

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	30APR2013 10:51:51
Data source version	GOMOS/6.01
Start time of products	31-12-2009 (31DEC2009 00:00:00)
Stop time of products	01-01-2010 (01JAN2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	362
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

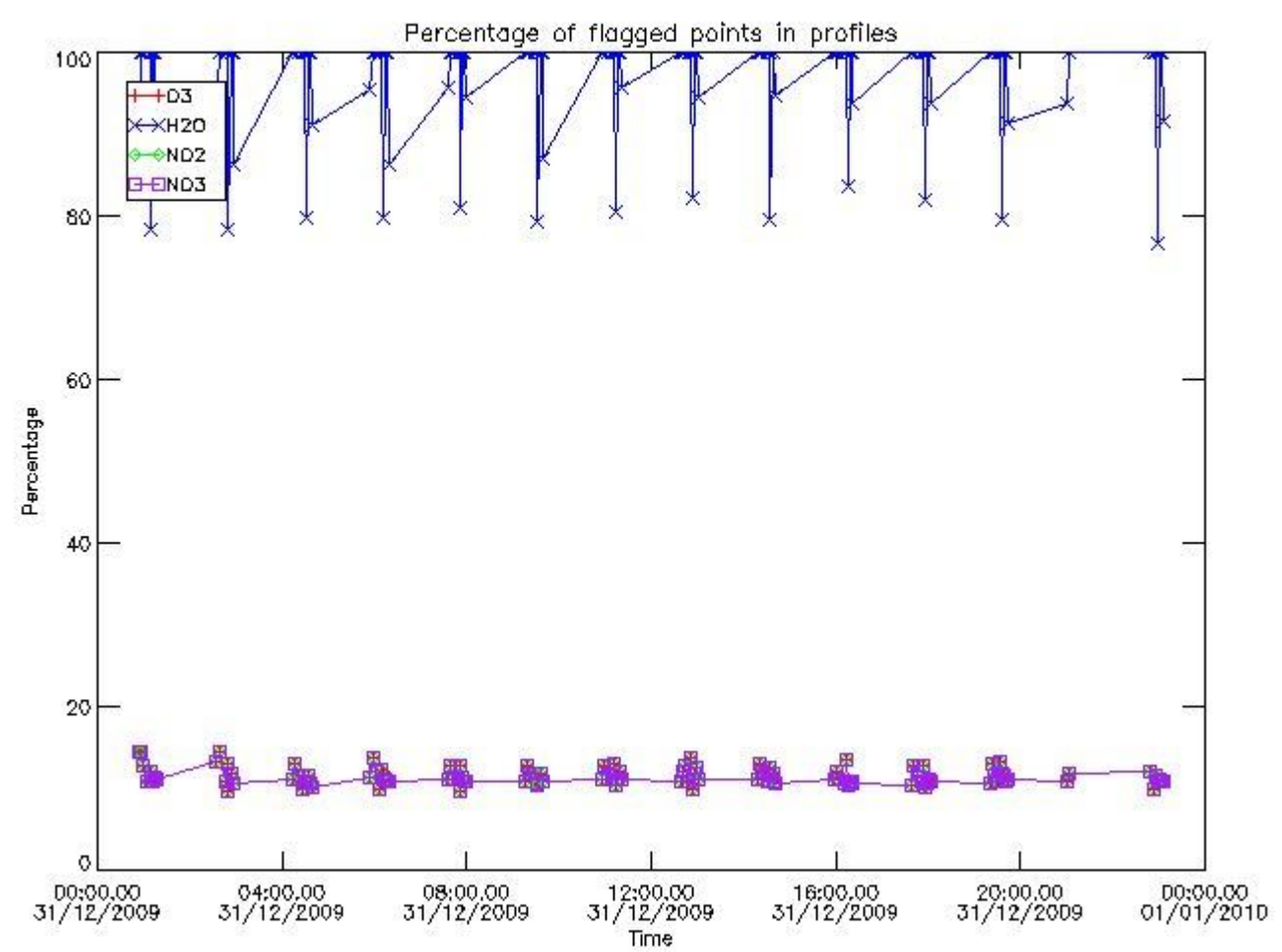
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091231_000154_000000392085_00331_40966_9810.N1	31-DEC-2009 00:01:54	Bright	38.500	6	13Alp Aur	0.080000	3400.0	77	40966	No
2	GOM_NL__2PRFIN20091231_001832_000000352085_00331_40966_9811.N1	31-DEC-2009 00:18:32	Bright	35.000	60	7Bet UMi	2.0810	3950.0	70	40966	No
3	GOM_NL__2PRFIN20091231_002217_000000482085_00331_40966_9812.N1	31-DEC-2009 00:22:17	Bright	48.000	32	77Eps UMa	1.7630	11000.	96	40966	No
4	GOM_NL__2PRFIN20091231_002531_000000432085_00331_40966_9813.N1	31-DEC-2009 00:25:31	Bright	42.500	39	85Eta UMa	1.8540	24000.	85	40966	No
5	GOM_NL__2PRFIN20091231_002932_000000612085_00331_40966_9814.N1	31-DEC-2009 00:29:32	Bright	61.000	180	27Gam Boo	3.0400	8000.0	122	40966	No
6	GOM_NL__2PRFIN20091231_003311_000000612085_00331_40966_9815.N1	31-DEC-2009 00:33:11	Bright	61.000	83		2.3780	11000.	122	40966	No
7	GOM_NL__2PRFIN20091231_003624_000000492085_00331_40966_9816.N1	31-DEC-2009 00:36:24	Bright	48.500	3	16Alp Boo	-0.050000	4250.0	97	40966	No
8	GOM_NL__2PRFIN20091231_004328_000000372085_00331_40966_9817.N1	31-DEC-2009 00:43:28	Bright	36.500	104	27Bet Lib	2.6140	13100.	73	40966	No
9	GOM_NL__2PRFIN20091231_004605_000000442085_00331_40966_9818.N1	31-DEC-2009 00:46:05	Twilight	43.500	122	9Alp2Lib	2.7470	9700.0	87	40966	No
10	GOM_NL__2PRFIN20091231_005256_000000462085_00331_40966_9819.N1	31-DEC-2009 00:52:56	Dark	46.000	54	5The Cen	2.0550	4500.0	92	40966	No
11	GOM_NL__2PRFIN20091231_005544_000000432085_00331_40966_9820.N1	31-DEC-2009 00:55:44	Dark	42.500	95	Zet Cen	2.5450	26000.	85	40966	No
12	GOM_NL__2PRFIN20091231_005910_000000442085_00332_40967_9802.N1	31-DEC-2009 00:59:10	Dark	43.500	64	Gam Cen	2.2000	10600.	87	40967	No
13	GOM_NL__2PRFIN20091231_010519_000000482085_00332_40967_9803.N1	31-DEC-2009 01:05:19	Dark	47.500	113	Mu Vel	2.6920	5000.0	95	40967	No
14	GOM_NL__2PRFIN20091231_010758_000000472085_00332_40967_9804.N1	31-DEC-2009 01:07:58	Dark	47.000	71	Iot Car	2.2460	7700.0	94	40967	No
15	GOM_NL__2PRFIN20091231_010935_000000512085_00332_40967_9805.N1	31-DEC-2009 01:09:35	Dark	51.000	41	Eps Car	1.8600	4100.0	102	40967	No
16	GOM_NL__2PRFIN20091231_011244_000000472085_00332_40967_9806.N1	31-DEC-2009 01:12:44	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	40967	No
17	GOM_NL__2PRFIN20091231_011456_000000452085_00332_40967_9807.N1	31-DEC-2009 01:14:56	Dark	45.000	70	Zet Pup	2.2460	39000.	90	40967	No
18	GOM_NL__2PRFIN20091231_011703_000000462085_00332_40967_9808.N1	31-DEC-2009 01:17:03	Dark	46.000	117	Pi Pup	2.7060	3800.0	92	40967	No
19	GOM_NL__2PRFIN20091231_011952_000000462085_00332_40967_9809.N1	31-DEC-2009 01:19:52	Straylight	45.500	23	21Eps CMa	1.5020	26000.	91	40967	No
20	GOM_NL__2PRFIN20091231_012126_000000442085_00332_40967_9810.N1	31-DEC-2009 01:21:26	Straylight	44.000	179	24Omi2CMa	3.0320	24000.	88	40967	No
21	GOM_NL__2PRFIN20091231_012355_000000492085_00332_40967_9811.N1	31-DEC-2009 01:23:55	Straylight	48.500	1	9Alp CMa	-1.4400	11000.	97	40967	No
22	GOM_NL__2PRFIN20091231_012625_000000422085_00332_40967_9812.N1	31-DEC-2009 01:26:25	Straylight	41.500	56	53Kap Ori	2.0650	30000.	83	40967	No
23	GOM_NL__2PRFIN20091231_012856_000000432085_00332_40967_9813.N1	31-DEC-2009 01:28:56	Straylight	42.500	30	46Eps Ori	1.6940	30000.	85	40967	No
24	GOM_NL__2PRFIN20091231_013129_000000482085_00332_40967_9814.N1	31-DEC-2009 01:31:29	Twilight	48.000	14	58Alp Ori	0.87000	3000.0	96	40967	No
25	GOM_NL__2PRFIN20091231_013450_000000532085_00332_40967_9815.N1	31-DEC-2009 01:34:50	Bright	52.500	44	24Gam Gem	1.9280	11000.	105	40967	No
26	GOM_NL__2PRFIN20091231_013627_000000512085_00332_40967_9816.N1	31-DEC-2009 01:36:27	Bright	50.500	151	13Mu Gem	2.8900	3000.0	101	40967	No
27	GOM_NL__2PRFIN20091231_013748_000000462085_00332_40967_9817.N1	31-DEC-2009 01:37:48	Bright	45.500	170	27Eps Gem	3.0000	9700.0	91	40967	No
28	GOM_NL__2PRFIN20091231_014026_000000412085_00332_40967_9818.N1	31-DEC-2009 01:40:26	Bright	40.500	107	37The Aur	2.6490	11000.	81	40967	No
29	GOM_NL__2PRFIN20091231_014229_000000452085_00332_40967_9819.N1	31-DEC-2009 01:42:29	Bright	44.500	6	13Alp Aur	0.080000	3400.0	89	40967	No
30	GOM_NL__2PRFIN20091231_015908_000000402085_00332_40967_9820.N1	31-DEC-2009 01:59:08	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	40967	No
31	GOM_NL__2PRFIN20091231_020253_000000502085_00332_40967_9821.N1	31-DEC-2009 02:02:53	Bright	49.500	32	77Eps UMa	1.7630	11000.	99	40967	No
32	GOM_NL__2PRFIN20091231_020607_000000652085_00332_40967_9822.N1	31-DEC-2009 02:06:07	Bright	65.000	39	85Eta UMa	1.8540	24000.	130	40967	No
33	GOM_NL__2PRFIN20091231_021008_000000402085_00332_40967_9823.N1	31-DEC-2009 02:10:08	Bright	39.500	180	27Gam Boo	3.0400	8000.0	79	40967	No
34	GOM_NL__2PRFIN20091231_021347_000000412085_00332_40967_9824.N1	31-DEC-2009 02:13:47	Bright	41.000	83		2.3780	11000.	82	40967	No
35	GOM_NL__2PRFIN20091231_021701_000000512085_00332_40967_9825.N1	31-DEC-2009 02:17:01	Bright	51.000	3	16Alp Boo	-0.050000	4250.0	102	40967	No
36	GOM_NL__2PRFIN20091231_022404_000000552085_00332_40967_9826.N1	31-DEC-2009 02:24:04	Bright	55.000	104	27Bet Lib	2.6140	13100.	110	40967	No
37	GOM_NL__2PRFIN20091231_022641_000000442085_00332_40967_9827.N1	31-DEC-2009 02:26:41	Twilight	43.500	122	9Alp2Lib	2.7470	9700.0	87	40967	No
38	GOM_NL__2PRFIN20091231_023333_000000422085_00332_40967_9828.N1	31-DEC-2009 02:33:33	Dark	42.000	54	5The Cen	2.0550	4500.0	84	40967	No
39	GOM_NL__2PRFIN20091231_023947_000000432085_00333_40968_9811.N1	31-DEC-2009 02:39:47	Dark	42.500	64	Gam Cen	2.2000	10600.	85	40968	No
40	GOM_NL__2PRFIN20091231_024556_000000472085_00333_40968_9812.N1	31-DEC-2009 02:45:56	Dark	46.500	113	Mu Vel	2.6920	5000.0	93	40968	No
41	GOM_NL__2PRFIN20091231_024835_000000402085_00333_40968_9813.N1	31-DEC-2009 02:48:35	Dark	39.500	71	Iot Car	2.2460	7700.0	79	40968	No
42	GOM_NL__2PRFIN20091231_025011_000000542085_00333_40968_9814.N1	31-DEC-2009 02:50:11	Dark	53.500	41	Eps Car	1.8600	4100.0	107	40968	No

338	GOM_NL__2PRFIN20091231_205044_000000562085_00343_40978_0119.N1	31-DEC-2009 20:50:44	Bright	56.000	104	27Bet Lib	2.6140	13100.	112	40978	No
339	GOM_NL__2PRFIN20091231_205323_000000442085_00343_40978_0120.N1	31-DEC-2009 20:53:23	Twilight	44.000	122	9Alp2Lib	2.7470	9700.0	88	40978	No
340	GOM_NL__2PRFIN20091231_210016_000000482085_00343_40978_0121.N1	31-DEC-2009 21:00:16	Dark	47.500	54	5The Cen	2.0550	4500.0	95	40978	No
341	GOM_NL__2PRFIN20091231_210302_000000432085_00343_40978_0122.N1	31-DEC-2009 21:03:02	Dark	42.500	95	Zet Cen	2.5450	26000.	85	40978	No
342	GOM_NL__2PRFIN20091231_224708_000000432085_00345_40980_0114.N1	31-DEC-2009 22:47:08	Dark	42.500	64	Gam Cen	2.2000	10600.	85	40980	No
343	GOM_NL__2PRFIN20091231_225318_000000522085_00345_40980_0115.N1	31-DEC-2009 22:53:18	Dark	52.000	113	Mu Vel	2.6920	5000.0	104	40980	No
344	GOM_NL__2PRFIN20091231_225553_000000442085_00345_40980_0116.N1	31-DEC-2009 22:55:53	Dark	44.000	71	Iot Car	2.2460	7700.0	88	40980	No
345	GOM_NL__2PRFIN20091231_225728_000000482085_00345_40980_0117.N1	31-DEC-2009 22:57:28	Dark	47.500	41	Eps Car	1.8600	4100.0	95	40980	No
346	GOM_NL__2PRFIN20091231_230038_000000462085_00345_40980_0118.N1	31-DEC-2009 23:00:38	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	40980	No
347	GOM_NL__2PRFIN20091231_230250_000000472085_00345_40980_0119.N1	31-DEC-2009 23:02:50	Dark	46.500	70	Zet Pup	2.2460	39000.	93	40980	No
348	GOM_NL__2PRFIN20091231_230455_000000482085_00345_40980_0120.N1	31-DEC-2009 23:04:55	Dark	47.500	117	Pi Pup	2.7060	3800.0	95	40980	No
349	GOM_NL__2PRFIN20091231_230743_000000442085_00345_40980_0121.N1	31-DEC-2009 23:07:43	Straylight	44.000	23	21Eps CMa	1.5020	26000.	88	40980	No
350	GOM_NL__2PRFIN20091231_230916_000000452085_00345_40980_0122.N1	31-DEC-2009 23:09:16	Straylight	45.000	179	24Omi2CMa	3.0320	24000.	90	40980	No
351	GOM_NL__2PRFIN20091231_231144_000000472085_00345_40980_0123.N1	31-DEC-2009 23:11:44	Straylight	46.500	1	9Alp CMa	-1.4400	11000.	93	40980	No
352	GOM_NL__2PRFIN20091231_231414_000000362085_00345_40980_0124.N1	31-DEC-2009 23:14:14	Straylight	36.000	56	53Kap Ori	2.0650	30000.	72	40980	No
353	GOM_NL__2PRFIN20091231_231644_000000422085_00345_40980_0125.N1	31-DEC-2009 23:16:44	Straylight	41.500	30	46Eps Ori	1.6940	30000.	83	40980	No
354	GOM_NL__2PRFIN20091231_231915_000000552085_00345_40980_0126.N1	31-DEC-2009 23:19:15	Twilight	55.000	14	58Alp Ori	0.87000	3000.0	110	40980	No
355	GOM_NL__2PRFIN20091231_232232_000000632085_00345_40980_0127.N1	31-DEC-2009 23:22:32	Bright	63.000	44	24Gam Gem	1.9280	11000.	126	40980	No
356	GOM_NL__2PRFIN20091231_232410_000000512085_00345_40980_0128.N1	31-DEC-2009 23:24:10	Bright	50.500	151	13Mu Gem	2.8900	3000.0	101	40980	No
357	GOM_NL__2PRFIN20091231_232810_000000392085_00345_40980_0129.N1	31-DEC-2009 23:28:10	Bright	38.500	107	37The Aur	2.6490	11000.	77	40980	No
358	GOM_NL__2PRFIN20091231_233015_000000422085_00345_40980_0130.N1	31-DEC-2009 23:30:15	Bright	41.500	6	13Alp Aur	0.080000	3400.0	83	40980	No
359	GOM_NL__2PRFIN20091231_234654_000000362085_00345_40980_0131.N1	31-DEC-2009 23:46:54	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	40980	No
360	GOM_NL__2PRFIN20091231_235035_000000492085_00345_40980_0132.N1	31-DEC-2009 23:50:35	Bright	48.500	32	77Eps UMa	1.7630	11000.	97	40980	No
361	GOM_NL__2PRFIN20091231_235352_000000482085_00345_40980_0133.N1	31-DEC-2009 23:53:52	Bright	47.500	39	85Eta UMa	1.8540	24000.	95	40980	No
362	GOM_NL__2PRFIN20091231_235756_000000622085_00345_40980_0134.N1	31-DEC-2009 23:57:56	Bright	62.000	180	27Gam Boo	3.0400	8000.0	124	40980	No

3. Quality information per product

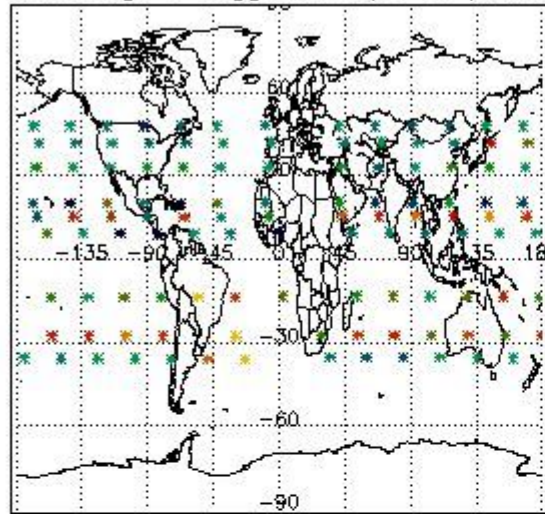
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

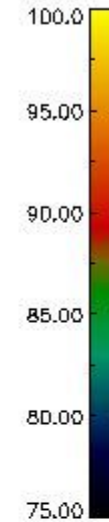
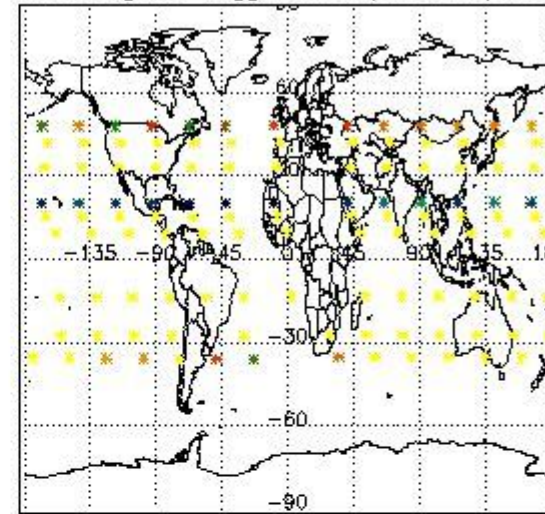


3.2 Plot quality information per product (world map)

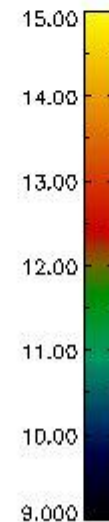
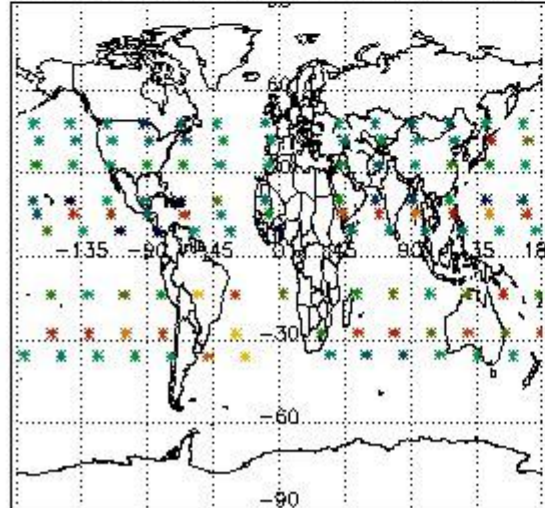
Percentage of flagged data per O3 profile



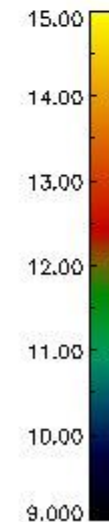
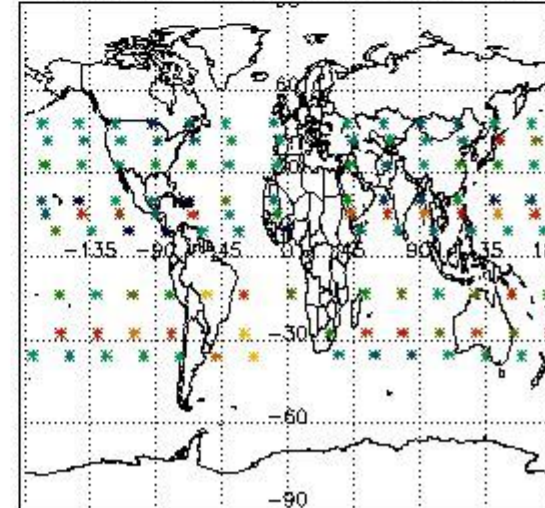
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

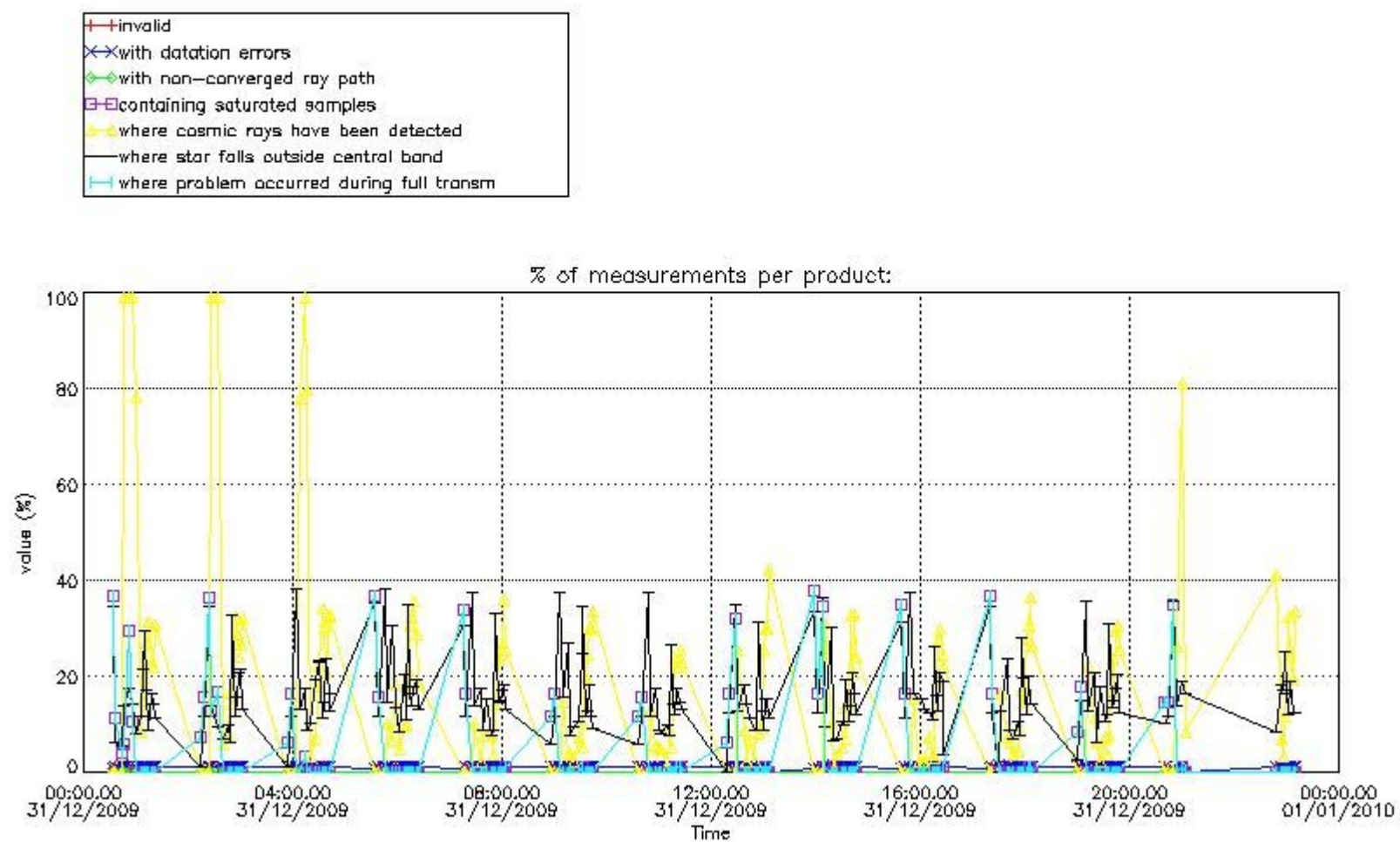


4. Level 1 quality information per product

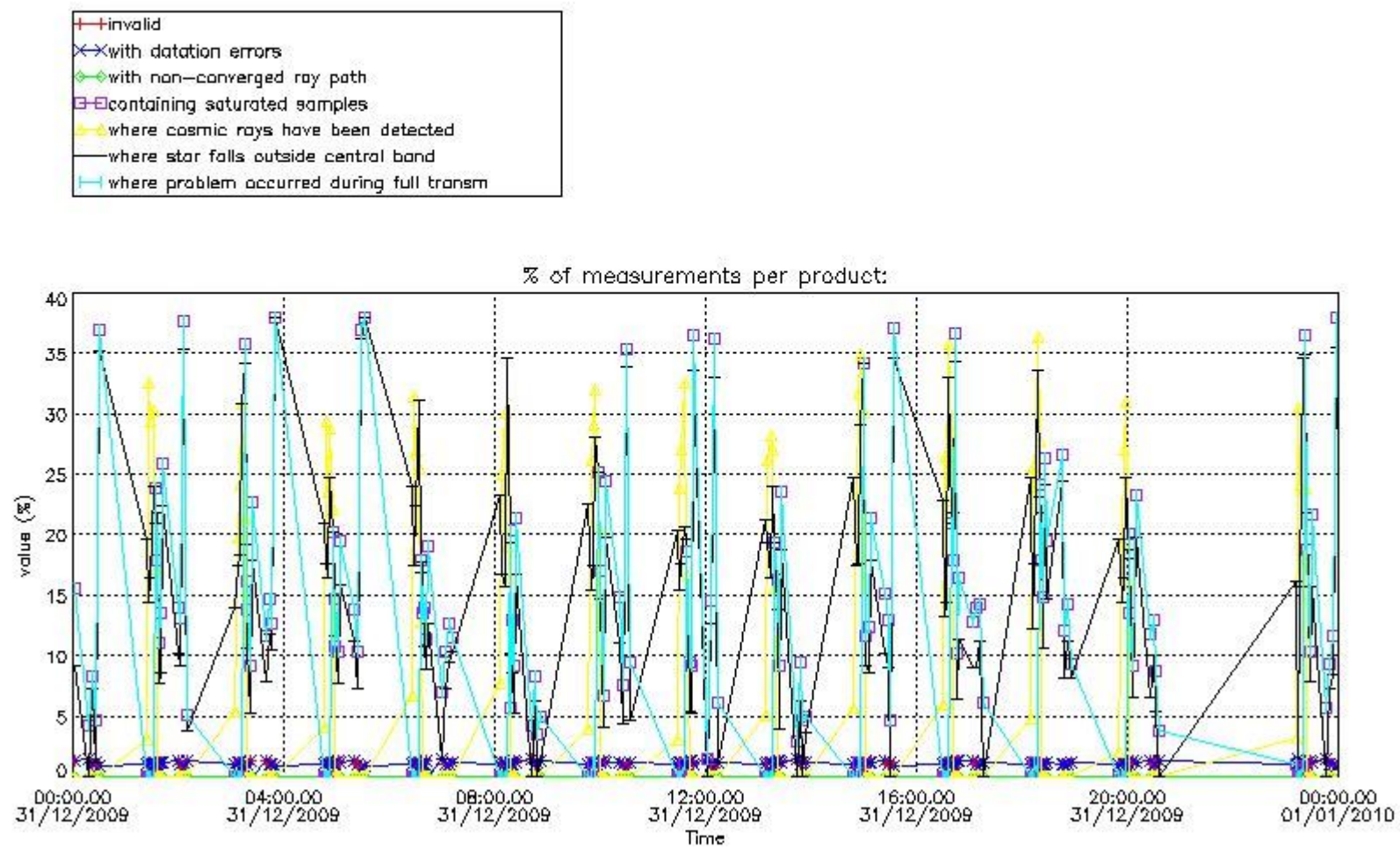
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

