

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 21:36:11
Data source version	GOMOS/6.01
Start time of products	01-11-2008 (01NOV2008 00:00:00)
Stop time of products	02-11-2008 (02NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	130
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

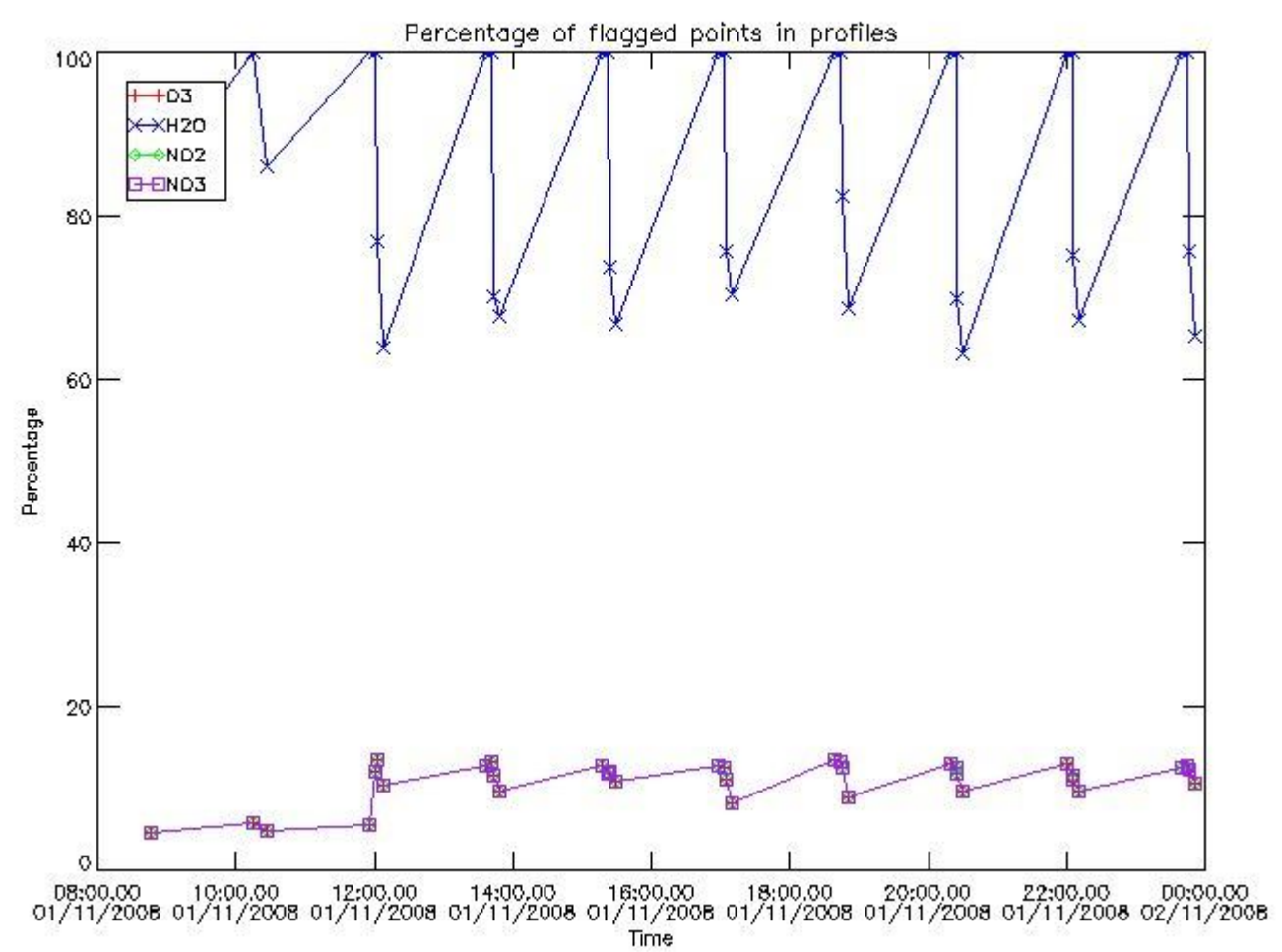
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081101_084527_000001212073_00265_34888_8548.N1	01-NOV-2008 08:45:27	Dark	121.00	2	Alp Car	-0.73600	7000.0	242	34888	No
2	GOM_NL__2PRFIN20081101_085543_000000932073_00265_34888_8549.N1	01-NOV-2008 08:55:43	Straylight	93.000	157	The1Eri	2.9060	9300.0	186	34888	No
3	GOM_NL__2PRFIN20081101_091432_000000922073_00265_34888_8550.N1	01-NOV-2008 09:14:32	Bright	91.500	105	6Bet Ari	2.6450	8900.0	183	34888	No
4	GOM_NL__2PRFIN20081101_091856_000000922073_00265_34888_8551.N1	01-NOV-2008 09:18:56	Bright	92.000	173	4Bet Tri	3.0040	8900.0	184	34888	No
5	GOM_NL__2PRFIN20081101_092523_000000852073_00265_34888_8552.N1	01-NOV-2008 09:25:23	Bright	84.500	74	11Bet Cas	2.2680	6600.0	169	34888	No
6	GOM_NL__2PRFIN20081101_093346_000000882073_00265_34888_8553.N1	01-NOV-2008 09:33:46	Bright	87.500	49	1Alp UMi	1.9900	6300.0	175	34888	No
7	GOM_NL__2PRFIN20081101_094150_000000922073_00265_34888_8554.N1	01-NOV-2008 09:41:50	Bright	92.000	36	50Alp UMa	1.8000	6300.0	184	34888	No
8	GOM_NL__2PRFIN20081101_094423_000000932073_00265_34888_8555.N1	01-NOV-2008 09:44:23	Bright	93.000	87	64Gam UMa	2.4330	11000.	186	34888	No
9	GOM_NL__2PRFIN20081101_094708_000000932073_00265_34888_8556.N1	01-NOV-2008 09:47:08	Bright	93.000	174	52Psi UMa	3.0040	4400.0	186	34888	No
10	GOM_NL__2PRFIN20081101_095433_000000942073_00265_34888_8557.N1	01-NOV-2008 09:54:33	Bright	94.000	96	68Del Leo	2.5600	9300.0	188	34888	No
11	GOM_NL__2PRFIN20081101_101431_000000902073_00265_34888_8558.N1	01-NOV-2008 10:14:31	Dark	89.500	113	Mu Vel	2.6920	5000.0	179	34888	No
12	GOM_NL__2PRFIN20081101_102603_000001042073_00266_34889_8562.N1	01-NOV-2008 10:26:03	Dark	104.00	2	Alp Car	-0.73600	7000.0	208	34889	No
13	GOM_NL__2PRFIN20081101_103620_000000942073_00266_34889_8563.N1	01-NOV-2008 10:36:20	Straylight	93.500	157	The1Eri	2.9060	9300.0	187	34889	No
14	GOM_NL__2PRFIN20081101_105508_000000912073_00266_34889_8564.N1	01-NOV-2008 10:55:08	Bright	90.500	105	6Bet Ari	2.6450	8900.0	181	34889	No
15	GOM_NL__2PRFIN20081101_105931_000000922073_00266_34889_8565.N1	01-NOV-2008 10:59:31	Bright	91.500	173	4Bet Tri	3.0040	8900.0	183	34889	No
16	GOM_NL__2PRFIN20081101_110559_000000852073_00266_34889_8566.N1	01-NOV-2008 11:05:59	Bright	84.500	74	11Bet Cas	2.2680	6600.0	169	34889	No
17	GOM_NL__2PRFIN20081101_111421_000000882073_00266_34889_8567.N1	01-NOV-2008 11:14:21	Bright	87.500	49	1Alp UMi	1.9900	6300.0	175	34889	No
18	GOM_NL__2PRFIN20081101_112226_000000942073_00266_34889_8568.N1	01-NOV-2008 11:22:26	Bright	94.000	36	50Alp UMa	1.8000	6300.0	188	34889	No
19	GOM_NL__2PRFIN20081101_112459_000000882073_00266_34889_8569.N1	01-NOV-2008 11:24:59	Bright	88.000	87	64Gam UMa	2.4330	11000.	176	34889	No
20	GOM_NL__2PRFIN20081101_112743_000000962073_00266_34889_8570.N1	01-NOV-2008 11:27:43	Bright	96.000	174	52Psi UMa	3.0040	4400.0	192	34889	No
21	GOM_NL__2PRFIN20081101_113509_000000952073_00266_34889_8571.N1	01-NOV-2008 11:35:09	Bright	94.500	96	68Del Leo	2.5600	9300.0	189	34889	No
22	GOM_NL__2PRFIN20081101_115507_000000912073_00266_34889_8572.N1	01-NOV-2008 11:55:07	Dark	91.000	113	Mu Vel	2.6920	5000.0	182	34889	No
23	GOM_NL__2PRFIN20081101_120108_000000422073_00267_34890_8574.N1	01-NOV-2008 12:01:08	Dark	42.000	46	Del Vel	1.9540	10600.	84	34890	No
24	GOM_NL__2PRFIN20081101_120228_000000422073_00267_34890_8575.N1	01-NOV-2008 12:02:28	Dark	41.500	41	Eps Car	1.8600	4100.0	83	34890	No
25	GOM_NL__2PRFIN20081101_120738_000000492073_00267_34890_8576.N1	01-NOV-2008 12:07:38	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	34890	No
26	GOM_NL__2PRFIN20081101_121750_000000392073_00267_34890_8577.N1	01-NOV-2008 12:17:50	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	34890	No
27	GOM_NL__2PRFIN20081101_123637_000000392073_00267_34890_8578.N1	01-NOV-2008 12:36:37	Bright	39.000	105	6Bet Ari	2.6450	8900.0	78	34890	No
28	GOM_NL__2PRFIN20081101_124040_000000362073_00267_34890_8579.N1	01-NOV-2008 12:40:40	Bright	35.500	53	43Bet And	2.0480	3300.0	71	34890	No
29	GOM_NL__2PRFIN20081101_124303_000000372073_00267_34890_8580.N1	01-NOV-2008 12:43:03	Bright	36.500	73	57Gam1And	2.2600	13100.	73	34890	No
30	GOM_NL__2PRFIN20081101_124633_000000362073_00267_34890_8581.N1	01-NOV-2008 12:46:33	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	34890	No
31	GOM_NL__2PRFIN20081101_124744_000000362073_00267_34890_8582.N1	01-NOV-2008 12:47:44	Bright	35.500	76	27Gam Cas	2.3000	30000.	71	34890	No
32	GOM_NL__2PRFIN20081101_125549_000000362073_00267_34890_8583.N1	01-NOV-2008 12:55:49	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34890	No
33	GOM_NL__2PRFIN20081101_130356_000000362073_00267_34890_8584.N1	01-NOV-2008 13:03:56	Bright	35.500	36	50Alp UMa	1.8000	6300.0	71	34890	No
34	GOM_NL__2PRFIN20081101_130533_000000382073_00267_34890_8585.N1	01-NOV-2008 13:05:33	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	34890	No
35	GOM_NL__2PRFIN20081101_130915_000000382073_00267_34890_8586.N1	01-NOV-2008 13:09:15	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	34890	No
36	GOM_NL__2PRFIN20081101_131641_000000582073_00267_34890_8587.N1	01-NOV-2008 13:16:41	Bright	58.000	96	68Del Leo	2.5600	9300.0	116	34890	No
37	GOM_NL__2PRFIN20081101_133634_000000402073_00267_34890_8588.N1	01-NOV-2008 13:36:34	Dark	40.000	113	Mu Vel	2.6920	5000.0	80	34890	No
38	GOM_NL__2PRFIN20081101_134145_000000422073_00268_34891_8588.N1	01-NOV-2008 13:41:45	Dark	42.000	46	Del Vel	1.9540	10600.	84	34891	No
39	GOM_NL__2PRFIN20081101_134305_000000442073_00268_34891_8589.N1	01-NOV-2008 13:43:05	Dark	44.000	41	Eps Car	1.8600	4100.0	88	34891	No
40	GOM_NL__2PRFIN20081101_134815_000000532073_00268_34891_8590.N1	01-NOV-2008 13:48:15	Dark	53.000	2	Alp Car	-0.73600	7000.0	106	34891	No
41	GOM_NL__2PRFIN20081101_135826_000000402073_00268_34891_8591.N1	01-NOV-2008 13:58:26	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	34891	No
42	GOM_NL__2PRFIN20081101_141713_000000382073_00268_34891_8592.N1	01-NOV-2008 14:17:13	Bright	38.000	105	6Bet Ari	2.6450	8900.0	76	34891	No

102	GOM_NL__2PRFIN20081101_205936_000000382073_00272_34895_8653.N1	01-NOV-2008 20:59:36	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	34895	No
103	GOM_NL__2PRFIN20081101_210339_000000382073_00272_34895_8654.N1	01-NOV-2008 21:03:39	Bright	37.500	53	43Bet And	2.0480	3300.0	75	34895	No
104	GOM_NL__2PRFIN20081101_210602_000000392073_00272_34895_8655.N1	01-NOV-2008 21:06:02	Bright	38.500	73	57Gam1And	2.2600	13100.	77	34895	No
105	GOM_NL__2PRFIN20081101_210933_000000362073_00272_34895_8656.N1	01-NOV-2008 21:09:33	Bright	36.000	68	18Alp Cas	2.2250	4500.0	72	34895	No
106	GOM_NL__2PRFIN20081101_211043_000000362073_00272_34895_8657.N1	01-NOV-2008 21:10:43	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	34895	No
107	GOM_NL__2PRFIN20081101_211848_000000372073_00272_34895_8658.N1	01-NOV-2008 21:18:48	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	34895	No
108	GOM_NL__2PRFIN20081101_212656_000000362073_00272_34895_8659.N1	01-NOV-2008 21:26:56	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	34895	No
109	GOM_NL__2PRFIN20081101_212833_000000502073_00272_34895_8660.N1	01-NOV-2008 21:28:33	Bright	49.500	82	48Bet UMa	2.3650	10600.	99	34895	No
110	GOM_NL__2PRFIN20081101_213215_000000572073_00272_34895_8661.N1	01-NOV-2008 21:32:15	Bright	57.000	174	52Psi UMa	3.0040	4400.0	114	34895	No
111	GOM_NL__2PRFIN20081101_213942_000000582073_00272_34895_8662.N1	01-NOV-2008 21:39:42	Bright	57.500	96	68Del Leo	2.5600	9300.0	115	34895	No
112	GOM_NL__2PRFIN20081101_215936_000000402073_00272_34895_8663.N1	01-NOV-2008 21:59:36	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	34895	No
113	GOM_NL__2PRFIN20081101_220448_000000442073_00273_34896_8664.N1	01-NOV-2008 22:04:48	Dark	44.000	46	Del Vel	1.9540	10600.	88	34896	No
114	GOM_NL__2PRFIN20081101_220607_000000512073_00273_34896_8665.N1	01-NOV-2008 22:06:07	Dark	51.000	41	Eps Car	1.8600	4100.0	102	34896	No
115	GOM_NL__2PRFIN20081101_221118_000000632073_00273_34896_8666.N1	01-NOV-2008 22:11:18	Dark	63.000	2	Alp Car	-0.73600	7000.0	126	34896	No
116	GOM_NL__2PRFIN20081101_222128_000000402073_00273_34896_8667.N1	01-NOV-2008 22:21:28	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	34896	No
117	GOM_NL__2PRFIN20081101_224012_000000382073_00273_34896_8668.N1	01-NOV-2008 22:40:12	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	34896	No
118	GOM_NL__2PRFIN20081101_224415_000000382073_00273_34896_8669.N1	01-NOV-2008 22:44:15	Bright	38.000	53	43Bet And	2.0480	3300.0	76	34896	No
119	GOM_NL__2PRFIN20081101_224637_000000392073_00273_34896_8670.N1	01-NOV-2008 22:46:37	Bright	38.500	73	57Gam1And	2.2600	13100.	77	34896	No
120	GOM_NL__2PRFIN20081101_225009_000000462073_00273_34896_8671.N1	01-NOV-2008 22:50:09	Bright	45.500	68	18Alp Cas	2.2250	4500.0	91	34896	No
121	GOM_NL__2PRFIN20081101_225119_000000362073_00273_34896_8672.N1	01-NOV-2008 22:51:19	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	34896	No
122	GOM_NL__2PRFIN20081101_225924_000000362073_00273_34896_8673.N1	01-NOV-2008 22:59:24	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34896	No
123	GOM_NL__2PRFIN20081101_230731_000000372073_00273_34896_8674.N1	01-NOV-2008 23:07:31	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34896	No
124	GOM_NL__2PRFIN20081101_230908_000000562073_00273_34896_8675.N1	01-NOV-2008 23:09:08	Bright	56.000	82	48Bet UMa	2.3650	10600.	112	34896	No
125	GOM_NL__2PRFIN20081101_231251_000000382073_00273_34896_8676.N1	01-NOV-2008 23:12:51	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	34896	No
126	GOM_NL__2PRFIN20081101_232018_000000382073_00273_34896_8677.N1	01-NOV-2008 23:20:18	Bright	37.500	96	68Del Leo	2.5600	9300.0	75	34896	No
127	GOM_NL__2PRFIN20081101_234012_000000412073_00273_34896_8678.N1	01-NOV-2008 23:40:12	Dark	41.000	113	Mu Vel	2.6920	5000.0	82	34896	No
128	GOM_NL__2PRFIN20081101_234524_000000402073_00274_34897_8675.N1	01-NOV-2008 23:45:24	Dark	40.000	46	Del Vel	1.9540	10600.	80	34897	No
129	GOM_NL__2PRFIN20081101_234644_000000422073_00274_34897_8676.N1	01-NOV-2008 23:46:44	Dark	41.500	41	Eps Car	1.8600	4100.0	83	34897	No
130	GOM_NL__2PRFIN20081101_235155_000000482073_00274_34897_8677.N1	01-NOV-2008 23:51:55	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	34897	No

3. Quality information per product

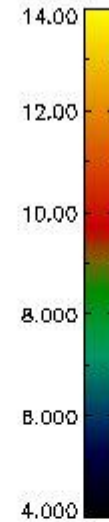
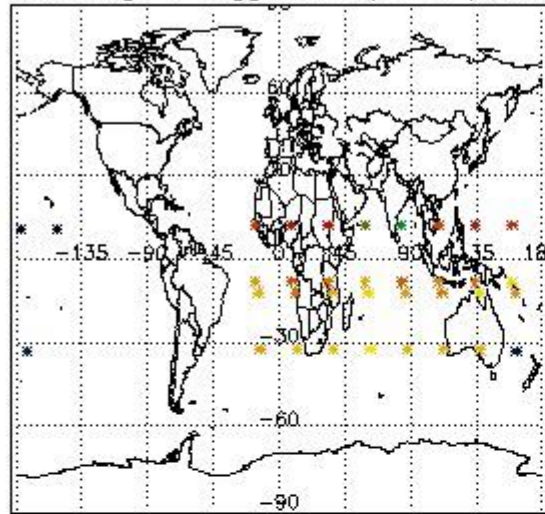
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

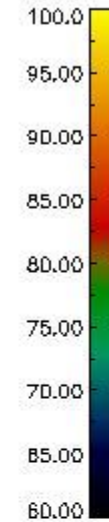
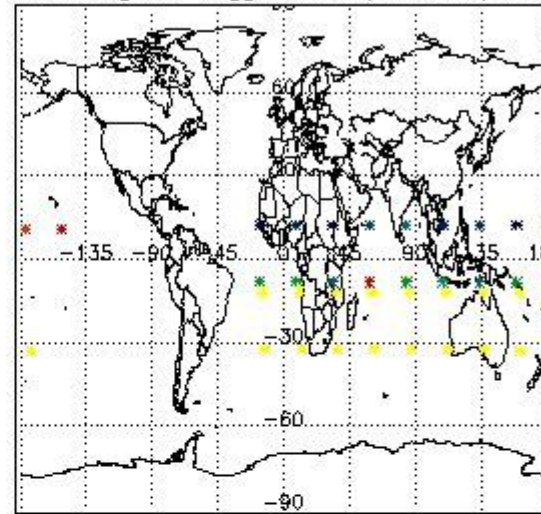


3.2 Plot quality information per product (world map)

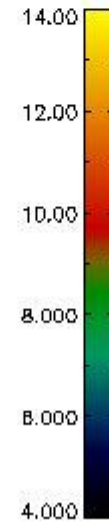
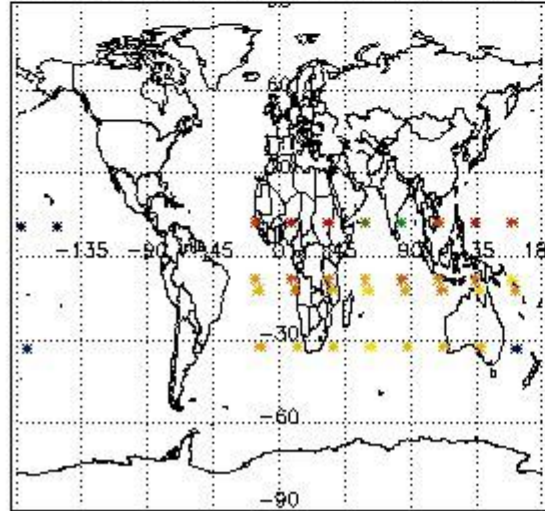
Percentage of flagged data per O3 profile



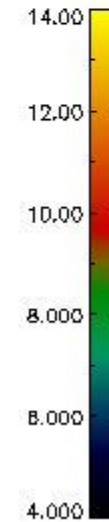
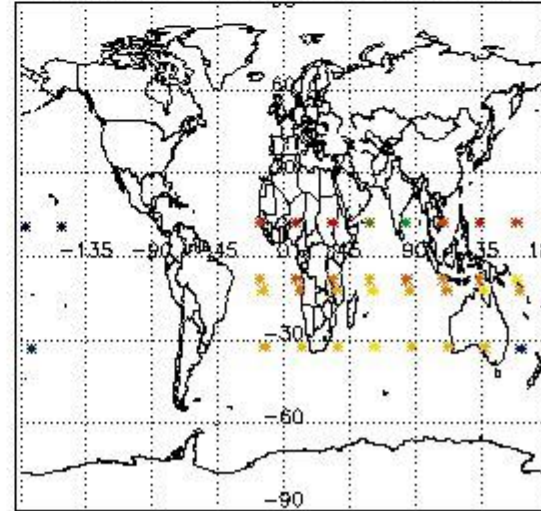
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

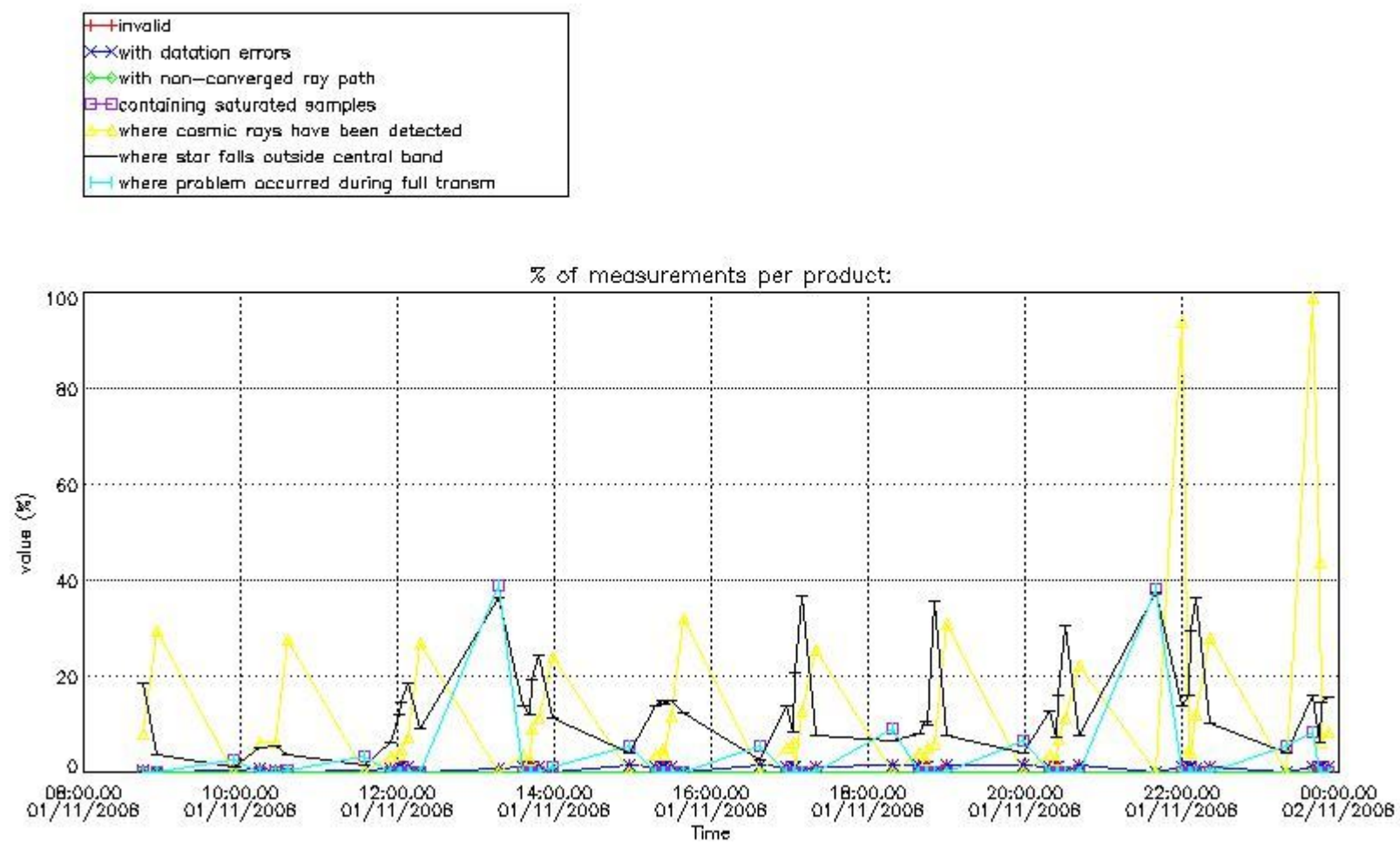


4. Level 1 quality information per product

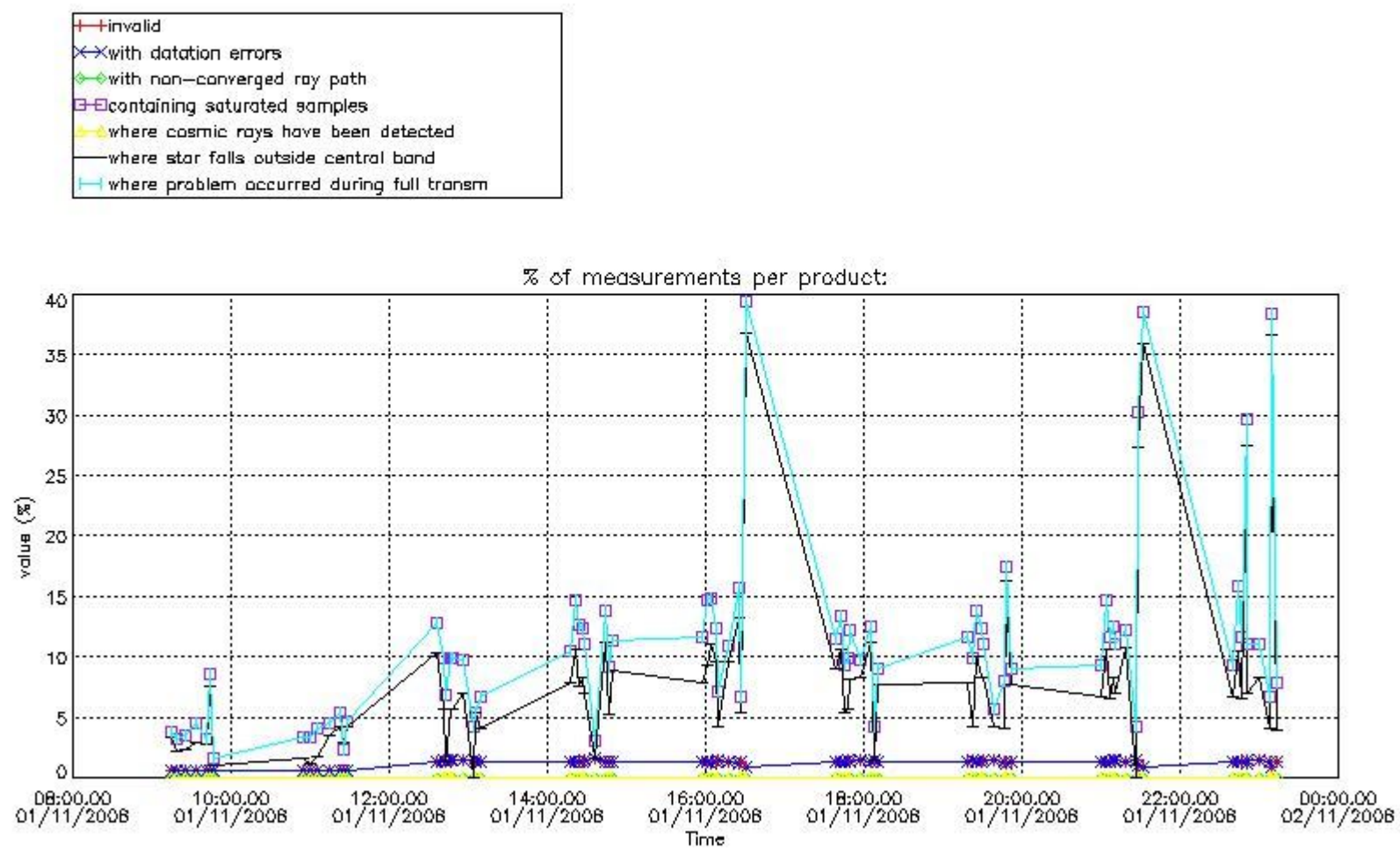
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



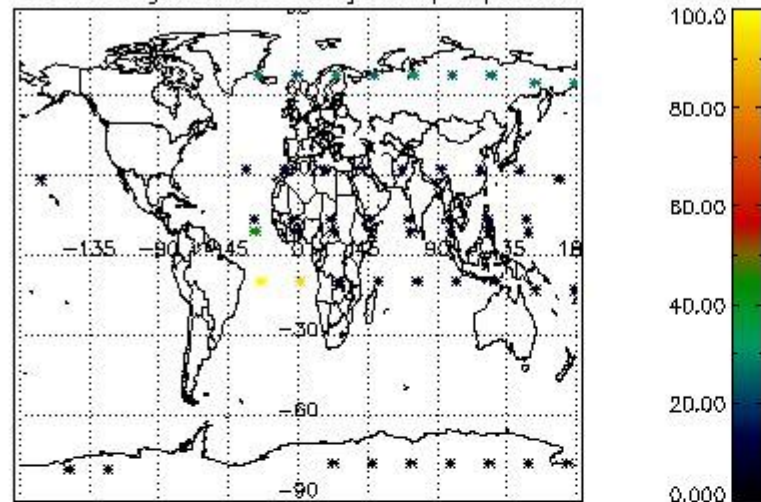
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



