

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[3.1 Plot of level 2 quality information per product \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

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

[4.1 Plot of level 1 quality information per product \(time dependant\)](#)

[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

[4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

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

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

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

[5. Ozone profiles based on quality statistics and other trace gas profiles](#)

[5.1 Ozone statistics based on quality of products](#)

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

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

[6. Auxiliary Data Files used for the production reported in section 2](#)

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

Item	Value
Time of report generation	26APR2013 12:21:28
Data source version	GOMOS/6.01
Start time of products	31-08-2009 (31AUG2009 00:00:00)
Stop time of products	01-09-2009 (01SEP2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	216
Nb of prods with errors	0

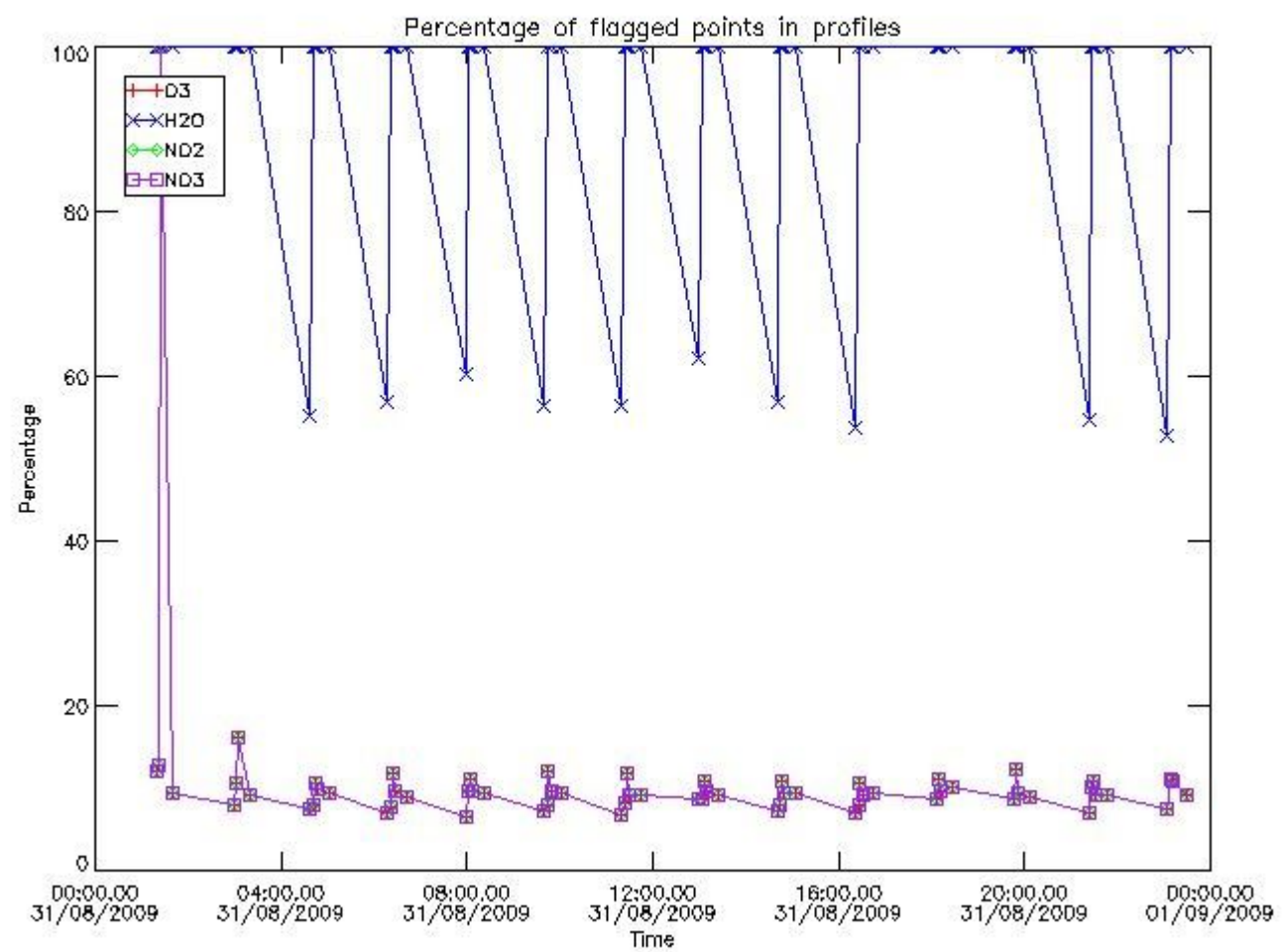
2. Summary of processed GOM_NL__2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090831_000727_000000472082_00088_39220_2407.N1	31-AUG-2009 00:07:27	Straylight	47.000	84	Alp Phe	2.3970	4500.0	94	39220	No
2	GOM_NL__2PRFIN20090831_001340_000000472082_00088_39220_2408.N1	31-AUG-2009 00:13:40	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	39220	No
3	GOM_NL__2PRFIN20090831_002310_000000392082_00088_39220_2409.N1	31-AUG-2009 00:23:10	Bright	38.500	162	34Alp Aqr	2.9440	5350.0	77	39220	No
4	GOM_NL__2PRFIN20090831_002912_000000482082_00088_39220_2410.N1	31-AUG-2009 00:29:12	Bright	48.000	90	54Alp Peg	2.4870	11000.	96	39220	No
5	GOM_NL__2PRFIN20090831_003323_000000562082_00088_39220_2411.N1	31-AUG-2009 00:33:23	Bright	55.500	164	44Eta Peg	2.9480	5400.0	111	39220	No
6	GOM_NL__2PRFIN20090831_004407_000000452082_00088_39220_2412.N1	31-AUG-2009 00:44:07	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	39220	No
7	GOM_NL__2PRFIN20090831_004616_000000462082_00088_39220_2413.N1	31-AUG-2009 00:46:16	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	39220	No
8	GOM_NL__2PRFIN20090831_010054_000000612082_00088_39220_2414.N1	31-AUG-2009 01:00:54	Bright	61.000	6	13Alp Aur	0.080000	3400.0	122	39220	No
9	GOM_NL__2PRFIN20090831_010432_000000452082_00088_39220_2415.N1	31-AUG-2009 01:04:32	Bright	45.000	107	37The Aur	2.6490	11000.	90	39220	No
10	GOM_NL__2PRFIN20090831_010936_000000542082_00088_39220_2416.N1	31-AUG-2009 01:09:36	Twilight	54.000	151	13Mu Gem	2.8900	3000.0	108	39220	No
11	GOM_NL__2PRFIN20090831_011121_000000502082_00088_39220_2417.N1	31-AUG-2009 01:11:21	Twilight	49.500	44	24Gam Gem	1.9280	11000.	99	39220	No
12	GOM_NL__2PRFIN20090831_011956_000000642082_00088_39220_2418.N1	31-AUG-2009 01:19:56	Dark	63.500	30	46Eps Ori	1.6940	30000.	127	39220	No
13	GOM_NL__2PRFIN20090831_012214_000000482082_00088_39220_2419.N1	31-AUG-2009 01:22:14	Dark	48.000	47	2Bet CMa	1.9760	28000.	96	39220	No
14	GOM_NL__2PRFIN20090831_012500_000000512082_00088_39220_2420.N1	31-AUG-2009 01:25:00	Dark	50.500	101	11Alp Lep	2.5820	7000.0	101	39220	No
15	GOM_NL__2PRFIN20090831_014001_000000552082_00089_39221_2421.N1	31-AUG-2009 01:40:01	Dark	54.500	157	The1Eri	2.9060	9300.0	109	39221	No
16	GOM_NL__2PRFIN20090831_014804_000000482082_00089_39221_2422.N1	31-AUG-2009 01:48:04	Straylight	47.500	84	Alp Phe	2.3970	4500.0	95	39221	No
17	GOM_NL__2PRFIN20090831_015416_000000462082_00089_39221_2423.N1	31-AUG-2009 01:54:16	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	39221	No
18	GOM_NL__2PRFIN20090831_020346_000000392082_00089_39221_2424.N1	31-AUG-2009 02:03:46	Bright	39.000	162	34Alp Aqr	2.9440	5350.0	78	39221	No
19	GOM_NL__2PRFIN20090831_020947_000000492082_00089_39221_2425.N1	31-AUG-2009 02:09:47	Bright	48.500	90	54Alp Peg	2.4870	11000.	97	39221	No
20	GOM_NL__2PRFIN20090831_021358_000000442082_00089_39221_2426.N1	31-AUG-2009 02:13:58	Bright	43.500	164	44Eta Peg	2.9480	5400.0	87	39221	No
21	GOM_NL__2PRFIN20090831_022442_000000422082_00089_39221_2427.N1	31-AUG-2009 02:24:42	Bright	42.000	74	11Bet Cas	2.2680	6600.0	84	39221	No
22	GOM_NL__2PRFIN20090831_022651_000000452082_00089_39221_2428.N1	31-AUG-2009 02:26:51	Bright	45.000	76	27Gam Cas	2.3000	30000.	90	39221	No
23	GOM_NL__2PRFIN20090831_024129_000000572082_00089_39221_2429.N1	31-AUG-2009 02:41:29	Bright	56.500	6	13Alp Aur	0.080000	3400.0	113	39221	No
24	GOM_NL__2PRFIN20090831_024508_000000472082_00089_39221_2430.N1	31-AUG-2009 02:45:08	Bright	47.000	107	37The Aur	2.6490	11000.	94	39221	No
25	GOM_NL__2PRFIN20090831_025013_000000552082_00089_39221_2431.N1	31-AUG-2009 02:50:13	Twilight	55.000	151	13Mu Gem	2.8900	3000.0	110	39221	No
26	GOM_NL__2PRFIN20090831_025157_000000492082_00089_39221_2432.N1	31-AUG-2009 02:51:57	Twilight	48.500	44	24Gam Gem	1.9280	11000.	97	39221	No
27	GOM_NL__2PRFIN20090831_030034_000000642082_00089_39221_2433.N1	31-AUG-2009 03:00:34	Dark	64.000	30	46Eps Ori	1.6940	30000.	128	39221	No
28	GOM_NL__2PRFIN20090831_030251_000000492082_00089_39221_2434.N1	31-AUG-2009 03:02:51	Dark	48.500	47	2Bet CMa	1.9760	28000.	97	39221	No
29	GOM_NL__2PRFIN20090831_030537_000000542082_00089_39221_2435.N1	31-AUG-2009 03:05:37	Dark	53.500	101	11Alp Lep	2.5820	7000.0	107	39221	No
30	GOM_NL__2PRFIN20090831_032038_000000562082_00090_39222_2455.N1	31-AUG-2009 03:20:38	Dark	55.500	157	The1Eri	2.9060	9300.0	111	39222	No
31	GOM_NL__2PRFIN20090831_032841_000000492082_00090_39222_2456.N1	31-AUG-2009 03:28:41	Straylight	48.500	84	Alp Phe	2.3970	4500.0	97	39222	No
32	GOM_NL__2PRFIN20090831_033452_000000462082_00090_39222_2457.N1	31-AUG-2009 03:34:52	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	39222	No
33	GOM_NL__2PRFIN20090831_034422_000000562082_00090_39222_2458.N1	31-AUG-2009 03:44:22	Bright	56.000	162	34Alp Aqr	2.9440	5350.0	112	39222	No
34	GOM_NL__2PRFIN20090831_035023_000000492082_00090_39222_2459.N1	31-AUG-2009 03:50:23	Bright	48.500	90	54Alp Peg	2.4870	11000.	97	39222	No
35	GOM_NL__2PRFIN20090831_035434_000000442082_00090_39222_2460.N1	31-AUG-2009 03:54:34	Bright	43.500	164	44Eta Peg	2.9480	5400.0	87	39222	No
36	GOM_NL__2PRFIN20090831_040517_000000422082_00090_39222_2461.N1	31-AUG-2009 04:05:17	Bright	42.000	74	11Bet Cas	2.2680	6600.0	84	39222	No
37	GOM_NL__2PRFIN20090831_040726_000000462082_00090_39222_2462.N1	31-AUG-2009 04:07:26	Bright	46.000	76	27Gam Cas	2.3000	30000.	92	39222	No
38	GOM_NL__2PRFIN20090831_042205_000000592082_00090_39222_2463.N1	31-AUG-2009 04:22:05	Bright	58.500	6	13Alp Aur	0.080000	3400.0	117	39222	No
39	GOM_NL__2PRFIN20090831_042544_000000492082_00090_39222_2464.N1	31-AUG-2009 04:25:44	Bright	48.500	107	37The Aur	2.6490	11000.	97	39222	No
40	GOM_NL__2PRFIN20090831_043049_000000542082_00090_39222_2465.N1	31-AUG-2009 04:30:49	Twilight	53.500	151	13Mu Gem	2.8900	3000.0	107	39222	No
41	GOM_NL__2PRFIN20090831_043234_000000462082_00090_39222_2466.N1	31-AUG-2009 04:32:34	Twilight	45.500	44	24Gam Gem	1.9280	11000.	91	39222	No
42	GOM_NL__2PRFIN20090831_043705_000000692082_00090_39222_2467.N1	31-AUG-2009 04:37:05	Dark	68.500	14	58Alp Ori	0.87000	3000.0	137	39222	No

3. Quality information per product

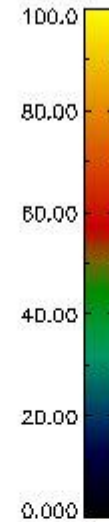
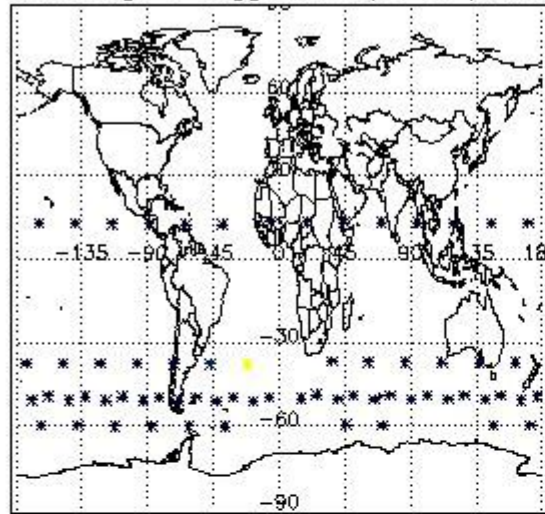
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

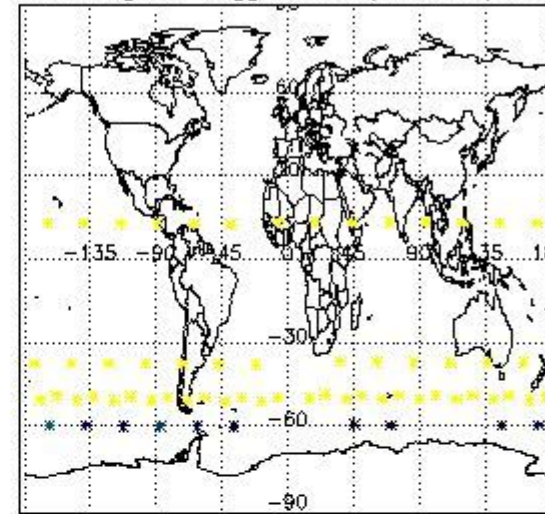


3.2 Plot quality information per product (world map)

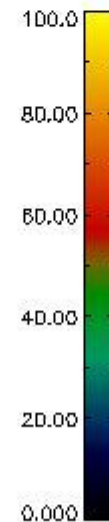
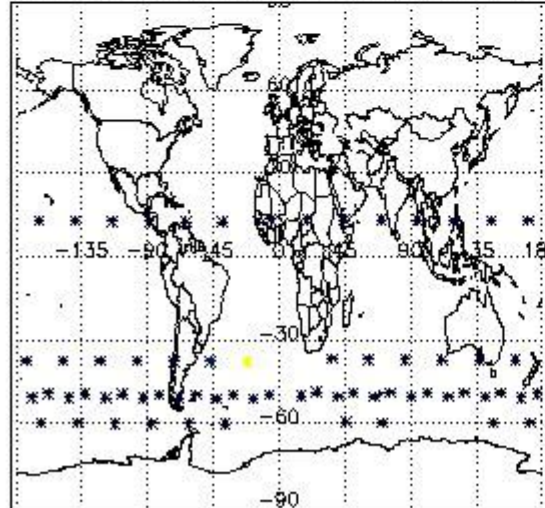
Percentage of flagged data per O3 profile



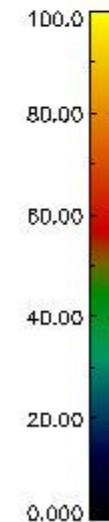
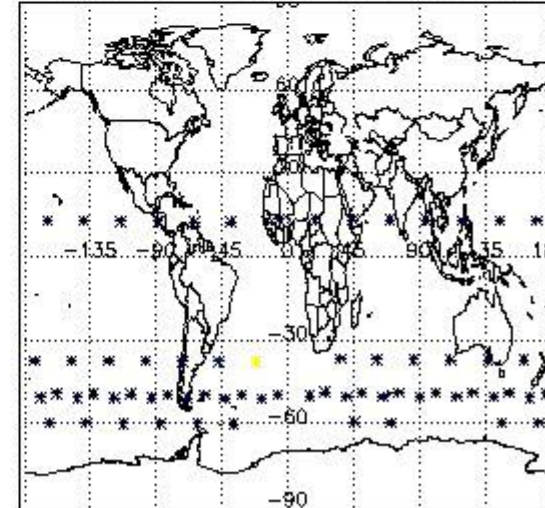
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

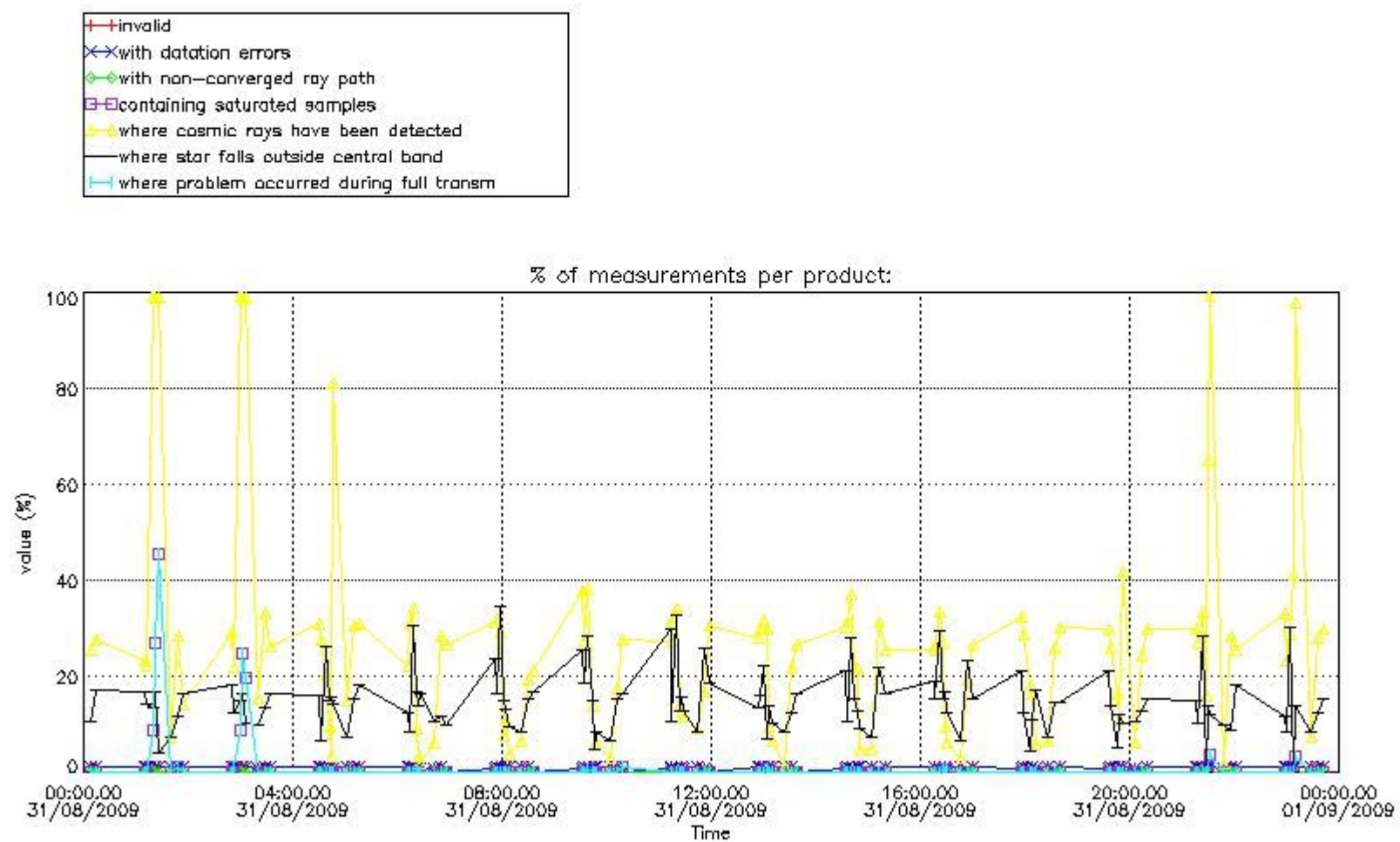


4. Level 1 quality information per product

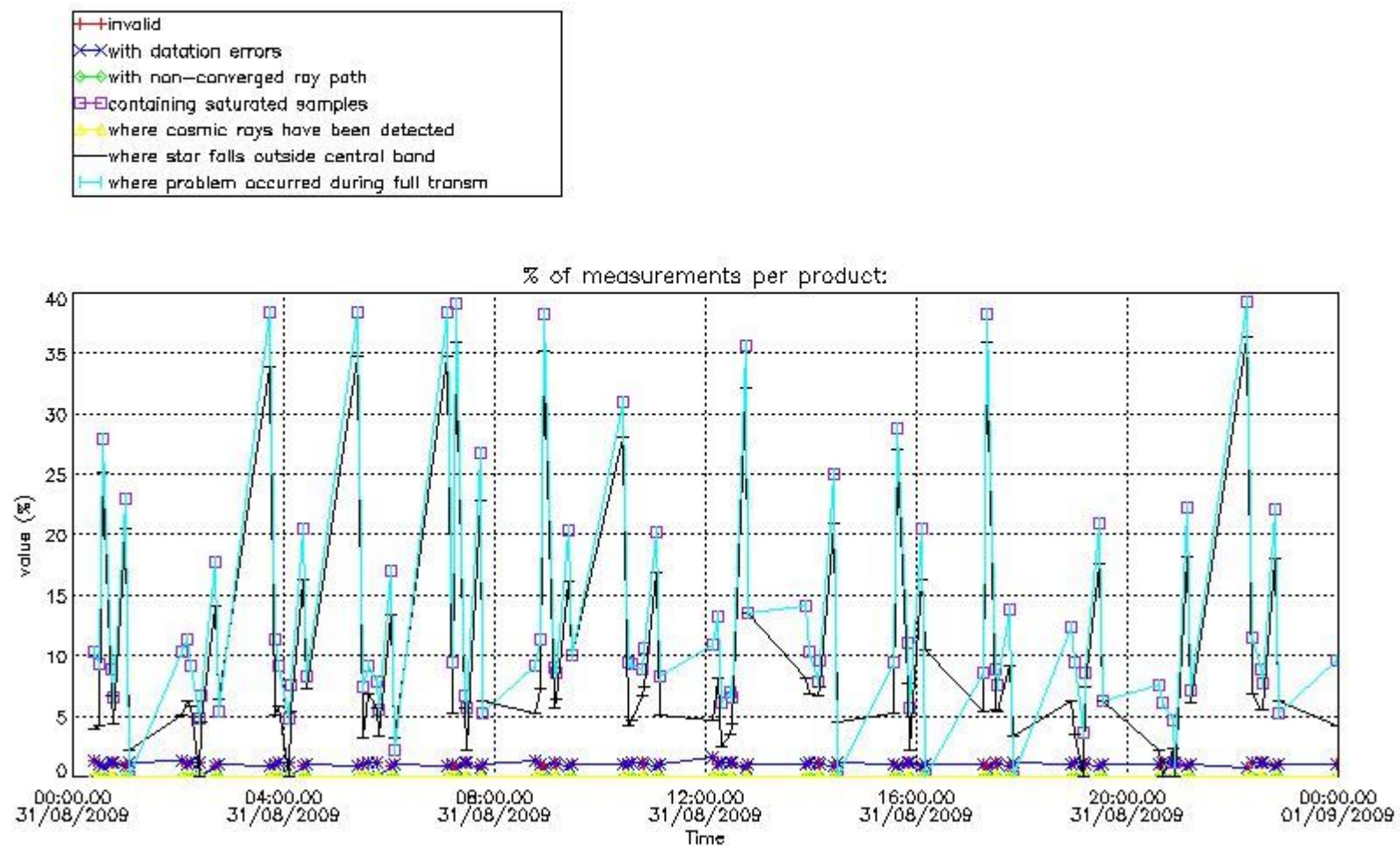
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



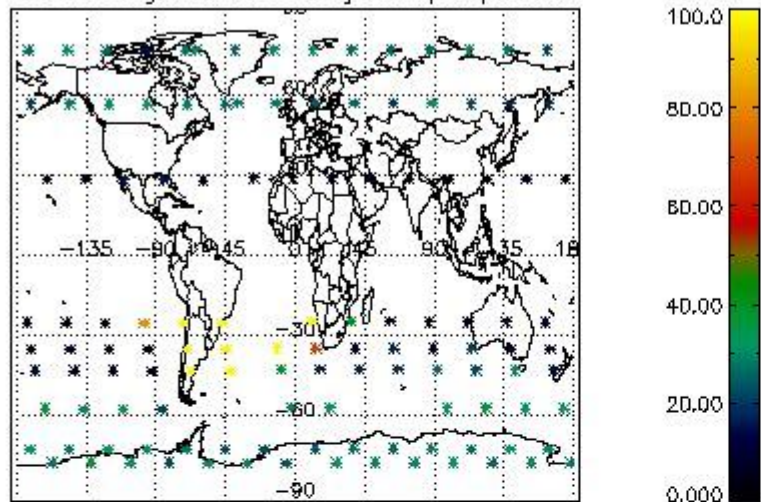
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



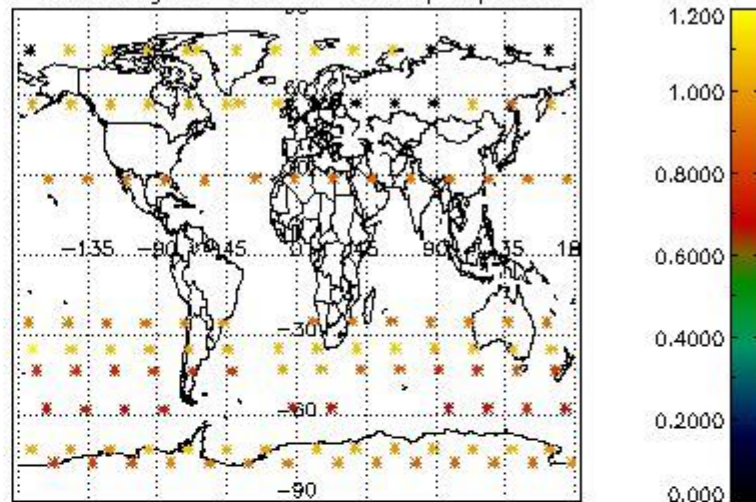
4.2 Plot quality information per product coming from level 1b processing (world map)

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

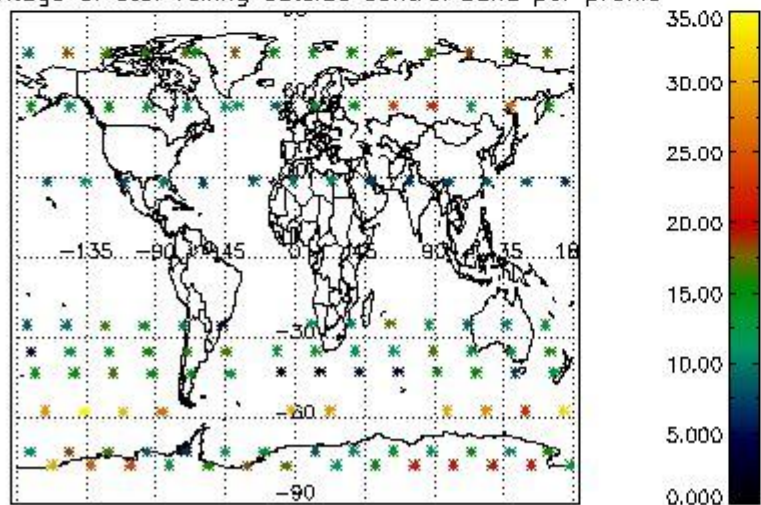
Percentage of cosmic ray hits per profile



