

# 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 17:51:57
Data source version	GOMOS/6.01
Start time of products	10-03-2009 (10MAR2009 00:00:00)
Stop time of products	11-03-2009 (11MAR2009 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	258
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__2PRFIN20090310_000543_000000412077_00102_36729_7948.N1	10-MAR-2009 00:05:43	Bright	41.000	174	52Psi UMa	3.0040	4400.0	82	36729	No
2	GOM_NL__2PRFIN20090310_000932_000000422077_00102_36729_7949.N1	10-MAR-2009 00:09:32	Bright	42.000	87	64Gam UMa	2.4330	11000.	84	36729	No
3	GOM_NL__2PRFIN20090310_001228_000000492077_00102_36729_7950.N1	10-MAR-2009 00:12:28	Bright	48.500	32	77Eps UMa	1.7630	11000.	97	36729	No
4	GOM_NL__2PRFIN20090310_001724_000000382077_00102_36729_7951.N1	10-MAR-2009 00:17:24	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	36729	No
5	GOM_NL__2PRFIN20090310_002148_000000472077_00102_36729_7952.N1	10-MAR-2009 00:21:48	Bright	47.000	119	14Eta Dra	2.7270	4700.0	94	36729	No
6	GOM_NL__2PRFIN20090310_002722_000000482077_00102_36729_7953.N1	10-MAR-2009 00:27:22	Bright	47.500	69	33Gam Dra	2.2310	3800.0	95	36729	No
7	GOM_NL__2PRFIN20090310_003221_000000492077_00102_36729_7954.N1	10-MAR-2009 00:32:21	Bright	48.500	5	3Alp Lyr	0.033000	11000.	97	36729	No
8	GOM_NL__2PRFIN20090310_004044_000000482077_00102_36729_7955.N1	10-MAR-2009 00:40:44	Twilight	47.500	168	17Zet Aql	2.9860	11000.	95	36729	No
9	GOM_NL__2PRFIN20090310_005356_000000522077_00102_36729_7956.N1	10-MAR-2009 00:53:56	Dark	52.000	137	22Lam Sgr	2.8240	4400.0	104	36729	No
10	GOM_NL__2PRFIN20090310_005929_000000522077_00102_36729_7957.N1	10-MAR-2009 00:59:29	Dark	52.000	25	35Lam Sco	1.6200	28000.	104	36729	No
11	GOM_NL__2PRFIN20090310_010804_000000532077_00103_36730_8049.N1	10-MAR-2009 01:08:04	Dark	53.000	131	Gam Lup	2.8000	26000.	106	36730	No
12	GOM_NL__2PRFIN20090310_011034_000000462077_00103_36730_8050.N1	10-MAR-2009 01:10:34	Dark	46.000	78	Alp Lup	2.3040	28000.	92	36730	No
13	GOM_NL__2PRFIN20090310_011253_000000502077_00103_36730_8051.N1	10-MAR-2009 01:12:53	Dark	50.000	95	Zet Cen	2.5450	26000.	100	36730	No
14	GOM_NL__2PRFIN20090310_011506_000000622077_00103_36730_8052.N1	10-MAR-2009 01:15:06	Straylight	62.000	54	5The Cen	2.0550	4500.0	124	36730	No
15	GOM_NL__2PRFIN20090310_011717_000000512077_00103_36730_8053.N1	10-MAR-2009 01:17:17	Straylight	51.000	123	lot Cen	2.7500	10200.	102	36730	No
16	GOM_NL__2PRFIN20090310_012335_000000612077_00103_36730_8054.N1	10-MAR-2009 01:23:35	Straylight	61.000	106	9Bet Crv	2.6480	5600.0	122	36730	No
17	GOM_NL__2PRFIN20090310_012609_000000562077_00103_36730_8055.N1	10-MAR-2009 01:26:09	Straylight	55.500	100	4Gam Crv	2.5800	13100.	111	36730	No
18	GOM_NL__2PRFIN20090310_013912_000000452077_00103_36730_8056.N1	10-MAR-2009 01:39:12	Bright	44.500	96	68Del Leo	2.5600	9300.0	89	36730	No
19	GOM_NL__2PRFIN20090310_014619_000000402077_00103_36730_8057.N1	10-MAR-2009 01:46:19	Bright	40.000	174	52Psi UMa	3.0040	4400.0	80	36730	No
20	GOM_NL__2PRFIN20090310_015007_000000412077_00103_36730_8058.N1	10-MAR-2009 01:50:07	Bright	40.500	87	64Gam UMa	2.4330	11000.	81	36730	No
21	GOM_NL__2PRFIN20090310_015303_000000452077_00103_36730_8059.N1	10-MAR-2009 01:53:03	Bright	44.500	32	77Eps UMa	1.7630	11000.	89	36730	No
22	GOM_NL__2PRFIN20090310_015800_000000362077_00103_36730_8060.N1	10-MAR-2009 01:58:00	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	36730	No
23	GOM_NL__2PRFIN20090310_020223_000000472077_00103_36730_8061.N1	10-MAR-2009 02:02:23	Bright	47.000	119	14Eta Dra	2.7270	4700.0	94	36730	No
24	GOM_NL__2PRFIN20090310_020758_000000682077_00103_36730_8062.N1	10-MAR-2009 02:07:58	Bright	68.000	69	33Gam Dra	2.2310	3800.0	136	36730	No
25	GOM_NL__2PRFIN20090310_021257_000000482077_00103_36730_8063.N1	10-MAR-2009 02:12:57	Bright	48.000	5	3Alp Lyr	0.033000	11000.	96	36730	No
26	GOM_NL__2PRFIN20090310_022120_000000472077_00103_36730_8064.N1	10-MAR-2009 02:21:20	Twilight	47.000	168	17Zet Aql	2.9860	11000.	94	36730	No
27	GOM_NL__2PRFIN20090310_023432_000000512077_00103_36730_8065.N1	10-MAR-2009 02:34:32	Dark	50.500	137	22Lam Sgr	2.8240	4400.0	101	36730	No
28	GOM_NL__2PRFIN20090310_023655_000000512077_00103_36730_8066.N1	10-MAR-2009 02:36:55	Dark	51.000	167	10Gam2Sgr	2.9840	4500.0	102	36730	No
29	GOM_NL__2PRFIN20090310_024006_000000502077_00103_36730_8067.N1	10-MAR-2009 02:40:06	Dark	49.500	25	35Lam Sco	1.6200	28000.	99	36730	No
30	GOM_NL__2PRFIN20090310_024841_000000522077_00104_36731_8064.N1	10-MAR-2009 02:48:41	Dark	51.500	131	Gam Lup	2.8000	26000.	103	36731	No
31	GOM_NL__2PRFIN20090310_025111_000000462077_00104_36731_8065.N1	10-MAR-2009 02:51:11	Dark	45.500	78	Alp Lup	2.3040	28000.	91	36731	No
32	GOM_NL__2PRFIN20090310_025330_000000462077_00104_36731_8066.N1	10-MAR-2009 02:53:30	Dark	46.000	95	Zet Cen	2.5450	26000.	92	36731	No
33	GOM_NL__2PRFIN20090310_025543_000000632077_00104_36731_8067.N1	10-MAR-2009 02:55:43	Straylight	62.500	54	5The Cen	2.0550	4500.0	125	36731	No
34	GOM_NL__2PRFIN20090310_025754_000000502077_00104_36731_8068.N1	10-MAR-2009 02:57:54	Straylight	49.500	123	lot Cen	2.7500	10200.	99	36731	No
35	GOM_NL__2PRFIN20090310_030412_000000612077_00104_36731_8069.N1	10-MAR-2009 03:04:12	Straylight	60.500	106	9Bet Crv	2.6480	5600.0	121	36731	No
36	GOM_NL__2PRFIN20090310_030645_000000552077_00104_36731_8070.N1	10-MAR-2009 03:06:45	Straylight	54.500	100	4Gam Crv	2.5800	13100.	109	36731	No
37	GOM_NL__2PRFIN20090310_031947_000000432077_00104_36731_8071.N1	10-MAR-2009 03:19:47	Bright	43.000	96	68Del Leo	2.5600	9300.0	86	36731	No
38	GOM_NL__2PRFIN20090310_032654_000000532077_00104_36731_8072.N1	10-MAR-2009 03:26:54	Bright	52.500	174	52Psi UMa	3.0040	4400.0	105	36731	No
39	GOM_NL__2PRFIN20090310_033043_000000422077_00104_36731_8073.N1	10-MAR-2009 03:30:43	Bright	41.500	87	64Gam UMa	2.4330	11000.	83	36731	No
40	GOM_NL__2PRFIN20090310_033338_000000452077_00104_36731_8074.N1	10-MAR-2009 03:33:38	Bright	44.500	32	77Eps UMa	1.7630	11000.	89	36731	No
41	GOM_NL__2PRFIN20090310_033836_000000402077_00104_36731_8075.N1	10-MAR-2009 03:38:36	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	36731	No
42	GOM_NL__2PRFIN20090310_034258_000000482077_00104_36731_8076.N1	10-MAR-2009 03:42:58	Bright	48.000	119	14Eta Dra	2.7270	4700.0	96	36731	No





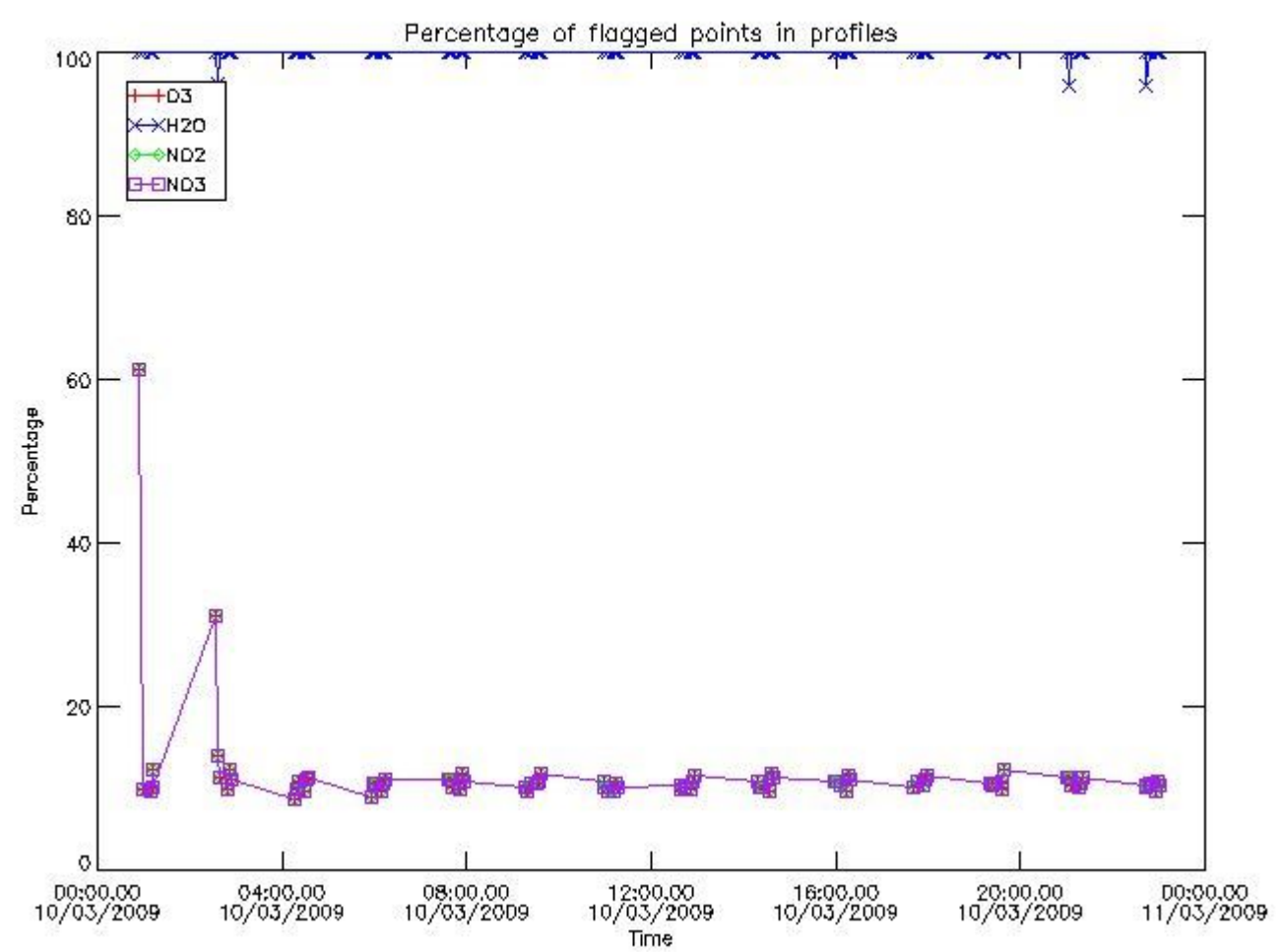


220	GOM_NL__2PRFIN20090310_202431_000000482077_00114_36741_8246.N1	10-MAR-2009 20:24:31	Bright	47.500	60	7Bet UMi	2.0810	3950.0	95	36741	No
221	GOM_NL__2PRFIN20090310_202852_000000462077_00114_36741_8247.N1	10-MAR-2009 20:28:52	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	36741	No
222	GOM_NL__2PRFIN20090310_203340_000000502077_00114_36741_8248.N1	10-MAR-2009 20:33:40	Bright	50.000	130	23Bet Dra	2.7990	5800.0	100	36741	No
223	GOM_NL__2PRFIN20090310_203932_000000482077_00114_36741_8249.N1	10-MAR-2009 20:39:32	Bright	47.500	5	3Alp Lyr	0.033000	11000.	95	36741	No
224	GOM_NL__2PRFIN20090310_204800_000000482077_00114_36741_8250.N1	10-MAR-2009 20:48:00	Tw_i_and_stray	48.000	168	17Zet Aql	2.9860	11000.	96	36741	No
225	GOM_NL__2PRFIN20090310_210117_000000492077_00114_36741_8251.N1	10-MAR-2009 21:01:17	Dark	49.000	137	22Lam Sgr	2.8240	4400.0	98	36741	No
226	GOM_NL__2PRFIN20090310_210241_000000502077_00114_36741_8252.N1	10-MAR-2009 21:02:41	Dark	49.500	116	19Del Sgr	2.7000	4100.0	99	36741	No
227	GOM_NL__2PRFIN20090310_210653_000000492077_00114_36741_8253.N1	10-MAR-2009 21:06:53	Dark	49.000	25	35Lam Sco	1.6200	28000.	98	36741	No
228	GOM_NL__2PRFIN20090310_211530_000000512077_00115_36742_8251.N1	10-MAR-2009 21:15:30	Dark	50.500	131	Gam Lup	2.8000	26000.	101	36742	No
229	GOM_NL__2PRFIN20090310_211756_000000482077_00115_36742_8252.N1	10-MAR-2009 21:17:56	Dark	48.000	78	Alp Lup	2.3040	28000.	96	36742	No
230	GOM_NL__2PRFIN20090310_212014_000000452077_00115_36742_8253.N1	10-MAR-2009 21:20:14	Dark	45.000	95	Zet Cen	2.5450	26000.	90	36742	No
231	GOM_NL__2PRFIN20090310_212437_000000502077_00115_36742_8254.N1	10-MAR-2009 21:24:37	Straylight	49.500	123	Iot Cen	2.7500	10200.	99	36742	No
232	GOM_NL__2PRFIN20090310_213050_000000582077_00115_36742_8255.N1	10-MAR-2009 21:30:50	Straylight	58.000	106	9Bet Crv	2.6480	5600.0	116	36742	No
233	GOM_NL__2PRFIN20090310_213321_000000552077_00115_36742_8256.N1	10-MAR-2009 21:33:21	Straylight	54.500	100	4Gam Crv	2.5800	13100.	109	36742	No
234	GOM_NL__2PRFIN20090310_214618_000000432077_00115_36742_8257.N1	10-MAR-2009 21:46:18	Bright	43.000	96	68Del Leo	2.5600	9300.0	86	36742	No
235	GOM_NL__2PRFIN20090310_215324_000000392077_00115_36742_8258.N1	10-MAR-2009 21:53:24	Bright	39.000	174	52Psi UMa	3.0040	4400.0	78	36742	No
236	GOM_NL__2PRFIN20090310_215712_000000442077_00115_36742_8259.N1	10-MAR-2009 21:57:12	Bright	43.500	87	64Gam UMa	2.4330	11000.	87	36742	No
237	GOM_NL__2PRFIN20090310_220005_000000472077_00115_36742_8260.N1	10-MAR-2009 22:00:05	Bright	46.500	32	77Eps UMa	1.7630	11000.	93	36742	No
238	GOM_NL__2PRFIN20090310_220507_000000422077_00115_36742_8261.N1	10-MAR-2009 22:05:07	Bright	41.500	60	7Bet UMi	2.0810	3950.0	83	36742	No
239	GOM_NL__2PRFIN20090310_220928_000000692077_00115_36742_8262.N1	10-MAR-2009 22:09:28	Bright	69.000	119	14Eta Dra	2.7270	4700.0	138	36742	No
240	GOM_NL__2PRFIN20090310_221415_000000502077_00115_36742_8263.N1	10-MAR-2009 22:14:15	Bright	49.500	130	23Bet Dra	2.7990	5800.0	99	36742	No
241	GOM_NL__2PRFIN20090310_222008_000000472077_00115_36742_8264.N1	10-MAR-2009 22:20:08	Bright	46.500	5	3Alp Lyr	0.033000	11000.	93	36742	No
242	GOM_NL__2PRFIN20090310_222836_000000482077_00115_36742_8265.N1	10-MAR-2009 22:28:36	Tw_i_and_stray	47.500	168	17Zet Aql	2.9860	11000.	95	36742	No
243	GOM_NL__2PRFIN20090310_224154_000000502077_00115_36742_8266.N1	10-MAR-2009 22:41:54	Dark	49.500	137	22Lam Sgr	2.8240	4400.0	99	36742	No
244	GOM_NL__2PRFIN20090310_224318_000000502077_00115_36742_8267.N1	10-MAR-2009 22:43:18	Dark	50.000	116	19Del Sgr	2.7000	4100.0	100	36742	No
245	GOM_NL__2PRFIN20090310_224729_000000492077_00115_36742_8268.N1	10-MAR-2009 22:47:29	Dark	48.500	25	35Lam Sco	1.6200	28000.	97	36742	No
246	GOM_NL__2PRFIN20090310_225606_000000532077_00116_36743_8267.N1	10-MAR-2009 22:56:06	Dark	52.500	131	Gam Lup	2.8000	26000.	105	36743	No
247	GOM_NL__2PRFIN20090310_225833_000000472077_00116_36743_8268.N1	10-MAR-2009 22:58:33	Dark	46.500	78	Alp Lup	2.3040	28000.	93	36743	No
248	GOM_NL__2PRFIN20090310_230050_000000492077_00116_36743_8269.N1	10-MAR-2009 23:00:50	Dark	49.000	95	Zet Cen	2.5450	26000.	98	36743	No
249	GOM_NL__2PRFIN20090310_230305_000000612077_00116_36743_8270.N1	10-MAR-2009 23:03:05	Straylight	61.000	54	5The Cen	2.0550	4500.0	122	36743	No
250	GOM_NL__2PRFIN20090310_230513_000000492077_00116_36743_8271.N1	10-MAR-2009 23:05:13	Straylight	49.000	123	Iot Cen	2.7500	10200.	98	36743	No
251	GOM_NL__2PRFIN20090310_231127_000000582077_00116_36743_8272.N1	10-MAR-2009 23:11:27	Straylight	57.500	106	9Bet Crv	2.6480	5600.0	115	36743	No
252	GOM_NL__2PRFIN20090310_231358_000000562077_00116_36743_8273.N1	10-MAR-2009 23:13:58	Straylight	56.000	100	4Gam Crv	2.5800	13100.	112	36743	No
253	GOM_NL__2PRFIN20090310_232654_000000432077_00116_36743_8274.N1	10-MAR-2009 23:26:54	Bright	42.500	96	68Del Leo	2.5600	9300.0	85	36743	No
254	GOM_NL__2PRFIN20090310_233359_000000422077_00116_36743_8275.N1	10-MAR-2009 23:33:59	Bright	41.500	174	52Psi UMa	3.0040	4400.0	83	36743	No
255	GOM_NL__2PRFIN20090310_233747_000000622077_00116_36743_8276.N1	10-MAR-2009 23:37:47	Bright	62.000	87	64Gam UMa	2.4330	11000.	124	36743	No
256	GOM_NL__2PRFIN20090310_234040_000000482077_00116_36743_8277.N1	10-MAR-2009 23:40:40	Bright	47.500	32	77Eps UMa	1.7630	11000.	95	36743	No
257	GOM_NL__2PRFIN20090310_234542_000000372077_00116_36743_8278.N1	10-MAR-2009 23:45:42	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	36743	No
258	GOM_NL__2PRFIN20090310_235451_000000502077_00116_36743_8279.N1	10-MAR-2009 23:54:51	Bright	50.000	130	23Bet Dra	2.7990	5800.0	100	36743	No

### 3. Quality information per product

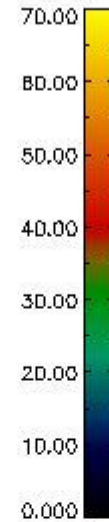
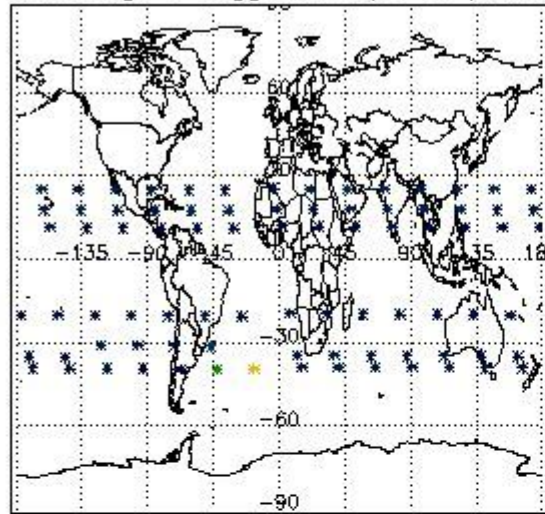
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

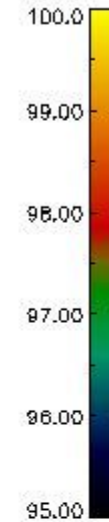
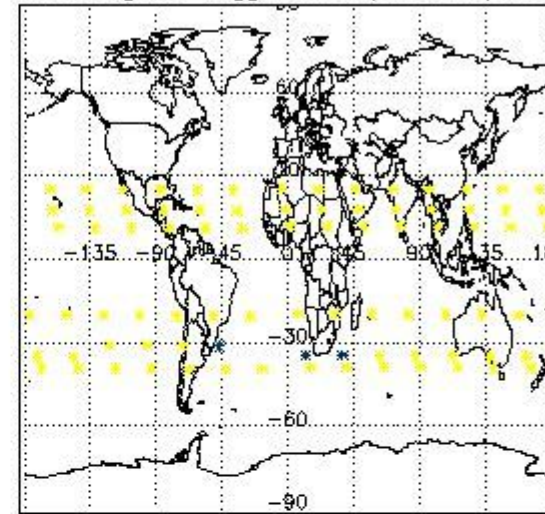


3.2 Plot quality information per product (world map)

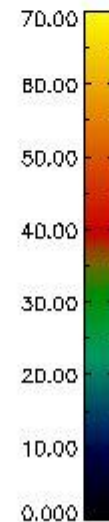
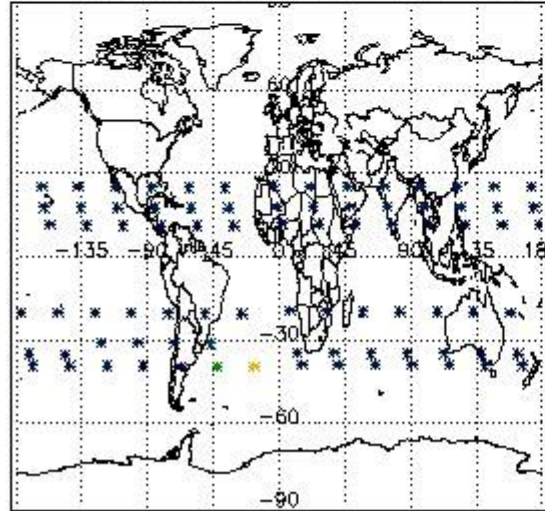
Percentage of flagged data per O3 profile



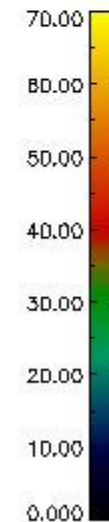
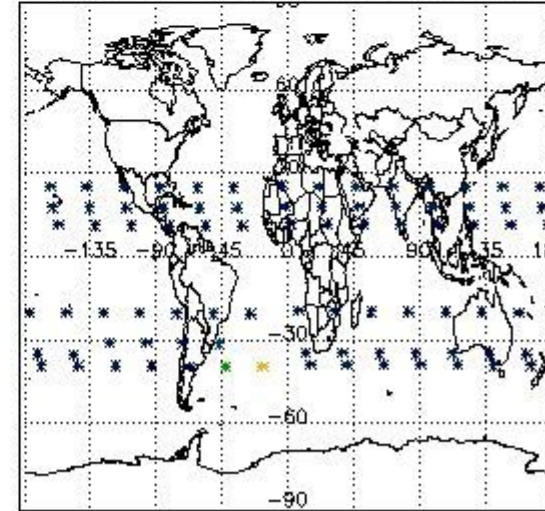
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



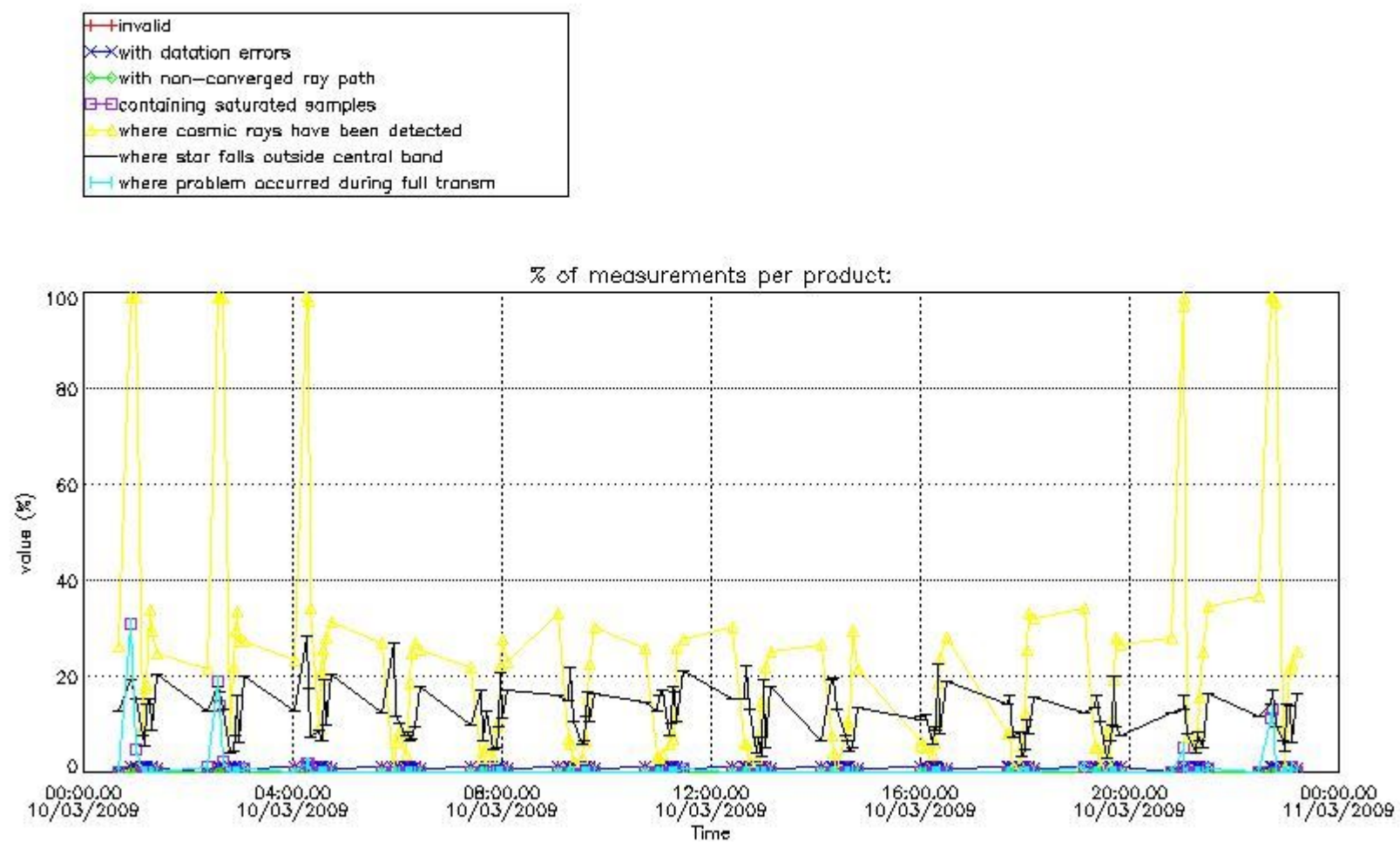
#### 4. Level 1 quality information per product

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.