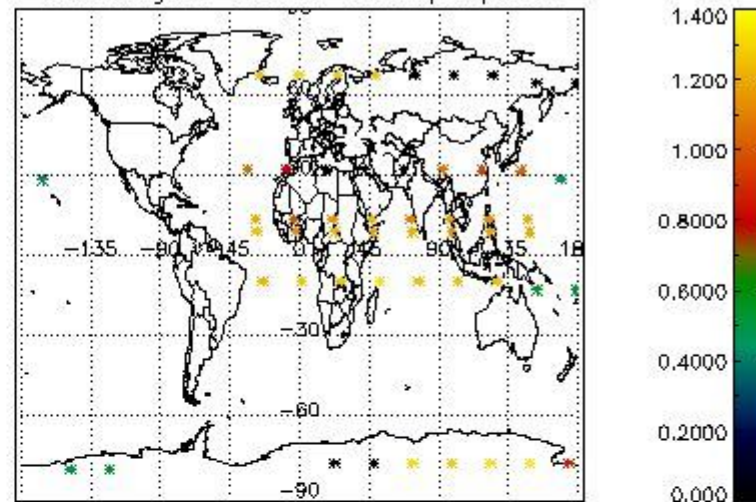
4.2 Plot quality information per product coming from level 1b processing (world map)

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

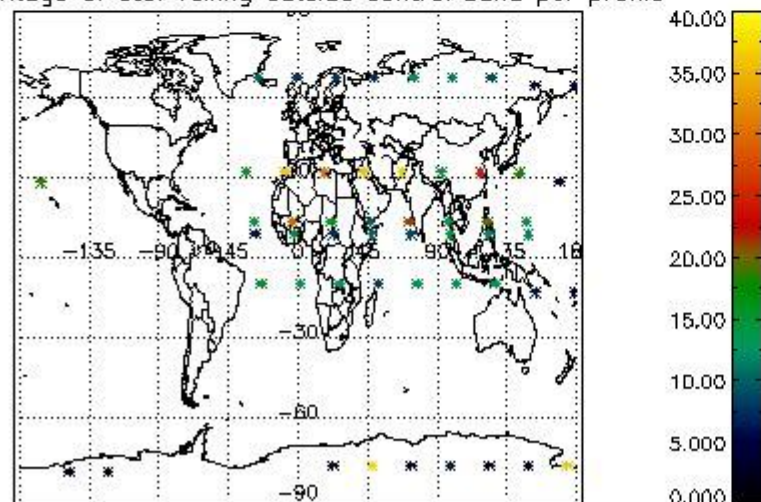
Percentage of cosmic ray hits per profile



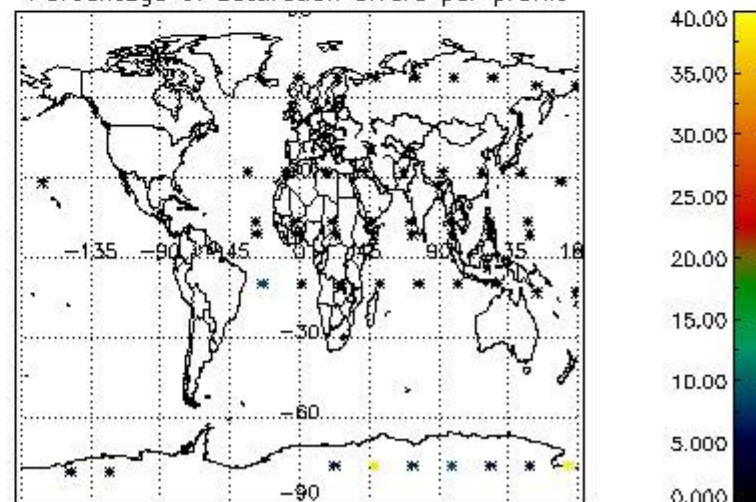
Percentage of datation errors per profile



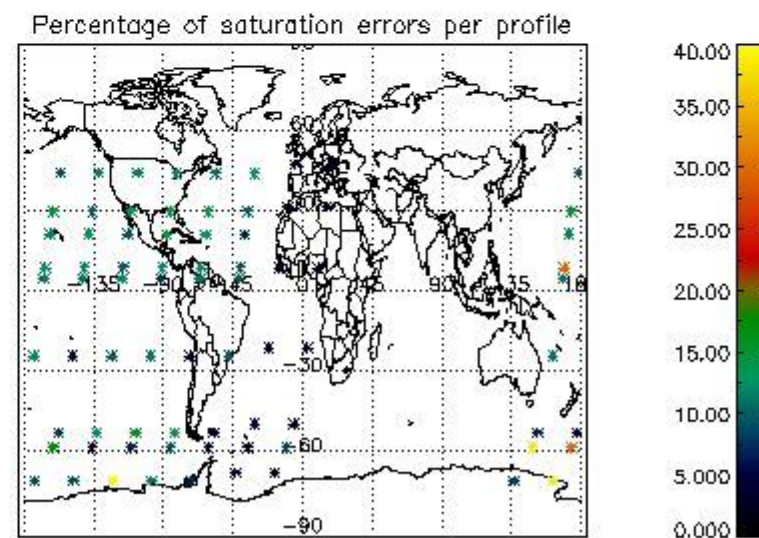
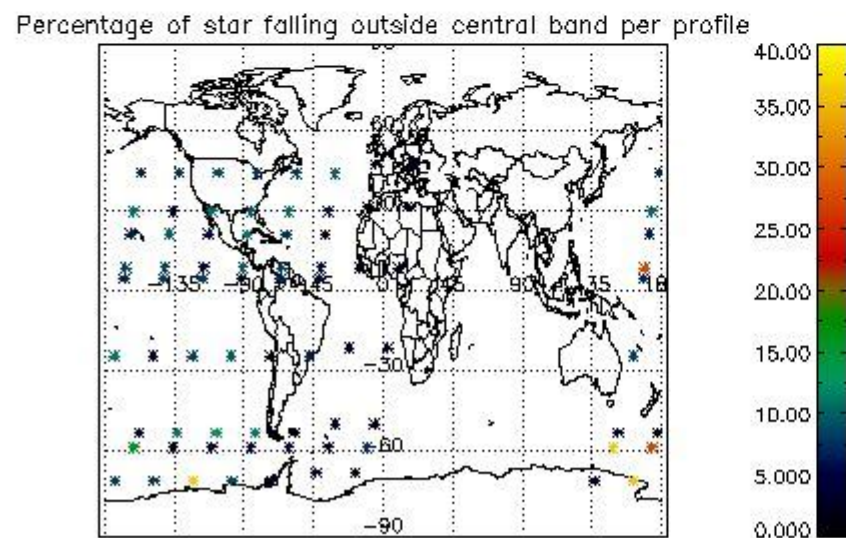
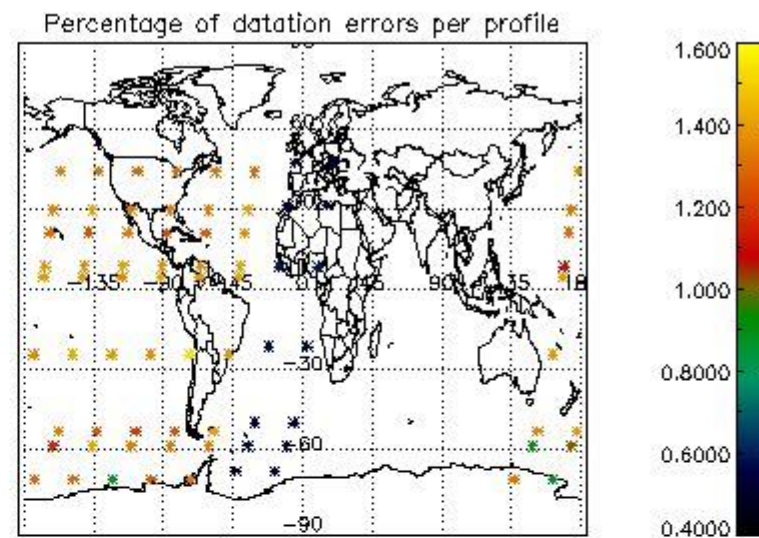
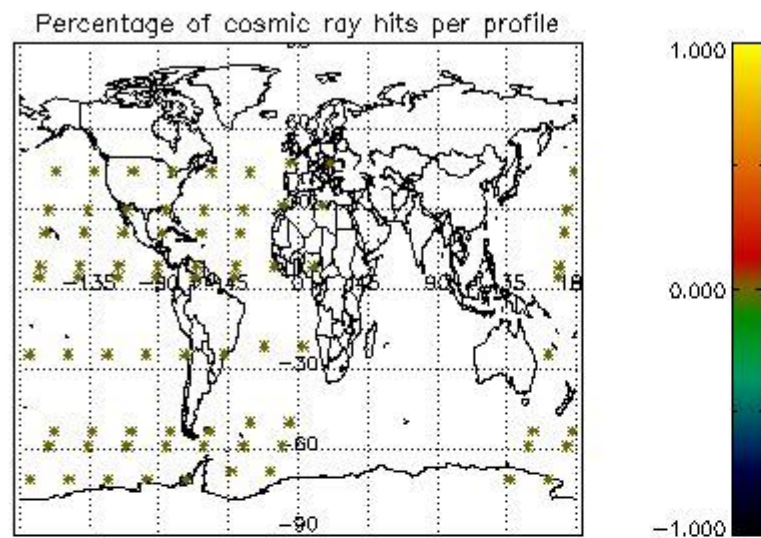
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



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

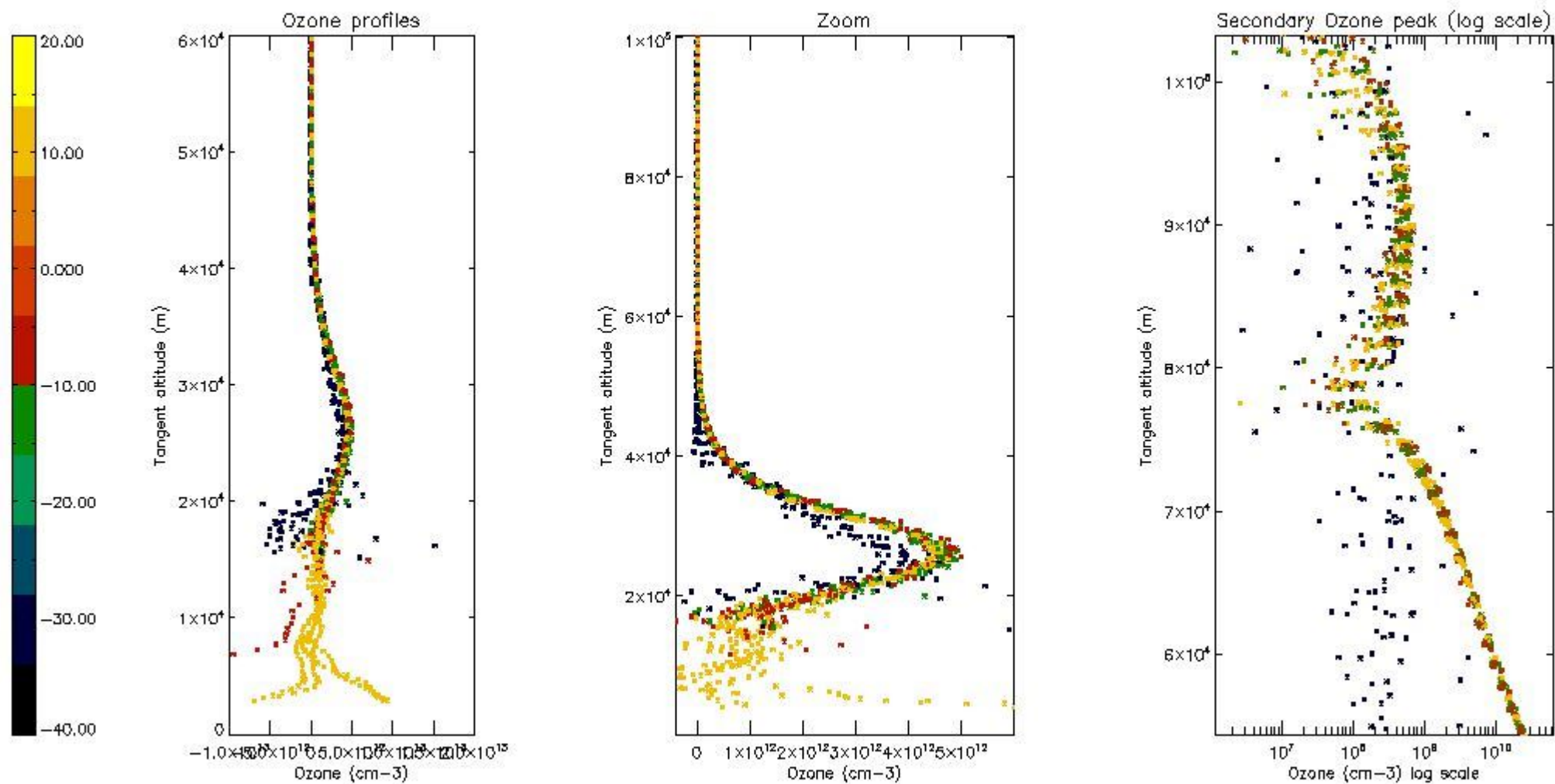
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	29
STD < 20	13

STD < 10	10
STD < 5	6

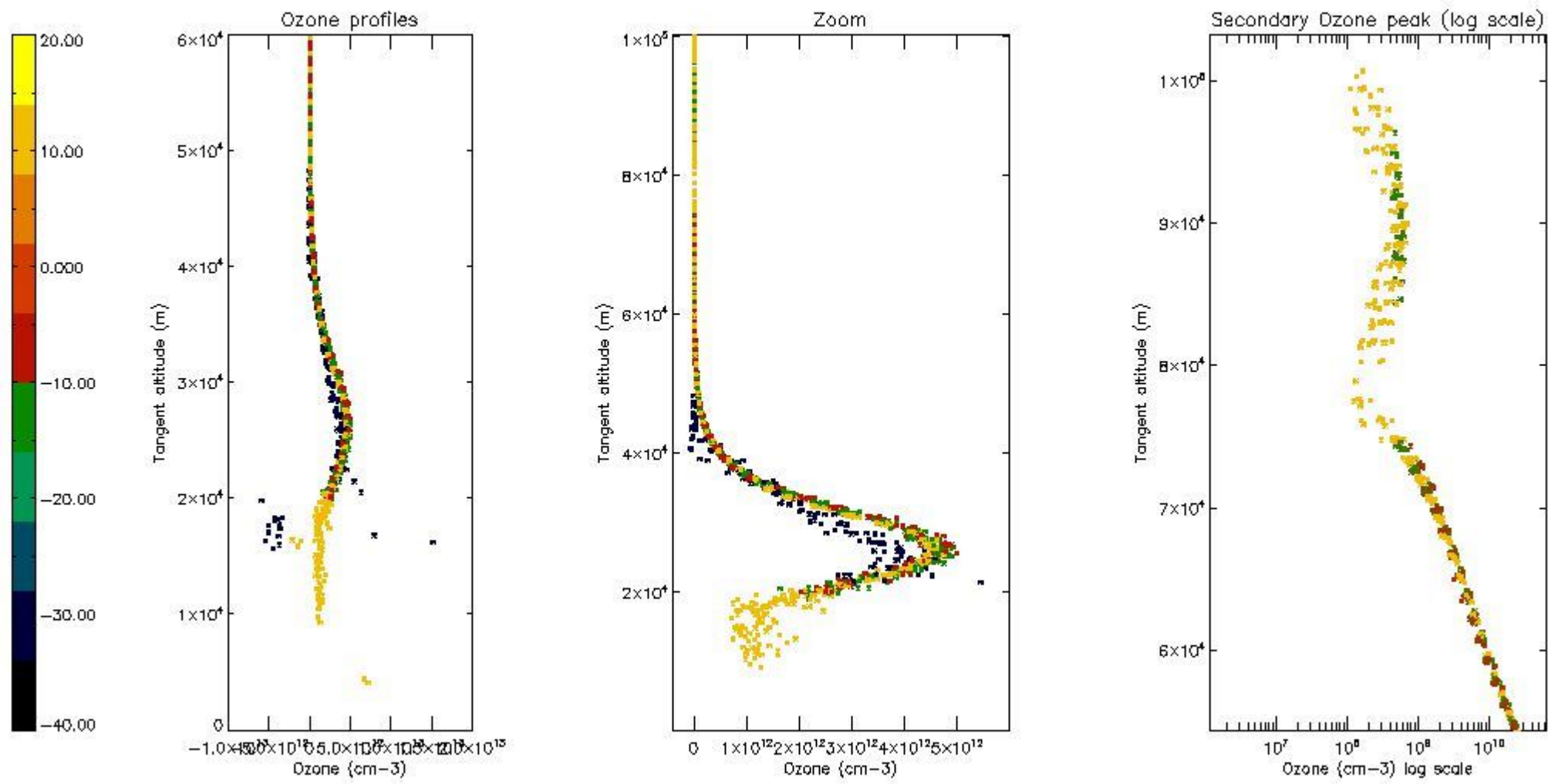
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



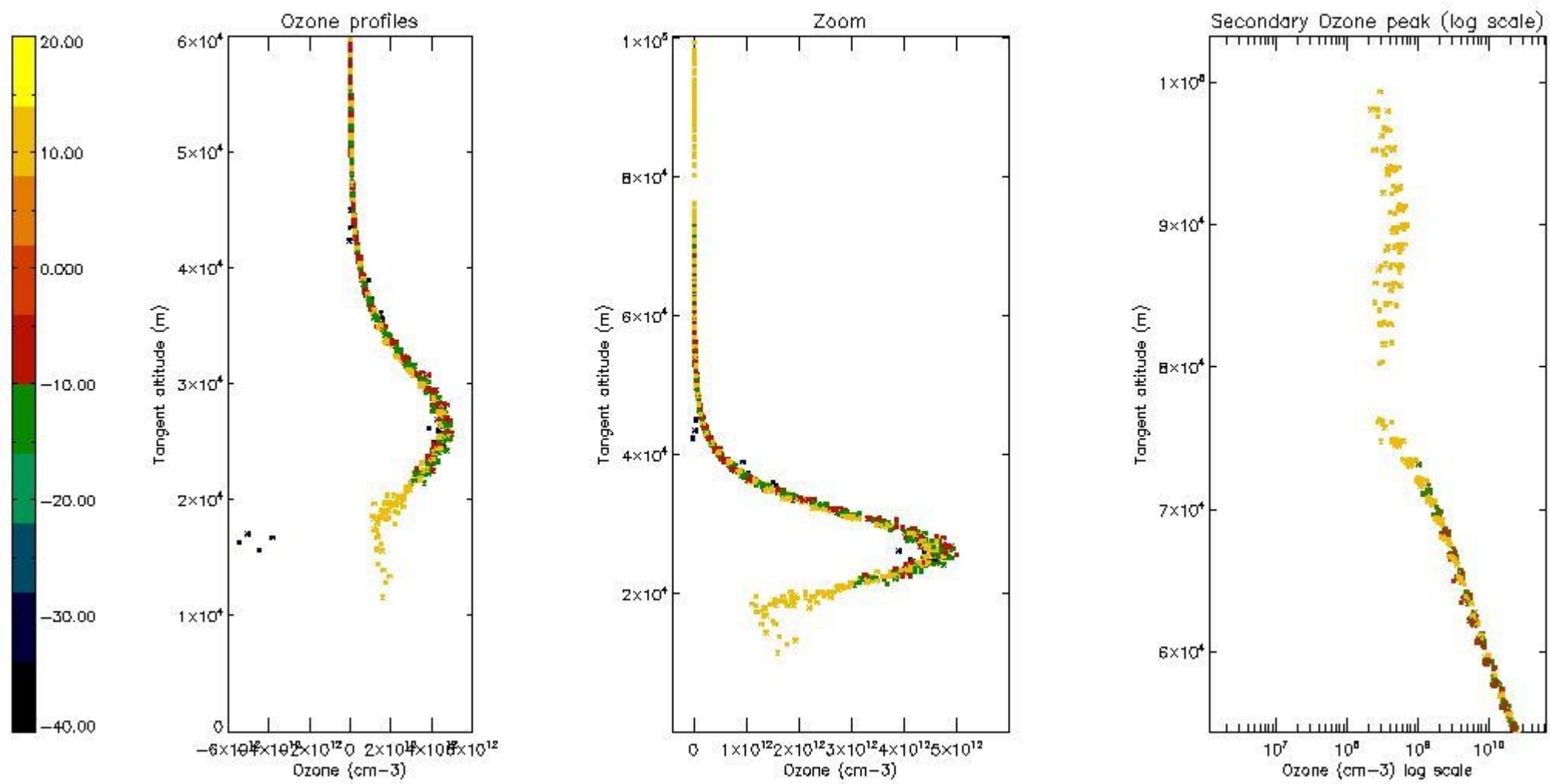
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



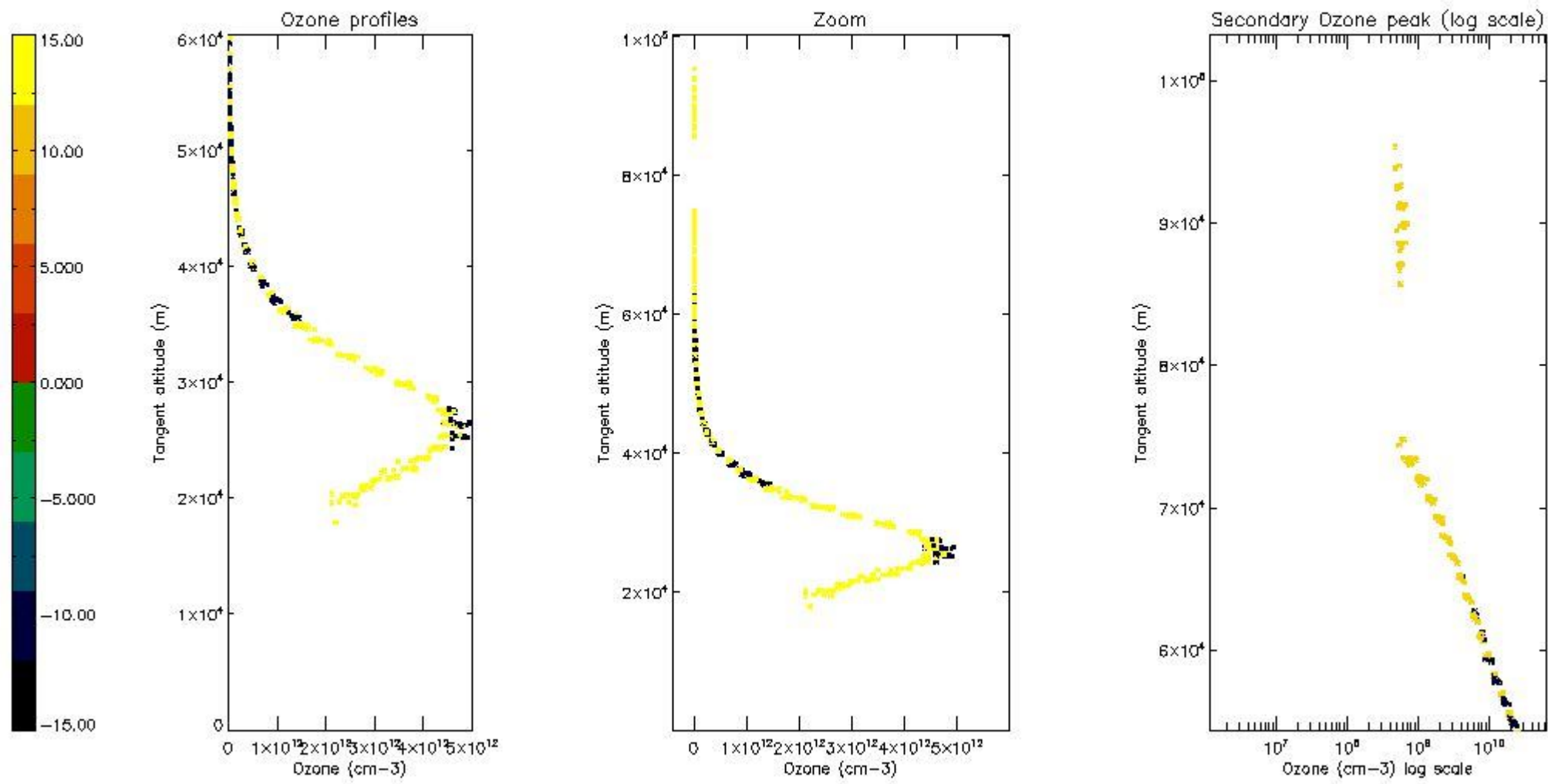
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



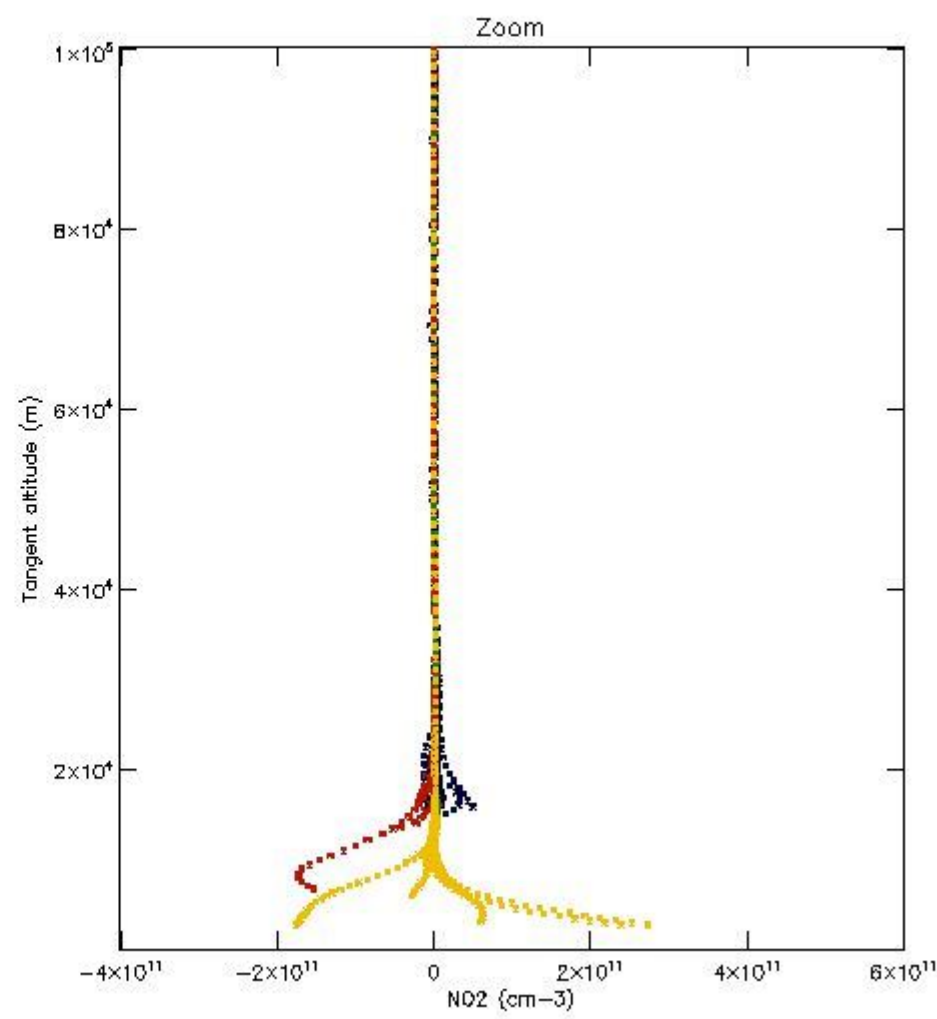
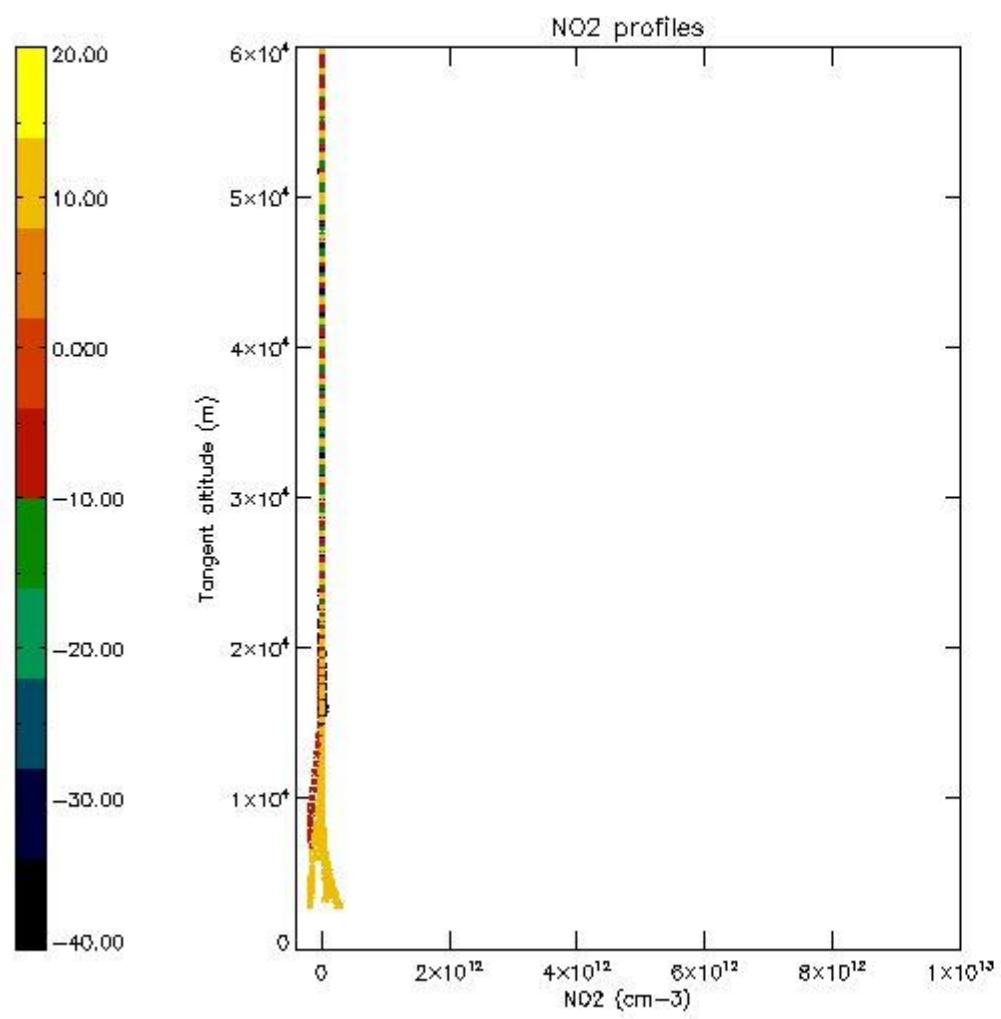
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



