

# GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	24APR2013 15:31:57
Data source version	GOMOS/6.01
Start time of products	07-07-2011 (07JUL2011 00:00:00)
Stop time of products	08-07-2011 (08JUL2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	245
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__2PRFIN20110707_000548_000000463104_00174_48895_2985.N1	07-JUL-2011 00:05:48	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	48895	No
2	GOM_NL__2PRFIN20110707_001008_000000583104_00174_48895_2986.N1	07-JUL-2011 00:10:08	Bright	58.000	160	23Gam Per	2.9300	4700.0	116	48895	No
3	GOM_NL__2PRFIN20110707_001201_000000353104_00174_48895_2987.N1	07-JUL-2011 00:12:01	Bright	34.500	175	39Del Per	3.0100	19400.	69	48895	No
4	GOM_NL__2PRFIN20110707_001329_000000563104_00174_48895_2988.N1	07-JUL-2011 00:13:29	Bright	55.500	73	57Gam1And	2.2600	13100.	111	48895	No
5	GOM_NL__2PRFIN20110707_001646_000000423104_00174_48895_2989.N1	07-JUL-2011 00:16:46	Bright	41.500	150	44Zet Per	2.8900	28000.	83	48895	No
6	GOM_NL__2PRFIN20110707_001909_000000443104_00174_48895_2990.N1	07-JUL-2011 00:19:09	Twilight	43.500	146	25Eta Tau	2.8730	15200.	87	48895	No
7	GOM_NL__2PRFIN20110707_002614_000000443104_00174_48895_2991.N1	07-JUL-2011 00:26:14	Dark	44.000	94	92Alp Cet	2.5260	3100.0	88	48895	No
8	GOM_NL__2PRFIN20110707_004622_000000523104_00175_48896_2986.N1	07-JUL-2011 00:46:22	Dark	52.000	84	Alp Phe	2.3970	4500.0	104	48896	No
9	GOM_NL__2PRFIN20110707_005239_000000503104_00175_48896_2987.N1	07-JUL-2011 00:52:39	Straylight	49.500	63	Bet Gru	2.1500	2800.0	99	48896	No
10	GOM_NL__2PRFIN20110707_005427_000000483104_00175_48896_2988.N1	07-JUL-2011 00:54:27	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	48896	No
11	GOM_NL__2PRFIN20110707_005611_000000413104_00175_48896_2989.N1	07-JUL-2011 00:56:11	Straylight	41.000	45	Alp Pav	1.9400	26000.	82	48896	No
12	GOM_NL__2PRFIN20110707_010520_000000443104_00175_48896_2990.N1	07-JUL-2011 01:05:20	Twilight	44.000	103	38Zet Sgr	2.6000	9700.0	88	48896	No
13	GOM_NL__2PRFIN20110707_010756_000000423104_00175_48896_2991.N1	07-JUL-2011 01:07:56	Bright	41.500	155	41Pi Sgr	2.9000	6600.0	83	48896	No
14	GOM_NL__2PRFIN20110707_011923_000000433104_00175_48896_2992.N1	07-JUL-2011 01:19:23	Bright	43.000	168	17Zet Aql	2.9860	11000.	86	48896	No
15	GOM_NL__2PRFIN20110707_012625_000000393104_00175_48896_2993.N1	07-JUL-2011 01:26:25	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	48896	No
16	GOM_NL__2PRFIN20110707_012930_000000343104_00175_48896_2994.N1	07-JUL-2011 01:29:30	Bright	33.500	130	23Bet Dra	2.7990	5800.0	67	48896	No
17	GOM_NL__2PRFIN20110707_013728_000000453104_00175_48896_2995.N1	07-JUL-2011 01:37:28	Bright	44.500	89	5Alp Cep	2.4510	8000.0	89	48896	No
18	GOM_NL__2PRFIN20110707_014601_000000463104_00175_48896_2996.N1	07-JUL-2011 01:46:01	Bright	46.000	76	27Gam Cas	2.3000	30000.	92	48896	No
19	GOM_NL__2PRFIN20110707_015022_000000403104_00175_48896_2997.N1	07-JUL-2011 01:50:22	Bright	40.000	160	23Gam Per	2.9300	4700.0	80	48896	No
20	GOM_NL__2PRFIN20110707_015215_000000343104_00175_48896_2998.N1	07-JUL-2011 01:52:15	Bright	33.500	175	39Del Per	3.0100	19400.	67	48896	No
21	GOM_NL__2PRFIN20110707_015342_000000493104_00175_48896_2999.N1	07-JUL-2011 01:53:42	Bright	49.000	73	57Gam1And	2.2600	13100.	98	48896	No
22	GOM_NL__2PRFIN20110707_015700_000000403104_00175_48896_3000.N1	07-JUL-2011 01:57:00	Bright	40.000	150	44Zet Per	2.8900	28000.	80	48896	No
23	GOM_NL__2PRFIN20110707_015923_000000433104_00175_48896_3001.N1	07-JUL-2011 01:59:23	Twilight	42.500	146	25Eta Tau	2.8730	15200.	85	48896	No
24	GOM_NL__2PRFIN20110707_020628_000000433104_00175_48896_3002.N1	07-JUL-2011 02:06:28	Dark	42.500	94	92Alp Cet	2.5260	3100.0	85	48896	No
25	GOM_NL__2PRFIN20110707_022638_000000573104_00176_48897_3003.N1	07-JUL-2011 02:26:38	Dark	56.500	84	Alp Phe	2.3970	4500.0	113	48897	No
26	GOM_NL__2PRFIN20110707_023254_000000583104_00176_48897_3004.N1	07-JUL-2011 02:32:54	Straylight	58.000	63	Bet Gru	2.1500	2800.0	116	48897	No
27	GOM_NL__2PRFIN20110707_023442_000000483104_00176_48897_3005.N1	07-JUL-2011 02:34:42	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	48897	No
28	GOM_NL__2PRFIN20110707_023625_000000433104_00176_48897_3006.N1	07-JUL-2011 02:36:25	Straylight	42.500	45	Alp Pav	1.9400	26000.	85	48897	No
29	GOM_NL__2PRFIN20110707_024534_000000473104_00176_48897_3007.N1	07-JUL-2011 02:45:34	Twilight	46.500	103	38Zet Sgr	2.6000	9700.0	93	48897	No
30	GOM_NL__2PRFIN20110707_024810_000000433104_00176_48897_3008.N1	07-JUL-2011 02:48:10	Bright	42.500	155	41Pi Sgr	2.9000	6600.0	85	48897	No
31	GOM_NL__2PRFIN20110707_030638_000000443104_00176_48897_3009.N1	07-JUL-2011 03:06:38	Bright	43.500	5	3Alp Lyr	0.033000	11000.	87	48897	No
32	GOM_NL__2PRFIN20110707_030944_000000373104_00176_48897_3010.N1	07-JUL-2011 03:09:44	Bright	37.000	130	23Bet Dra	2.7990	5800.0	74	48897	No
33	GOM_NL__2PRFIN20110707_031742_000000453104_00176_48897_3011.N1	07-JUL-2011 03:17:42	Bright	45.000	89	5Alp Cep	2.4510	8000.0	90	48897	No
34	GOM_NL__2PRFIN20110707_032615_000000463104_00176_48897_3012.N1	07-JUL-2011 03:26:15	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	48897	No
35	GOM_NL__2PRFIN20110707_033036_000000383104_00176_48897_3013.N1	07-JUL-2011 03:30:36	Bright	37.500	160	23Gam Per	2.9300	4700.0	75	48897	No
36	GOM_NL__2PRFIN20110707_033229_000000333104_00176_48897_3014.N1	07-JUL-2011 03:32:29	Bright	33.000	175	39Del Per	3.0100	19400.	66	48897	No
37	GOM_NL__2PRFIN20110707_033356_000000493104_00176_48897_3015.N1	07-JUL-2011 03:33:56	Bright	49.000	73	57Gam1And	2.2600	13100.	98	48897	No
38	GOM_NL__2PRFIN20110707_033714_000000423104_00176_48897_3016.N1	07-JUL-2011 03:37:14	Bright	42.000	150	44Zet Per	2.8900	28000.	84	48897	No
39	GOM_NL__2PRFIN20110707_033938_000000443104_00176_48897_3017.N1	07-JUL-2011 03:39:38	Twilight	43.500	146	25Eta Tau	2.8730	15200.	87	48897	No
40	GOM_NL__2PRFIN20110707_034643_000000553104_00176_48897_3018.N1	07-JUL-2011 03:46:43	Dark	54.500	94	92Alp Cet	2.5260	3100.0	109	48897	No
41	GOM_NL__2PRFIN20110707_040653_000000583104_00177_48898_3014.N1	07-JUL-2011 04:06:53	Dark	58.000	84	Alp Phe	2.3970	4500.0	116	48898	No
42	GOM_NL__2PRFIN20110707_041309_000000523104_00177_48898_3015.N1	07-JUL-2011 04:13:09	Straylight	52.000	63	Bet Gru	2.1500	2800.0	104	48898	No





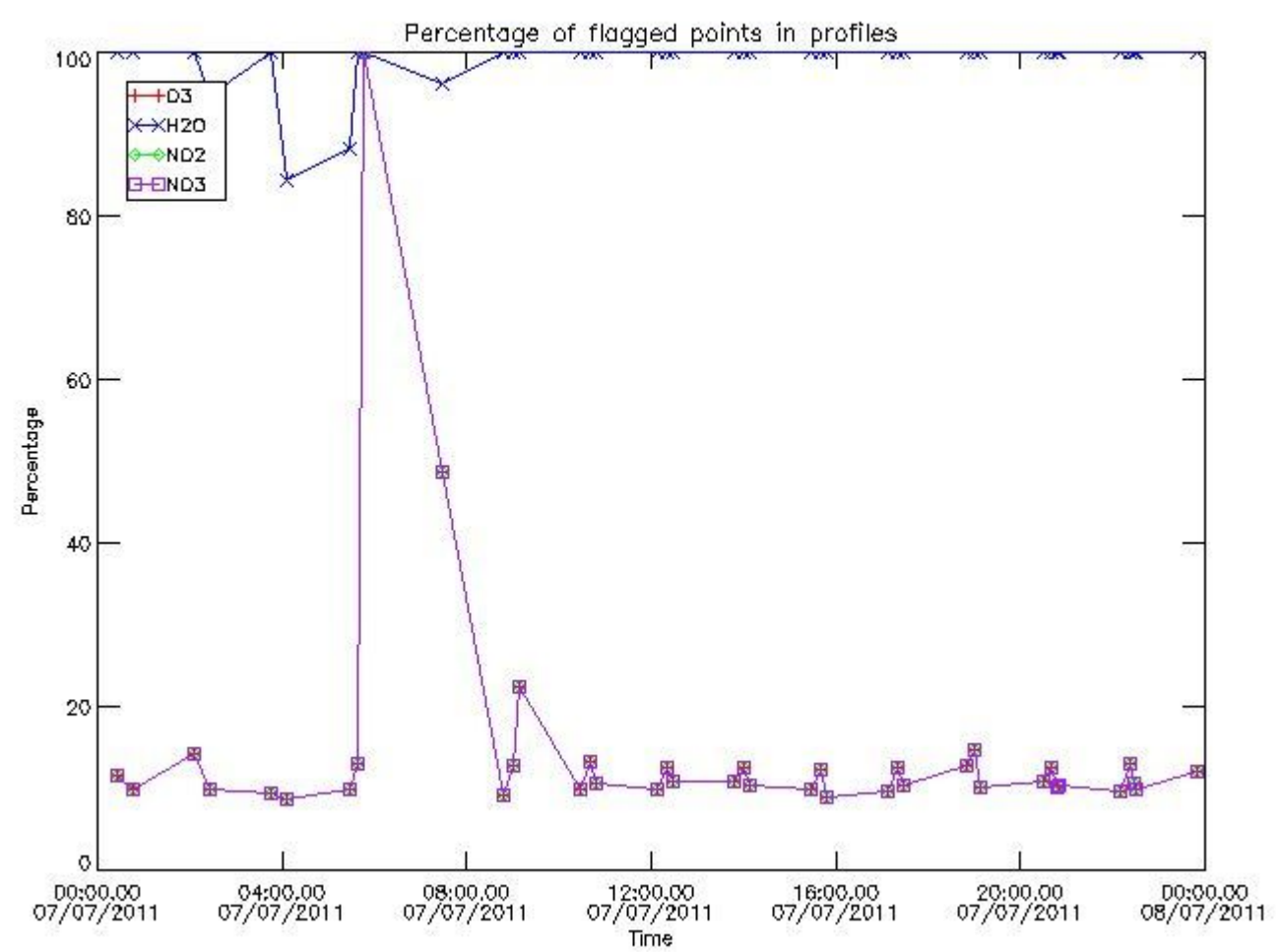


220	GOM_NL__2PRFIN20110707_214844_000000473104_00187_48908_3324.N1	07-JUL-2011 21:48:44	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	48908	No
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222	GOM_NL__2PRFIN20110707_215503_000000413104_00187_48908_3326.N1	07-JUL-2011 21:55:03	Bright	40.500	175	39Del Per	3.0100	19400.	81	48908	No
223	GOM_NL__2PRFIN20110707_215711_000000483104_00187_48908_3327.N1	07-JUL-2011 21:57:11	Bright	47.500	79	26Bet Per	2.3100	13100.	95	48908	No
224	GOM_NL__2PRFIN20110707_215949_000000443104_00187_48908_3328.N1	07-JUL-2011 21:59:49	Bright	43.500	150	44Zet Per	2.8900	28000.	87	48908	No
225	GOM_NL__2PRFIN20110707_220214_000000423104_00187_48908_3329.N1	07-JUL-2011 22:02:14	Twilight	42.000	146	25Eta Tau	2.8730	15200.	84	48908	No
226	GOM_NL__2PRFIN20110707_220923_000000533104_00187_48908_3330.N1	07-JUL-2011 22:09:23	Dark	53.000	94	92Alp Cet	2.5260	3100.0	106	48908	No
227	GOM_NL__2PRFIN20110707_222129_000000403104_00187_48908_3331.N1	07-JUL-2011 22:21:29	Dark	39.500	157	The1Eri	2.9060	9300.0	79	48908	No
228	GOM_NL__2PRFIN20110707_222739_000000483104_00188_48909_3326.N1	07-JUL-2011 22:27:39	Dark	48.000	9	Alp Eri	0.45300	24000.	96	48909	No
229	GOM_NL__2PRFIN20110707_222939_000000523104_00188_48909_3327.N1	07-JUL-2011 22:29:39	Dark	52.000	84	Alp Phe	2.3970	4500.0	104	48909	No
230	GOM_NL__2PRFIN20110707_223552_000000533104_00188_48909_3328.N1	07-JUL-2011 22:35:52	Straylight	53.000	63	Bet Gru	2.1500	2800.0	106	48909	No
231	GOM_NL__2PRFIN20110707_223739_000000483104_00188_48909_3329.N1	07-JUL-2011 22:37:39	Straylight	47.500	31	Alp Gru	1.7340	15200.	95	48909	No
232	GOM_NL__2PRFIN20110707_223918_000000413104_00188_48909_3330.N1	07-JUL-2011 22:39:18	Straylight	41.000	45	Alp Pav	1.9400	26000.	82	48909	No
233	GOM_NL__2PRFIN20110707_224825_000000423104_00188_48909_3331.N1	07-JUL-2011 22:48:25	Twilight	42.000	103	38Zet Sgr	2.6000	9700.0	84	48909	No
234	GOM_NL__2PRFIN20110707_225100_000000423104_00188_48909_3332.N1	07-JUL-2011 22:51:00	Bright	41.500	155	41Pi Sgr	2.9000	6600.0	83	48909	No
235	GOM_NL__2PRFIN20110707_230220_000000433104_00188_48909_3333.N1	07-JUL-2011 23:02:20	Bright	42.500	168	17Zet Aql	2.9860	11000.	85	48909	No
236	GOM_NL__2PRFIN20110707_230922_000000383104_00188_48909_3334.N1	07-JUL-2011 23:09:22	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	48909	No
237	GOM_NL__2PRFIN20110707_231227_000000393104_00188_48909_3335.N1	07-JUL-2011 23:12:27	Bright	39.000	69	33Gam Dra	2.2310	3800.0	78	48909	No
238	GOM_NL__2PRFIN20110707_232022_000000423104_00188_48909_3336.N1	07-JUL-2011 23:20:22	Bright	41.500	89	5Alp Cep	2.4510	8000.0	83	48909	No
239	GOM_NL__2PRFIN20110707_232857_000000603104_00188_48909_3337.N1	07-JUL-2011 23:28:57	Bright	60.000	76	27Gam Cas	2.3000	30000.	120	48909	No
240	GOM_NL__2PRFIN20110707_233323_000000583104_00188_48909_3338.N1	07-JUL-2011 23:33:23	Bright	58.000	160	23Gam Per	2.9300	4700.0	116	48909	No
241	GOM_NL__2PRFIN20110707_233517_000000333104_00188_48909_3339.N1	07-JUL-2011 23:35:17	Bright	33.000	175	39Del Per	3.0100	19400.	66	48909	No
242	GOM_NL__2PRFIN20110707_233725_000000603104_00188_48909_3340.N1	07-JUL-2011 23:37:25	Bright	60.000	79	26Bet Per	2.3100	13100.	120	48909	No
243	GOM_NL__2PRFIN20110707_234003_000000433104_00188_48909_3341.N1	07-JUL-2011 23:40:03	Bright	42.500	150	44Zet Per	2.8900	28000.	85	48909	No
244	GOM_NL__2PRFIN20110707_234228_000000433104_00188_48909_3342.N1	07-JUL-2011 23:42:28	Twilight	43.000	146	25Eta Tau	2.8730	15200.	86	48909	No
245	GOM_NL__2PRFIN20110707_234937_000000463104_00188_48909_3343.N1	07-JUL-2011 23:49:37	Dark	46.000	94	92Alp Cet	2.5260	3100.0	92	48909	No

### 3. Quality information per product

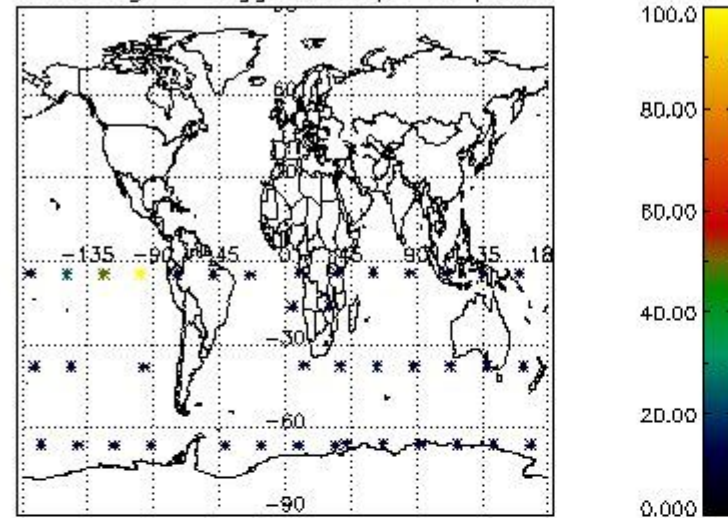
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

#### 3.1 Plot quality information per product (time dependant)

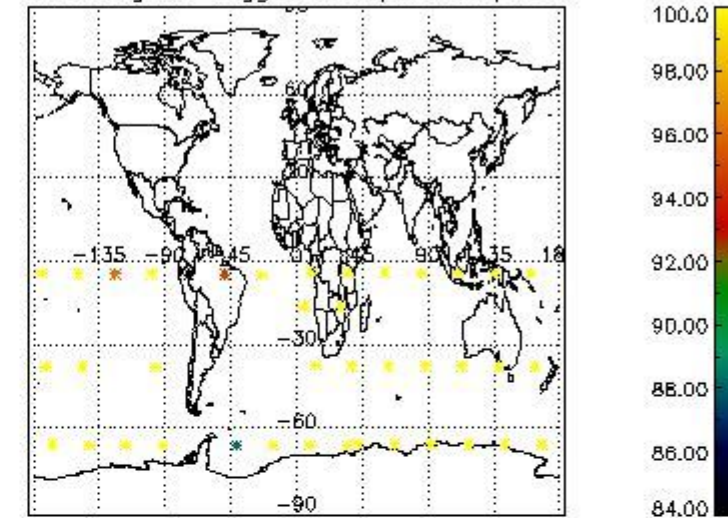


3.2 Plot quality information per product (world map)

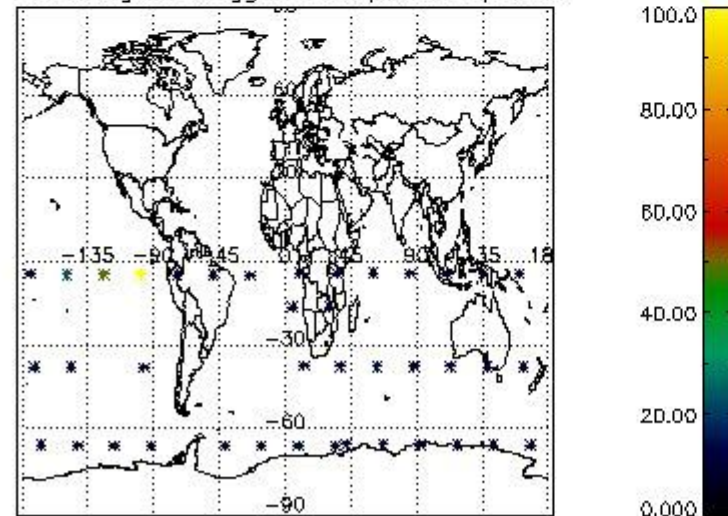
Percentage of flagged data per O3 profile



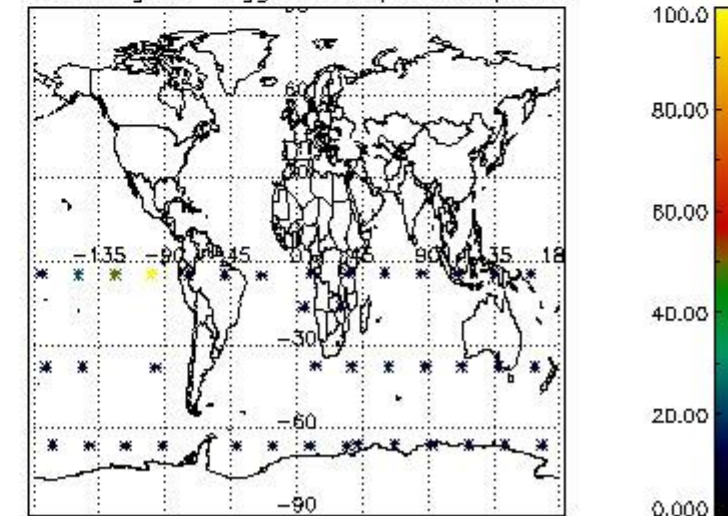
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



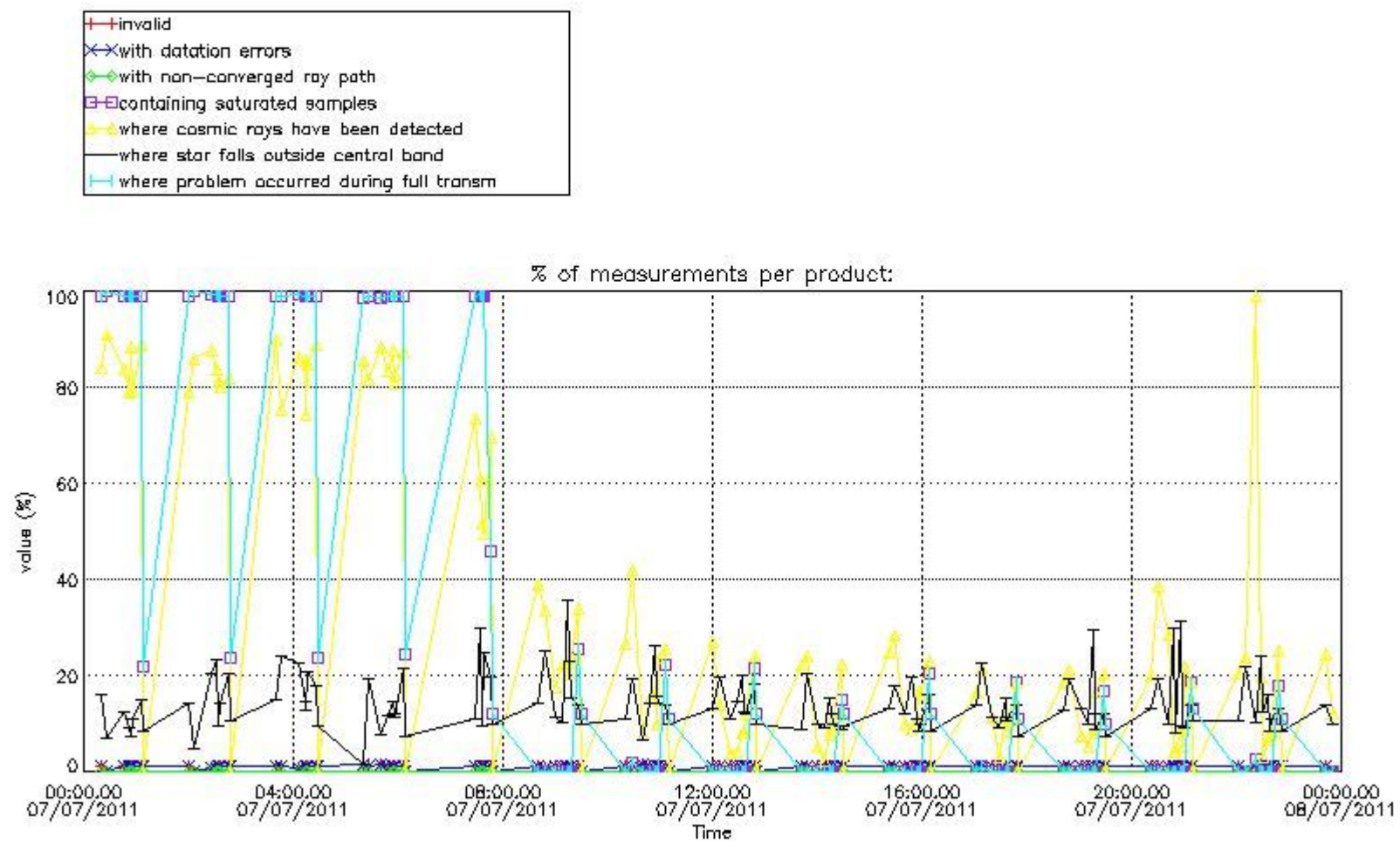
#### 4. Level 1 quality information per product

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.

