

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	24APR2013 04:14:57
Data source version	GOMOS/6.01
Start time of products	18-09-2006 (18SEP2006 00:00:00)
Stop time of products	19-09-2006 (19SEP2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	227
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

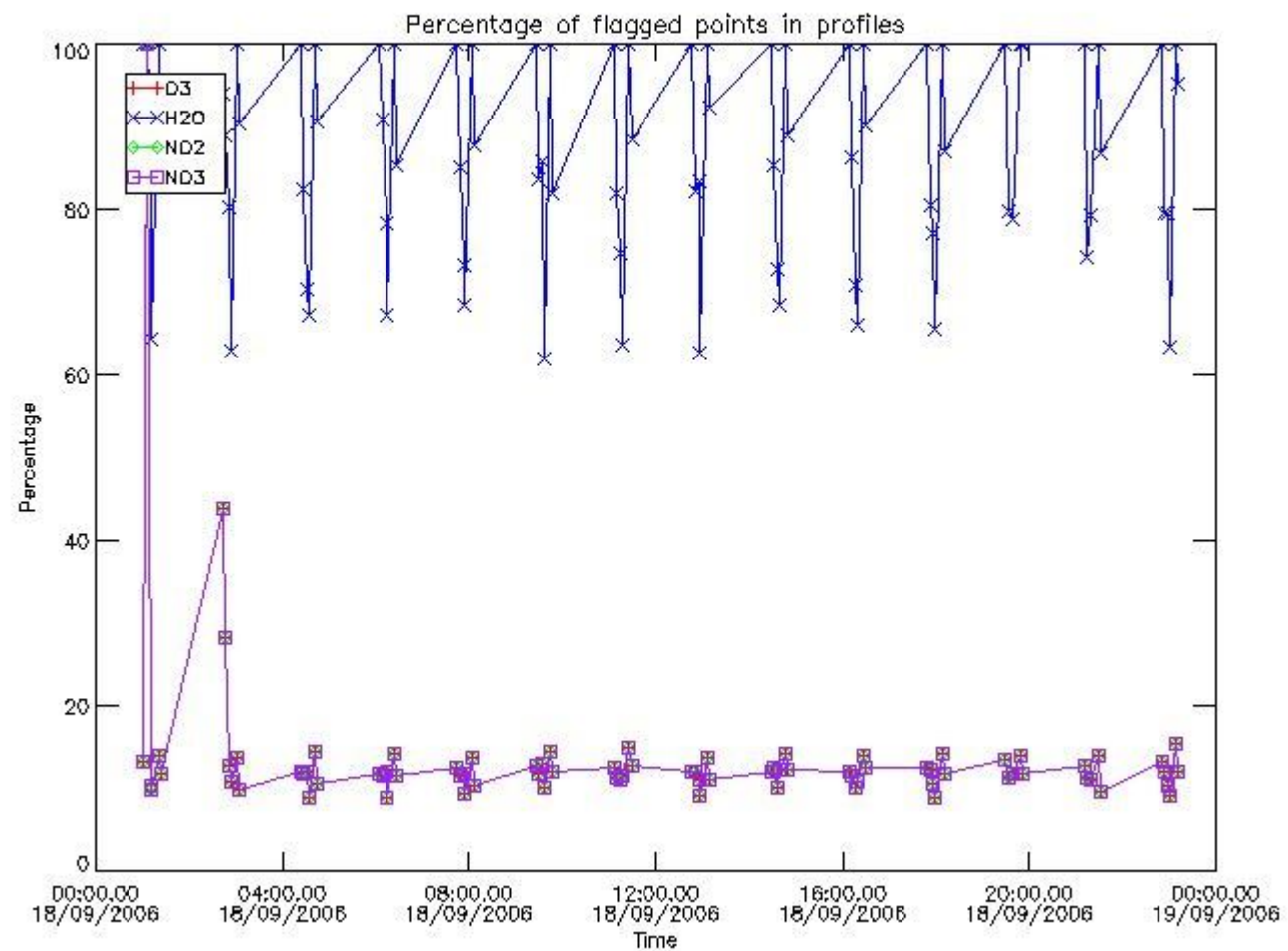
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20060918_000323_000000372051_00188_23789_1784.N1	18-SEP-2006 00:03:23	Bright	37.000	162	34Alp Aqr	2.9440	5350.0	74	23789	No
2	GOM_NL__2PRFIN20060918_000623_000000522051_00188_23789_1785.N1	18-SEP-2006 00:06:23	Bright	52.000	61	8Eps Peg	2.1000	3900.0	104	23789	No
3	GOM_NL__2PRFIN20060918_001650_000000352051_00188_23789_1786.N1	18-SEP-2006 00:16:50	Bright	34.500	19	50Alp Cyg	1.2460	10500.	69	23789	No
4	GOM_NL__2PRFIN20060918_002107_000000362051_00188_23789_1787.N1	18-SEP-2006 00:21:07	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	23789	No
5	GOM_NL__2PRFIN20060918_002845_000000322051_00188_23789_1788.N1	18-SEP-2006 00:28:45	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	23789	No
6	GOM_NL__2PRFIN20060918_003610_000000362051_00188_23789_1789.N1	18-SEP-2006 00:36:10	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	23789	No
7	GOM_NL__2PRFIN20060918_003737_000000342051_00188_23789_1790.N1	18-SEP-2006 00:37:37	Bright	34.000	82	48Bet UMa	2.3650	10600.	68	23789	No
8	GOM_NL__2PRFIN20060918_010236_000000422051_00188_23789_1791.N1	18-SEP-2006 01:02:36	Dark	42.000	132	15Rho Pup	2.8030	6900.0	84	23789	No
9	GOM_NL__2PRFIN20060918_010622_000000432051_00188_23789_1792.N1	18-SEP-2006 01:06:22	Dark	42.500	65	Lam Vel	2.2040	4400.0	85	23789	No
10	GOM_NL__2PRFIN20060918_011112_000000492051_00188_23789_1793.N1	18-SEP-2006 01:11:12	Dark	49.000	41	Eps Car	1.8600	4100.0	98	23789	No
11	GOM_NL__2PRFIN20060918_011249_000000512051_00189_23790_1778.N1	18-SEP-2006 01:12:49	Dark	51.000	2	Alp Car	-0.73600	7000.0	102	23790	No
12	GOM_NL__2PRFIN20060918_012146_000000372051_00189_23790_1779.N1	18-SEP-2006 01:21:46	Dark	36.500	135	Bet Hyi	2.8200	5800.0	73	23790	No
13	GOM_NL__2PRFIN20060918_012427_000000432051_00189_23790_1780.N1	18-SEP-2006 01:24:27	Dark	43.000	9	Alp Eri	0.45300	24000.	86	23790	No
14	GOM_NL__2PRFIN20060918_013102_000000382051_00189_23790_1781.N1	18-SEP-2006 01:31:02	Straylight	37.500	31	Alp Gru	1.7340	15200.	75	23790	No
15	GOM_NL__2PRFIN20060918_013516_000000452051_00189_23790_1782.N1	18-SEP-2006 01:35:16	Straylight	44.500	18	24Alp PsA	1.1660	9700.0	89	23790	No
16	GOM_NL__2PRFIN20060918_013946_000000392051_00189_23790_1783.N1	18-SEP-2006 01:39:46	Twl_and_stray	38.500	142	49Del Cap	2.8500	8900.0	77	23790	No
17	GOM_NL__2PRFIN20060918_014359_000000372051_00189_23790_1784.N1	18-SEP-2006 01:43:59	Bright	36.500	162	34Alp Aqr	2.9440	5350.0	73	23790	No
18	GOM_NL__2PRFIN20060918_014659_000000382051_00189_23790_1785.N1	18-SEP-2006 01:46:59	Bright	37.500	61	8Eps Peg	2.1000	3900.0	75	23790	No
19	GOM_NL__2PRFIN20060918_015726_000000342051_00189_23790_1786.N1	18-SEP-2006 01:57:26	Bright	33.500	19	50Alp Cyg	1.2460	10500.	67	23790	No
20	GOM_NL__2PRFIN20060918_020143_000000362051_00189_23790_1787.N1	18-SEP-2006 02:01:43	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	23790	No
21	GOM_NL__2PRFIN20060918_020921_000000352051_00189_23790_1788.N1	18-SEP-2006 02:09:21	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	23790	No
22	GOM_NL__2PRFIN20060918_021647_000000372051_00189_23790_1789.N1	18-SEP-2006 02:16:47	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	23790	No
23	GOM_NL__2PRFIN20060918_021813_000000502051_00189_23790_1790.N1	18-SEP-2006 02:18:13	Bright	50.000	82	48Bet UMa	2.3650	10600.	100	23790	No
24	GOM_NL__2PRFIN20060918_024312_000000422051_00189_23790_1791.N1	18-SEP-2006 02:43:12	Dark	41.500	132	15Rho Pup	2.8030	6900.0	83	23790	No
25	GOM_NL__2PRFIN20060918_024658_000000422051_00189_23790_1792.N1	18-SEP-2006 02:46:58	Dark	41.500	65	Lam Vel	2.2040	4400.0	83	23790	No
26	GOM_NL__2PRFIN20060918_025148_000000442051_00189_23790_1793.N1	18-SEP-2006 02:51:48	Dark	43.500	41	Eps Car	1.8600	4100.0	87	23790	No
27	GOM_NL__2PRFIN20060918_025326_000000482051_00190_23791_1778.N1	18-SEP-2006 02:53:26	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	23791	No
28	GOM_NL__2PRFIN20060918_030222_000000372051_00190_23791_1779.N1	18-SEP-2006 03:02:22	Dark	37.000	135	Bet Hyi	2.8200	5800.0	74	23791	No
29	GOM_NL__2PRFIN20060918_030503_000000522051_00190_23791_1780.N1	18-SEP-2006 03:05:03	Dark	52.000	9	Alp Eri	0.45300	24000.	104	23791	No
30	GOM_NL__2PRFIN20060918_031138_000000382051_00190_23791_1781.N1	18-SEP-2006 03:11:38	Straylight	37.500	31	Alp Gru	1.7340	15200.	75	23791	No
31	GOM_NL__2PRFIN20060918_031552_000000442051_00190_23791_1782.N1	18-SEP-2006 03:15:52	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	23791	No
32	GOM_NL__2PRFIN20060918_032022_000000382051_00190_23791_1783.N1	18-SEP-2006 03:20:22	Twl_and_stray	38.000	142	49Del Cap	2.8500	8900.0	76	23791	No
33	GOM_NL__2PRFIN20060918_032435_000000362051_00190_23791_1784.N1	18-SEP-2006 03:24:35	Bright	35.500	162	34Alp Aqr	2.9440	5350.0	71	23791	No
34	GOM_NL__2PRFIN20060918_032736_000000392051_00190_23791_1785.N1	18-SEP-2006 03:27:36	Bright	38.500	61	8Eps Peg	2.1000	3900.0	77	23791	No
35	GOM_NL__2PRFIN20060918_033803_000000372051_00190_23791_1786.N1	18-SEP-2006 03:38:03	Bright	37.000	19	50Alp Cyg	1.2460	10500.	74	23791	No
36	GOM_NL__2PRFIN20060918_034220_000000352051_00190_23791_1787.N1	18-SEP-2006 03:42:20	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	23791	No
37	GOM_NL__2PRFIN20060918_034957_000000342051_00190_23791_1788.N1	18-SEP-2006 03:49:57	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	23791	No
38	GOM_NL__2PRFIN20060918_035723_000000372051_00190_23791_1789.N1	18-SEP-2006 03:57:23	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	23791	No
39	GOM_NL__2PRFIN20060918_035850_000000352051_00190_23791_1790.N1	18-SEP-2006 03:58:50	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	23791	No
40	GOM_NL__2PRFIN20060918_042349_000000432051_00190_23791_1791.N1	18-SEP-2006 04:23:49	Dark	42.500	132	15Rho Pup	2.8030	6900.0	85	23791	No
41	GOM_NL__2PRFIN20060918_042734_000000432051_00190_23791_1792.N1	18-SEP-2006 04:27:34	Dark	43.000	65	Lam Vel	2.2040	4400.0	86	23791	No
42	GOM_NL__2PRFIN20060918_043224_000000432051_00190_23791_1793.N1	18-SEP-2006 04:32:24	Dark	42.500	41	Eps Car	1.8600	4100.0	85	23791	No

220	GOM_NL__2PRFIN20060918_231831_000000432051_00202_23803_1801.N1	18-SEP-2006 23:18:31	Straylight	43.000	63	Bet Gru	2.1500	2800.0	86	23803	No
221	GOM_NL__2PRFIN20060918_232306_000000452051_00202_23803_1802.N1	18-SEP-2006 23:23:06	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	23803	No
222	GOM_NL__2PRFIN20060918_232736_000000382051_00202_23803_1803.N1	18-SEP-2006 23:27:36	Twl_and_stray	37.500	142	49Del Cap	2.8500	8900.0	75	23803	No
223	GOM_NL__2PRFIN20060918_233148_000000372051_00202_23803_1804.N1	18-SEP-2006 23:31:48	Bright	37.000	162	34Alp Aqr	2.9440	5350.0	74	23803	No
224	GOM_NL__2PRFIN20060918_233449_000000372051_00202_23803_1805.N1	18-SEP-2006 23:34:49	Bright	37.000	61	8Eps Peg	2.1000	3900.0	74	23803	No
225	GOM_NL__2PRFIN20060918_234517_000000382051_00202_23803_1806.N1	18-SEP-2006 23:45:17	Bright	37.500	19	50Alp Cyg	1.2460	10500.0	75	23803	No
226	GOM_NL__2PRFIN20060918_234932_000000402051_00202_23803_1807.N1	18-SEP-2006 23:49:32	Bright	39.500	89	5Alp Cep	2.4510	8000.0	79	23803	No
227	GOM_NL__2PRFIN20060918_235708_000000342051_00202_23803_1808.N1	18-SEP-2006 23:57:08	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	23803	No

3. Quality information per product

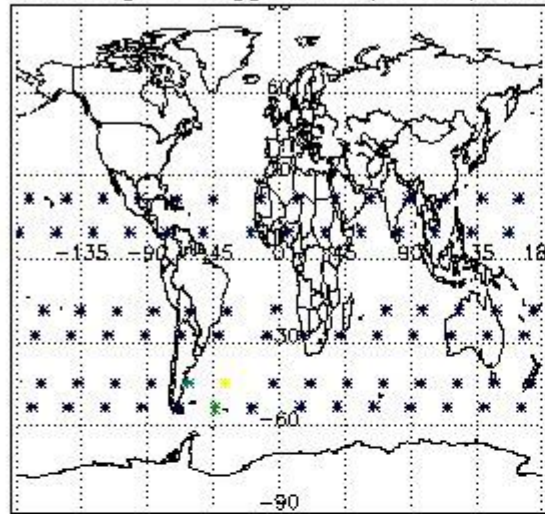
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

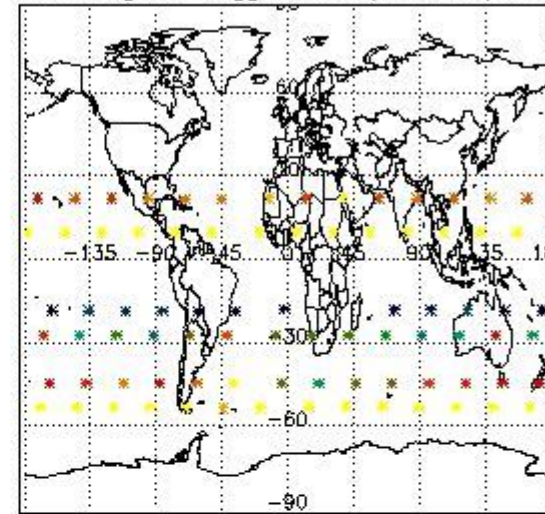


3.2 Plot quality information per product (world map)

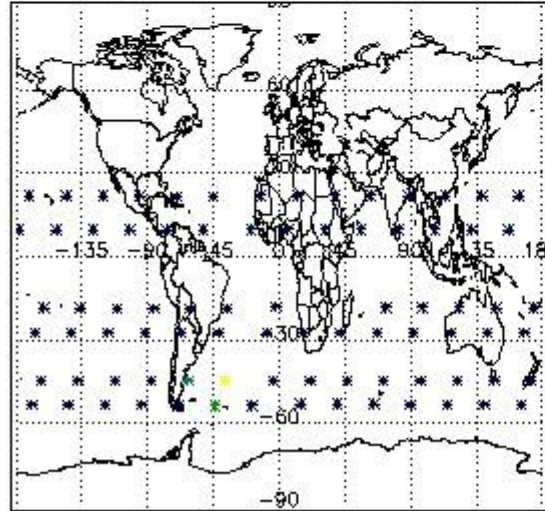
Percentage of flagged data per O3 profile



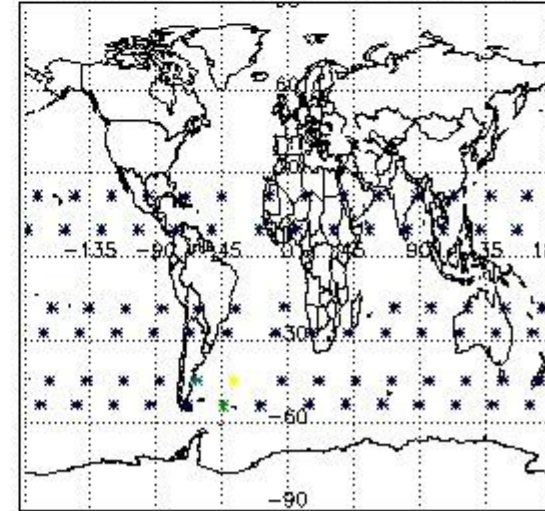
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

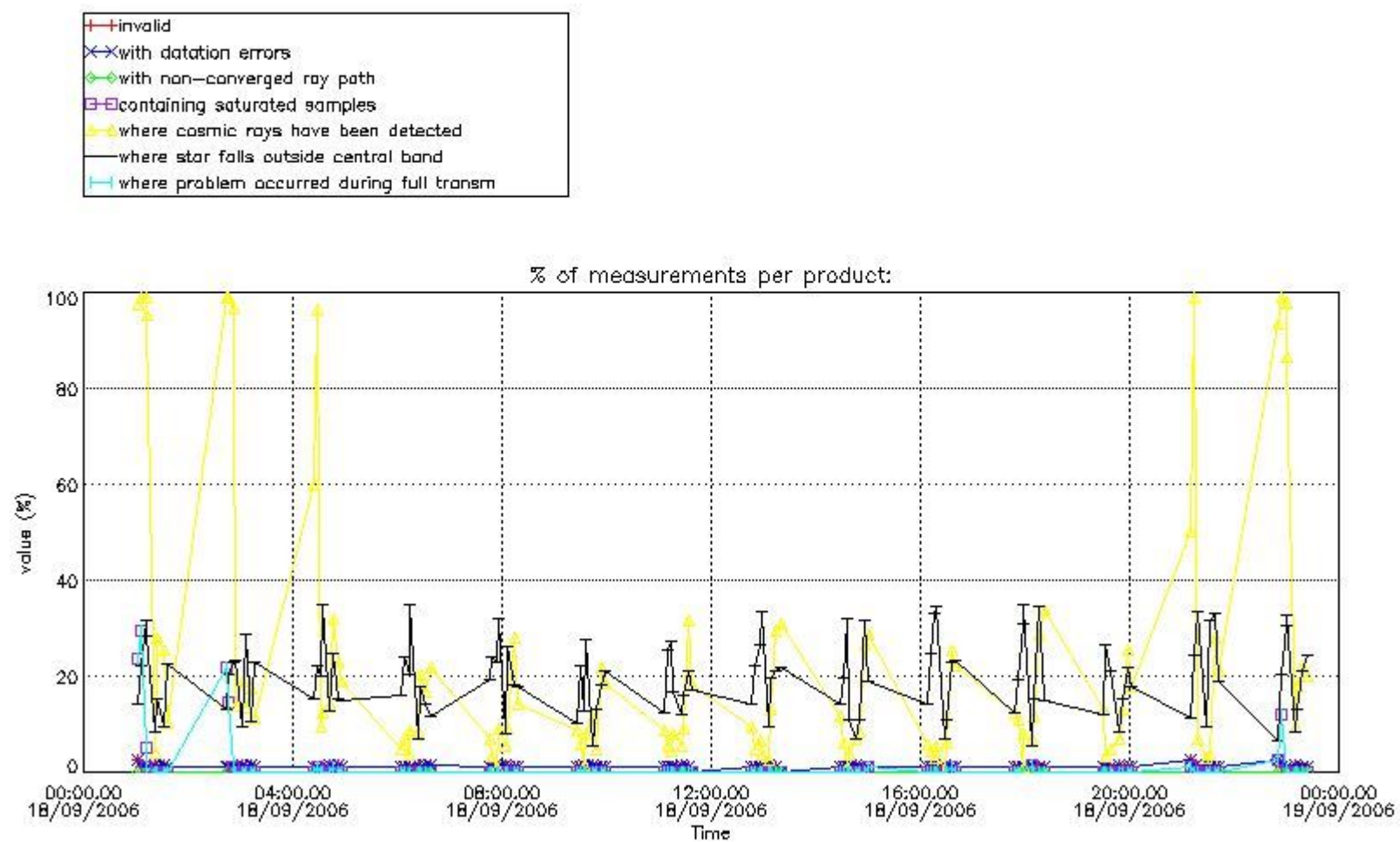


4. Level 1 quality information per product

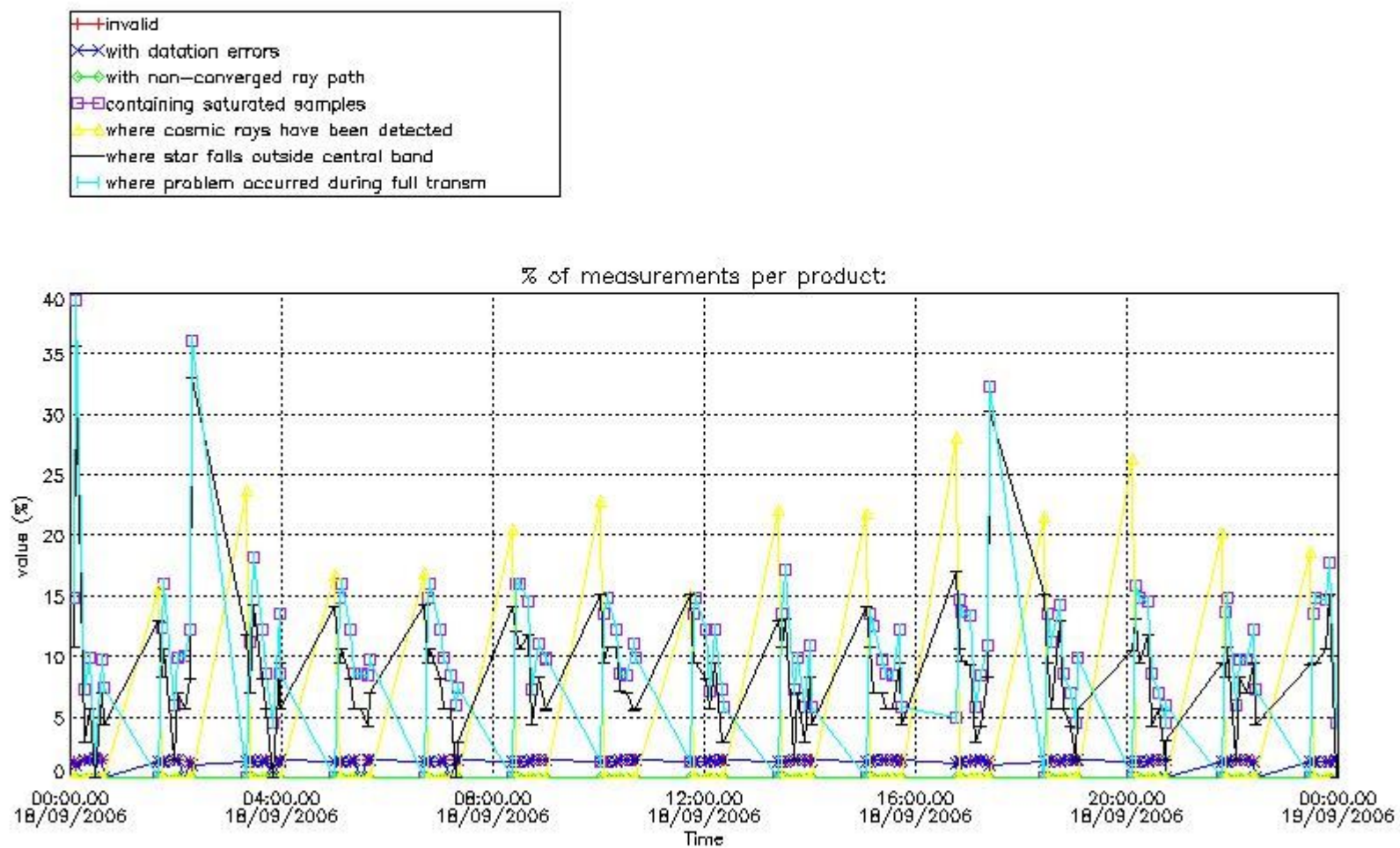
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



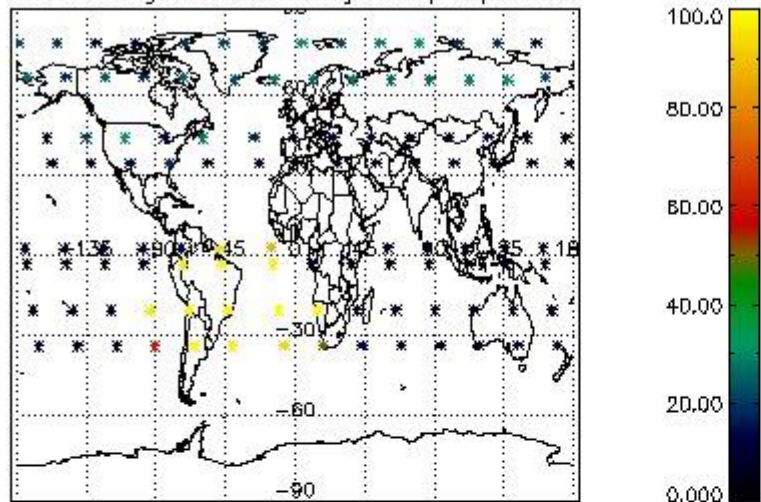
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



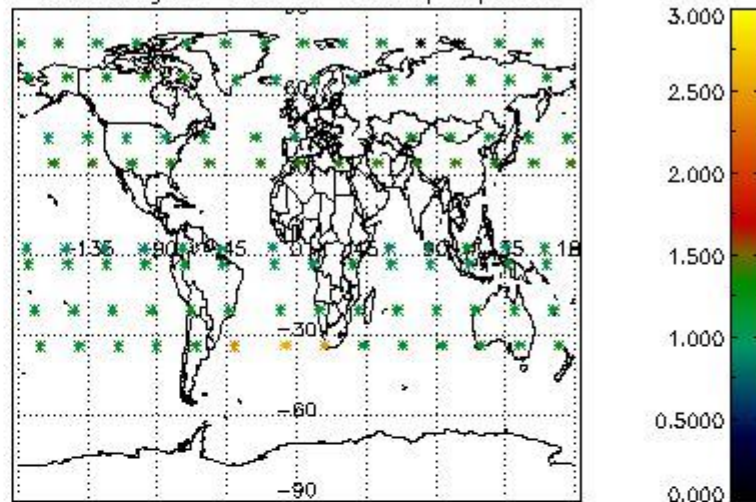
4.2 Plot quality information per product coming from level 1b processing (world map)

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

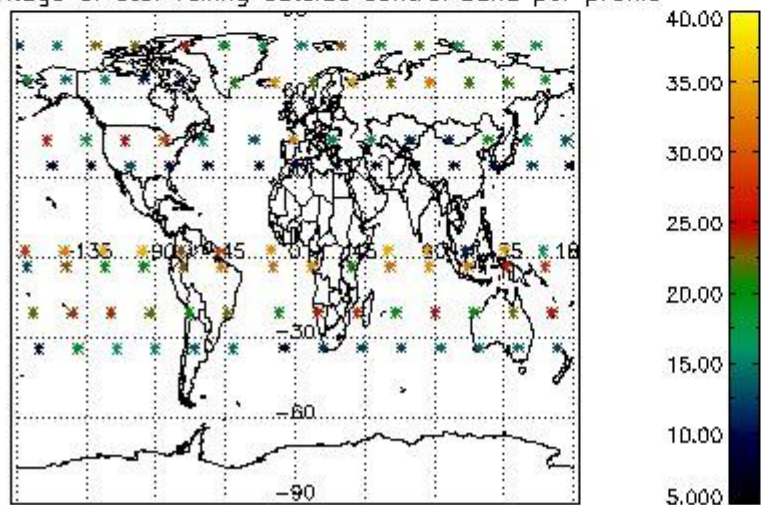
Percentage of cosmic ray hits per profile



