

GOMOS Level 2 Daily Report

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

Item	Value
Time of report generation	24APR2013 10:17:30
Data source version	GOMOS/6.01
Start time of products	14-02-2011 (14FEB2011 00:00:00)
Stop time of products	15-02-2011 (15FEB2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	247
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

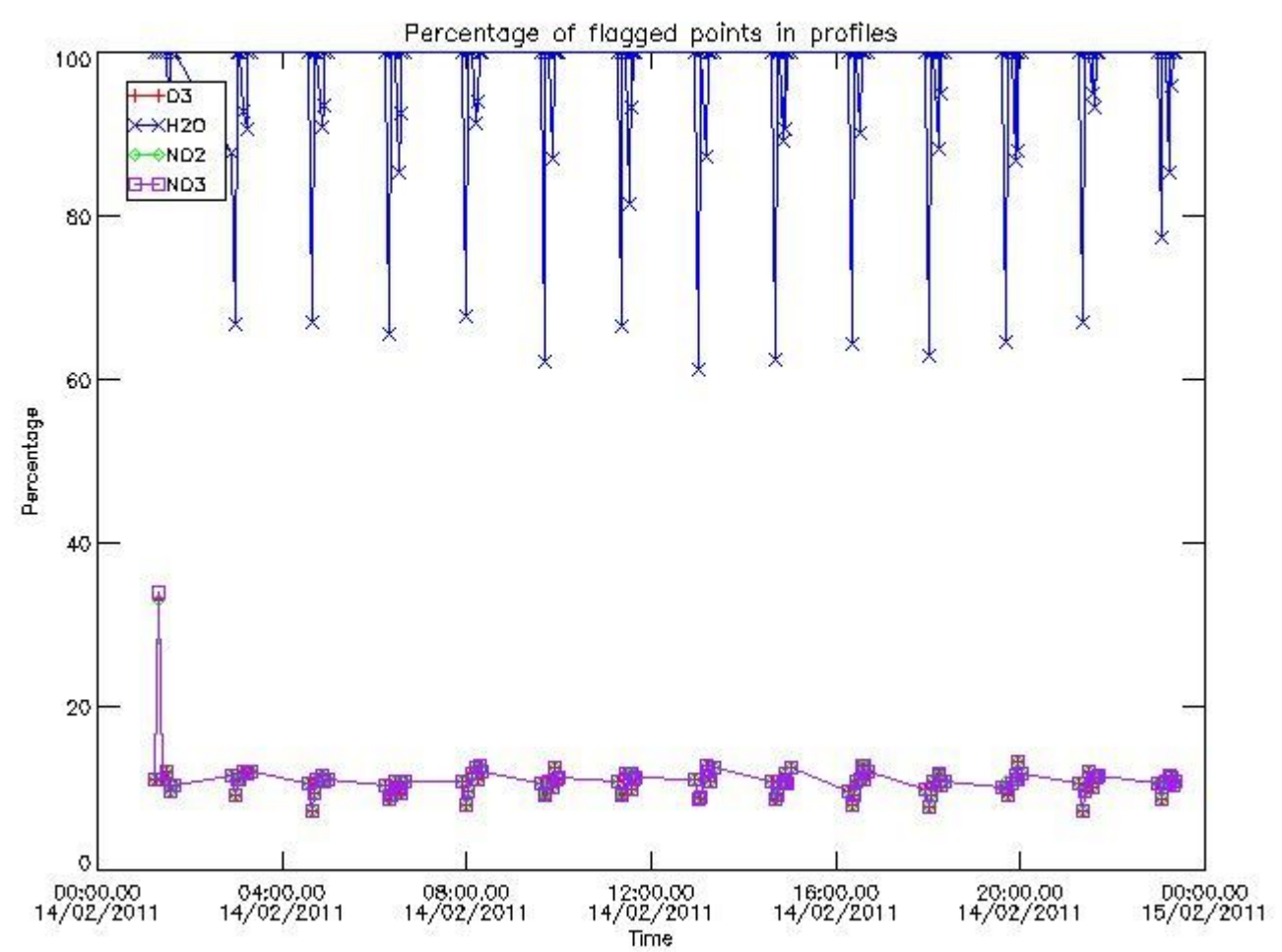
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110214_001243_000000493099_00275_46841_2027.N1	14-FEB-2011 00:12:43	Straylight	49.000	48	30Alp Hya	1.9770	4100.0	98	46841	No
2	GOM_NL__2PRFIN20110214_002332_000000463099_00275_46841_2028.N1	14-FEB-2011 00:23:32	Bright	45.500	166	17Eps Leo	2.9800	6000.0	91	46841	No
3	GOM_NL__2PRFIN20110214_003524_000000453099_00275_46841_2029.N1	14-FEB-2011 00:35:24	Bright	45.000	82	48Bet UMa	2.3650	10600.	90	46841	No
4	GOM_NL__2PRFIN20110214_004257_000000393099_00275_46841_2030.N1	14-FEB-2011 00:42:57	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	46841	No
5	GOM_NL__2PRFIN20110214_004747_000000433099_00275_46841_2031.N1	14-FEB-2011 00:47:47	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	46841	No
6	GOM_NL__2PRFIN20110214_005130_000000423099_00275_46841_2032.N1	14-FEB-2011 00:51:30	Bright	41.500	130	23Bet Dra	2.7990	5800.0	83	46841	No
7	GOM_NL__2PRFIN20110214_005541_000000393099_00275_46841_2033.N1	14-FEB-2011 00:55:41	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	46841	No
8	GOM_NL__2PRFIN20110214_010438_000000463099_00275_46841_2034.N1	14-FEB-2011 01:04:38	Bright	46.000	59	55Alp Oph	2.0800	8900.0	92	46841	No
9	GOM_NL__2PRFIN20110214_010653_000000513099_00275_46841_2035.N1	14-FEB-2011 01:06:53	Bright	50.500	126	60Bet Oph	2.7700	4250.0	101	46841	No
10	GOM_NL__2PRFIN20110214_011408_000000513099_00275_46841_2036.N1	14-FEB-2011 01:14:08	Dark	50.500	86	35Eta Oph	2.4300	10200.	101	46841	No
11	GOM_NL__2PRFIN20110214_011907_000000553099_00275_46841_2037.N1	14-FEB-2011 01:19:07	Dark	55.000	16	21Alp Sco	1.0200	3000.0	110	46841	No
12	GOM_NL__2PRFIN20110214_012503_000000463099_00276_46842_2072.N1	14-FEB-2011 01:25:03	Dark	46.000	131	Gam Lup	2.8000	26000.	92	46842	No
13	GOM_NL__2PRFIN20110214_013026_000000433099_00276_46842_2073.N1	14-FEB-2011 01:30:26	Dark	42.500	10	Bet Cen	0.61000	28000.	85	46842	No
14	GOM_NL__2PRFIN20110214_013332_000000503099_00276_46842_2074.N1	14-FEB-2011 01:33:32	Dark	49.500	12	Alp1Cru	0.77500	30000.	99	46842	No
15	GOM_NL__2PRFIN20110214_013506_000000543099_00276_46842_2075.N1	14-FEB-2011 01:35:06	Dark	53.500	64	Gam Cen	2.2000	10600.	107	46842	No
16	GOM_NL__2PRFIN20110214_013916_000000493099_00276_46842_2076.N1	14-FEB-2011 01:39:16	Dark	49.000	113	Mu Vel	2.6920	5000.0	98	46842	No
17	GOM_NL__2PRFIN20110214_015257_000000483099_00276_46842_2077.N1	14-FEB-2011 01:52:57	Straylight	47.500	48	30Alp Hya	1.9770	4100.0	95	46842	No
18	GOM_NL__2PRFIN20110214_020346_000000473099_00276_46842_2078.N1	14-FEB-2011 02:03:46	Bright	46.500	166	17Eps Leo	2.9800	6000.0	93	46842	No
19	GOM_NL__2PRFIN20110214_021537_000000453099_00276_46842_2079.N1	14-FEB-2011 02:15:37	Bright	44.500	82	48Bet UMa	2.3650	10600.	89	46842	No
20	GOM_NL__2PRFIN20110214_022311_000000413099_00276_46842_2080.N1	14-FEB-2011 02:23:11	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	46842	No
21	GOM_NL__2PRFIN20110214_022801_000000413099_00276_46842_2081.N1	14-FEB-2011 02:28:01	Bright	41.000	119	14Eta Dra	2.7270	4700.0	82	46842	No
22	GOM_NL__2PRFIN20110214_023144_000000393099_00276_46842_2082.N1	14-FEB-2011 02:31:44	Bright	39.000	130	23Bet Dra	2.7990	5800.0	78	46842	No
23	GOM_NL__2PRFIN20110214_023555_000000393099_00276_46842_2083.N1	14-FEB-2011 02:35:55	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	46842	No
24	GOM_NL__2PRFIN20110214_024452_000000453099_00276_46842_2084.N1	14-FEB-2011 02:44:52	Bright	45.000	59	55Alp Oph	2.0800	8900.0	90	46842	No
25	GOM_NL__2PRFIN20110214_024708_000000523099_00276_46842_2085.N1	14-FEB-2011 02:47:08	Bright	52.000	126	60Bet Oph	2.7700	4250.0	104	46842	No
26	GOM_NL__2PRFIN20110214_025423_000000533099_00276_46842_2086.N1	14-FEB-2011 02:54:23	Dark	53.000	86	35Eta Oph	2.4300	10200.	106	46842	No
27	GOM_NL__2PRFIN20110214_025922_000000613099_00276_46842_2087.N1	14-FEB-2011 02:59:22	Dark	60.500	16	21Alp Sco	1.0200	3000.0	121	46842	No
28	GOM_NL__2PRFIN20110214_030130_000000553099_00276_46842_2088.N1	14-FEB-2011 03:01:30	Dark	54.500	158	6Pi Sco	2.9060	28000.	109	46842	No
29	GOM_NL__2PRFIN20110214_030518_000000463099_00277_46843_2269.N1	14-FEB-2011 03:05:18	Dark	46.000	131	Gam Lup	2.8000	26000.	92	46843	No
30	GOM_NL__2PRFIN20110214_031041_000000433099_00277_46843_2270.N1	14-FEB-2011 03:10:41	Dark	42.500	10	Bet Cen	0.61000	28000.	85	46843	No
31	GOM_NL__2PRFIN20110214_031346_000000433099_00277_46843_2271.N1	14-FEB-2011 03:13:46	Dark	43.000	12	Alp1Cru	0.77500	30000.	86	46843	No
32	GOM_NL__2PRFIN20110214_031521_000000473099_00277_46843_2272.N1	14-FEB-2011 03:15:21	Dark	47.000	64	Gam Cen	2.2000	10600.	94	46843	No
33	GOM_NL__2PRFIN20110214_031931_000000433099_00277_46843_2273.N1	14-FEB-2011 03:19:31	Dark	42.500	113	Mu Vel	2.6920	5000.0	85	46843	No
34	GOM_NL__2PRFIN20110214_033311_000000483099_00277_46843_2274.N1	14-FEB-2011 03:33:11	Straylight	47.500	48	30Alp Hya	1.9770	4100.0	95	46843	No
35	GOM_NL__2PRFIN20110214_034359_000000453099_00277_46843_2275.N1	14-FEB-2011 03:43:59	Bright	45.000	166	17Eps Leo	2.9800	6000.0	90	46843	No
36	GOM_NL__2PRFIN20110214_035551_000000443099_00277_46843_2276.N1	14-FEB-2011 03:55:51	Bright	43.500	82	48Bet UMa	2.3650	10600.	87	46843	No
37	GOM_NL__2PRFIN20110214_040325_000000393099_00277_46843_2277.N1	14-FEB-2011 04:03:25	Bright	38.500	60	7Bet UMi	2.0810	3950.0	77	46843	No
38	GOM_NL__2PRFIN20110214_040815_000000443099_00277_46843_2278.N1	14-FEB-2011 04:08:15	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	46843	No
39	GOM_NL__2PRFIN20110214_041158_000000413099_00277_46843_2279.N1	14-FEB-2011 04:11:58	Bright	40.500	130	23Bet Dra	2.7990	5800.0	81	46843	No
40	GOM_NL__2PRFIN20110214_041609_000000393099_00277_46843_2280.N1	14-FEB-2011 04:16:09	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	46843	No
41	GOM_NL__2PRFIN20110214_042507_000000463099_00277_46843_2281.N1	14-FEB-2011 04:25:07	Bright	46.000	59	55Alp Oph	2.0800	8900.0	92	46843	No
42	GOM_NL__2PRFIN20110214_042722_000000513099_00277_46843_2282.N1	14-FEB-2011 04:27:22	Bright	50.500	126	60Bet Oph	2.7700	4250.0	101	46843	No

220	GOM_NL__2PRFIN20110214_212419_000000543099_00287_46853_2839.N1	14-FEB-2011 21:24:19	Dark	53.500	158	6Pi Sco	2.9060	28000.	107	46853	No
221	GOM_NL__2PRFIN20110214_212803_000000473099_00288_46854_2833.N1	14-FEB-2011 21:28:03	Dark	46.500	131	Gam Lup	2.8000	26000.	93	46854	No
222	GOM_NL__2PRFIN20110214_213322_000000503099_00288_46854_2834.N1	14-FEB-2011 21:33:22	Dark	50.000	10	Bet Cen	0.61000	28000.	100	46854	No
223	GOM_NL__2PRFIN20110214_213442_000000453099_00288_46854_2835.N1	14-FEB-2011 21:34:42	Dark	45.000	77	Eps Cen	2.3030	28000.	90	46854	No
224	GOM_NL__2PRFIN20110214_213626_000000453099_00288_46854_2836.N1	14-FEB-2011 21:36:26	Dark	45.000	12	Alp1Cru	0.77500	30000.	90	46854	No
225	GOM_NL__2PRFIN20110214_213803_000000453099_00288_46854_2837.N1	14-FEB-2011 21:38:03	Dark	45.000	64	Gam Cen	2.2000	10600.	90	46854	No
226	GOM_NL__2PRFIN20110214_214210_000000453099_00288_46854_2838.N1	14-FEB-2011 21:42:10	Dark	44.500	113	Mu Vel	2.6920	5000.0	89	46854	No
227	GOM_NL__2PRFIN20110214_215545_000000563099_00288_46854_2839.N1	14-FEB-2011 21:55:45	Straylight	56.000	48	30Alp Hya	1.9770	4100.0	112	46854	No
228	GOM_NL__2PRFIN20110214_220628_000000463099_00288_46854_2840.N1	14-FEB-2011 22:06:28	Bright	46.000	166	17Eps Leo	2.9800	6000.0	92	46854	No
229	GOM_NL__2PRFIN20110214_221817_000000473099_00288_46854_2841.N1	14-FEB-2011 22:18:17	Bright	46.500	82	48Bet UMa	2.3650	10600.	93	46854	No
230	GOM_NL__2PRFIN20110214_222555_000000433099_00288_46854_2842.N1	14-FEB-2011 22:25:55	Bright	42.500	60	7Bet UMi	2.0810	3950.0	85	46854	No
231	GOM_NL__2PRFIN20110214_223045_000000433099_00288_46854_2843.N1	14-FEB-2011 22:30:45	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	46854	No
232	GOM_NL__2PRFIN20110214_223431_000000423099_00288_46854_2844.N1	14-FEB-2011 22:34:31	Bright	42.000	130	23Bet Dra	2.7990	5800.0	84	46854	No
233	GOM_NL__2PRFIN20110214_223844_000000373099_00288_46854_2845.N1	14-FEB-2011 22:38:44	Bright	37.000	5	3Alp Lyr	0.033000	11000.	74	46854	No
234	GOM_NL__2PRFIN20110214_224746_000000653099_00288_46854_2846.N1	14-FEB-2011 22:47:46	Bright	65.000	59	55Alp Oph	2.0800	8900.0	130	46854	No
235	GOM_NL__2PRFIN20110214_225002_000000493099_00288_46854_2847.N1	14-FEB-2011 22:50:02	Bright	49.000	126	60Bet Oph	2.7700	4250.0	98	46854	No
236	GOM_NL__2PRFIN20110214_225721_000000493099_00288_46854_2848.N1	14-FEB-2011 22:57:21	Dark	48.500	86	35Eta Oph	2.4300	10200.	97	46854	No
237	GOM_NL__2PRFIN20110214_230223_000000713099_00288_46854_2849.N1	14-FEB-2011 23:02:23	Dark	71.000	16	21Alp Sco	1.0200	3000.0	142	46854	No
238	GOM_NL__2PRFIN20110214_230434_000000553099_00288_46854_2850.N1	14-FEB-2011 23:04:34	Dark	55.000	158	6Pi Sco	2.9060	28000.	110	46854	No
239	GOM_NL__2PRFIN20110214_230818_000000483099_00289_46855_2845.N1	14-FEB-2011 23:08:18	Dark	47.500	131	Gam Lup	2.8000	26000.	95	46855	No
240	GOM_NL__2PRFIN20110214_231336_000000483099_00289_46855_2846.N1	14-FEB-2011 23:13:36	Dark	48.000	10	Bet Cen	0.61000	28000.	96	46855	No
241	GOM_NL__2PRFIN20110214_231456_000000443099_00289_46855_2847.N1	14-FEB-2011 23:14:56	Dark	44.000	77	Eps Cen	2.3030	28000.	88	46855	No
242	GOM_NL__2PRFIN20110214_231640_000000493099_00289_46855_2848.N1	14-FEB-2011 23:16:40	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	46855	No
243	GOM_NL__2PRFIN20110214_231818_000000493099_00289_46855_2849.N1	14-FEB-2011 23:18:18	Dark	49.000	64	Gam Cen	2.2000	10600.	98	46855	No
244	GOM_NL__2PRFIN20110214_232224_000000473099_00289_46855_2850.N1	14-FEB-2011 23:22:24	Dark	46.500	113	Mu Vel	2.6920	5000.0	93	46855	No
245	GOM_NL__2PRFIN20110214_233559_000000503099_00289_46855_2851.N1	14-FEB-2011 23:35:59	Straylight	49.500	48	30Alp Hya	1.9770	4100.0	99	46855	No
246	GOM_NL__2PRFIN20110214_234641_000000463099_00289_46855_2852.N1	14-FEB-2011 23:46:41	Bright	46.000	166	17Eps Leo	2.9800	6000.0	92	46855	No
247	GOM_NL__2PRFIN20110214_235831_000000453099_00289_46855_2853.N1	14-FEB-2011 23:58:31	Bright	45.000	82	48Bet UMa	2.3650	10600.	90	46855	No

3. Quality information per product

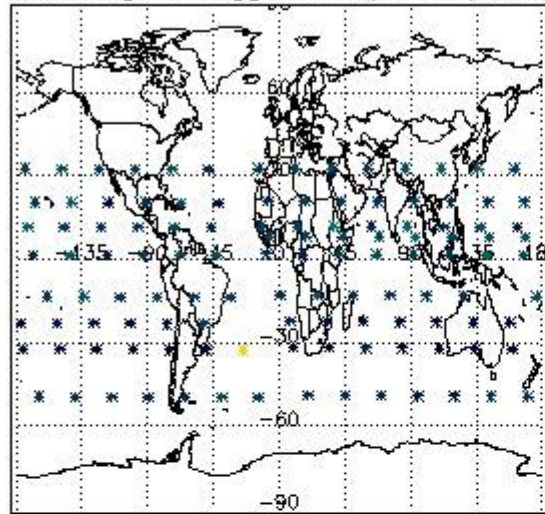
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

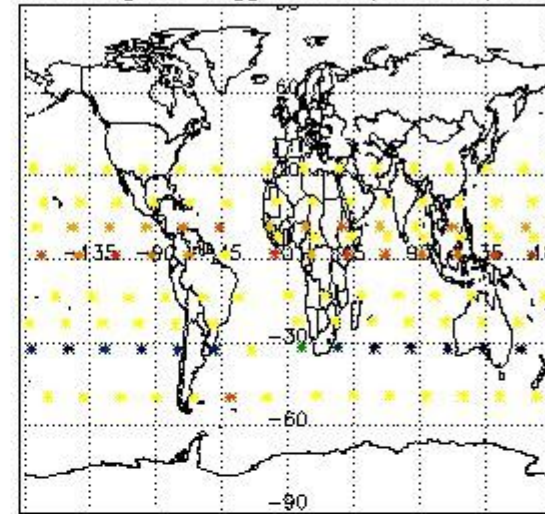


3.2 Plot quality information per product (world map)

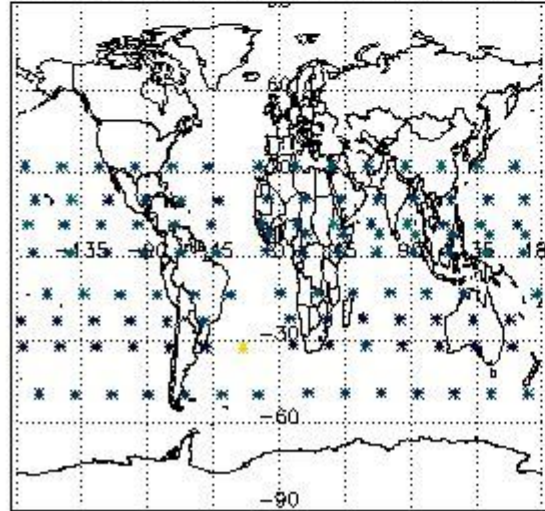
Percentage of flagged data per O3 profile



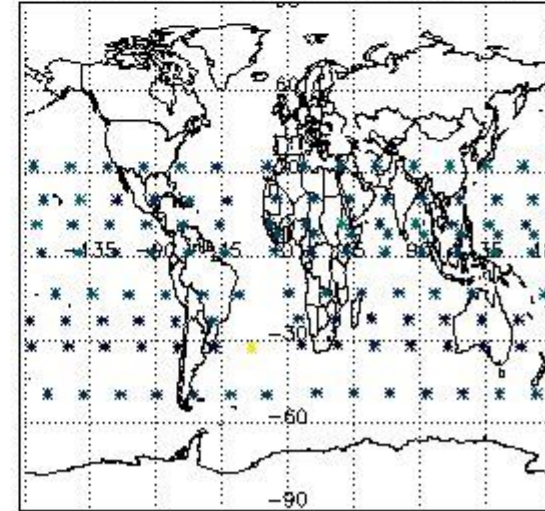
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

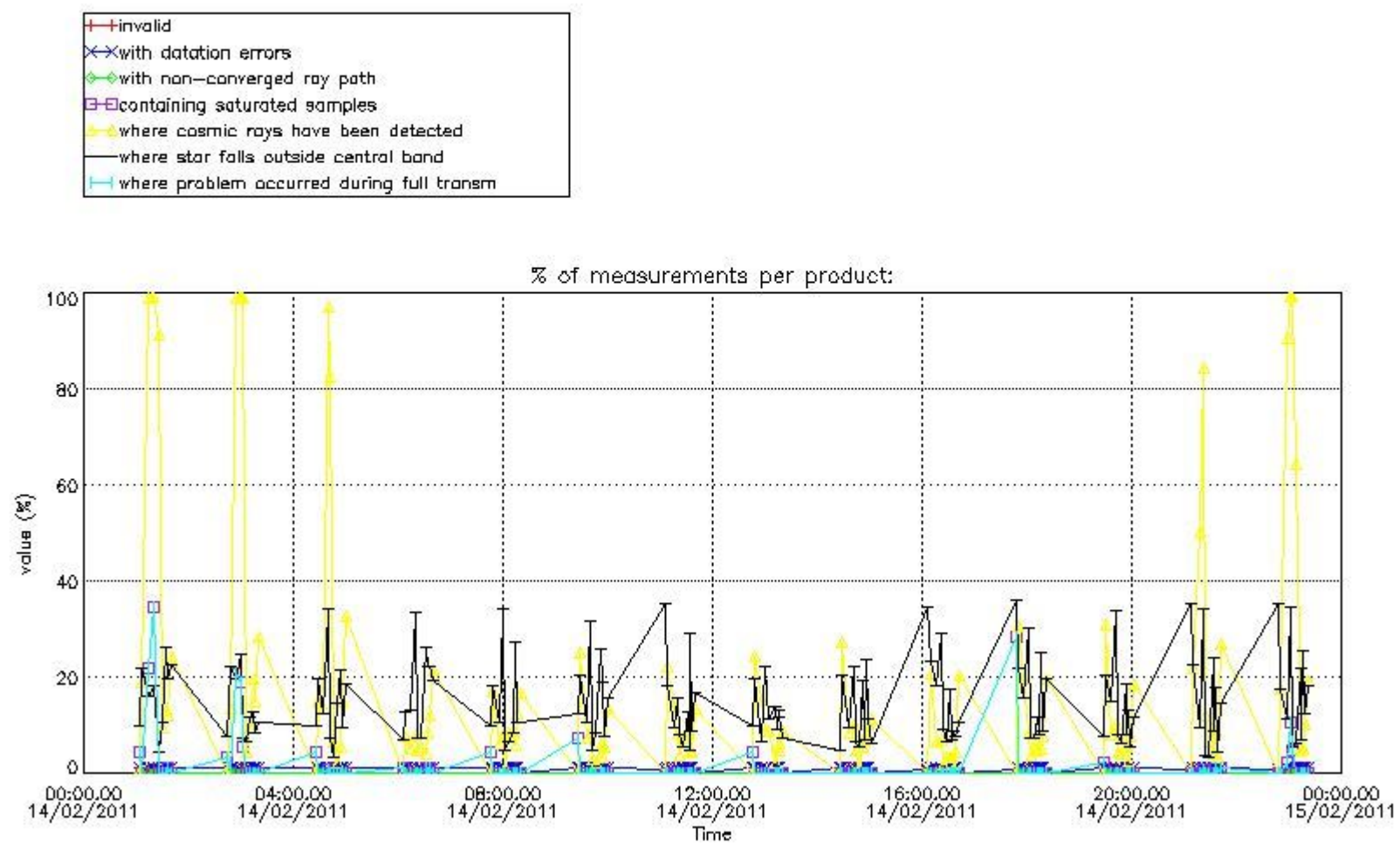


4. Level 1 quality information per product

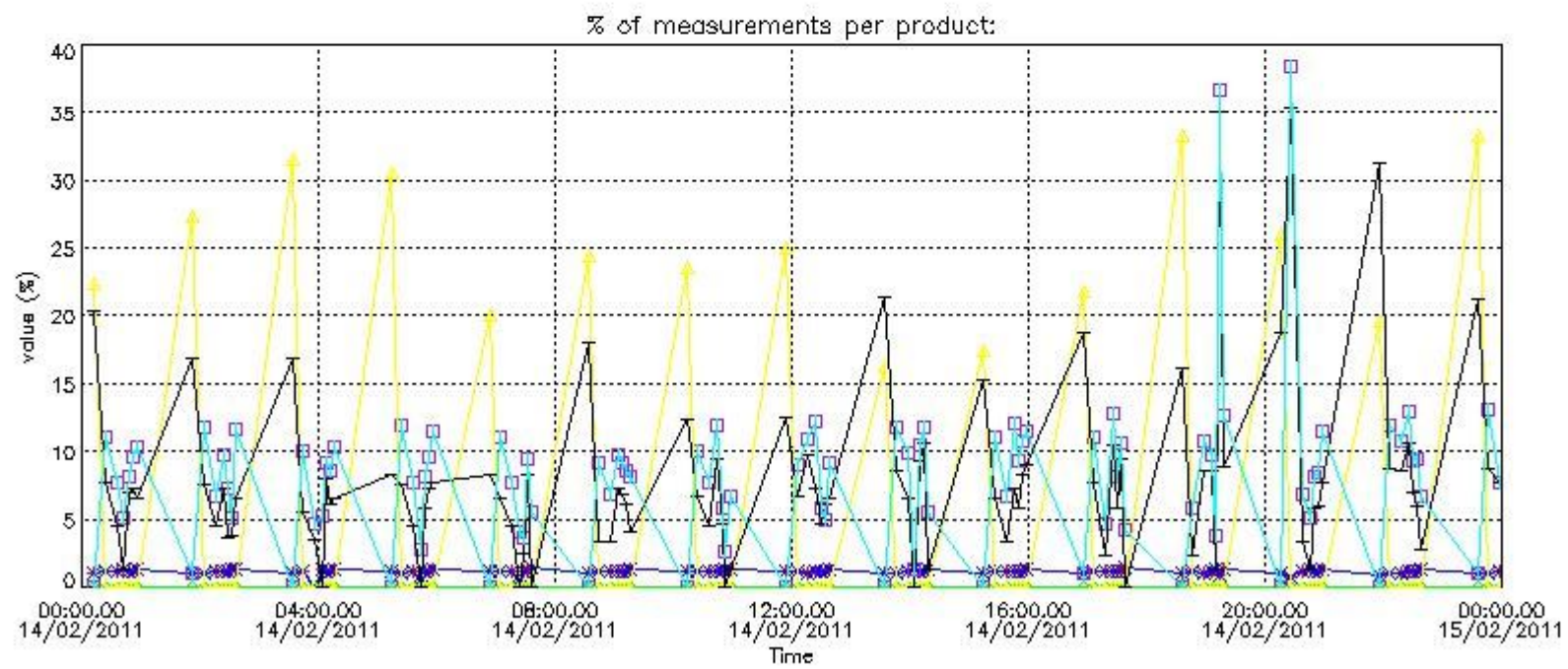
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

