

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	25APR2013 10:29:23
Data source version	GOMOS/6.01
Start time of products	16-02-2008 (16FEB2008 00:00:00)
Stop time of products	17-02-2008 (17FEB2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	109
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

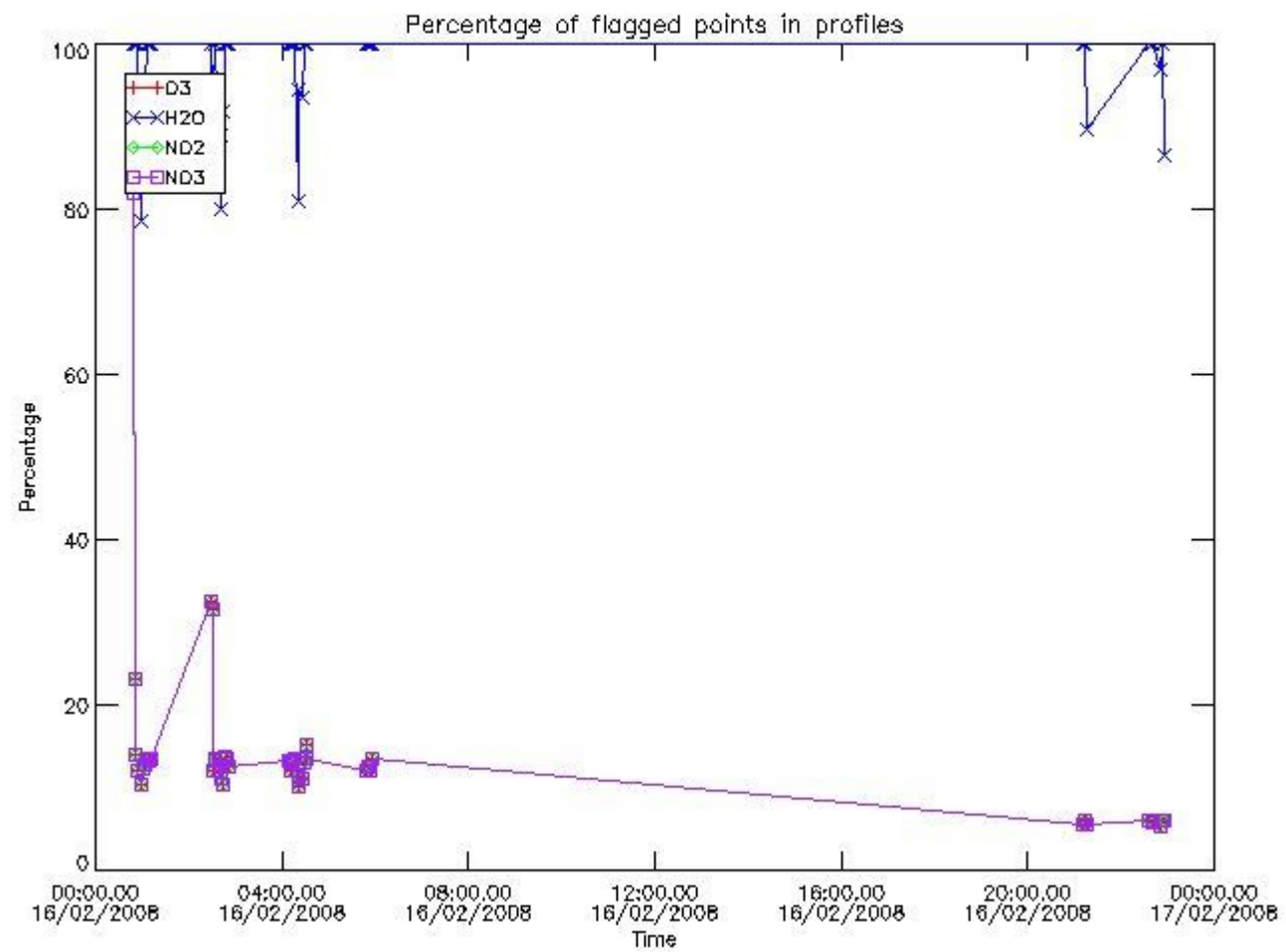
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20080216_001124_000000332066_00059_31175_6043.N1	16-FEB-2008 00:11:24	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	31175	No
2	GOM_NL__2PRFIN20080216_001821_000000332066_00059_31175_6044.N1	16-FEB-2008 00:18:21	Bright	32.500	89	5Alp Cep	2.4510	8000.0	65	31175	No
3	GOM_NL__2PRFIN20080216_002328_000000352066_00059_31175_6045.N1	16-FEB-2008 00:23:28	Bright	35.000	19	50Alp Cyg	1.2460	10500.	70	31175	No
4	GOM_NL__2PRFIN20080216_002505_000000362066_00059_31175_6046.N1	16-FEB-2008 00:25:05	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	31175	No
5	GOM_NL__2PRFIN20080216_003317_000000342066_00059_31175_6047.N1	16-FEB-2008 00:33:17	Bright	34.000	168	17Zet Aql	2.9860	11000.	68	31175	No
6	GOM_NL__2PRFIN20080216_004251_000000422066_00059_31175_6048.N1	16-FEB-2008 00:42:51	Twilight	41.500	155	41Pi Sgr	2.9000	6600.0	83	31175	No
7	GOM_NL__2PRFIN20080216_004430_000000402066_00059_31175_6049.N1	16-FEB-2008 00:44:30	Twilight	39.500	57	34Sig Sgr	2.0660	26000.	79	31175	No
8	GOM_NL__2PRFIN20080216_004925_000000452066_00059_31175_6050.N1	16-FEB-2008 00:49:25	Dark	45.000	25	35Lam Sco	1.6200	28000.	90	31175	No
9	GOM_NL__2PRFIN20080216_005042_000000402066_00059_31175_6051.N1	16-FEB-2008 00:50:42	Dark	39.500	40	The Sco	1.8590	7100.0	79	31175	No
10	GOM_NL__2PRFIN20080216_005227_000000372066_00059_31175_6052.N1	16-FEB-2008 00:52:27	Dark	36.500	147	Alp Ara	2.8770	26000.	73	31175	No
11	GOM_NL__2PRFIN20080216_005354_000000422066_00059_31175_6053.N1	16-FEB-2008 00:53:54	Dark	42.000	141	Bet Ara	2.8400	4600.0	84	31175	No
12	GOM_NL__2PRFIN20080216_010004_000000502066_00060_31176_6055.N1	16-FEB-2008 01:00:04	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	31176	No
13	GOM_NL__2PRFIN20080216_010123_000000422066_00060_31176_6056.N1	16-FEB-2008 01:01:23	Dark	41.500	10	Bet Cen	0.61000	28000.	83	31176	No
14	GOM_NL__2PRFIN20080216_010427_000000402066_00060_31176_6057.N1	16-FEB-2008 01:04:27	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	31176	No
15	GOM_NL__2PRFIN20080216_010653_000000382066_00060_31176_6058.N1	16-FEB-2008 01:06:53	Dark	37.500	29	Bet Car	1.6720	10200.	75	31176	No
16	GOM_NL__2PRFIN20080216_010931_000000392066_00060_31176_6059.N1	16-FEB-2008 01:09:31	Dark	38.500	71	lot Car	2.2460	7700.0	77	31176	No
17	GOM_NL__2PRFIN20080216_011108_000000382066_00060_31176_6060.N1	16-FEB-2008 01:11:08	Dark	38.000	46	Del Vel	1.9540	10600.	76	31176	No
18	GOM_NL__2PRFIN20080216_011331_000000392066_00060_31176_6061.N1	16-FEB-2008 01:13:31	Straylight	39.000	34	Gam2Vel	1.7930	23000.	78	31176	No
19	GOM_NL__2PRFIN20080216_011535_000000382066_00060_31176_6062.N1	16-FEB-2008 01:15:35	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	31176	No
20	GOM_NL__2PRFIN20080216_011953_000000402066_00060_31176_6063.N1	16-FEB-2008 01:19:53	Straylight	40.000	132	15Rho Pup	2.8030	6900.0	80	31176	No
21	GOM_NL__2PRFIN20080216_012821_000000452066_00060_31176_6064.N1	16-FEB-2008 01:28:21	Bright	44.500	8	10Alp CMi	0.40000	6500.0	89	31176	No
22	GOM_NL__2PRFIN20080216_013437_000000392066_00060_31176_6065.N1	16-FEB-2008 01:34:37	Bright	39.000	17	78Bet Gem	1.1610	4500.0	78	31176	No
23	GOM_NL__2PRFIN20080216_015159_000000352066_00060_31176_6066.N1	16-FEB-2008 01:51:59	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	31176	No
24	GOM_NL__2PRFIN20080216_015857_000000352066_00060_31176_6067.N1	16-FEB-2008 01:58:57	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	31176	No
25	GOM_NL__2PRFIN20080216_020404_000000362066_00060_31176_6068.N1	16-FEB-2008 02:04:04	Bright	35.500	19	50Alp Cyg	1.2460	10500.	71	31176	No
26	GOM_NL__2PRFIN20080216_020541_000000352066_00060_31176_6069.N1	16-FEB-2008 02:05:41	Bright	34.500	66	37Gam Cyg	2.2080	5900.0	69	31176	No
27	GOM_NL__2PRFIN20080216_021353_000000522066_00060_31176_6070.N1	16-FEB-2008 02:13:53	Bright	51.500	168	17Zet Aql	2.9860	11000.	103	31176	No
28	GOM_NL__2PRFIN20080216_022327_000000382066_00060_31176_6071.N1	16-FEB-2008 02:23:27	Twilight	37.500	155	41Pi Sgr	2.9000	6600.0	75	31176	No
29	GOM_NL__2PRFIN20080216_022506_000000392066_00060_31176_6072.N1	16-FEB-2008 02:25:06	Twilight	39.000	57	34Sig Sgr	2.0660	26000.	78	31176	No
30	GOM_NL__2PRFIN20080216_022753_000000382066_00060_31176_6073.N1	16-FEB-2008 02:27:53	Dark	37.500	38	20Eps Sgr	1.8360	11000.	75	31176	No
31	GOM_NL__2PRFIN20080216_023002_000000452066_00060_31176_6074.N1	16-FEB-2008 02:30:02	Dark	45.000	25	35Lam Sco	1.6200	28000.	90	31176	No
32	GOM_NL__2PRFIN20080216_023118_000000432066_00060_31176_6075.N1	16-FEB-2008 02:31:18	Dark	42.500	40	The Sco	1.8590	7100.0	85	31176	No
33	GOM_NL__2PRFIN20080216_023303_000000392066_00060_31176_6076.N1	16-FEB-2008 02:33:03	Dark	38.500	147	Alp Ara	2.8770	26000.	77	31176	No
34	GOM_NL__2PRFIN20080216_023430_000000382066_00060_31176_6077.N1	16-FEB-2008 02:34:30	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	31176	No
35	GOM_NL__2PRFIN20080216_024040_000000462066_00061_31177_6066.N1	16-FEB-2008 02:40:40	Dark	45.500	4	Alp1Cen	-0.010000	5800.0	91	31177	No
36	GOM_NL__2PRFIN20080216_024159_000000412066_00061_31177_6067.N1	16-FEB-2008 02:41:59	Dark	41.000	10	Bet Cen	0.61000	28000.	82	31177	No
37	GOM_NL__2PRFIN20080216_024503_000000492066_00061_31177_6068.N1	16-FEB-2008 02:45:03	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	31177	No
38	GOM_NL__2PRFIN20080216_024729_000000372066_00061_31177_6069.N1	16-FEB-2008 02:47:29	Dark	37.000	29	Bet Car	1.6720	10200.	74	31177	No
39	GOM_NL__2PRFIN20080216_025007_000000382066_00061_31177_6070.N1	16-FEB-2008 02:50:07	Dark	38.000	71	lot Car	2.2460	7700.0	76	31177	No
40	GOM_NL__2PRFIN20080216_025144_000000412066_00061_31177_6071.N1	16-FEB-2008 02:51:44	Dark	41.000	46	Del Vel	1.9540	10600.	82	31177	No
41	GOM_NL__2PRFIN20080216_025407_000000382066_00061_31177_6072.N1	16-FEB-2008 02:54:07	Straylight	37.500	34	Gam2Vel	1.7930	23000.	75	31177	No
42	GOM_NL__2PRFIN20080216_025611_000000422066_00061_31177_6073.N1	16-FEB-2008 02:56:11	Straylight	41.500	70	Zet Pup	2.2460	39000.	83	31177	No

102	GOM_NL__2PRFIN20080216_230234_000000892066_00073_31189_6247.N1	16-FEB-2008 23:02:34	Straylight	88.500	70	Zet Pup	2.2460	39000.	177	31189	No
103	GOM_NL__2PRFIN20080216_230652_000000882066_00073_31189_6248.N1	16-FEB-2008 23:06:52	Straylight	87.500	132	15Rho Pup	2.8030	6900.0	175	31189	No
104	GOM_NL__2PRFIN20080216_231520_000000932066_00073_31189_6249.N1	16-FEB-2008 23:15:20	Bright	92.500	8	10Alp CMi	0.40000	6500.0	185	31189	No
105	GOM_NL__2PRFIN20080216_232136_000000872066_00073_31189_6250.N1	16-FEB-2008 23:21:36	Bright	86.500	17	78Bet Gem	1.1610	4500.0	173	31189	No
106	GOM_NL__2PRFIN20080216_233855_000000882066_00073_31189_6251.N1	16-FEB-2008 23:38:55	Bright	87.500	49	1Alp UMi	1.9900	6300.0	175	31189	No
107	GOM_NL__2PRFIN20080216_234556_000000842066_00073_31189_6252.N1	16-FEB-2008 23:45:56	Bright	83.500	89	5Alp Cep	2.4510	8000.0	167	31189	No
108	GOM_NL__2PRFIN20080216_235103_000000872066_00073_31189_6253.N1	16-FEB-2008 23:51:03	Bright	87.000	19	50Alp Cyg	1.2460	10500.	174	31189	No
109	GOM_NL__2PRFIN20080216_235352_000000792066_00073_31189_6254.N1	16-FEB-2008 23:53:52	Twilight_and_stray	79.000	5	3Alp Lyr	0.033000	11000.	158	31189	No

3. Quality information per product

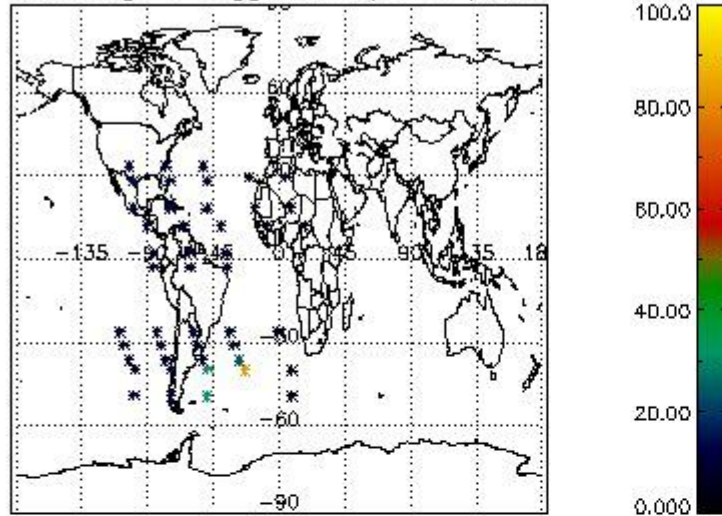
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

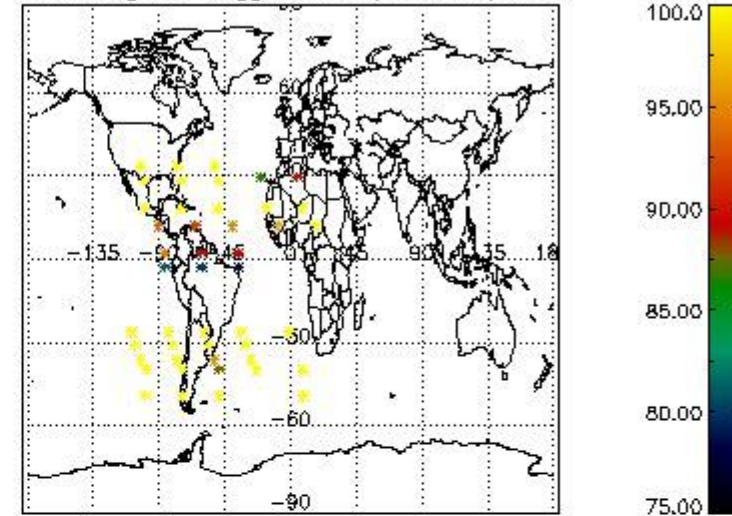


3.2 Plot quality information per product (world map)

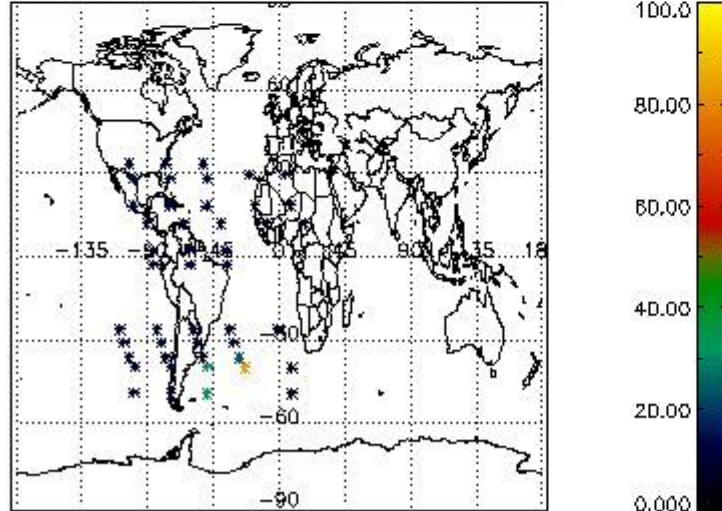
Percentage of flagged data per O3 profile



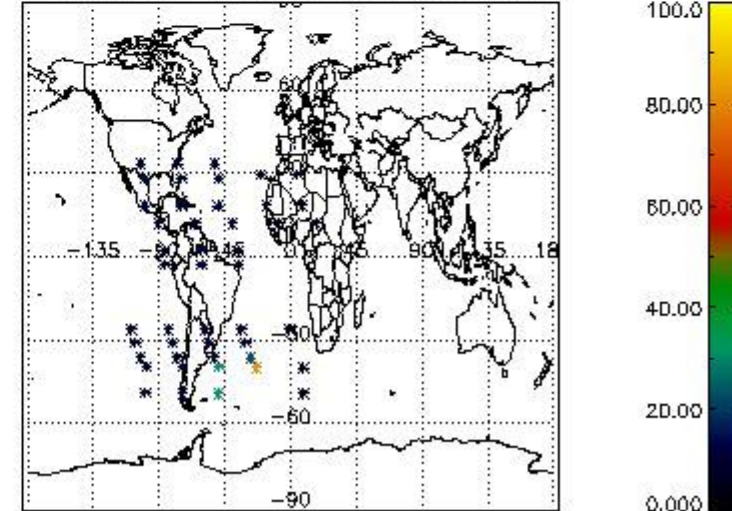
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

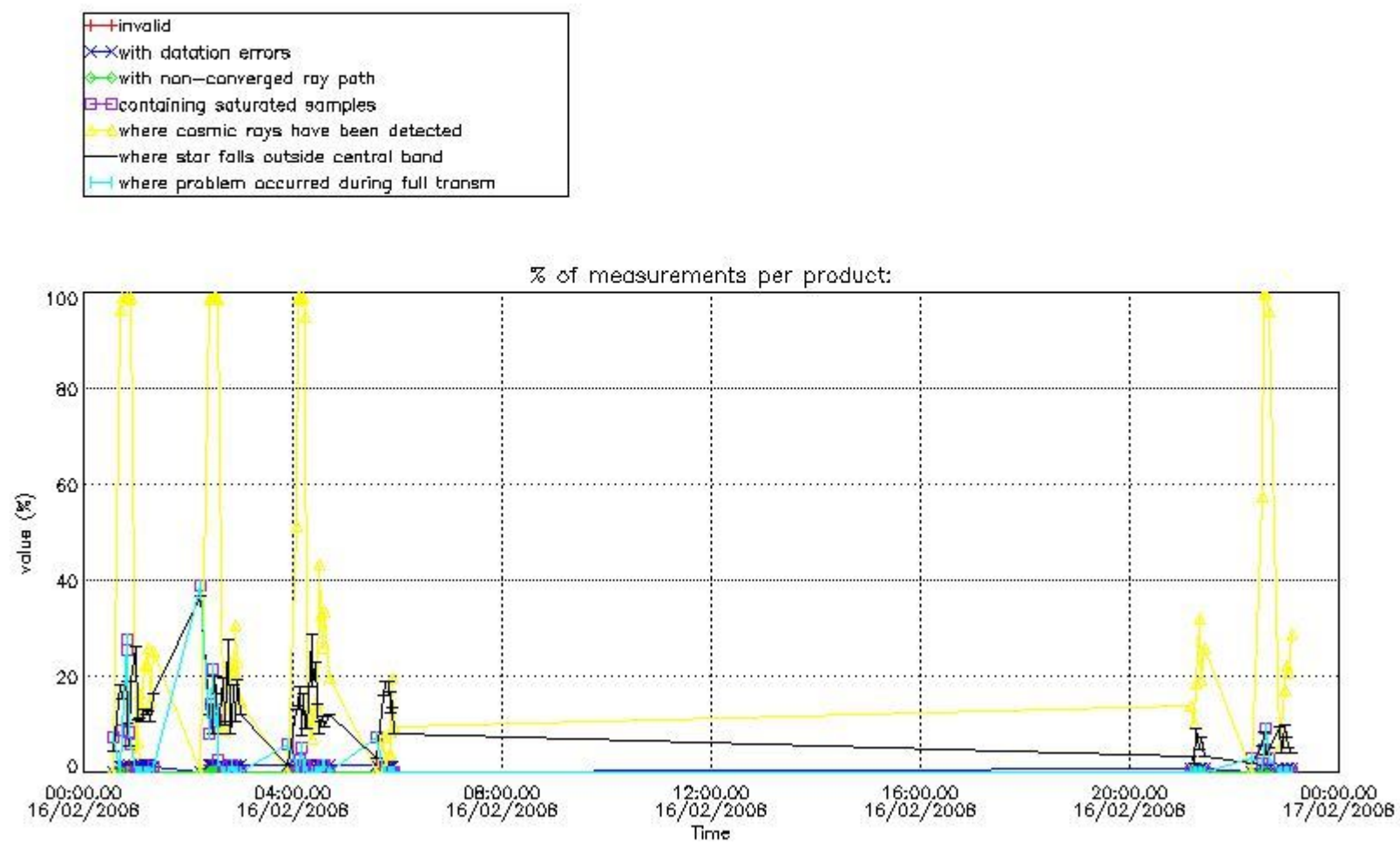


4. Level 1 quality information per product

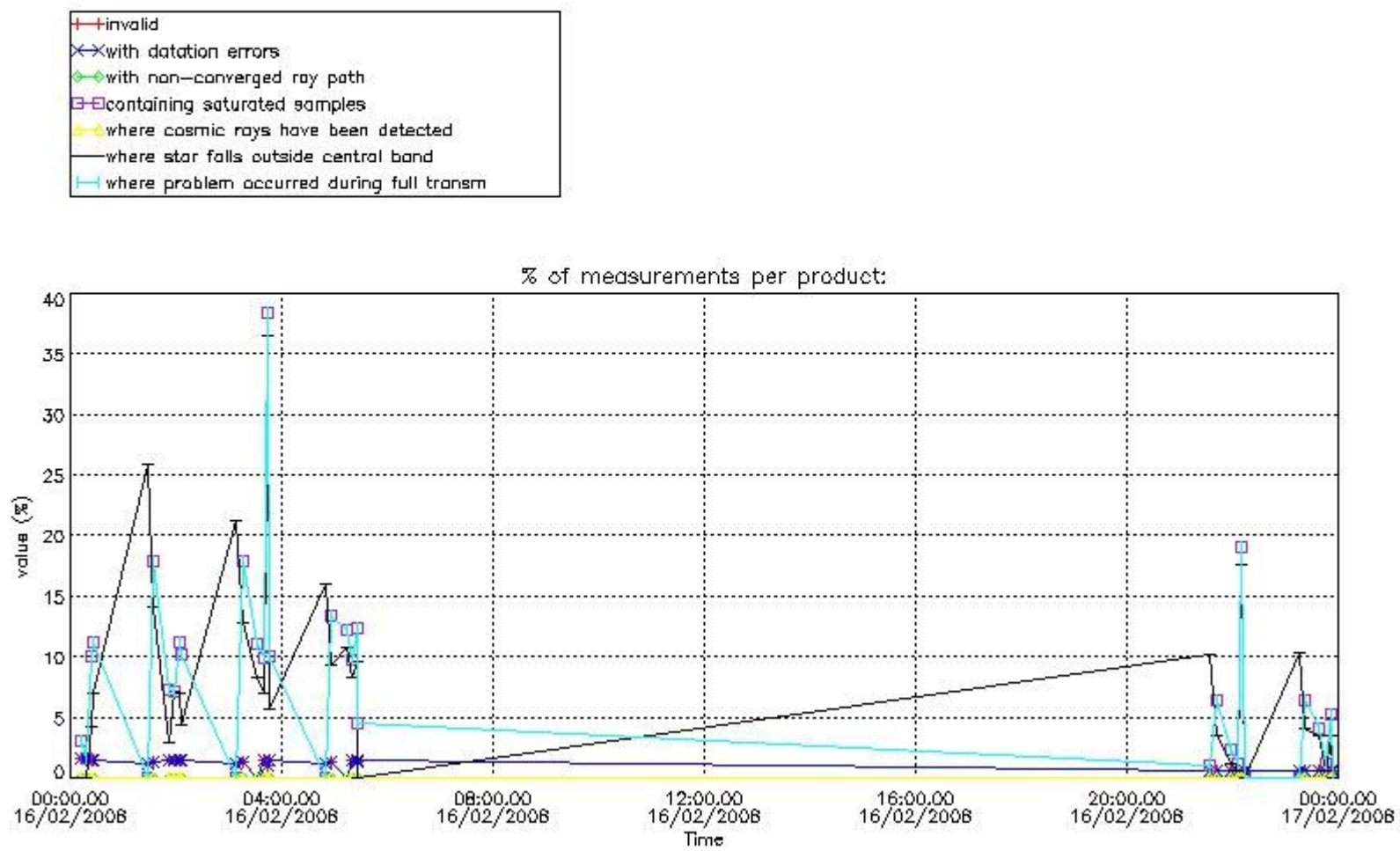
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



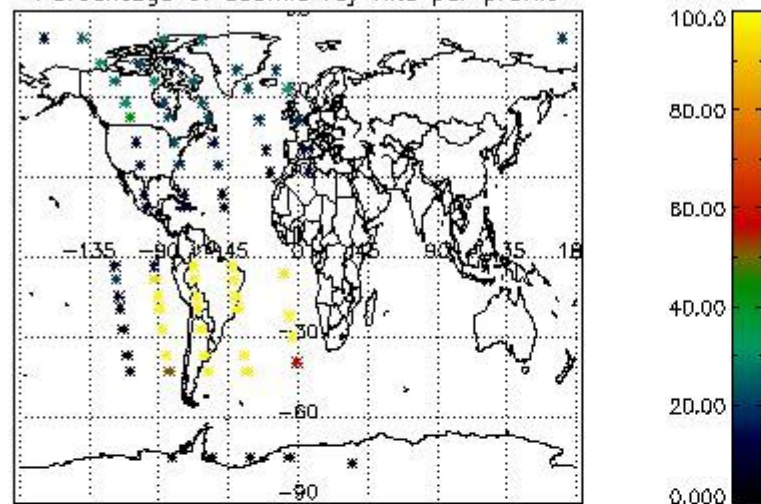
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



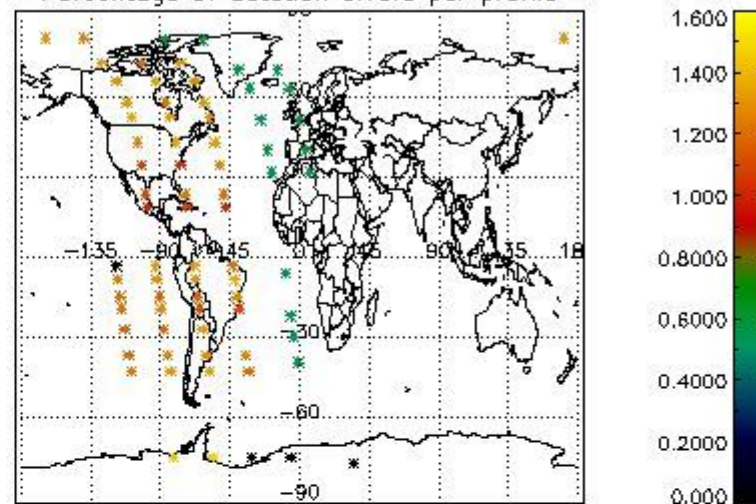
4.2 Plot quality information per product coming from level 1b processing (world map)