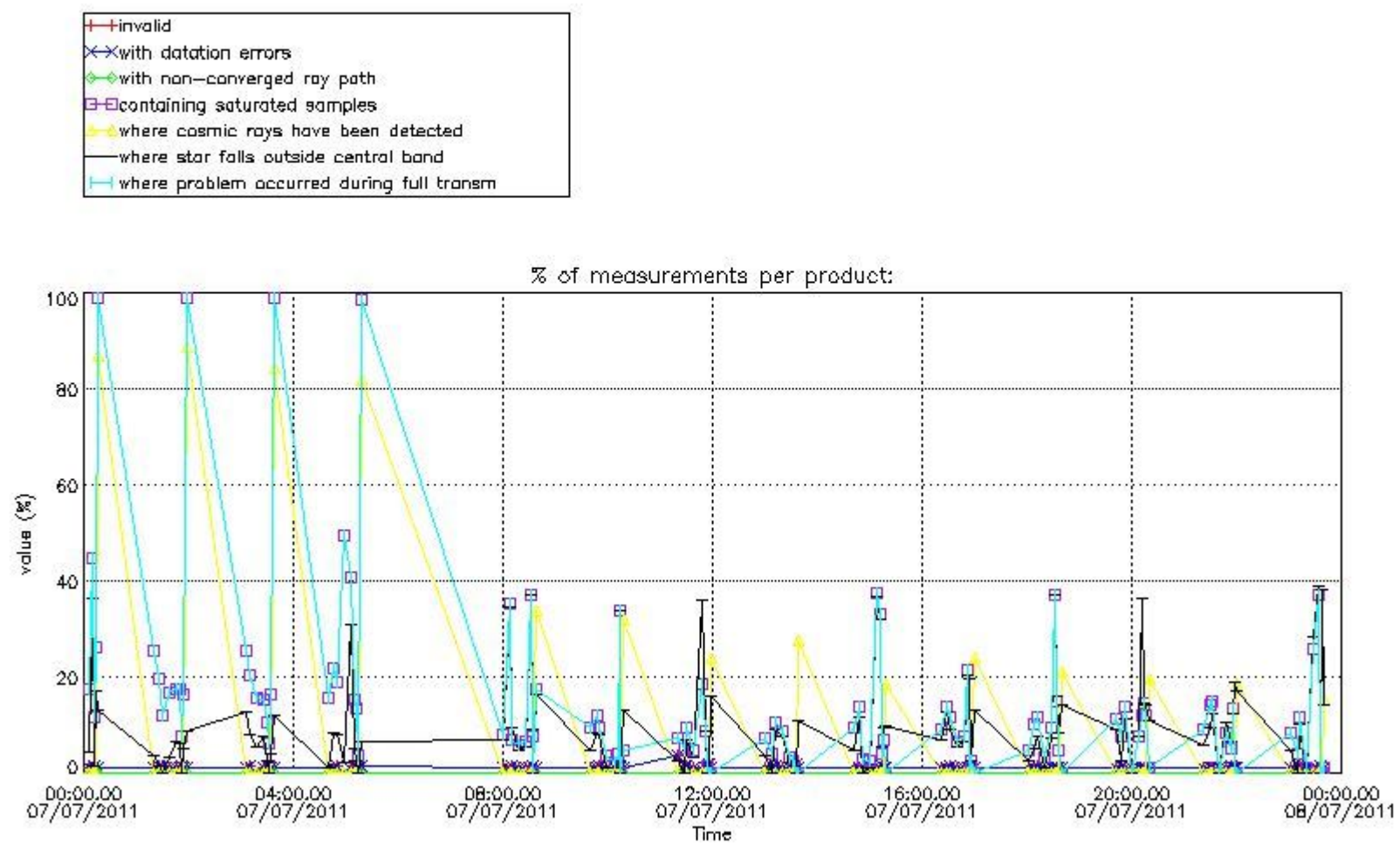
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



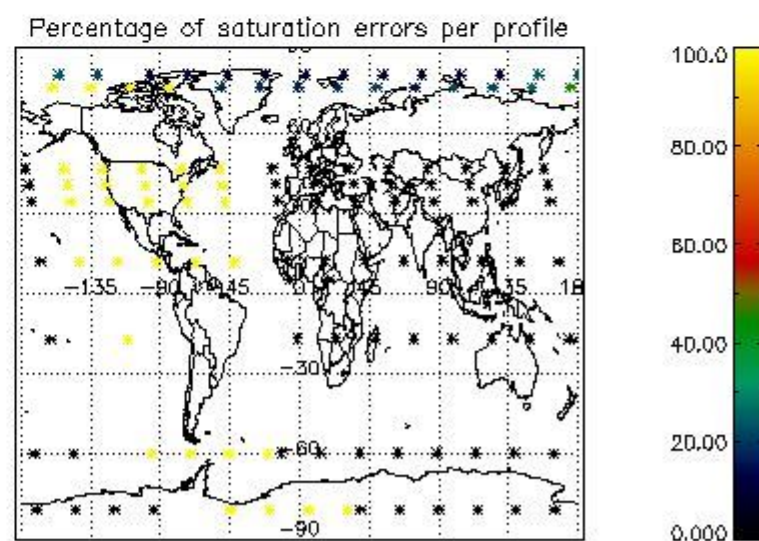
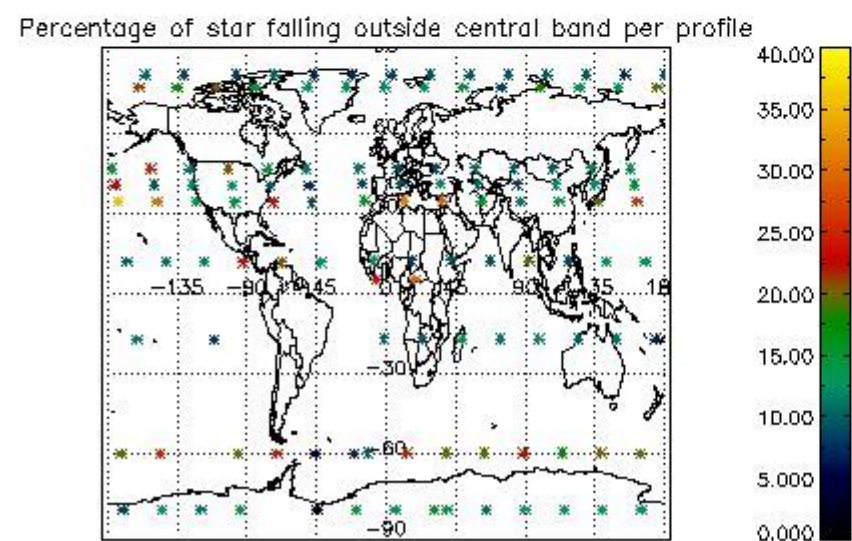
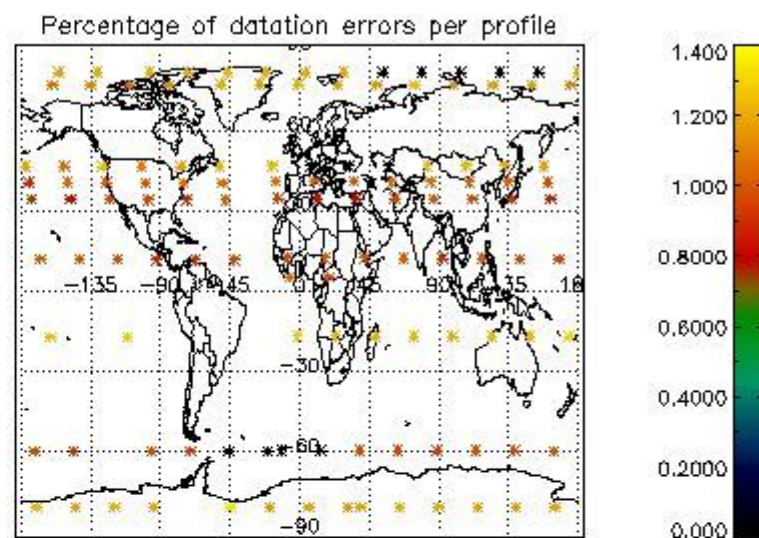
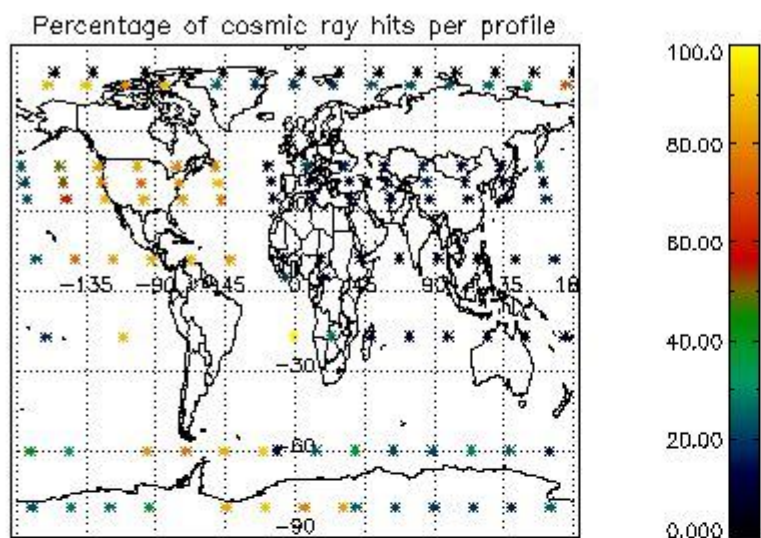


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

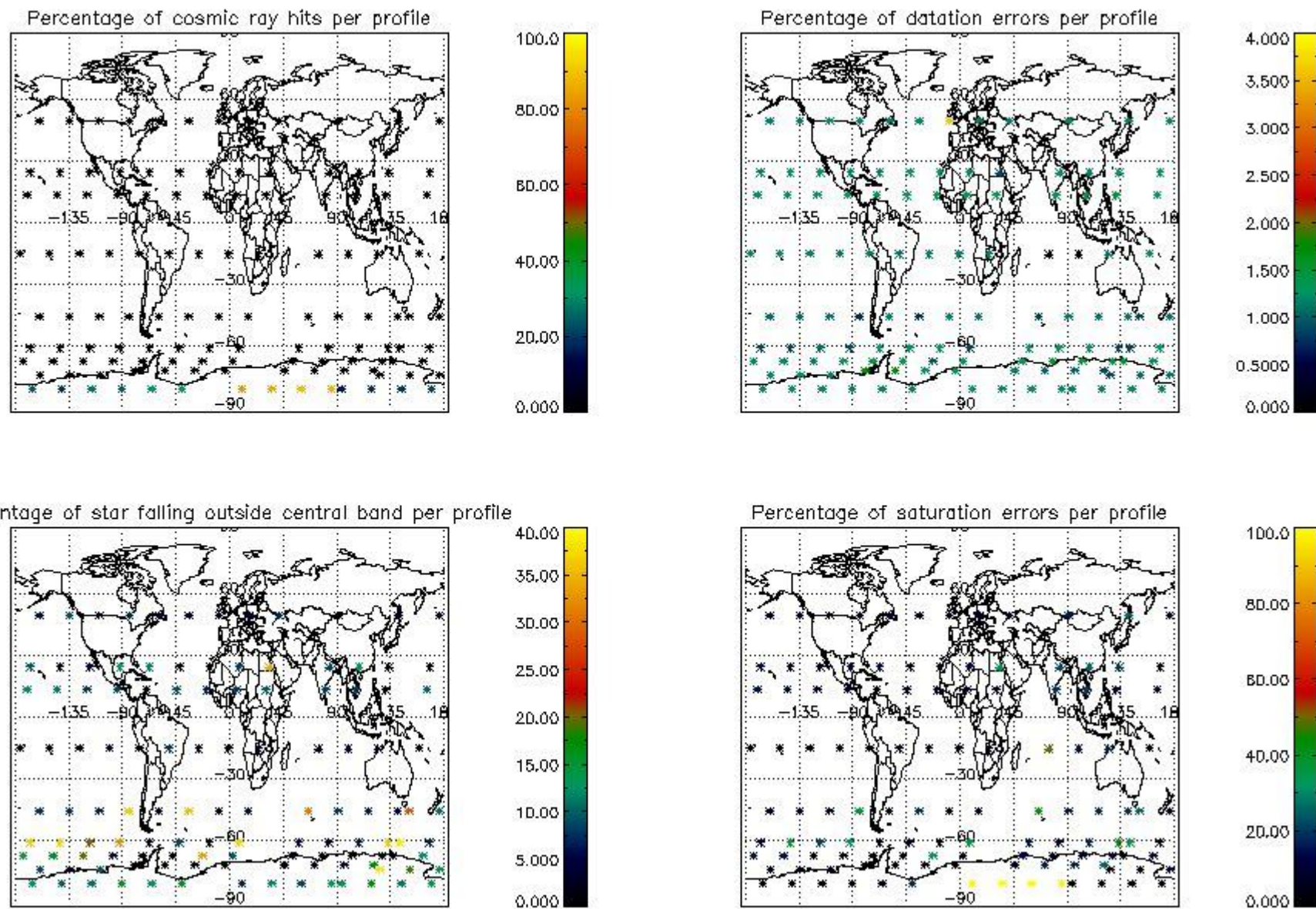


#### 4.2 Plot quality information per product coming from level 1b processing (world map)

##### 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

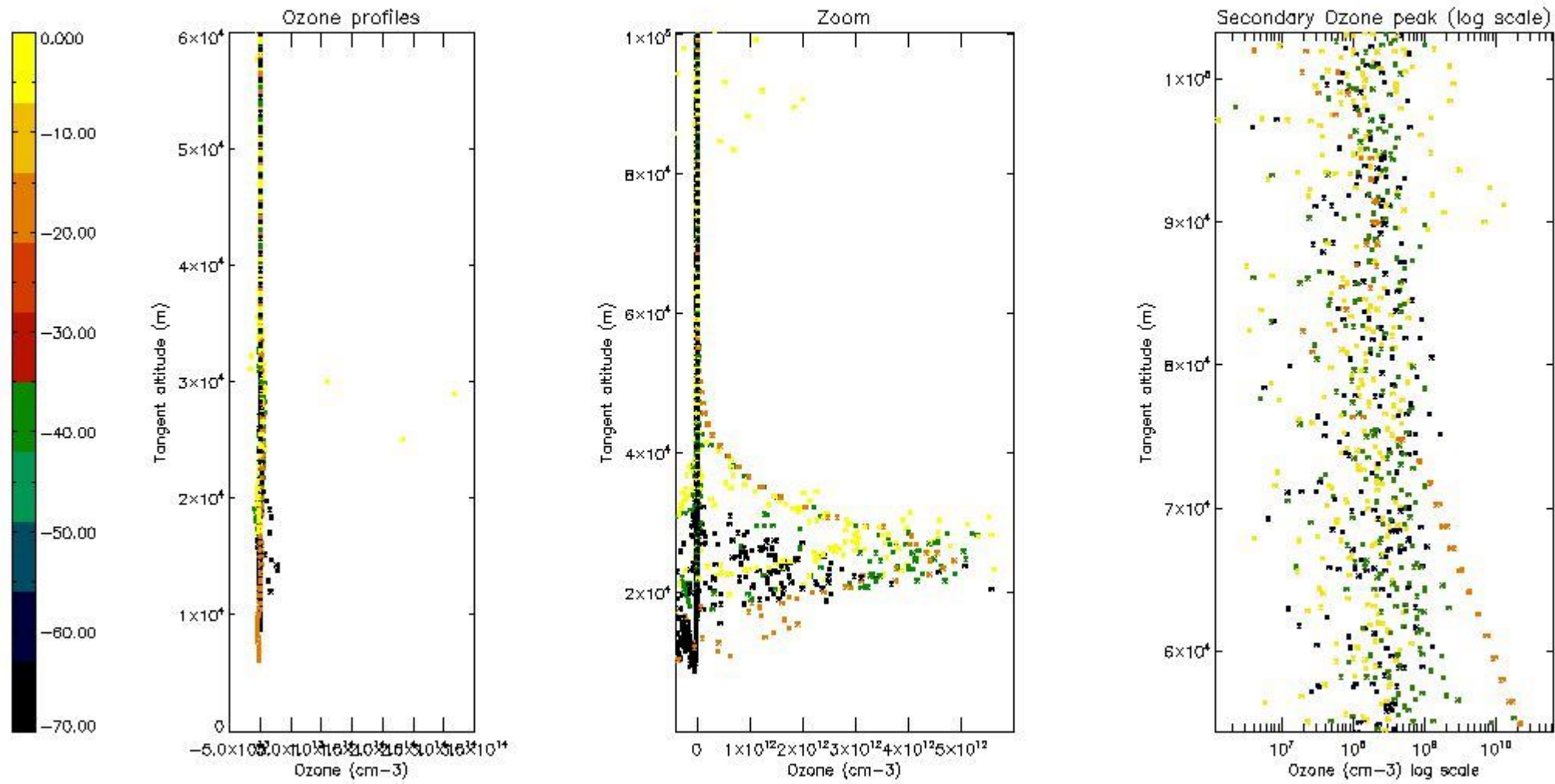
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	4

STD < 10	2
STD < 5	1

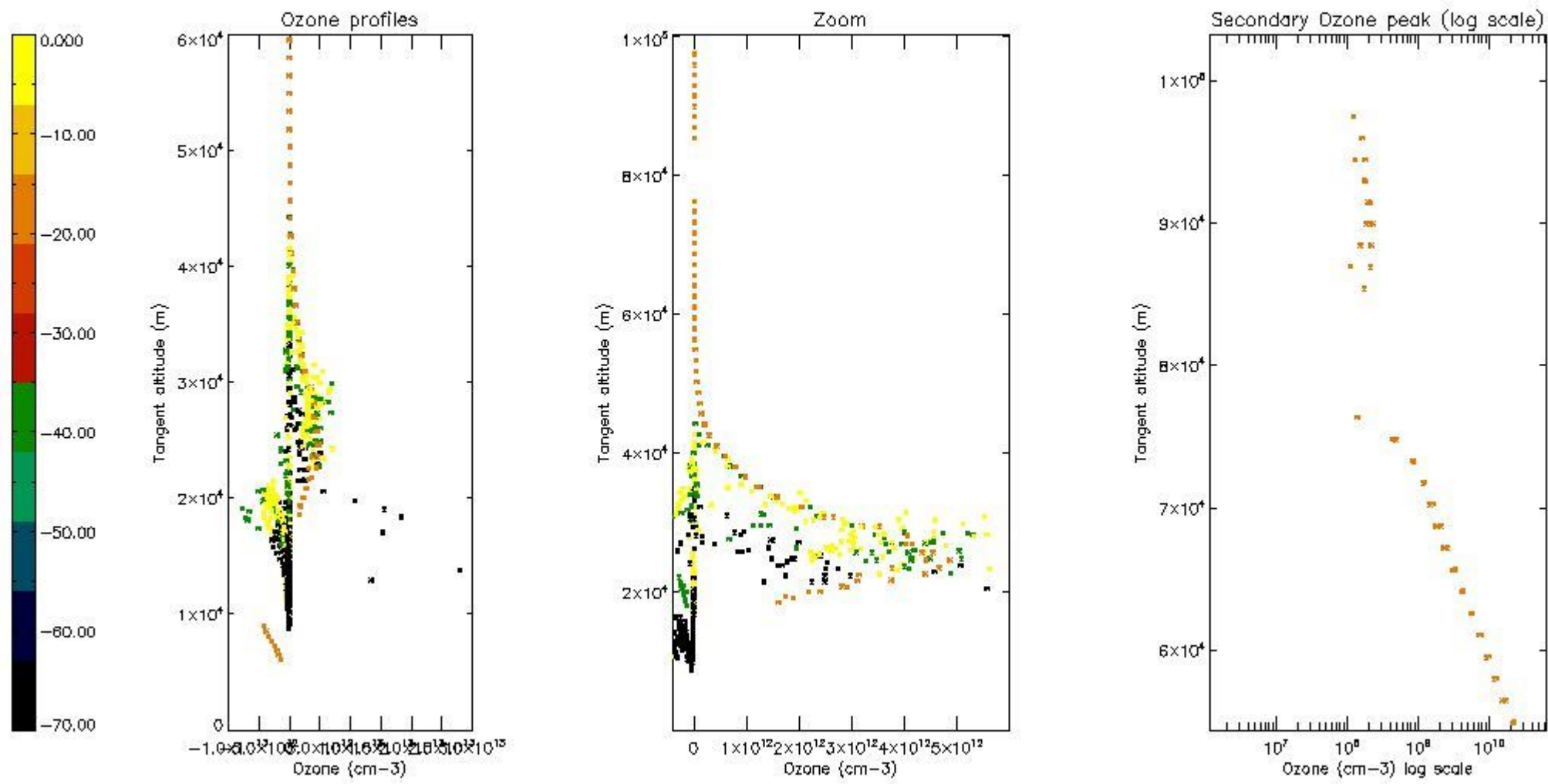
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



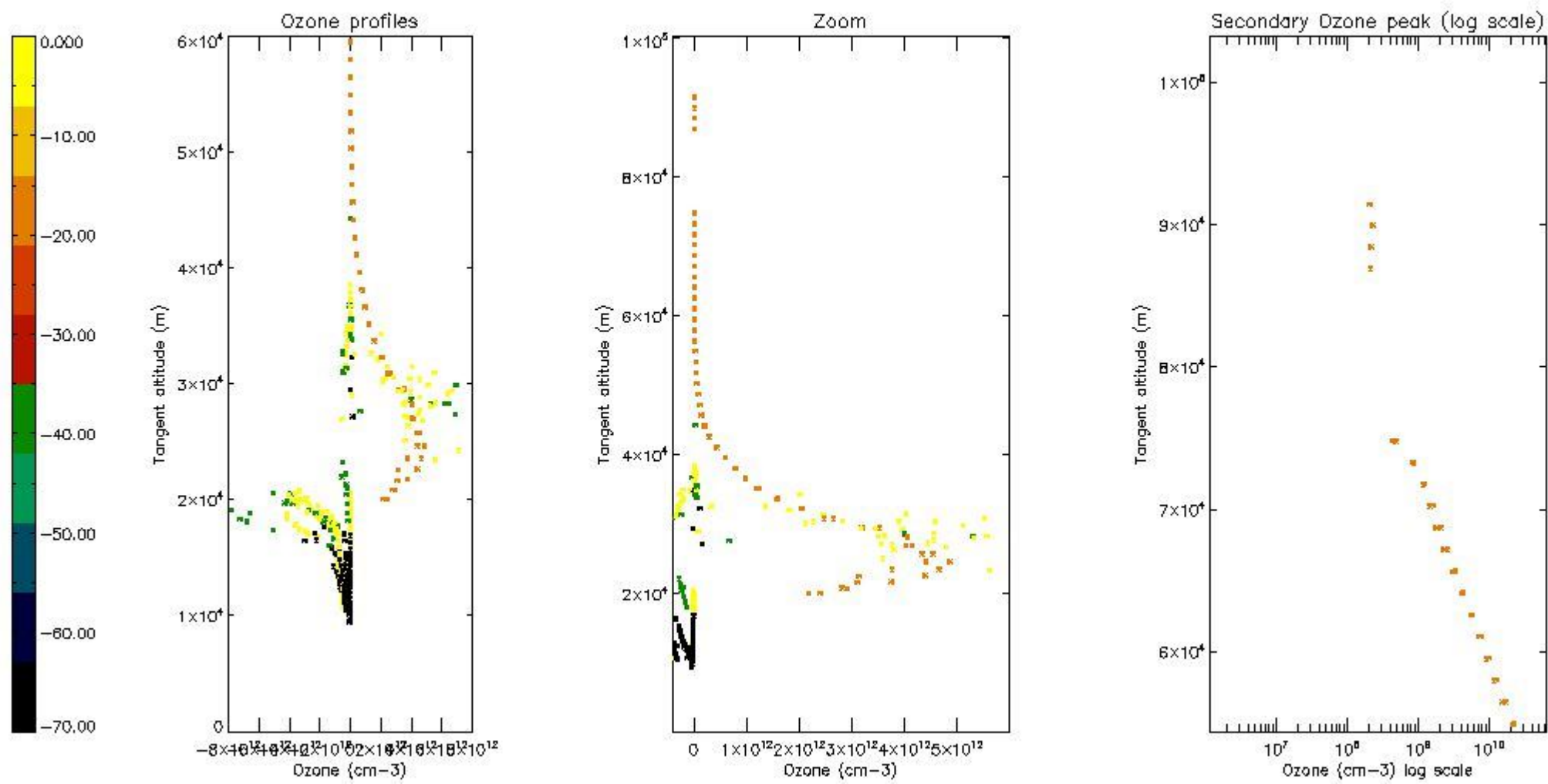
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



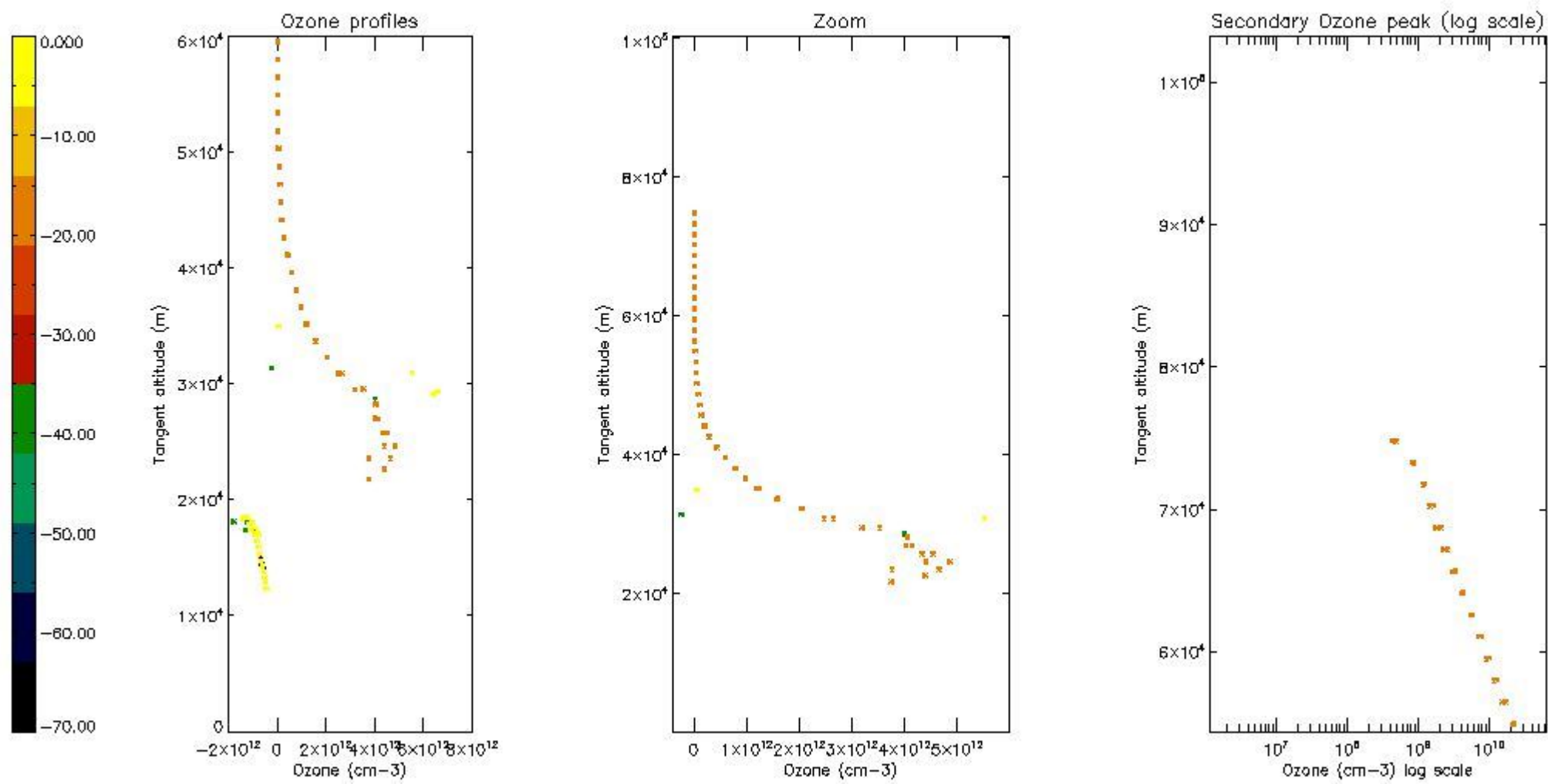
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

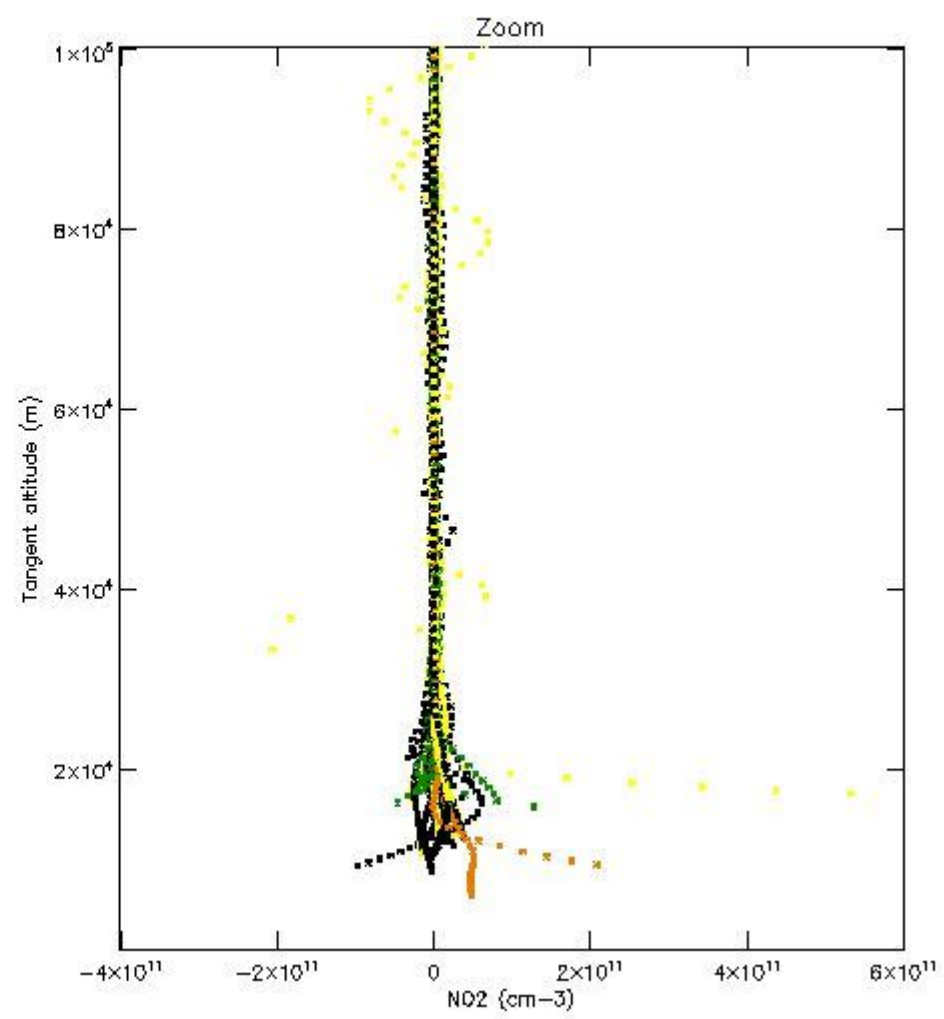
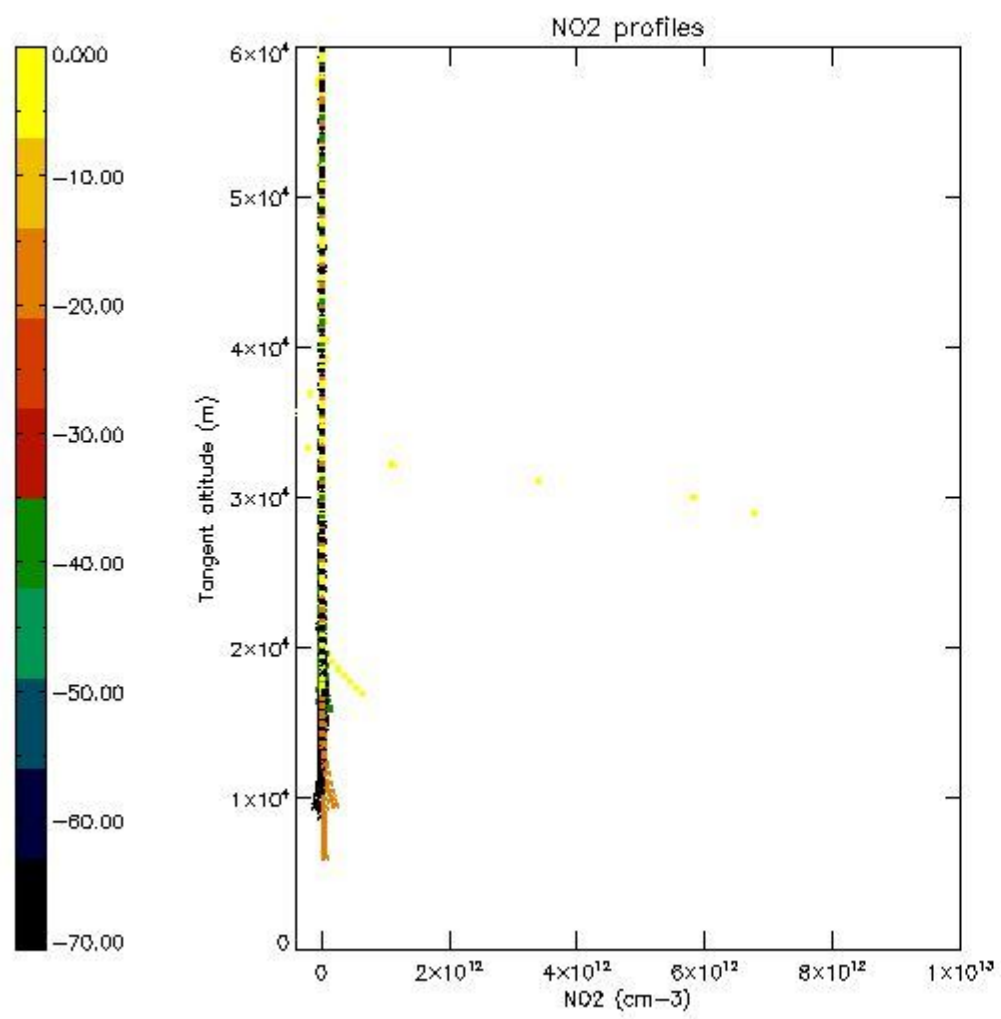
The colorbar represents the latitude.