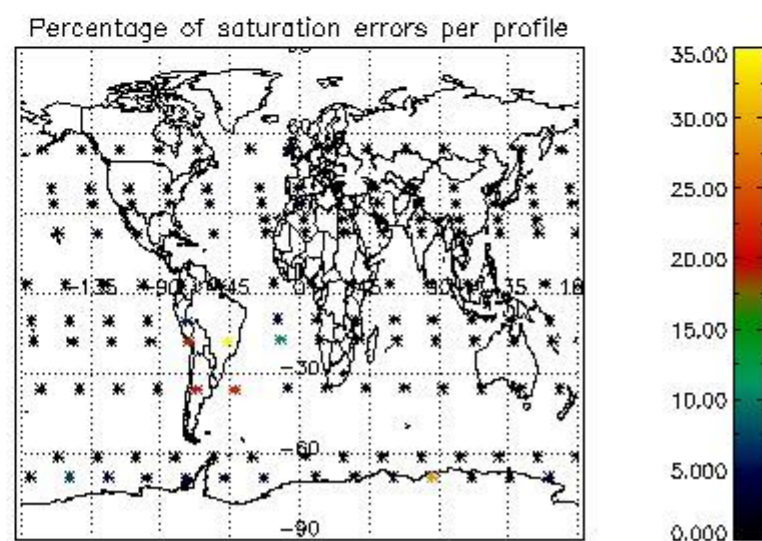
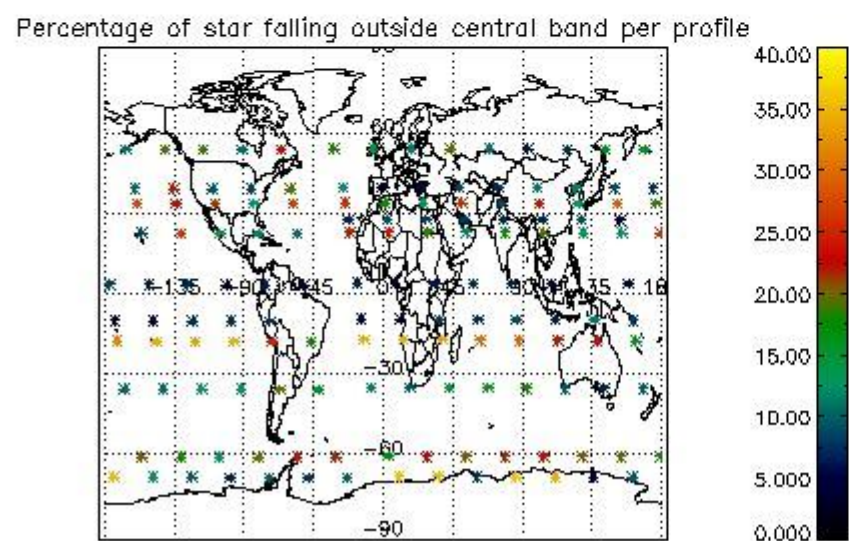
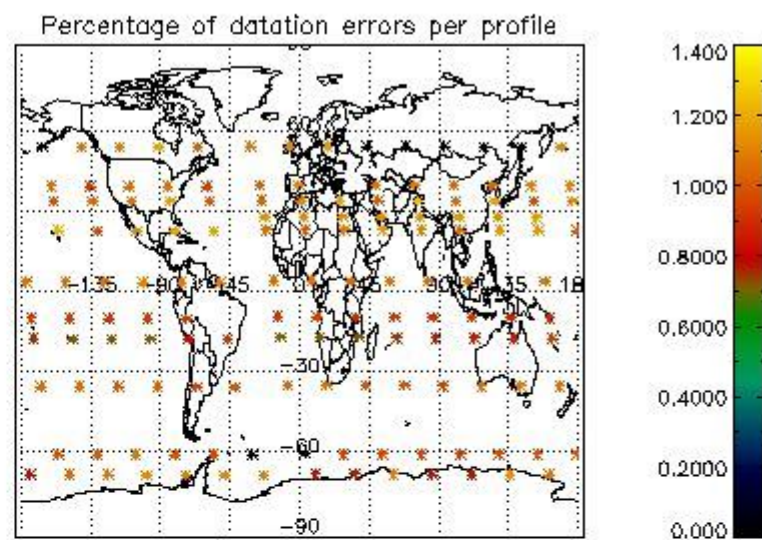
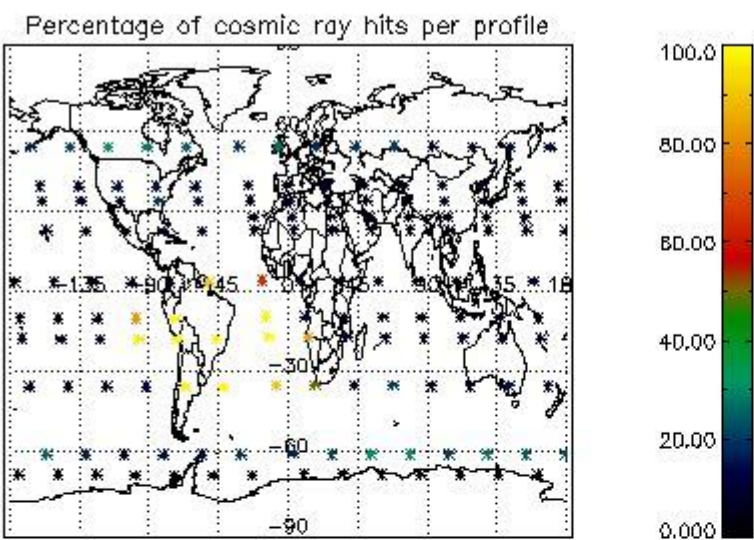


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

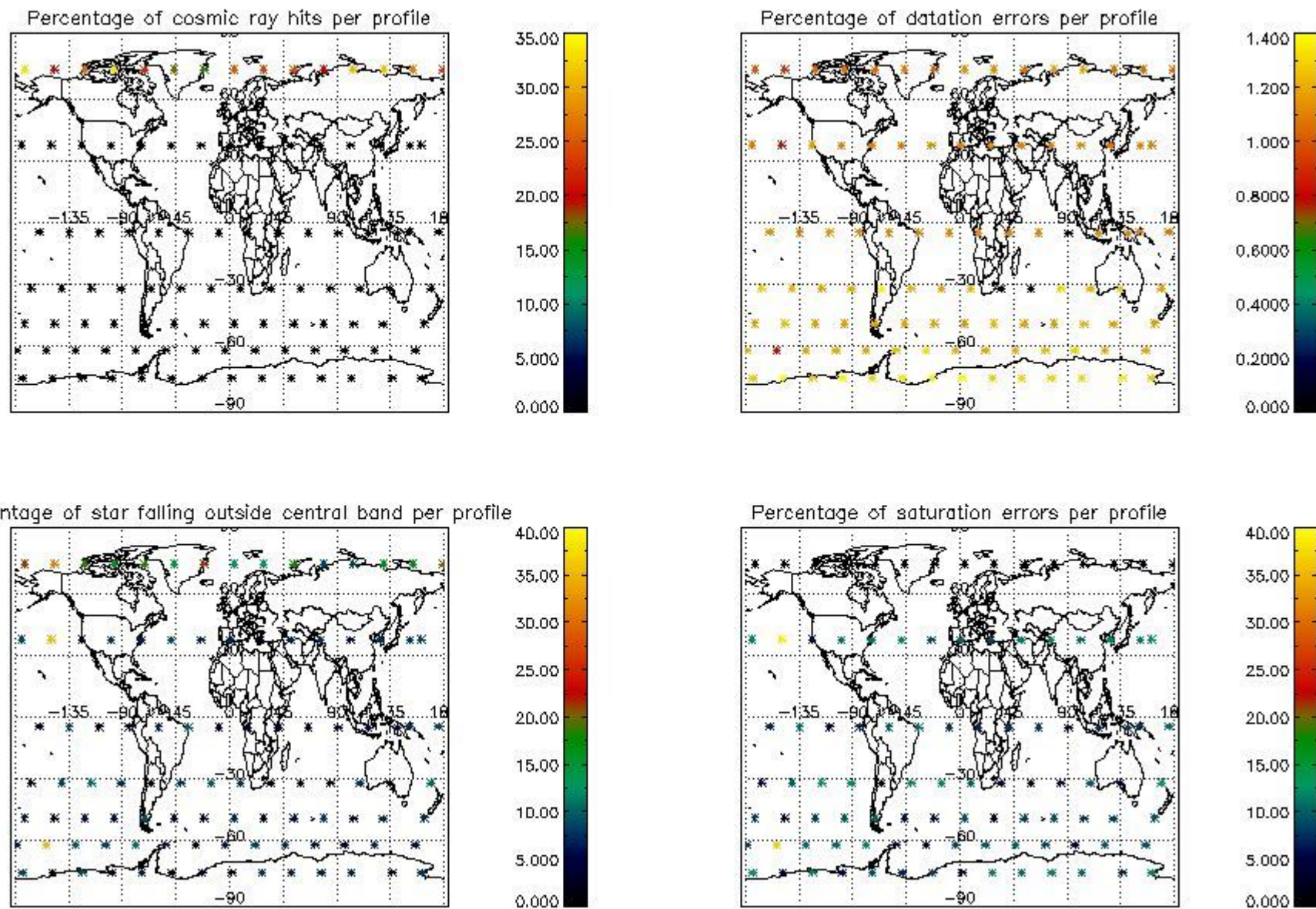


4.2 Plot quality information per product coming from level 1b processing (world map)

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

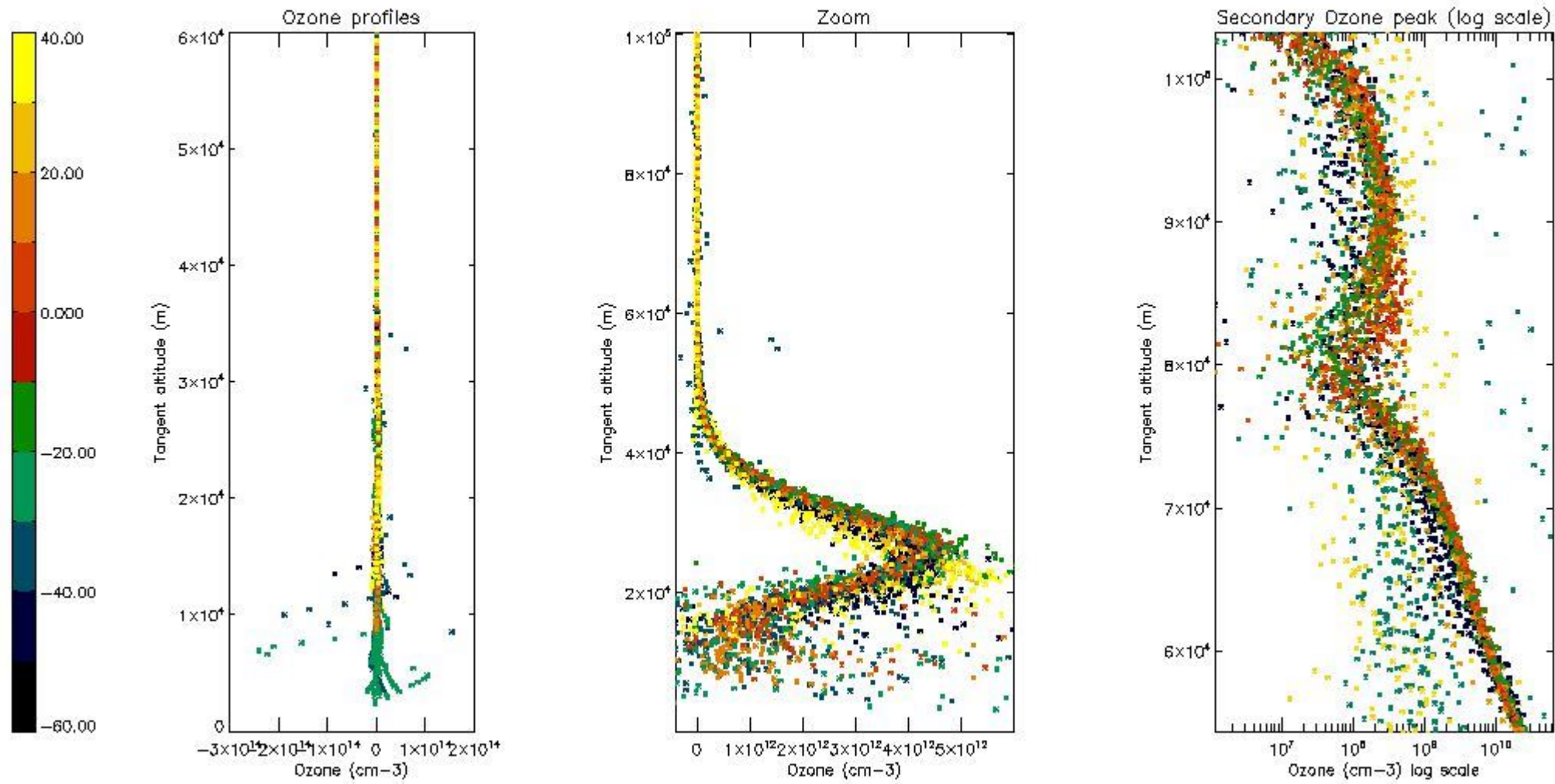
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	51
STD < 20	26

STD < 10	21
STD < 5	14

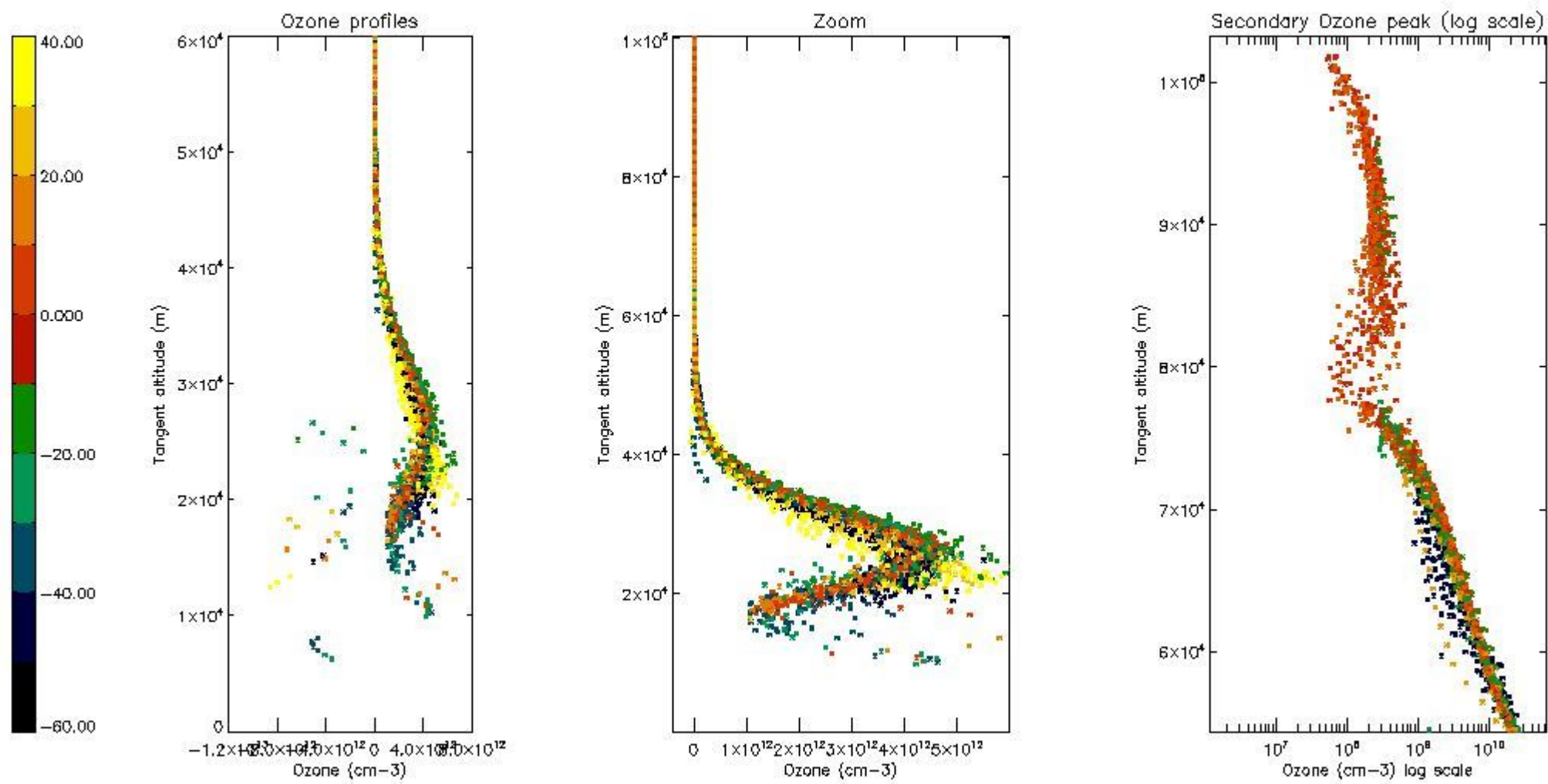
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



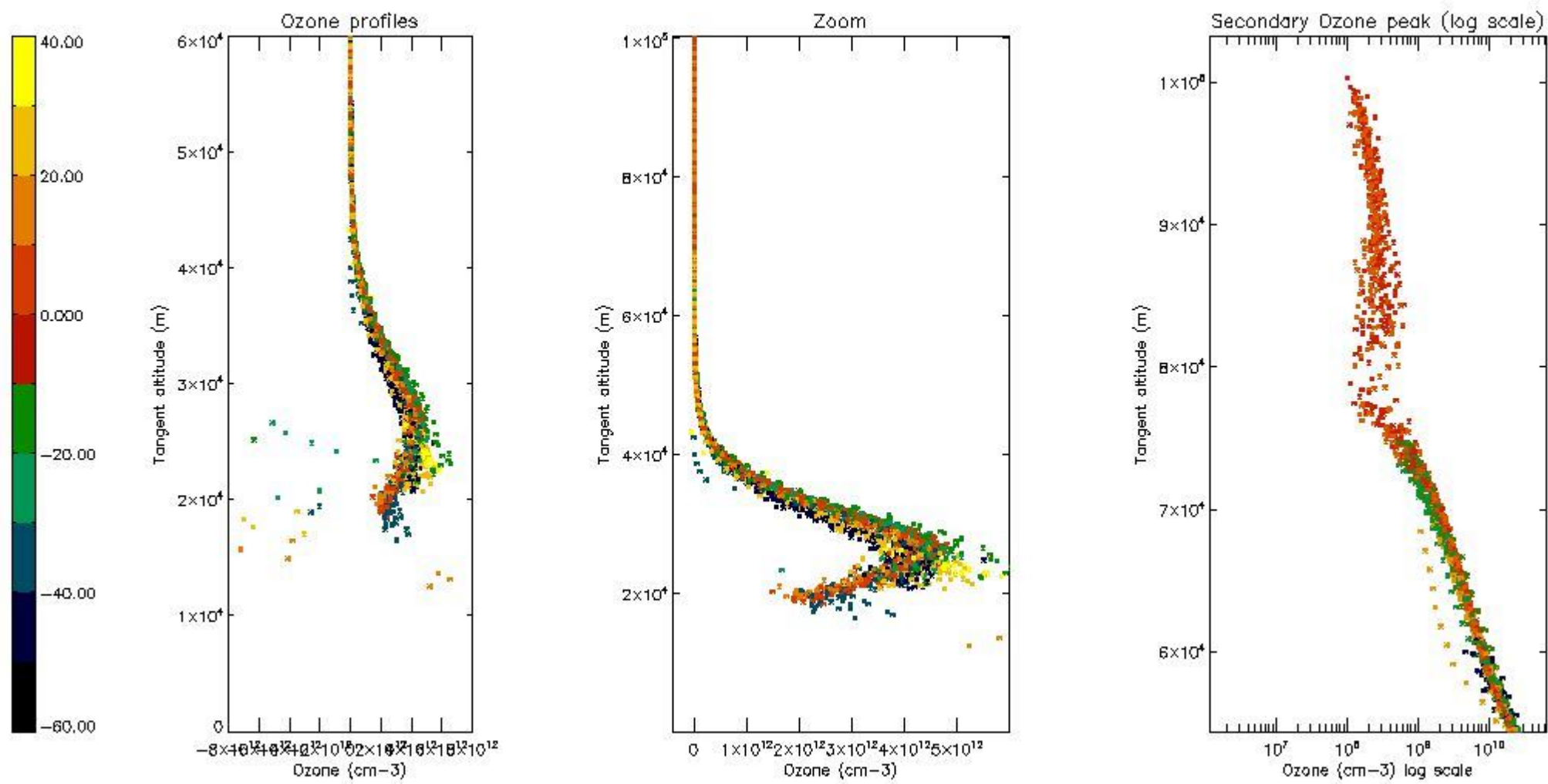
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



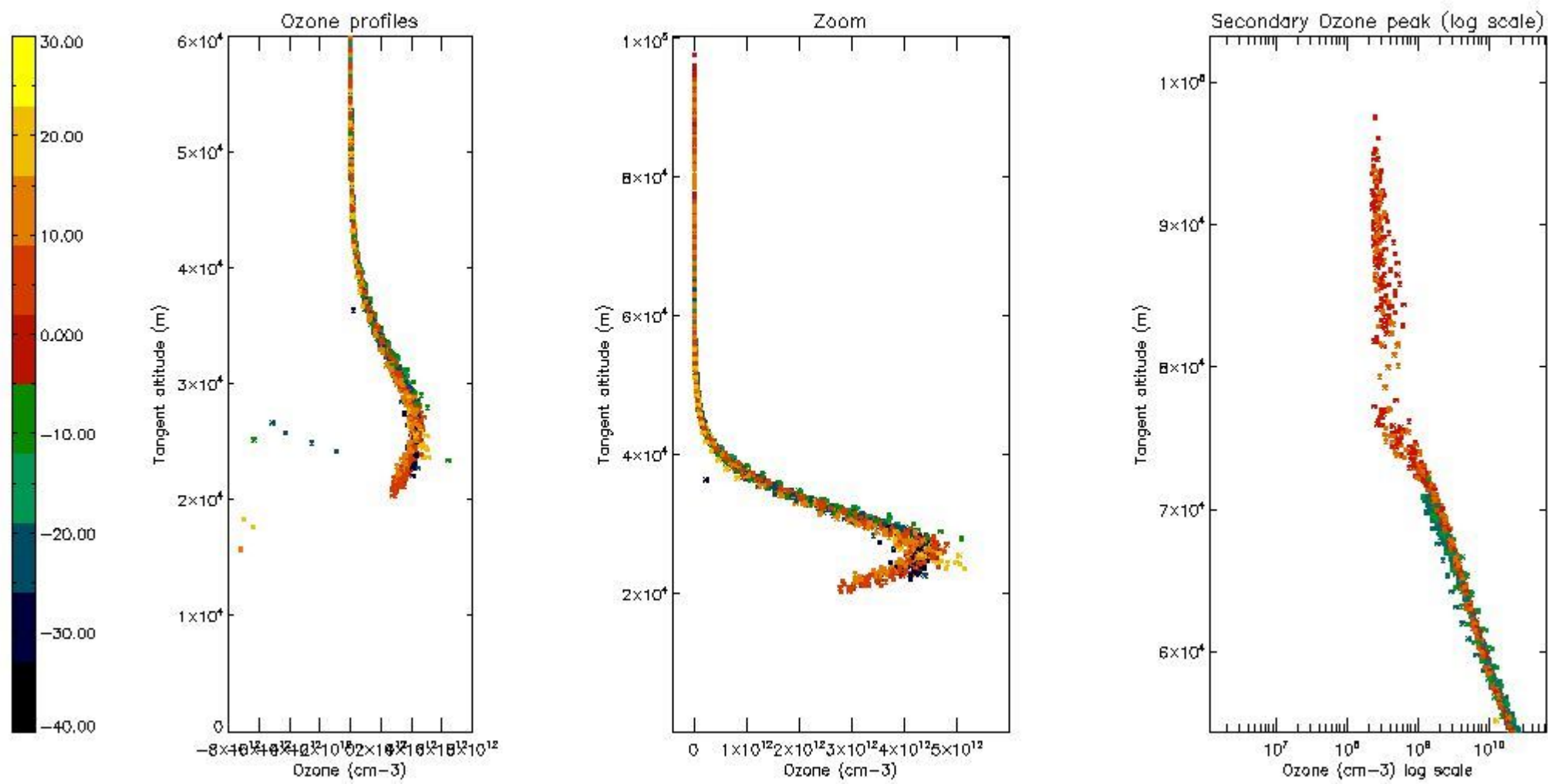
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



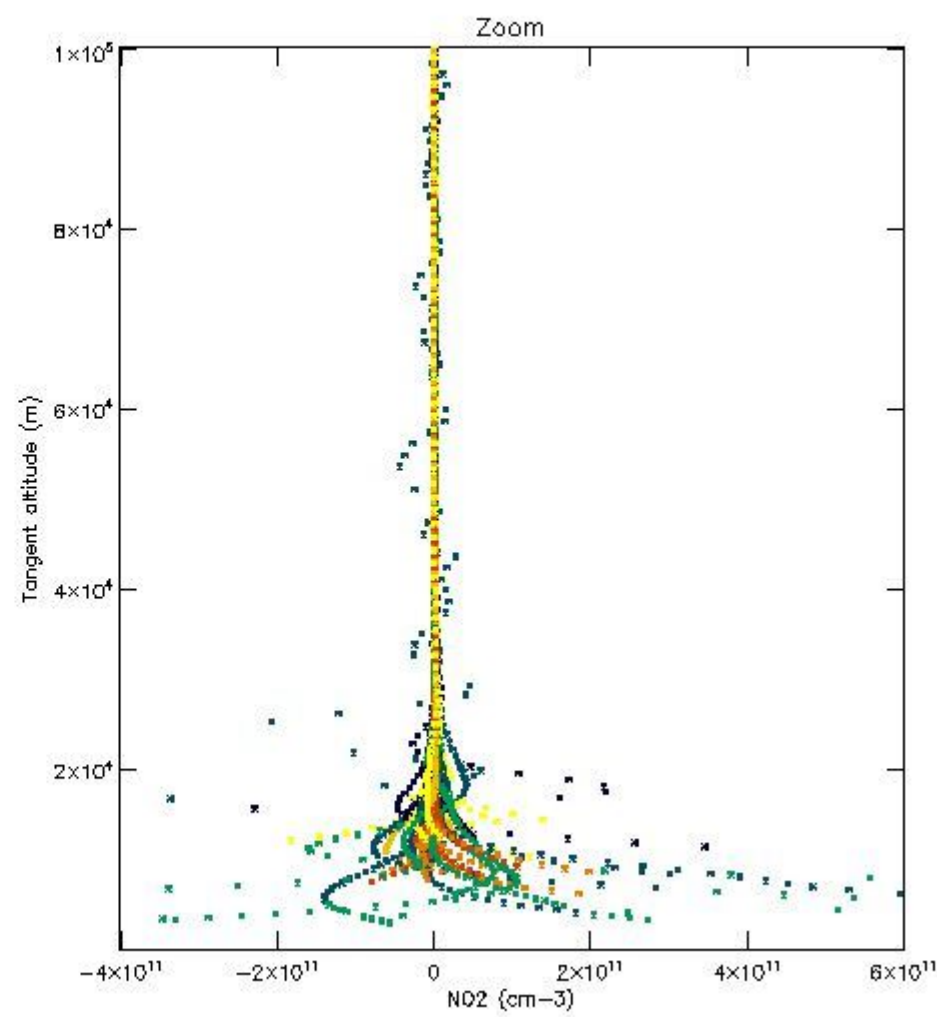
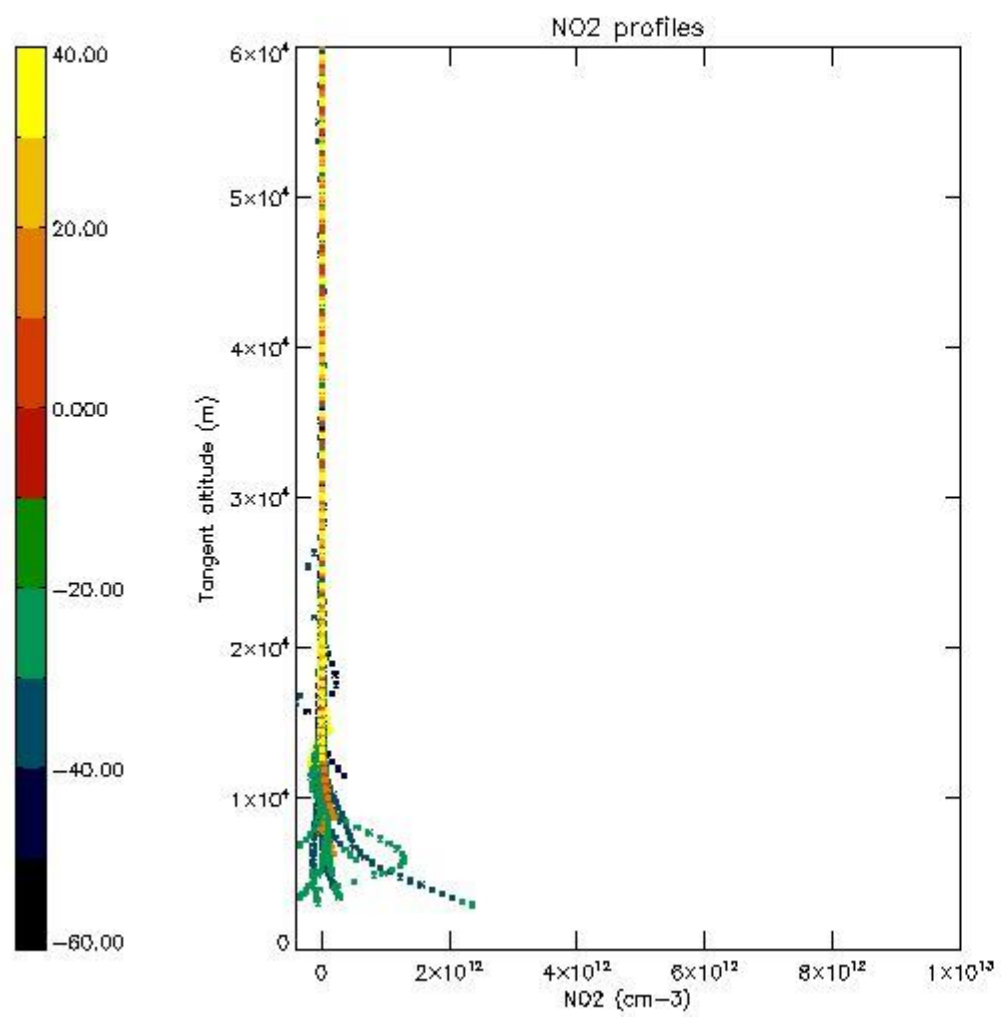
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



