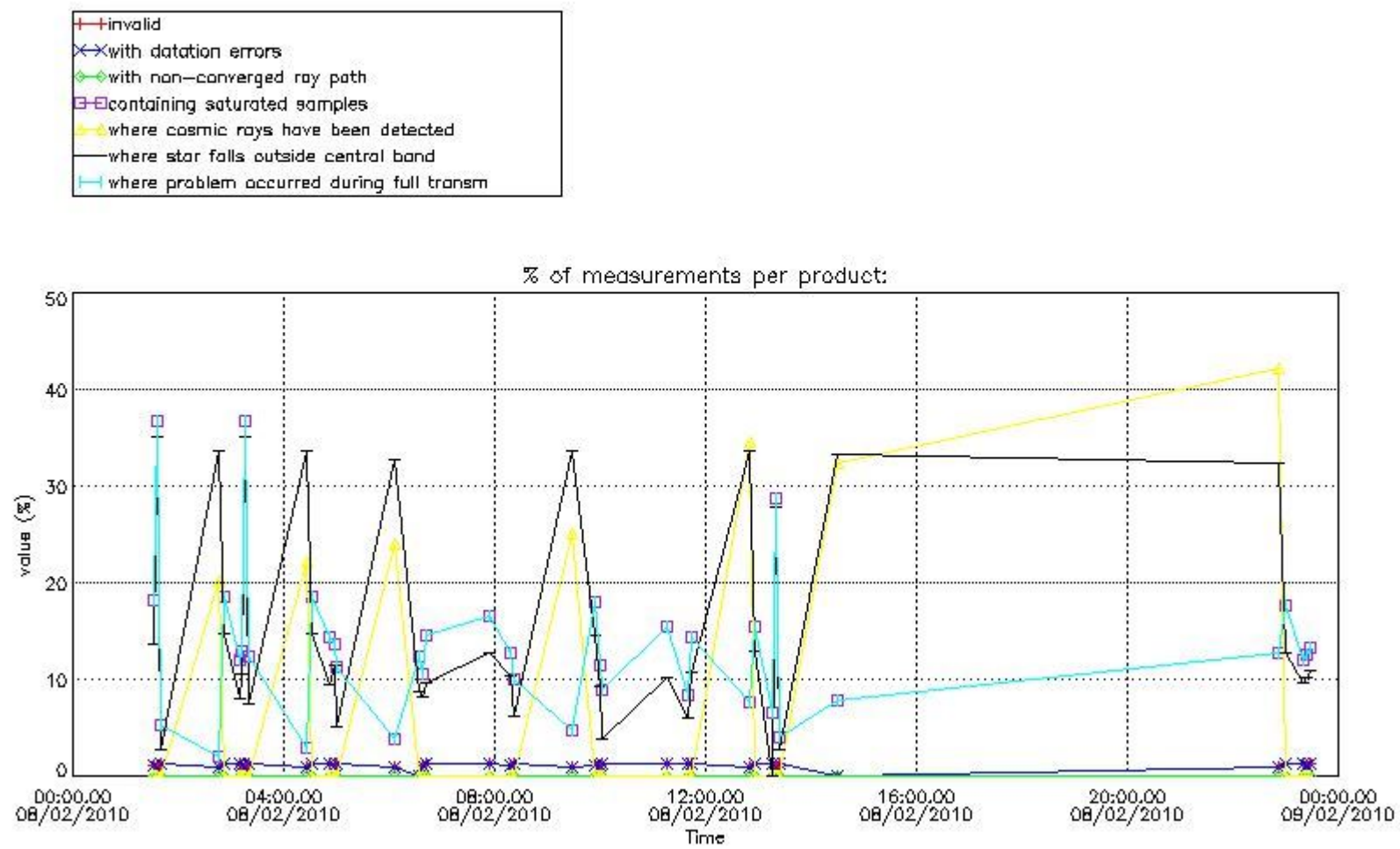
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



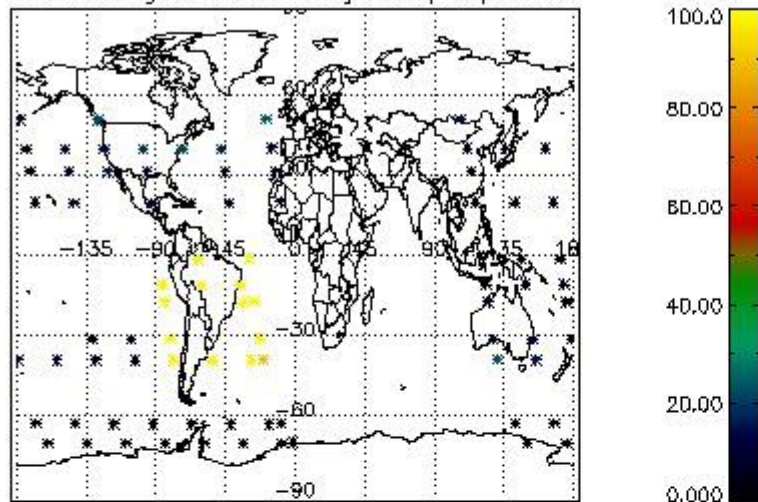
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



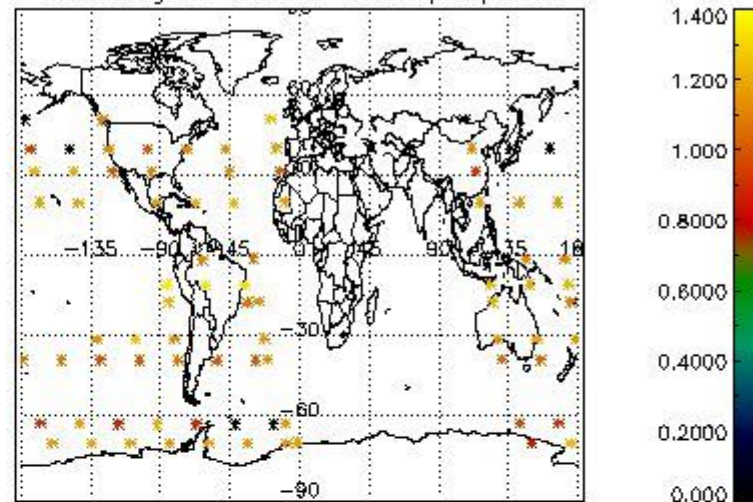
4.2 Plot quality information per product coming from level 1b processing (world map)

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

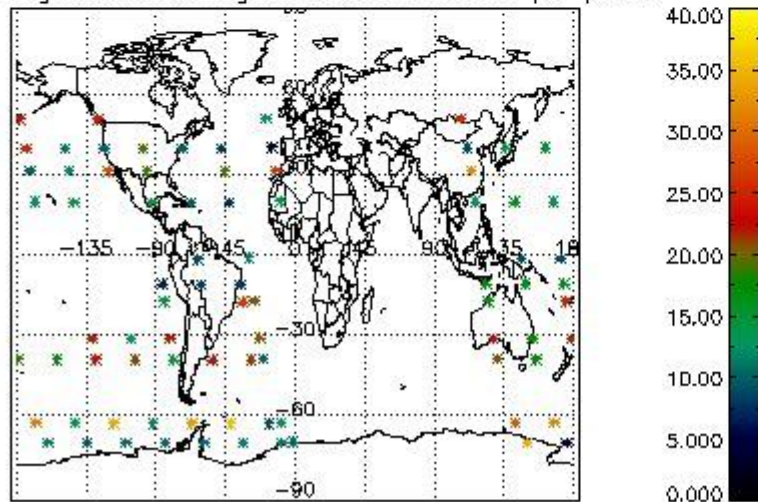
Percentage of cosmic ray hits per profile



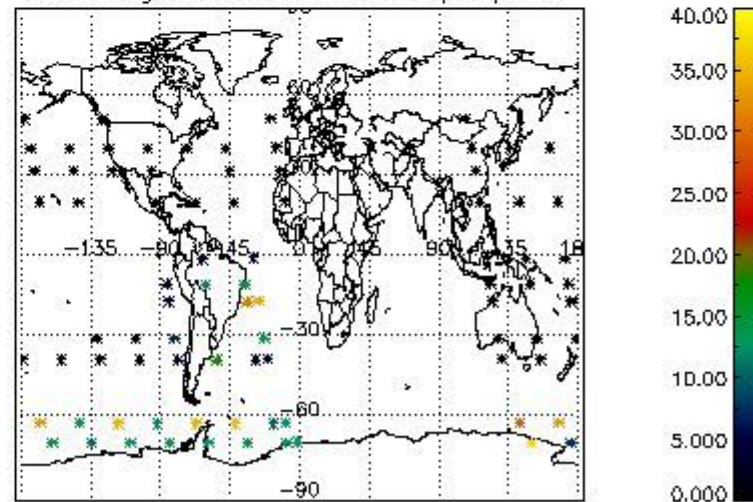
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

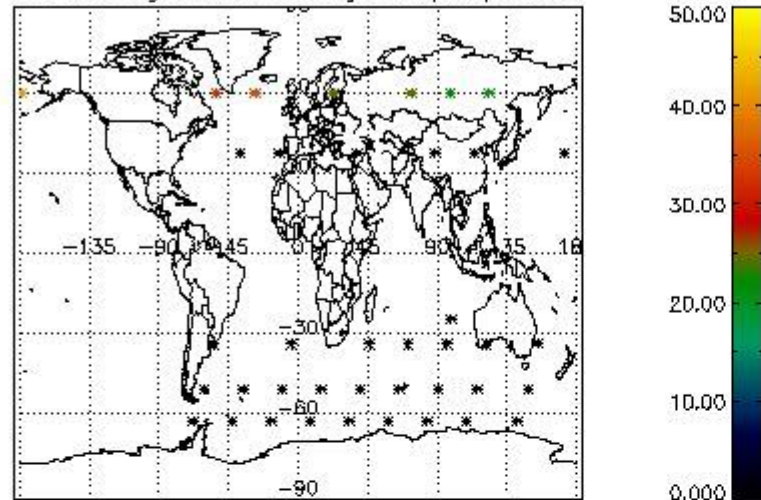


Percentage of saturation errors per profile

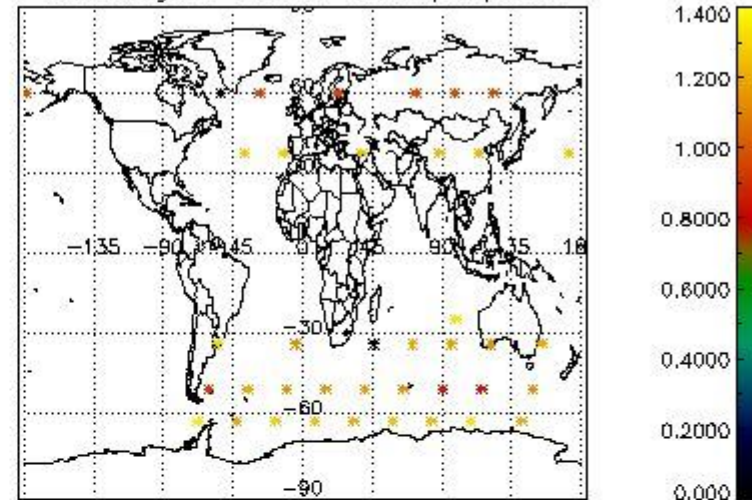


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

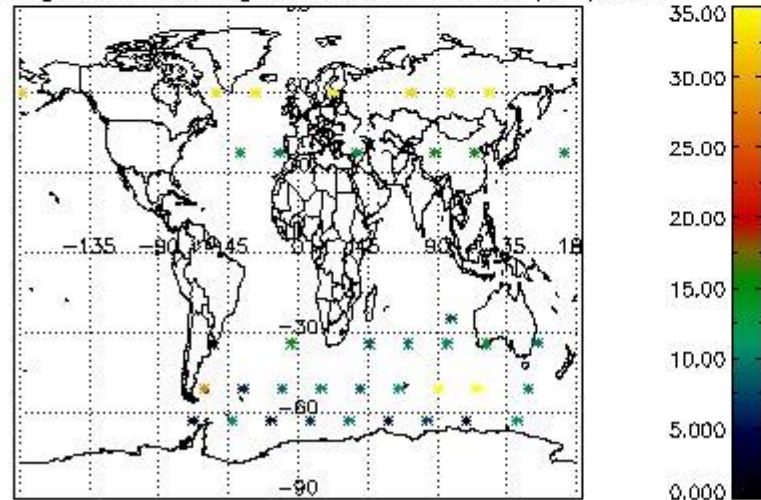
Percentage of cosmic ray hits per profile



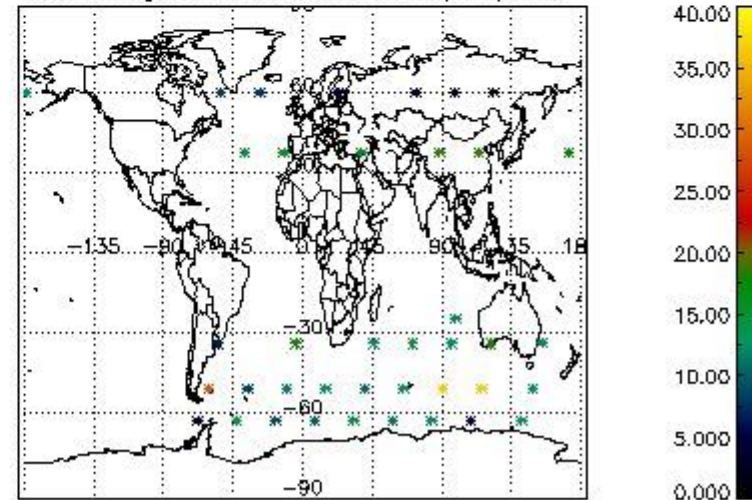
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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

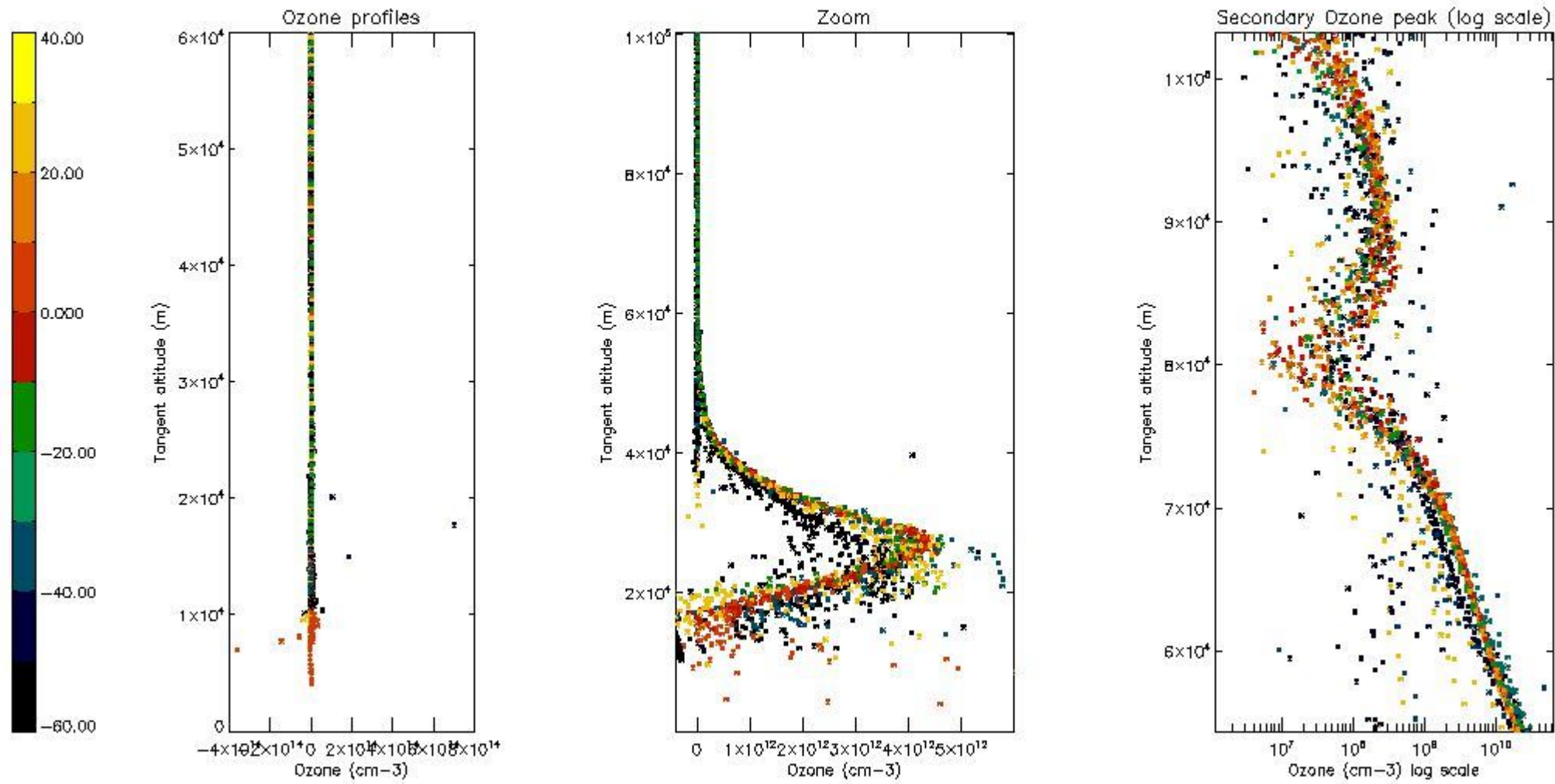
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	50
STD < 20	26

STD < 10	21
STD < 5	13

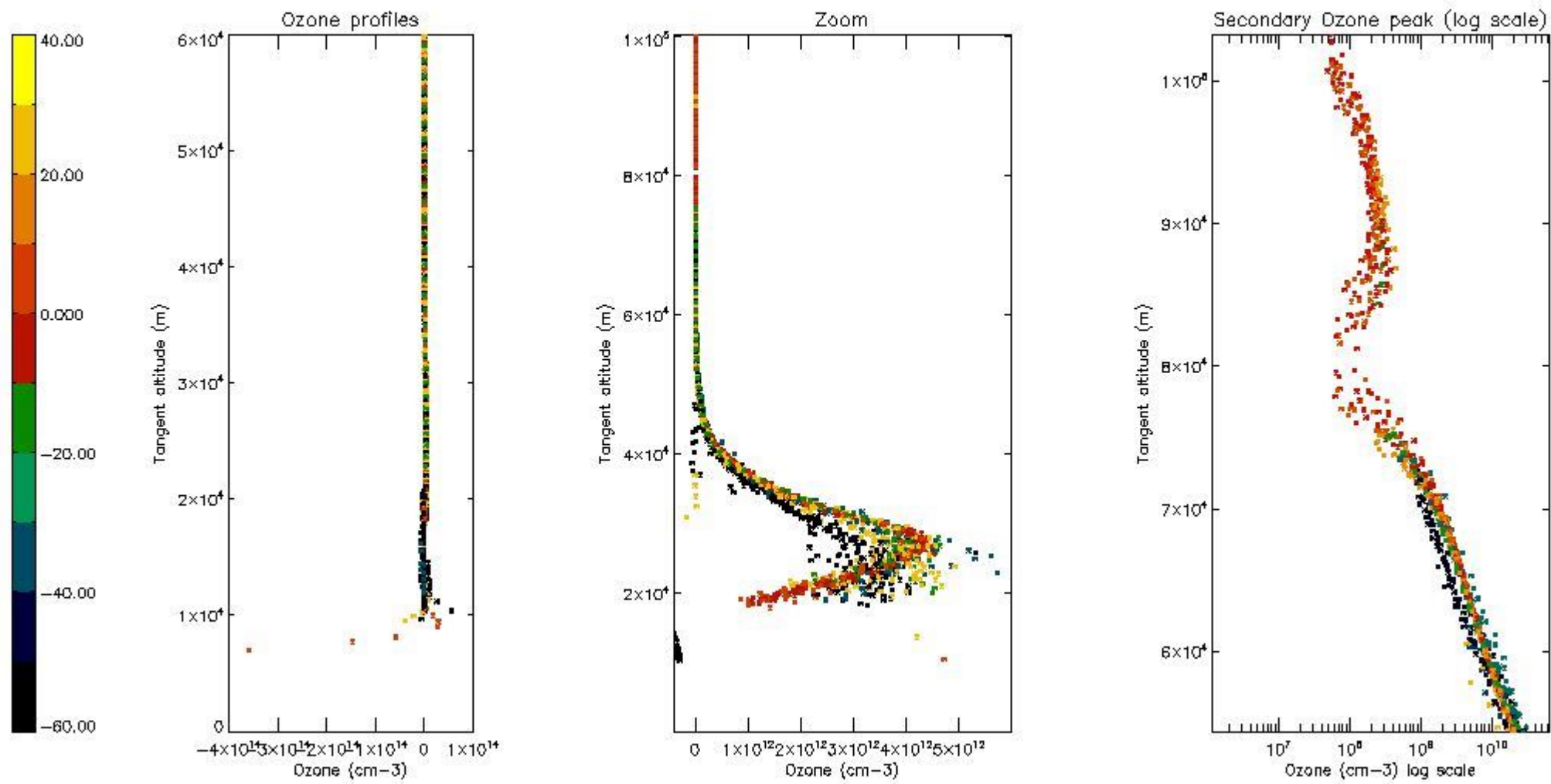
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



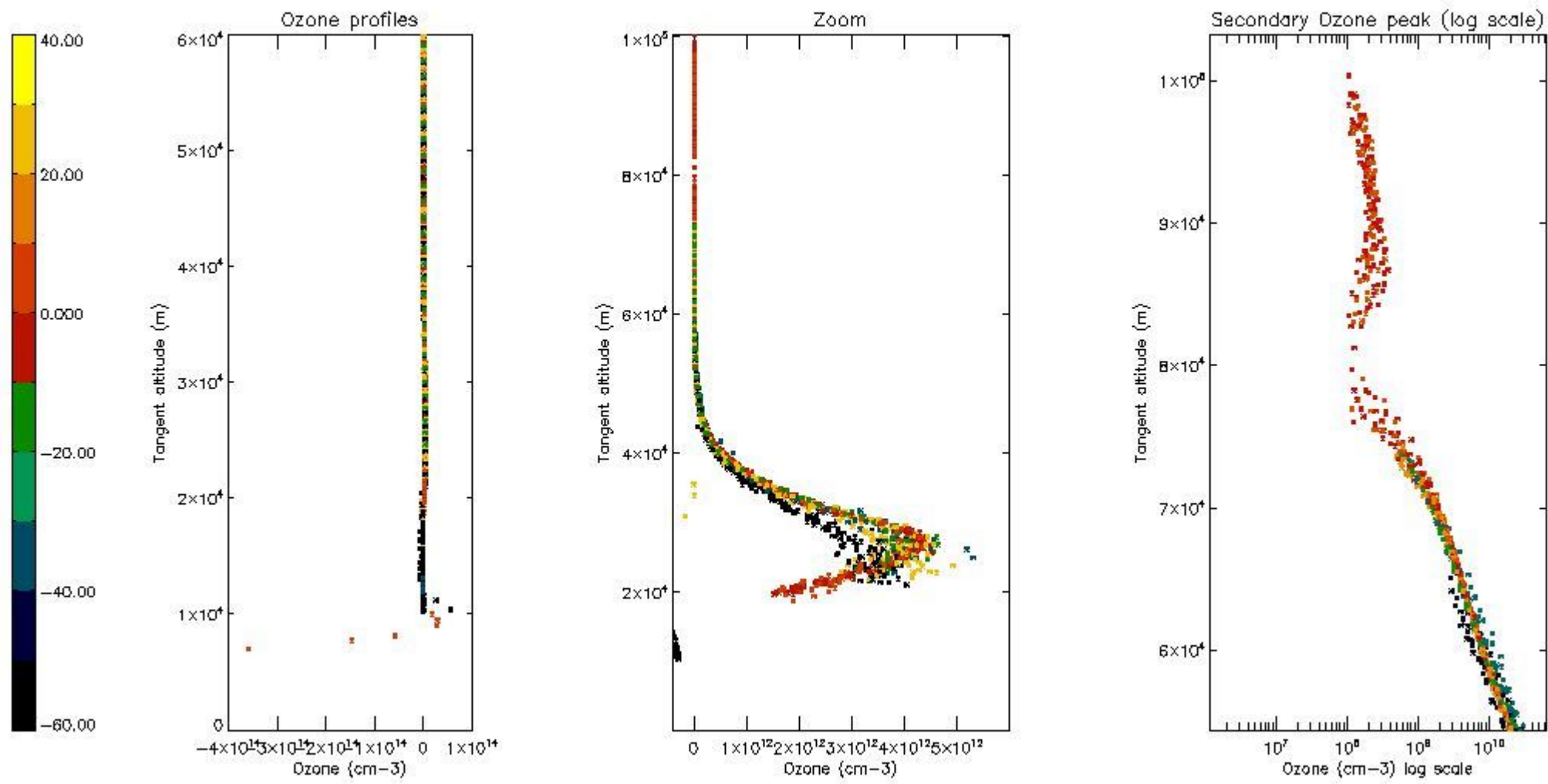
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



