

GOMOS Level 2 Daily Report

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

Item	Value
Time of report generation	25APR2013 23:15:07
Data source version	GOMOS/6.01
Start time of products	06-12-2008 (06DEC2008 00:00:00)
Stop time of products	07-12-2008 (07DEC2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	241
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

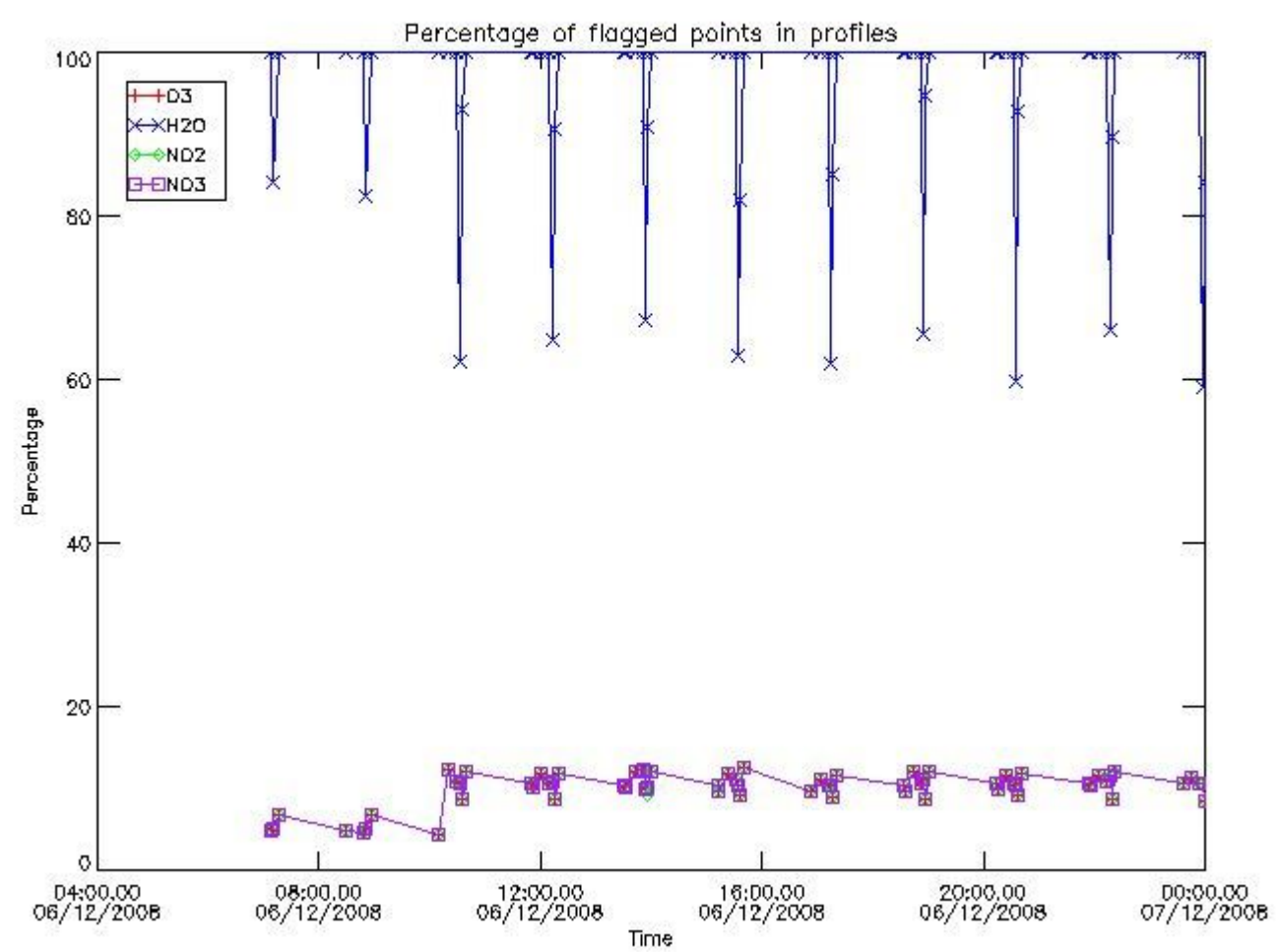
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081206_070709_000001092074_00264_35388_7325.N1	06-DEC-2008 07:07:09	Dark	108.50	34	Gam2Vel	1.7930	23000.	217	35388	No
2	GOM_NL__2PRFIN20081206_071010_000001012074_00264_35388_7326.N1	06-DEC-2008 07:10:10	Dark	101.00	2	Alp Car	-0.73600	7000.0	202	35388	No
3	GOM_NL__2PRFIN20081206_071540_000000752074_00264_35388_7327.N1	06-DEC-2008 07:15:40	Dark	75.000	23	21Eps CMa	1.5020	26000.	150	35388	No
4	GOM_NL__2PRFIN20081206_072142_000001122074_00264_35388_7328.N1	06-DEC-2008 07:21:42	Straylight	111.50	101	11Alp Lep	2.5820	7000.0	223	35388	No
5	GOM_NL__2PRFIN20081206_072505_000001162074_00264_35388_7329.N1	06-DEC-2008 07:25:05	Straylight	116.00	7	19Bet Ori	0.10000	14000.	232	35388	No
6	GOM_NL__2PRFIN20081206_072738_000001242074_00264_35388_7330.N1	06-DEC-2008 07:27:38	Straylight	124.00	30	46Eps Ori	1.6940	30000.	248	35388	No
7	GOM_NL__2PRFIN20081206_073250_000001152074_00264_35388_7331.N1	06-DEC-2008 07:32:50	Bright	115.00	13	87Alp Tau	0.86700	3800.0	230	35388	No
8	GOM_NL__2PRFIN20081206_073704_000000882074_00264_35388_7332.N1	06-DEC-2008 07:37:04	Bright	88.000	150	44Zet Per	2.8900	28000.	176	35388	No
9	GOM_NL__2PRFIN20081206_074401_000001132074_00264_35388_7333.N1	06-DEC-2008 07:44:01	Bright	113.00	42	34Bet Aur	1.9000	10200.	226	35388	No
10	GOM_NL__2PRFIN20081206_075906_000001092074_00264_35388_7334.N1	06-DEC-2008 07:59:06	Bright	108.50	36	50Alp UMa	1.8000	6300.0	217	35388	No
11	GOM_NL__2PRFIN20081206_080247_000000992074_00264_35388_7335.N1	06-DEC-2008 08:02:47	Bright	98.500	32	77Eps UMa	1.7630	11000.	197	35388	No
12	GOM_NL__2PRFIN20081206_080505_000000902074_00264_35388_7336.N1	06-DEC-2008 08:05:05	Bright	90.000	39	85Eta UMa	1.8540	24000.	180	35388	No
13	GOM_NL__2PRFIN20081206_080830_000001012074_00264_35388_7337.N1	06-DEC-2008 08:08:30	Bright	101.00	152	12Alp2CVn	2.8900	11000.	202	35388	No
14	GOM_NL__2PRFIN20081206_081417_000000902074_00264_35388_7338.N1	06-DEC-2008 08:14:17	Bright	90.000	111	8Eta Boo	2.6800	6000.0	180	35388	No
15	GOM_NL__2PRFIN20081206_081731_000001052074_00264_35388_7339.N1	06-DEC-2008 08:17:31	Bright	104.50	138	47Eps Vir	2.8280	4700.0	209	35388	No
16	GOM_NL__2PRFIN20081206_082207_000001132074_00264_35388_7340.N1	06-DEC-2008 08:22:07	Bright	113.00	121	29Gam Vir	2.7400	7200.0	226	35388	No
17	GOM_NL__2PRFIN20081206_082703_000001092074_00264_35388_7341.N1	06-DEC-2008 08:27:03	Straylight	108.50	163	7Del Crv	2.9450	11000.	217	35388	No
18	GOM_NL__2PRFIN20081206_082941_000001162074_00264_35388_7342.N1	06-DEC-2008 08:29:41	Dark	115.50	171	2Eps Crv	3.0010	4250.0	231	35388	No
19	GOM_NL__2PRFIN20081206_084745_000001102074_00265_35389_7339.N1	06-DEC-2008 08:47:45	Dark	109.50	34	Gam2Vel	1.7930	23000.	219	35389	No
20	GOM_NL__2PRFIN20081206_085046_000001002074_00265_35389_7340.N1	06-DEC-2008 08:50:46	Dark	99.500	2	Alp Car	-0.73600	7000.0	199	35389	No
21	GOM_NL__2PRFIN20081206_085617_000000752074_00265_35389_7341.N1	06-DEC-2008 08:56:17	Dark	75.000	23	21Eps CMa	1.5020	26000.	150	35389	No
22	GOM_NL__2PRFIN20081206_090218_000001102074_00265_35389_7342.N1	06-DEC-2008 09:02:18	Straylight	109.50	101	11Alp Lep	2.5820	7000.0	219	35389	No
23	GOM_NL__2PRFIN20081206_090541_000001162074_00265_35389_7343.N1	06-DEC-2008 09:05:41	Straylight	116.00	7	19Bet Ori	0.10000	14000.	232	35389	No
24	GOM_NL__2PRFIN20081206_090814_000001232074_00265_35389_7344.N1	06-DEC-2008 09:08:14	Straylight	123.00	30	46Eps Ori	1.6940	30000.	246	35389	No
25	GOM_NL__2PRFIN20081206_091326_000001092074_00265_35389_7345.N1	06-DEC-2008 09:13:26	Bright	108.50	13	87Alp Tau	0.86700	3800.0	217	35389	No
26	GOM_NL__2PRFIN20081206_091739_000000892074_00265_35389_7346.N1	06-DEC-2008 09:17:39	Bright	88.500	150	44Zet Per	2.8900	28000.	177	35389	No
27	GOM_NL__2PRFIN20081206_092436_000001112074_00265_35389_7347.N1	06-DEC-2008 09:24:36	Bright	111.00	42	34Bet Aur	1.9000	10200.	222	35389	No
28	GOM_NL__2PRFIN20081206_093942_000001112074_00265_35389_7348.N1	06-DEC-2008 09:39:42	Bright	111.00	36	50Alp UMa	1.8000	6300.0	222	35389	No
29	GOM_NL__2PRFIN20081206_094323_000000992074_00265_35389_7349.N1	06-DEC-2008 09:43:23	Bright	99.000	32	77Eps UMa	1.7630	11000.	198	35389	No
30	GOM_NL__2PRFIN20081206_094541_000000902074_00265_35389_7350.N1	06-DEC-2008 09:45:41	Bright	89.500	39	85Eta UMa	1.8540	24000.	179	35389	No
31	GOM_NL__2PRFIN20081206_094906_000001022074_00265_35389_7351.N1	06-DEC-2008 09:49:06	Bright	102.00	152	12Alp2CVn	2.8900	11000.	204	35389	No
32	GOM_NL__2PRFIN20081206_095454_000000902074_00265_35389_7352.N1	06-DEC-2008 09:54:54	Bright	89.500	111	8Eta Boo	2.6800	6000.0	179	35389	No
33	GOM_NL__2PRFIN20081206_095807_000001022074_00265_35389_7353.N1	06-DEC-2008 09:58:07	Bright	102.00	138	47Eps Vir	2.8280	4700.0	204	35389	No
34	GOM_NL__2PRFIN20081206_100243_000001132074_00265_35389_7354.N1	06-DEC-2008 10:02:43	Bright	112.50	121	29Gam Vir	2.7400	7200.0	225	35389	No
35	GOM_NL__2PRFIN20081206_100740_000001092074_00265_35389_7355.N1	06-DEC-2008 10:07:40	Straylight	109.00	163	7Del Crv	2.9450	11000.	218	35389	No
36	GOM_NL__2PRFIN20081206_101018_000001162074_00265_35389_7356.N1	06-DEC-2008 10:10:18	Dark	116.00	171	2Eps Crv	3.0010	4250.0	232	35389	No
37	GOM_NL__2PRFIN20081206_102043_000000462074_00266_35390_7353.N1	06-DEC-2008 10:20:43	Dark	46.000	113	Mu Vel	2.6920	5000.0	92	35390	No
38	GOM_NL__2PRFIN20081206_102924_000000472074_00266_35390_7354.N1	06-DEC-2008 10:29:24	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	35390	No
39	GOM_NL__2PRFIN20081206_103217_000000482074_00266_35390_7355.N1	06-DEC-2008 10:32:17	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	35390	No
40	GOM_NL__2PRFIN20081206_103432_000000582074_00266_35390_7356.N1	06-DEC-2008 10:34:32	Dark	58.000	117	Pi Pup	2.7060	3800.0	116	35390	No
41	GOM_NL__2PRFIN20081206_103833_000000432074_00266_35390_7357.N1	06-DEC-2008 10:38:33	Dark	42.500	108	Alp Col	2.6520	15200.	85	35390	No
42	GOM_NL__2PRFIN20081206_104357_000000472074_00266_35390_7358.N1	06-DEC-2008 10:43:57	Straylight	47.000	101	11Alp Lep	2.5820	7000.0	94	35390	No

220	GOM_NL__2PRFIN20081206_223407_000000552074_00273_35397_7699.N1	06-DEC-2008 22:34:07	Straylight	55.000	30	46Eps Ori	1.6940	30000.	110	35397	No
221	GOM_NL__2PRFIN20081206_223640_000000522074_00273_35397_7700.N1	06-DEC-2008 22:36:40	Twilight_stray	52.000	27	24Gam Ori	1.6360	26000.	104	35397	No
222	GOM_NL__2PRFIN20081206_223909_000000582074_00273_35397_7701.N1	06-DEC-2008 22:39:09	Bright	58.000	13	87Alp Tau	0.86700	3800.0	116	35397	No
223	GOM_NL__2PRFIN20081206_224101_000000362074_00273_35397_7702.N1	06-DEC-2008 22:41:01	Bright	35.500	146	25Eta Tau	2.8730	15200.	71	35397	No
224	GOM_NL__2PRFIN20081206_224317_000000372074_00273_35397_7703.N1	06-DEC-2008 22:43:17	Bright	36.500	150	44Zet Per	2.8900	28000.	73	35397	No
225	GOM_NL__2PRFIN20081206_224440_000000432074_00273_35397_7704.N1	06-DEC-2008 22:44:40	Bright	43.000	114	31ot Aur	2.6930	4600.0	86	35397	No
226	GOM_NL__2PRFIN20081206_224746_000000352074_00273_35397_7705.N1	06-DEC-2008 22:47:46	Bright	34.500	175	39Del Per	3.0100	19400.	69	35397	No
227	GOM_NL__2PRFIN20081206_225022_000000472074_00273_35397_7706.N1	06-DEC-2008 22:50:22	Bright	46.500	42	34Bet Aur	1.9000	10200.	93	35397	No
228	GOM_NL__2PRFIN20081206_230529_000000462074_00273_35397_7707.N1	06-DEC-2008 23:05:29	Bright	45.500	36	50Alp UMa	1.8000	6300.0	91	35397	No
229	GOM_NL__2PRFIN20081206_230702_000000482074_00273_35397_7708.N1	06-DEC-2008 23:07:02	Bright	47.500	82	48Bet UMa	2.3650	10600.	95	35397	No
230	GOM_NL__2PRFIN20081206_230906_000000412074_00273_35397_7709.N1	06-DEC-2008 23:09:06	Bright	41.000	32	77Eps UMa	1.7630	11000.	82	35397	No
231	GOM_NL__2PRFIN20081206_231122_000000382074_00273_35397_7710.N1	06-DEC-2008 23:11:22	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	35397	No
232	GOM_NL__2PRFIN20081206_231454_000000412074_00273_35397_7711.N1	06-DEC-2008 23:14:54	Bright	40.500	152	12Alp2CVn	2.8900	11000.	81	35397	No
233	GOM_NL__2PRFIN20081206_232036_000000372074_00273_35397_7712.N1	06-DEC-2008 23:20:36	Bright	36.500	111	8Eta Boo	2.6800	6000.0	73	35397	No
234	GOM_NL__2PRFIN20081206_232359_000000442074_00273_35397_7713.N1	06-DEC-2008 23:23:59	Bright	43.500	138	47Eps Vir	2.8280	4700.0	87	35397	No
235	GOM_NL__2PRFIN20081206_232840_000000502074_00273_35397_7714.N1	06-DEC-2008 23:28:40	Bright	50.000	121	29Gam Vir	2.7400	7200.0	100	35397	No
236	GOM_NL__2PRFIN20081206_233317_000000432074_00273_35397_7715.N1	06-DEC-2008 23:33:17	Twilight_stray	42.500	169	46Gam Hya	2.9910	4700.0	85	35397	No
237	GOM_NL__2PRFIN20081206_233617_000000532074_00273_35397_7716.N1	06-DEC-2008 23:36:17	Dark	52.500	171	2Eps Crv	3.0010	4250.0	105	35397	No
238	GOM_NL__2PRFIN20081206_234537_000000452074_00274_35398_7708.N1	06-DEC-2008 23:45:37	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	35398	No
239	GOM_NL__2PRFIN20081206_235418_000000482074_00274_35398_7709.N1	06-DEC-2008 23:54:18	Dark	48.000	34	Gam2Vel	1.7930	23000.	96	35398	No
240	GOM_NL__2PRFIN20081206_235708_000000482074_00274_35398_7710.N1	06-DEC-2008 23:57:08	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	35398	No
241	GOM_NL__2PRFIN20081206_235926_000000602074_00274_35398_7711.N1	06-DEC-2008 23:59:26	Dark	60.000	117	Pi Pup	2.7060	3800.0	120	35398	No

3. Quality information per product

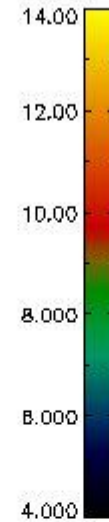
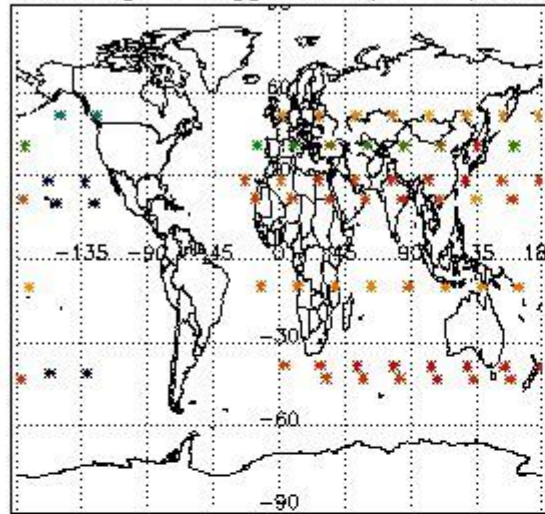
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

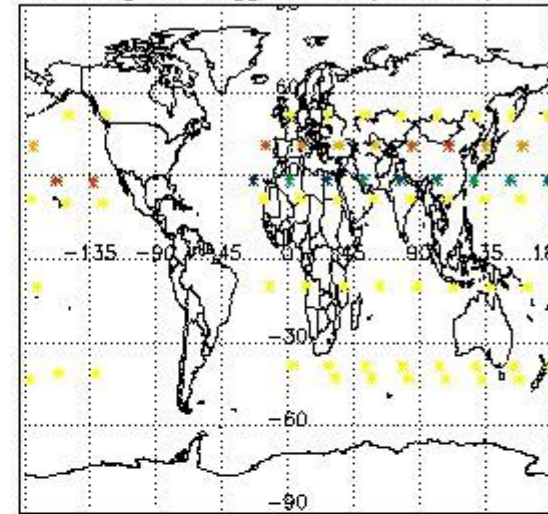


3.2 Plot quality information per product (world map)

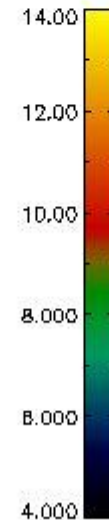
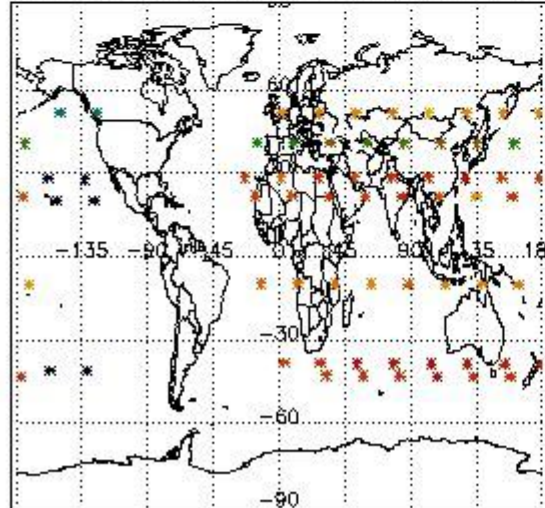
Percentage of flagged data per O3 profile



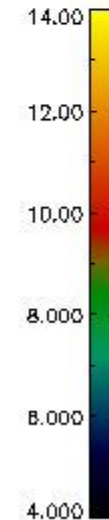
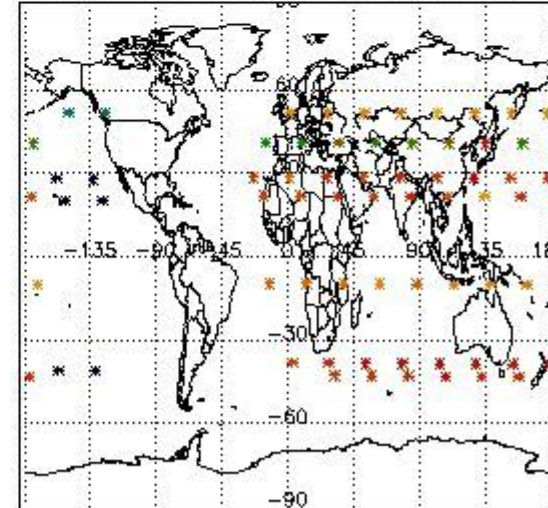
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

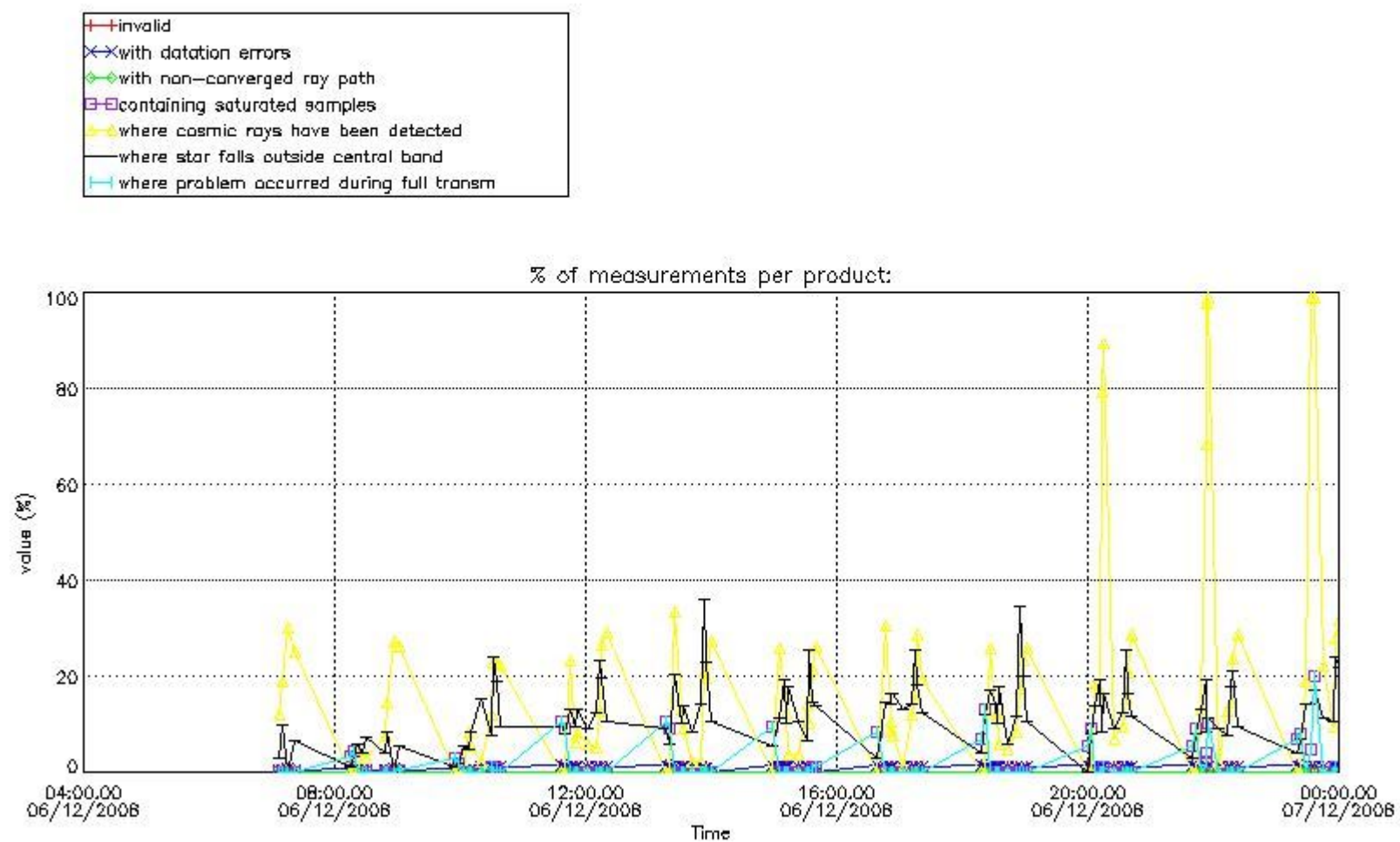


4. Level 1 quality information per product

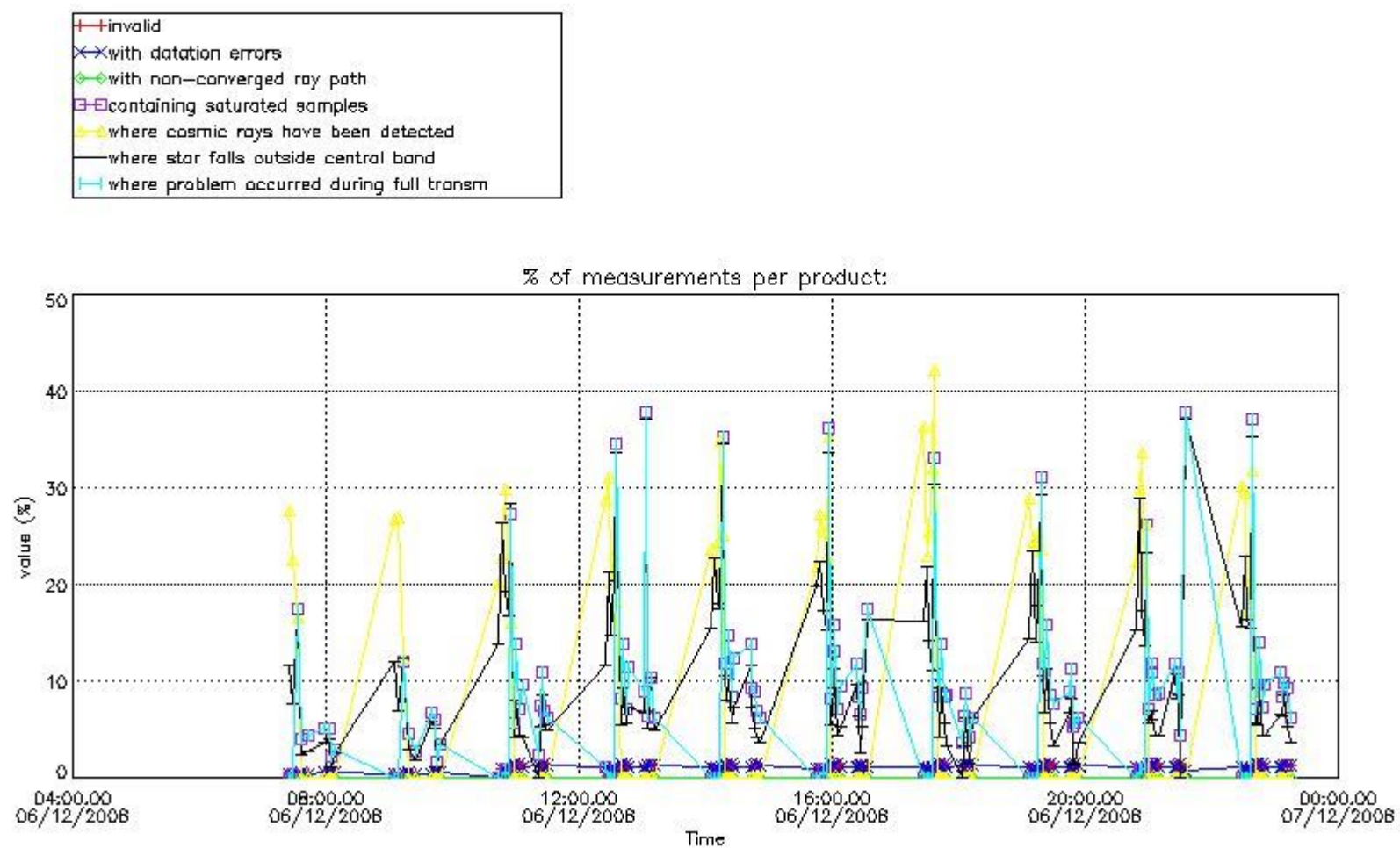
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



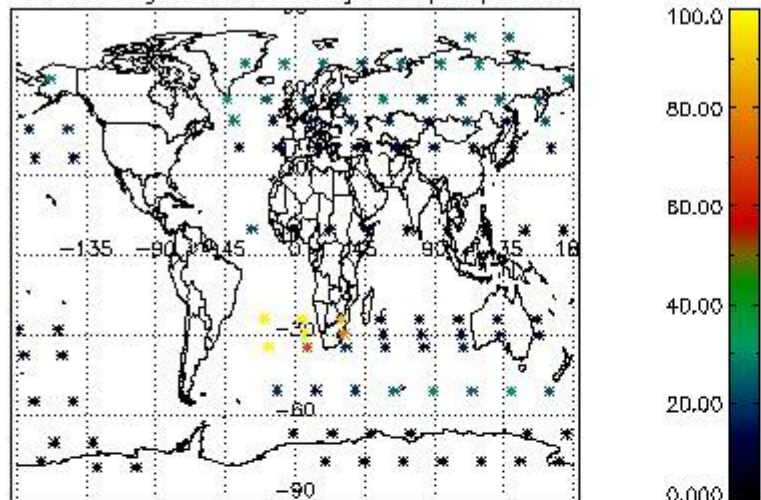
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



