

# 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	29APR2013 15:38:25
Data source version	GOMOS/6.01
Start time of products	02-10-2010 (02OCT2010 00:00:00)
Stop time of products	03-10-2010 (03OCT2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	187
Nb of prods with errors	0

## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20101002_000703_000000472093_00259_44902_3656.N1	02-OCT-2010 00:07:03	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44902	No
2	GOM_NL__2PRFIN20101002_001117_000000572093_00259_44902_3657.N1	02-OCT-2010 00:11:17	Dark	56.500	37	25Del CMa	1.8300	5900.0	113	44902	No
3	GOM_NL__2PRFIN20101002_001558_000000432093_00260_44903_3660.N1	02-OCT-2010 00:15:58	Dark	43.000	161	Tau Pup	2.9310	4500.0	86	44903	No
4	GOM_NL__2PRFIN20101002_001722_000000542093_00260_44903_3661.N1	02-OCT-2010 00:17:22	Dark	53.500	2	Alp Car	-0.73600	7000.0	107	44903	No
5	GOM_NL__2PRFIN20101002_001945_000000582093_00260_44903_3662.N1	02-OCT-2010 00:19:45	Dark	58.000	108	Alp Col	2.6520	15200.	116	44903	No
6	GOM_NL__2PRFIN20101002_002947_000000502093_00260_44903_3663.N1	02-OCT-2010 00:29:47	Straylight	50.000	157	The1Eri	2.9060	9300.0	100	44903	No
7	GOM_NL__2PRFIN20101002_004022_000000472093_00260_44903_3664.N1	02-OCT-2010 00:40:22	Straylight	46.500	52	16Bet Cet	2.0370	4500.0	93	44903	No
8	GOM_NL__2PRFIN20101002_005046_000000402093_00260_44903_3665.N1	02-OCT-2010 00:50:46	Bright	40.000	140	88Gam Peg	2.8340	26000.	80	44903	No
9	GOM_NL__2PRFIN20101002_005456_000000402093_00260_44903_3666.N1	02-OCT-2010 00:54:56	Bright	40.000	58	21Alp And	2.0730	11000.	80	44903	No
10	GOM_NL__2PRFIN20101002_005836_000000452093_00260_44903_3667.N1	02-OCT-2010 00:58:36	Bright	44.500	53	43Bet And	2.0480	3300.0	89	44903	No
11	GOM_NL__2PRFIN20101002_010332_000000372093_00260_44903_3668.N1	02-OCT-2010 01:03:32	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	44903	No
12	GOM_NL__2PRFIN20101002_010451_000000422093_00260_44903_3669.N1	02-OCT-2010 01:04:51	Bright	42.000	76	27Gam Cas	2.3000	30000.	84	44903	No
13	GOM_NL__2PRFIN20101002_013108_000000612093_00260_44903_3670.N1	02-OCT-2010 01:31:08	Bright	61.000	17	78Bet Gem	1.1610	4500.0	122	44903	No
14	GOM_NL__2PRFIN20101002_014740_000000472093_00260_44903_3671.N1	02-OCT-2010 01:47:40	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44903	No
15	GOM_NL__2PRFIN20101002_015154_000000552093_00260_44903_3672.N1	02-OCT-2010 01:51:54	Dark	55.000	37	25Del CMa	1.8300	5900.0	110	44903	No
16	GOM_NL__2PRFIN20101002_015635_000000462093_00261_44904_3670.N1	02-OCT-2010 01:56:35	Dark	45.500	161	Tau Pup	2.9310	4500.0	91	44904	No
17	GOM_NL__2PRFIN20101002_015759_000000572093_00261_44904_3671.N1	02-OCT-2010 01:57:59	Dark	57.000	2	Alp Car	-0.73600	7000.0	114	44904	No
18	GOM_NL__2PRFIN20101002_020023_000000602093_00261_44904_3672.N1	02-OCT-2010 02:00:23	Dark	59.500	108	Alp Col	2.6520	15200.	119	44904	No
19	GOM_NL__2PRFIN20101002_021023_000000522093_00261_44904_3673.N1	02-OCT-2010 02:10:23	Straylight	51.500	157	The1Eri	2.9060	9300.0	103	44904	No
20	GOM_NL__2PRFIN20101002_022058_000000502093_00261_44904_3674.N1	02-OCT-2010 02:20:58	Straylight	50.000	52	16Bet Cet	2.0370	4500.0	100	44904	No
21	GOM_NL__2PRFIN20101002_023122_000000412093_00261_44904_3675.N1	02-OCT-2010 02:31:22	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44904	No
22	GOM_NL__2PRFIN20101002_023531_000000412093_00261_44904_3676.N1	02-OCT-2010 02:35:31	Bright	41.000	58	21Alp And	2.0730	11000.	82	44904	No
23	GOM_NL__2PRFIN20101002_023912_000000502093_00261_44904_3677.N1	02-OCT-2010 02:39:12	Bright	49.500	53	43Bet And	2.0480	3300.0	99	44904	No
24	GOM_NL__2PRFIN20101002_024407_000000382093_00261_44904_3678.N1	02-OCT-2010 02:44:07	Bright	37.500	74	11Bet Cas	2.2680	6600.0	75	44904	No
25	GOM_NL__2PRFIN20101002_024527_000000402093_00261_44904_3679.N1	02-OCT-2010 02:45:27	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	44904	No
26	GOM_NL__2PRFIN20101002_031144_000000612093_00261_44904_3680.N1	02-OCT-2010 03:11:44	Bright	60.500	17	78Bet Gem	1.1610	4500.0	121	44904	No
27	GOM_NL__2PRFIN20101002_032816_000000472093_00261_44904_3681.N1	02-OCT-2010 03:28:16	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44904	No
28	GOM_NL__2PRFIN20101002_033231_000000542093_00261_44904_3682.N1	02-OCT-2010 03:32:31	Dark	54.000	37	25Del CMa	1.8300	5900.0	108	44904	No
29	GOM_NL__2PRFIN20101002_033712_000000432093_00262_44905_3681.N1	02-OCT-2010 03:37:12	Dark	42.500	161	Tau Pup	2.9310	4500.0	85	44905	No
30	GOM_NL__2PRFIN20101002_033836_000000452093_00262_44905_3682.N1	02-OCT-2010 03:38:36	Dark	44.500	2	Alp Car	-0.73600	7000.0	89	44905	No
31	GOM_NL__2PRFIN20101002_034100_000000582093_00262_44905_3683.N1	02-OCT-2010 03:41:00	Dark	58.000	108	Alp Col	2.6520	15200.	116	44905	No
32	GOM_NL__2PRFIN20101002_035100_000000482093_00262_44905_3684.N1	02-OCT-2010 03:51:00	Straylight	47.500	157	The1Eri	2.9060	9300.0	95	44905	No
33	GOM_NL__2PRFIN20101002_040135_000000512093_00262_44905_3685.N1	02-OCT-2010 04:01:35	Straylight	50.500	52	16Bet Cet	2.0370	4500.0	101	44905	No
34	GOM_NL__2PRFIN20101002_041158_000000412093_00262_44905_3686.N1	02-OCT-2010 04:11:58	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44905	No
35	GOM_NL__2PRFIN20101002_041607_000000412093_00262_44905_3687.N1	02-OCT-2010 04:16:07	Bright	40.500	58	21Alp And	2.0730	11000.	81	44905	No
36	GOM_NL__2PRFIN20101002_041947_000000502093_00262_44905_3688.N1	02-OCT-2010 04:19:47	Bright	49.500	53	43Bet And	2.0480	3300.0	99	44905	No
37	GOM_NL__2PRFIN20101002_042443_000000392093_00262_44905_3689.N1	02-OCT-2010 04:24:43	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	44905	No
38	GOM_NL__2PRFIN20101002_042602_000000412093_00262_44905_3690.N1	02-OCT-2010 04:26:02	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	44905	No
39	GOM_NL__2PRFIN20101002_045220_000000602093_00262_44905_3691.N1	02-OCT-2010 04:52:20	Bright	60.000	17	78Bet Gem	1.1610	4500.0	120	44905	No
40	GOM_NL__2PRFIN20101002_050853_000000472093_00262_44905_3692.N1	02-OCT-2010 05:08:53	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44905	No
41	GOM_NL__2PRFIN20101002_051308_000000652093_00262_44905_3693.N1	02-OCT-2010 05:13:08	Dark	65.000	37	25Del CMa	1.8300	5900.0	130	44905	No
42	GOM_NL__2PRFIN20101002_051748_000000422093_00263_44906_3692.N1	02-OCT-2010 05:17:48	Dark	41.500	161	Tau Pup	2.9310	4500.0	83	44906	No



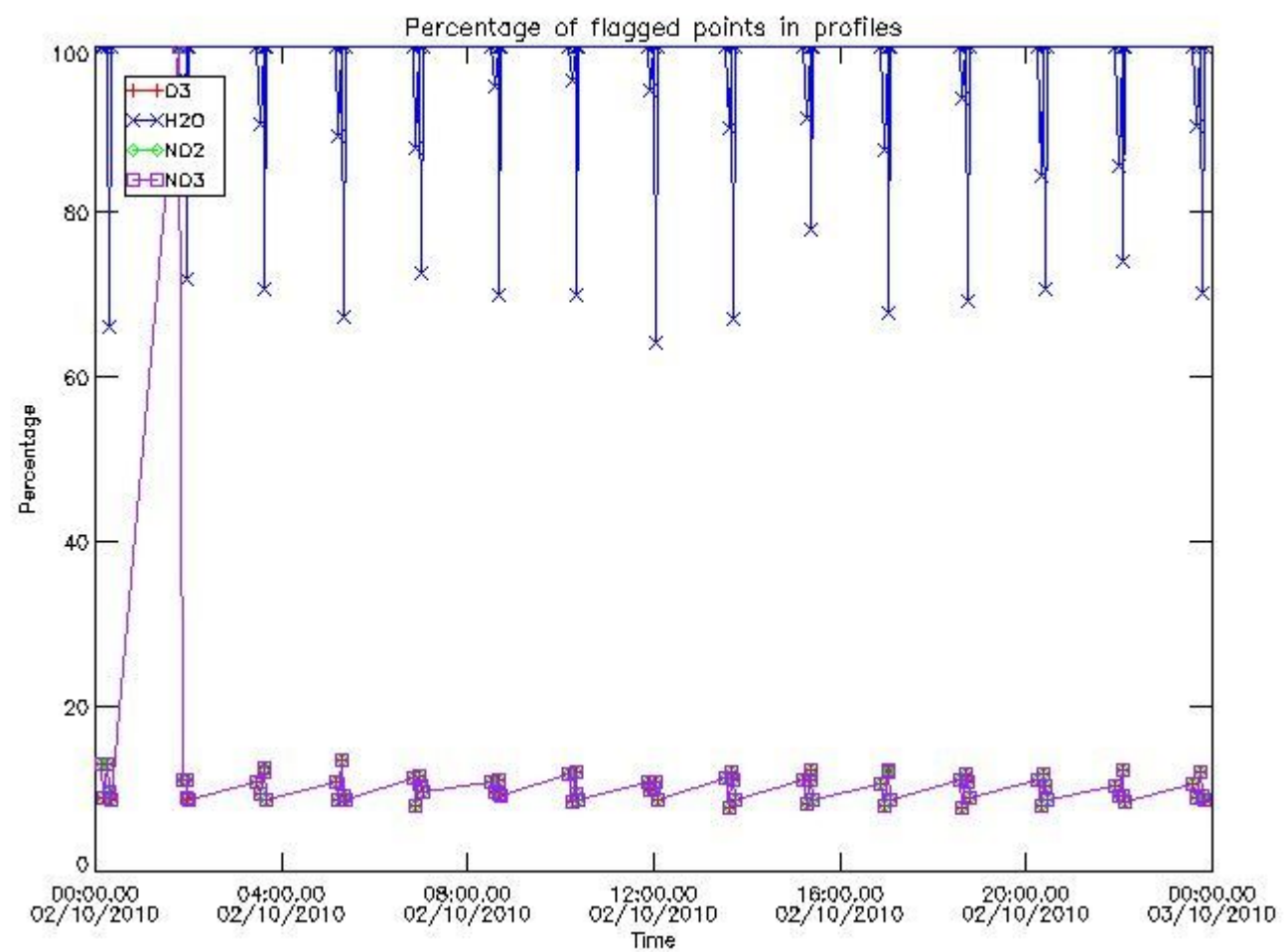


161	GOM_NL__2PRFIN20101002_202715_000000592093_00272_44915_4022.N1	02-OCT-2010 20:27:15	Dark	58.500	108	Alp Col	2.6520	15200.	117	44915	No
162	GOM_NL__2PRFIN20101002_203706_000000502093_00272_44915_4023.N1	02-OCT-2010 20:37:06	Straylight	49.500	157	The1Eri	2.9060	9300.0	99	44915	No
163	GOM_NL__2PRFIN20101002_204735_000000532093_00272_44915_4024.N1	02-OCT-2010 20:47:35	Straylight	52.500	52	16Bet Cet	2.0370	4500.0	105	44915	No
164	GOM_NL__2PRFIN20101002_205756_000000412093_00272_44915_4025.N1	02-OCT-2010 20:57:56	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44915	No
165	GOM_NL__2PRFIN20101002_210203_000000412093_00272_44915_4026.N1	02-OCT-2010 21:02:03	Bright	41.000	58	21Alp And	2.0730	11000.	82	44915	No
166	GOM_NL__2PRFIN20101002_210540_000000442093_00272_44915_4027.N1	02-OCT-2010 21:05:40	Bright	44.000	53	43Bet And	2.0480	3300.0	88	44915	No
167	GOM_NL__2PRFIN20101002_211040_000000402093_00272_44915_4028.N1	02-OCT-2010 21:10:40	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	44915	No
168	GOM_NL__2PRFIN20101002_211158_000000412093_00272_44915_4029.N1	02-OCT-2010 21:11:58	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	44915	No
169	GOM_NL__2PRFIN20101002_213823_000000292093_00272_44915_4030.N1	02-OCT-2010 21:38:23	Tw_i_and_stray	28.500	17	78Bet Gem	1.1610	4500.0	57	44915	No
170	GOM_NL__2PRFIN20101002_215501_000000502093_00272_44915_4031.N1	02-OCT-2010 21:55:01	Dark	49.500	132	15Rho Pup	2.8030	6900.0	99	44915	No
171	GOM_NL__2PRFIN20101002_215921_000000562093_00272_44915_4032.N1	02-OCT-2010 21:59:21	Dark	55.500	37	25Del CMa	1.8300	5900.0	111	44915	No
172	GOM_NL__2PRFIN20101002_220355_000000422093_00273_44916_4034.N1	02-OCT-2010 22:03:55	Dark	41.500	161	Tau Pup	2.9310	4500.0	83	44916	No
173	GOM_NL__2PRFIN20101002_220519_000000562093_00273_44916_4035.N1	02-OCT-2010 22:05:19	Dark	56.000	2	Alp Car	-0.73600	7000.0	112	44916	No
174	GOM_NL__2PRFIN20101002_220752_000000612093_00273_44916_4036.N1	02-OCT-2010 22:07:52	Dark	60.500	108	Alp Col	2.6520	15200.	121	44916	No
175	GOM_NL__2PRFIN20101002_221743_000000492093_00273_44916_4037.N1	02-OCT-2010 22:17:43	Straylight	49.000	157	The1Eri	2.9060	9300.0	98	44916	No
176	GOM_NL__2PRFIN20101002_222811_000000482093_00273_44916_4038.N1	02-OCT-2010 22:28:11	Straylight	48.000	52	16Bet Cet	2.0370	4500.0	96	44916	No
177	GOM_NL__2PRFIN20101002_223831_000000412093_00273_44916_4039.N1	02-OCT-2010 22:38:31	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44916	No
178	GOM_NL__2PRFIN20101002_224239_000000402093_00273_44916_4040.N1	02-OCT-2010 22:42:39	Bright	40.000	58	21Alp And	2.0730	11000.	80	44916	No
179	GOM_NL__2PRFIN20101002_224615_000000512093_00273_44916_4041.N1	02-OCT-2010 22:46:15	Bright	50.500	53	43Bet And	2.0480	3300.0	101	44916	No
180	GOM_NL__2PRFIN20101002_225116_000000392093_00273_44916_4042.N1	02-OCT-2010 22:51:16	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	44916	No
181	GOM_NL__2PRFIN20101002_225233_000000402093_00273_44916_4043.N1	02-OCT-2010 22:52:33	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	44916	No
182	GOM_NL__2PRFIN20101002_233538_000000482093_00273_44916_4044.N1	02-OCT-2010 23:35:38	Dark	48.000	132	15Rho Pup	2.8030	6900.0	96	44916	No
183	GOM_NL__2PRFIN20101002_233958_000000572093_00273_44916_4045.N1	02-OCT-2010 23:39:58	Dark	57.000	37	25Del CMa	1.8300	5900.0	114	44916	No
184	GOM_NL__2PRFIN20101002_234432_000000422093_00274_44917_4052.N1	02-OCT-2010 23:44:32	Dark	42.000	161	Tau Pup	2.9310	4500.0	84	44917	No
185	GOM_NL__2PRFIN20101002_234556_000000562093_00274_44917_4053.N1	02-OCT-2010 23:45:56	Dark	55.500	2	Alp Car	-0.73600	7000.0	111	44917	No
186	GOM_NL__2PRFIN20101002_234830_000000592093_00274_44917_4054.N1	02-OCT-2010 23:48:30	Dark	58.500	108	Alp Col	2.6520	15200.	117	44917	No
187	GOM_NL__2PRFIN20101002_235819_000000502093_00274_44917_4055.N1	02-OCT-2010 23:58:19	Straylight	50.000	157	The1Eri	2.9060	9300.0	100	44917	No

