

GOMOS Level 2 Daily Report

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

Item	Value
Time of report generation	19APR2013 09:23:05
Data source version	GOMOS/6.01
Start time of products	13-02-2003 (13FEB2003 00:00:00)
Stop time of products	14-02-2003 (14FEB2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	39
Nb of prods with errors	0

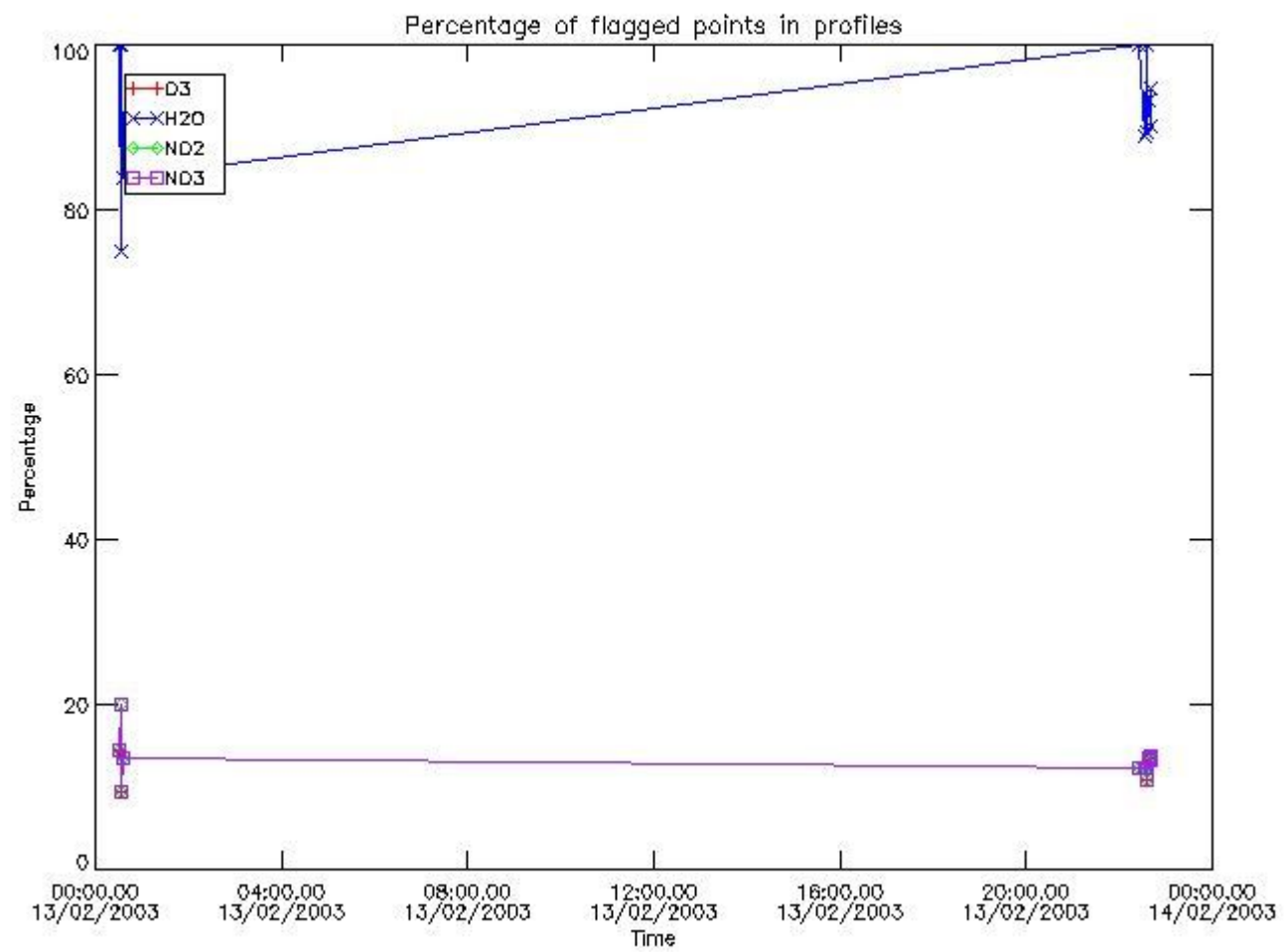
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030213_000057_000000362013_00431_04994_5316.N1	13-FEB-2003 00:00:57	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	4994	No
2	GOM_NL__2PRFIN20030213_000455_000000412013_00431_04994_5317.N1	13-FEB-2003 00:04:55	Bright	41.000	130	23Bet Dra	2.7990	5800.0	82	4994	No
3	GOM_NL__2PRFIN20030213_000644_000000352013_00431_04994_5318.N1	13-FEB-2003 00:06:44	Bright	34.500	144	18Del Cyg	2.8600	11000.	69	4994	No
4	GOM_NL__2PRFIN20030213_000902_000000362013_00431_04994_5319.N1	13-FEB-2003 00:09:02	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	4994	No
5	GOM_NL__2PRFIN20030213_001208_000000532013_00431_04994_5320.N1	13-FEB-2003 00:12:08	Bright	53.000	133	40Zet Her	2.8070	6000.0	106	4994	No
6	GOM_NL__2PRFIN20030213_001554_000001092013_00431_04994_5321.N1	13-FEB-2003 00:15:54	Twilight	108.50	67	5Alp CrB	2.2210	11000.	217	4994	No
7	GOM_NL__2PRFIN20030213_002008_000000472013_00431_04994_5322.N1	13-FEB-2003 00:20:08	Bright	46.500	126	60Bet Oph	2.7700	4250.0	93	4994	No
8	GOM_NL__2PRFIN20030213_002704_000000402013_00431_04994_5323.N1	13-FEB-2003 00:27:04	Twilight	39.500	57	34Sig Sgr	2.0660	26000.	79	4994	No
9	GOM_NL__2PRFIN20030213_002947_000000392013_00431_04994_5324.N1	13-FEB-2003 00:29:47	Dark	39.000	38	20Eps Sgr	1.8360	11000.	78	4994	No
10	GOM_NL__2PRFIN20030213_003212_000000682013_00431_04994_5325.N1	13-FEB-2003 00:32:12	Dark	68.000	16	21Alp Sco	1.0200	3000.0	136	4994	No
11	GOM_NL__2PRFIN20030213_003414_000000602013_00431_04994_5326.N1	13-FEB-2003 00:34:14	Dark	60.000	158	6Pi Sco	2.9060	28000.	120	4994	No
12	GOM_NL__2PRFIN20030213_003623_000000382013_00431_04994_5327.N1	13-FEB-2003 00:36:23	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	4994	No
13	GOM_NL__2PRFIN20030213_222610_000000462013_00445_05008_5297.N1	13-FEB-2003 22:26:10	Dark	46.000	131	Gam Lup	2.8000	26000.	92	5008	No
14	GOM_NL__2PRFIN20030213_223138_000000422013_00445_05008_5298.N1	13-FEB-2003 22:31:38	Dark	41.500	10	Bet Cen	0.61000	28000.	83	5008	No
15	GOM_NL__2PRFIN20030213_223446_000000422013_00445_05008_5299.N1	13-FEB-2003 22:34:46	Dark	41.500	12	Alp1Cru	0.77500	30000.	83	5008	No
16	GOM_NL__2PRFIN20030213_223618_000000482013_00445_05008_5300.N1	13-FEB-2003 22:36:18	Dark	47.500	64	Gam Cen	2.2000	10600.	95	5008	No
17	GOM_NL__2PRFIN20030213_223802_000000382013_00445_05008_5301.N1	13-FEB-2003 22:38:02	Dark	38.000	159	Ups Car	2.9200	7200.0	76	5008	No
18	GOM_NL__2PRFIN20030213_223956_000000392013_00445_05008_5302.N1	13-FEB-2003 22:39:56	Dark	38.500	71	lot Car	2.2460	7700.0	77	5008	No
19	GOM_NL__2PRFIN20030213_224134_000000412013_00445_05008_5303.N1	13-FEB-2003 22:41:34	Dark	41.000	46	Del Vel	1.9540	10600.	82	5008	No
20	GOM_NL__2PRFIN20030213_224358_000000402013_00445_05008_5304.N1	13-FEB-2003 22:43:58	Straylight	39.500	34	Gam2Vel	1.7930	23000.	79	5008	No
21	GOM_NL__2PRFIN20030213_224603_000000382013_00445_05008_5305.N1	13-FEB-2003 22:46:03	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	5008	No
22	GOM_NL__2PRFIN20030213_225020_000000392013_00445_05008_5306.N1	13-FEB-2003 22:50:20	Straylight	39.000	132	15Rho Pup	2.8030	6900.0	78	5008	No
23	GOM_NL__2PRFIN20030213_225420_000000532013_00445_05008_5307.N1	13-FEB-2003 22:54:20	Straylight	52.500	48	30Alp Hya	1.9770	4100.0	105	5008	No
24	GOM_NL__2PRFIN20030213_225848_000000482013_00445_05008_5308.N1	13-FEB-2003 22:58:48	Bright	48.000	8	10Alp CMi	0.40000	6500.0	96	5008	No
25	GOM_NL__2PRFIN20030213_230244_000000382013_00445_05008_5309.N1	13-FEB-2003 23:02:44	Bright	38.000	44	24Gam Gem	1.9280	11000.	76	5008	No
26	GOM_NL__2PRFIN20030213_230507_000000382013_00445_05008_5310.N1	13-FEB-2003 23:05:07	Bright	37.500	17	78Bet Gem	1.1610	4500.0	75	5008	No
27	GOM_NL__2PRFIN20030213_231107_000000362013_00445_05008_5311.N1	13-FEB-2003 23:11:07	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	5008	No
28	GOM_NL__2PRFIN20030213_231530_000000552013_00445_05008_5312.N1	13-FEB-2003 23:15:30	Bright	54.500	174	52Psi UMa	3.0040	4400.0	109	5008	No
29	GOM_NL__2PRFIN20030213_231812_000000452013_00445_05008_5313.N1	13-FEB-2003 23:18:12	Bright	45.000	36	50Alp UMa	1.8000	6300.0	90	5008	No
30	GOM_NL__2PRFIN20030213_232231_000000362013_00445_05008_5314.N1	13-FEB-2003 23:22:31	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	5008	No
31	GOM_NL__2PRFIN20030213_232444_000000412013_00445_05008_5315.N1	13-FEB-2003 23:24:44	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	5008	No
32	GOM_NL__2PRFIN20030213_232923_000000382013_00445_05008_5316.N1	13-FEB-2003 23:29:23	Bright	38.000	89	5Alp Cep	2.4510	8000.0	76	5008	No
33	GOM_NL__2PRFIN20030213_233317_000000412013_00445_05008_5317.N1	13-FEB-2003 23:33:17	Bright	41.000	130	23Bet Dra	2.7990	5800.0	82	5008	No
34	GOM_NL__2PRFIN20030213_233510_000000352013_00445_05008_5318.N1	13-FEB-2003 23:35:10	Bright	35.000	144	18Del Cyg	2.8600	11000.	70	5008	No
35	GOM_NL__2PRFIN20030213_233727_000000392013_00445_05008_5319.N1	13-FEB-2003 23:37:27	Bright	39.000	5	3Alp Lyr	0.033000	11000.	78	5008	No
36	GOM_NL__2PRFIN20030213_234034_000000542013_00445_05008_5320.N1	13-FEB-2003 23:40:34	Bright	54.000	133	40Zet Her	2.8070	6000.0	108	5008	No
37	GOM_NL__2PRFIN20030213_234428_000001062013_00445_05008_5321.N1	13-FEB-2003 23:44:28	Twilight	105.50	67	5Alp CrB	2.2210	11000.	211	5008	No
38	GOM_NL__2PRFIN20030213_234838_000000492013_00445_05008_5322.N1	13-FEB-2003 23:48:38	Bright	49.000	126	60Bet Oph	2.7700	4250.0	98	5008	No
39	GOM_NL__2PRFIN20030213_235531_000000412013_00445_05008_5323.N1	13-FEB-2003 23:55:31	Twilight	41.000	57	34Sig Sgr	2.0660	26000.	82	5008	No

3. Quality information per product

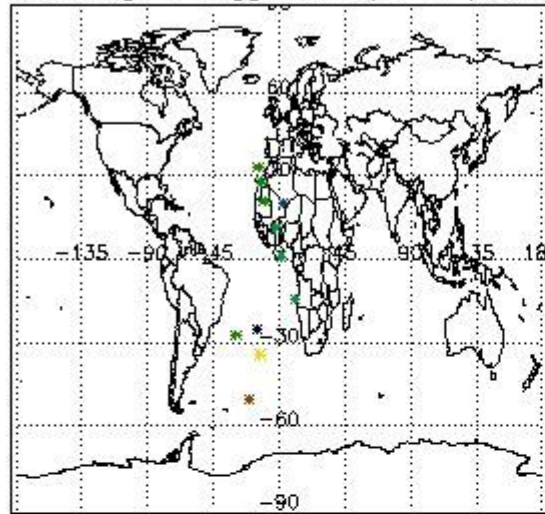
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

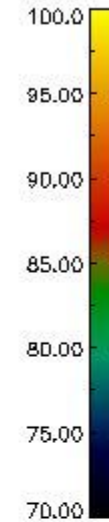
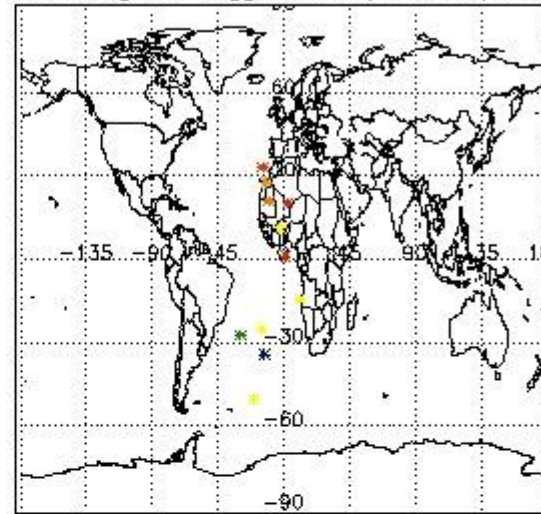


3.2 Plot quality information per product (world map)

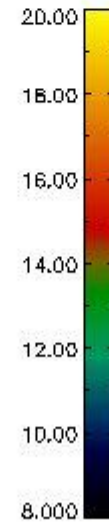
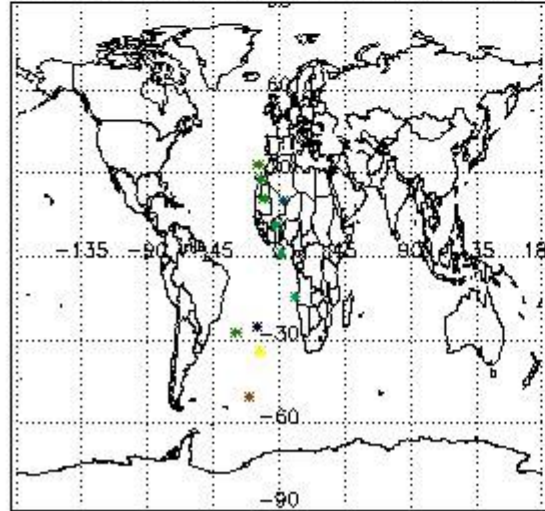
Percentage of flagged data per O3 profile



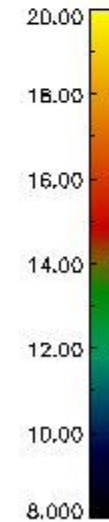
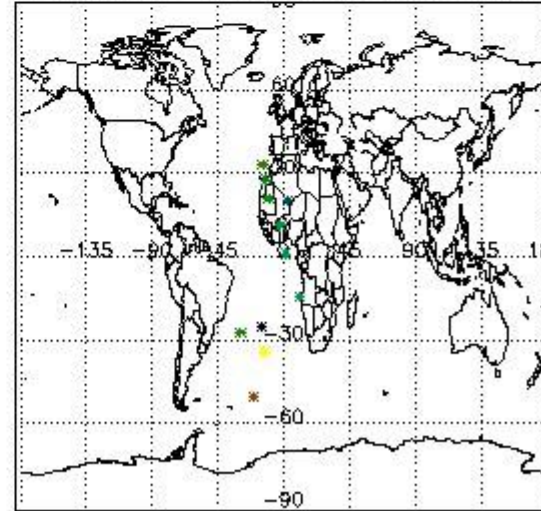
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

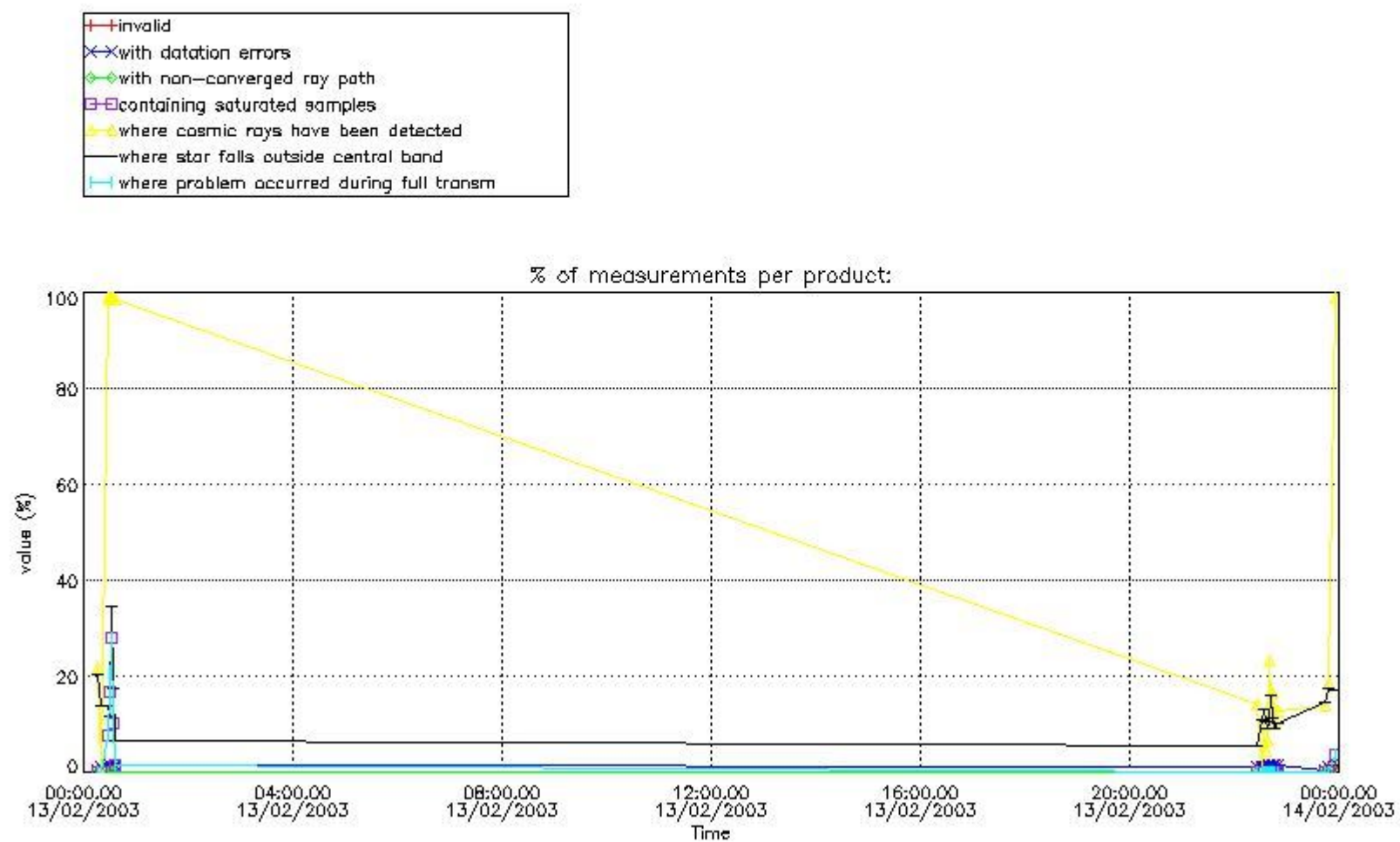


4. Level 1 quality information per product

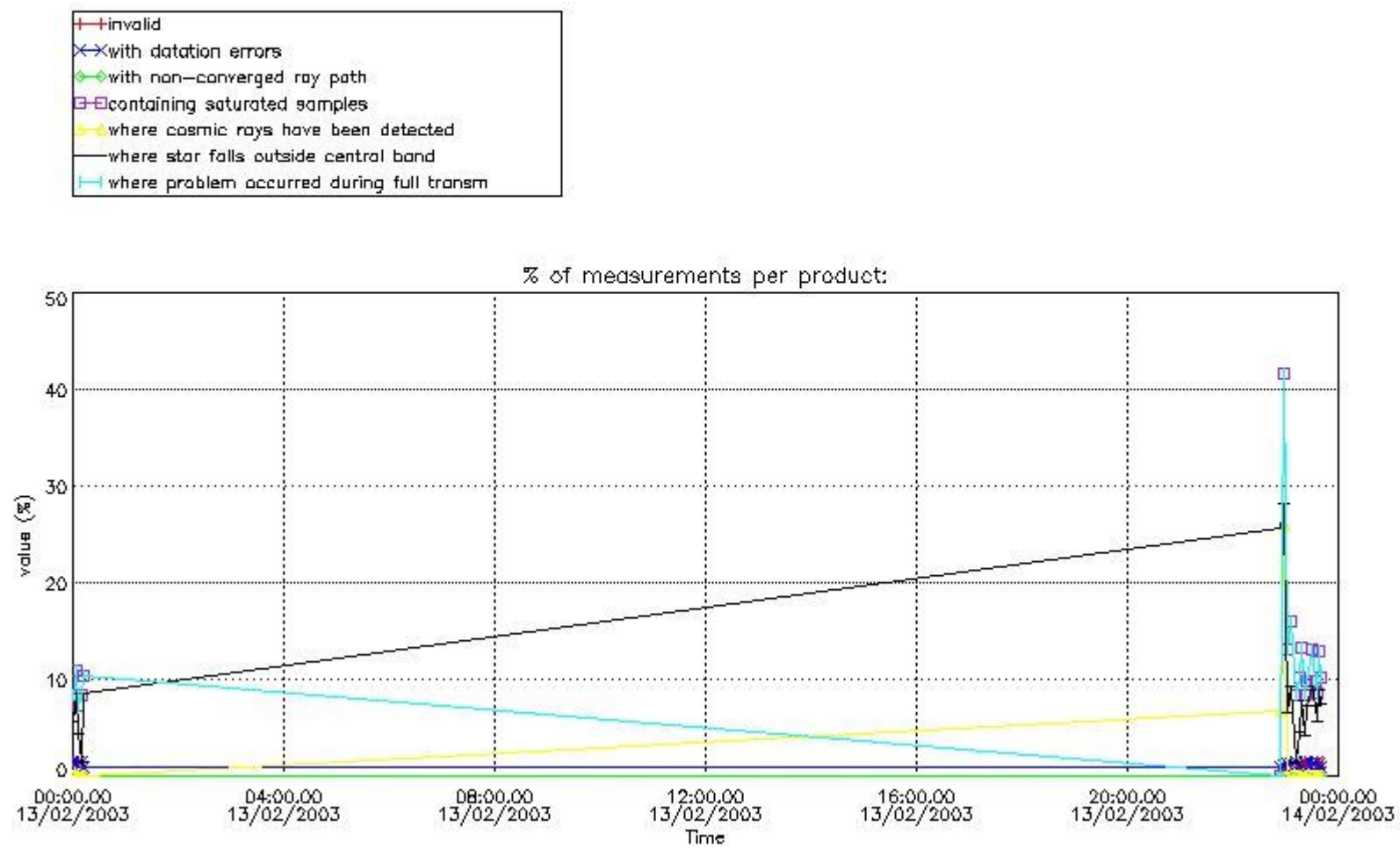
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



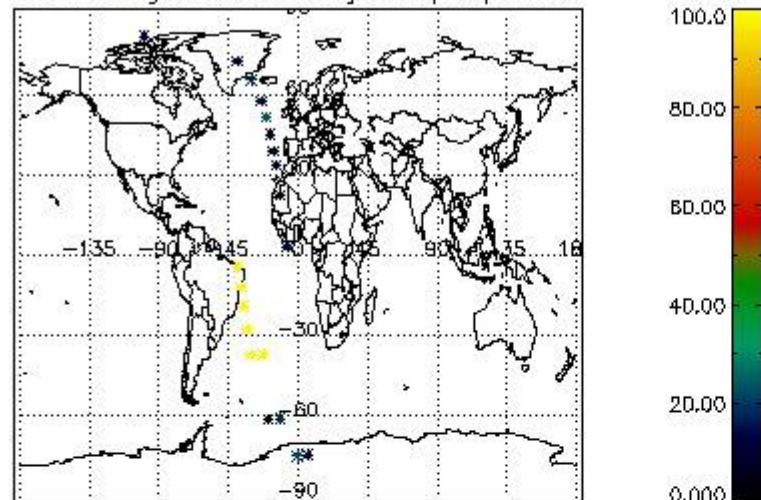
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



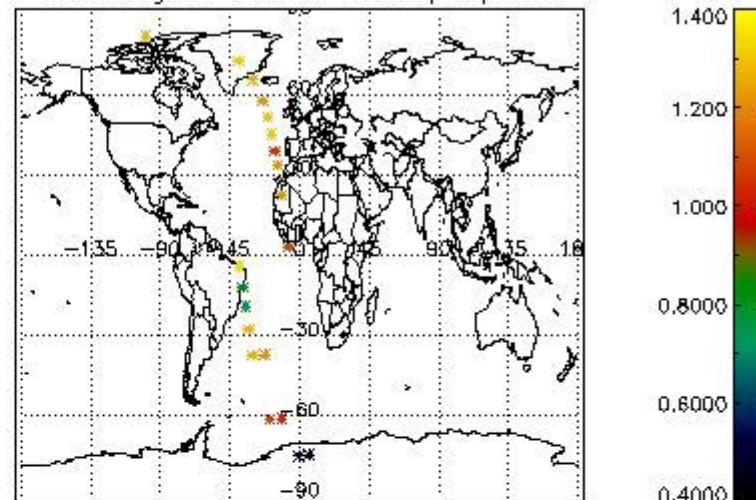
4.2 Plot quality information per product coming from level 1b processing (world map)

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

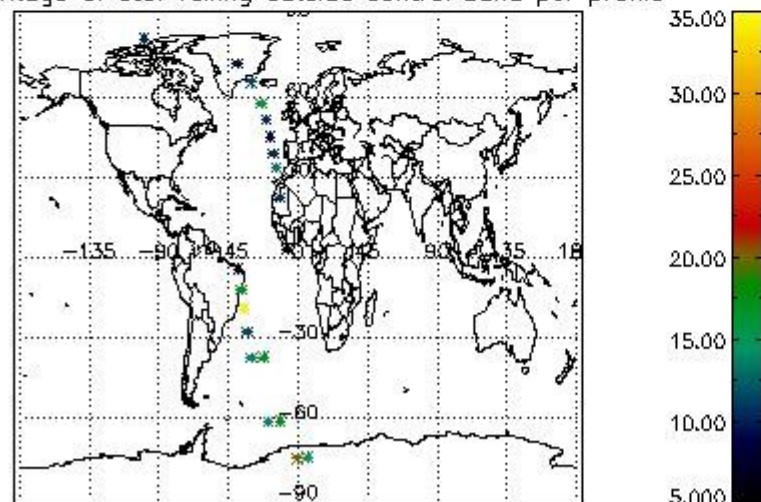
Percentage of cosmic ray hits per profile



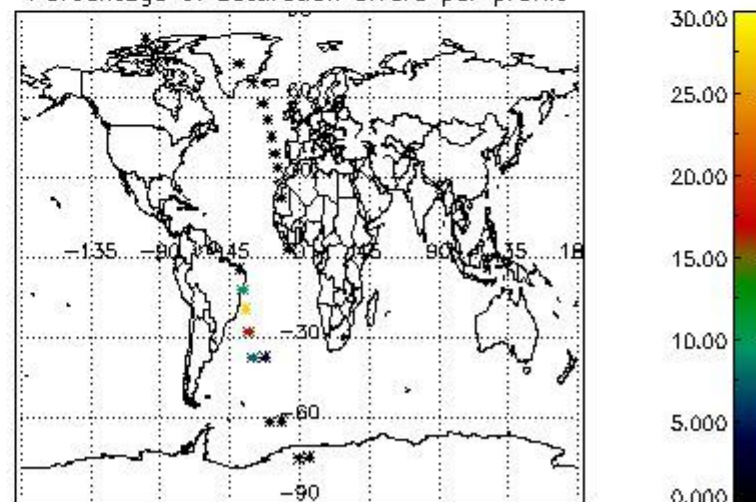
Percentage of datation errors per profile