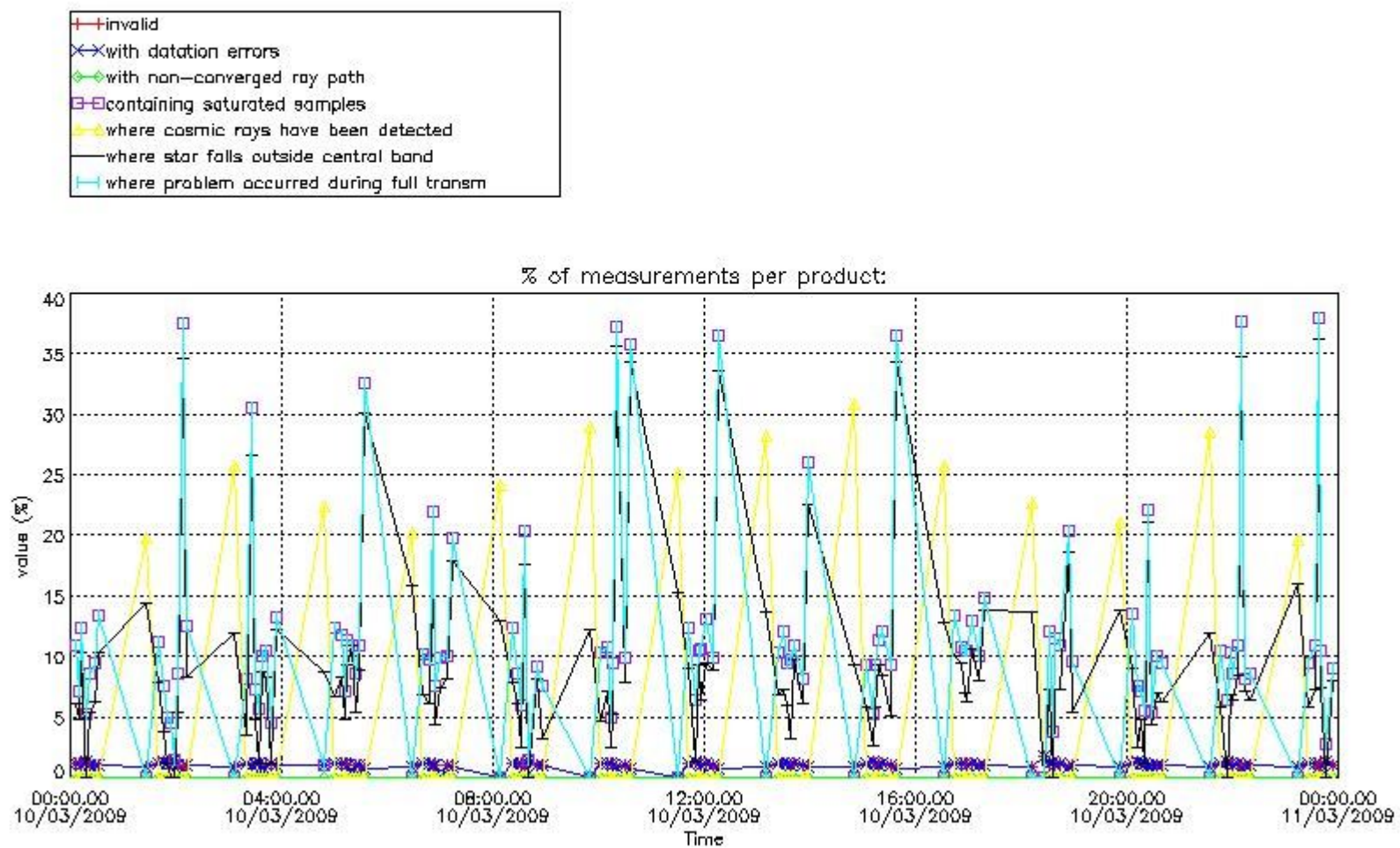
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



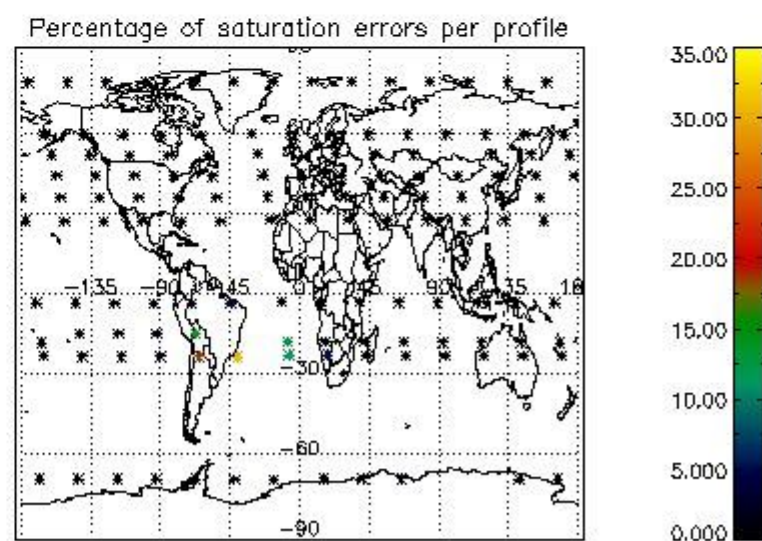
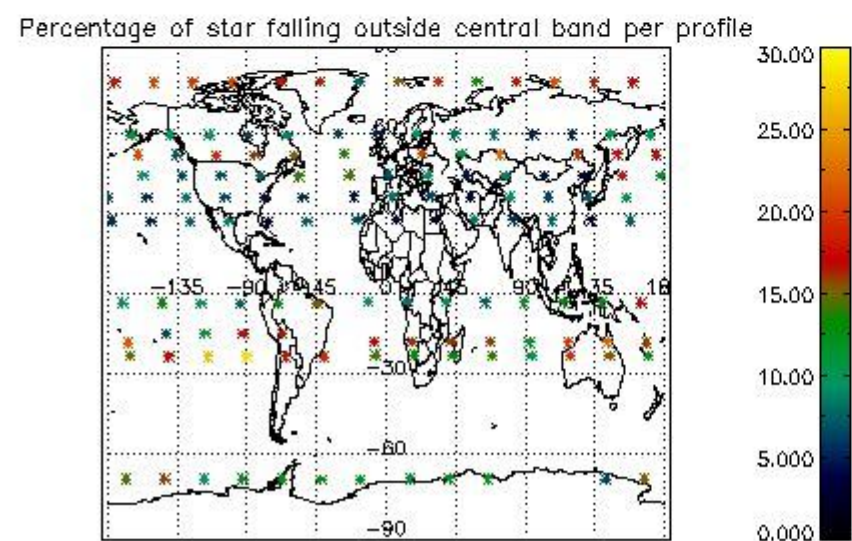
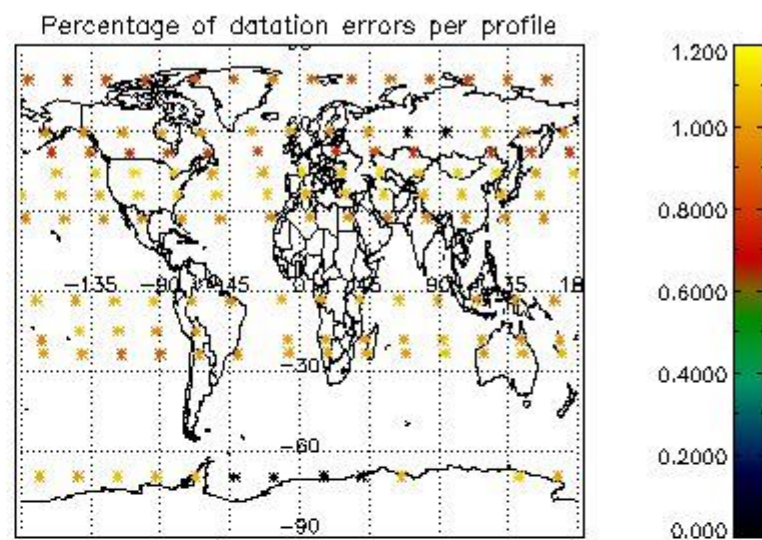
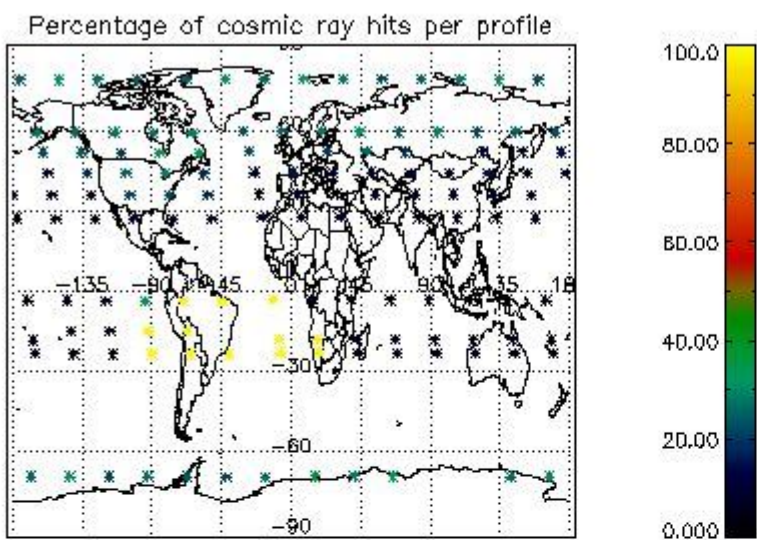


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

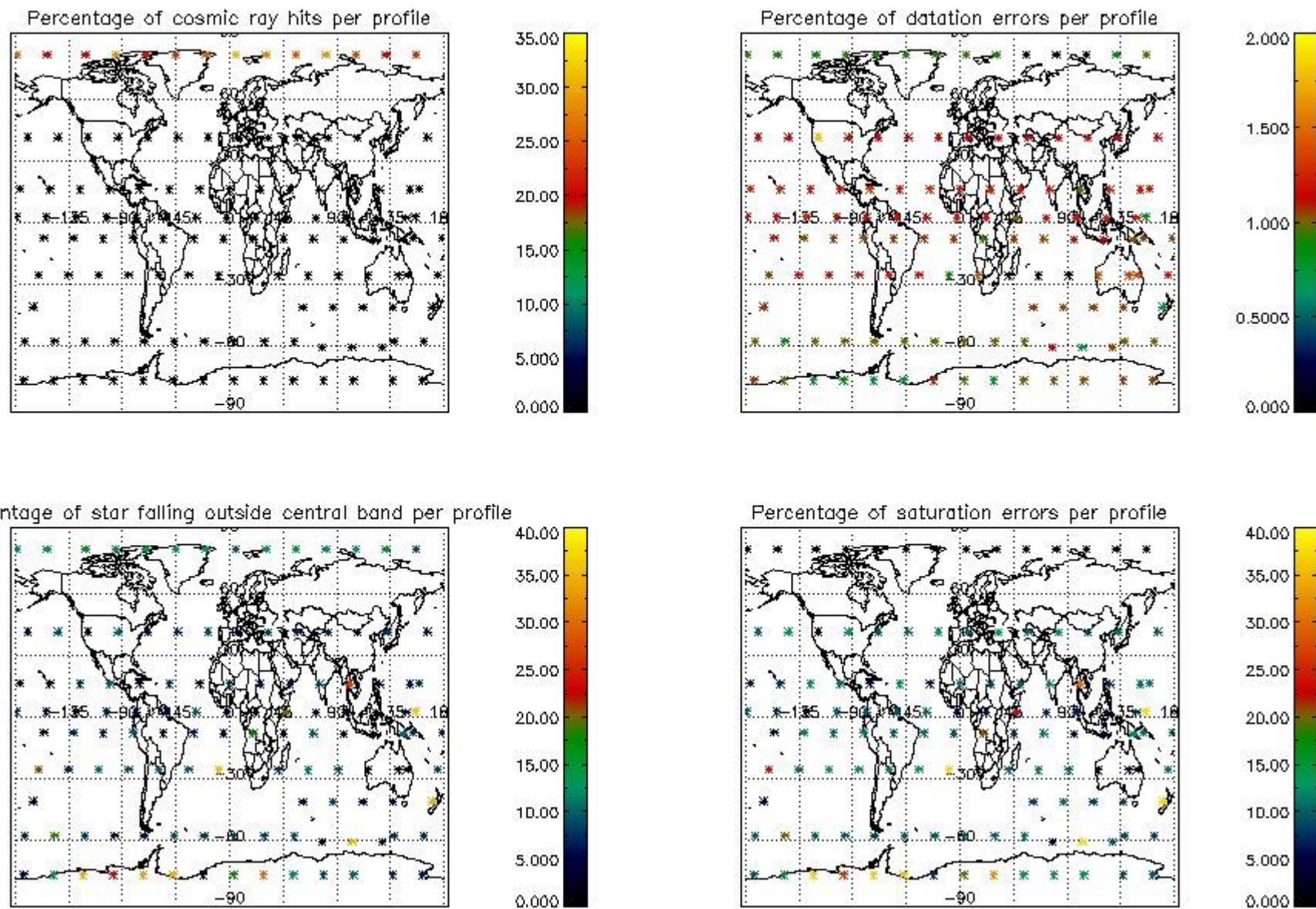


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

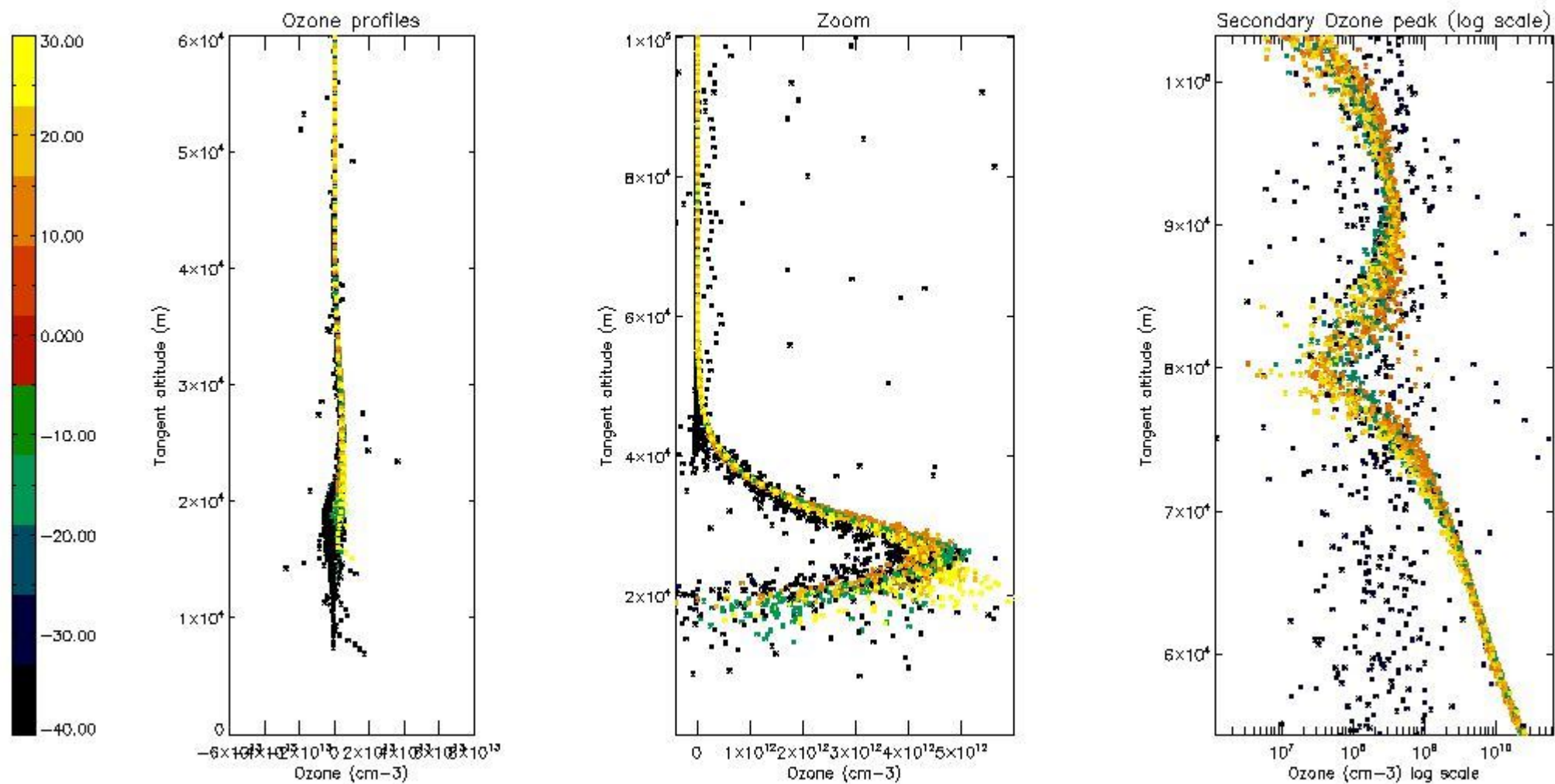
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	18

STD < 10	14
STD < 5	11

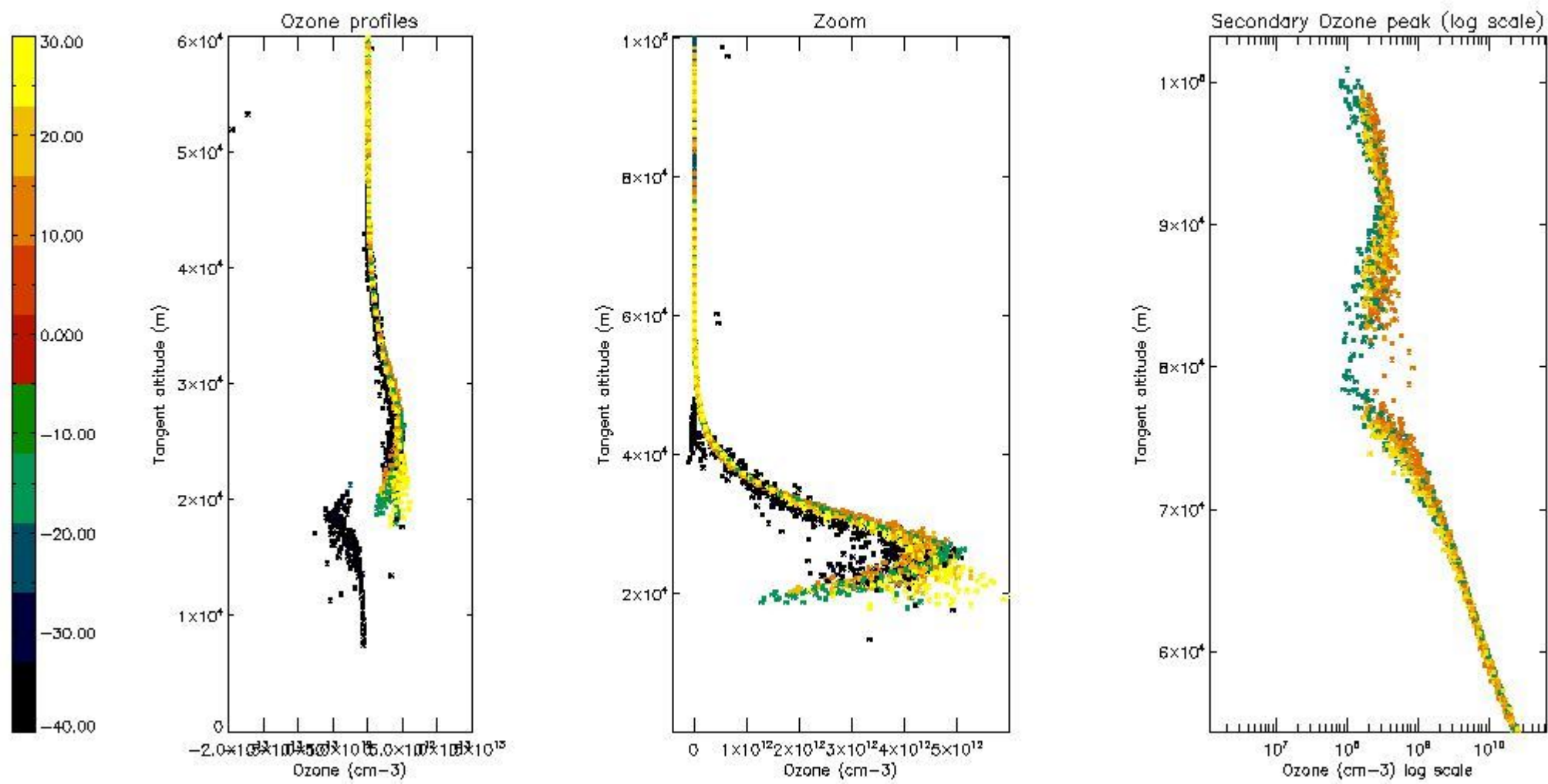
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



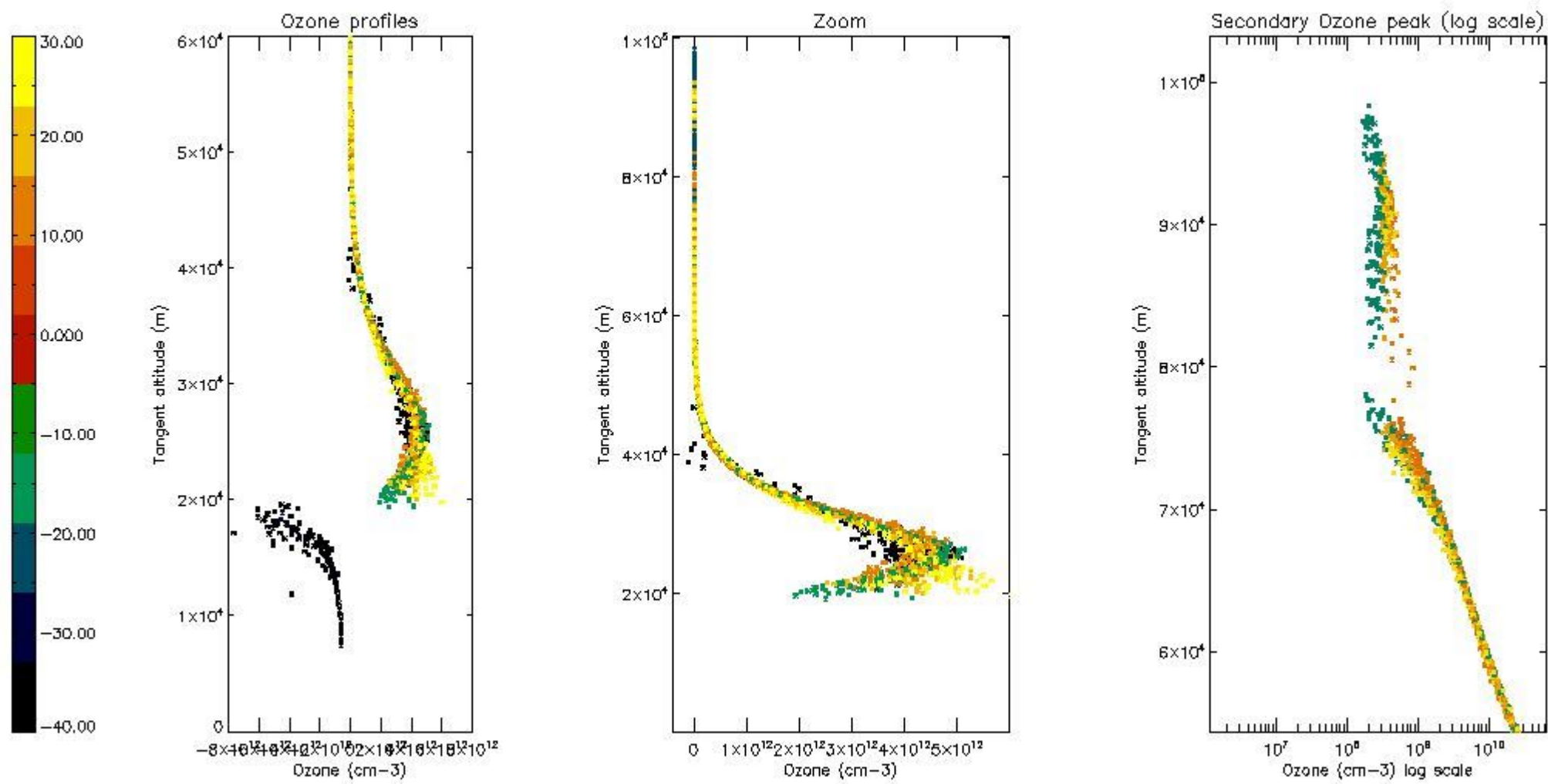
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



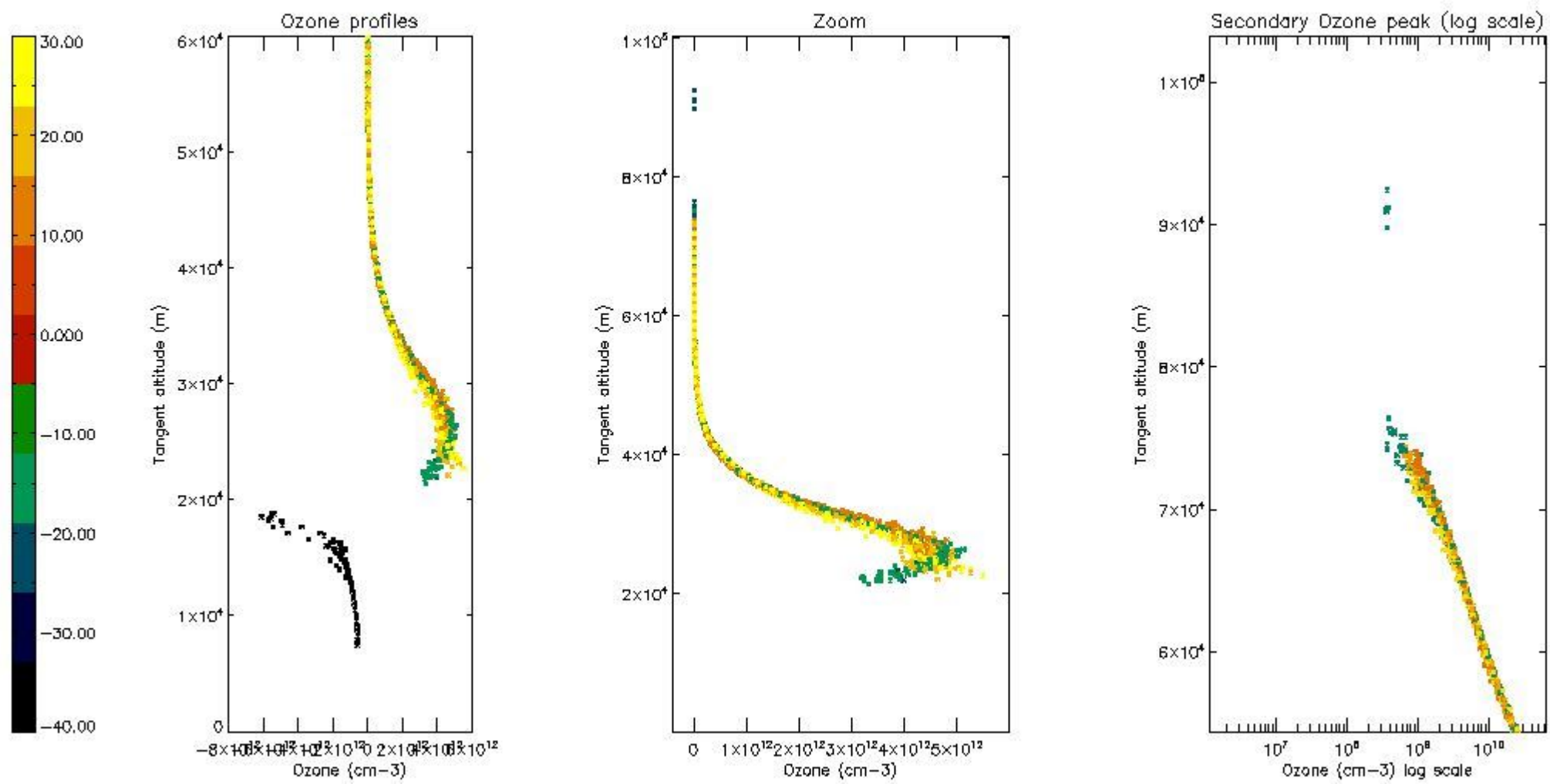
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