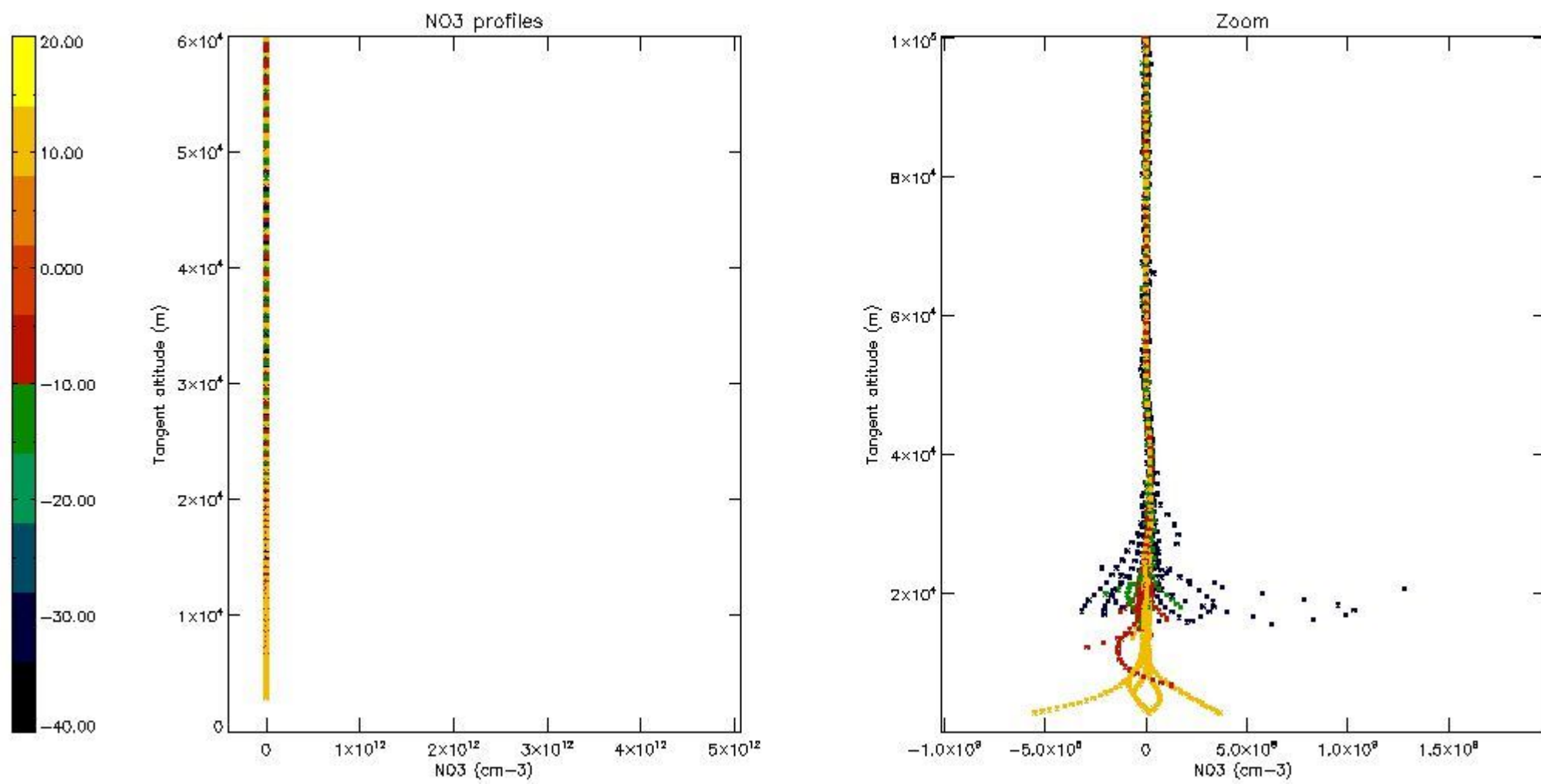
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



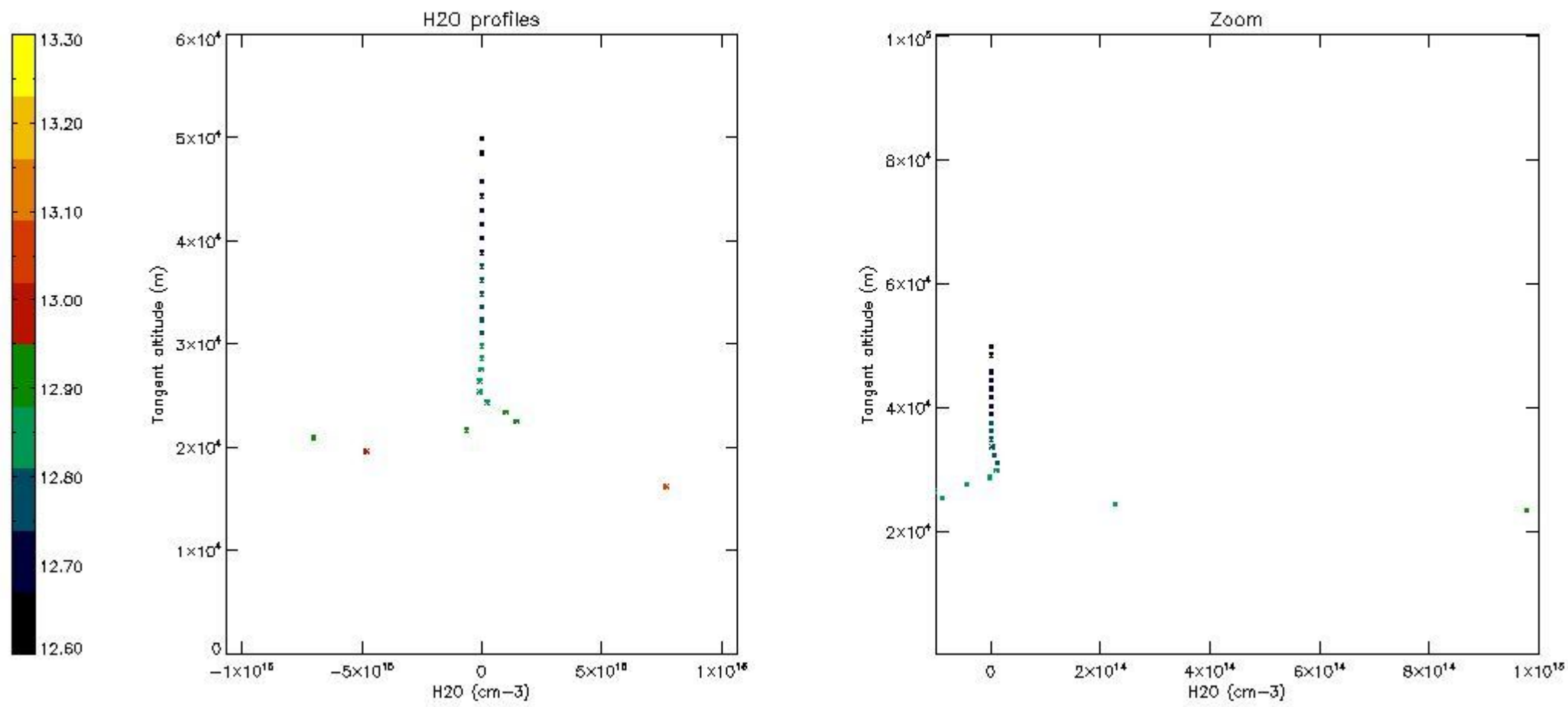
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H₂O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.



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

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	01-NOV-2008 08:45:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	01-NOV-2008 08:45:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	01-NOV-2008 08:45:27

GOMOS Level 2 Daily Report

SUMMARY

[1. General Info](#)

[2. Summary of processed GOM_NL_2P products](#)

[3. Level 2 Quality information per product](#)

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[4. Level 1 Quality information per product \(stored on level 2 products\)](#)

[4.1 Plot of level 1 quality information per product \(time dependant\)](#)

[4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

[4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

[4.2 Plot of level 1 quality information per product \(world map\)](#)

[4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

[4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

[5. Ozone profiles based on quality statistics and other trace gas profiles](#)

[5.1 Ozone statistics based on quality of products](#)

[5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

[5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

[5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

[5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

[5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

[5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

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

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

Item	Value
Time of report generation	25APR2013 21:36:11
Data source version	GOMOS/6.01
Start time of products	01-11-2008 (01NOV2008 00:00:00)
Stop time of products	02-11-2008 (02NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	130
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

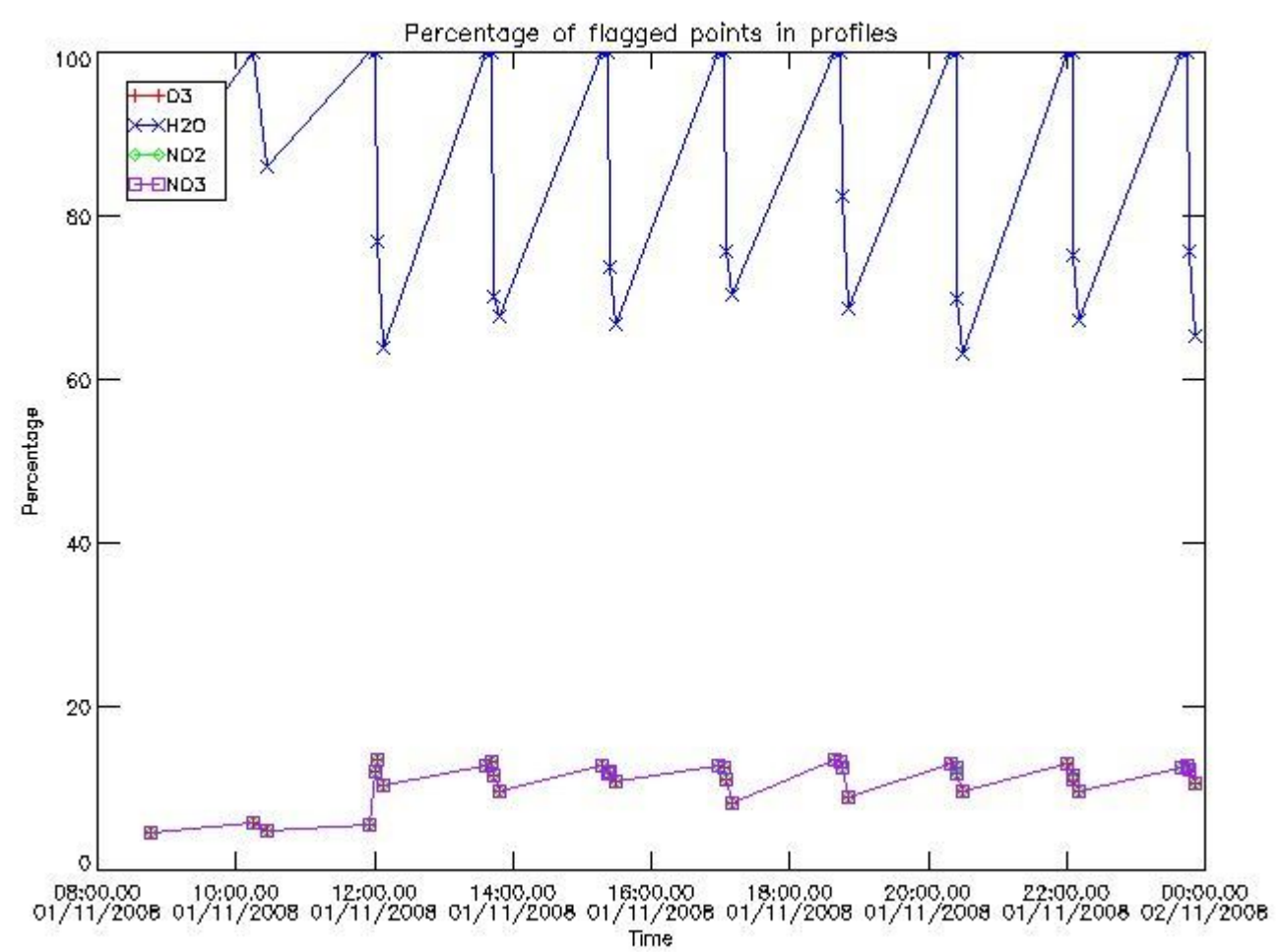
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20081101_084527_000001212073_00265_34888_8548.N1	01-NOV-2008 08:45:27	Dark	121.00	2	Alp Car	-0.73600	7000.0	242	34888	No
2	GOM_NL__2PRFIN20081101_085543_000000932073_00265_34888_8549.N1	01-NOV-2008 08:55:43	Straylight	93.000	157	The1Eri	2.9060	9300.0	186	34888	No
3	GOM_NL__2PRFIN20081101_091432_000000922073_00265_34888_8550.N1	01-NOV-2008 09:14:32	Bright	91.500	105	6Bet Ari	2.6450	8900.0	183	34888	No
4	GOM_NL__2PRFIN20081101_091856_000000922073_00265_34888_8551.N1	01-NOV-2008 09:18:56	Bright	92.000	173	4Bet Tri	3.0040	8900.0	184	34888	No
5	GOM_NL__2PRFIN20081101_092523_000000852073_00265_34888_8552.N1	01-NOV-2008 09:25:23	Bright	84.500	74	11Bet Cas	2.2680	6600.0	169	34888	No
6	GOM_NL__2PRFIN20081101_093346_000000882073_00265_34888_8553.N1	01-NOV-2008 09:33:46	Bright	87.500	49	1Alp UMi	1.9900	6300.0	175	34888	No
7	GOM_NL__2PRFIN20081101_094150_000000922073_00265_34888_8554.N1	01-NOV-2008 09:41:50	Bright	92.000	36	50Alp UMa	1.8000	6300.0	184	34888	No
8	GOM_NL__2PRFIN20081101_094423_000000932073_00265_34888_8555.N1	01-NOV-2008 09:44:23	Bright	93.000	87	64Gam UMa	2.4330	11000.	186	34888	No
9	GOM_NL__2PRFIN20081101_094708_000000932073_00265_34888_8556.N1	01-NOV-2008 09:47:08	Bright	93.000	174	52Psi UMa	3.0040	4400.0	186	34888	No
10	GOM_NL__2PRFIN20081101_095433_000000942073_00265_34888_8557.N1	01-NOV-2008 09:54:33	Bright	94.000	96	68Del Leo	2.5600	9300.0	188	34888	No
11	GOM_NL__2PRFIN20081101_101431_000000902073_00265_34888_8558.N1	01-NOV-2008 10:14:31	Dark	89.500	113	Mu Vel	2.6920	5000.0	179	34888	No
12	GOM_NL__2PRFIN20081101_102603_000001042073_00266_34889_8562.N1	01-NOV-2008 10:26:03	Dark	104.00	2	Alp Car	-0.73600	7000.0	208	34889	No
13	GOM_NL__2PRFIN20081101_103620_000000942073_00266_34889_8563.N1	01-NOV-2008 10:36:20	Straylight	93.500	157	The1Eri	2.9060	9300.0	187	34889	No
14	GOM_NL__2PRFIN20081101_105508_000000912073_00266_34889_8564.N1	01-NOV-2008 10:55:08	Bright	90.500	105	6Bet Ari	2.6450	8900.0	181	34889	No
15	GOM_NL__2PRFIN20081101_105931_000000922073_00266_34889_8565.N1	01-NOV-2008 10:59:31	Bright	91.500	173	4Bet Tri	3.0040	8900.0	183	34889	No
16	GOM_NL__2PRFIN20081101_110559_000000852073_00266_34889_8566.N1	01-NOV-2008 11:05:59	Bright	84.500	74	11Bet Cas	2.2680	6600.0	169	34889	No
17	GOM_NL__2PRFIN20081101_111421_000000882073_00266_34889_8567.N1	01-NOV-2008 11:14:21	Bright	87.500	49	1Alp UMi	1.9900	6300.0	175	34889	No
18	GOM_NL__2PRFIN20081101_112226_000000942073_00266_34889_8568.N1	01-NOV-2008 11:22:26	Bright	94.000	36	50Alp UMa	1.8000	6300.0	188	34889	No
19	GOM_NL__2PRFIN20081101_112459_000000882073_00266_34889_8569.N1	01-NOV-2008 11:24:59	Bright	88.000	87	64Gam UMa	2.4330	11000.	176	34889	No
20	GOM_NL__2PRFIN20081101_112743_000000962073_00266_34889_8570.N1	01-NOV-2008 11:27:43	Bright	96.000	174	52Psi UMa	3.0040	4400.0	192	34889	No
21	GOM_NL__2PRFIN20081101_113509_000000952073_00266_34889_8571.N1	01-NOV-2008 11:35:09	Bright	94.500	96	68Del Leo	2.5600	9300.0	189	34889	No
22	GOM_NL__2PRFIN20081101_115507_000000912073_00266_34889_8572.N1	01-NOV-2008 11:55:07	Dark	91.000	113	Mu Vel	2.6920	5000.0	182	34889	No
23	GOM_NL__2PRFIN20081101_120108_000000422073_00267_34890_8574.N1	01-NOV-2008 12:01:08	Dark	42.000	46	Del Vel	1.9540	10600.	84	34890	No
24	GOM_NL__2PRFIN20081101_120228_000000422073_00267_34890_8575.N1	01-NOV-2008 12:02:28	Dark	41.500	41	Eps Car	1.8600	4100.0	83	34890	No
25	GOM_NL__2PRFIN20081101_120738_000000492073_00267_34890_8576.N1	01-NOV-2008 12:07:38	Dark	49.000	2	Alp Car	-0.73600	7000.0	98	34890	No
26	GOM_NL__2PRFIN20081101_121750_000000392073_00267_34890_8577.N1	01-NOV-2008 12:17:50	Straylight	39.000	157	The1Eri	2.9060	9300.0	78	34890	No
27	GOM_NL__2PRFIN20081101_123637_000000392073_00267_34890_8578.N1	01-NOV-2008 12:36:37	Bright	39.000	105	6Bet Ari	2.6450	8900.0	78	34890	No
28	GOM_NL__2PRFIN20081101_124040_000000362073_00267_34890_8579.N1	01-NOV-2008 12:40:40	Bright	35.500	53	43Bet And	2.0480	3300.0	71	34890	No
29	GOM_NL__2PRFIN20081101_124303_000000372073_00267_34890_8580.N1	01-NOV-2008 12:43:03	Bright	36.500	73	57Gam1And	2.2600	13100.	73	34890	No
30	GOM_NL__2PRFIN20081101_124633_000000362073_00267_34890_8581.N1	01-NOV-2008 12:46:33	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	34890	No
31	GOM_NL__2PRFIN20081101_124744_000000362073_00267_34890_8582.N1	01-NOV-2008 12:47:44	Bright	35.500	76	27Gam Cas	2.3000	30000.	71	34890	No
32	GOM_NL__2PRFIN20081101_125549_000000362073_00267_34890_8583.N1	01-NOV-2008 12:55:49	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34890	No
33	GOM_NL__2PRFIN20081101_130356_000000362073_00267_34890_8584.N1	01-NOV-2008 13:03:56	Bright	35.500	36	50Alp UMa	1.8000	6300.0	71	34890	No
34	GOM_NL__2PRFIN20081101_130533_000000382073_00267_34890_8585.N1	01-NOV-2008 13:05:33	Bright	37.500	82	48Bet UMa	2.3650	10600.	75	34890	No
35	GOM_NL__2PRFIN20081101_130915_000000382073_00267_34890_8586.N1	01-NOV-2008 13:09:15	Bright	37.500	174	52Psi UMa	3.0040	4400.0	75	34890	No
36	GOM_NL__2PRFIN20081101_131641_000000582073_00267_34890_8587.N1	01-NOV-2008 13:16:41	Bright	58.000	96	68Del Leo	2.5600	9300.0	116	34890	No
37	GOM_NL__2PRFIN20081101_133634_000000402073_00267_34890_8588.N1	01-NOV-2008 13:36:34	Dark	40.000	113	Mu Vel	2.6920	5000.0	80	34890	No
38	GOM_NL__2PRFIN20081101_134145_000000422073_00268_34891_8588.N1	01-NOV-2008 13:41:45	Dark	42.000	46	Del Vel	1.9540	10600.	84	34891	No
39	GOM_NL__2PRFIN20081101_134305_000000442073_00268_34891_8589.N1	01-NOV-2008 13:43:05	Dark	44.000	41	Eps Car	1.8600	4100.0	88	34891	No
40	GOM_NL__2PRFIN20081101_134815_000000532073_00268_34891_8590.N1	01-NOV-2008 13:48:15	Dark	53.000	2	Alp Car	-0.73600	7000.0	106	34891	No
41	GOM_NL__2PRFIN20081101_135826_000000402073_00268_34891_8591.N1	01-NOV-2008 13:58:26	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	34891	No
42	GOM_NL__2PRFIN20081101_141713_000000382073_00268_34891_8592.N1	01-NOV-2008 14:17:13	Bright	38.000	105	6Bet Ari	2.6450	8900.0	76	34891	No

102	GOM_NL__2PRFIN20081101_205936_000000382073_00272_34895_8653.N1	01-NOV-2008 20:59:36	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	34895	No
103	GOM_NL__2PRFIN20081101_210339_000000382073_00272_34895_8654.N1	01-NOV-2008 21:03:39	Bright	37.500	53	43Bet And	2.0480	3300.0	75	34895	No
104	GOM_NL__2PRFIN20081101_210602_000000392073_00272_34895_8655.N1	01-NOV-2008 21:06:02	Bright	38.500	73	57Gam1And	2.2600	13100.	77	34895	No
105	GOM_NL__2PRFIN20081101_210933_000000362073_00272_34895_8656.N1	01-NOV-2008 21:09:33	Bright	36.000	68	18Alp Cas	2.2250	4500.0	72	34895	No
106	GOM_NL__2PRFIN20081101_211043_000000362073_00272_34895_8657.N1	01-NOV-2008 21:10:43	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	34895	No
107	GOM_NL__2PRFIN20081101_211848_000000372073_00272_34895_8658.N1	01-NOV-2008 21:18:48	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	34895	No
108	GOM_NL__2PRFIN20081101_212656_000000362073_00272_34895_8659.N1	01-NOV-2008 21:26:56	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	34895	No
109	GOM_NL__2PRFIN20081101_212833_000000502073_00272_34895_8660.N1	01-NOV-2008 21:28:33	Bright	49.500	82	48Bet UMa	2.3650	10600.	99	34895	No
110	GOM_NL__2PRFIN20081101_213215_000000572073_00272_34895_8661.N1	01-NOV-2008 21:32:15	Bright	57.000	174	52Psi UMa	3.0040	4400.0	114	34895	No
111	GOM_NL__2PRFIN20081101_213942_000000582073_00272_34895_8662.N1	01-NOV-2008 21:39:42	Bright	57.500	96	68Del Leo	2.5600	9300.0	115	34895	No
112	GOM_NL__2PRFIN20081101_215936_000000402073_00272_34895_8663.N1	01-NOV-2008 21:59:36	Dark	39.500	113	Mu Vel	2.6920	5000.0	79	34895	No
113	GOM_NL__2PRFIN20081101_220448_000000442073_00273_34896_8664.N1	01-NOV-2008 22:04:48	Dark	44.000	46	Del Vel	1.9540	10600.	88	34896	No
114	GOM_NL__2PRFIN20081101_220607_000000512073_00273_34896_8665.N1	01-NOV-2008 22:06:07	Dark	51.000	41	Eps Car	1.8600	4100.0	102	34896	No
115	GOM_NL__2PRFIN20081101_221118_000000632073_00273_34896_8666.N1	01-NOV-2008 22:11:18	Dark	63.000	2	Alp Car	-0.73600	7000.0	126	34896	No
116	GOM_NL__2PRFIN20081101_222128_000000402073_00273_34896_8667.N1	01-NOV-2008 22:21:28	Straylight	39.500	157	The1Eri	2.9060	9300.0	79	34896	No
117	GOM_NL__2PRFIN20081101_224012_000000382073_00273_34896_8668.N1	01-NOV-2008 22:40:12	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	34896	No
118	GOM_NL__2PRFIN20081101_224415_000000382073_00273_34896_8669.N1	01-NOV-2008 22:44:15	Bright	38.000	53	43Bet And	2.0480	3300.0	76	34896	No
119	GOM_NL__2PRFIN20081101_224637_000000392073_00273_34896_8670.N1	01-NOV-2008 22:46:37	Bright	38.500	73	57Gam1And	2.2600	13100.	77	34896	No
120	GOM_NL__2PRFIN20081101_225009_000000462073_00273_34896_8671.N1	01-NOV-2008 22:50:09	Bright	45.500	68	18Alp Cas	2.2250	4500.0	91	34896	No
121	GOM_NL__2PRFIN20081101_225119_000000362073_00273_34896_8672.N1	01-NOV-2008 22:51:19	Bright	36.000	76	27Gam Cas	2.3000	30000.	72	34896	No
122	GOM_NL__2PRFIN20081101_225924_000000362073_00273_34896_8673.N1	01-NOV-2008 22:59:24	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34896	No
123	GOM_NL__2PRFIN20081101_230731_000000372073_00273_34896_8674.N1	01-NOV-2008 23:07:31	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34896	No
124	GOM_NL__2PRFIN20081101_230908_000000562073_00273_34896_8675.N1	01-NOV-2008 23:09:08	Bright	56.000	82	48Bet UMa	2.3650	10600.	112	34896	No
125	GOM_NL__2PRFIN20081101_231251_000000382073_00273_34896_8676.N1	01-NOV-2008 23:12:51	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	34896	No
126	GOM_NL__2PRFIN20081101_232018_000000382073_00273_34896_8677.N1	01-NOV-2008 23:20:18	Bright	37.500	96	68Del Leo	2.5600	9300.0	75	34896	No
127	GOM_NL__2PRFIN20081101_234012_000000412073_00273_34896_8678.N1	01-NOV-2008 23:40:12	Dark	41.000	113	Mu Vel	2.6920	5000.0	82	34896	No
128	GOM_NL__2PRFIN20081101_234524_000000402073_00274_34897_8675.N1	01-NOV-2008 23:45:24	Dark	40.000	46	Del Vel	1.9540	10600.	80	34897	No
129	GOM_NL__2PRFIN20081101_234644_000000422073_00274_34897_8676.N1	01-NOV-2008 23:46:44	Dark	41.500	41	Eps Car	1.8600	4100.0	83	34897	No
130	GOM_NL__2PRFIN20081101_235155_000000482073_00274_34897_8677.N1	01-NOV-2008 23:51:55	Dark	48.000	2	Alp Car	-0.73600	7000.0	96	34897	No

3. Quality information per product

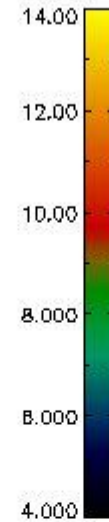
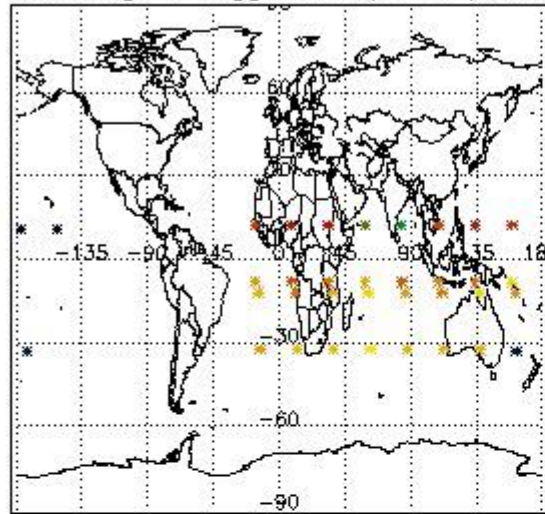
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

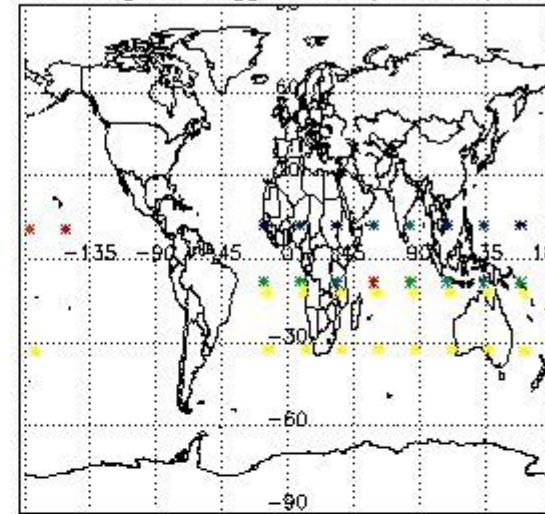


3.2 Plot quality information per product (world map)

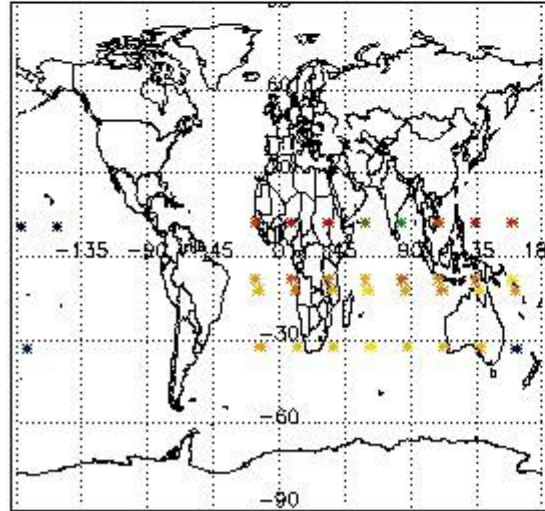
Percentage of flagged data per O3 profile



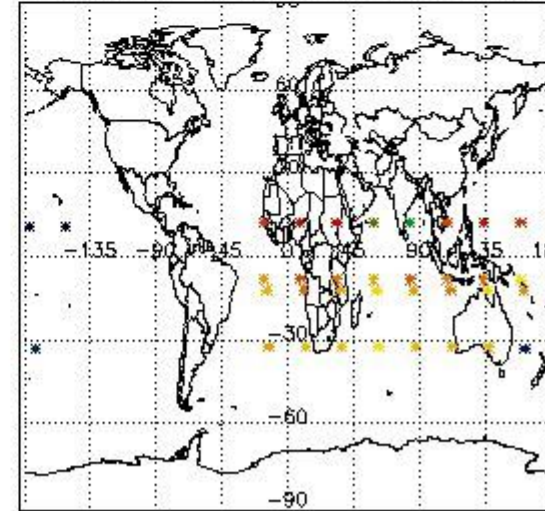
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