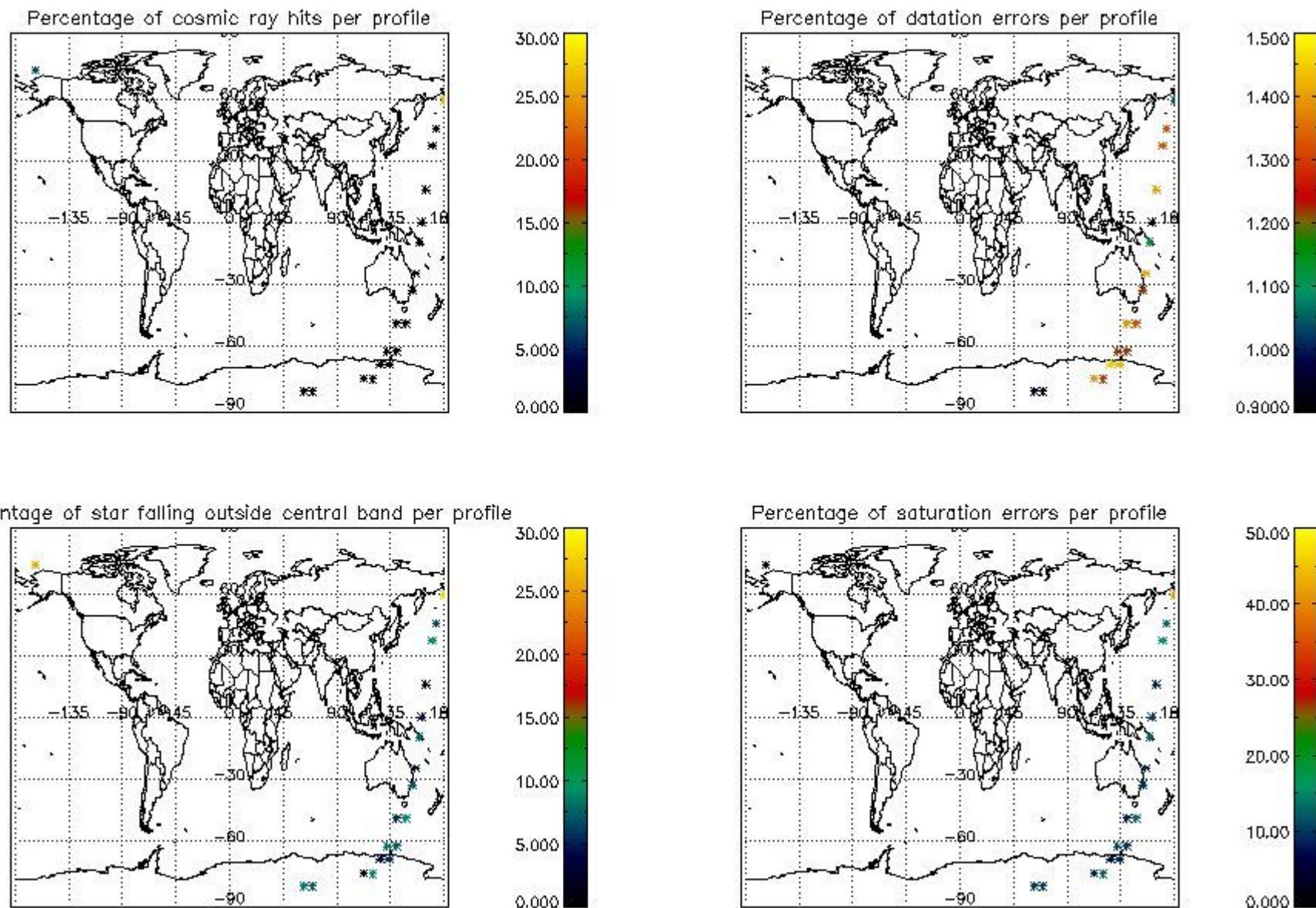
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

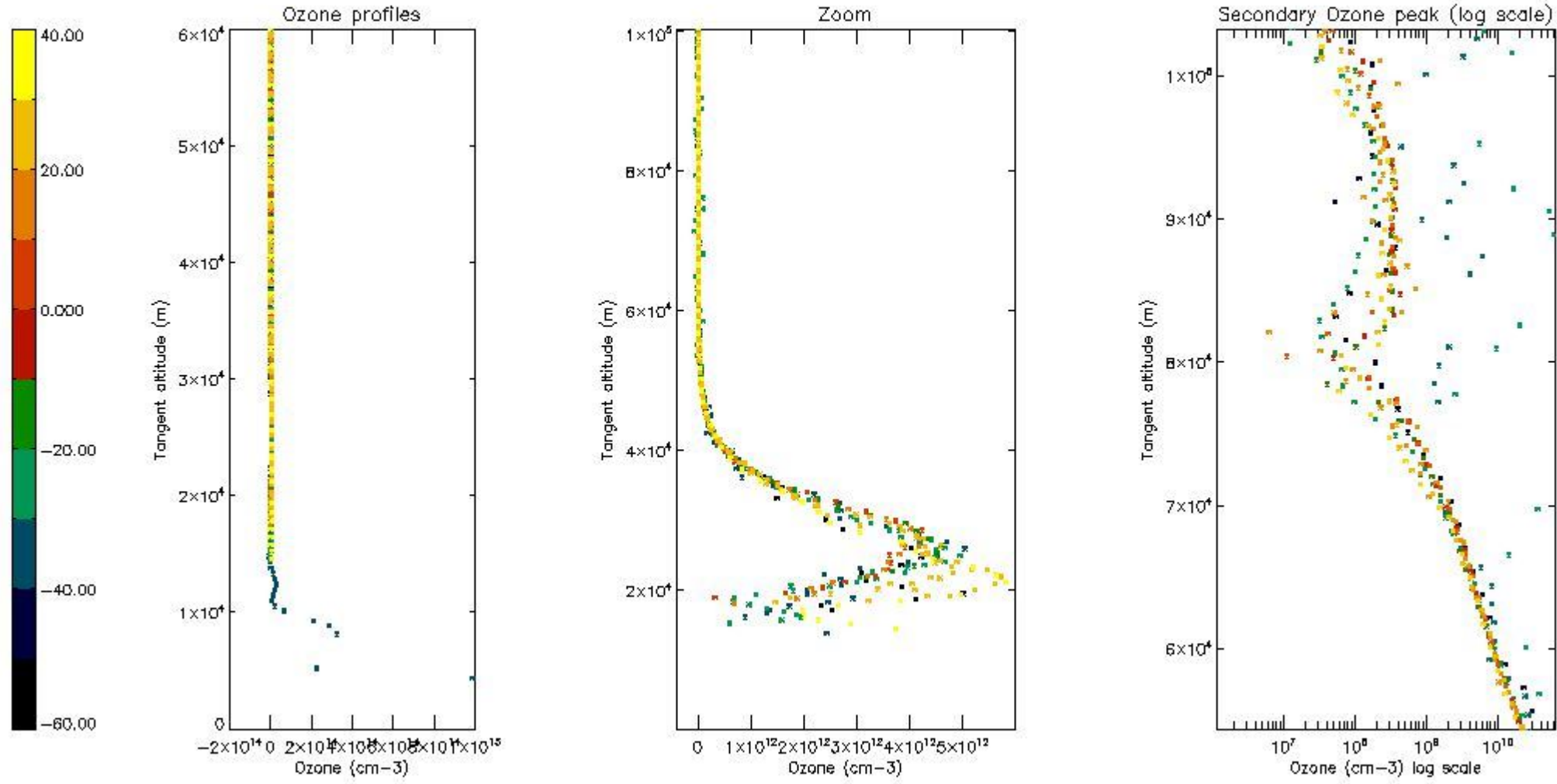
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	15

STD < 10	12
STD < 5	9

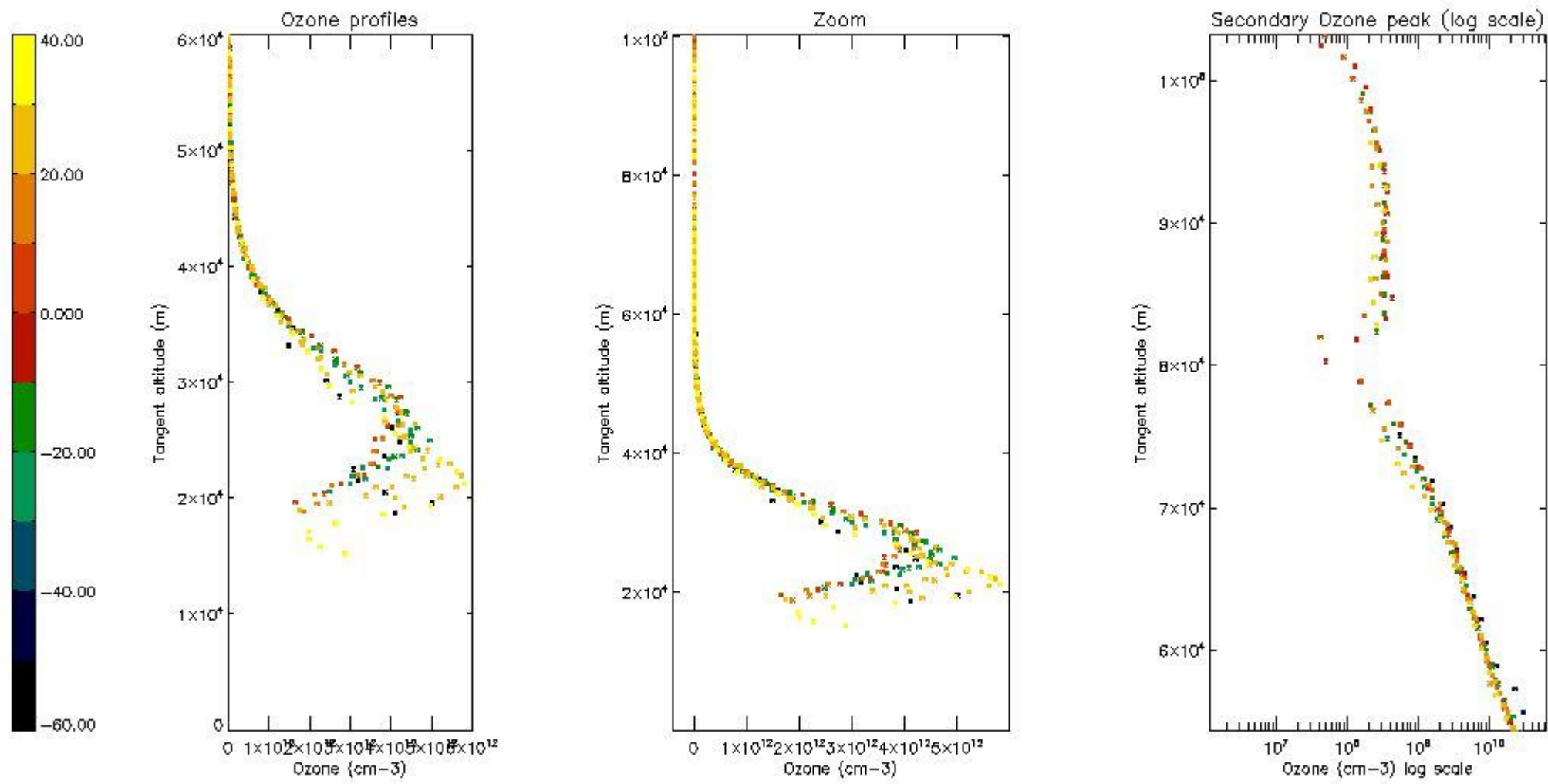
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



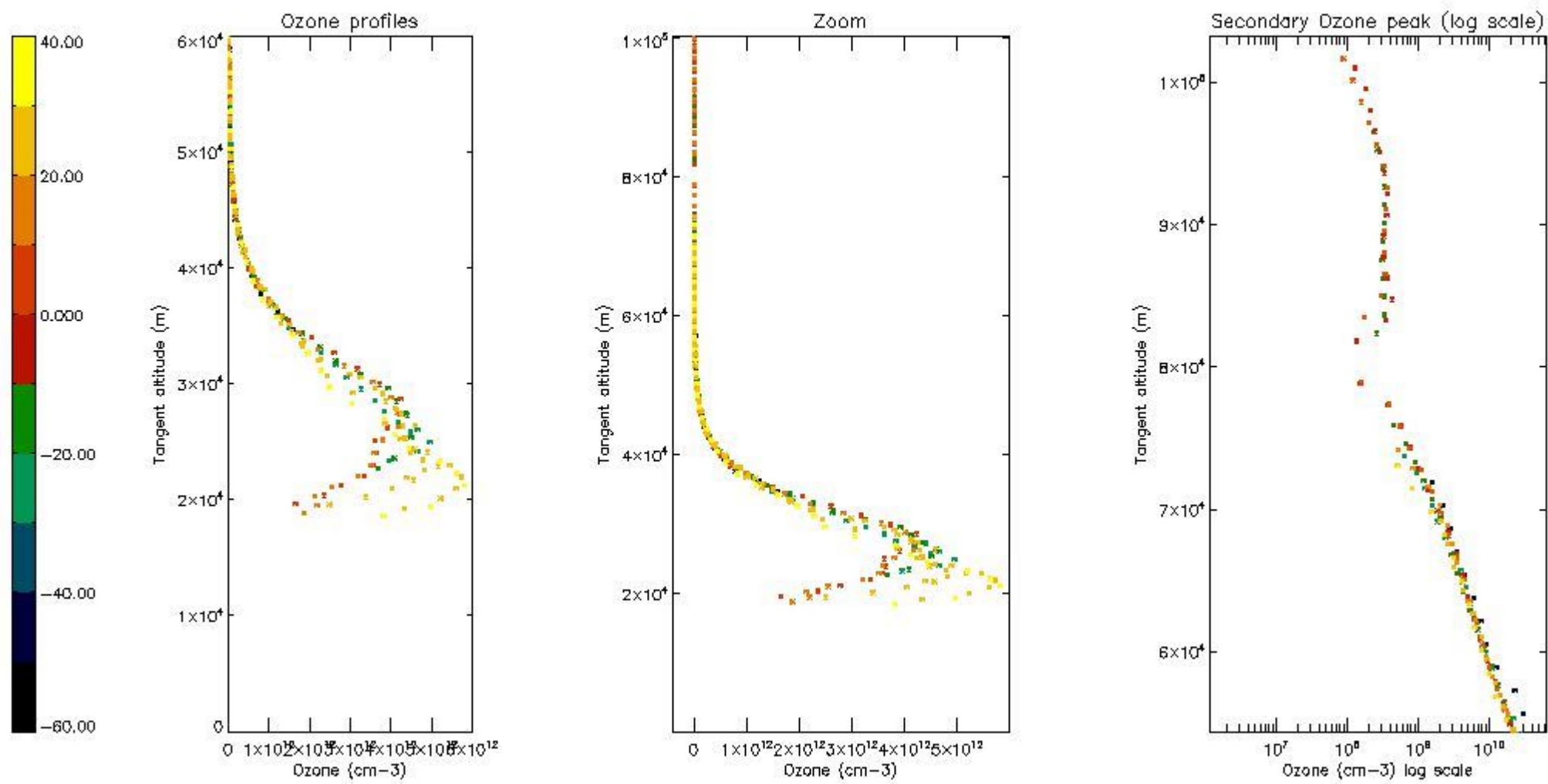
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



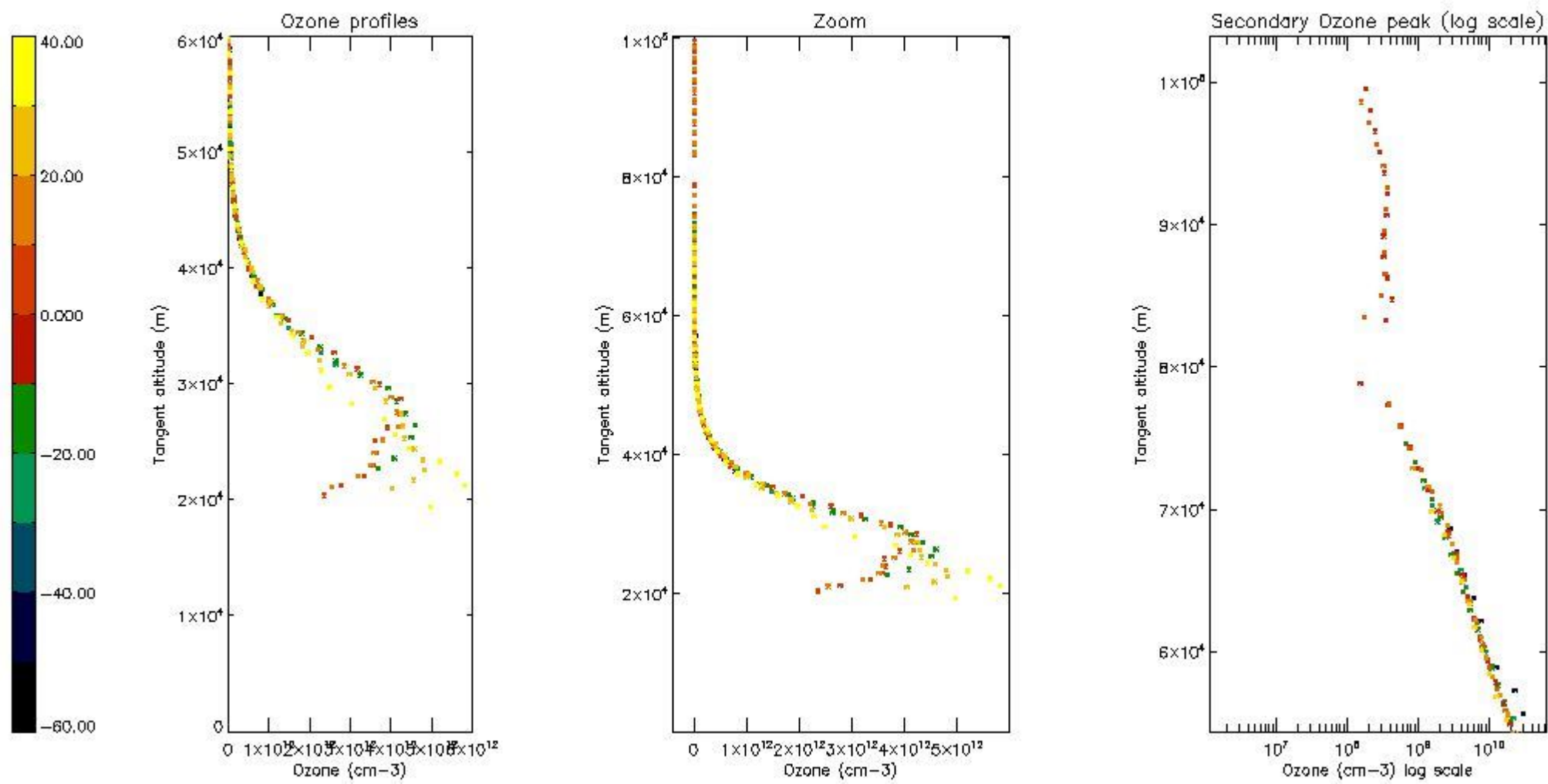
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



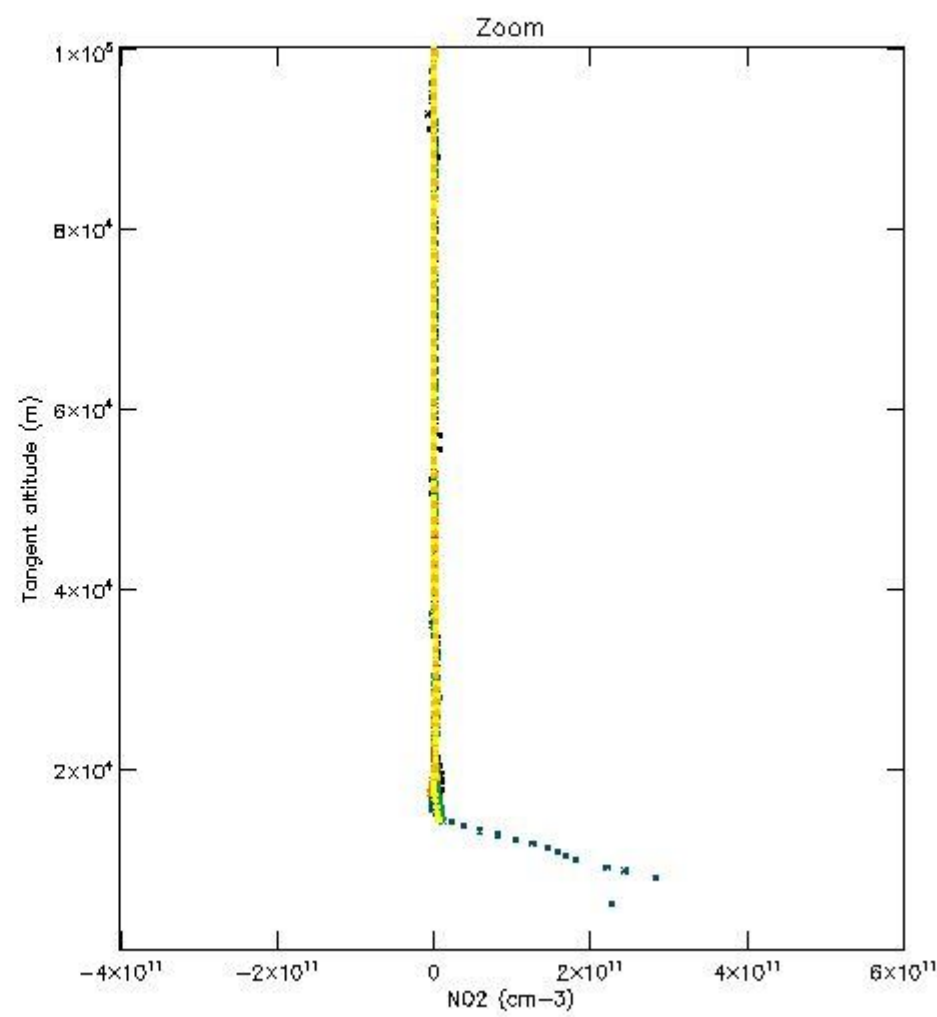
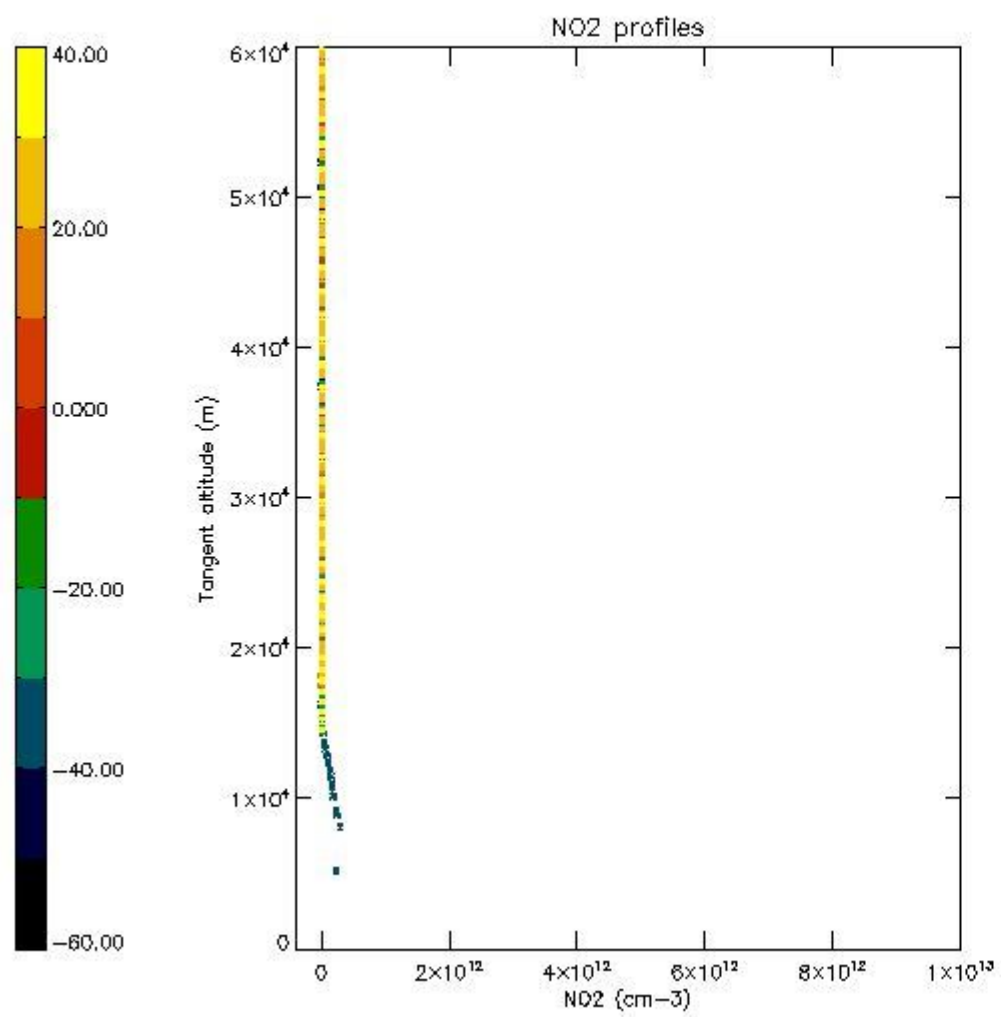
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



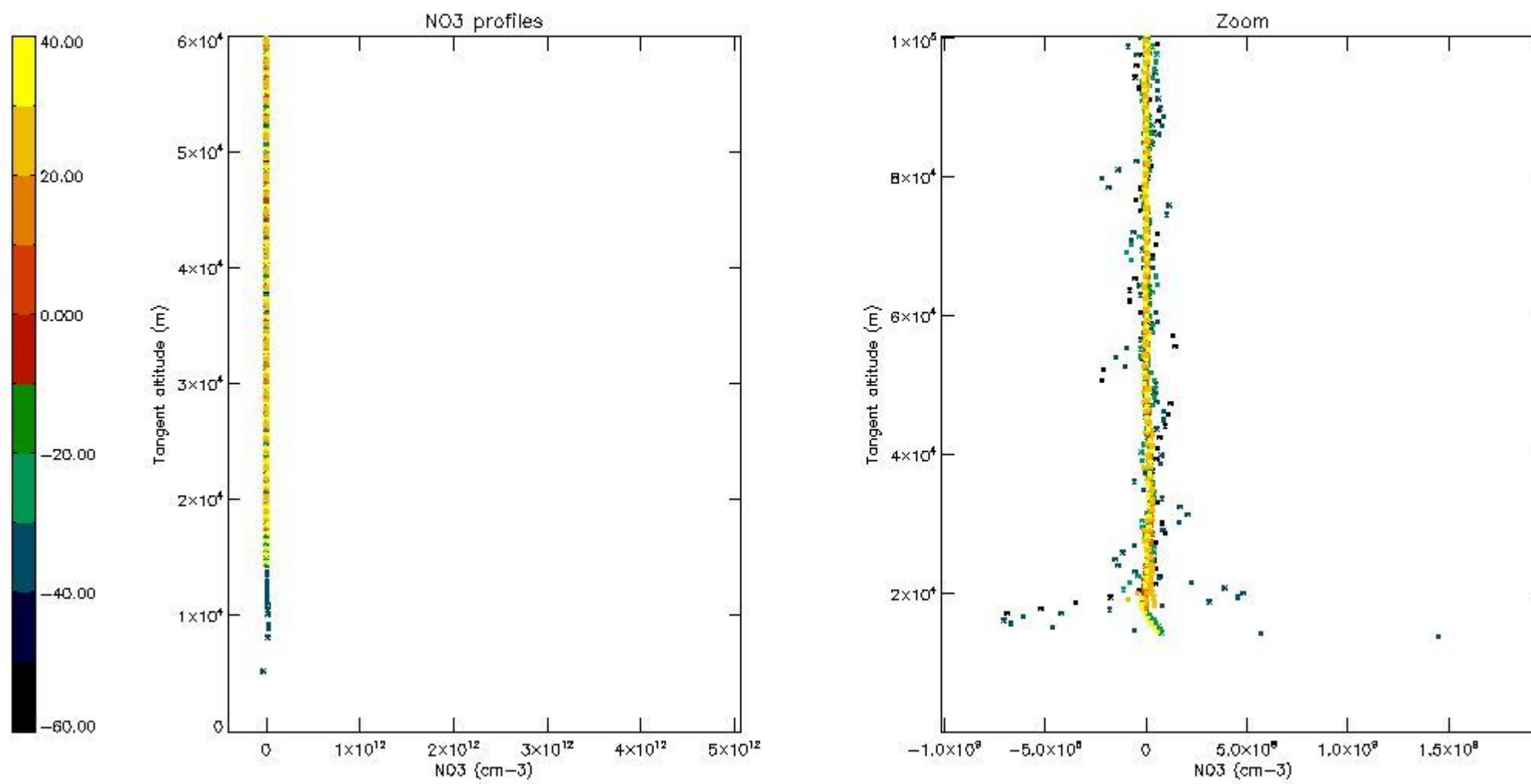
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



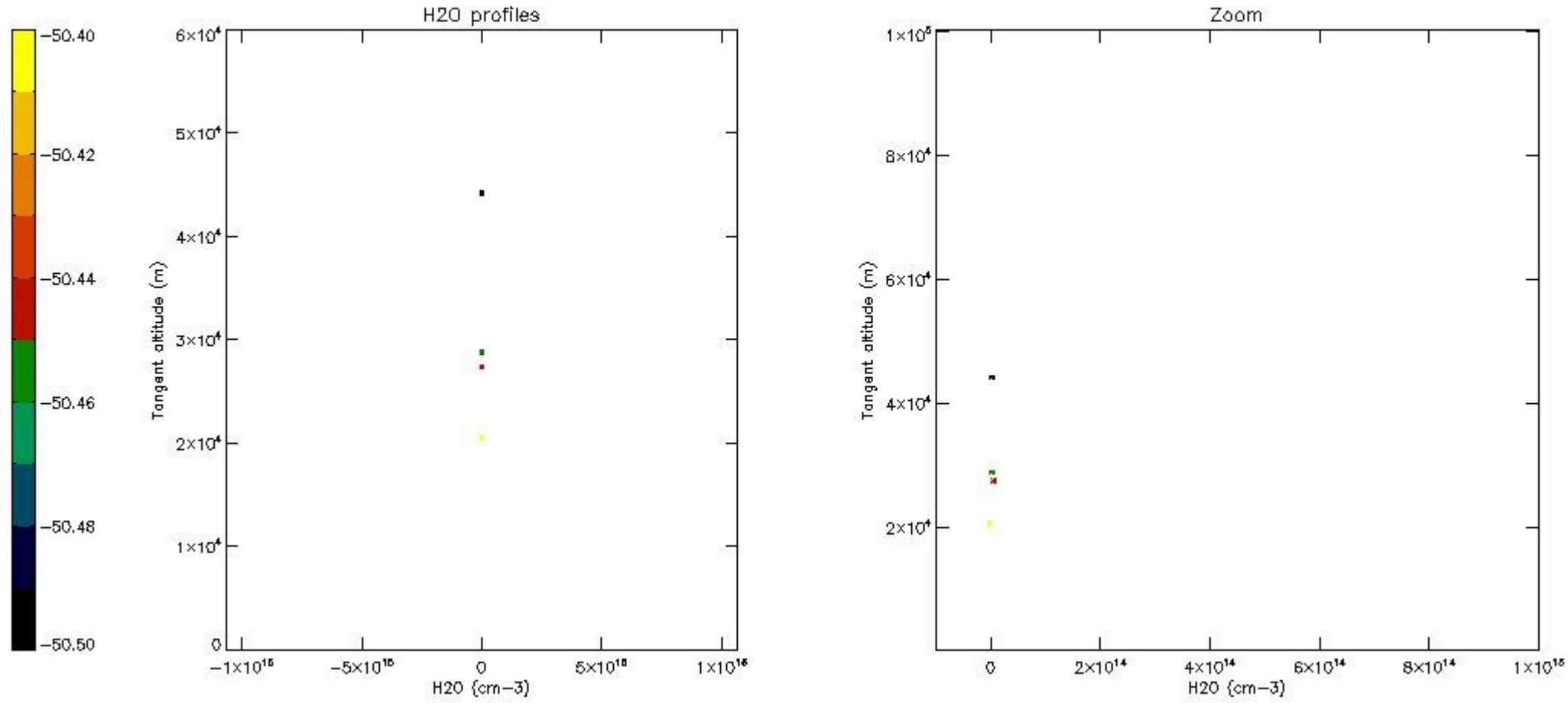
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H₂O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.