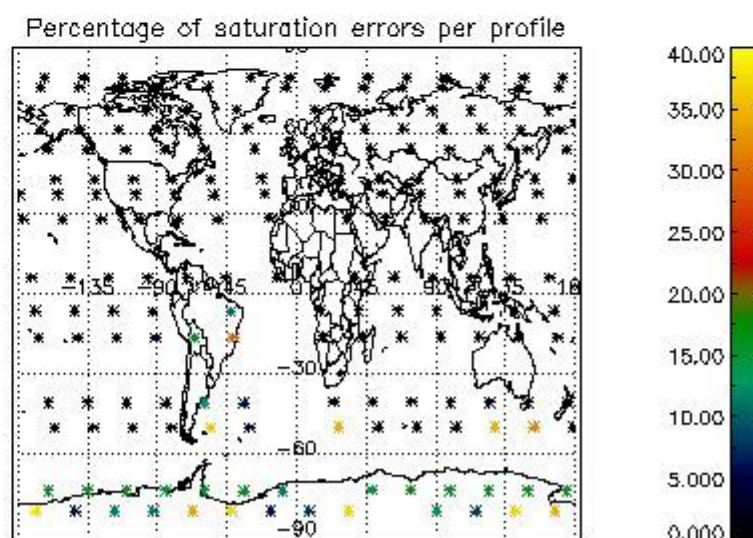
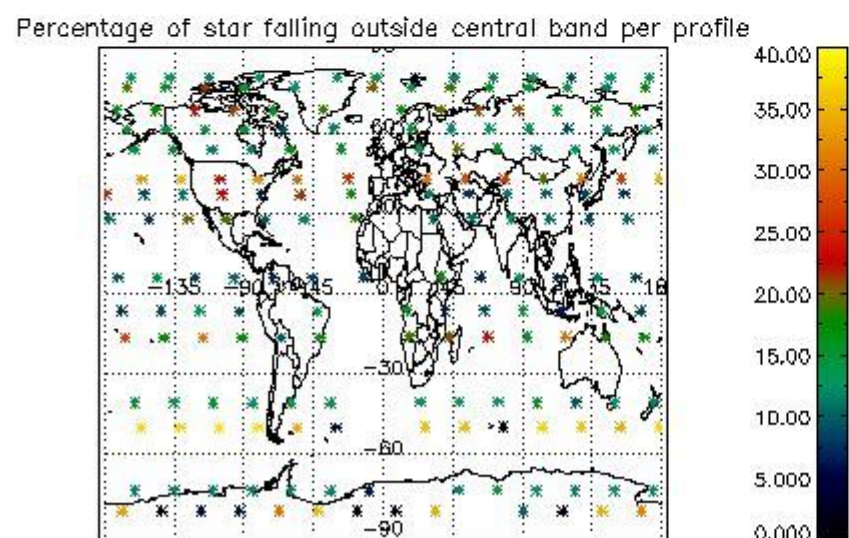
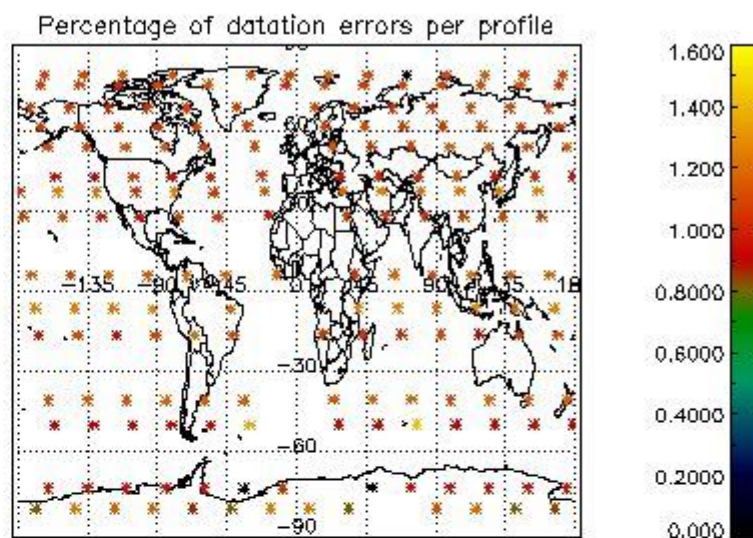
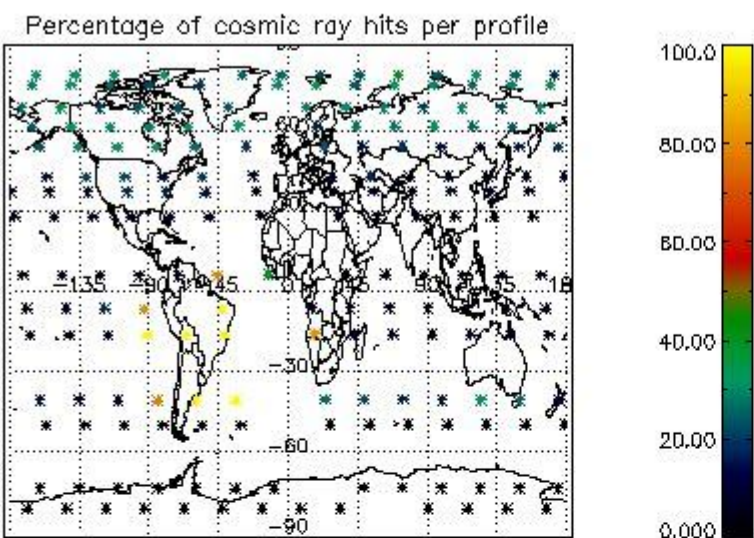


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

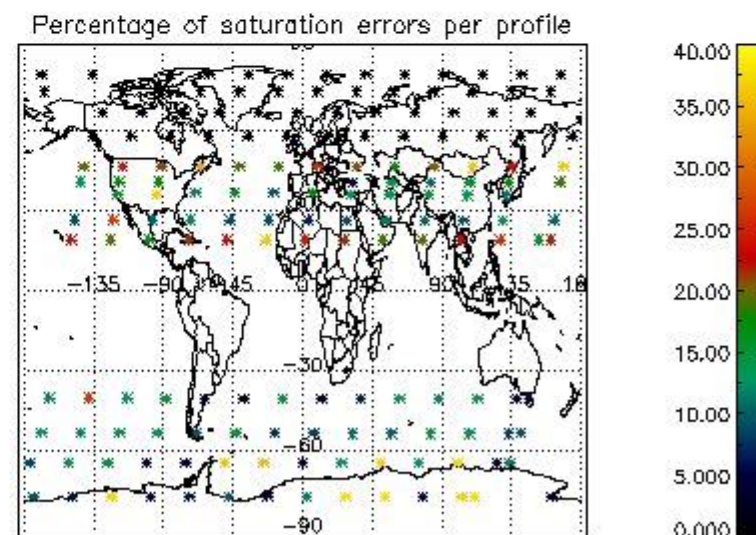
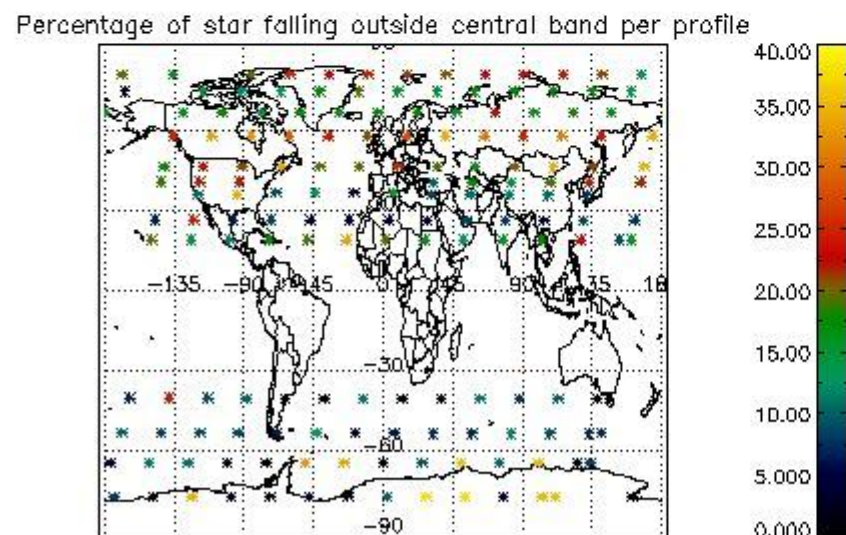
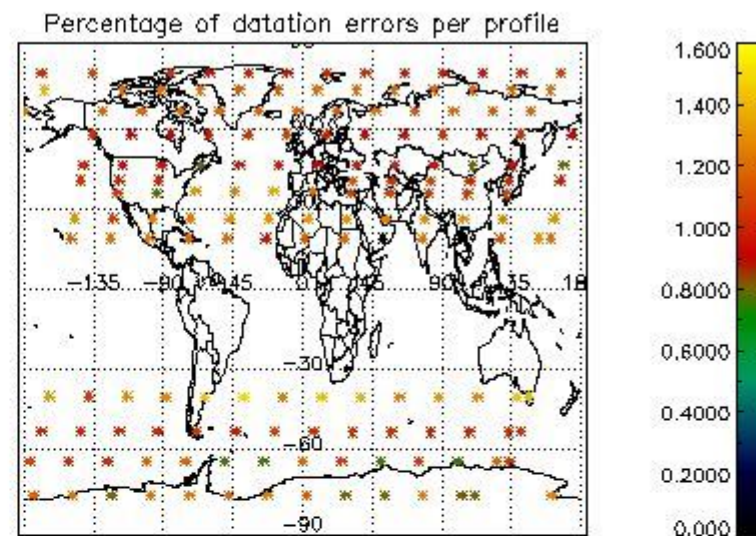
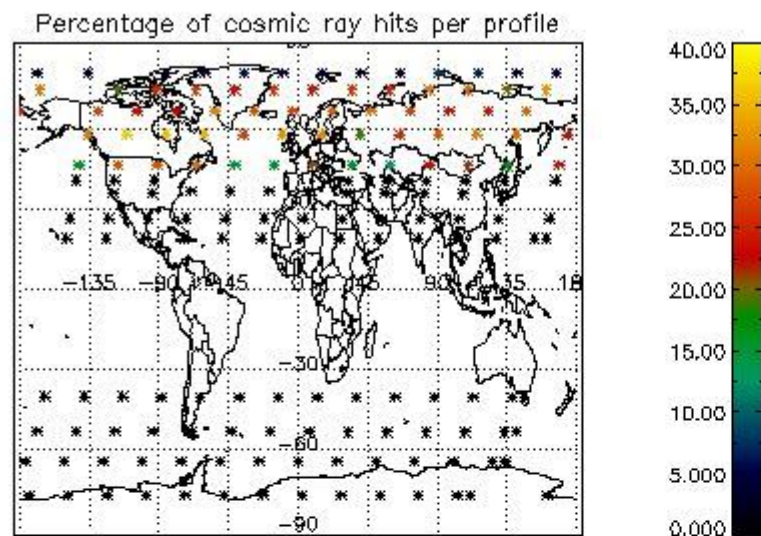


4.2 Plot quality information per product coming from level 1b processing (world map)

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

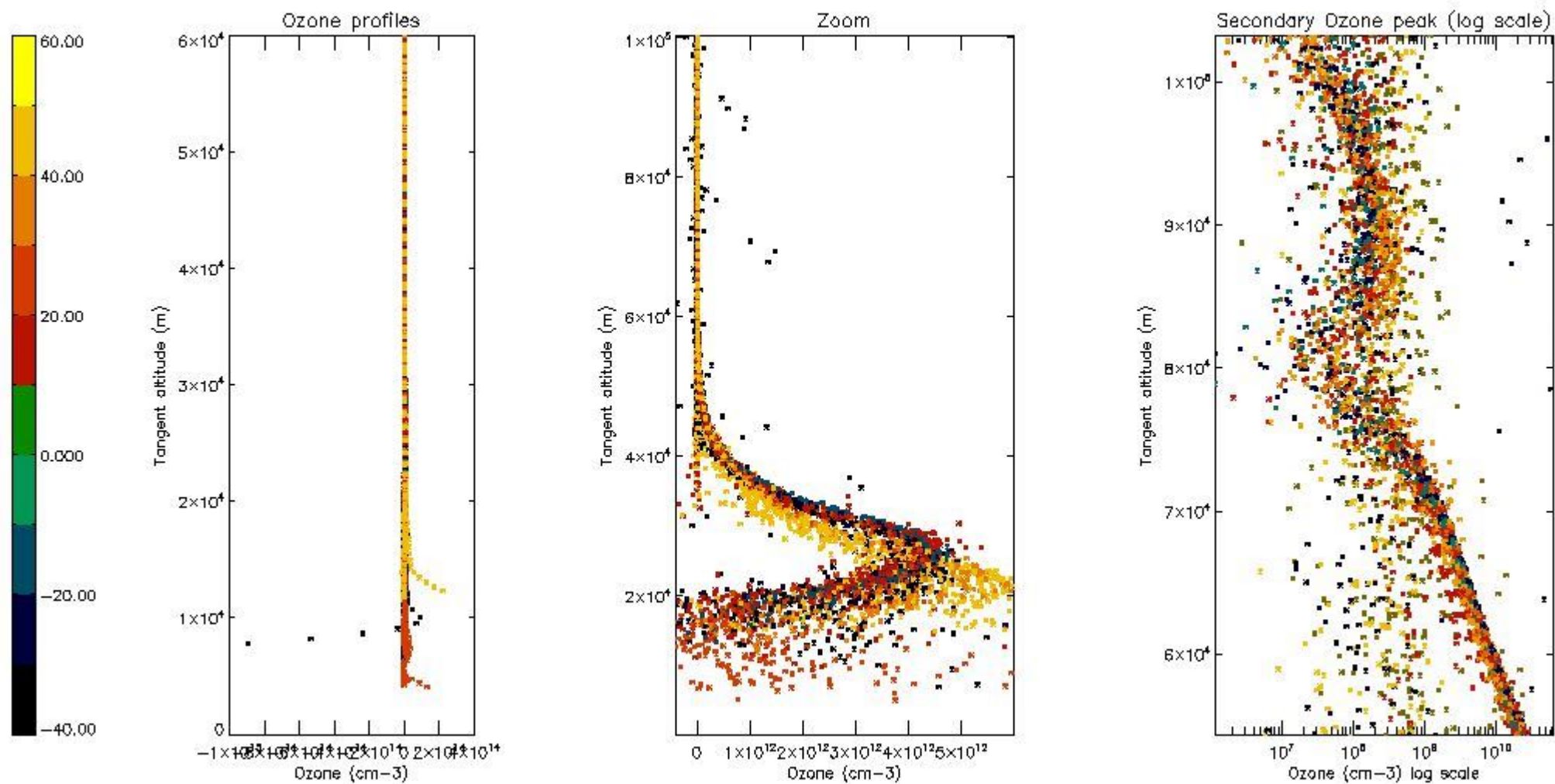
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	14

STD < 10	11
STD < 5	6

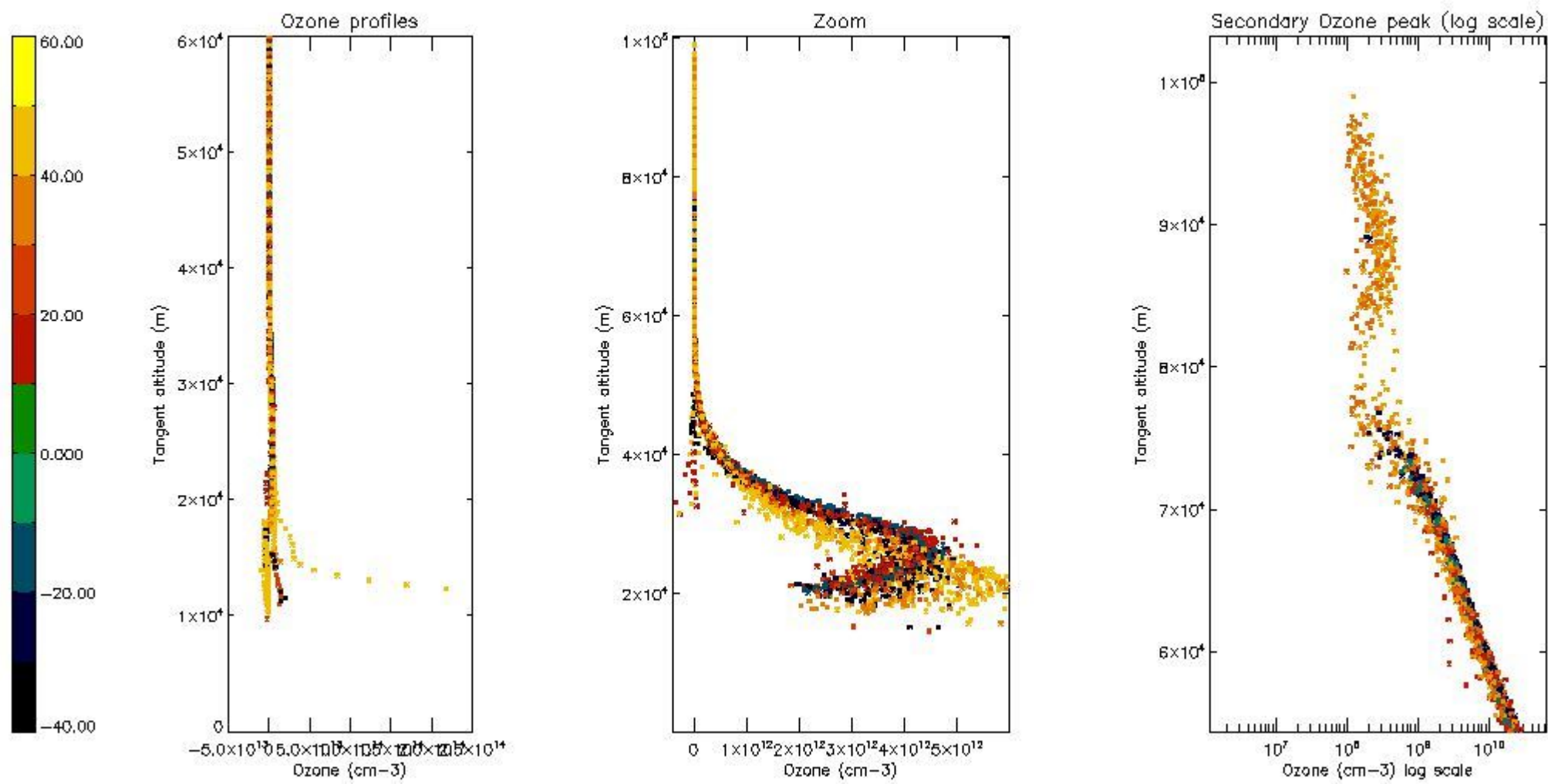
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



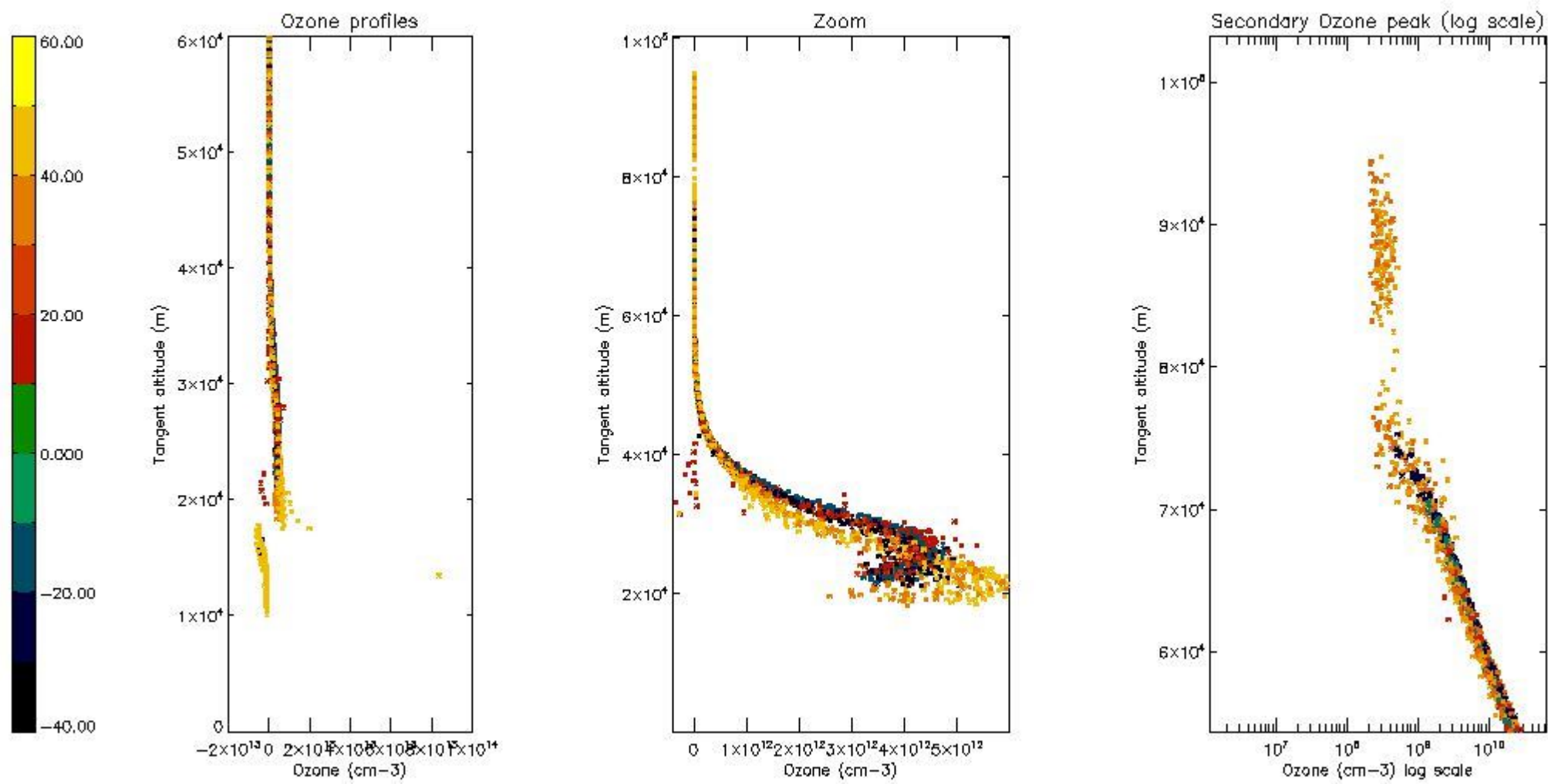
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



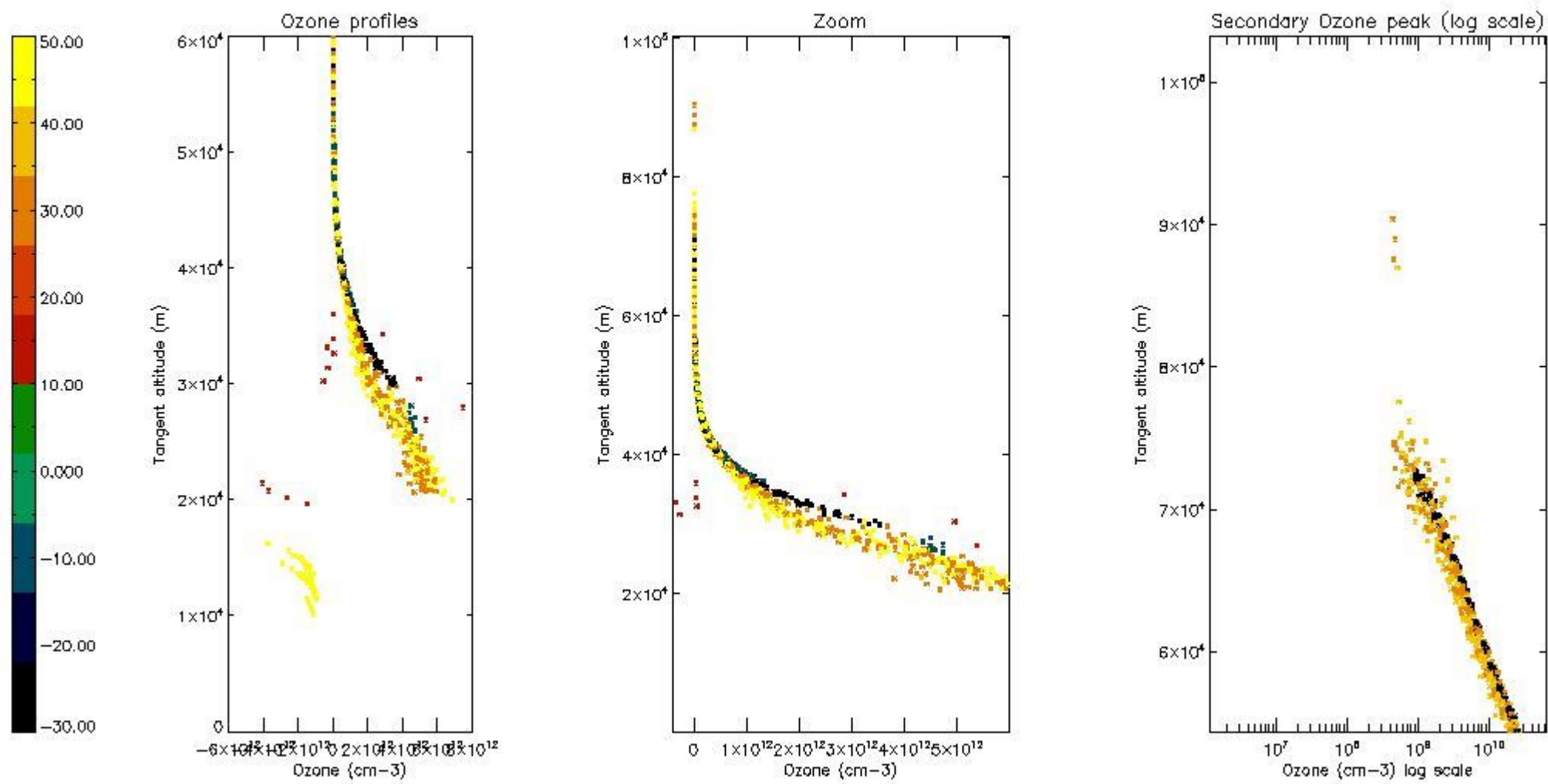
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



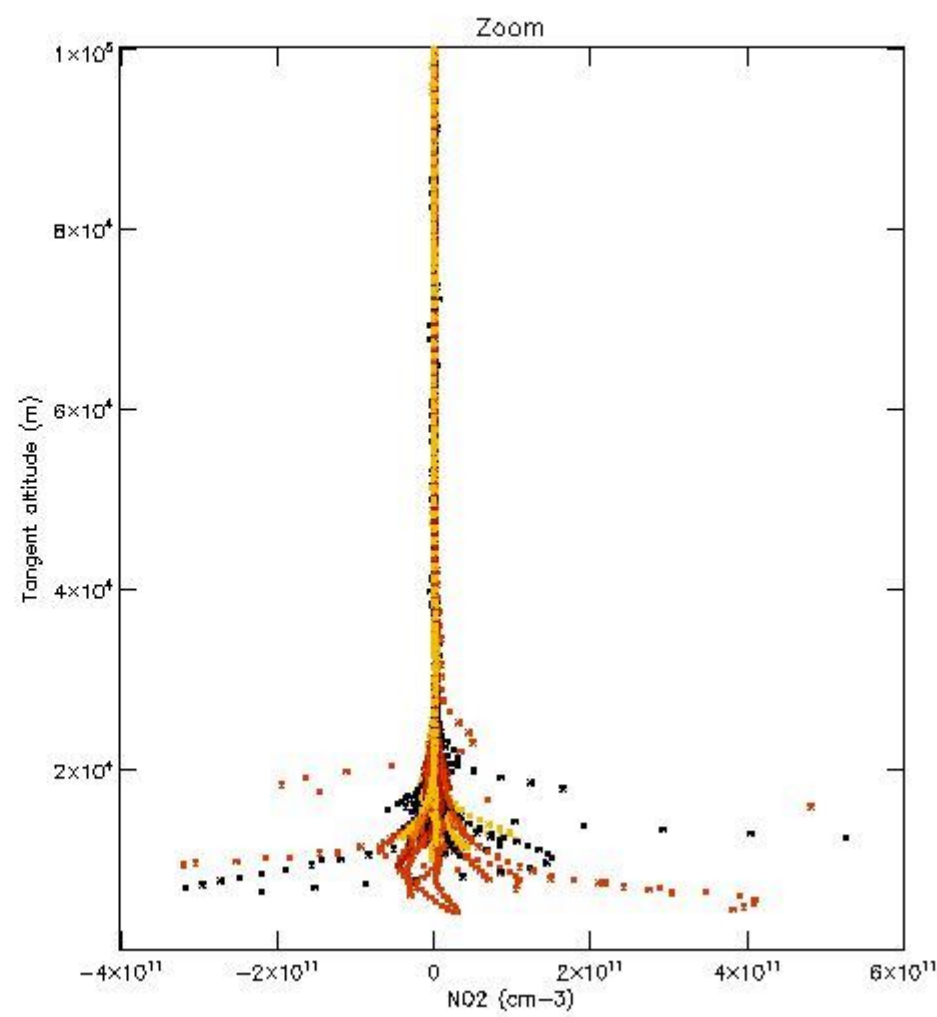
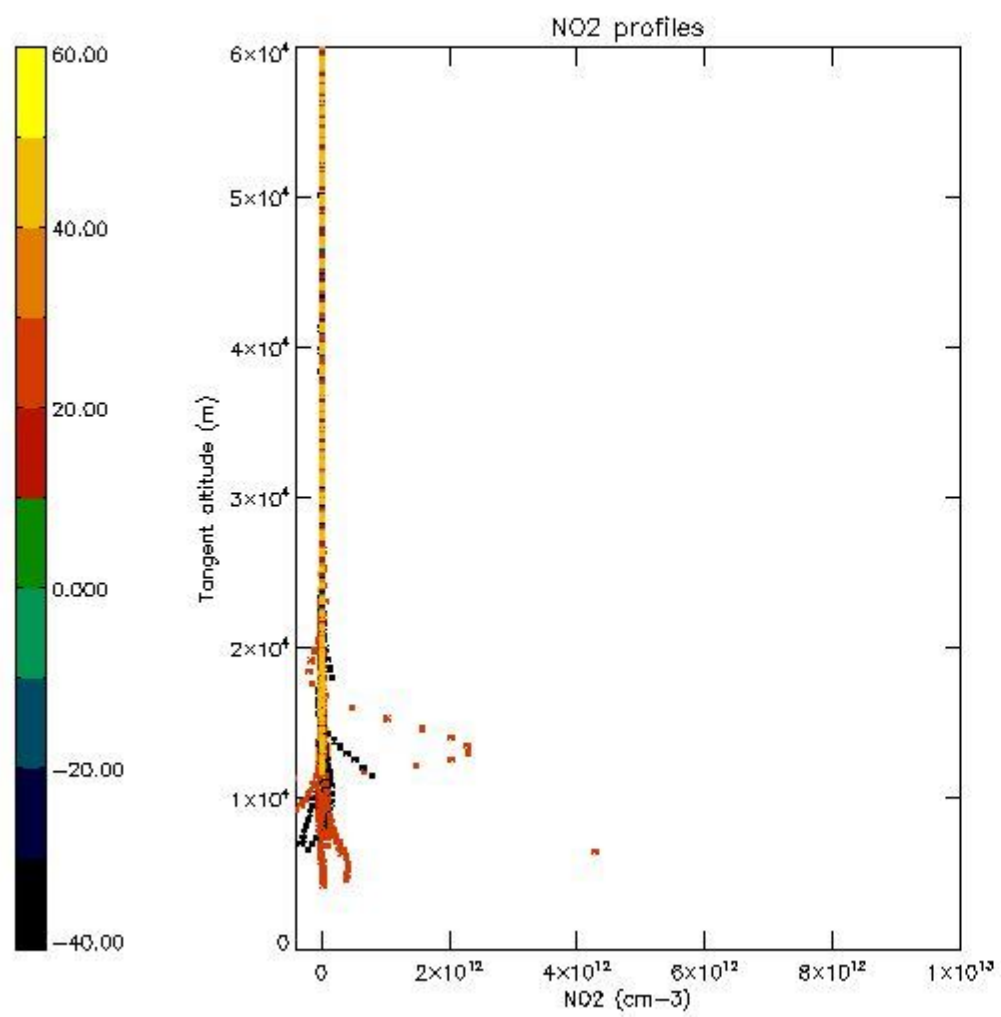
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