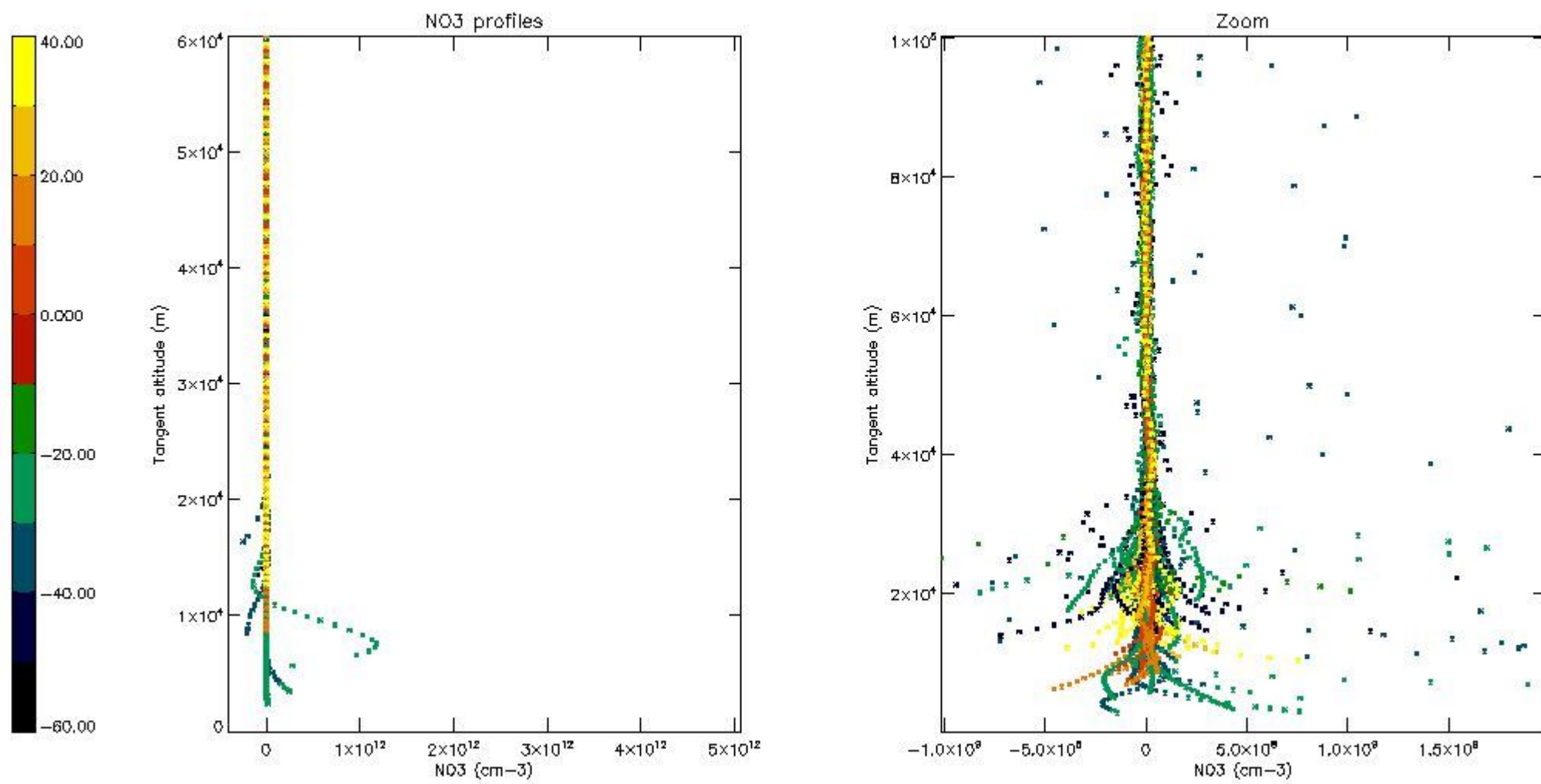
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



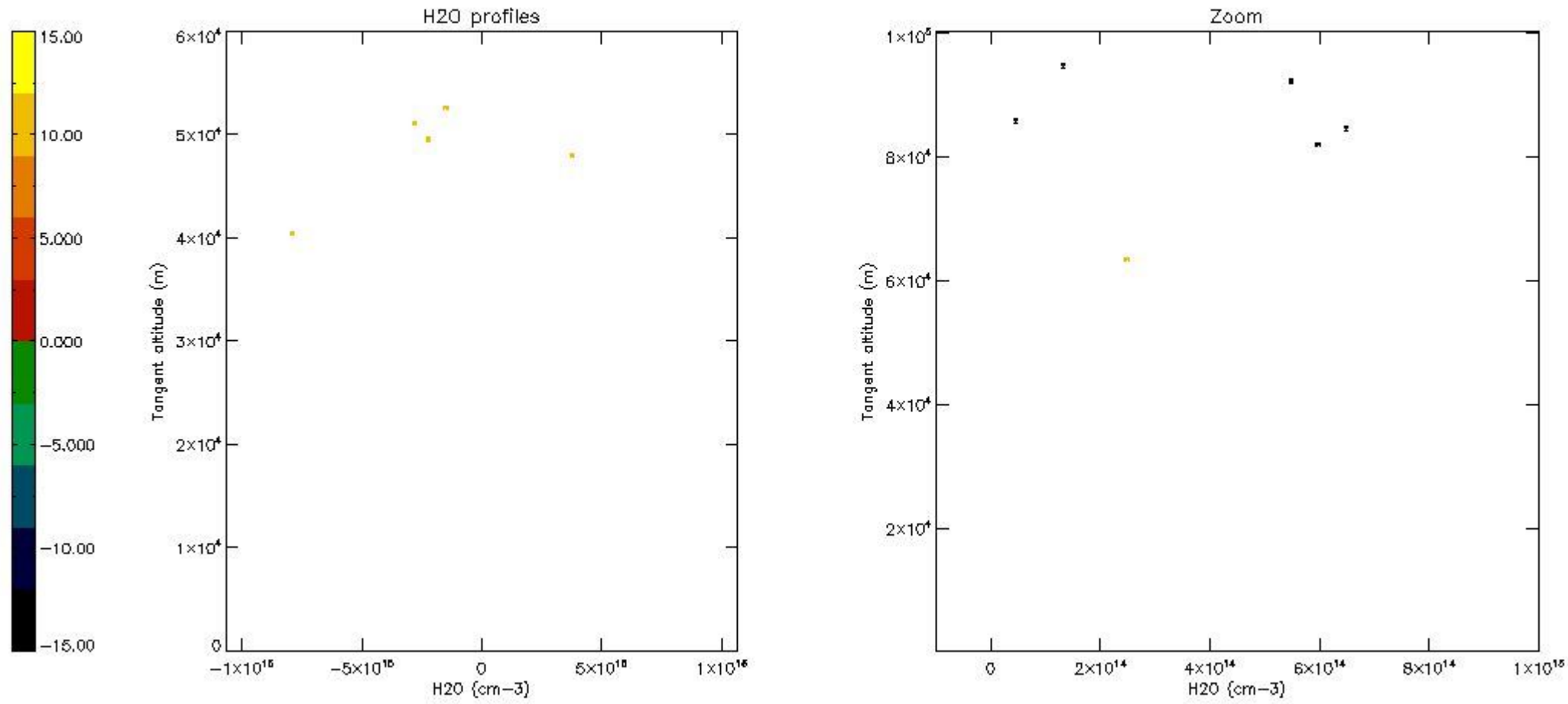
5.7 Plot NO3 profiles for all STD (dark without errors)

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	14-FEB-2011 00:12:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-FEB-2011 00:12:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-FEB-2011 00:12:43

GOMOS Level 2 Daily Report

SUMMARY

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

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

Item	Value
Time of report generation	24APR2013 10:17:30
Data source version	GOMOS/6.01
Start time of products	14-02-2011 (14FEB2011 00:00:00)
Stop time of products	15-02-2011 (15FEB2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	247
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

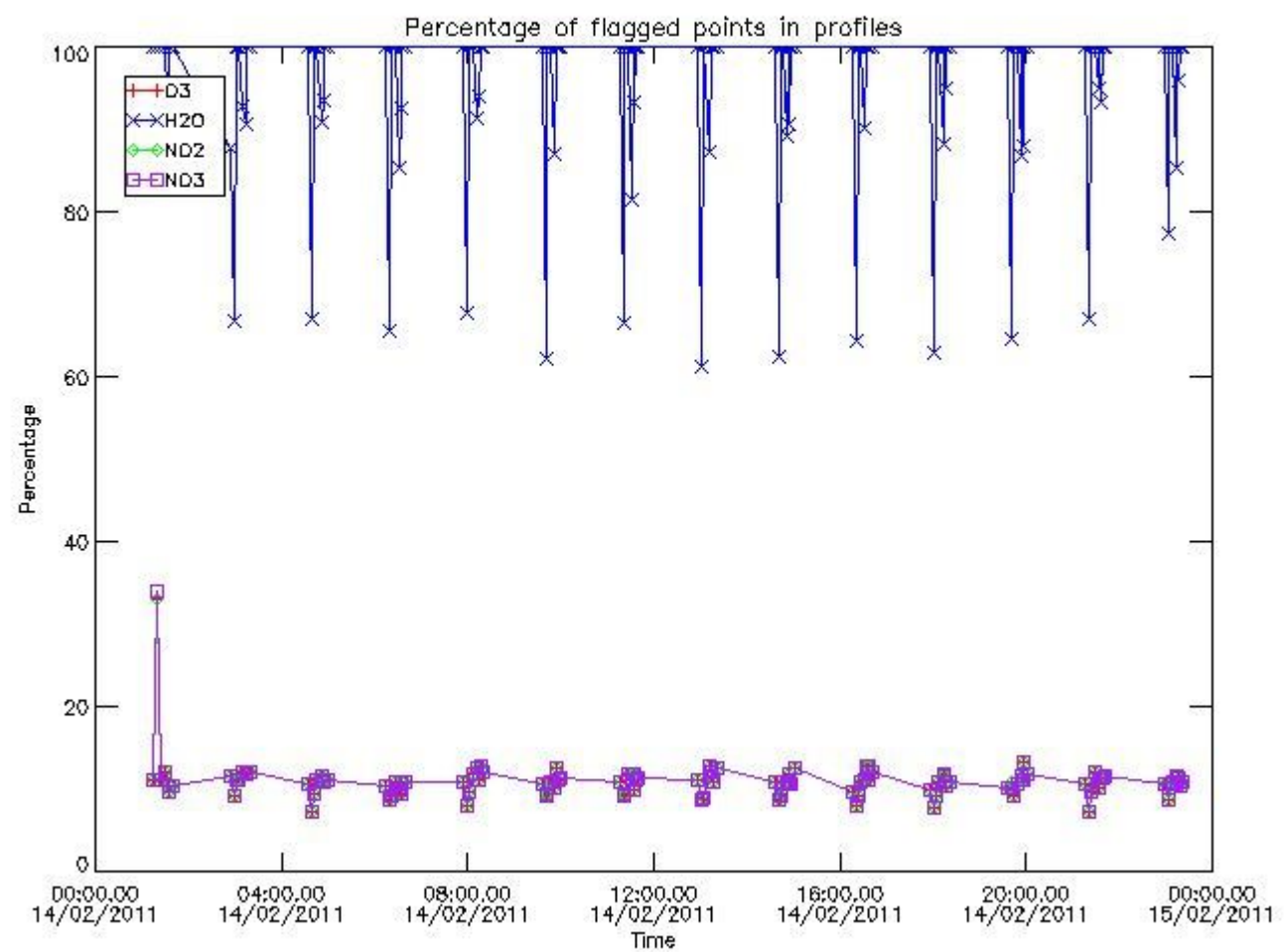
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110214_001243_000000493099_00275_46841_2027.N1	14-FEB-2011 00:12:43	Straylight	49.000	48	30Alp Hya	1.9770	4100.0	98	46841	No
2	GOM_NL__2PRFIN20110214_002332_000000463099_00275_46841_2028.N1	14-FEB-2011 00:23:32	Bright	45.500	166	17Eps Leo	2.9800	6000.0	91	46841	No
3	GOM_NL__2PRFIN20110214_003524_000000453099_00275_46841_2029.N1	14-FEB-2011 00:35:24	Bright	45.000	82	48Bet UMa	2.3650	10600.	90	46841	No
4	GOM_NL__2PRFIN20110214_004257_000000393099_00275_46841_2030.N1	14-FEB-2011 00:42:57	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	46841	No
5	GOM_NL__2PRFIN20110214_004747_000000433099_00275_46841_2031.N1	14-FEB-2011 00:47:47	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	46841	No
6	GOM_NL__2PRFIN20110214_005130_000000423099_00275_46841_2032.N1	14-FEB-2011 00:51:30	Bright	41.500	130	23Bet Dra	2.7990	5800.0	83	46841	No
7	GOM_NL__2PRFIN20110214_005541_000000393099_00275_46841_2033.N1	14-FEB-2011 00:55:41	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	46841	No
8	GOM_NL__2PRFIN20110214_010438_000000463099_00275_46841_2034.N1	14-FEB-2011 01:04:38	Bright	46.000	59	55Alp Oph	2.0800	8900.0	92	46841	No
9	GOM_NL__2PRFIN20110214_010653_000000513099_00275_46841_2035.N1	14-FEB-2011 01:06:53	Bright	50.500	126	60Bet Oph	2.7700	4250.0	101	46841	No
10	GOM_NL__2PRFIN20110214_011408_000000513099_00275_46841_2036.N1	14-FEB-2011 01:14:08	Dark	50.500	86	35Eta Oph	2.4300	10200.	101	46841	No
11	GOM_NL__2PRFIN20110214_011907_000000553099_00275_46841_2037.N1	14-FEB-2011 01:19:07	Dark	55.000	16	21Alp Sco	1.0200	3000.0	110	46841	No
12	GOM_NL__2PRFIN20110214_012503_000000463099_00276_46842_2072.N1	14-FEB-2011 01:25:03	Dark	46.000	131	Gam Lup	2.8000	26000.	92	46842	No
13	GOM_NL__2PRFIN20110214_013026_000000433099_00276_46842_2073.N1	14-FEB-2011 01:30:26	Dark	42.500	10	Bet Cen	0.61000	28000.	85	46842	No
14	GOM_NL__2PRFIN20110214_013332_000000503099_00276_46842_2074.N1	14-FEB-2011 01:33:32	Dark	49.500	12	Alp1Cru	0.77500	30000.	99	46842	No
15	GOM_NL__2PRFIN20110214_013506_000000543099_00276_46842_2075.N1	14-FEB-2011 01:35:06	Dark	53.500	64	Gam Cen	2.2000	10600.	107	46842	No
16	GOM_NL__2PRFIN20110214_013916_000000493099_00276_46842_2076.N1	14-FEB-2011 01:39:16	Dark	49.000	113	Mu Vel	2.6920	5000.0	98	46842	No
17	GOM_NL__2PRFIN20110214_015257_000000483099_00276_46842_2077.N1	14-FEB-2011 01:52:57	Straylight	47.500	48	30Alp Hya	1.9770	4100.0	95	46842	No
18	GOM_NL__2PRFIN20110214_020346_000000473099_00276_46842_2078.N1	14-FEB-2011 02:03:46	Bright	46.500	166	17Eps Leo	2.9800	6000.0	93	46842	No
19	GOM_NL__2PRFIN20110214_021537_000000453099_00276_46842_2079.N1	14-FEB-2011 02:15:37	Bright	44.500	82	48Bet UMa	2.3650	10600.	89	46842	No
20	GOM_NL__2PRFIN20110214_022311_000000413099_00276_46842_2080.N1	14-FEB-2011 02:23:11	Bright	41.000	60	7Bet UMi	2.0810	3950.0	82	46842	No
21	GOM_NL__2PRFIN20110214_022801_000000413099_00276_46842_2081.N1	14-FEB-2011 02:28:01	Bright	41.000	119	14Eta Dra	2.7270	4700.0	82	46842	No
22	GOM_NL__2PRFIN20110214_023144_000000393099_00276_46842_2082.N1	14-FEB-2011 02:31:44	Bright	39.000	130	23Bet Dra	2.7990	5800.0	78	46842	No
23	GOM_NL__2PRFIN20110214_023555_000000393099_00276_46842_2083.N1	14-FEB-2011 02:35:55	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	46842	No
24	GOM_NL__2PRFIN20110214_024452_000000453099_00276_46842_2084.N1	14-FEB-2011 02:44:52	Bright	45.000	59	55Alp Oph	2.0800	8900.0	90	46842	No
25	GOM_NL__2PRFIN20110214_024708_000000523099_00276_46842_2085.N1	14-FEB-2011 02:47:08	Bright	52.000	126	60Bet Oph	2.7700	4250.0	104	46842	No
26	GOM_NL__2PRFIN20110214_025423_000000533099_00276_46842_2086.N1	14-FEB-2011 02:54:23	Dark	53.000	86	35Eta Oph	2.4300	10200.	106	46842	No
27	GOM_NL__2PRFIN20110214_025922_000000613099_00276_46842_2087.N1	14-FEB-2011 02:59:22	Dark	60.500	16	21Alp Sco	1.0200	3000.0	121	46842	No
28	GOM_NL__2PRFIN20110214_030130_000000553099_00276_46842_2088.N1	14-FEB-2011 03:01:30	Dark	54.500	158	6Pi Sco	2.9060	28000.	109	46842	No
29	GOM_NL__2PRFIN20110214_030518_000000463099_00277_46843_2269.N1	14-FEB-2011 03:05:18	Dark	46.000	131	Gam Lup	2.8000	26000.	92	46843	No
30	GOM_NL__2PRFIN20110214_031041_000000433099_00277_46843_2270.N1	14-FEB-2011 03:10:41	Dark	42.500	10	Bet Cen	0.61000	28000.	85	46843	No
31	GOM_NL__2PRFIN20110214_031346_000000433099_00277_46843_2271.N1	14-FEB-2011 03:13:46	Dark	43.000	12	Alp1Cru	0.77500	30000.	86	46843	No
32	GOM_NL__2PRFIN20110214_031521_000000473099_00277_46843_2272.N1	14-FEB-2011 03:15:21	Dark	47.000	64	Gam Cen	2.2000	10600.	94	46843	No
33	GOM_NL__2PRFIN20110214_031931_000000433099_00277_46843_2273.N1	14-FEB-2011 03:19:31	Dark	42.500	113	Mu Vel	2.6920	5000.0	85	46843	No
34	GOM_NL__2PRFIN20110214_033311_000000483099_00277_46843_2274.N1	14-FEB-2011 03:33:11	Straylight	47.500	48	30Alp Hya	1.9770	4100.0	95	46843	No
35	GOM_NL__2PRFIN20110214_034359_000000453099_00277_46843_2275.N1	14-FEB-2011 03:43:59	Bright	45.000	166	17Eps Leo	2.9800	6000.0	90	46843	No
36	GOM_NL__2PRFIN20110214_035551_000000443099_00277_46843_2276.N1	14-FEB-2011 03:55:51	Bright	43.500	82	48Bet UMa	2.3650	10600.	87	46843	No
37	GOM_NL__2PRFIN20110214_040325_000000393099_00277_46843_2277.N1	14-FEB-2011 04:03:25	Bright	38.500	60	7Bet UMi	2.0810	3950.0	77	46843	No
38	GOM_NL__2PRFIN20110214_040815_000000443099_00277_46843_2278.N1	14-FEB-2011 04:08:15	Bright	43.500	119	14Eta Dra	2.7270	4700.0	87	46843	No
39	GOM_NL__2PRFIN20110214_041158_000000413099_00277_46843_2279.N1	14-FEB-2011 04:11:58	Bright	40.500	130	23Bet Dra	2.7990	5800.0	81	46843	No
40	GOM_NL__2PRFIN20110214_041609_000000393099_00277_46843_2280.N1	14-FEB-2011 04:16:09	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	46843	No
41	GOM_NL__2PRFIN20110214_042507_000000463099_00277_46843_2281.N1	14-FEB-2011 04:25:07	Bright	46.000	59	55Alp Oph	2.0800	8900.0	92	46843	No
42	GOM_NL__2PRFIN20110214_042722_000000513099_00277_46843_2282.N1	14-FEB-2011 04:27:22	Bright	50.500	126	60Bet Oph	2.7700	4250.0	101	46843	No

220	GOM_NL__2PRFIN20110214_212419_000000543099_00287_46853_2839.N1	14-FEB-2011 21:24:19	Dark	53.500	158	6Pi Sco	2.9060	28000.	107	46853	No
221	GOM_NL__2PRFIN20110214_212803_000000473099_00288_46854_2833.N1	14-FEB-2011 21:28:03	Dark	46.500	131	Gam Lup	2.8000	26000.	93	46854	No
222	GOM_NL__2PRFIN20110214_213322_000000503099_00288_46854_2834.N1	14-FEB-2011 21:33:22	Dark	50.000	10	Bet Cen	0.61000	28000.	100	46854	No
223	GOM_NL__2PRFIN20110214_213442_000000453099_00288_46854_2835.N1	14-FEB-2011 21:34:42	Dark	45.000	77	Eps Cen	2.3030	28000.	90	46854	No
224	GOM_NL__2PRFIN20110214_213626_000000453099_00288_46854_2836.N1	14-FEB-2011 21:36:26	Dark	45.000	12	Alp1Cru	0.77500	30000.	90	46854	No
225	GOM_NL__2PRFIN20110214_213803_000000453099_00288_46854_2837.N1	14-FEB-2011 21:38:03	Dark	45.000	64	Gam Cen	2.2000	10600.	90	46854	No
226	GOM_NL__2PRFIN20110214_214210_000000453099_00288_46854_2838.N1	14-FEB-2011 21:42:10	Dark	44.500	113	Mu Vel	2.6920	5000.0	89	46854	No
227	GOM_NL__2PRFIN20110214_215545_000000563099_00288_46854_2839.N1	14-FEB-2011 21:55:45	Straylight	56.000	48	30Alp Hya	1.9770	4100.0	112	46854	No
228	GOM_NL__2PRFIN20110214_220628_000000463099_00288_46854_2840.N1	14-FEB-2011 22:06:28	Bright	46.000	166	17Eps Leo	2.9800	6000.0	92	46854	No
229	GOM_NL__2PRFIN20110214_221817_000000473099_00288_46854_2841.N1	14-FEB-2011 22:18:17	Bright	46.500	82	48Bet UMa	2.3650	10600.	93	46854	No
230	GOM_NL__2PRFIN20110214_222555_000000433099_00288_46854_2842.N1	14-FEB-2011 22:25:55	Bright	42.500	60	7Bet UMi	2.0810	3950.0	85	46854	No
231	GOM_NL__2PRFIN20110214_223045_000000433099_00288_46854_2843.N1	14-FEB-2011 22:30:45	Bright	43.000	119	14Eta Dra	2.7270	4700.0	86	46854	No
232	GOM_NL__2PRFIN20110214_223431_000000423099_00288_46854_2844.N1	14-FEB-2011 22:34:31	Bright	42.000	130	23Bet Dra	2.7990	5800.0	84	46854	No
233	GOM_NL__2PRFIN20110214_223844_000000373099_00288_46854_2845.N1	14-FEB-2011 22:38:44	Bright	37.000	5	3Alp Lyr	0.033000	11000.	74	46854	No
234	GOM_NL__2PRFIN20110214_224746_000000653099_00288_46854_2846.N1	14-FEB-2011 22:47:46	Bright	65.000	59	55Alp Oph	2.0800	8900.0	130	46854	No
235	GOM_NL__2PRFIN20110214_225002_000000493099_00288_46854_2847.N1	14-FEB-2011 22:50:02	Bright	49.000	126	60Bet Oph	2.7700	4250.0	98	46854	No
236	GOM_NL__2PRFIN20110214_225721_000000493099_00288_46854_2848.N1	14-FEB-2011 22:57:21	Dark	48.500	86	35Eta Oph	2.4300	10200.	97	46854	No
237	GOM_NL__2PRFIN20110214_230223_000000713099_00288_46854_2849.N1	14-FEB-2011 23:02:23	Dark	71.000	16	21Alp Sco	1.0200	3000.0	142	46854	No
238	GOM_NL__2PRFIN20110214_230434_000000553099_00288_46854_2850.N1	14-FEB-2011 23:04:34	Dark	55.000	158	6Pi Sco	2.9060	28000.	110	46854	No
239	GOM_NL__2PRFIN20110214_230818_000000483099_00289_46855_2845.N1	14-FEB-2011 23:08:18	Dark	47.500	131	Gam Lup	2.8000	26000.	95	46855	No
240	GOM_NL__2PRFIN20110214_231336_000000483099_00289_46855_2846.N1	14-FEB-2011 23:13:36	Dark	48.000	10	Bet Cen	0.61000	28000.	96	46855	No
241	GOM_NL__2PRFIN20110214_231456_000000443099_00289_46855_2847.N1	14-FEB-2011 23:14:56	Dark	44.000	77	Eps Cen	2.3030	28000.	88	46855	No
242	GOM_NL__2PRFIN20110214_231640_000000493099_00289_46855_2848.N1	14-FEB-2011 23:16:40	Dark	49.000	12	Alp1Cru	0.77500	30000.	98	46855	No
243	GOM_NL__2PRFIN20110214_231818_000000493099_00289_46855_2849.N1	14-FEB-2011 23:18:18	Dark	49.000	64	Gam Cen	2.2000	10600.	98	46855	No
244	GOM_NL__2PRFIN20110214_232224_000000473099_00289_46855_2850.N1	14-FEB-2011 23:22:24	Dark	46.500	113	Mu Vel	2.6920	5000.0	93	46855	No
245	GOM_NL__2PRFIN20110214_233559_000000503099_00289_46855_2851.N1	14-FEB-2011 23:35:59	Straylight	49.500	48	30Alp Hya	1.9770	4100.0	99	46855	No
246	GOM_NL__2PRFIN20110214_234641_000000463099_00289_46855_2852.N1	14-FEB-2011 23:46:41	Bright	46.000	166	17Eps Leo	2.9800	6000.0	92	46855	No
247	GOM_NL__2PRFIN20110214_235831_000000453099_00289_46855_2853.N1	14-FEB-2011 23:58:31	Bright	45.000	82	48Bet UMa	2.3650	10600.	90	46855	No

3. Quality information per product

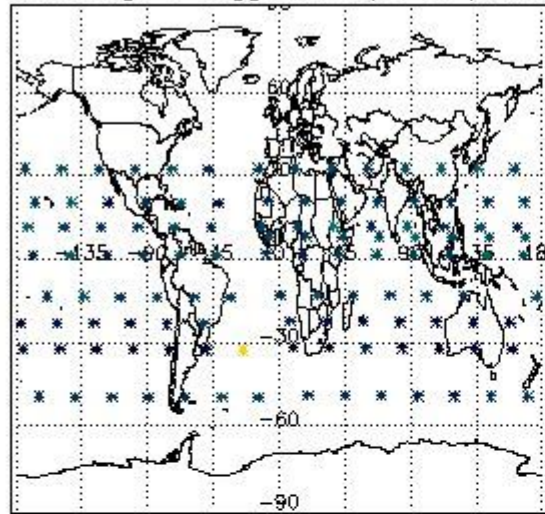
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

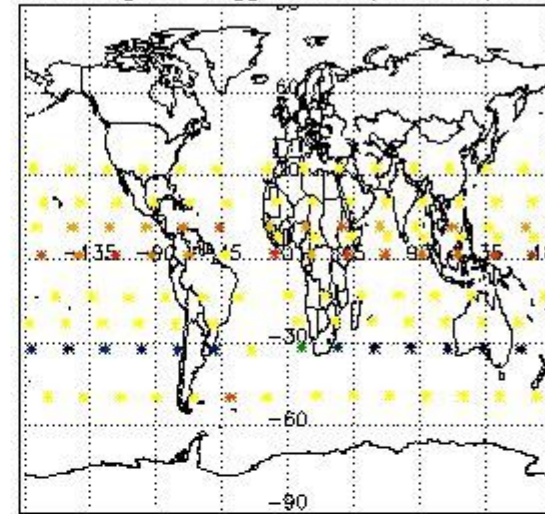


3.2 Plot quality information per product (world map)

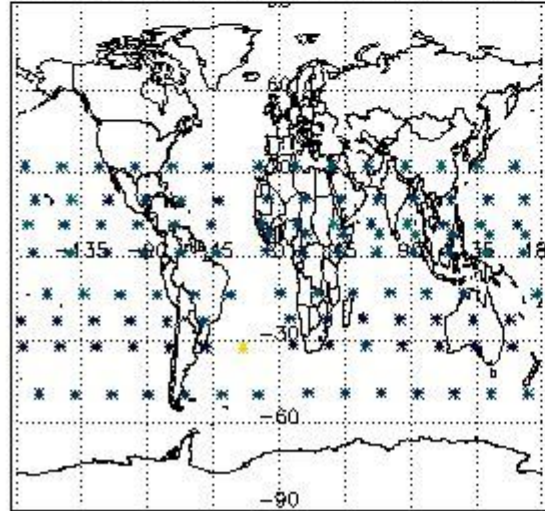
Percentage of flagged data per O3 profile



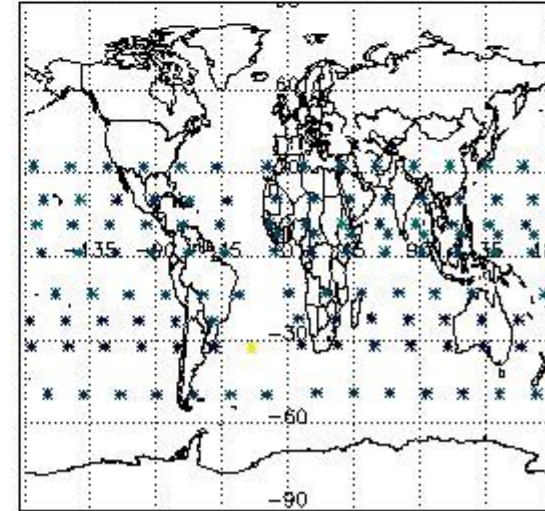
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