### 3. Quality information per product

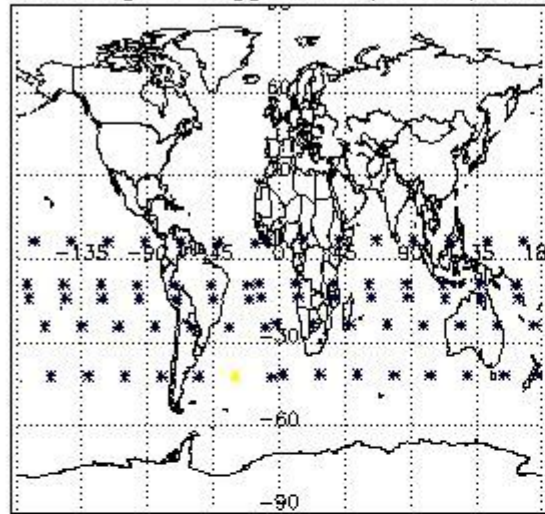
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

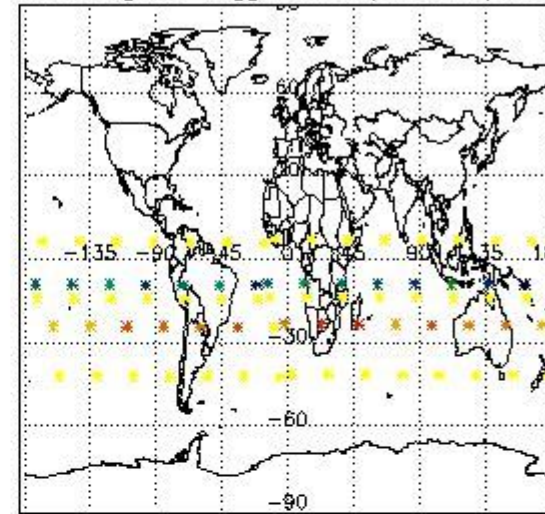


3.2 Plot quality information per product (world map)

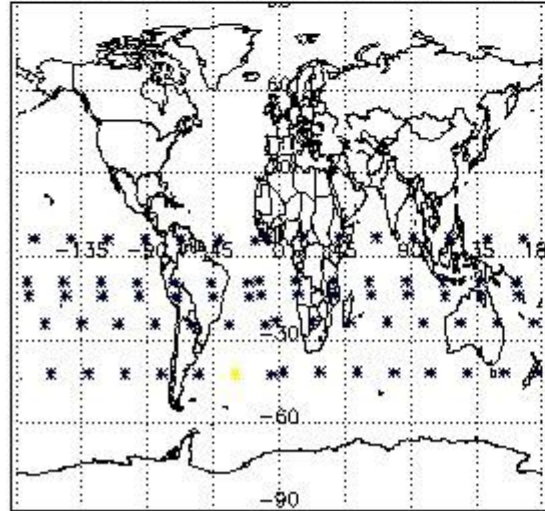
Percentage of flagged data per O3 profile



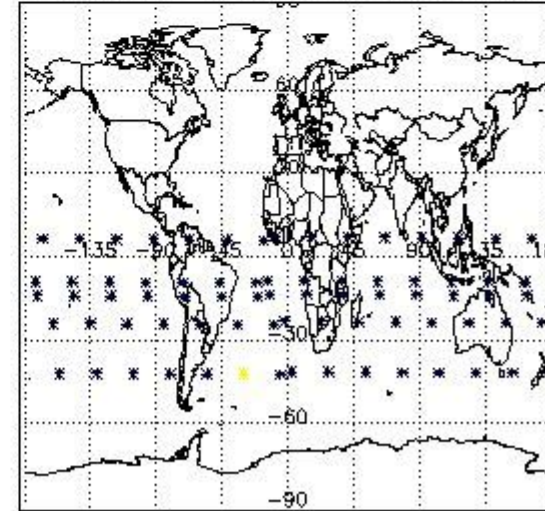
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

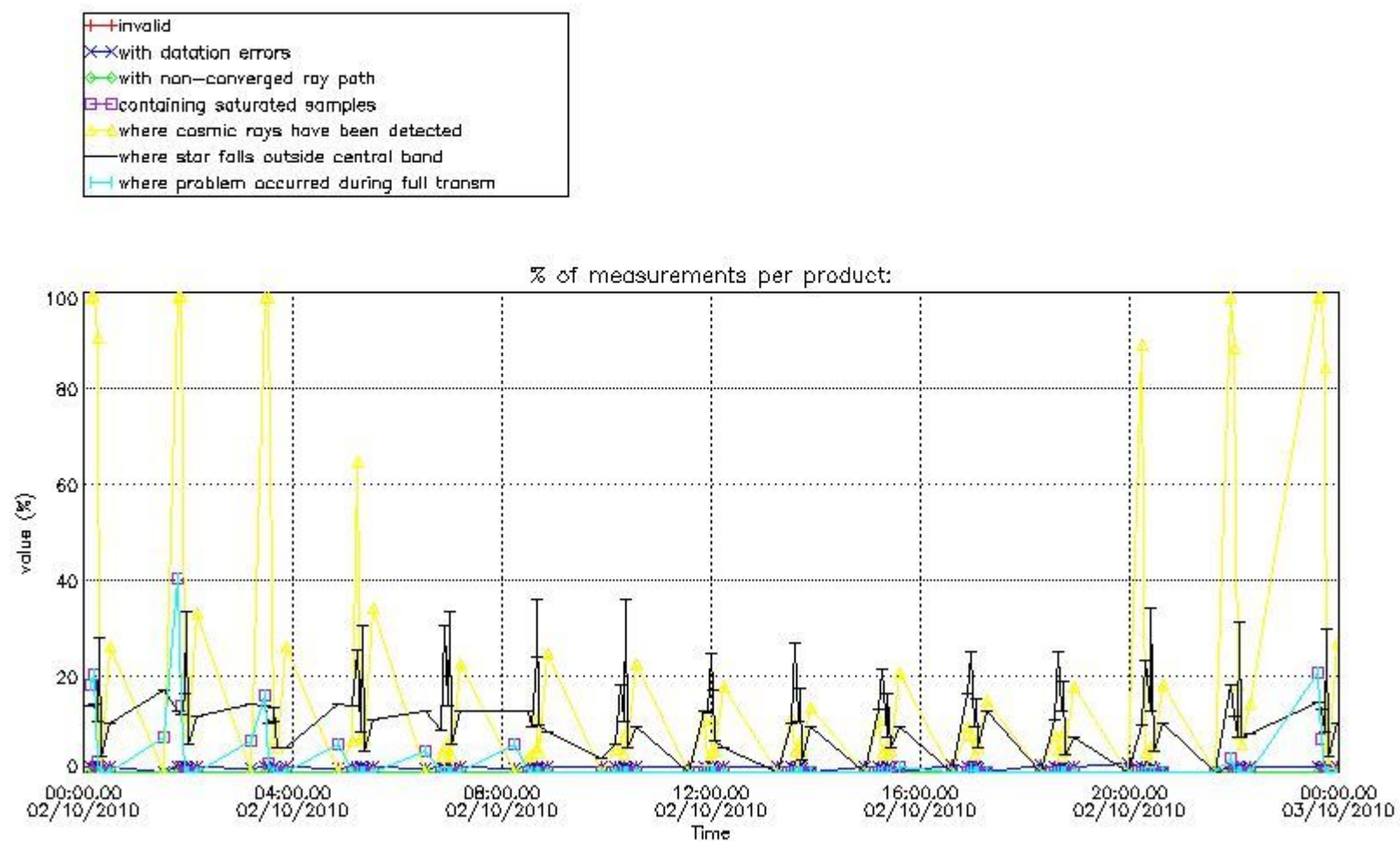


#### 4. Level 1 quality information per product

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

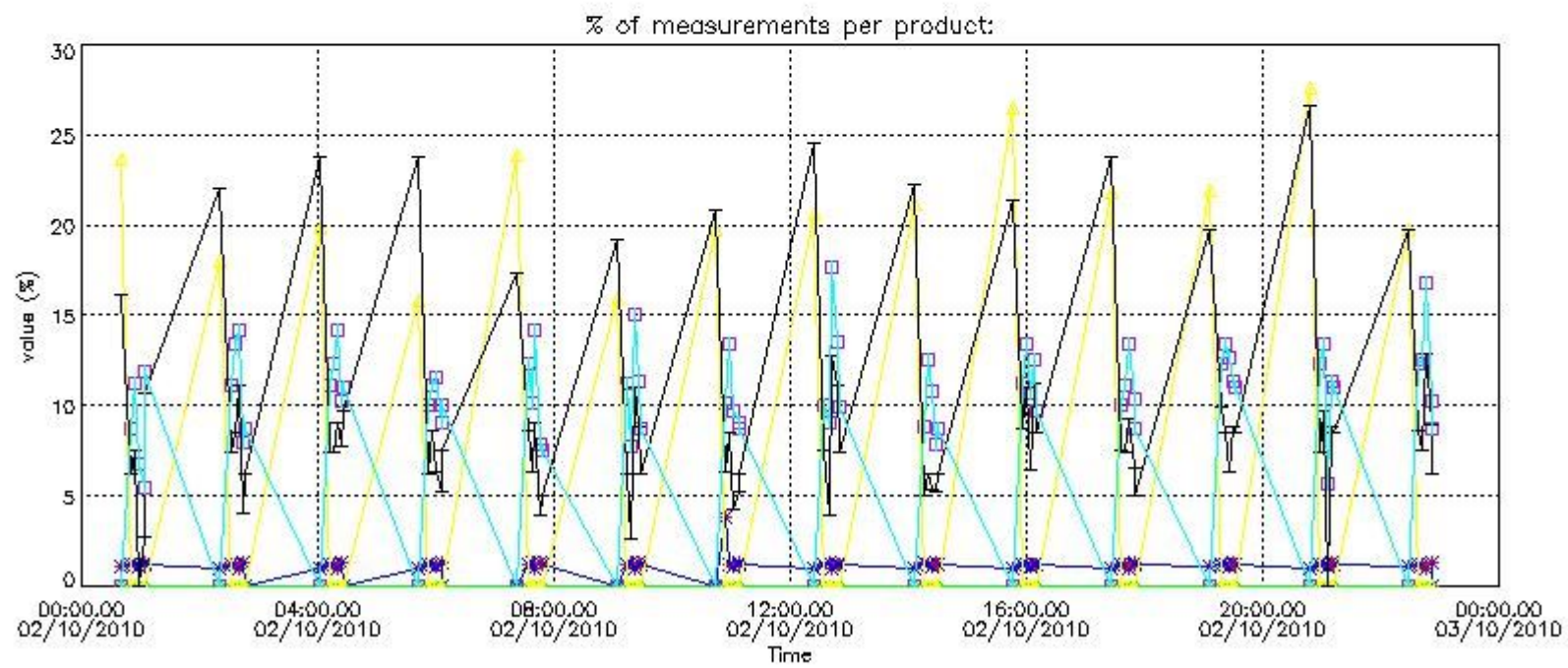
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



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

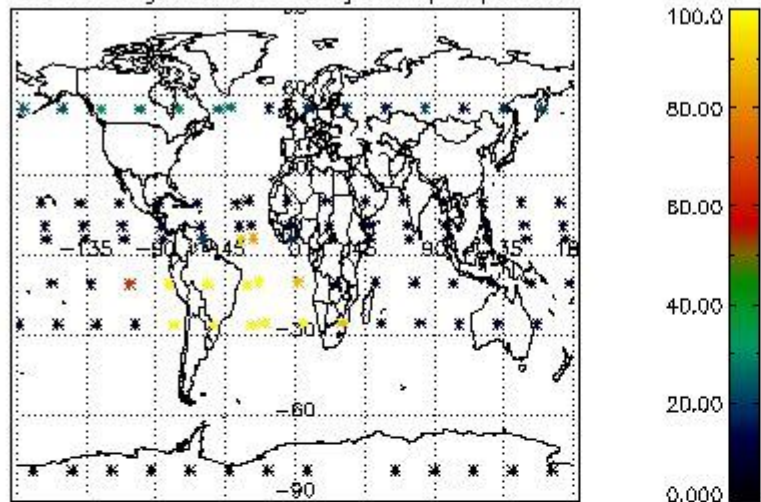




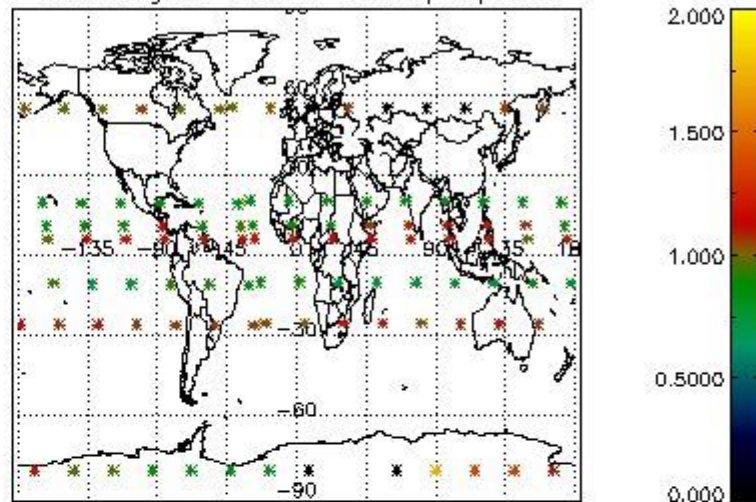
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

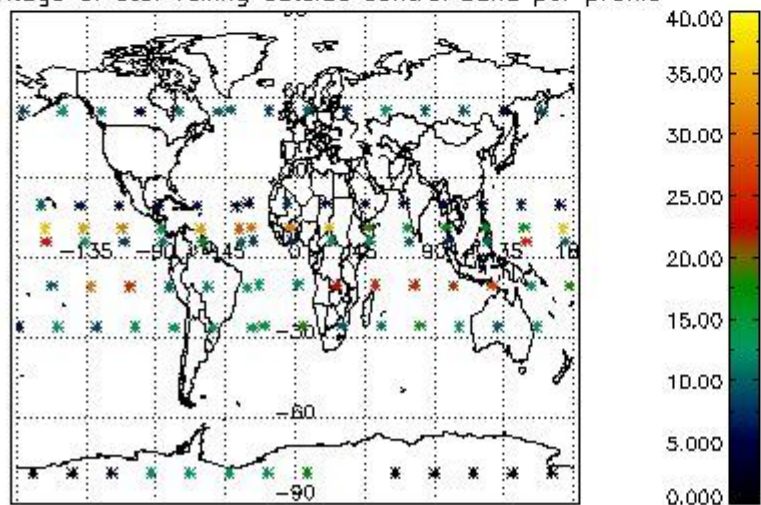
Percentage of cosmic ray hits per profile



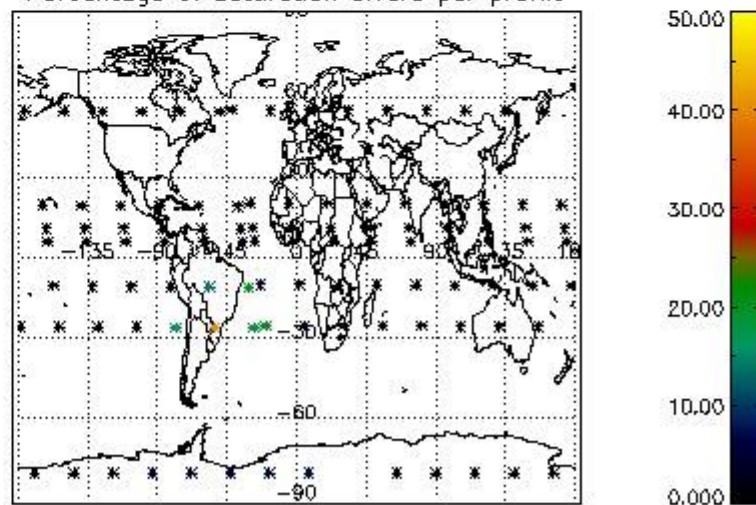
Percentage of datation errors per profile