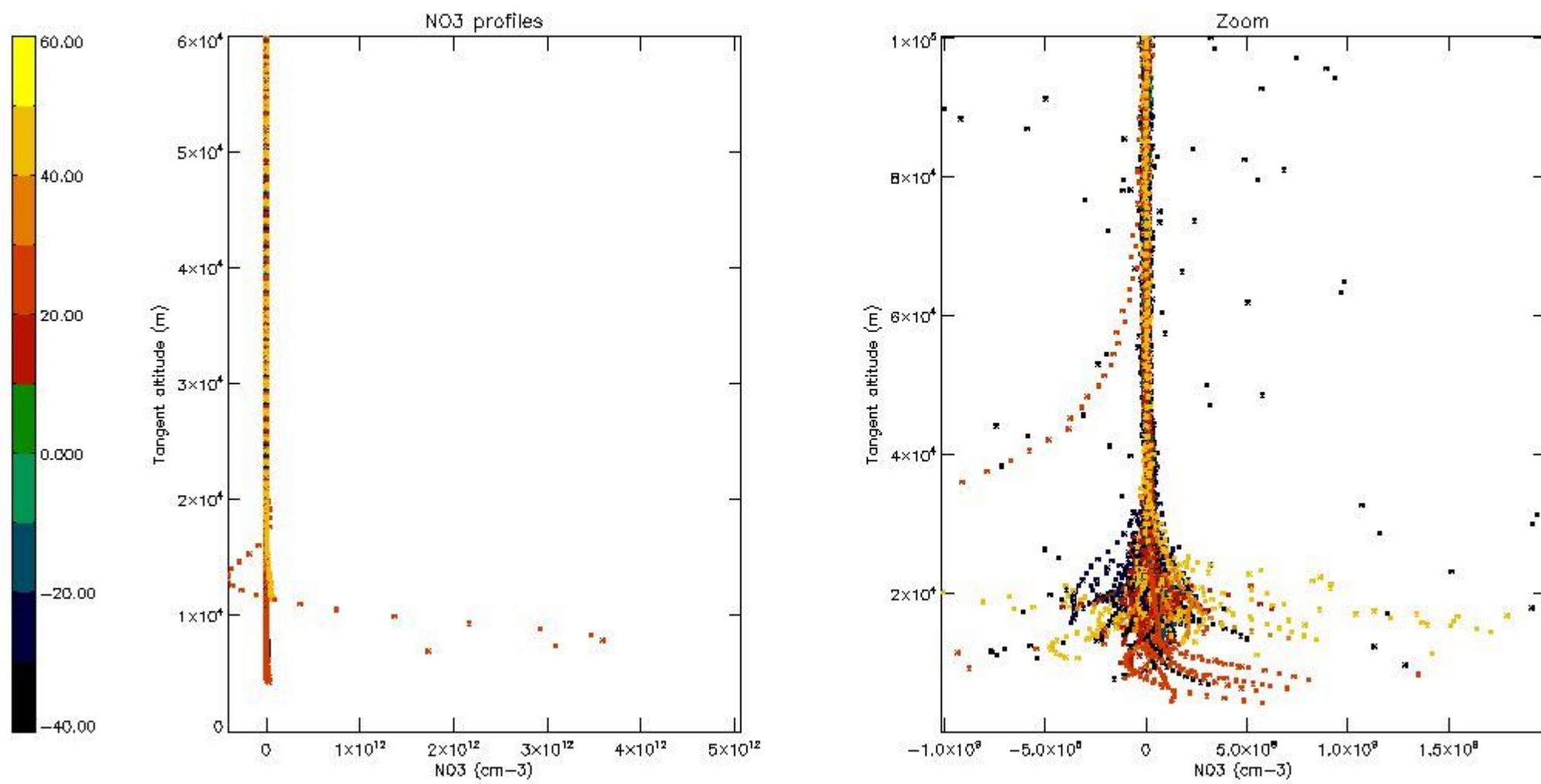
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



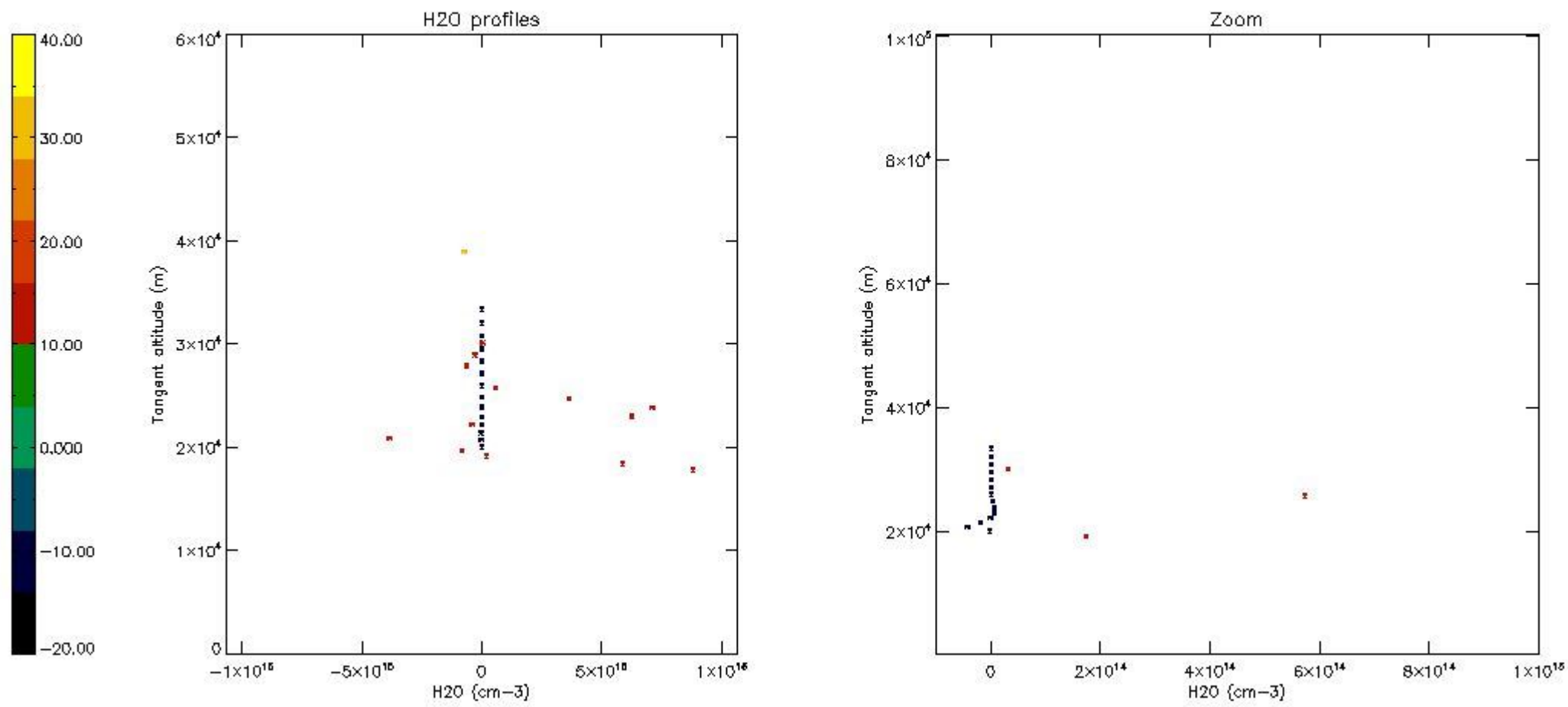
5.7 Plot NO3 profiles for all STD (dark without errors)

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	31-DEC-2009 00:01:54
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	31-DEC-2009 00:01:54
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	31-DEC-2009 00:01:54

GOMOS Level 2 Daily Report

SUMMARY

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[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	30APR2013 10:51:51
Data source version	GOMOS/6.01
Start time of products	31-12-2009 (31DEC2009 00:00:00)
Stop time of products	01-01-2010 (01JAN2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	362
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

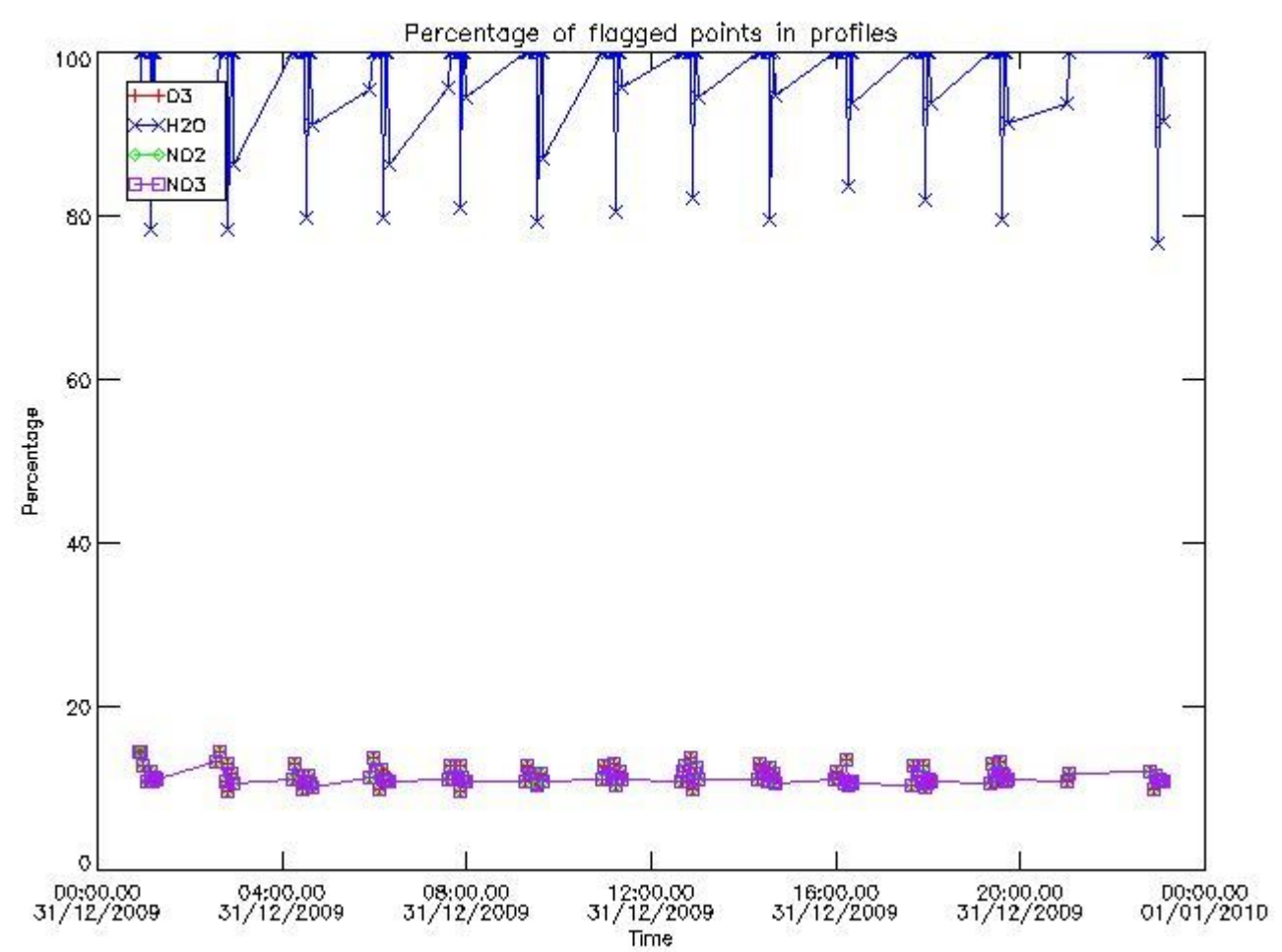
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20091231_000154_000000392085_00331_40966_9810.N1	31-DEC-2009 00:01:54	Bright	38.500	6	13Alp Aur	0.080000	3400.0	77	40966	No
2	GOM_NL__2PRFIN20091231_001832_000000352085_00331_40966_9811.N1	31-DEC-2009 00:18:32	Bright	35.000	60	7Bet UMi	2.0810	3950.0	70	40966	No
3	GOM_NL__2PRFIN20091231_002217_000000482085_00331_40966_9812.N1	31-DEC-2009 00:22:17	Bright	48.000	32	77Eps UMa	1.7630	11000.	96	40966	No
4	GOM_NL__2PRFIN20091231_002531_000000432085_00331_40966_9813.N1	31-DEC-2009 00:25:31	Bright	42.500	39	85Eta UMa	1.8540	24000.	85	40966	No
5	GOM_NL__2PRFIN20091231_002932_000000612085_00331_40966_9814.N1	31-DEC-2009 00:29:32	Bright	61.000	180	27Gam Boo	3.0400	8000.0	122	40966	No
6	GOM_NL__2PRFIN20091231_003311_000000612085_00331_40966_9815.N1	31-DEC-2009 00:33:11	Bright	61.000	83		2.3780	11000.	122	40966	No
7	GOM_NL__2PRFIN20091231_003624_000000492085_00331_40966_9816.N1	31-DEC-2009 00:36:24	Bright	48.500	3	16Alp Boo	-0.050000	4250.0	97	40966	No
8	GOM_NL__2PRFIN20091231_004328_000000372085_00331_40966_9817.N1	31-DEC-2009 00:43:28	Bright	36.500	104	27Bet Lib	2.6140	13100.	73	40966	No
9	GOM_NL__2PRFIN20091231_004605_000000442085_00331_40966_9818.N1	31-DEC-2009 00:46:05	Twilight	43.500	122	9Alp2Lib	2.7470	9700.0	87	40966	No
10	GOM_NL__2PRFIN20091231_005256_000000462085_00331_40966_9819.N1	31-DEC-2009 00:52:56	Dark	46.000	54	5The Cen	2.0550	4500.0	92	40966	No
11	GOM_NL__2PRFIN20091231_005544_000000432085_00331_40966_9820.N1	31-DEC-2009 00:55:44	Dark	42.500	95	Zet Cen	2.5450	26000.	85	40966	No
12	GOM_NL__2PRFIN20091231_005910_000000442085_00332_40967_9802.N1	31-DEC-2009 00:59:10	Dark	43.500	64	Gam Cen	2.2000	10600.	87	40967	No
13	GOM_NL__2PRFIN20091231_010519_000000482085_00332_40967_9803.N1	31-DEC-2009 01:05:19	Dark	47.500	113	Mu Vel	2.6920	5000.0	95	40967	No
14	GOM_NL__2PRFIN20091231_010758_000000472085_00332_40967_9804.N1	31-DEC-2009 01:07:58	Dark	47.000	71	Iot Car	2.2460	7700.0	94	40967	No
15	GOM_NL__2PRFIN20091231_010935_000000512085_00332_40967_9805.N1	31-DEC-2009 01:09:35	Dark	51.000	41	Eps Car	1.8600	4100.0	102	40967	No
16	GOM_NL__2PRFIN20091231_011244_000000472085_00332_40967_9806.N1	31-DEC-2009 01:12:44	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	40967	No
17	GOM_NL__2PRFIN20091231_011456_000000452085_00332_40967_9807.N1	31-DEC-2009 01:14:56	Dark	45.000	70	Zet Pup	2.2460	39000.	90	40967	No
18	GOM_NL__2PRFIN20091231_011703_000000462085_00332_40967_9808.N1	31-DEC-2009 01:17:03	Dark	46.000	117	Pi Pup	2.7060	3800.0	92	40967	No
19	GOM_NL__2PRFIN20091231_011952_000000462085_00332_40967_9809.N1	31-DEC-2009 01:19:52	Straylight	45.500	23	21Eps CMa	1.5020	26000.	91	40967	No
20	GOM_NL__2PRFIN20091231_012126_000000442085_00332_40967_9810.N1	31-DEC-2009 01:21:26	Straylight	44.000	179	24Omi2CMa	3.0320	24000.	88	40967	No
21	GOM_NL__2PRFIN20091231_012355_000000492085_00332_40967_9811.N1	31-DEC-2009 01:23:55	Straylight	48.500	1	9Alp CMa	-1.4400	11000.	97	40967	No
22	GOM_NL__2PRFIN20091231_012625_000000422085_00332_40967_9812.N1	31-DEC-2009 01:26:25	Straylight	41.500	56	53Kap Ori	2.0650	30000.	83	40967	No
23	GOM_NL__2PRFIN20091231_012856_000000432085_00332_40967_9813.N1	31-DEC-2009 01:28:56	Straylight	42.500	30	46Eps Ori	1.6940	30000.	85	40967	No
24	GOM_NL__2PRFIN20091231_013129_000000482085_00332_40967_9814.N1	31-DEC-2009 01:31:29	Twilight	48.000	14	58Alp Ori	0.87000	3000.0	96	40967	No
25	GOM_NL__2PRFIN20091231_013450_000000532085_00332_40967_9815.N1	31-DEC-2009 01:34:50	Bright	52.500	44	24Gam Gem	1.9280	11000.	105	40967	No
26	GOM_NL__2PRFIN20091231_013627_000000512085_00332_40967_9816.N1	31-DEC-2009 01:36:27	Bright	50.500	151	13Mu Gem	2.8900	3000.0	101	40967	No
27	GOM_NL__2PRFIN20091231_013748_000000462085_00332_40967_9817.N1	31-DEC-2009 01:37:48	Bright	45.500	170	27Eps Gem	3.0000	9700.0	91	40967	No
28	GOM_NL__2PRFIN20091231_014026_000000412085_00332_40967_9818.N1	31-DEC-2009 01:40:26	Bright	40.500	107	37The Aur	2.6490	11000.	81	40967	No
29	GOM_NL__2PRFIN20091231_014229_000000452085_00332_40967_9819.N1	31-DEC-2009 01:42:29	Bright	44.500	6	13Alp Aur	0.080000	3400.0	89	40967	No
30	GOM_NL__2PRFIN20091231_015908_000000402085_00332_40967_9820.N1	31-DEC-2009 01:59:08	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	40967	No
31	GOM_NL__2PRFIN20091231_020253_000000502085_00332_40967_9821.N1	31-DEC-2009 02:02:53	Bright	49.500	32	77Eps UMa	1.7630	11000.	99	40967	No
32	GOM_NL__2PRFIN20091231_020607_000000652085_00332_40967_9822.N1	31-DEC-2009 02:06:07	Bright	65.000	39	85Eta UMa	1.8540	24000.	130	40967	No
33	GOM_NL__2PRFIN20091231_021008_000000402085_00332_40967_9823.N1	31-DEC-2009 02:10:08	Bright	39.500	180	27Gam Boo	3.0400	8000.0	79	40967	No
34	GOM_NL__2PRFIN20091231_021347_000000412085_00332_40967_9824.N1	31-DEC-2009 02:13:47	Bright	41.000	83		2.3780	11000.	82	40967	No
35	GOM_NL__2PRFIN20091231_021701_000000512085_00332_40967_9825.N1	31-DEC-2009 02:17:01	Bright	51.000	3	16Alp Boo	-0.050000	4250.0	102	40967	No
36	GOM_NL__2PRFIN20091231_022404_000000552085_00332_40967_9826.N1	31-DEC-2009 02:24:04	Bright	55.000	104	27Bet Lib	2.6140	13100.	110	40967	No
37	GOM_NL__2PRFIN20091231_022641_000000442085_00332_40967_9827.N1	31-DEC-2009 02:26:41	Twilight	43.500	122	9Alp2Lib	2.7470	9700.0	87	40967	No
38	GOM_NL__2PRFIN20091231_023333_000000422085_00332_40967_9828.N1	31-DEC-2009 02:33:33	Dark	42.000	54	5The Cen	2.0550	4500.0	84	40967	No
39	GOM_NL__2PRFIN20091231_023947_000000432085_00333_40968_9811.N1	31-DEC-2009 02:39:47	Dark	42.500	64	Gam Cen	2.2000	10600.	85	40968	No
40	GOM_NL__2PRFIN20091231_024556_000000472085_00333_40968_9812.N1	31-DEC-2009 02:45:56	Dark	46.500	113	Mu Vel	2.6920	5000.0	93	40968	No
41	GOM_NL__2PRFIN20091231_024835_000000402085_00333_40968_9813.N1	31-DEC-2009 02:48:35	Dark	39.500	71	Iot Car	2.2460	7700.0	79	40968	No
42	GOM_NL__2PRFIN20091231_025011_000000542085_00333_40968_9814.N1	31-DEC-2009 02:50:11	Dark	53.500	41	Eps Car	1.8600	4100.0	107	40968	No

338	GOM_NL__2PRFIN20091231_205044_000000562085_00343_40978_0119.N1	31-DEC-2009 20:50:44	Bright	56.000	104	27Bet Lib	2.6140	13100.	112	40978	No
339	GOM_NL__2PRFIN20091231_205323_000000442085_00343_40978_0120.N1	31-DEC-2009 20:53:23	Twilight	44.000	122	9Alp2Lib	2.7470	9700.0	88	40978	No
340	GOM_NL__2PRFIN20091231_210016_000000482085_00343_40978_0121.N1	31-DEC-2009 21:00:16	Dark	47.500	54	5The Cen	2.0550	4500.0	95	40978	No
341	GOM_NL__2PRFIN20091231_210302_000000432085_00343_40978_0122.N1	31-DEC-2009 21:03:02	Dark	42.500	95	Zet Cen	2.5450	26000.	85	40978	No
342	GOM_NL__2PRFIN20091231_224708_000000432085_00345_40980_0114.N1	31-DEC-2009 22:47:08	Dark	42.500	64	Gam Cen	2.2000	10600.	85	40980	No
343	GOM_NL__2PRFIN20091231_225318_000000522085_00345_40980_0115.N1	31-DEC-2009 22:53:18	Dark	52.000	113	Mu Vel	2.6920	5000.0	104	40980	No
344	GOM_NL__2PRFIN20091231_225553_000000442085_00345_40980_0116.N1	31-DEC-2009 22:55:53	Dark	44.000	71	Iot Car	2.2460	7700.0	88	40980	No
345	GOM_NL__2PRFIN20091231_225728_000000482085_00345_40980_0117.N1	31-DEC-2009 22:57:28	Dark	47.500	41	Eps Car	1.8600	4100.0	95	40980	No
346	GOM_NL__2PRFIN20091231_230038_000000462085_00345_40980_0118.N1	31-DEC-2009 23:00:38	Dark	46.000	34	Gam2Vel	1.7930	23000.	92	40980	No
347	GOM_NL__2PRFIN20091231_230250_000000472085_00345_40980_0119.N1	31-DEC-2009 23:02:50	Dark	46.500	70	Zet Pup	2.2460	39000.	93	40980	No
348	GOM_NL__2PRFIN20091231_230455_000000482085_00345_40980_0120.N1	31-DEC-2009 23:04:55	Dark	47.500	117	Pi Pup	2.7060	3800.0	95	40980	No
349	GOM_NL__2PRFIN20091231_230743_000000442085_00345_40980_0121.N1	31-DEC-2009 23:07:43	Straylight	44.000	23	21Eps CMa	1.5020	26000.	88	40980	No
350	GOM_NL__2PRFIN20091231_230916_000000452085_00345_40980_0122.N1	31-DEC-2009 23:09:16	Straylight	45.000	179	24Omi2CMa	3.0320	24000.	90	40980	No
351	GOM_NL__2PRFIN20091231_231144_000000472085_00345_40980_0123.N1	31-DEC-2009 23:11:44	Straylight	46.500	1	9Alp CMa	-1.4400	11000.	93	40980	No
352	GOM_NL__2PRFIN20091231_231414_000000362085_00345_40980_0124.N1	31-DEC-2009 23:14:14	Straylight	36.000	56	53Kap Ori	2.0650	30000.	72	40980	No
353	GOM_NL__2PRFIN20091231_231644_000000422085_00345_40980_0125.N1	31-DEC-2009 23:16:44	Straylight	41.500	30	46Eps Ori	1.6940	30000.	83	40980	No
354	GOM_NL__2PRFIN20091231_231915_000000552085_00345_40980_0126.N1	31-DEC-2009 23:19:15	Twilight	55.000	14	58Alp Ori	0.87000	3000.0	110	40980	No
355	GOM_NL__2PRFIN20091231_232232_000000632085_00345_40980_0127.N1	31-DEC-2009 23:22:32	Bright	63.000	44	24Gam Gem	1.9280	11000.	126	40980	No
356	GOM_NL__2PRFIN20091231_232410_000000512085_00345_40980_0128.N1	31-DEC-2009 23:24:10	Bright	50.500	151	13Mu Gem	2.8900	3000.0	101	40980	No
357	GOM_NL__2PRFIN20091231_232810_000000392085_00345_40980_0129.N1	31-DEC-2009 23:28:10	Bright	38.500	107	37The Aur	2.6490	11000.	77	40980	No
358	GOM_NL__2PRFIN20091231_233015_000000422085_00345_40980_0130.N1	31-DEC-2009 23:30:15	Bright	41.500	6	13Alp Aur	0.080000	3400.0	83	40980	No
359	GOM_NL__2PRFIN20091231_234654_000000362085_00345_40980_0131.N1	31-DEC-2009 23:46:54	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	40980	No
360	GOM_NL__2PRFIN20091231_235035_000000492085_00345_40980_0132.N1	31-DEC-2009 23:50:35	Bright	48.500	32	77Eps UMa	1.7630	11000.	97	40980	No
361	GOM_NL__2PRFIN20091231_235352_000000482085_00345_40980_0133.N1	31-DEC-2009 23:53:52	Bright	47.500	39	85Eta UMa	1.8540	24000.	95	40980	No
362	GOM_NL__2PRFIN20091231_235756_000000622085_00345_40980_0134.N1	31-DEC-2009 23:57:56	Bright	62.000	180	27Gam Boo	3.0400	8000.0	124	40980	No

3. Quality information per product

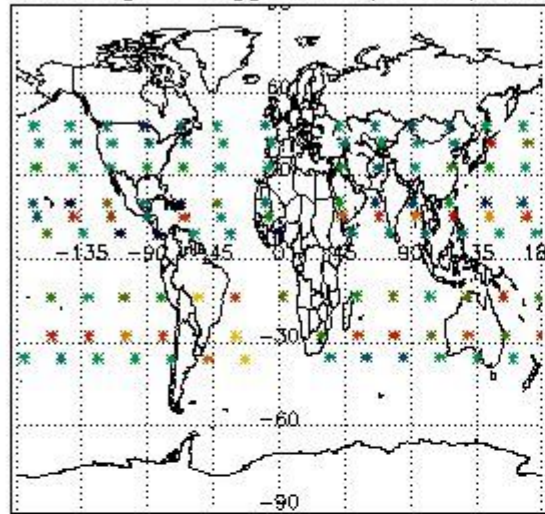
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

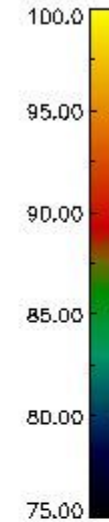
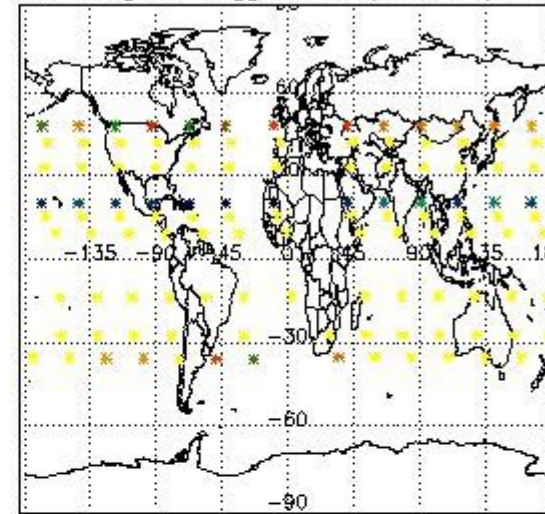


3.2 Plot quality information per product (world map)

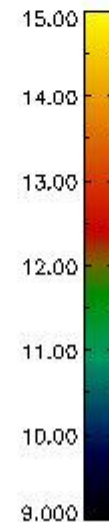
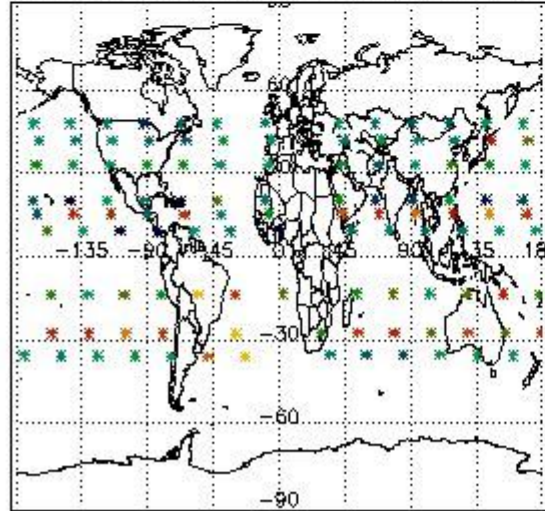
Percentage of flagged data per O3 profile



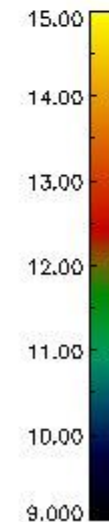
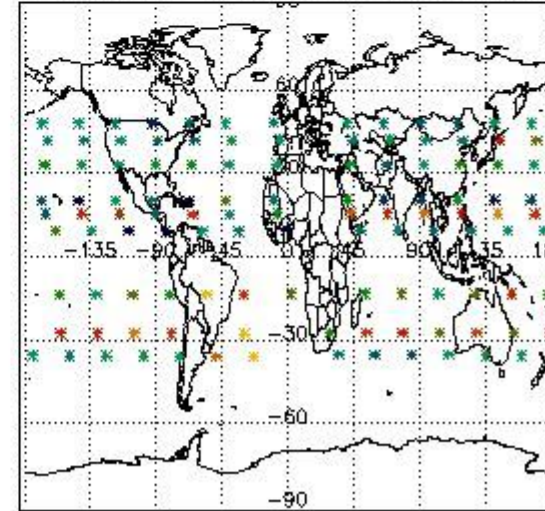
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