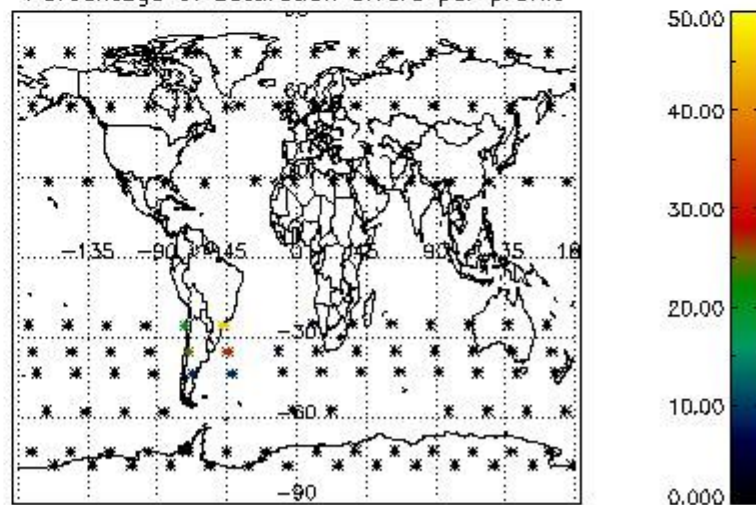
Percentage of datation errors per profile



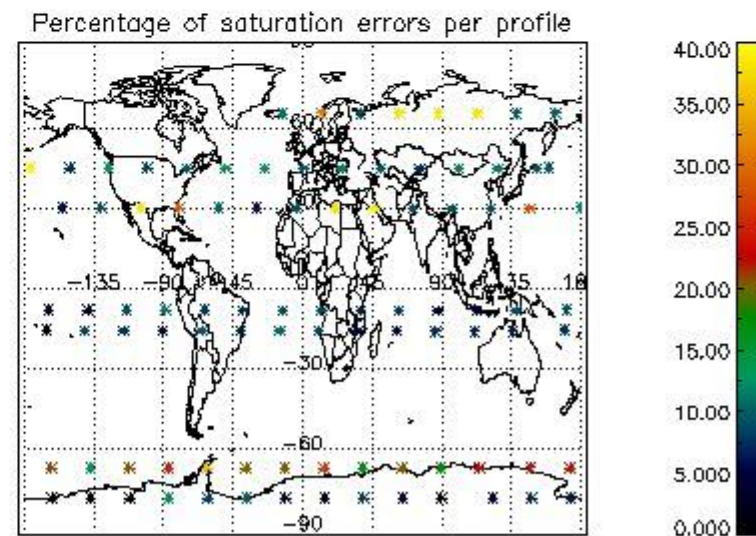
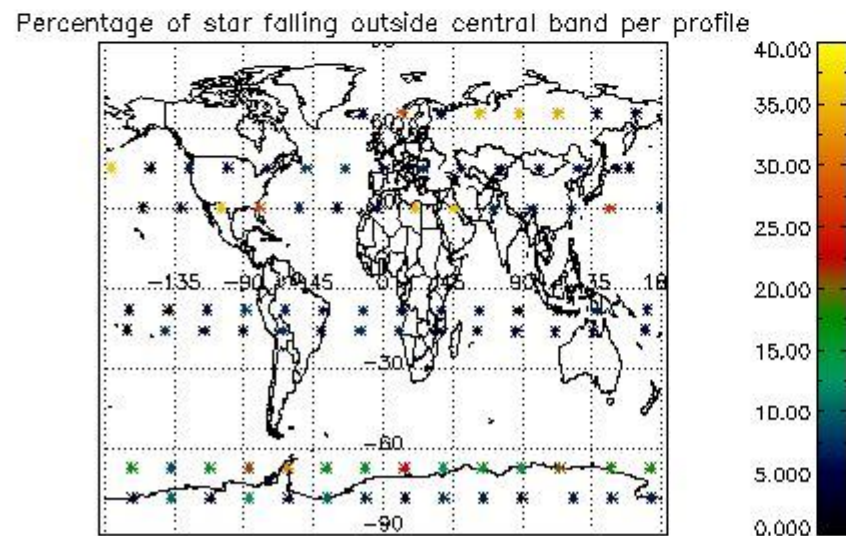
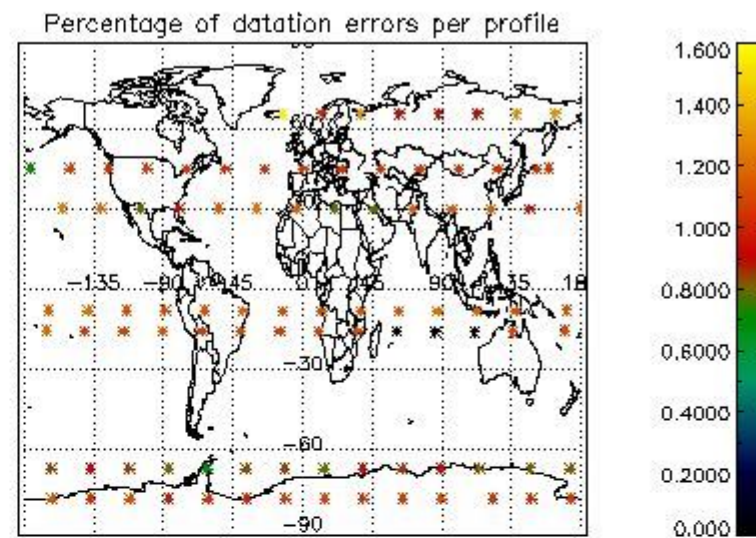
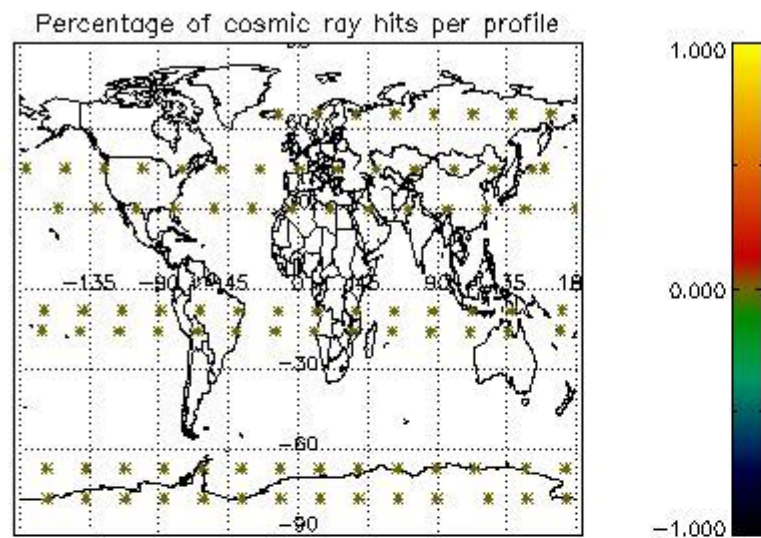
Percentage of star falling outside central band per profile



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

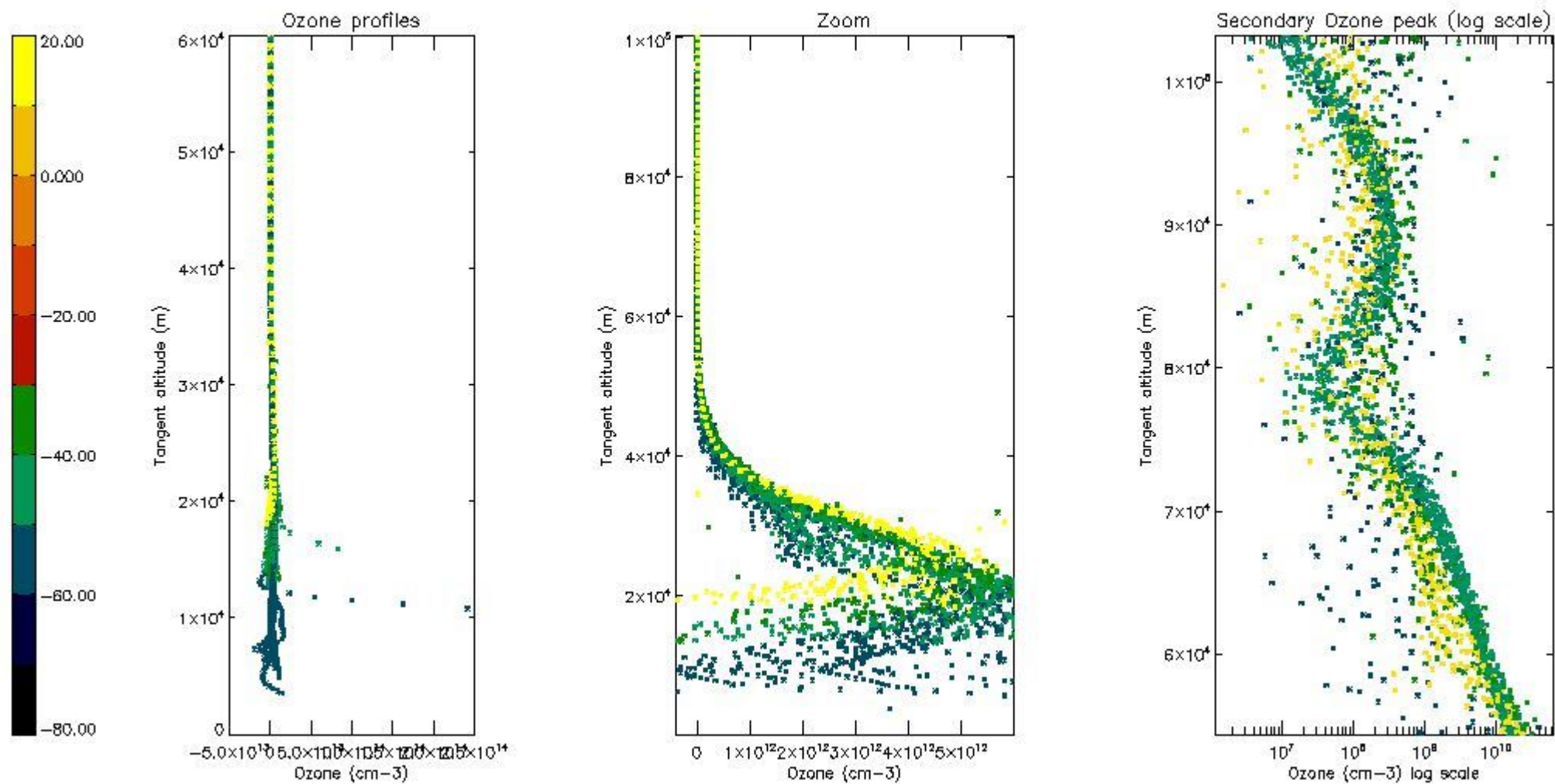
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	17

STD < 10	14
STD < 5	8

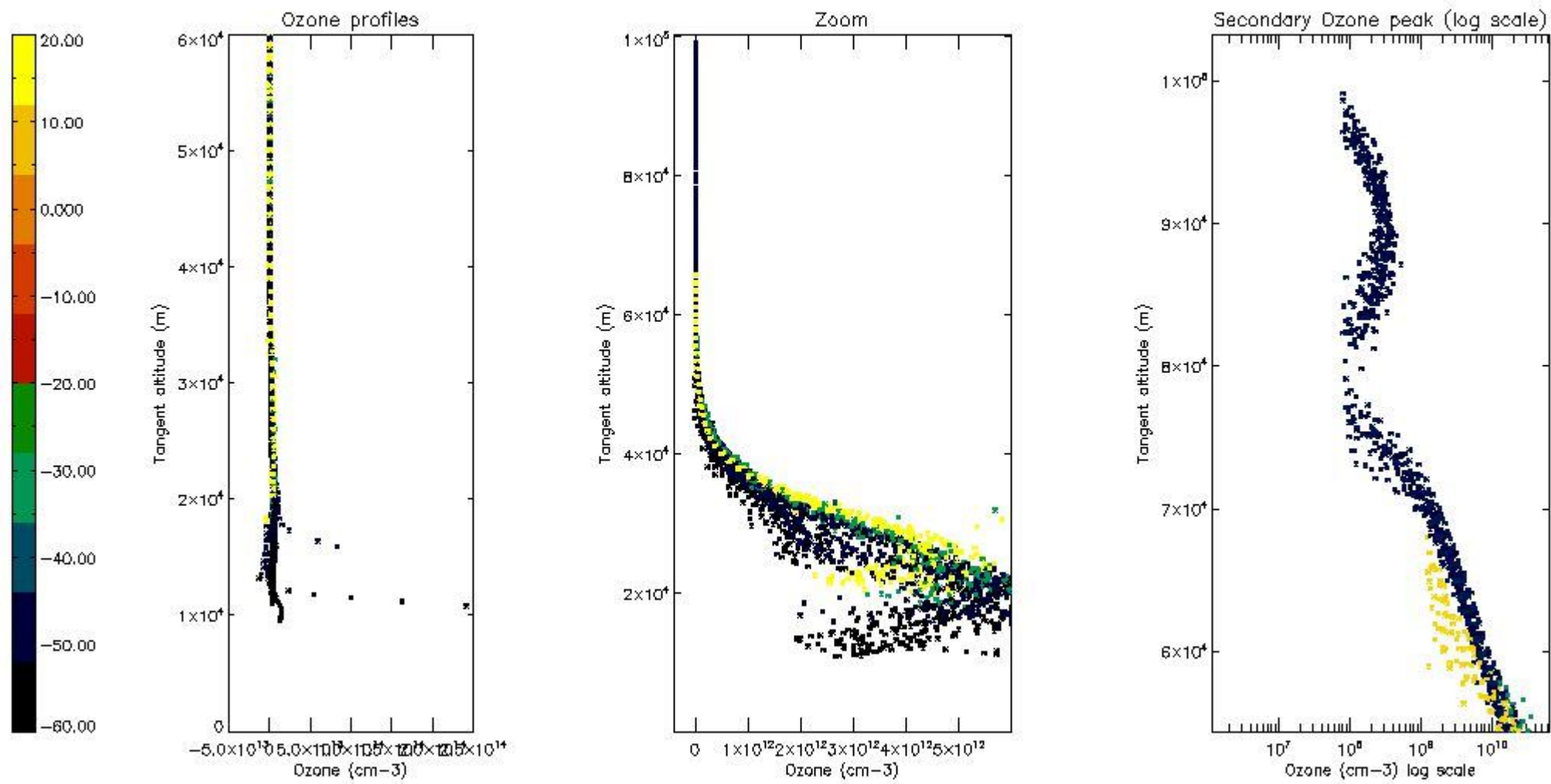
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



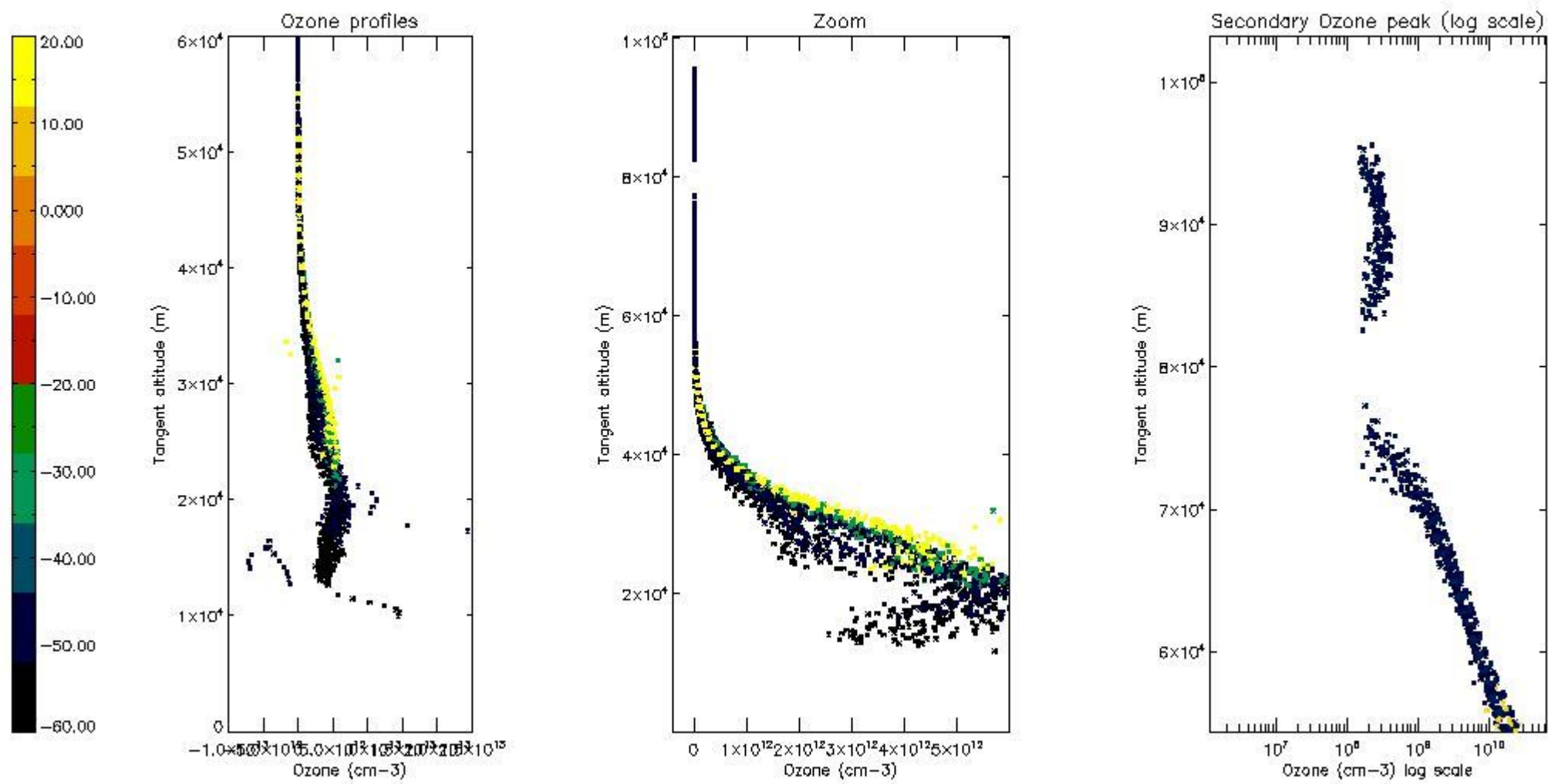
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



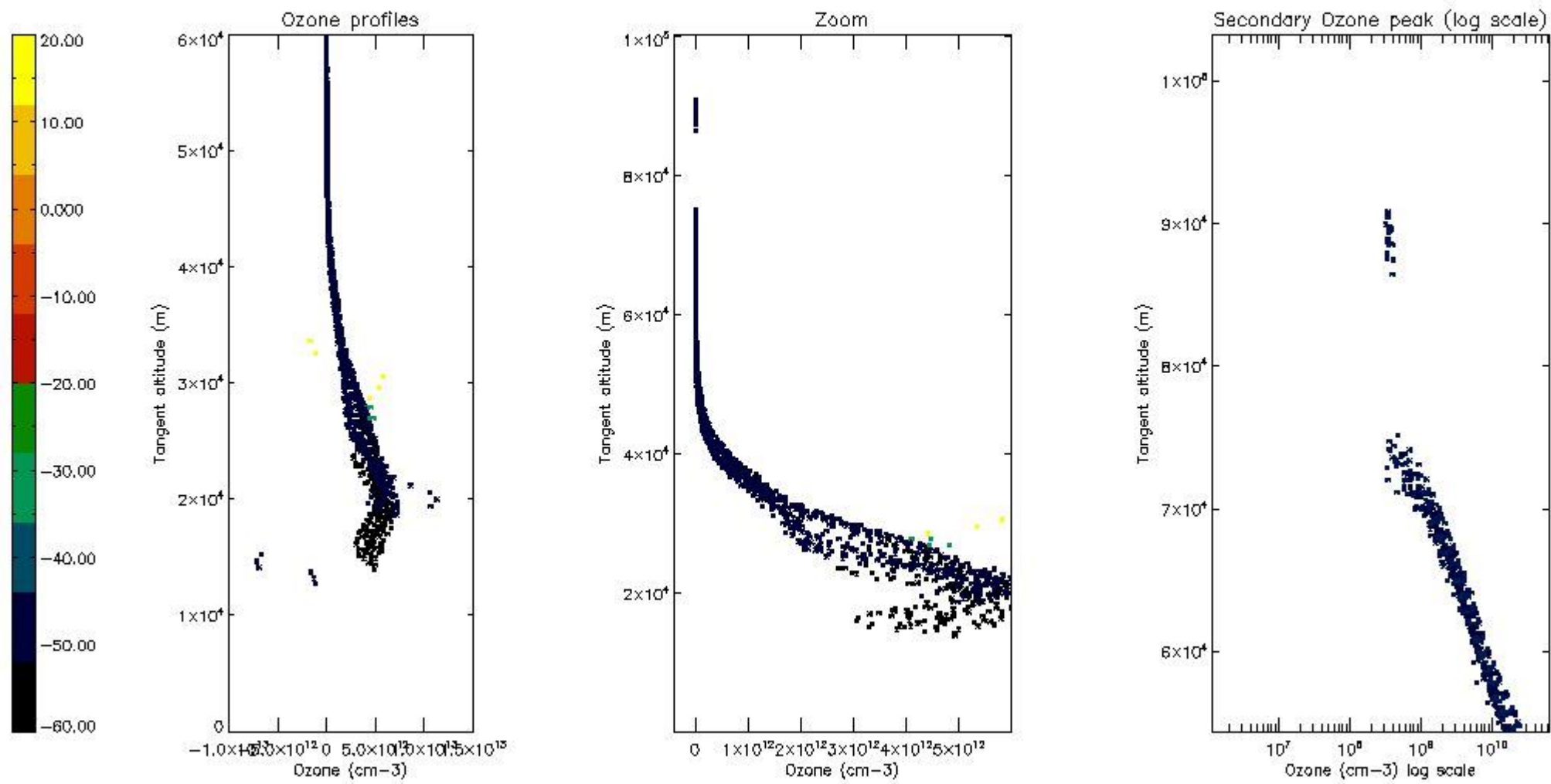
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



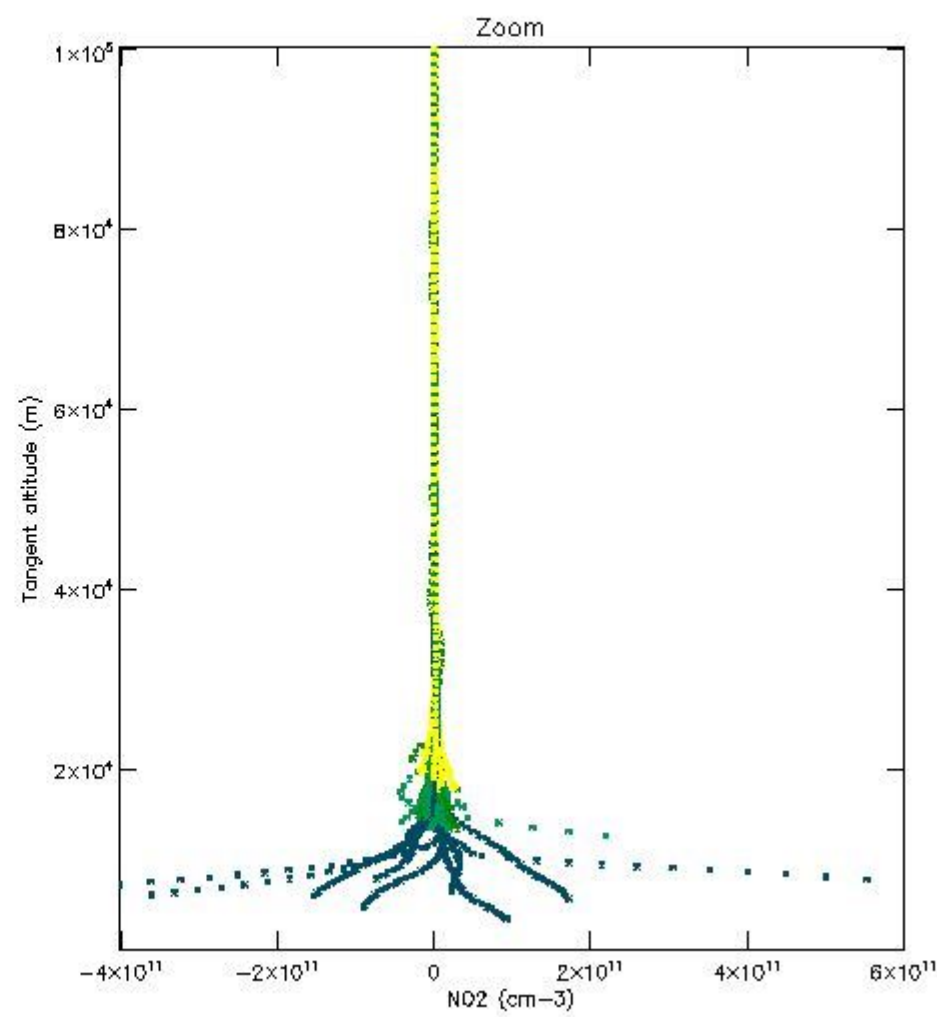
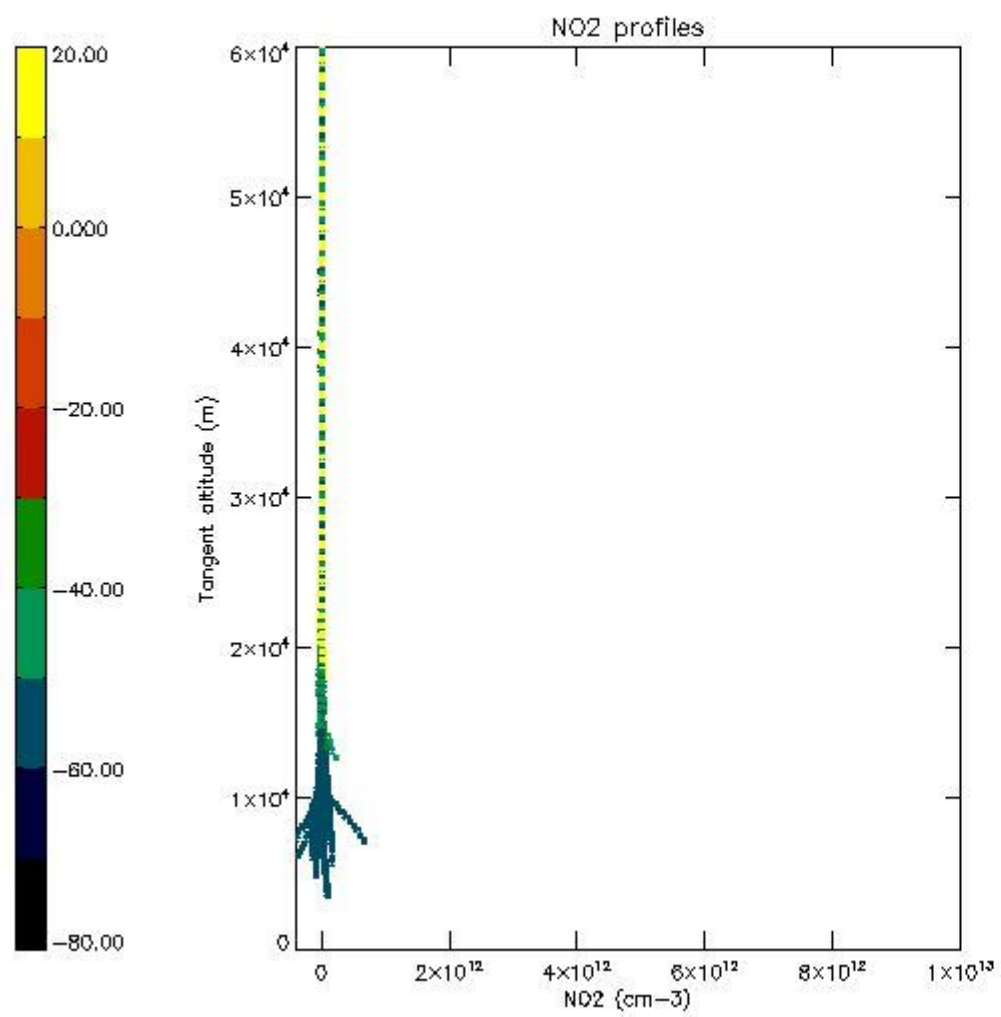
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