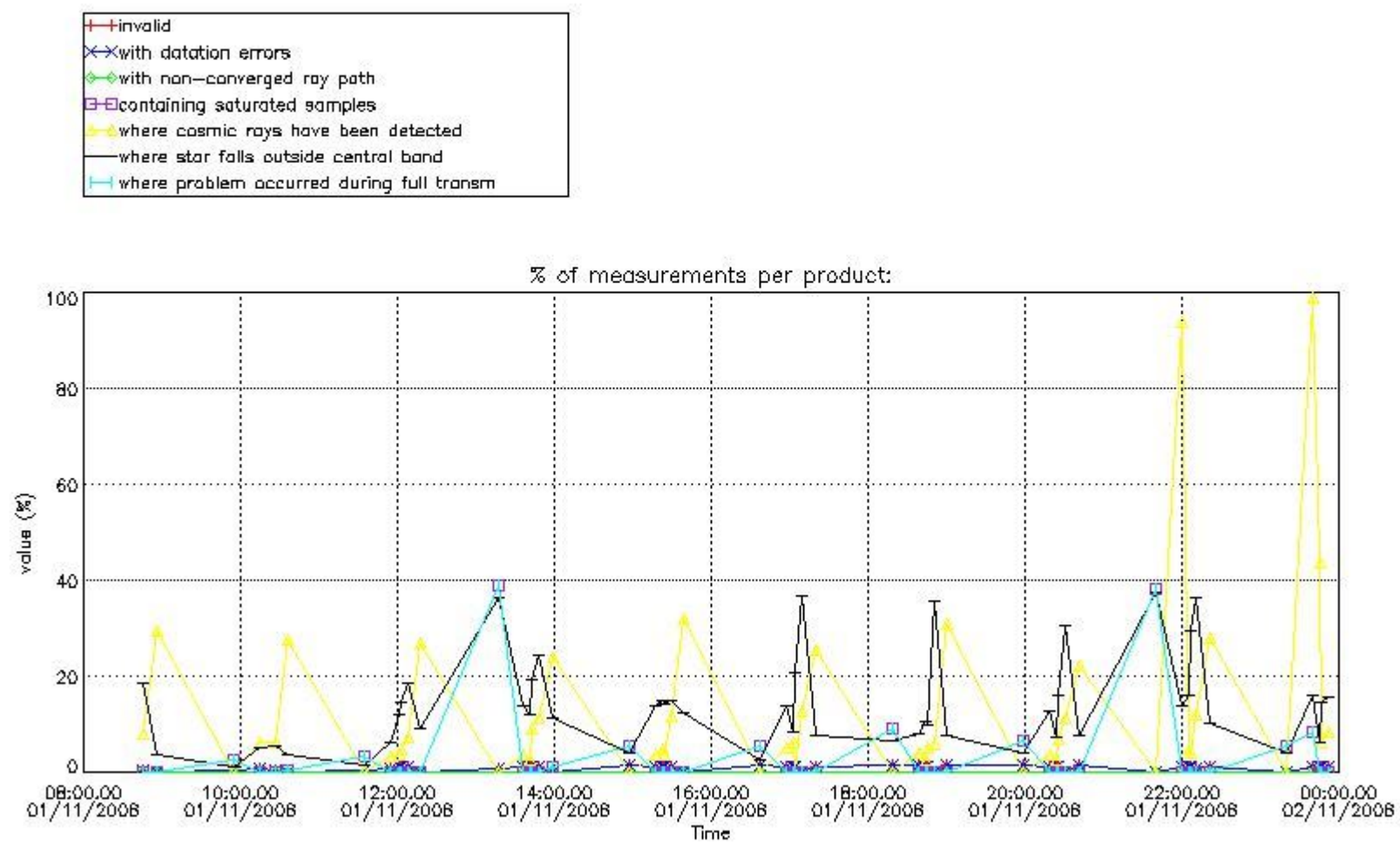


4. Level 1 quality information per product

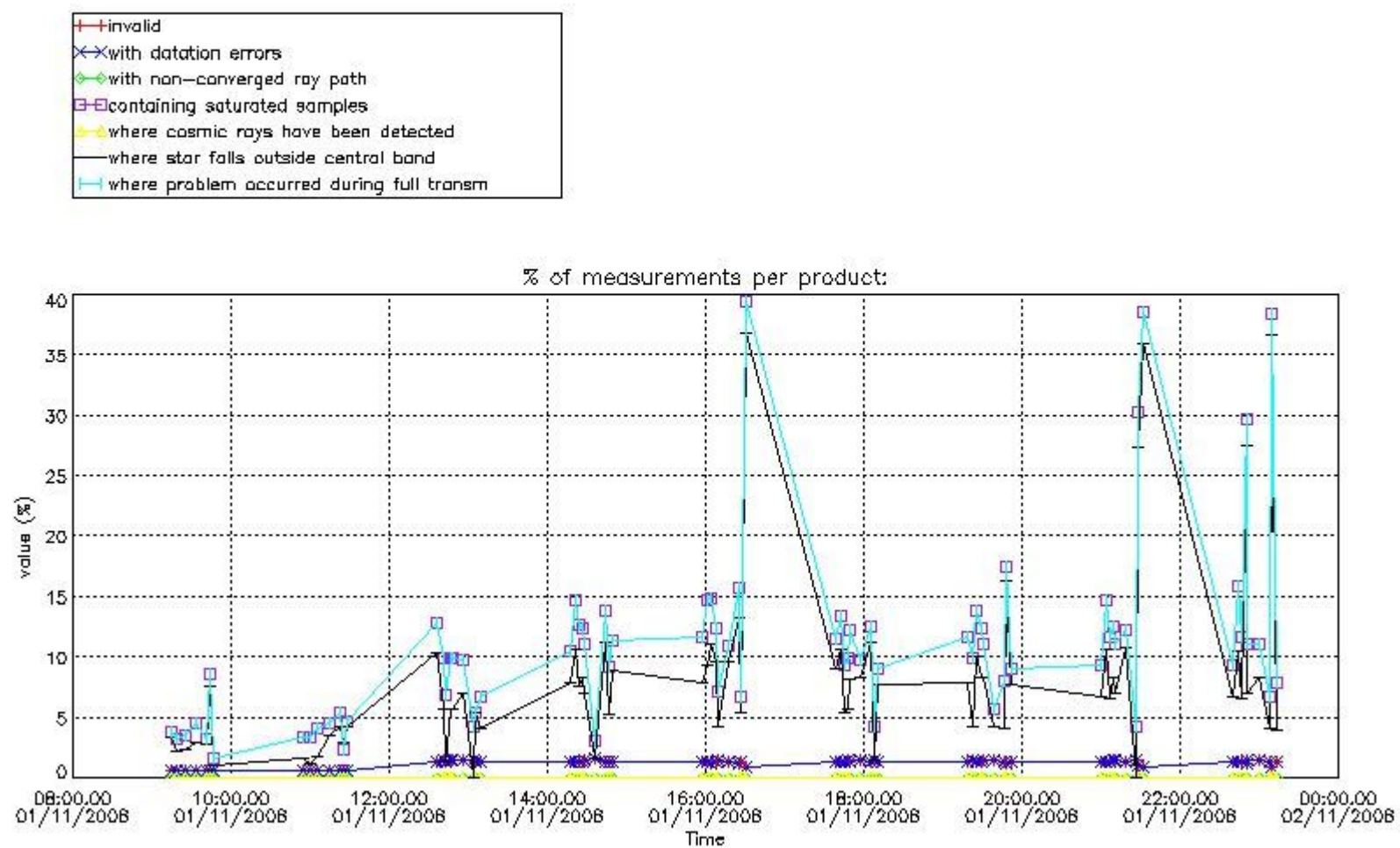
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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



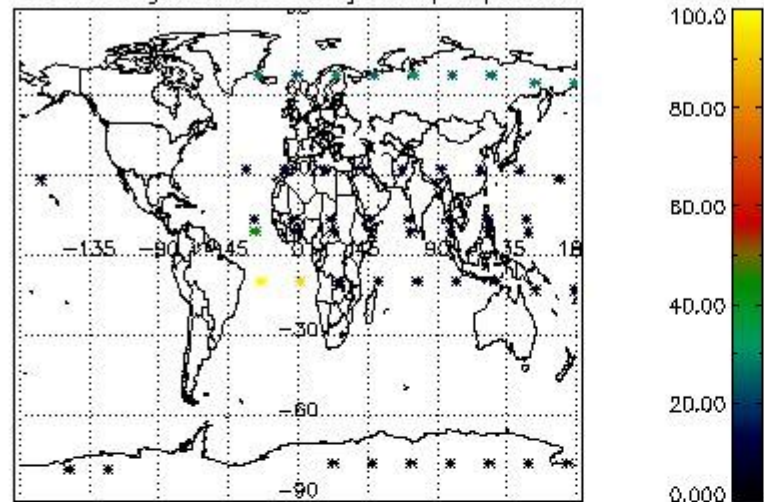
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



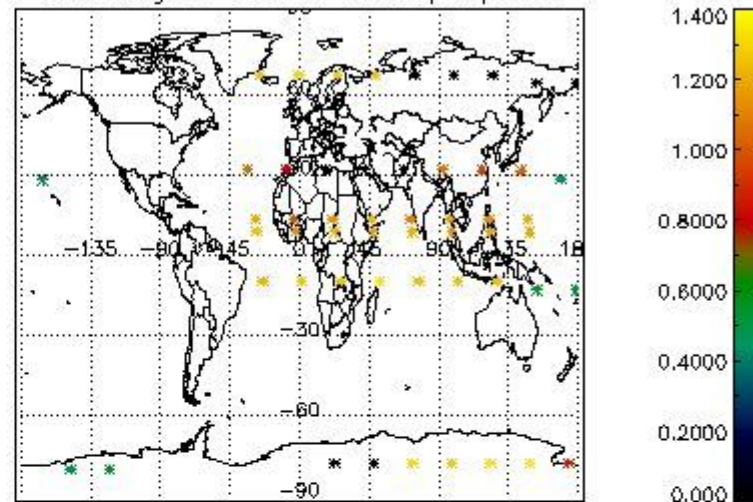
4.2 Plot quality information per product coming from level 1b processing (world map)

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

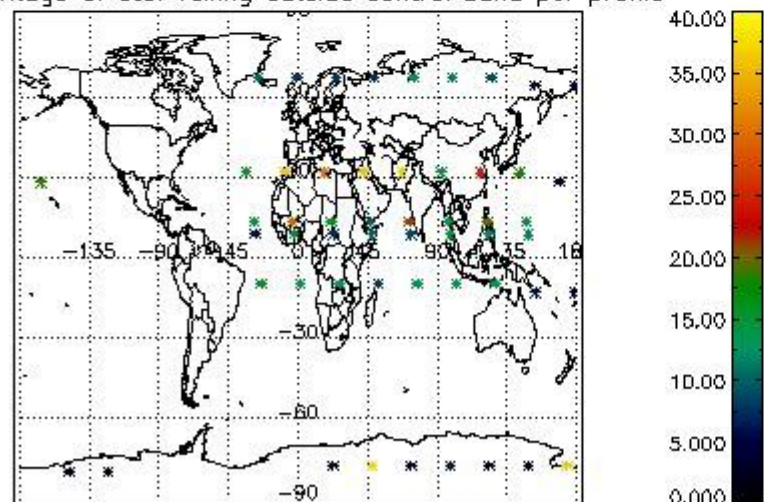
Percentage of cosmic ray hits per profile



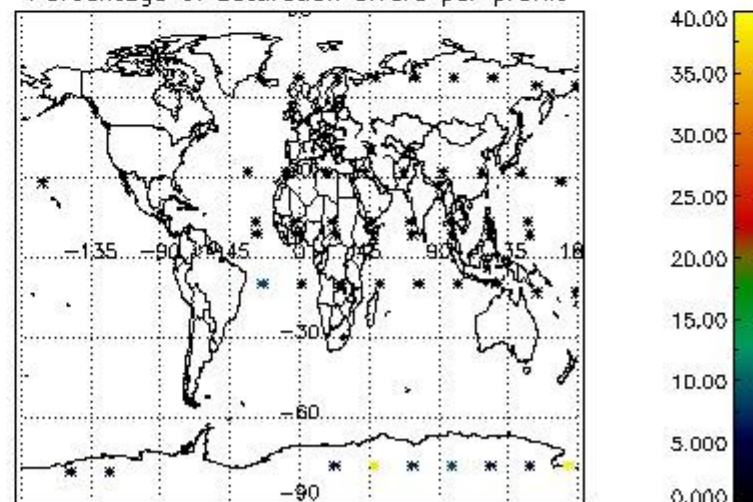
Percentage of datation errors per profile



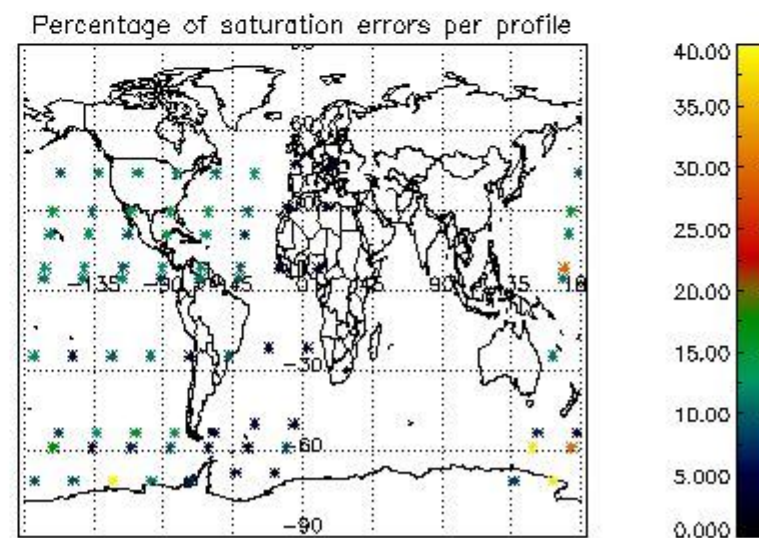
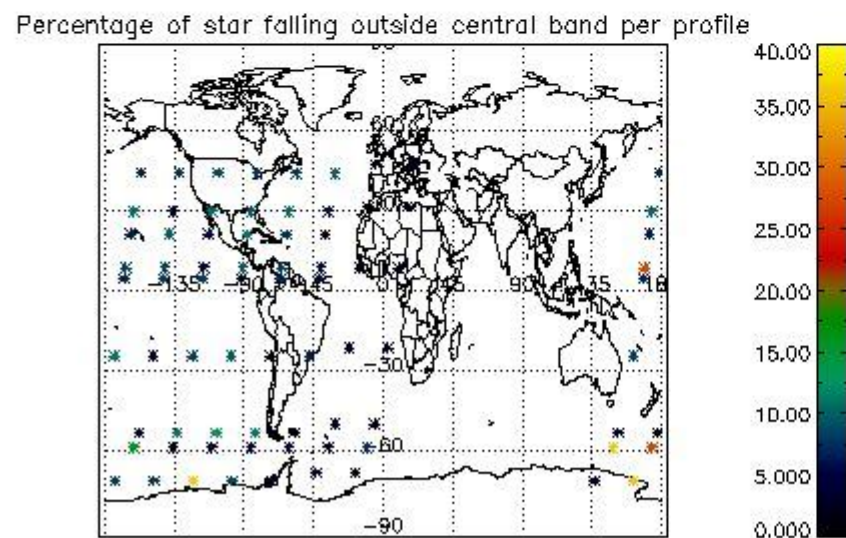
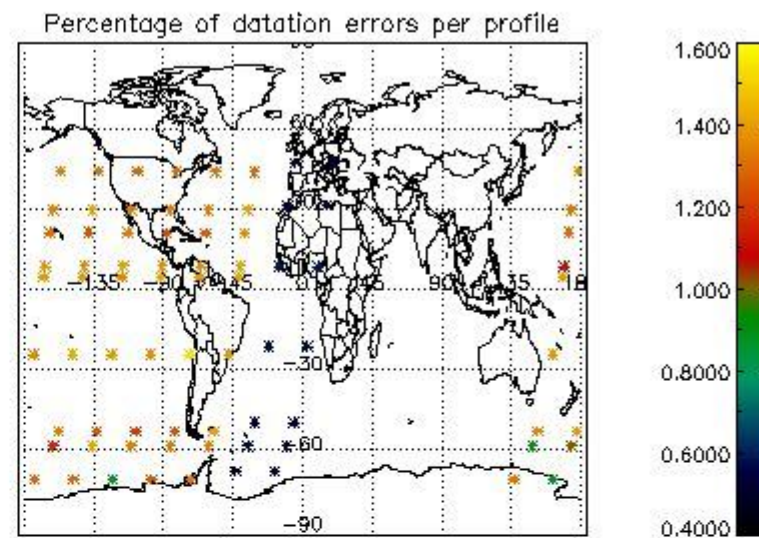
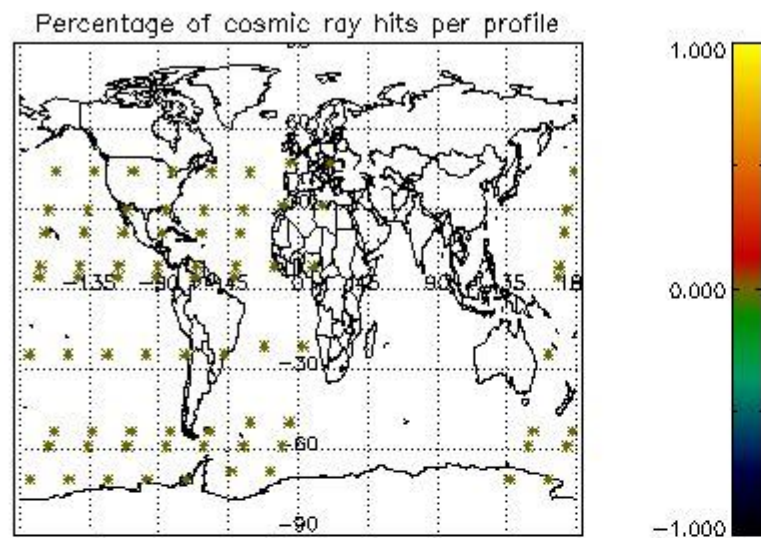
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



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

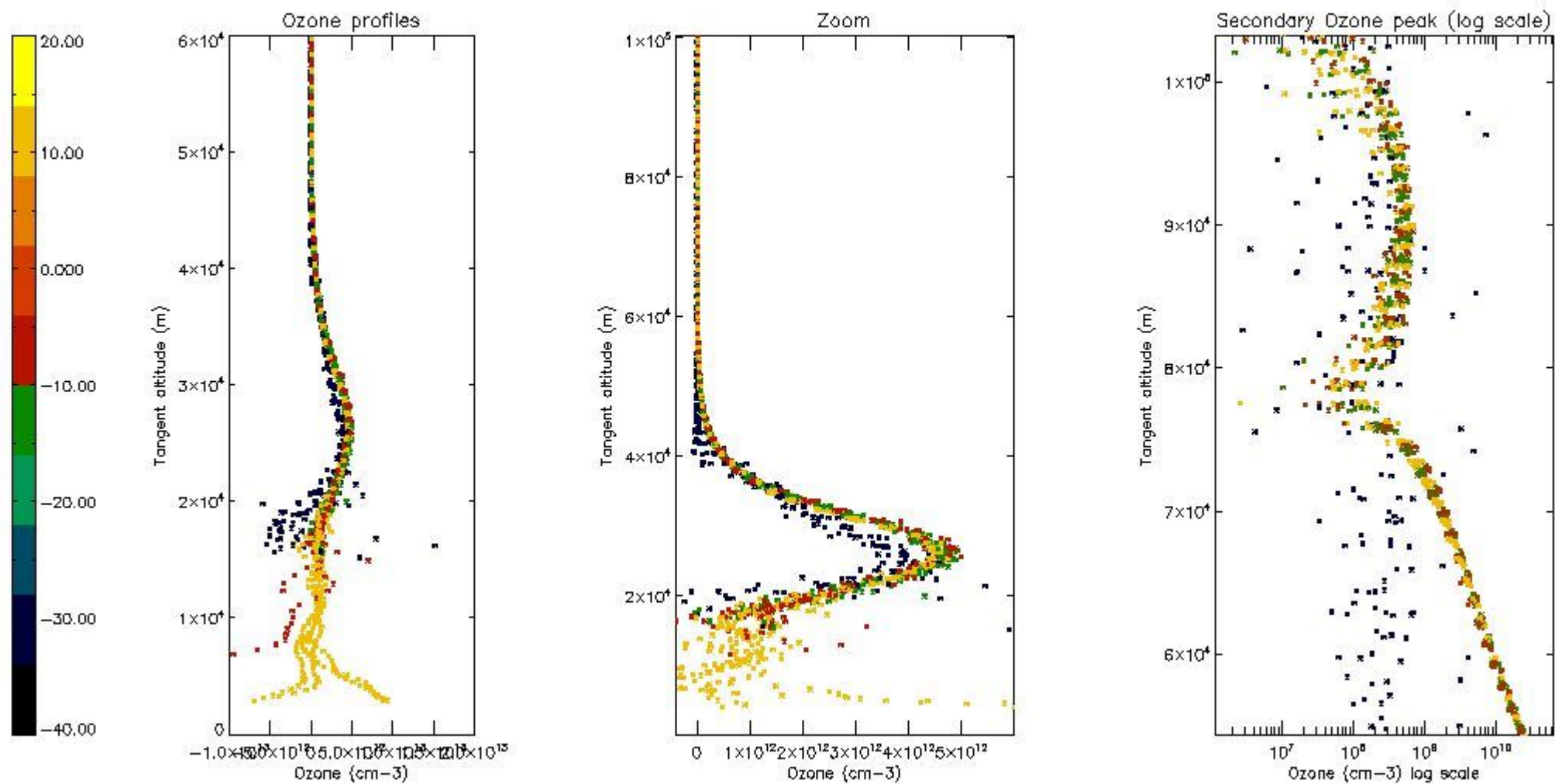
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	29
STD < 20	13

STD < 10	10
STD < 5	6

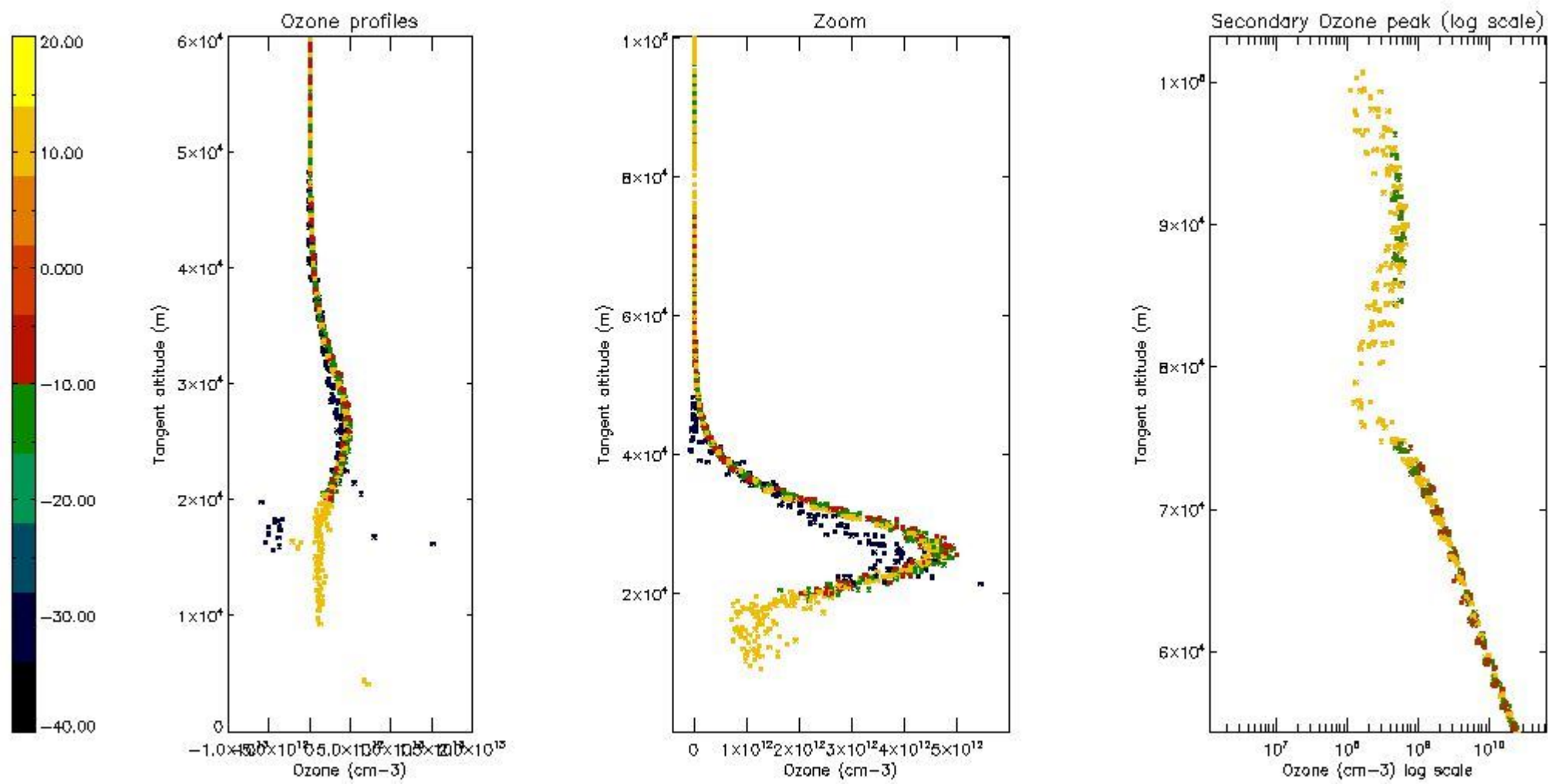
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



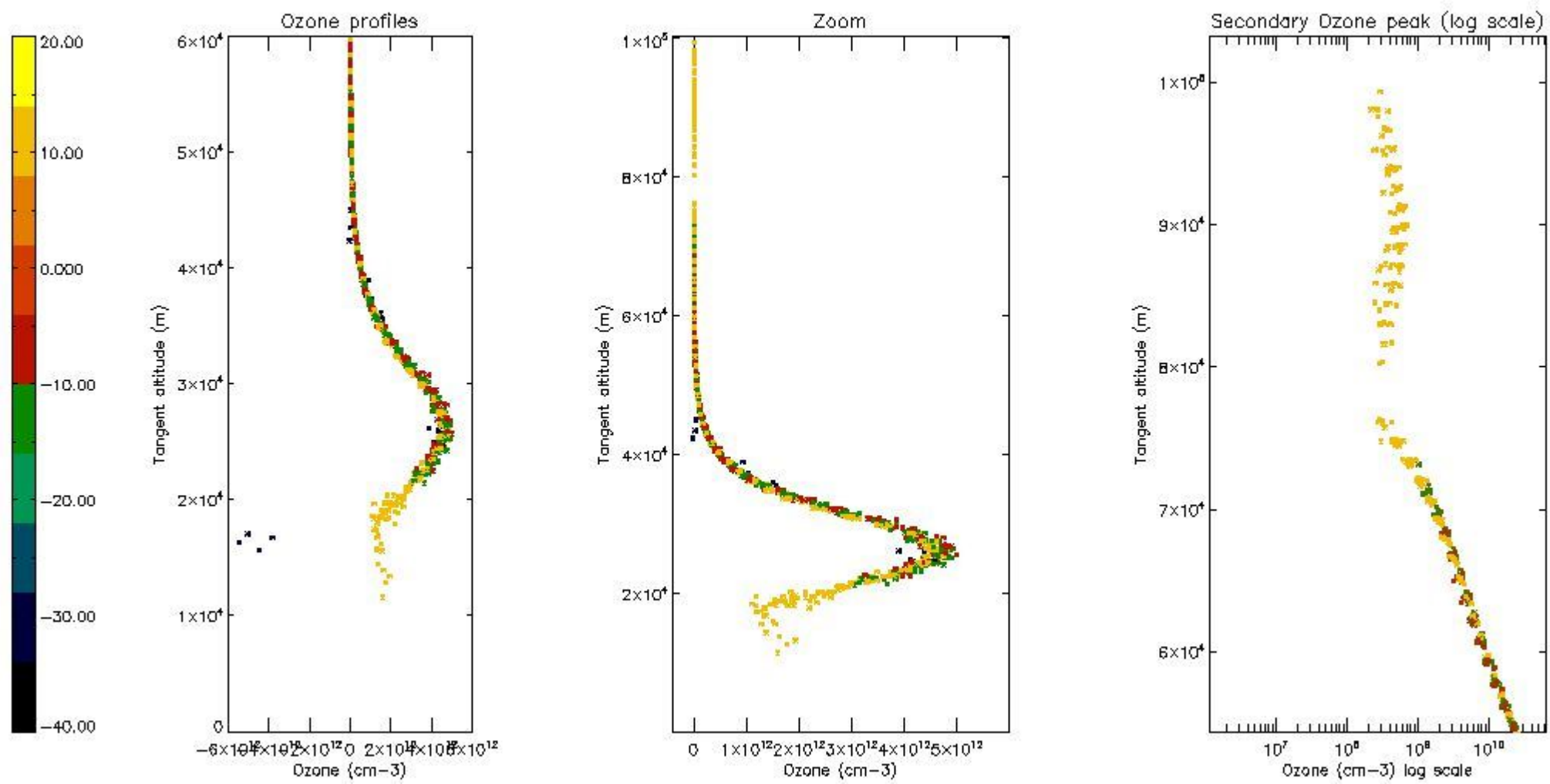
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