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

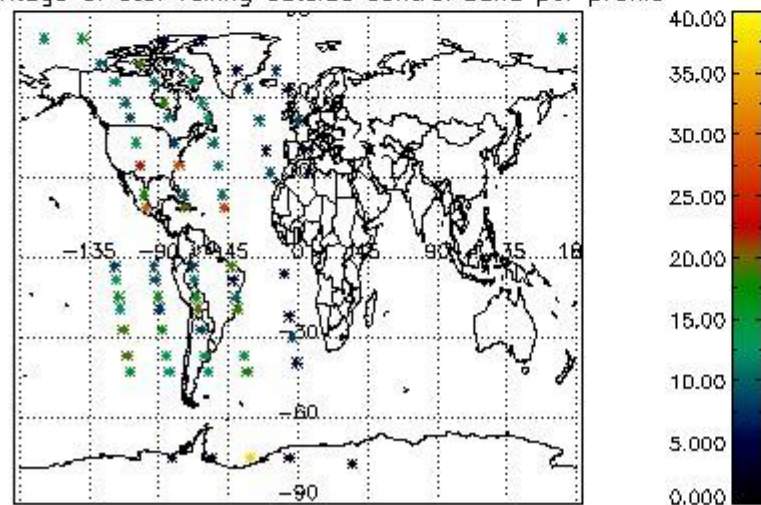
Percentage of cosmic ray hits per profile



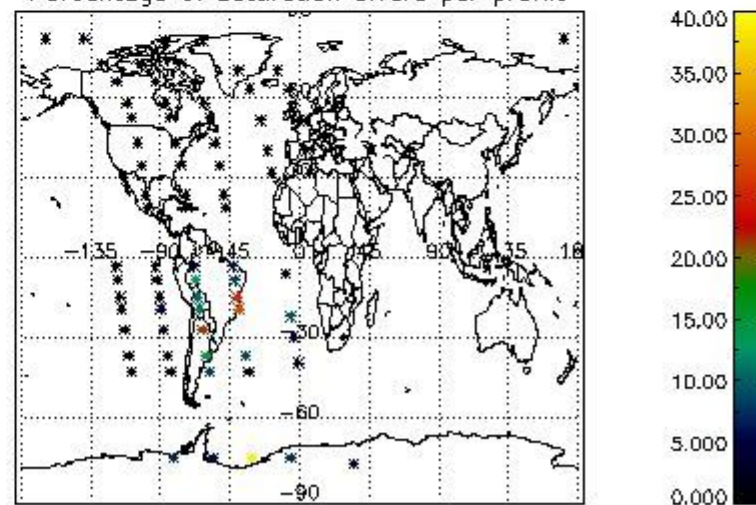
Percentage of datation errors per profile



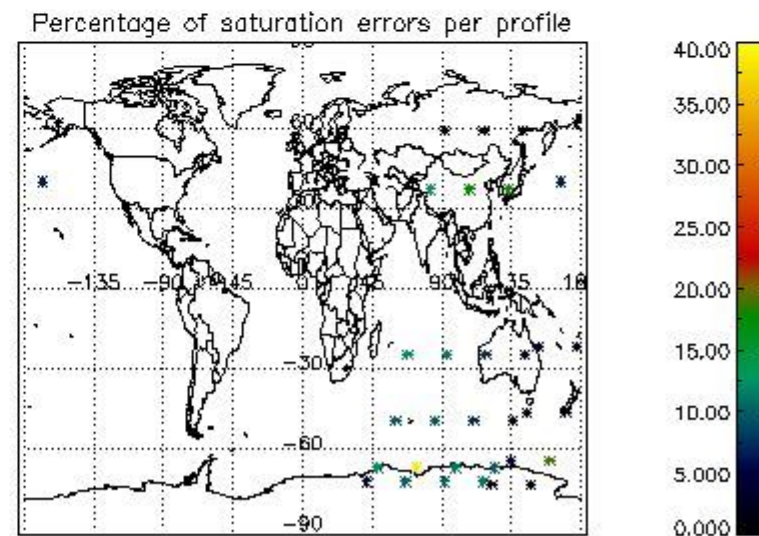
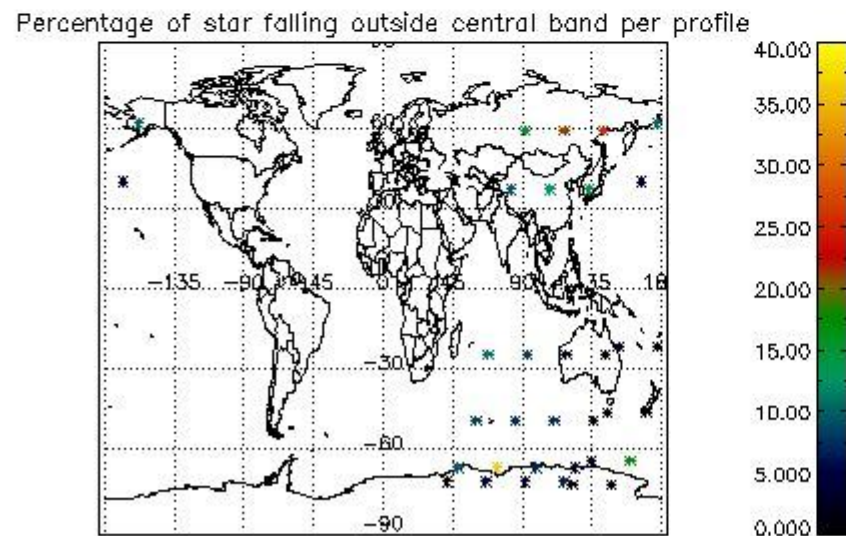
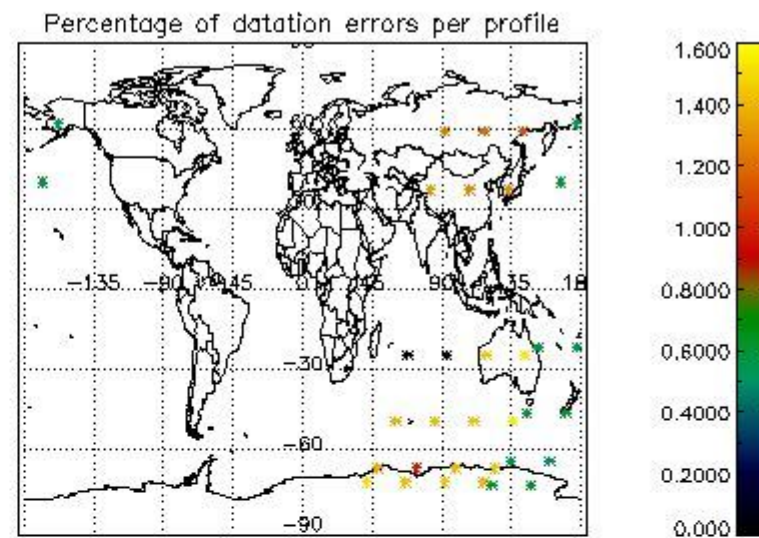
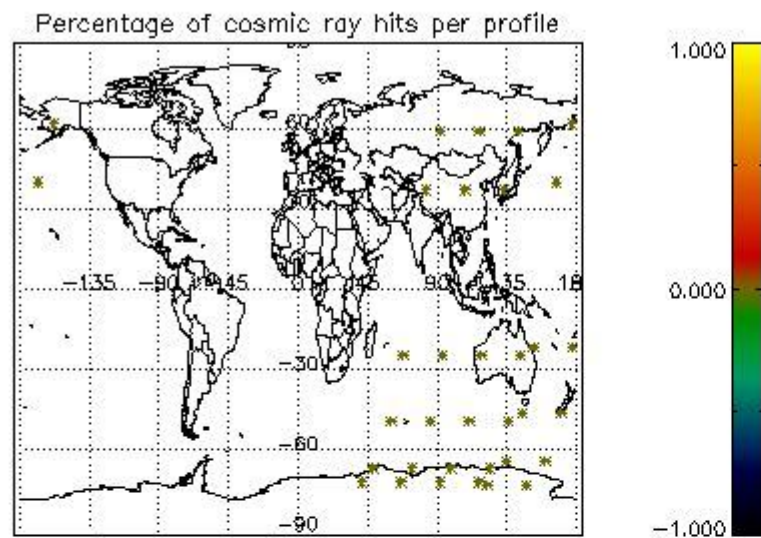
Percentage of star falling outside central band per profile



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

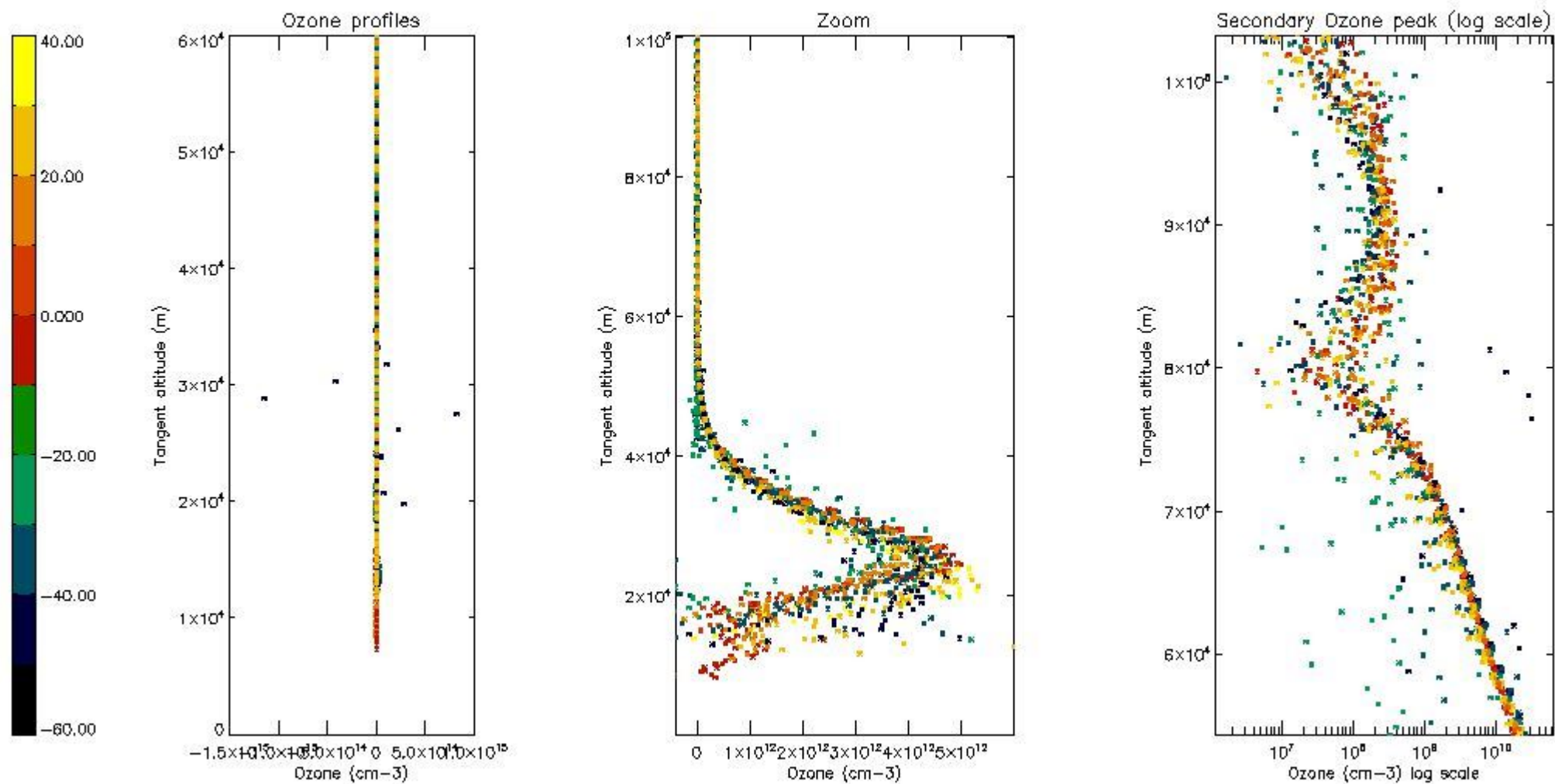
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	17

STD < 10	14
STD < 5	9

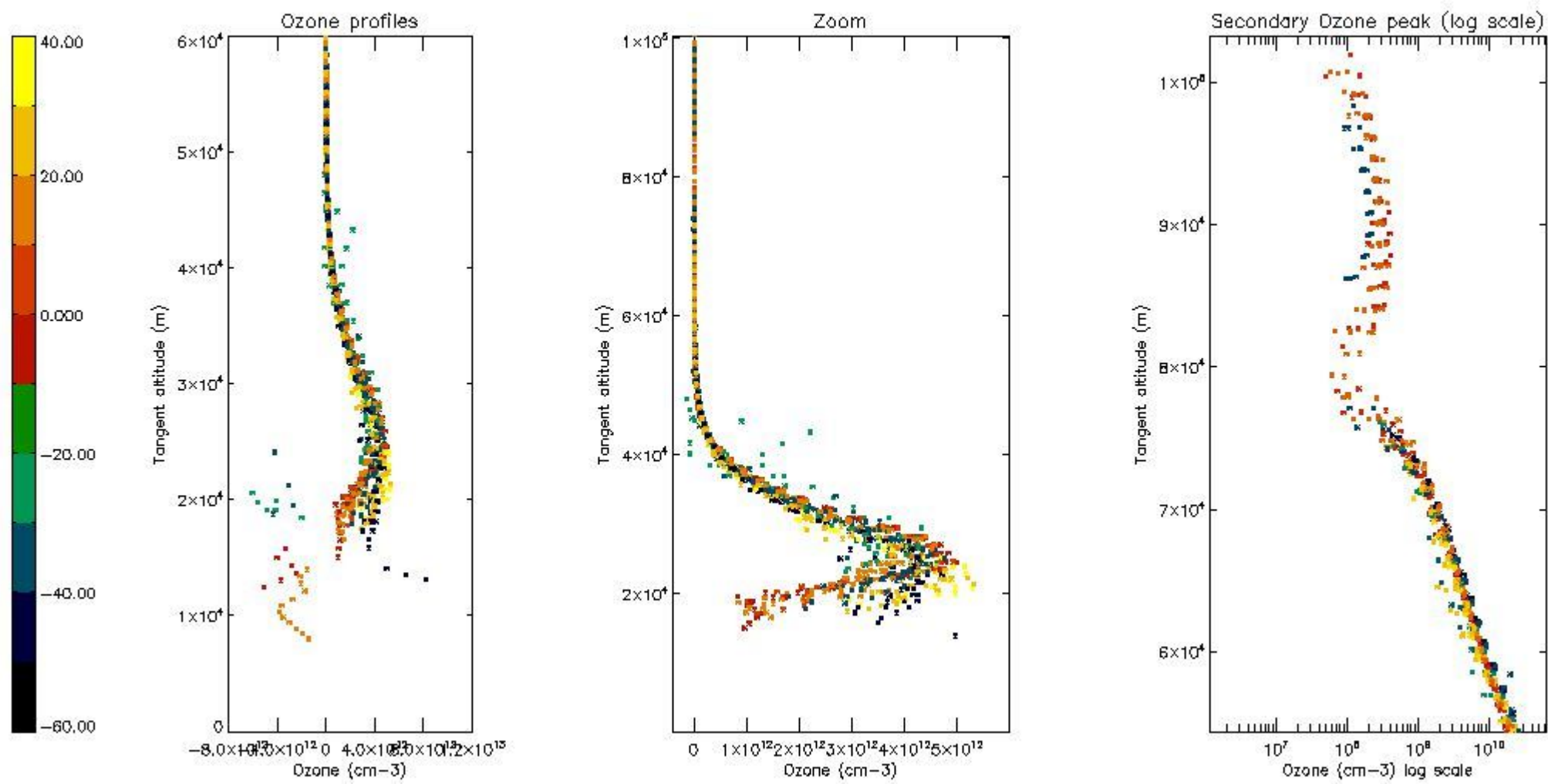
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



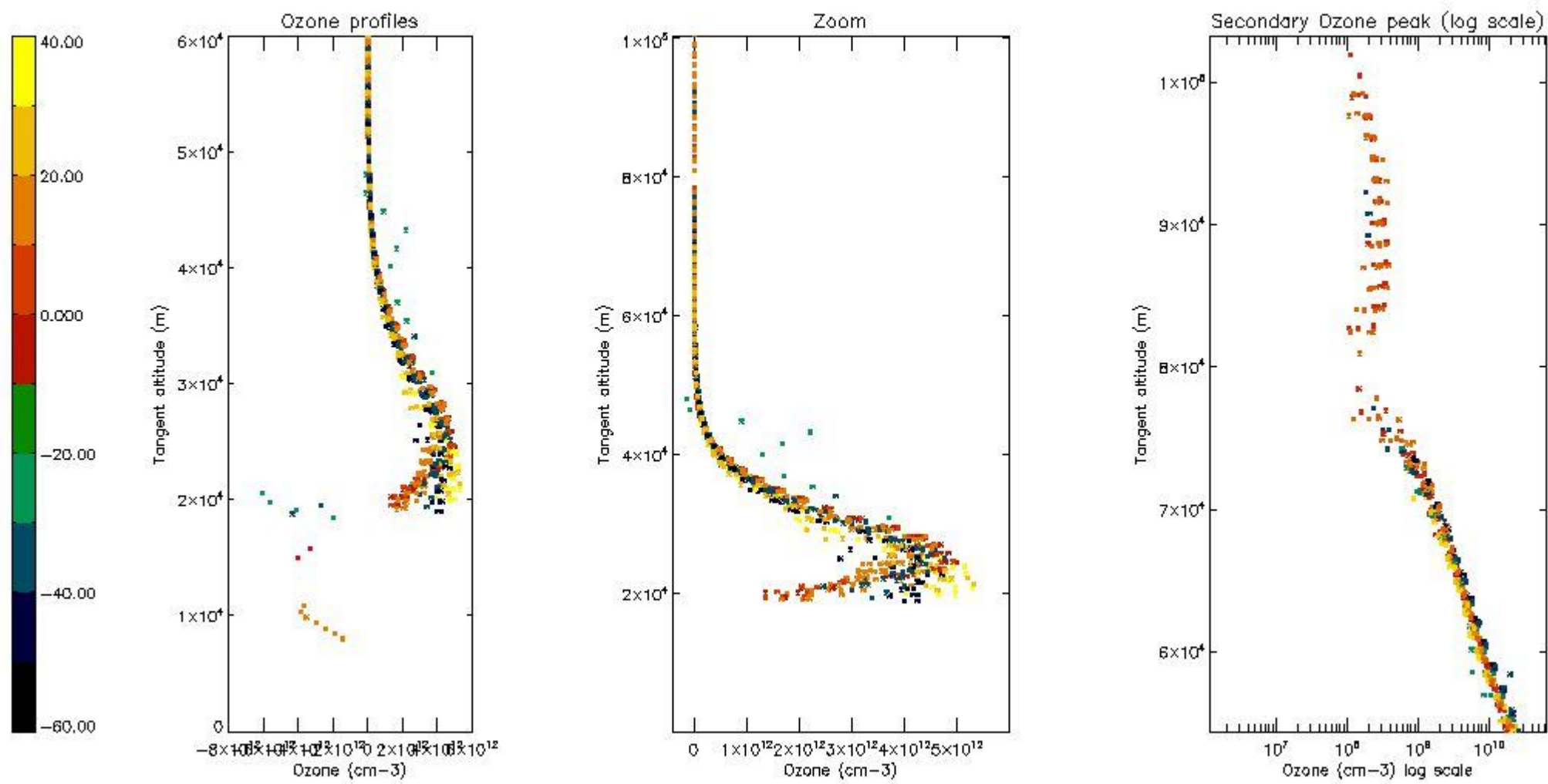
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



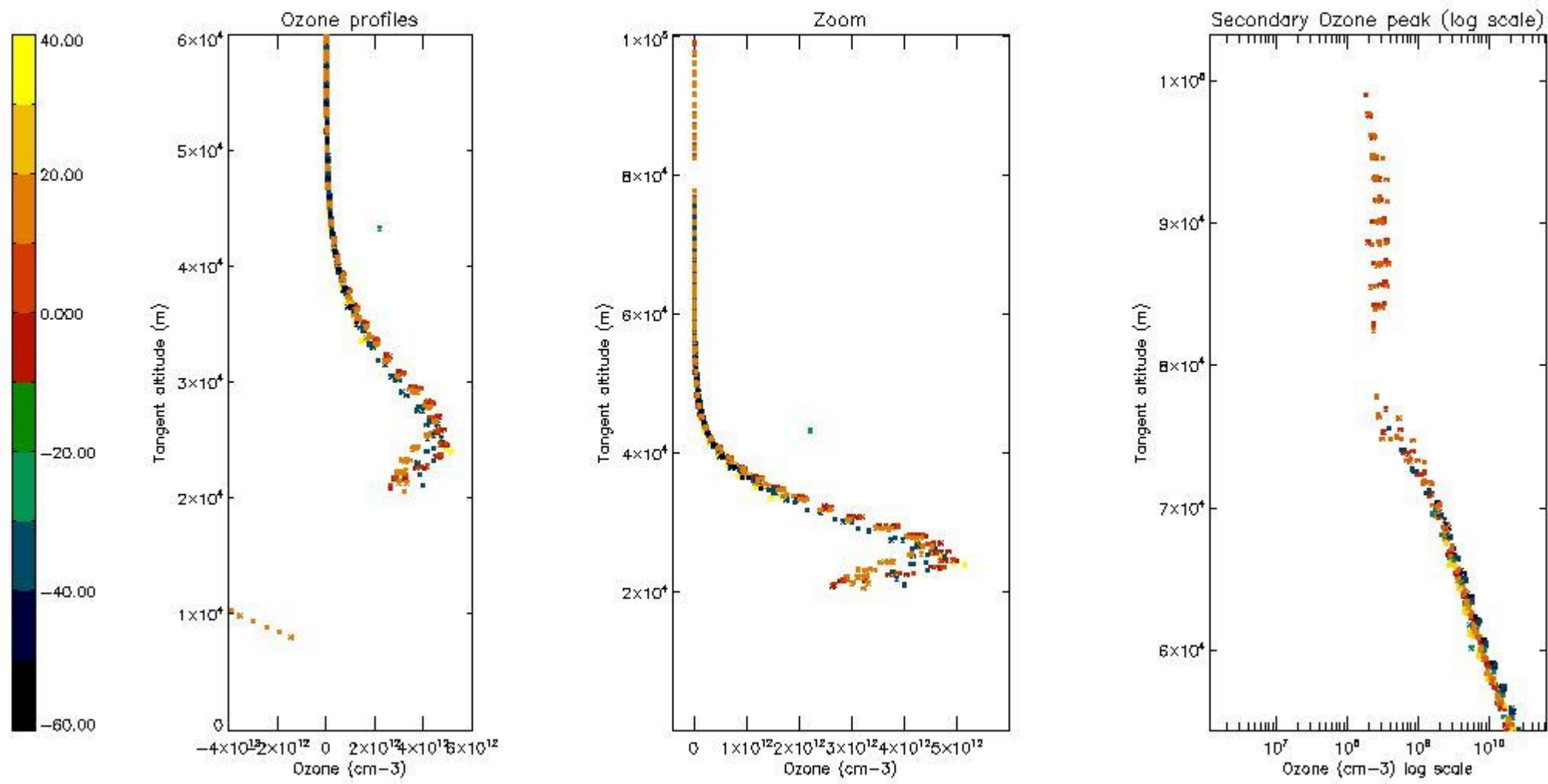
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



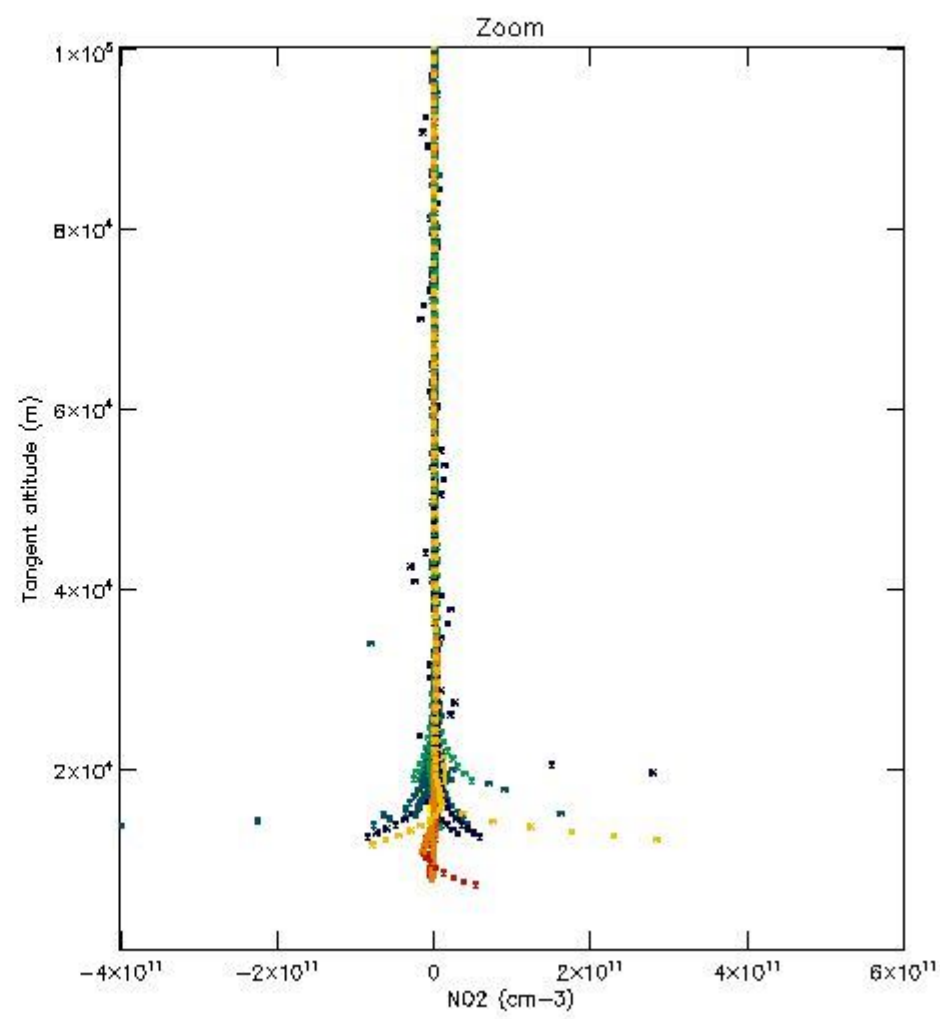
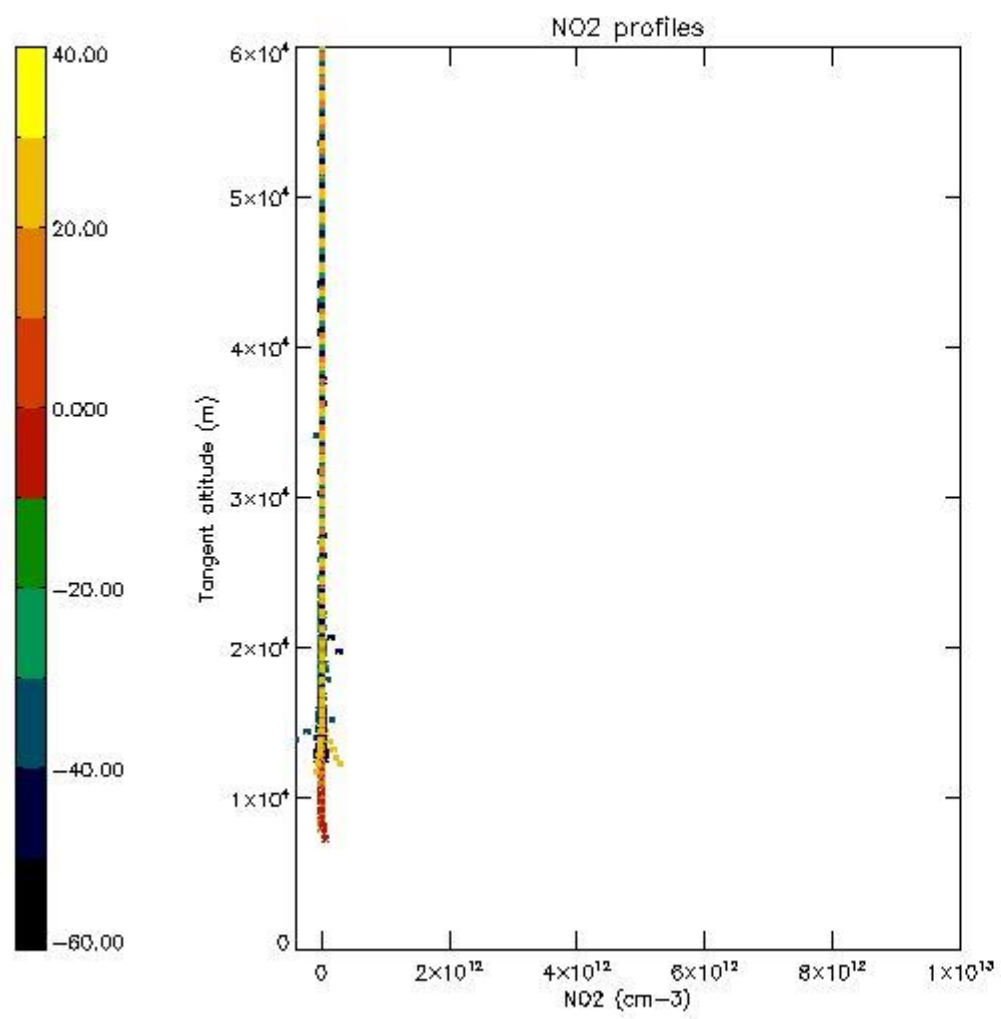
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