*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

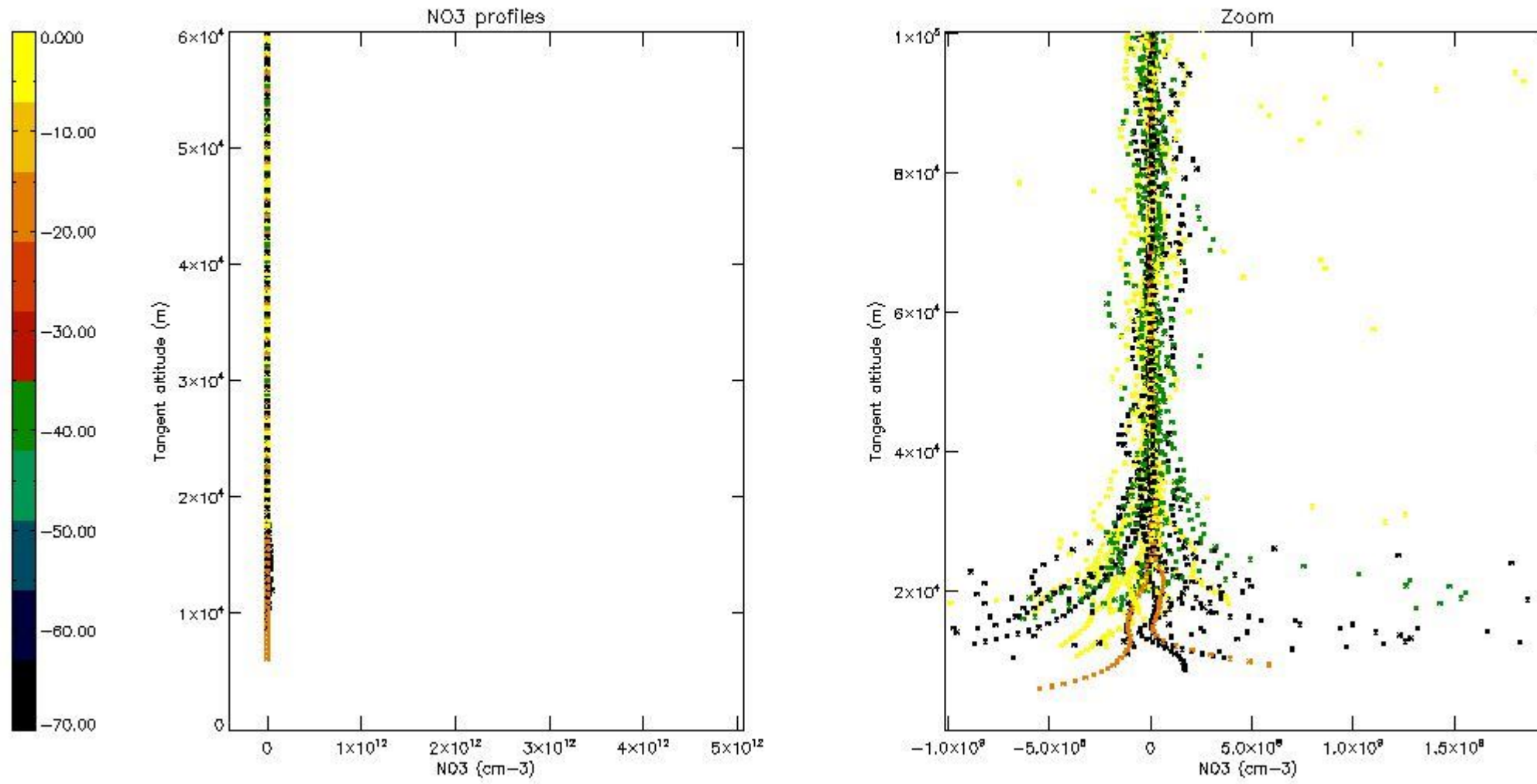
The colorbar represents the latitude.





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

The colorbar represents the latitude.



## 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-JUL-2011 00:05:48
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	07-JUL-2011 00:05:48
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	07-JUL-2011 00:05:48

# GOMOS Level 2 Daily Report

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

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	24APR2013 15:31:57
Data source version	GOMOS/6.01
Start time of products	07-07-2011 (07JUL2011 00:00:00)
Stop time of products	08-07-2011 (08JUL2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	245
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__2PRFIN20110707_000548_000000463104_00174_48895_2985.N1	07-JUL-2011 00:05:48	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	48895	No
2	GOM_NL__2PRFIN20110707_001008_000000583104_00174_48895_2986.N1	07-JUL-2011 00:10:08	Bright	58.000	160	23Gam Per	2.9300	4700.0	116	48895	No
3	GOM_NL__2PRFIN20110707_001201_000000353104_00174_48895_2987.N1	07-JUL-2011 00:12:01	Bright	34.500	175	39Del Per	3.0100	19400.	69	48895	No
4	GOM_NL__2PRFIN20110707_001329_000000563104_00174_48895_2988.N1	07-JUL-2011 00:13:29	Bright	55.500	73	57Gam1And	2.2600	13100.	111	48895	No
5	GOM_NL__2PRFIN20110707_001646_000000423104_00174_48895_2989.N1	07-JUL-2011 00:16:46	Bright	41.500	150	44Zet Per	2.8900	28000.	83	48895	No
6	GOM_NL__2PRFIN20110707_001909_000000443104_00174_48895_2990.N1	07-JUL-2011 00:19:09	Twilight	43.500	146	25Eta Tau	2.8730	15200.	87	48895	No
7	GOM_NL__2PRFIN20110707_002614_000000443104_00174_48895_2991.N1	07-JUL-2011 00:26:14	Dark	44.000	94	92Alp Cet	2.5260	3100.0	88	48895	No
8	GOM_NL__2PRFIN20110707_004622_000000523104_00175_48896_2986.N1	07-JUL-2011 00:46:22	Dark	52.000	84	Alp Phe	2.3970	4500.0	104	48896	No
9	GOM_NL__2PRFIN20110707_005239_000000503104_00175_48896_2987.N1	07-JUL-2011 00:52:39	Straylight	49.500	63	Bet Gru	2.1500	2800.0	99	48896	No
10	GOM_NL__2PRFIN20110707_005427_000000483104_00175_48896_2988.N1	07-JUL-2011 00:54:27	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	48896	No
11	GOM_NL__2PRFIN20110707_005611_000000413104_00175_48896_2989.N1	07-JUL-2011 00:56:11	Straylight	41.000	45	Alp Pav	1.9400	26000.	82	48896	No
12	GOM_NL__2PRFIN20110707_010520_000000443104_00175_48896_2990.N1	07-JUL-2011 01:05:20	Twilight	44.000	103	38Zet Sgr	2.6000	9700.0	88	48896	No
13	GOM_NL__2PRFIN20110707_010756_000000423104_00175_48896_2991.N1	07-JUL-2011 01:07:56	Bright	41.500	155	41Pi Sgr	2.9000	6600.0	83	48896	No
14	GOM_NL__2PRFIN20110707_011923_000000433104_00175_48896_2992.N1	07-JUL-2011 01:19:23	Bright	43.000	168	17Zet Aql	2.9860	11000.	86	48896	No
15	GOM_NL__2PRFIN20110707_012625_000000393104_00175_48896_2993.N1	07-JUL-2011 01:26:25	Bright	38.500	5	3Alp Lyr	0.033000	11000.	77	48896	No
16	GOM_NL__2PRFIN20110707_012930_000000343104_00175_48896_2994.N1	07-JUL-2011 01:29:30	Bright	33.500	130	23Bet Dra	2.7990	5800.0	67	48896	No
17	GOM_NL__2PRFIN20110707_013728_000000453104_00175_48896_2995.N1	07-JUL-2011 01:37:28	Bright	44.500	89	5Alp Cep	2.4510	8000.0	89	48896	No
18	GOM_NL__2PRFIN20110707_014601_000000463104_00175_48896_2996.N1	07-JUL-2011 01:46:01	Bright	46.000	76	27Gam Cas	2.3000	30000.	92	48896	No
19	GOM_NL__2PRFIN20110707_015022_000000403104_00175_48896_2997.N1	07-JUL-2011 01:50:22	Bright	40.000	160	23Gam Per	2.9300	4700.0	80	48896	No
20	GOM_NL__2PRFIN20110707_015215_000000343104_00175_48896_2998.N1	07-JUL-2011 01:52:15	Bright	33.500	175	39Del Per	3.0100	19400.	67	48896	No
21	GOM_NL__2PRFIN20110707_015342_000000493104_00175_48896_2999.N1	07-JUL-2011 01:53:42	Bright	49.000	73	57Gam1And	2.2600	13100.	98	48896	No
22	GOM_NL__2PRFIN20110707_015700_000000403104_00175_48896_3000.N1	07-JUL-2011 01:57:00	Bright	40.000	150	44Zet Per	2.8900	28000.	80	48896	No
23	GOM_NL__2PRFIN20110707_015923_000000433104_00175_48896_3001.N1	07-JUL-2011 01:59:23	Twilight	42.500	146	25Eta Tau	2.8730	15200.	85	48896	No
24	GOM_NL__2PRFIN20110707_020628_000000433104_00175_48896_3002.N1	07-JUL-2011 02:06:28	Dark	42.500	94	92Alp Cet	2.5260	3100.0	85	48896	No
25	GOM_NL__2PRFIN20110707_022638_000000573104_00176_48897_3003.N1	07-JUL-2011 02:26:38	Dark	56.500	84	Alp Phe	2.3970	4500.0	113	48897	No
26	GOM_NL__2PRFIN20110707_023254_000000583104_00176_48897_3004.N1	07-JUL-2011 02:32:54	Straylight	58.000	63	Bet Gru	2.1500	2800.0	116	48897	No
27	GOM_NL__2PRFIN20110707_023442_000000483104_00176_48897_3005.N1	07-JUL-2011 02:34:42	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	48897	No
28	GOM_NL__2PRFIN20110707_023625_000000433104_00176_48897_3006.N1	07-JUL-2011 02:36:25	Straylight	42.500	45	Alp Pav	1.9400	26000.	85	48897	No
29	GOM_NL__2PRFIN20110707_024534_000000473104_00176_48897_3007.N1	07-JUL-2011 02:45:34	Twilight	46.500	103	38Zet Sgr	2.6000	9700.0	93	48897	No
30	GOM_NL__2PRFIN20110707_024810_000000433104_00176_48897_3008.N1	07-JUL-2011 02:48:10	Bright	42.500	155	41Pi Sgr	2.9000	6600.0	85	48897	No
31	GOM_NL__2PRFIN20110707_030638_000000443104_00176_48897_3009.N1	07-JUL-2011 03:06:38	Bright	43.500	5	3Alp Lyr	0.033000	11000.	87	48897	No
32	GOM_NL__2PRFIN20110707_030944_000000373104_00176_48897_3010.N1	07-JUL-2011 03:09:44	Bright	37.000	130	23Bet Dra	2.7990	5800.0	74	48897	No
33	GOM_NL__2PRFIN20110707_031742_000000453104_00176_48897_3011.N1	07-JUL-2011 03:17:42	Bright	45.000	89	5Alp Cep	2.4510	8000.0	90	48897	No
34	GOM_NL__2PRFIN20110707_032615_000000463104_00176_48897_3012.N1	07-JUL-2011 03:26:15	Bright	45.500	76	27Gam Cas	2.3000	30000.	91	48897	No
35	GOM_NL__2PRFIN20110707_033036_000000383104_00176_48897_3013.N1	07-JUL-2011 03:30:36	Bright	37.500	160	23Gam Per	2.9300	4700.0	75	48897	No
36	GOM_NL__2PRFIN20110707_033229_000000333104_00176_48897_3014.N1	07-JUL-2011 03:32:29	Bright	33.000	175	39Del Per	3.0100	19400.	66	48897	No
37	GOM_NL__2PRFIN20110707_033356_000000493104_00176_48897_3015.N1	07-JUL-2011 03:33:56	Bright	49.000	73	57Gam1And	2.2600	13100.	98	48897	No
38	GOM_NL__2PRFIN20110707_033714_000000423104_00176_48897_3016.N1	07-JUL-2011 03:37:14	Bright	42.000	150	44Zet Per	2.8900	28000.	84	48897	No
39	GOM_NL__2PRFIN20110707_033938_000000443104_00176_48897_3017.N1	07-JUL-2011 03:39:38	Twilight	43.500	146	25Eta Tau	2.8730	15200.	87	48897	No
40	GOM_NL__2PRFIN20110707_034643_000000553104_00176_48897_3018.N1	07-JUL-2011 03:46:43	Dark	54.500	94	92Alp Cet	2.5260	3100.0	109	48897	No
41	GOM_NL__2PRFIN20110707_040653_000000583104_00177_48898_3014.N1	07-JUL-2011 04:06:53	Dark	58.000	84	Alp Phe	2.3970	4500.0	116	48898	No
42	GOM_NL__2PRFIN20110707_041309_000000523104_00177_48898_3015.N1	07-JUL-2011 04:13:09	Straylight	52.000	63	Bet Gru	2.1500	2800.0	104	48898	No







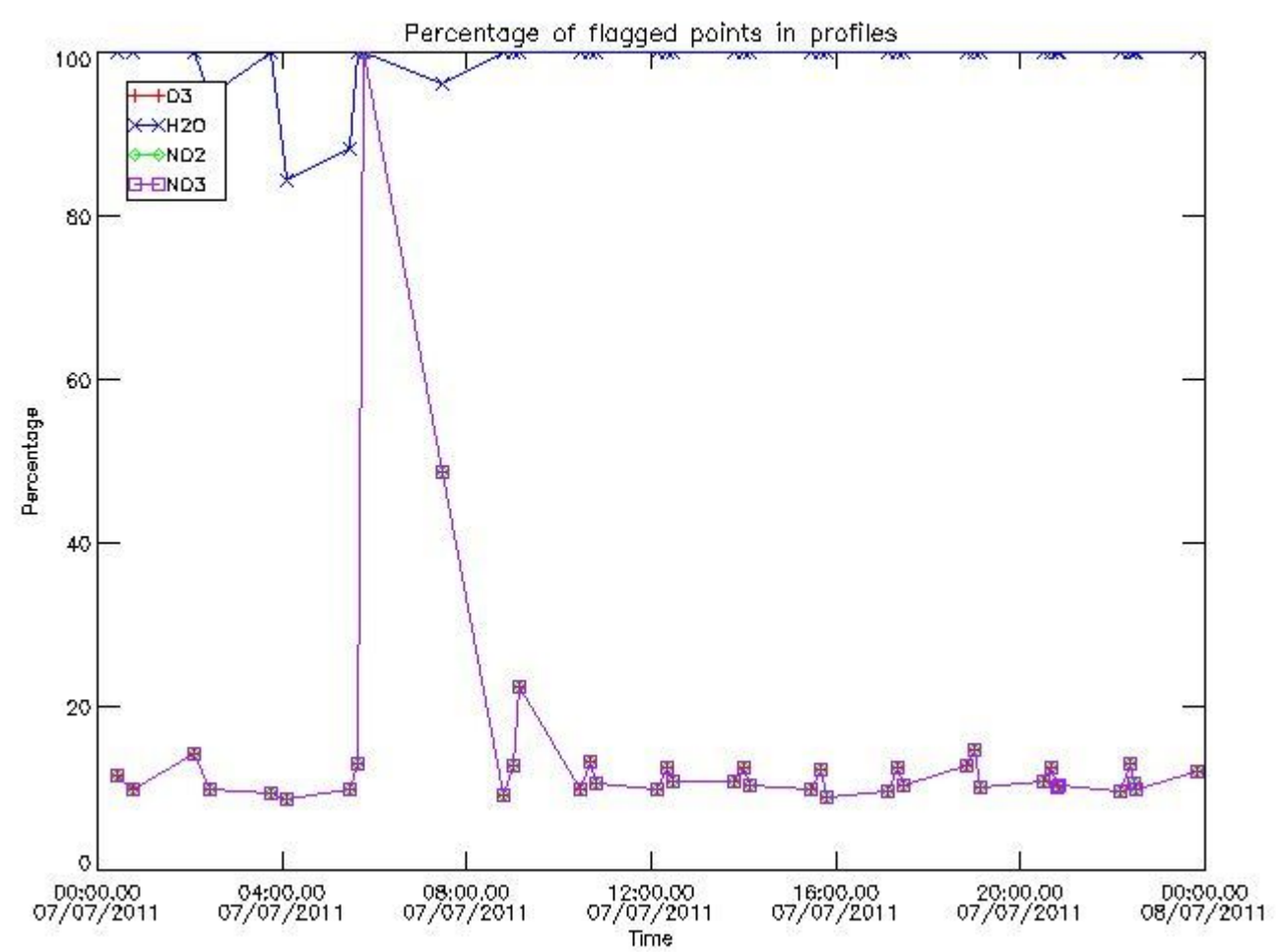
220	GOM_NL__2PRFIN20110707_214844_000000473104_00187_48908_3324.N1	07-JUL-2011 21:48:44	Bright	47.000	76	27Gam Cas	2.3000	30000.	94	48908	No
221	GOM_NL__2PRFIN20110707_215309_000000393104_00187_48908_3325.N1	07-JUL-2011 21:53:09	Bright	38.500	160	23Gam Per	2.9300	4700.0	77	48908	No
222	GOM_NL__2PRFIN20110707_215503_000000413104_00187_48908_3326.N1	07-JUL-2011 21:55:03	Bright	40.500	175	39Del Per	3.0100	19400.	81	48908	No
223	GOM_NL__2PRFIN20110707_215711_000000483104_00187_48908_3327.N1	07-JUL-2011 21:57:11	Bright	47.500	79	26Bet Per	2.3100	13100.	95	48908	No
224	GOM_NL__2PRFIN20110707_215949_000000443104_00187_48908_3328.N1	07-JUL-2011 21:59:49	Bright	43.500	150	44Zet Per	2.8900	28000.	87	48908	No
225	GOM_NL__2PRFIN20110707_220214_000000423104_00187_48908_3329.N1	07-JUL-2011 22:02:14	Twilight	42.000	146	25Eta Tau	2.8730	15200.	84	48908	No
226	GOM_NL__2PRFIN20110707_220923_000000533104_00187_48908_3330.N1	07-JUL-2011 22:09:23	Dark	53.000	94	92Alp Cet	2.5260	3100.0	106	48908	No
227	GOM_NL__2PRFIN20110707_222129_000000403104_00187_48908_3331.N1	07-JUL-2011 22:21:29	Dark	39.500	157	The1Eri	2.9060	9300.0	79	48908	No
228	GOM_NL__2PRFIN20110707_222739_000000483104_00188_48909_3326.N1	07-JUL-2011 22:27:39	Dark	48.000	9	Alp Eri	0.45300	24000.	96	48909	No
229	GOM_NL__2PRFIN20110707_222939_000000523104_00188_48909_3327.N1	07-JUL-2011 22:29:39	Dark	52.000	84	Alp Phe	2.3970	4500.0	104	48909	No
230	GOM_NL__2PRFIN20110707_223552_000000533104_00188_48909_3328.N1	07-JUL-2011 22:35:52	Straylight	53.000	63	Bet Gru	2.1500	2800.0	106	48909	No
231	GOM_NL__2PRFIN20110707_223739_000000483104_00188_48909_3329.N1	07-JUL-2011 22:37:39	Straylight	47.500	31	Alp Gru	1.7340	15200.	95	48909	No
232	GOM_NL__2PRFIN20110707_223918_000000413104_00188_48909_3330.N1	07-JUL-2011 22:39:18	Straylight	41.000	45	Alp Pav	1.9400	26000.	82	48909	No
233	GOM_NL__2PRFIN20110707_224825_000000423104_00188_48909_3331.N1	07-JUL-2011 22:48:25	Twilight	42.000	103	38Zet Sgr	2.6000	9700.0	84	48909	No
234	GOM_NL__2PRFIN20110707_225100_000000423104_00188_48909_3332.N1	07-JUL-2011 22:51:00	Bright	41.500	155	41Pi Sgr	2.9000	6600.0	83	48909	No
235	GOM_NL__2PRFIN20110707_230220_000000433104_00188_48909_3333.N1	07-JUL-2011 23:02:20	Bright	42.500	168	17Zet Aql	2.9860	11000.	85	48909	No
236	GOM_NL__2PRFIN20110707_230922_000000383104_00188_48909_3334.N1	07-JUL-2011 23:09:22	Bright	37.500	5	3Alp Lyr	0.033000	11000.	75	48909	No
237	GOM_NL__2PRFIN20110707_231227_000000393104_00188_48909_3335.N1	07-JUL-2011 23:12:27	Bright	39.000	69	33Gam Dra	2.2310	3800.0	78	48909	No
238	GOM_NL__2PRFIN20110707_232022_000000423104_00188_48909_3336.N1	07-JUL-2011 23:20:22	Bright	41.500	89	5Alp Cep	2.4510	8000.0	83	48909	No
239	GOM_NL__2PRFIN20110707_232857_000000603104_00188_48909_3337.N1	07-JUL-2011 23:28:57	Bright	60.000	76	27Gam Cas	2.3000	30000.	120	48909	No
240	GOM_NL__2PRFIN20110707_233323_000000583104_00188_48909_3338.N1	07-JUL-2011 23:33:23	Bright	58.000	160	23Gam Per	2.9300	4700.0	116	48909	No
241	GOM_NL__2PRFIN20110707_233517_000000333104_00188_48909_3339.N1	07-JUL-2011 23:35:17	Bright	33.000	175	39Del Per	3.0100	19400.	66	48909	No
242	GOM_NL__2PRFIN20110707_233725_000000603104_00188_48909_3340.N1	07-JUL-2011 23:37:25	Bright	60.000	79	26Bet Per	2.3100	13100.	120	48909	No
243	GOM_NL__2PRFIN20110707_234003_000000433104_00188_48909_3341.N1	07-JUL-2011 23:40:03	Bright	42.500	150	44Zet Per	2.8900	28000.	85	48909	No
244	GOM_NL__2PRFIN20110707_234228_000000433104_00188_48909_3342.N1	07-JUL-2011 23:42:28	Twilight	43.000	146	25Eta Tau	2.8730	15200.	86	48909	No
245	GOM_NL__2PRFIN20110707_234937_000000463104_00188_48909_3343.N1	07-JUL-2011 23:49:37	Dark	46.000	94	92Alp Cet	2.5260	3100.0	92	48909	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.