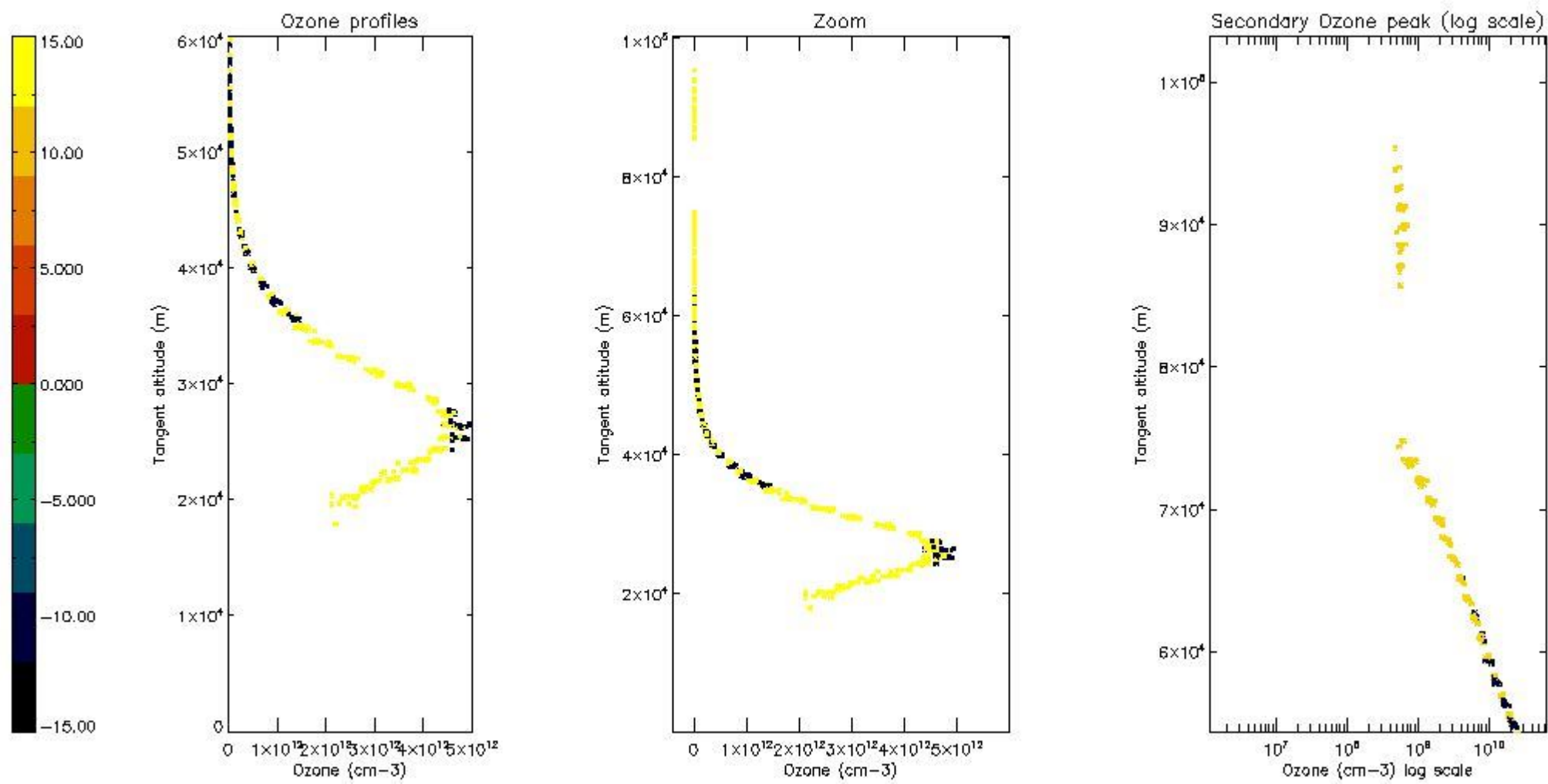
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



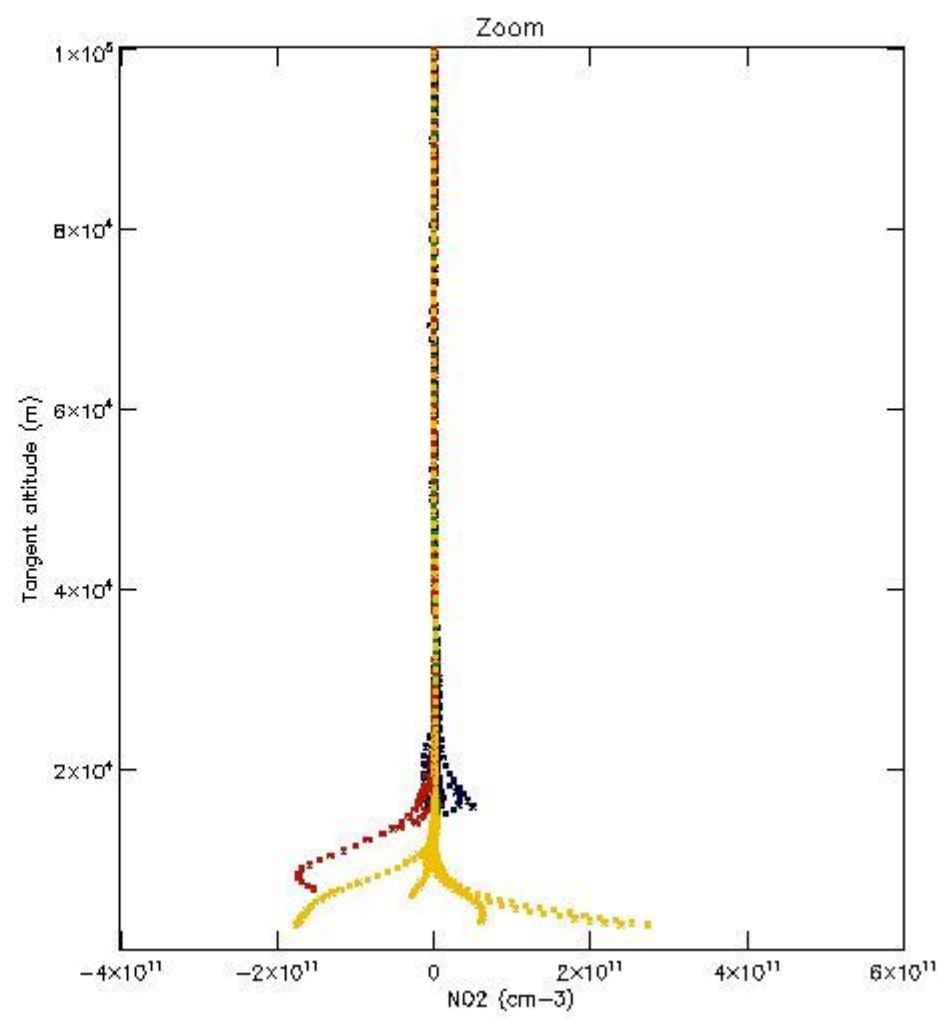
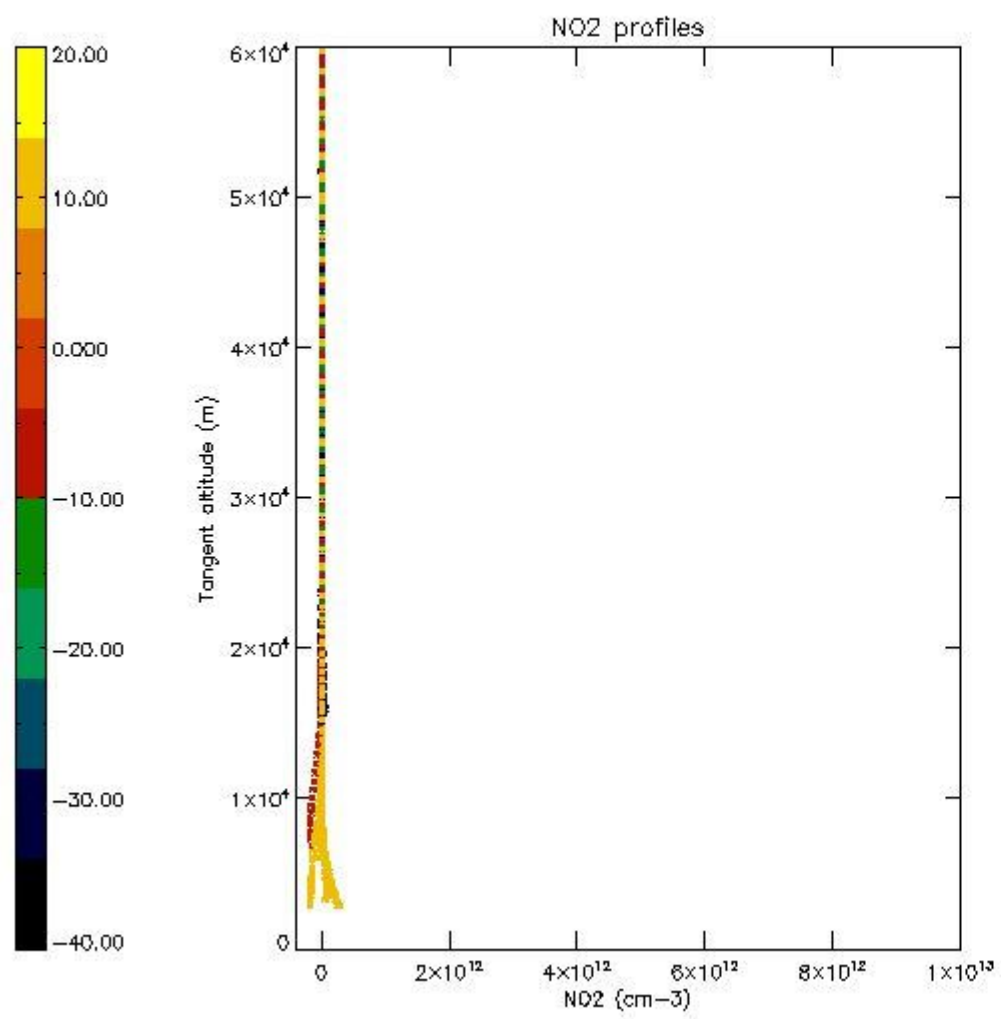
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



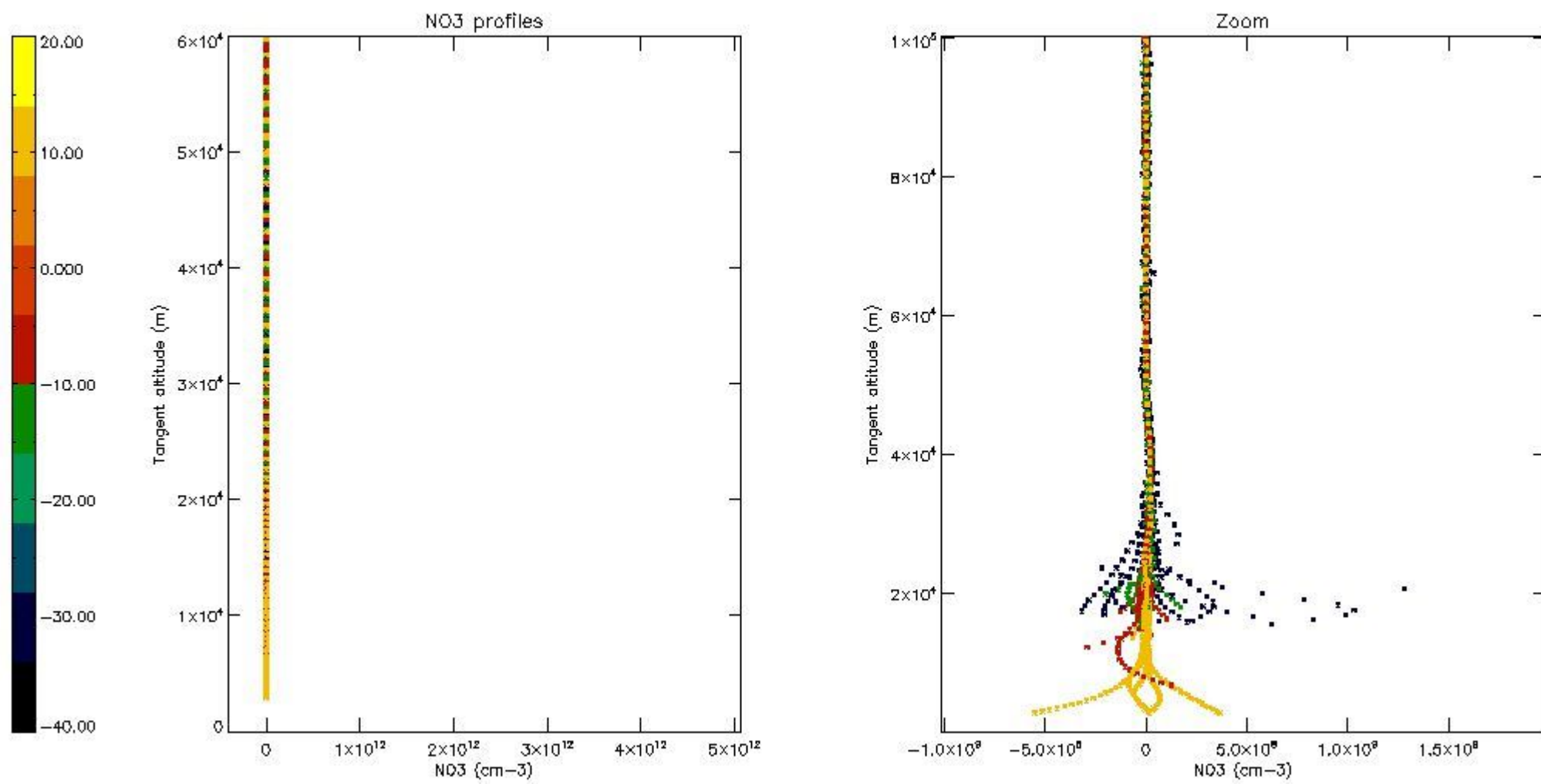
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



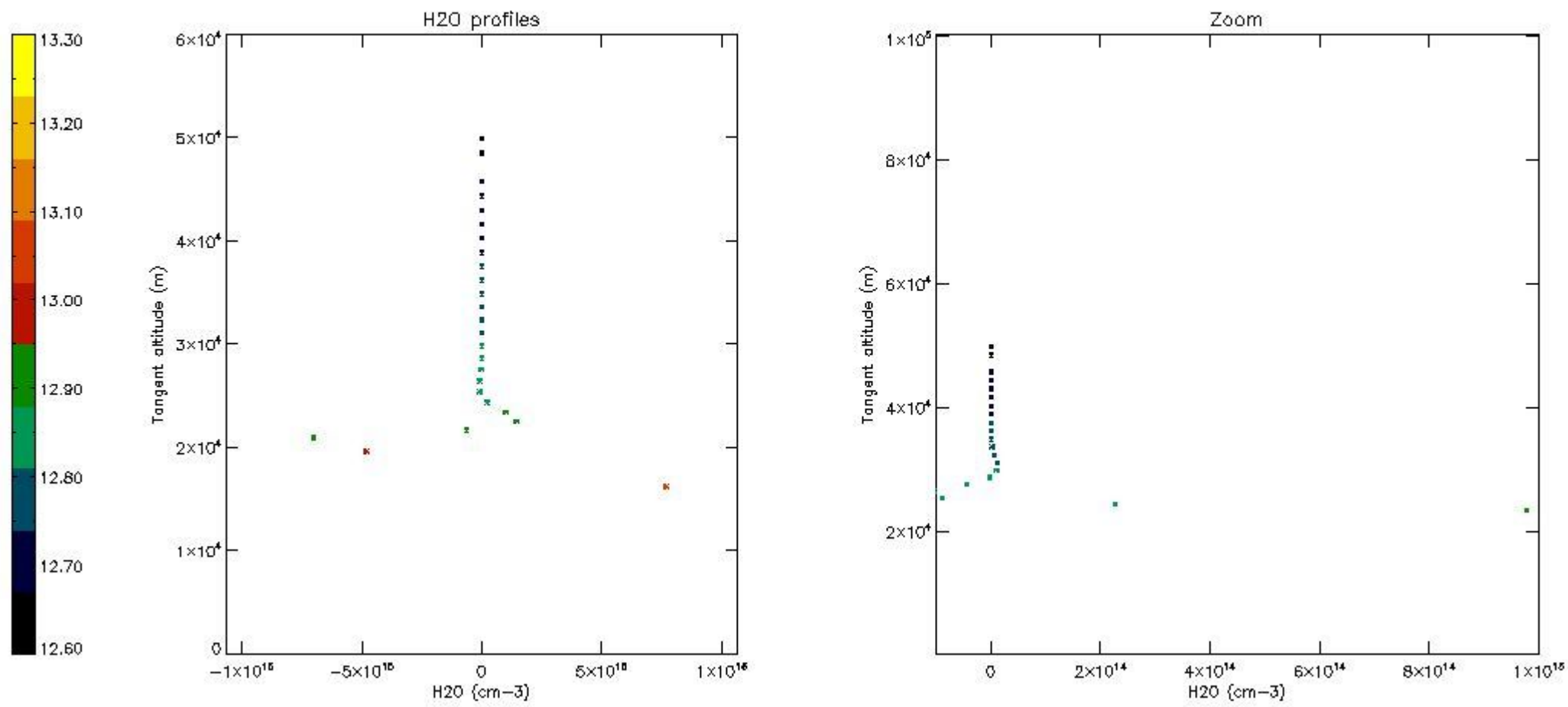
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H₂O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

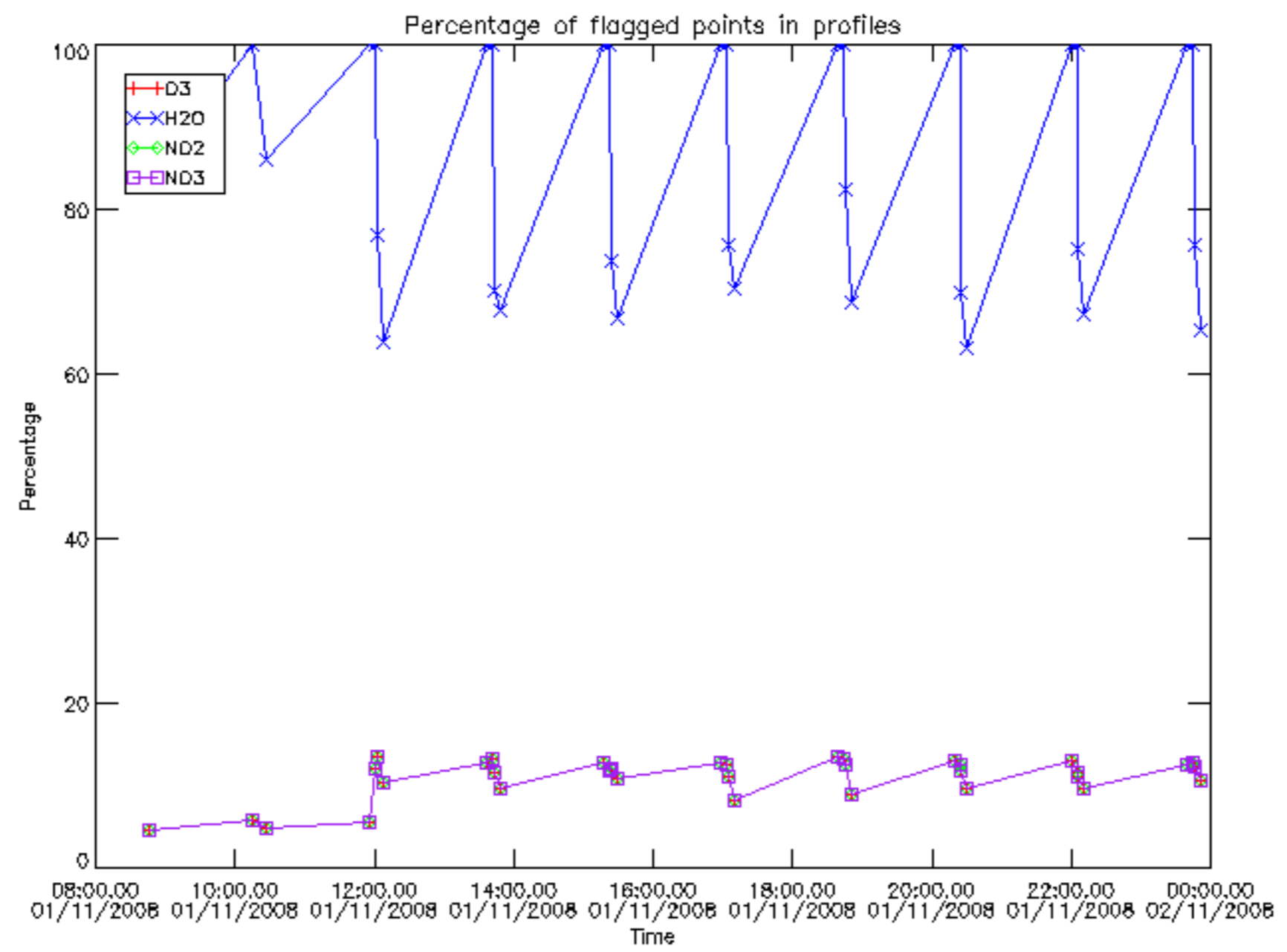
The colorbar represents the latitude.



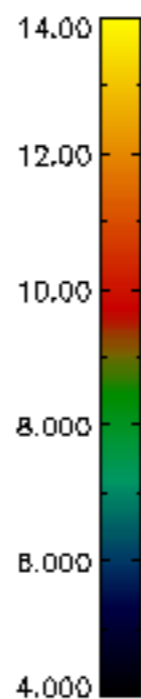
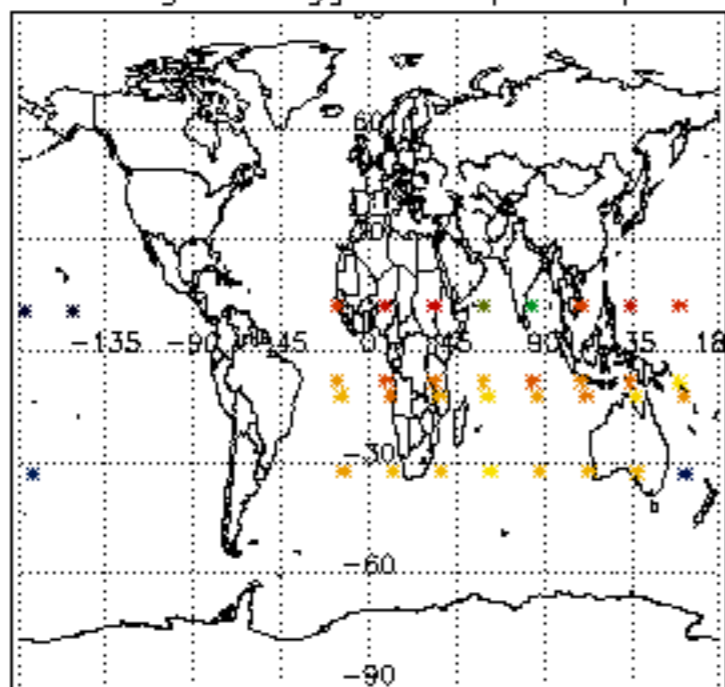
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

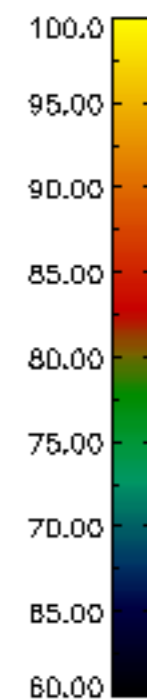
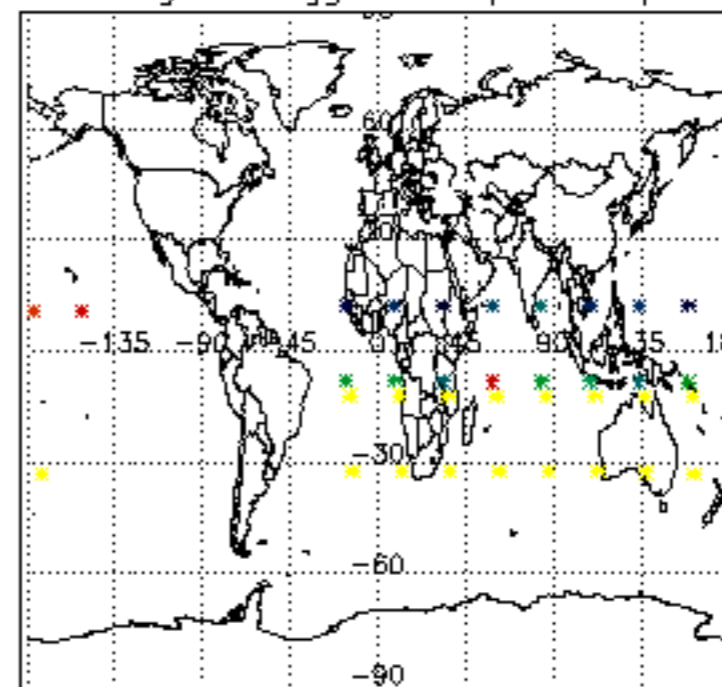
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	01-NOV-2008 08:45:27
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	01-NOV-2008 08:45:27
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	01-NOV-2008 08:45:27



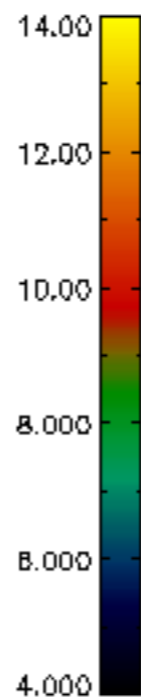
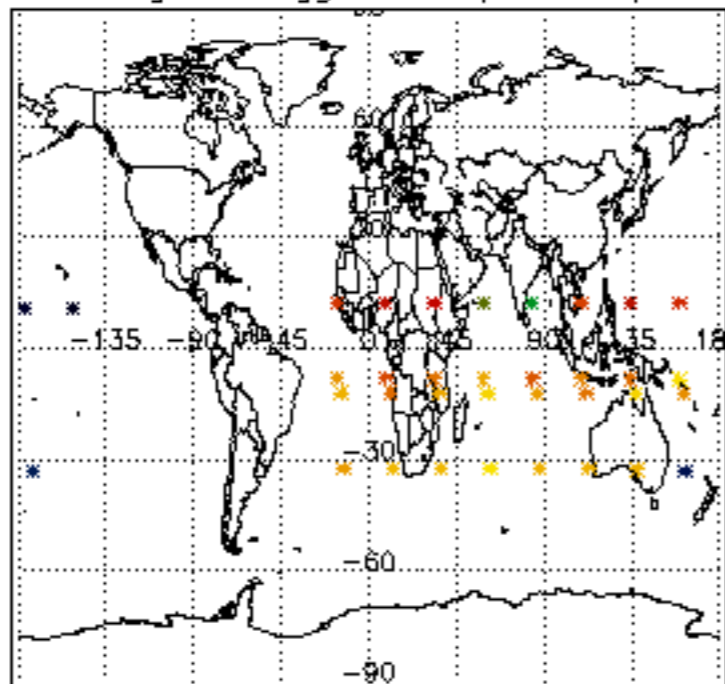
Percentage of flagged data per D3 profile



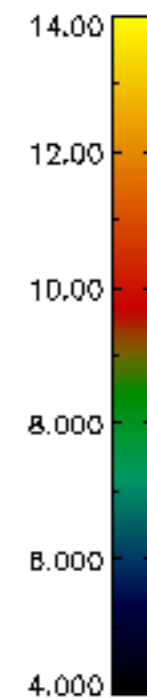
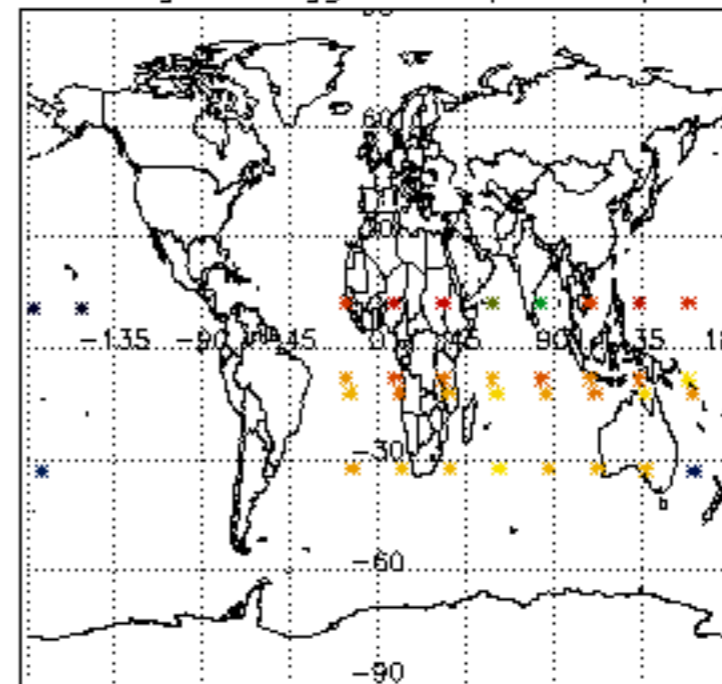
Percentage of flagged data per H2O profile