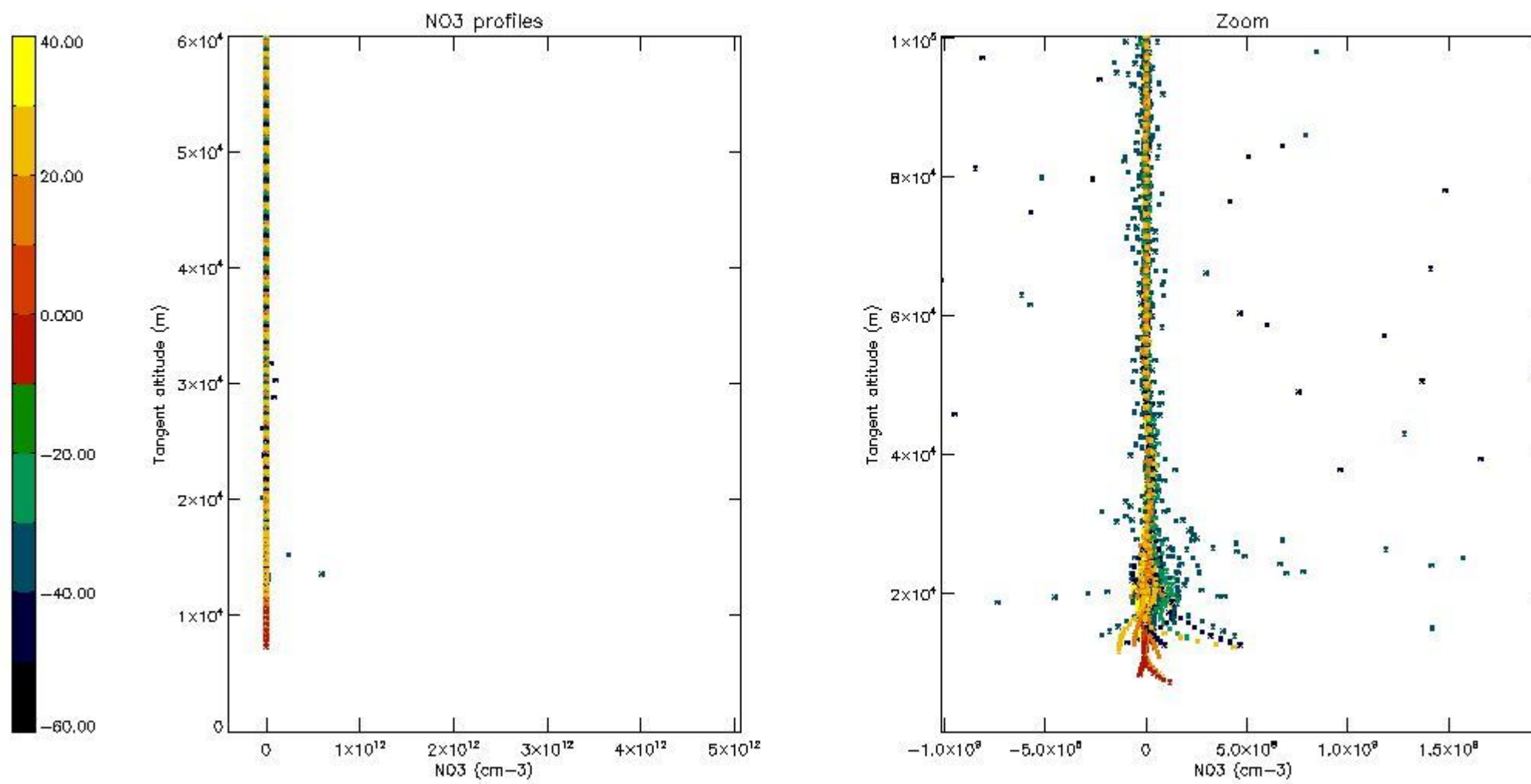
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



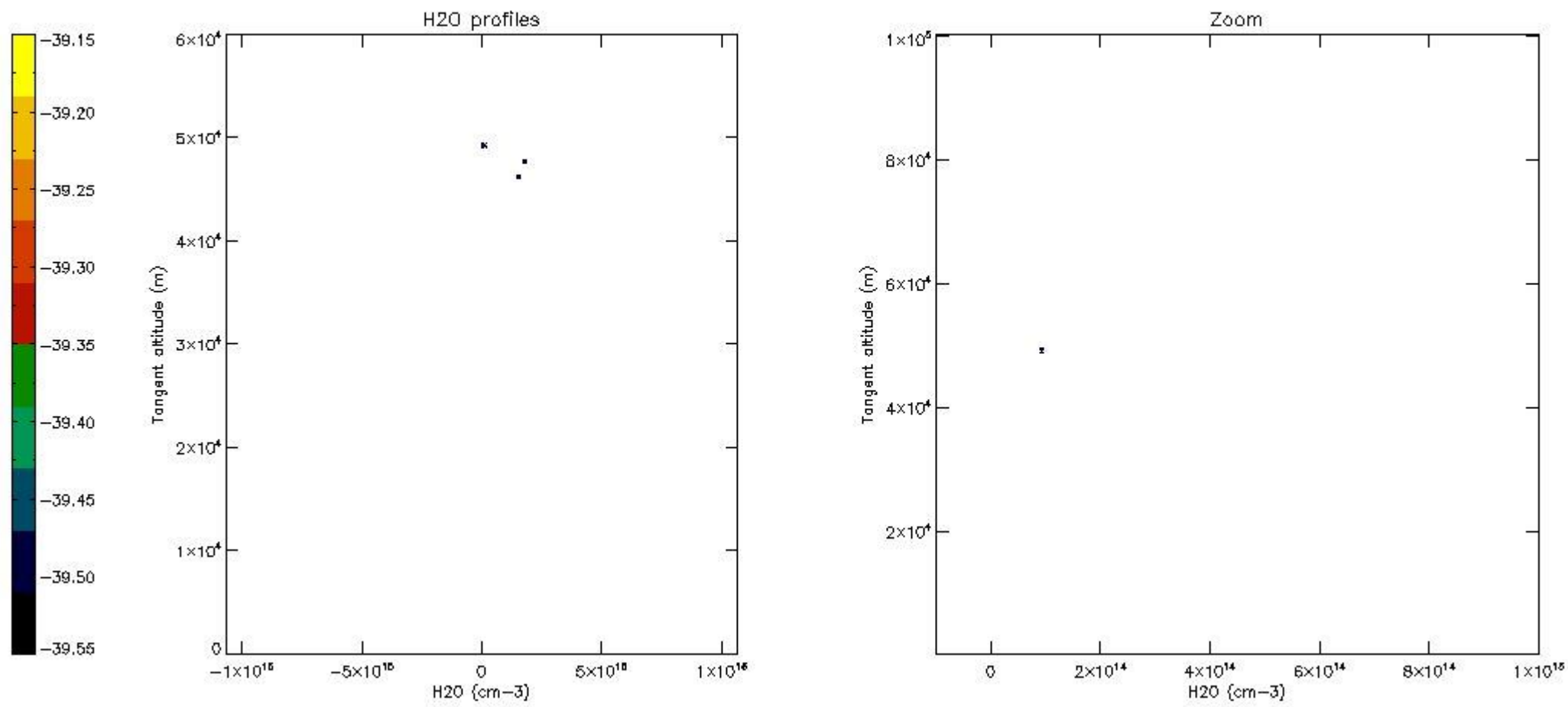
5.7 Plot NO3 profiles for all STD (dark without errors)

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_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	16-FEB-2008 00:11:24
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-FEB-2008 00:11:24
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-FEB-2008 00:11:24

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[4. Level 1 Quality information per product \(stored on level 2 products\)](#)

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[4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

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[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 10:29:23
Data source version	GOMOS/6.01
Start time of products	16-02-2008 (16FEB2008 00:00:00)
Stop time of products	17-02-2008 (17FEB2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	109
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

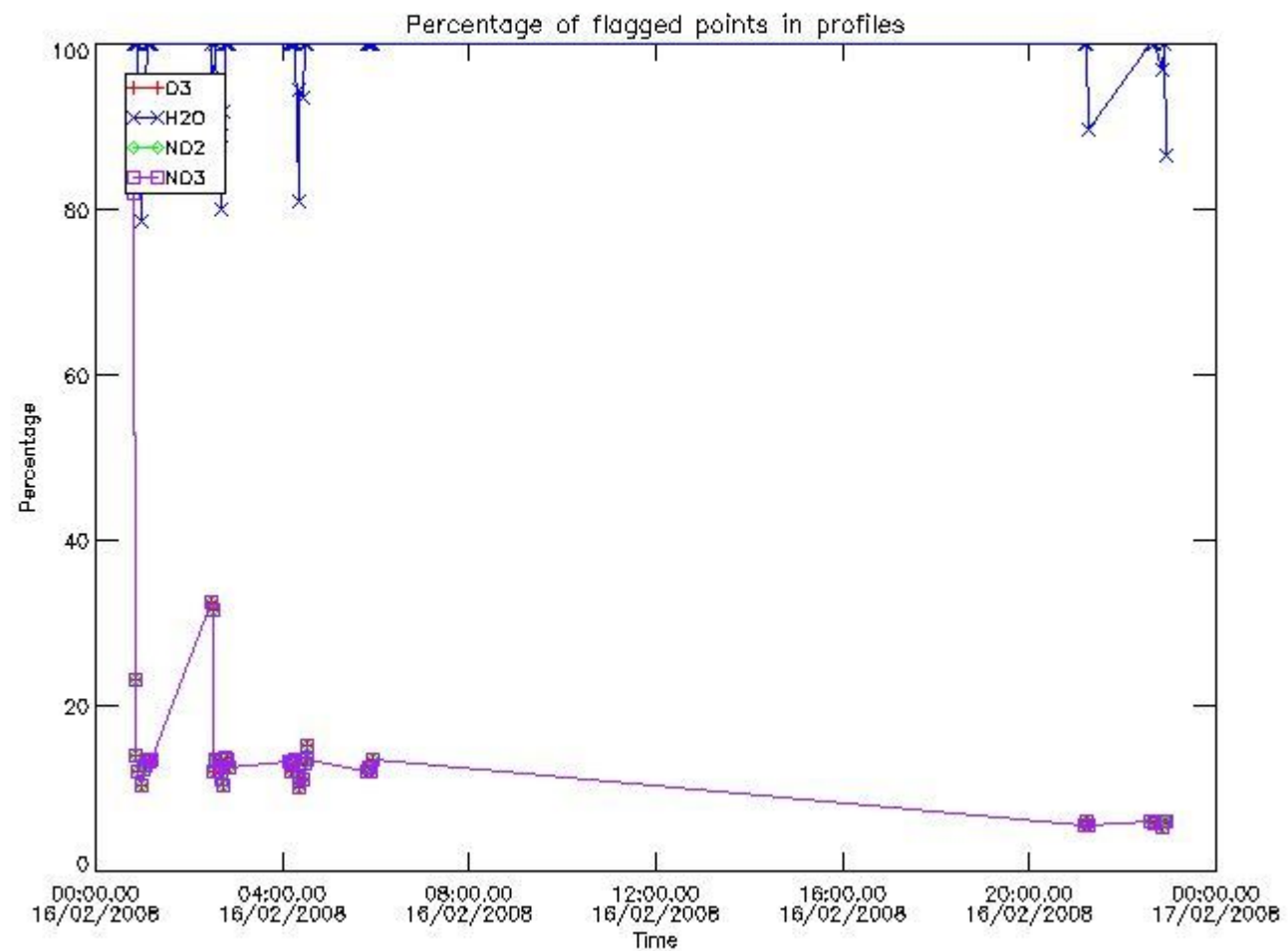
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20080216_001124_000000332066_00059_31175_6043.N1	16-FEB-2008 00:11:24	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	31175	No
2	GOM_NL__2PRFIN20080216_001821_000000332066_00059_31175_6044.N1	16-FEB-2008 00:18:21	Bright	32.500	89	5Alp Cep	2.4510	8000.0	65	31175	No
3	GOM_NL__2PRFIN20080216_002328_000000352066_00059_31175_6045.N1	16-FEB-2008 00:23:28	Bright	35.000	19	50Alp Cyg	1.2460	10500.	70	31175	No
4	GOM_NL__2PRFIN20080216_002505_000000362066_00059_31175_6046.N1	16-FEB-2008 00:25:05	Bright	35.500	66	37Gam Cyg	2.2080	5900.0	71	31175	No
5	GOM_NL__2PRFIN20080216_003317_000000342066_00059_31175_6047.N1	16-FEB-2008 00:33:17	Bright	34.000	168	17Zet Aql	2.9860	11000.	68	31175	No
6	GOM_NL__2PRFIN20080216_004251_000000422066_00059_31175_6048.N1	16-FEB-2008 00:42:51	Twilight	41.500	155	41Pi Sgr	2.9000	6600.0	83	31175	No
7	GOM_NL__2PRFIN20080216_004430_000000402066_00059_31175_6049.N1	16-FEB-2008 00:44:30	Twilight	39.500	57	34Sig Sgr	2.0660	26000.	79	31175	No
8	GOM_NL__2PRFIN20080216_004925_000000452066_00059_31175_6050.N1	16-FEB-2008 00:49:25	Dark	45.000	25	35Lam Sco	1.6200	28000.	90	31175	No
9	GOM_NL__2PRFIN20080216_005042_000000402066_00059_31175_6051.N1	16-FEB-2008 00:50:42	Dark	39.500	40	The Sco	1.8590	7100.0	79	31175	No
10	GOM_NL__2PRFIN20080216_005227_000000372066_00059_31175_6052.N1	16-FEB-2008 00:52:27	Dark	36.500	147	Alp Ara	2.8770	26000.	73	31175	No
11	GOM_NL__2PRFIN20080216_005354_000000422066_00059_31175_6053.N1	16-FEB-2008 00:53:54	Dark	42.000	141	Bet Ara	2.8400	4600.0	84	31175	No
12	GOM_NL__2PRFIN20080216_010004_000000502066_00060_31176_6055.N1	16-FEB-2008 01:00:04	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	31176	No
13	GOM_NL__2PRFIN20080216_010123_000000422066_00060_31176_6056.N1	16-FEB-2008 01:01:23	Dark	41.500	10	Bet Cen	0.61000	28000.	83	31176	No
14	GOM_NL__2PRFIN20080216_010427_000000402066_00060_31176_6057.N1	16-FEB-2008 01:04:27	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	31176	No
15	GOM_NL__2PRFIN20080216_010653_000000382066_00060_31176_6058.N1	16-FEB-2008 01:06:53	Dark	37.500	29	Bet Car	1.6720	10200.	75	31176	No
16	GOM_NL__2PRFIN20080216_010931_000000392066_00060_31176_6059.N1	16-FEB-2008 01:09:31	Dark	38.500	71	lot Car	2.2460	7700.0	77	31176	No
17	GOM_NL__2PRFIN20080216_011108_000000382066_00060_31176_6060.N1	16-FEB-2008 01:11:08	Dark	38.000	46	Del Vel	1.9540	10600.	76	31176	No
18	GOM_NL__2PRFIN20080216_011331_000000392066_00060_31176_6061.N1	16-FEB-2008 01:13:31	Straylight	39.000	34	Gam2Vel	1.7930	23000.	78	31176	No
19	GOM_NL__2PRFIN20080216_011535_000000382066_00060_31176_6062.N1	16-FEB-2008 01:15:35	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	31176	No
20	GOM_NL__2PRFIN20080216_011953_000000402066_00060_31176_6063.N1	16-FEB-2008 01:19:53	Straylight	40.000	132	15Rho Pup	2.8030	6900.0	80	31176	No
21	GOM_NL__2PRFIN20080216_012821_000000452066_00060_31176_6064.N1	16-FEB-2008 01:28:21	Bright	44.500	8	10Alp CMi	0.40000	6500.0	89	31176	No
22	GOM_NL__2PRFIN20080216_013437_000000392066_00060_31176_6065.N1	16-FEB-2008 01:34:37	Bright	39.000	17	78Bet Gem	1.1610	4500.0	78	31176	No
23	GOM_NL__2PRFIN20080216_015159_000000352066_00060_31176_6066.N1	16-FEB-2008 01:51:59	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	31176	No
24	GOM_NL__2PRFIN20080216_015857_000000352066_00060_31176_6067.N1	16-FEB-2008 01:58:57	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	31176	No
25	GOM_NL__2PRFIN20080216_020404_000000362066_00060_31176_6068.N1	16-FEB-2008 02:04:04	Bright	35.500	19	50Alp Cyg	1.2460	10500.	71	31176	No
26	GOM_NL__2PRFIN20080216_020541_000000352066_00060_31176_6069.N1	16-FEB-2008 02:05:41	Bright	34.500	66	37Gam Cyg	2.2080	5900.0	69	31176	No
27	GOM_NL__2PRFIN20080216_021353_000000522066_00060_31176_6070.N1	16-FEB-2008 02:13:53	Bright	51.500	168	17Zet Aql	2.9860	11000.	103	31176	No
28	GOM_NL__2PRFIN20080216_022327_000000382066_00060_31176_6071.N1	16-FEB-2008 02:23:27	Twilight	37.500	155	41Pi Sgr	2.9000	6600.0	75	31176	No
29	GOM_NL__2PRFIN20080216_022506_000000392066_00060_31176_6072.N1	16-FEB-2008 02:25:06	Twilight	39.000	57	34Sig Sgr	2.0660	26000.	78	31176	No
30	GOM_NL__2PRFIN20080216_022753_000000382066_00060_31176_6073.N1	16-FEB-2008 02:27:53	Dark	37.500	38	20Eps Sgr	1.8360	11000.	75	31176	No
31	GOM_NL__2PRFIN20080216_023002_000000452066_00060_31176_6074.N1	16-FEB-2008 02:30:02	Dark	45.000	25	35Lam Sco	1.6200	28000.	90	31176	No
32	GOM_NL__2PRFIN20080216_023118_000000432066_00060_31176_6075.N1	16-FEB-2008 02:31:18	Dark	42.500	40	The Sco	1.8590	7100.0	85	31176	No
33	GOM_NL__2PRFIN20080216_023303_000000392066_00060_31176_6076.N1	16-FEB-2008 02:33:03	Dark	38.500	147	Alp Ara	2.8770	26000.	77	31176	No
34	GOM_NL__2PRFIN20080216_023430_000000382066_00060_31176_6077.N1	16-FEB-2008 02:34:30	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	31176	No
35	GOM_NL__2PRFIN20080216_024040_000000462066_00061_31177_6066.N1	16-FEB-2008 02:40:40	Dark	45.500	4	Alp1Cen	-0.010000	5800.0	91	31177	No
36	GOM_NL__2PRFIN20080216_024159_000000412066_00061_31177_6067.N1	16-FEB-2008 02:41:59	Dark	41.000	10	Bet Cen	0.61000	28000.	82	31177	No
37	GOM_NL__2PRFIN20080216_024503_000000492066_00061_31177_6068.N1	16-FEB-2008 02:45:03	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	31177	No
38	GOM_NL__2PRFIN20080216_024729_000000372066_00061_31177_6069.N1	16-FEB-2008 02:47:29	Dark	37.000	29	Bet Car	1.6720	10200.	74	31177	No
39	GOM_NL__2PRFIN20080216_025007_000000382066_00061_31177_6070.N1	16-FEB-2008 02:50:07	Dark	38.000	71	lot Car	2.2460	7700.0	76	31177	No
40	GOM_NL__2PRFIN20080216_025144_000000412066_00061_31177_6071.N1	16-FEB-2008 02:51:44	Dark	41.000	46	Del Vel	1.9540	10600.	82	31177	No
41	GOM_NL__2PRFIN20080216_025407_000000382066_00061_31177_6072.N1	16-FEB-2008 02:54:07	Straylight	37.500	34	Gam2Vel	1.7930	23000.	75	31177	No
42	GOM_NL__2PRFIN20080216_025611_000000422066_00061_31177_6073.N1	16-FEB-2008 02:56:11	Straylight	41.500	70	Zet Pup	2.2460	39000.	83	31177	No

102	GOM_NL__2PRFIN20080216_230234_000000892066_00073_31189_6247.N1	16-FEB-2008 23:02:34	Straylight	88.500	70	Zet Pup	2.2460	39000.	177	31189	No
103	GOM_NL__2PRFIN20080216_230652_000000882066_00073_31189_6248.N1	16-FEB-2008 23:06:52	Straylight	87.500	132	15Rho Pup	2.8030	6900.0	175	31189	No
104	GOM_NL__2PRFIN20080216_231520_000000932066_00073_31189_6249.N1	16-FEB-2008 23:15:20	Bright	92.500	8	10Alp CMi	0.40000	6500.0	185	31189	No
105	GOM_NL__2PRFIN20080216_232136_000000872066_00073_31189_6250.N1	16-FEB-2008 23:21:36	Bright	86.500	17	78Bet Gem	1.1610	4500.0	173	31189	No
106	GOM_NL__2PRFIN20080216_233855_000000882066_00073_31189_6251.N1	16-FEB-2008 23:38:55	Bright	87.500	49	1Alp UMi	1.9900	6300.0	175	31189	No
107	GOM_NL__2PRFIN20080216_234556_000000842066_00073_31189_6252.N1	16-FEB-2008 23:45:56	Bright	83.500	89	5Alp Cep	2.4510	8000.0	167	31189	No
108	GOM_NL__2PRFIN20080216_235103_000000872066_00073_31189_6253.N1	16-FEB-2008 23:51:03	Bright	87.000	19	50Alp Cyg	1.2460	10500.	174	31189	No
109	GOM_NL__2PRFIN20080216_235352_000000792066_00073_31189_6254.N1	16-FEB-2008 23:53:52	Twilight_and_stray	79.000	5	3Alp Lyr	0.033000	11000.	158	31189	No

3. Quality information per product

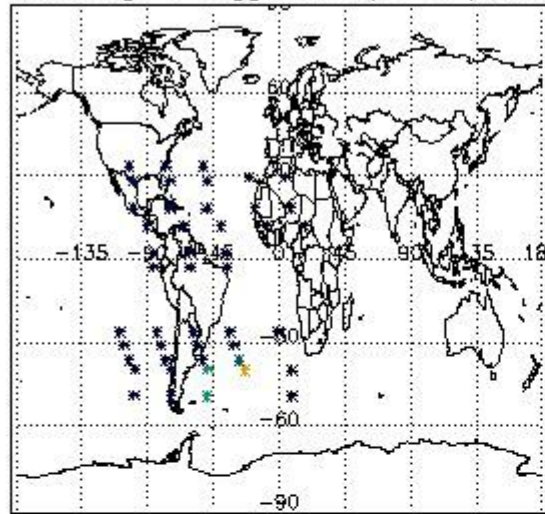
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

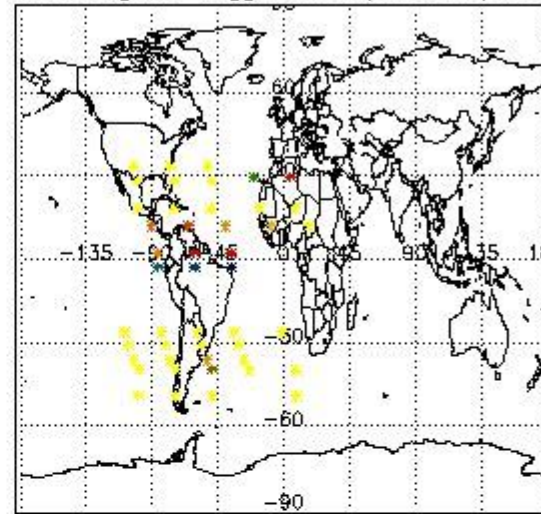


3.2 Plot quality information per product (world map)

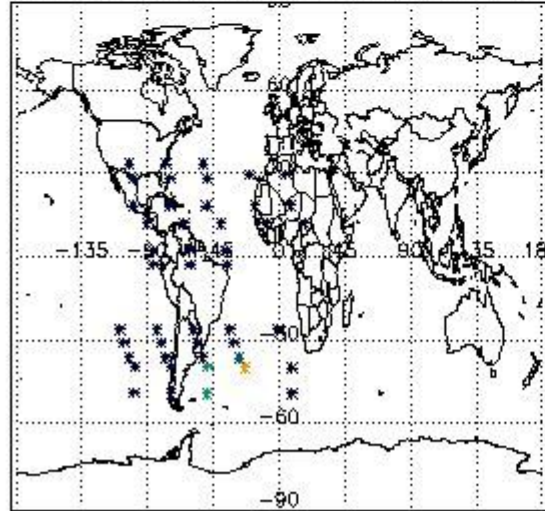
Percentage of flagged data per O3 profile



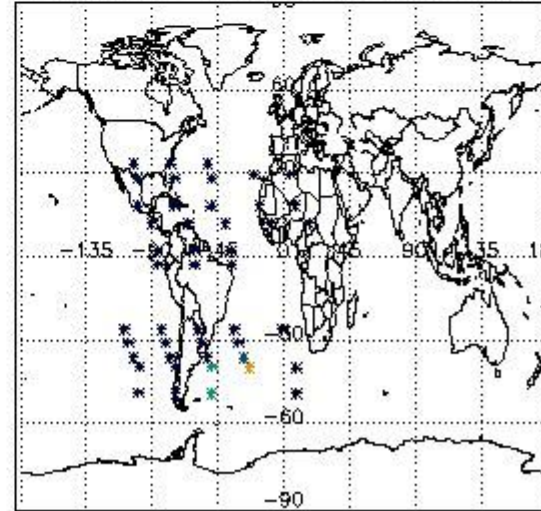
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

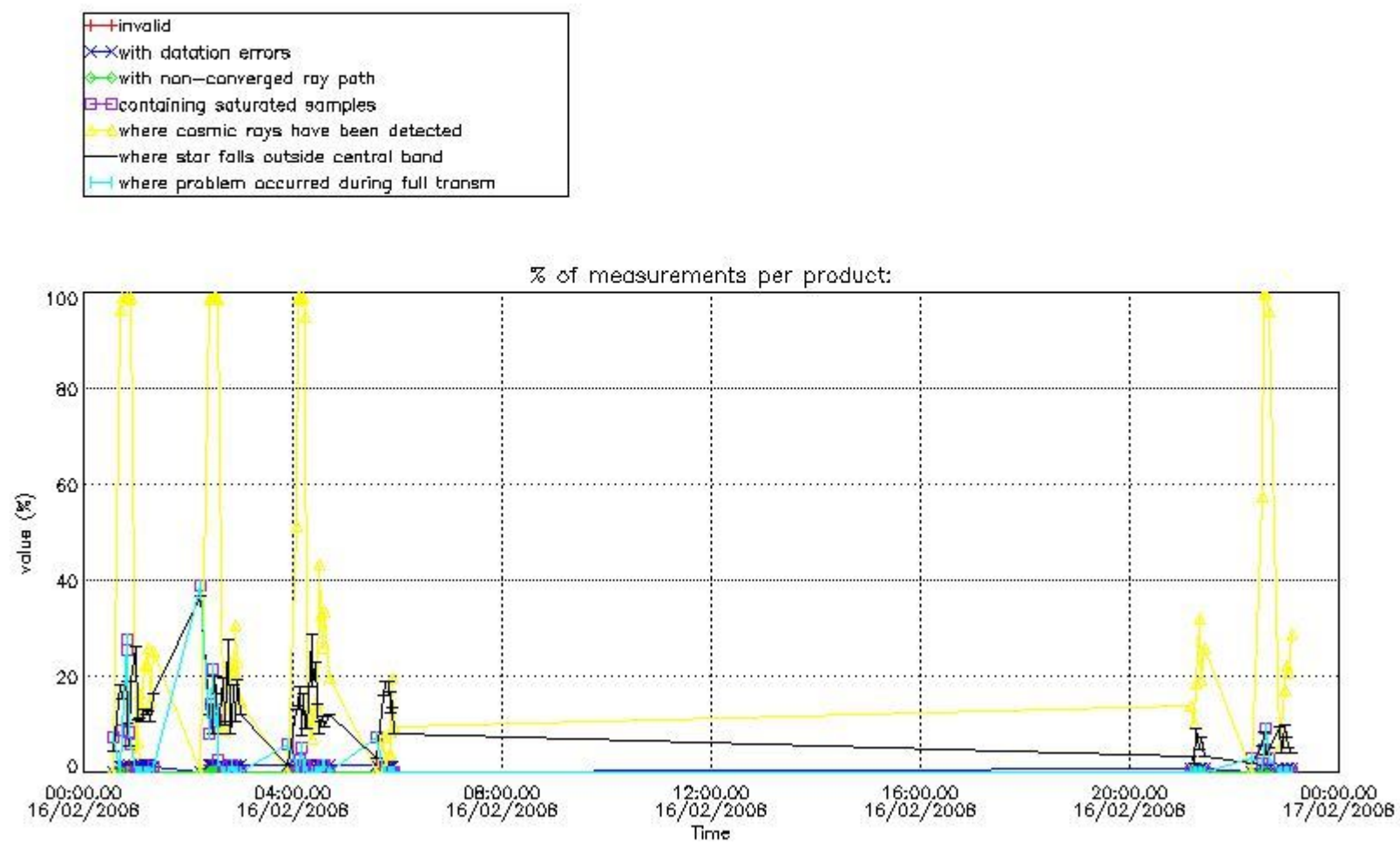


4. Level 1 quality information per product

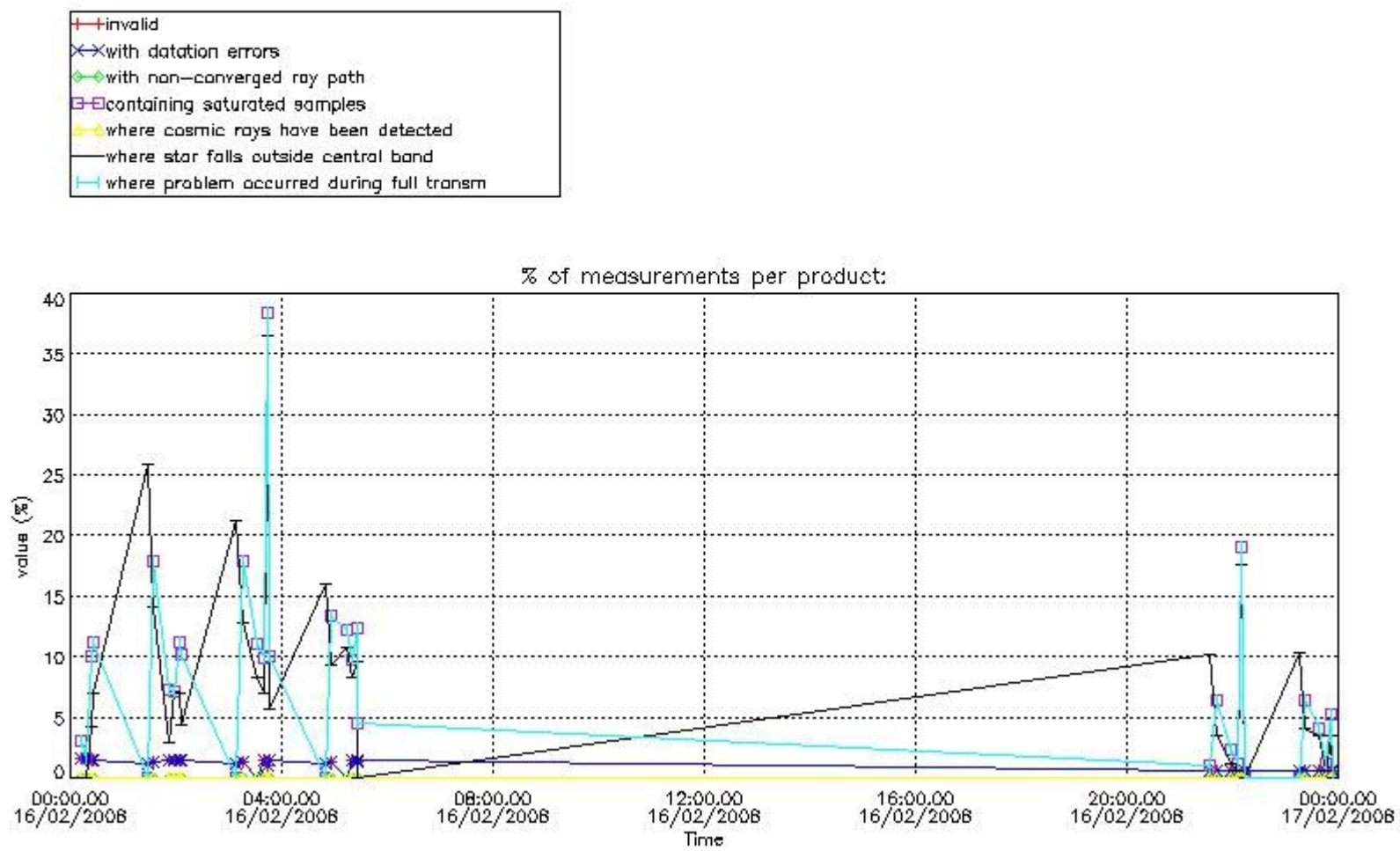
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