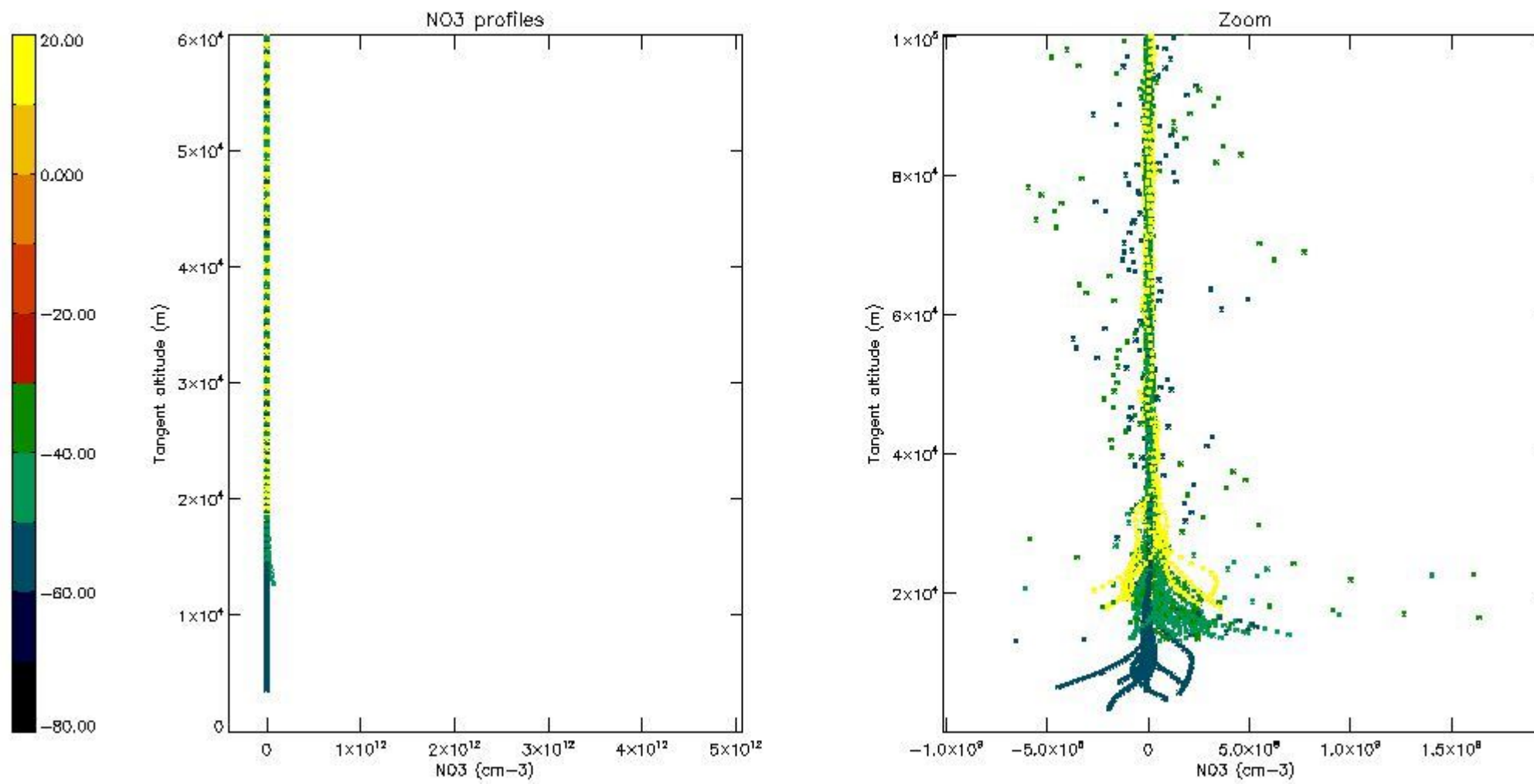
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	31-AUG-2009 00:07:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	31-AUG-2009 00:07:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	31-AUG-2009 00:07:27

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

[3.1 Plot of level 2 quality information per product \(time dependant\)](#)

[3.2 Plot of level 2 quality information per product \(world map\)](#)

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

[4.1 Plot of level 1 quality information per product \(time dependant\)](#)

[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

[4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

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

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

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

[5. Ozone profiles based on quality statistics and other trace gas profiles](#)

[5.1 Ozone statistics based on quality of products](#)

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

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

[6. Auxiliary Data Files used for the production reported in section 2](#)

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

Item	Value
Time of report generation	26APR2013 12:21:28
Data source version	GOMOS/6.01
Start time of products	31-08-2009 (31AUG2009 00:00:00)
Stop time of products	01-09-2009 (01SEP2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	216
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

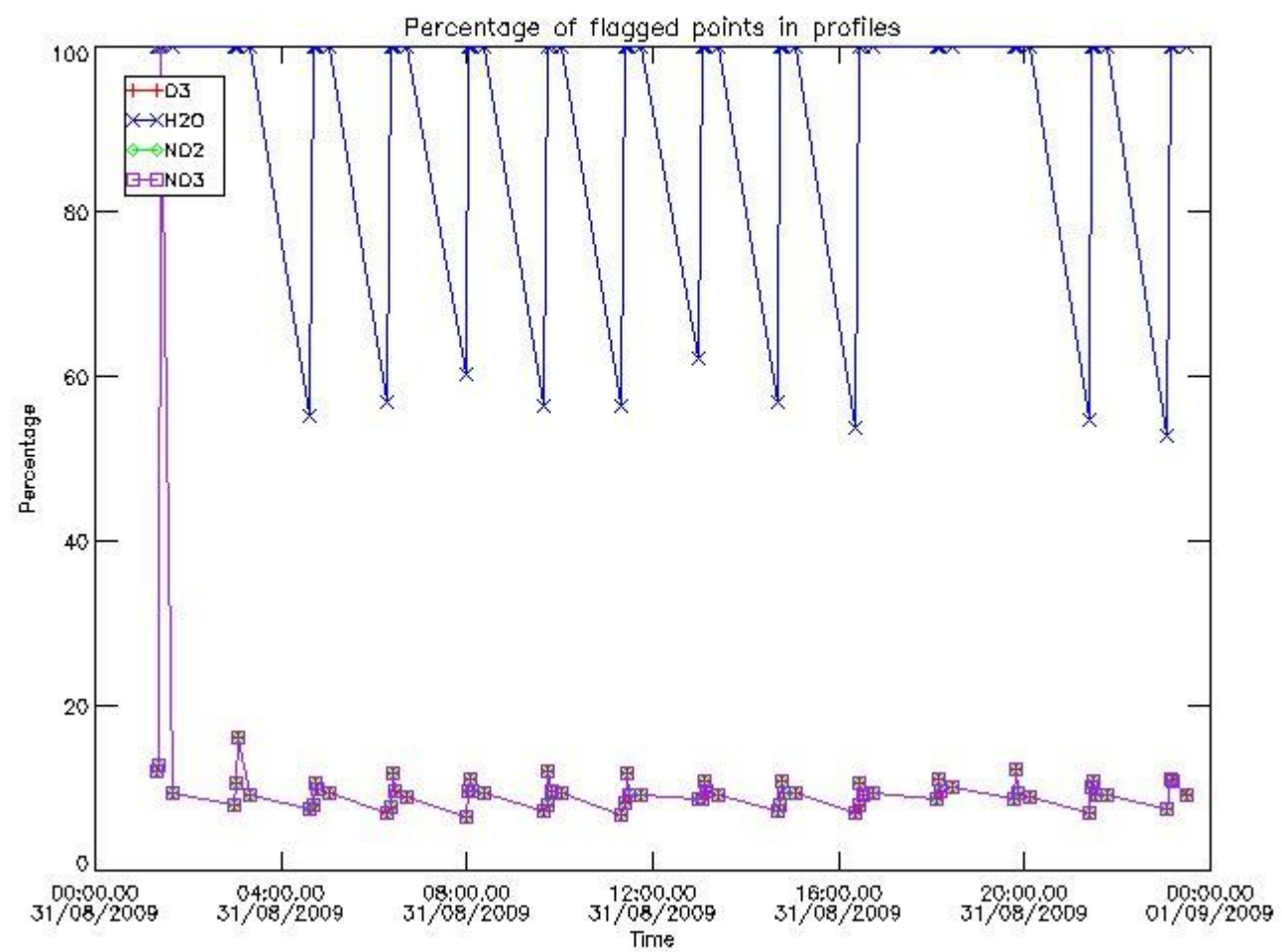
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20090831_000727_000000472082_00088_39220_2407.N1	31-AUG-2009 00:07:27	Straylight	47.000	84	Alp Phe	2.3970	4500.0	94	39220	No
2	GOM_NL__2PRFIN20090831_001340_000000472082_00088_39220_2408.N1	31-AUG-2009 00:13:40	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	39220	No
3	GOM_NL__2PRFIN20090831_002310_000000392082_00088_39220_2409.N1	31-AUG-2009 00:23:10	Bright	38.500	162	34Alp Aqr	2.9440	5350.0	77	39220	No
4	GOM_NL__2PRFIN20090831_002912_000000482082_00088_39220_2410.N1	31-AUG-2009 00:29:12	Bright	48.000	90	54Alp Peg	2.4870	11000.	96	39220	No
5	GOM_NL__2PRFIN20090831_003323_000000562082_00088_39220_2411.N1	31-AUG-2009 00:33:23	Bright	55.500	164	44Eta Peg	2.9480	5400.0	111	39220	No
6	GOM_NL__2PRFIN20090831_004407_000000452082_00088_39220_2412.N1	31-AUG-2009 00:44:07	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	39220	No
7	GOM_NL__2PRFIN20090831_004616_000000462082_00088_39220_2413.N1	31-AUG-2009 00:46:16	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	39220	No
8	GOM_NL__2PRFIN20090831_010054_000000612082_00088_39220_2414.N1	31-AUG-2009 01:00:54	Bright	61.000	6	13Alp Aur	0.080000	3400.0	122	39220	No
9	GOM_NL__2PRFIN20090831_010432_000000452082_00088_39220_2415.N1	31-AUG-2009 01:04:32	Bright	45.000	107	37The Aur	2.6490	11000.	90	39220	No
10	GOM_NL__2PRFIN20090831_010936_000000542082_00088_39220_2416.N1	31-AUG-2009 01:09:36	Twilight	54.000	151	13Mu Gem	2.8900	3000.0	108	39220	No
11	GOM_NL__2PRFIN20090831_011121_000000502082_00088_39220_2417.N1	31-AUG-2009 01:11:21	Twilight	49.500	44	24Gam Gem	1.9280	11000.	99	39220	No
12	GOM_NL__2PRFIN20090831_011956_000000642082_00088_39220_2418.N1	31-AUG-2009 01:19:56	Dark	63.500	30	46Eps Ori	1.6940	30000.	127	39220	No
13	GOM_NL__2PRFIN20090831_012214_000000482082_00088_39220_2419.N1	31-AUG-2009 01:22:14	Dark	48.000	47	2Bet CMa	1.9760	28000.	96	39220	No
14	GOM_NL__2PRFIN20090831_012500_000000512082_00088_39220_2420.N1	31-AUG-2009 01:25:00	Dark	50.500	101	11Alp Lep	2.5820	7000.0	101	39220	No
15	GOM_NL__2PRFIN20090831_014001_000000552082_00089_39221_2421.N1	31-AUG-2009 01:40:01	Dark	54.500	157	The1Eri	2.9060	9300.0	109	39221	No
16	GOM_NL__2PRFIN20090831_014804_000000482082_00089_39221_2422.N1	31-AUG-2009 01:48:04	Straylight	47.500	84	Alp Phe	2.3970	4500.0	95	39221	No
17	GOM_NL__2PRFIN20090831_015416_000000462082_00089_39221_2423.N1	31-AUG-2009 01:54:16	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	39221	No
18	GOM_NL__2PRFIN20090831_020346_000000392082_00089_39221_2424.N1	31-AUG-2009 02:03:46	Bright	39.000	162	34Alp Aqr	2.9440	5350.0	78	39221	No
19	GOM_NL__2PRFIN20090831_020947_000000492082_00089_39221_2425.N1	31-AUG-2009 02:09:47	Bright	48.500	90	54Alp Peg	2.4870	11000.	97	39221	No
20	GOM_NL__2PRFIN20090831_021358_000000442082_00089_39221_2426.N1	31-AUG-2009 02:13:58	Bright	43.500	164	44Eta Peg	2.9480	5400.0	87	39221	No
21	GOM_NL__2PRFIN20090831_022442_000000422082_00089_39221_2427.N1	31-AUG-2009 02:24:42	Bright	42.000	74	11Bet Cas	2.2680	6600.0	84	39221	No
22	GOM_NL__2PRFIN20090831_022651_000000452082_00089_39221_2428.N1	31-AUG-2009 02:26:51	Bright	45.000	76	27Gam Cas	2.3000	30000.	90	39221	No
23	GOM_NL__2PRFIN20090831_024129_000000572082_00089_39221_2429.N1	31-AUG-2009 02:41:29	Bright	56.500	6	13Alp Aur	0.080000	3400.0	113	39221	No
24	GOM_NL__2PRFIN20090831_024508_000000472082_00089_39221_2430.N1	31-AUG-2009 02:45:08	Bright	47.000	107	37The Aur	2.6490	11000.	94	39221	No
25	GOM_NL__2PRFIN20090831_025013_000000552082_00089_39221_2431.N1	31-AUG-2009 02:50:13	Twilight	55.000	151	13Mu Gem	2.8900	3000.0	110	39221	No
26	GOM_NL__2PRFIN20090831_025157_000000492082_00089_39221_2432.N1	31-AUG-2009 02:51:57	Twilight	48.500	44	24Gam Gem	1.9280	11000.	97	39221	No
27	GOM_NL__2PRFIN20090831_030034_000000642082_00089_39221_2433.N1	31-AUG-2009 03:00:34	Dark	64.000	30	46Eps Ori	1.6940	30000.	128	39221	No
28	GOM_NL__2PRFIN20090831_030251_000000492082_00089_39221_2434.N1	31-AUG-2009 03:02:51	Dark	48.500	47	2Bet CMa	1.9760	28000.	97	39221	No
29	GOM_NL__2PRFIN20090831_030537_000000542082_00089_39221_2435.N1	31-AUG-2009 03:05:37	Dark	53.500	101	11Alp Lep	2.5820	7000.0	107	39221	No
30	GOM_NL__2PRFIN20090831_032038_000000562082_00090_39222_2455.N1	31-AUG-2009 03:20:38	Dark	55.500	157	The1Eri	2.9060	9300.0	111	39222	No
31	GOM_NL__2PRFIN20090831_032841_000000492082_00090_39222_2456.N1	31-AUG-2009 03:28:41	Straylight	48.500	84	Alp Phe	2.3970	4500.0	97	39222	No
32	GOM_NL__2PRFIN20090831_033452_000000462082_00090_39222_2457.N1	31-AUG-2009 03:34:52	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	39222	No
33	GOM_NL__2PRFIN20090831_034422_000000562082_00090_39222_2458.N1	31-AUG-2009 03:44:22	Bright	56.000	162	34Alp Aqr	2.9440	5350.0	112	39222	No
34	GOM_NL__2PRFIN20090831_035023_000000492082_00090_39222_2459.N1	31-AUG-2009 03:50:23	Bright	48.500	90	54Alp Peg	2.4870	11000.	97	39222	No
35	GOM_NL__2PRFIN20090831_035434_000000442082_00090_39222_2460.N1	31-AUG-2009 03:54:34	Bright	43.500	164	44Eta Peg	2.9480	5400.0	87	39222	No
36	GOM_NL__2PRFIN20090831_040517_000000422082_00090_39222_2461.N1	31-AUG-2009 04:05:17	Bright	42.000	74	11Bet Cas	2.2680	6600.0	84	39222	No
37	GOM_NL__2PRFIN20090831_040726_000000462082_00090_39222_2462.N1	31-AUG-2009 04:07:26	Bright	46.000	76	27Gam Cas	2.3000	30000.	92	39222	No
38	GOM_NL__2PRFIN20090831_042205_000000592082_00090_39222_2463.N1	31-AUG-2009 04:22:05	Bright	58.500	6	13Alp Aur	0.080000	3400.0	117	39222	No
39	GOM_NL__2PRFIN20090831_042544_000000492082_00090_39222_2464.N1	31-AUG-2009 04:25:44	Bright	48.500	107	37The Aur	2.6490	11000.	97	39222	No
40	GOM_NL__2PRFIN20090831_043049_000000542082_00090_39222_2465.N1	31-AUG-2009 04:30:49	Twilight	53.500	151	13Mu Gem	2.8900	3000.0	107	39222	No
41	GOM_NL__2PRFIN20090831_043234_000000462082_00090_39222_2466.N1	31-AUG-2009 04:32:34	Twilight	45.500	44	24Gam Gem	1.9280	11000.	91	39222	No
42	GOM_NL__2PRFIN20090831_043705_000000692082_00090_39222_2467.N1	31-AUG-2009 04:37:05	Dark	68.500	14	58Alp Ori	0.87000	3000.0	137	39222	No

161	GOM_NL__2PRFIN20090831_173000_000000452082_00098_39230_2575.N1	31-AUG-2009 17:30:00	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	39230	No
162	GOM_NL__2PRFIN20090831_173208_000000462082_00098_39230_2576.N1	31-AUG-2009 17:32:08	Bright	46.000	76	27Gam Cas	2.3000	30000.	92	39230	No
163	GOM_NL__2PRFIN20090831_174651_000000552082_00098_39230_2577.N1	31-AUG-2009 17:46:51	Bright	54.500	6	13Alp Aur	0.080000	3400.0	109	39230	No
164	GOM_NL__2PRFIN20090831_175032_000000452082_00098_39230_2578.N1	31-AUG-2009 17:50:32	Bright	44.500	107	37The Aur	2.6490	11000.	89	39230	No
165	GOM_NL__2PRFIN20090831_175539_000000572082_00098_39230_2579.N1	31-AUG-2009 17:55:39	Tw_i_and_stray	57.000	151	13Mu Gem	2.8900	3000.0	114	39230	No
166	GOM_NL__2PRFIN20090831_175724_000000492082_00098_39230_2580.N1	31-AUG-2009 17:57:24	Tw_i_and_stray	49.000	44	24Gam Gem	1.9280	11000.	98	39230	No
167	GOM_NL__2PRFIN20090831_180608_000000582082_00098_39230_2581.N1	31-AUG-2009 18:06:08	Dark	58.000	30	46Eps Ori	1.6940	30000.	116	39230	No
168	GOM_NL__2PRFIN20090831_180821_000000462082_00098_39230_2582.N1	31-AUG-2009 18:08:21	Dark	45.500	47	2Bet CMa	1.9760	28000.	91	39230	No
169	GOM_NL__2PRFIN20090831_181111_000000592082_00098_39230_2583.N1	31-AUG-2009 18:11:11	Dark	58.500	101	11Alp Lep	2.5820	7000.0	117	39230	No
170	GOM_NL__2PRFIN20090831_182612_000000552082_00099_39231_2587.N1	31-AUG-2009 18:26:12	Dark	55.000	157	The1Eri	2.9060	9300.0	110	39231	No
171	GOM_NL__2PRFIN20090831_183409_000000492082_00099_39231_2588.N1	31-AUG-2009 18:34:09	Straylight	48.500	84	Alp Phe	2.3970	4500.0	97	39231	No
172	GOM_NL__2PRFIN20090831_184018_000000452082_00099_39231_2589.N1	31-AUG-2009 18:40:18	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	39231	No
173	GOM_NL__2PRFIN20090831_185541_000000492082_00099_39231_2590.N1	31-AUG-2009 18:55:41	Bright	48.500	90	54Alp Peg	2.4870	11000.	97	39231	No
174	GOM_NL__2PRFIN20090831_185953_000000432082_00099_39231_2591.N1	31-AUG-2009 18:59:53	Bright	42.500	164	44Eta Peg	2.9480	5400.0	85	39231	No
175	GOM_NL__2PRFIN20090831_191035_000000422082_00099_39231_2592.N1	31-AUG-2009 19:10:35	Bright	41.500	74	11Bet Cas	2.2680	6600.0	83	39231	No
176	GOM_NL__2PRFIN20090831_191243_000000472082_00099_39231_2593.N1	31-AUG-2009 19:12:43	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	39231	No
177	GOM_NL__2PRFIN20090831_192726_000000602082_00099_39231_2594.N1	31-AUG-2009 19:27:26	Bright	59.500	6	13Alp Aur	0.080000	3400.0	119	39231	No
178	GOM_NL__2PRFIN20090831_193108_000000482082_00099_39231_2595.N1	31-AUG-2009 19:31:08	Bright	47.500	107	37The Aur	2.6490	11000.	95	39231	No
179	GOM_NL__2PRFIN20090831_193615_000000572082_00099_39231_2596.N1	31-AUG-2009 19:36:15	Tw_i_and_stray	57.000	151	13Mu Gem	2.8900	3000.0	114	39231	No
180	GOM_NL__2PRFIN20090831_193801_000000512082_00099_39231_2597.N1	31-AUG-2009 19:38:01	Tw_i_and_stray	50.500	44	24Gam Gem	1.9280	11000.	101	39231	No
181	GOM_NL__2PRFIN20090831_194645_000000582082_00099_39231_2598.N1	31-AUG-2009 19:46:45	Dark	58.000	30	46Eps Ori	1.6940	30000.	116	39231	No
182	GOM_NL__2PRFIN20090831_194857_000000462082_00099_39231_2599.N1	31-AUG-2009 19:48:57	Dark	46.000	47	2Bet CMa	1.9760	28000.	92	39231	No
183	GOM_NL__2PRFIN20090831_195148_000000542082_00099_39231_2600.N1	31-AUG-2009 19:51:48	Dark	54.000	101	11Alp Lep	2.5820	7000.0	108	39231	No
184	GOM_NL__2PRFIN20090831_200649_000000572082_00100_39232_2618.N1	31-AUG-2009 20:06:49	Dark	56.500	157	The1Eri	2.9060	9300.0	113	39232	No
185	GOM_NL__2PRFIN20090831_201446_000000472082_00100_39232_2619.N1	31-AUG-2009 20:14:46	Straylight	47.000	84	Alp Phe	2.3970	4500.0	94	39232	No
186	GOM_NL__2PRFIN20090831_202054_000000462082_00100_39232_2620.N1	31-AUG-2009 20:20:54	Straylight	45.500	18	24Alp PsA	1.1660	9700.0	91	39232	No
187	GOM_NL__2PRFIN20090831_203617_000000472082_00100_39232_2621.N1	31-AUG-2009 20:36:17	Bright	46.500	90	54Alp Peg	2.4870	11000.	93	39232	No
188	GOM_NL__2PRFIN20090831_204028_000000412082_00100_39232_2622.N1	31-AUG-2009 20:40:28	Bright	40.500	164	44Eta Peg	2.9480	5400.0	81	39232	No
189	GOM_NL__2PRFIN20090831_205110_000000432082_00100_39232_2623.N1	31-AUG-2009 20:51:10	Bright	43.000	74	11Bet Cas	2.2680	6600.0	86	39232	No
190	GOM_NL__2PRFIN20090831_205319_000000422082_00100_39232_2624.N1	31-AUG-2009 20:53:19	Bright	42.000	76	27Gam Cas	2.3000	30000.	84	39232	No
191	GOM_NL__2PRFIN20090831_210802_000000612082_00100_39232_2625.N1	31-AUG-2009 21:08:02	Bright	60.500	6	13Alp Aur	0.080000	3400.0	121	39232	No
192	GOM_NL__2PRFIN20090831_211143_000000492082_00100_39232_2626.N1	31-AUG-2009 21:11:43	Bright	49.000	107	37The Aur	2.6490	11000.	98	39232	No
193	GOM_NL__2PRFIN20090831_211651_000000542082_00100_39232_2627.N1	31-AUG-2009 21:16:51	Tw_i_and_stray	53.500	151	13Mu Gem	2.8900	3000.0	107	39232	No
194	GOM_NL__2PRFIN20090831_211837_000000492082_00100_39232_2628.N1	31-AUG-2009 21:18:37	Tw_i_and_stray	48.500	44	24Gam Gem	1.9280	11000.	97	39232	No
195	GOM_NL__2PRFIN20090831_212312_000000722082_00100_39232_2629.N1	31-AUG-2009 21:23:12	Dark	72.000	14	58Alp Ori	0.87000	3000.0	144	39232	No
196	GOM_NL__2PRFIN20090831_212722_000000502082_00100_39232_2630.N1	31-AUG-2009 21:27:22	Dark	50.000	30	46Eps Ori	1.6940	30000.	100	39232	No
197	GOM_NL__2PRFIN20090831_212934_000000482082_00100_39232_2631.N1	31-AUG-2009 21:29:34	Dark	47.500	47	2Bet CMa	1.9760	28000.	95	39232	No
198	GOM_NL__2PRFIN20090831_213225_000000552082_00100_39232_2632.N1	31-AUG-2009 21:32:25	Dark	55.000	101	11Alp Lep	2.5820	7000.0	110	39232	No
199	GOM_NL__2PRFIN20090831_214726_000000562082_00101_39233_2636.N1	31-AUG-2009 21:47:26	Dark	56.000	157	The1Eri	2.9060	9300.0	112	39233	No
200	GOM_NL__2PRFIN20090831_215522_000000462082_00101_39233_2637.N1	31-AUG-2009 21:55:22	Straylight	46.000	84	Alp Phe	2.3970	4500.0	92	39233	No
201	GOM_NL__2PRFIN20090831_220131_000000472082_00101_39233_2638.N1	31-AUG-2009 22:01:31	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	39233	No
202	GOM_NL__2PRFIN20090831_221652_000000702082_00101_39233_2639.N1	31-AUG-2009 22:16:52	Bright	70.000	90	54Alp Peg	2.4870	11000.	140	39233	No
203	GOM_NL__2PRFIN20090831_222103_000000442082_00101_39233_2640.N1	31-AUG-2009 22:21:03	Bright	43.500	164	44Eta Peg	2.9480	5400.0	87	39233	No
204	GOM_NL__2PRFIN20090831_223145_000000452082_00101_39233_2641.N1	31-AUG-2009 22:31:45	Bright	45.000	74	11Bet Cas	2.2680	6600.0	90	39233	No
205	GOM_NL__2PRFIN20090831_223354_000000462082_00101_39233_2642.N1	31-AUG-2009 22:33:54	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	39233	No
206	GOM_NL__2PRFIN20090831_224837_000000612082_00101_39233_2643.N1	31-AUG-2009 22:48:37	Bright	61.000	6	13Alp Aur	0.080000	3400.0	122	39233	No
207	GOM_NL__2PRFIN20090831_225219_000000482082_00101_39233_2644.N1	31-AUG-2009 22:52:19	Bright	48.000	107	37The Aur	2.6490	11000.	96	39233	No
208	GOM_NL__2PRFIN20090831_225728_000000522082_00101_39233_2645.N1	31-AUG-2009 22:57:28	Tw_i_and_stray	51.500	151	13Mu Gem	2.8900	3000.0	103	39233	No
209	GOM_NL__2PRFIN20090831_225913_000000482082_00101_39233_2646.N1	31-AUG-2009 22:59:13	Tw_i_and_stray	47.500	44	24Gam Gem	1.9280	11000.	95	39233	No
210	GOM_NL__2PRFIN20090831_230349_000000752082_00101_39233_2647.N1	31-AUG-2009 23:03:49	Dark	74.500	14	58Alp Ori	0.87000	3000.0	149	39233	No
211	GOM_NL__2PRFIN20090831_230759_000000502082_00101_39233_2648.N1	31-AUG-2009 23:07:59	Dark	50.000	30	46Eps Ori	1.6940	30000.	100	39233	No
212	GOM_NL__2PRFIN20090831_231011_000000472082_00101_39233_2649.N1	31-AUG-2009 23:10:11	Dark	47.000	47	2Bet CMa	1.9760	28000.	94	39233	No
213	GOM_NL__2PRFIN20090831_232803_000000552082_00102_39234_2651.N1	31-AUG-2009 23:28:03	Dark	55.000	157	The1Eri	2.9060	9300.0	110	39234	No
214	GOM_NL__2PRFIN20090831_233559_000000482082_00102_39234_2652.N1	31-AUG-2009 23:35:59	Straylight	48.000	84	Alp Phe	2.3970	4500.0	96	39234	No
215	GOM_NL__2PRFIN20090831_234207_000000462082_00102_39234_2653.N1	31-AUG-2009 23:42:07	Straylight	45.500	18	24Alp PsA	1.1660	9700.0	91	39234	No
216	GOM_NL__2PRFIN20090831_235727_000000472082_00102_39234_2654.N1	31-AUG-2009 23:57:27	Bright	47.000	90	54Alp Peg	2.4870	11000.	94	39234	No

3. Quality information per product

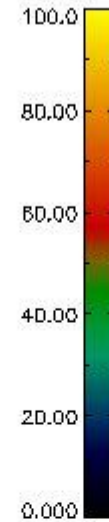
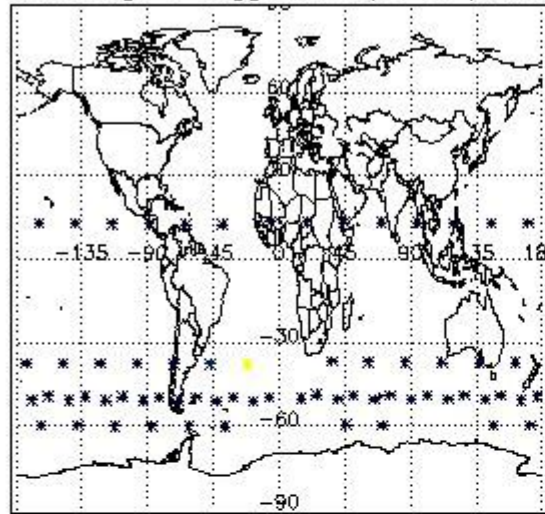
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