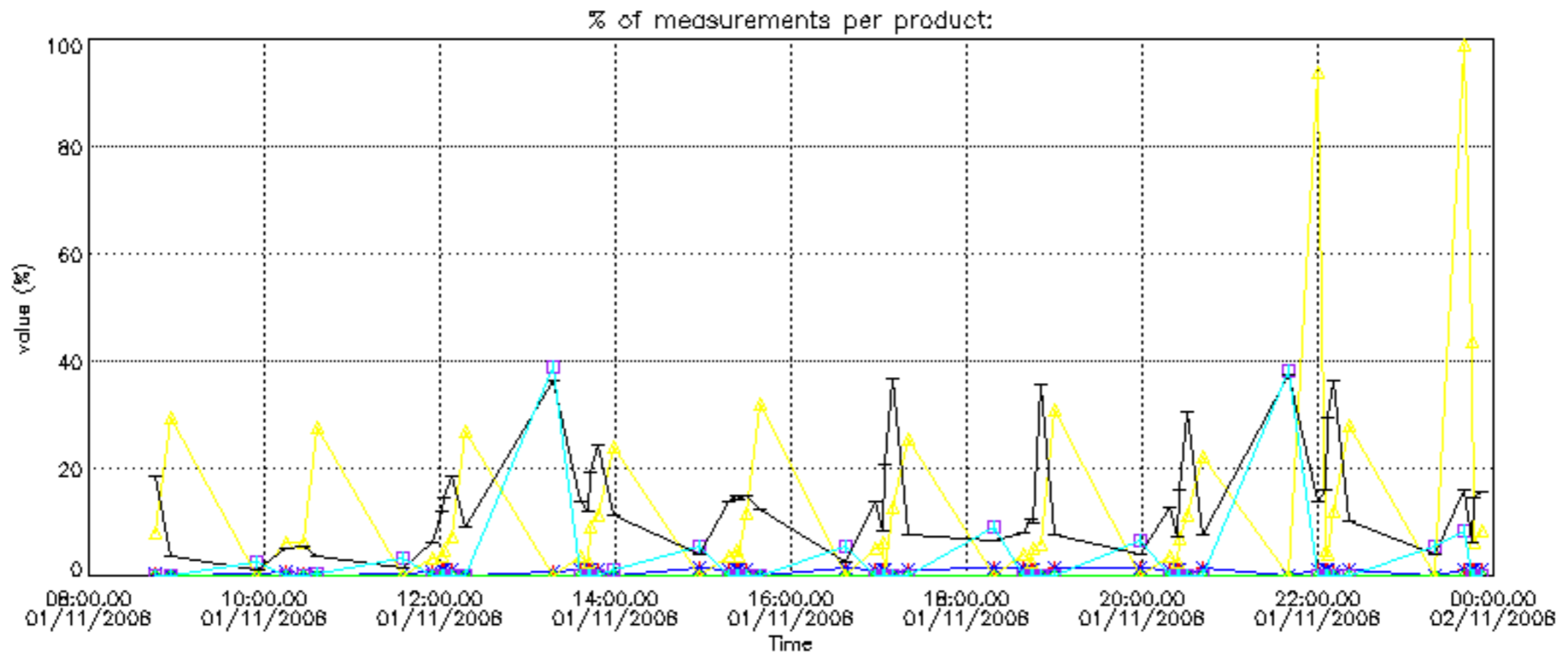


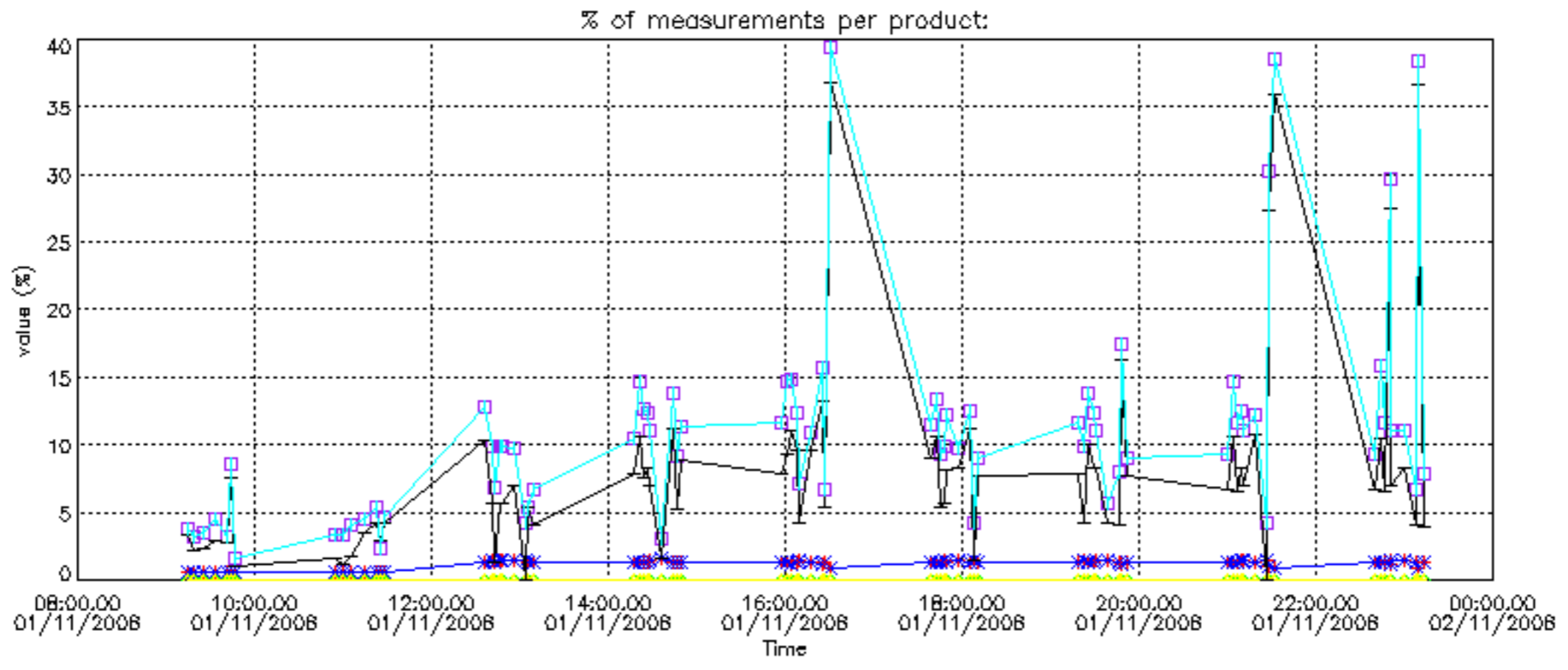
Percentage of flagged data per NO2 profile



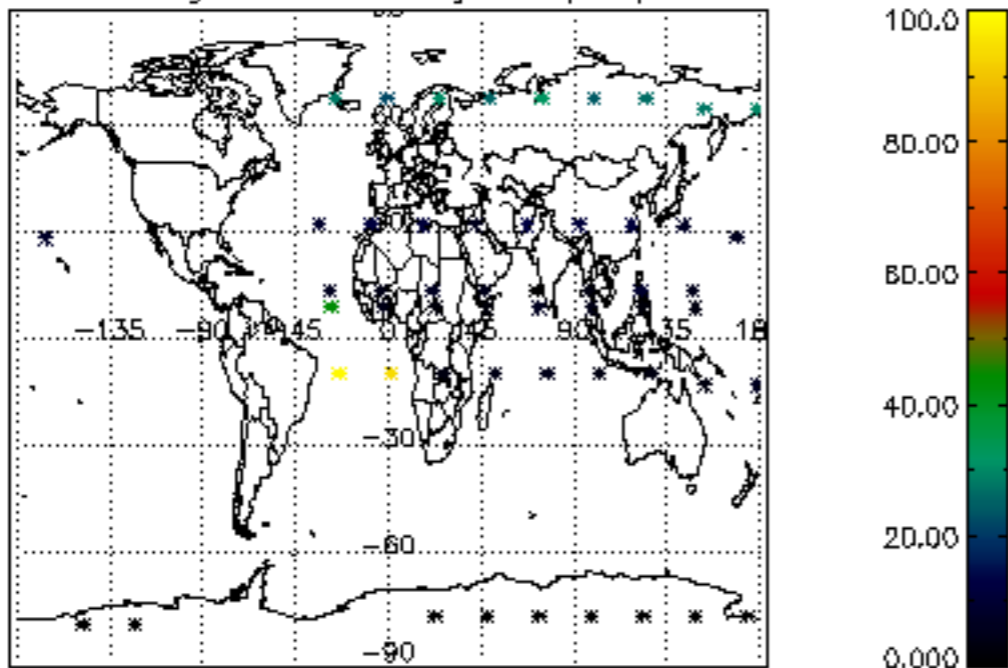
Percentage of flagged data per NO3 profile



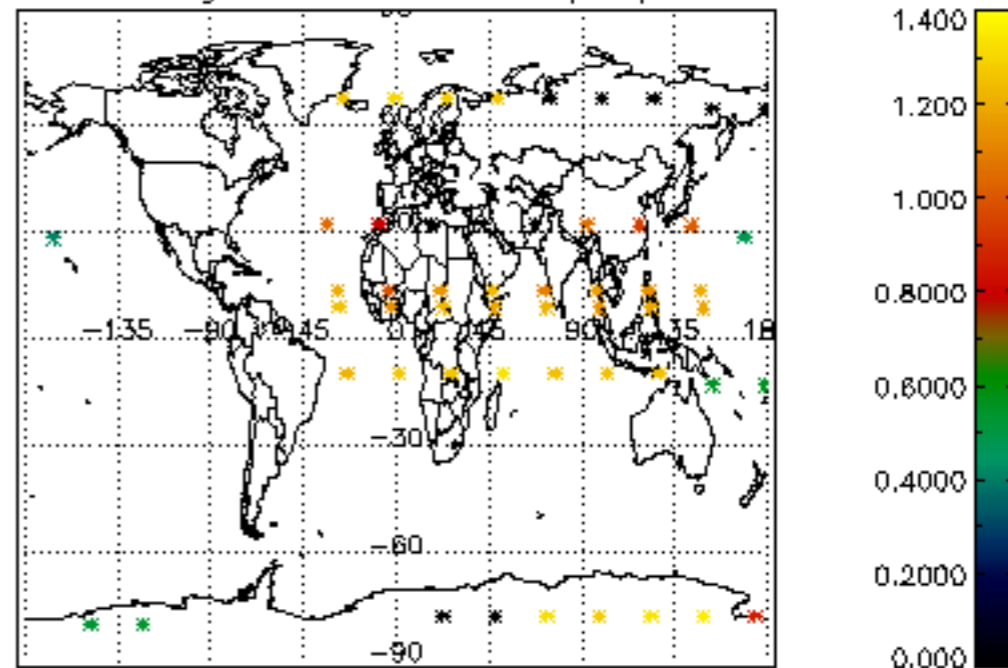




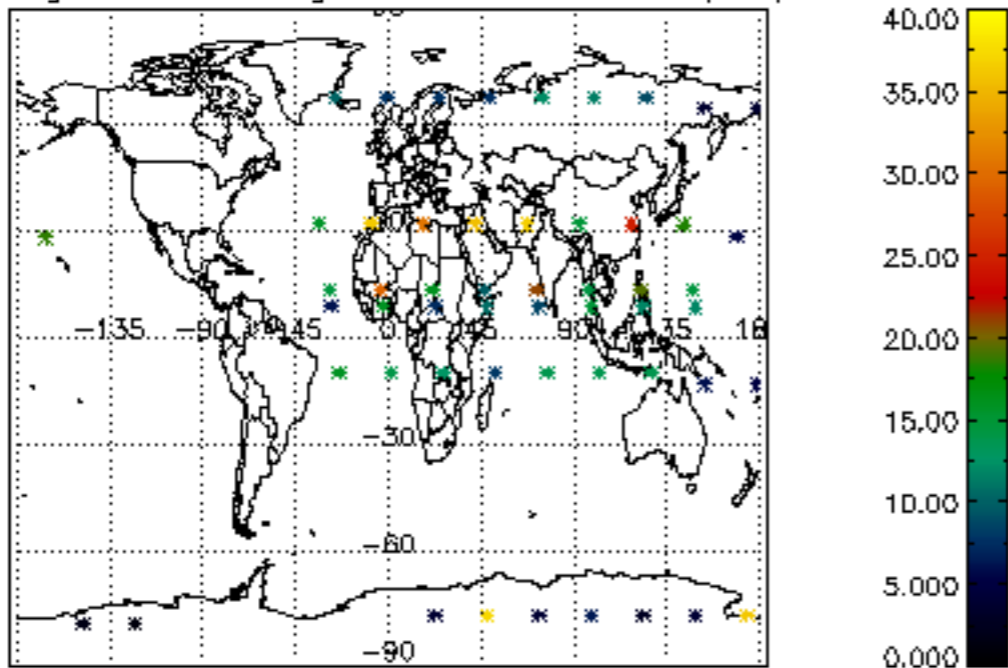
Percentage of cosmic ray hits per profile



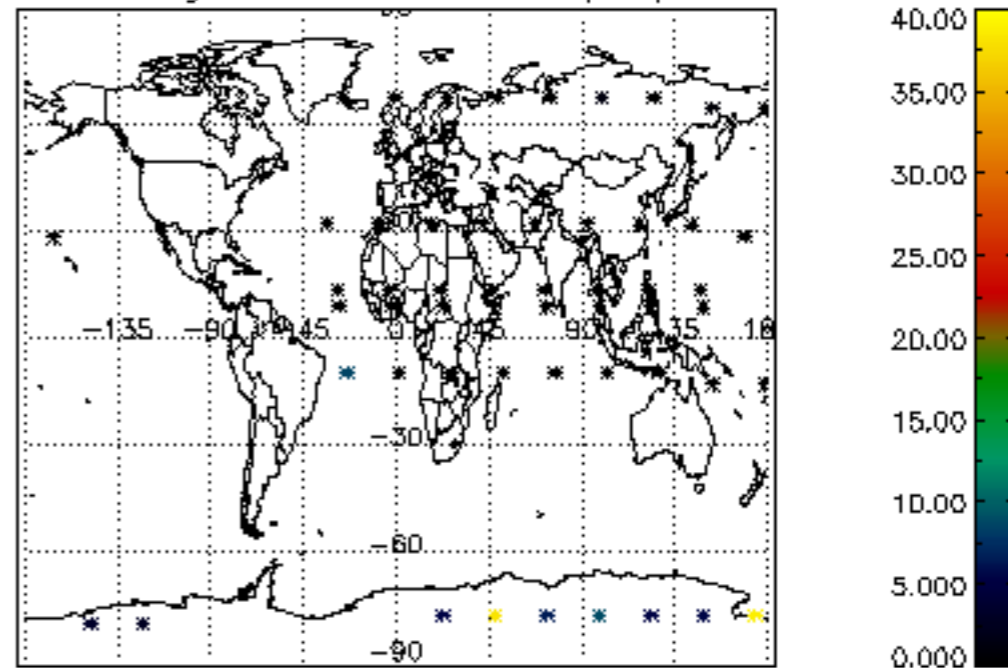
Percentage of datation errors per profile



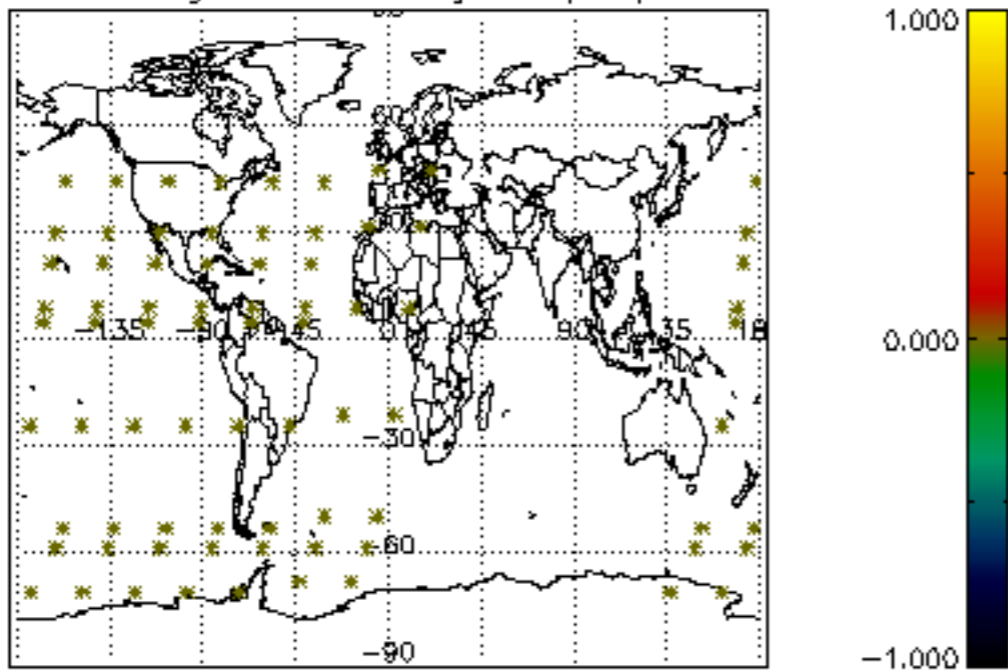
Percentage of star falling outside central band per profile



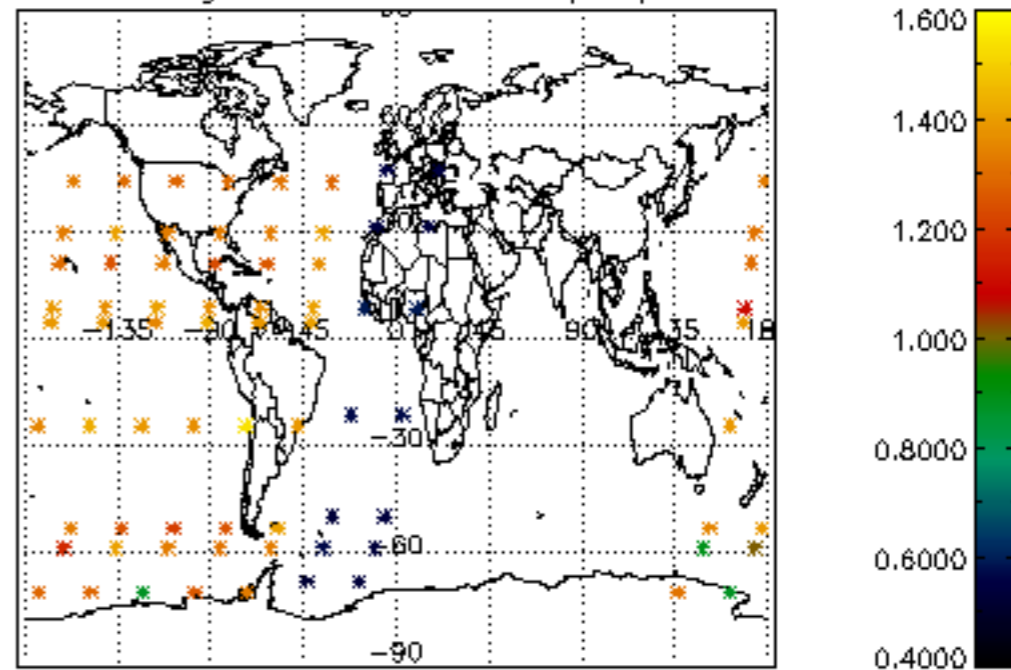
Percentage of saturation errors per profile



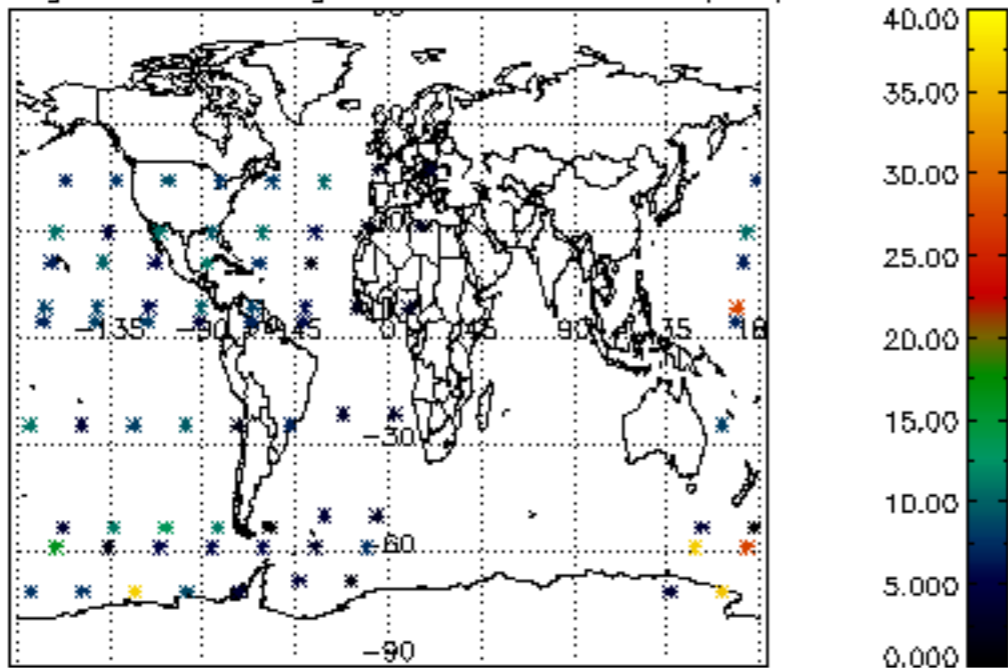
Percentage of cosmic ray hits per profile



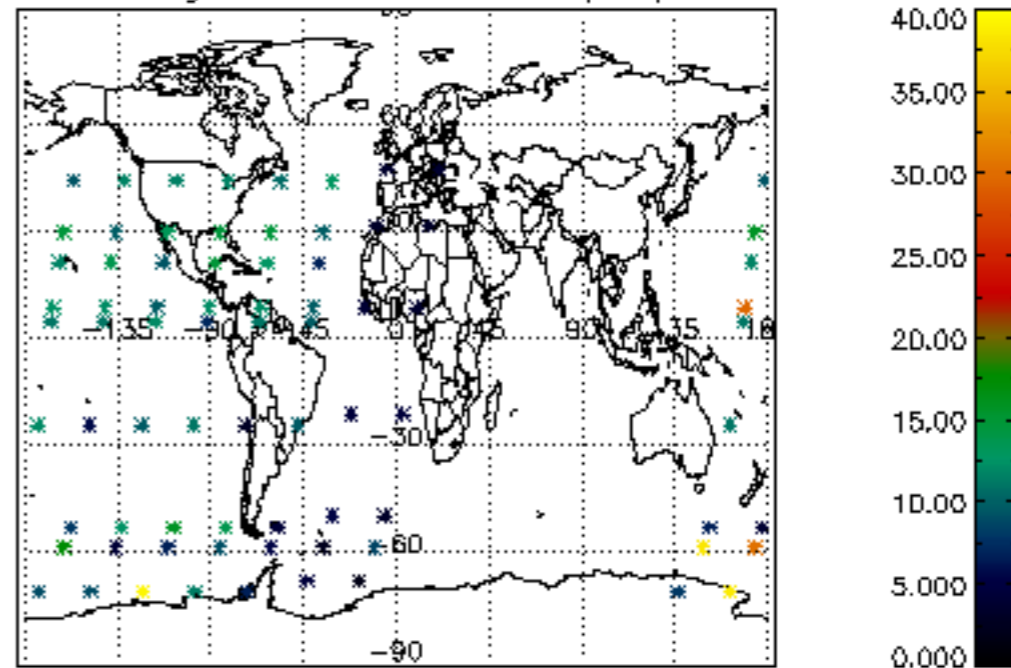
Percentage of datation errors per profile

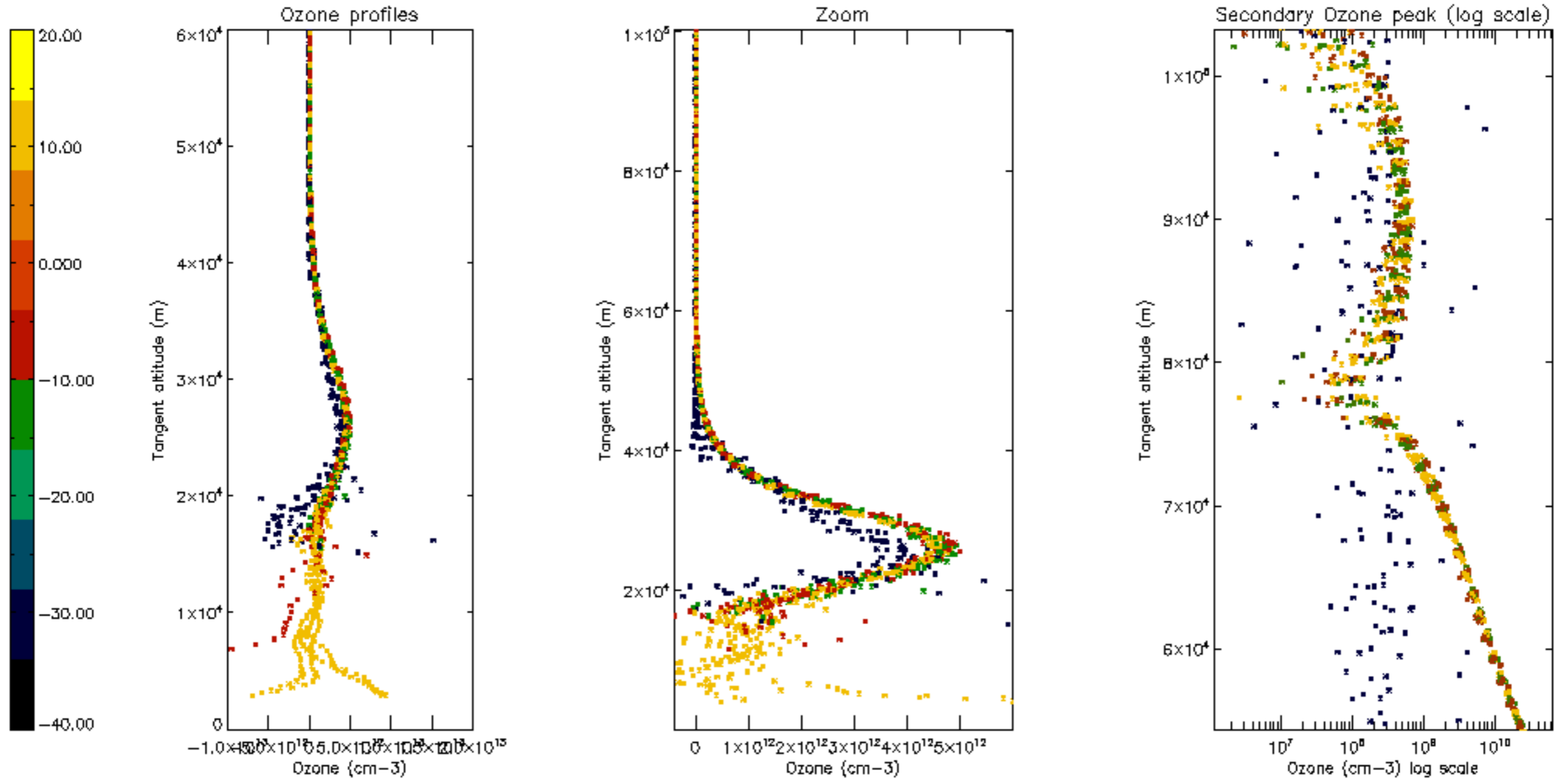


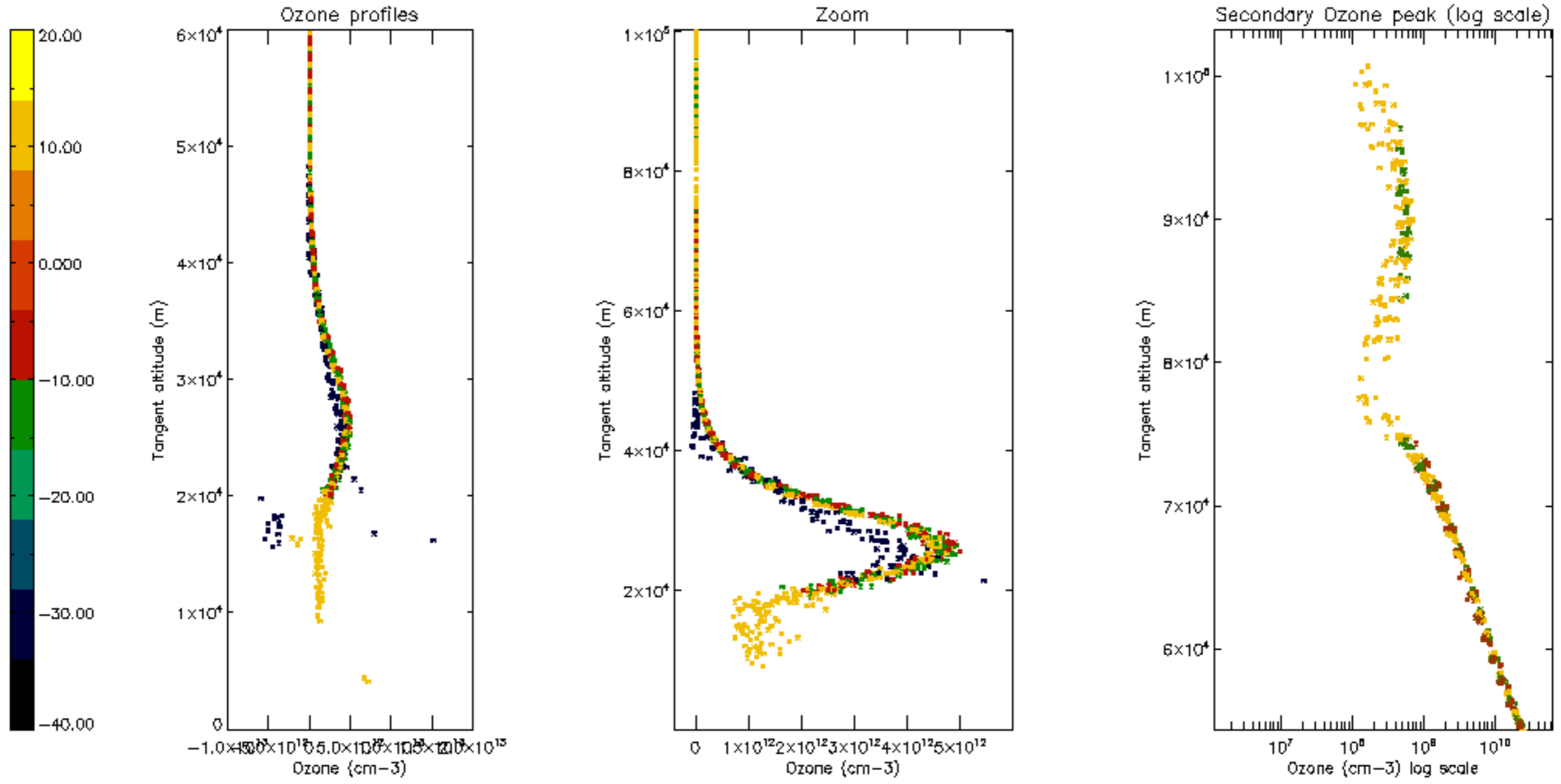
Percentage of star falling outside central band per profile

