

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 17:34:27
Data source version	GOMOS/6.01
Start time of products	03-09-2011 (03SEP2011 00:00:00)
Stop time of products	04-09-2011 (04SEP2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	58
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

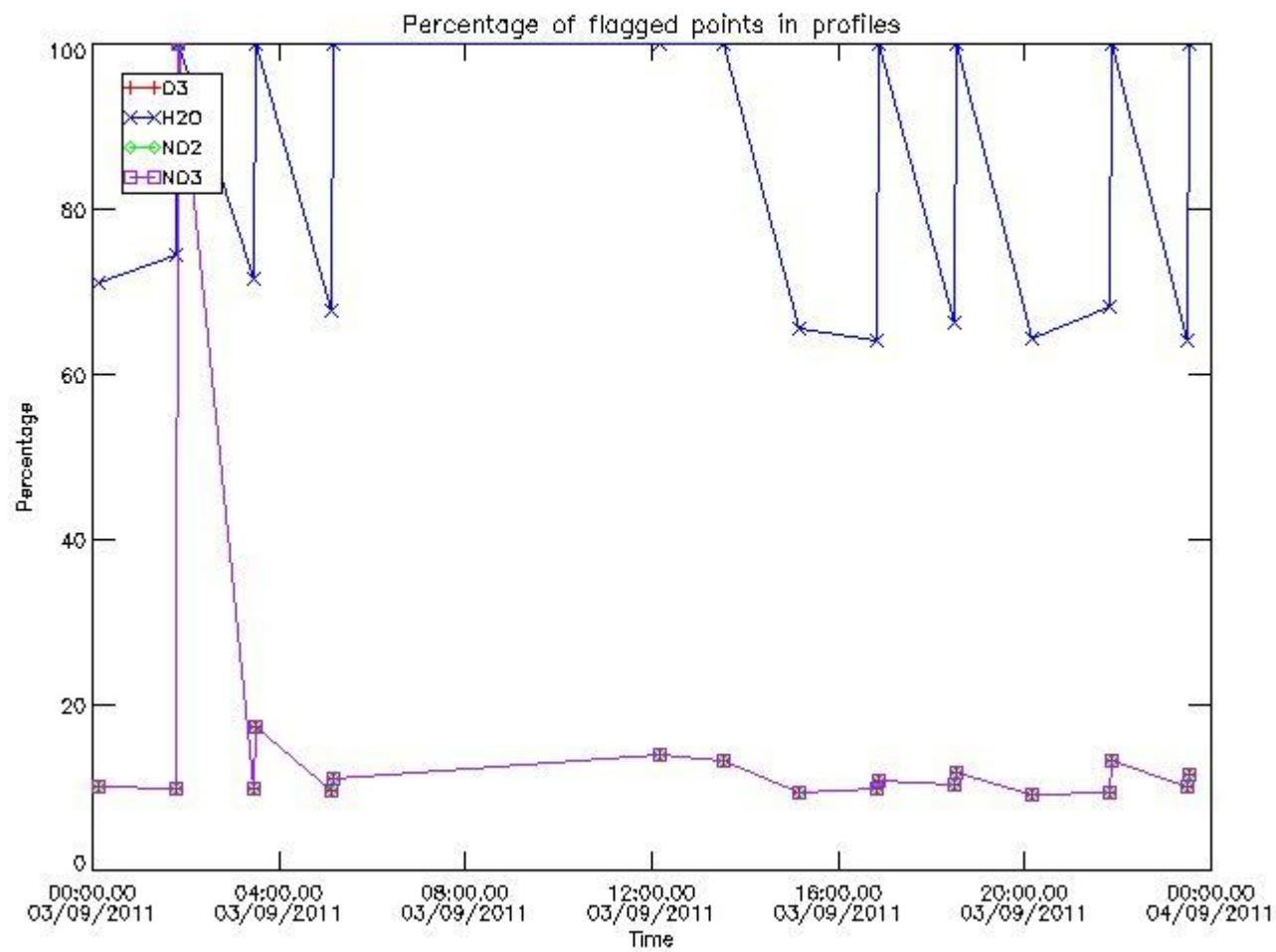
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110903_000633_000000513106_00145_49728_9889.N1	03-SEP-2011 00:06:33	Dark	50.500	1	9Alp CMa	-1.4400	11000.	101	49728	No
2	GOM_NL__2PRFIN20110903_003328_000000473106_00146_49729_9895.N1	03-SEP-2011 00:33:28	Straylight	46.500	84	Alp Phe	2.3970	4500.0	93	49729	No
3	GOM_NL__2PRFIN20110903_003922_000000253106_00146_49729_9896.N1	03-SEP-2011 00:39:22	Straylight	25.000	18	24Alp PsA	1.1660	9700.0	50	49729	No
4	GOM_NL__2PRFIN20110903_010850_000000443106_00146_49729_9897.N1	03-SEP-2011 01:08:50	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	49729	No
5	GOM_NL__2PRFIN20110903_014647_000000523106_00146_49729_9898.N1	03-SEP-2011 01:46:47	Dark	51.500	1	9Alp CMa	-1.4400	11000.	103	49729	No
6	GOM_NL__2PRFIN20110903_014928_000000463106_00146_49729_9899.N1	03-SEP-2011 01:49:28	Dark	45.500	23	21Eps CMa	1.5020	26000.	91	49729	No
7	GOM_NL__2PRFIN20110903_021936_000000463106_00147_49730_9901.N1	03-SEP-2011 02:19:36	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	49730	No
8	GOM_NL__2PRFIN20110903_024903_000000433106_00147_49730_9902.N1	03-SEP-2011 02:49:03	Bright	42.500	74	11Bet Cas	2.2680	6600.0	85	49730	No
9	GOM_NL__2PRFIN20110903_032702_000000523106_00147_49730_9903.N1	03-SEP-2011 03:27:02	Dark	51.500	1	9Alp CMa	-1.4400	11000.	103	49730	No
10	GOM_NL__2PRFIN20110903_032943_000000473106_00147_49730_9904.N1	03-SEP-2011 03:29:43	Dark	47.000	23	21Eps CMa	1.5020	26000.	94	49730	No
11	GOM_NL__2PRFIN20110903_042917_000000433106_00148_49731_9917.N1	03-SEP-2011 04:29:17	Bright	43.000	74	11Bet Cas	2.2680	6600.0	86	49731	No
12	GOM_NL__2PRFIN20110903_050717_000000533106_00148_49731_9918.N1	03-SEP-2011 05:07:17	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	49731	No
13	GOM_NL__2PRFIN20110903_050957_000000463106_00148_49731_9919.N1	03-SEP-2011 05:09:57	Dark	46.000	23	21Eps CMa	1.5020	26000.	92	49731	No
14	GOM_NL__2PRFIN20110903_054005_000000473106_00149_49732_9931.N1	03-SEP-2011 05:40:05	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	49732	No
15	GOM_NL__2PRFIN20110903_054916_000000403106_00149_49732_9932.N1	03-SEP-2011 05:49:16	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49732	No
16	GOM_NL__2PRFIN20110903_060930_000000313106_00149_49732_9933.N1	03-SEP-2011 06:09:30	Twilight	31.000	74	11Bet Cas	2.2680	6600.0	62	49732	No
17	GOM_NL__2PRFIN20110903_120915_000000443106_00153_49736_0062.N1	03-SEP-2011 12:09:15	Dark	44.000	9	Alp Eri	0.45300	24000.	88	49736	No
18	GOM_NL__2PRFIN20110903_121510_000000563106_00153_49736_0063.N1	03-SEP-2011 12:15:10	Straylight	56.000	84	Alp Phe	2.3970	4500.0	112	49736	No
19	GOM_NL__2PRFIN20110903_122101_000000443106_00153_49736_0064.N1	03-SEP-2011 12:21:01	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49736	No
20	GOM_NL__2PRFIN20110903_123012_000000403106_00153_49736_0065.N1	03-SEP-2011 12:30:12	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49736	No
21	GOM_NL__2PRFIN20110903_123953_000000433106_00153_49736_0066.N1	03-SEP-2011 12:39:53	Bright	43.000	164	44Eta Peg	2.9480	5400.0	86	49736	No
22	GOM_NL__2PRFIN20110903_132036_000000513106_00153_49736_0067.N1	03-SEP-2011 13:20:36	Twilight	50.500	8	10Alp CMi	0.40000	6500.0	101	49736	No
23	GOM_NL__2PRFIN20110903_133110_000000463106_00153_49736_0068.N1	03-SEP-2011 13:31:10	Dark	46.000	23	21Eps CMa	1.5020	26000.	92	49736	No
24	GOM_NL__2PRFIN20110903_135524_000000463106_00154_49737_0121.N1	03-SEP-2011 13:55:24	Straylight	45.500	84	Alp Phe	2.3970	4500.0	91	49737	No
25	GOM_NL__2PRFIN20110903_140116_000000473106_00154_49737_0122.N1	03-SEP-2011 14:01:16	Straylight	46.500	18	24Alp PsA	1.1660	9700.0	93	49737	No
26	GOM_NL__2PRFIN20110903_143037_000000413106_00154_49737_0123.N1	03-SEP-2011 14:30:37	Bright	41.000	74	11Bet Cas	2.2680	6600.0	82	49737	No
27	GOM_NL__2PRFIN20110903_145852_000000523106_00154_49737_0124.N1	03-SEP-2011 14:58:52	Twilight	52.000	44	24Gam Gem	1.9280	11000.	104	49737	No
28	GOM_NL__2PRFIN20110903_150051_000000533106_00154_49737_0125.N1	03-SEP-2011 15:00:51	Twilight	52.500	8	10Alp CMi	0.40000	6500.0	105	49737	No
29	GOM_NL__2PRFIN20110903_150845_000000543106_00154_49737_0126.N1	03-SEP-2011 15:08:45	Dark	54.000	1	9Alp CMa	-1.4400	11000.	108	49737	No
30	GOM_NL__2PRFIN20110903_153539_000000553106_00155_49738_0189.N1	03-SEP-2011 15:35:39	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	49738	No
31	GOM_NL__2PRFIN20110903_154130_000000473106_00155_49738_0190.N1	03-SEP-2011 15:41:30	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	49738	No
32	GOM_NL__2PRFIN20110903_155040_000000403106_00155_49738_0191.N1	03-SEP-2011 15:50:40	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49738	No
33	GOM_NL__2PRFIN20110903_161051_000000443106_00155_49738_0192.N1	03-SEP-2011 16:10:51	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	49738	No
34	GOM_NL__2PRFIN20110903_164859_000000523106_00155_49738_0193.N1	03-SEP-2011 16:48:59	Dark	52.000	1	9Alp CMa	-1.4400	11000.	104	49738	No
35	GOM_NL__2PRFIN20110903_165139_000000473106_00155_49738_0194.N1	03-SEP-2011 16:51:39	Dark	46.500	23	21Eps CMa	1.5020	26000.	93	49738	No
36	GOM_NL__2PRFIN20110903_171553_000000453106_00156_49739_0204.N1	03-SEP-2011 17:15:53	Straylight	45.000	84	Alp Phe	2.3970	4500.0	90	49739	No
37	GOM_NL__2PRFIN20110903_174034_000000433106_00156_49739_0205.N1	03-SEP-2011 17:40:34	Bright	43.000	164	44Eta Peg	2.9480	5400.0	86	49739	No
38	GOM_NL__2PRFIN20110903_182119_000000483106_00156_49739_0206.N1	03-SEP-2011 18:21:19	Twilight	47.500	8	10Alp CMi	0.40000	6500.0	95	49739	No
39	GOM_NL__2PRFIN20110903_182914_000000503106_00156_49739_0207.N1	03-SEP-2011 18:29:14	Dark	49.500	1	9Alp CMa	-1.4400	11000.	99	49739	No
40	GOM_NL__2PRFIN20110903_183154_000000443106_00156_49739_0208.N1	03-SEP-2011 18:31:54	Dark	43.500	23	21Eps CMa	1.5020	26000.	87	49739	No
41	GOM_NL__2PRFIN20110903_185608_000000553106_00157_49740_0228.N1	03-SEP-2011 18:56:08	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	49740	No
42	GOM_NL__2PRFIN20110903_190158_000000443106_00157_49740_0229.N1	03-SEP-2011 19:01:58	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49740	No

43	GOM_NL__2PRFIN20110903_191108_000000403106_00157_49740_0230.N1	03-SEP-2011 19:11:08	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49740	No
44	GOM_NL__2PRFIN20110903_193117_000000453106_00157_49740_0231.N1	03-SEP-2011 19:31:17	Bright	44.500	74	11Bet Cas	2.2680	6600.0	89	49740	No
45	GOM_NL__2PRFIN20110903_200929_000000553106_00157_49740_0232.N1	03-SEP-2011 20:09:29	Dark	55.000	1	9Alp CMa	-1.4400	11000.	110	49740	No
46	GOM_NL__2PRFIN20110903_203622_000000473106_00158_49741_0253.N1	03-SEP-2011 20:36:22	Straylight	47.000	84	Alp Phe	2.3970	4500.0	94	49741	No
47	GOM_NL__2PRFIN20110903_204213_000000453106_00158_49741_0254.N1	03-SEP-2011 20:42:13	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	49741	No
48	GOM_NL__2PRFIN20110903_205122_000000403106_00158_49741_0255.N1	03-SEP-2011 20:51:22	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	49741	No
49	GOM_NL__2PRFIN20110903_211131_000000433106_00158_49741_0256.N1	03-SEP-2011 21:11:31	Bright	42.500	74	11Bet Cas	2.2680	6600.0	85	49741	No
50	GOM_NL__2PRFIN20110903_214944_000000543106_00158_49741_0257.N1	03-SEP-2011 21:49:44	Dark	54.000	1	9Alp CMa	-1.4400	11000.	108	49741	No
51	GOM_NL__2PRFIN20110903_215223_000000433106_00158_49741_0258.N1	03-SEP-2011 21:52:23	Dark	42.500	23	21Eps CMa	1.5020	26000.	85	49741	No
52	GOM_NL__2PRFIN20110903_221637_000000473106_00159_49742_0318.N1	03-SEP-2011 22:16:37	Straylight	46.500	84	Alp Phe	2.3970	4500.0	93	49742	No
53	GOM_NL__2PRFIN20110903_222227_000000443106_00159_49742_0319.N1	03-SEP-2011 22:22:27	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49742	No
54	GOM_NL__2PRFIN20110903_223136_000000403106_00159_49742_0320.N1	03-SEP-2011 22:31:36	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	49742	No
55	GOM_NL__2PRFIN20110903_225144_000000443106_00159_49742_0321.N1	03-SEP-2011 22:51:44	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	49742	No
56	GOM_NL__2PRFIN20110903_232202_000000483106_00159_49742_0322.N1	03-SEP-2011 23:22:02	Twilight	47.500	8	10Alp CMi	0.40000	6500.0	95	49742	No
57	GOM_NL__2PRFIN20110903_232958_000000513106_00159_49742_0323.N1	03-SEP-2011 23:29:58	Dark	50.500	1	9Alp CMa	-1.4400	11000.	101	49742	No
58	GOM_NL__2PRFIN20110903_233237_000000443106_00159_49742_0324.N1	03-SEP-2011 23:32:37	Dark	44.000	23	21Eps CMa	1.5020	26000.	88	49742	No

3. Quality information per product

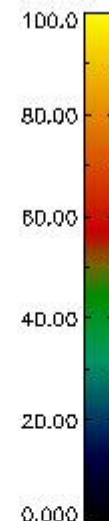
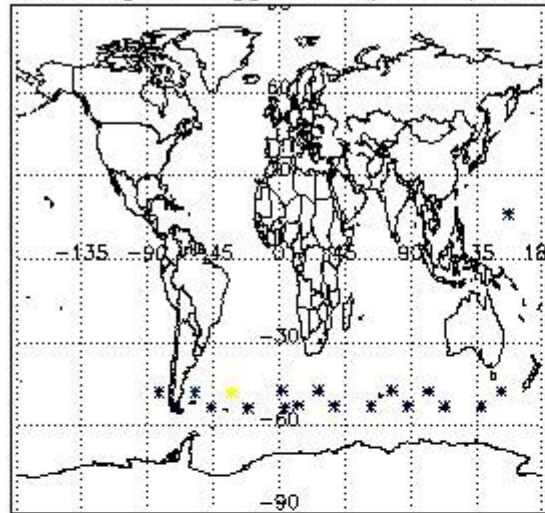
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

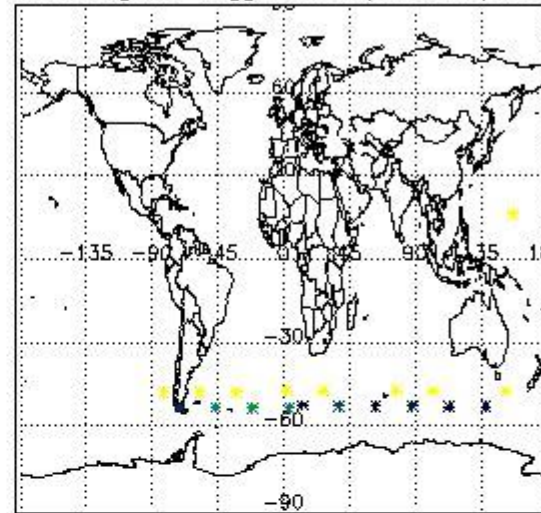


3.2 Plot quality information per product (world map)

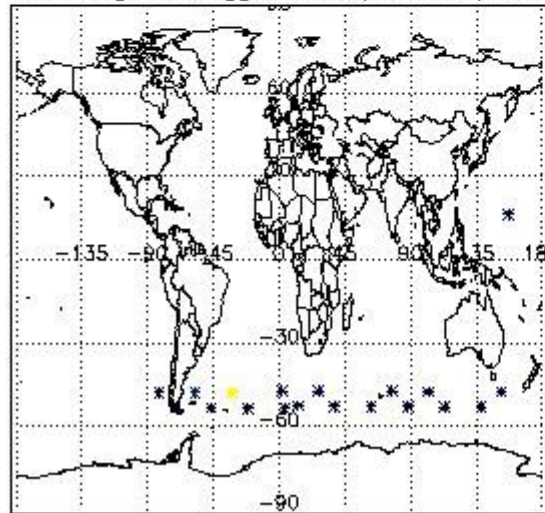
Percentage of flagged data per O3 profile



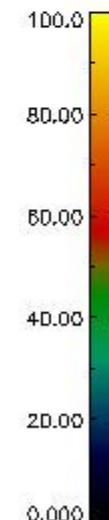
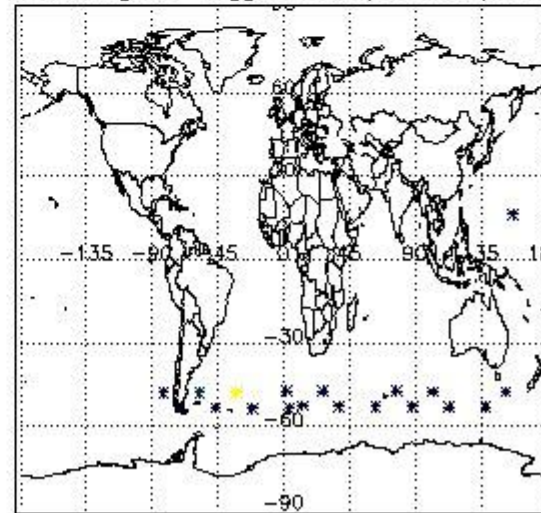
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

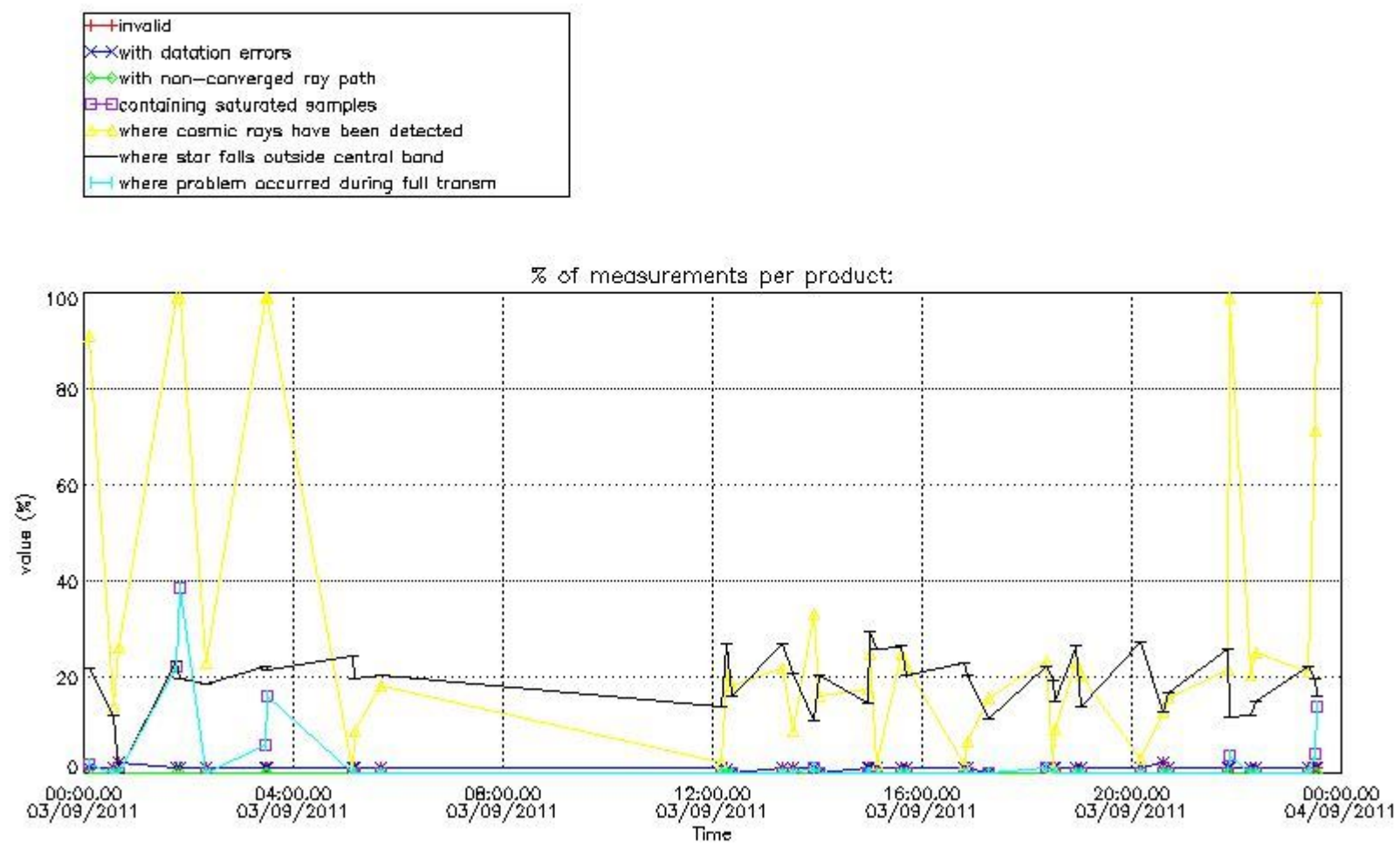


4. Level 1 quality information per product

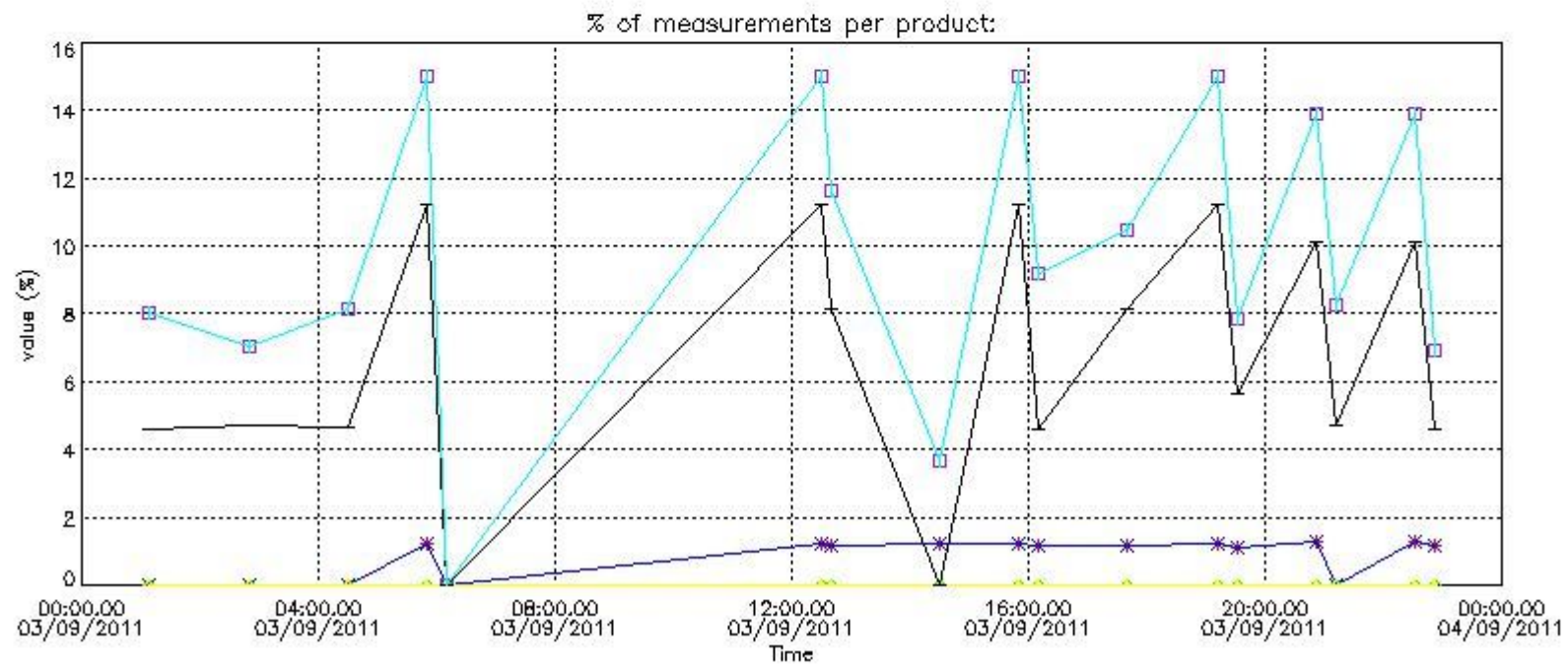
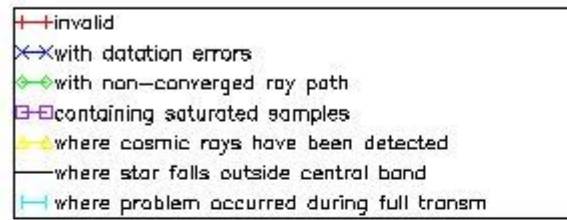
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



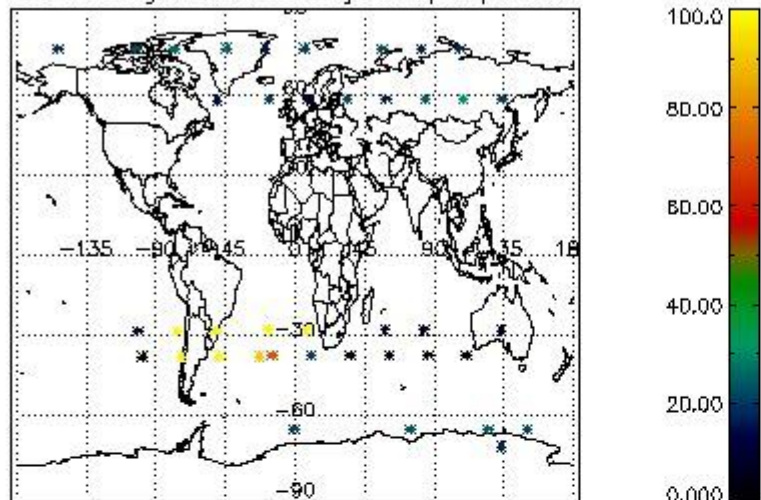
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



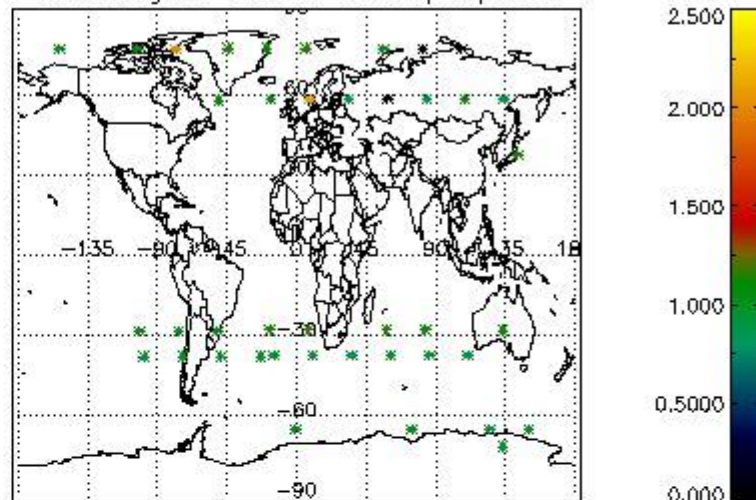
4.2 Plot quality information per product coming from level 1b processing (world map)

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

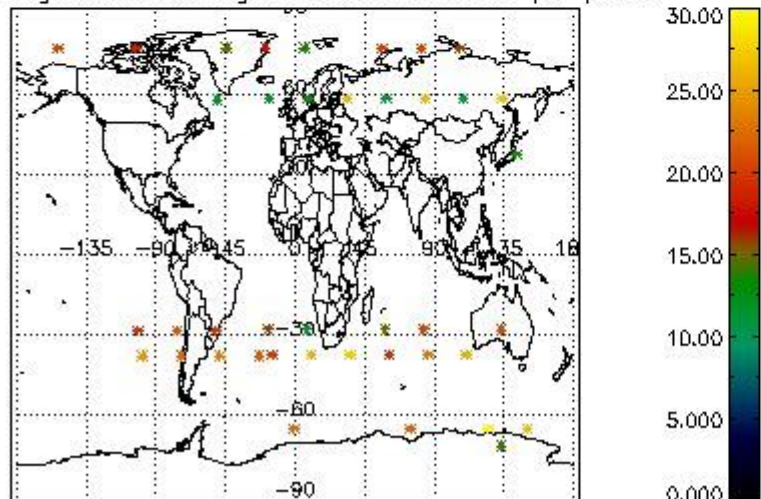
Percentage of cosmic ray hits per profile