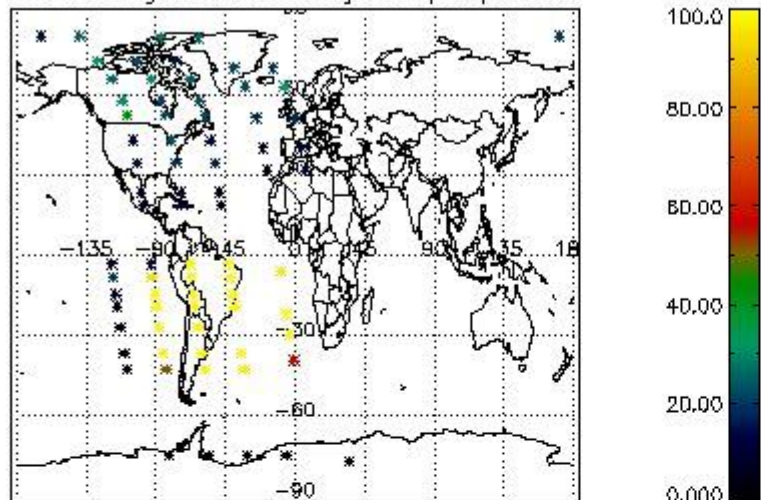
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



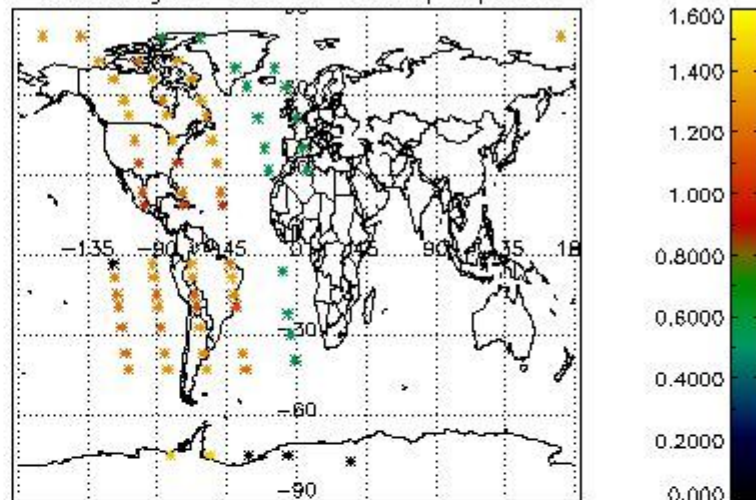
4.2 Plot quality information per product coming from level 1b processing (world map)

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

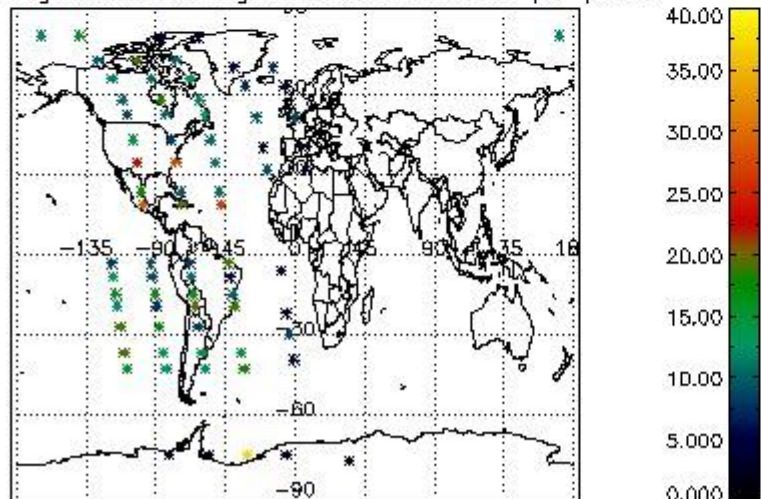
Percentage of cosmic ray hits per profile



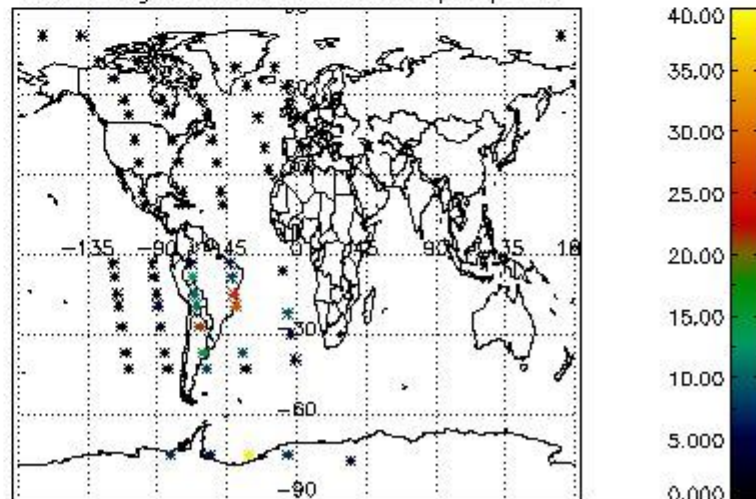
Percentage of datation errors per profile



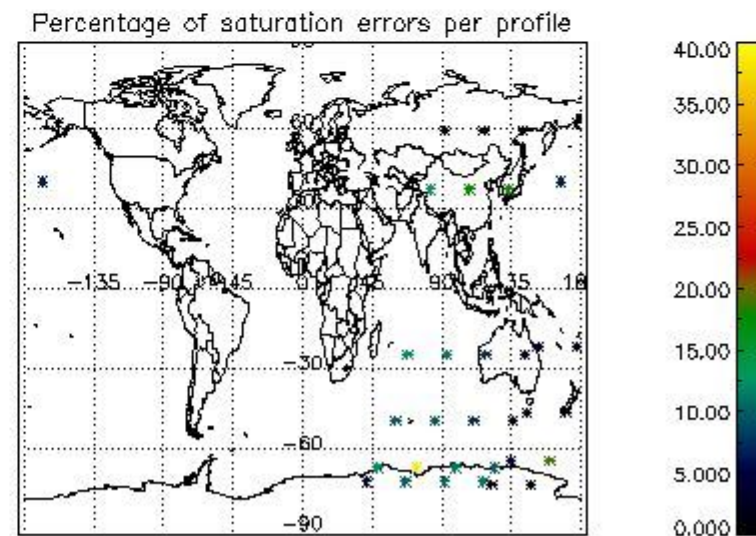
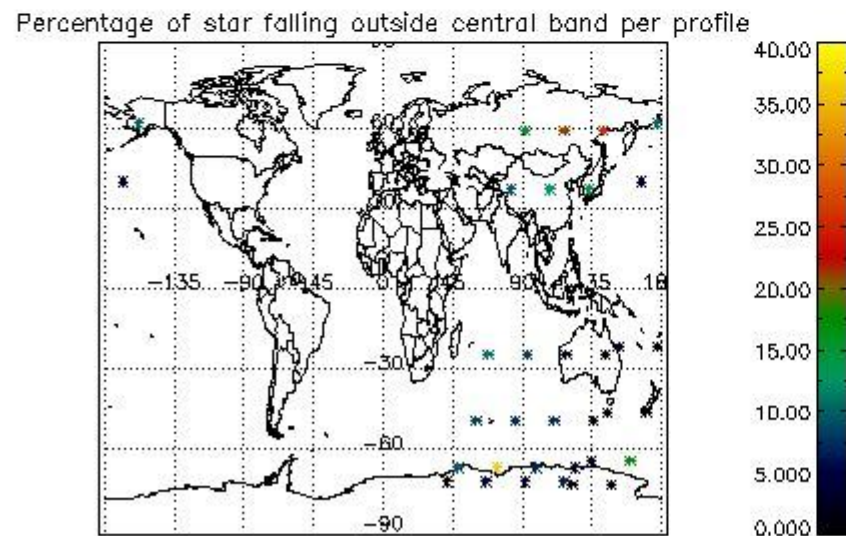
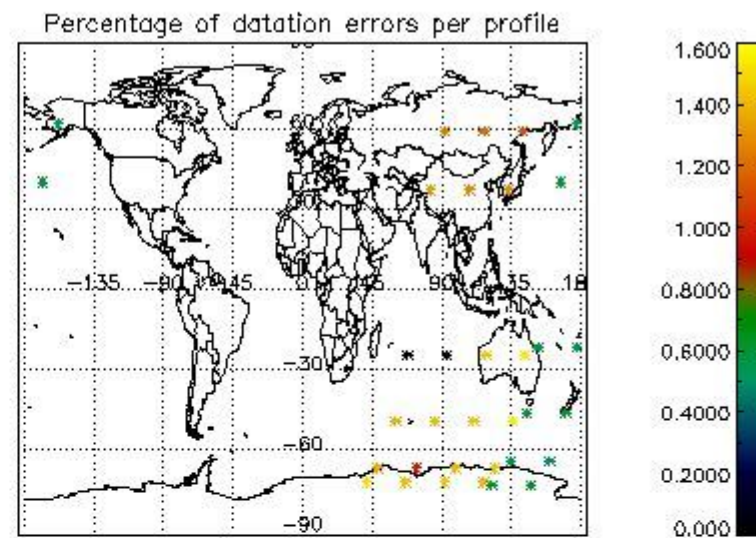
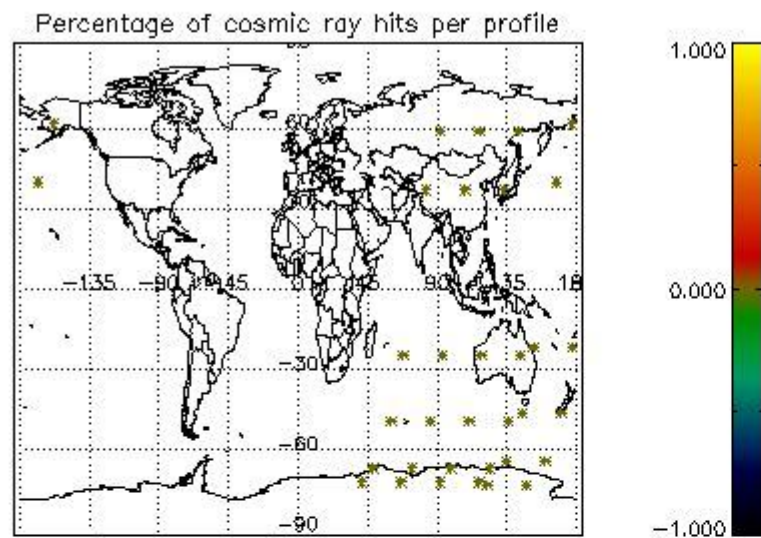
Percentage of star falling outside central band per profile



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

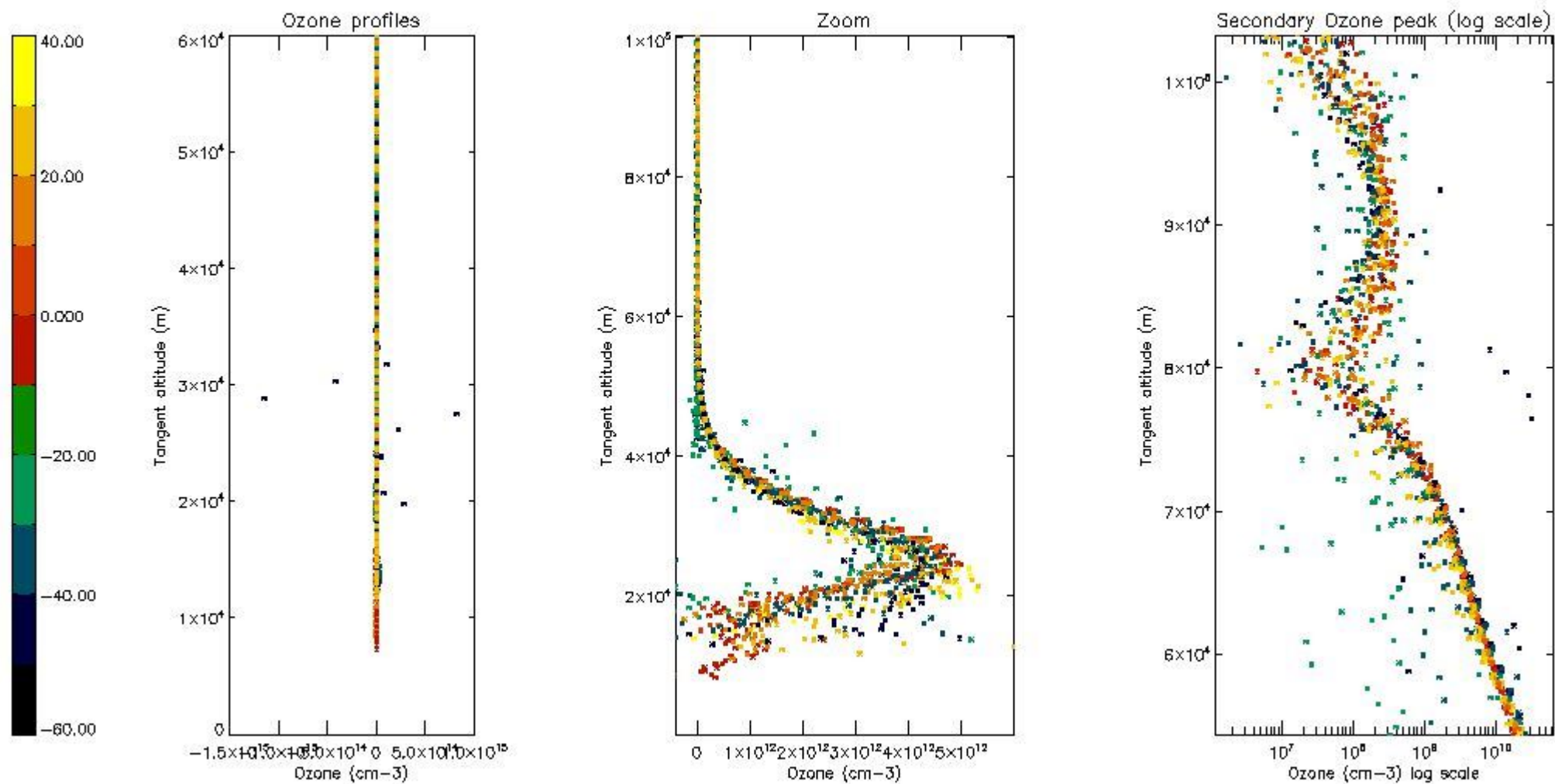
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	17

STD < 10	14
STD < 5	9

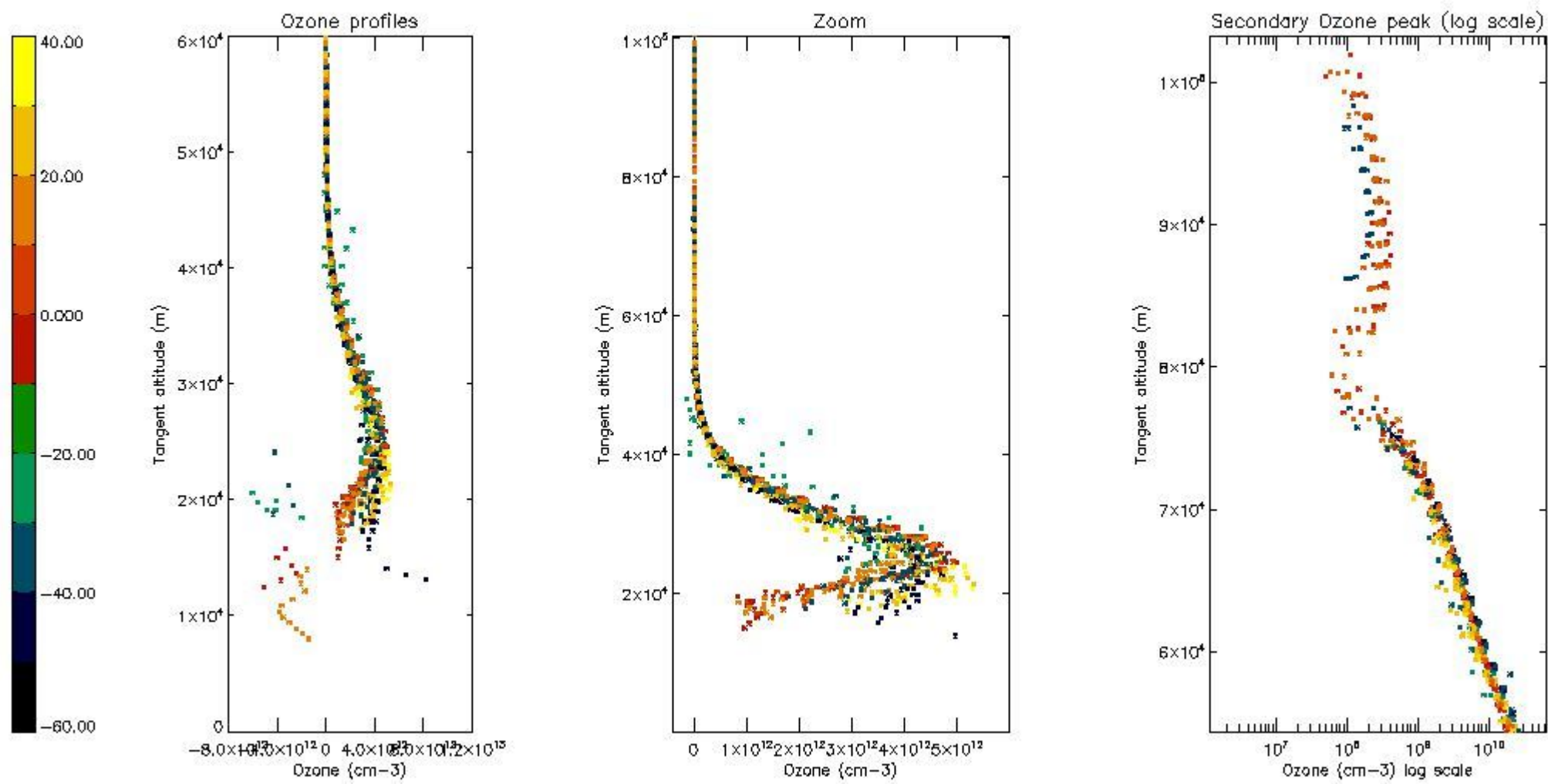
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



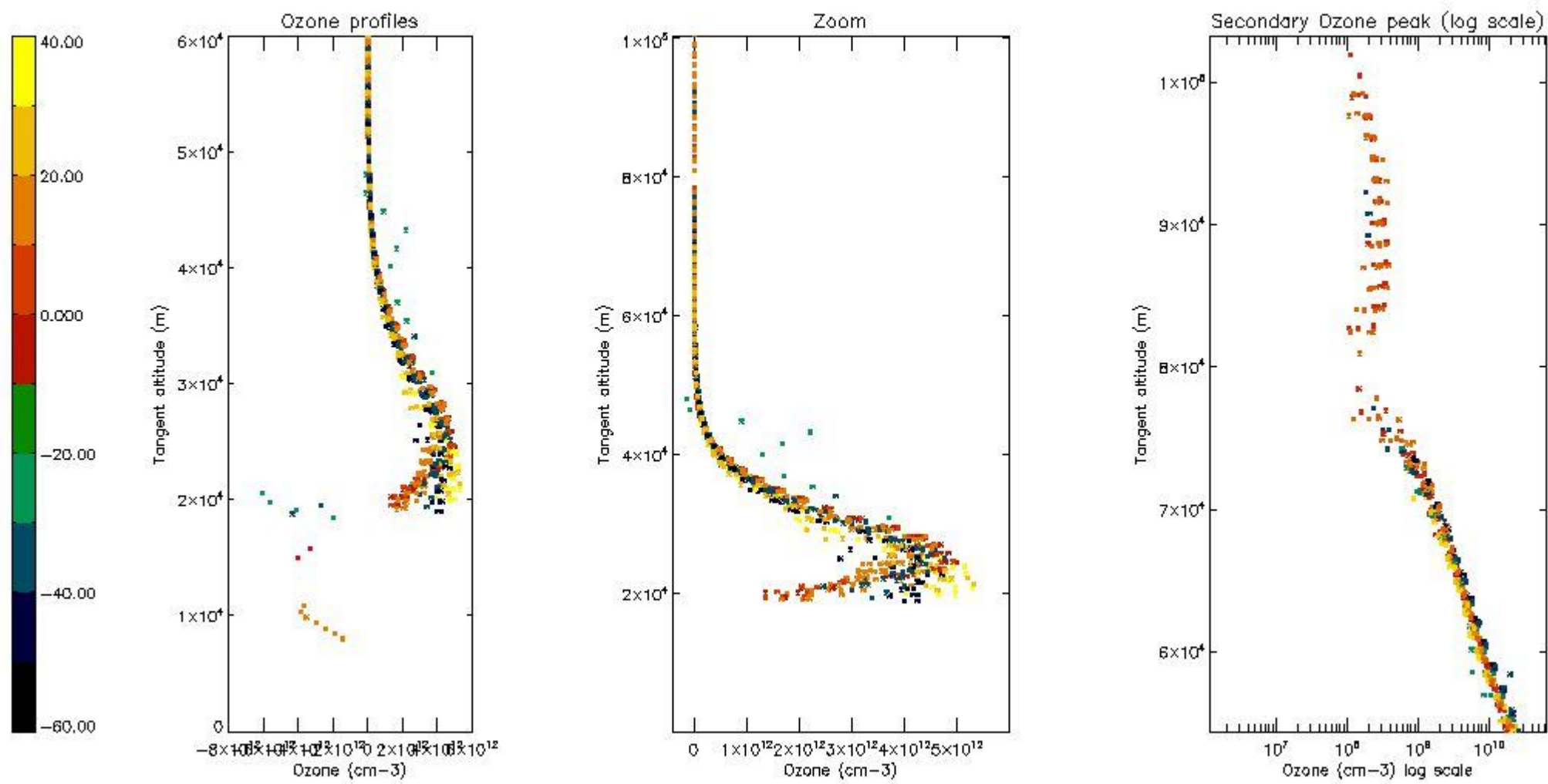
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



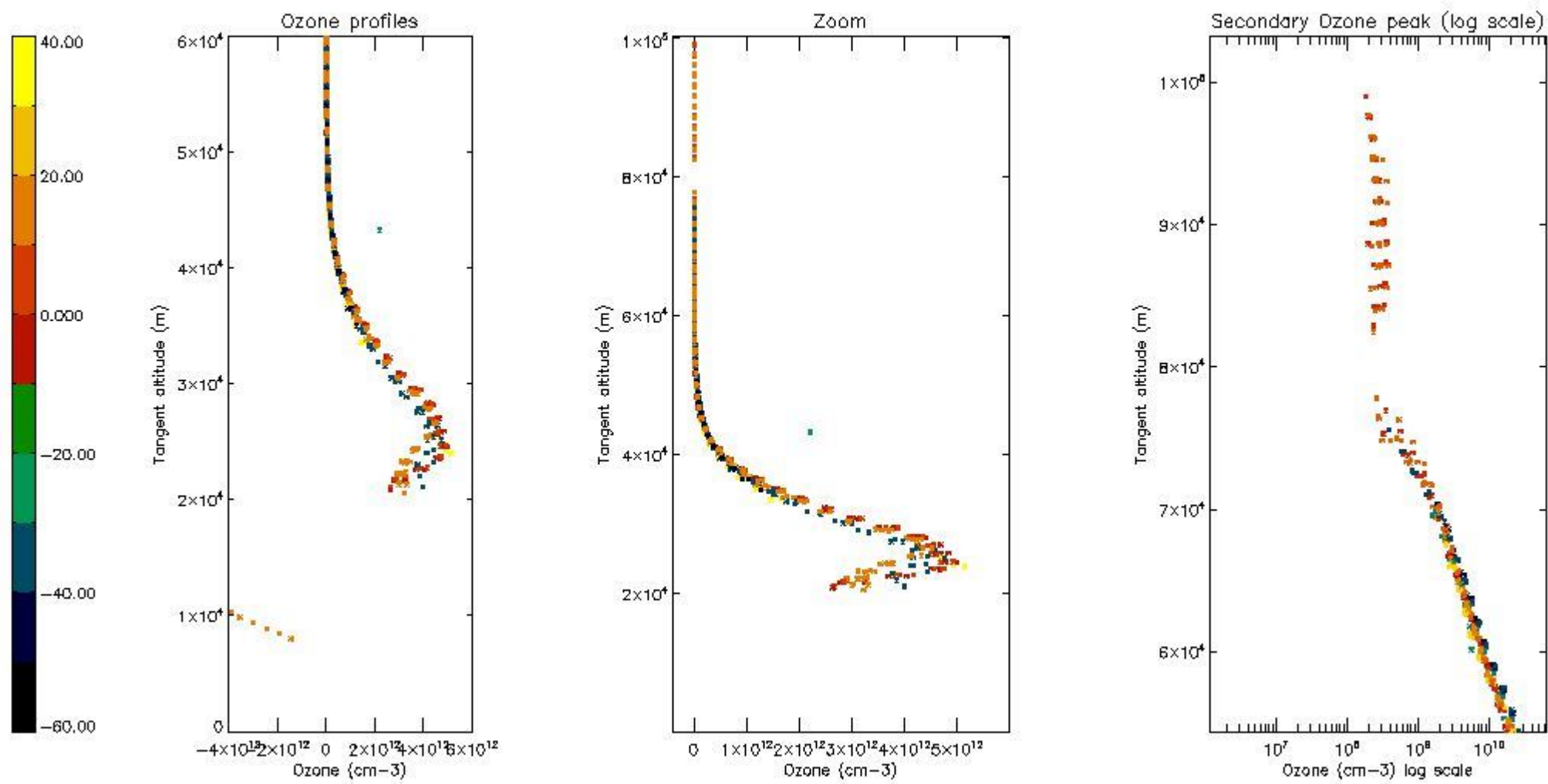
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