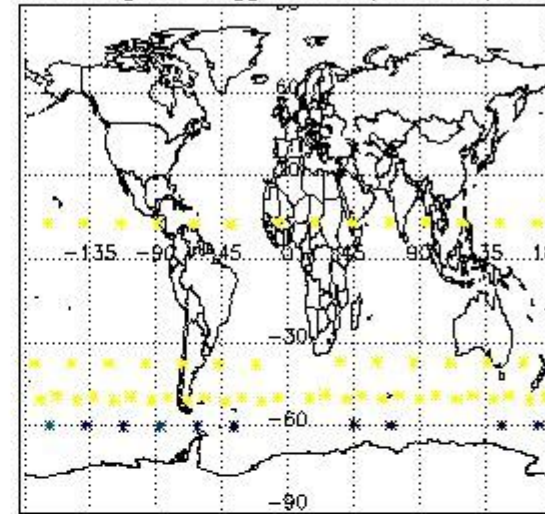


3.2 Plot quality information per product (world map)

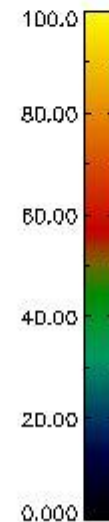
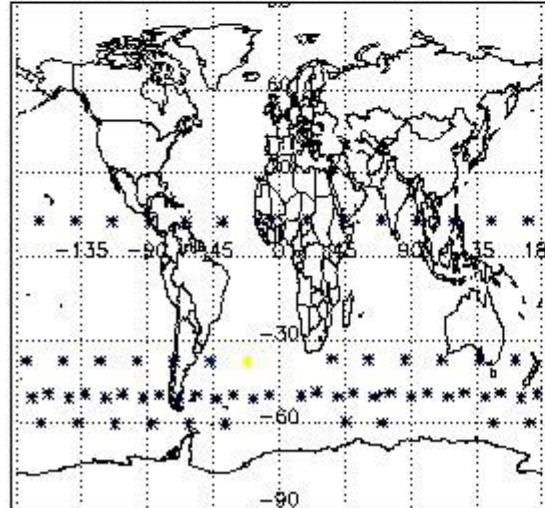
Percentage of flagged data per O3 profile



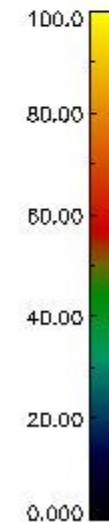
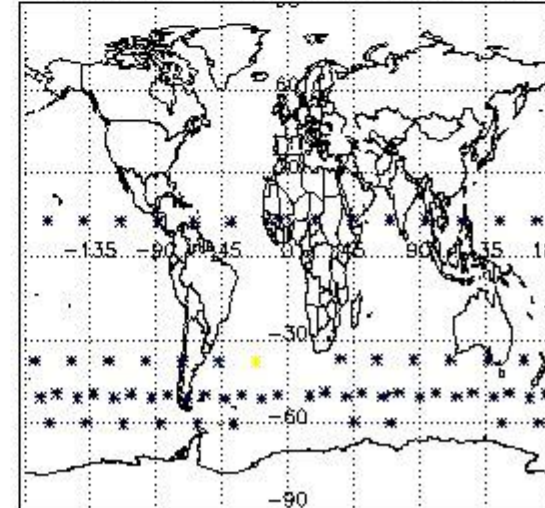
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

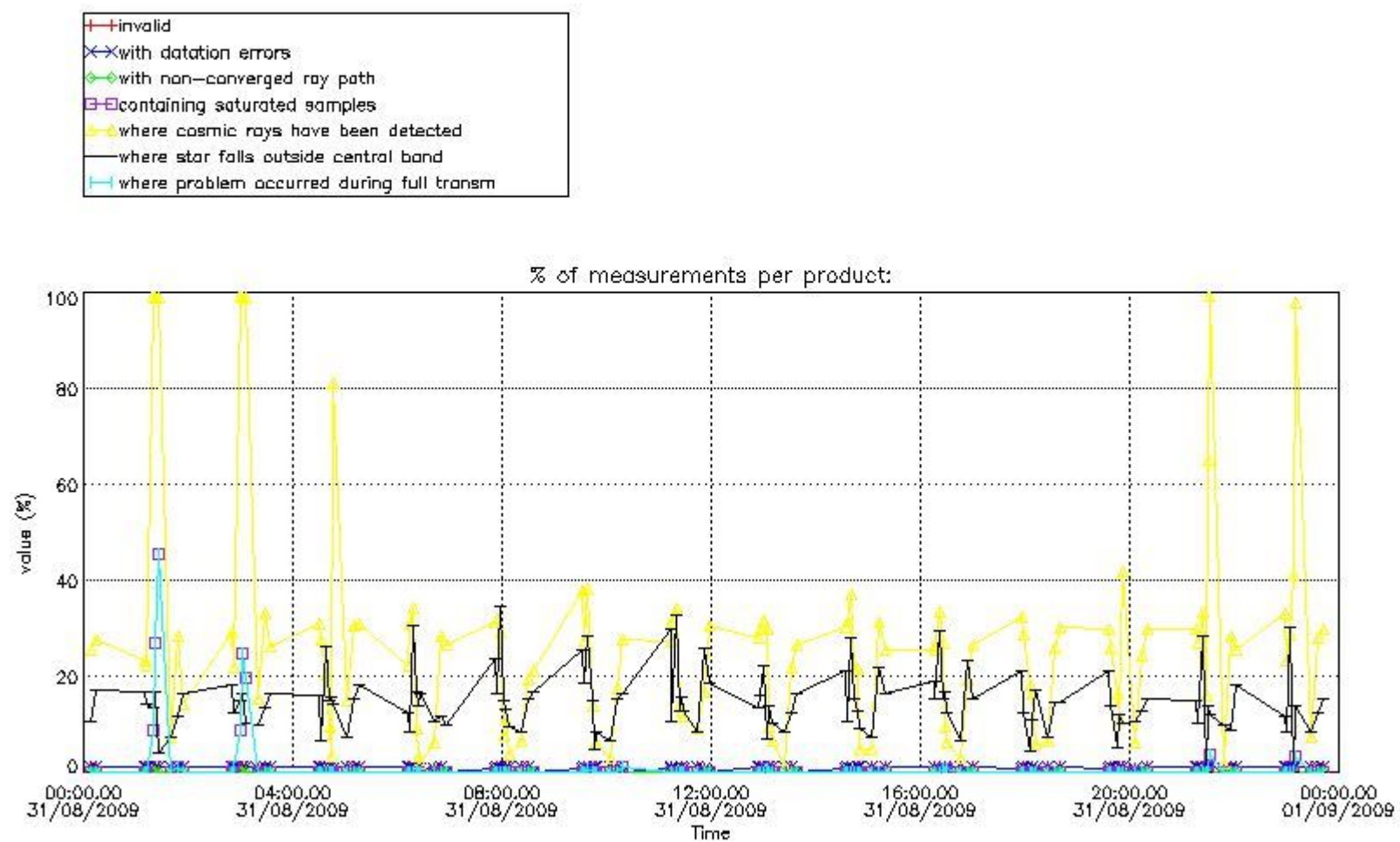


4. Level 1 quality information per product

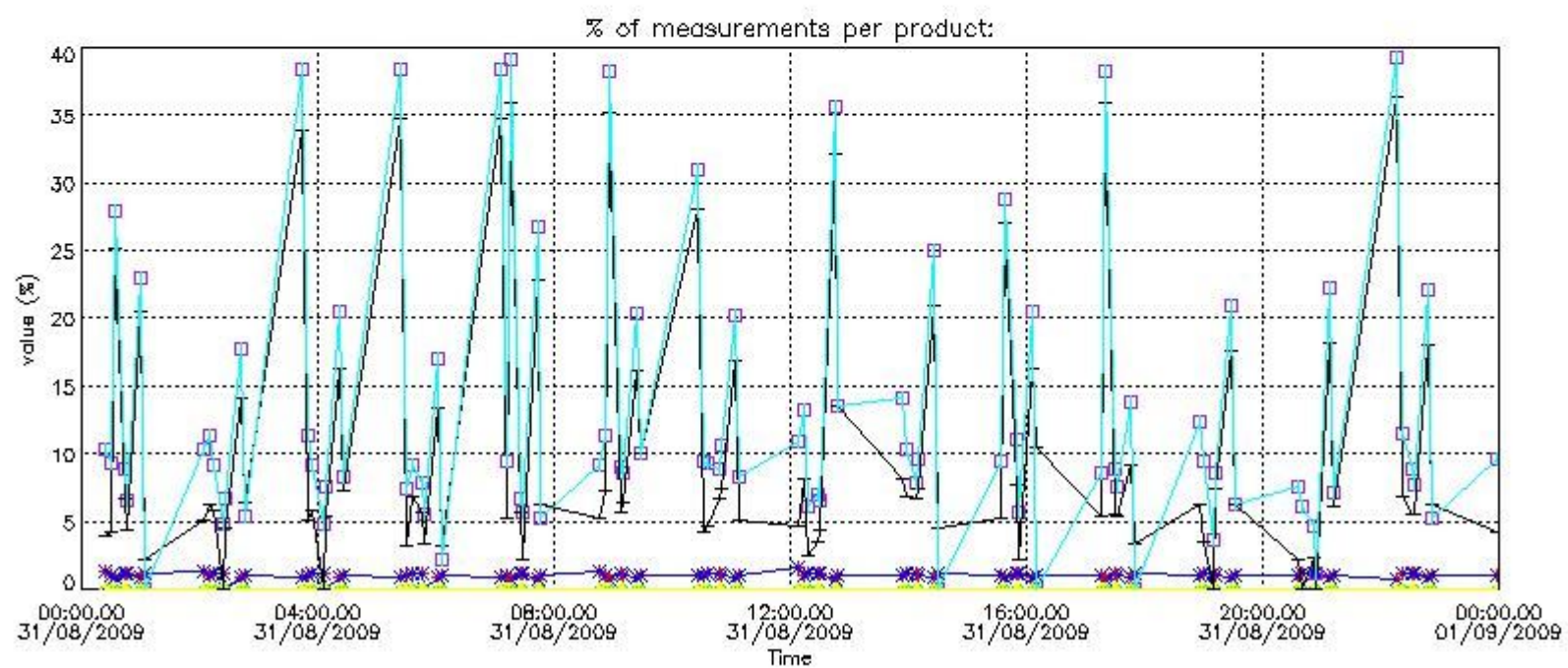
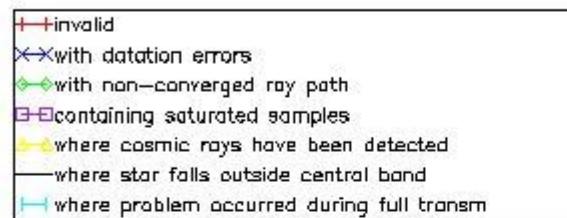
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



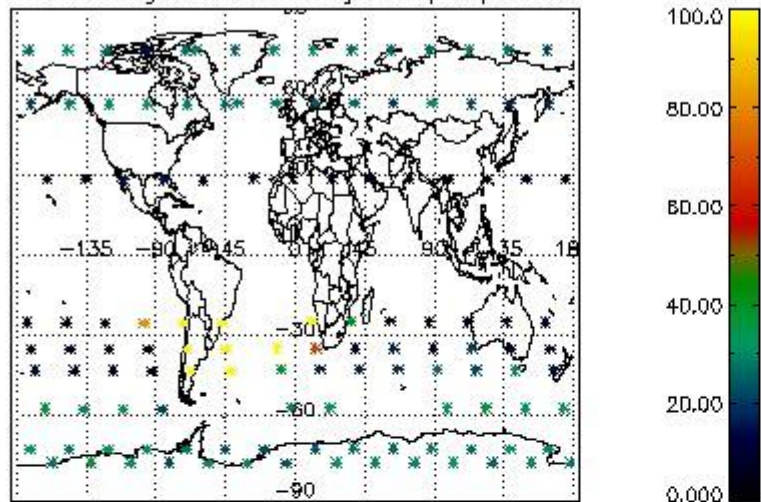
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



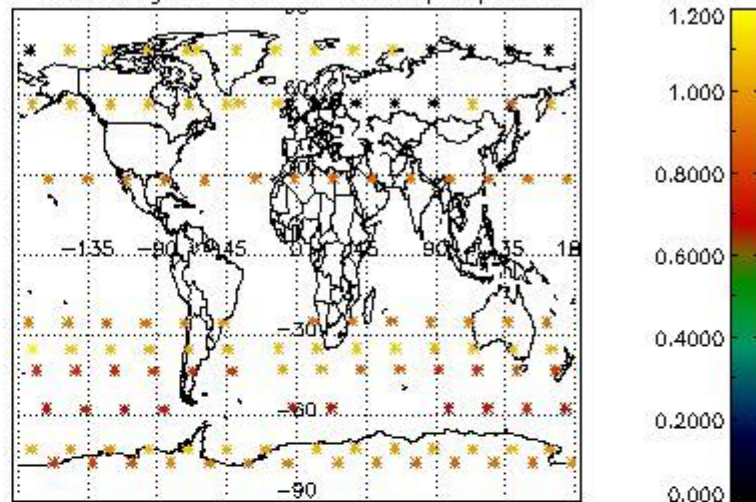
4.2 Plot quality information per product coming from level 1b processing (world map)

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

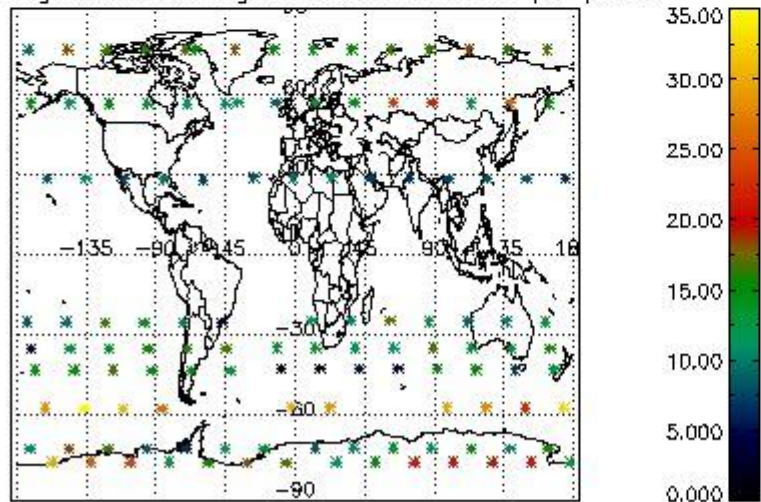
Percentage of cosmic ray hits per profile



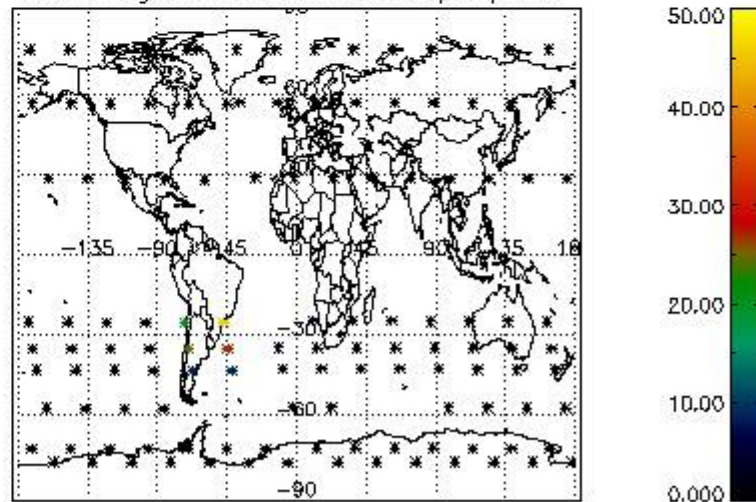
Percentage of datation errors per profile



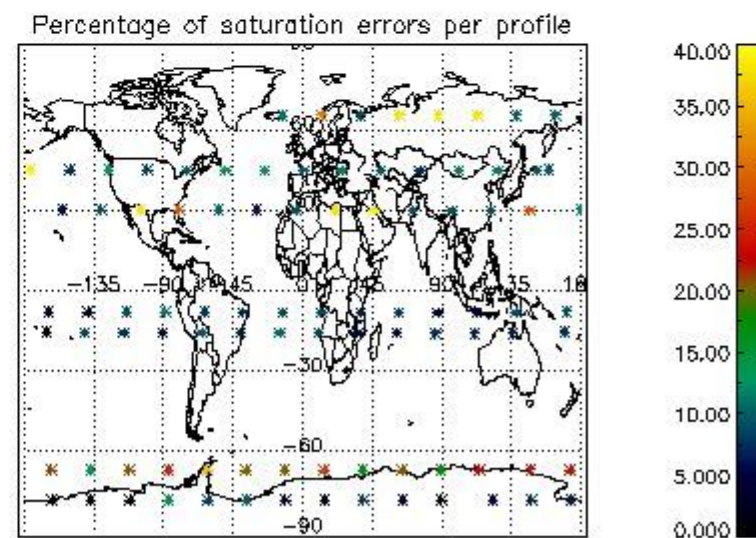
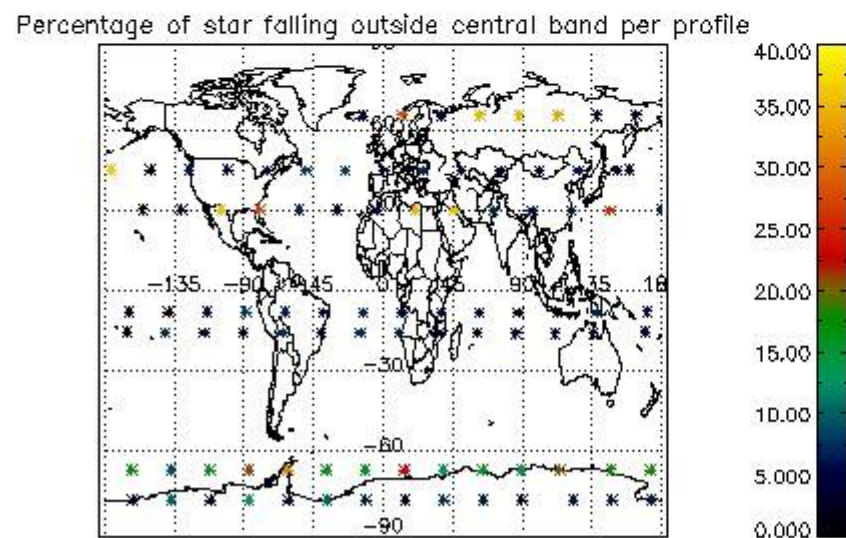
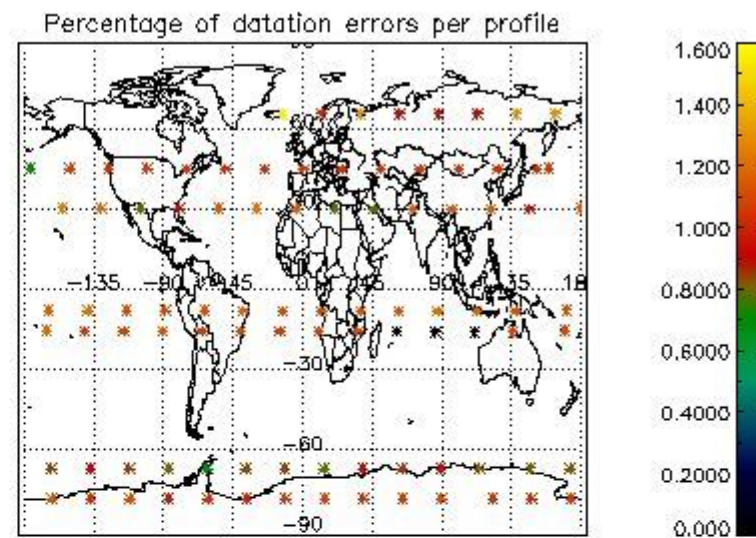
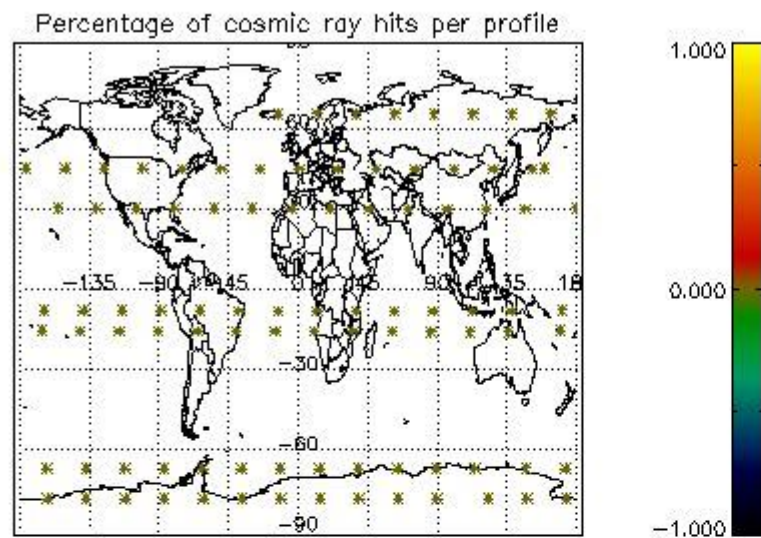
Percentage of star falling outside central band per profile



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

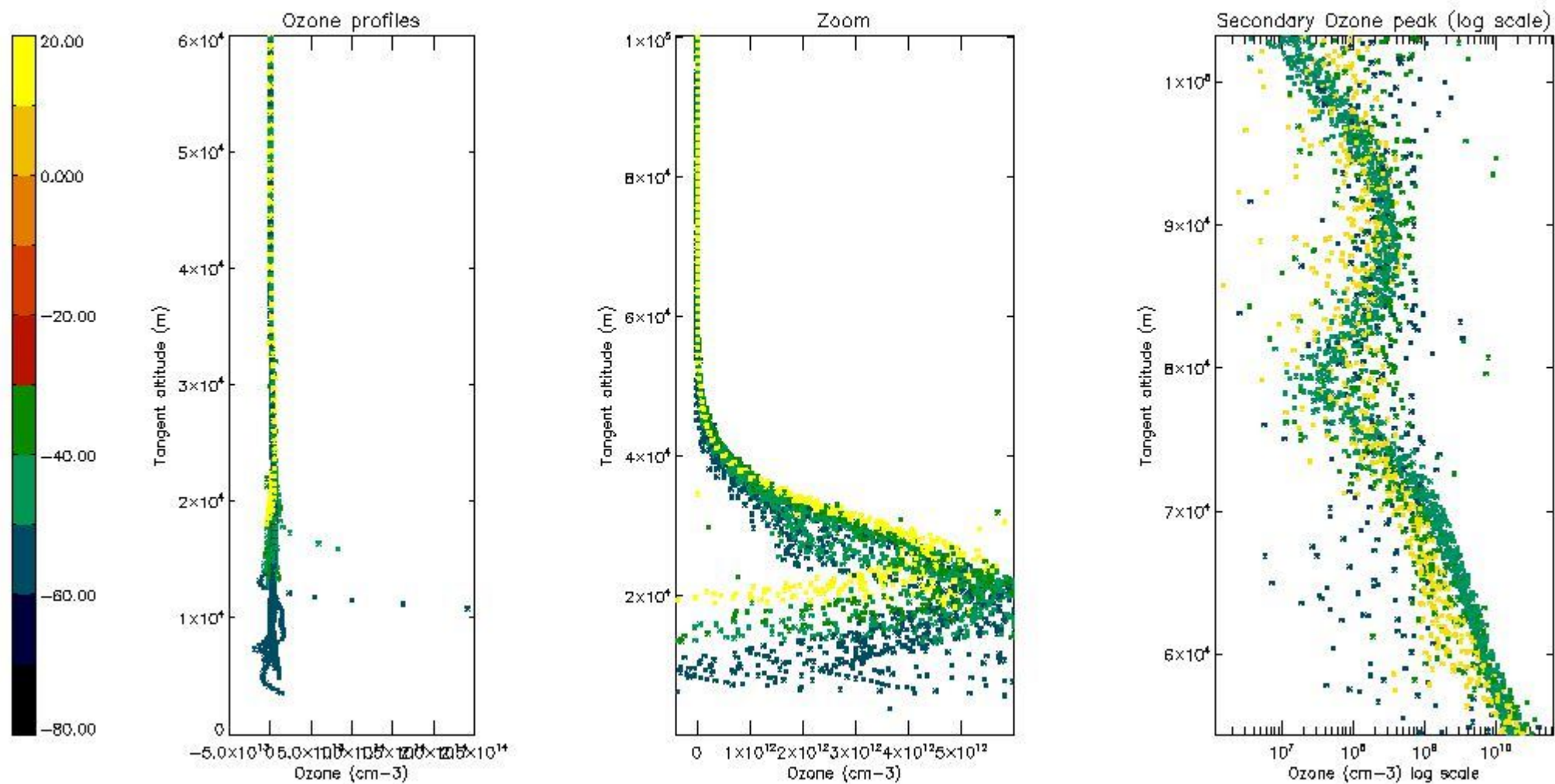
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	17

STD < 10	14
STD < 5	8

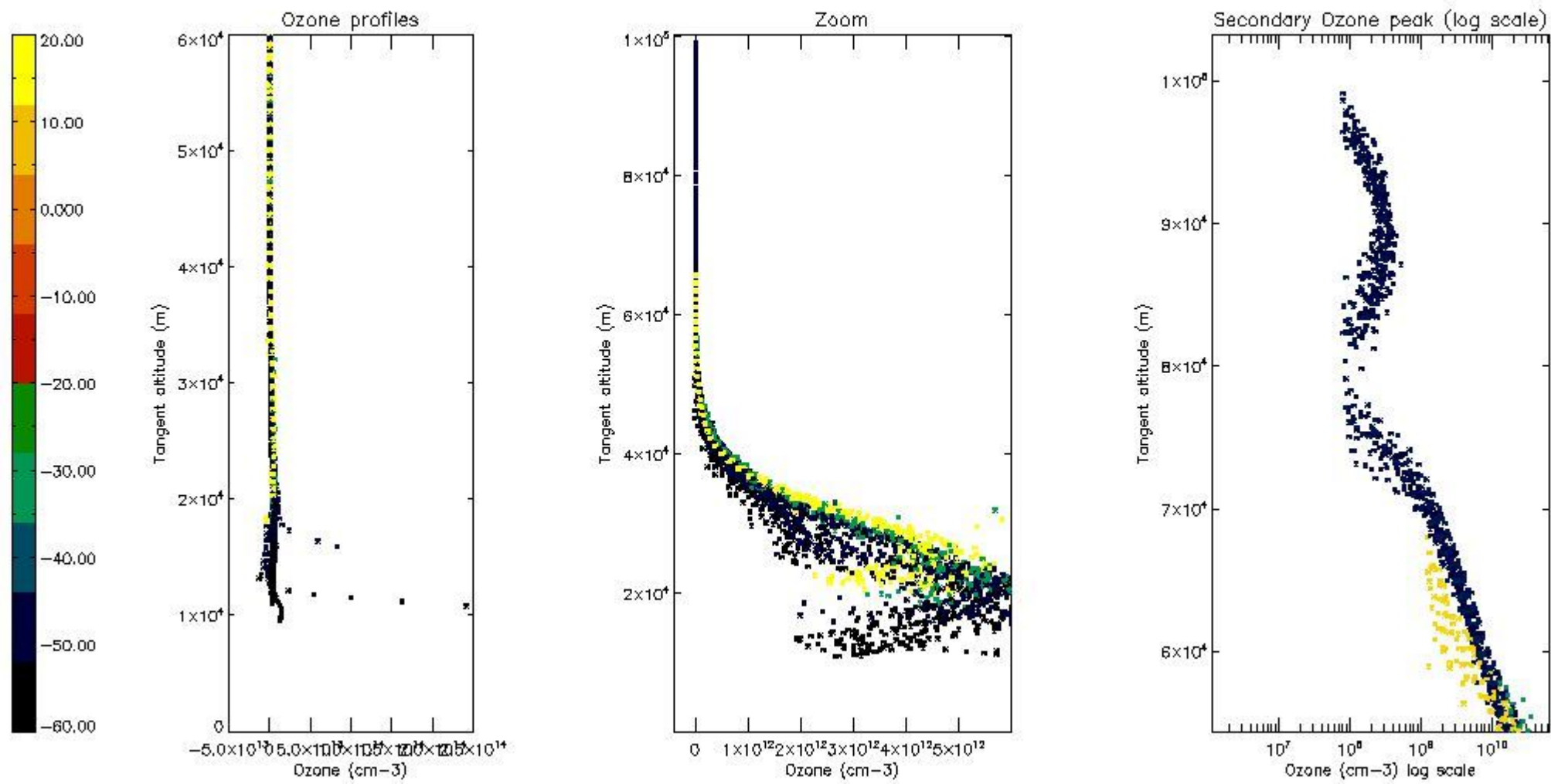
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