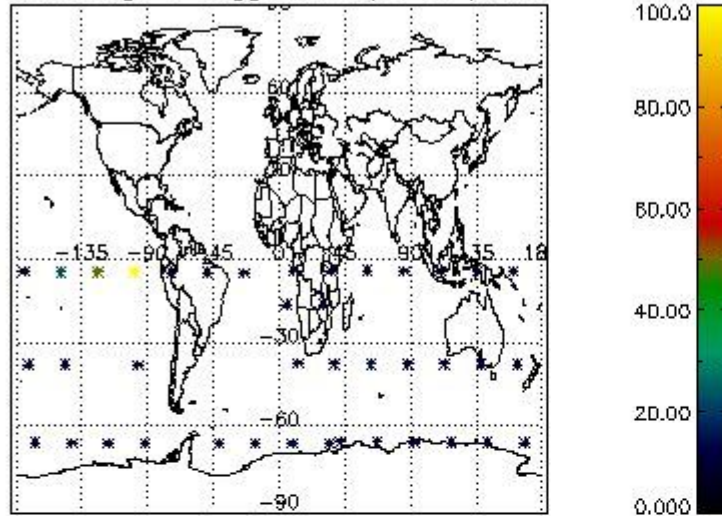
#### 3.1 Plot quality information per product (time dependant)



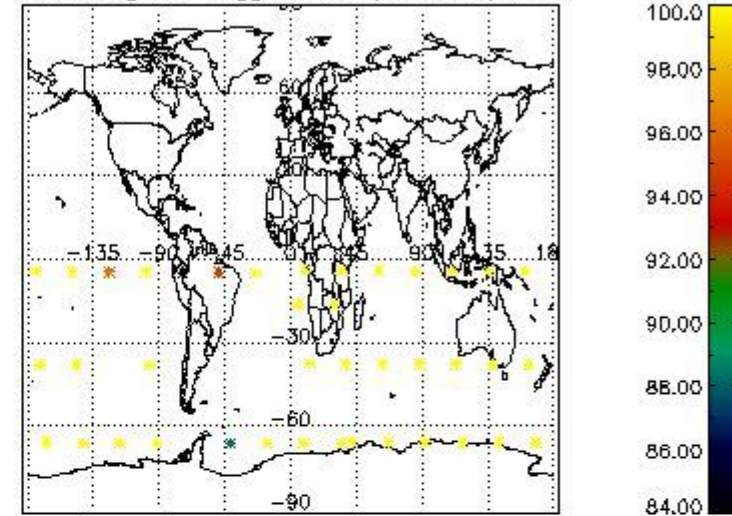


3.2 Plot quality information per product (world map)

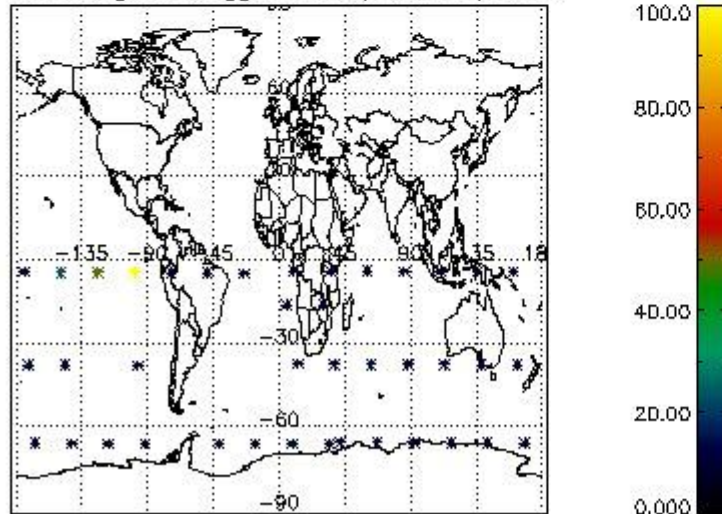
Percentage of flagged data per O3 profile



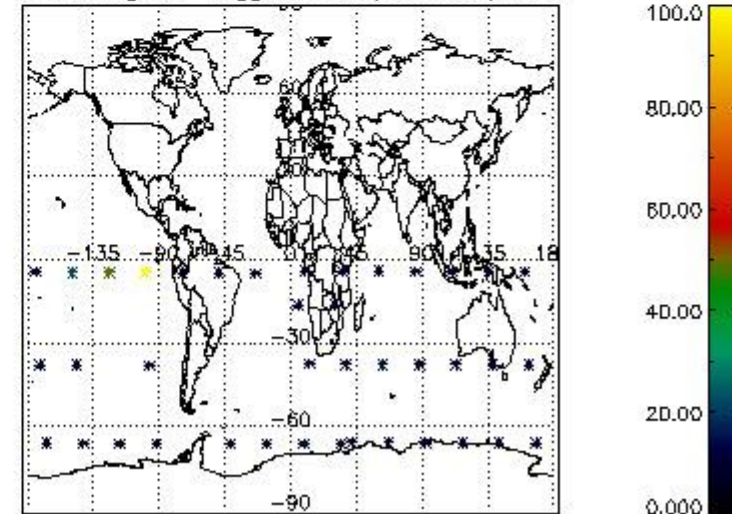
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

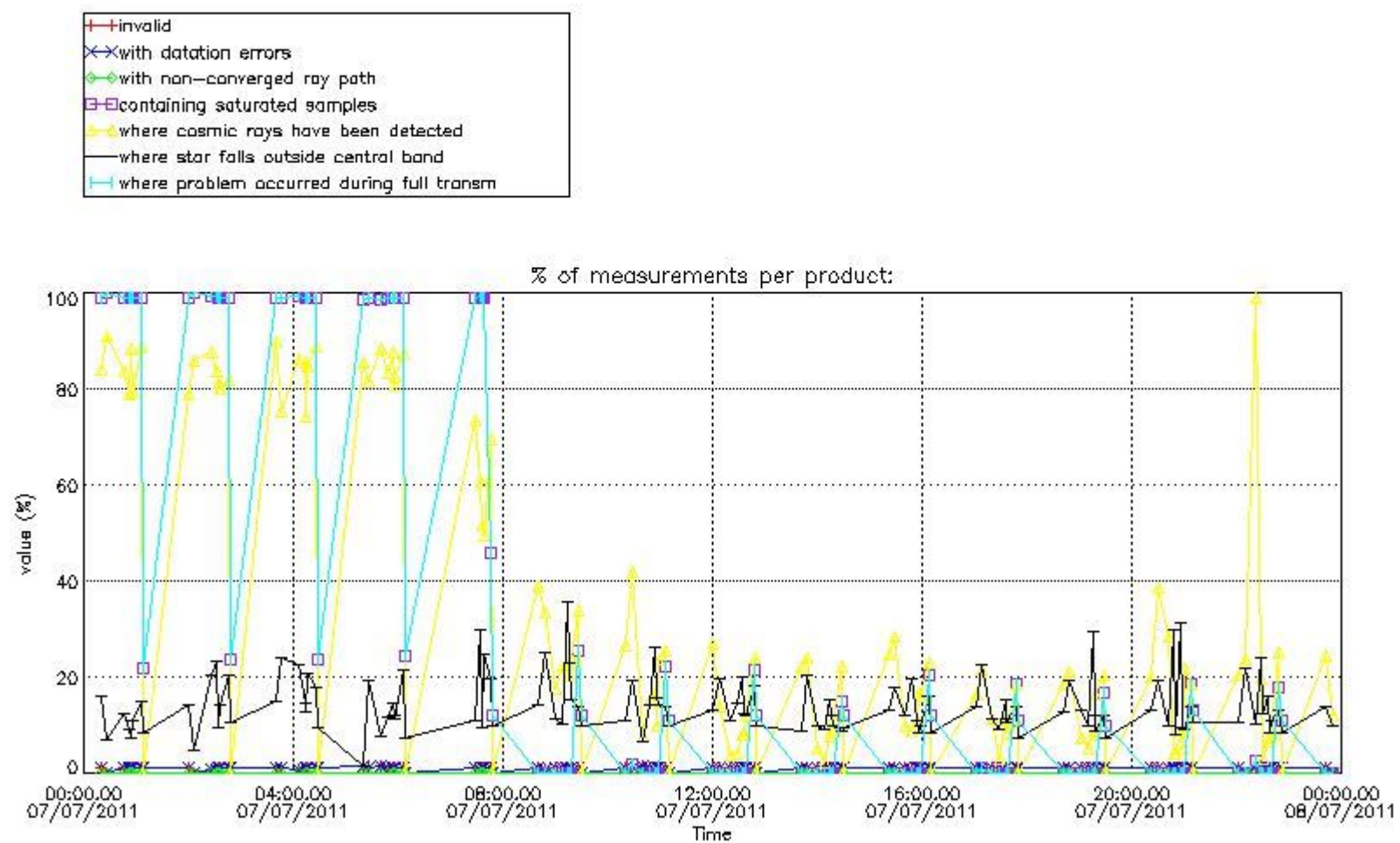


#### 4. Level 1 quality information per product

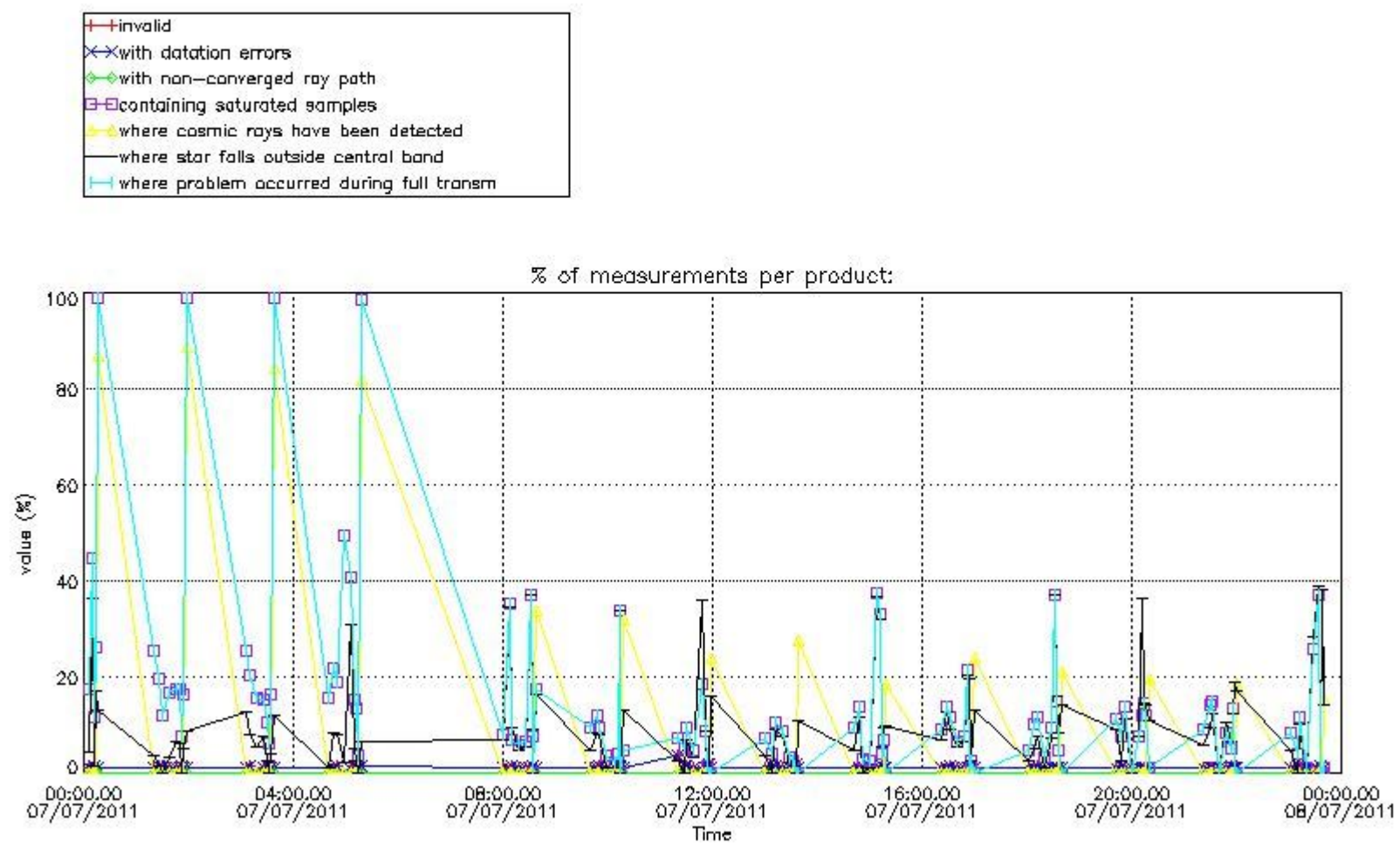
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

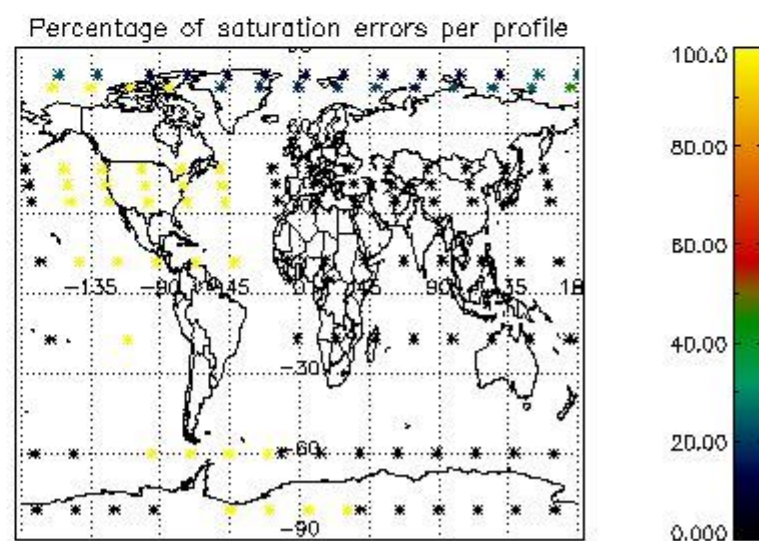
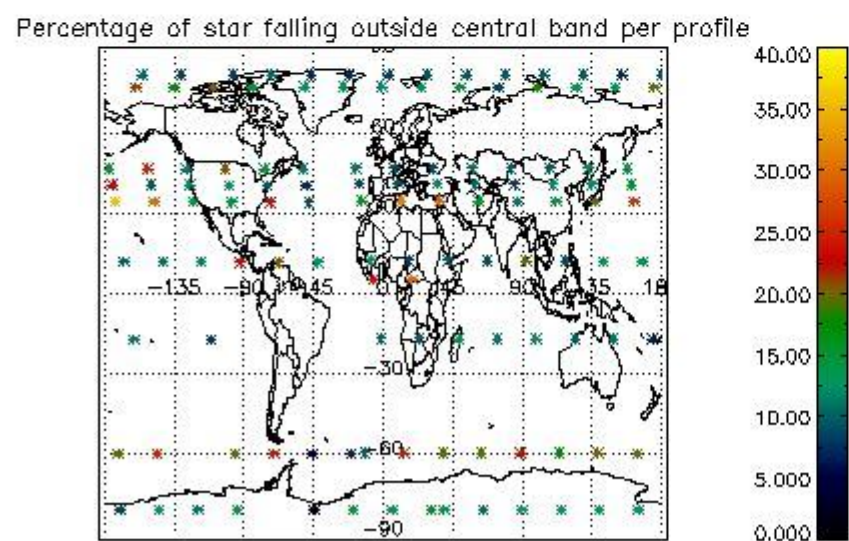
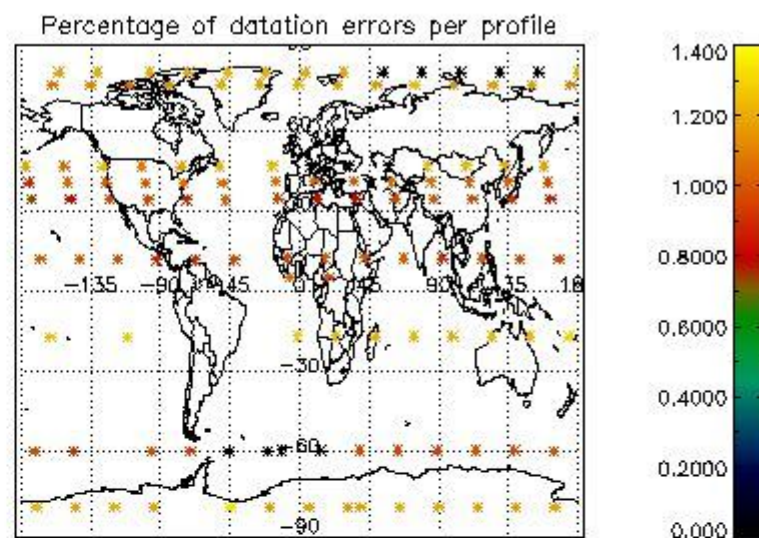
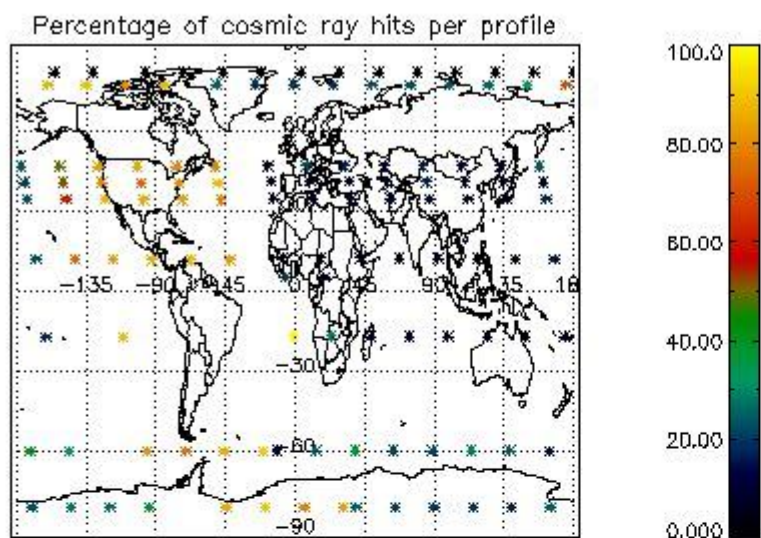


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

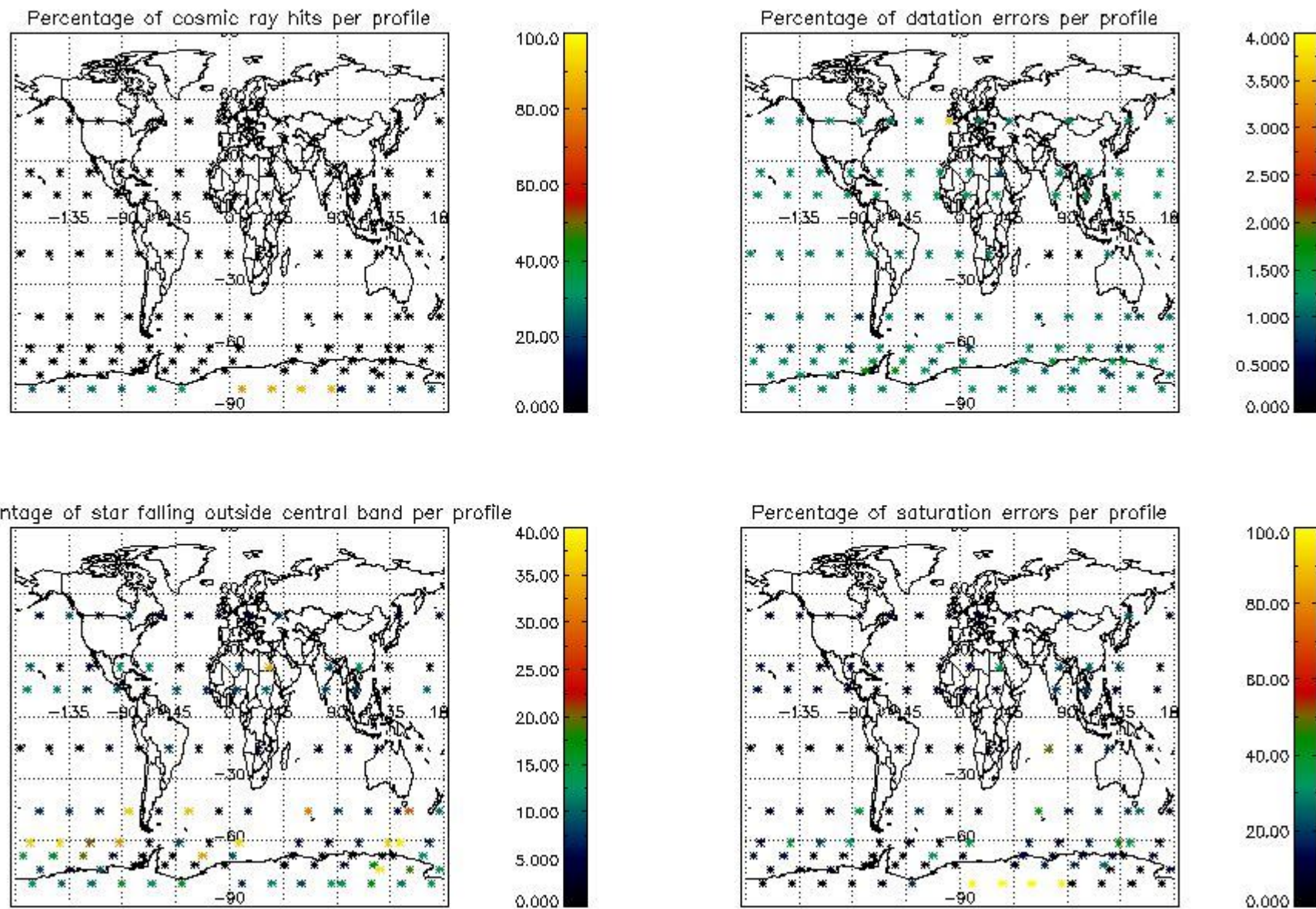


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

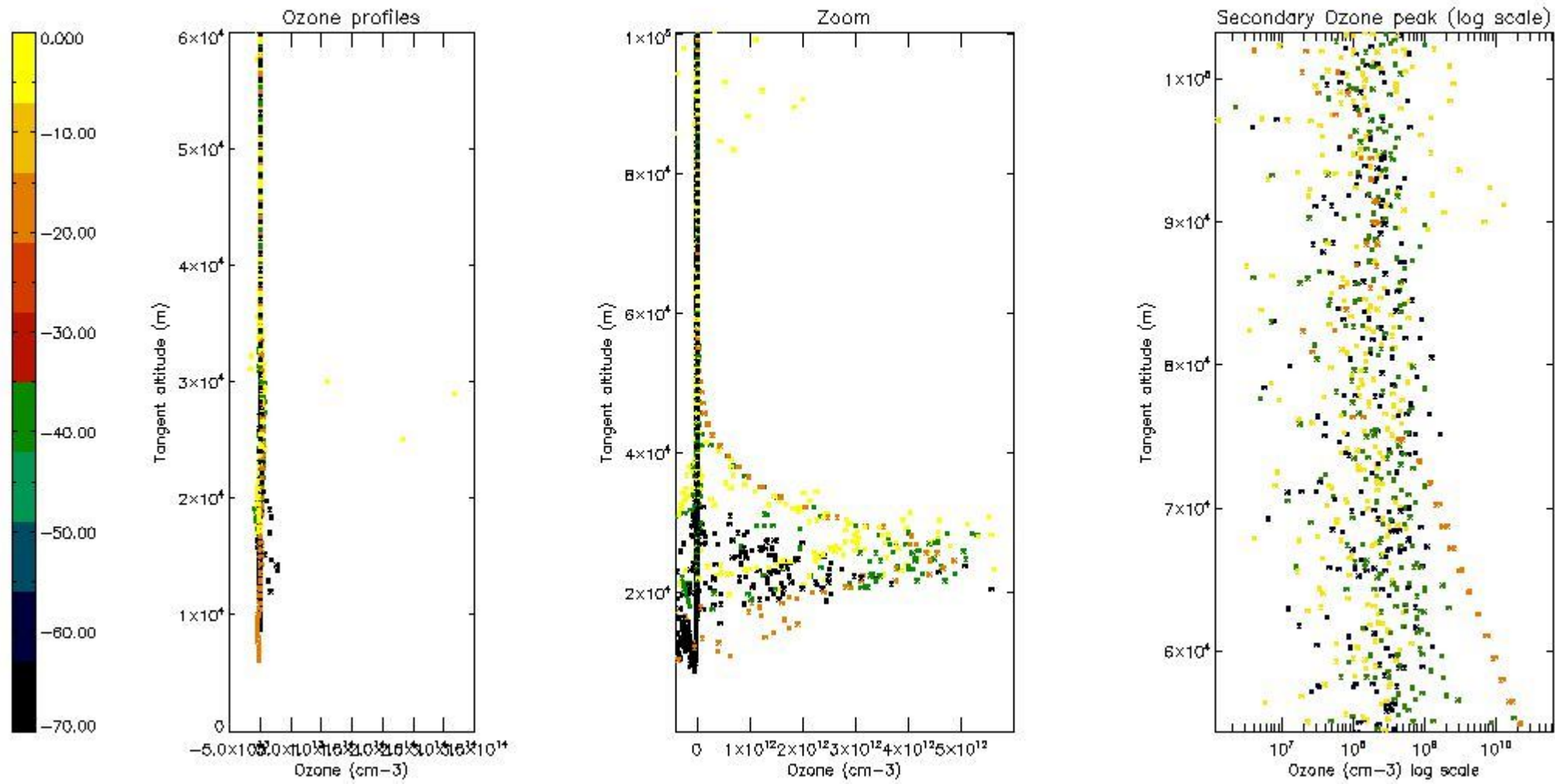
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	18
STD < 20	4

STD < 10	2
STD < 5	1

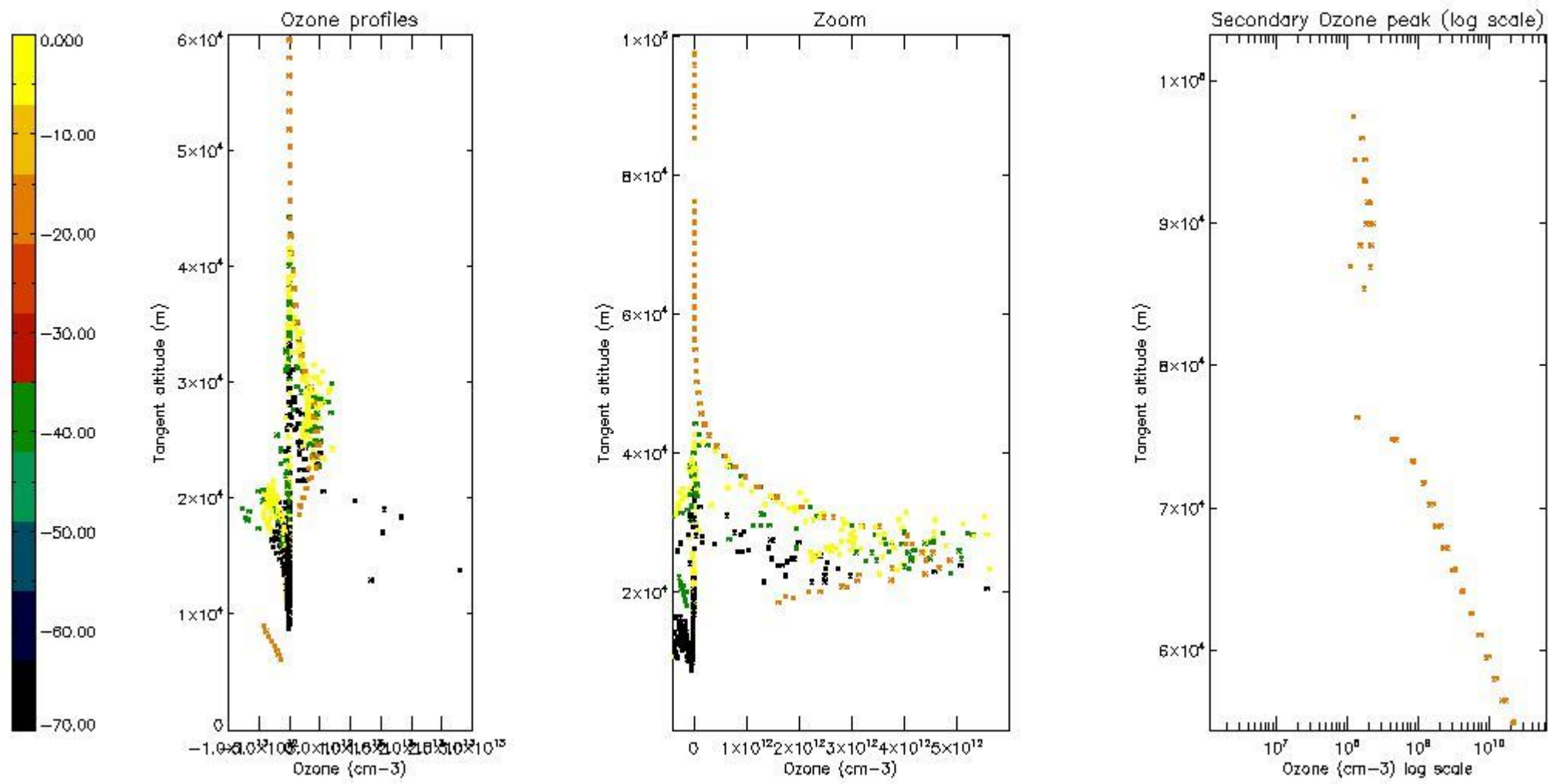
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

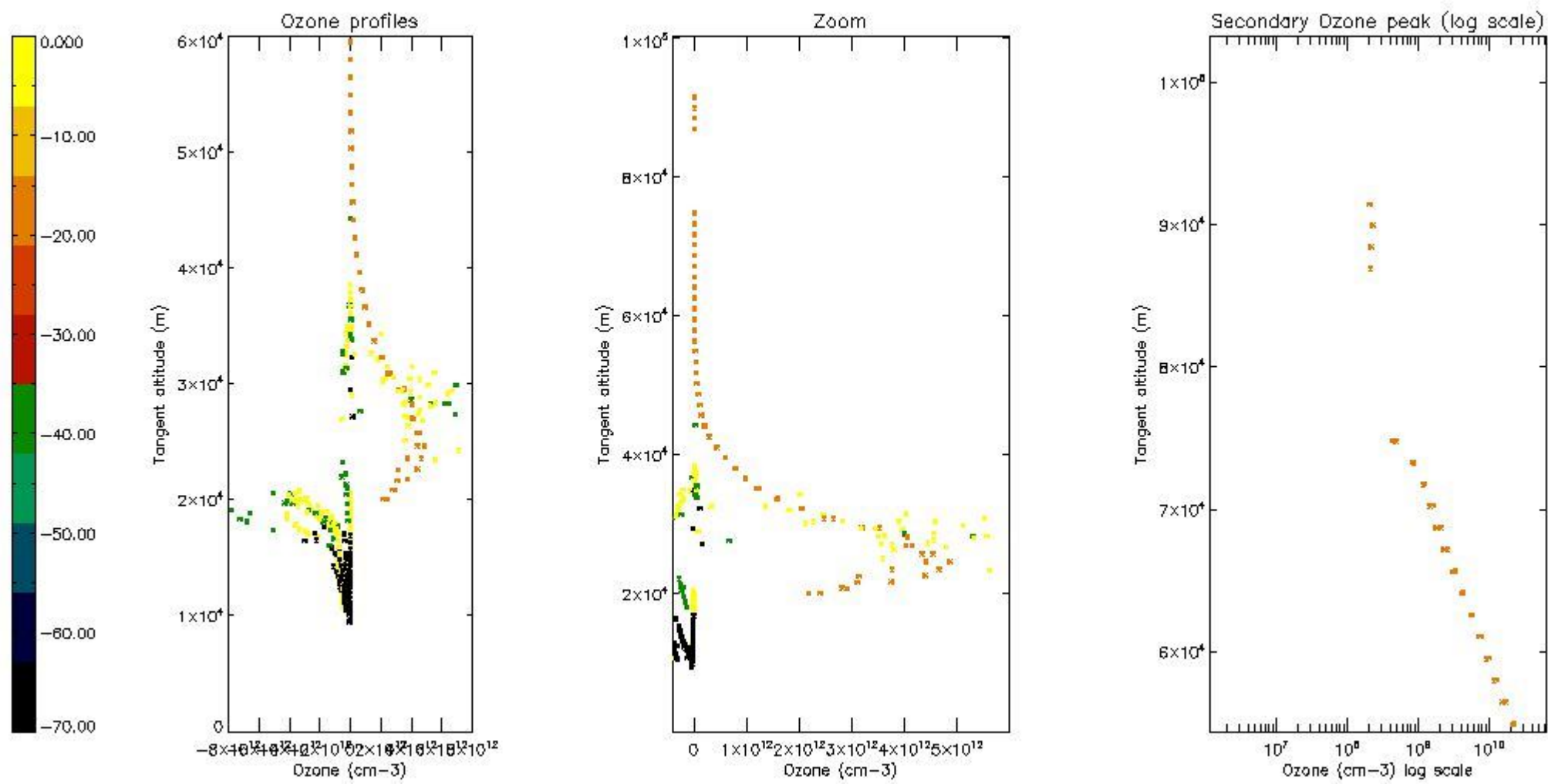
The colorbar represents the latitude.