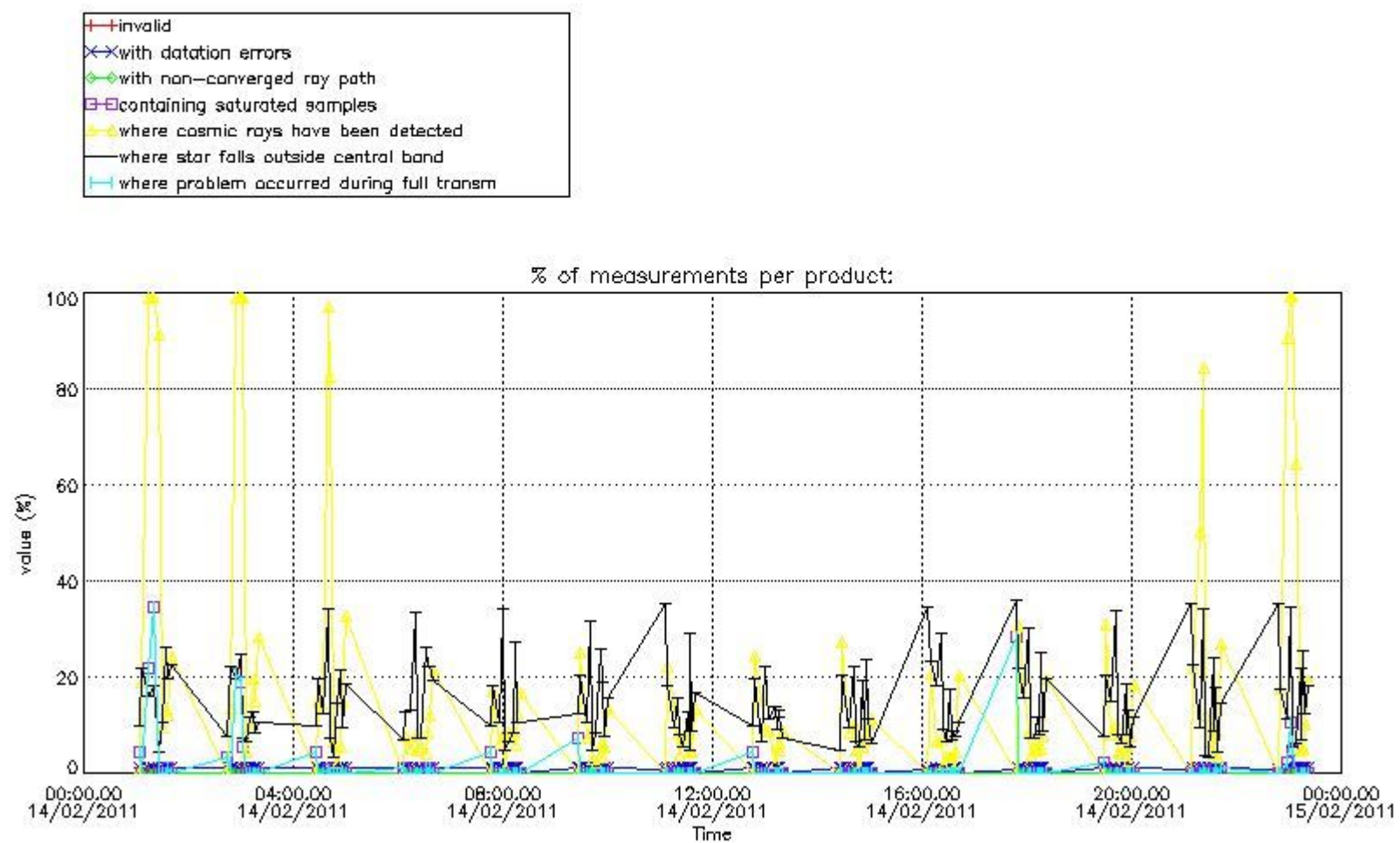


4. Level 1 quality information per product

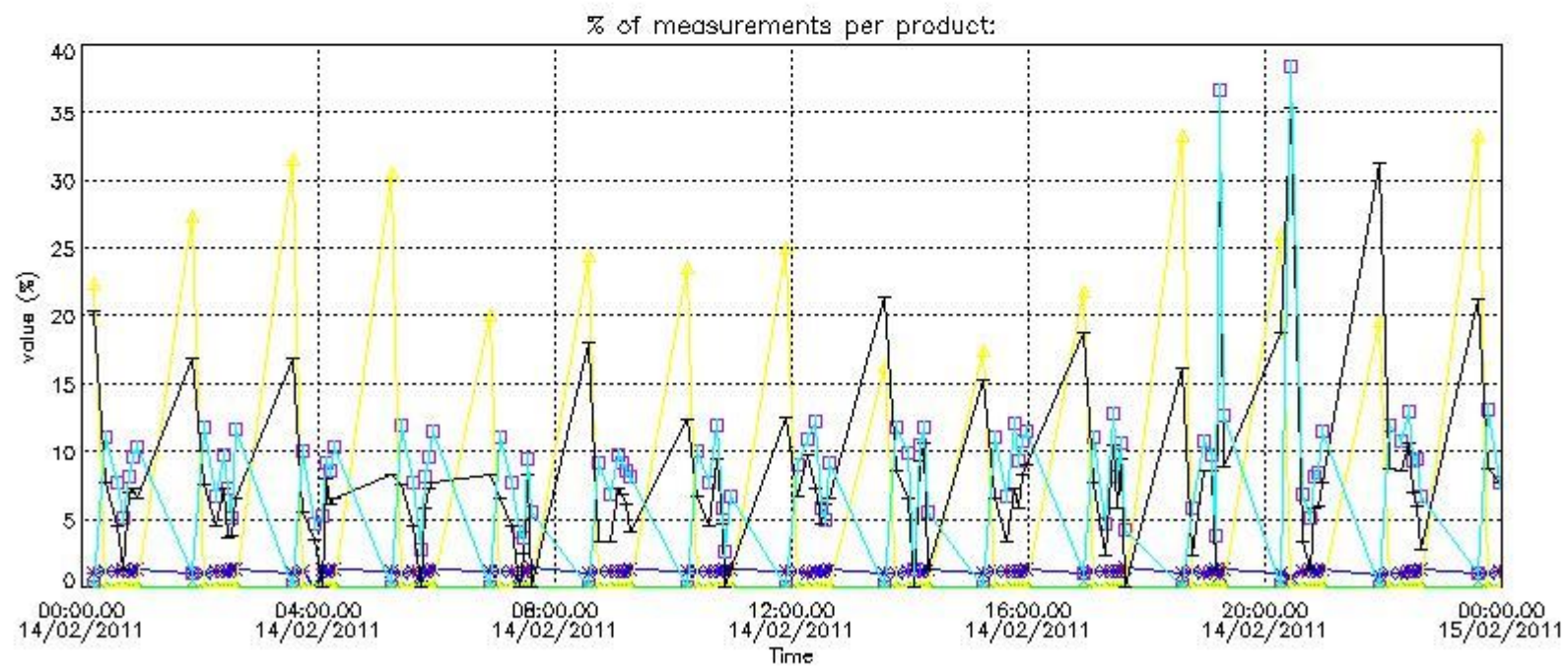
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



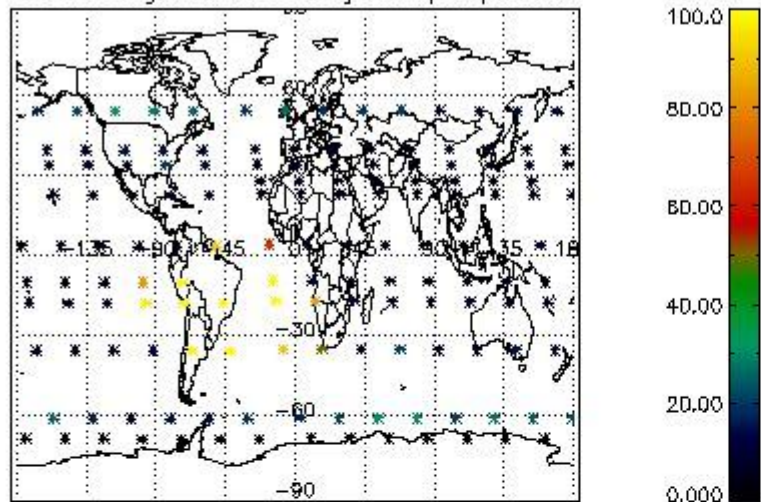
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



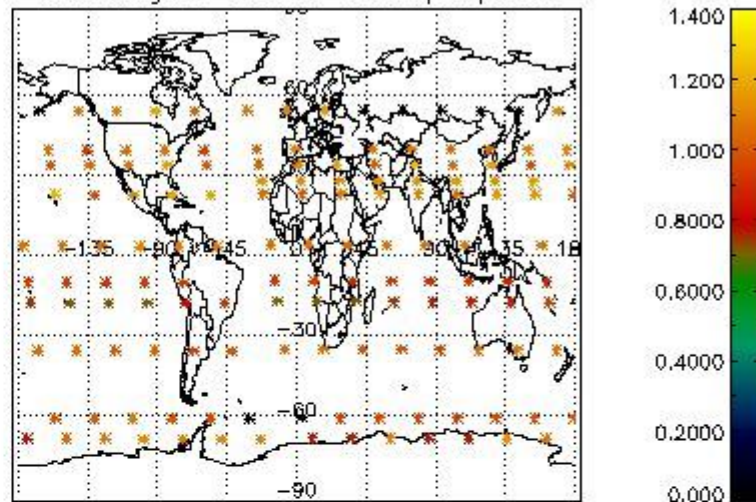
4.2 Plot quality information per product coming from level 1b processing (world map)

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

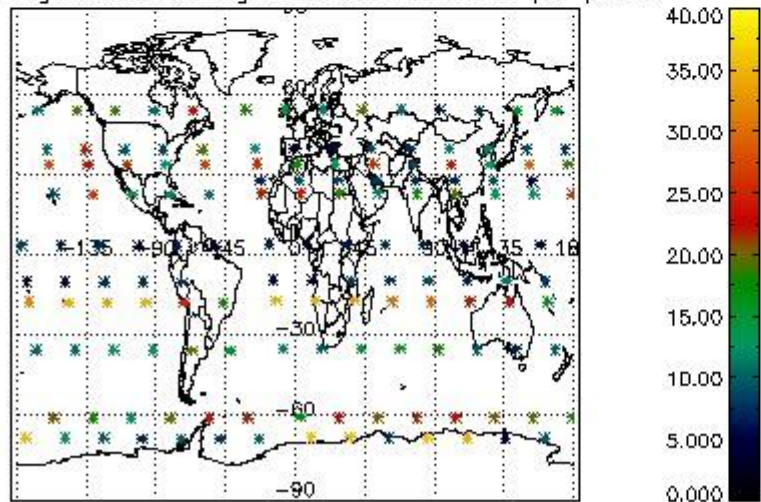
Percentage of cosmic ray hits per profile



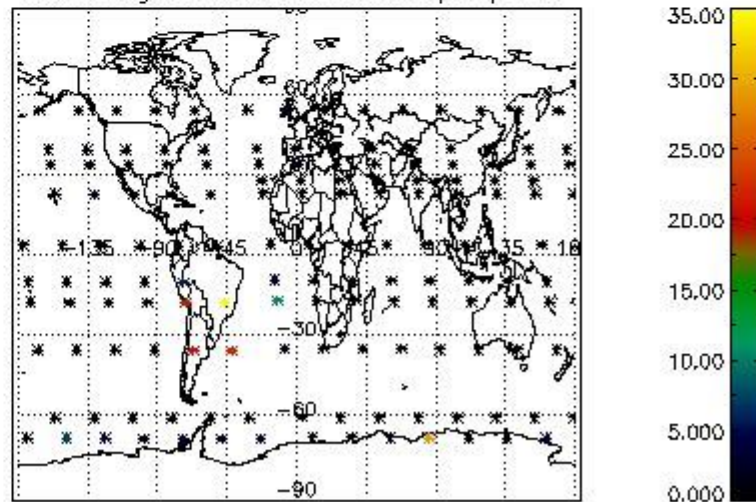
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

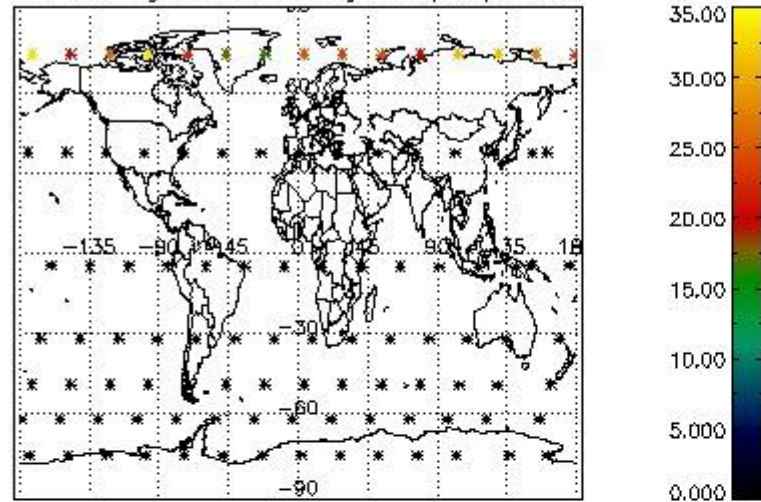


Percentage of saturation errors per profile

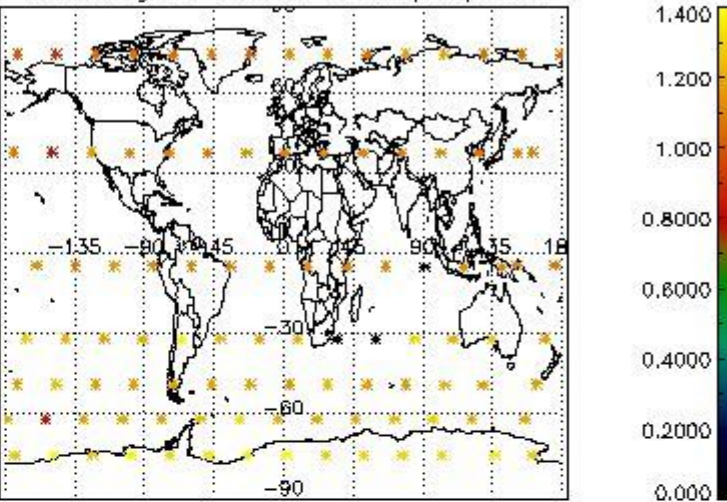


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

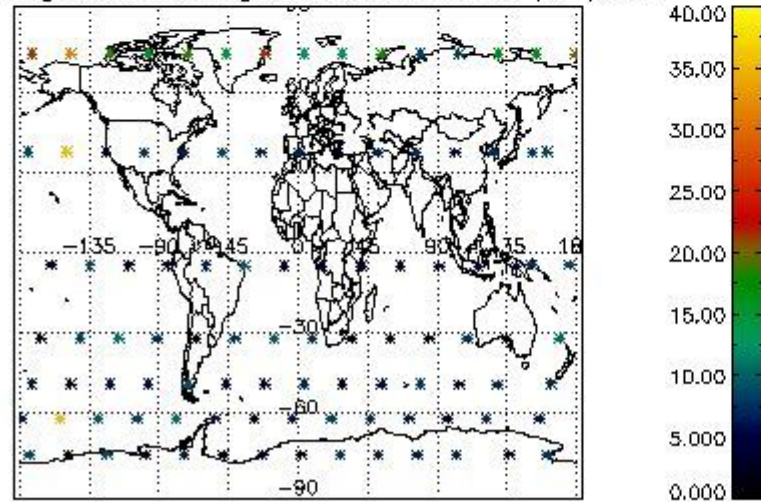
Percentage of cosmic ray hits per profile



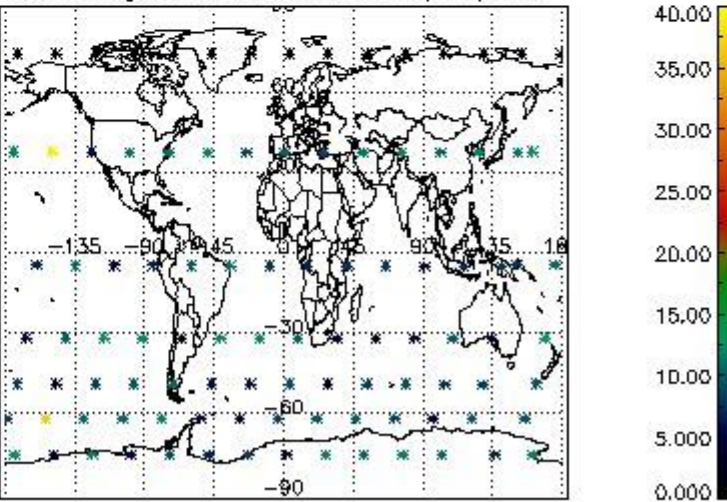
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

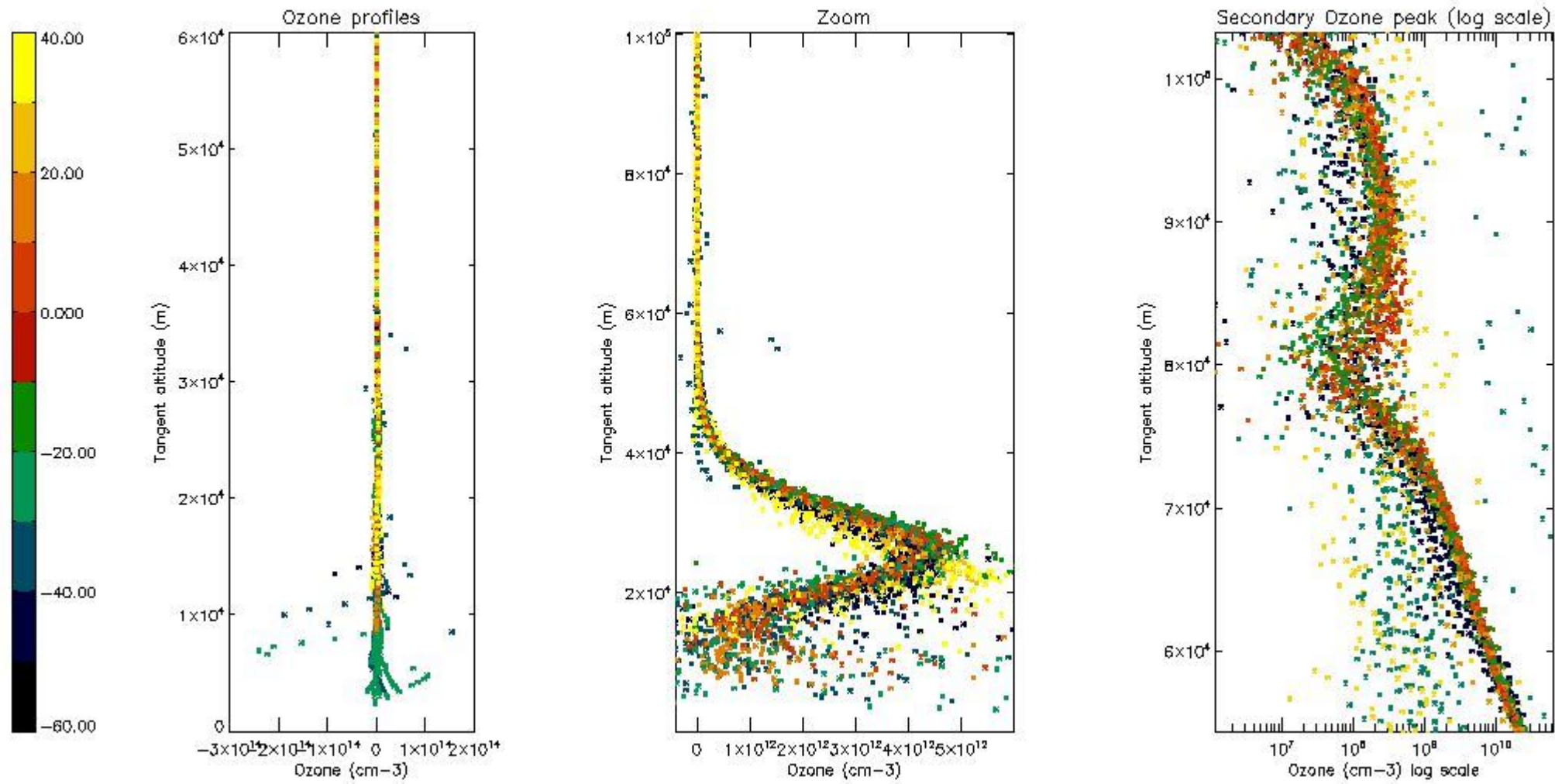
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	51
STD < 20	26

STD < 10	21
STD < 5	14

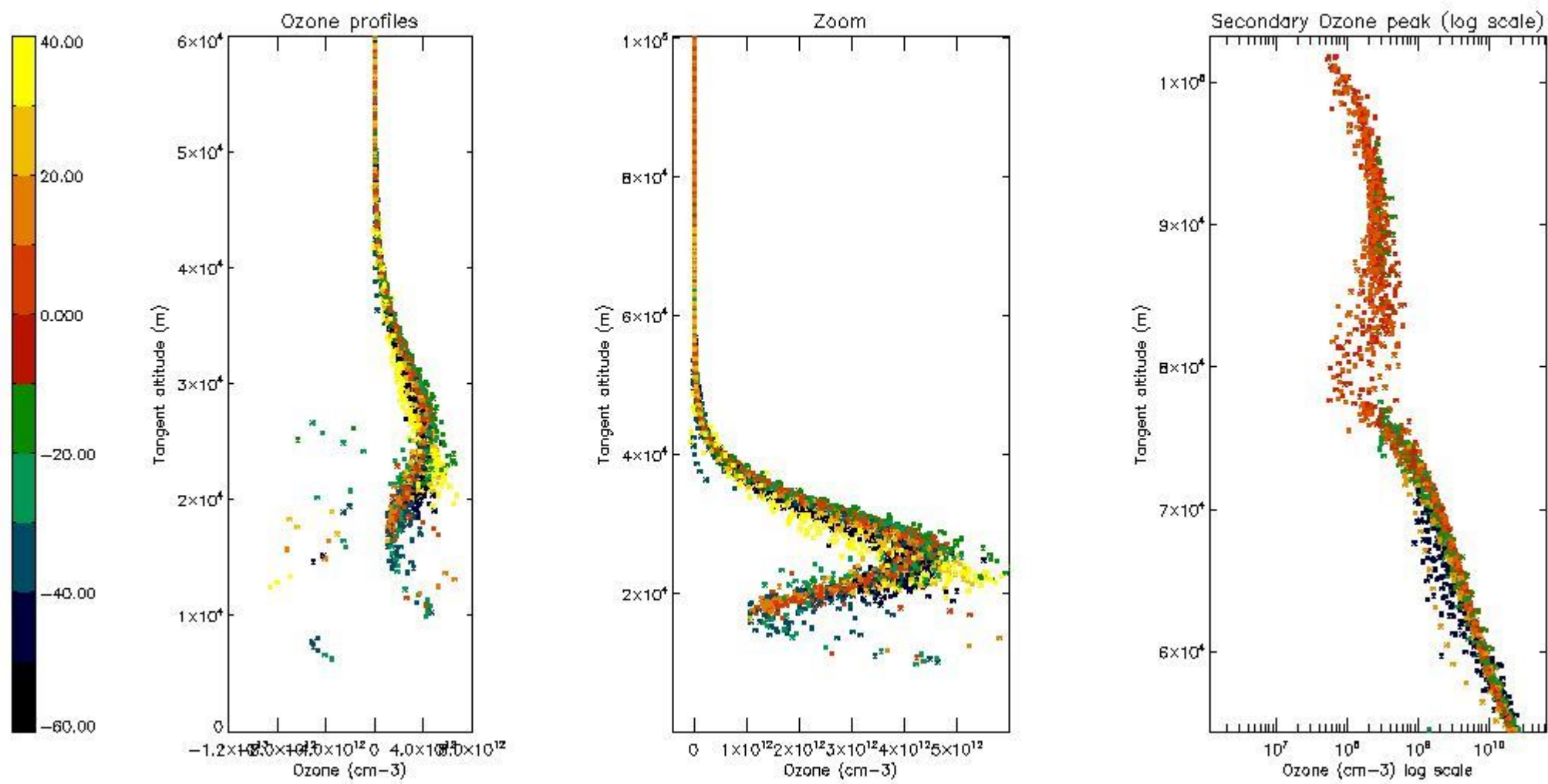
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



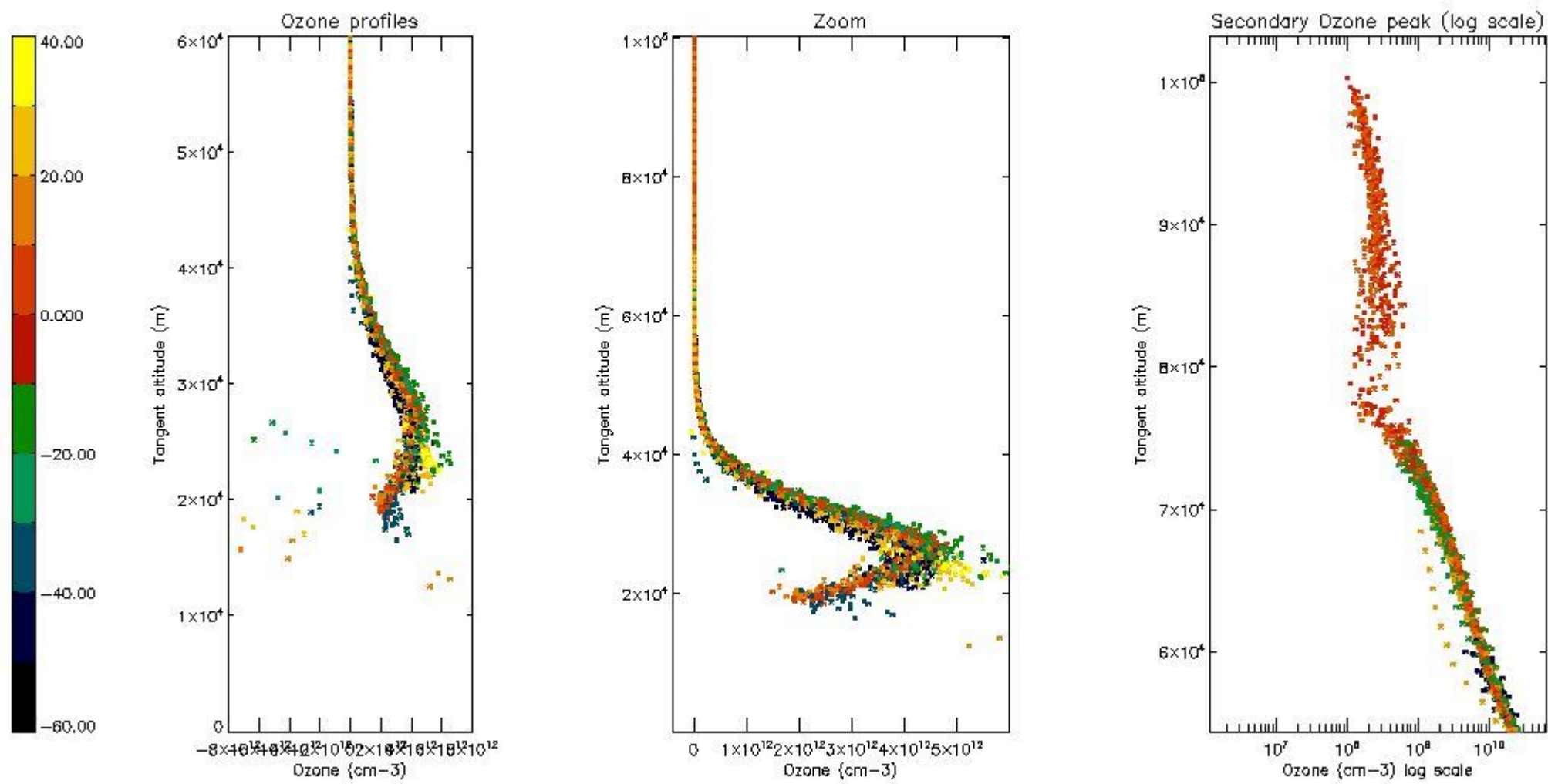
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



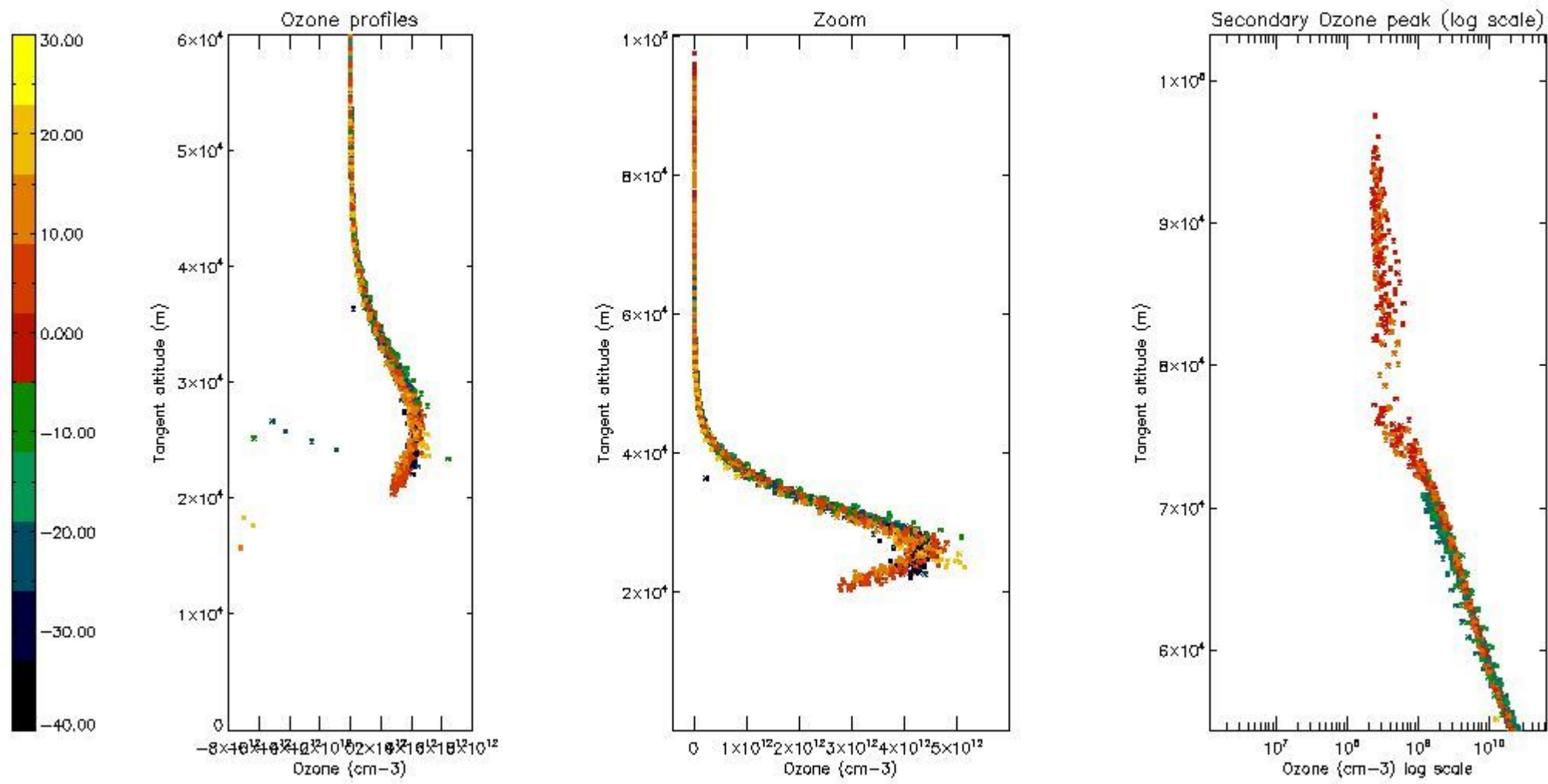
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