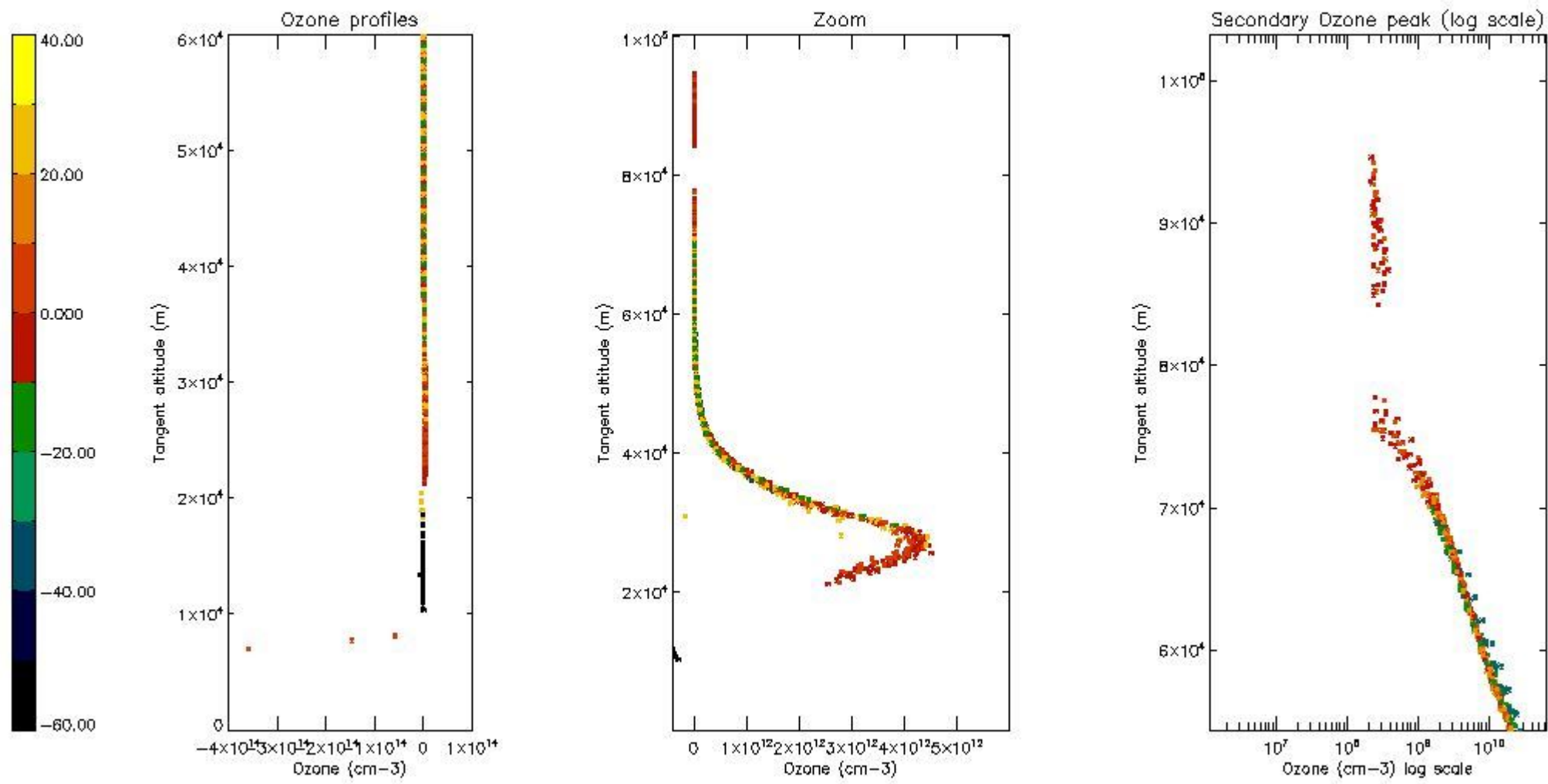
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



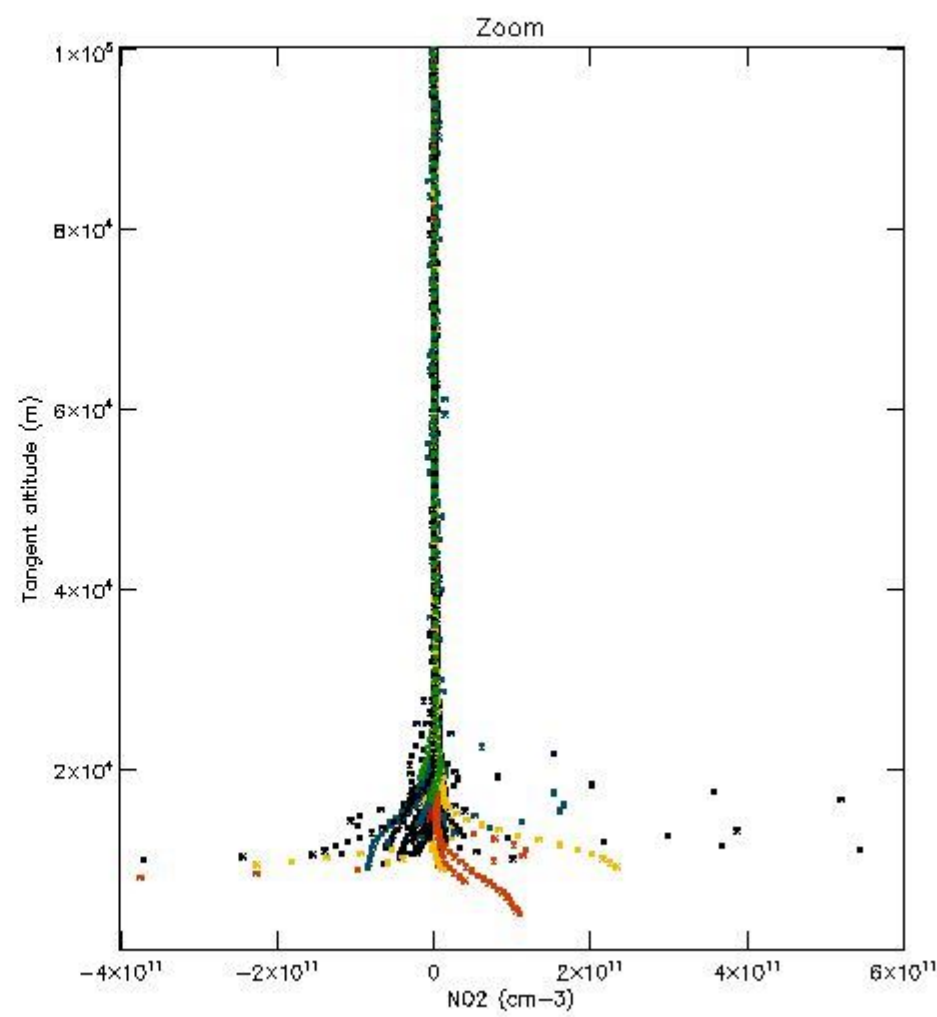
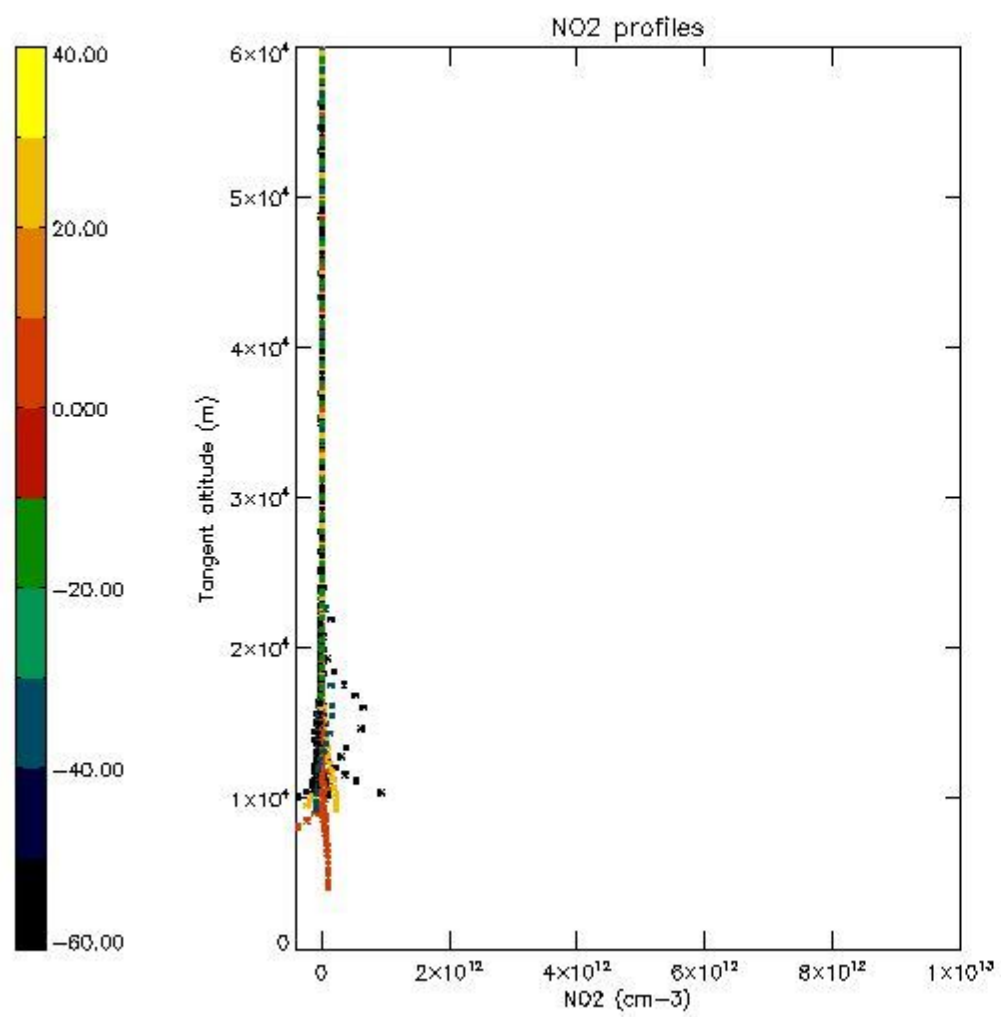
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



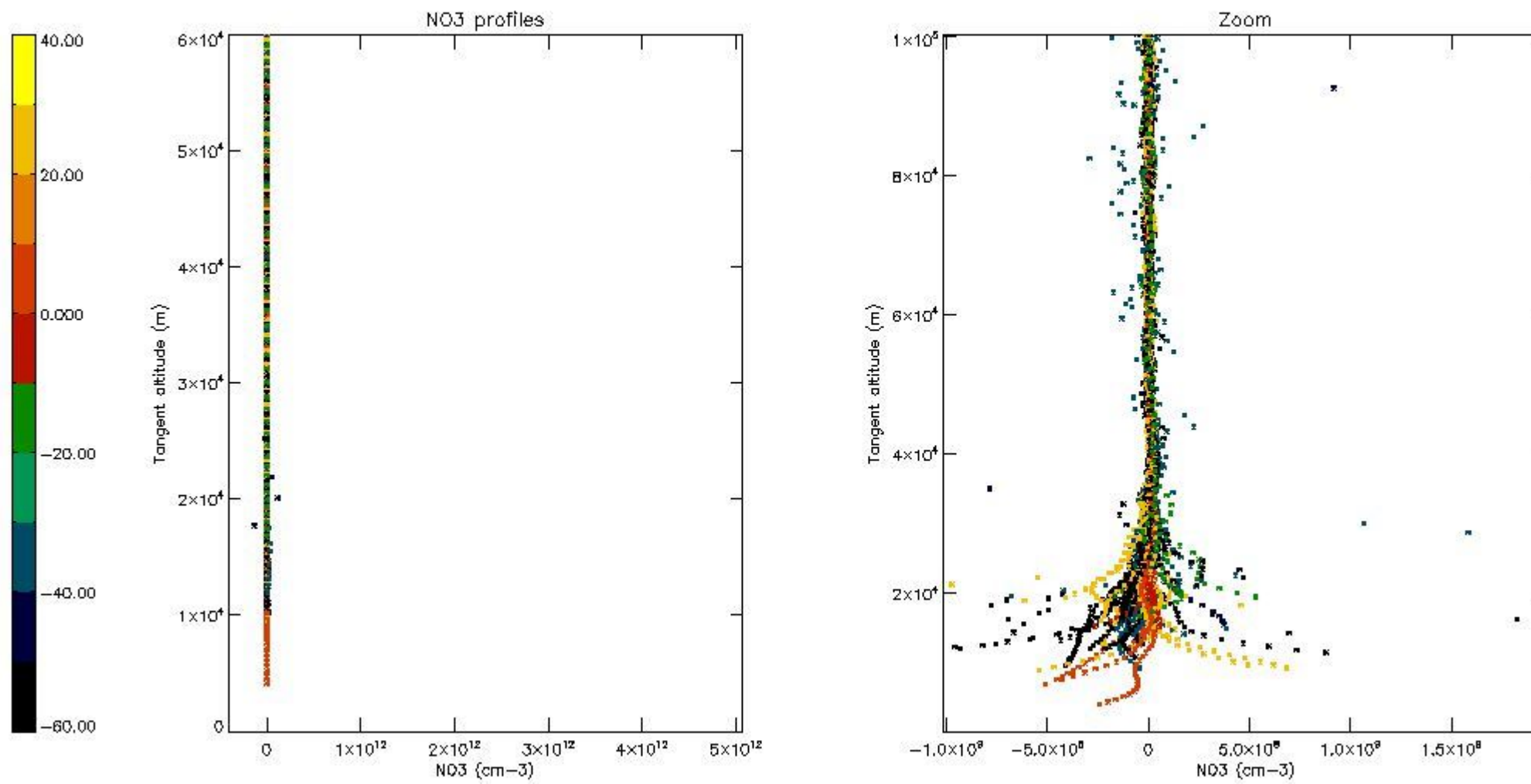
5.6 Plot NO₂ profiles for all STD (dark without errors)

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	08-FEB-2010 00:11:35
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-FEB-2010 00:11:35
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-FEB-2010 00:11:35

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	26APR2013 17:14:49
Data source version	GOMOS/6.01
Start time of products	08-02-2010 (08FEB2010 00:00:00)
Stop time of products	09-02-2010 (09FEB2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	121
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

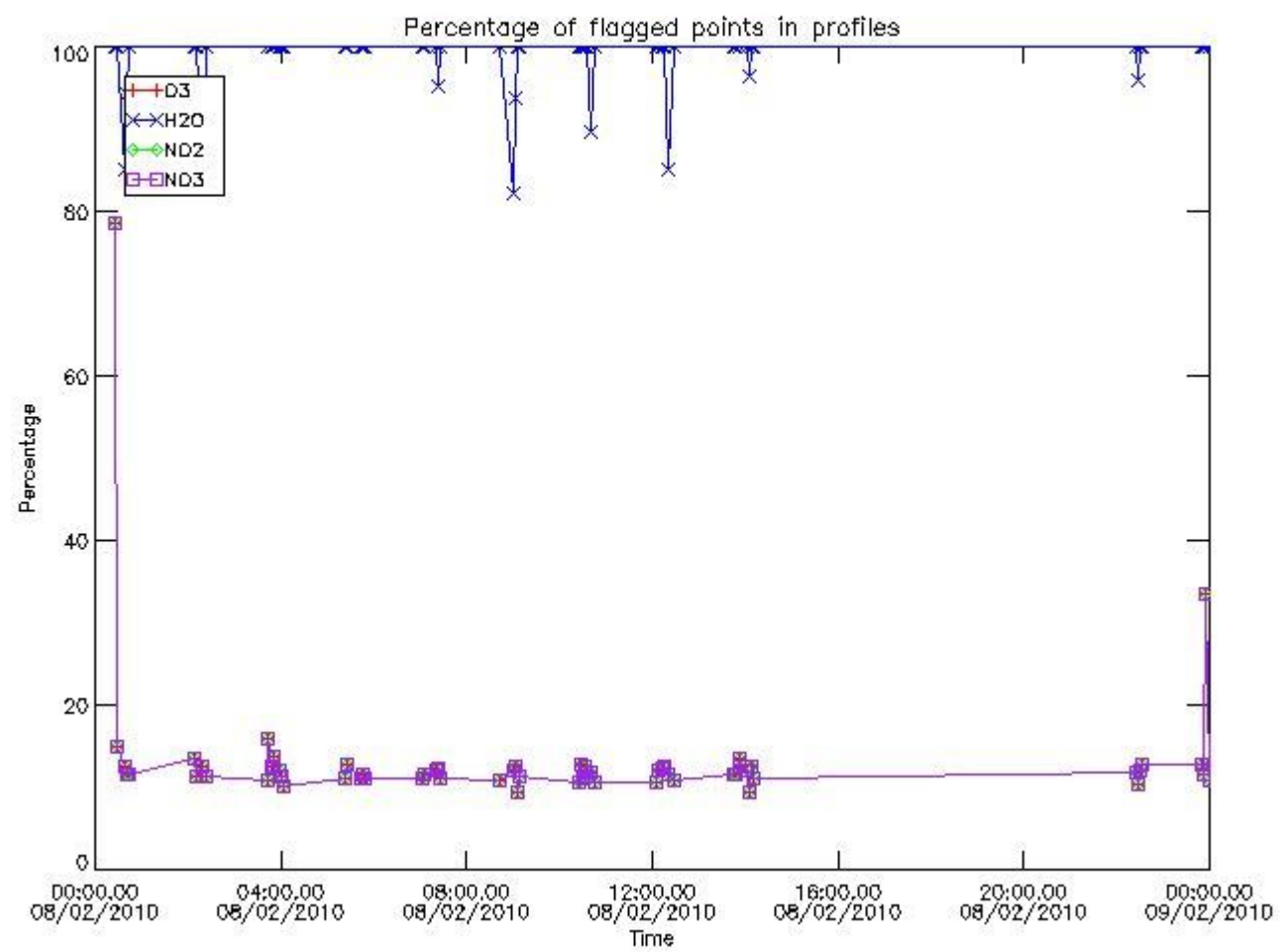
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100208_001135_000000442086_00388_41524_4042.N1	08-FEB-2010 00:11:35	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	41524	No
2	GOM_NL__2PRFIN20100208_001347_000000402086_00388_41524_4043.N1	08-FEB-2010 00:13:47	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	41524	No
3	GOM_NL__2PRFIN20100208_002037_000000502086_00388_41524_4044.N1	08-FEB-2010 00:20:37	Twilight	49.500	86	35Eta Oph	2.4300	10200.	99	41524	No
4	GOM_NL__2PRFIN20100208_002645_000000472086_00388_41524_4045.N1	08-FEB-2010 00:26:45	Dark	47.000	40	The Sco	1.8590	7100.0	94	41524	No
5	GOM_NL__2PRFIN20100208_002836_000000382086_00388_41524_4046.N1	08-FEB-2010 00:28:36	Dark	37.500	147	Alp Ara	2.8770	26000.	75	41524	No
6	GOM_NL__2PRFIN20100208_003709_000000412086_00389_41525_4080.N1	08-FEB-2010 00:37:09	Dark	40.500	10	Bet Cen	0.61000	28000.	81	41525	No
7	GOM_NL__2PRFIN20100208_004025_000000452086_00389_41525_4081.N1	08-FEB-2010 00:40:25	Dark	44.500	12	Alp1Cru	0.77500	30000.	89	41525	No
8	GOM_NL__2PRFIN20100208_004249_000000452086_00389_41525_4082.N1	08-FEB-2010 00:42:49	Dark	44.500	99	Del Cen	2.5750	26000.	89	41525	No
9	GOM_NL__2PRFIN20100208_013129_000000442086_00389_41525_4083.N1	08-FEB-2010 01:31:29	Bright	44.000	60	7Bet UMi	2.0810	3950.0	88	41525	No
10	GOM_NL__2PRFIN20100208_013618_000000602086_00389_41525_4084.N1	08-FEB-2010 01:36:18	Bright	60.000	119	14Eta Dra	2.7270	4700.0	120	41525	No
11	GOM_NL__2PRFIN20100208_013945_000000382086_00389_41525_4085.N1	08-FEB-2010 01:39:45	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	41525	No
12	GOM_NL__2PRFIN20100208_015212_000000442086_00389_41525_4086.N1	08-FEB-2010 01:52:12	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	41525	No
13	GOM_NL__2PRFIN20100208_015423_000000572086_00389_41525_4087.N1	08-FEB-2010 01:54:23	Bright	56.500	126	60Bet Oph	2.7700	4250.0	113	41525	No
14	GOM_NL__2PRFIN20100208_020114_000000502086_00389_41525_4088.N1	08-FEB-2010 02:01:14	Twilight	49.500	86	35Eta Oph	2.4300	10200.	99	41525	No
15	GOM_NL__2PRFIN20100208_020912_000000382086_00389_41525_4089.N1	08-FEB-2010 02:09:12	Dark	37.500	147	Alp Ara	2.8770	26000.	75	41525	No
16	GOM_NL__2PRFIN20100208_021149_000000452086_00389_41525_4090.N1	08-FEB-2010 02:11:49	Dark	45.000	131	Gam Lup	2.8000	26000.	90	41525	No
17	GOM_NL__2PRFIN20100208_021746_000000412086_00390_41526_4052.N1	08-FEB-2010 02:17:46	Dark	41.000	10	Bet Cen	0.61000	28000.	82	41526	No
18	GOM_NL__2PRFIN20100208_022326_000000452086_00390_41526_4053.N1	08-FEB-2010 02:23:26	Dark	45.000	99	Del Cen	2.5750	26000.	90	41526	No
19	GOM_NL__2PRFIN20100208_024535_000000522086_00390_41526_4054.N1	08-FEB-2010 02:45:35	Twilight	52.000	8	10Alp CMi	0.40000	6500.0	104	41526	No
20	GOM_NL__2PRFIN20100208_025202_000000412086_00390_41526_4055.N1	08-FEB-2010 02:52:02	Bright	40.500	17	78Bet Gem	1.1610	4500.0	81	41526	No
21	GOM_NL__2PRFIN20100208_030927_000000382086_00390_41526_4056.N1	08-FEB-2010 03:09:27	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	41526	No
22	GOM_NL__2PRFIN20100208_031204_000000432086_00390_41526_4057.N1	08-FEB-2010 03:12:04	Bright	42.500	60	7Bet UMi	2.0810	3950.0	85	41526	No
23	GOM_NL__2PRFIN20100208_031654_000000602086_00390_41526_4058.N1	08-FEB-2010 03:16:54	Bright	60.000	119	14Eta Dra	2.7270	4700.0	120	41526	No
24	GOM_NL__2PRFIN20100208_032021_000000412086_00390_41526_4059.N1	08-FEB-2010 03:20:21	Bright	40.500	130	23Bet Dra	2.7990	5800.0	81	41526	No
25	GOM_NL__2PRFIN20100208_033248_000000432086_00390_41526_4060.N1	08-FEB-2010 03:32:48	Bright	42.500	59	55Alp Oph	2.0800	8900.0	85	41526	No
26	GOM_NL__2PRFIN20100208_033459_000000572086_00390_41526_4061.N1	08-FEB-2010 03:34:59	Bright	57.000	126	60Bet Oph	2.7700	4250.0	114	41526	No
27	GOM_NL__2PRFIN20100208_034150_000000472086_00390_41526_4062.N1	08-FEB-2010 03:41:50	Dark	46.500	86	35Eta Oph	2.4300	10200.	93	41526	No
28	GOM_NL__2PRFIN20100208_034404_000000452086_00390_41526_4063.N1	08-FEB-2010 03:44:04	Dark	44.500	167	10Gam2Sgr	2.9840	4500.0	89	41526	No
29	GOM_NL__2PRFIN20100208_034759_000000412086_00390_41526_4064.N1	08-FEB-2010 03:47:59	Dark	40.500	40	The Sco	1.8590	7100.0	81	41526	No
30	GOM_NL__2PRFIN20100208_034948_000000372086_00390_41526_4065.N1	08-FEB-2010 03:49:48	Dark	37.000	147	Alp Ara	2.8770	26000.	74	41526	No
31	GOM_NL__2PRFIN20100208_035822_000000432086_00391_41527_4060.N1	08-FEB-2010 03:58:22	Dark	42.500	10	Bet Cen	0.61000	28000.	85	41527	No
32	GOM_NL__2PRFIN20100208_040138_000000452086_00391_41527_4061.N1	08-FEB-2010 04:01:38	Dark	45.000	12	Alp1Cru	0.77500	30000.	90	41527	No
33	GOM_NL__2PRFIN20100208_040403_000000502086_00391_41527_4062.N1	08-FEB-2010 04:04:03	Dark	50.000	99	Del Cen	2.5750	26000.	100	41527	No
34	GOM_NL__2PRFIN20100208_042612_000000522086_00391_41527_4063.N1	08-FEB-2010 04:26:12	Twilight	52.000	8	10Alp CMi	0.40000	6500.0	104	41527	No
35	GOM_NL__2PRFIN20100208_043239_000000412086_00391_41527_4064.N1	08-FEB-2010 04:32:39	Bright	40.500	17	78Bet Gem	1.1610	4500.0	81	41527	No
36	GOM_NL__2PRFIN20100208_045241_000000422086_00391_41527_4065.N1	08-FEB-2010 04:52:41	Bright	42.000	60	7Bet UMi	2.0810	3950.0	84	41527	No
37	GOM_NL__2PRFIN20100208_045729_000000442086_00391_41527_4066.N1	08-FEB-2010 04:57:29	Bright	44.000	119	14Eta Dra	2.7270	4700.0	88	41527	No
38	GOM_NL__2PRFIN20100208_050057_000000402086_00391_41527_4067.N1	08-FEB-2010 05:00:57	Bright	40.000	130	23Bet Dra	2.7990	5800.0	80	41527	No
39	GOM_NL__2PRFIN20100208_051325_000000442086_00391_41527_4068.N1	08-FEB-2010 05:13:25	Bright	43.500	59	55Alp Oph	2.0800	8900.0	87	41527	No
40	GOM_NL__2PRFIN20100208_051536_000000422086_00391_41527_4069.N1	08-FEB-2010 05:15:36	Bright	42.000	126	60Bet Oph	2.7700	4250.0	84	41527	No
41	GOM_NL__2PRFIN20100208_052227_000000502086_00391_41527_4070.N1	08-FEB-2010 05:22:27	Dark	50.000	86	35Eta Oph	2.4300	10200.	100	41527	No
42	GOM_NL__2PRFIN20100208_052441_000000402086_00391_41527_4071.N1	08-FEB-2010 05:24:41	Dark	40.000	167	10Gam2Sgr	2.9840	4500.0	80	41527	No