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

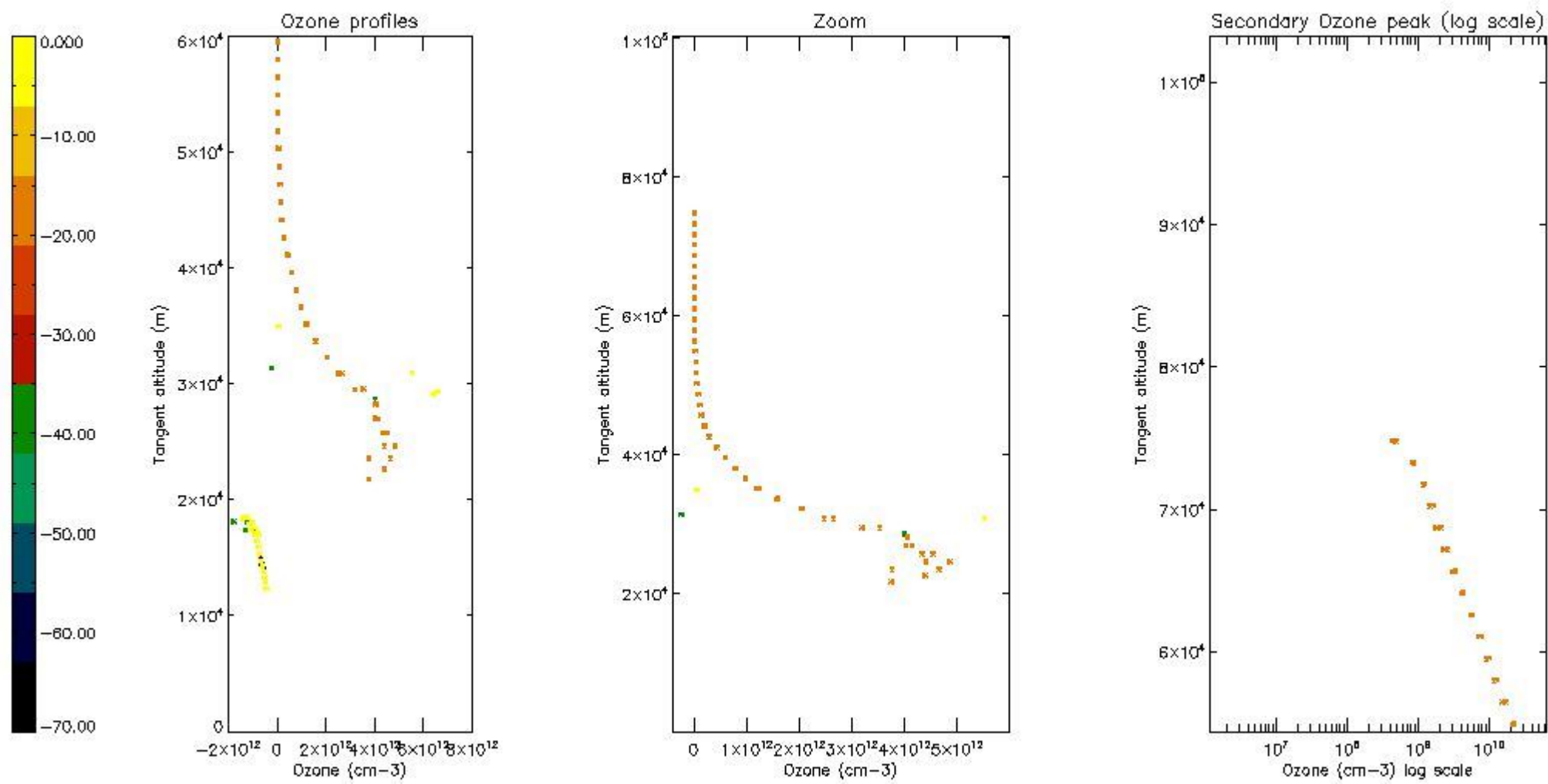
The colorbar represents the latitude.





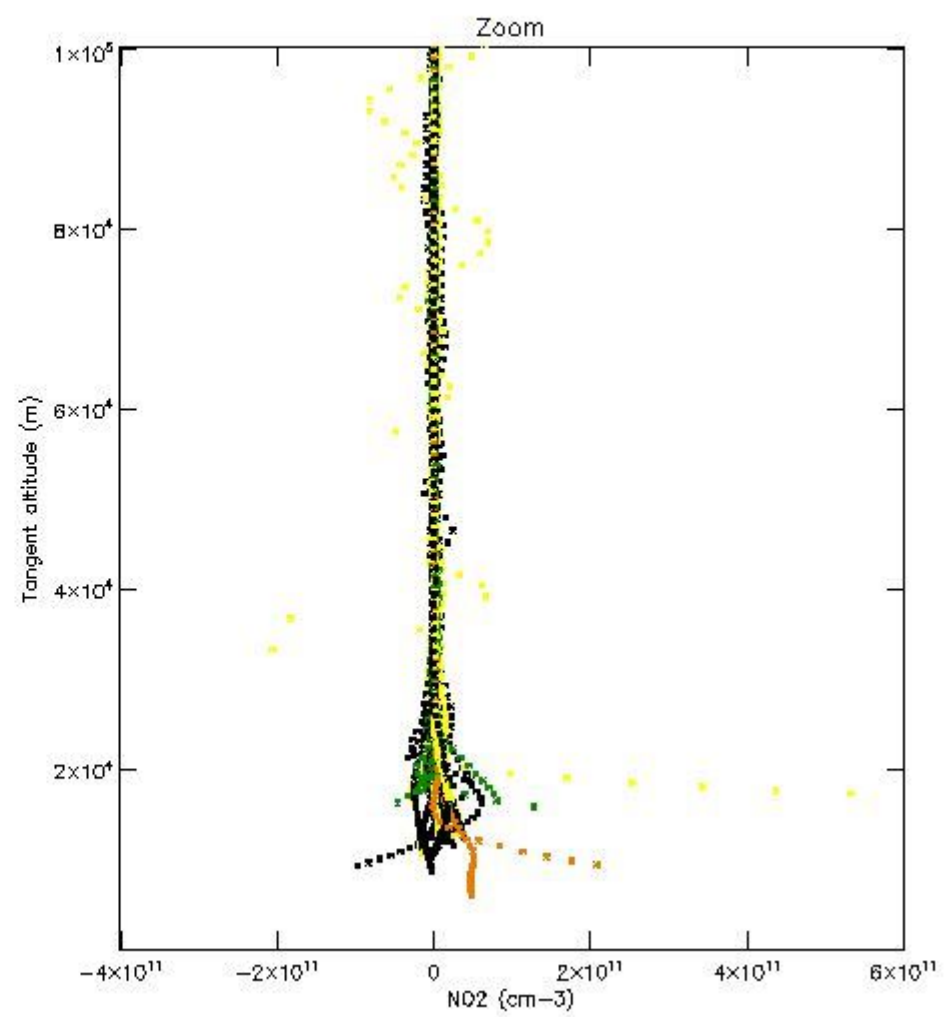
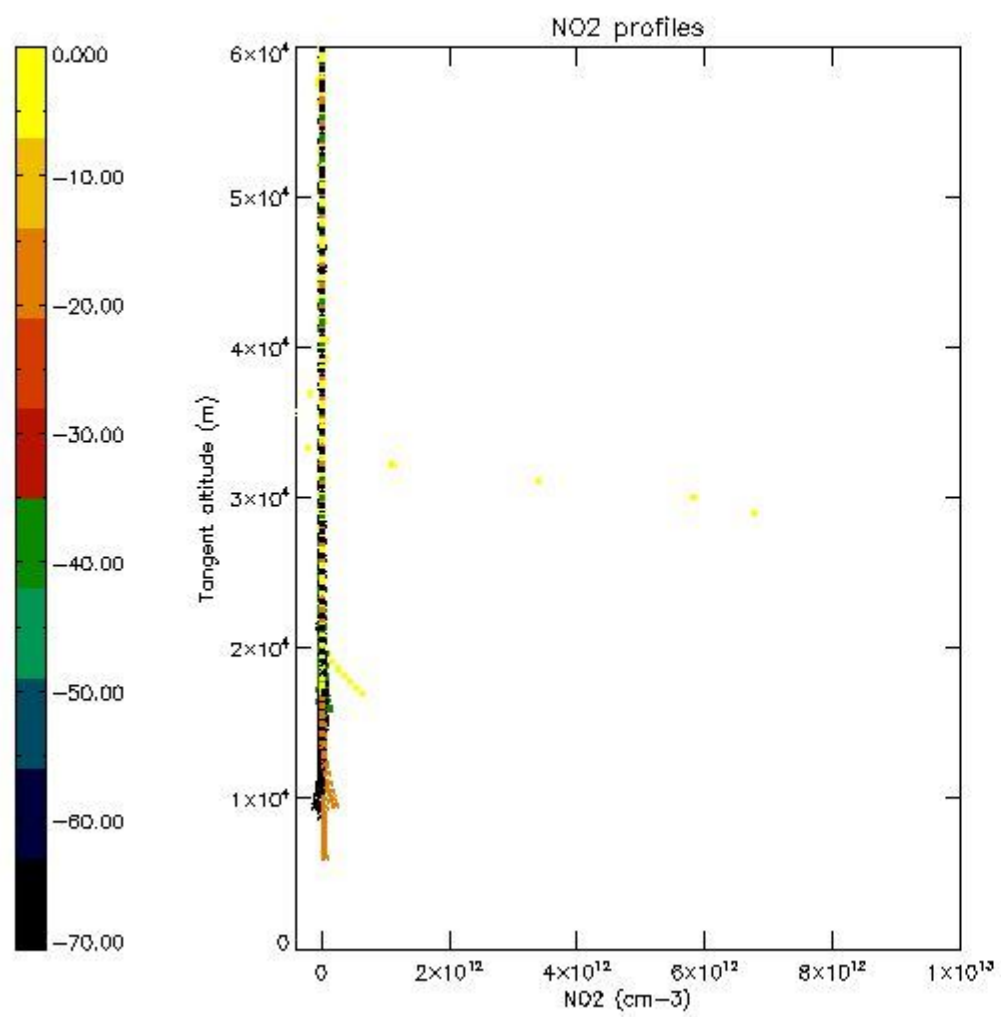
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



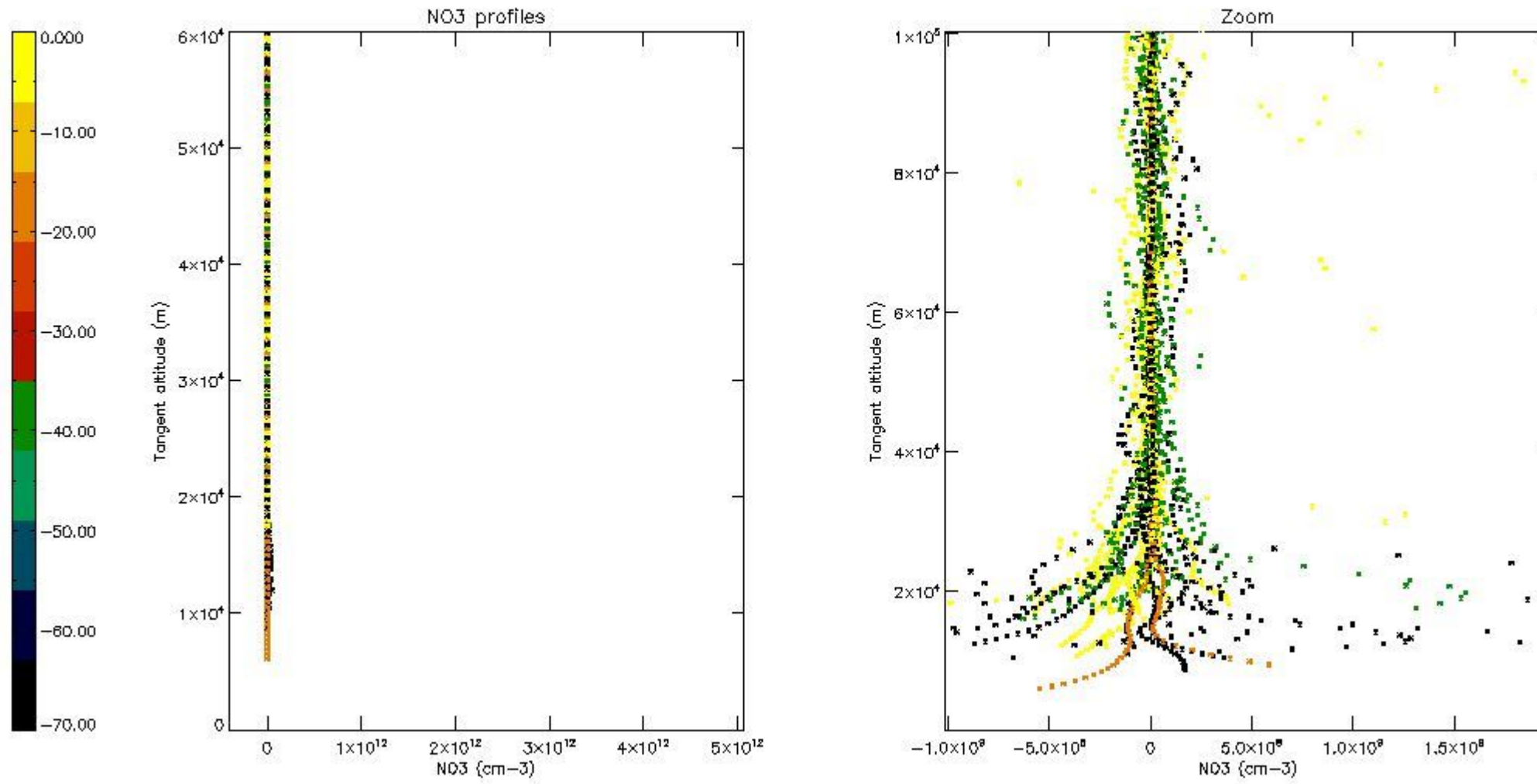
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

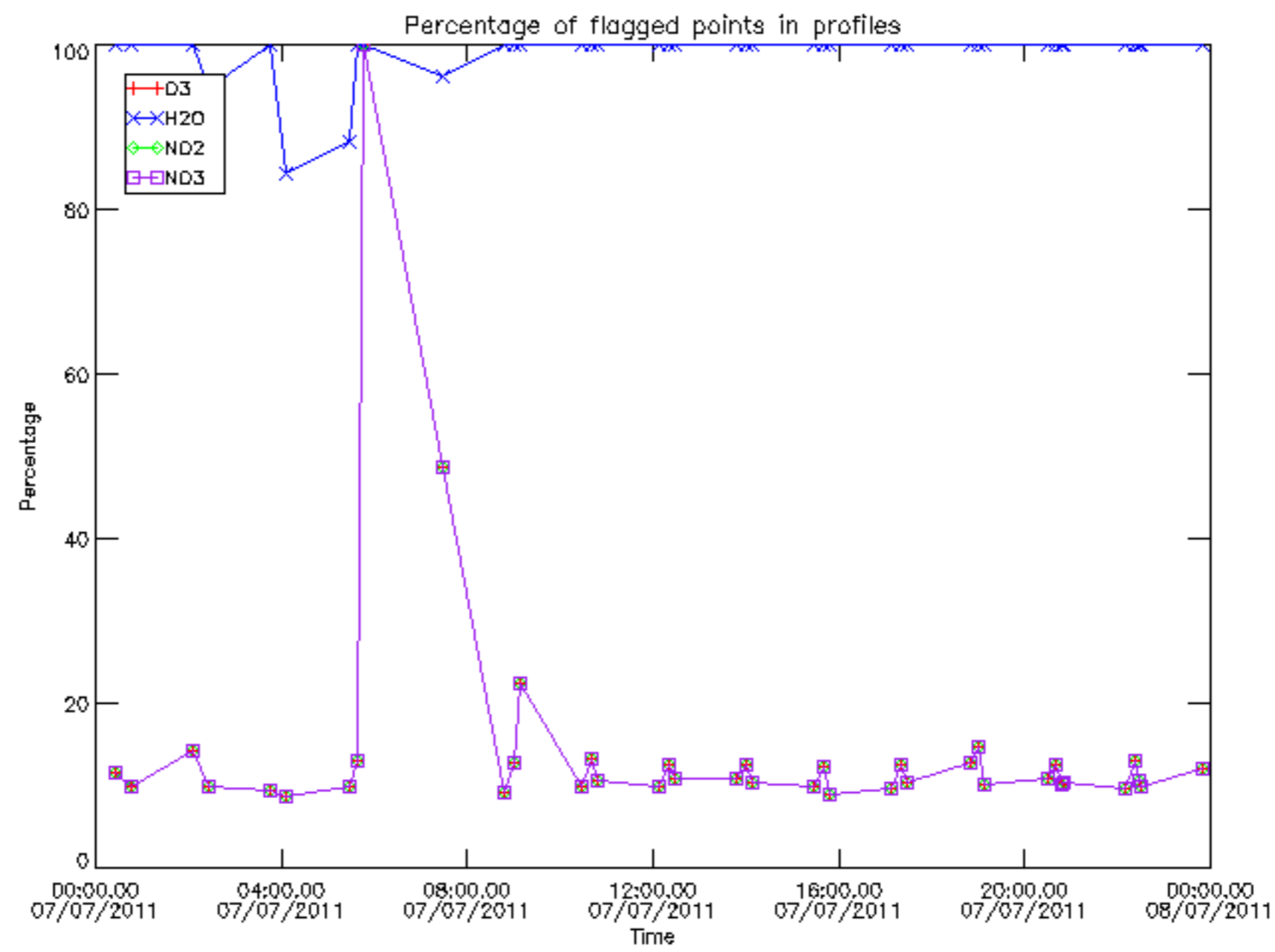
The colorbar represents the latitude.



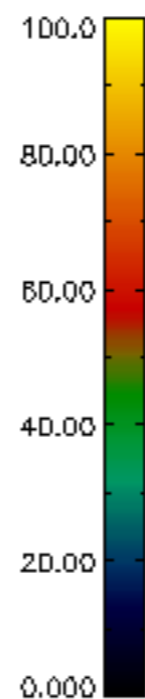
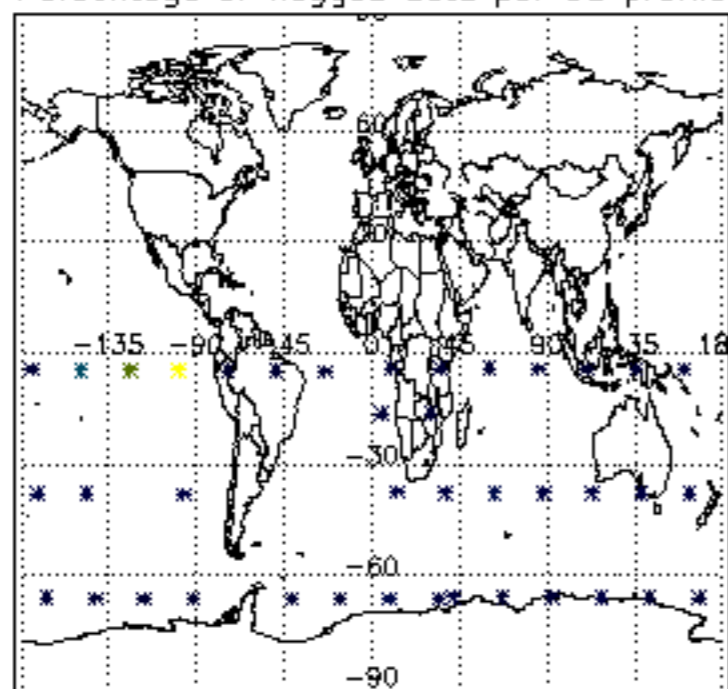
## 6. Auxiliary Data Files used for the production reported in section 2

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.

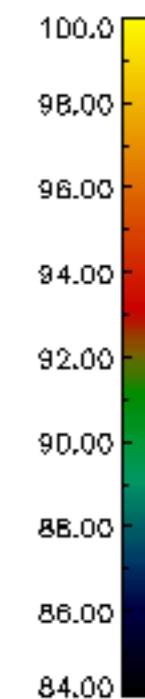
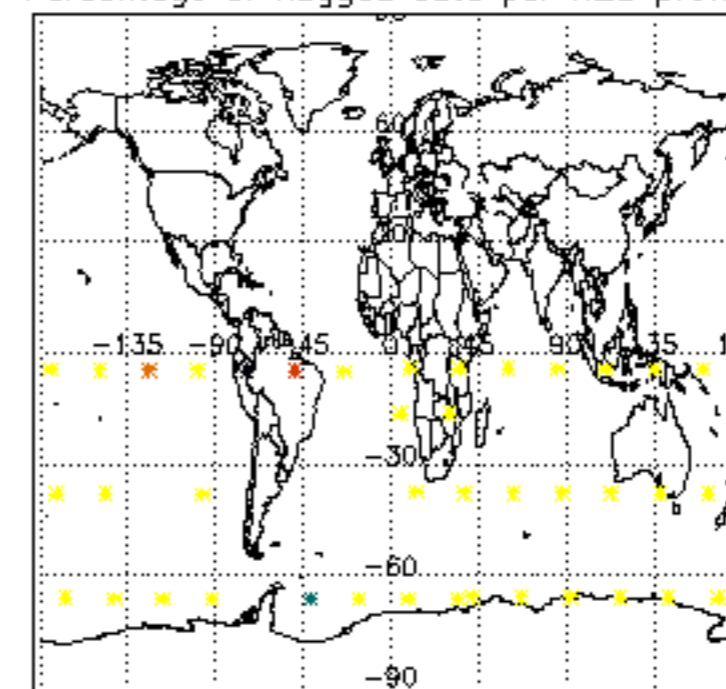
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	07-JUL-2011 00:05:48
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	07-JUL-2011 00:05:48
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	07-JUL-2011 00:05:48



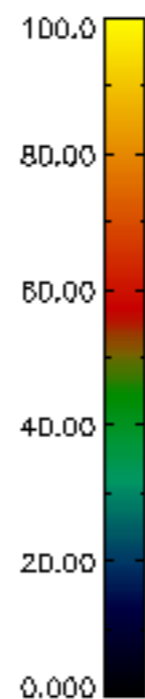
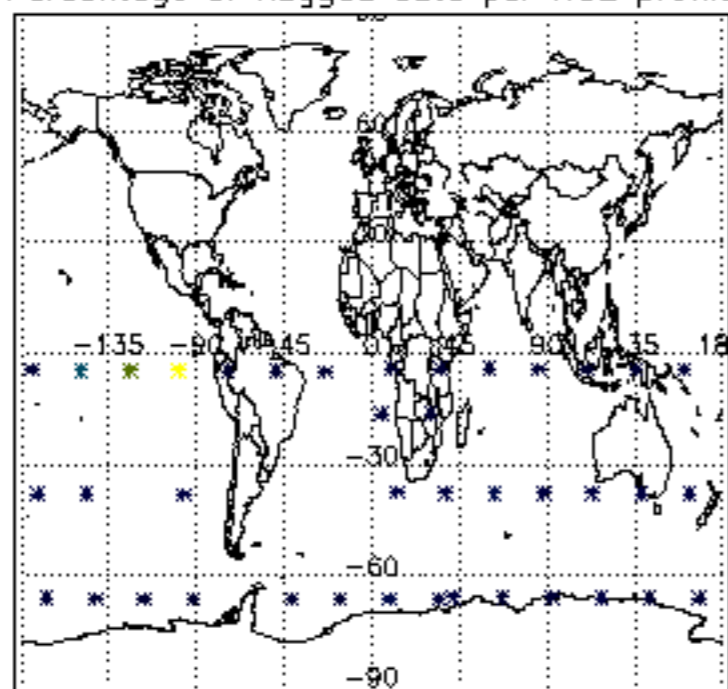
Percentage of flagged data per D3 profile



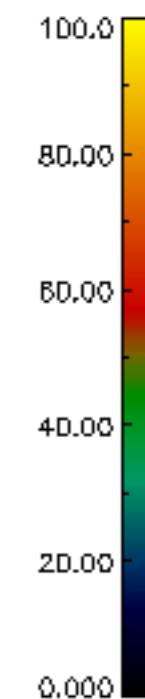
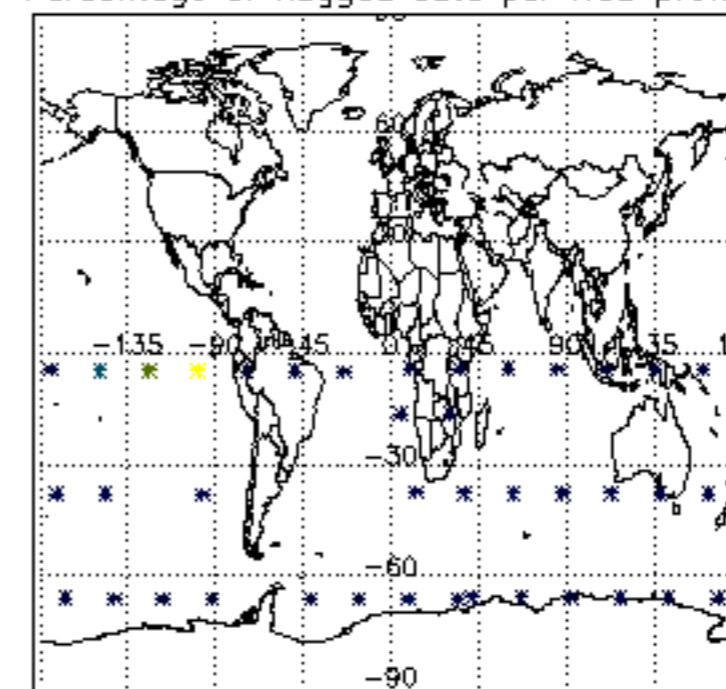
Percentage of flagged data per H2O profile

