

GOMOS Level 2 Daily Report

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

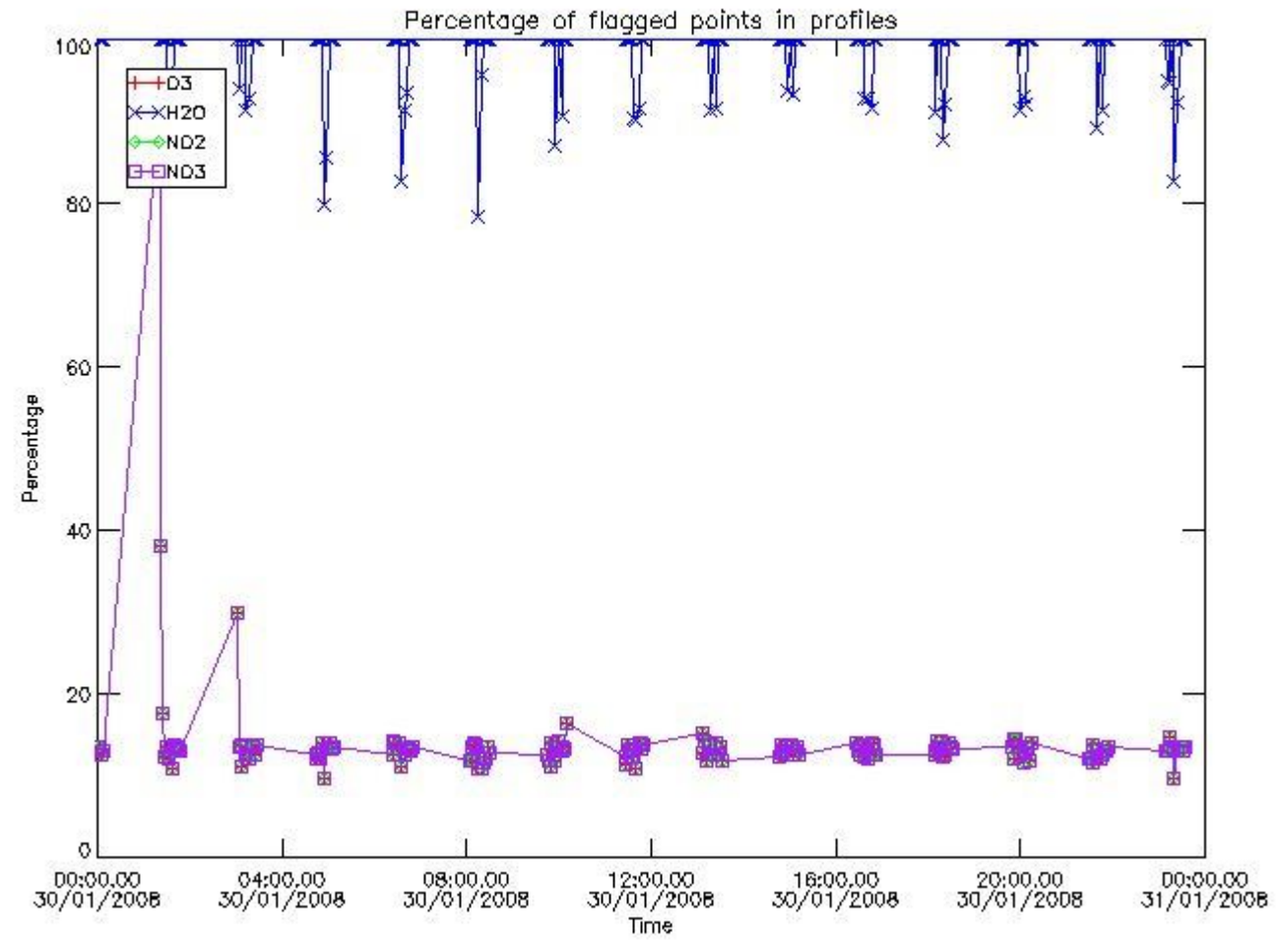
Item	Value
Time of report generation	25APR2013 09:45:37
Data source version	GOMOS/6.01
Start time of products	30-01-2008 (30JAN2008 00:00:00)
Stop time of products	31-01-2008 (31JAN2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	391
Nb of prods with errors	0

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__2PRFIN20080130_000215_000000382065_00317_30932_1843.N1	30-JAN-2008 00:02:15	Dark	37.500	71	lot Car	2.2460	7700.0	75	30932	No
2	GOM_NL__2PRFIN20080130_000401_000000412065_00317_30932_1844.N1	30-JAN-2008 00:04:01	Dark	40.500	46	Del Vel	1.9540	10600.	81	30932	No
3	GOM_NL__2PRFIN20080130_000634_000000402065_00317_30932_1845.N1	30-JAN-2008 00:06:34	Dark	39.500	34	Gam2Vel	1.7930	23000.	79	30932	No
4	GOM_NL__2PRFIN20080130_000840_000000392065_00317_30932_1846.N1	30-JAN-2008 00:08:40	Straylight	38.500	70	Zet Pup	2.2460	39000.	77	30932	No
5	GOM_NL__2PRFIN20080130_001004_000000402065_00317_30932_1847.N1	30-JAN-2008 00:10:04	Straylight	39.500	117	Pi Pup	2.7060	3800.0	79	30932	No
6	GOM_NL__2PRFIN20080130_001231_000000392065_00317_30932_1848.N1	30-JAN-2008 00:12:31	Straylight	39.000	23	21Eps CMa	1.5020	26000.	78	30932	No
7	GOM_NL__2PRFIN20080130_001354_000000392065_00317_30932_1849.N1	30-JAN-2008 00:13:54	Straylight	38.500	179	24Omi2CMa	3.0320	24000.	77	30932	No
8	GOM_NL__2PRFIN20080130_001603_000000462065_00317_30932_1850.N1	30-JAN-2008 00:16:03	Straylight	45.500	1	9Alp CMa	-1.4400	11000.	91	30932	No
9	GOM_NL__2PRFIN20080130_002156_000000512065_00317_30932_1851.N1	30-JAN-2008 00:21:56	Twilight	50.500	8	10Alp CMi	0.40000	6500.0	101	30932	No
10	GOM_NL__2PRFIN20080130_002518_000000382065_00317_30932_1852.N1	30-JAN-2008 00:25:18	Bright	38.000	44	24Gam Gem	1.9280	11000.	76	30932	No
11	GOM_NL__2PRFIN20080130_002707_000000392065_00317_30932_1853.N1	30-JAN-2008 00:27:07	Bright	38.500	151	13Mu Gem	2.8900	3000.0	77	30932	No
12	GOM_NL__2PRFIN20080130_003123_000000362065_00317_30932_1854.N1	30-JAN-2008 00:31:23	Bright	35.500	107	37The Aur	2.6490	11000.	71	30932	No
13	GOM_NL__2PRFIN20080130_003329_000000352065_00317_30932_1855.N1	30-JAN-2008 00:33:29	Bright	35.000	42	34Bet Aur	1.9000	10200.	70	30932	No
14	GOM_NL__2PRFIN20080130_004551_000000332065_00317_30932_1856.N1	30-JAN-2008 00:45:51	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	30932	No
15	GOM_NL__2PRFIN20080130_005650_000000372065_00317_30932_1857.N1	30-JAN-2008 00:56:50	Bright	36.500	130	23Bet Dra	2.7990	5800.0	73	30932	No
16	GOM_NL__2PRFIN20080130_010023_000000382065_00317_30932_1858.N1	30-JAN-2008 01:00:23	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	30932	No
17	GOM_NL__2PRFIN20080130_010831_000000542065_00317_30932_1859.N1	30-JAN-2008 01:08:31	Bright	54.000	59	55Alp Oph	2.0800	8900.0	108	30932	No
18	GOM_NL__2PRFIN20080130_011038_000000532065_00317_30932_1860.N1	30-JAN-2008 01:10:38	Bright	53.000	126	60Bet Oph	2.7700	4250.0	106	30932	No
19	GOM_NL__2PRFIN20080130_011700_000000412065_00317_30932_1861.N1	30-JAN-2008 01:17:00	Twilight	41.000	86	35Eta Oph	2.4300	10200.	82	30932	No
20	GOM_NL__2PRFIN20080130_012112_000000292065_00317_30932_1862.N1	30-JAN-2008 01:21:12	Dark	29.000	16	21Alp Sco	1.0200	3000.0	58	30932	No
21	GOM_NL__2PRFIN20080130_012209_000000402065_00317_30932_1863.N1	30-JAN-2008 01:22:09	Dark	40.000	25	35Lam Sco	1.6200	28000.	80	30932	No
22	GOM_NL__2PRFIN20080130_012339_000000382065_00317_30932_1864.N1	30-JAN-2008 01:23:39	Dark	37.500	40	The Sco	1.8590	7100.0	75	30932	No
23	GOM_NL__2PRFIN20080130_012707_000000422065_00317_30932_1865.N1	30-JAN-2008 01:27:07	Dark	41.500	141	Bet Ara	2.8400	4600.0	83	30932	No
24	GOM_NL__2PRFIN20080130_013038_000000382065_00318_30933_1854.N1	30-JAN-2008 01:30:38	Dark	37.500	134	Bet TrA	2.8100	6600.0	75	30933	No
25	GOM_NL__2PRFIN20080130_013215_000000432065_00318_30933_1855.N1	30-JAN-2008 01:32:15	Dark	42.500	4	Alp1Cen	-0.010000	5800.0	85	30933	No
26	GOM_NL__2PRFIN20080130_013650_000000472065_00318_30933_1856.N1	30-JAN-2008 01:36:50	Dark	46.500	12	Alp1Cru	0.77500	30000.	93	30933	No
27	GOM_NL__2PRFIN20080130_014033_000000372065_00318_30933_1857.N1	30-JAN-2008 01:40:33	Dark	37.000	29	Bet Car	1.6720	10200.	74	30933	No
28	GOM_NL__2PRFIN20080130_014251_000000382065_00318_30933_1858.N1	30-JAN-2008 01:42:51	Dark	37.500	71	lot Car	2.2460	7700.0	75	30933	No
29	GOM_NL__2PRFIN20080130_014437_000000392065_00318_30933_1859.N1	30-JAN-2008 01:44:37	Dark	38.500	46	Del Vel	1.9540	10600.	77	30933	No
30	GOM_NL__2PRFIN20080130_014710_000000392065_00318_30933_1860.N1	30-JAN-2008 01:47:10	Dark	39.000	34	Gam2Vel	1.7930	23000.	78	30933	No
31	GOM_NL__2PRFIN20080130_014916_000000392065_00318_30933_1861.N1	30-JAN-2008 01:49:16	Straylight	39.000	70	Zet Pup	2.2460	39000.	78	30933	No
32	GOM_NL__2PRFIN20080130_015040_000000412065_00318_30933_1862.N1	30-JAN-2008 01:50:40	Straylight	41.000	117	Pi Pup	2.7060	3800.0	82	30933	No
33	GOM_NL__2PRFIN20080130_015307_000000412065_00318_30933_1863.N1	30-JAN-2008 01:53:07	Straylight	41.000	23	21Eps CMa	1.5020	26000.	82	30933	No
34	GOM_NL__2PRFIN20080130_015430_000000382065_00318_30933_1864.N1	30-JAN-2008 01:54:30	Straylight	37.500	179	24Omi2CMa	3.0320	24000.	75	30933	No
35	GOM_NL__2PRFIN20080130_015639_000000432065_00318_30933_1865.N1	30-JAN-2008 01:56:39	Straylight	43.000	1	9Alp CMa	-1.4400	11000.	86	30933	No
36	GOM_NL__2PRFIN20080130_020232_000000492065_00318_30933_1866.N1	30-JAN-2008 02:02:32	Twilight	49.000	8	10Alp CMi	0.40000	6500.0	98	30933	No
37	GOM_NL__2PRFIN20080130_020554_000000382065_00318_30933_1867.N1	30-JAN-2008 02:05:54	Bright	37.500	44	24Gam Gem	1.9280	11000.	75	30933	No
38	GOM_NL__2PRFIN20080130_020743_000000382065_00318_30933_1868.N1	30-JAN-2008 02:07:43	Bright	37.500	151	13Mu Gem	2.8900	3000.0	75	30933	No
39	GOM_NL__2PRFIN20080130_021159_000000362065_00318_30933_1869.N1	30-JAN-2008 02:11:59	Bright	36.000	107	37The Aur	2.6490	11000.	72	30933	No
40	GOM_NL__2PRFIN20080130_021405_000000362065_00318_30933_1870.N1	30-JAN-2008 02:14:05	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	30933	No
41	GOM_NL__2PRFIN20080130_022626_000000352065_00318_30933_1871.N1	30-JAN-2008 02:26:26	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	30933	No
42	GOM_NL__2PRFIN20080130_023726_000000362065_00318_30933_1872.N1	30-JAN-2008 02:37:26	Bright	36.000	130	23Bet Dra	2.7990	5800.0	72	30933	No

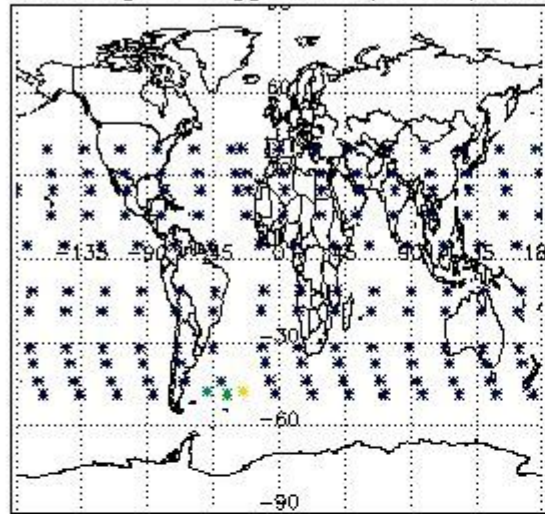
the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

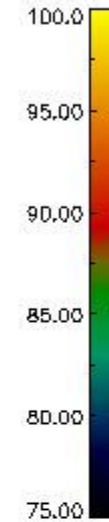
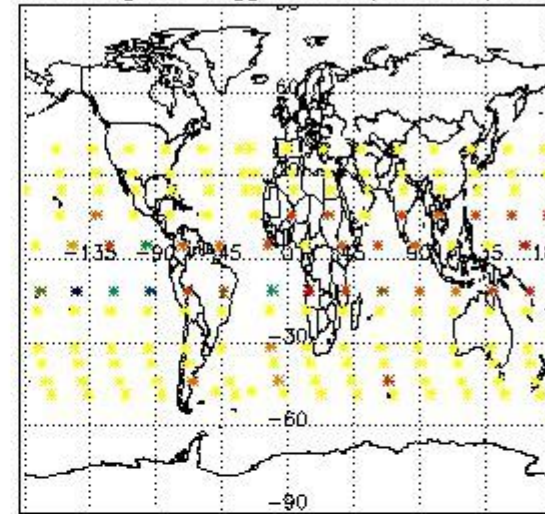


3.2 Plot quality information per product (world map)

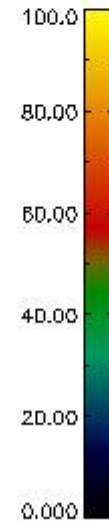
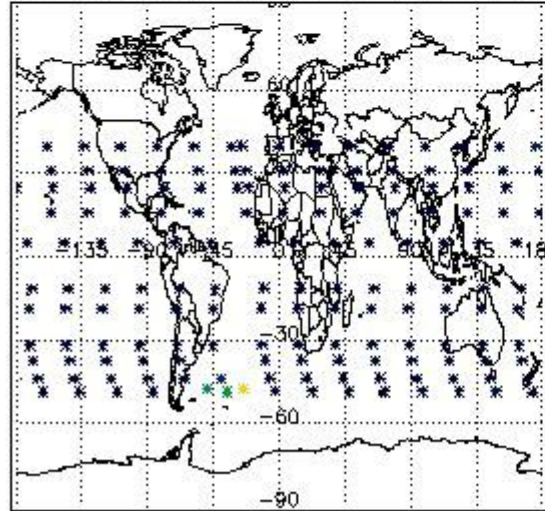
Percentage of flagged data per O3 profile



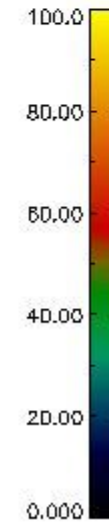
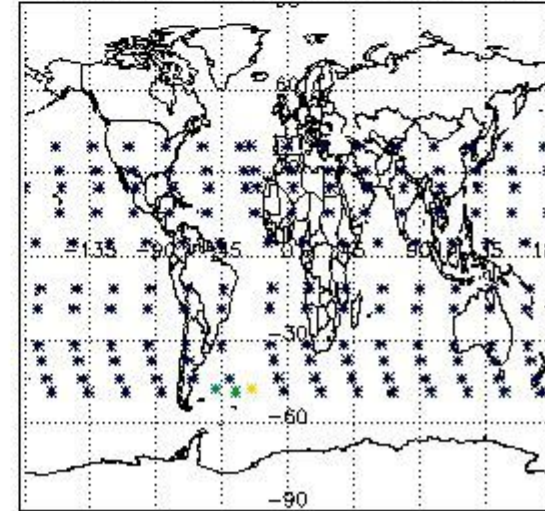
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

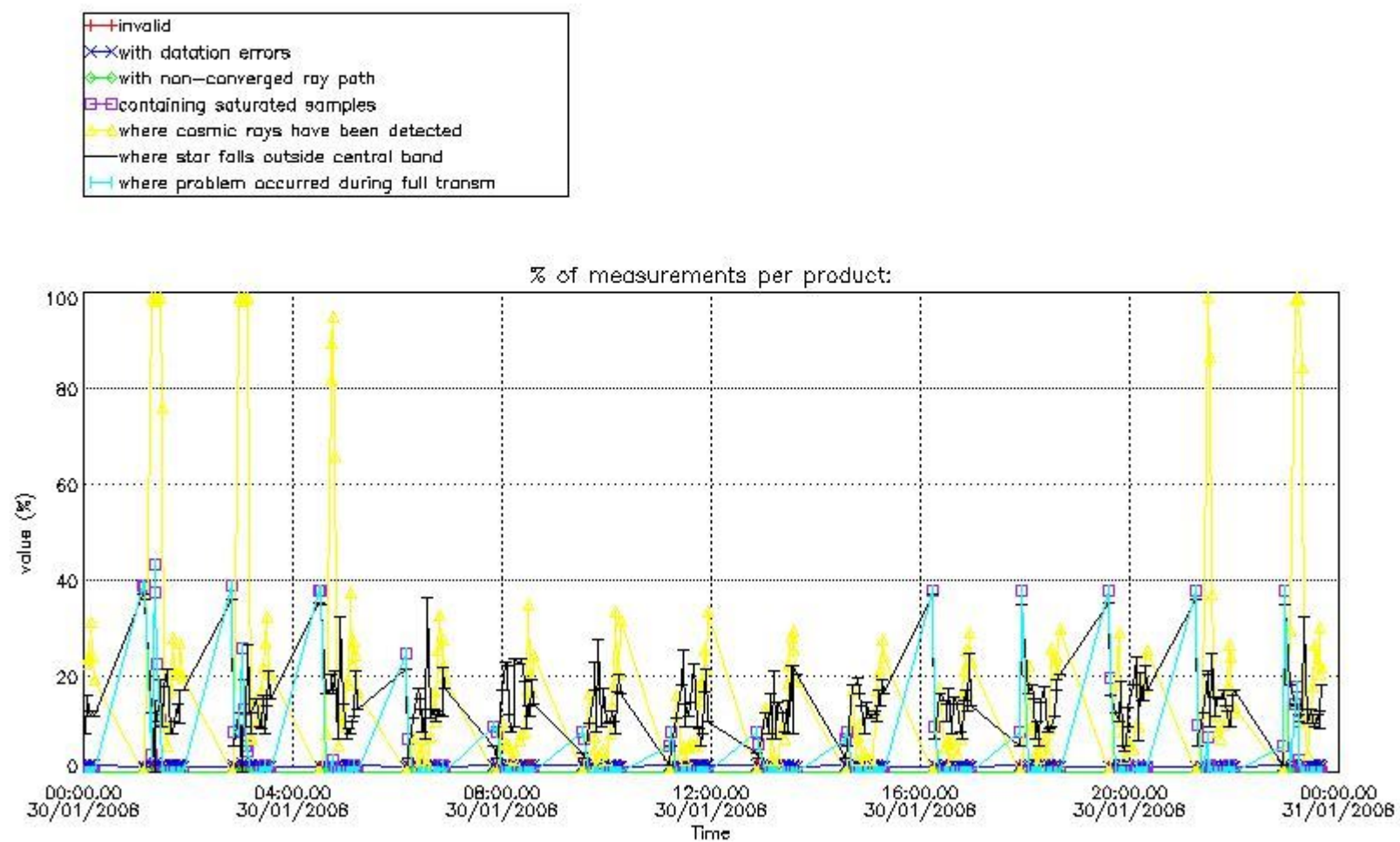


4. Level 1 quality information per product

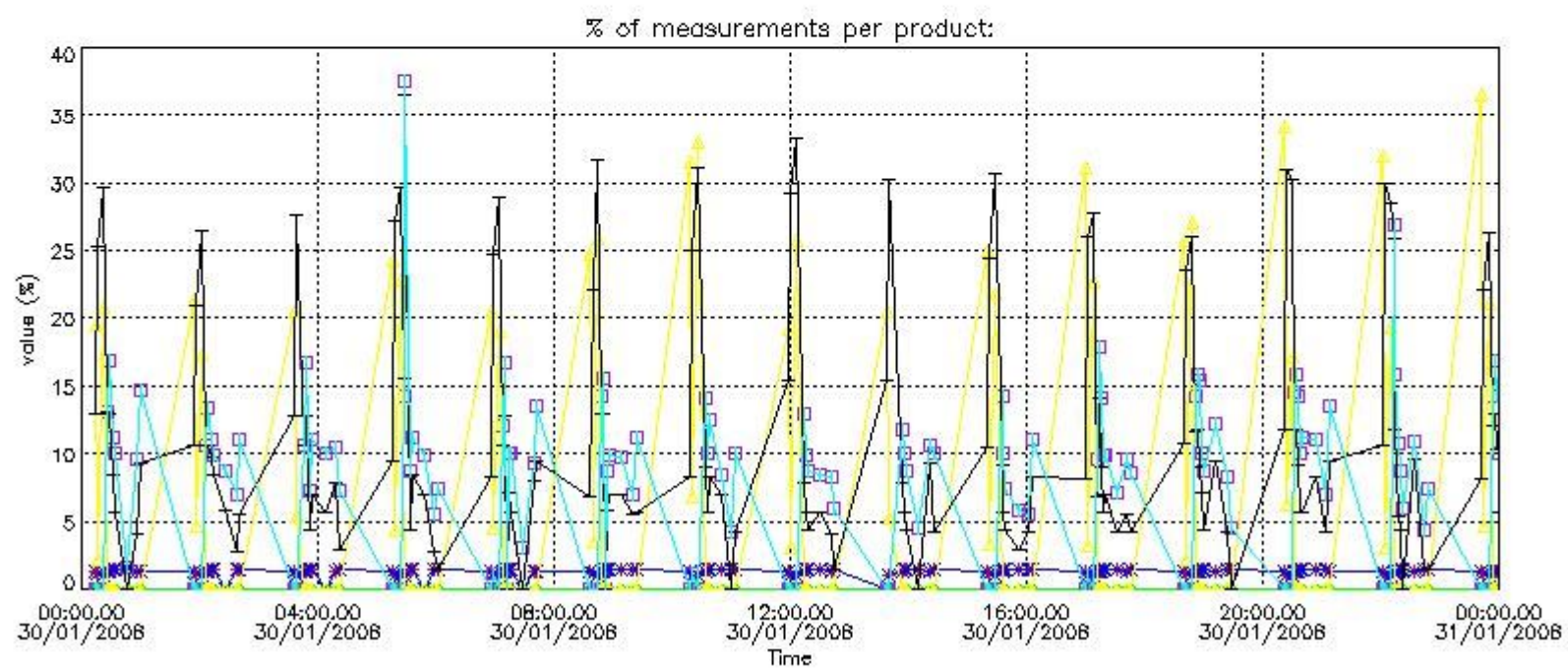
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

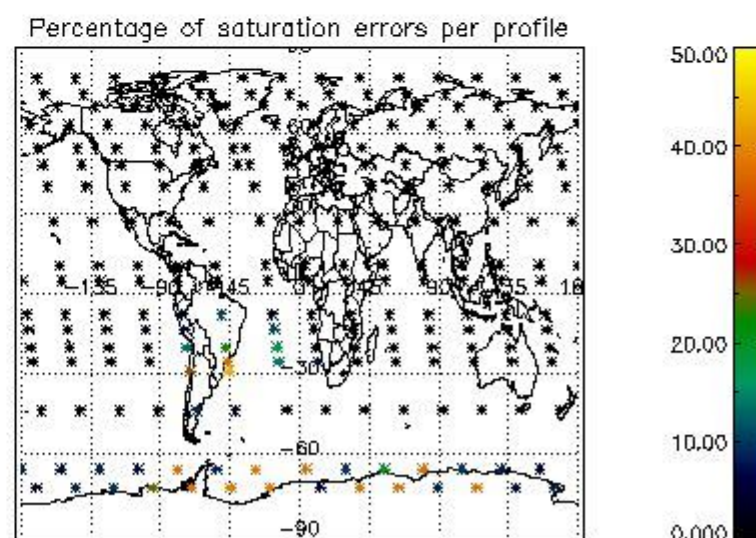
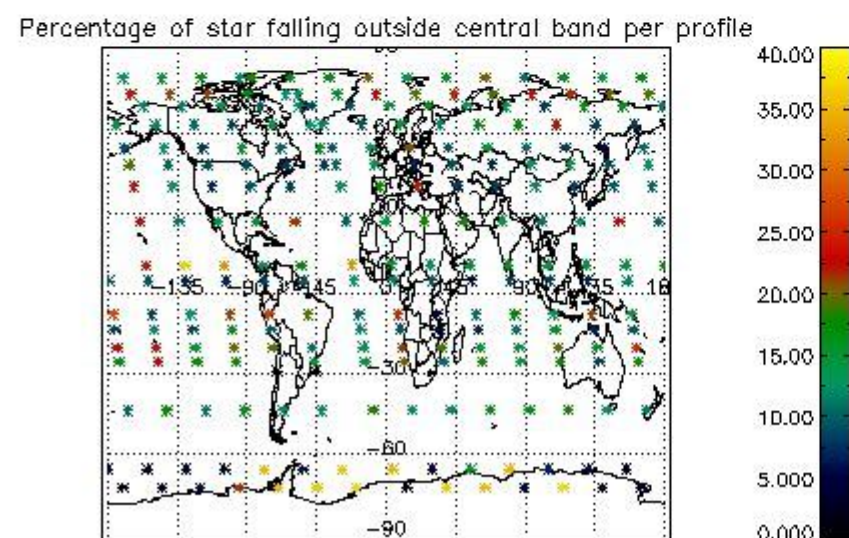
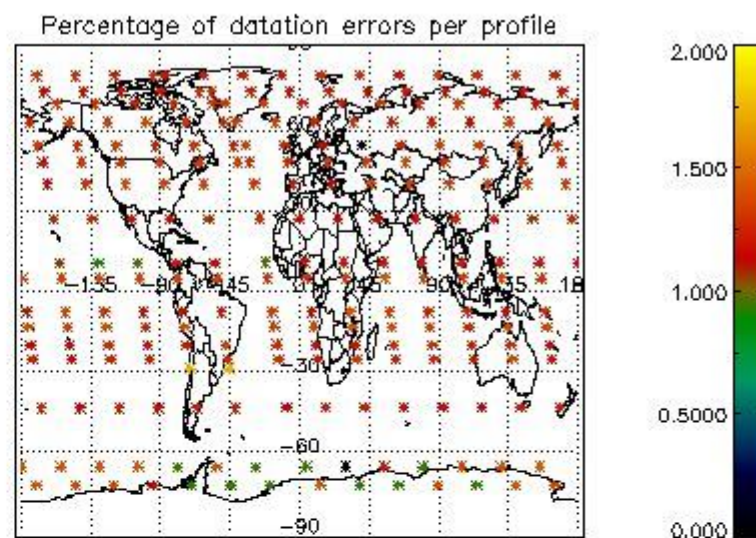
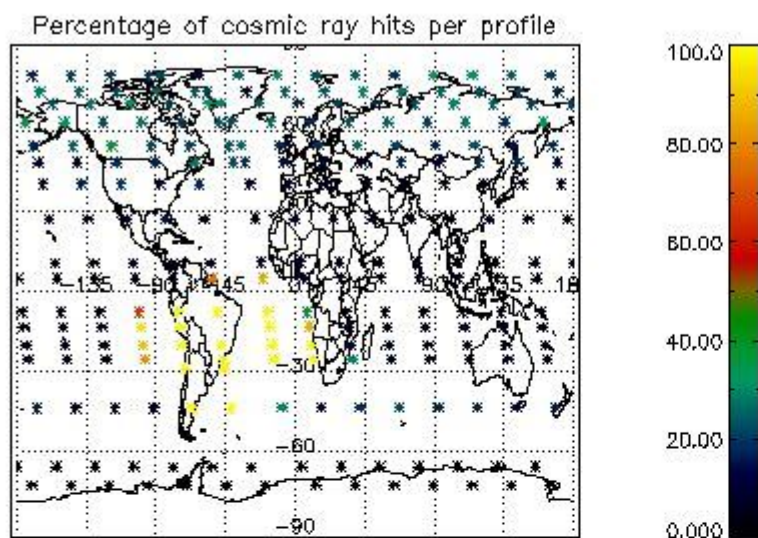