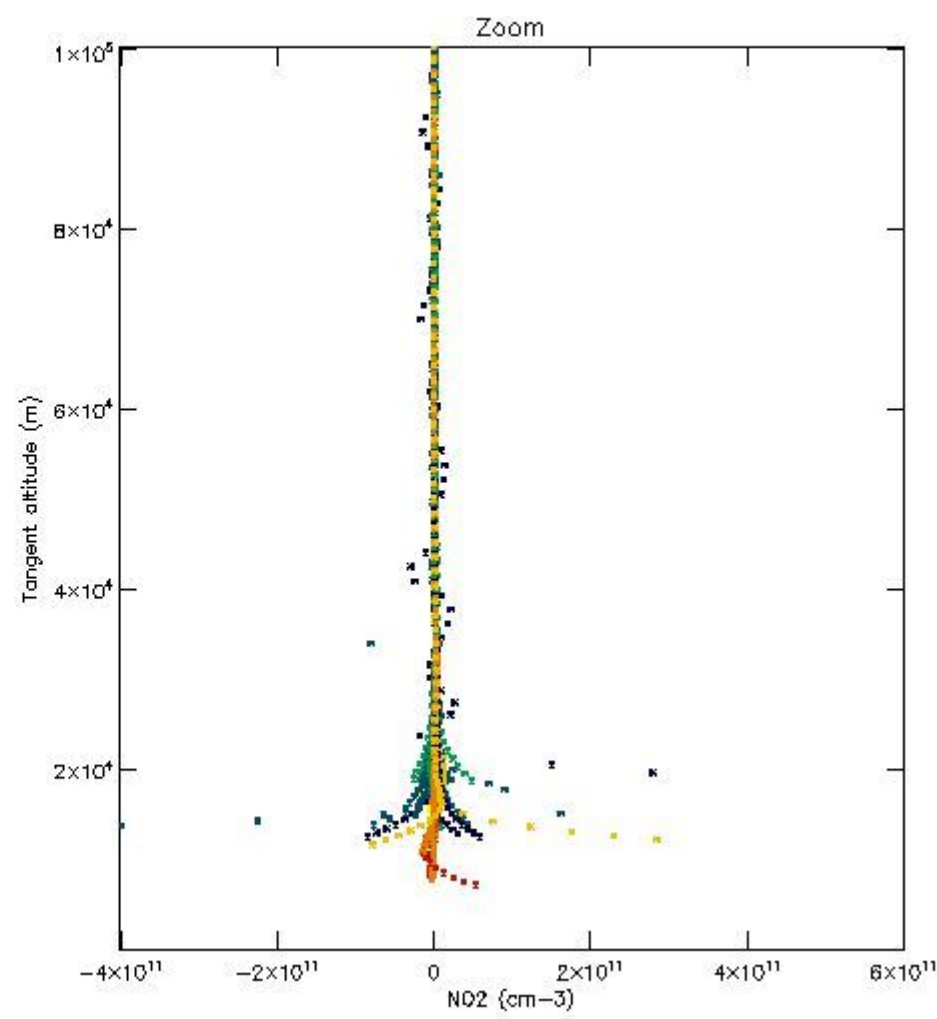
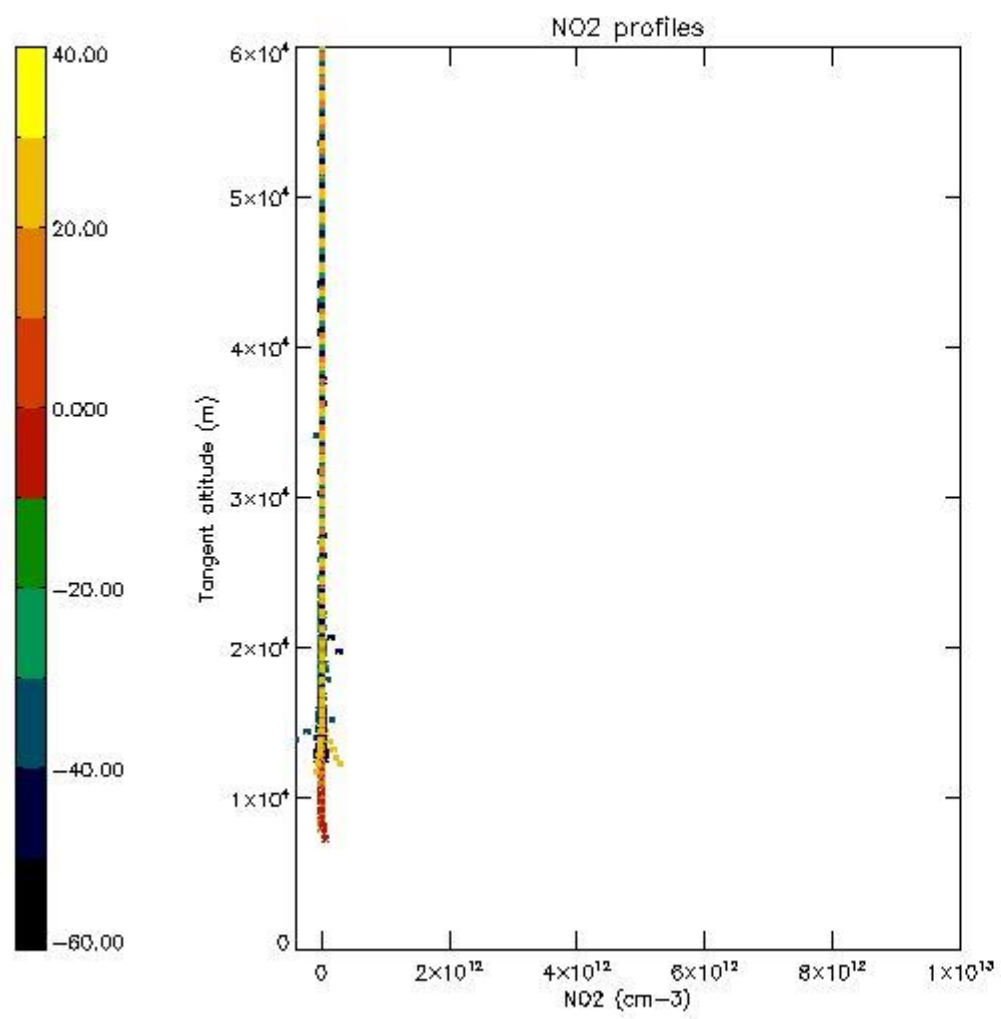
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



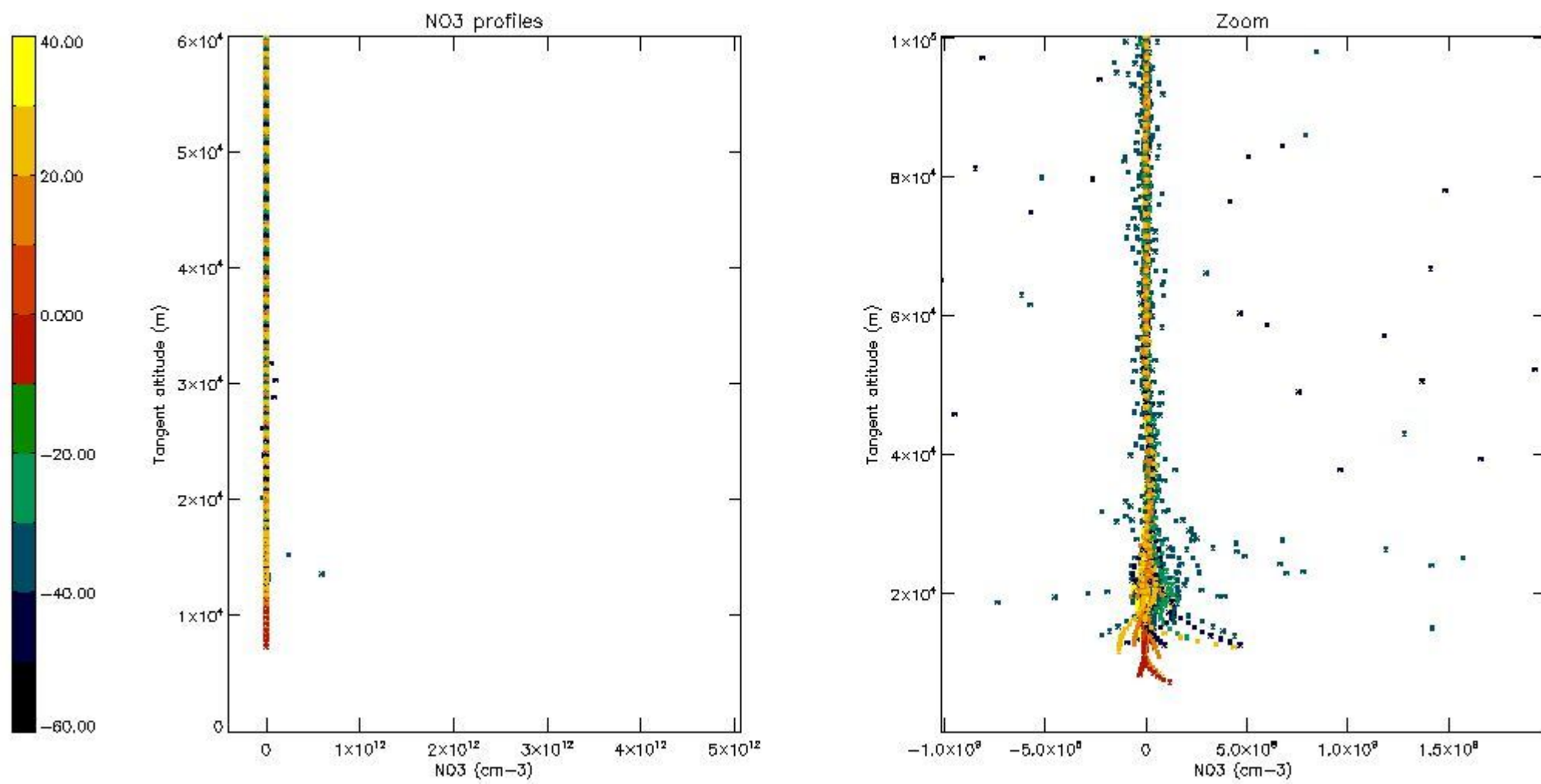
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



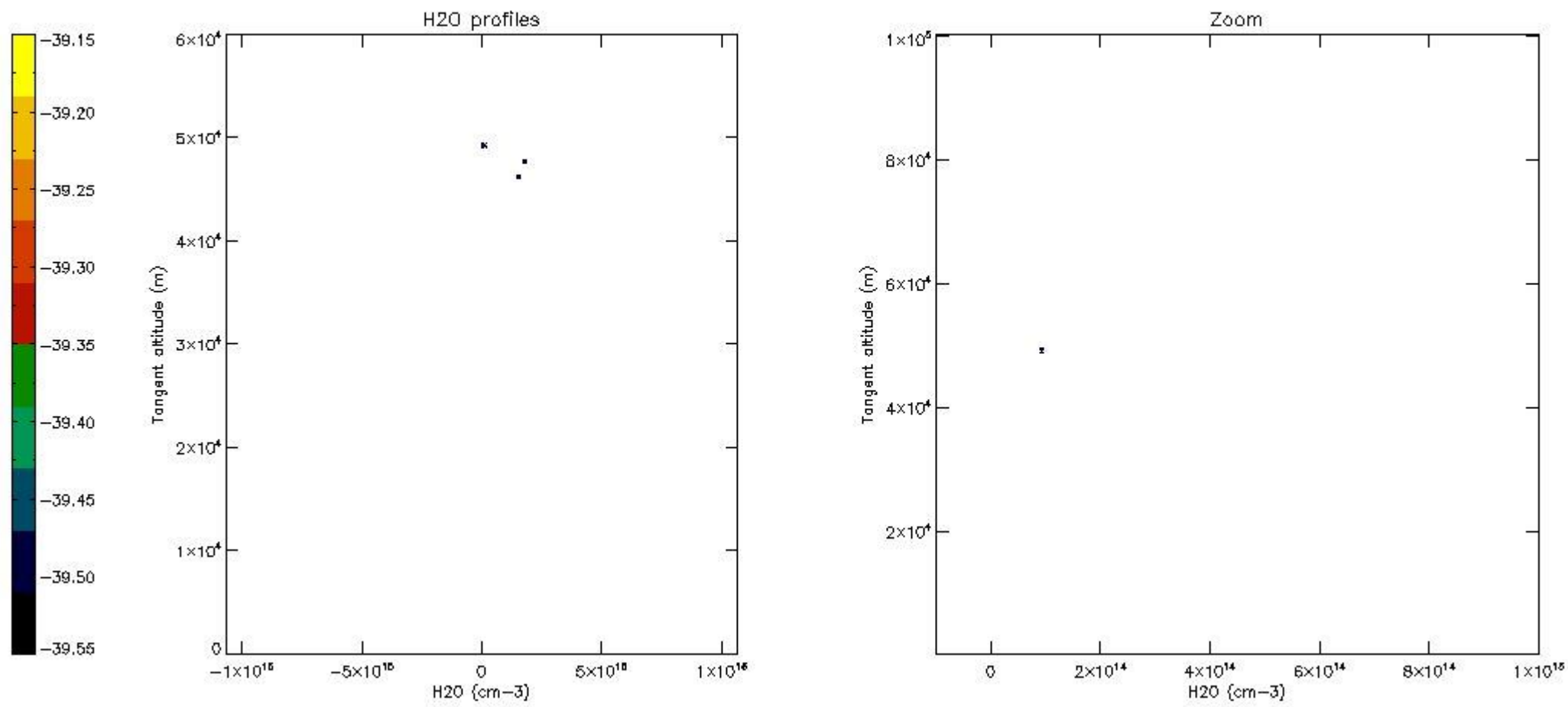
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

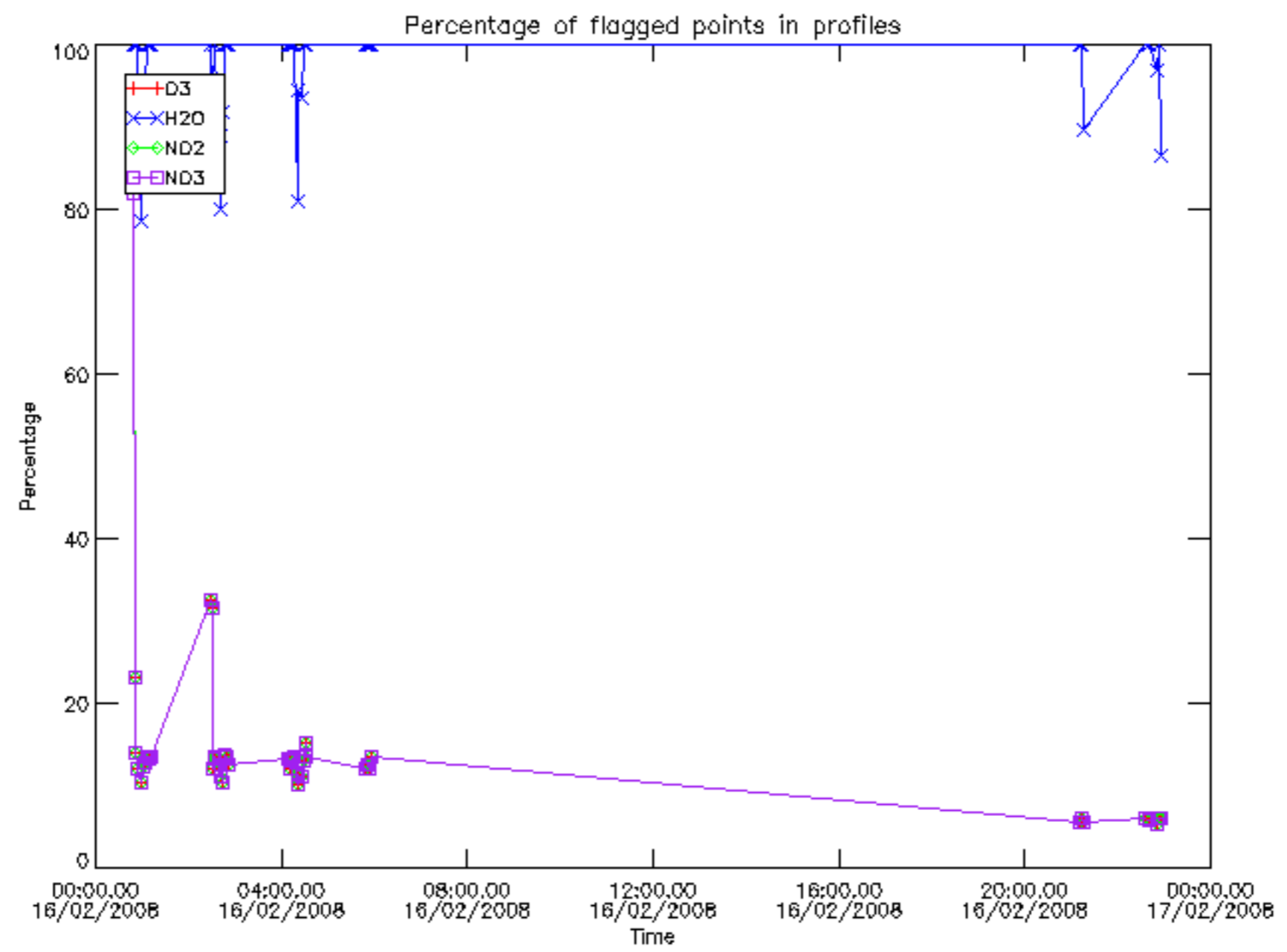
The colorbar represents the latitude.



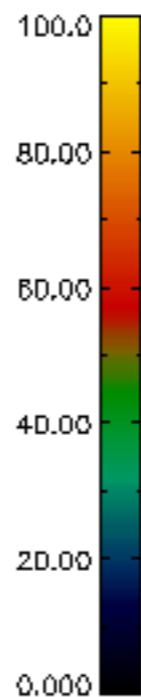
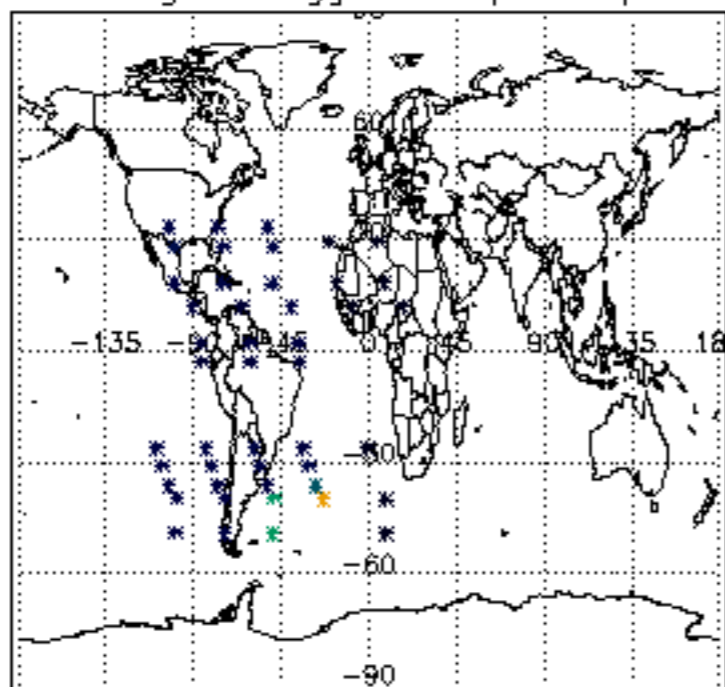
6. Auxiliary Data Files used for the production reported in section 2

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.

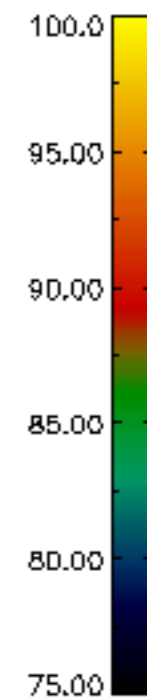
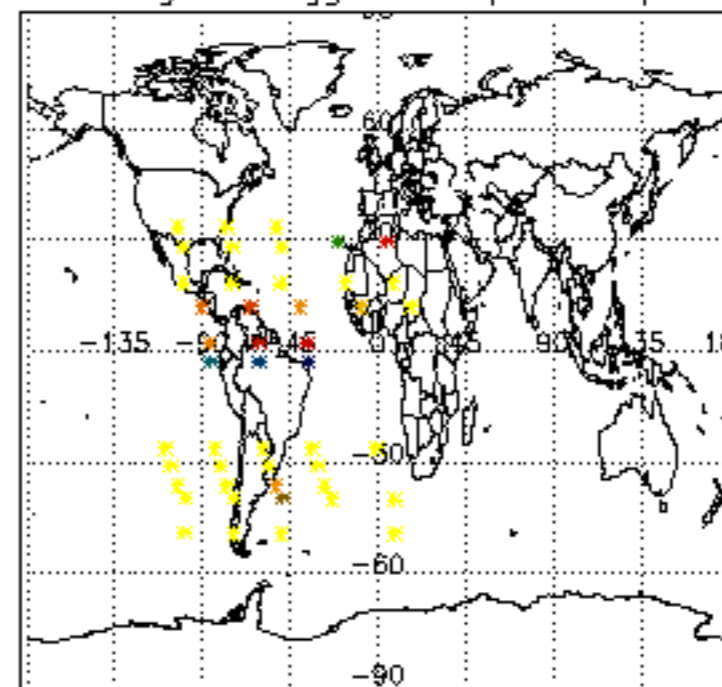
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	16-FEB-2008 00:11:24
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-FEB-2008 00:11:24
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-FEB-2008 00:11:24



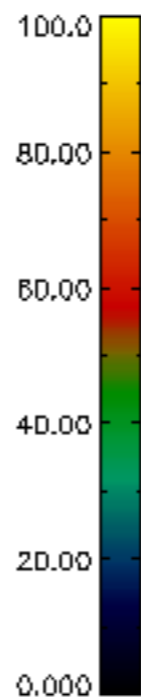
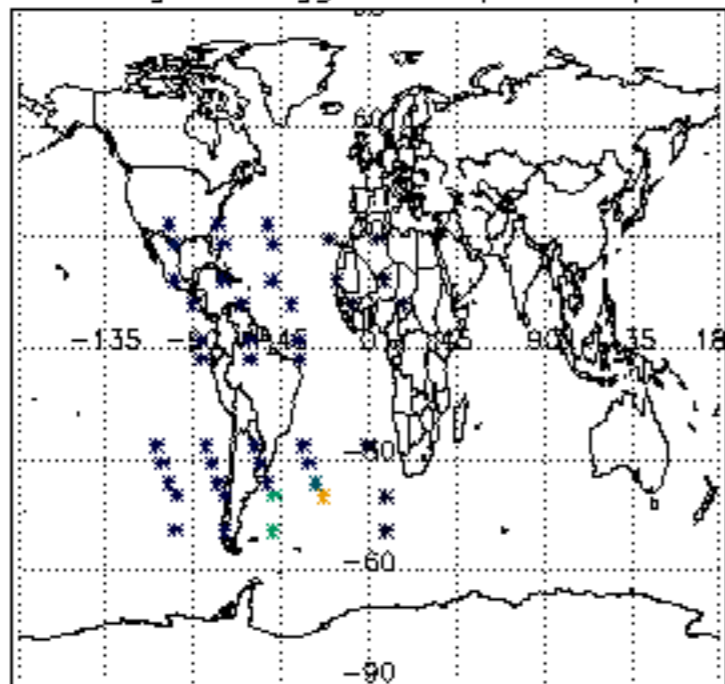
Percentage of flagged data per D3 profile



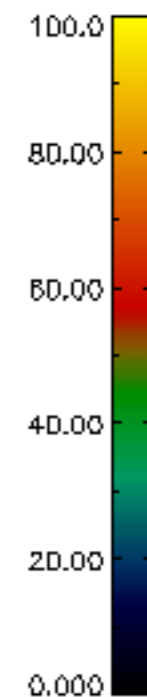
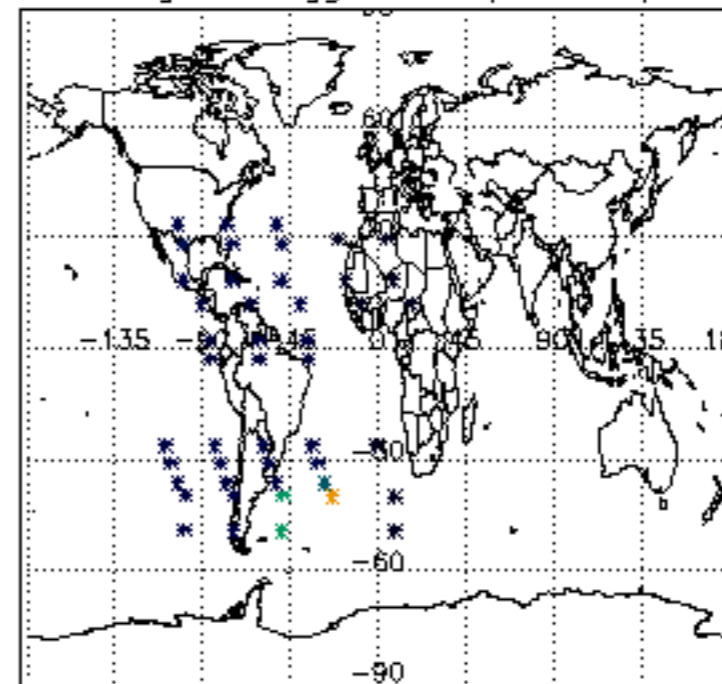
Percentage of flagged data per H2O profile

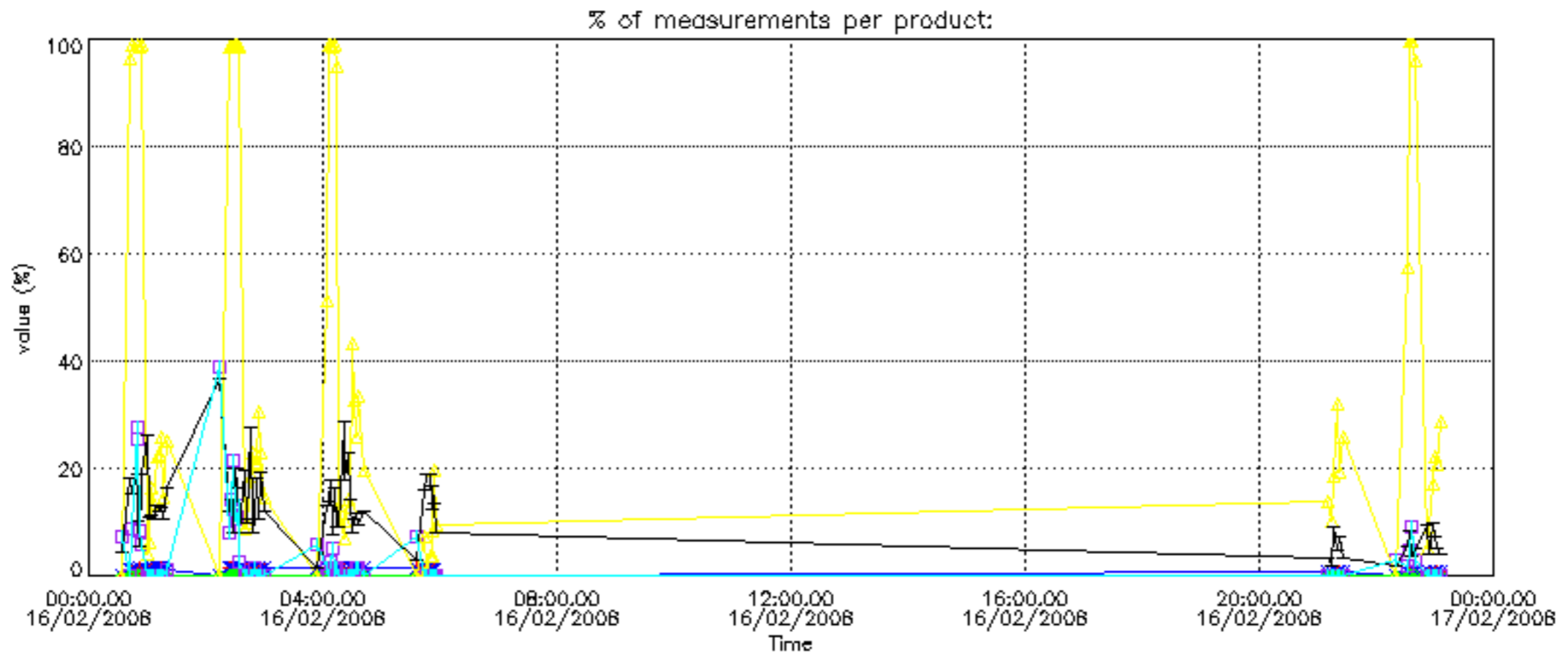


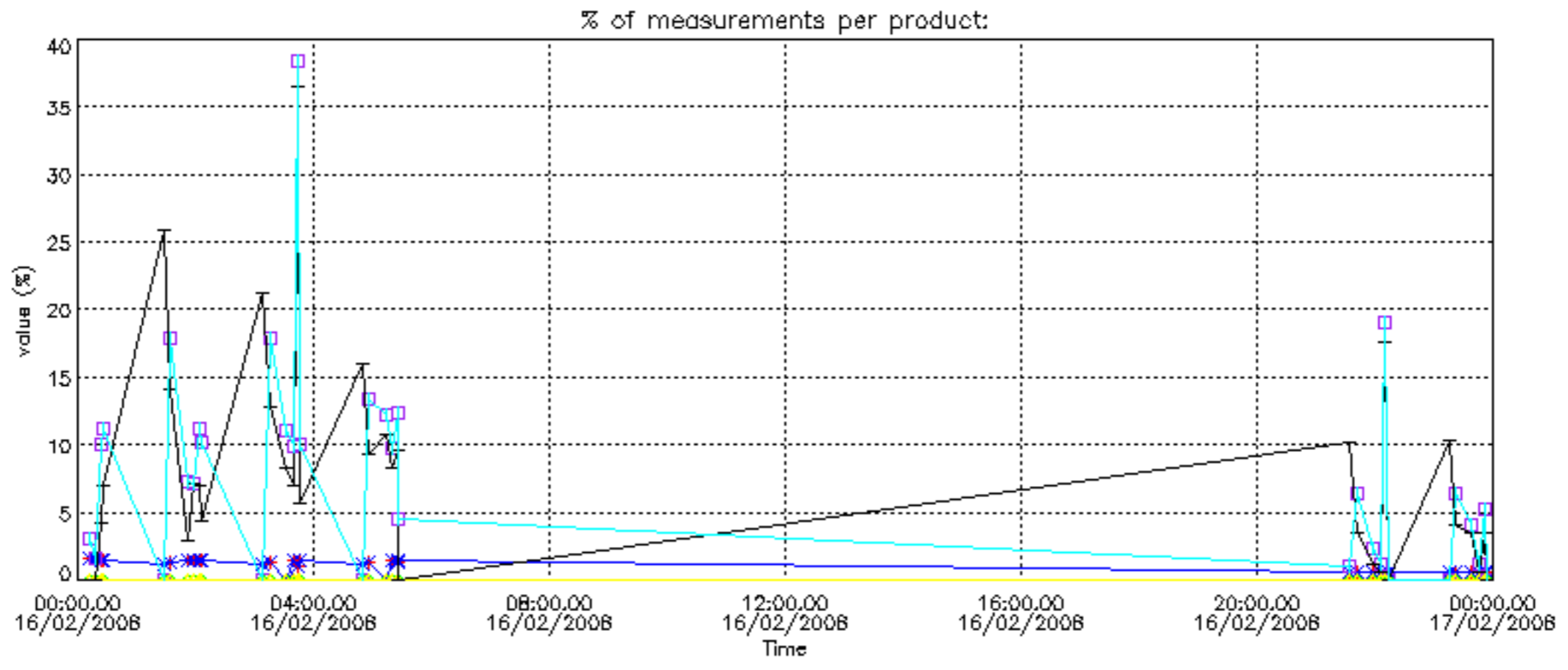
Percentage of flagged data per NO2 profile