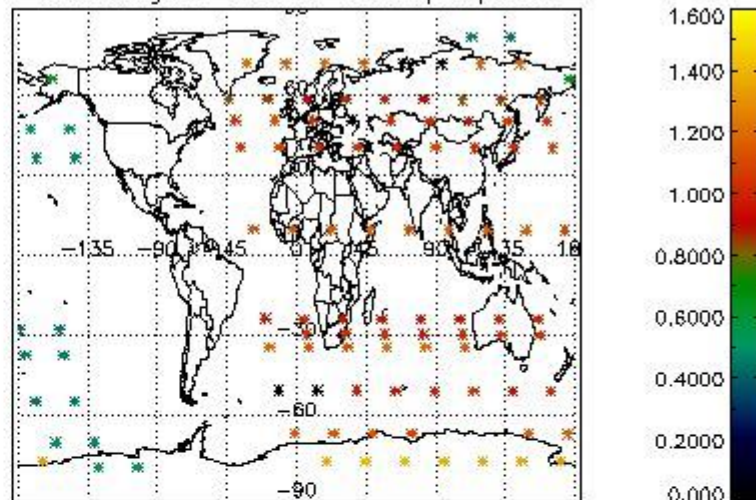
4.2 Plot quality information per product coming from level 1b processing (world map)

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

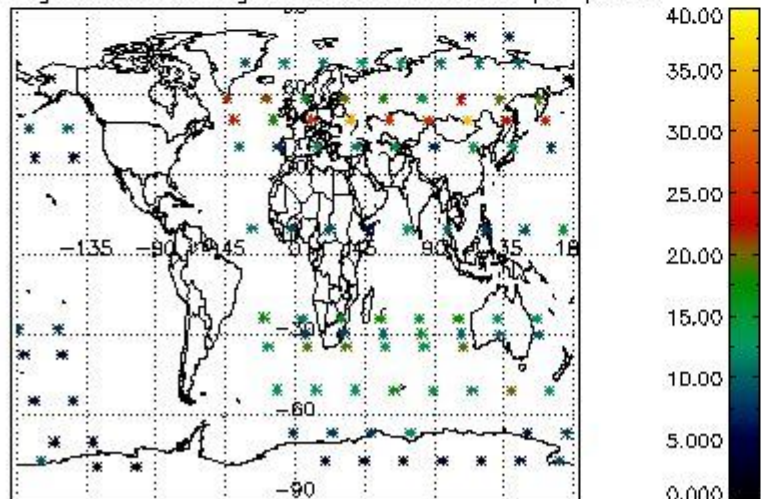
Percentage of cosmic ray hits per profile



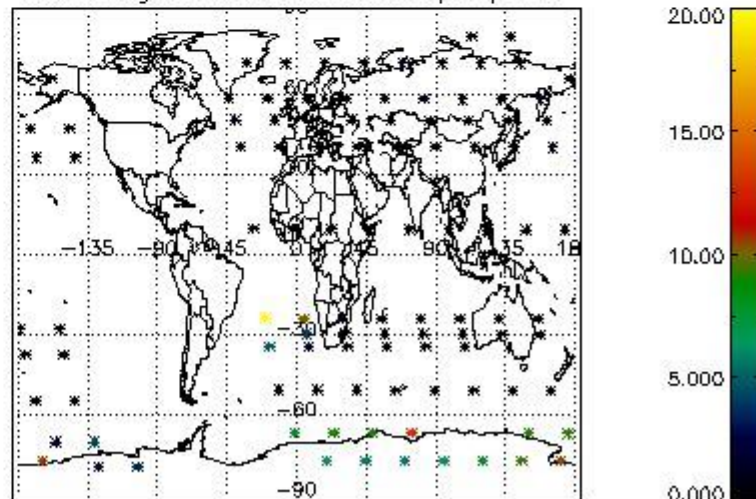
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

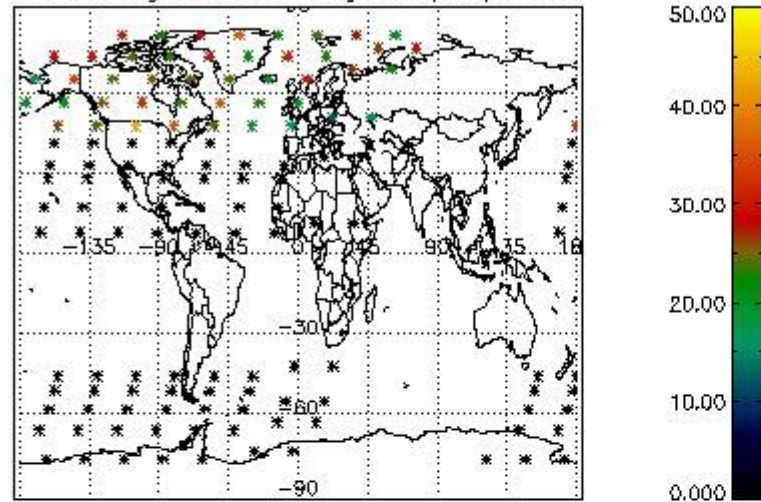


Percentage of saturation errors per profile

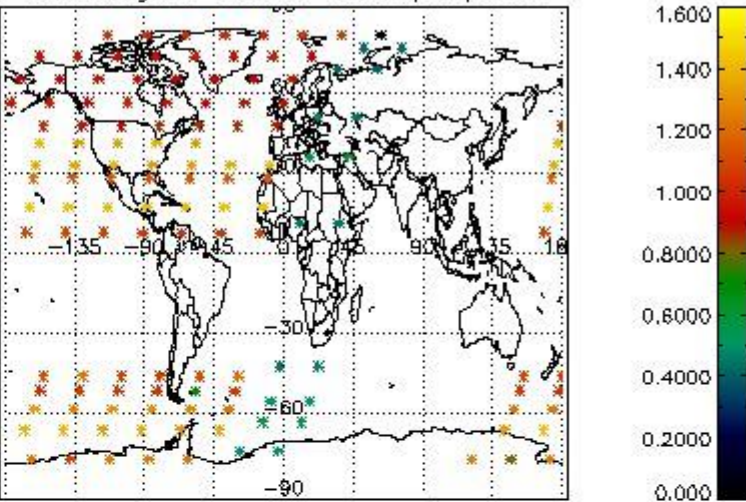


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

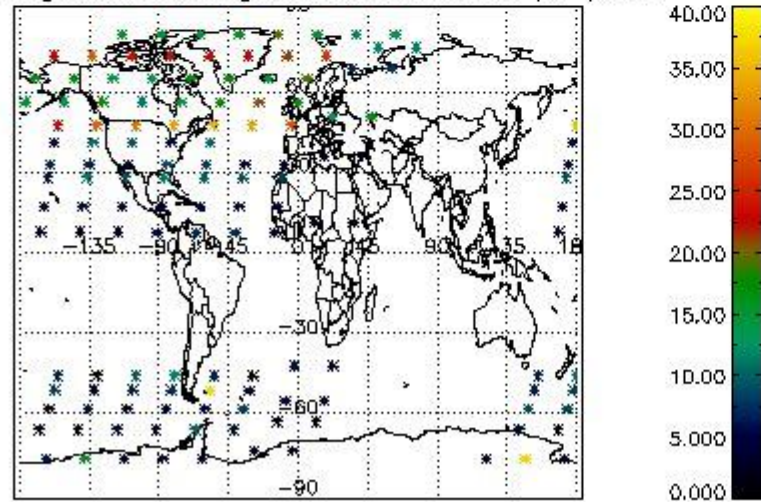
Percentage of cosmic ray hits per profile



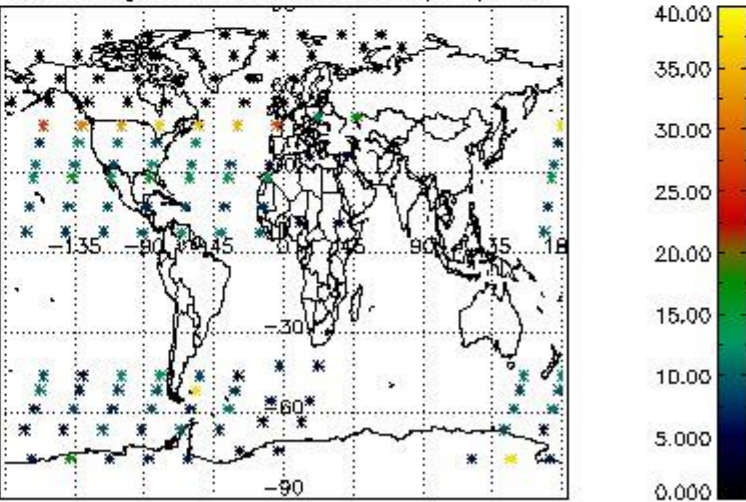
Percentage of datation errors per profile



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

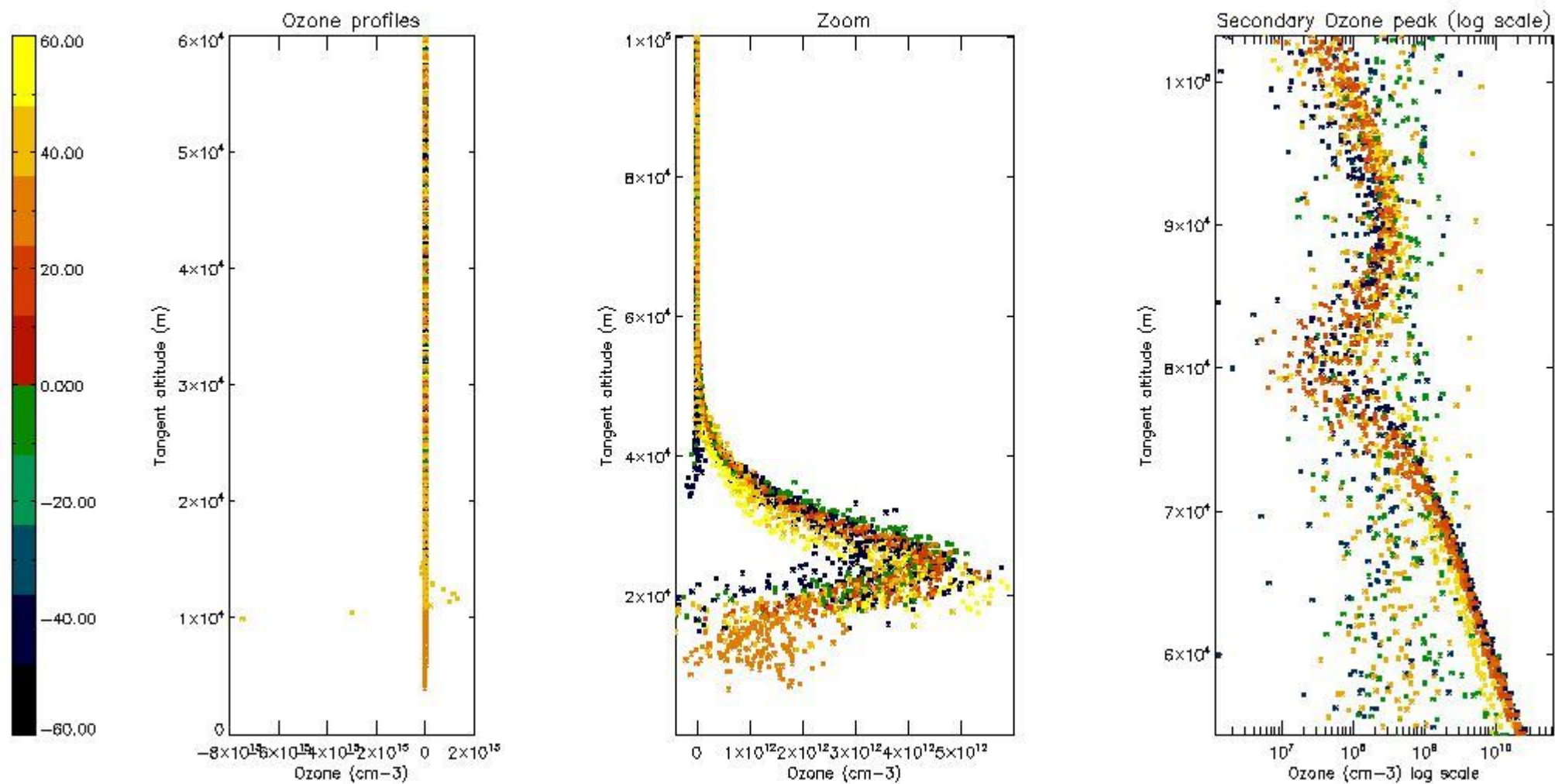
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	11

STD < 10	8
STD < 5	6

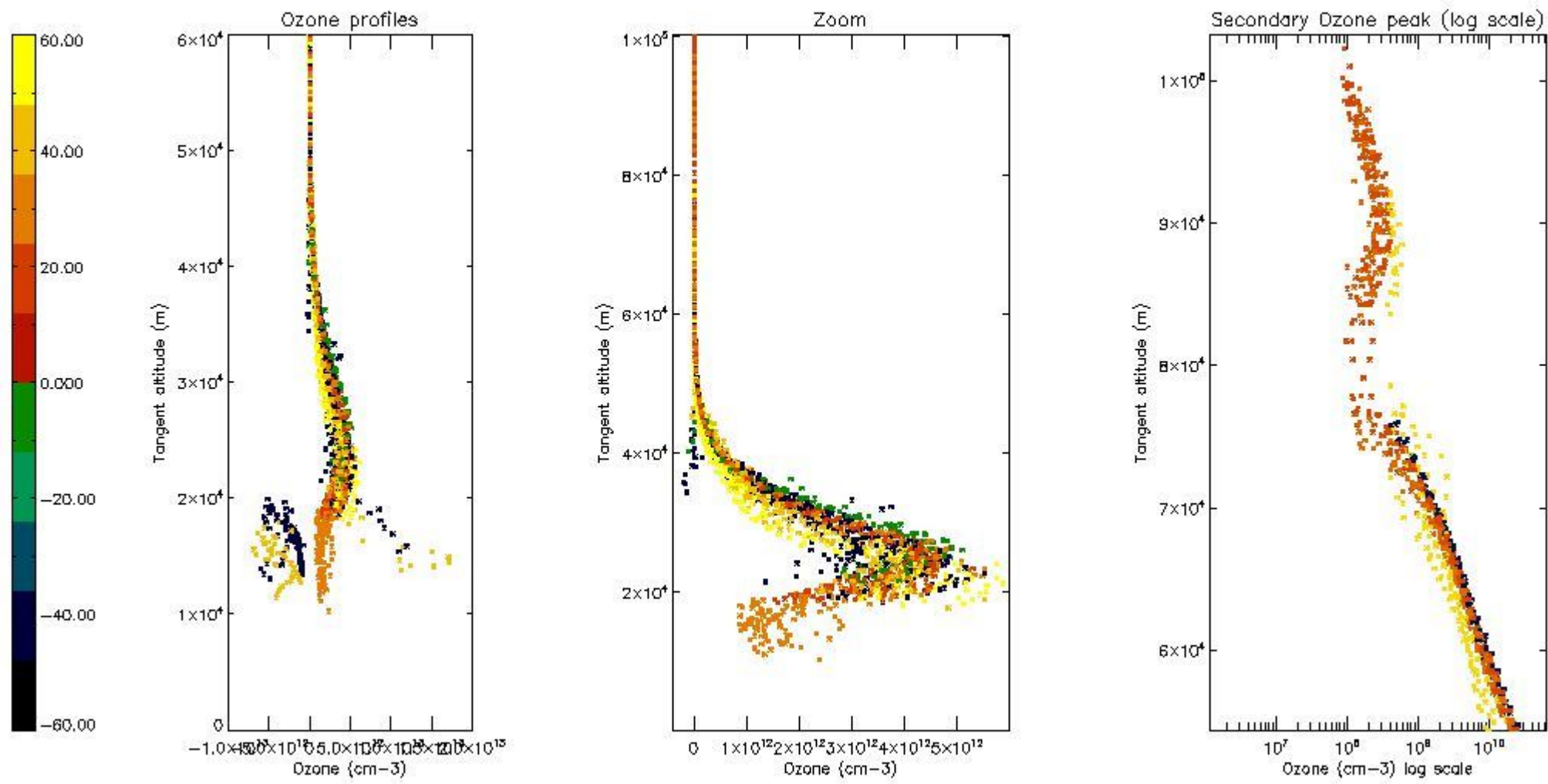
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



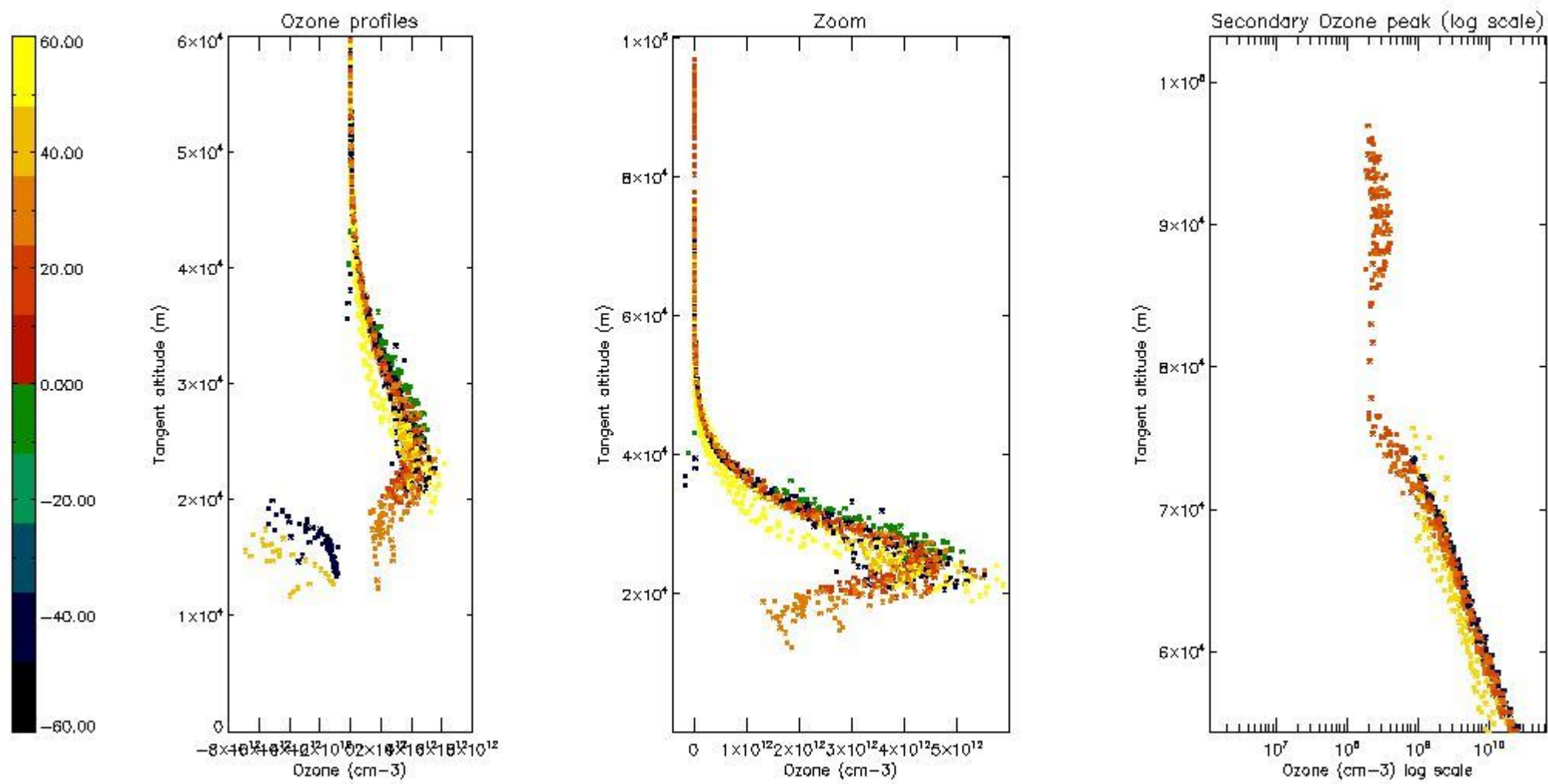
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



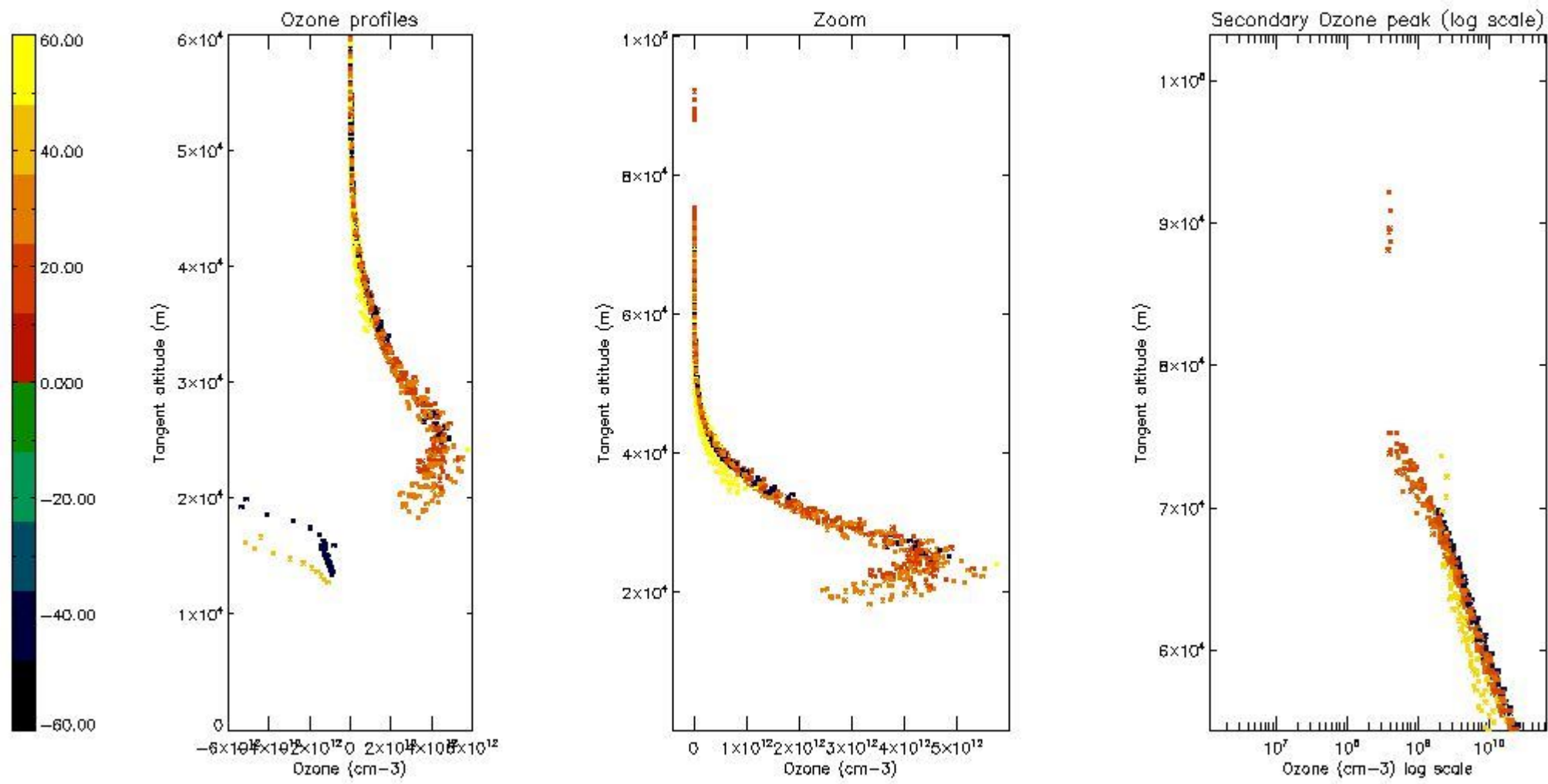
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



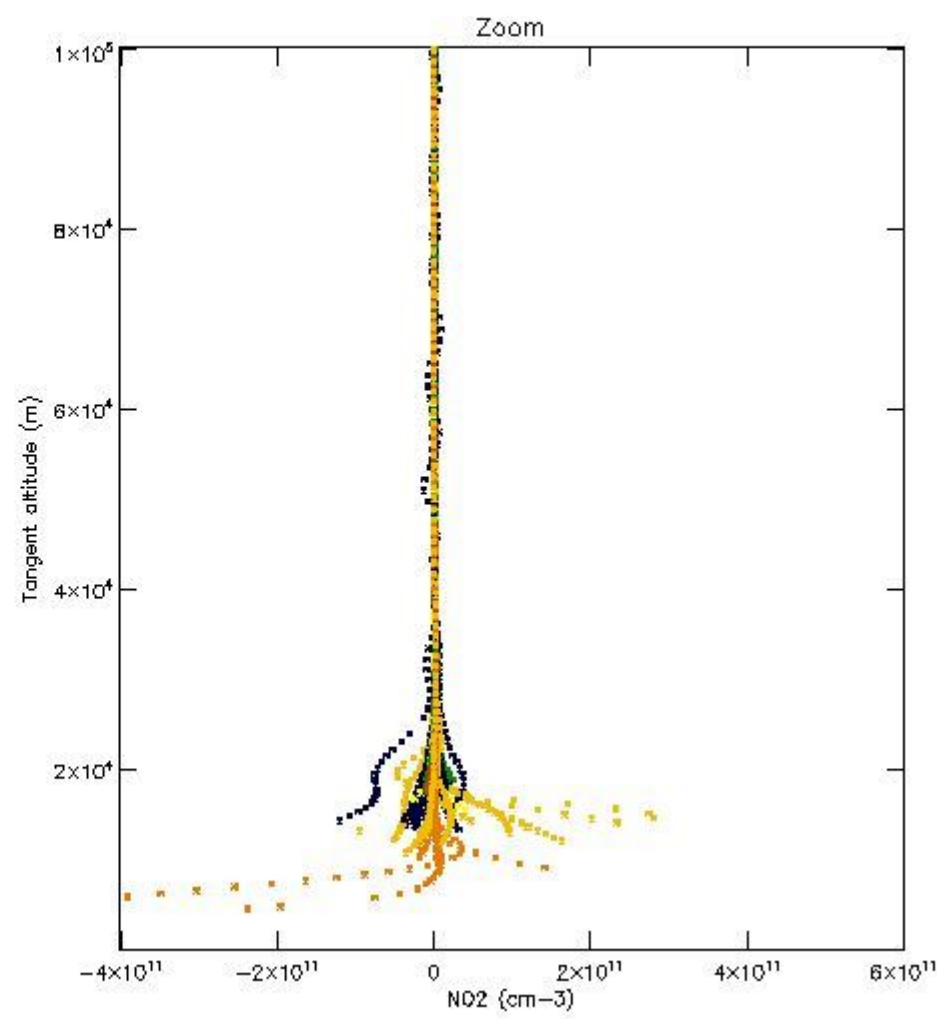
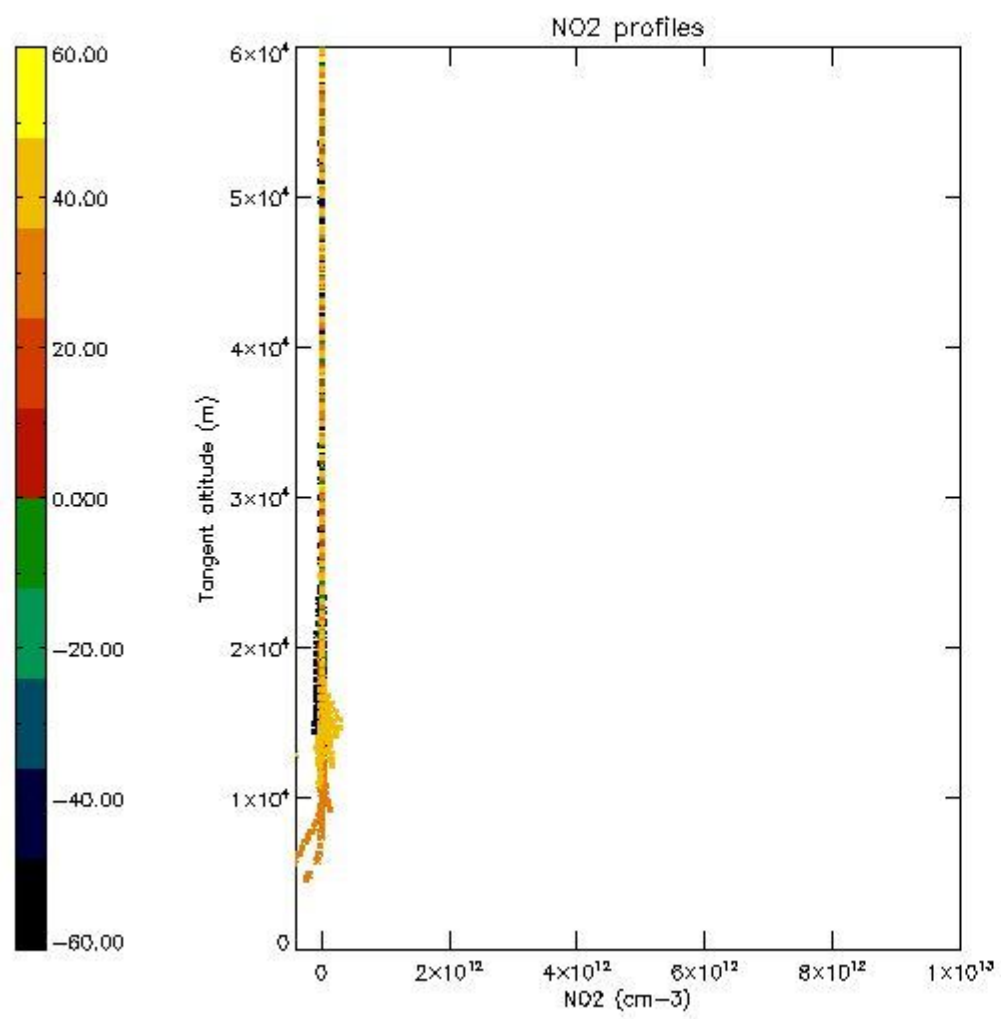
5.5 Plot ozone profiles where $STD < 5\%$ (dark without errors)

The colorbar represents the latitude.