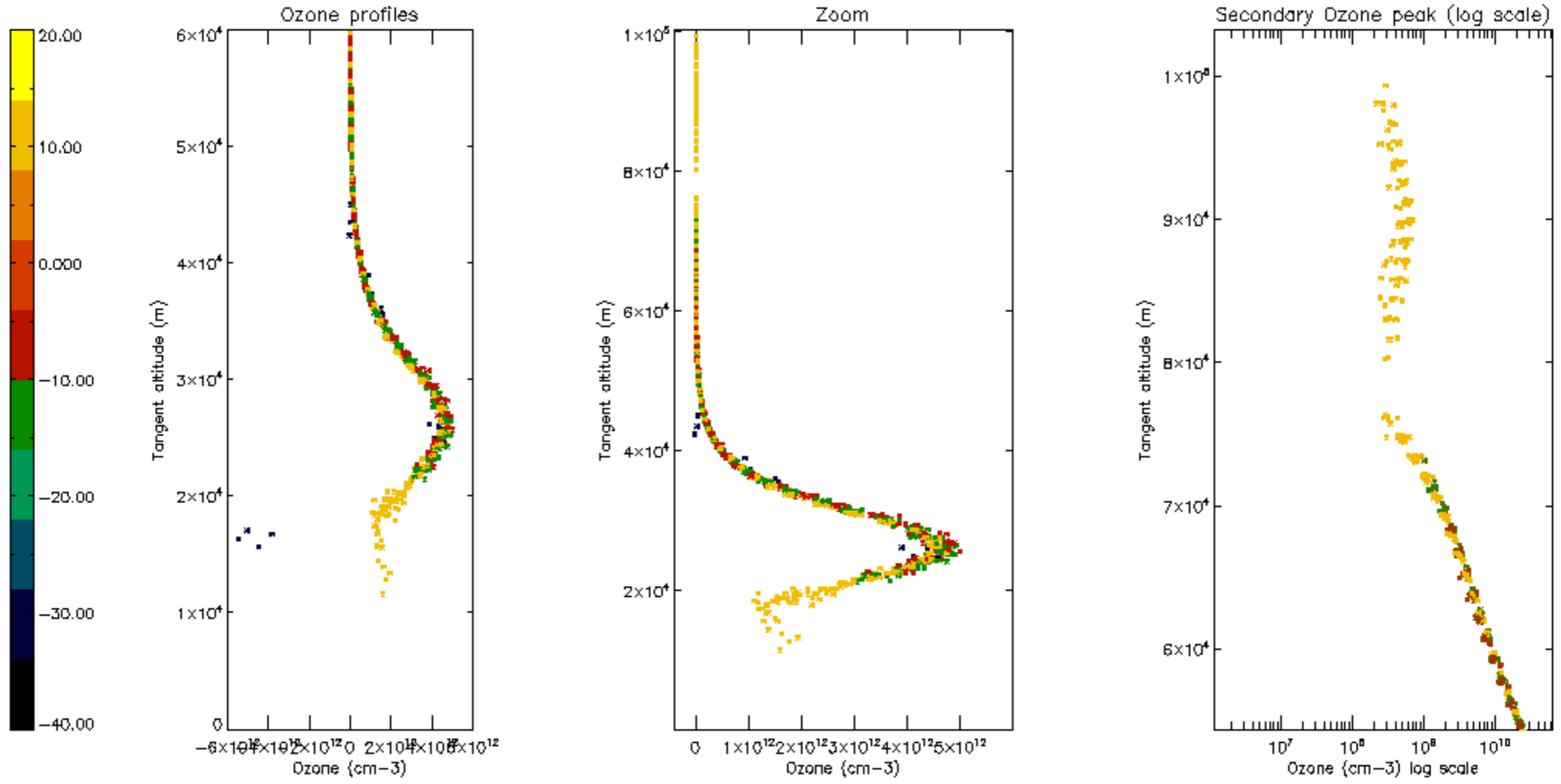


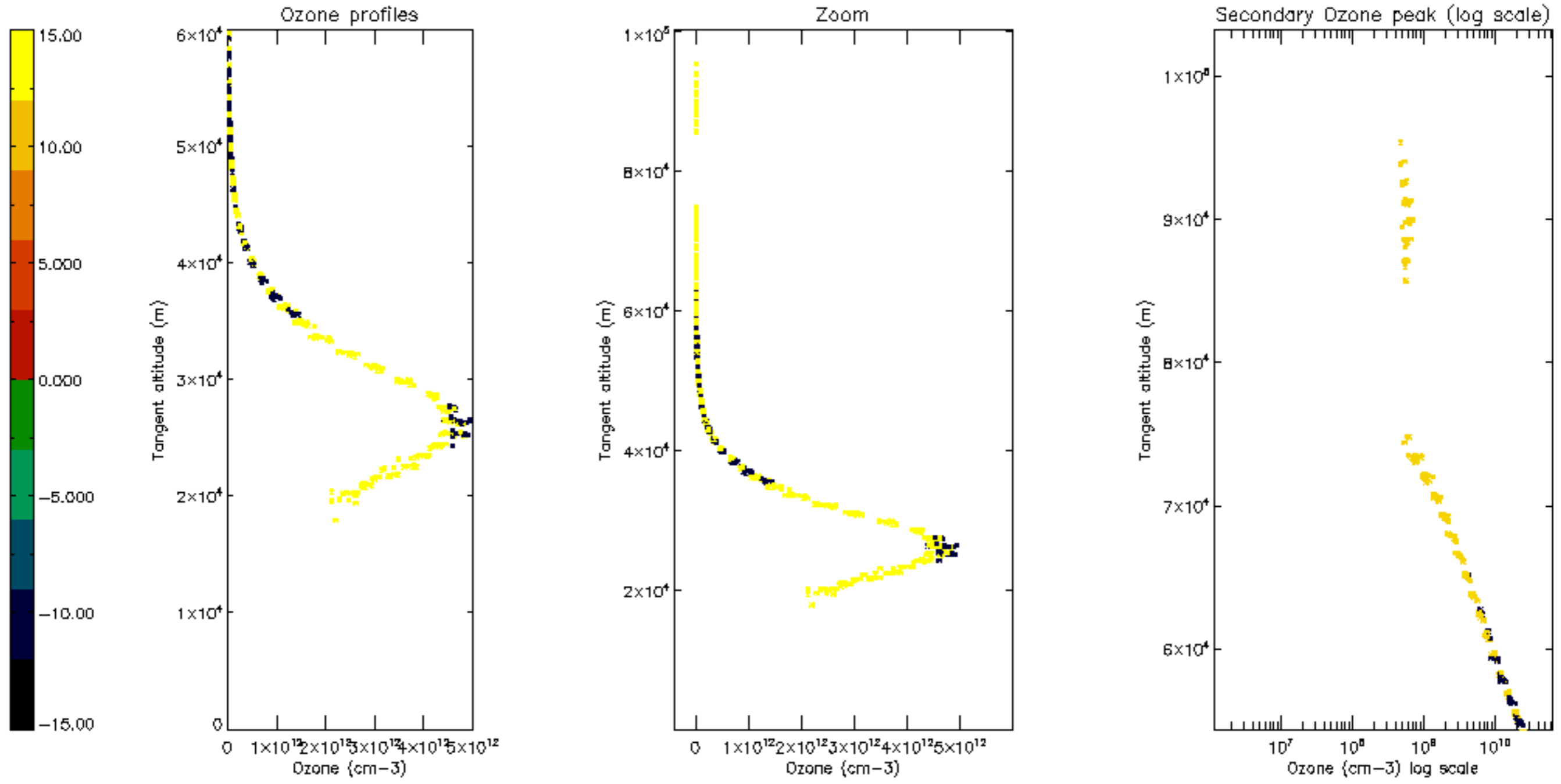
Percentage of saturation errors per profile

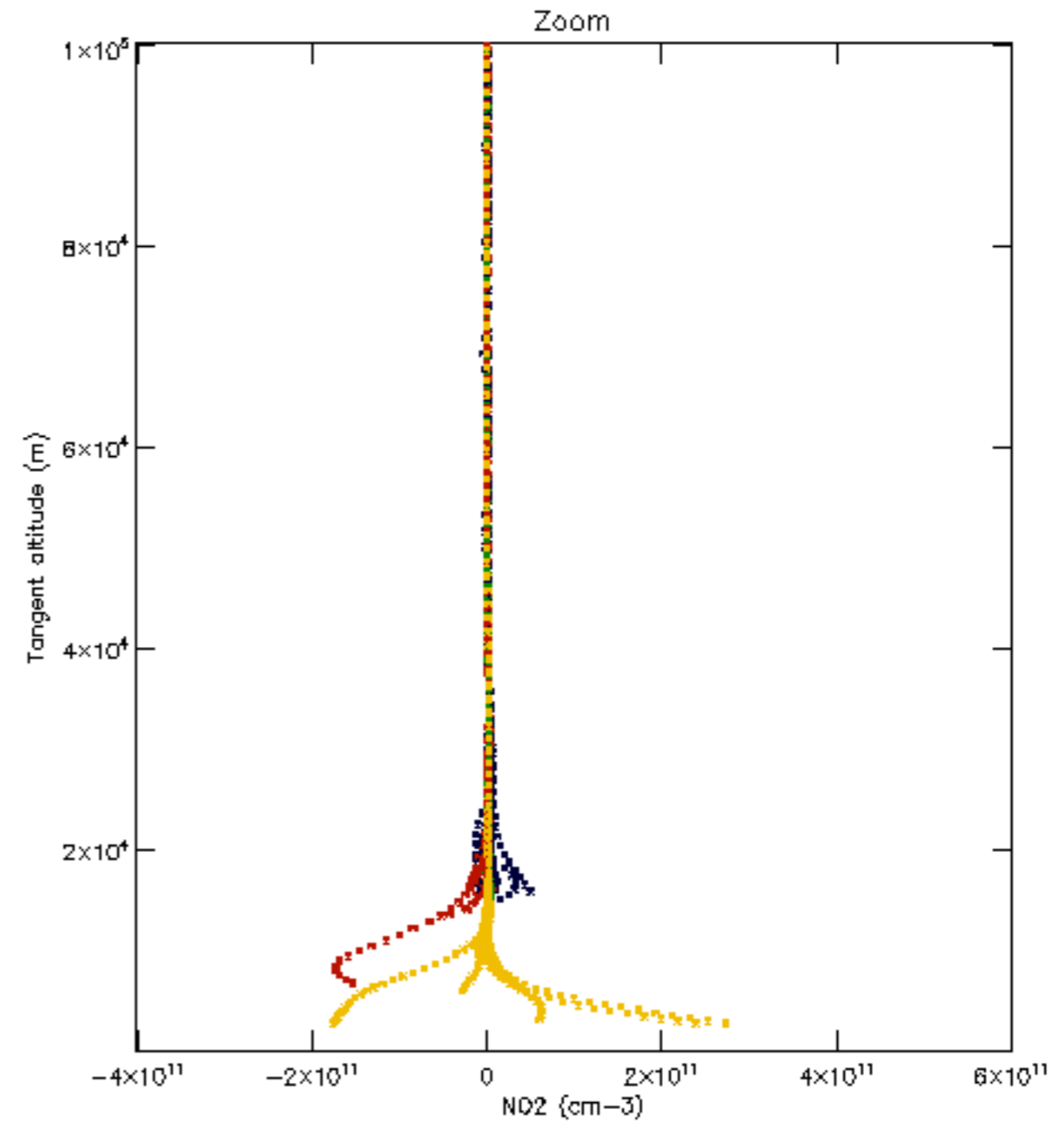
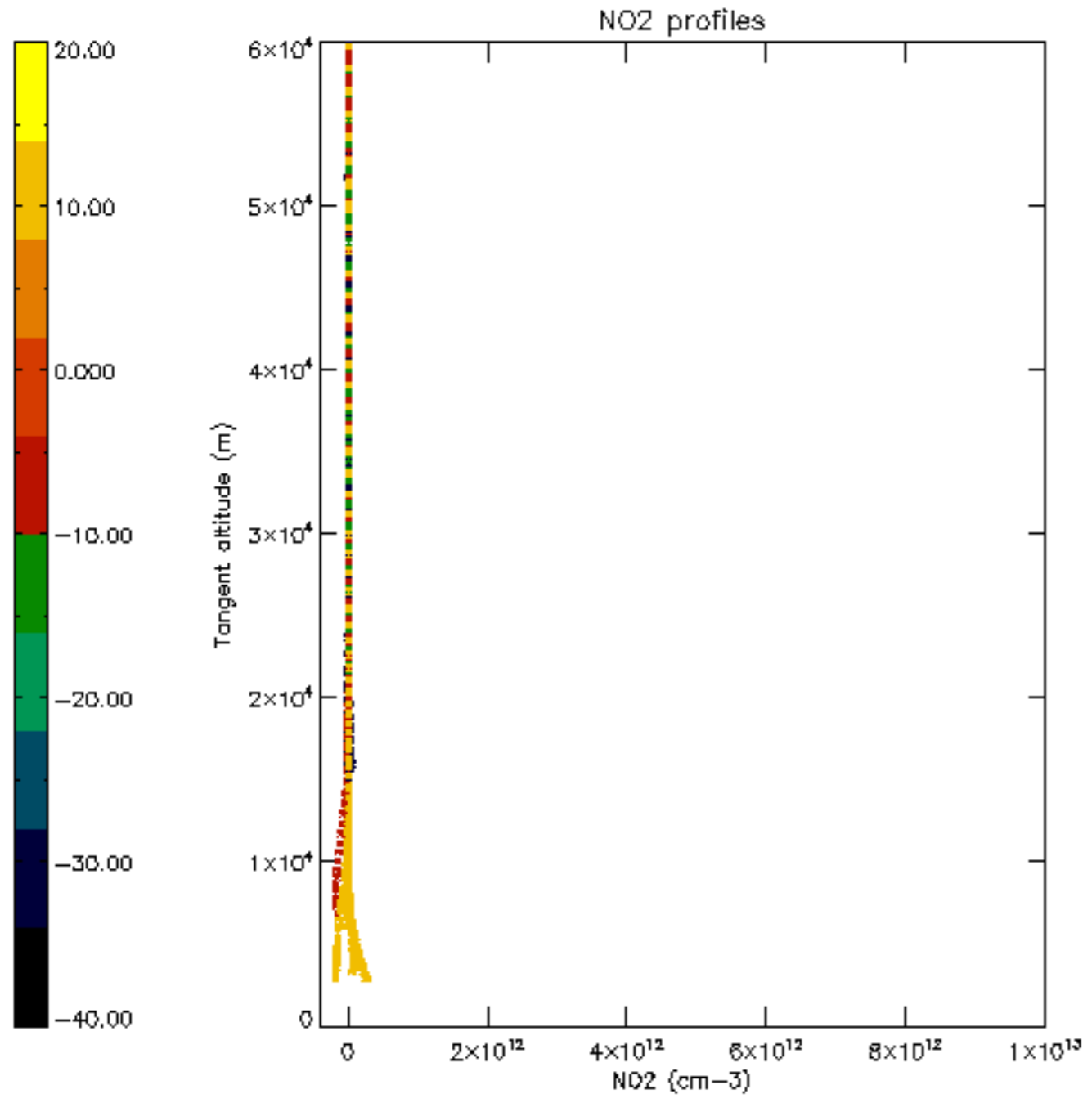


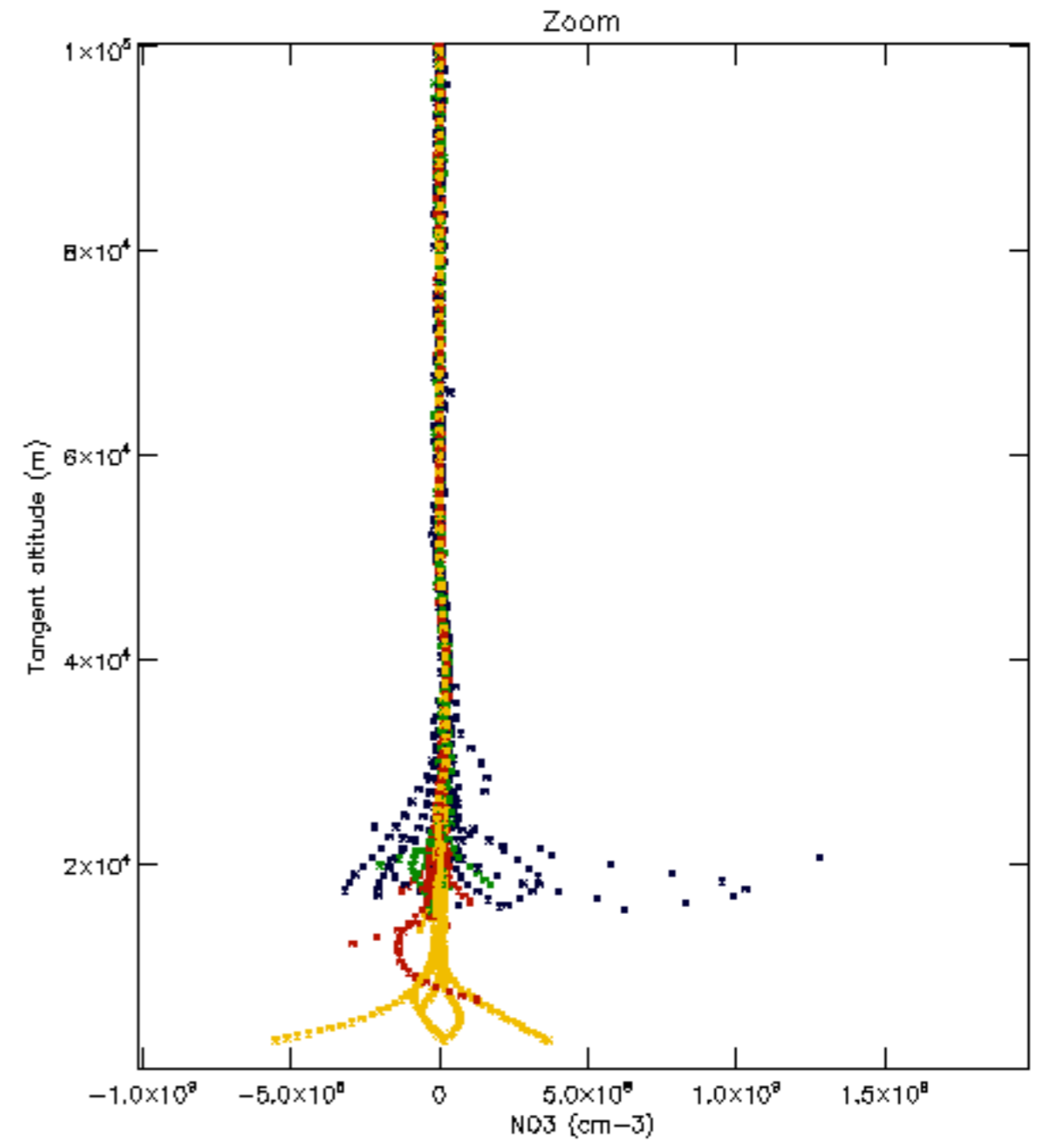
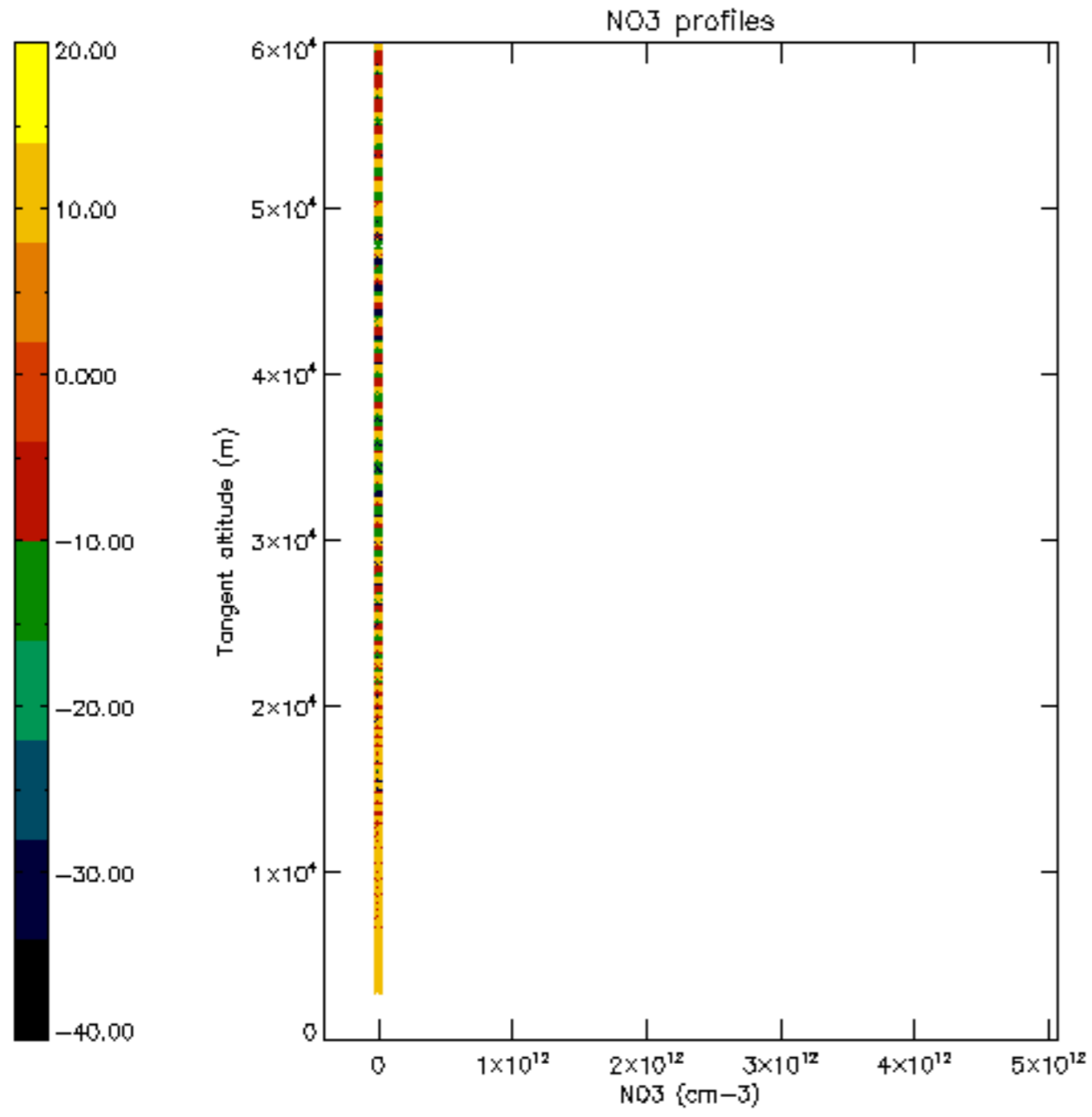


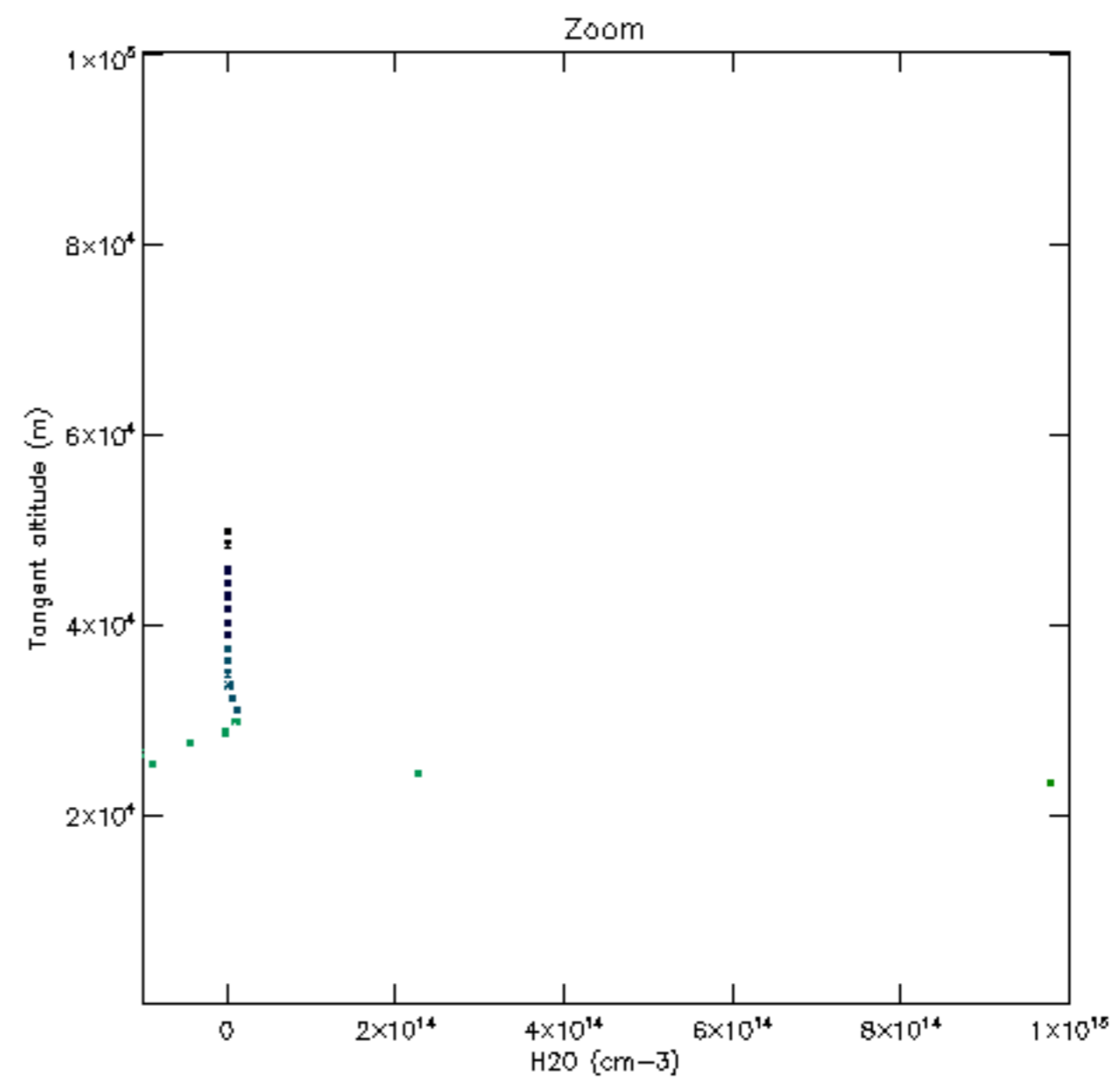
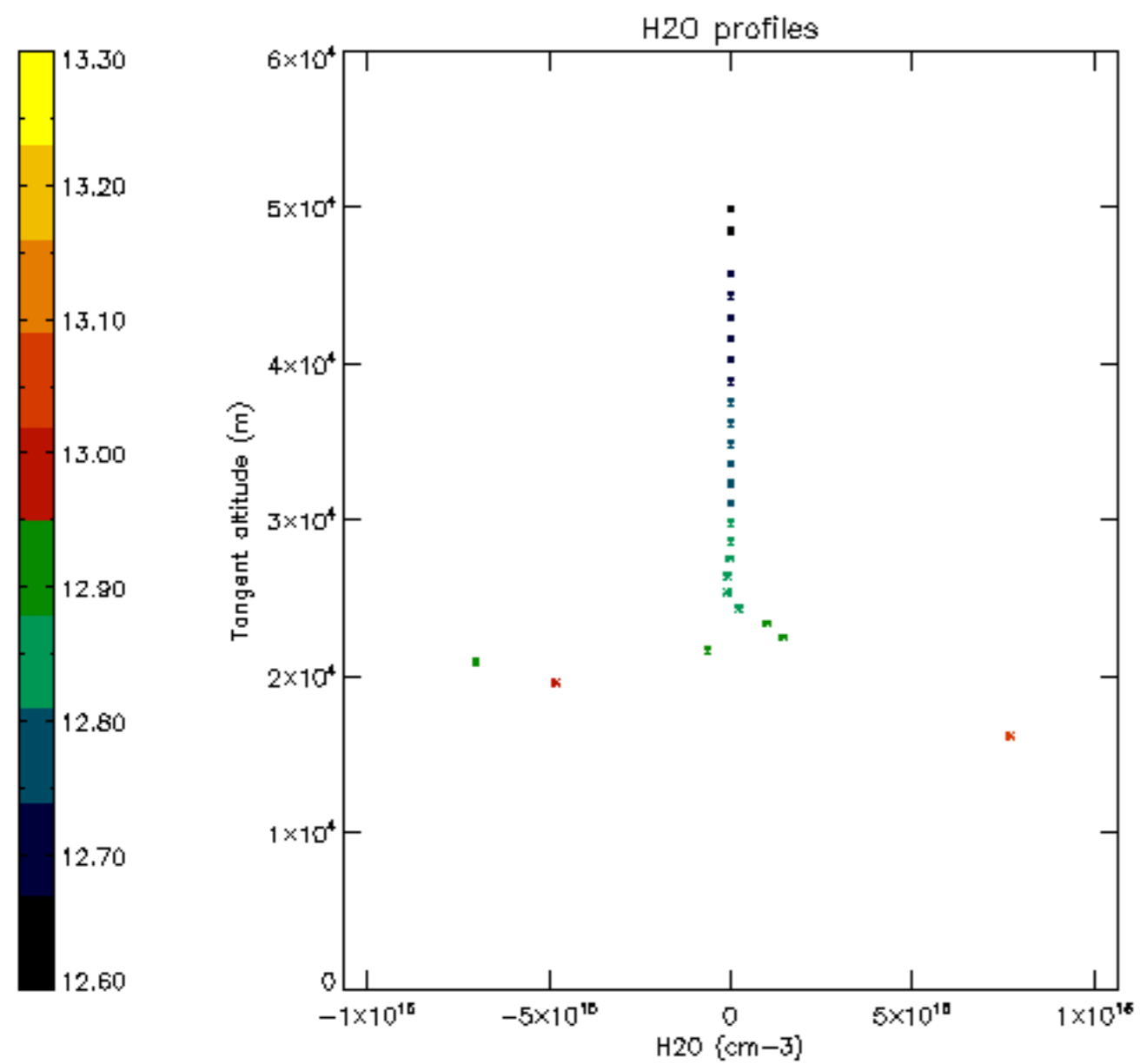