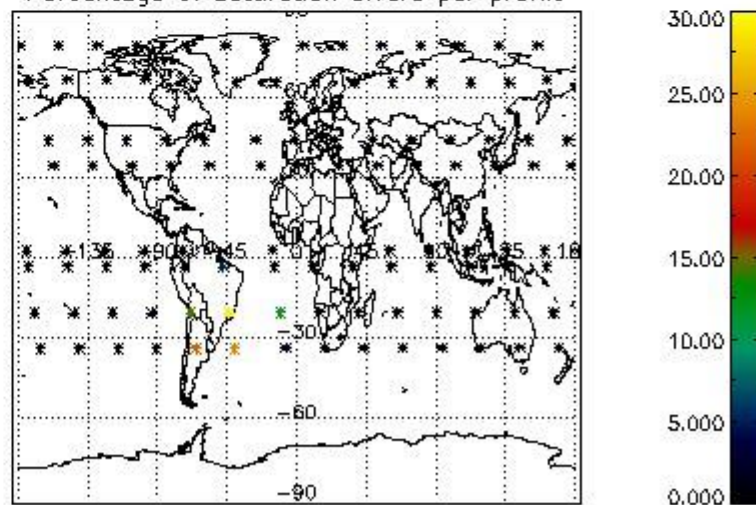
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

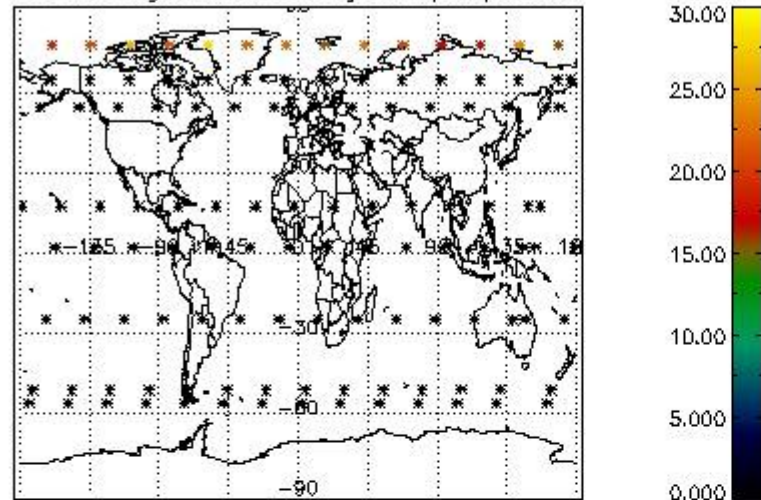


Percentage of saturation errors per profile

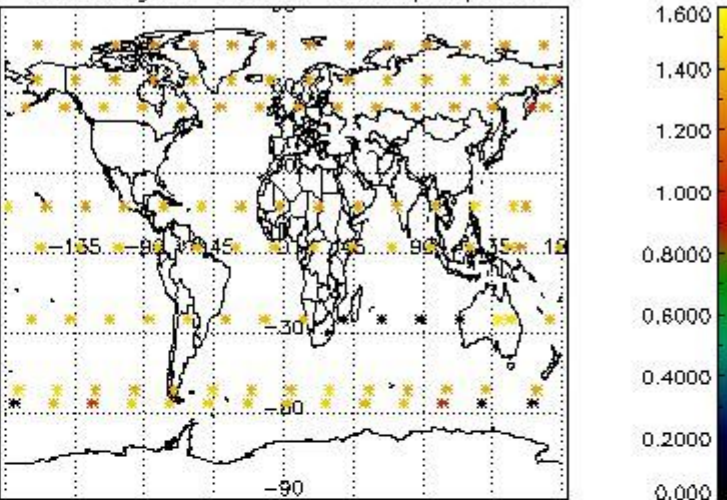


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

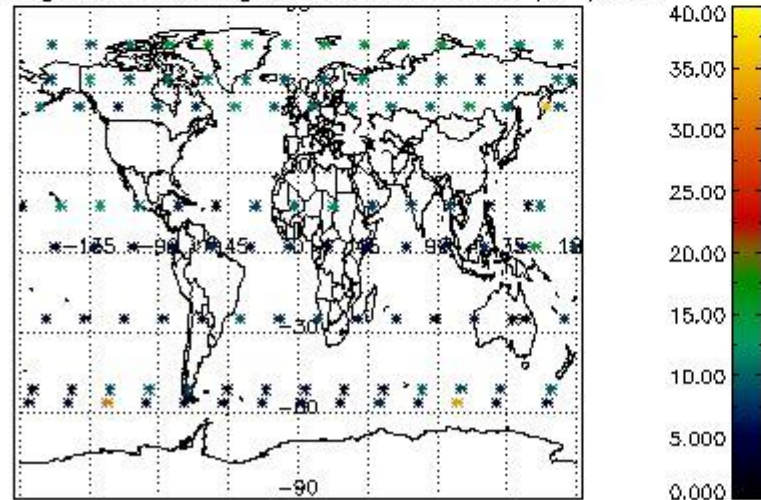
Percentage of cosmic ray hits per profile



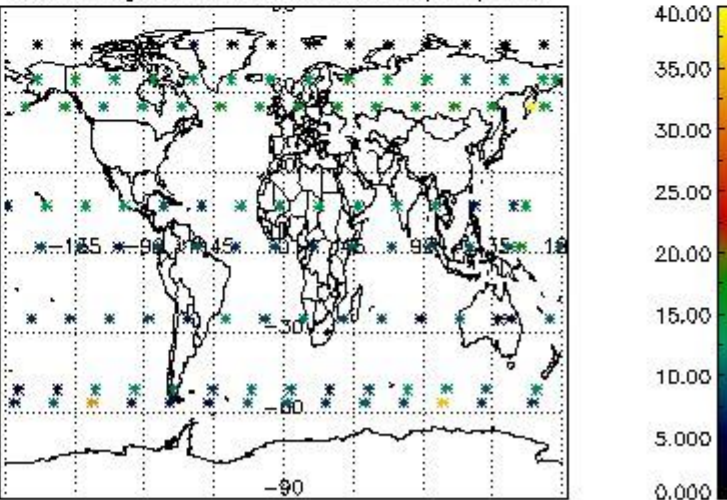
Percentage of datation errors per profile



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

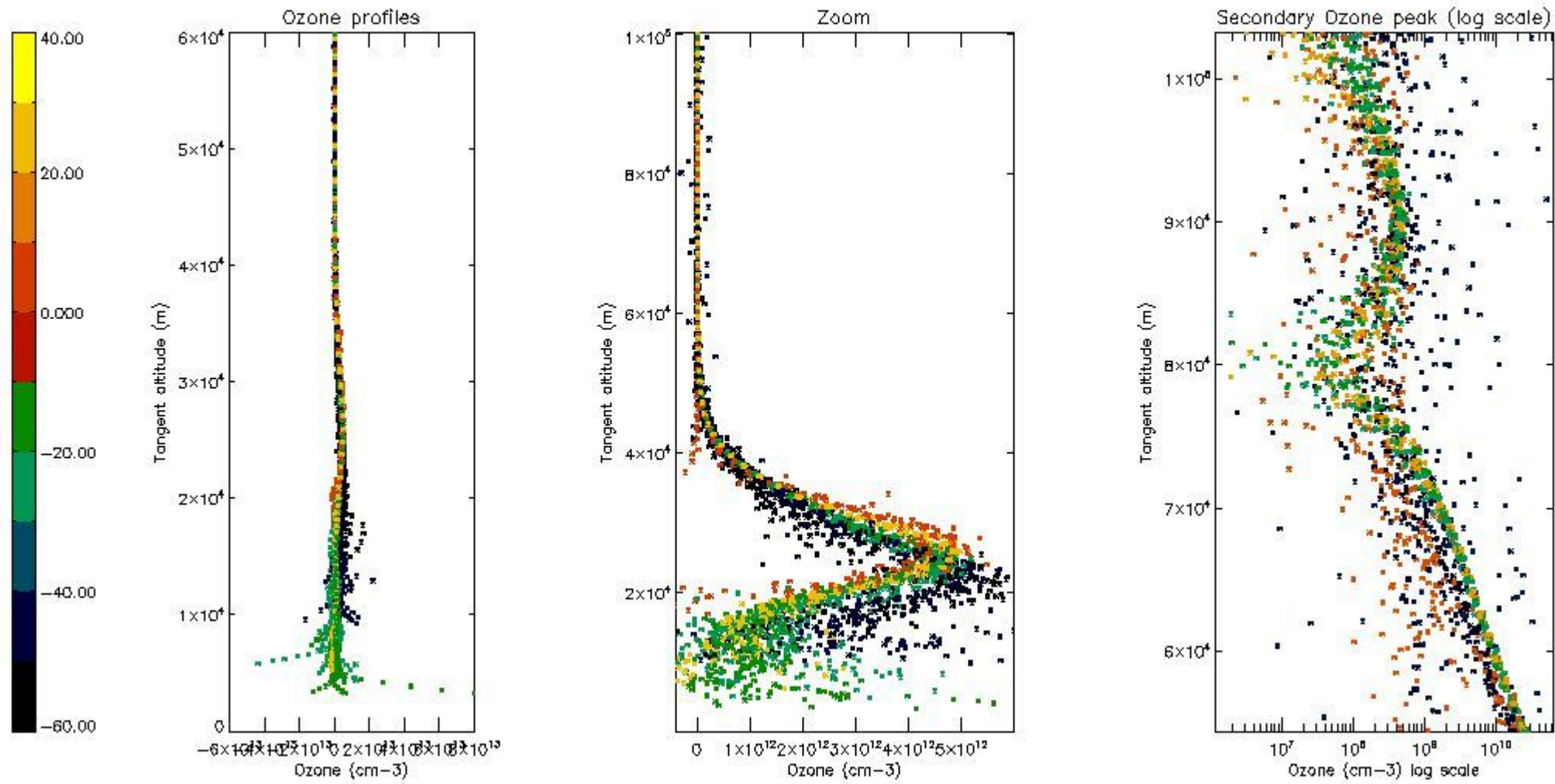
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	40
STD < 20	20

STD < 10	15
STD < 5	9

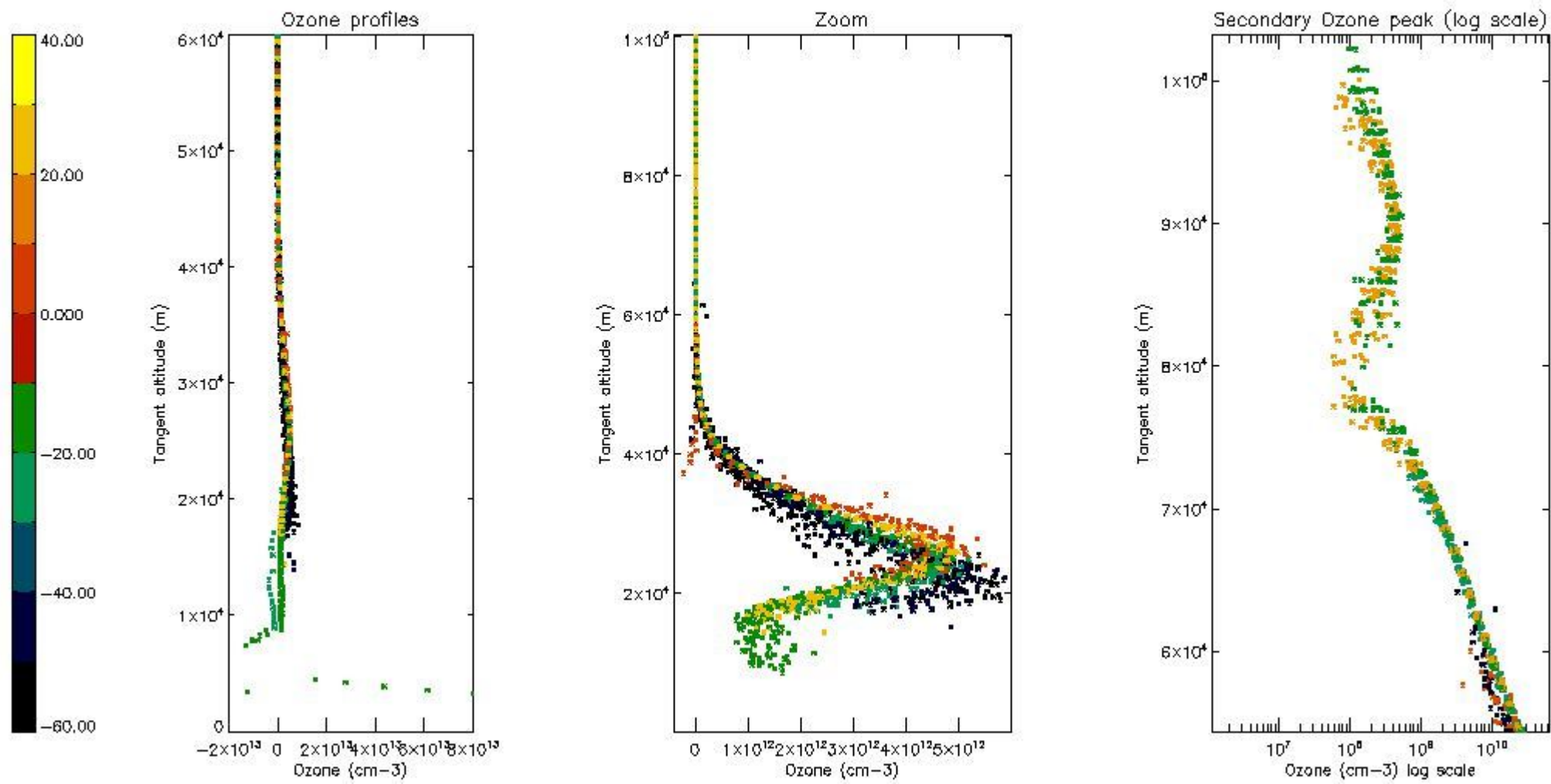
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



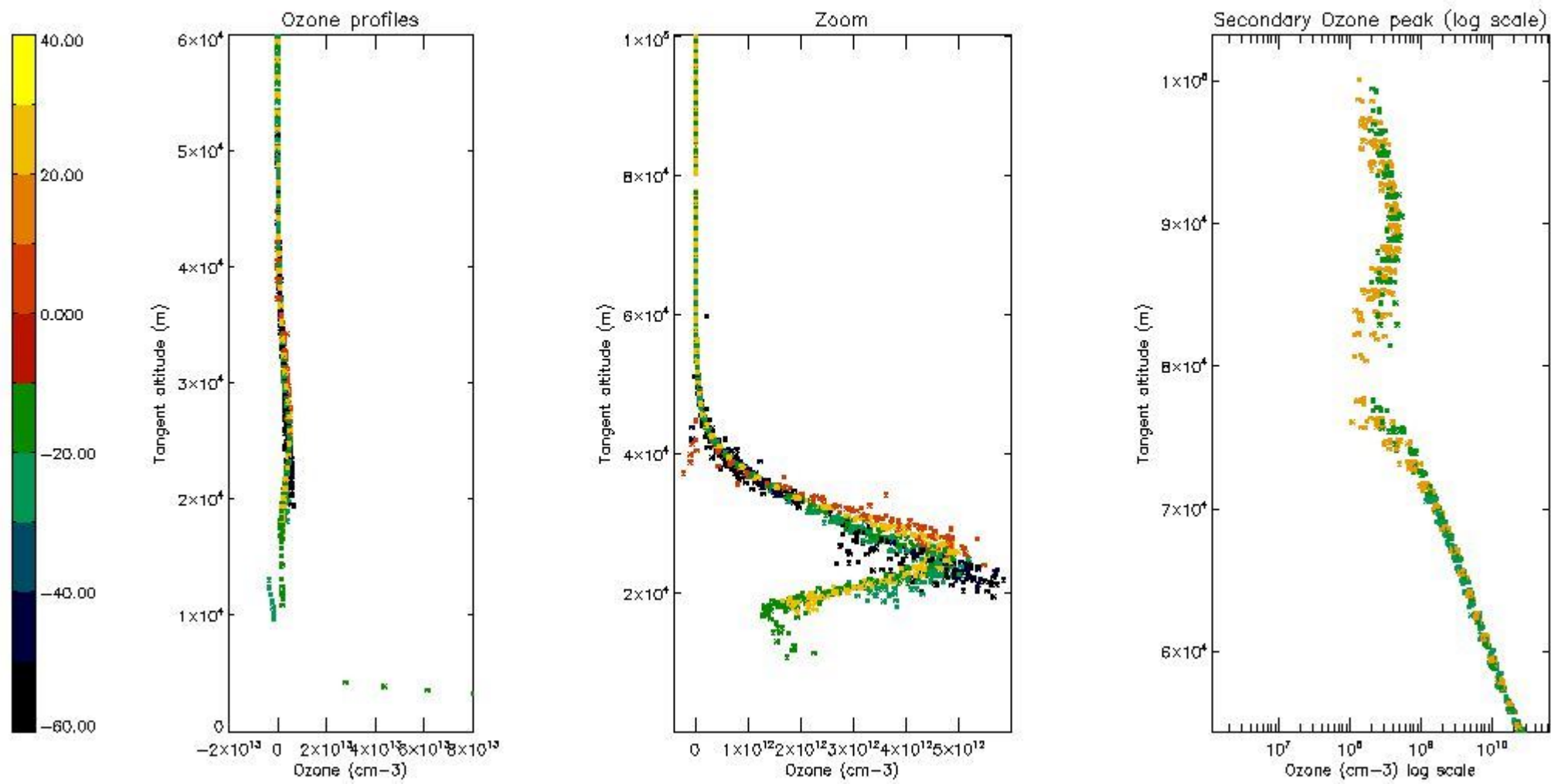
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



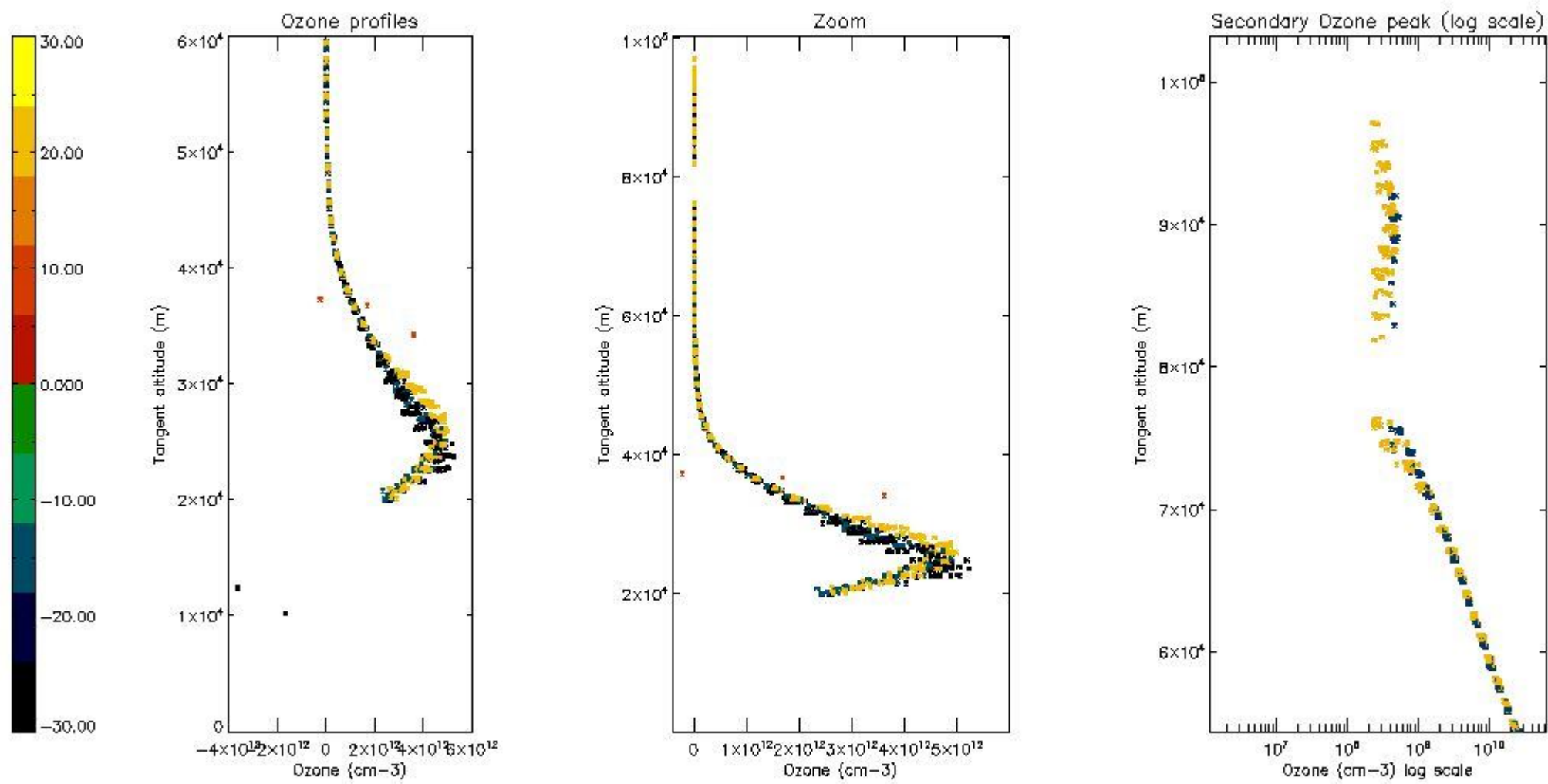
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



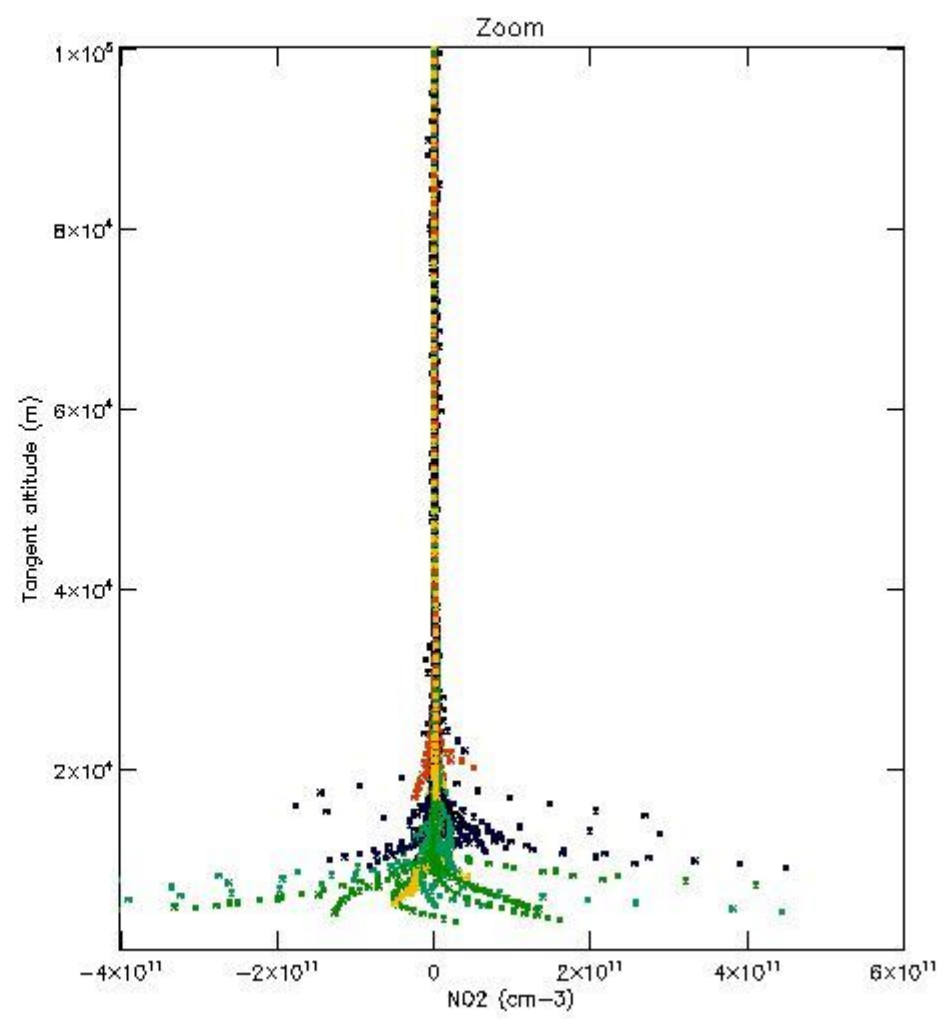
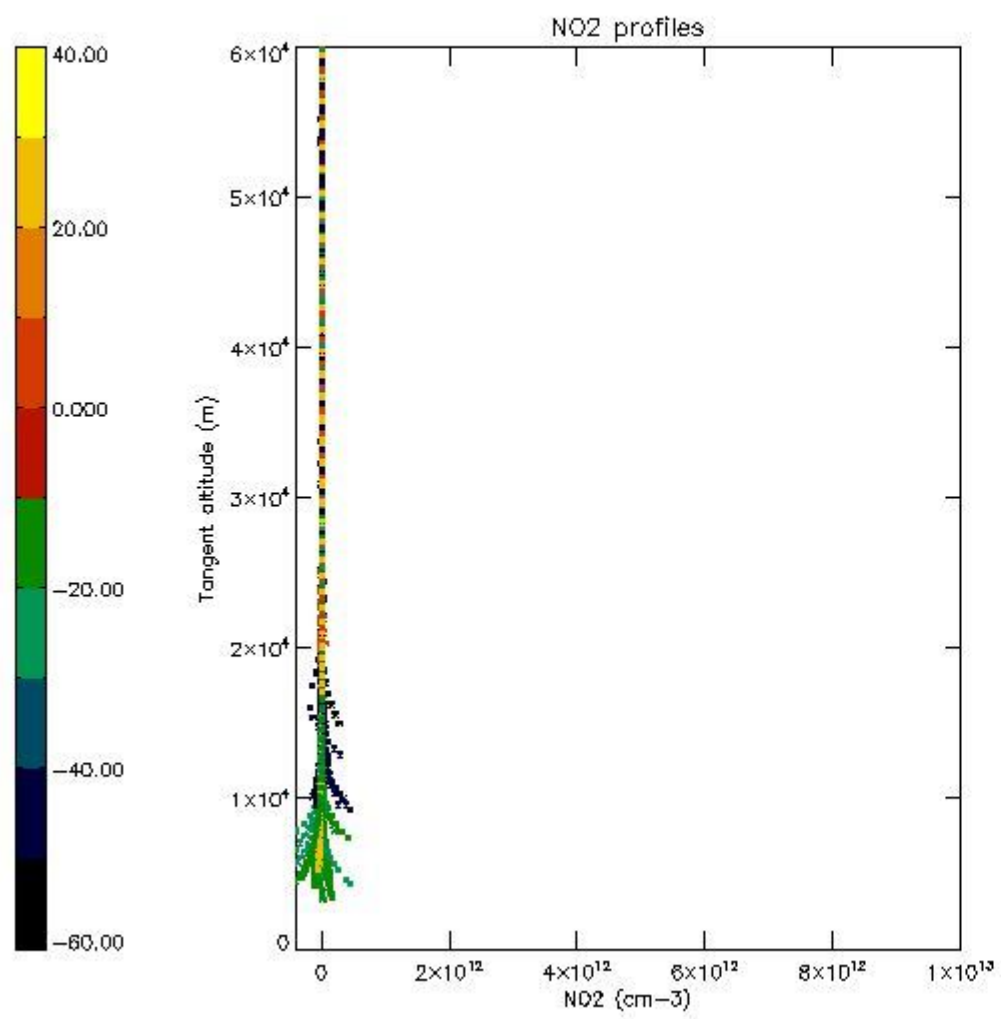
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



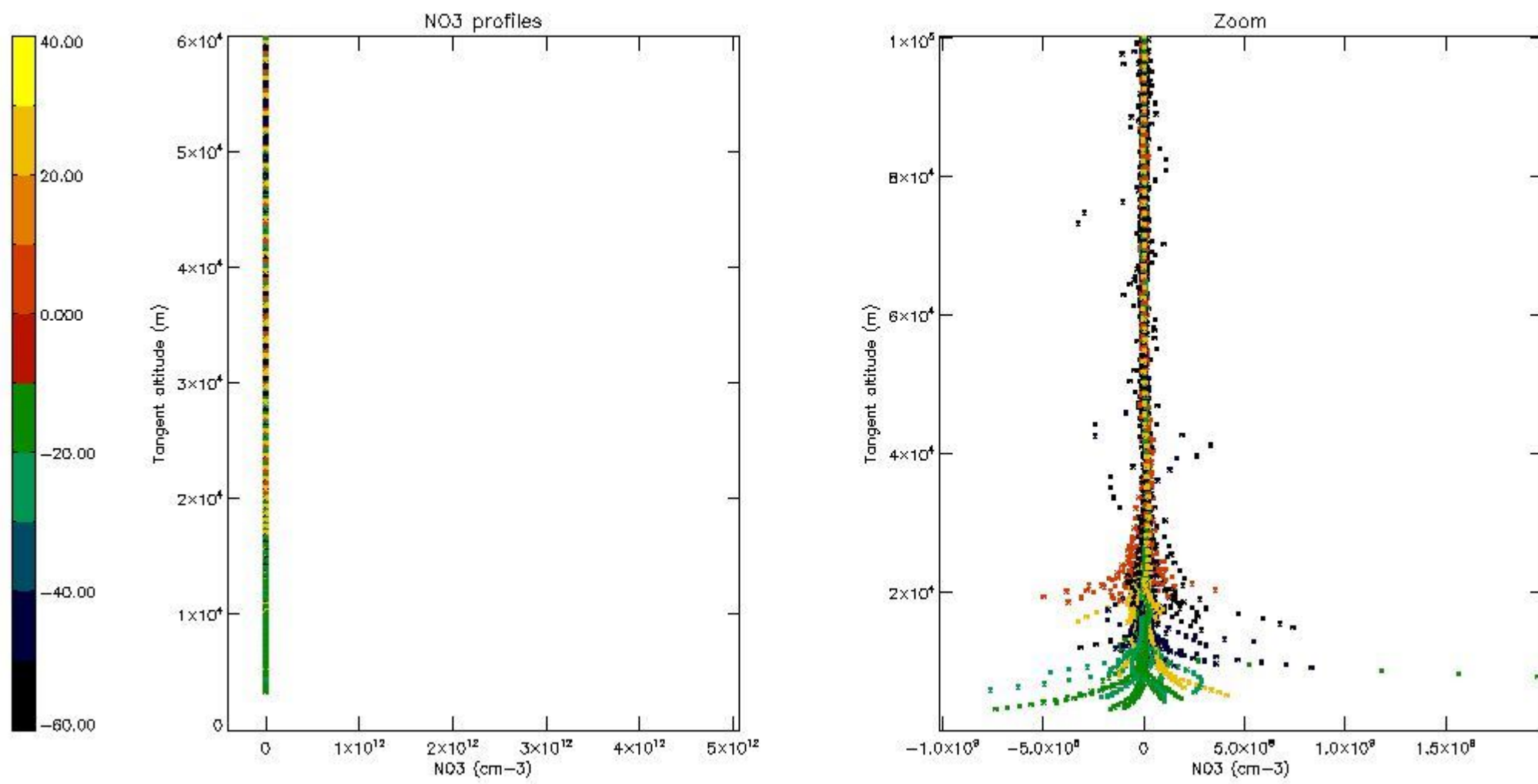
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