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

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	13-FEB-2003 00:00:57
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-FEB-2003 00:00:57
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-FEB-2003 00:00:57

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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.

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Store outputs in DB	Yes
Nb of level 2 prods	39
Nb of prods with errors	0

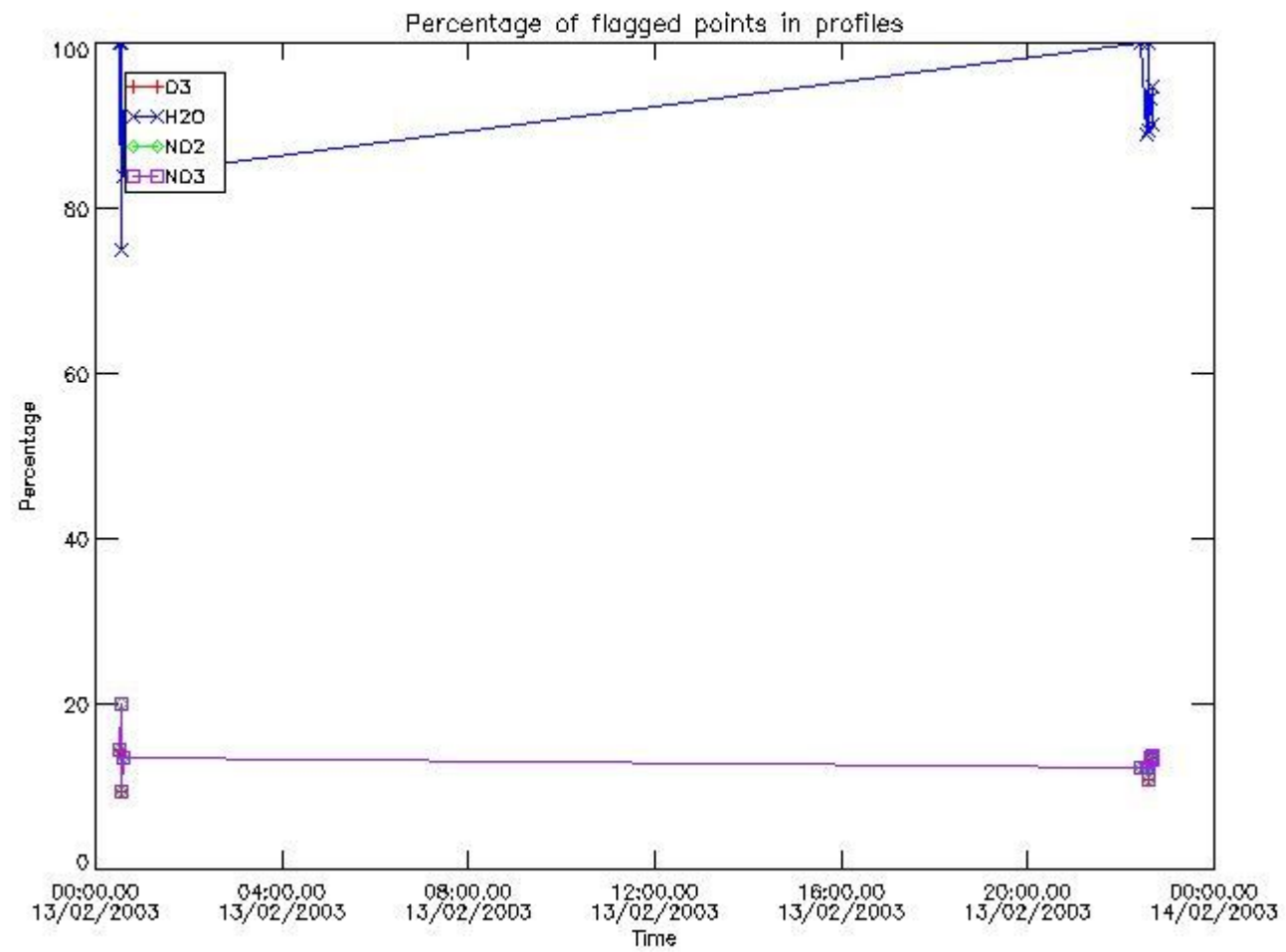
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030213_000057_000000362013_00431_04994_5316.N1	13-FEB-2003 00:00:57	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	4994	No
2	GOM_NL__2PRFIN20030213_000455_000000412013_00431_04994_5317.N1	13-FEB-2003 00:04:55	Bright	41.000	130	23Bet Dra	2.7990	5800.0	82	4994	No
3	GOM_NL__2PRFIN20030213_000644_000000352013_00431_04994_5318.N1	13-FEB-2003 00:06:44	Bright	34.500	144	18Del Cyg	2.8600	11000.	69	4994	No
4	GOM_NL__2PRFIN20030213_000902_000000362013_00431_04994_5319.N1	13-FEB-2003 00:09:02	Bright	36.000	5	3Alp Lyr	0.033000	11000.	72	4994	No
5	GOM_NL__2PRFIN20030213_001208_000000532013_00431_04994_5320.N1	13-FEB-2003 00:12:08	Bright	53.000	133	40Zet Her	2.8070	6000.0	106	4994	No
6	GOM_NL__2PRFIN20030213_001554_000001092013_00431_04994_5321.N1	13-FEB-2003 00:15:54	Twilight	108.50	67	5Alp CrB	2.2210	11000.	217	4994	No
7	GOM_NL__2PRFIN20030213_002008_000000472013_00431_04994_5322.N1	13-FEB-2003 00:20:08	Bright	46.500	126	60Bet Oph	2.7700	4250.0	93	4994	No
8	GOM_NL__2PRFIN20030213_002704_000000402013_00431_04994_5323.N1	13-FEB-2003 00:27:04	Twilight	39.500	57	34Sig Sgr	2.0660	26000.	79	4994	No
9	GOM_NL__2PRFIN20030213_002947_000000392013_00431_04994_5324.N1	13-FEB-2003 00:29:47	Dark	39.000	38	20Eps Sgr	1.8360	11000.	78	4994	No
10	GOM_NL__2PRFIN20030213_003212_000000682013_00431_04994_5325.N1	13-FEB-2003 00:32:12	Dark	68.000	16	21Alp Sco	1.0200	3000.0	136	4994	No
11	GOM_NL__2PRFIN20030213_003414_000000602013_00431_04994_5326.N1	13-FEB-2003 00:34:14	Dark	60.000	158	6Pi Sco	2.9060	28000.	120	4994	No
12	GOM_NL__2PRFIN20030213_003623_000000382013_00431_04994_5327.N1	13-FEB-2003 00:36:23	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	4994	No
13	GOM_NL__2PRFIN20030213_222610_000000462013_00445_05008_5297.N1	13-FEB-2003 22:26:10	Dark	46.000	131	Gam Lup	2.8000	26000.	92	5008	No
14	GOM_NL__2PRFIN20030213_223138_000000422013_00445_05008_5298.N1	13-FEB-2003 22:31:38	Dark	41.500	10	Bet Cen	0.61000	28000.	83	5008	No
15	GOM_NL__2PRFIN20030213_223446_000000422013_00445_05008_5299.N1	13-FEB-2003 22:34:46	Dark	41.500	12	Alp1Cru	0.77500	30000.	83	5008	No
16	GOM_NL__2PRFIN20030213_223618_000000482013_00445_05008_5300.N1	13-FEB-2003 22:36:18	Dark	47.500	64	Gam Cen	2.2000	10600.	95	5008	No
17	GOM_NL__2PRFIN20030213_223802_000000382013_00445_05008_5301.N1	13-FEB-2003 22:38:02	Dark	38.000	159	Ups Car	2.9200	7200.0	76	5008	No
18	GOM_NL__2PRFIN20030213_223956_000000392013_00445_05008_5302.N1	13-FEB-2003 22:39:56	Dark	38.500	71	lot Car	2.2460	7700.0	77	5008	No
19	GOM_NL__2PRFIN20030213_224134_000000412013_00445_05008_5303.N1	13-FEB-2003 22:41:34	Dark	41.000	46	Del Vel	1.9540	10600.	82	5008	No
20	GOM_NL__2PRFIN20030213_224358_000000402013_00445_05008_5304.N1	13-FEB-2003 22:43:58	Straylight	39.500	34	Gam2Vel	1.7930	23000.	79	5008	No
21	GOM_NL__2PRFIN20030213_224603_000000382013_00445_05008_5305.N1	13-FEB-2003 22:46:03	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	5008	No
22	GOM_NL__2PRFIN20030213_225020_000000392013_00445_05008_5306.N1	13-FEB-2003 22:50:20	Straylight	39.000	132	15Rho Pup	2.8030	6900.0	78	5008	No
23	GOM_NL__2PRFIN20030213_225420_000000532013_00445_05008_5307.N1	13-FEB-2003 22:54:20	Straylight	52.500	48	30Alp Hya	1.9770	4100.0	105	5008	No
24	GOM_NL__2PRFIN20030213_225848_000000482013_00445_05008_5308.N1	13-FEB-2003 22:58:48	Bright	48.000	8	10Alp CMi	0.40000	6500.0	96	5008	No
25	GOM_NL__2PRFIN20030213_230244_000000382013_00445_05008_5309.N1	13-FEB-2003 23:02:44	Bright	38.000	44	24Gam Gem	1.9280	11000.	76	5008	No
26	GOM_NL__2PRFIN20030213_230507_000000382013_00445_05008_5310.N1	13-FEB-2003 23:05:07	Bright	37.500	17	78Bet Gem	1.1610	4500.0	75	5008	No
27	GOM_NL__2PRFIN20030213_231107_000000362013_00445_05008_5311.N1	13-FEB-2003 23:11:07	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	5008	No
28	GOM_NL__2PRFIN20030213_231530_000000552013_00445_05008_5312.N1	13-FEB-2003 23:15:30	Bright	54.500	174	52Psi UMa	3.0040	4400.0	109	5008	No
29	GOM_NL__2PRFIN20030213_231812_000000452013_00445_05008_5313.N1	13-FEB-2003 23:18:12	Bright	45.000	36	50Alp UMa	1.8000	6300.0	90	5008	No
30	GOM_NL__2PRFIN20030213_232231_000000362013_00445_05008_5314.N1	13-FEB-2003 23:22:31	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	5008	No
31	GOM_NL__2PRFIN20030213_232444_000000412013_00445_05008_5315.N1	13-FEB-2003 23:24:44	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	5008	No
32	GOM_NL__2PRFIN20030213_232923_000000382013_00445_05008_5316.N1	13-FEB-2003 23:29:23	Bright	38.000	89	5Alp Cep	2.4510	8000.0	76	5008	No
33	GOM_NL__2PRFIN20030213_233317_000000412013_00445_05008_5317.N1	13-FEB-2003 23:33:17	Bright	41.000	130	23Bet Dra	2.7990	5800.0	82	5008	No
34	GOM_NL__2PRFIN20030213_233510_000000352013_00445_05008_5318.N1	13-FEB-2003 23:35:10	Bright	35.000	144	18Del Cyg	2.8600	11000.	70	5008	No
35	GOM_NL__2PRFIN20030213_233727_000000392013_00445_05008_5319.N1	13-FEB-2003 23:37:27	Bright	39.000	5	3Alp Lyr	0.033000	11000.	78	5008	No
36	GOM_NL__2PRFIN20030213_234034_000000542013_00445_05008_5320.N1	13-FEB-2003 23:40:34	Bright	54.000	133	40Zet Her	2.8070	6000.0	108	5008	No
37	GOM_NL__2PRFIN20030213_234428_000001062013_00445_05008_5321.N1	13-FEB-2003 23:44:28	Twilight	105.50	67	5Alp CrB	2.2210	11000.	211	5008	No
38	GOM_NL__2PRFIN20030213_234838_000000492013_00445_05008_5322.N1	13-FEB-2003 23:48:38	Bright	49.000	126	60Bet Oph	2.7700	4250.0	98	5008	No
39	GOM_NL__2PRFIN20030213_235531_000000412013_00445_05008_5323.N1	13-FEB-2003 23:55:31	Twilight	41.000	57	34Sig Sgr	2.0660	26000.	82	5008	No

3. Quality information per product

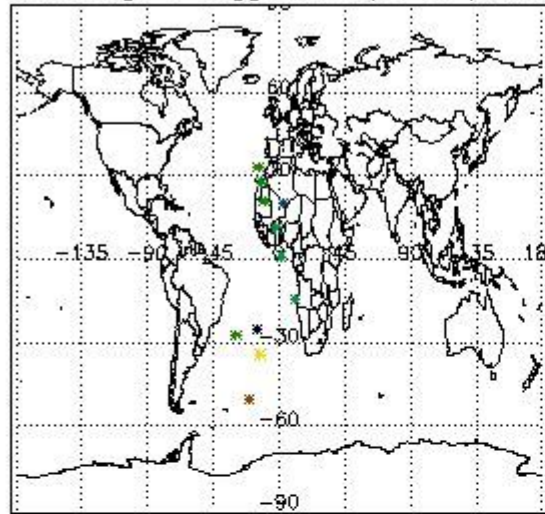
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

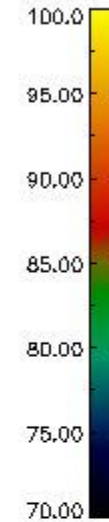
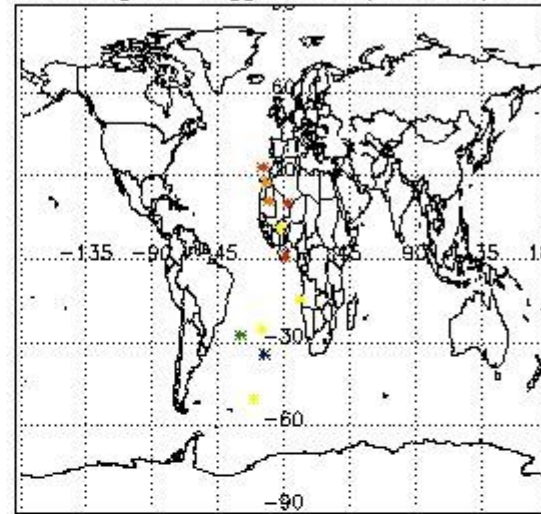


3.2 Plot quality information per product (world map)

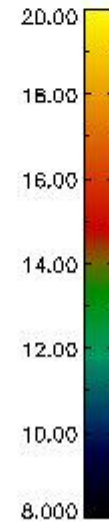
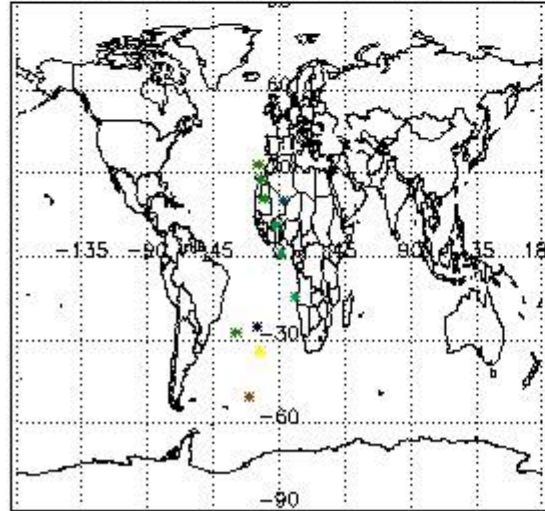
Percentage of flagged data per O3 profile



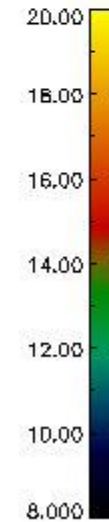
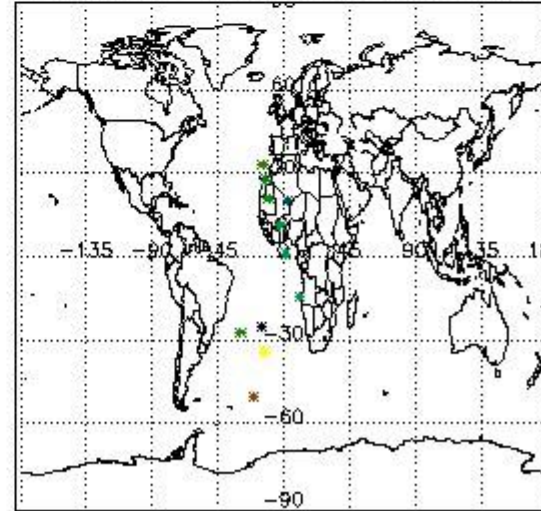
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

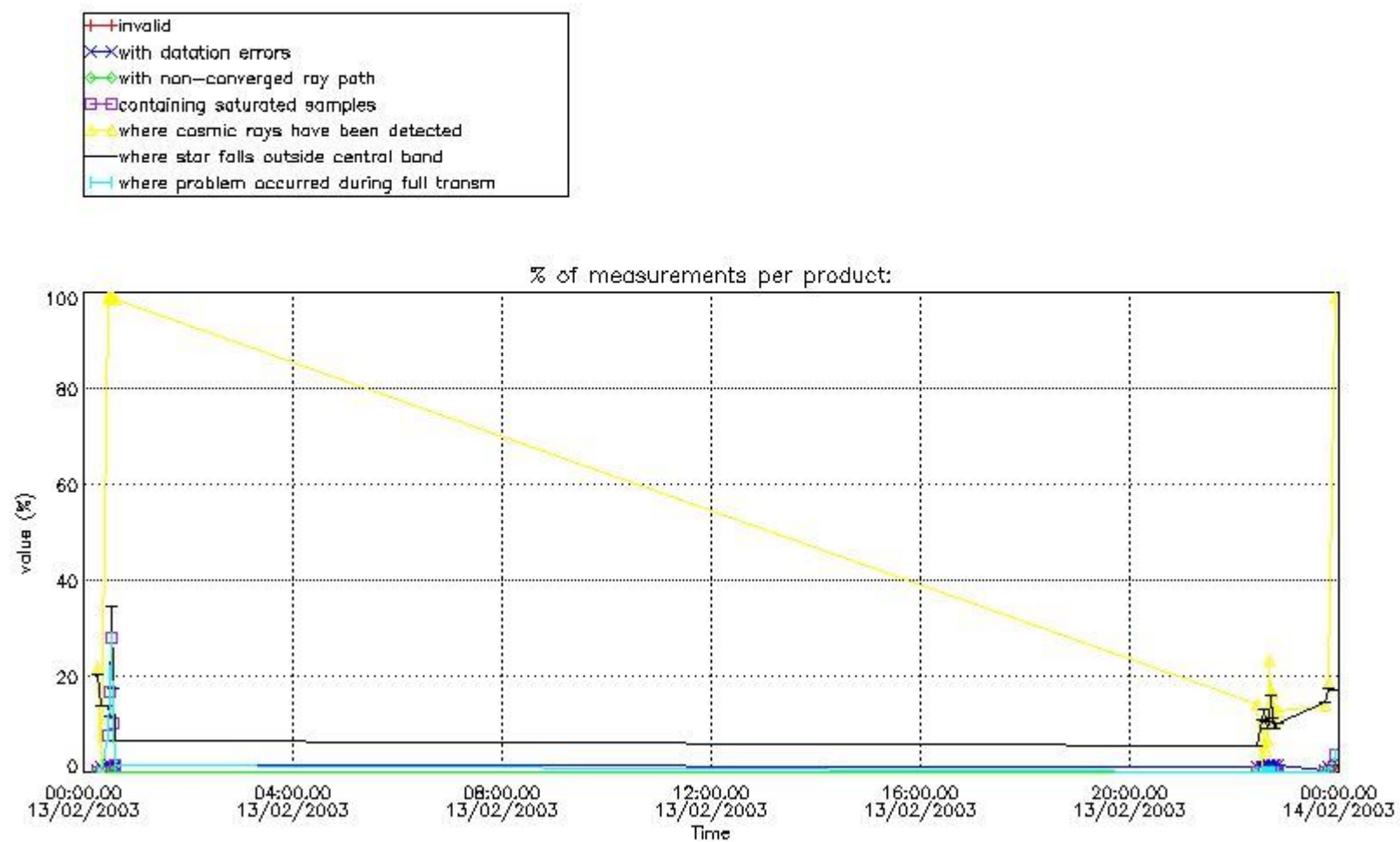


4. Level 1 quality information per product

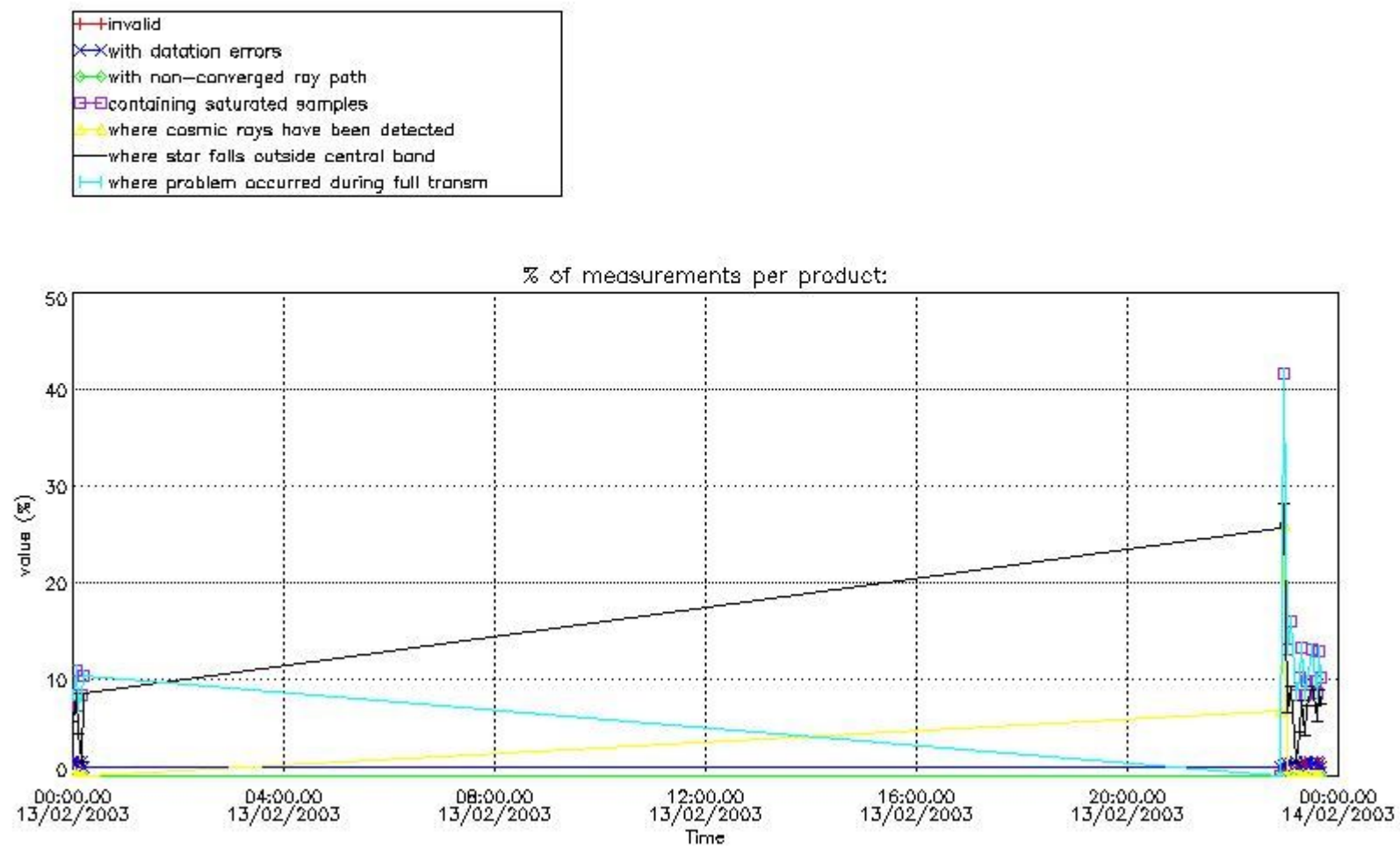
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



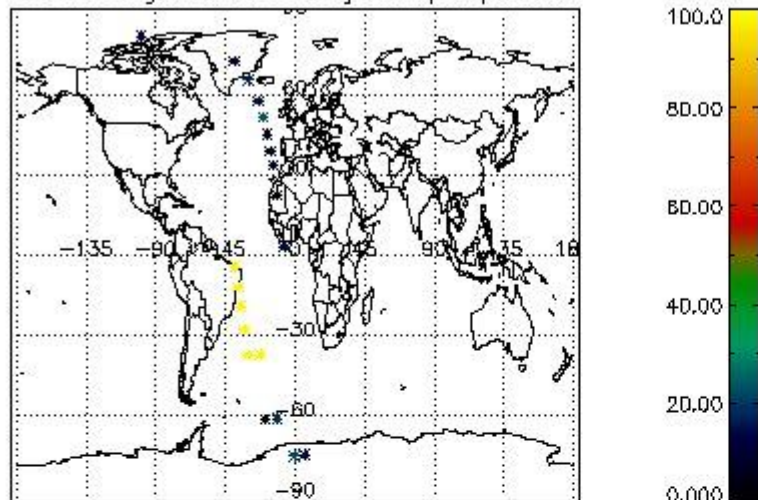
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