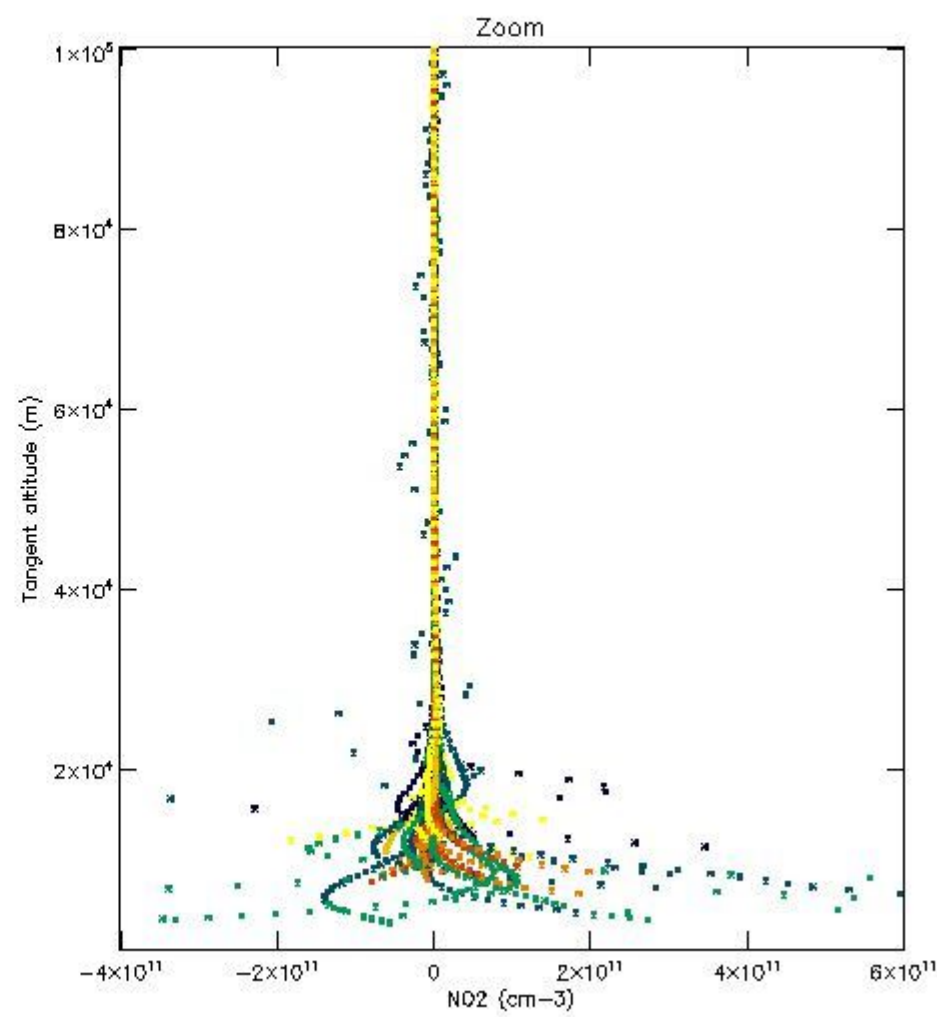
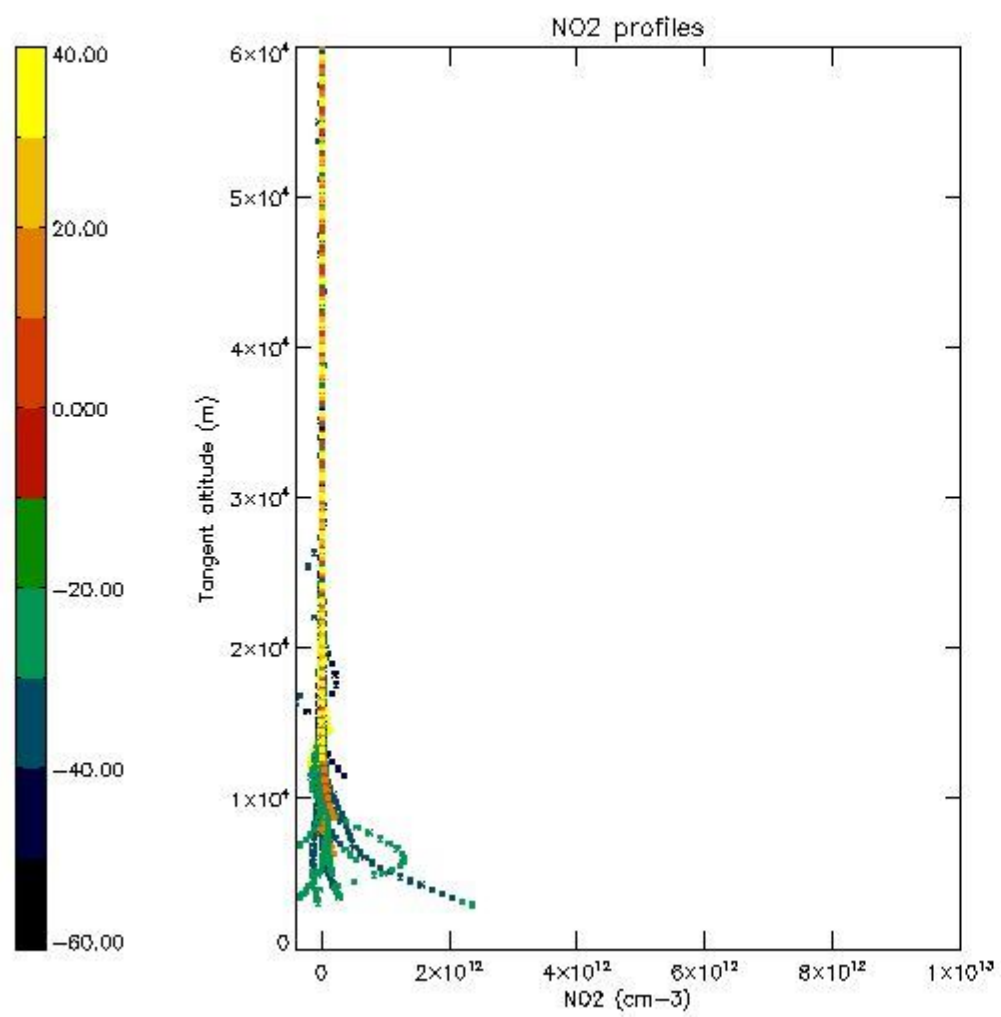
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



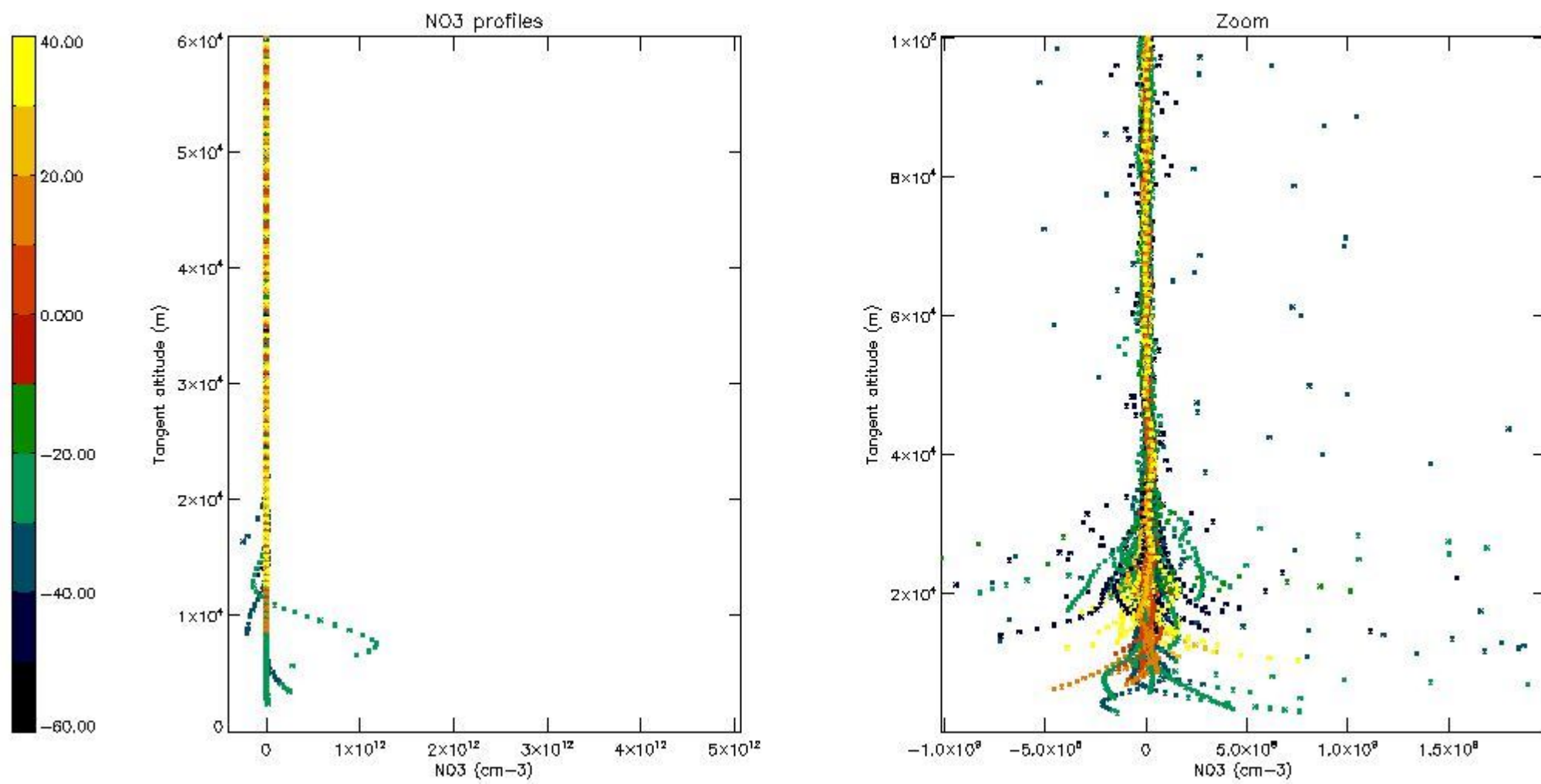
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



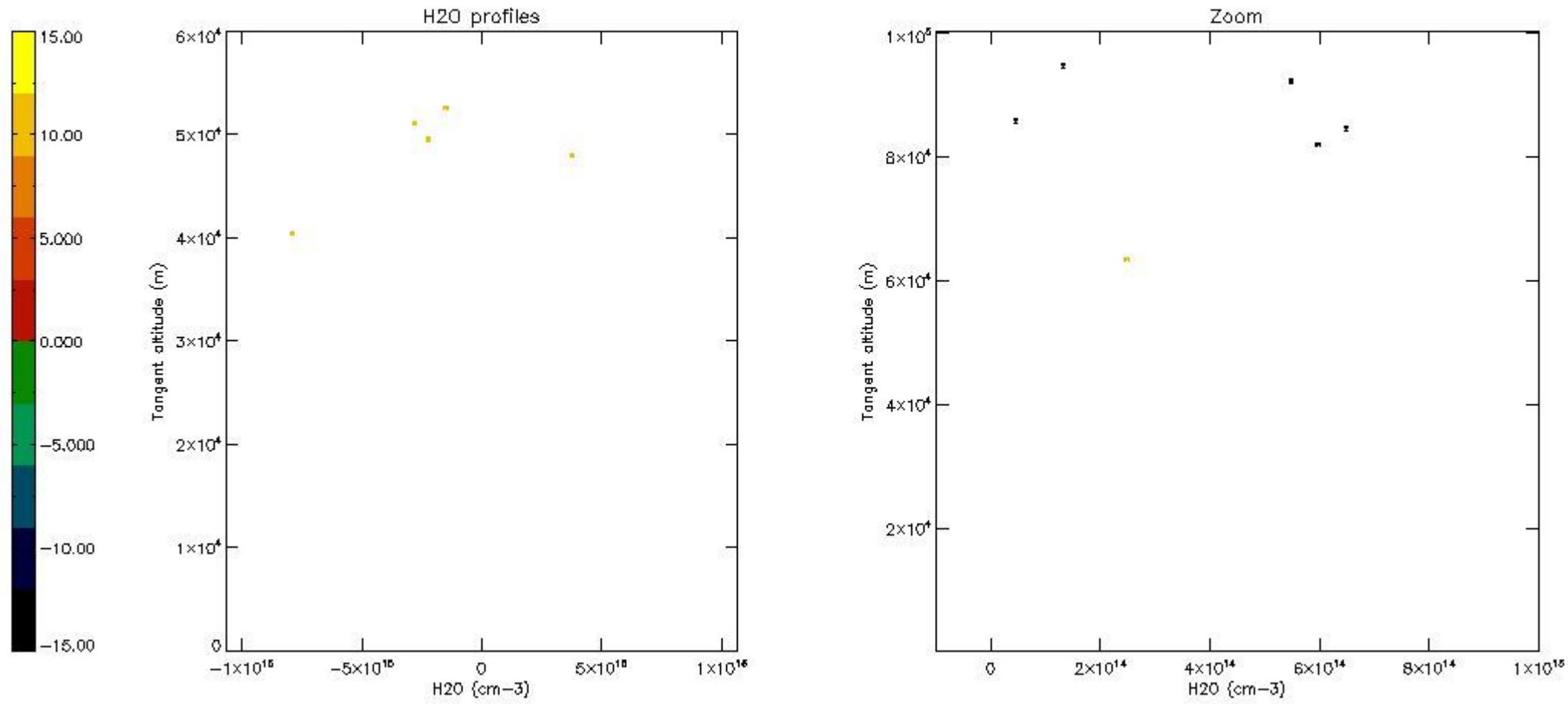
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

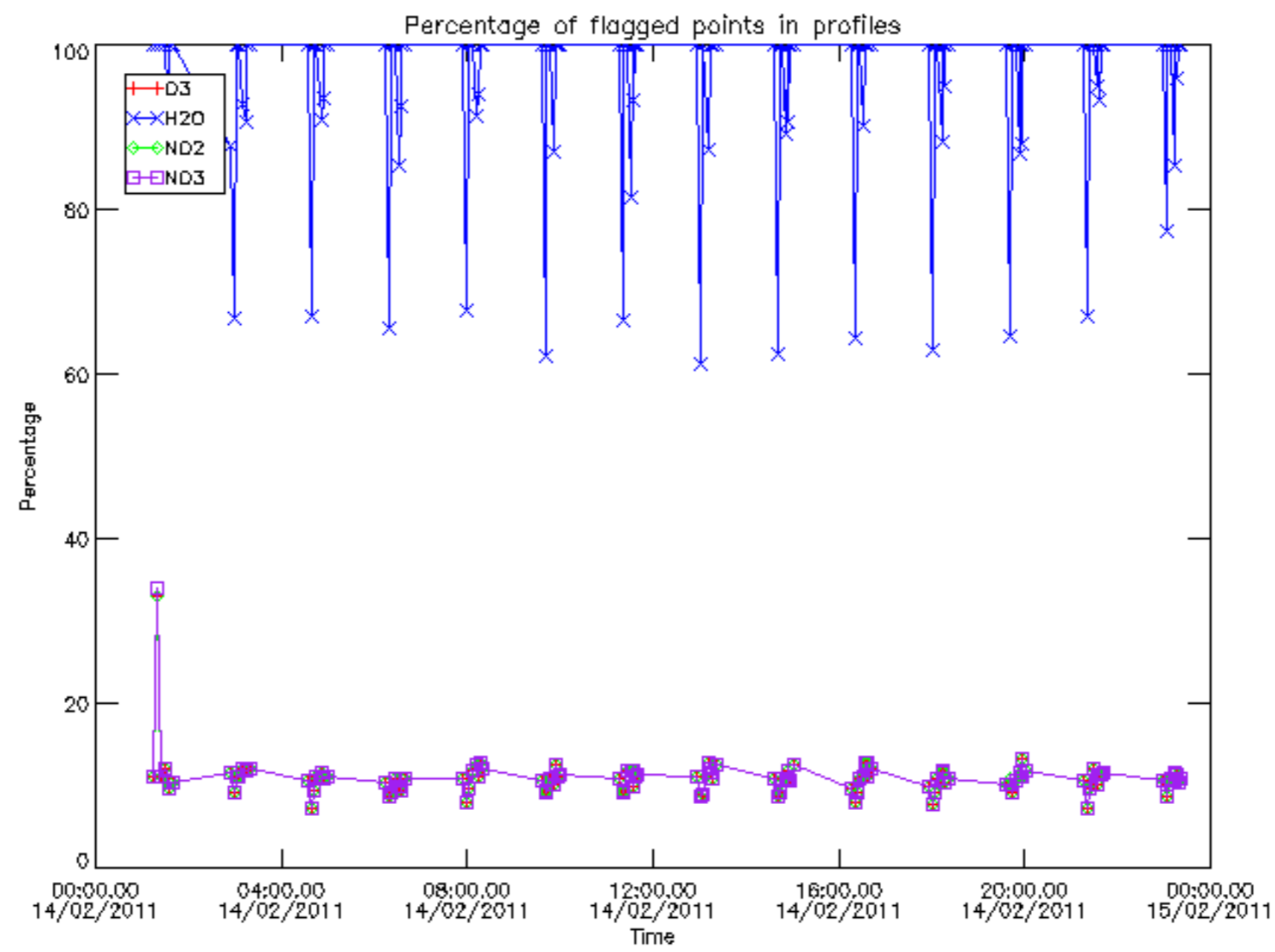
The colorbar represents the latitude.



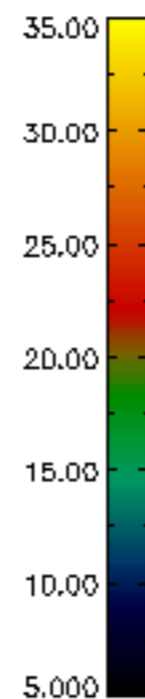
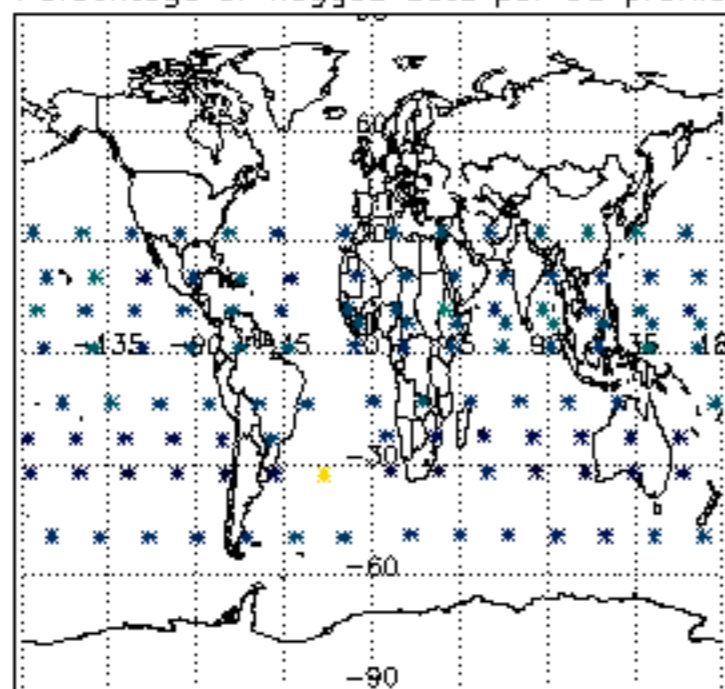
6. Auxiliary Data Files used for the production reported in section 2

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.

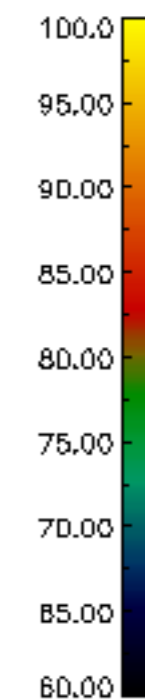
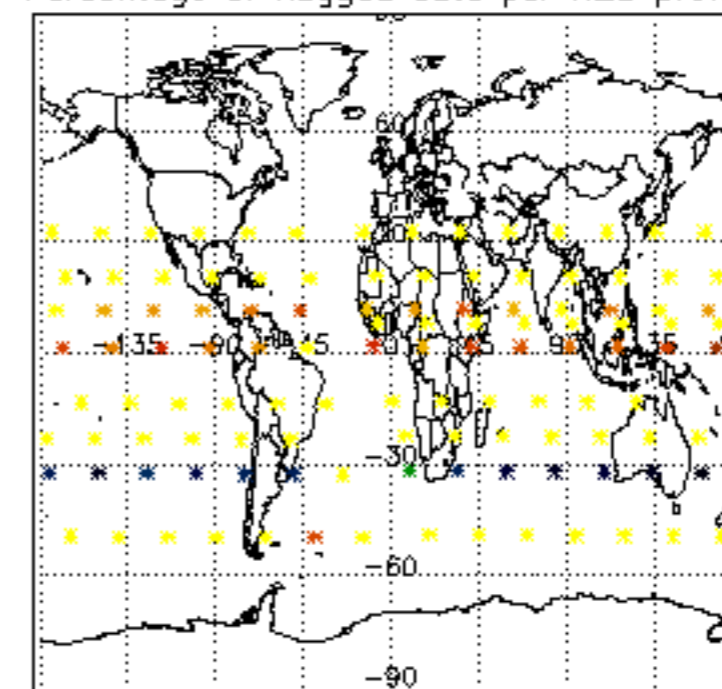
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	14-FEB-2011 00:12:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	14-FEB-2011 00:12:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	14-FEB-2011 00:12:43



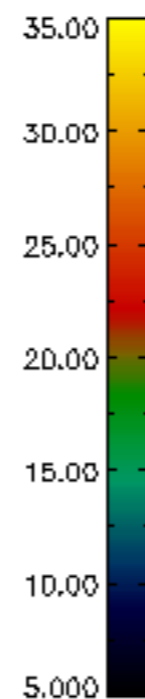
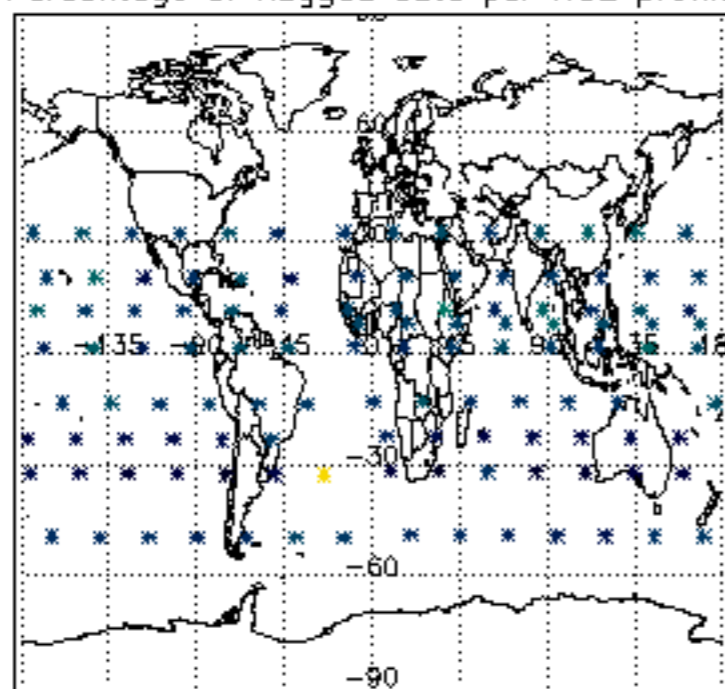
Percentage of flagged data per D3 profile



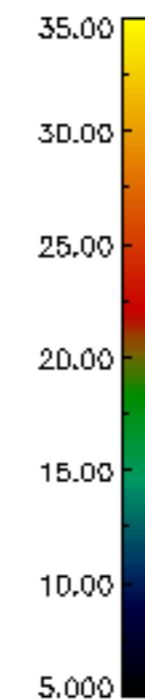
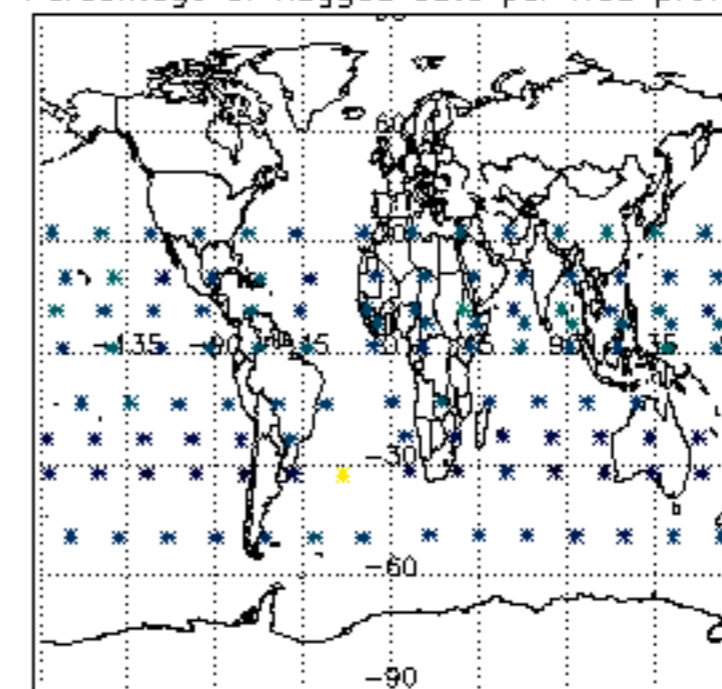
Percentage of flagged data per H2O profile

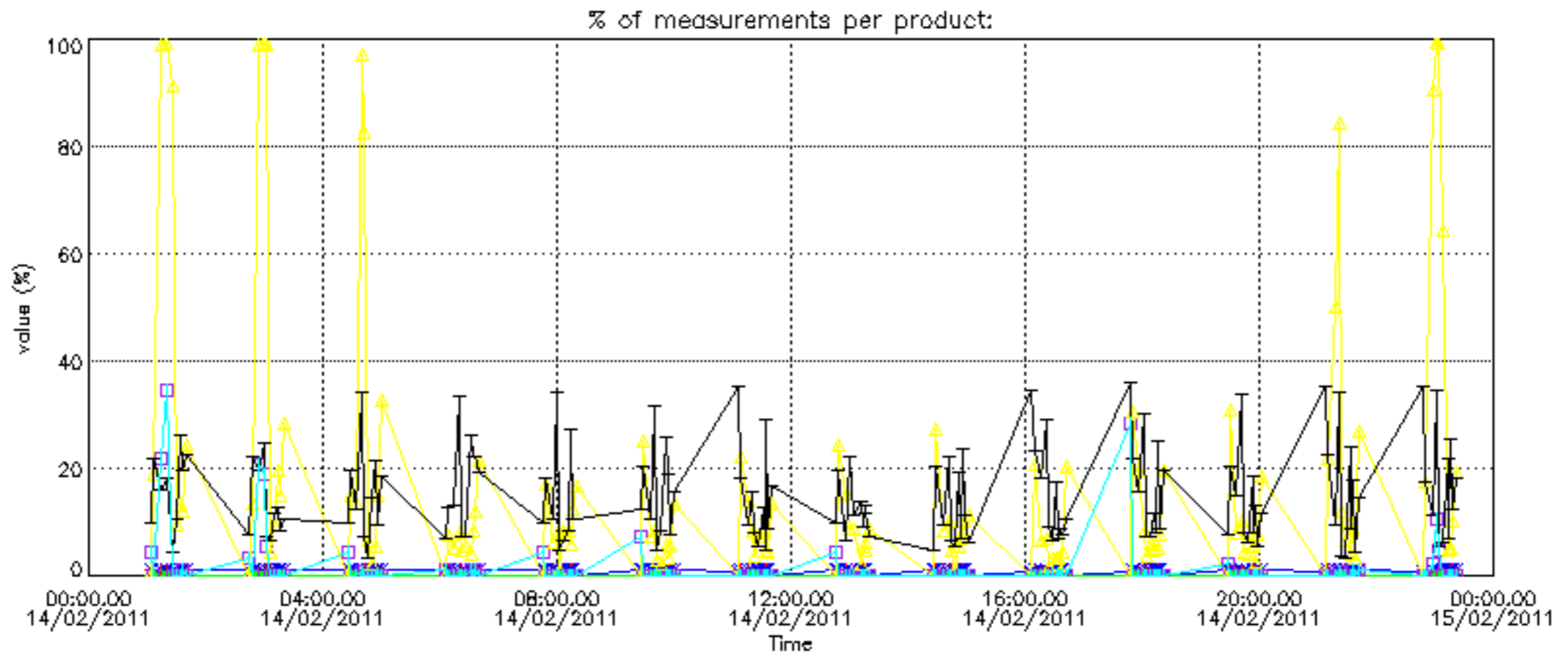


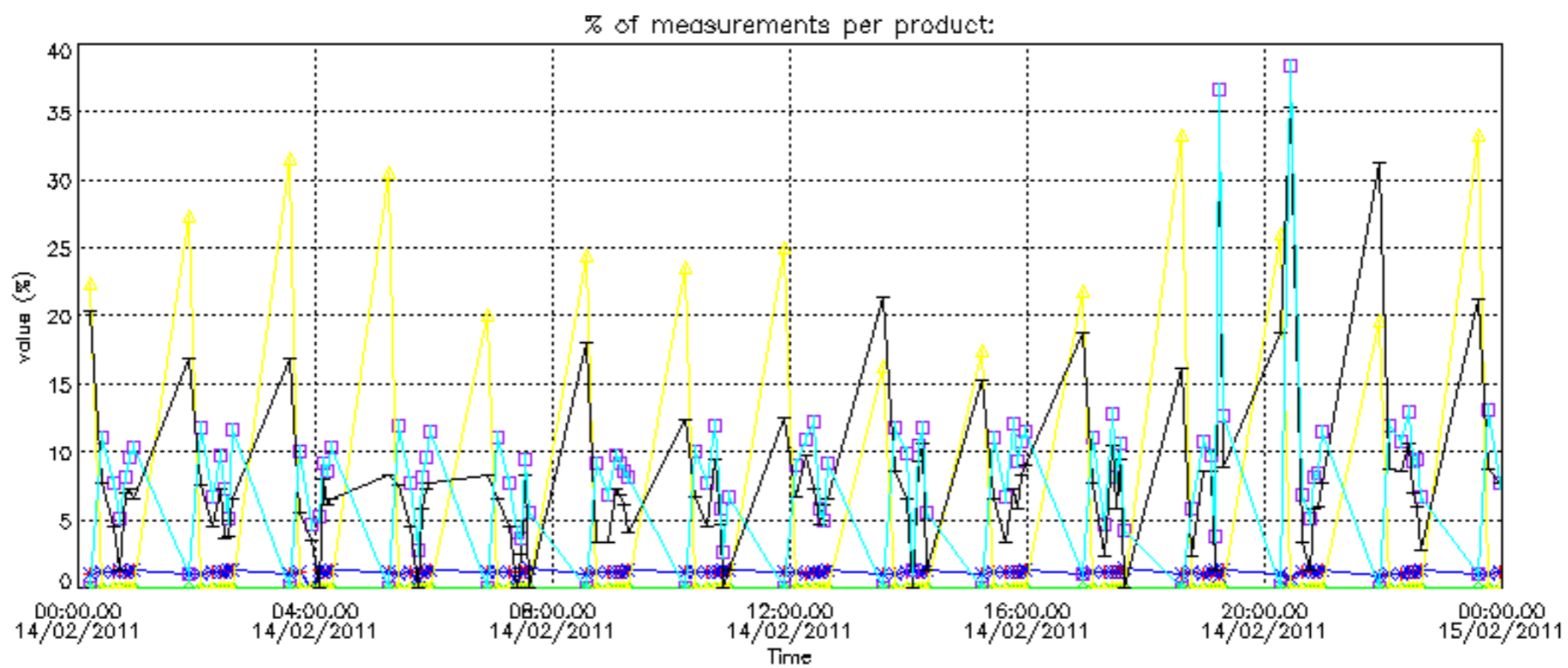
Percentage of flagged data per NO2 profile