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

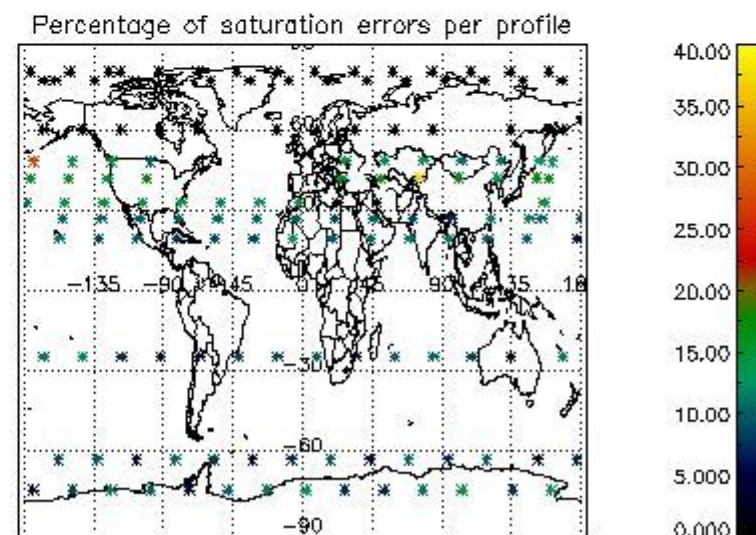
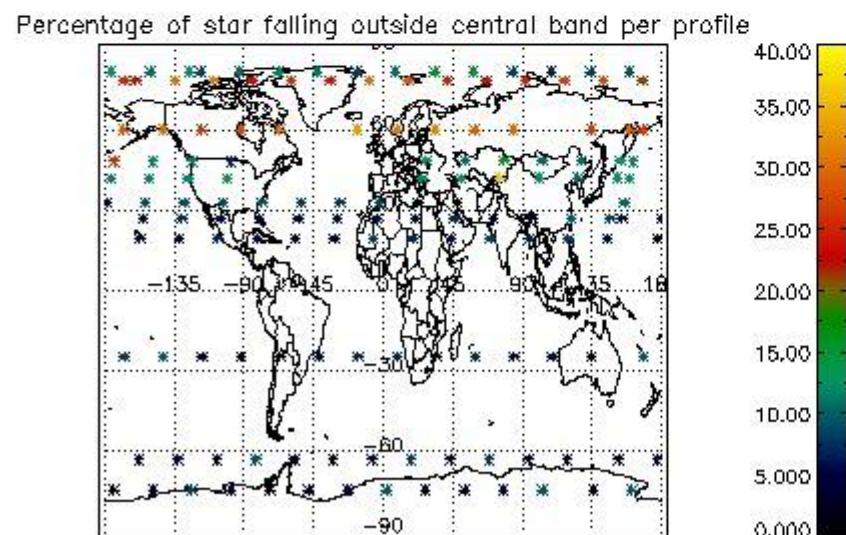
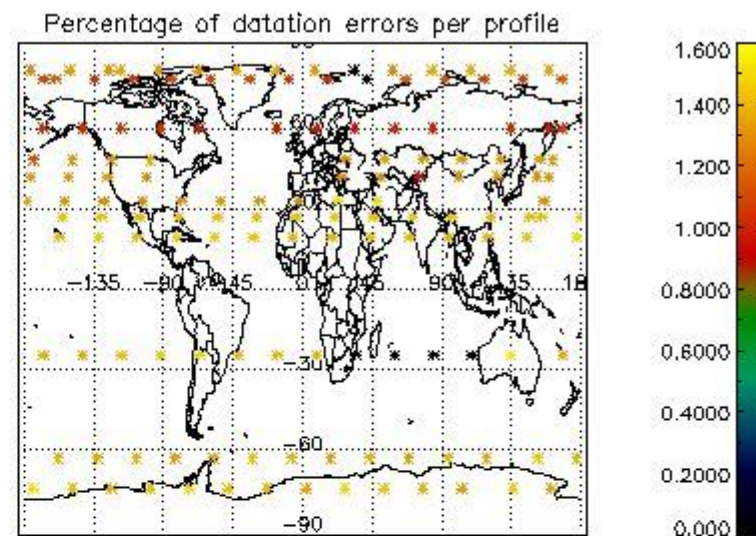
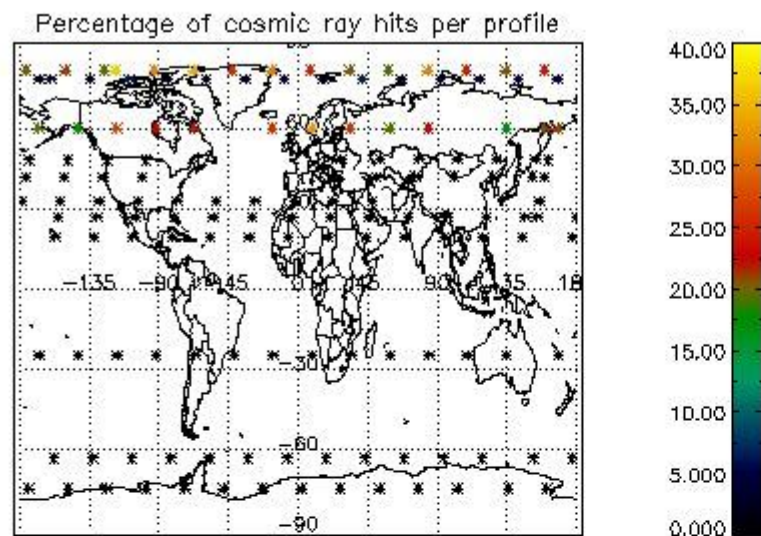


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

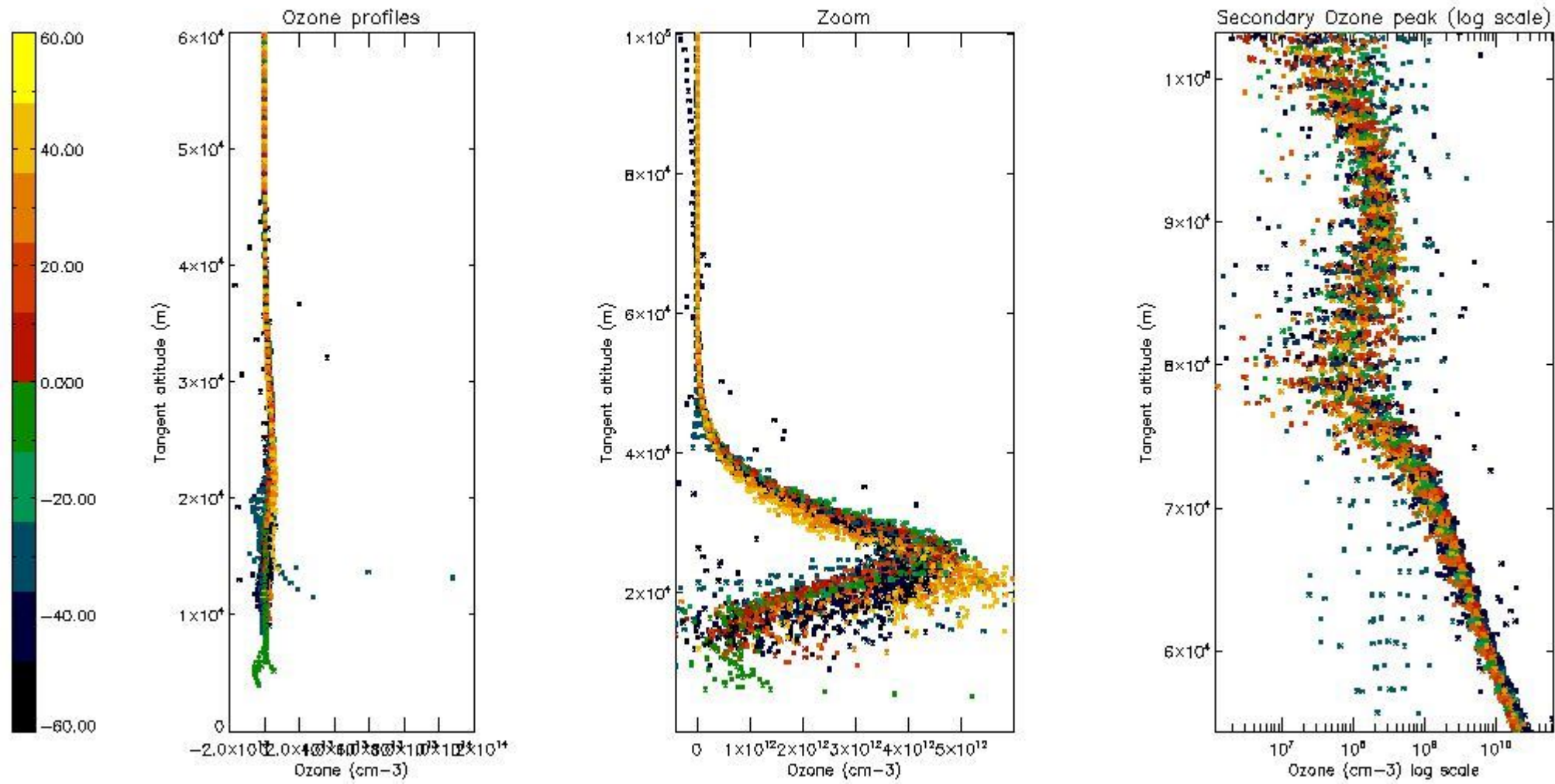
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	23

STD < 10	18
STD < 5	12

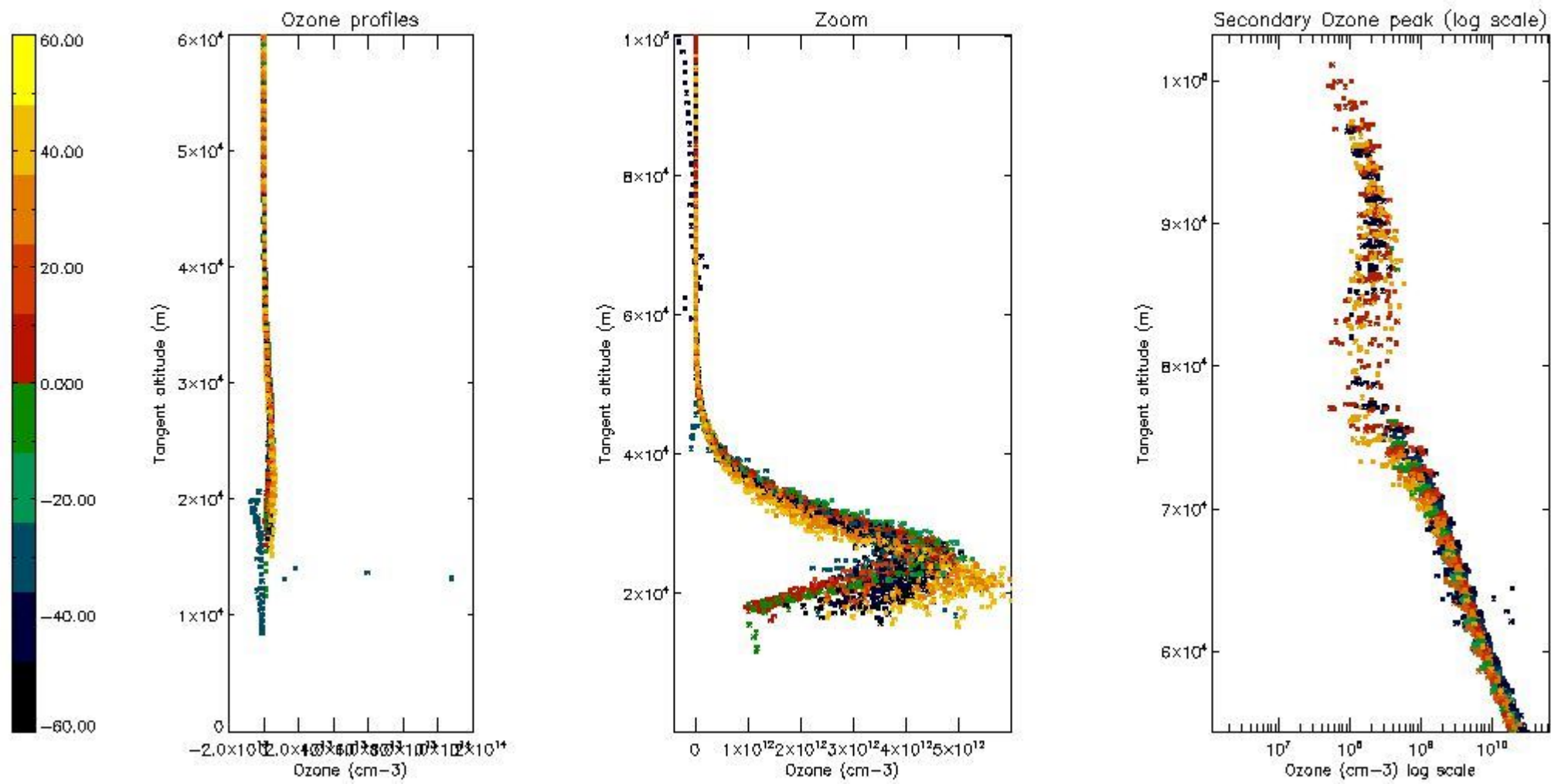
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



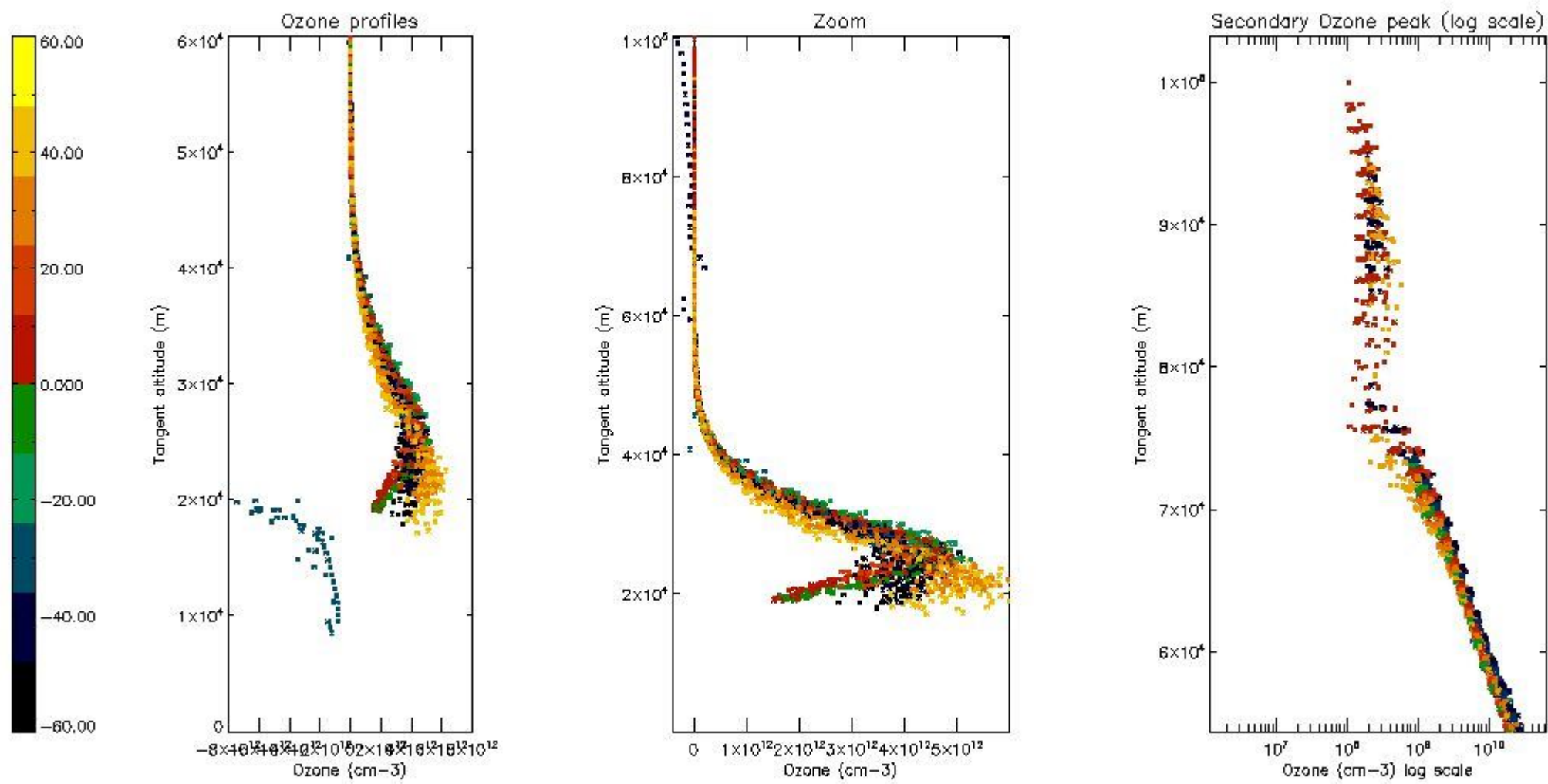
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



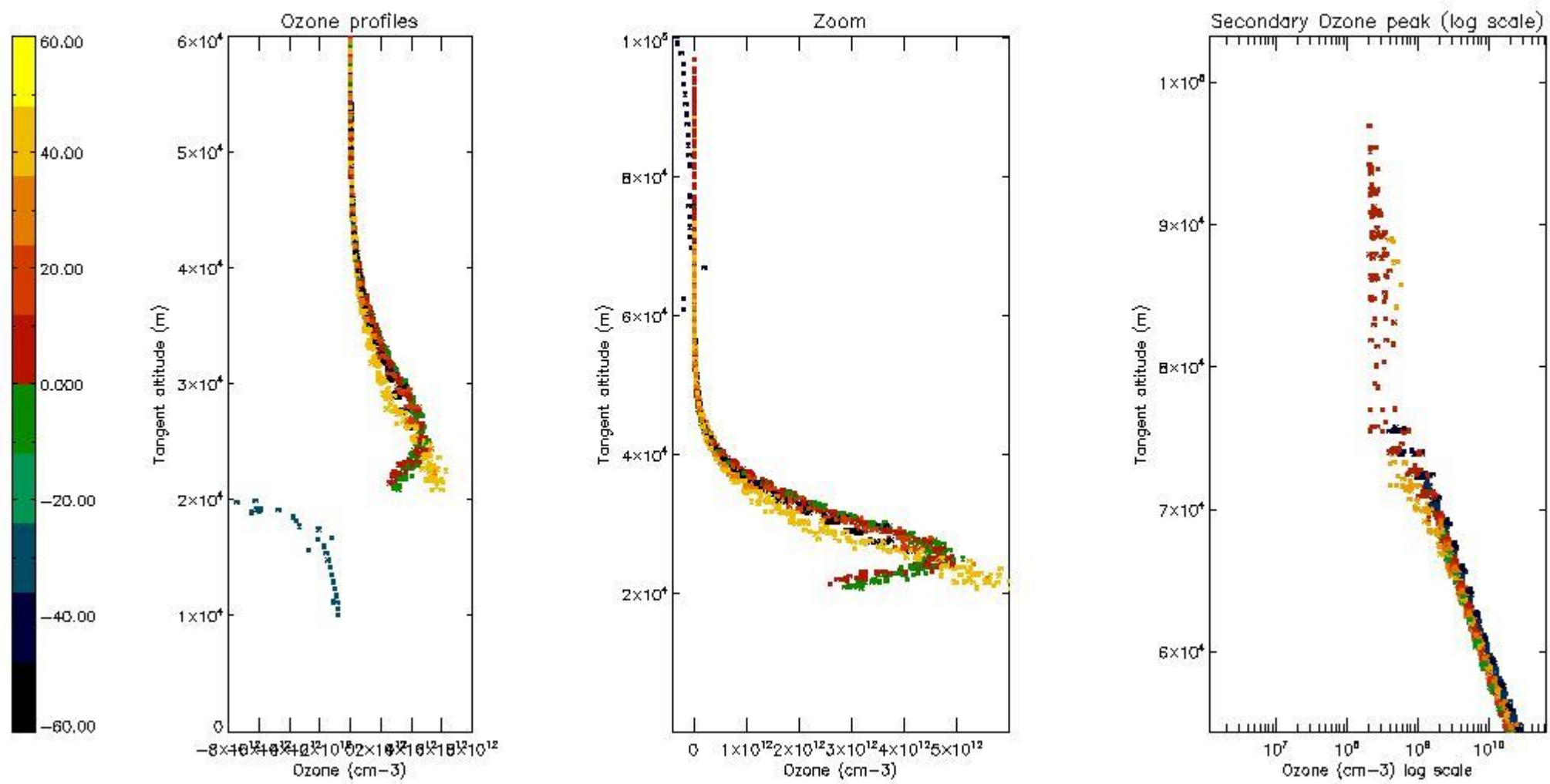
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



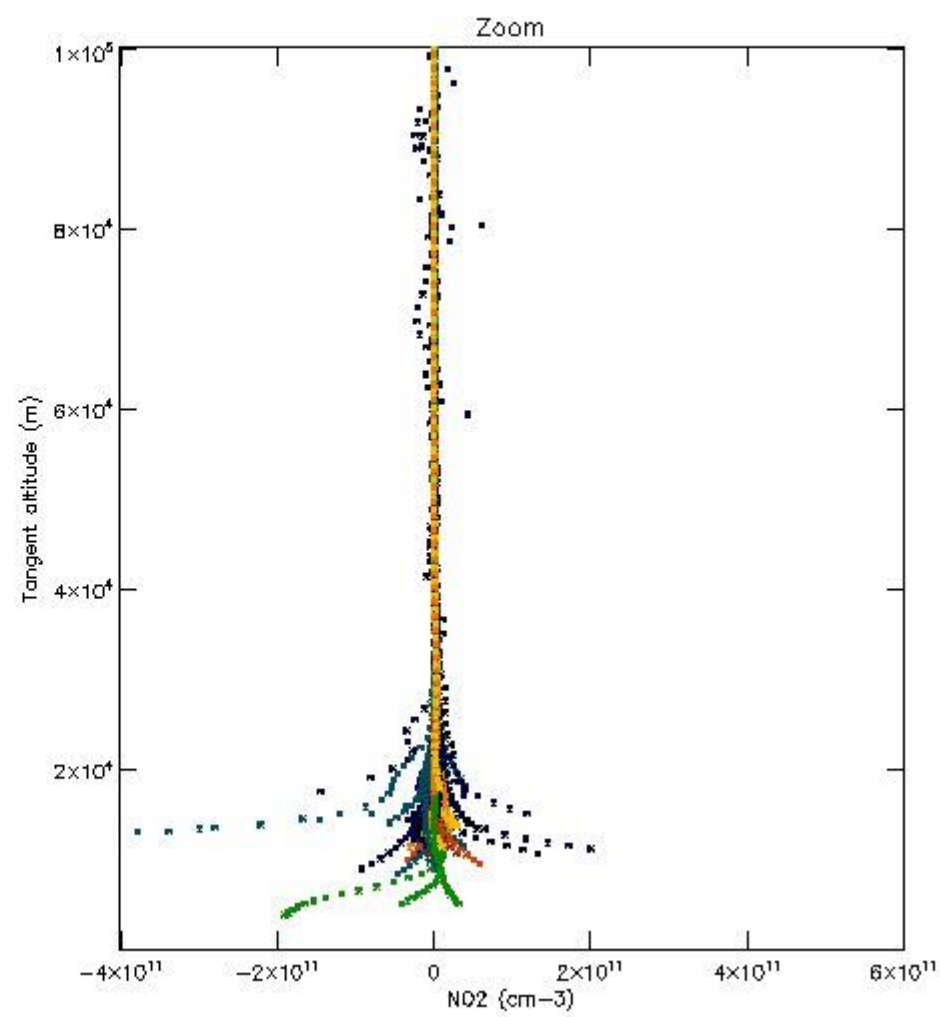
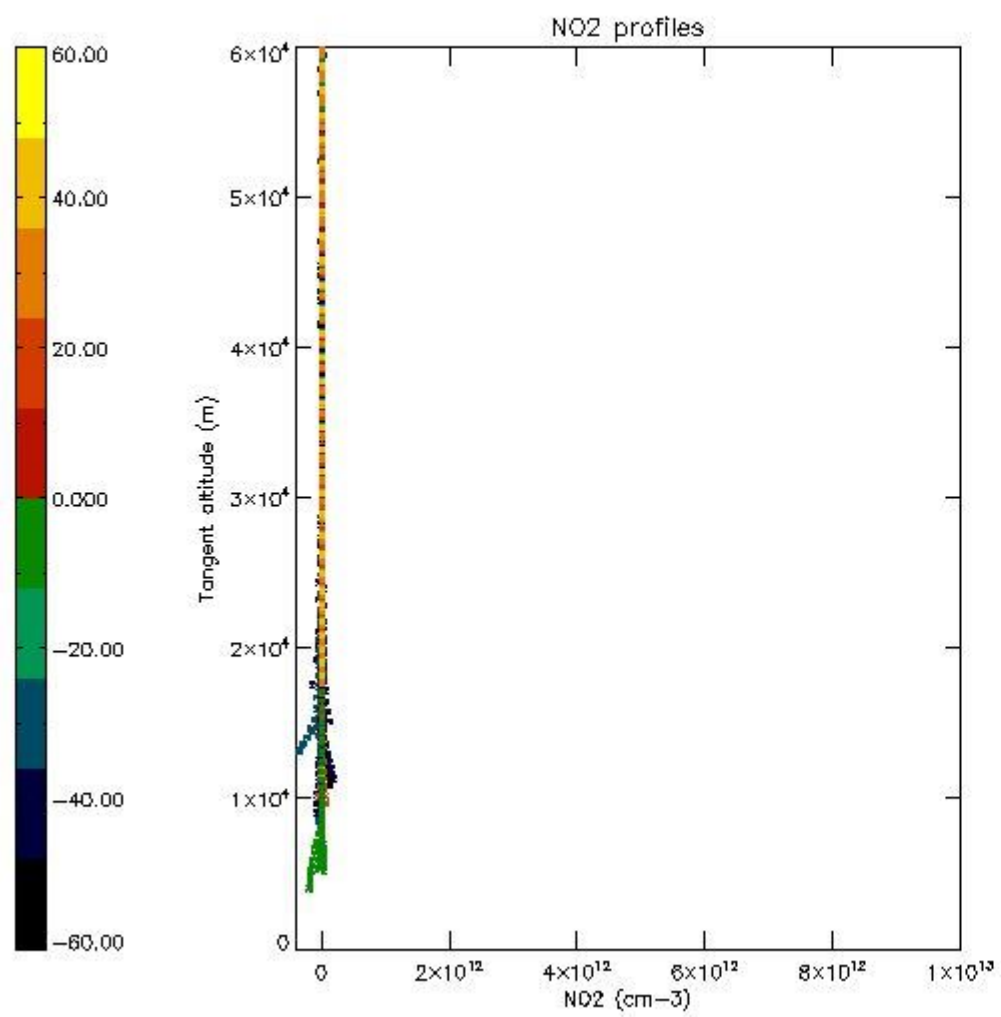
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



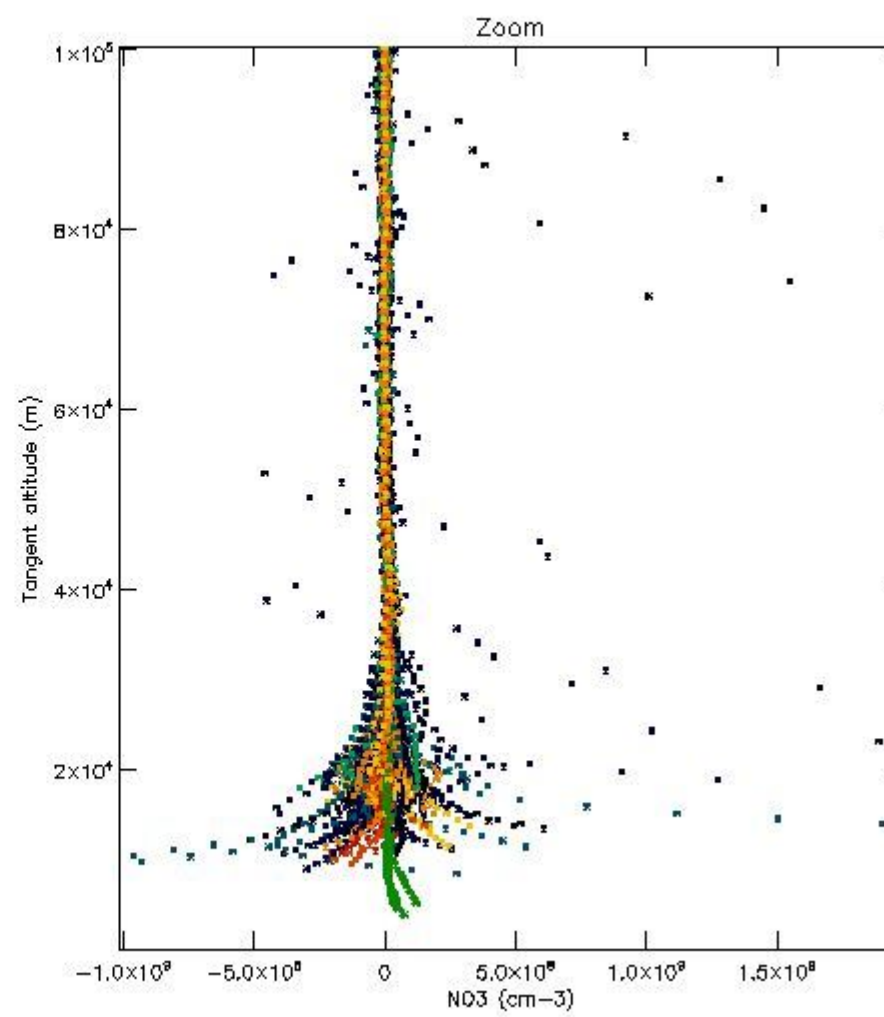
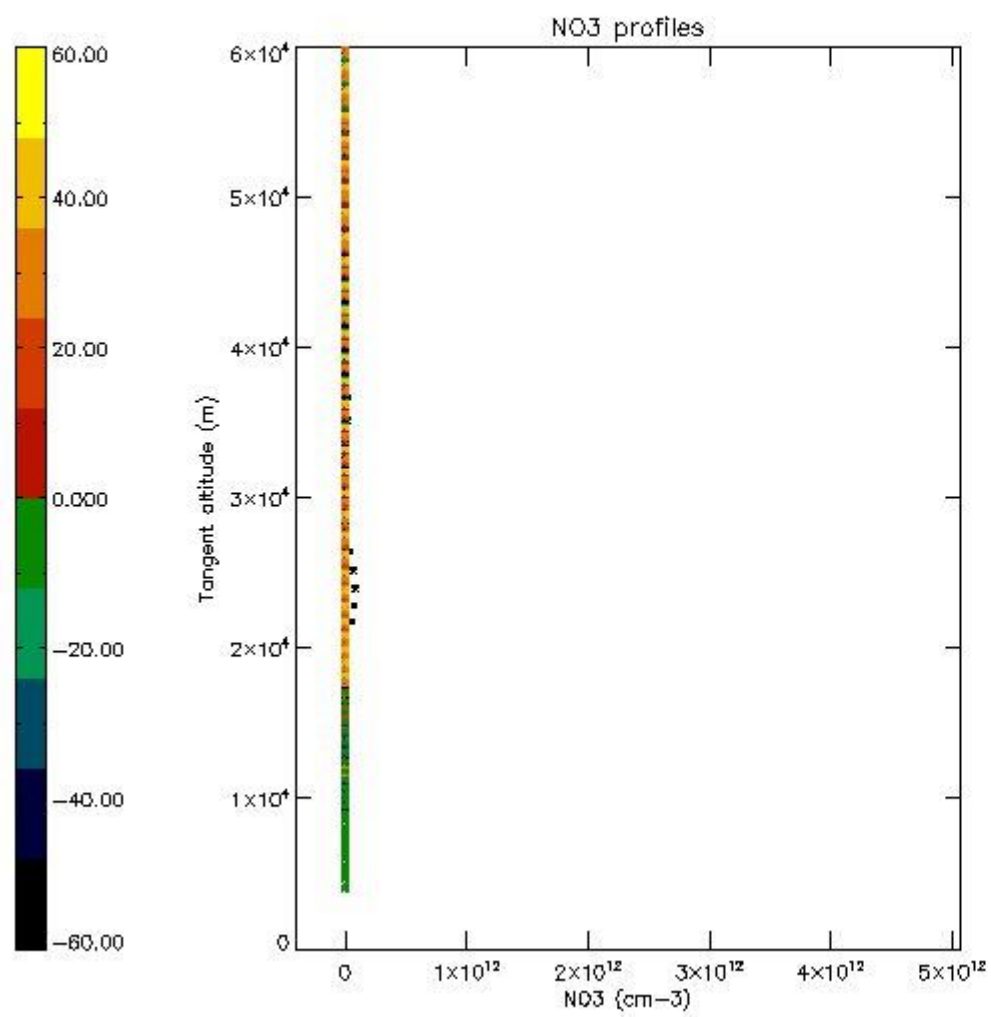
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



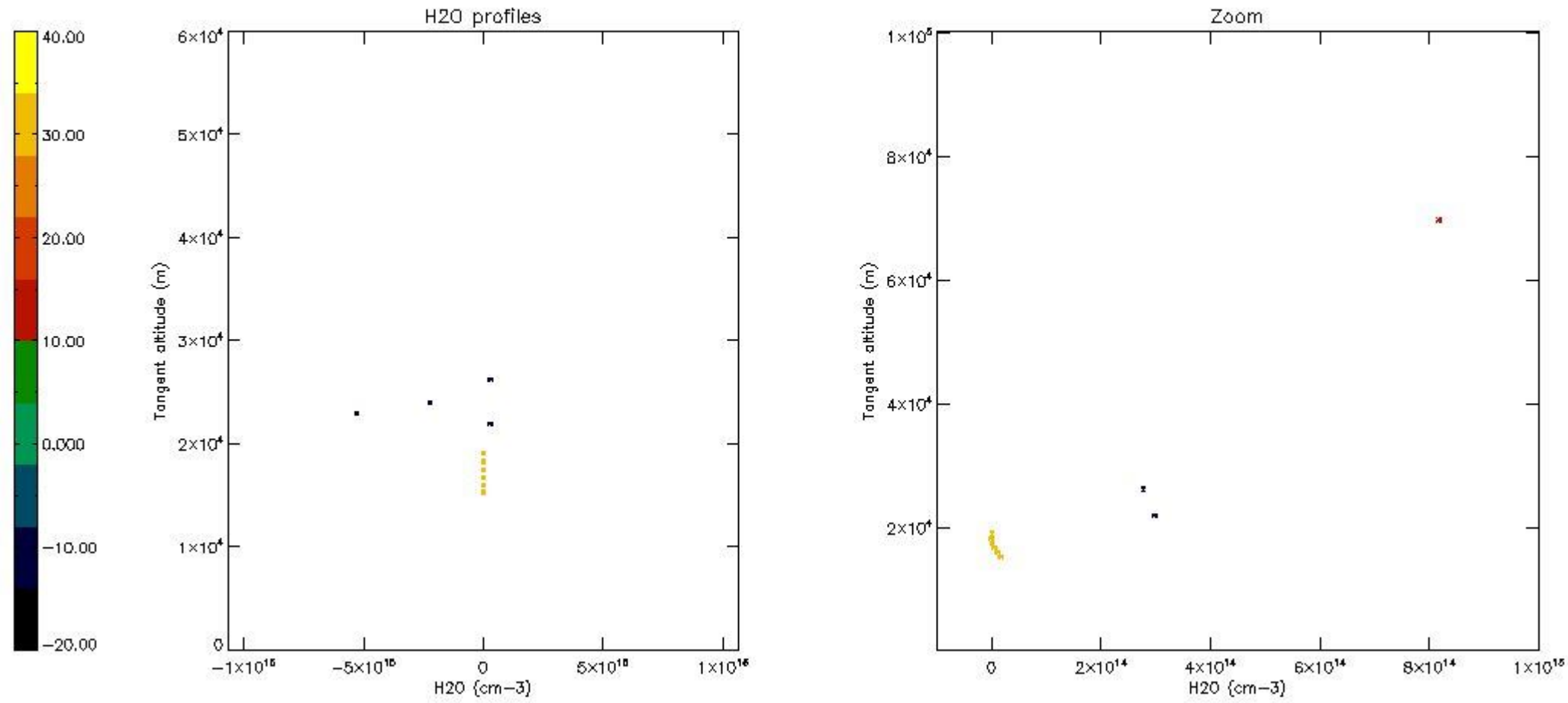
5.7 Plot NO3 profiles for all STD (dark without errors)

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	30-JAN-2008 00:02:15
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	30-JAN-2008 00:02:15
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	30-JAN-2008 00:02:15

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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.