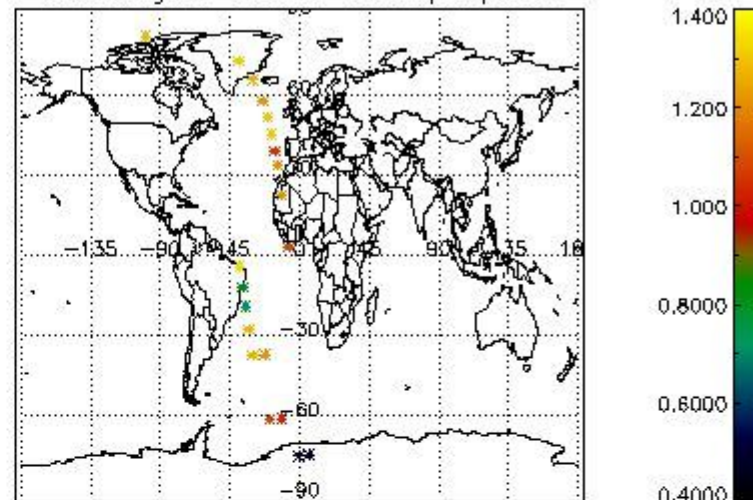
4.2 Plot quality information per product coming from level 1b processing (world map)

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

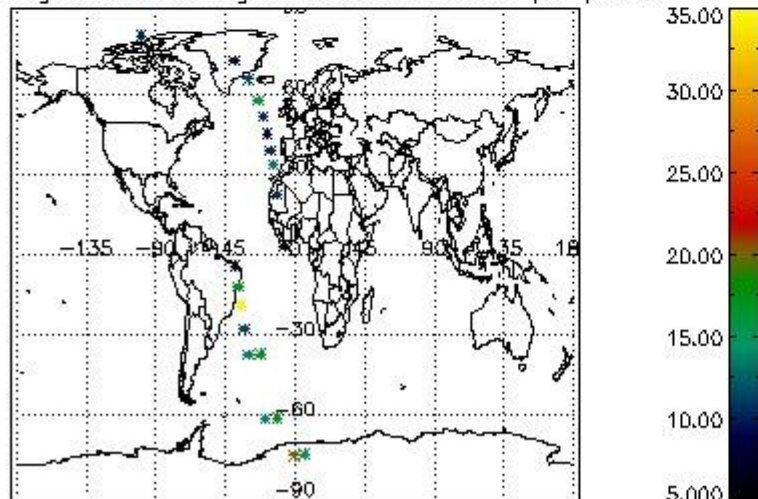
Percentage of cosmic ray hits per profile



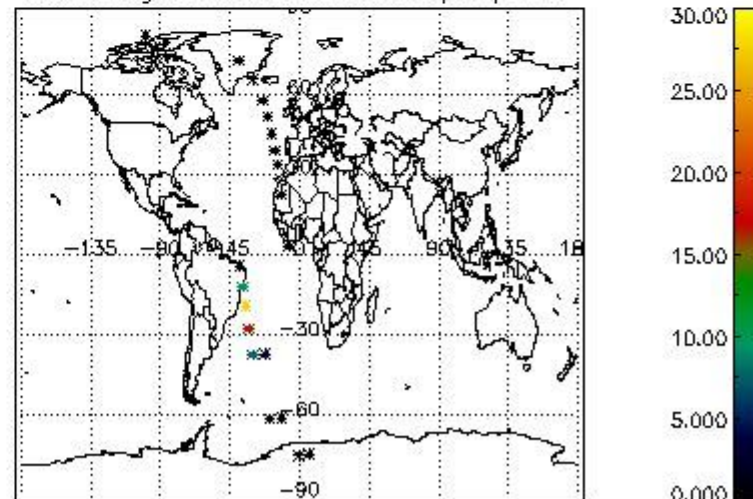
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

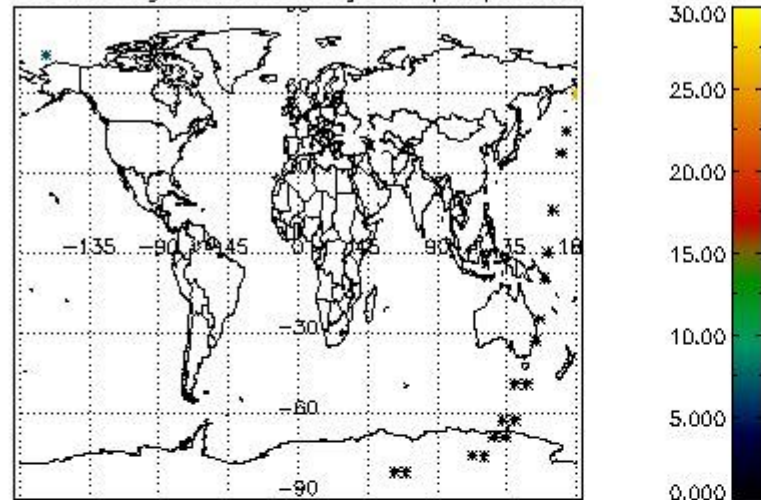


Percentage of saturation errors per profile

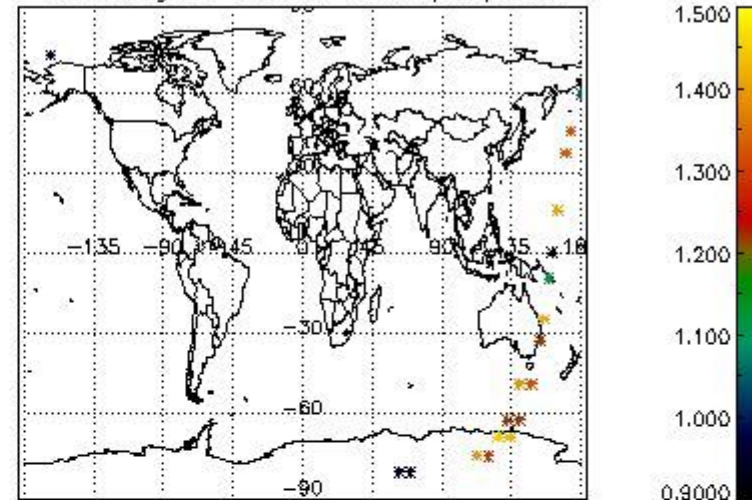


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

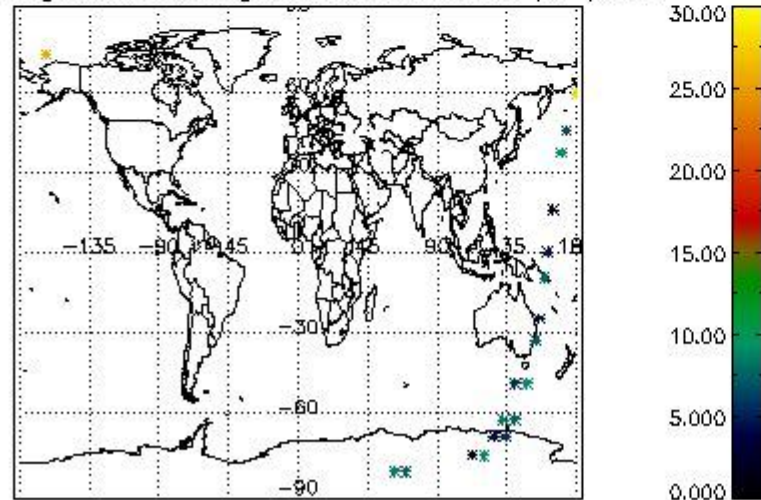
Percentage of cosmic ray hits per profile



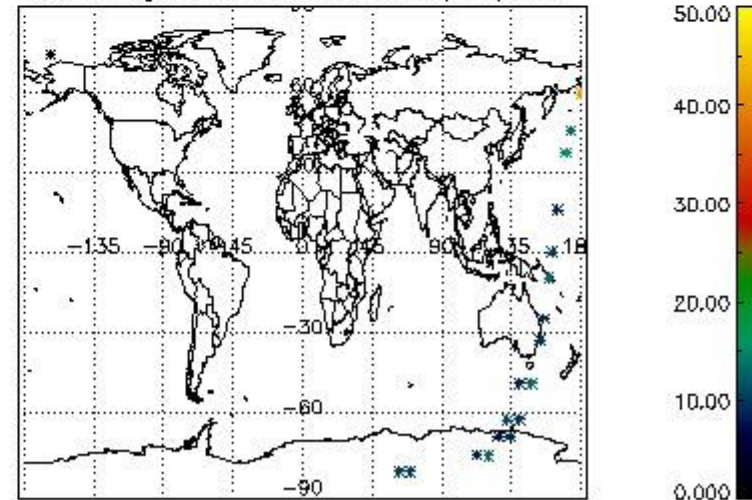
Percentage of datation errors per profile



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

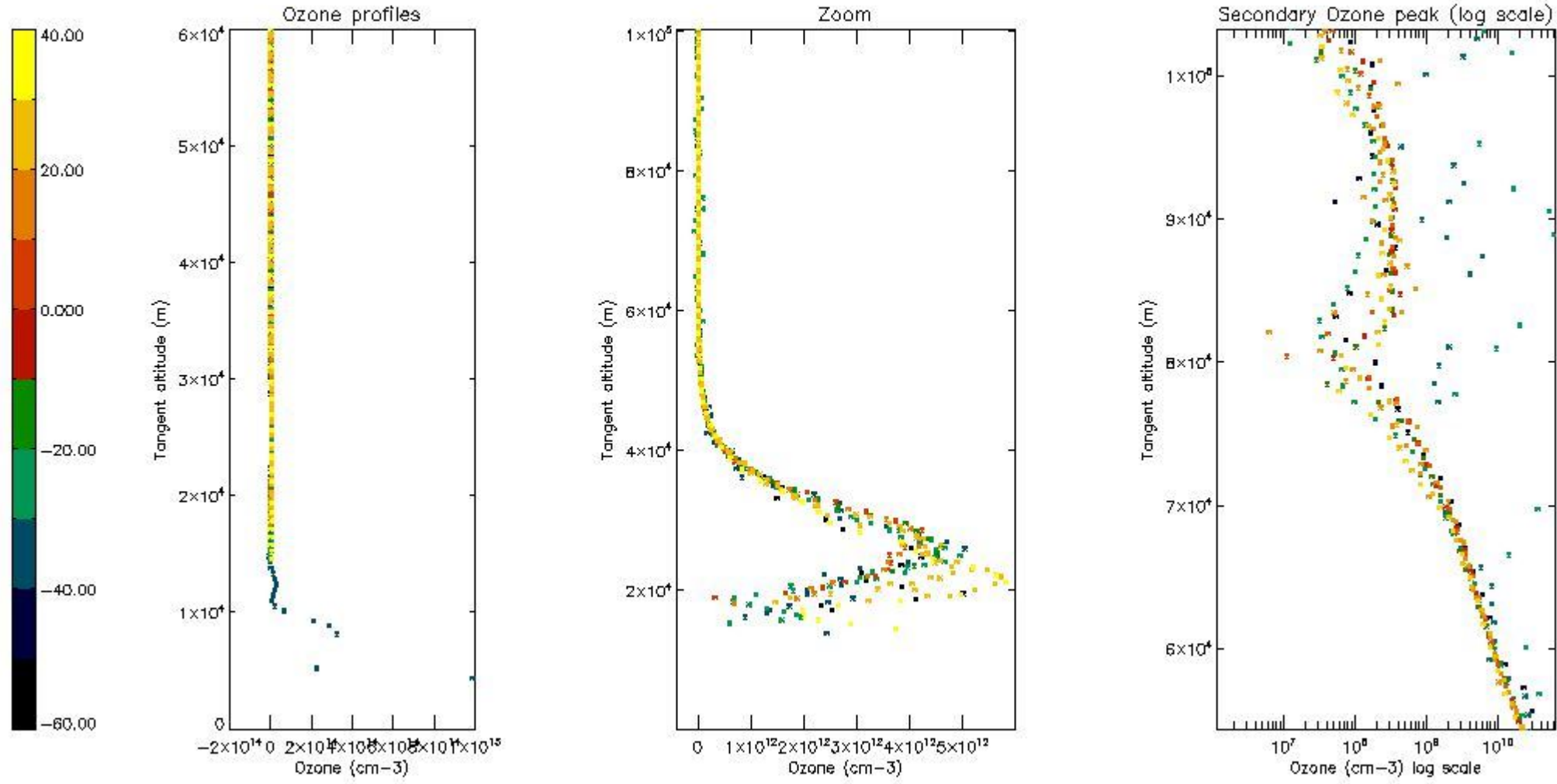
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	15

STD < 10	12
STD < 5	9

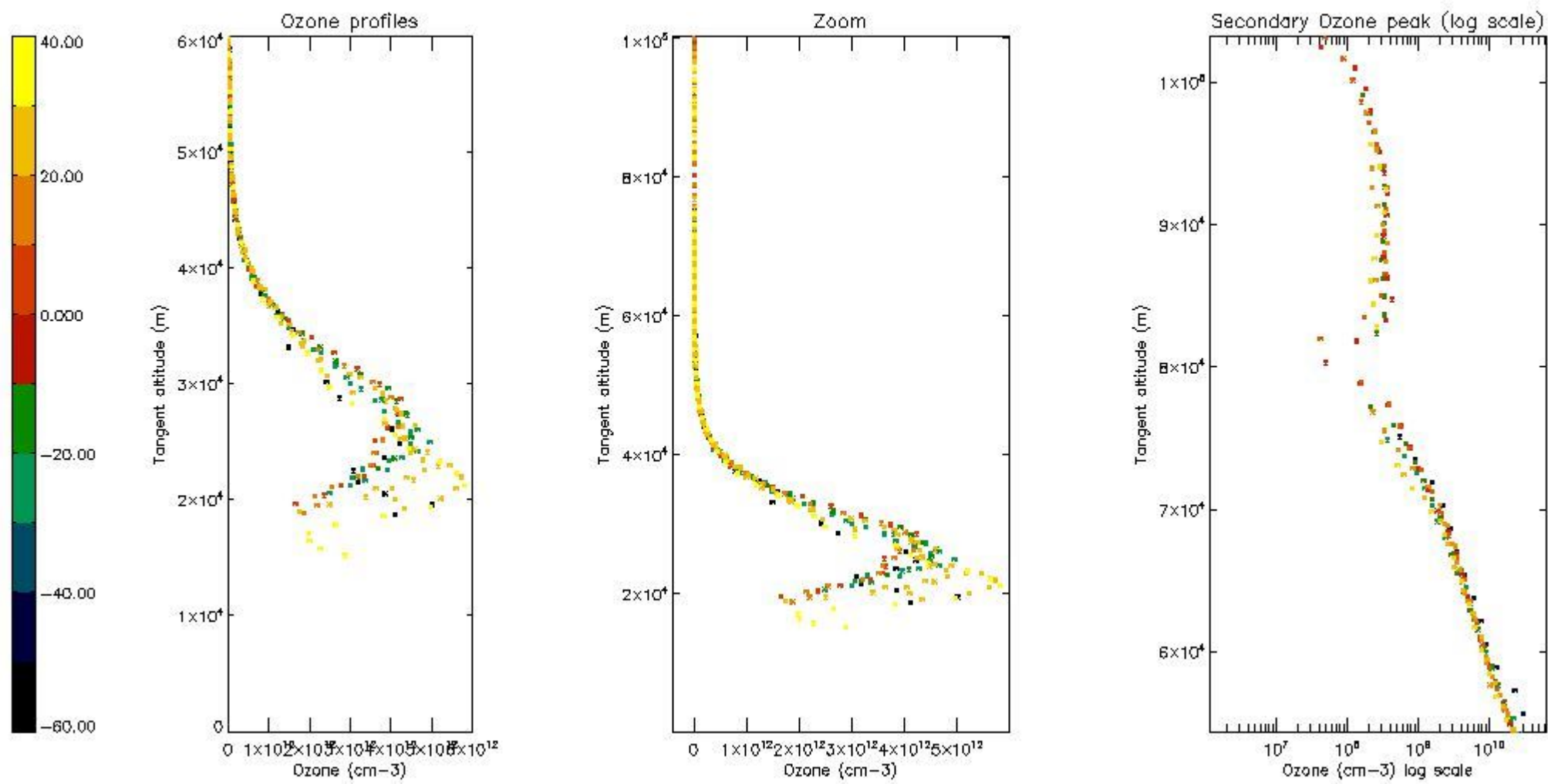
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



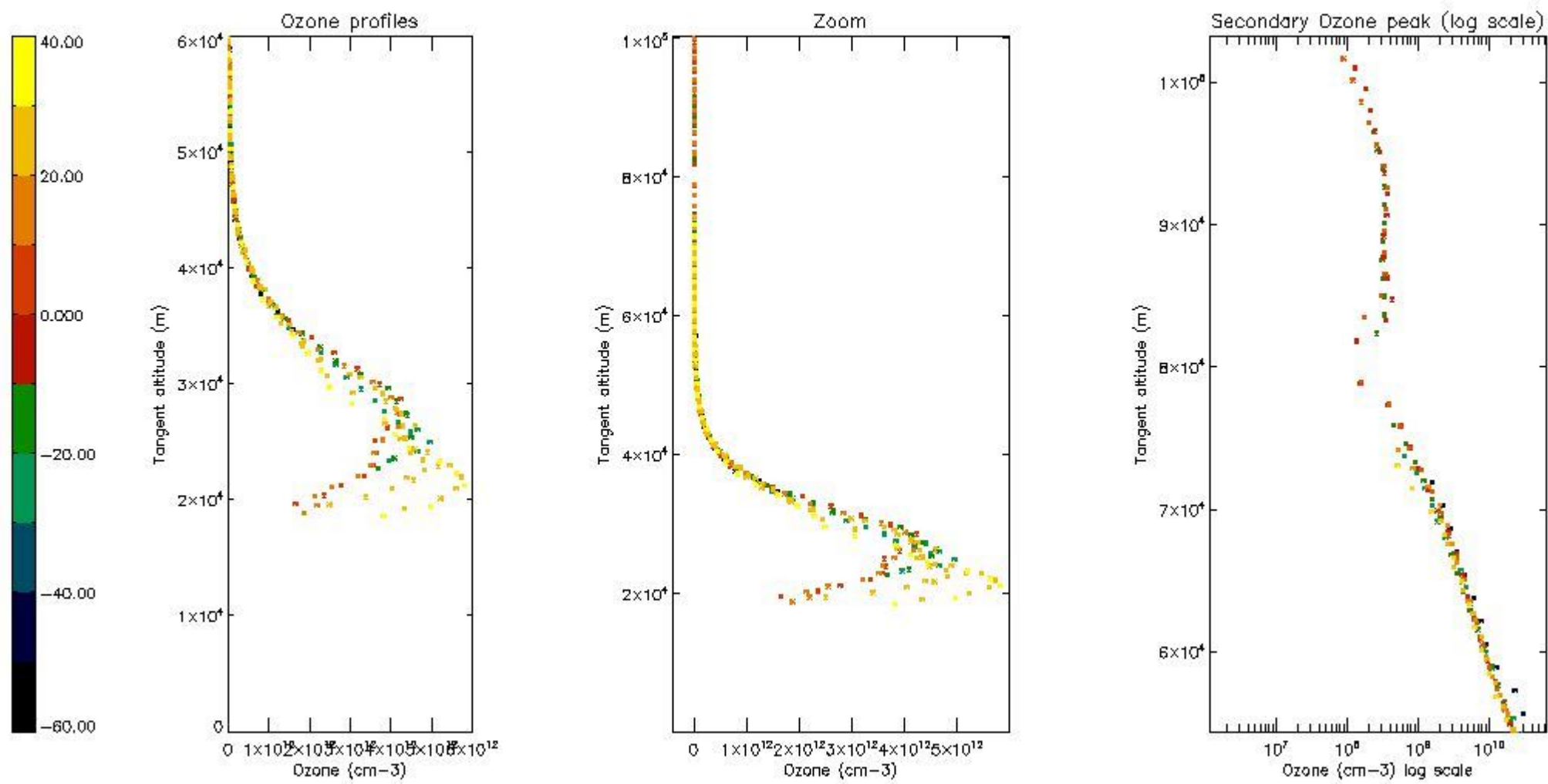
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



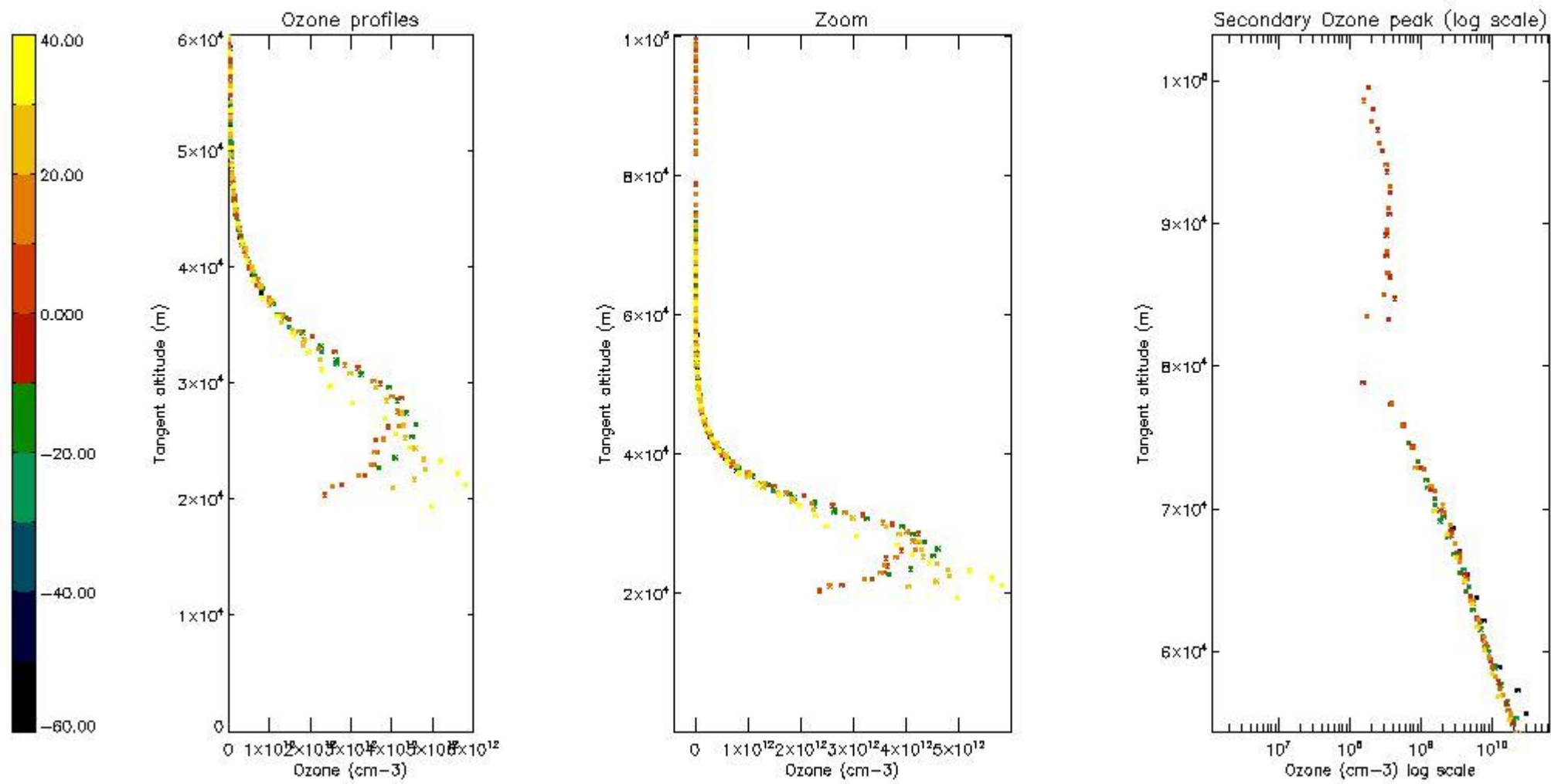
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



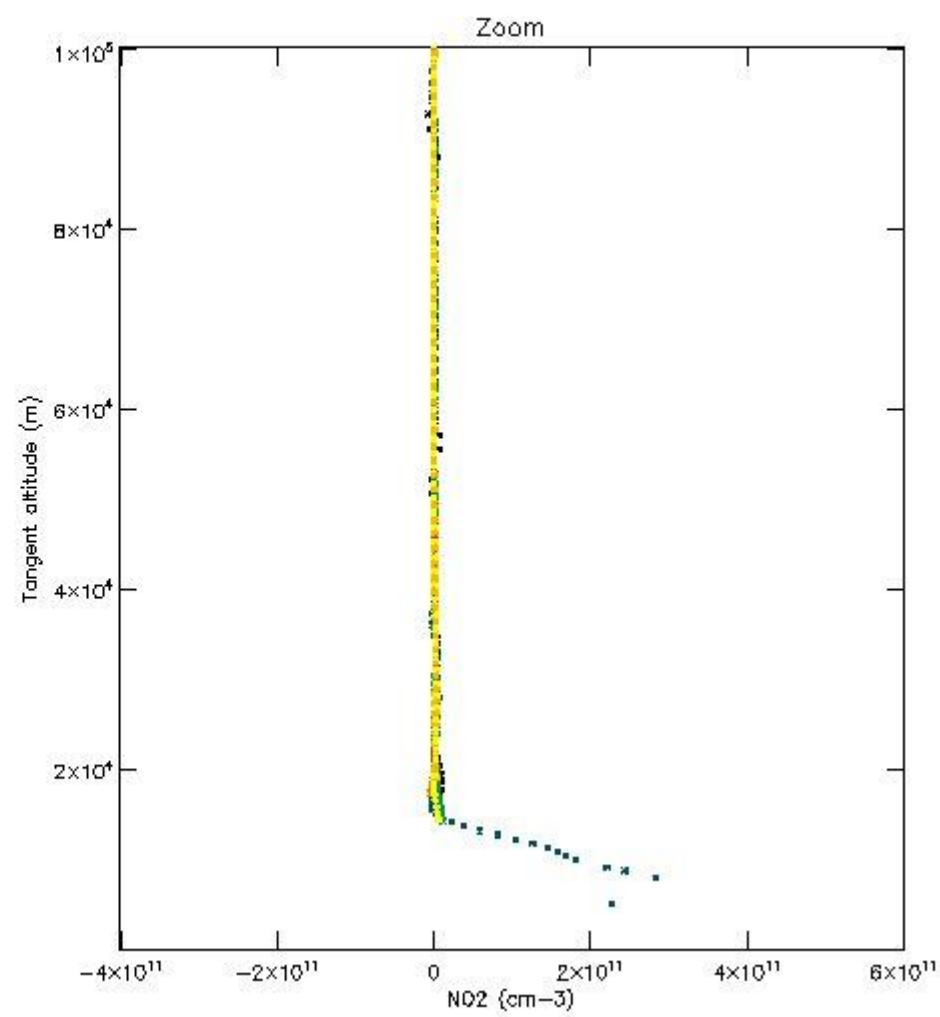
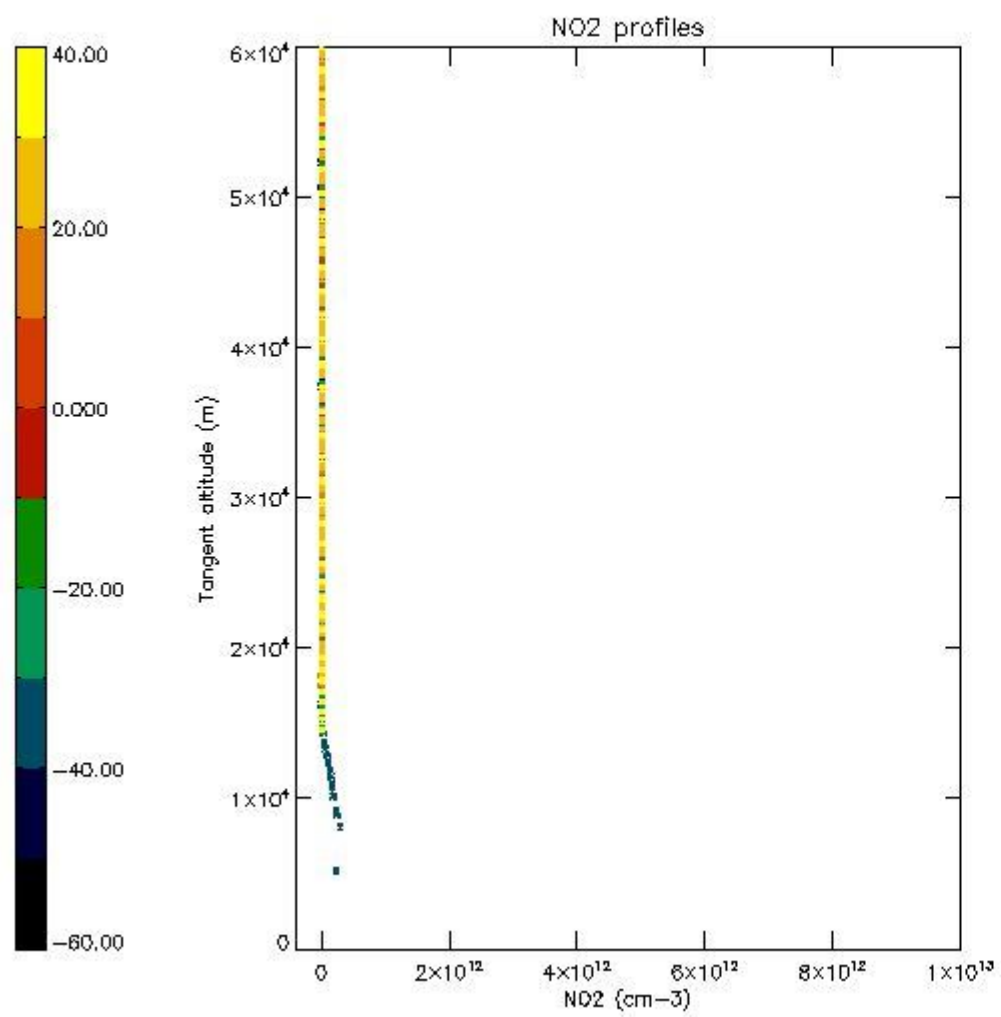
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