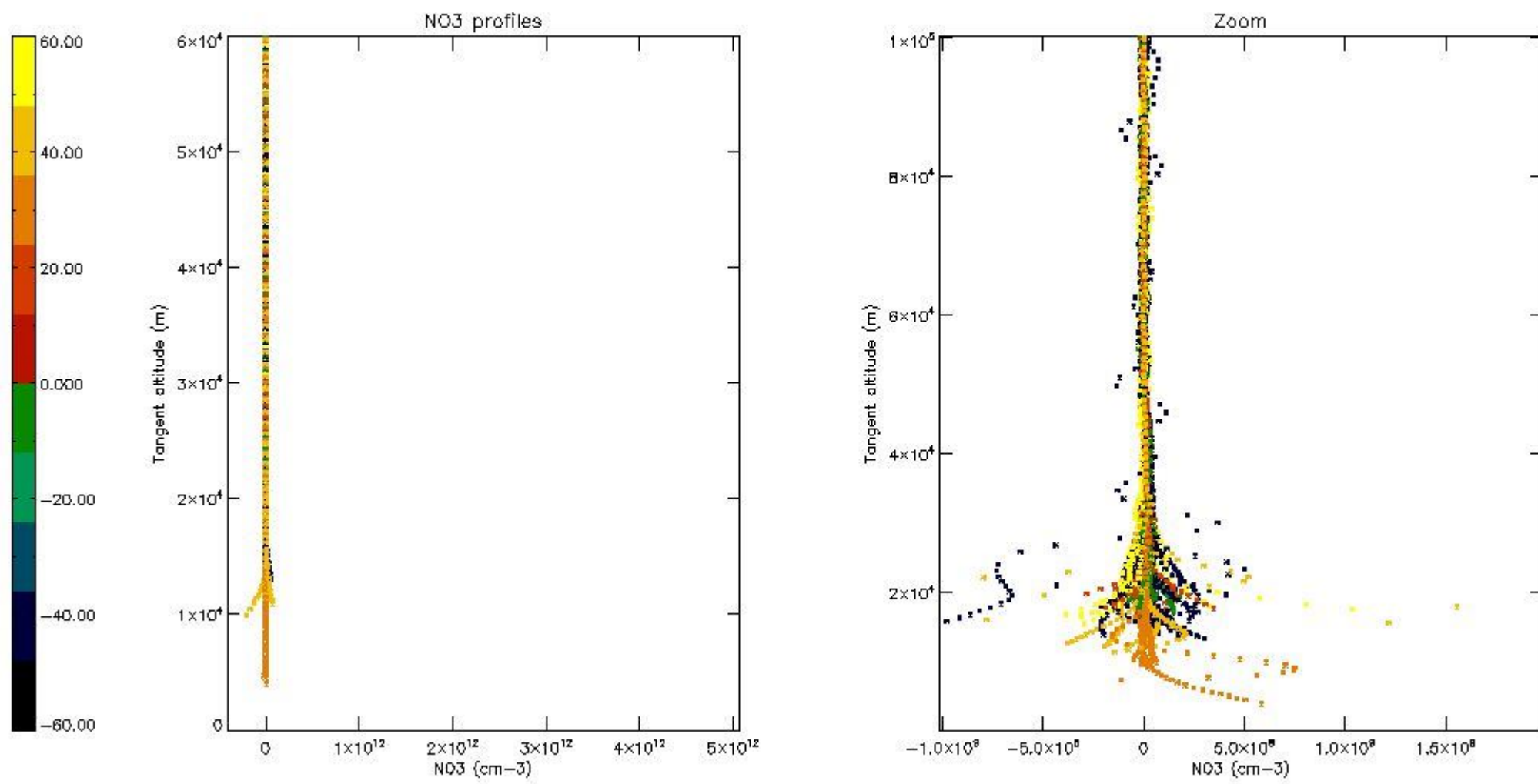
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



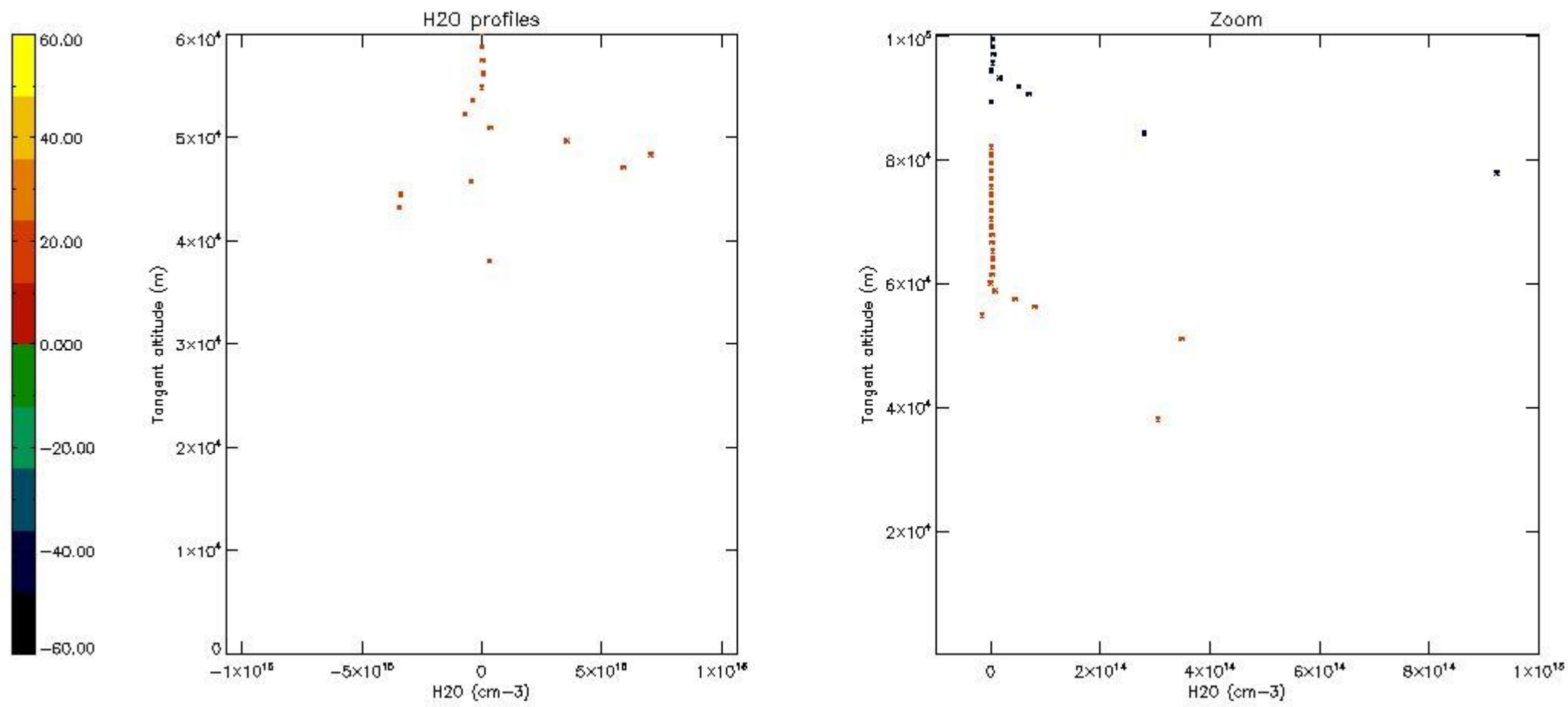
5.7 Plot NO3 profiles for all STD (dark without errors)

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	06-DEC-2008 07:07:09
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	06-DEC-2008 07:07:09
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	06-DEC-2008 07:07:09

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	25APR2013 23:15:07
Data source version	GOMOS/6.01
Start time of products	06-12-2008 (06DEC2008 00:00:00)
Stop time of products	07-12-2008 (07DEC2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	241
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

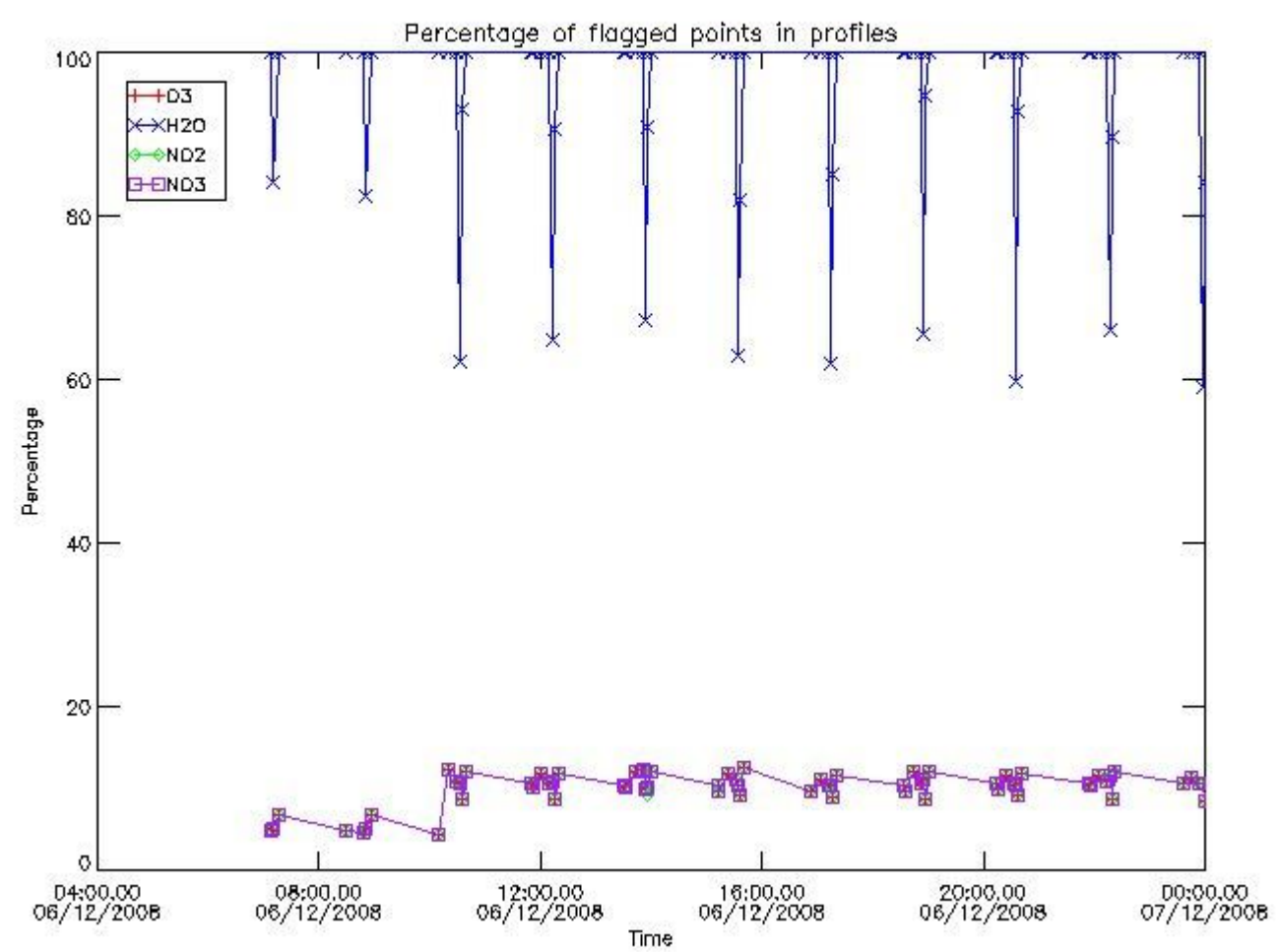
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081206_070709_000001092074_00264_35388_7325.N1	06-DEC-2008 07:07:09	Dark	108.50	34	Gam2Vel	1.7930	23000.	217	35388	No
2	GOM_NL__2PRFIN20081206_071010_000001012074_00264_35388_7326.N1	06-DEC-2008 07:10:10	Dark	101.00	2	Alp Car	-0.73600	7000.0	202	35388	No
3	GOM_NL__2PRFIN20081206_071540_000000752074_00264_35388_7327.N1	06-DEC-2008 07:15:40	Dark	75.000	23	21Eps CMa	1.5020	26000.	150	35388	No
4	GOM_NL__2PRFIN20081206_072142_000001122074_00264_35388_7328.N1	06-DEC-2008 07:21:42	Straylight	111.50	101	11Alp Lep	2.5820	7000.0	223	35388	No
5	GOM_NL__2PRFIN20081206_072505_000001162074_00264_35388_7329.N1	06-DEC-2008 07:25:05	Straylight	116.00	7	19Bet Ori	0.10000	14000.	232	35388	No
6	GOM_NL__2PRFIN20081206_072738_000001242074_00264_35388_7330.N1	06-DEC-2008 07:27:38	Straylight	124.00	30	46Eps Ori	1.6940	30000.	248	35388	No
7	GOM_NL__2PRFIN20081206_073250_000001152074_00264_35388_7331.N1	06-DEC-2008 07:32:50	Bright	115.00	13	87Alp Tau	0.86700	3800.0	230	35388	No
8	GOM_NL__2PRFIN20081206_073704_000000882074_00264_35388_7332.N1	06-DEC-2008 07:37:04	Bright	88.000	150	44Zet Per	2.8900	28000.	176	35388	No
9	GOM_NL__2PRFIN20081206_074401_000001132074_00264_35388_7333.N1	06-DEC-2008 07:44:01	Bright	113.00	42	34Bet Aur	1.9000	10200.	226	35388	No
10	GOM_NL__2PRFIN20081206_075906_000001092074_00264_35388_7334.N1	06-DEC-2008 07:59:06	Bright	108.50	36	50Alp UMa	1.8000	6300.0	217	35388	No
11	GOM_NL__2PRFIN20081206_080247_000000992074_00264_35388_7335.N1	06-DEC-2008 08:02:47	Bright	98.500	32	77Eps UMa	1.7630	11000.	197	35388	No
12	GOM_NL__2PRFIN20081206_080505_000000902074_00264_35388_7336.N1	06-DEC-2008 08:05:05	Bright	90.000	39	85Eta UMa	1.8540	24000.	180	35388	No
13	GOM_NL__2PRFIN20081206_080830_000001012074_00264_35388_7337.N1	06-DEC-2008 08:08:30	Bright	101.00	152	12Alp2CVn	2.8900	11000.	202	35388	No
14	GOM_NL__2PRFIN20081206_081417_000000902074_00264_35388_7338.N1	06-DEC-2008 08:14:17	Bright	90.000	111	8Eta Boo	2.6800	6000.0	180	35388	No
15	GOM_NL__2PRFIN20081206_081731_000001052074_00264_35388_7339.N1	06-DEC-2008 08:17:31	Bright	104.50	138	47Eps Vir	2.8280	4700.0	209	35388	No
16	GOM_NL__2PRFIN20081206_082207_000001132074_00264_35388_7340.N1	06-DEC-2008 08:22:07	Bright	113.00	121	29Gam Vir	2.7400	7200.0	226	35388	No
17	GOM_NL__2PRFIN20081206_082703_000001092074_00264_35388_7341.N1	06-DEC-2008 08:27:03	Straylight	108.50	163	7Del Crv	2.9450	11000.	217	35388	No
18	GOM_NL__2PRFIN20081206_082941_000001162074_00264_35388_7342.N1	06-DEC-2008 08:29:41	Dark	115.50	171	2Eps Crv	3.0010	4250.0	231	35388	No
19	GOM_NL__2PRFIN20081206_084745_000001102074_00265_35389_7339.N1	06-DEC-2008 08:47:45	Dark	109.50	34	Gam2Vel	1.7930	23000.	219	35389	No
20	GOM_NL__2PRFIN20081206_085046_000001002074_00265_35389_7340.N1	06-DEC-2008 08:50:46	Dark	99.500	2	Alp Car	-0.73600	7000.0	199	35389	No
21	GOM_NL__2PRFIN20081206_085617_000000752074_00265_35389_7341.N1	06-DEC-2008 08:56:17	Dark	75.000	23	21Eps CMa	1.5020	26000.	150	35389	No
22	GOM_NL__2PRFIN20081206_090218_000001102074_00265_35389_7342.N1	06-DEC-2008 09:02:18	Straylight	109.50	101	11Alp Lep	2.5820	7000.0	219	35389	No
23	GOM_NL__2PRFIN20081206_090541_000001162074_00265_35389_7343.N1	06-DEC-2008 09:05:41	Straylight	116.00	7	19Bet Ori	0.10000	14000.	232	35389	No
24	GOM_NL__2PRFIN20081206_090814_000001232074_00265_35389_7344.N1	06-DEC-2008 09:08:14	Straylight	123.00	30	46Eps Ori	1.6940	30000.	246	35389	No
25	GOM_NL__2PRFIN20081206_091326_000001092074_00265_35389_7345.N1	06-DEC-2008 09:13:26	Bright	108.50	13	87Alp Tau	0.86700	3800.0	217	35389	No
26	GOM_NL__2PRFIN20081206_091739_000000892074_00265_35389_7346.N1	06-DEC-2008 09:17:39	Bright	88.500	150	44Zet Per	2.8900	28000.	177	35389	No
27	GOM_NL__2PRFIN20081206_092436_000001112074_00265_35389_7347.N1	06-DEC-2008 09:24:36	Bright	111.00	42	34Bet Aur	1.9000	10200.	222	35389	No
28	GOM_NL__2PRFIN20081206_093942_000001112074_00265_35389_7348.N1	06-DEC-2008 09:39:42	Bright	111.00	36	50Alp UMa	1.8000	6300.0	222	35389	No
29	GOM_NL__2PRFIN20081206_094323_000000992074_00265_35389_7349.N1	06-DEC-2008 09:43:23	Bright	99.000	32	77Eps UMa	1.7630	11000.	198	35389	No
30	GOM_NL__2PRFIN20081206_094541_000000902074_00265_35389_7350.N1	06-DEC-2008 09:45:41	Bright	89.500	39	85Eta UMa	1.8540	24000.	179	35389	No
31	GOM_NL__2PRFIN20081206_094906_000001022074_00265_35389_7351.N1	06-DEC-2008 09:49:06	Bright	102.00	152	12Alp2CVn	2.8900	11000.	204	35389	No
32	GOM_NL__2PRFIN20081206_095454_000000902074_00265_35389_7352.N1	06-DEC-2008 09:54:54	Bright	89.500	111	8Eta Boo	2.6800	6000.0	179	35389	No
33	GOM_NL__2PRFIN20081206_095807_000001022074_00265_35389_7353.N1	06-DEC-2008 09:58:07	Bright	102.00	138	47Eps Vir	2.8280	4700.0	204	35389	No
34	GOM_NL__2PRFIN20081206_100243_000001132074_00265_35389_7354.N1	06-DEC-2008 10:02:43	Bright	112.50	121	29Gam Vir	2.7400	7200.0	225	35389	No
35	GOM_NL__2PRFIN20081206_100740_000001092074_00265_35389_7355.N1	06-DEC-2008 10:07:40	Straylight	109.00	163	7Del Crv	2.9450	11000.	218	35389	No
36	GOM_NL__2PRFIN20081206_101018_000001162074_00265_35389_7356.N1	06-DEC-2008 10:10:18	Dark	116.00	171	2Eps Crv	3.0010	4250.0	232	35389	No
37	GOM_NL__2PRFIN20081206_102043_000000462074_00266_35390_7353.N1	06-DEC-2008 10:20:43	Dark	46.000	113	Mu Vel	2.6920	5000.0	92	35390	No
38	GOM_NL__2PRFIN20081206_102924_000000472074_00266_35390_7354.N1	06-DEC-2008 10:29:24	Dark	46.500	34	Gam2Vel	1.7930	23000.	93	35390	No
39	GOM_NL__2PRFIN20081206_103217_000000482074_00266_35390_7355.N1	06-DEC-2008 10:32:17	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	35390	No
40	GOM_NL__2PRFIN20081206_103432_000000582074_00266_35390_7356.N1	06-DEC-2008 10:34:32	Dark	58.000	117	Pi Pup	2.7060	3800.0	116	35390	No
41	GOM_NL__2PRFIN20081206_103833_000000432074_00266_35390_7357.N1	06-DEC-2008 10:38:33	Dark	42.500	108	Alp Col	2.6520	15200.	85	35390	No
42	GOM_NL__2PRFIN20081206_104357_000000472074_00266_35390_7358.N1	06-DEC-2008 10:43:57	Straylight	47.000	101	11Alp Lep	2.5820	7000.0	94	35390	No

220	GOM_NL__2PRFIN20081206_223407_000000552074_00273_35397_7699.N1	06-DEC-2008 22:34:07	Straylight	55.000	30	46Eps Ori	1.6940	30000.	110	35397	No
221	GOM_NL__2PRFIN20081206_223640_000000522074_00273_35397_7700.N1	06-DEC-2008 22:36:40	Twilight_stray	52.000	27	24Gam Ori	1.6360	26000.	104	35397	No
222	GOM_NL__2PRFIN20081206_223909_000000582074_00273_35397_7701.N1	06-DEC-2008 22:39:09	Bright	58.000	13	87Alp Tau	0.86700	3800.0	116	35397	No
223	GOM_NL__2PRFIN20081206_224101_000000362074_00273_35397_7702.N1	06-DEC-2008 22:41:01	Bright	35.500	146	25Eta Tau	2.8730	15200.	71	35397	No
224	GOM_NL__2PRFIN20081206_224317_000000372074_00273_35397_7703.N1	06-DEC-2008 22:43:17	Bright	36.500	150	44Zet Per	2.8900	28000.	73	35397	No
225	GOM_NL__2PRFIN20081206_224440_000000432074_00273_35397_7704.N1	06-DEC-2008 22:44:40	Bright	43.000	114	31ot Aur	2.6930	4600.0	86	35397	No
226	GOM_NL__2PRFIN20081206_224746_000000352074_00273_35397_7705.N1	06-DEC-2008 22:47:46	Bright	34.500	175	39Del Per	3.0100	19400.	69	35397	No
227	GOM_NL__2PRFIN20081206_225022_000000472074_00273_35397_7706.N1	06-DEC-2008 22:50:22	Bright	46.500	42	34Bet Aur	1.9000	10200.	93	35397	No
228	GOM_NL__2PRFIN20081206_230529_000000462074_00273_35397_7707.N1	06-DEC-2008 23:05:29	Bright	45.500	36	50Alp UMa	1.8000	6300.0	91	35397	No
229	GOM_NL__2PRFIN20081206_230702_000000482074_00273_35397_7708.N1	06-DEC-2008 23:07:02	Bright	47.500	82	48Bet UMa	2.3650	10600.	95	35397	No
230	GOM_NL__2PRFIN20081206_230906_000000412074_00273_35397_7709.N1	06-DEC-2008 23:09:06	Bright	41.000	32	77Eps UMa	1.7630	11000.	82	35397	No
231	GOM_NL__2PRFIN20081206_231122_000000382074_00273_35397_7710.N1	06-DEC-2008 23:11:22	Bright	37.500	39	85Eta UMa	1.8540	24000.	75	35397	No
232	GOM_NL__2PRFIN20081206_231454_000000412074_00273_35397_7711.N1	06-DEC-2008 23:14:54	Bright	40.500	152	12Alp2CVn	2.8900	11000.	81	35397	No
233	GOM_NL__2PRFIN20081206_232036_000000372074_00273_35397_7712.N1	06-DEC-2008 23:20:36	Bright	36.500	111	8Eta Boo	2.6800	6000.0	73	35397	No
234	GOM_NL__2PRFIN20081206_232359_000000442074_00273_35397_7713.N1	06-DEC-2008 23:23:59	Bright	43.500	138	47Eps Vir	2.8280	4700.0	87	35397	No
235	GOM_NL__2PRFIN20081206_232840_000000502074_00273_35397_7714.N1	06-DEC-2008 23:28:40	Bright	50.000	121	29Gam Vir	2.7400	7200.0	100	35397	No
236	GOM_NL__2PRFIN20081206_233317_000000432074_00273_35397_7715.N1	06-DEC-2008 23:33:17	Twilight_stray	42.500	169	46Gam Hya	2.9910	4700.0	85	35397	No
237	GOM_NL__2PRFIN20081206_233617_000000532074_00273_35397_7716.N1	06-DEC-2008 23:36:17	Dark	52.500	171	2Eps Crv	3.0010	4250.0	105	35397	No
238	GOM_NL__2PRFIN20081206_234537_000000452074_00274_35398_7708.N1	06-DEC-2008 23:45:37	Dark	45.000	113	Mu Vel	2.6920	5000.0	90	35398	No
239	GOM_NL__2PRFIN20081206_235418_000000482074_00274_35398_7709.N1	06-DEC-2008 23:54:18	Dark	48.000	34	Gam2Vel	1.7930	23000.	96	35398	No
240	GOM_NL__2PRFIN20081206_235708_000000482074_00274_35398_7710.N1	06-DEC-2008 23:57:08	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	35398	No
241	GOM_NL__2PRFIN20081206_235926_000000602074_00274_35398_7711.N1	06-DEC-2008 23:59:26	Dark	60.000	117	Pi Pup	2.7060	3800.0	120	35398	No

3. Quality information per product

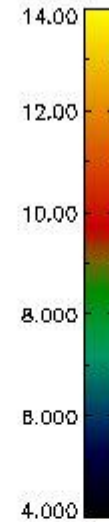
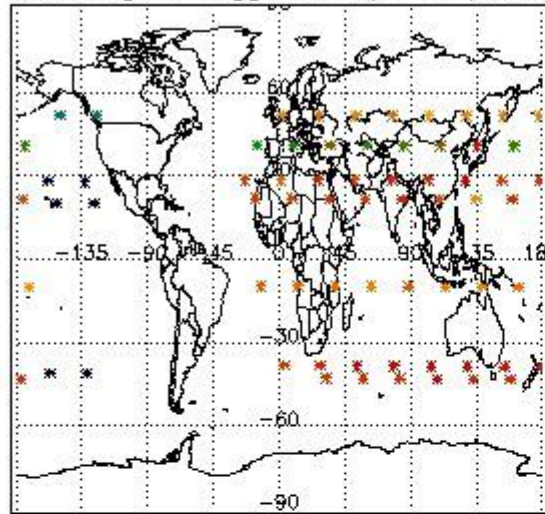
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

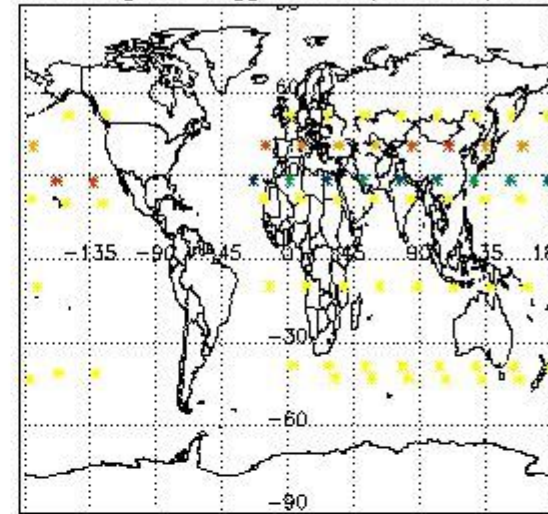


3.2 Plot quality information per product (world map)

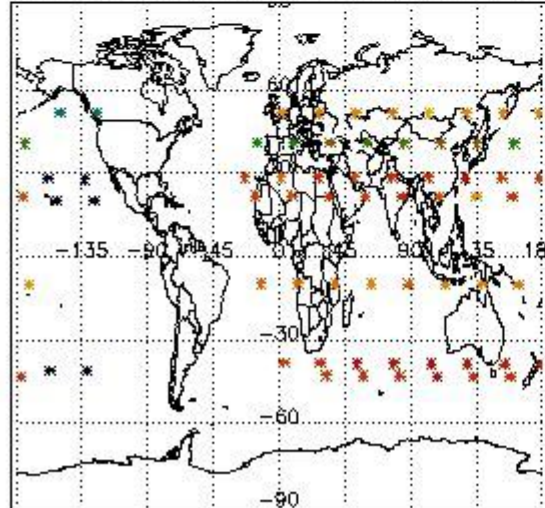
Percentage of flagged data per O3 profile



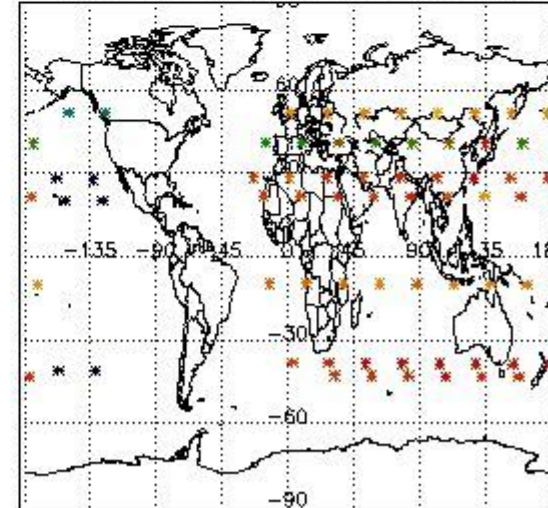
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

