

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 21:48:09
Data source version	GOMOS/6.01
Start time of products	07-11-2008 (07NOV2008 00:00:00)
Stop time of products	08-11-2008 (08NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	187
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

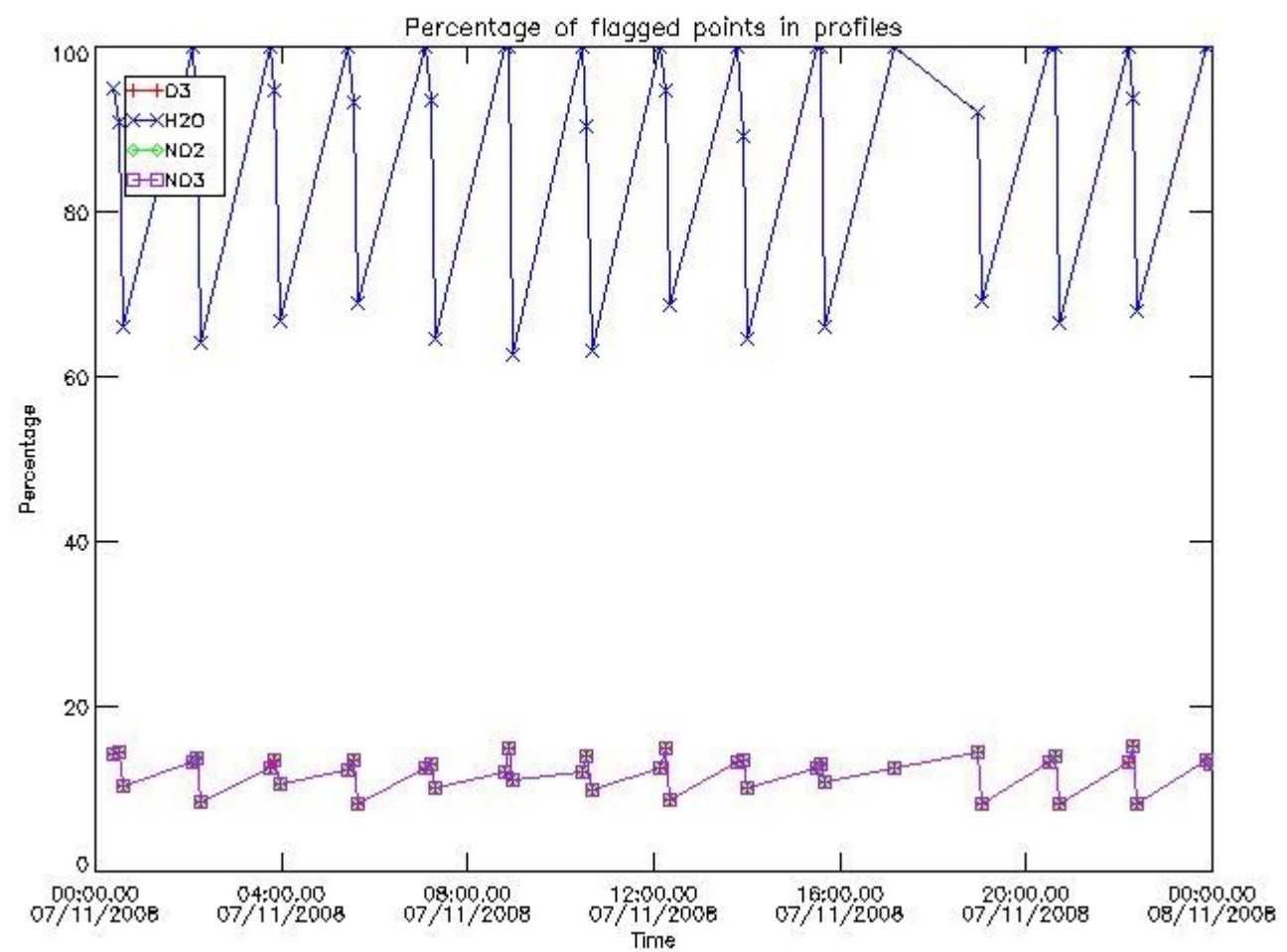
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081107_000345_000000432073_00345_34968_9889.N1	07-NOV-2008 00:03:45	Bright	42.500	96	68Del Leo	2.5600	9300.0	85	34968	No
2	GOM_NL__2PRFIN20081107_002352_000000402073_00345_34968_9890.N1	07-NOV-2008 00:23:52	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	34968	No
3	GOM_NL__2PRFIN20081107_003003_000000392073_00346_34969_9882.N1	07-NOV-2008 00:30:03	Dark	38.500	29	Bet Car	1.6720	10200.	77	34969	No
4	GOM_NL__2PRFIN20081107_003555_000000492073_00346_34969_9883.N1	07-NOV-2008 00:35:55	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	34969	No
5	GOM_NL__2PRFIN20081107_004532_000000382073_00346_34969_9884.N1	07-NOV-2008 00:45:32	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	34969	No
6	GOM_NL__2PRFIN20081107_010346_000000382073_00346_34969_9885.N1	07-NOV-2008 01:03:46	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	34969	No
7	GOM_NL__2PRFIN20081107_010758_000000362073_00346_34969_9886.N1	07-NOV-2008 01:07:58	Bright	36.000	53	43Bet And	2.0480	3300.0	72	34969	No
8	GOM_NL__2PRFIN20081107_011003_000000392073_00346_34969_9887.N1	07-NOV-2008 01:10:03	Bright	38.500	73	57Gam1And	2.2600	13100.	77	34969	No
9	GOM_NL__2PRFIN20081107_011355_000000352073_00346_34969_9888.N1	07-NOV-2008 01:13:55	Bright	34.500	68	18Alp Cas	2.2250	4500.0	69	34969	No
10	GOM_NL__2PRFIN20081107_012306_000000362073_00346_34969_9889.N1	07-NOV-2008 01:23:06	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34969	No
11	GOM_NL__2PRFIN20081107_012711_000000382073_00346_34969_9890.N1	07-NOV-2008 01:27:11	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	34969	No
12	GOM_NL__2PRFIN20081107_013105_000000402073_00346_34969_9891.N1	07-NOV-2008 01:31:05	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	34969	No
13	GOM_NL__2PRFIN20081107_013242_000000402073_00346_34969_9892.N1	07-NOV-2008 01:32:42	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	34969	No
14	GOM_NL__2PRFIN20081107_013632_000000382073_00346_34969_9893.N1	07-NOV-2008 01:36:32	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	34969	No
15	GOM_NL__2PRFIN20081107_014421_000000402073_00346_34969_9894.N1	07-NOV-2008 01:44:21	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	34969	No
16	GOM_NL__2PRFIN20081107_020428_000000392073_00346_34969_9895.N1	07-NOV-2008 02:04:28	Dark	38.500	113	Mu Vel	2.6920	5000.0	77	34969	No
17	GOM_NL__2PRFIN20081107_021039_000000372073_00347_34970_9899.N1	07-NOV-2008 02:10:39	Dark	37.000	29	Bet Car	1.6720	10200.	74	34970	No
18	GOM_NL__2PRFIN20081107_021632_000000612073_00347_34970_9900.N1	07-NOV-2008 02:16:32	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	34970	No
19	GOM_NL__2PRFIN20081107_022608_000000382073_00347_34970_9901.N1	07-NOV-2008 02:26:08	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	34970	No
20	GOM_NL__2PRFIN20081107_024422_000000372073_00347_34970_9902.N1	07-NOV-2008 02:44:22	Bright	37.000	105	6Bet Ari	2.6450	8900.0	74	34970	No
21	GOM_NL__2PRFIN20081107_024834_000000392073_00347_34970_9903.N1	07-NOV-2008 02:48:34	Bright	38.500	53	43Bet And	2.0480	3300.0	77	34970	No
22	GOM_NL__2PRFIN20081107_025039_000000392073_00347_34970_9904.N1	07-NOV-2008 02:50:39	Bright	39.000	73	57Gam1And	2.2600	13100.	78	34970	No
23	GOM_NL__2PRFIN20081107_025431_000000382073_00347_34970_9905.N1	07-NOV-2008 02:54:31	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	34970	No
24	GOM_NL__2PRFIN20081107_030342_000000372073_00347_34970_9906.N1	07-NOV-2008 03:03:42	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	34970	No
25	GOM_NL__2PRFIN20081107_030747_000000362073_00347_34970_9907.N1	07-NOV-2008 03:07:47	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	34970	No
26	GOM_NL__2PRFIN20081107_031140_000000412073_00347_34970_9908.N1	07-NOV-2008 03:11:40	Bright	41.000	36	50Alp UMa	1.8000	6300.0	82	34970	No
27	GOM_NL__2PRFIN20081107_031318_000000402073_00347_34970_9909.N1	07-NOV-2008 03:13:18	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	34970	No
28	GOM_NL__2PRFIN20081107_031708_000000412073_00347_34970_9910.N1	07-NOV-2008 03:17:08	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	34970	No
29	GOM_NL__2PRFIN20081107_032457_000000402073_00347_34970_9911.N1	07-NOV-2008 03:24:57	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	34970	No
30	GOM_NL__2PRFIN20081107_034505_000000412073_00347_34970_9912.N1	07-NOV-2008 03:45:05	Dark	41.000	113	Mu Vel	2.6920	5000.0	82	34970	No
31	GOM_NL__2PRFIN20081107_035115_000000382073_00348_34971_9908.N1	07-NOV-2008 03:51:15	Dark	37.500	29	Bet Car	1.6720	10200.	75	34971	No
32	GOM_NL__2PRFIN20081107_035708_000000492073_00348_34971_9909.N1	07-NOV-2008 03:57:08	Dark	48.500	2	Alp Car	-0.73600	7000.0	97	34971	No
33	GOM_NL__2PRFIN20081107_040644_000000392073_00348_34971_9910.N1	07-NOV-2008 04:06:44	Straylight	38.500	157	The1Eri	2.9060	9300.0	77	34971	No
34	GOM_NL__2PRFIN20081107_042458_000000382073_00348_34971_9911.N1	07-NOV-2008 04:24:58	Bright	38.000	105	6Bet Ari	2.6450	8900.0	76	34971	No
35	GOM_NL__2PRFIN20081107_042910_000000382073_00348_34971_9912.N1	07-NOV-2008 04:29:10	Bright	38.000	53	43Bet And	2.0480	3300.0	76	34971	No
36	GOM_NL__2PRFIN20081107_043115_000000392073_00348_34971_9913.N1	07-NOV-2008 04:31:15	Bright	39.000	73	57Gam1And	2.2600	13100.	78	34971	No
37	GOM_NL__2PRFIN20081107_043507_000000362073_00348_34971_9914.N1	07-NOV-2008 04:35:07	Bright	36.000	68	18Alp Cas	2.2250	4500.0	72	34971	No
38	GOM_NL__2PRFIN20081107_044418_000000352073_00348_34971_9915.N1	07-NOV-2008 04:44:18	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	34971	No
39	GOM_NL__2PRFIN20081107_044823_000000342073_00348_34971_9916.N1	07-NOV-2008 04:48:23	Bright	33.500	60	7Bet UMi	2.0810	3950.0	67	34971	No
40	GOM_NL__2PRFIN20081107_045216_000000372073_00348_34971_9917.N1	07-NOV-2008 04:52:16	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34971	No
41	GOM_NL__2PRFIN20081107_045354_000000412073_00348_34971_9918.N1	07-NOV-2008 04:53:54	Bright	40.500	82	48Bet UMa	2.3650	10600.	81	34971	No
42	GOM_NL__2PRFIN20081107_045744_000000412073_00348_34971_9919.N1	07-NOV-2008 04:57:44	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	34971	No

161	GOM_NL__2PRFIN20081107_205247_000000402073_00358_34981_0115.N1	07-NOV-2008 20:52:47	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	34981	No
162	GOM_NL__2PRFIN20081107_210621_000000432073_00358_34981_0116.N1	07-NOV-2008 21:06:21	Tw_i_and_stray	43.000	94	92Alp Cet	2.5260	3100.0	86	34981	No
163	GOM_NL__2PRFIN20081107_211057_000000372073_00358_34981_0117.N1	07-NOV-2008 21:10:57	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	34981	No
164	GOM_NL__2PRFIN20081107_211510_000000382073_00358_34981_0118.N1	07-NOV-2008 21:15:10	Bright	38.000	53	43Bet And	2.0480	3300.0	76	34981	No
165	GOM_NL__2PRFIN20081107_211713_000000372073_00358_34981_0119.N1	07-NOV-2008 21:17:13	Bright	37.000	73	57Gam1And	2.2600	13100.	74	34981	No
166	GOM_NL__2PRFIN20081107_212108_000000332073_00358_34981_0120.N1	07-NOV-2008 21:21:08	Bright	33.000	68	18Alp Cas	2.2250	4500.0	66	34981	No
167	GOM_NL__2PRFIN20081107_213017_000000362073_00358_34981_0121.N1	07-NOV-2008 21:30:17	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34981	No
168	GOM_NL__2PRFIN20081107_213814_000000412073_00358_34981_0122.N1	07-NOV-2008 21:38:14	Bright	40.500	36	50Alp UMa	1.8000	6300.0	81	34981	No
169	GOM_NL__2PRFIN20081107_213952_000000402073_00358_34981_0123.N1	07-NOV-2008 21:39:52	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	34981	No
170	GOM_NL__2PRFIN20081107_214343_000000382073_00358_34981_0124.N1	07-NOV-2008 21:43:43	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	34981	No
171	GOM_NL__2PRFIN20081107_215136_000000412073_00358_34981_0125.N1	07-NOV-2008 21:51:36	Bright	40.500	96	68Del Leo	2.5600	9300.0	81	34981	No
172	GOM_NL__2PRFIN20081107_221145_000000392073_00358_34981_0126.N1	07-NOV-2008 22:11:45	Dark	38.500	113	Mu Vel	2.6920	5000.0	77	34981	No
173	GOM_NL__2PRFIN20081107_221754_000000402073_00359_34982_0127.N1	07-NOV-2008 22:17:54	Dark	40.000	29	Bet Car	1.6720	10200.	80	34982	No
174	GOM_NL__2PRFIN20081107_222352_000000622073_00359_34982_0128.N1	07-NOV-2008 22:23:52	Dark	61.500	2	Alp Car	-0.73600	7000.0	123	34982	No
175	GOM_NL__2PRFIN20081107_223323_000000402073_00359_34982_0129.N1	07-NOV-2008 22:33:23	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	34982	No
176	GOM_NL__2PRFIN20081107_224657_000000502073_00359_34982_0130.N1	07-NOV-2008 22:46:57	Tw_i_and_stray	50.000	94	92Alp Cet	2.5260	3100.0	100	34982	No
177	GOM_NL__2PRFIN20081107_225133_000000352073_00359_34982_0131.N1	07-NOV-2008 22:51:33	Bright	35.000	105	6Bet Ari	2.6450	8900.0	70	34982	No
178	GOM_NL__2PRFIN20081107_225546_000000382073_00359_34982_0132.N1	07-NOV-2008 22:55:46	Bright	37.500	53	43Bet And	2.0480	3300.0	75	34982	No
179	GOM_NL__2PRFIN20081107_225748_000000362073_00359_34982_0133.N1	07-NOV-2008 22:57:48	Bright	36.000	73	57Gam1And	2.2600	13100.	72	34982	No
180	GOM_NL__2PRFIN20081107_230144_000000342073_00359_34982_0134.N1	07-NOV-2008 23:01:44	Bright	34.000	68	18Alp Cas	2.2250	4500.0	68	34982	No
181	GOM_NL__2PRFIN20081107_231053_000000362073_00359_34982_0135.N1	07-NOV-2008 23:10:53	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34982	No
182	GOM_NL__2PRFIN20081107_231850_000000372073_00359_34982_0136.N1	07-NOV-2008 23:18:50	Bright	36.500	36	50Alp UMa	1.8000	6300.0	73	34982	No
183	GOM_NL__2PRFIN20081107_232028_000000582073_00359_34982_0137.N1	07-NOV-2008 23:20:28	Bright	58.000	82	48Bet UMa	2.3650	10600.	116	34982	No
184	GOM_NL__2PRFIN20081107_232419_000000432073_00359_34982_0138.N1	07-NOV-2008 23:24:19	Bright	42.500	174	52Psi UMa	3.0040	4400.0	85	34982	No
185	GOM_NL__2PRFIN20081107_233212_000000432073_00359_34982_0139.N1	07-NOV-2008 23:32:12	Bright	43.000	96	68Del Leo	2.5600	9300.0	86	34982	No
186	GOM_NL__2PRFIN20081107_235222_000000422073_00359_34982_0140.N1	07-NOV-2008 23:52:22	Dark	41.500	113	Mu Vel	2.6920	5000.0	83	34982	No
187	GOM_NL__2PRFIN20081107_235831_000000402073_00360_34983_0141.N1	07-NOV-2008 23:58:31	Dark	39.500	29	Bet Car	1.6720	10200.	79	34983	No

3. Quality information per product

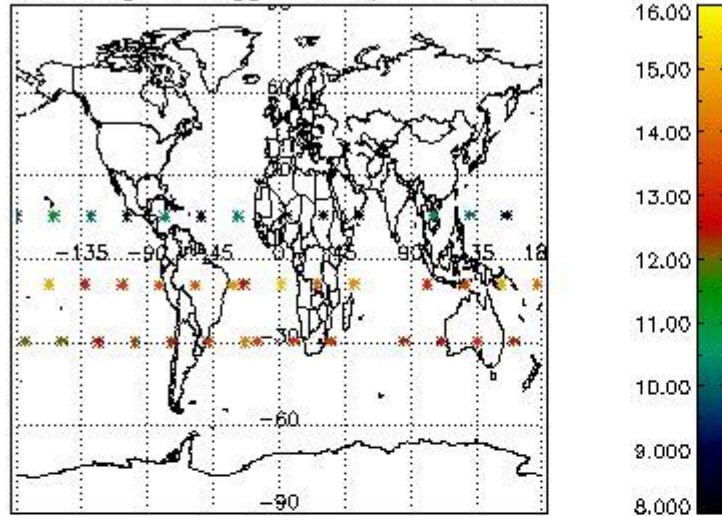
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

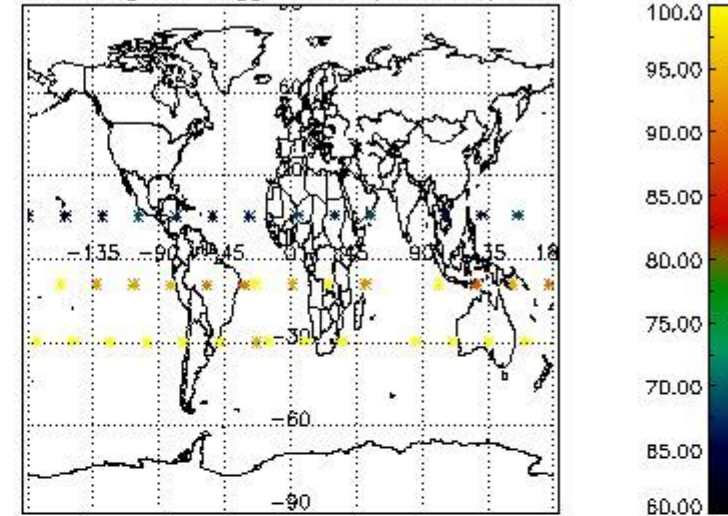


3.2 Plot quality information per product (world map)

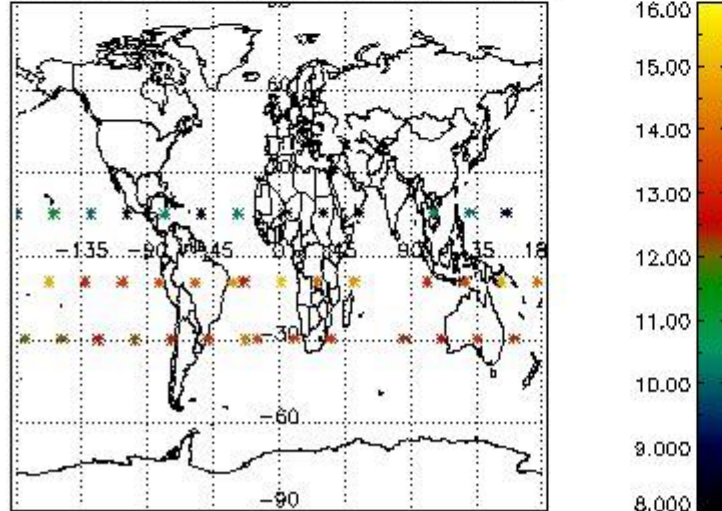
Percentage of flagged data per O3 profile



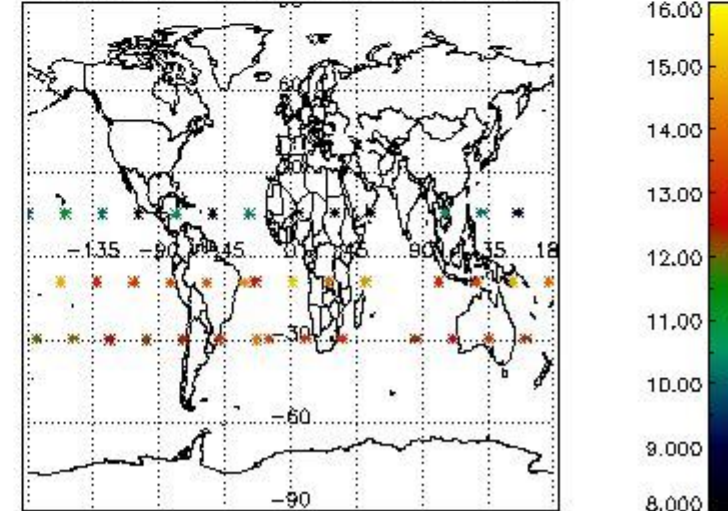
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

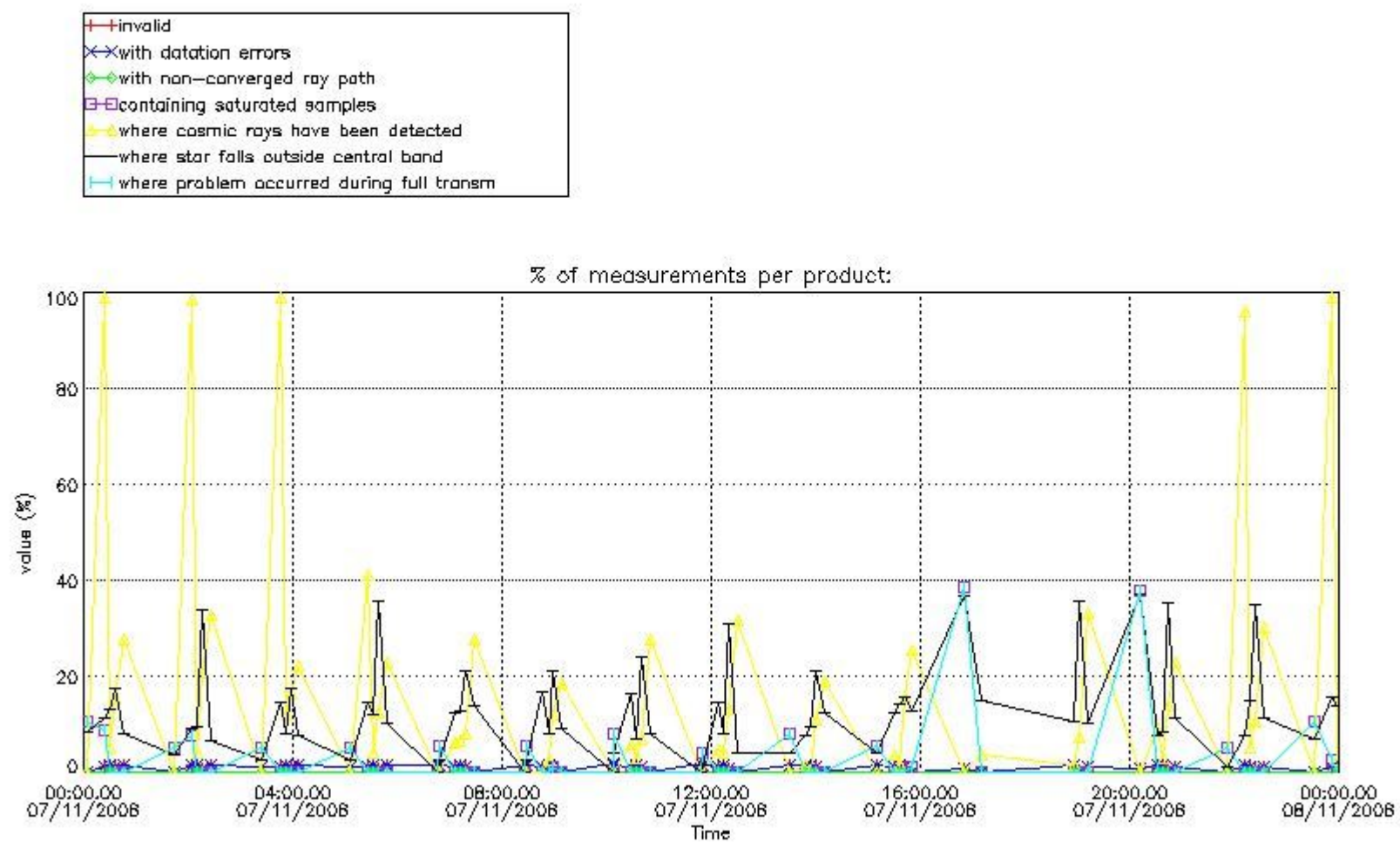


4. Level 1 quality information per product

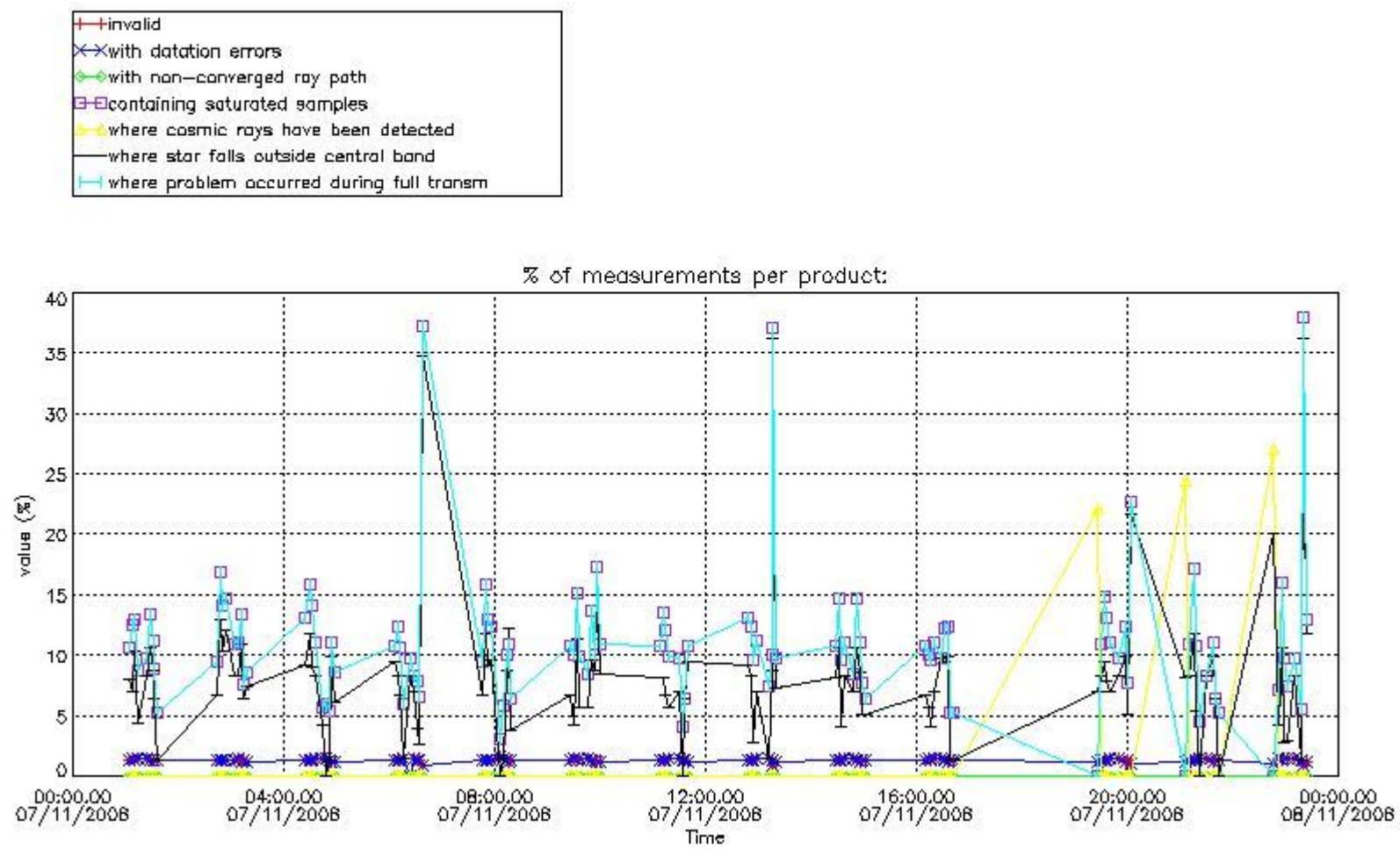
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