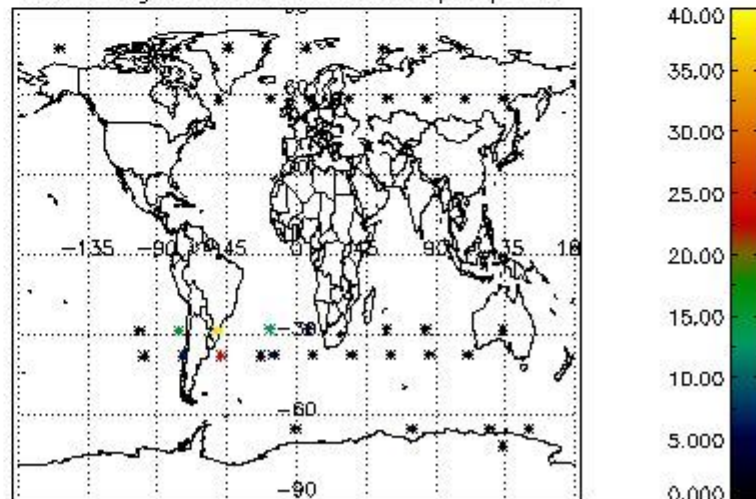
Percentage of datation errors per profile



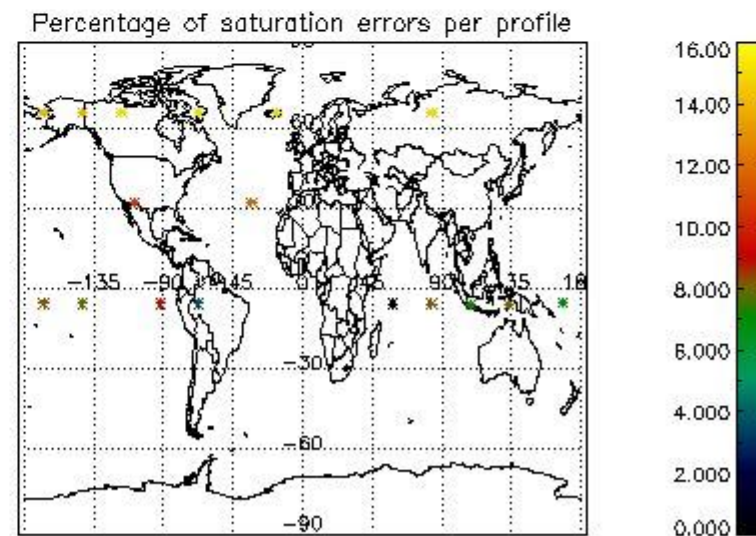
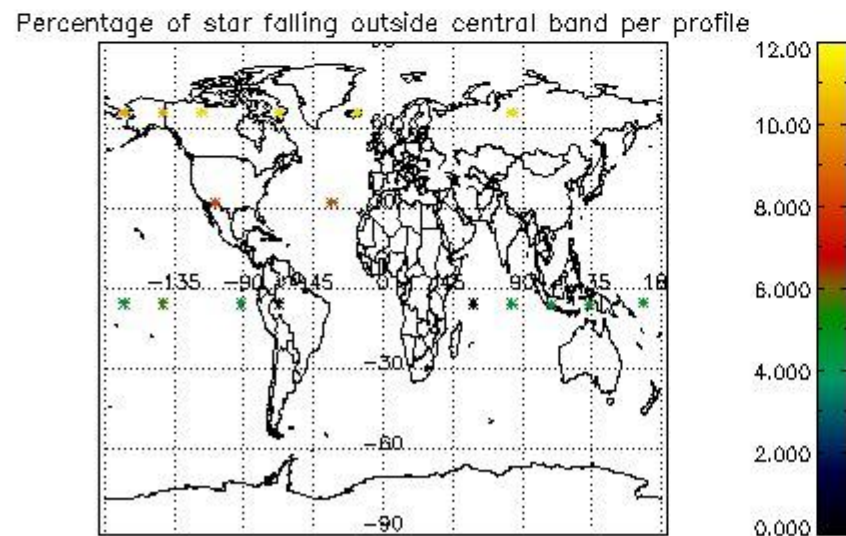
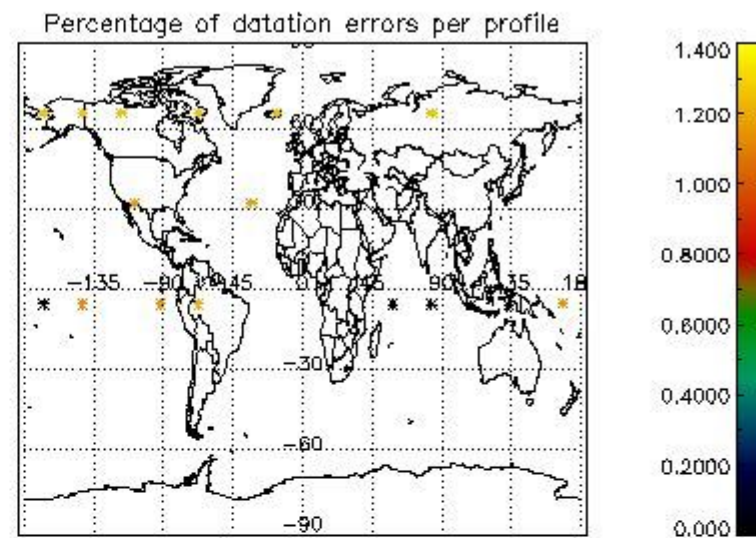
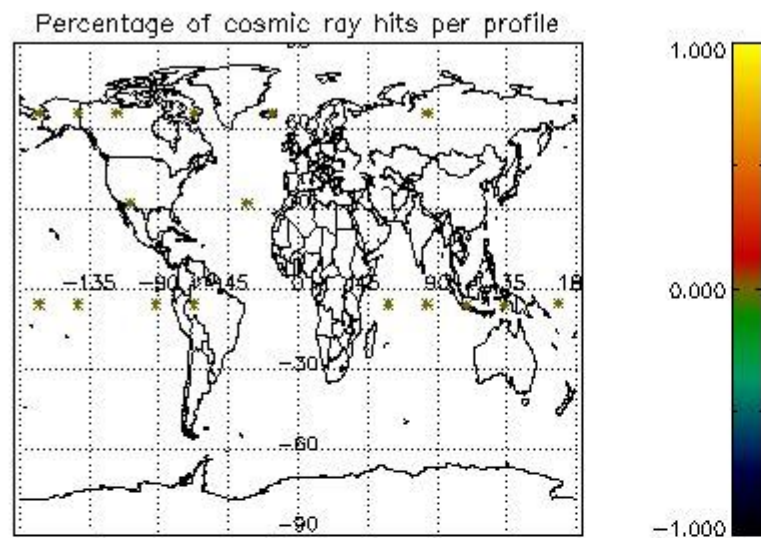
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

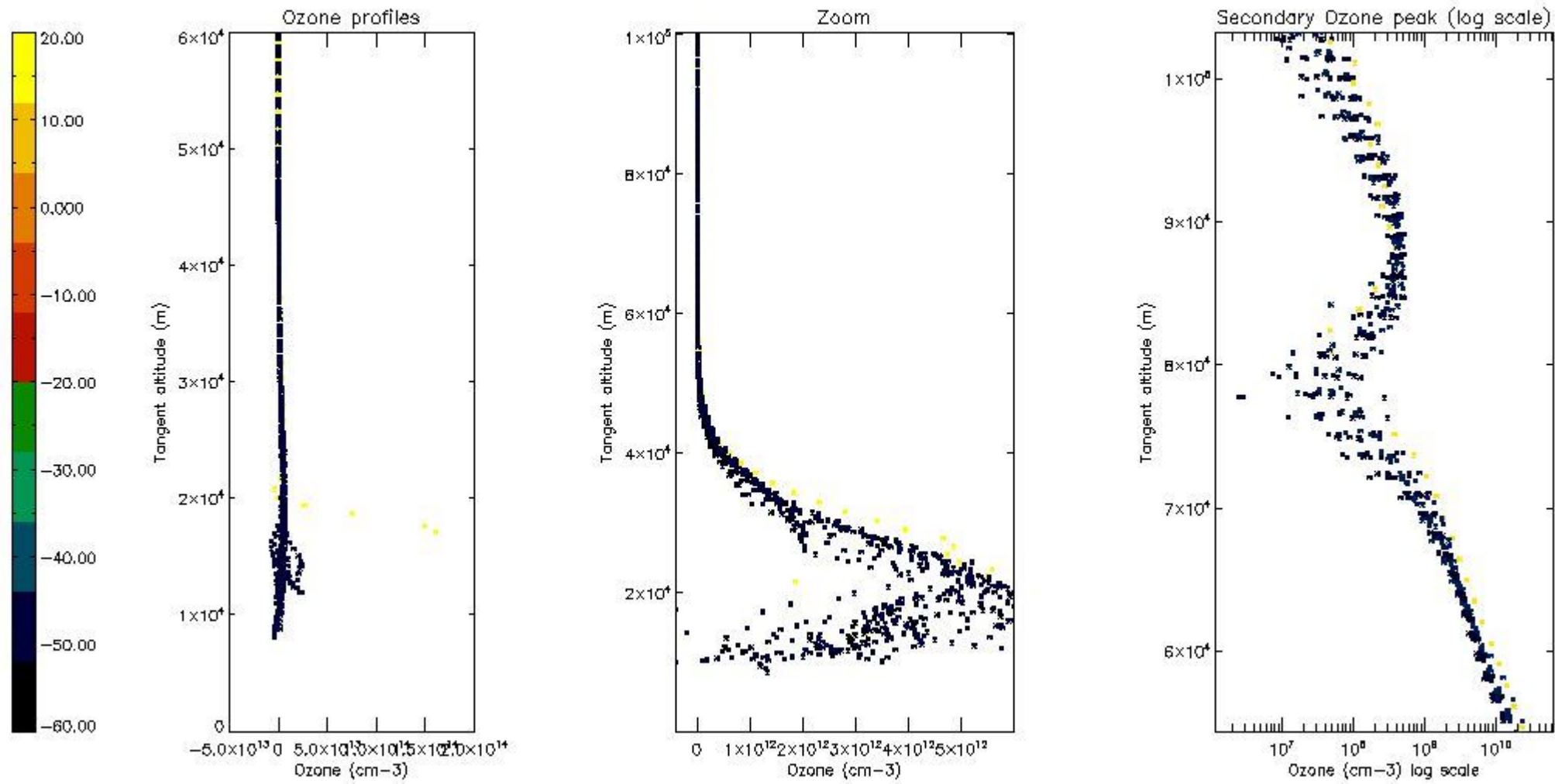
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	26

STD < 10	23
STD < 5	20

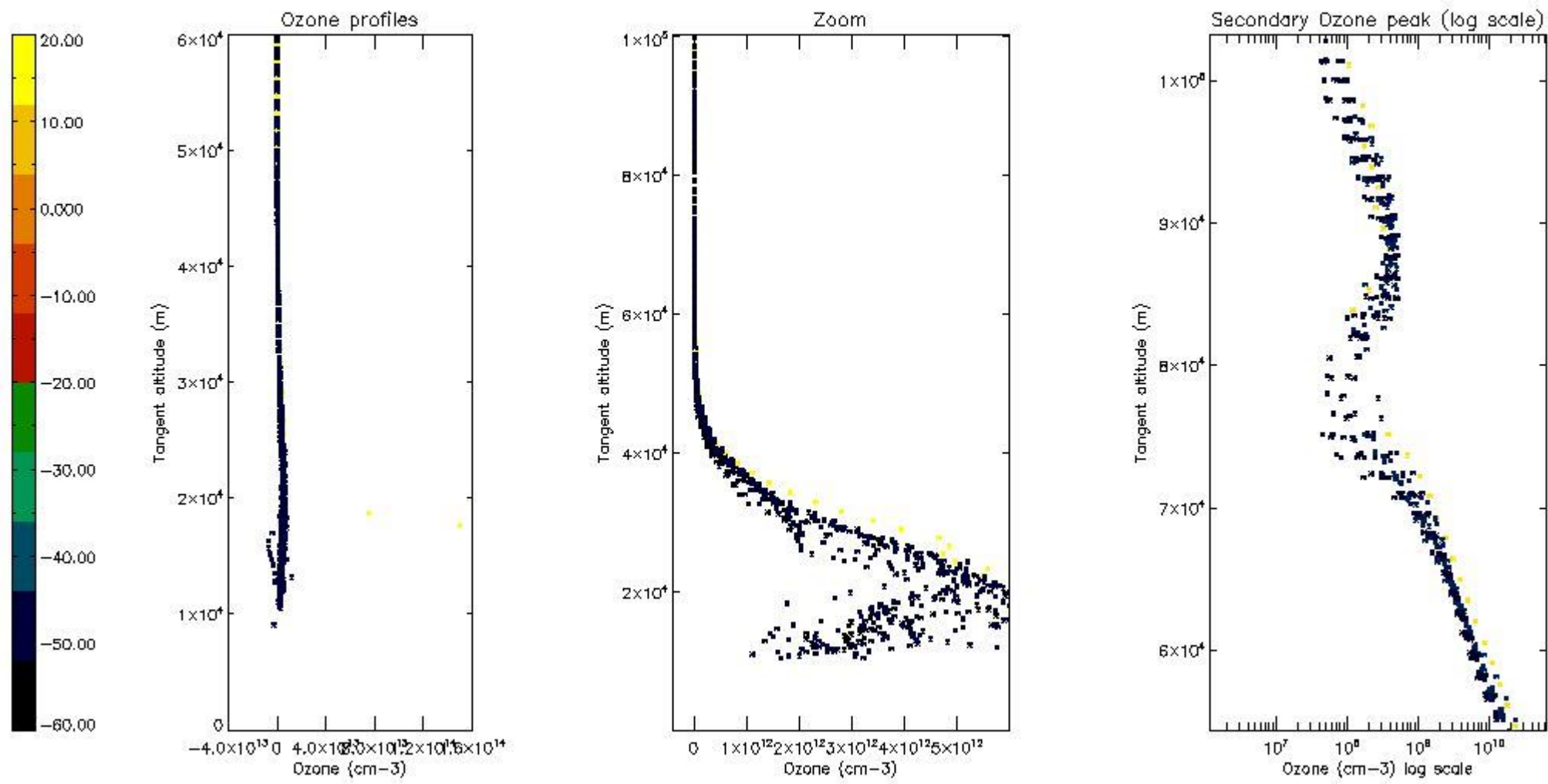
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



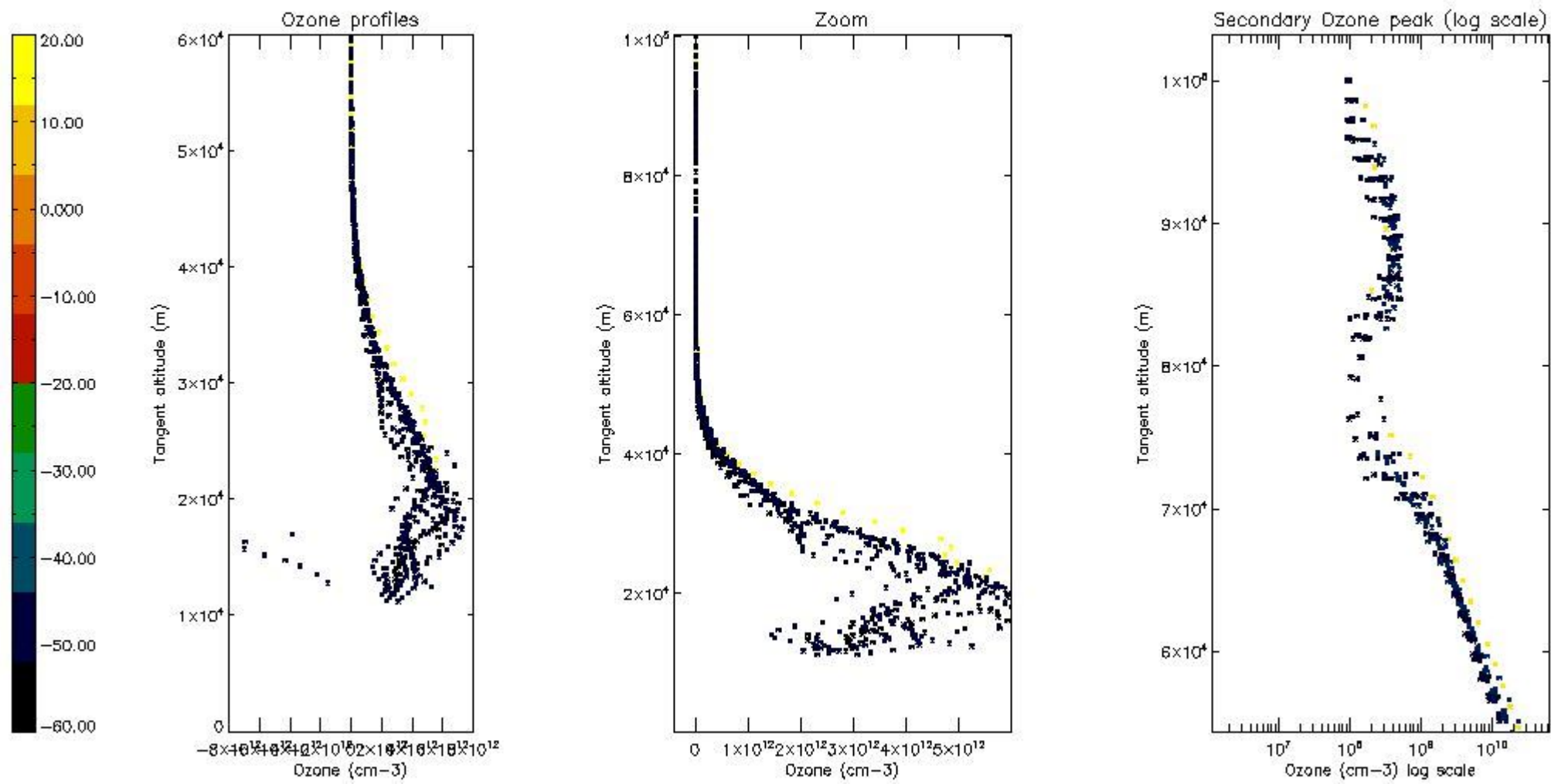
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



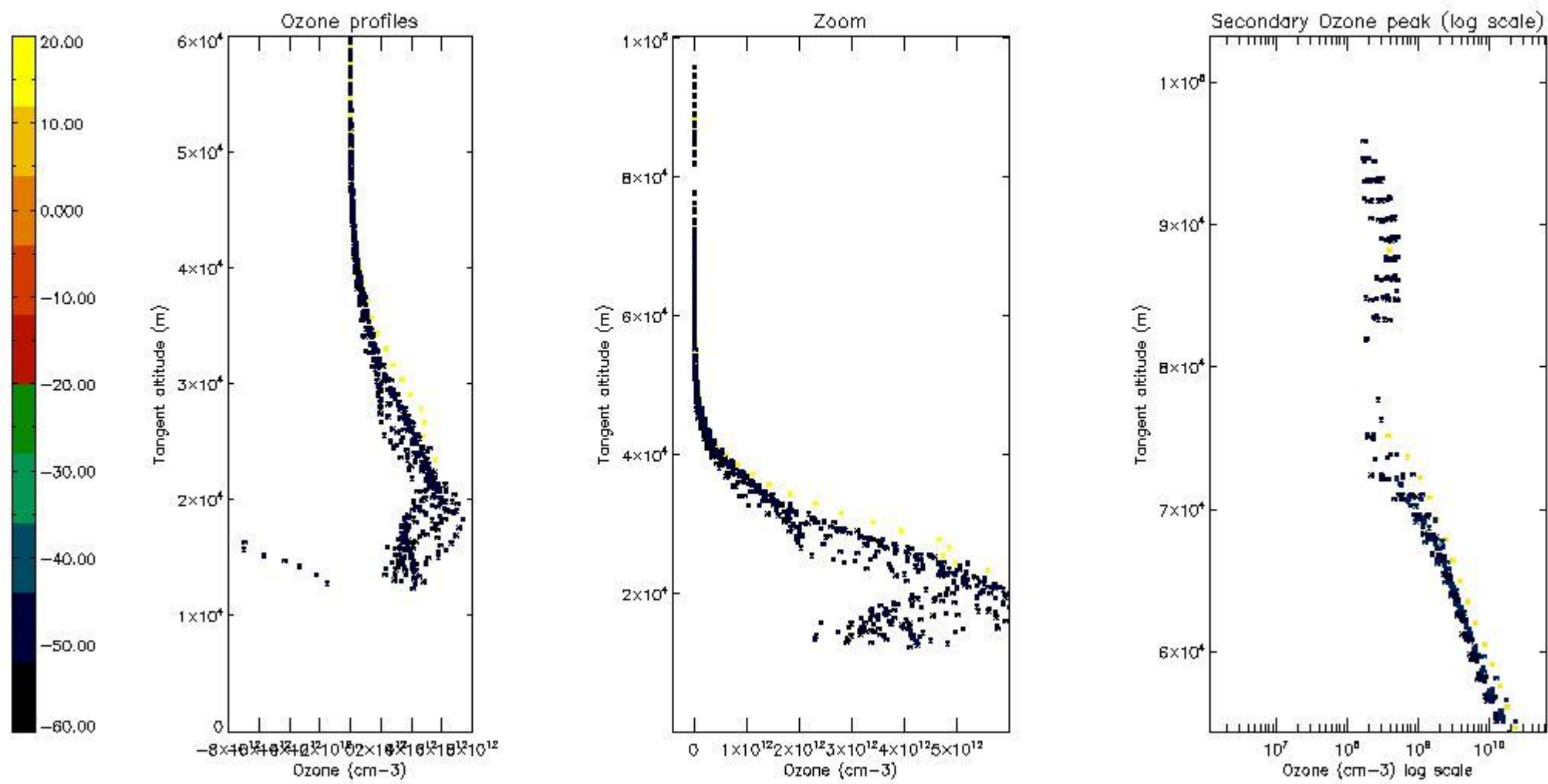
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



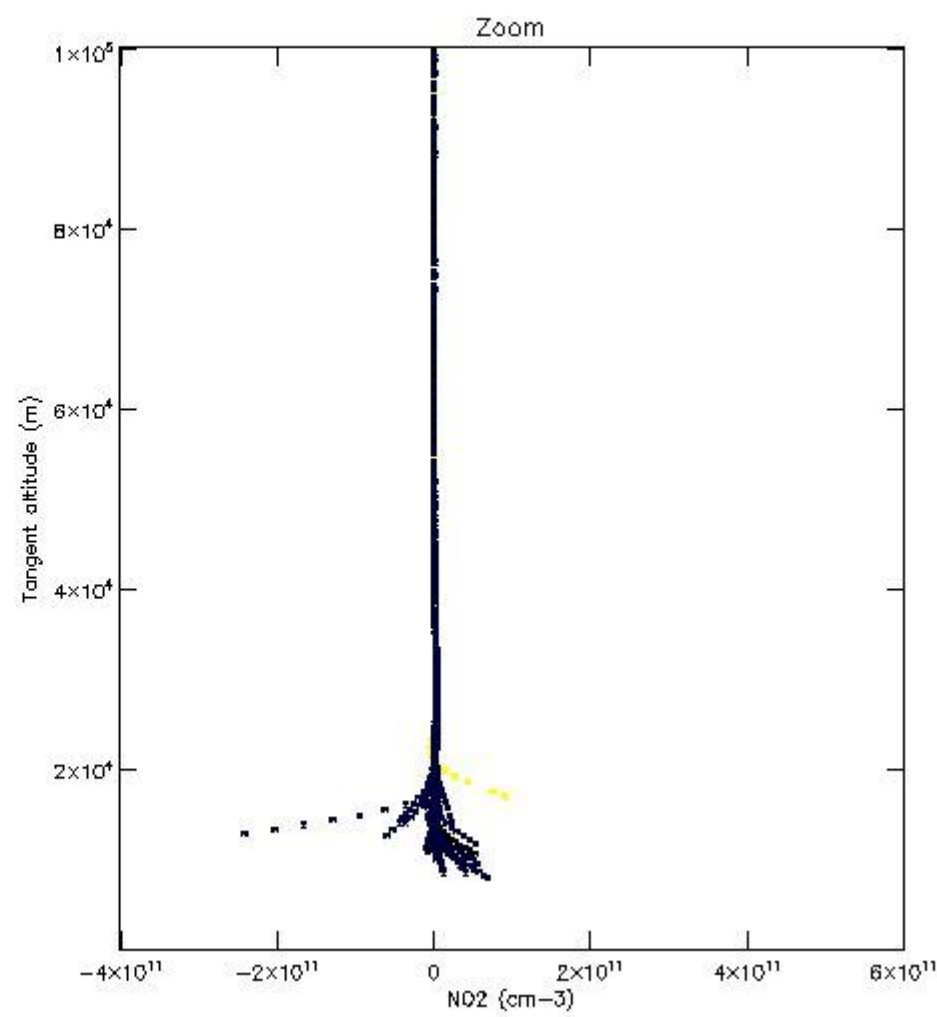
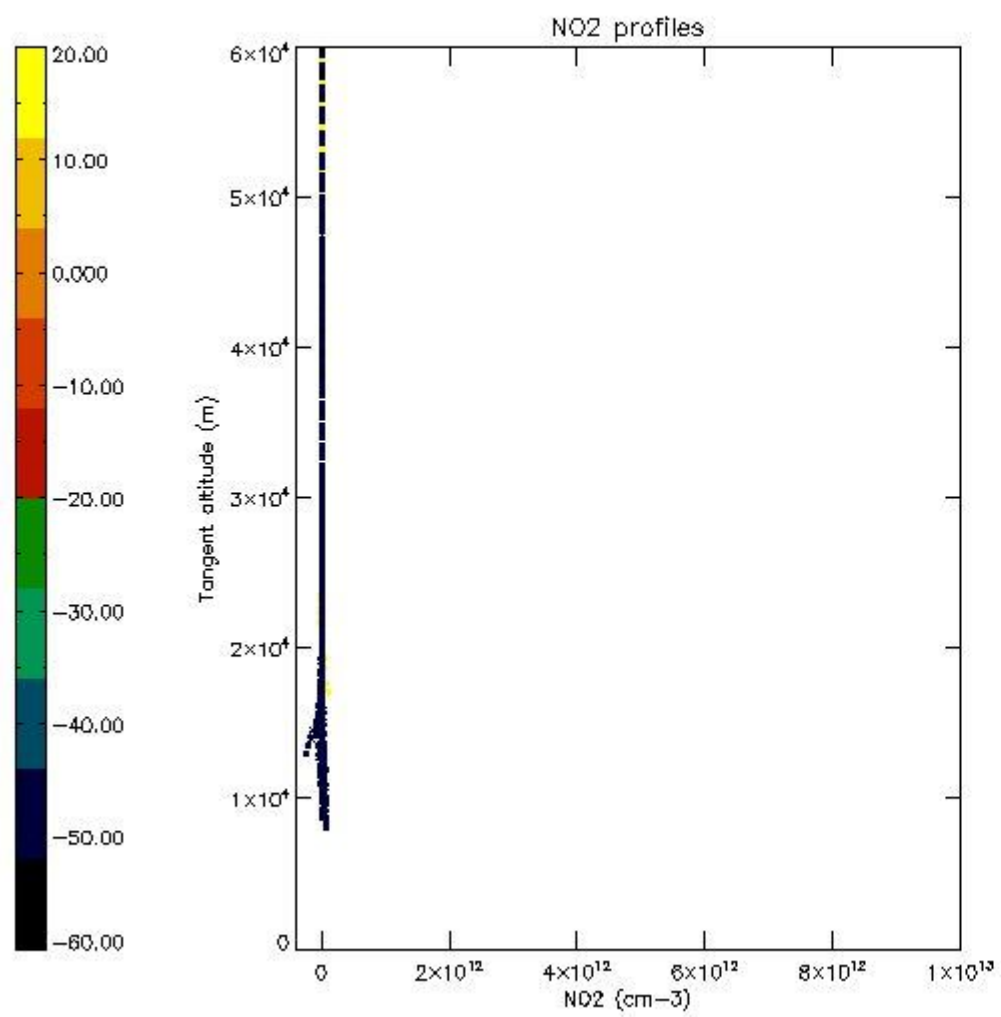
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