102	GOM_NL__2PRFIN20100208_140201_000000432086_00397_41533_4133.N1	08-FEB-2010 14:02:01	Dark	42.500	10	Bet Cen	0.61000	28000.	85	41533	No
103	GOM_NL__2PRFIN20100208_140517_000000552086_00397_41533_4134.N1	08-FEB-2010 14:05:17	Dark	54.500	12	Alp1Cru	0.77500	30000.	109	41533	No
104	GOM_NL__2PRFIN20100208_140743_000000452086_00397_41533_4135.N1	08-FEB-2010 14:07:43	Dark	44.500	99	Del Cen	2.5750	26000.	89	41533	No
105	GOM_NL__2PRFIN20100208_141045_000000462086_00397_41533_4136.N1	08-FEB-2010 14:10:45	Dark	45.500	71	lot Car	2.2460	7700.0	91	41533	No
106	GOM_NL__2PRFIN20100208_142948_000000512086_00397_41533_4137.N1	08-FEB-2010 14:29:48	Tw_i_and_stray	51.000	8	10Alp CMi	0.40000	6500.0	102	41533	No
107	GOM_NL__2PRFIN20100208_222504_000000432086_00402_41538_4218.N1	08-FEB-2010 22:25:04	Dark	43.000	10	Bet Cen	0.61000	28000.	86	41538	No
108	GOM_NL__2PRFIN20100208_222819_000000502086_00402_41538_4219.N1	08-FEB-2010 22:28:19	Dark	49.500	12	Alp1Cru	0.77500	30000.	99	41538	No
109	GOM_NL__2PRFIN20100208_223046_000000432086_00402_41538_4220.N1	08-FEB-2010 22:30:46	Dark	42.500	99	Del Cen	2.5750	26000.	85	41538	No
110	GOM_NL__2PRFIN20100208_223346_000000402086_00402_41538_4221.N1	08-FEB-2010 22:33:46	Dark	40.000	71	lot Car	2.2460	7700.0	80	41538	No
111	GOM_NL__2PRFIN20100208_225248_000000512086_00402_41538_4222.N1	08-FEB-2010 22:52:48	Tw_i_and_stray	51.000	8	10Alp CMi	0.40000	6500.0	102	41538	No
112	GOM_NL__2PRFIN20100208_225914_000000402086_00402_41538_4223.N1	08-FEB-2010 22:59:14	Bright	39.500	17	78Bet Gem	1.1610	4500.0	79	41538	No
113	GOM_NL__2PRFIN20100208_231912_000000422086_00402_41538_4224.N1	08-FEB-2010 23:19:12	Bright	41.500	60	7Bet UMi	2.0810	3950.0	83	41538	No
114	GOM_NL__2PRFIN20100208_232402_000000442086_00402_41538_4225.N1	08-FEB-2010 23:24:02	Bright	44.000	119	14Eta Dra	2.7270	4700.0	88	41538	No
115	GOM_NL__2PRFIN20100208_232732_000000422086_00402_41538_4226.N1	08-FEB-2010 23:27:32	Bright	41.500	130	23Bet Dra	2.7990	5800.0	83	41538	No
116	GOM_NL__2PRFIN20100208_234004_000000432086_00402_41538_4227.N1	08-FEB-2010 23:40:04	Bright	43.000	59	55Alp Oph	2.0800	8900.0	86	41538	No
117	GOM_NL__2PRFIN20100208_234215_000000442086_00402_41538_4228.N1	08-FEB-2010 23:42:15	Bright	43.500	126	60Bet Oph	2.7700	4250.0	87	41538	No
118	GOM_NL__2PRFIN20100208_234909_000000442086_00402_41538_4229.N1	08-FEB-2010 23:49:09	Dark	44.000	86	35Eta Oph	2.4300	10200.	88	41538	No
119	GOM_NL__2PRFIN20100208_235120_000000442086_00402_41538_4230.N1	08-FEB-2010 23:51:20	Dark	44.000	167	10Gam2Sgr	2.9840	4500.0	88	41538	No
120	GOM_NL__2PRFIN20100208_235514_000000442086_00402_41538_4231.N1	08-FEB-2010 23:55:14	Dark	44.000	40	The Sco	1.8590	7100.0	88	41538	No
121	GOM_NL__2PRFIN20100208_235948_000000482086_00402_41538_4232.N1	08-FEB-2010 23:59:48	Dark	47.500	131	Gam Lup	2.8000	26000.	95	41538	No

3. Quality information per product

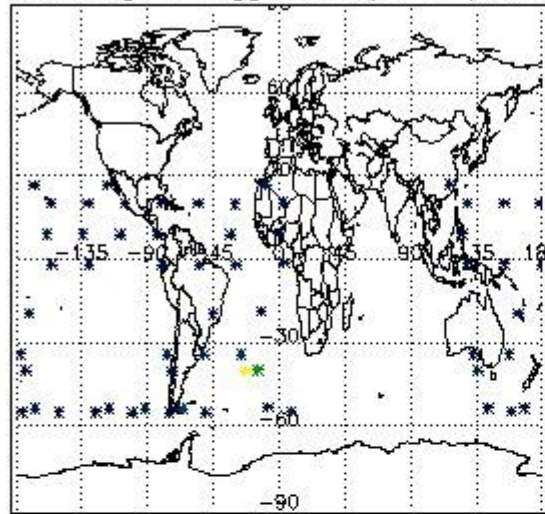
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

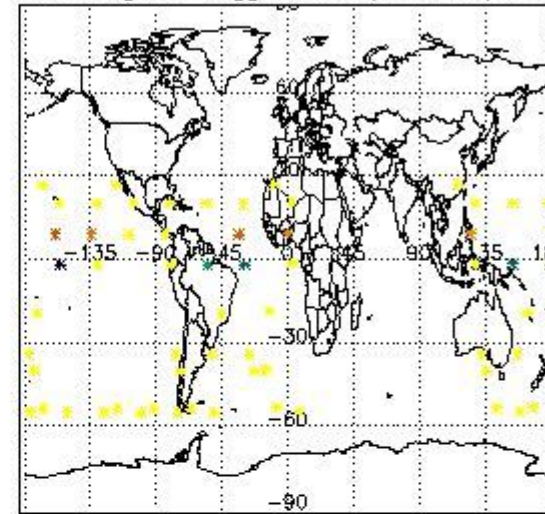


3.2 Plot quality information per product (world map)

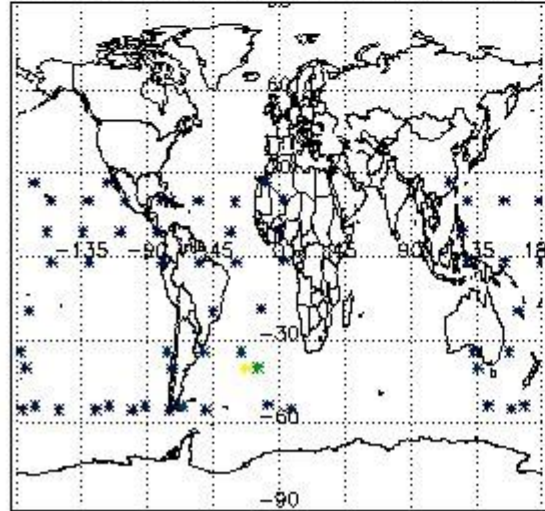
Percentage of flagged data per O3 profile



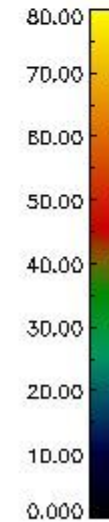
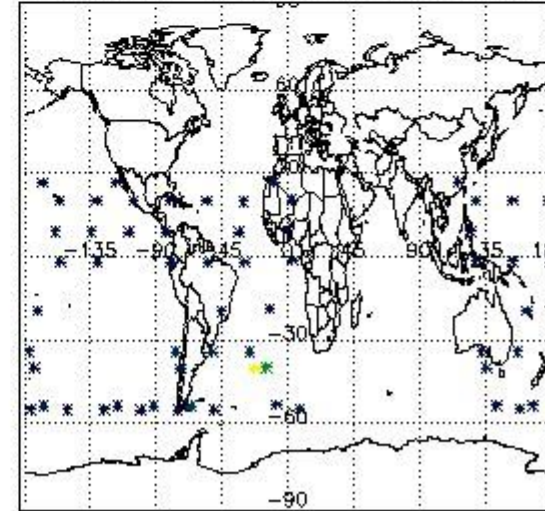
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

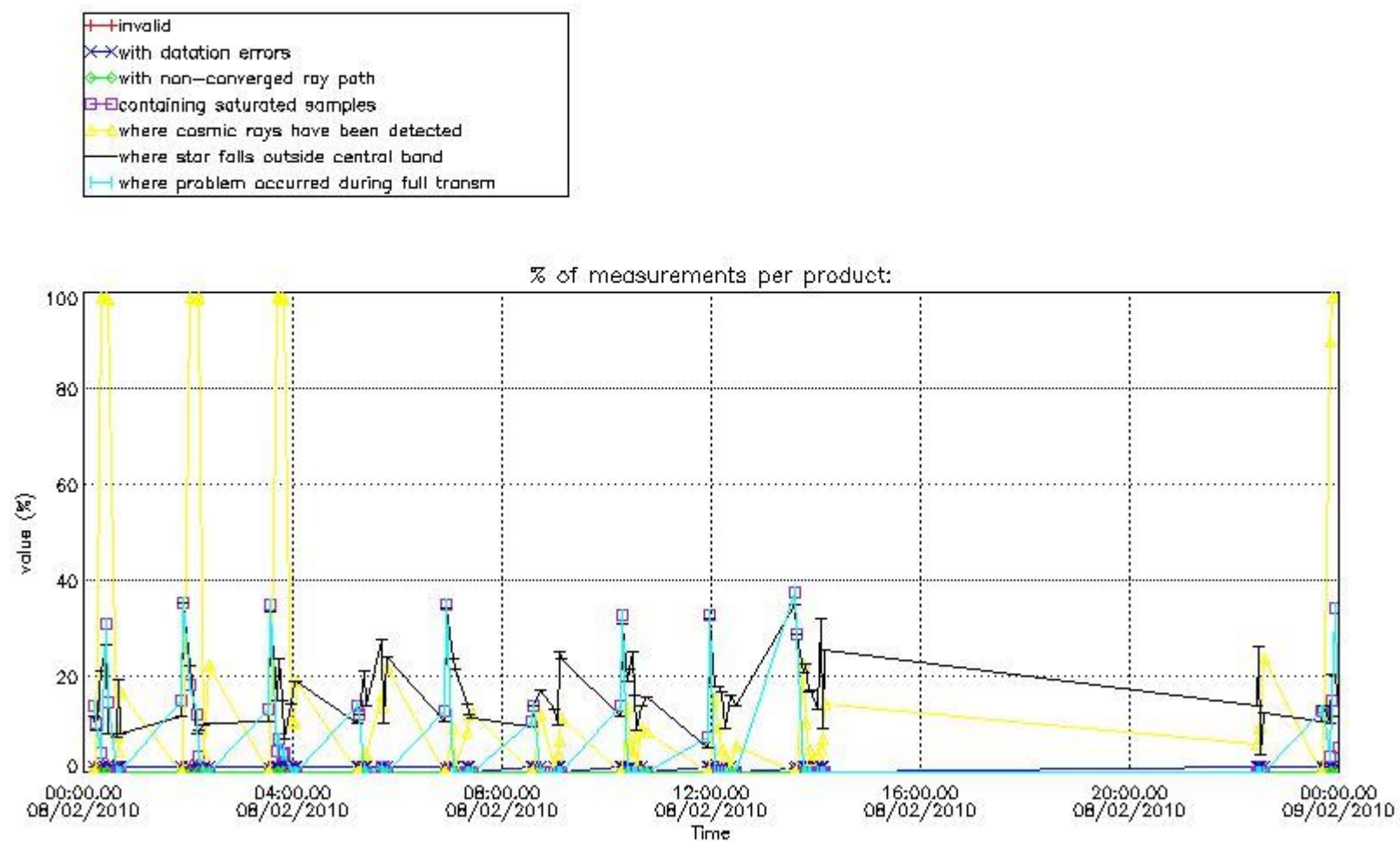


4. Level 1 quality information per product

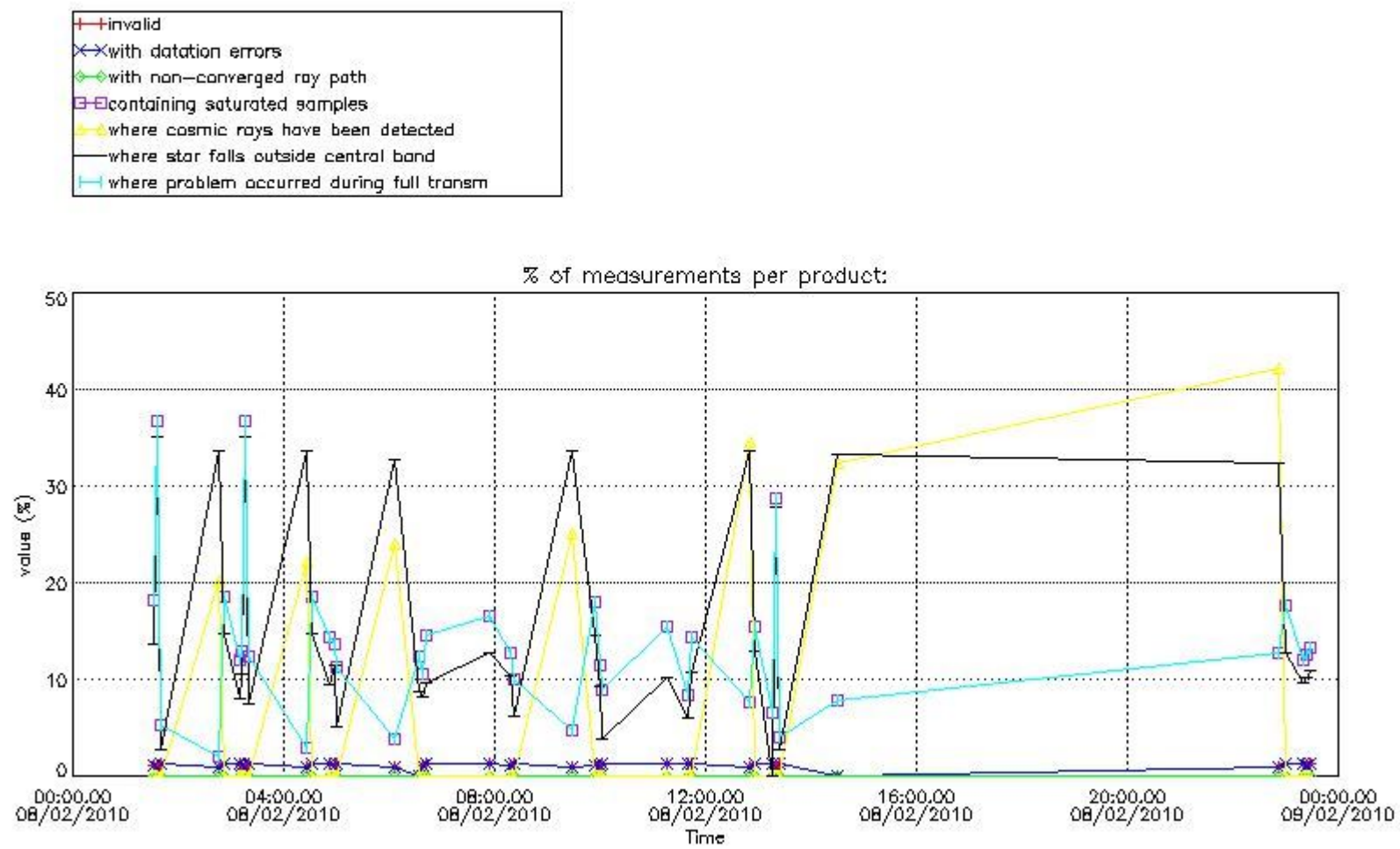
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



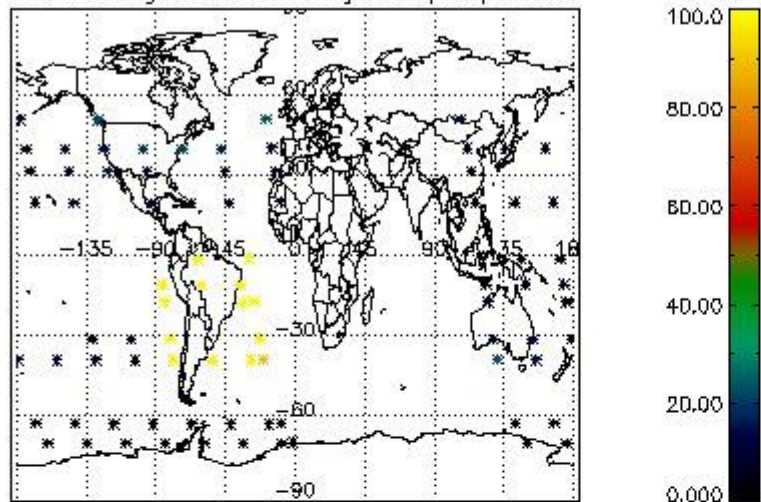
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



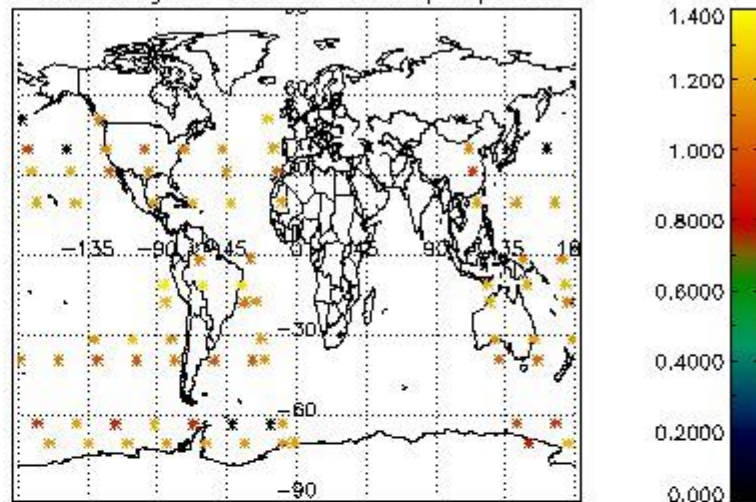
4.2 Plot quality information per product coming from level 1b processing (world map)

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

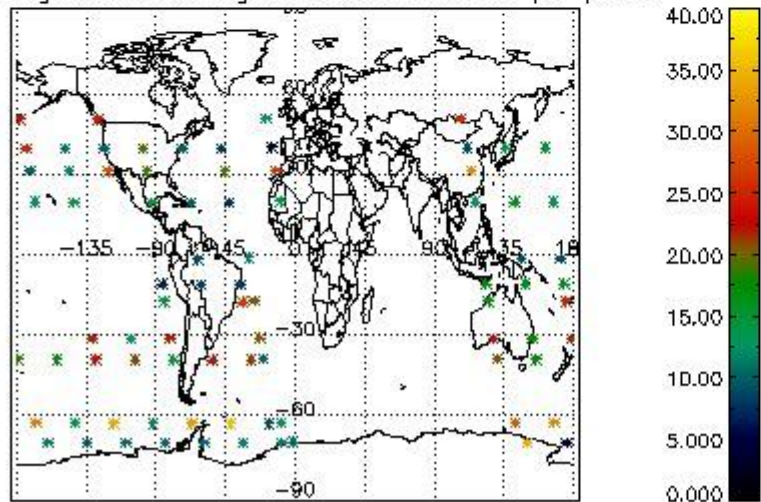
Percentage of cosmic ray hits per profile



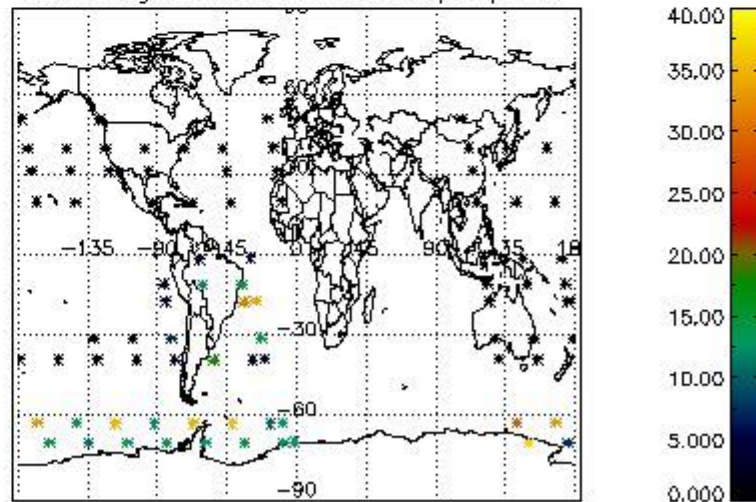
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

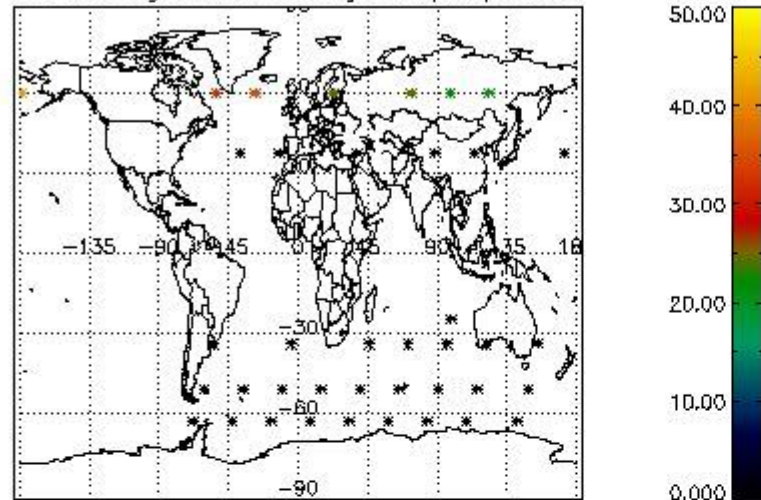


Percentage of saturation errors per profile

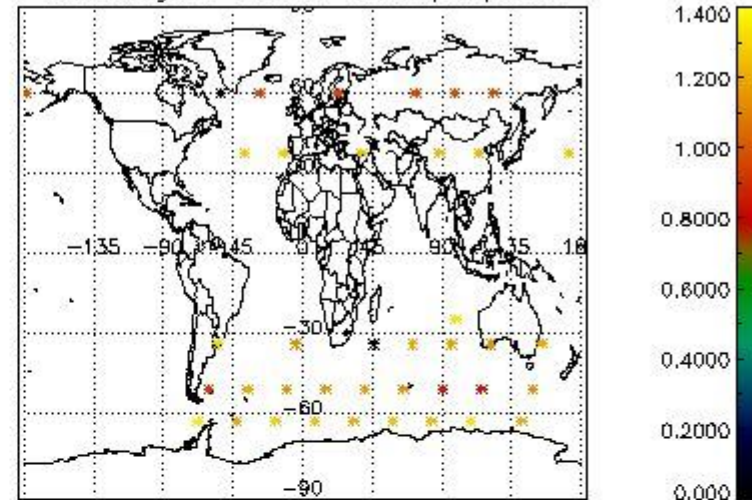


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

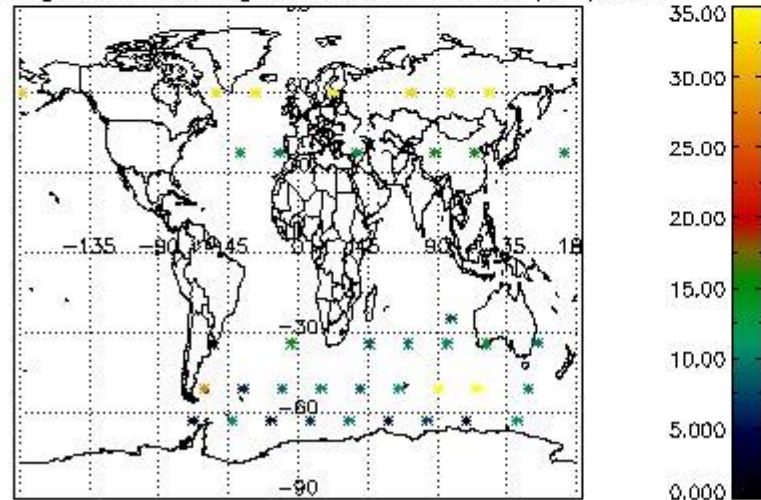
Percentage of cosmic ray hits per profile