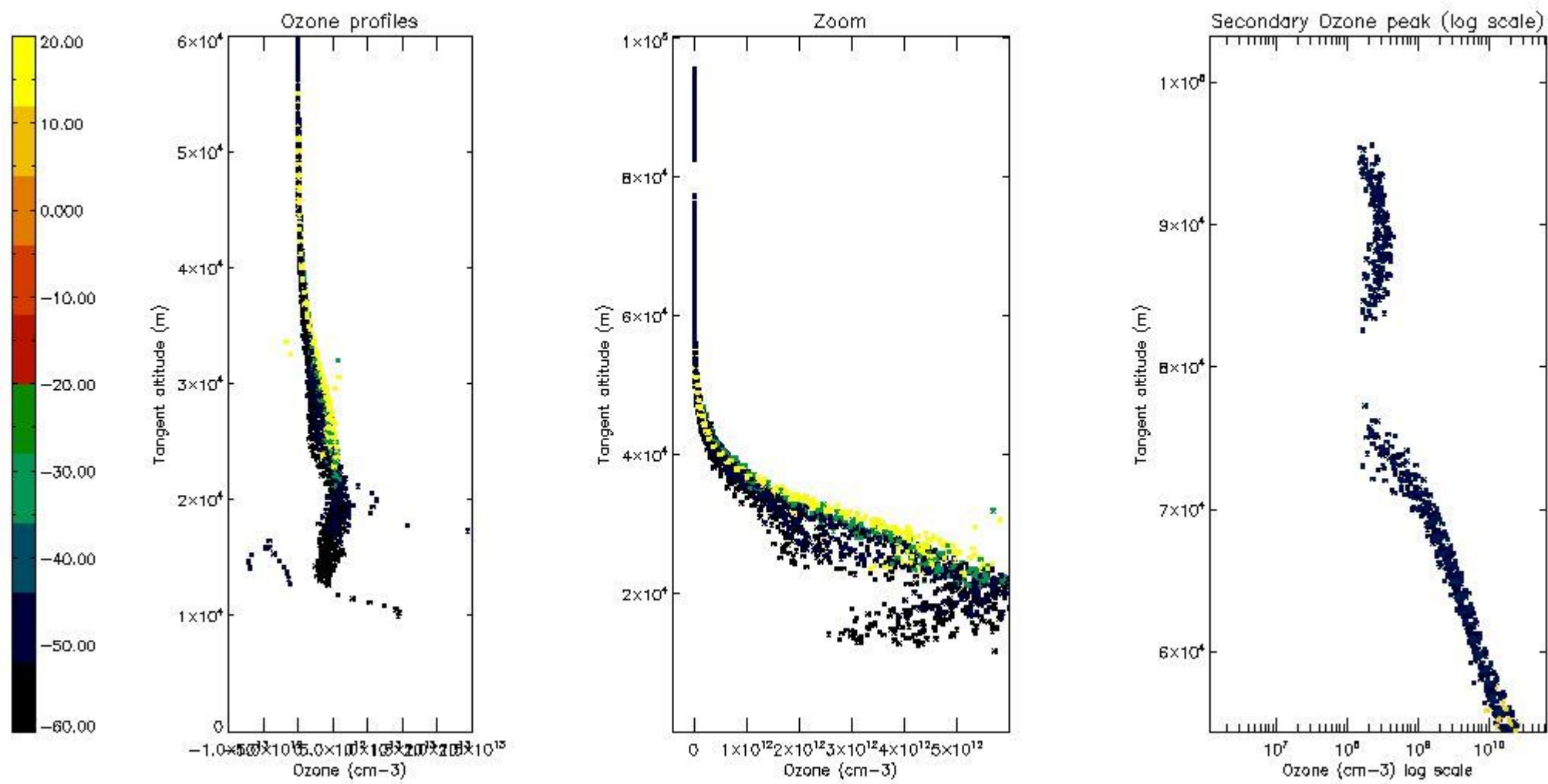
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



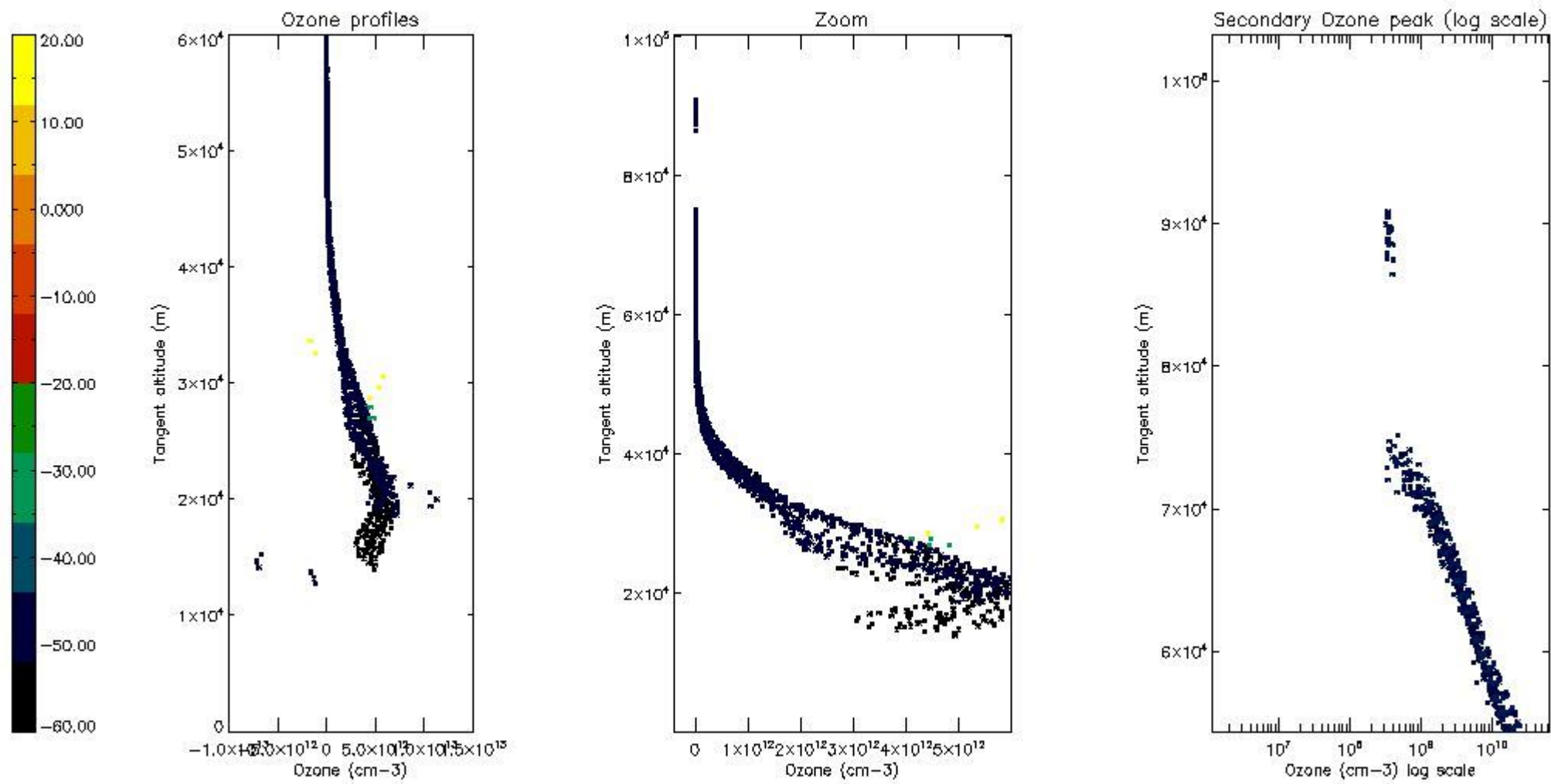
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



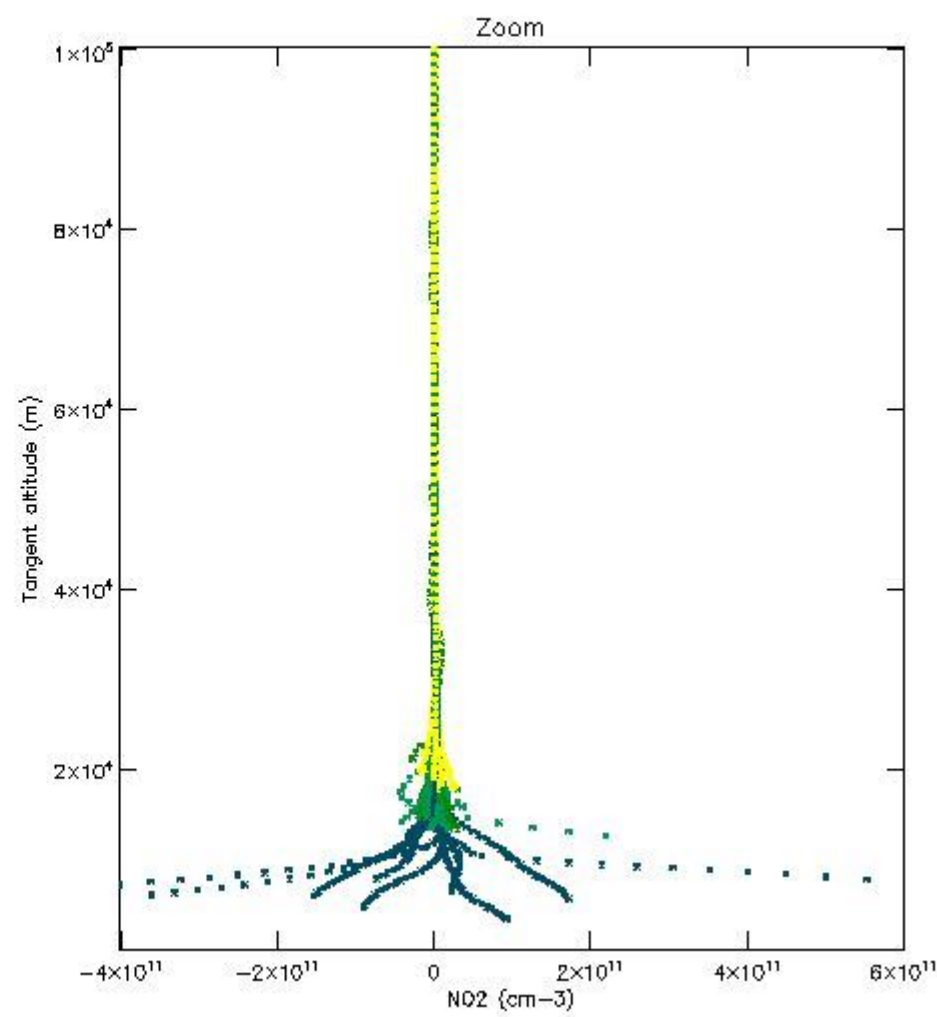
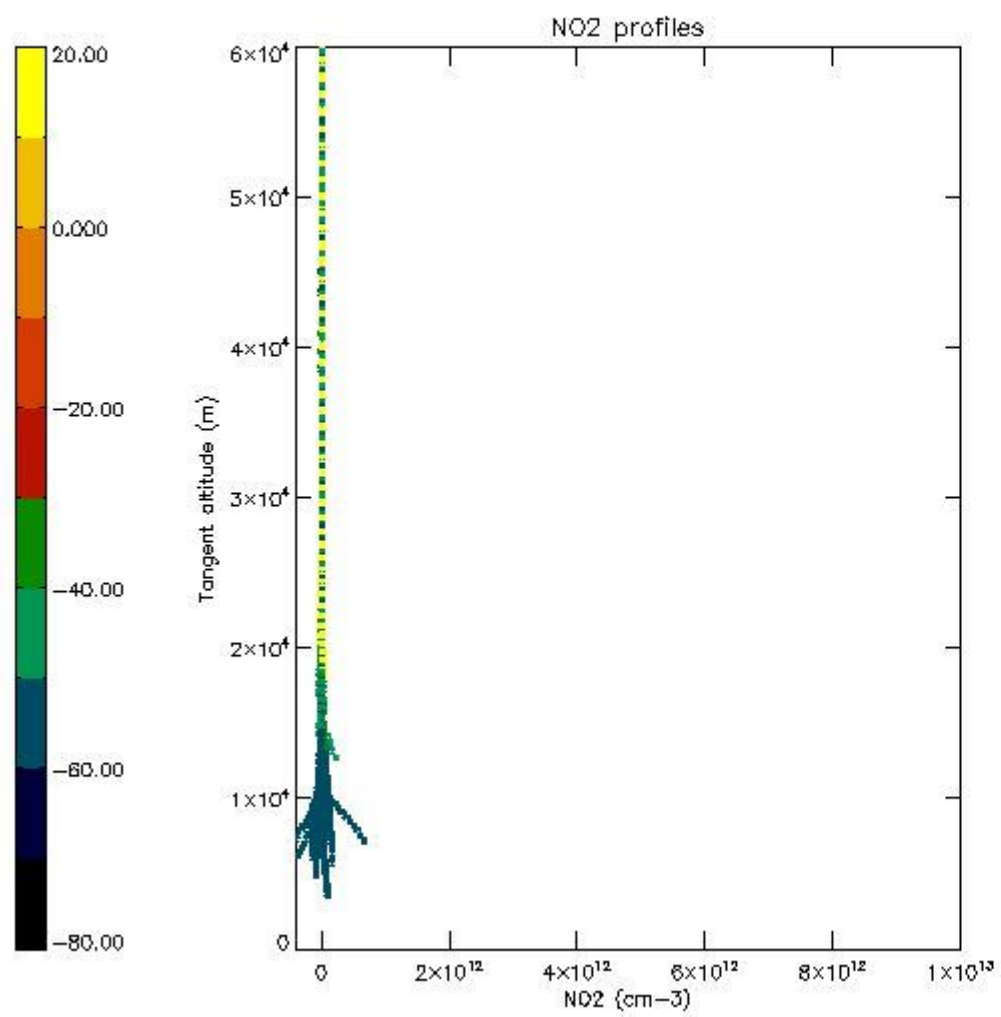
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



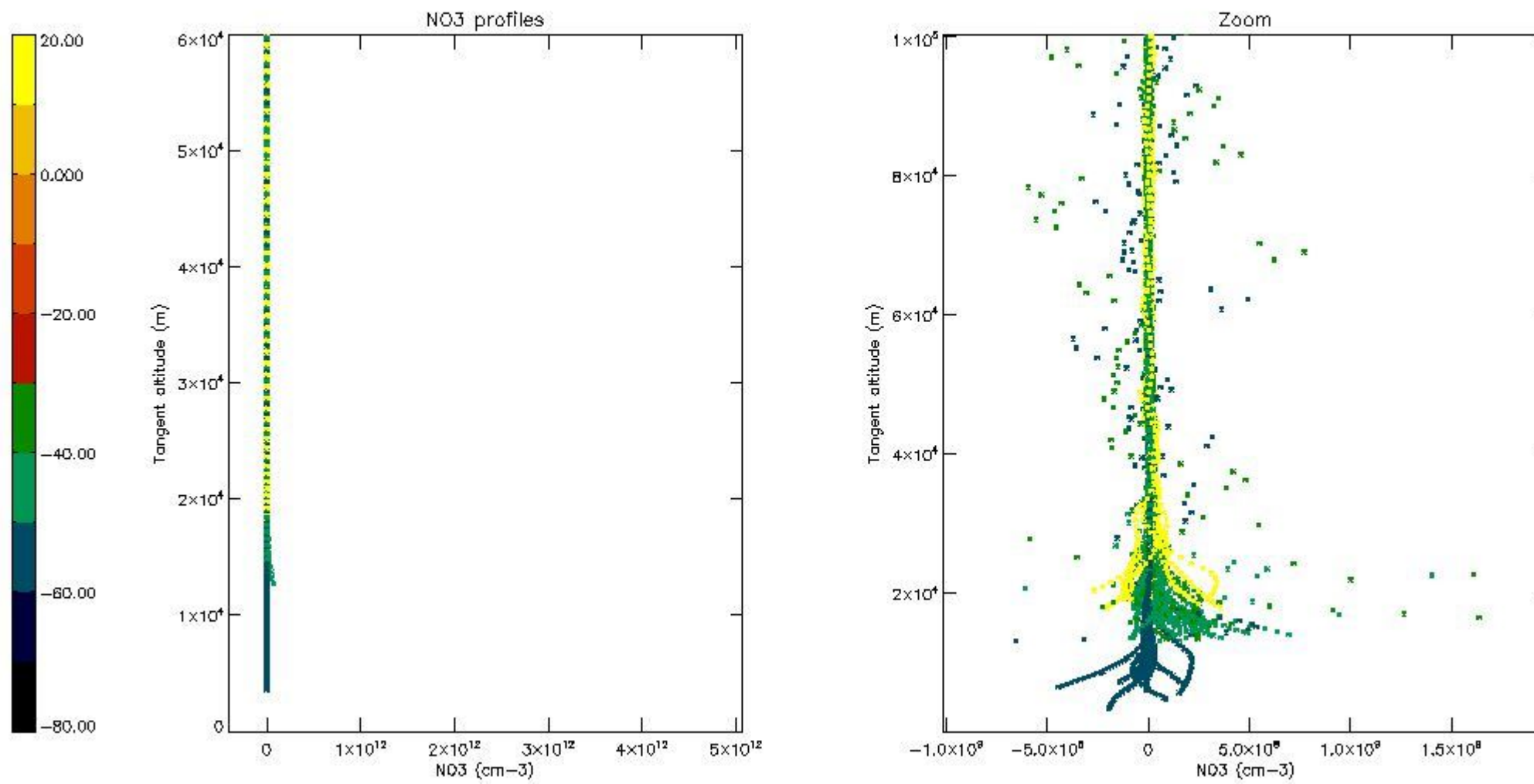
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

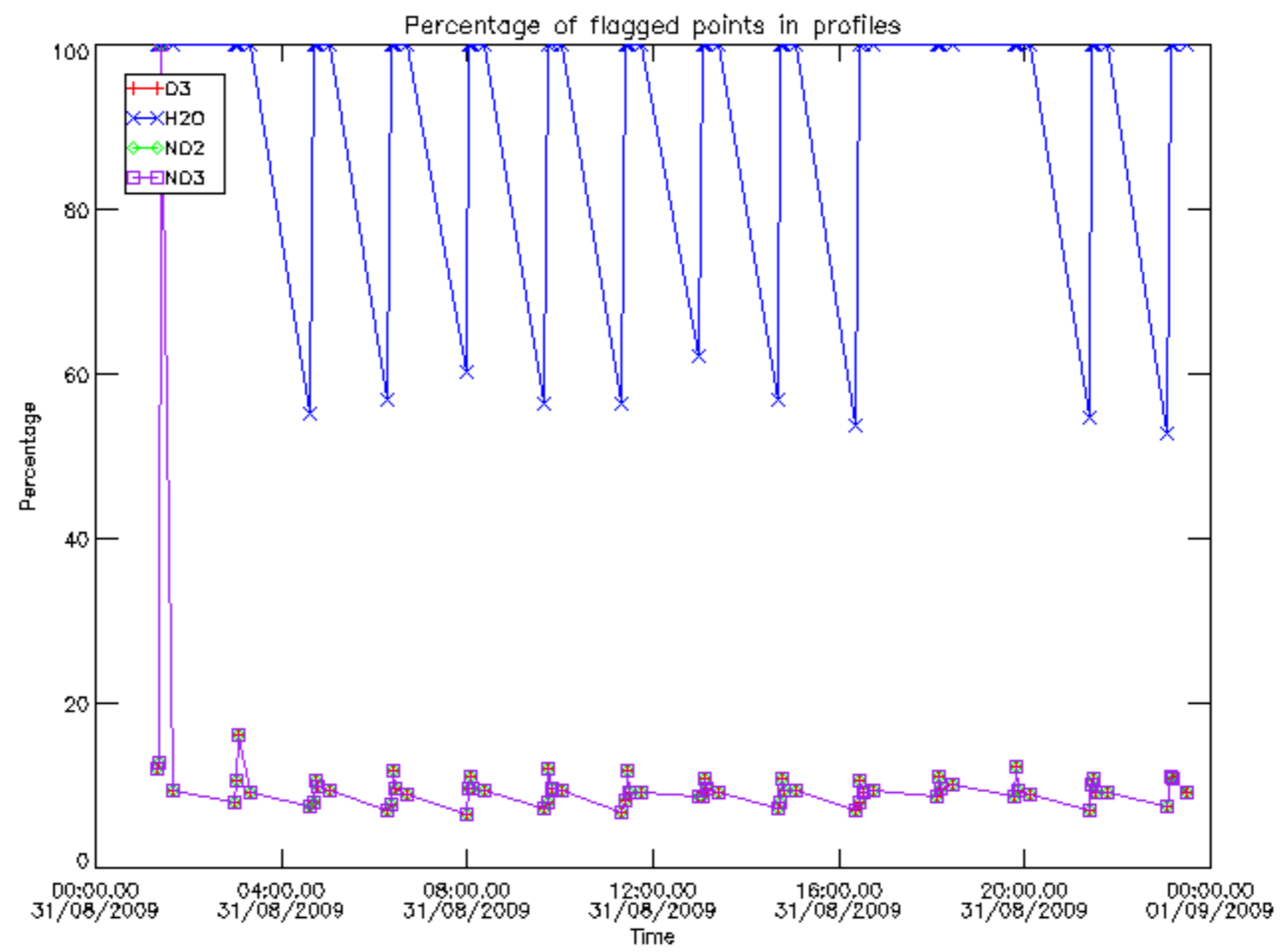
The colorbar represents the latitude.



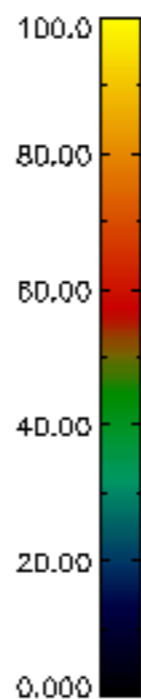
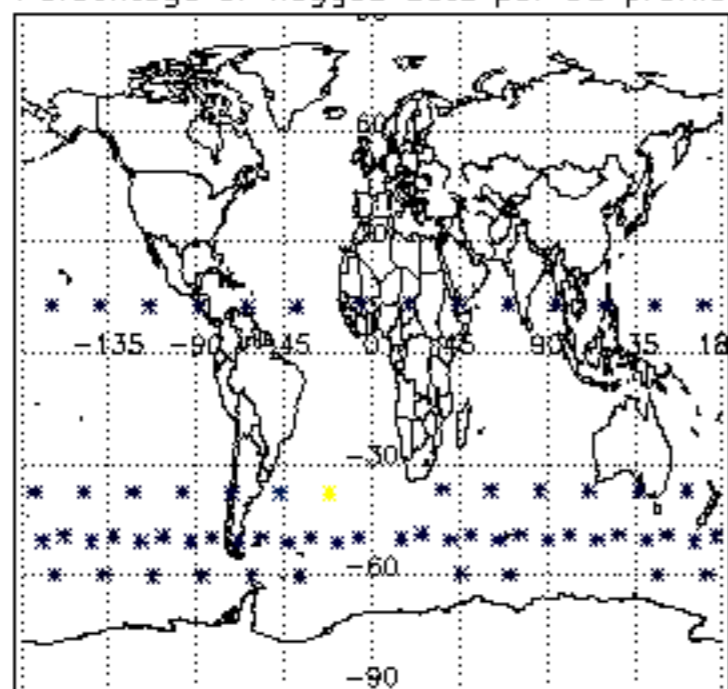
6. Auxiliary Data Files used for the production reported in section 2

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

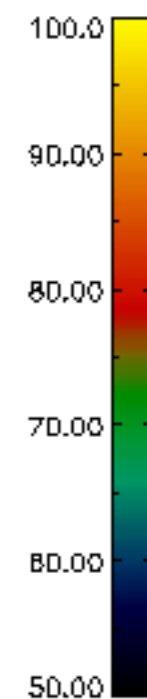
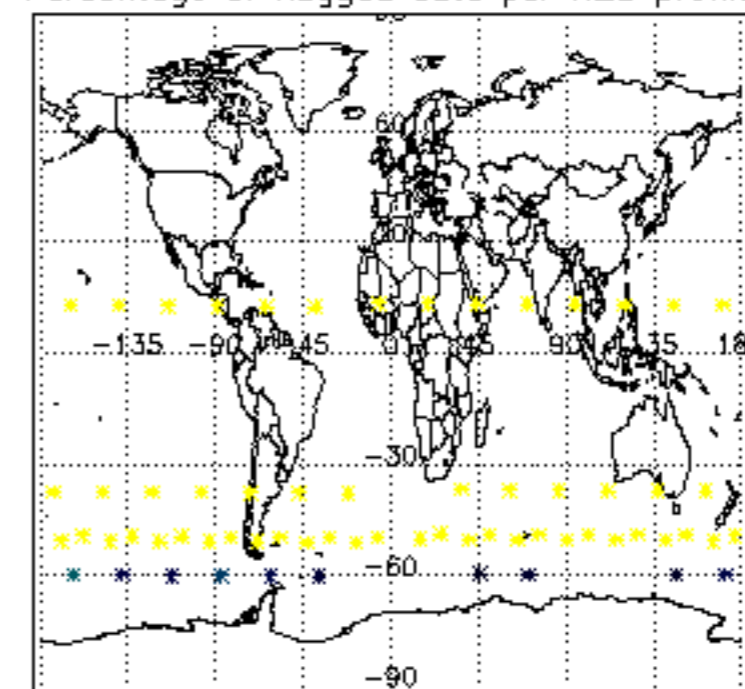
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	31-AUG-2009 00:07:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	31-AUG-2009 00:07:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	31-AUG-2009 00:07:27



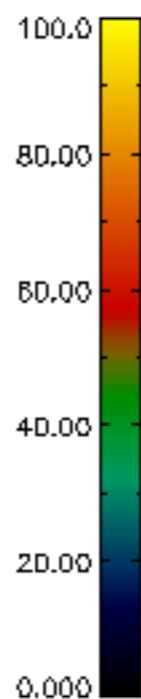
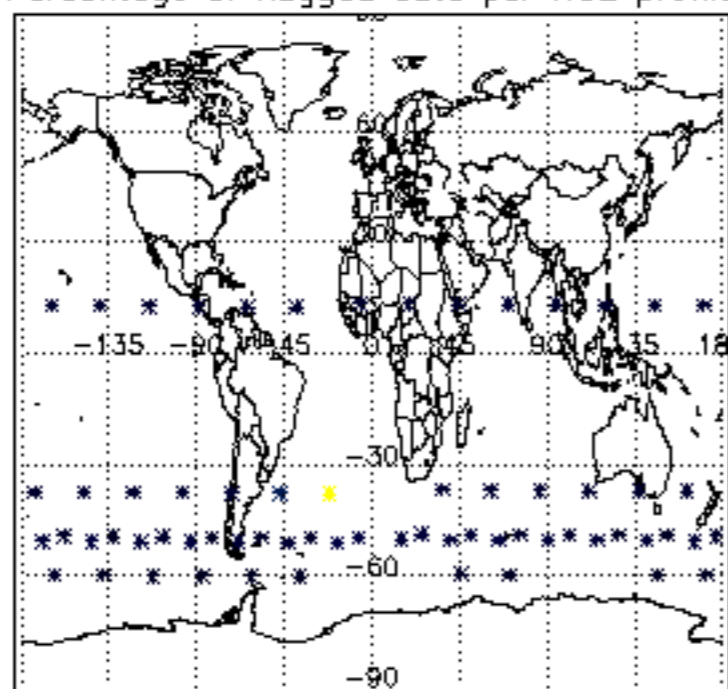
Percentage of flagged data per D3 profile



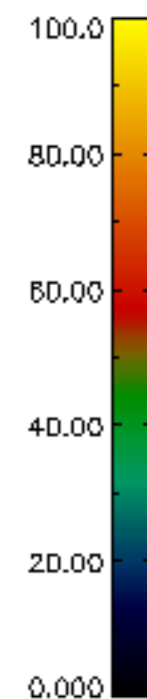
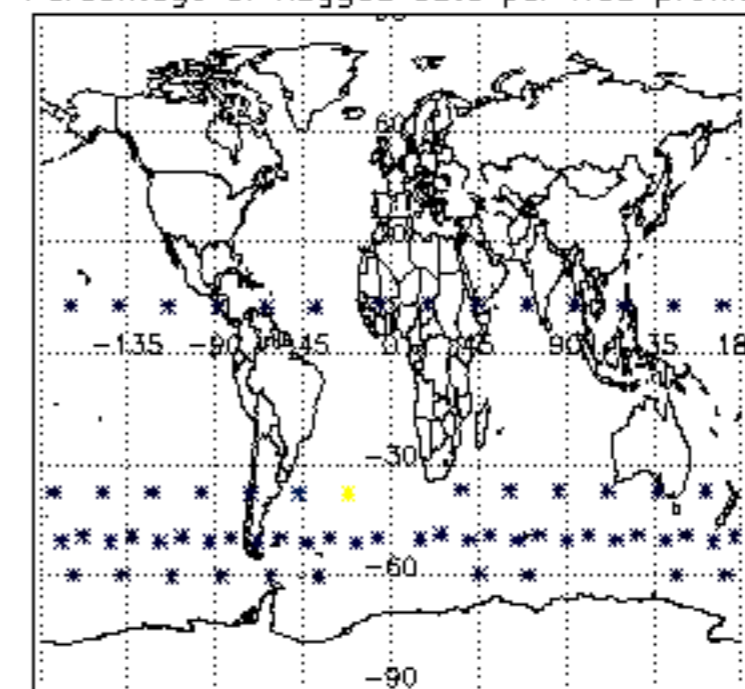
Percentage of flagged data per H2O profile