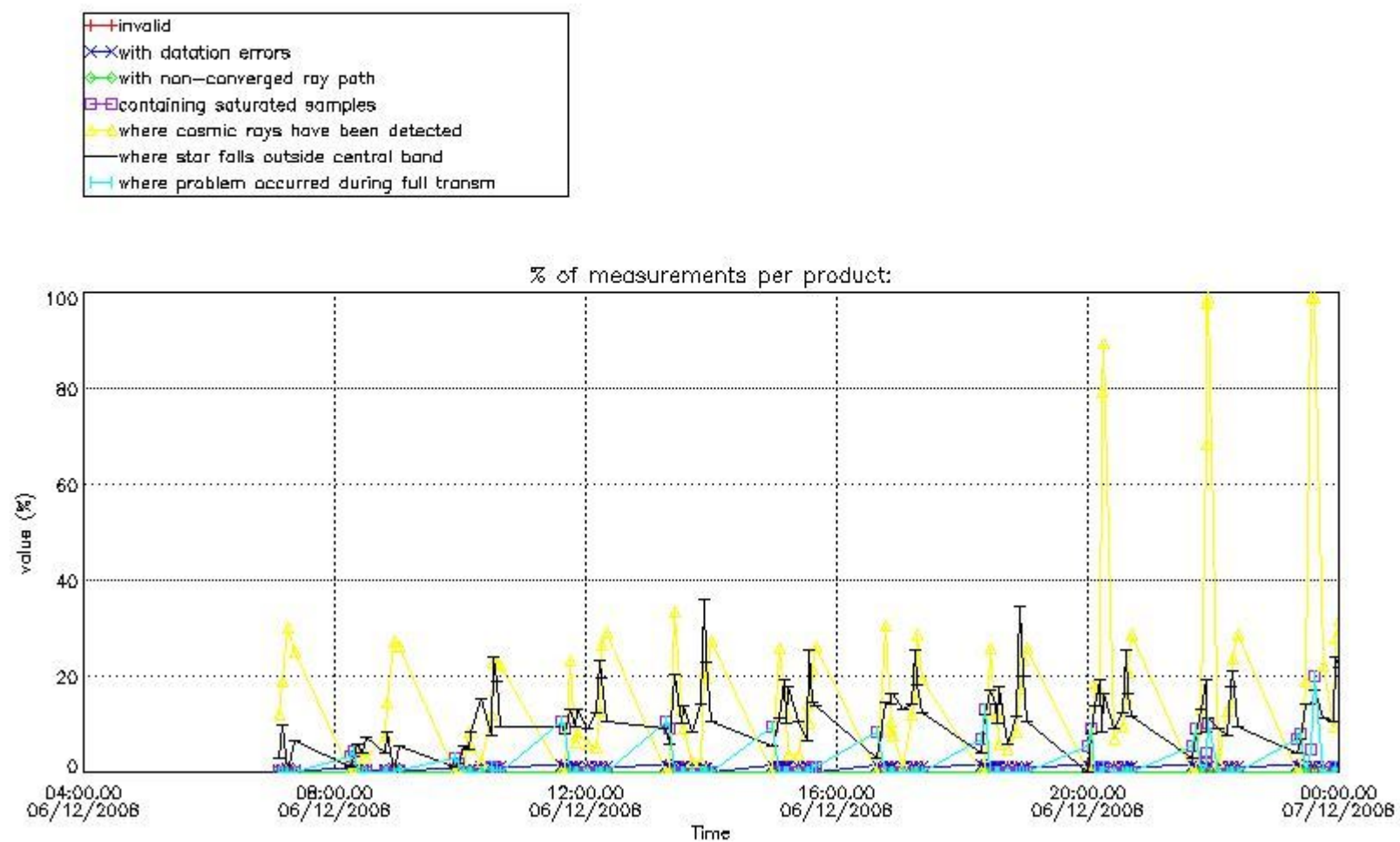


4. Level 1 quality information per product

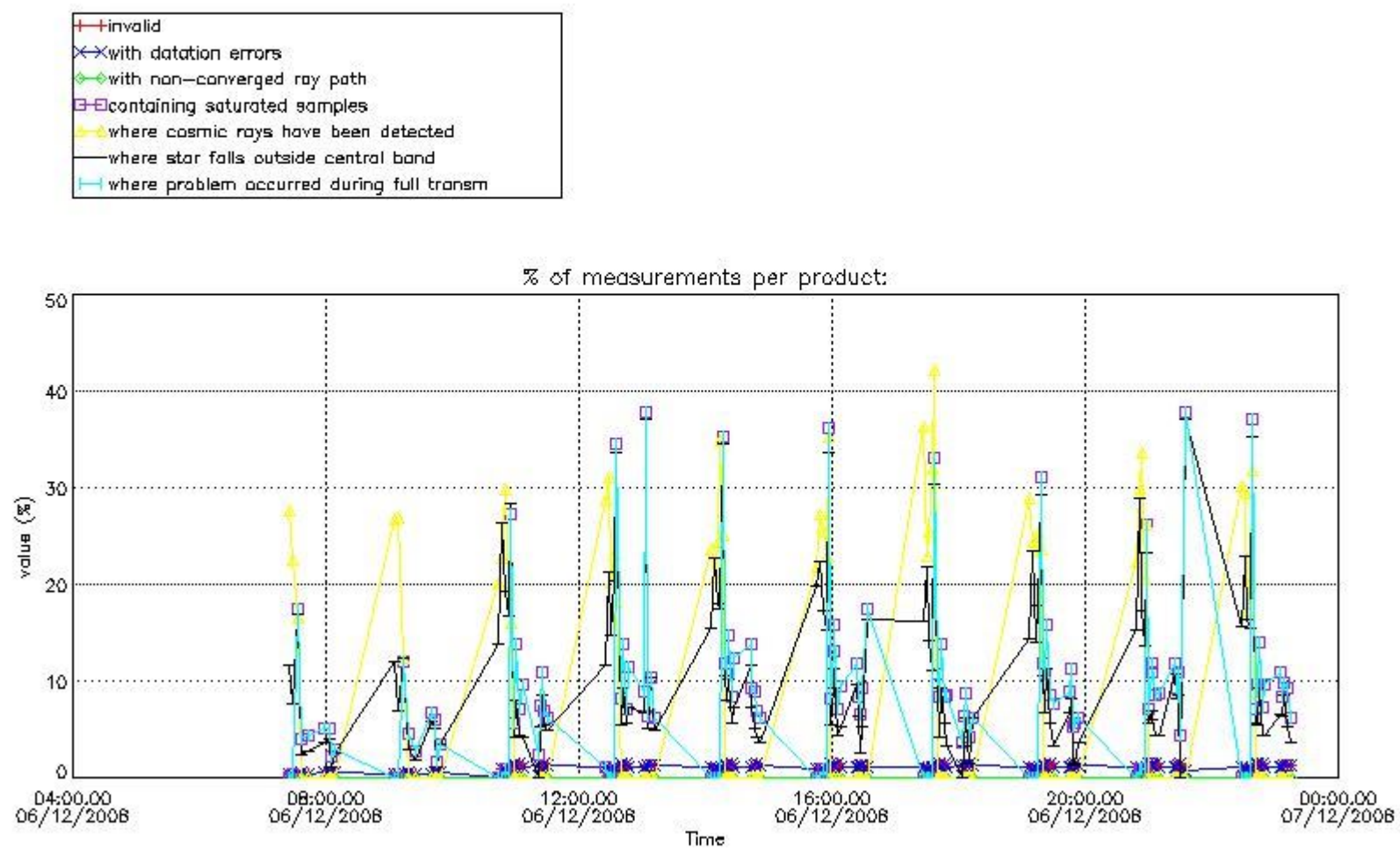
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



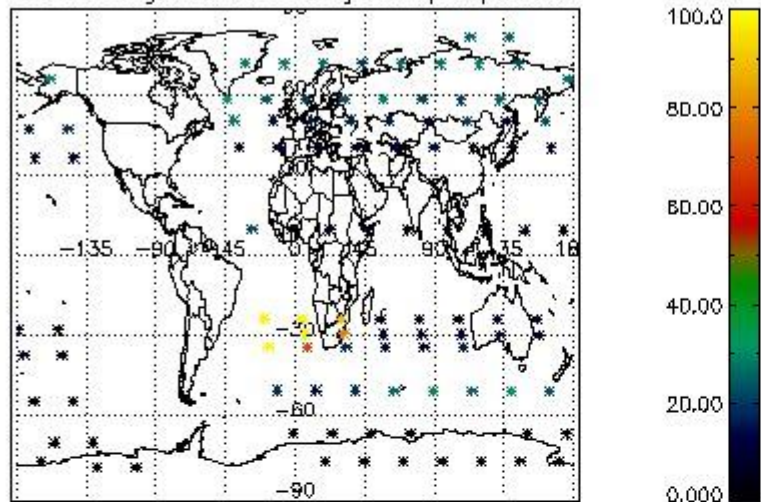
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



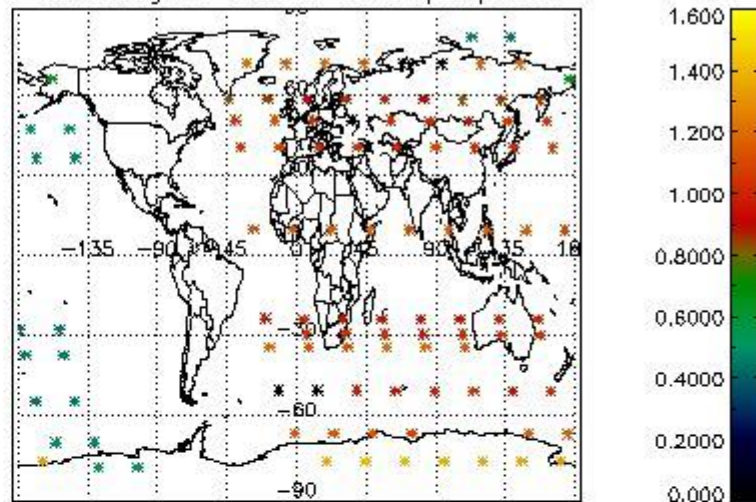
4.2 Plot quality information per product coming from level 1b processing (world map)

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

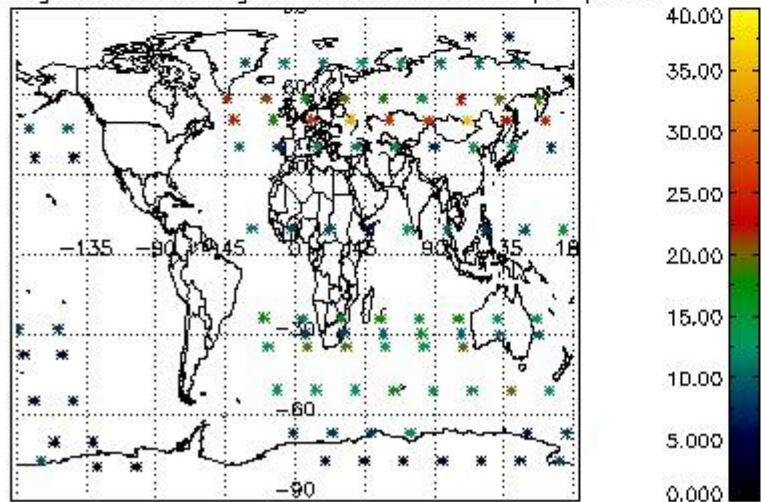
Percentage of cosmic ray hits per profile



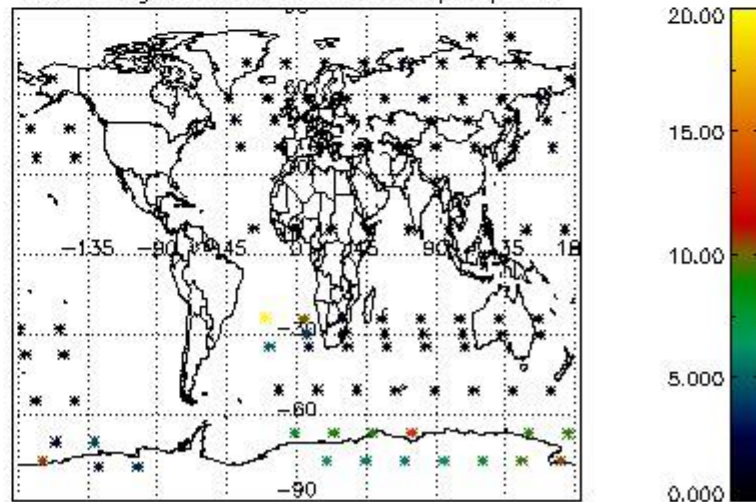
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

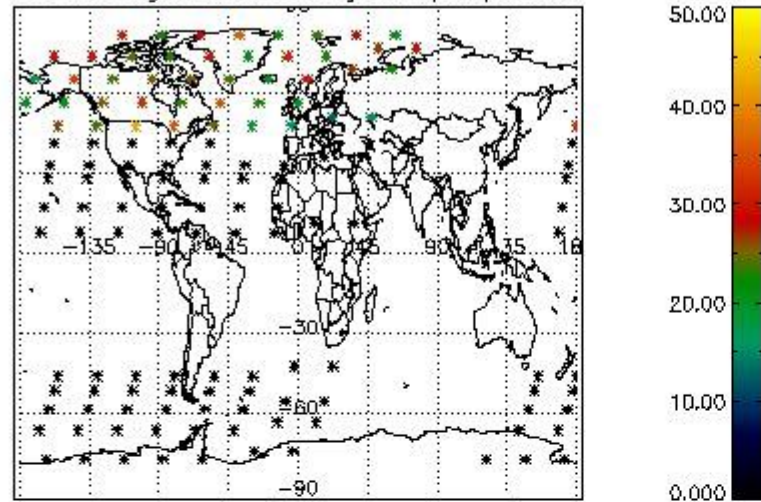


Percentage of saturation errors per profile

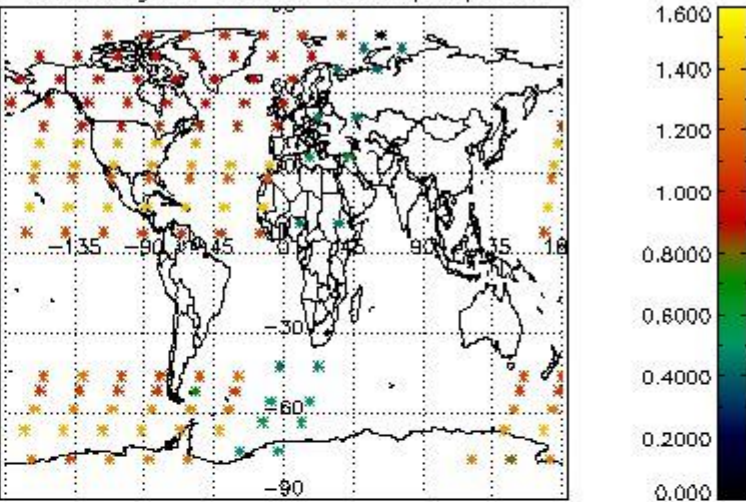


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

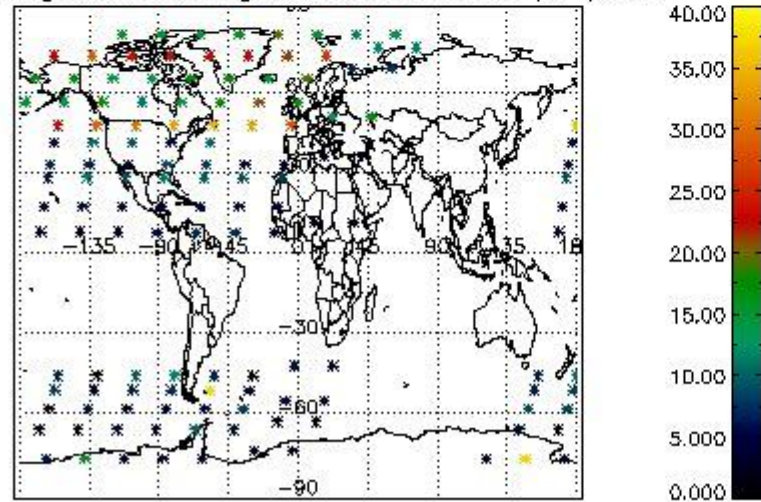
Percentage of cosmic ray hits per profile



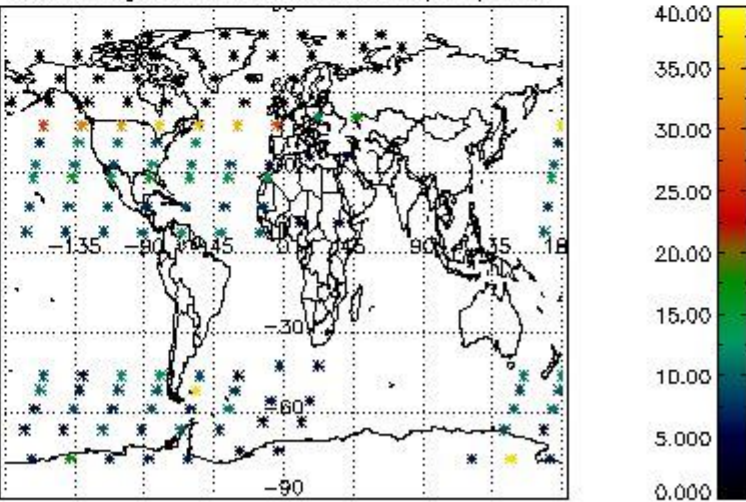
Percentage of datation errors per profile



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

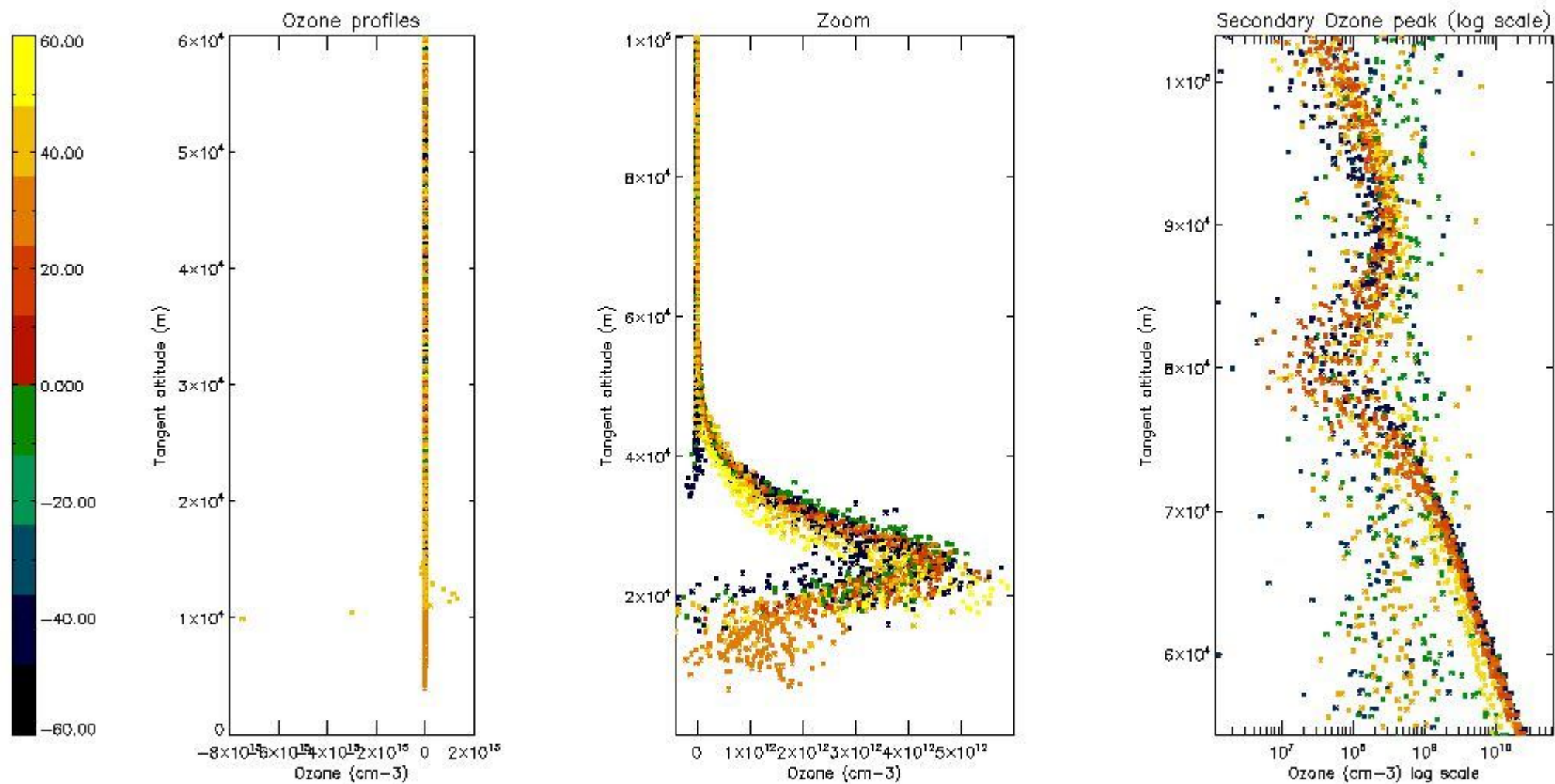
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	11

STD < 10	8
STD < 5	6

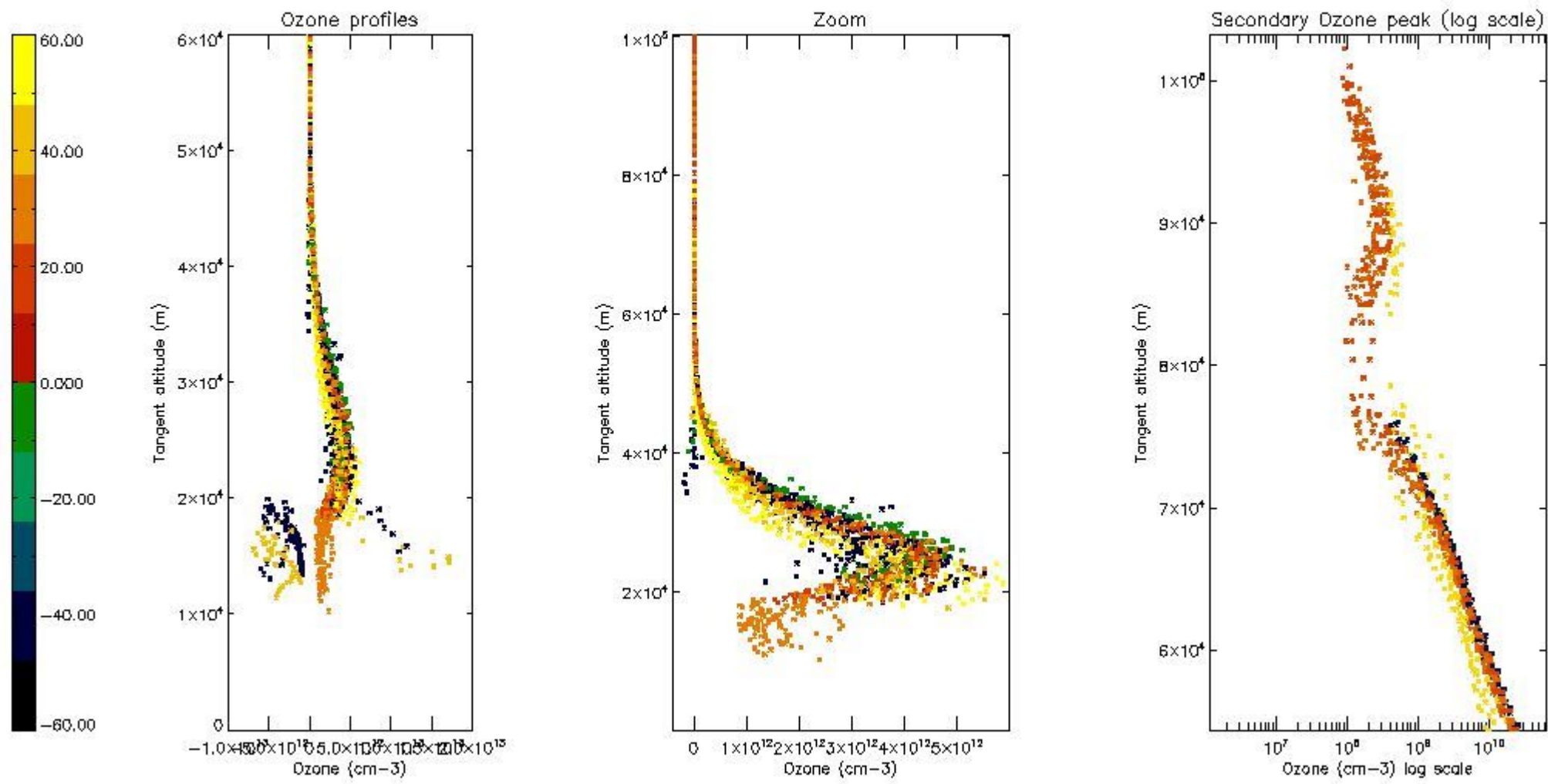
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



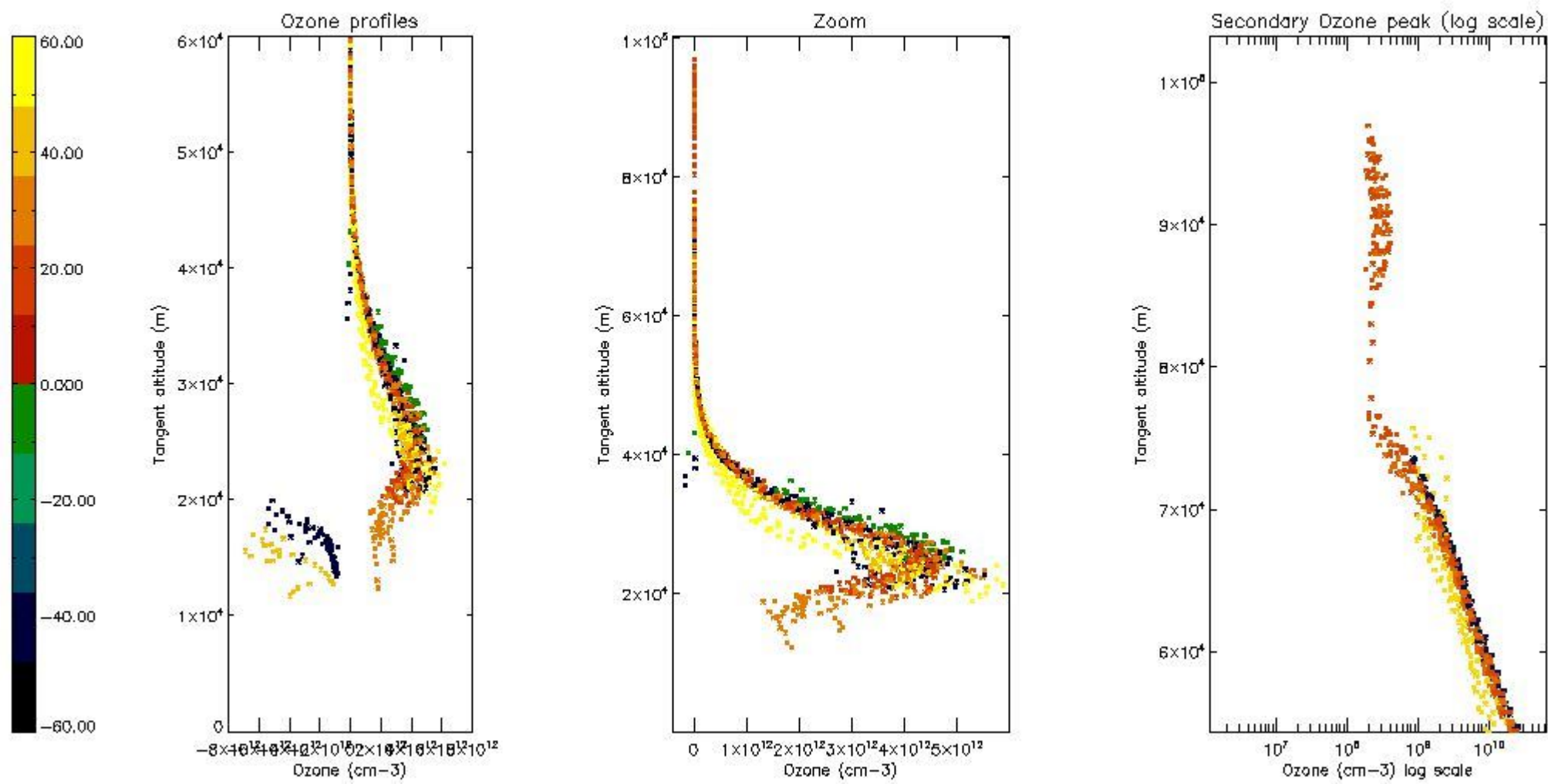
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



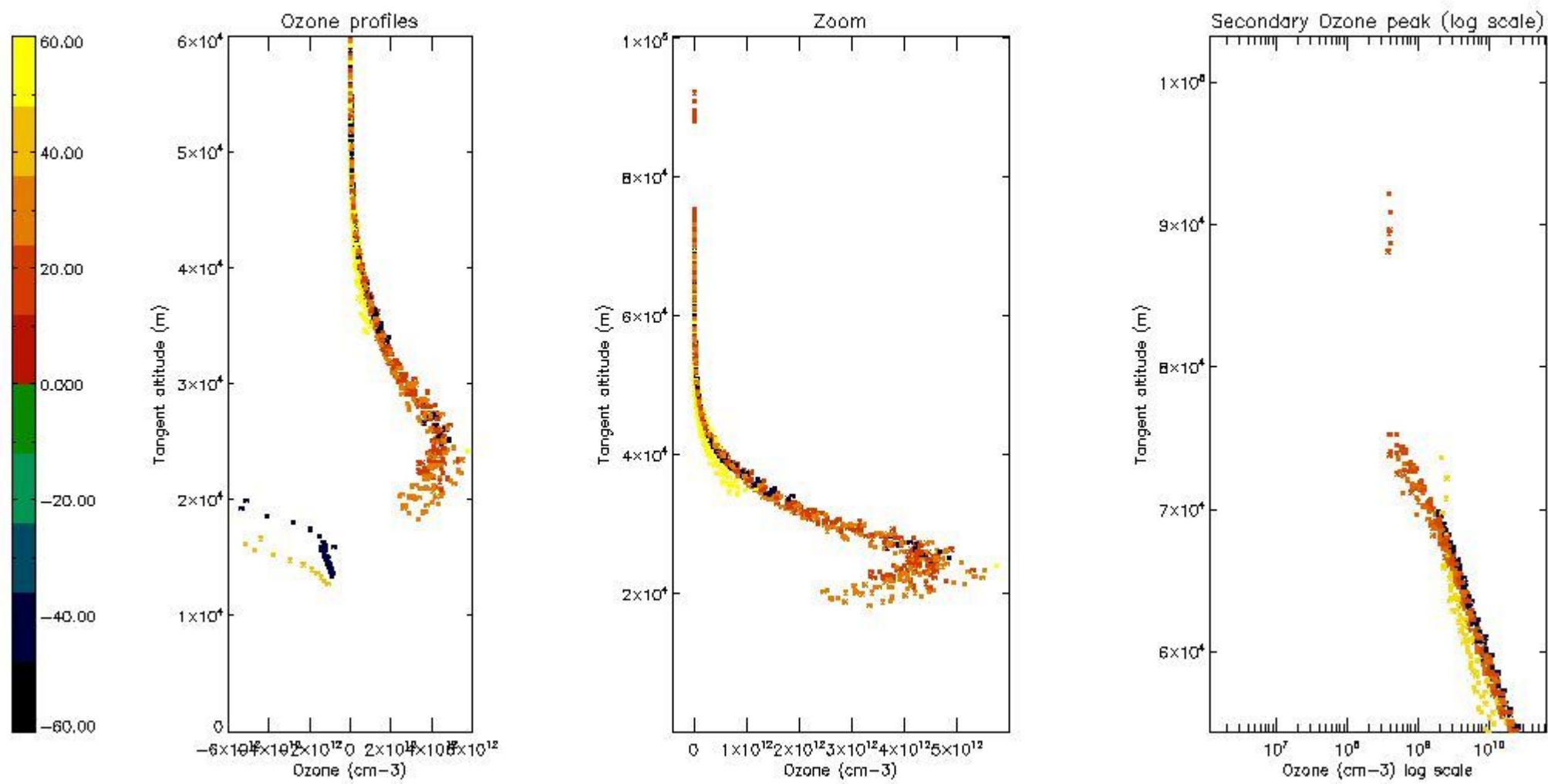
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