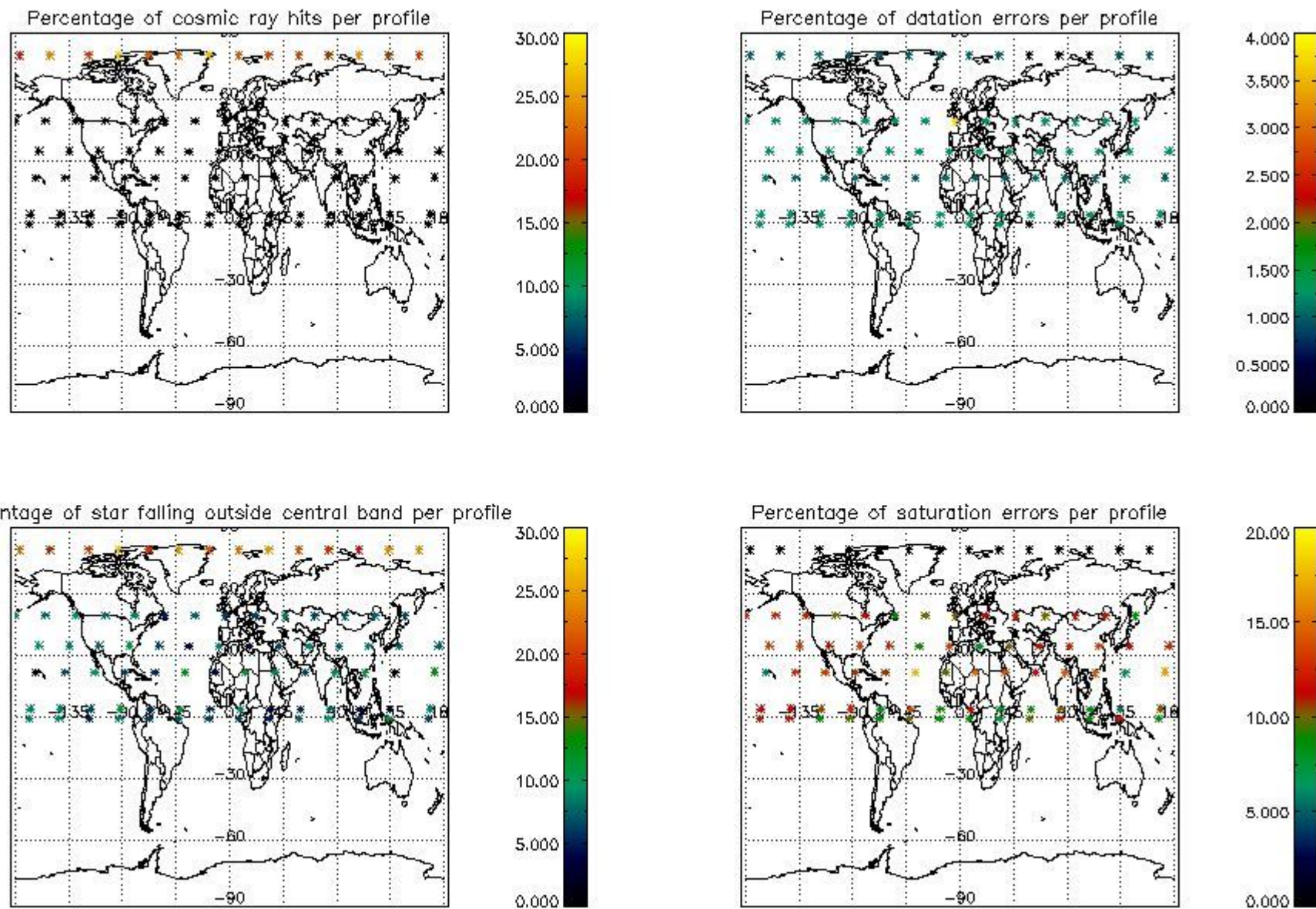
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

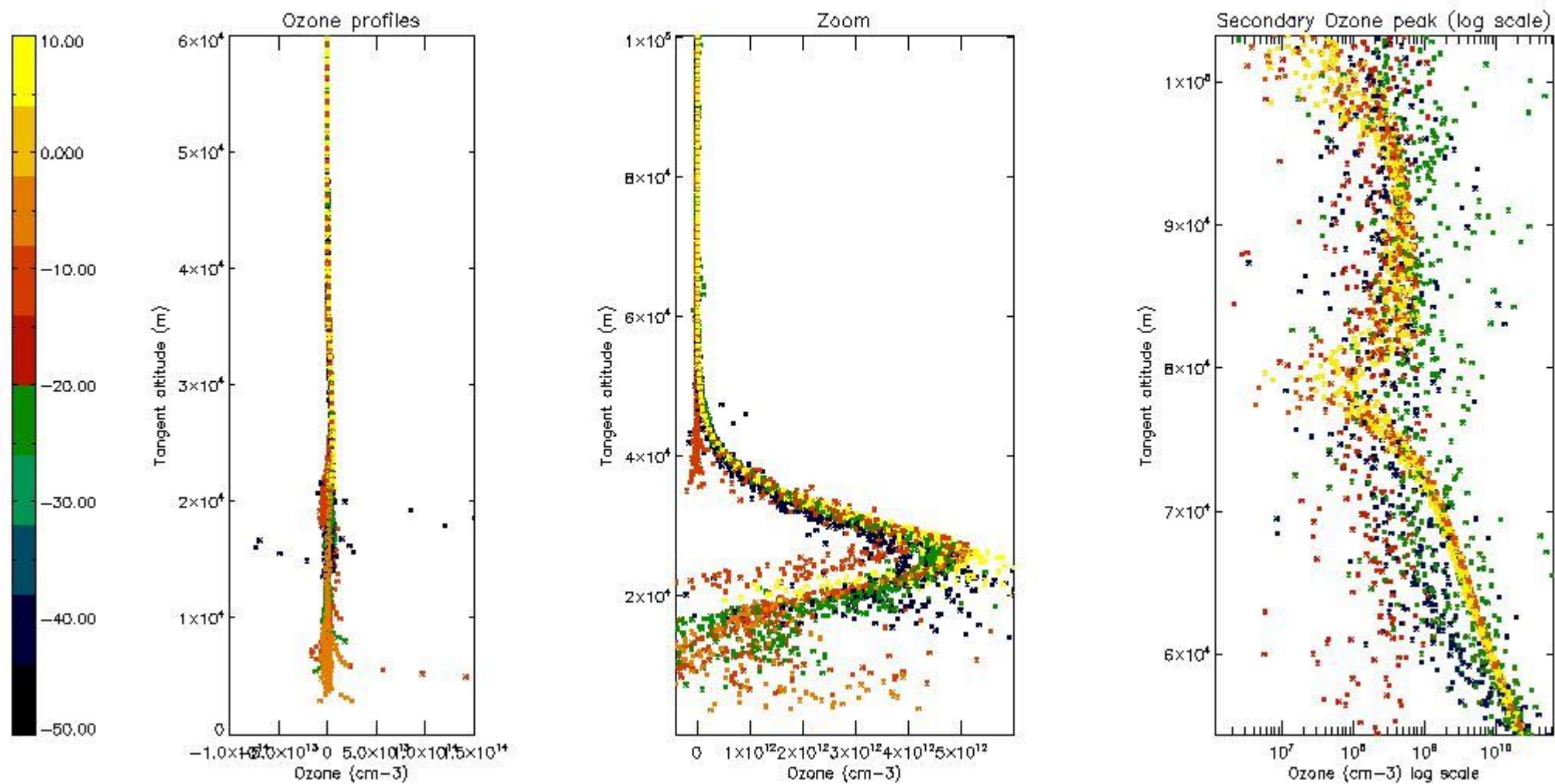
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	45
STD < 20	20

STD < 10	14
STD < 5	9

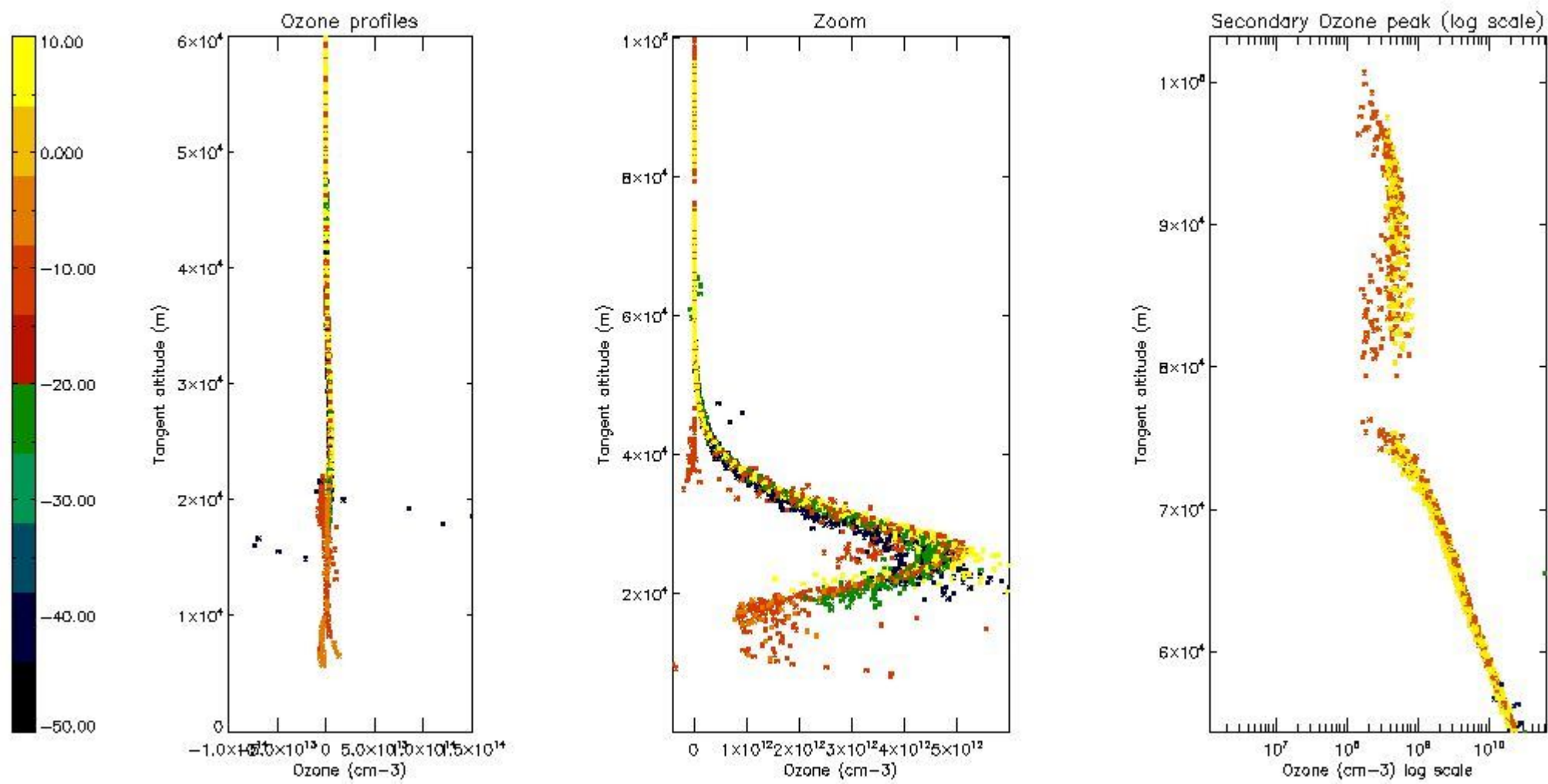
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



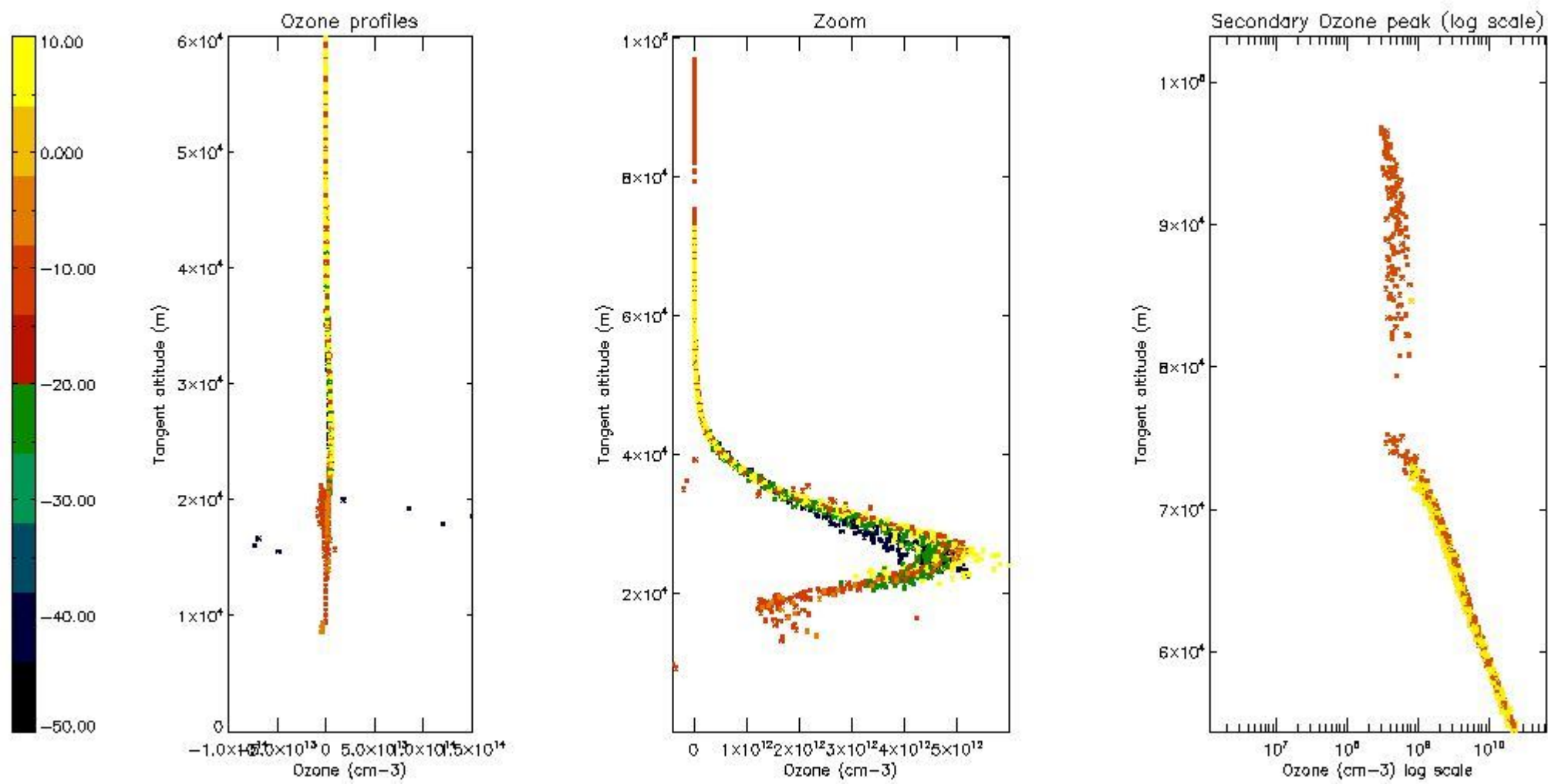
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