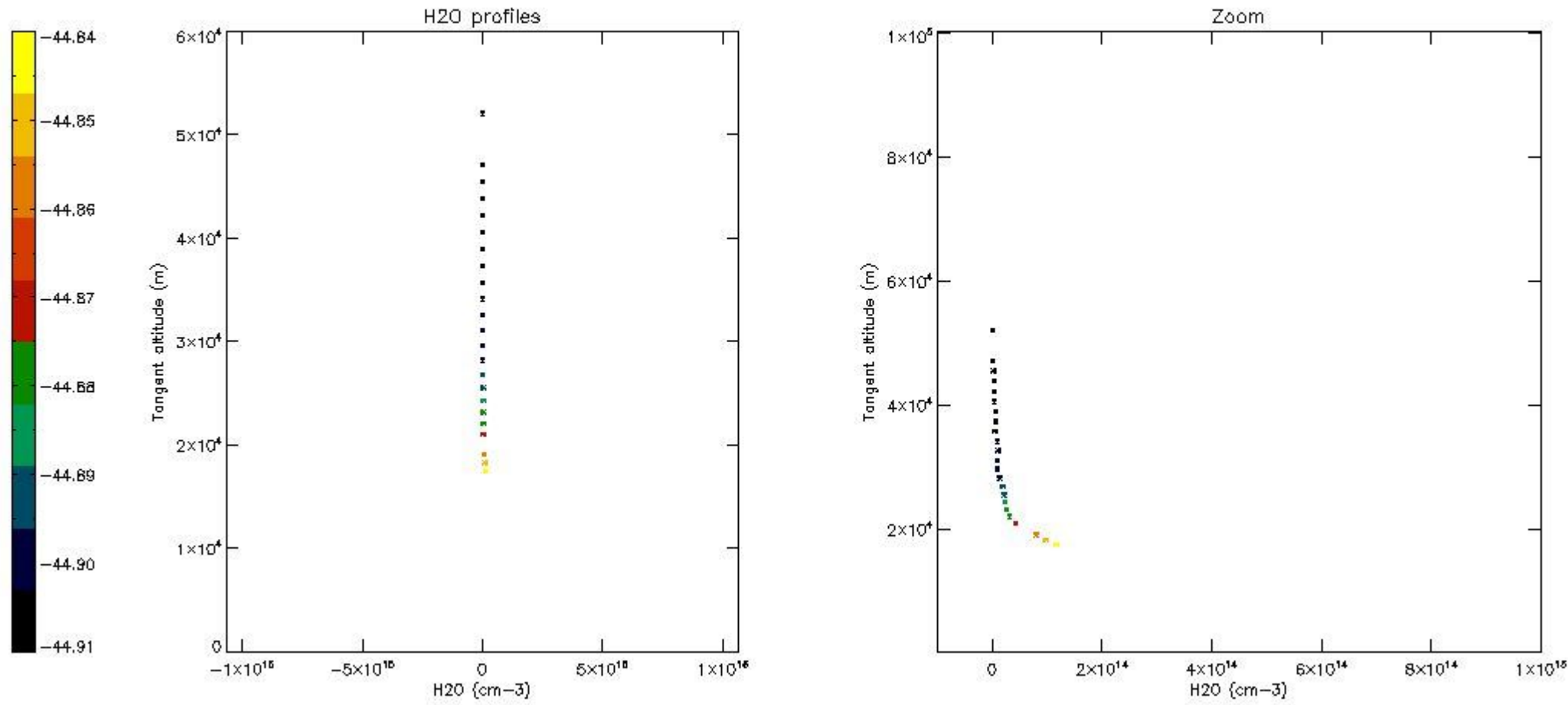
5.7 Plot NO3 profiles for all STD (dark without errors)

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	18-SEP-2006 00:03:23
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-SEP-2006 00:03:23
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-SEP-2006 00:03:23

GOMOS Level 2 Daily Report

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[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	24APR2013 04:14:57
Data source version	GOMOS/6.01
Start time of products	18-09-2006 (18SEP2006 00:00:00)
Stop time of products	19-09-2006 (19SEP2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	227
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

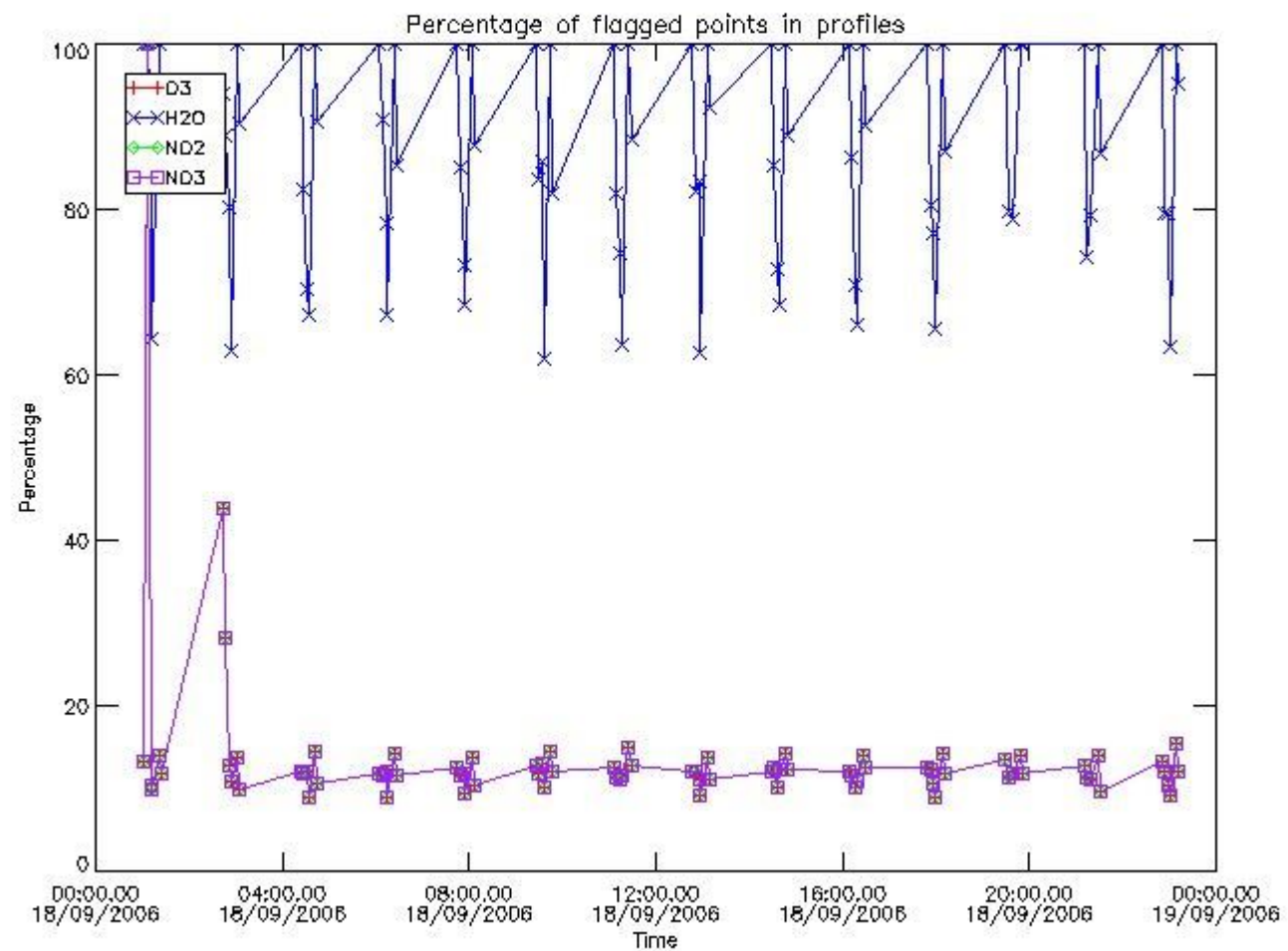
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20060918_000323_000000372051_00188_23789_1784.N1	18-SEP-2006 00:03:23	Bright	37.000	162	34Alp Aqr	2.9440	5350.0	74	23789	No
2	GOM_NL__2PRFIN20060918_000623_000000522051_00188_23789_1785.N1	18-SEP-2006 00:06:23	Bright	52.000	61	8Eps Peg	2.1000	3900.0	104	23789	No
3	GOM_NL__2PRFIN20060918_001650_000000352051_00188_23789_1786.N1	18-SEP-2006 00:16:50	Bright	34.500	19	50Alp Cyg	1.2460	10500.	69	23789	No
4	GOM_NL__2PRFIN20060918_002107_000000362051_00188_23789_1787.N1	18-SEP-2006 00:21:07	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	23789	No
5	GOM_NL__2PRFIN20060918_002845_000000322051_00188_23789_1788.N1	18-SEP-2006 00:28:45	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	23789	No
6	GOM_NL__2PRFIN20060918_003610_000000362051_00188_23789_1789.N1	18-SEP-2006 00:36:10	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	23789	No
7	GOM_NL__2PRFIN20060918_003737_000000342051_00188_23789_1790.N1	18-SEP-2006 00:37:37	Bright	34.000	82	48Bet UMa	2.3650	10600.	68	23789	No
8	GOM_NL__2PRFIN20060918_010236_000000422051_00188_23789_1791.N1	18-SEP-2006 01:02:36	Dark	42.000	132	15Rho Pup	2.8030	6900.0	84	23789	No
9	GOM_NL__2PRFIN20060918_010622_000000432051_00188_23789_1792.N1	18-SEP-2006 01:06:22	Dark	42.500	65	Lam Vel	2.2040	4400.0	85	23789	No
10	GOM_NL__2PRFIN20060918_011112_000000492051_00188_23789_1793.N1	18-SEP-2006 01:11:12	Dark	49.000	41	Eps Car	1.8600	4100.0	98	23789	No
11	GOM_NL__2PRFIN20060918_011249_000000512051_00189_23790_1778.N1	18-SEP-2006 01:12:49	Dark	51.000	2	Alp Car	-0.73600	7000.0	102	23790	No
12	GOM_NL__2PRFIN20060918_012146_000000372051_00189_23790_1779.N1	18-SEP-2006 01:21:46	Dark	36.500	135	Bet Hyi	2.8200	5800.0	73	23790	No
13	GOM_NL__2PRFIN20060918_012427_000000432051_00189_23790_1780.N1	18-SEP-2006 01:24:27	Dark	43.000	9	Alp Eri	0.45300	24000.	86	23790	No
14	GOM_NL__2PRFIN20060918_013102_000000382051_00189_23790_1781.N1	18-SEP-2006 01:31:02	Straylight	37.500	31	Alp Gru	1.7340	15200.	75	23790	No
15	GOM_NL__2PRFIN20060918_013516_000000452051_00189_23790_1782.N1	18-SEP-2006 01:35:16	Straylight	44.500	18	24Alp PsA	1.1660	9700.0	89	23790	No
16	GOM_NL__2PRFIN20060918_013946_000000392051_00189_23790_1783.N1	18-SEP-2006 01:39:46	Twilight	38.500	142	49Del Cap	2.8500	8900.0	77	23790	No
17	GOM_NL__2PRFIN20060918_014359_000000372051_00189_23790_1784.N1	18-SEP-2006 01:43:59	Bright	36.500	162	34Alp Aqr	2.9440	5350.0	73	23790	No
18	GOM_NL__2PRFIN20060918_014659_000000382051_00189_23790_1785.N1	18-SEP-2006 01:46:59	Bright	37.500	61	8Eps Peg	2.1000	3900.0	75	23790	No
19	GOM_NL__2PRFIN20060918_015726_000000342051_00189_23790_1786.N1	18-SEP-2006 01:57:26	Bright	33.500	19	50Alp Cyg	1.2460	10500.	67	23790	No
20	GOM_NL__2PRFIN20060918_020143_000000362051_00189_23790_1787.N1	18-SEP-2006 02:01:43	Bright	35.500	89	5Alp Cep	2.4510	8000.0	71	23790	No
21	GOM_NL__2PRFIN20060918_020921_000000352051_00189_23790_1788.N1	18-SEP-2006 02:09:21	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	23790	No
22	GOM_NL__2PRFIN20060918_021647_000000372051_00189_23790_1789.N1	18-SEP-2006 02:16:47	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	23790	No
23	GOM_NL__2PRFIN20060918_021813_000000502051_00189_23790_1790.N1	18-SEP-2006 02:18:13	Bright	50.000	82	48Bet UMa	2.3650	10600.	100	23790	No
24	GOM_NL__2PRFIN20060918_024312_000000422051_00189_23790_1791.N1	18-SEP-2006 02:43:12	Dark	41.500	132	15Rho Pup	2.8030	6900.0	83	23790	No
25	GOM_NL__2PRFIN20060918_024658_000000422051_00189_23790_1792.N1	18-SEP-2006 02:46:58	Dark	41.500	65	Lam Vel	2.2040	4400.0	83	23790	No
26	GOM_NL__2PRFIN20060918_025148_000000442051_00189_23790_1793.N1	18-SEP-2006 02:51:48	Dark	43.500	41	Eps Car	1.8600	4100.0	87	23790	No
27	GOM_NL__2PRFIN20060918_025326_000000482051_00190_23791_1778.N1	18-SEP-2006 02:53:26	Dark	47.500	2	Alp Car	-0.73600	7000.0	95	23791	No
28	GOM_NL__2PRFIN20060918_030222_000000372051_00190_23791_1779.N1	18-SEP-2006 03:02:22	Dark	37.000	135	Bet Hyi	2.8200	5800.0	74	23791	No
29	GOM_NL__2PRFIN20060918_030503_000000522051_00190_23791_1780.N1	18-SEP-2006 03:05:03	Dark	52.000	9	Alp Eri	0.45300	24000.	104	23791	No
30	GOM_NL__2PRFIN20060918_031138_000000382051_00190_23791_1781.N1	18-SEP-2006 03:11:38	Straylight	37.500	31	Alp Gru	1.7340	15200.	75	23791	No
31	GOM_NL__2PRFIN20060918_031552_000000442051_00190_23791_1782.N1	18-SEP-2006 03:15:52	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	23791	No
32	GOM_NL__2PRFIN20060918_032022_000000382051_00190_23791_1783.N1	18-SEP-2006 03:20:22	Twilight	38.000	142	49Del Cap	2.8500	8900.0	76	23791	No
33	GOM_NL__2PRFIN20060918_032435_000000362051_00190_23791_1784.N1	18-SEP-2006 03:24:35	Bright	35.500	162	34Alp Aqr	2.9440	5350.0	71	23791	No
34	GOM_NL__2PRFIN20060918_032736_000000392051_00190_23791_1785.N1	18-SEP-2006 03:27:36	Bright	38.500	61	8Eps Peg	2.1000	3900.0	77	23791	No
35	GOM_NL__2PRFIN20060918_033803_000000372051_00190_23791_1786.N1	18-SEP-2006 03:38:03	Bright	37.000	19	50Alp Cyg	1.2460	10500.	74	23791	No
36	GOM_NL__2PRFIN20060918_034220_000000352051_00190_23791_1787.N1	18-SEP-2006 03:42:20	Bright	35.000	89	5Alp Cep	2.4510	8000.0	70	23791	No
37	GOM_NL__2PRFIN20060918_034957_000000342051_00190_23791_1788.N1	18-SEP-2006 03:49:57	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	23791	No
38	GOM_NL__2PRFIN20060918_035723_000000372051_00190_23791_1789.N1	18-SEP-2006 03:57:23	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	23791	No
39	GOM_NL__2PRFIN20060918_035850_000000352051_00190_23791_1790.N1	18-SEP-2006 03:58:50	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	23791	No
40	GOM_NL__2PRFIN20060918_042349_000000432051_00190_23791_1791.N1	18-SEP-2006 04:23:49	Dark	42.500	132	15Rho Pup	2.8030	6900.0	85	23791	No
41	GOM_NL__2PRFIN20060918_042734_000000432051_00190_23791_1792.N1	18-SEP-2006 04:27:34	Dark	43.000	65	Lam Vel	2.2040	4400.0	86	23791	No
42	GOM_NL__2PRFIN20060918_043224_000000432051_00190_23791_1793.N1	18-SEP-2006 04:32:24	Dark	42.500	41	Eps Car	1.8600	4100.0	85	23791	No

220	GOM_NL__2PRFIN20060918_231831_000000432051_00202_23803_1801.N1	18-SEP-2006 23:18:31	Straylight	43.000	63	Bet Gru	2.1500	2800.0	86	23803	No
221	GOM_NL__2PRFIN20060918_232306_000000452051_00202_23803_1802.N1	18-SEP-2006 23:23:06	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	23803	No
222	GOM_NL__2PRFIN20060918_232736_000000382051_00202_23803_1803.N1	18-SEP-2006 23:27:36	Twl_and_stray	37.500	142	49Del Cap	2.8500	8900.0	75	23803	No
223	GOM_NL__2PRFIN20060918_233148_000000372051_00202_23803_1804.N1	18-SEP-2006 23:31:48	Bright	37.000	162	34Alp Aqr	2.9440	5350.0	74	23803	No
224	GOM_NL__2PRFIN20060918_233449_000000372051_00202_23803_1805.N1	18-SEP-2006 23:34:49	Bright	37.000	61	8Eps Peg	2.1000	3900.0	74	23803	No
225	GOM_NL__2PRFIN20060918_234517_000000382051_00202_23803_1806.N1	18-SEP-2006 23:45:17	Bright	37.500	19	50Alp Cyg	1.2460	10500.0	75	23803	No
226	GOM_NL__2PRFIN20060918_234932_000000402051_00202_23803_1807.N1	18-SEP-2006 23:49:32	Bright	39.500	89	5Alp Cep	2.4510	8000.0	79	23803	No
227	GOM_NL__2PRFIN20060918_235708_000000342051_00202_23803_1808.N1	18-SEP-2006 23:57:08	Bright	33.500	49	1Alp UMi	1.9900	6300.0	67	23803	No

3. Quality information per product

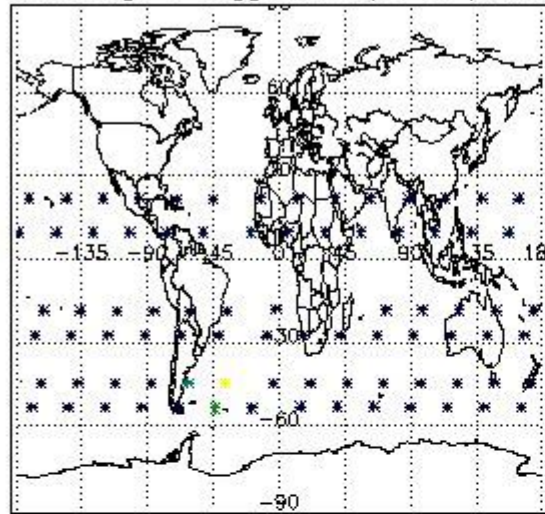
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

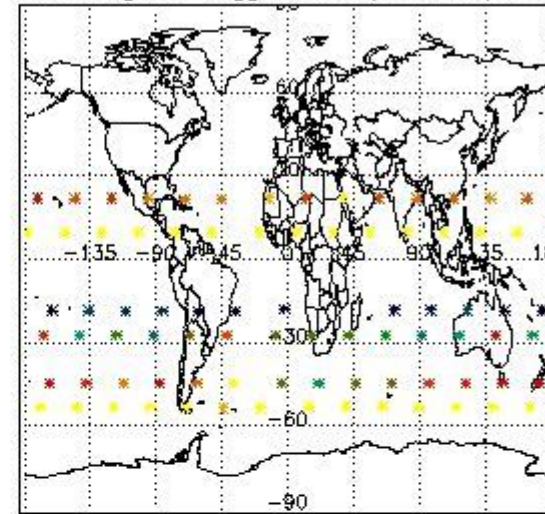


3.2 Plot quality information per product (world map)

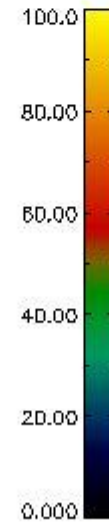
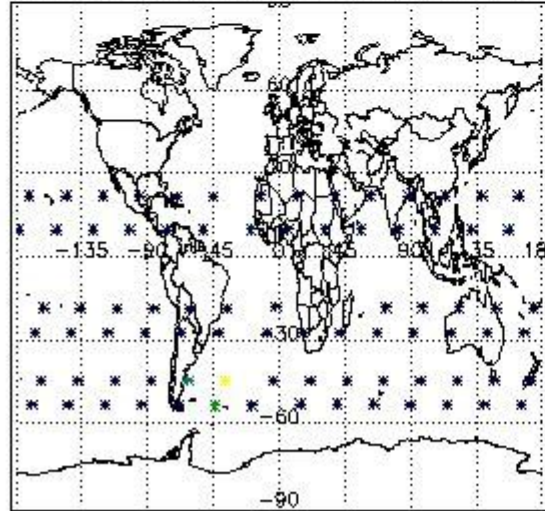
Percentage of flagged data per O3 profile



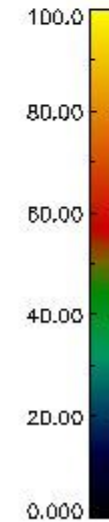
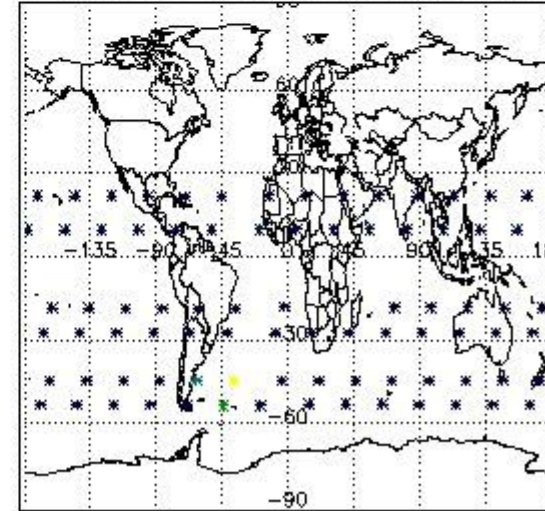
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

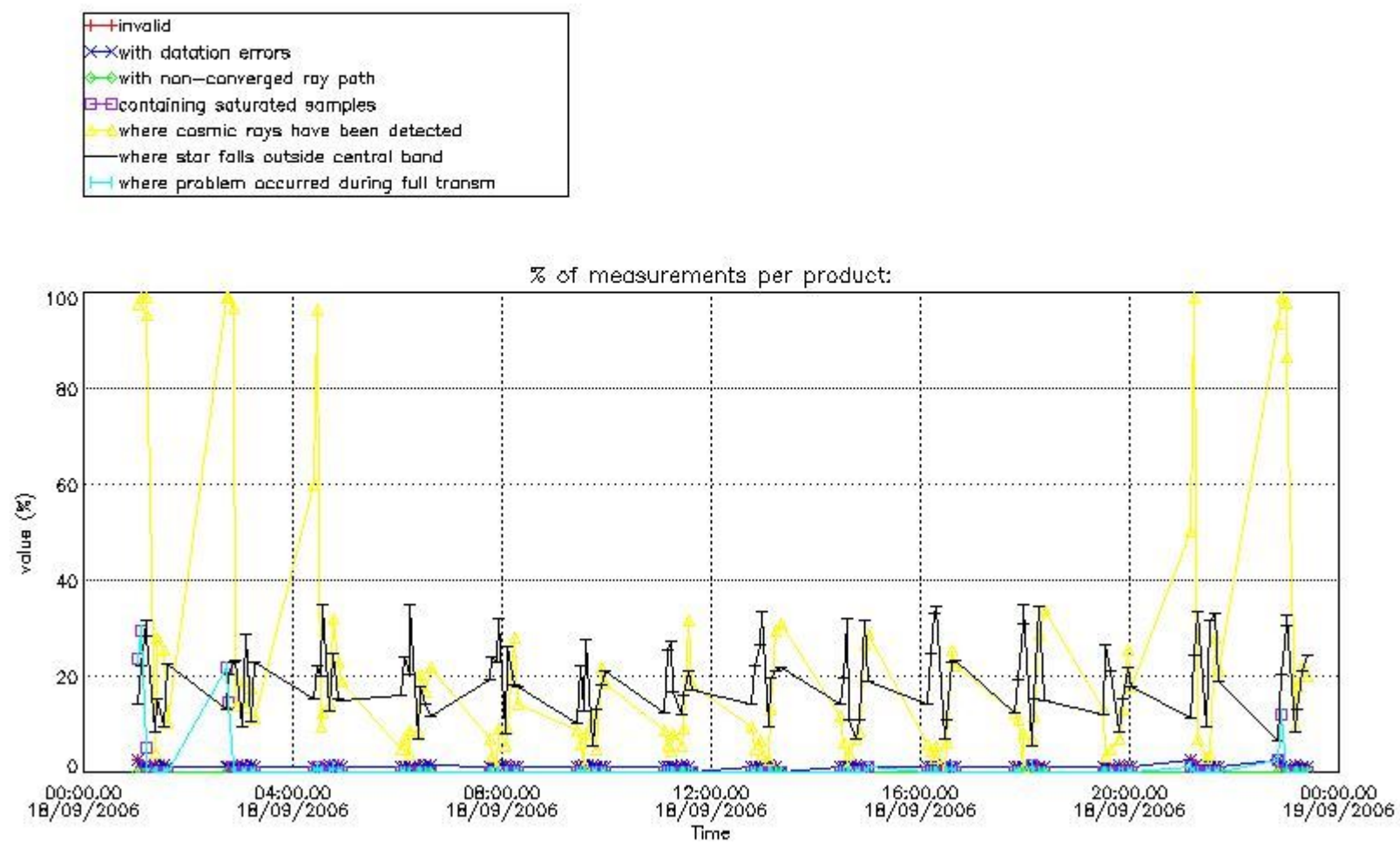


4. Level 1 quality information per product

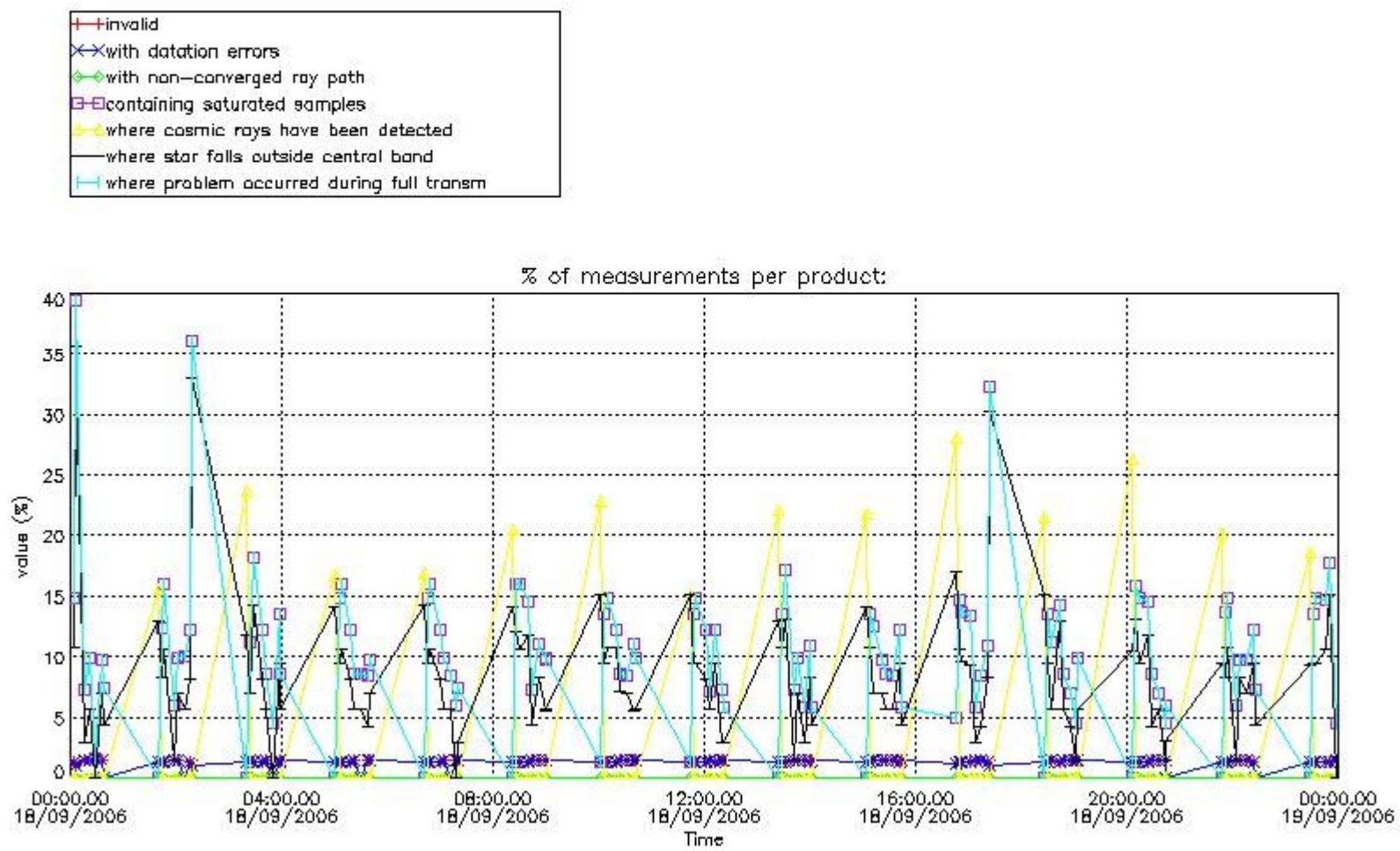
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