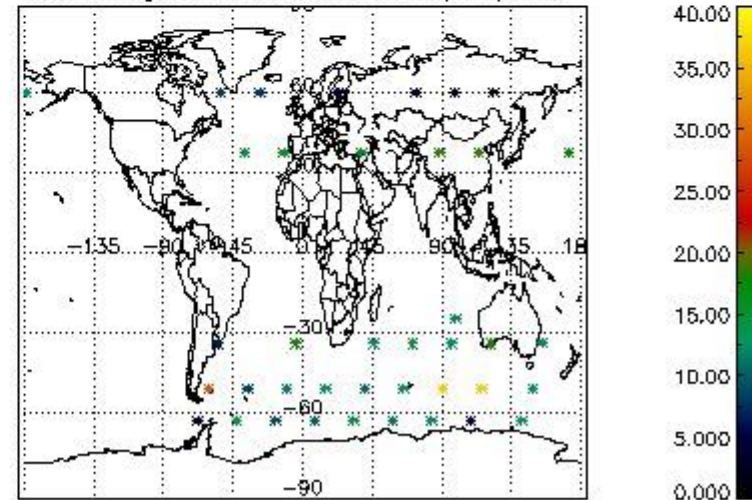
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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

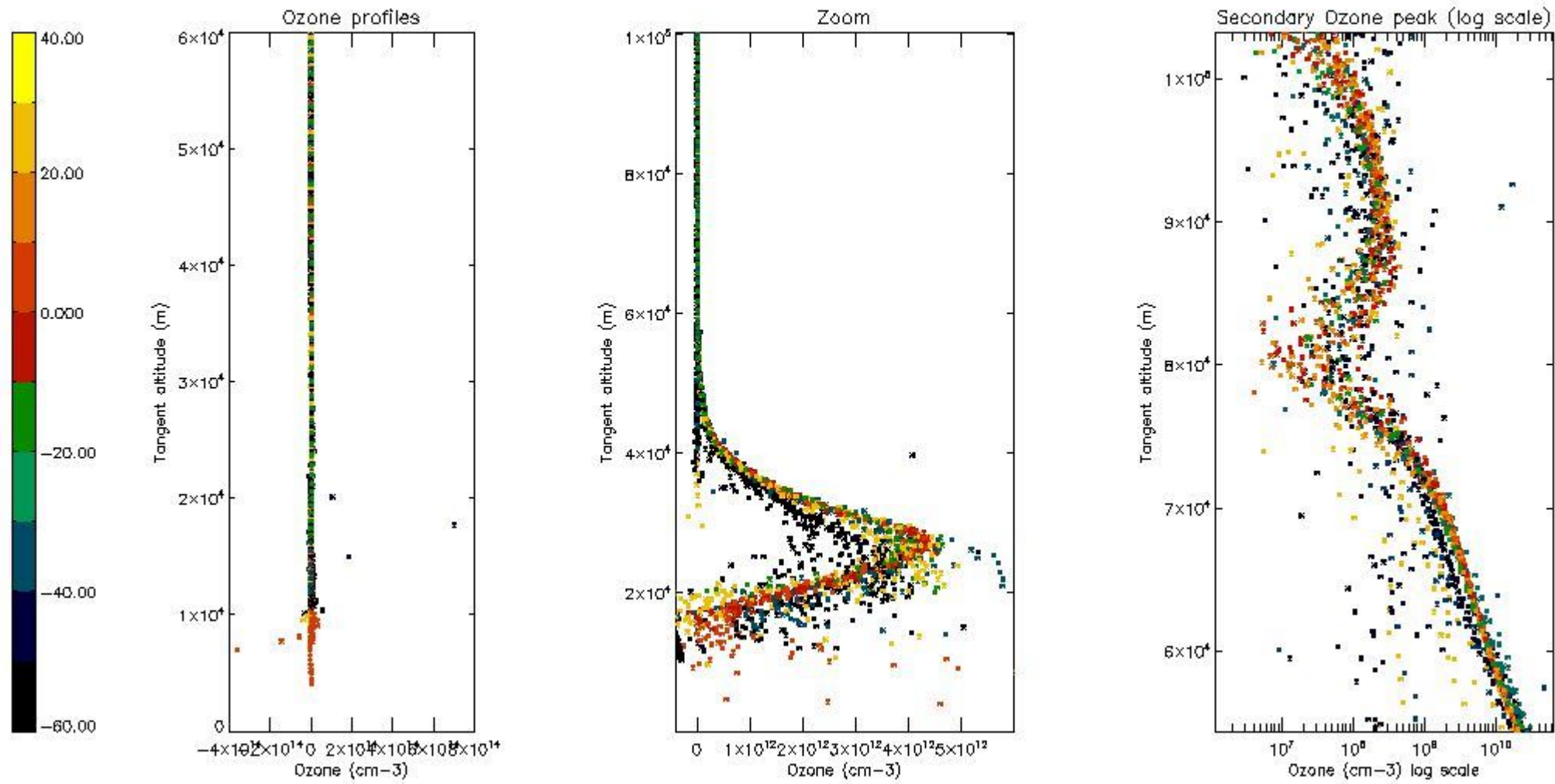
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	50
STD < 20	26

STD < 10	21
STD < 5	13

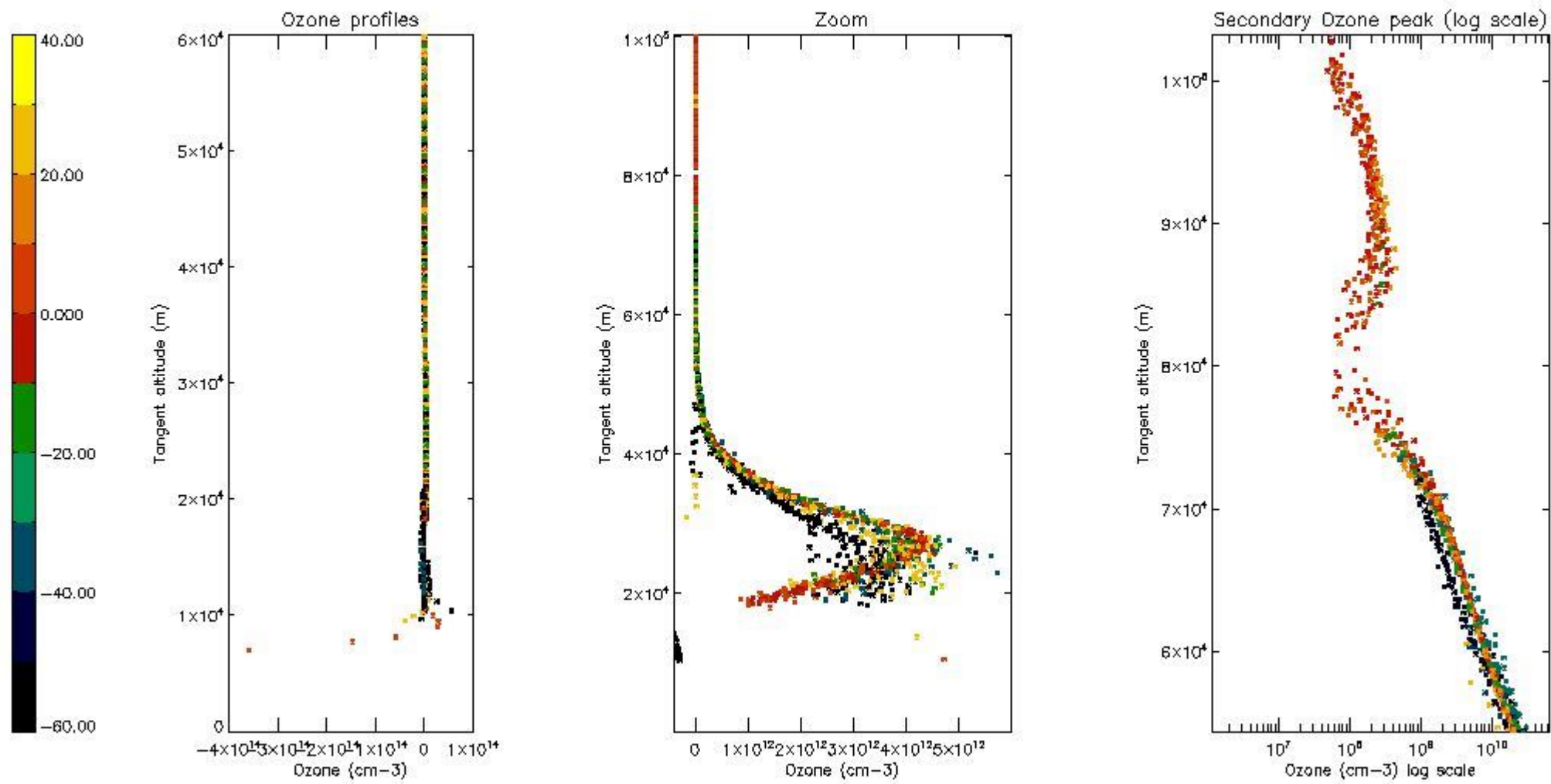
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



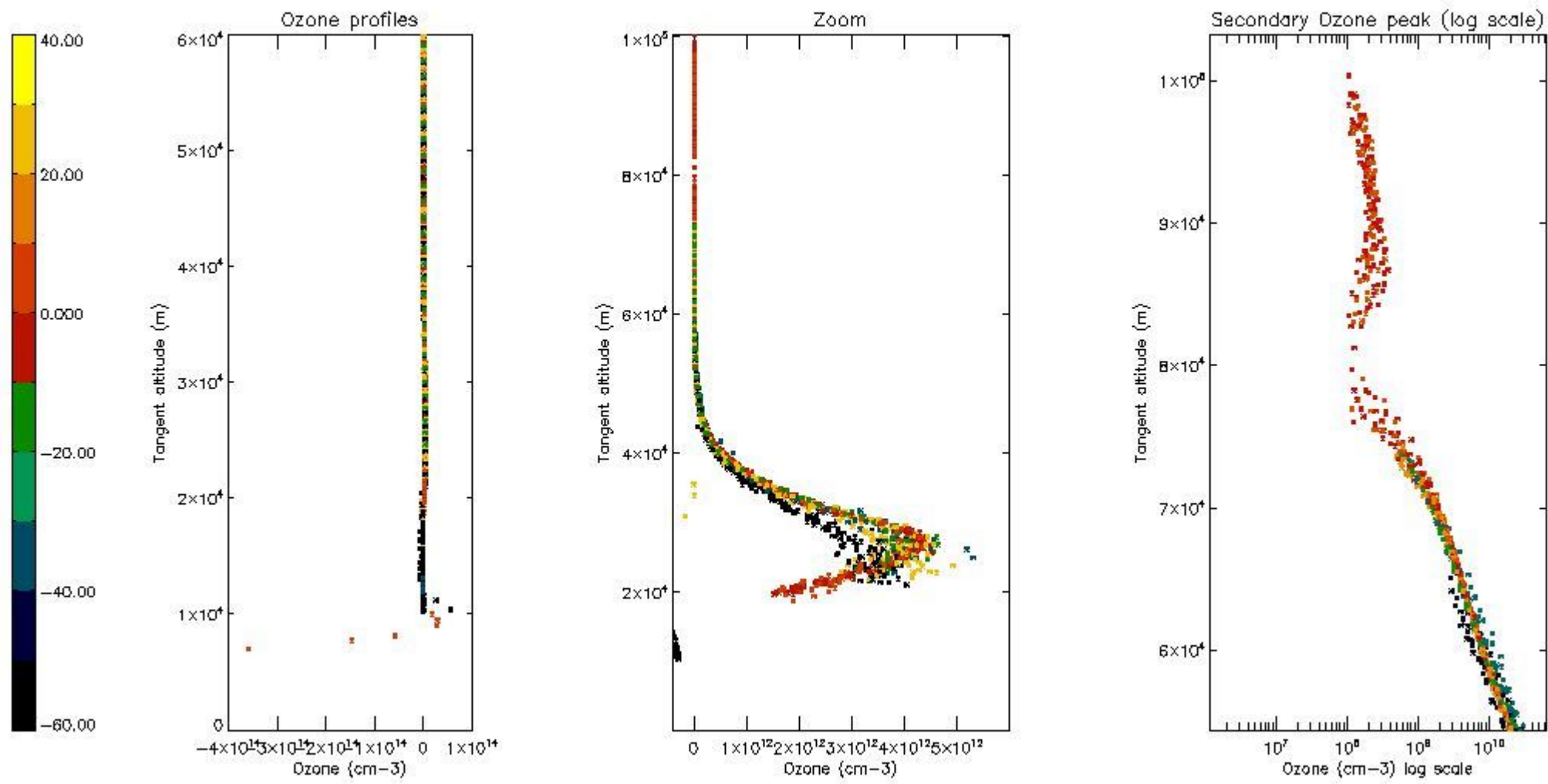
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



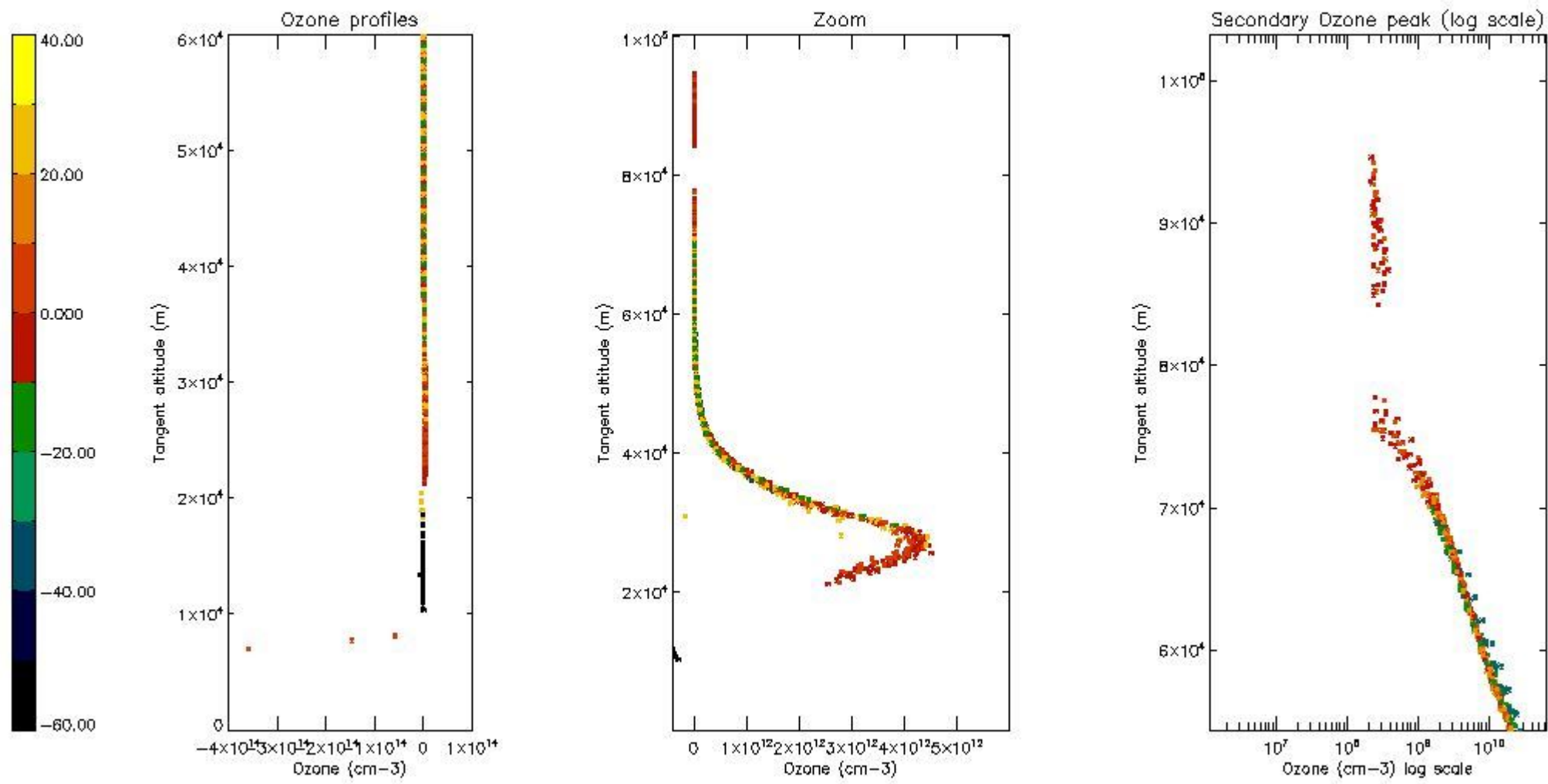
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



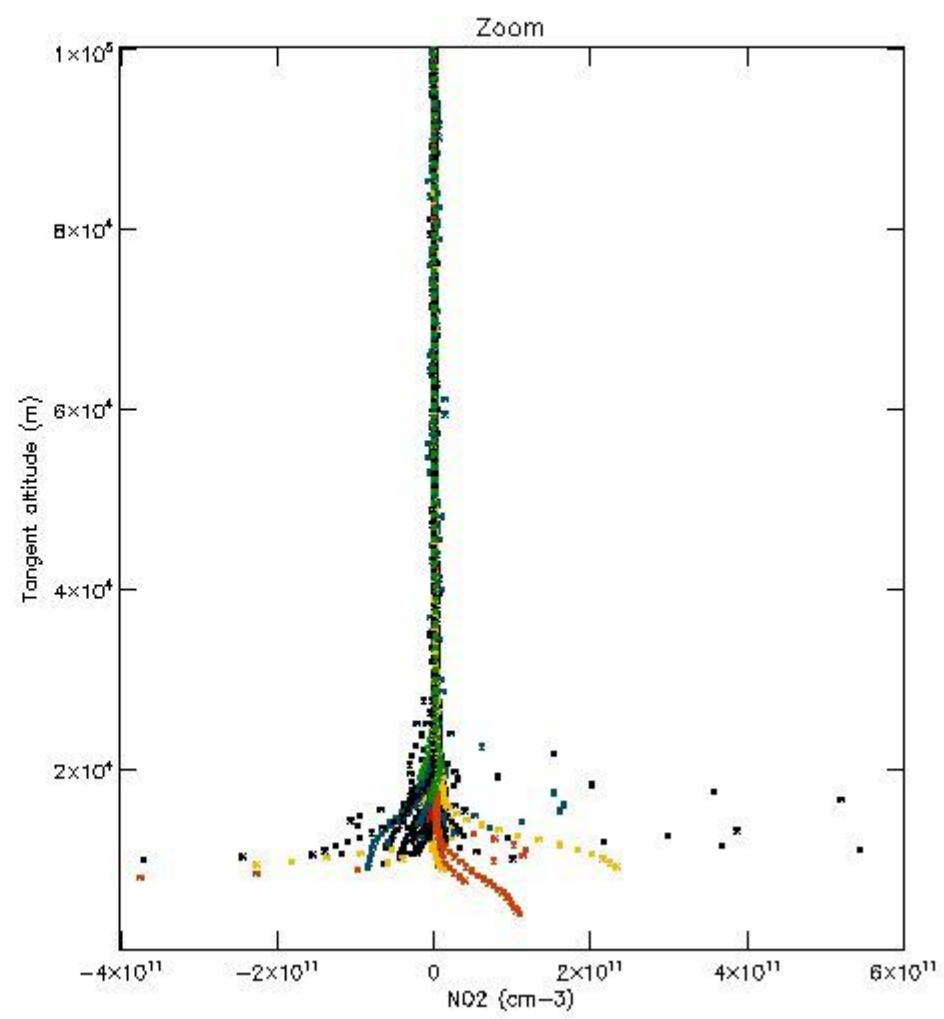
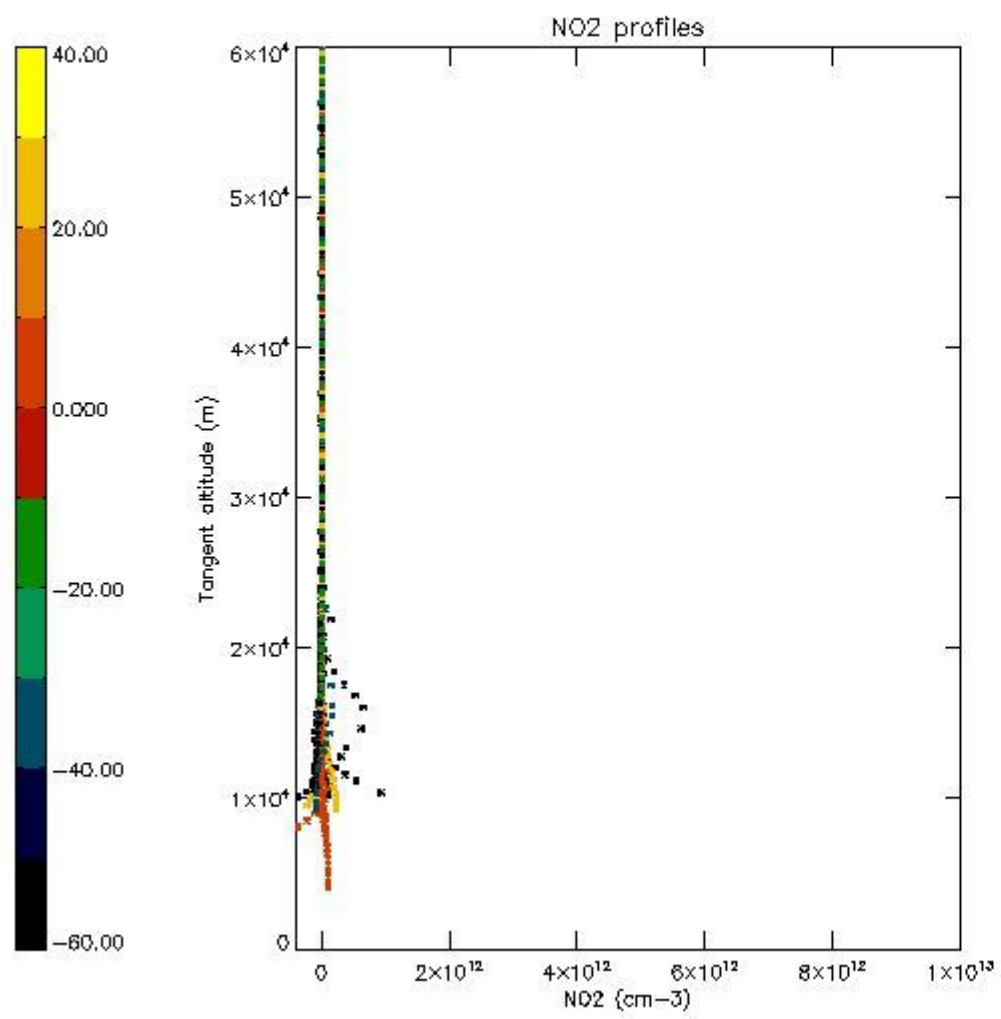
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