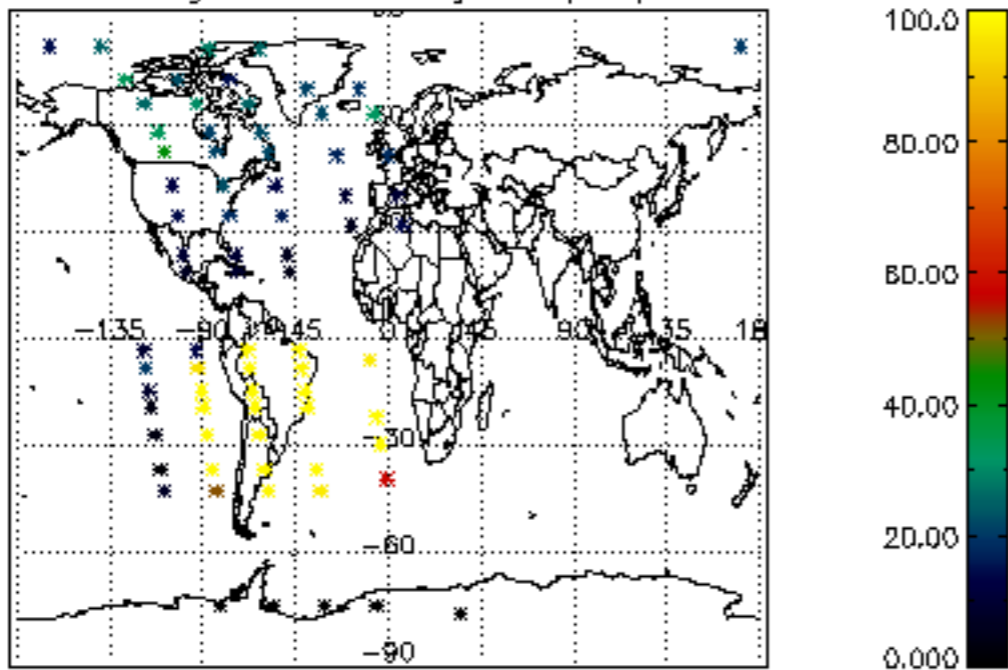
Percentage of flagged data per NO3 profile



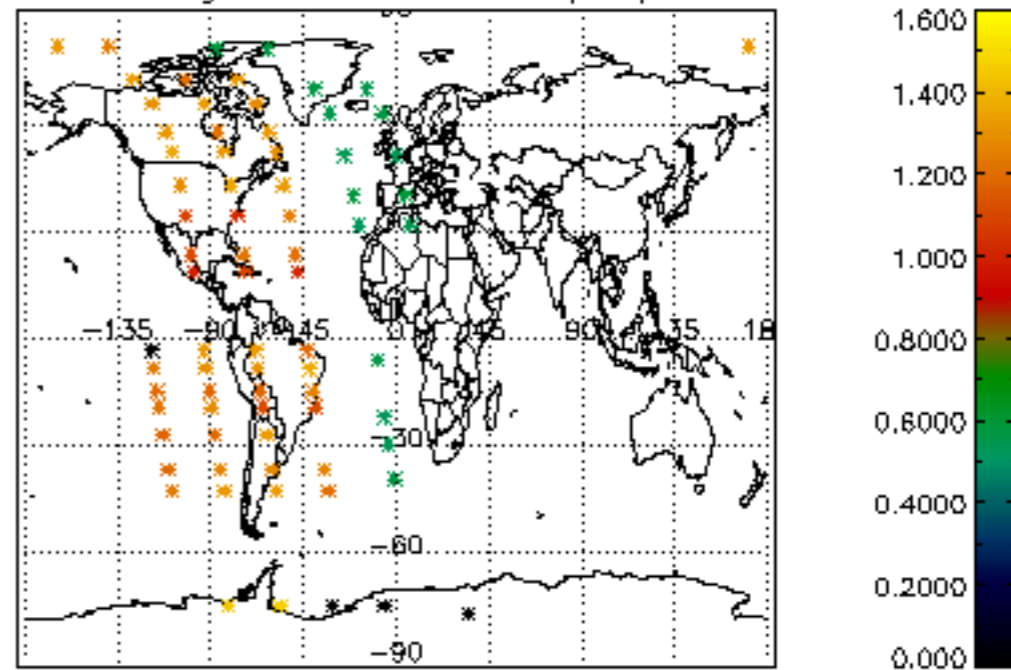




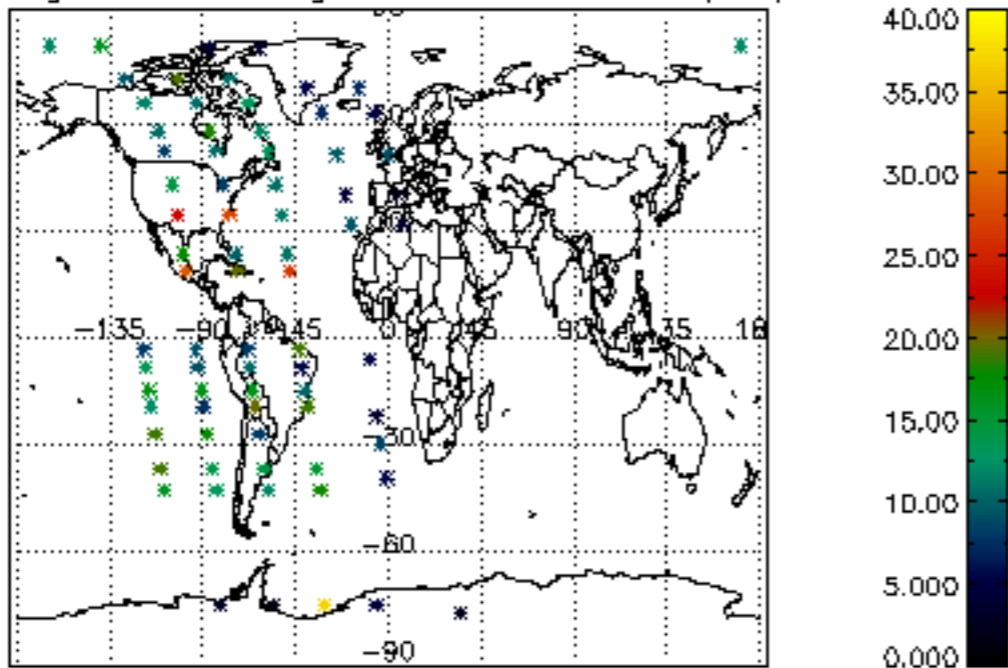
Percentage of cosmic ray hits per profile



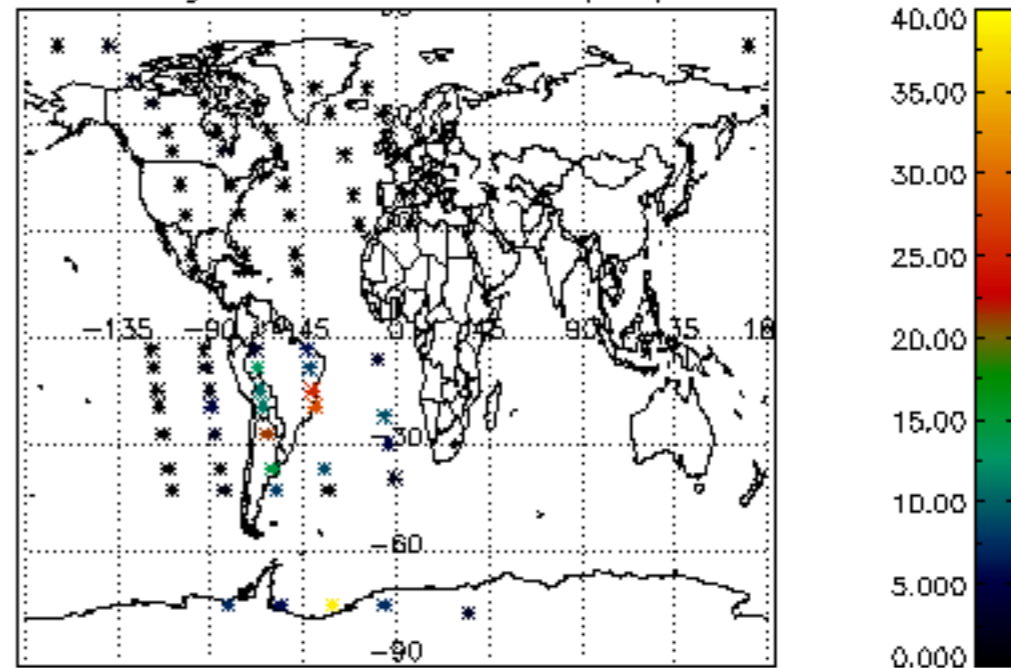
Percentage of datation errors per profile



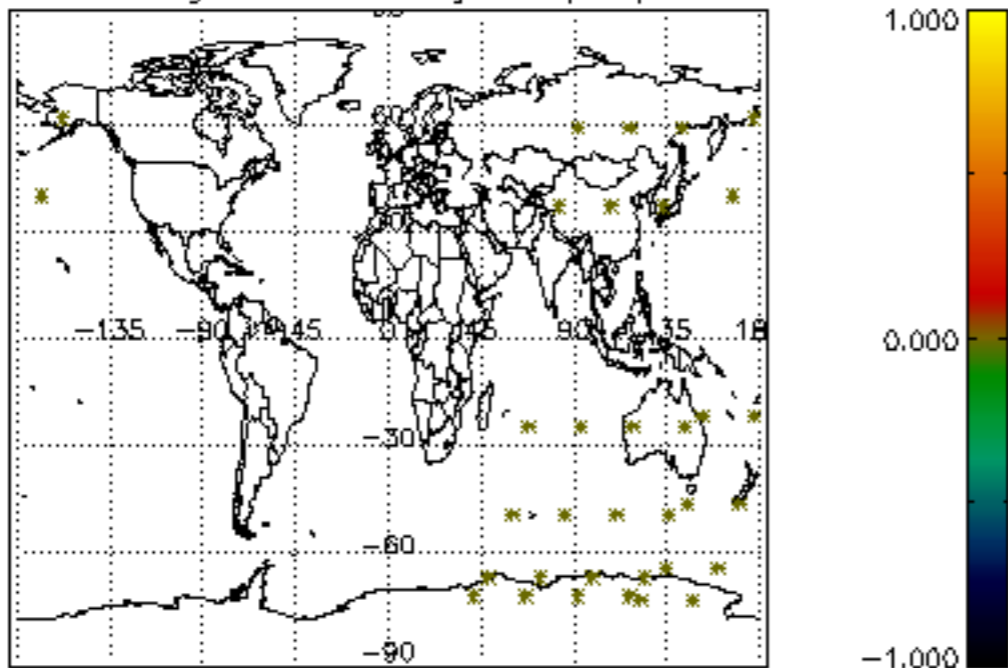
Percentage of star falling outside central band per profile



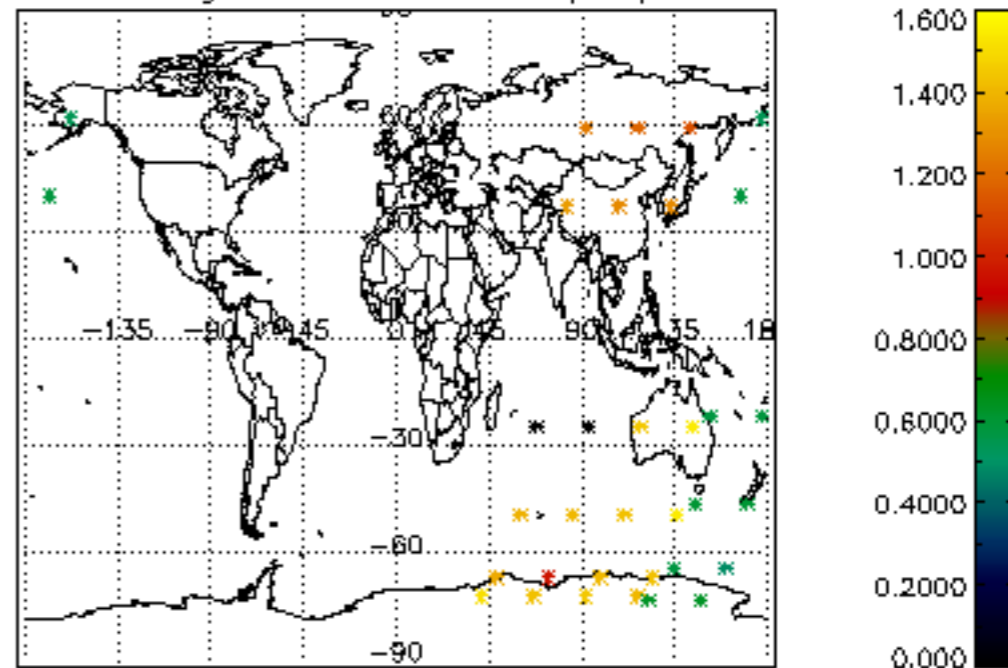
Percentage of saturation errors per profile



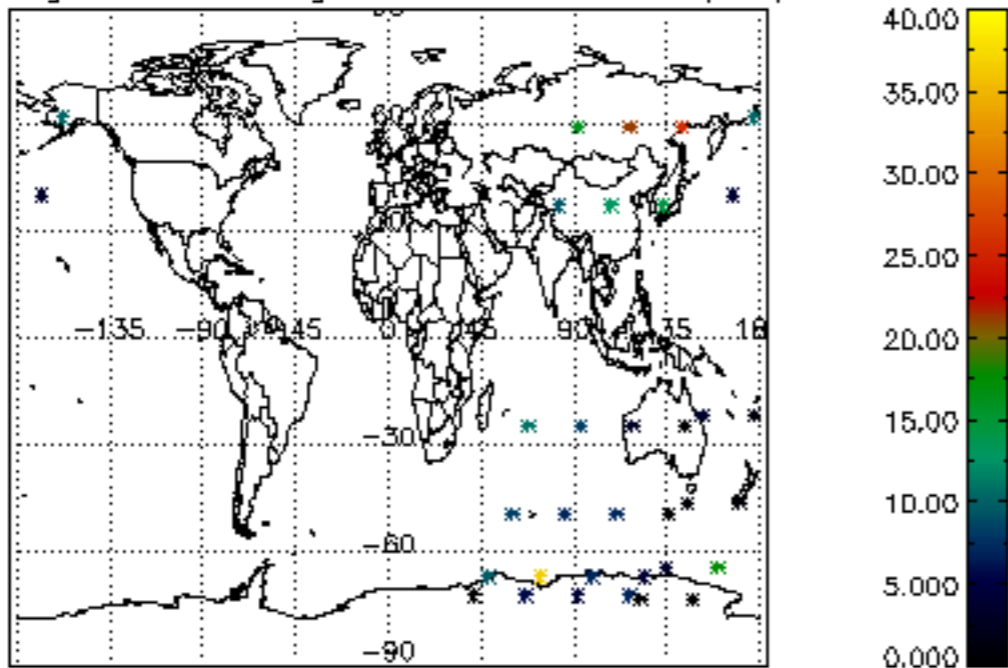
Percentage of cosmic ray hits per profile



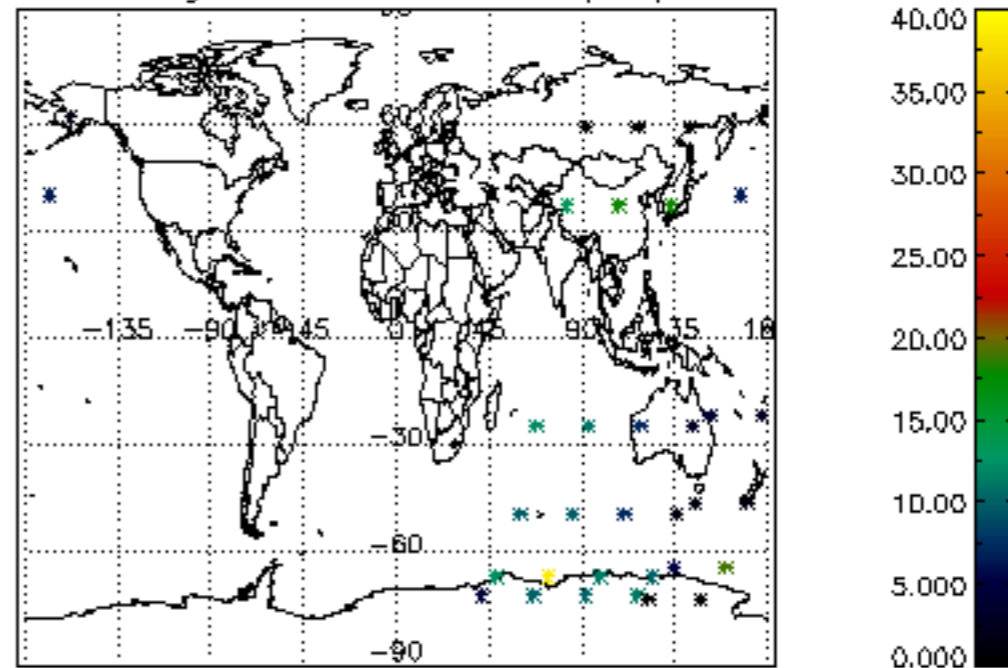
Percentage of datation errors per profile

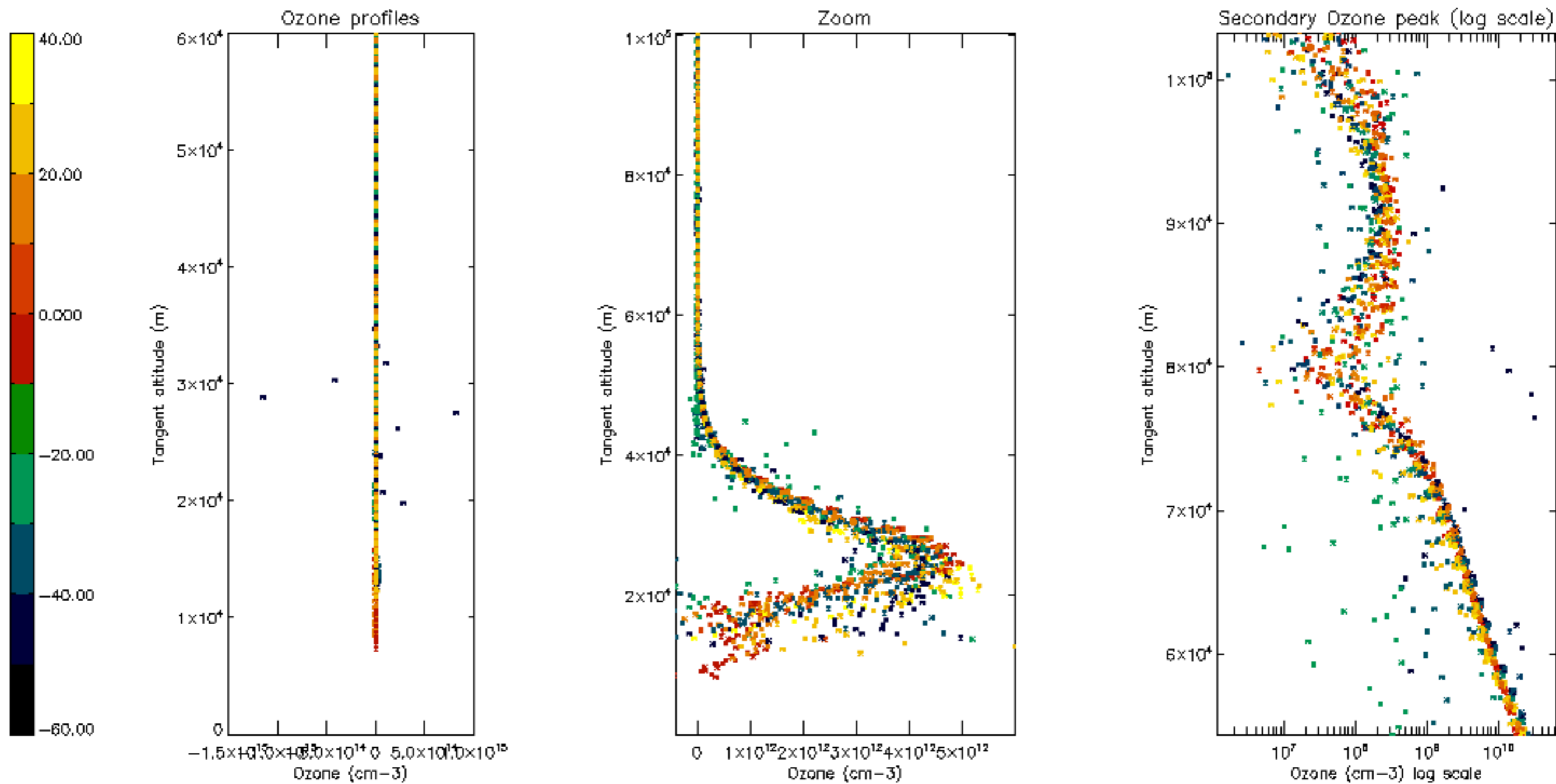


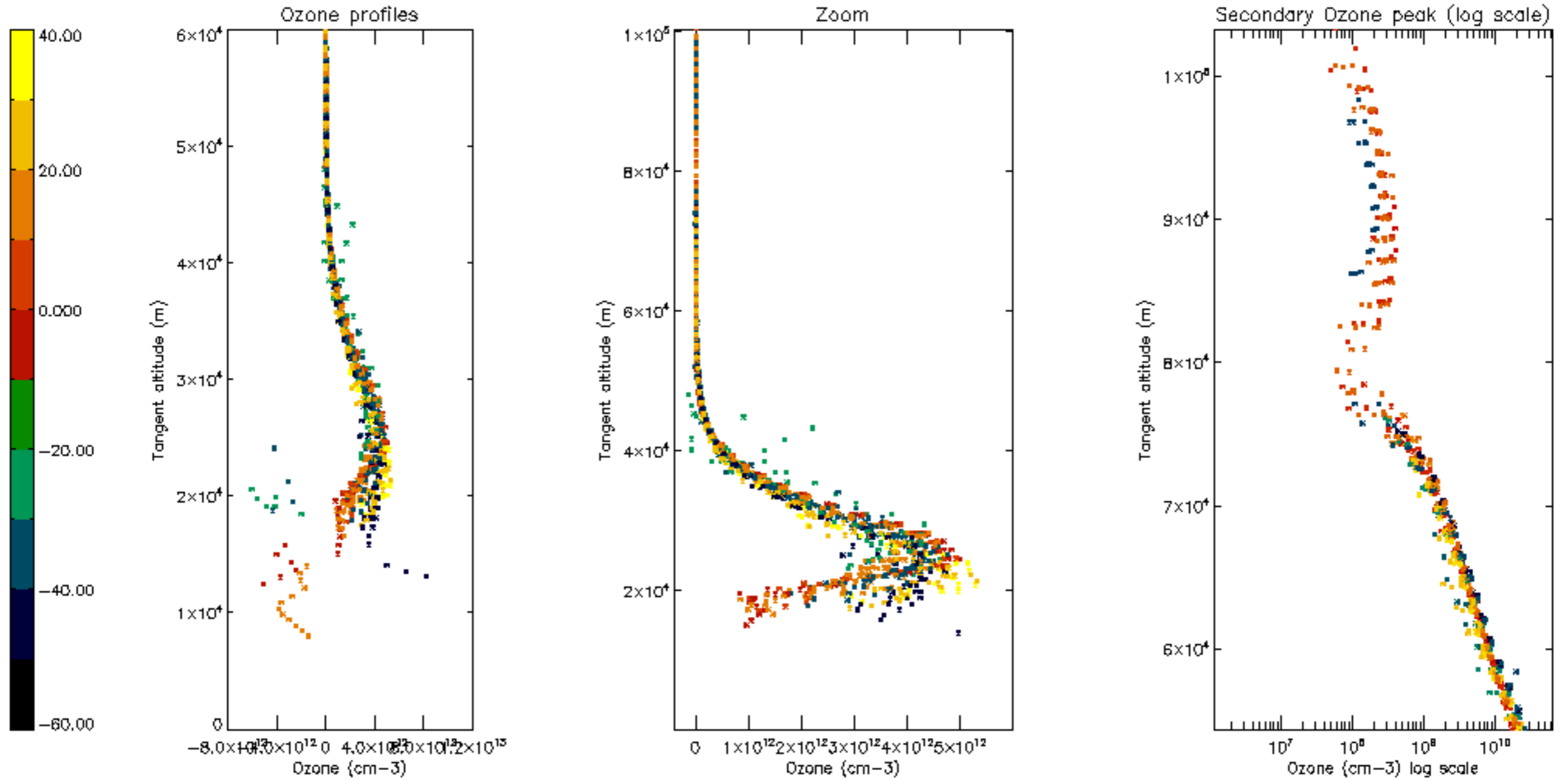
Percentage of star falling outside central band per profile