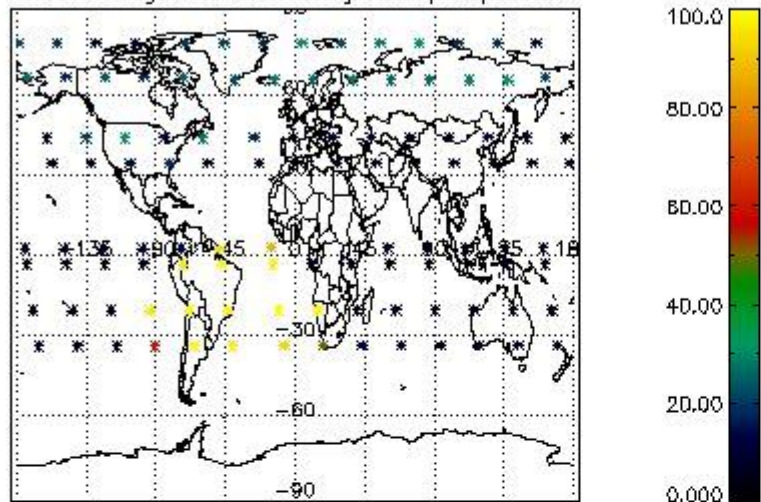
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



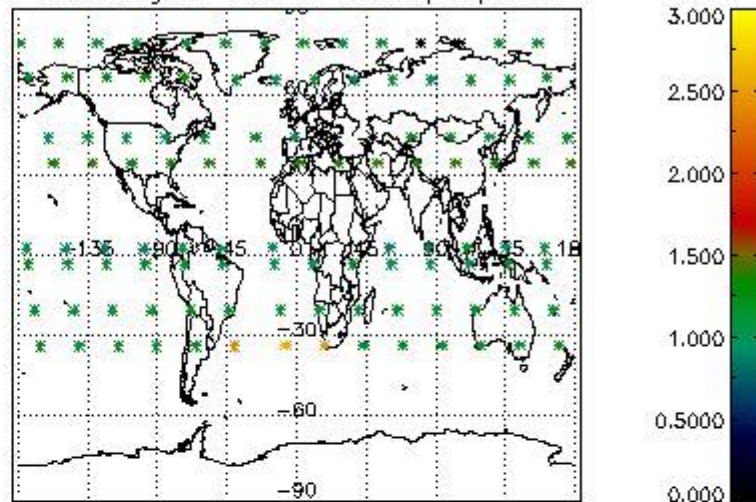
4.2 Plot quality information per product coming from level 1b processing (world map)

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

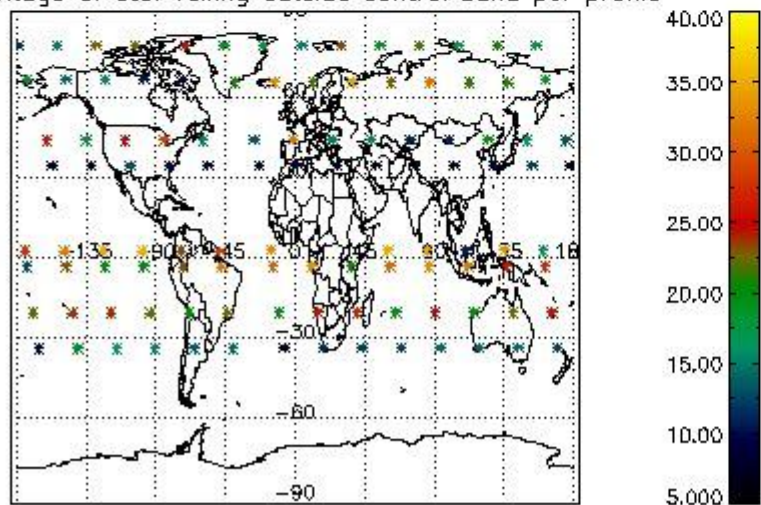
Percentage of cosmic ray hits per profile



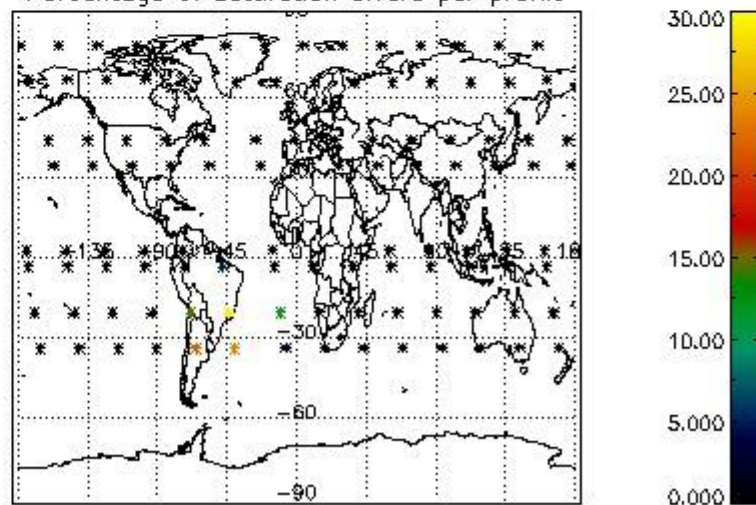
Percentage of datation errors per profile



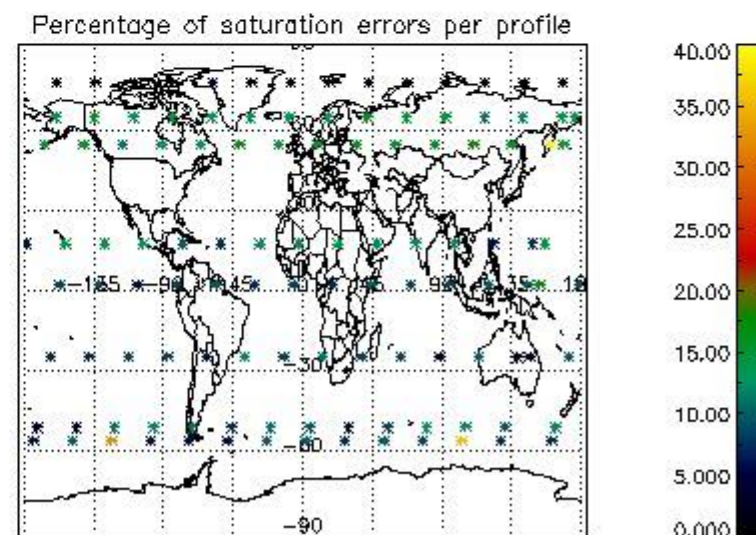
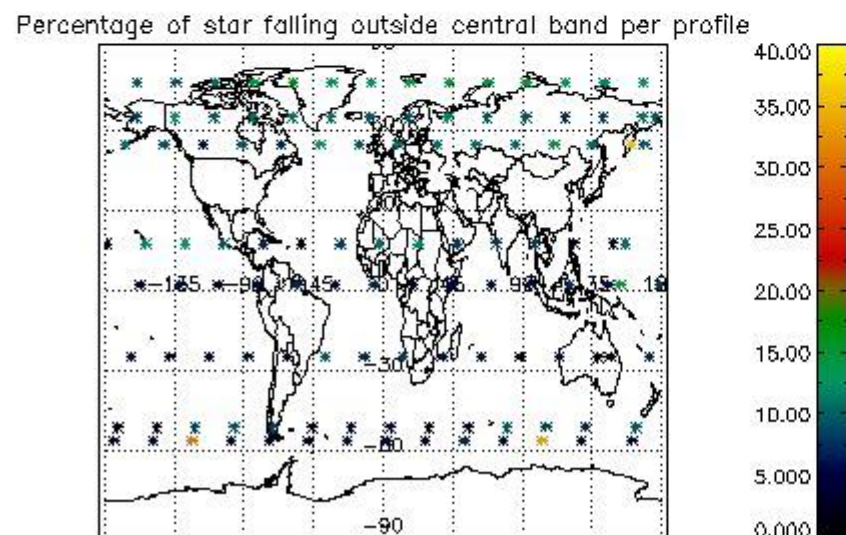
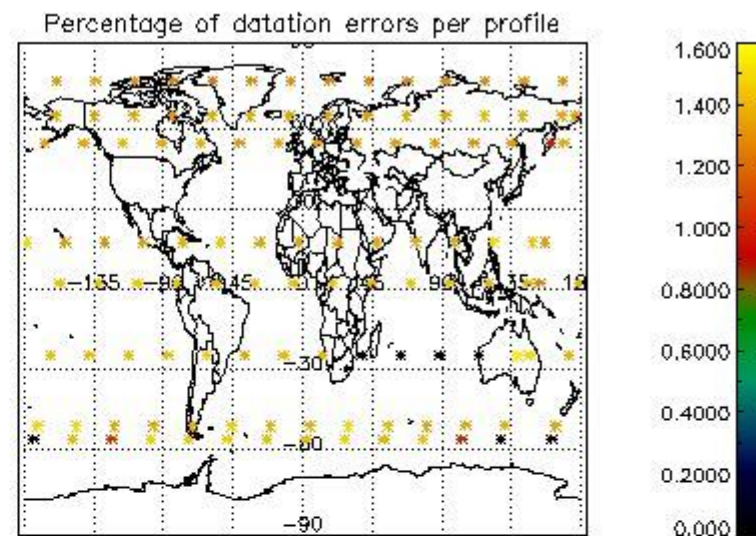
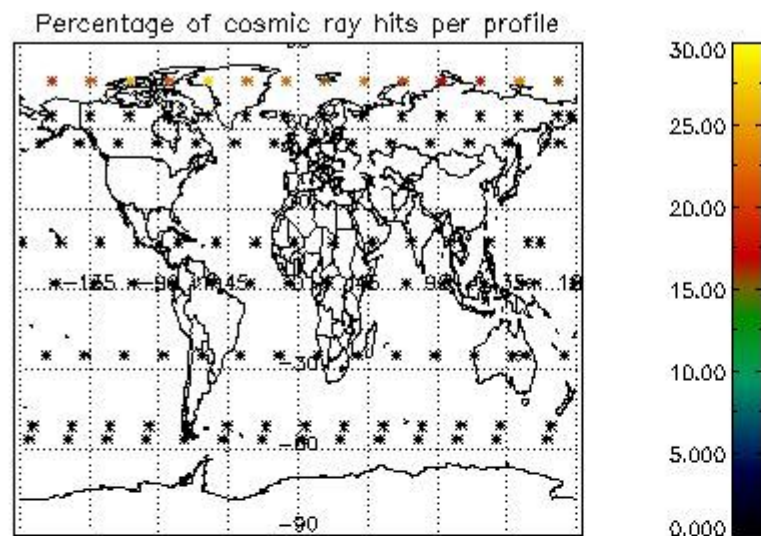
Percentage of star falling outside central band per profile



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

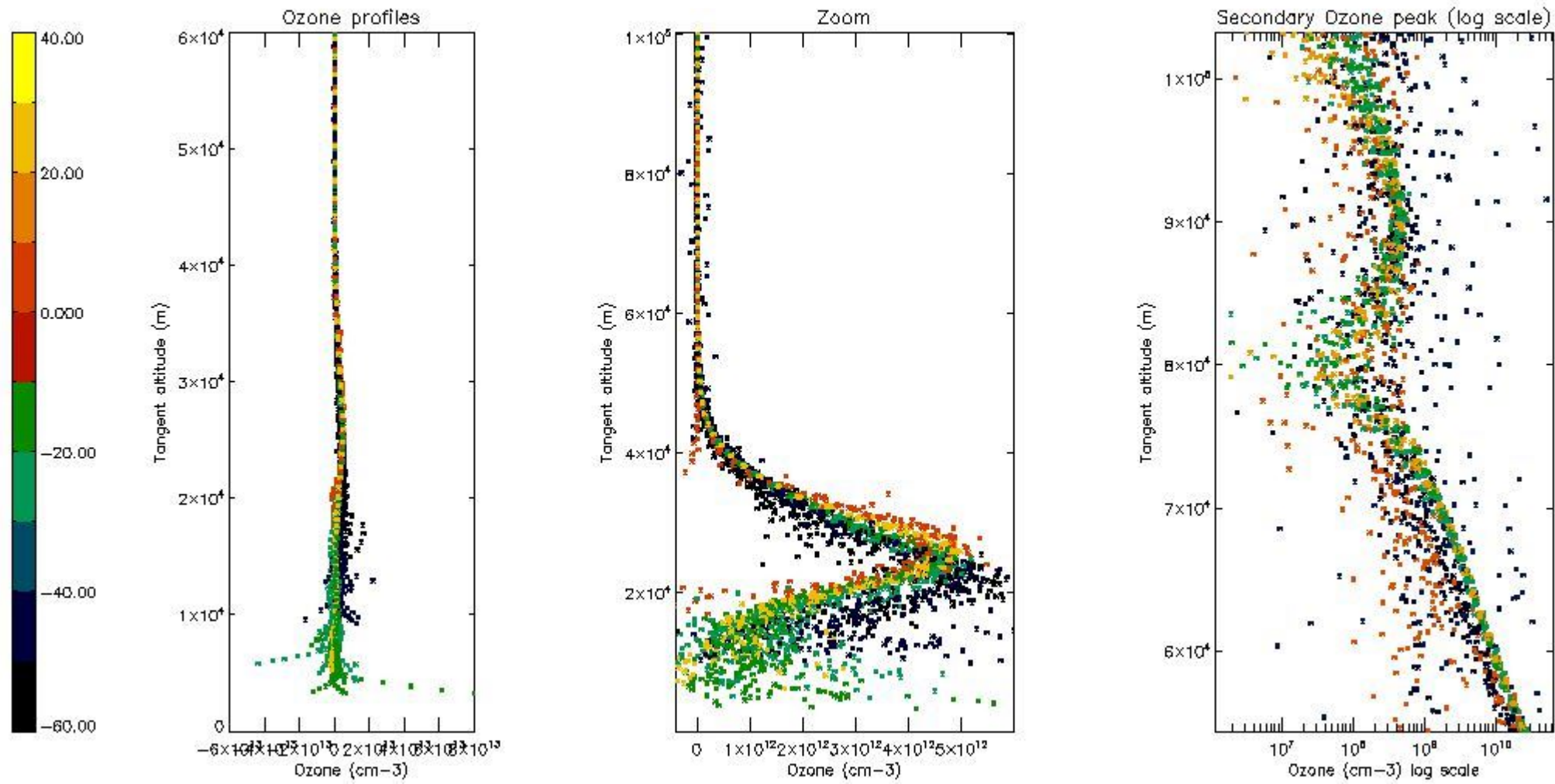
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	40
STD < 20	20

STD < 10	15
STD < 5	9

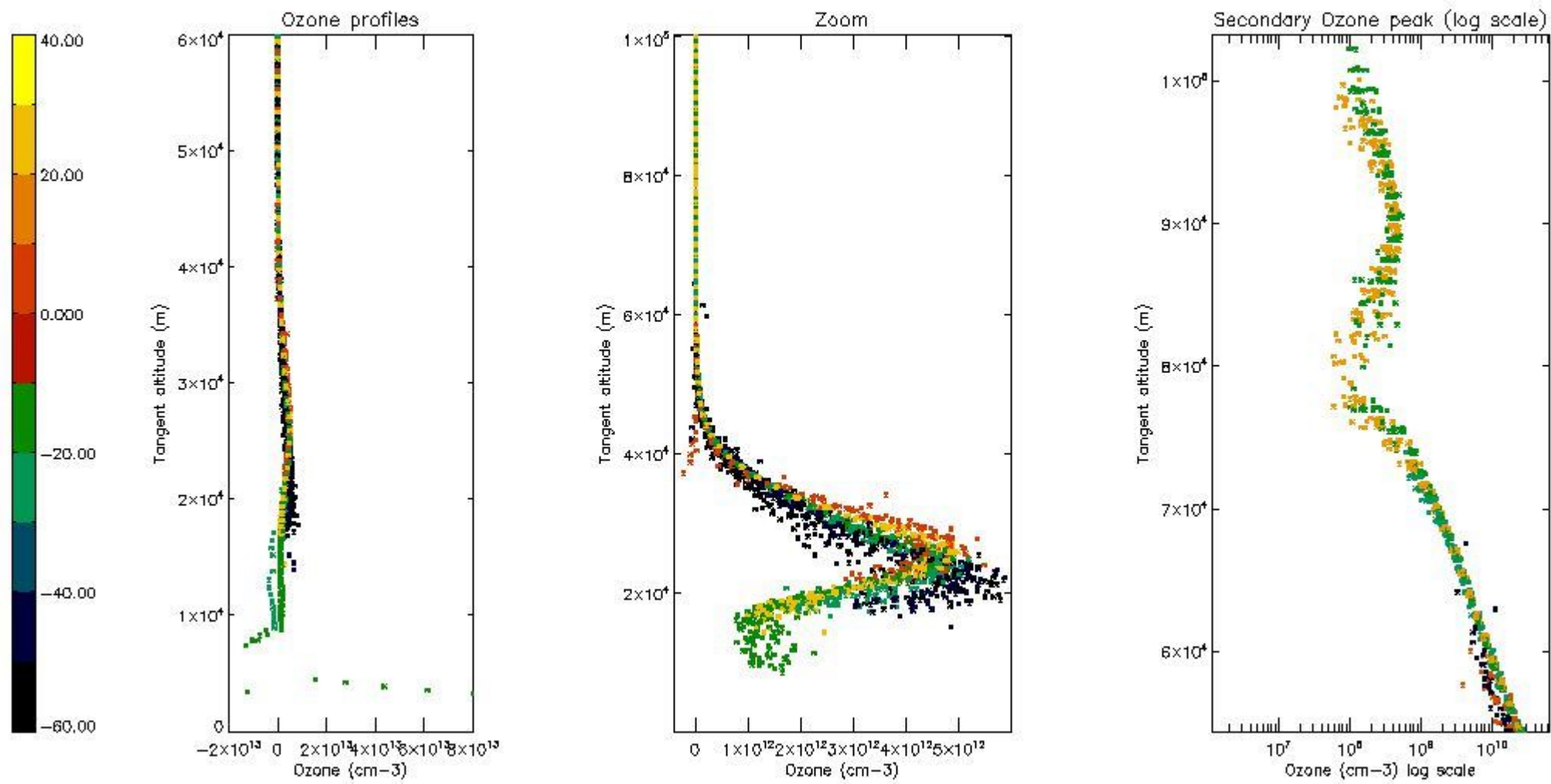
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



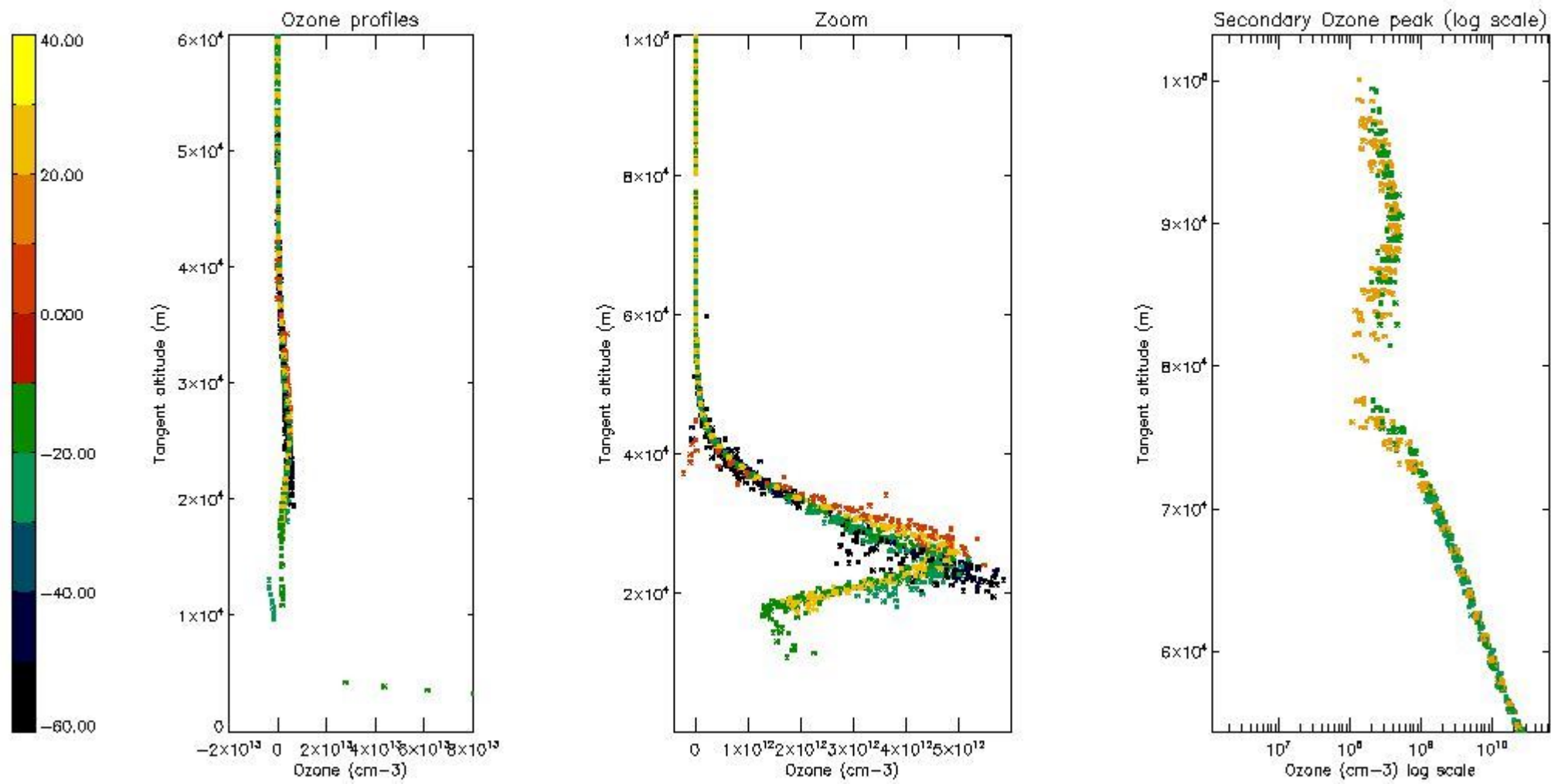
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



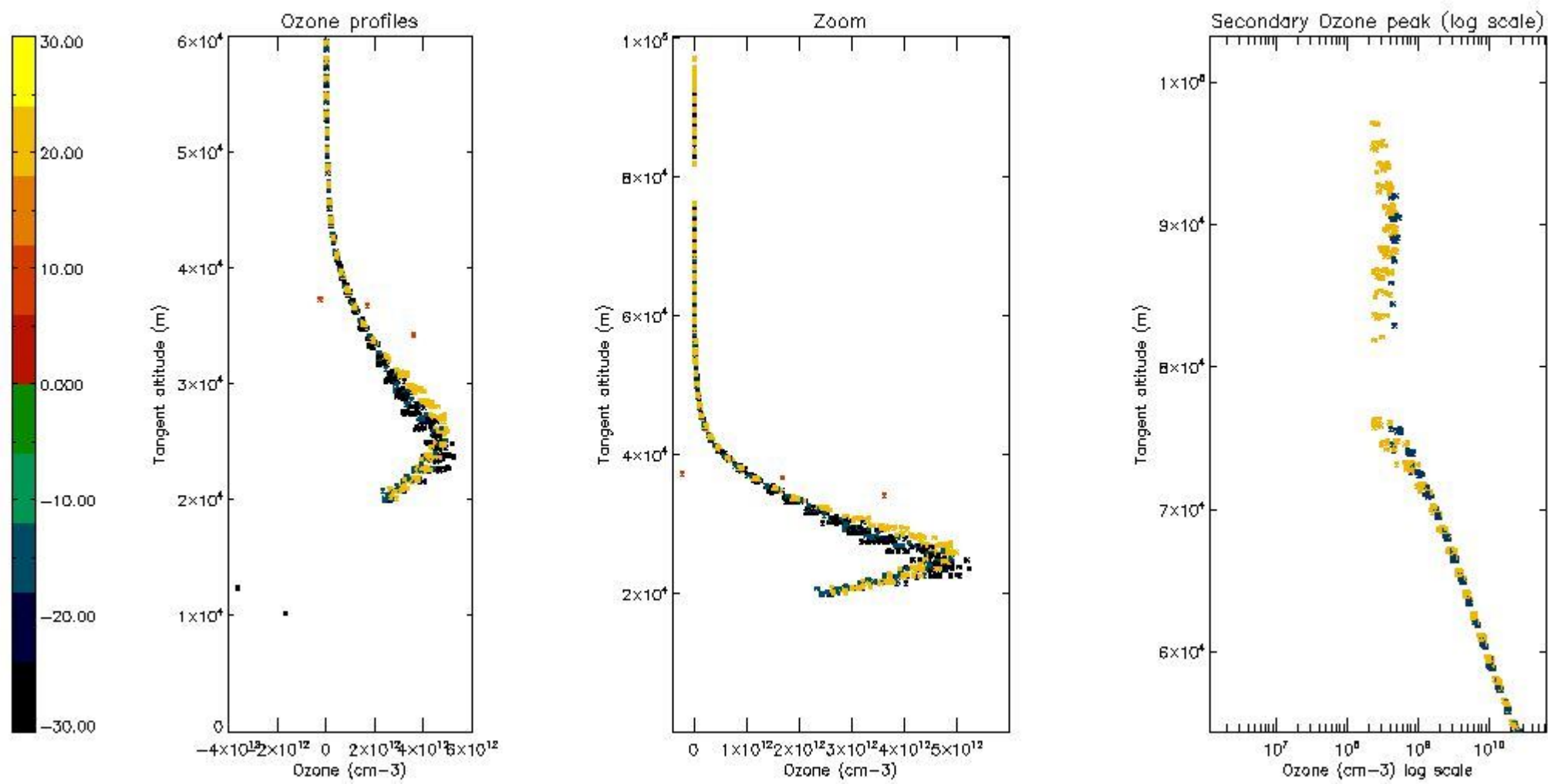
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