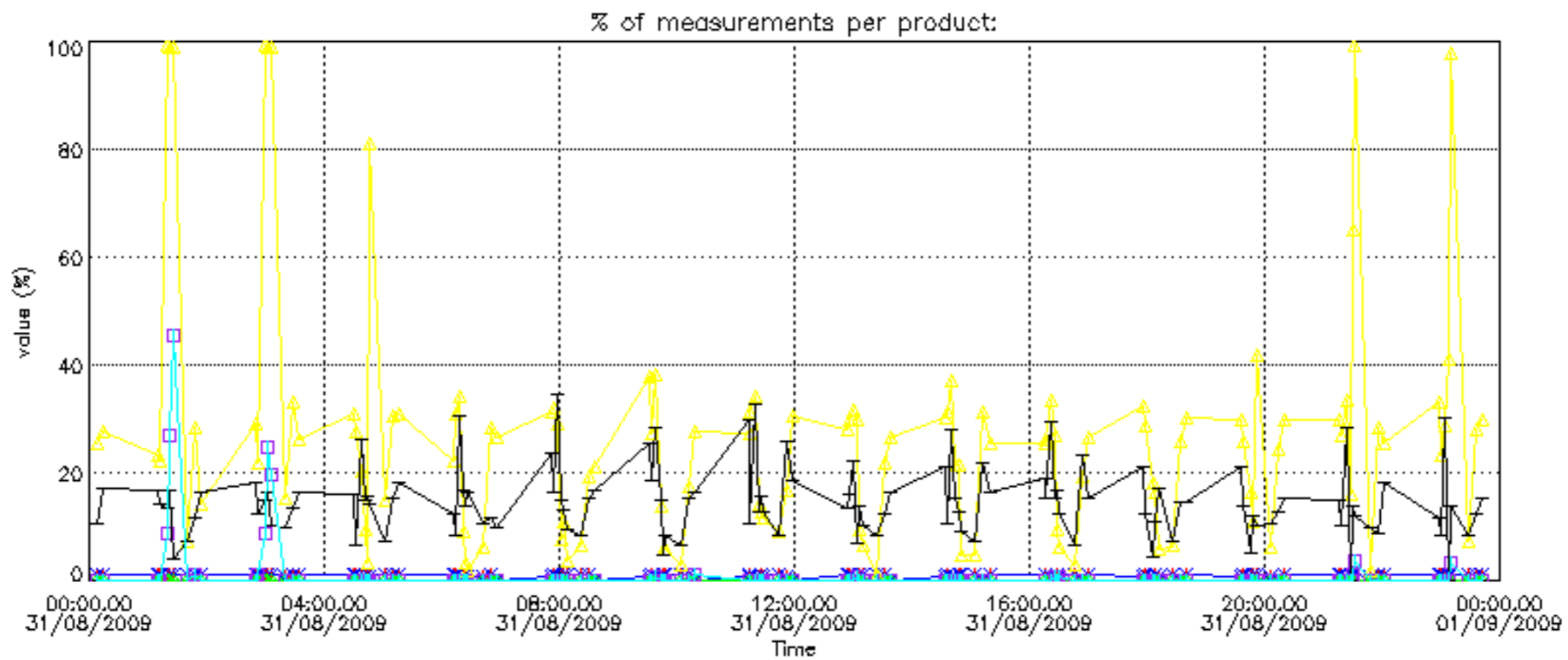


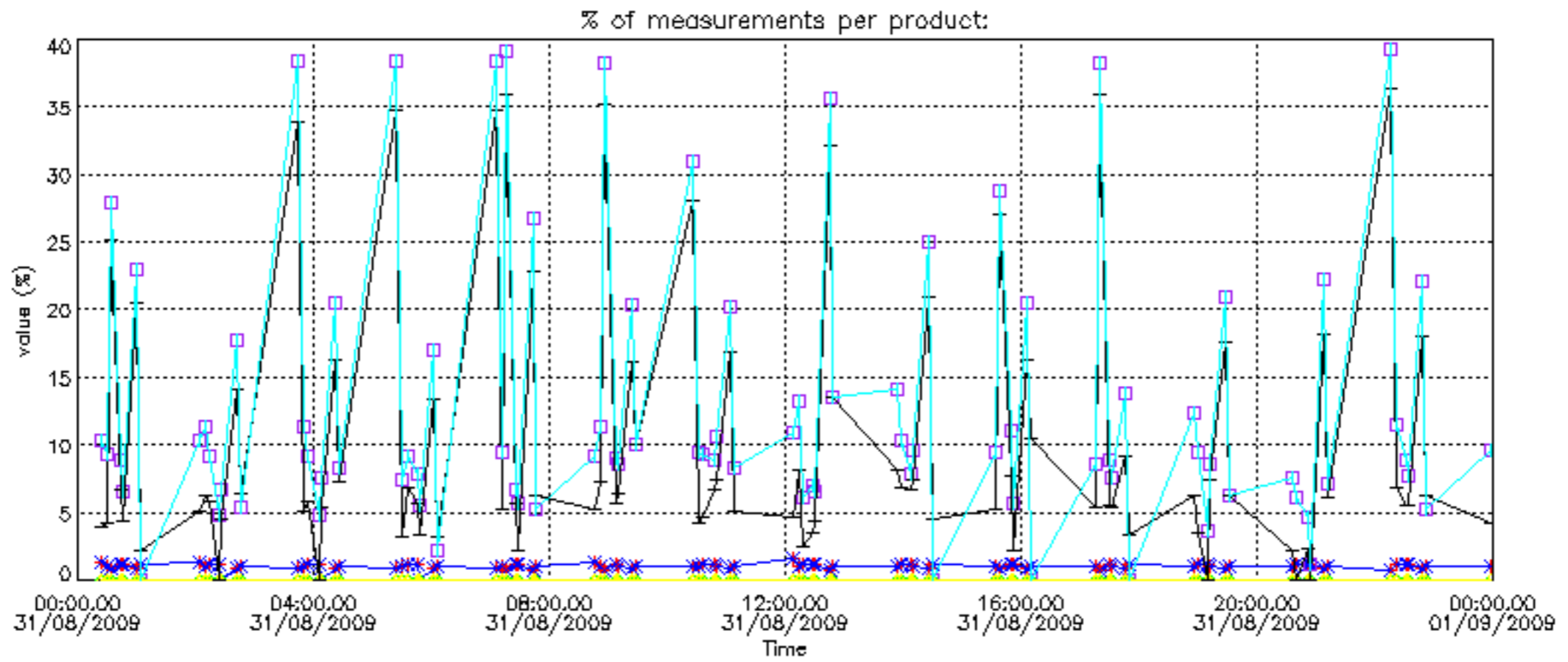
Percentage of flagged data per NO2 profile



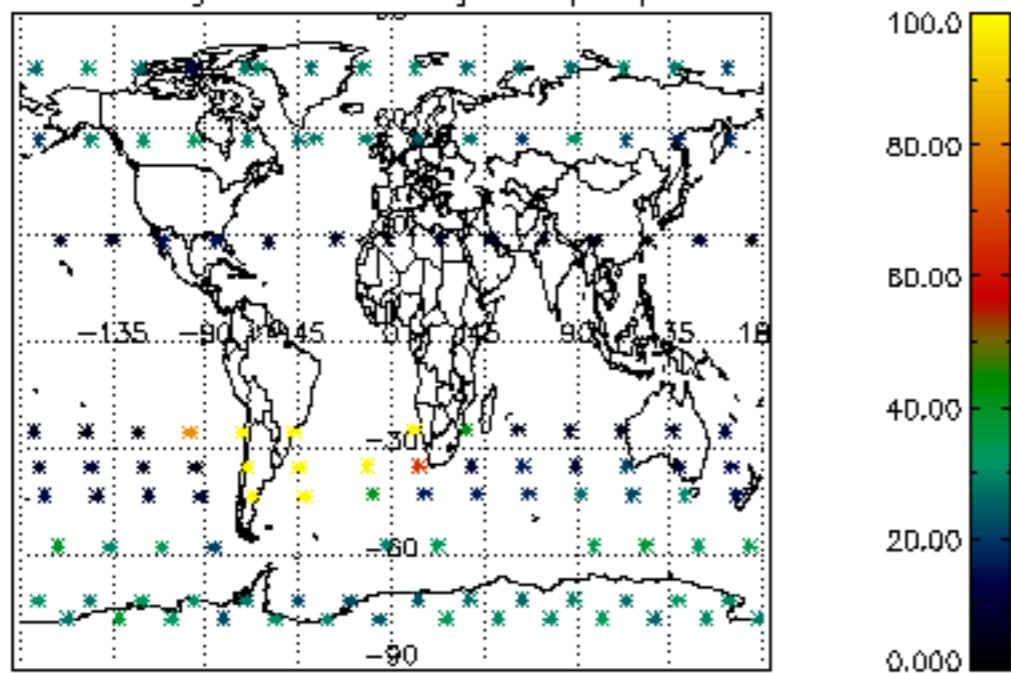
Percentage of flagged data per NO3 profile



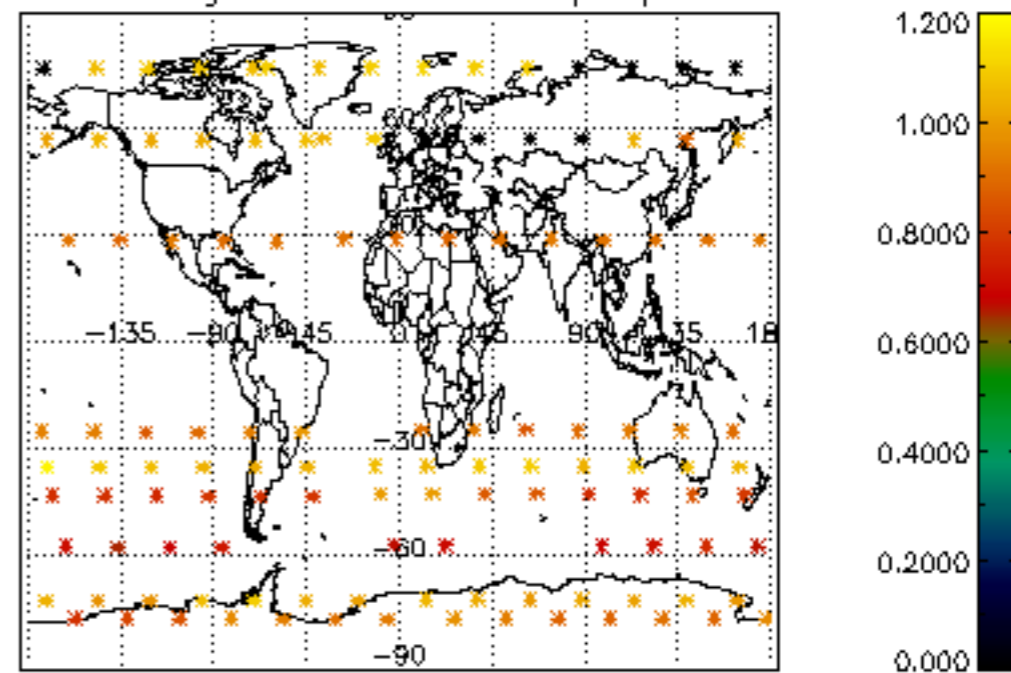




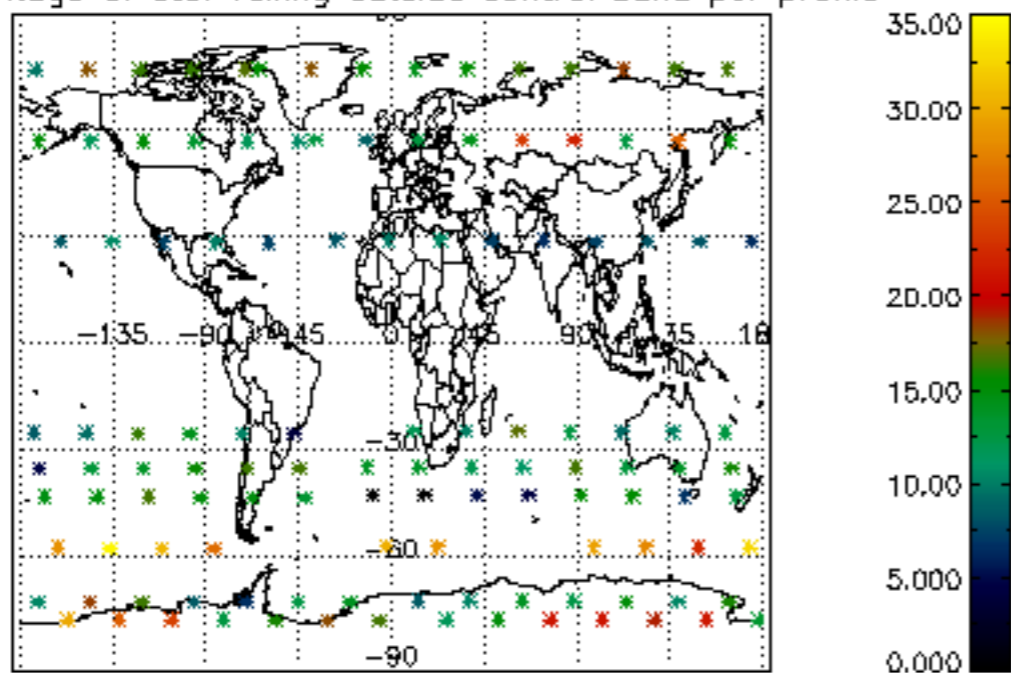
Percentage of cosmic ray hits per profile



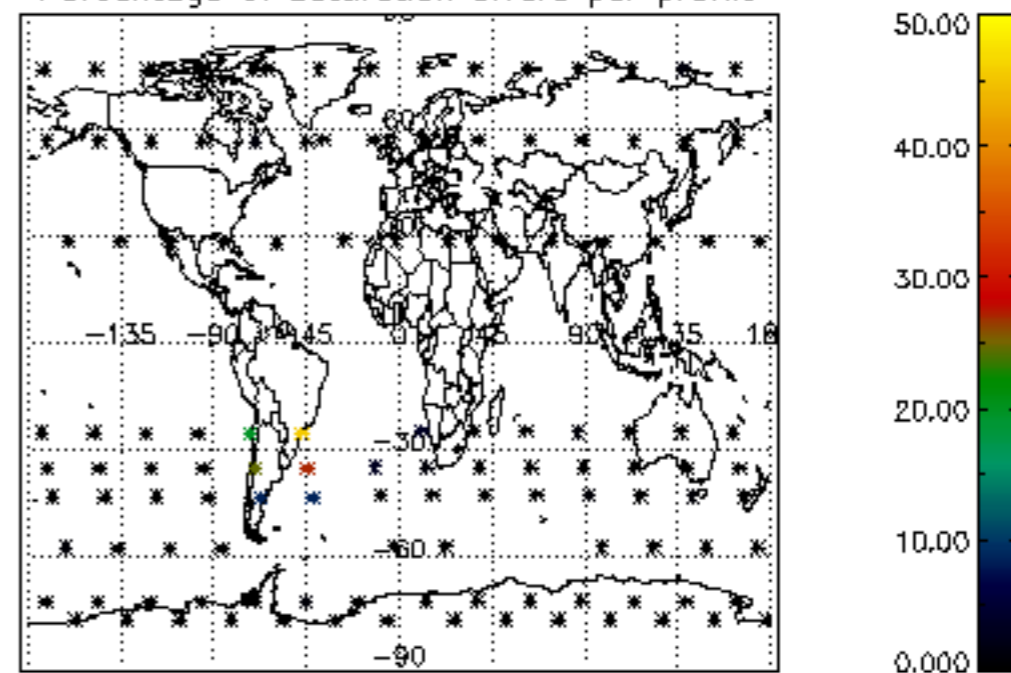
Percentage of datation errors per profile



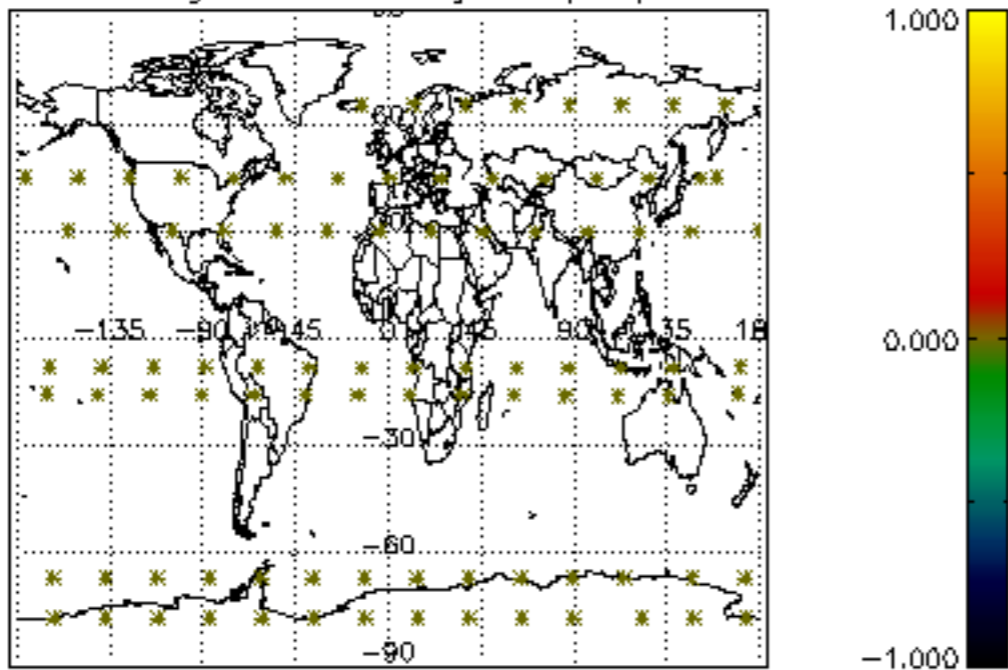
Percentage of star falling outside central band per profile



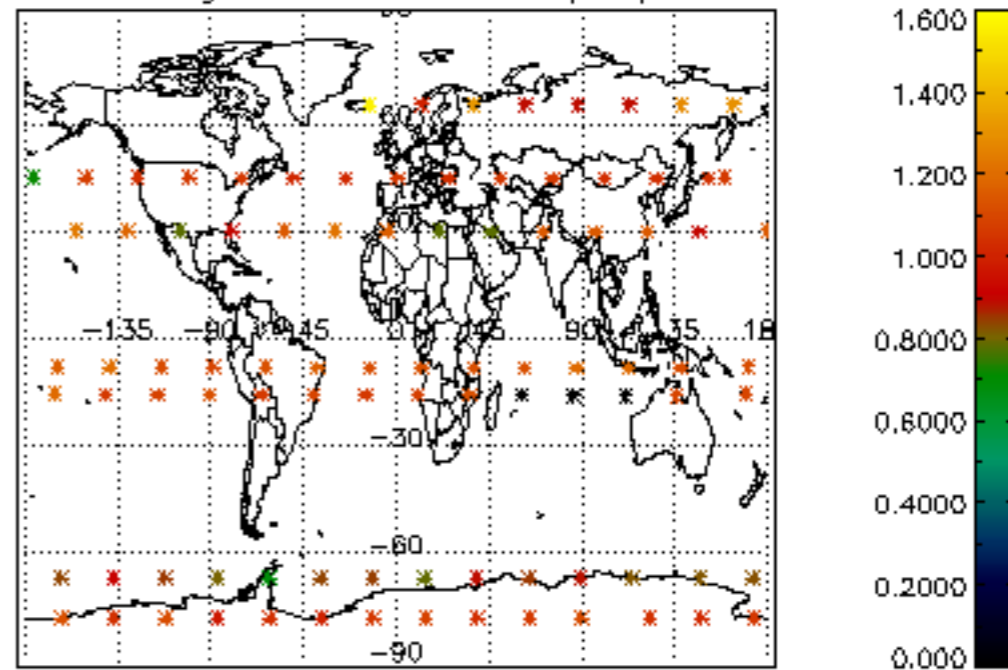
Percentage of saturation errors per profile



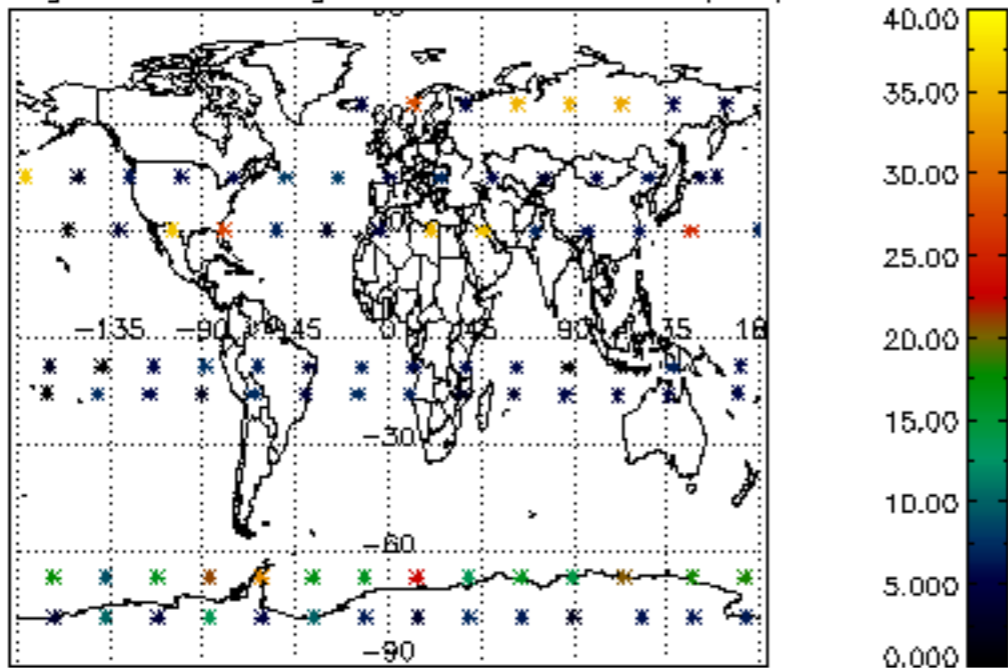
Percentage of cosmic ray hits per profile



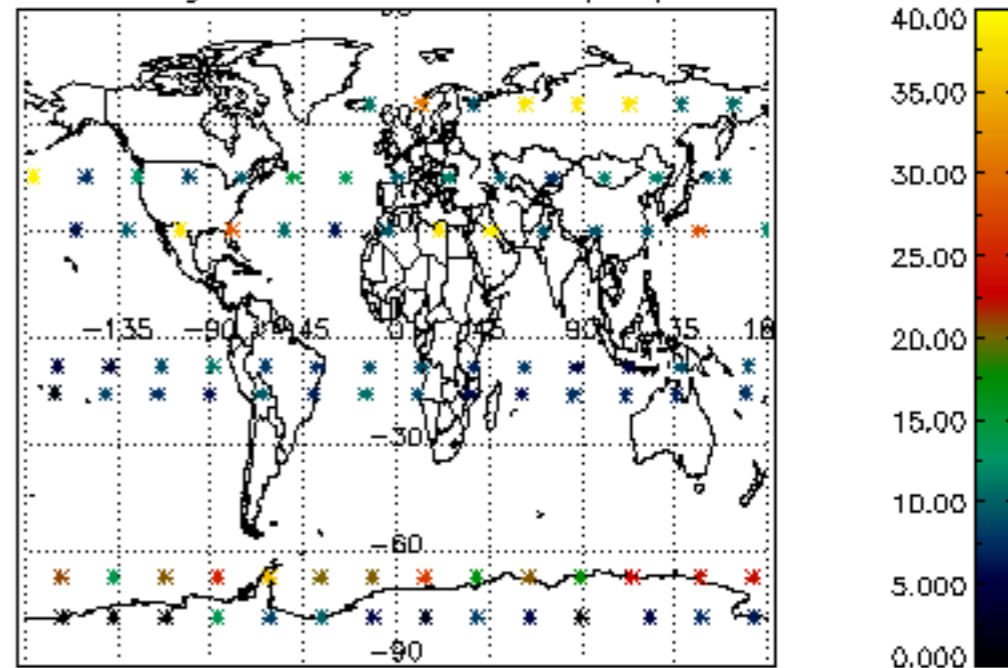
Percentage of datation errors per profile

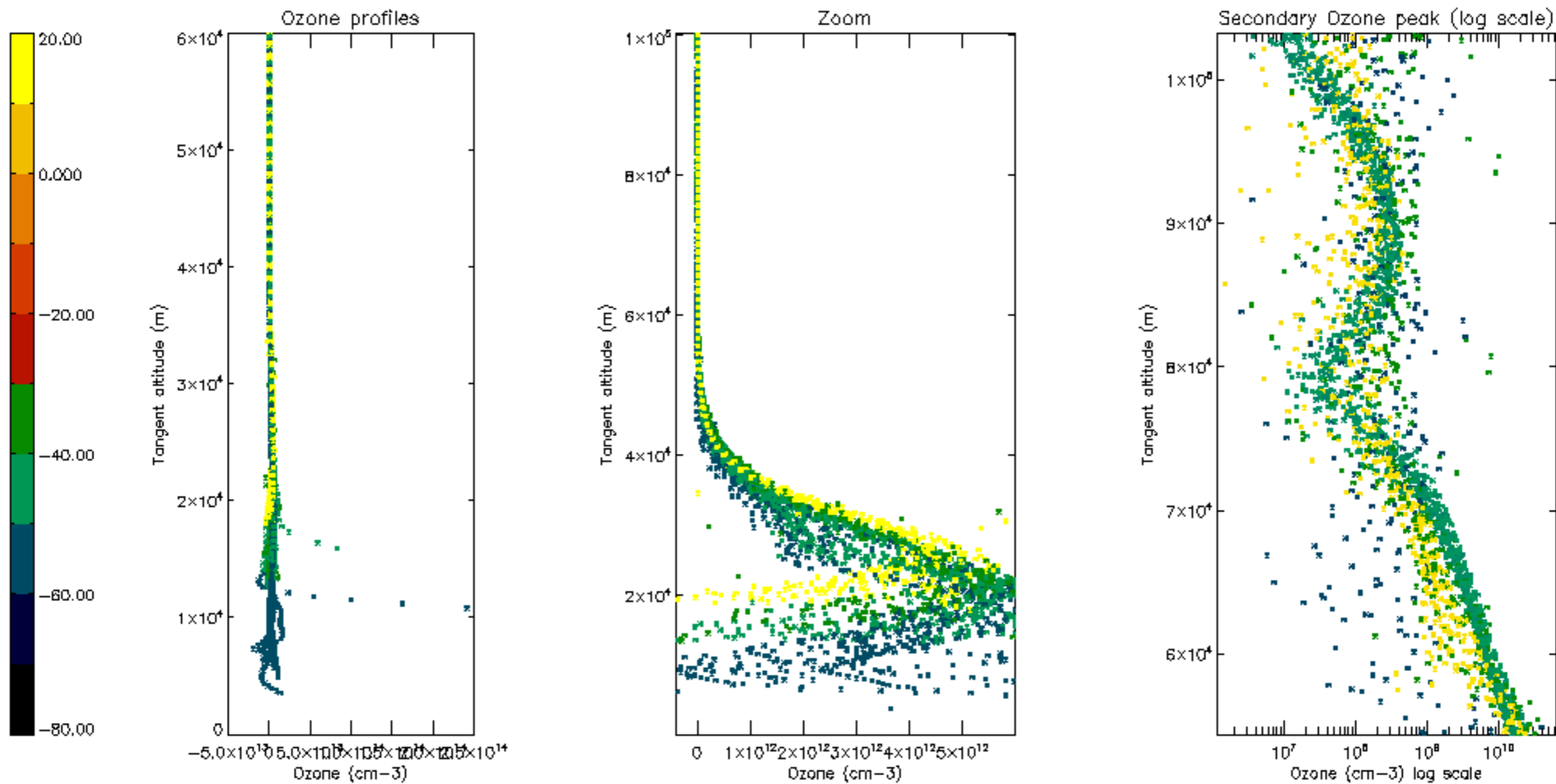


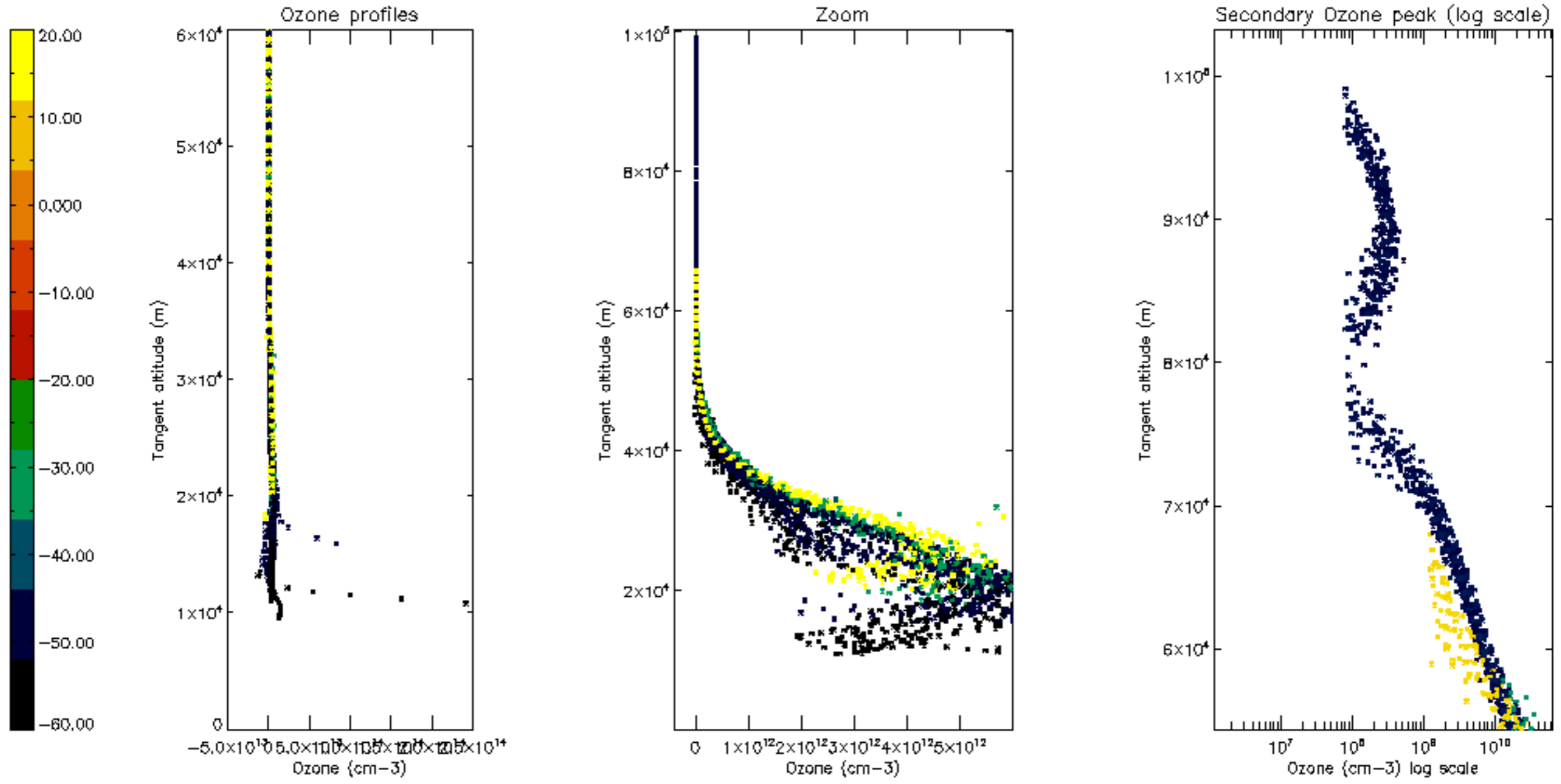
Percentage of star falling outside central band per profile