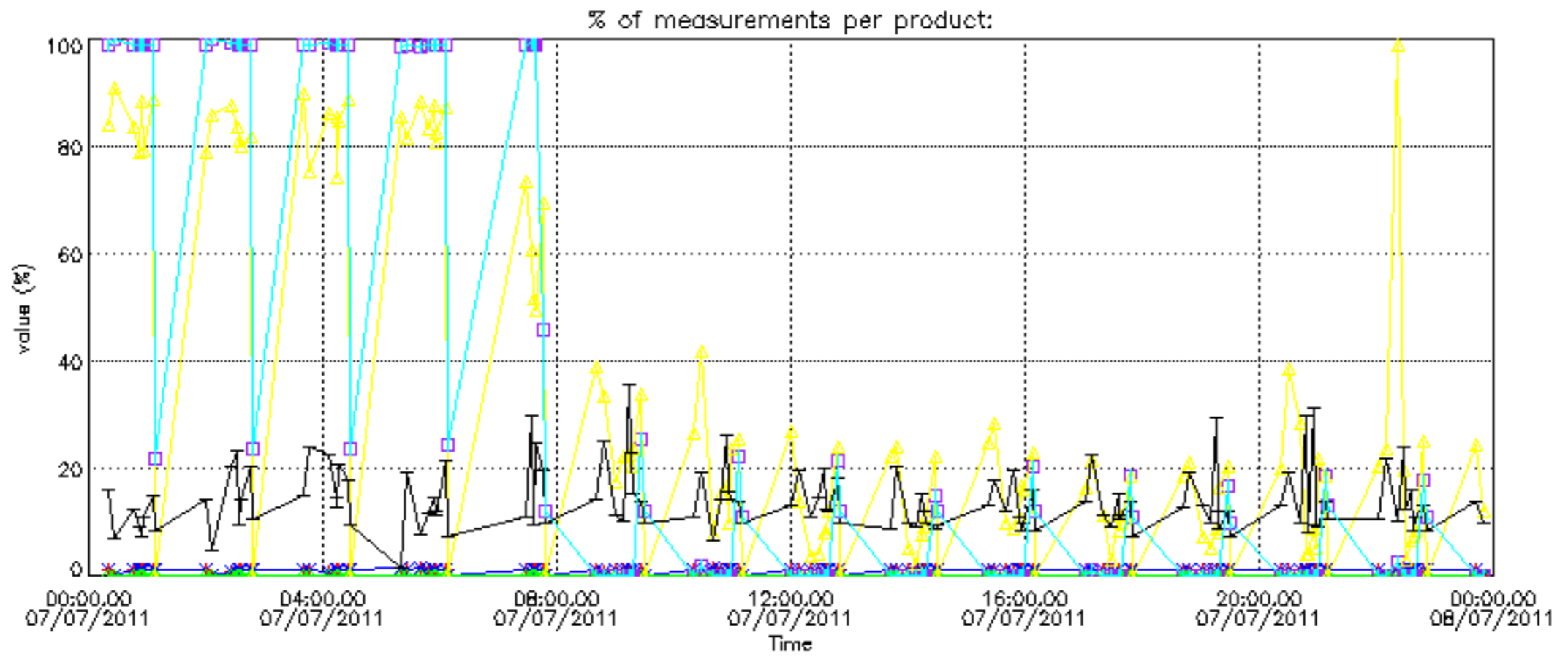


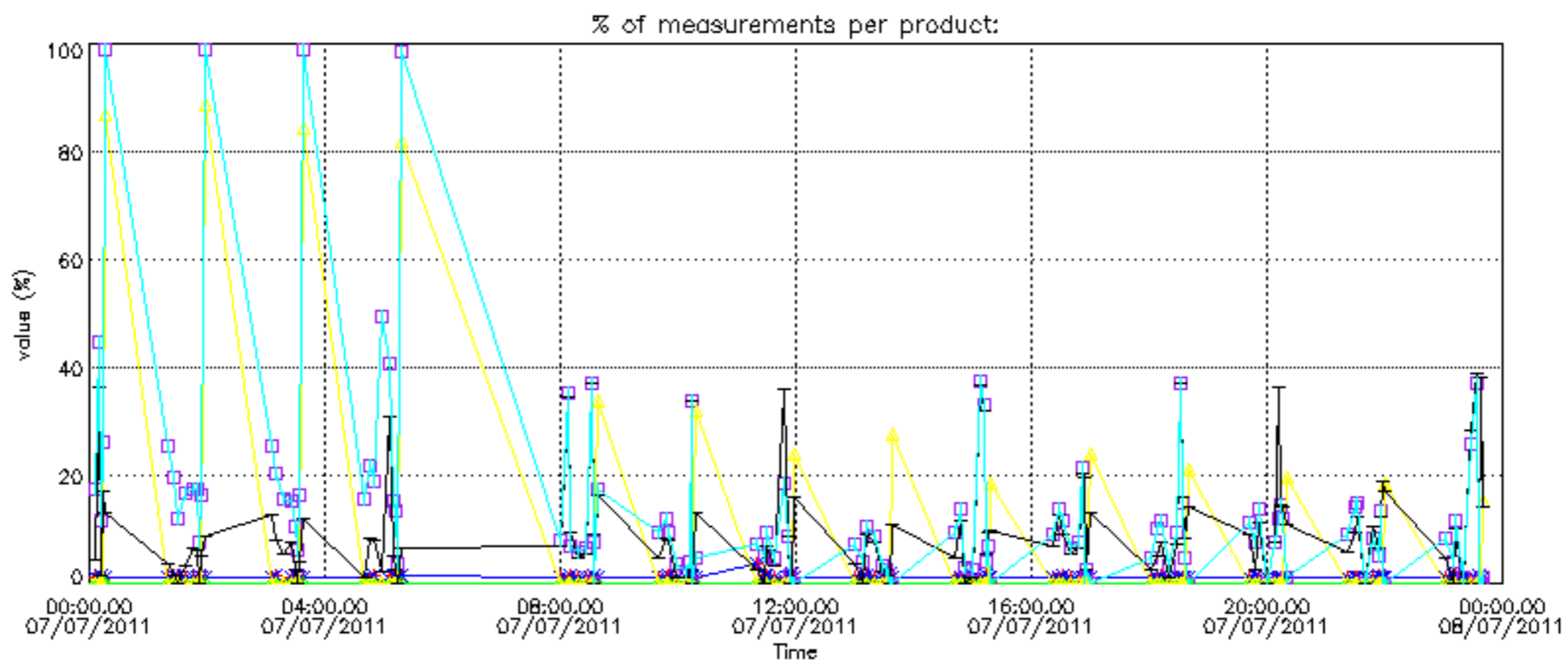
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

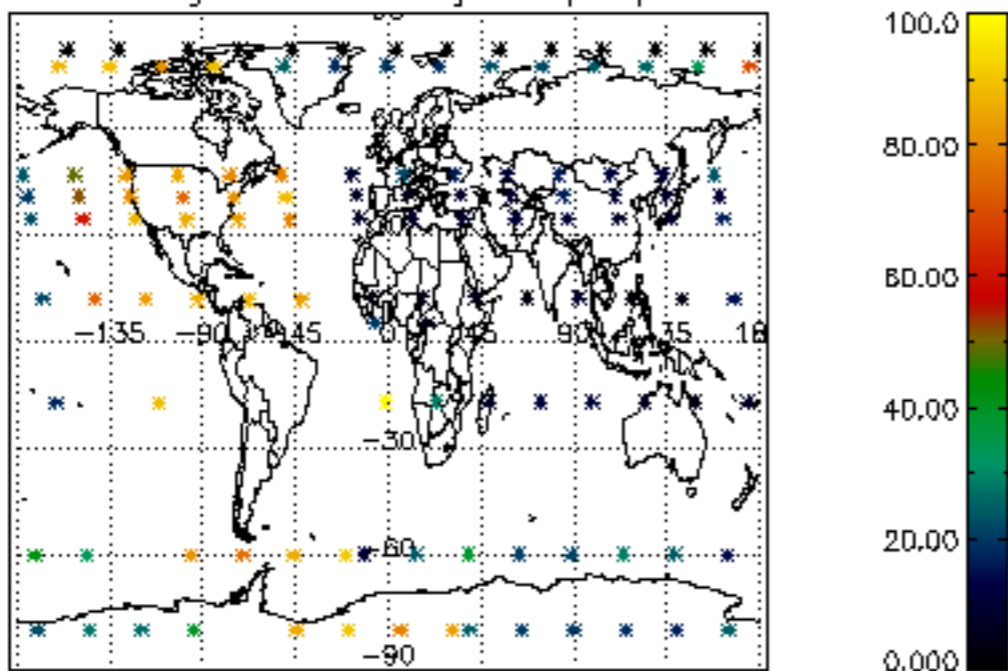




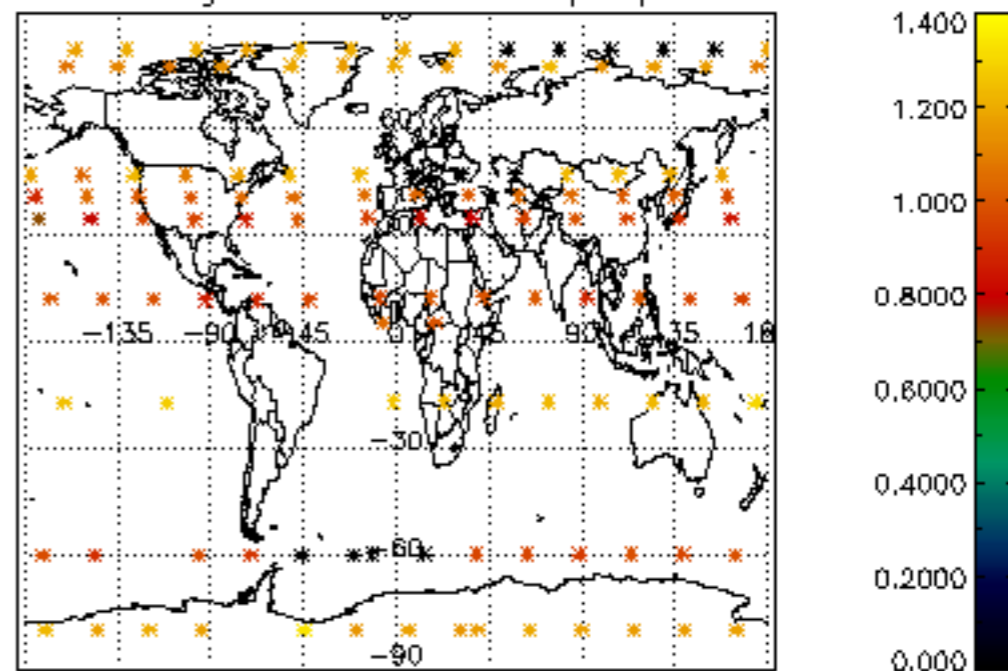




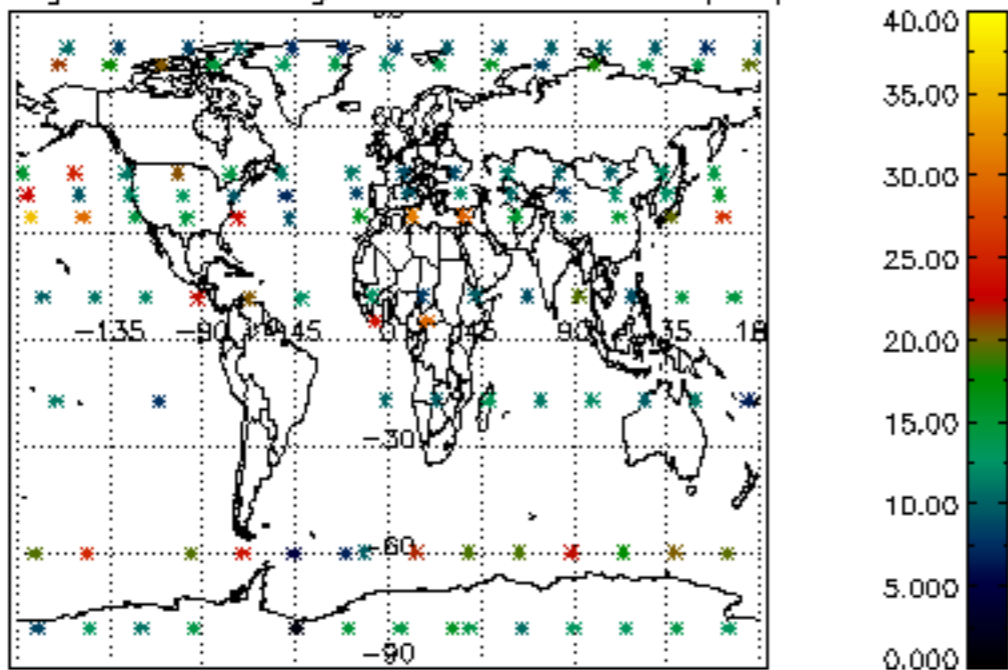
Percentage of cosmic ray hits per profile



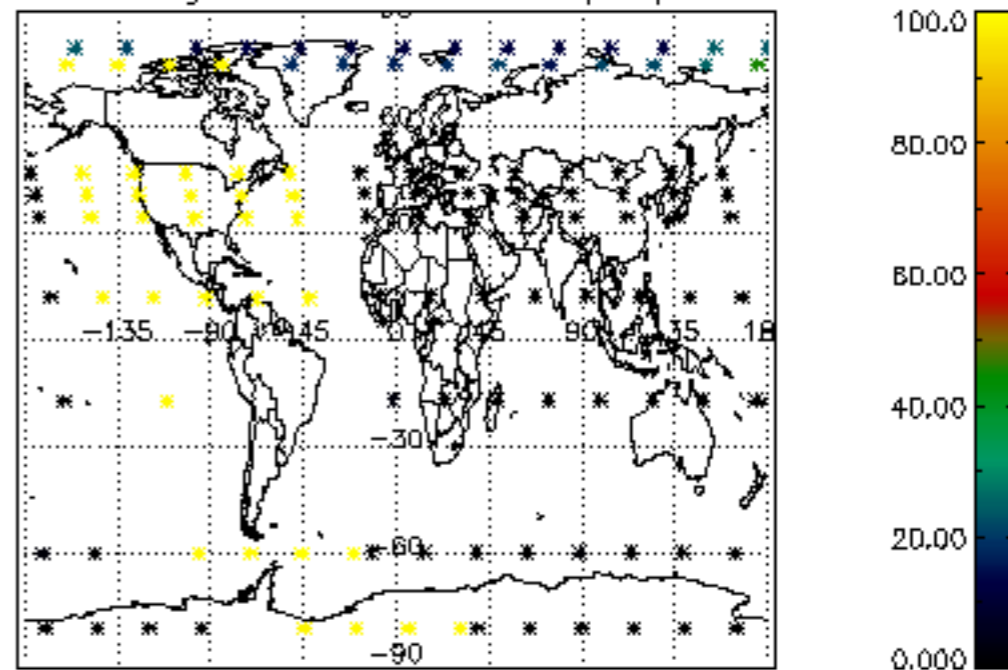
Percentage of datation errors per profile



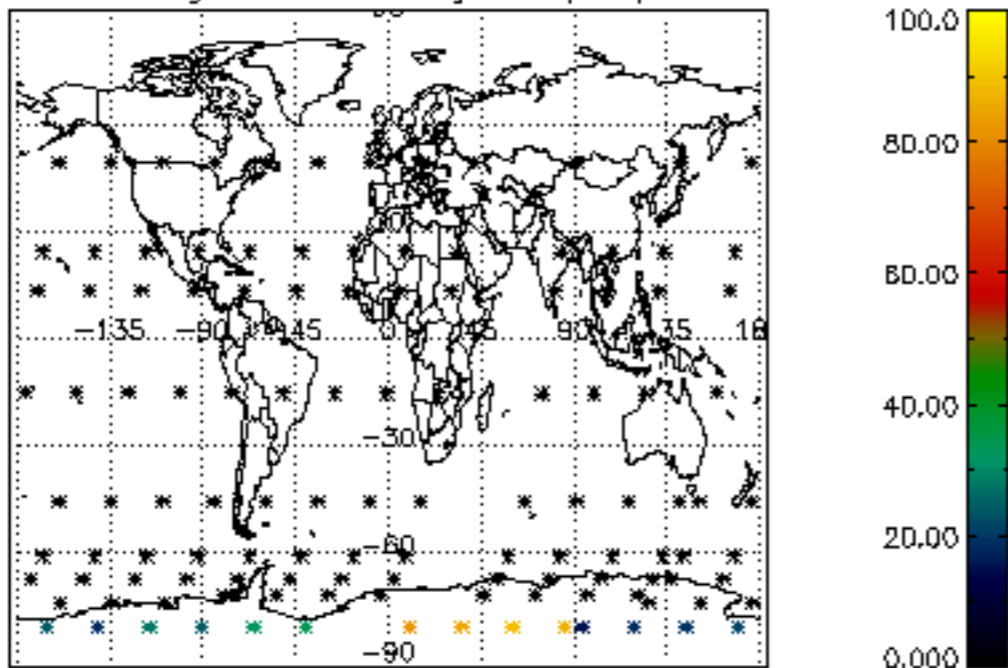
Percentage of star falling outside central band per profile



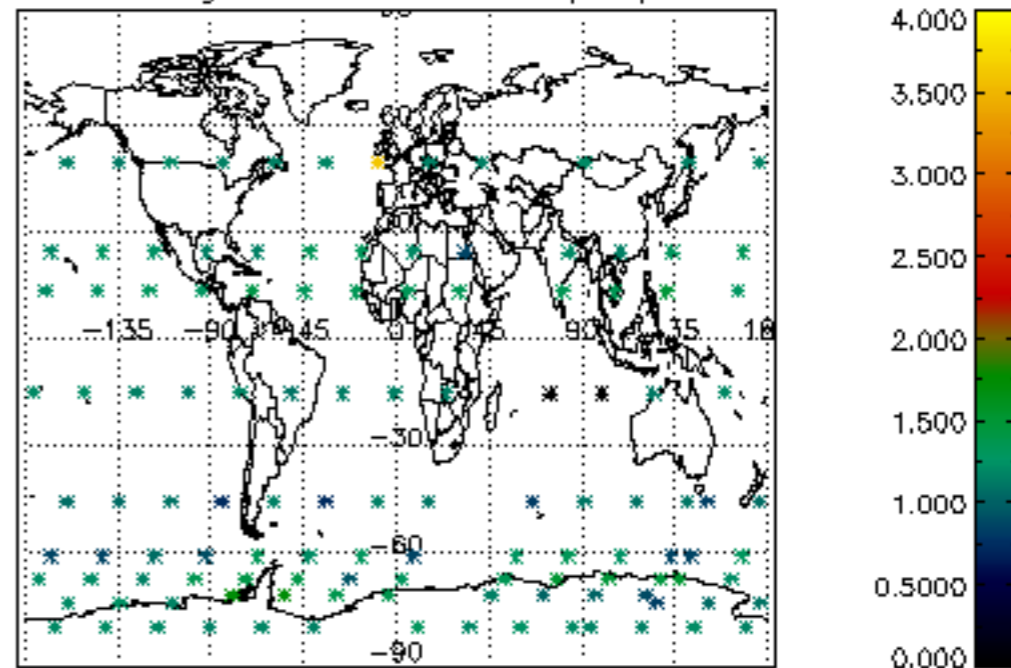
Percentage of saturation errors per profile



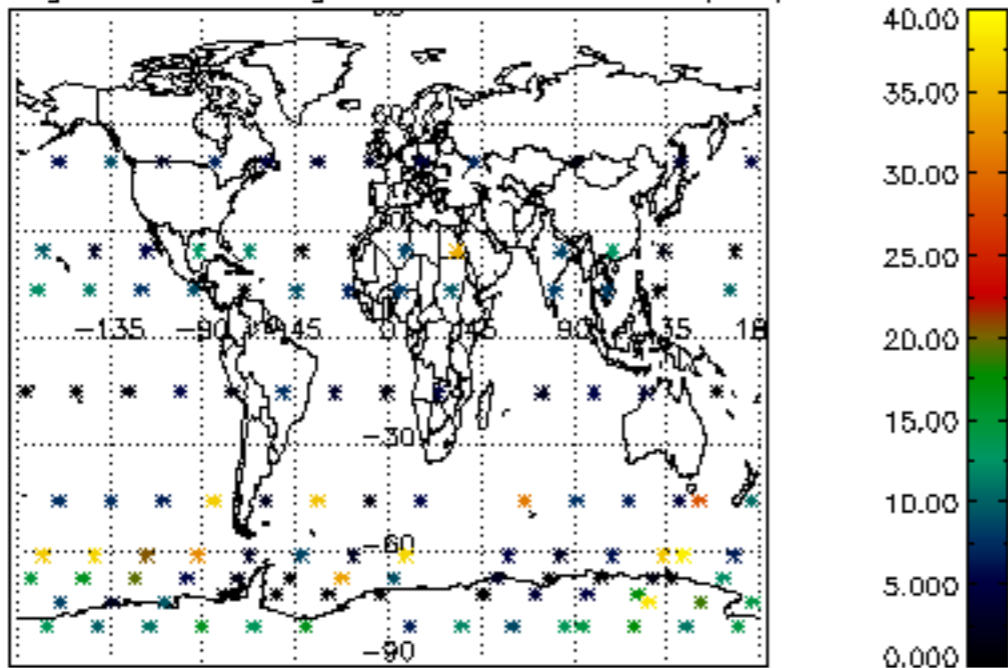
Percentage of cosmic ray hits per profile



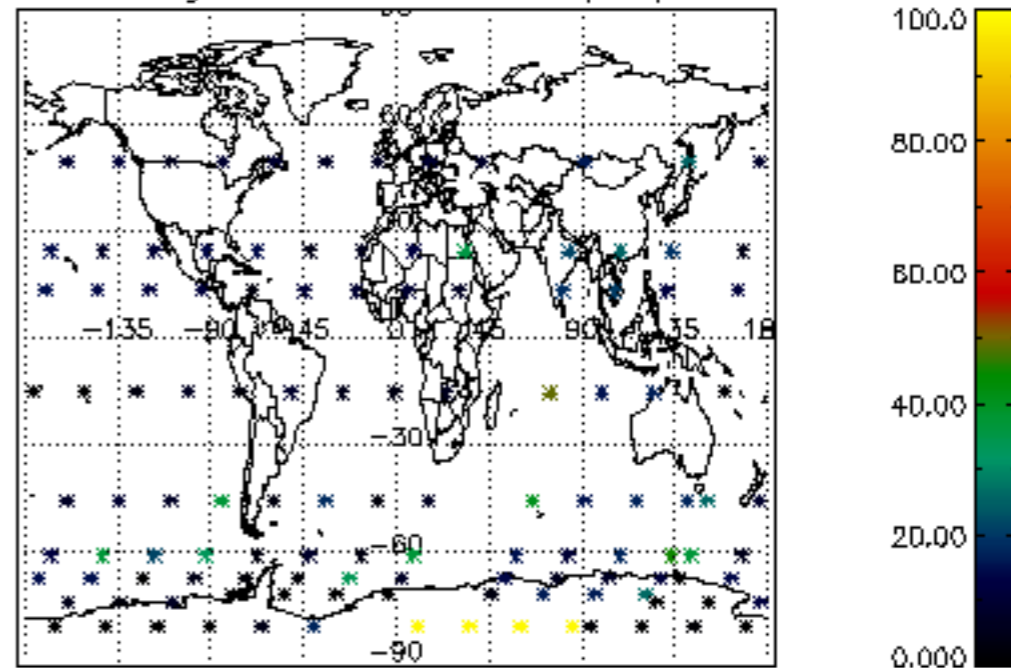
Percentage of datation errors per profile

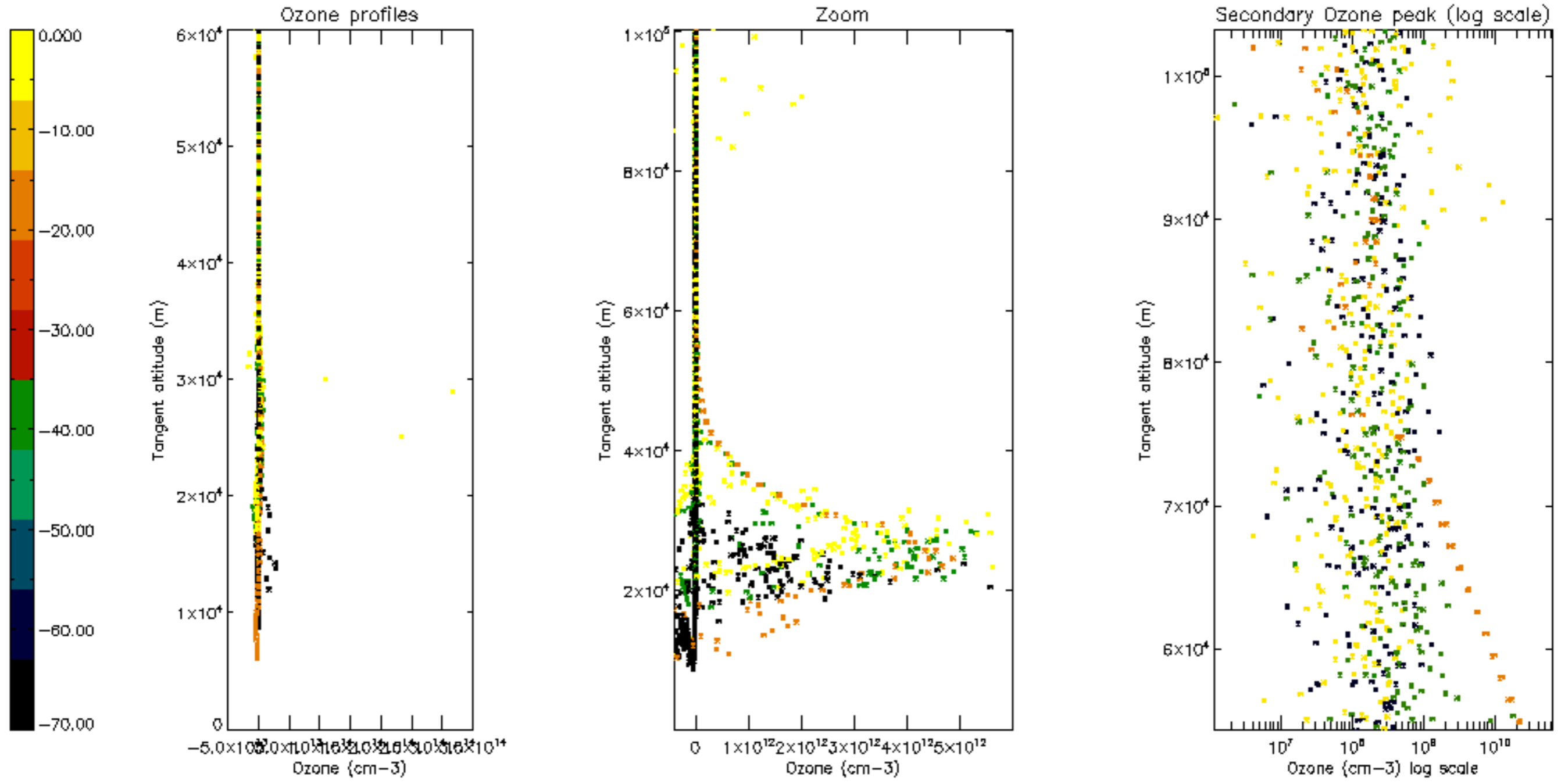


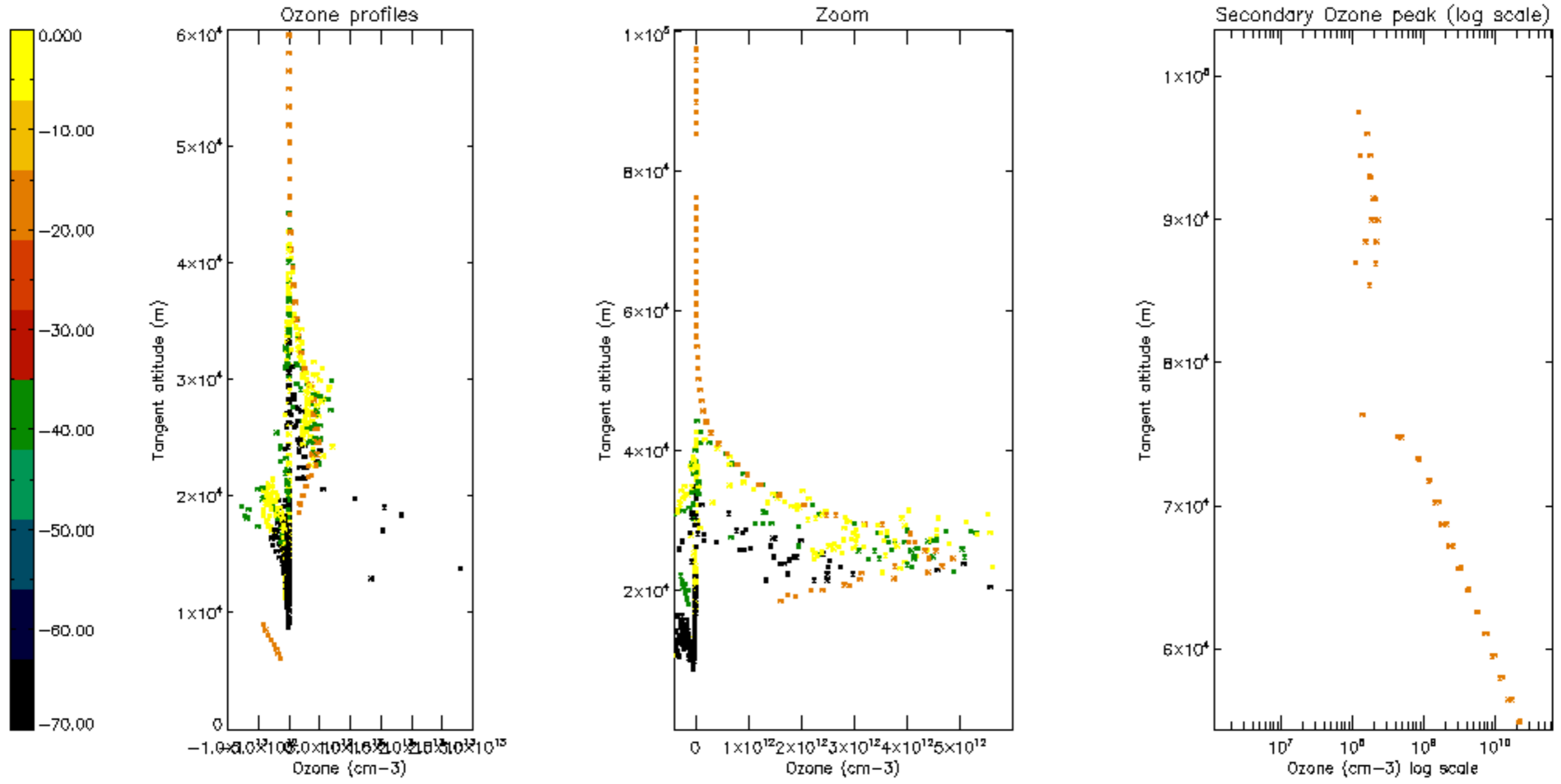
Percentage of star falling outside central band per profile