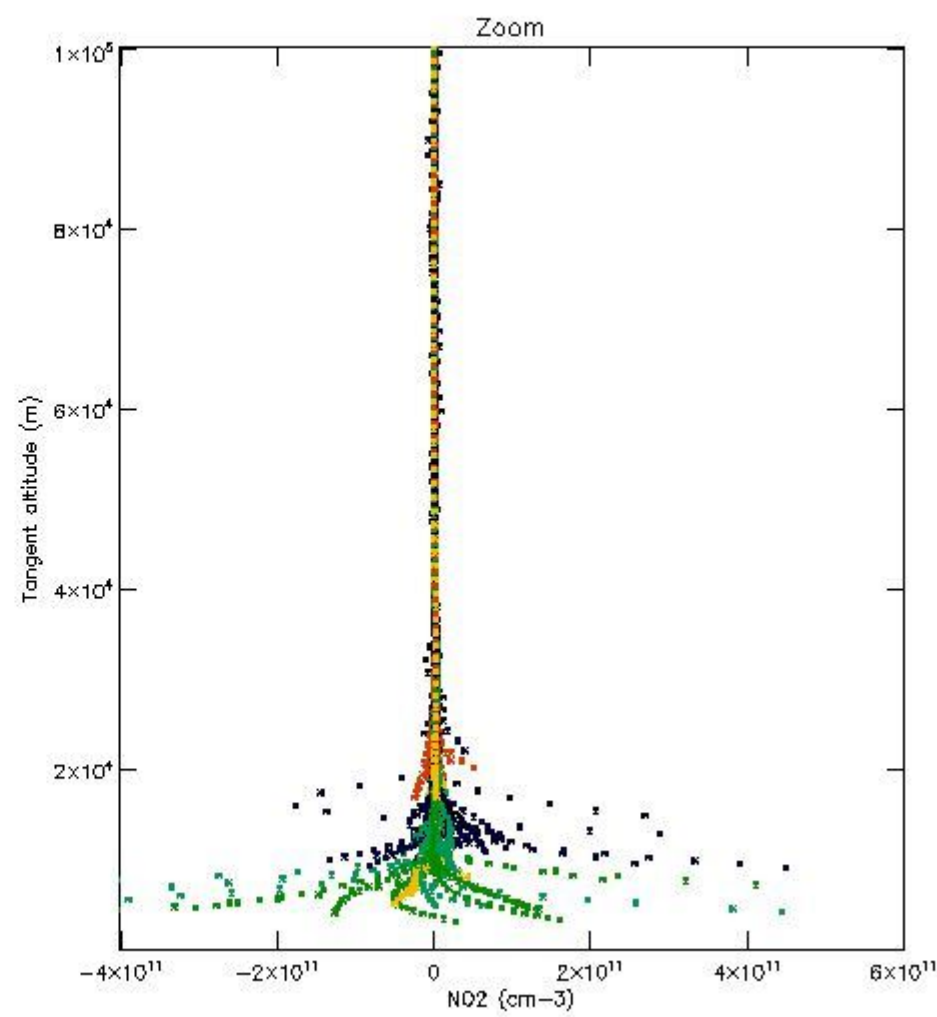
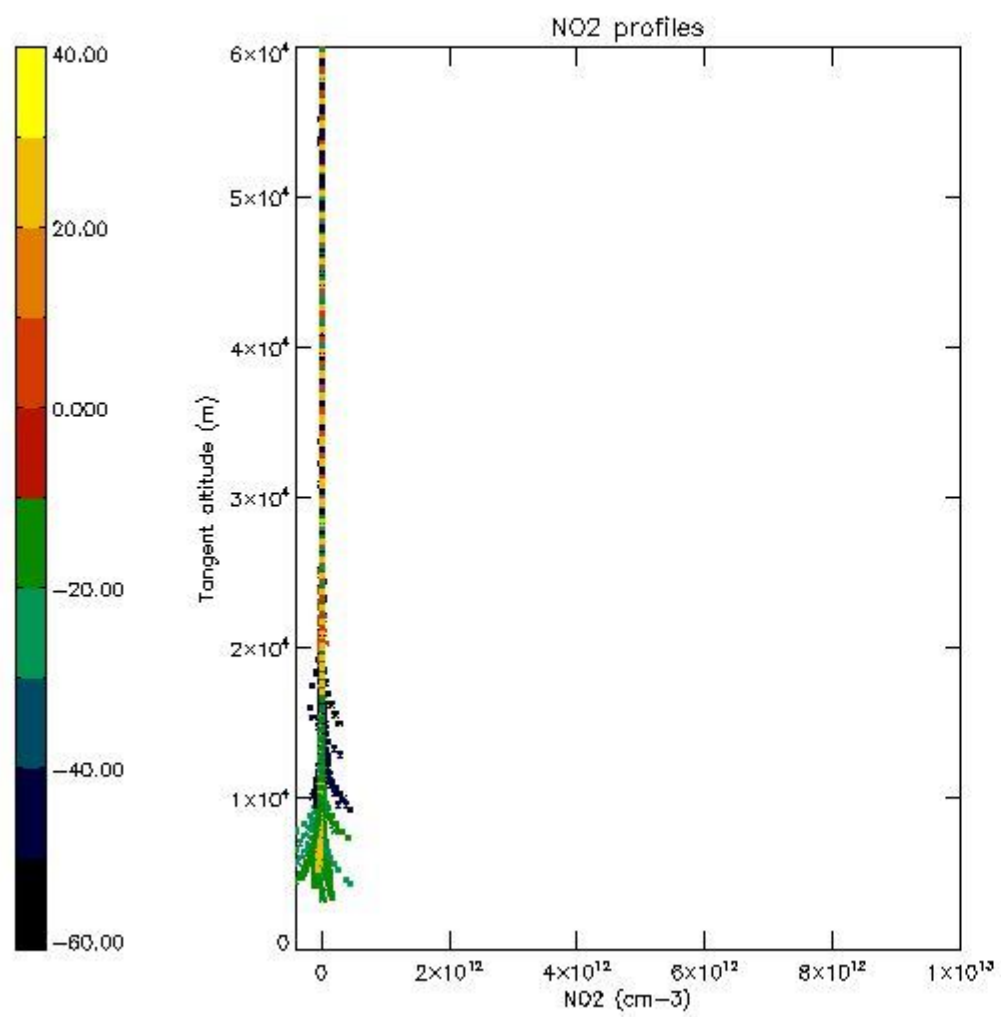
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



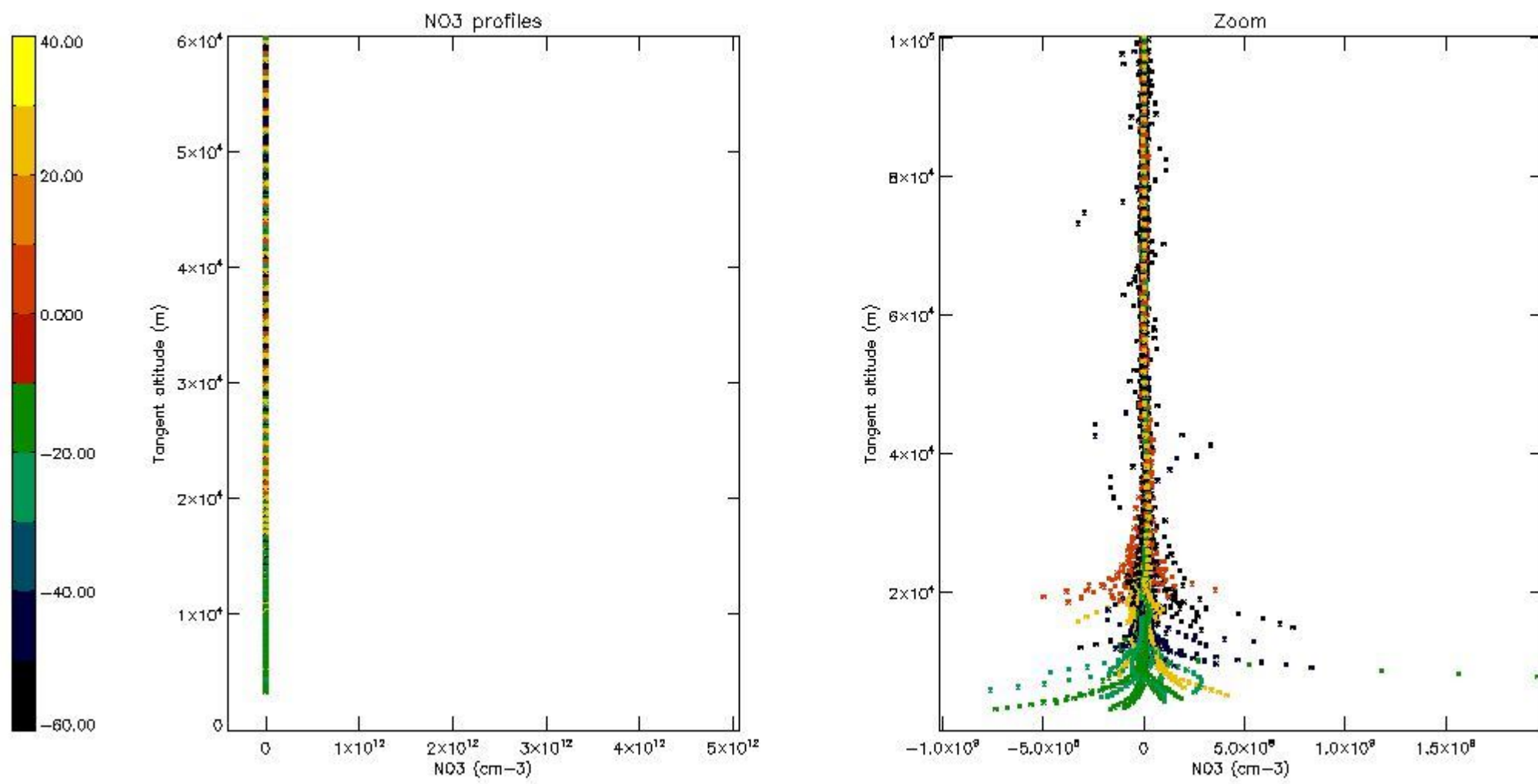
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



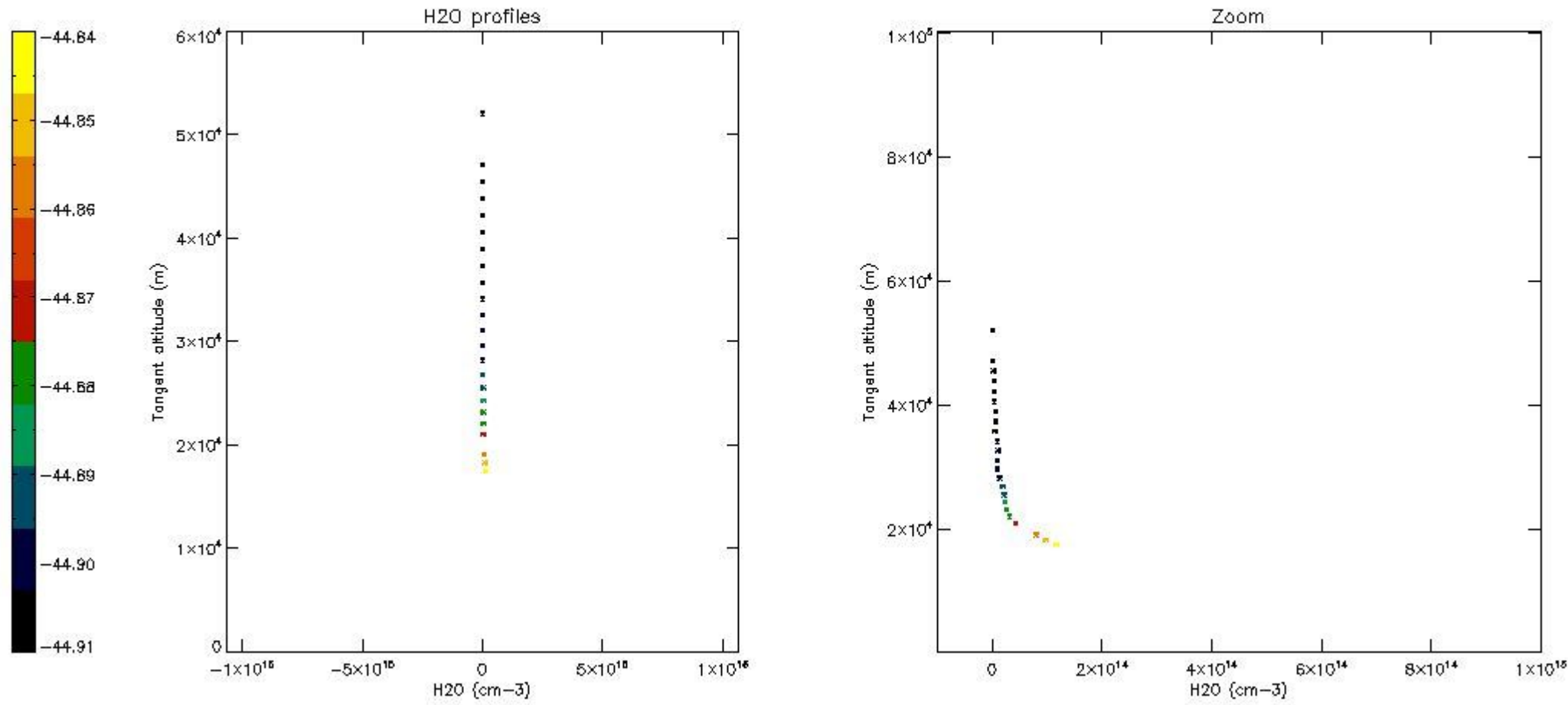
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

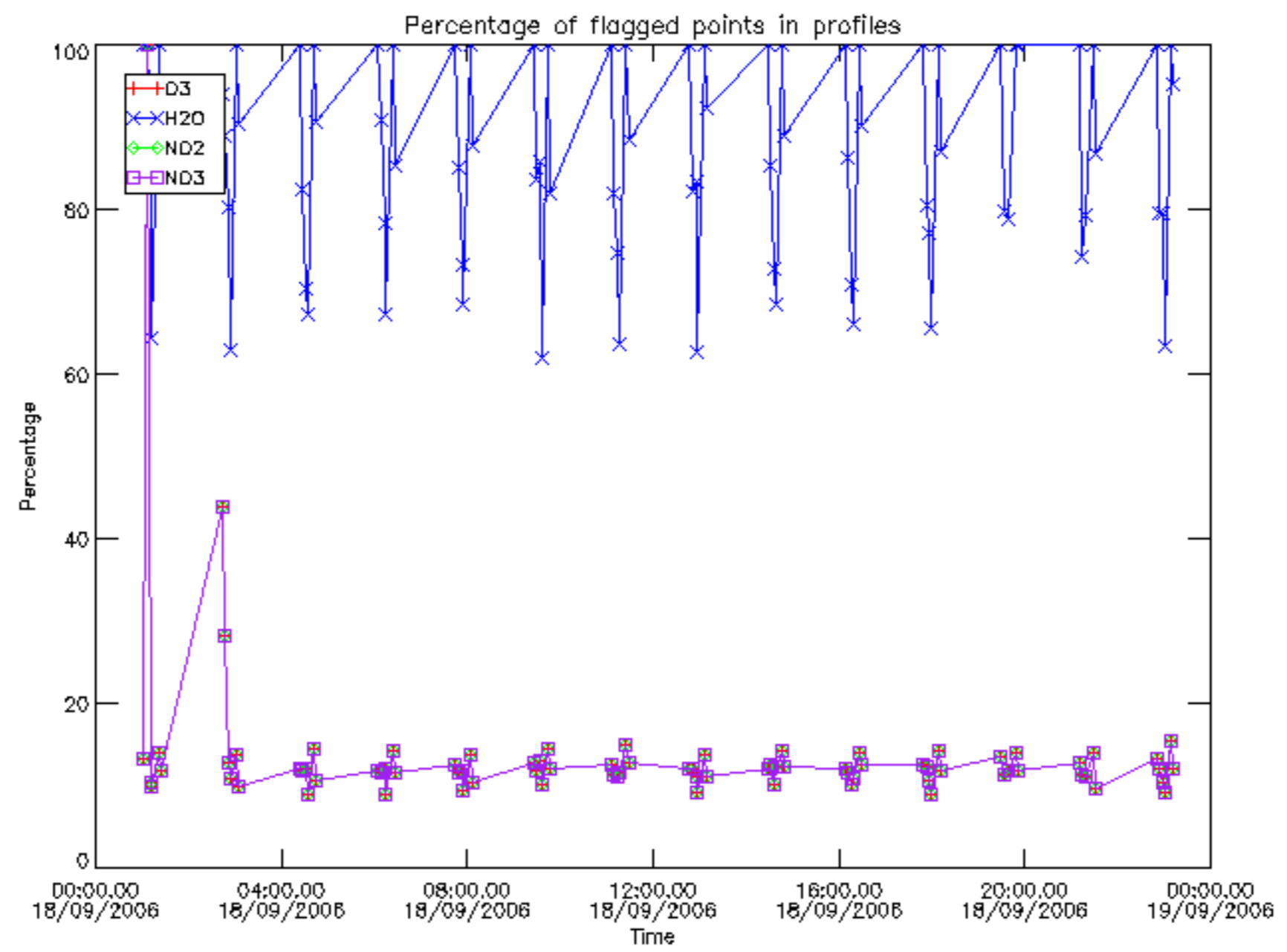
The colorbar represents the latitude.



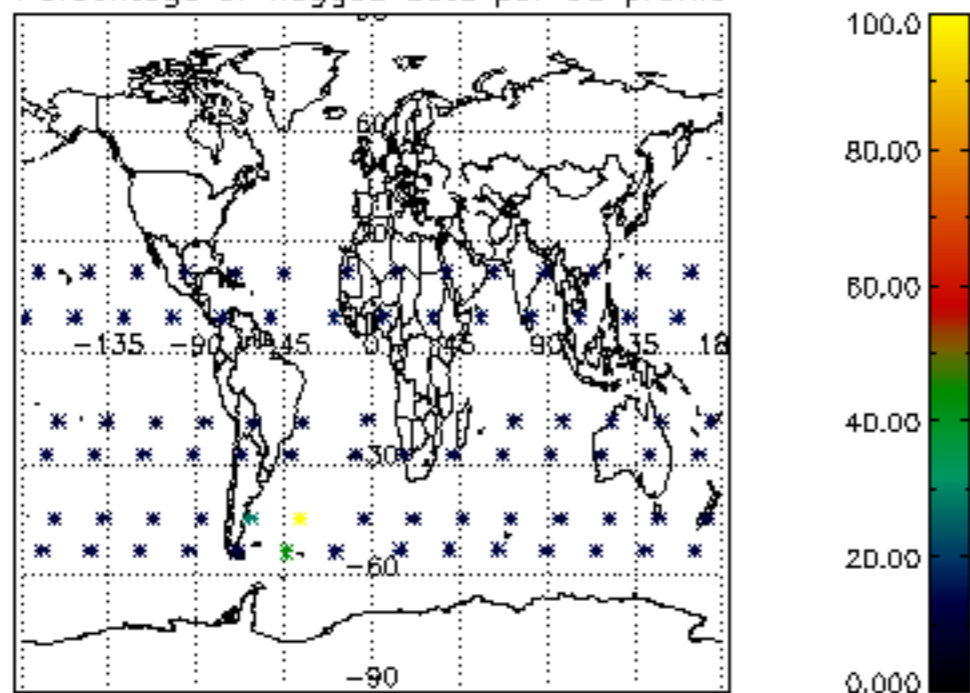
6. Auxiliary Data Files used for the production reported in section 2

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.

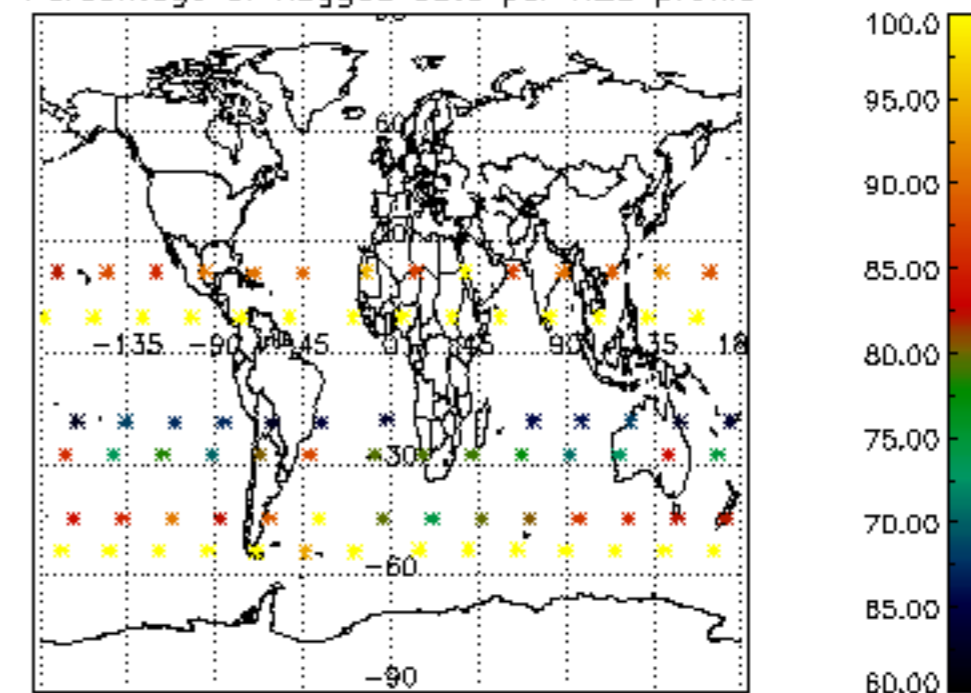
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-SEP-2006 00:03:23
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-SEP-2006 00:03:23
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-SEP-2006 00:03:23



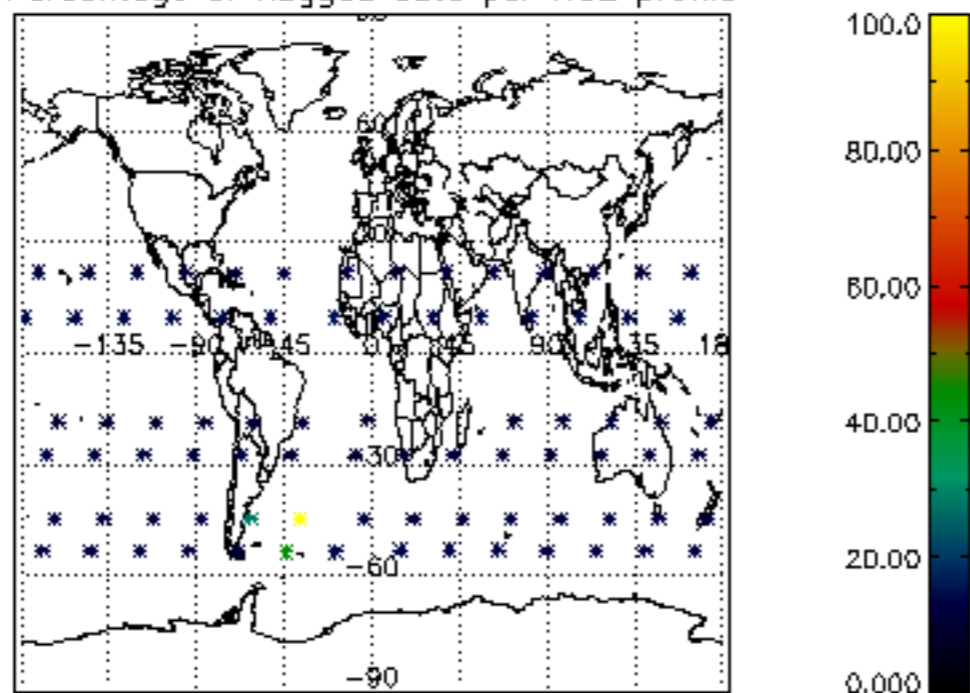
Percentage of flagged data per D3 profile



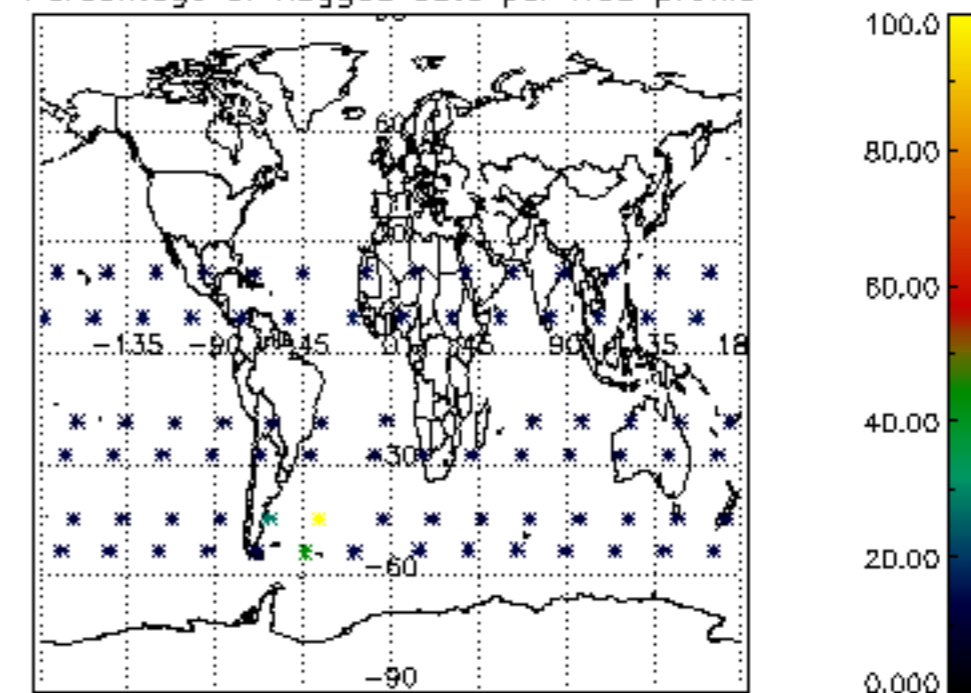
Percentage of flagged data per H2O profile

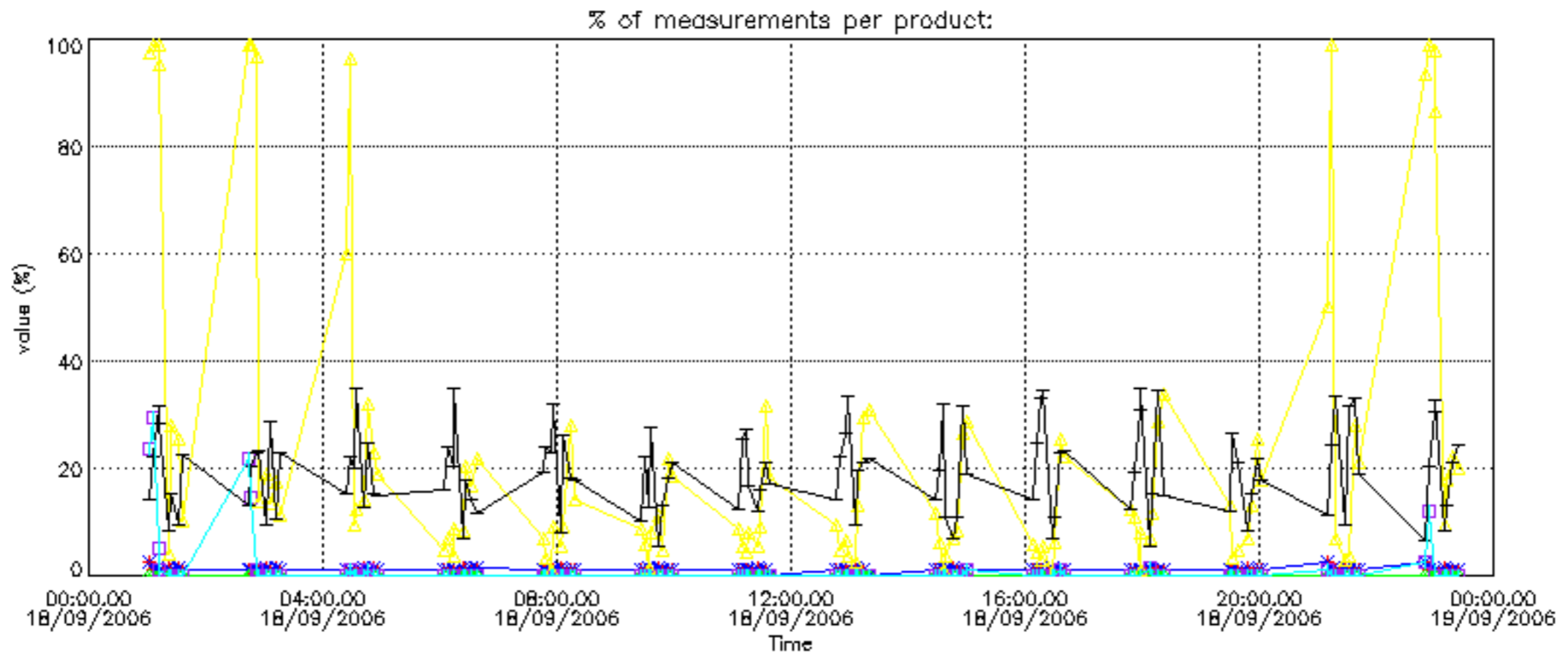


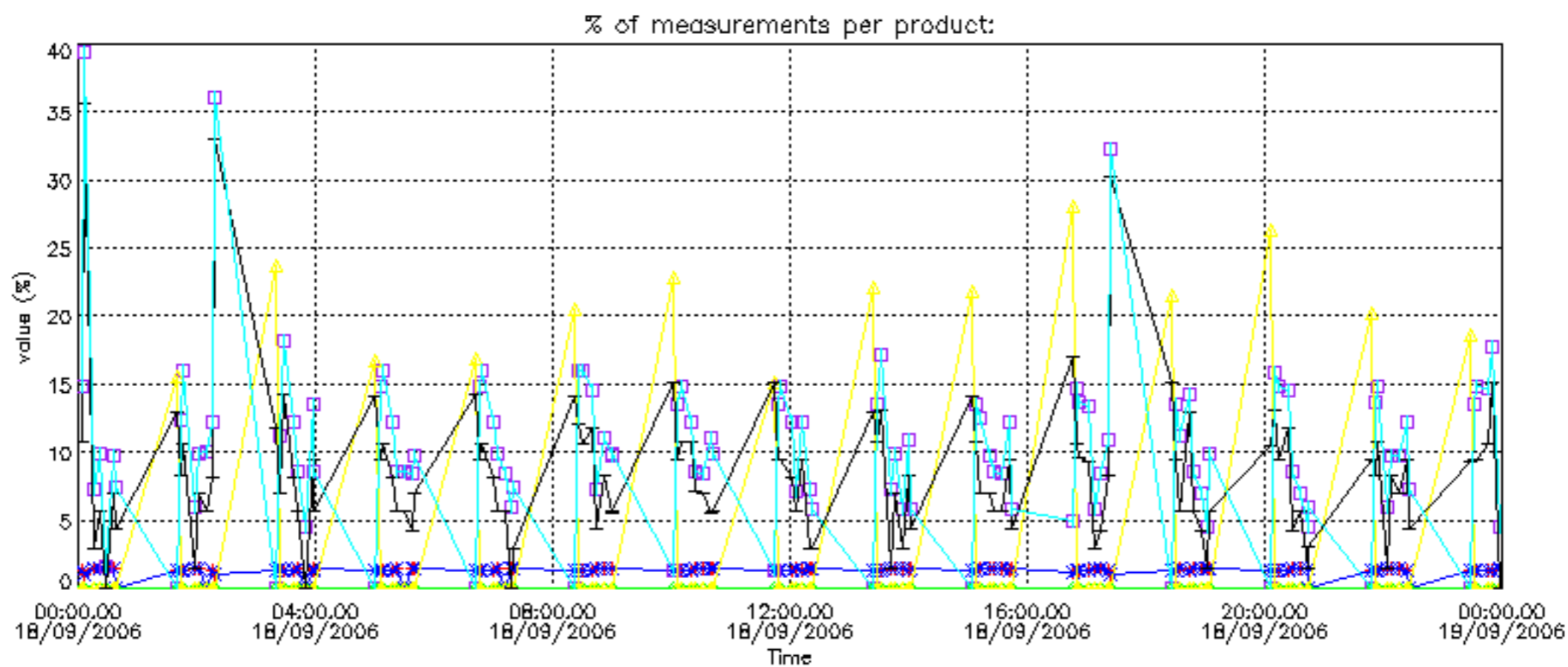
Percentage of flagged data per NO2 profile