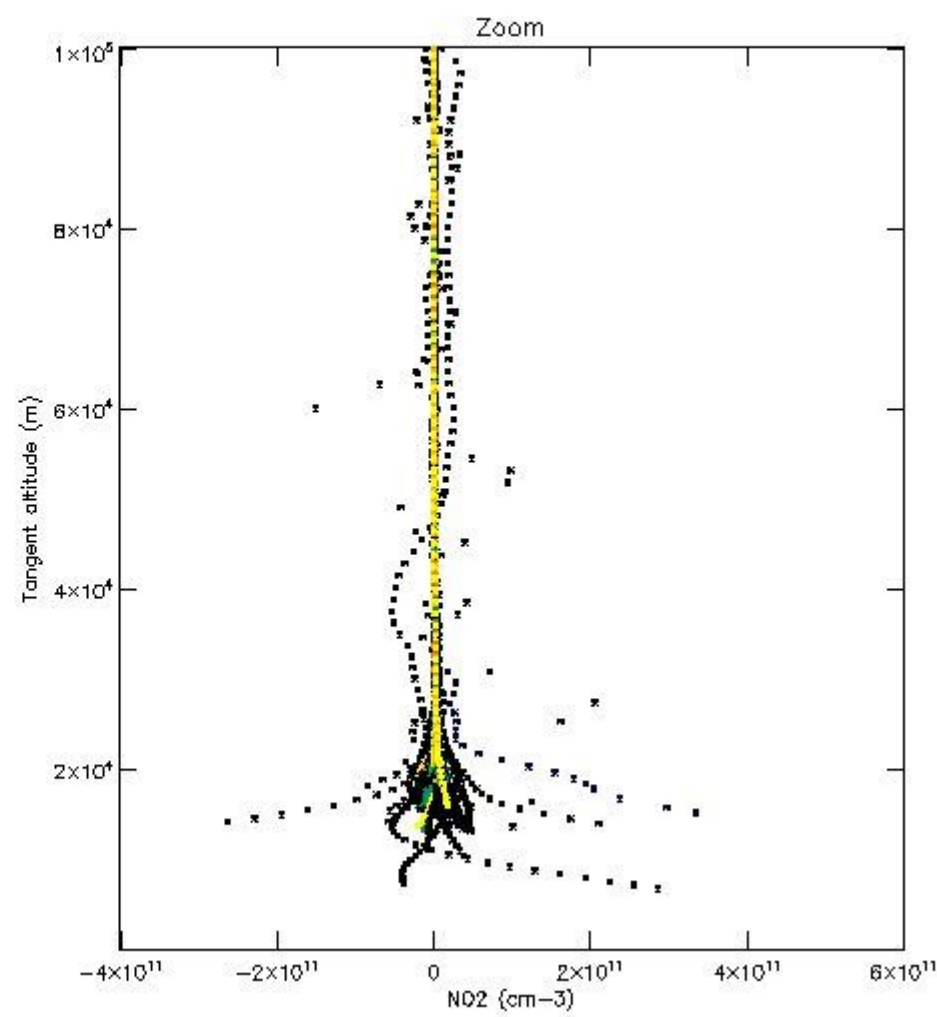
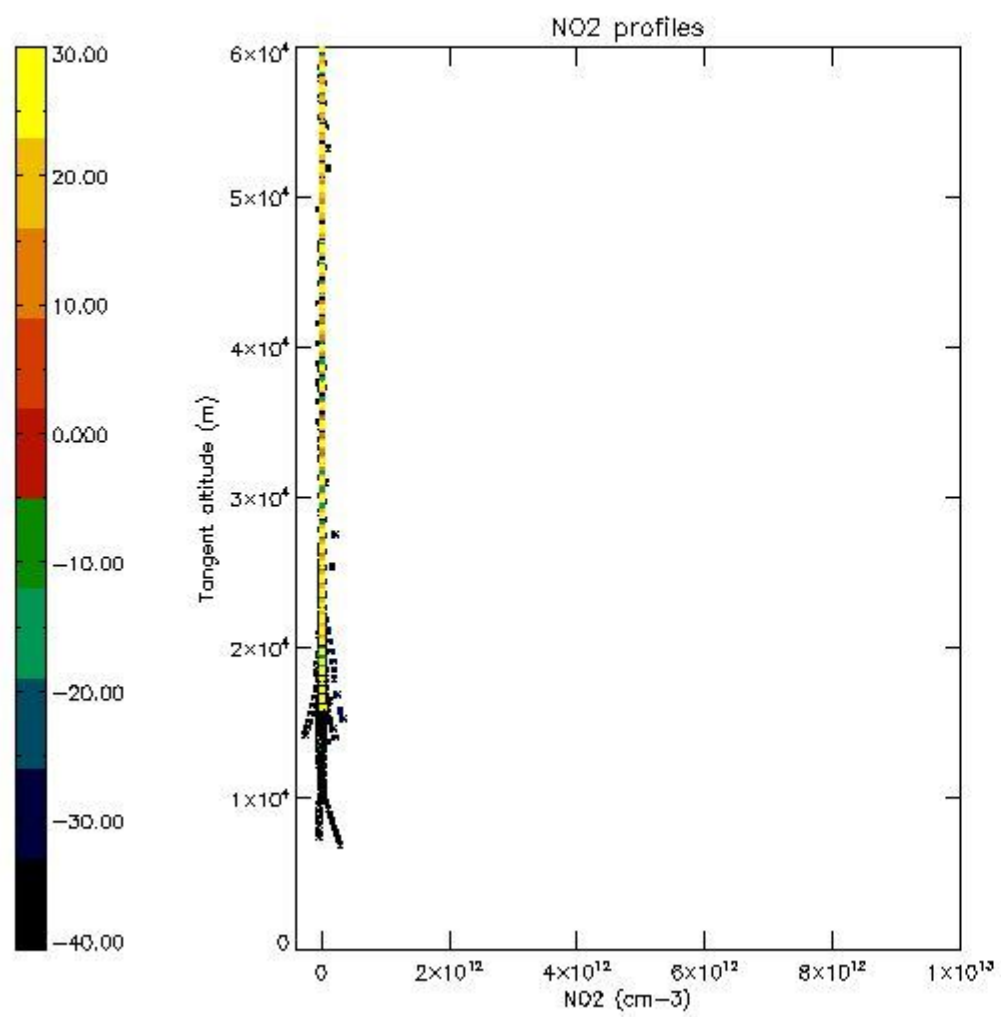
The colorbar represents the latitude.



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

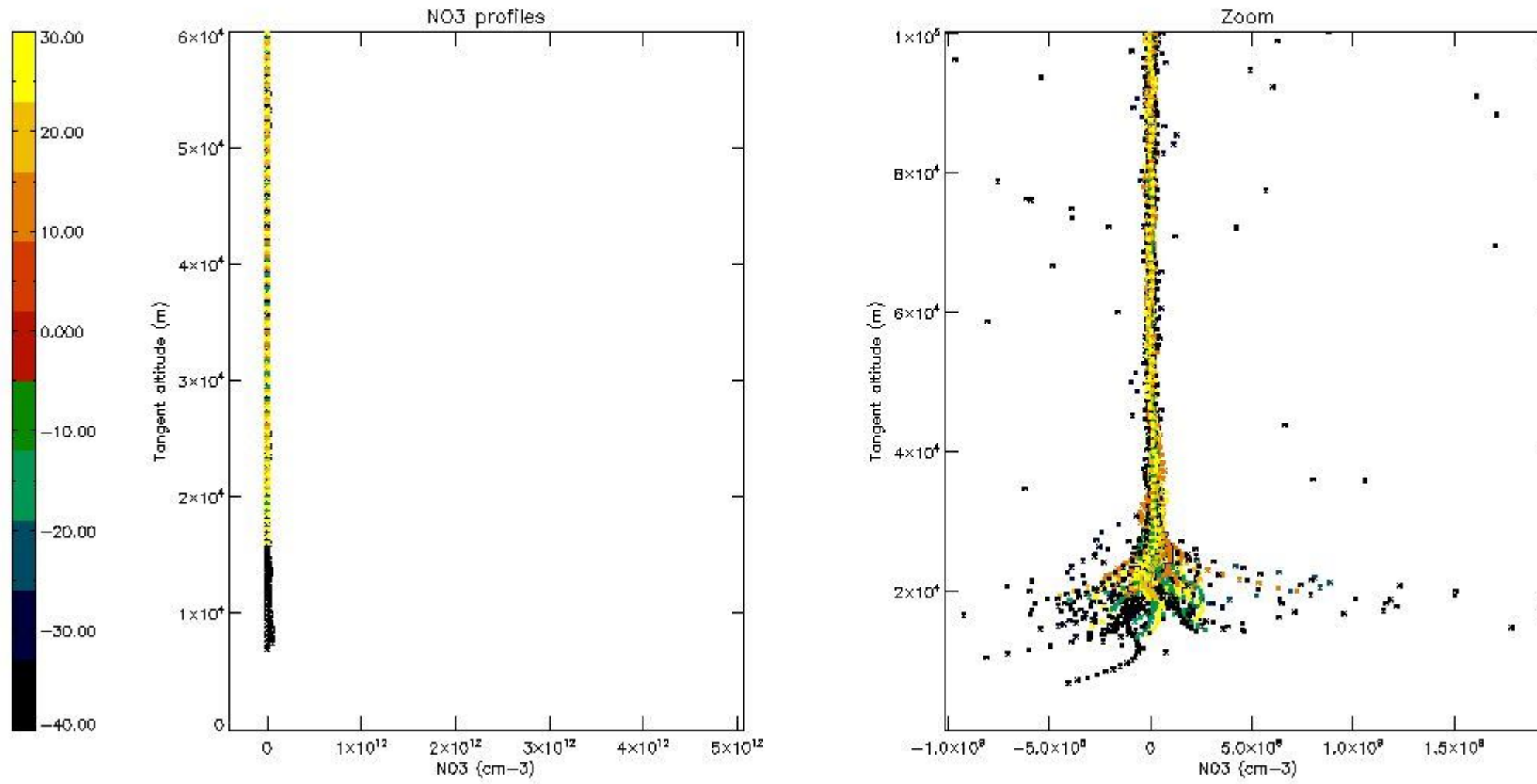
The colorbar represents the latitude.





*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	10-MAR-2009 00:05:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	10-MAR-2009 00:05:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	10-MAR-2009 00:05:43

# GOMOS Level 2 Daily Report

## SUMMARY

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

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

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

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#### [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](#)









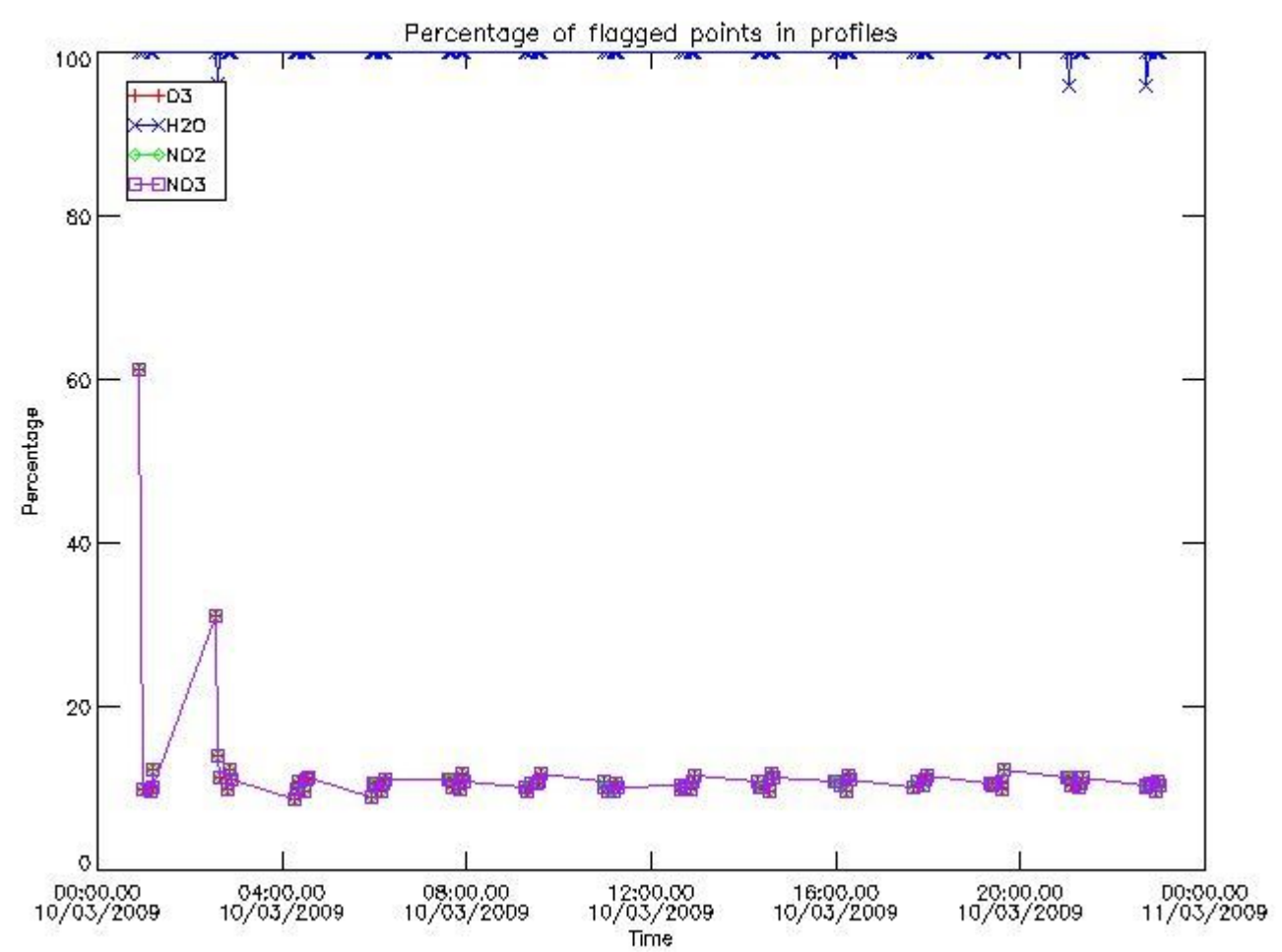
220	GOM_NL__2PRFIN20090310_202431_000000482077_00114_36741_8246.N1	10-MAR-2009 20:24:31	Bright	47.500	60	7Bet UMi	2.0810	3950.0	95	36741	No
221	GOM_NL__2PRFIN20090310_202852_000000462077_00114_36741_8247.N1	10-MAR-2009 20:28:52	Bright	46.000	119	14Eta Dra	2.7270	4700.0	92	36741	No
222	GOM_NL__2PRFIN20090310_203340_000000502077_00114_36741_8248.N1	10-MAR-2009 20:33:40	Bright	50.000	130	23Bet Dra	2.7990	5800.0	100	36741	No
223	GOM_NL__2PRFIN20090310_203932_000000482077_00114_36741_8249.N1	10-MAR-2009 20:39:32	Bright	47.500	5	3Alp Lyr	0.033000	11000.	95	36741	No
224	GOM_NL__2PRFIN20090310_204800_000000482077_00114_36741_8250.N1	10-MAR-2009 20:48:00	Twilight	48.000	168	17Zet Aql	2.9860	11000.	96	36741	No
225	GOM_NL__2PRFIN20090310_210117_000000492077_00114_36741_8251.N1	10-MAR-2009 21:01:17	Dark	49.000	137	22Lam Sgr	2.8240	4400.0	98	36741	No
226	GOM_NL__2PRFIN20090310_210241_000000502077_00114_36741_8252.N1	10-MAR-2009 21:02:41	Dark	49.500	116	19Del Sgr	2.7000	4100.0	99	36741	No
227	GOM_NL__2PRFIN20090310_210653_000000492077_00114_36741_8253.N1	10-MAR-2009 21:06:53	Dark	49.000	25	35Lam Sco	1.6200	28000.	98	36741	No
228	GOM_NL__2PRFIN20090310_211530_000000512077_00115_36742_8251.N1	10-MAR-2009 21:15:30	Dark	50.500	131	Gam Lup	2.8000	26000.	101	36742	No
229	GOM_NL__2PRFIN20090310_211756_000000482077_00115_36742_8252.N1	10-MAR-2009 21:17:56	Dark	48.000	78	Alp Lup	2.3040	28000.	96	36742	No
230	GOM_NL__2PRFIN20090310_212014_000000452077_00115_36742_8253.N1	10-MAR-2009 21:20:14	Dark	45.000	95	Zet Cen	2.5450	26000.	90	36742	No
231	GOM_NL__2PRFIN20090310_212437_000000502077_00115_36742_8254.N1	10-MAR-2009 21:24:37	Straylight	49.500	123	lot Cen	2.7500	10200.	99	36742	No
232	GOM_NL__2PRFIN20090310_213050_000000582077_00115_36742_8255.N1	10-MAR-2009 21:30:50	Straylight	58.000	106	9Bet Crv	2.6480	5600.0	116	36742	No
233	GOM_NL__2PRFIN20090310_213321_000000552077_00115_36742_8256.N1	10-MAR-2009 21:33:21	Straylight	54.500	100	4Gam Crv	2.5800	13100.	109	36742	No
234	GOM_NL__2PRFIN20090310_214618_000000432077_00115_36742_8257.N1	10-MAR-2009 21:46:18	Bright	43.000	96	68Del Leo	2.5600	9300.0	86	36742	No
235	GOM_NL__2PRFIN20090310_215324_000000392077_00115_36742_8258.N1	10-MAR-2009 21:53:24	Bright	39.000	174	52Psi UMa	3.0040	4400.0	78	36742	No
236	GOM_NL__2PRFIN20090310_215712_000000442077_00115_36742_8259.N1	10-MAR-2009 21:57:12	Bright	43.500	87	64Gam UMa	2.4330	11000.	87	36742	No
237	GOM_NL__2PRFIN20090310_220005_000000472077_00115_36742_8260.N1	10-MAR-2009 22:00:05	Bright	46.500	32	77Eps UMa	1.7630	11000.	93	36742	No
238	GOM_NL__2PRFIN20090310_220507_000000422077_00115_36742_8261.N1	10-MAR-2009 22:05:07	Bright	41.500	60	7Bet UMi	2.0810	3950.0	83	36742	No
239	GOM_NL__2PRFIN20090310_220928_000000692077_00115_36742_8262.N1	10-MAR-2009 22:09:28	Bright	69.000	119	14Eta Dra	2.7270	4700.0	138	36742	No
240	GOM_NL__2PRFIN20090310_221415_000000502077_00115_36742_8263.N1	10-MAR-2009 22:14:15	Bright	49.500	130	23Bet Dra	2.7990	5800.0	99	36742	No
241	GOM_NL__2PRFIN20090310_222008_000000472077_00115_36742_8264.N1	10-MAR-2009 22:20:08	Bright	46.500	5	3Alp Lyr	0.033000	11000.	93	36742	No
242	GOM_NL__2PRFIN20090310_222836_000000482077_00115_36742_8265.N1	10-MAR-2009 22:28:36	Twilight	47.500	168	17Zet Aql	2.9860	11000.	95	36742	No
243	GOM_NL__2PRFIN20090310_224154_000000502077_00115_36742_8266.N1	10-MAR-2009 22:41:54	Dark	49.500	137	22Lam Sgr	2.8240	4400.0	99	36742	No
244	GOM_NL__2PRFIN20090310_224318_000000502077_00115_36742_8267.N1	10-MAR-2009 22:43:18	Dark	50.000	116	19Del Sgr	2.7000	4100.0	100	36742	No
245	GOM_NL__2PRFIN20090310_224729_000000492077_00115_36742_8268.N1	10-MAR-2009 22:47:29	Dark	48.500	25	35Lam Sco	1.6200	28000.	97	36742	No
246	GOM_NL__2PRFIN20090310_225606_000000532077_00116_36743_8267.N1	10-MAR-2009 22:56:06	Dark	52.500	131	Gam Lup	2.8000	26000.	105	36743	No
247	GOM_NL__2PRFIN20090310_225833_000000472077_00116_36743_8268.N1	10-MAR-2009 22:58:33	Dark	46.500	78	Alp Lup	2.3040	28000.	93	36743	No
248	GOM_NL__2PRFIN20090310_230050_000000492077_00116_36743_8269.N1	10-MAR-2009 23:00:50	Dark	49.000	95	Zet Cen	2.5450	26000.	98	36743	No
249	GOM_NL__2PRFIN20090310_230305_000000612077_00116_36743_8270.N1	10-MAR-2009 23:03:05	Straylight	61.000	54	5The Cen	2.0550	4500.0	122	36743	No
250	GOM_NL__2PRFIN20090310_230513_000000492077_00116_36743_8271.N1	10-MAR-2009 23:05:13	Straylight	49.000	123	lot Cen	2.7500	10200.	98	36743	No
251	GOM_NL__2PRFIN20090310_231127_000000582077_00116_36743_8272.N1	10-MAR-2009 23:11:27	Straylight	57.500	106	9Bet Crv	2.6480	5600.0	115	36743	No
252	GOM_NL__2PRFIN20090310_231358_000000562077_00116_36743_8273.N1	10-MAR-2009 23:13:58	Straylight	56.000	100	4Gam Crv	2.5800	13100.	112	36743	No
253	GOM_NL__2PRFIN20090310_232654_000000432077_00116_36743_8274.N1	10-MAR-2009 23:26:54	Bright	42.500	96	68Del Leo	2.5600	9300.0	85	36743	No
254	GOM_NL__2PRFIN20090310_233359_000000422077_00116_36743_8275.N1	10-MAR-2009 23:33:59	Bright	41.500	174	52Psi UMa	3.0040	4400.0	83	36743	No
255	GOM_NL__2PRFIN20090310_233747_000000622077_00116_36743_8276.N1	10-MAR-2009 23:37:47	Bright	62.000	87	64Gam UMa	2.4330	11000.	124	36743	No
256	GOM_NL__2PRFIN20090310_234040_000000482077_00116_36743_8277.N1	10-MAR-2009 23:40:40	Bright	47.500	32	77Eps UMa	1.7630	11000.	95	36743	No
257	GOM_NL__2PRFIN20090310_234542_000000372077_00116_36743_8278.N1	10-MAR-2009 23:45:42	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	36743	No
258	GOM_NL__2PRFIN20090310_235451_000000502077_00116_36743_8279.N1	10-MAR-2009 23:54:51	Bright	50.000	130	23Bet Dra	2.7990	5800.0	100	36743	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.

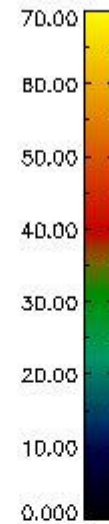
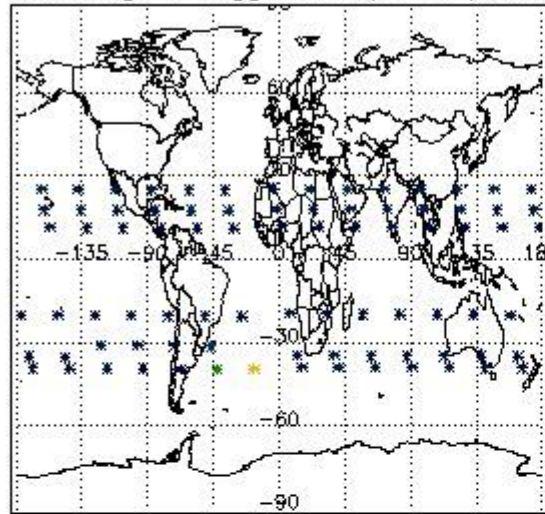
#### 3.1 Plot quality information per product (time dependant)



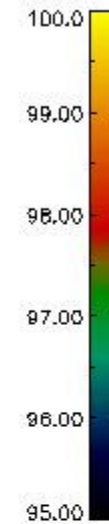
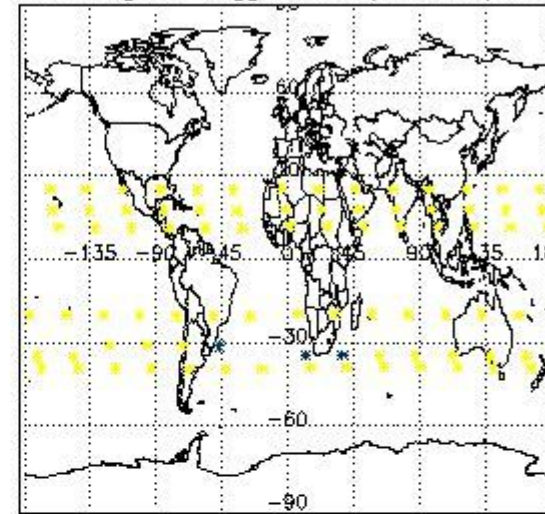


3.2 Plot quality information per product (world map)

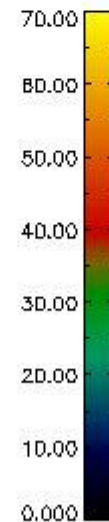
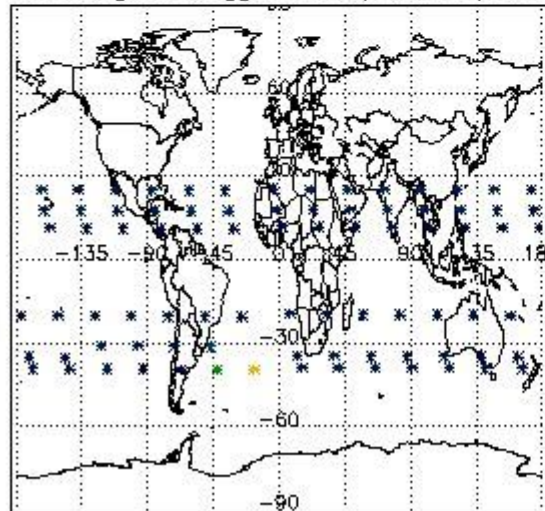
Percentage of flagged data per O3 profile



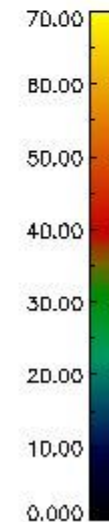
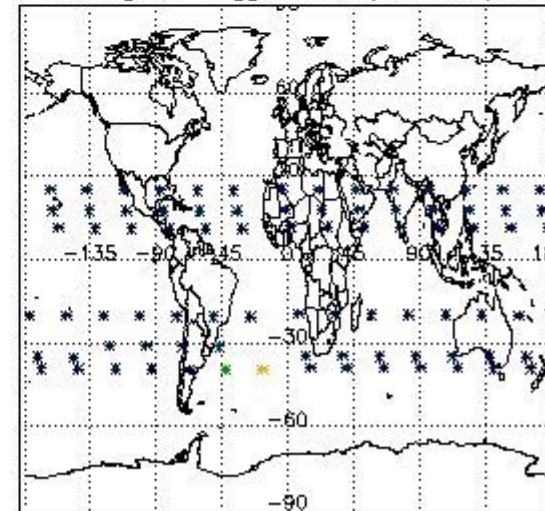
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