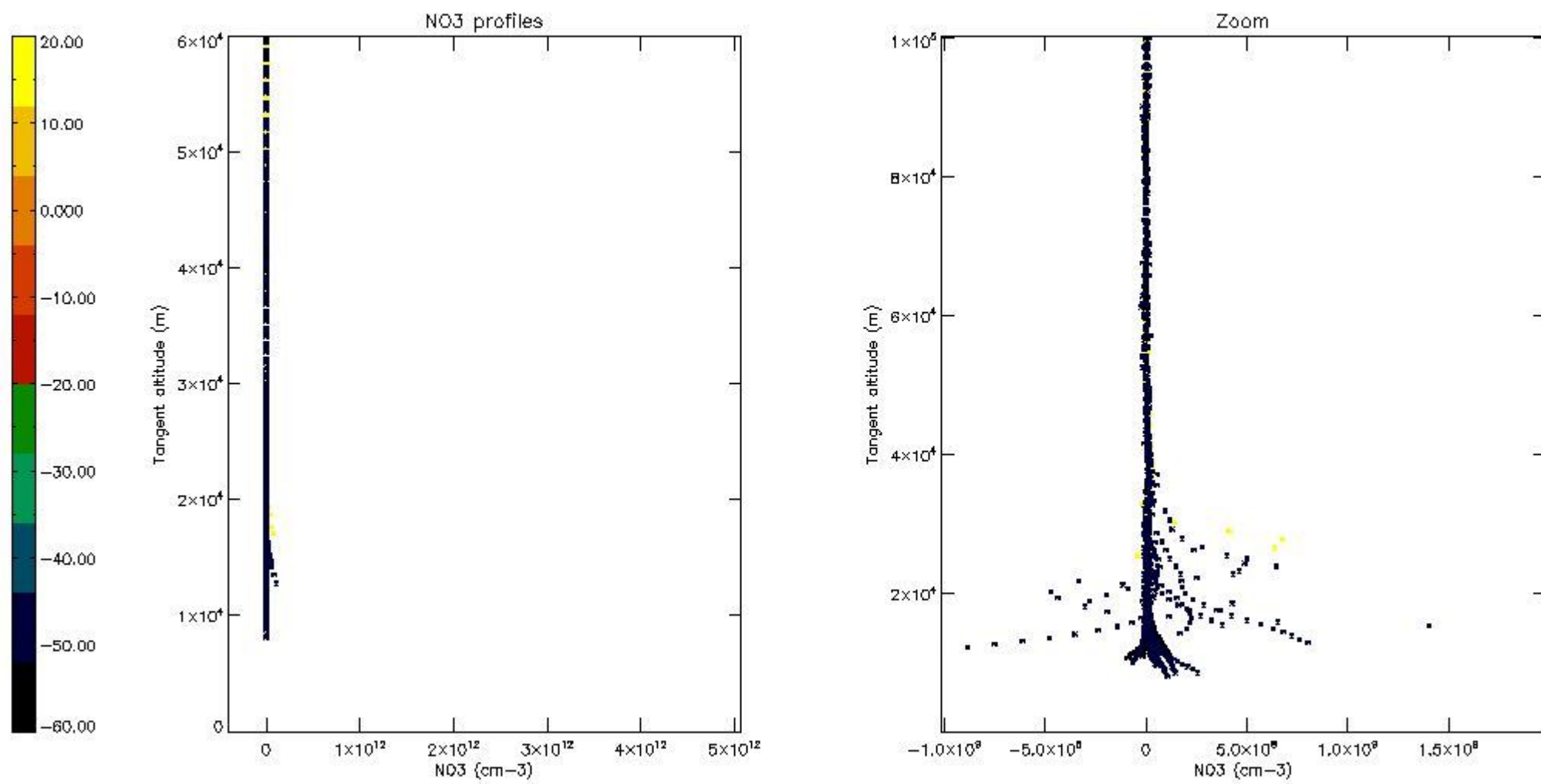
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



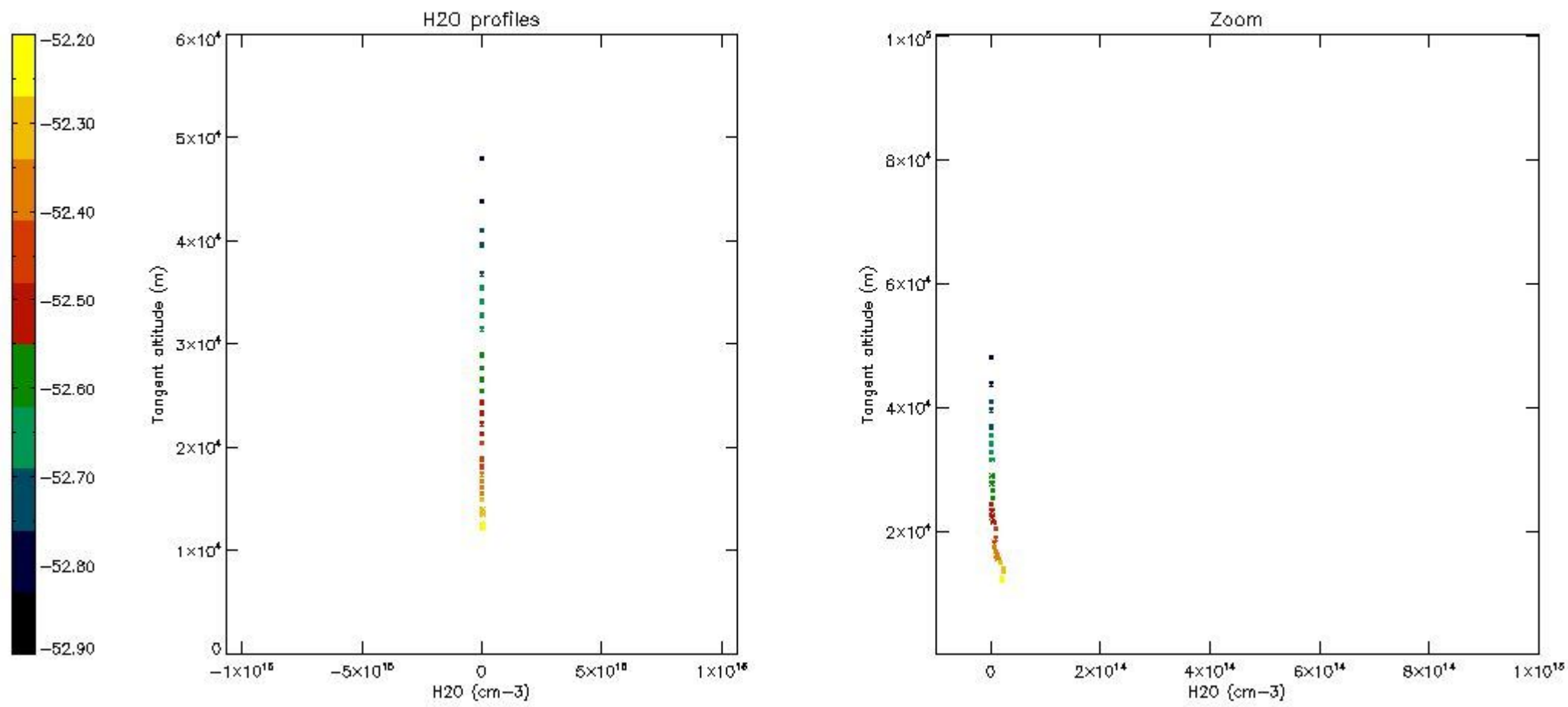
5.7 Plot NO3 profiles for all STD (dark without errors)

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	03-SEP-2011 00:06:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	03-SEP-2011 00:06:33
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	03-SEP-2011 00:06:33

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 17:34:27
Data source version	GOMOS/6.01
Start time of products	03-09-2011 (03SEP2011 00:00:00)
Stop time of products	04-09-2011 (04SEP2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	58
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

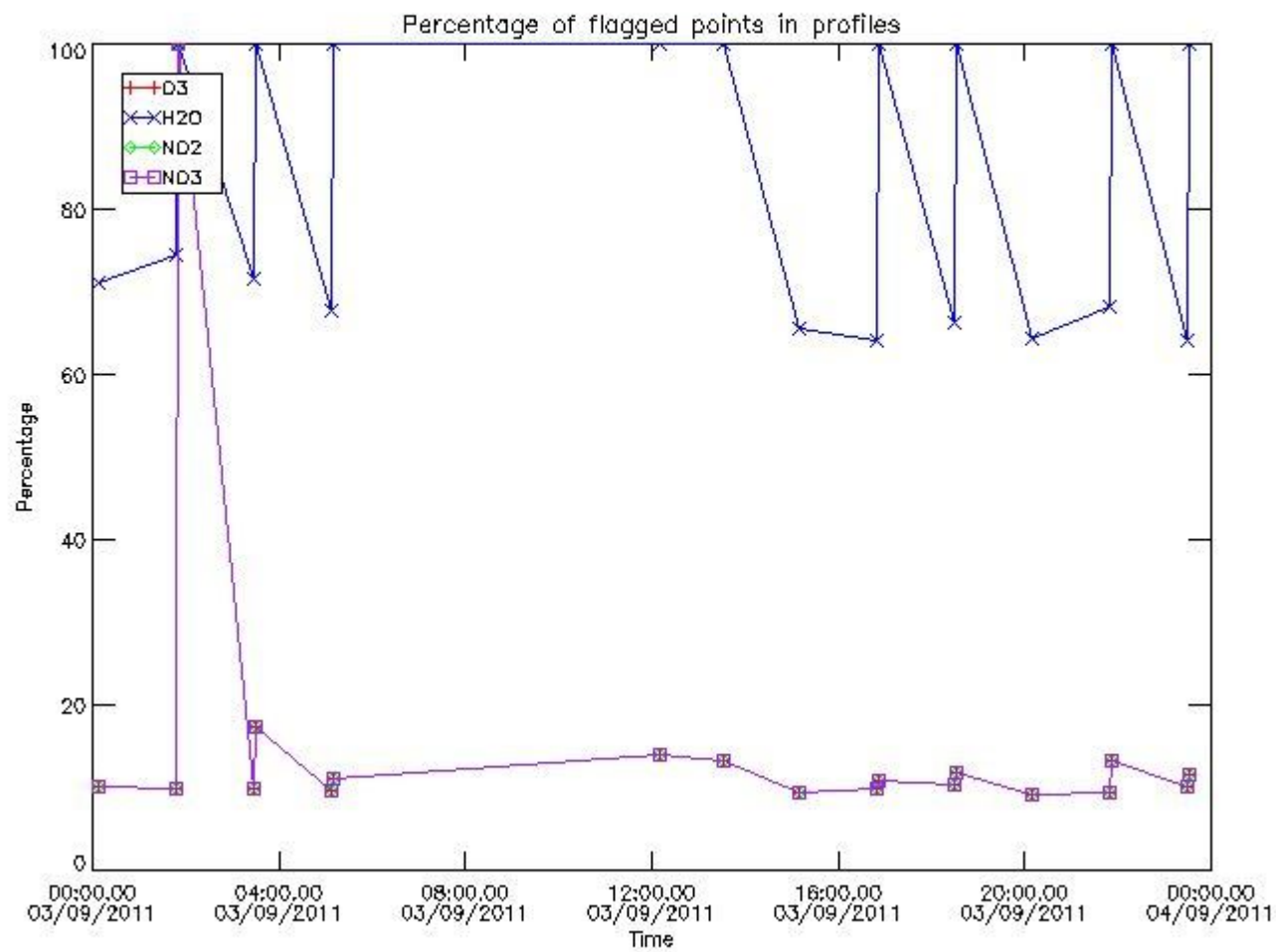
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20110903_000633_000000513106_00145_49728_9889.N1	03-SEP-2011 00:06:33	Dark	50.500	1	9Alp CMa	-1.4400	11000.	101	49728	No
2	GOM_NL__2PRFIN20110903_003328_000000473106_00146_49729_9895.N1	03-SEP-2011 00:33:28	Straylight	46.500	84	Alp Phe	2.3970	4500.0	93	49729	No
3	GOM_NL__2PRFIN20110903_003922_000000253106_00146_49729_9896.N1	03-SEP-2011 00:39:22	Straylight	25.000	18	24Alp PsA	1.1660	9700.0	50	49729	No
4	GOM_NL__2PRFIN20110903_010850_000000443106_00146_49729_9897.N1	03-SEP-2011 01:08:50	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	49729	No
5	GOM_NL__2PRFIN20110903_014647_000000523106_00146_49729_9898.N1	03-SEP-2011 01:46:47	Dark	51.500	1	9Alp CMa	-1.4400	11000.	103	49729	No
6	GOM_NL__2PRFIN20110903_014928_000000463106_00146_49729_9899.N1	03-SEP-2011 01:49:28	Dark	45.500	23	21Eps CMa	1.5020	26000.	91	49729	No
7	GOM_NL__2PRFIN20110903_021936_000000463106_00147_49730_9901.N1	03-SEP-2011 02:19:36	Straylight	46.000	18	24Alp PsA	1.1660	9700.0	92	49730	No
8	GOM_NL__2PRFIN20110903_024903_000000433106_00147_49730_9902.N1	03-SEP-2011 02:49:03	Bright	42.500	74	11Bet Cas	2.2680	6600.0	85	49730	No
9	GOM_NL__2PRFIN20110903_032702_000000523106_00147_49730_9903.N1	03-SEP-2011 03:27:02	Dark	51.500	1	9Alp CMa	-1.4400	11000.	103	49730	No
10	GOM_NL__2PRFIN20110903_032943_000000473106_00147_49730_9904.N1	03-SEP-2011 03:29:43	Dark	47.000	23	21Eps CMa	1.5020	26000.	94	49730	No
11	GOM_NL__2PRFIN20110903_042917_000000433106_00148_49731_9917.N1	03-SEP-2011 04:29:17	Bright	43.000	74	11Bet Cas	2.2680	6600.0	86	49731	No
12	GOM_NL__2PRFIN20110903_050717_000000533106_00148_49731_9918.N1	03-SEP-2011 05:07:17	Dark	53.000	1	9Alp CMa	-1.4400	11000.	106	49731	No
13	GOM_NL__2PRFIN20110903_050957_000000463106_00148_49731_9919.N1	03-SEP-2011 05:09:57	Dark	46.000	23	21Eps CMa	1.5020	26000.	92	49731	No
14	GOM_NL__2PRFIN20110903_054005_000000473106_00149_49732_9931.N1	03-SEP-2011 05:40:05	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	49732	No
15	GOM_NL__2PRFIN20110903_054916_000000403106_00149_49732_9932.N1	03-SEP-2011 05:49:16	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49732	No
16	GOM_NL__2PRFIN20110903_060930_000000313106_00149_49732_9933.N1	03-SEP-2011 06:09:30	Twilight	31.000	74	11Bet Cas	2.2680	6600.0	62	49732	No
17	GOM_NL__2PRFIN20110903_120915_000000443106_00153_49736_0062.N1	03-SEP-2011 12:09:15	Dark	44.000	9	Alp Eri	0.45300	24000.	88	49736	No
18	GOM_NL__2PRFIN20110903_121510_000000563106_00153_49736_0063.N1	03-SEP-2011 12:15:10	Straylight	56.000	84	Alp Phe	2.3970	4500.0	112	49736	No
19	GOM_NL__2PRFIN20110903_122101_000000443106_00153_49736_0064.N1	03-SEP-2011 12:21:01	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49736	No
20	GOM_NL__2PRFIN20110903_123012_000000403106_00153_49736_0065.N1	03-SEP-2011 12:30:12	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49736	No
21	GOM_NL__2PRFIN20110903_123953_000000433106_00153_49736_0066.N1	03-SEP-2011 12:39:53	Bright	43.000	164	44Eta Peg	2.9480	5400.0	86	49736	No
22	GOM_NL__2PRFIN20110903_132036_000000513106_00153_49736_0067.N1	03-SEP-2011 13:20:36	Twilight	50.500	8	10Alp CMi	0.40000	6500.0	101	49736	No
23	GOM_NL__2PRFIN20110903_133110_000000463106_00153_49736_0068.N1	03-SEP-2011 13:31:10	Dark	46.000	23	21Eps CMa	1.5020	26000.	92	49736	No
24	GOM_NL__2PRFIN20110903_135524_000000463106_00154_49737_0121.N1	03-SEP-2011 13:55:24	Straylight	45.500	84	Alp Phe	2.3970	4500.0	91	49737	No
25	GOM_NL__2PRFIN20110903_140116_000000473106_00154_49737_0122.N1	03-SEP-2011 14:01:16	Straylight	46.500	18	24Alp PsA	1.1660	9700.0	93	49737	No
26	GOM_NL__2PRFIN20110903_143037_000000413106_00154_49737_0123.N1	03-SEP-2011 14:30:37	Bright	41.000	74	11Bet Cas	2.2680	6600.0	82	49737	No
27	GOM_NL__2PRFIN20110903_145852_000000523106_00154_49737_0124.N1	03-SEP-2011 14:58:52	Twilight	52.000	44	24Gam Gem	1.9280	11000.	104	49737	No
28	GOM_NL__2PRFIN20110903_150051_000000533106_00154_49737_0125.N1	03-SEP-2011 15:00:51	Twilight	52.500	8	10Alp CMi	0.40000	6500.0	105	49737	No
29	GOM_NL__2PRFIN20110903_150845_000000543106_00154_49737_0126.N1	03-SEP-2011 15:08:45	Dark	54.000	1	9Alp CMa	-1.4400	11000.	108	49737	No
30	GOM_NL__2PRFIN20110903_153539_000000553106_00155_49738_0189.N1	03-SEP-2011 15:35:39	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	49738	No
31	GOM_NL__2PRFIN20110903_154130_000000473106_00155_49738_0190.N1	03-SEP-2011 15:41:30	Straylight	47.000	18	24Alp PsA	1.1660	9700.0	94	49738	No
32	GOM_NL__2PRFIN20110903_155040_000000403106_00155_49738_0191.N1	03-SEP-2011 15:50:40	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49738	No
33	GOM_NL__2PRFIN20110903_161051_000000443106_00155_49738_0192.N1	03-SEP-2011 16:10:51	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	49738	No
34	GOM_NL__2PRFIN20110903_164859_000000523106_00155_49738_0193.N1	03-SEP-2011 16:48:59	Dark	52.000	1	9Alp CMa	-1.4400	11000.	104	49738	No
35	GOM_NL__2PRFIN20110903_165139_000000473106_00155_49738_0194.N1	03-SEP-2011 16:51:39	Dark	46.500	23	21Eps CMa	1.5020	26000.	93	49738	No
36	GOM_NL__2PRFIN20110903_171553_000000453106_00156_49739_0204.N1	03-SEP-2011 17:15:53	Straylight	45.000	84	Alp Phe	2.3970	4500.0	90	49739	No
37	GOM_NL__2PRFIN20110903_174034_000000433106_00156_49739_0205.N1	03-SEP-2011 17:40:34	Bright	43.000	164	44Eta Peg	2.9480	5400.0	86	49739	No
38	GOM_NL__2PRFIN20110903_182119_000000483106_00156_49739_0206.N1	03-SEP-2011 18:21:19	Twilight	47.500	8	10Alp CMi	0.40000	6500.0	95	49739	No
39	GOM_NL__2PRFIN20110903_182914_000000503106_00156_49739_0207.N1	03-SEP-2011 18:29:14	Dark	49.500	1	9Alp CMa	-1.4400	11000.	99	49739	No
40	GOM_NL__2PRFIN20110903_183154_000000443106_00156_49739_0208.N1	03-SEP-2011 18:31:54	Dark	43.500	23	21Eps CMa	1.5020	26000.	87	49739	No
41	GOM_NL__2PRFIN20110903_185608_000000553106_00157_49740_0228.N1	03-SEP-2011 18:56:08	Straylight	55.000	84	Alp Phe	2.3970	4500.0	110	49740	No
42	GOM_NL__2PRFIN20110903_190158_000000443106_00157_49740_0229.N1	03-SEP-2011 19:01:58	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49740	No

43	GOM_NL__2PRFIN20110903_191108_000000403106_00157_49740_0230.N1	03-SEP-2011 19:11:08	Bright	40.000	162	34Alp Aqr	2.9440	5350.0	80	49740	No
44	GOM_NL__2PRFIN20110903_193117_000000453106_00157_49740_0231.N1	03-SEP-2011 19:31:17	Bright	44.500	74	11Bet Cas	2.2680	6600.0	89	49740	No
45	GOM_NL__2PRFIN20110903_200929_000000553106_00157_49740_0232.N1	03-SEP-2011 20:09:29	Dark	55.000	1	9Alp CMa	-1.4400	11000.	110	49740	No
46	GOM_NL__2PRFIN20110903_203622_000000473106_00158_49741_0253.N1	03-SEP-2011 20:36:22	Straylight	47.000	84	Alp Phe	2.3970	4500.0	94	49741	No
47	GOM_NL__2PRFIN20110903_204213_000000453106_00158_49741_0254.N1	03-SEP-2011 20:42:13	Straylight	45.000	18	24Alp PsA	1.1660	9700.0	90	49741	No
48	GOM_NL__2PRFIN20110903_205122_000000403106_00158_49741_0255.N1	03-SEP-2011 20:51:22	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	49741	No
49	GOM_NL__2PRFIN20110903_211131_000000433106_00158_49741_0256.N1	03-SEP-2011 21:11:31	Bright	42.500	74	11Bet Cas	2.2680	6600.0	85	49741	No
50	GOM_NL__2PRFIN20110903_214944_000000543106_00158_49741_0257.N1	03-SEP-2011 21:49:44	Dark	54.000	1	9Alp CMa	-1.4400	11000.	108	49741	No
51	GOM_NL__2PRFIN20110903_215223_000000433106_00158_49741_0258.N1	03-SEP-2011 21:52:23	Dark	42.500	23	21Eps CMa	1.5020	26000.	85	49741	No
52	GOM_NL__2PRFIN20110903_221637_000000473106_00159_49742_0318.N1	03-SEP-2011 22:16:37	Straylight	46.500	84	Alp Phe	2.3970	4500.0	93	49742	No
53	GOM_NL__2PRFIN20110903_222227_000000443106_00159_49742_0319.N1	03-SEP-2011 22:22:27	Straylight	44.000	18	24Alp PsA	1.1660	9700.0	88	49742	No
54	GOM_NL__2PRFIN20110903_223136_000000403106_00159_49742_0320.N1	03-SEP-2011 22:31:36	Bright	39.500	162	34Alp Aqr	2.9440	5350.0	79	49742	No
55	GOM_NL__2PRFIN20110903_225144_000000443106_00159_49742_0321.N1	03-SEP-2011 22:51:44	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	49742	No
56	GOM_NL__2PRFIN20110903_232202_000000483106_00159_49742_0322.N1	03-SEP-2011 23:22:02	Twilight	47.500	8	10Alp CMi	0.40000	6500.0	95	49742	No
57	GOM_NL__2PRFIN20110903_232958_000000513106_00159_49742_0323.N1	03-SEP-2011 23:29:58	Dark	50.500	1	9Alp CMa	-1.4400	11000.	101	49742	No
58	GOM_NL__2PRFIN20110903_233237_000000443106_00159_49742_0324.N1	03-SEP-2011 23:32:37	Dark	44.000	23	21Eps CMa	1.5020	26000.	88	49742	No

3. Quality information per product

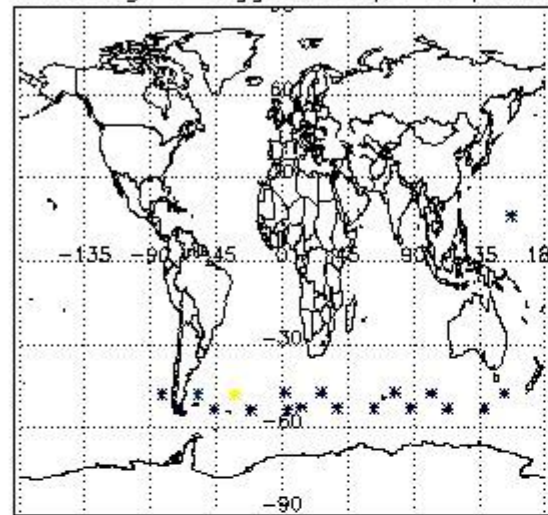
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

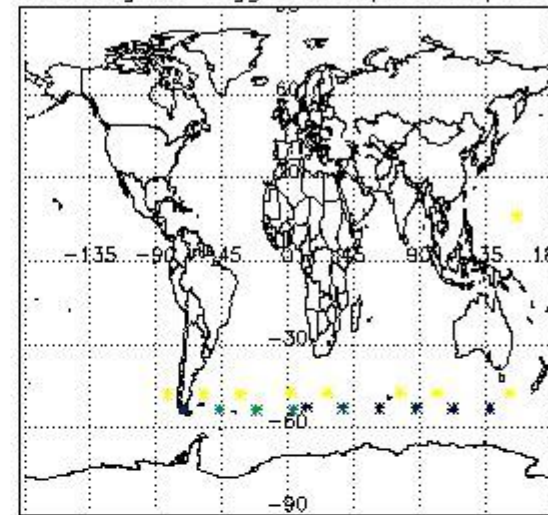


3.2 Plot quality information per product (world map)

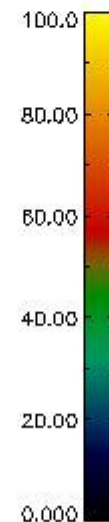
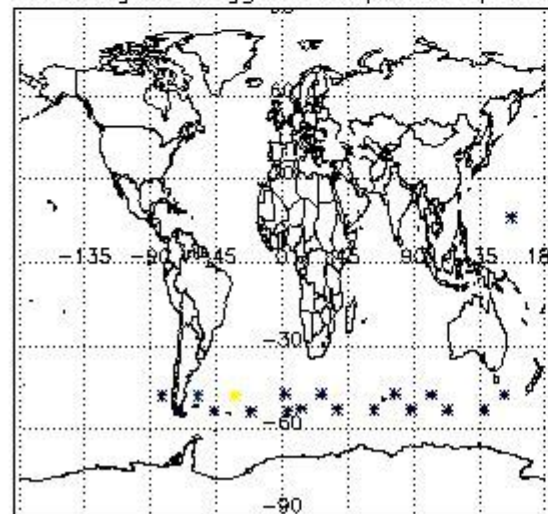
Percentage of flagged data per O3 profile



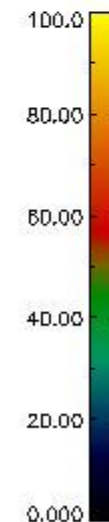
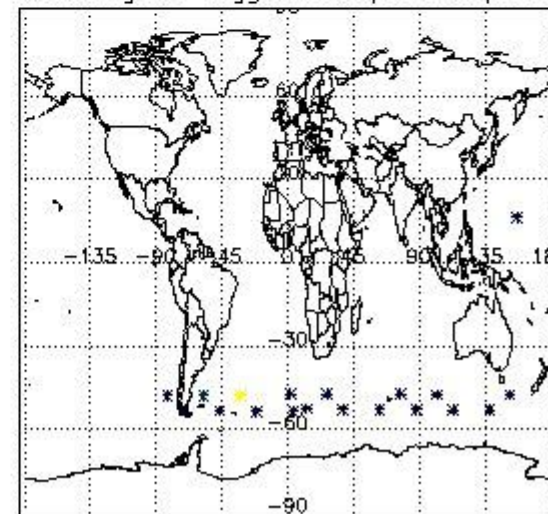
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

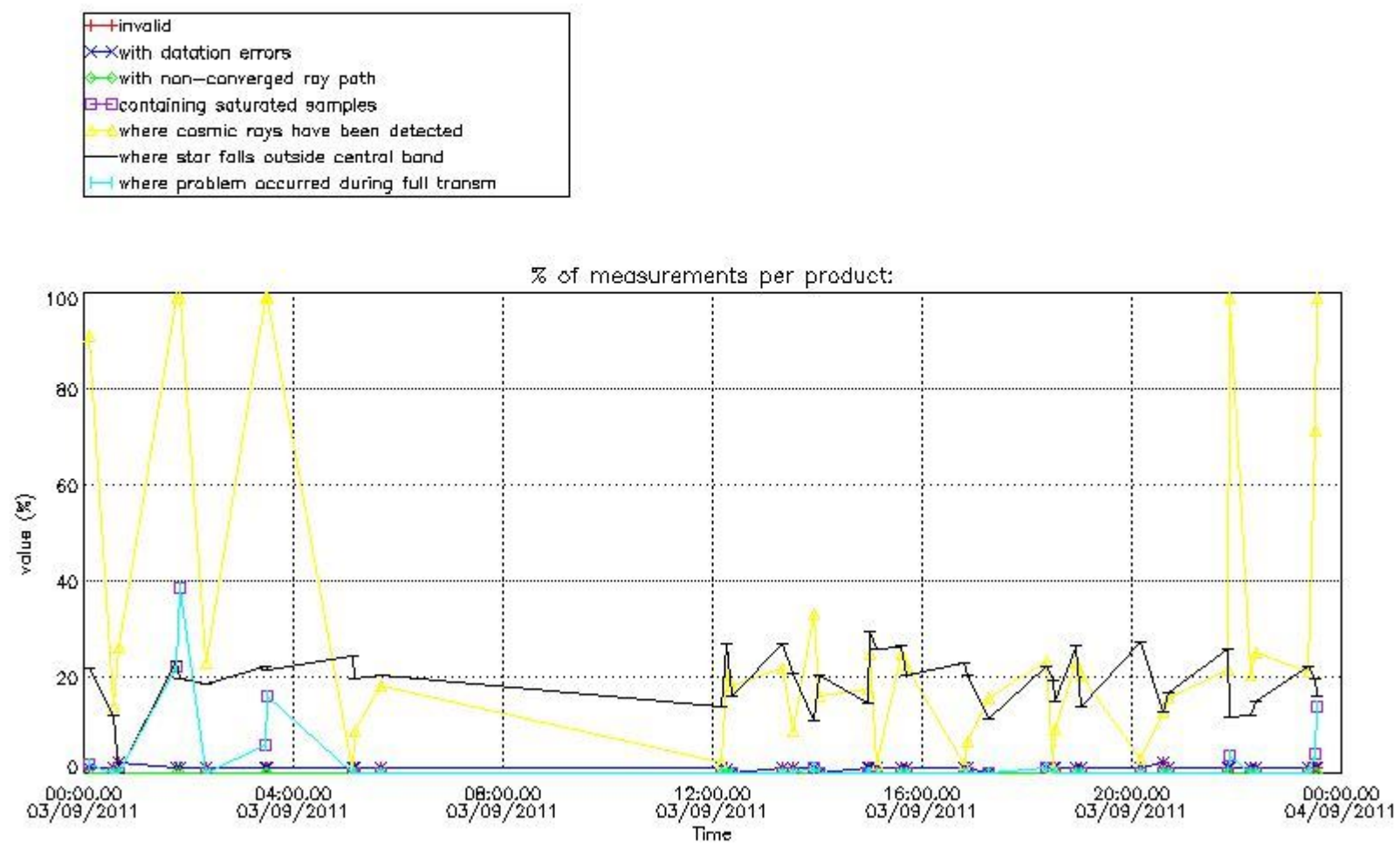


4. Level 1 quality information per product

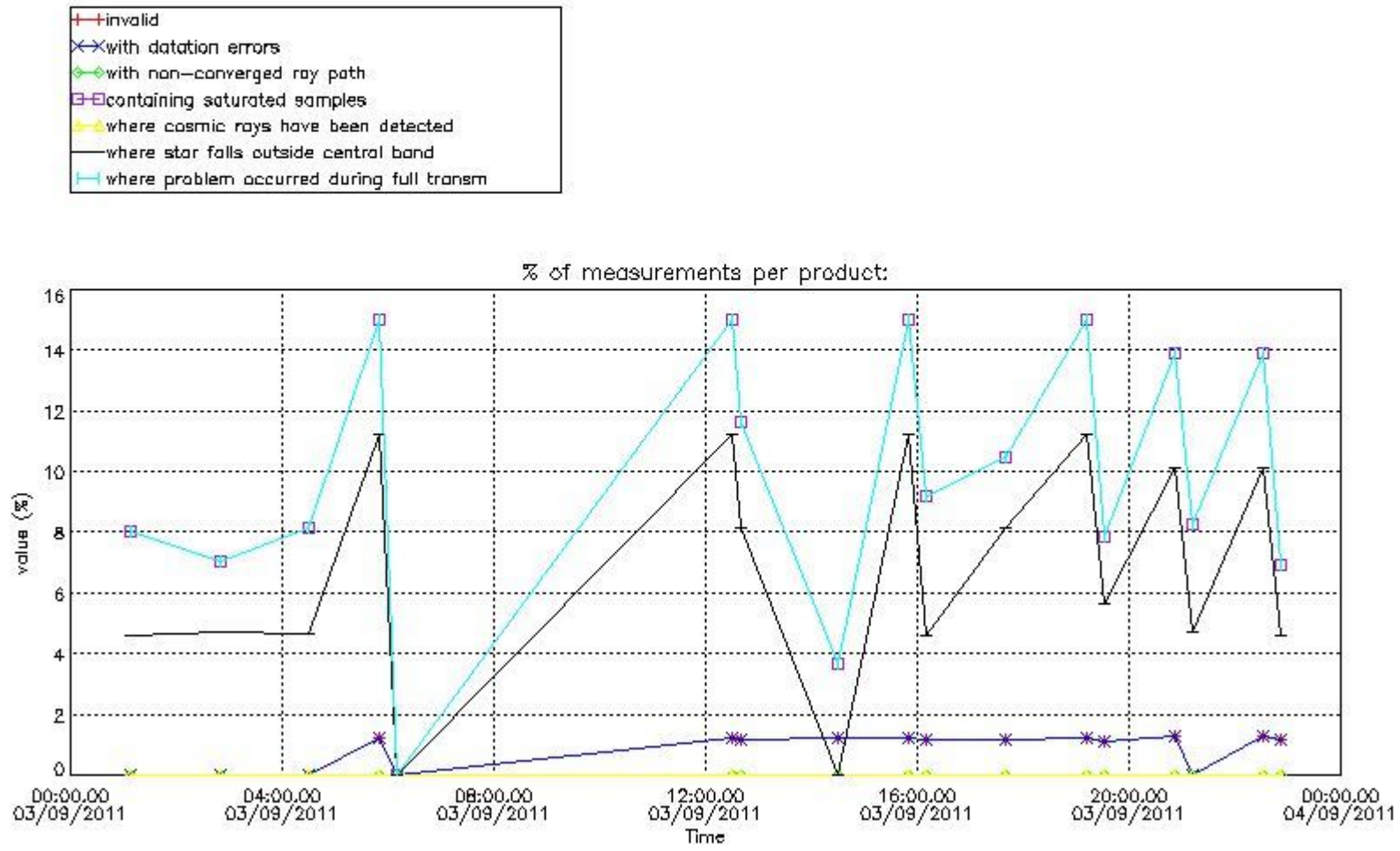
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