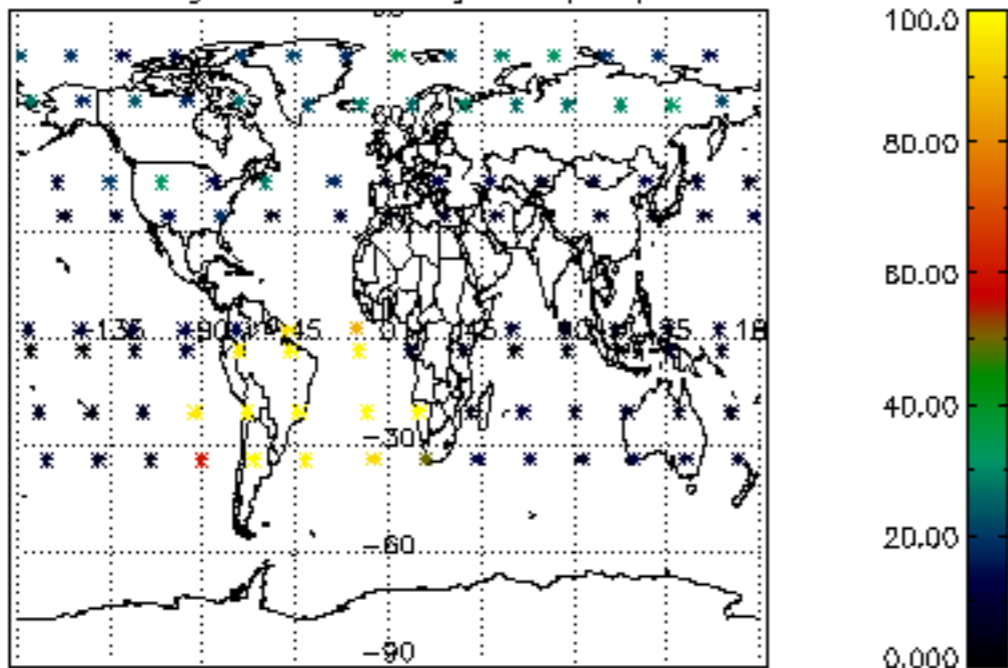
Percentage of flagged data per NO3 profile



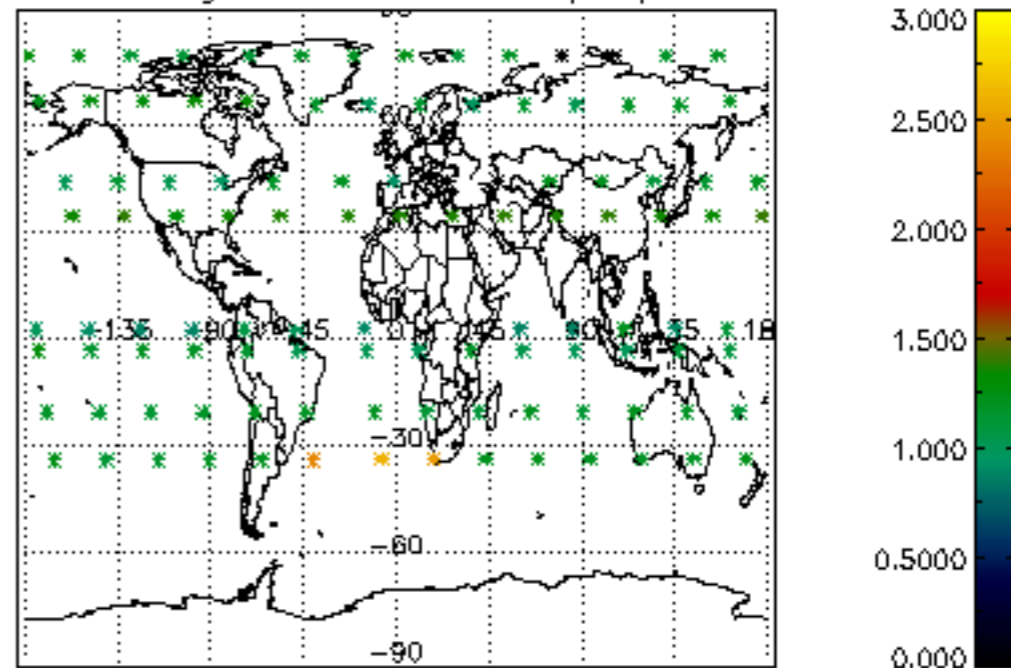




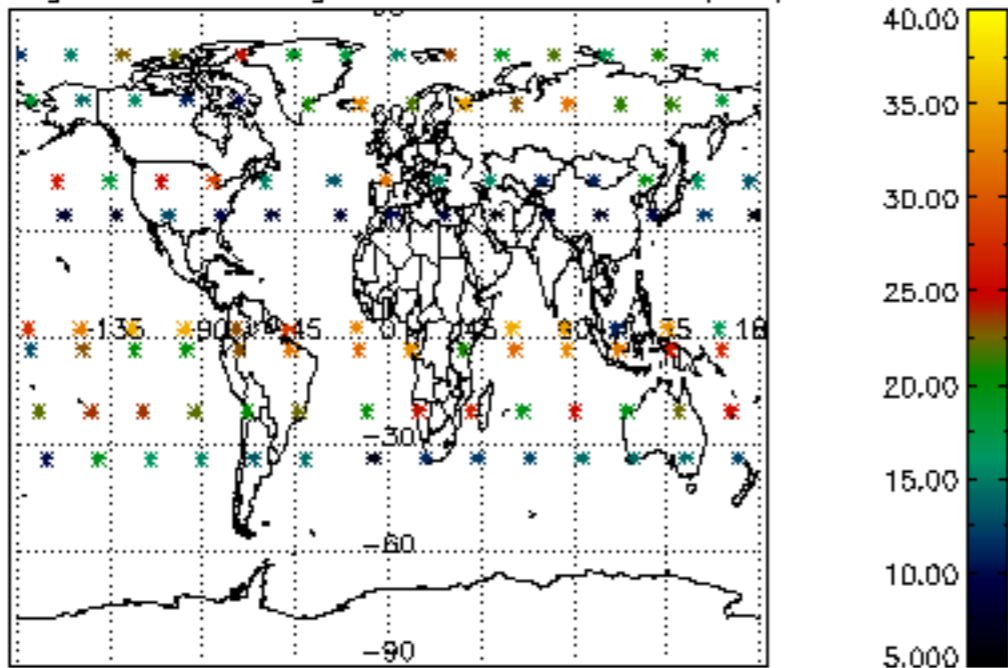
Percentage of cosmic ray hits per profile



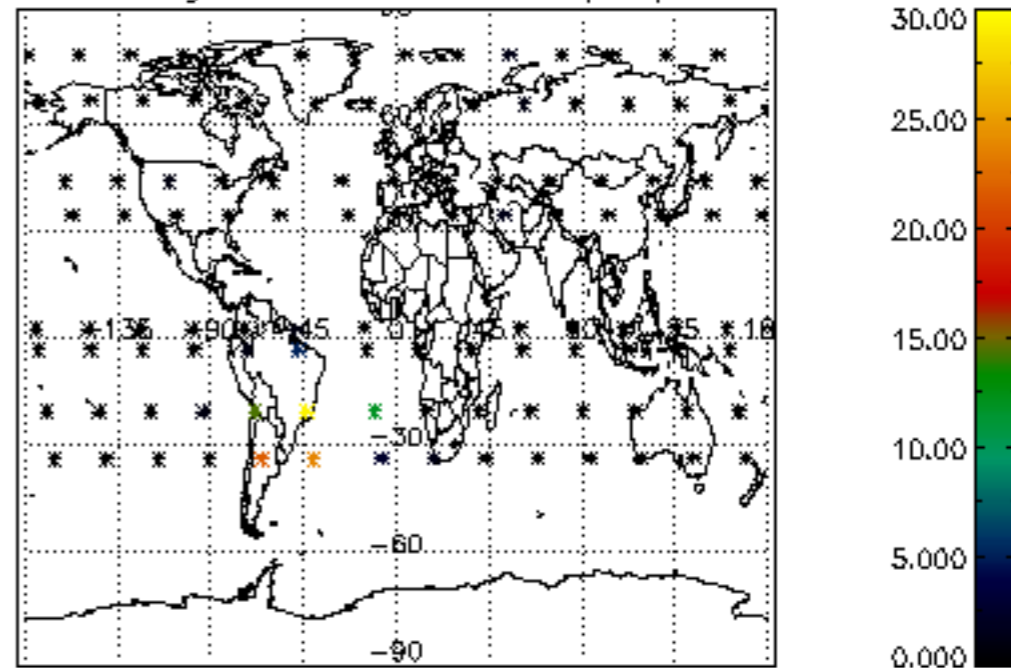
Percentage of datation errors per profile



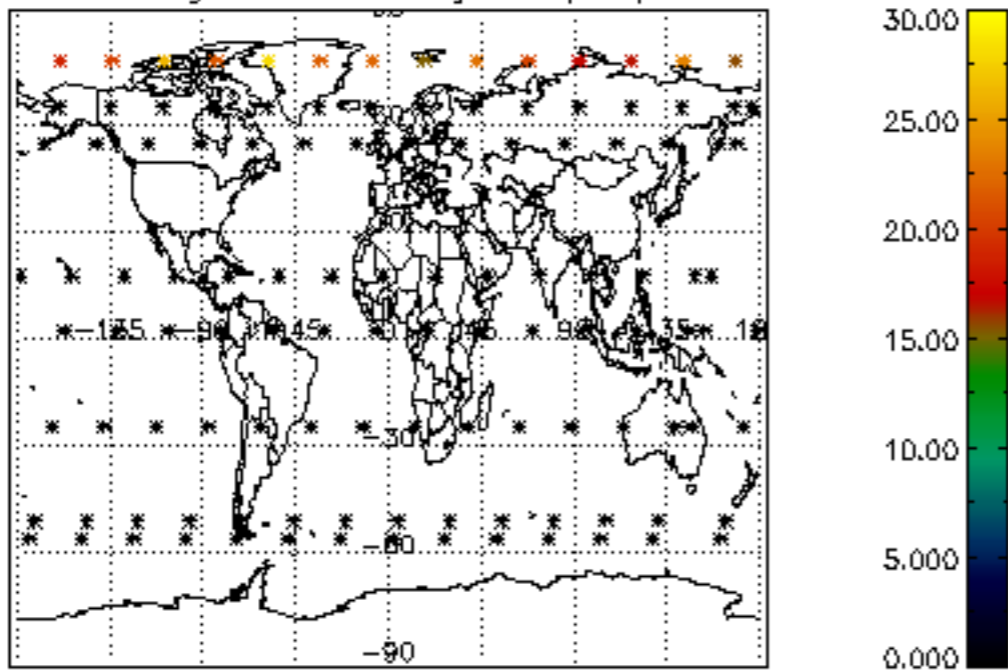
Percentage of star falling outside central band per profile



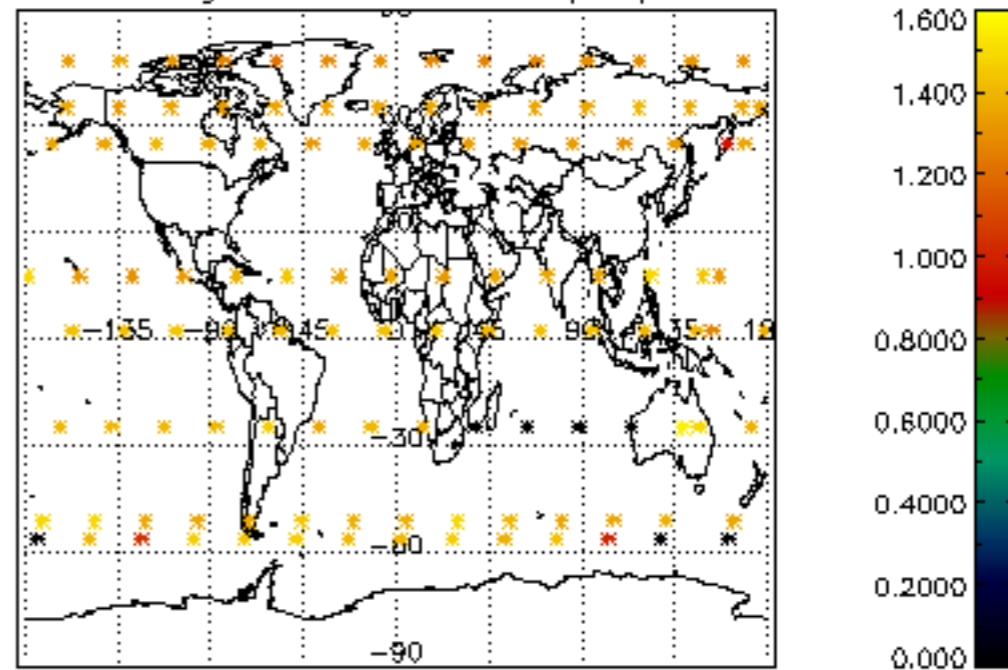
Percentage of saturation errors per profile



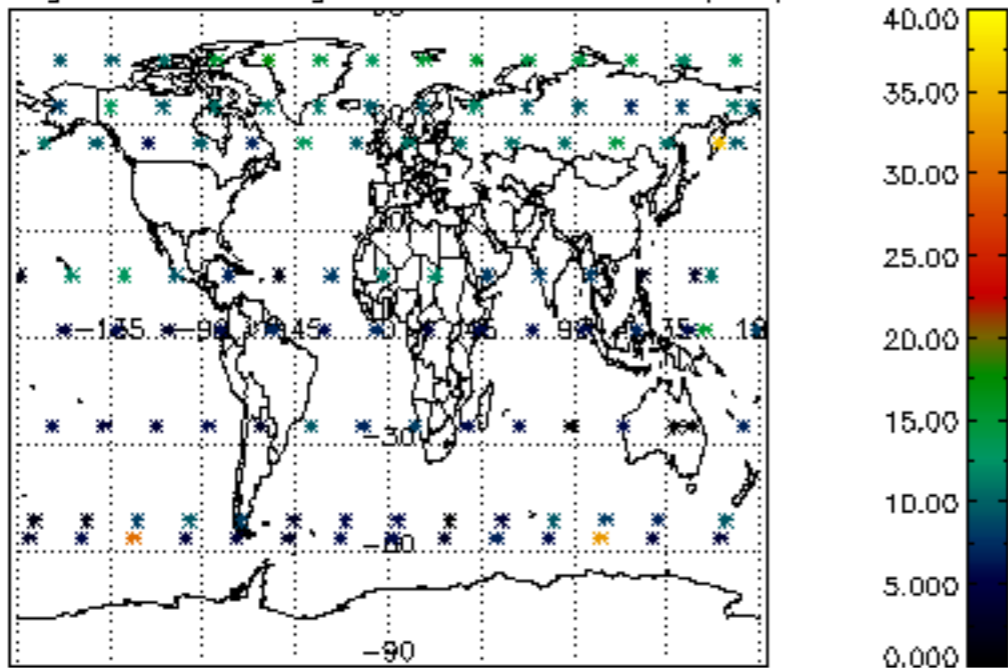
Percentage of cosmic ray hits per profile



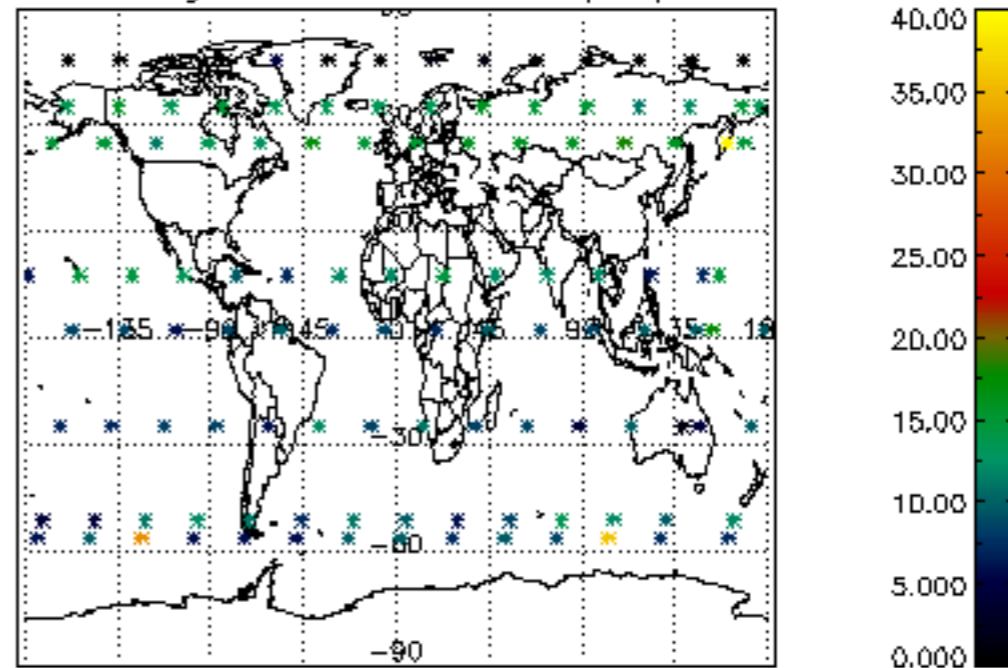
Percentage of datation errors per profile

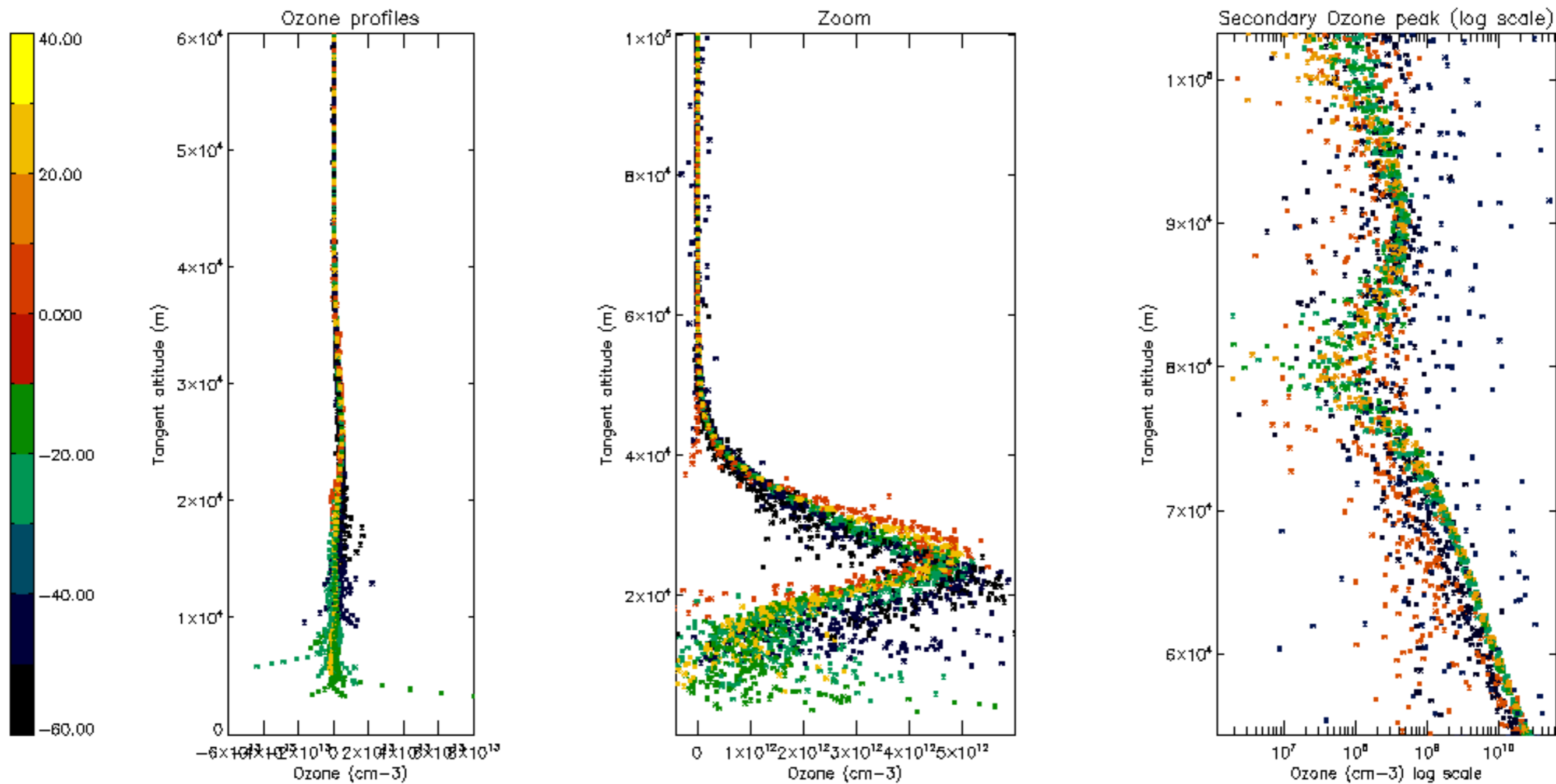


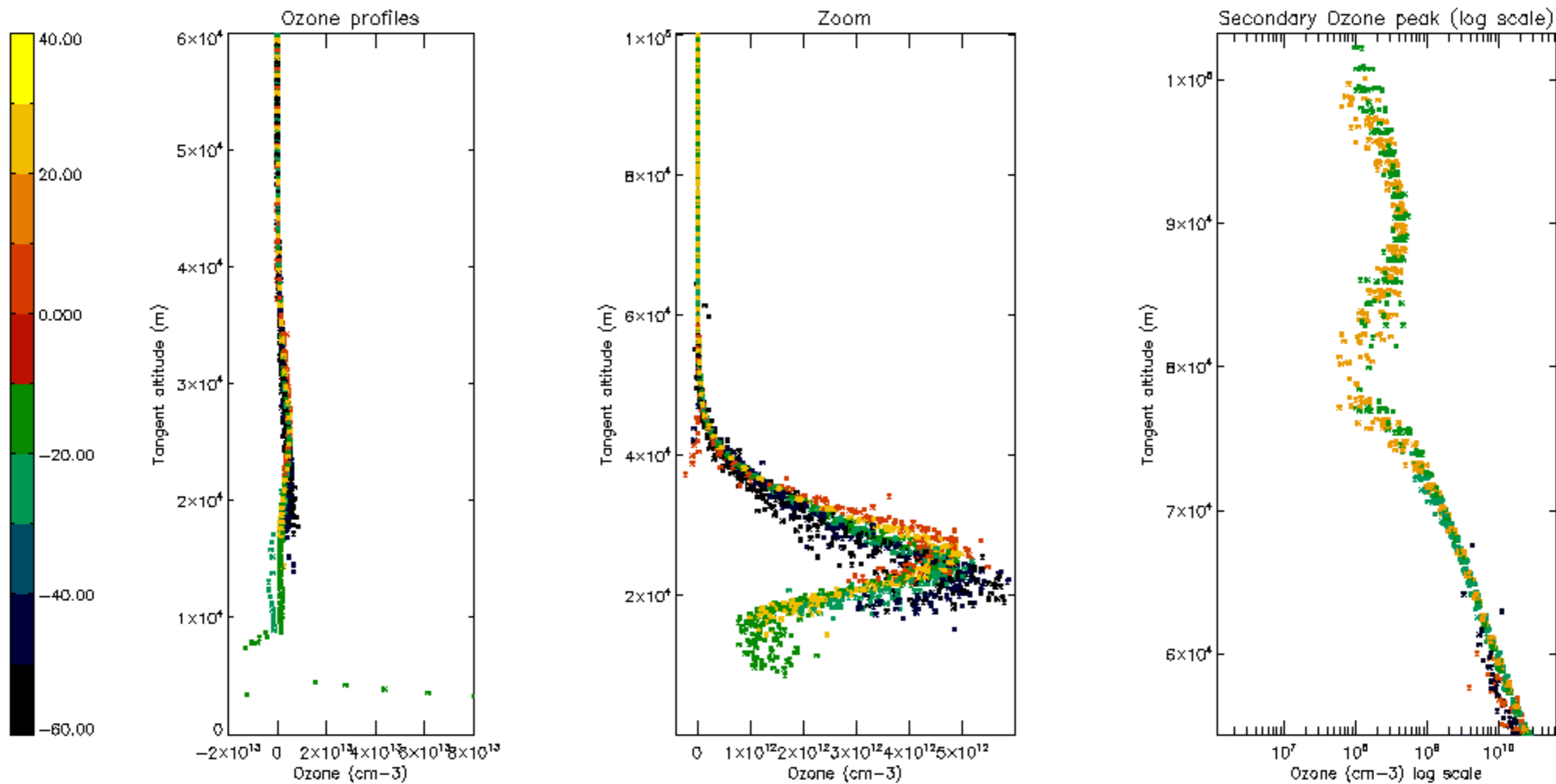
Percentage of star falling outside central band per profile

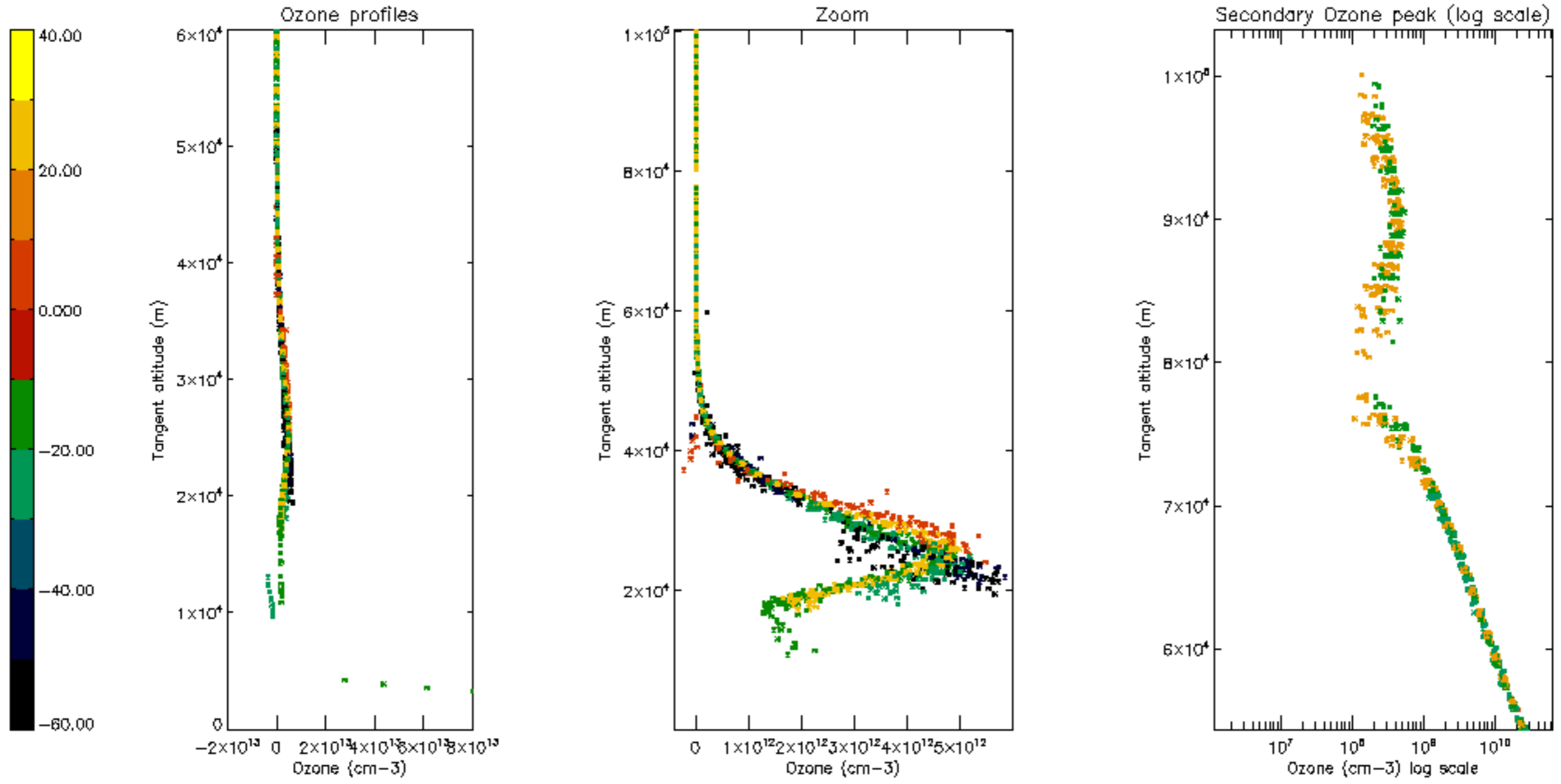


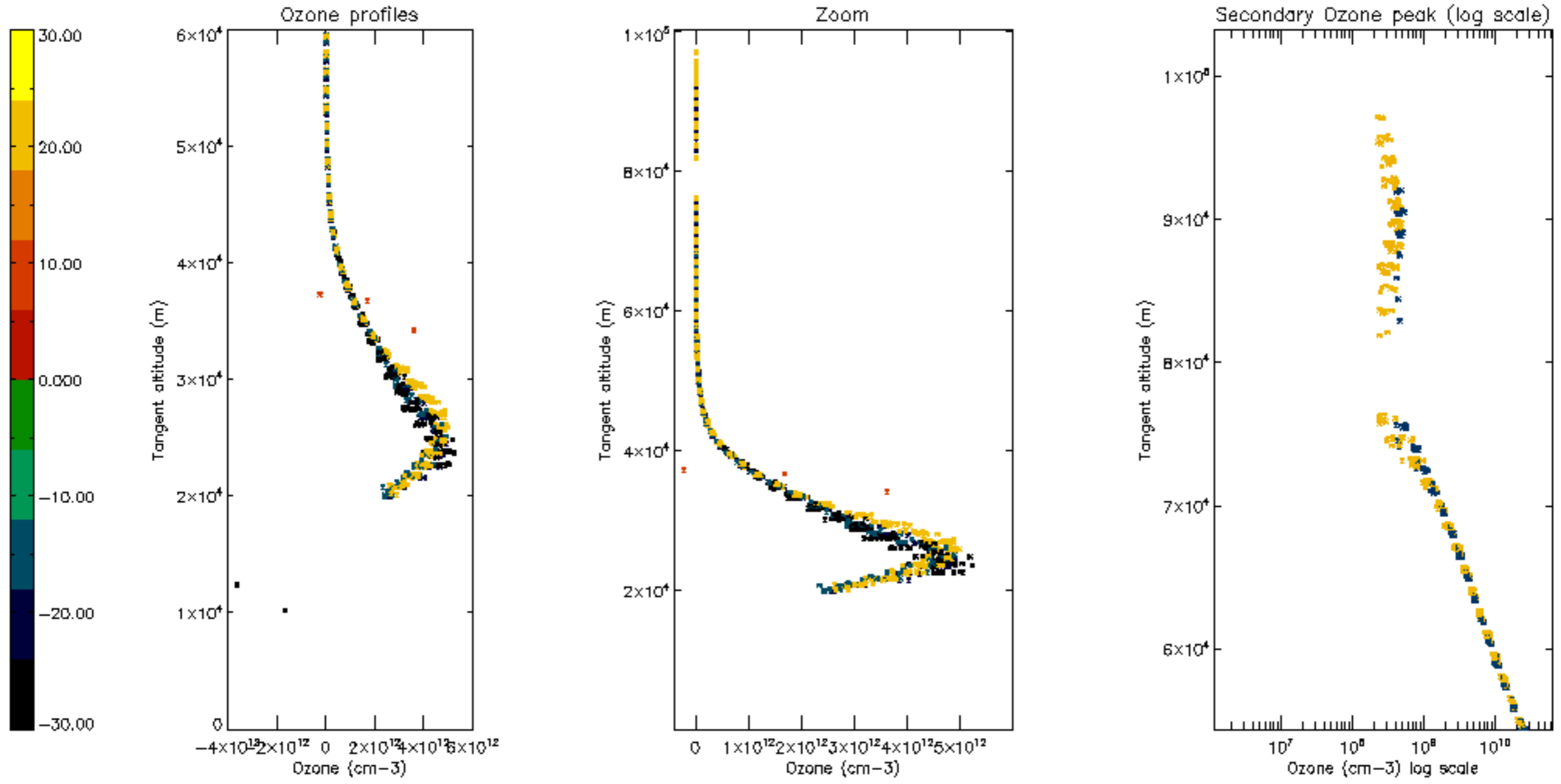
Percentage of saturation errors per profile