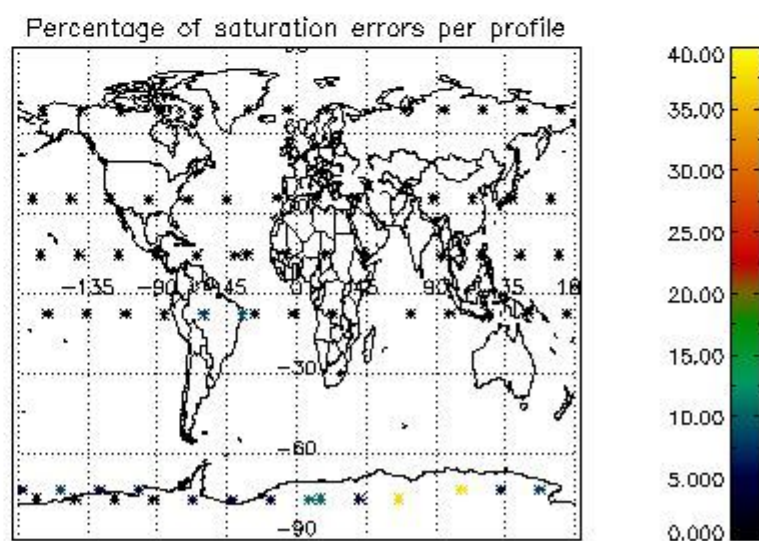
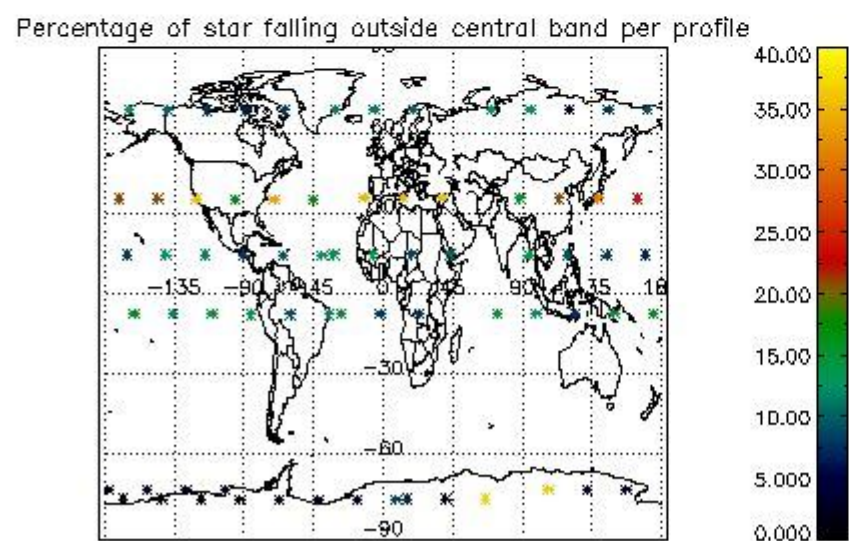
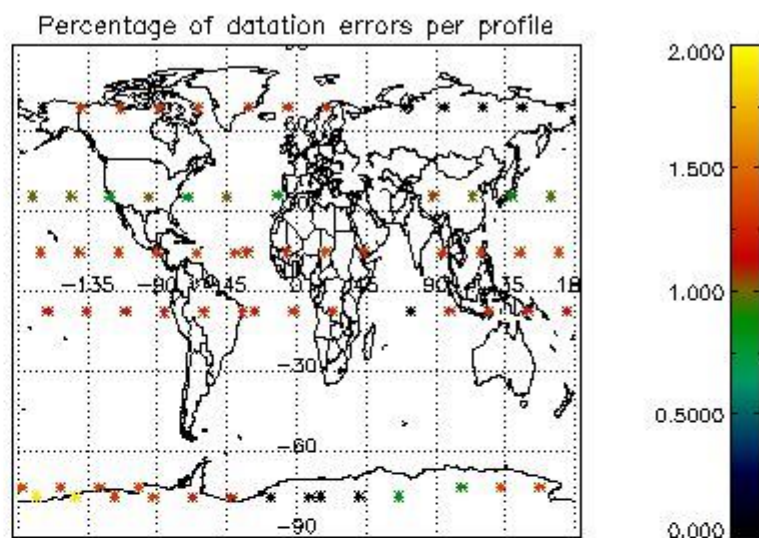
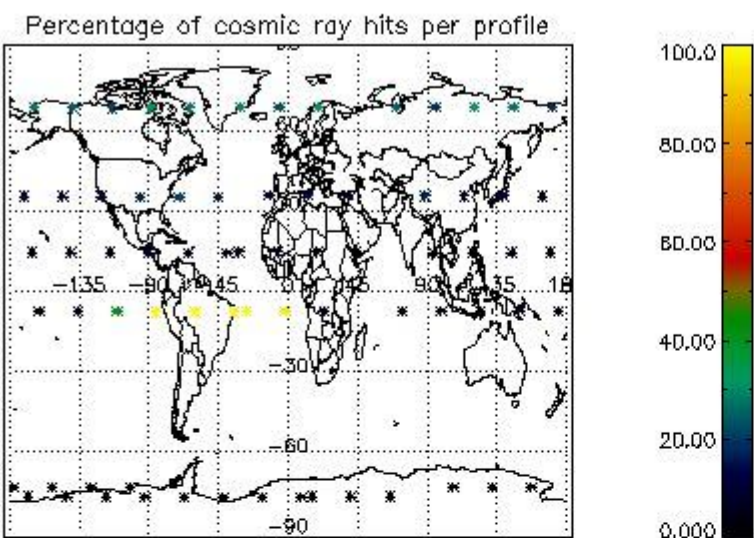


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

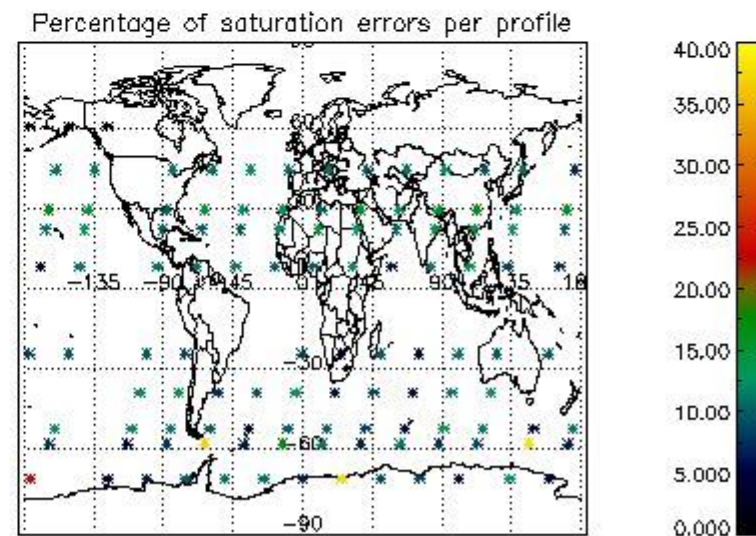
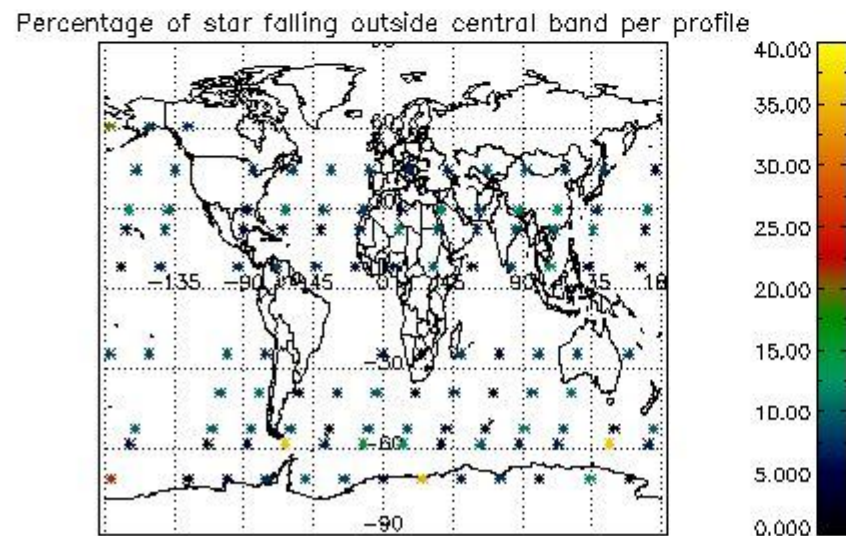
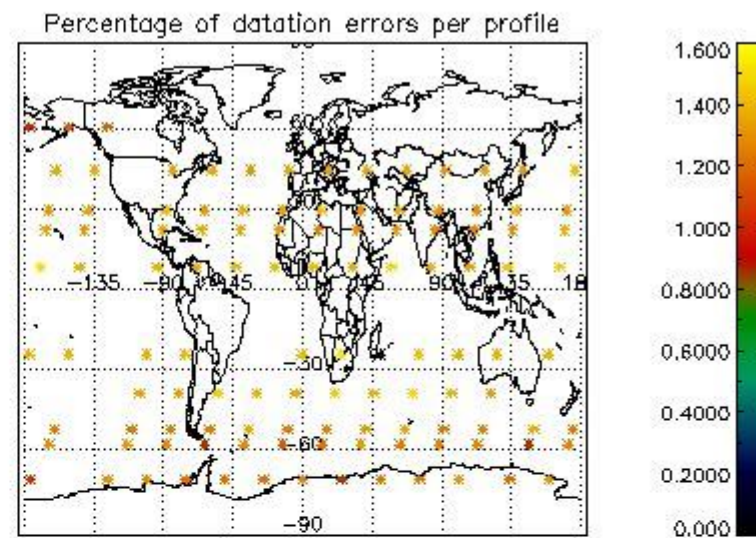
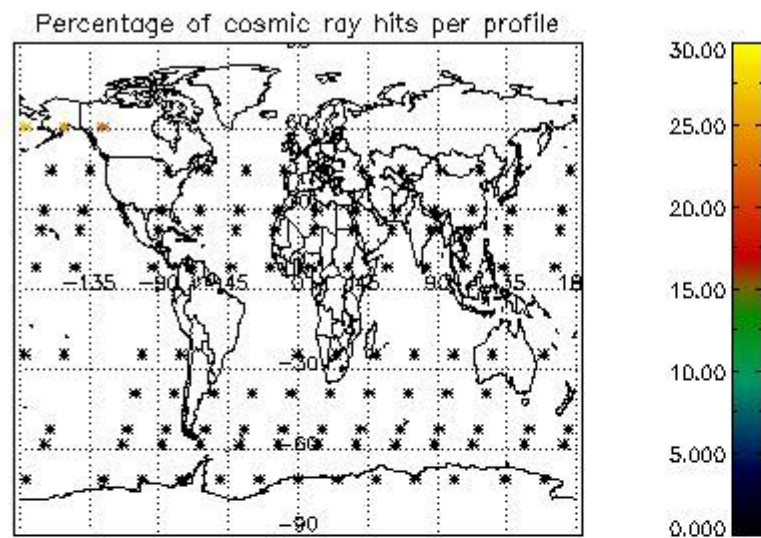


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

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

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

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

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

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

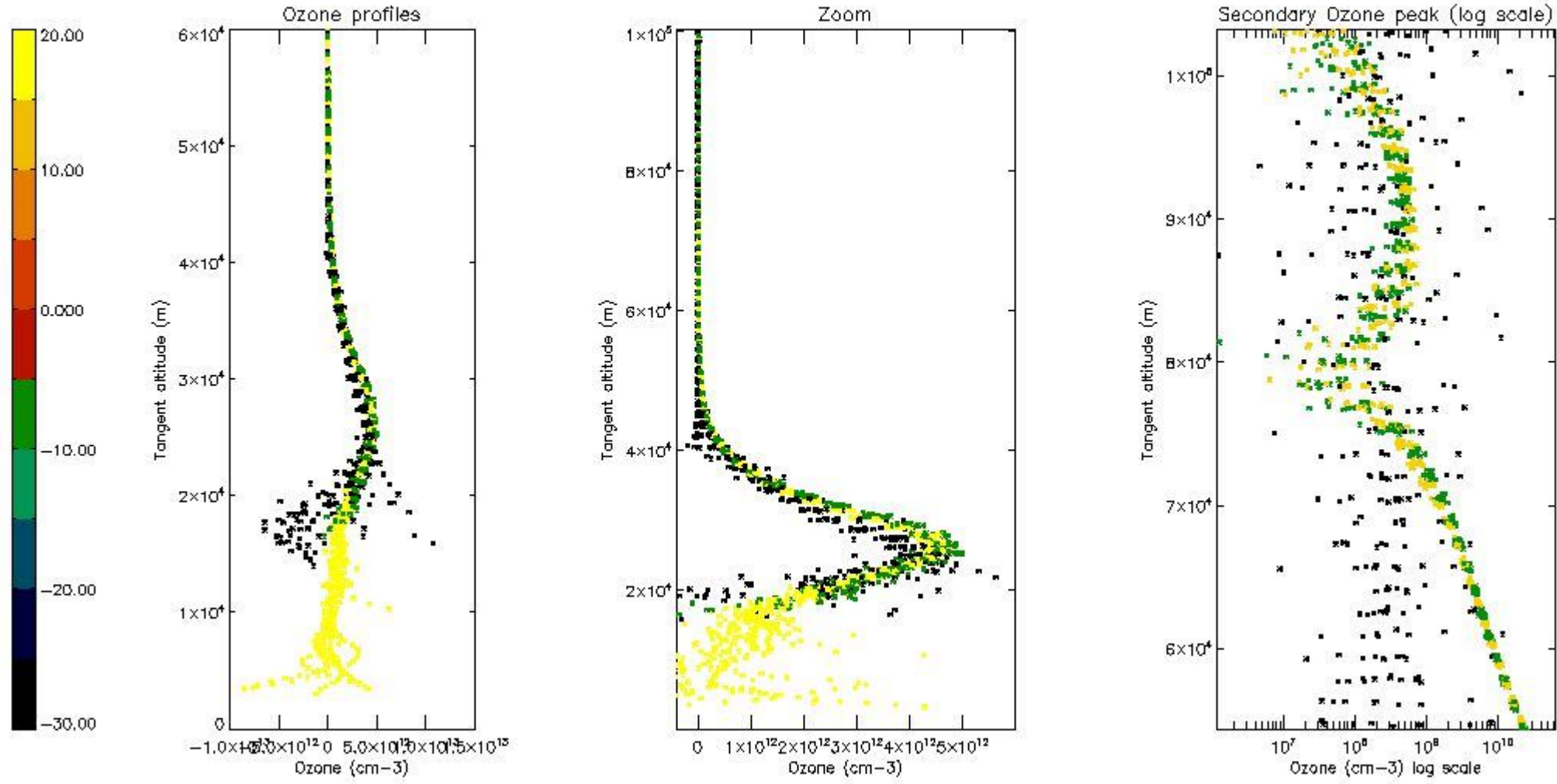
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	25
STD < 20	14

STD < 10	10
STD < 5	7

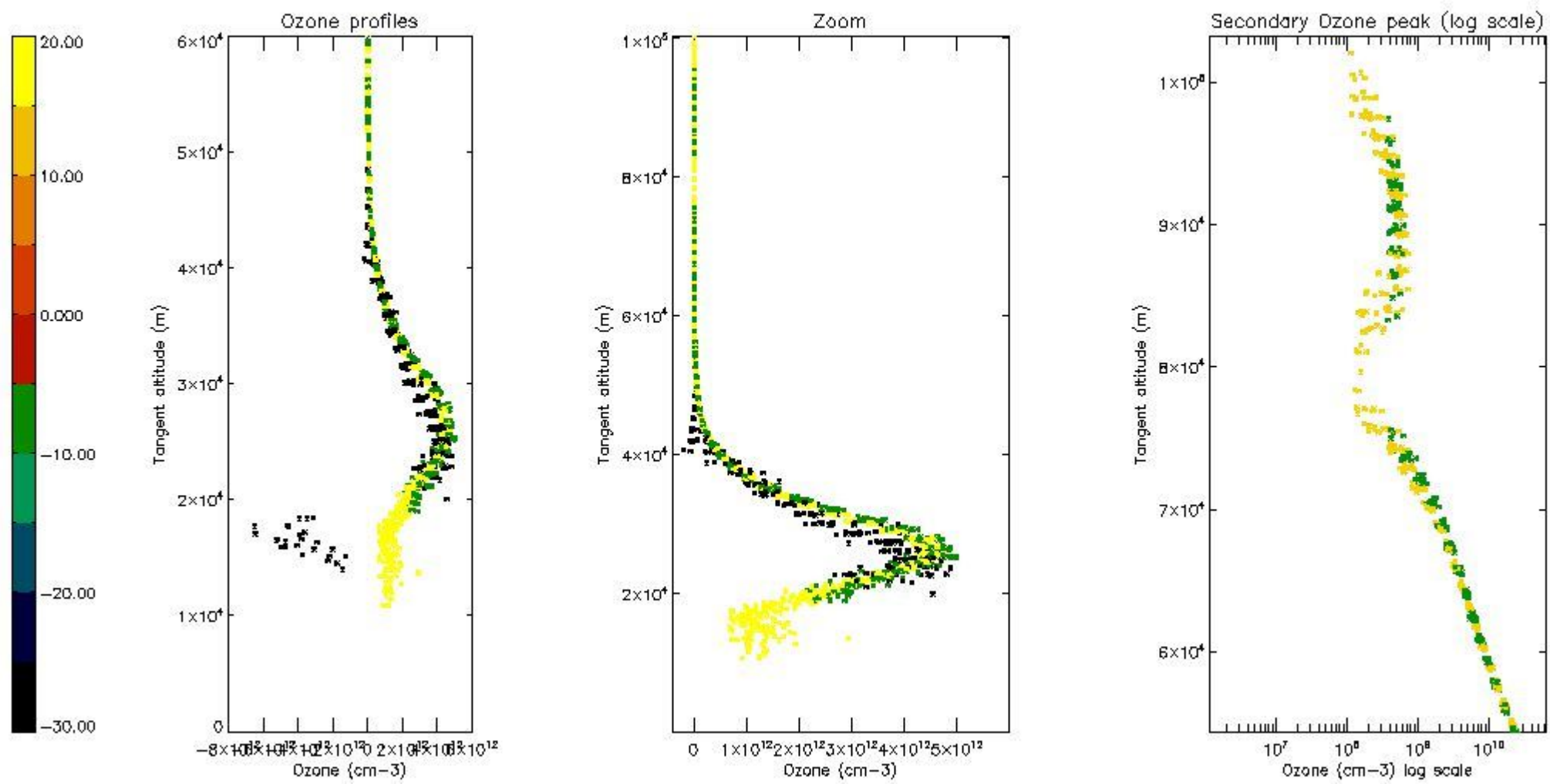
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



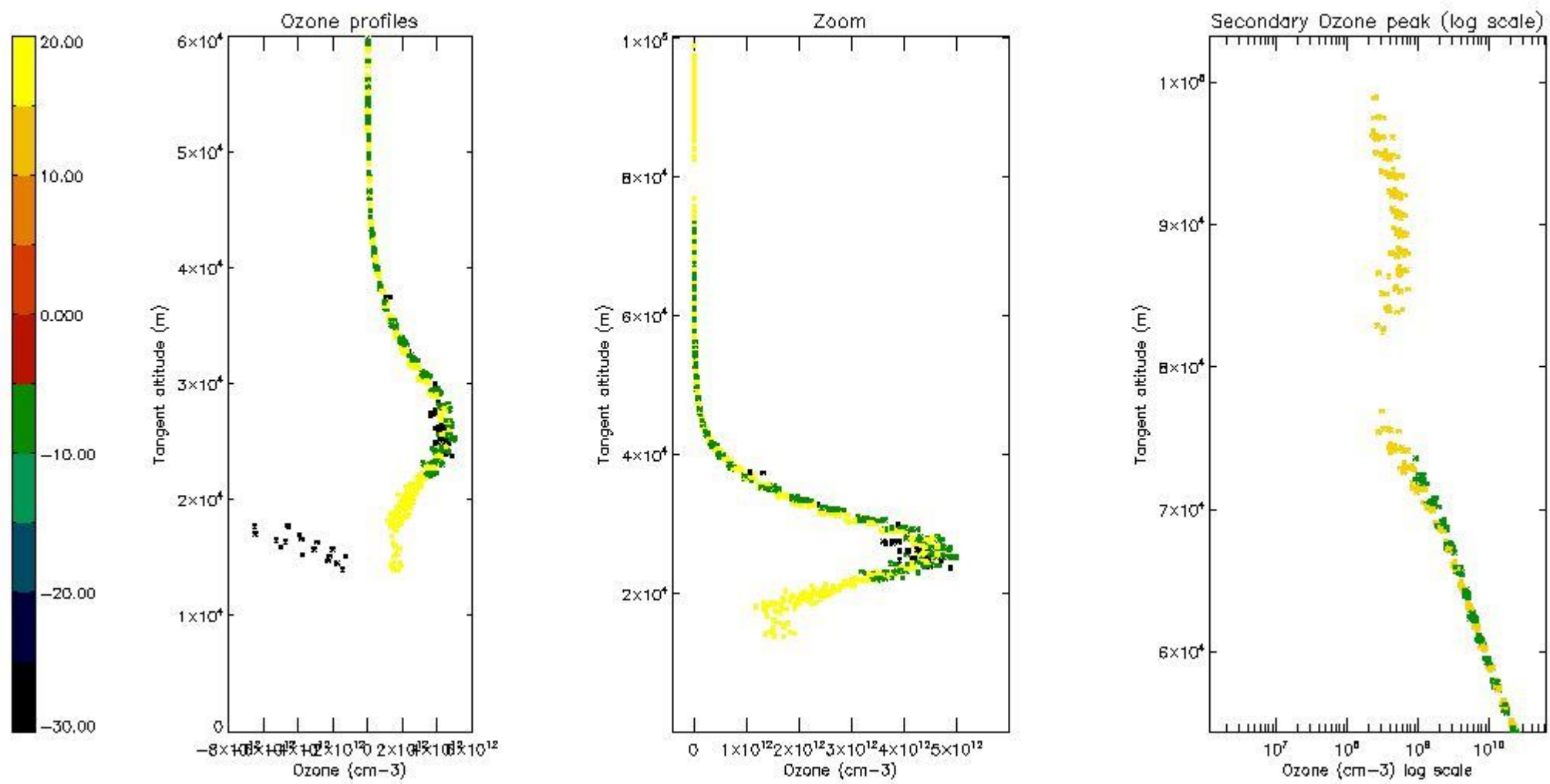
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



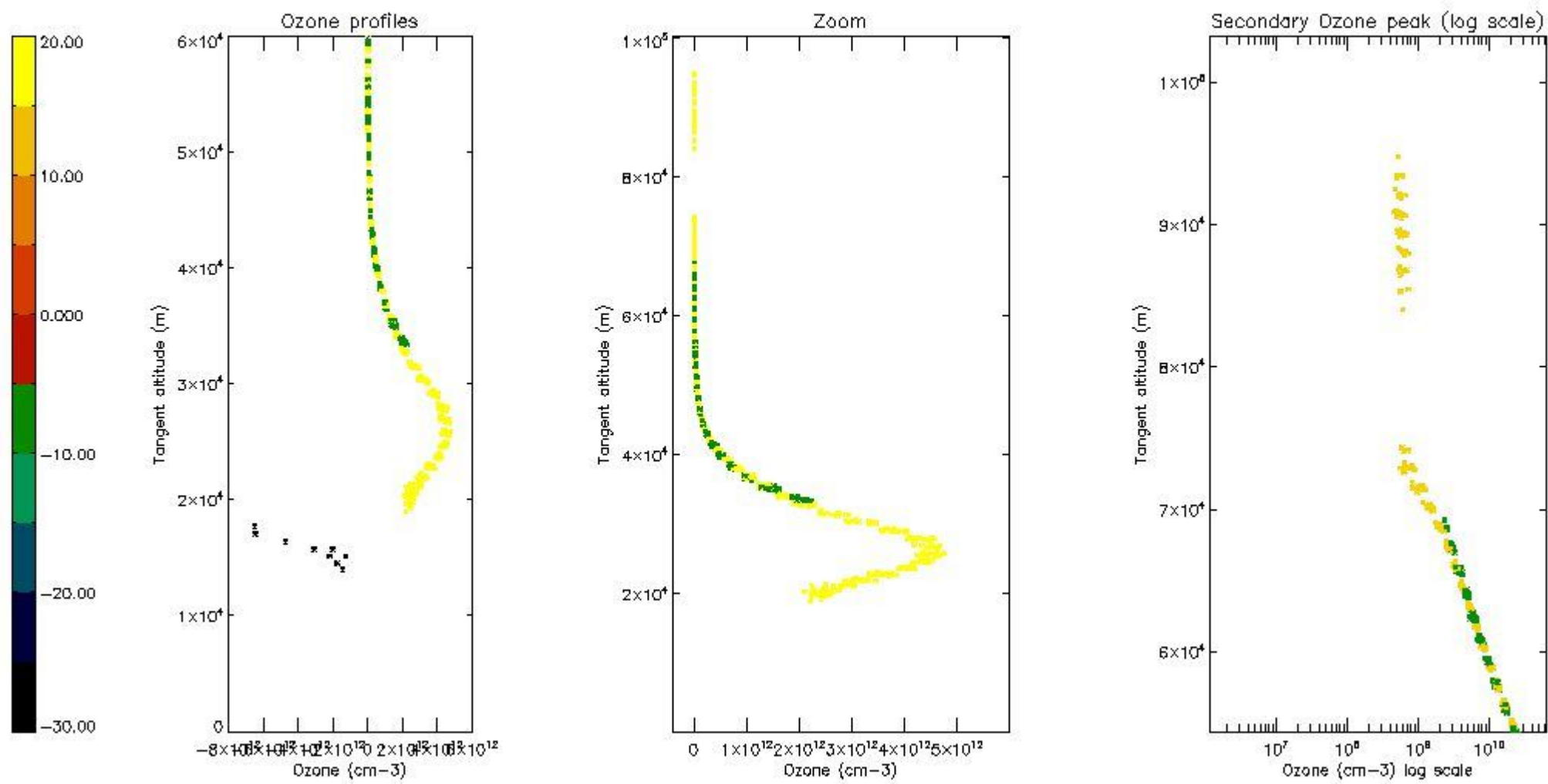
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



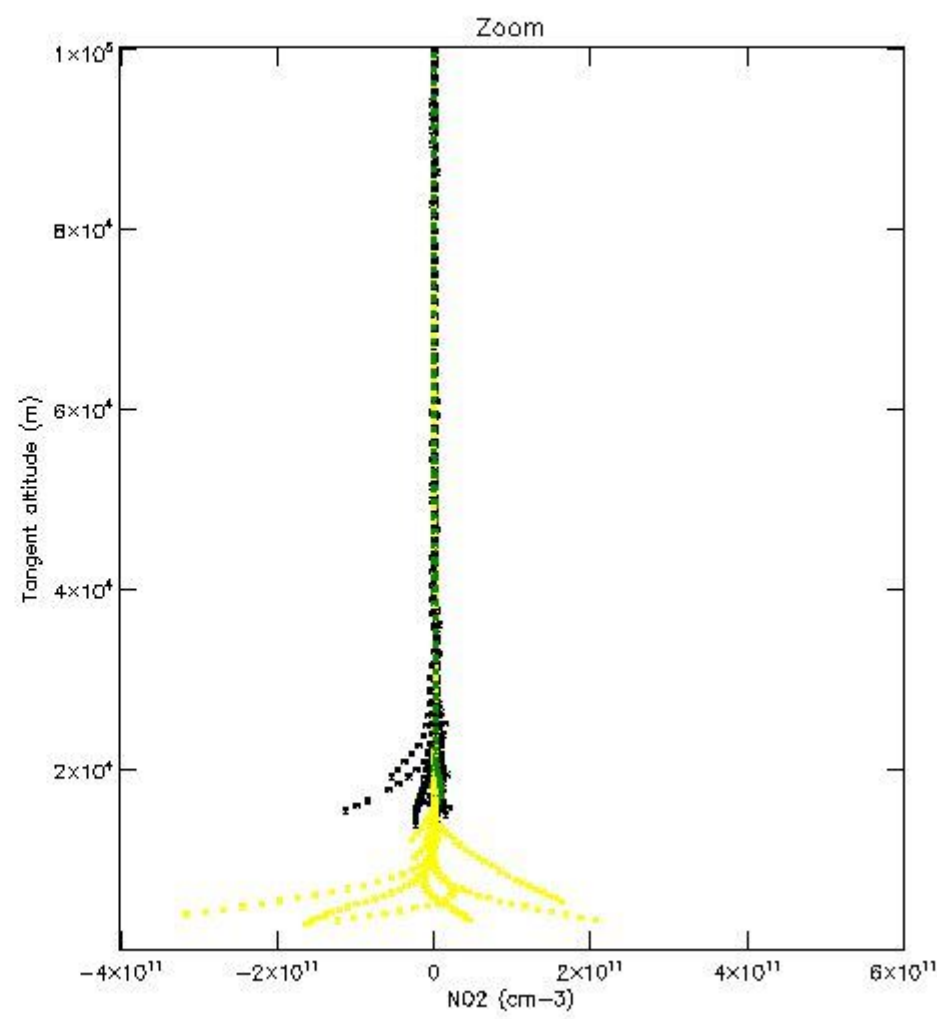
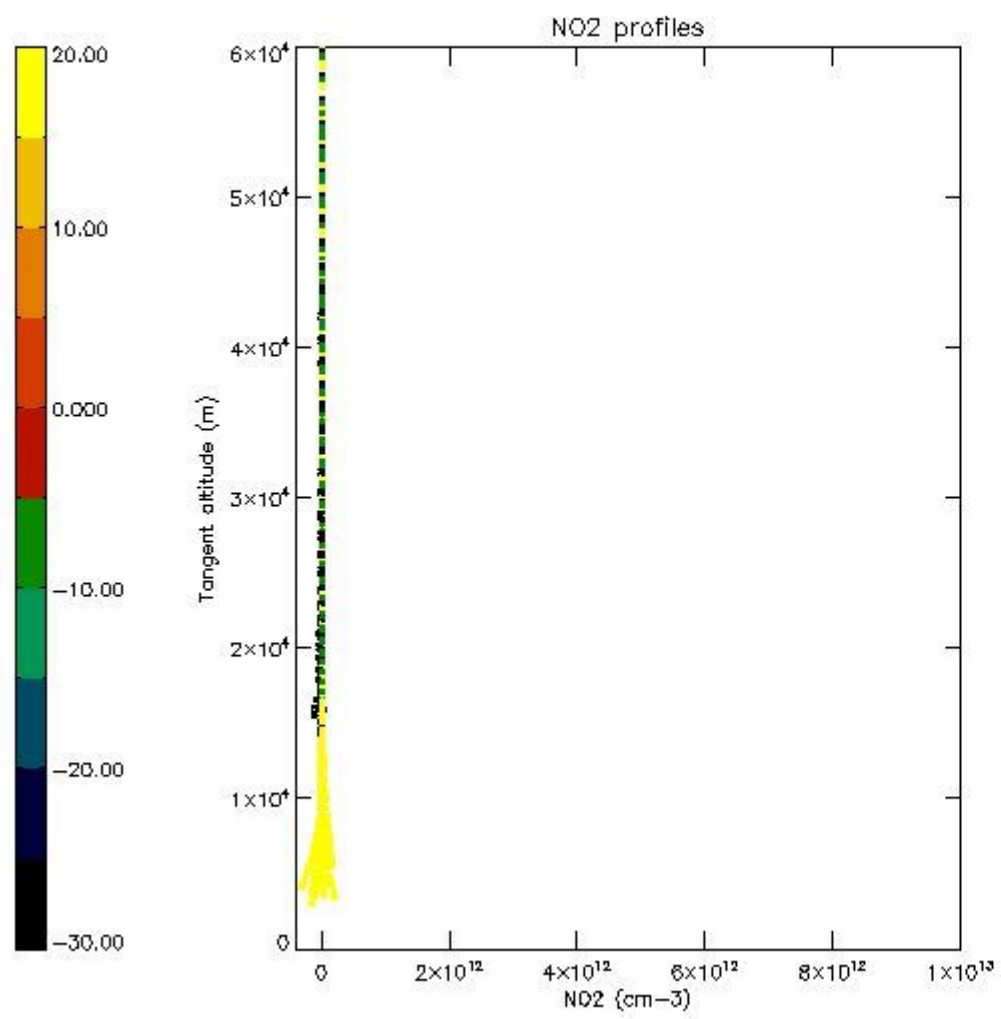
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