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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__2PRFIN20080130_000215_000000382065_00317_30932_1843.N1	30-JAN-2008 00:02:15	Dark	37.500	71	lot Car	2.2460	7700.0	75	30932	No
2	GOM_NL__2PRFIN20080130_000401_000000412065_00317_30932_1844.N1	30-JAN-2008 00:04:01	Dark	40.500	46	Del Vel	1.9540	10600.	81	30932	No
3	GOM_NL__2PRFIN20080130_000634_000000402065_00317_30932_1845.N1	30-JAN-2008 00:06:34	Dark	39.500	34	Gam2Vel	1.7930	23000.	79	30932	No
4	GOM_NL__2PRFIN20080130_000840_000000392065_00317_30932_1846.N1	30-JAN-2008 00:08:40	Straylight	38.500	70	Zet Pup	2.2460	39000.	77	30932	No
5	GOM_NL__2PRFIN20080130_001004_000000402065_00317_30932_1847.N1	30-JAN-2008 00:10:04	Straylight	39.500	117	Pi Pup	2.7060	3800.0	79	30932	No
6	GOM_NL__2PRFIN20080130_001231_000000392065_00317_30932_1848.N1	30-JAN-2008 00:12:31	Straylight	39.000	23	21Eps CMa	1.5020	26000.	78	30932	No
7	GOM_NL__2PRFIN20080130_001354_000000392065_00317_30932_1849.N1	30-JAN-2008 00:13:54	Straylight	38.500	179	24Omi2CMa	3.0320	24000.	77	30932	No
8	GOM_NL__2PRFIN20080130_001603_000000462065_00317_30932_1850.N1	30-JAN-2008 00:16:03	Straylight	45.500	1	9Alp CMa	-1.4400	11000.	91	30932	No
9	GOM_NL__2PRFIN20080130_002156_000000512065_00317_30932_1851.N1	30-JAN-2008 00:21:56	Twilight_stray	50.500	8	10Alp CMi	0.40000	6500.0	101	30932	No
10	GOM_NL__2PRFIN20080130_002518_000000382065_00317_30932_1852.N1	30-JAN-2008 00:25:18	Bright	38.000	44	24Gam Gem	1.9280	11000.	76	30932	No
11	GOM_NL__2PRFIN20080130_002707_000000392065_00317_30932_1853.N1	30-JAN-2008 00:27:07	Bright	38.500	151	13Mu Gem	2.8900	3000.0	77	30932	No
12	GOM_NL__2PRFIN20080130_003123_000000362065_00317_30932_1854.N1	30-JAN-2008 00:31:23	Bright	35.500	107	37The Aur	2.6490	11000.	71	30932	No
13	GOM_NL__2PRFIN20080130_003329_000000352065_00317_30932_1855.N1	30-JAN-2008 00:33:29	Bright	35.000	42	34Bet Aur	1.9000	10200.	70	30932	No
14	GOM_NL__2PRFIN20080130_004551_000000332065_00317_30932_1856.N1	30-JAN-2008 00:45:51	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	30932	No
15	GOM_NL__2PRFIN20080130_005650_000000372065_00317_30932_1857.N1	30-JAN-2008 00:56:50	Bright	36.500	130	23Bet Dra	2.7990	5800.0	73	30932	No
16	GOM_NL__2PRFIN20080130_010023_000000382065_00317_30932_1858.N1	30-JAN-2008 01:00:23	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	30932	No
17	GOM_NL__2PRFIN20080130_010831_000000542065_00317_30932_1859.N1	30-JAN-2008 01:08:31	Bright	54.000	59	55Alp Oph	2.0800	8900.0	108	30932	No
18	GOM_NL__2PRFIN20080130_011038_000000532065_00317_30932_1860.N1	30-JAN-2008 01:10:38	Bright	53.000	126	60Bet Oph	2.7700	4250.0	106	30932	No
19	GOM_NL__2PRFIN20080130_011700_000000412065_00317_30932_1861.N1	30-JAN-2008 01:17:00	Twilight_stray	41.000	86	35Eta Oph	2.4300	10200.	82	30932	No
20	GOM_NL__2PRFIN20080130_012112_000000292065_00317_30932_1862.N1	30-JAN-2008 01:21:12	Dark	29.000	16	21Alp Sco	1.0200	3000.0	58	30932	No
21	GOM_NL__2PRFIN20080130_012209_000000402065_00317_30932_1863.N1	30-JAN-2008 01:22:09	Dark	40.000	25	35Lam Sco	1.6200	28000.	80	30932	No
22	GOM_NL__2PRFIN20080130_012339_000000382065_00317_30932_1864.N1	30-JAN-2008 01:23:39	Dark	37.500	40	The Sco	1.8590	7100.0	75	30932	No
23	GOM_NL__2PRFIN20080130_012707_000000422065_00317_30932_1865.N1	30-JAN-2008 01:27:07	Dark	41.500	141	Bet Ara	2.8400	4600.0	83	30932	No
24	GOM_NL__2PRFIN20080130_013038_000000382065_00318_30933_1854.N1	30-JAN-2008 01:30:38	Dark	37.500	134	Bet TrA	2.8100	6600.0	75	30933	No
25	GOM_NL__2PRFIN20080130_013215_000000432065_00318_30933_1855.N1	30-JAN-2008 01:32:15	Dark	42.500	4	Alp1Cen	-0.010000	5800.0	85	30933	No
26	GOM_NL__2PRFIN20080130_013650_000000472065_00318_30933_1856.N1	30-JAN-2008 01:36:50	Dark	46.500	12	Alp1Cru	0.77500	30000.	93	30933	No
27	GOM_NL__2PRFIN20080130_014033_000000372065_00318_30933_1857.N1	30-JAN-2008 01:40:33	Dark	37.000	29	Bet Car	1.6720	10200.	74	30933	No
28	GOM_NL__2PRFIN20080130_014251_000000382065_00318_30933_1858.N1	30-JAN-2008 01:42:51	Dark	37.500	71	lot Car	2.2460	7700.0	75	30933	No
29	GOM_NL__2PRFIN20080130_014437_000000392065_00318_30933_1859.N1	30-JAN-2008 01:44:37	Dark	38.500	46	Del Vel	1.9540	10600.	77	30933	No
30	GOM_NL__2PRFIN20080130_014710_000000392065_00318_30933_1860.N1	30-JAN-2008 01:47:10	Dark	39.000	34	Gam2Vel	1.7930	23000.	78	30933	No
31	GOM_NL__2PRFIN20080130_014916_000000392065_00318_30933_1861.N1	30-JAN-2008 01:49:16	Straylight	39.000	70	Zet Pup	2.2460	39000.	78	30933	No
32	GOM_NL__2PRFIN20080130_015040_000000412065_00318_30933_1862.N1	30-JAN-2008 01:50:40	Straylight	41.000	117	Pi Pup	2.7060	3800.0	82	30933	No
33	GOM_NL__2PRFIN20080130_015307_000000412065_00318_30933_1863.N1	30-JAN-2008 01:53:07	Straylight	41.000	23	21Eps CMa	1.5020	26000.	82	30933	No
34	GOM_NL__2PRFIN20080130_015430_000000382065_00318_30933_1864.N1	30-JAN-2008 01:54:30	Straylight	37.500	179	24Omi2CMa	3.0320	24000.	75	30933	No
35	GOM_NL__2PRFIN20080130_015639_000000432065_00318_30933_1865.N1	30-JAN-2008 01:56:39	Straylight	43.000	1	9Alp CMa	-1.4400	11000.	86	30933	No
36	GOM_NL__2PRFIN20080130_020232_000000492065_00318_30933_1866.N1	30-JAN-2008 02:02:32	Twilight_stray	49.000	8	10Alp CMi	0.40000	6500.0	98	30933	No
37	GOM_NL__2PRFIN20080130_020554_000000382065_00318_30933_1867.N1	30-JAN-2008 02:05:54	Bright	37.500	44	24Gam Gem	1.9280	11000.	75	30933	No
38	GOM_NL__2PRFIN20080130_020743_000000382065_00318_30933_1868.N1	30-JAN-2008 02:07:43	Bright	37.500	151	13Mu Gem	2.8900	3000.0	75	30933	No
39	GOM_NL__2PRFIN20080130_021159_000000362065_00318_30933_1869.N1	30-JAN-2008 02:11:59	Bright	36.000	107	37The Aur	2.6490	11000.	72	30933	No
40	GOM_NL__2PRFIN20080130_021405_000000362065_00318_30933_1870.N1	30-JAN-2008 02:14:05	Bright	35.500	42	34Bet Aur	1.9000	10200.	71	30933	No
41	GOM_NL__2PRFIN20080130_022626_000000352065_00318_30933_1871.N1	30-JAN-2008 02:26:26	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	30933	No
42	GOM_NL__2PRFIN20080130_023726_000000362065_00318_30933_1872.N1	30-JAN-2008 02:37:26	Bright	36.000	130	23Bet Dra	2.7990	5800.0	72	30933	No

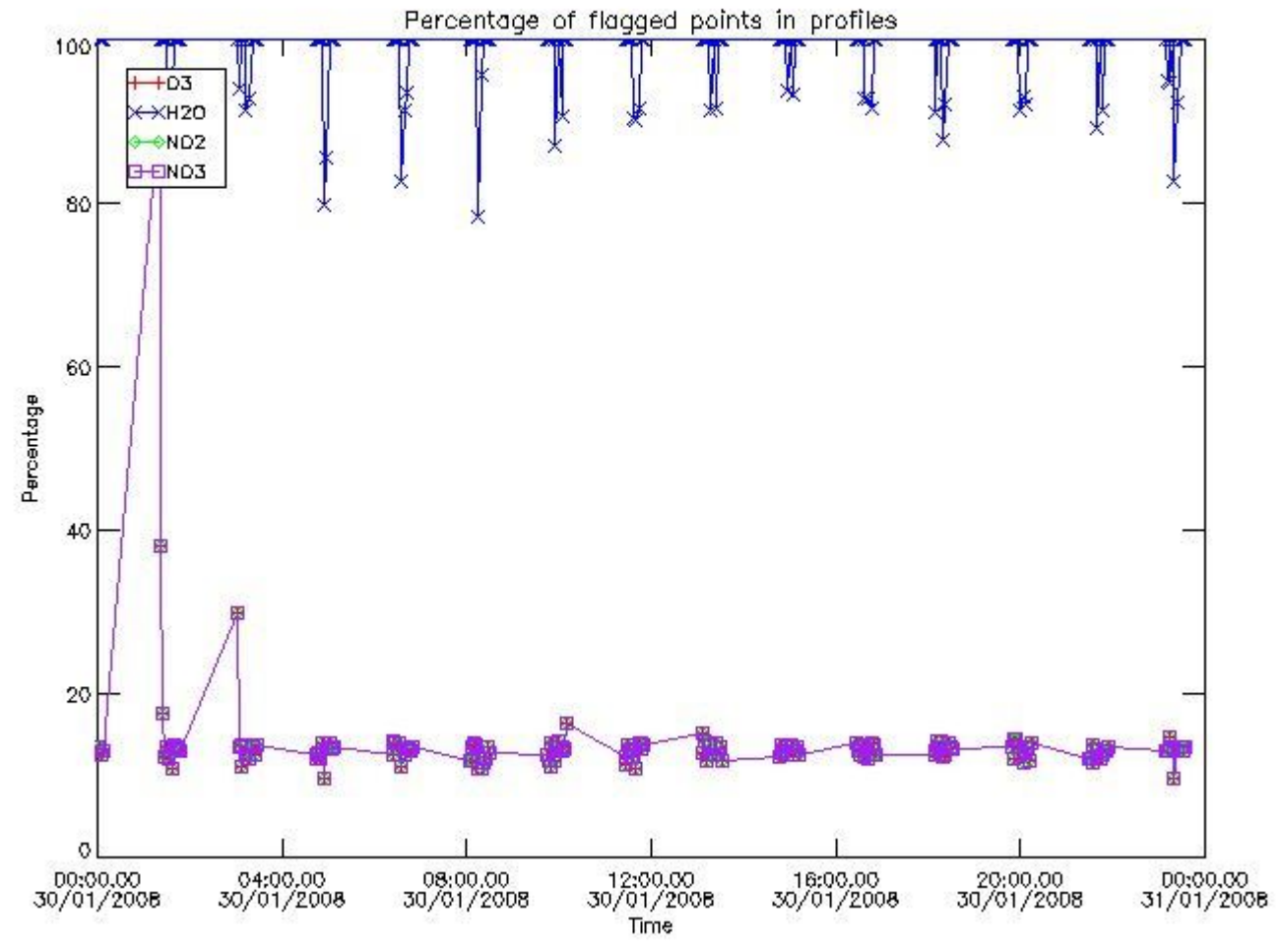
338	GOM_NL__2PRFIN20080130_210401_000000362065_00329_30944_2030.N1	30-JAN-2008 21:04:01	Bright	36.000	130	23Bet Dra	2.7990	5800.0	72	30944	No
339	GOM_NL__2PRFIN20080130_210736_000000372065_00329_30944_2031.N1	30-JAN-2008 21:07:36	Bright	37.000	5	3Alp Lyr	0.033000	11000.	74	30944	No
340	GOM_NL__2PRFIN20080130_211545_000000542065_00329_30944_2032.N1	30-JAN-2008 21:15:45	Bright	54.000	59	55Alp Oph	2.0800	8900.0	108	30944	No
341	GOM_NL__2PRFIN20080130_211753_000000362065_00329_30944_2033.N1	30-JAN-2008 21:17:53	Bright	36.000	126	60Bet Oph	2.7700	4250.0	72	30944	No
342	GOM_NL__2PRFIN20080130_212417_000000412065_00329_30944_2034.N1	30-JAN-2008 21:24:17	Twi_and_stray	40.500	86	35Eta Oph	2.4300	10200.	81	30944	No
343	GOM_NL__2PRFIN20080130_212924_000000422065_00329_30944_2035.N1	30-JAN-2008 21:29:24	Dark	42.000	25	35Lam Sco	1.6200	28000.	84	30944	No
344	GOM_NL__2PRFIN20080130_213053_000000432065_00329_30944_2036.N1	30-JAN-2008 21:30:53	Dark	42.500	40	The Sco	1.8590	7100.0	85	30944	No
345	GOM_NL__2PRFIN20080130_213247_000000372065_00329_30944_2037.N1	30-JAN-2008 21:32:47	Dark	37.000	147	Alp Ara	2.8770	26000.	74	30944	No
346	GOM_NL__2PRFIN20080130_213421_000000452065_00329_30944_2038.N1	30-JAN-2008 21:34:21	Dark	44.500	141	Bet Ara	2.8400	4600.0	89	30944	No
347	GOM_NL__2PRFIN20080130_213753_000000392065_00330_30945_2031.N1	30-JAN-2008 21:37:53	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	30945	No
348	GOM_NL__2PRFIN20080130_213933_000000422065_00330_30945_2032.N1	30-JAN-2008 21:39:33	Dark	42.000	4	Alp1Cen	-0.010000	5800.0	84	30945	No
349	GOM_NL__2PRFIN20080130_214408_000000432065_00330_30945_2033.N1	30-JAN-2008 21:44:08	Dark	42.500	12	Alp1Cru	0.77500	30000.	85	30945	No
350	GOM_NL__2PRFIN20080130_214747_000000412065_00330_30945_2034.N1	30-JAN-2008 21:47:47	Dark	41.000	29	Bet Car	1.6720	10200.	82	30945	No
351	GOM_NL__2PRFIN20080130_215006_000000402065_00330_30945_2035.N1	30-JAN-2008 21:50:06	Dark	39.500	71	lot Car	2.2460	7700.0	79	30945	No
352	GOM_NL__2PRFIN20080130_215152_000000402065_00330_30945_2036.N1	30-JAN-2008 21:51:52	Dark	39.500	46	Del Vel	1.9540	10600.	79	30945	No
353	GOM_NL__2PRFIN20080130_215425_000000382065_00330_30945_2037.N1	30-JAN-2008 21:54:25	Dark	37.500	34	Gam2Vel	1.7930	23000.	75	30945	No
354	GOM_NL__2PRFIN20080130_215630_000000382065_00330_30945_2038.N1	30-JAN-2008 21:56:30	Straylight	37.500	70	Zet Pup	2.2460	39000.	75	30945	No
355	GOM_NL__2PRFIN20080130_215754_000000412065_00330_30945_2039.N1	30-JAN-2008 21:57:54	Straylight	40.500	117	Pi Pup	2.7060	3800.0	81	30945	No
356	GOM_NL__2PRFIN20080130_220020_000000412065_00330_30945_2040.N1	30-JAN-2008 22:00:20	Straylight	41.000	23	21Eps CMa	1.5020	26000.	82	30945	No
357	GOM_NL__2PRFIN20080130_220143_000000382065_00330_30945_2041.N1	30-JAN-2008 22:01:43	Straylight	37.500	179	24Omi2CMa	3.0320	24000.	75	30945	No
358	GOM_NL__2PRFIN20080130_220352_000000492065_00330_30945_2042.N1	30-JAN-2008 22:03:52	Straylight	48.500	1	9Alp CMa	-1.4400	11000.	97	30945	No
359	GOM_NL__2PRFIN20080130_220943_000000492065_00330_30945_2043.N1	30-JAN-2008 22:09:43	Twi_and_stray	49.000	8	10Alp CMi	0.40000	6500.0	98	30945	No
360	GOM_NL__2PRFIN20080130_221306_000000452065_00330_30945_2044.N1	30-JAN-2008 22:13:06	Bright	44.500	44	24Gam Gem	1.9280	11000.	89	30945	No
361	GOM_NL__2PRFIN20080130_221456_000000382065_00330_30945_2045.N1	30-JAN-2008 22:14:56	Bright	38.000	151	13Mu Gem	2.8900	3000.0	76	30945	No
362	GOM_NL__2PRFIN20080130_221729_000000372065_00330_30945_2046.N1	30-JAN-2008 22:17:29	Bright	37.000	24	66Alp Gem	1.5800	10200.	74	30945	No
363	GOM_NL__2PRFIN20080130_221913_000000352065_00330_30945_2047.N1	30-JAN-2008 22:19:13	Bright	34.500	107	37The Aur	2.6490	11000.	69	30945	No
364	GOM_NL__2PRFIN20080130_222119_000000342065_00330_30945_2048.N1	30-JAN-2008 22:21:19	Bright	33.500	42	34Bet Aur	1.9000	10200.	67	30945	No
365	GOM_NL__2PRFIN20080130_223338_000000372065_00330_30945_2049.N1	30-JAN-2008 22:33:38	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	30945	No
366	GOM_NL__2PRFIN20080130_224437_000000352065_00330_30945_2050.N1	30-JAN-2008 22:44:37	Bright	34.500	130	23Bet Dra	2.7990	5800.0	69	30945	No
367	GOM_NL__2PRFIN20080130_224812_000000342065_00330_30945_2051.N1	30-JAN-2008 22:48:12	Bright	34.000	5	3Alp Lyr	0.033000	11000.	68	30945	No
368	GOM_NL__2PRFIN20080130_225621_000000362065_00330_30945_2052.N1	30-JAN-2008 22:56:21	Bright	35.500	59	55Alp Oph	2.0800	8900.0	71	30945	No
369	GOM_NL__2PRFIN20080130_225829_000000532065_00330_30945_2053.N1	30-JAN-2008 22:58:29	Bright	53.000	126	60Bet Oph	2.7700	4250.0	106	30945	No
370	GOM_NL__2PRFIN20080130_230453_000000442065_00330_30945_2054.N1	30-JAN-2008 23:04:53	Twi_and_stray	44.000	86	35Eta Oph	2.4300	10200.	88	30945	No
371	GOM_NL__2PRFIN20080130_231000_000000392065_00330_30945_2055.N1	30-JAN-2008 23:10:00	Dark	39.000	25	35Lam Sco	1.6200	28000.	78	30945	No
372	GOM_NL__2PRFIN20080130_231129_000000402065_00330_30945_2056.N1	30-JAN-2008 23:11:29	Dark	39.500	40	The Sco	1.8590	7100.0	79	30945	No
373	GOM_NL__2PRFIN20080130_231323_000000382065_00330_30945_2057.N1	30-JAN-2008 23:13:23	Dark	38.000	147	Alp Ara	2.8770	26000.	76	30945	No
374	GOM_NL__2PRFIN20080130_231457_000000382065_00330_30945_2058.N1	30-JAN-2008 23:14:57	Dark	37.500	141	Bet Ara	2.8400	4600.0	75	30945	No
375	GOM_NL__2PRFIN20080130_231830_000000392065_00331_30946_2040.N1	30-JAN-2008 23:18:30	Dark	38.500	134	Bet TrA	2.8100	6600.0	77	30946	No
376	GOM_NL__2PRFIN20080130_232009_000000532065_00331_30946_2041.N1	30-JAN-2008 23:20:09	Dark	52.500	4	Alp1Cen	-0.010000	5800.0	105	30946	No
377	GOM_NL__2PRFIN20080130_232445_000000402065_00331_30946_2042.N1	30-JAN-2008 23:24:45	Dark	39.500	12	Alp1Cru	0.77500	30000.	79	30946	No
378	GOM_NL__2PRFIN20080130_232823_000000382065_00331_30946_2043.N1	30-JAN-2008 23:28:23	Dark	38.000	29	Bet Car	1.6720	10200.	76	30946	No
379	GOM_NL__2PRFIN20080130_233043_000000392065_00331_30946_2044.N1	30-JAN-2008 23:30:43	Dark	39.000	71	lot Car	2.2460	7700.0	78	30946	No
380	GOM_NL__2PRFIN20080130_233228_000000382065_00331_30946_2045.N1	30-JAN-2008 23:32:28	Dark	37.500	46	Del Vel	1.9540	10600.	75	30946	No
381	GOM_NL__2PRFIN20080130_233501_000000382065_00331_30946_2046.N1	30-JAN-2008 23:35:01	Dark	38.000	34	Gam2Vel	1.7930	23000.	76	30946	No
382	GOM_NL__2PRFIN20080130_233706_000000382065_00331_30946_2047.N1	30-JAN-2008 23:37:06	Straylight	38.000	70	Zet Pup	2.2460	39000.	76	30946	No
383	GOM_NL__2PRFIN20080130_233830_000000392065_00331_30946_2048.N1	30-JAN-2008 23:38:30	Straylight	39.000	117	Pi Pup	2.7060	3800.0	78	30946	No
384	GOM_NL__2PRFIN20080130_234056_000000422065_00331_30946_2049.N1	30-JAN-2008 23:40:56	Straylight	41.500	23	21Eps CMa	1.5020	26000.	83	30946	No
385	GOM_NL__2PRFIN20080130_234219_000000372065_00331_30946_2050.N1	30-JAN-2008 23:42:19	Straylight	37.000	179	24Omi2CMa	3.0320	24000.	74	30946	No
386	GOM_NL__2PRFIN20080130_234428_000000432065_00331_30946_2051.N1	30-JAN-2008 23:44:28	Straylight	43.000	1	9Alp CMa	-1.4400	11000.	86	30946	No
387	GOM_NL__2PRFIN20080130_235019_000000482065_00331_30946_2052.N1	30-JAN-2008 23:50:19	Twi_and_stray	47.500	8	10Alp CMi	0.40000	6500.0	95	30946	No
388	GOM_NL__2PRFIN20080130_235342_000000382065_00331_30946_2053.N1	30-JAN-2008 23:53:42	Bright	37.500	44	24Gam Gem	1.9280	11000.	75	30946	No
389	GOM_NL__2PRFIN20080130_235532_000000392065_00331_30946_2054.N1	30-JAN-2008 23:55:32	Bright	38.500	151	13Mu Gem	2.8900	3000.0	77	30946	No
390	GOM_NL__2PRFIN20080130_235805_000000392065_00331_30946_2055.N1	30-JAN-2008 23:58:05	Bright	38.500	24	66Alp Gem	1.5800	10200.	77	30946	No
391	GOM_NL__2PRFIN20080130_235949_000000352065_00331_30946_2056.N1	30-JAN-2008 23:59:49	Bright	35.000	107	37The Aur	2.6490	11000.	70	30946	No

3. Quality information per product

In this section it is plotted some information contained in the Quality Summary data set of

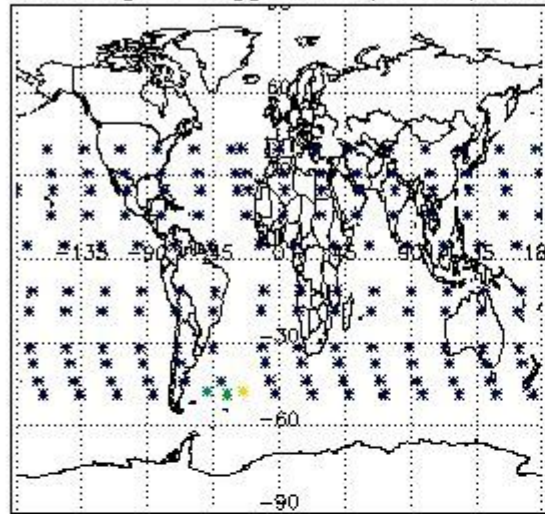
the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

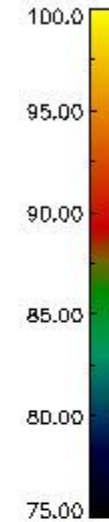
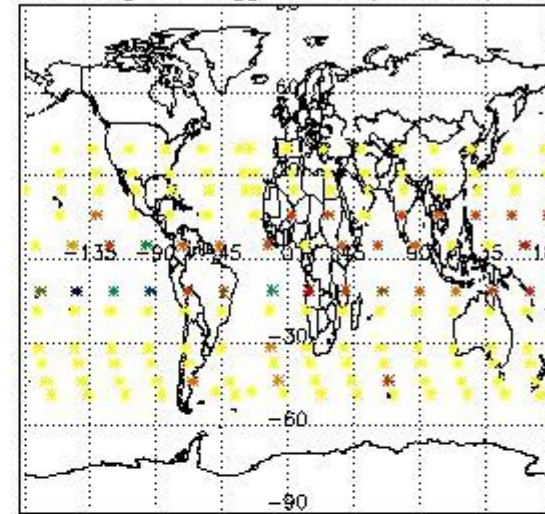


3.2 Plot quality information per product (world map)

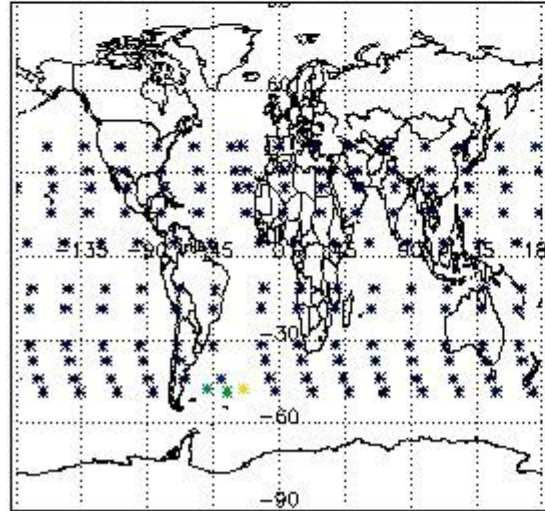
Percentage of flagged data per O3 profile