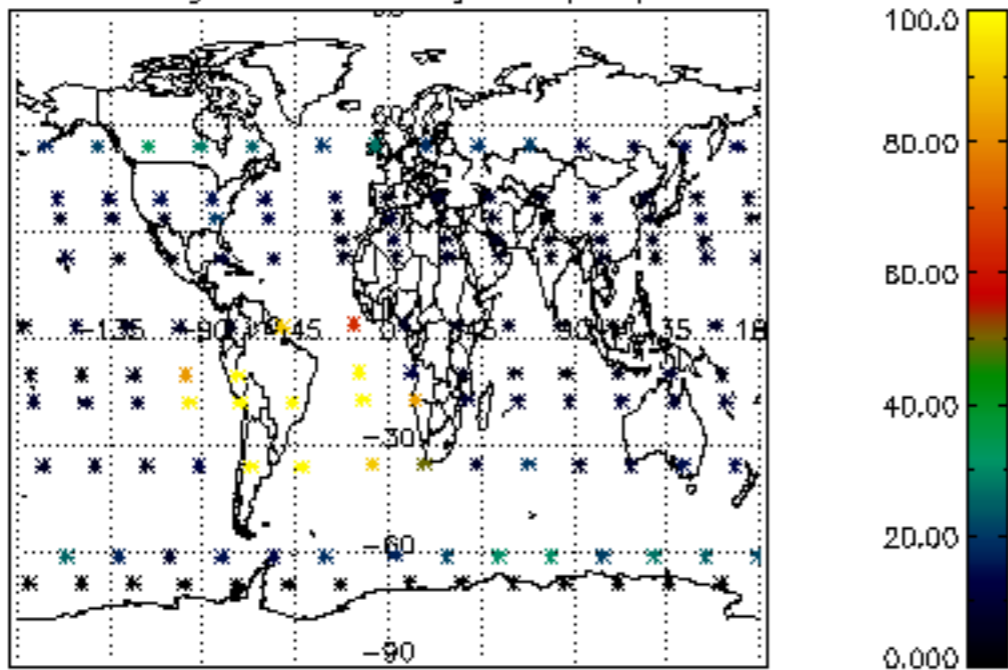
Percentage of flagged data per NO3 profile



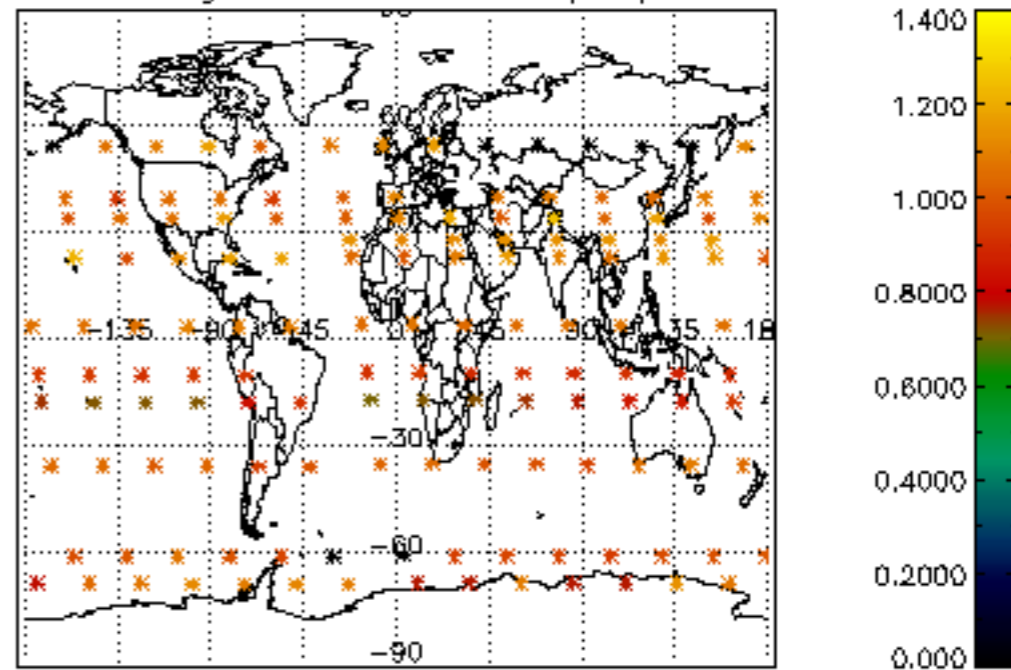




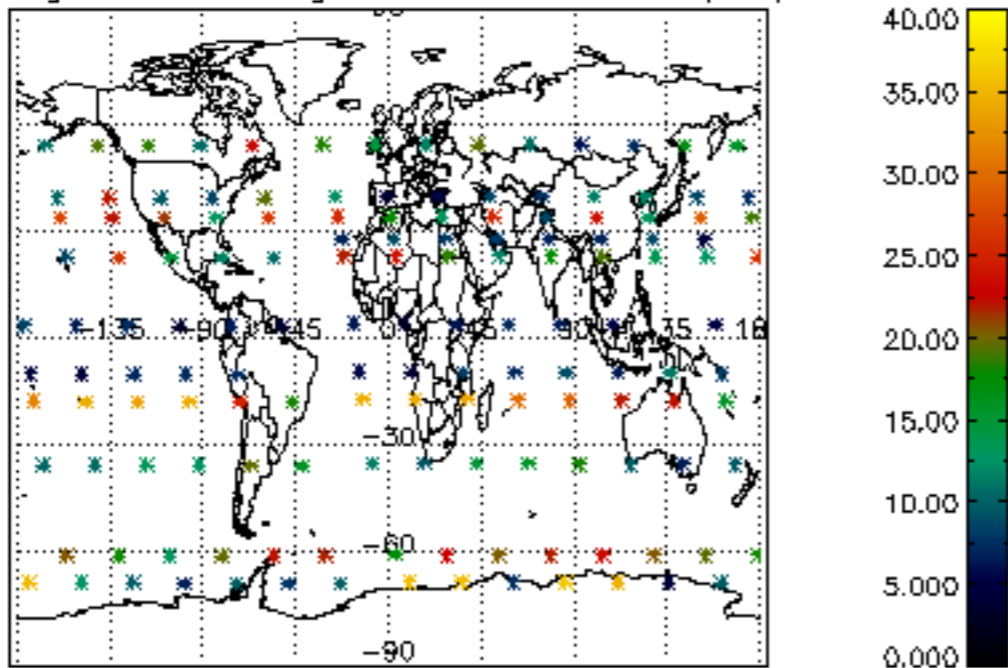
Percentage of cosmic ray hits per profile



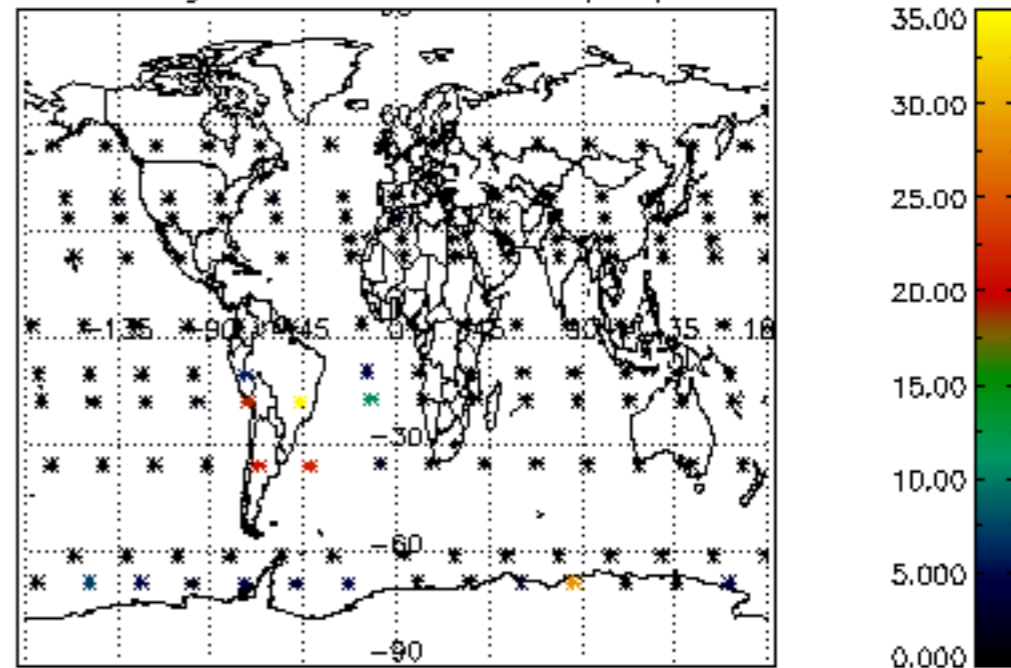
Percentage of datation errors per profile



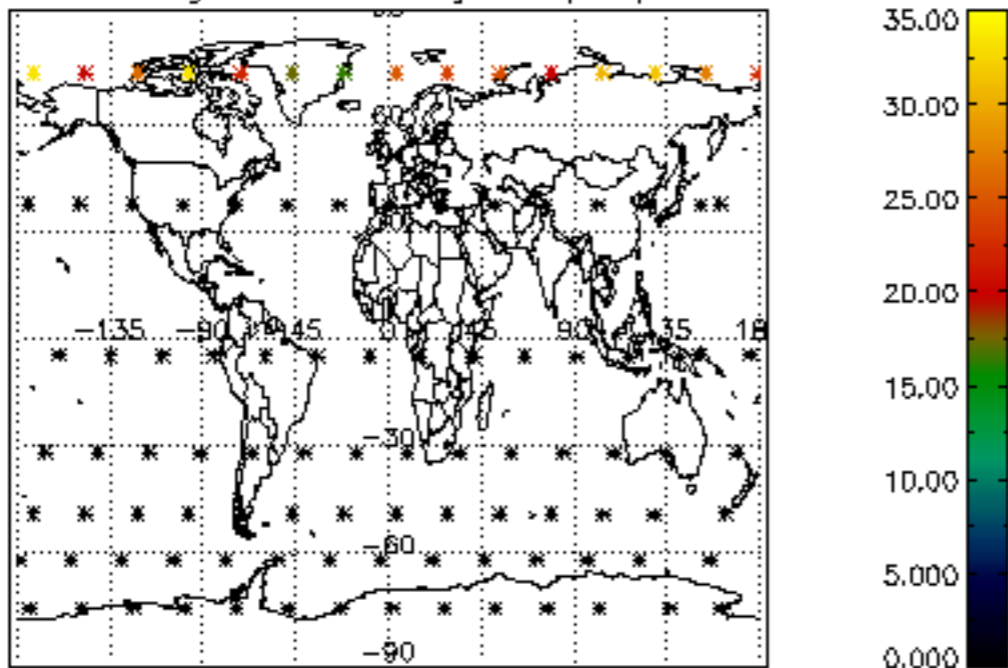
Percentage of star falling outside central band per profile



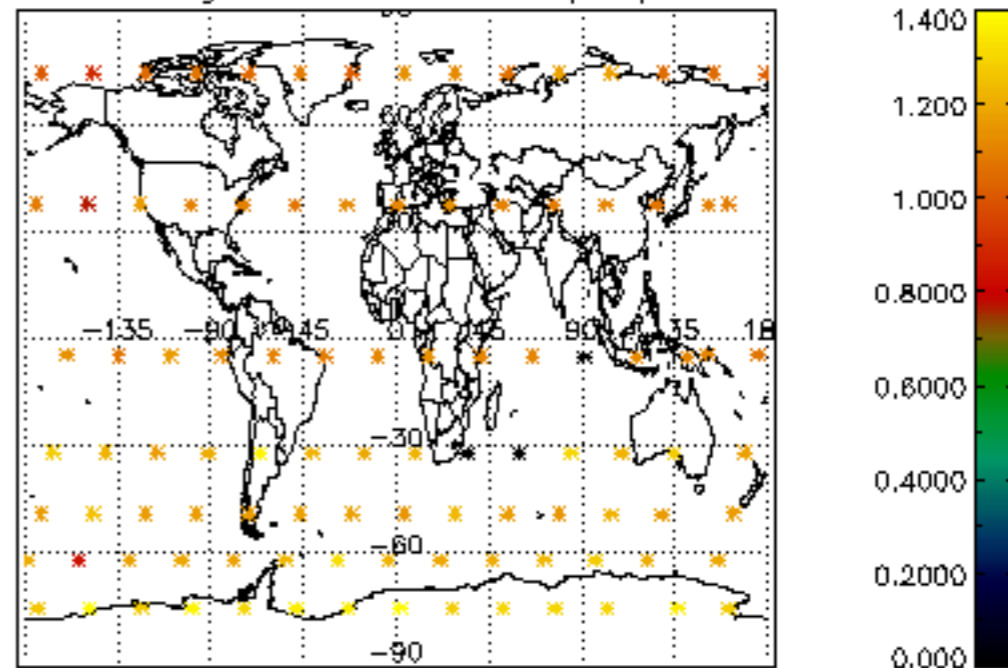
Percentage of saturation errors per profile



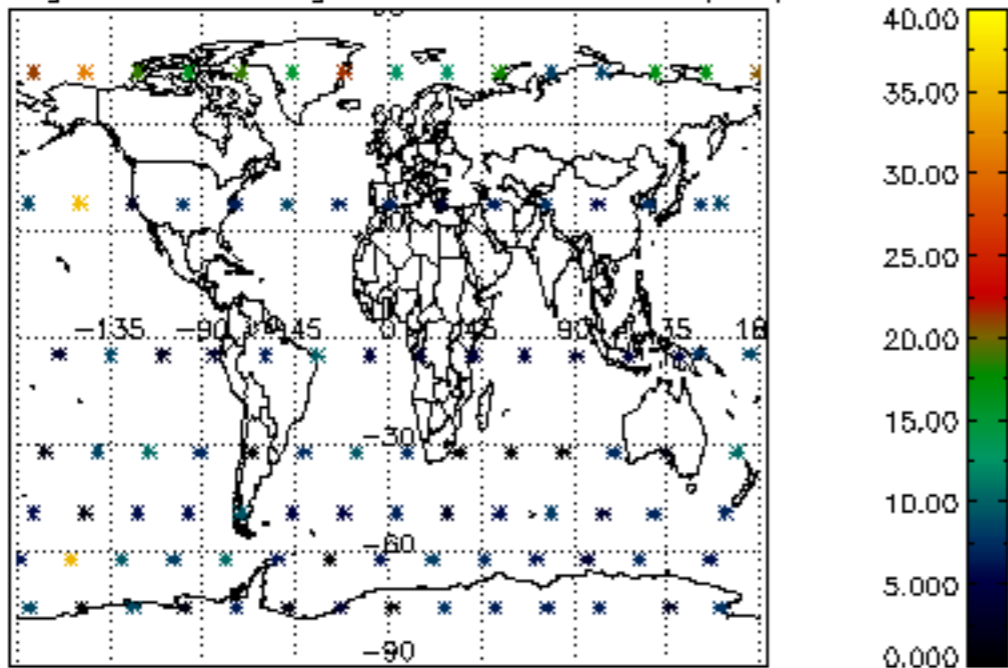
Percentage of cosmic ray hits per profile



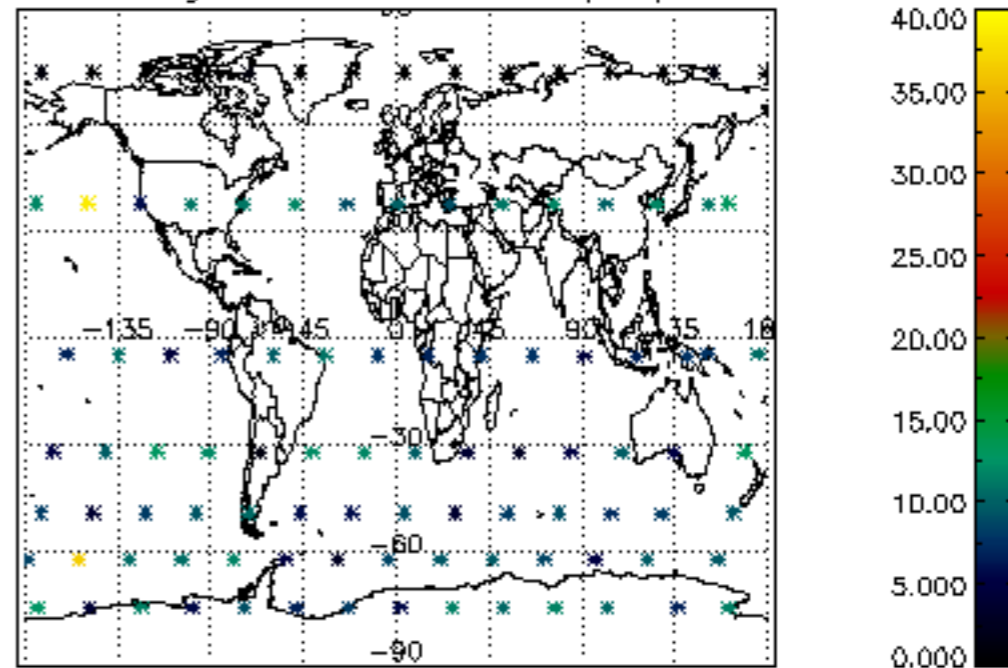
Percentage of datation errors per profile

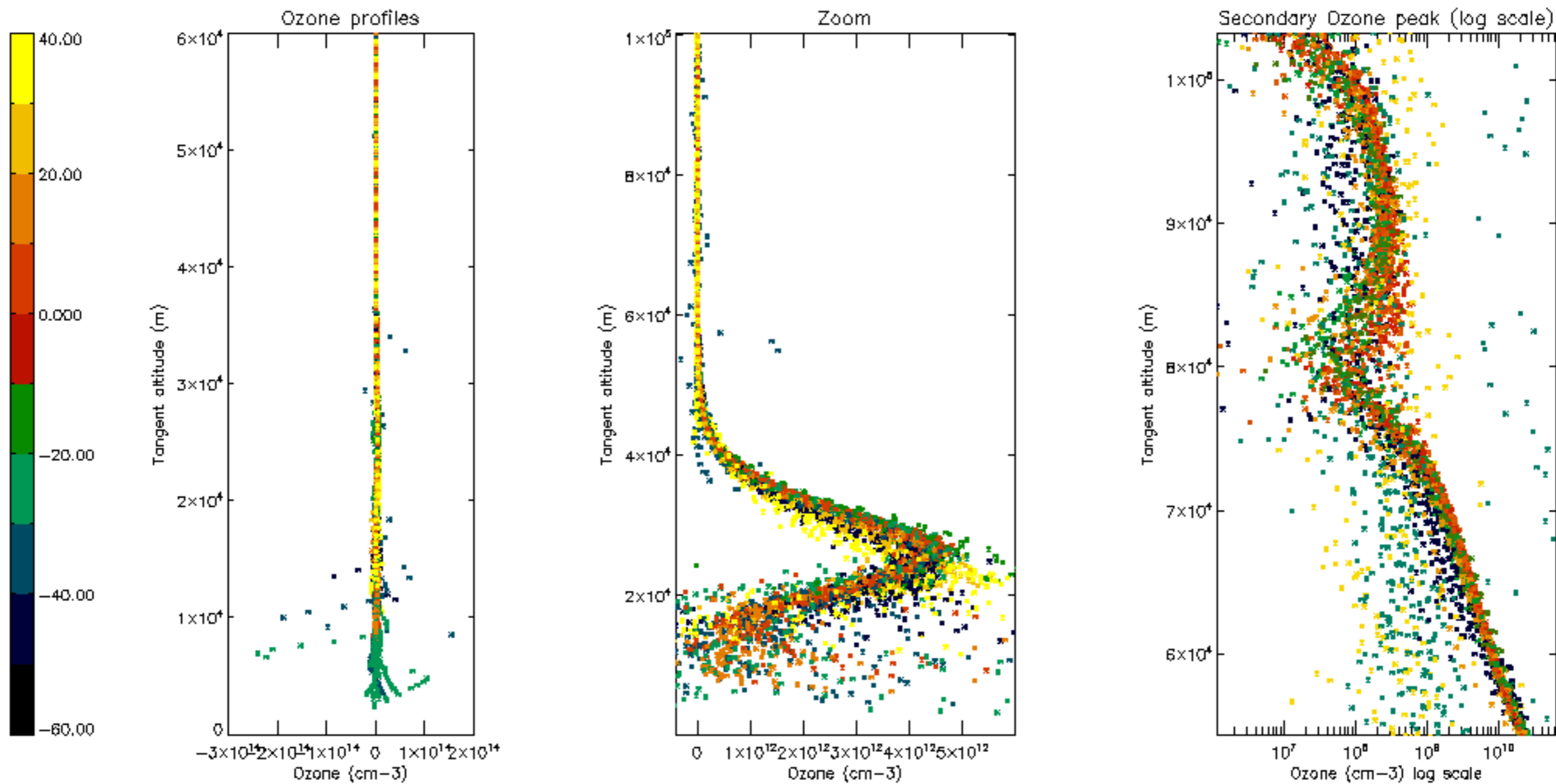


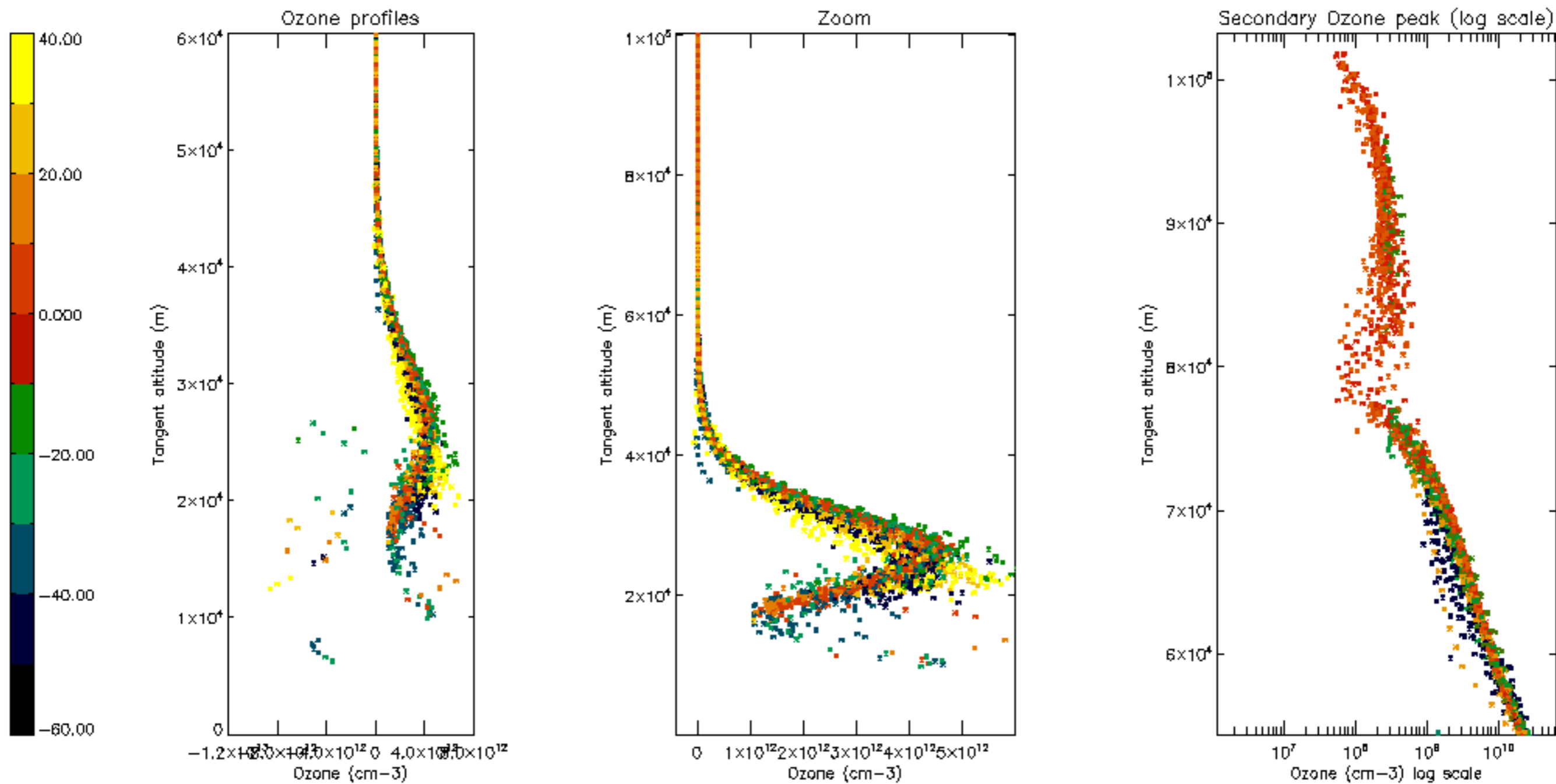
Percentage of star falling outside central band per profile