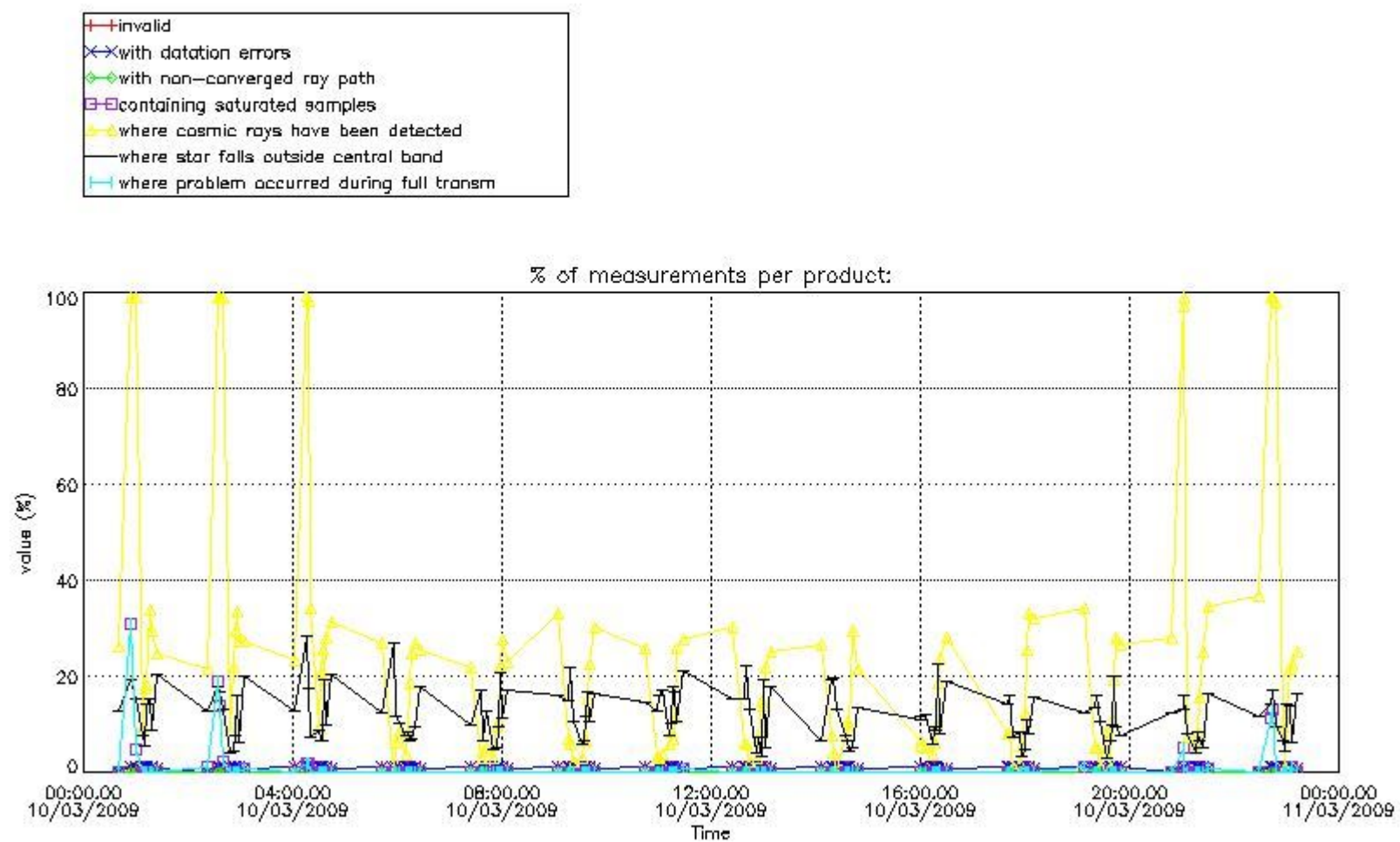


#### 4. Level 1 quality information per product

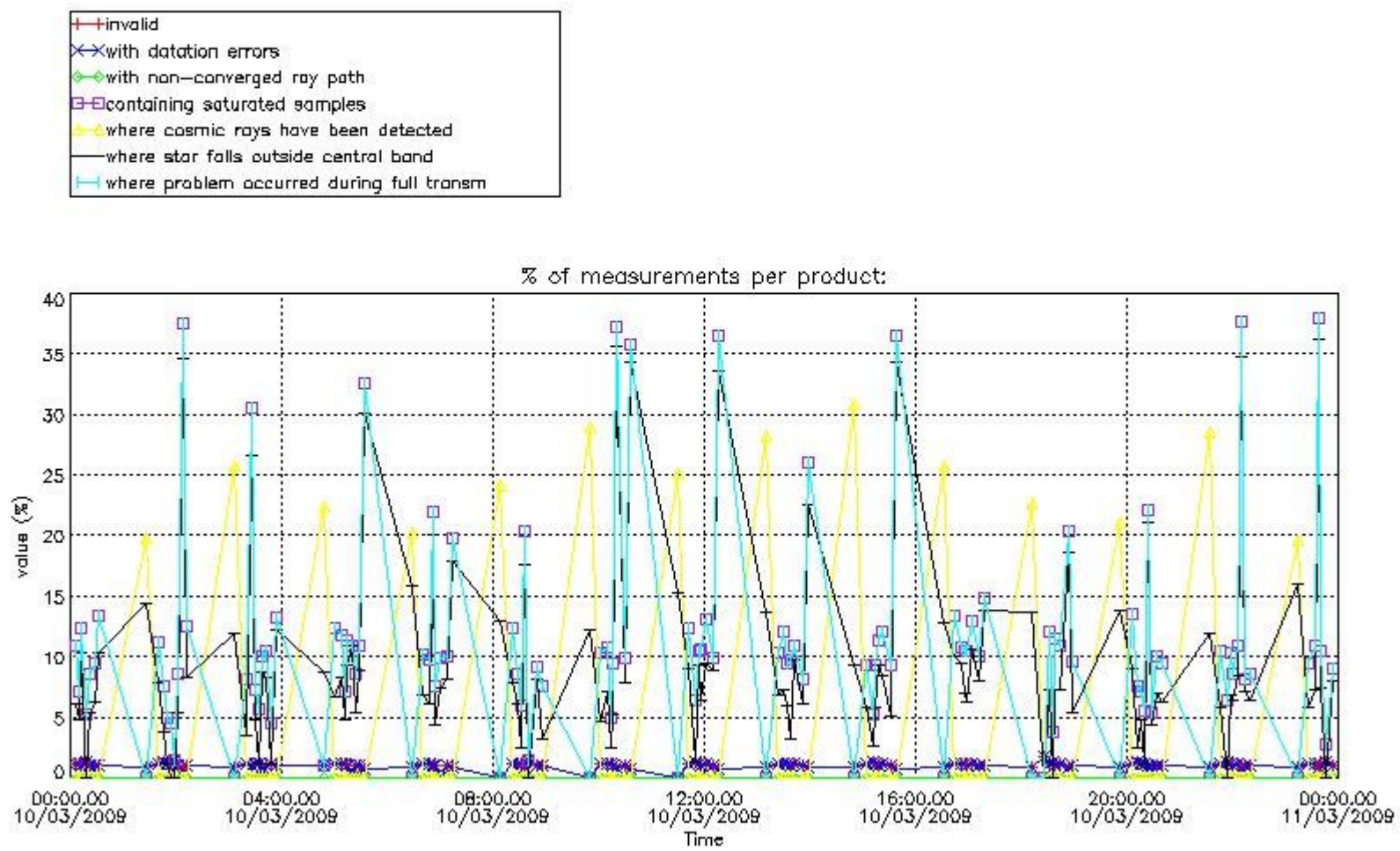
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

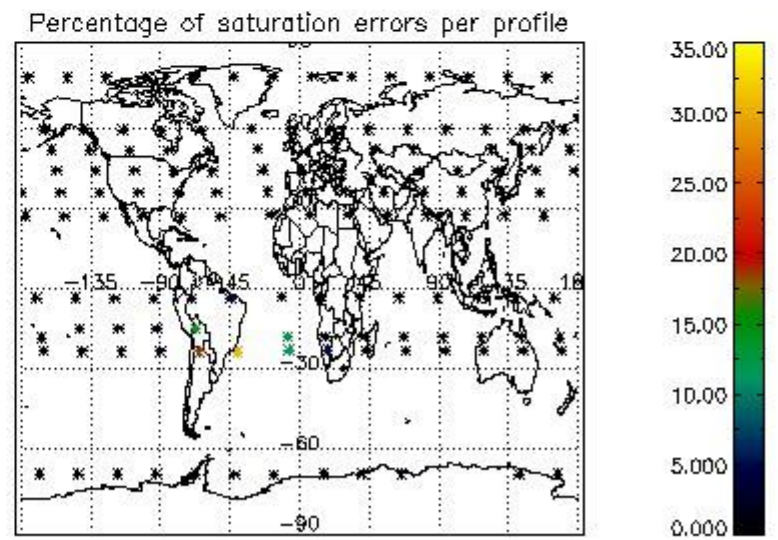
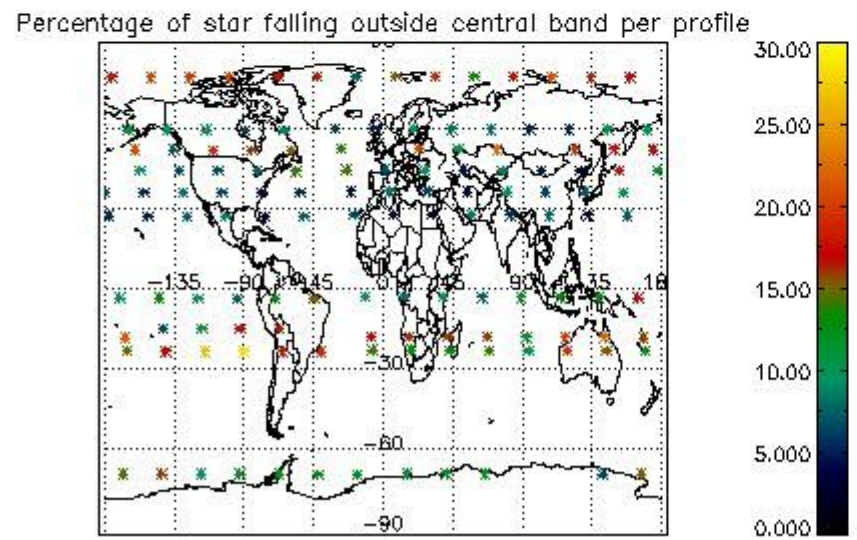
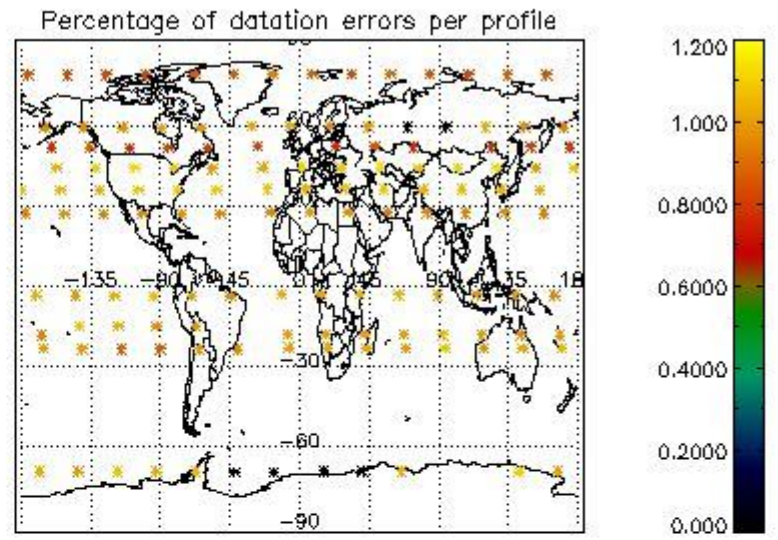
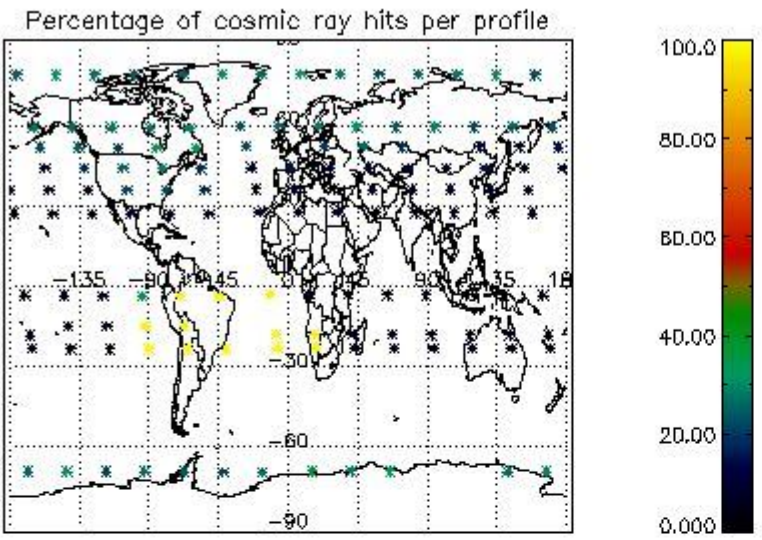


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

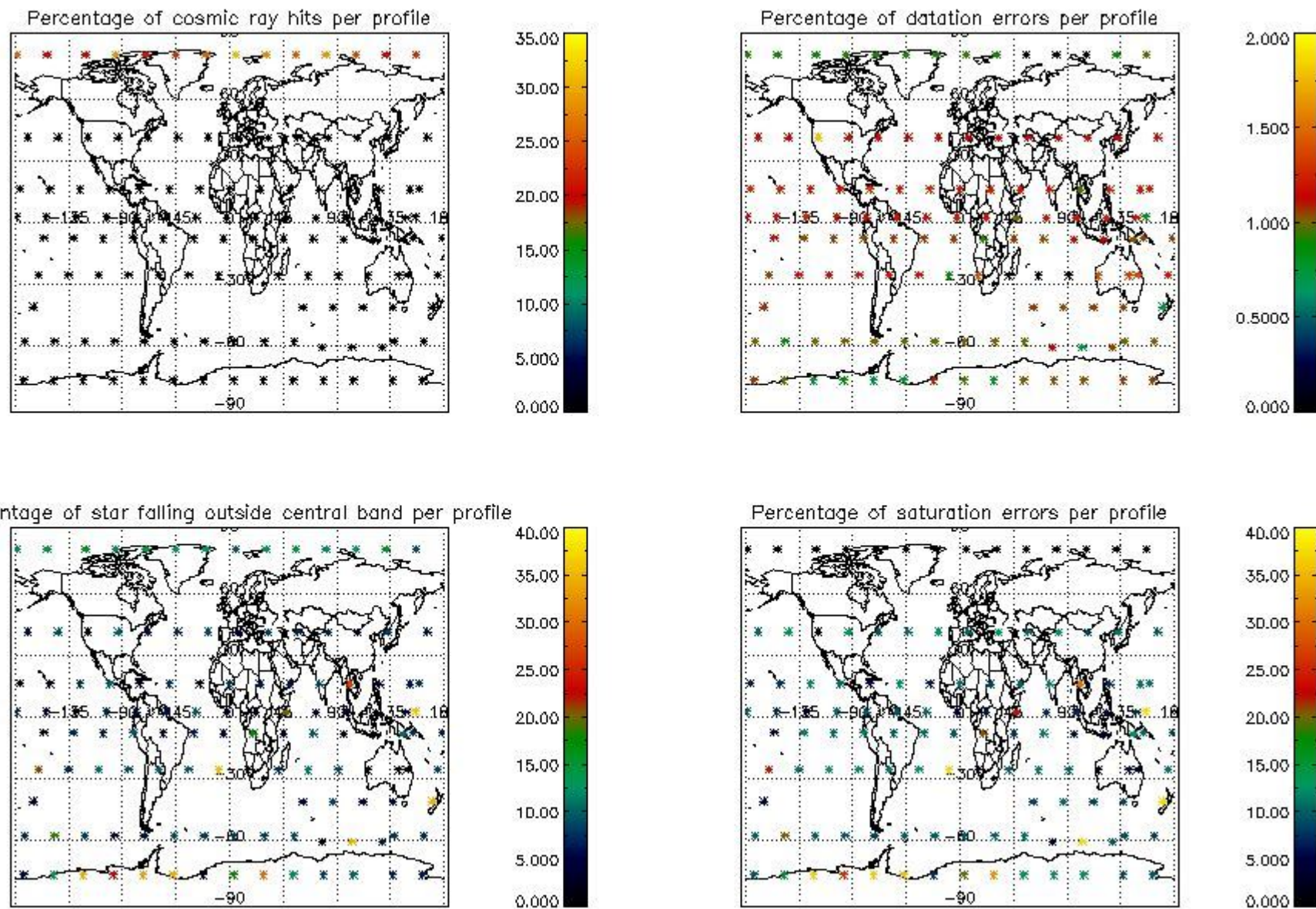


#### 4.2 Plot quality information per product coming from level 1b processing (world map)

##### 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

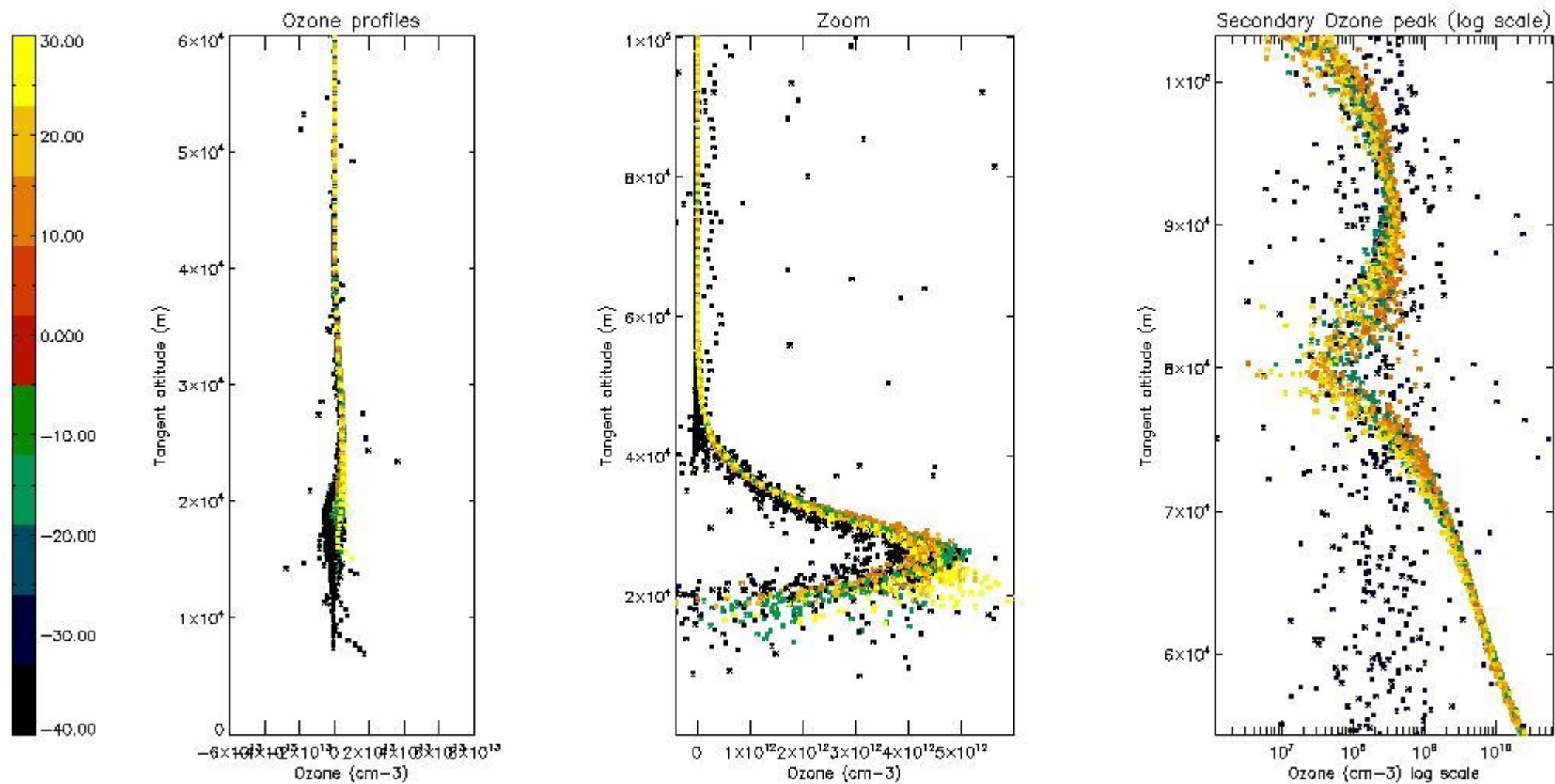
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	18

STD < 10	14
STD < 5	11

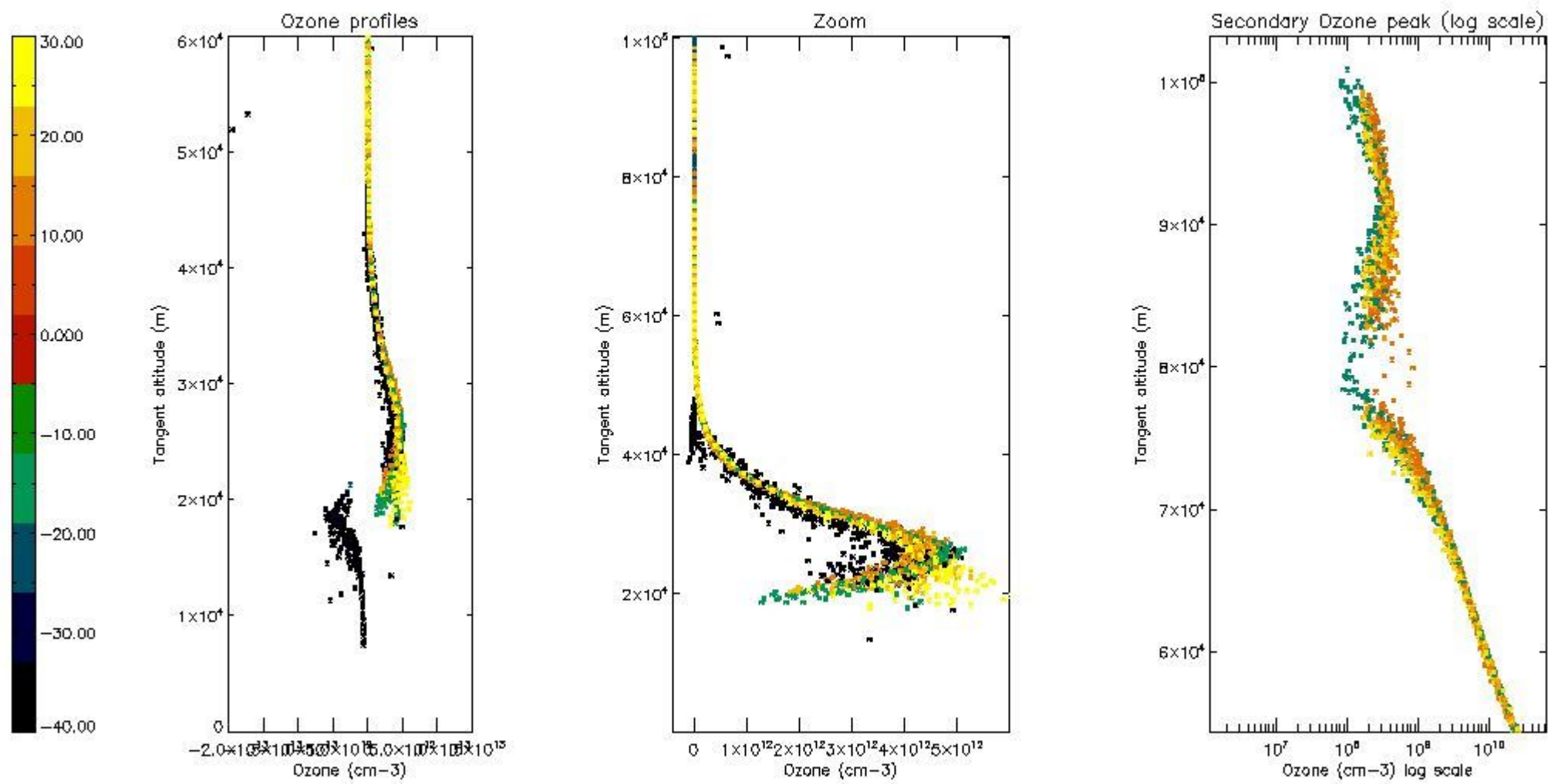
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

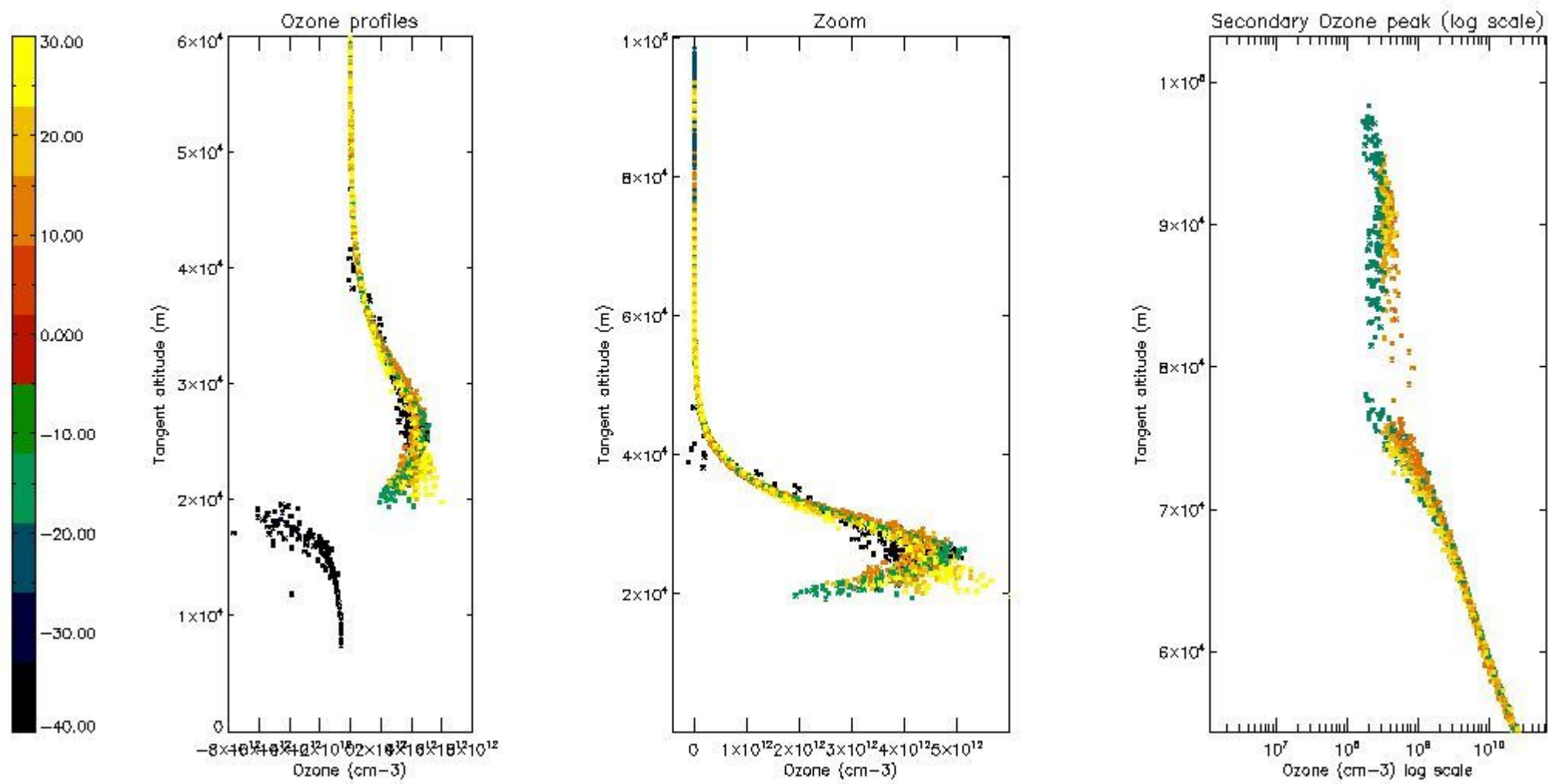
The colorbar represents the latitude.