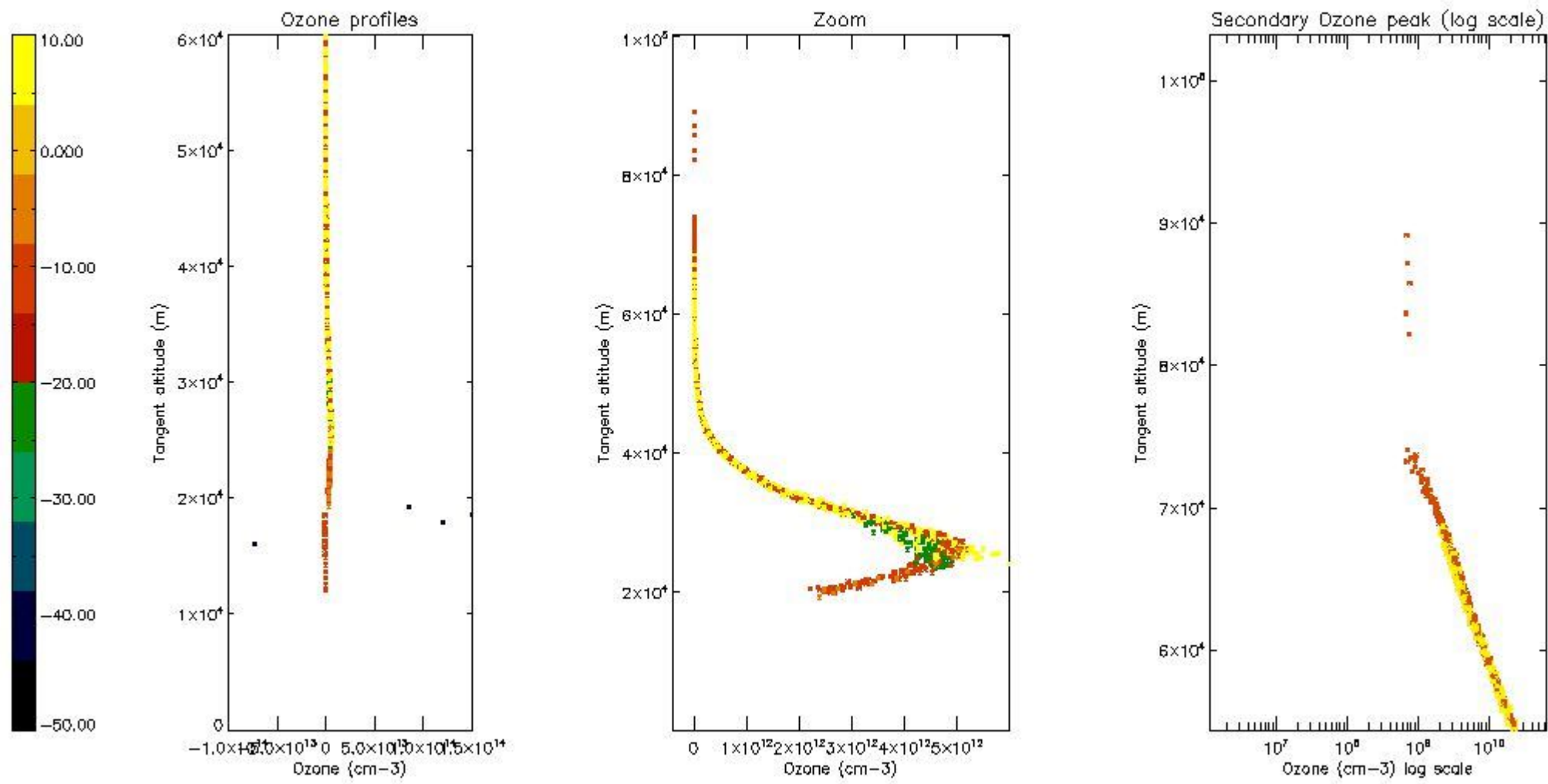
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



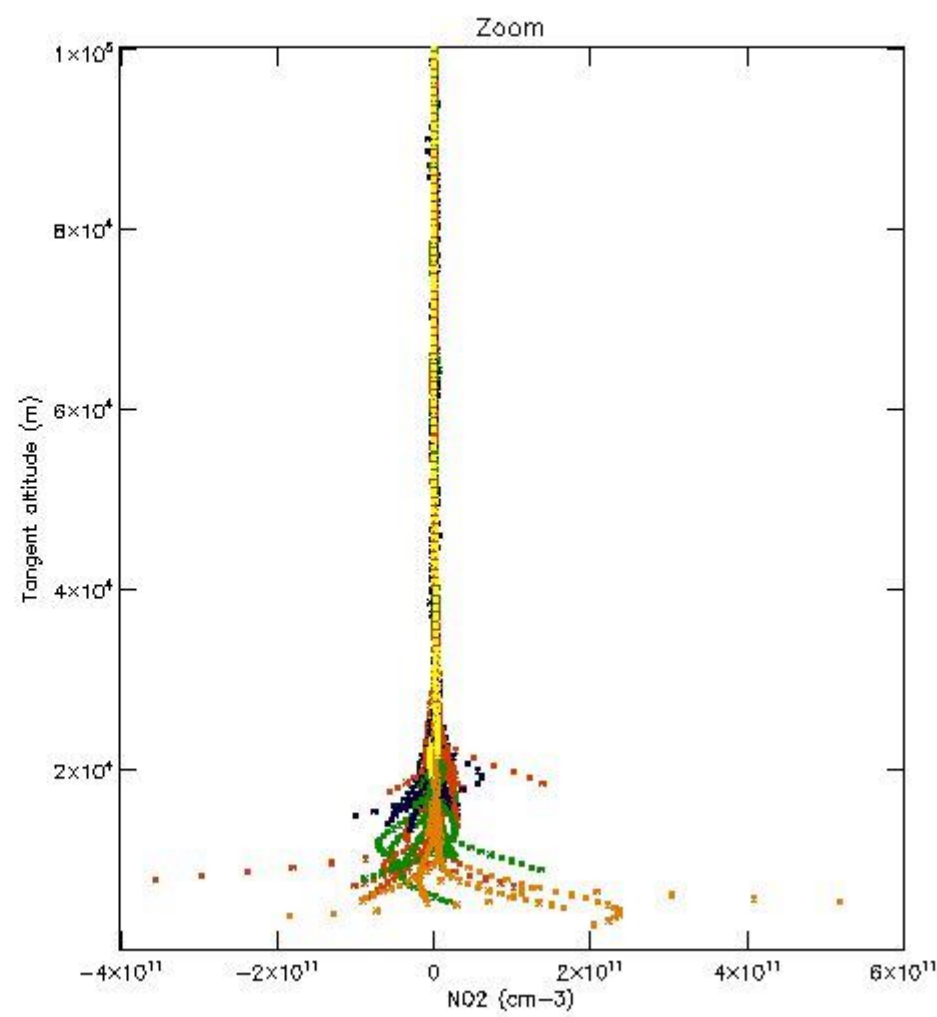
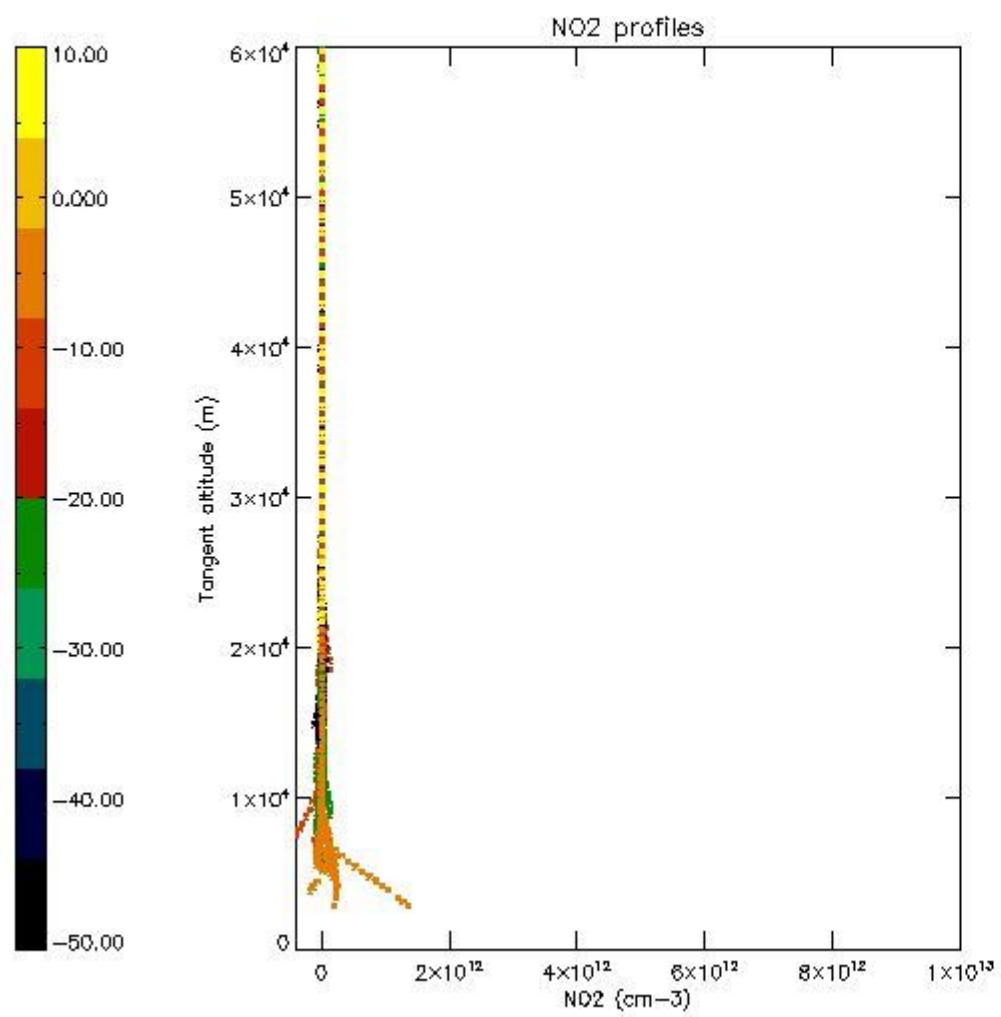
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

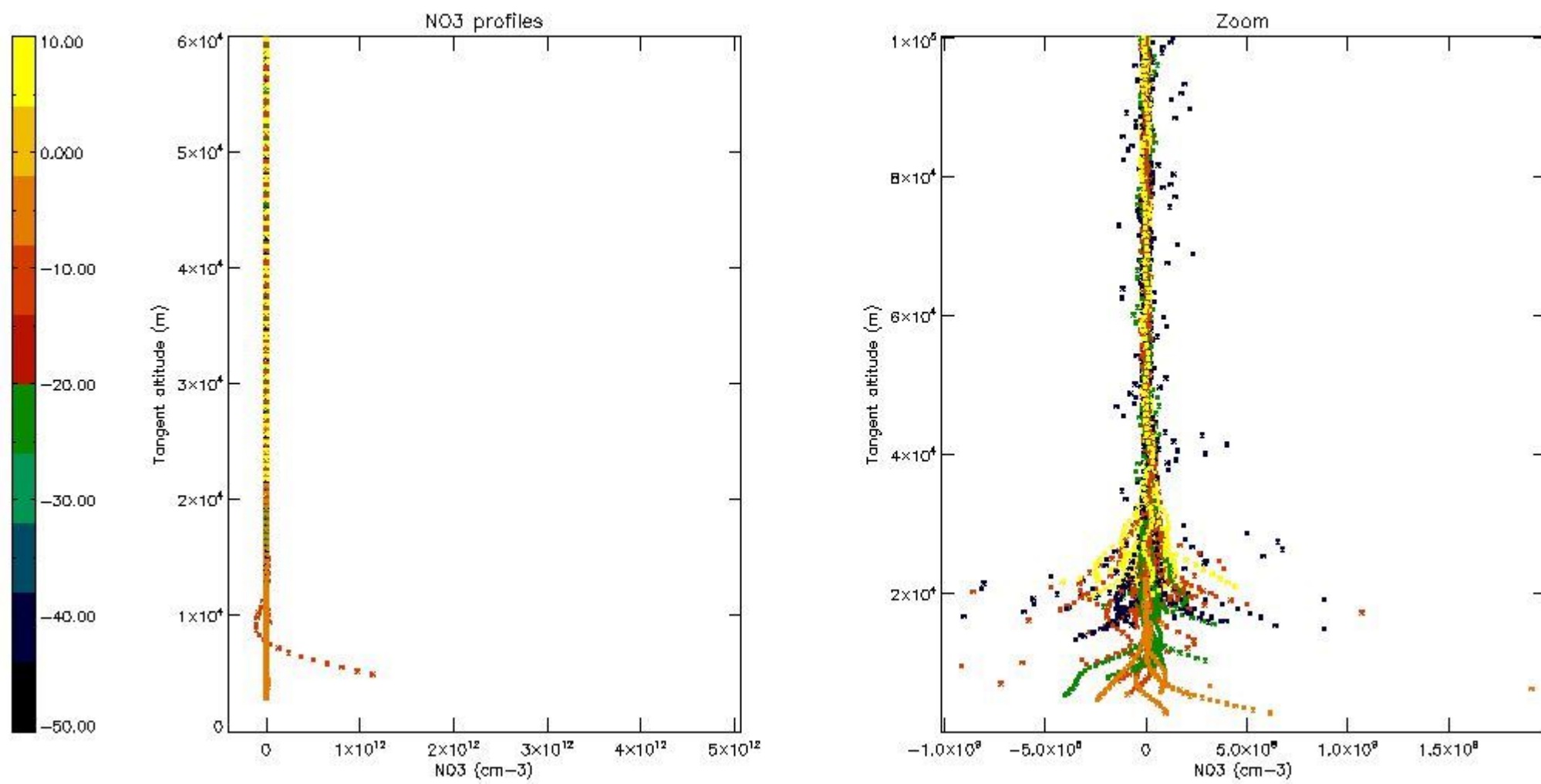
The colorbar represents the latitude.



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

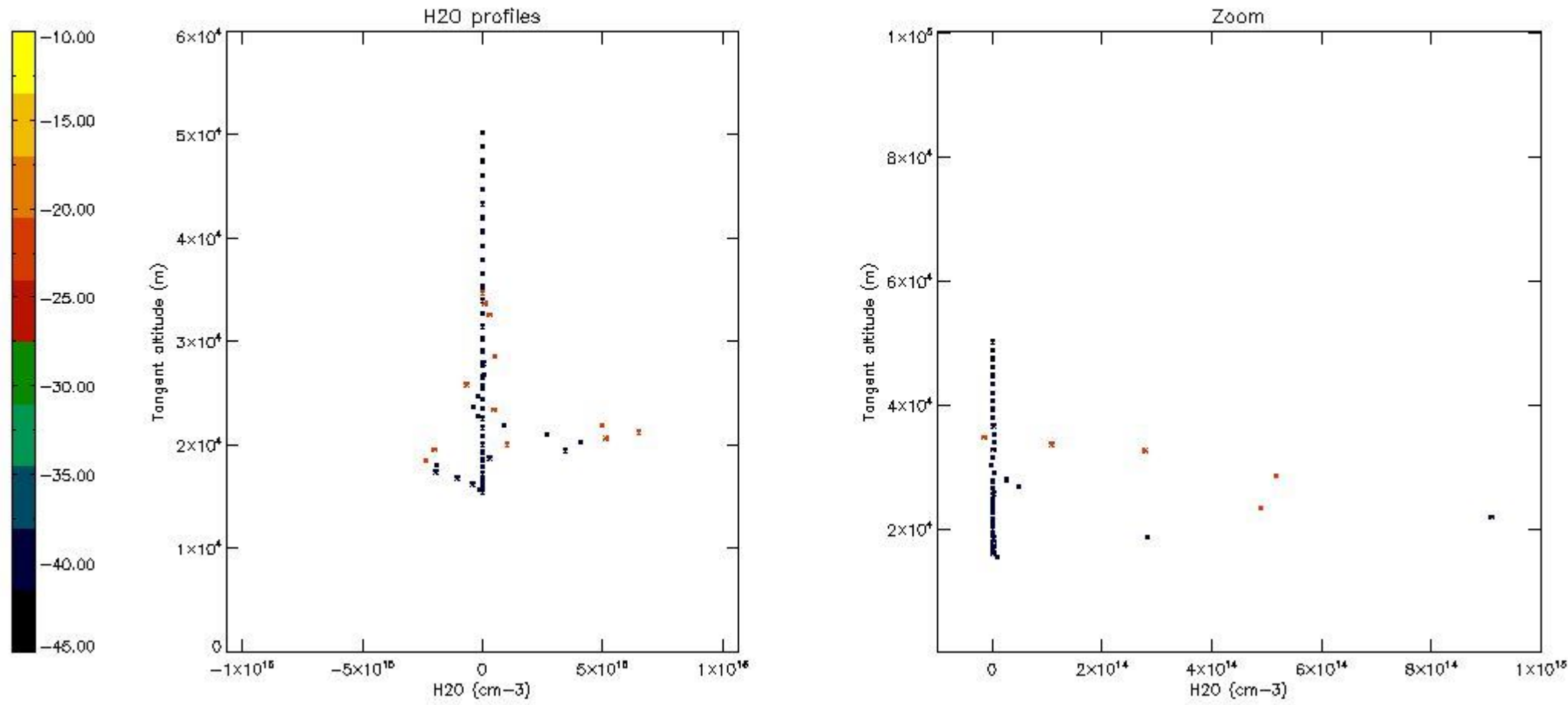
The colorbar represents the latitude.