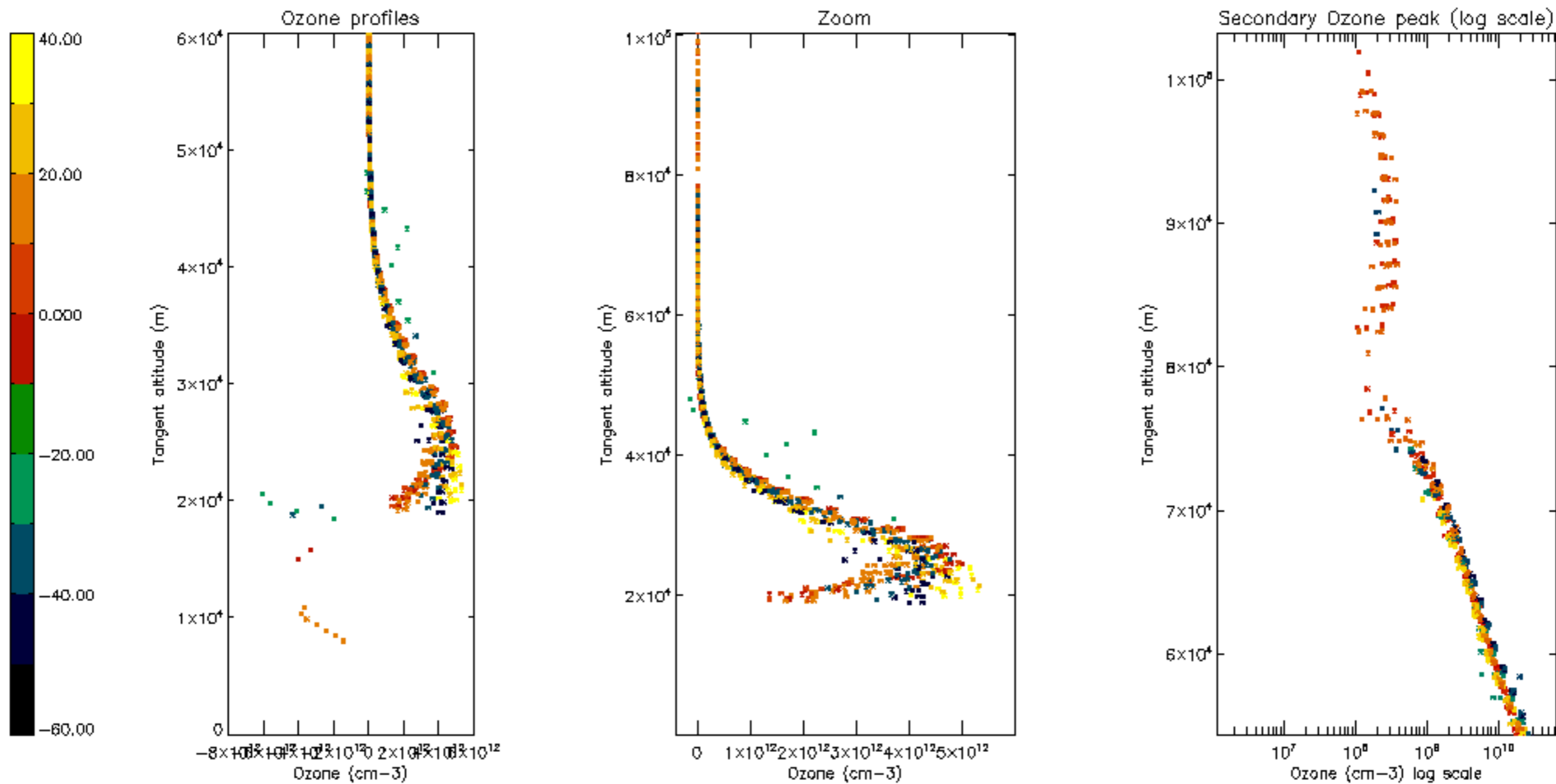


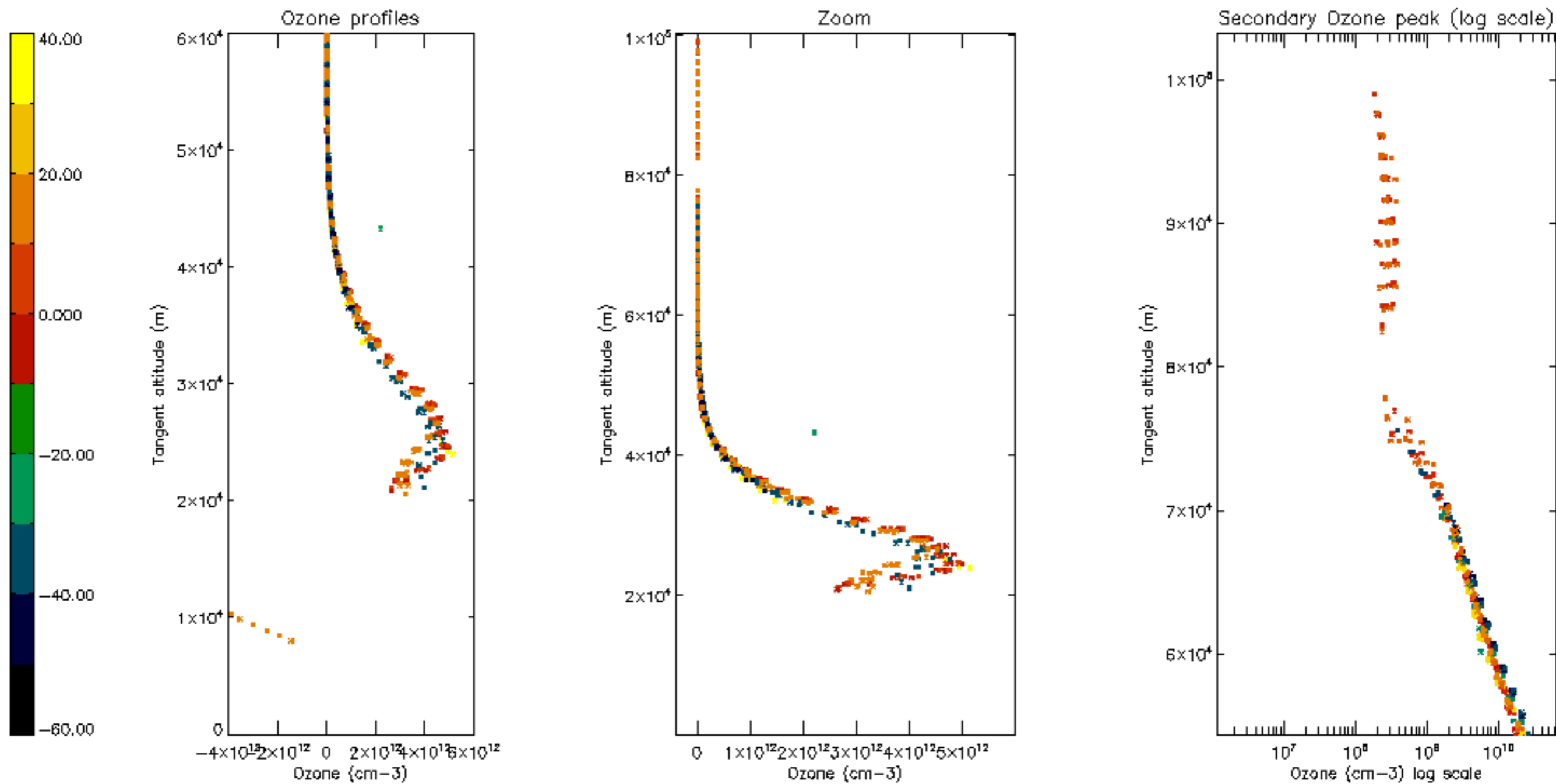
Percentage of saturation errors per profile

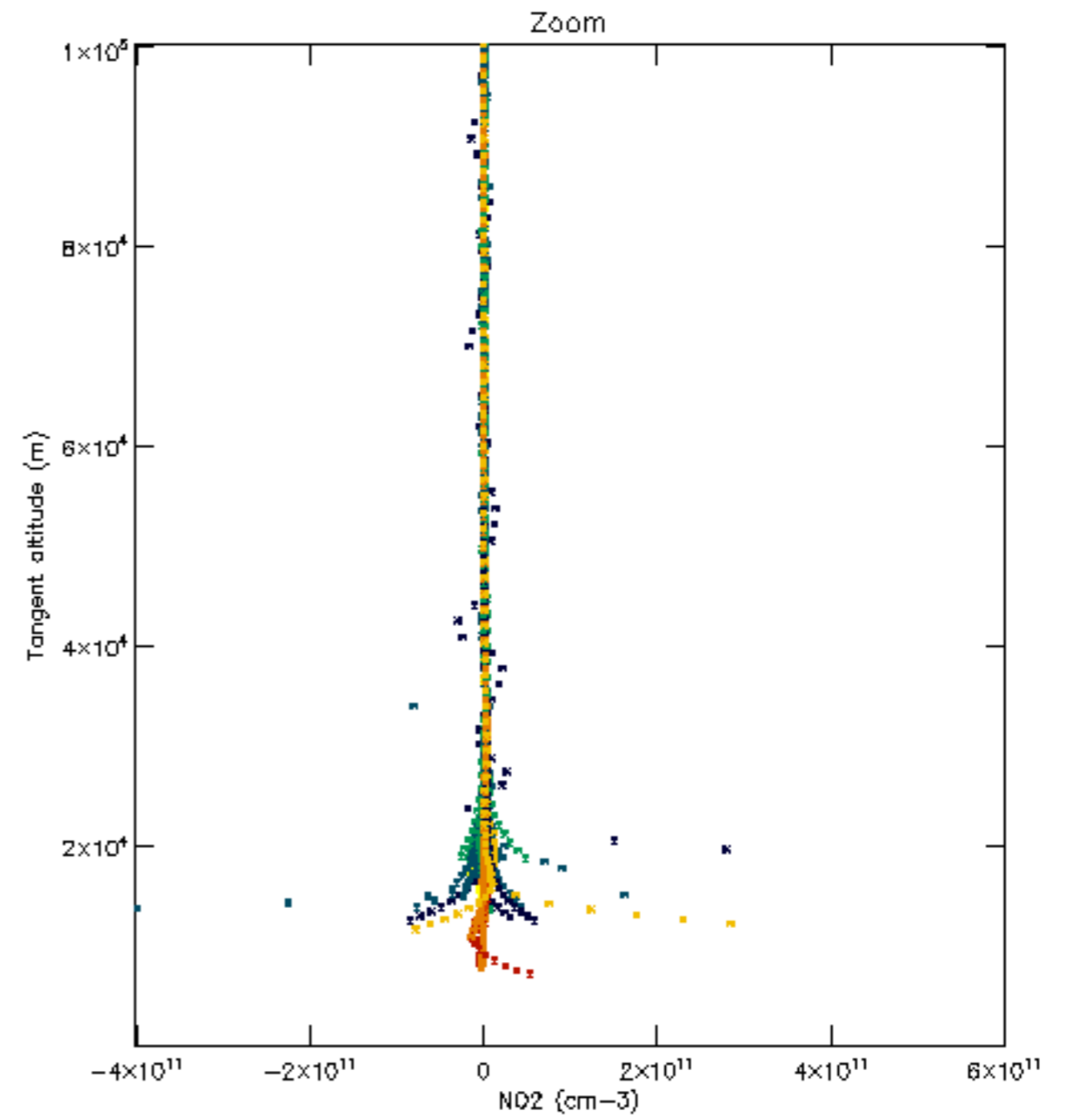
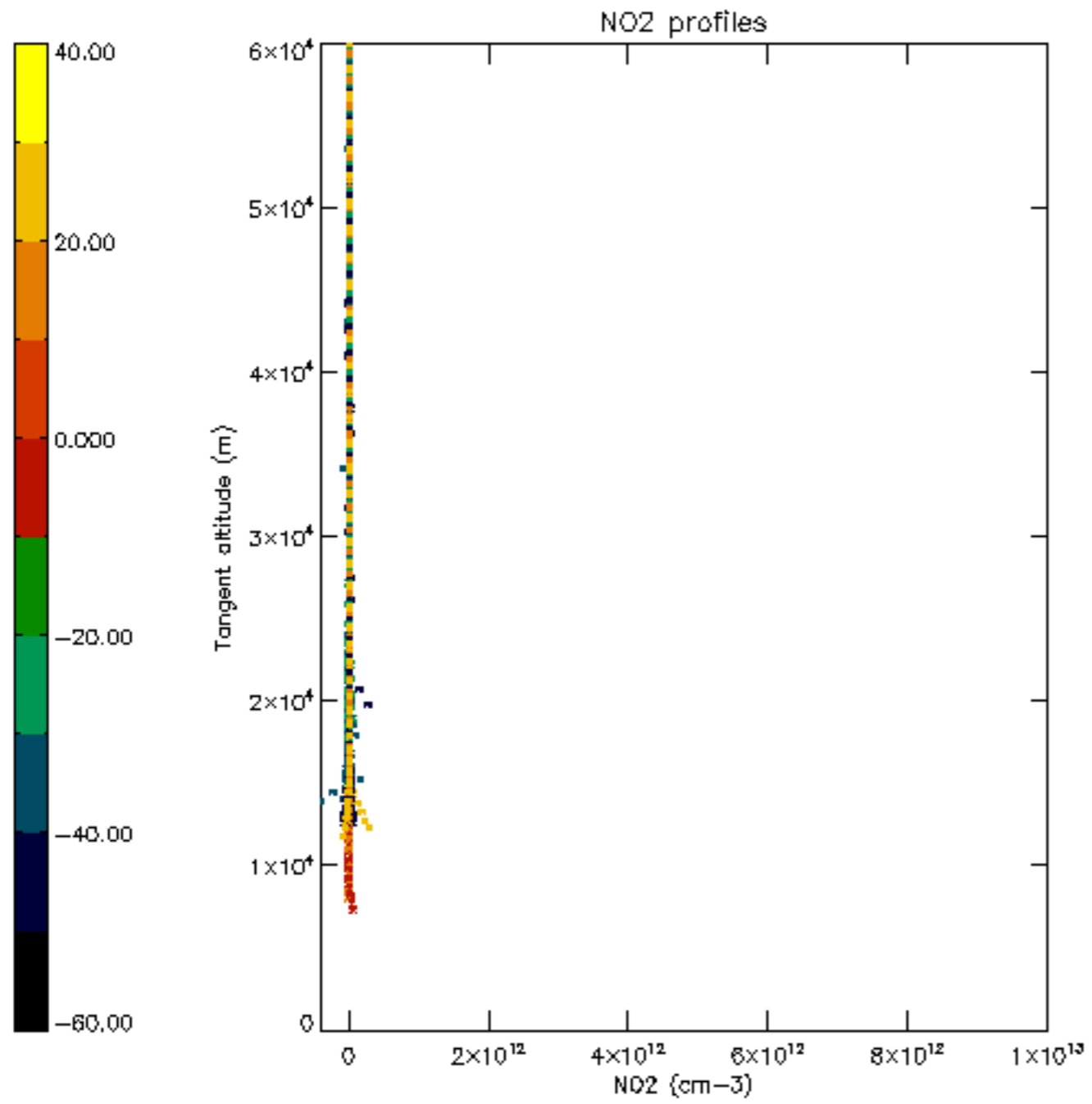


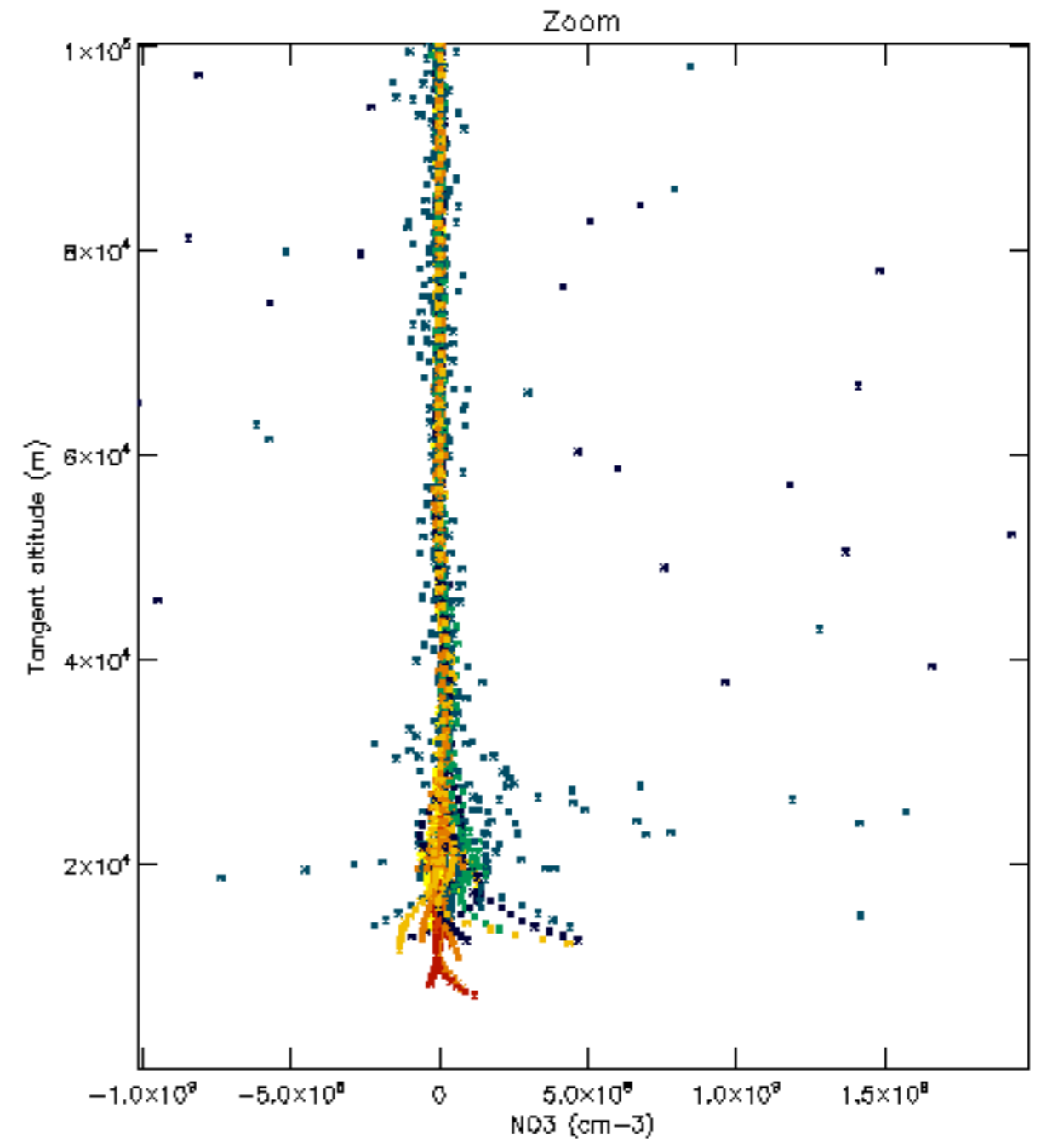
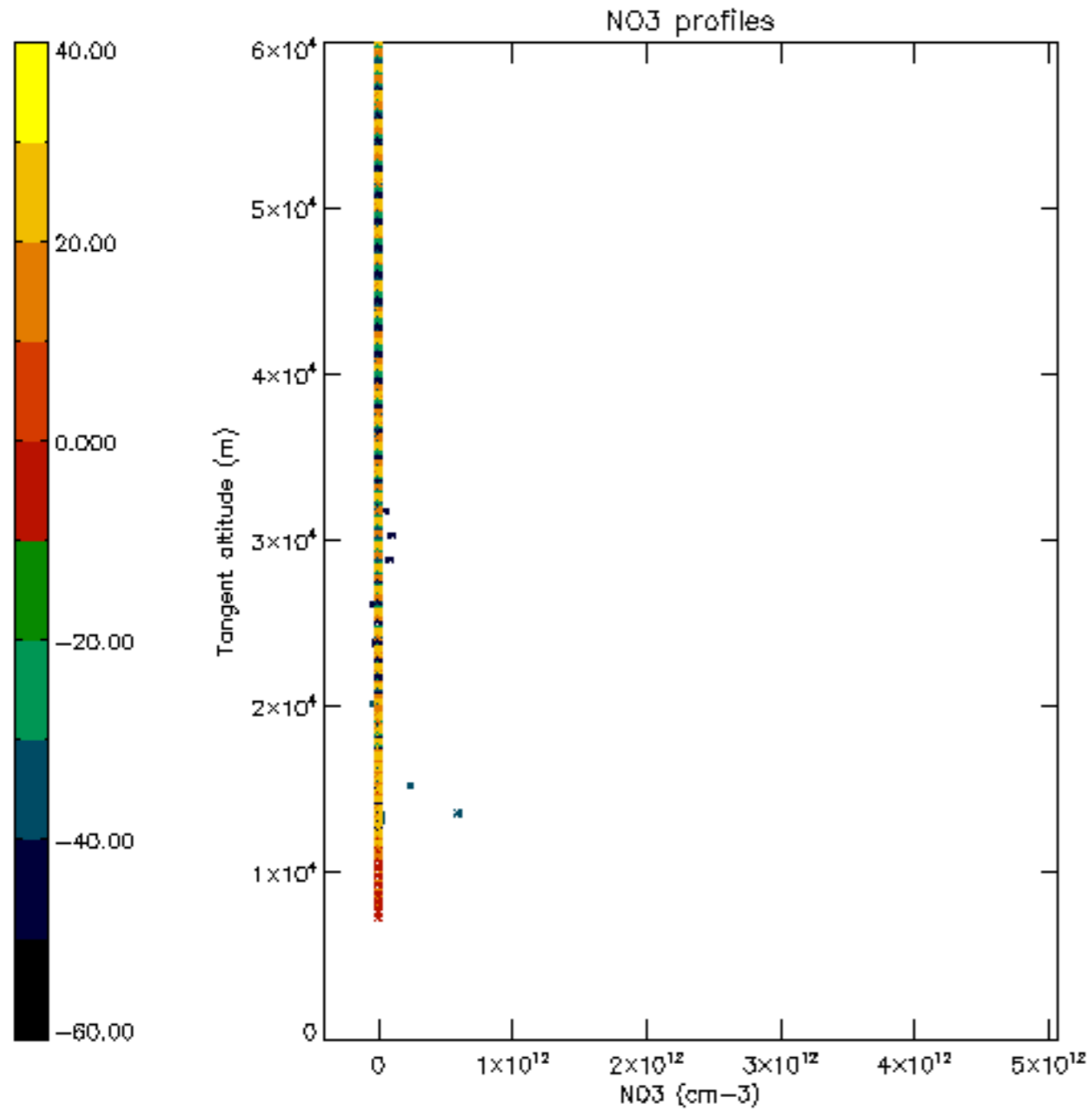


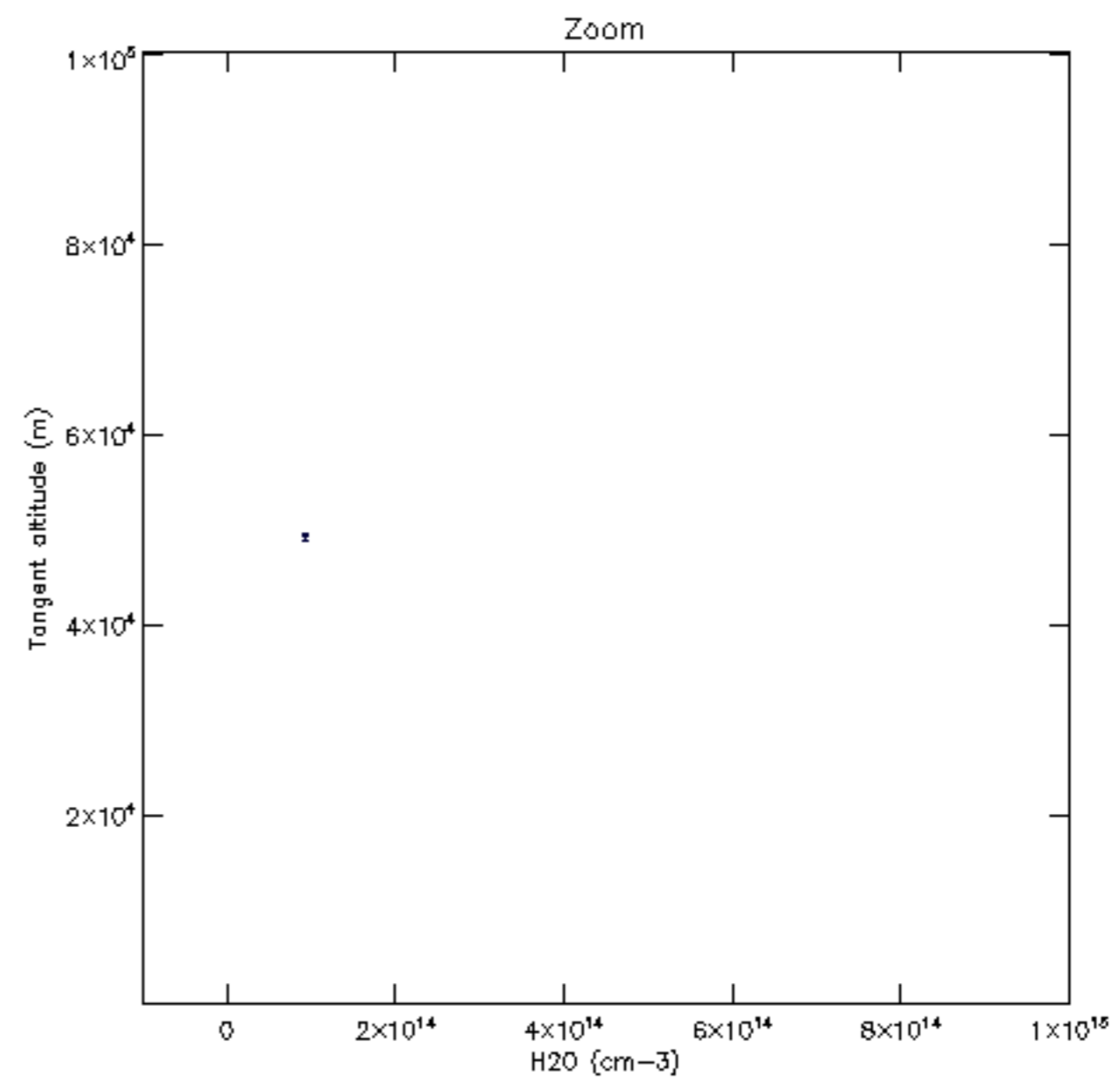
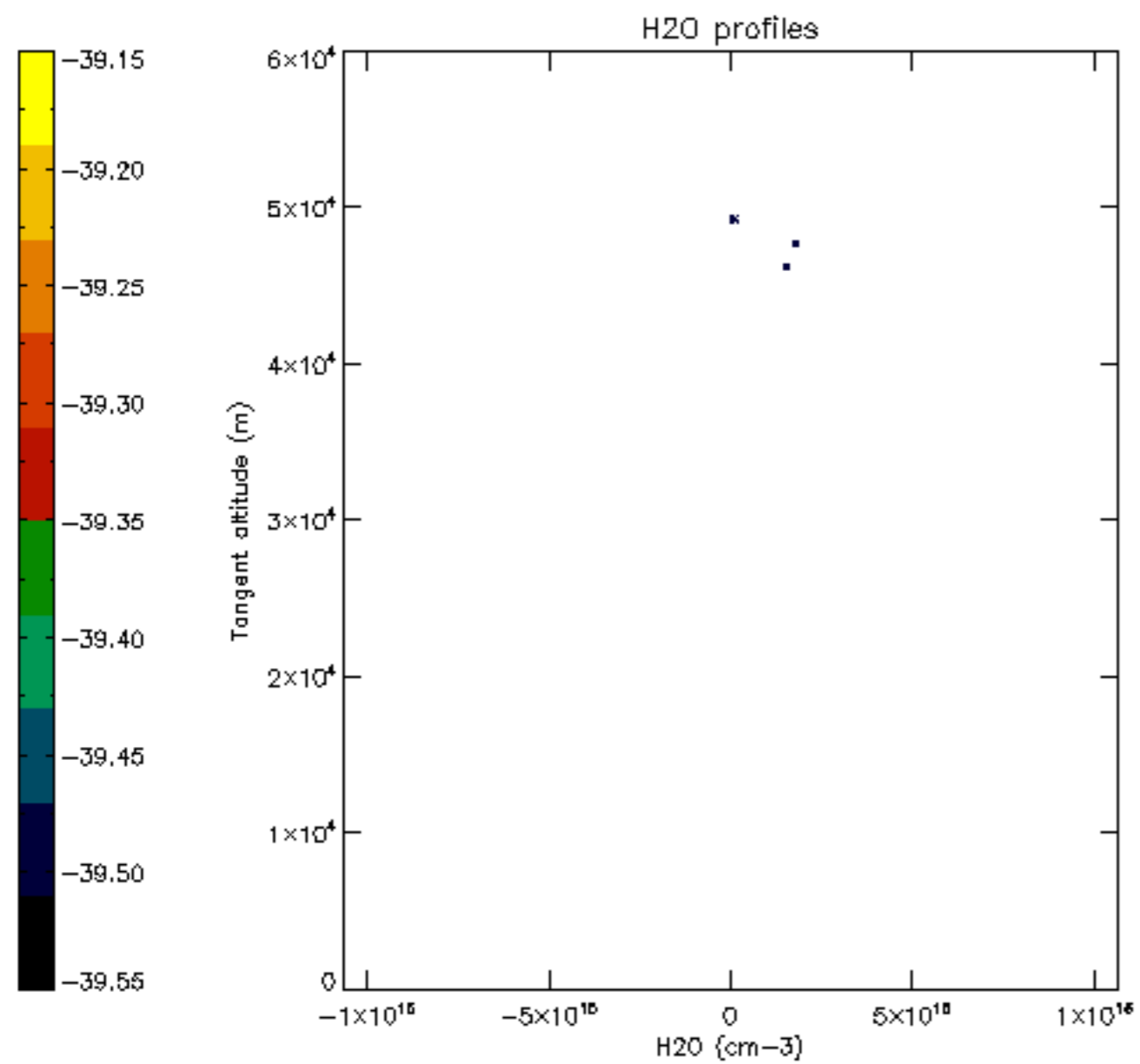