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

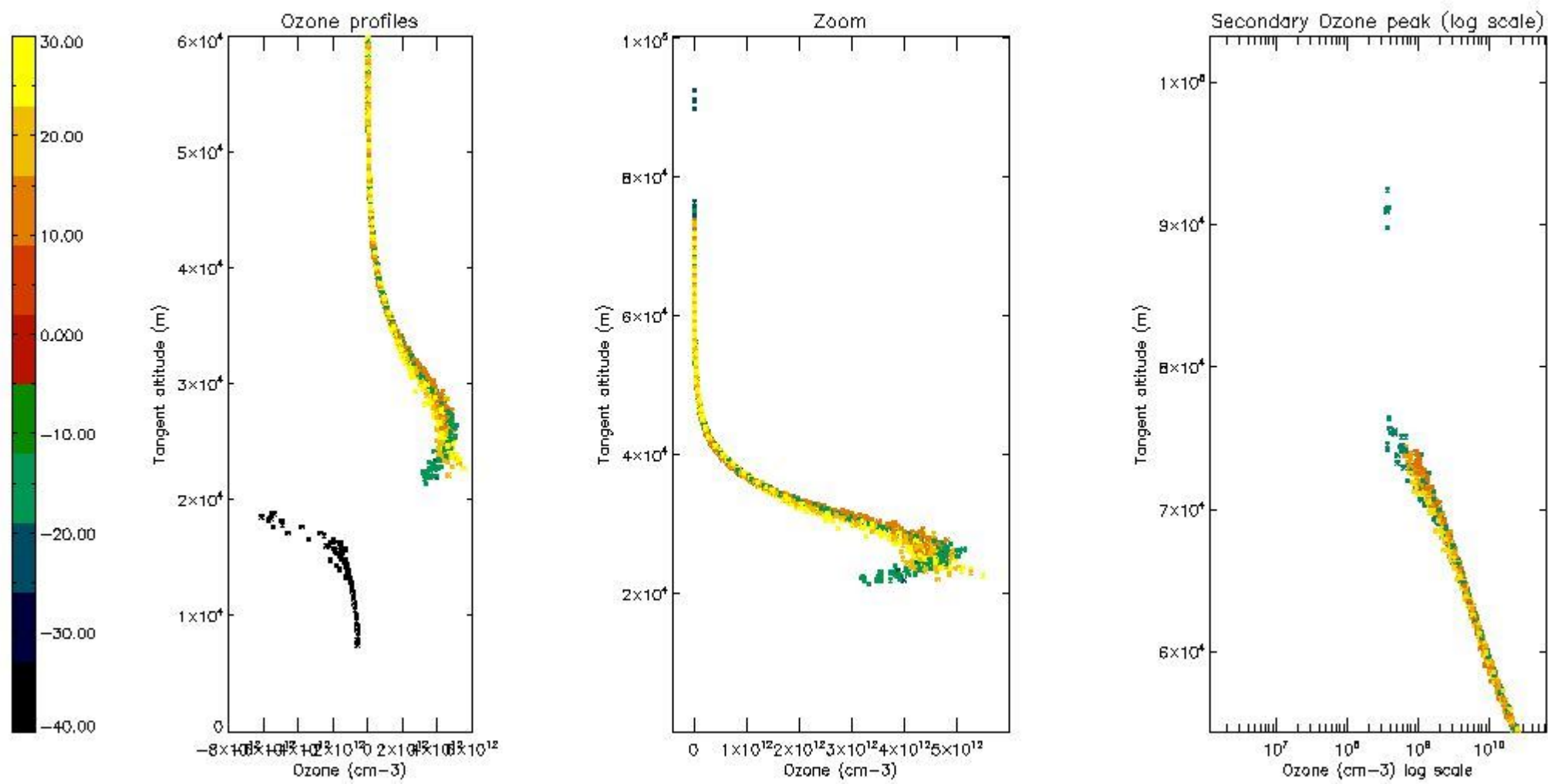
The colorbar represents the latitude.





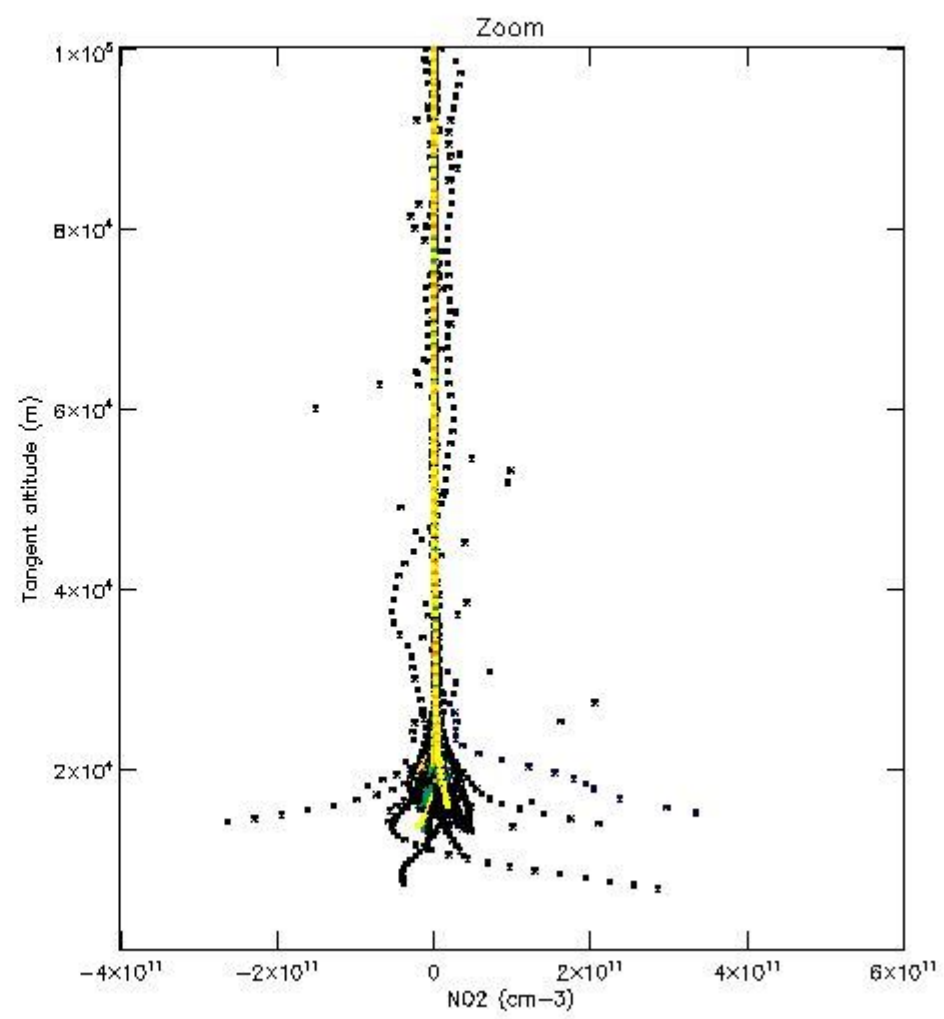
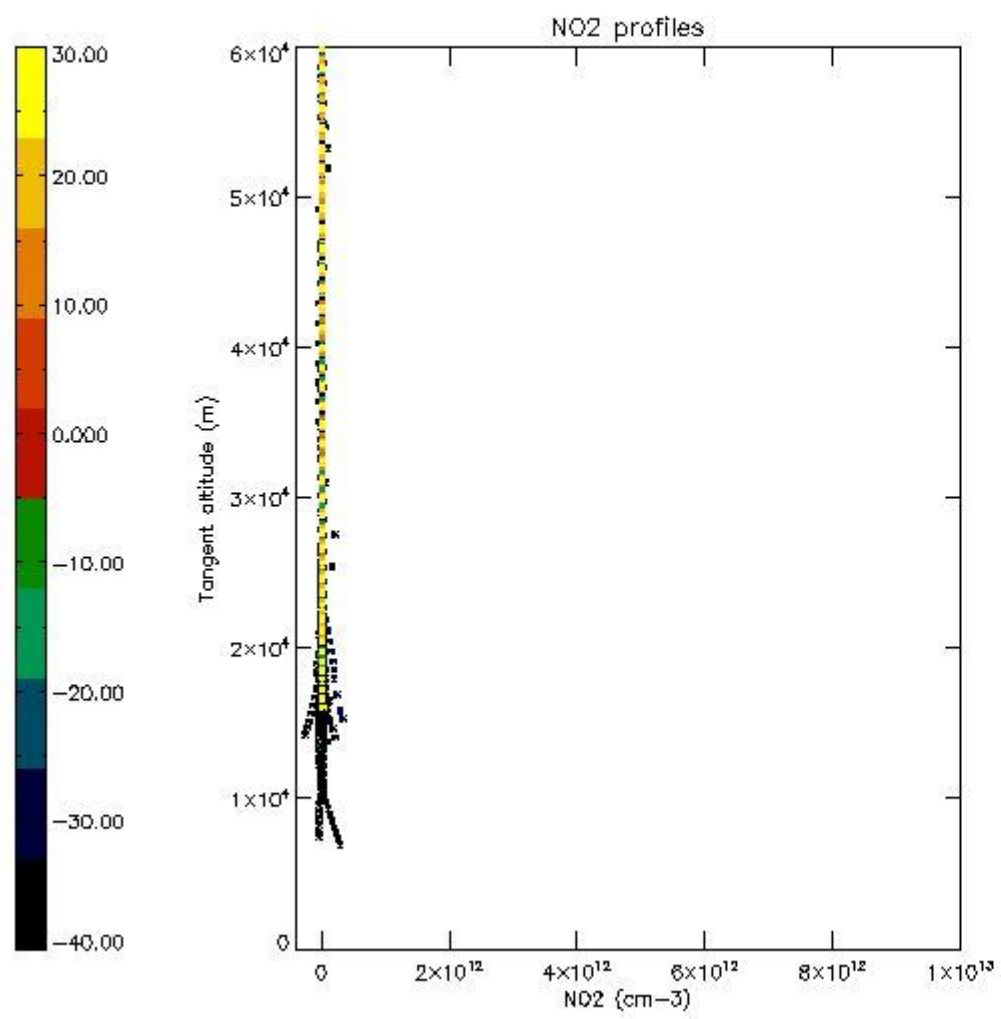
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



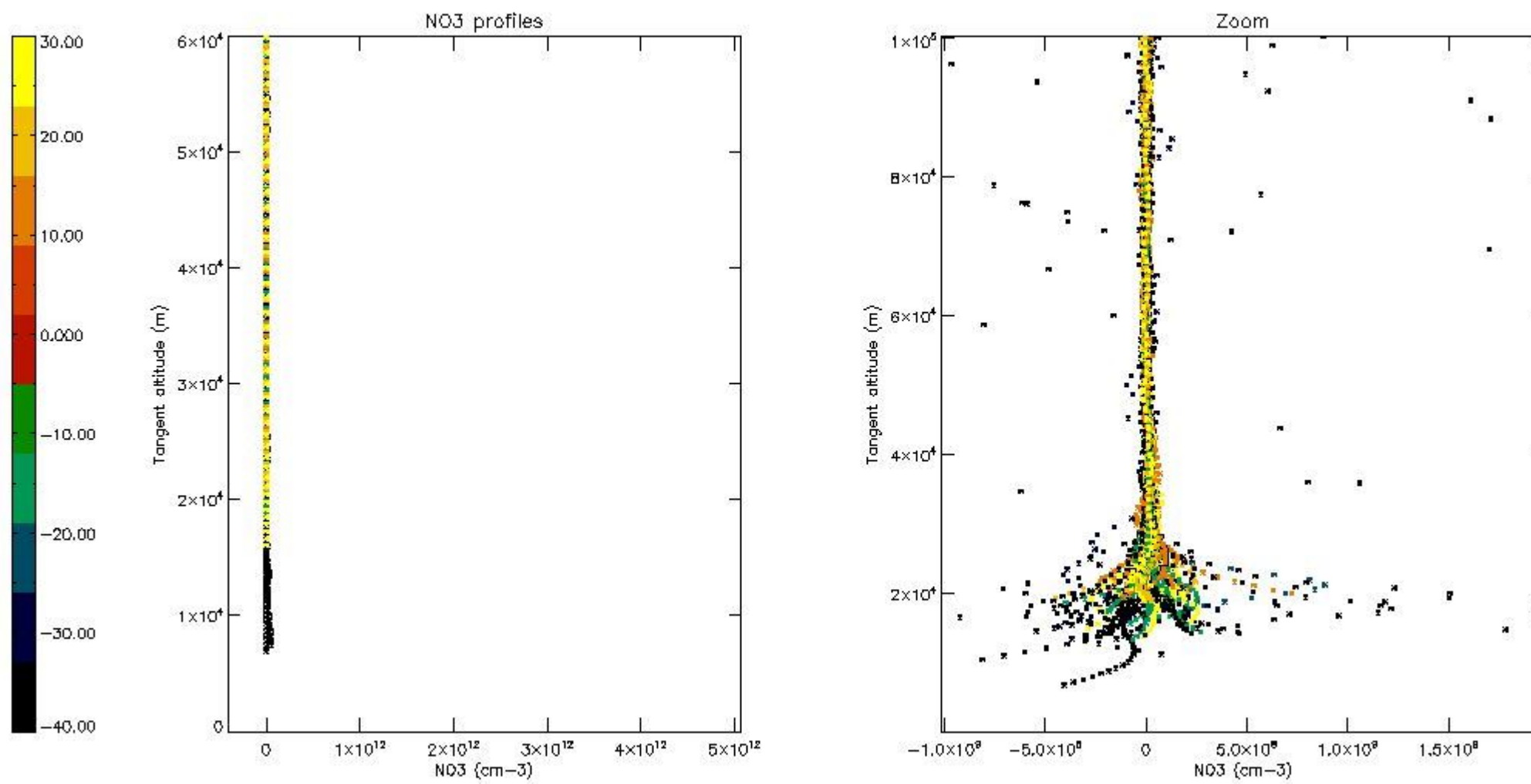
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

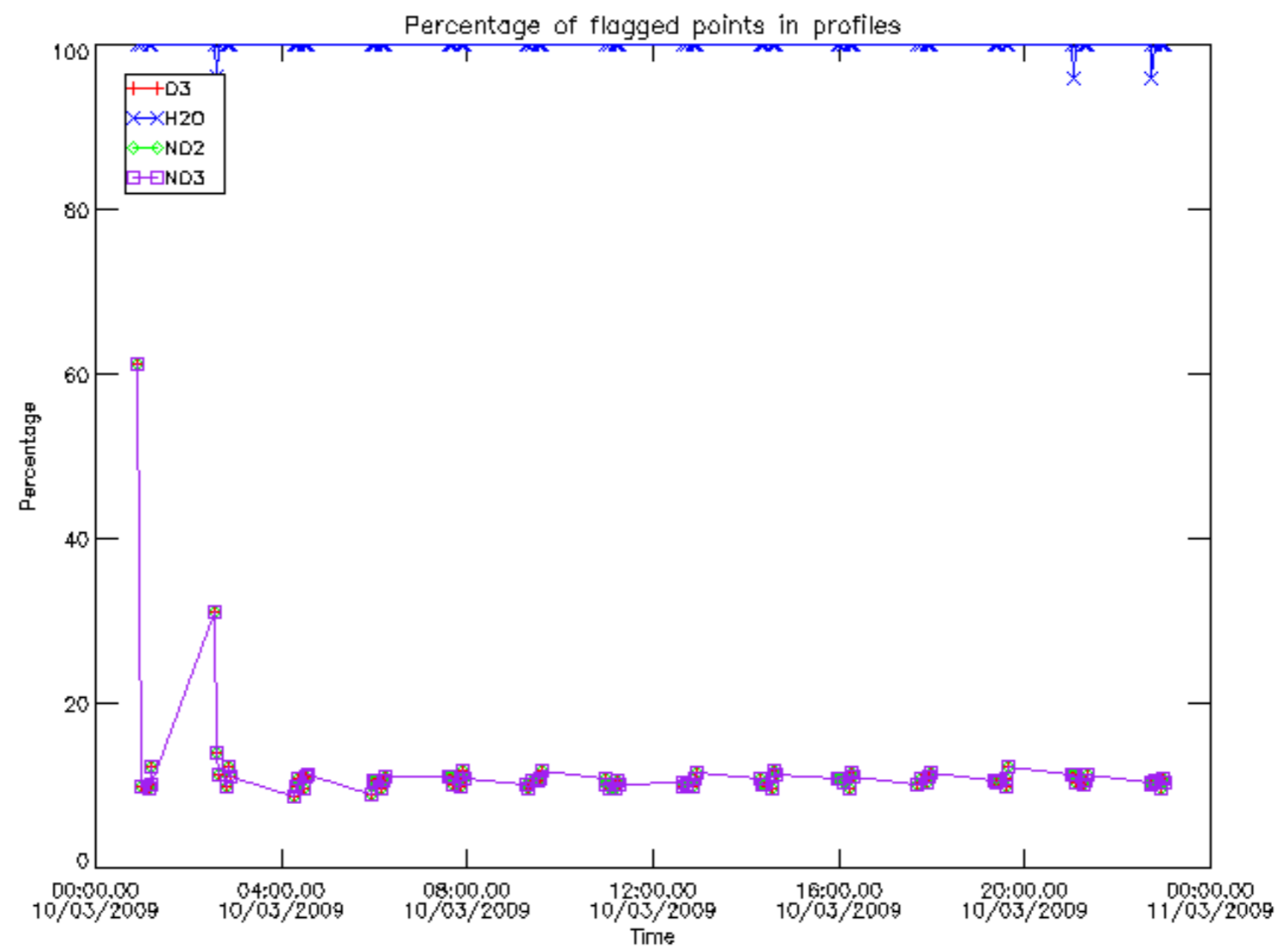
The colorbar represents the latitude.



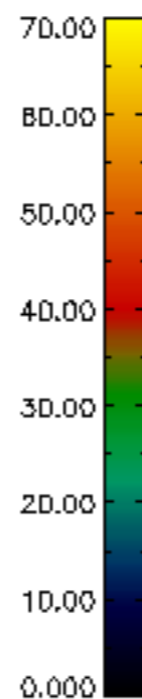
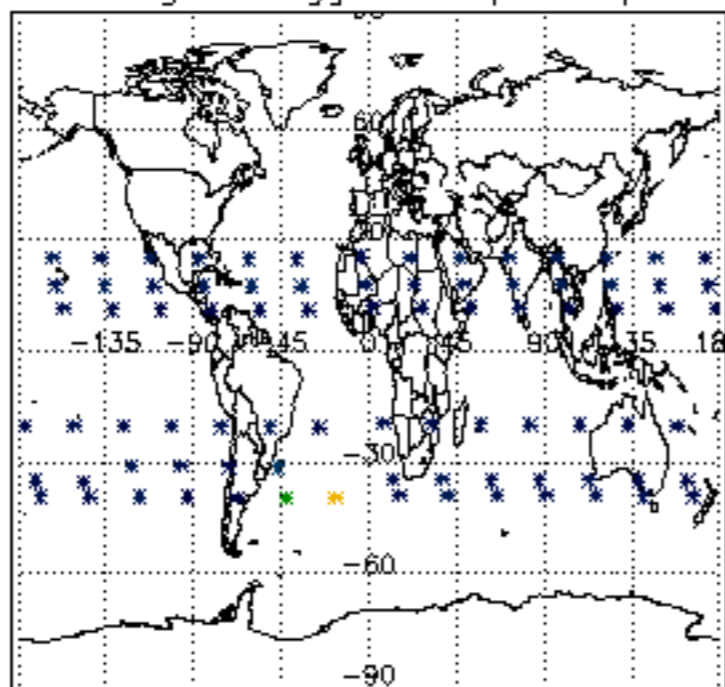
## 6. Auxiliary Data Files used for the production reported in section 2

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.

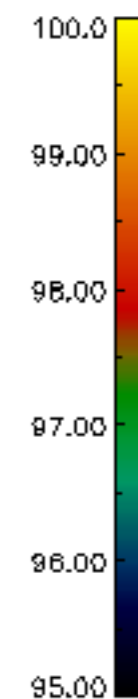
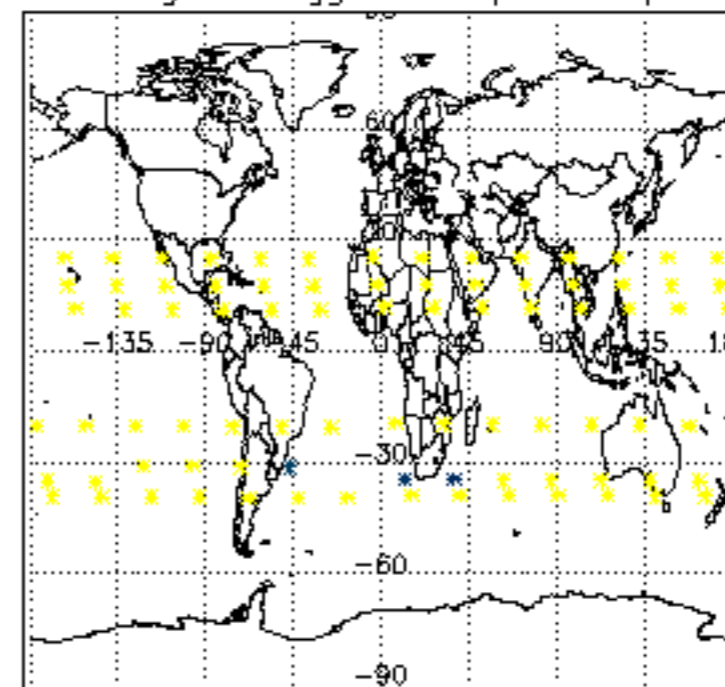
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	10-MAR-2009 00:05:43
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	10-MAR-2009 00:05:43
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	10-MAR-2009 00:05:43



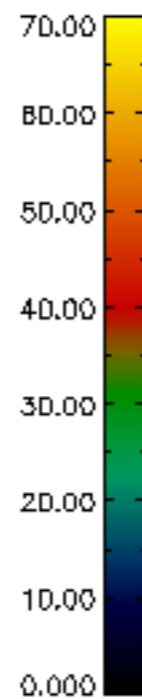
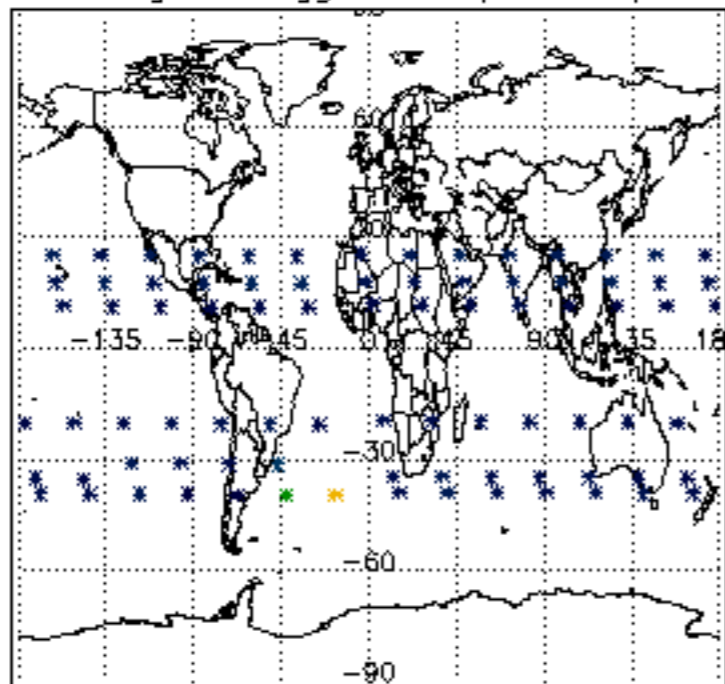
Percentage of flagged data per D3 profile



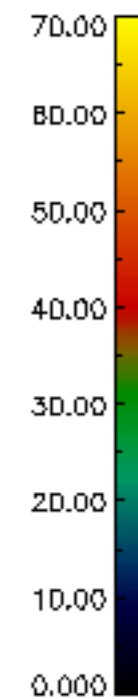
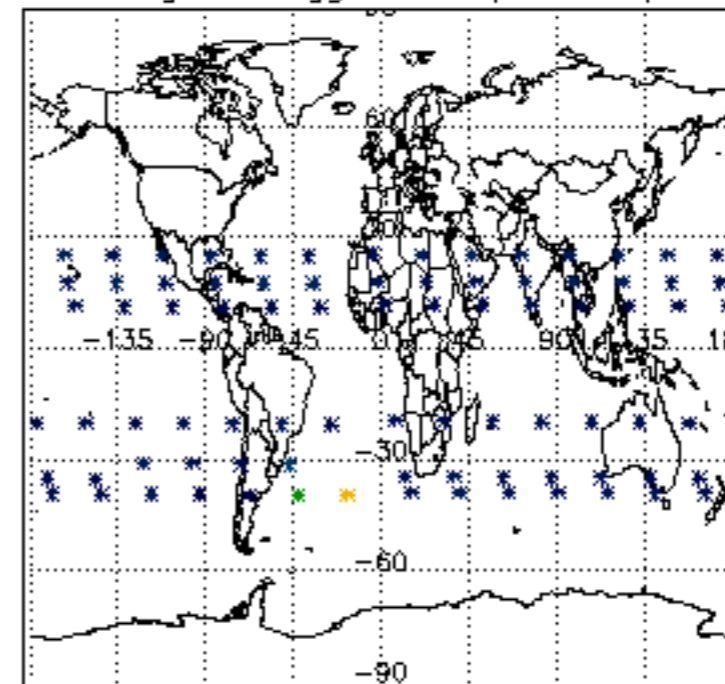
Percentage of flagged data per H2O profile