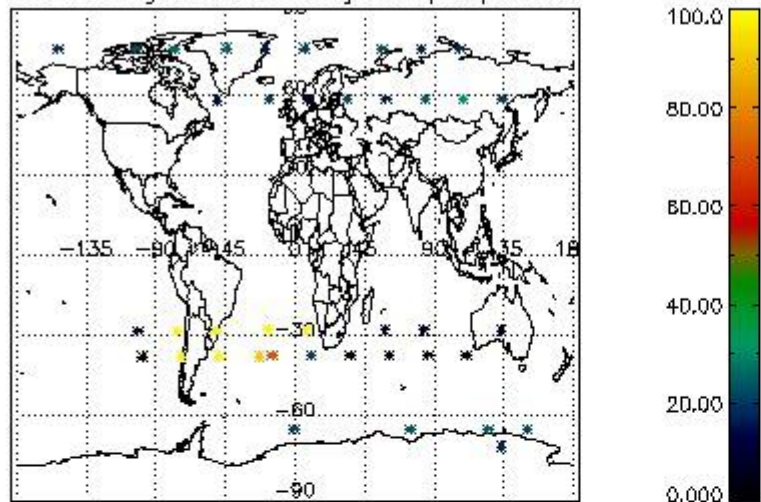
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



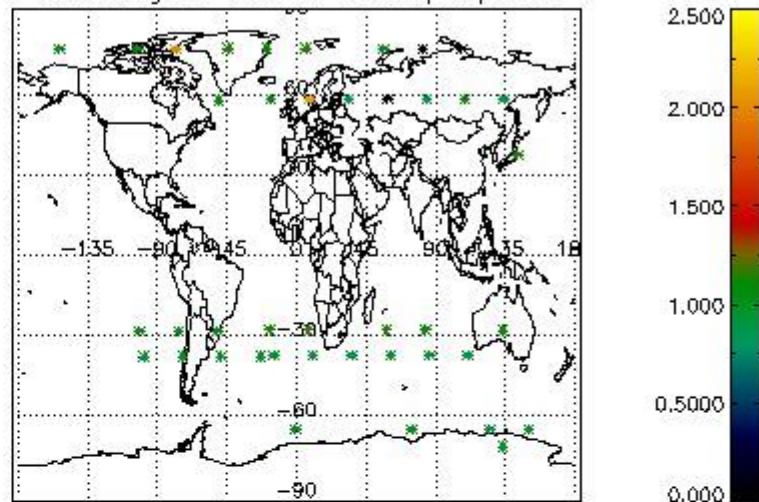
4.2 Plot quality information per product coming from level 1b processing (world map)

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

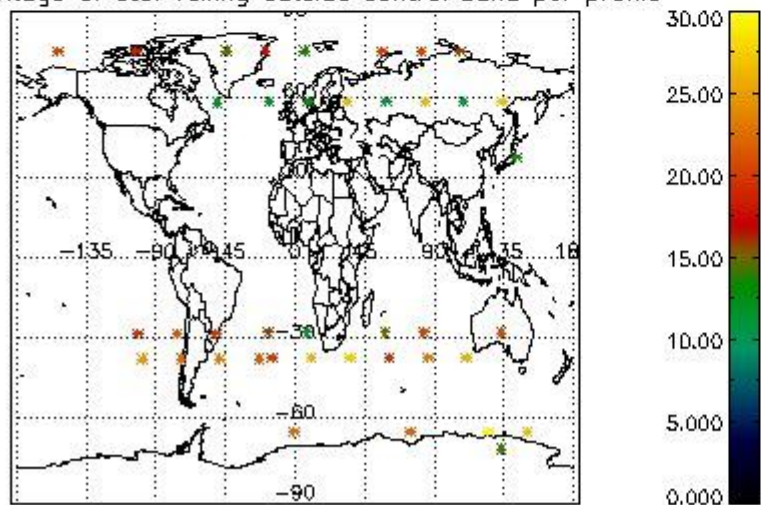
Percentage of cosmic ray hits per profile



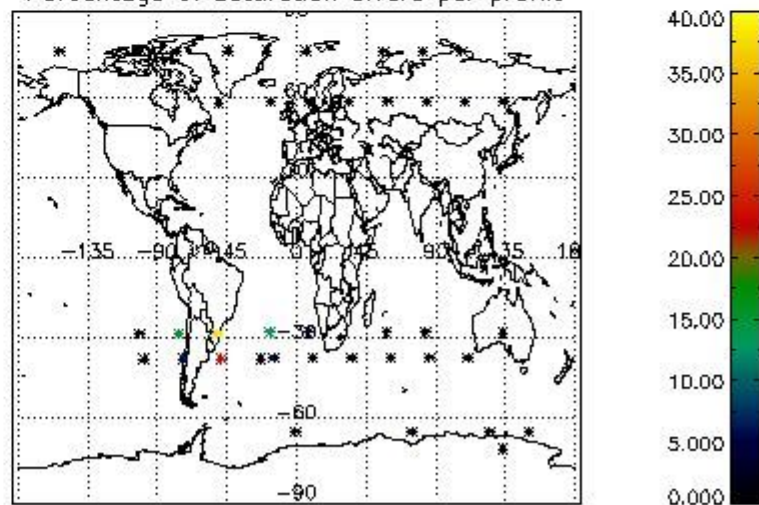
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

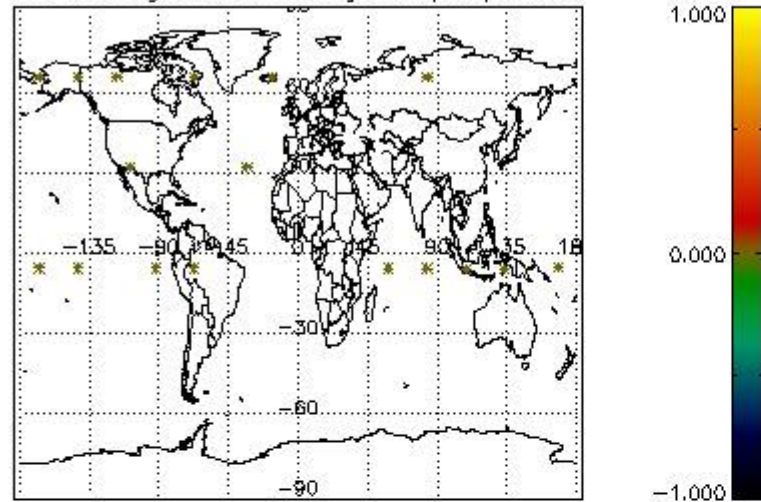


Percentage of saturation errors per profile

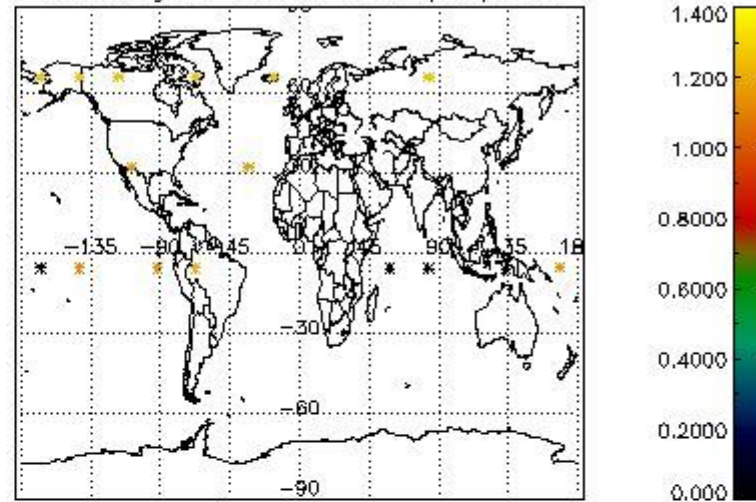


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

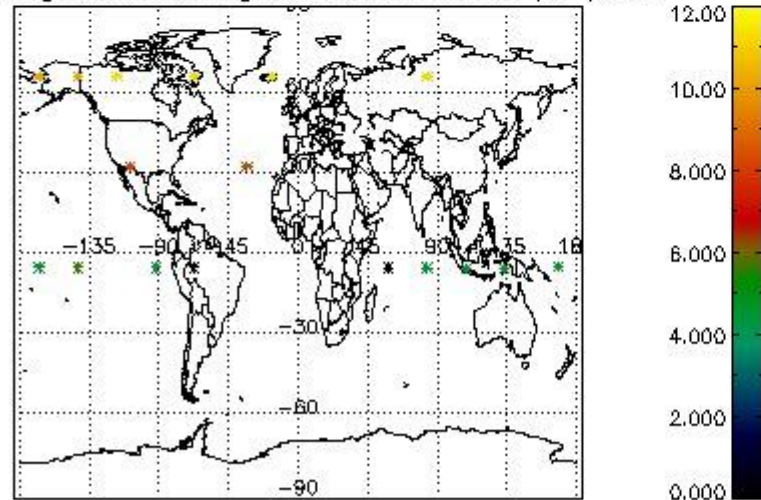
Percentage of cosmic ray hits per profile



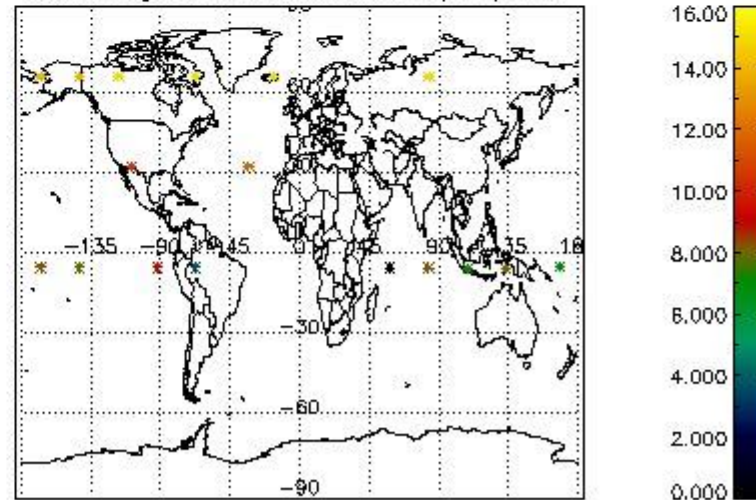
Percentage of datation errors per profile



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

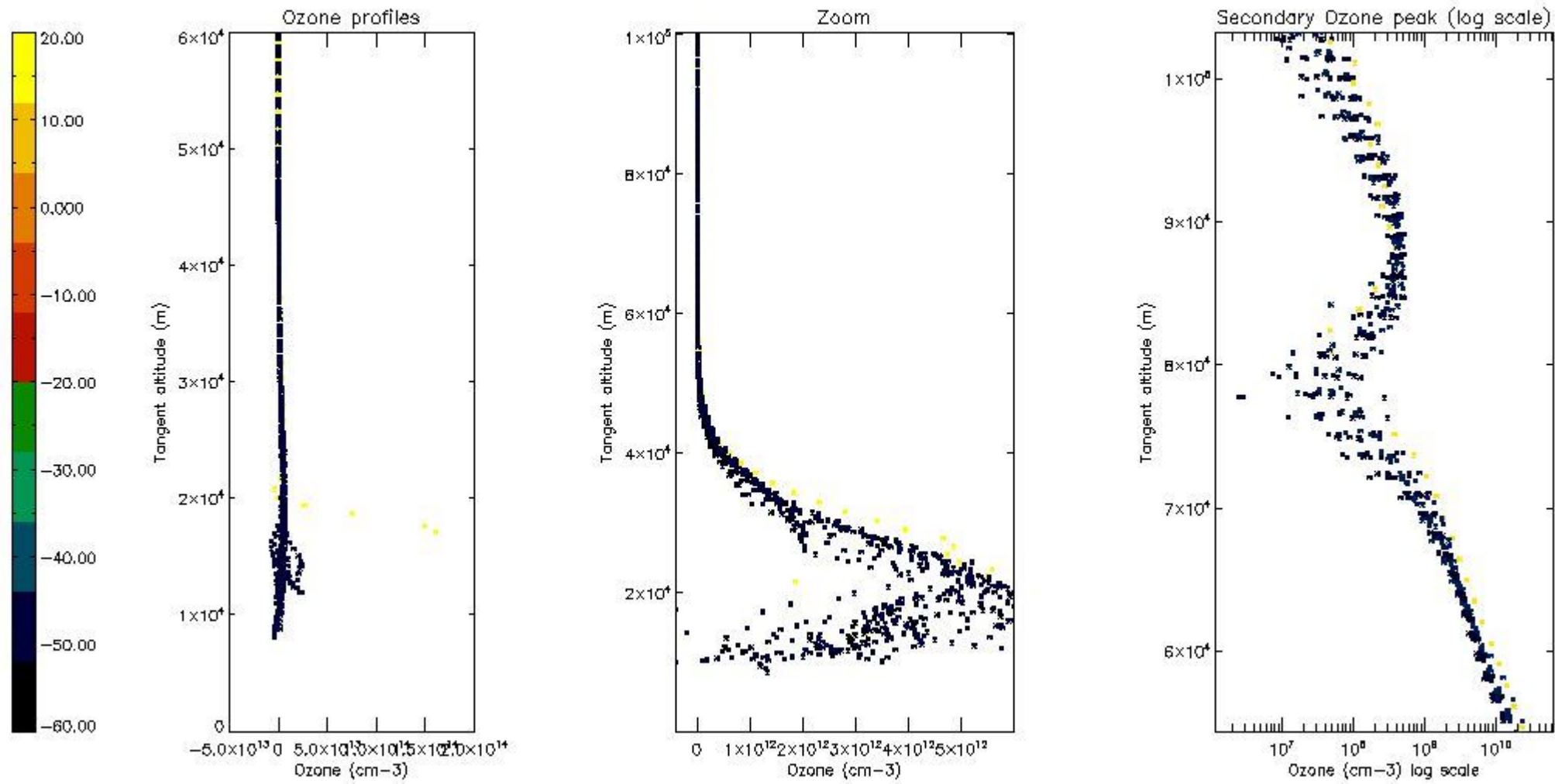
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	26

STD < 10	23
STD < 5	20

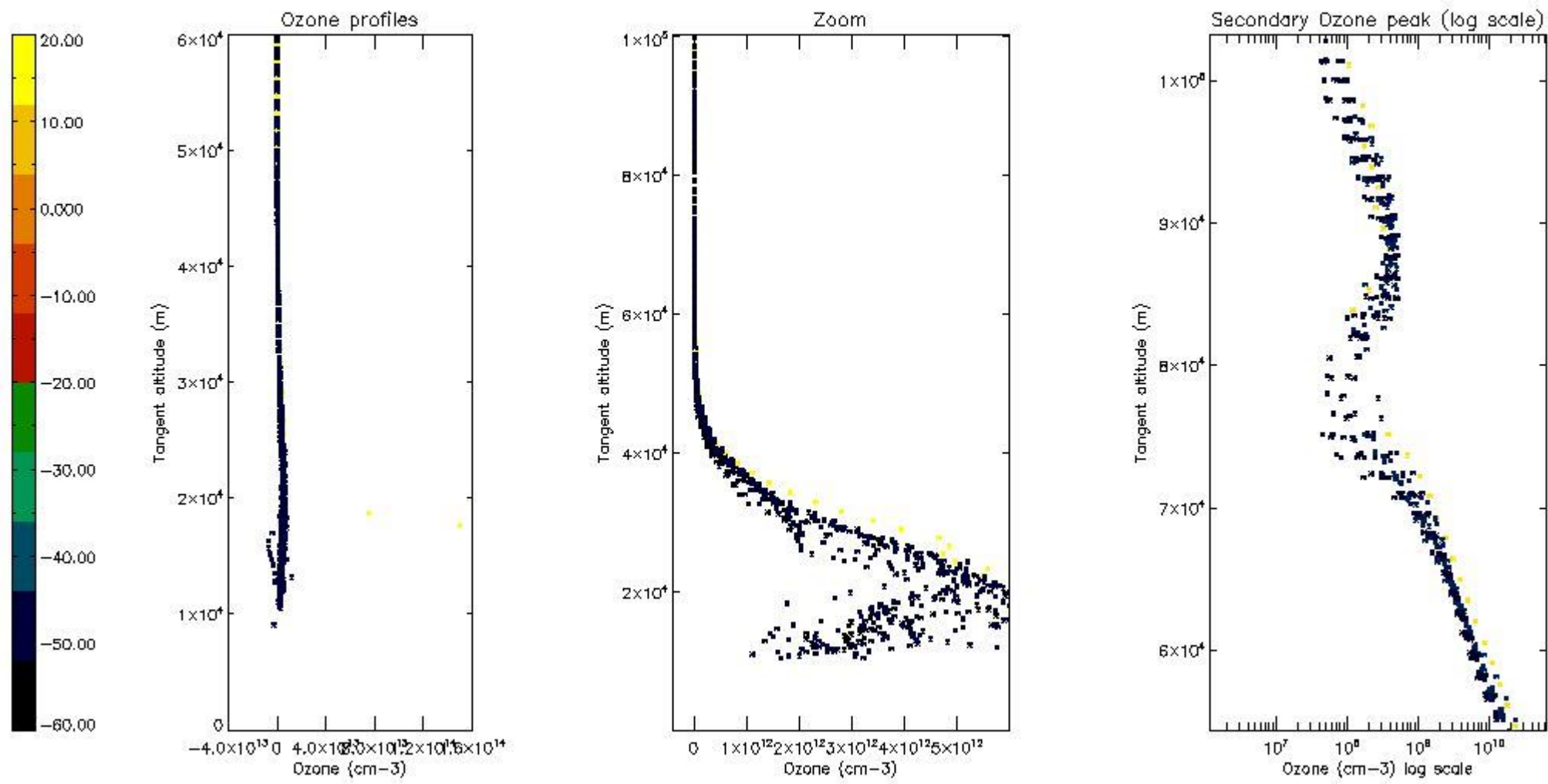
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



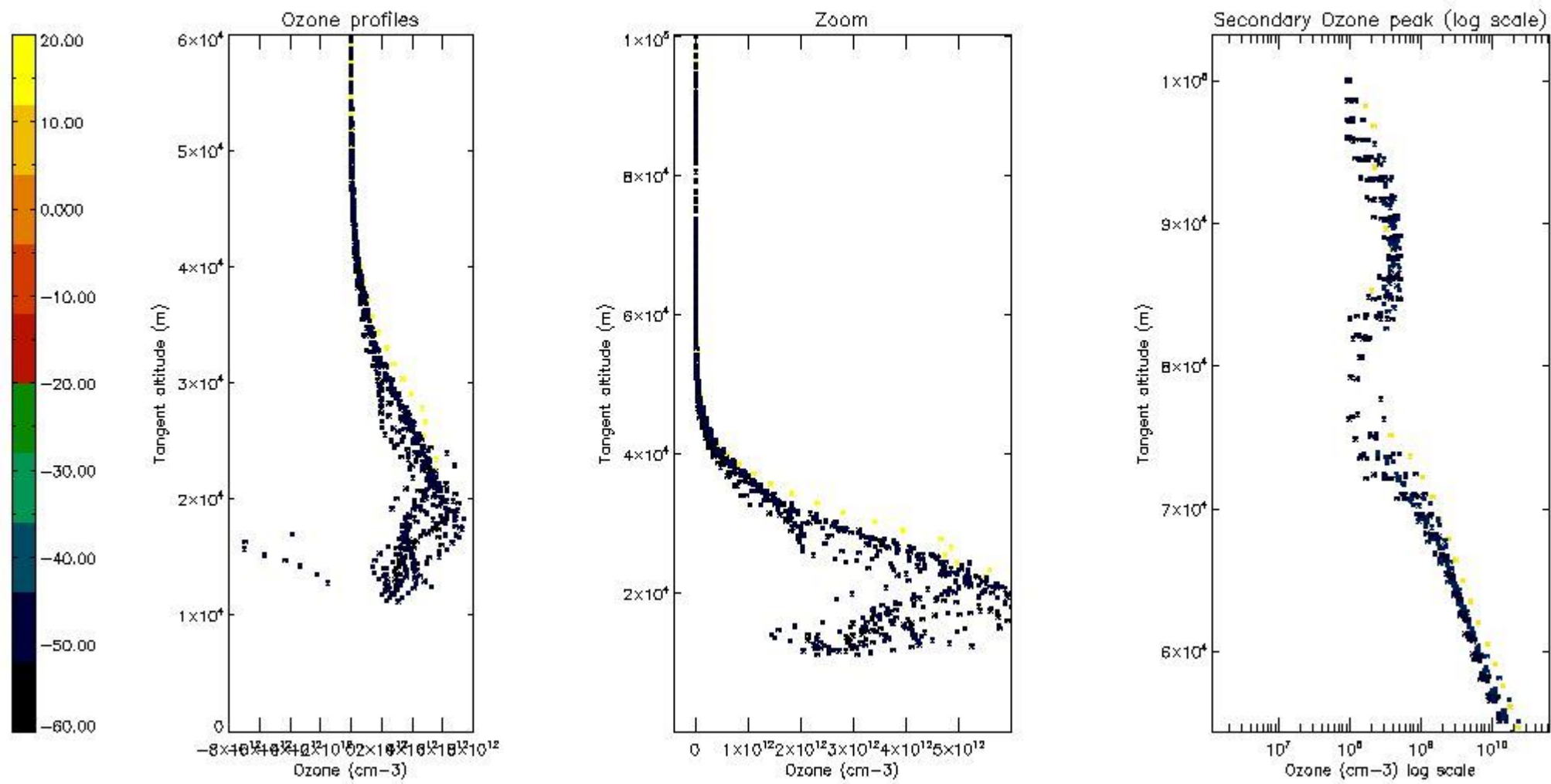
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



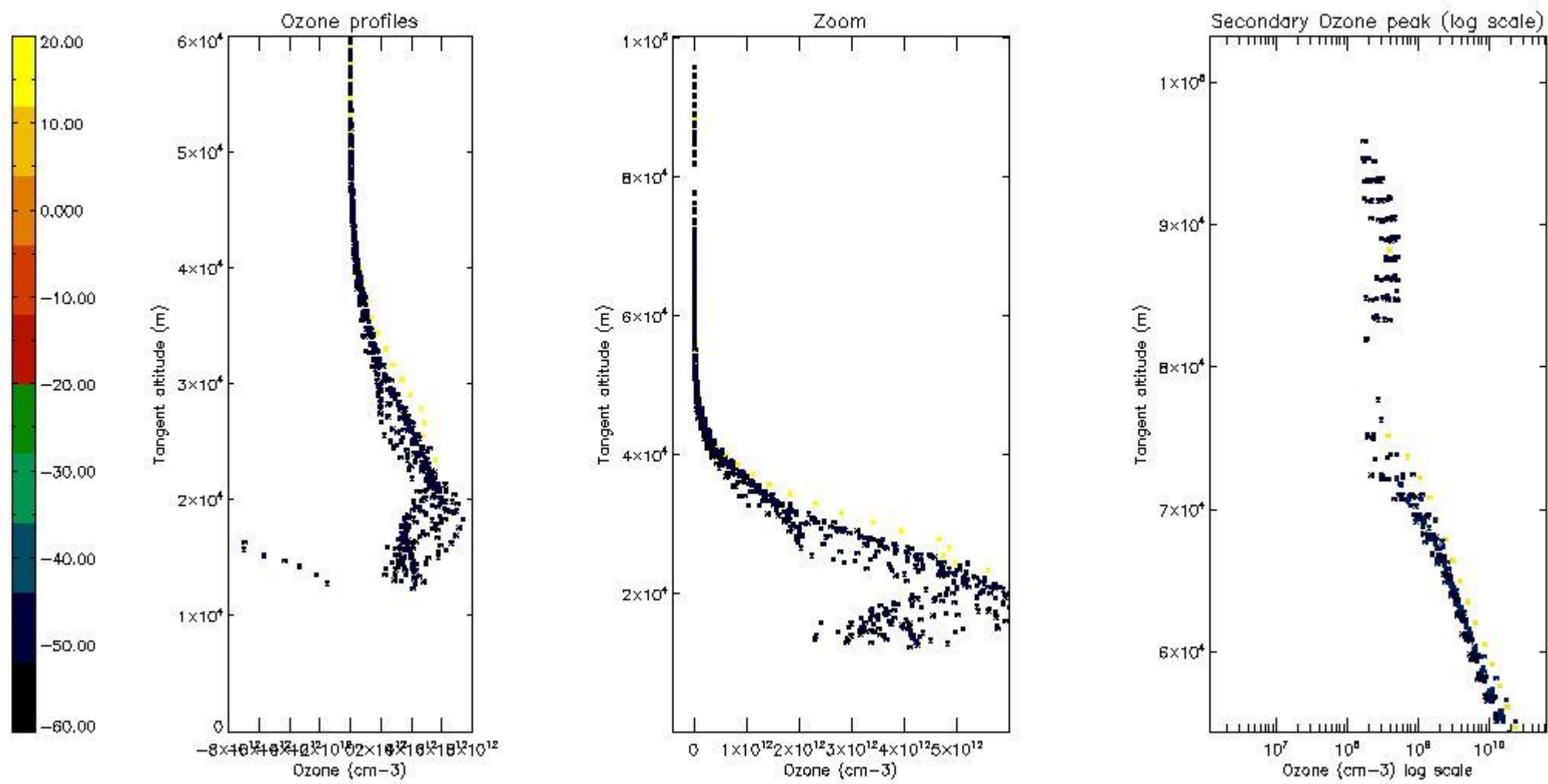
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