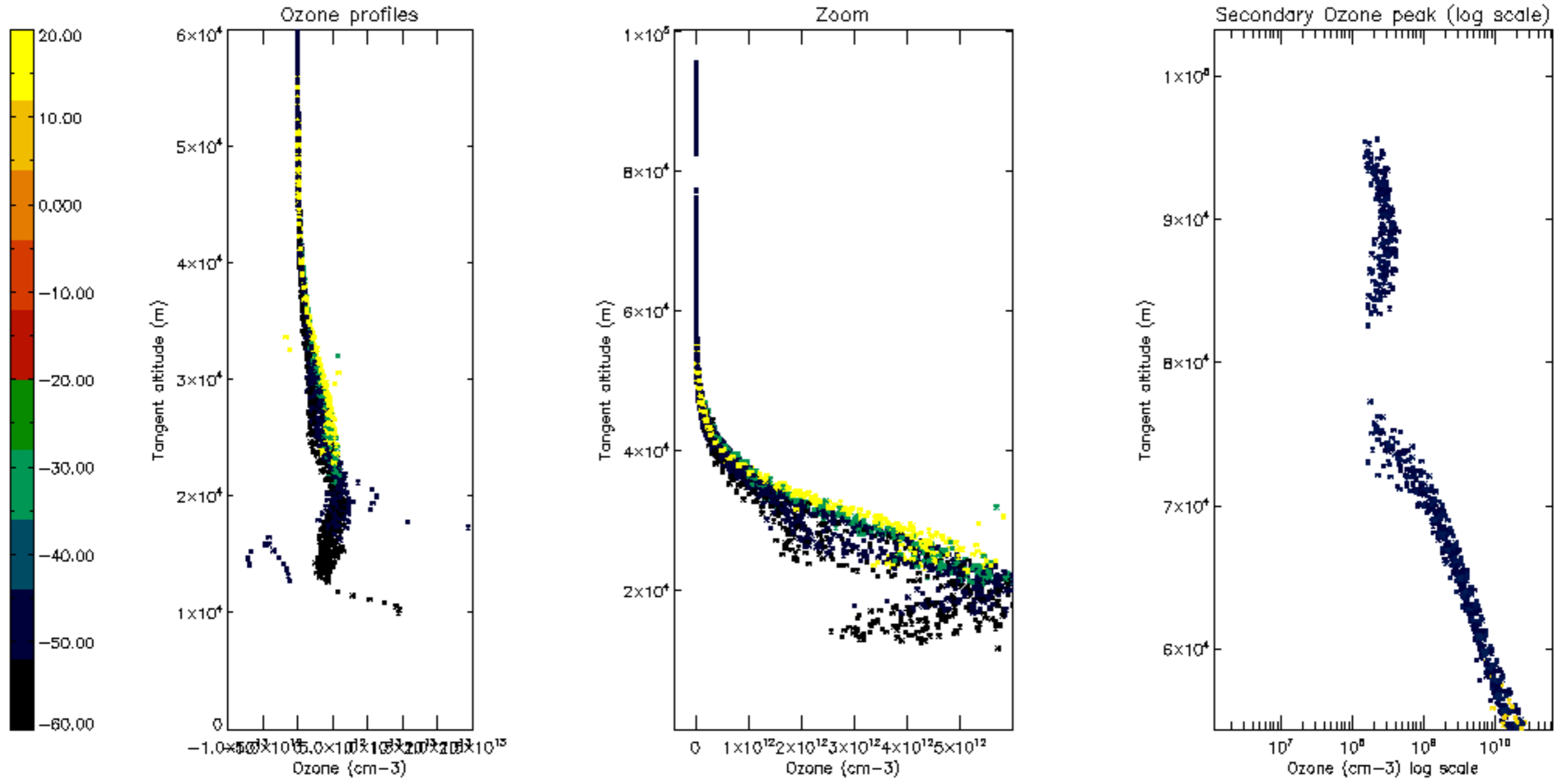


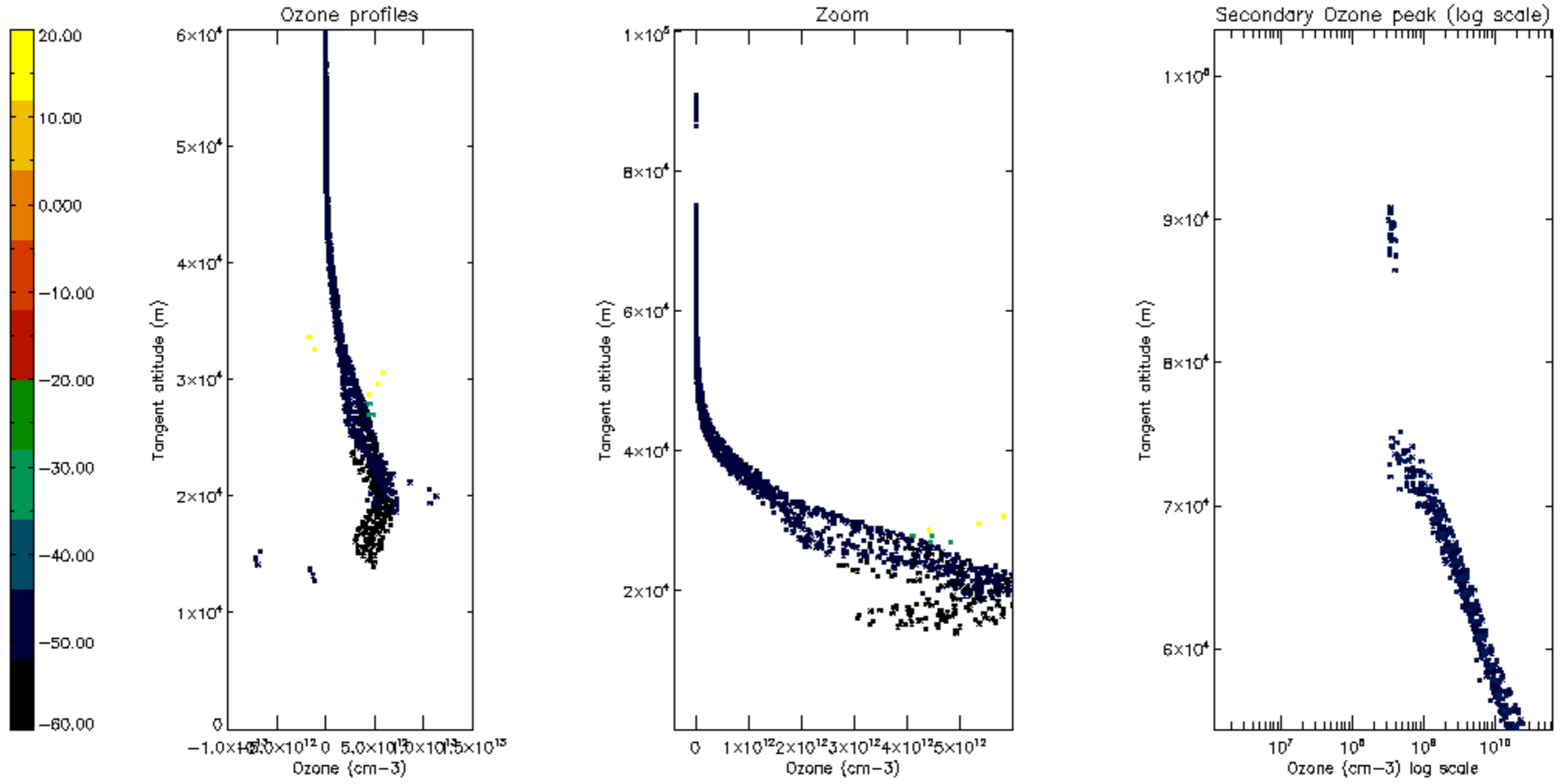
Percentage of saturation errors per profile

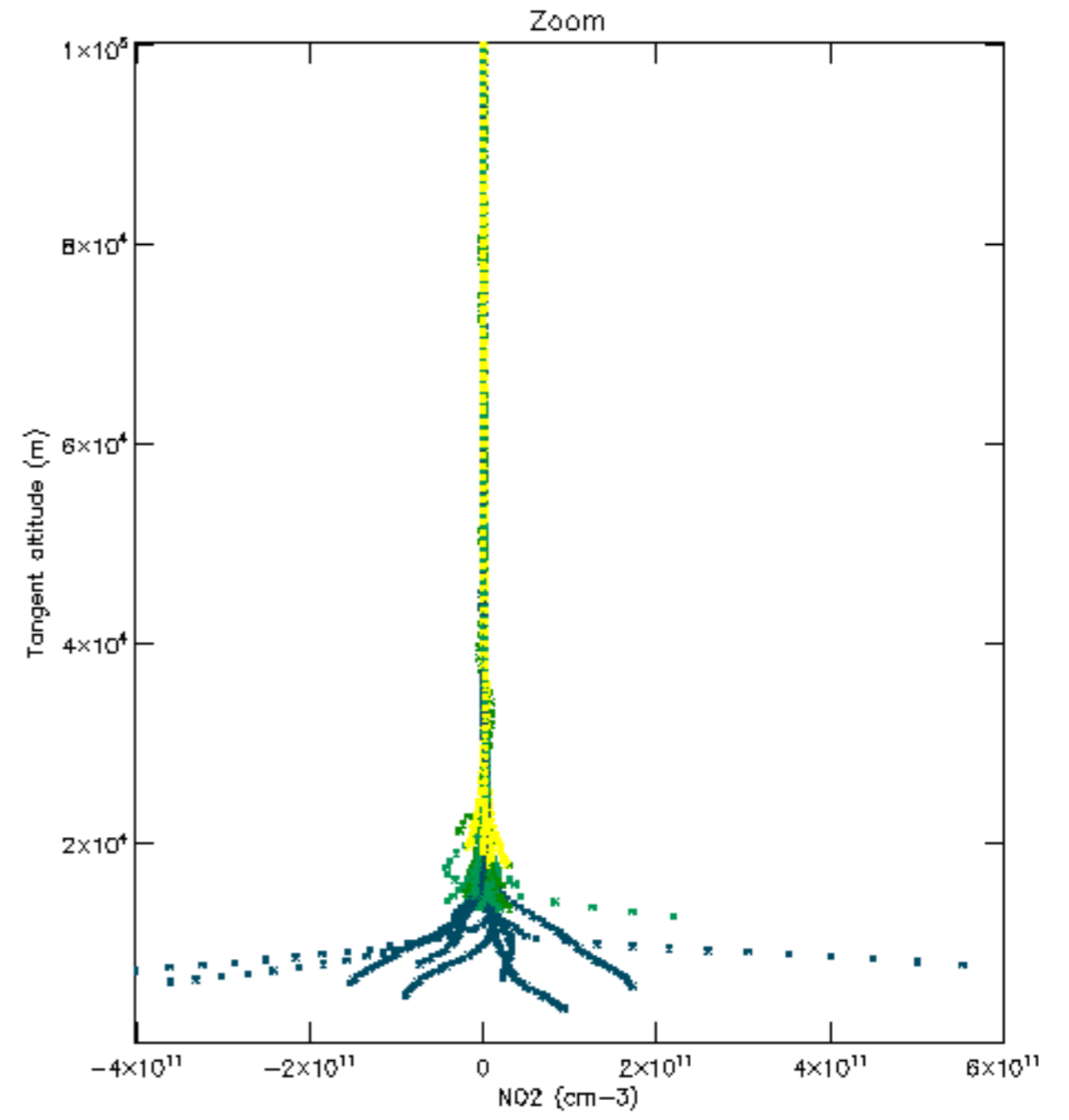
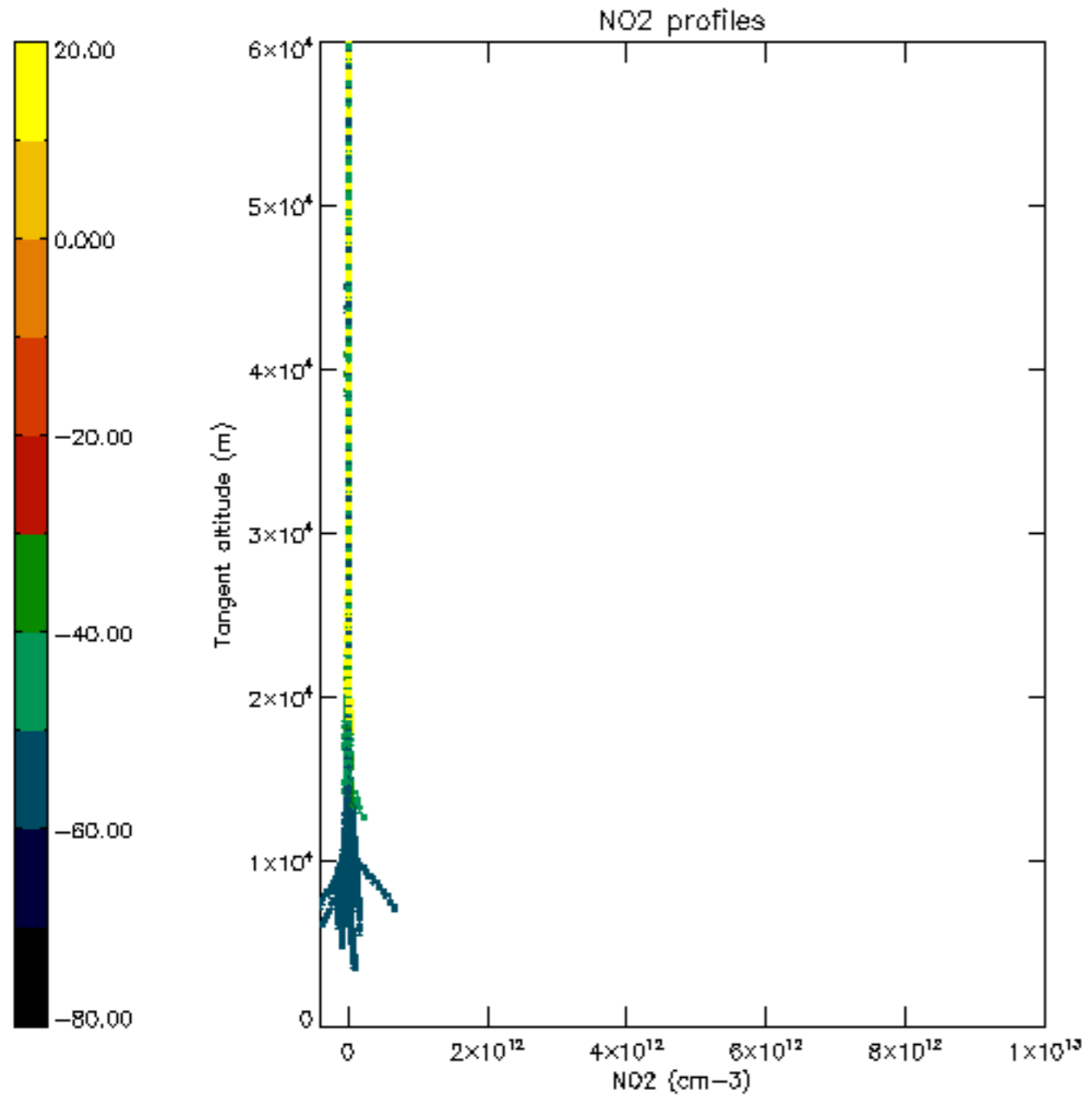


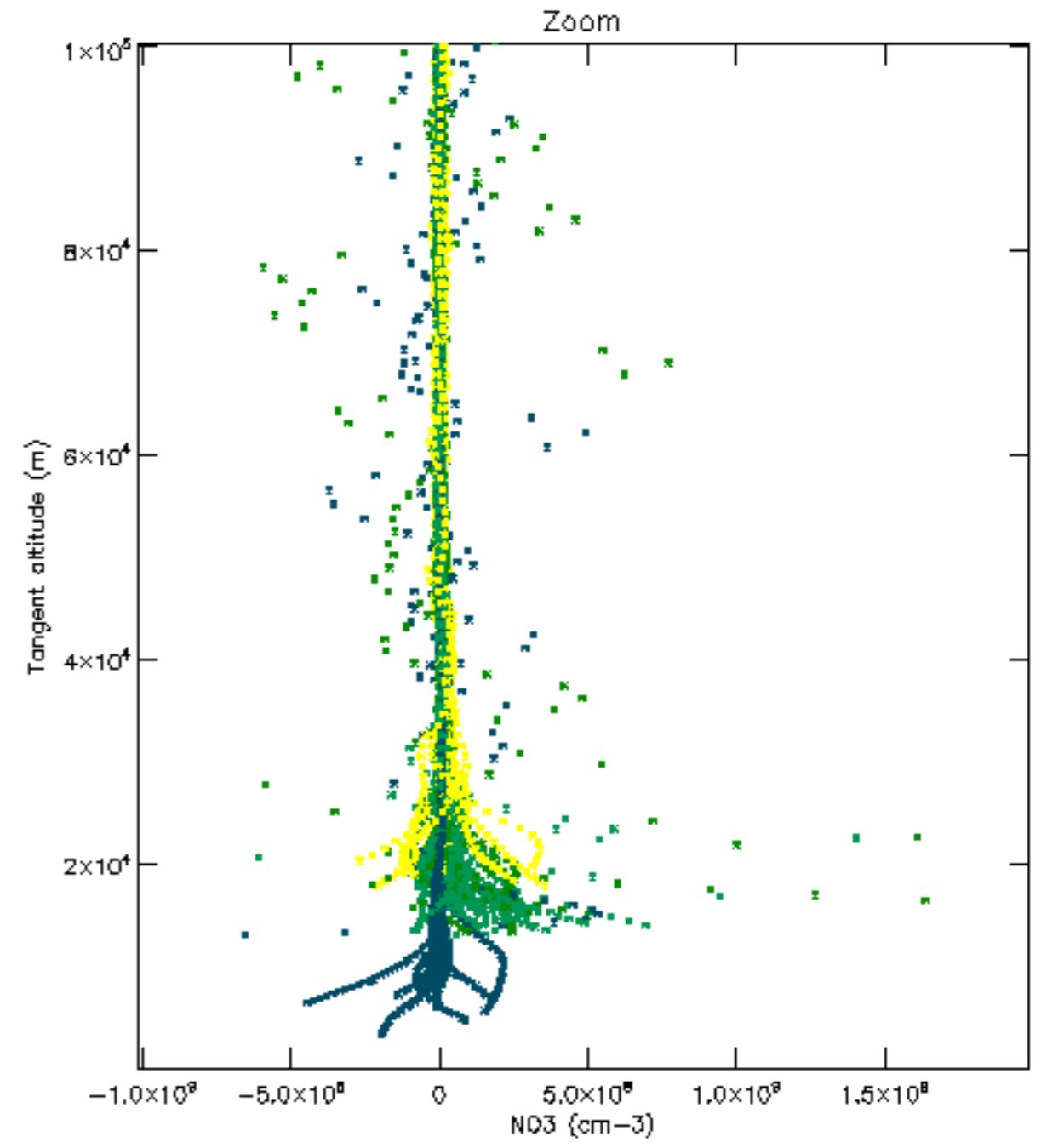
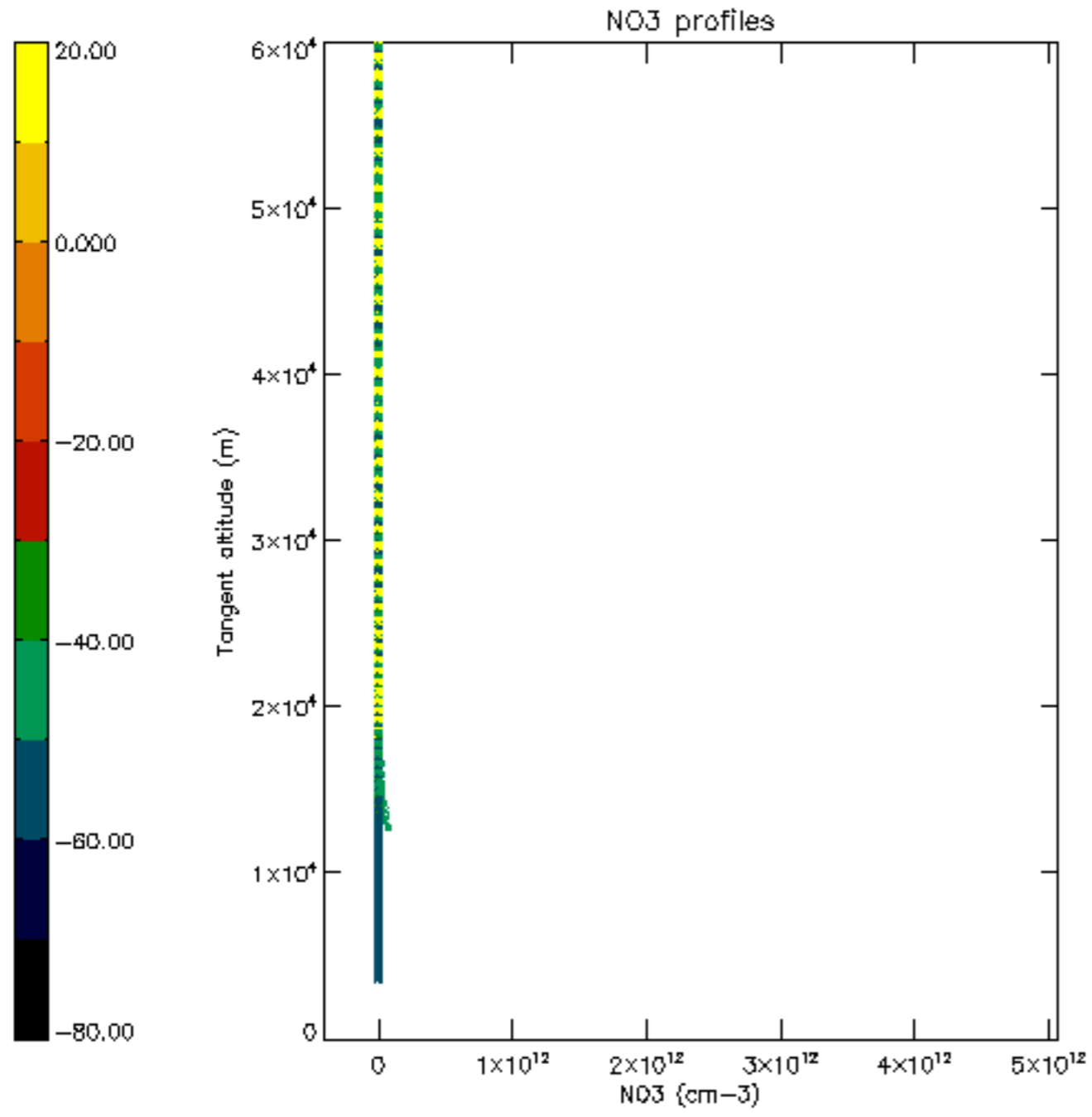


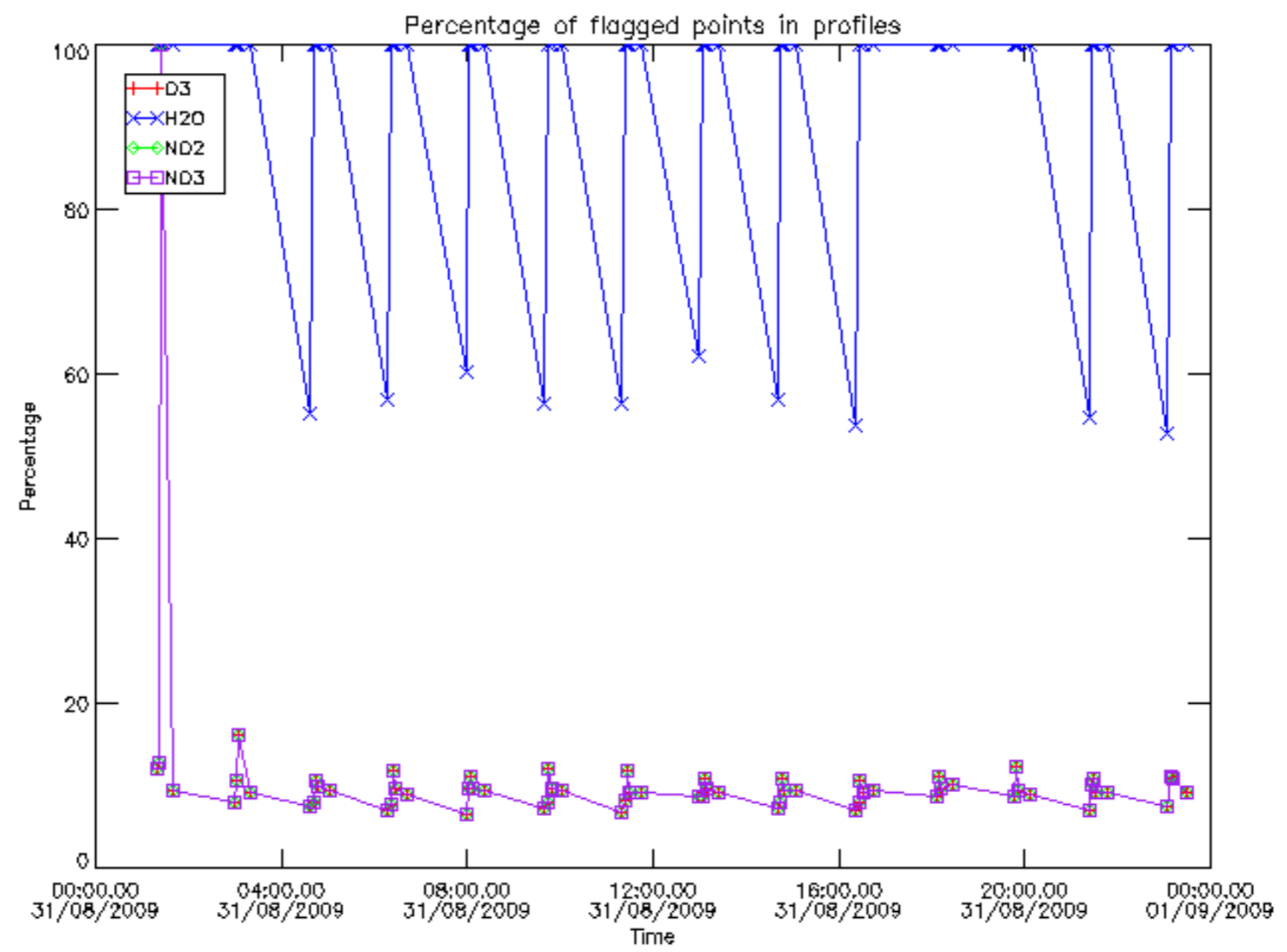




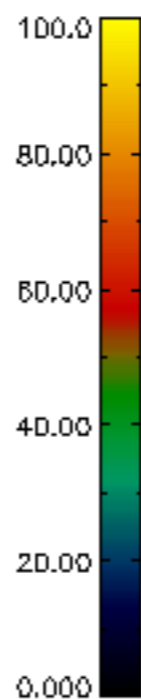
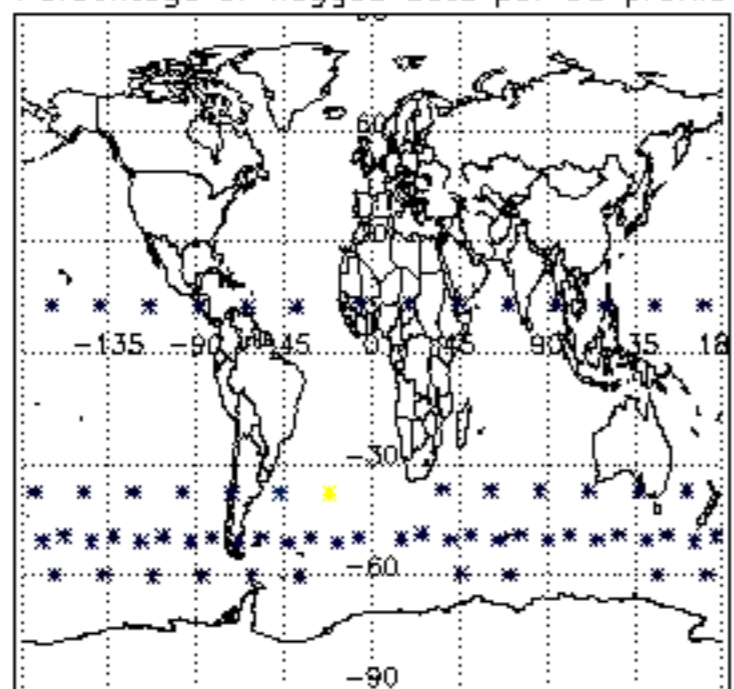