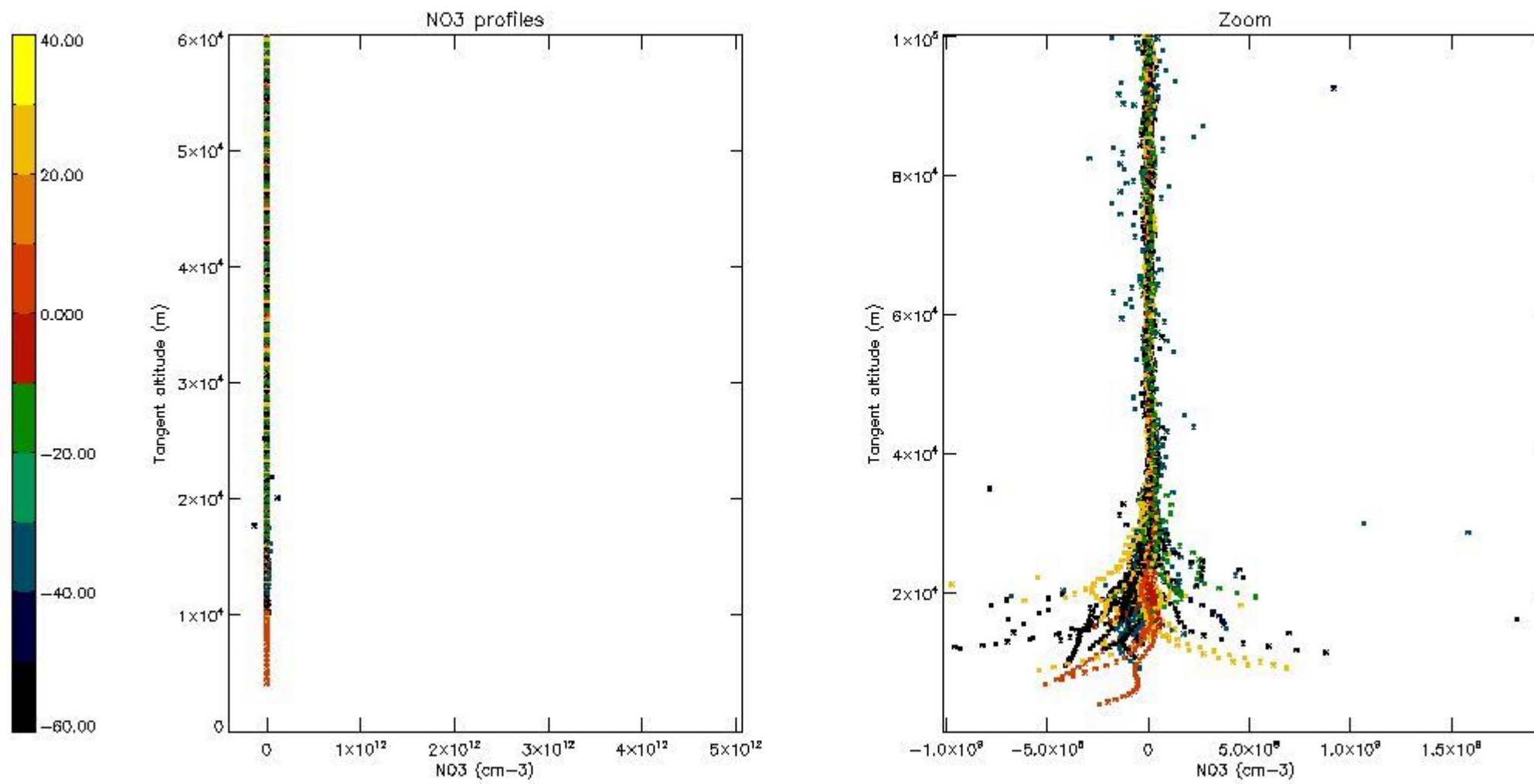
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

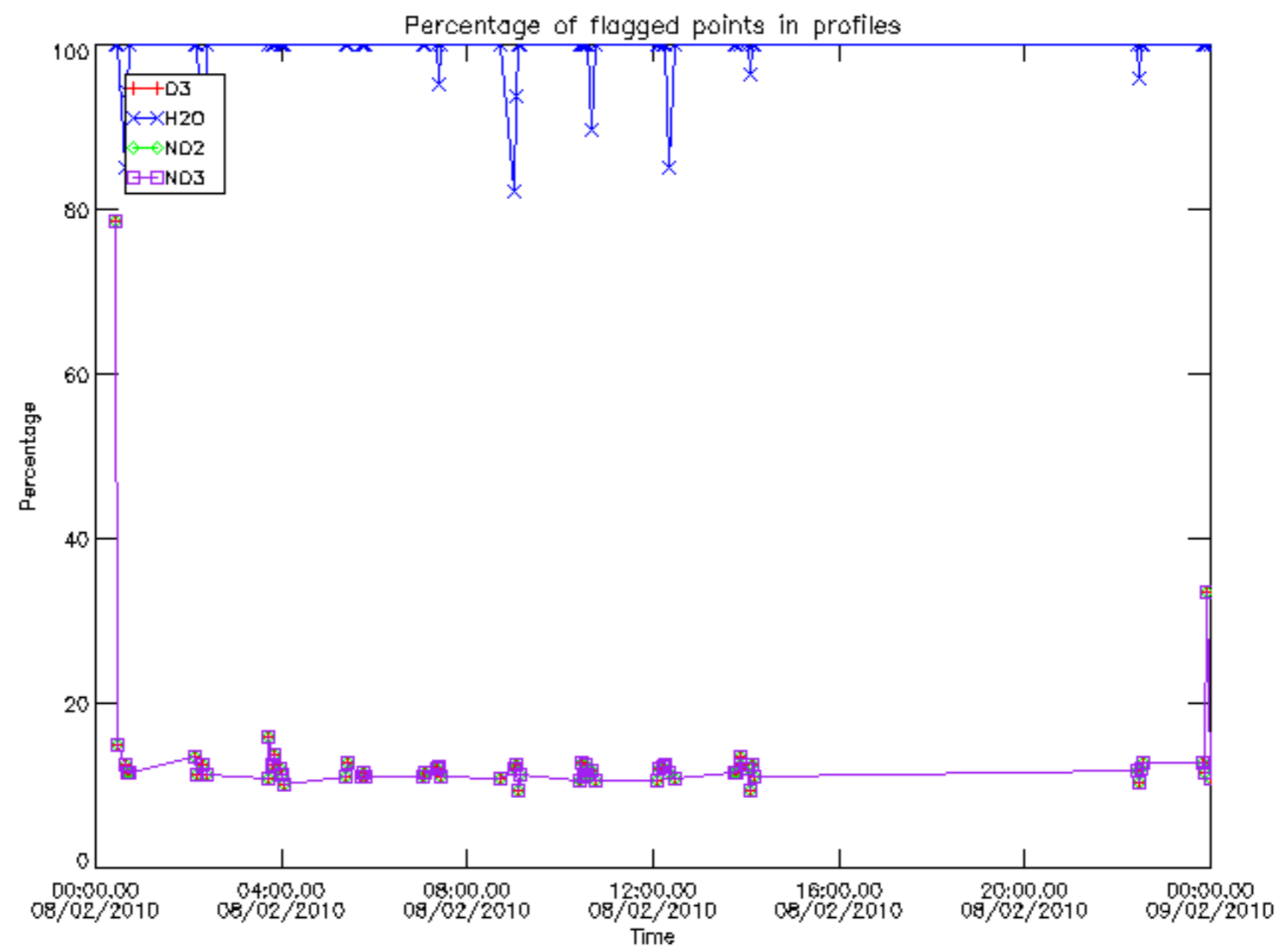
The colorbar represents the latitude.



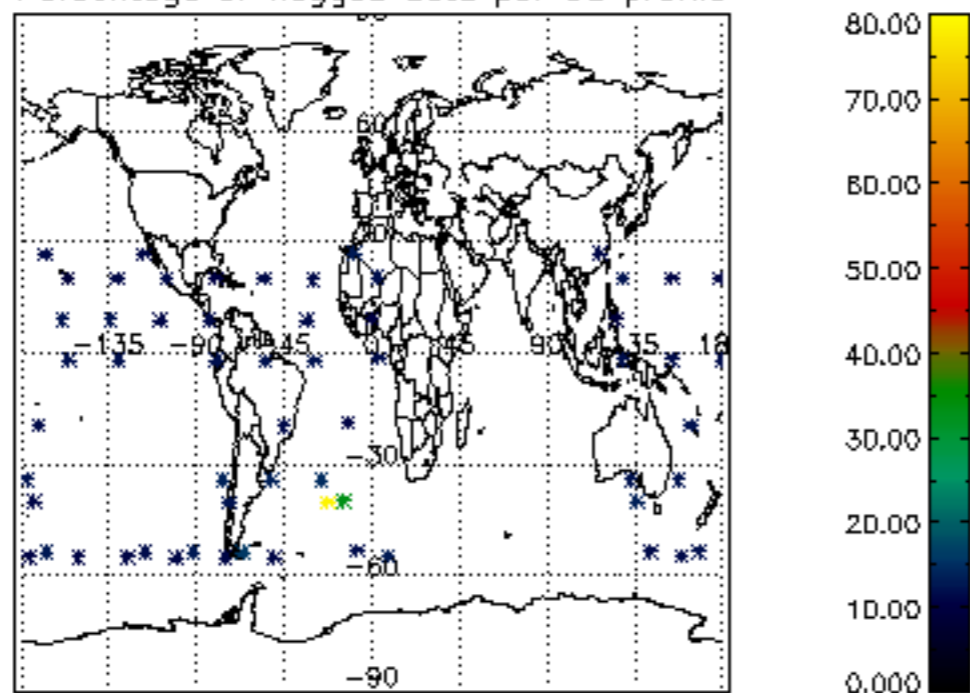
6. Auxiliary Data Files used for the production reported in section 2

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.

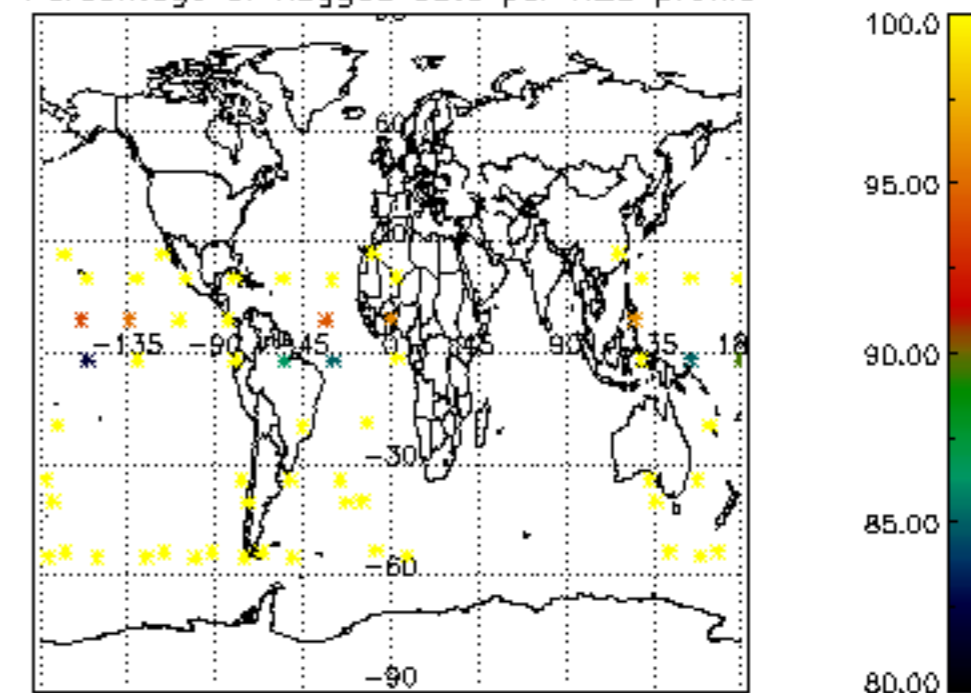
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	08-FEB-2010 00:11:35
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-FEB-2010 00:11:35
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-FEB-2010 00:11:35



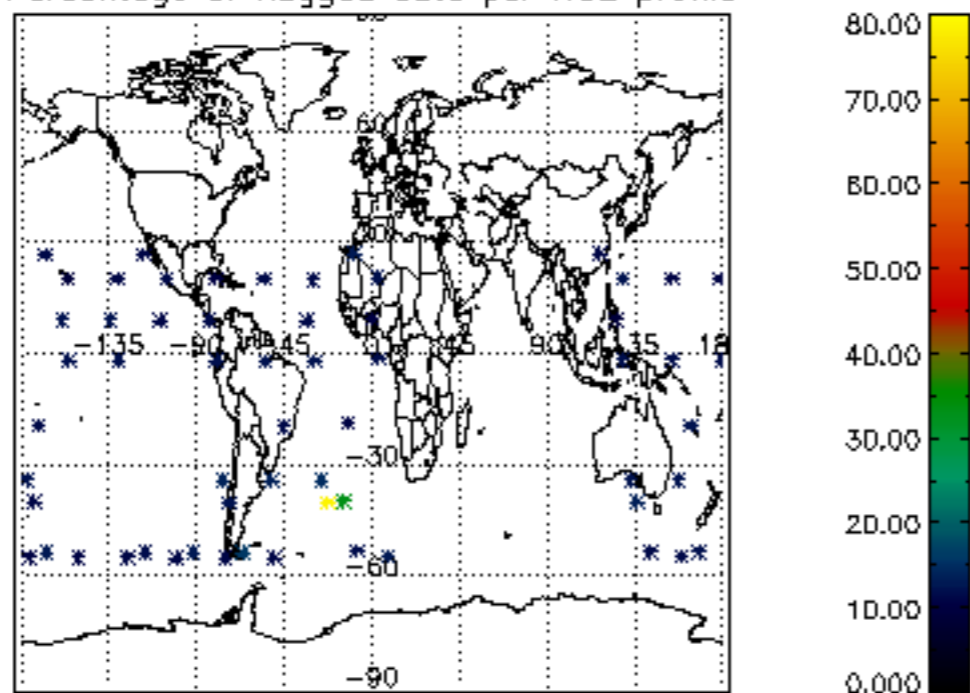
Percentage of flagged data per D3 profile



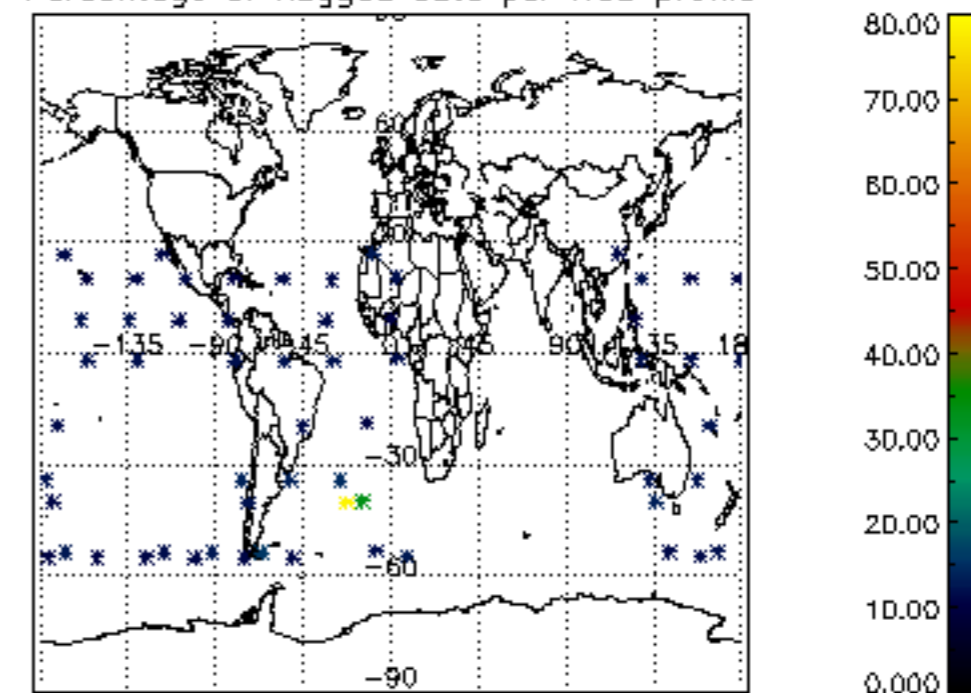
Percentage of flagged data per H2O profile

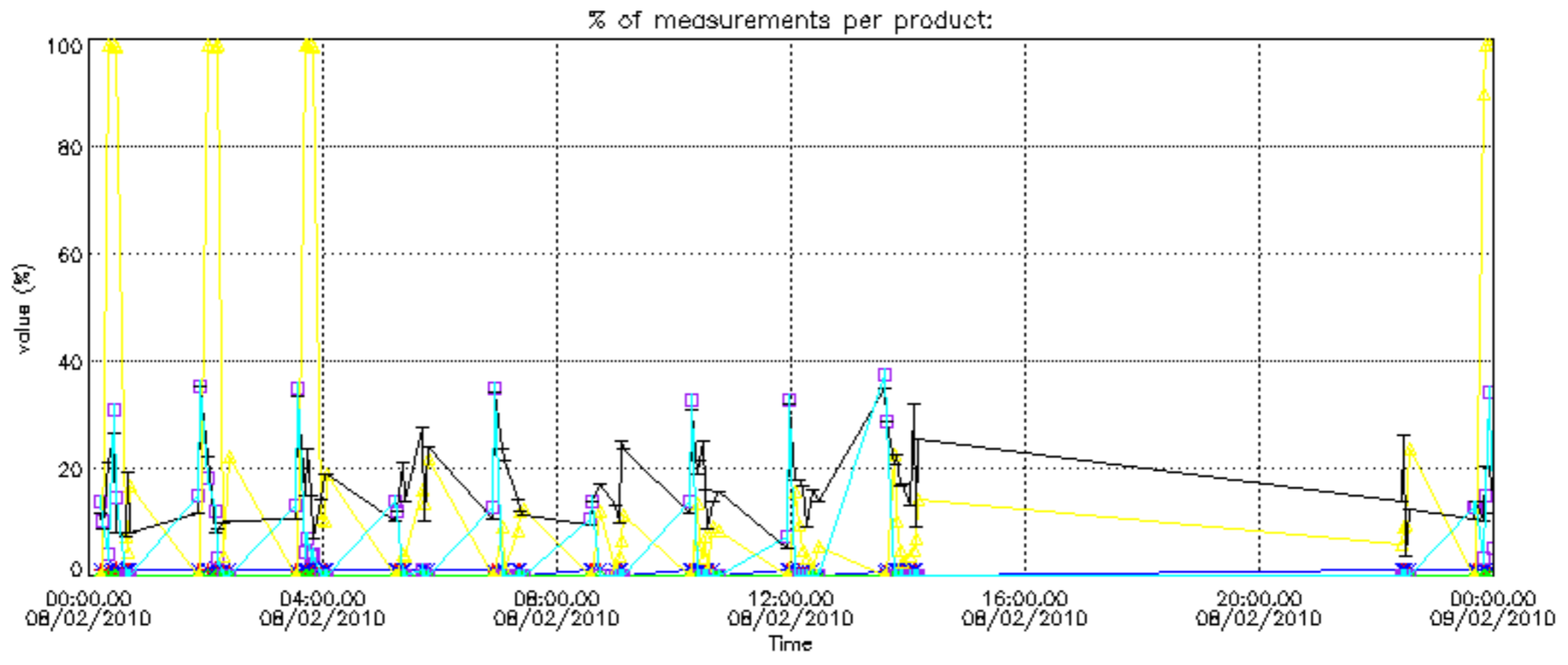


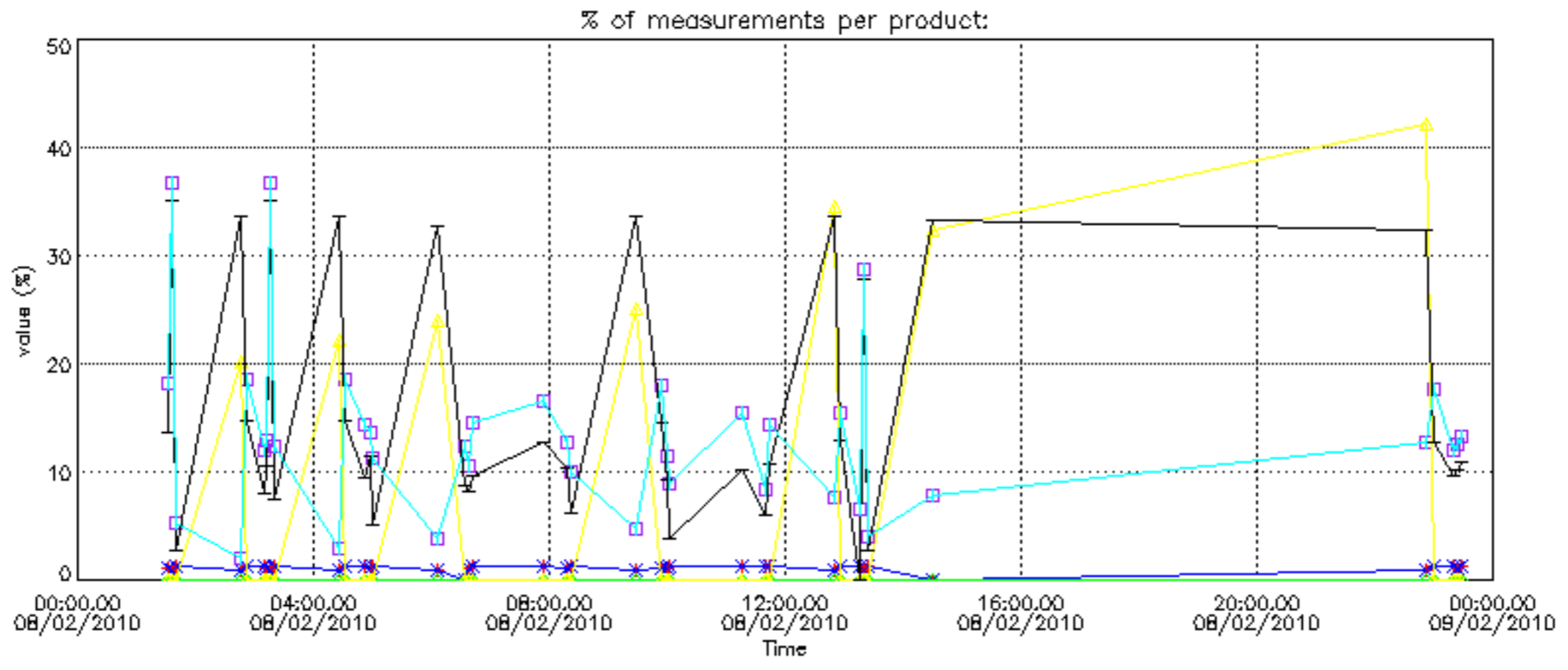
Percentage of flagged data per NO2 profile



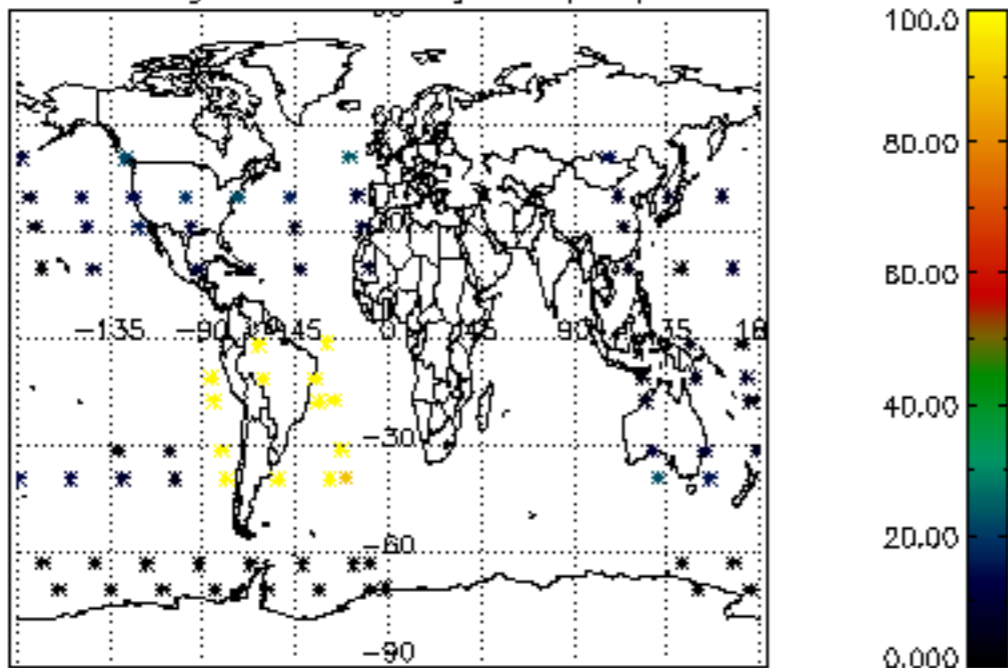
Percentage of flagged data per NO3 profile