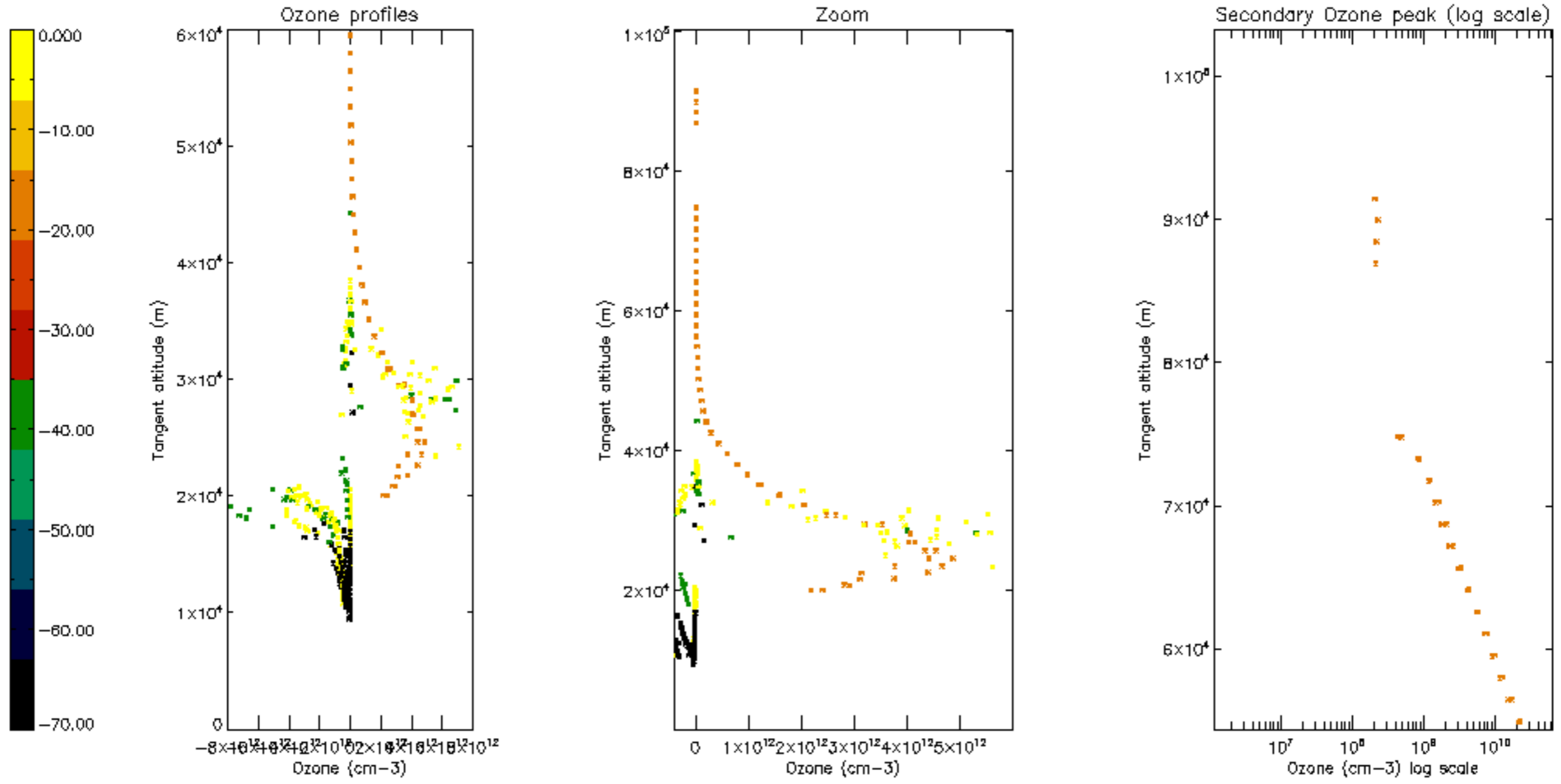


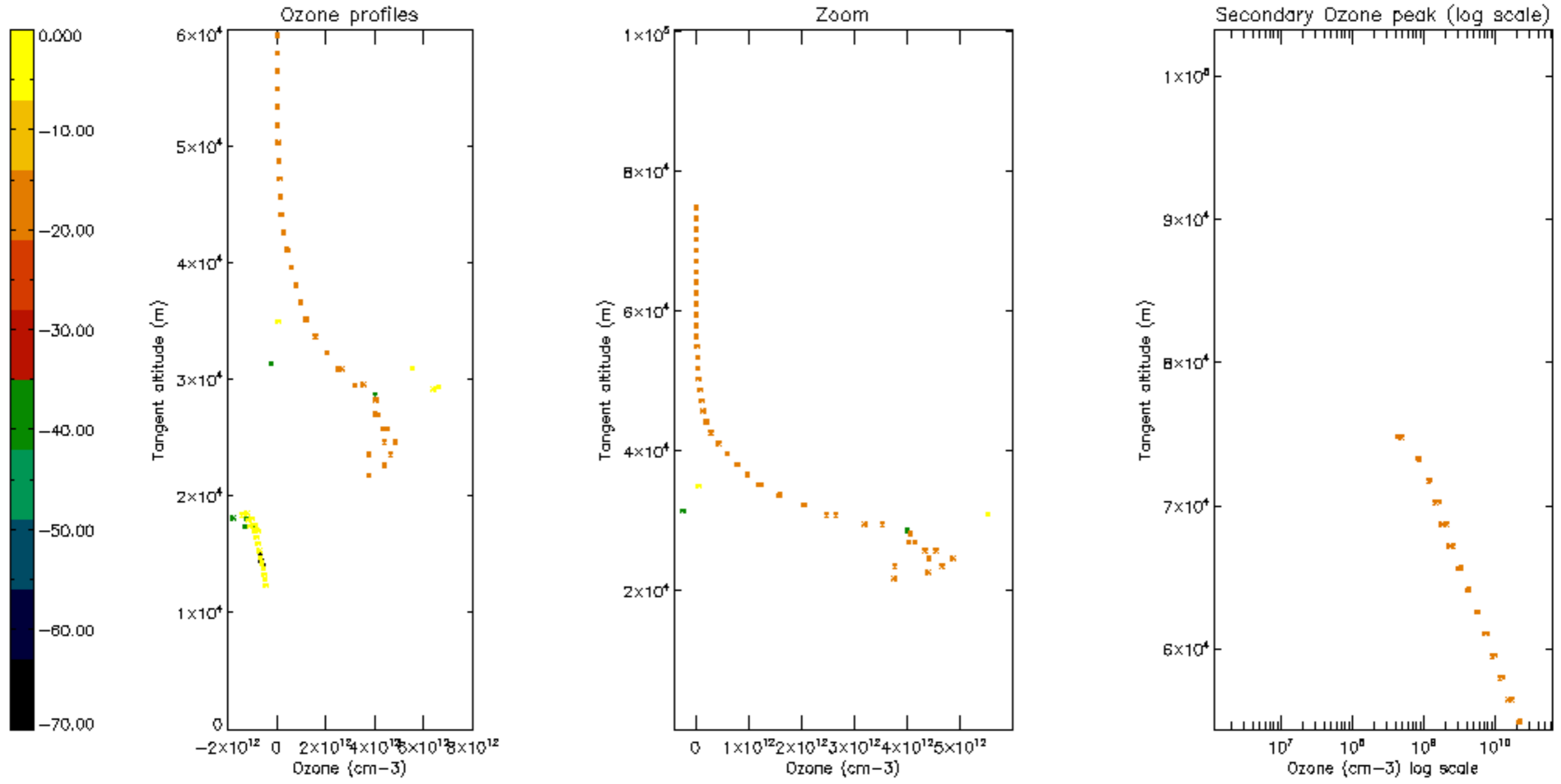
Percentage of saturation errors per profile

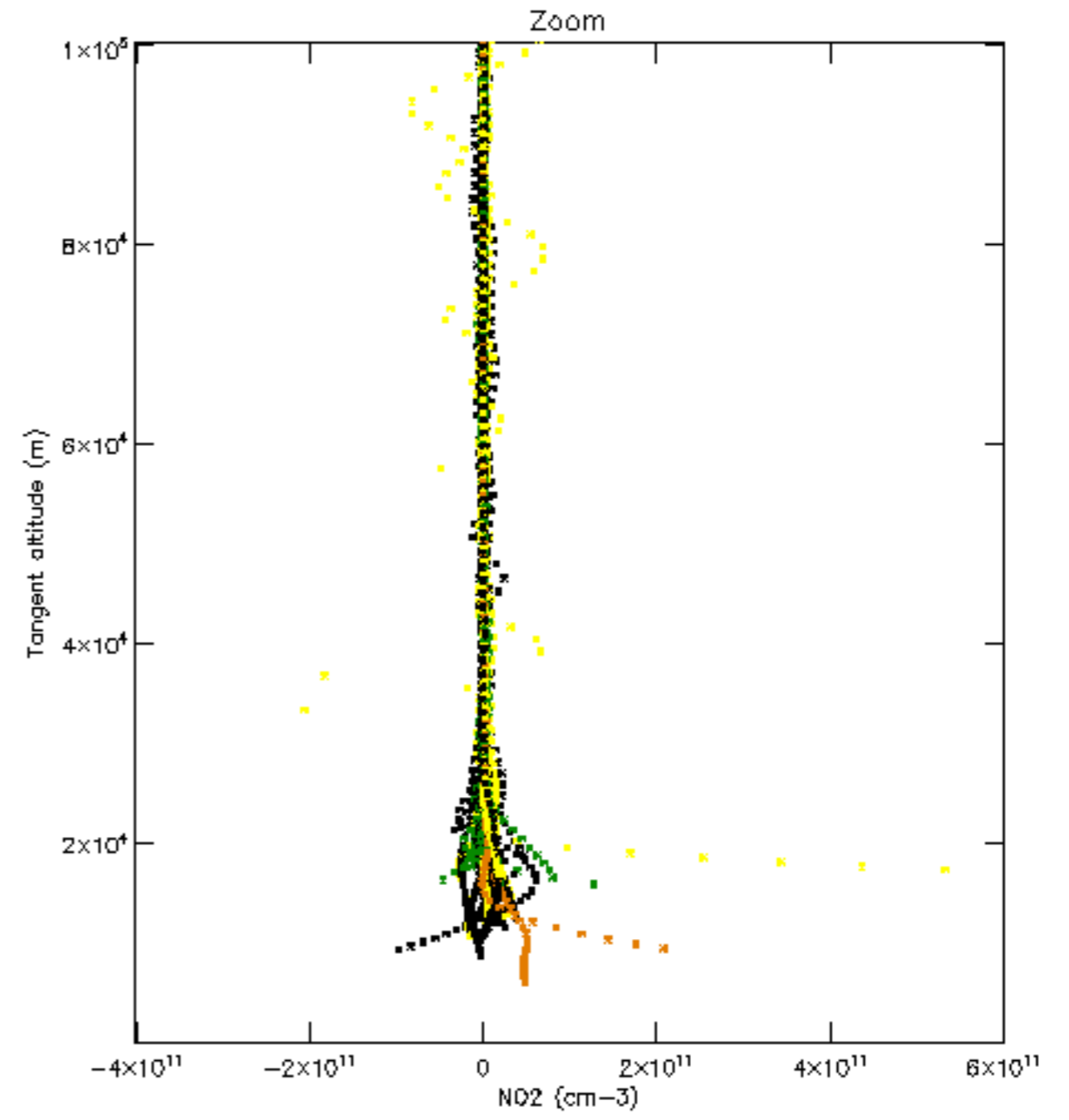
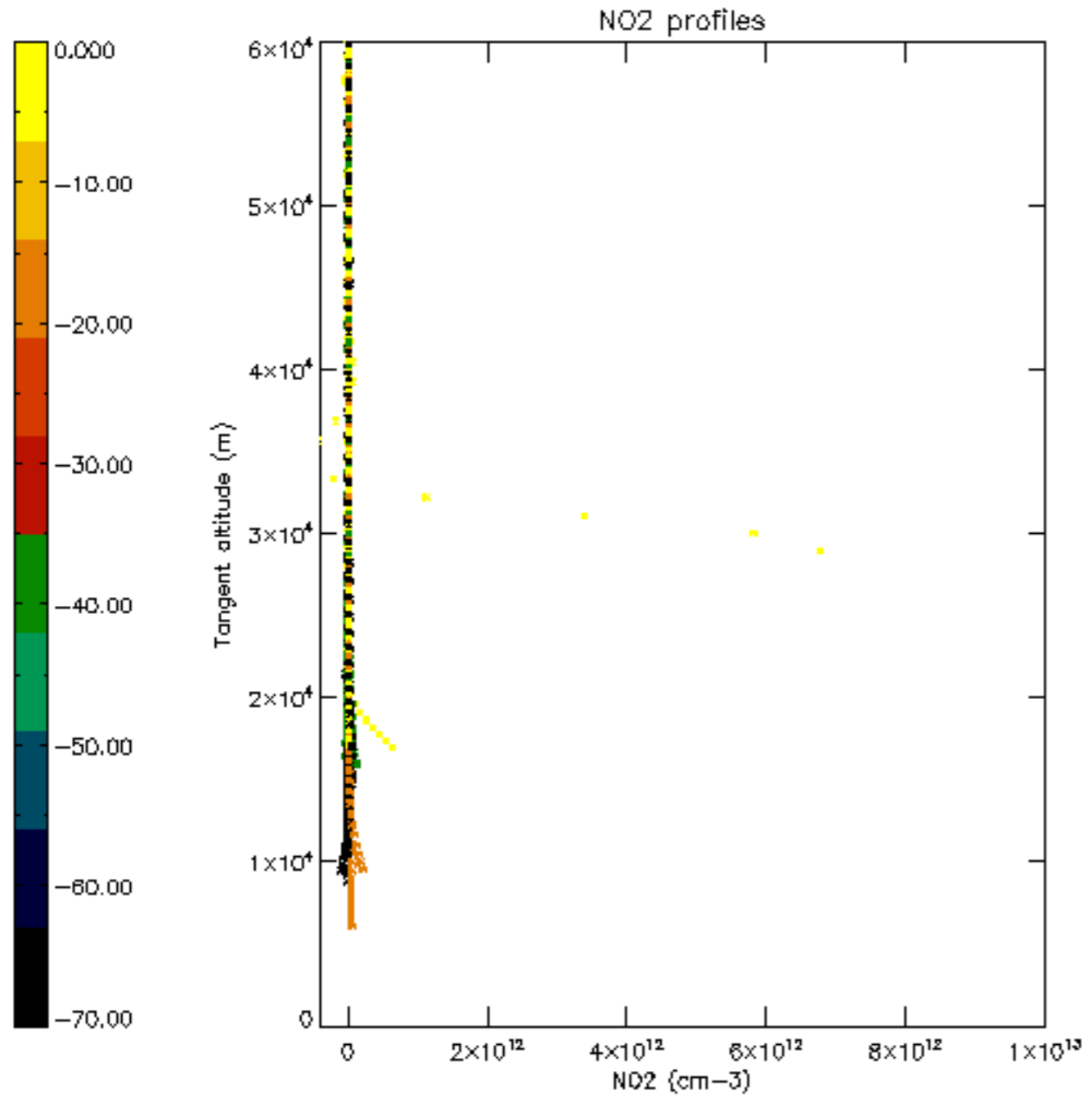


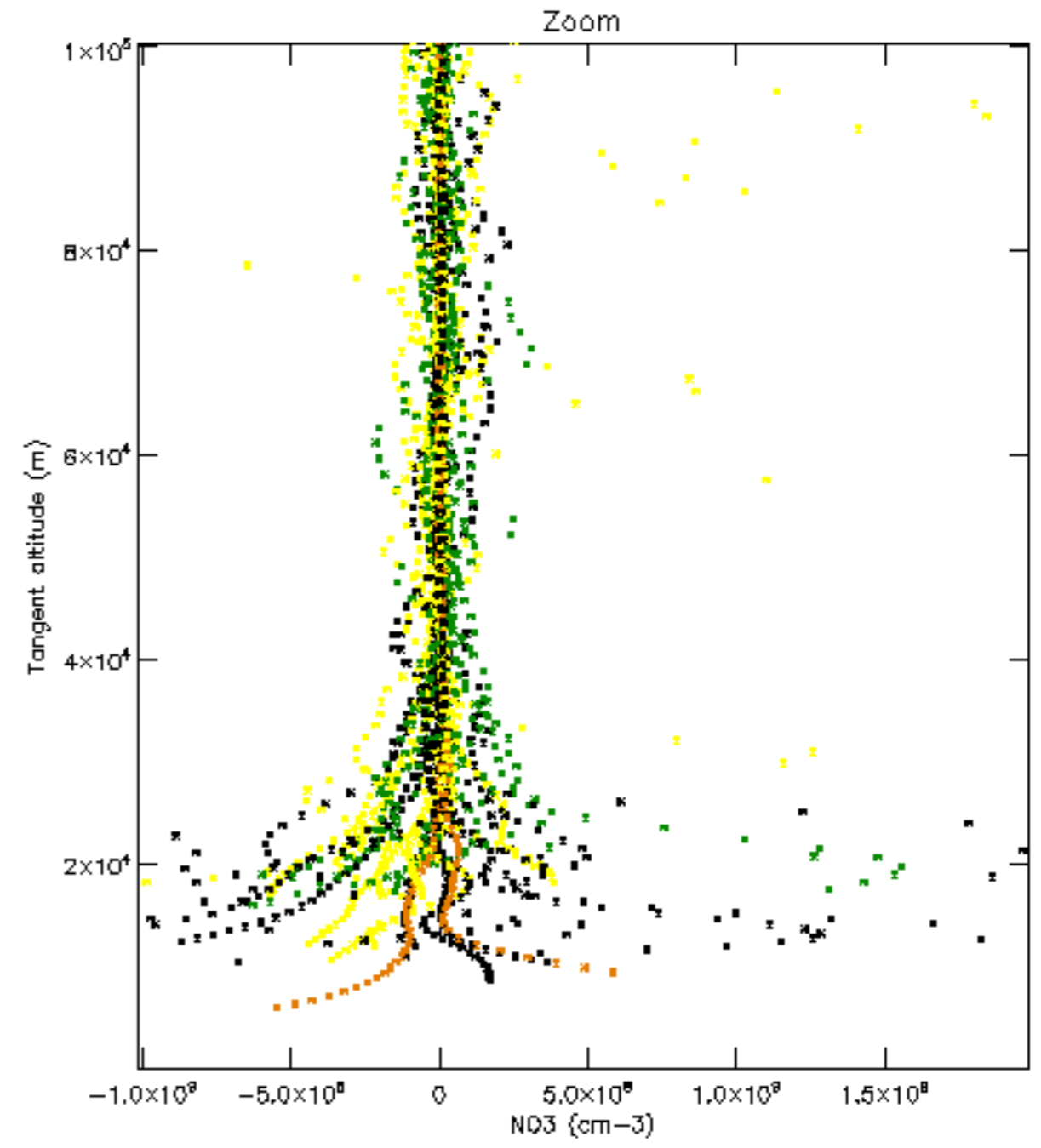
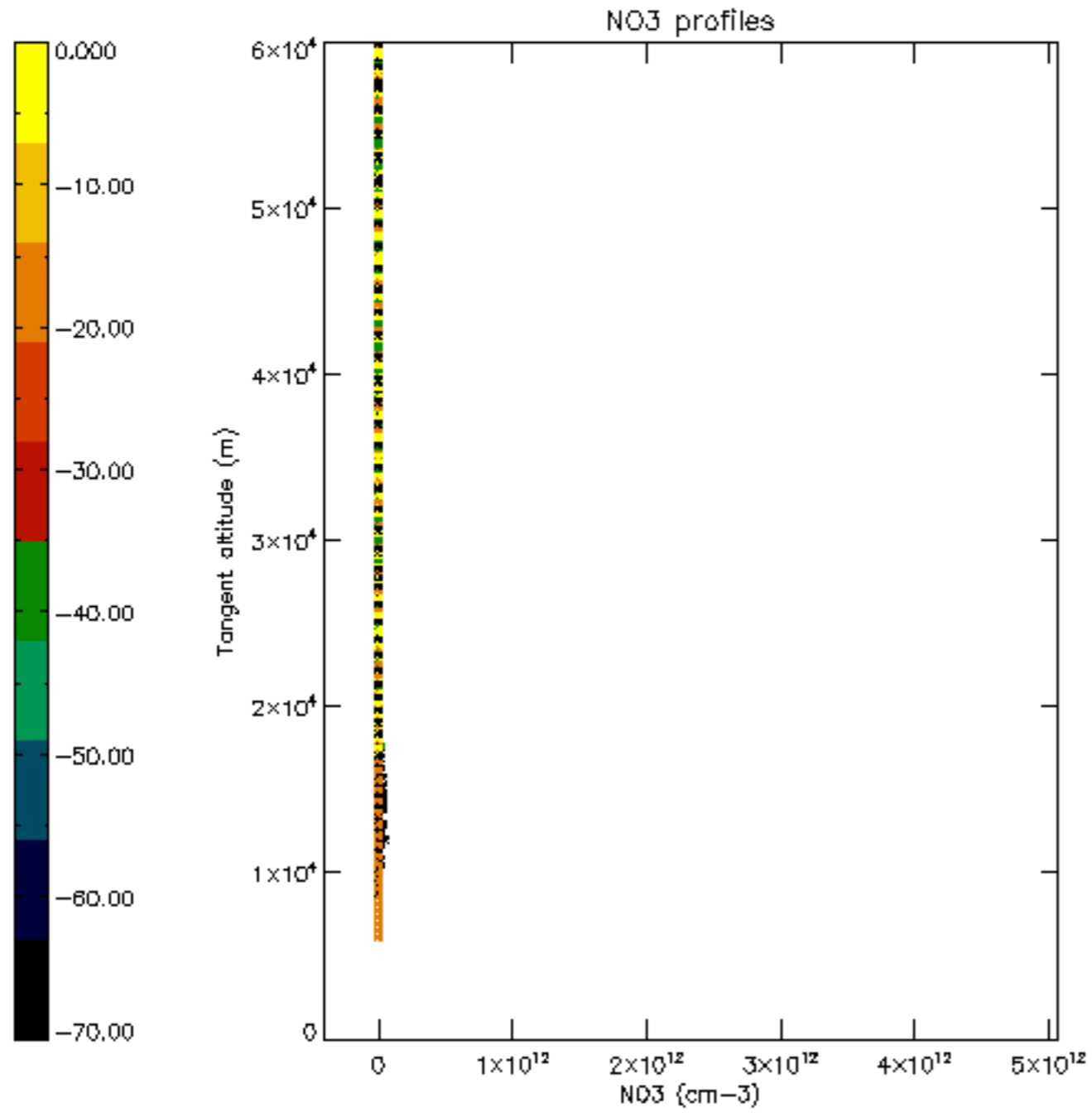




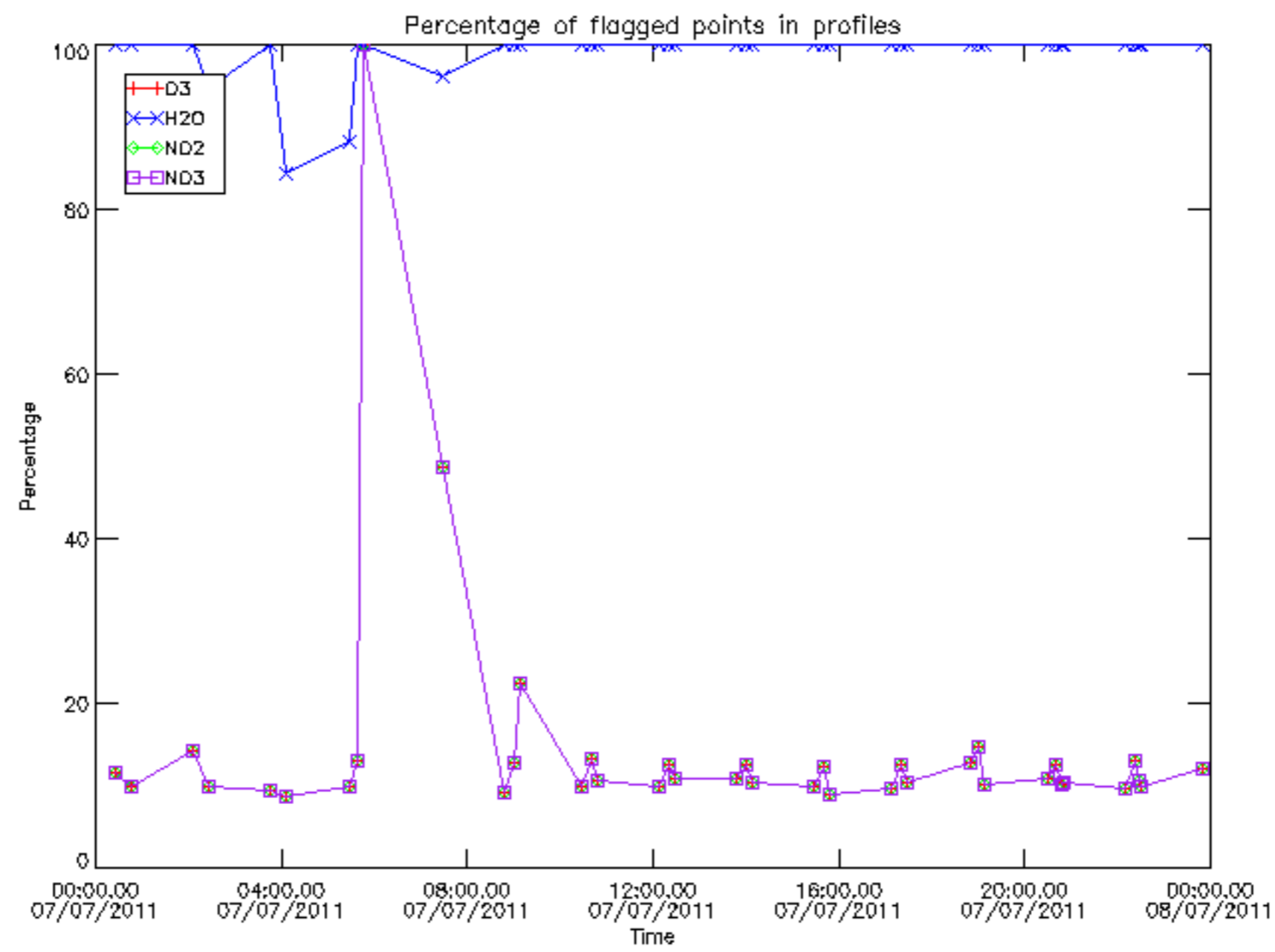




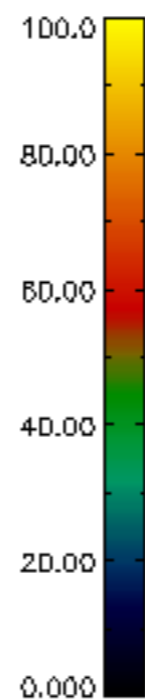
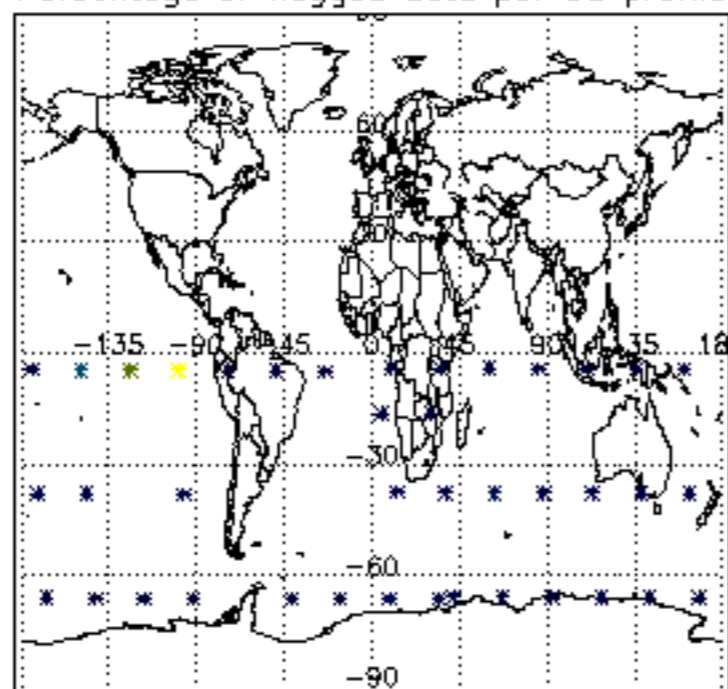