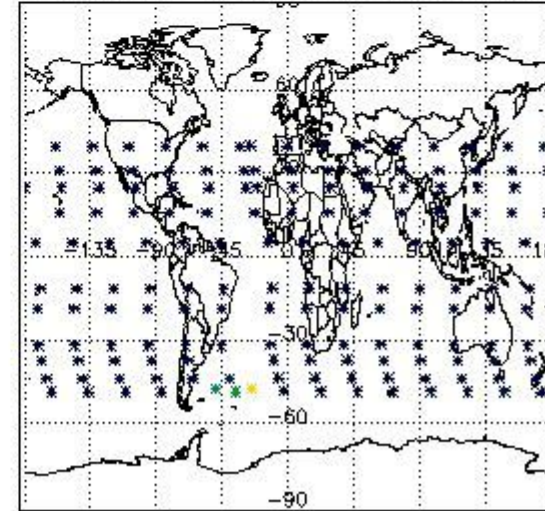
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

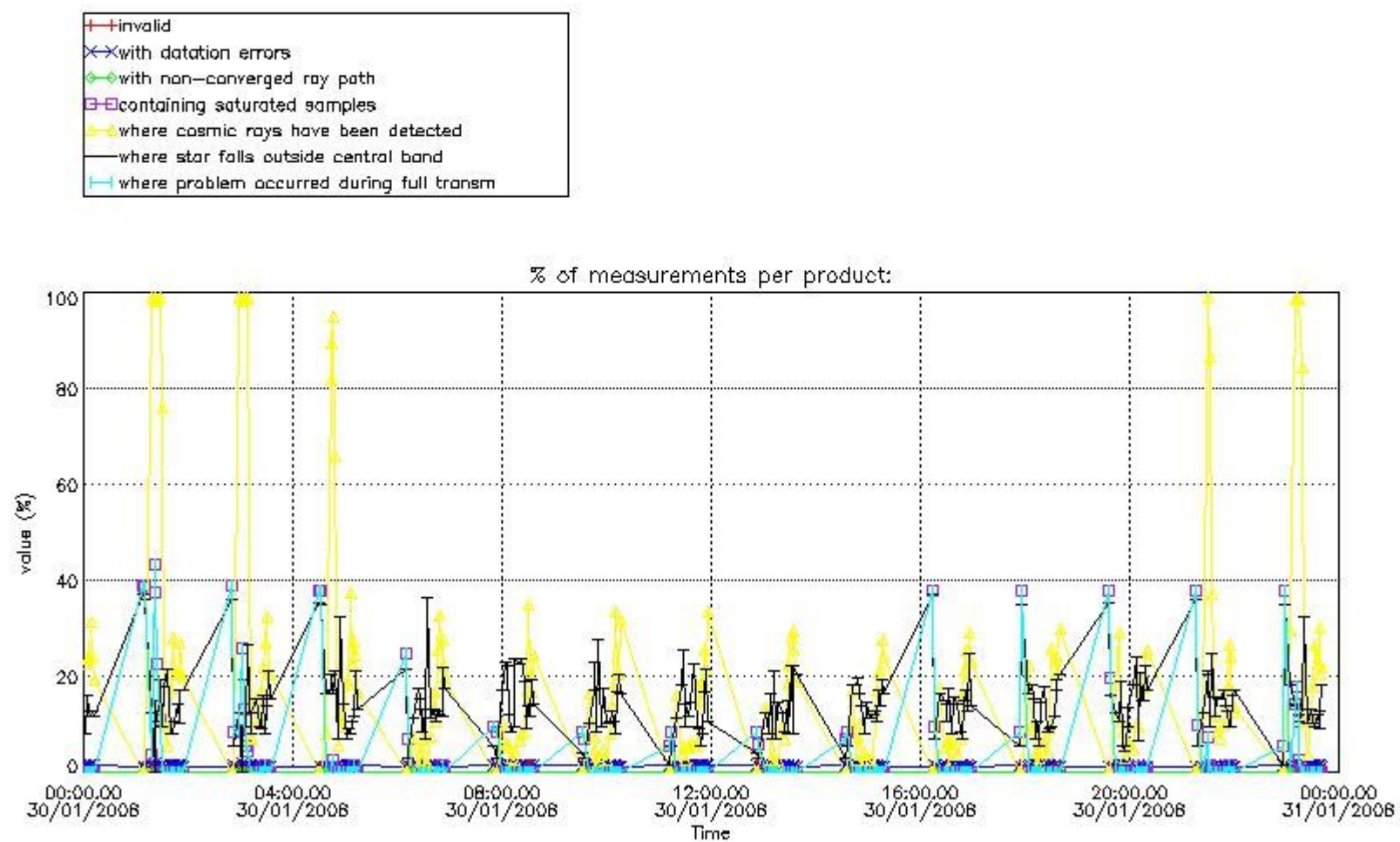


4. Level 1 quality information per product

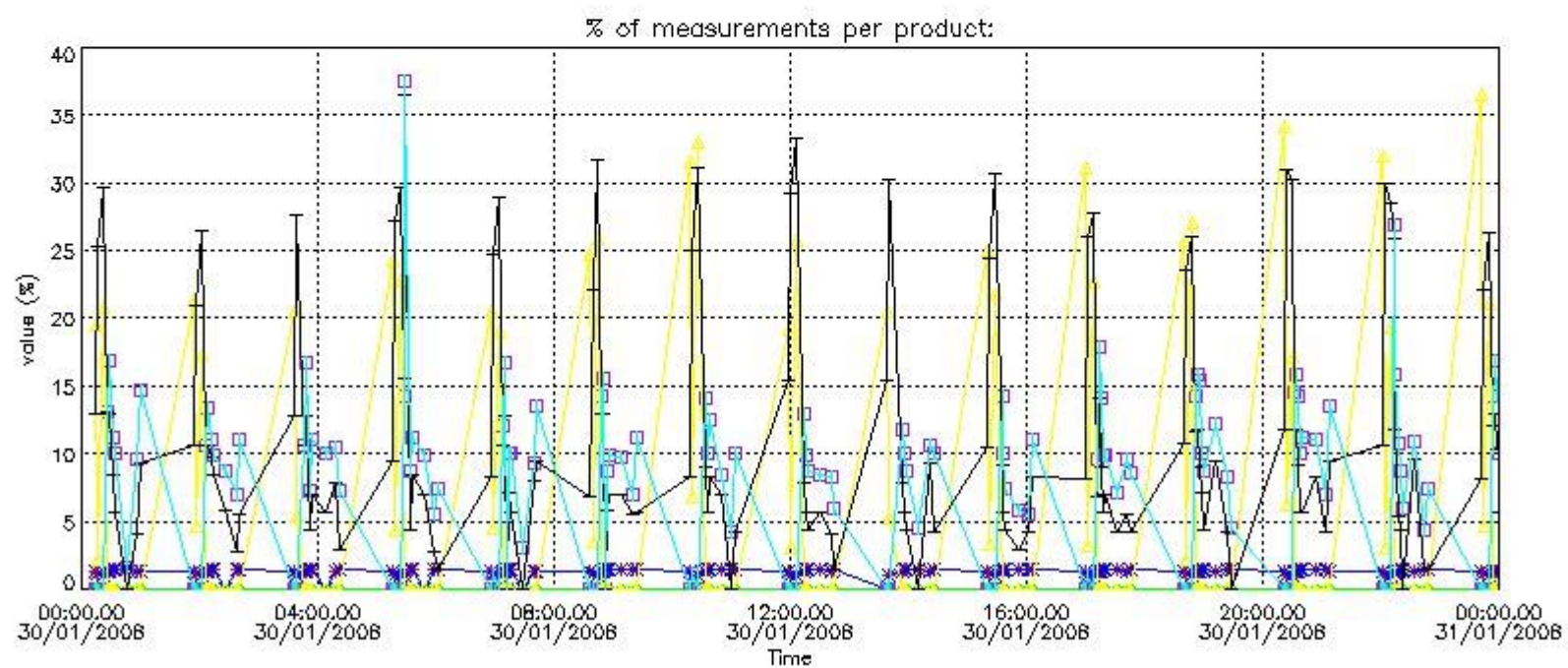
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

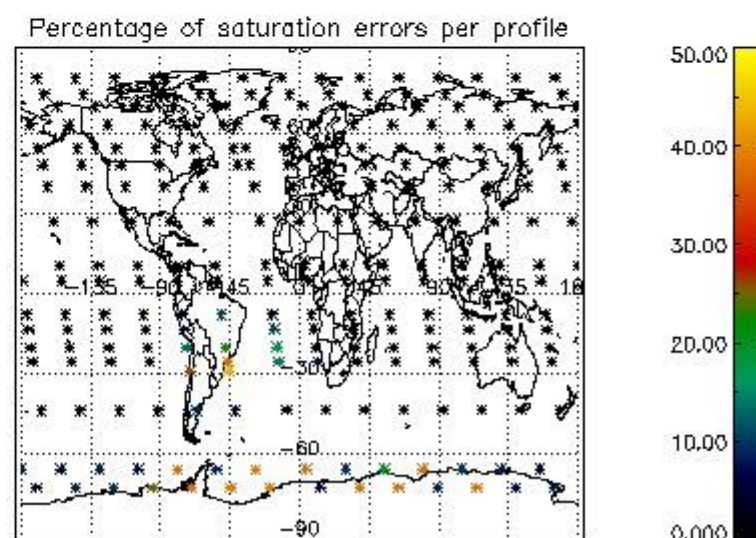
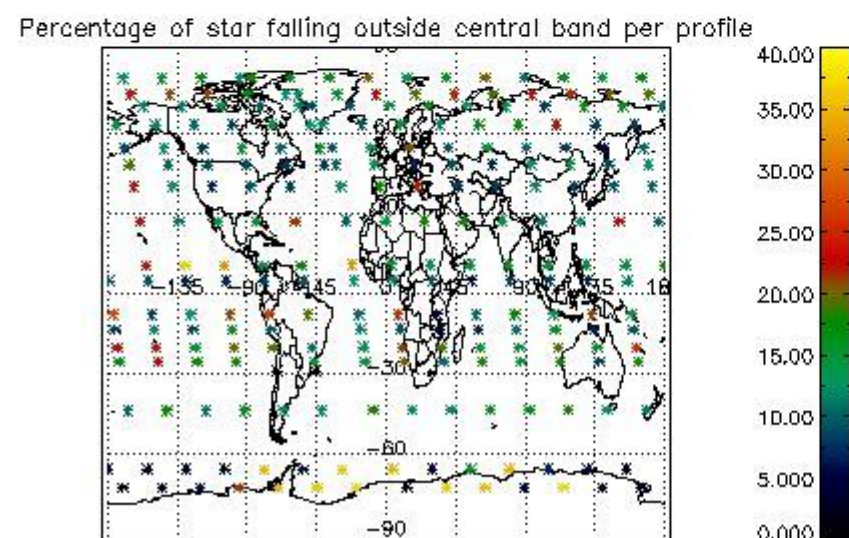
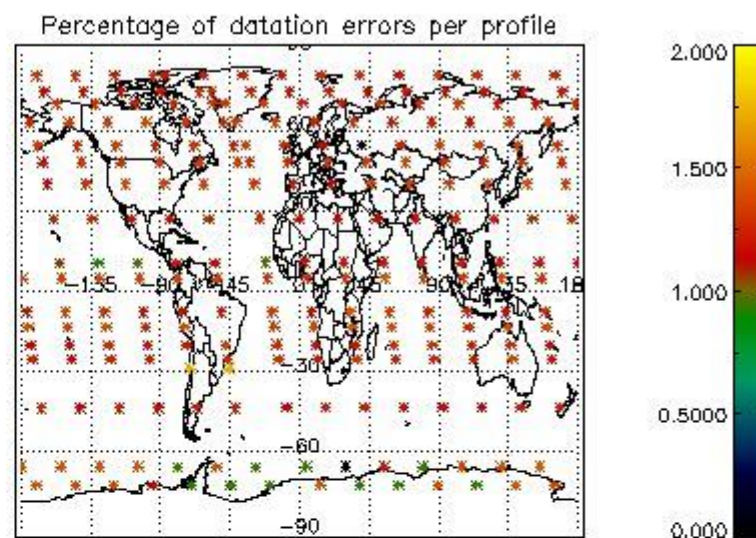
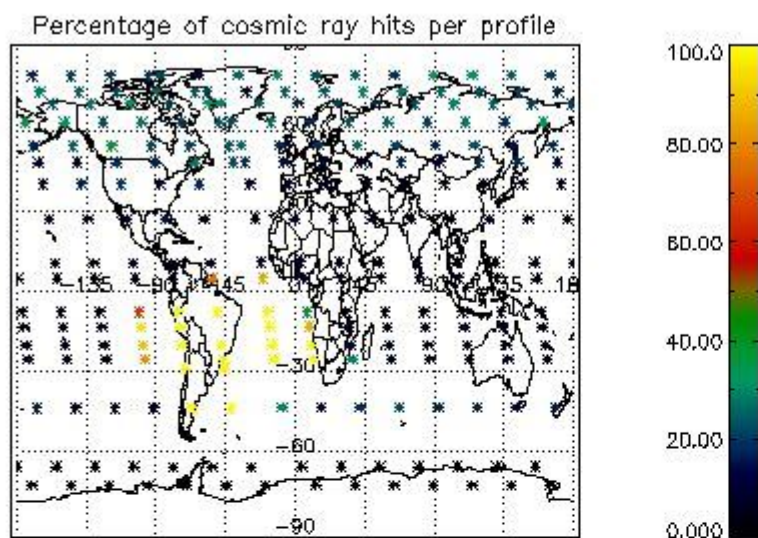


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

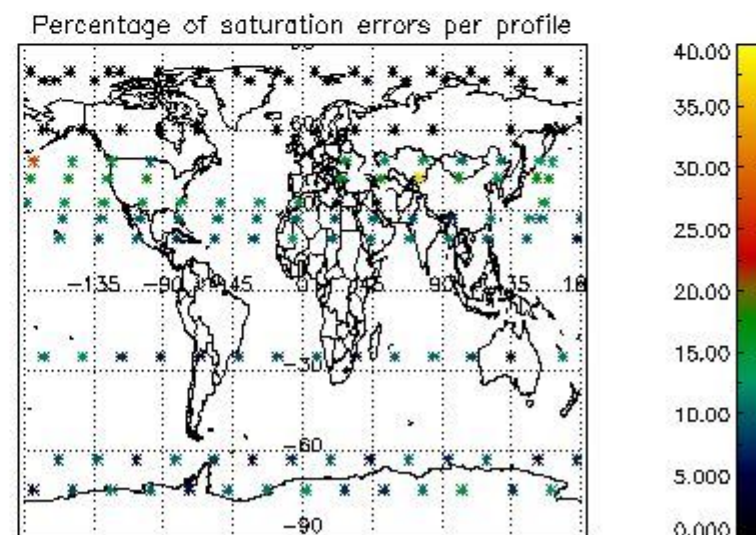
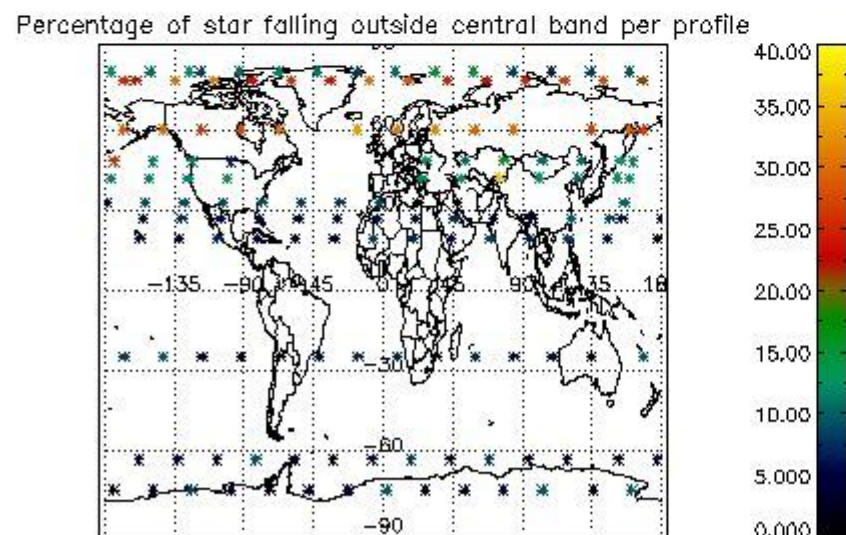
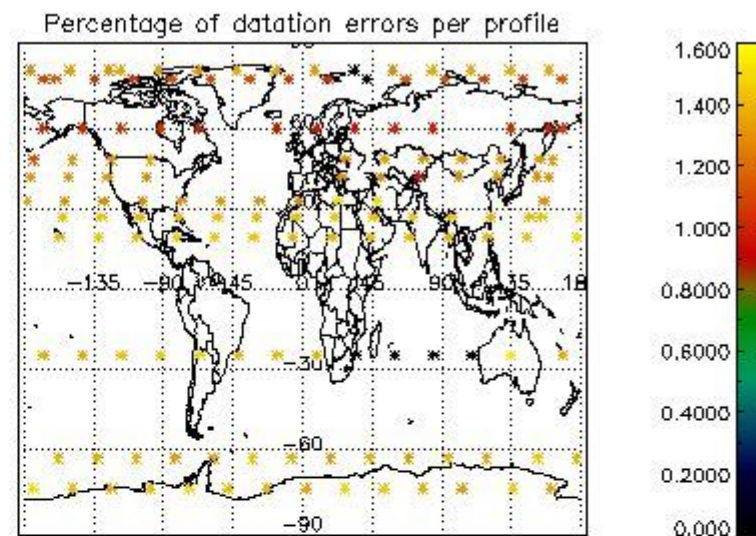
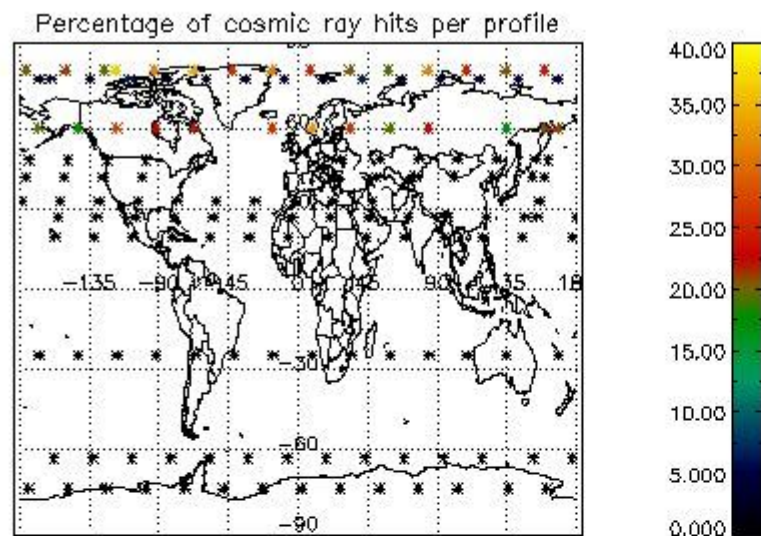


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

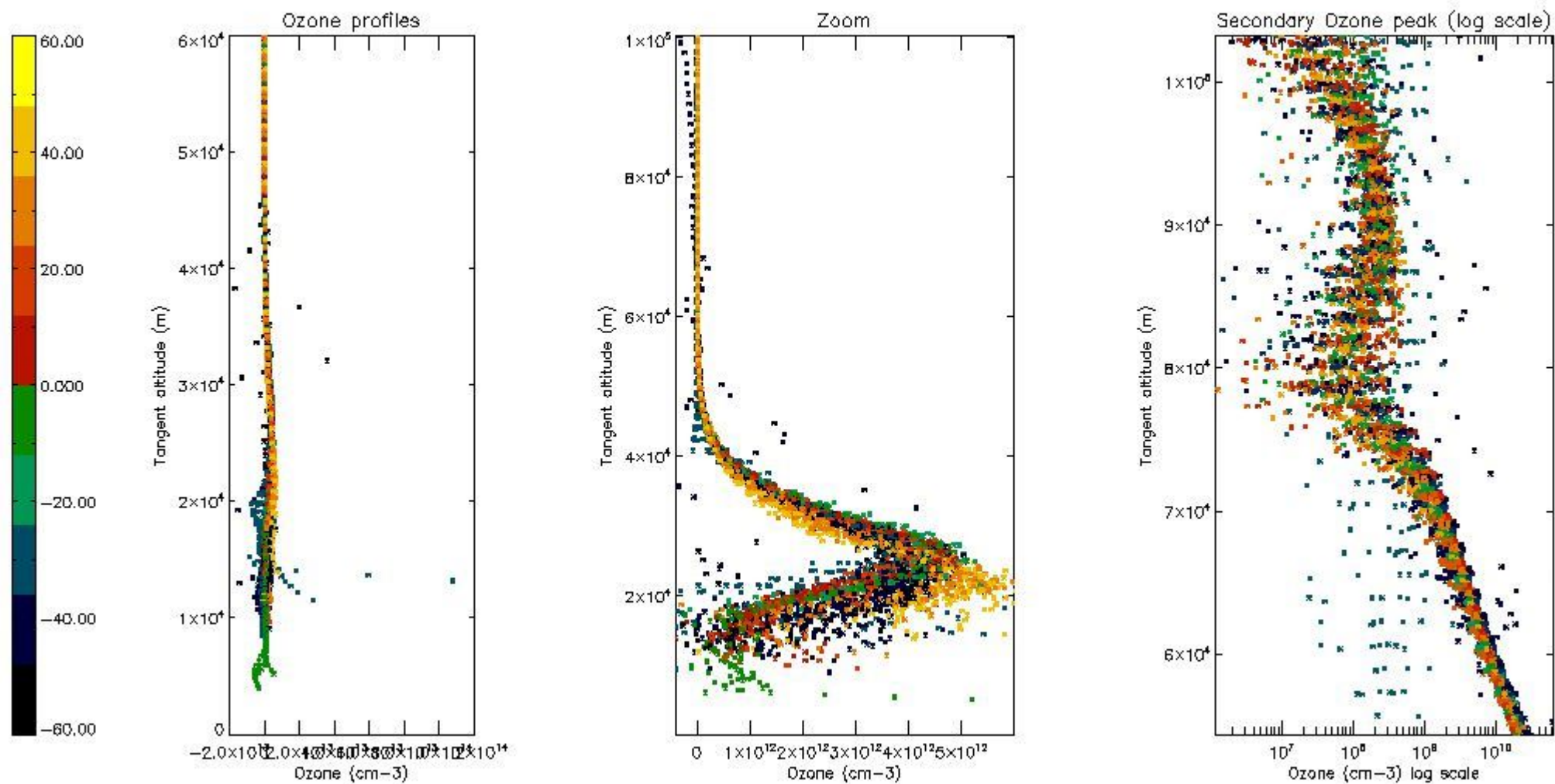
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	41
STD < 20	23

STD < 10	18
STD < 5	12

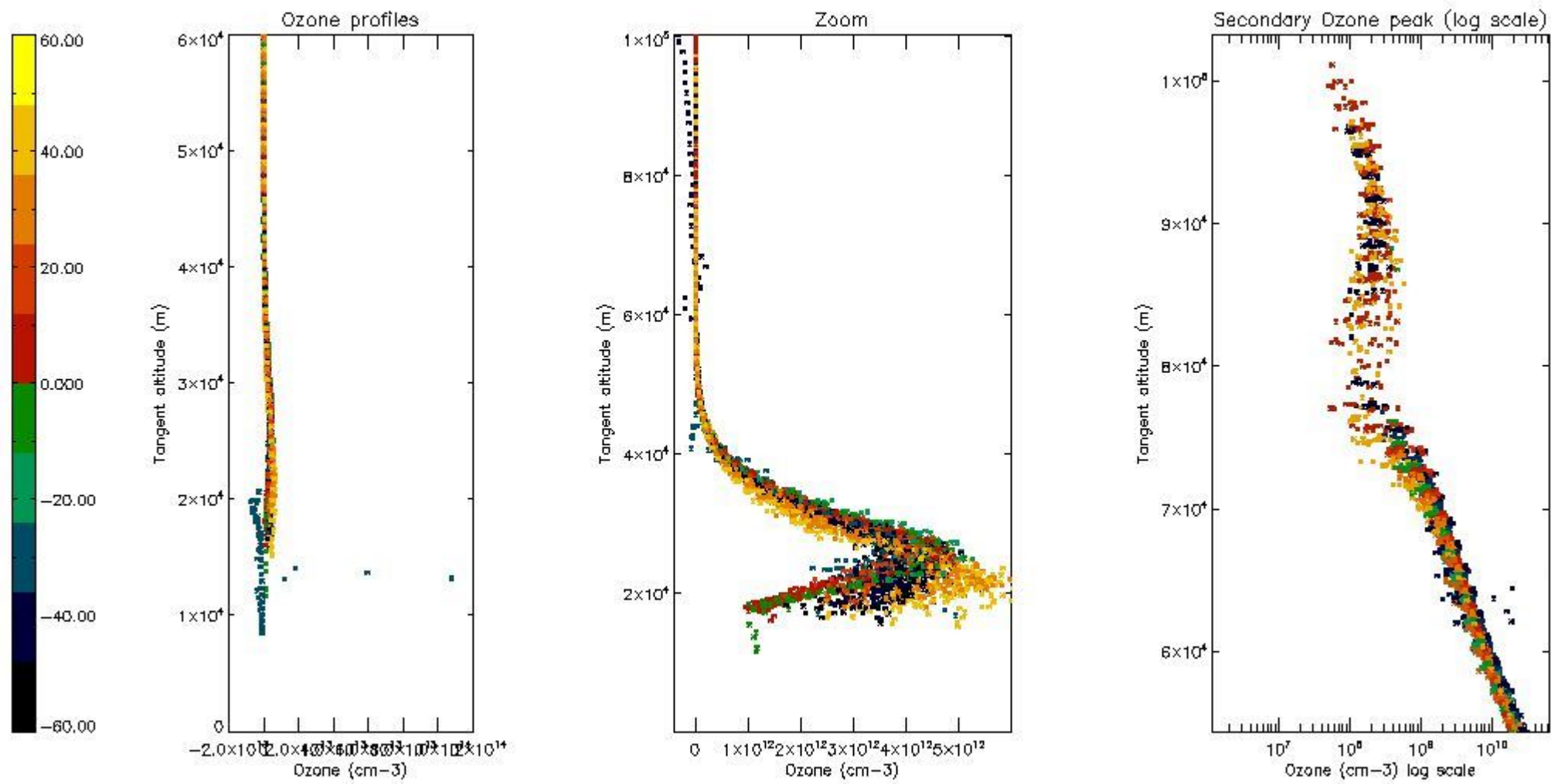
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



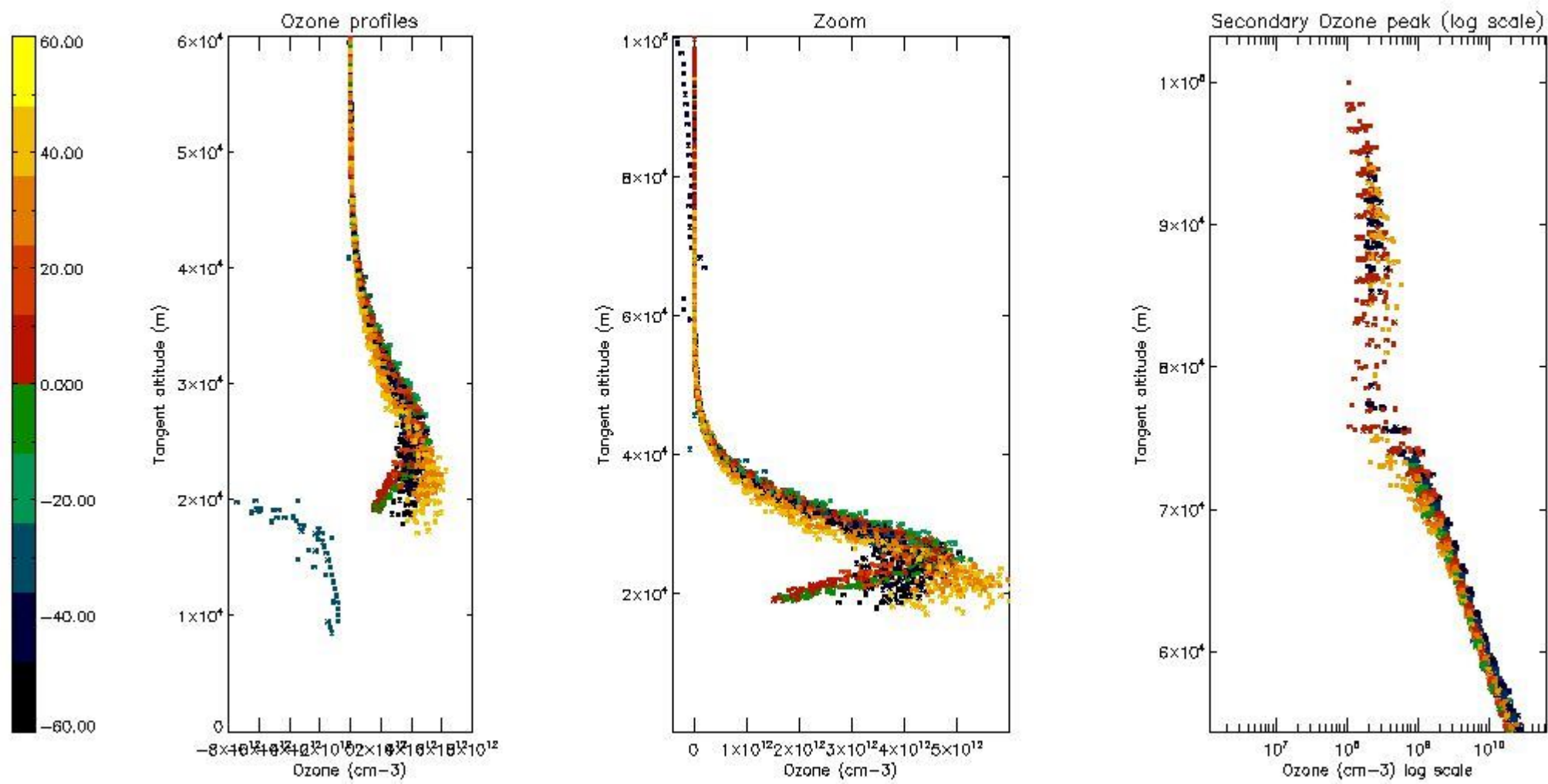
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