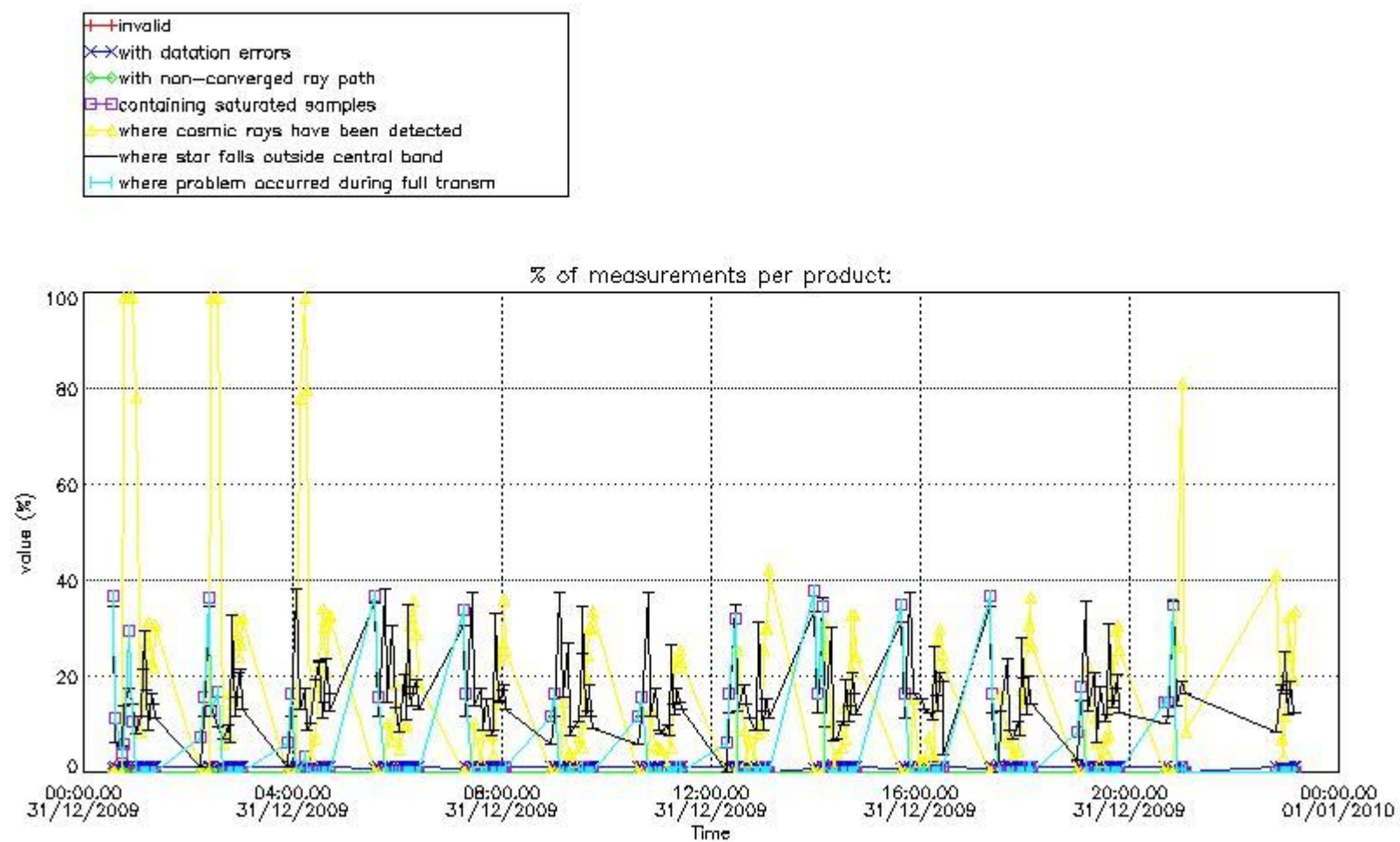


4. Level 1 quality information per product

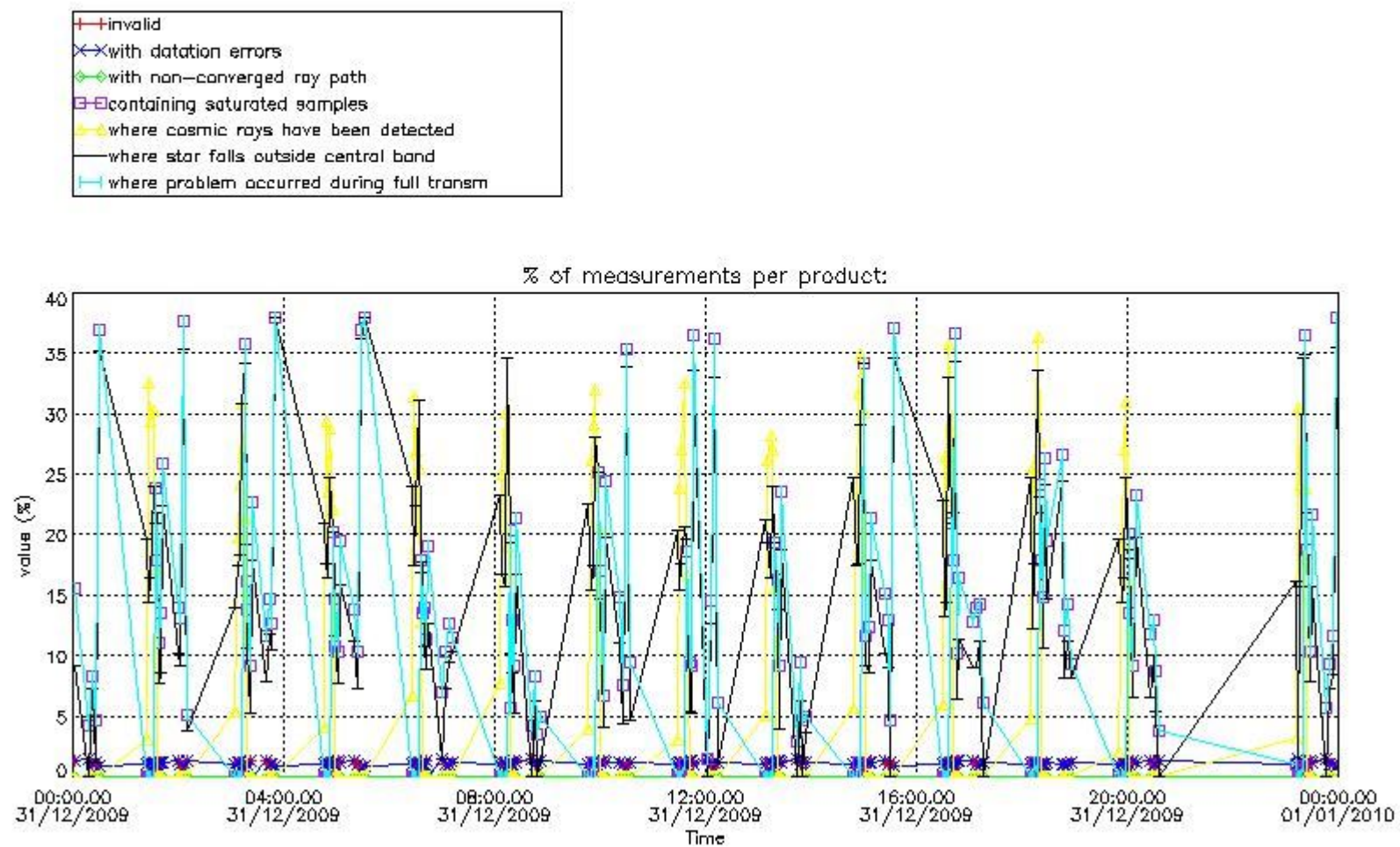
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

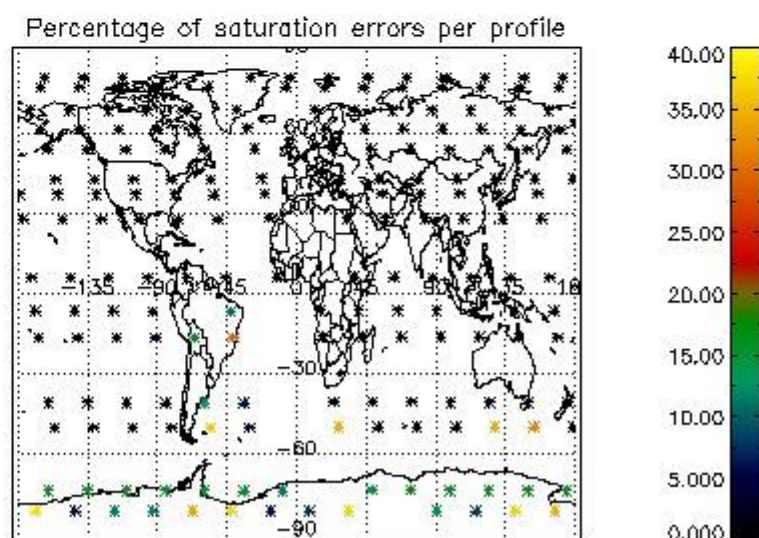
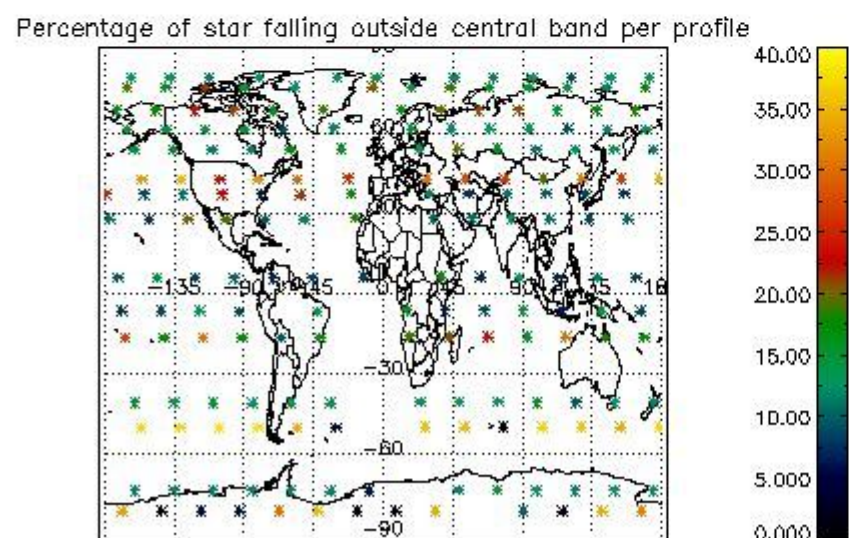
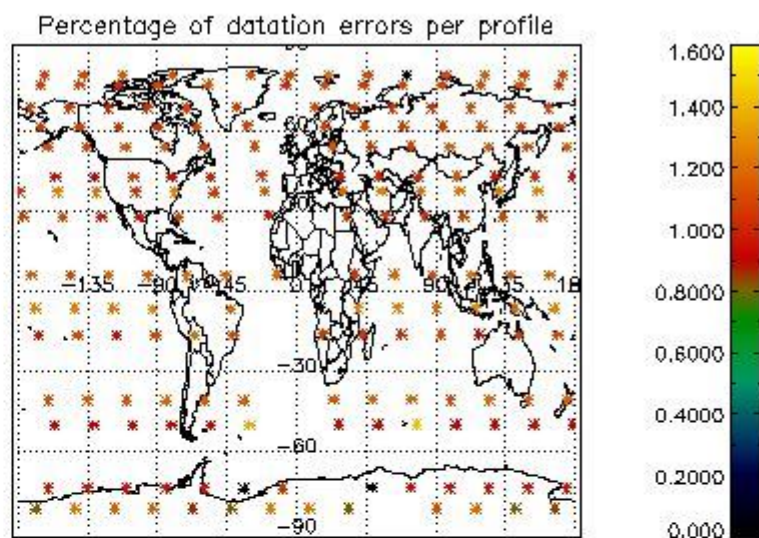
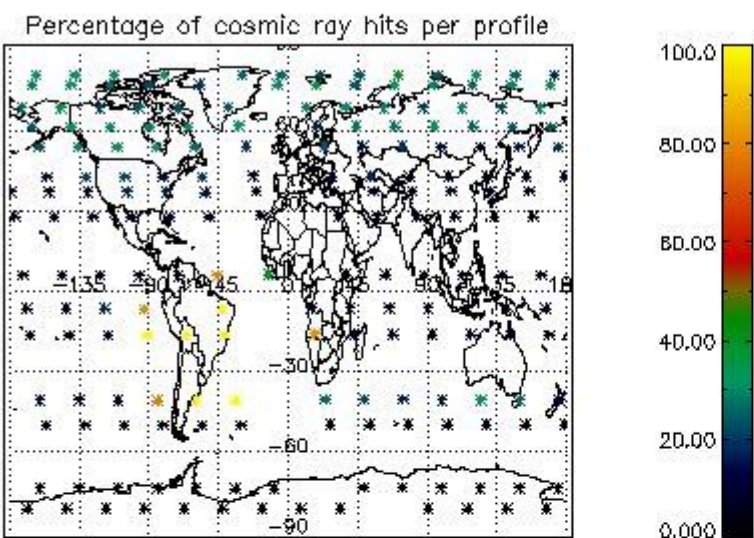


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

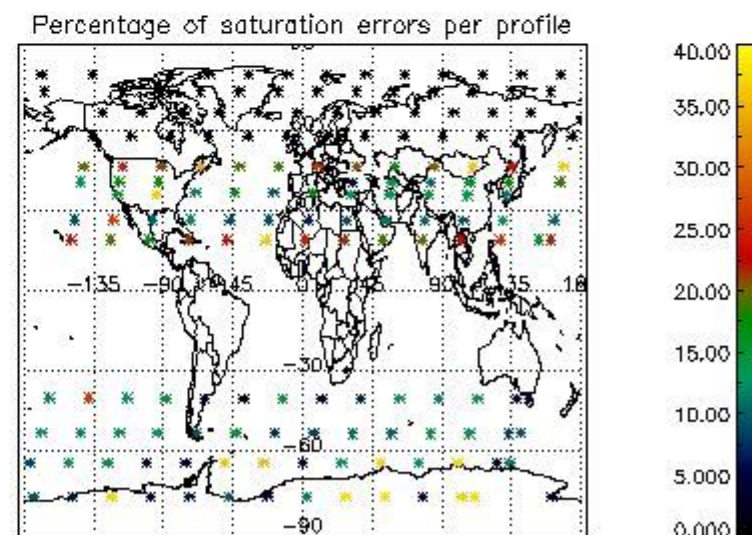
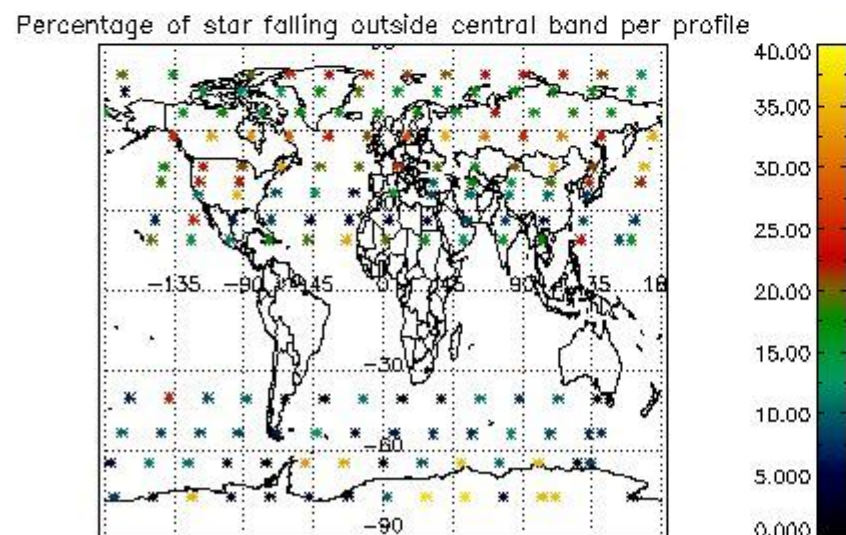
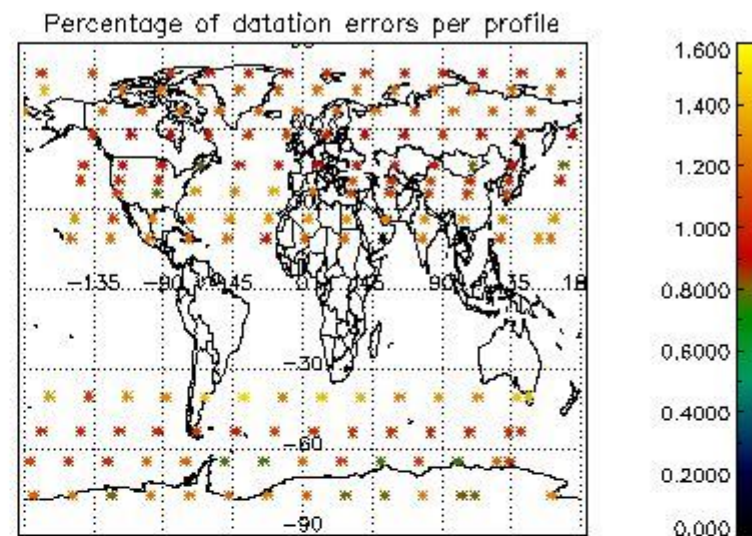
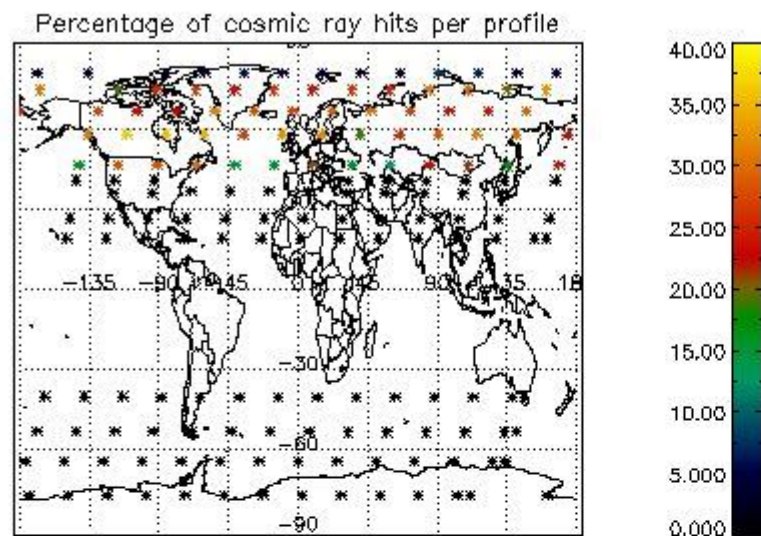


4.2 Plot quality information per product coming from level 1b processing (world map)

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

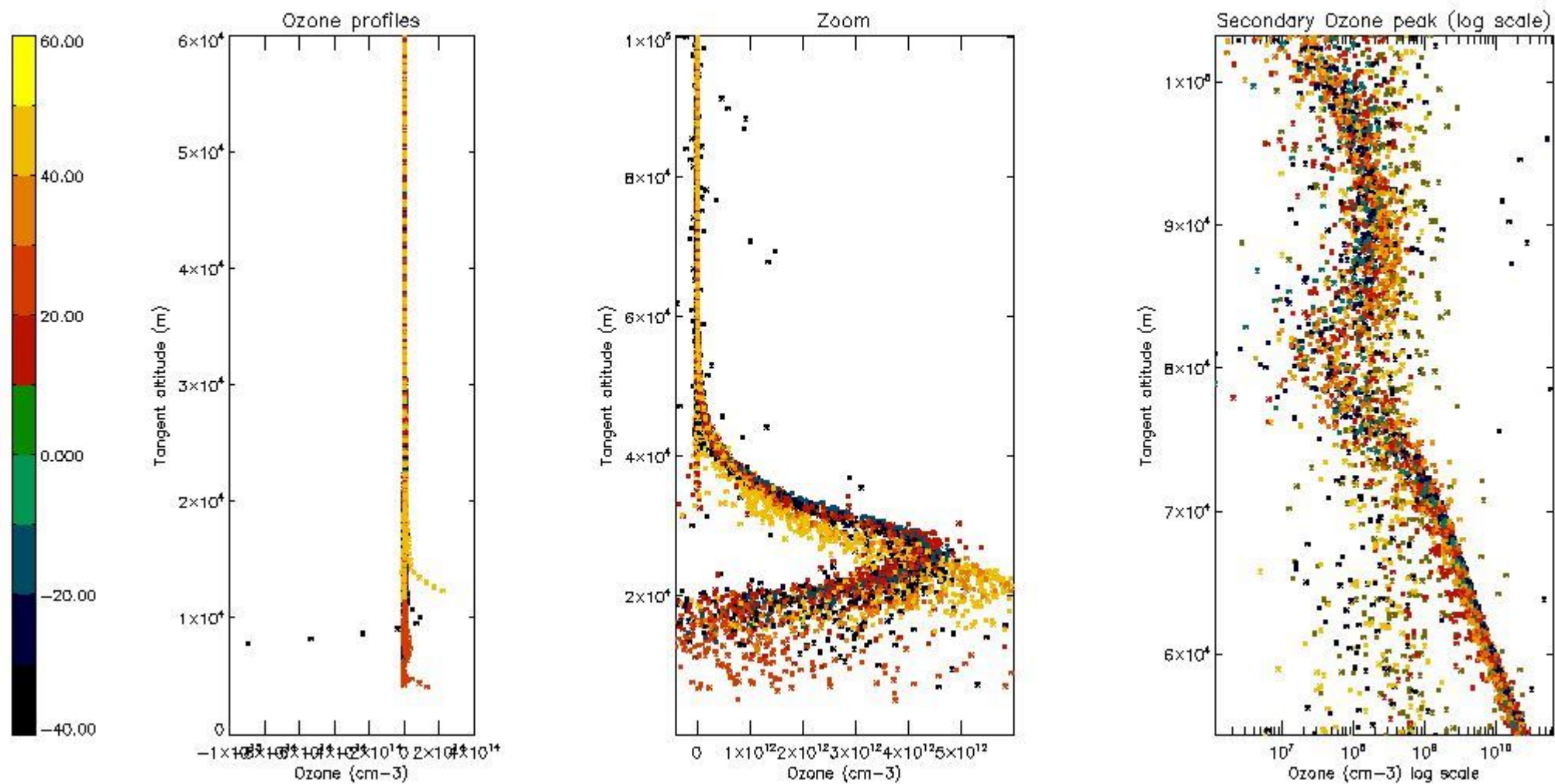
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	14

STD < 10	11
STD < 5	6

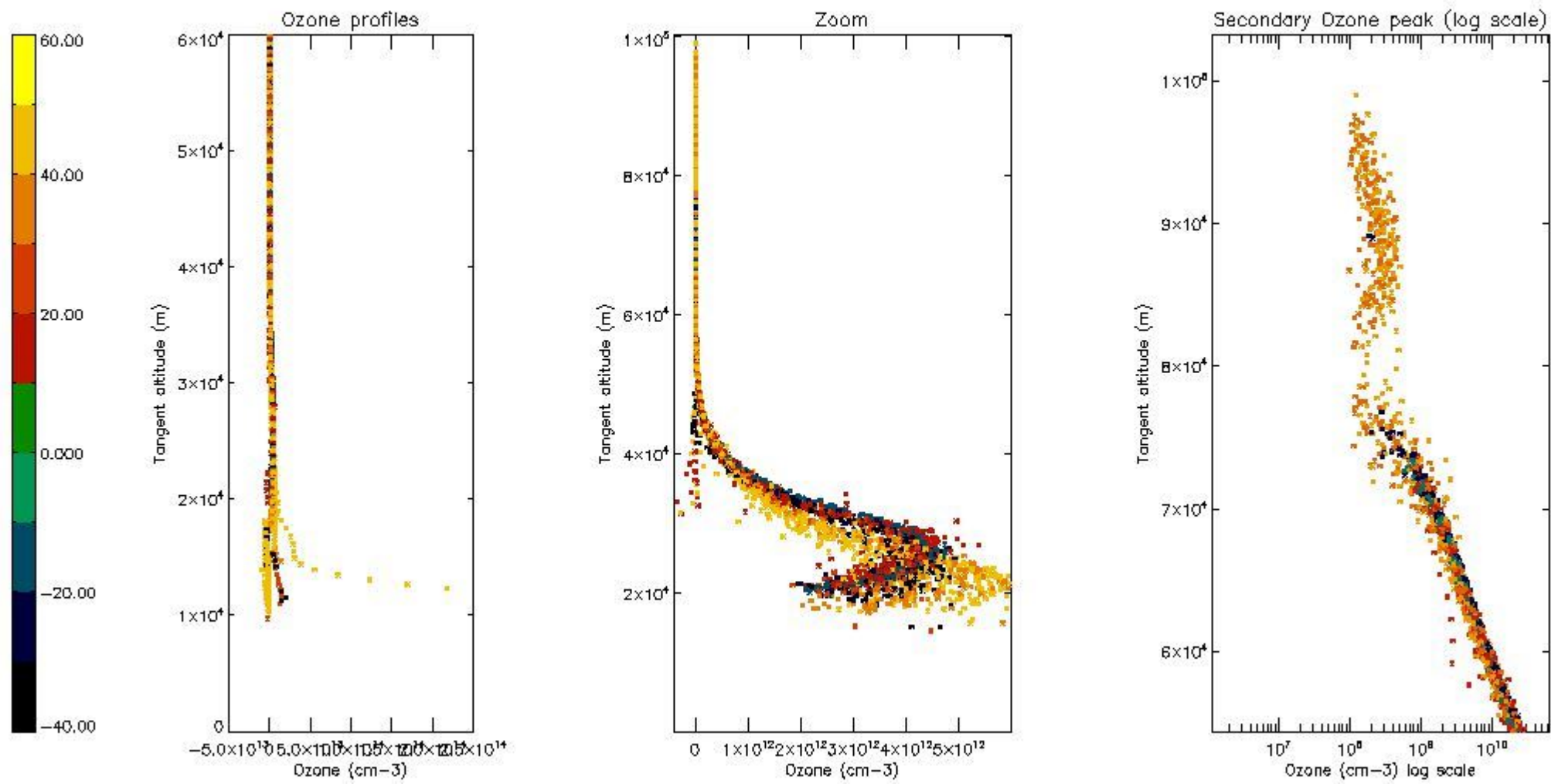
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



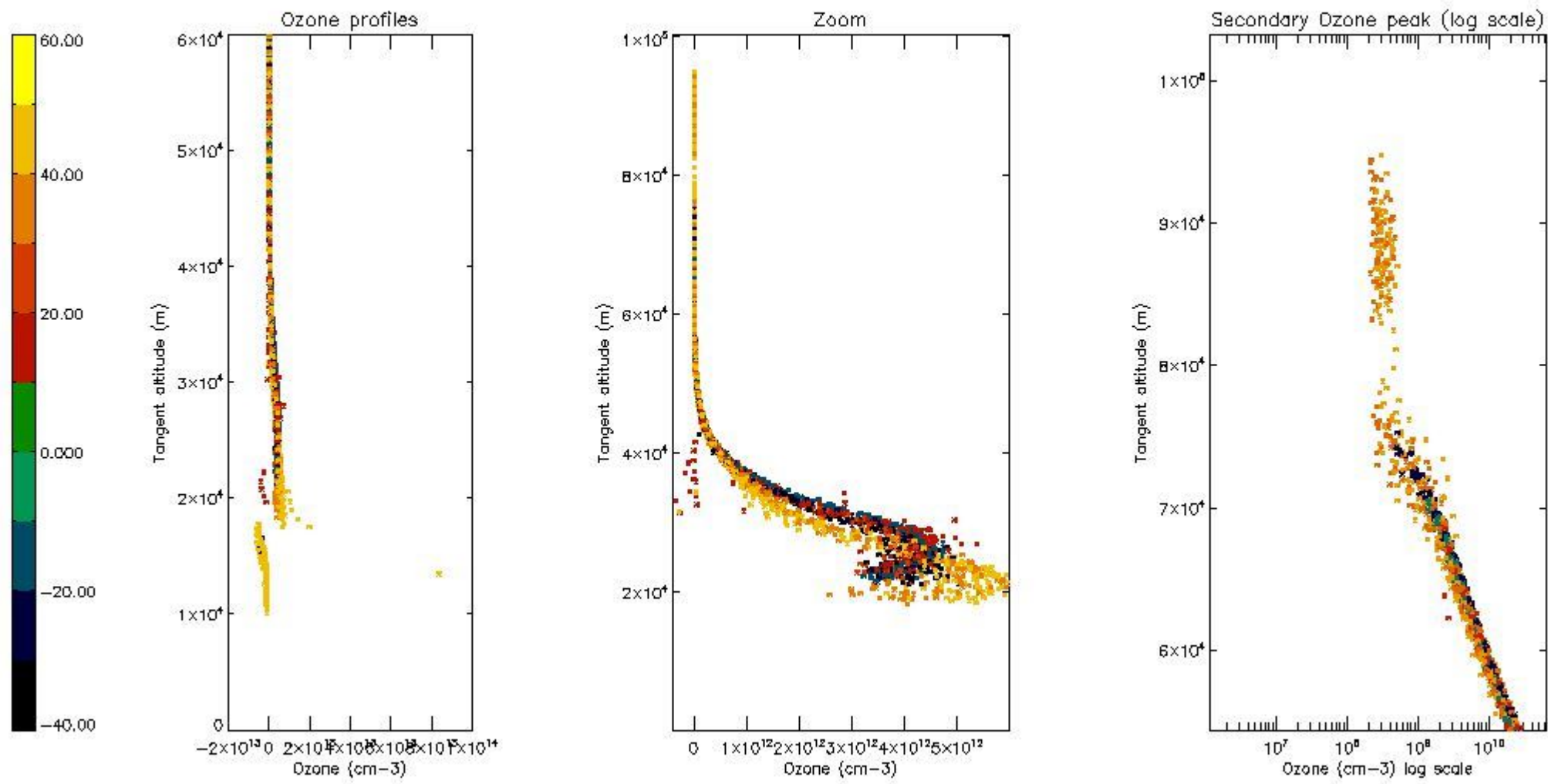
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