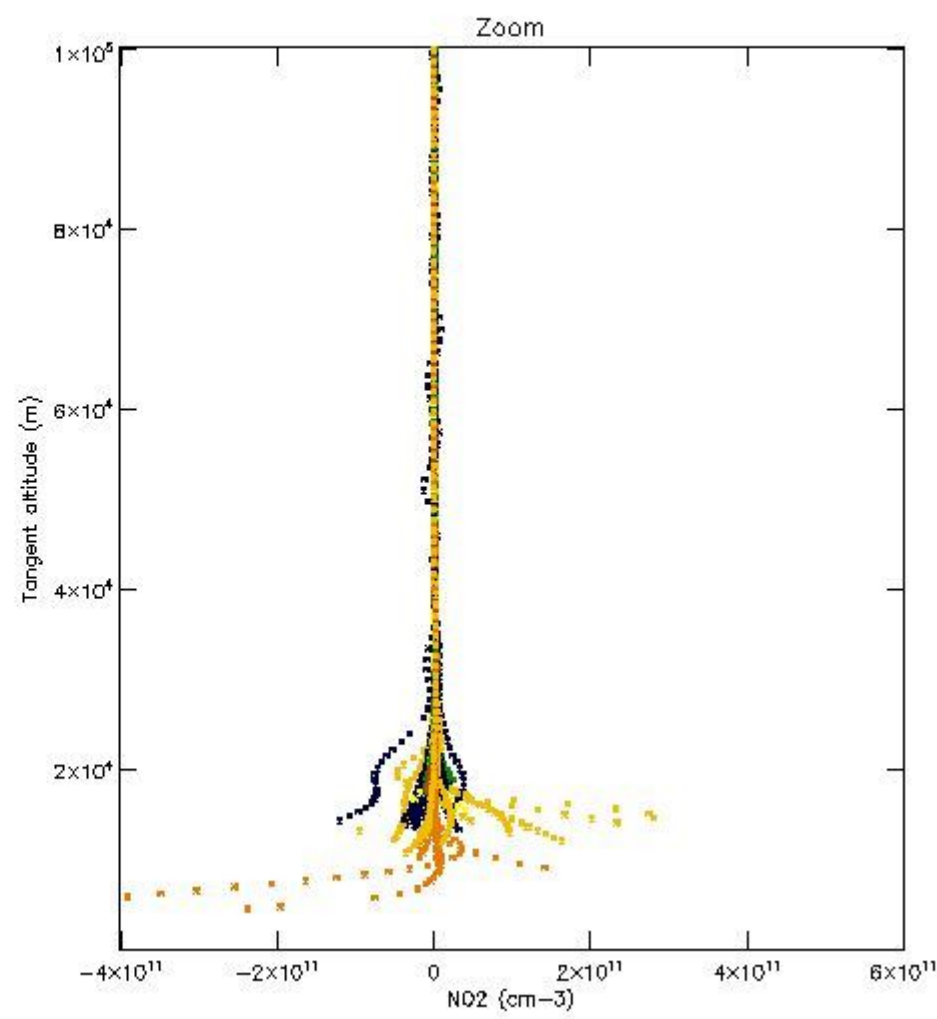
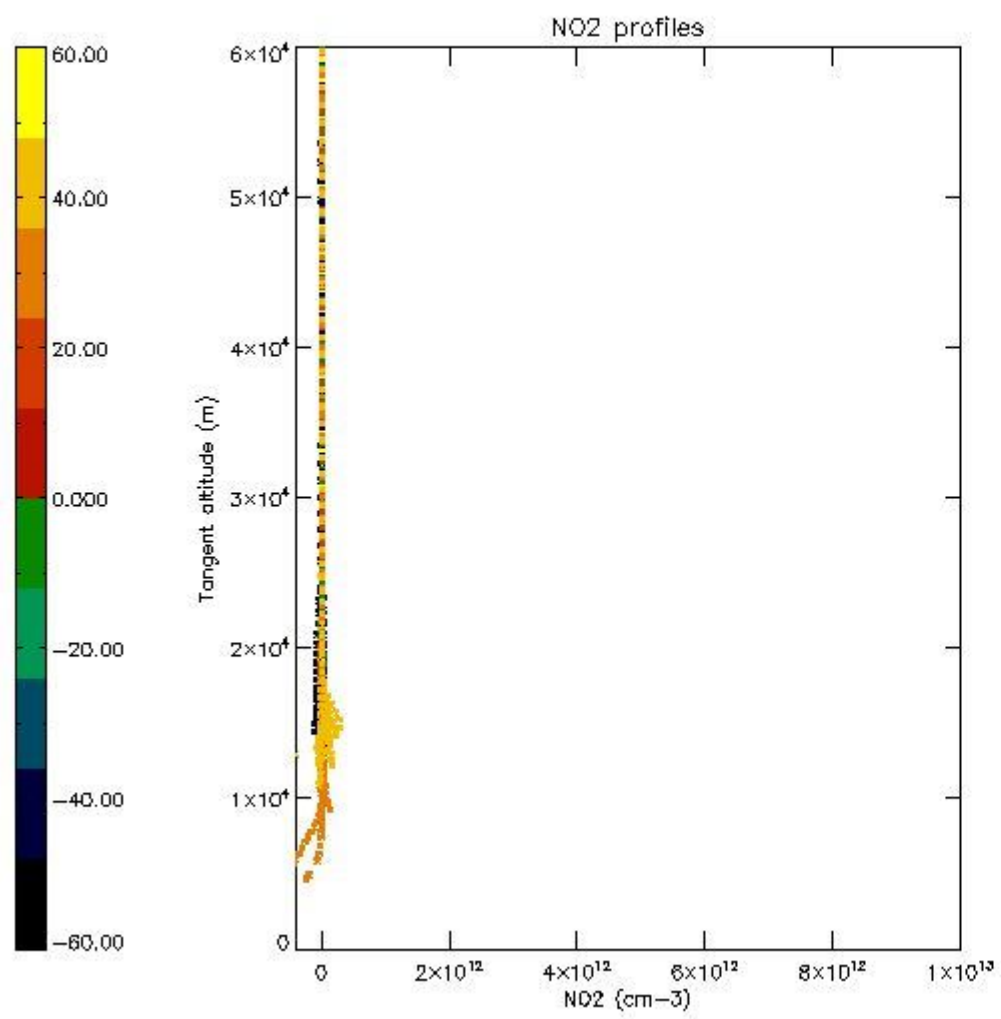
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



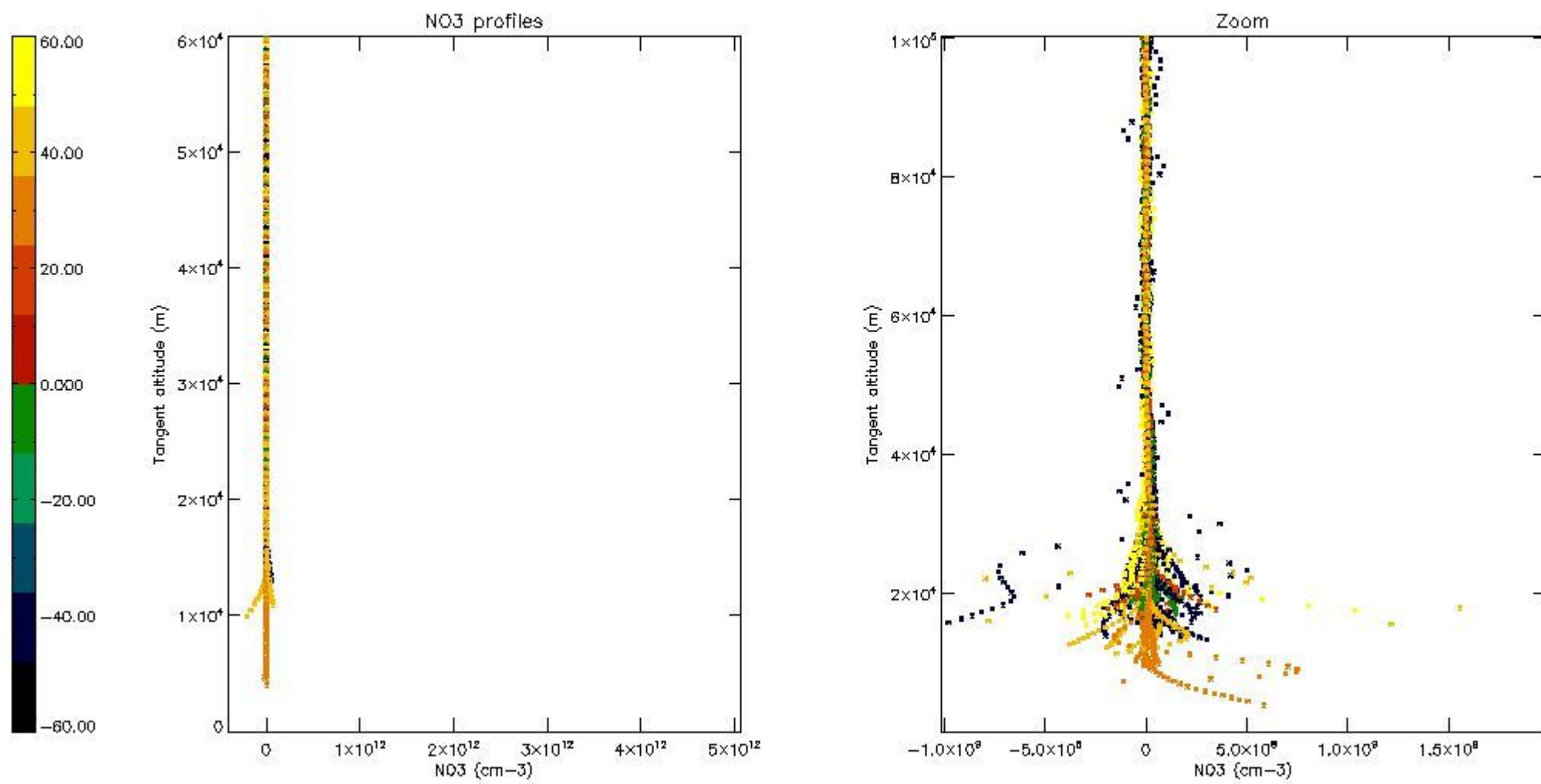
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



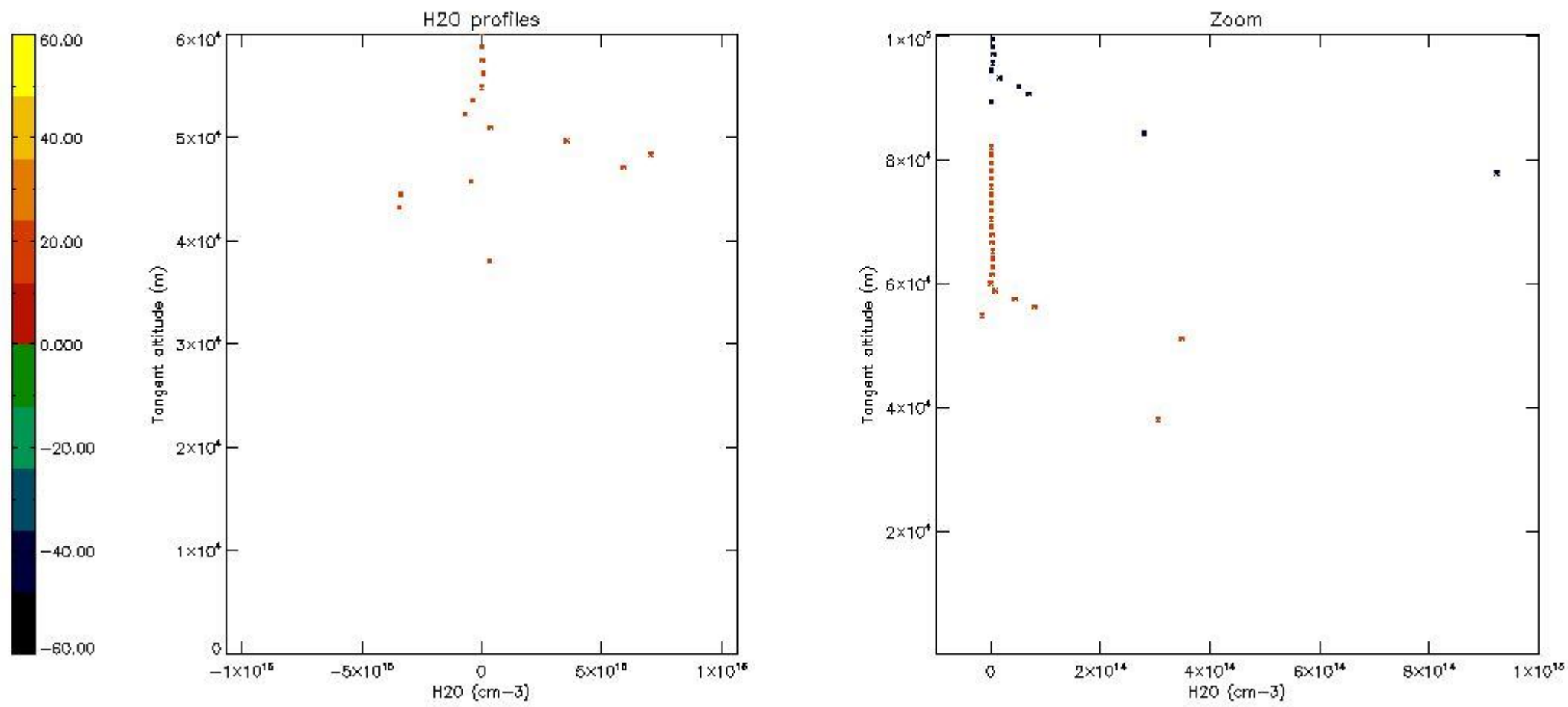
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

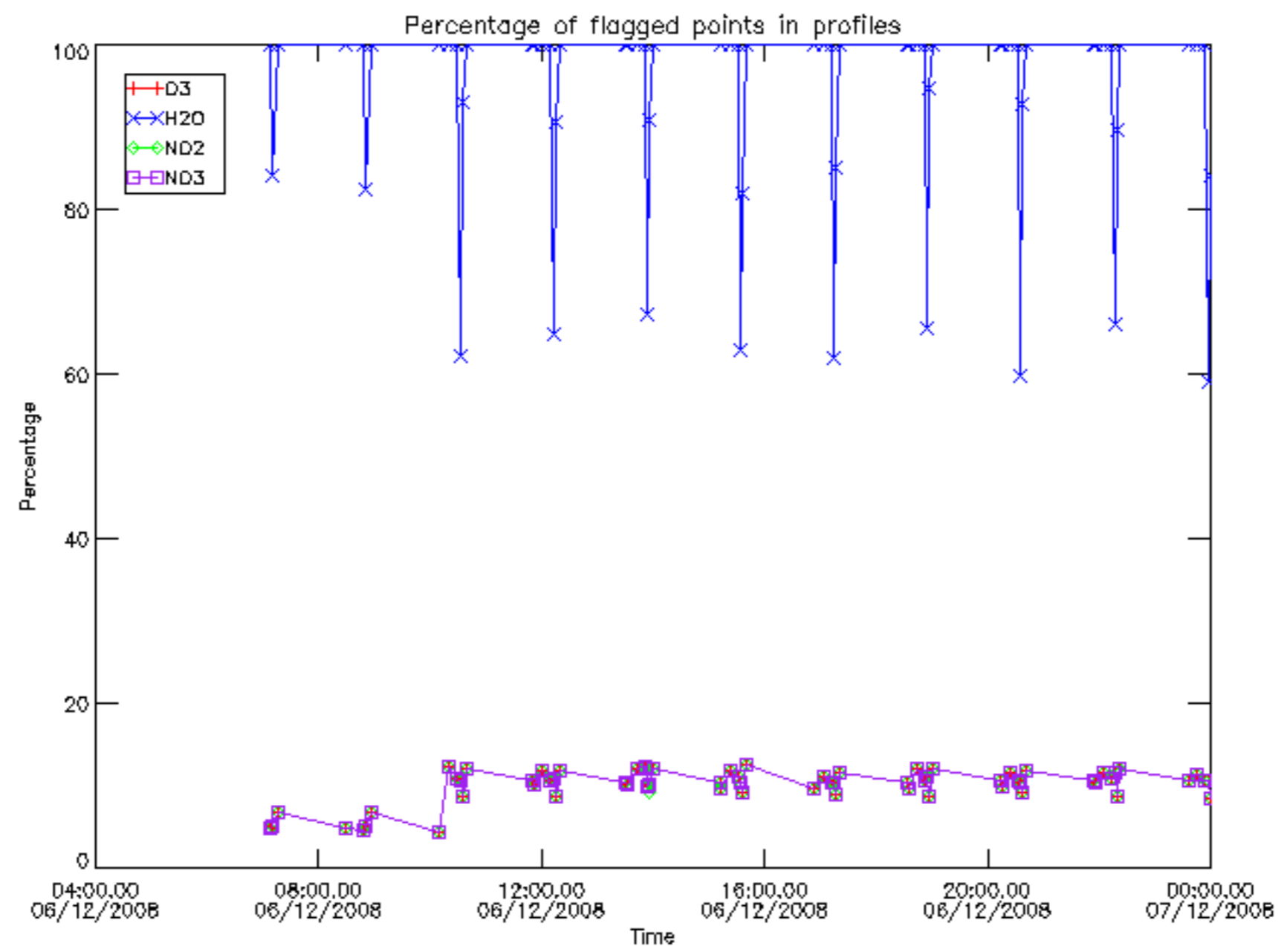
The colorbar represents the latitude.



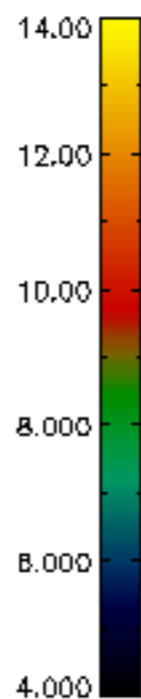
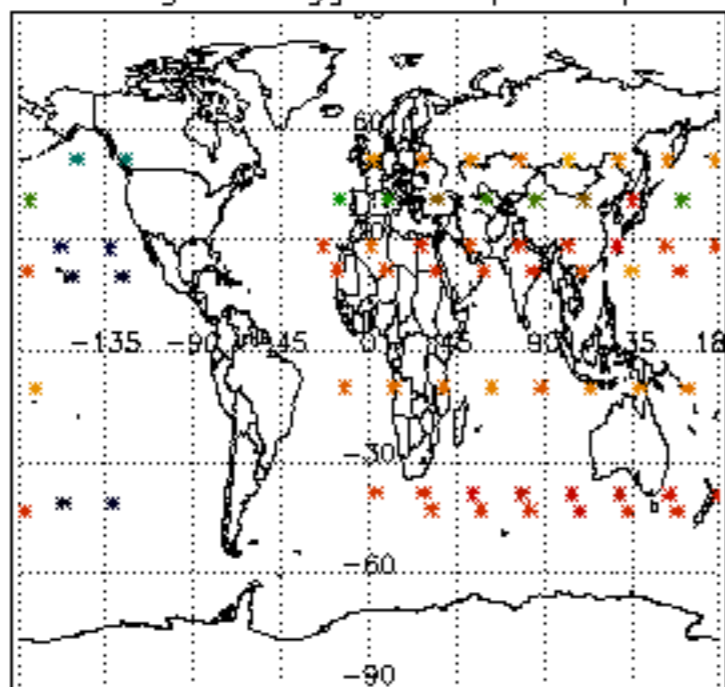
6. Auxiliary Data Files used for the production reported in section 2

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.

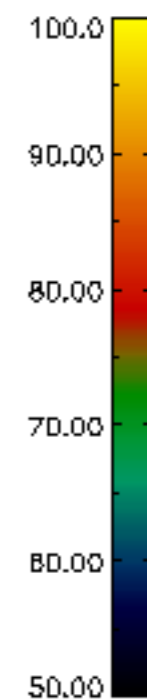
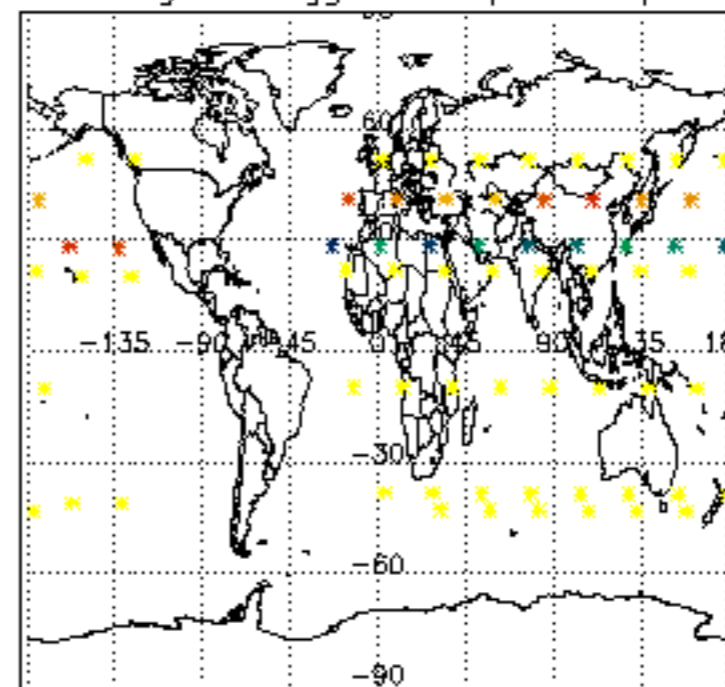
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	06-DEC-2008 07:07:09
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	06-DEC-2008 07:07:09
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	06-DEC-2008 07:07:09



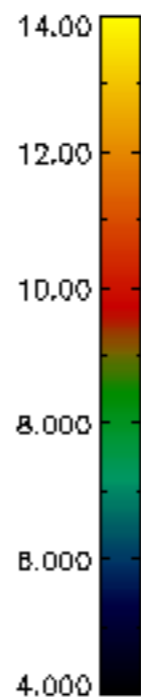
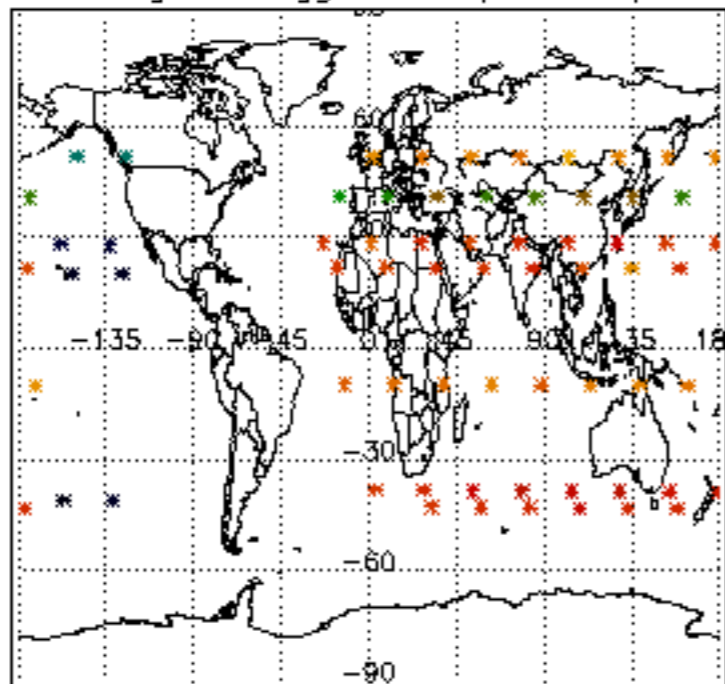
Percentage of flagged data per D3 profile



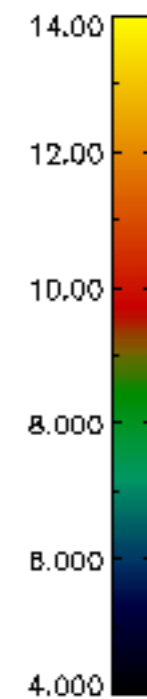
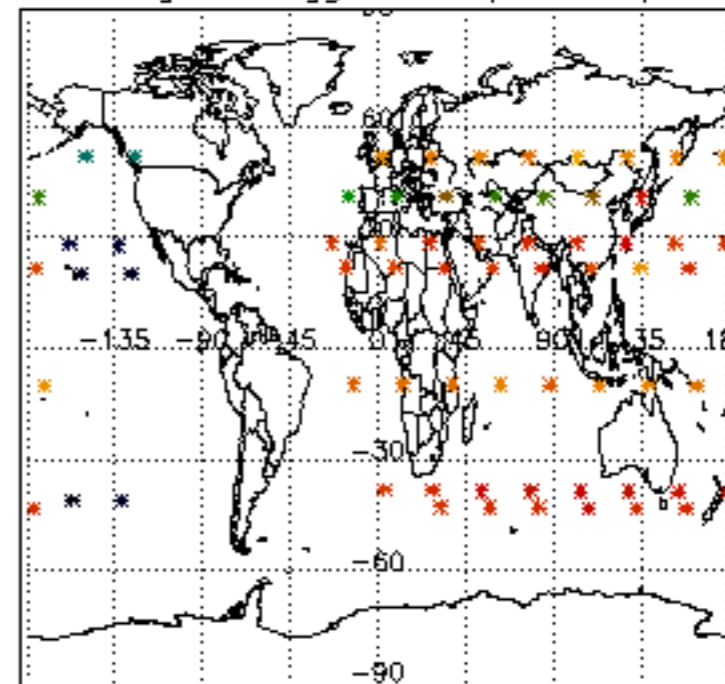
Percentage of flagged data per H2O profile