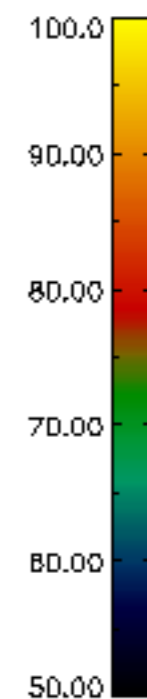
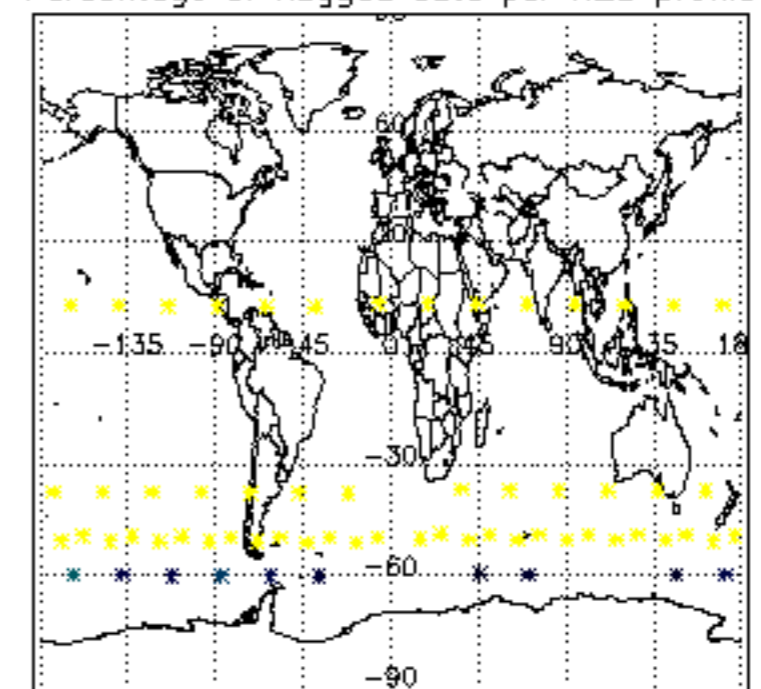




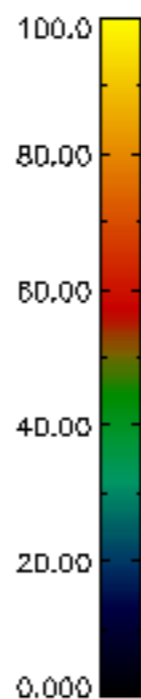
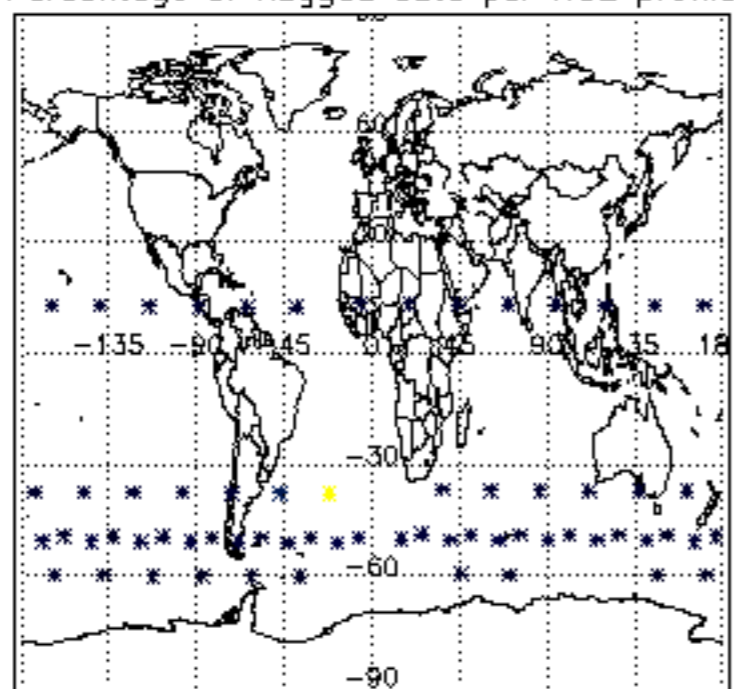
Percentage of flagged data per D3 profile



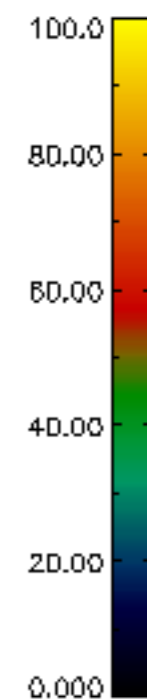
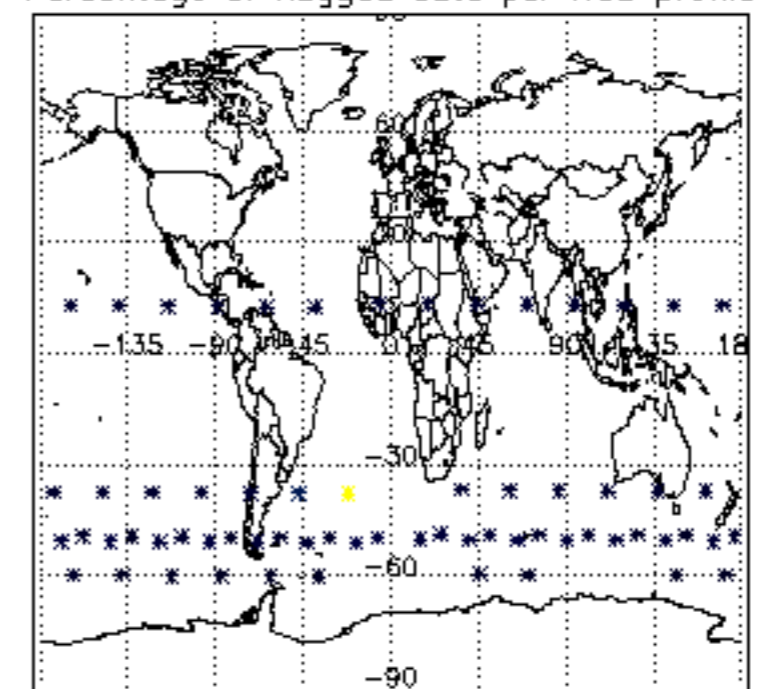
Percentage of flagged data per H2O profile

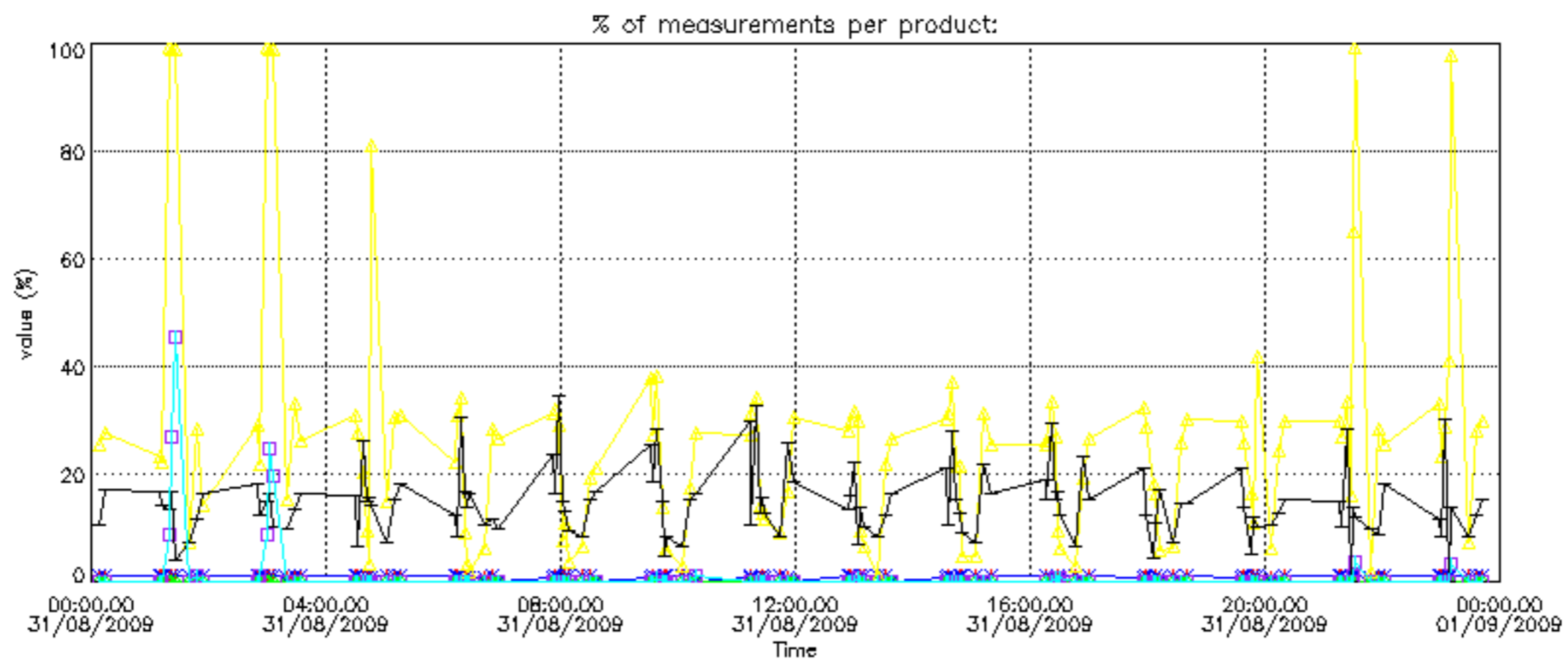
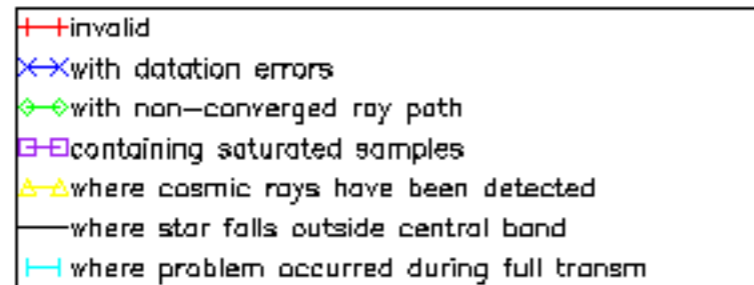


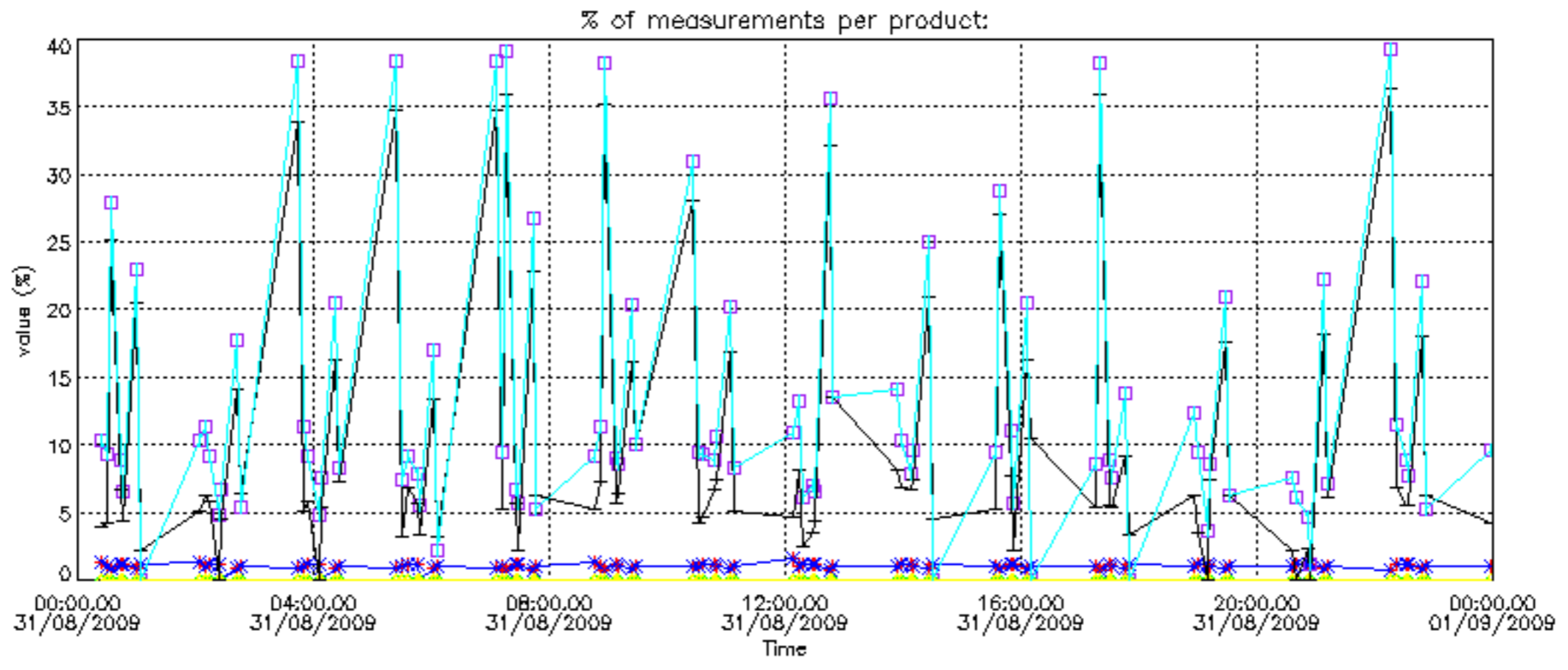
Percentage of flagged data per NO2 profile



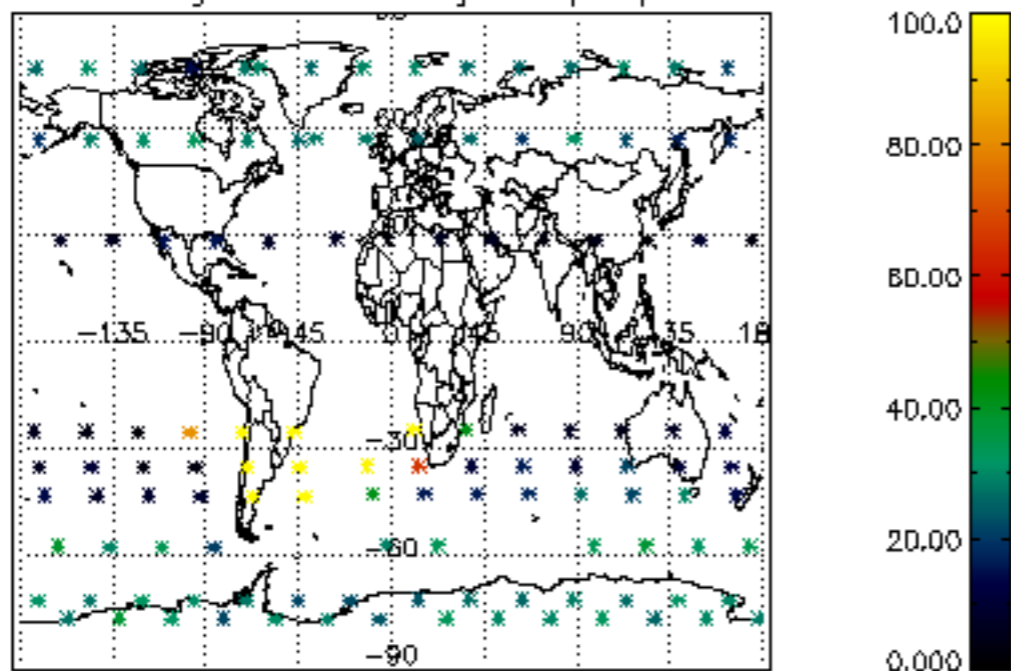
Percentage of flagged data per NO3 profile



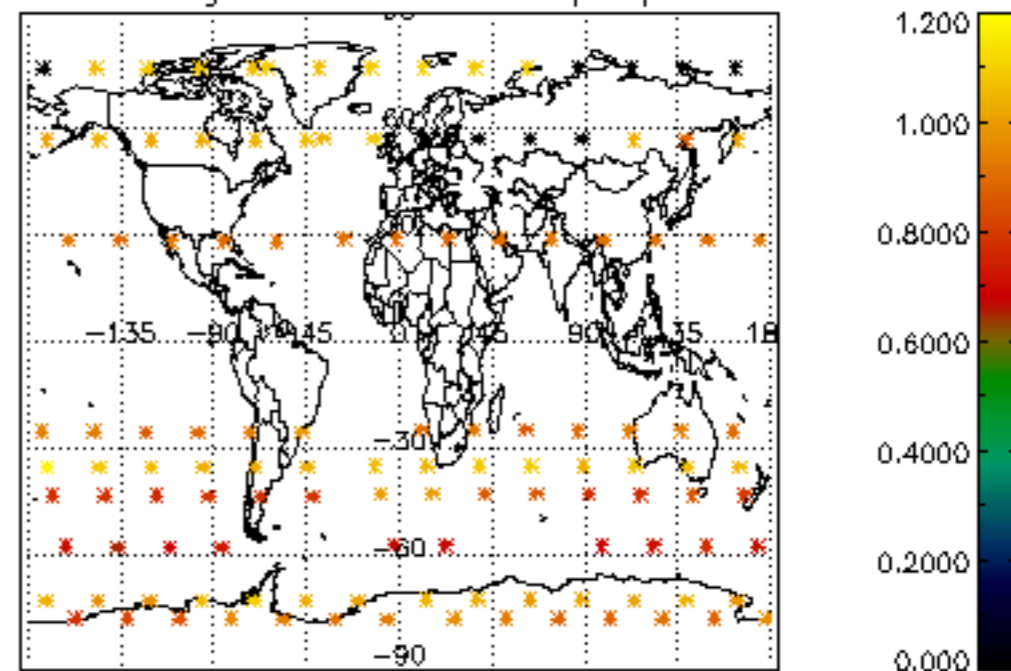




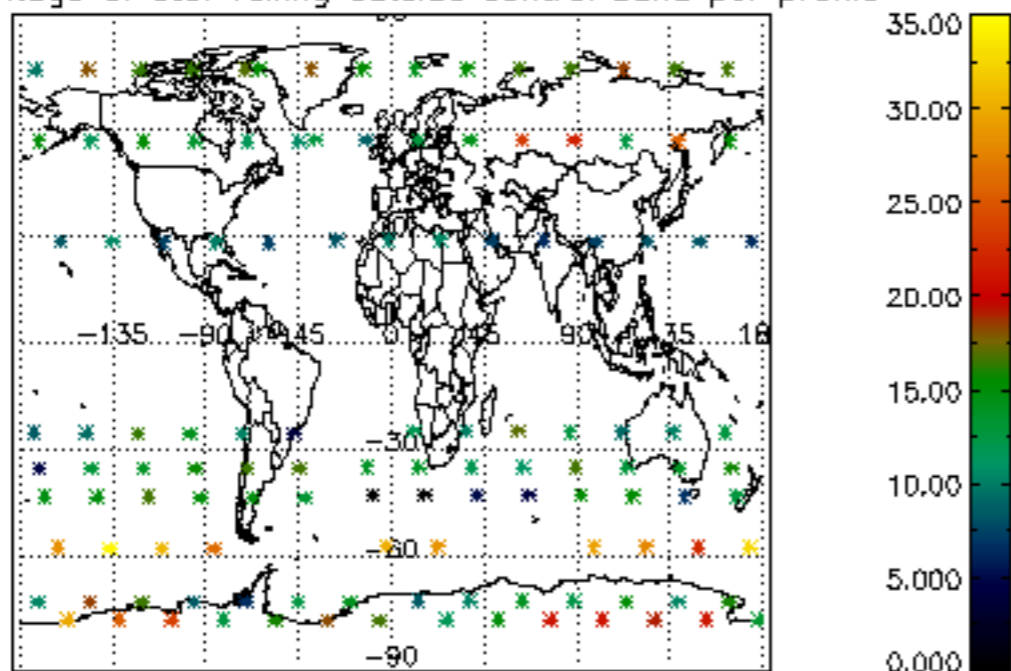
Percentage of cosmic ray hits per profile



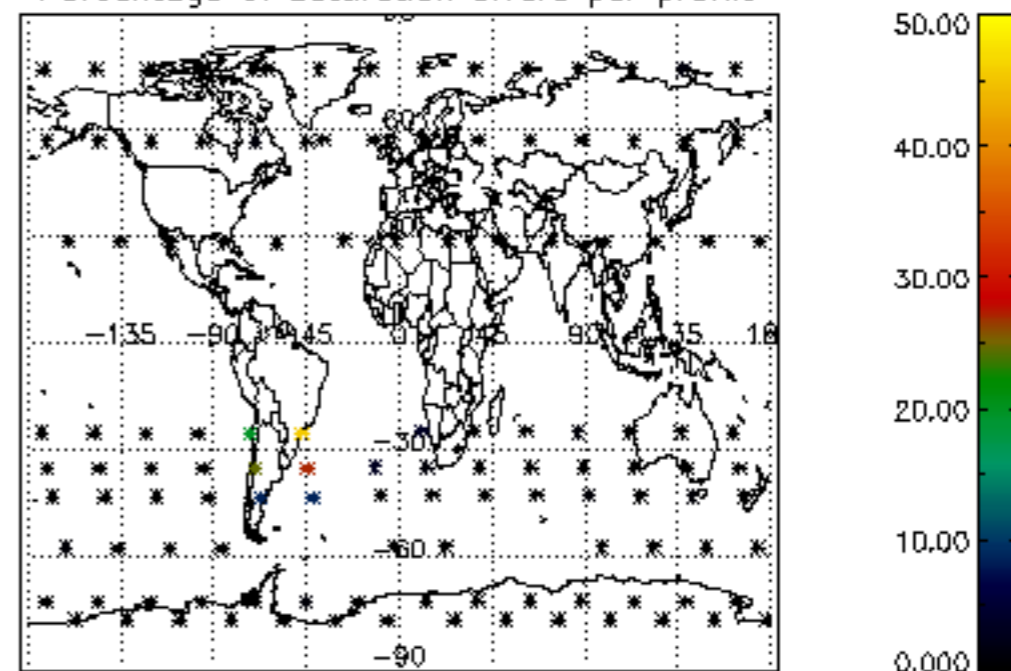
Percentage of datation errors per profile



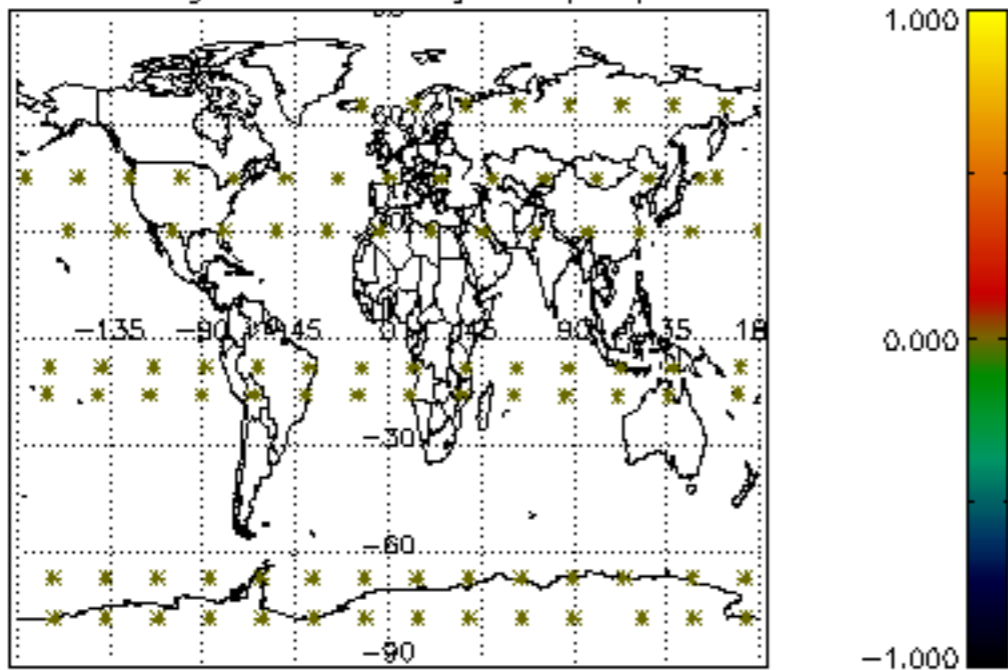
Percentage of star falling outside central band per profile



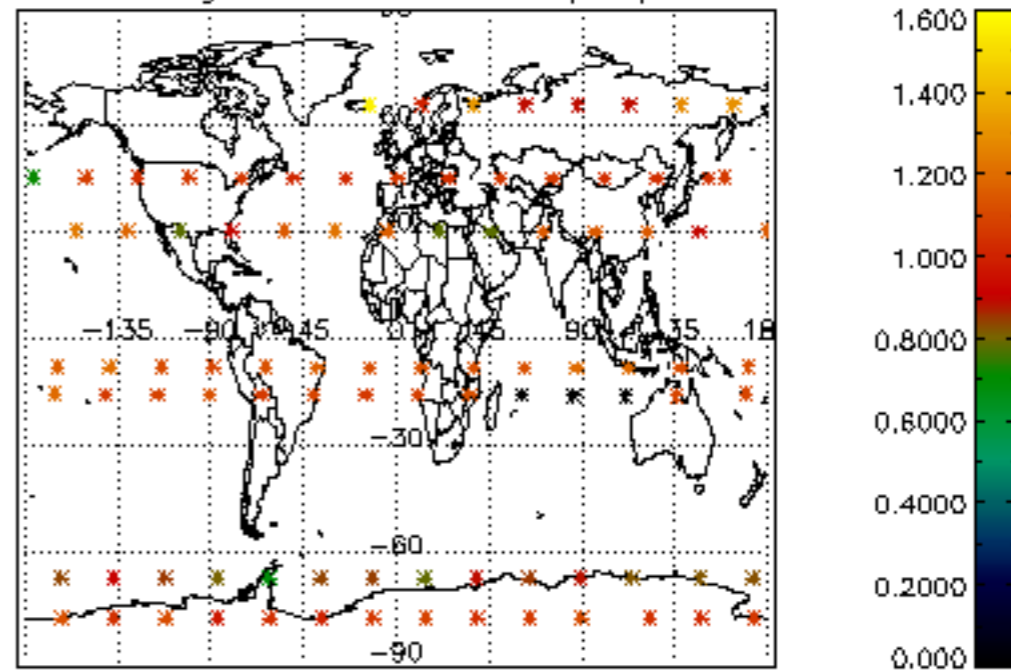
Percentage of saturation errors per profile



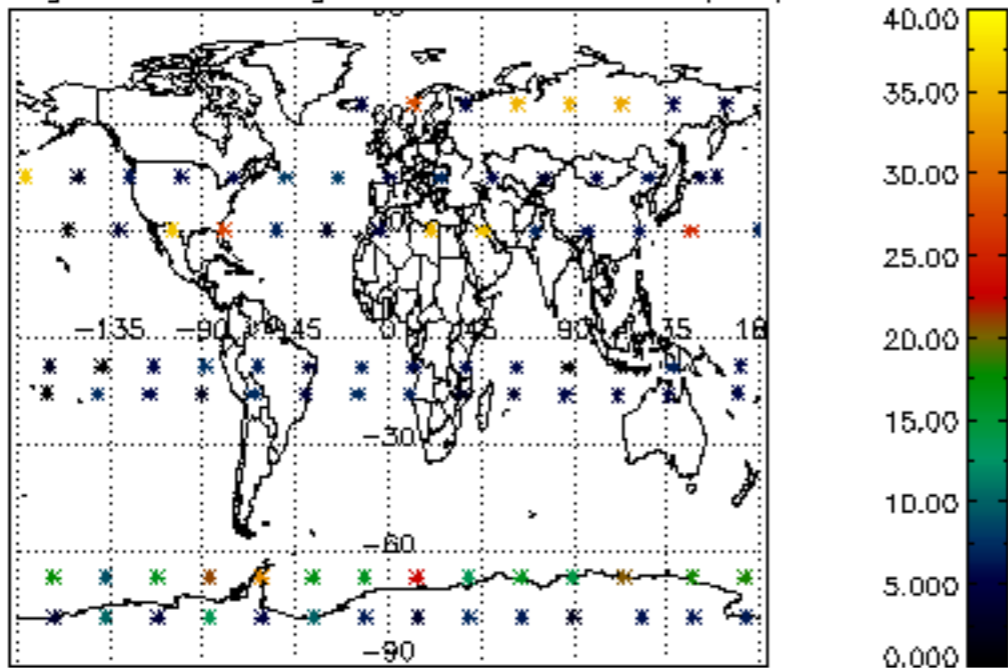
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