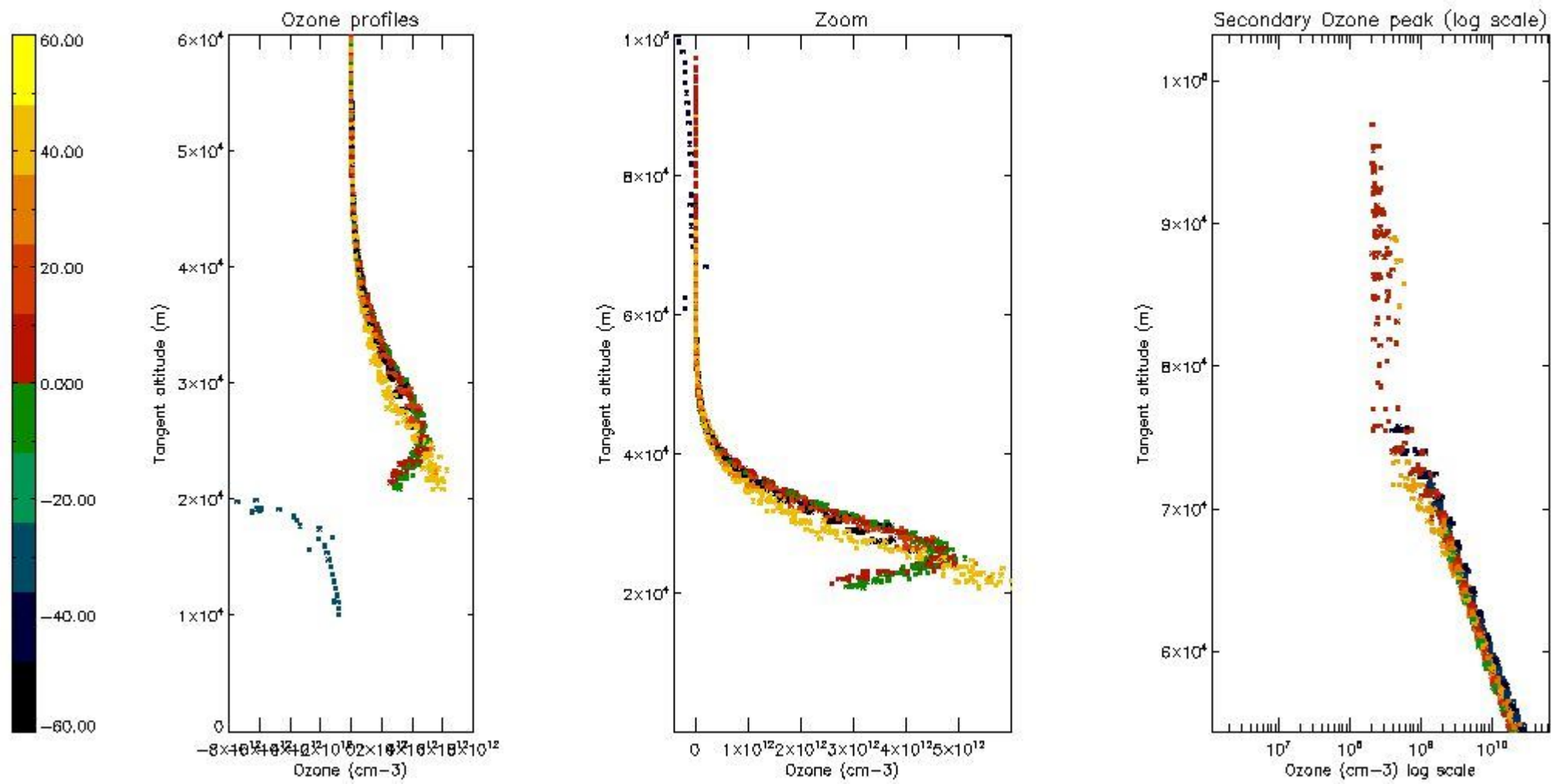
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



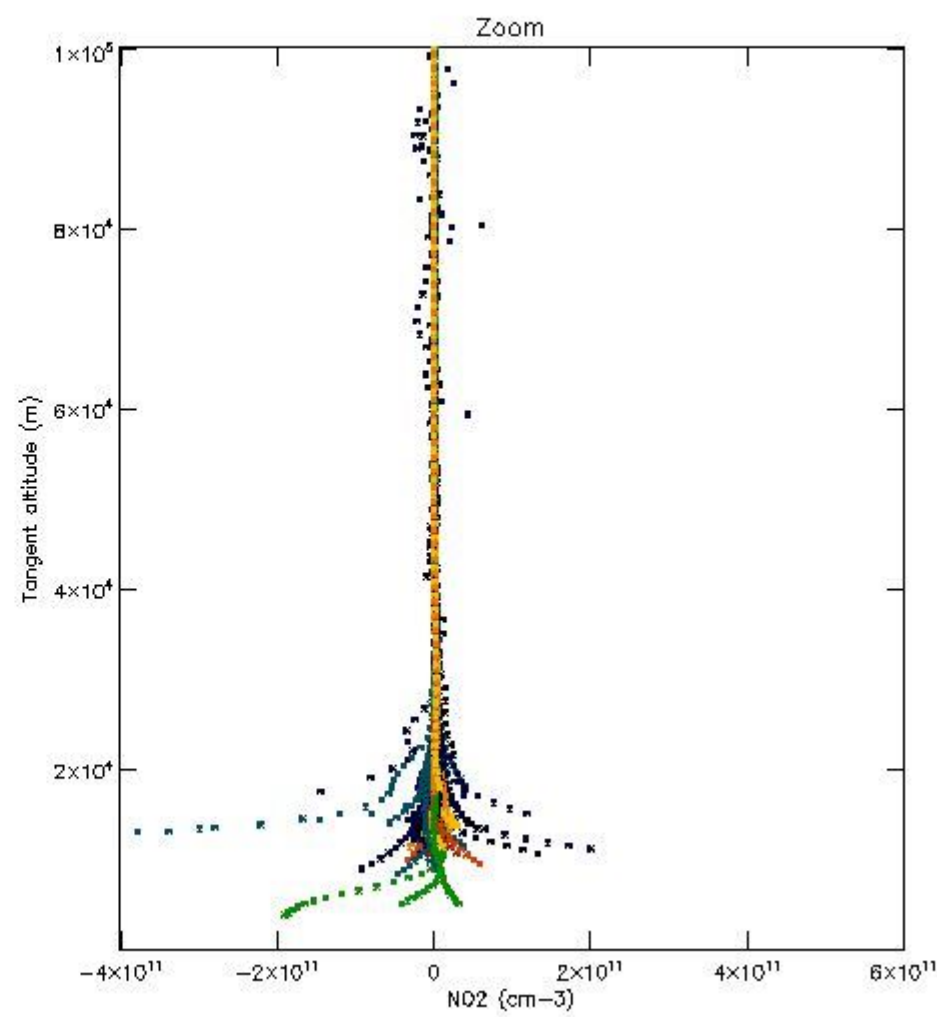
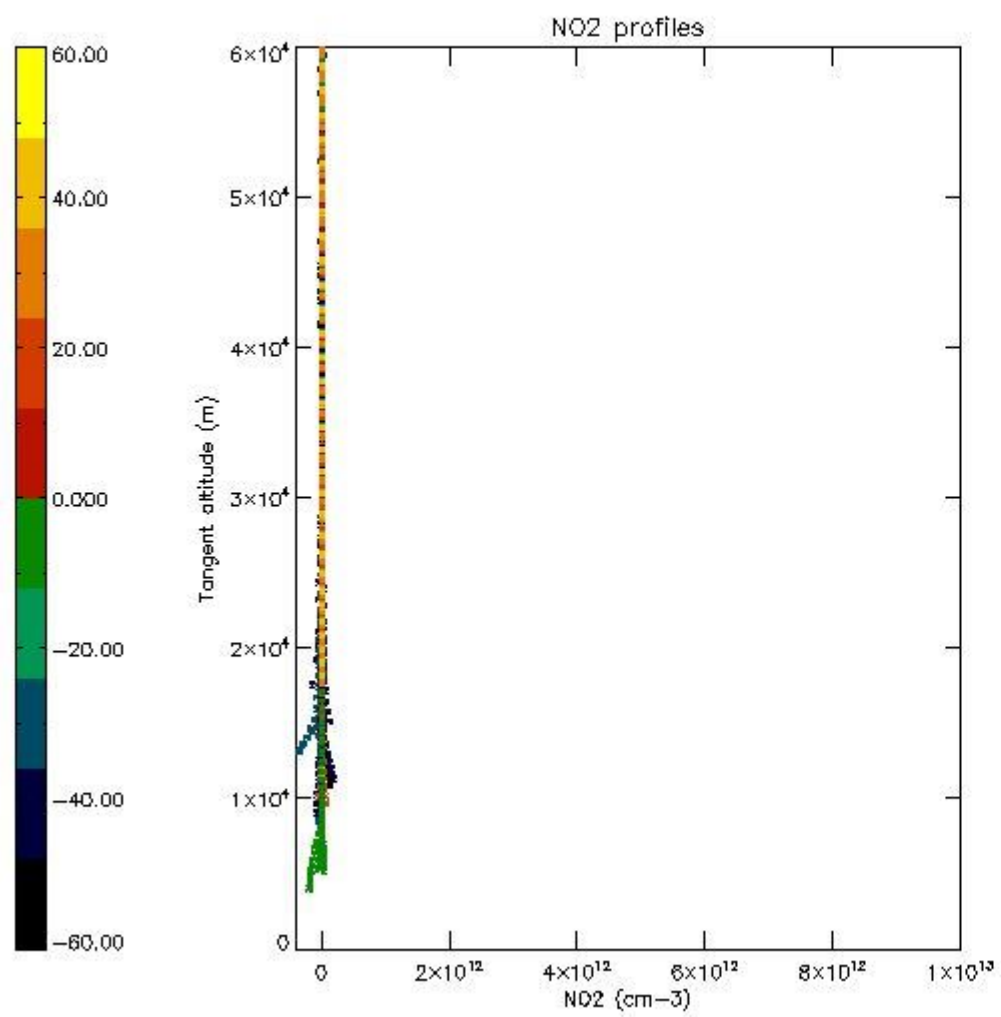
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



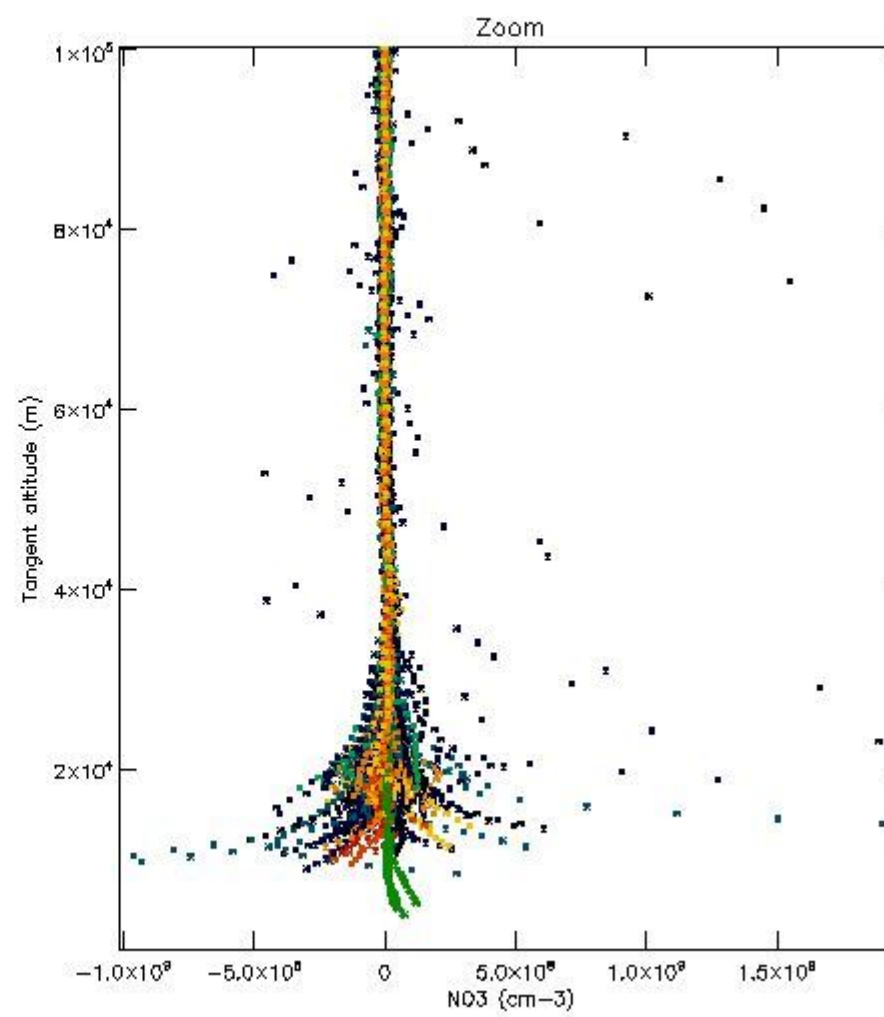
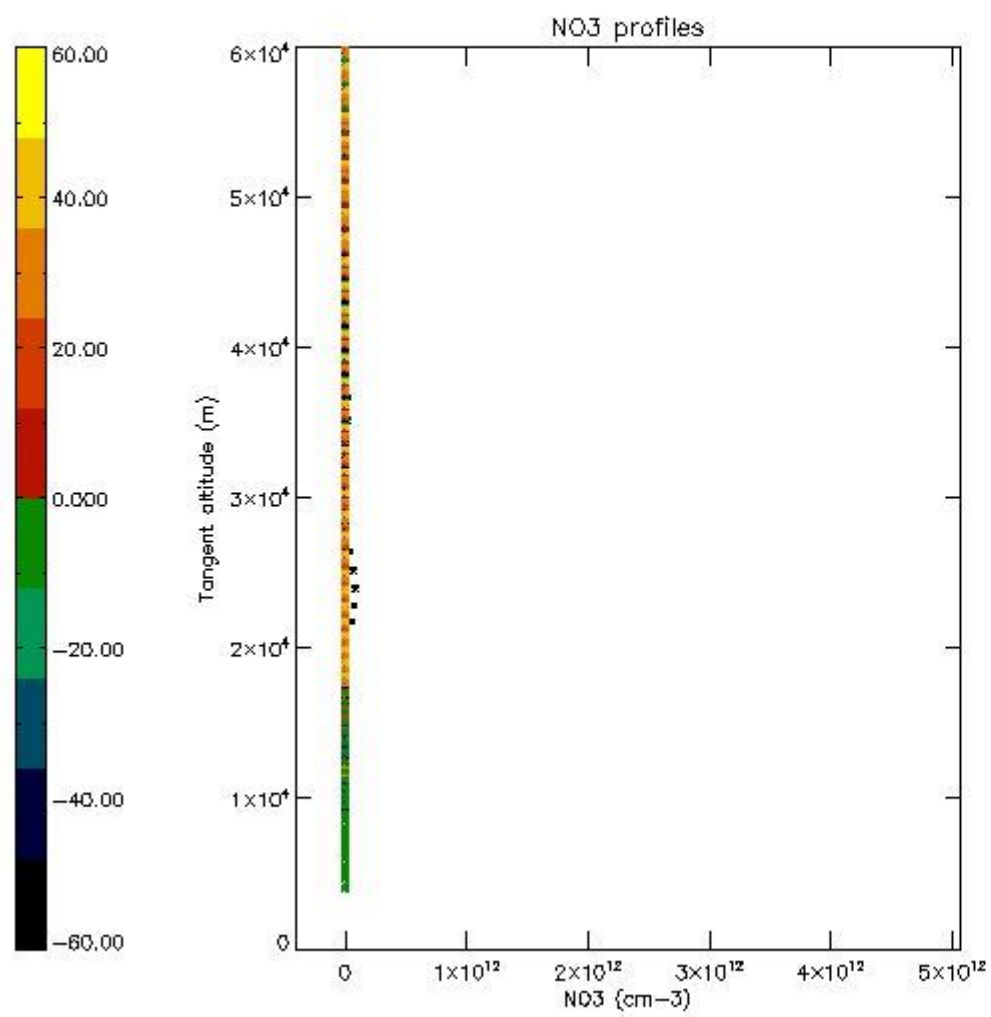
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



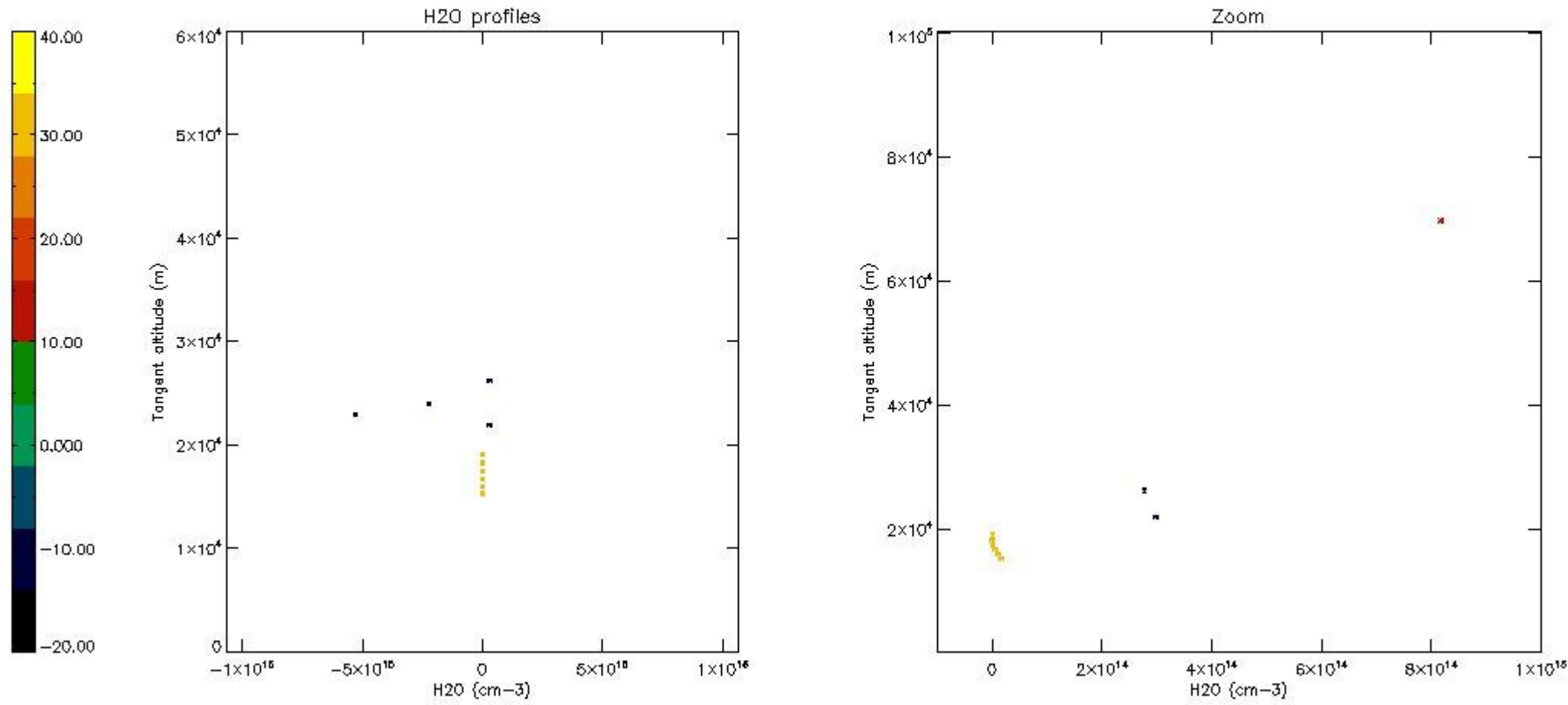
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

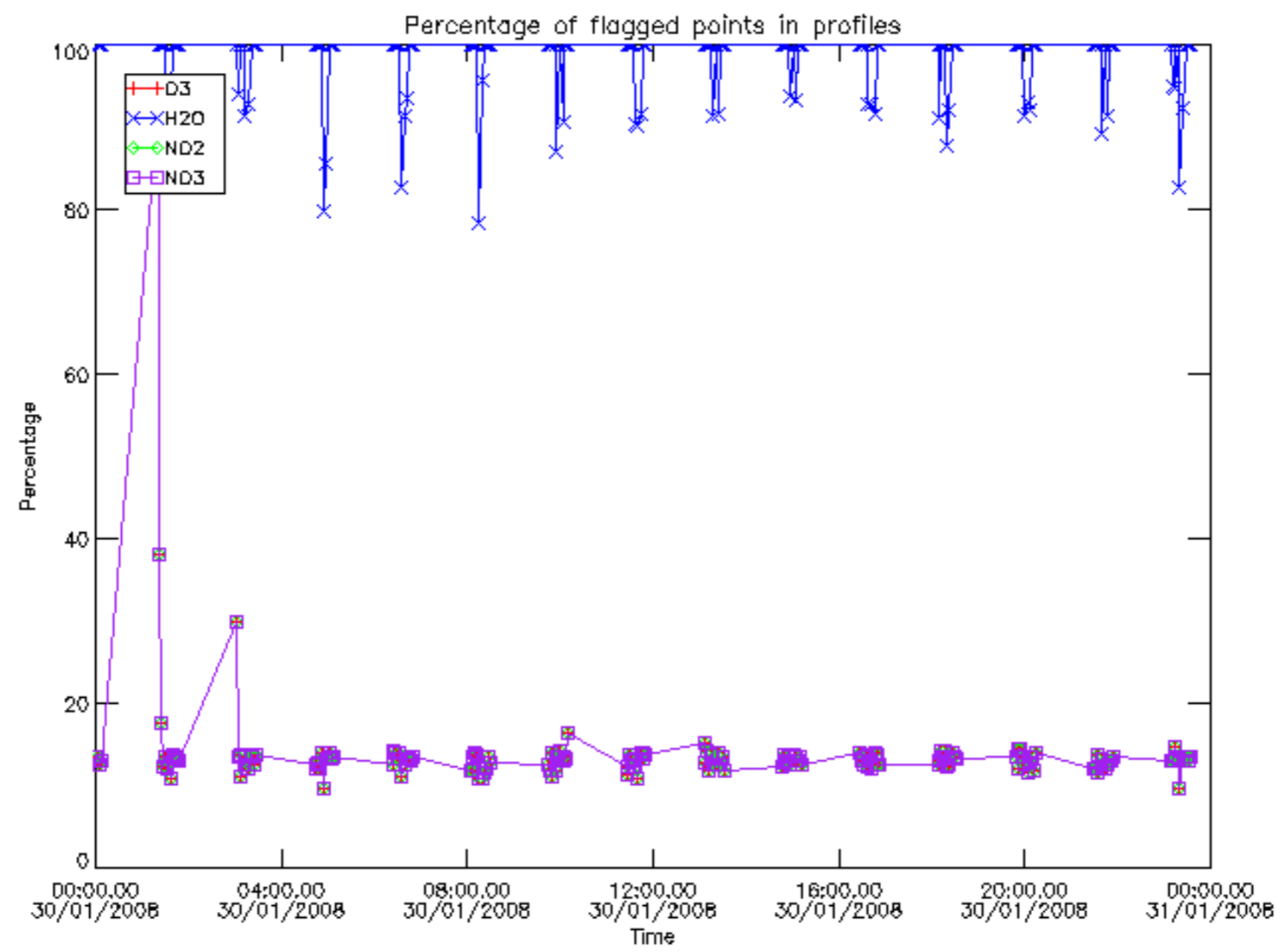
The colorbar represents the latitude.



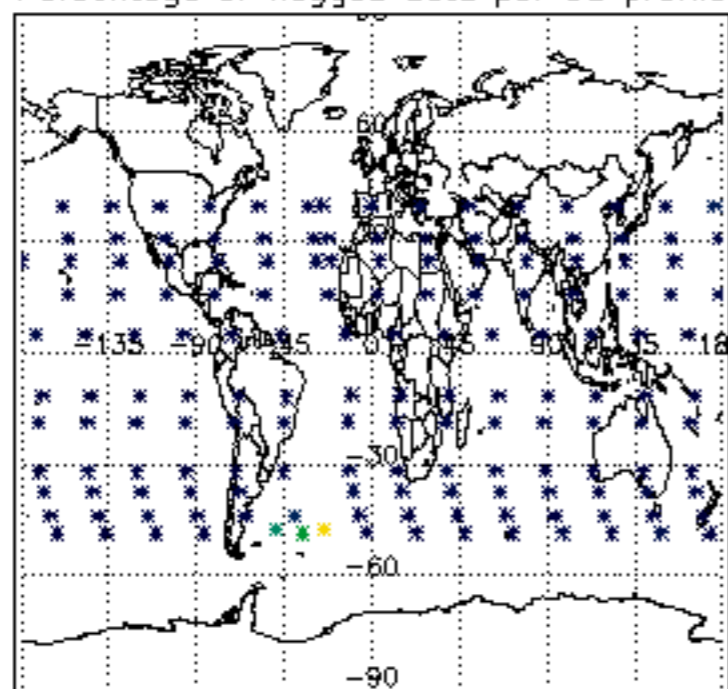
6. Auxiliary Data Files used for the production reported in section 2

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.

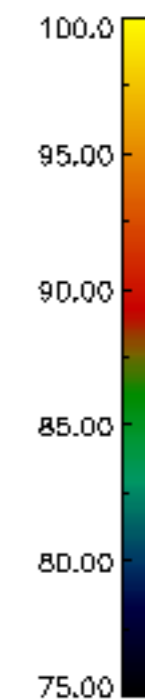
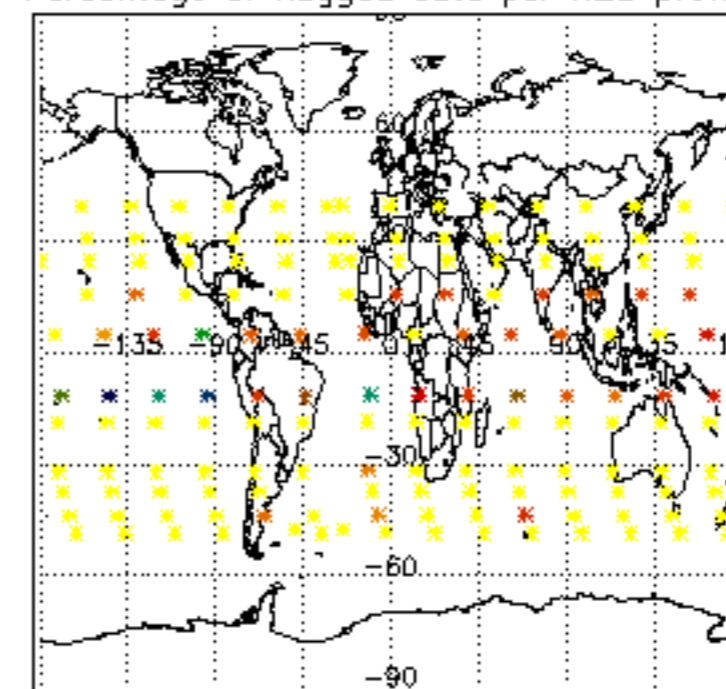
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	30-JAN-2008 00:02:15
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	30-JAN-2008 00:02:15
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	30-JAN-2008 00:02:15



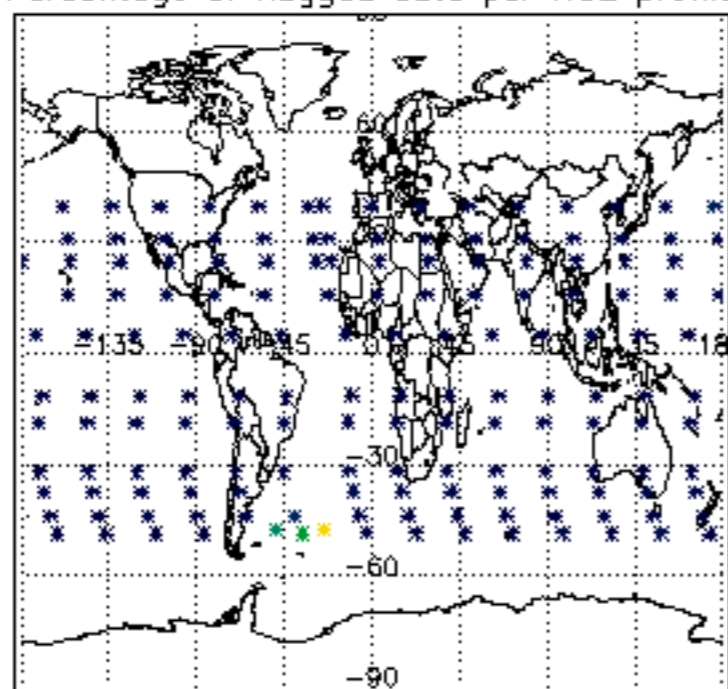
Percentage of flagged data per D3 profile



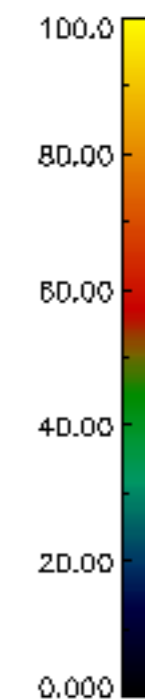
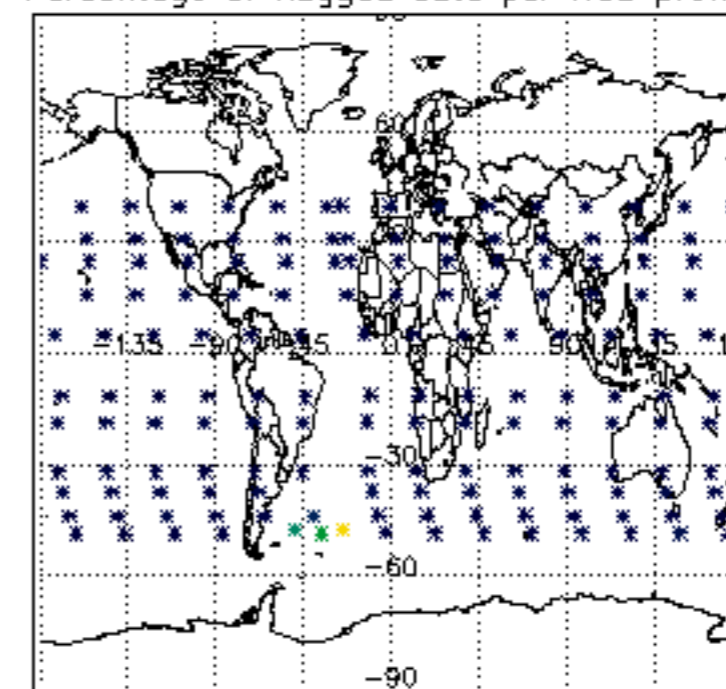
Percentage of flagged data per H2O profile