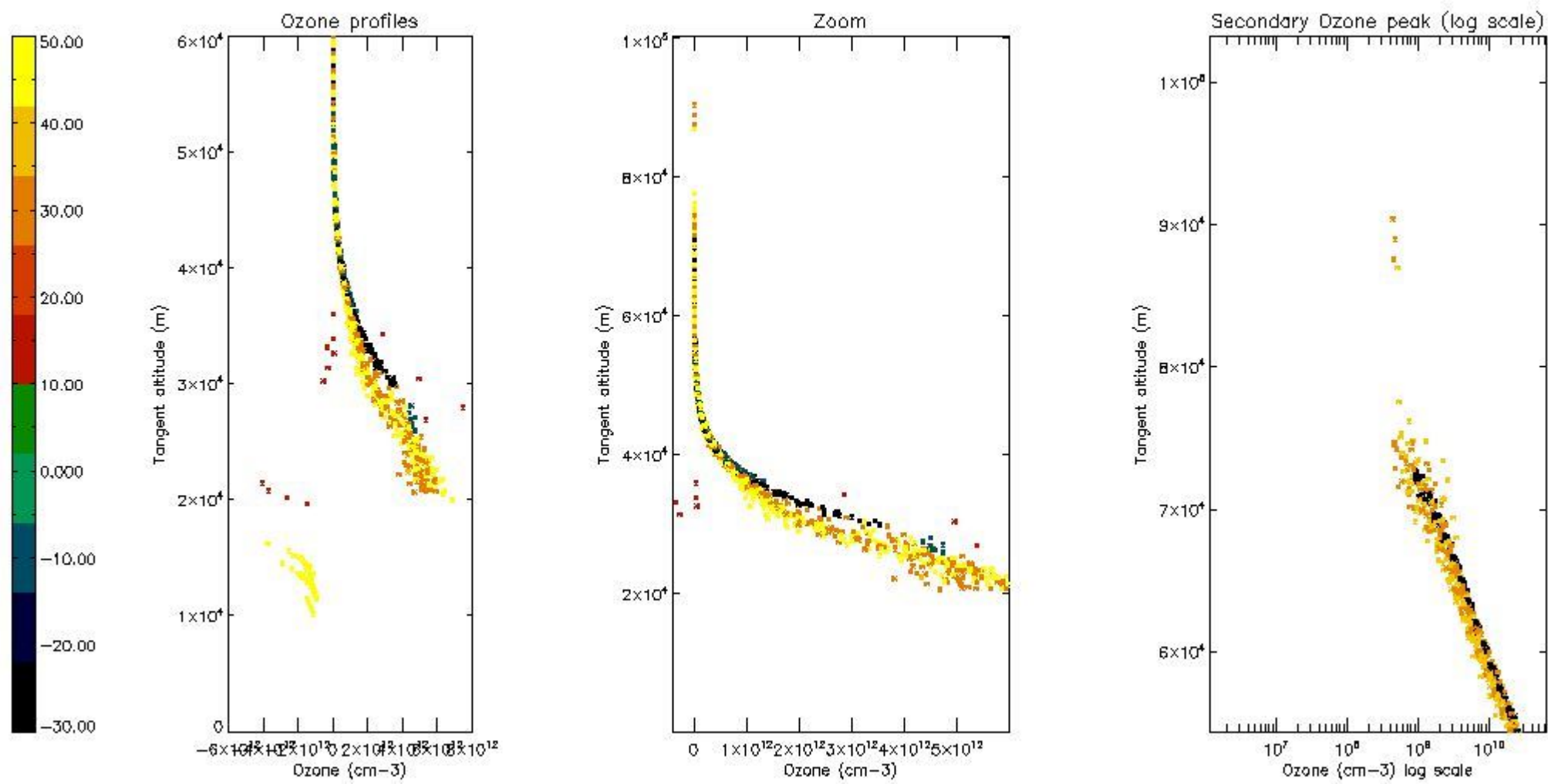
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



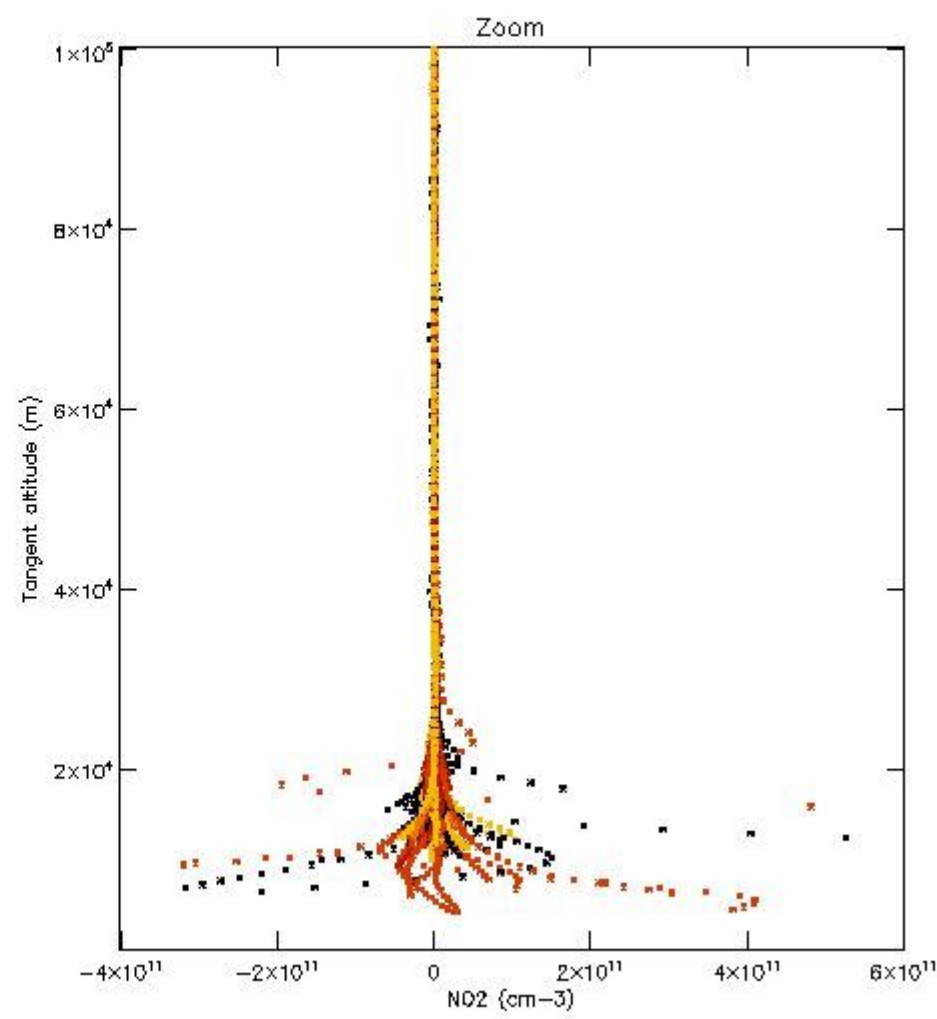
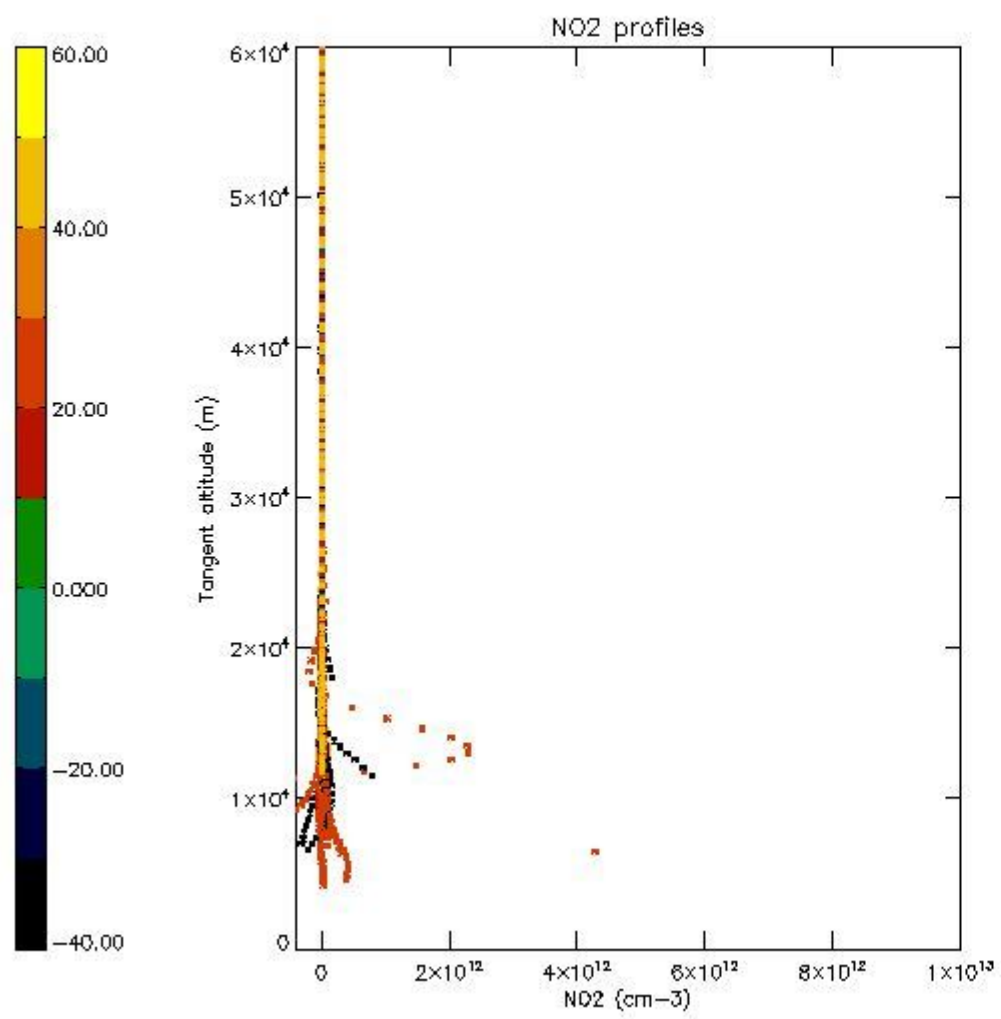
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



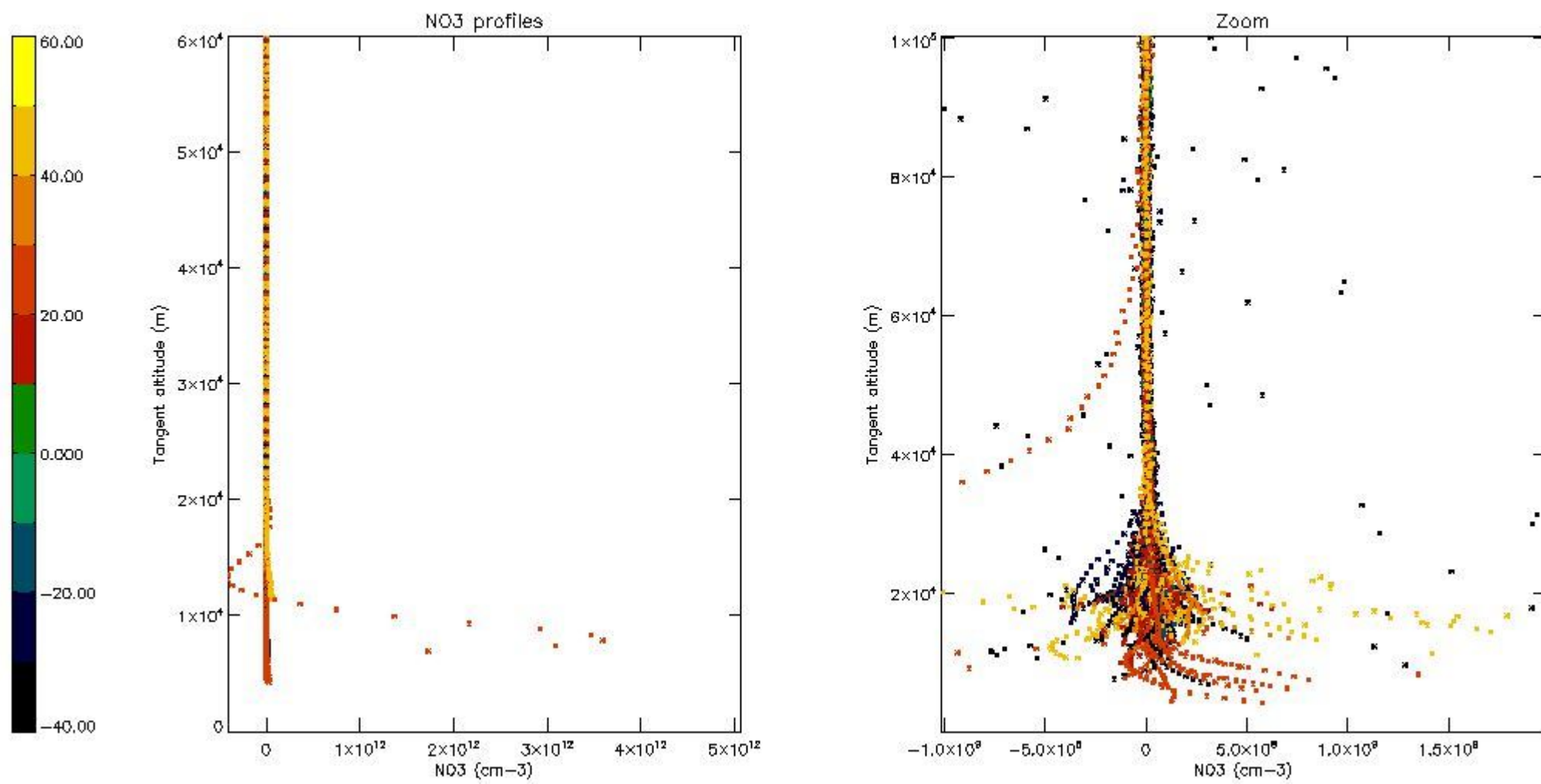
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



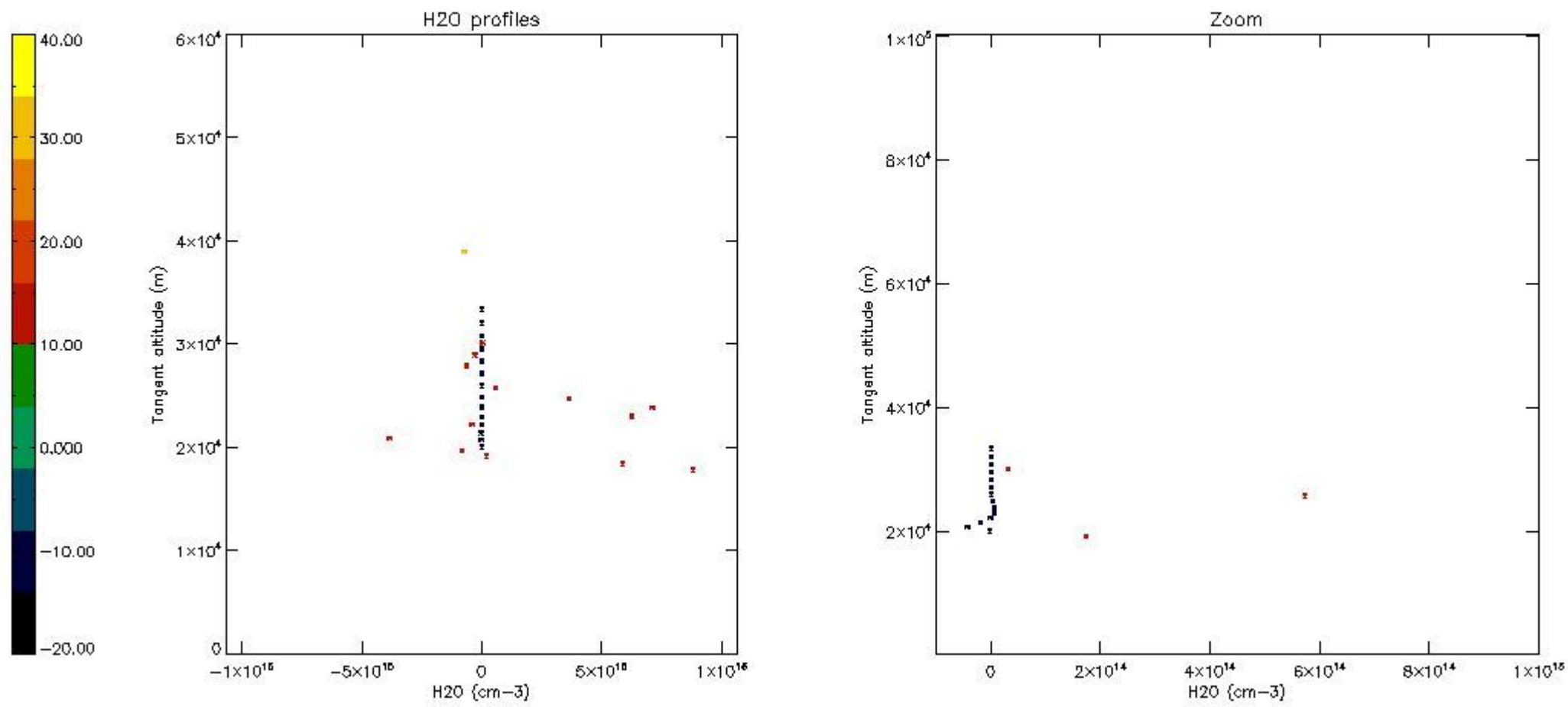
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

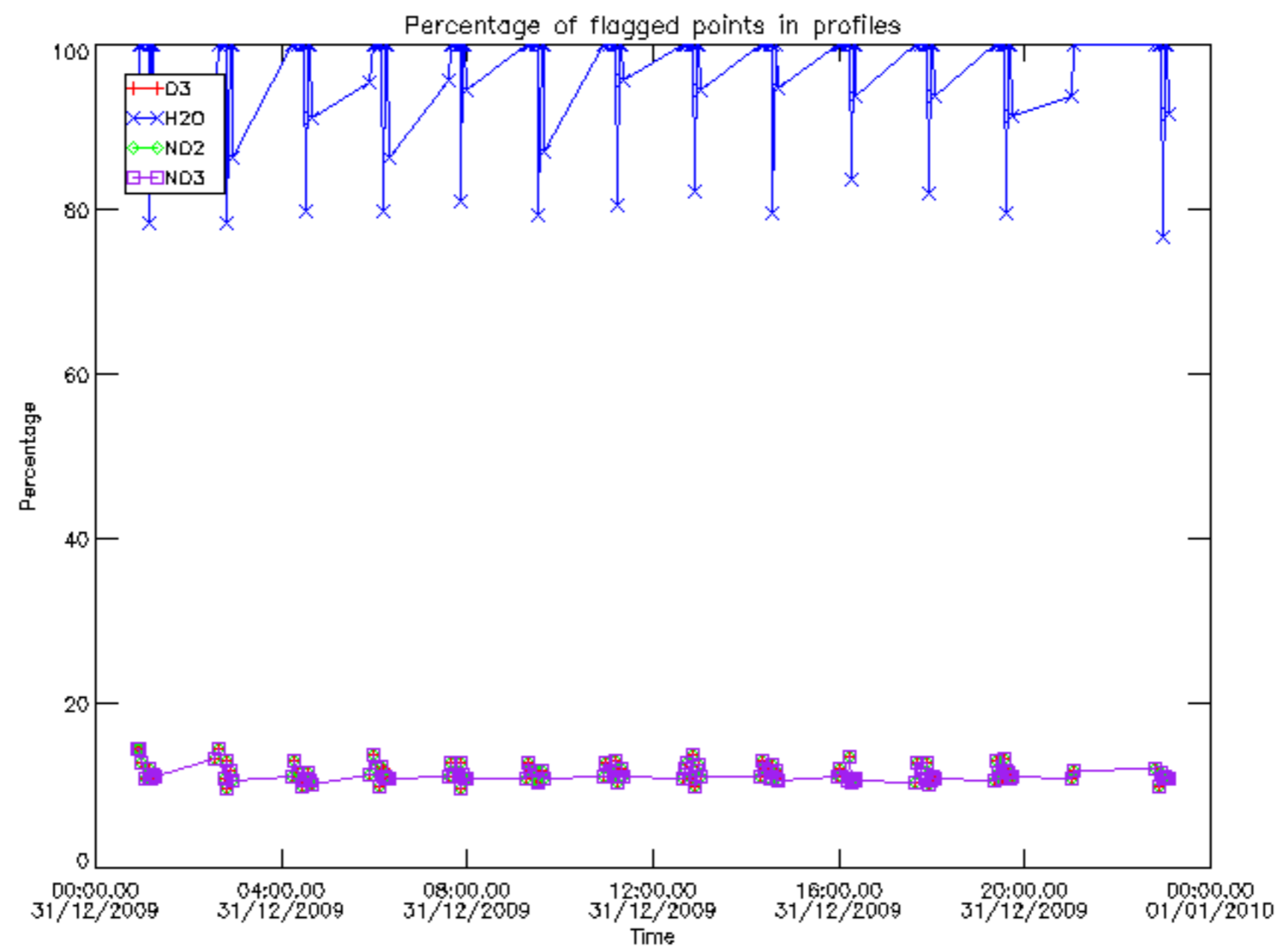
The colorbar represents the latitude.



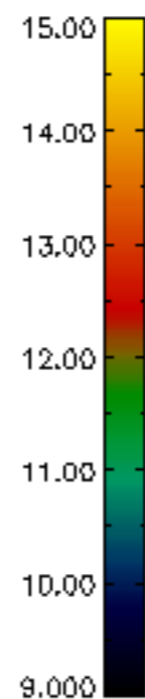
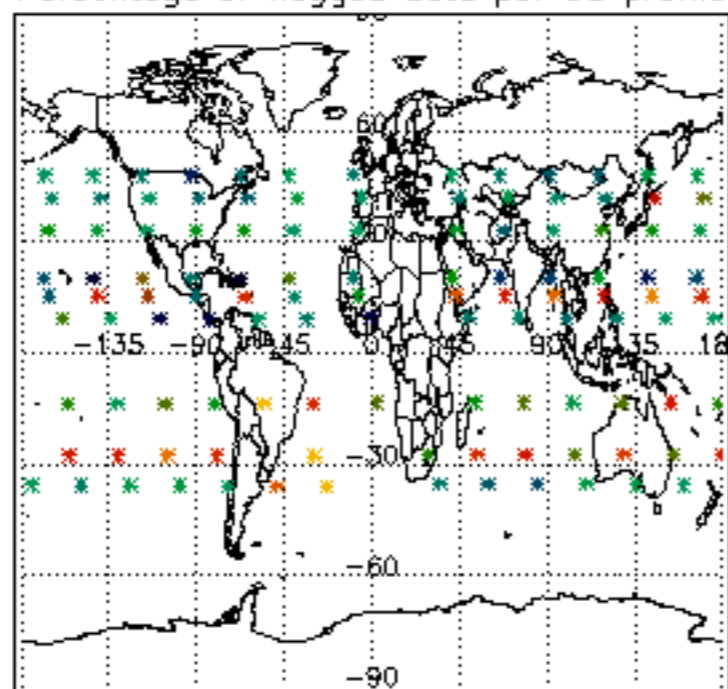
6. Auxiliary Data Files used for the production reported in section 2

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.

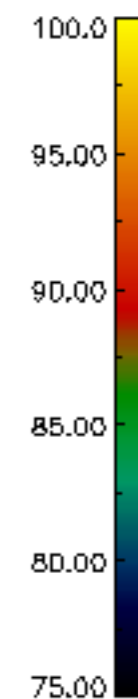
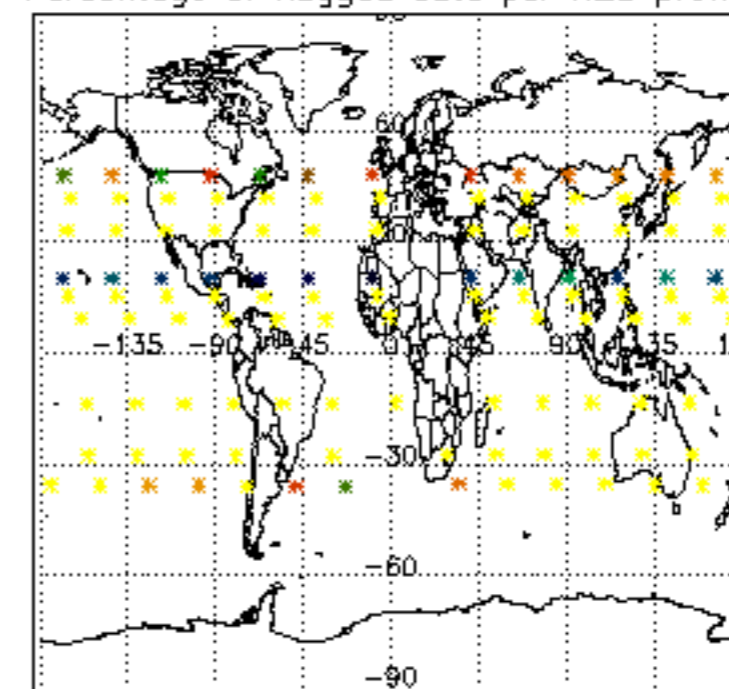
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	31-DEC-2009 00:01:54
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	31-DEC-2009 00:01:54
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	31-DEC-2009 00:01:54



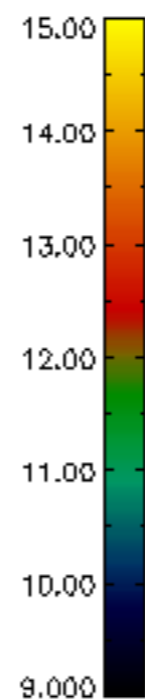
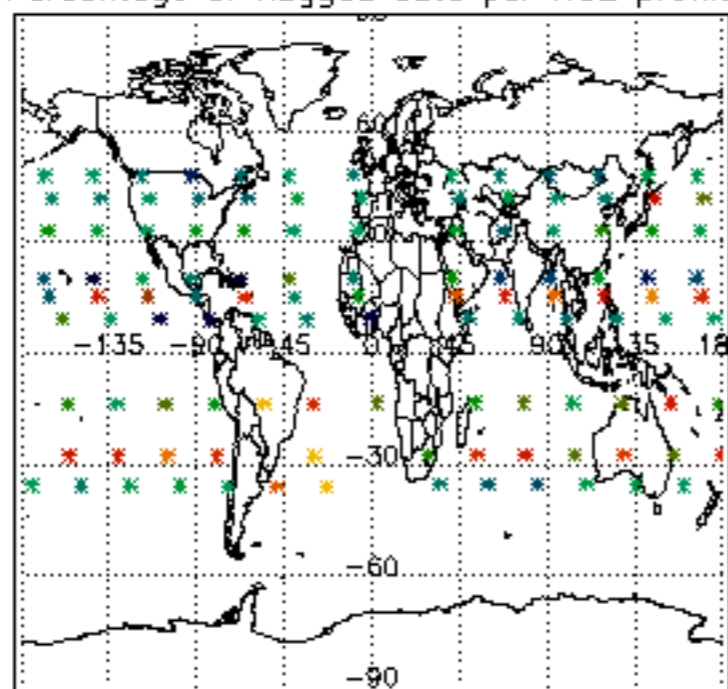
Percentage of flagged data per D3 profile



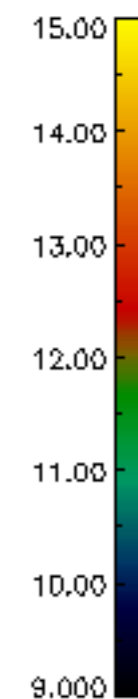
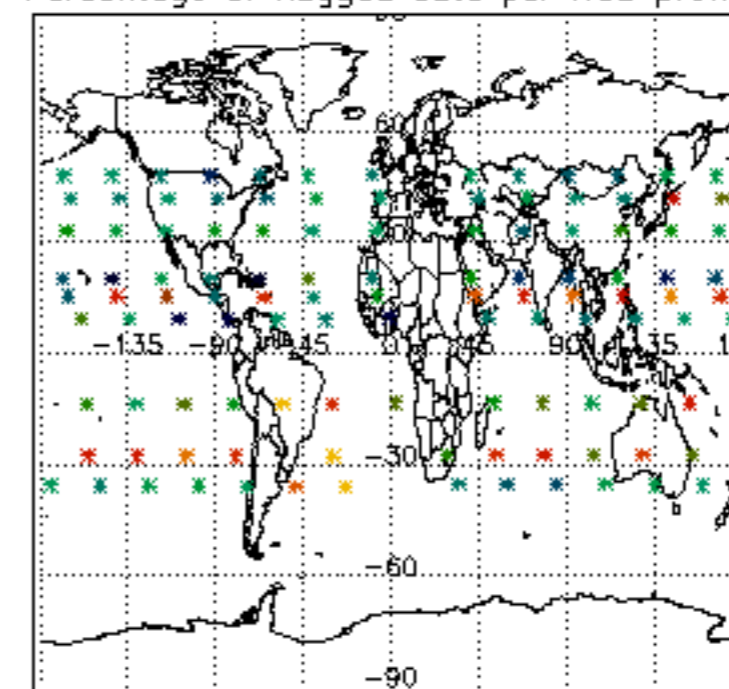
Percentage of flagged data per H2O profile