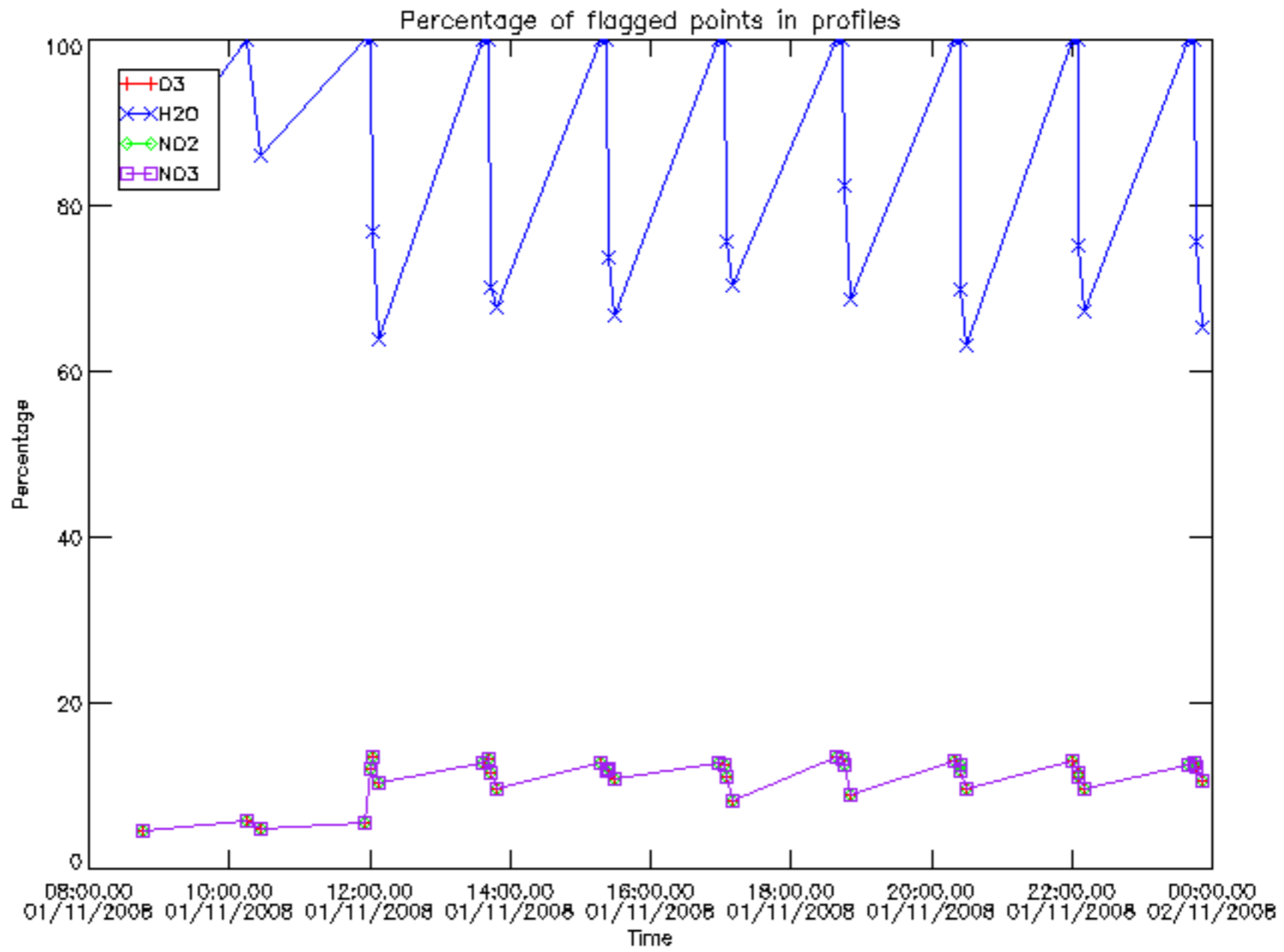




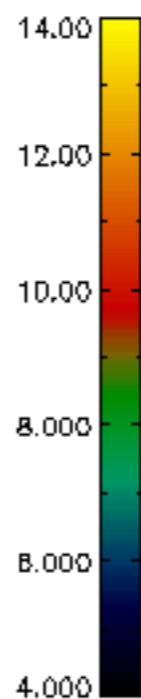
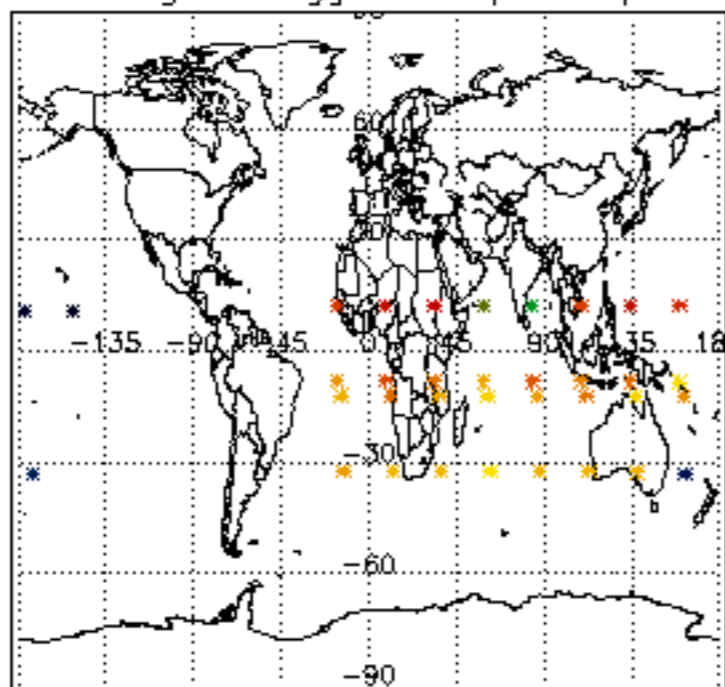




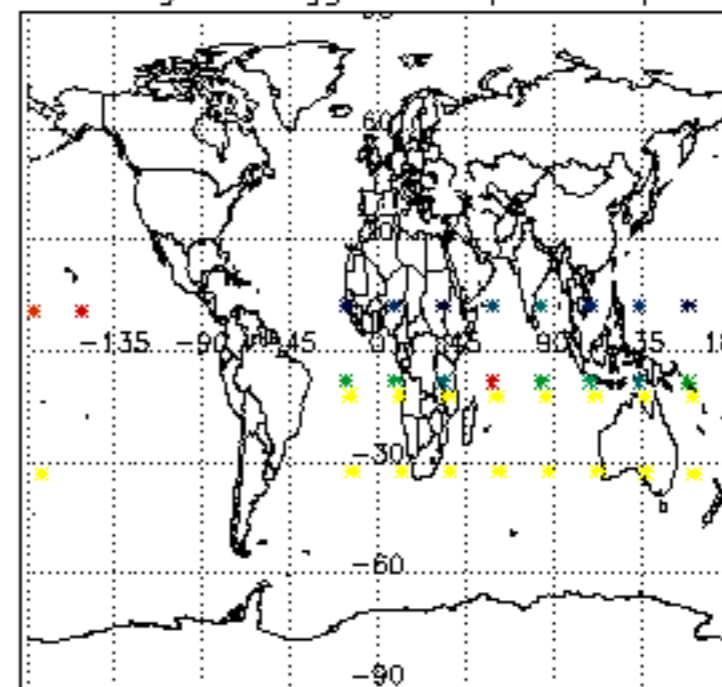




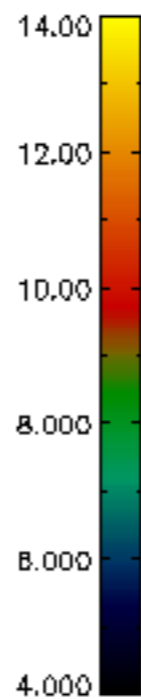
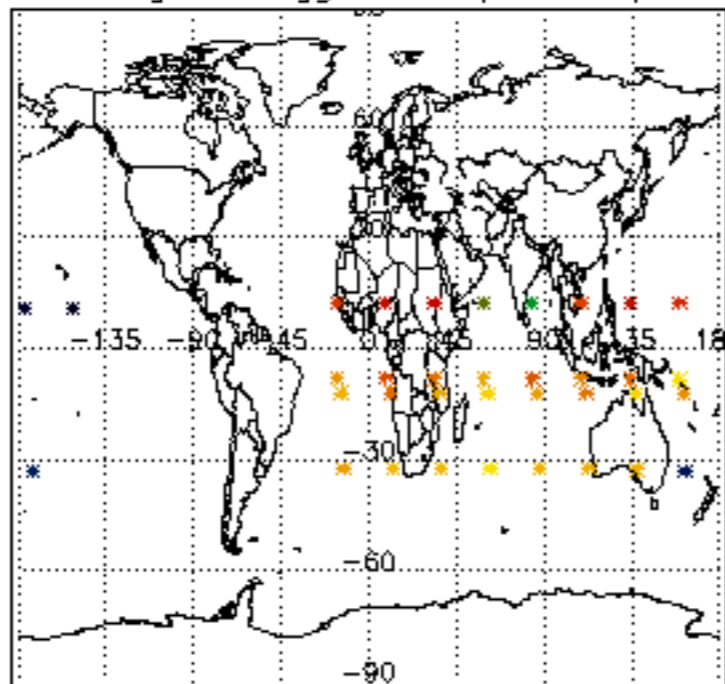
Percentage of flagged data per D3 profile



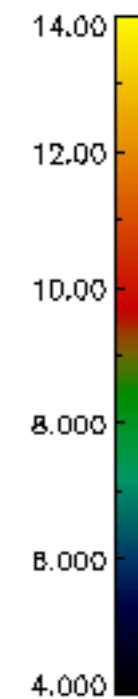
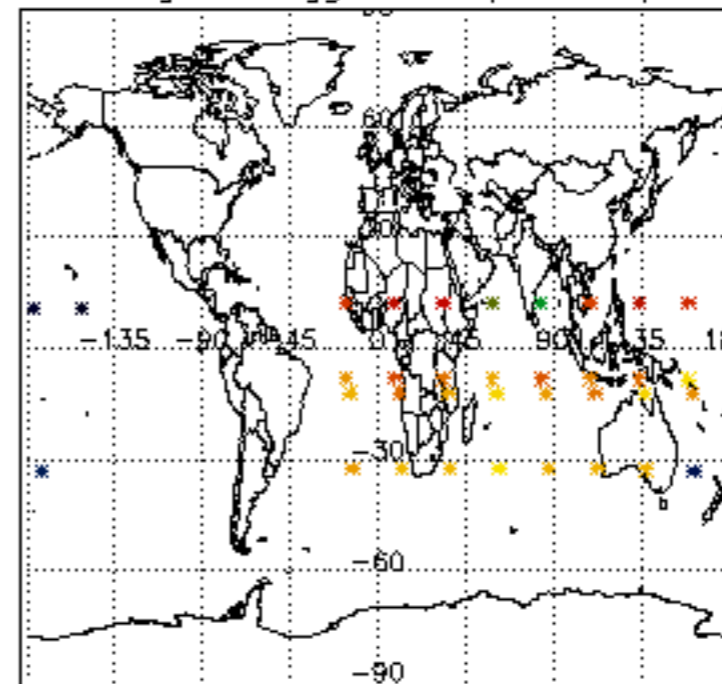
Percentage of flagged data per H2O profile

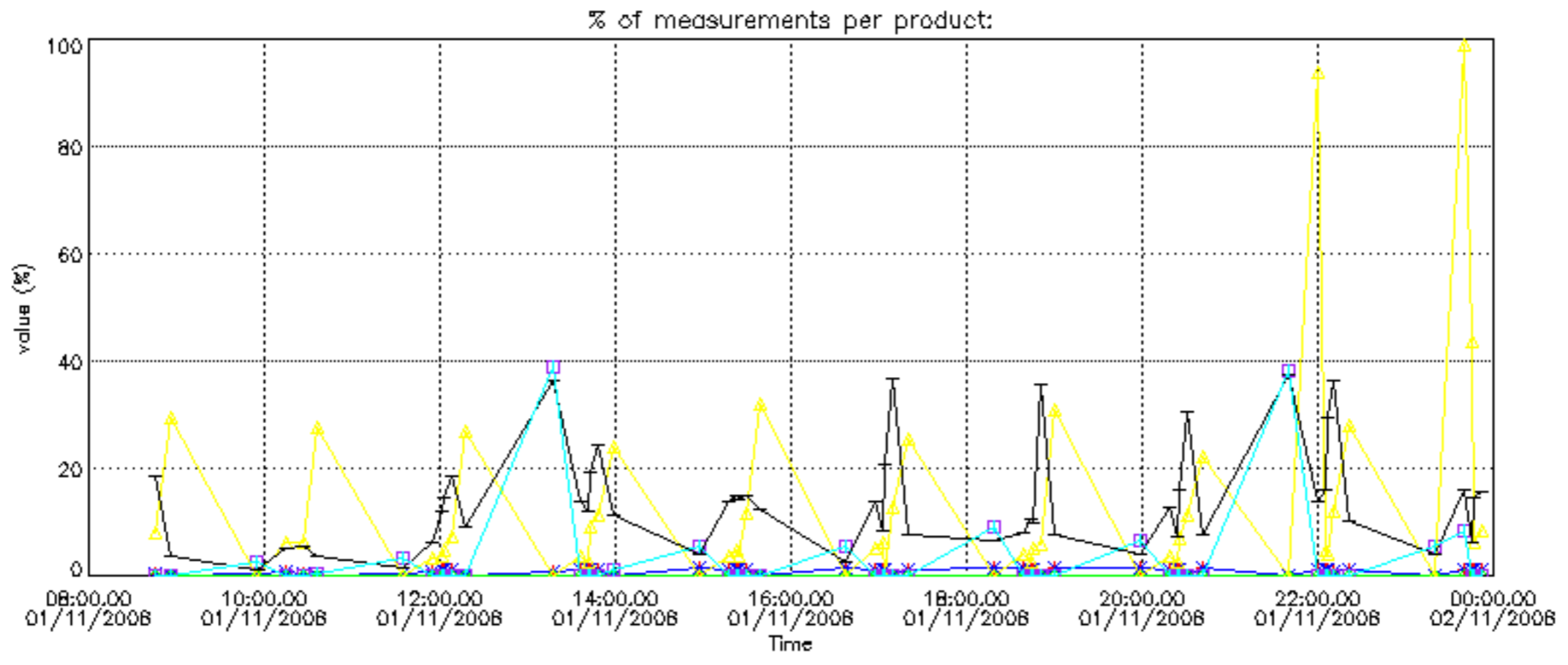


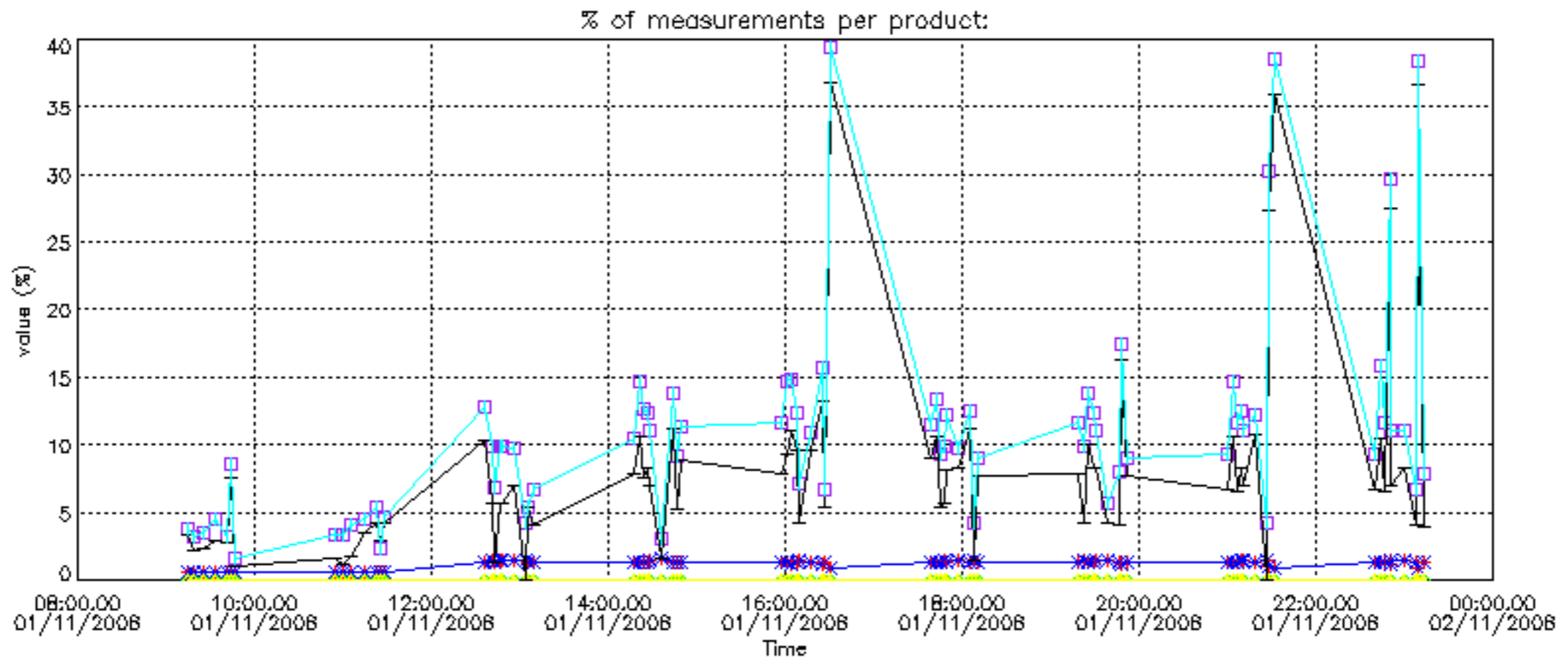
Percentage of flagged data per NO2 profile



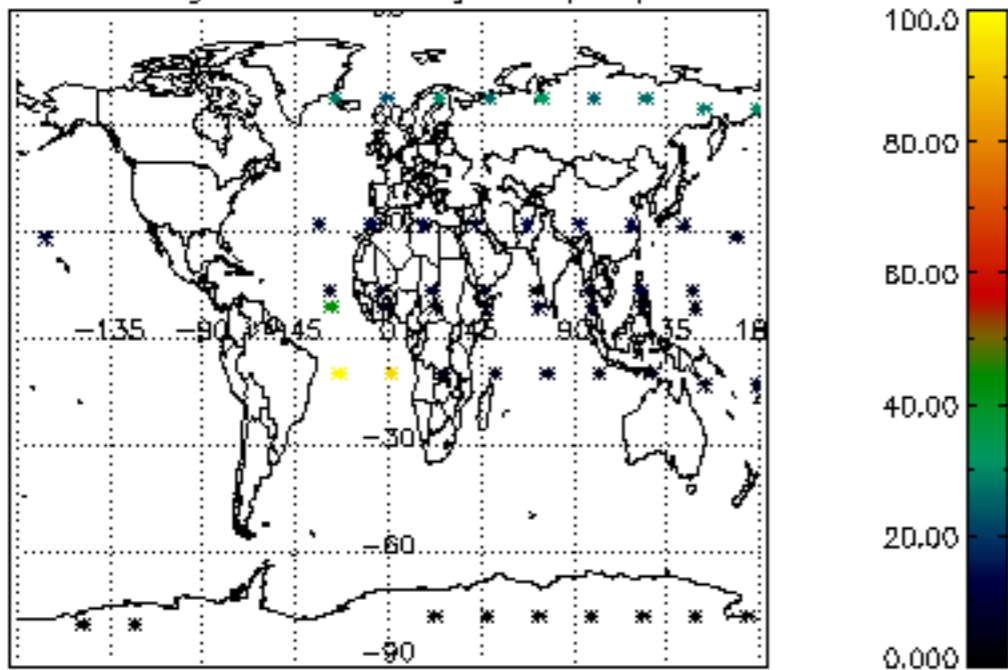
Percentage of flagged data per NO3 profile



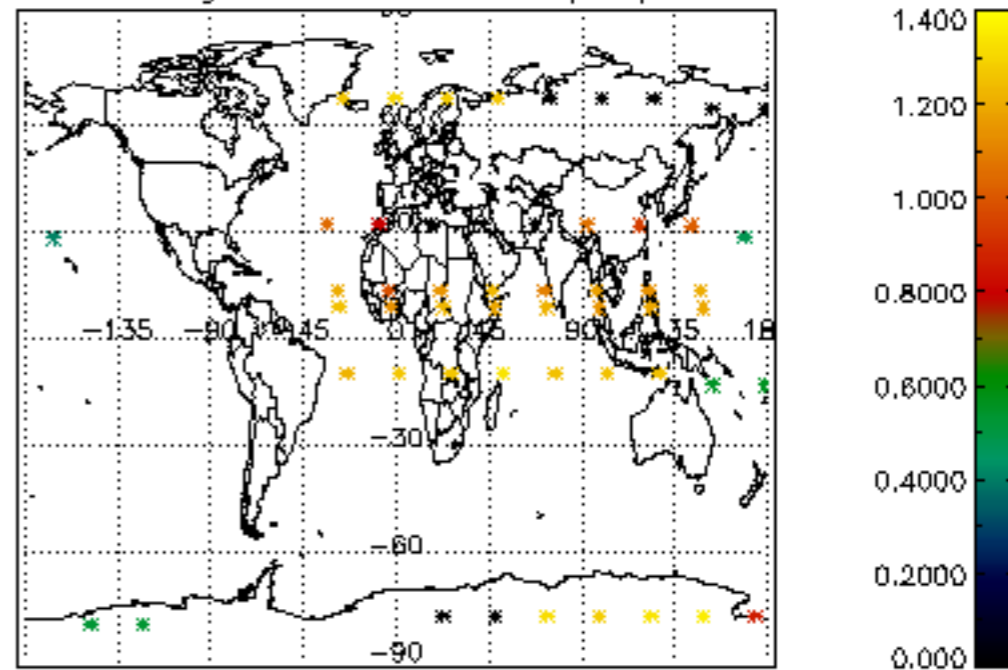




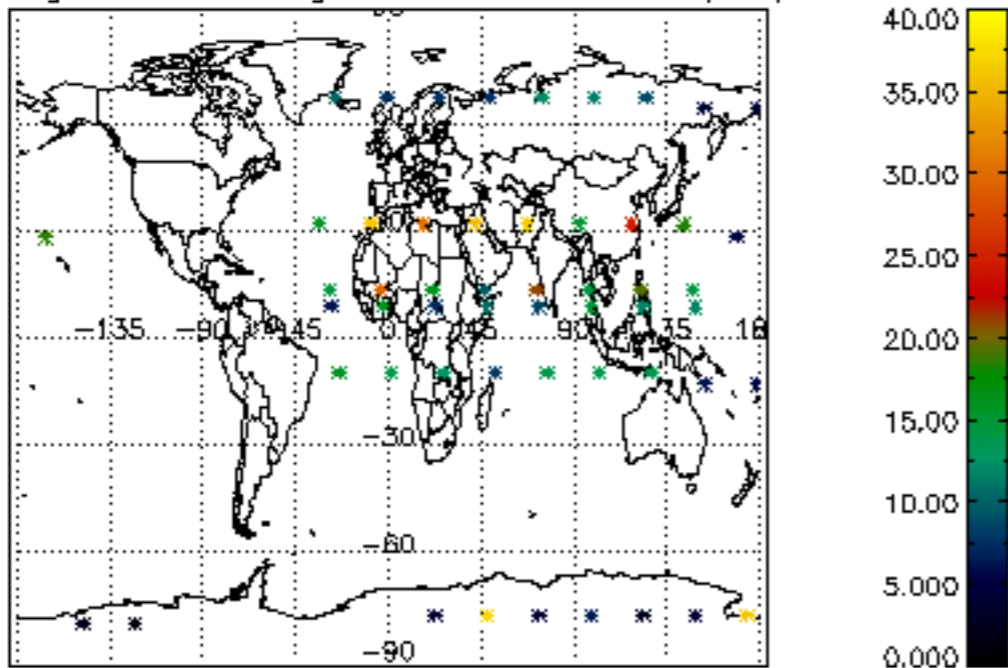
Percentage of cosmic ray hits per profile



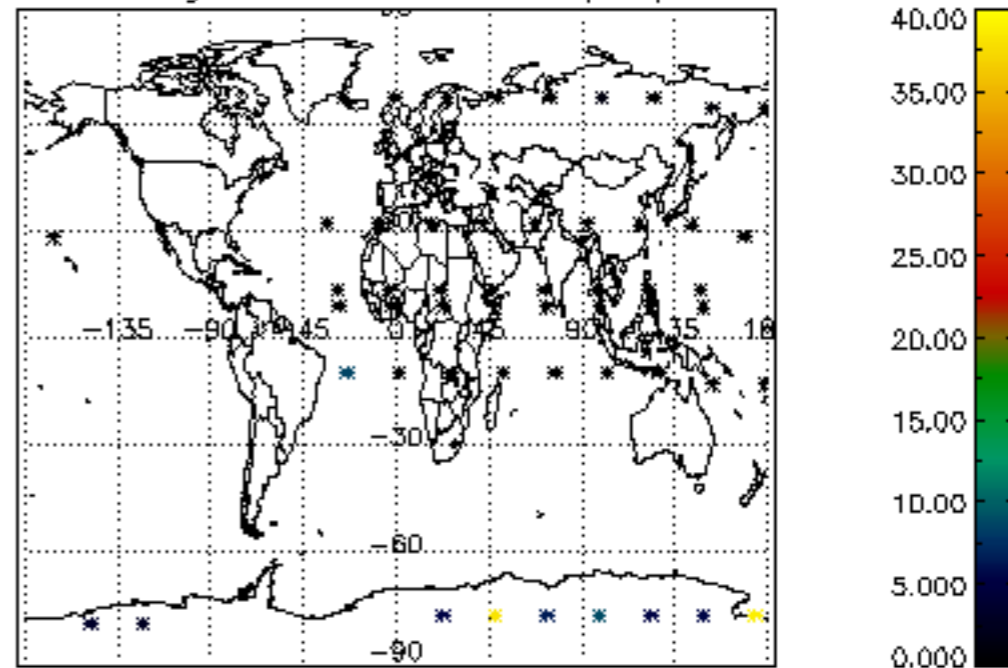
Percentage of datation errors per profile



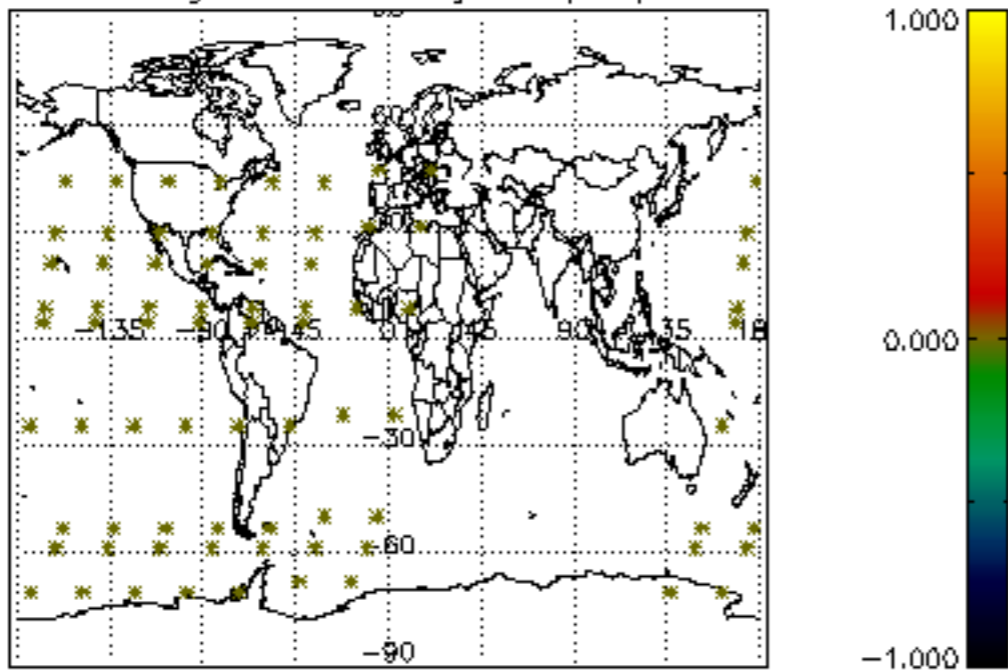
Percentage of star falling outside central band per profile



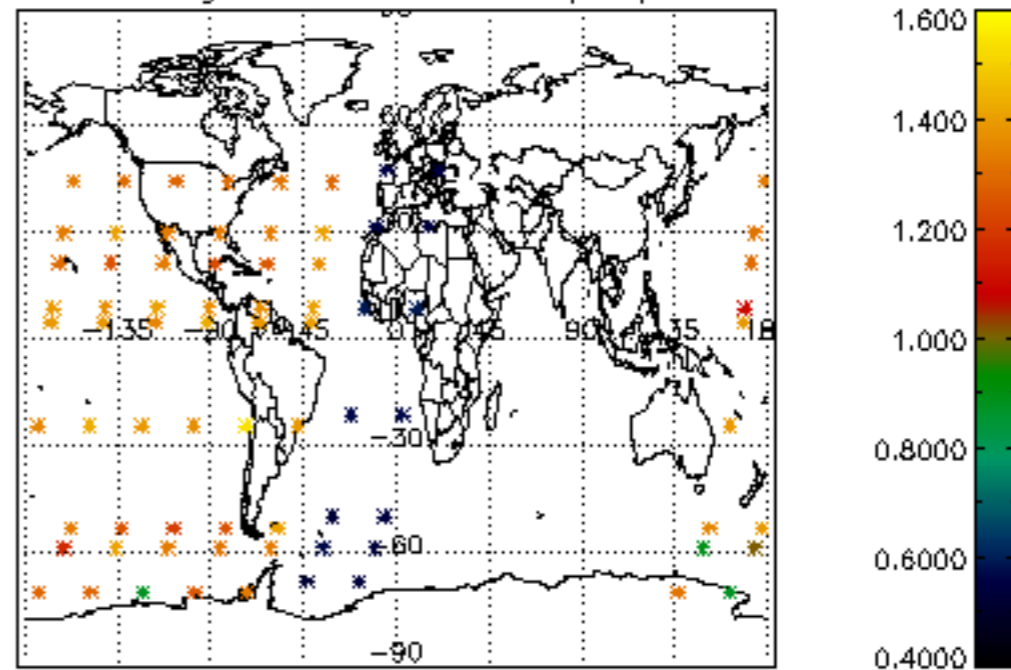
Percentage of saturation errors per profile



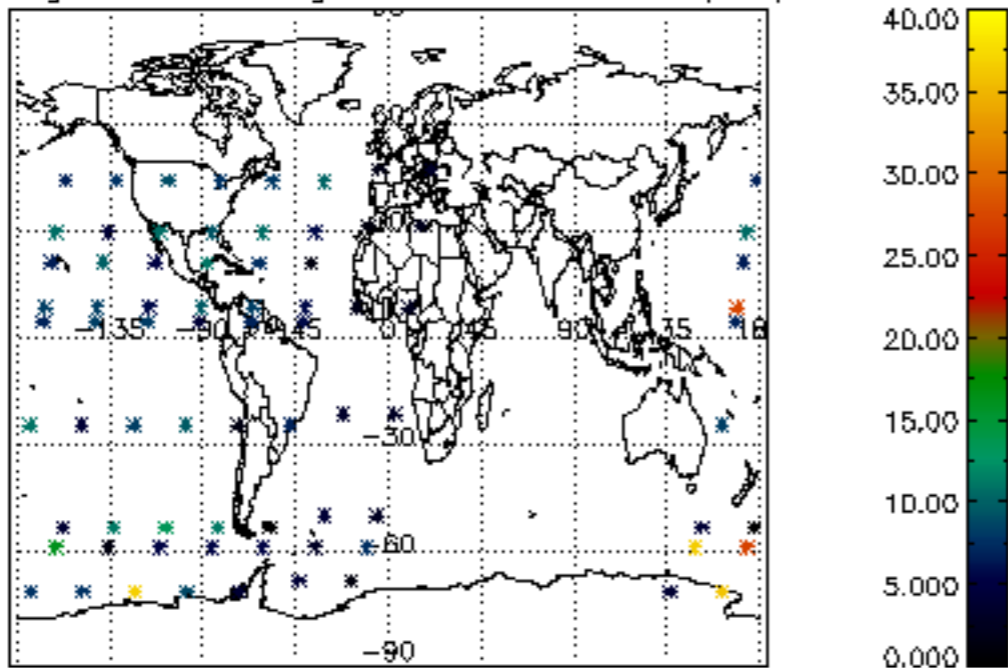
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