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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	02-OCT-2010 00:07:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	02-OCT-2010 00:07:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	02-OCT-2010 00:07:03

# 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	29APR2013 15:38:25
Data source version	GOMOS/6.01
Start time of products	02-10-2010 (02OCT2010 00:00:00)
Stop time of products	03-10-2010 (03OCT2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	187
Nb of prods with errors	0

## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20101002_000703_000000472093_00259_44902_3656.N1	02-OCT-2010 00:07:03	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44902	No
2	GOM_NL__2PRFIN20101002_001117_000000572093_00259_44902_3657.N1	02-OCT-2010 00:11:17	Dark	56.500	37	25Del CMa	1.8300	5900.0	113	44902	No
3	GOM_NL__2PRFIN20101002_001558_000000432093_00260_44903_3660.N1	02-OCT-2010 00:15:58	Dark	43.000	161	Tau Pup	2.9310	4500.0	86	44903	No
4	GOM_NL__2PRFIN20101002_001722_000000542093_00260_44903_3661.N1	02-OCT-2010 00:17:22	Dark	53.500	2	Alp Car	-0.73600	7000.0	107	44903	No
5	GOM_NL__2PRFIN20101002_001945_000000582093_00260_44903_3662.N1	02-OCT-2010 00:19:45	Dark	58.000	108	Alp Col	2.6520	15200.	116	44903	No
6	GOM_NL__2PRFIN20101002_002947_000000502093_00260_44903_3663.N1	02-OCT-2010 00:29:47	Straylight	50.000	157	The1Eri	2.9060	9300.0	100	44903	No
7	GOM_NL__2PRFIN20101002_004022_000000472093_00260_44903_3664.N1	02-OCT-2010 00:40:22	Straylight	46.500	52	16Bet Cet	2.0370	4500.0	93	44903	No
8	GOM_NL__2PRFIN20101002_005046_000000402093_00260_44903_3665.N1	02-OCT-2010 00:50:46	Bright	40.000	140	88Gam Peg	2.8340	26000.	80	44903	No
9	GOM_NL__2PRFIN20101002_005456_000000402093_00260_44903_3666.N1	02-OCT-2010 00:54:56	Bright	40.000	58	21Alp And	2.0730	11000.	80	44903	No
10	GOM_NL__2PRFIN20101002_005836_000000452093_00260_44903_3667.N1	02-OCT-2010 00:58:36	Bright	44.500	53	43Bet And	2.0480	3300.0	89	44903	No
11	GOM_NL__2PRFIN20101002_010332_000000372093_00260_44903_3668.N1	02-OCT-2010 01:03:32	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	44903	No
12	GOM_NL__2PRFIN20101002_010451_000000422093_00260_44903_3669.N1	02-OCT-2010 01:04:51	Bright	42.000	76	27Gam Cas	2.3000	30000.	84	44903	No
13	GOM_NL__2PRFIN20101002_013108_000000612093_00260_44903_3670.N1	02-OCT-2010 01:31:08	Bright	61.000	17	78Bet Gem	1.1610	4500.0	122	44903	No
14	GOM_NL__2PRFIN20101002_014740_000000472093_00260_44903_3671.N1	02-OCT-2010 01:47:40	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44903	No
15	GOM_NL__2PRFIN20101002_015154_000000552093_00260_44903_3672.N1	02-OCT-2010 01:51:54	Dark	55.000	37	25Del CMa	1.8300	5900.0	110	44903	No
16	GOM_NL__2PRFIN20101002_015635_000000462093_00261_44904_3670.N1	02-OCT-2010 01:56:35	Dark	45.500	161	Tau Pup	2.9310	4500.0	91	44904	No
17	GOM_NL__2PRFIN20101002_015759_000000572093_00261_44904_3671.N1	02-OCT-2010 01:57:59	Dark	57.000	2	Alp Car	-0.73600	7000.0	114	44904	No
18	GOM_NL__2PRFIN20101002_020023_000000602093_00261_44904_3672.N1	02-OCT-2010 02:00:23	Dark	59.500	108	Alp Col	2.6520	15200.	119	44904	No
19	GOM_NL__2PRFIN20101002_021023_000000522093_00261_44904_3673.N1	02-OCT-2010 02:10:23	Straylight	51.500	157	The1Eri	2.9060	9300.0	103	44904	No
20	GOM_NL__2PRFIN20101002_022058_000000502093_00261_44904_3674.N1	02-OCT-2010 02:20:58	Straylight	50.000	52	16Bet Cet	2.0370	4500.0	100	44904	No
21	GOM_NL__2PRFIN20101002_023122_000000412093_00261_44904_3675.N1	02-OCT-2010 02:31:22	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44904	No
22	GOM_NL__2PRFIN20101002_023531_000000412093_00261_44904_3676.N1	02-OCT-2010 02:35:31	Bright	41.000	58	21Alp And	2.0730	11000.	82	44904	No
23	GOM_NL__2PRFIN20101002_023912_000000502093_00261_44904_3677.N1	02-OCT-2010 02:39:12	Bright	49.500	53	43Bet And	2.0480	3300.0	99	44904	No
24	GOM_NL__2PRFIN20101002_024407_000000382093_00261_44904_3678.N1	02-OCT-2010 02:44:07	Bright	37.500	74	11Bet Cas	2.2680	6600.0	75	44904	No
25	GOM_NL__2PRFIN20101002_024527_000000402093_00261_44904_3679.N1	02-OCT-2010 02:45:27	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	44904	No
26	GOM_NL__2PRFIN20101002_031144_000000612093_00261_44904_3680.N1	02-OCT-2010 03:11:44	Bright	60.500	17	78Bet Gem	1.1610	4500.0	121	44904	No
27	GOM_NL__2PRFIN20101002_032816_000000472093_00261_44904_3681.N1	02-OCT-2010 03:28:16	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44904	No
28	GOM_NL__2PRFIN20101002_033231_000000542093_00261_44904_3682.N1	02-OCT-2010 03:32:31	Dark	54.000	37	25Del CMa	1.8300	5900.0	108	44904	No
29	GOM_NL__2PRFIN20101002_033712_000000432093_00262_44905_3681.N1	02-OCT-2010 03:37:12	Dark	42.500	161	Tau Pup	2.9310	4500.0	85	44905	No
30	GOM_NL__2PRFIN20101002_033836_000000452093_00262_44905_3682.N1	02-OCT-2010 03:38:36	Dark	44.500	2	Alp Car	-0.73600	7000.0	89	44905	No
31	GOM_NL__2PRFIN20101002_034100_000000582093_00262_44905_3683.N1	02-OCT-2010 03:41:00	Dark	58.000	108	Alp Col	2.6520	15200.	116	44905	No
32	GOM_NL__2PRFIN20101002_035100_000000482093_00262_44905_3684.N1	02-OCT-2010 03:51:00	Straylight	47.500	157	The1Eri	2.9060	9300.0	95	44905	No
33	GOM_NL__2PRFIN20101002_040135_000000512093_00262_44905_3685.N1	02-OCT-2010 04:01:35	Straylight	50.500	52	16Bet Cet	2.0370	4500.0	101	44905	No
34	GOM_NL__2PRFIN20101002_041158_000000412093_00262_44905_3686.N1	02-OCT-2010 04:11:58	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44905	No
35	GOM_NL__2PRFIN20101002_041607_000000412093_00262_44905_3687.N1	02-OCT-2010 04:16:07	Bright	40.500	58	21Alp And	2.0730	11000.	81	44905	No
36	GOM_NL__2PRFIN20101002_041947_000000502093_00262_44905_3688.N1	02-OCT-2010 04:19:47	Bright	49.500	53	43Bet And	2.0480	3300.0	99	44905	No
37	GOM_NL__2PRFIN20101002_042443_000000392093_00262_44905_3689.N1	02-OCT-2010 04:24:43	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	44905	No
38	GOM_NL__2PRFIN20101002_042602_000000412093_00262_44905_3690.N1	02-OCT-2010 04:26:02	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	44905	No
39	GOM_NL__2PRFIN20101002_045220_000000602093_00262_44905_3691.N1	02-OCT-2010 04:52:20	Bright	60.000	17	78Bet Gem	1.1610	4500.0	120	44905	No
40	GOM_NL__2PRFIN20101002_050853_000000472093_00262_44905_3692.N1	02-OCT-2010 05:08:53	Dark	47.000	132	15Rho Pup	2.8030	6900.0	94	44905	No
41	GOM_NL__2PRFIN20101002_051308_000000652093_00262_44905_3693.N1	02-OCT-2010 05:13:08	Dark	65.000	37	25Del CMa	1.8300	5900.0	130	44905	No
42	GOM_NL__2PRFIN20101002_051748_000000422093_00263_44906_3692.N1	02-OCT-2010 05:17:48	Dark	41.500	161	Tau Pup	2.9310	4500.0	83	44906	No



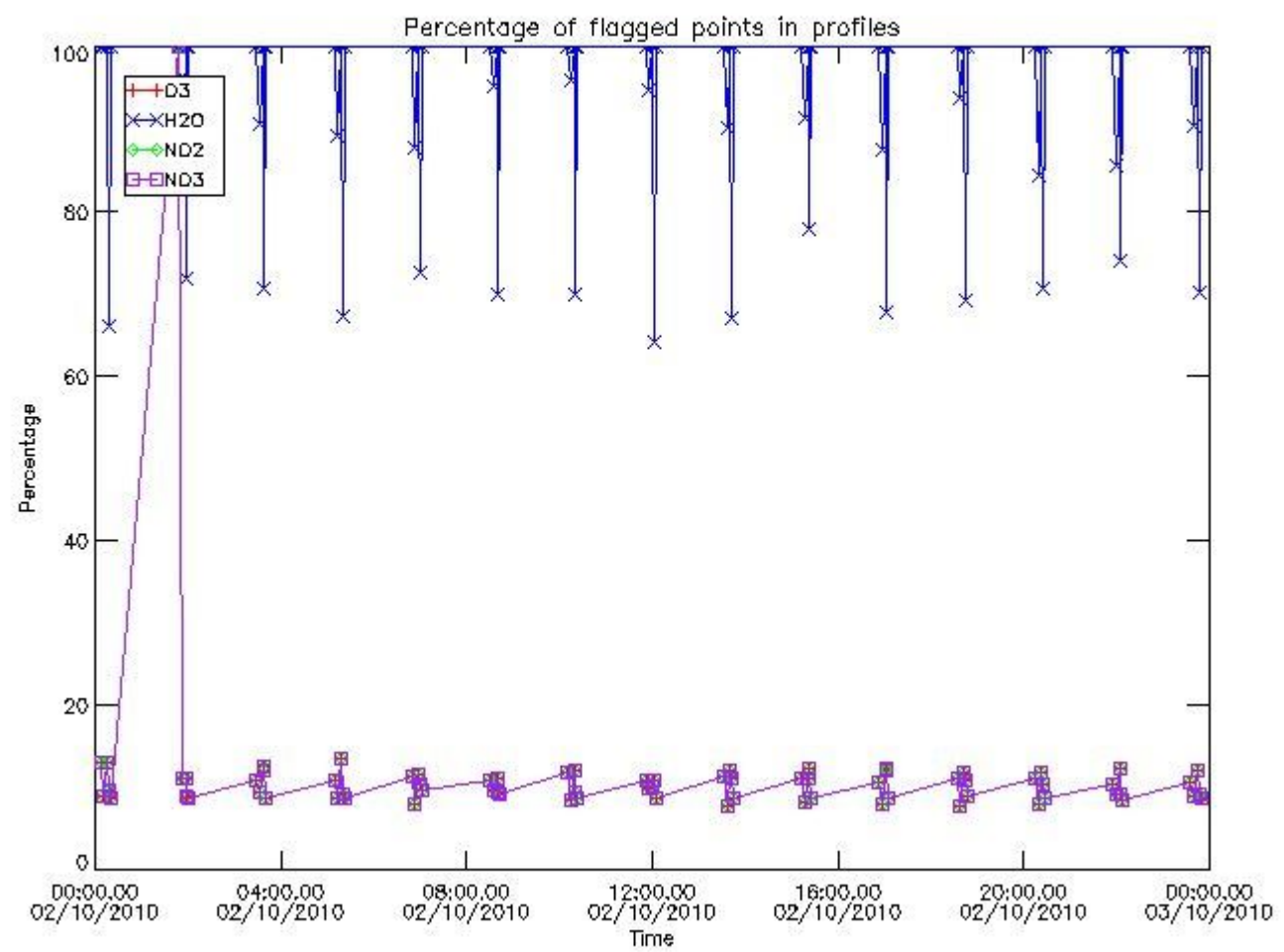


161	GOM_NL__2PRFIN20101002_202715_000000592093_00272_44915_4022.N1	02-OCT-2010 20:27:15	Dark	58.500	108	Alp Col	2.6520	15200.	117	44915	No
162	GOM_NL__2PRFIN20101002_203706_000000502093_00272_44915_4023.N1	02-OCT-2010 20:37:06	Straylight	49.500	157	The1Eri	2.9060	9300.0	99	44915	No
163	GOM_NL__2PRFIN20101002_204735_000000532093_00272_44915_4024.N1	02-OCT-2010 20:47:35	Straylight	52.500	52	16Bet Cet	2.0370	4500.0	105	44915	No
164	GOM_NL__2PRFIN20101002_205756_000000412093_00272_44915_4025.N1	02-OCT-2010 20:57:56	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44915	No
165	GOM_NL__2PRFIN20101002_210203_000000412093_00272_44915_4026.N1	02-OCT-2010 21:02:03	Bright	41.000	58	21Alp And	2.0730	11000.	82	44915	No
166	GOM_NL__2PRFIN20101002_210540_000000442093_00272_44915_4027.N1	02-OCT-2010 21:05:40	Bright	44.000	53	43Bet And	2.0480	3300.0	88	44915	No
167	GOM_NL__2PRFIN20101002_211040_000000402093_00272_44915_4028.N1	02-OCT-2010 21:10:40	Bright	39.500	74	11Bet Cas	2.2680	6600.0	79	44915	No
168	GOM_NL__2PRFIN20101002_211158_000000412093_00272_44915_4029.N1	02-OCT-2010 21:11:58	Bright	41.000	76	27Gam Cas	2.3000	30000.	82	44915	No
169	GOM_NL__2PRFIN20101002_213823_000000292093_00272_44915_4030.N1	02-OCT-2010 21:38:23	Tw_i_and_stray	28.500	17	78Bet Gem	1.1610	4500.0	57	44915	No
170	GOM_NL__2PRFIN20101002_215501_000000502093_00272_44915_4031.N1	02-OCT-2010 21:55:01	Dark	49.500	132	15Rho Pup	2.8030	6900.0	99	44915	No
171	GOM_NL__2PRFIN20101002_215921_000000562093_00272_44915_4032.N1	02-OCT-2010 21:59:21	Dark	55.500	37	25Del CMa	1.8300	5900.0	111	44915	No
172	GOM_NL__2PRFIN20101002_220355_000000422093_00273_44916_4034.N1	02-OCT-2010 22:03:55	Dark	41.500	161	Tau Pup	2.9310	4500.0	83	44916	No
173	GOM_NL__2PRFIN20101002_220519_000000562093_00273_44916_4035.N1	02-OCT-2010 22:05:19	Dark	56.000	2	Alp Car	-0.73600	7000.0	112	44916	No
174	GOM_NL__2PRFIN20101002_220752_000000612093_00273_44916_4036.N1	02-OCT-2010 22:07:52	Dark	60.500	108	Alp Col	2.6520	15200.	121	44916	No
175	GOM_NL__2PRFIN20101002_221743_000000492093_00273_44916_4037.N1	02-OCT-2010 22:17:43	Straylight	49.000	157	The1Eri	2.9060	9300.0	98	44916	No
176	GOM_NL__2PRFIN20101002_222811_000000482093_00273_44916_4038.N1	02-OCT-2010 22:28:11	Straylight	48.000	52	16Bet Cet	2.0370	4500.0	96	44916	No
177	GOM_NL__2PRFIN20101002_223831_000000412093_00273_44916_4039.N1	02-OCT-2010 22:38:31	Bright	40.500	140	88Gam Peg	2.8340	26000.	81	44916	No
178	GOM_NL__2PRFIN20101002_224239_000000402093_00273_44916_4040.N1	02-OCT-2010 22:42:39	Bright	40.000	58	21Alp And	2.0730	11000.	80	44916	No
179	GOM_NL__2PRFIN20101002_224615_000000512093_00273_44916_4041.N1	02-OCT-2010 22:46:15	Bright	50.500	53	43Bet And	2.0480	3300.0	101	44916	No
180	GOM_NL__2PRFIN20101002_225116_000000392093_00273_44916_4042.N1	02-OCT-2010 22:51:16	Bright	39.000	74	11Bet Cas	2.2680	6600.0	78	44916	No
181	GOM_NL__2PRFIN20101002_225233_000000402093_00273_44916_4043.N1	02-OCT-2010 22:52:33	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	44916	No
182	GOM_NL__2PRFIN20101002_233538_000000482093_00273_44916_4044.N1	02-OCT-2010 23:35:38	Dark	48.000	132	15Rho Pup	2.8030	6900.0	96	44916	No
183	GOM_NL__2PRFIN20101002_233958_000000572093_00273_44916_4045.N1	02-OCT-2010 23:39:58	Dark	57.000	37	25Del CMa	1.8300	5900.0	114	44916	No
184	GOM_NL__2PRFIN20101002_234432_000000422093_00274_44917_4052.N1	02-OCT-2010 23:44:32	Dark	42.000	161	Tau Pup	2.9310	4500.0	84	44917	No
185	GOM_NL__2PRFIN20101002_234556_000000562093_00274_44917_4053.N1	02-OCT-2010 23:45:56	Dark	55.500	2	Alp Car	-0.73600	7000.0	111	44917	No
186	GOM_NL__2PRFIN20101002_234830_000000592093_00274_44917_4054.N1	02-OCT-2010 23:48:30	Dark	58.500	108	Alp Col	2.6520	15200.	117	44917	No
187	GOM_NL__2PRFIN20101002_235819_000000502093_00274_44917_4055.N1	02-OCT-2010 23:58:19	Straylight	50.000	157	The1Eri	2.9060	9300.0	100	44917	No