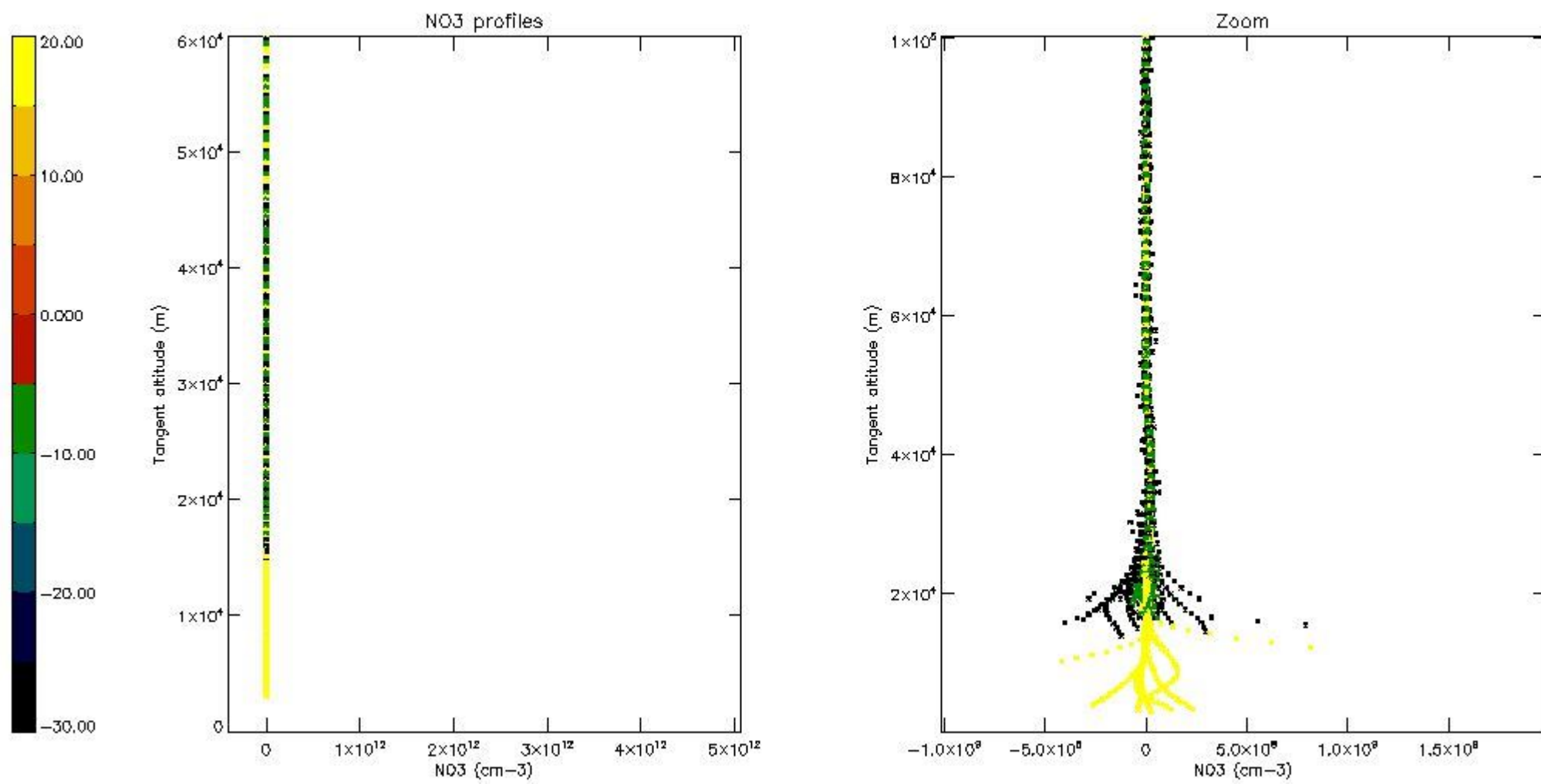
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



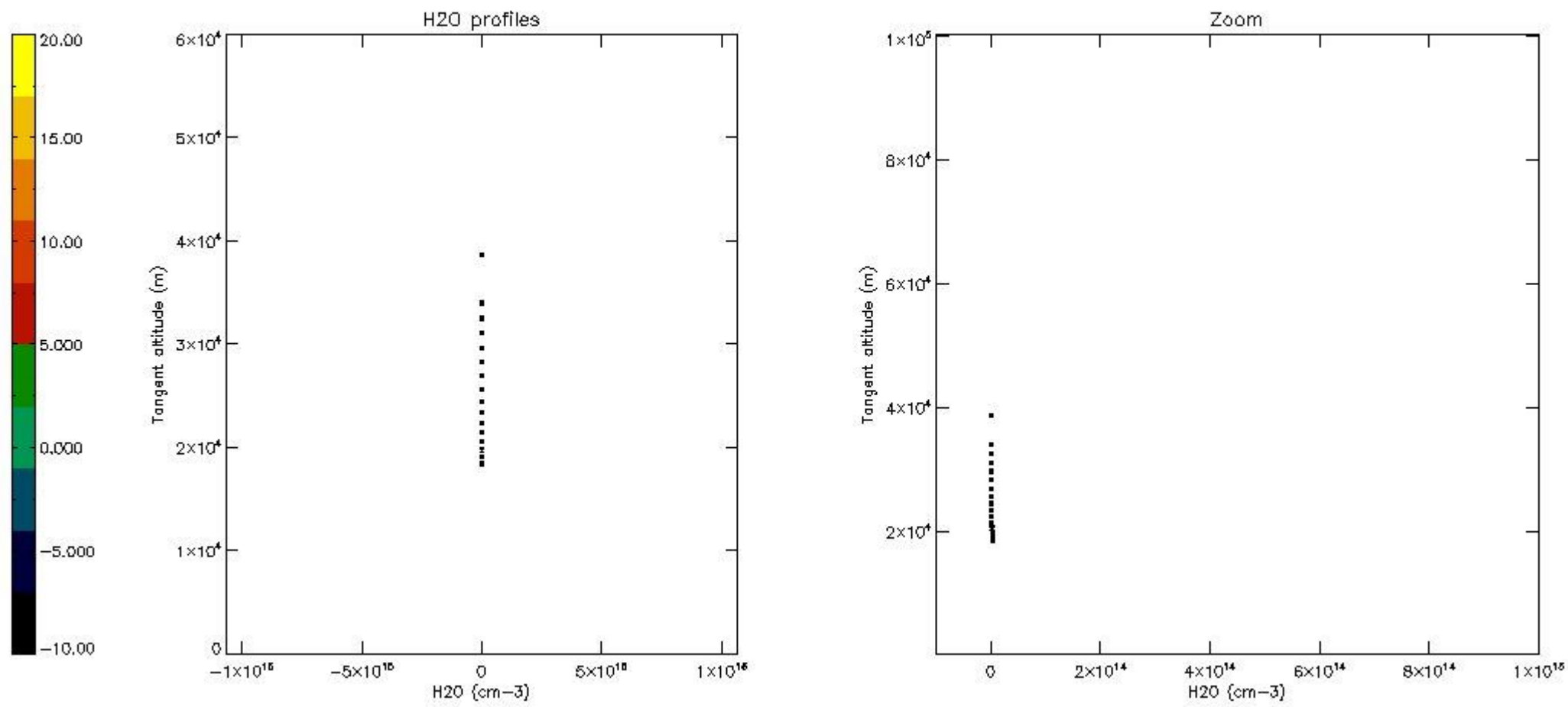
5.7 Plot NO3 profiles for all STD (dark without errors)

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	07-NOV-2008 00:03:45
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	07-NOV-2008 00:03:45
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	07-NOV-2008 00:03:45

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 21:48:09
Data source version	GOMOS/6.01
Start time of products	07-11-2008 (07NOV2008 00:00:00)
Stop time of products	08-11-2008 (08NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	187
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

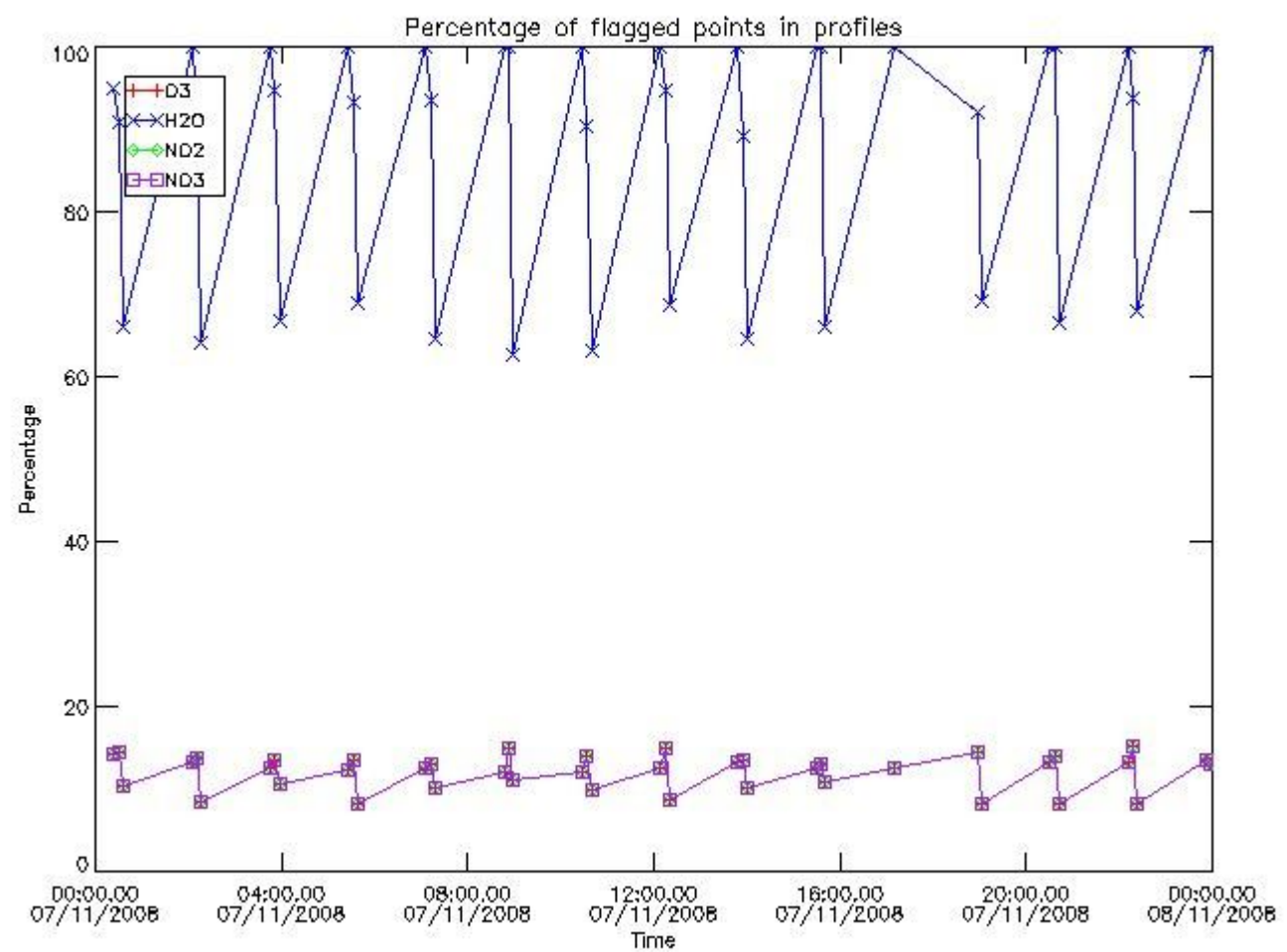
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081107_000345_000000432073_00345_34968_9889.N1	07-NOV-2008 00:03:45	Bright	42.500	96	68Del Leo	2.5600	9300.0	85	34968	No
2	GOM_NL__2PRFIN20081107_002352_000000402073_00345_34968_9890.N1	07-NOV-2008 00:23:52	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	34968	No
3	GOM_NL__2PRFIN20081107_003003_000000392073_00346_34969_9882.N1	07-NOV-2008 00:30:03	Dark	38.500	29	Bet Car	1.6720	10200.	77	34969	No
4	GOM_NL__2PRFIN20081107_003555_000000492073_00346_34969_9883.N1	07-NOV-2008 00:35:55	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	34969	No
5	GOM_NL__2PRFIN20081107_004532_000000382073_00346_34969_9884.N1	07-NOV-2008 00:45:32	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	34969	No
6	GOM_NL__2PRFIN20081107_010346_000000382073_00346_34969_9885.N1	07-NOV-2008 01:03:46	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	34969	No
7	GOM_NL__2PRFIN20081107_010758_000000362073_00346_34969_9886.N1	07-NOV-2008 01:07:58	Bright	36.000	53	43Bet And	2.0480	3300.0	72	34969	No
8	GOM_NL__2PRFIN20081107_011003_000000392073_00346_34969_9887.N1	07-NOV-2008 01:10:03	Bright	38.500	73	57Gam1And	2.2600	13100.	77	34969	No
9	GOM_NL__2PRFIN20081107_011355_000000352073_00346_34969_9888.N1	07-NOV-2008 01:13:55	Bright	34.500	68	18Alp Cas	2.2250	4500.0	69	34969	No
10	GOM_NL__2PRFIN20081107_012306_000000362073_00346_34969_9889.N1	07-NOV-2008 01:23:06	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34969	No
11	GOM_NL__2PRFIN20081107_012711_000000382073_00346_34969_9890.N1	07-NOV-2008 01:27:11	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	34969	No
12	GOM_NL__2PRFIN20081107_013105_000000402073_00346_34969_9891.N1	07-NOV-2008 01:31:05	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	34969	No
13	GOM_NL__2PRFIN20081107_013242_000000402073_00346_34969_9892.N1	07-NOV-2008 01:32:42	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	34969	No
14	GOM_NL__2PRFIN20081107_013632_000000382073_00346_34969_9893.N1	07-NOV-2008 01:36:32	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	34969	No
15	GOM_NL__2PRFIN20081107_014421_000000402073_00346_34969_9894.N1	07-NOV-2008 01:44:21	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	34969	No
16	GOM_NL__2PRFIN20081107_020428_000000392073_00346_34969_9895.N1	07-NOV-2008 02:04:28	Dark	38.500	113	Mu Vel	2.6920	5000.0	77	34969	No
17	GOM_NL__2PRFIN20081107_021039_000000372073_00347_34970_9899.N1	07-NOV-2008 02:10:39	Dark	37.000	29	Bet Car	1.6720	10200.	74	34970	No
18	GOM_NL__2PRFIN20081107_021632_000000612073_00347_34970_9900.N1	07-NOV-2008 02:16:32	Dark	60.500	2	Alp Car	-0.73600	7000.0	121	34970	No
19	GOM_NL__2PRFIN20081107_022608_000000382073_00347_34970_9901.N1	07-NOV-2008 02:26:08	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	34970	No
20	GOM_NL__2PRFIN20081107_024422_000000372073_00347_34970_9902.N1	07-NOV-2008 02:44:22	Bright	37.000	105	6Bet Ari	2.6450	8900.0	74	34970	No
21	GOM_NL__2PRFIN20081107_024834_000000392073_00347_34970_9903.N1	07-NOV-2008 02:48:34	Bright	38.500	53	43Bet And	2.0480	3300.0	77	34970	No
22	GOM_NL__2PRFIN20081107_025039_000000392073_00347_34970_9904.N1	07-NOV-2008 02:50:39	Bright	39.000	73	57Gam1And	2.2600	13100.	78	34970	No
23	GOM_NL__2PRFIN20081107_025431_000000382073_00347_34970_9905.N1	07-NOV-2008 02:54:31	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	34970	No
24	GOM_NL__2PRFIN20081107_030342_000000372073_00347_34970_9906.N1	07-NOV-2008 03:03:42	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	34970	No
25	GOM_NL__2PRFIN20081107_030747_000000362073_00347_34970_9907.N1	07-NOV-2008 03:07:47	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	34970	No
26	GOM_NL__2PRFIN20081107_031140_000000412073_00347_34970_9908.N1	07-NOV-2008 03:11:40	Bright	41.000	36	50Alp UMa	1.8000	6300.0	82	34970	No
27	GOM_NL__2PRFIN20081107_031318_000000402073_00347_34970_9909.N1	07-NOV-2008 03:13:18	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	34970	No
28	GOM_NL__2PRFIN20081107_031708_000000412073_00347_34970_9910.N1	07-NOV-2008 03:17:08	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	34970	No
29	GOM_NL__2PRFIN20081107_032457_000000402073_00347_34970_9911.N1	07-NOV-2008 03:24:57	Bright	40.000	96	68Del Leo	2.5600	9300.0	80	34970	No
30	GOM_NL__2PRFIN20081107_034505_000000412073_00347_34970_9912.N1	07-NOV-2008 03:45:05	Dark	41.000	113	Mu Vel	2.6920	5000.0	82	34970	No
31	GOM_NL__2PRFIN20081107_035115_000000382073_00348_34971_9908.N1	07-NOV-2008 03:51:15	Dark	37.500	29	Bet Car	1.6720	10200.	75	34971	No
32	GOM_NL__2PRFIN20081107_035708_000000492073_00348_34971_9909.N1	07-NOV-2008 03:57:08	Dark	48.500	2	Alp Car	-0.73600	7000.0	97	34971	No
33	GOM_NL__2PRFIN20081107_040644_000000392073_00348_34971_9910.N1	07-NOV-2008 04:06:44	Straylight	38.500	157	The1Eri	2.9060	9300.0	77	34971	No
34	GOM_NL__2PRFIN20081107_042458_000000382073_00348_34971_9911.N1	07-NOV-2008 04:24:58	Bright	38.000	105	6Bet Ari	2.6450	8900.0	76	34971	No
35	GOM_NL__2PRFIN20081107_042910_000000382073_00348_34971_9912.N1	07-NOV-2008 04:29:10	Bright	38.000	53	43Bet And	2.0480	3300.0	76	34971	No
36	GOM_NL__2PRFIN20081107_043115_000000392073_00348_34971_9913.N1	07-NOV-2008 04:31:15	Bright	39.000	73	57Gam1And	2.2600	13100.	78	34971	No
37	GOM_NL__2PRFIN20081107_043507_000000362073_00348_34971_9914.N1	07-NOV-2008 04:35:07	Bright	36.000	68	18Alp Cas	2.2250	4500.0	72	34971	No
38	GOM_NL__2PRFIN20081107_044418_000000352073_00348_34971_9915.N1	07-NOV-2008 04:44:18	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	34971	No
39	GOM_NL__2PRFIN20081107_044823_000000342073_00348_34971_9916.N1	07-NOV-2008 04:48:23	Bright	33.500	60	7Bet UMi	2.0810	3950.0	67	34971	No
40	GOM_NL__2PRFIN20081107_045216_000000372073_00348_34971_9917.N1	07-NOV-2008 04:52:16	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34971	No
41	GOM_NL__2PRFIN20081107_045354_000000412073_00348_34971_9918.N1	07-NOV-2008 04:53:54	Bright	40.500	82	48Bet UMa	2.3650	10600.	81	34971	No
42	GOM_NL__2PRFIN20081107_045744_000000412073_00348_34971_9919.N1	07-NOV-2008 04:57:44	Bright	40.500	174	52Psi UMa	3.0040	4400.0	81	34971	No

161	GOM_NL__2PRFIN20081107_205247_000000402073_00358_34981_0115.N1	07-NOV-2008 20:52:47	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	34981	No
162	GOM_NL__2PRFIN20081107_210621_000000432073_00358_34981_0116.N1	07-NOV-2008 21:06:21	Tw_i_and_stray	43.000	94	92Alp Cet	2.5260	3100.0	86	34981	No
163	GOM_NL__2PRFIN20081107_211057_000000372073_00358_34981_0117.N1	07-NOV-2008 21:10:57	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	34981	No
164	GOM_NL__2PRFIN20081107_211510_000000382073_00358_34981_0118.N1	07-NOV-2008 21:15:10	Bright	38.000	53	43Bet And	2.0480	3300.0	76	34981	No
165	GOM_NL__2PRFIN20081107_211713_000000372073_00358_34981_0119.N1	07-NOV-2008 21:17:13	Bright	37.000	73	57Gam1And	2.2600	13100.	74	34981	No
166	GOM_NL__2PRFIN20081107_212108_000000332073_00358_34981_0120.N1	07-NOV-2008 21:21:08	Bright	33.000	68	18Alp Cas	2.2250	4500.0	66	34981	No
167	GOM_NL__2PRFIN20081107_213017_000000362073_00358_34981_0121.N1	07-NOV-2008 21:30:17	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34981	No
168	GOM_NL__2PRFIN20081107_213814_000000412073_00358_34981_0122.N1	07-NOV-2008 21:38:14	Bright	40.500	36	50Alp UMa	1.8000	6300.0	81	34981	No
169	GOM_NL__2PRFIN20081107_213952_000000402073_00358_34981_0123.N1	07-NOV-2008 21:39:52	Bright	39.500	82	48Bet UMa	2.3650	10600.	79	34981	No
170	GOM_NL__2PRFIN20081107_214343_000000382073_00358_34981_0124.N1	07-NOV-2008 21:43:43	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	34981	No
171	GOM_NL__2PRFIN20081107_215136_000000412073_00358_34981_0125.N1	07-NOV-2008 21:51:36	Bright	40.500	96	68Del Leo	2.5600	9300.0	81	34981	No
172	GOM_NL__2PRFIN20081107_221145_000000392073_00358_34981_0126.N1	07-NOV-2008 22:11:45	Dark	38.500	113	Mu Vel	2.6920	5000.0	77	34981	No
173	GOM_NL__2PRFIN20081107_221754_000000402073_00359_34982_0127.N1	07-NOV-2008 22:17:54	Dark	40.000	29	Bet Car	1.6720	10200.	80	34982	No
174	GOM_NL__2PRFIN20081107_222352_000000622073_00359_34982_0128.N1	07-NOV-2008 22:23:52	Dark	61.500	2	Alp Car	-0.73600	7000.0	123	34982	No
175	GOM_NL__2PRFIN20081107_223323_000000402073_00359_34982_0129.N1	07-NOV-2008 22:33:23	Straylight	40.000	157	The1Eri	2.9060	9300.0	80	34982	No
176	GOM_NL__2PRFIN20081107_224657_000000502073_00359_34982_0130.N1	07-NOV-2008 22:46:57	Tw_i_and_stray	50.000	94	92Alp Cet	2.5260	3100.0	100	34982	No
177	GOM_NL__2PRFIN20081107_225133_000000352073_00359_34982_0131.N1	07-NOV-2008 22:51:33	Bright	35.000	105	6Bet Ari	2.6450	8900.0	70	34982	No
178	GOM_NL__2PRFIN20081107_225546_000000382073_00359_34982_0132.N1	07-NOV-2008 22:55:46	Bright	37.500	53	43Bet And	2.0480	3300.0	75	34982	No
179	GOM_NL__2PRFIN20081107_225748_000000362073_00359_34982_0133.N1	07-NOV-2008 22:57:48	Bright	36.000	73	57Gam1And	2.2600	13100.	72	34982	No
180	GOM_NL__2PRFIN20081107_230144_000000342073_00359_34982_0134.N1	07-NOV-2008 23:01:44	Bright	34.000	68	18Alp Cas	2.2250	4500.0	68	34982	No
181	GOM_NL__2PRFIN20081107_231053_000000362073_00359_34982_0135.N1	07-NOV-2008 23:10:53	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34982	No
182	GOM_NL__2PRFIN20081107_231850_000000372073_00359_34982_0136.N1	07-NOV-2008 23:18:50	Bright	36.500	36	50Alp UMa	1.8000	6300.0	73	34982	No
183	GOM_NL__2PRFIN20081107_232028_000000582073_00359_34982_0137.N1	07-NOV-2008 23:20:28	Bright	58.000	82	48Bet UMa	2.3650	10600.	116	34982	No
184	GOM_NL__2PRFIN20081107_232419_000000432073_00359_34982_0138.N1	07-NOV-2008 23:24:19	Bright	42.500	174	52Psi UMa	3.0040	4400.0	85	34982	No
185	GOM_NL__2PRFIN20081107_233212_000000432073_00359_34982_0139.N1	07-NOV-2008 23:32:12	Bright	43.000	96	68Del Leo	2.5600	9300.0	86	34982	No
186	GOM_NL__2PRFIN20081107_235222_000000422073_00359_34982_0140.N1	07-NOV-2008 23:52:22	Dark	41.500	113	Mu Vel	2.6920	5000.0	83	34982	No
187	GOM_NL__2PRFIN20081107_235831_000000402073_00360_34983_0141.N1	07-NOV-2008 23:58:31	Dark	39.500	29	Bet Car	1.6720	10200.	79	34983	No

3. Quality information per product

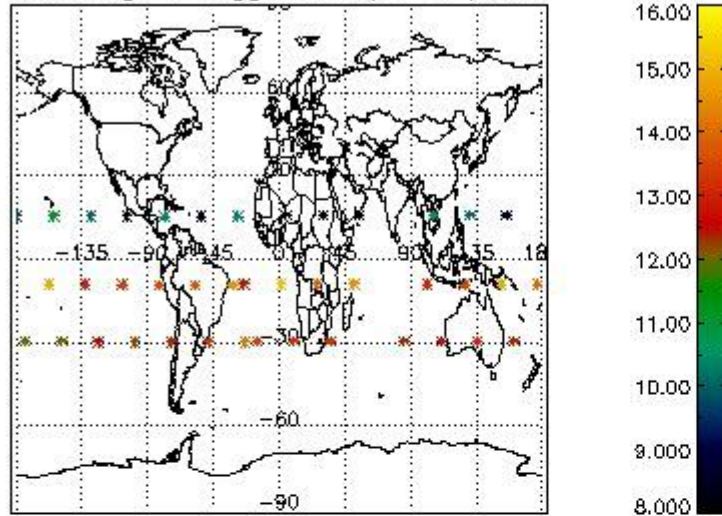
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

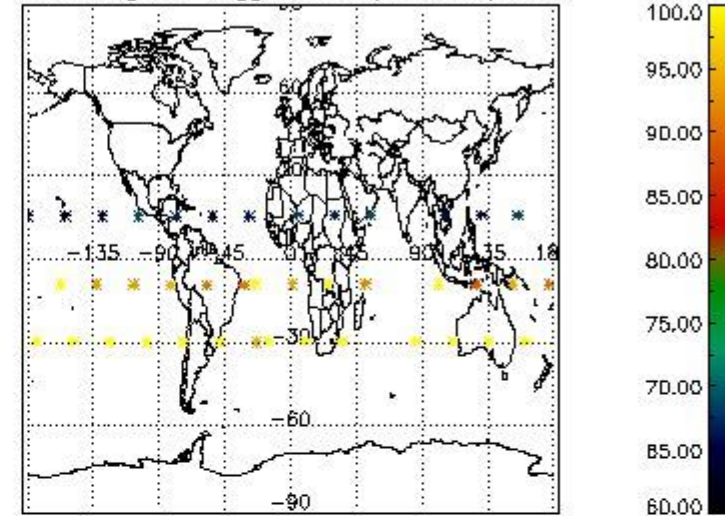


3.2 Plot quality information per product (world map)

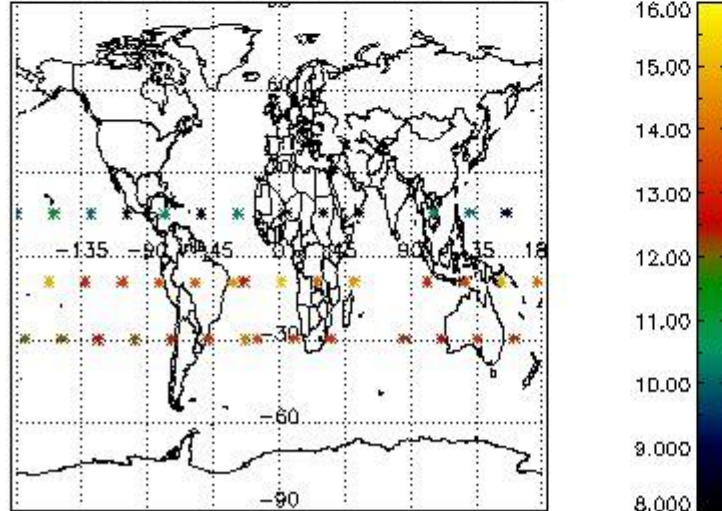
Percentage of flagged data per O3 profile



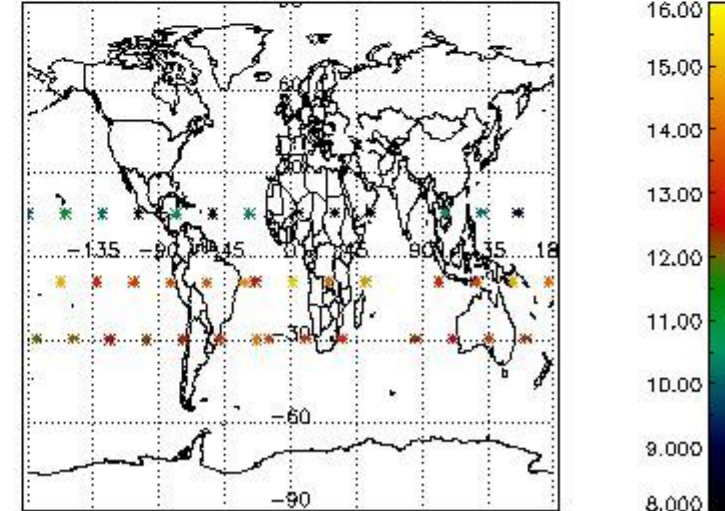
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