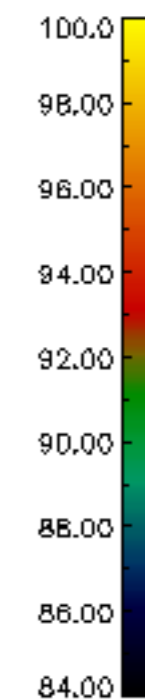
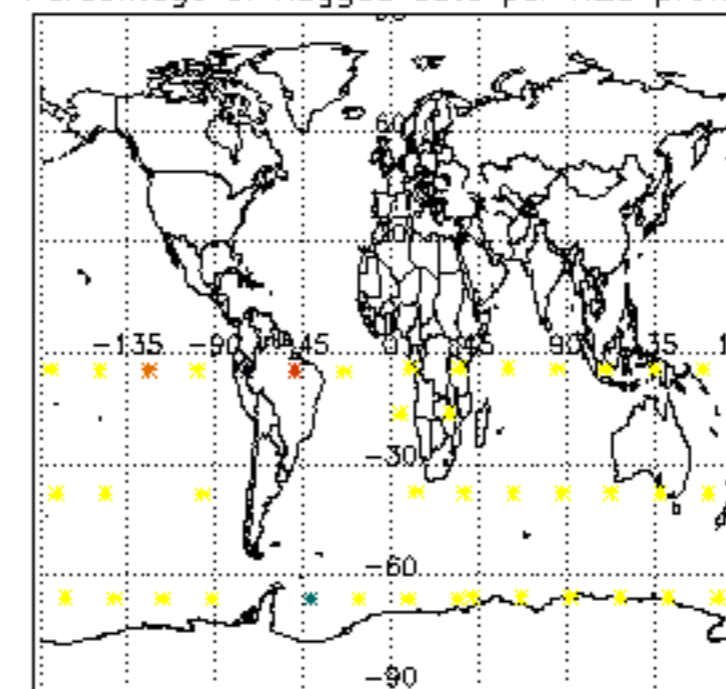




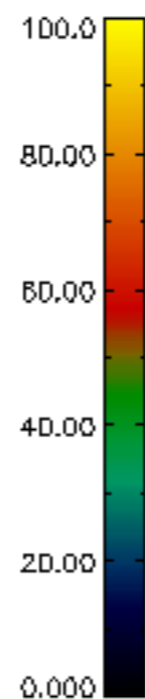
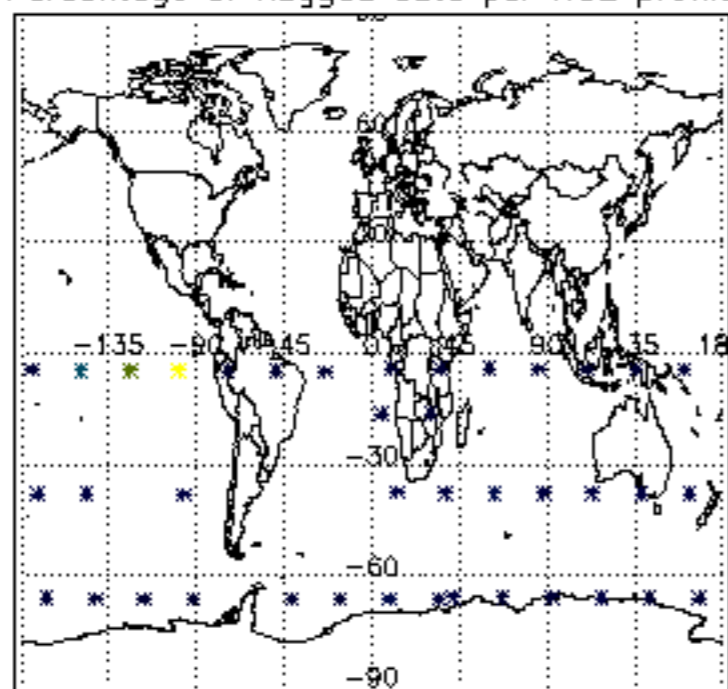
Percentage of flagged data per D3 profile



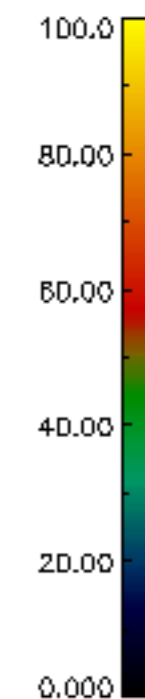
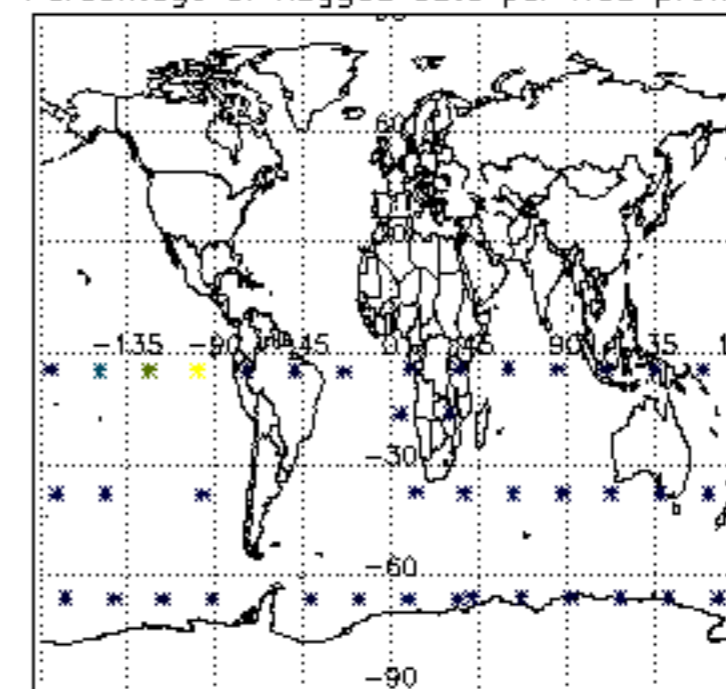
Percentage of flagged data per H2O profile

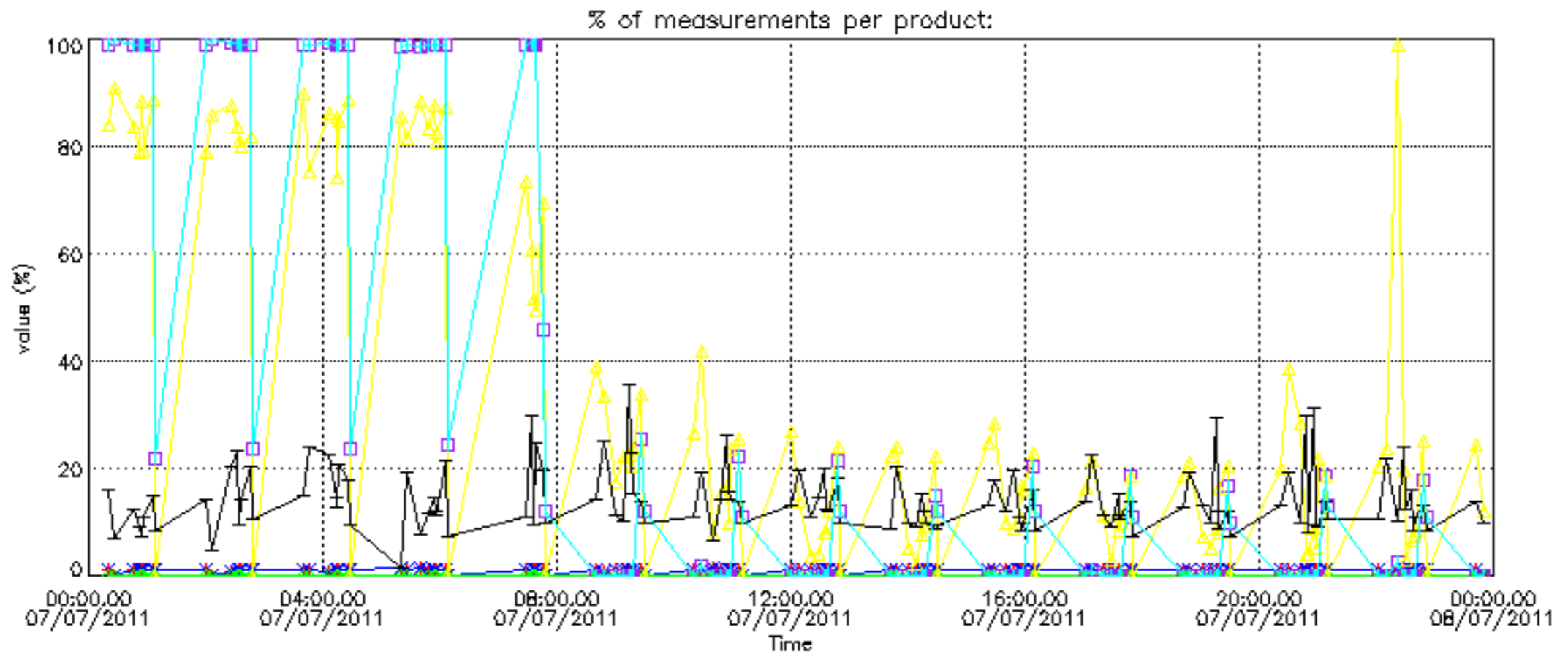


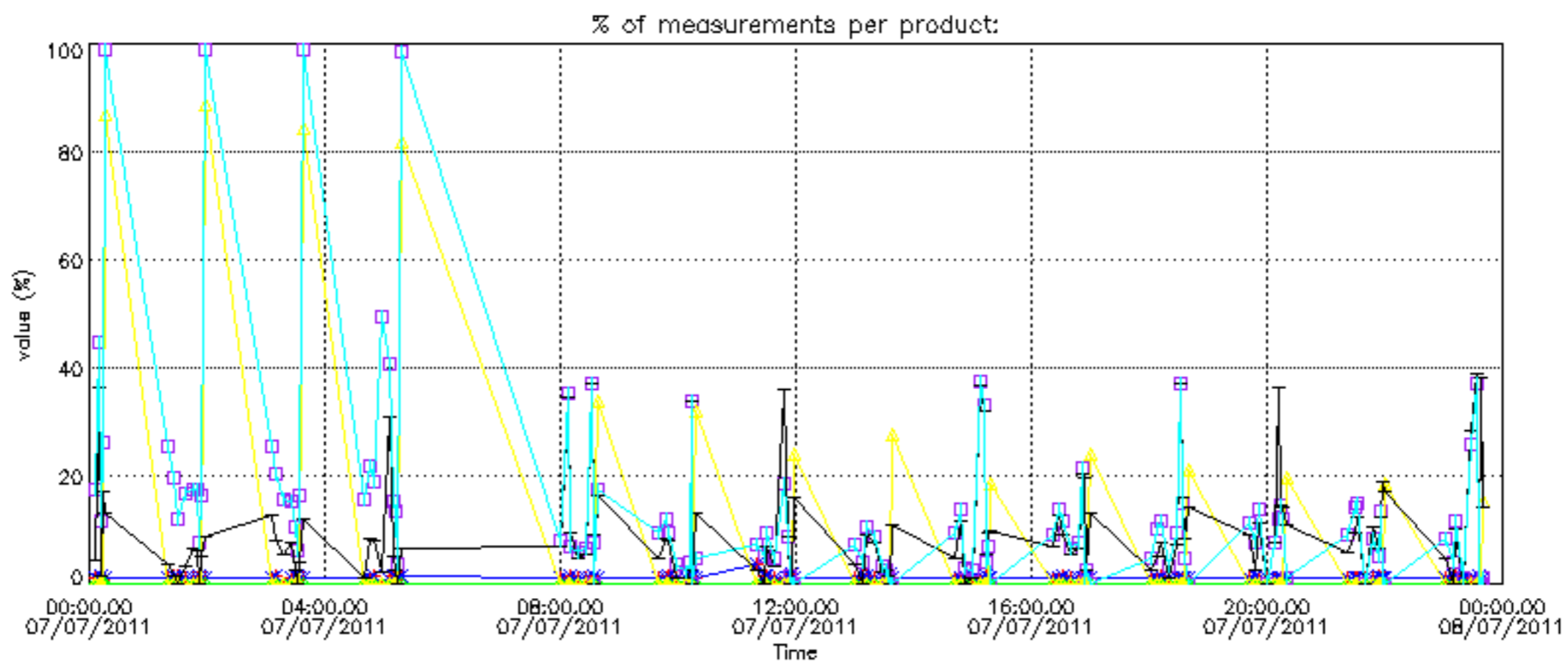
Percentage of flagged data per NO2 profile



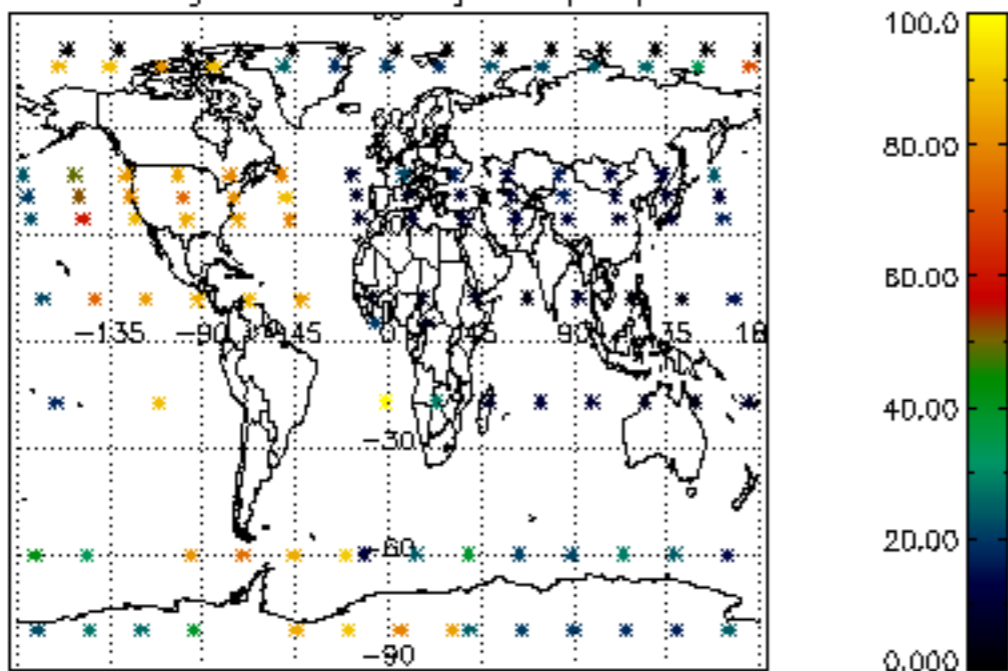
Percentage of flagged data per NO3 profile



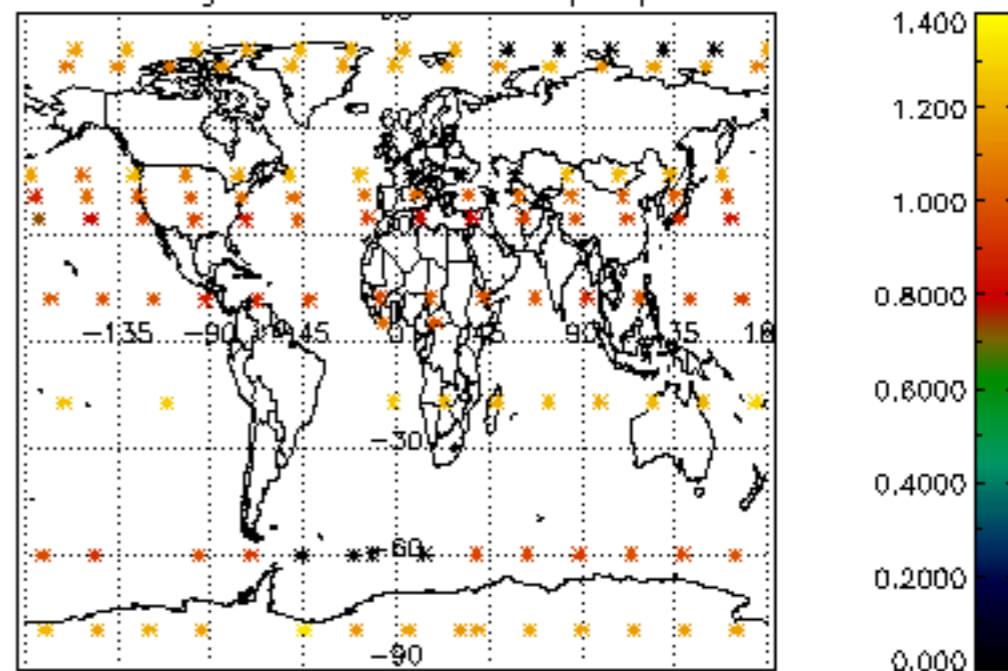




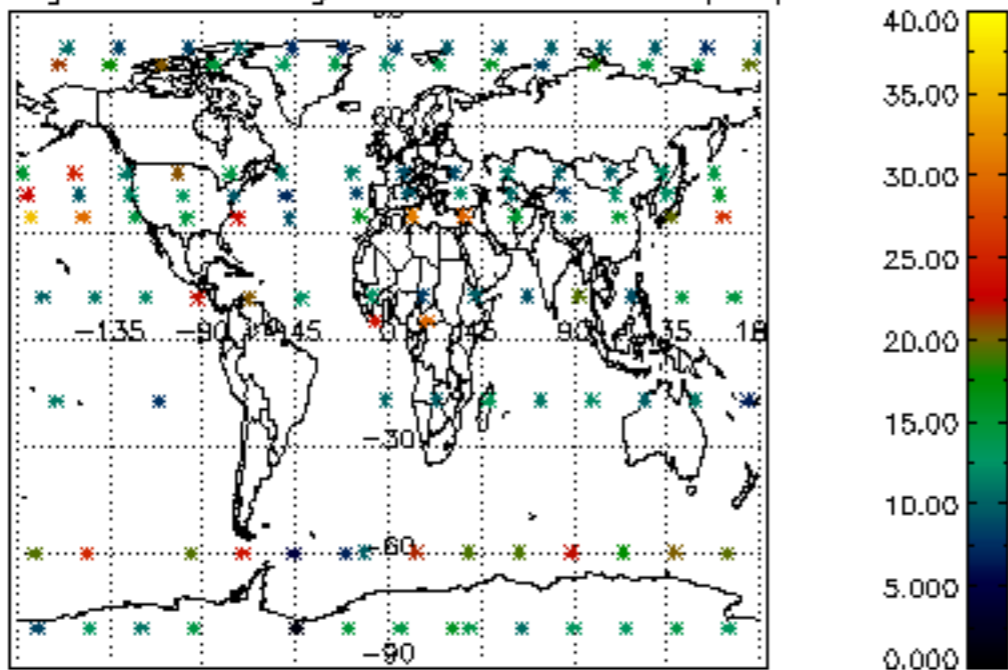
Percentage of cosmic ray hits per profile



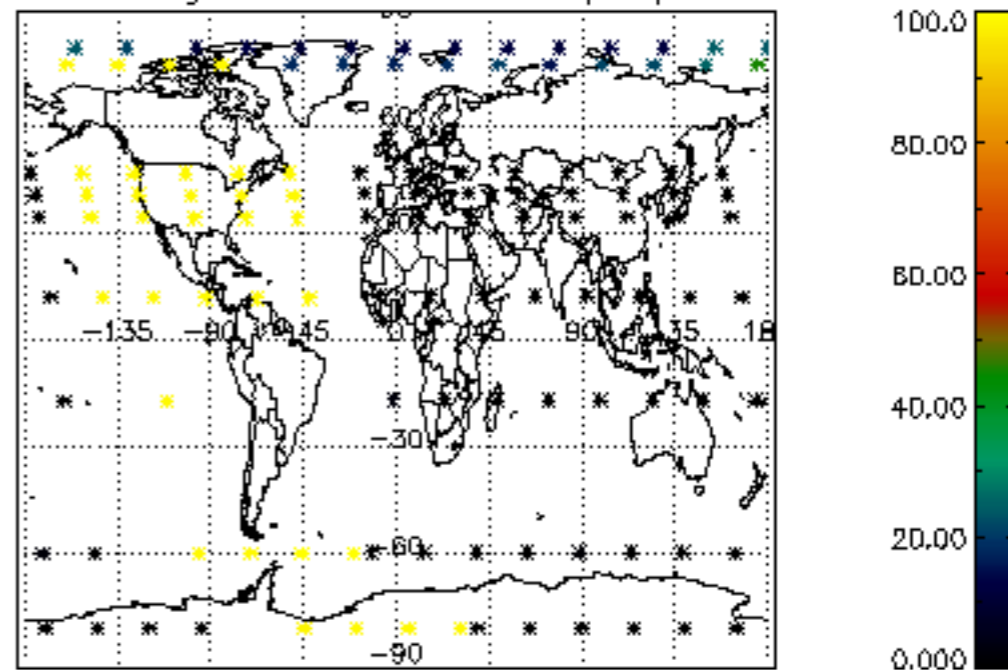
Percentage of datation errors per profile



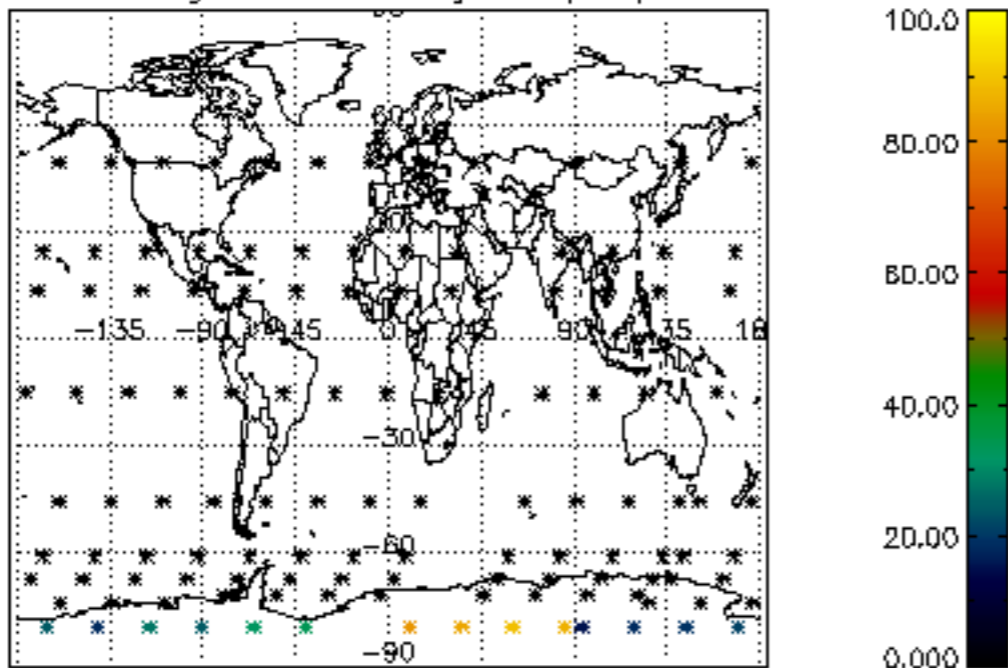
Percentage of star falling outside central band per profile



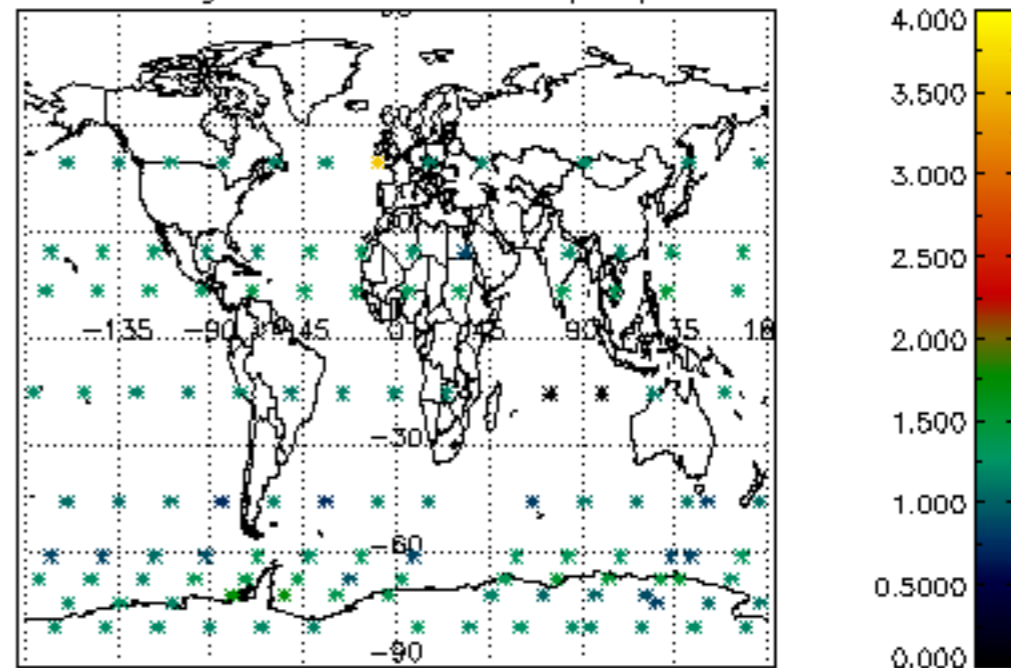
Percentage of saturation errors per profile



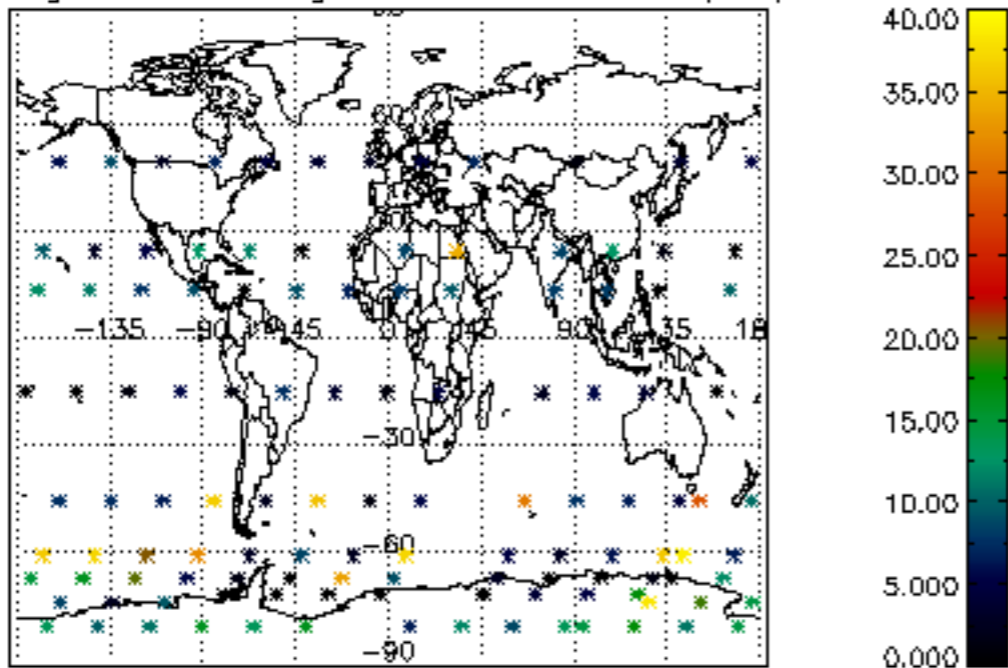
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