### 3. Quality information per product

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

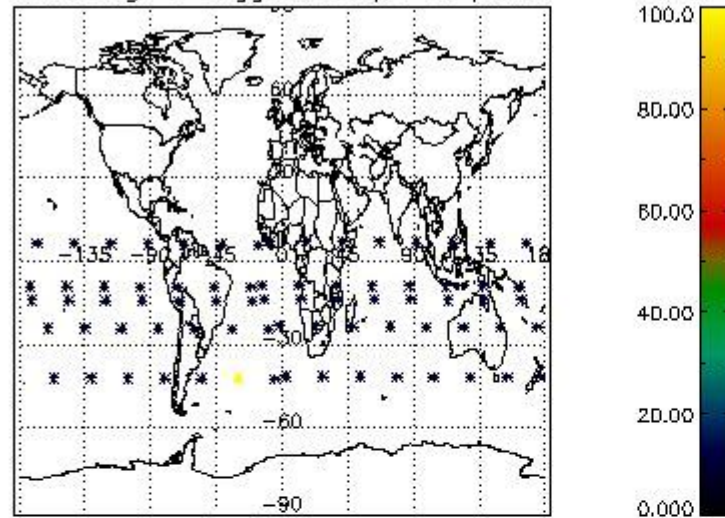
#### 3.1 Plot quality information per product (time dependant)



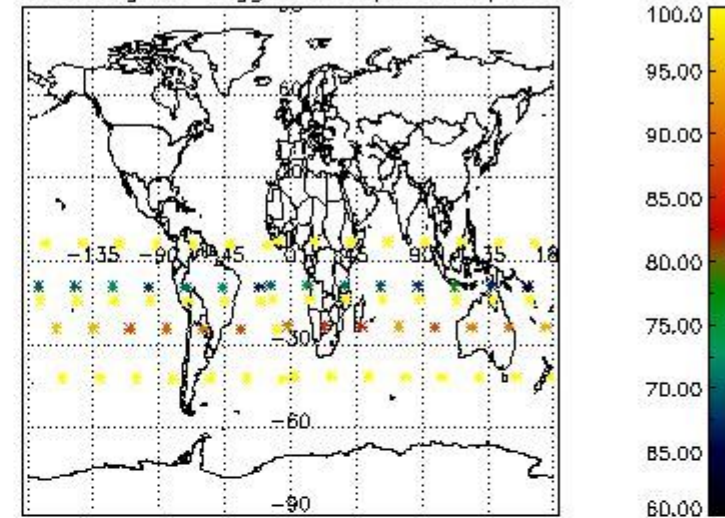
*3.2 Plot quality information per product (world map)*



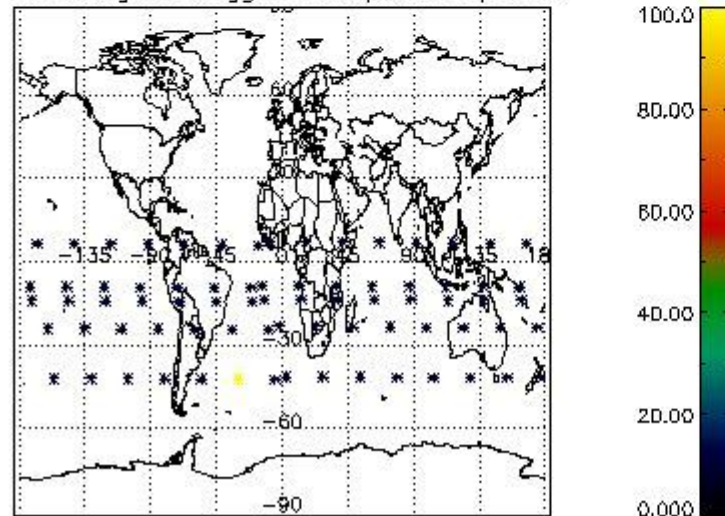
Percentage of flagged data per O3 profile



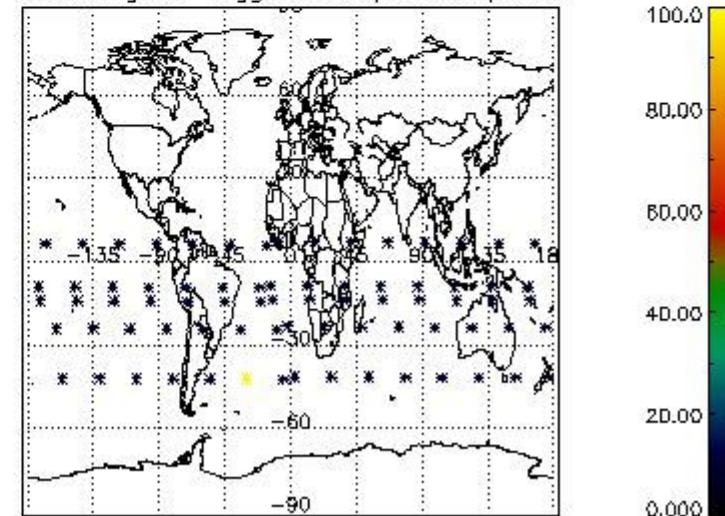
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

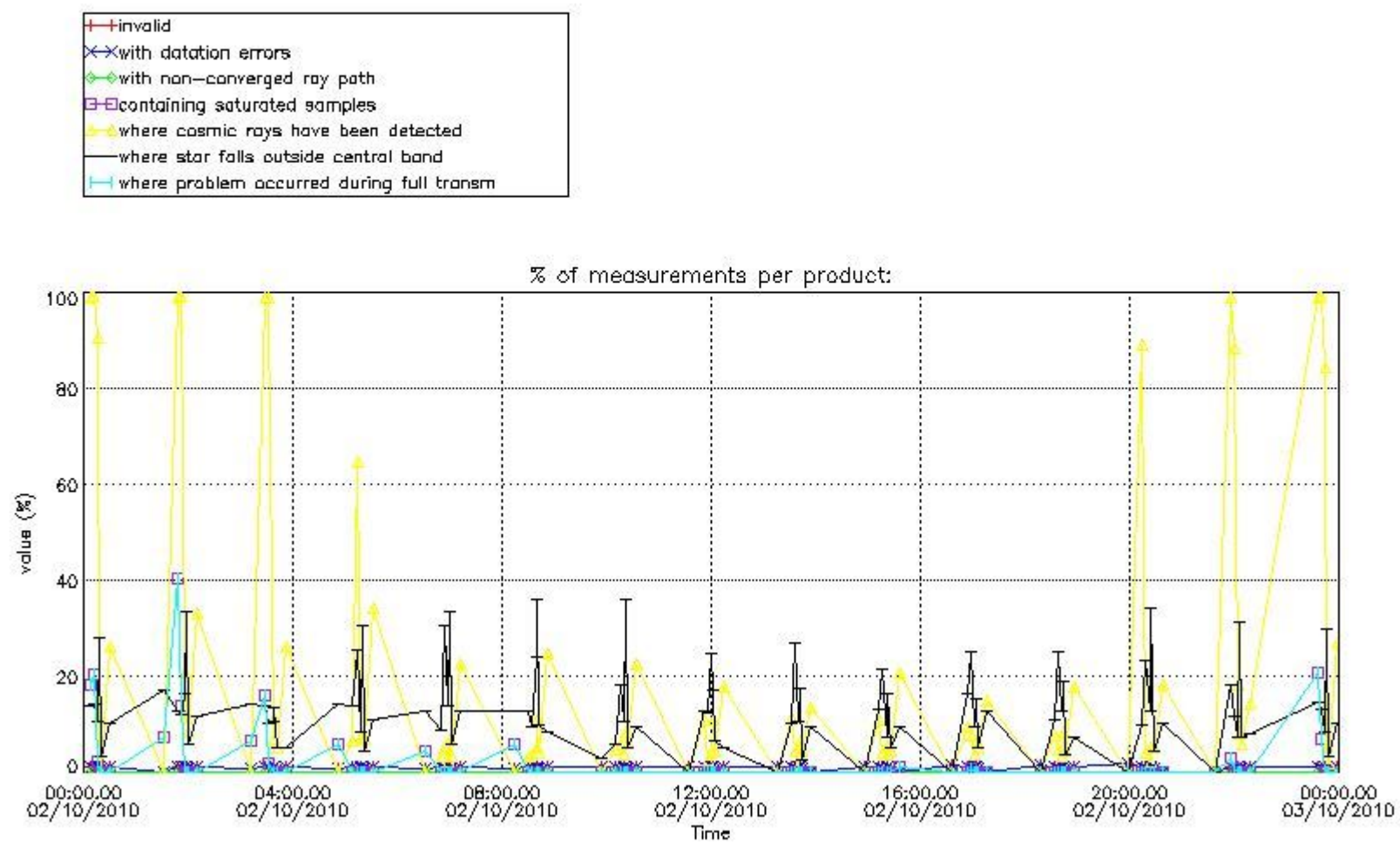


#### 4. Level 1 quality information per product

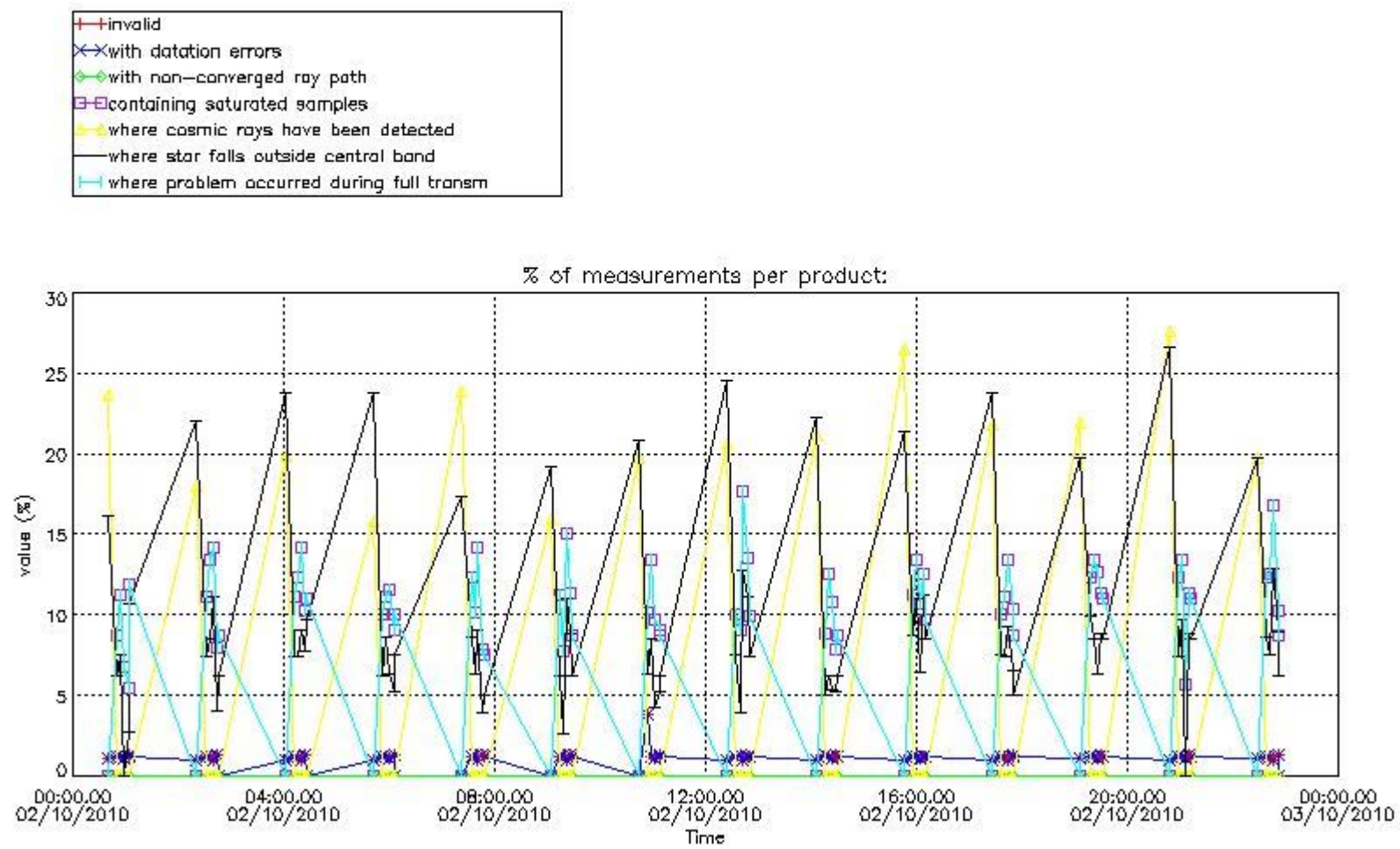
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



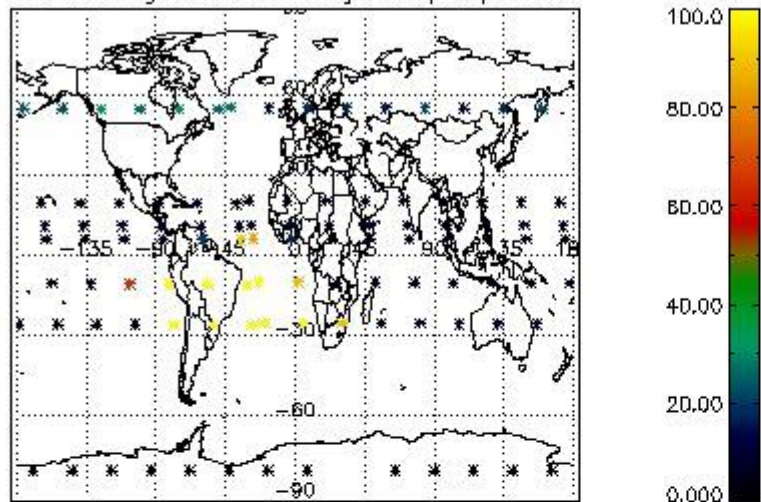
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



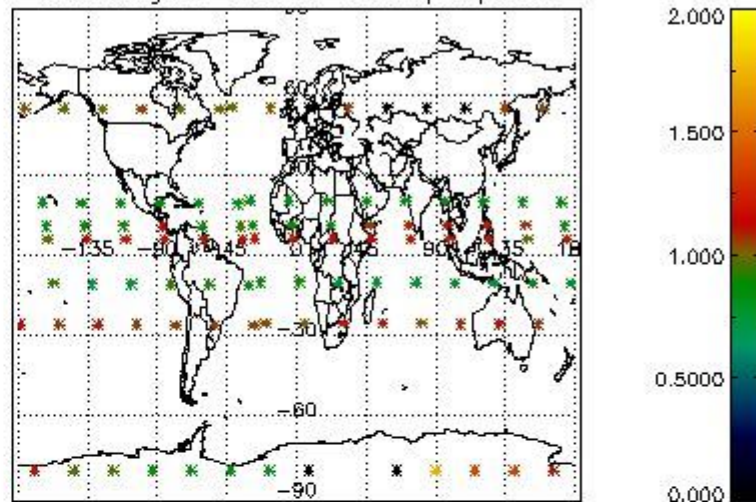
4.2 Plot quality information per product coming from level 1b processing (world map)

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

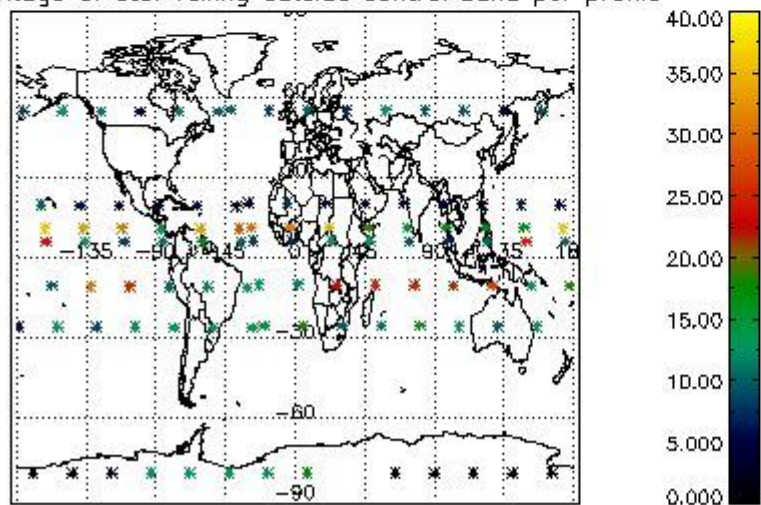
Percentage of cosmic ray hits per profile