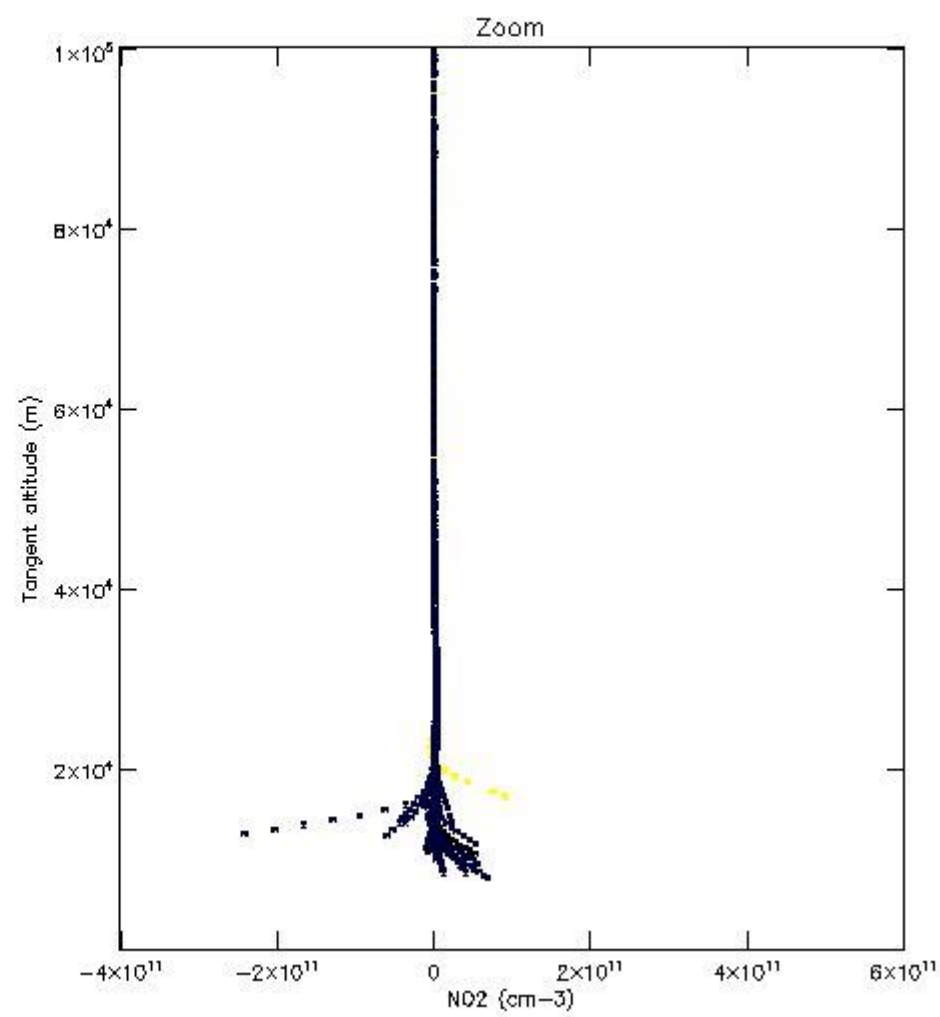
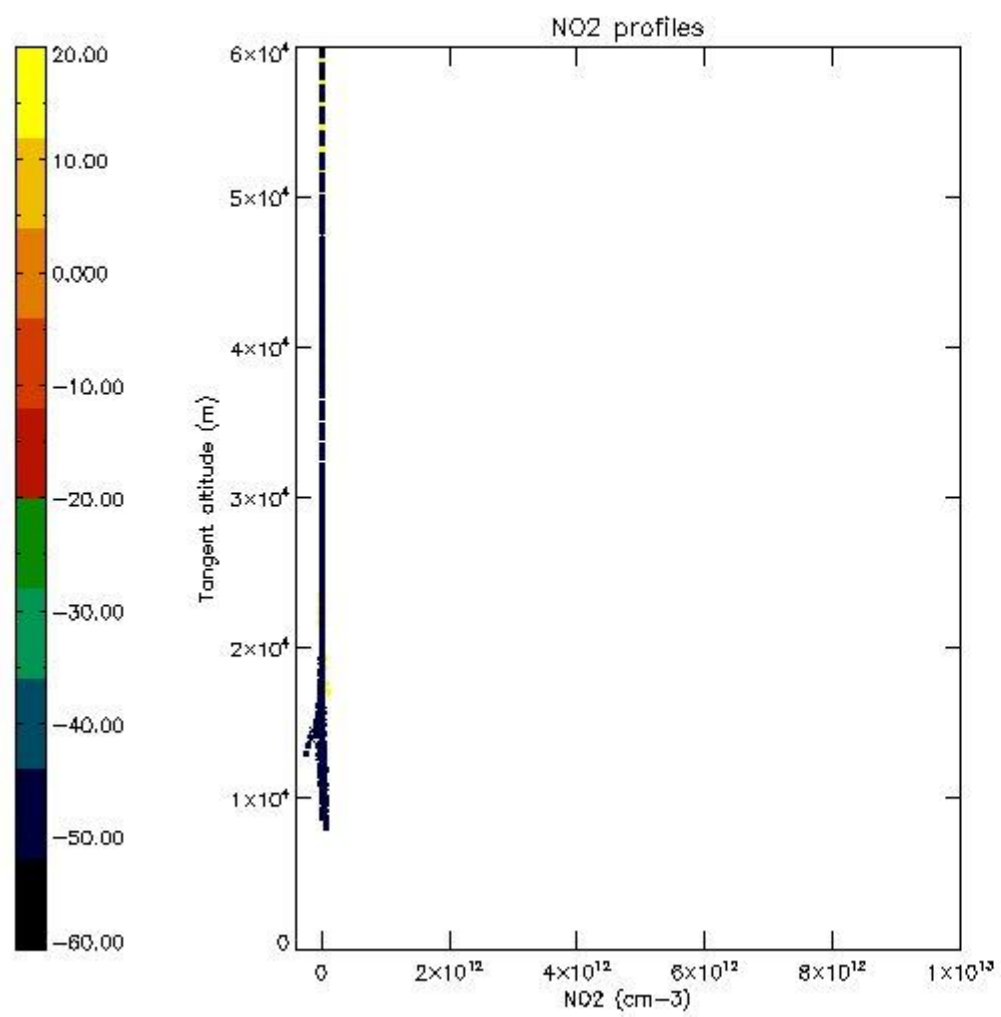
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



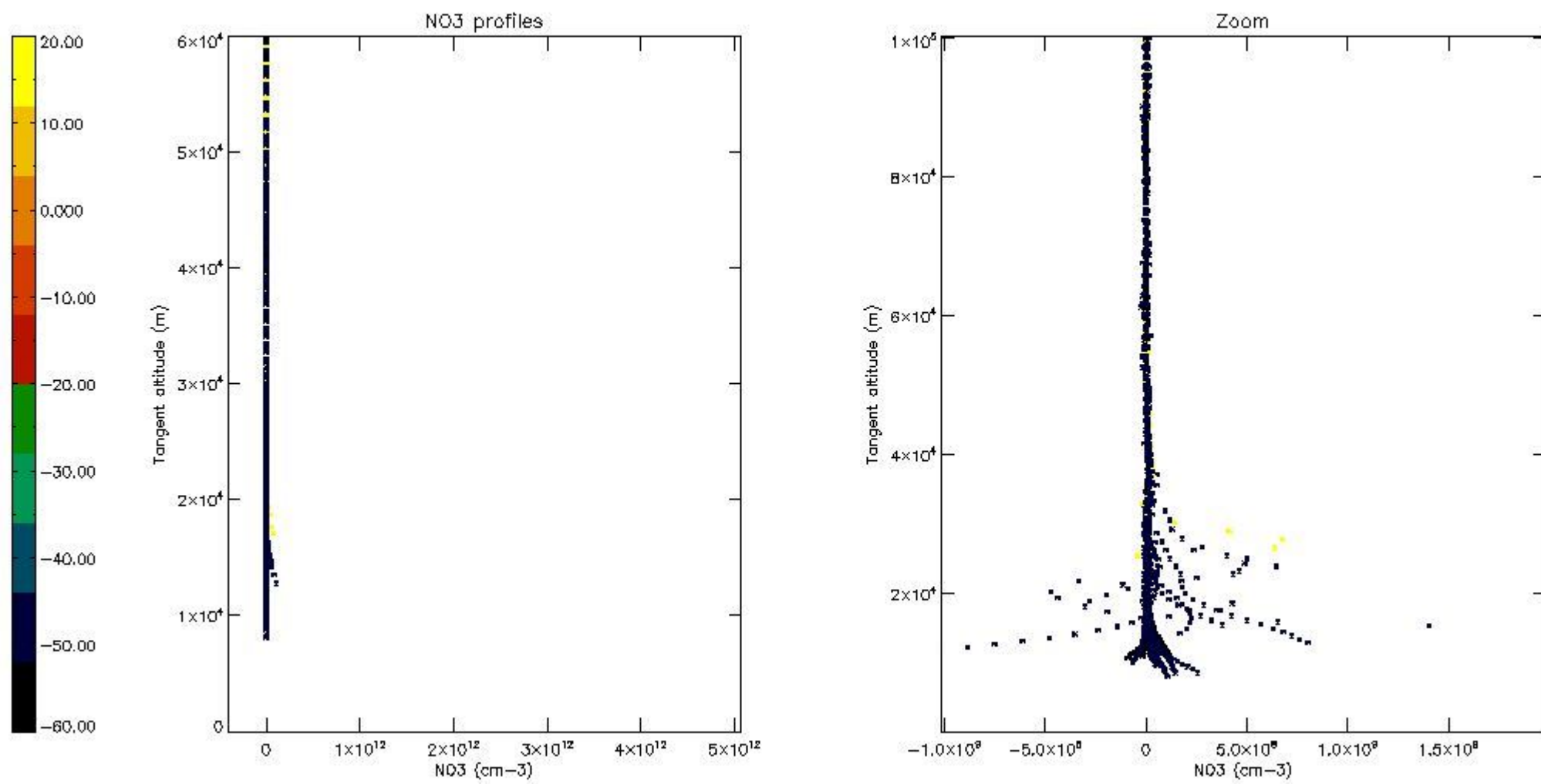
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



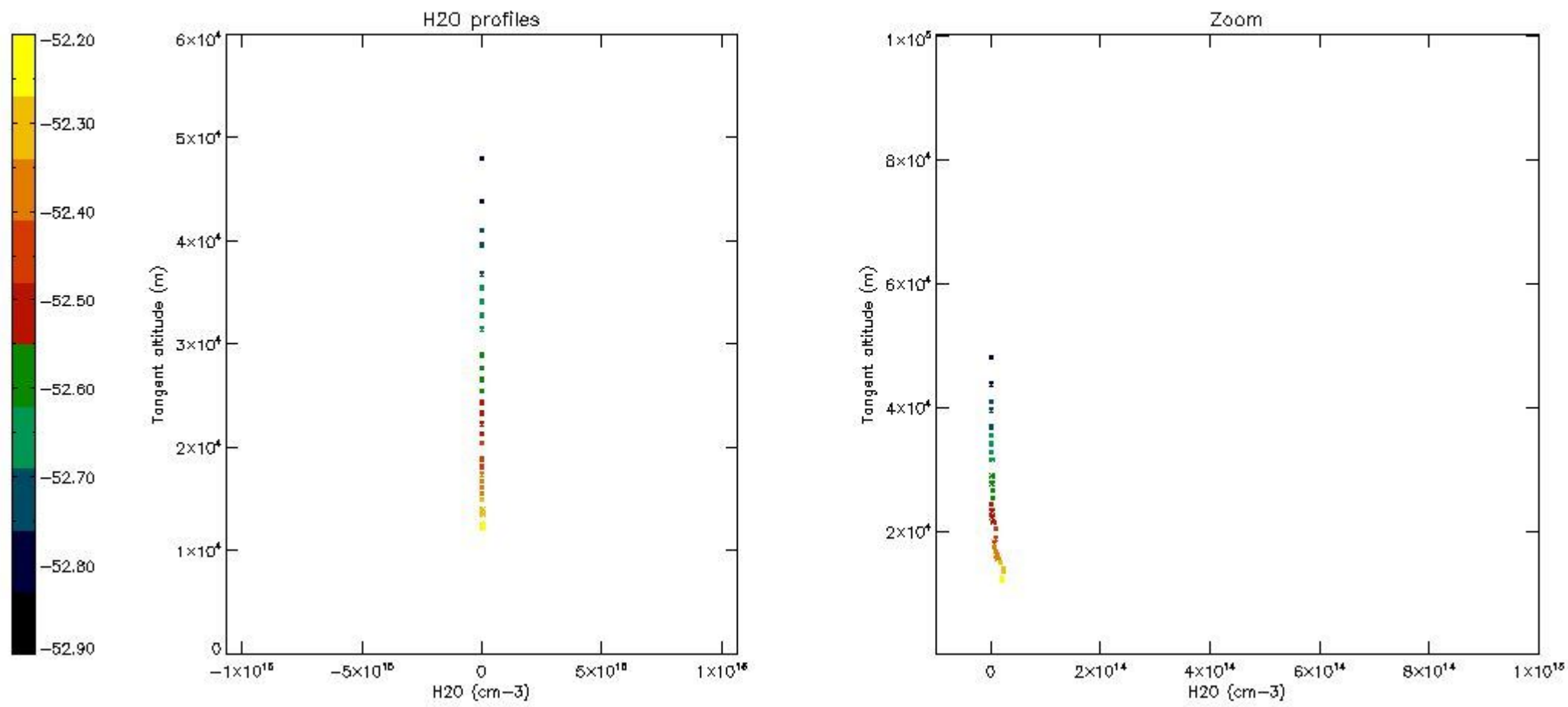
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

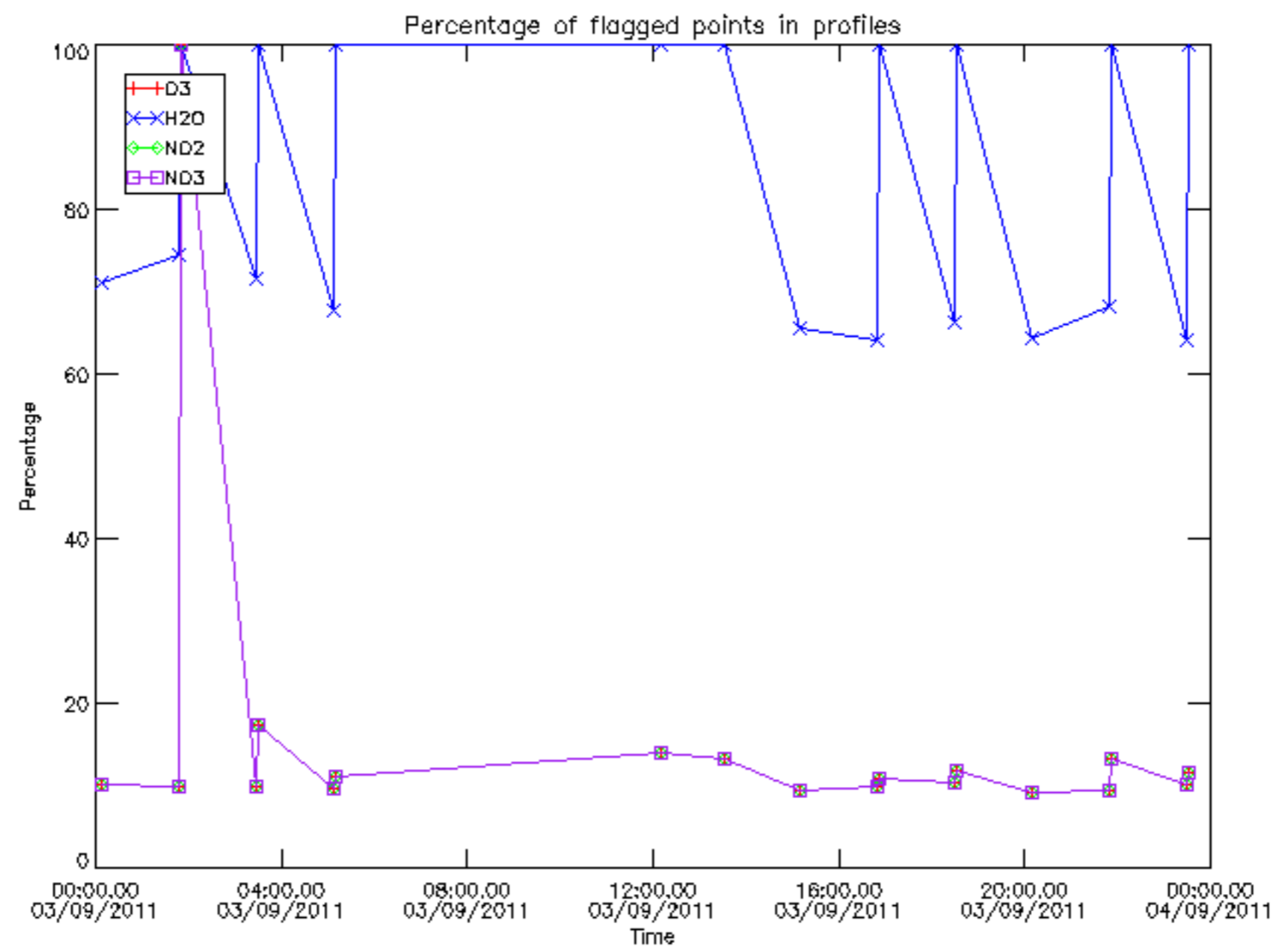
The colorbar represents the latitude.



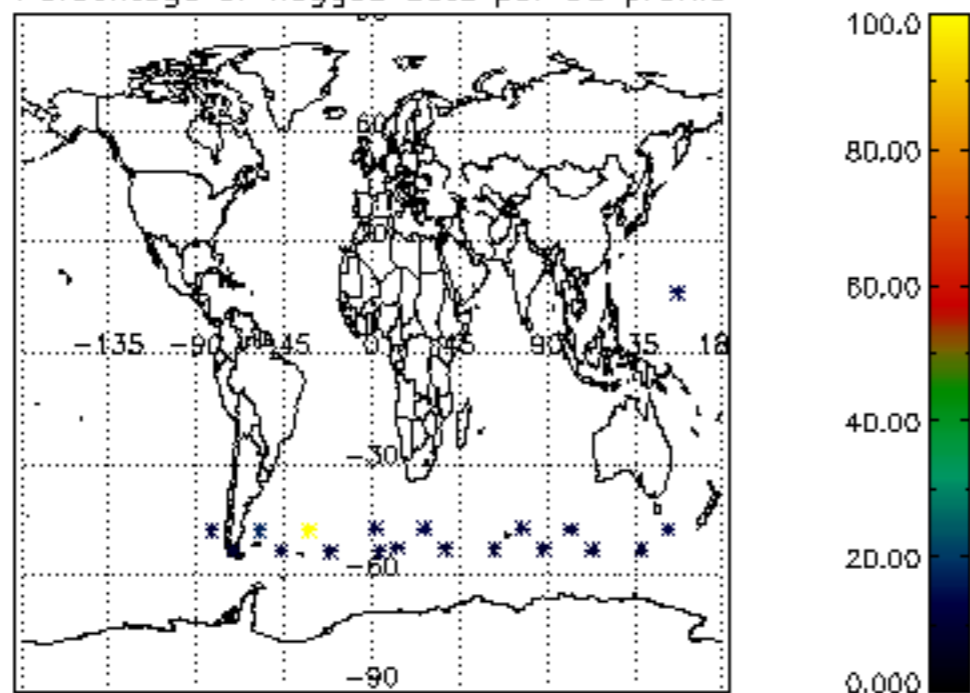
6. Auxiliary Data Files used for the production reported in section 2

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.

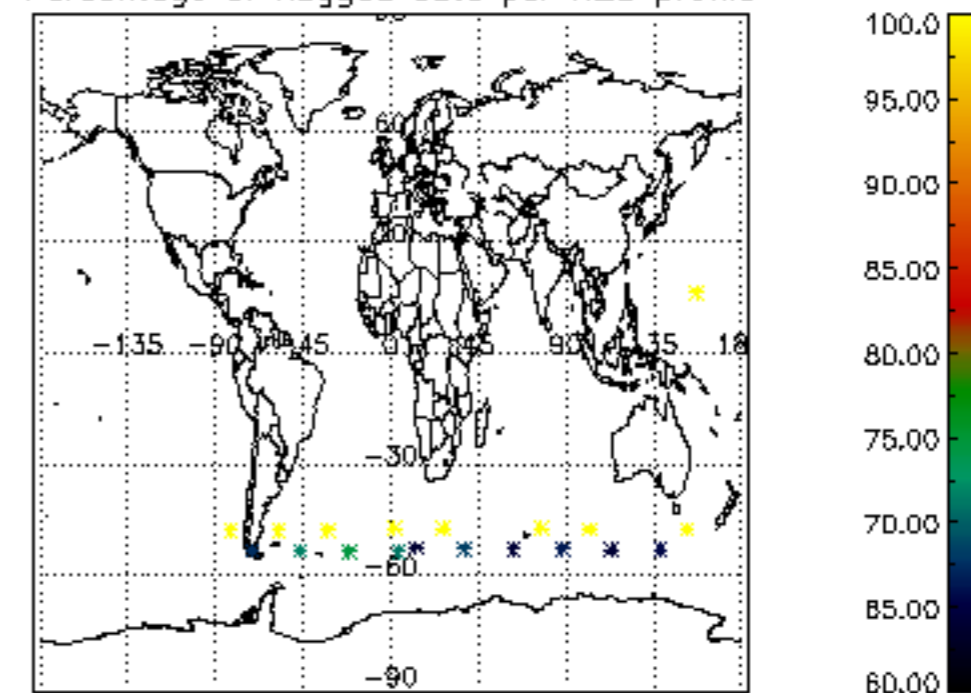
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	03-SEP-2011 00:06:33
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	03-SEP-2011 00:06:33
CROSS_SECTIONS_FILE	GOM_CR2_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	03-SEP-2011 00:06:33



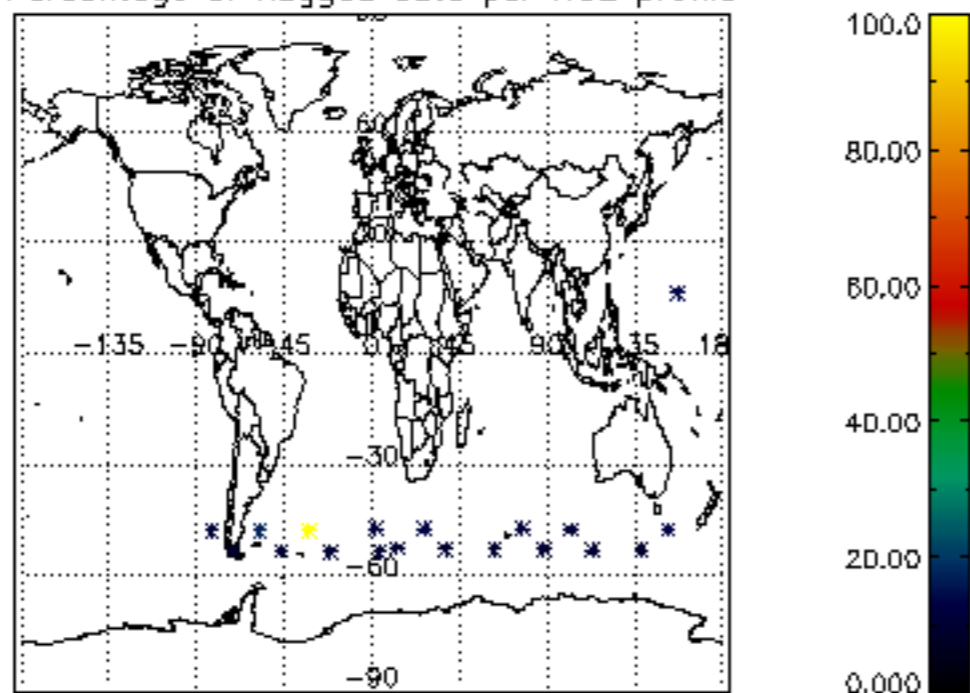
Percentage of flagged data per D3 profile



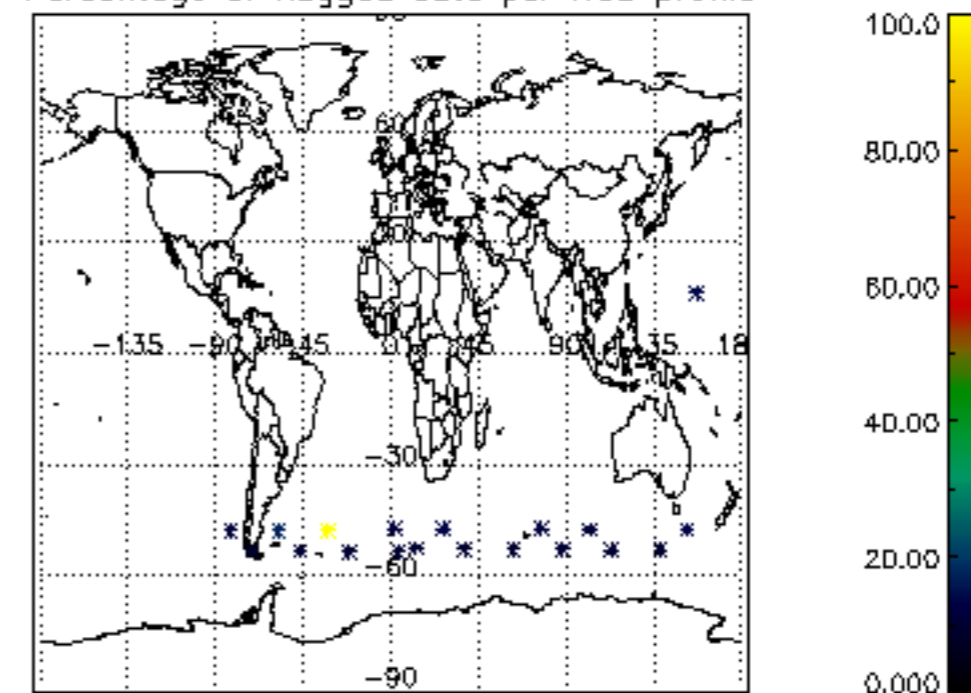
Percentage of flagged data per H2O profile

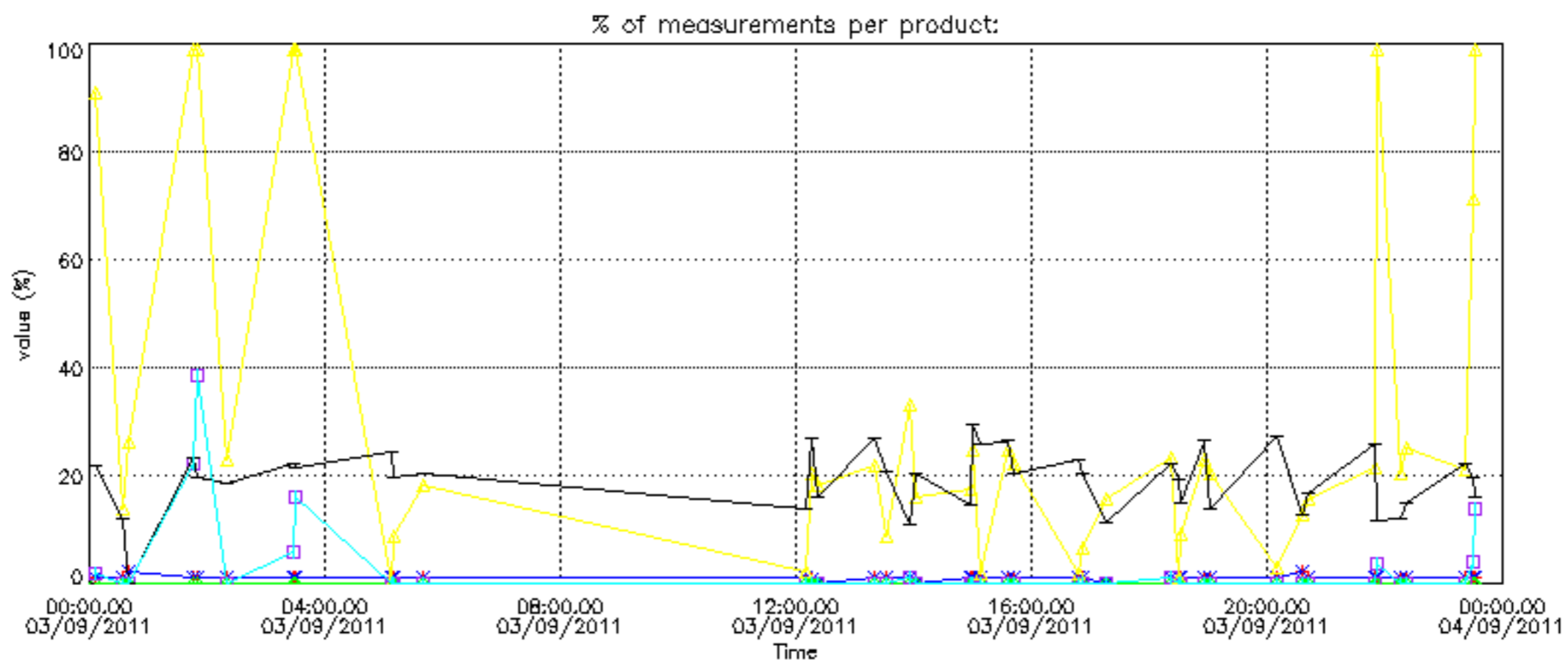


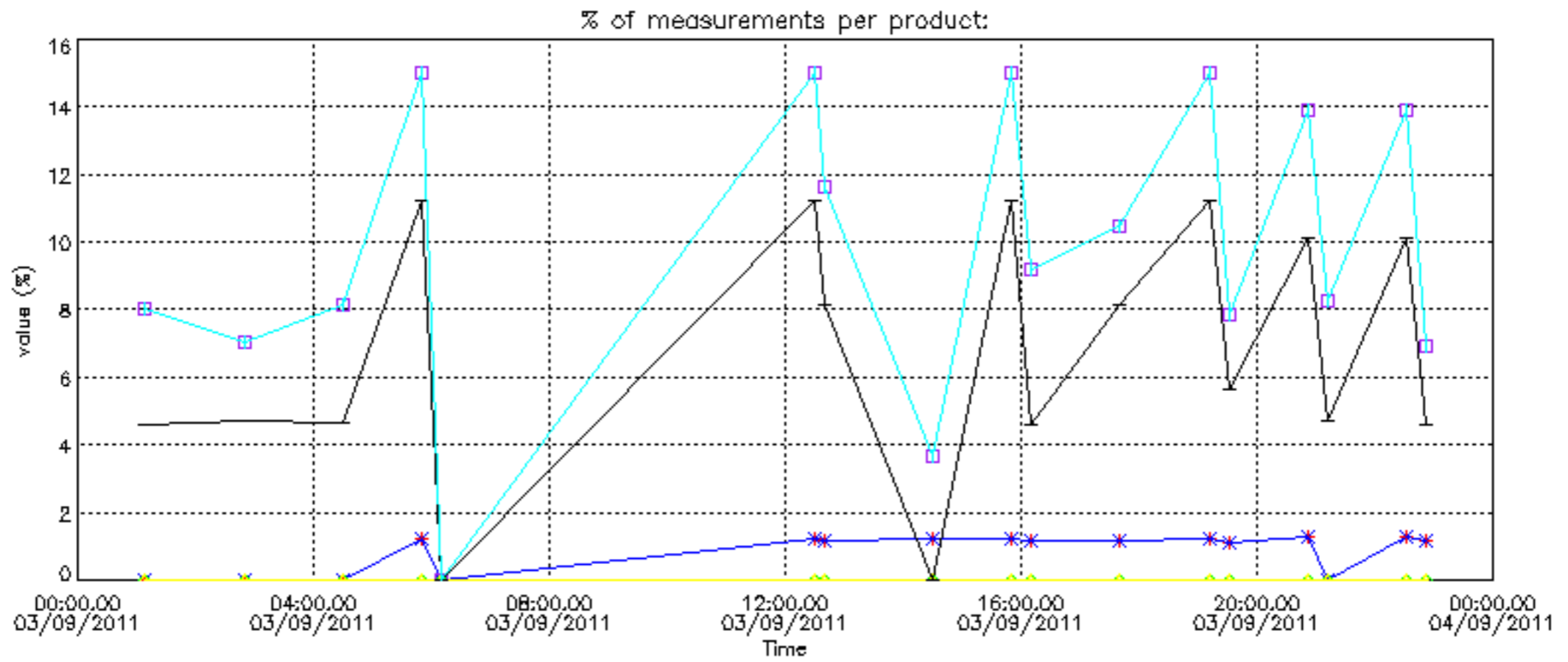
Percentage of flagged data per NO2 profile