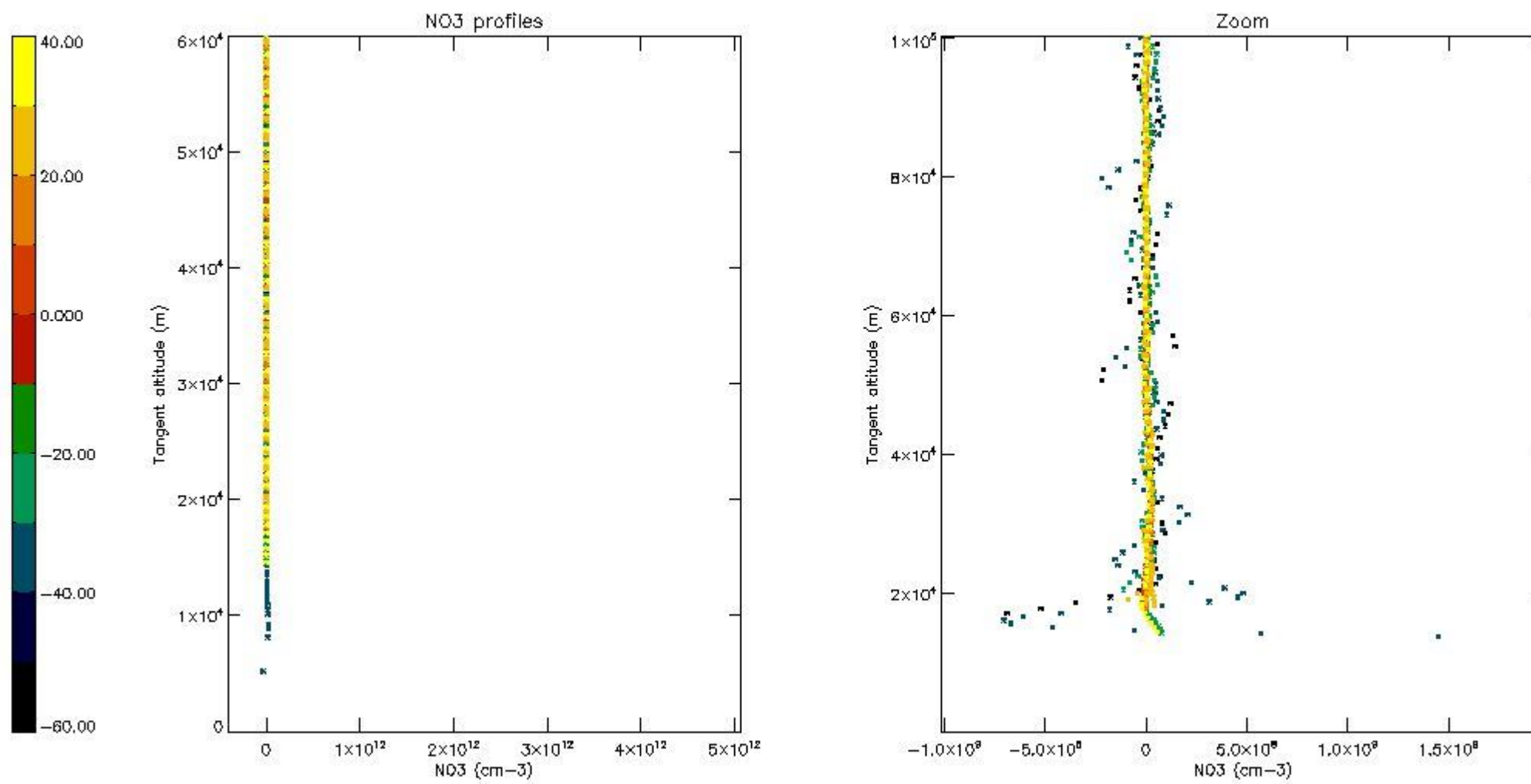
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



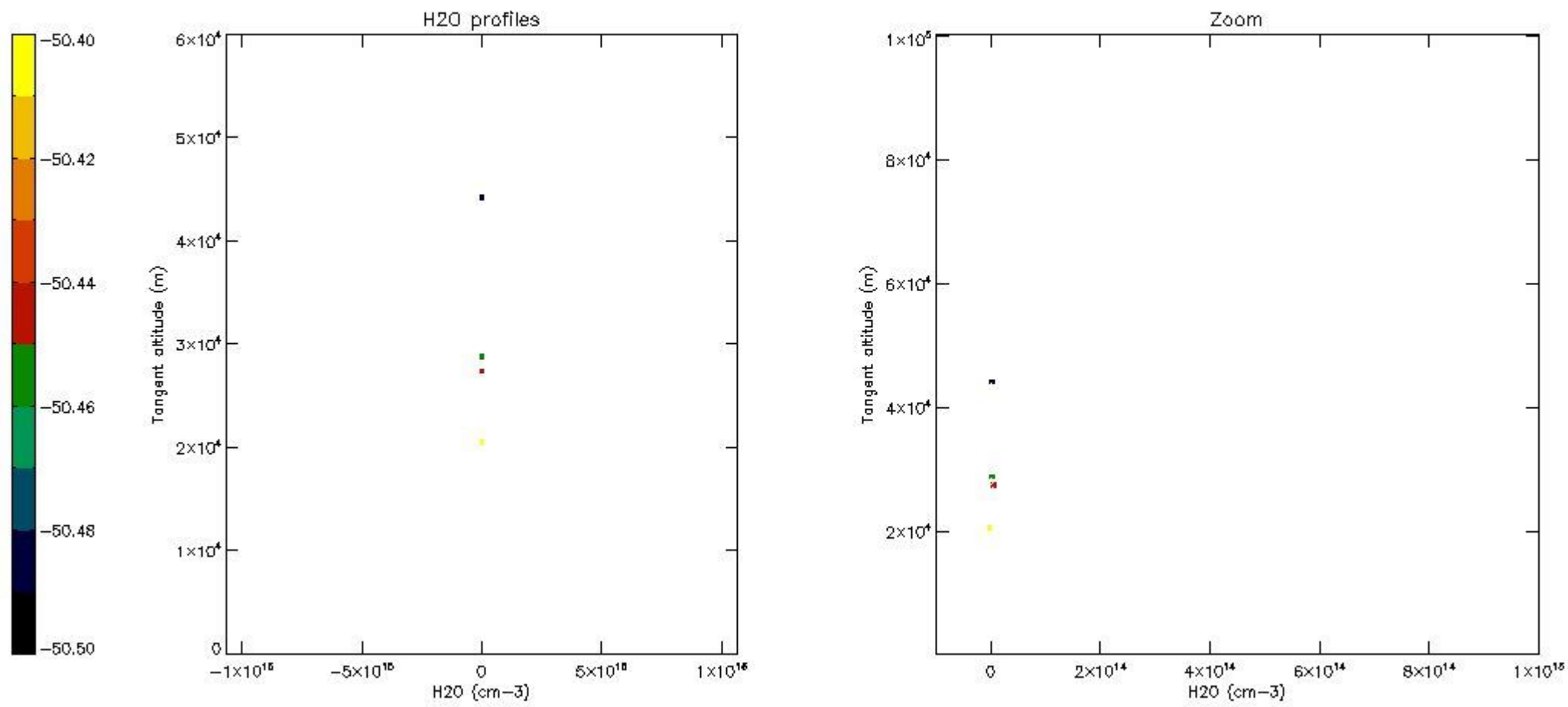
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

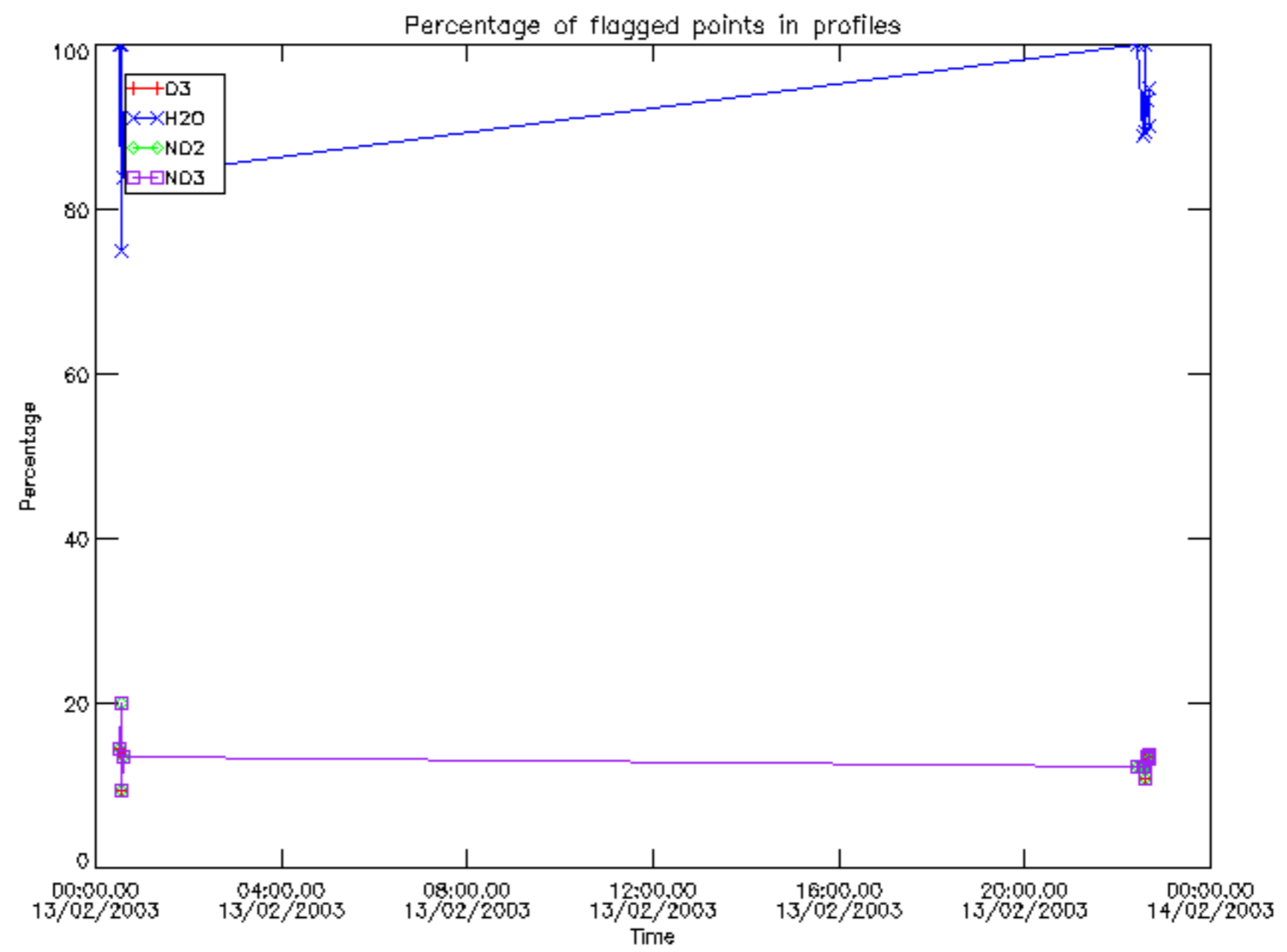
The colorbar represents the latitude.



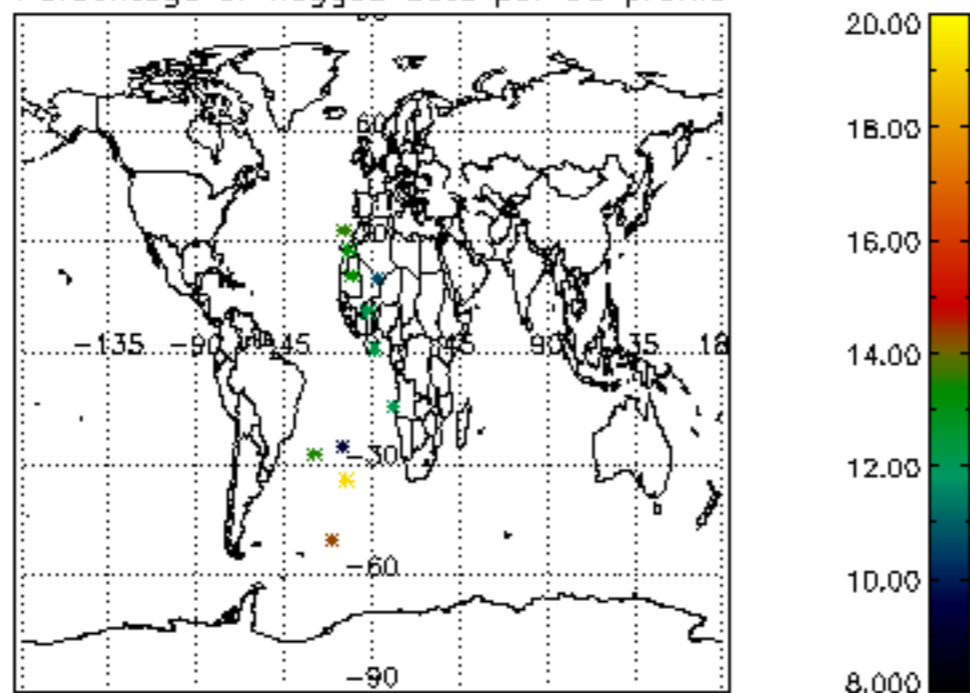
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

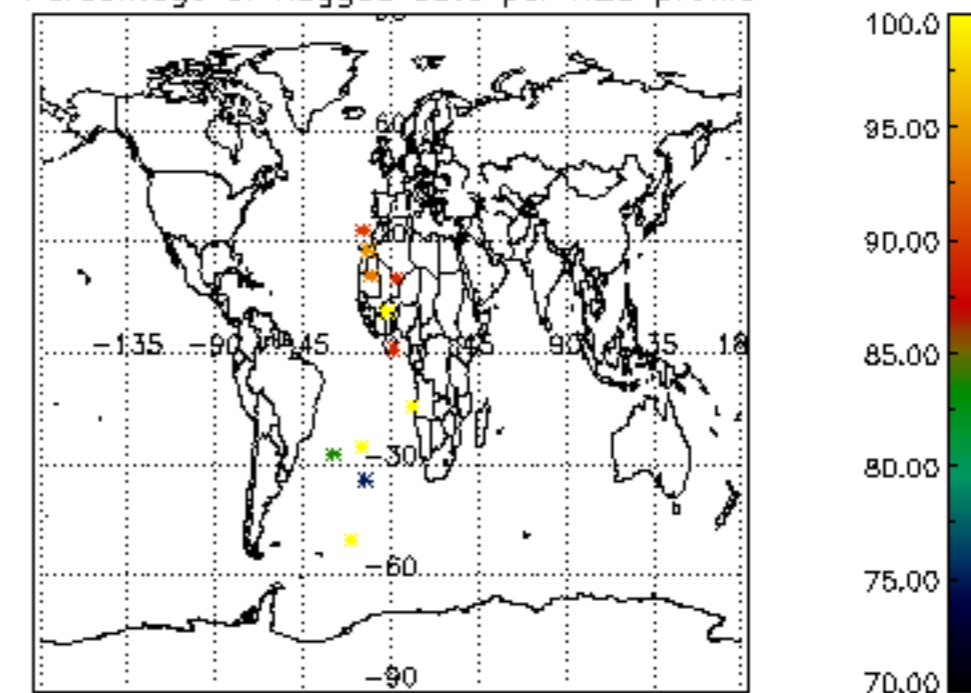
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	13-FEB-2003 00:00:57
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-FEB-2003 00:00:57
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-FEB-2003 00:00:57



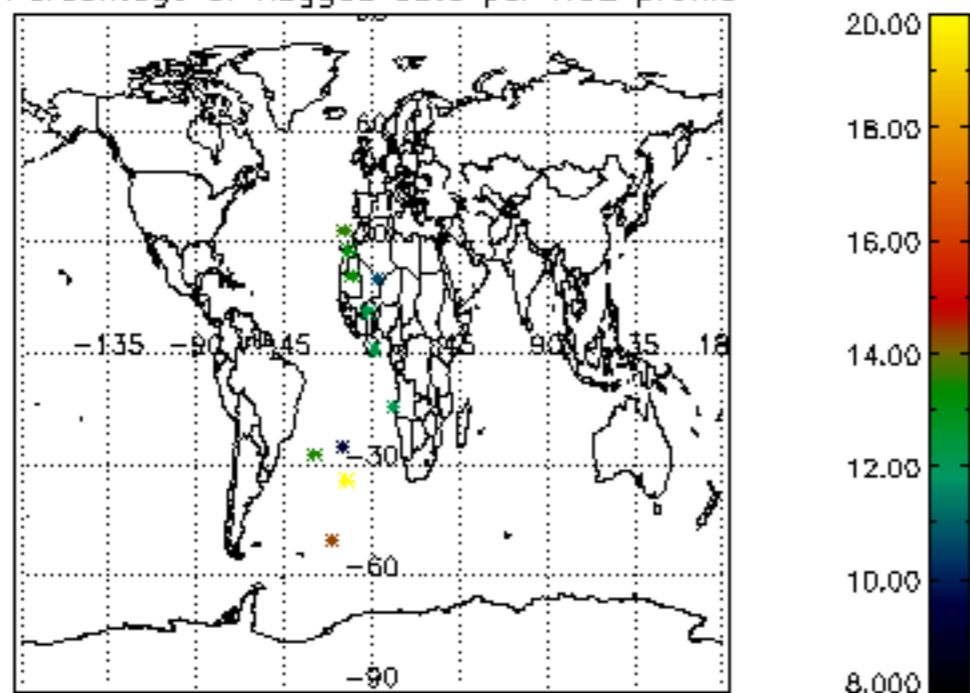
Percentage of flagged data per D3 profile



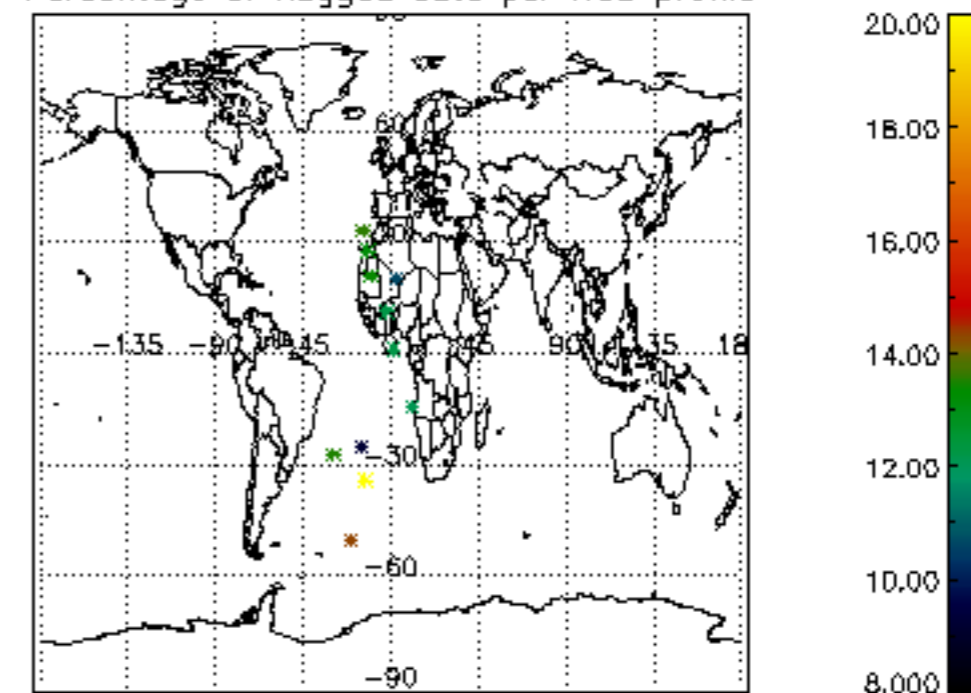
Percentage of flagged data per H2O profile

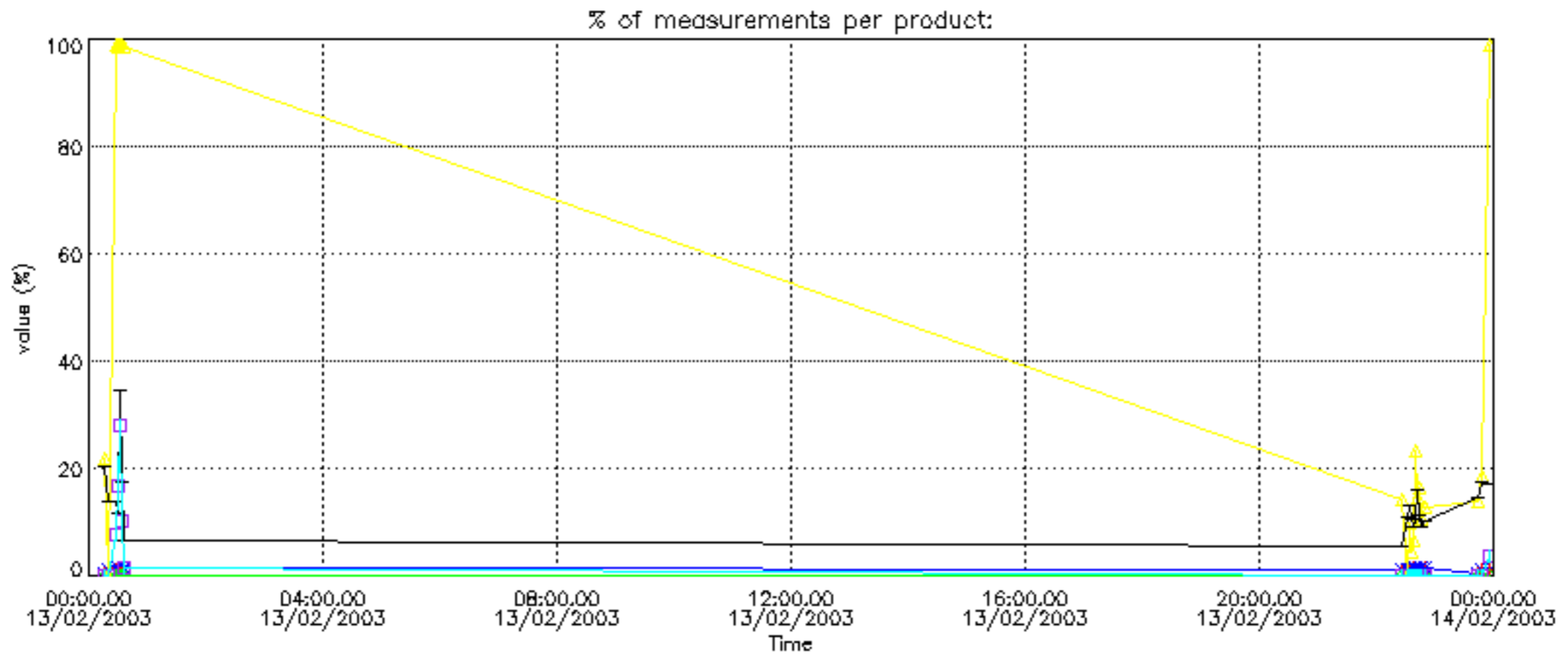


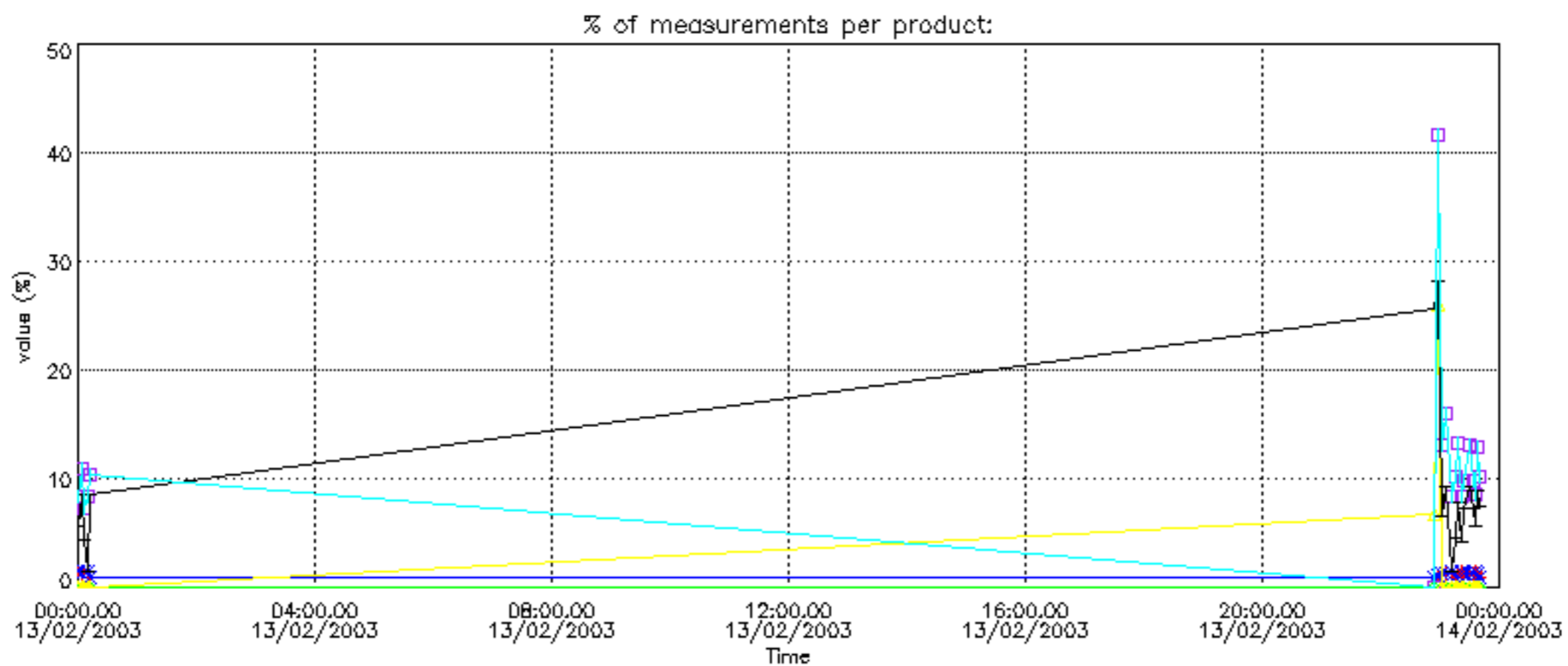
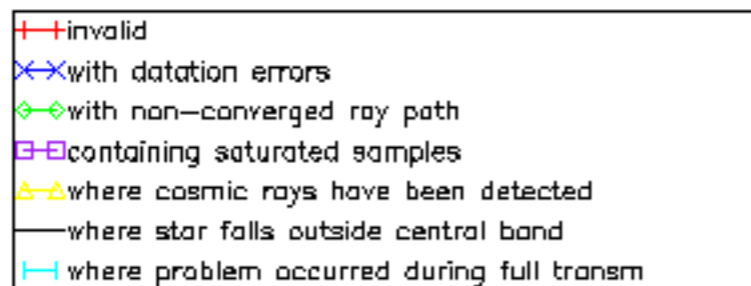
Percentage of flagged data per NO2 profile



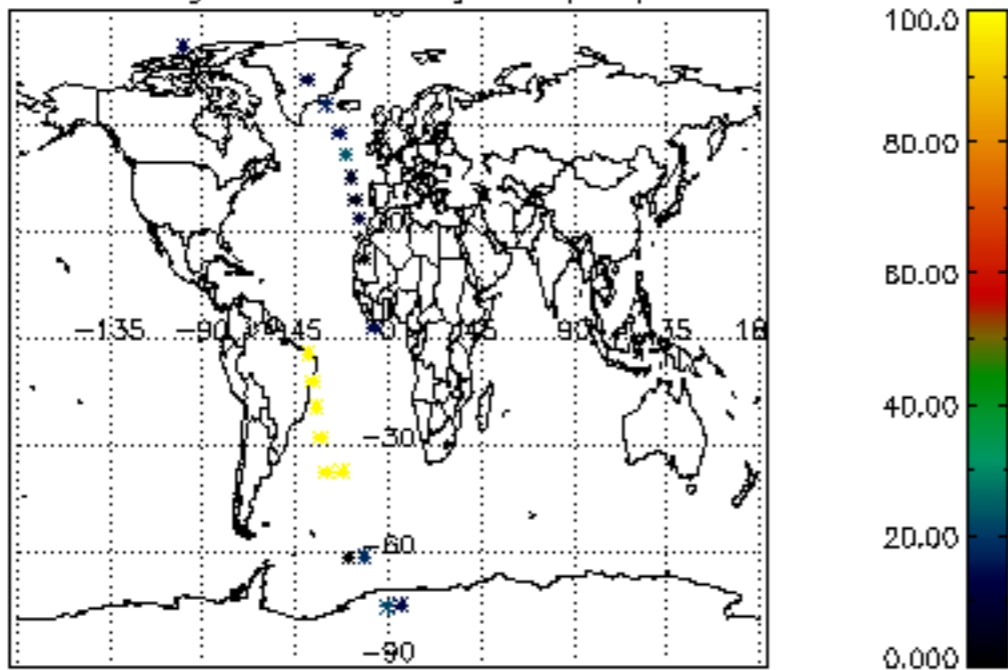
Percentage of flagged data per NO3 profile