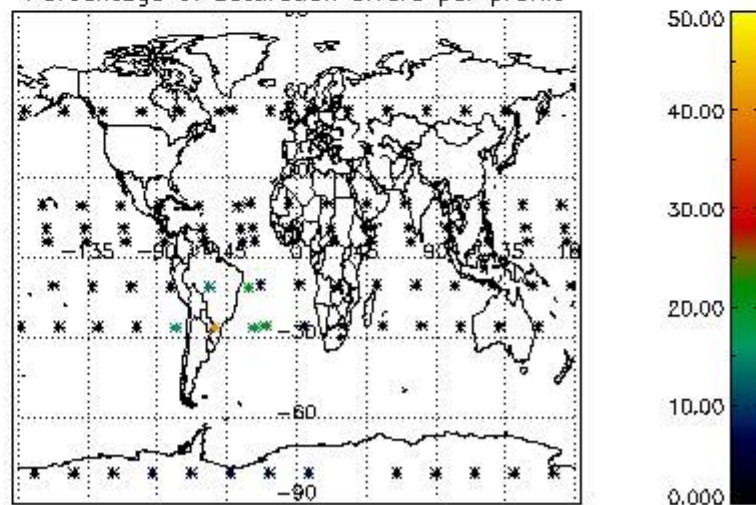
Percentage of datation errors per profile



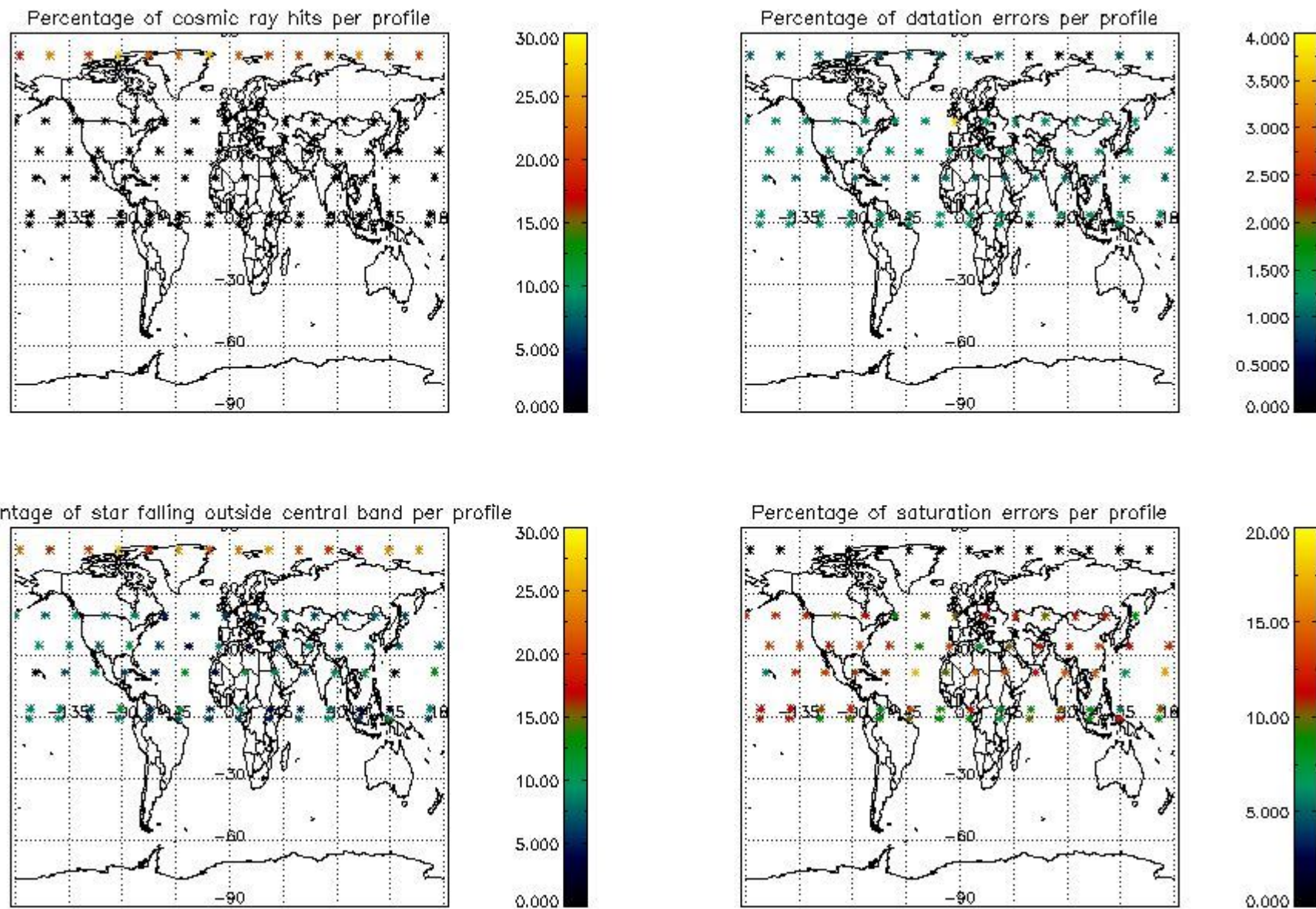
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

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

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

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

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

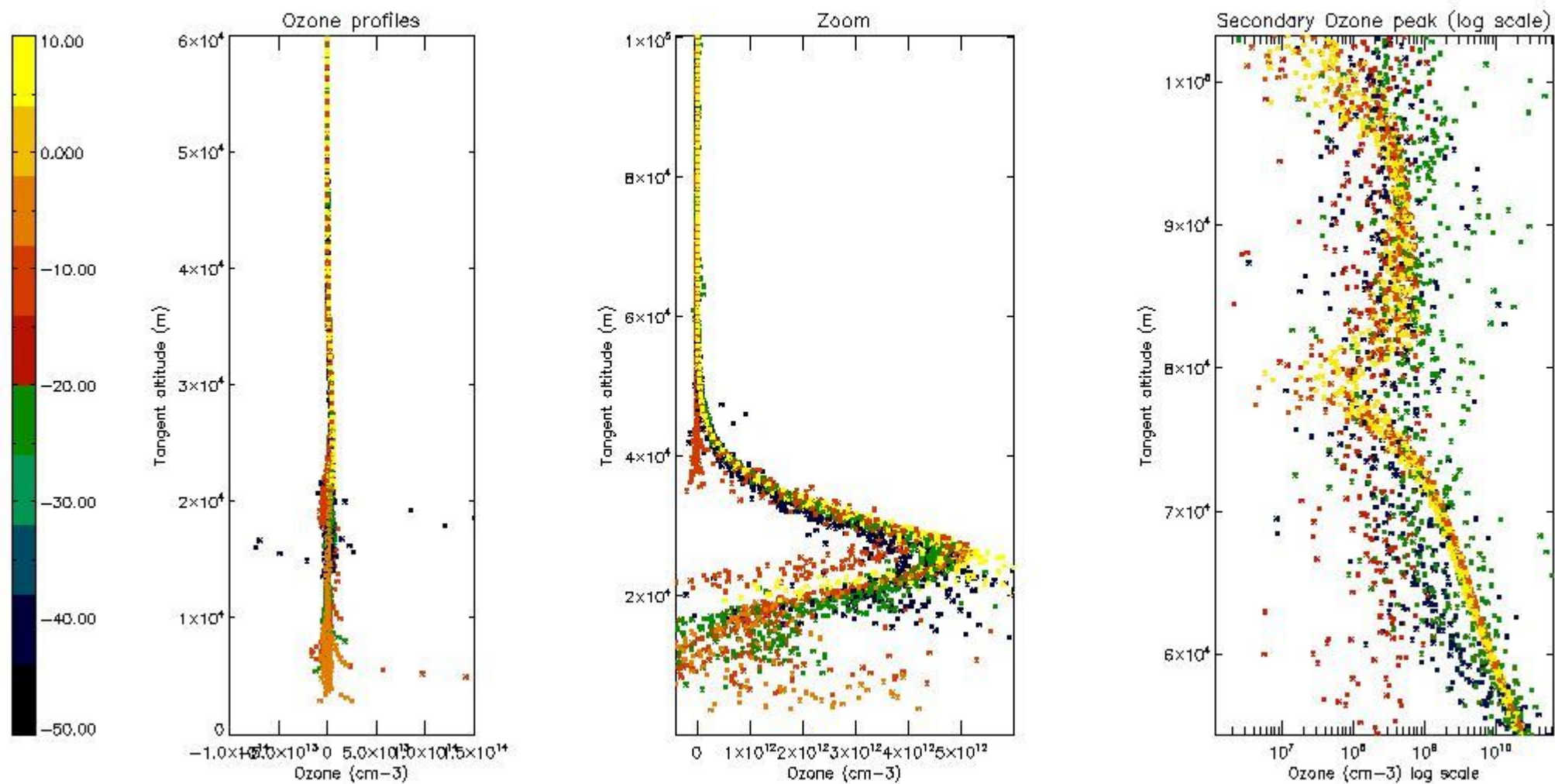
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	45
STD < 20	20

STD < 10	14
STD < 5	9

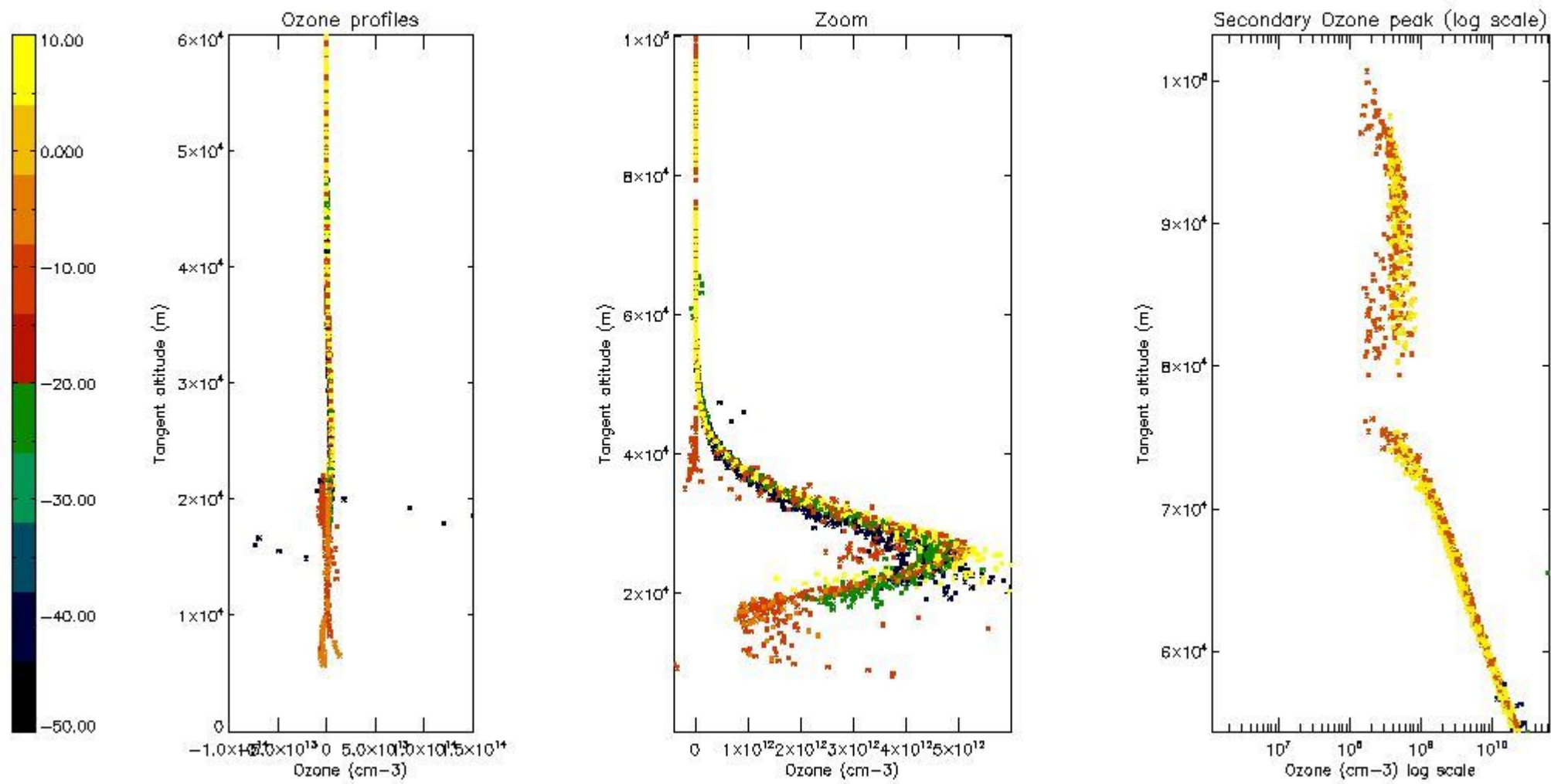
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



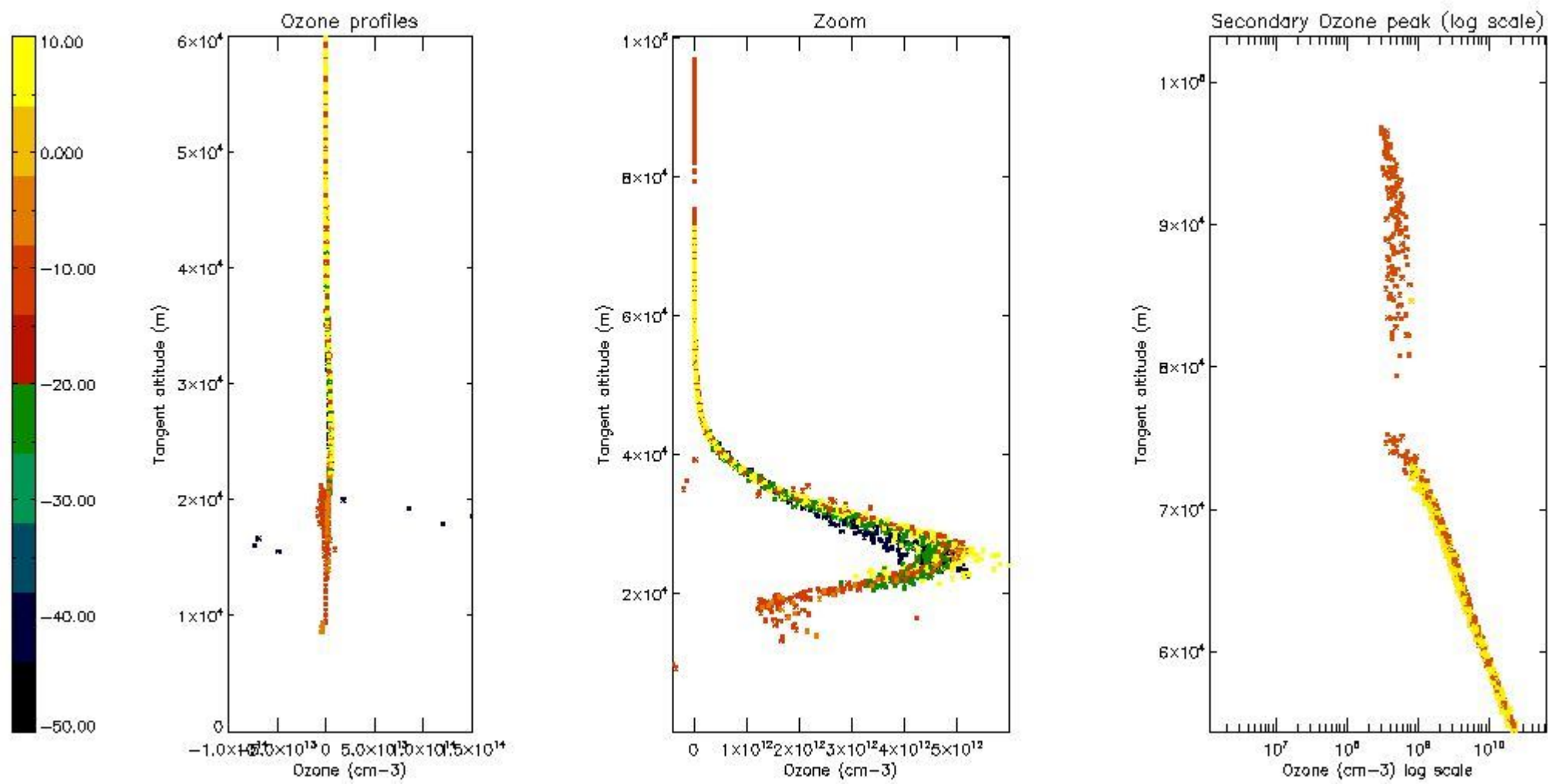
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