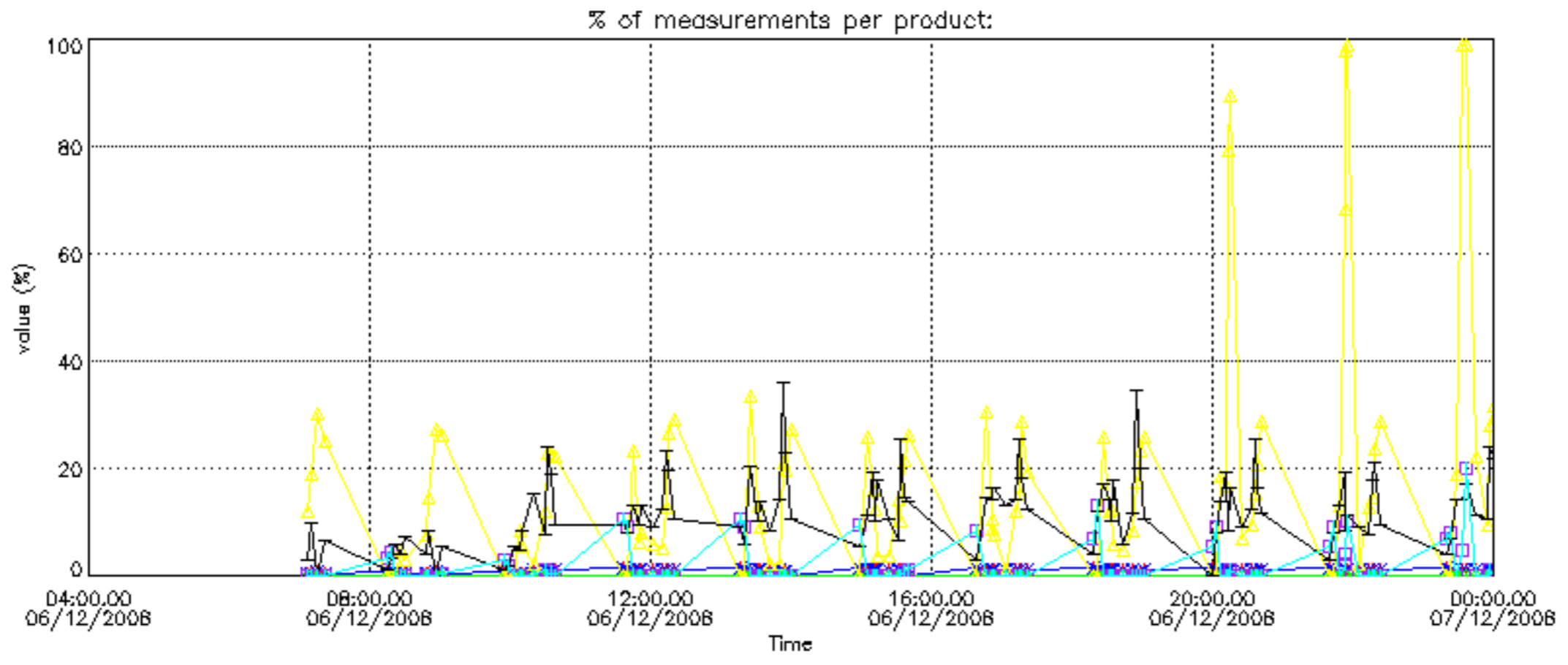


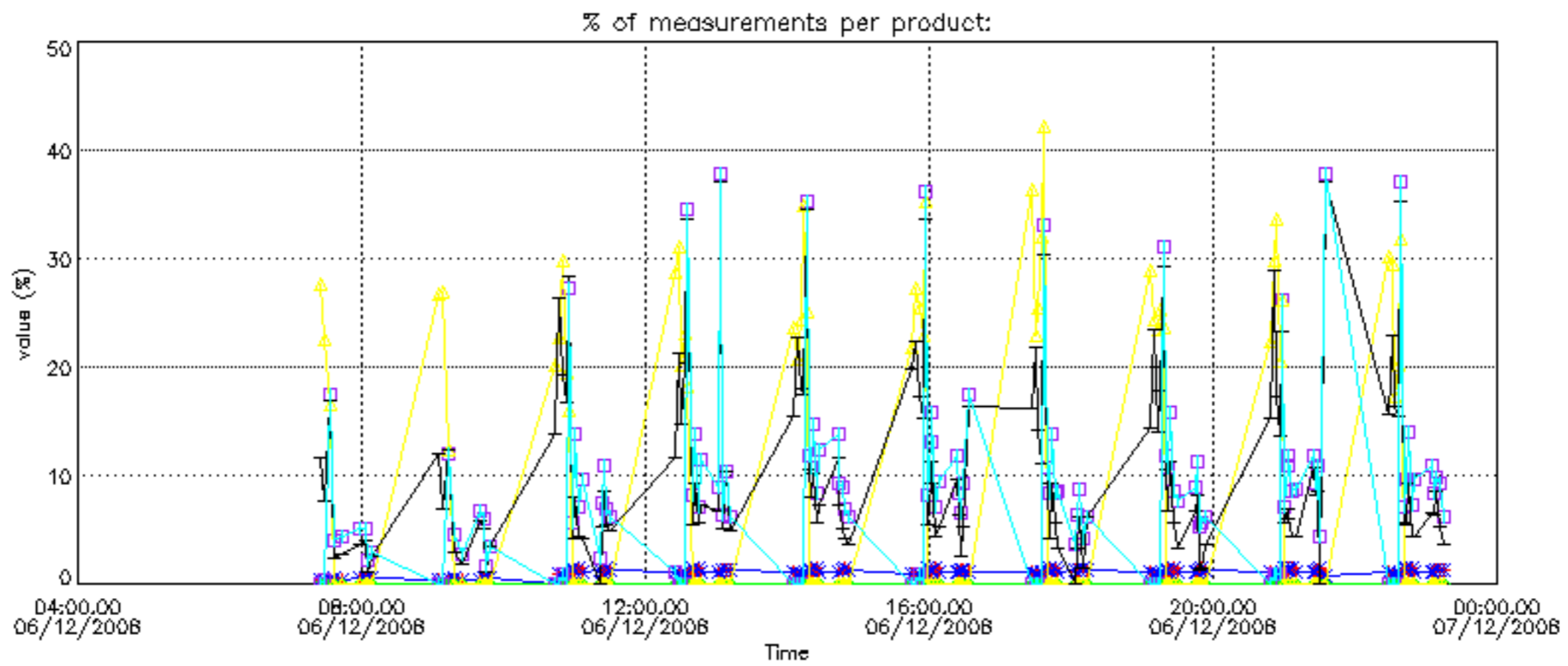
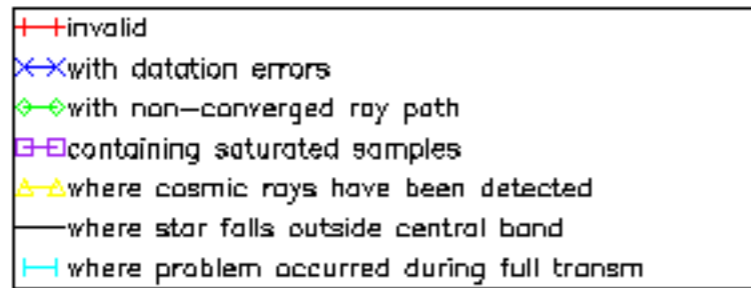
Percentage of flagged data per NO2 profile



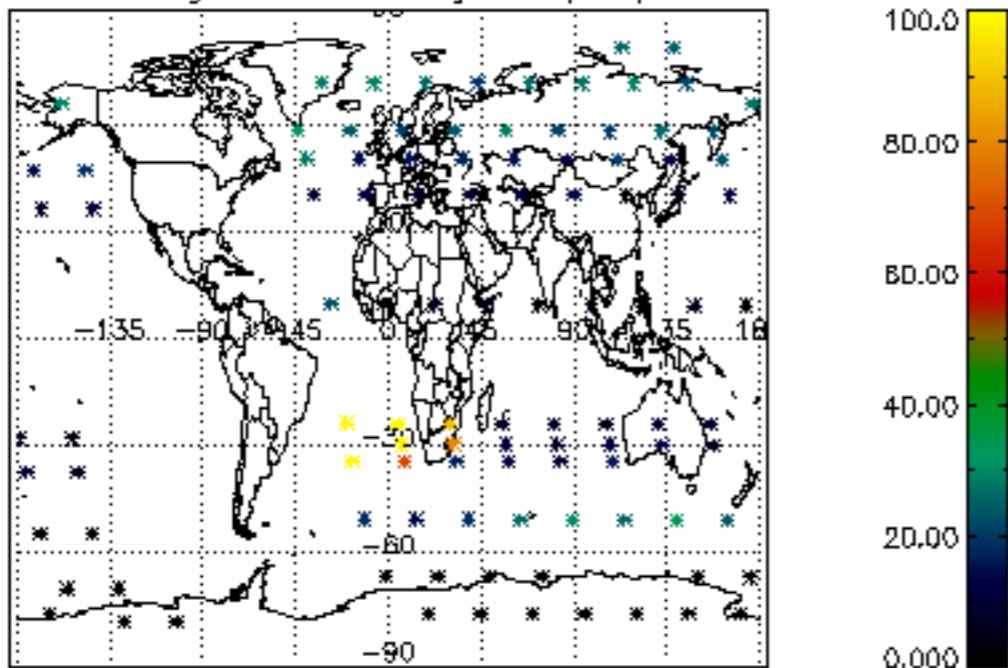
Percentage of flagged data per NO3 profile



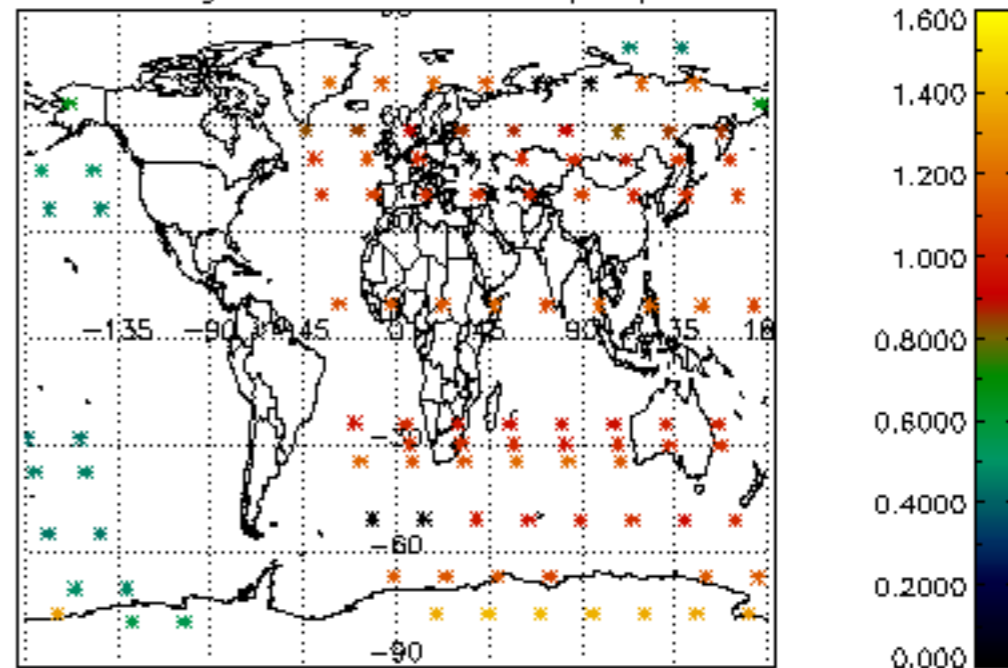




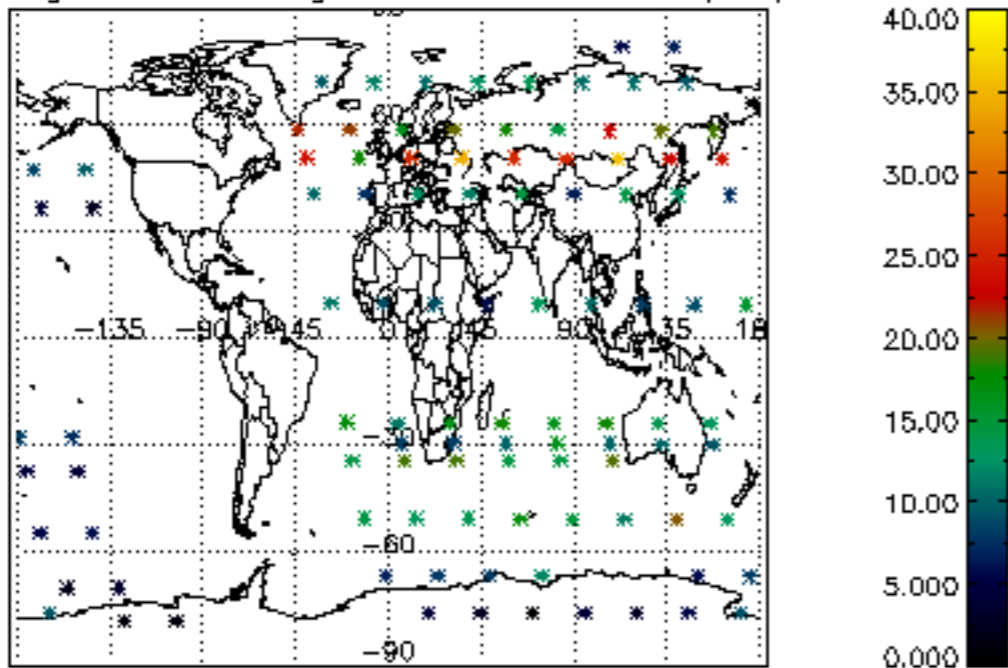
Percentage of cosmic ray hits per profile



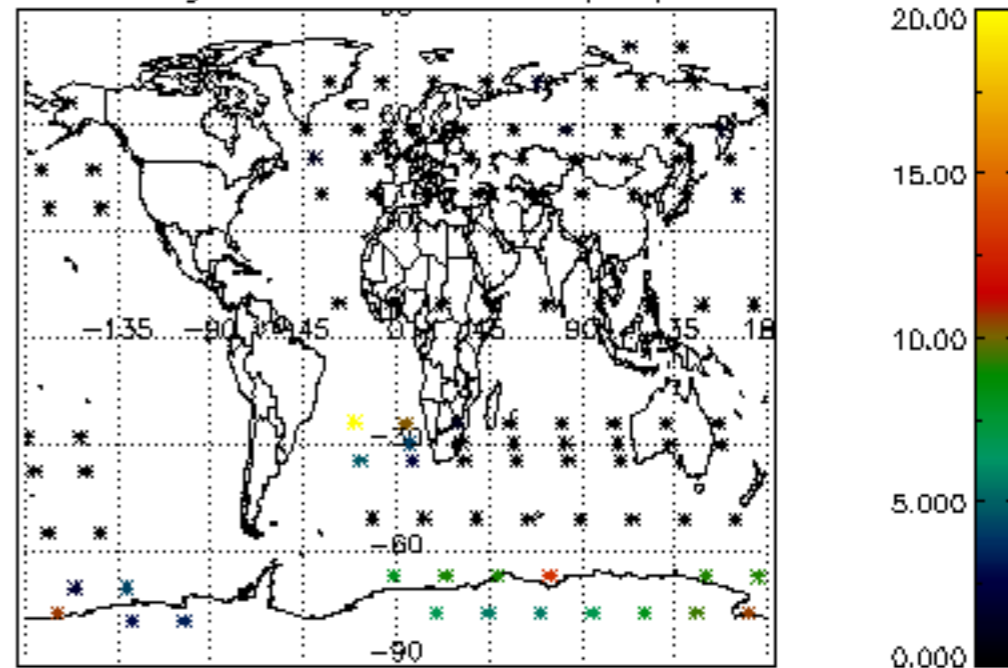
Percentage of datation errors per profile



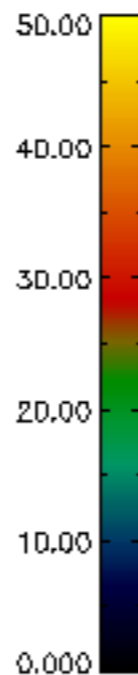
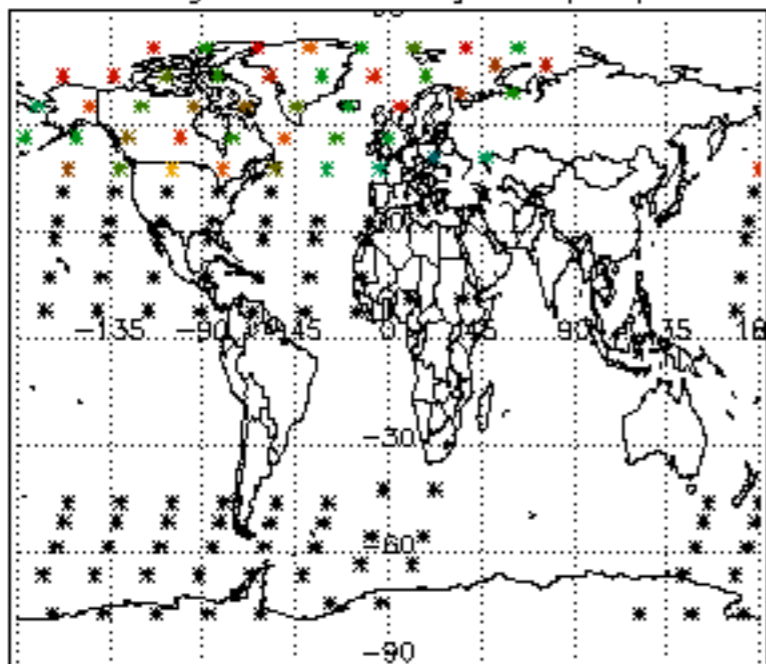
Percentage of star falling outside central band per profile



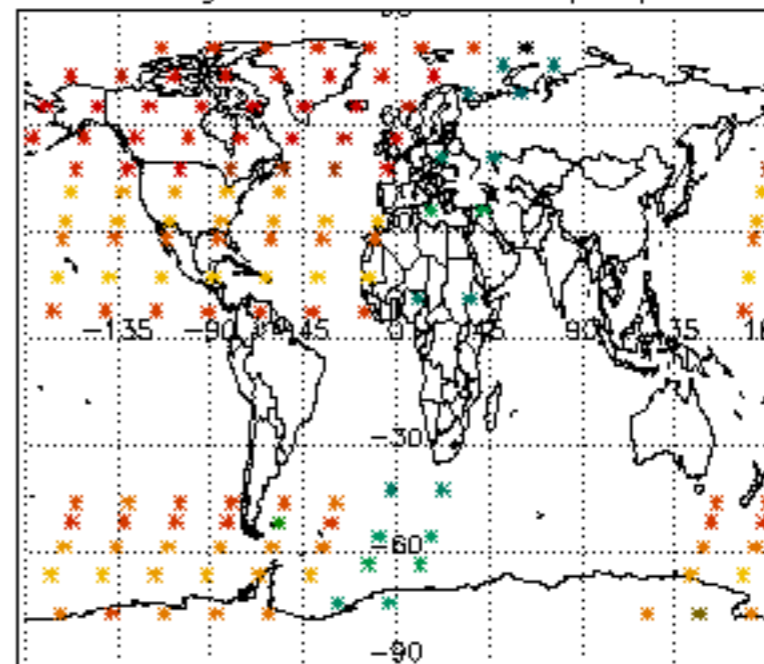
Percentage of saturation errors per profile



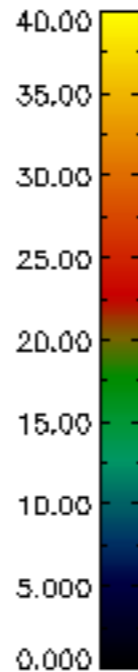
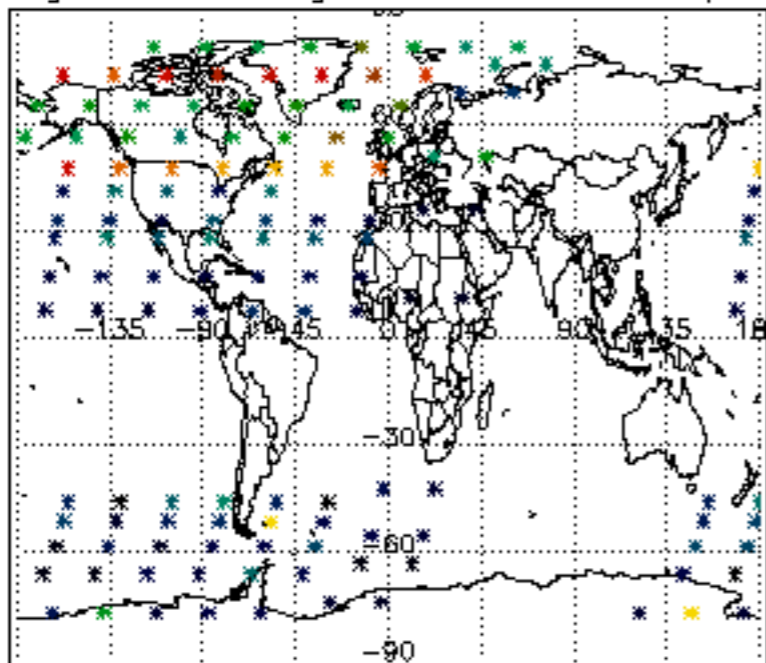
Percentage of cosmic ray hits per profile



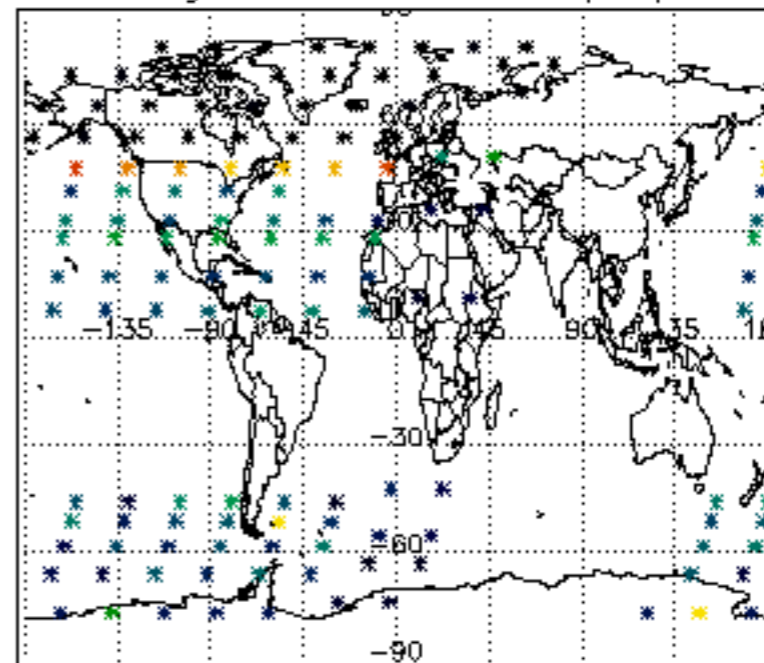
Percentage of datation errors per profile

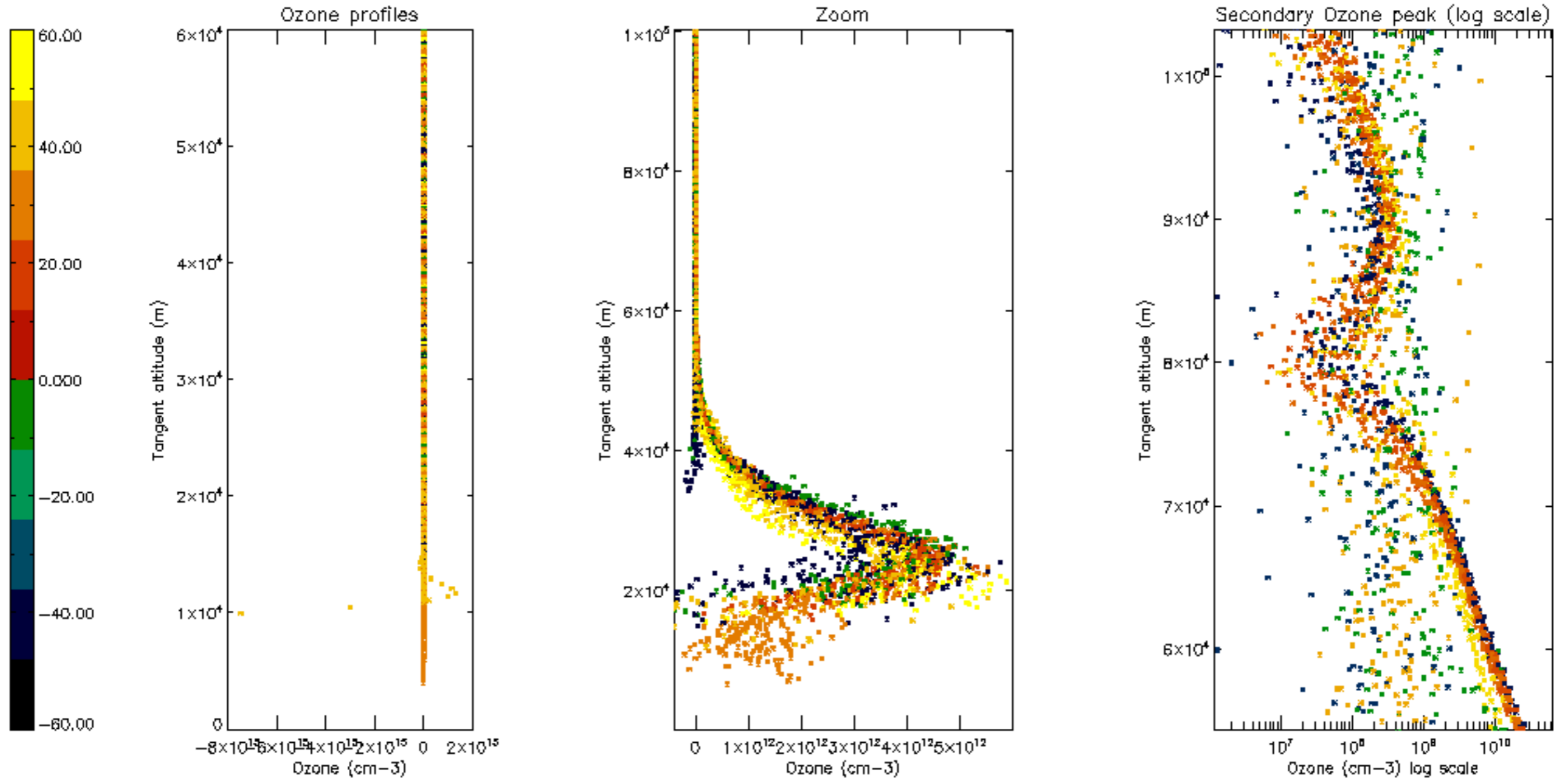


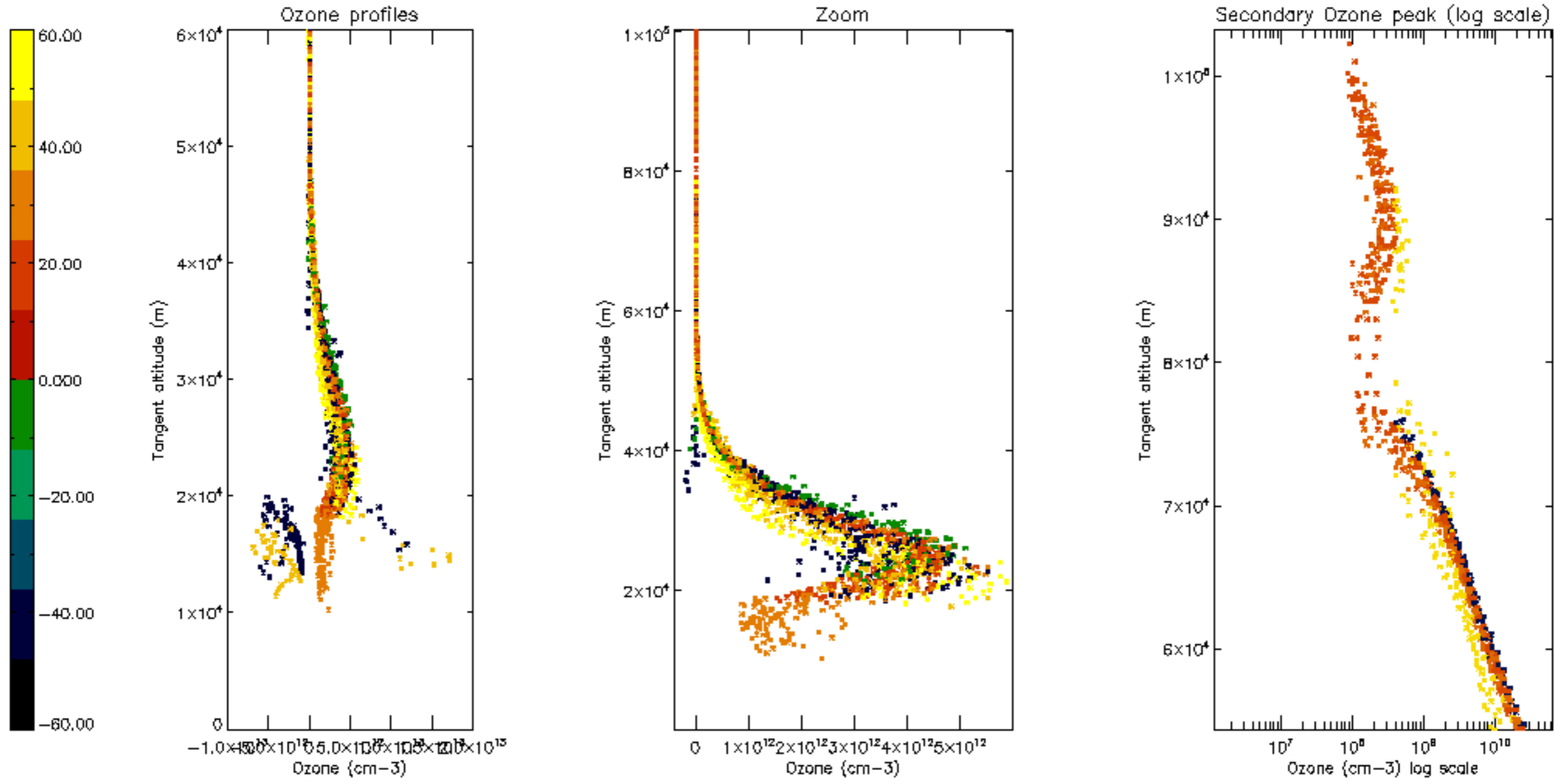
Percentage of star falling outside central band per profile