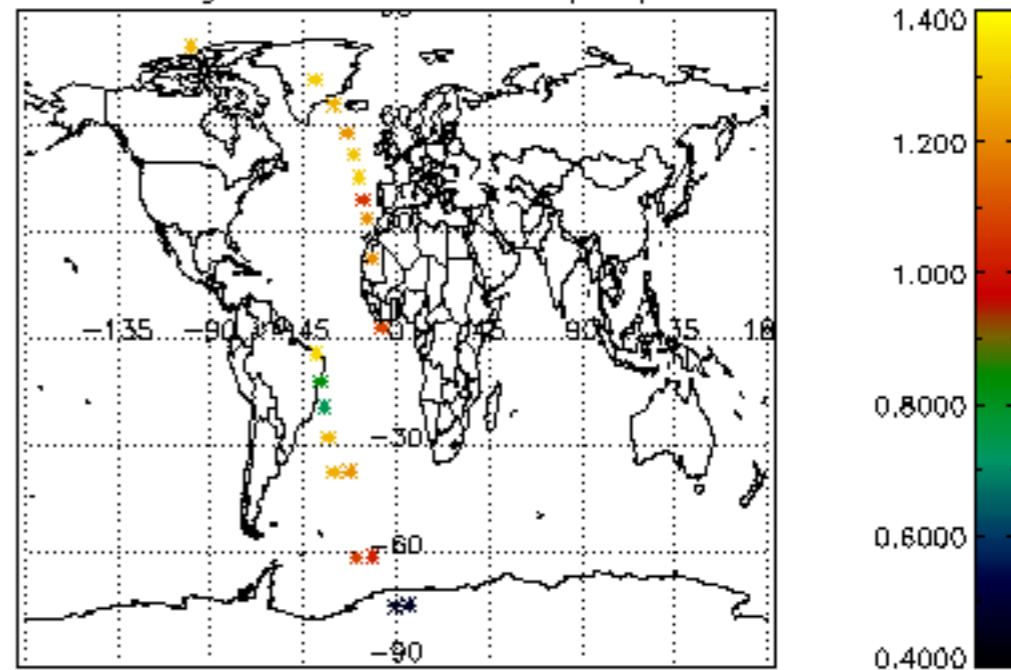




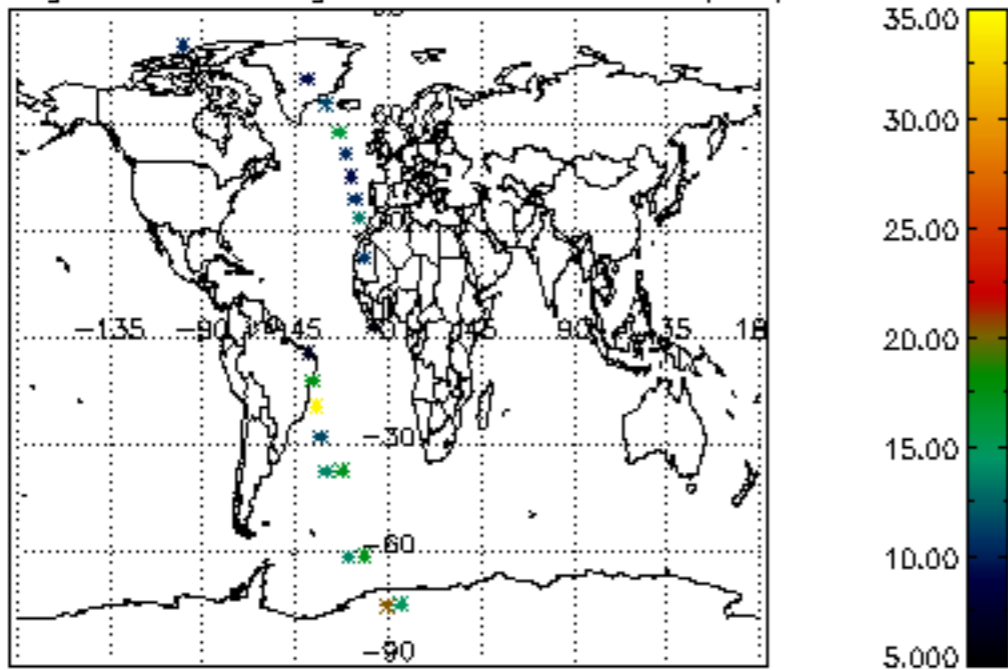
Percentage of cosmic ray hits per profile



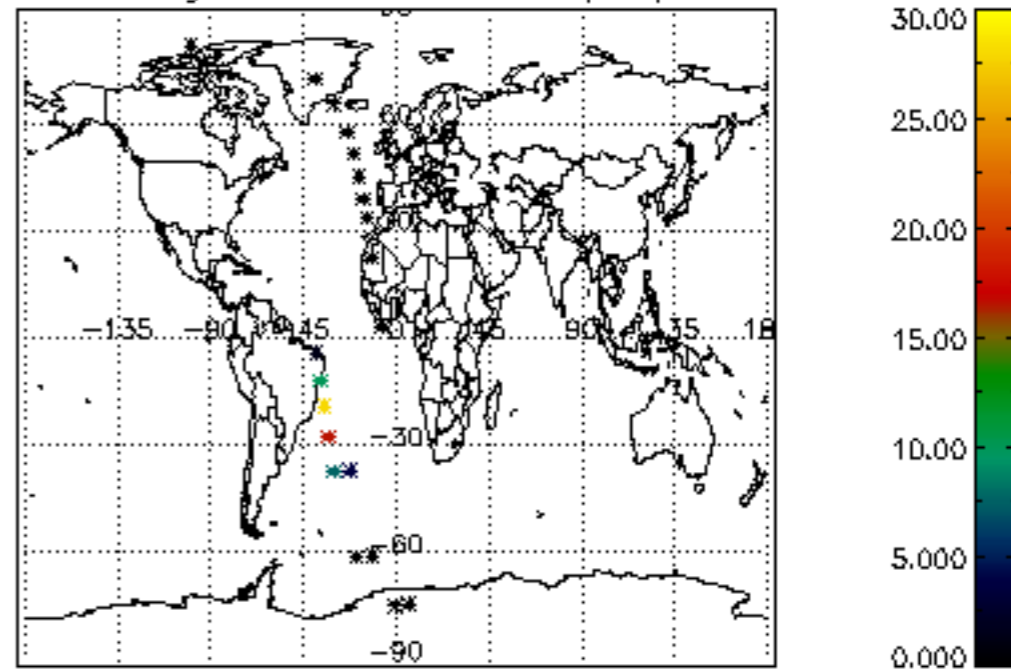
Percentage of datation errors per profile



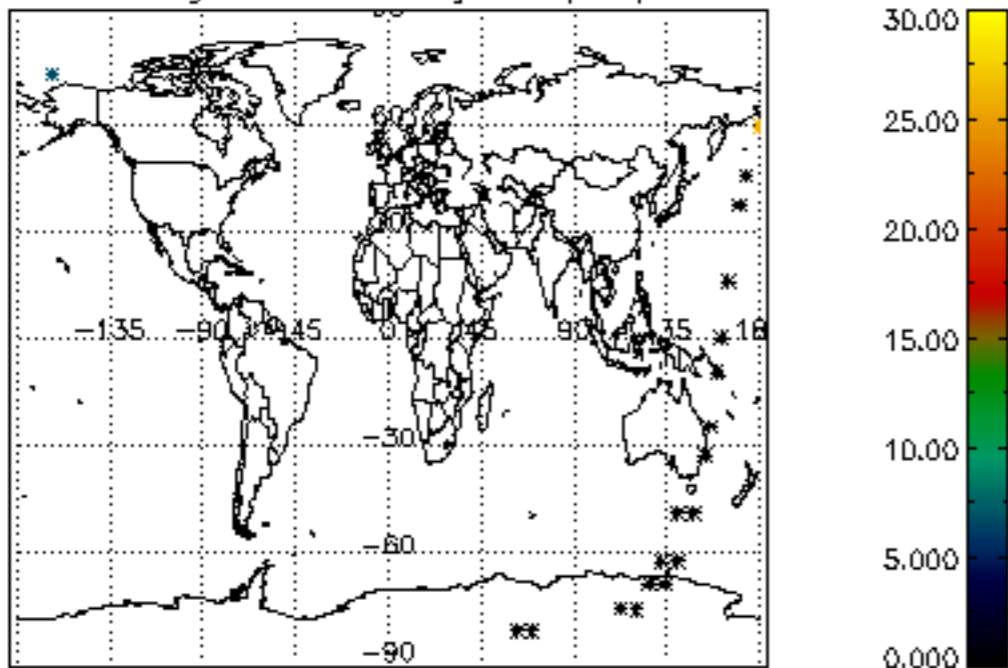
Percentage of star falling outside central band per profile



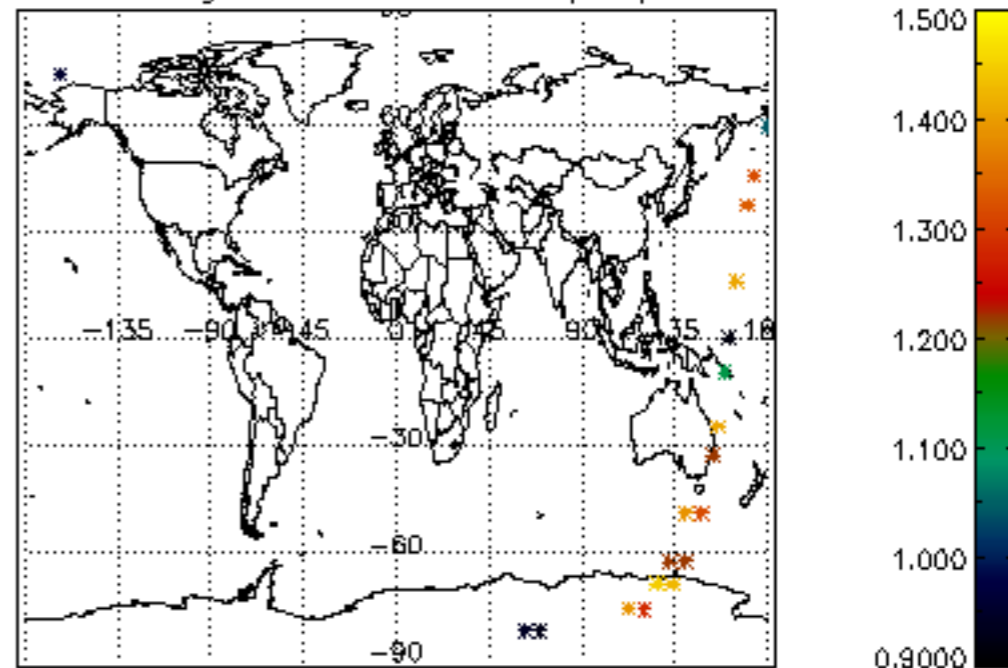
Percentage of saturation errors per profile



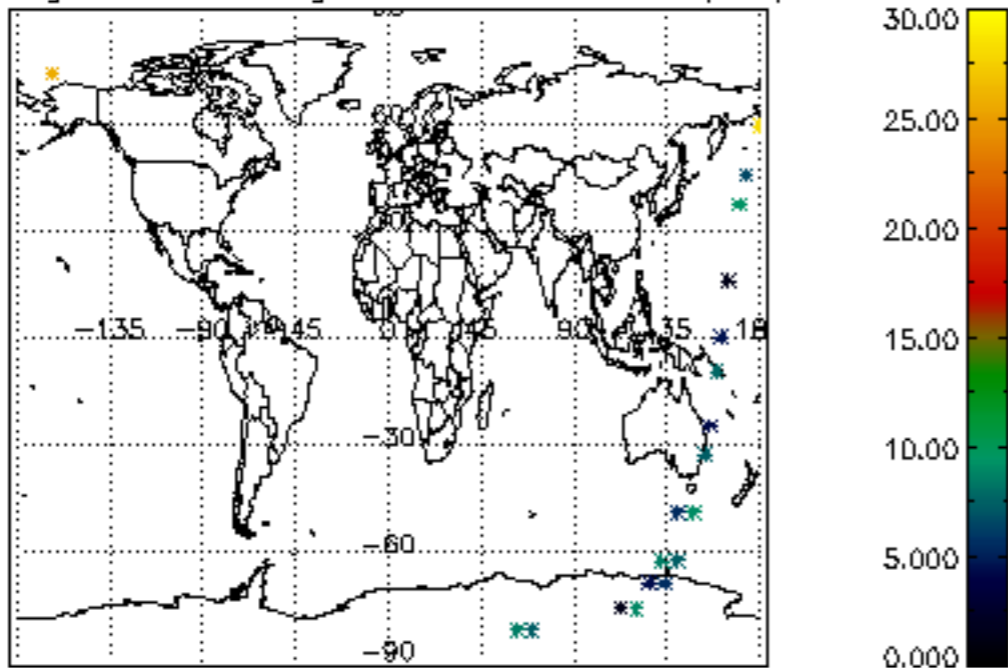
Percentage of cosmic ray hits per profile



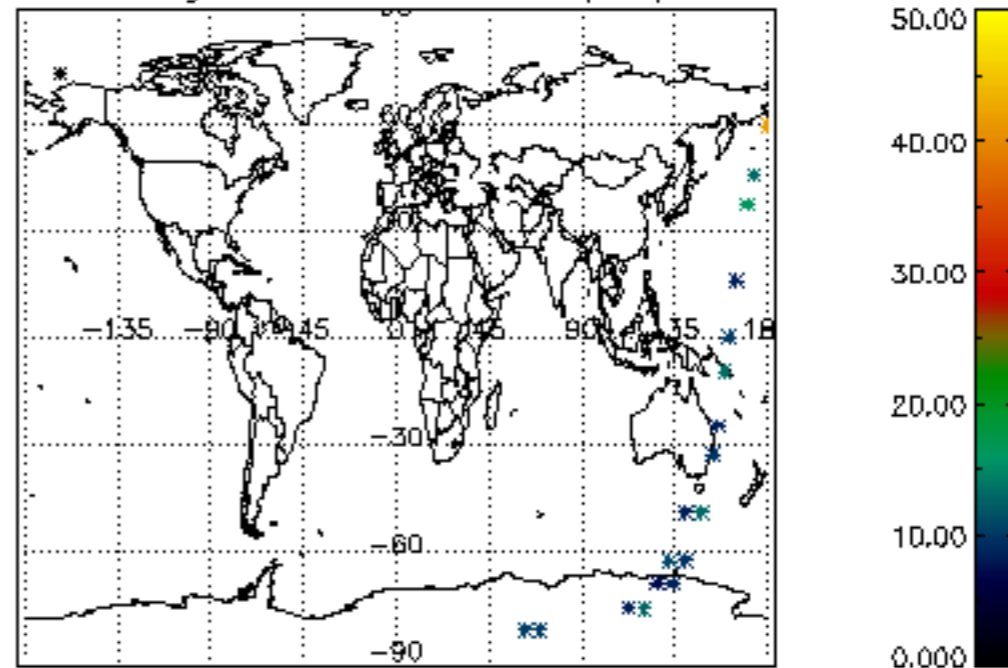
Percentage of datation errors per profile

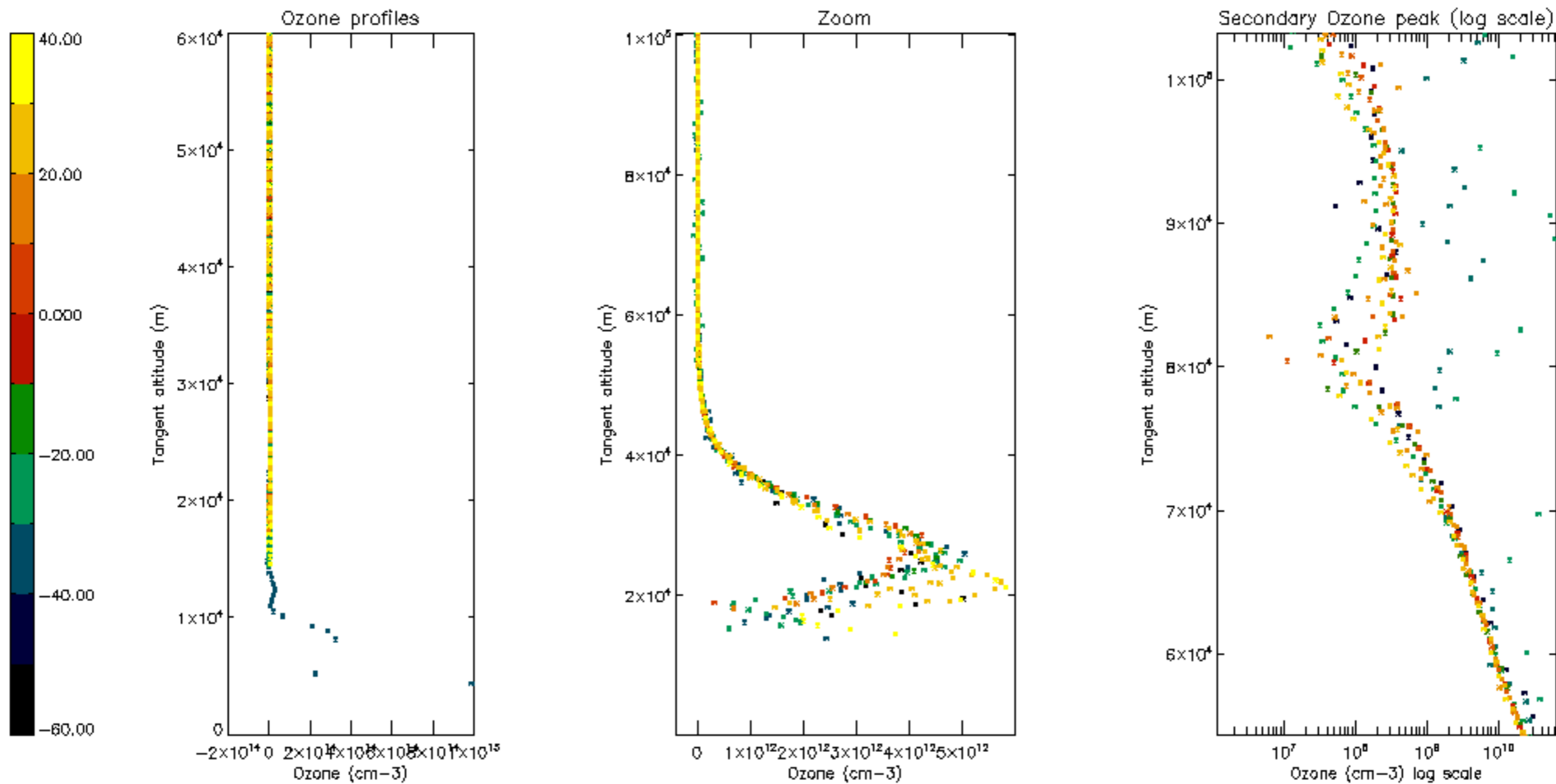


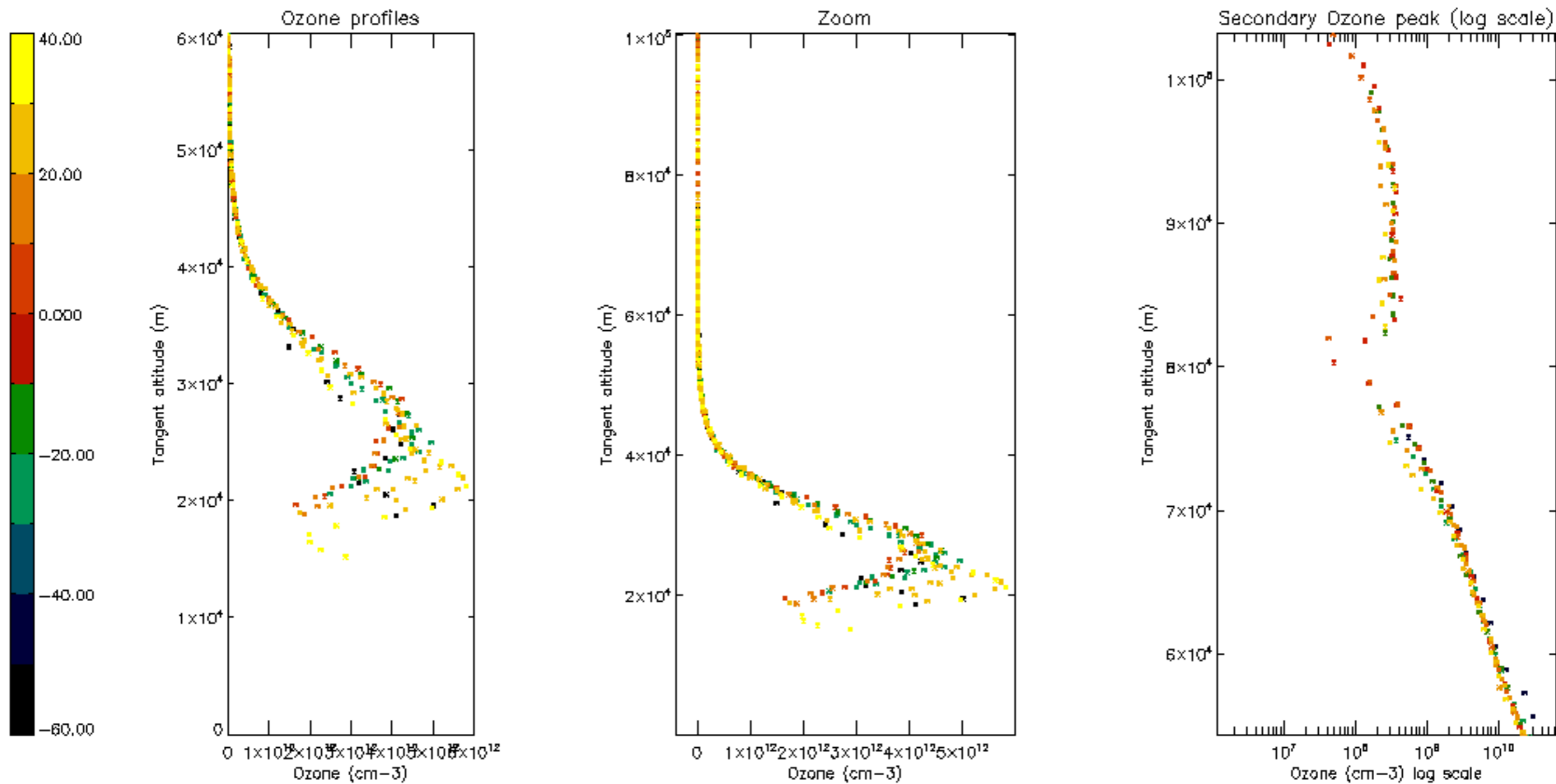
Percentage of star falling outside central band per profile

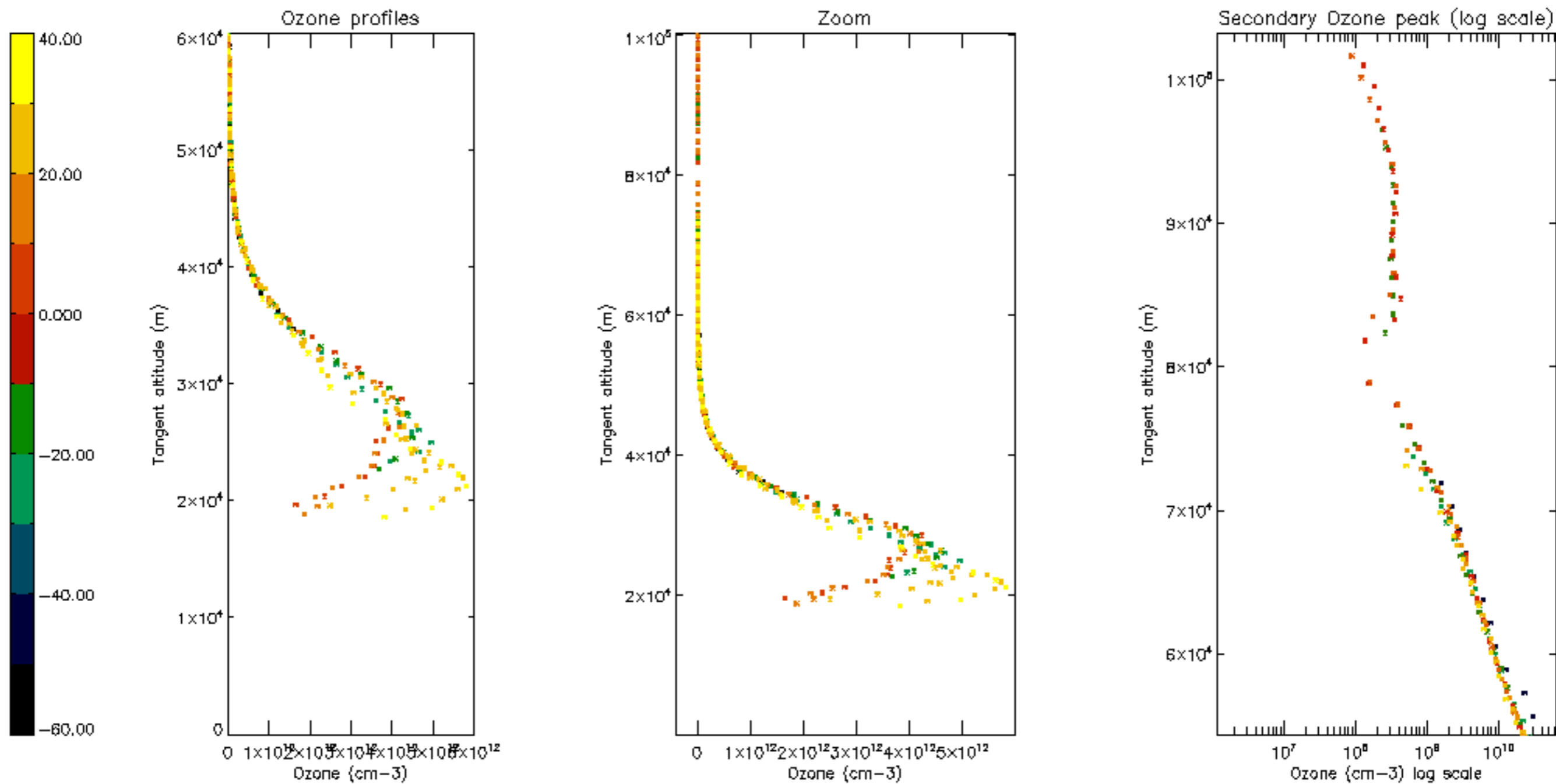


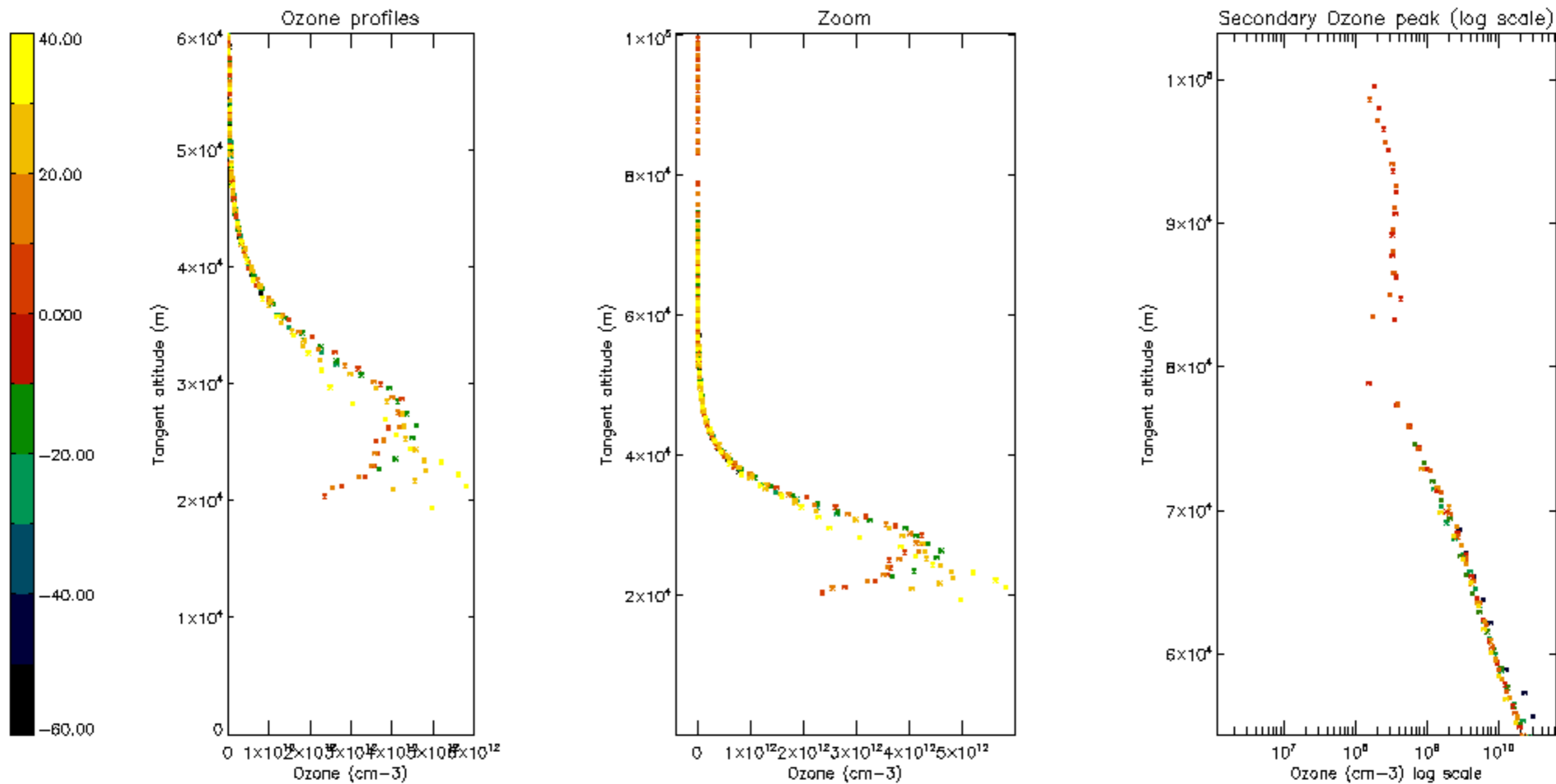
Percentage of saturation errors per profile