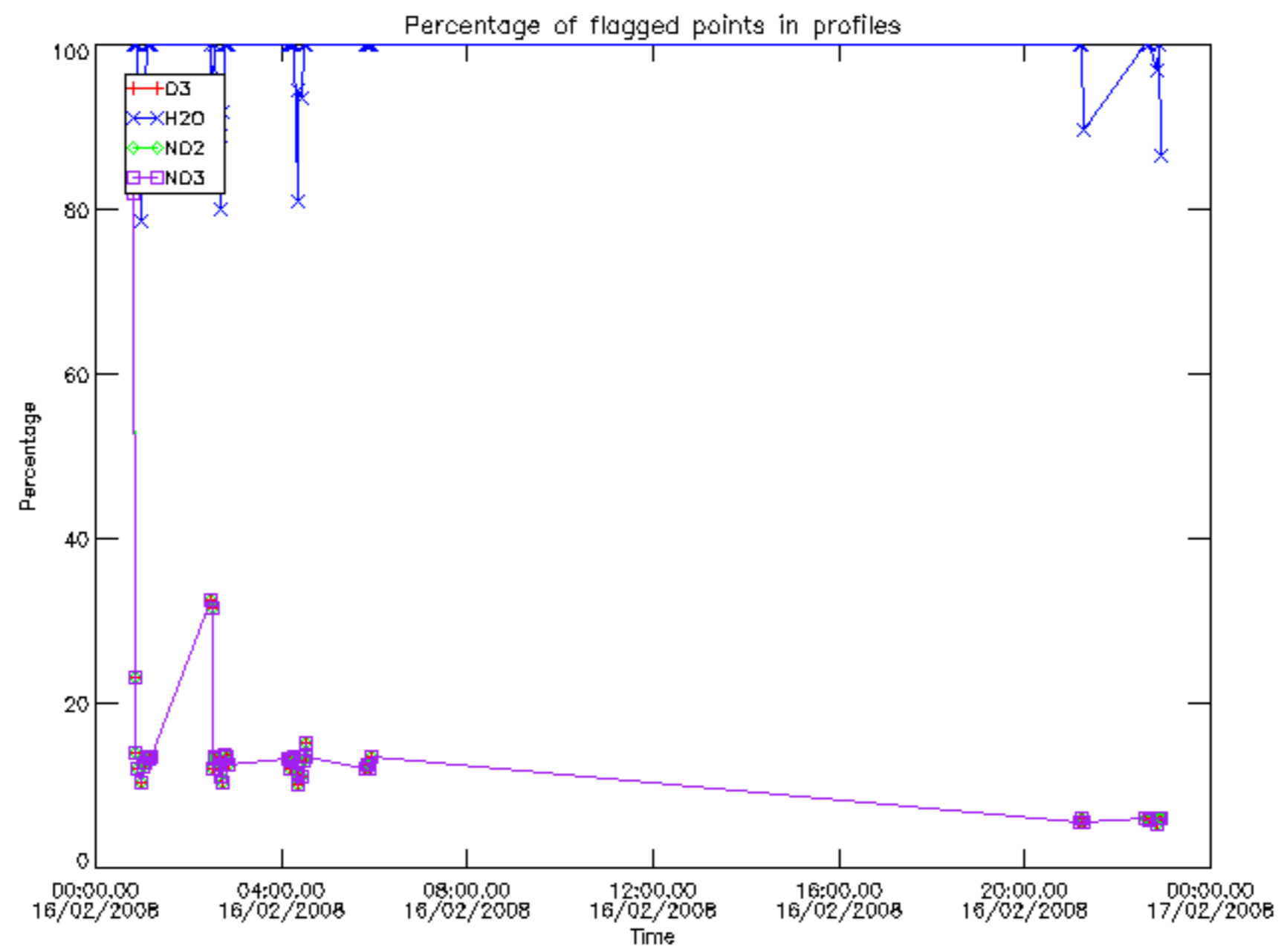




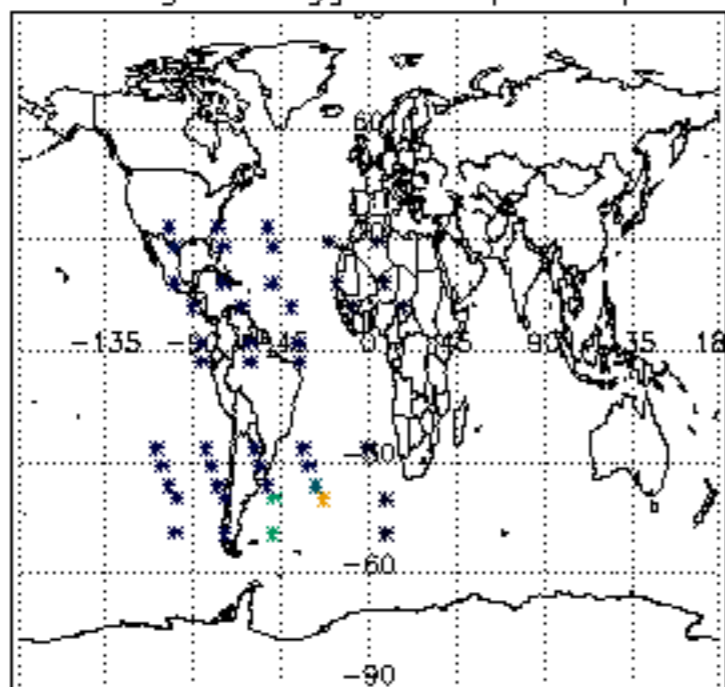




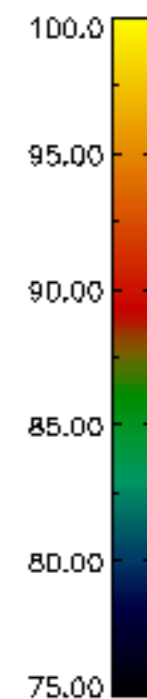
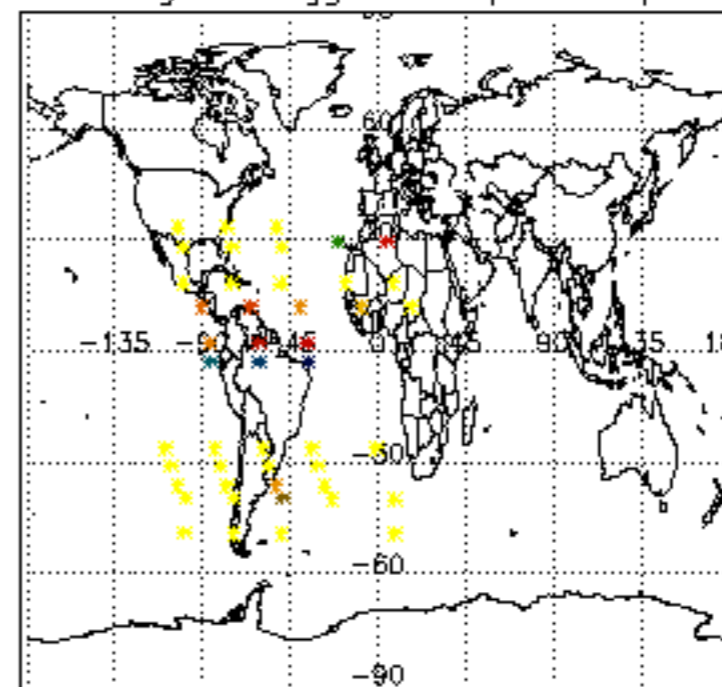




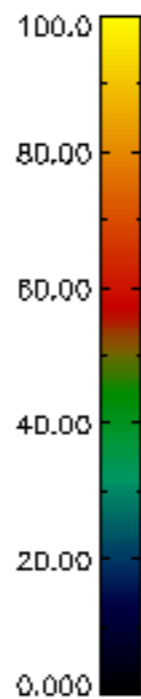
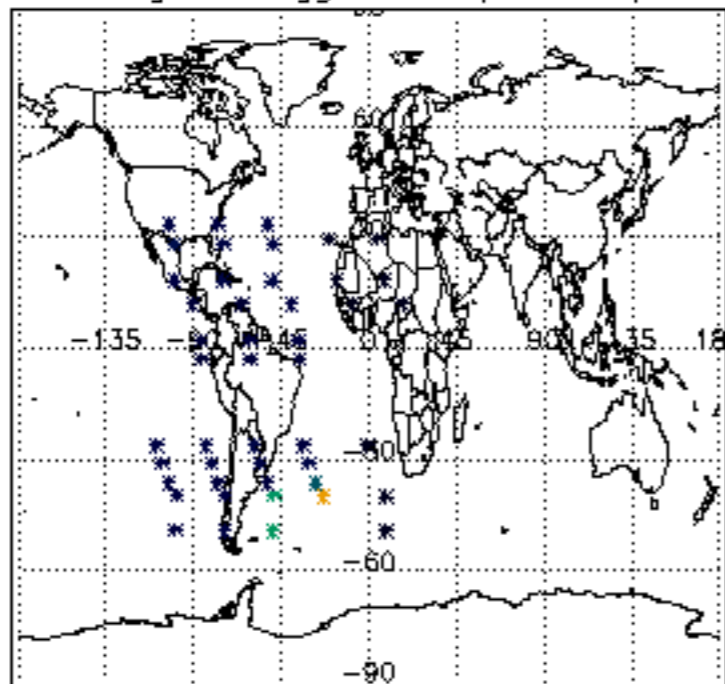
Percentage of flagged data per D3 profile



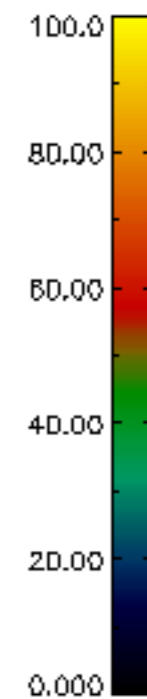
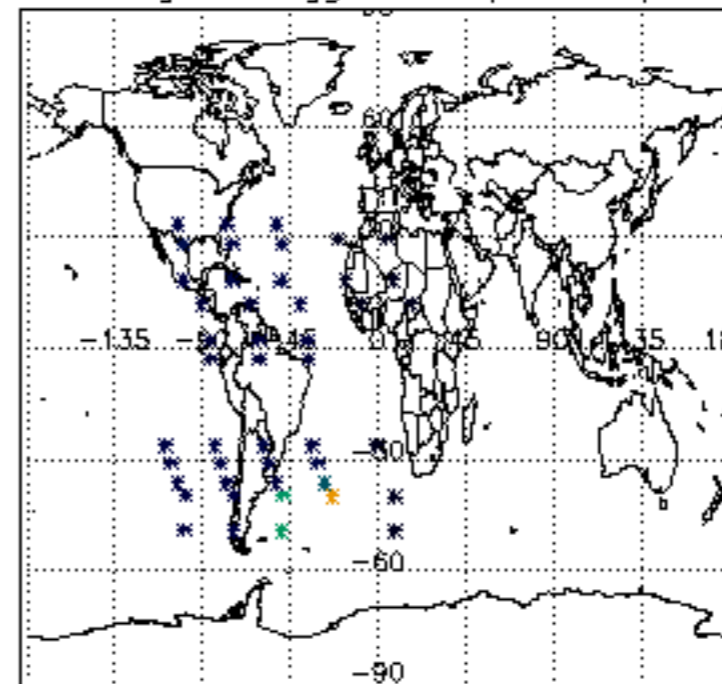
Percentage of flagged data per H2O profile

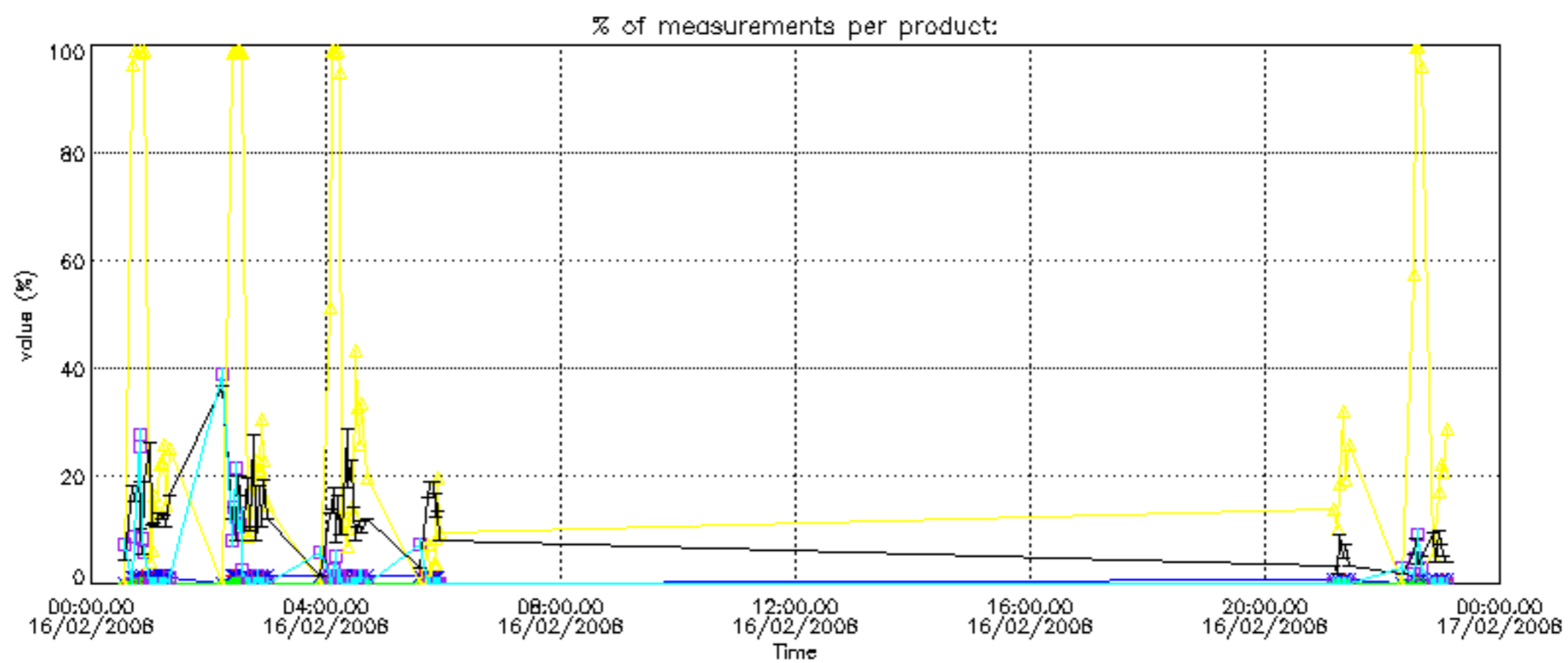


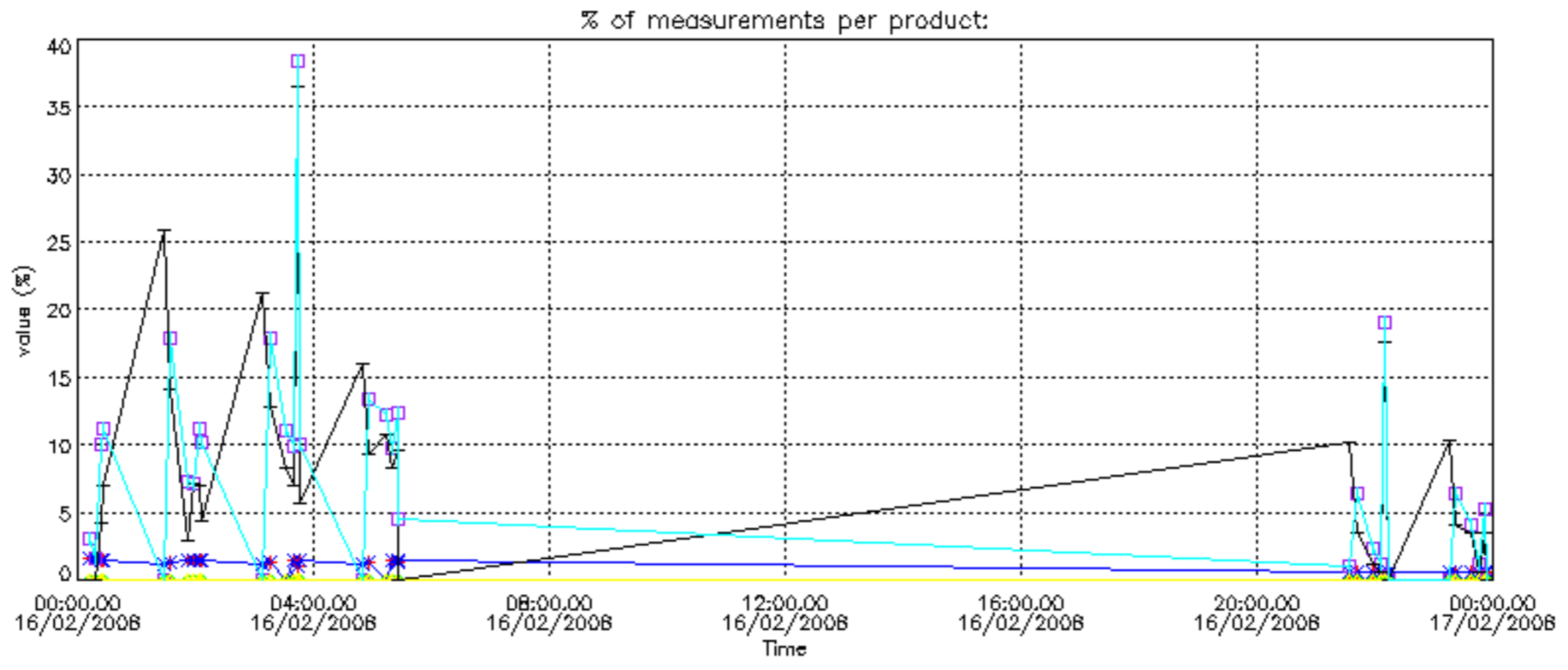
Percentage of flagged data per NO2 profile



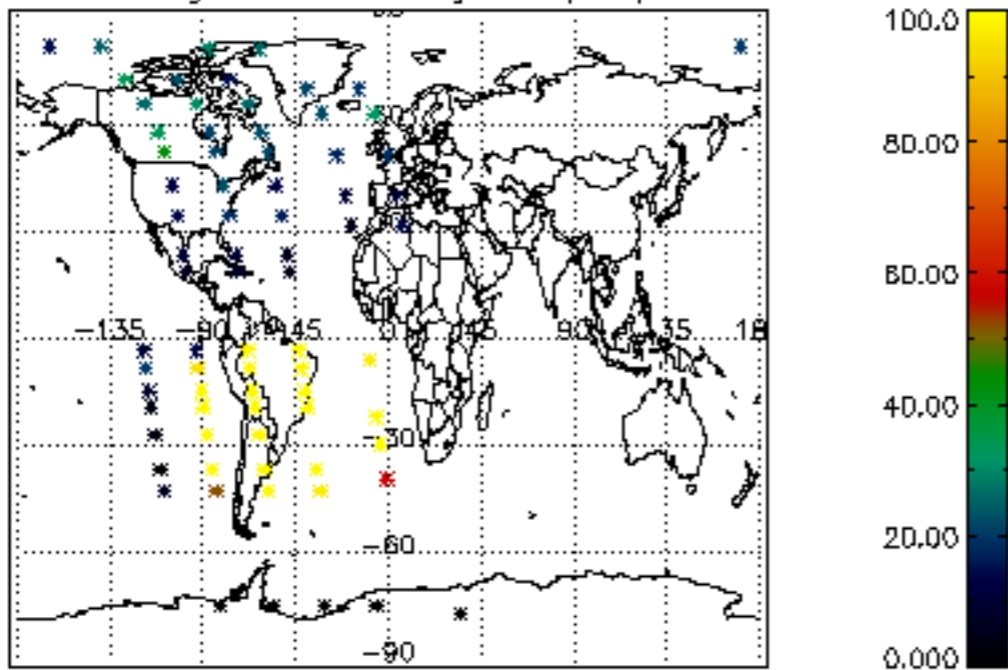
Percentage of flagged data per NO3 profile



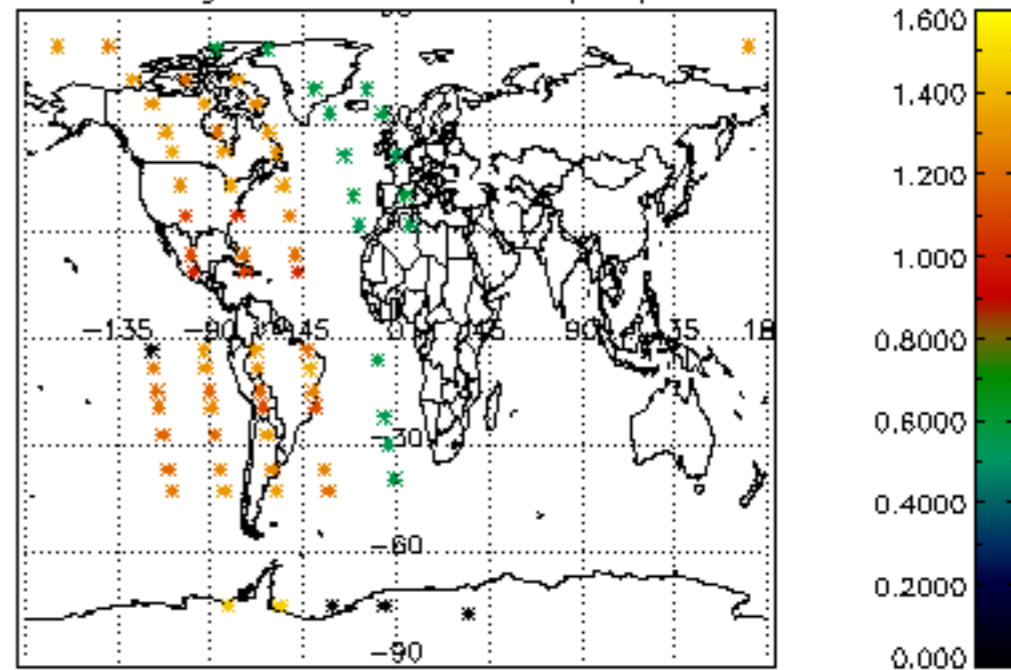




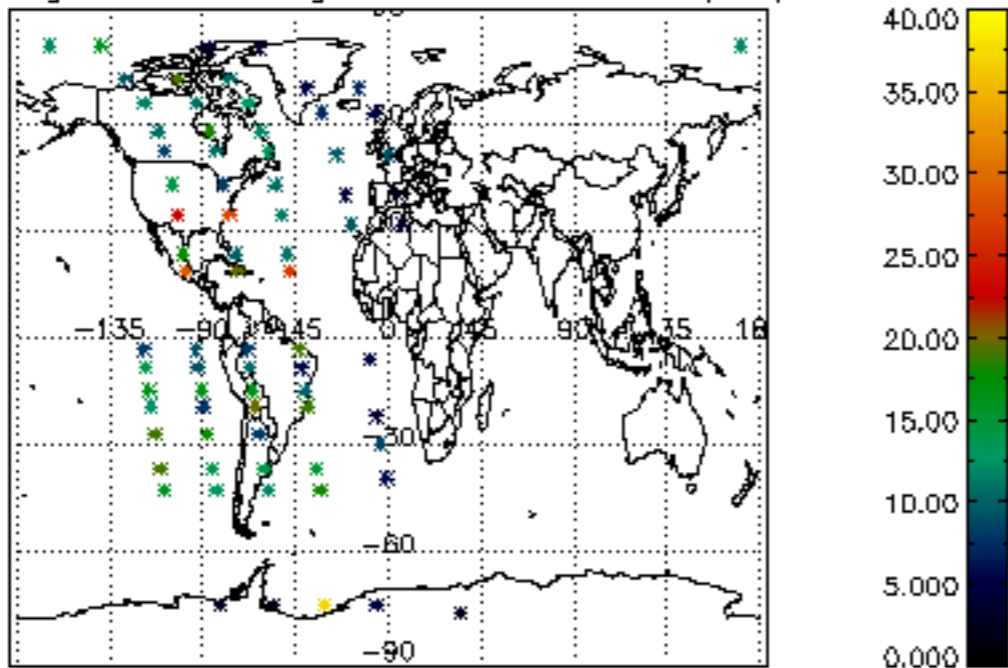
Percentage of cosmic ray hits per profile



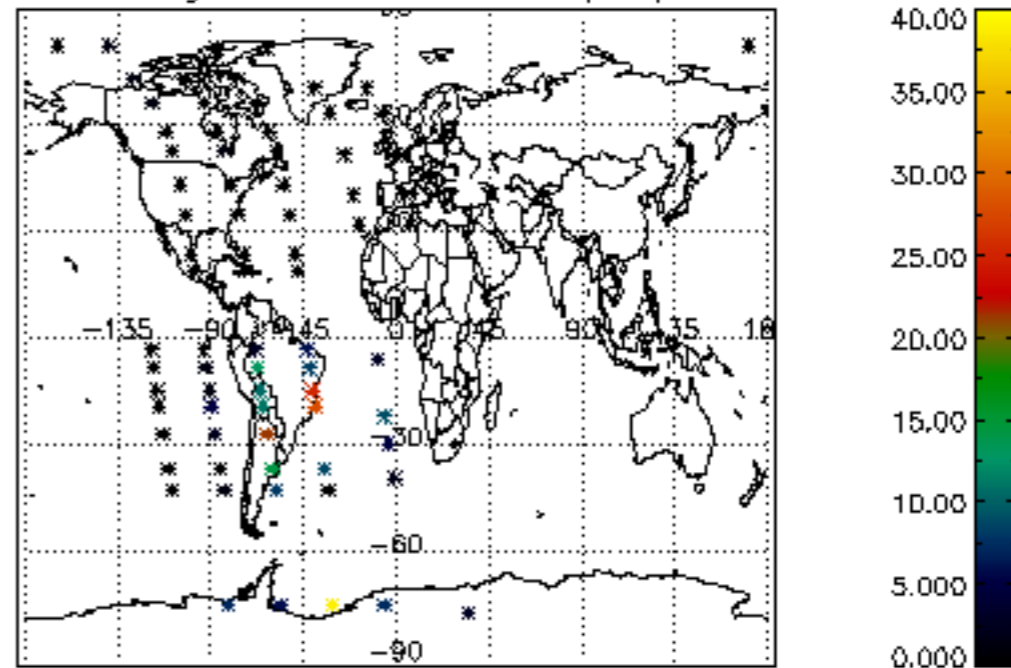
Percentage of datation errors per profile



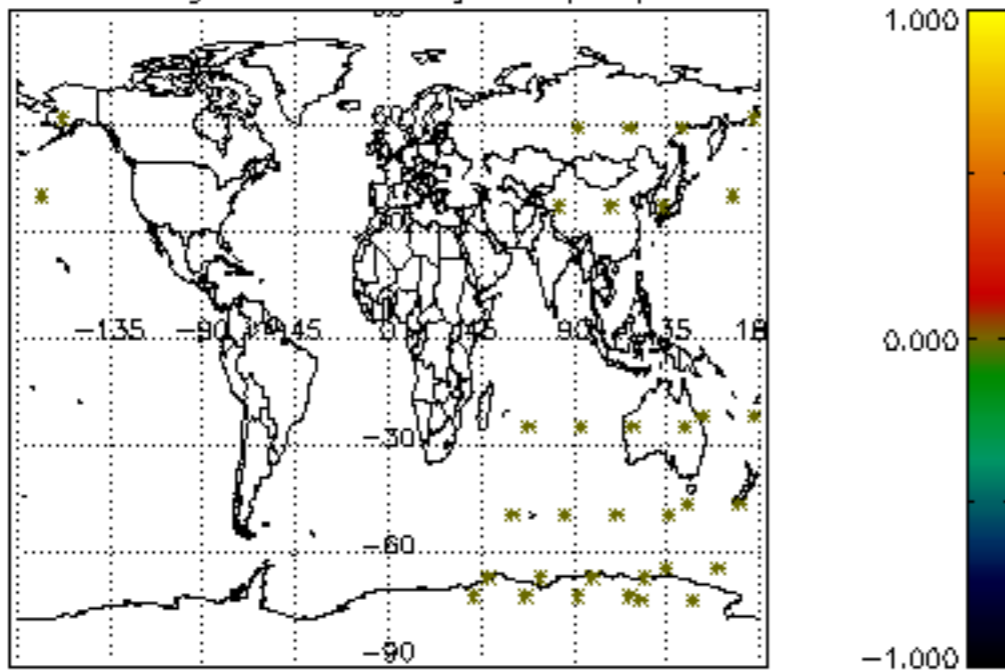
Percentage of star falling outside central band per profile



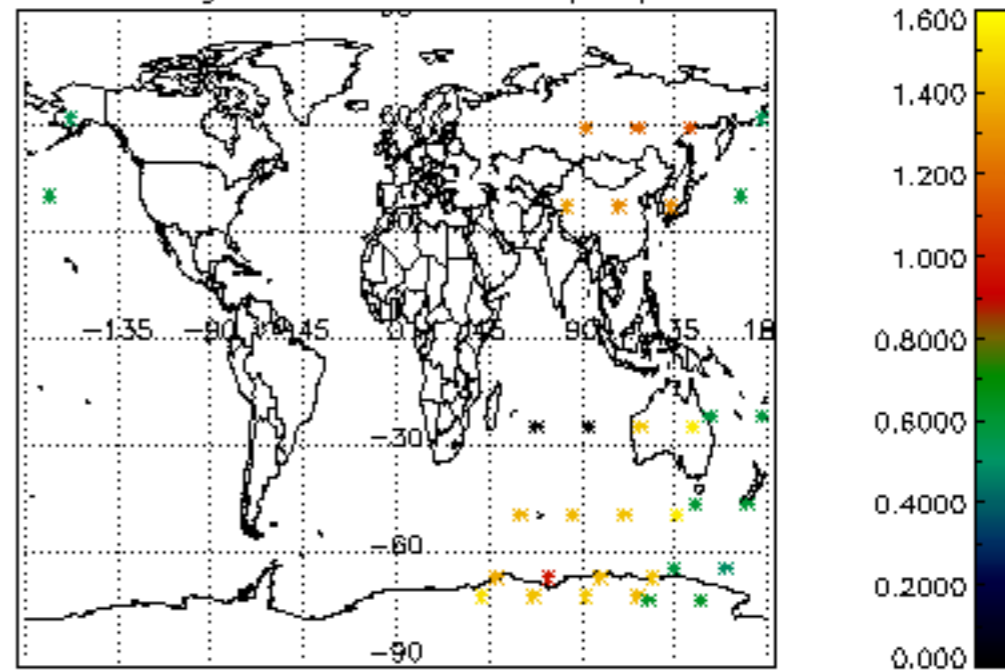
Percentage of saturation errors per profile



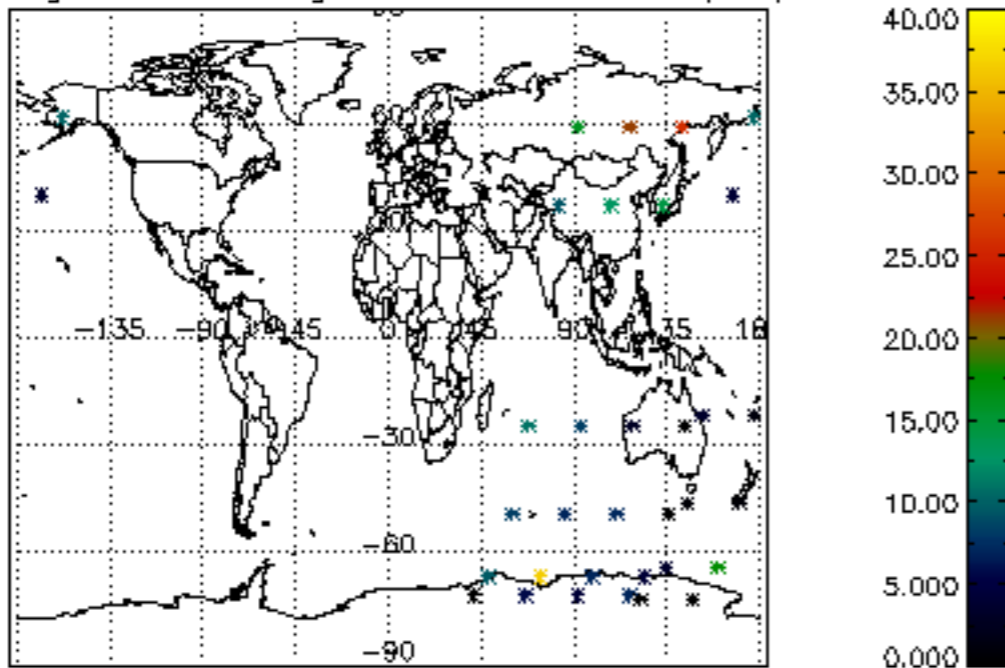
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