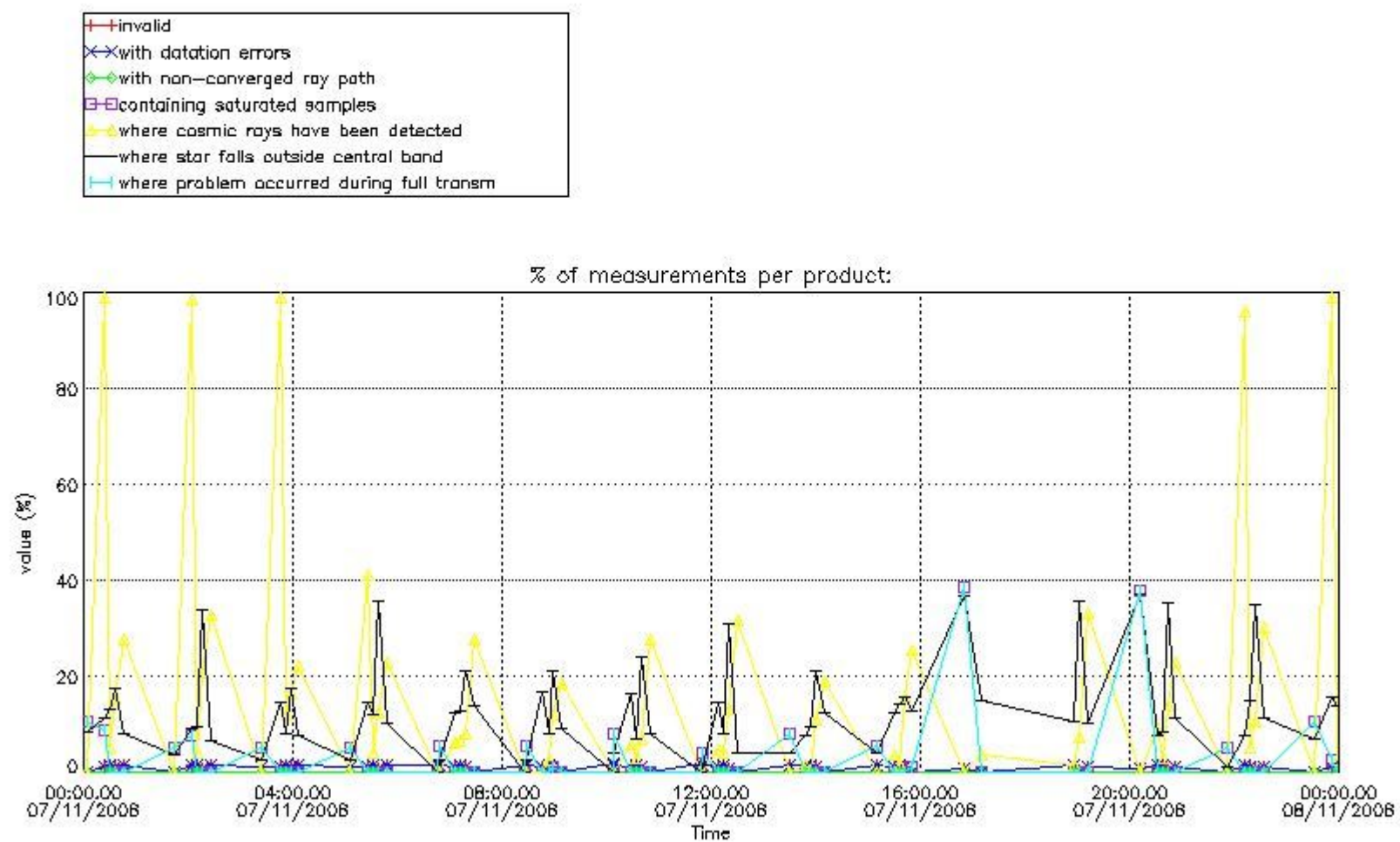


4. Level 1 quality information per product

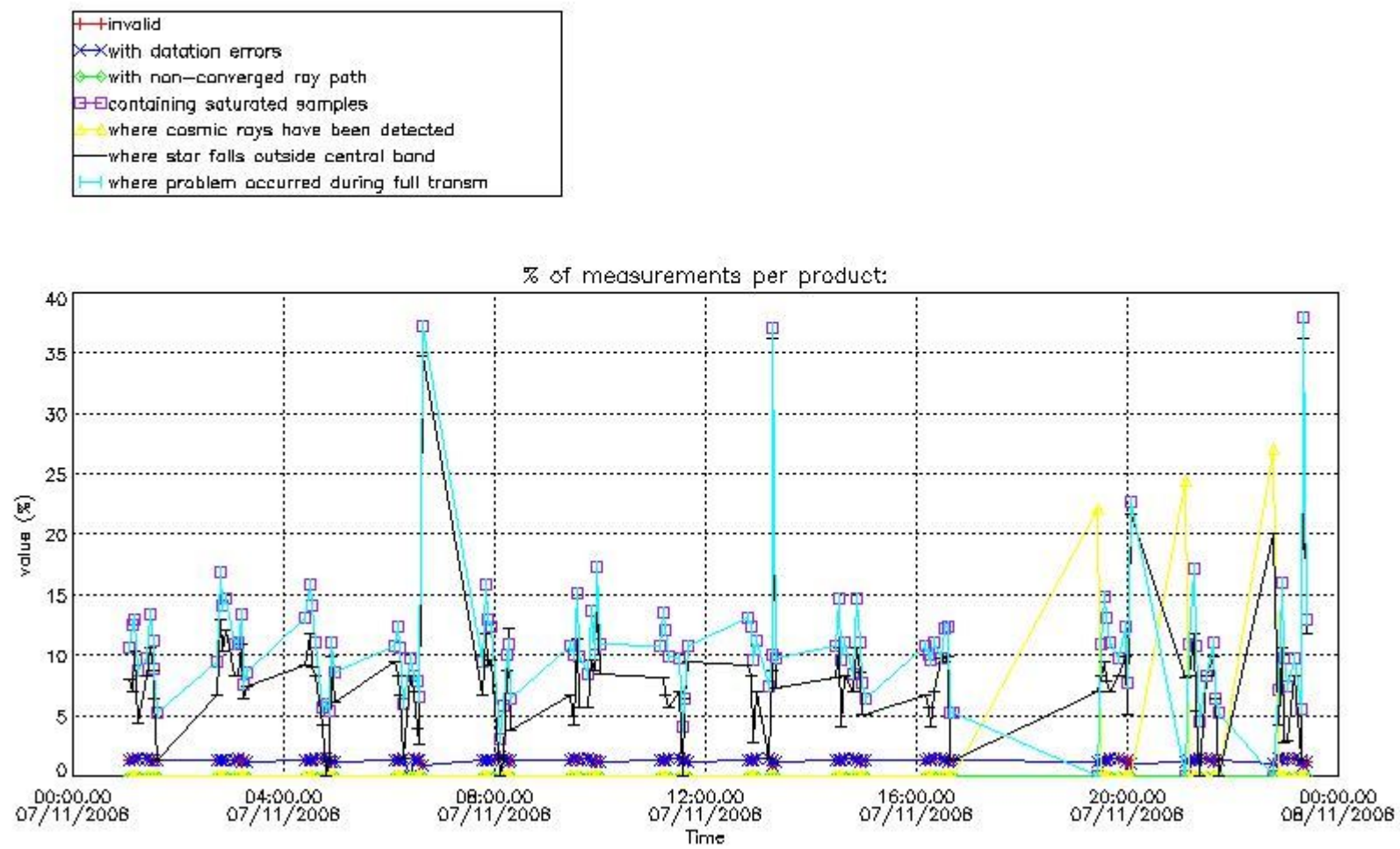
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



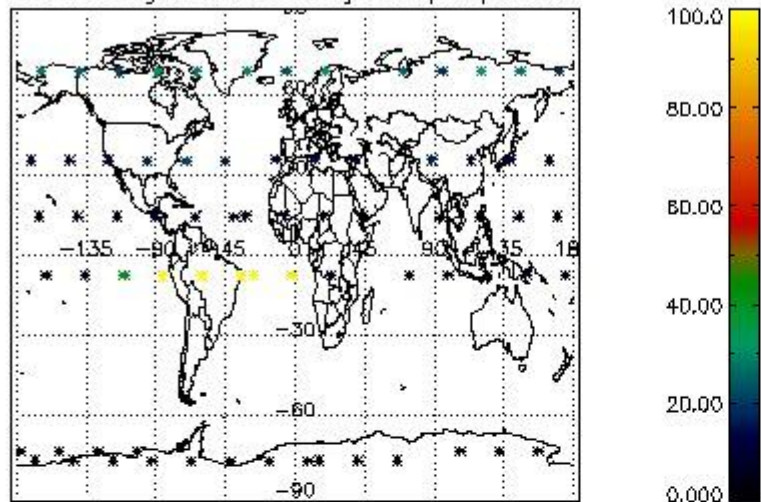
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



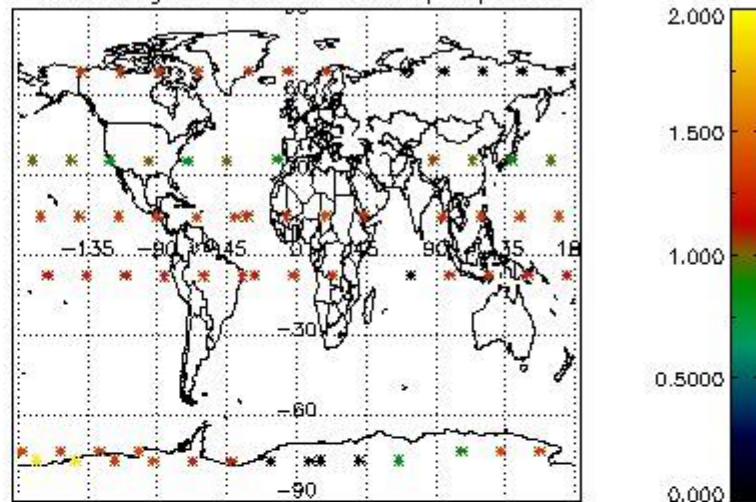
4.2 Plot quality information per product coming from level 1b processing (world map)

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

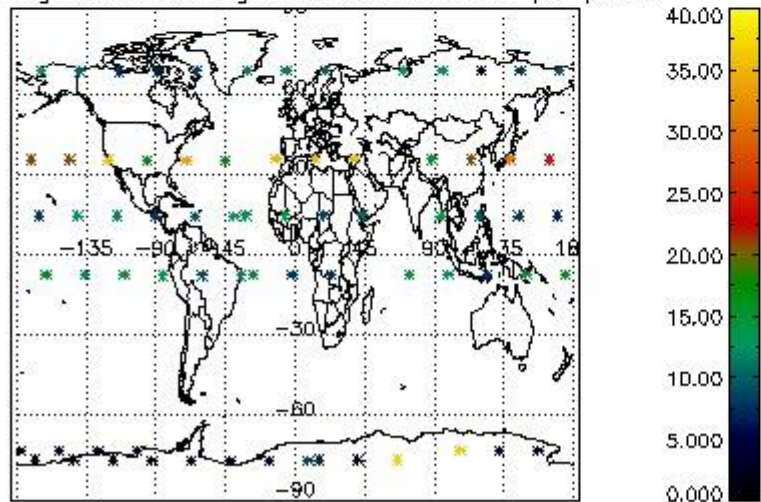
Percentage of cosmic ray hits per profile



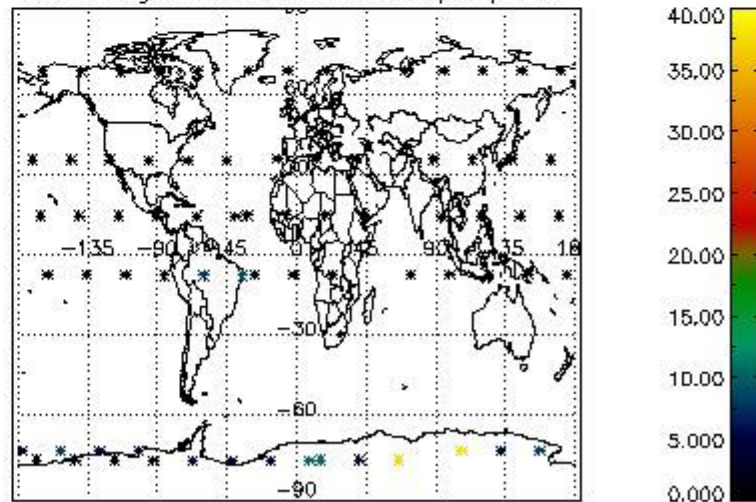
Percentage of datation errors per profile



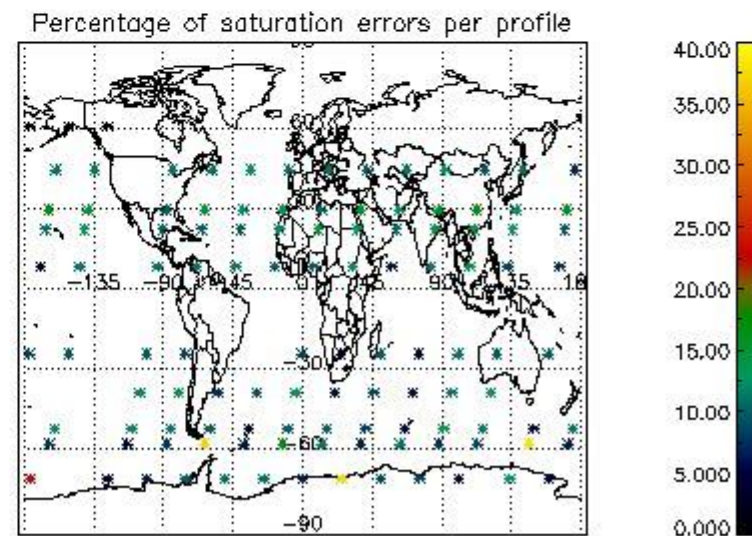
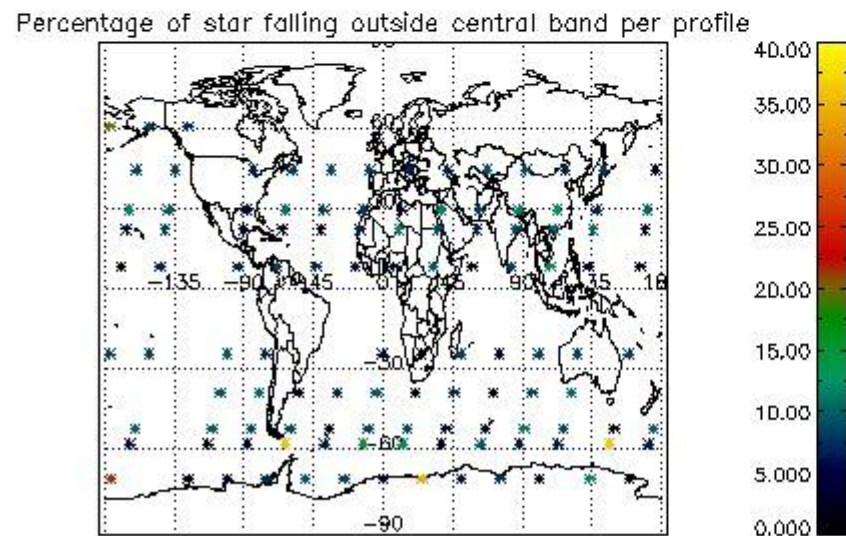
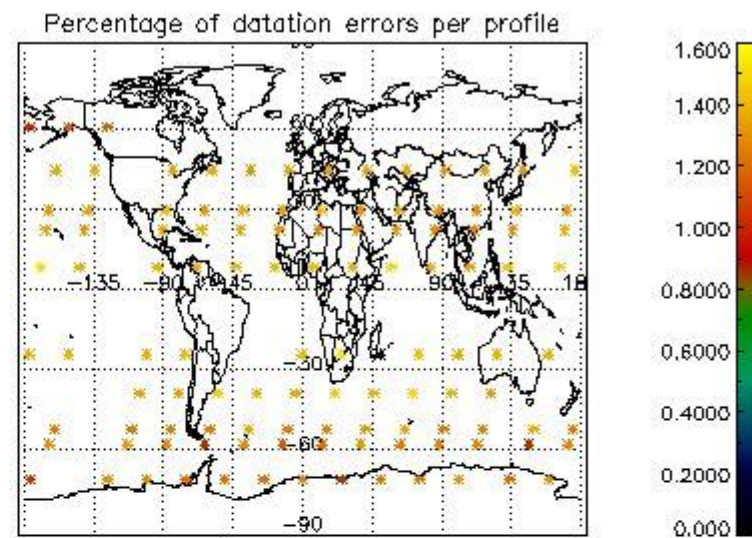
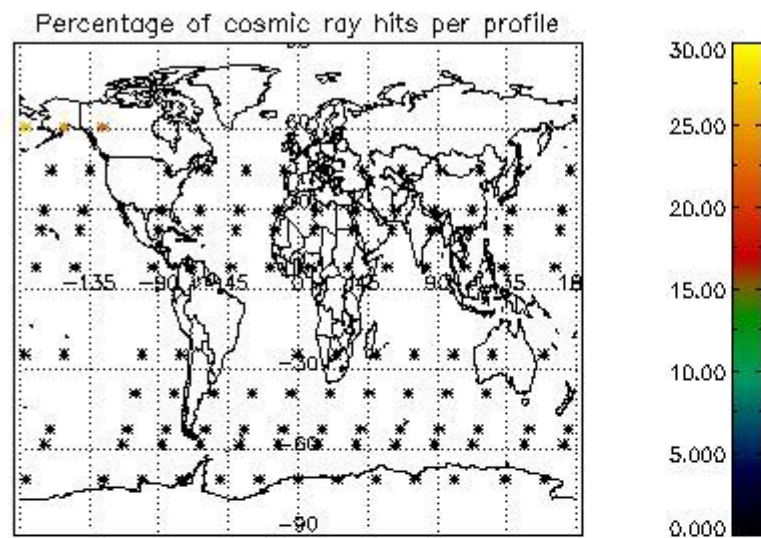
Percentage of star falling outside central band per profile



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

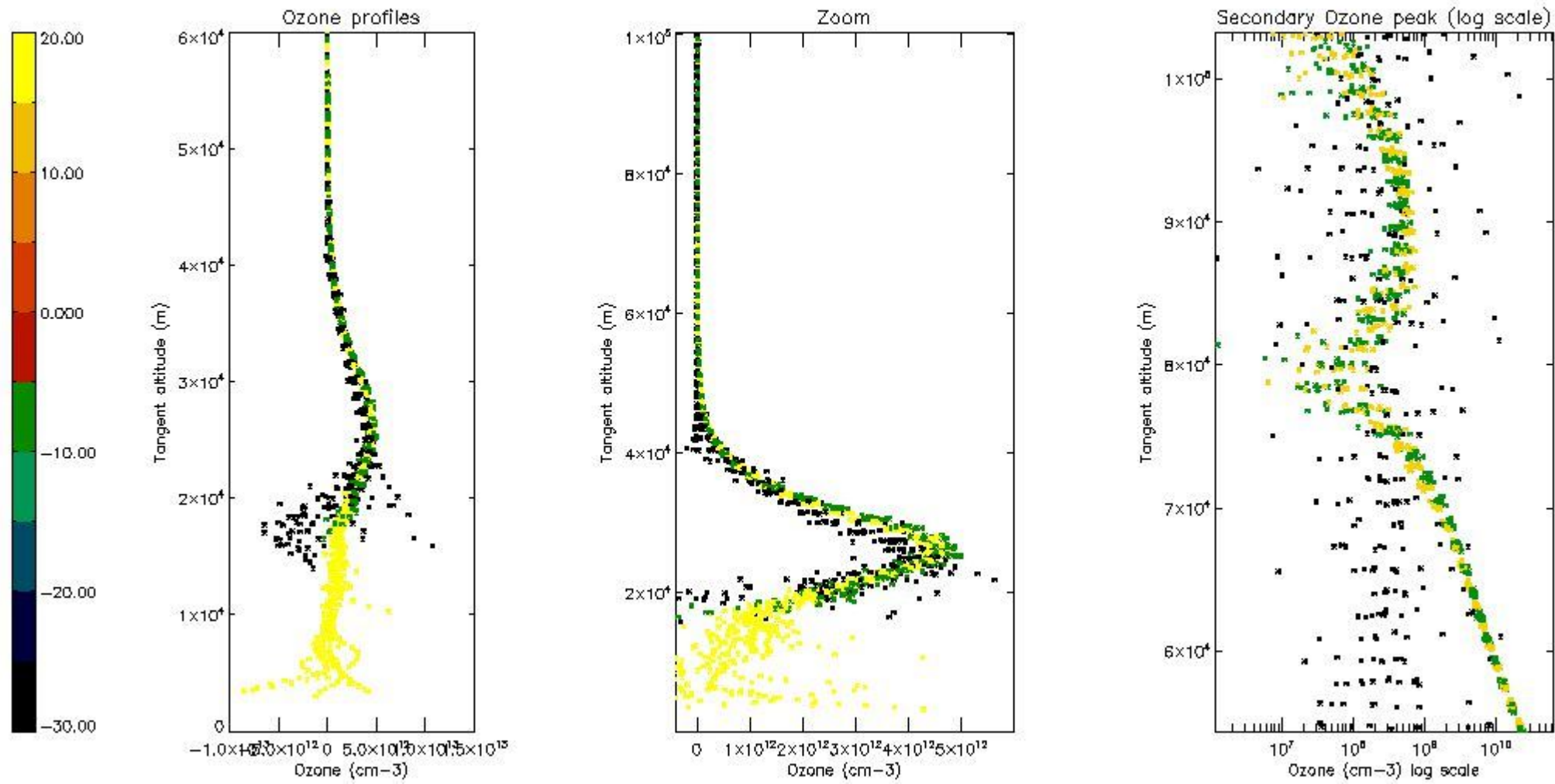
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	25
STD < 20	14

STD < 10	10
STD < 5	7

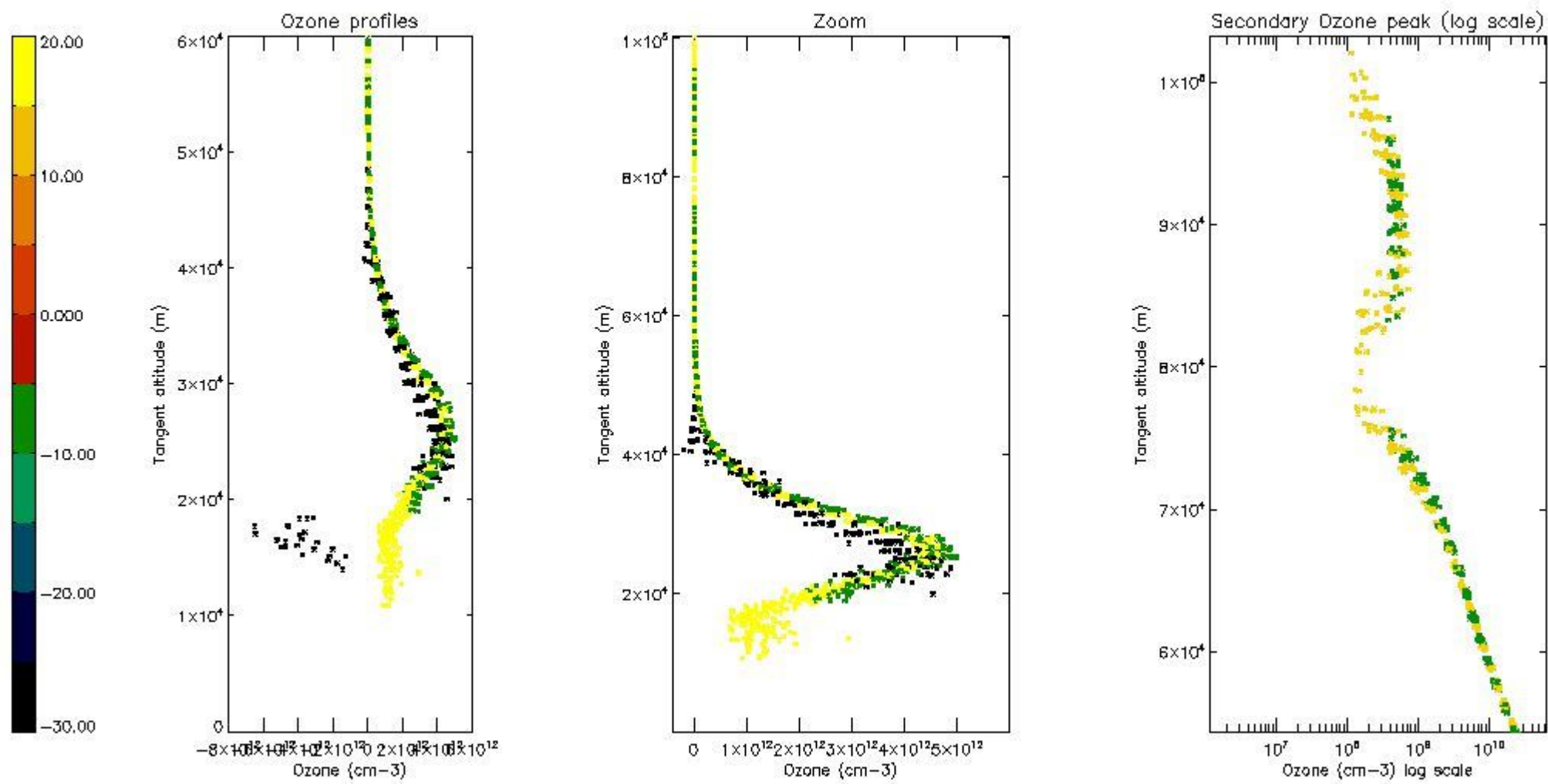
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



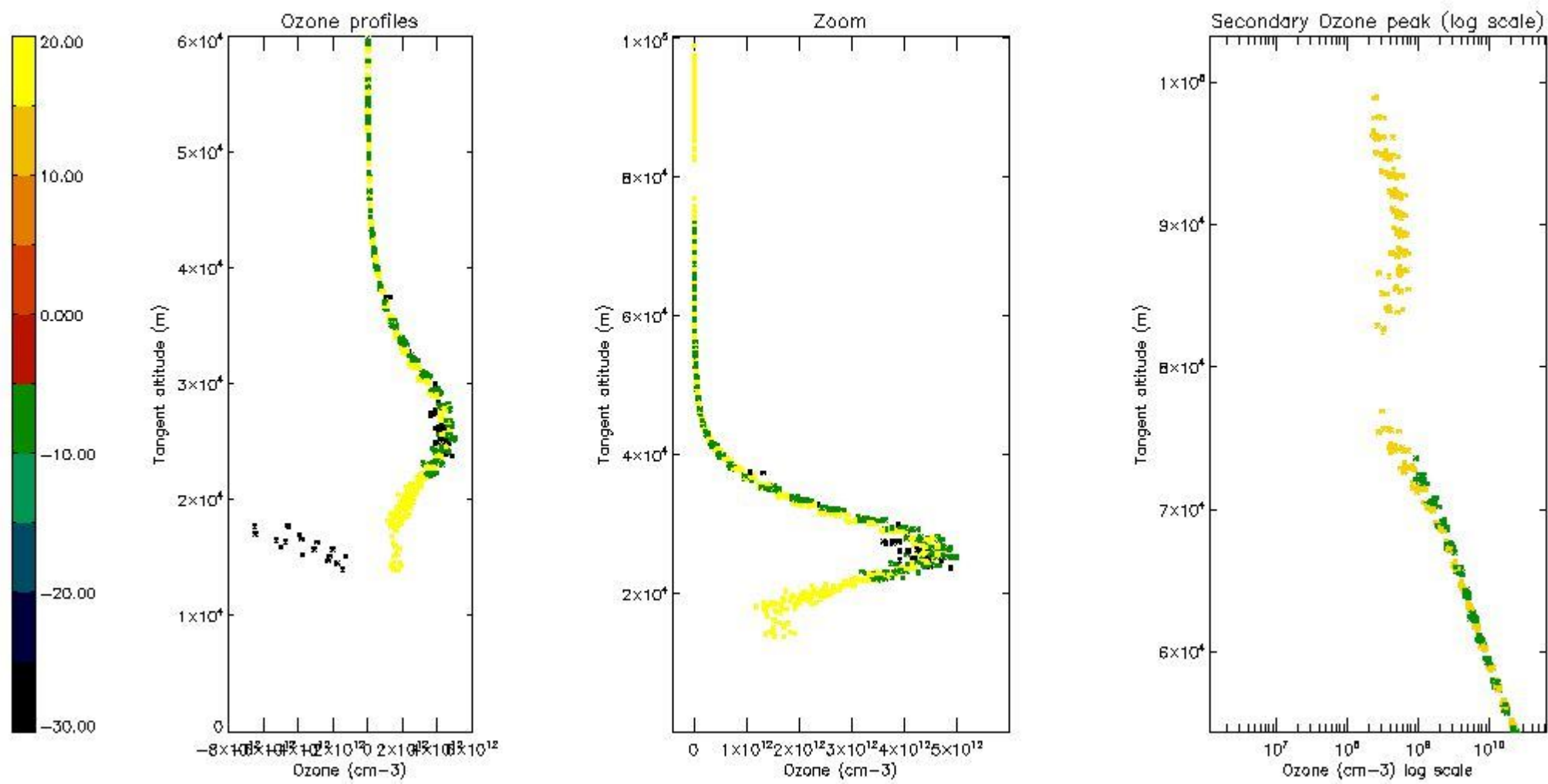
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



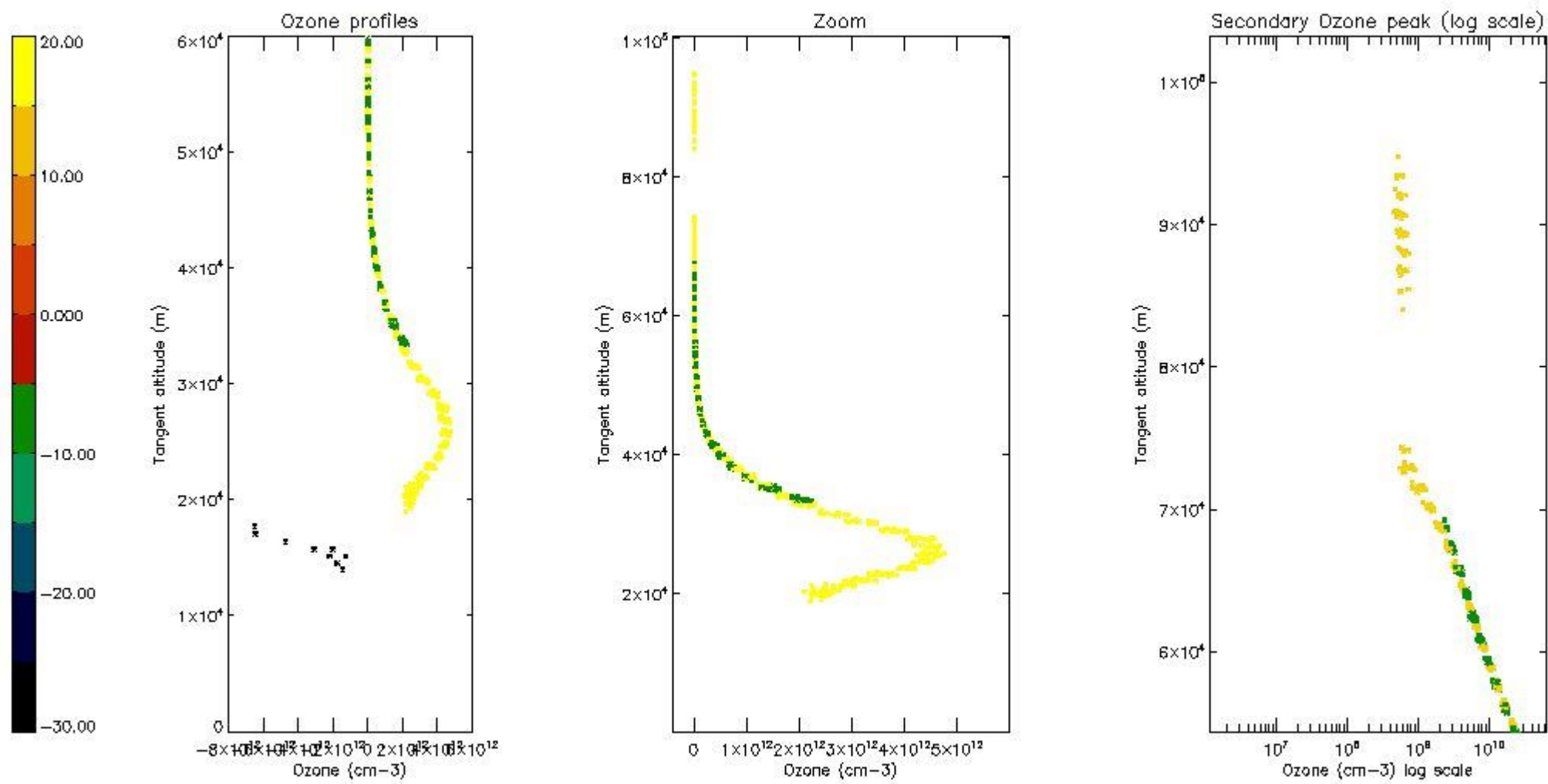
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