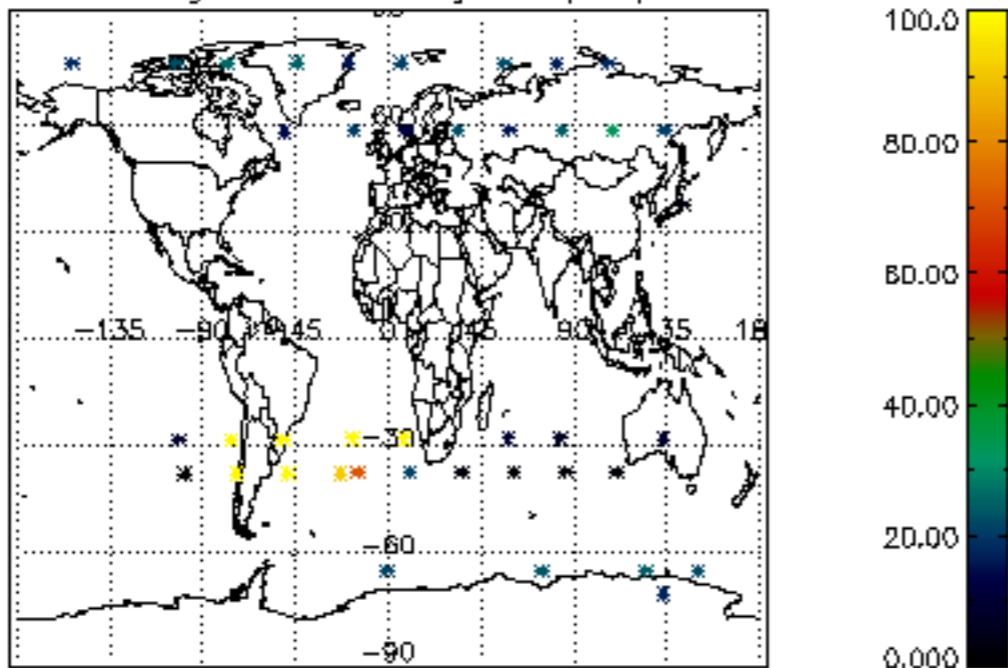
Percentage of flagged data per NO3 profile



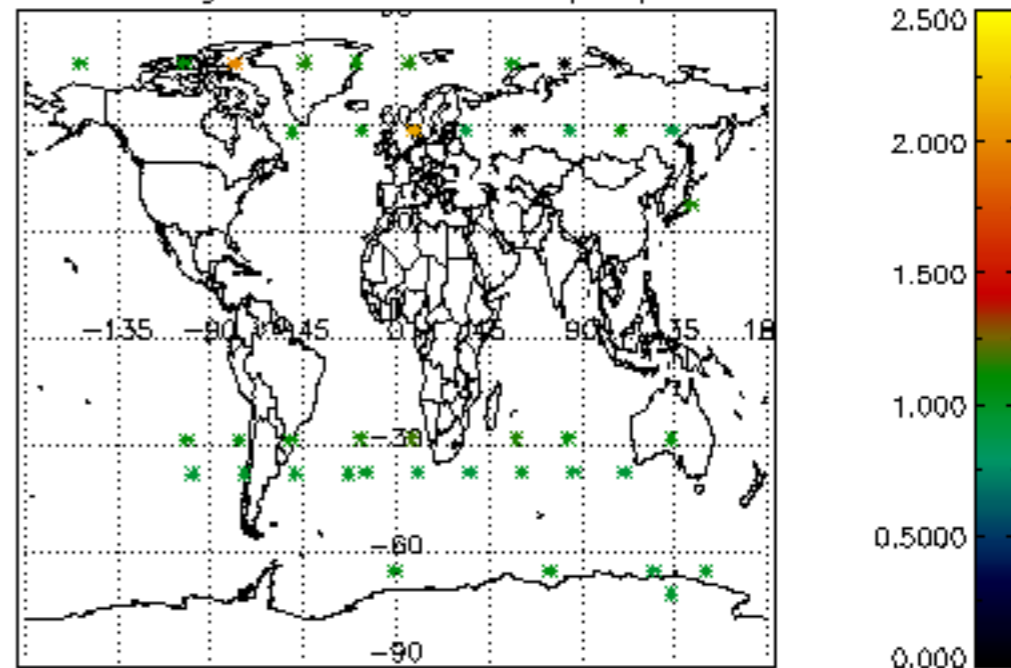




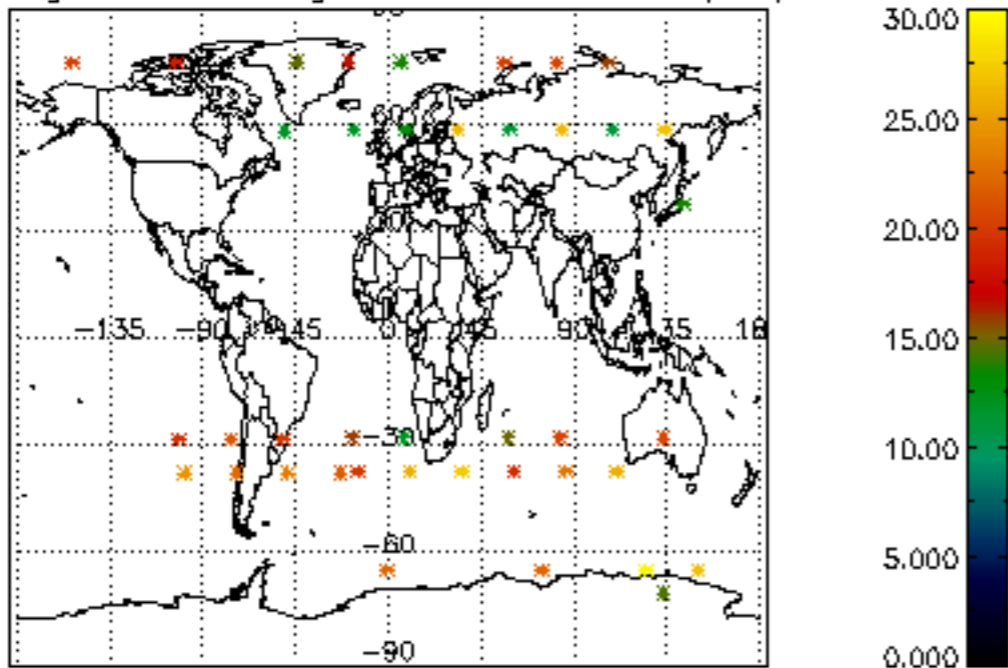
Percentage of cosmic ray hits per profile



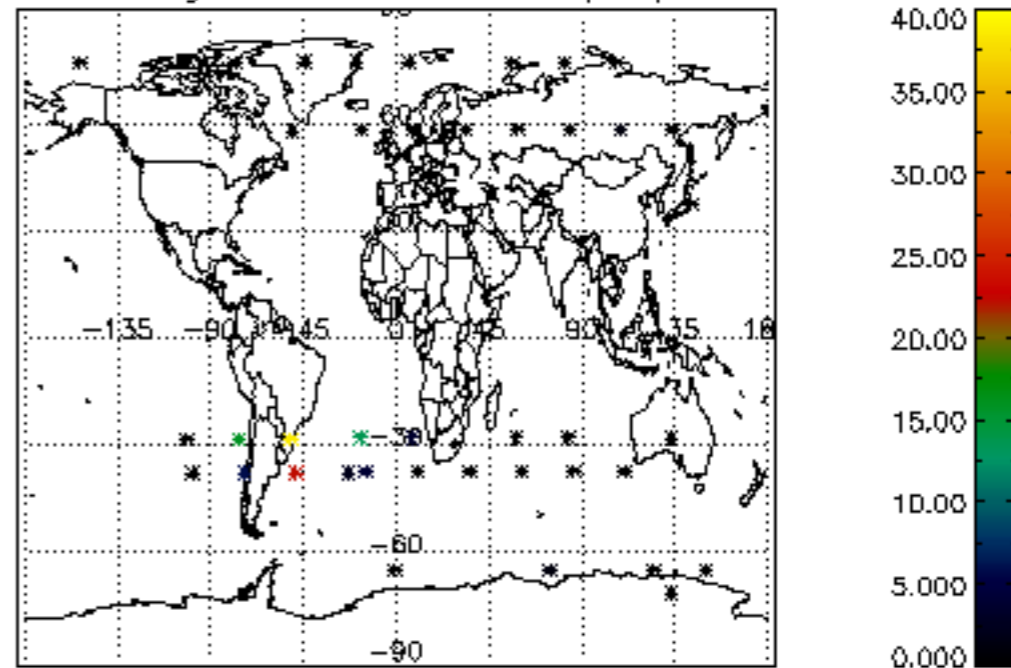
Percentage of datation errors per profile



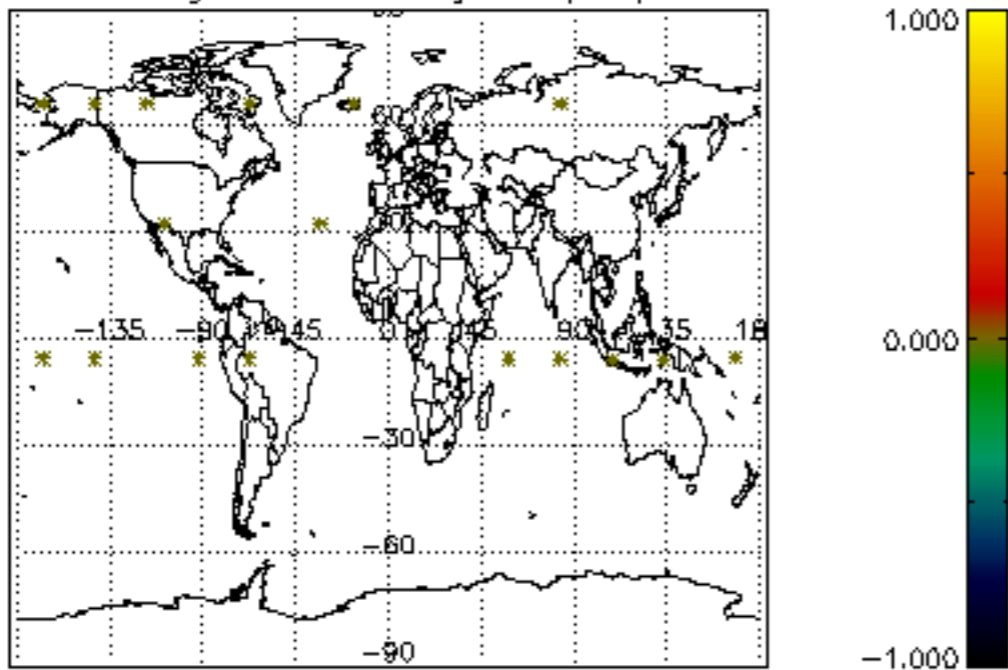
Percentage of star falling outside central band per profile



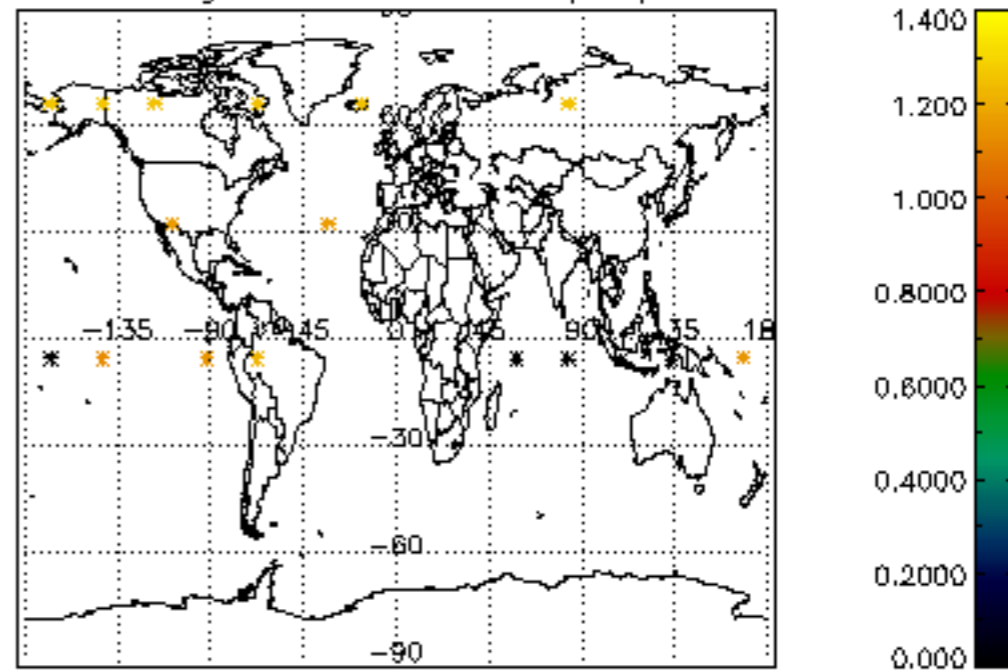
Percentage of saturation errors per profile



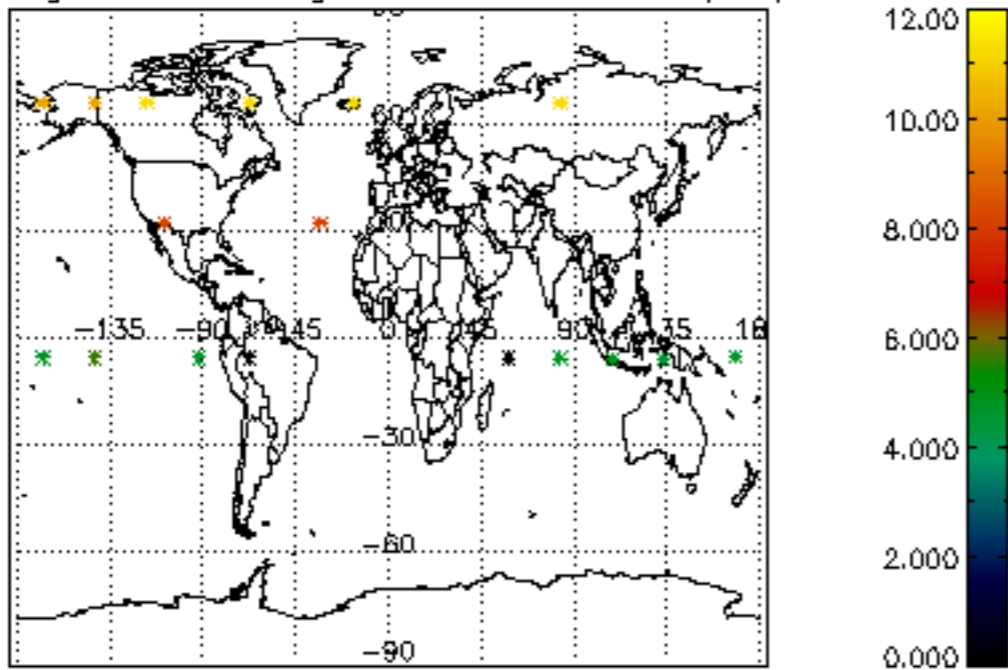
Percentage of cosmic ray hits per profile



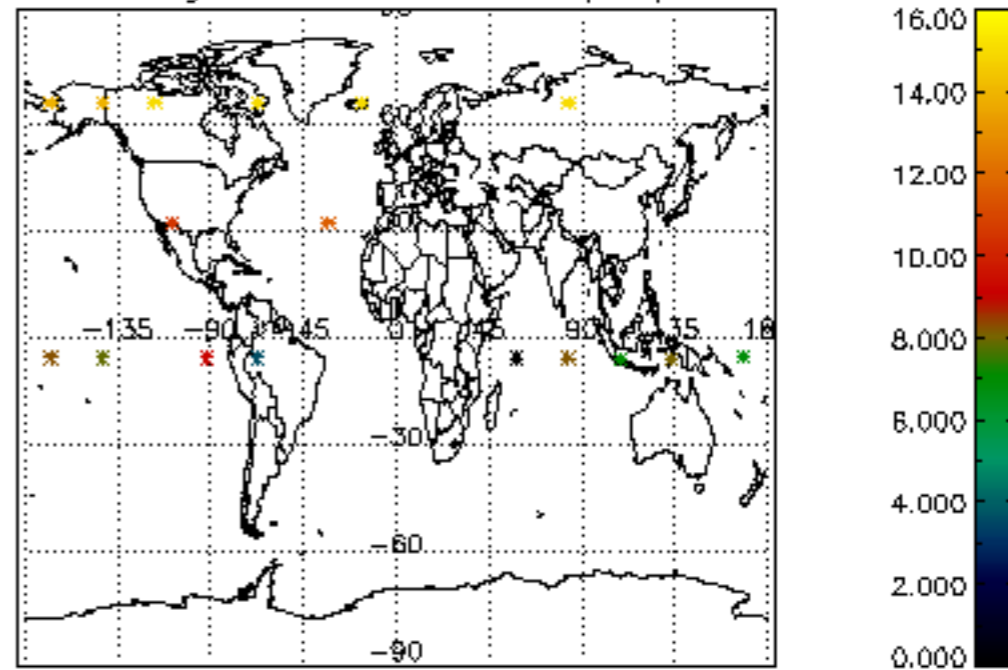
Percentage of datation errors per profile

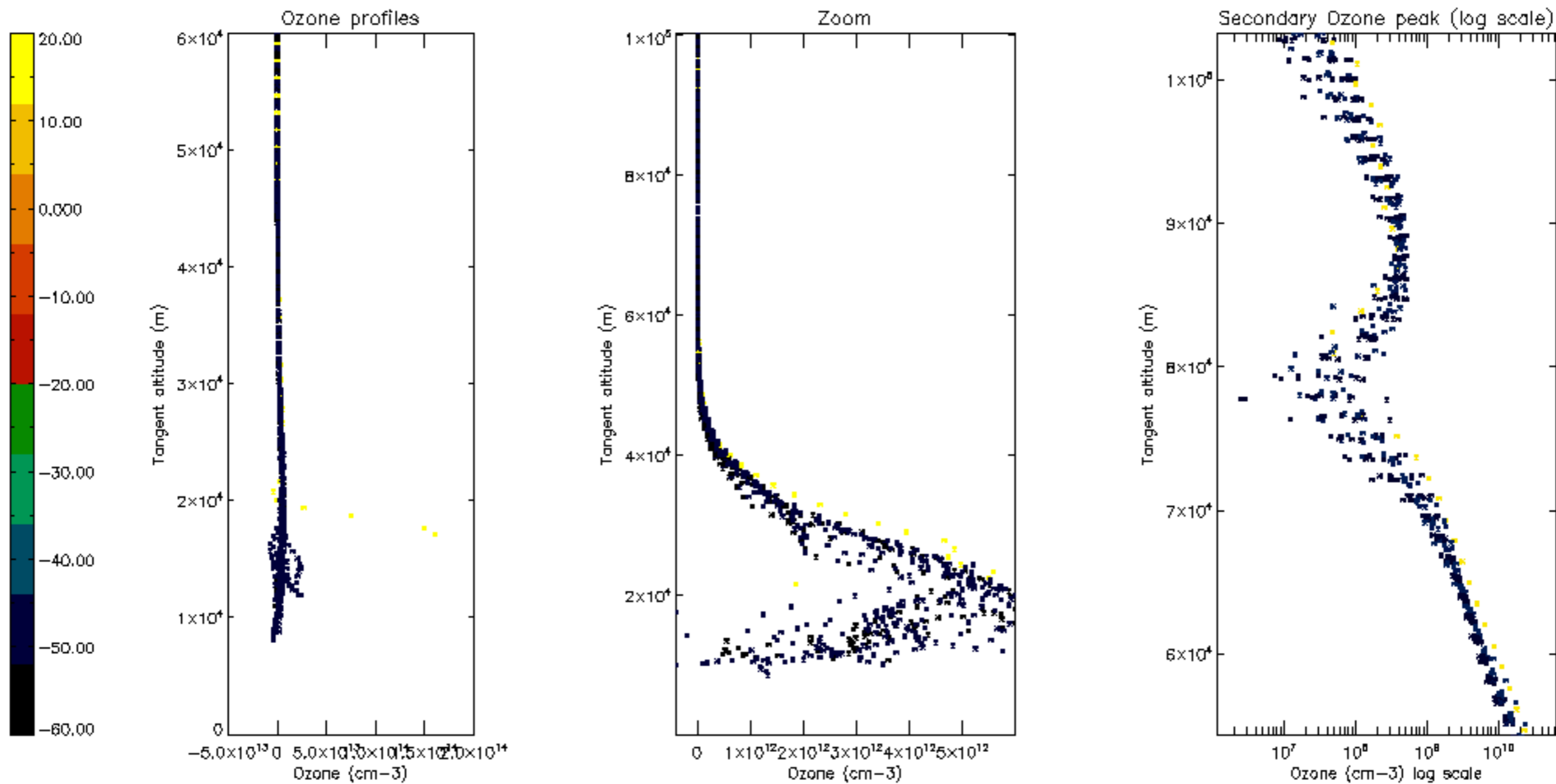


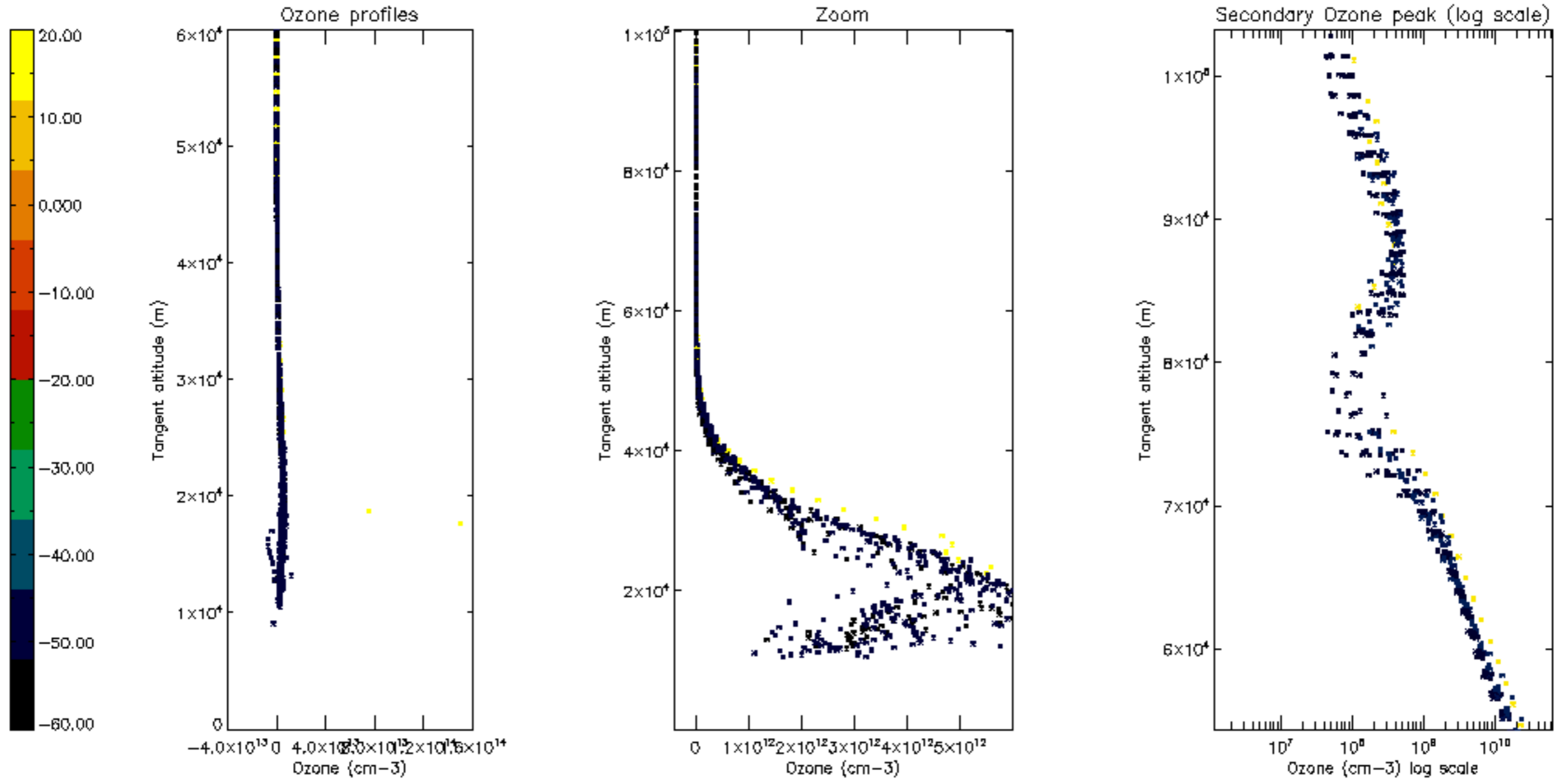
Percentage of star falling outside central band per profile

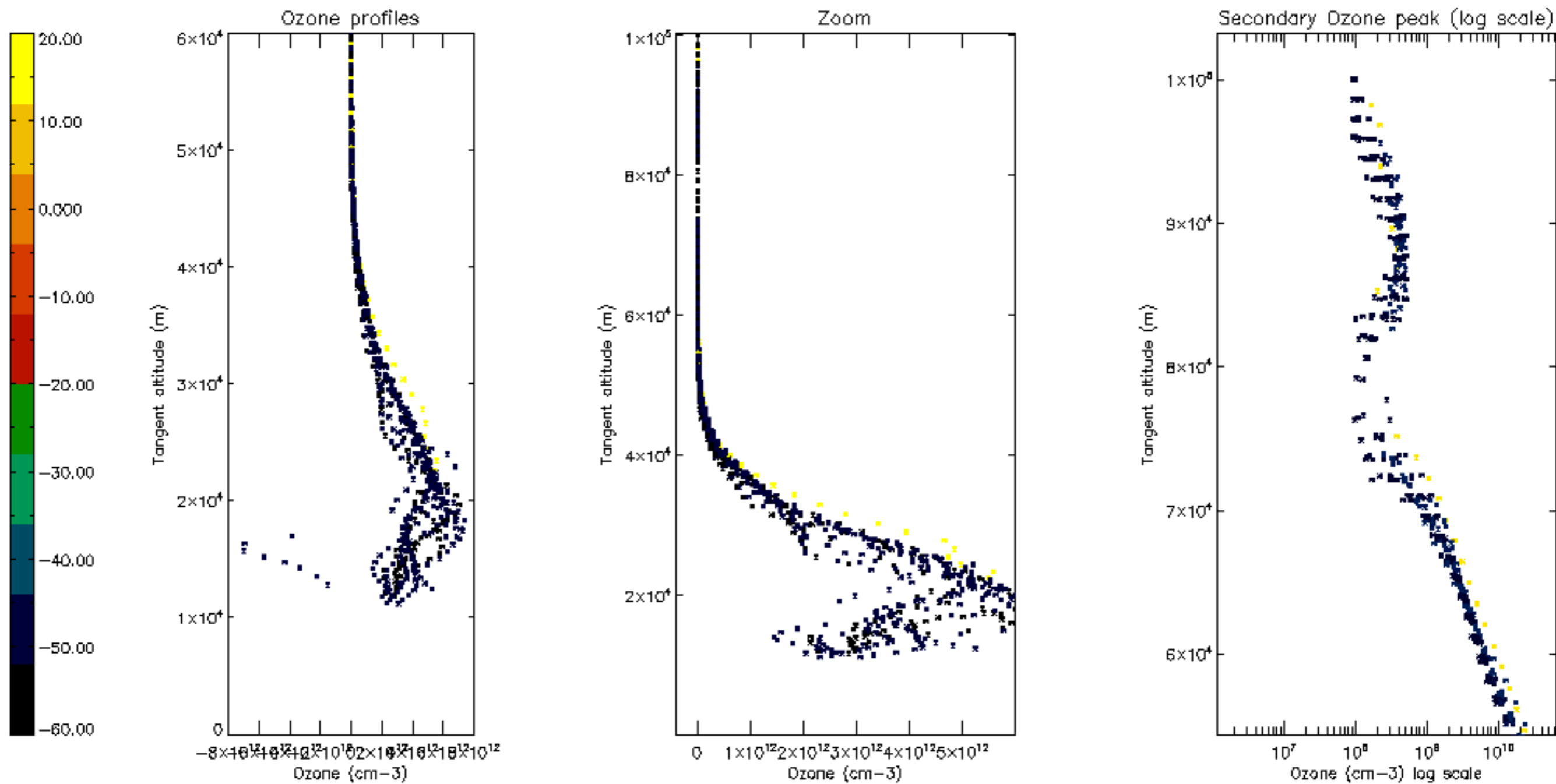


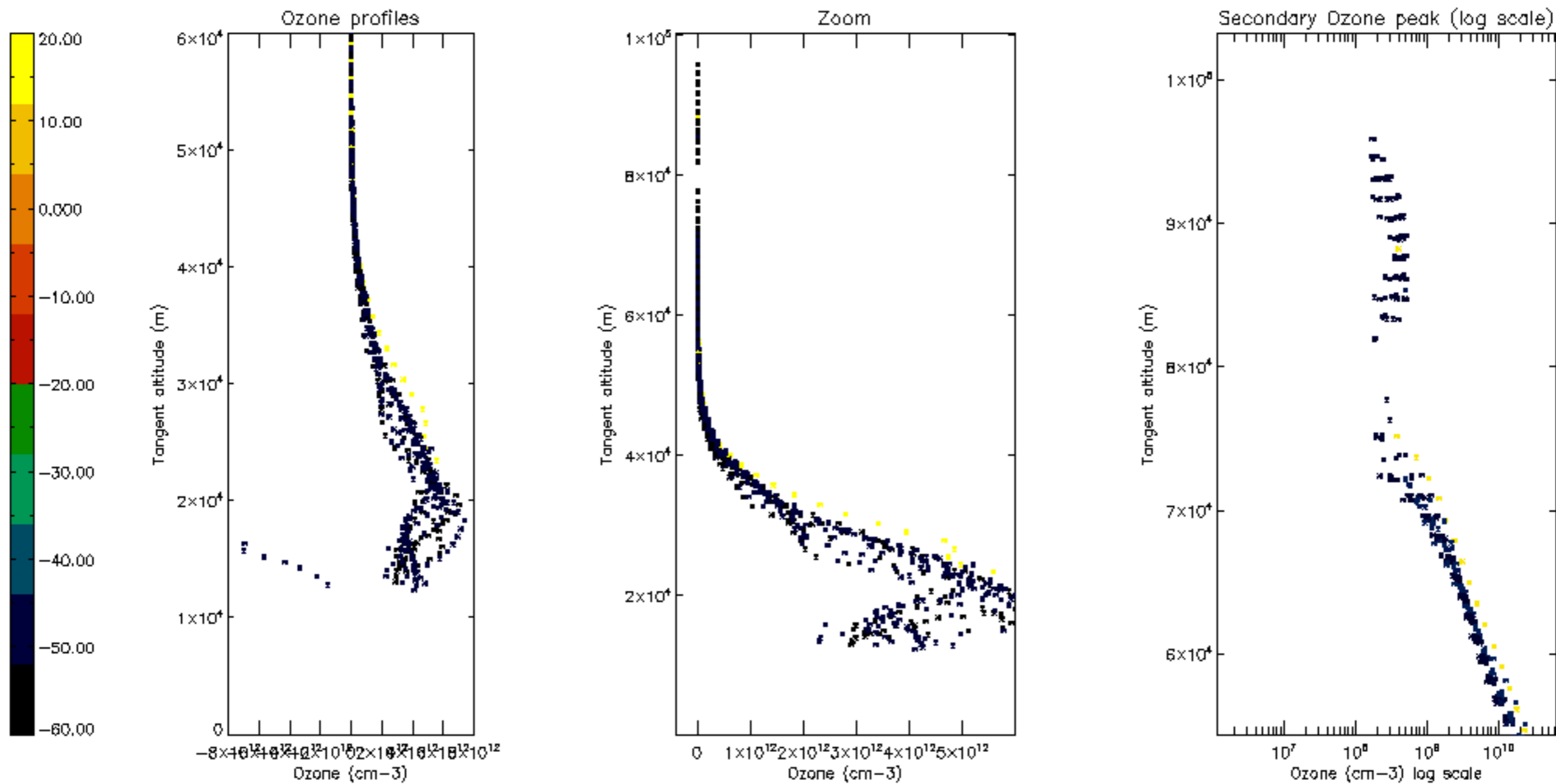
Percentage of saturation errors per profile