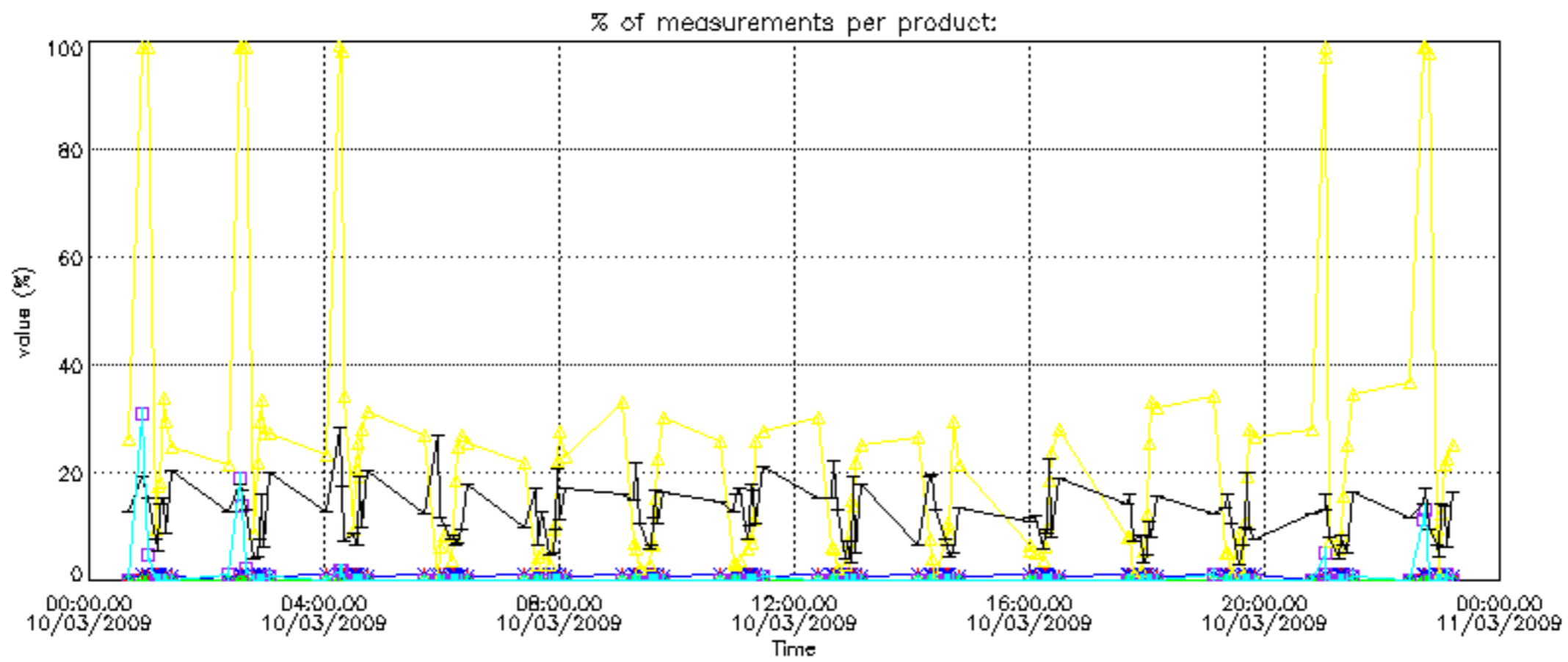


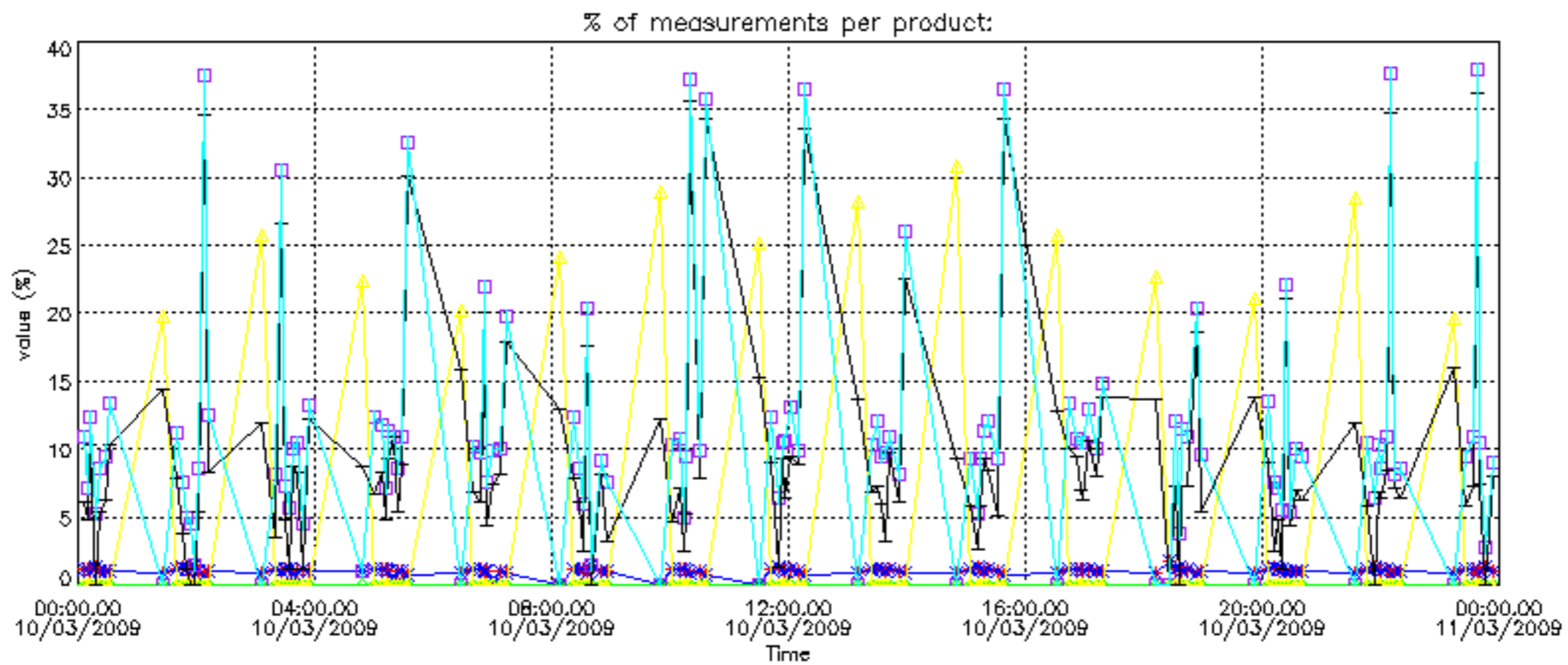
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

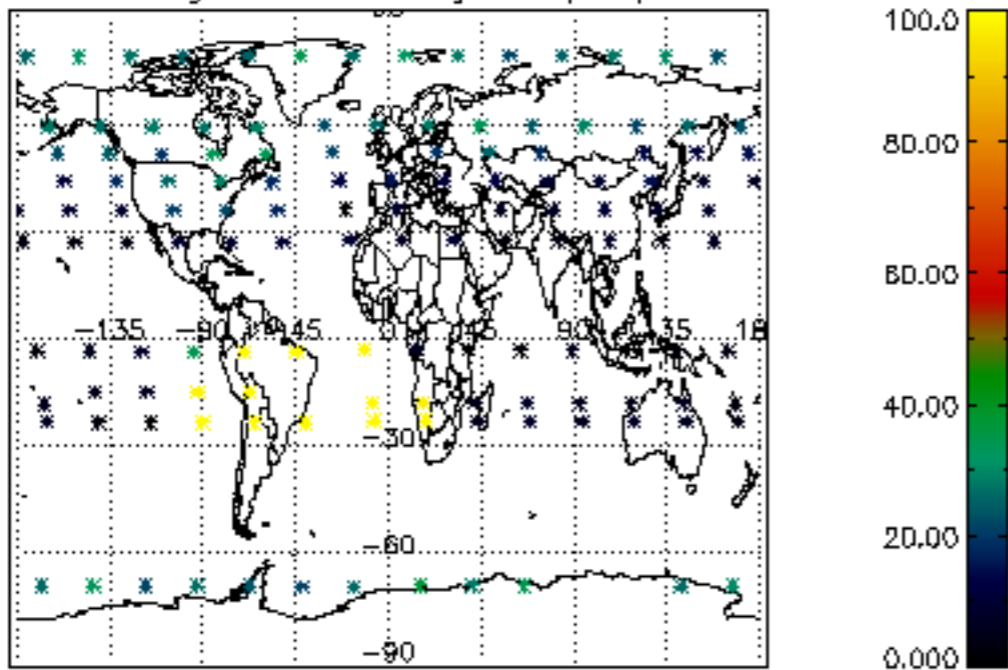




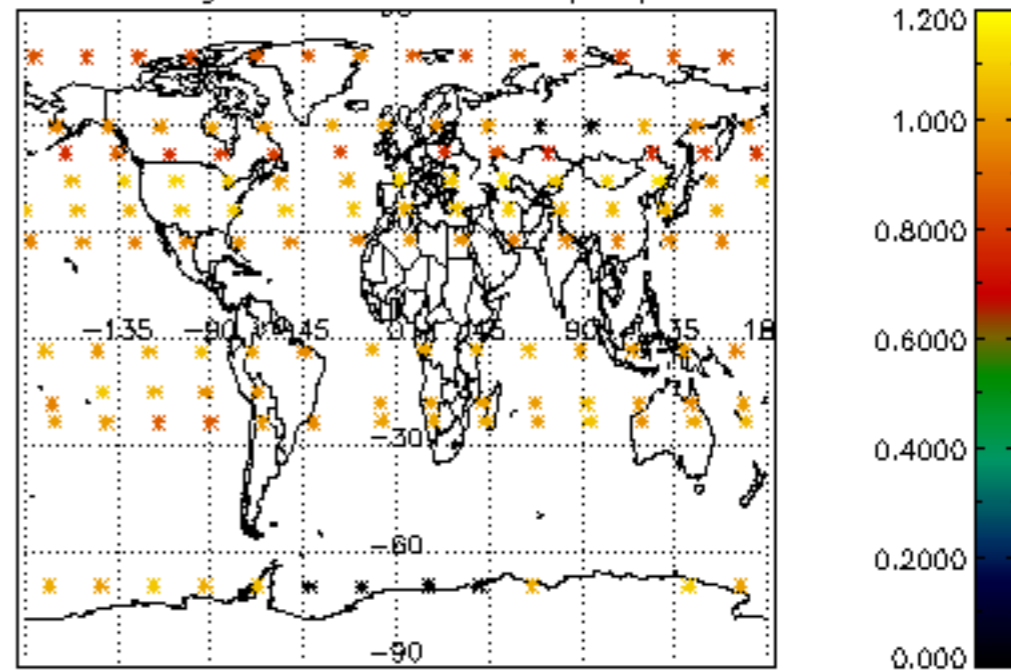




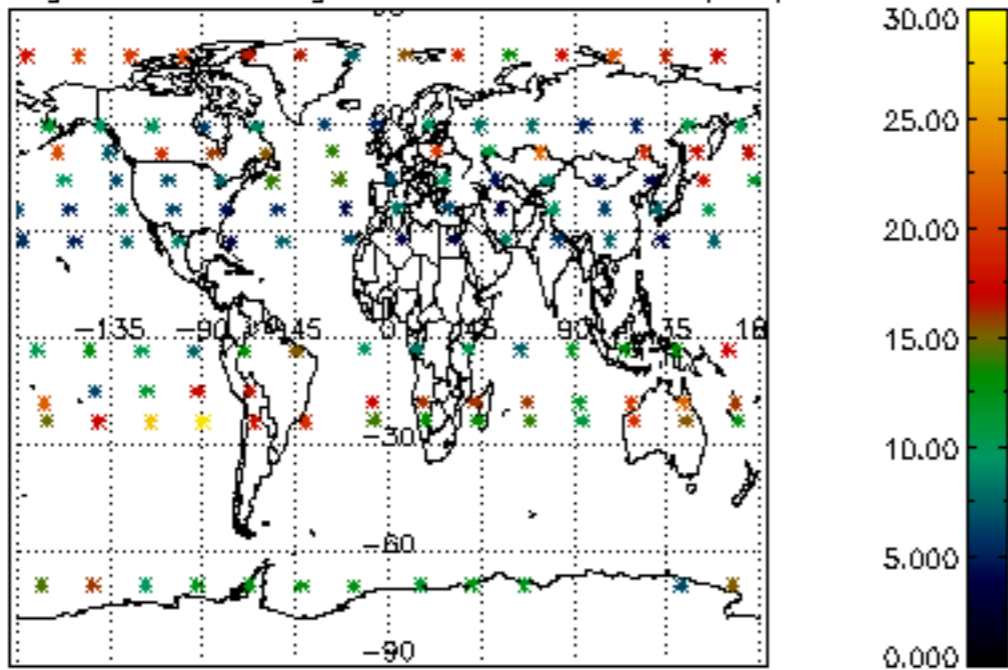
Percentage of cosmic ray hits per profile



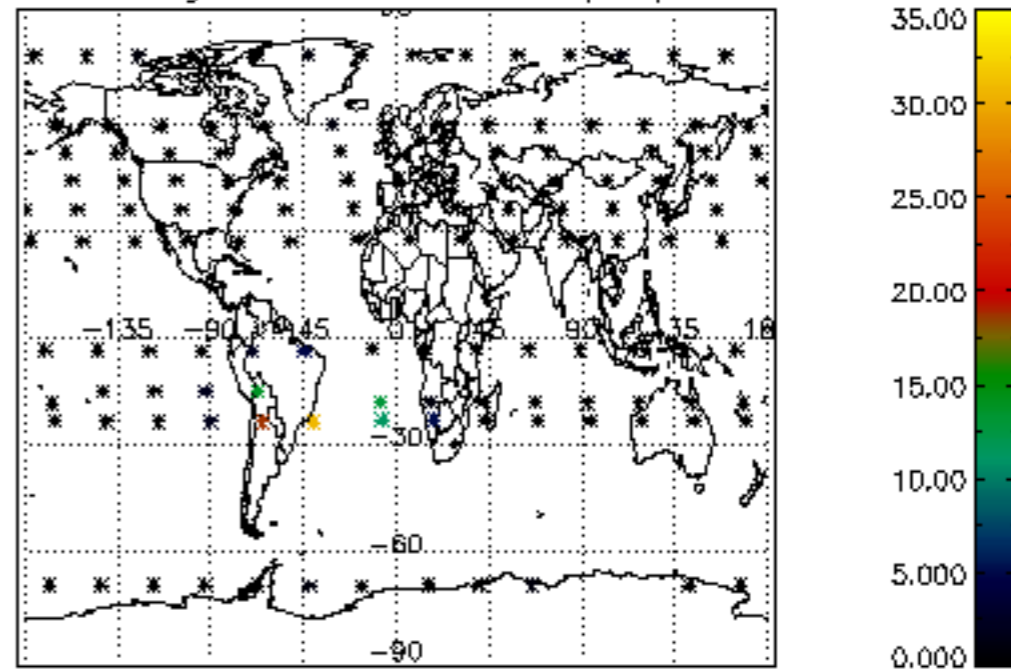
Percentage of datation errors per profile



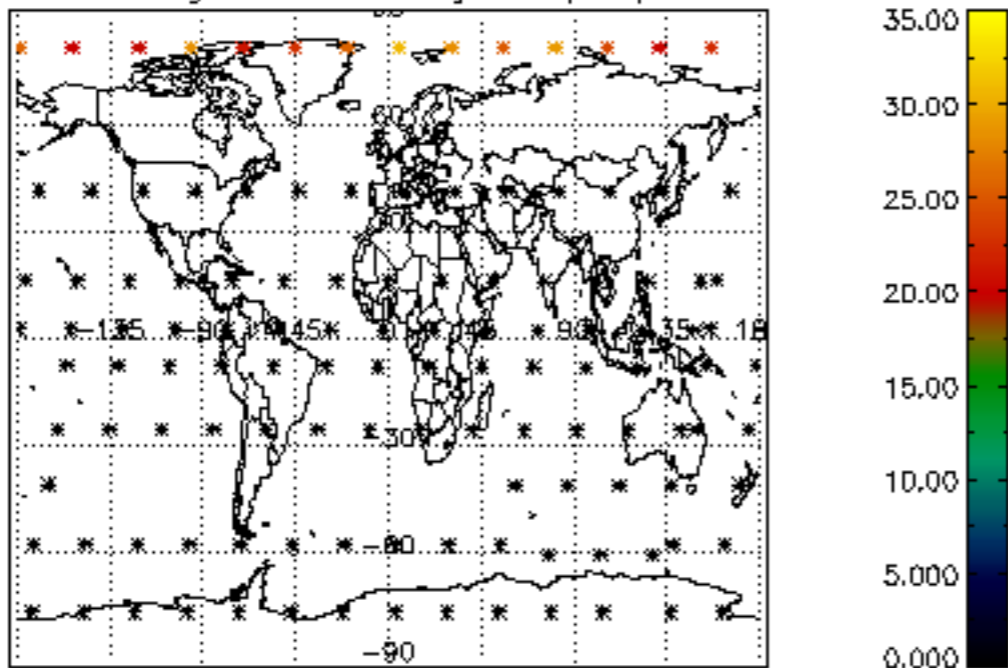
Percentage of star falling outside central band per profile



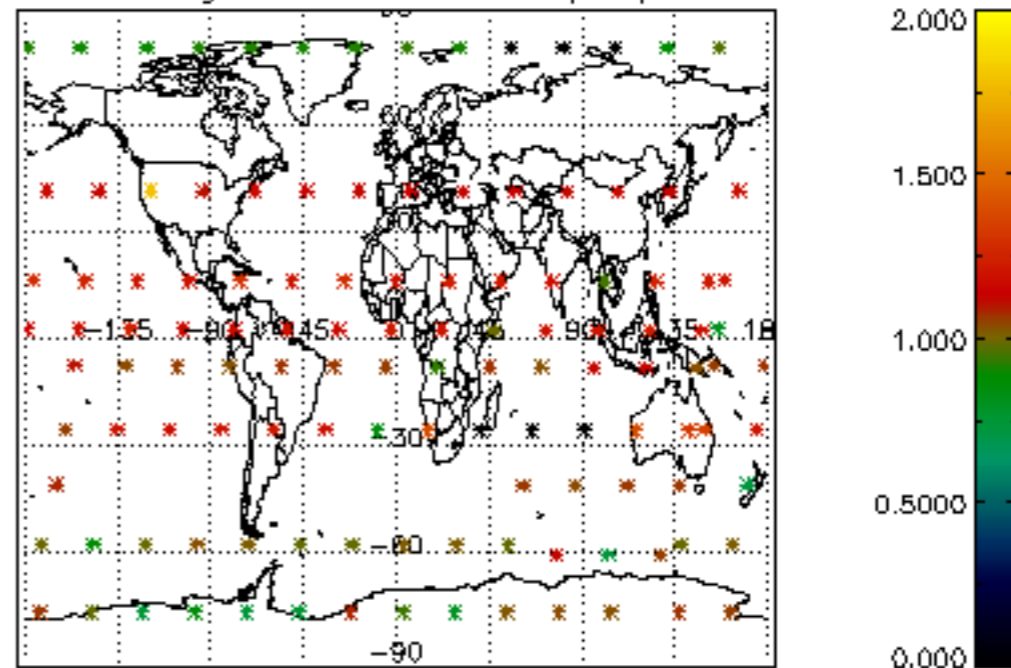
Percentage of saturation errors per profile



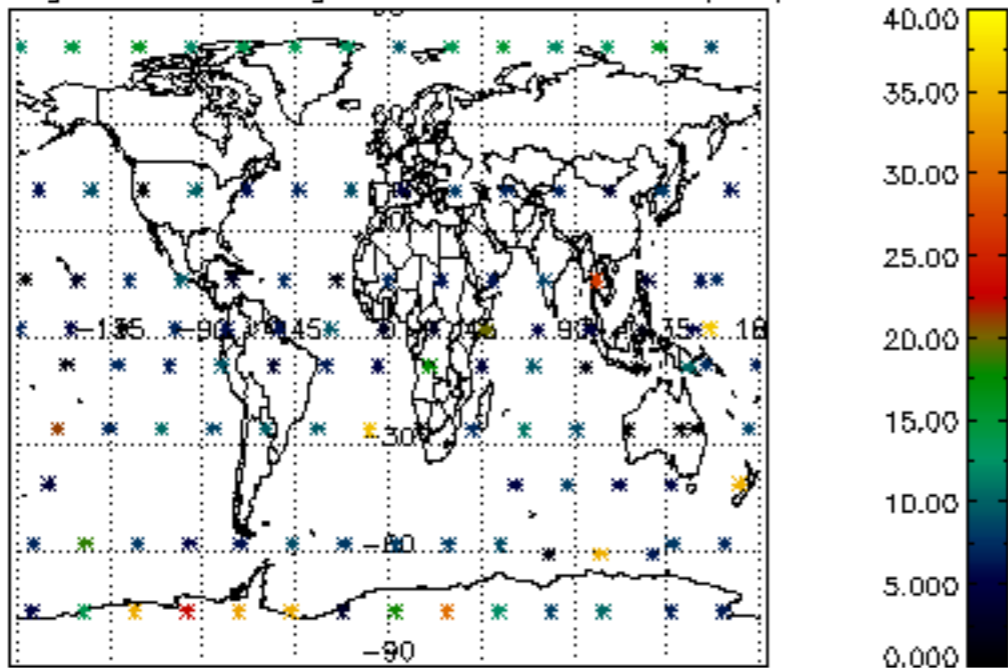
Percentage of cosmic ray hits per profile



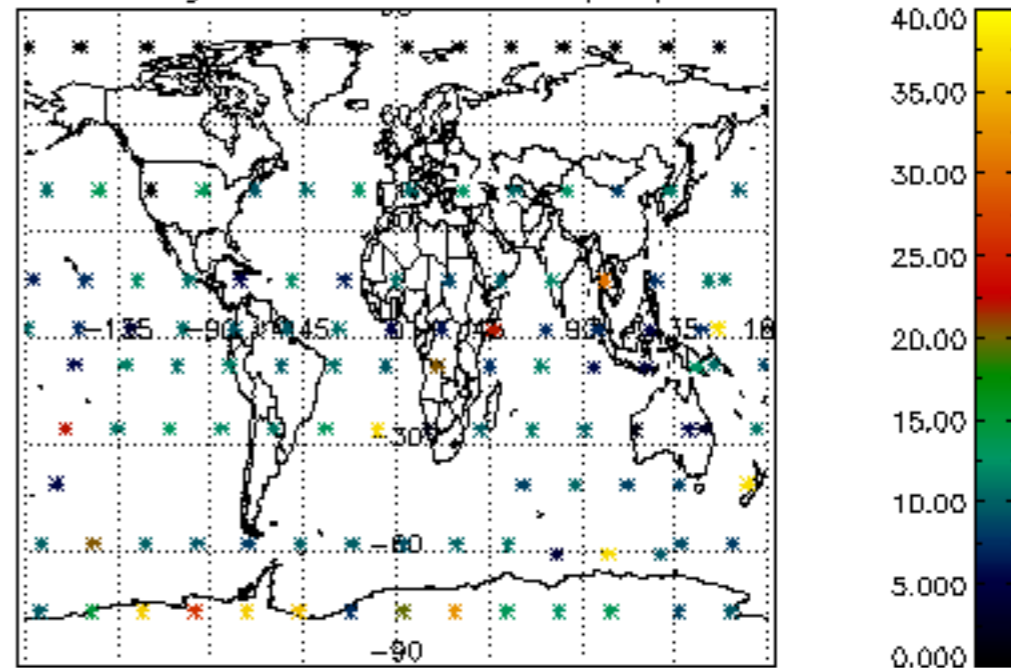
Percentage of datation errors per profile

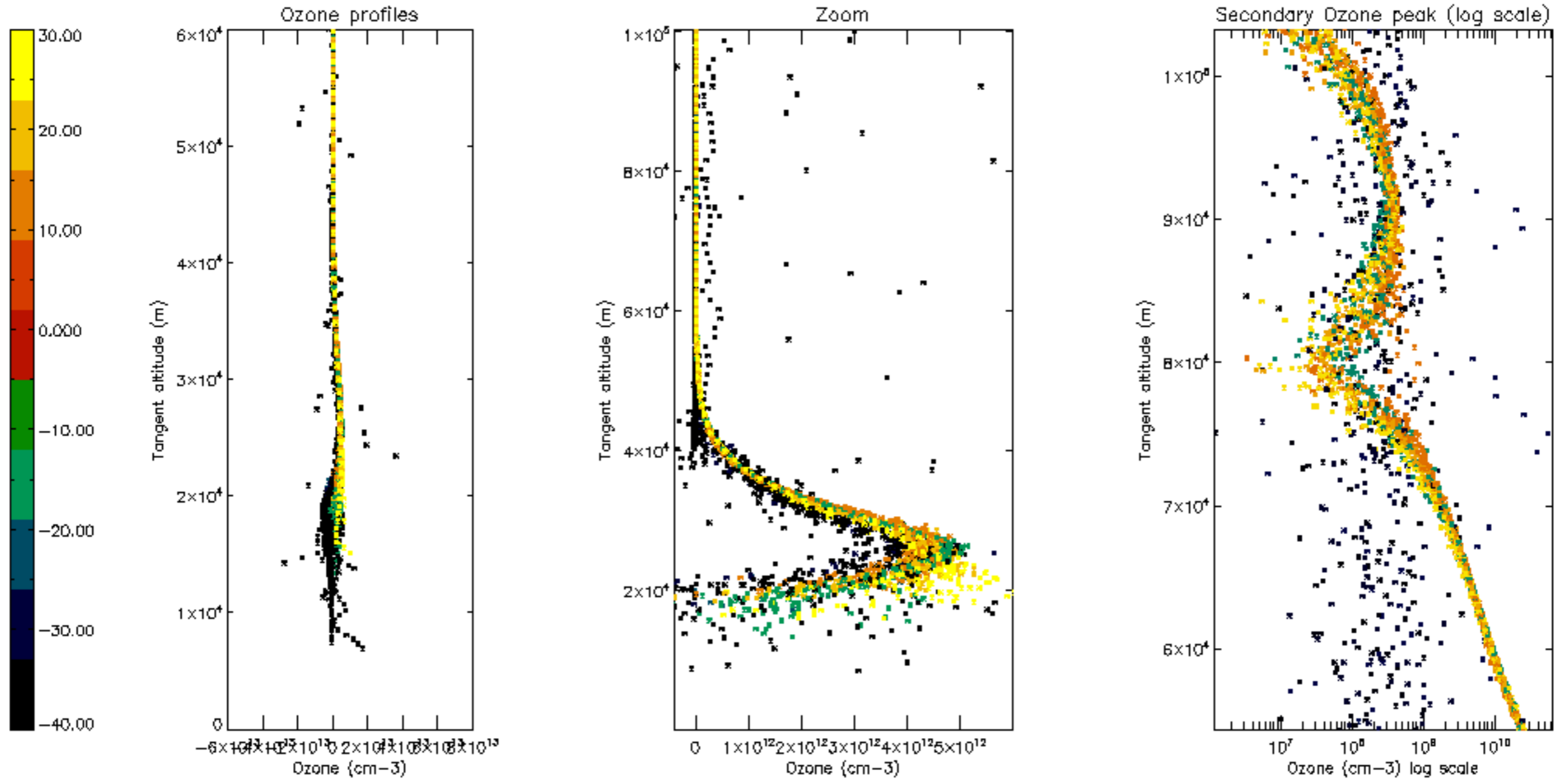


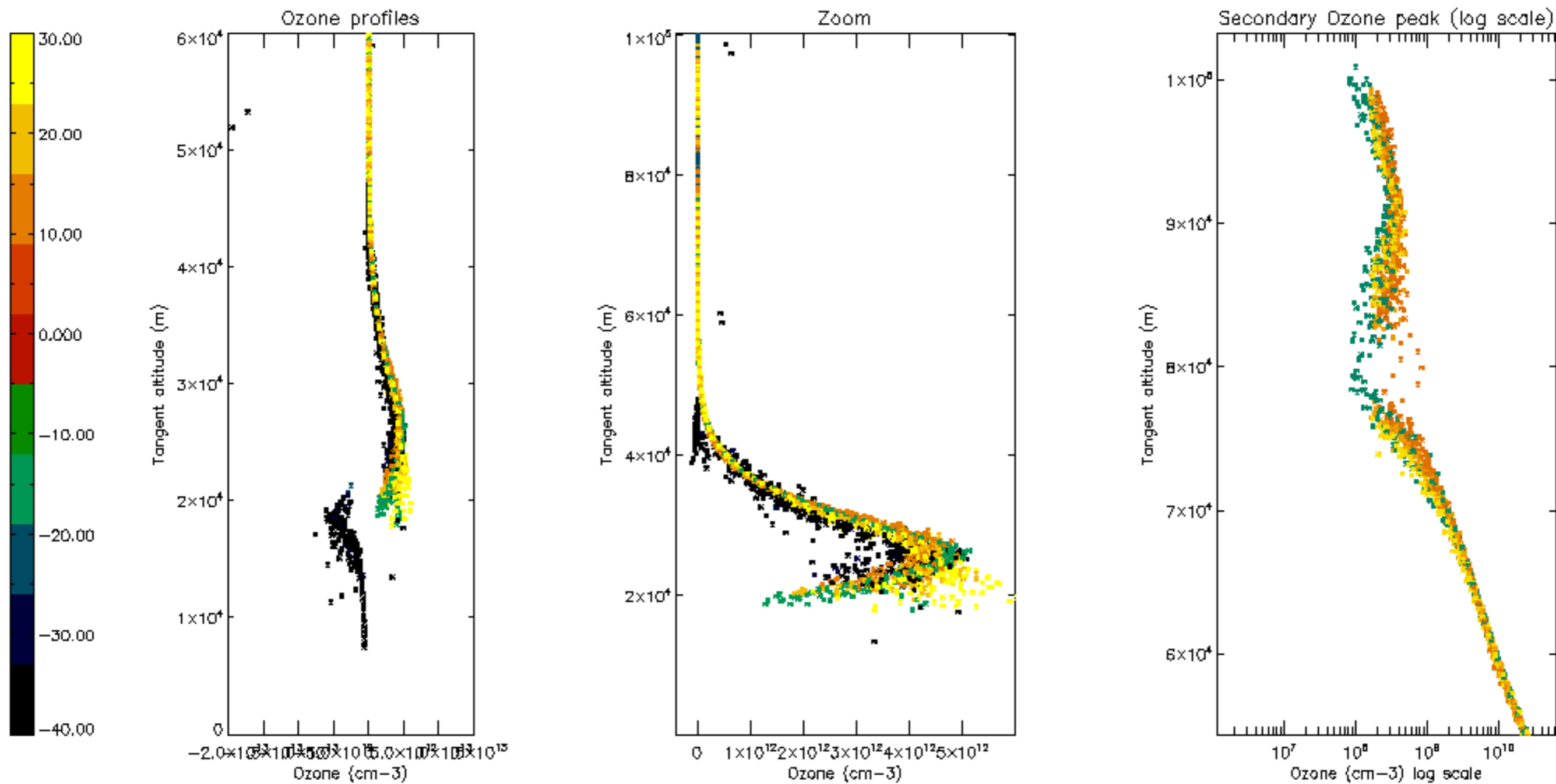
Percentage of star falling outside central band per profile