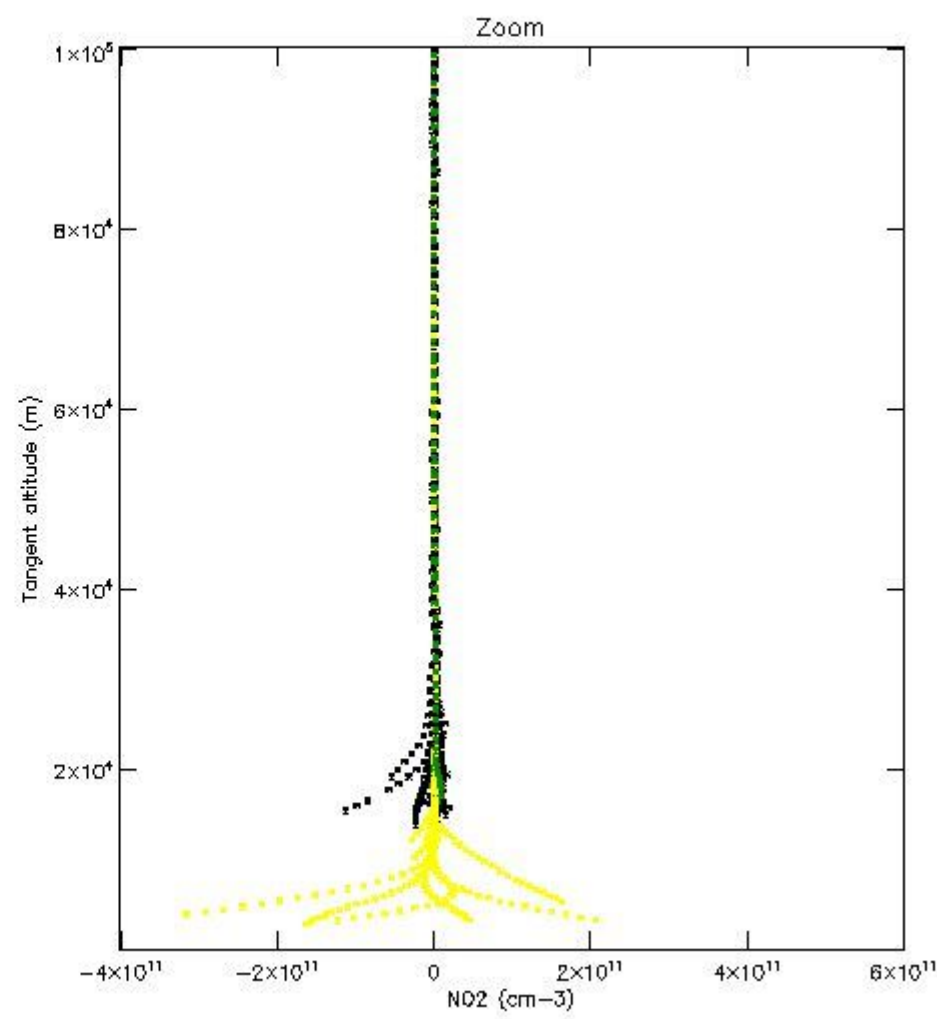
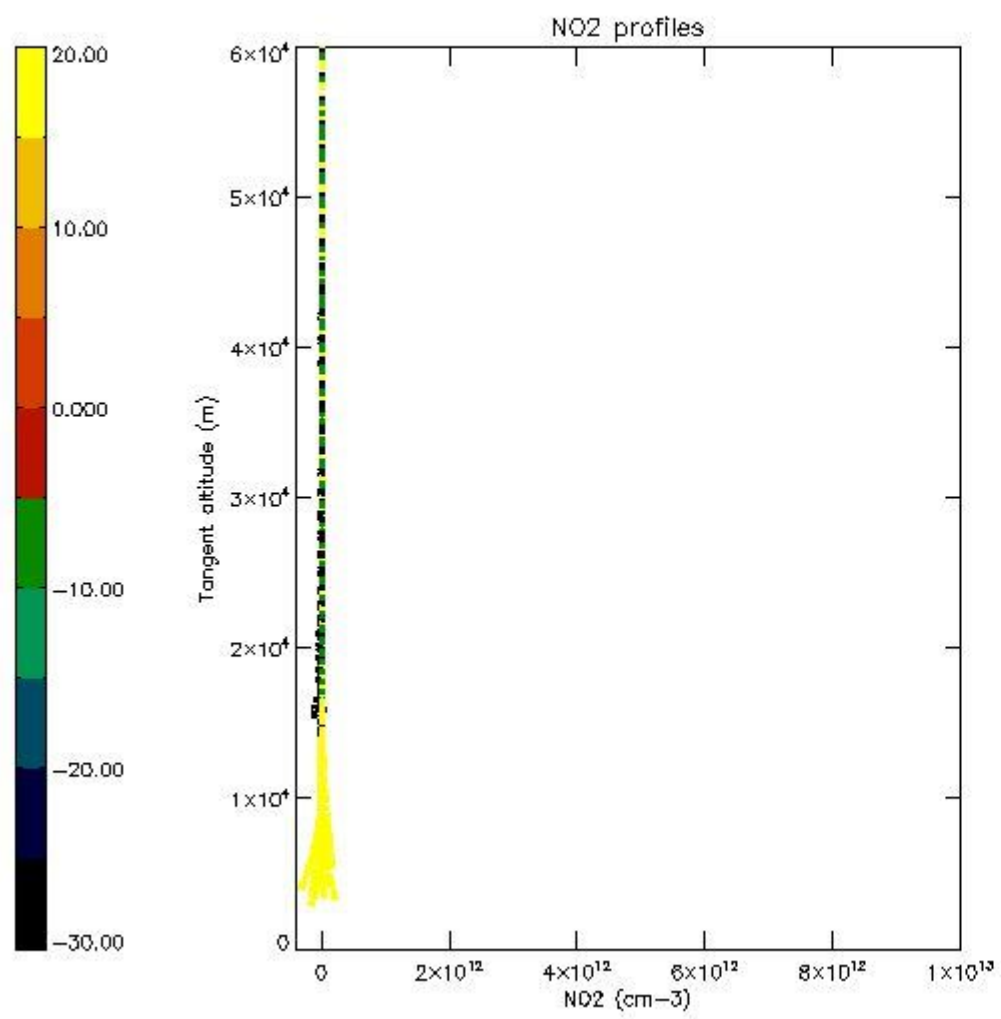
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



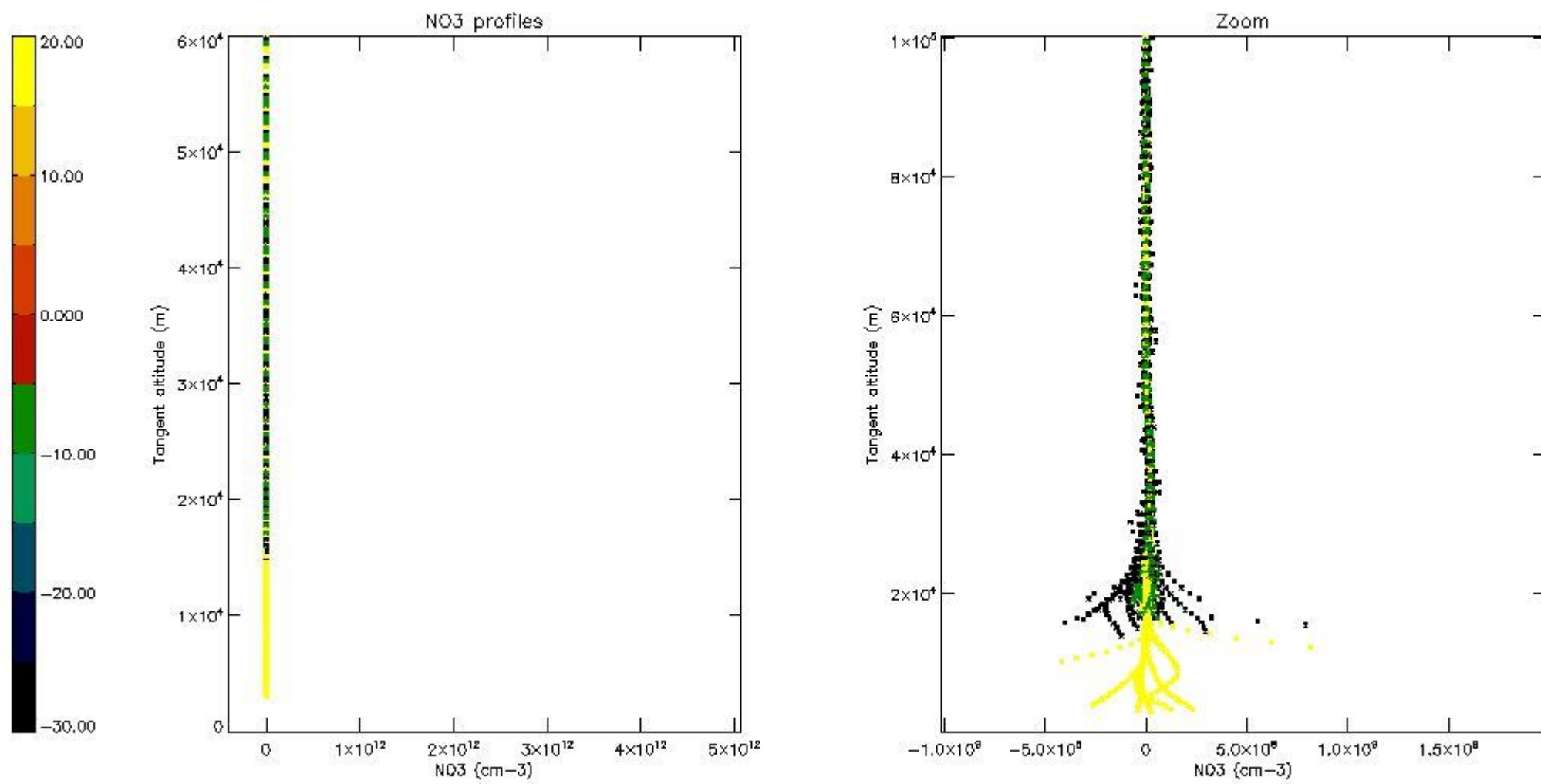
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



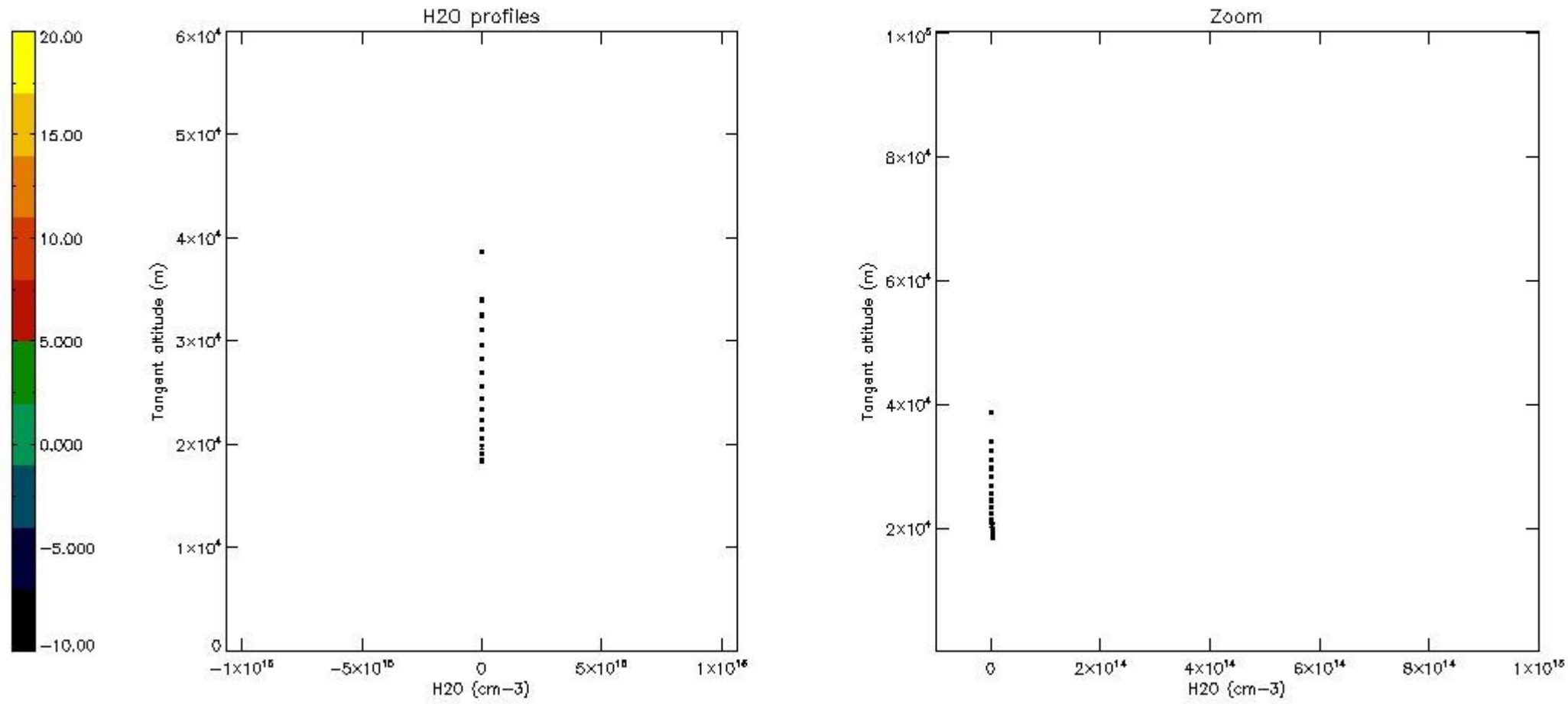
5.7 Plot NO3 profiles for all STD (dark without errors)

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)

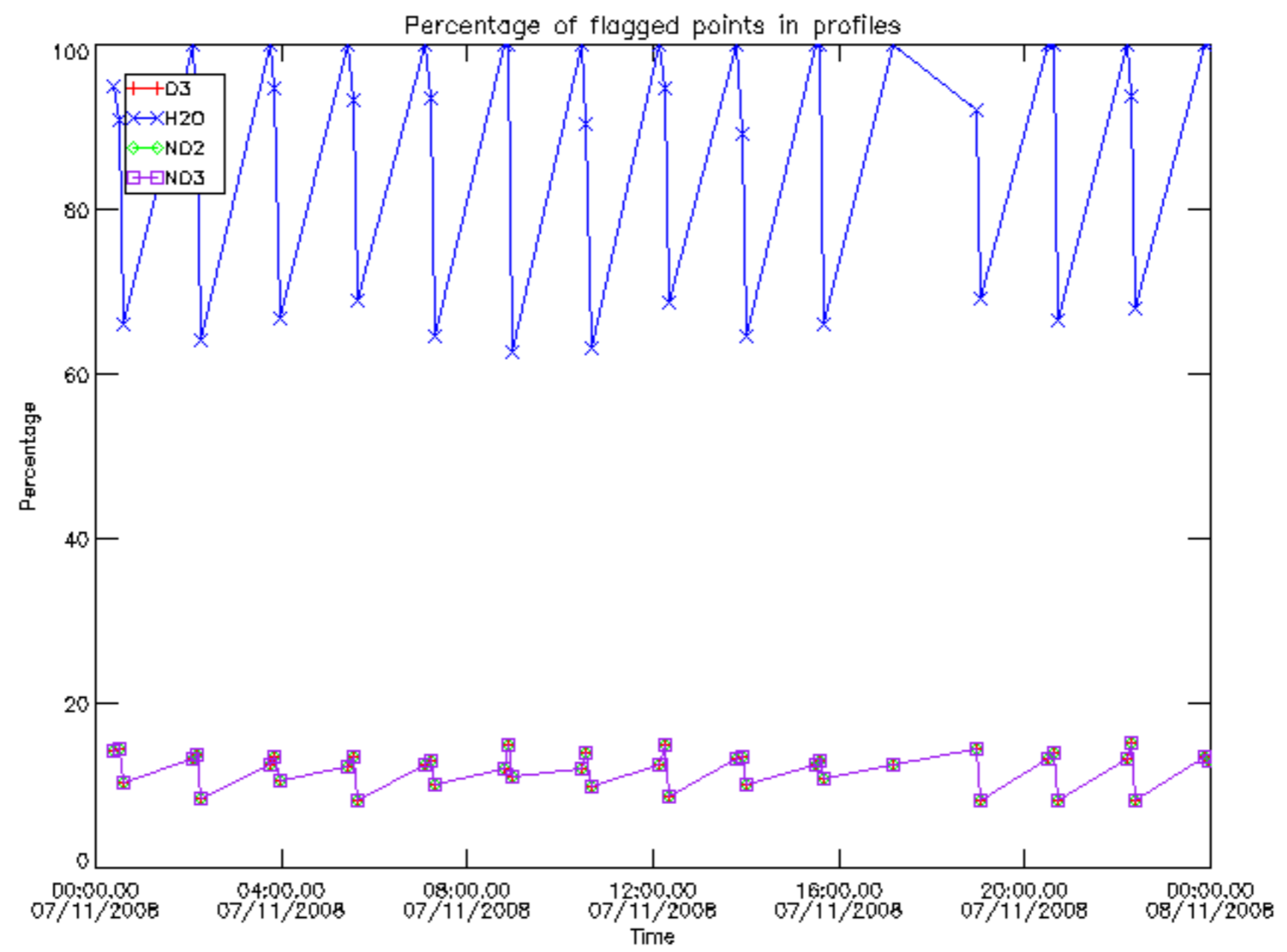
The colorbar represents the latitude.



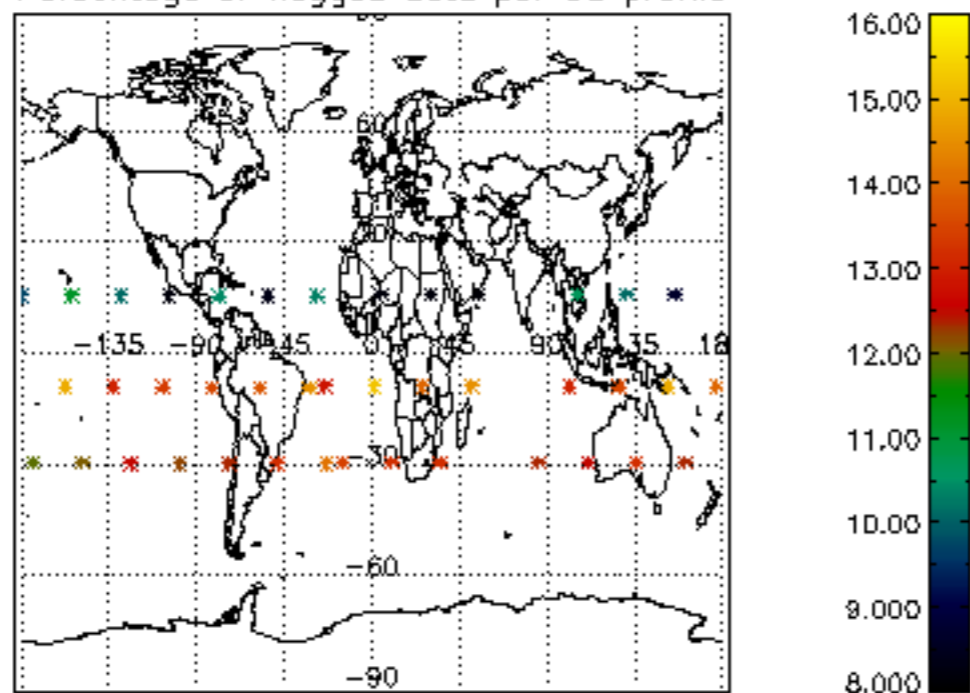
6. Auxiliary Data Files used for the production reported in section 2

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.

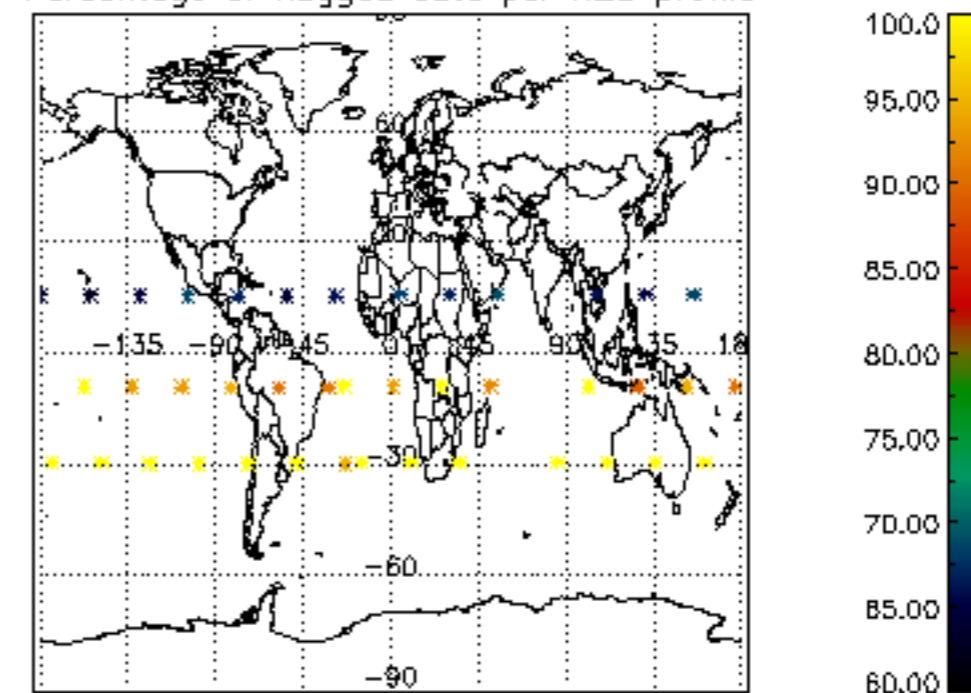
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	07-NOV-2008 00:03:45
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	07-NOV-2008 00:03:45
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	07-NOV-2008 00:03:45



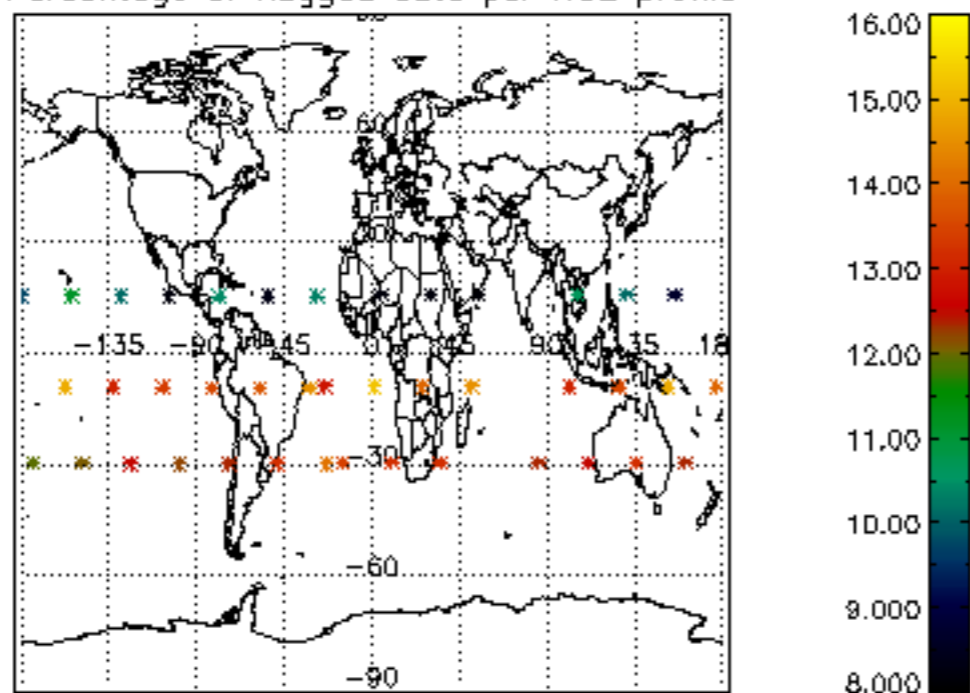
Percentage of flagged data per D3 profile



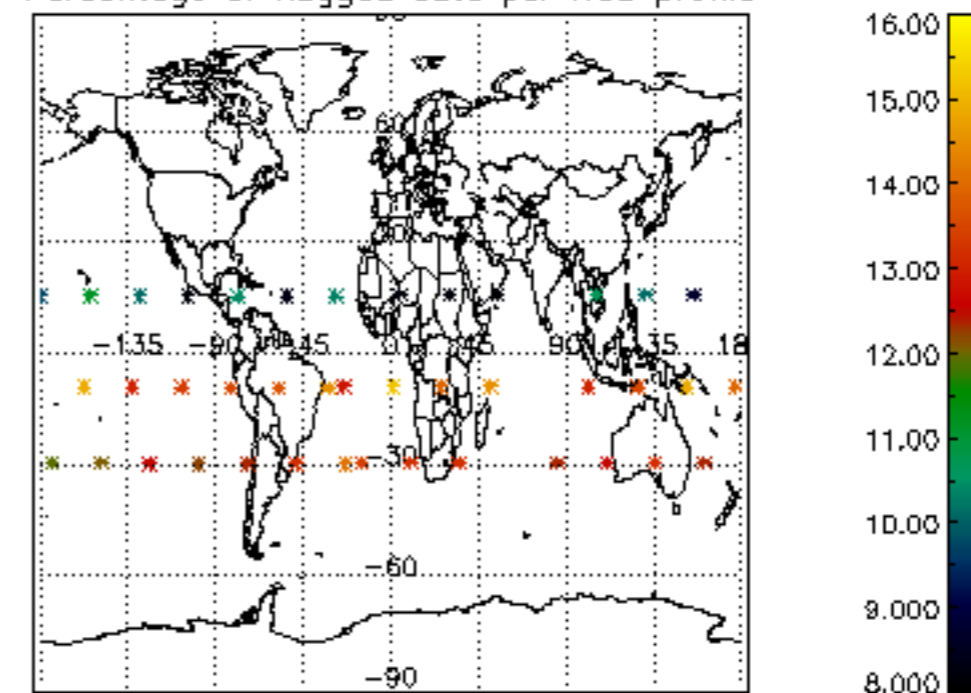
Percentage of flagged data per H2O profile