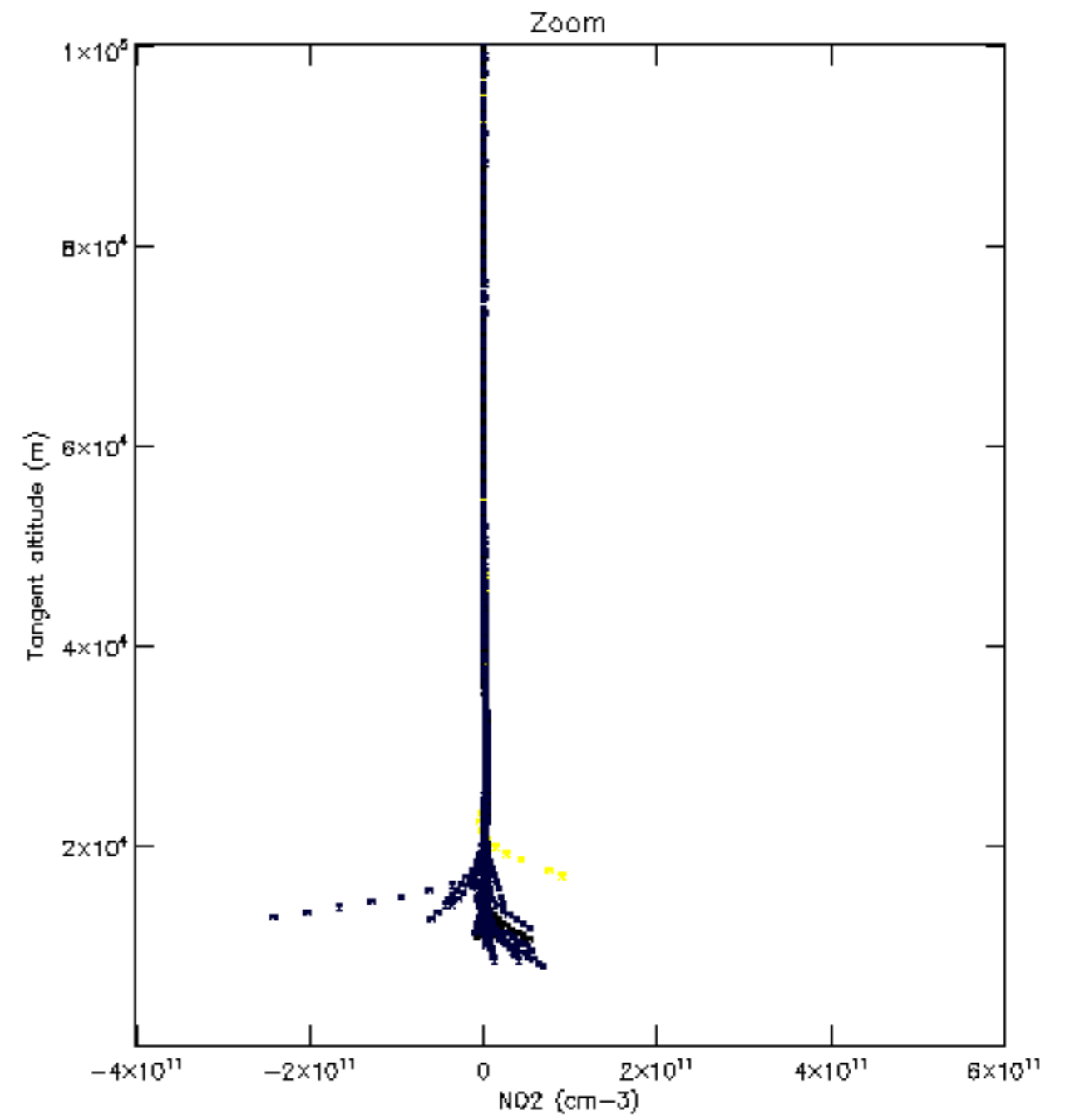
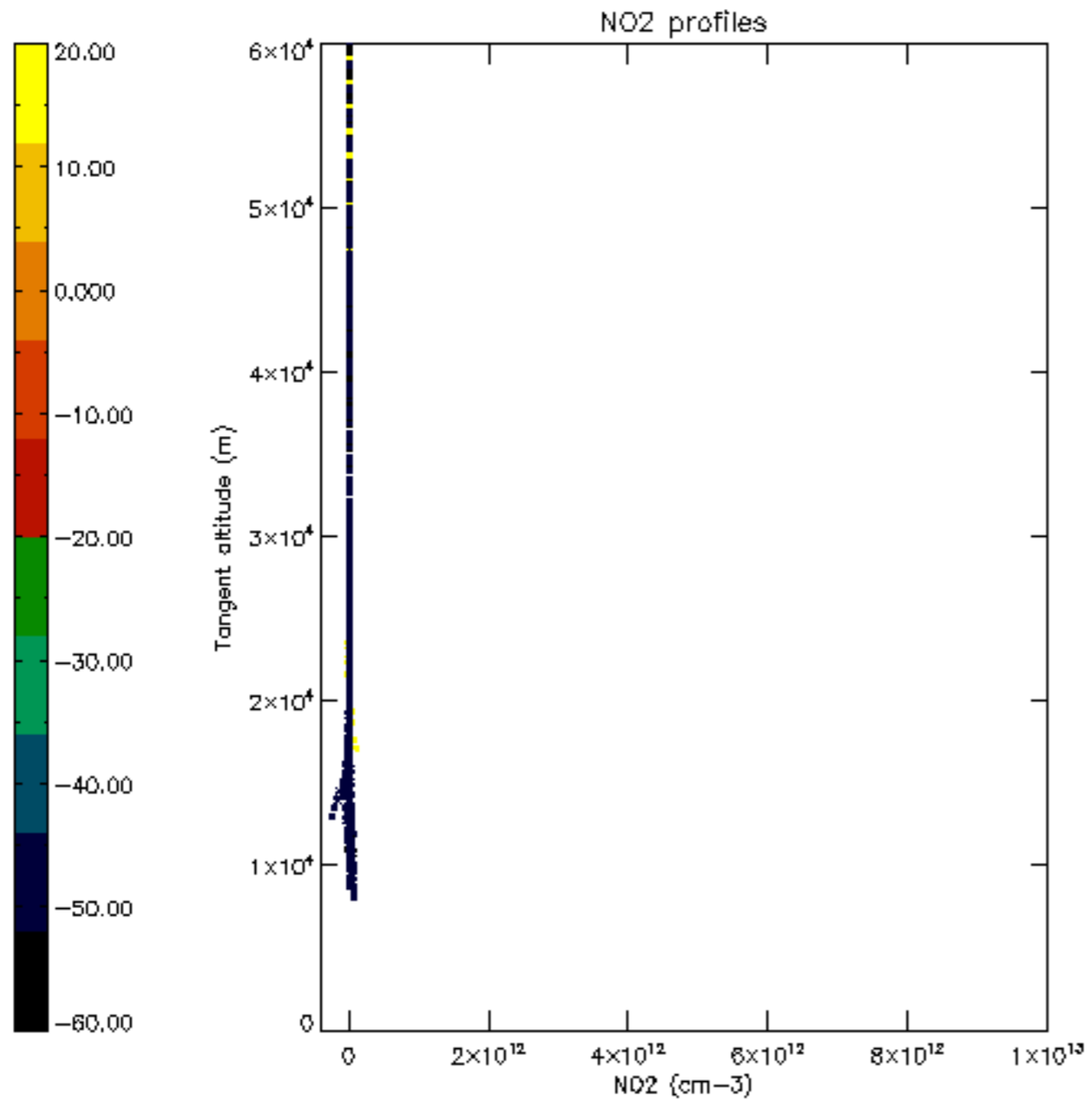


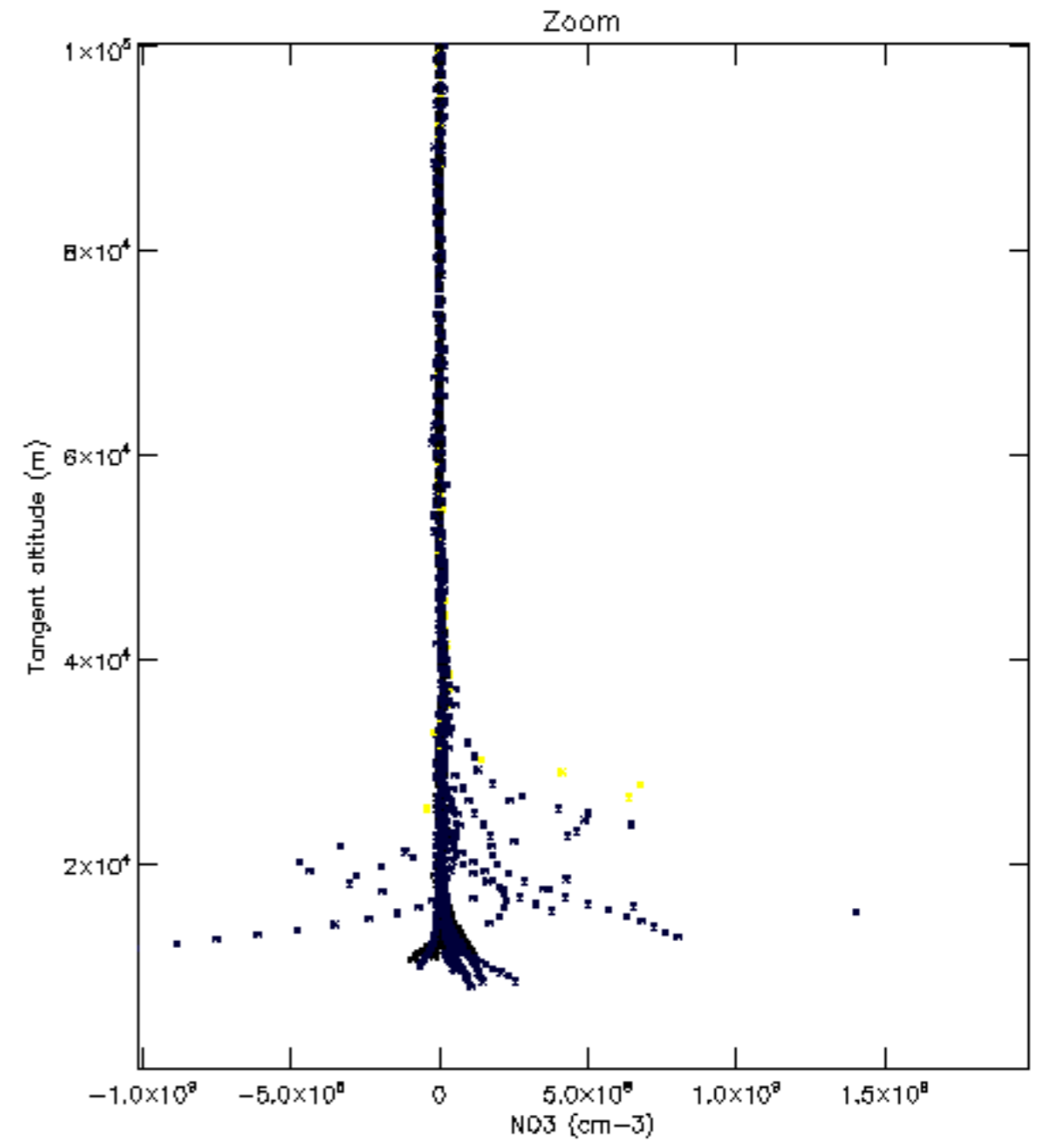
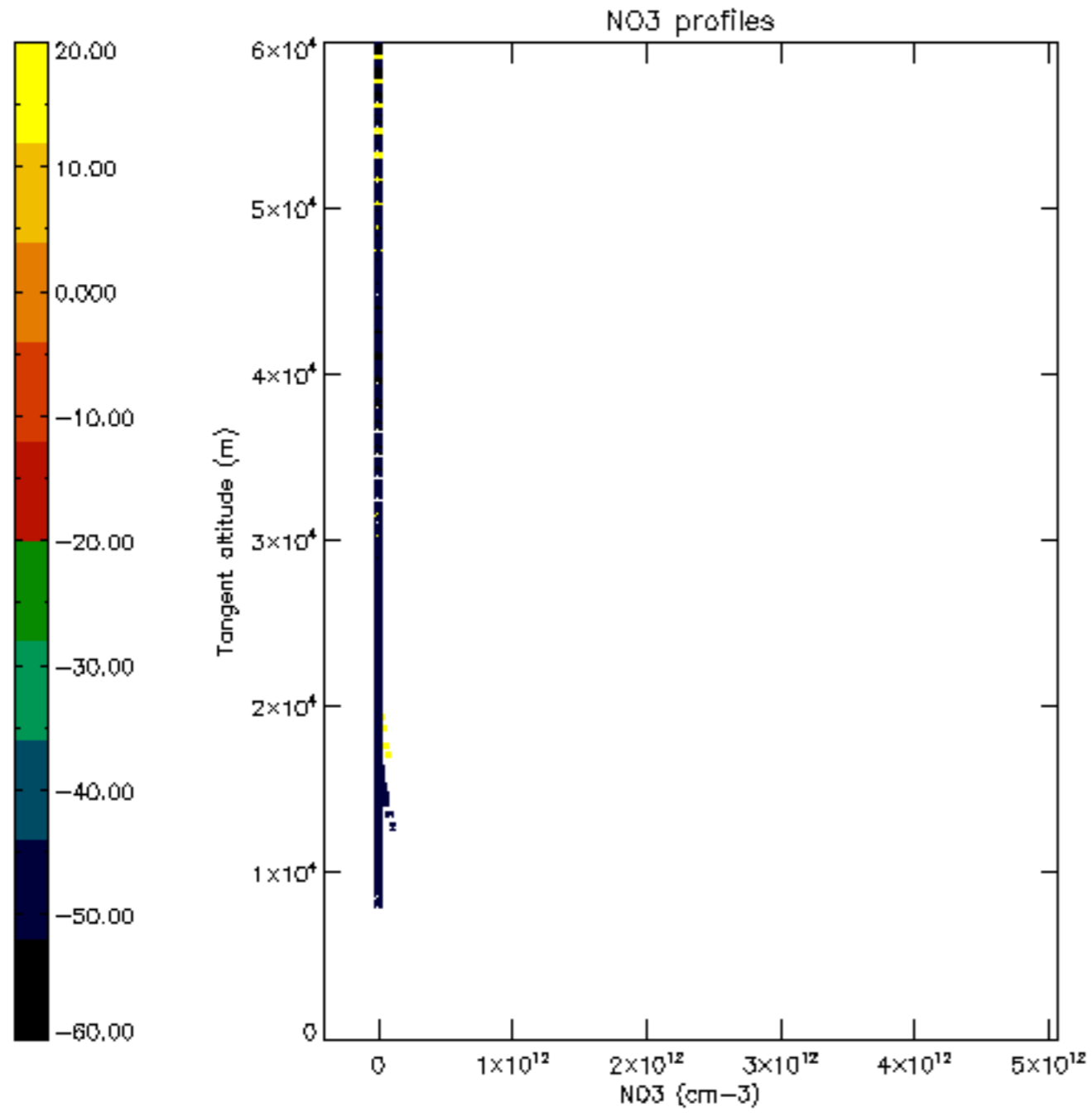


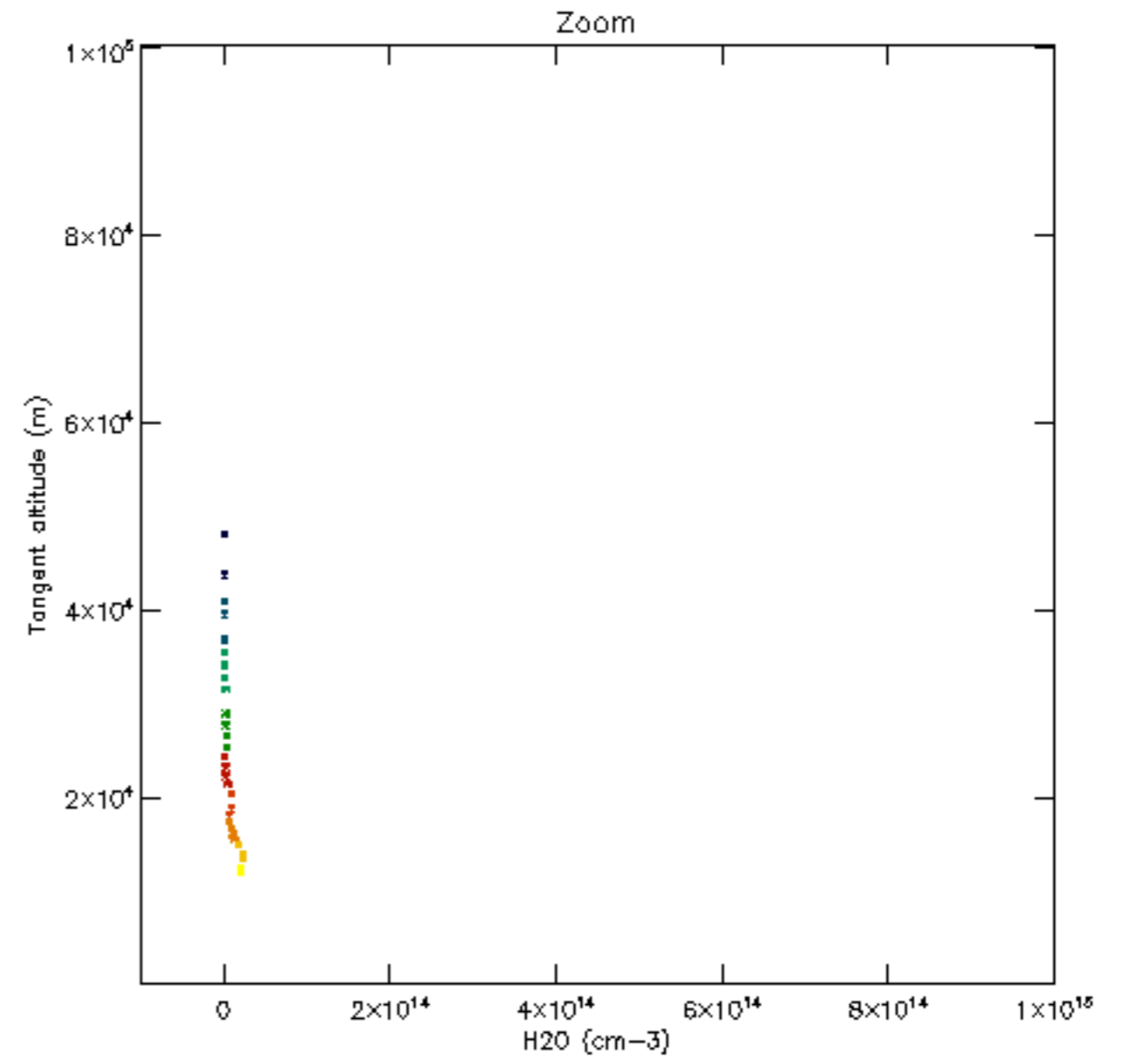
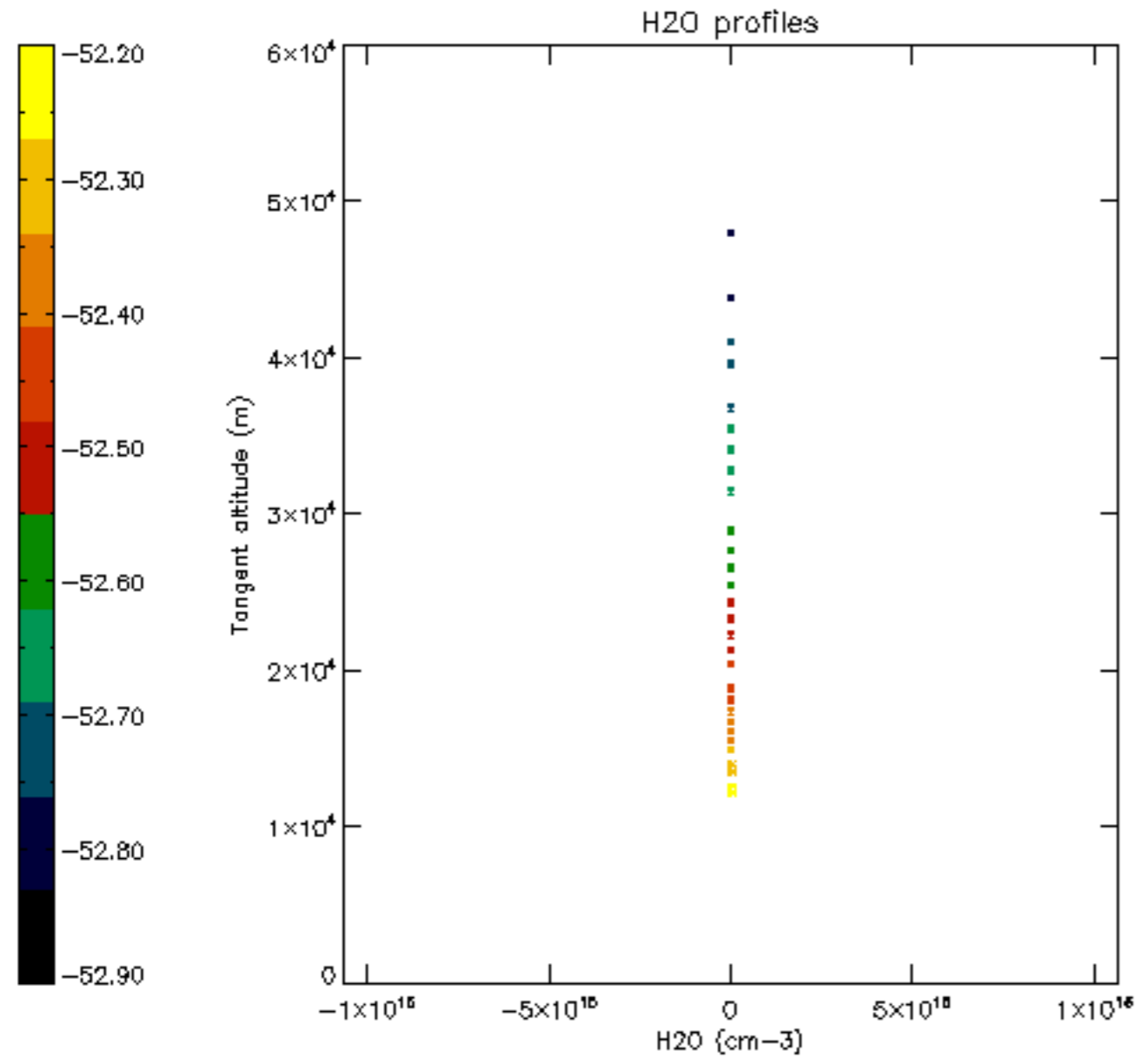