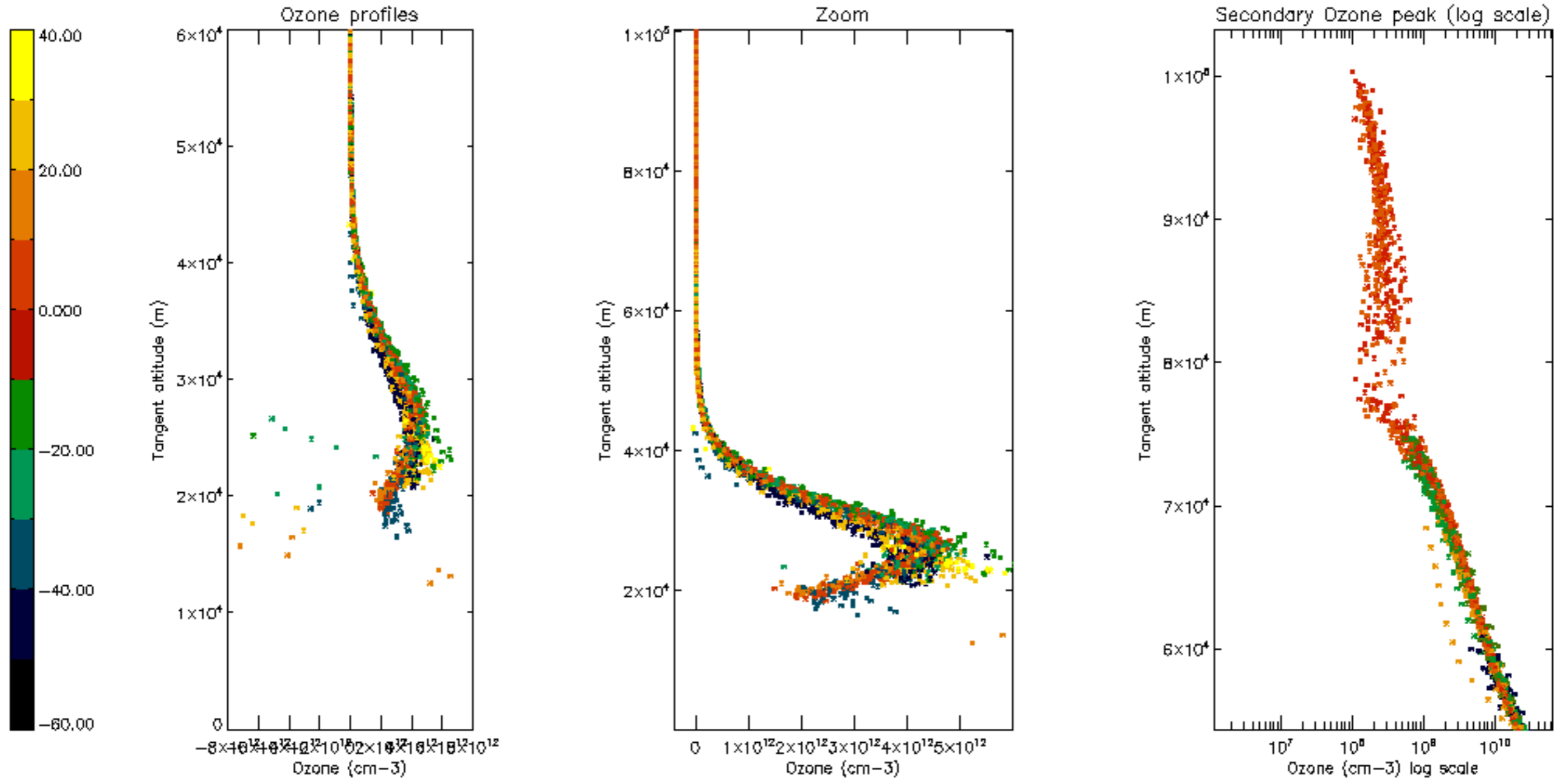


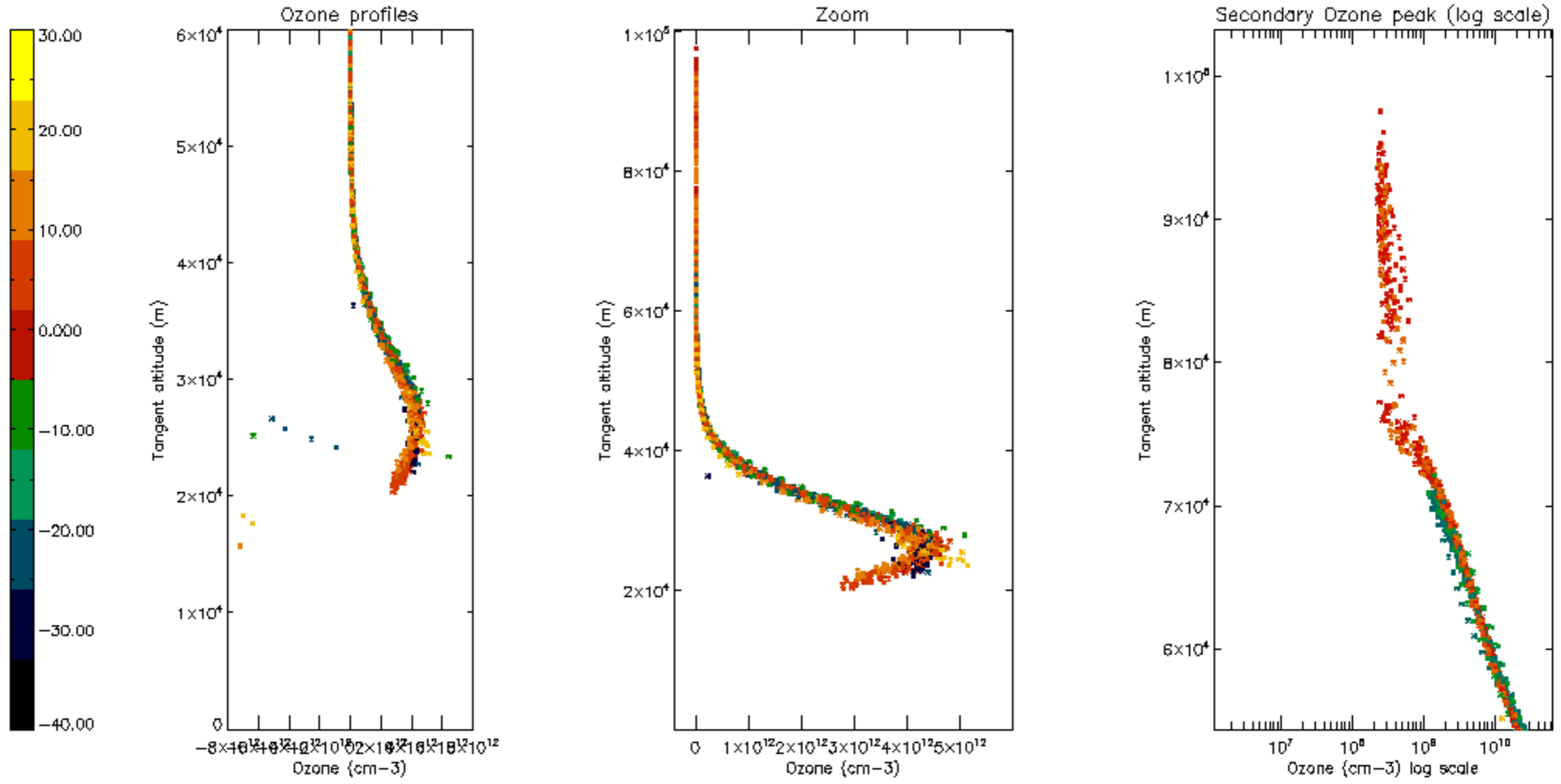
Percentage of saturation errors per profile

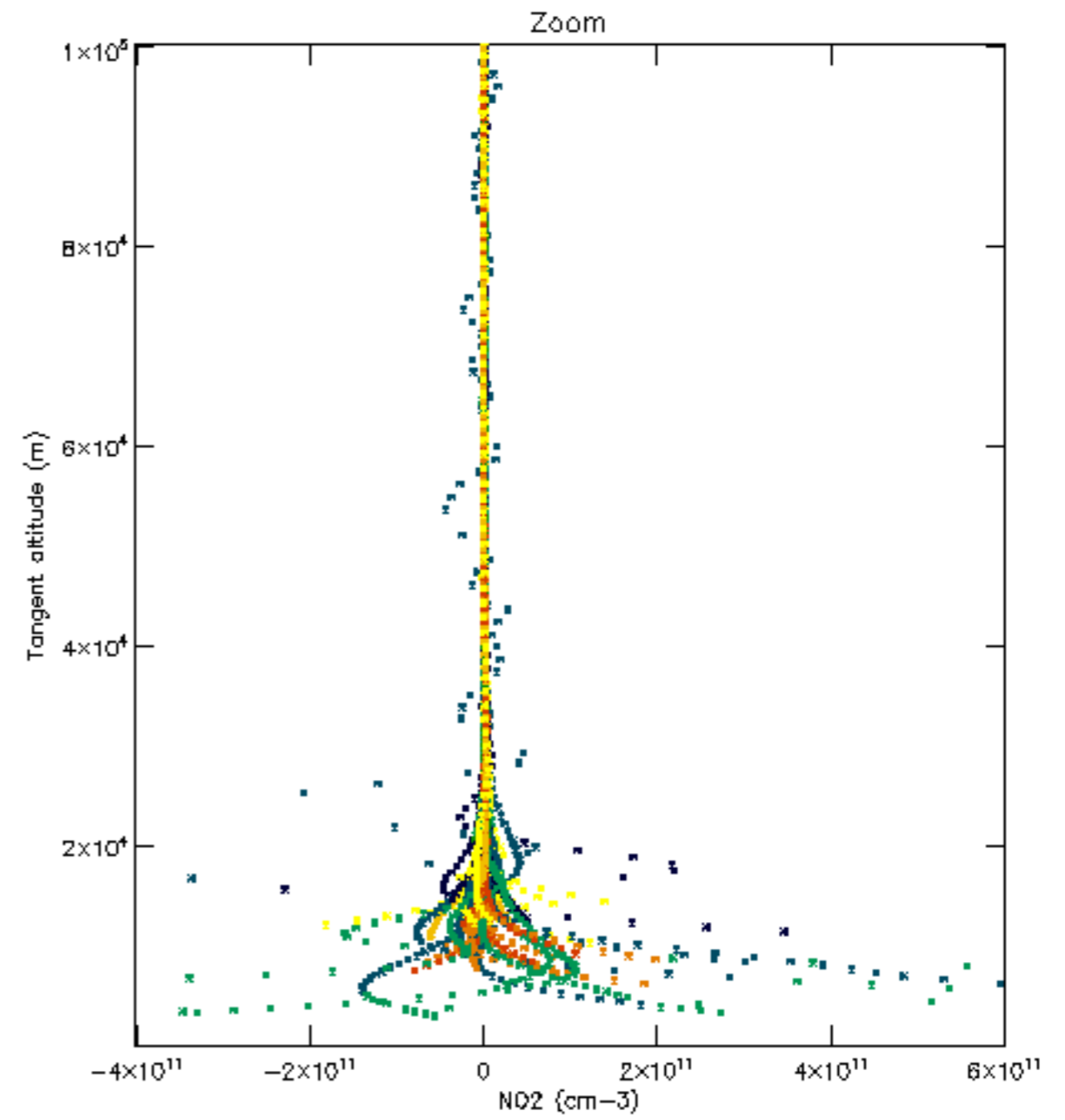
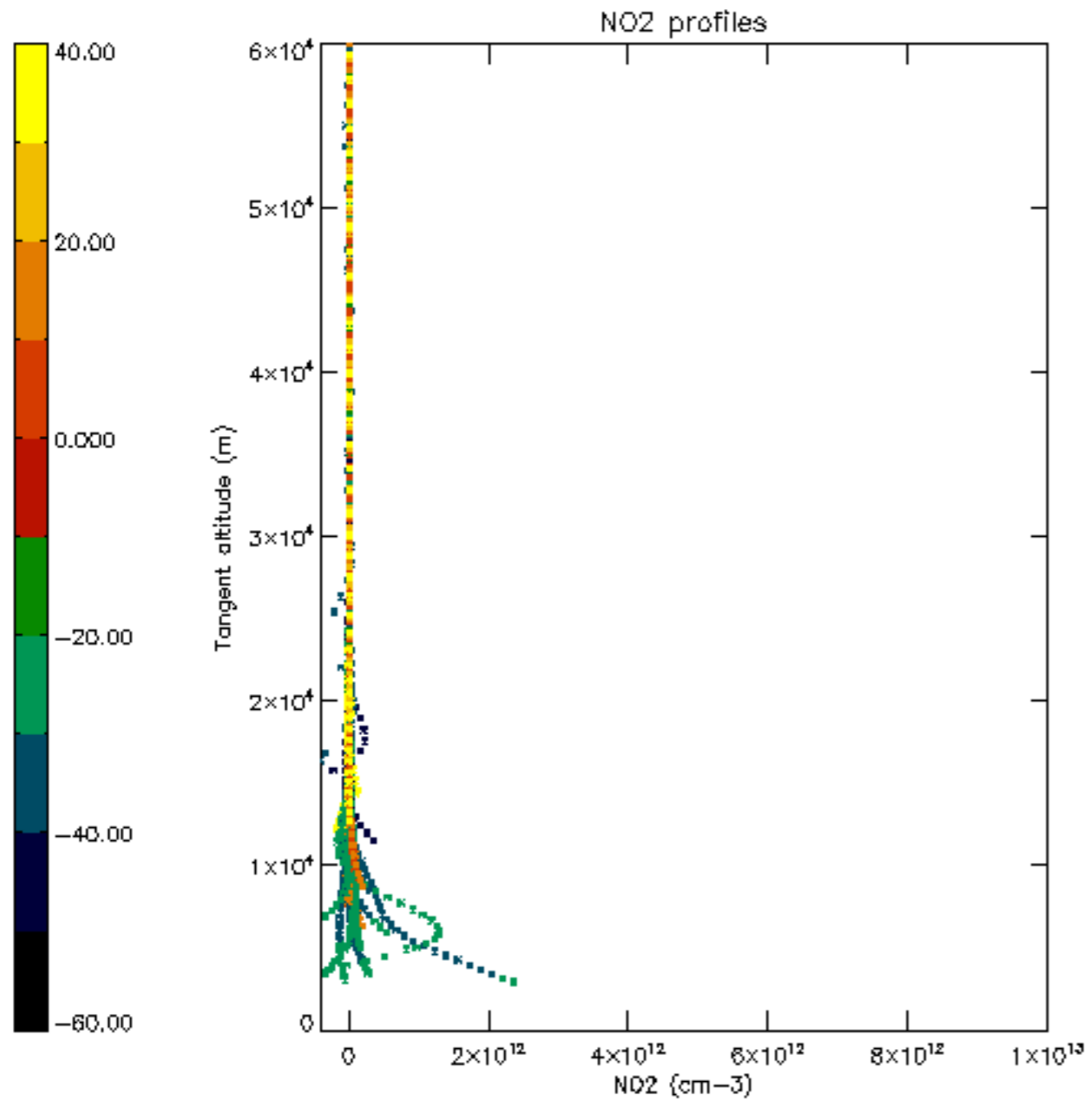


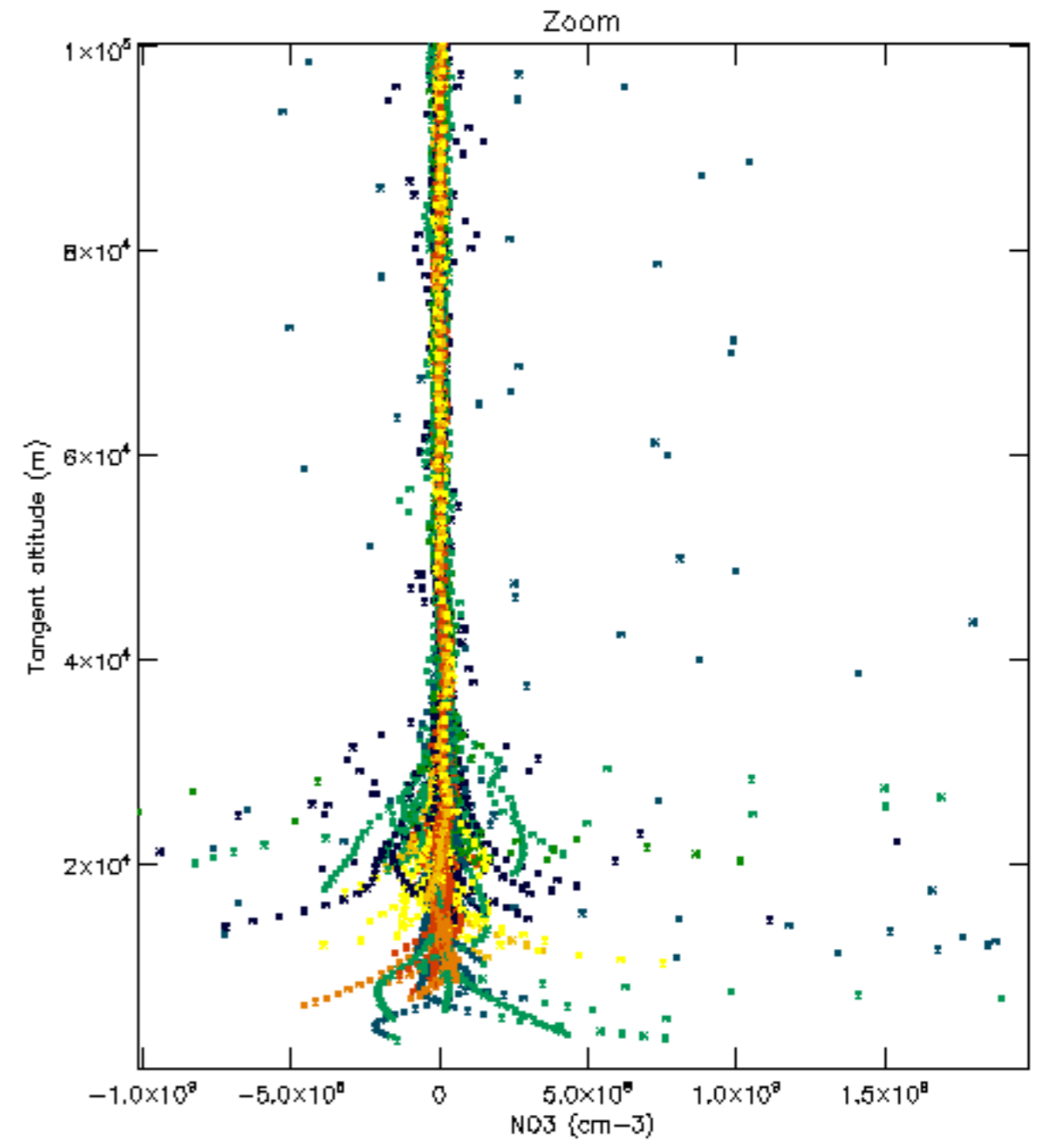
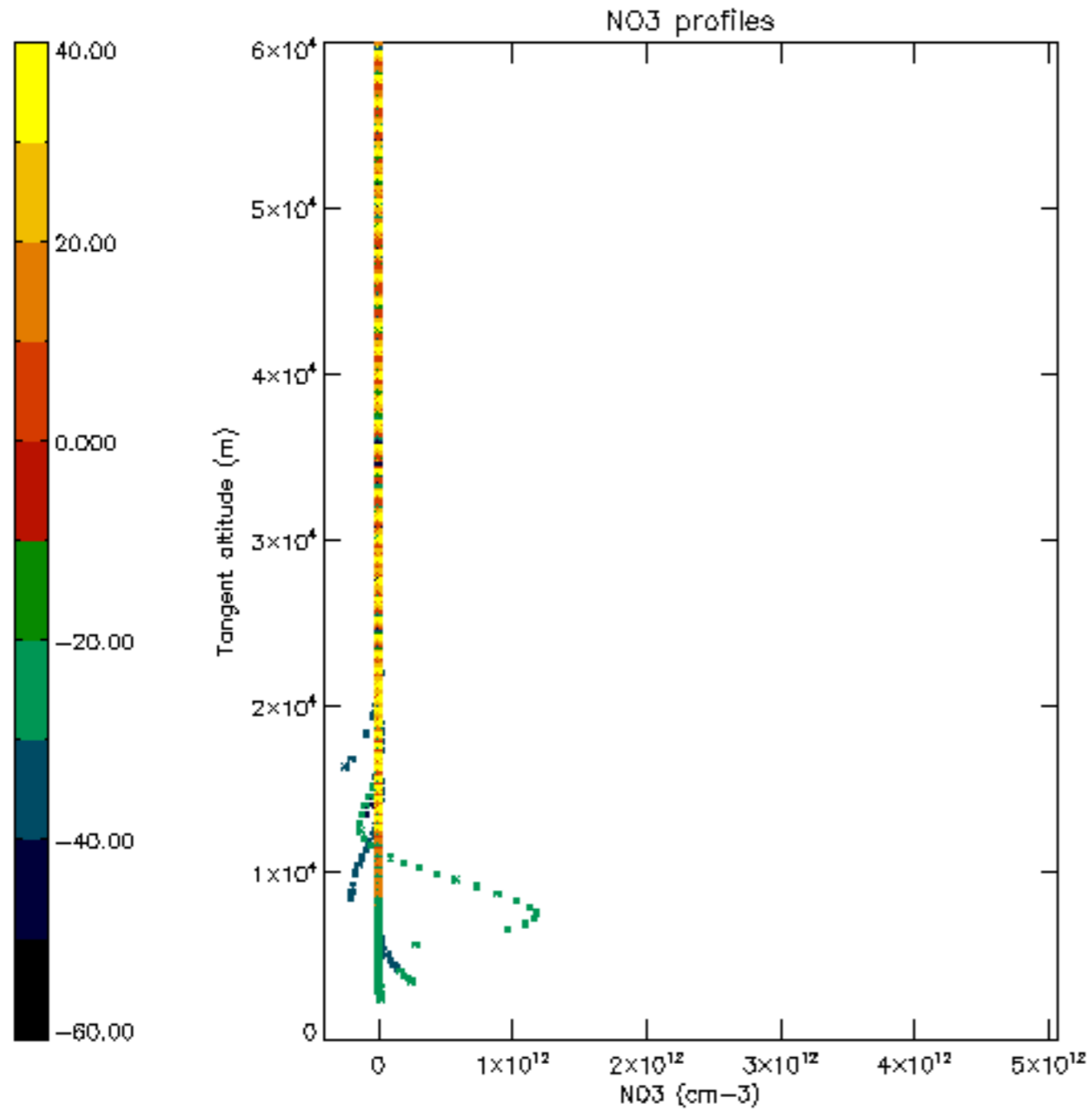


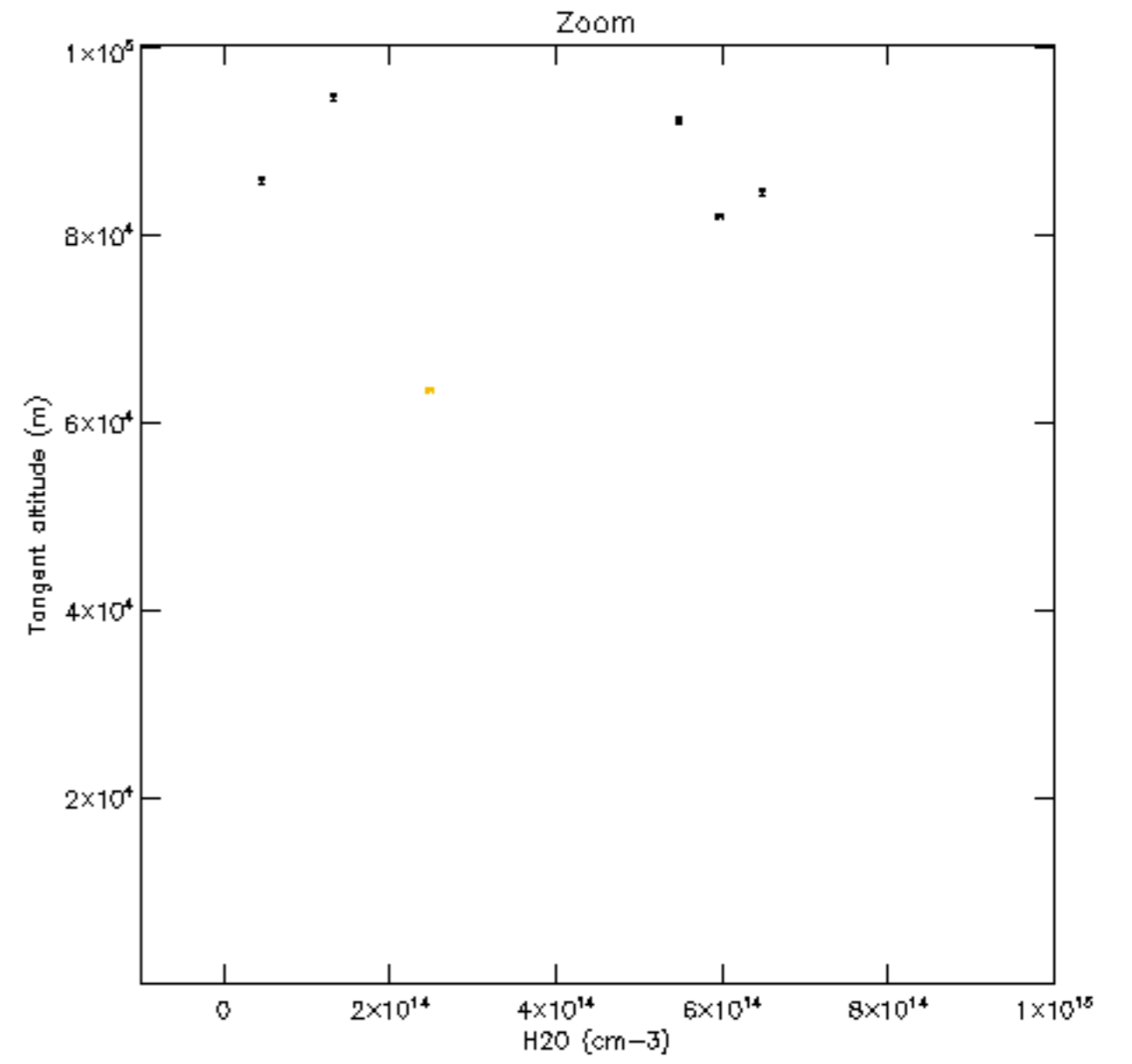
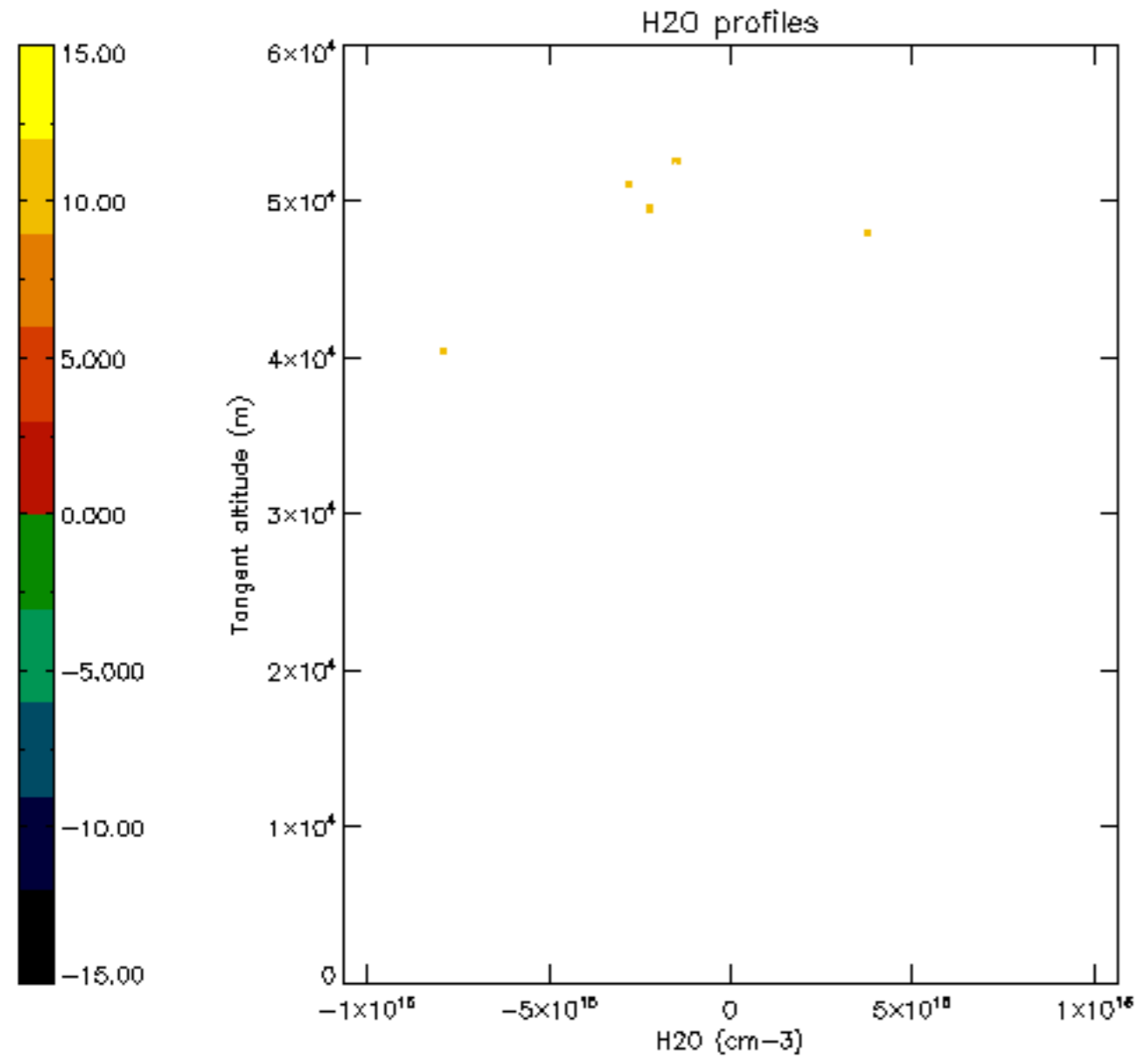