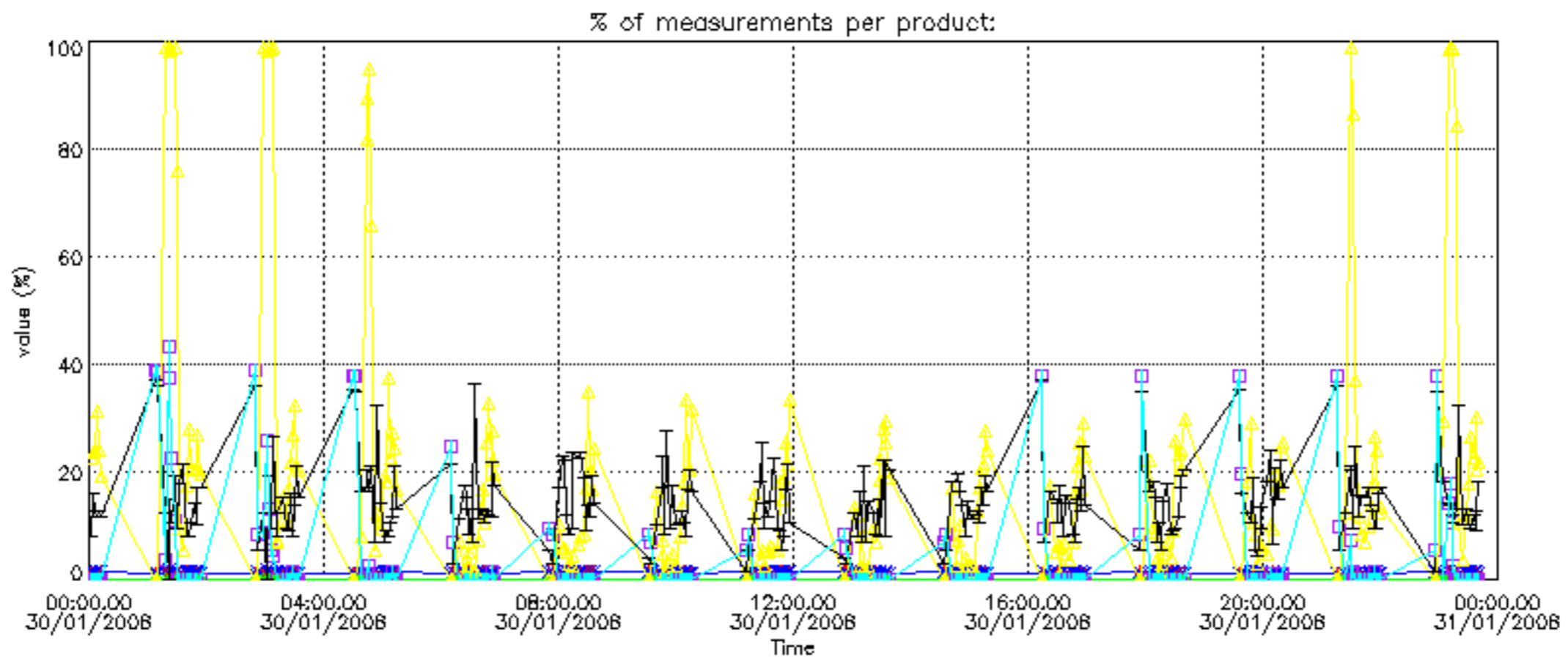


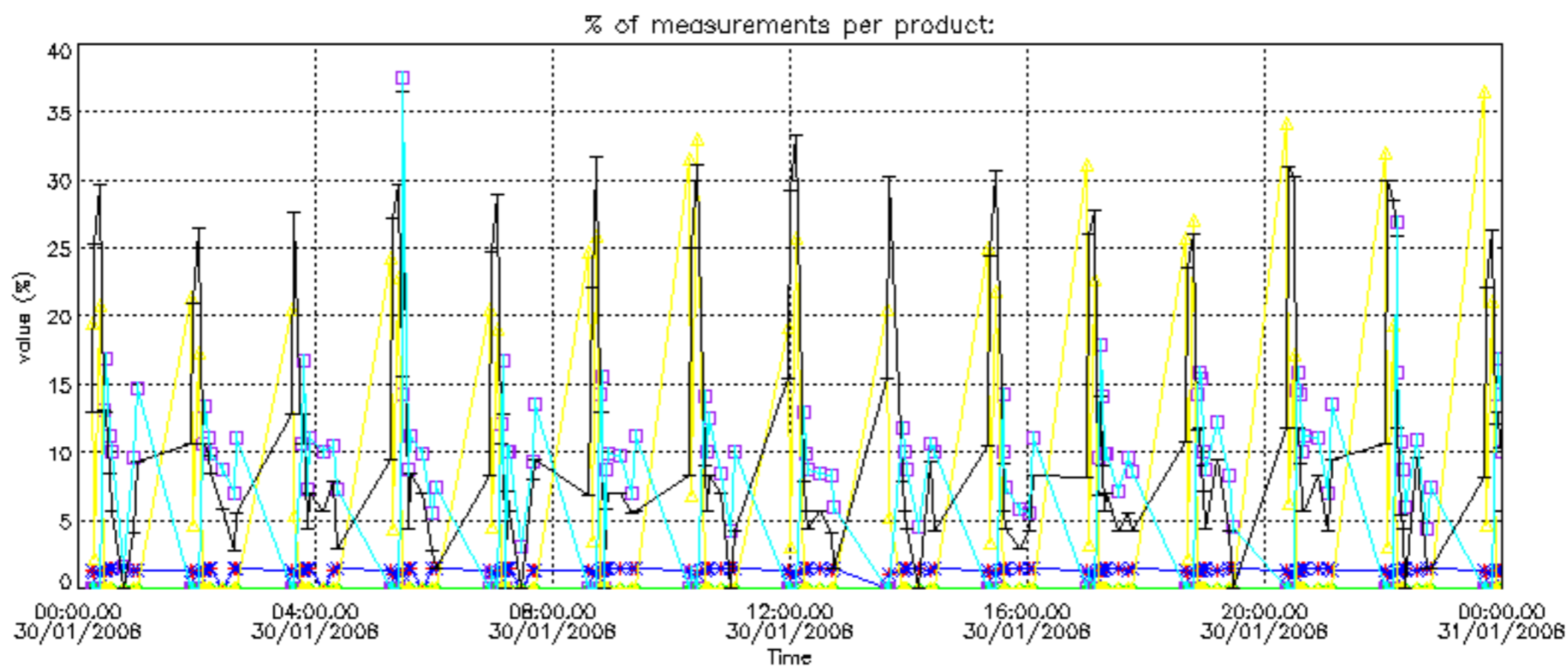
Percentage of flagged data per NO2 profile



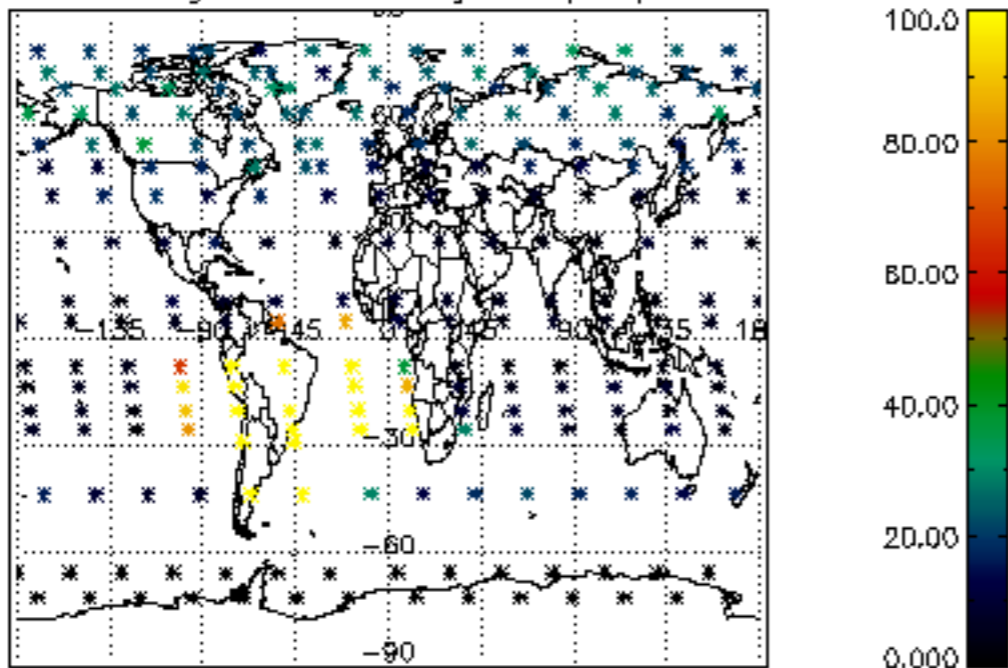
Percentage of flagged data per NO3 profile



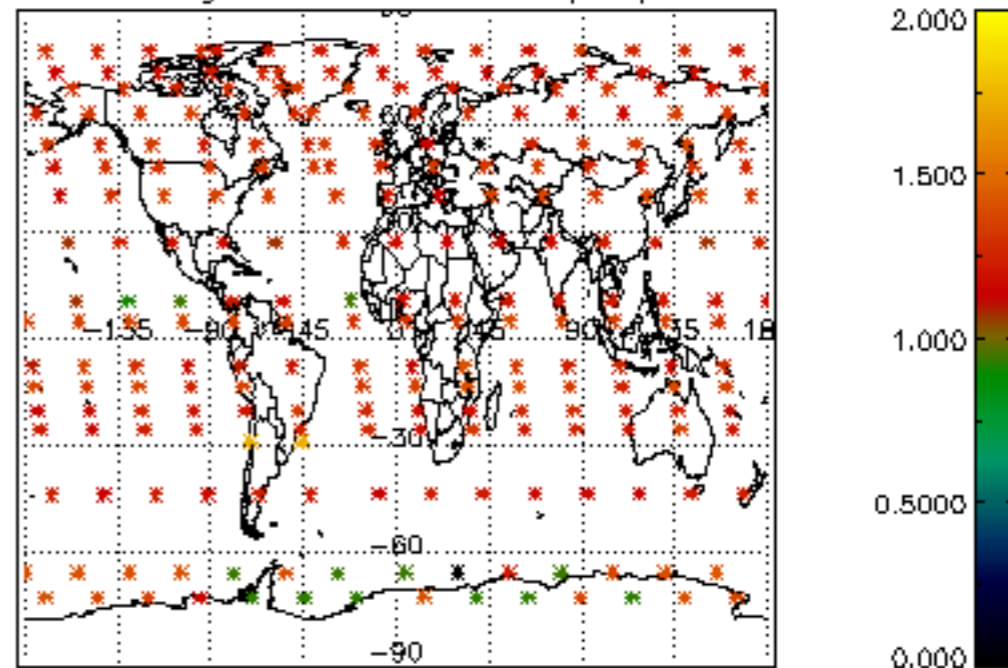




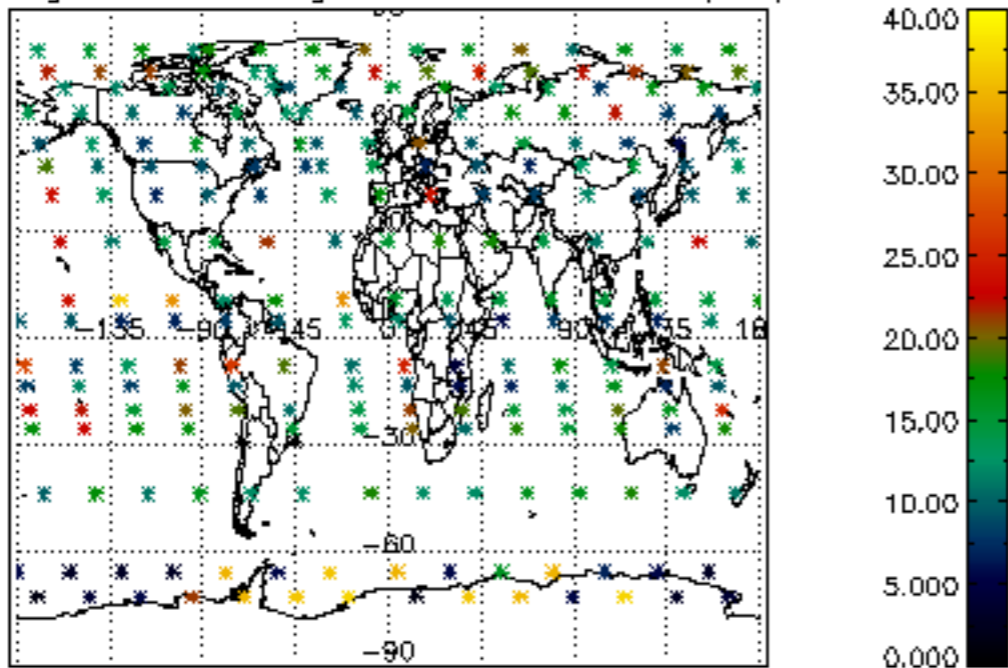
Percentage of cosmic ray hits per profile



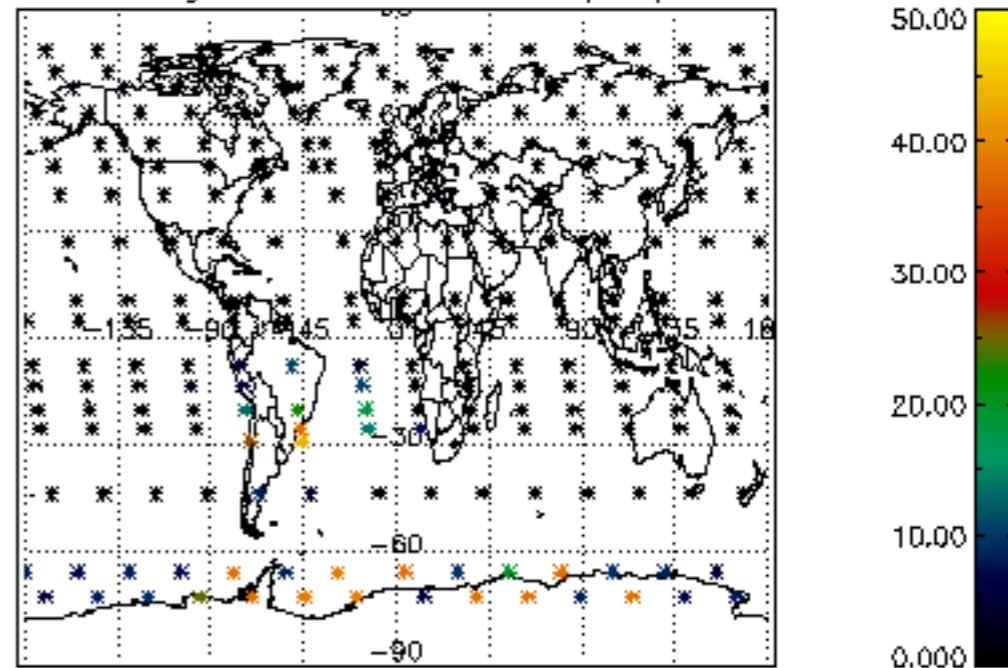
Percentage of datation errors per profile



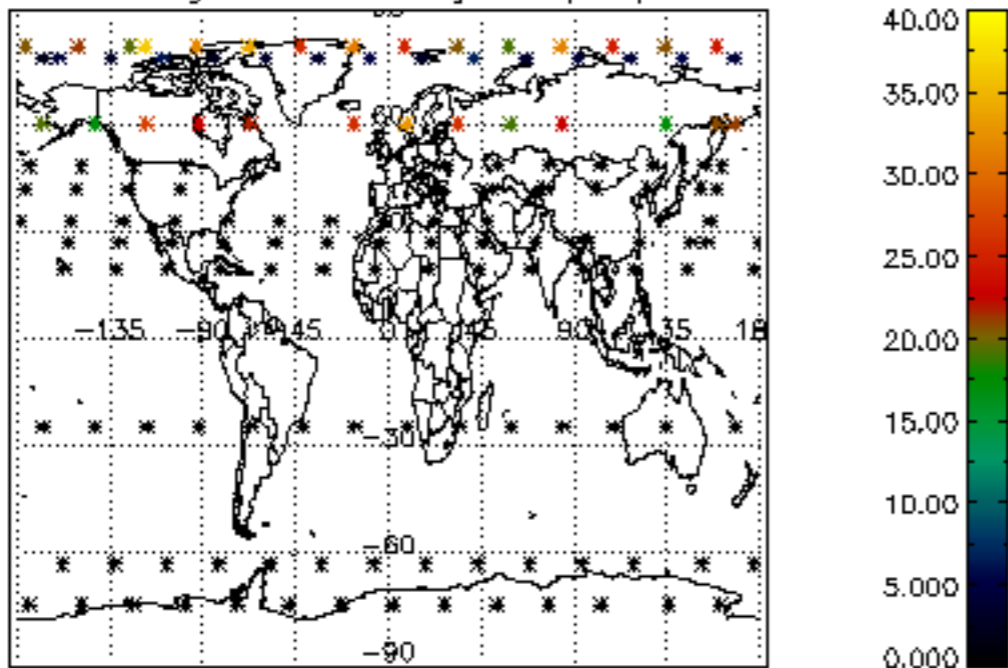
Percentage of star falling outside central band per profile



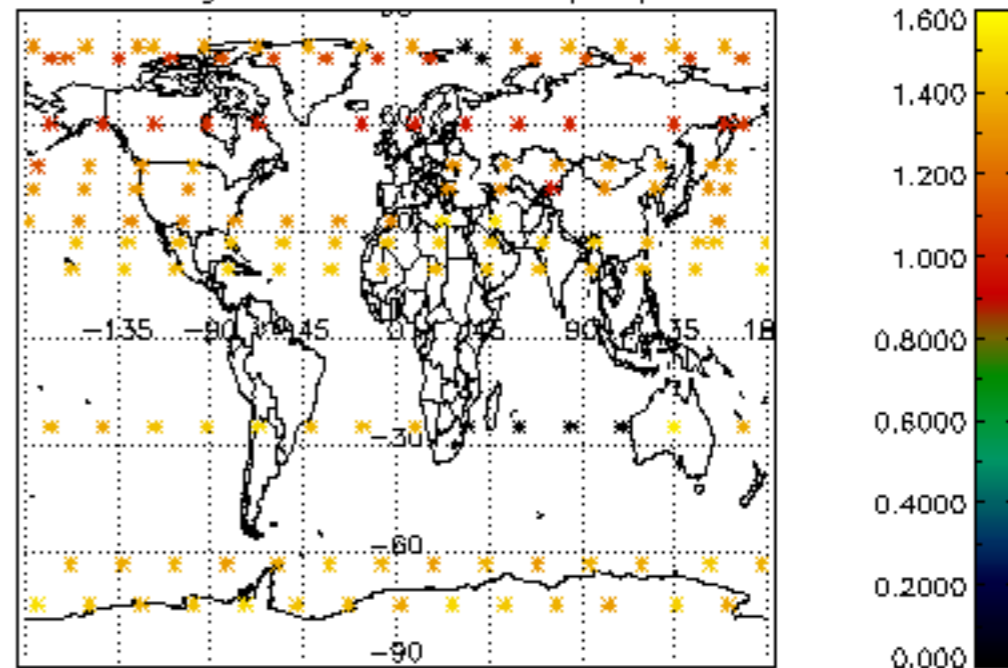
Percentage of saturation errors per profile



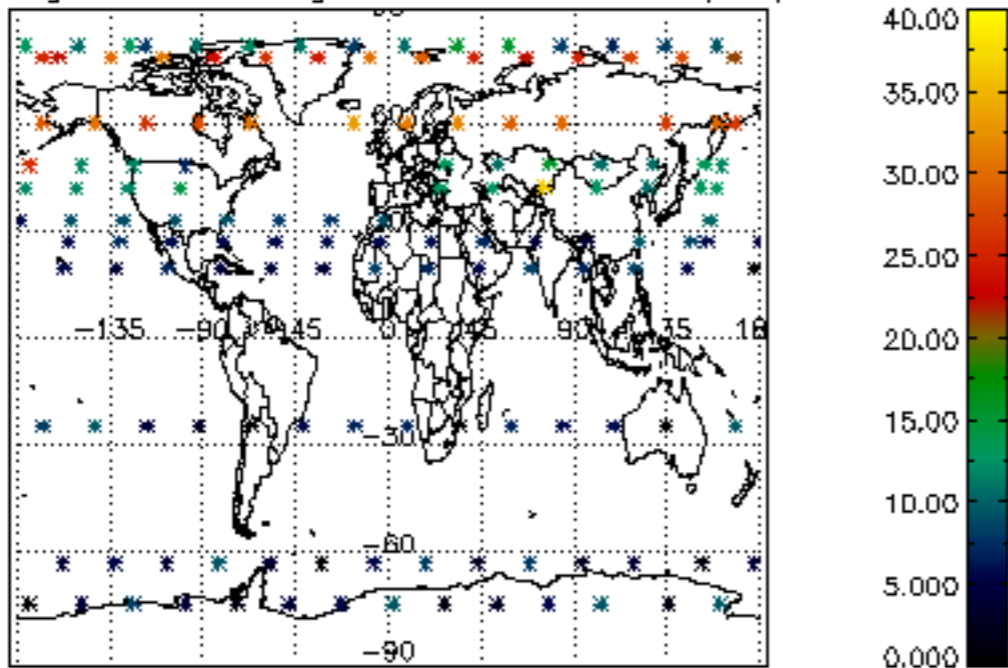
Percentage of cosmic ray hits per profile



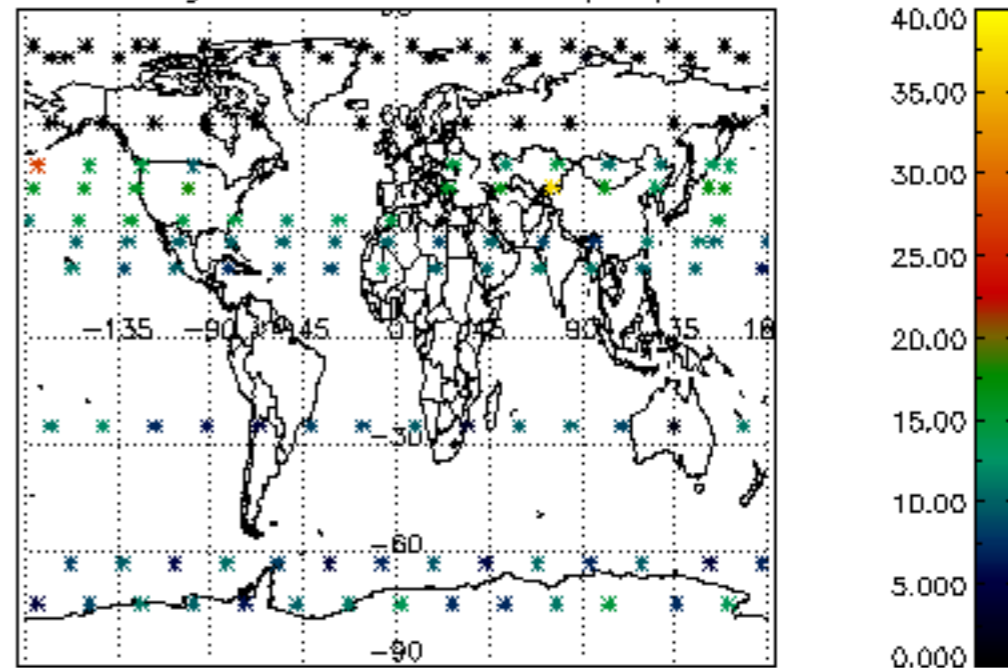
Percentage of datation errors per profile

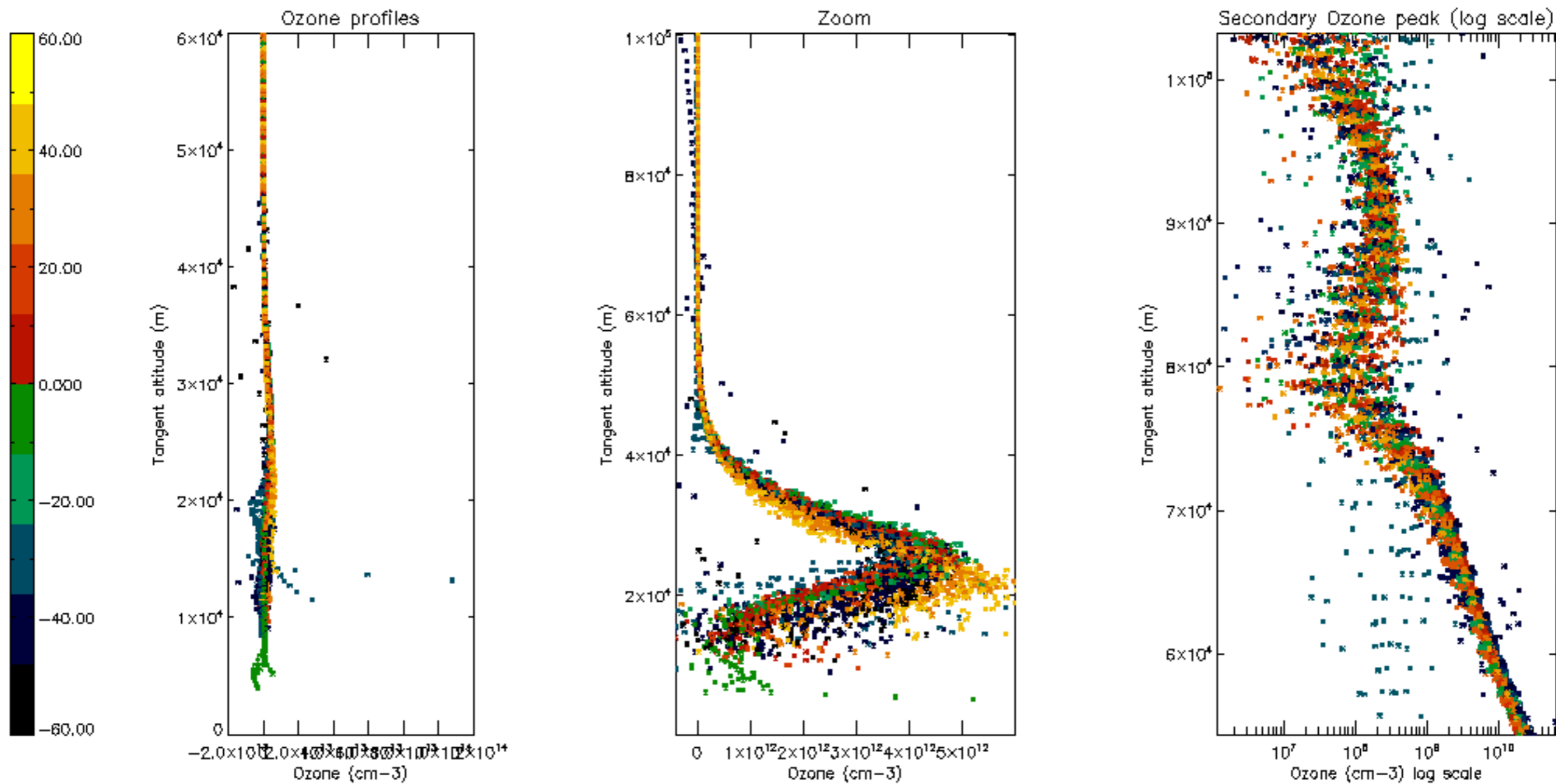


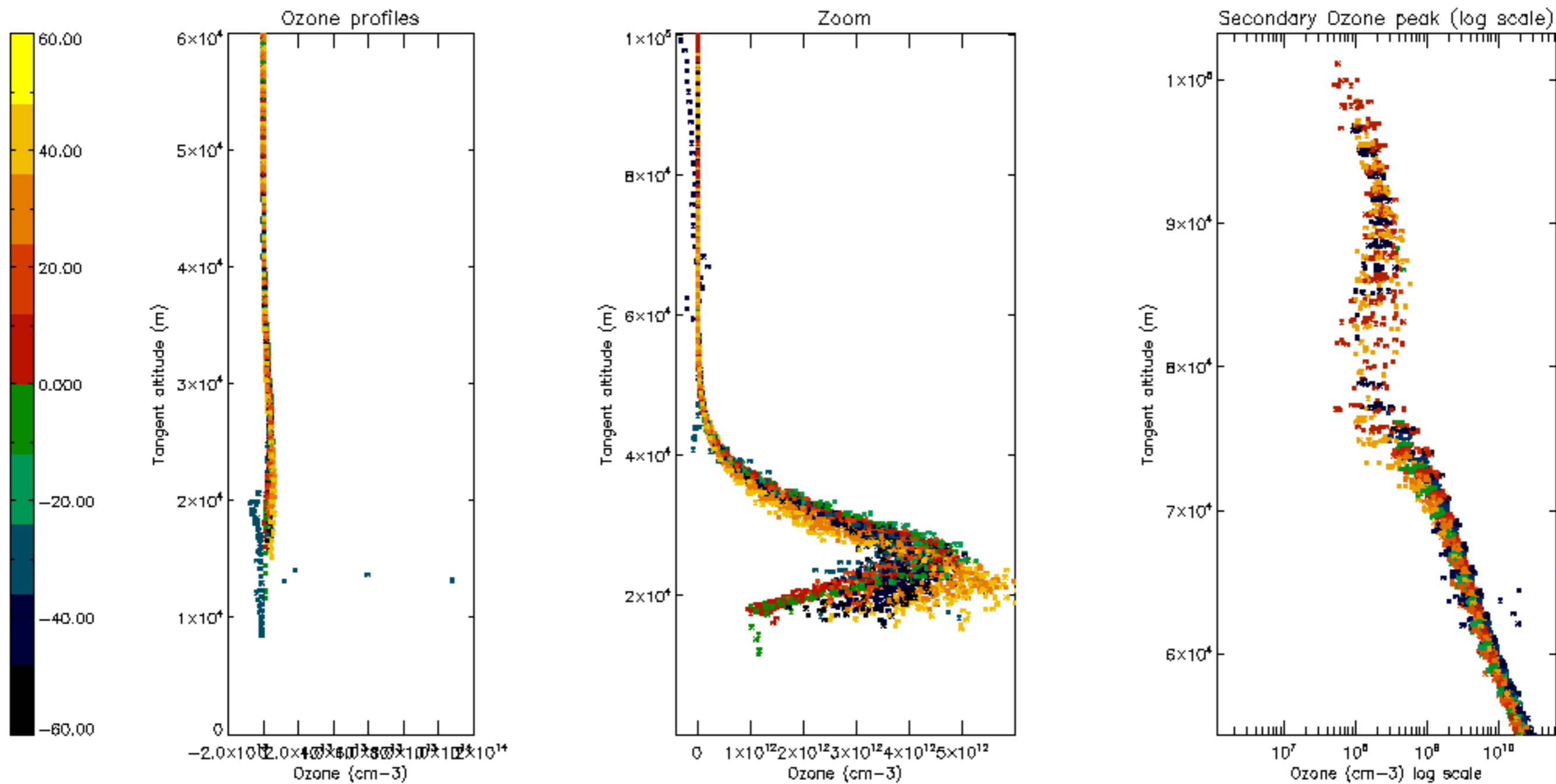
Percentage of star falling outside central band per profile