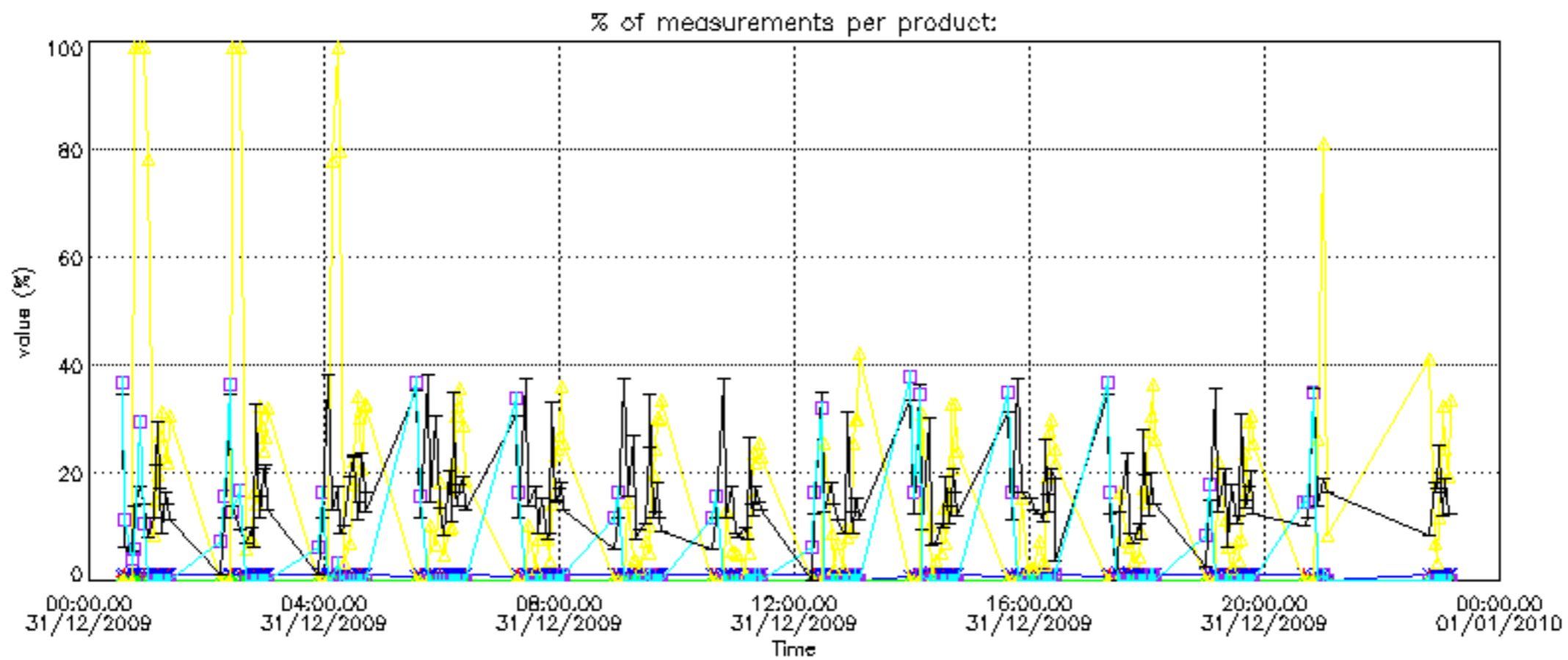


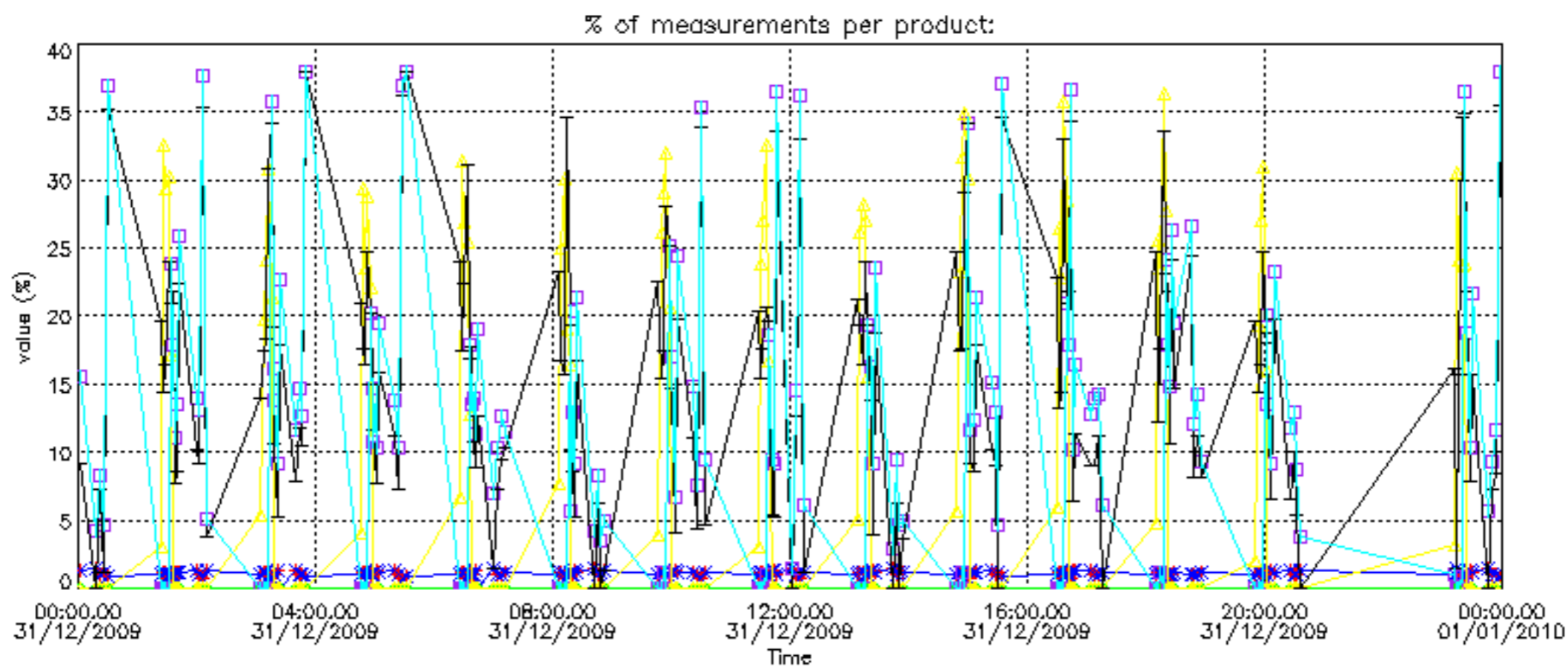
Percentage of flagged data per NO2 profile



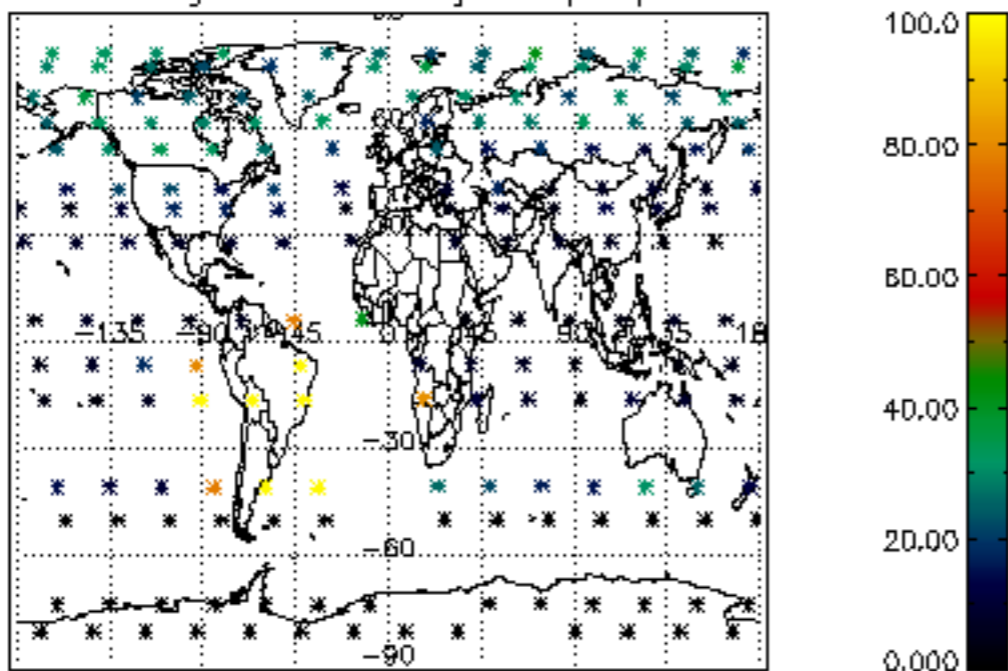
Percentage of flagged data per NO3 profile



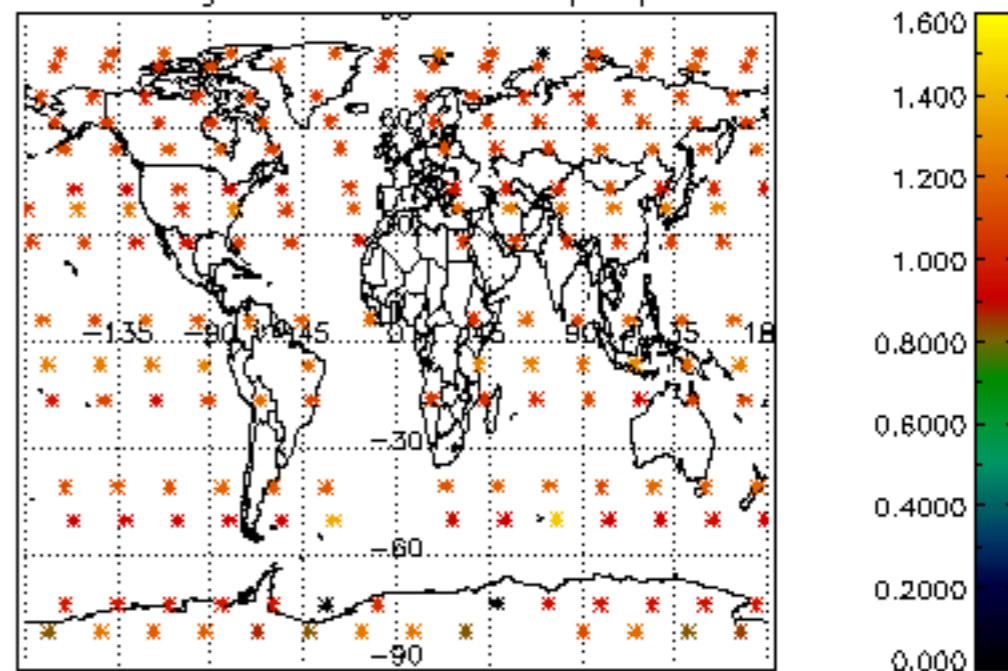




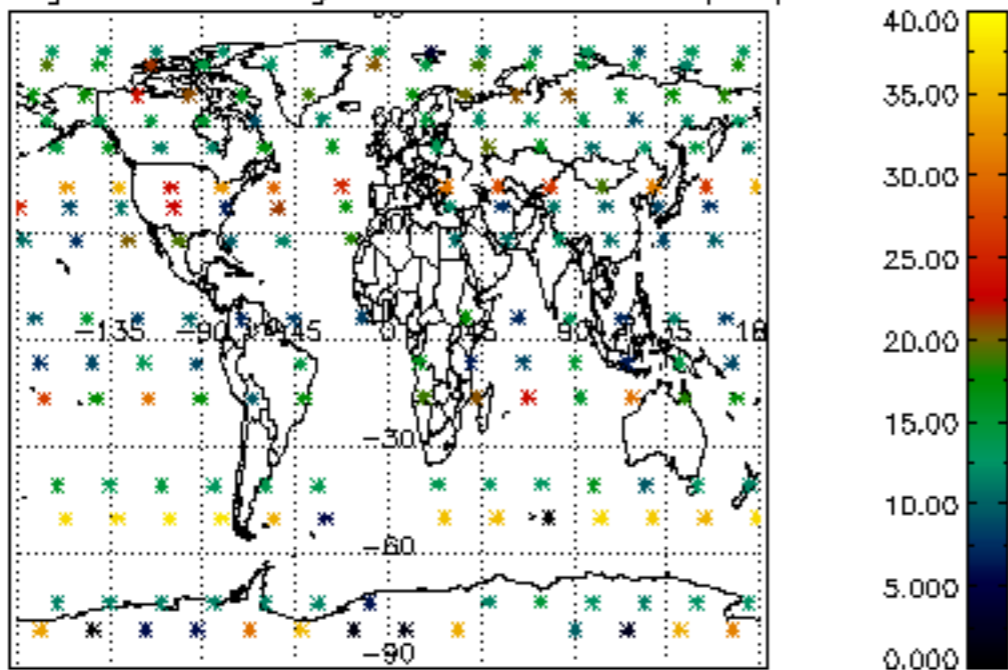
Percentage of cosmic ray hits per profile



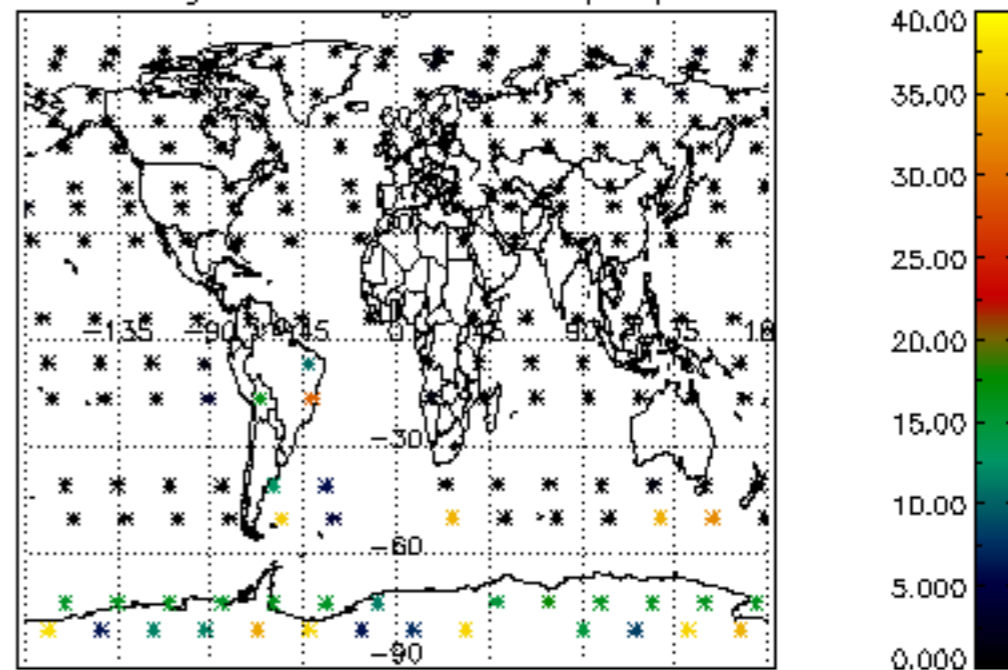
Percentage of datation errors per profile



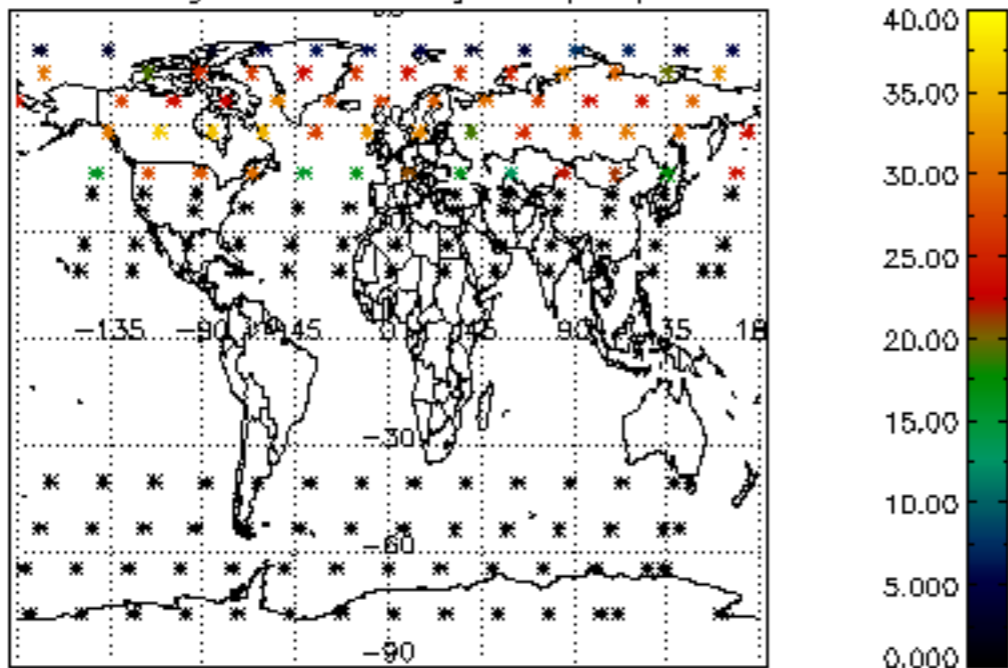
Percentage of star falling outside central band per profile



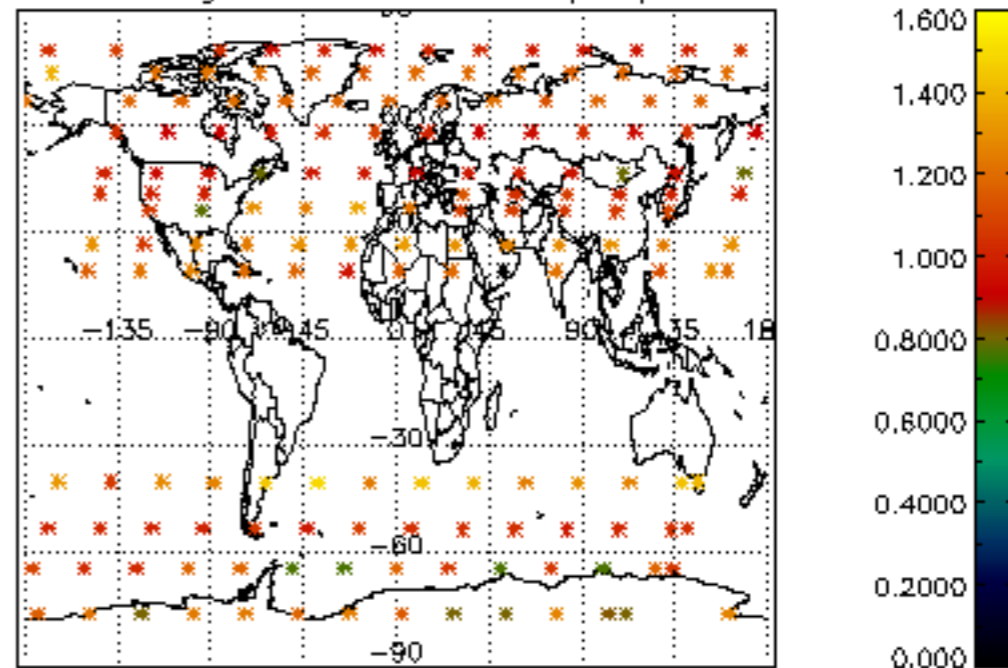
Percentage of saturation errors per profile



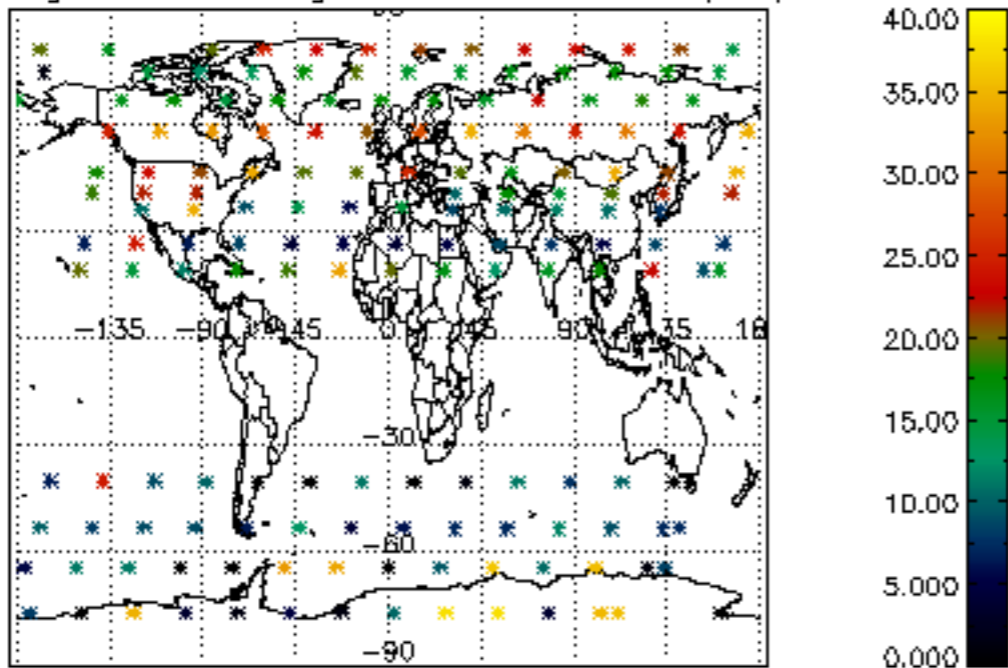
Percentage of cosmic ray hits per profile



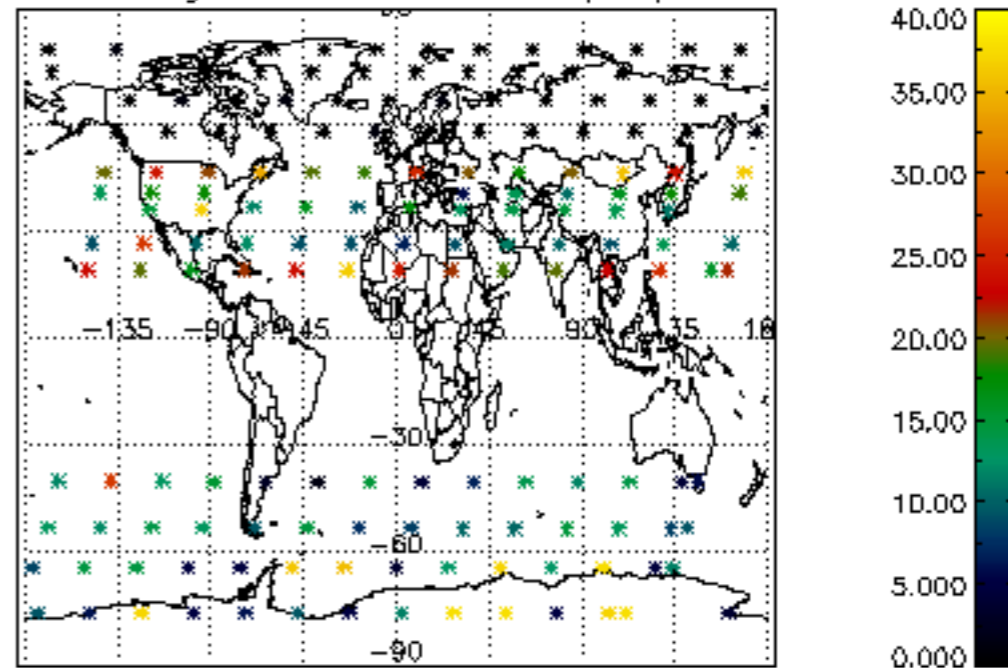
Percentage of datation errors per profile

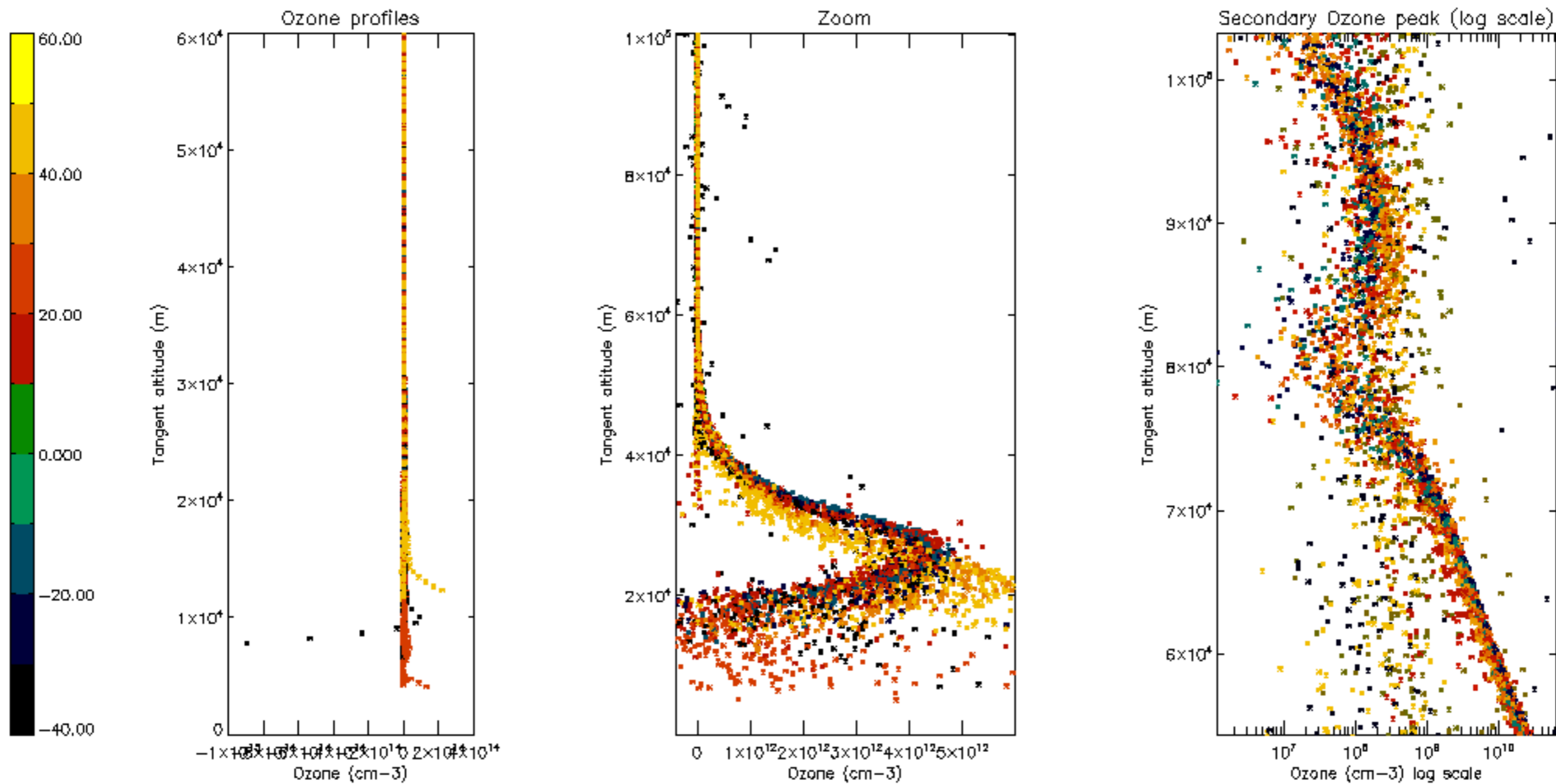


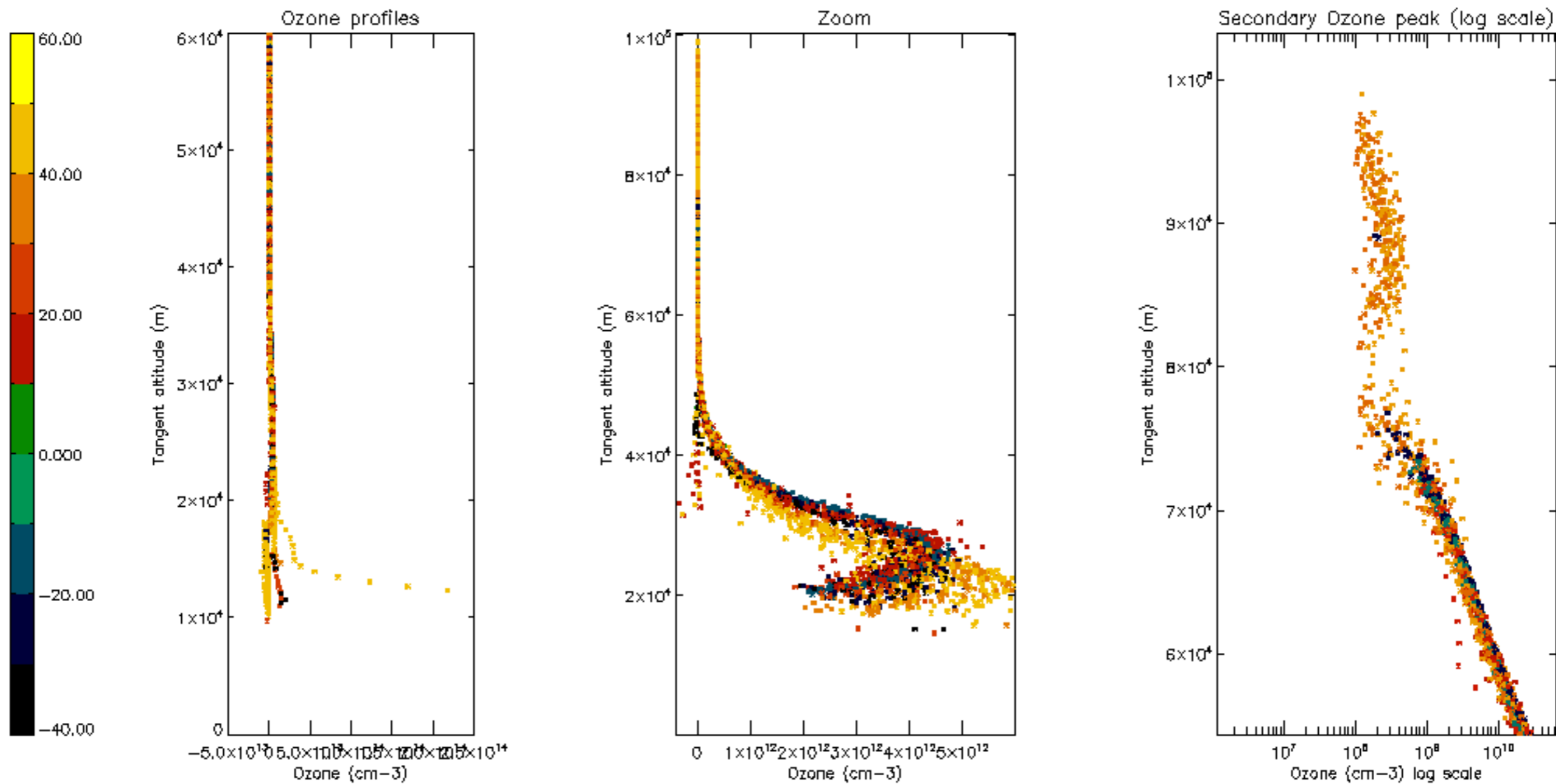
Percentage of star falling outside central band per profile