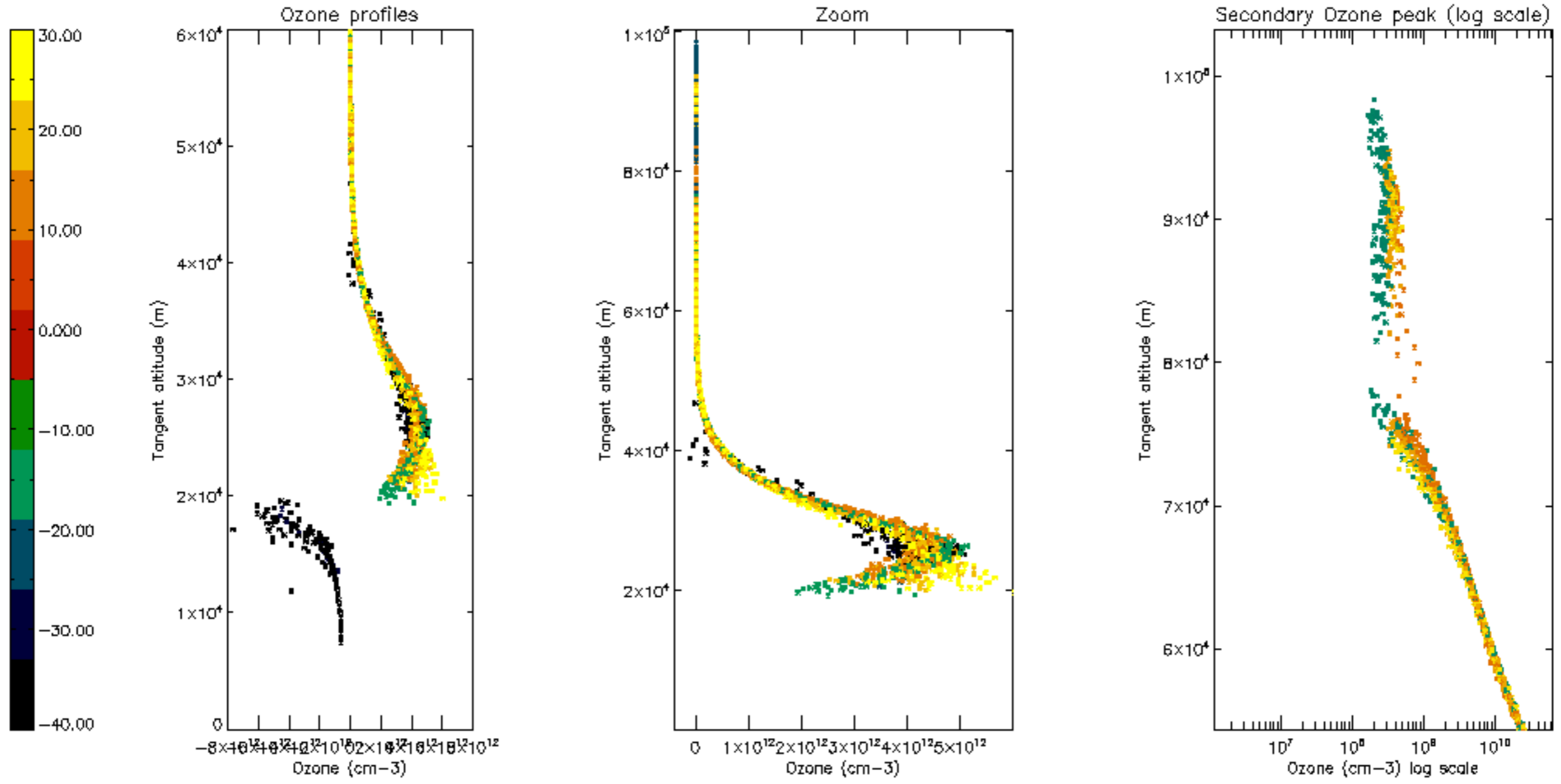


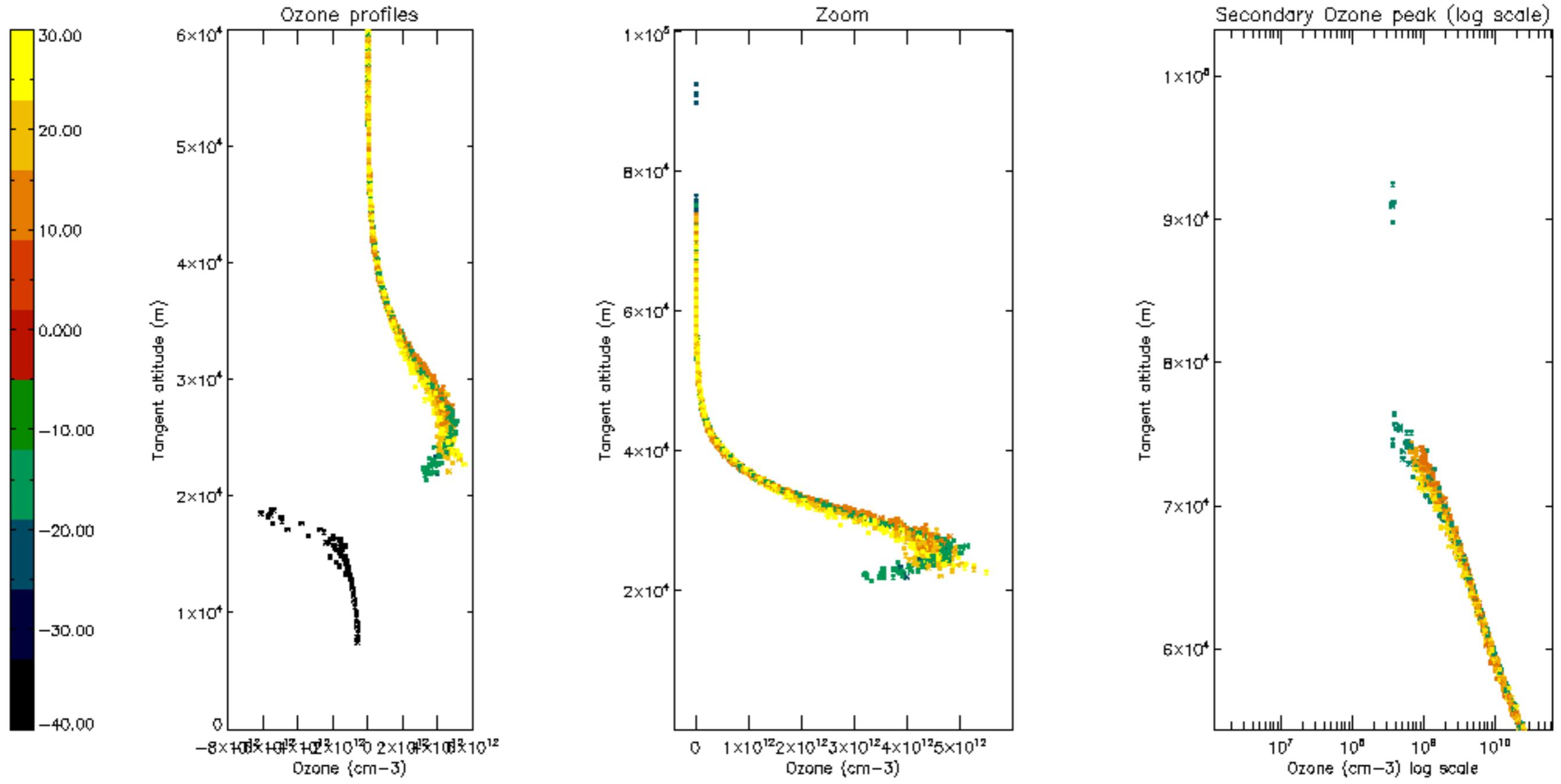
Percentage of saturation errors per profile

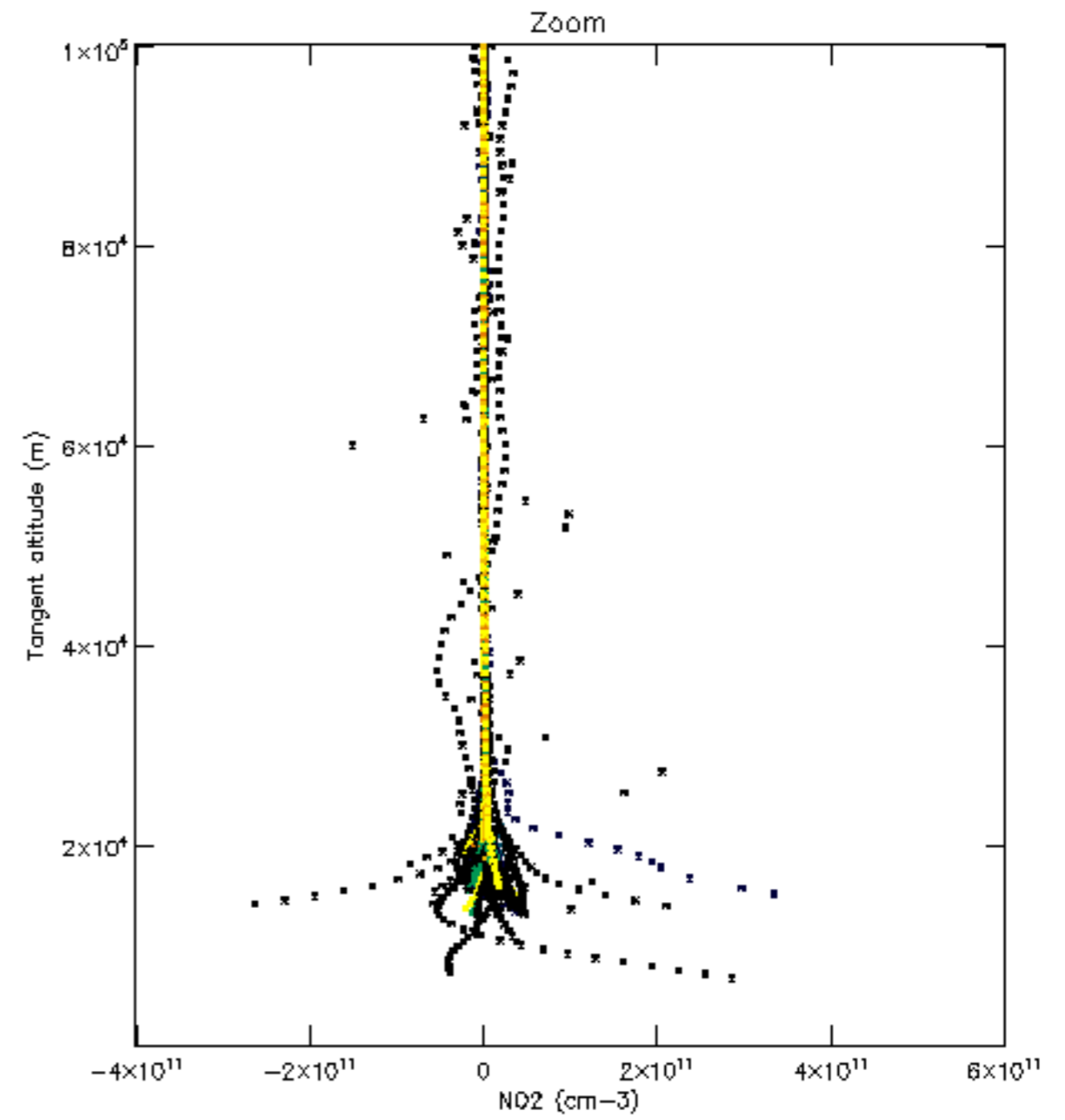
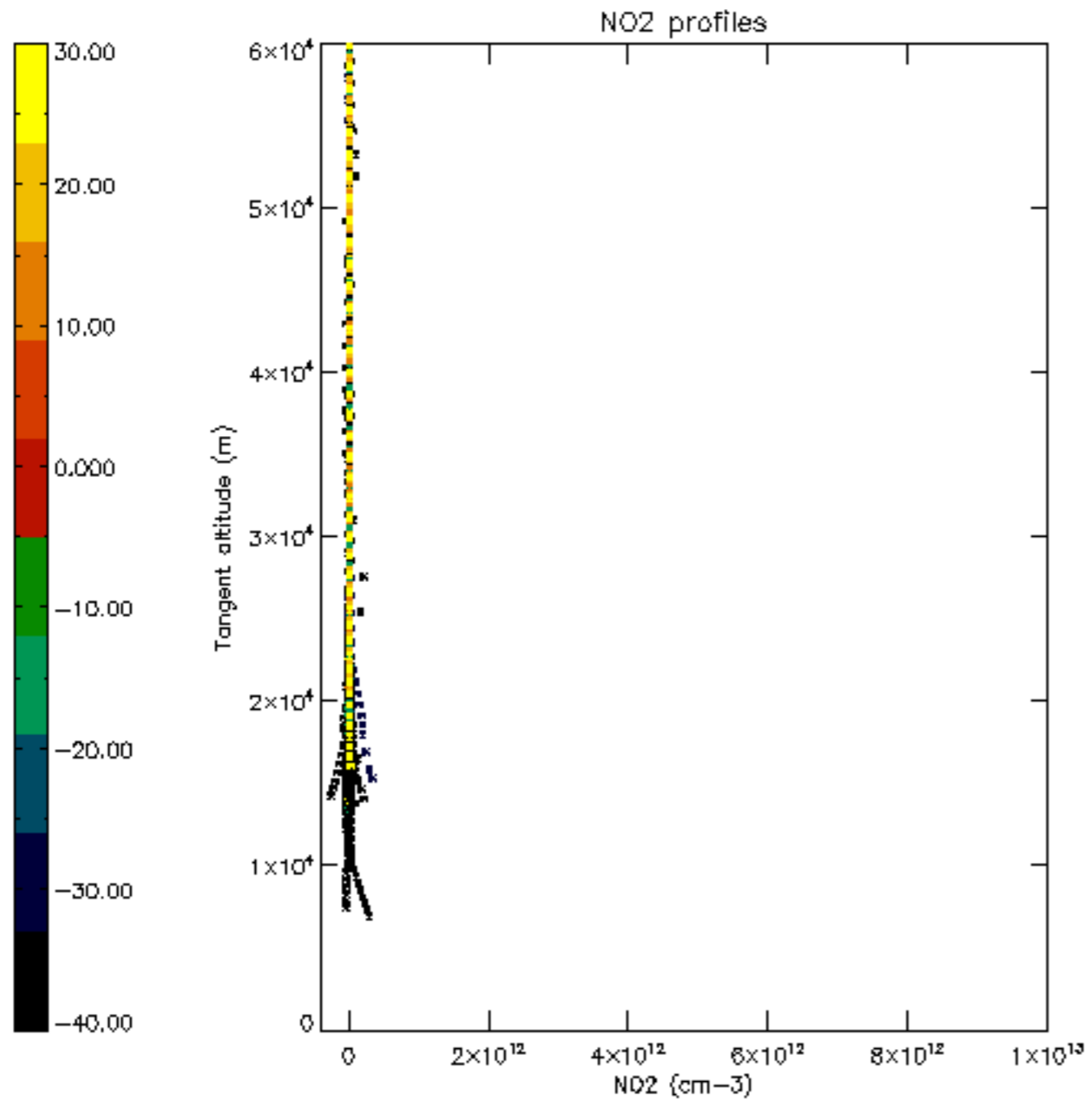


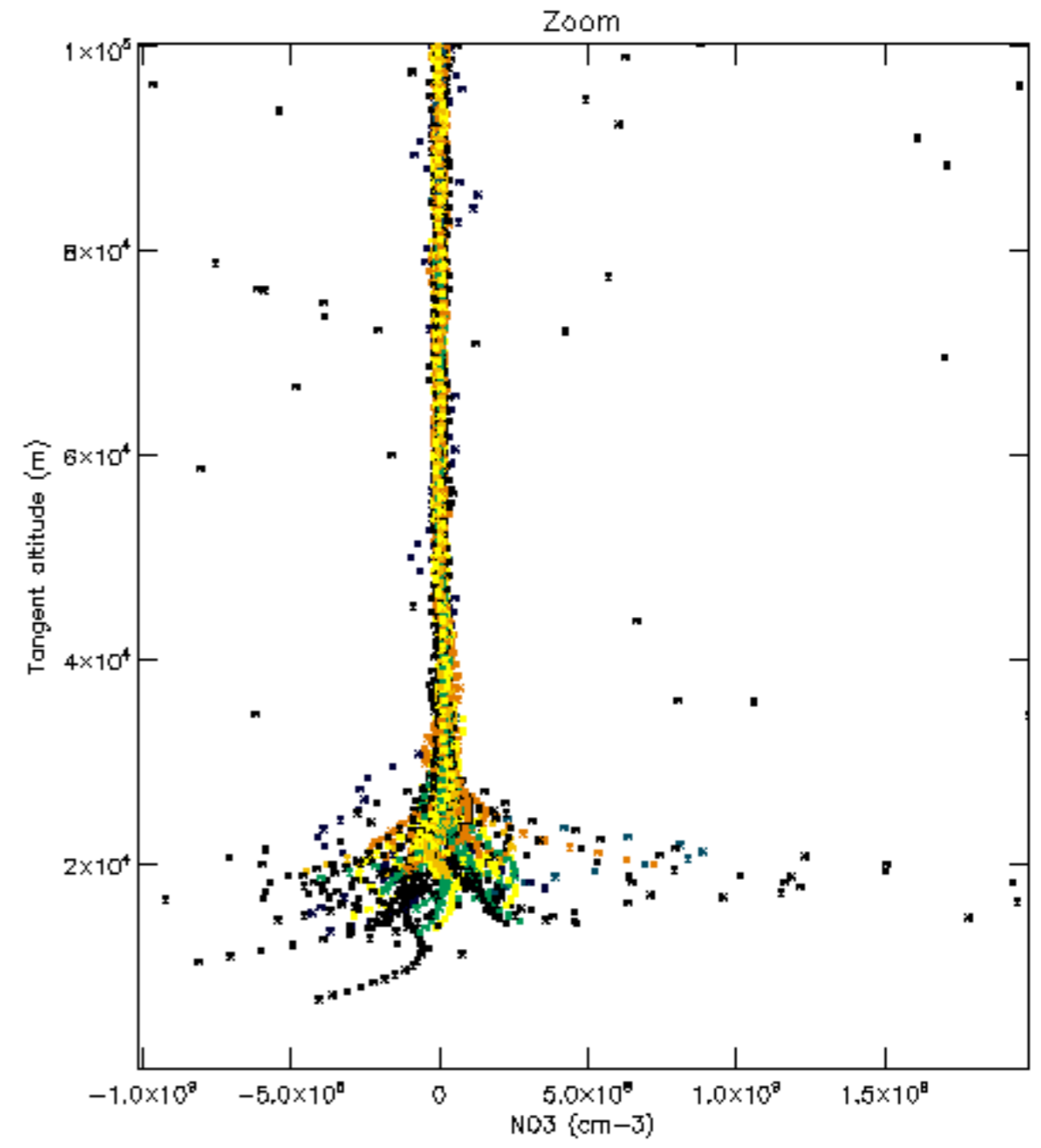
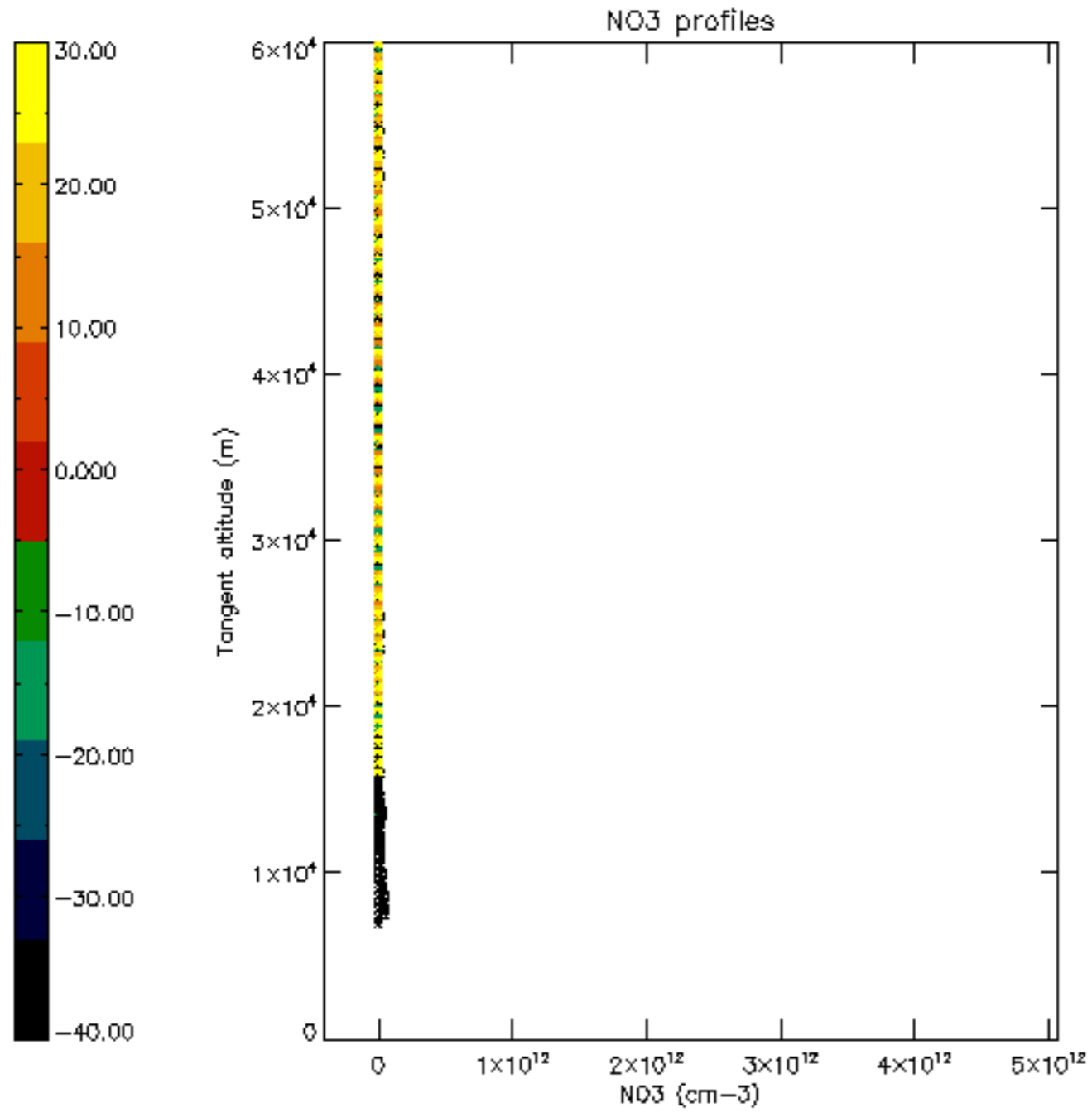




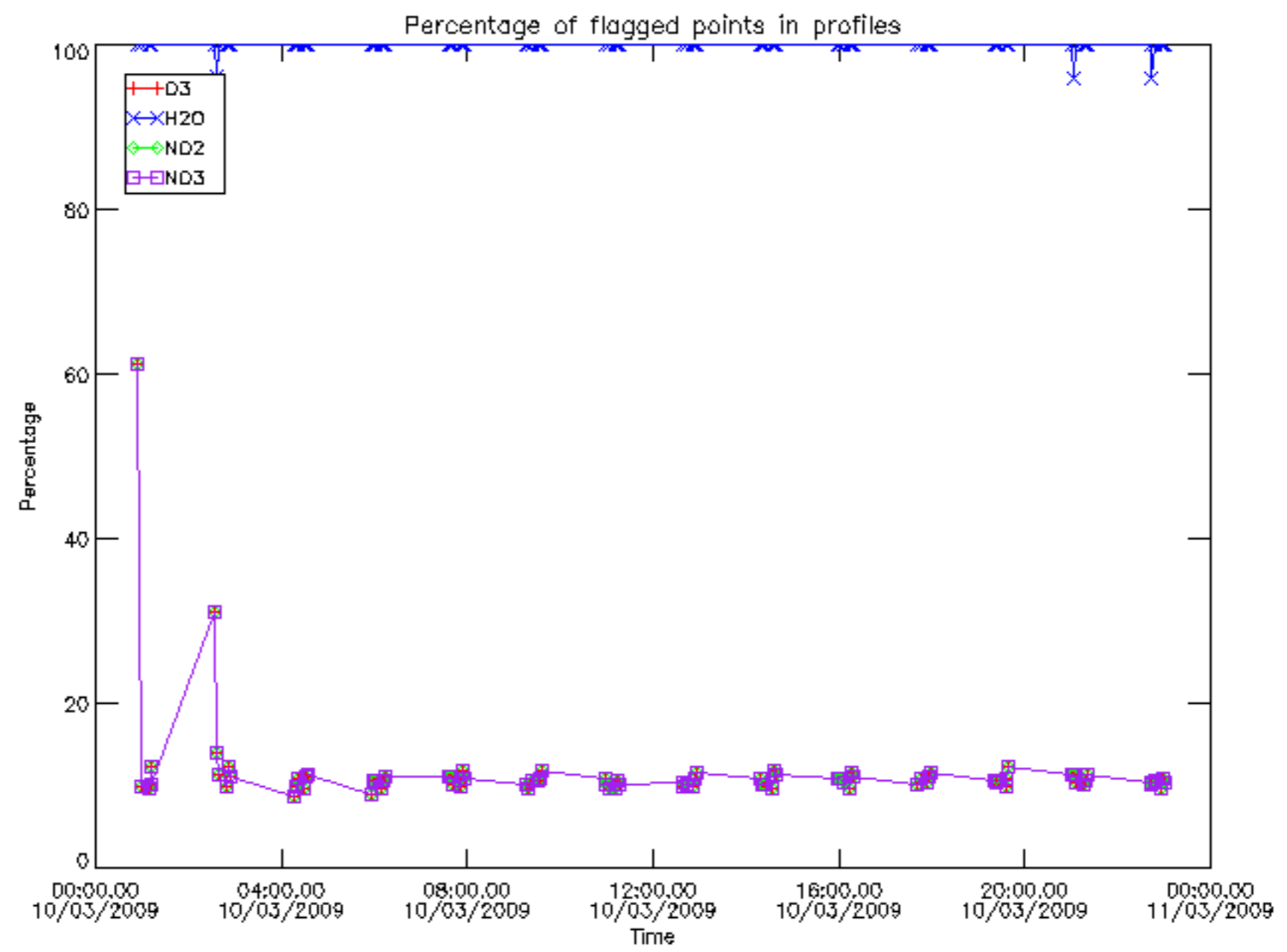




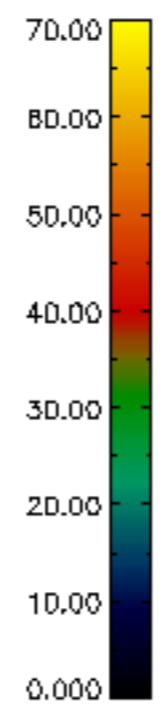
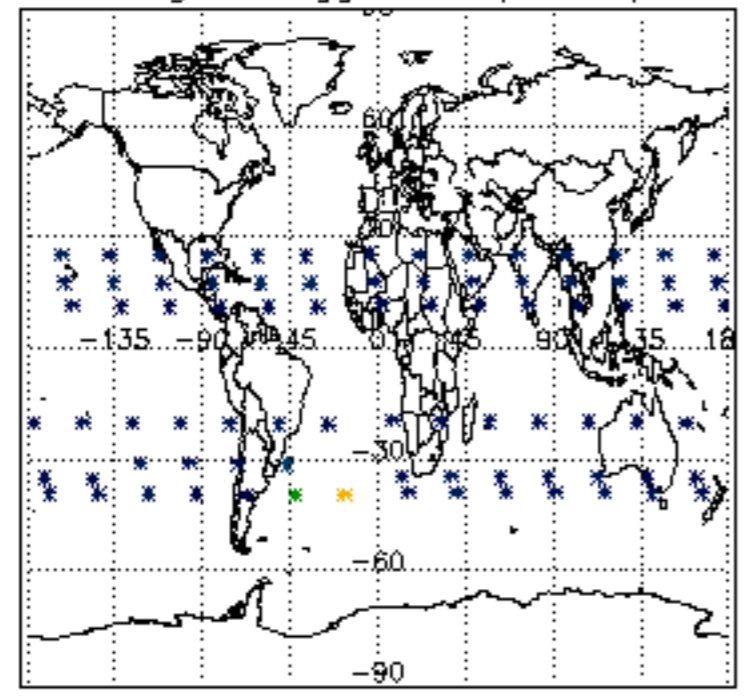