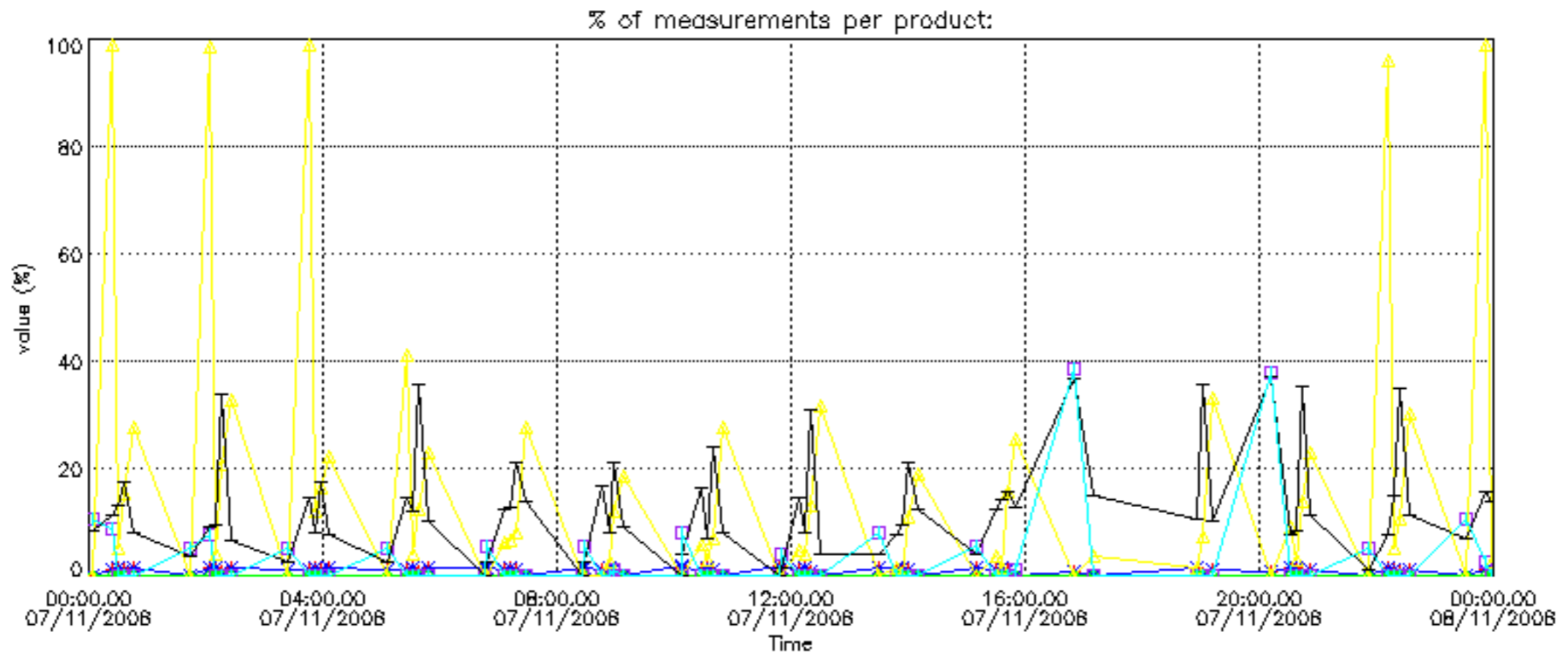


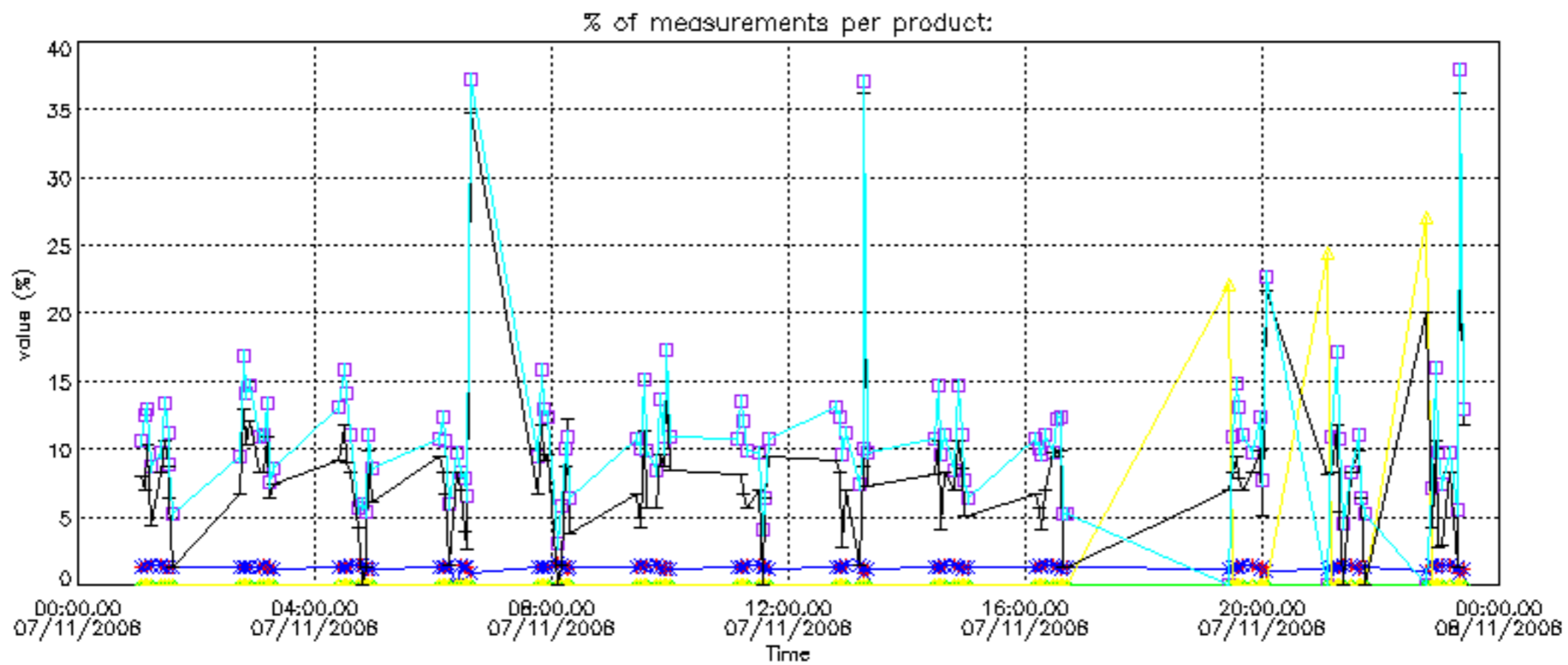
Percentage of flagged data per NO2 profile



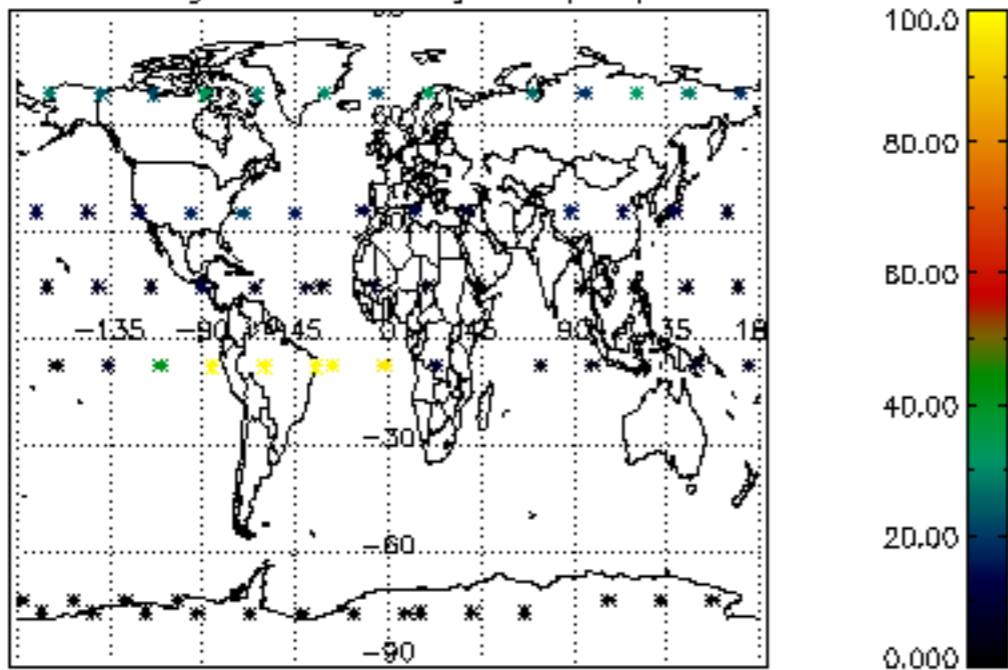
Percentage of flagged data per NO3 profile



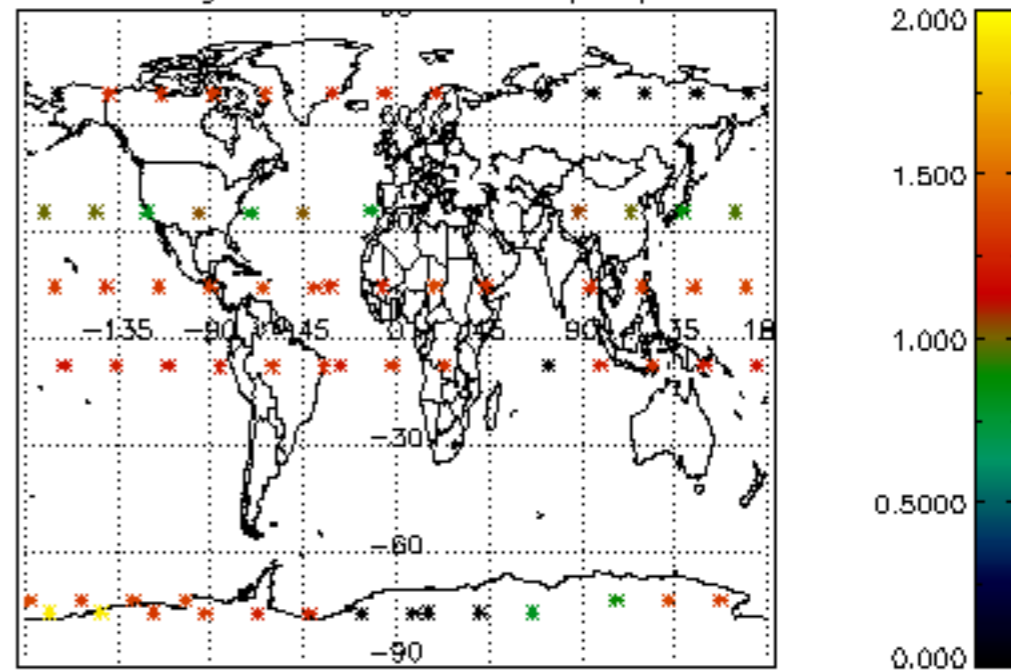




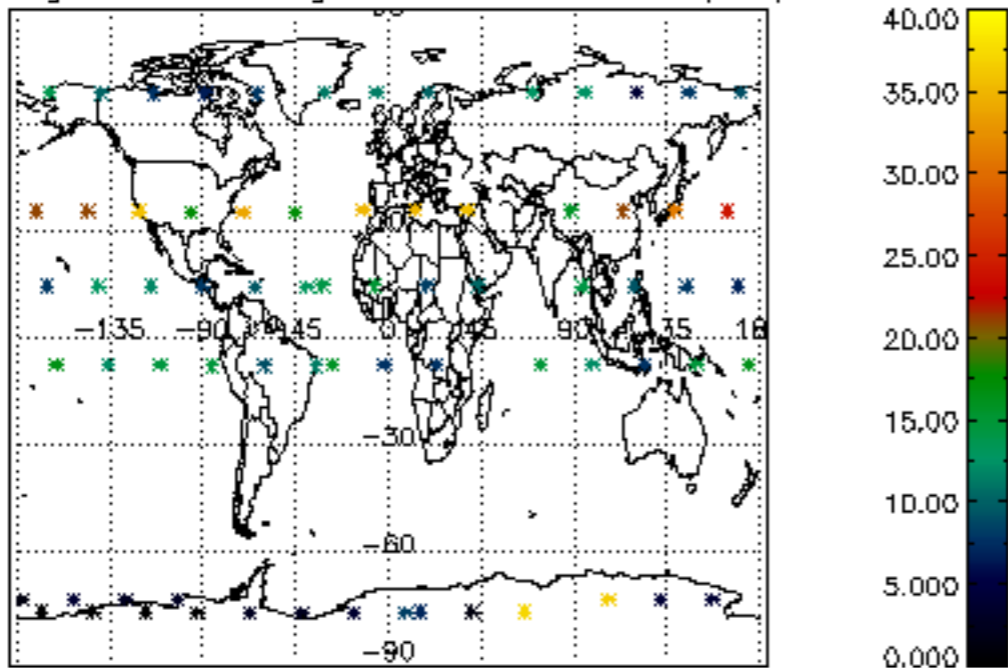
Percentage of cosmic ray hits per profile



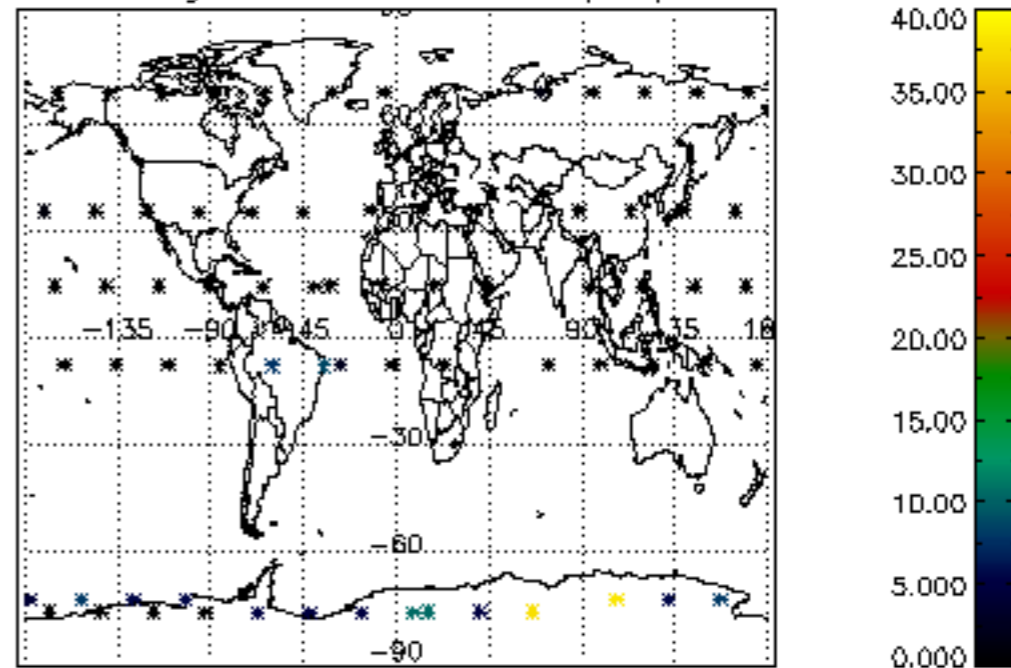
Percentage of datation errors per profile



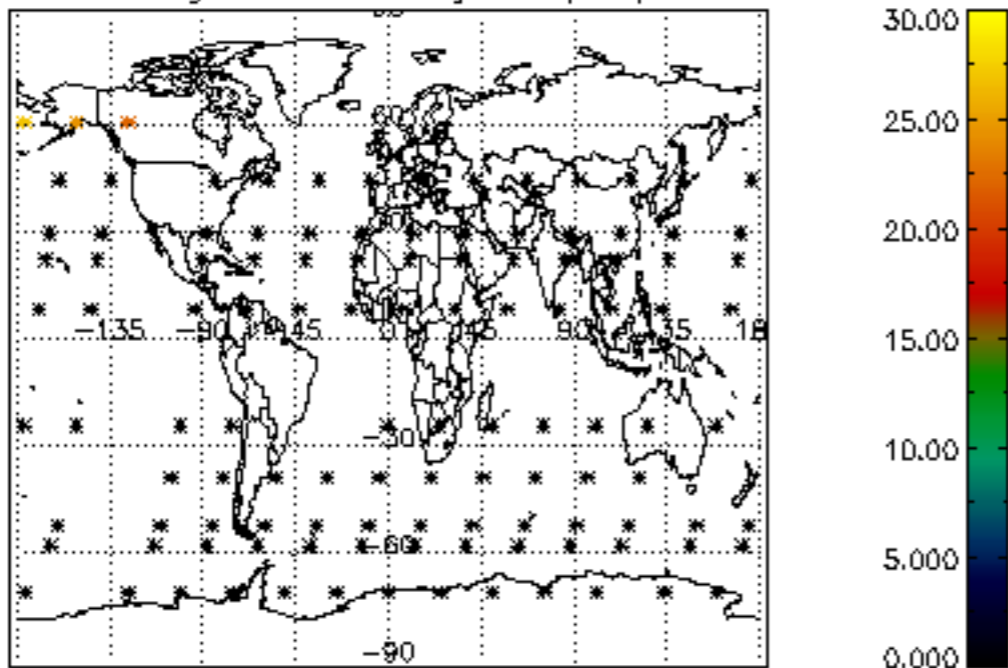
Percentage of star falling outside central band per profile



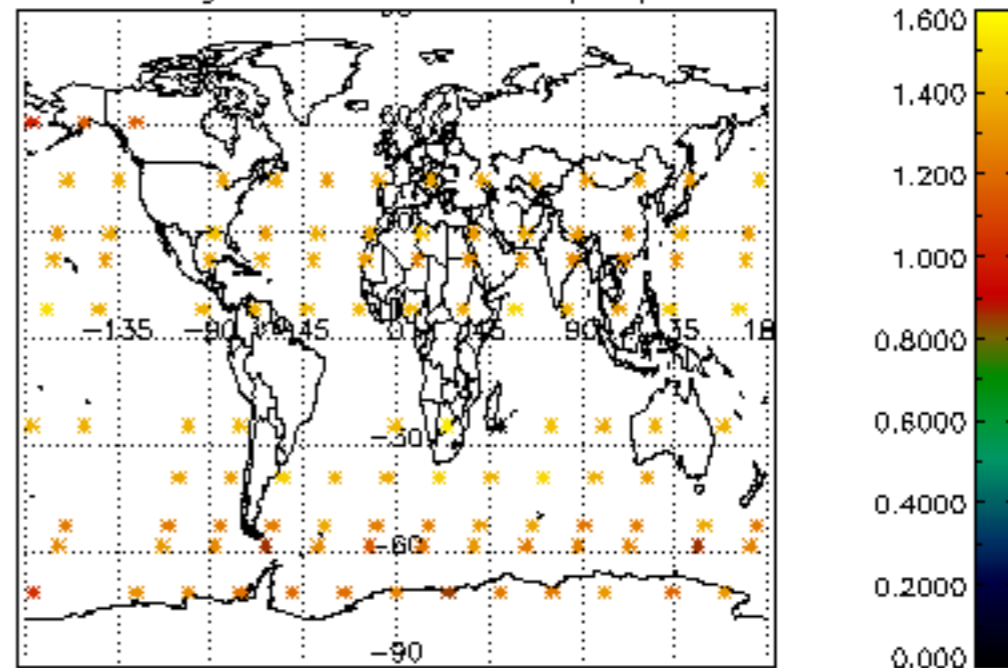
Percentage of saturation errors per profile



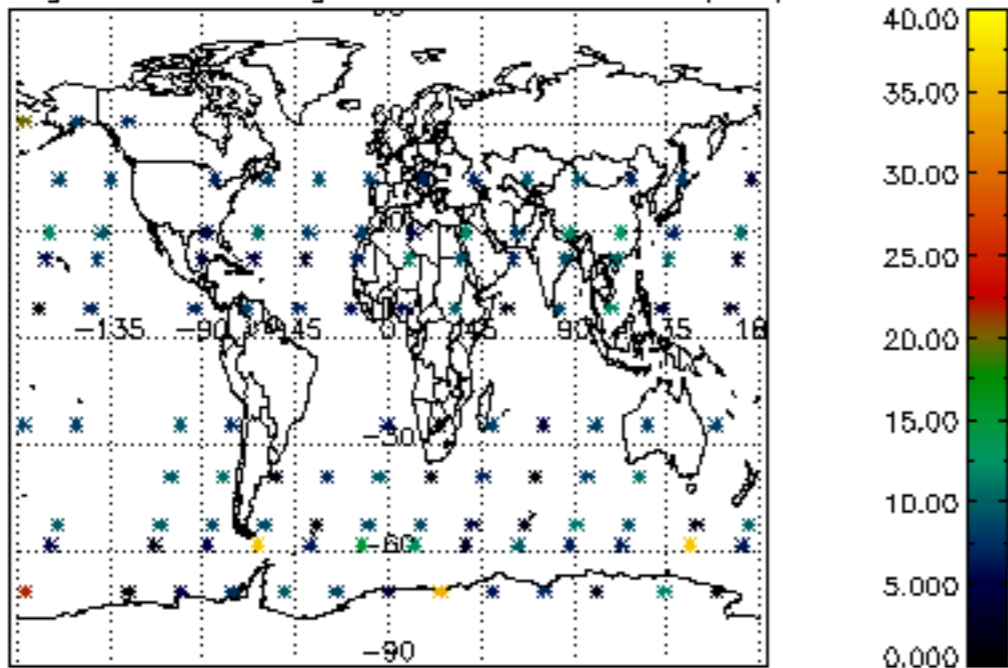
Percentage of cosmic ray hits per profile



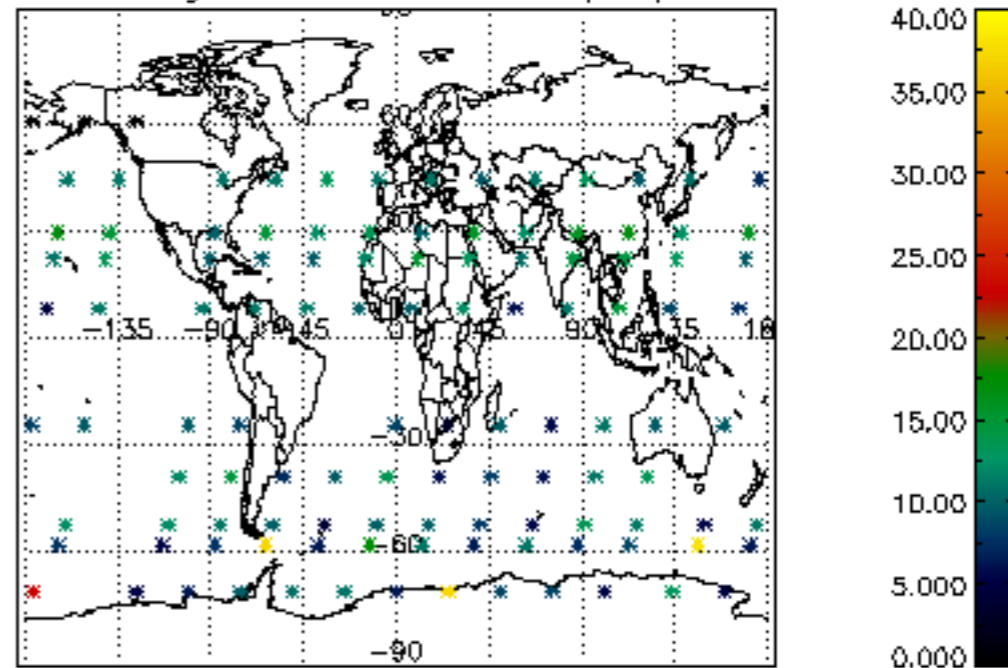
Percentage of datation errors per profile

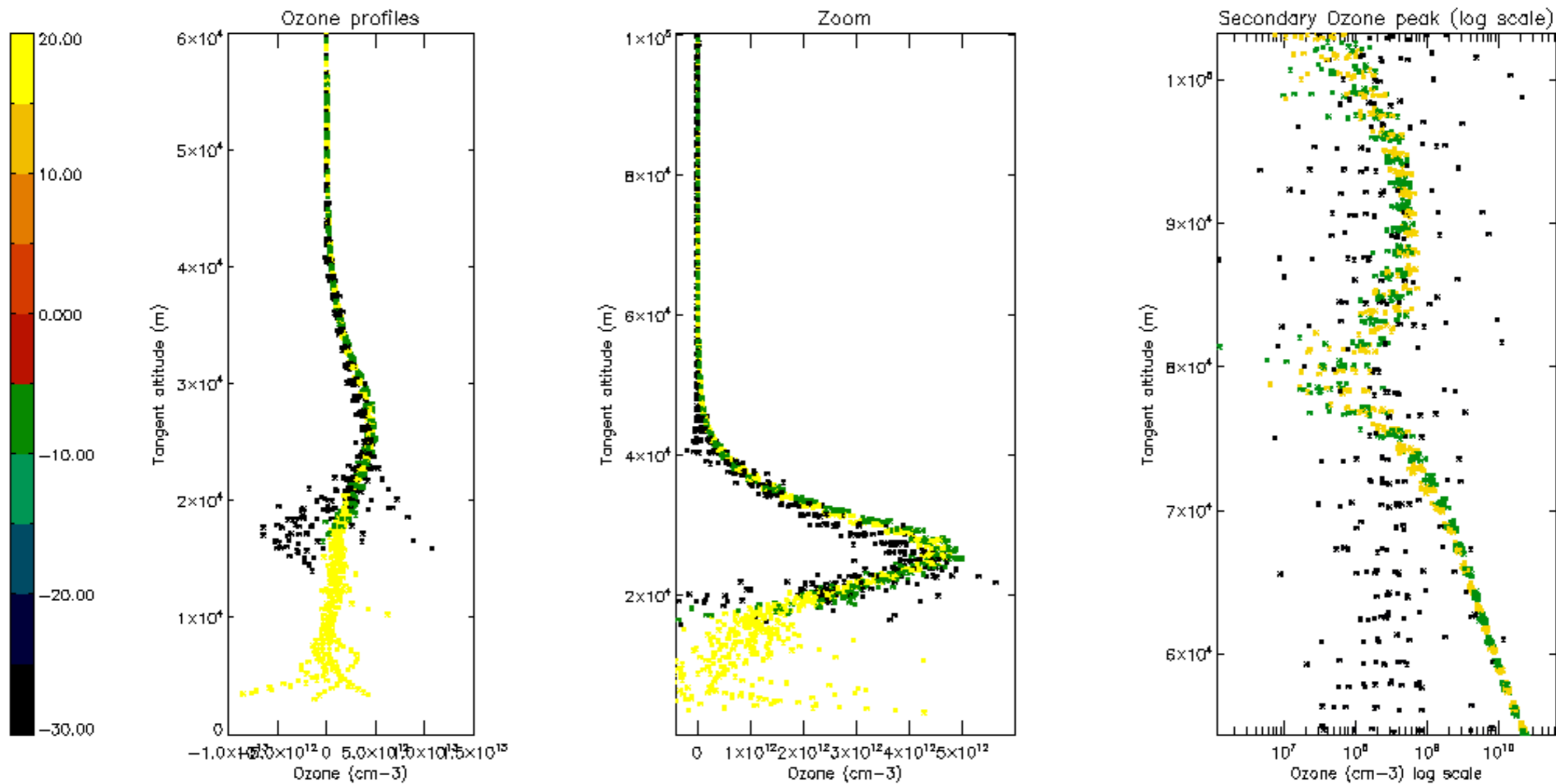


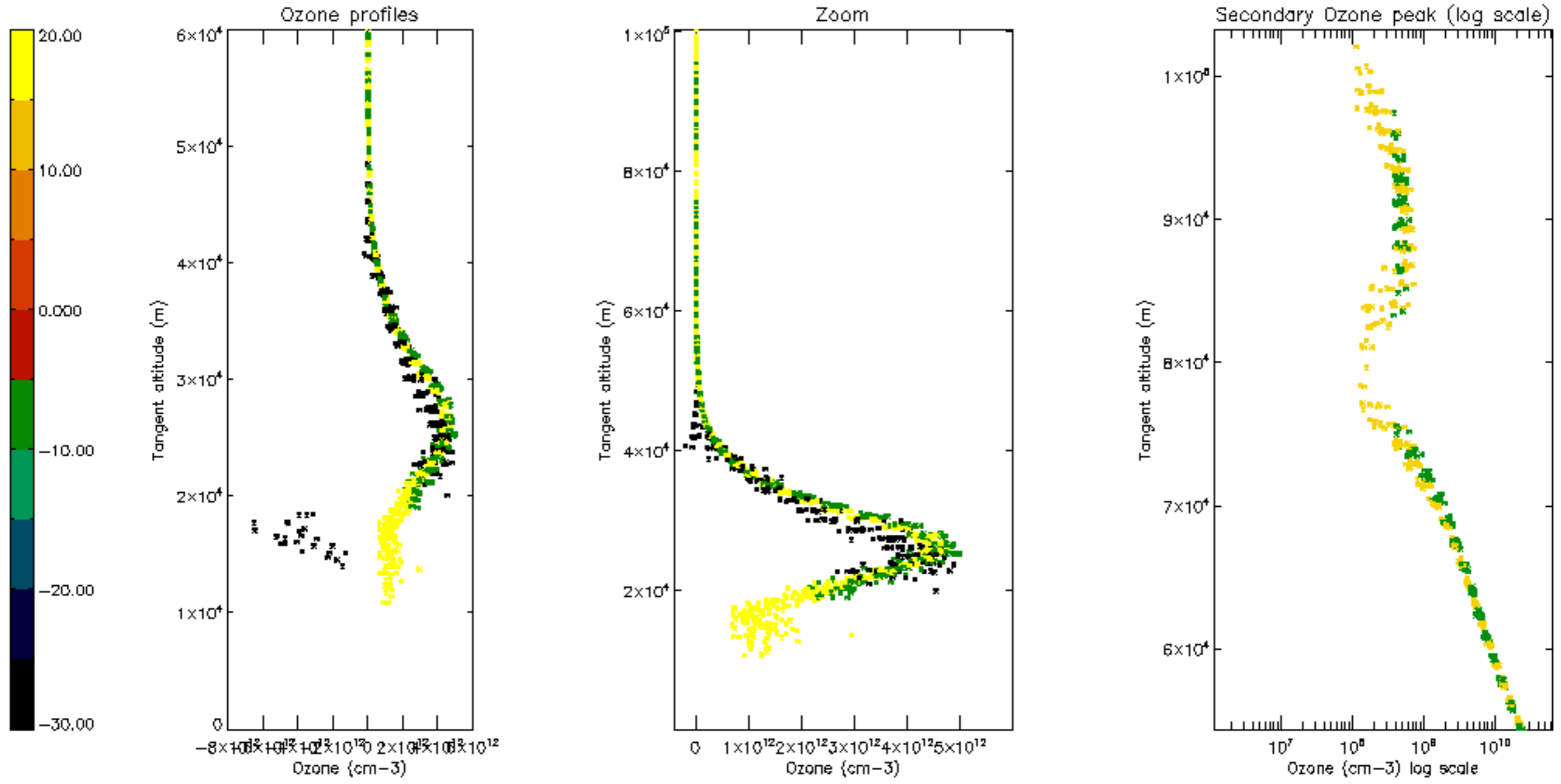
Percentage of star falling outside central band per profile