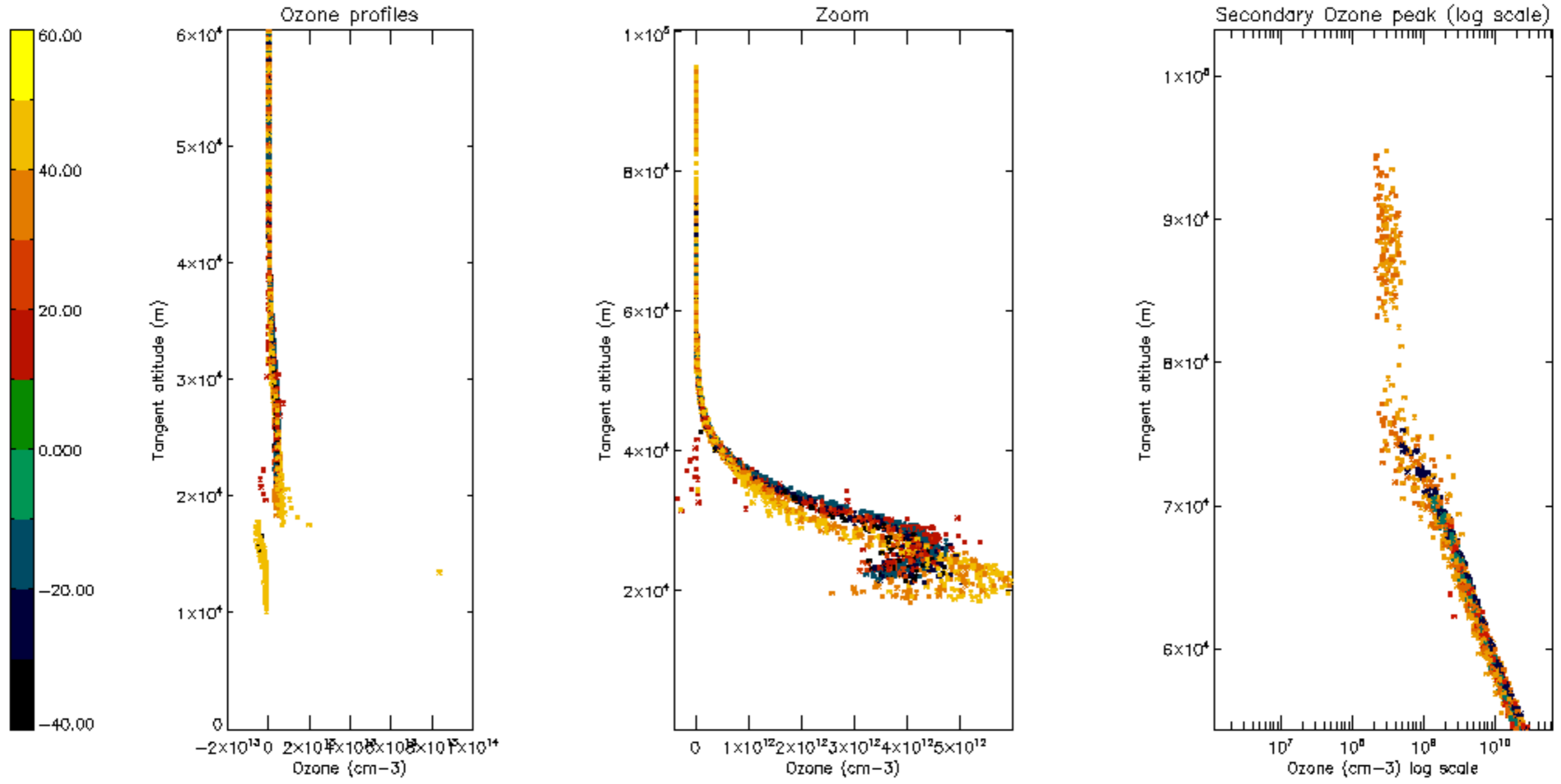


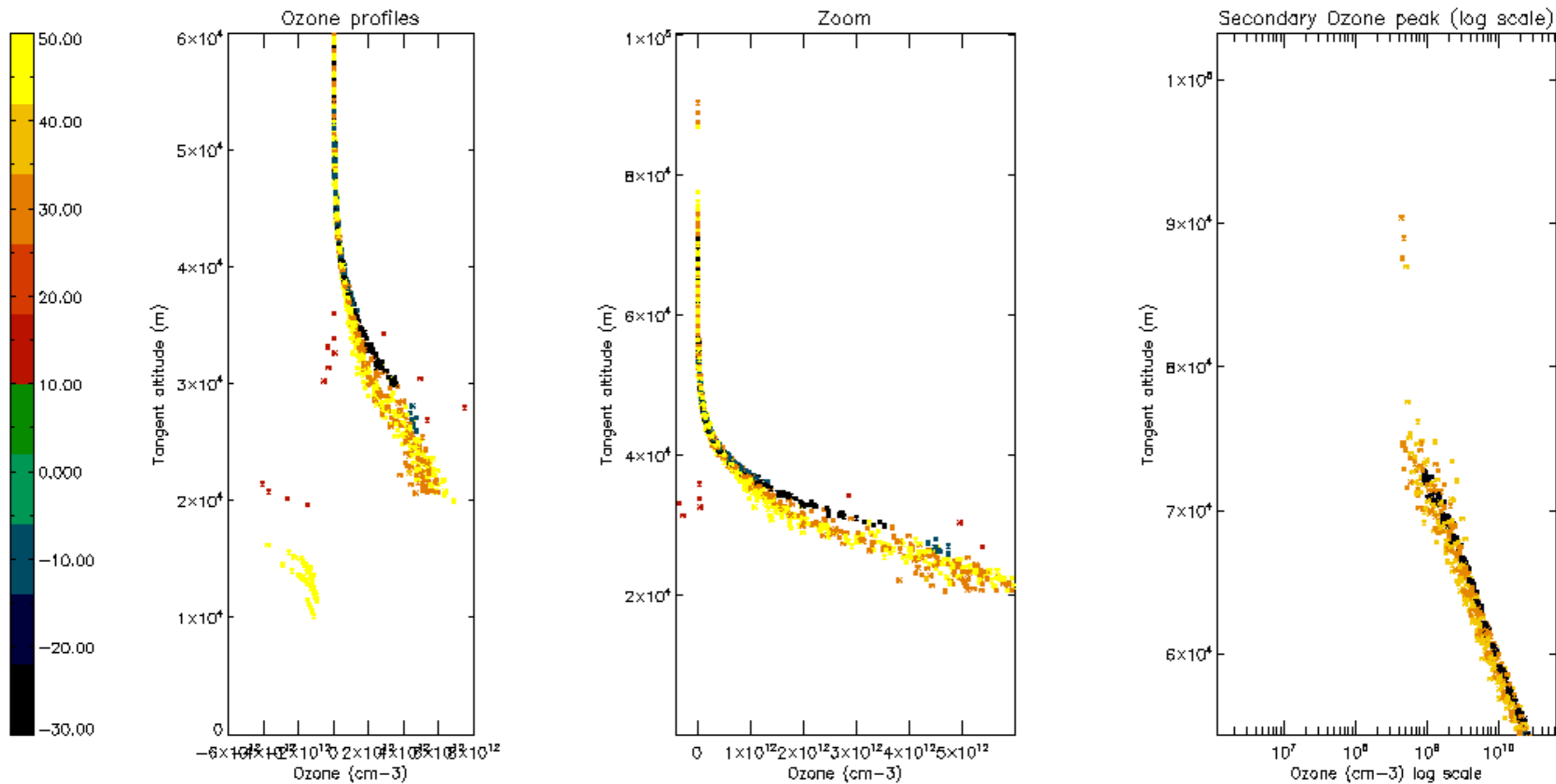
Percentage of saturation errors per profile

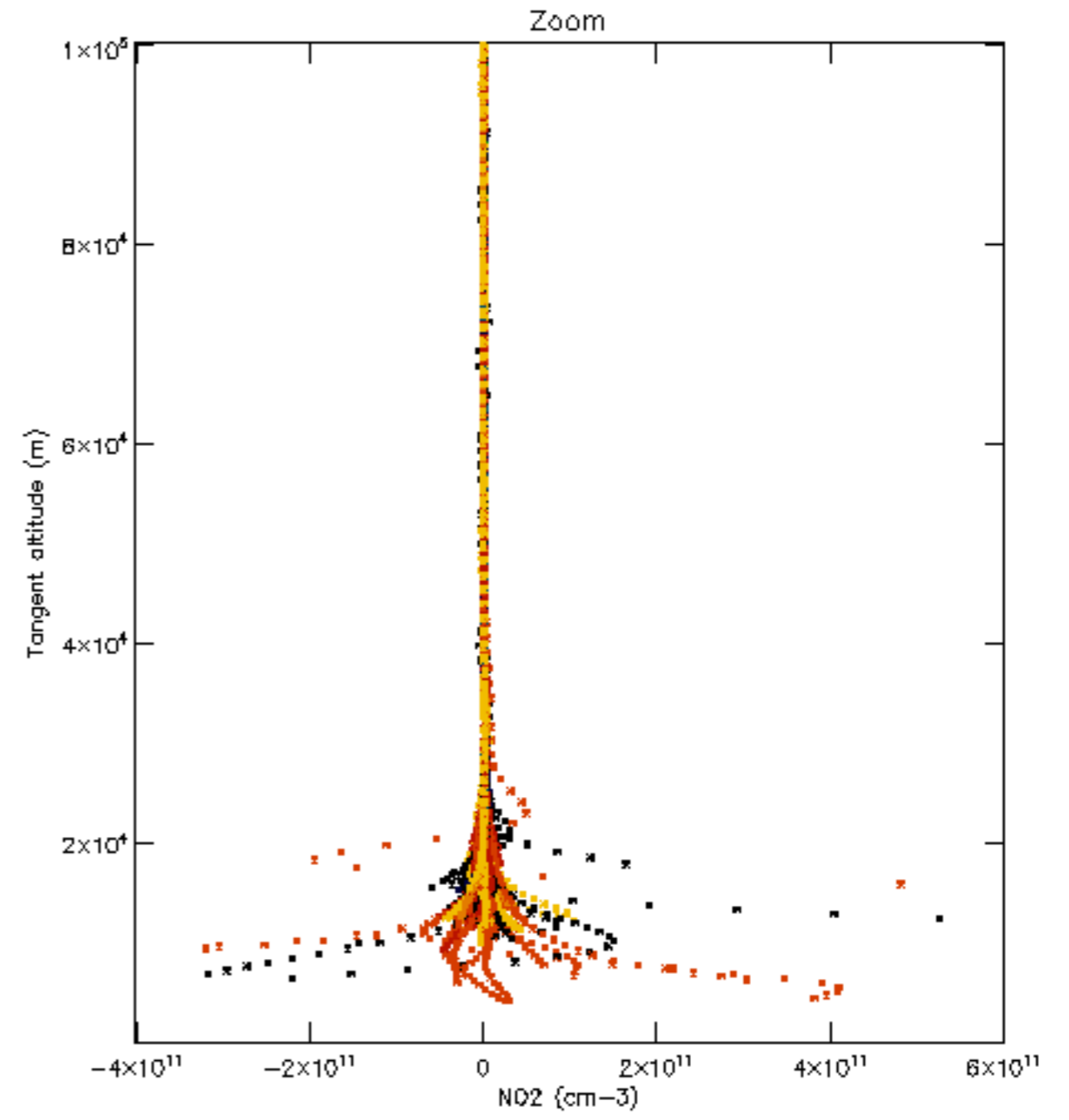
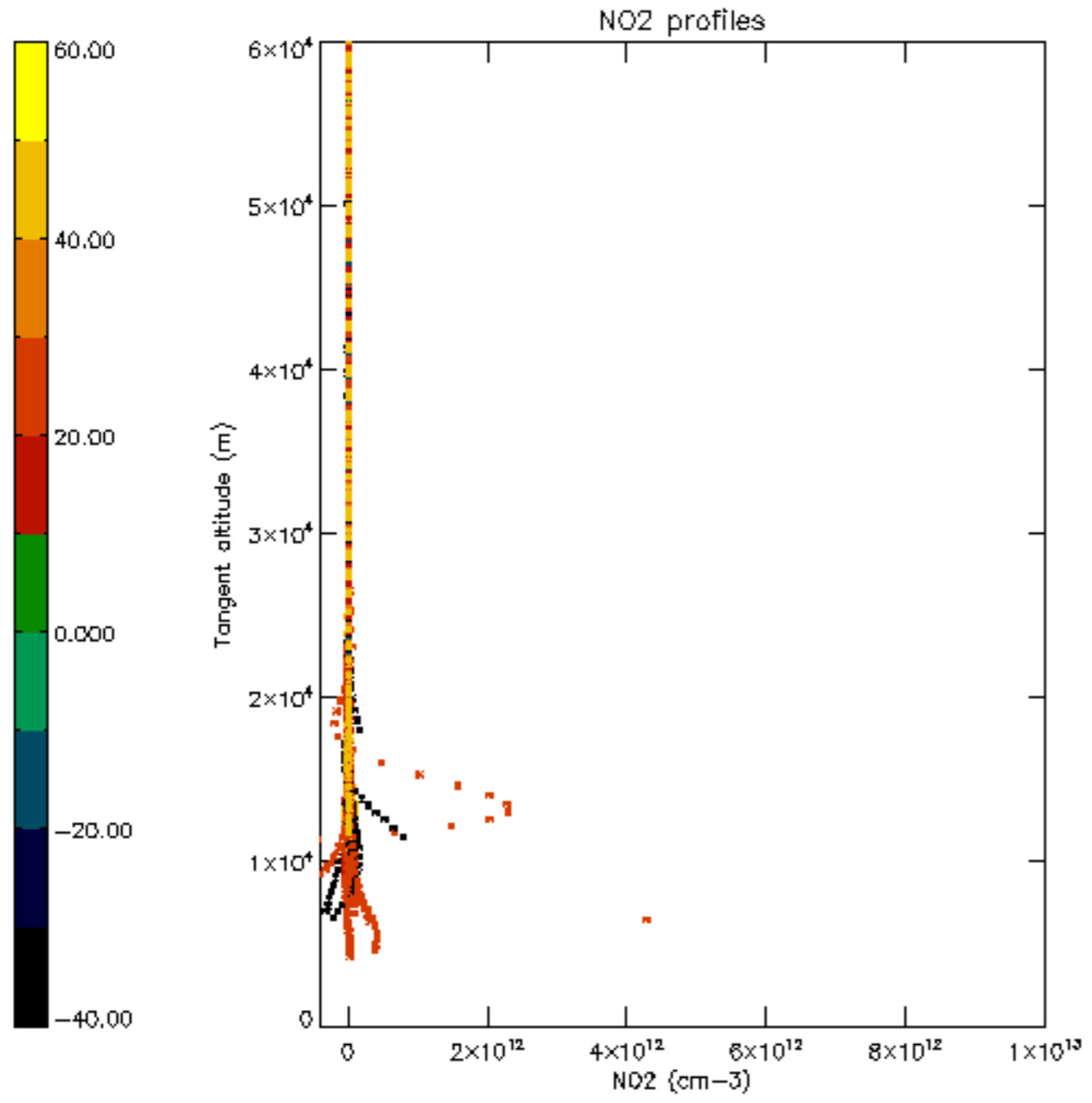


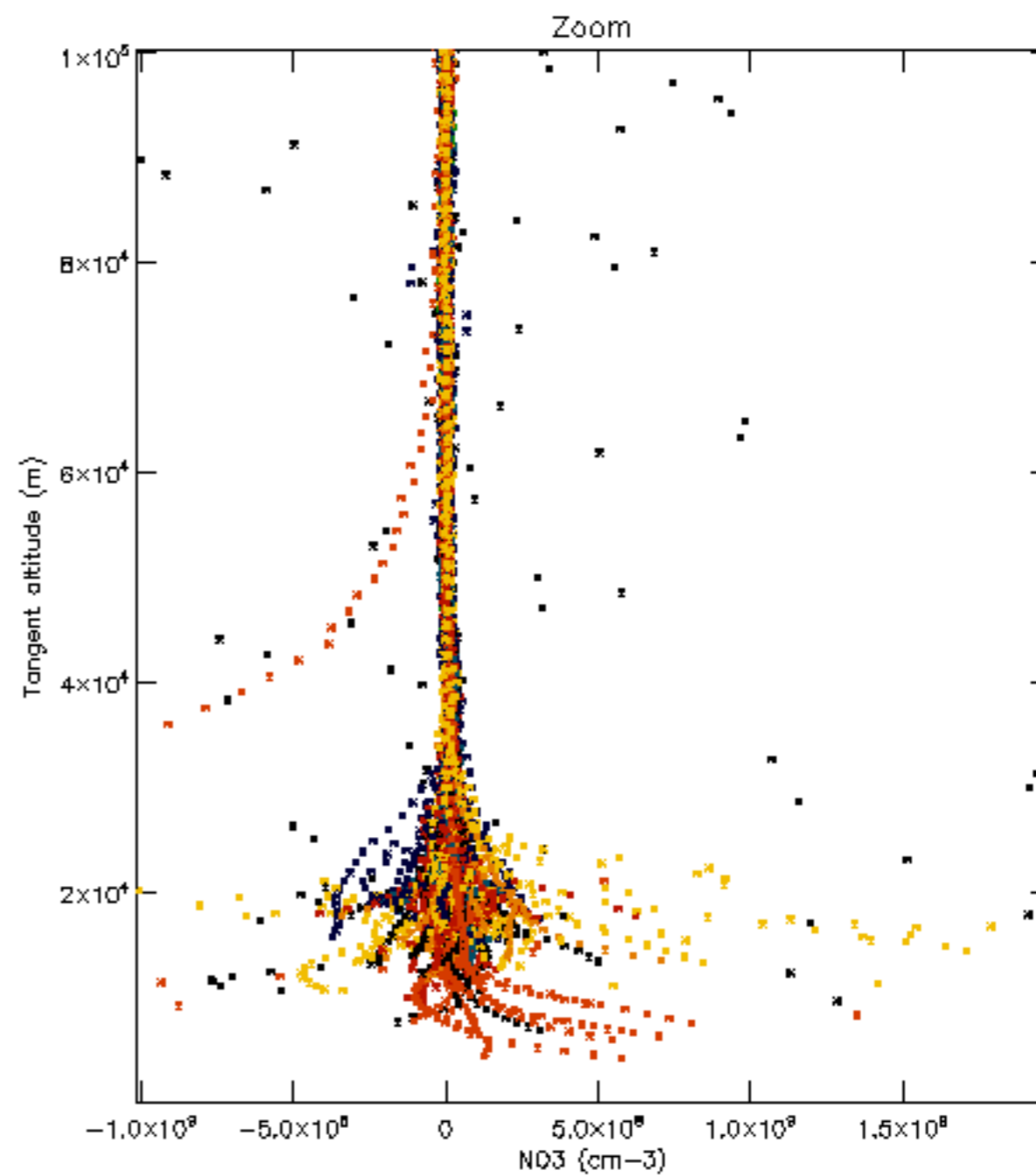
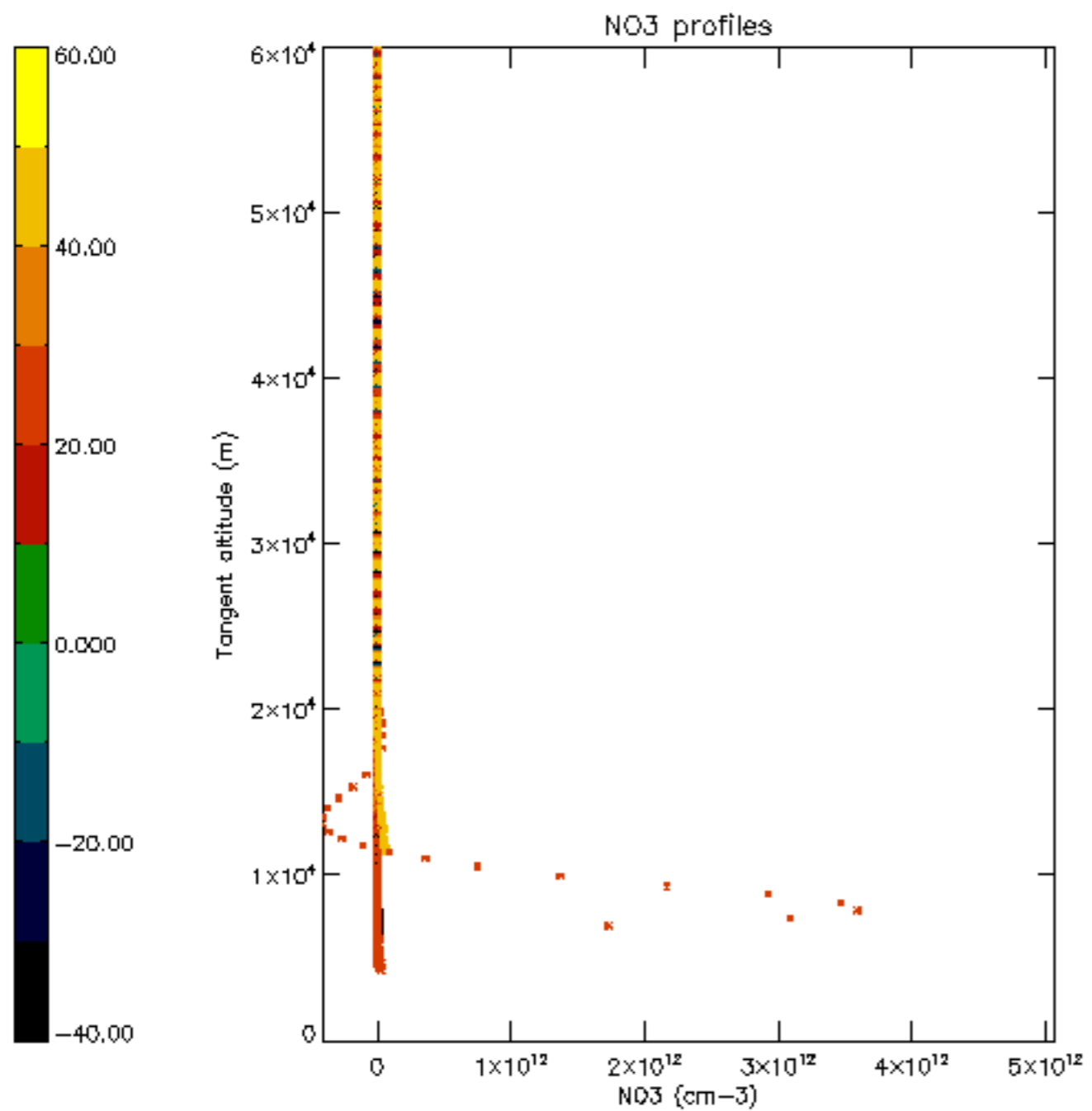


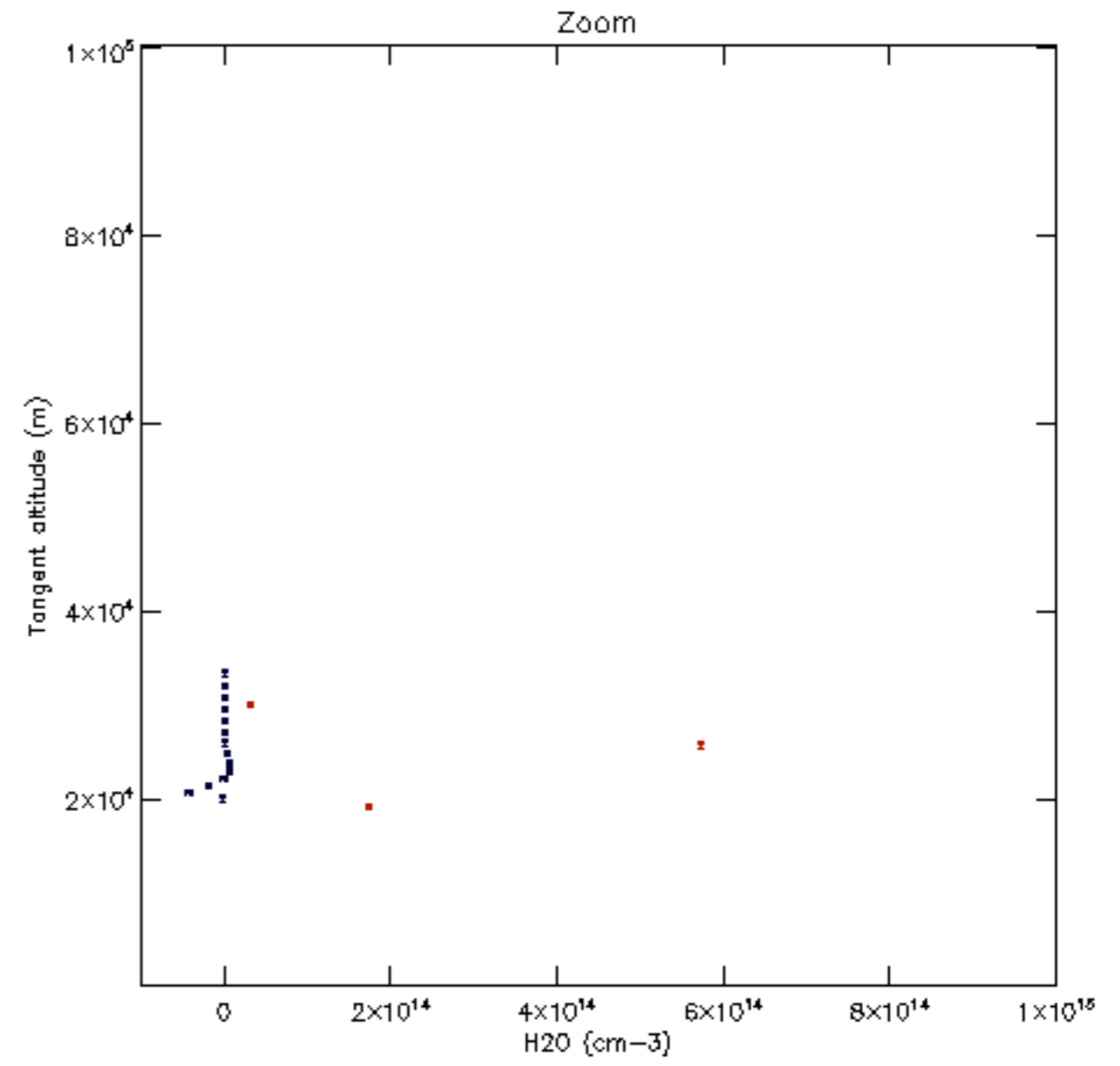
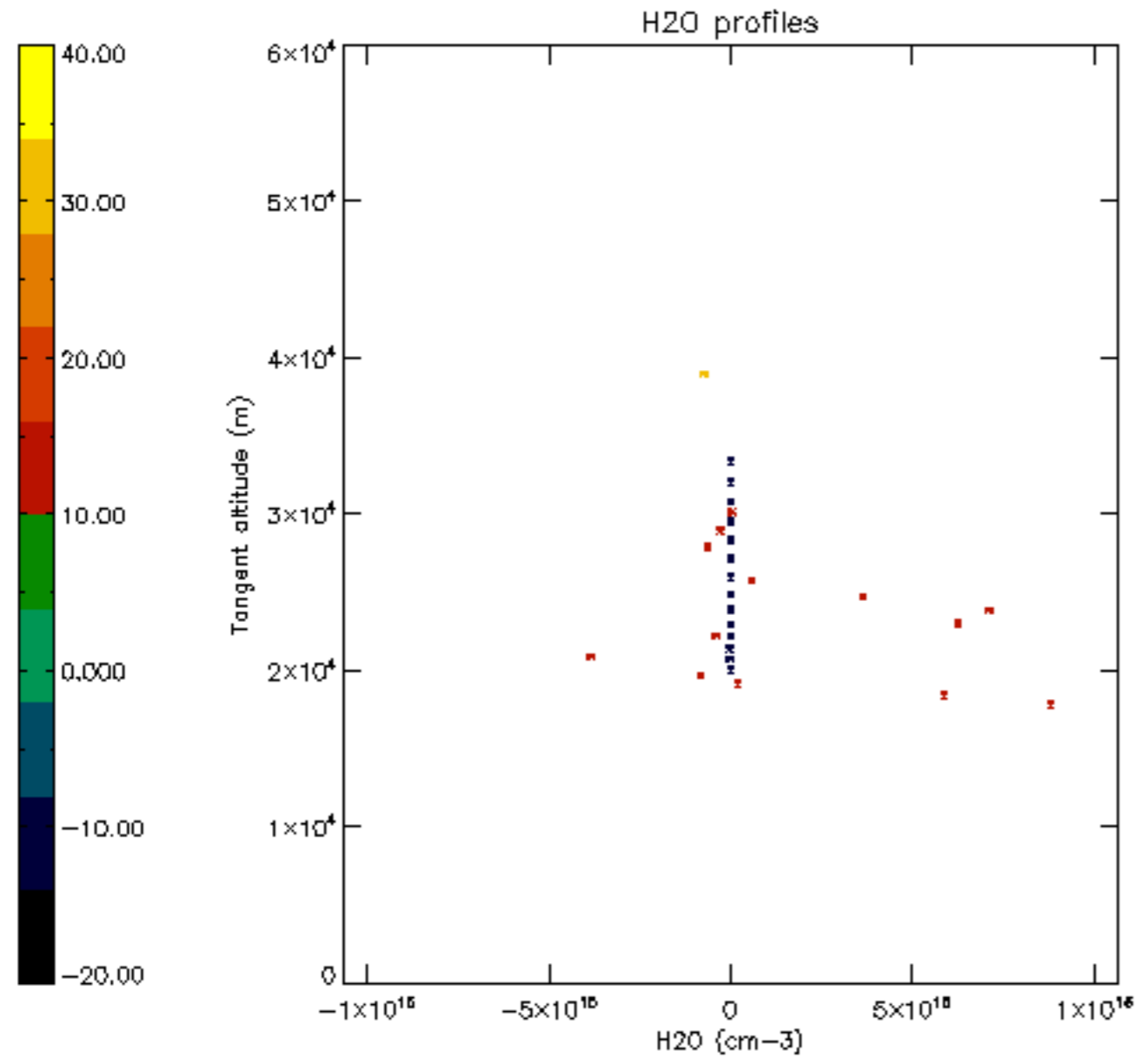