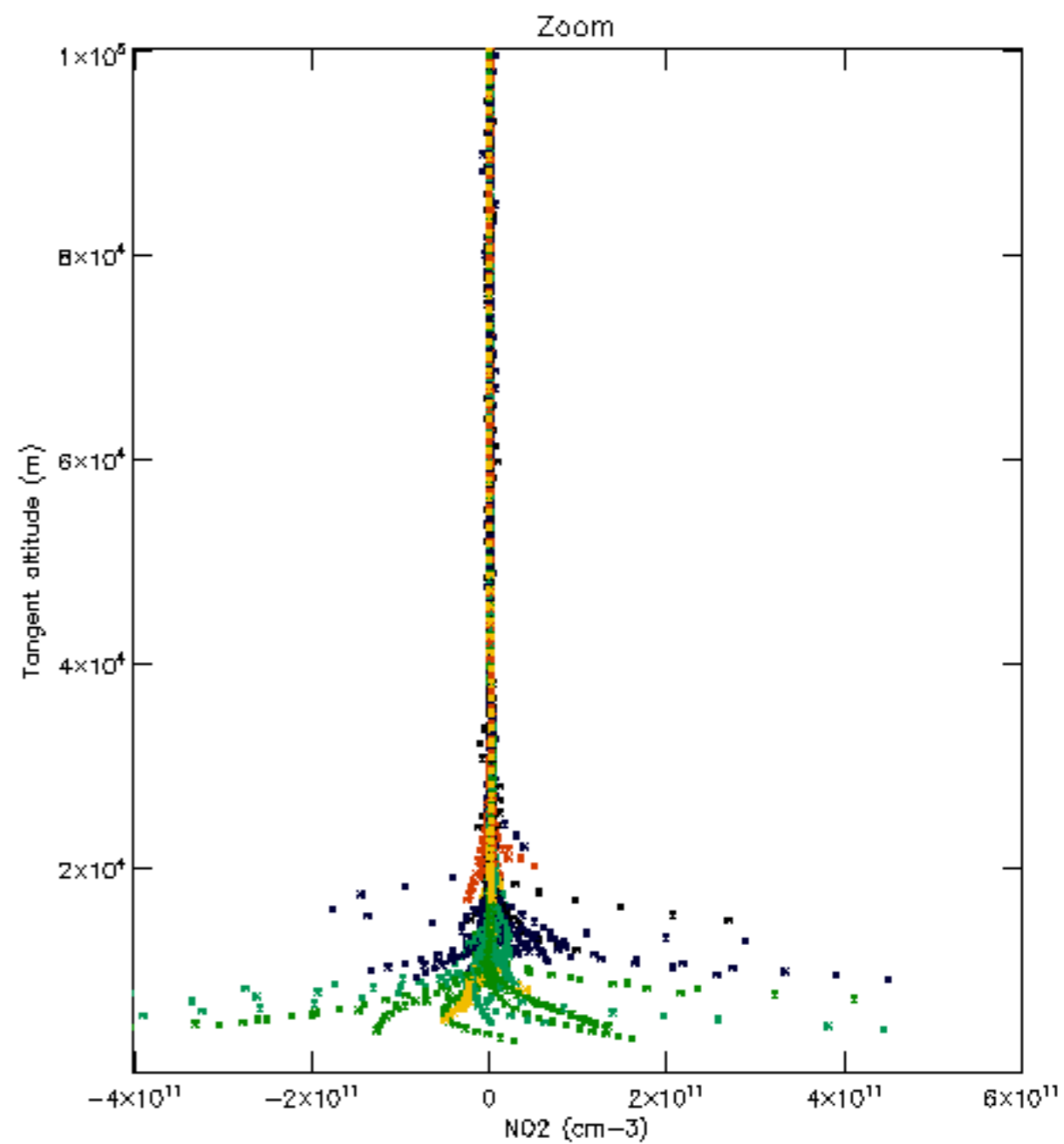
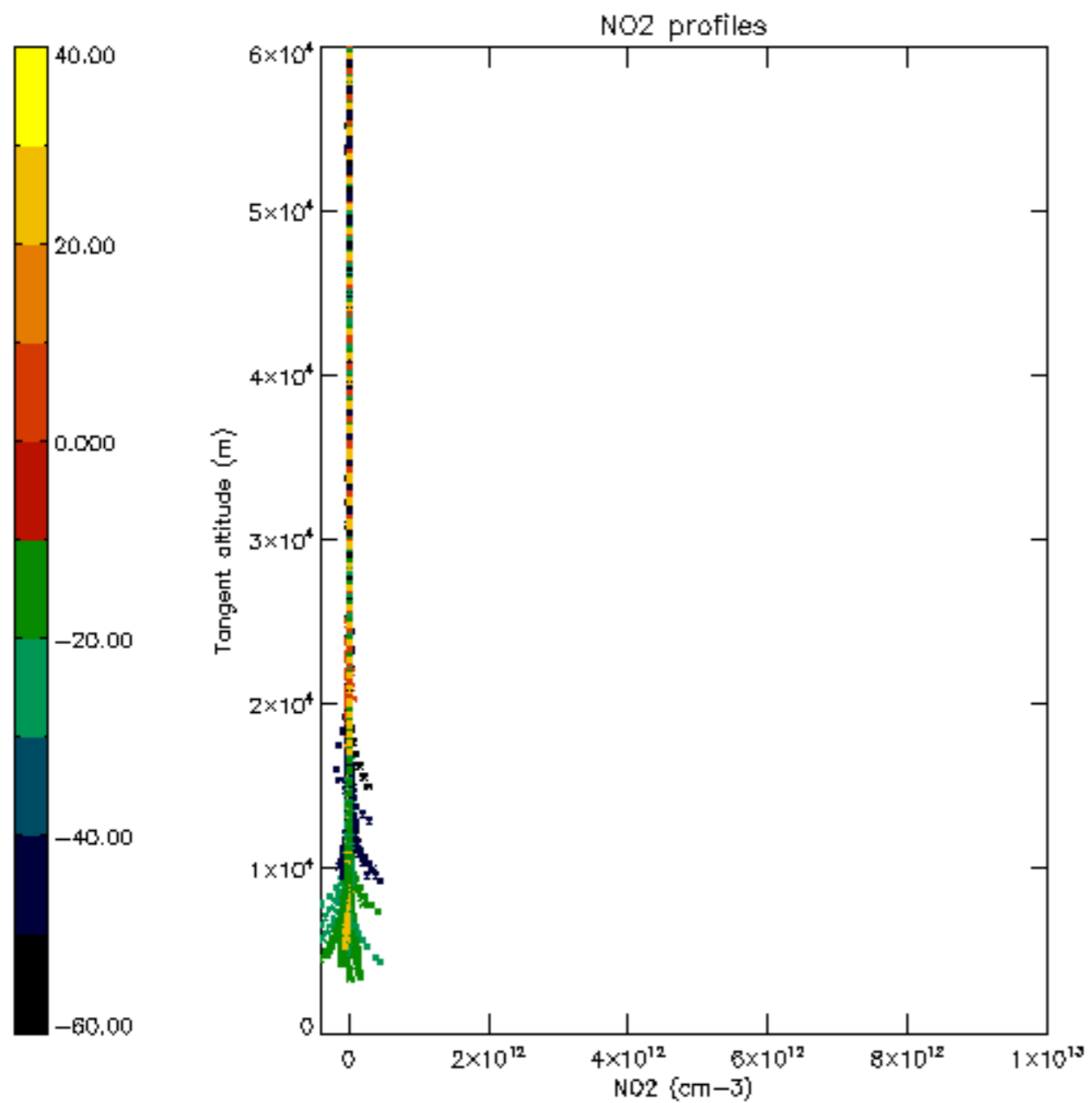


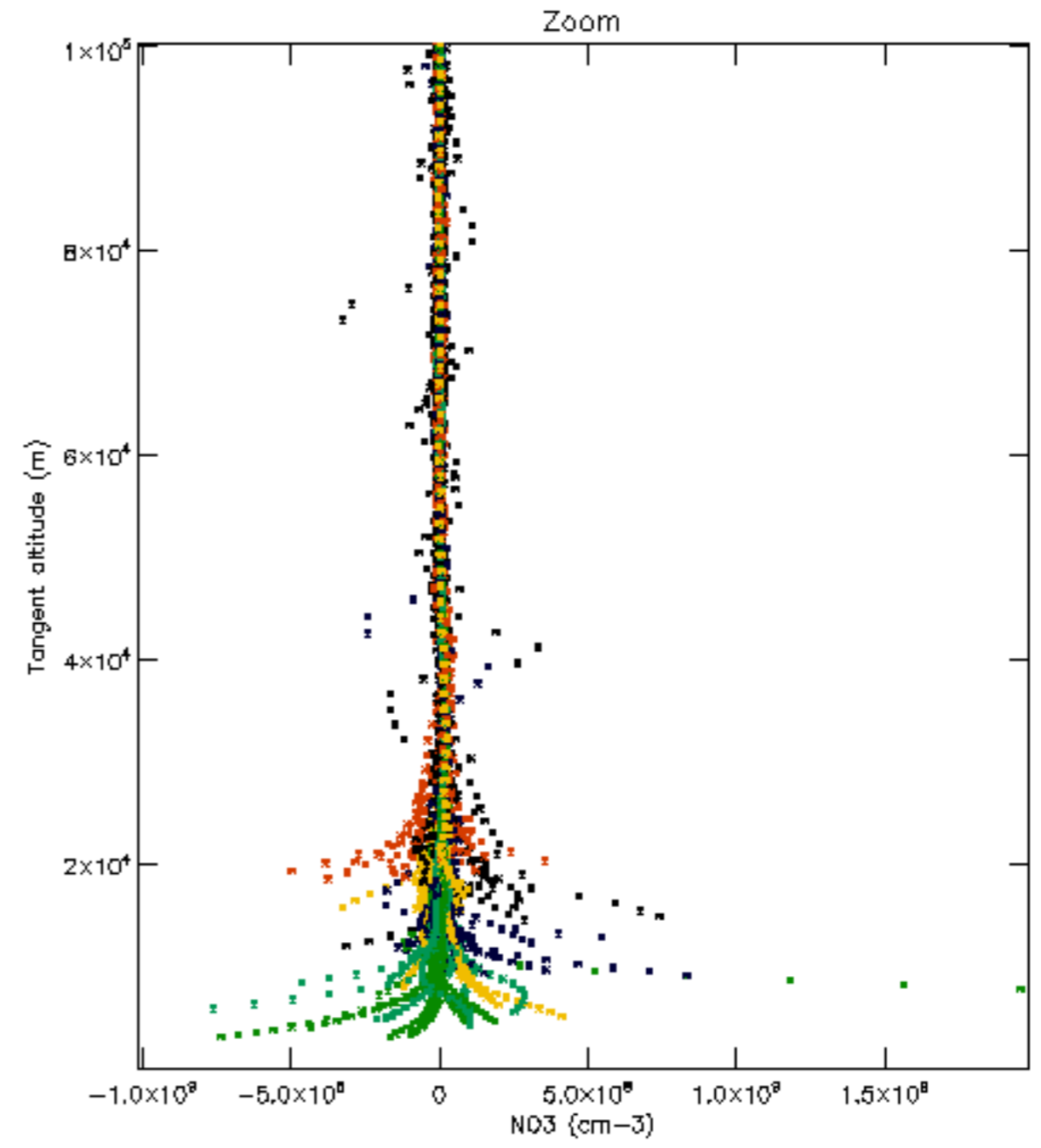
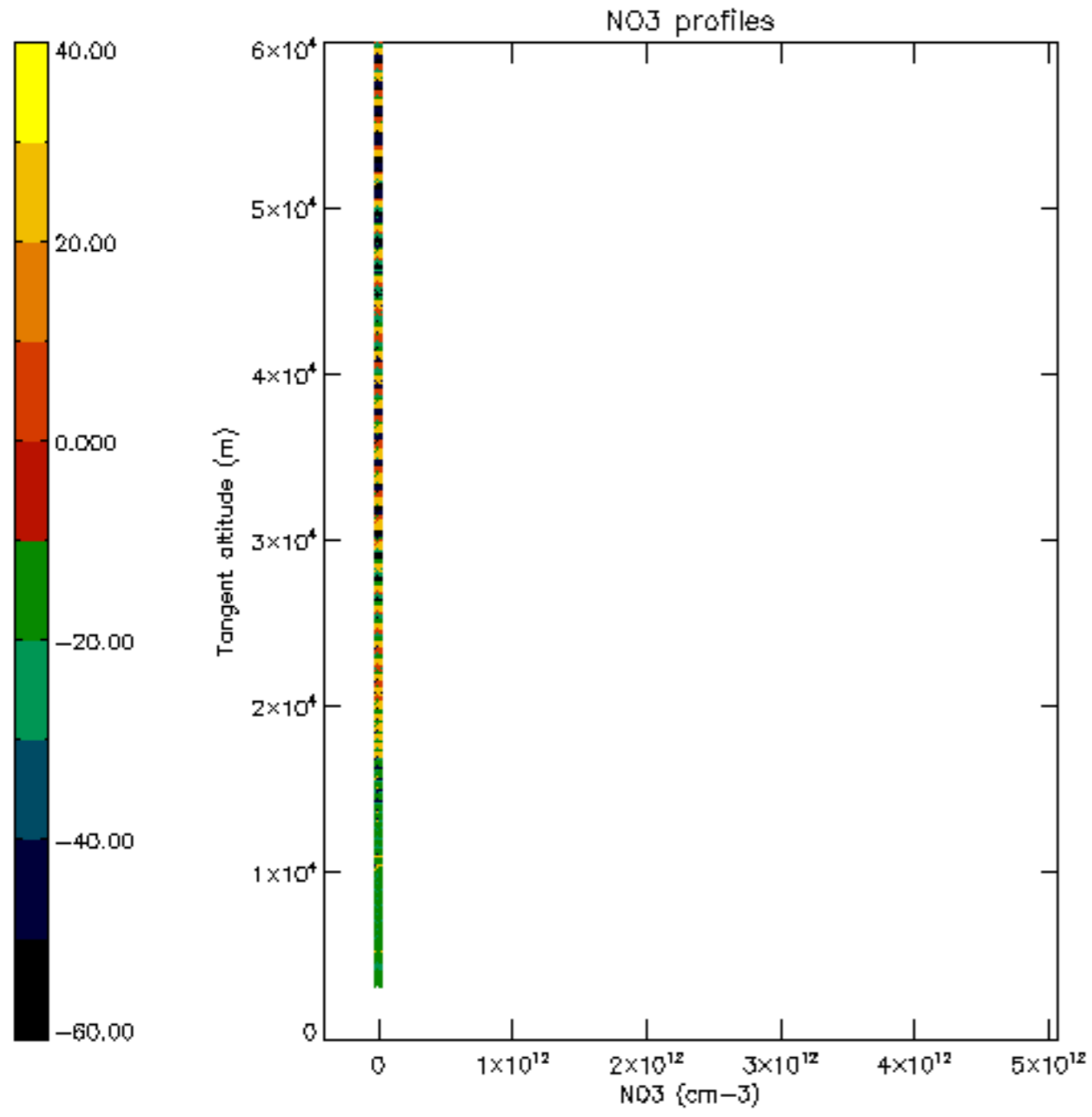


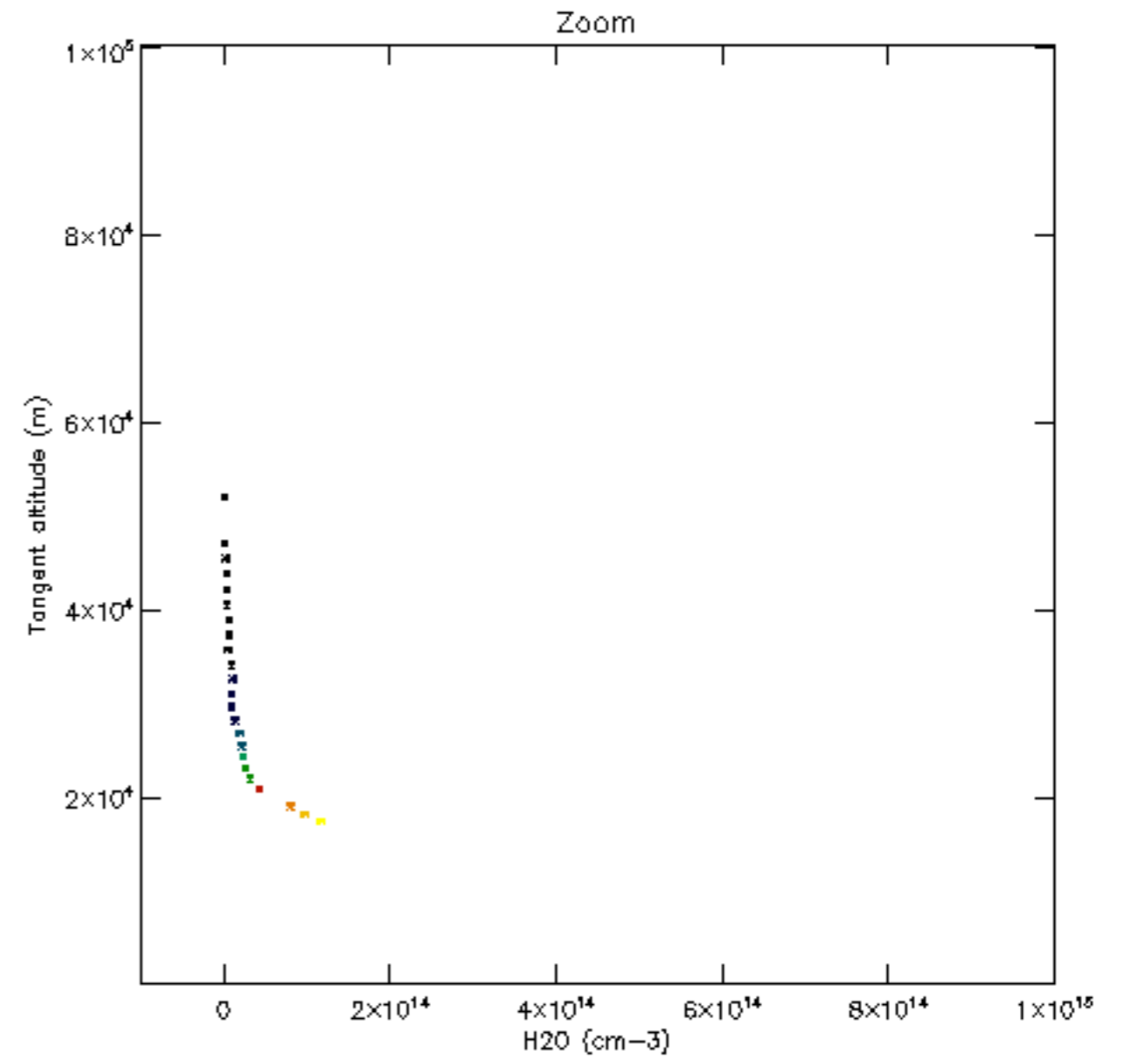
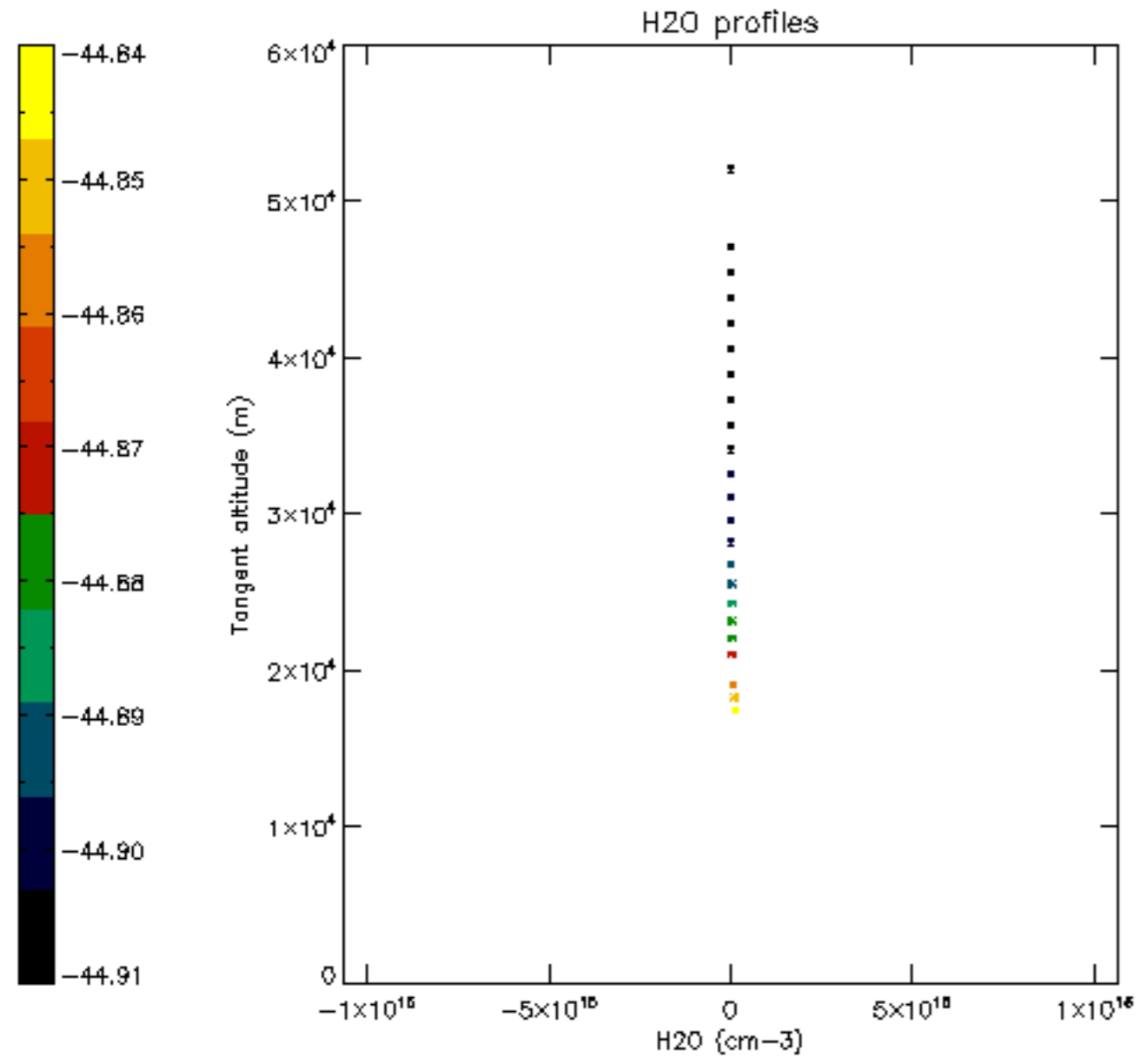


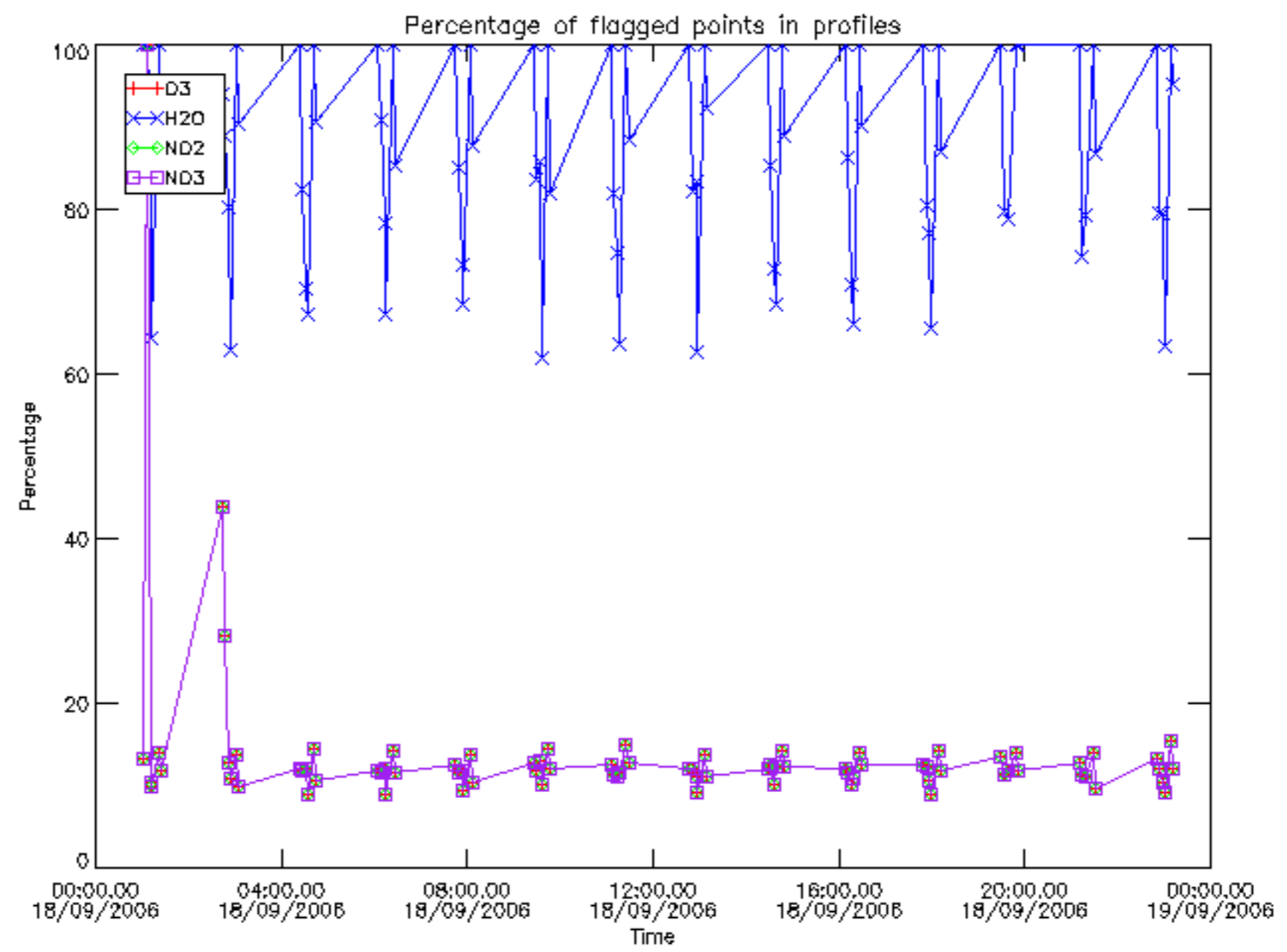




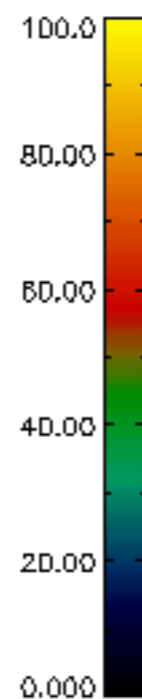
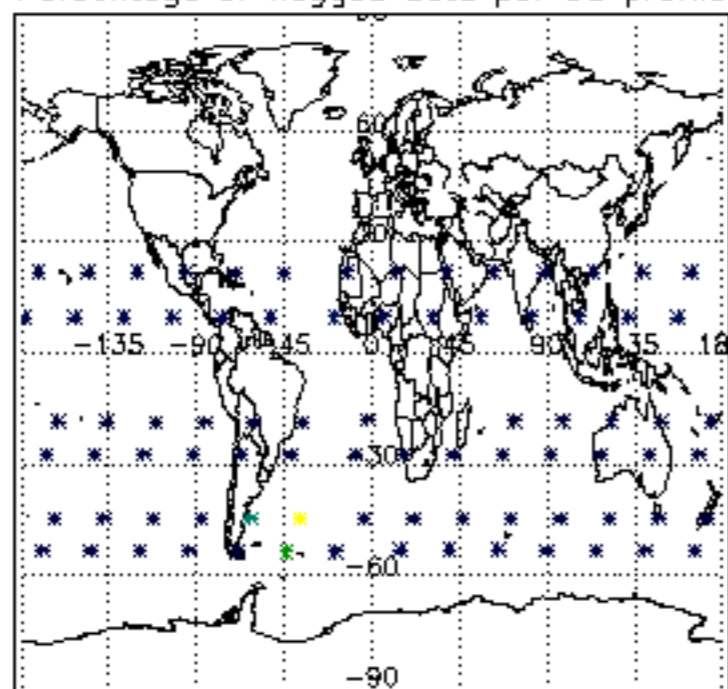