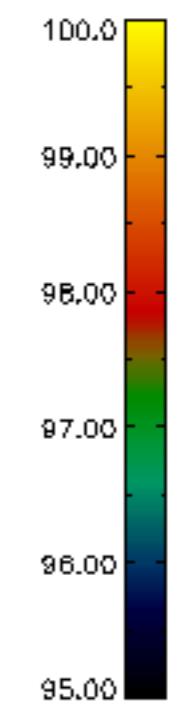
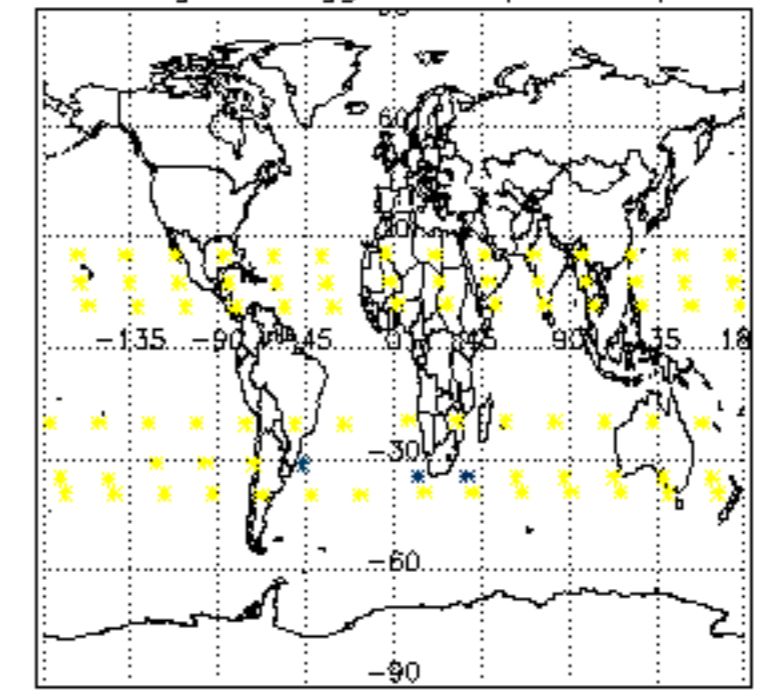




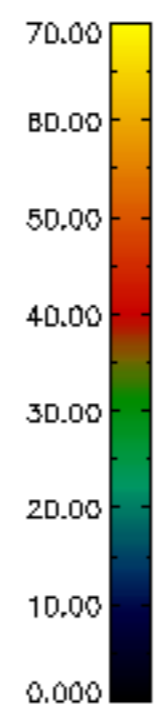
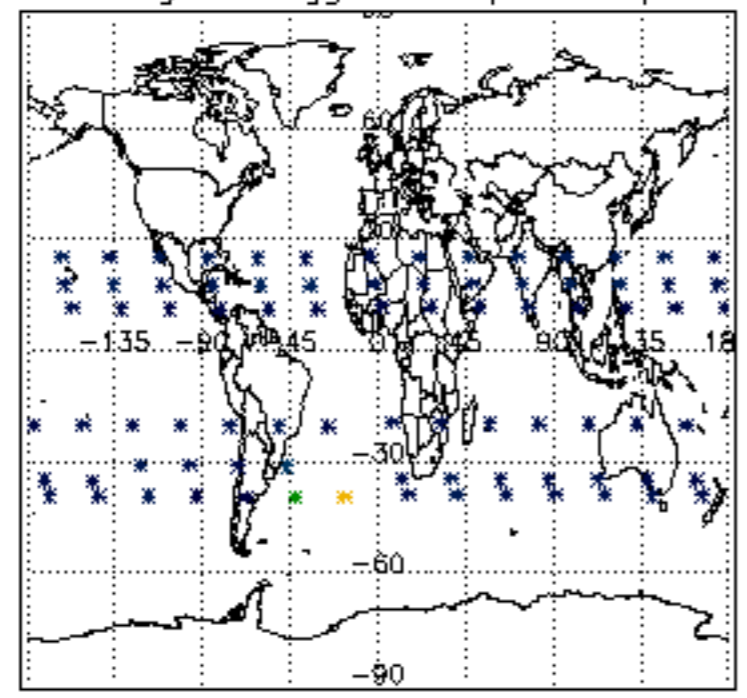
Percentage of flagged data per D3 profile



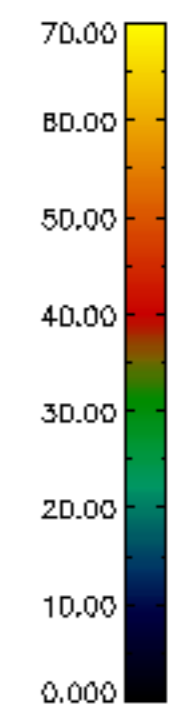
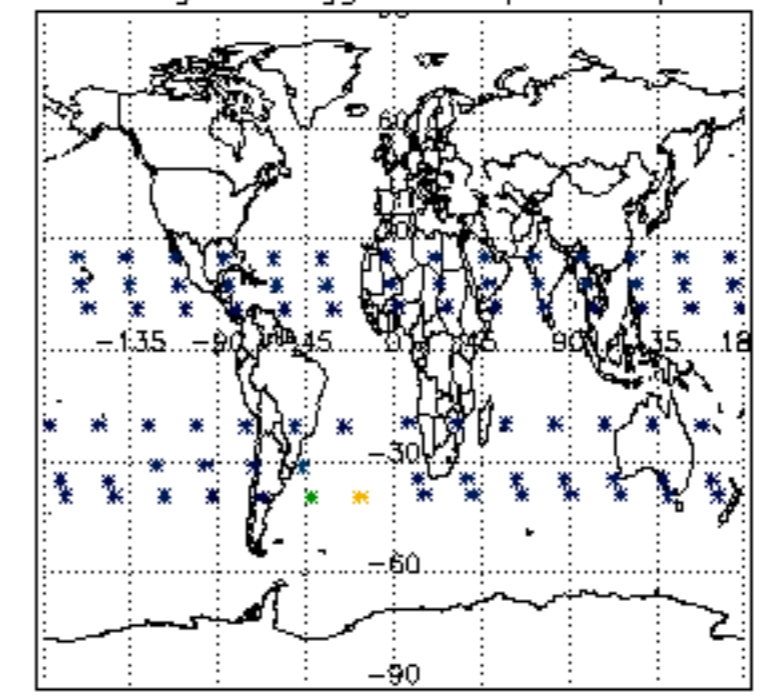
Percentage of flagged data per H2O profile

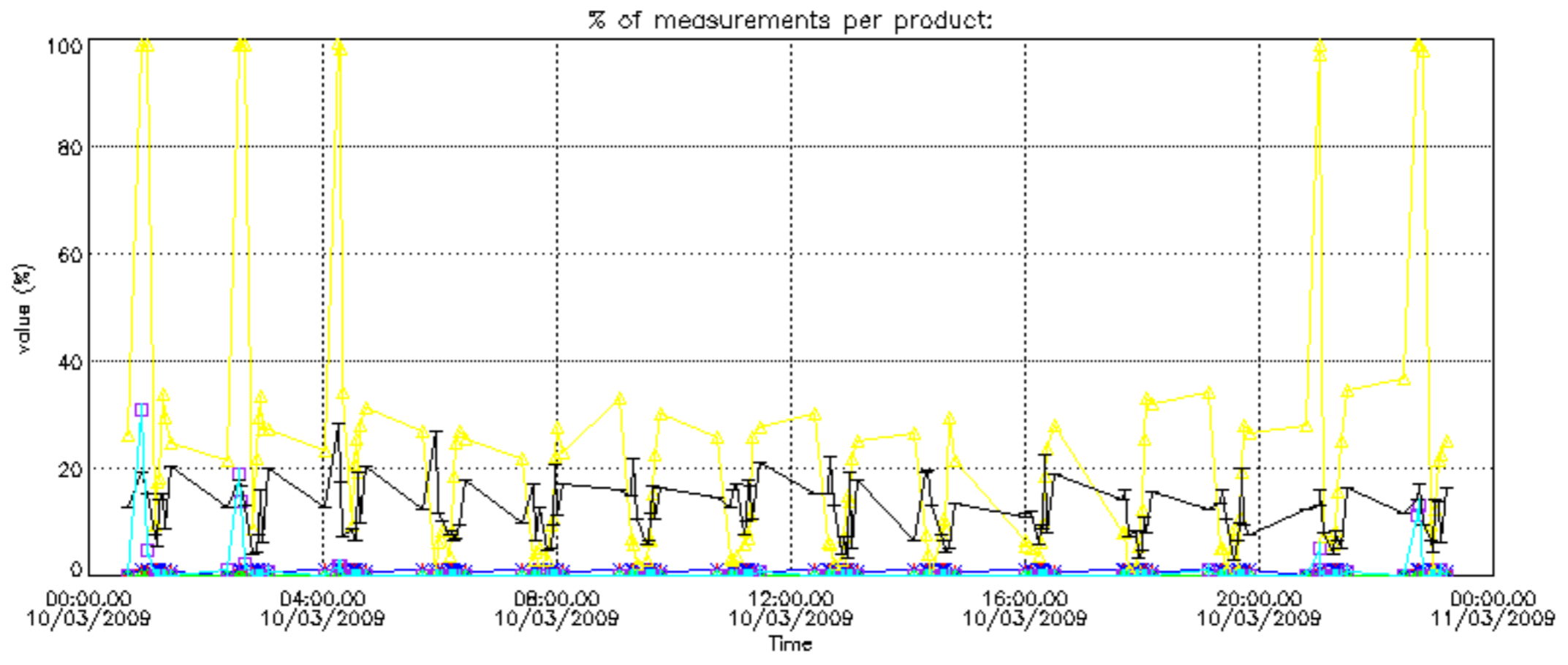


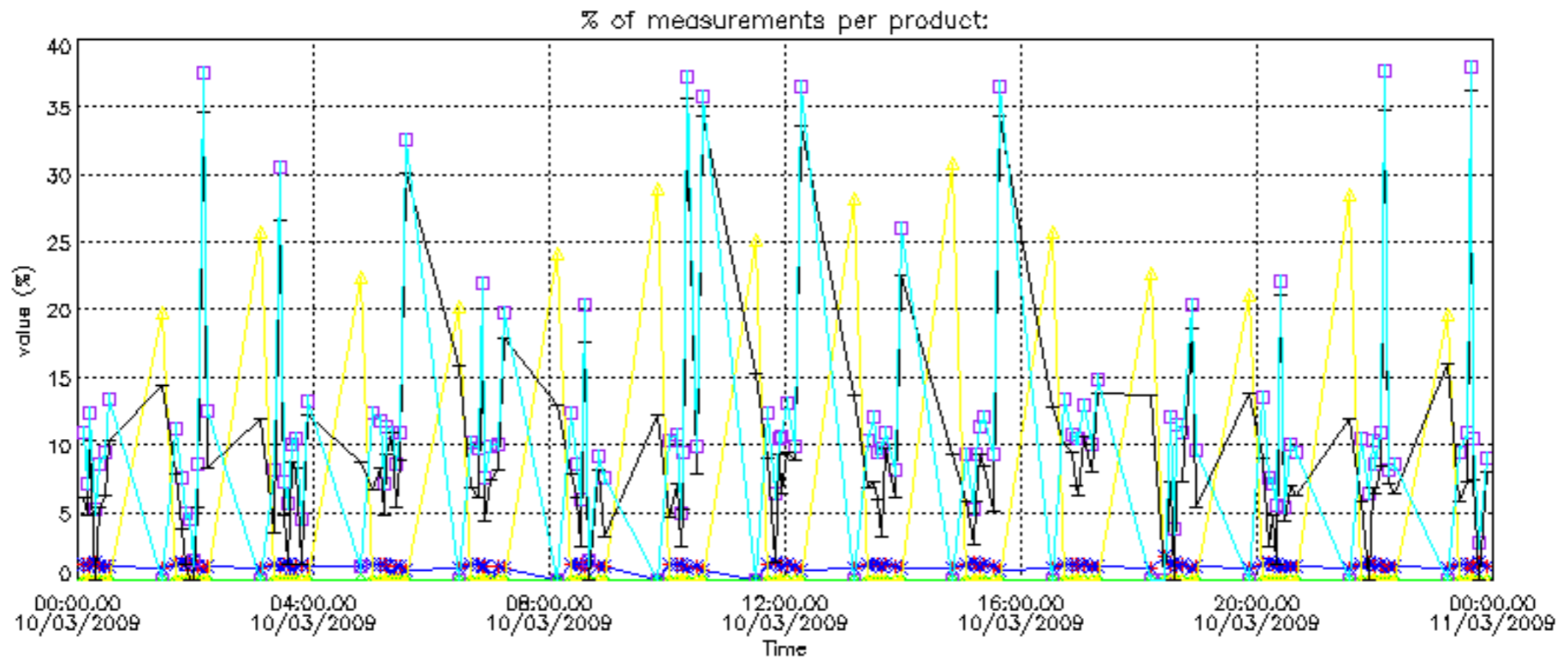
Percentage of flagged data per NO2 profile



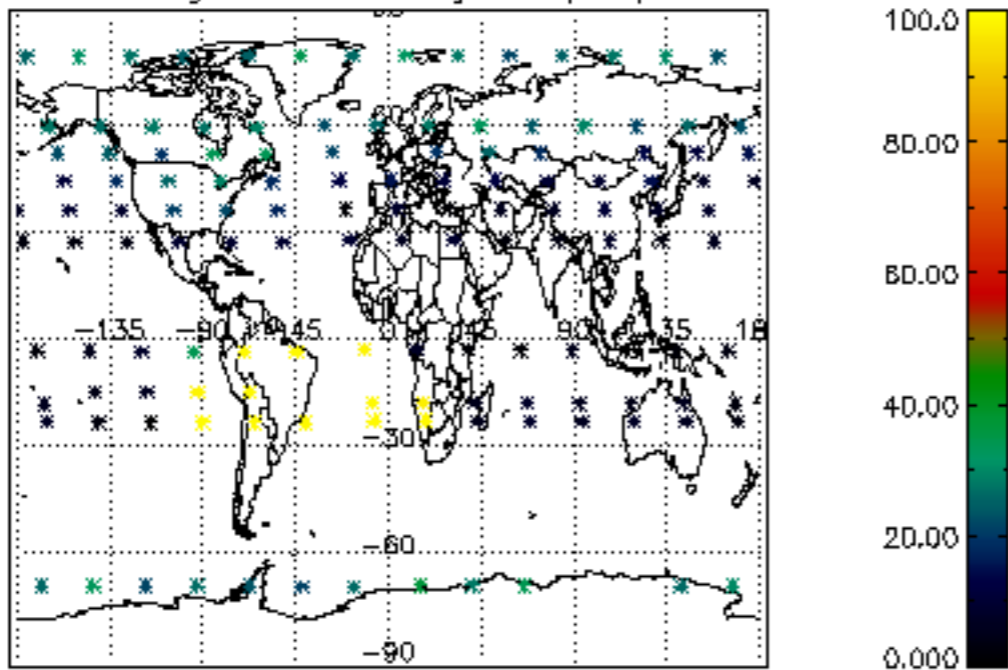
Percentage of flagged data per NO3 profile



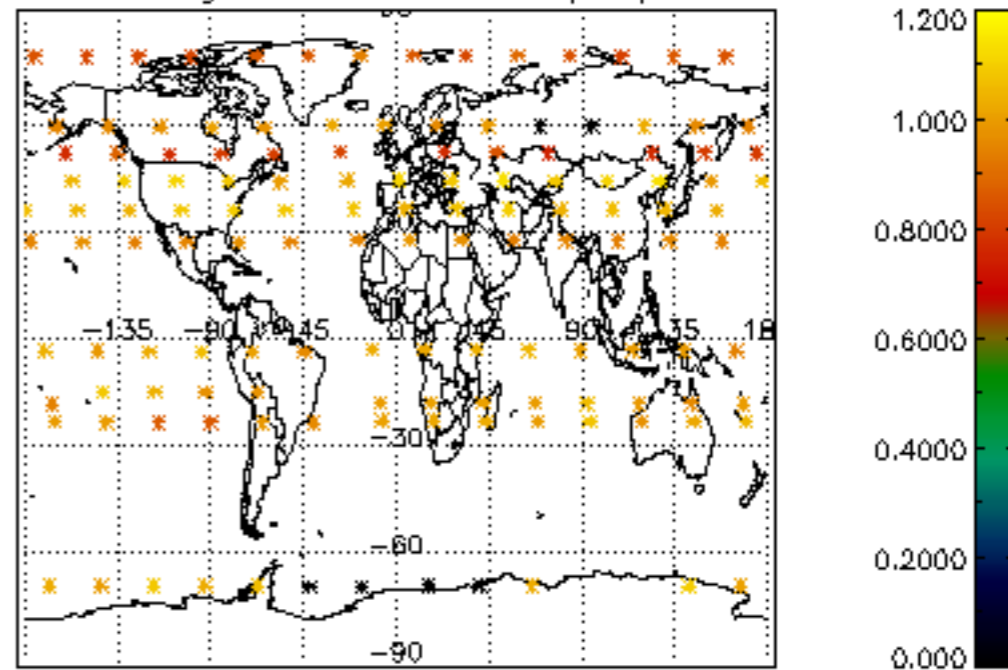




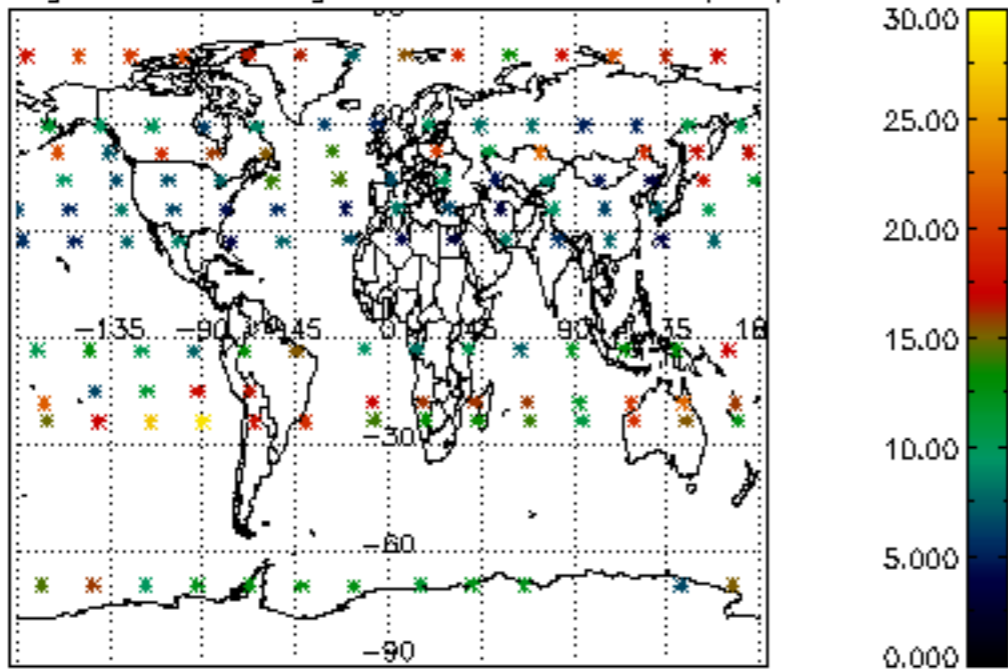
Percentage of cosmic ray hits per profile



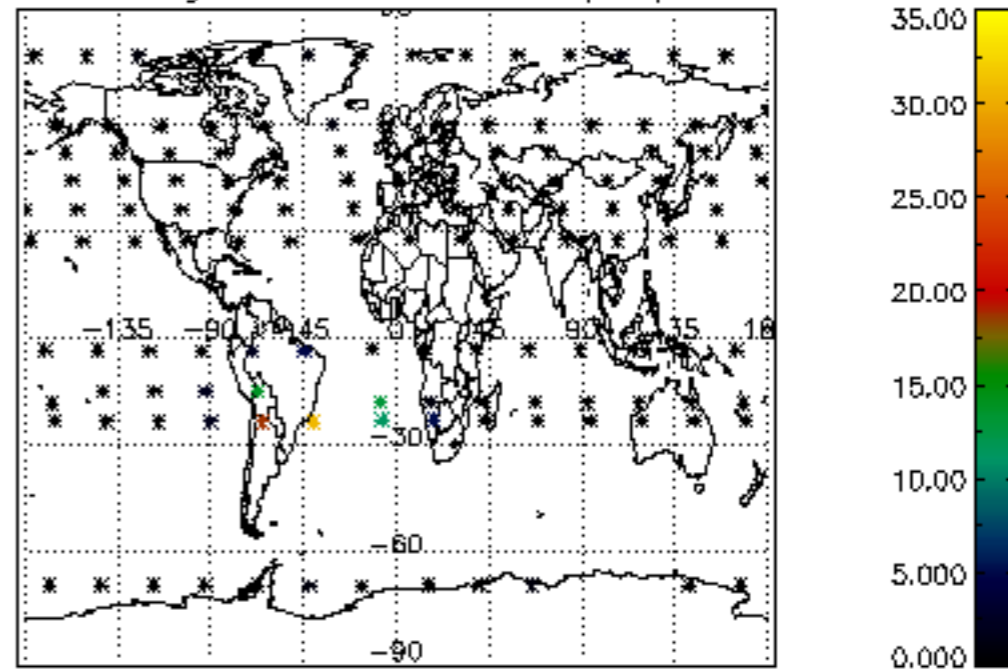
Percentage of datation errors per profile



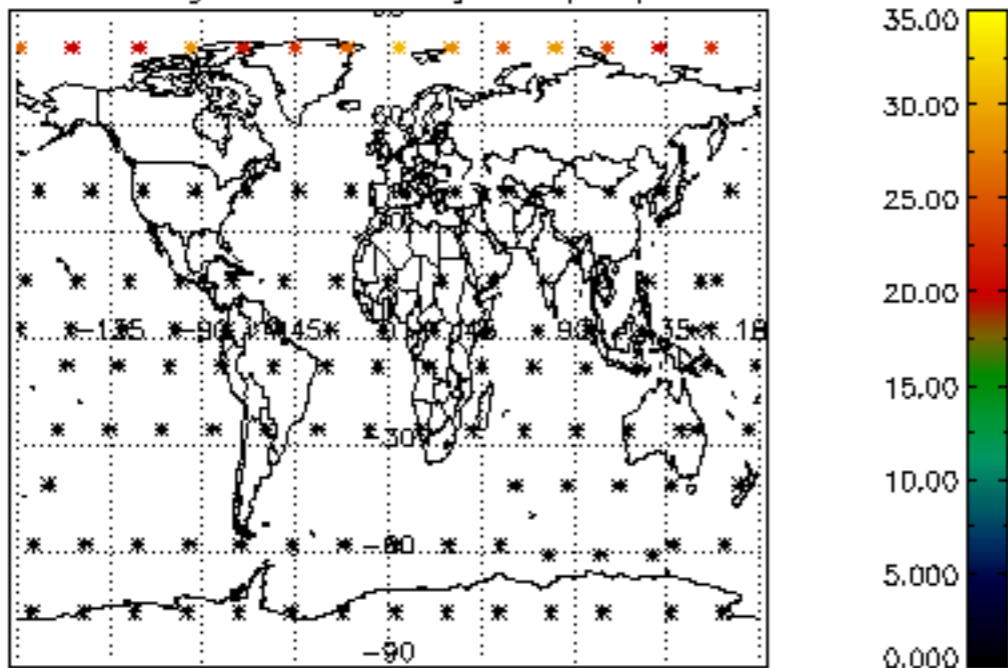
Percentage of star falling outside central band per profile



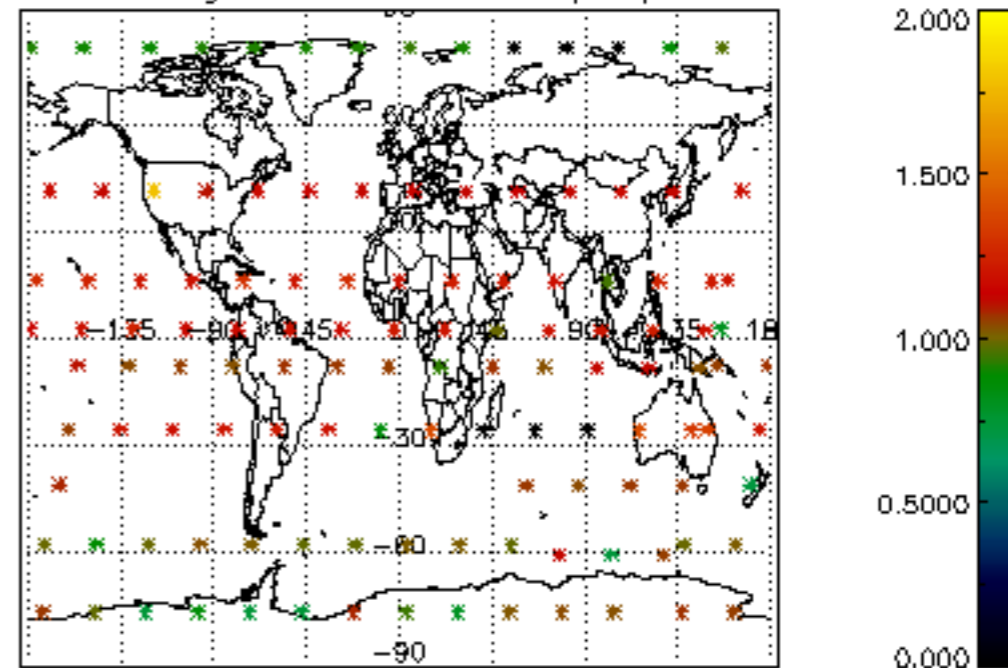
Percentage of saturation errors per profile



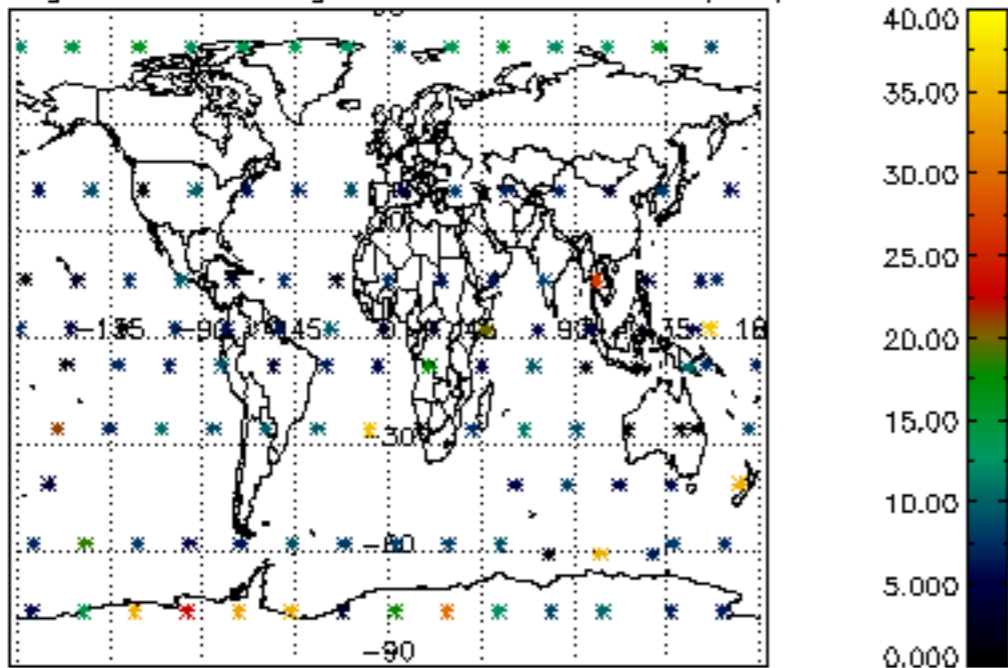
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