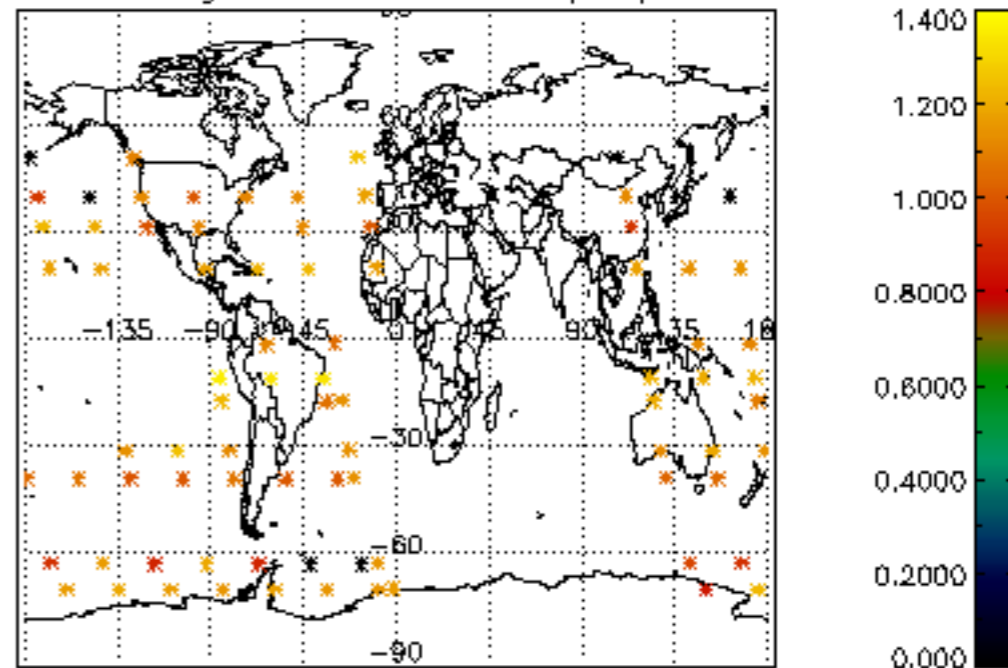




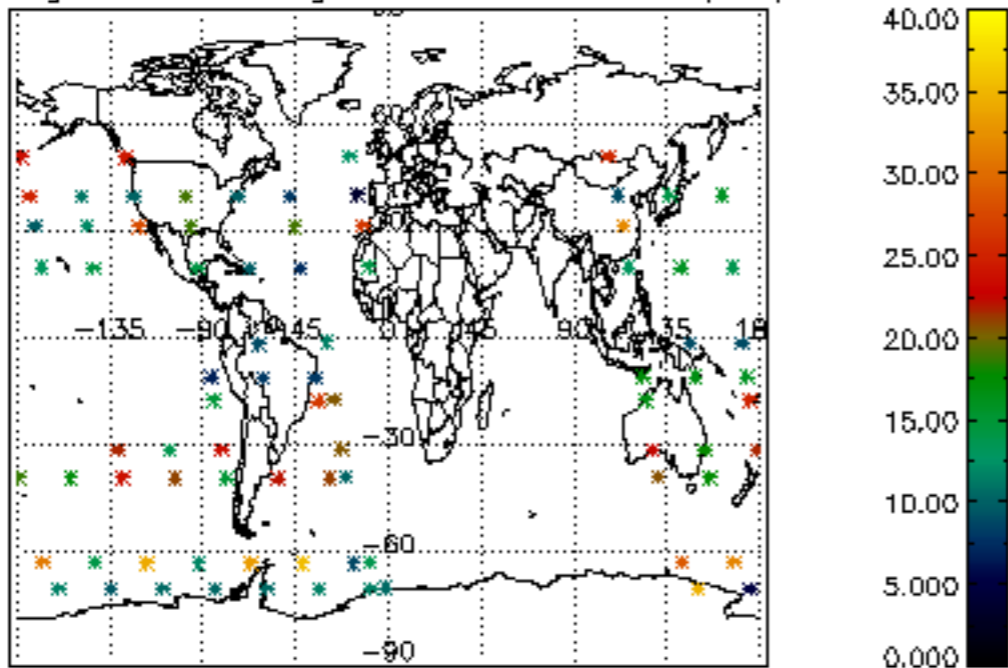
Percentage of cosmic ray hits per profile



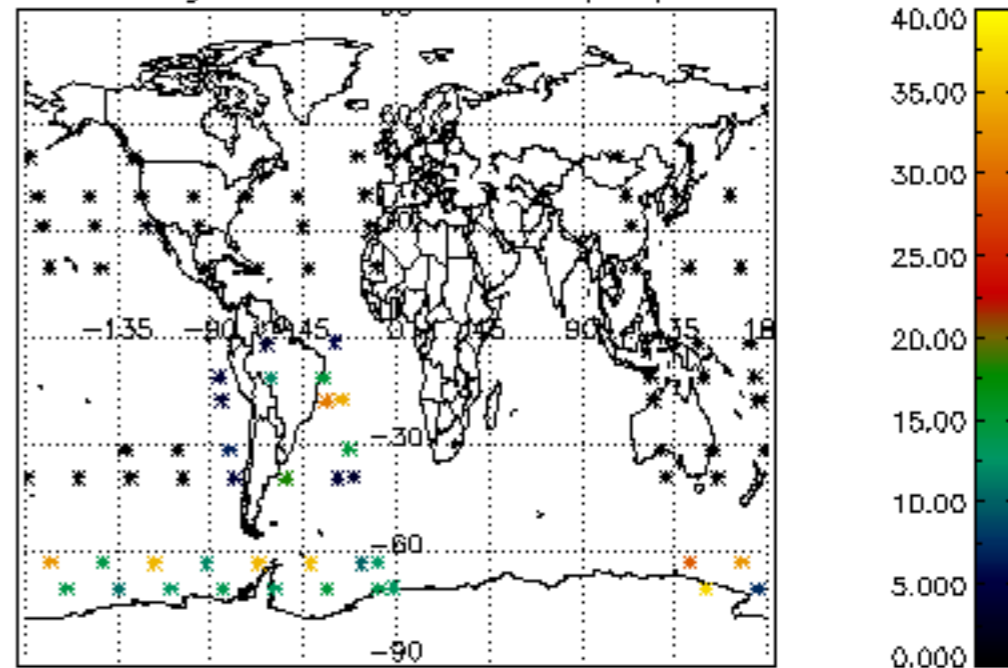
Percentage of datation errors per profile



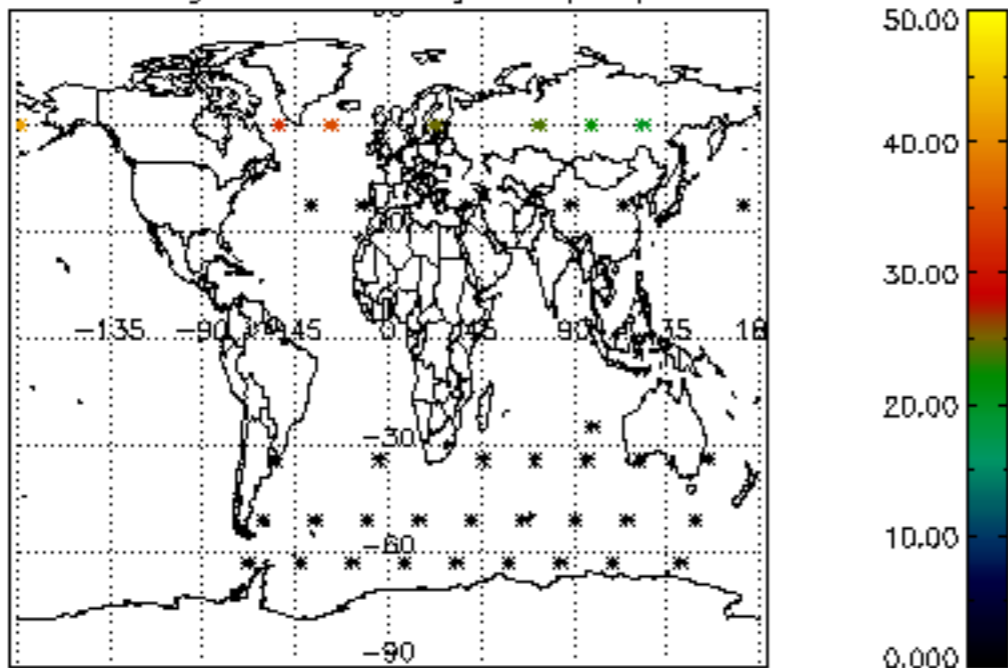
Percentage of star falling outside central band per profile



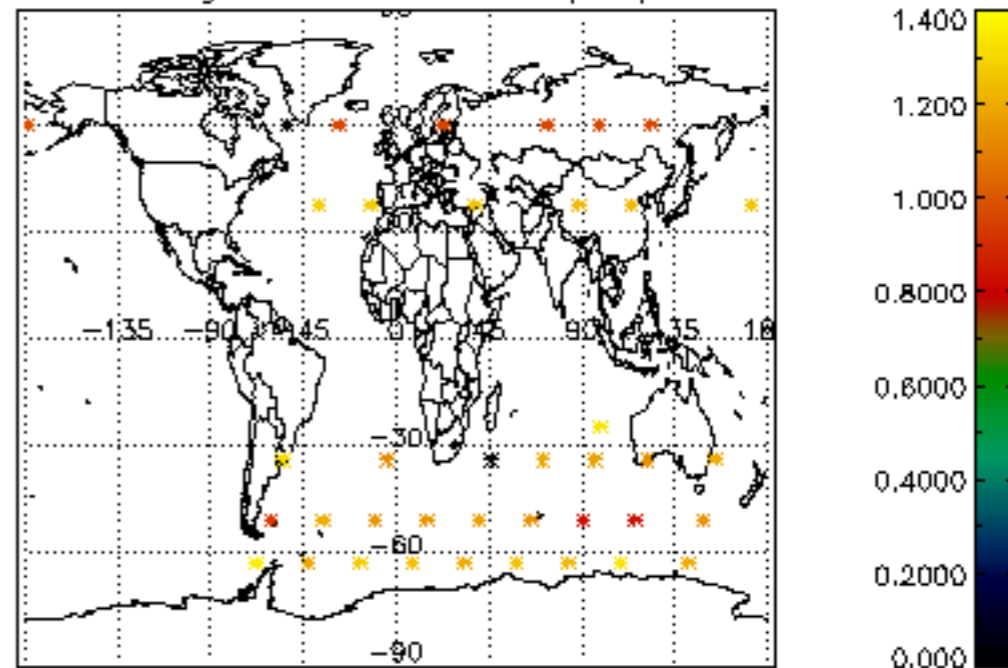
Percentage of saturation errors per profile



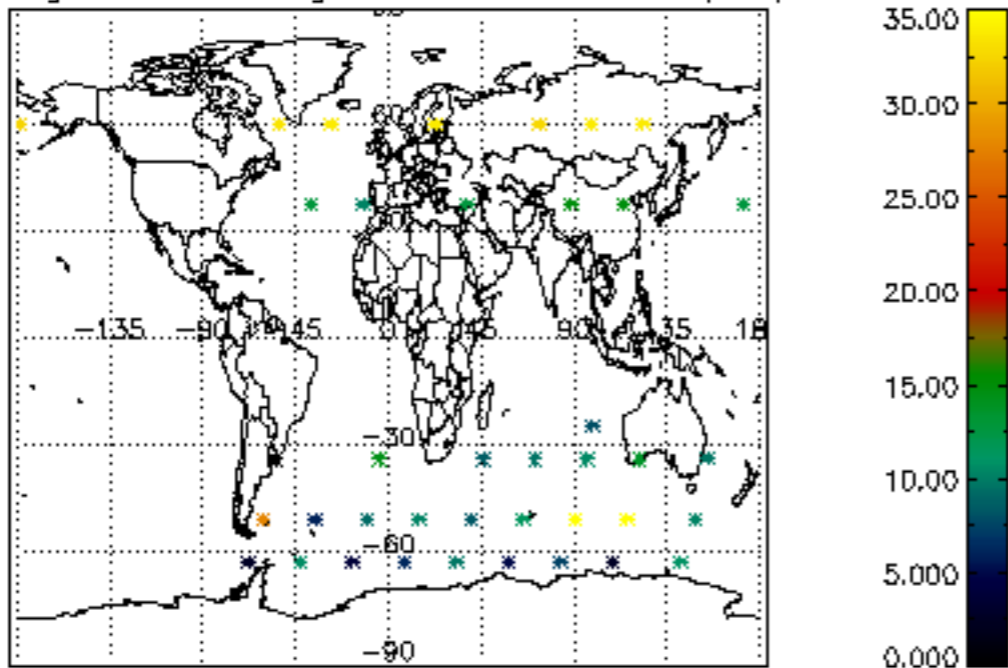
Percentage of cosmic ray hits per profile



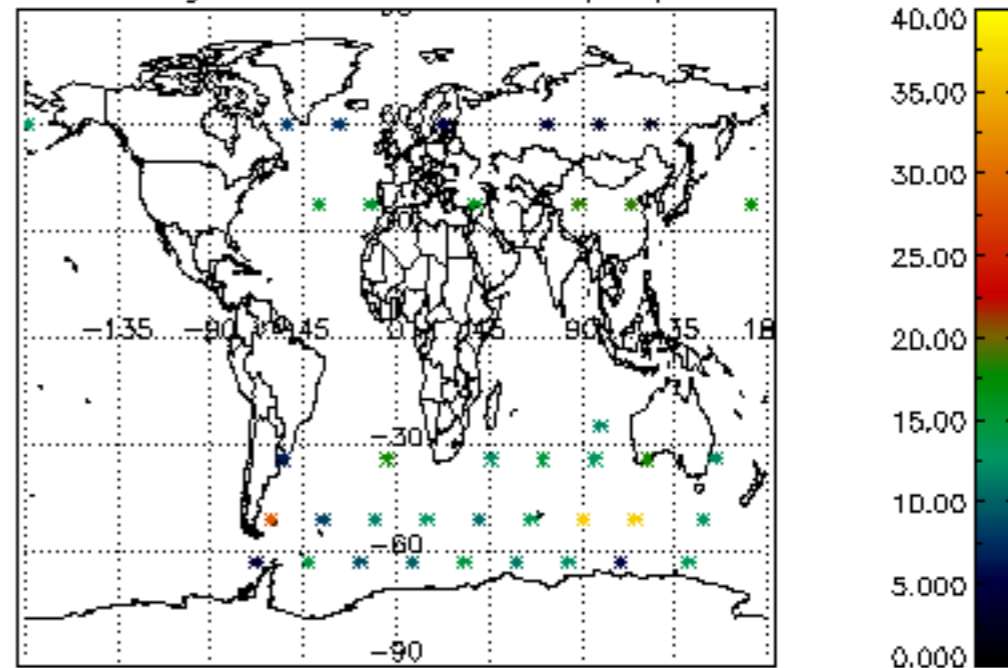
Percentage of datation errors per profile

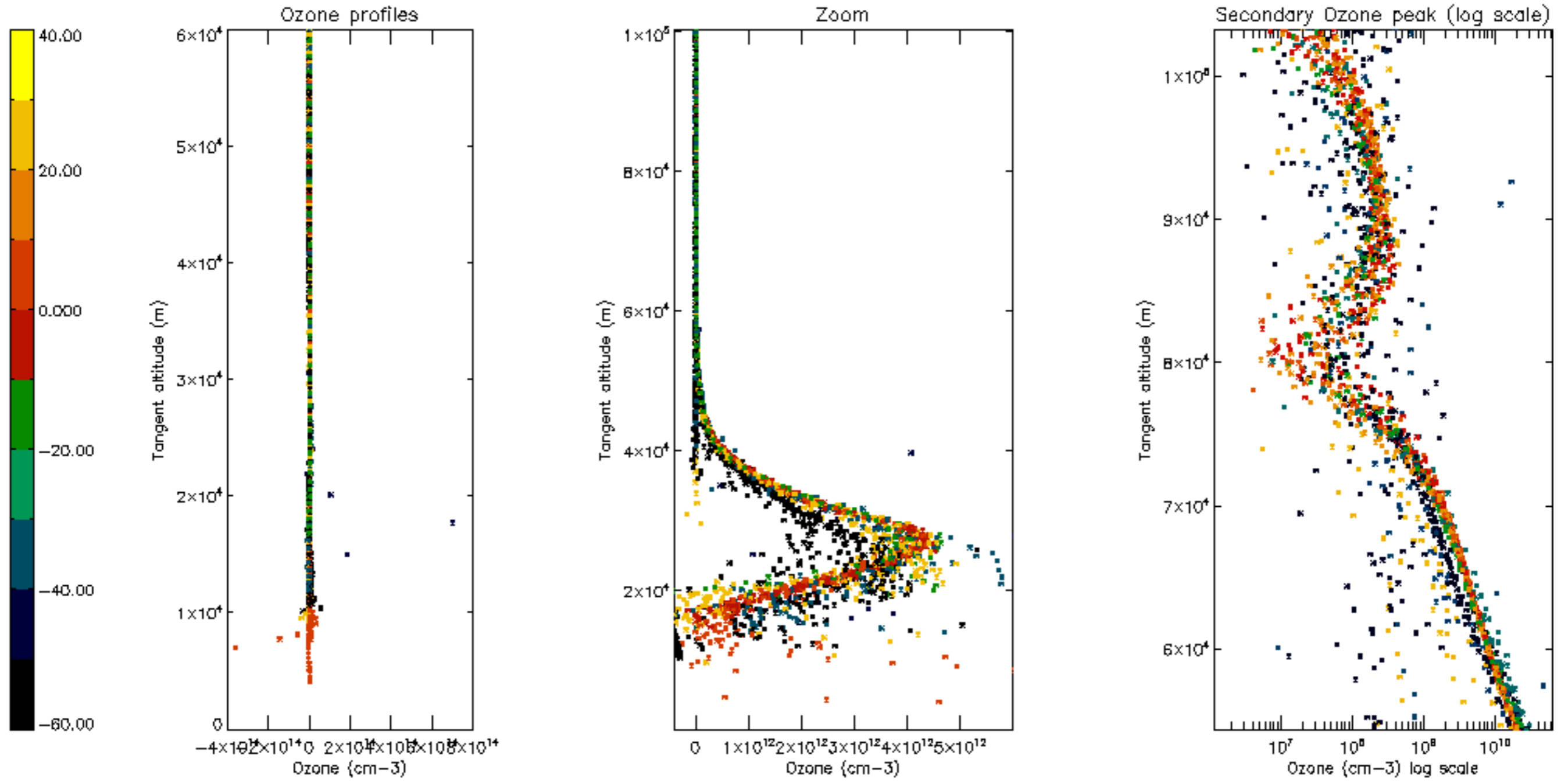


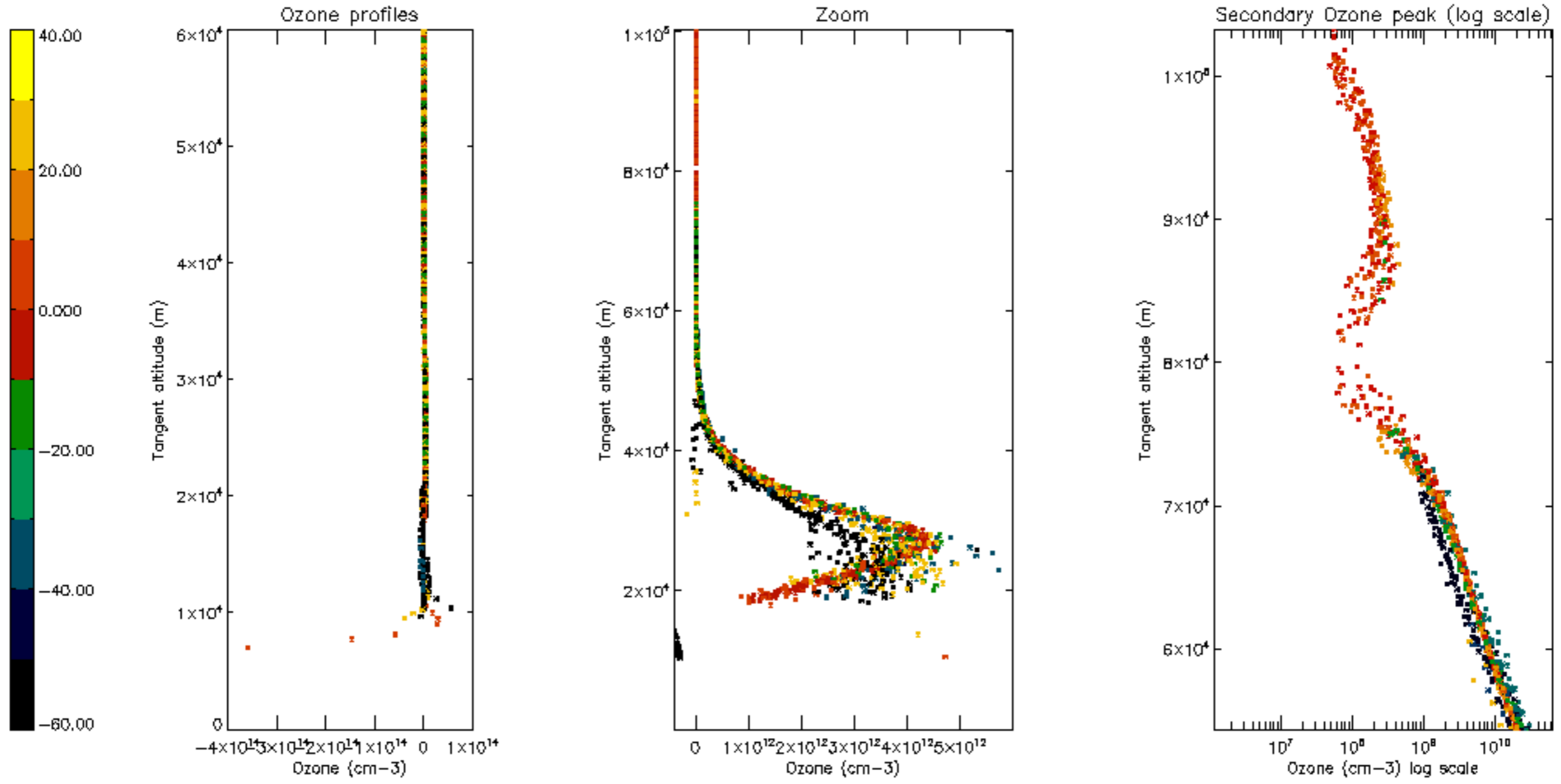
Percentage of star falling outside central band per profile

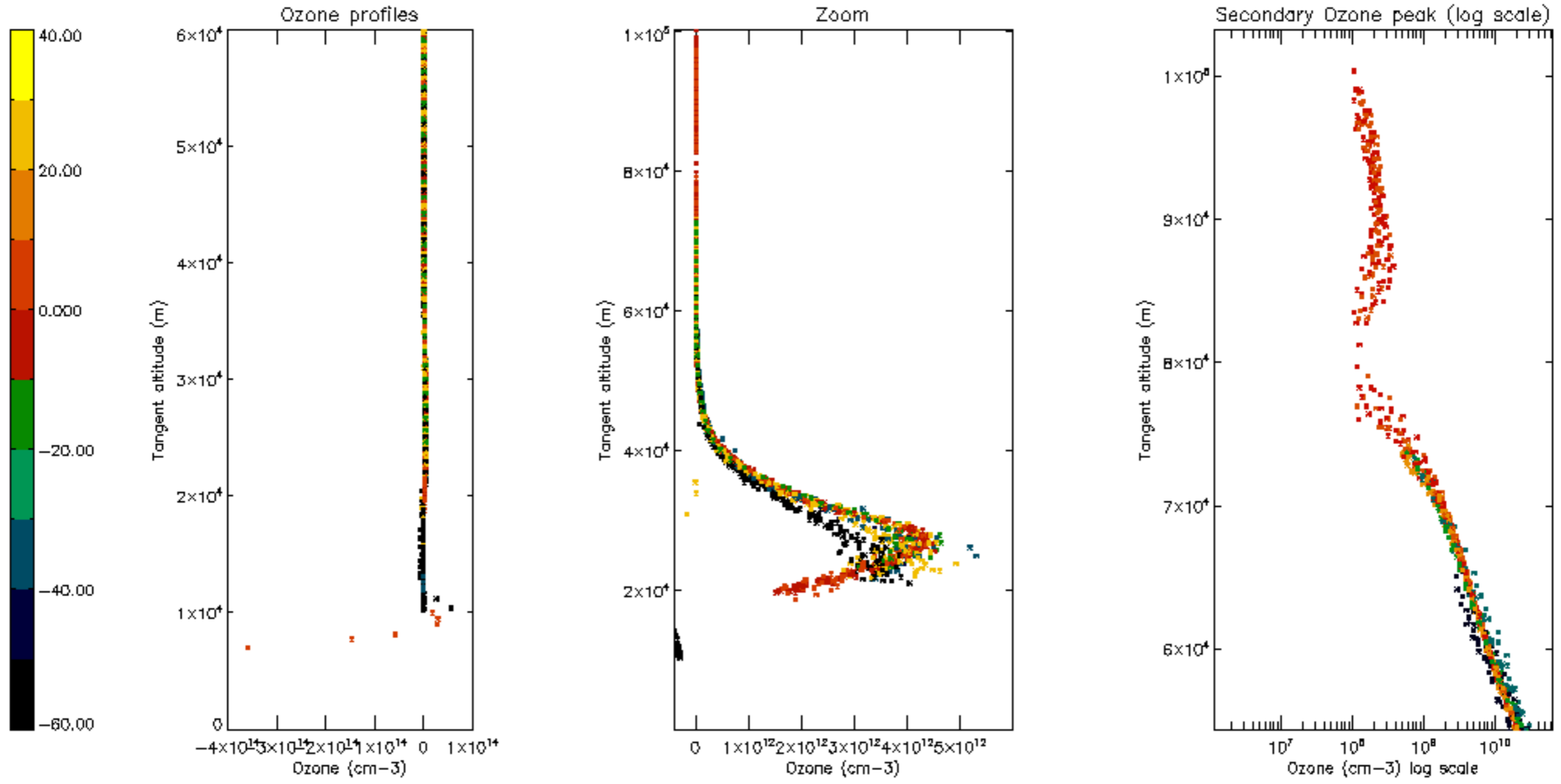


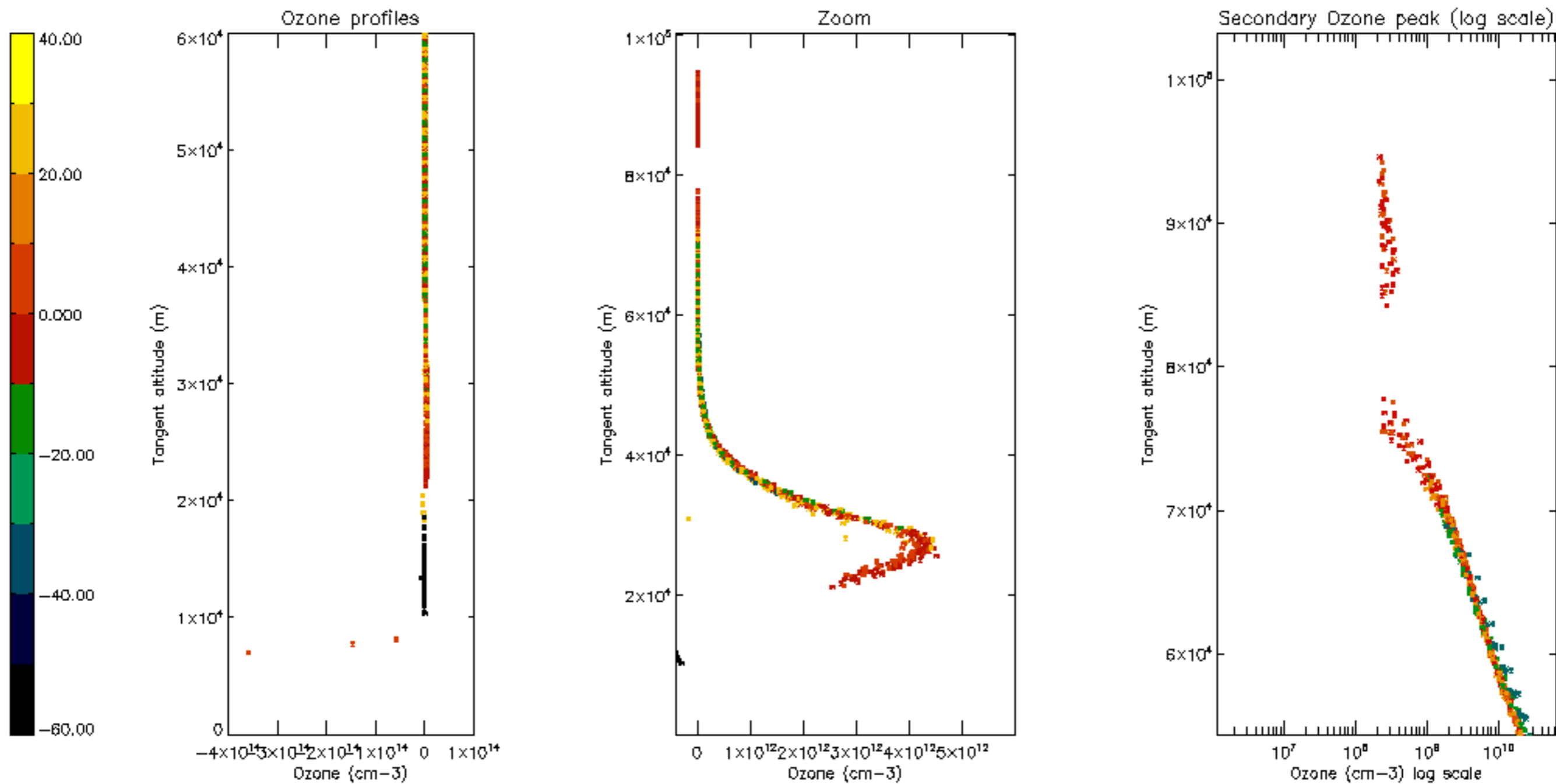
Percentage of saturation errors per profile