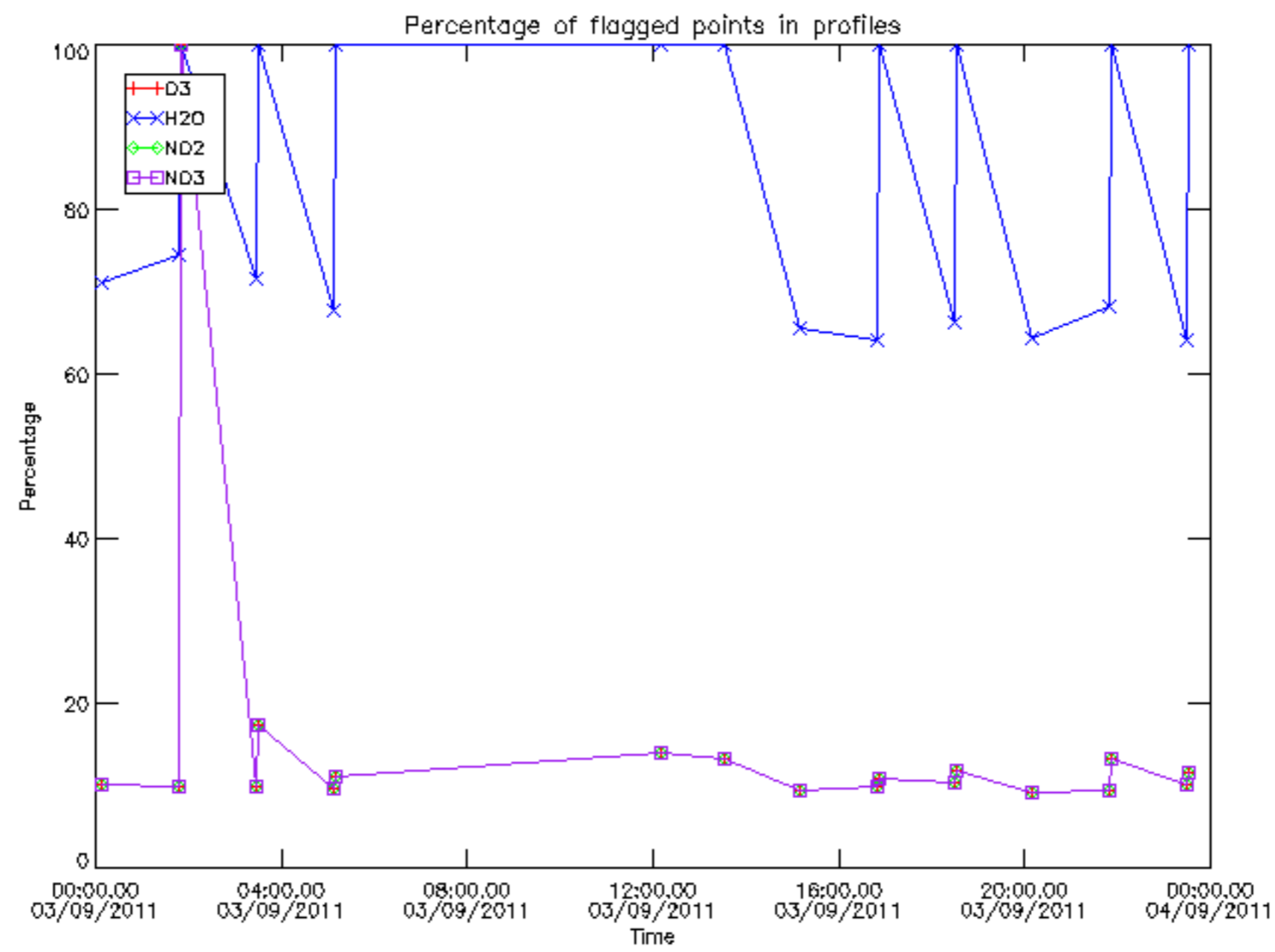




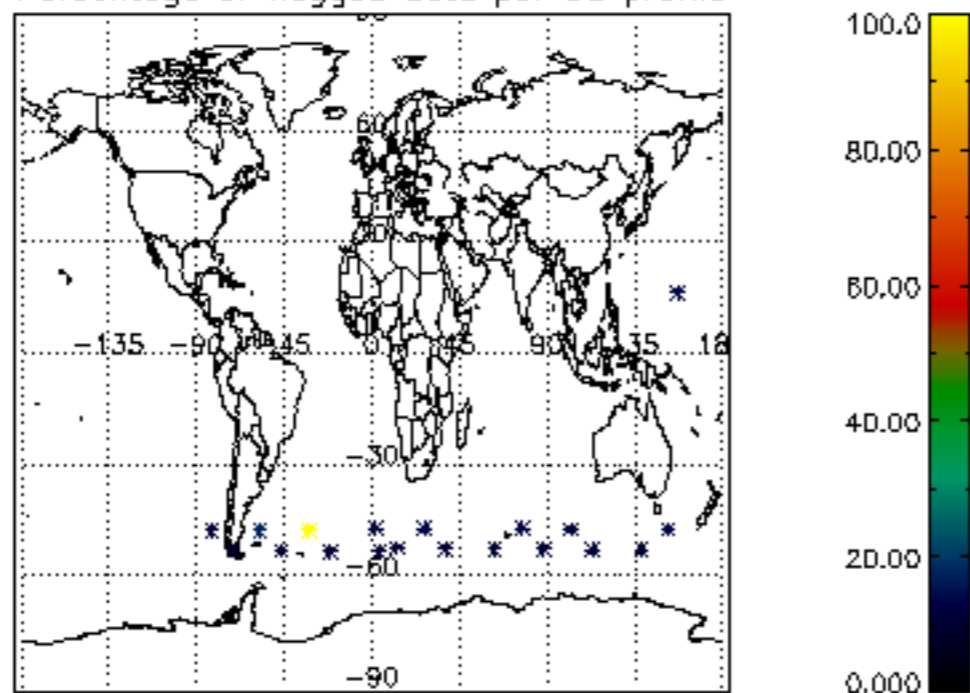




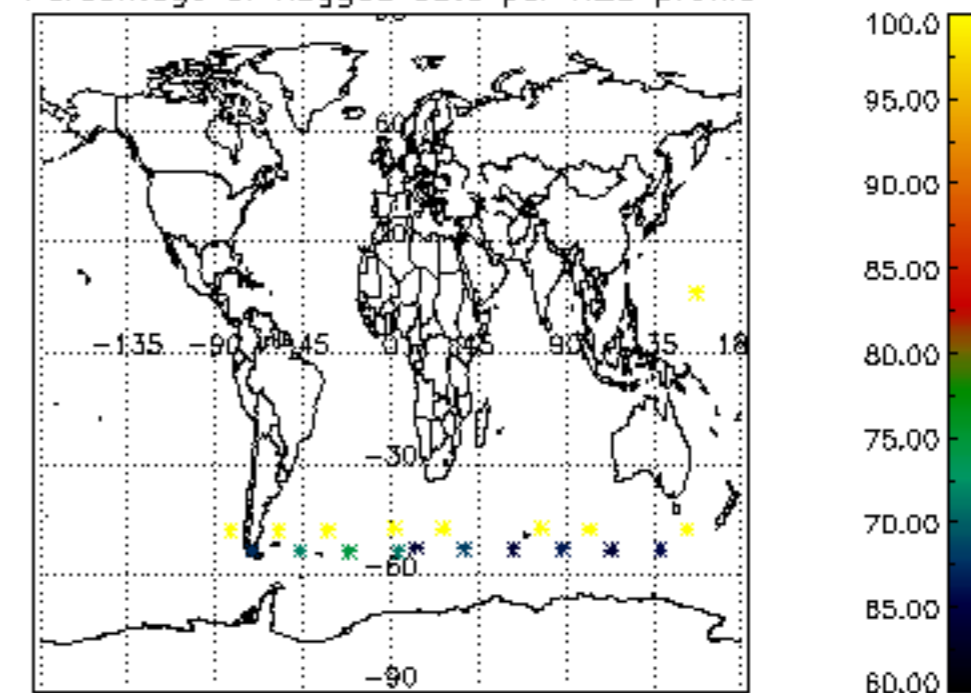




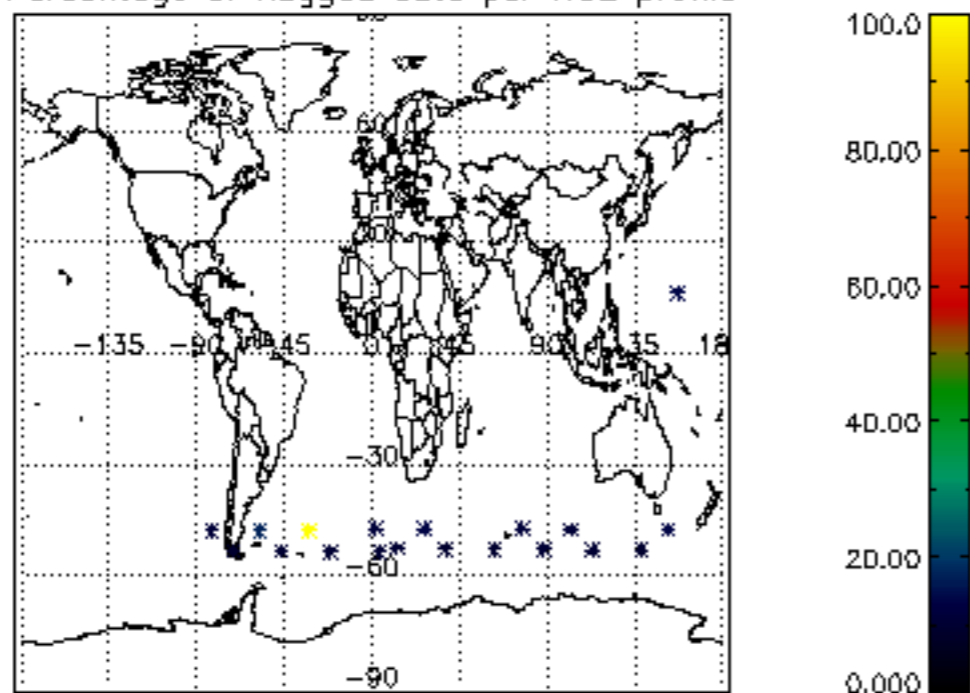
Percentage of flagged data per D3 profile



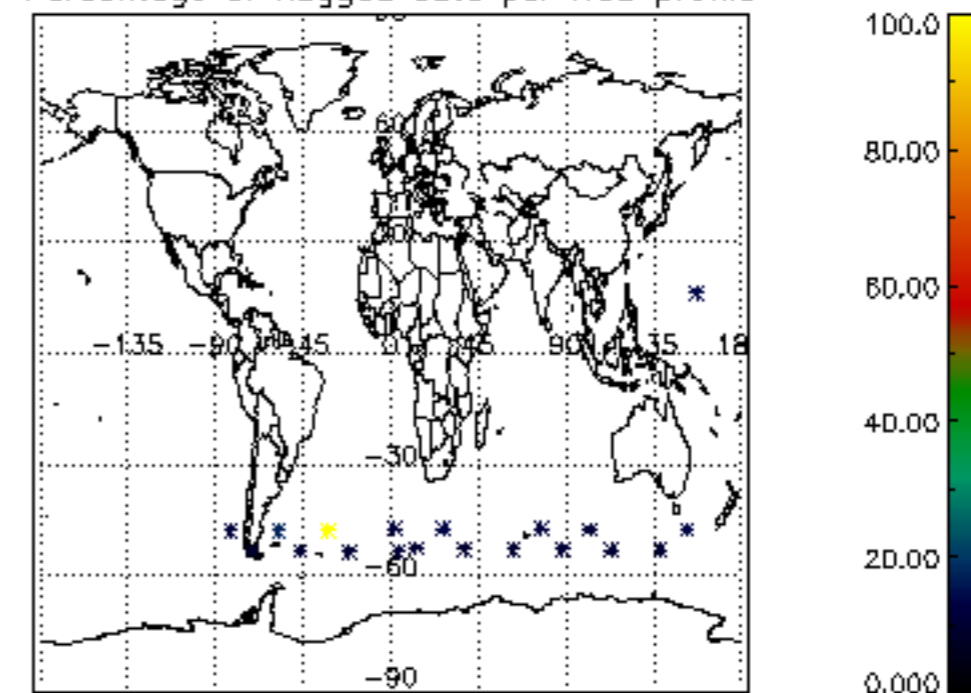
Percentage of flagged data per H2O profile

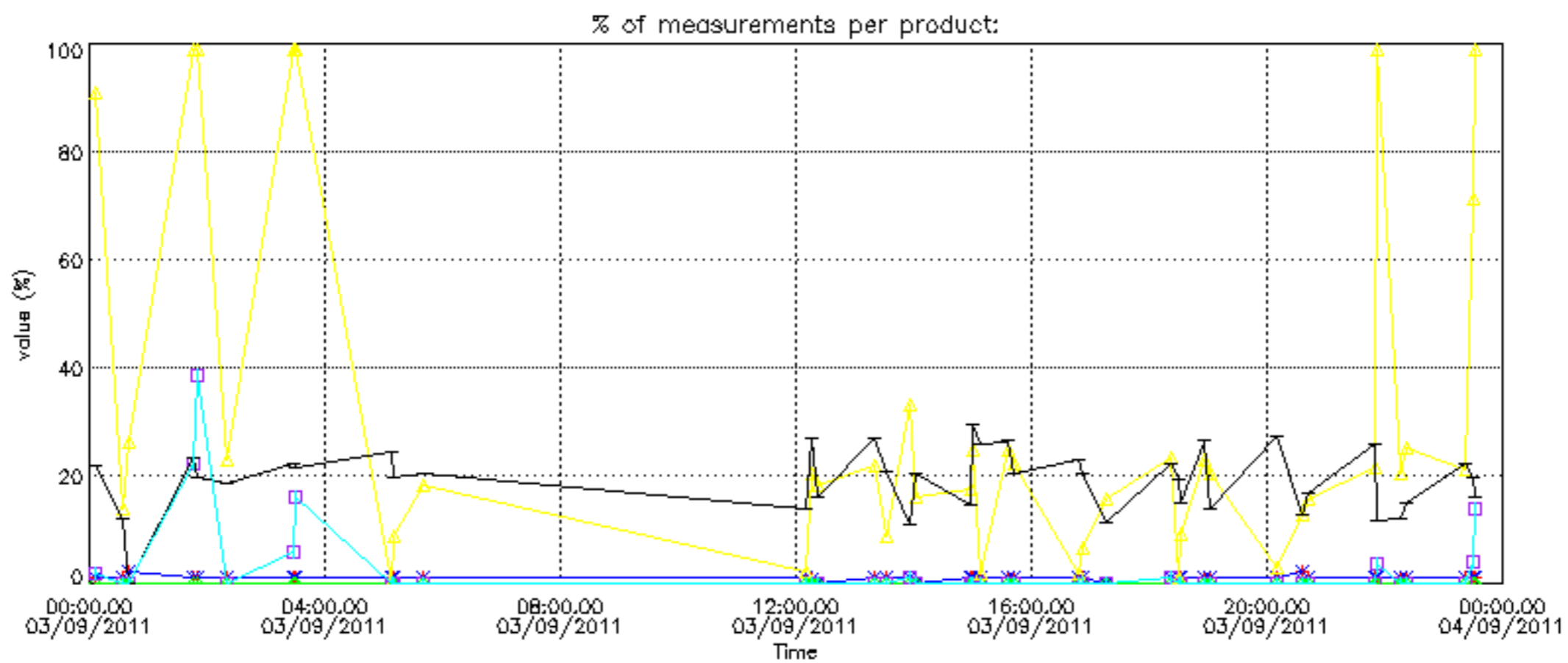


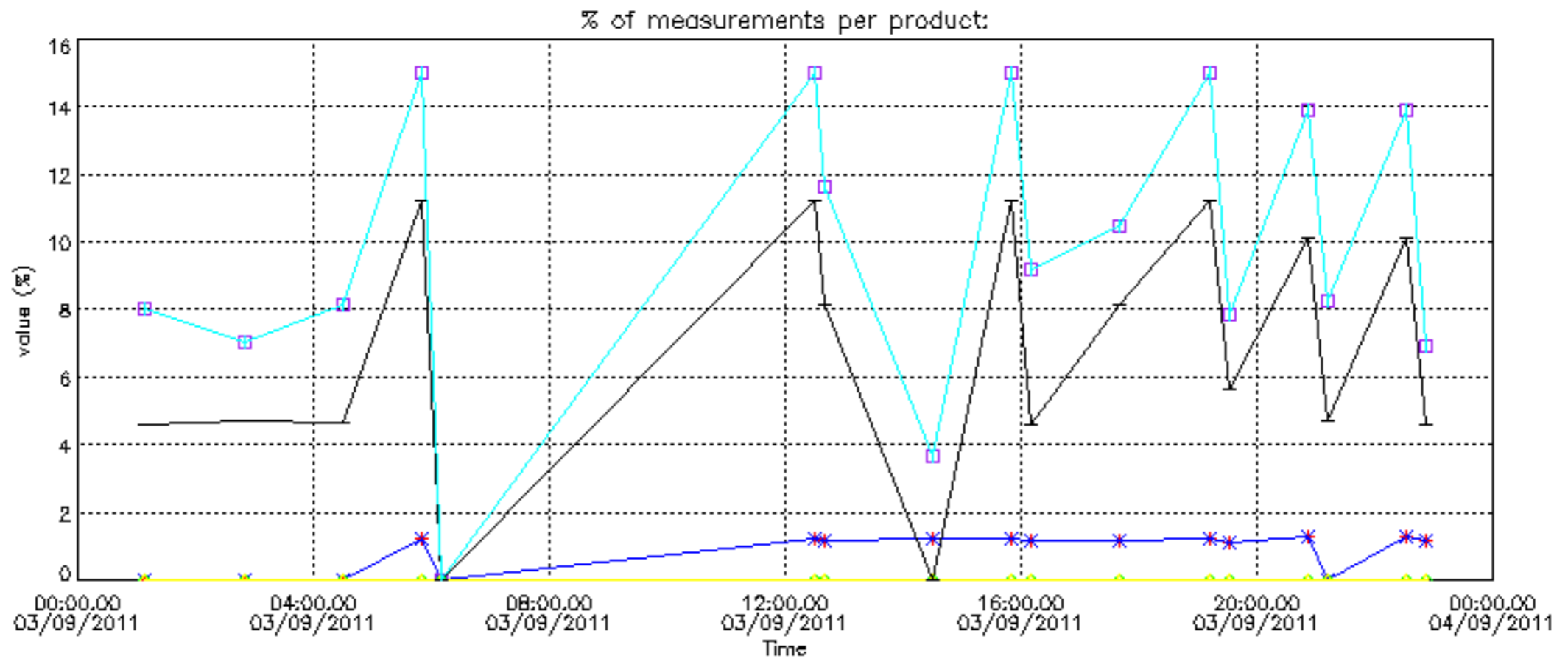
Percentage of flagged data per NO2 profile



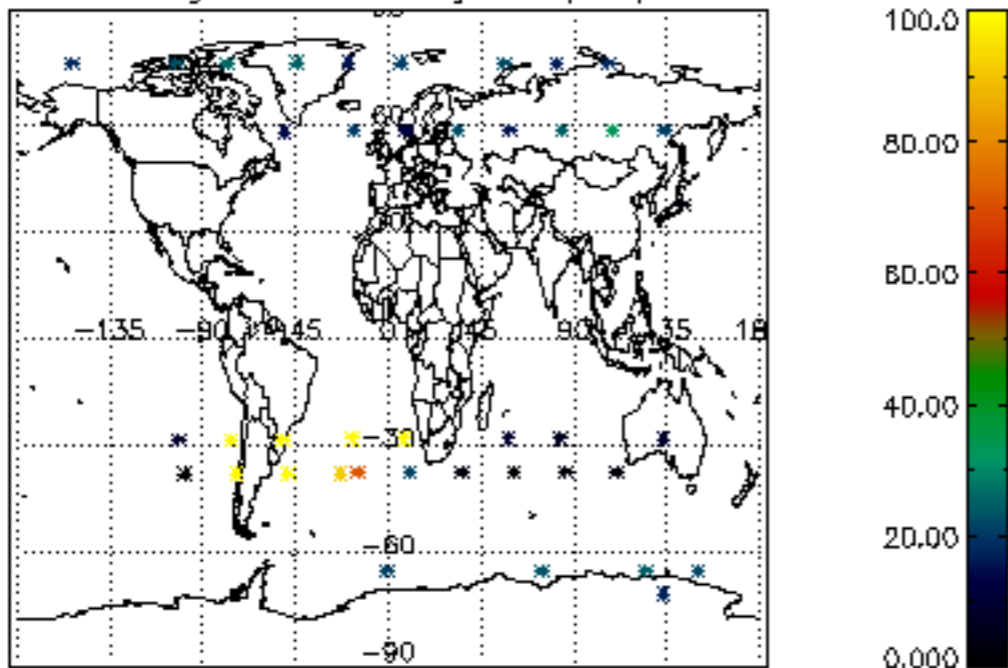
Percentage of flagged data per NO3 profile



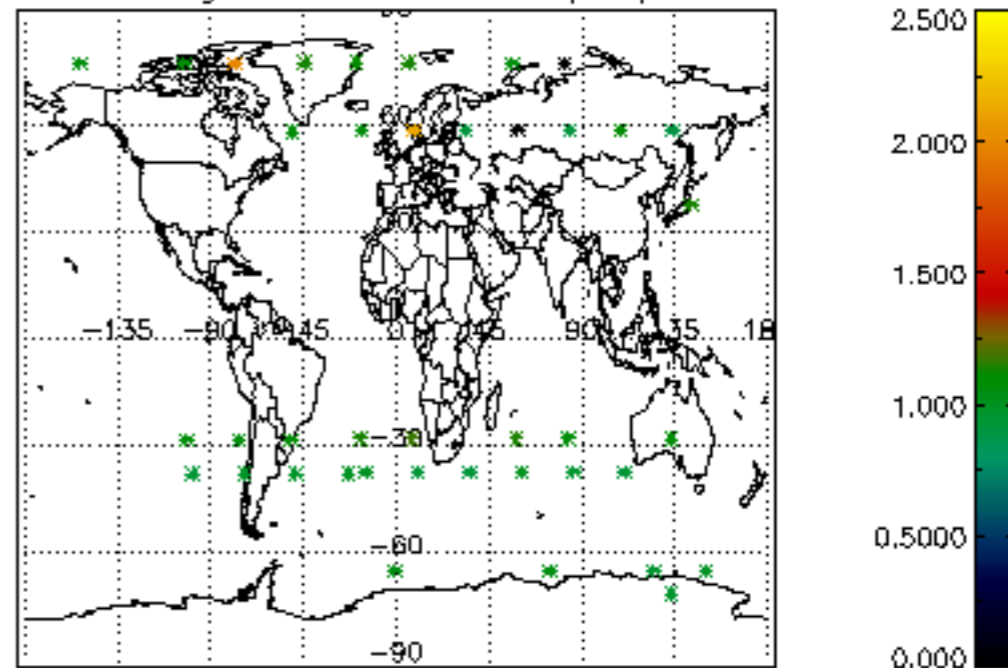




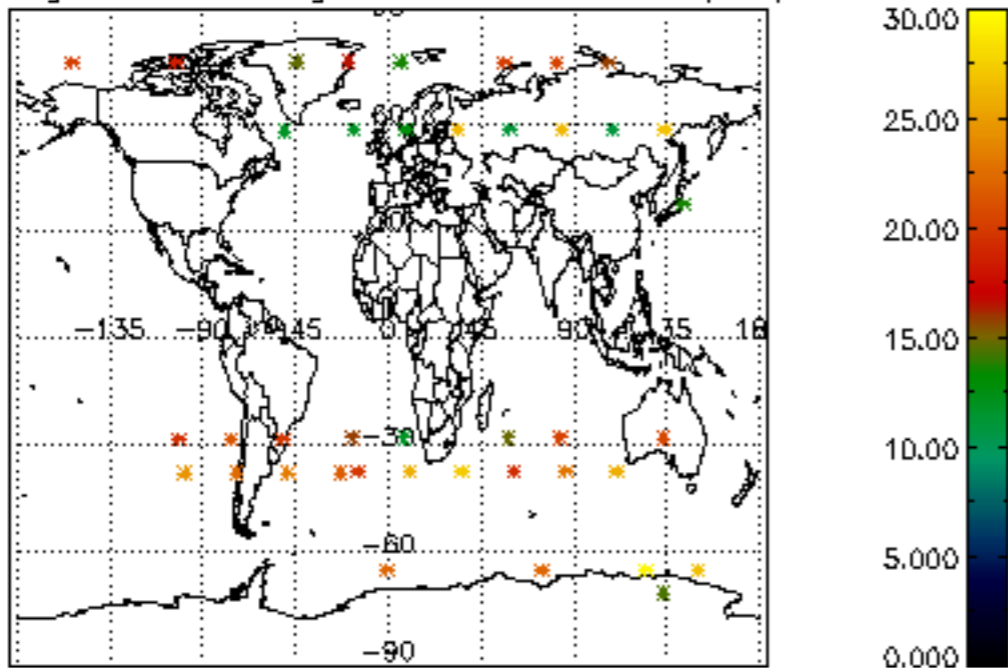
Percentage of cosmic ray hits per profile



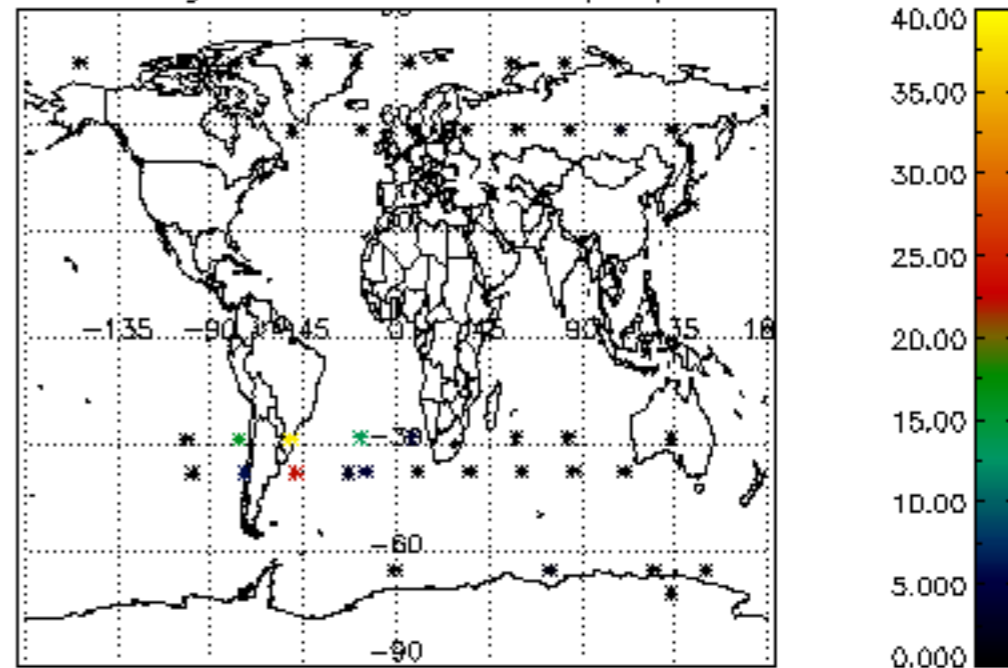
Percentage of datation errors per profile



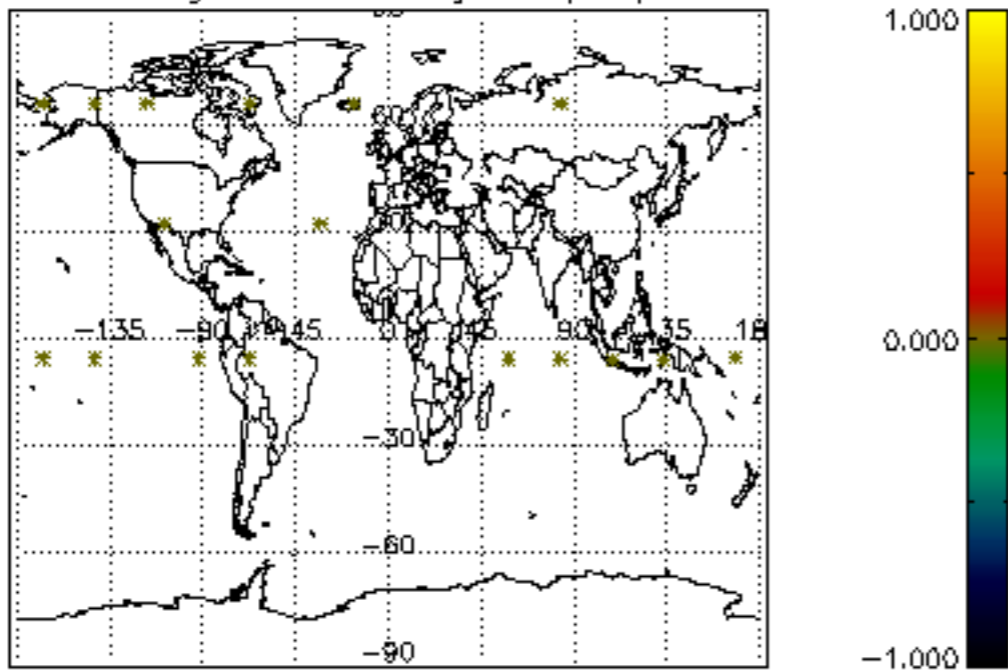
Percentage of star falling outside central band per profile



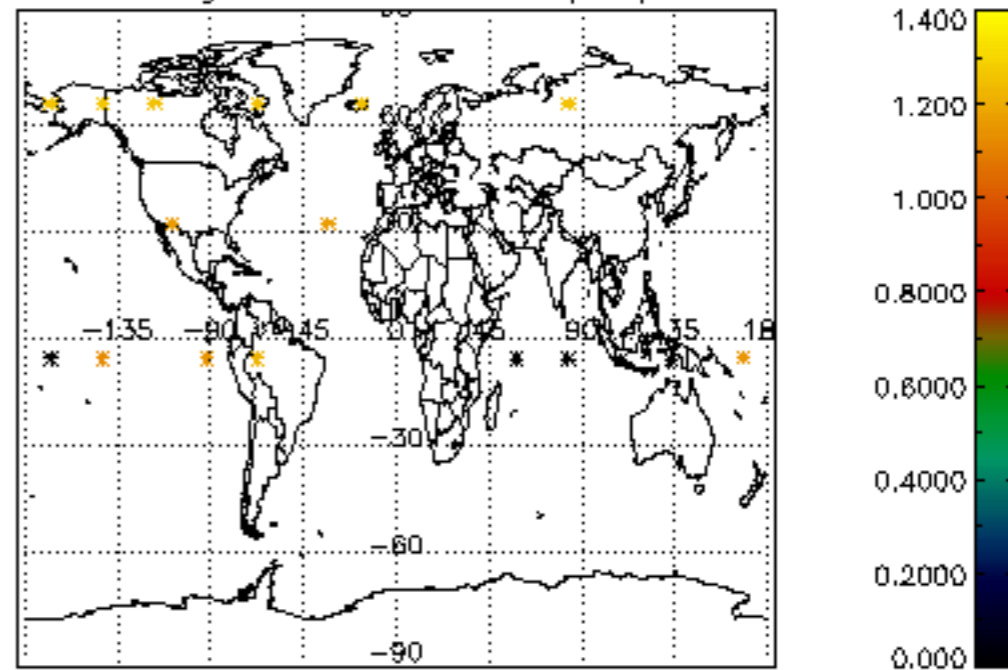
Percentage of saturation errors per profile



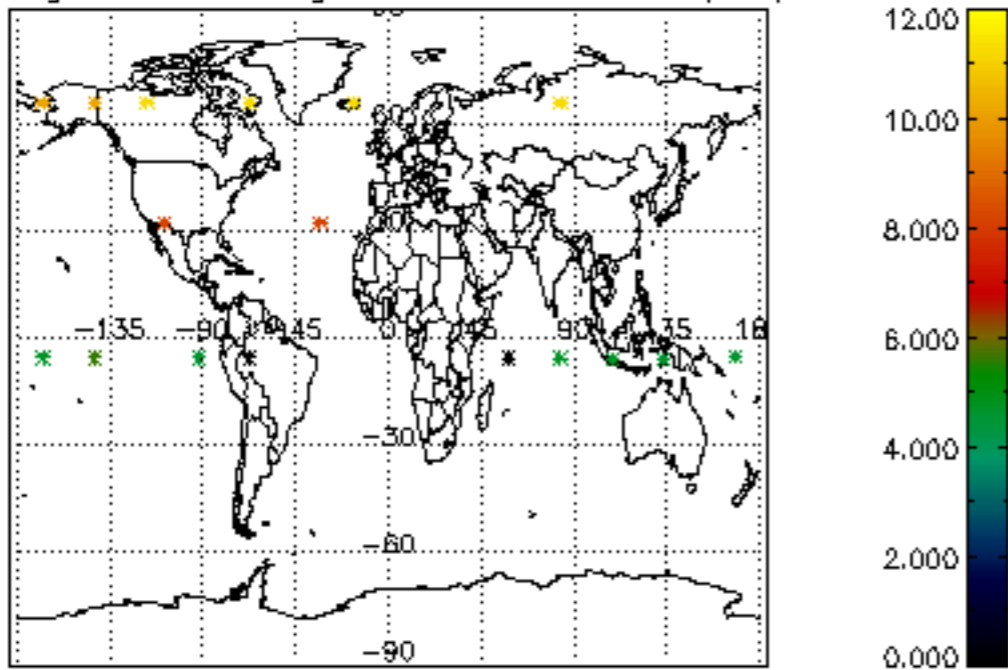
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