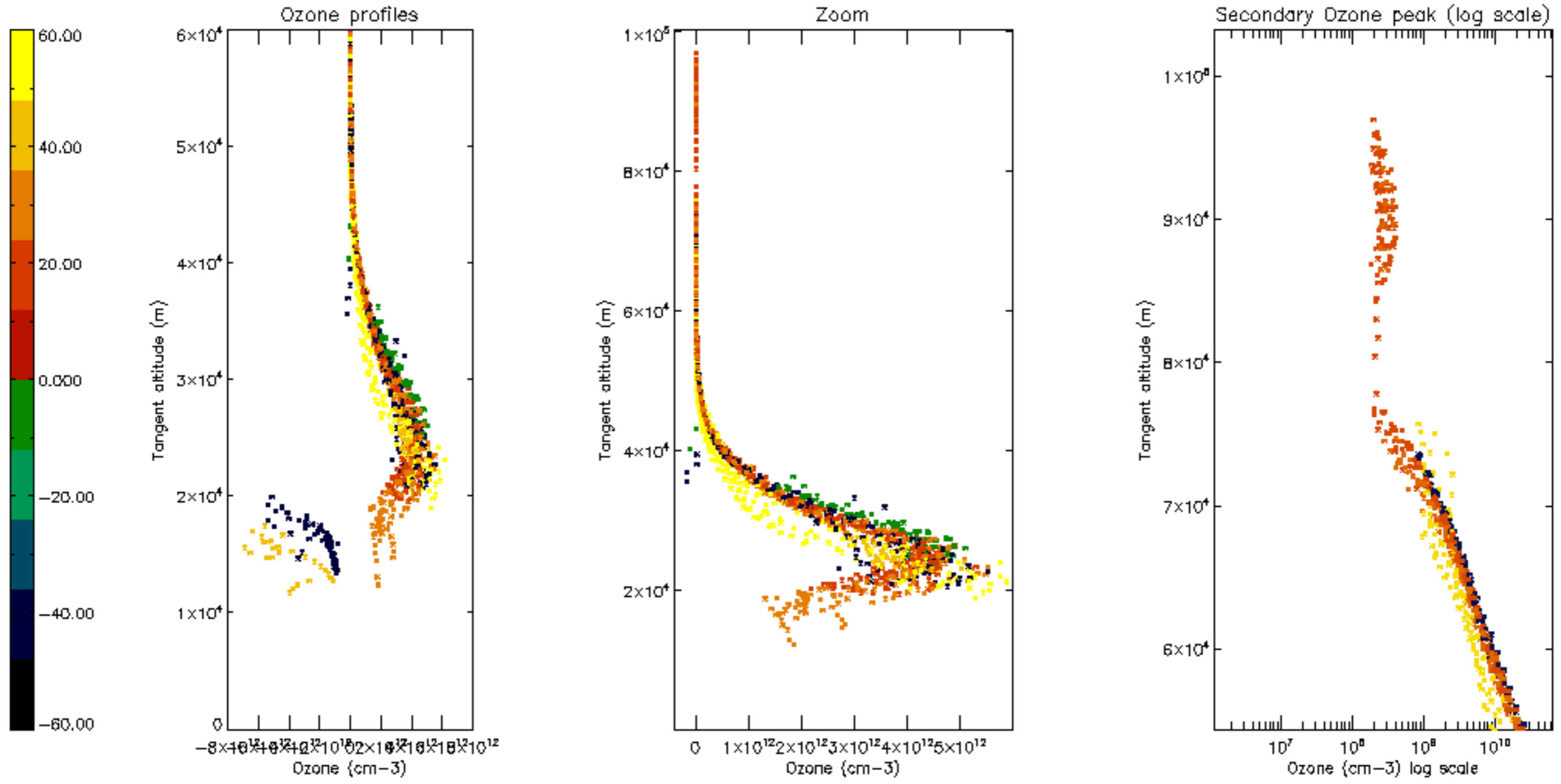


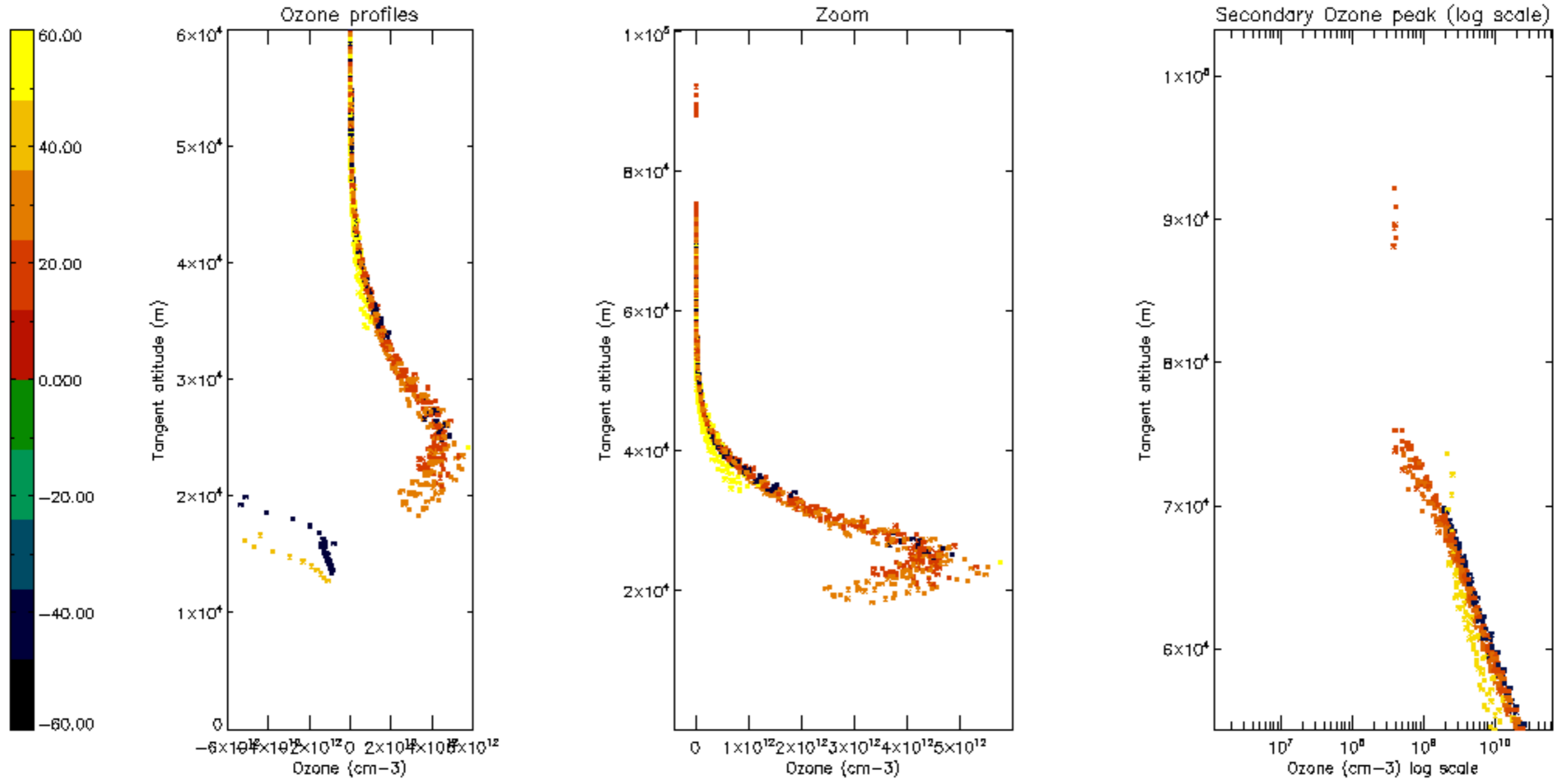
Percentage of saturation errors per profile

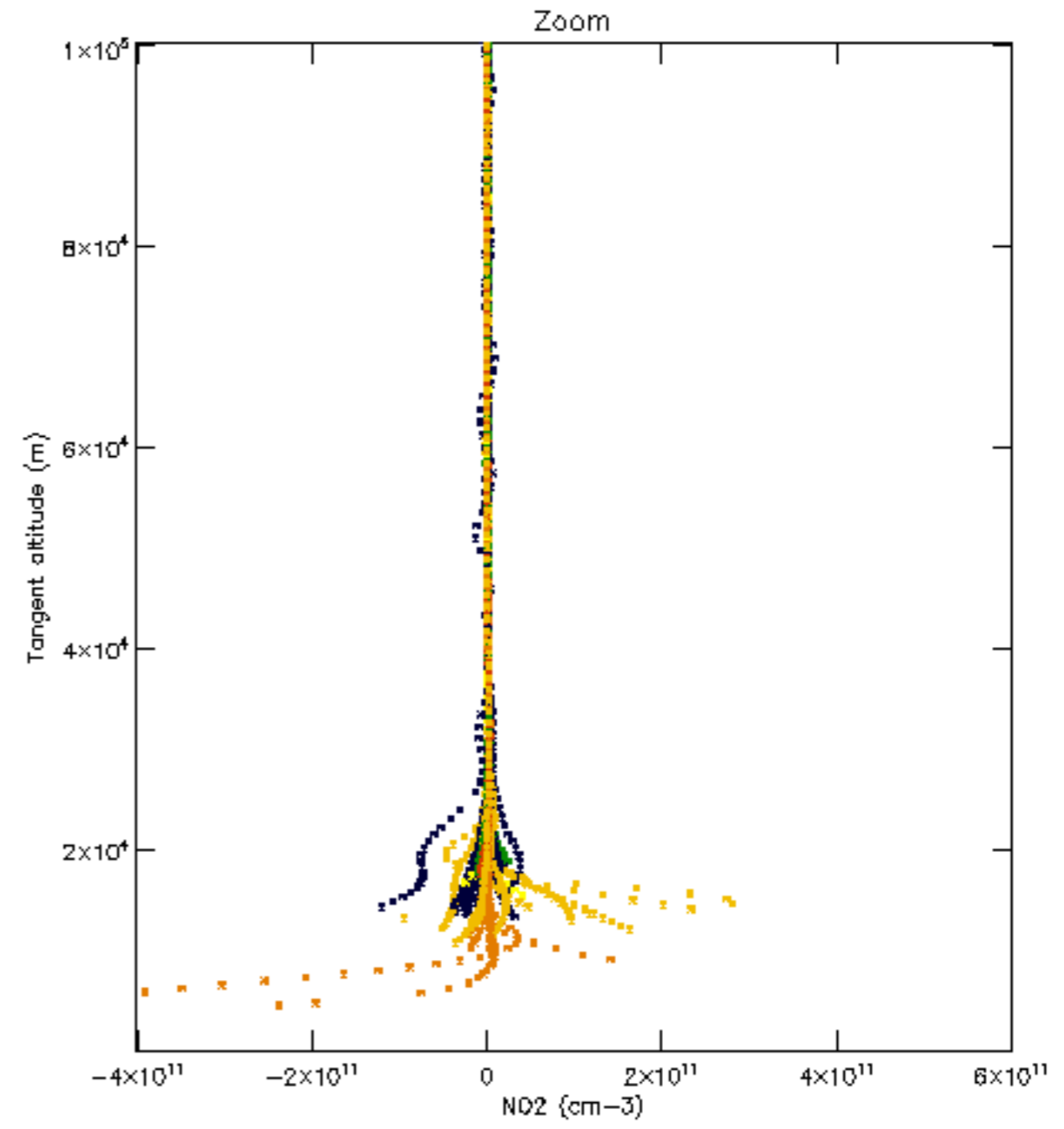
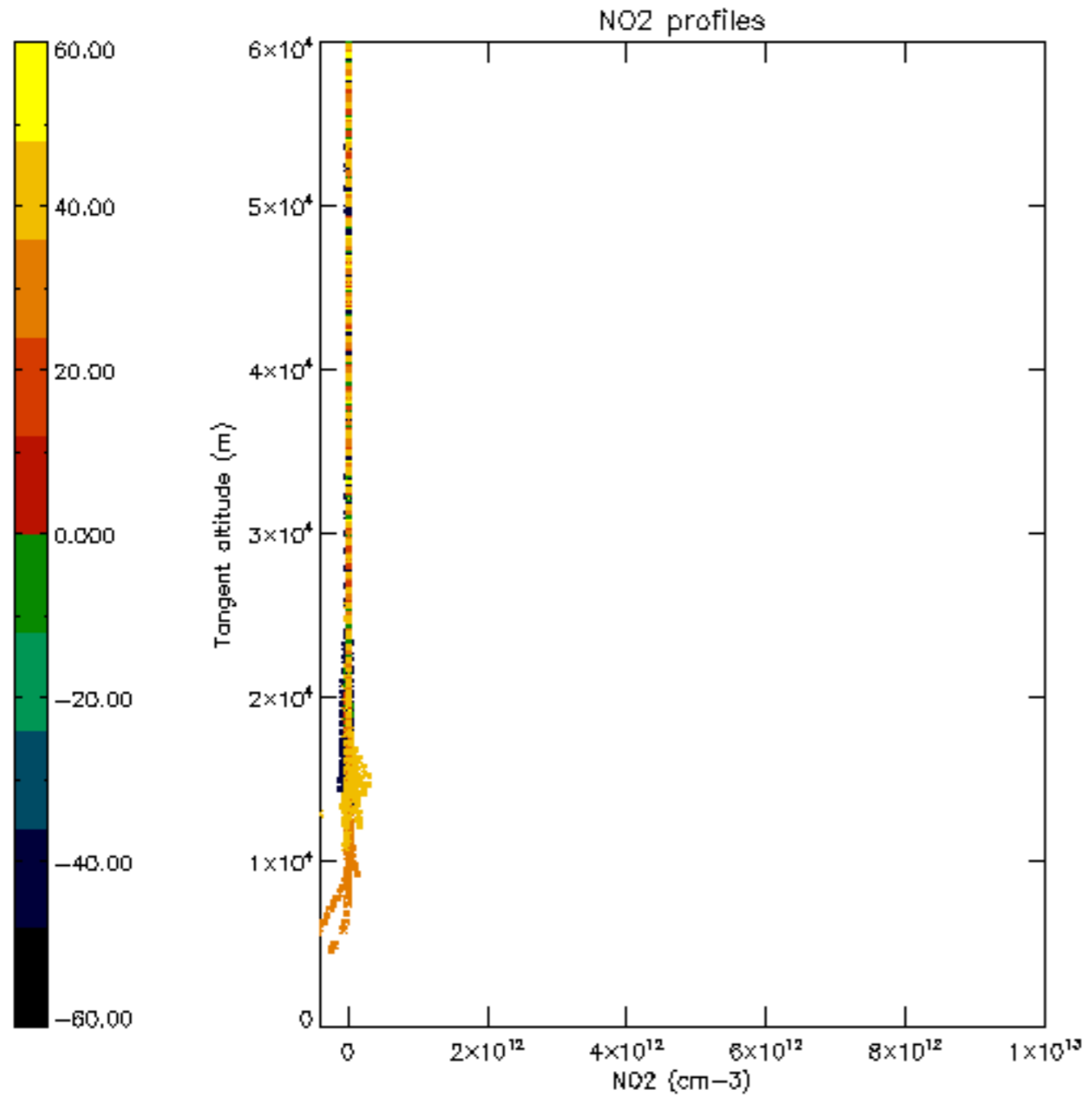


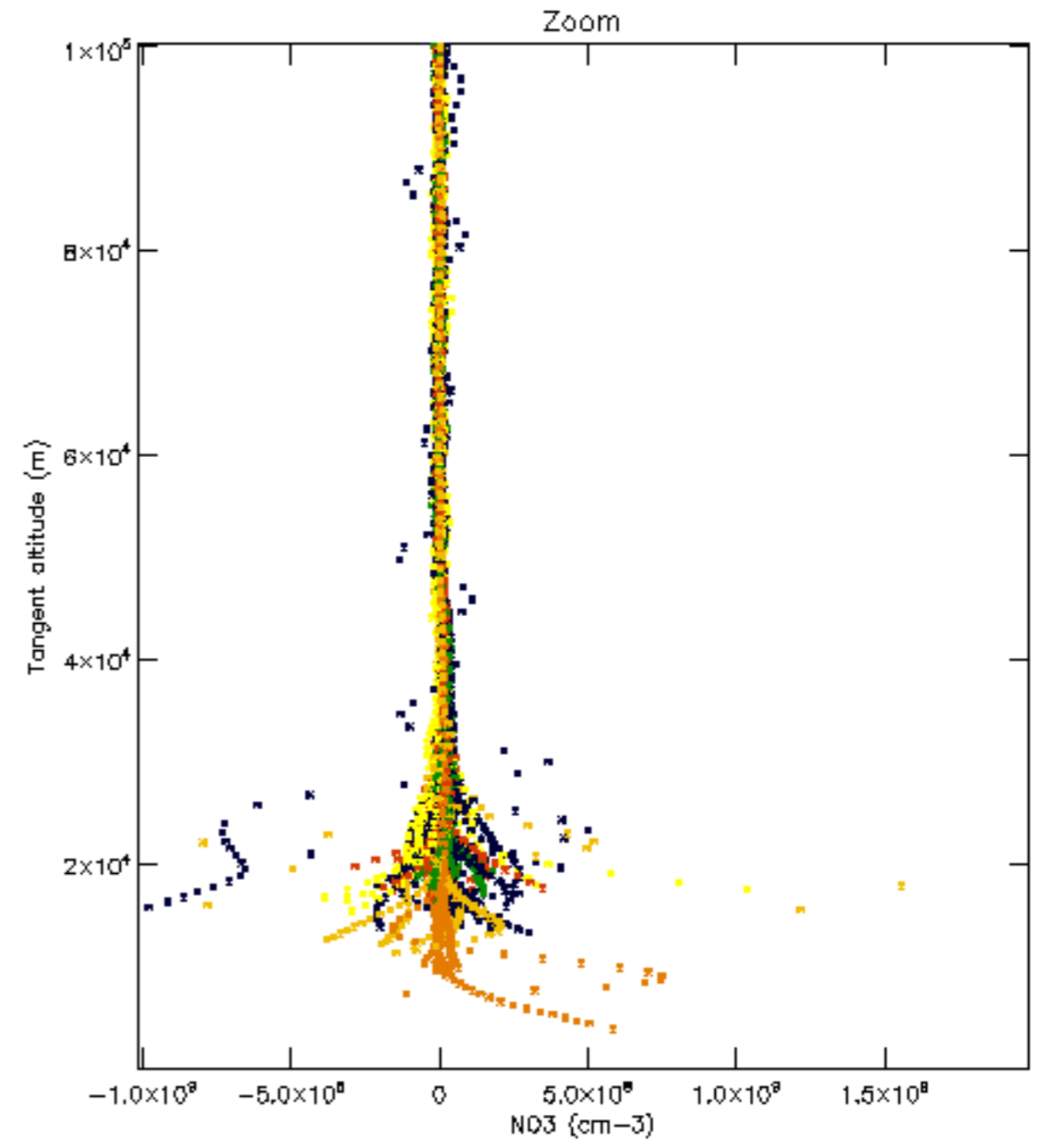
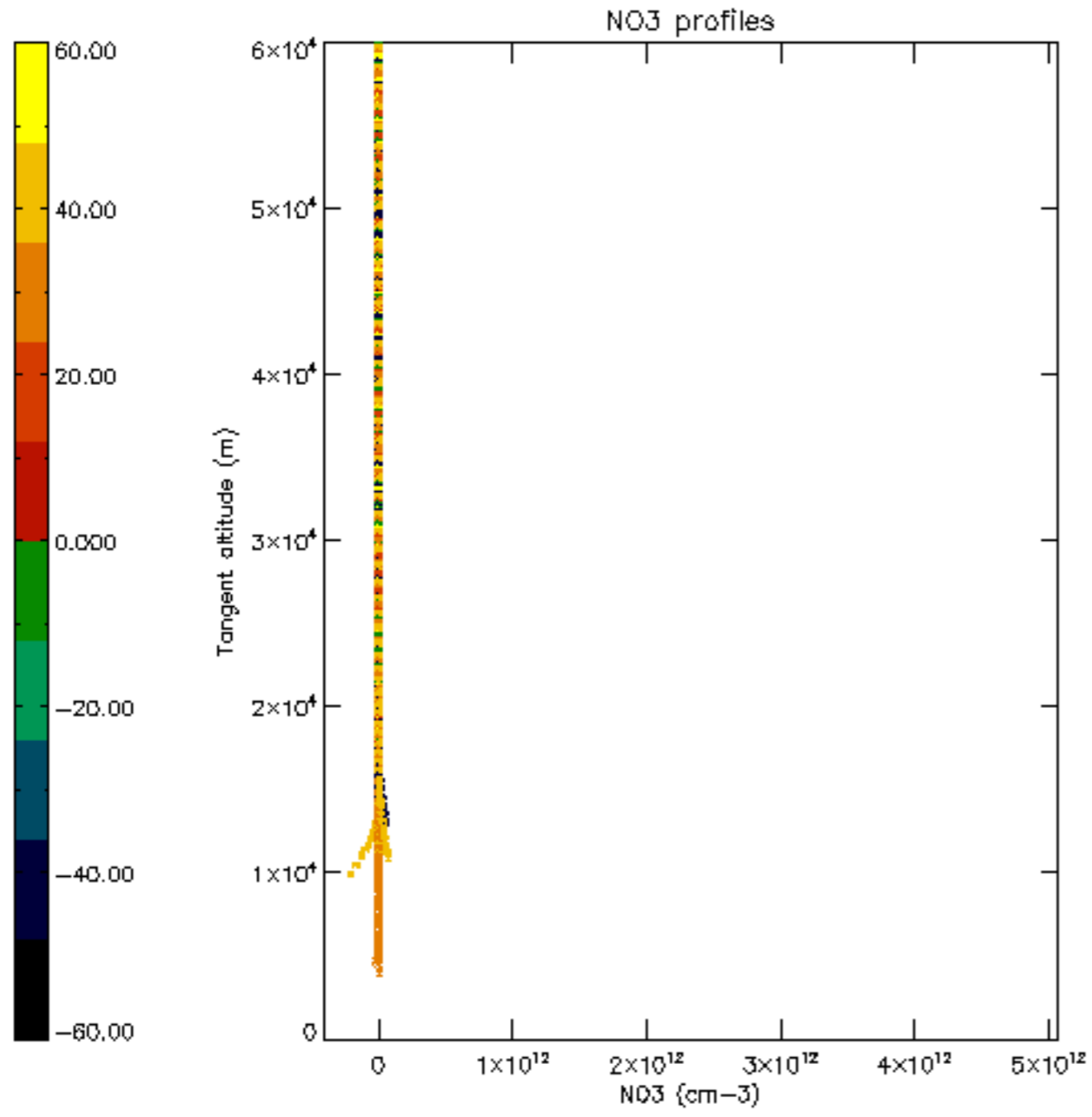


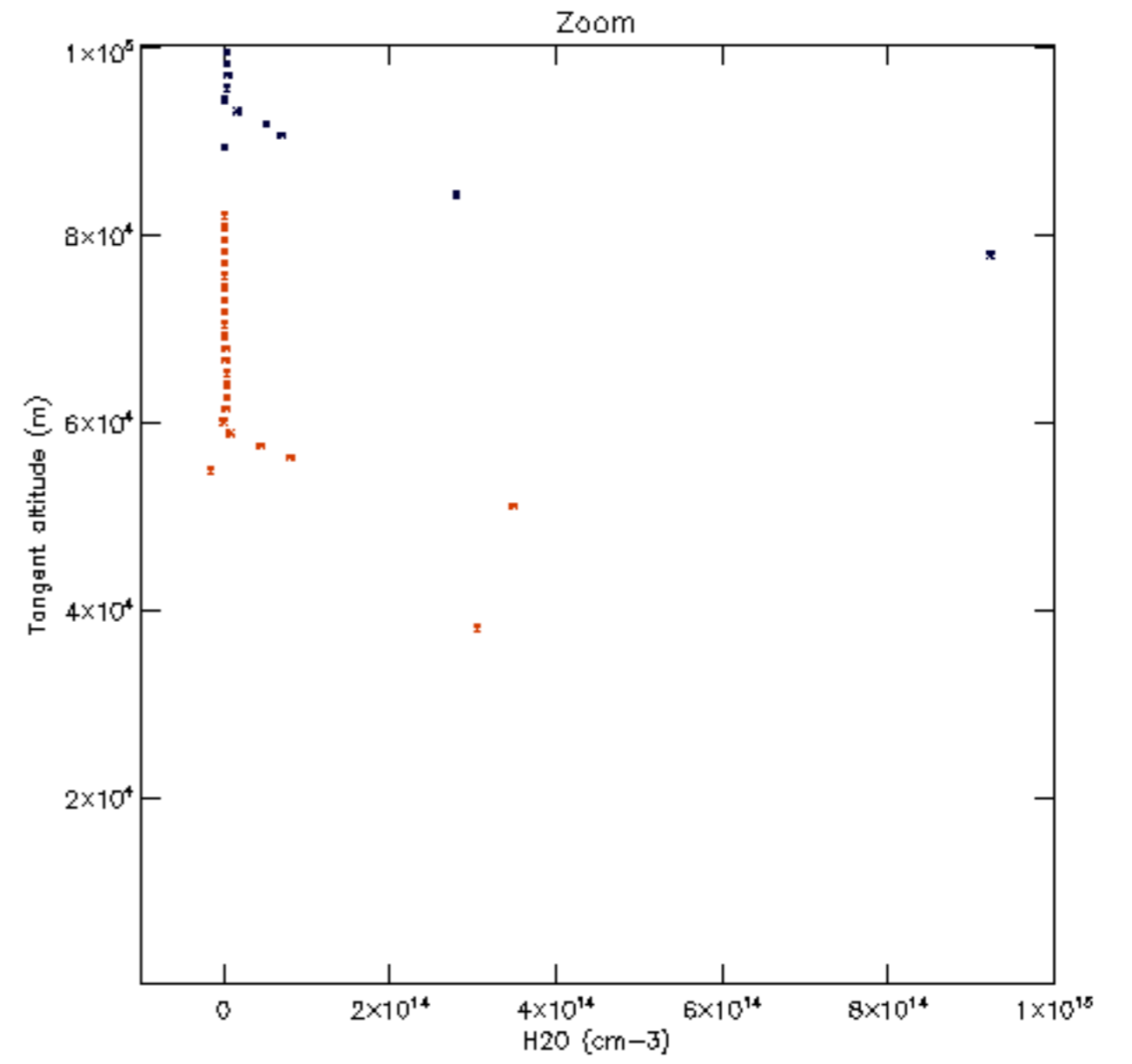
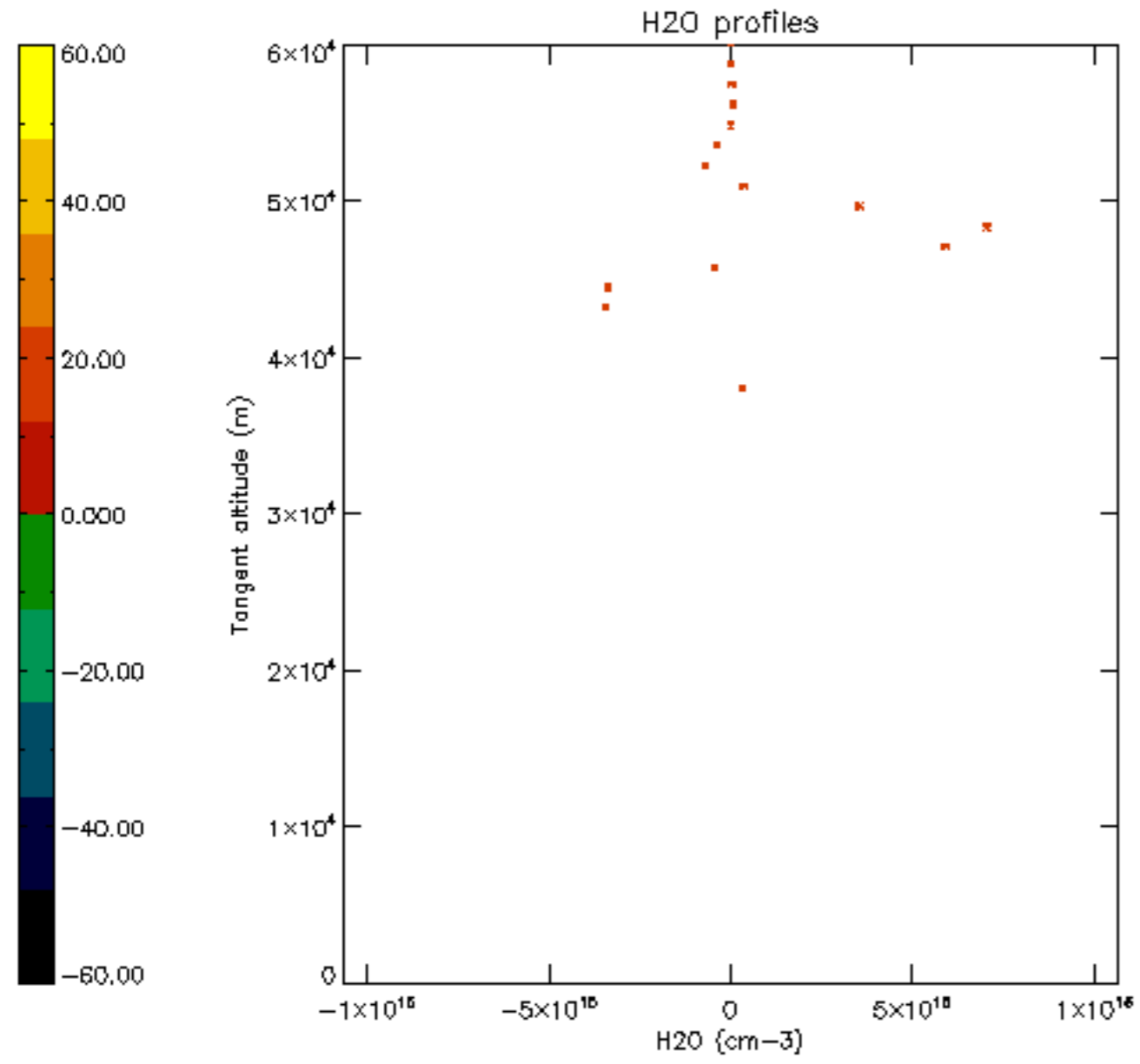