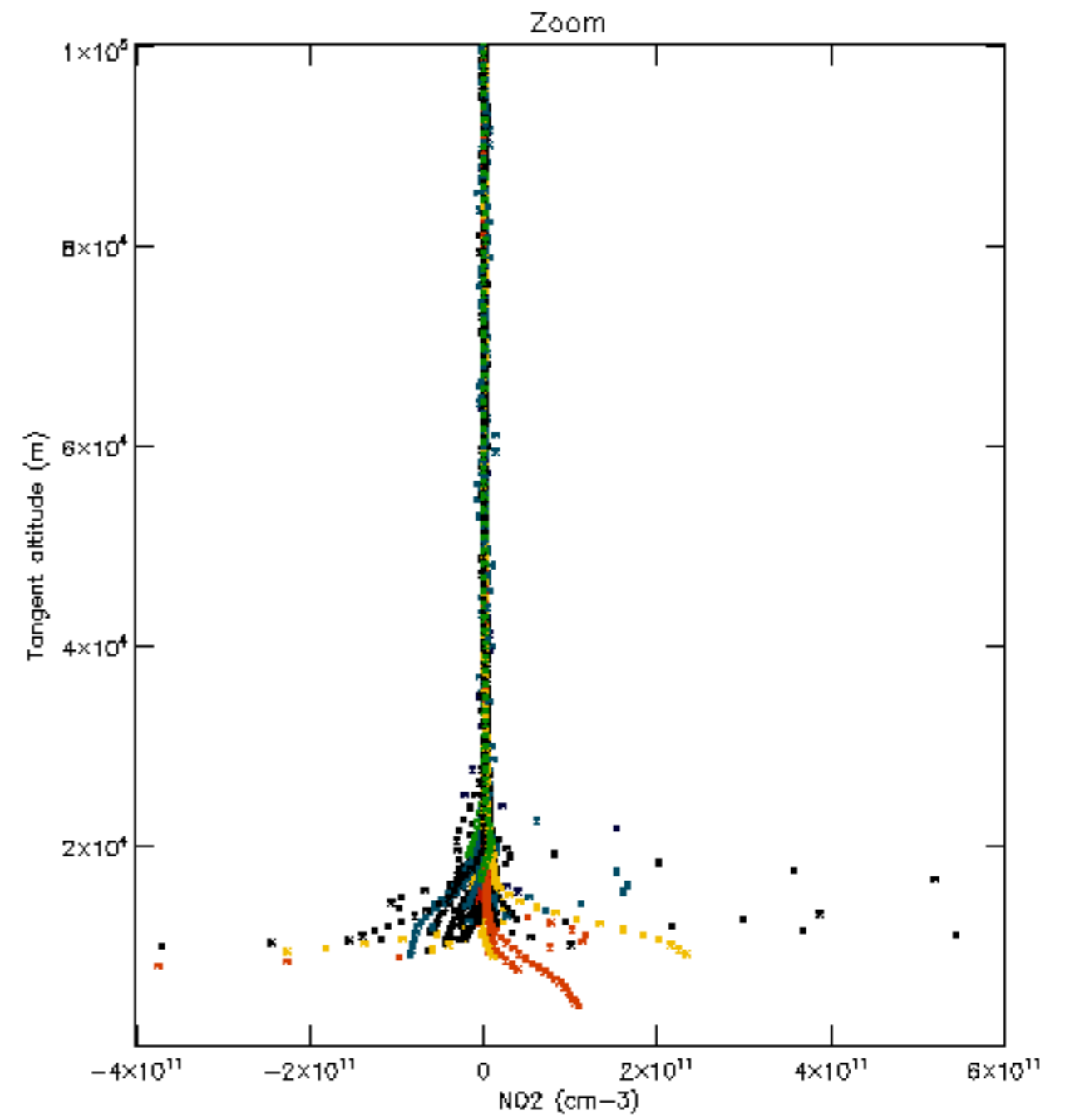
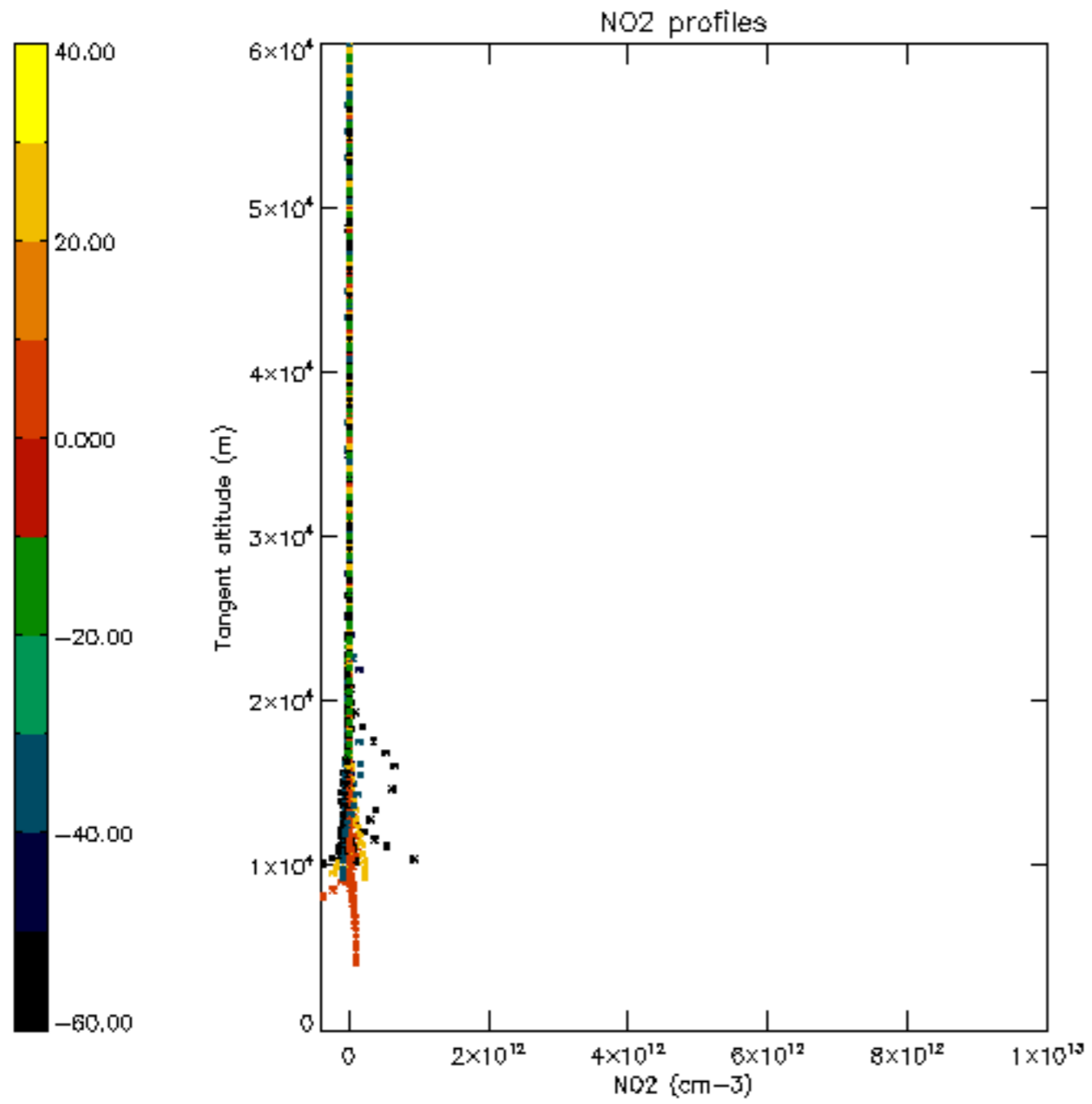


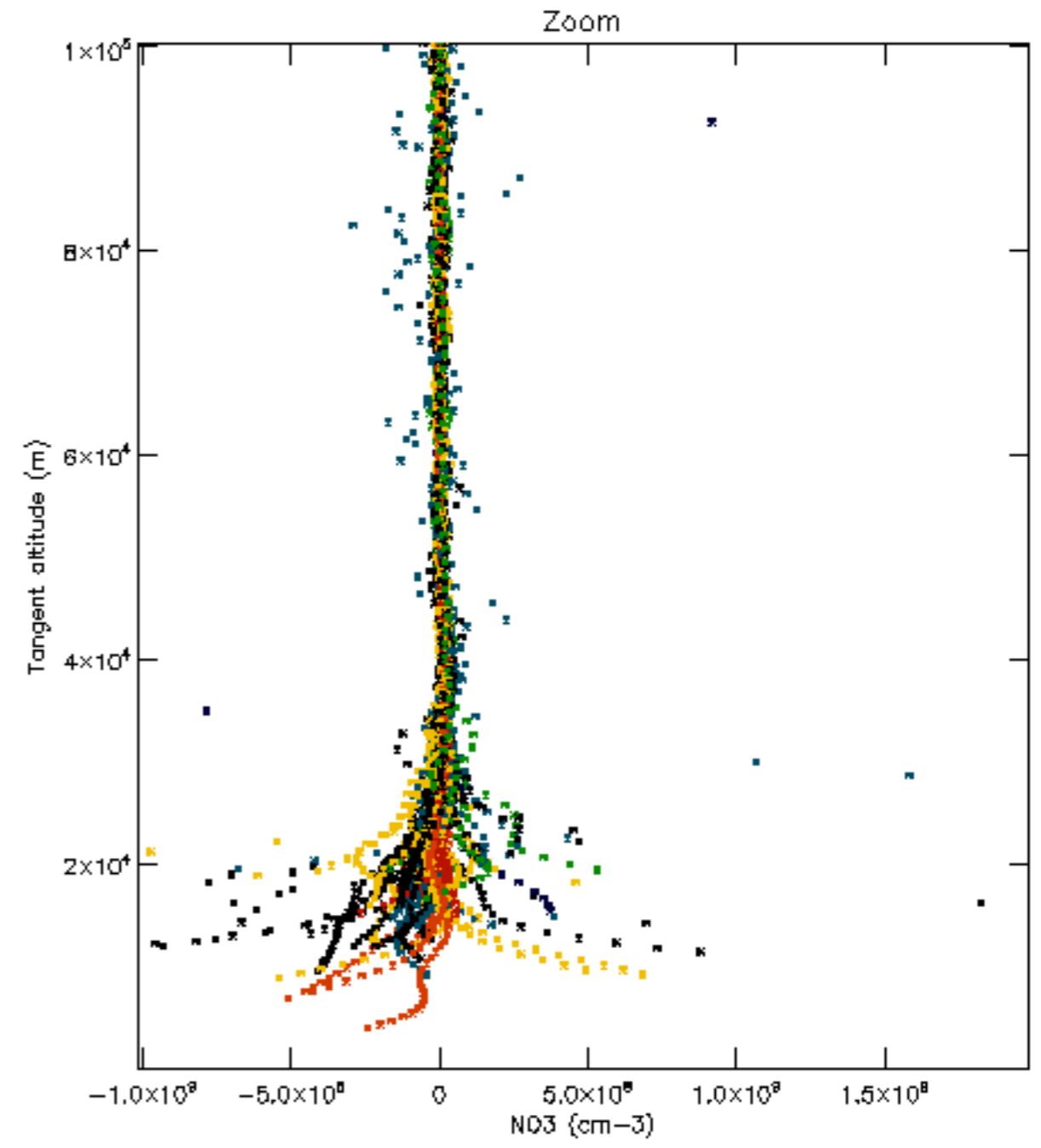
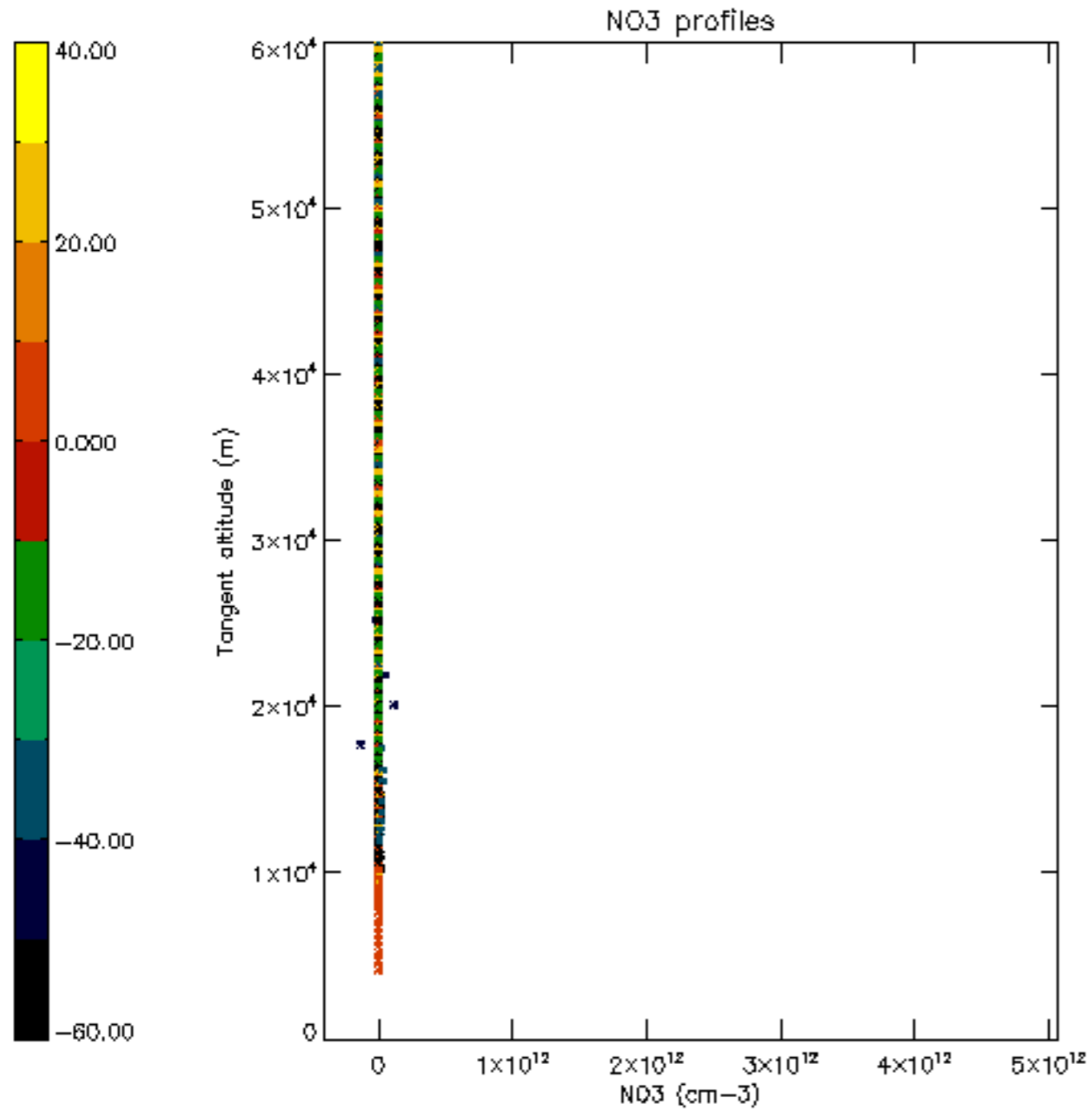