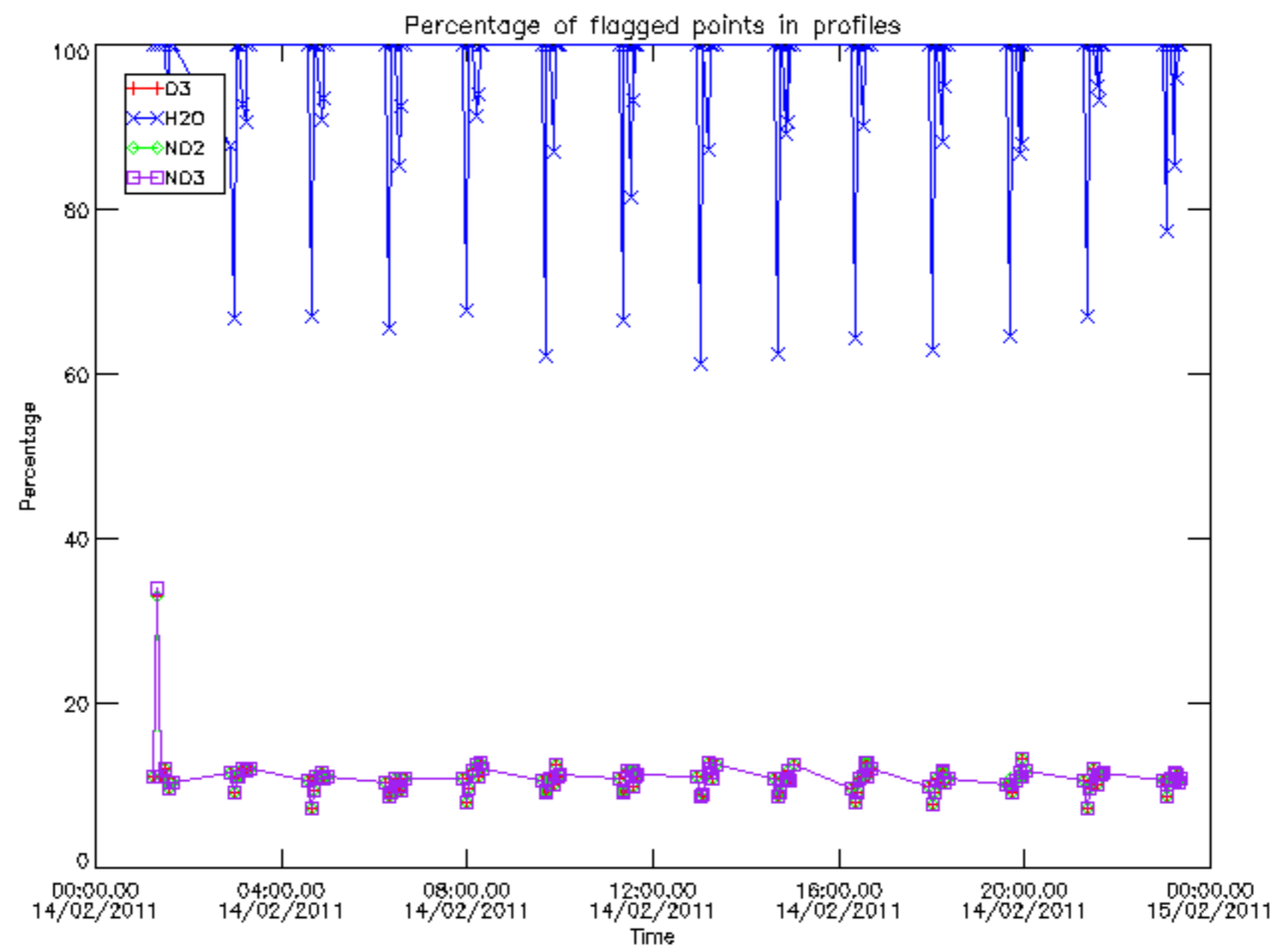




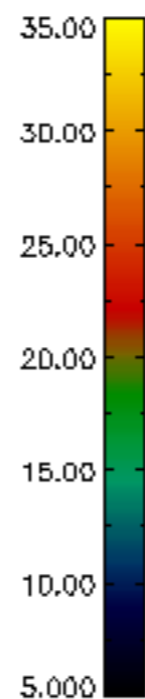
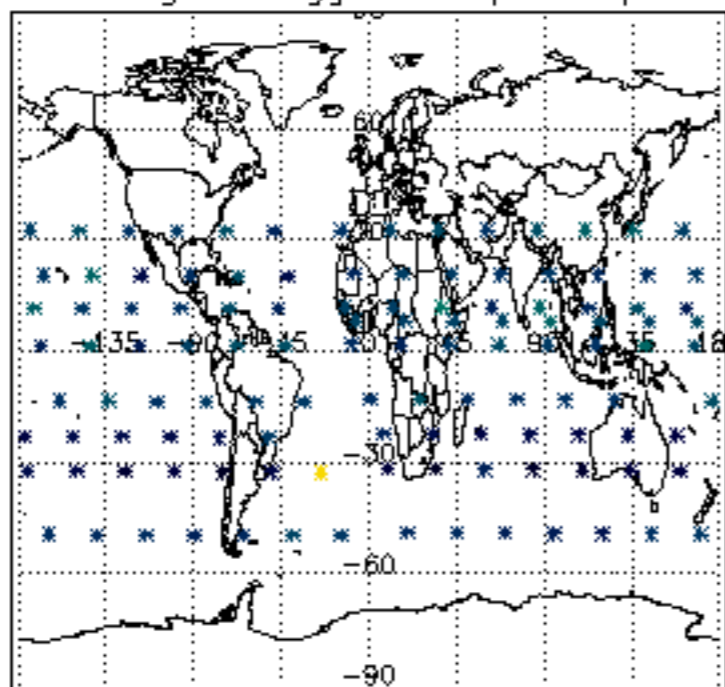




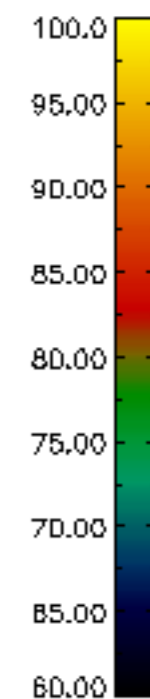
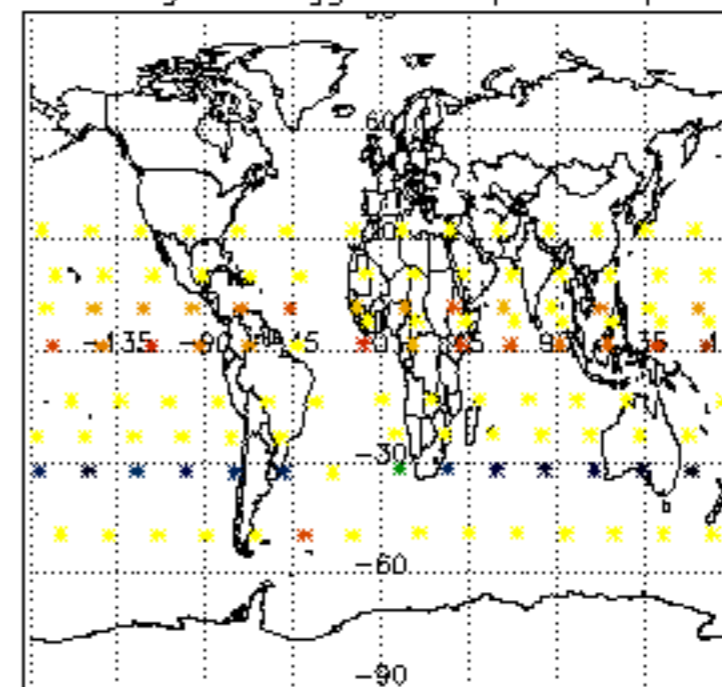




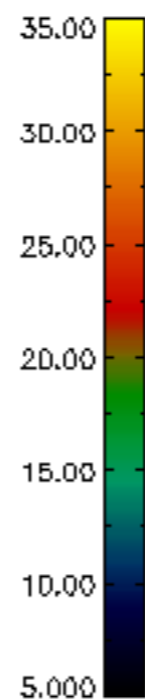
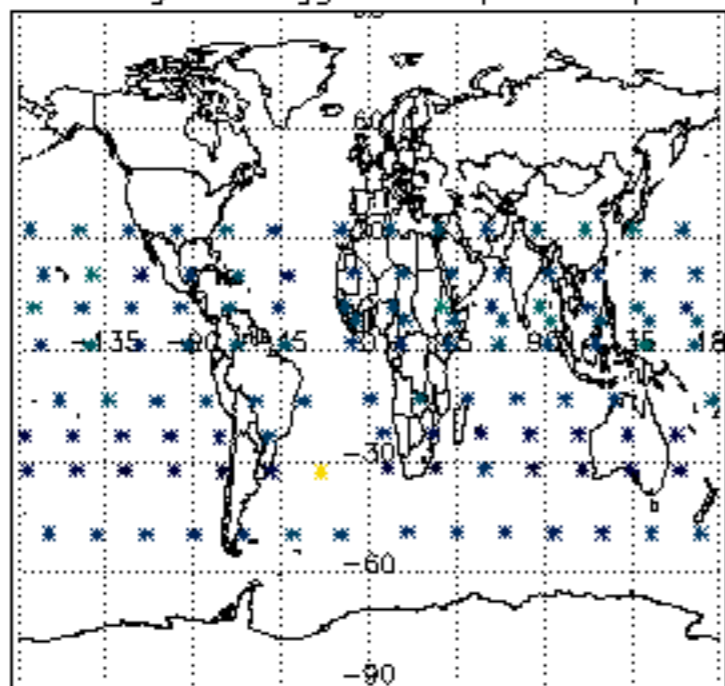
Percentage of flagged data per D3 profile



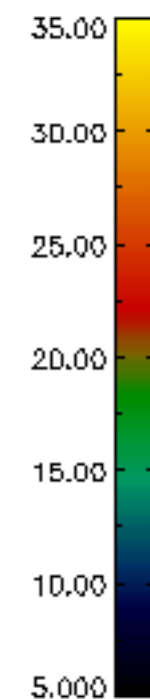
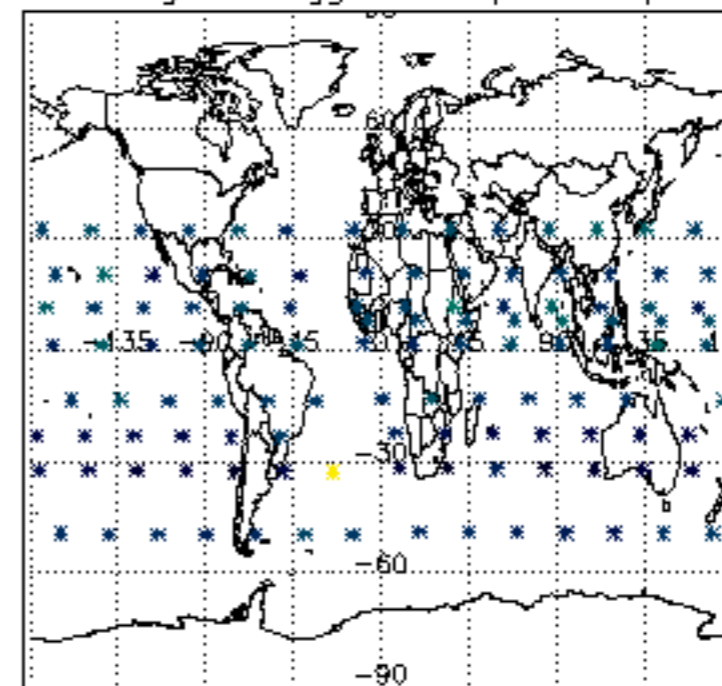
Percentage of flagged data per H2O profile

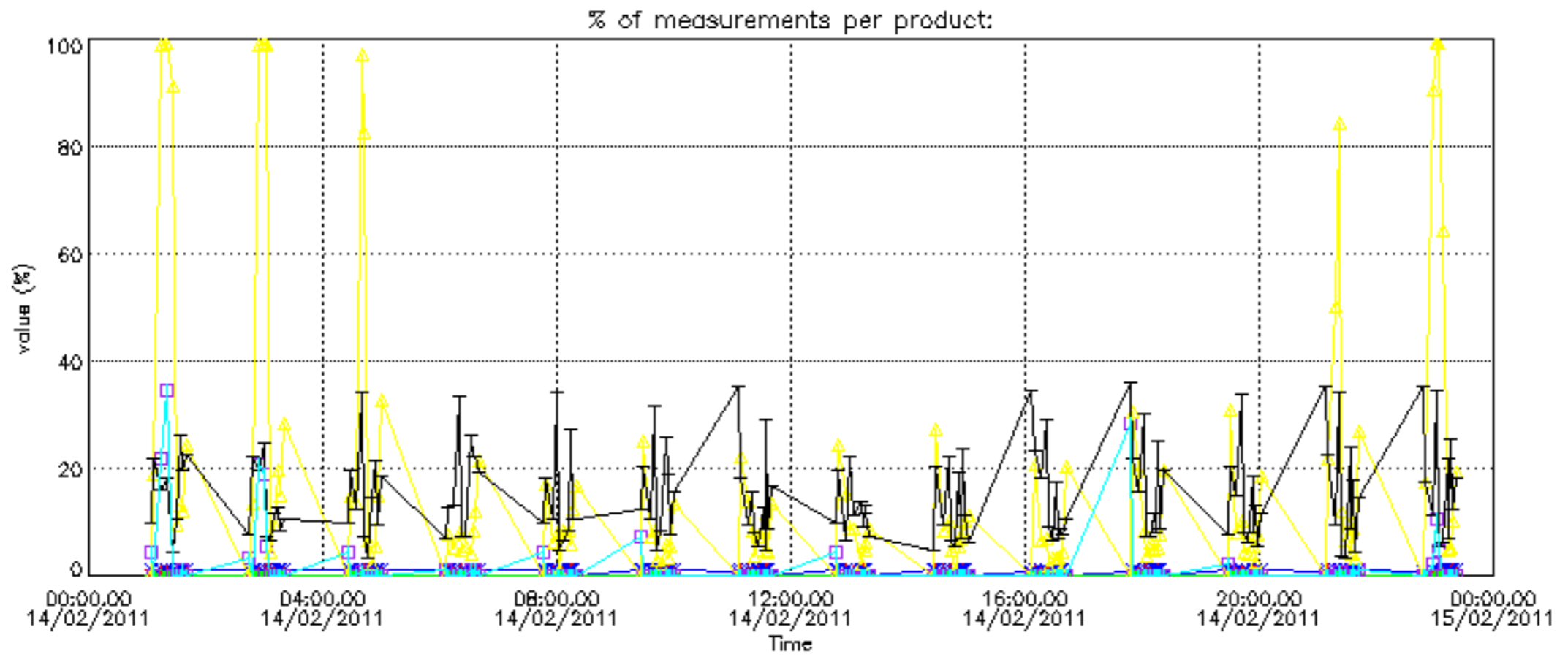


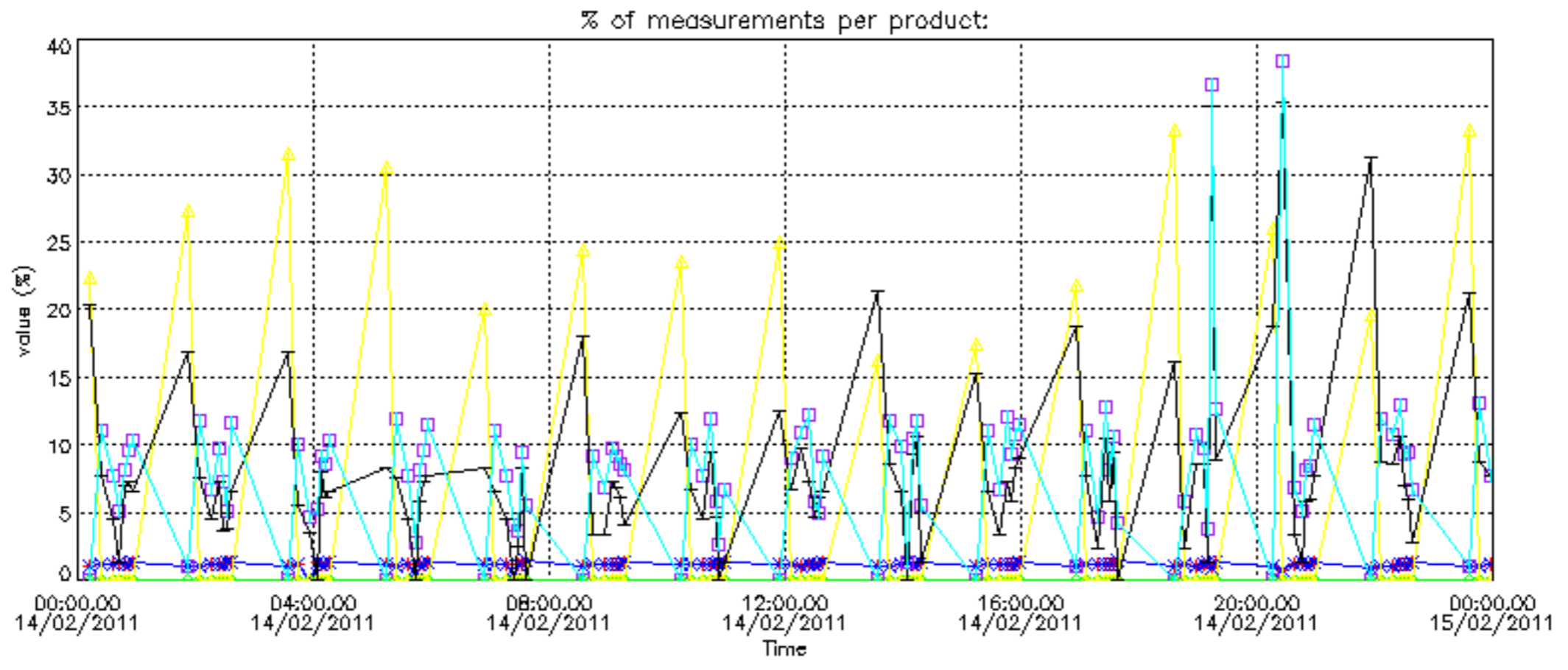
Percentage of flagged data per NO2 profile



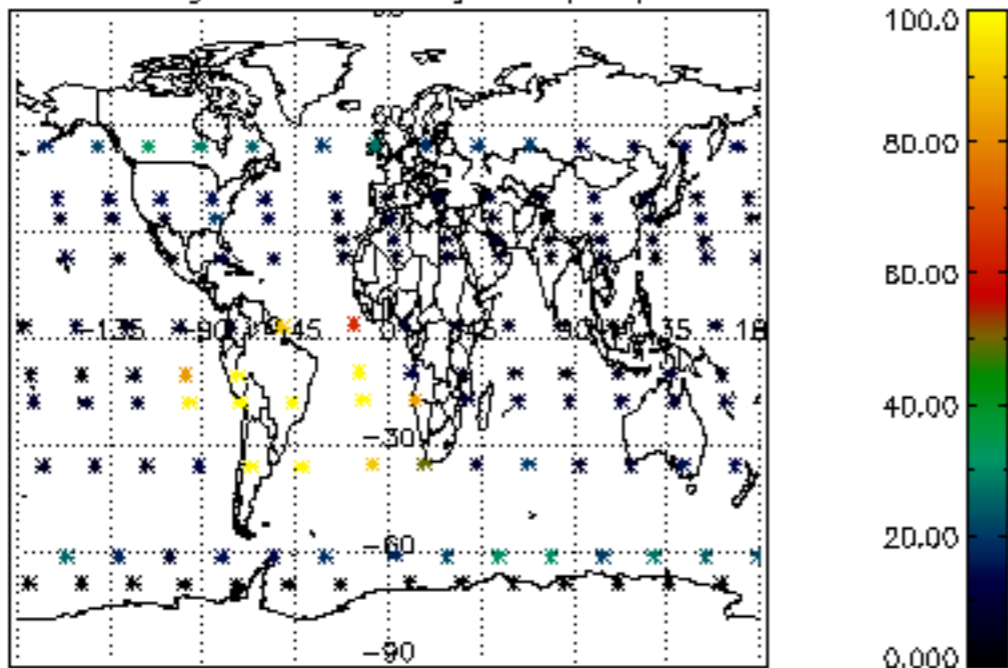
Percentage of flagged data per NO3 profile



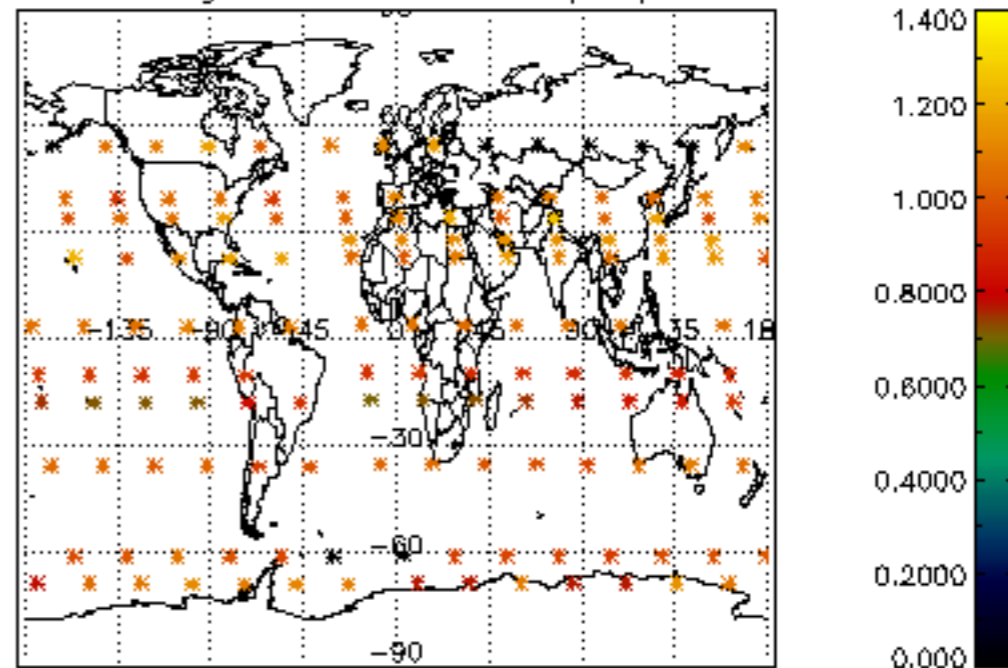




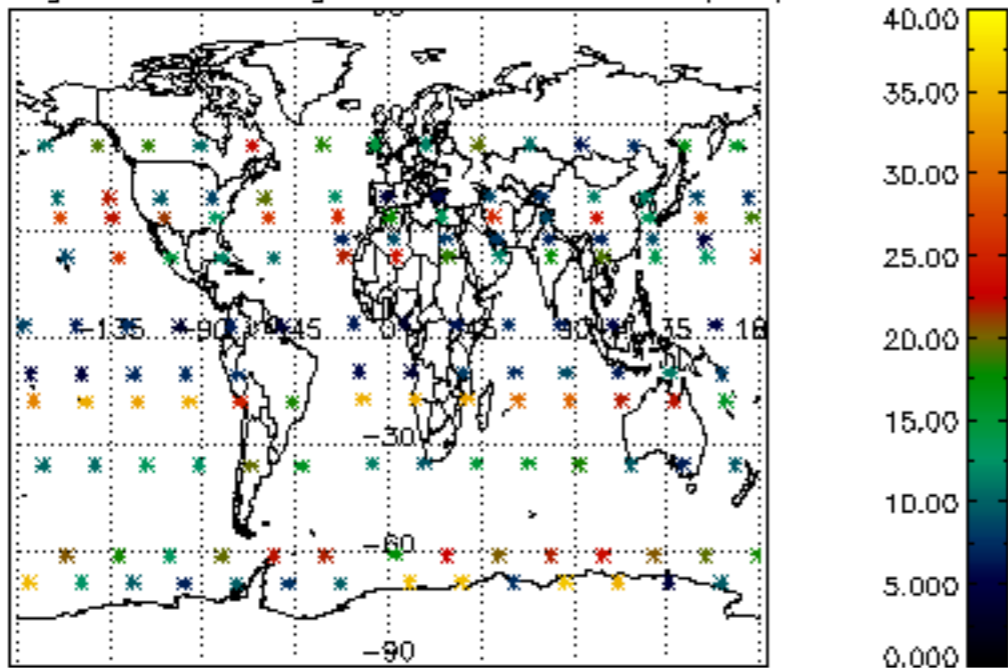
Percentage of cosmic ray hits per profile



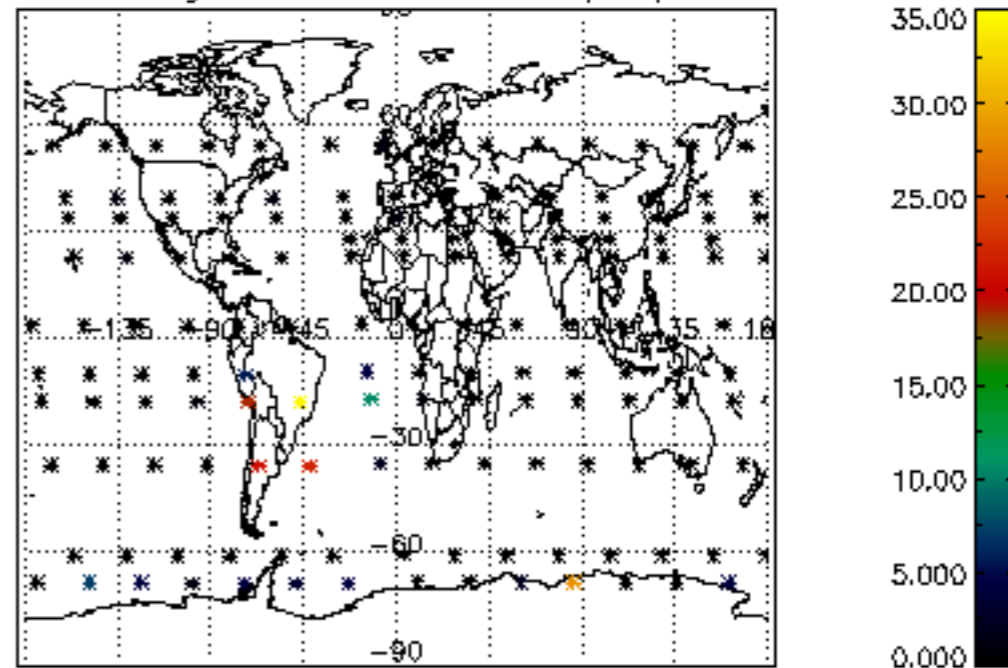
Percentage of datation errors per profile



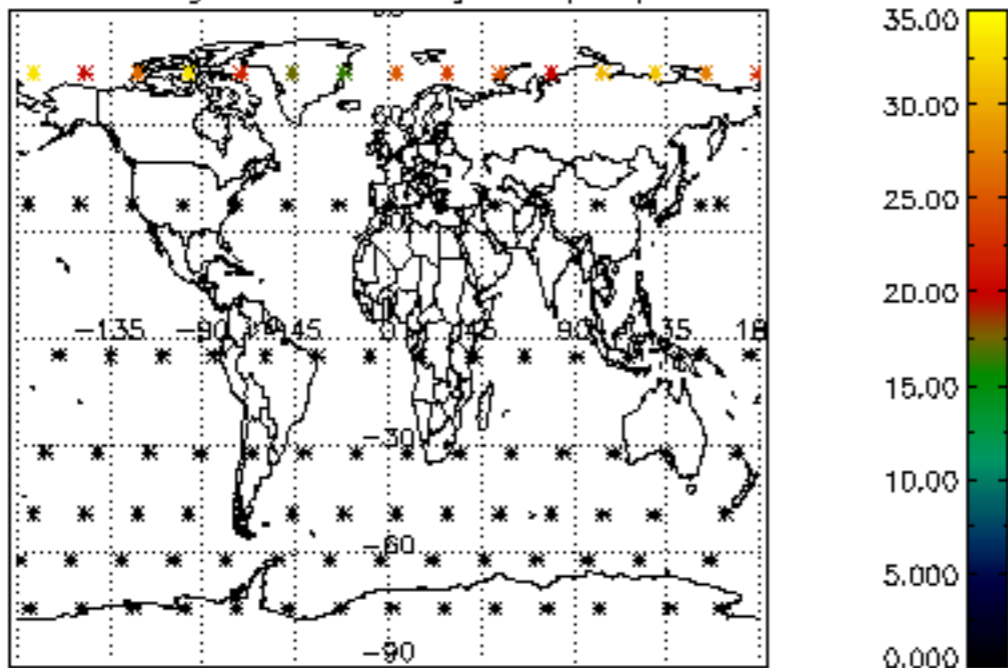
Percentage of star falling outside central band per profile



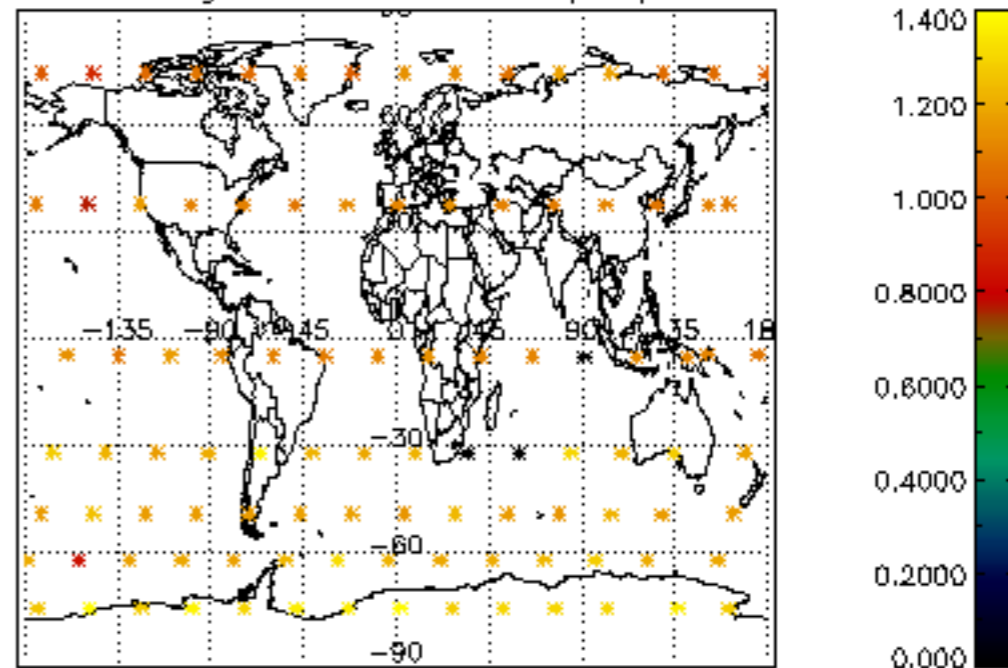
Percentage of saturation errors per profile



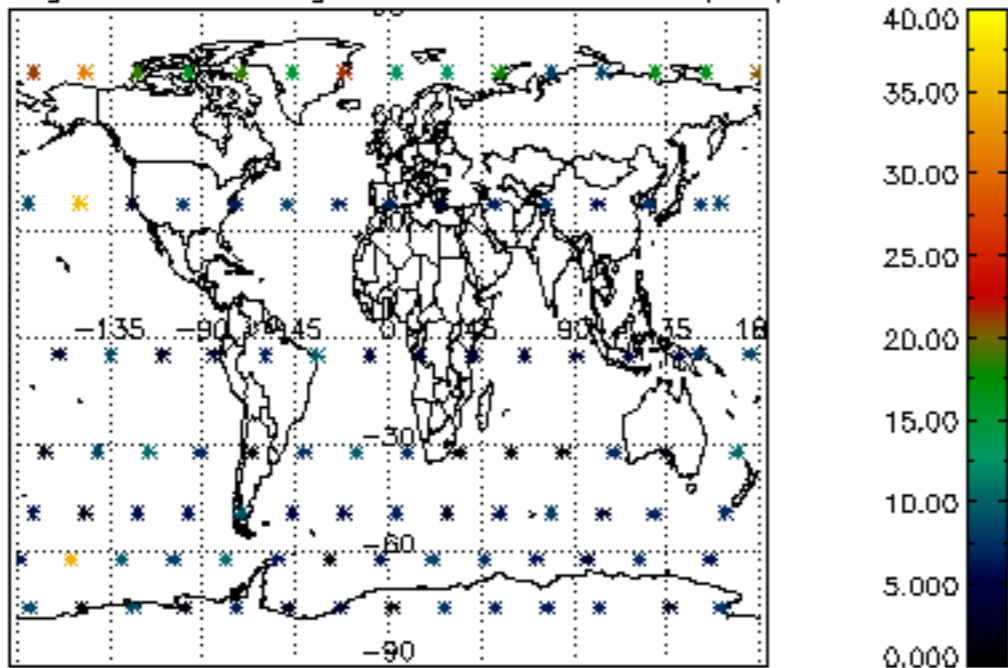
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