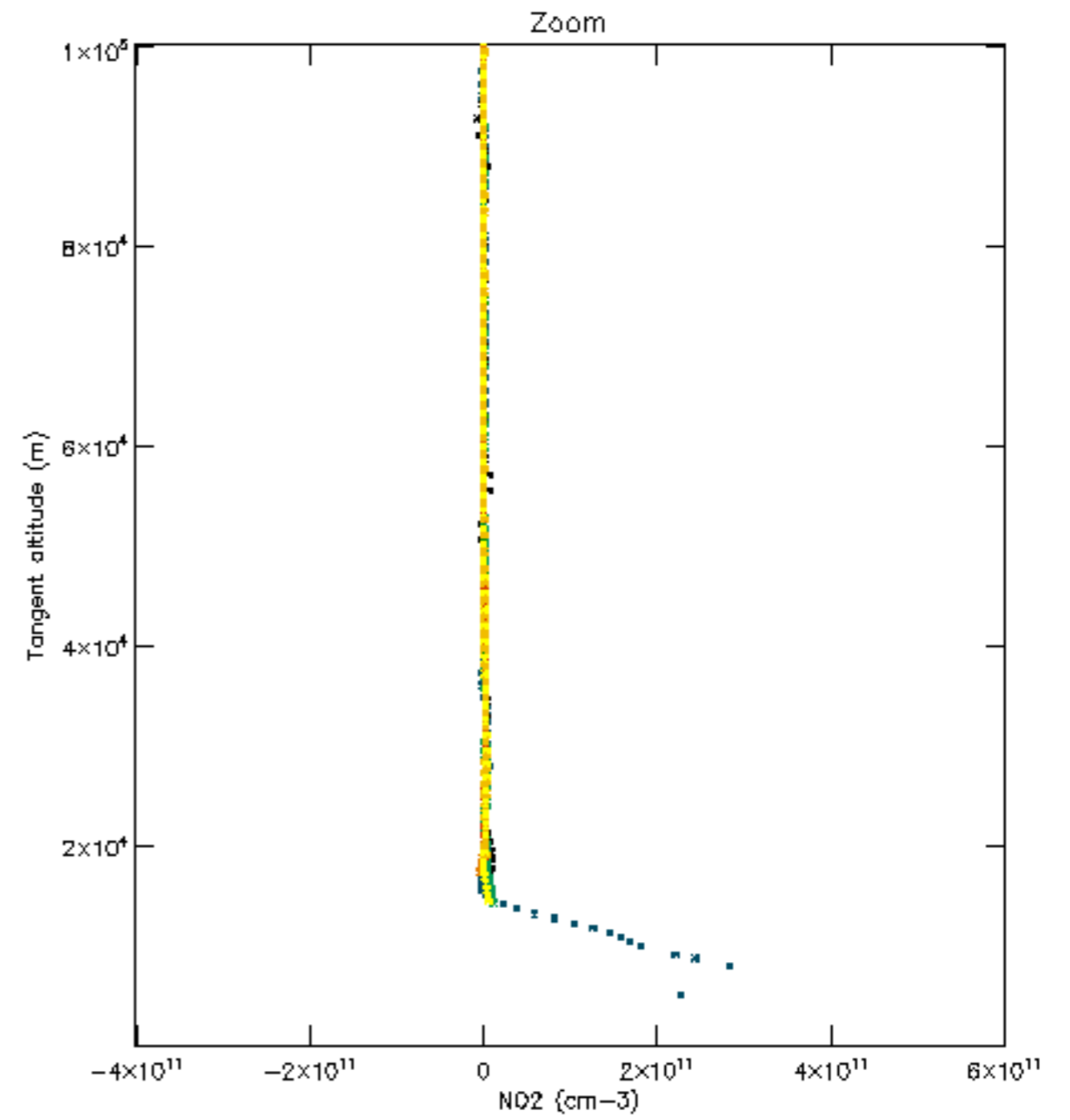
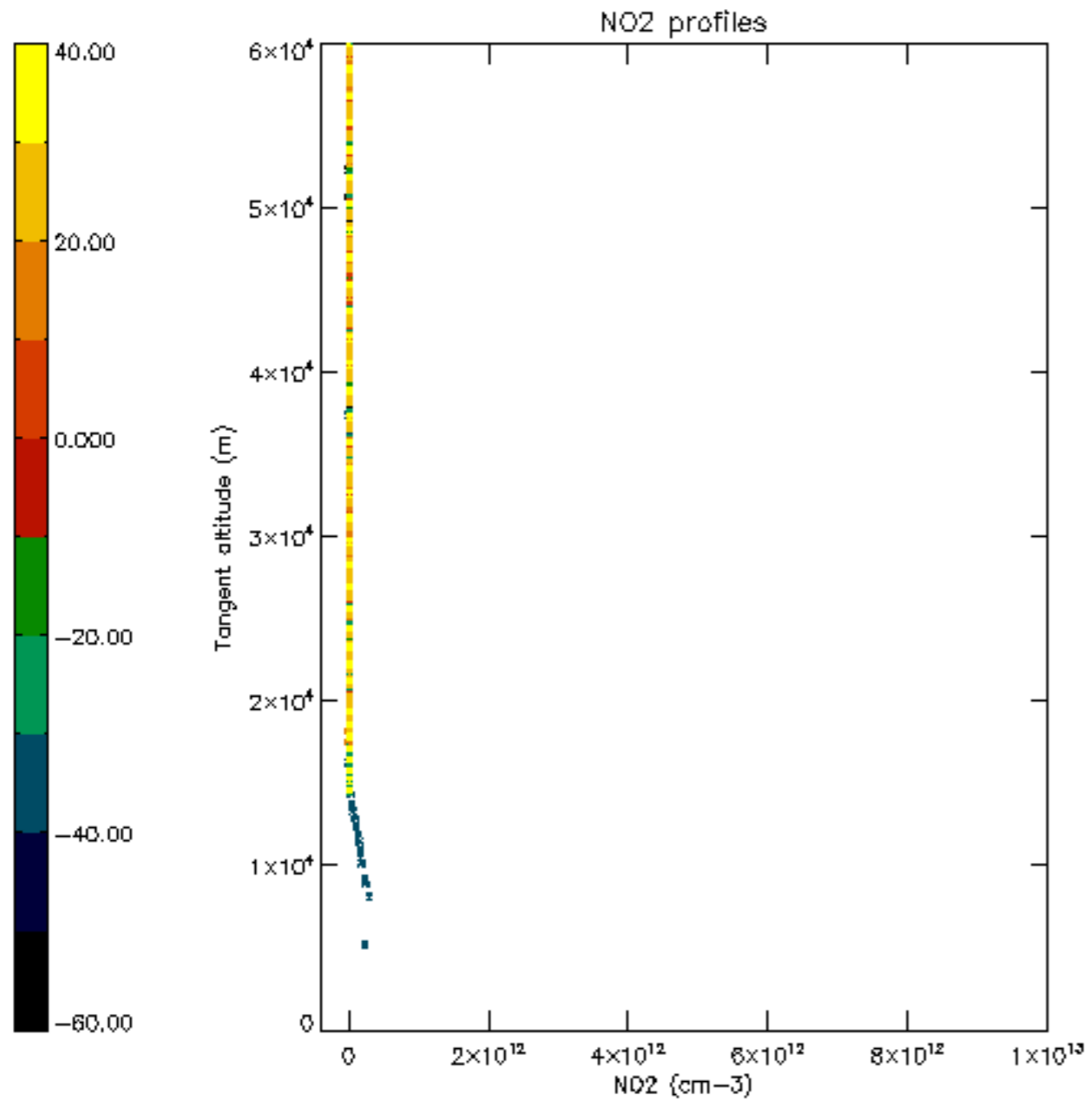


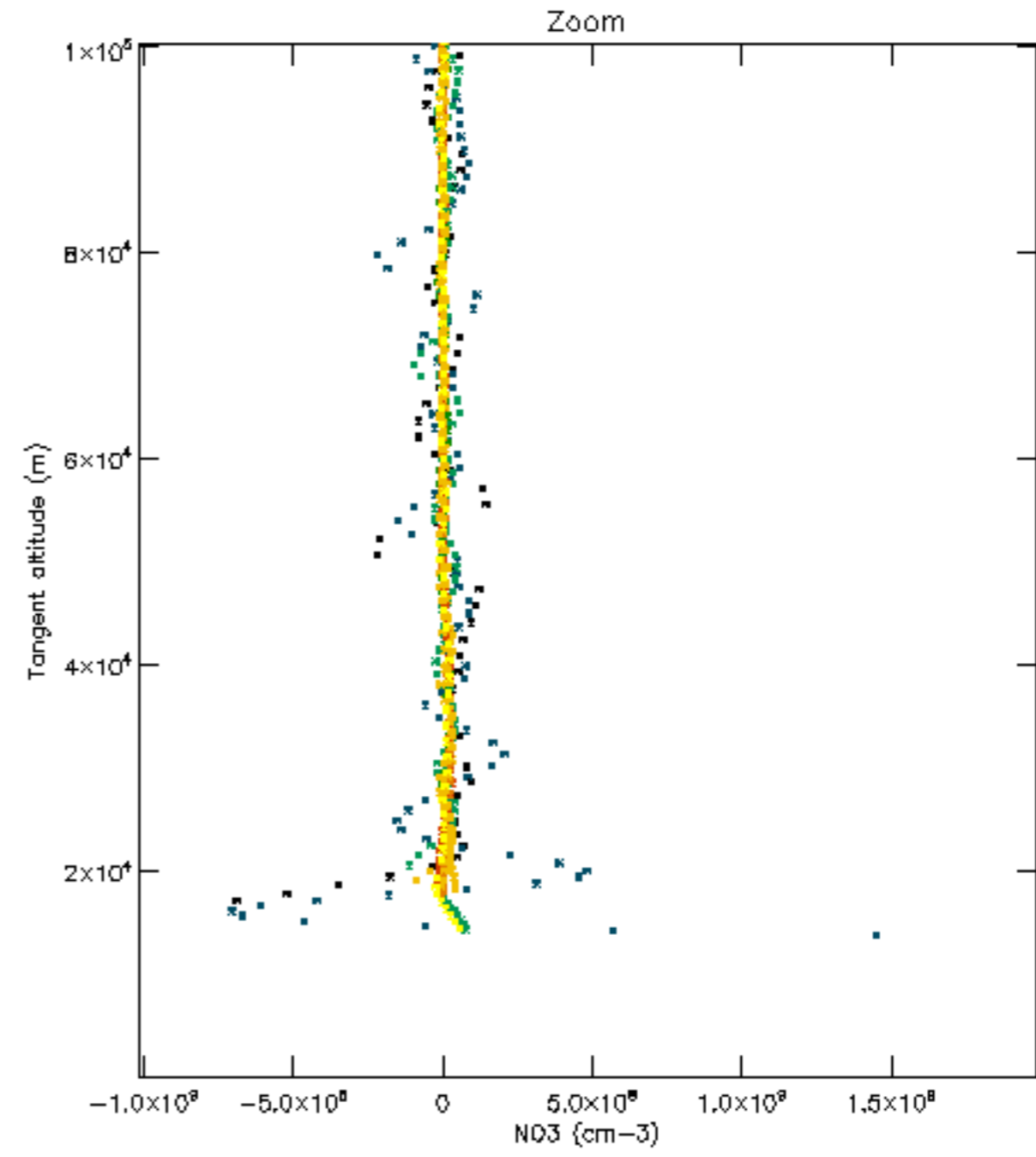
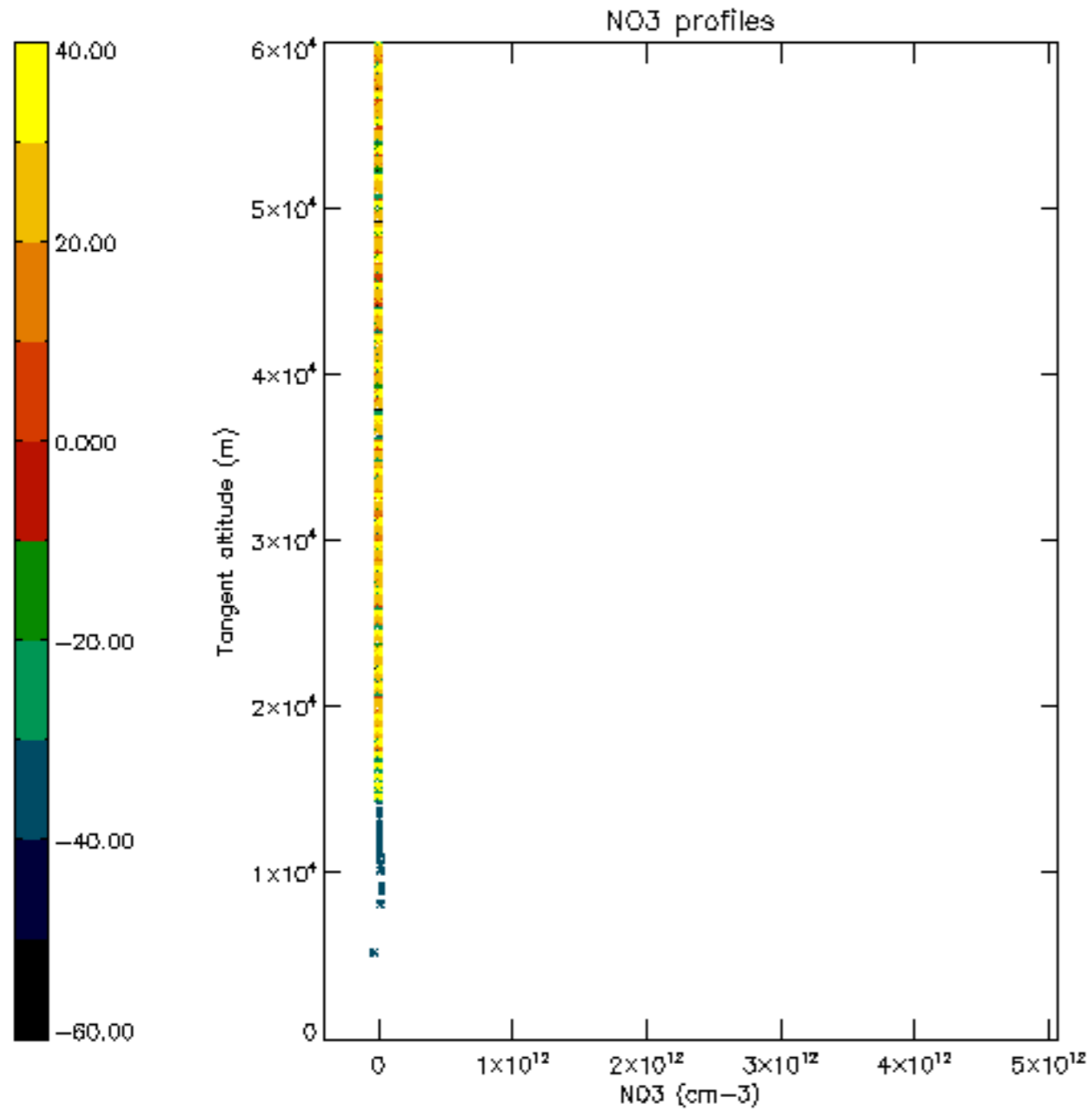


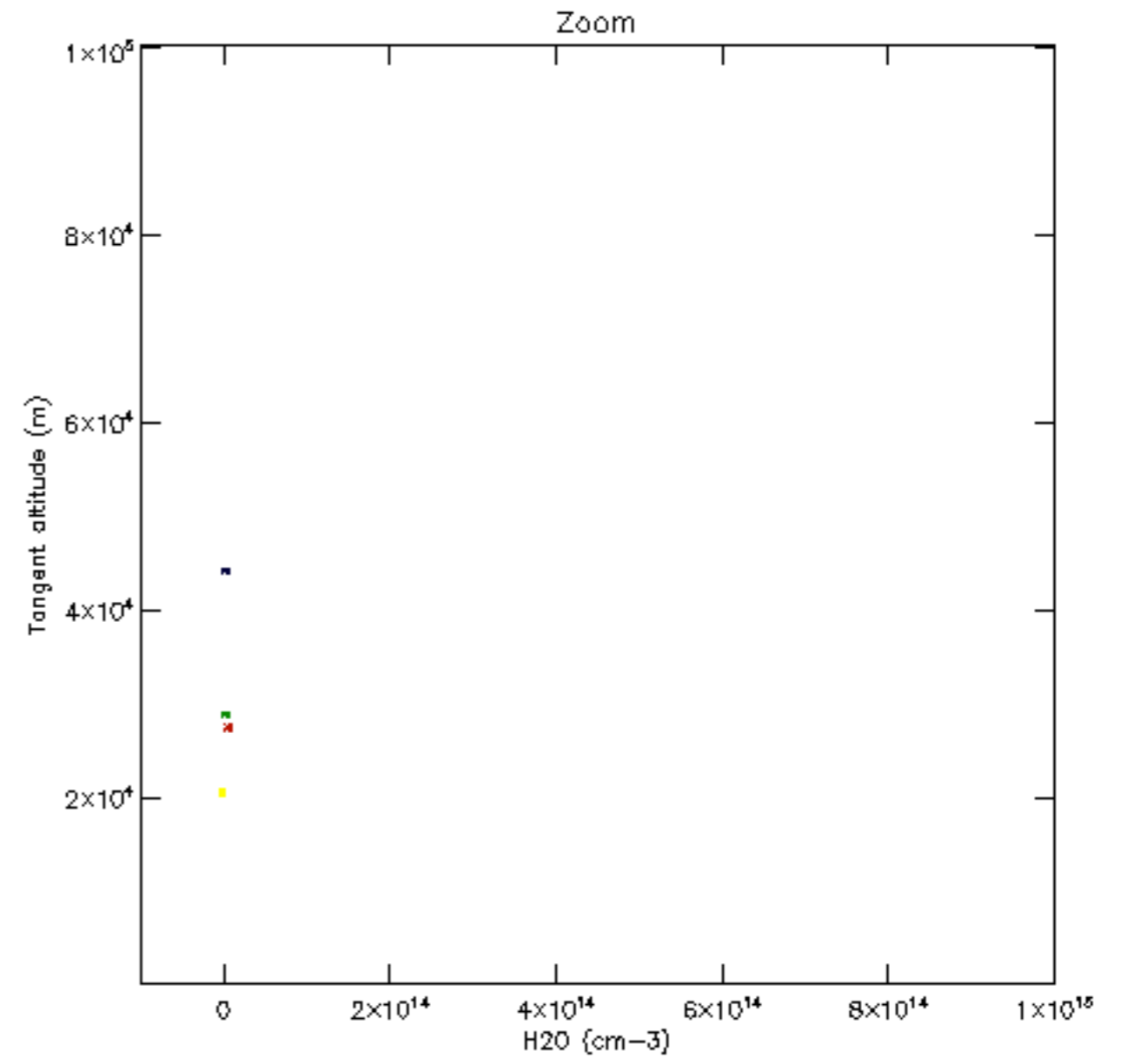
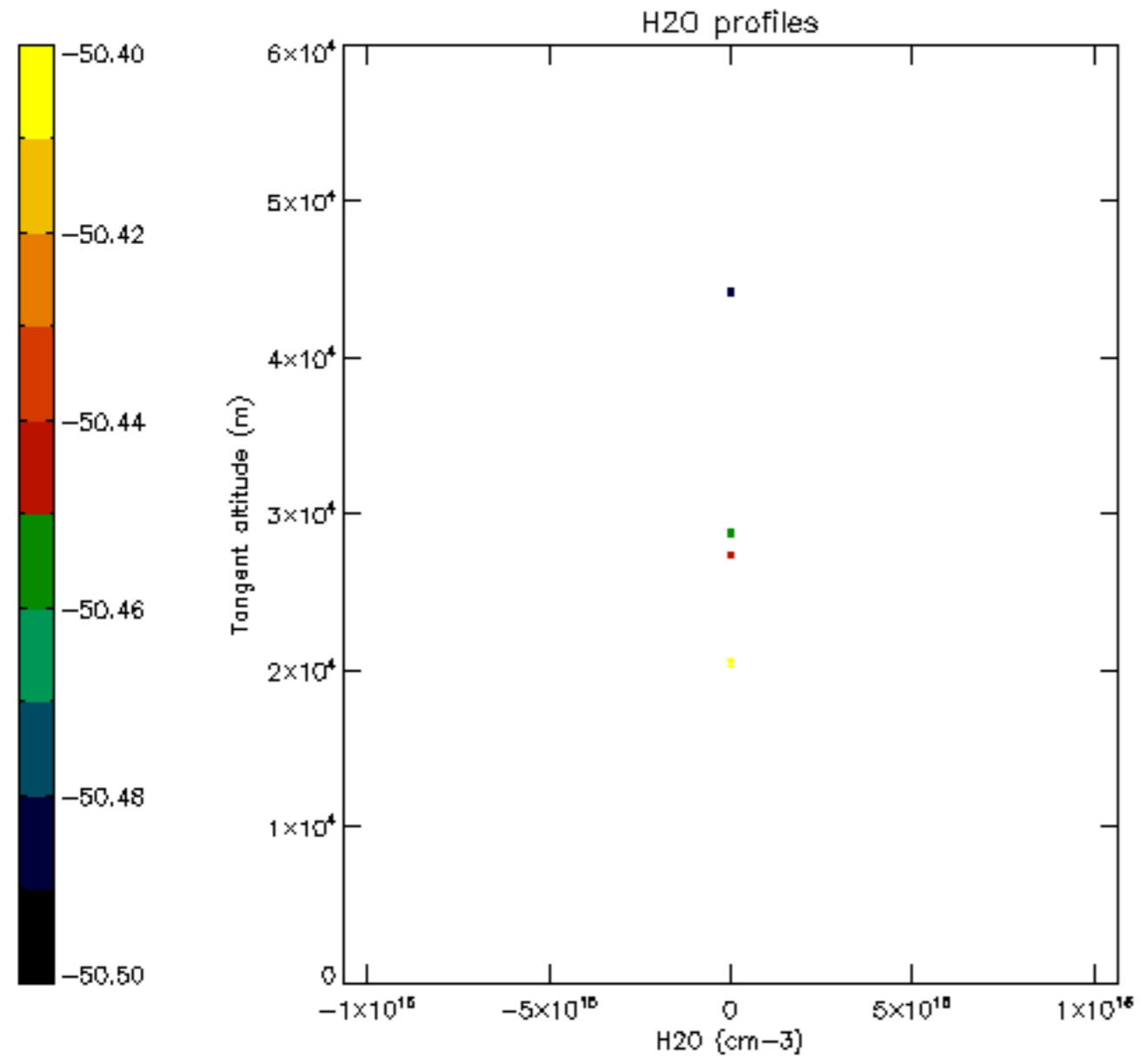


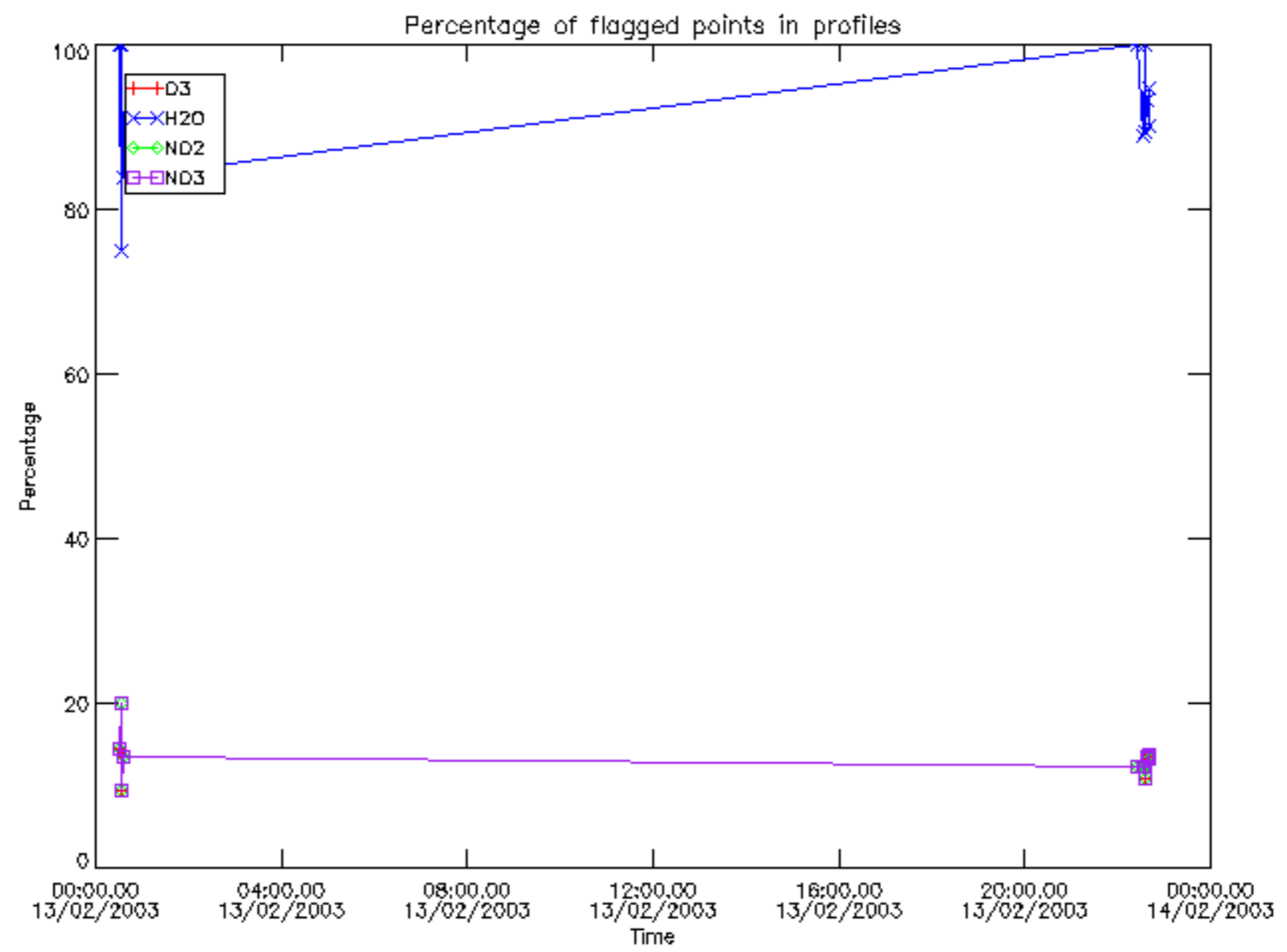




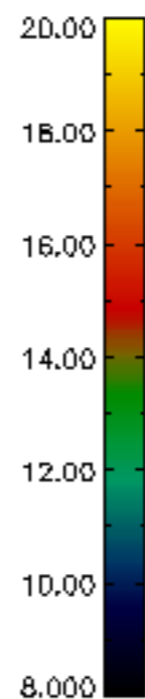
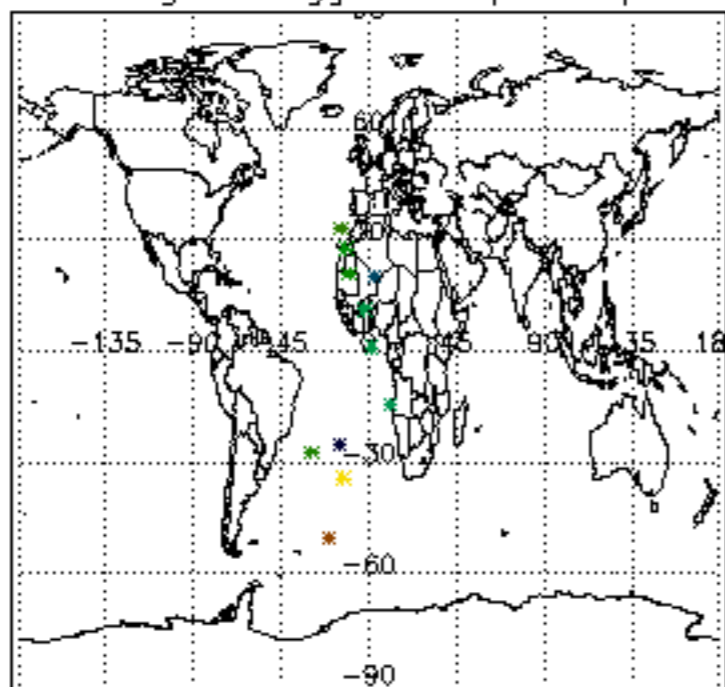