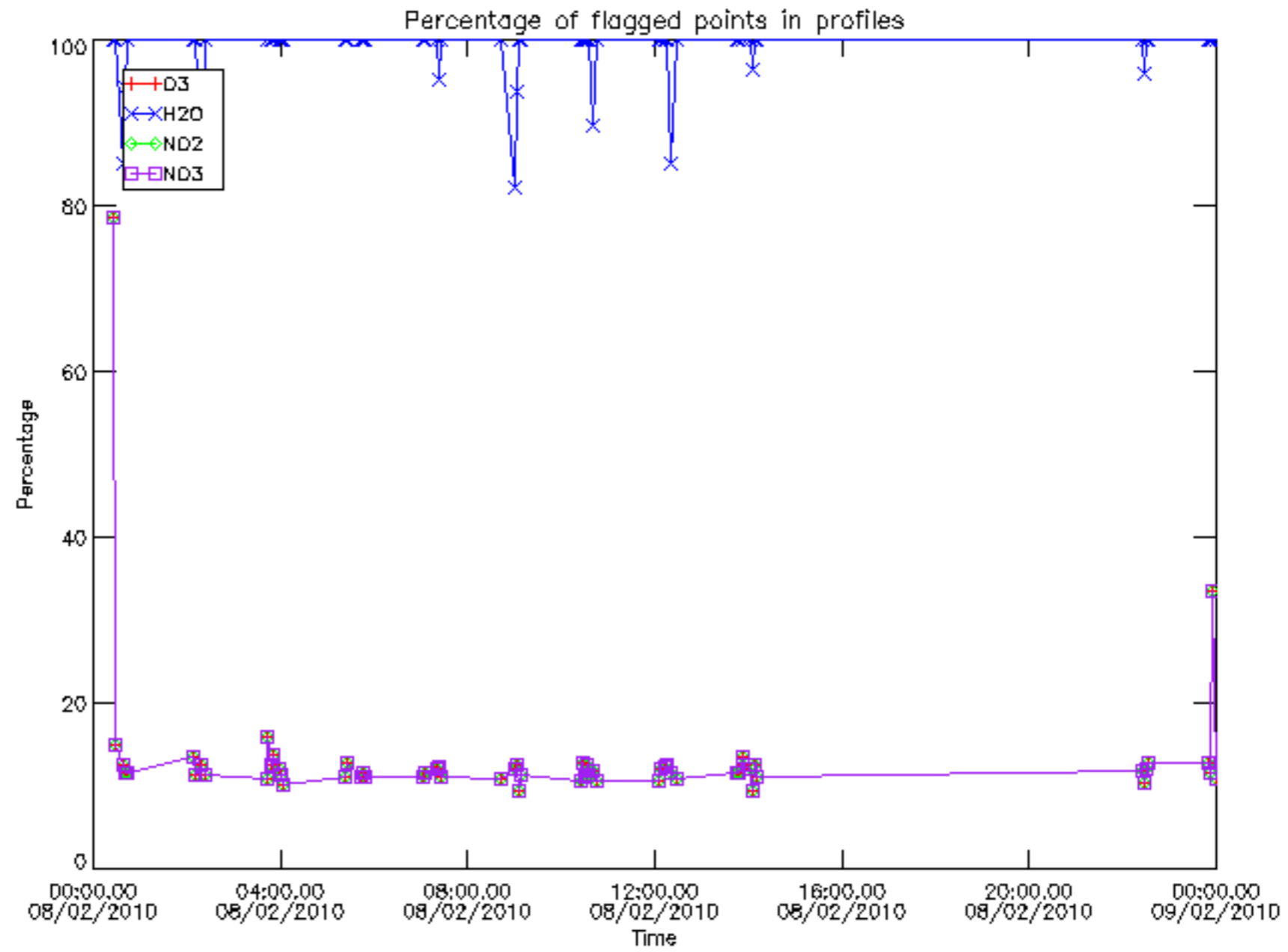




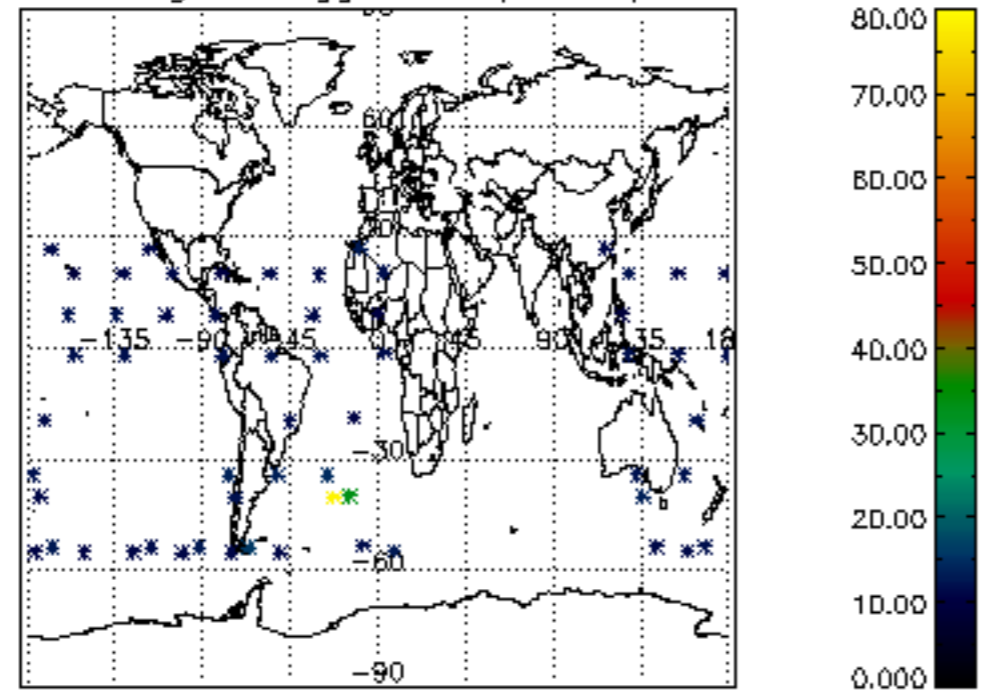




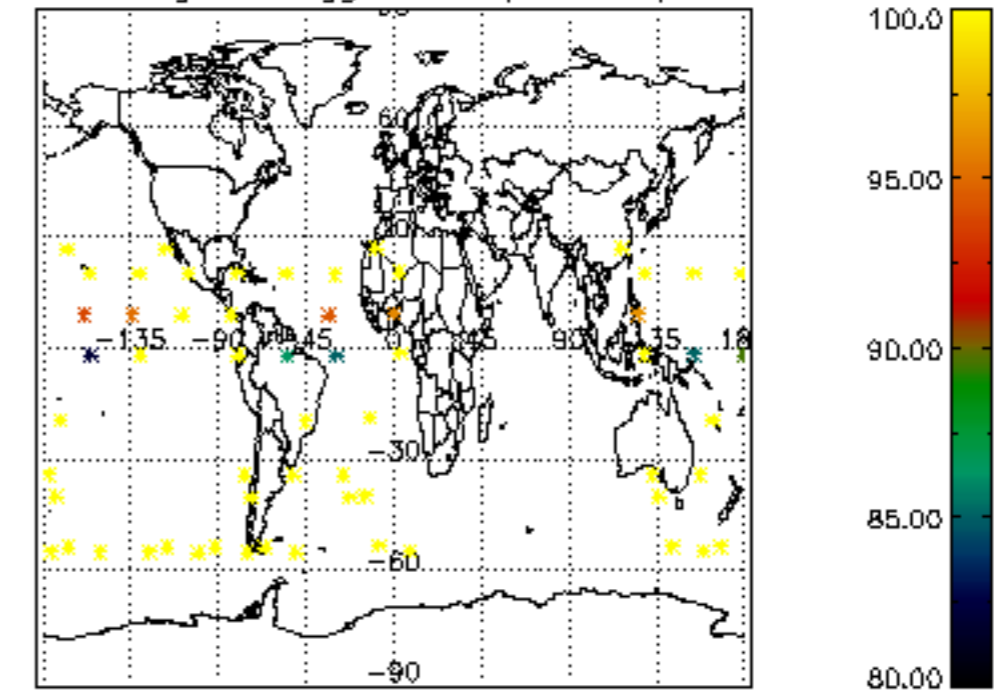




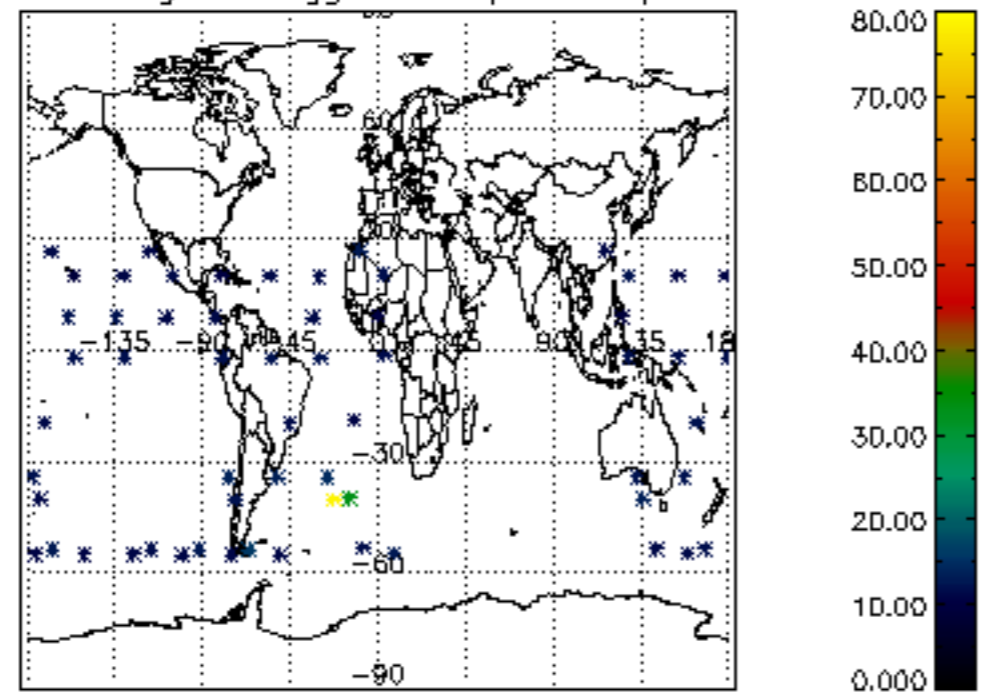
Percentage of flagged data per D3 profile



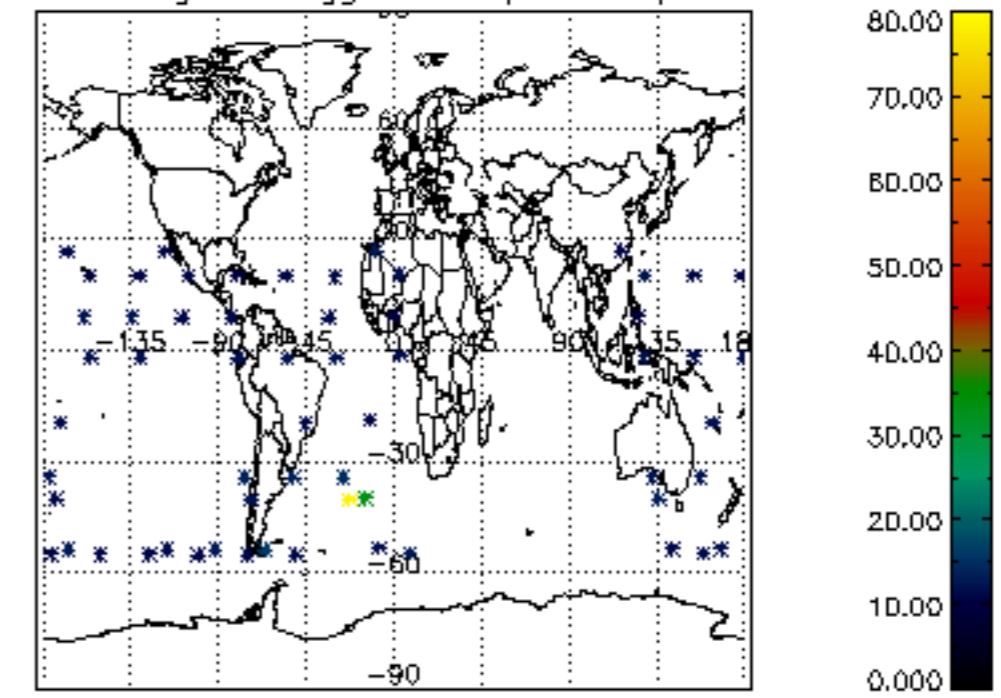
Percentage of flagged data per H2O profile

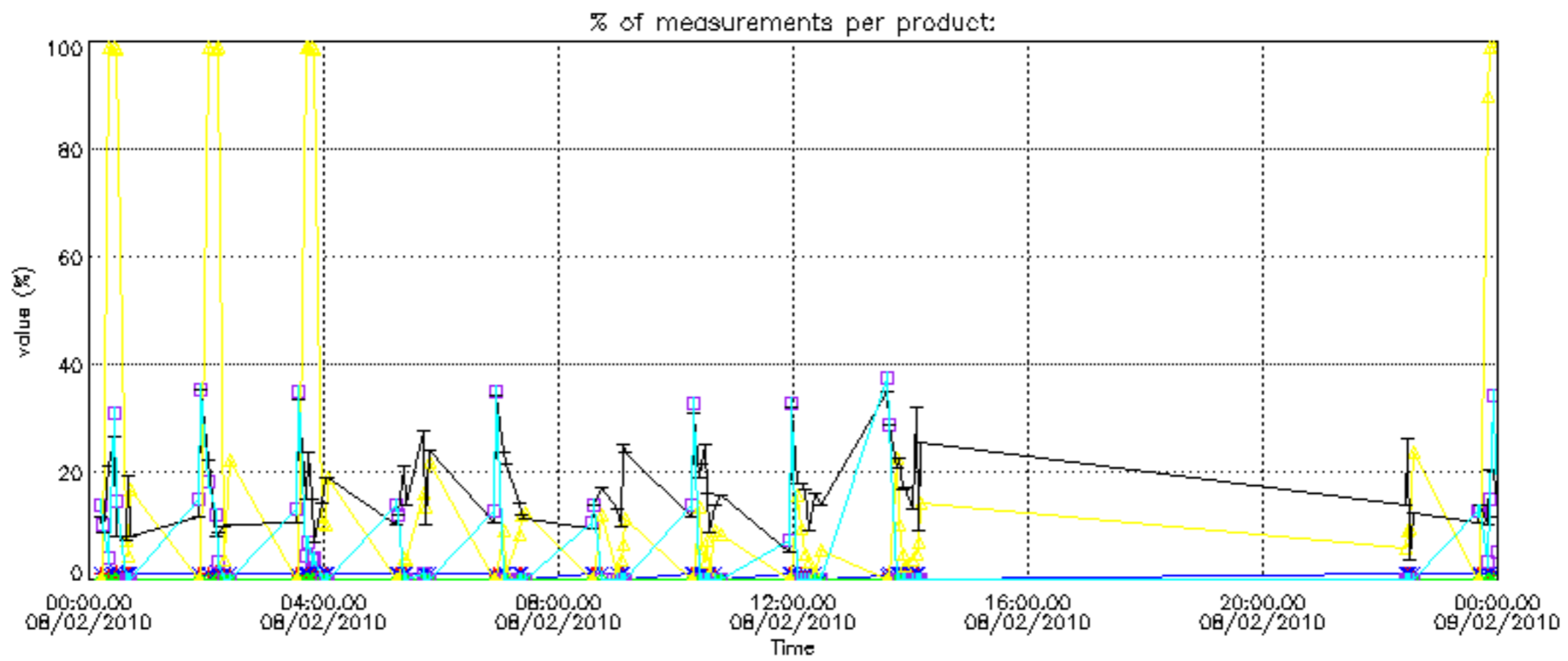
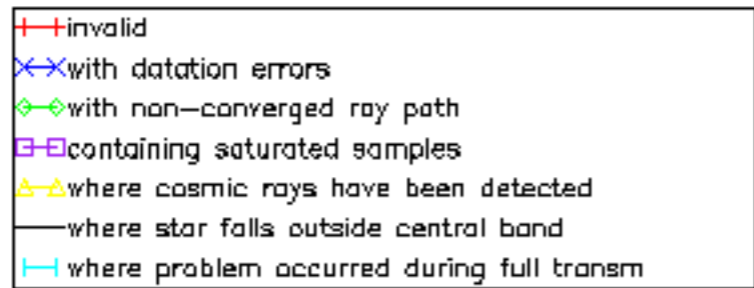


Percentage of flagged data per NO2 profile

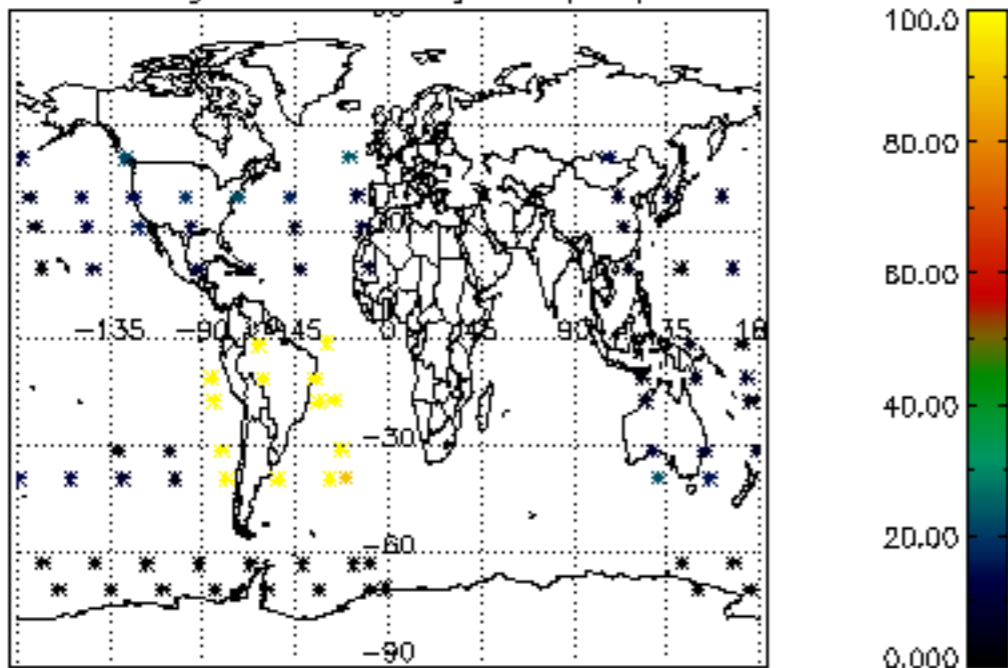


Percentage of flagged data per NO3 profile

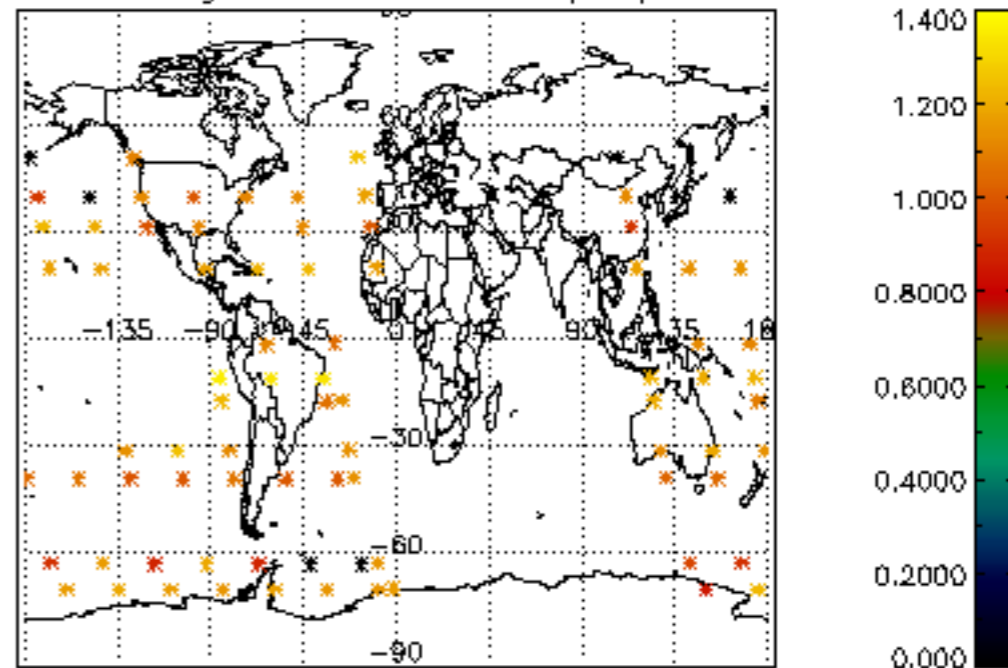




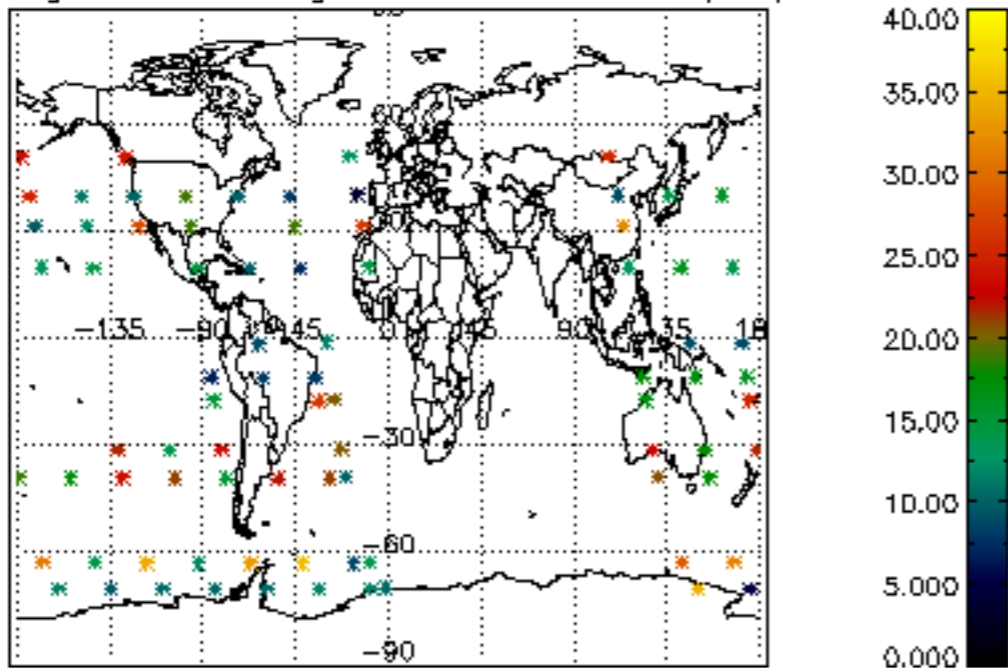
Percentage of cosmic ray hits per profile



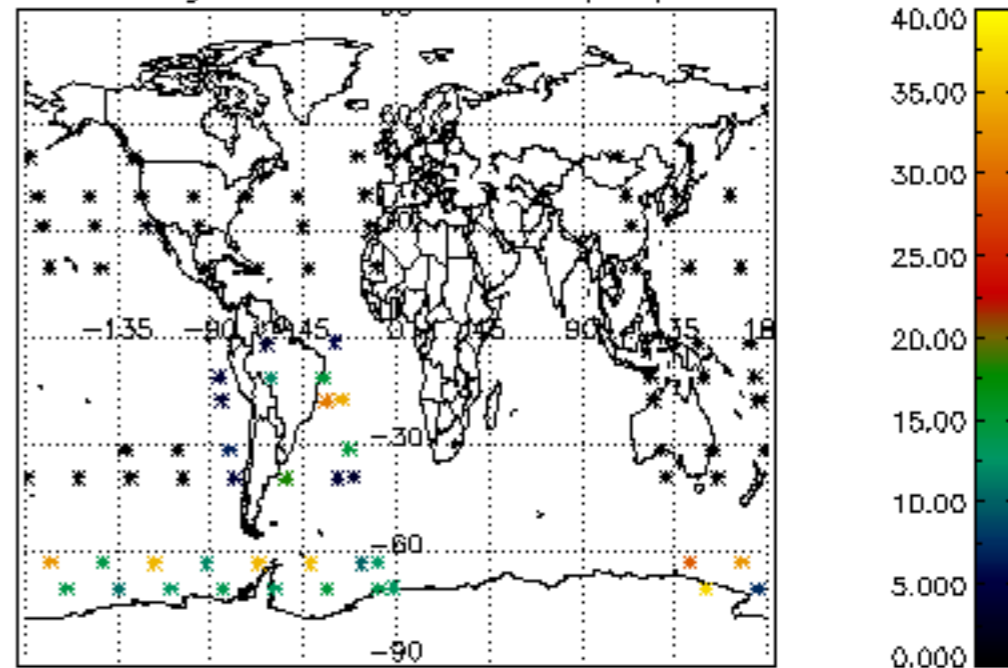
Percentage of datation errors per profile



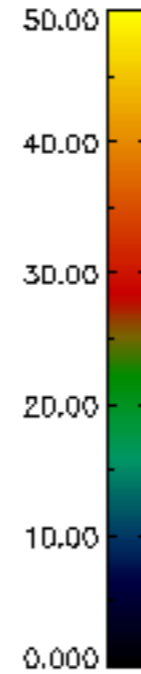
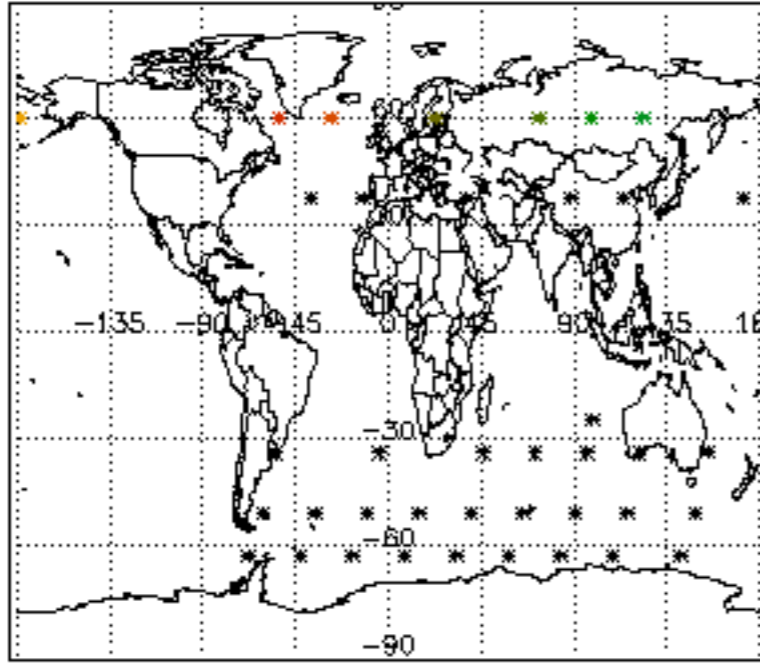
Percentage of star falling outside central band per profile



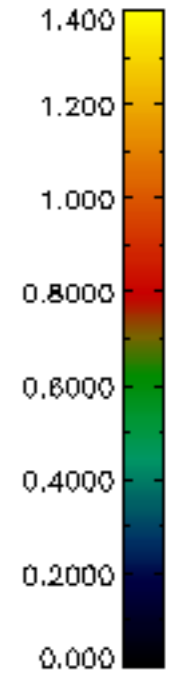
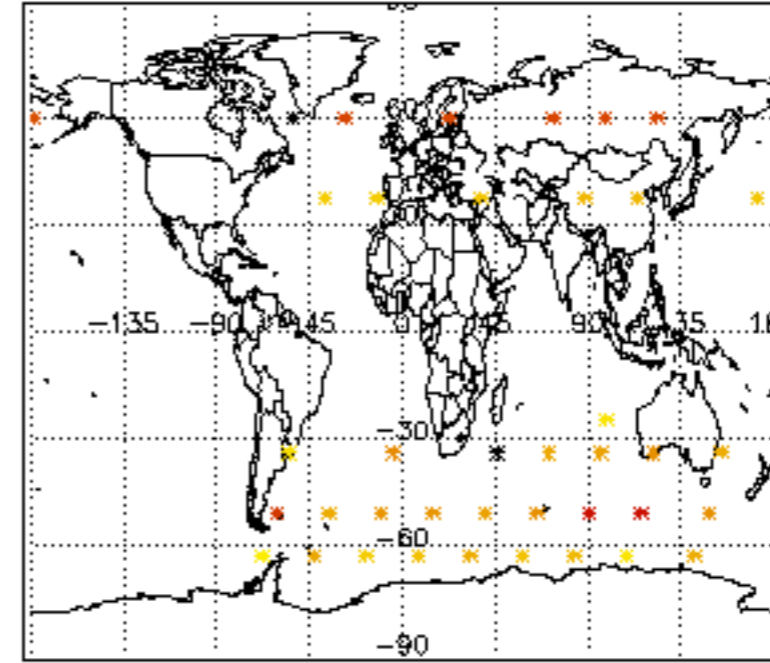
Percentage of saturation errors per profile



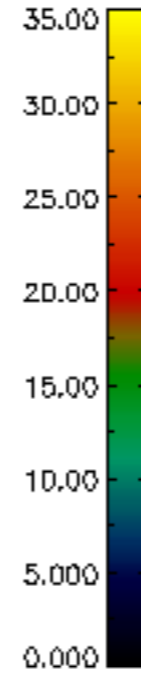
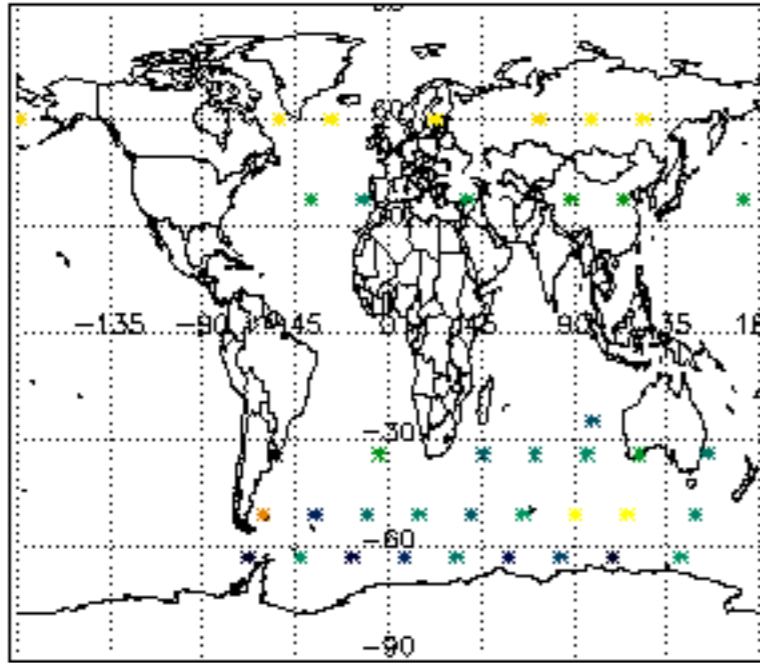
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