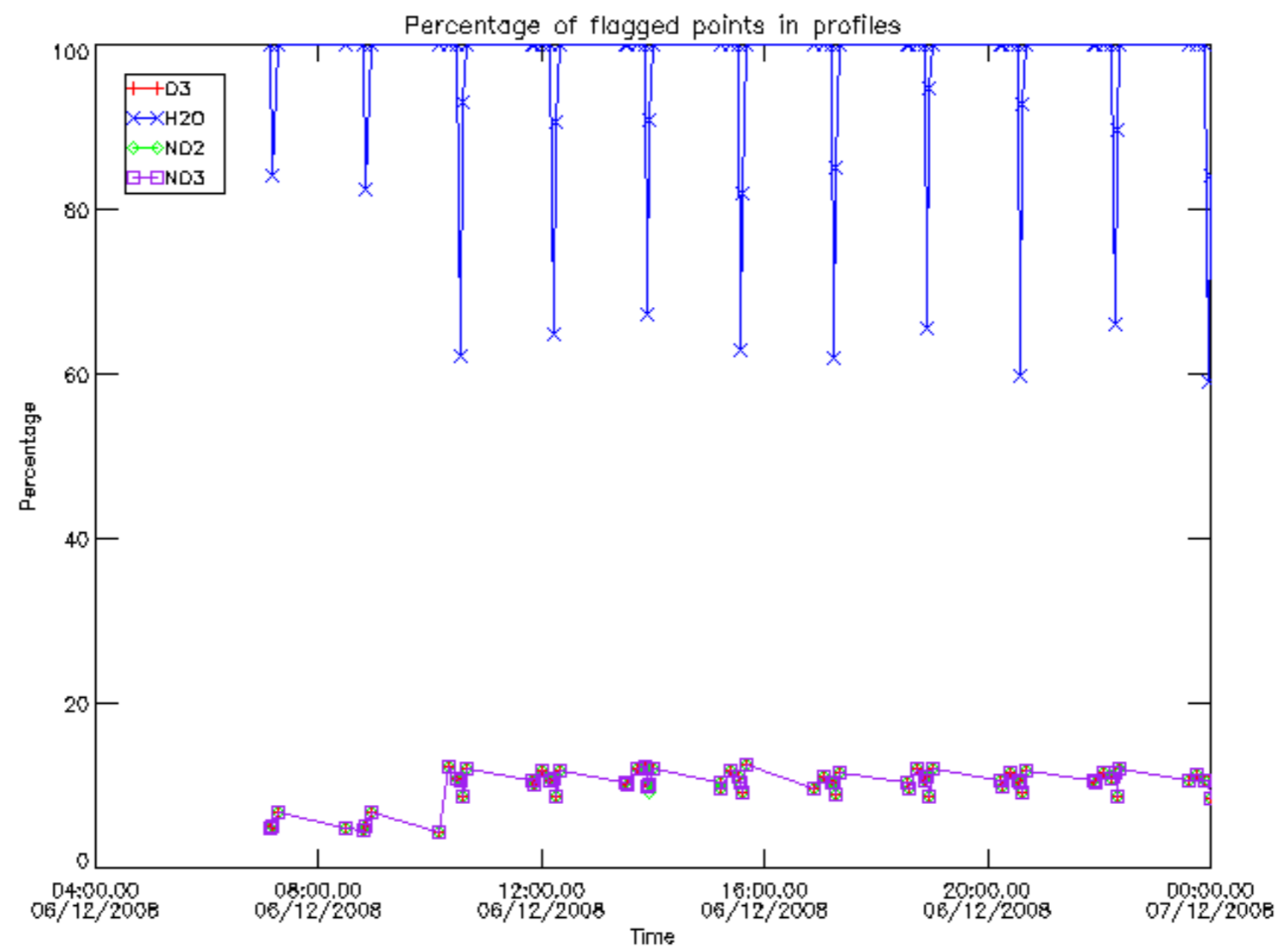




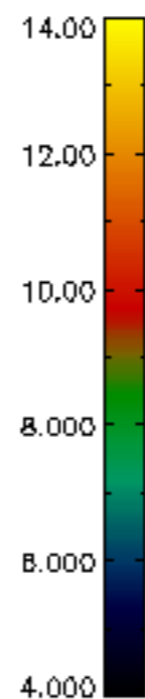
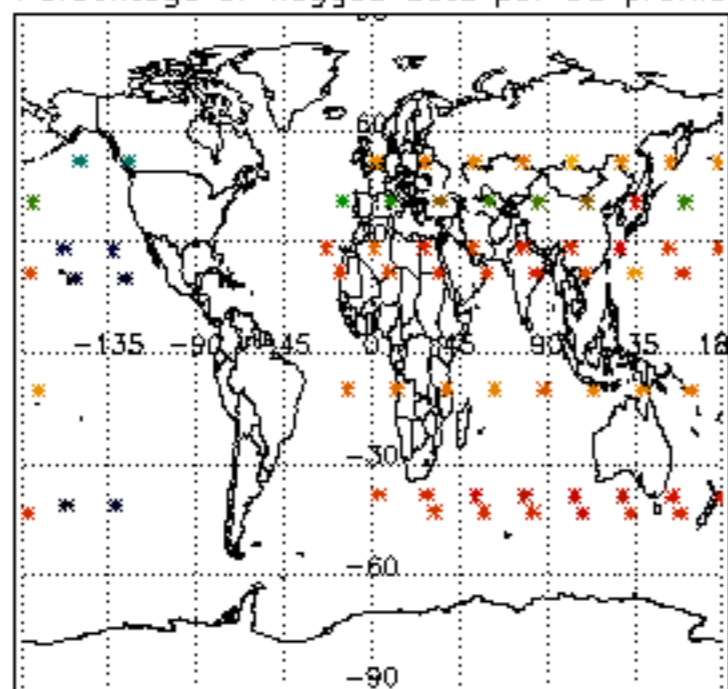




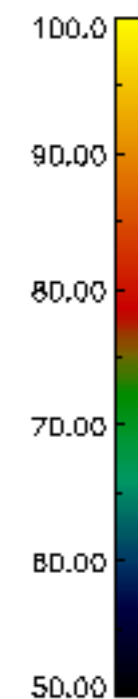
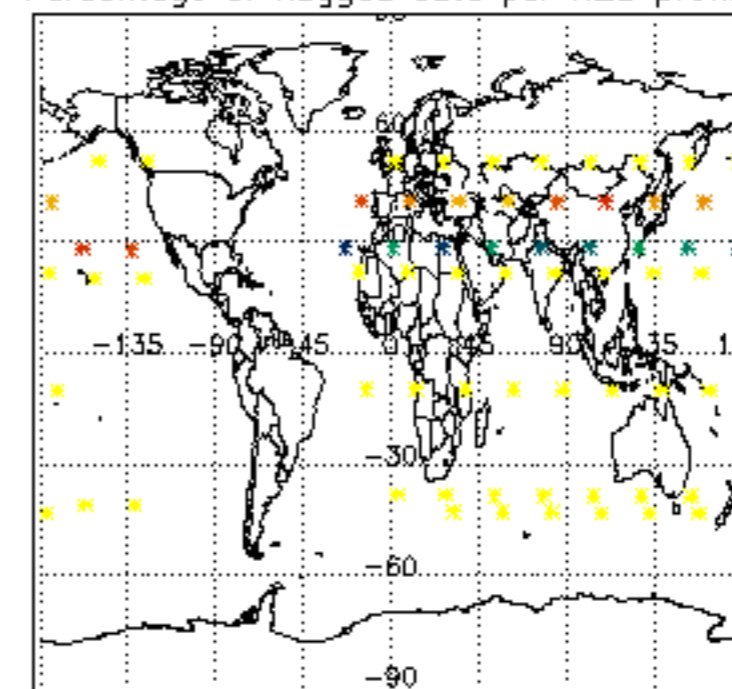




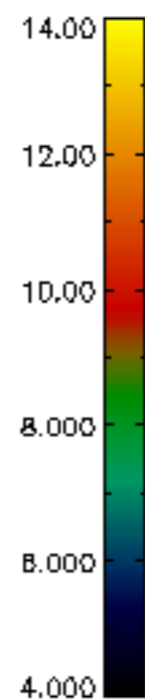
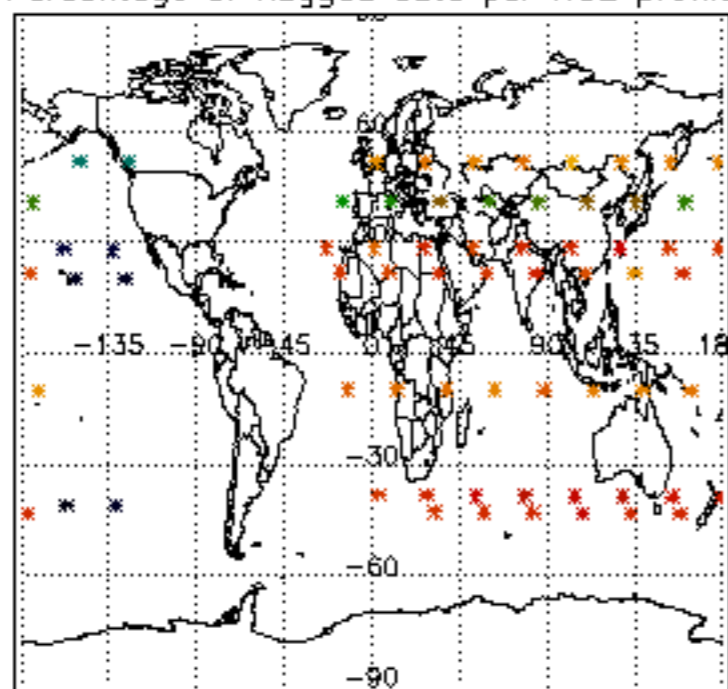
Percentage of flagged data per D3 profile



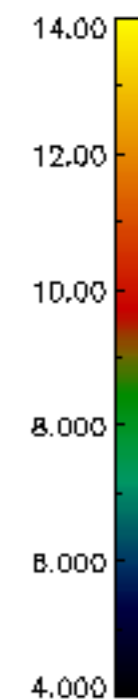
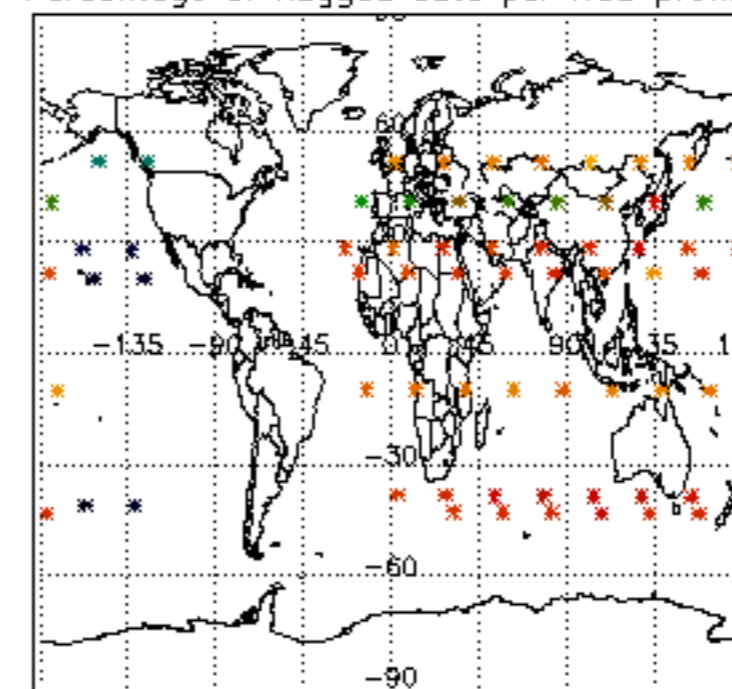
Percentage of flagged data per H2O profile

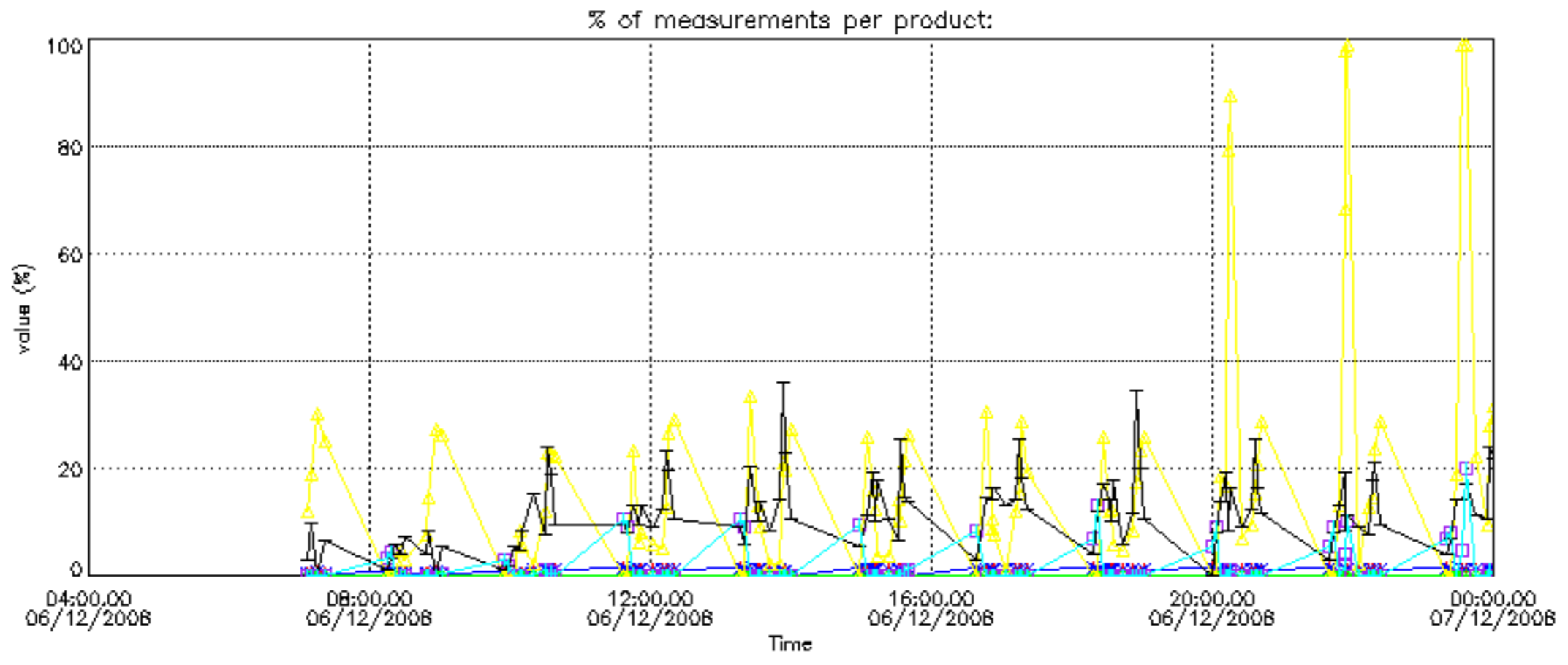


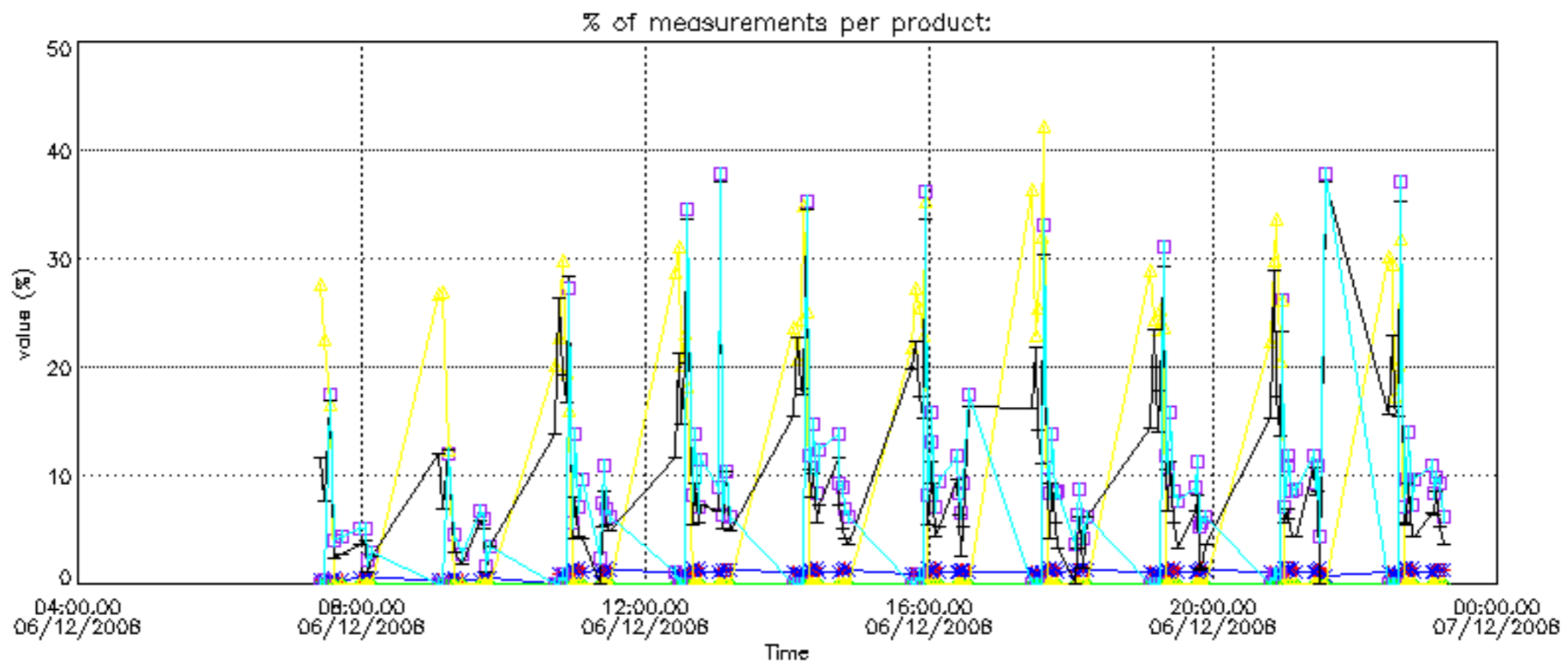
Percentage of flagged data per NO2 profile



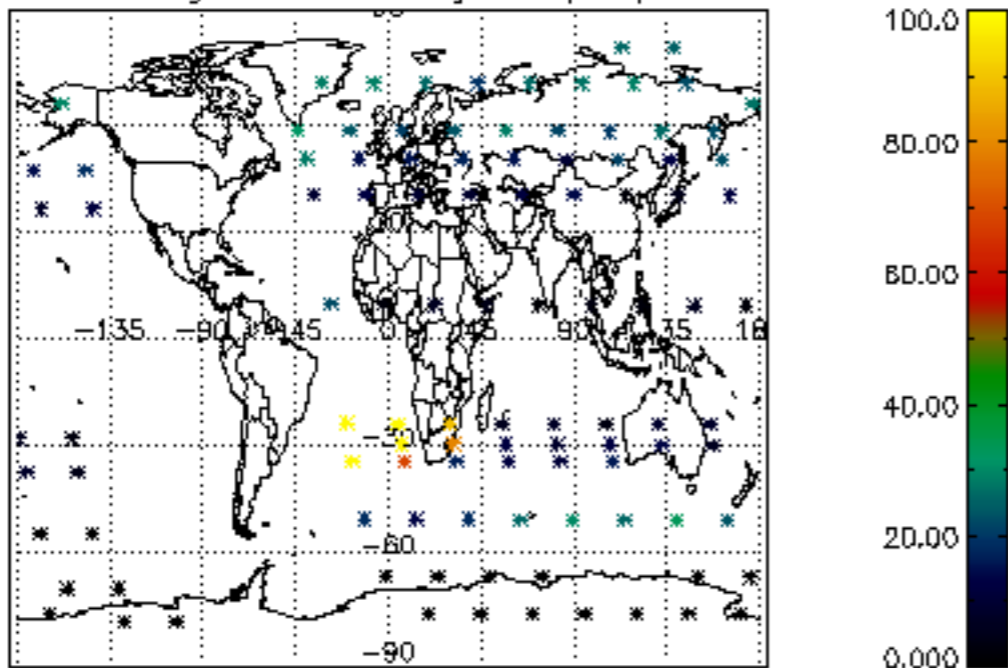
Percentage of flagged data per NO3 profile



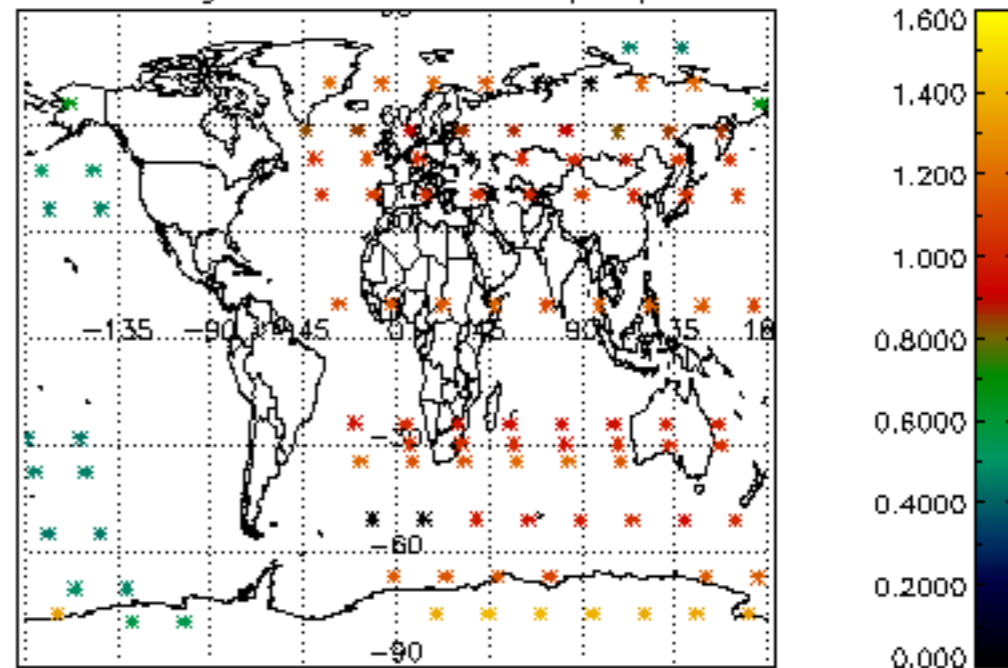




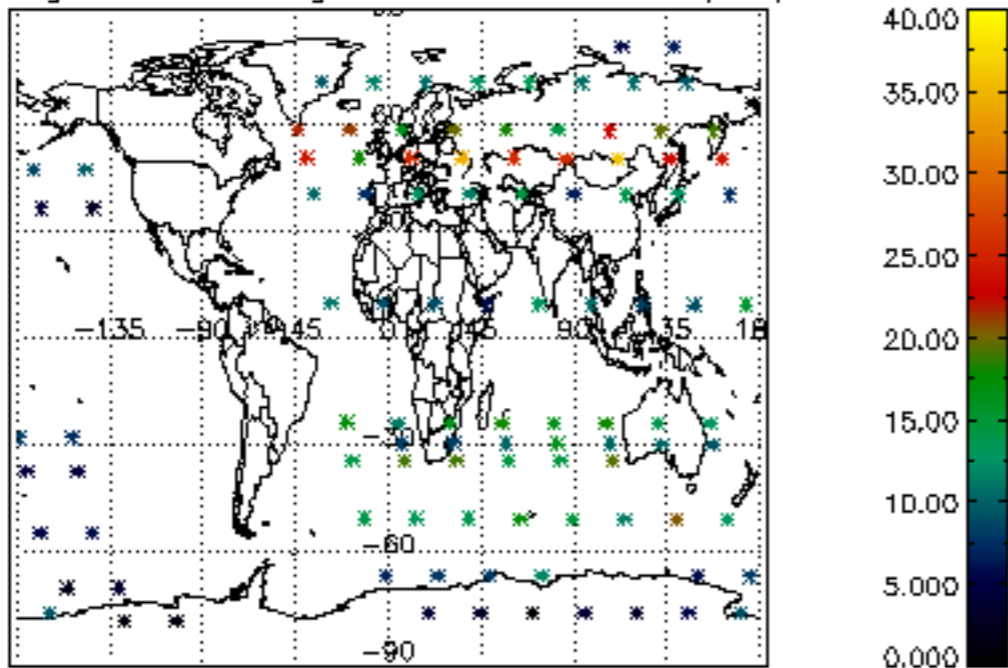
Percentage of cosmic ray hits per profile



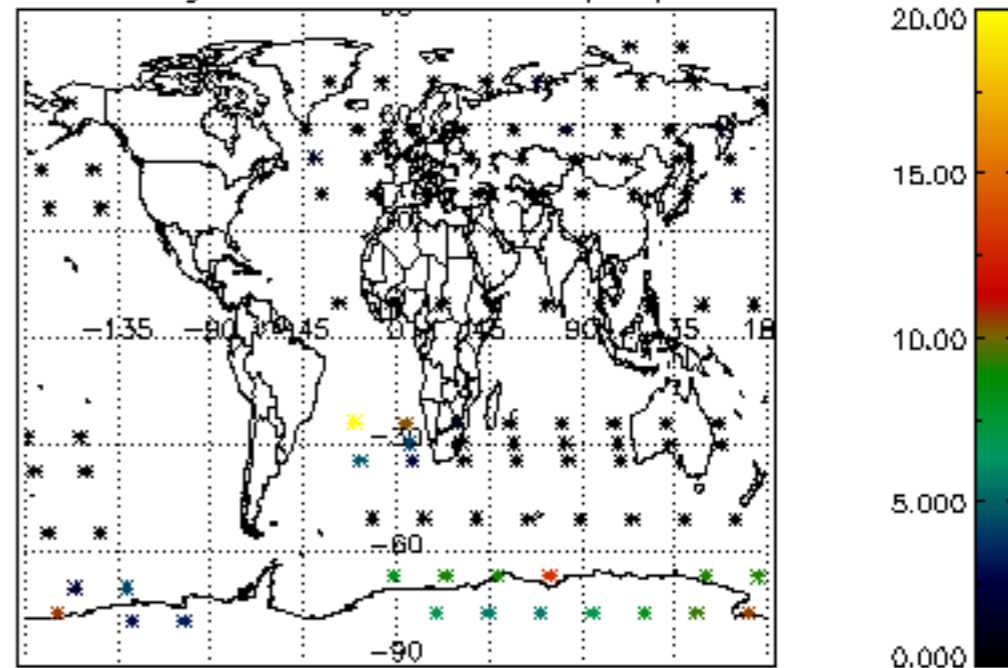
Percentage of datation errors per profile



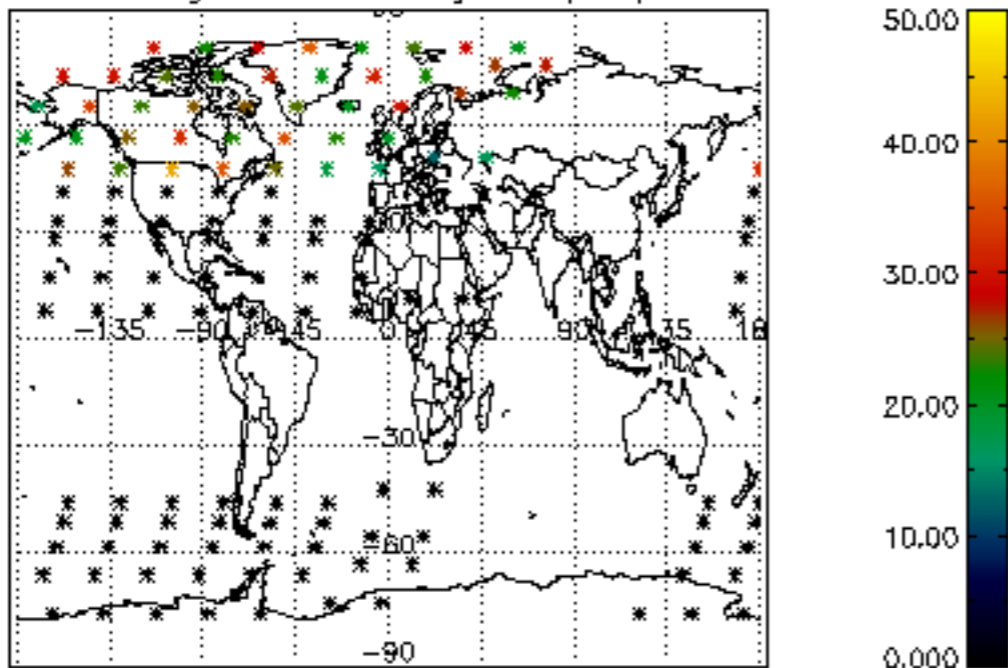
Percentage of star falling outside central band per profile



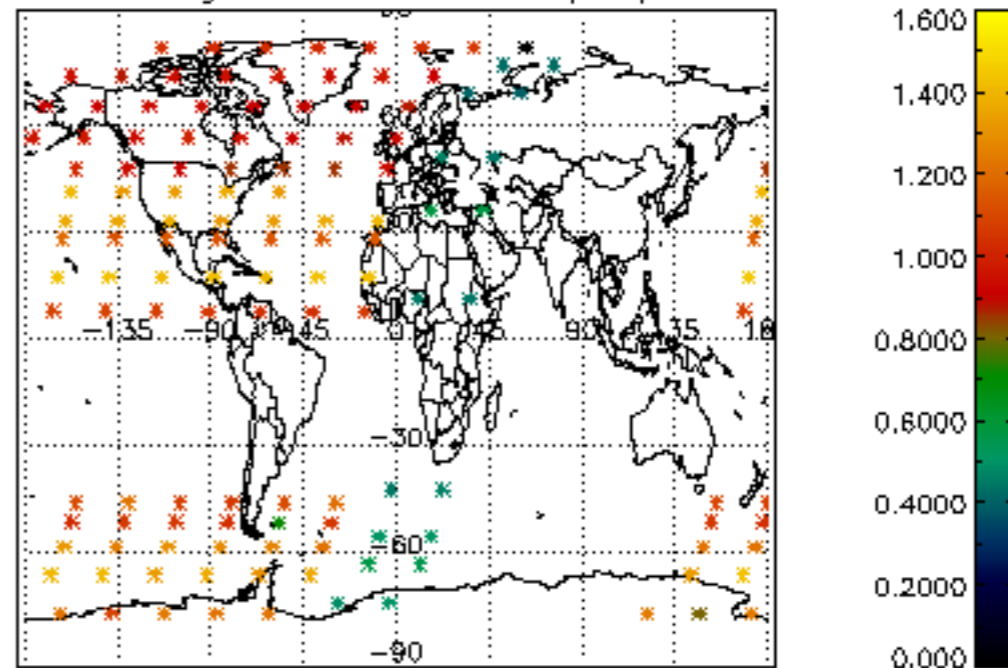
Percentage of saturation errors per profile



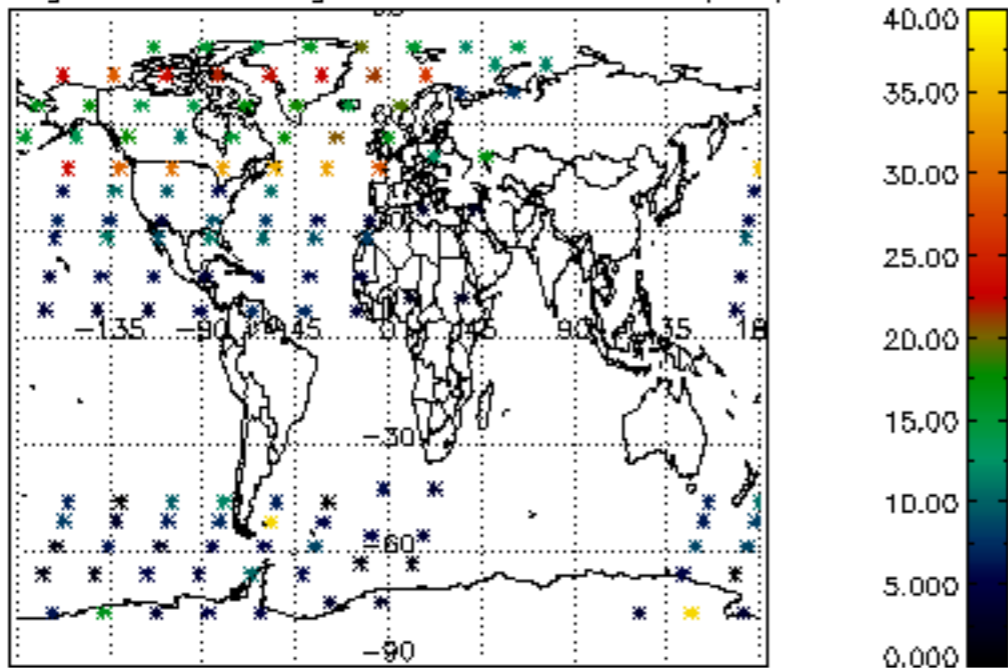
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