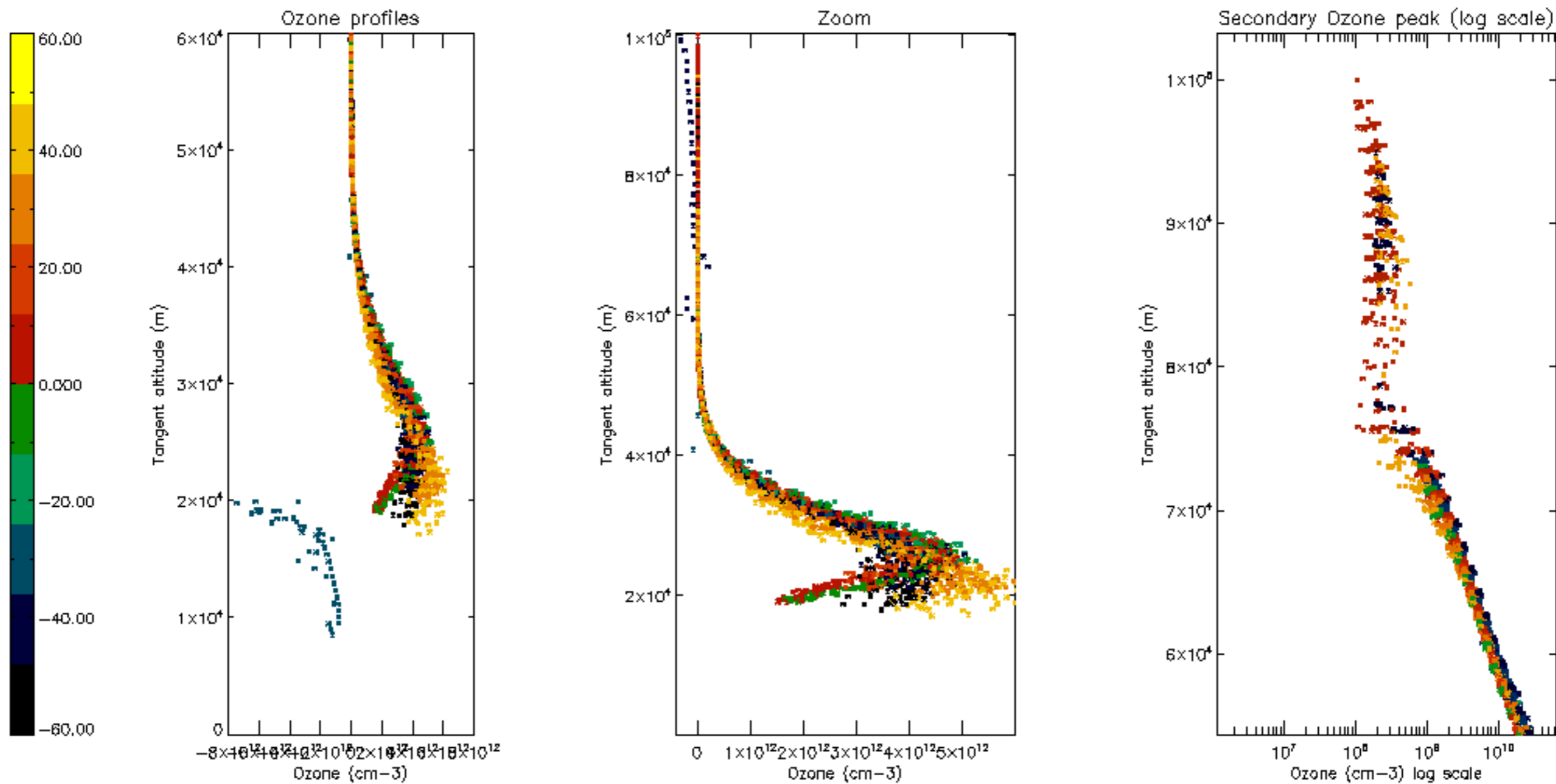


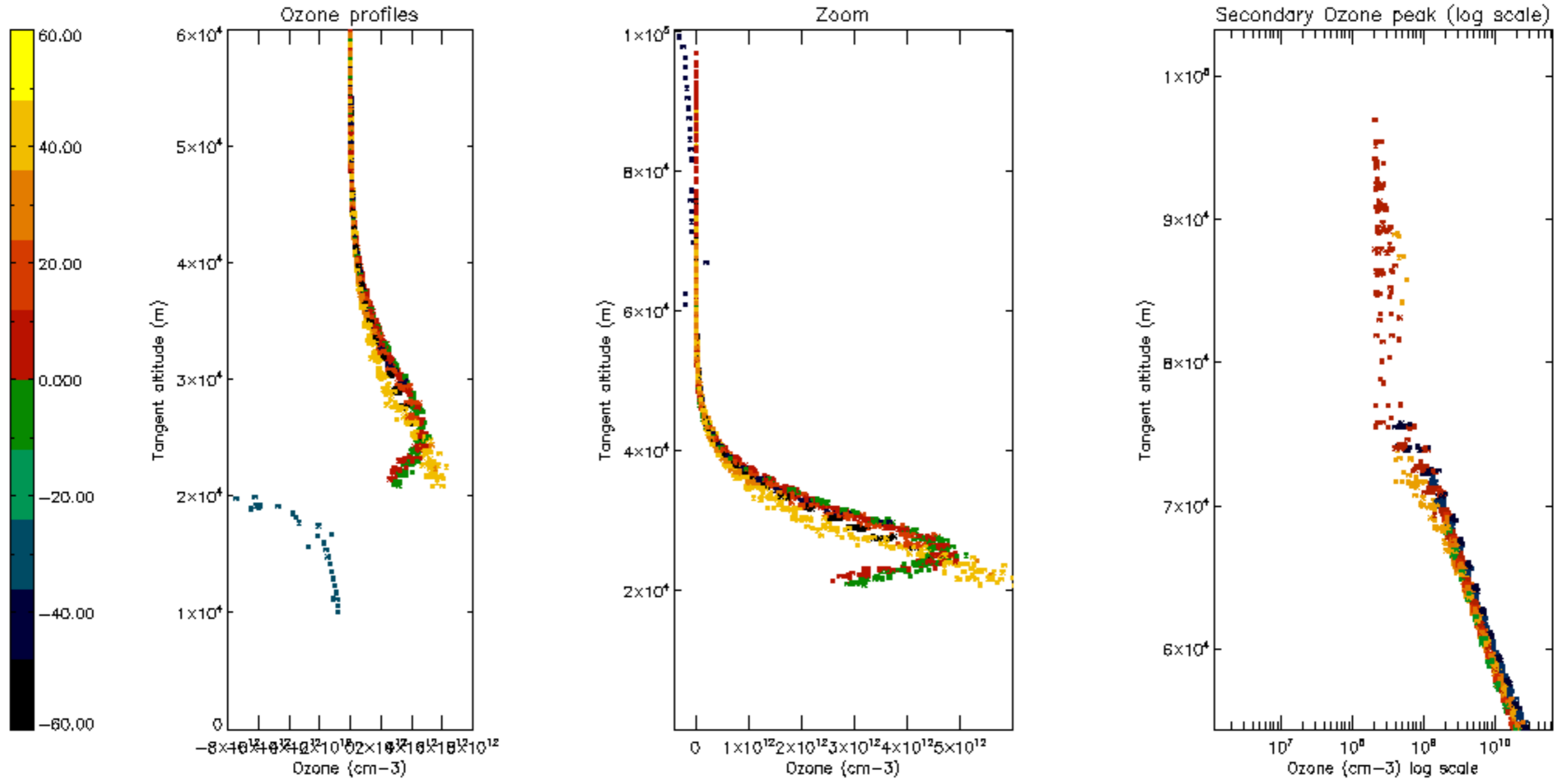
Percentage of saturation errors per profile

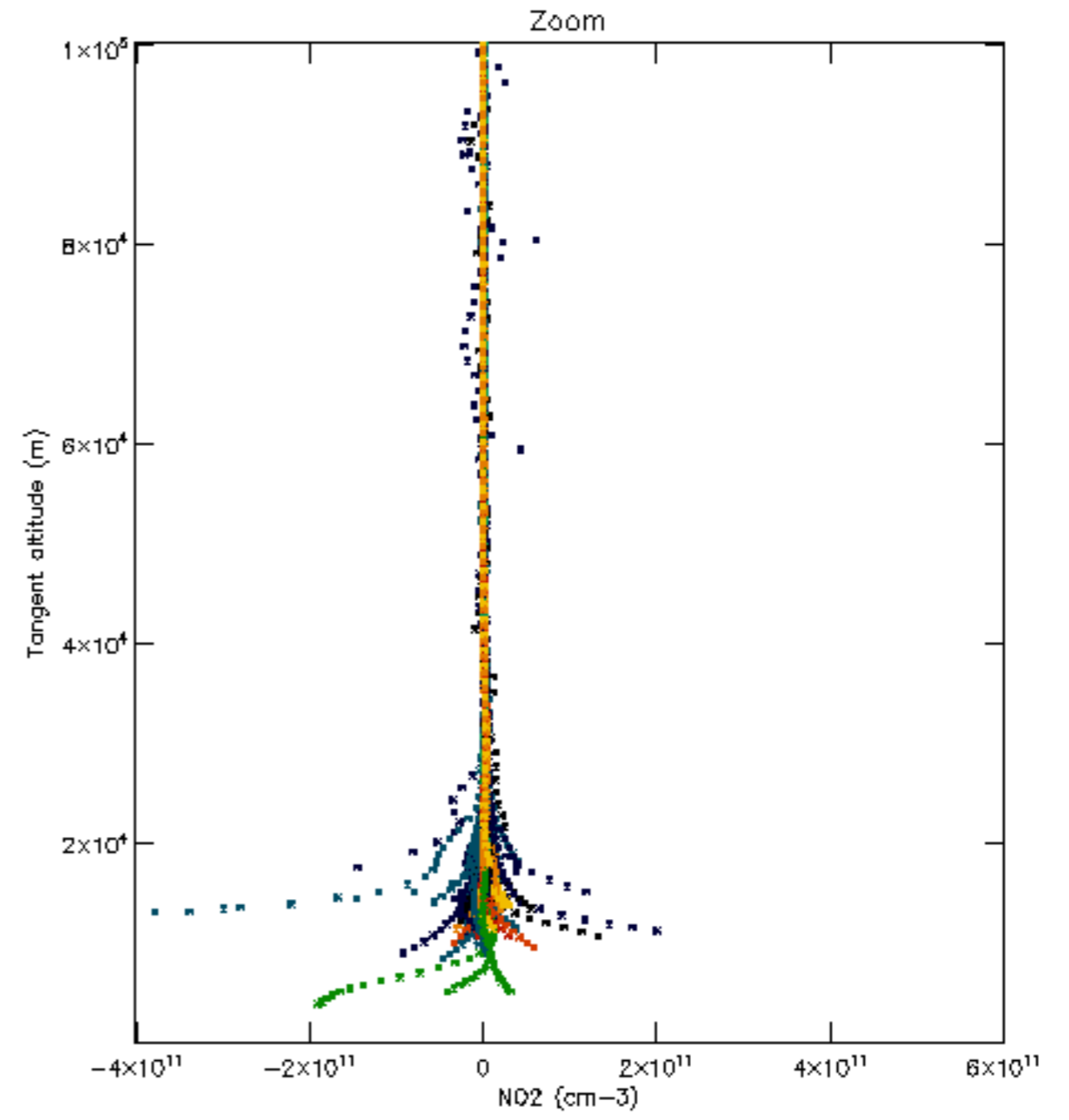
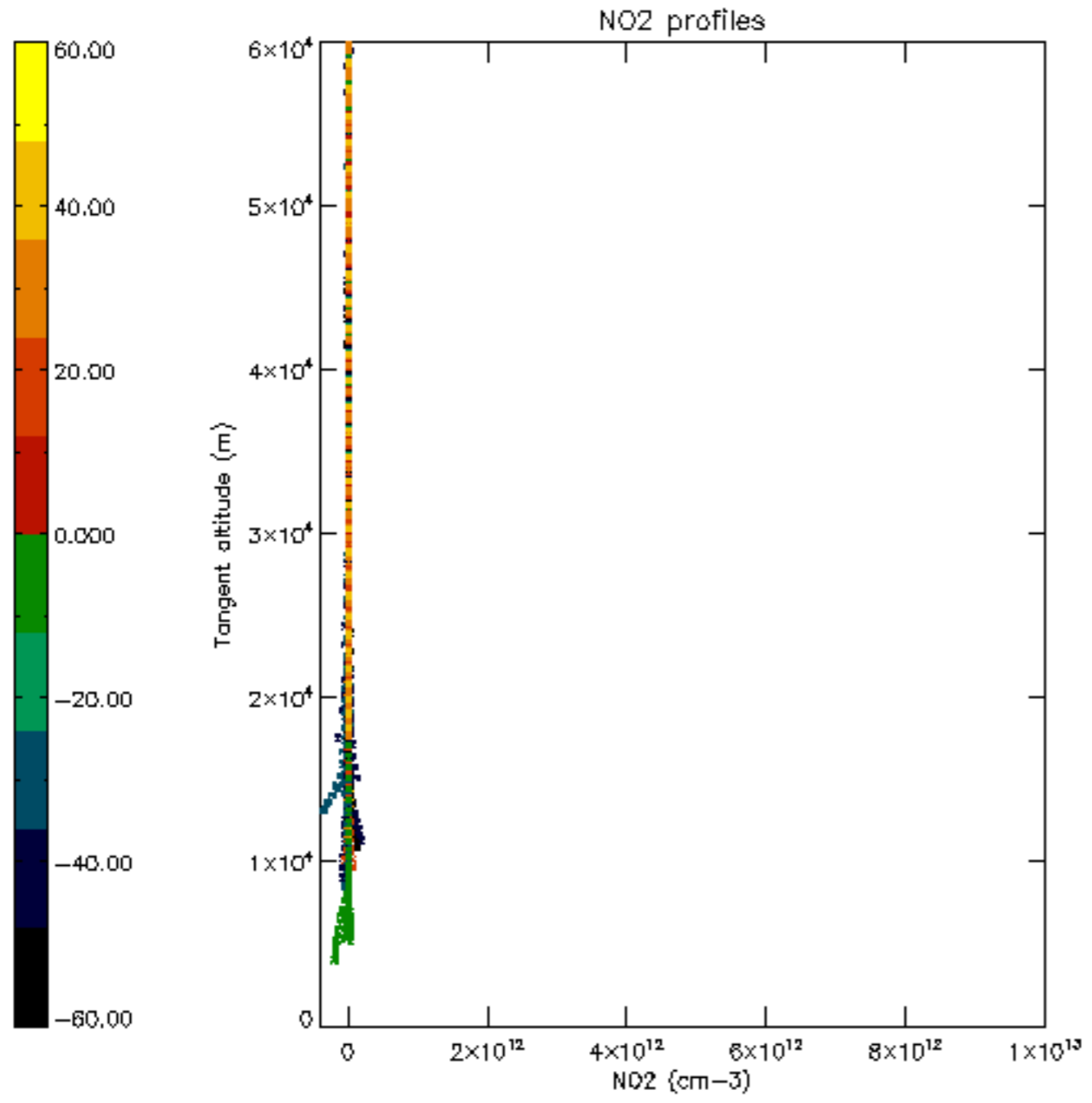


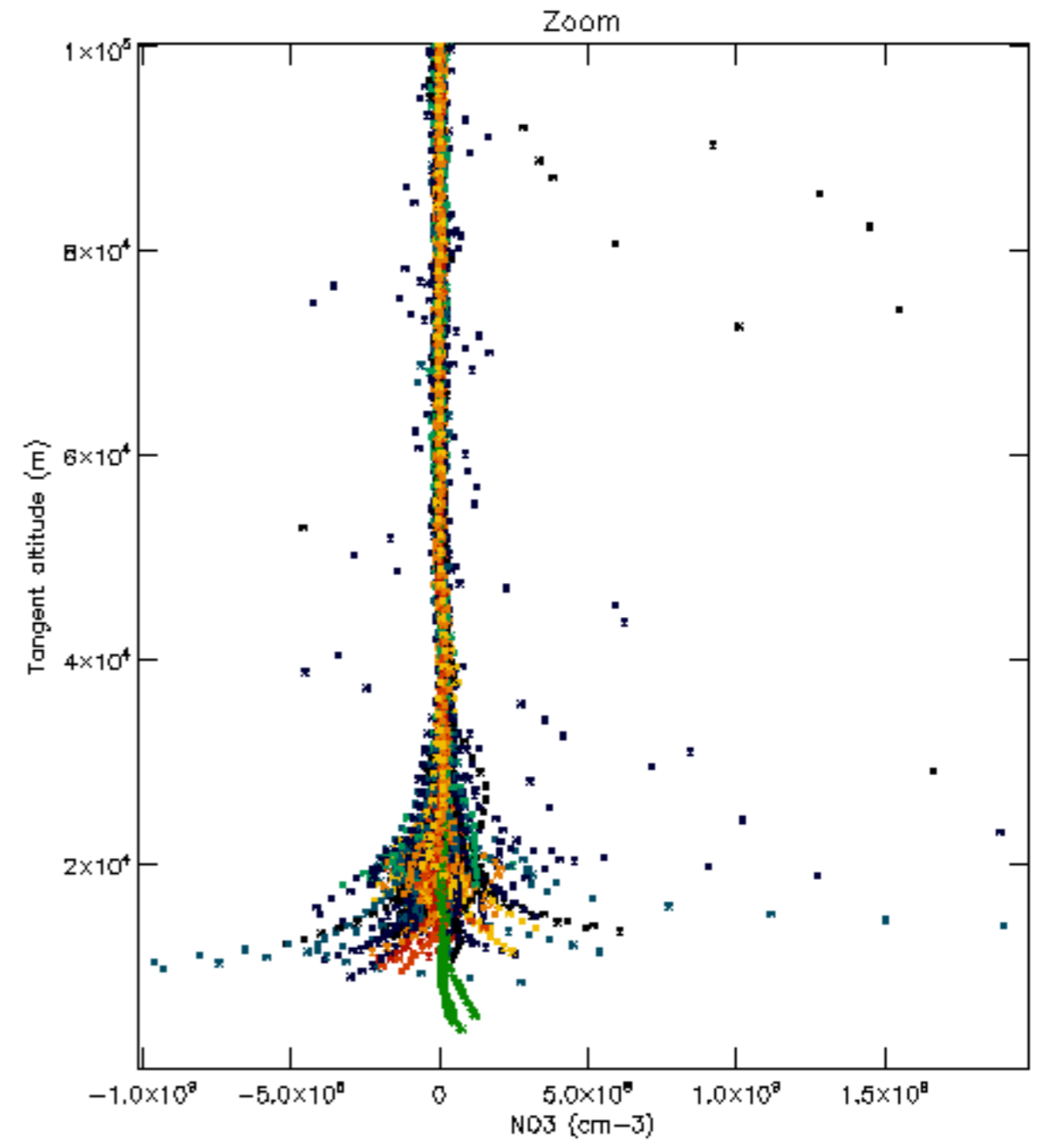
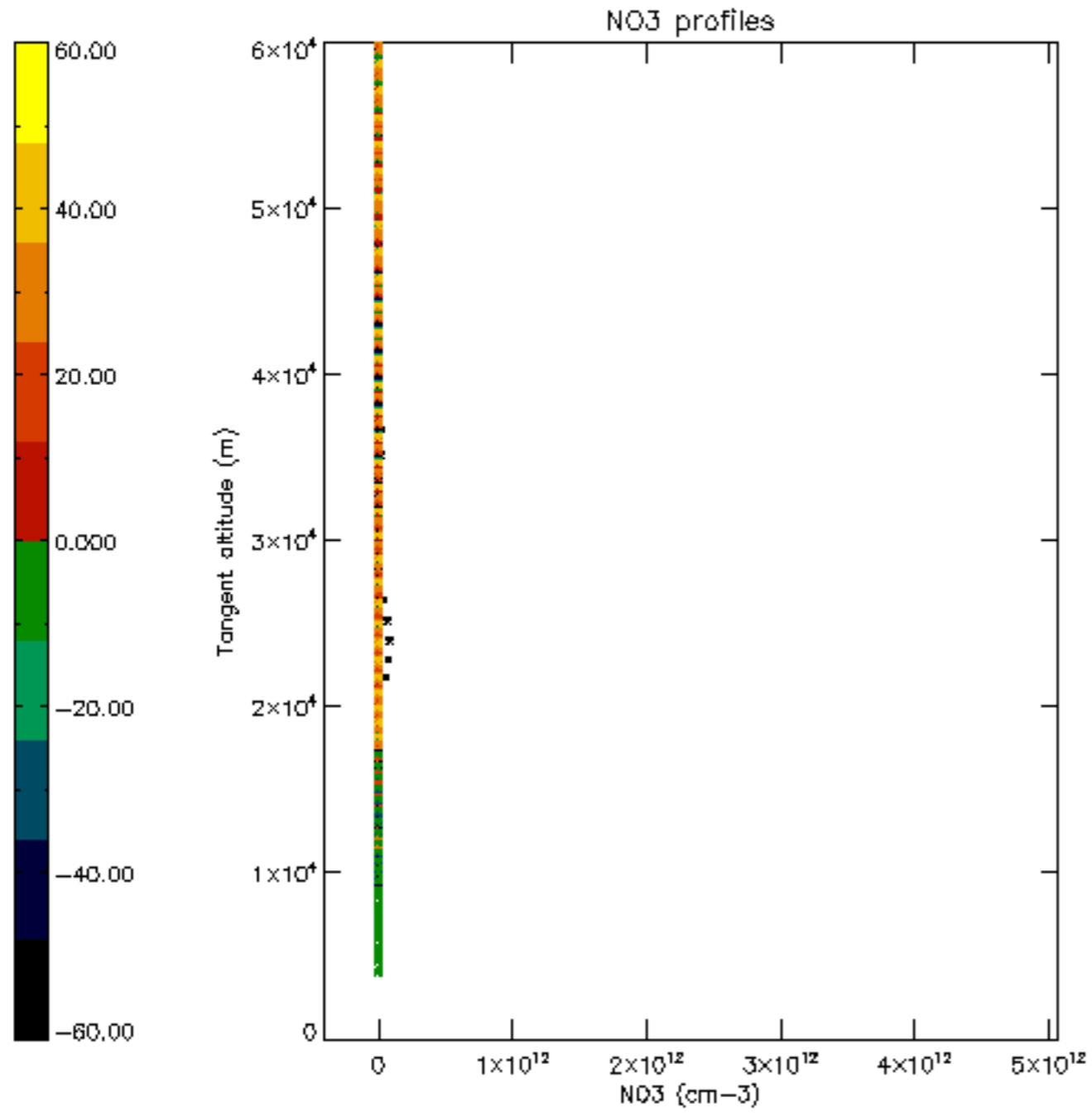


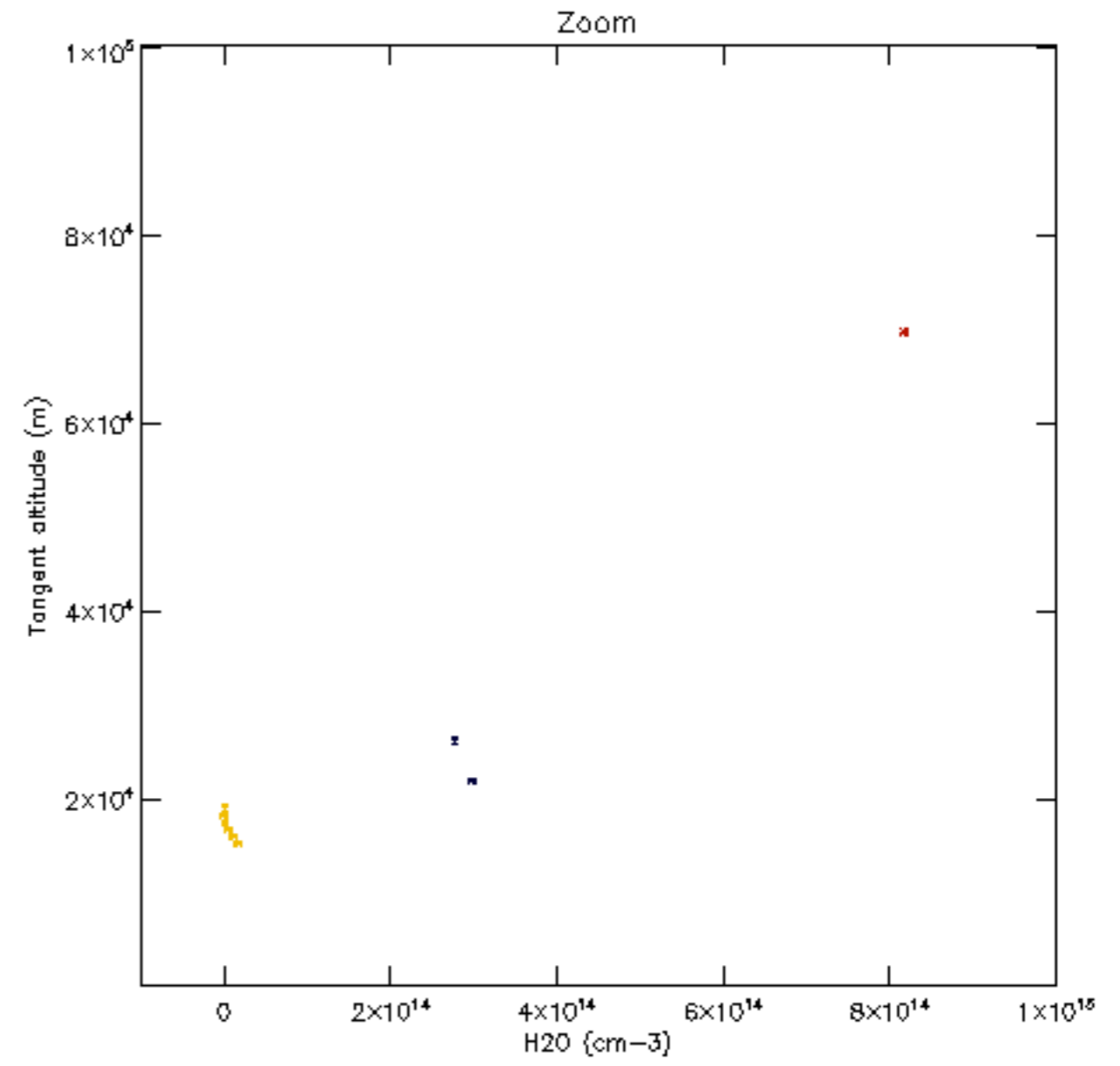
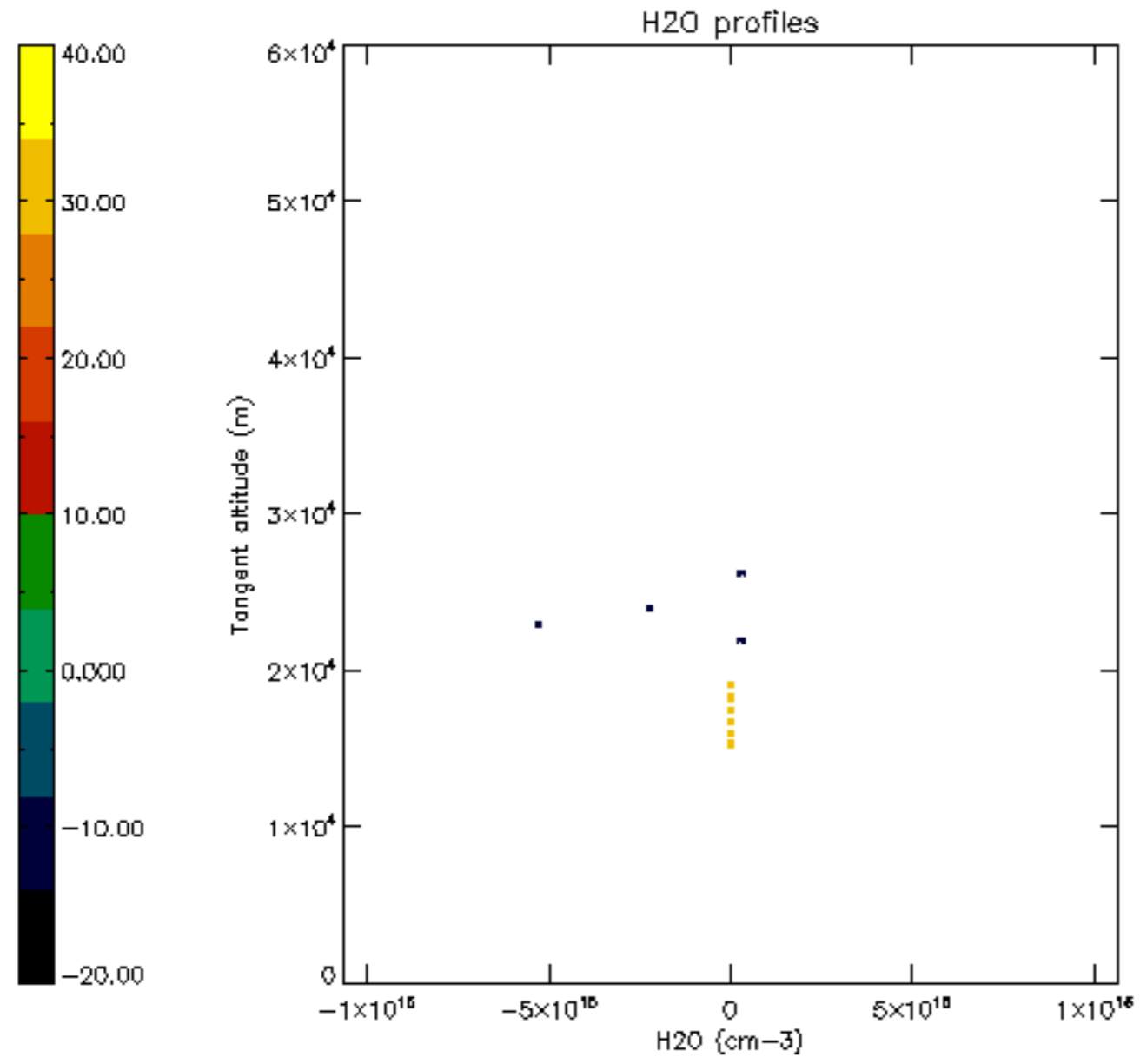