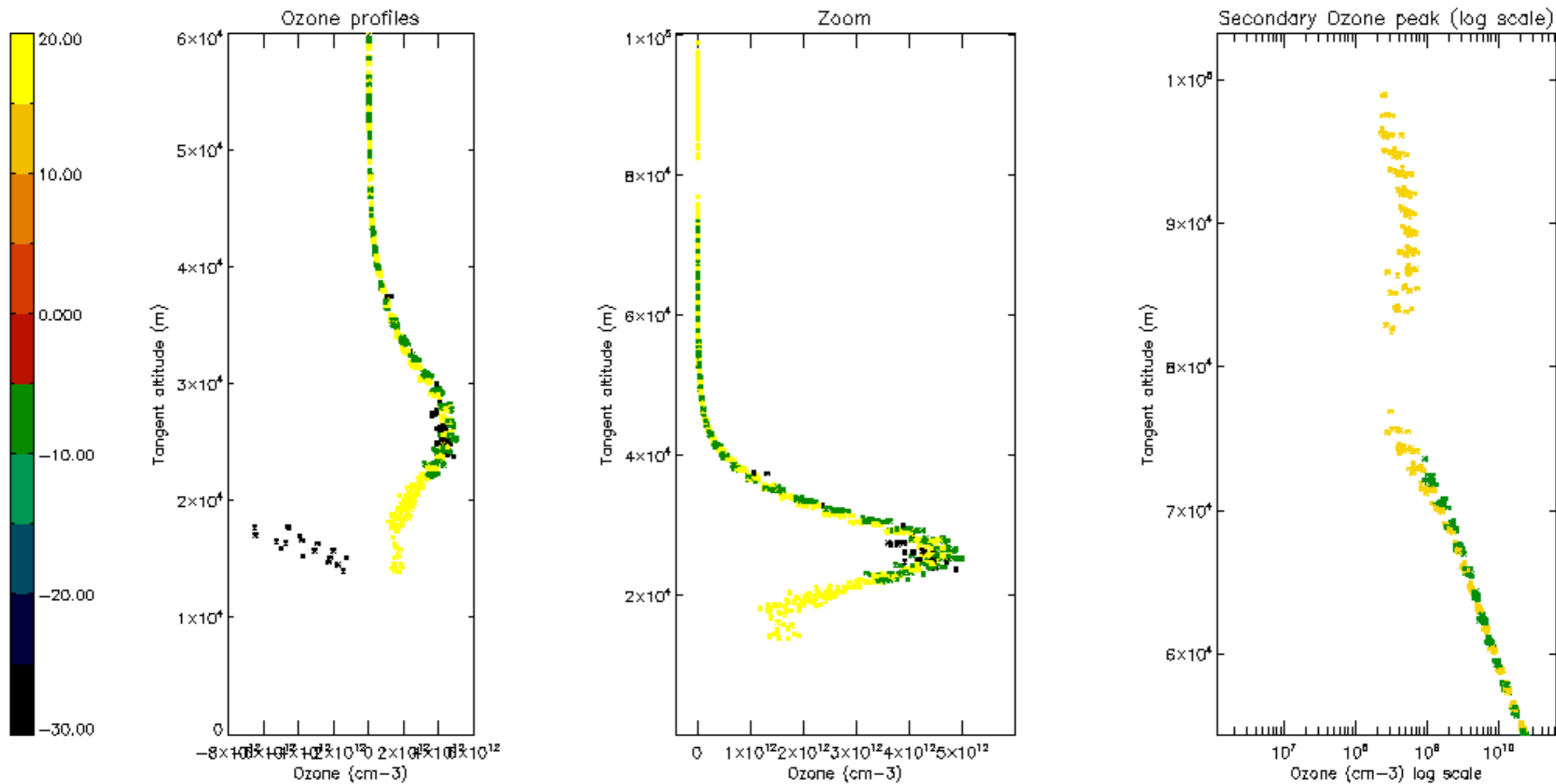


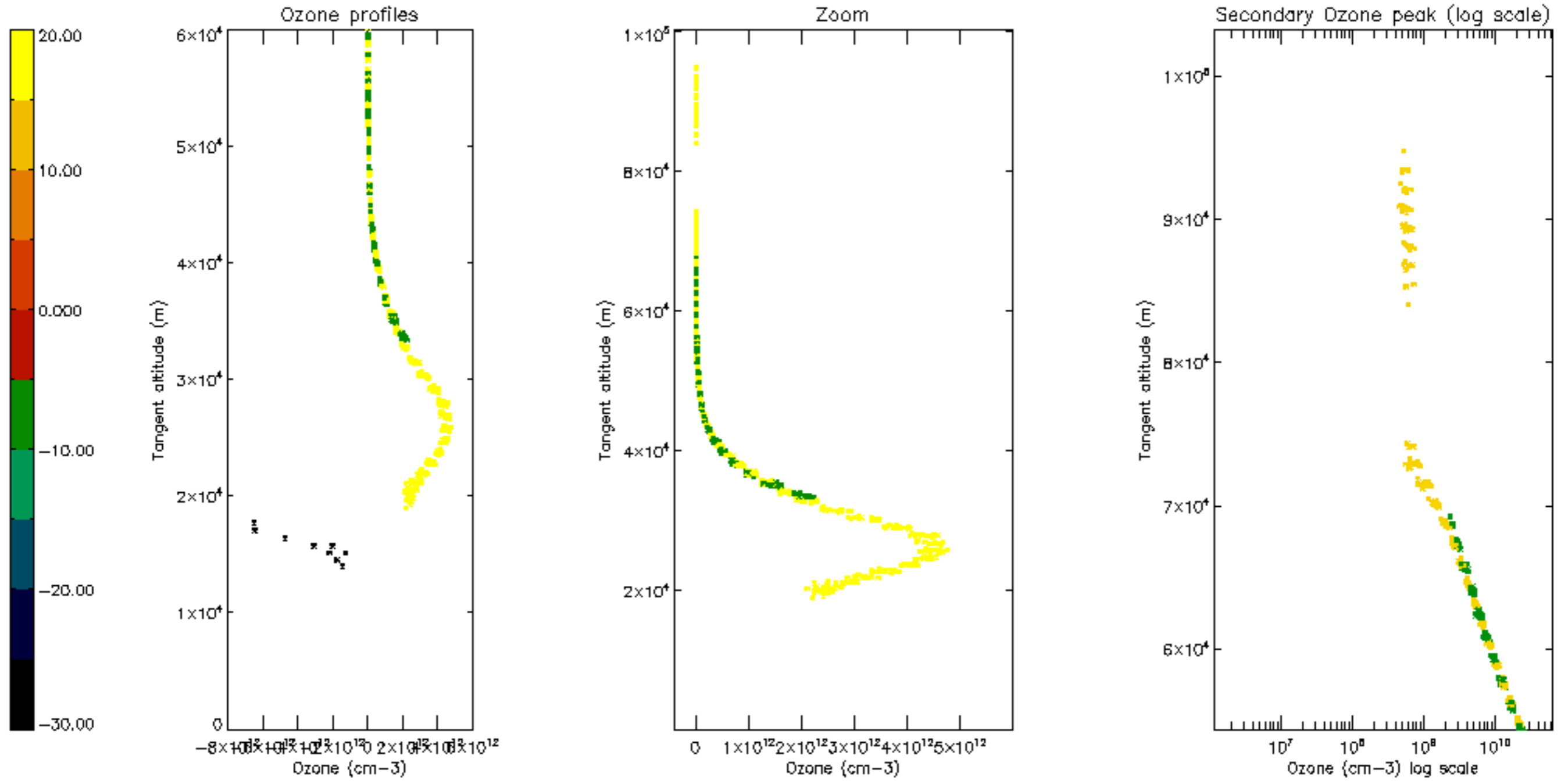
Percentage of saturation errors per profile

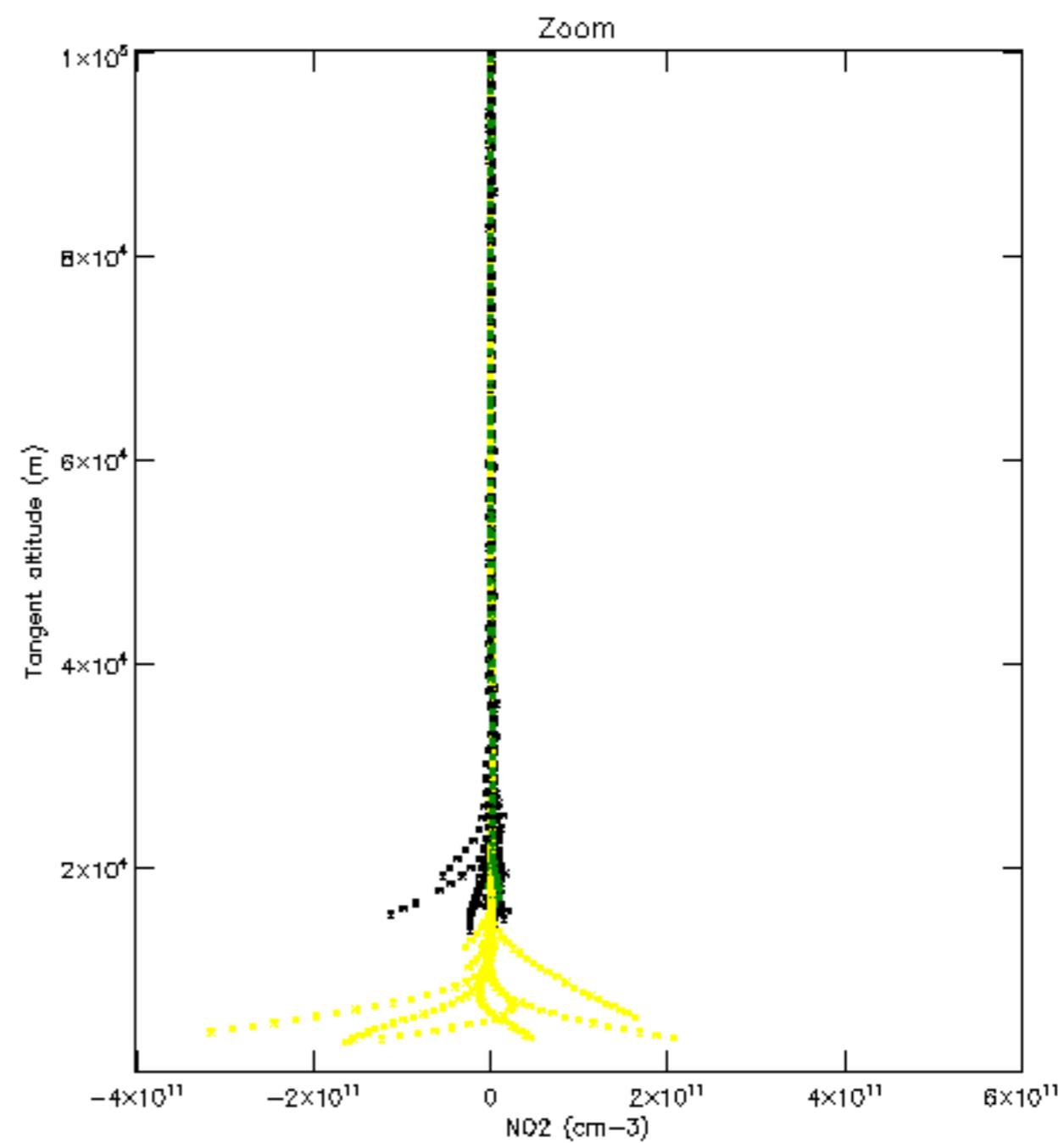
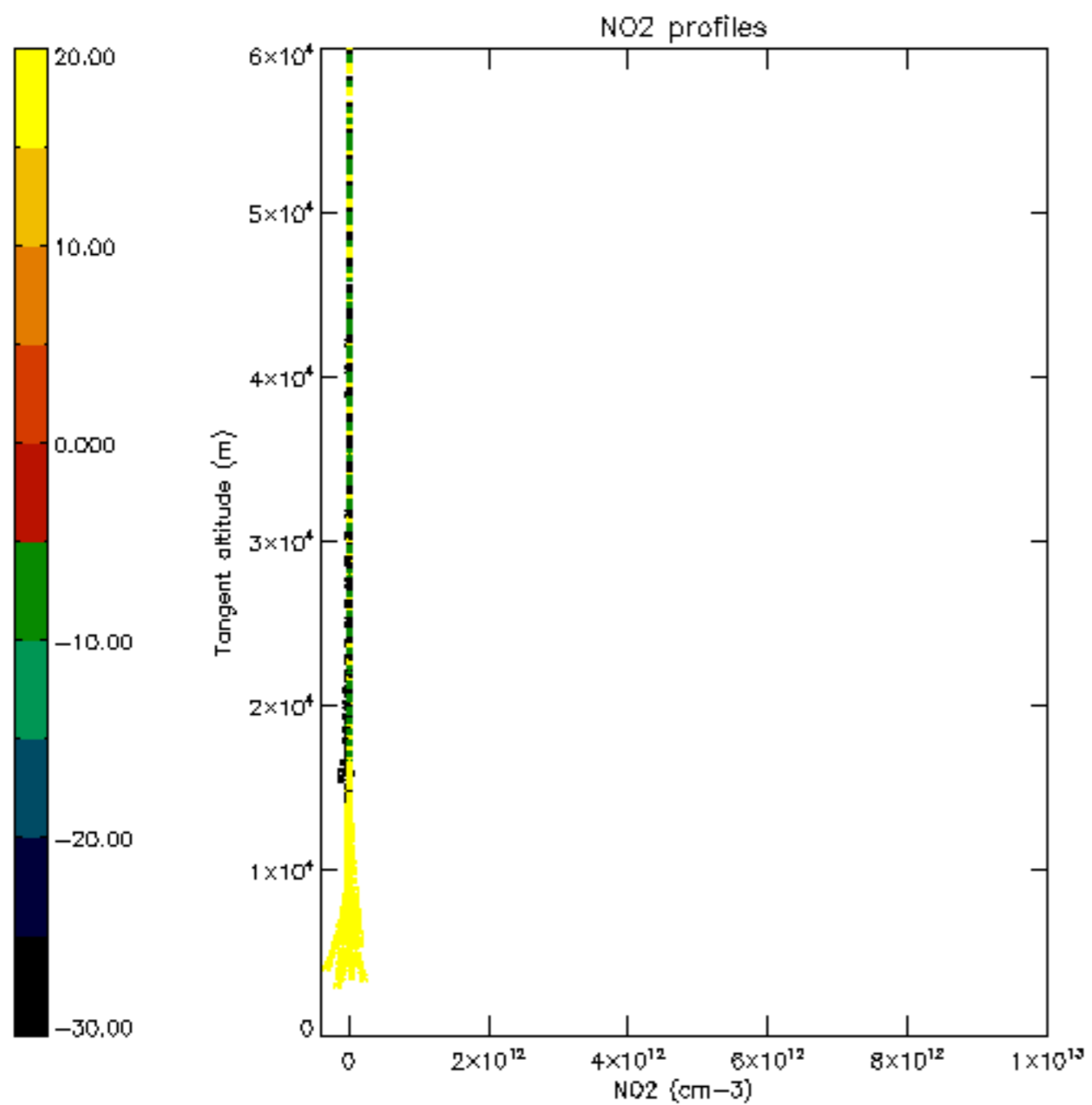


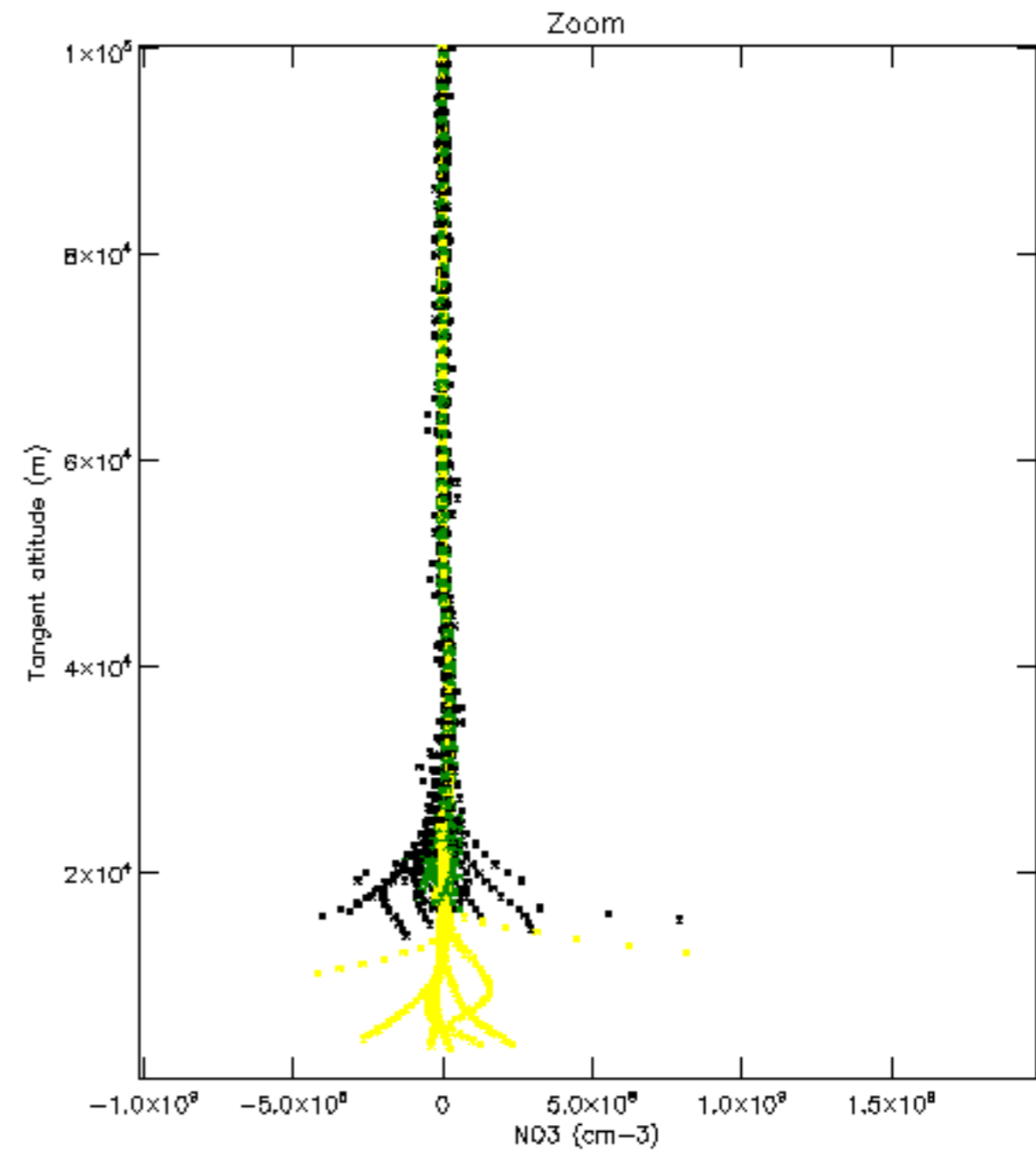
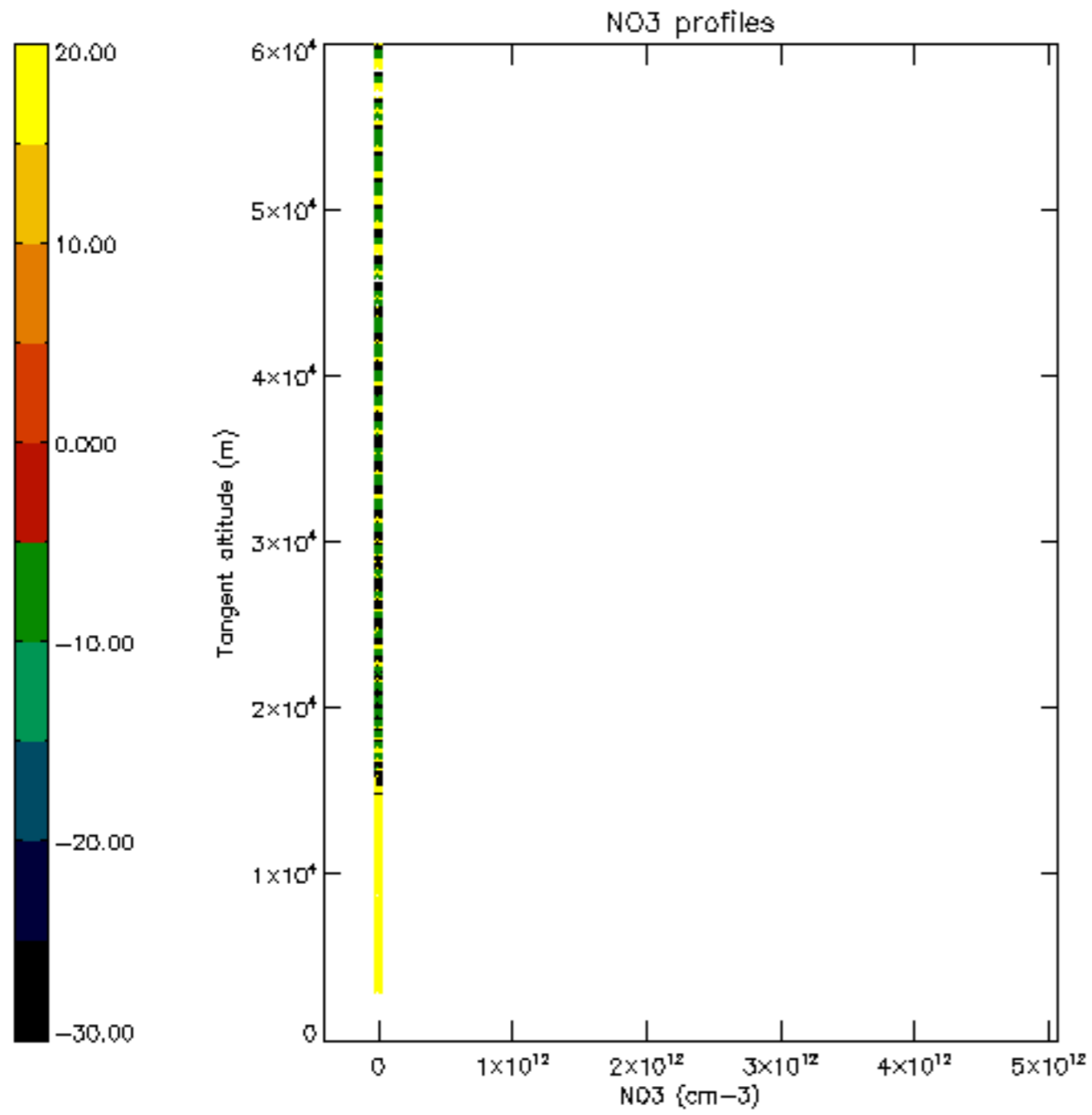


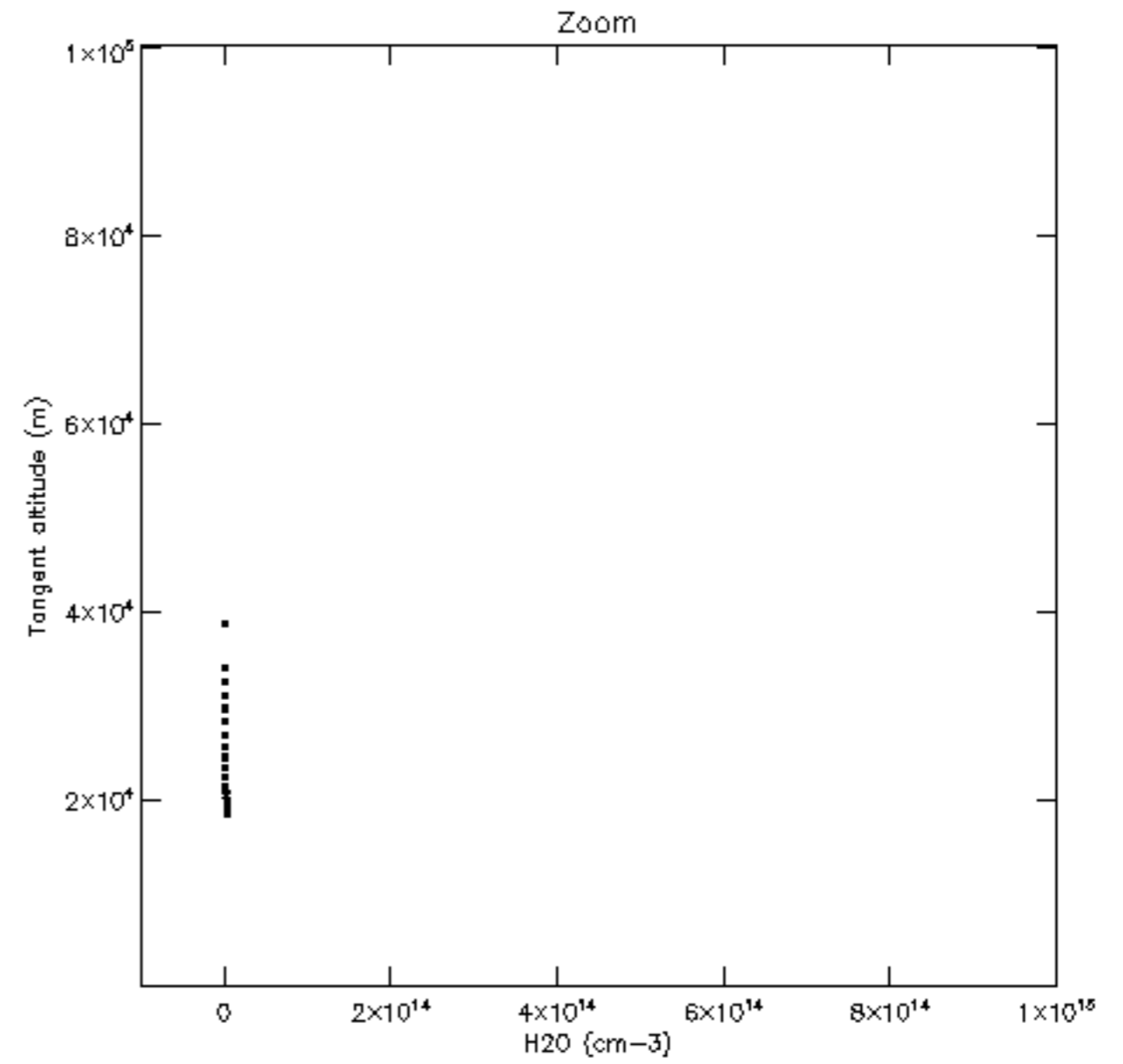
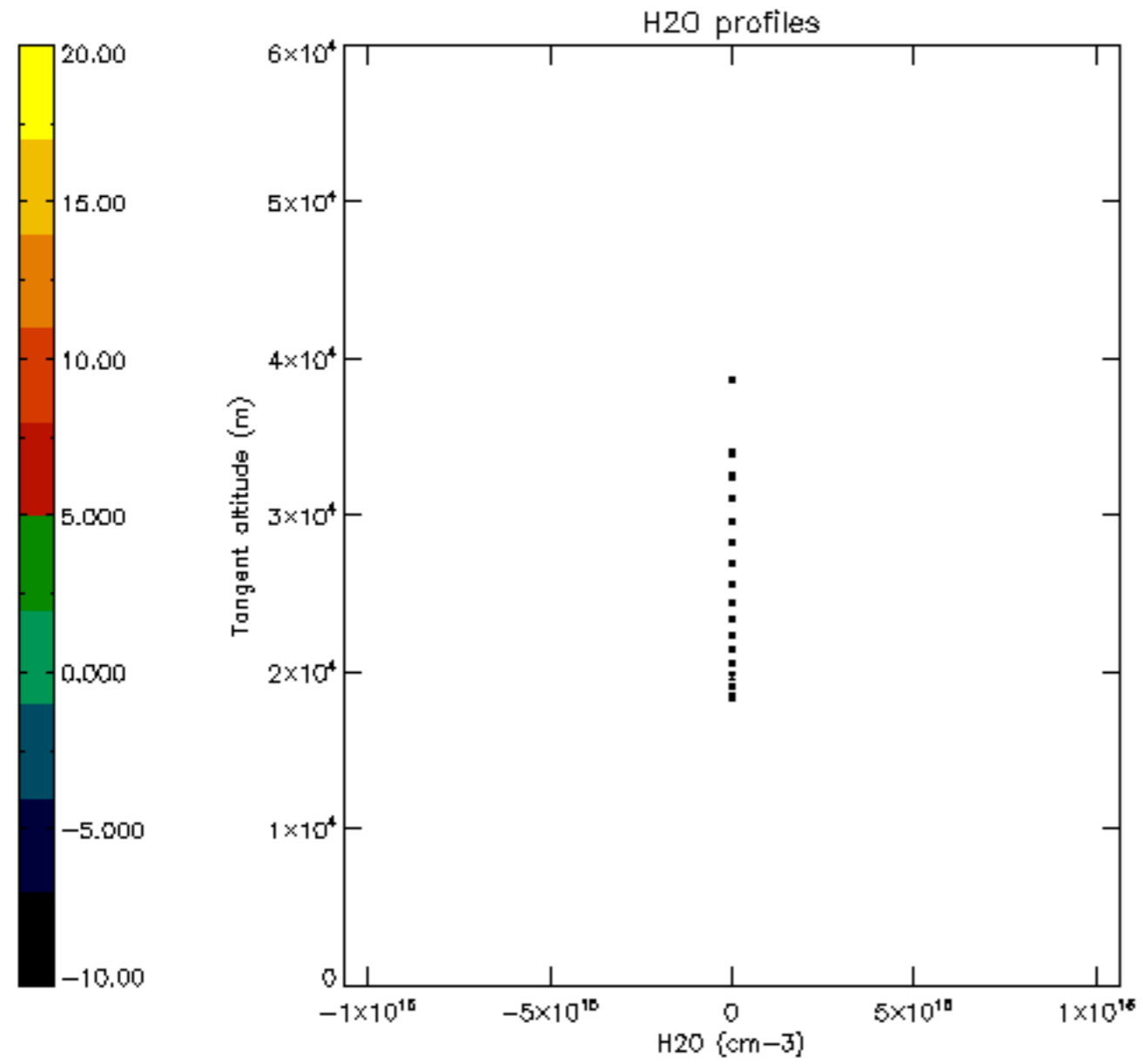