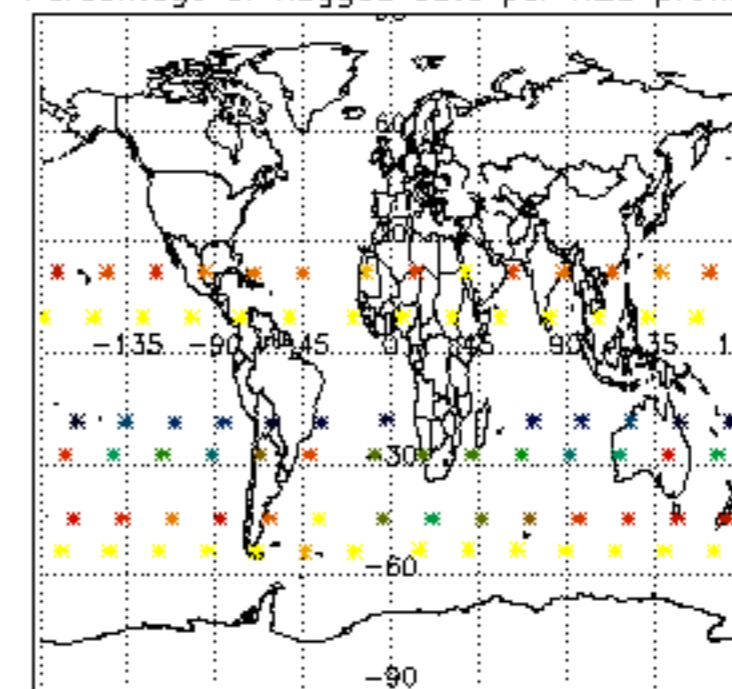




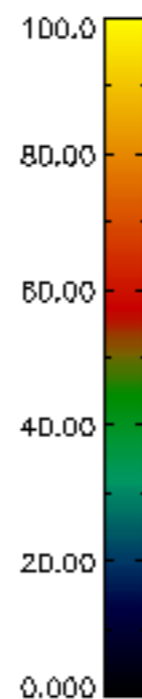
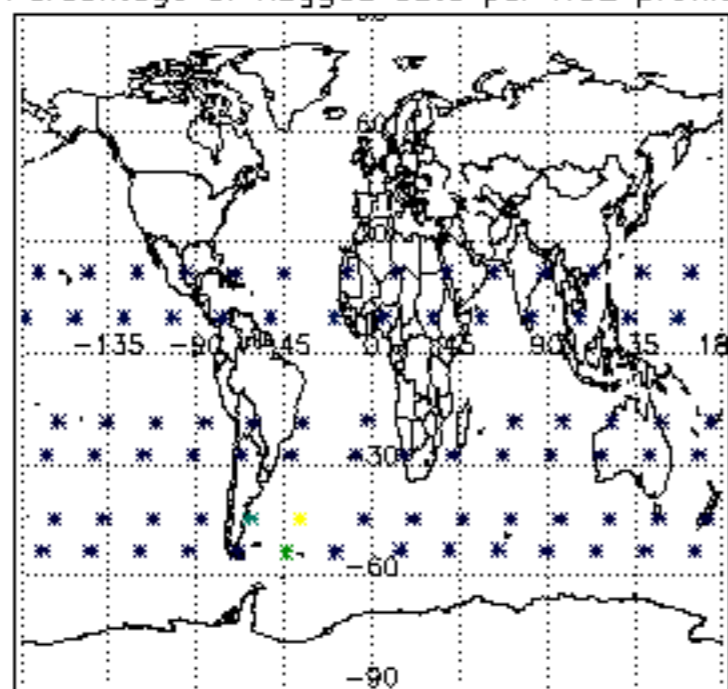
Percentage of flagged data per D3 profile



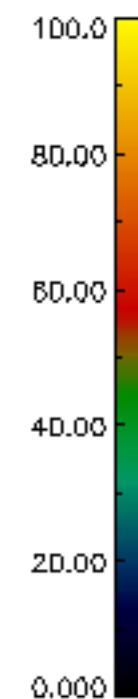
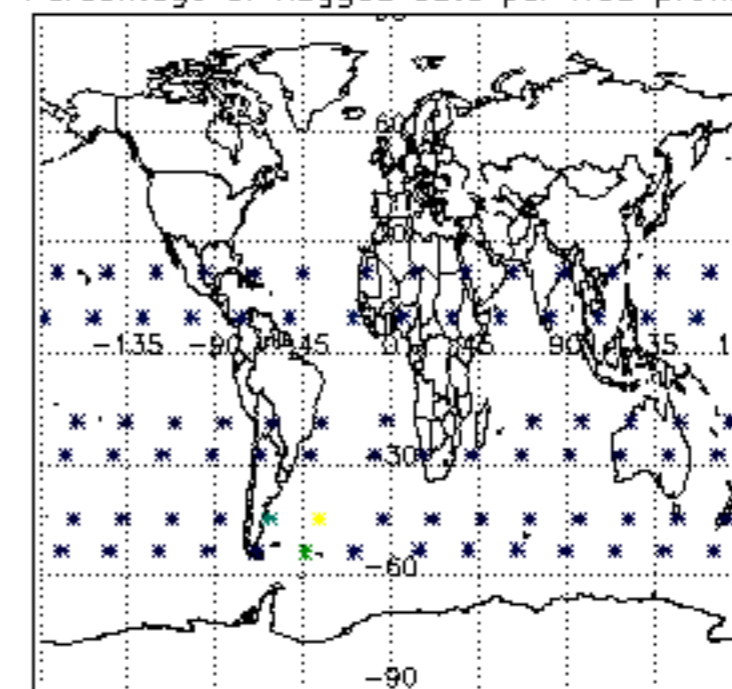
Percentage of flagged data per H2O profile

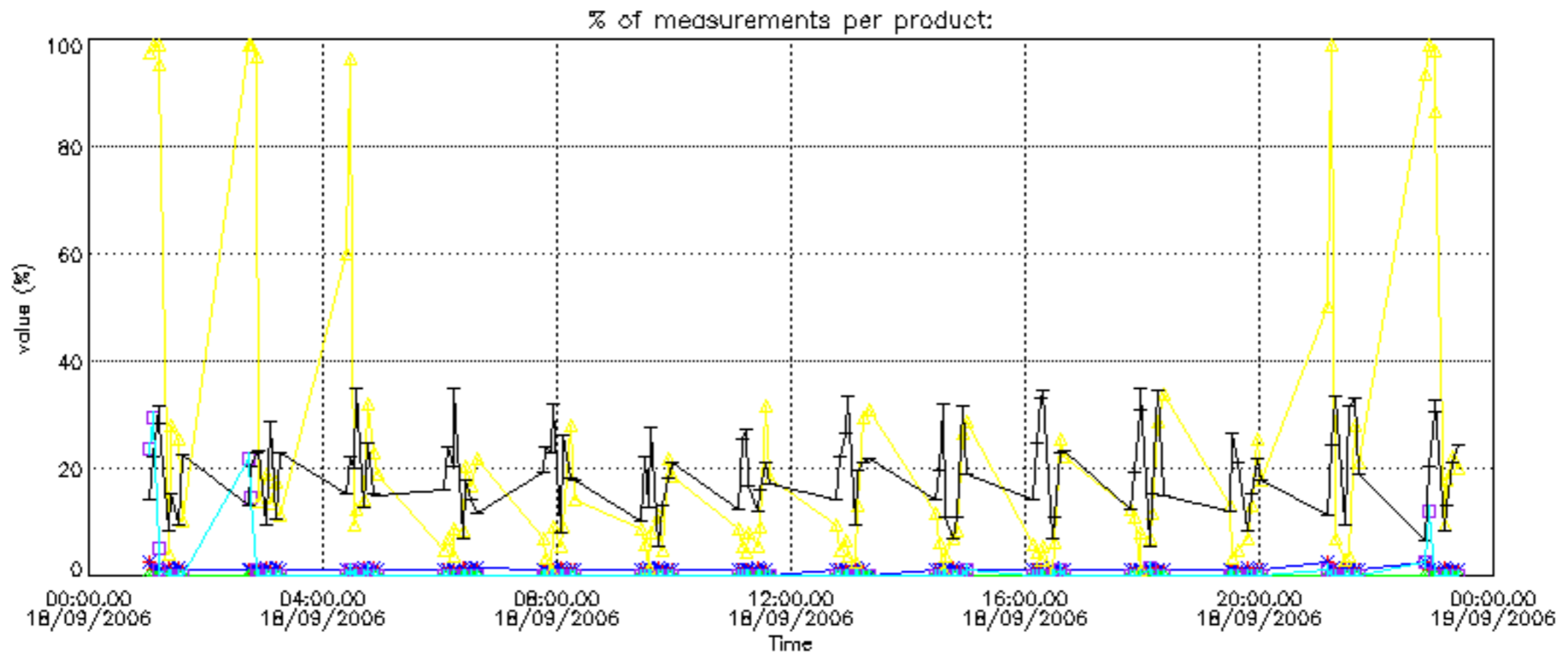


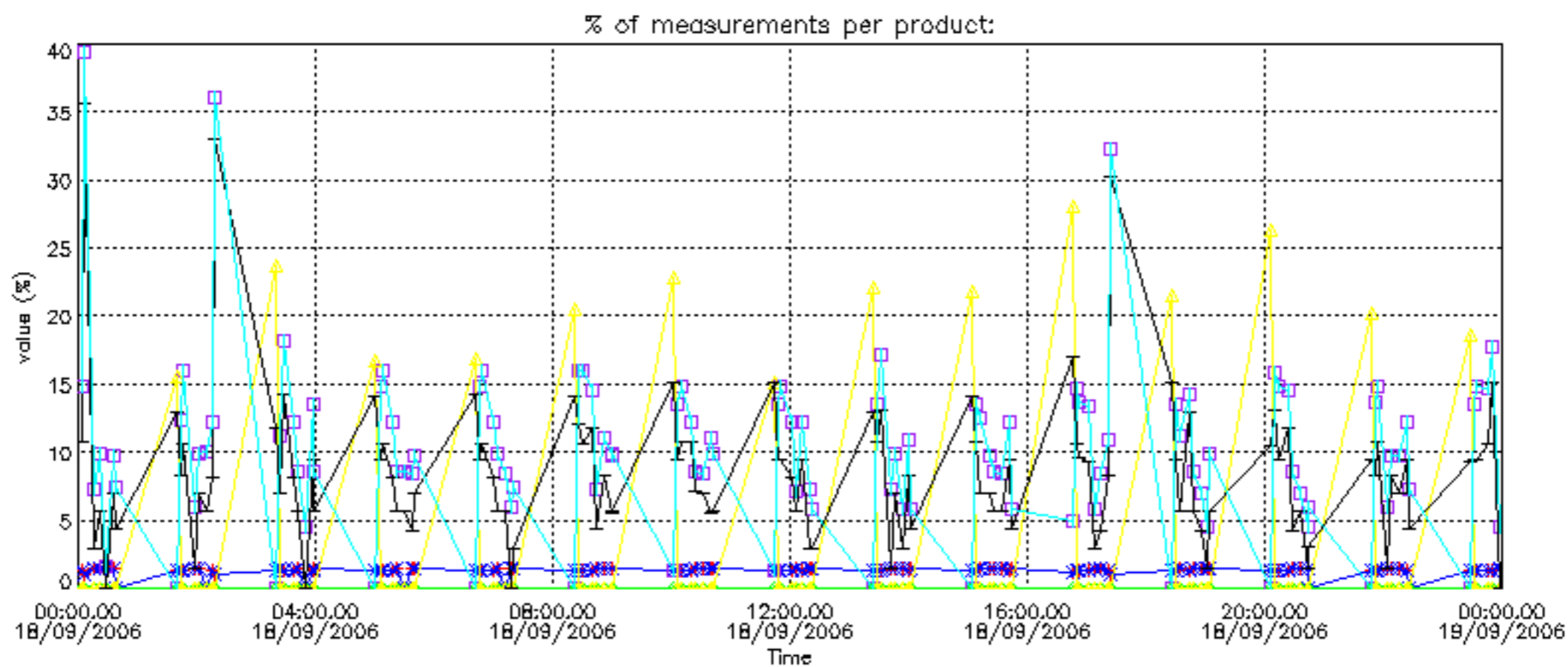
Percentage of flagged data per NO2 profile



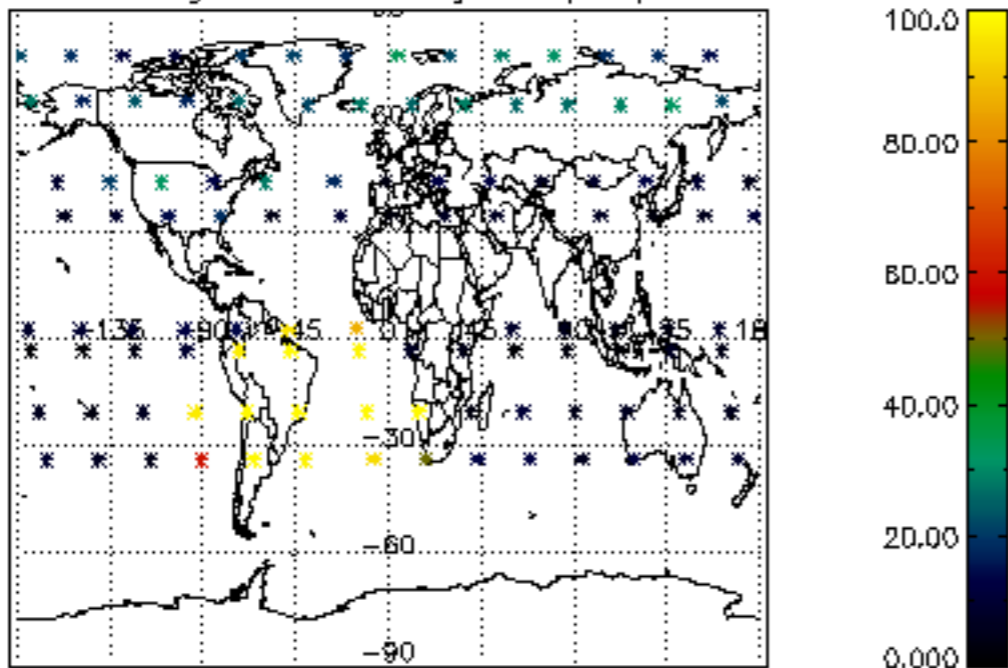
Percentage of flagged data per NO3 profile



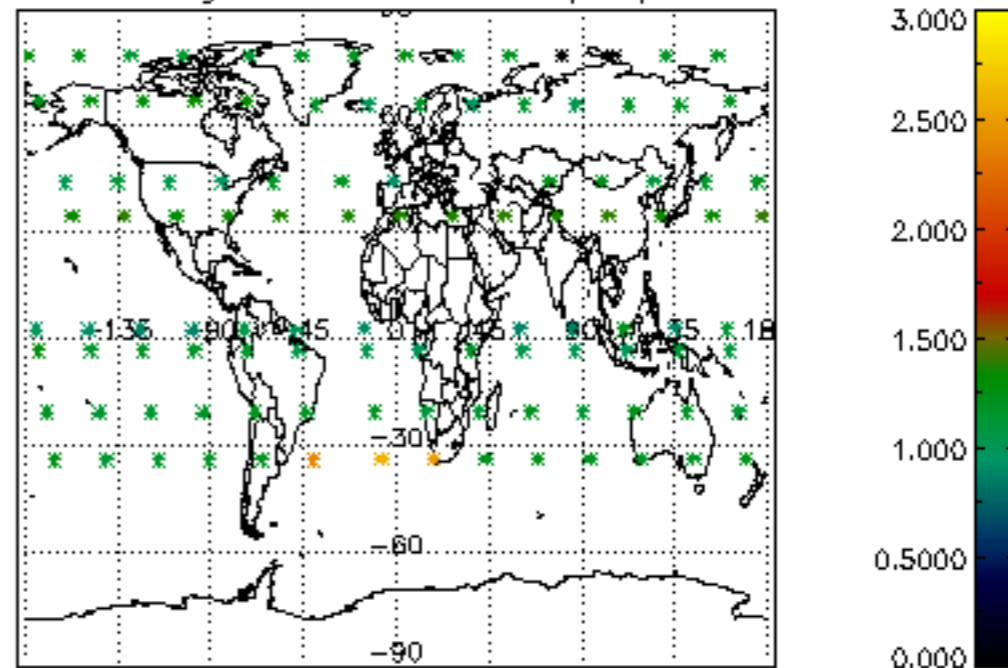




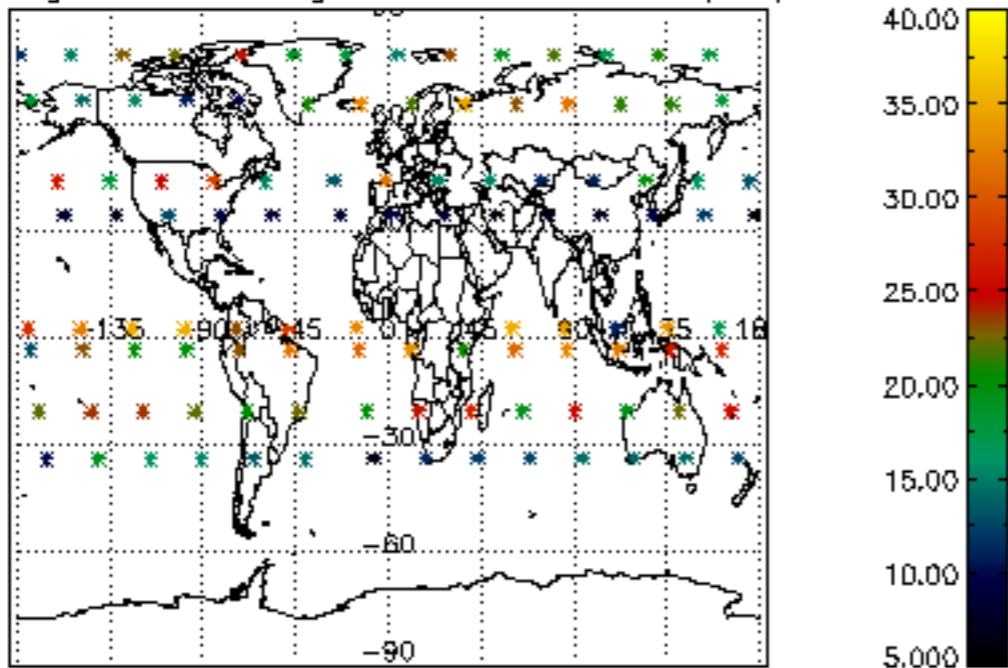
Percentage of cosmic ray hits per profile



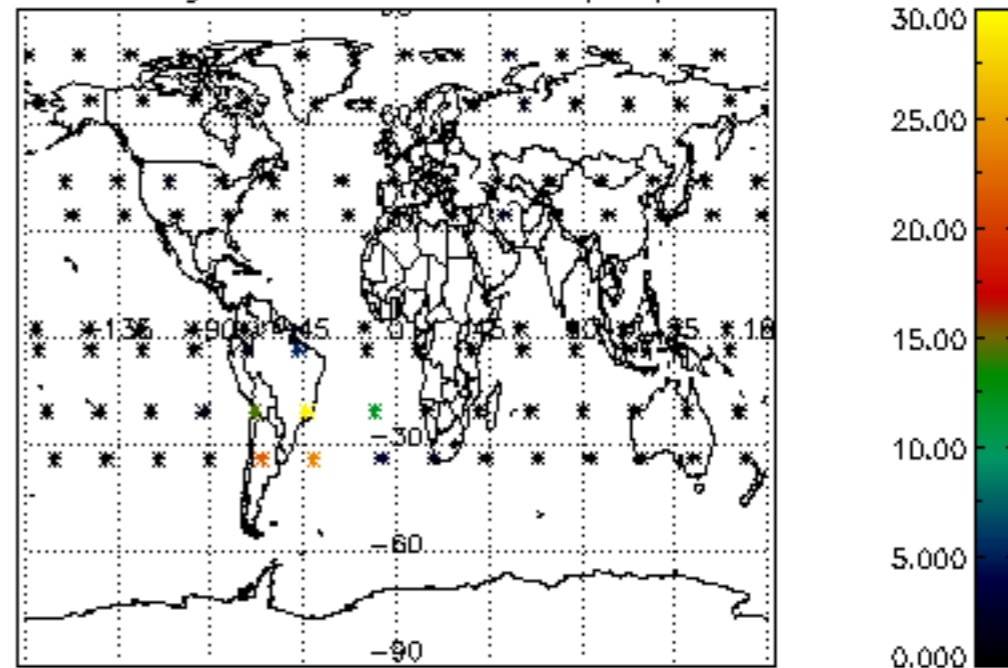
Percentage of datation errors per profile



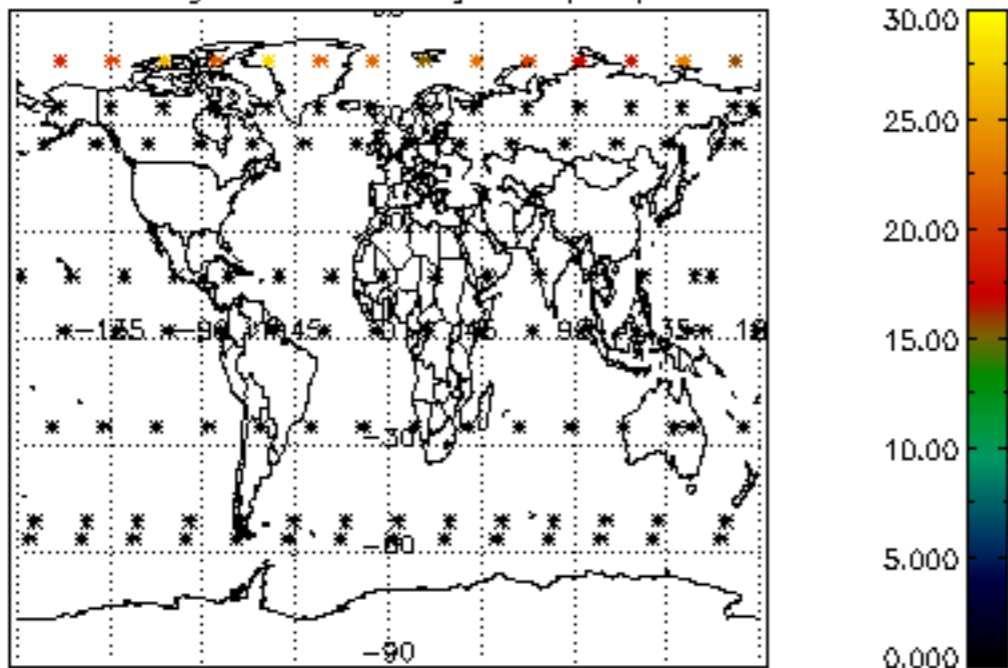
Percentage of star falling outside central band per profile



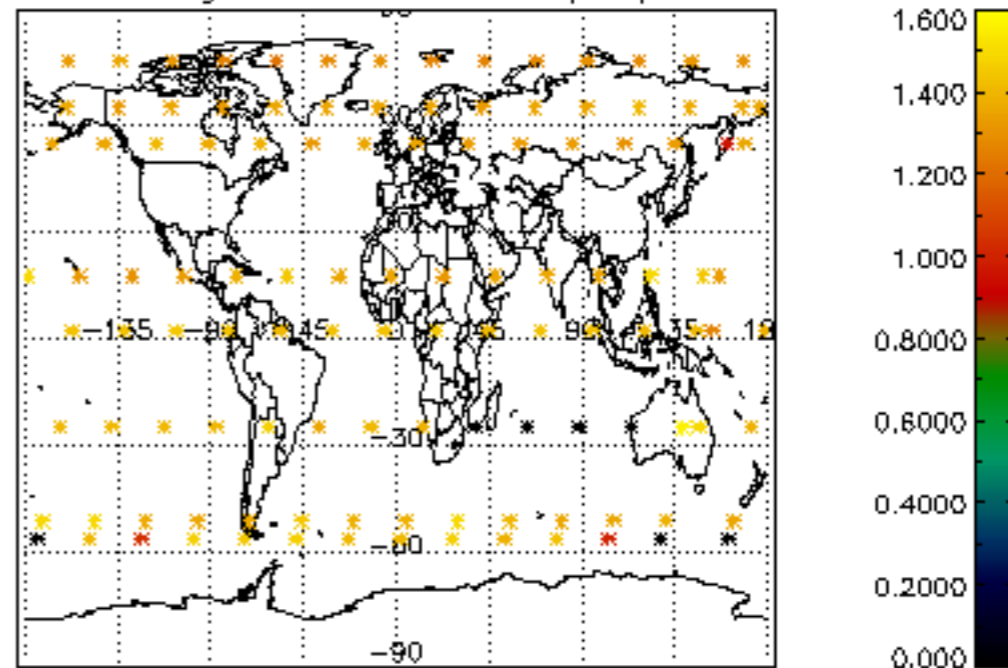
Percentage of saturation errors per profile



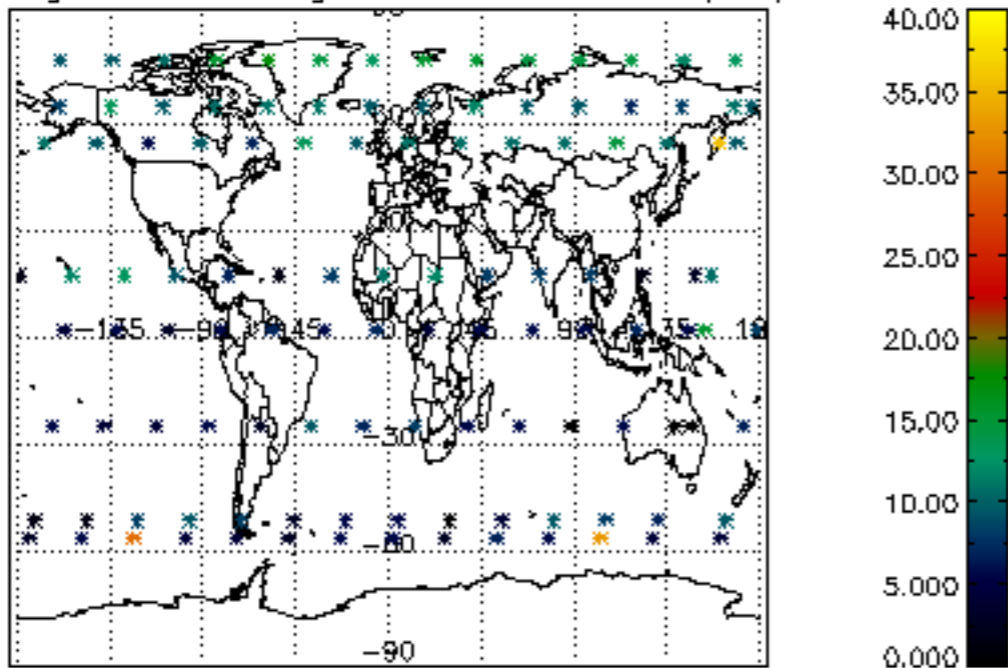
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