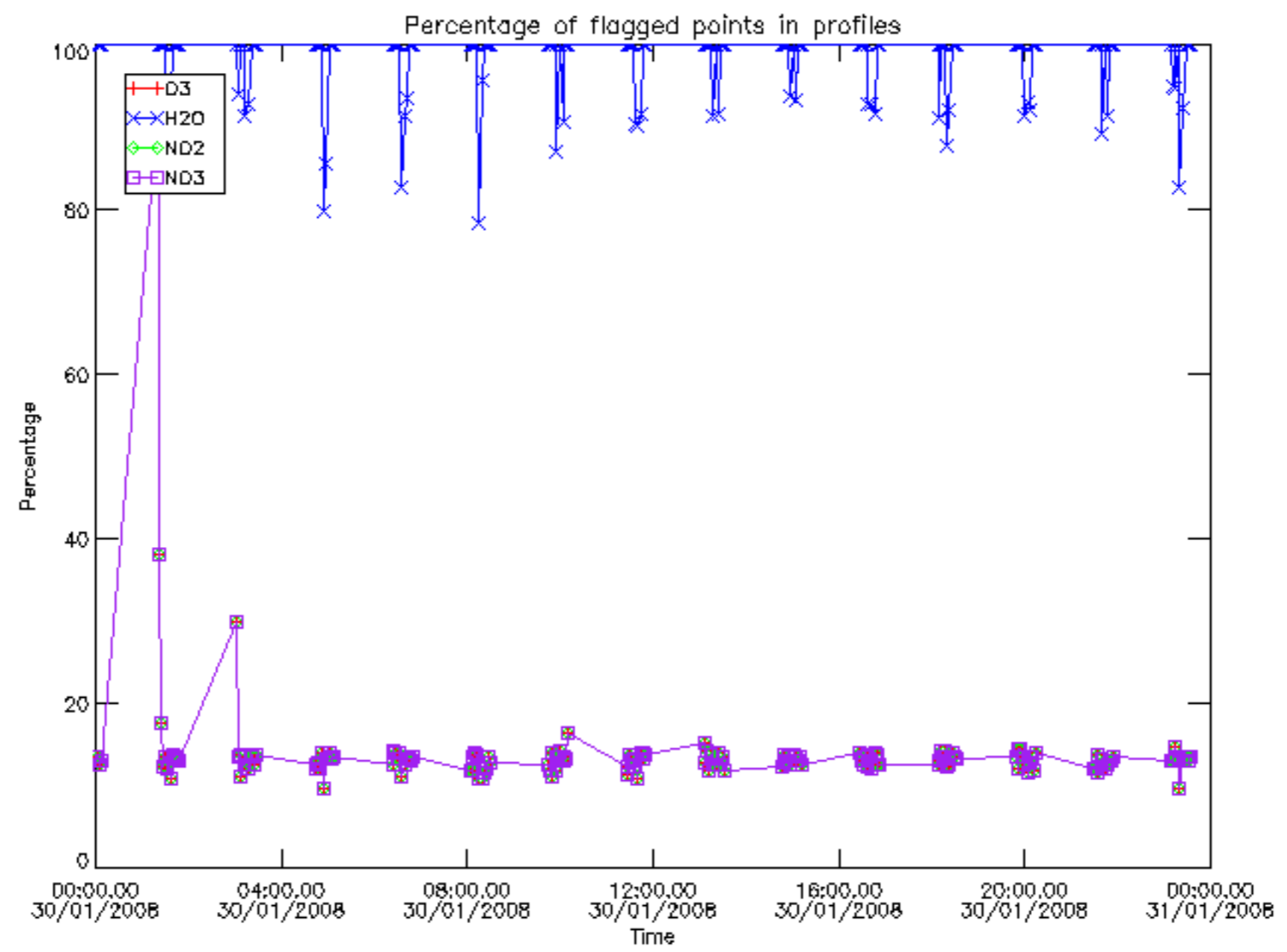




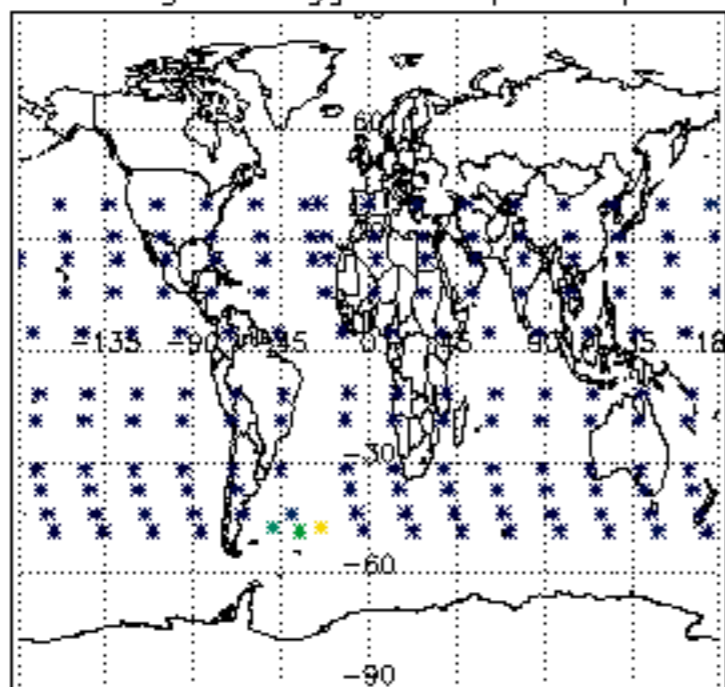




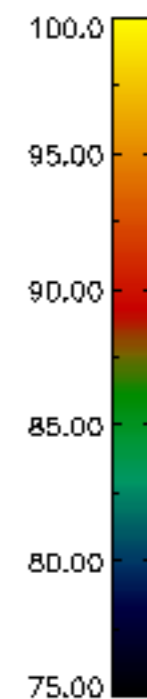
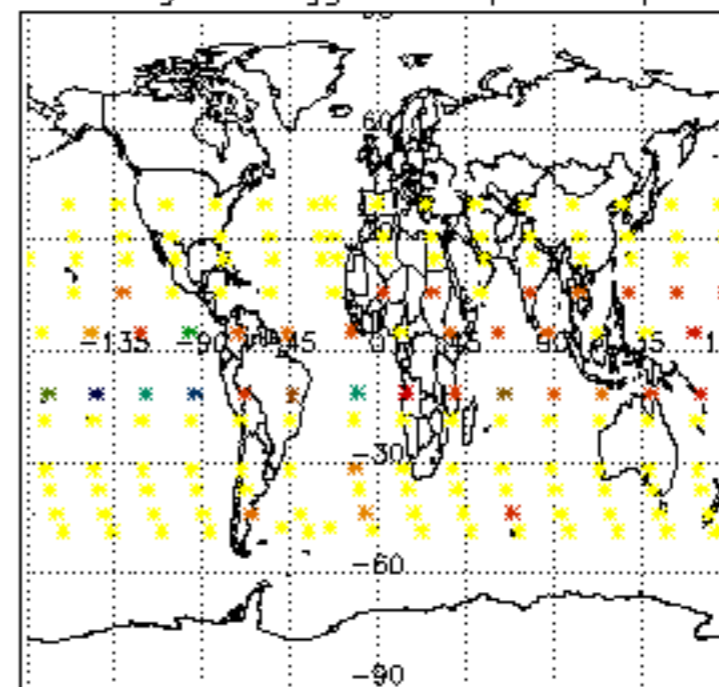




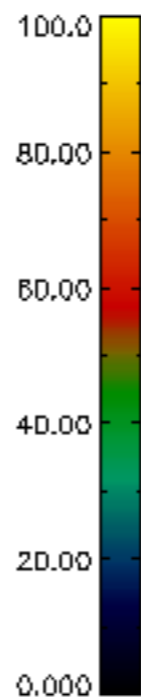
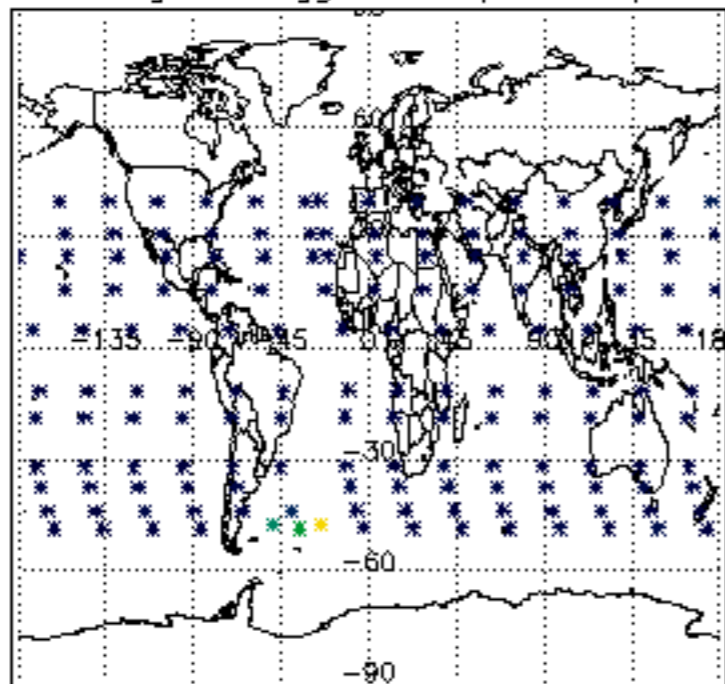
Percentage of flagged data per D3 profile



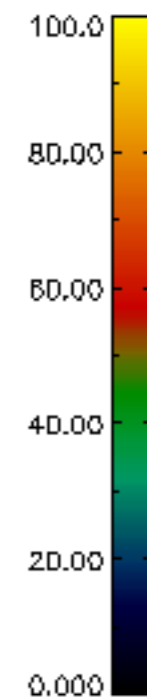
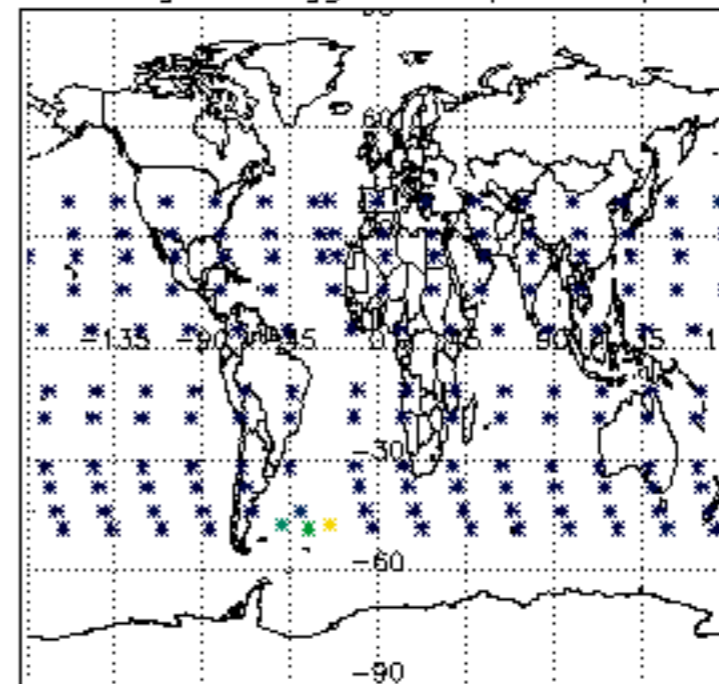
Percentage of flagged data per H2O profile

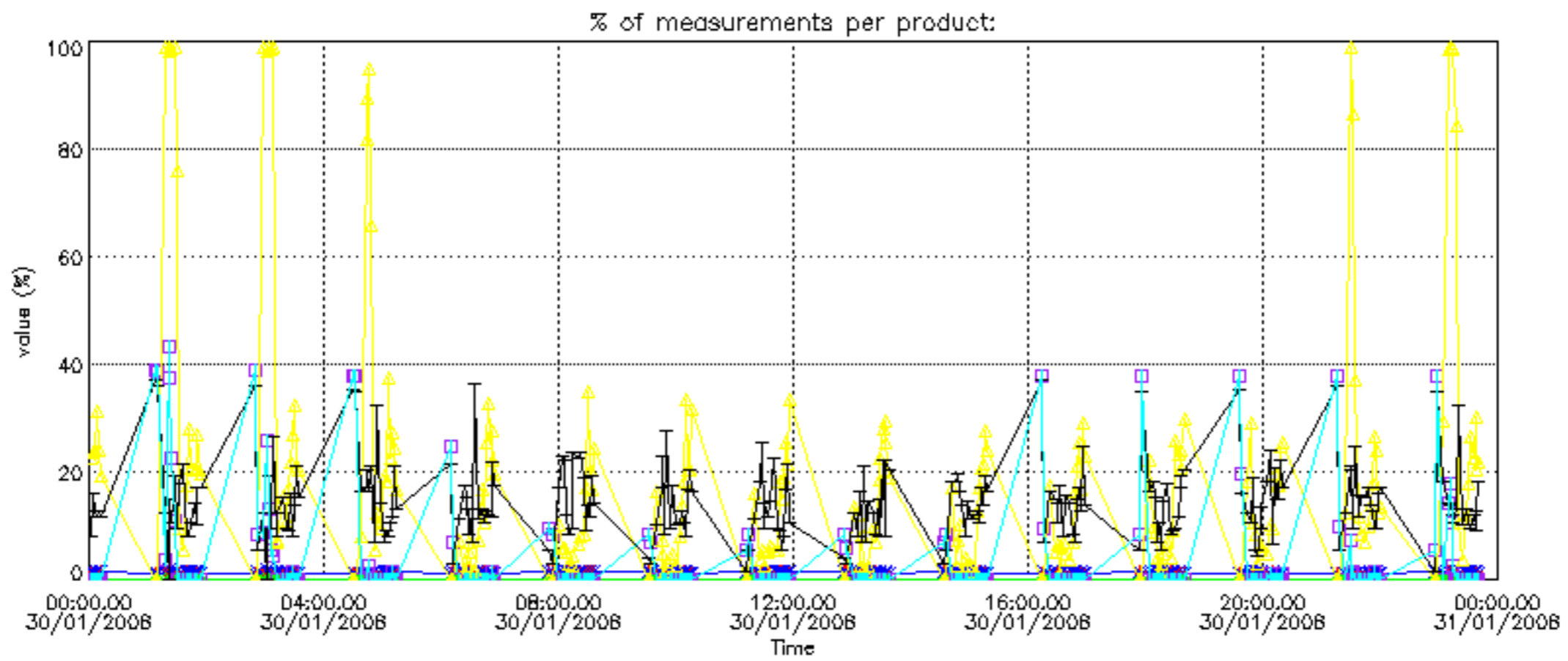
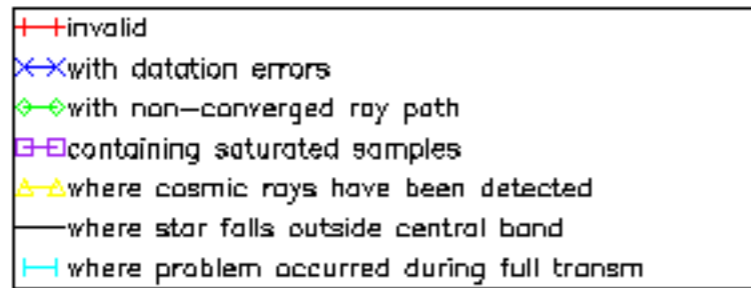


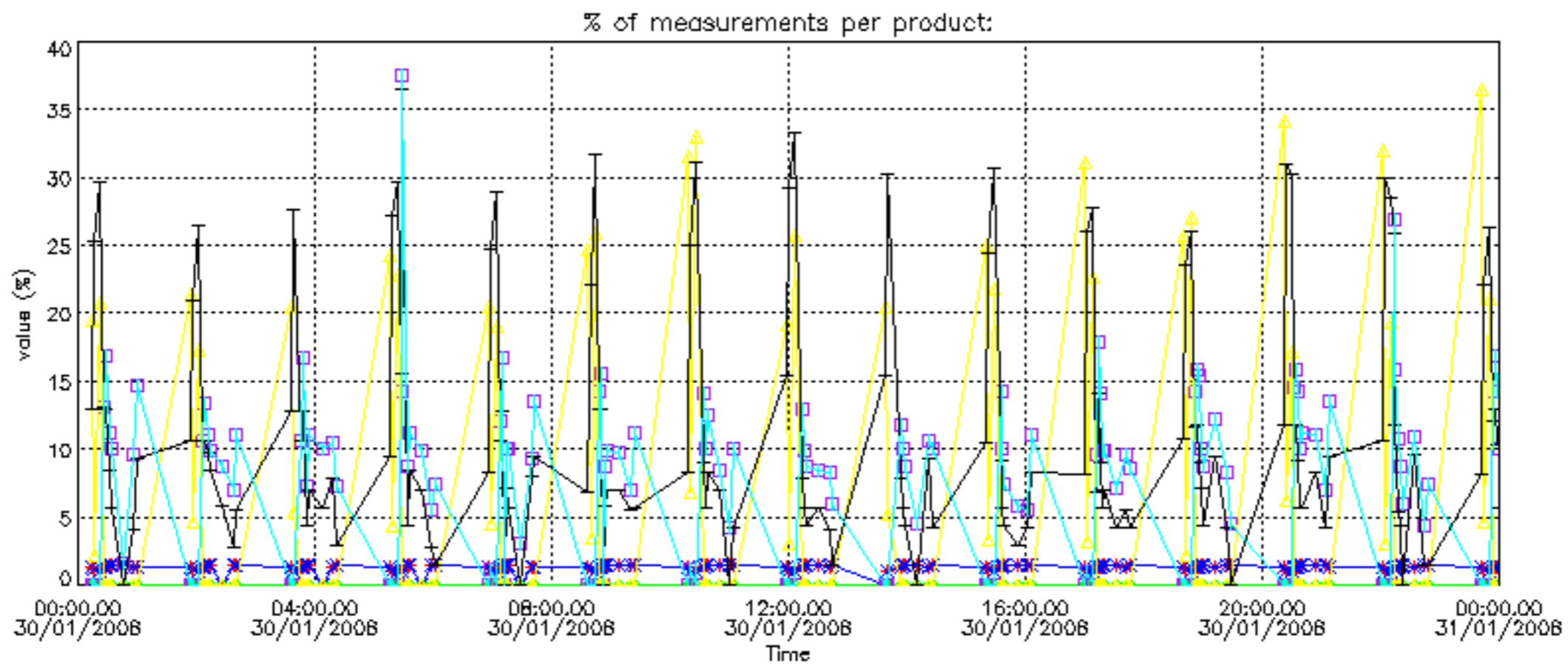
Percentage of flagged data per NO2 profile



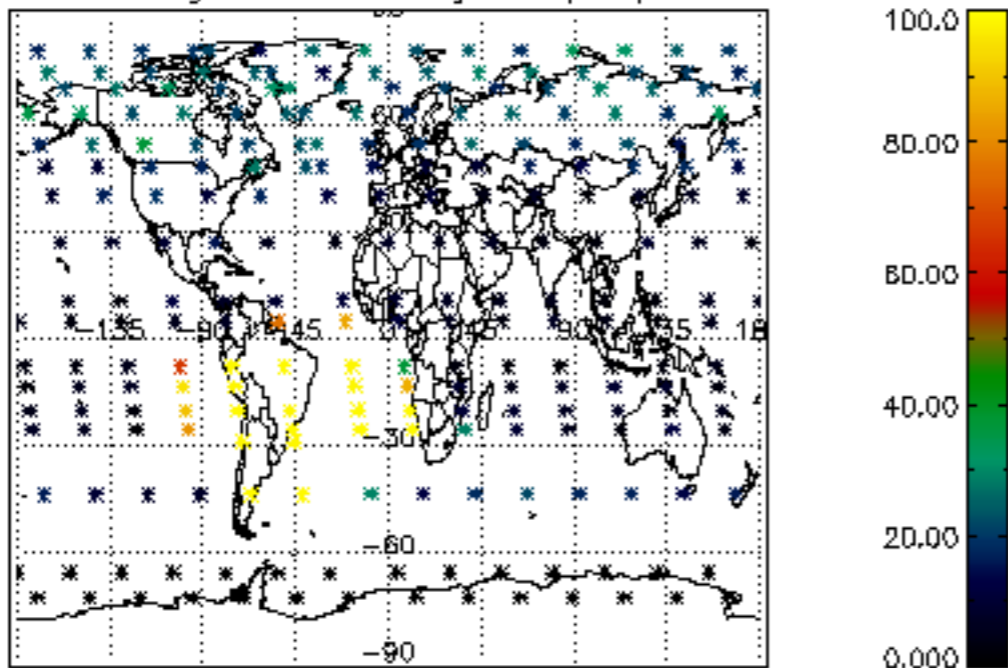
Percentage of flagged data per NO3 profile



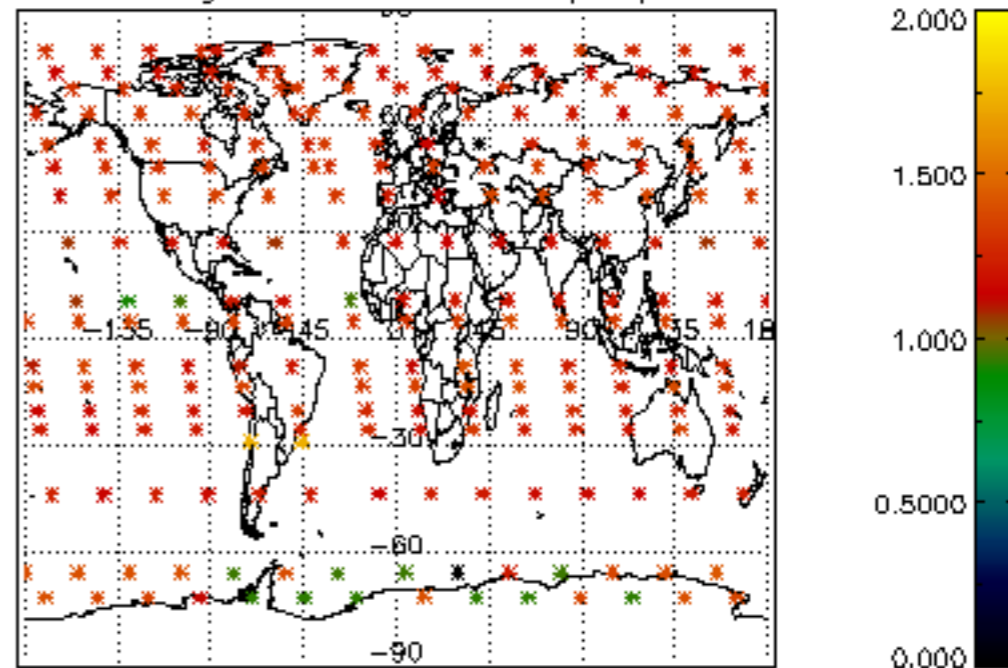




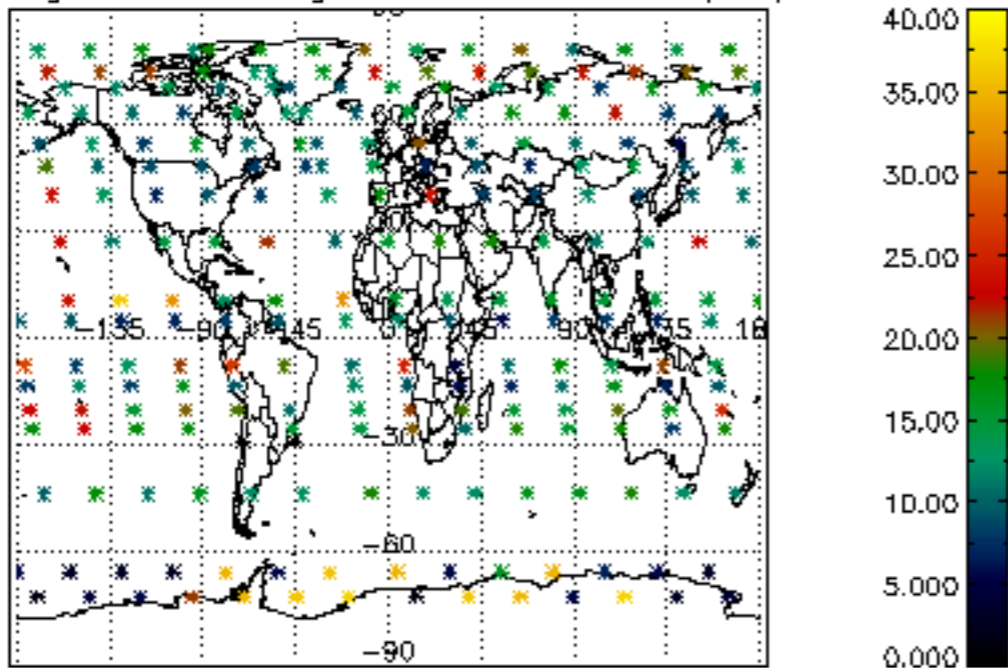
Percentage of cosmic ray hits per profile



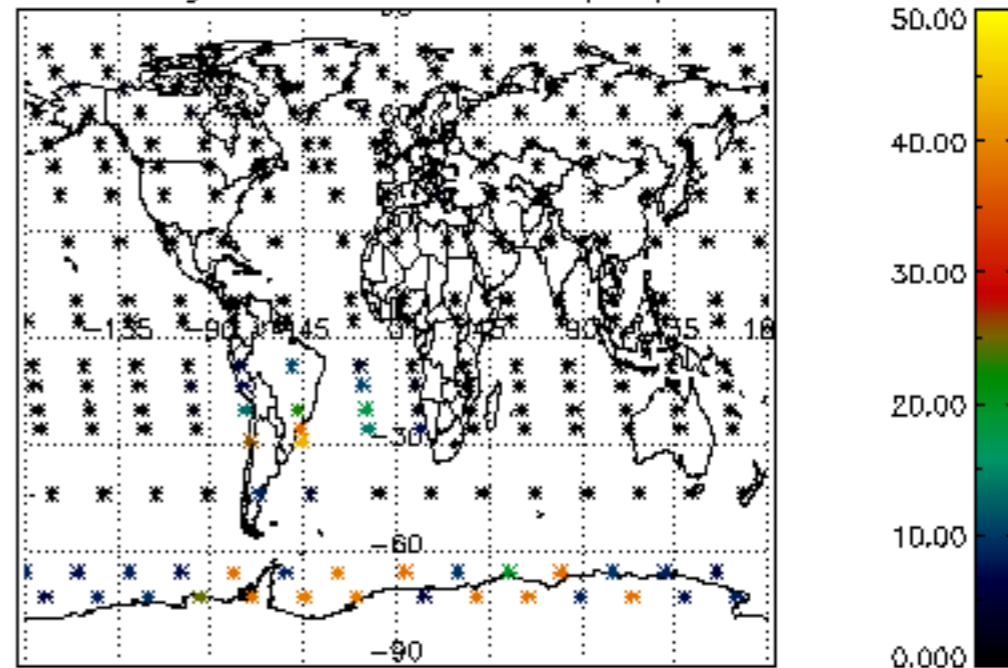
Percentage of datation errors per profile



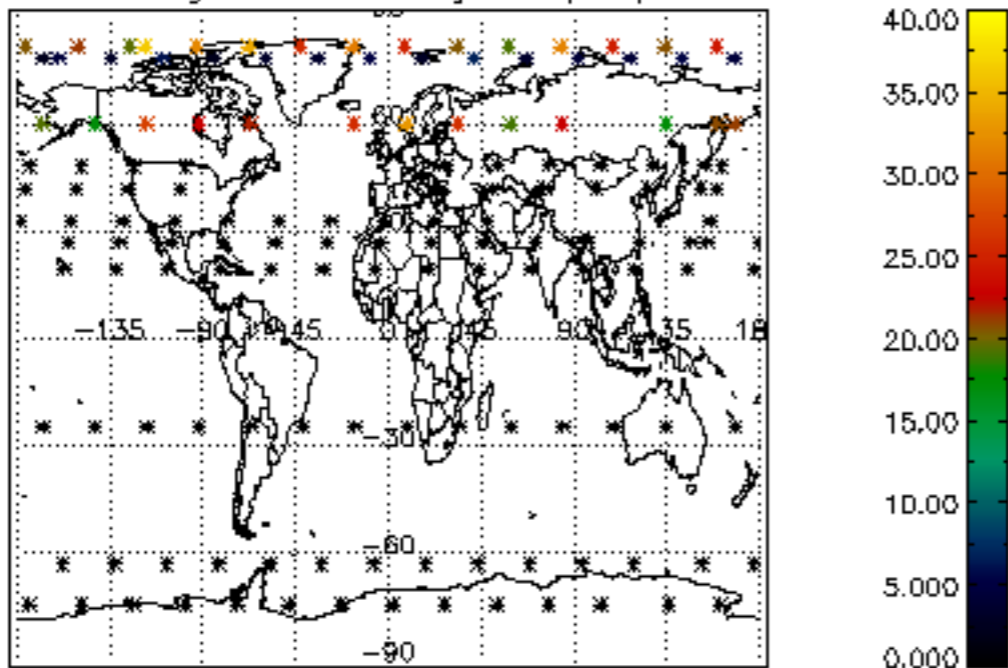
Percentage of star falling outside central band per profile



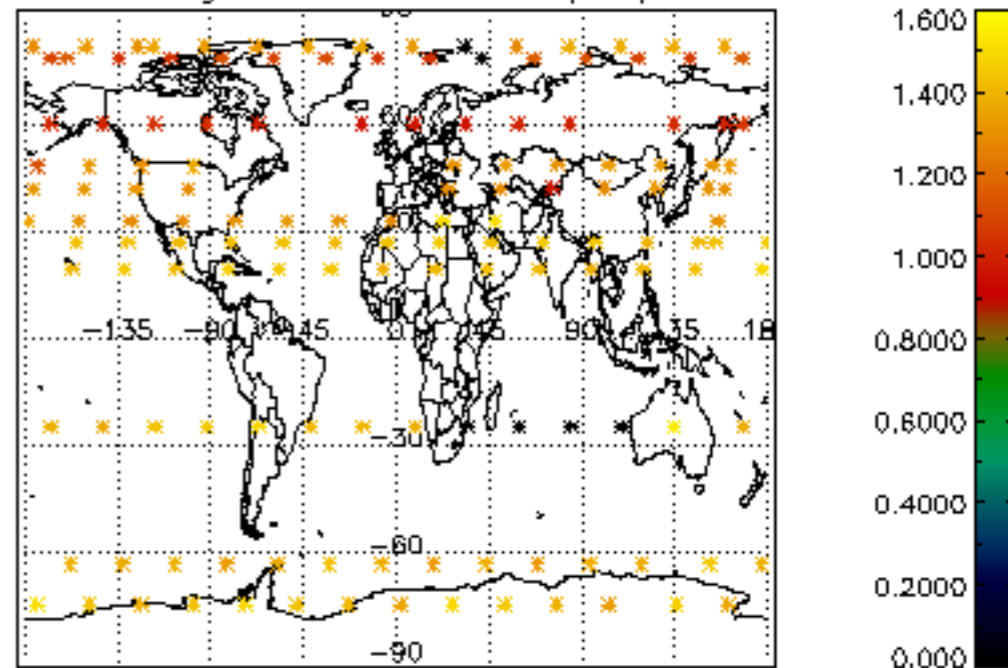
Percentage of saturation errors per profile



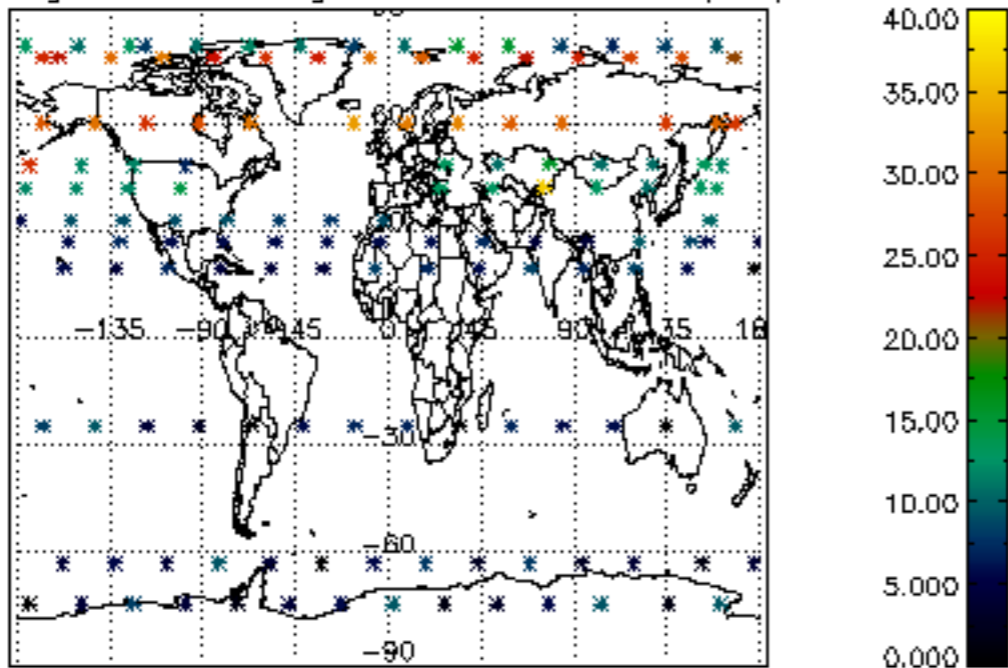
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