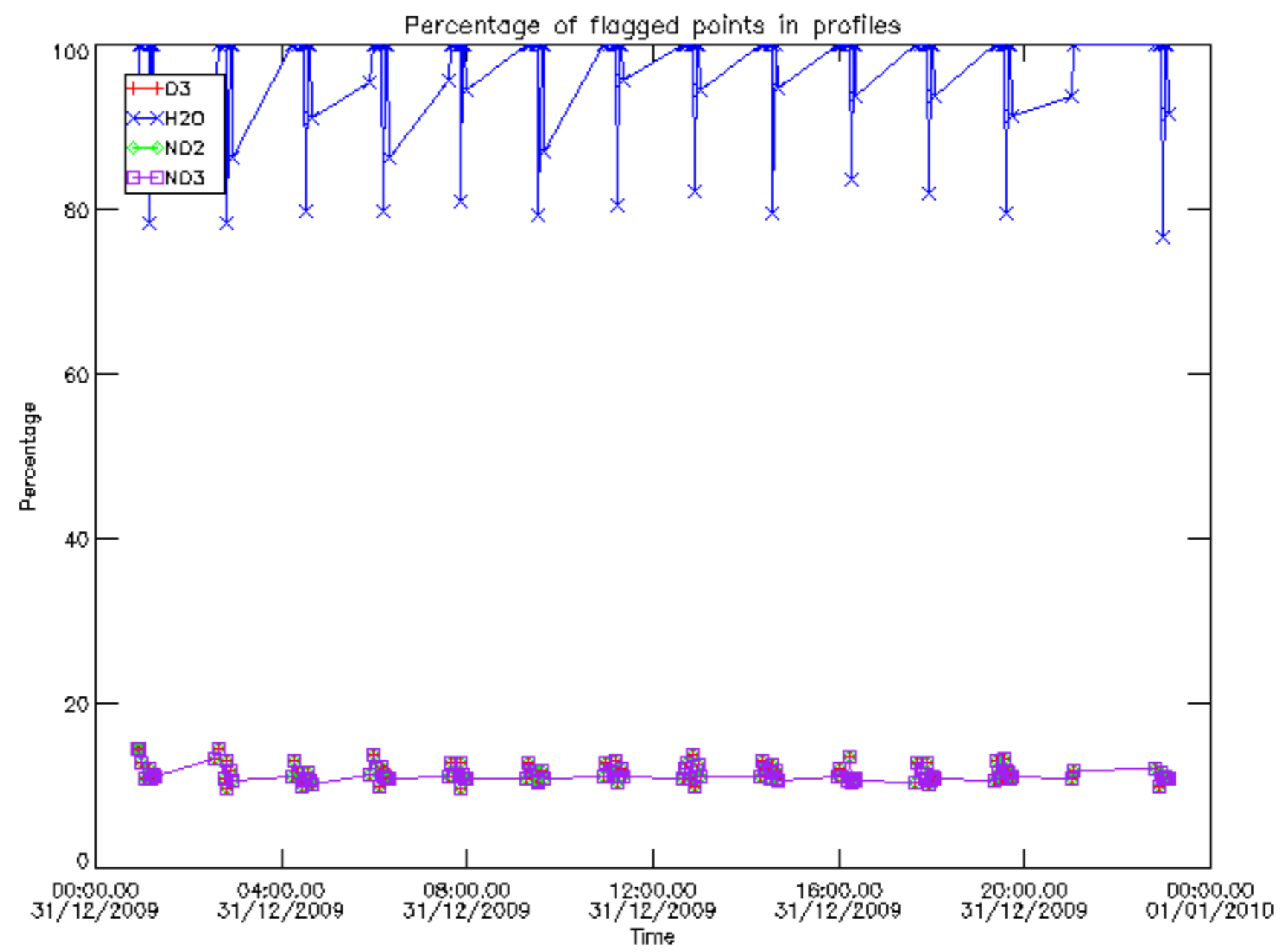




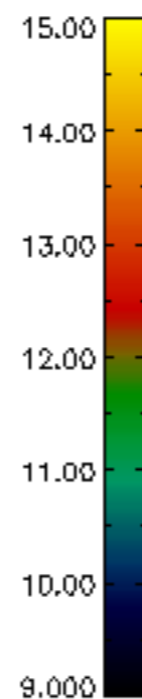
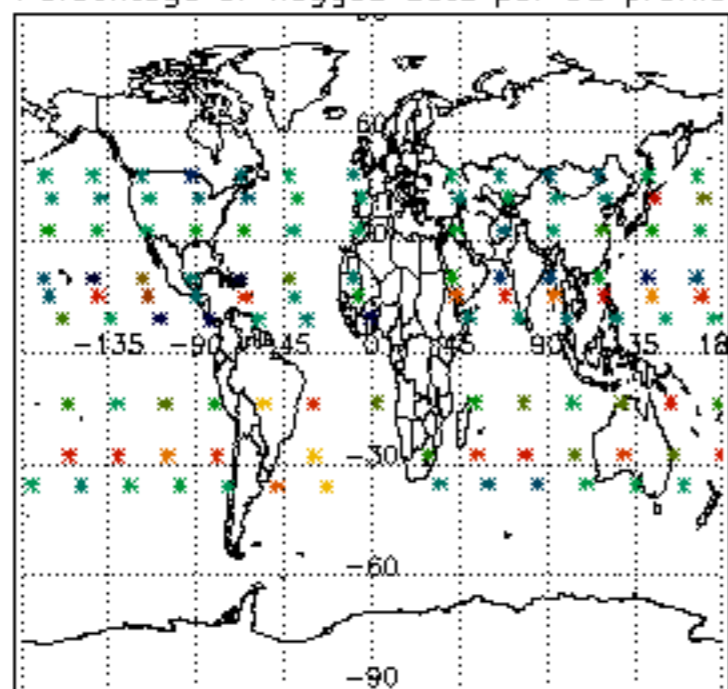




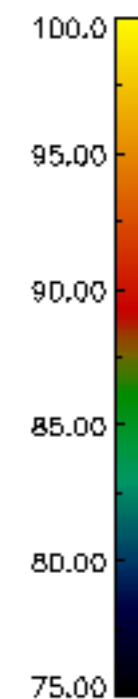
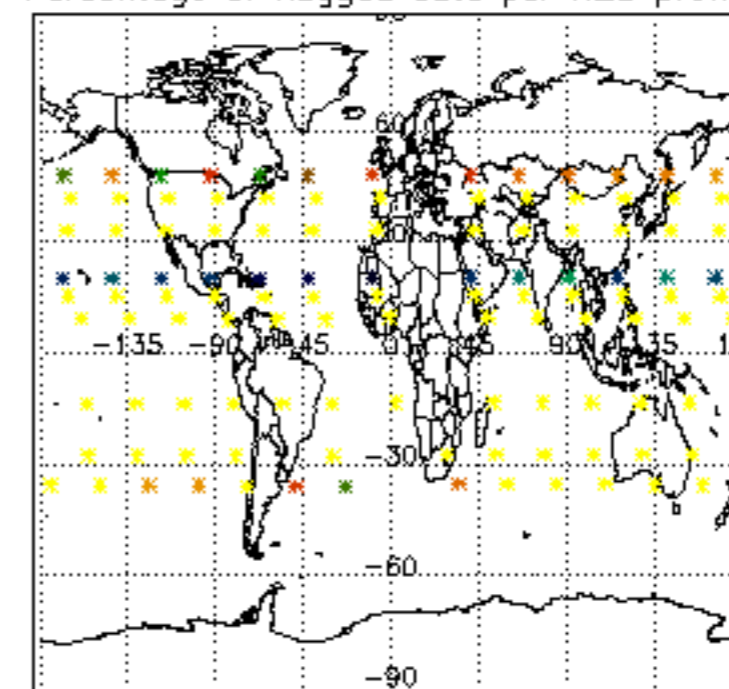




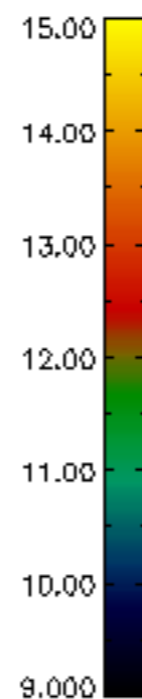
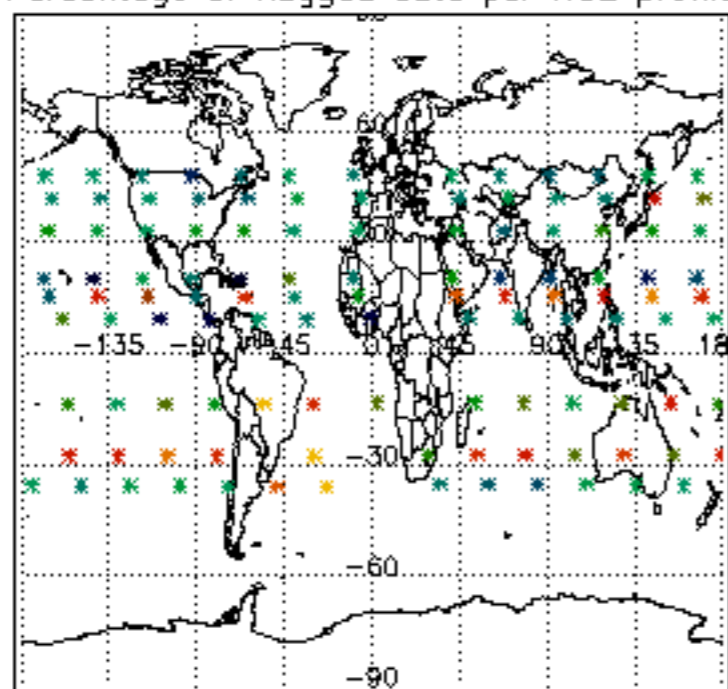
Percentage of flagged data per D3 profile



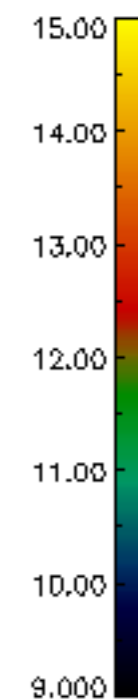
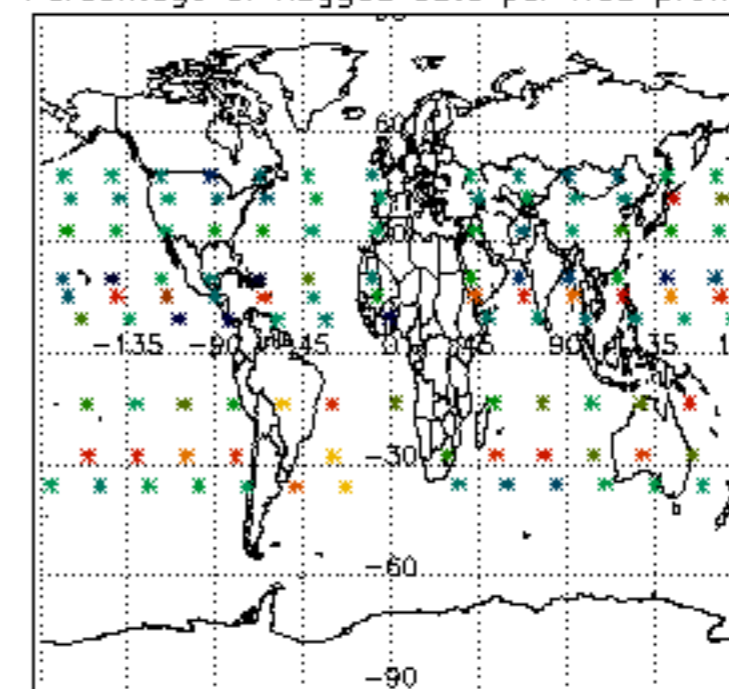
Percentage of flagged data per H2O profile

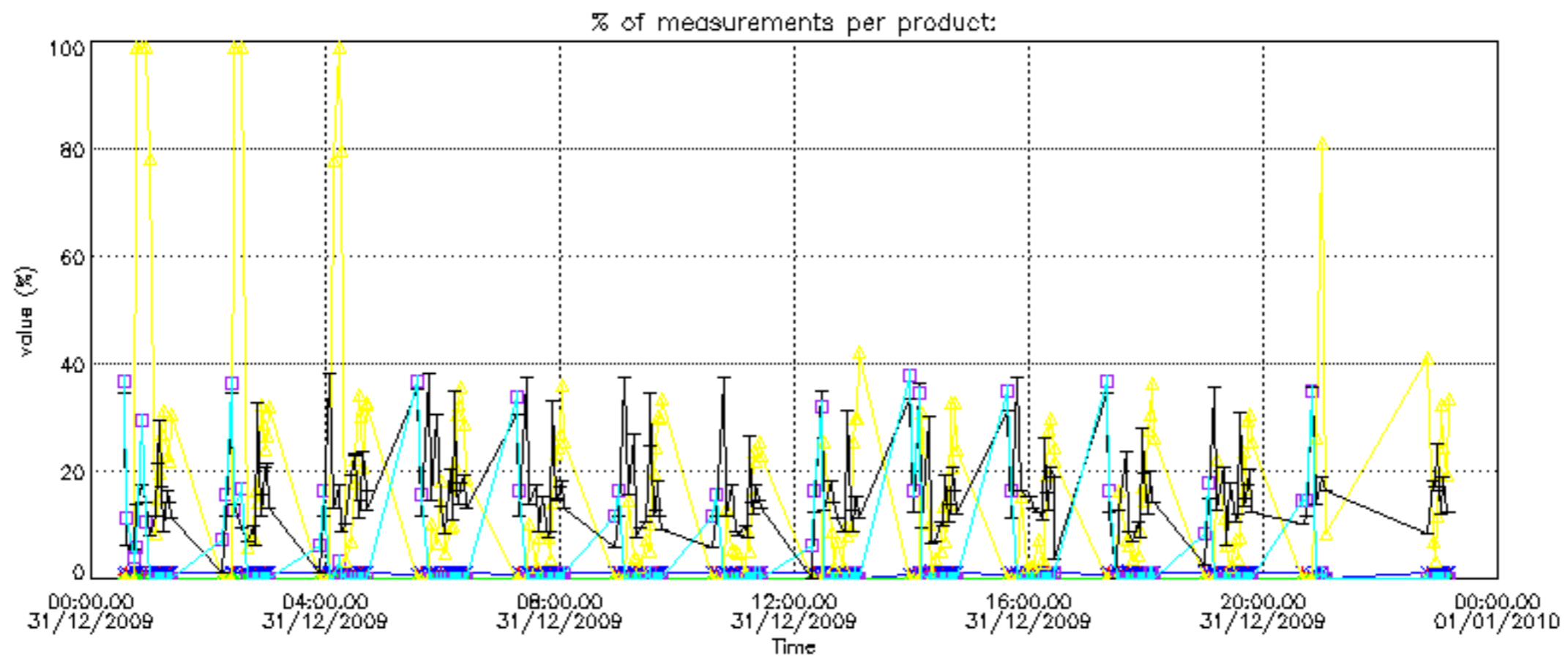


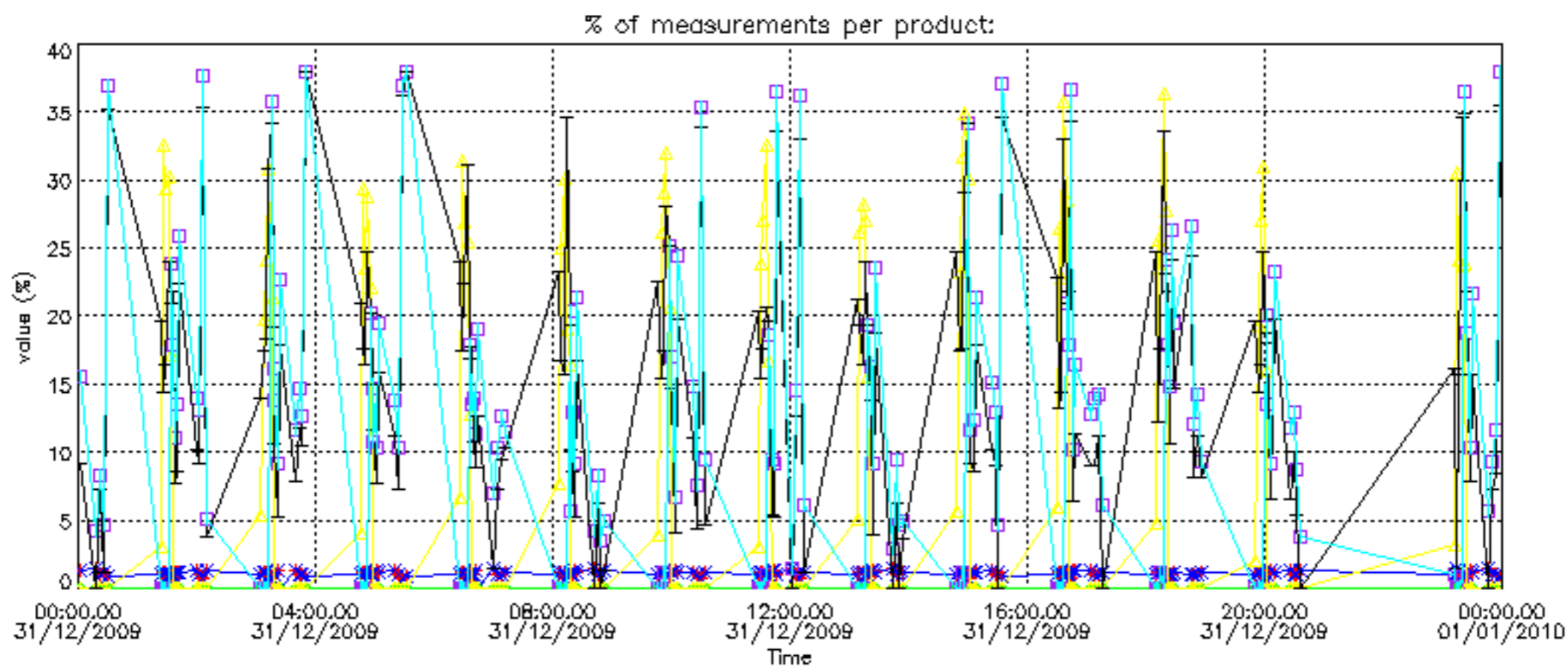
Percentage of flagged data per NO2 profile



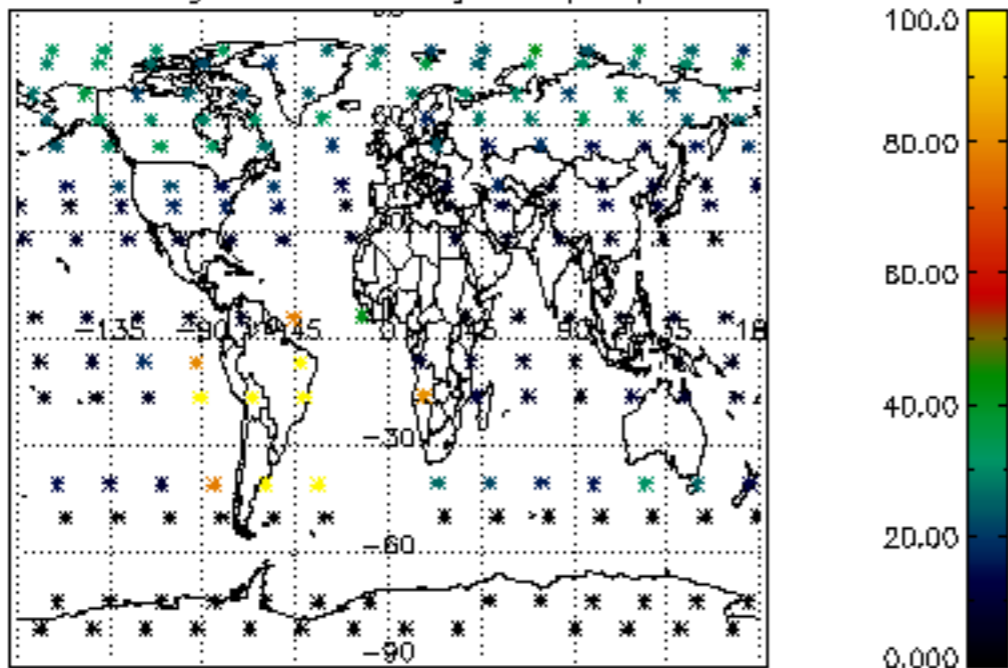
Percentage of flagged data per NO3 profile



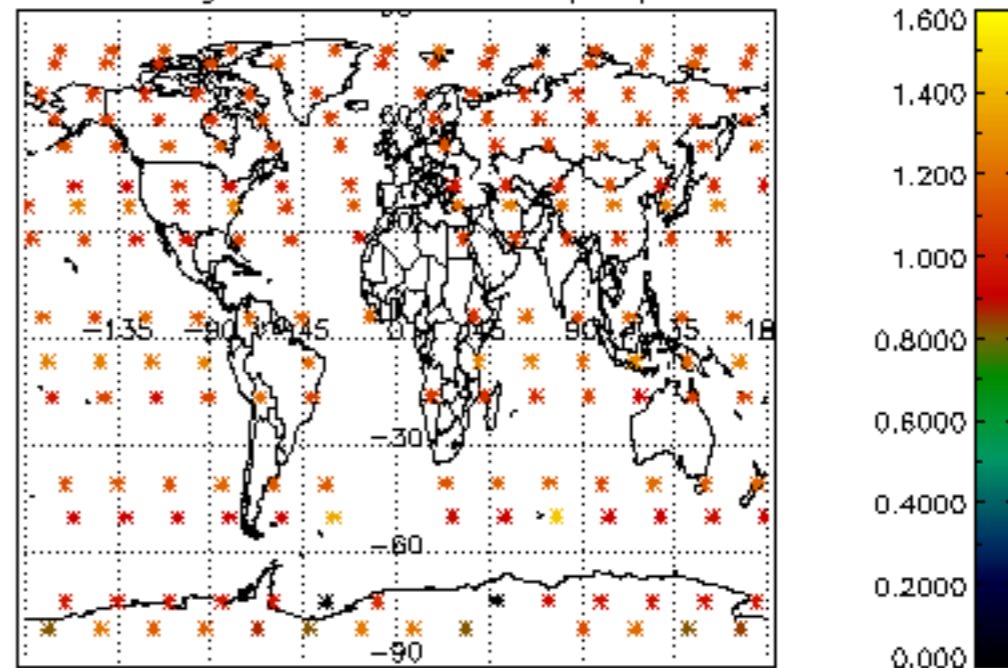




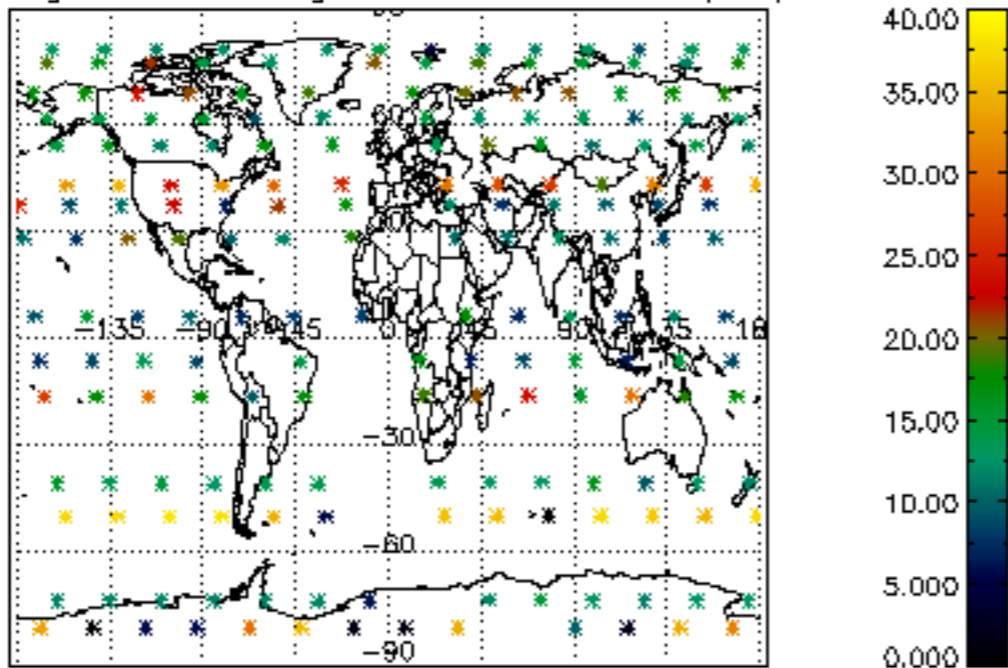
Percentage of cosmic ray hits per profile



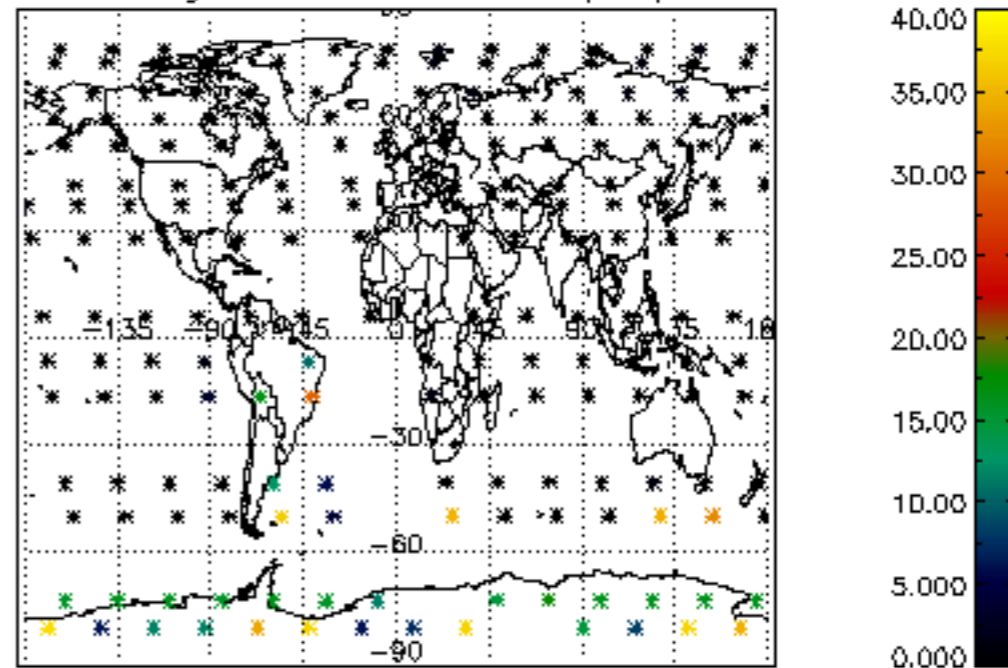
Percentage of datation errors per profile



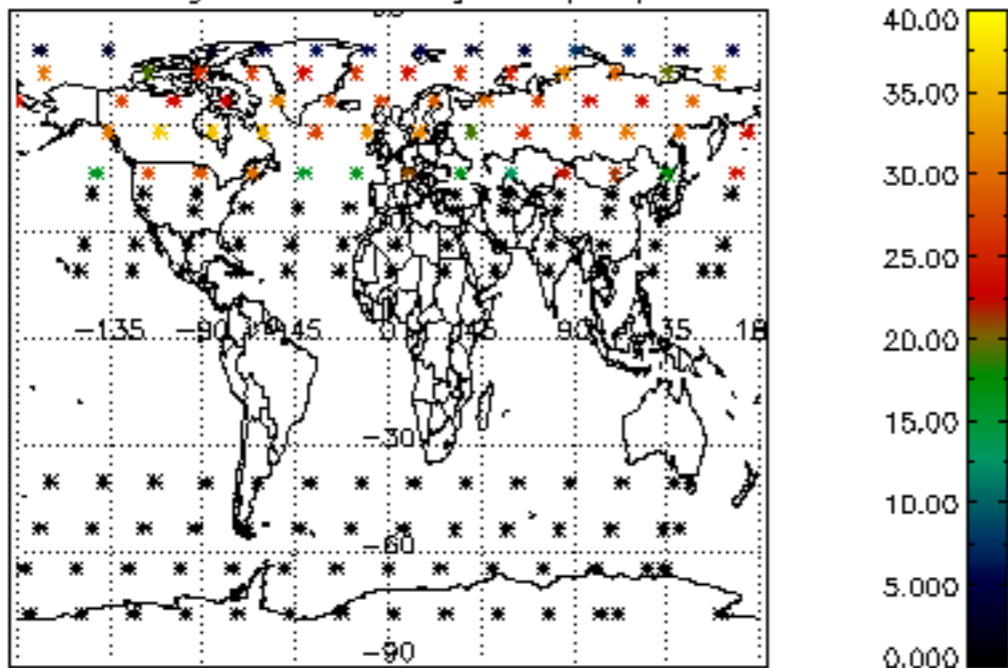
Percentage of star falling outside central band per profile



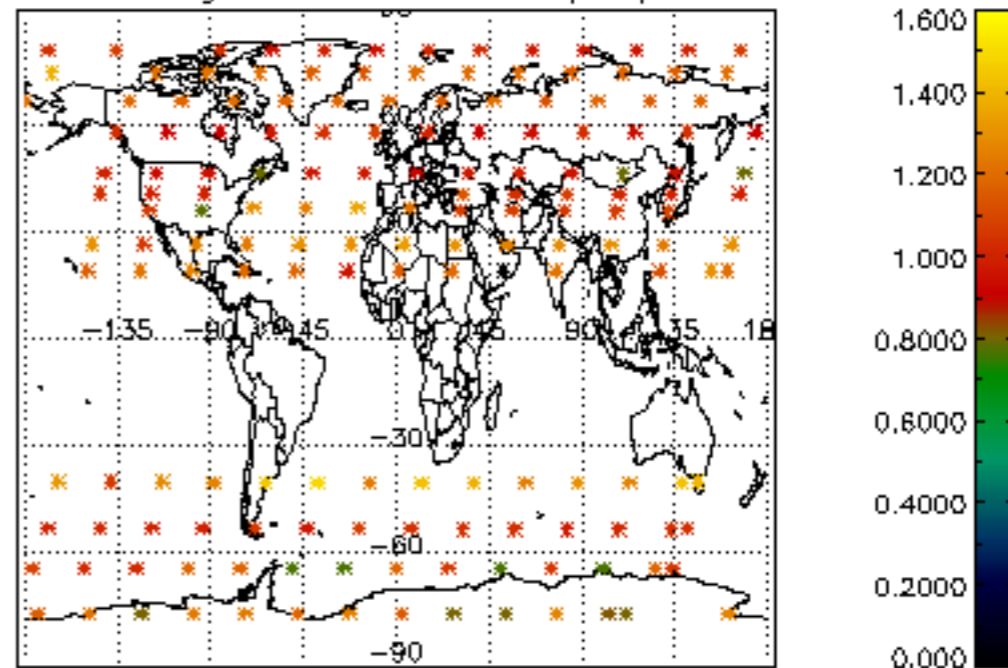
Percentage of saturation errors per profile



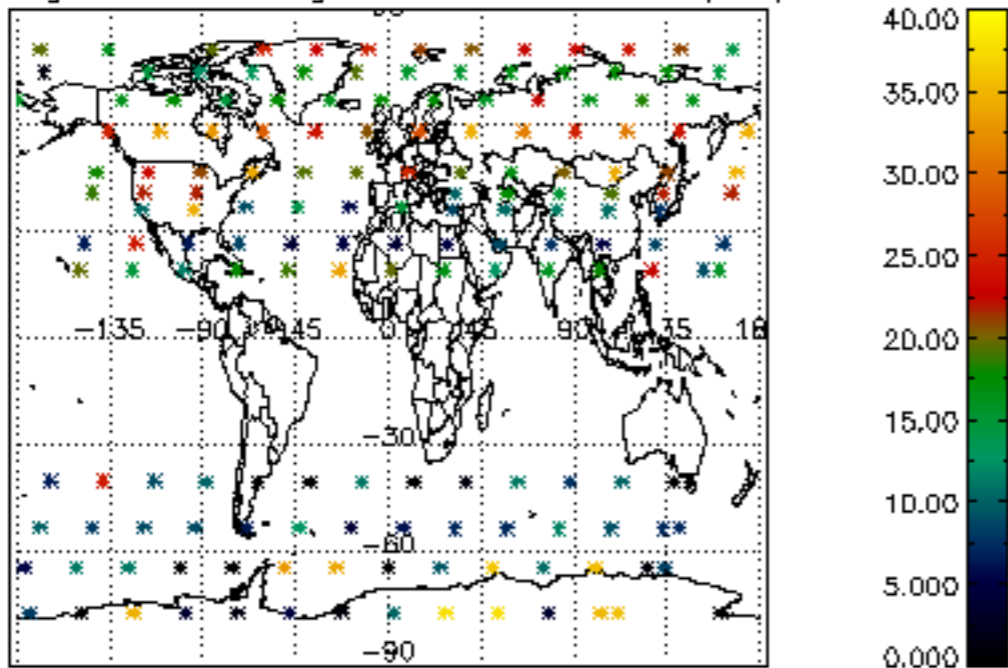
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