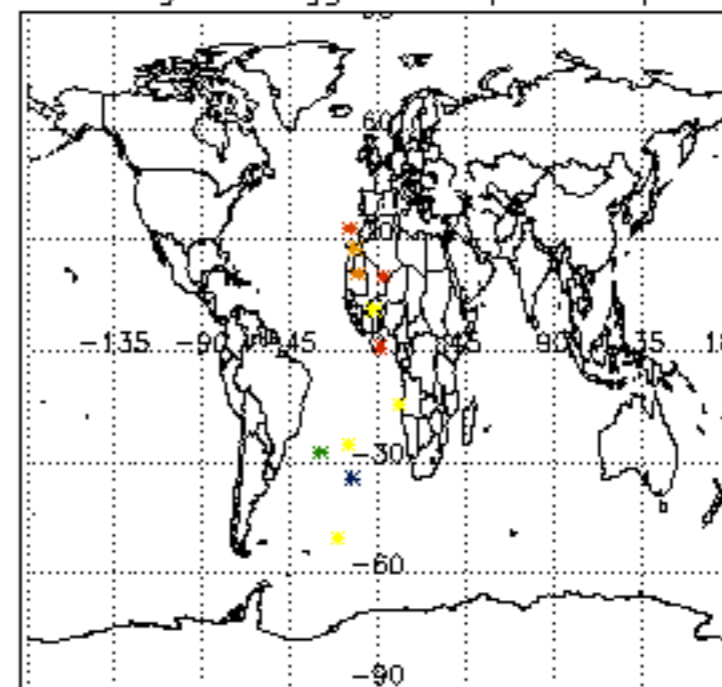




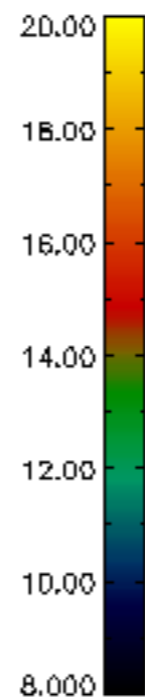
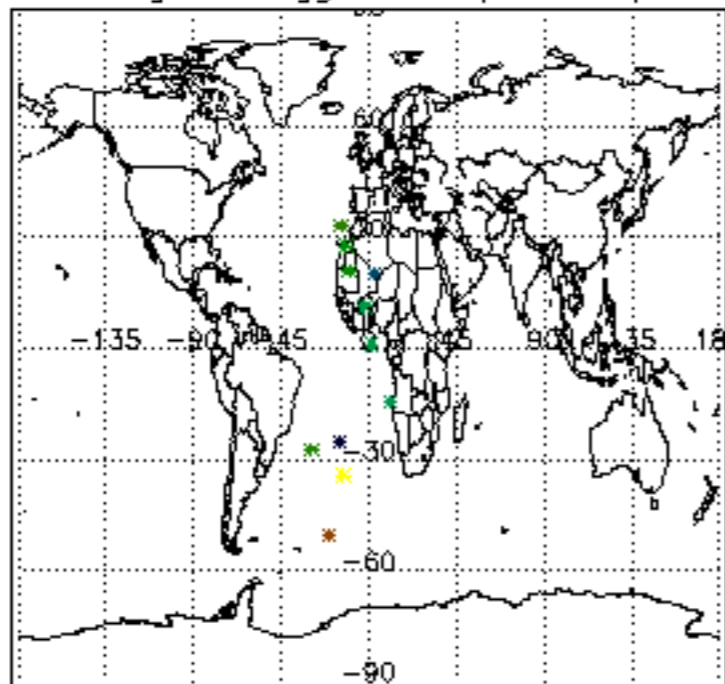
Percentage of flagged data per D3 profile



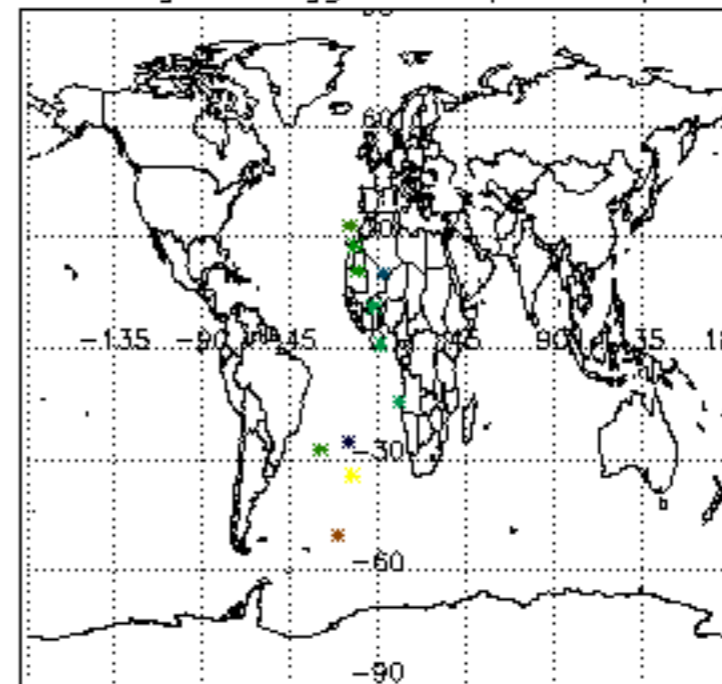
Percentage of flagged data per H2O profile

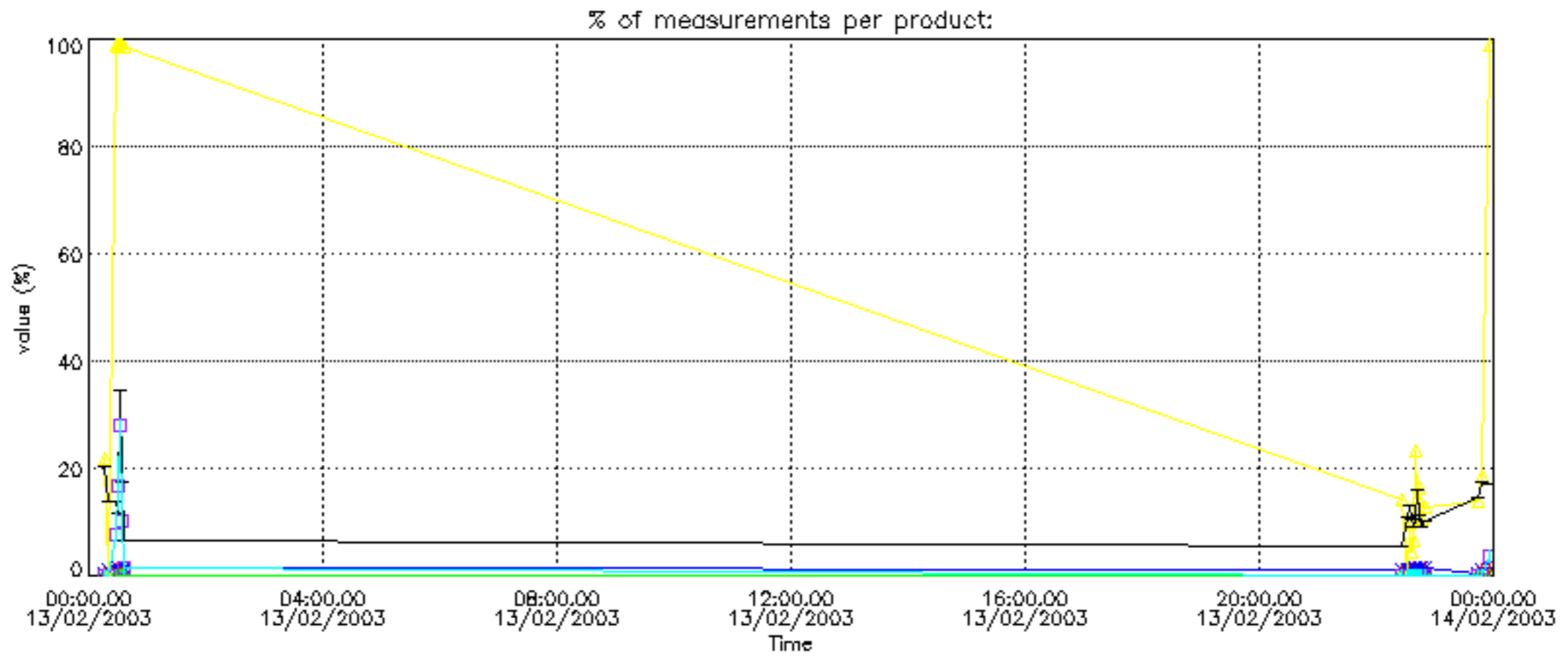


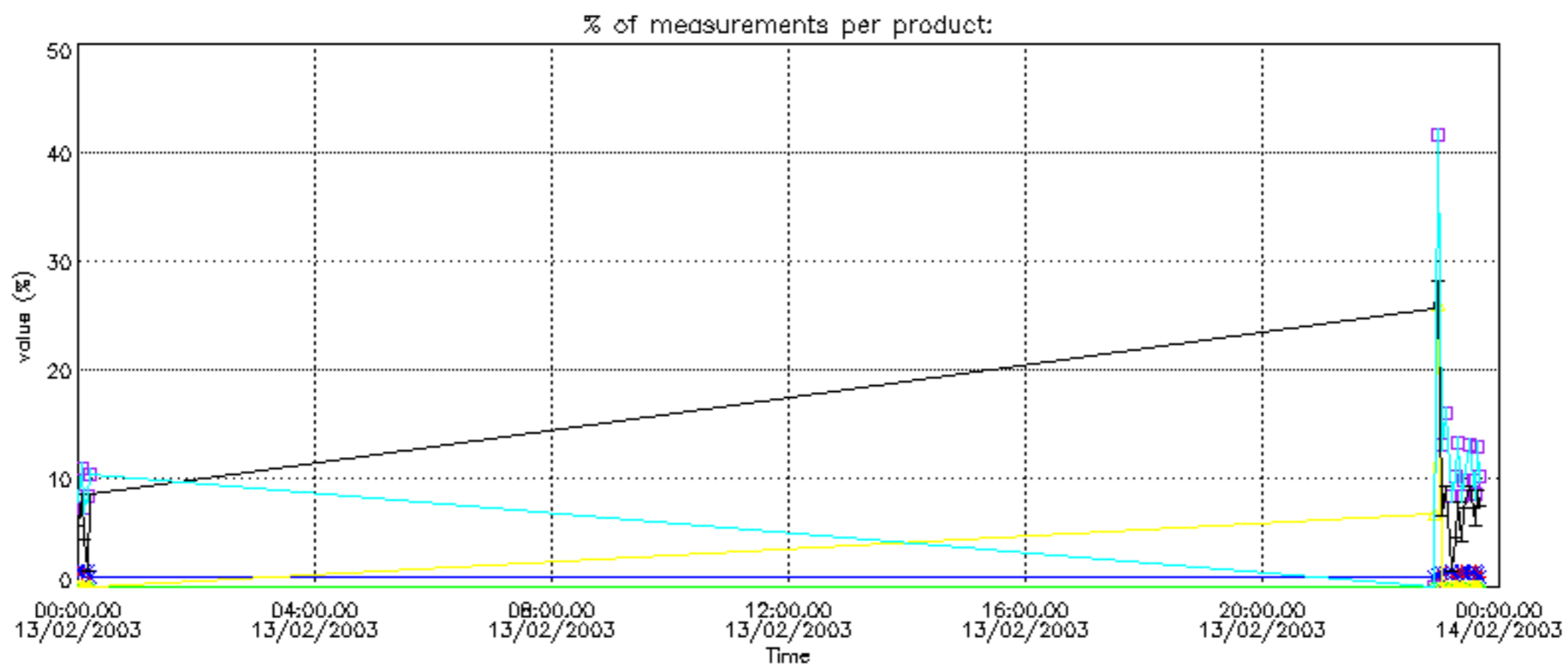
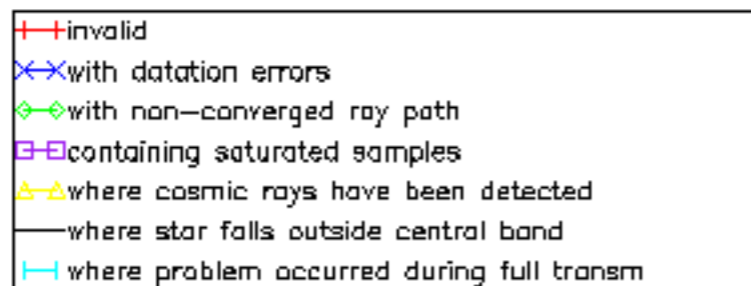
Percentage of flagged data per NO2 profile



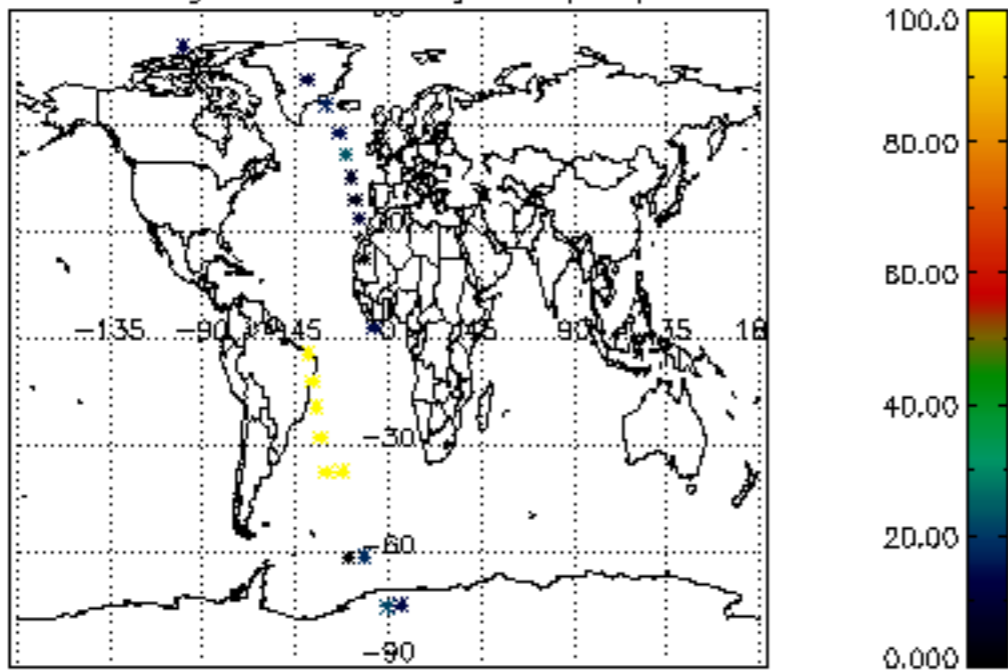
Percentage of flagged data per NO3 profile



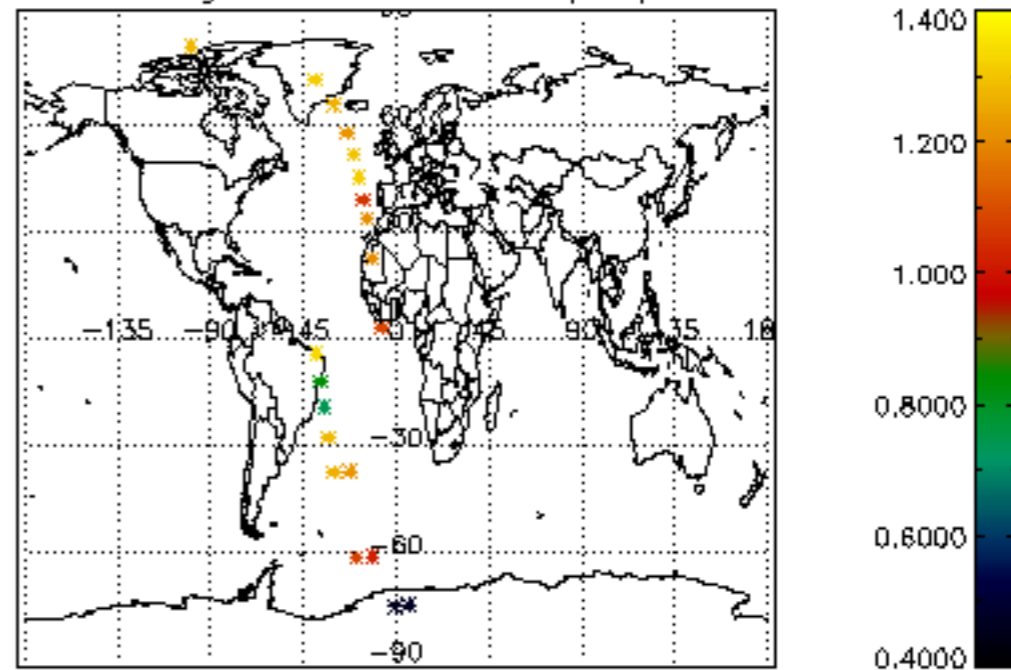




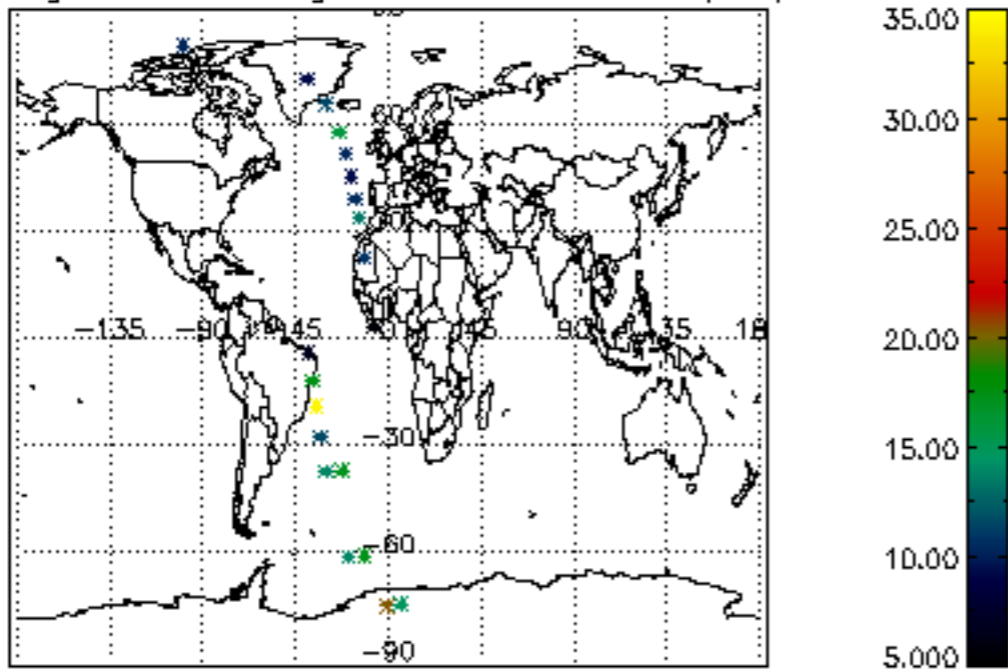
Percentage of cosmic ray hits per profile



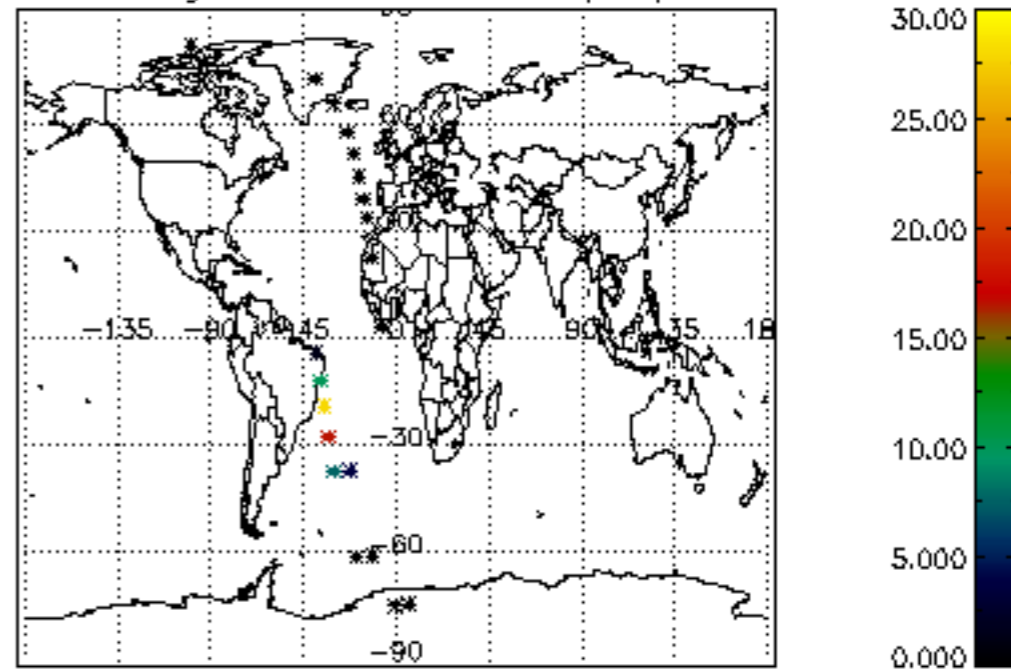
Percentage of datation errors per profile



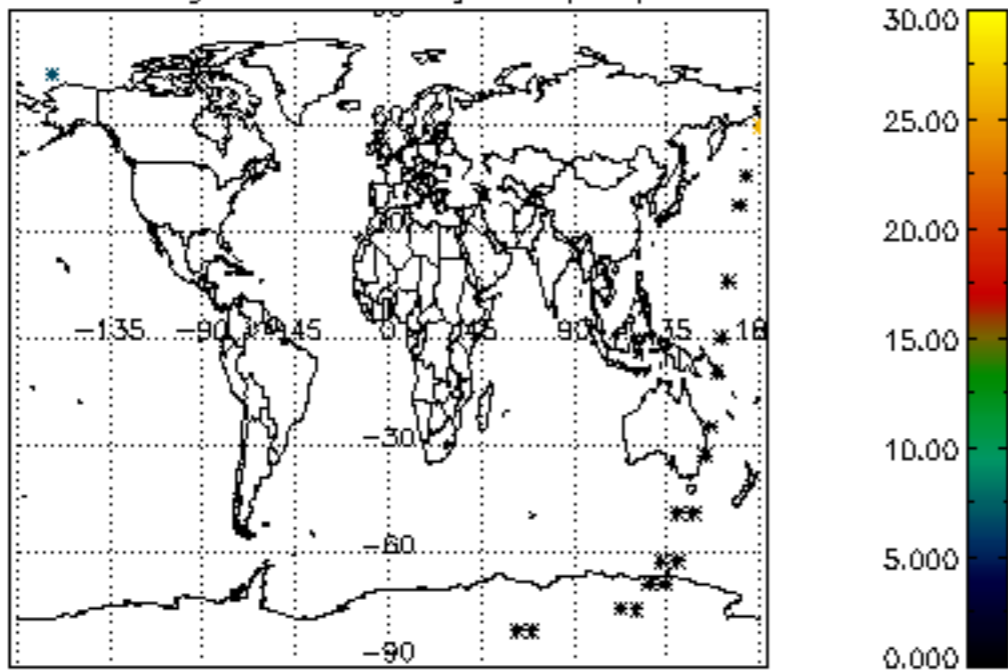
Percentage of star falling outside central band per profile



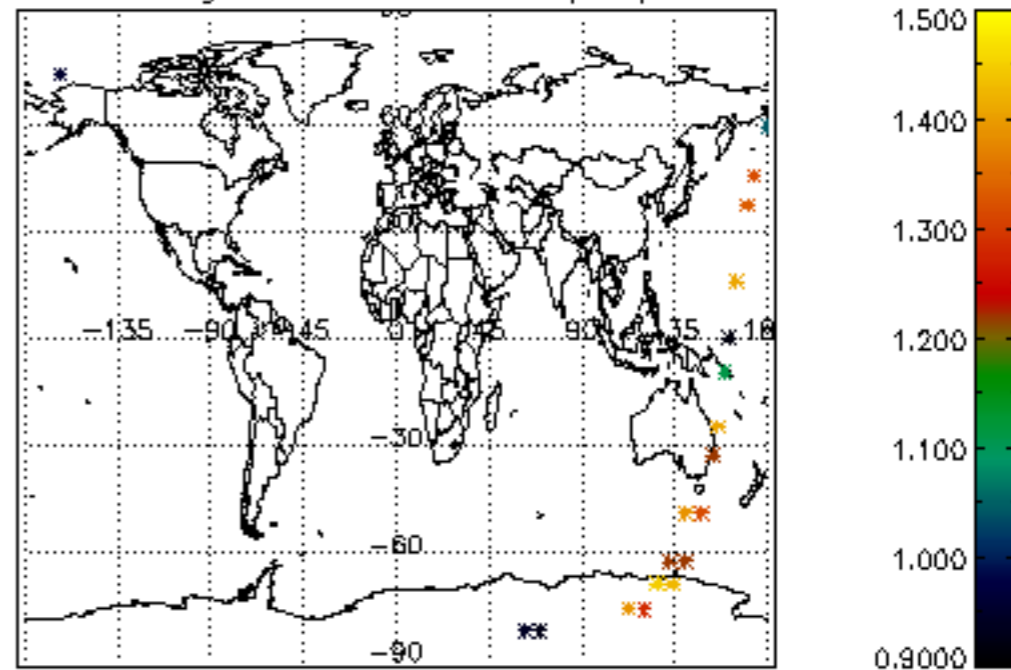
Percentage of saturation errors per profile



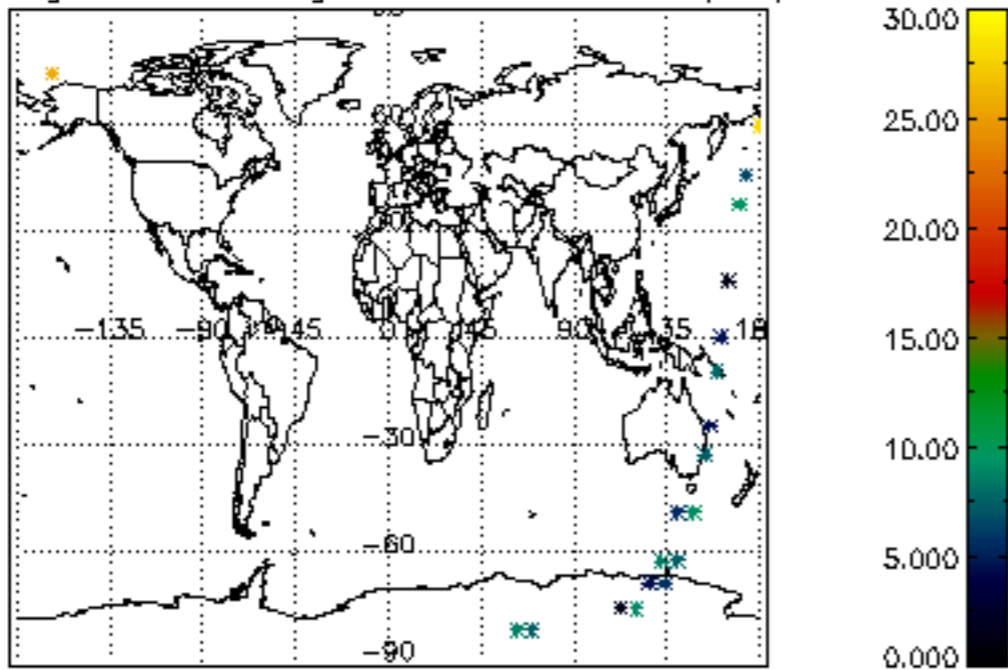
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