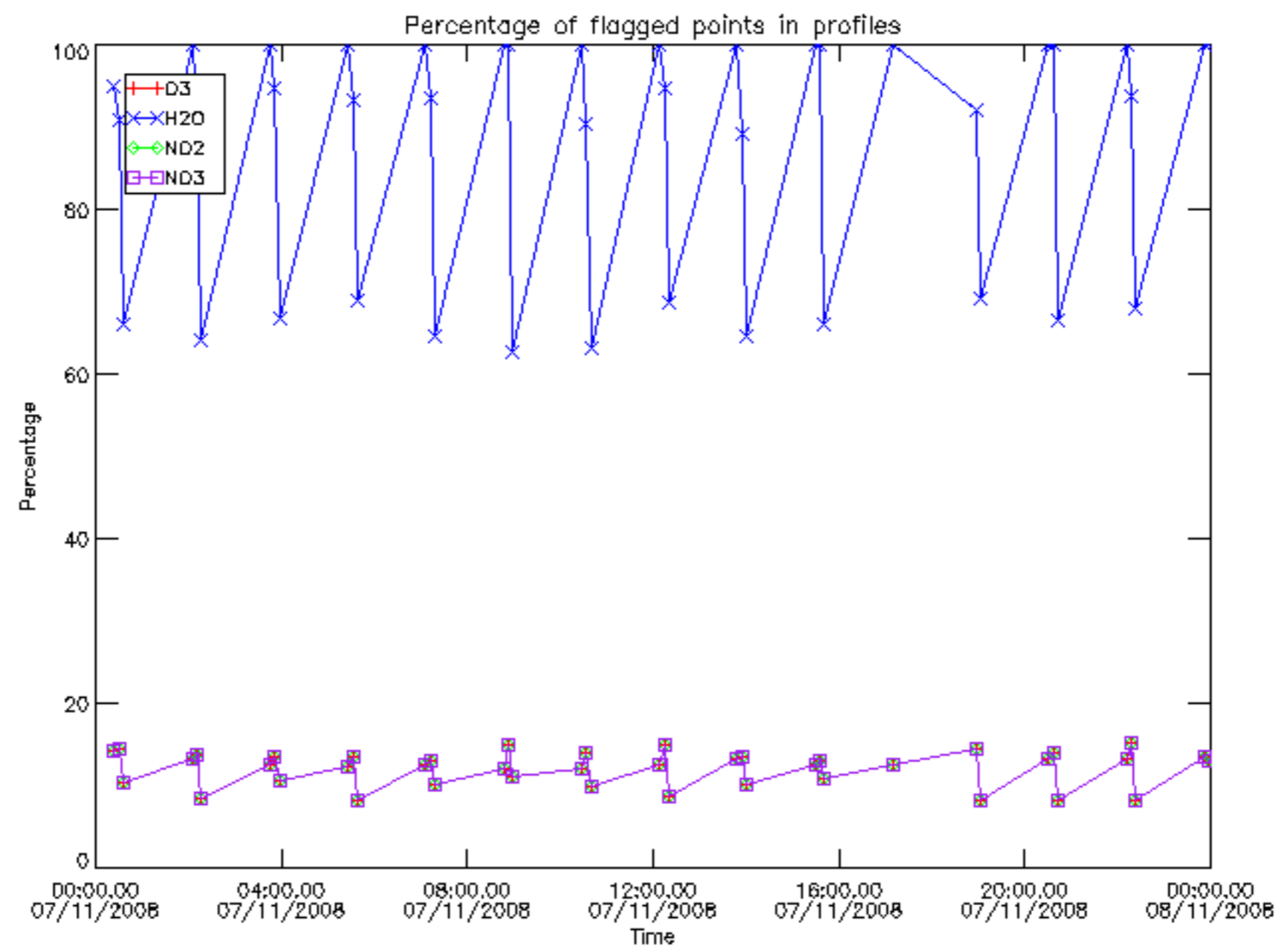




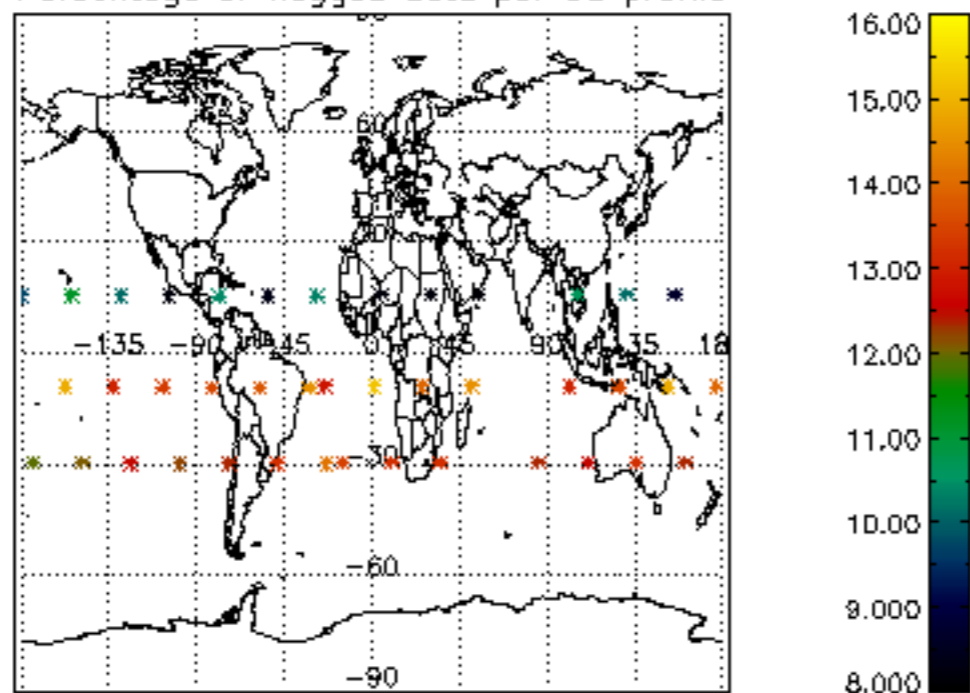




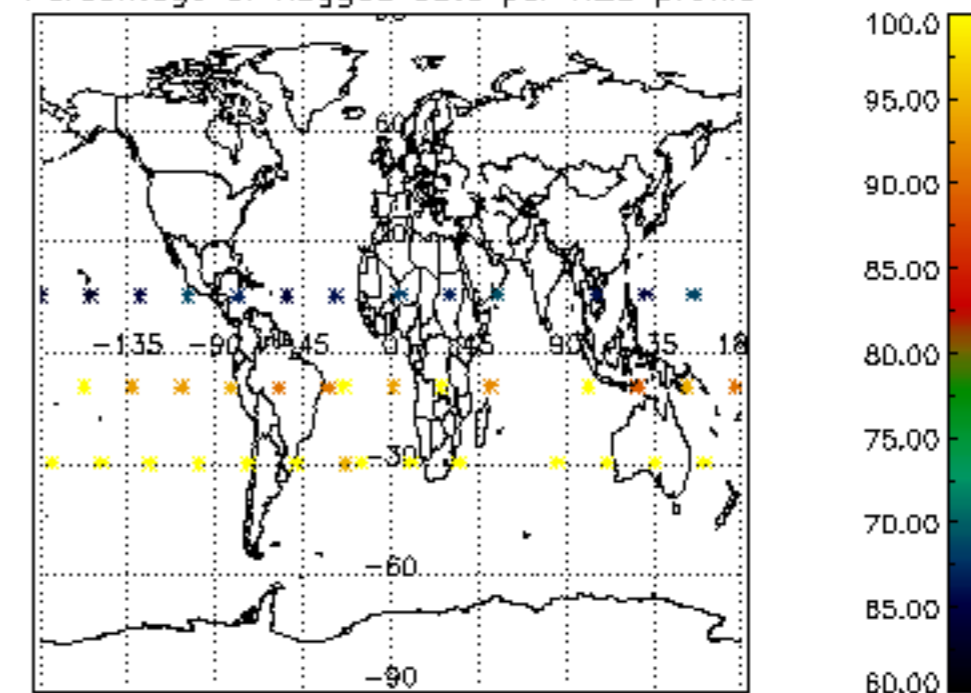




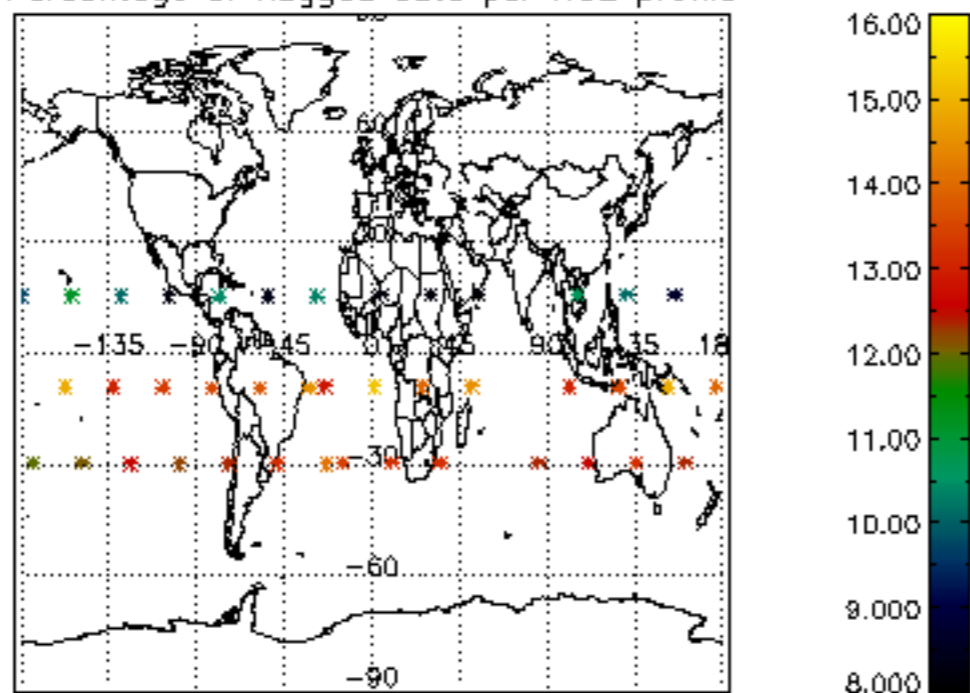
Percentage of flagged data per D3 profile



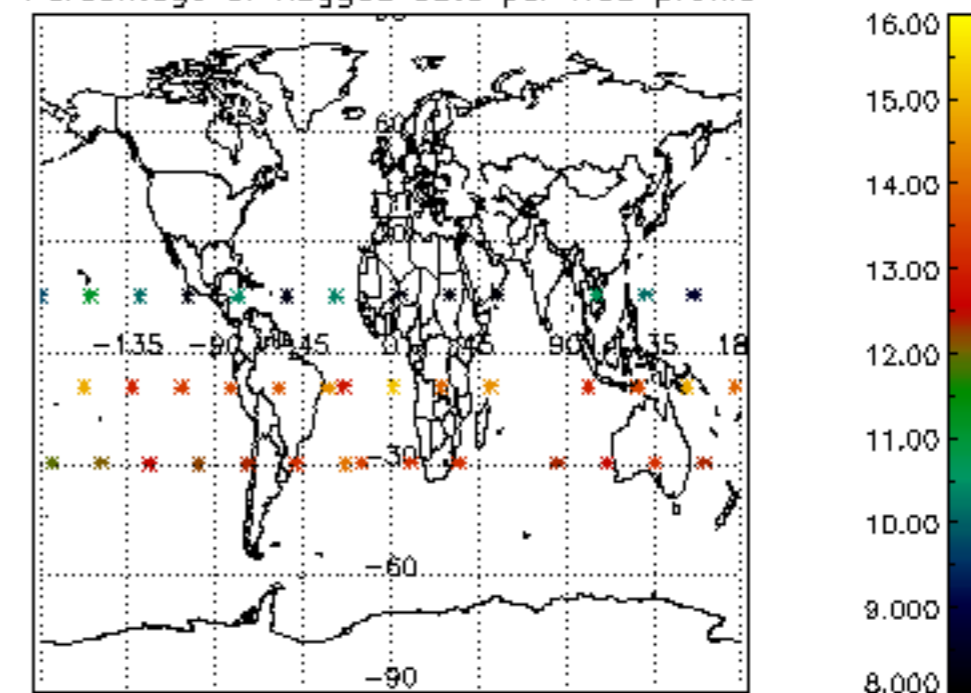
Percentage of flagged data per H2O profile

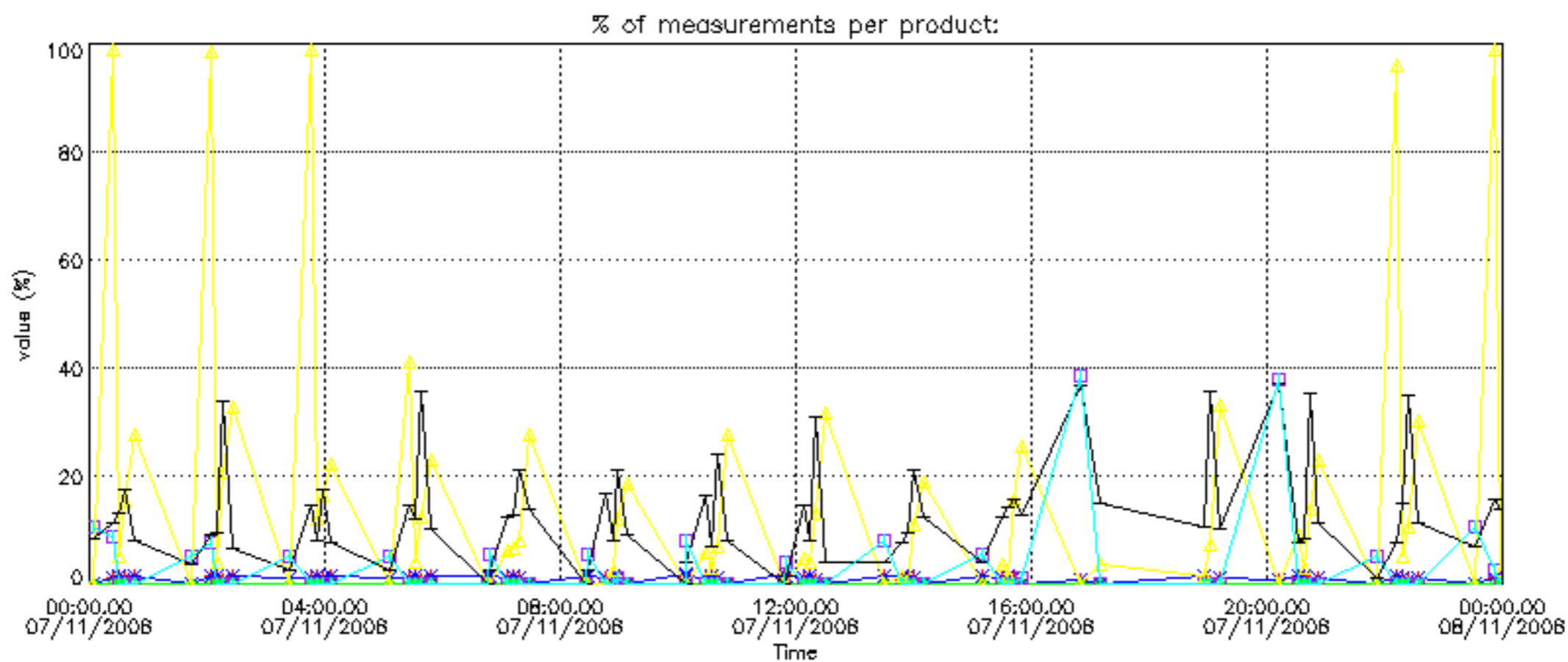


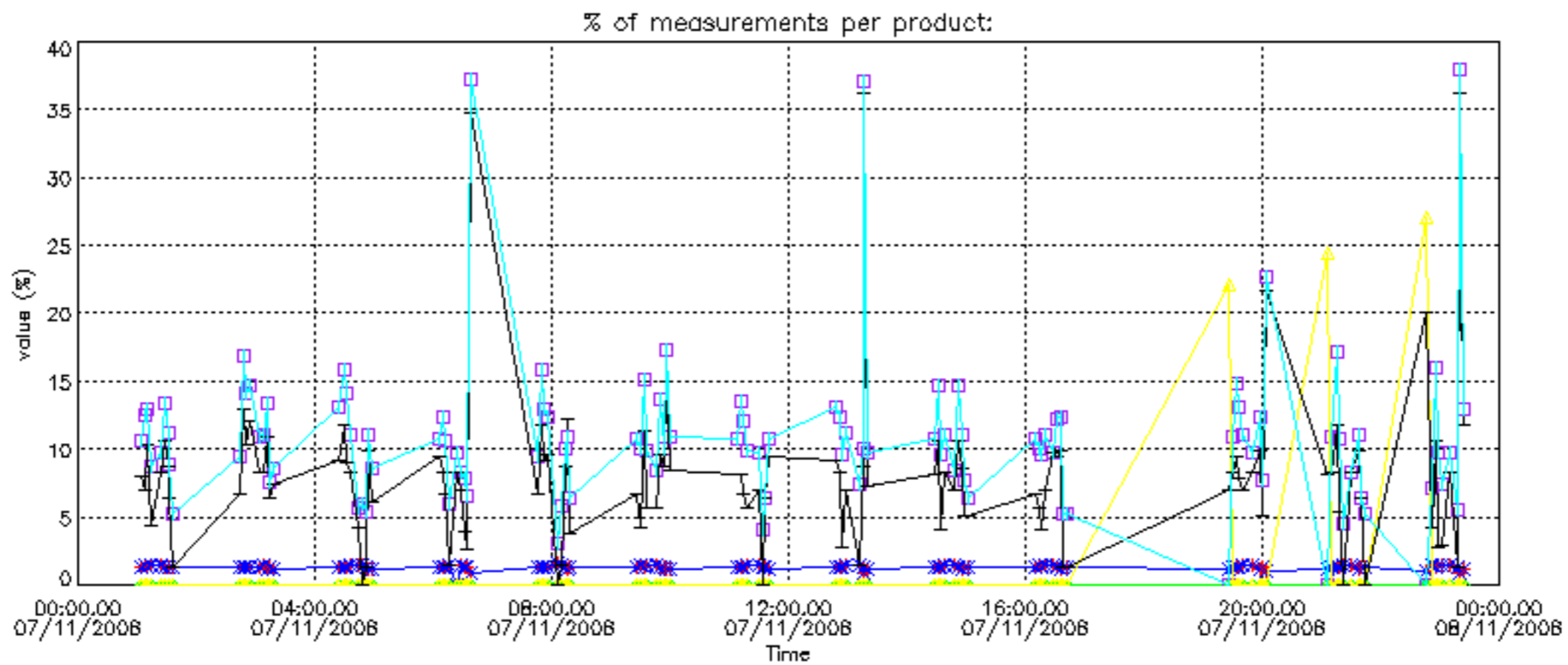
Percentage of flagged data per NO2 profile



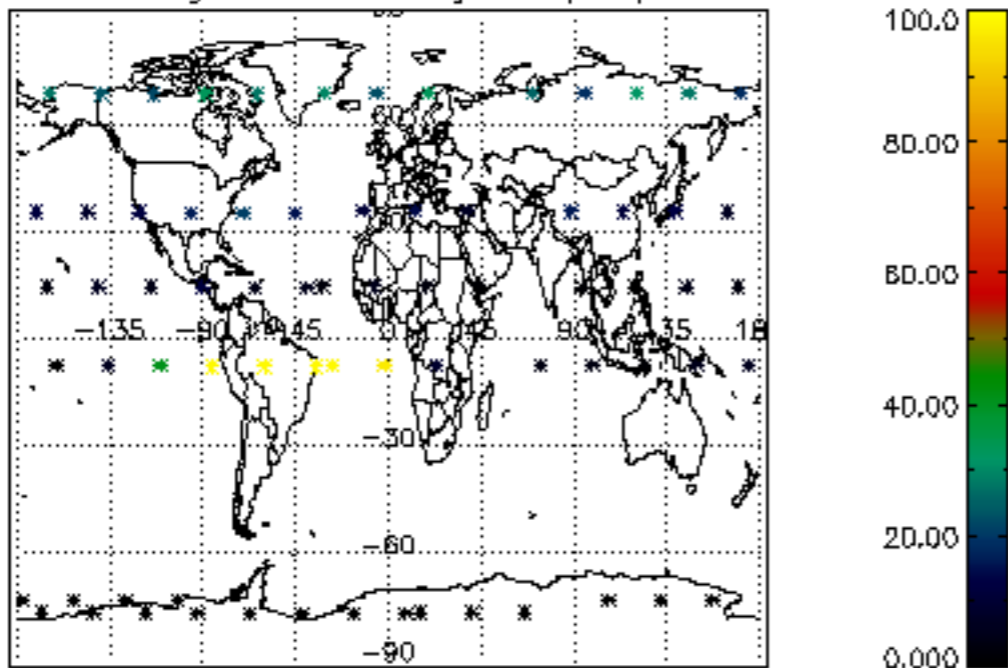
Percentage of flagged data per NO3 profile



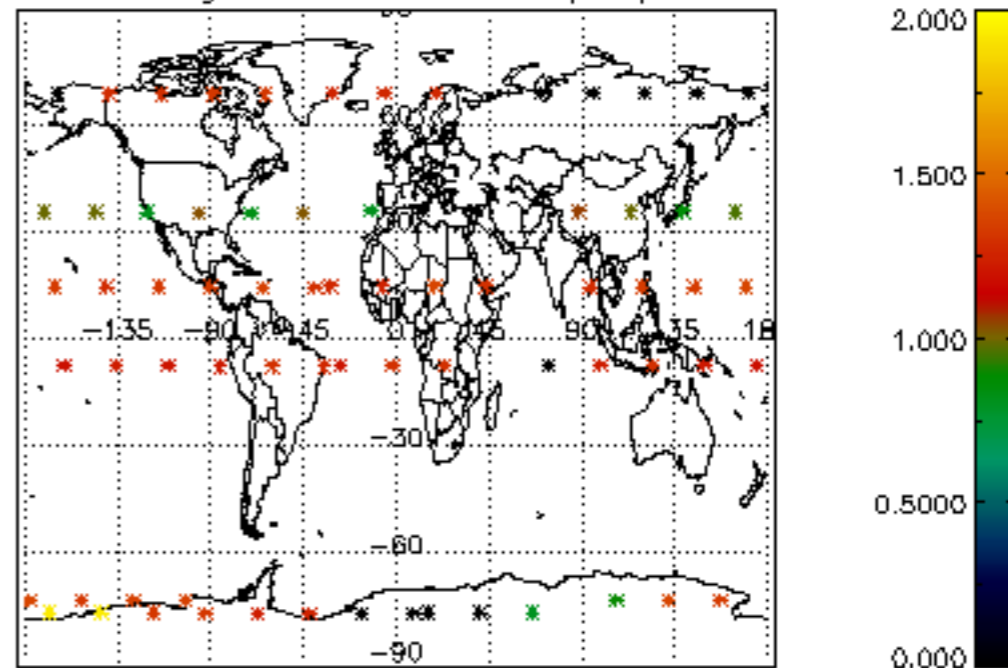




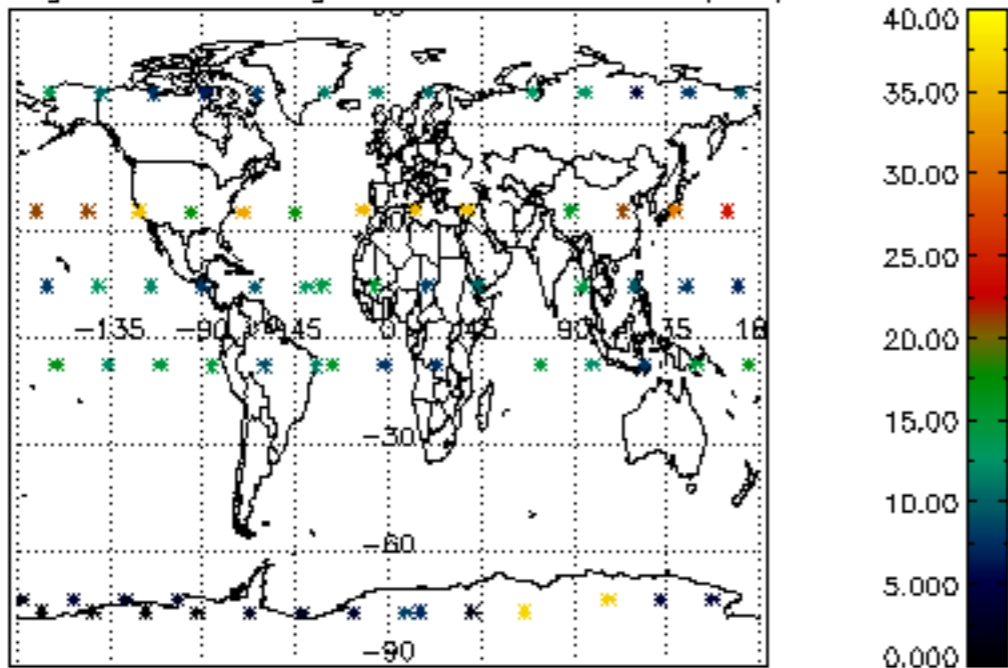
Percentage of cosmic ray hits per profile



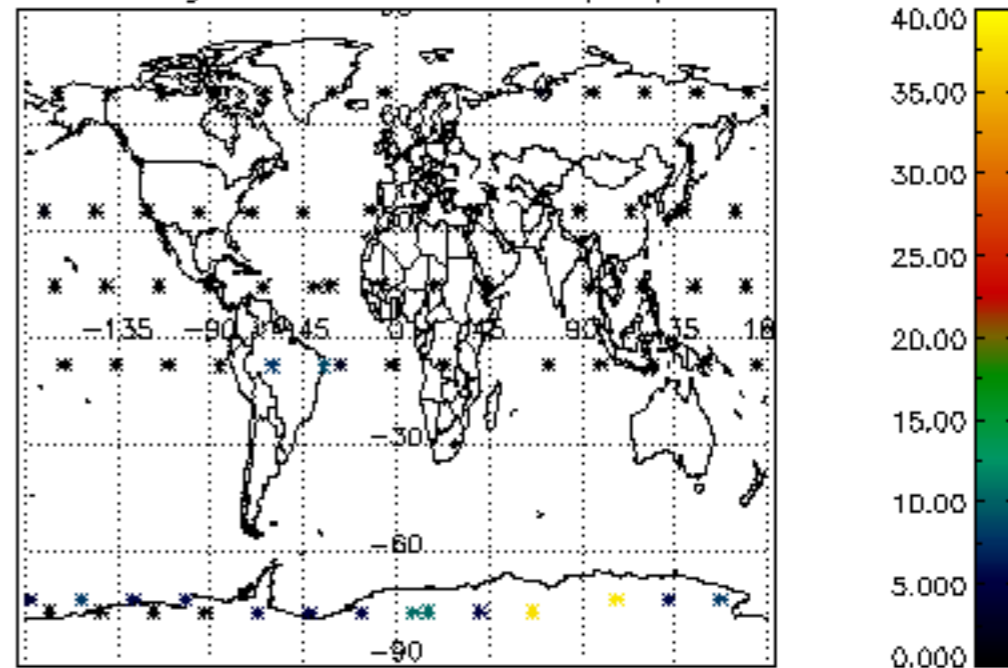
Percentage of datation errors per profile



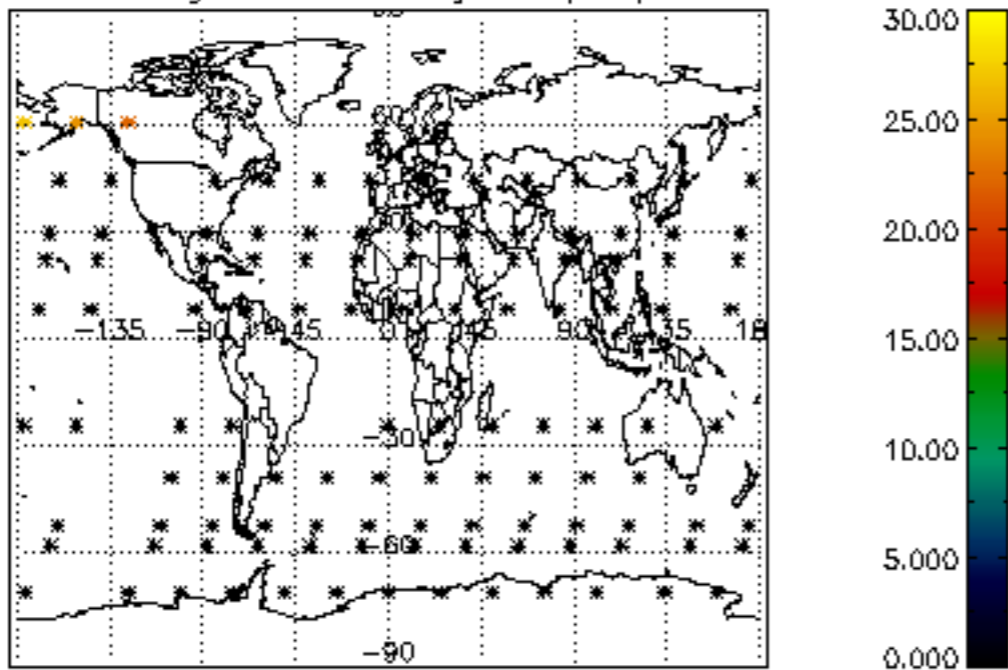
Percentage of star falling outside central band per profile



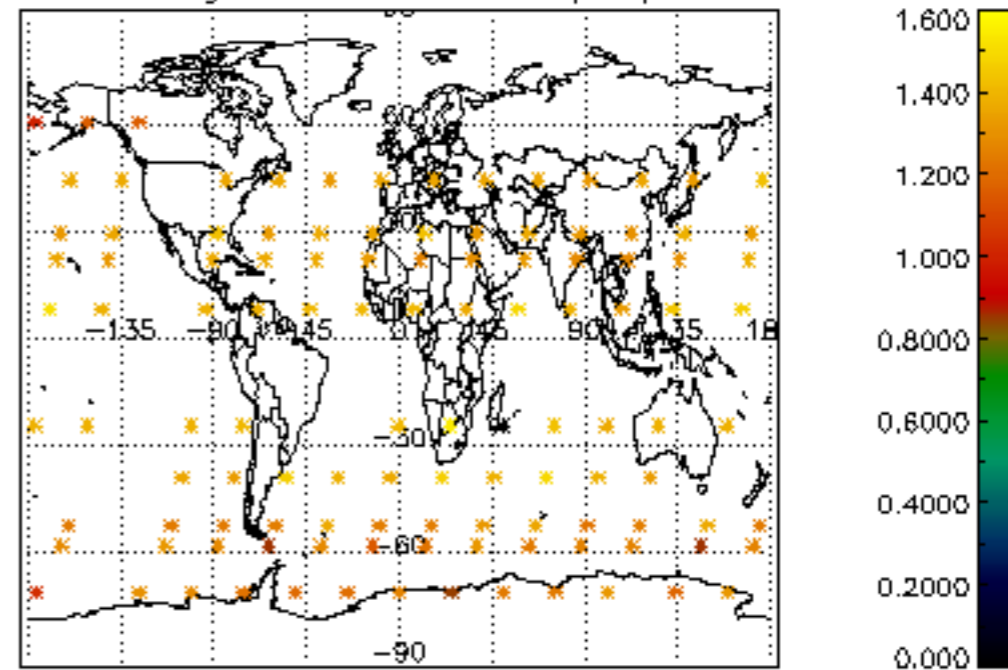
Percentage of saturation errors per profile



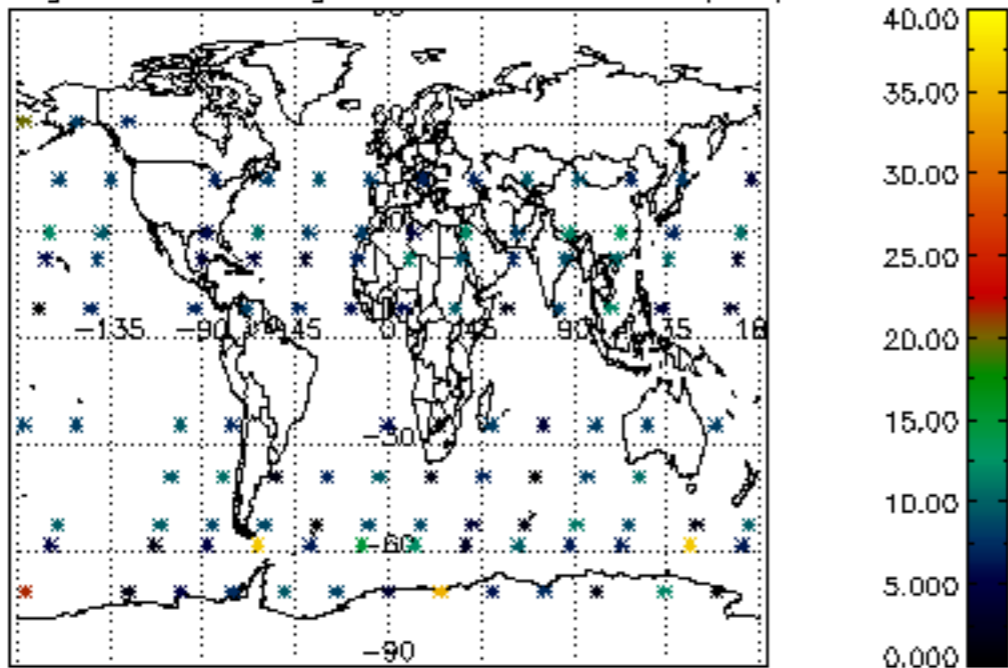
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