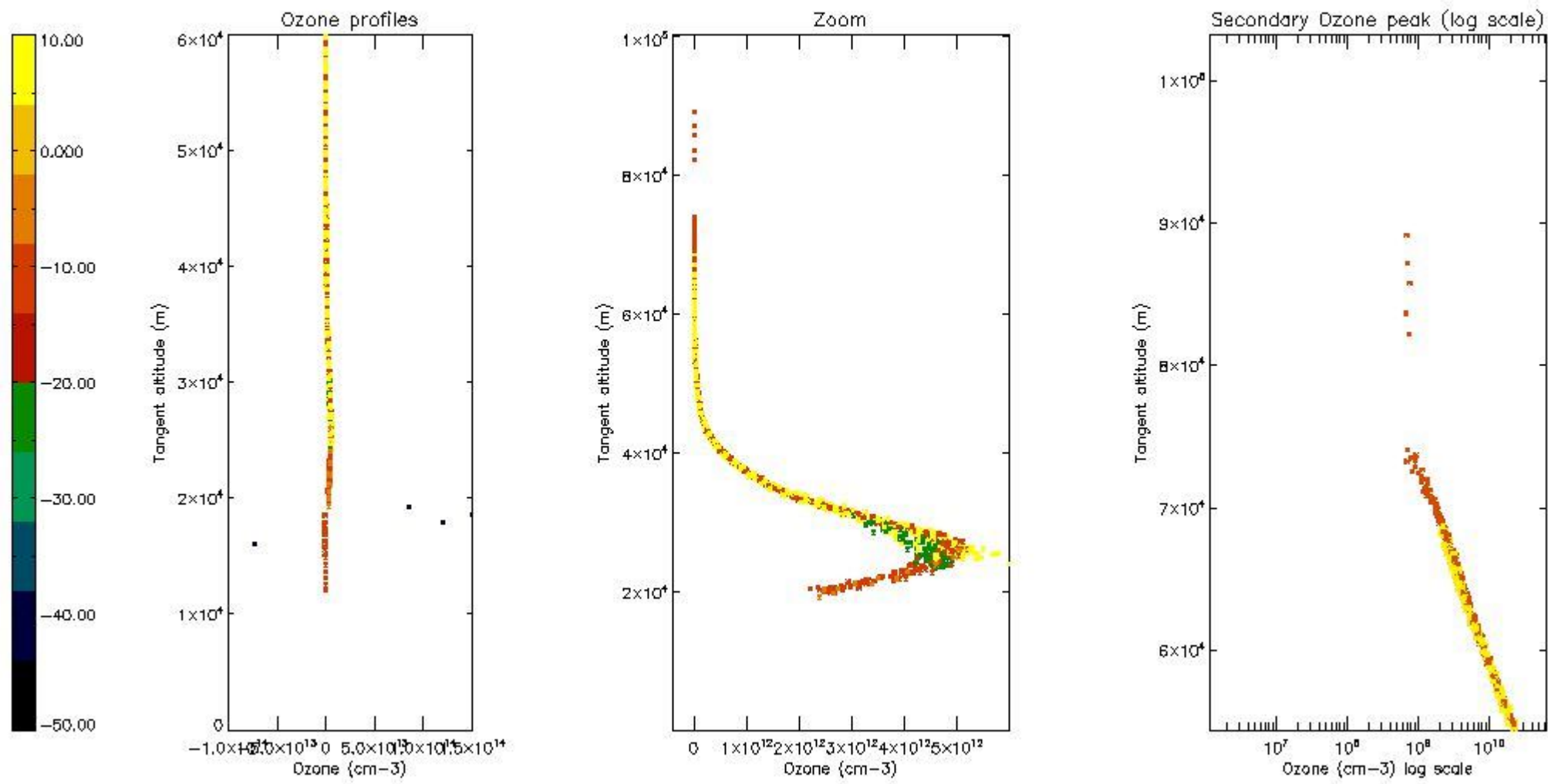
The colorbar represents the latitude.



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

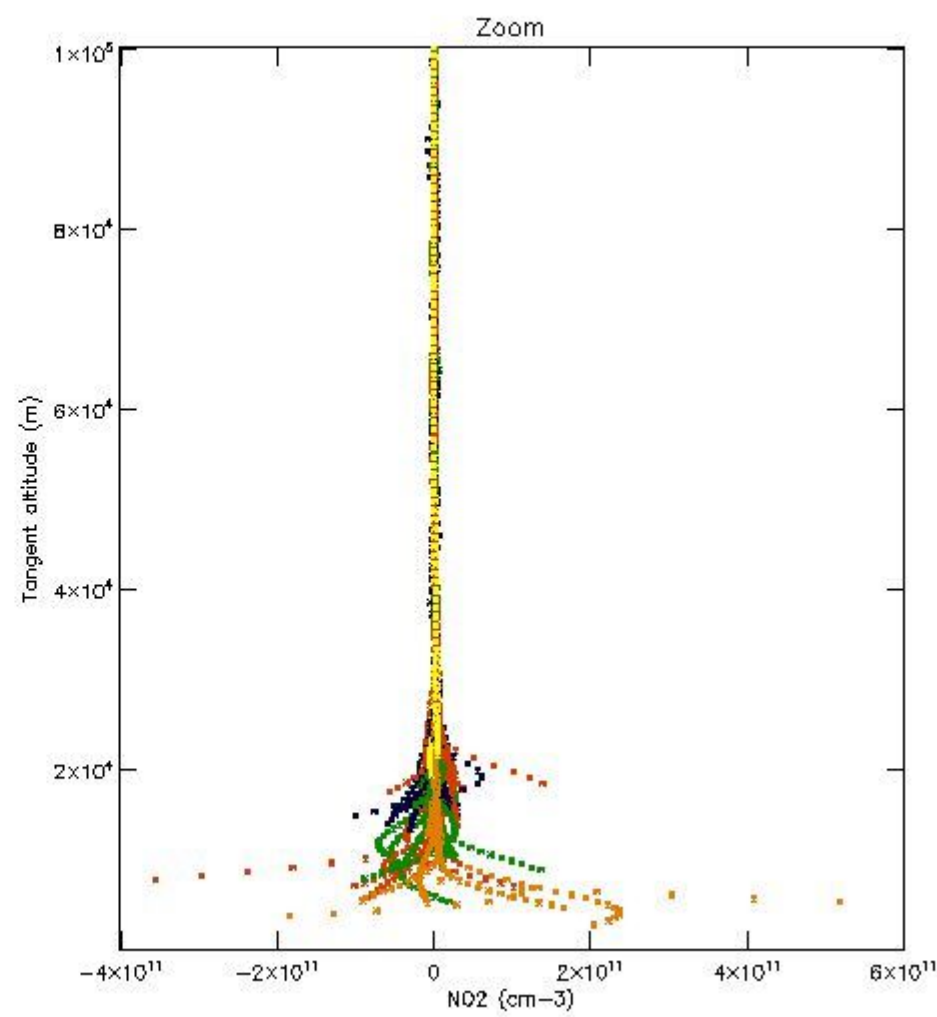
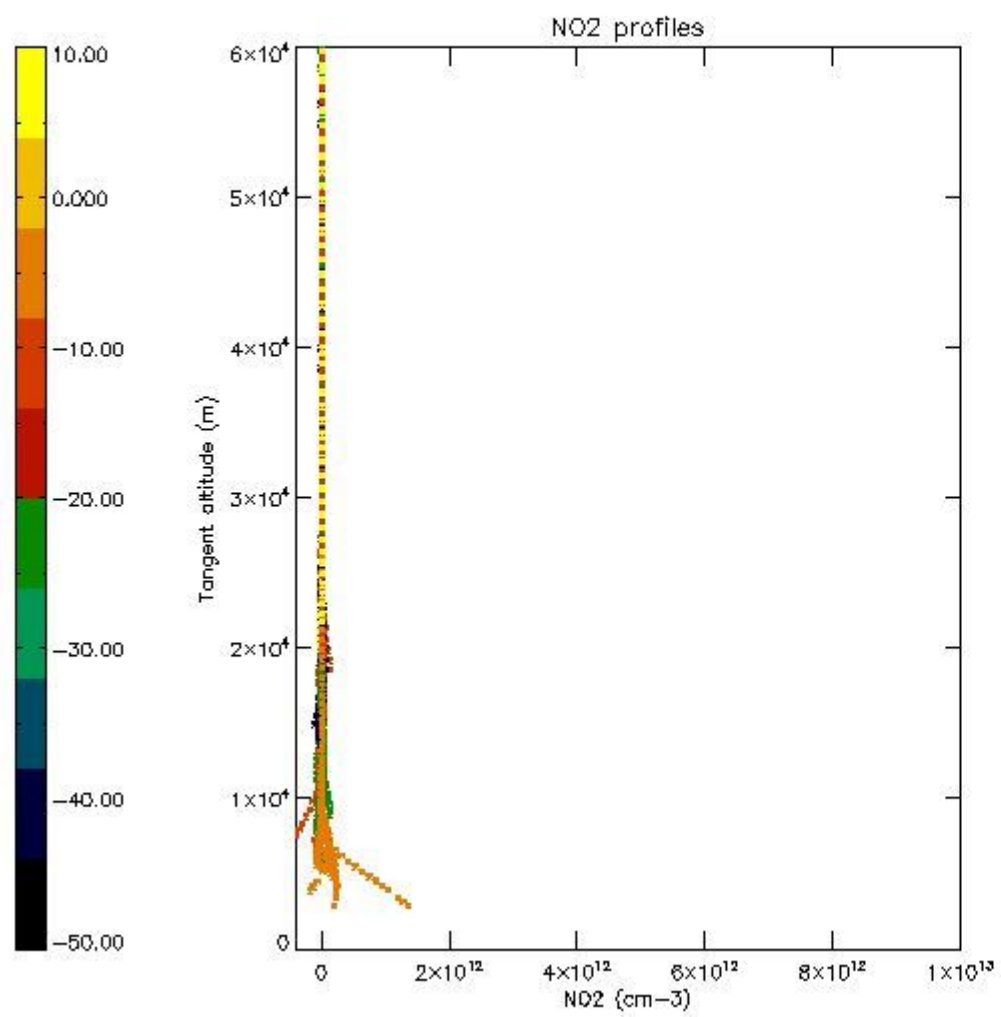
The colorbar represents the latitude.





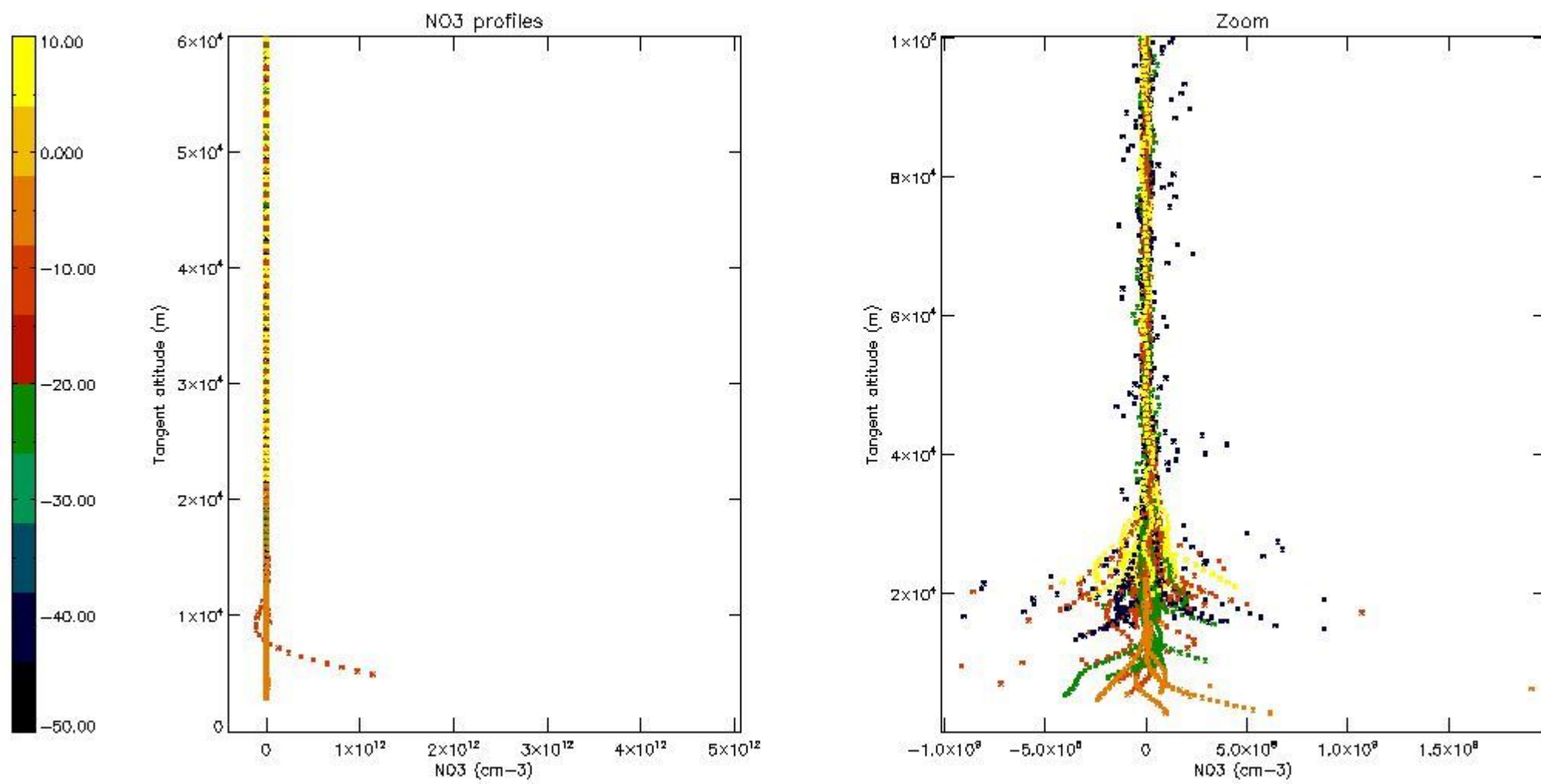
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



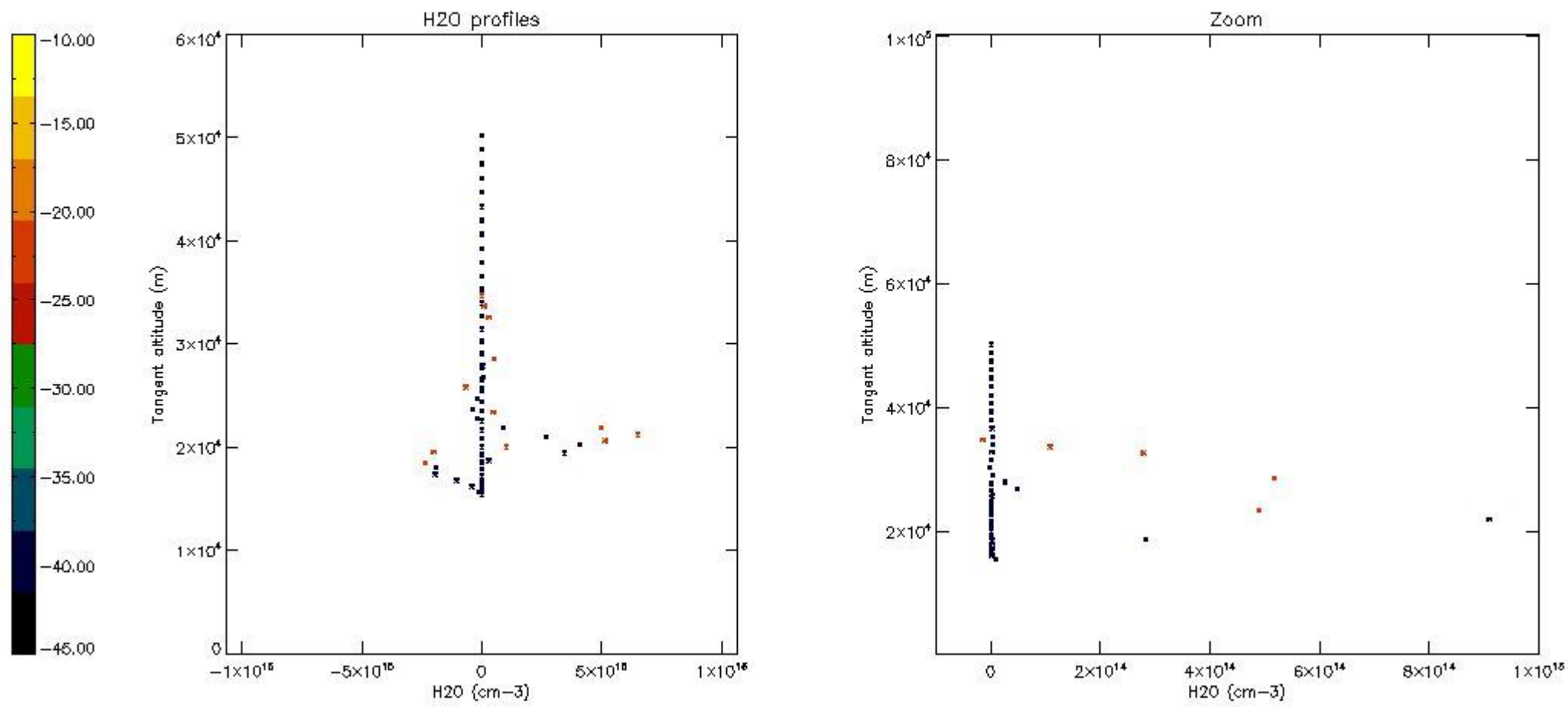
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

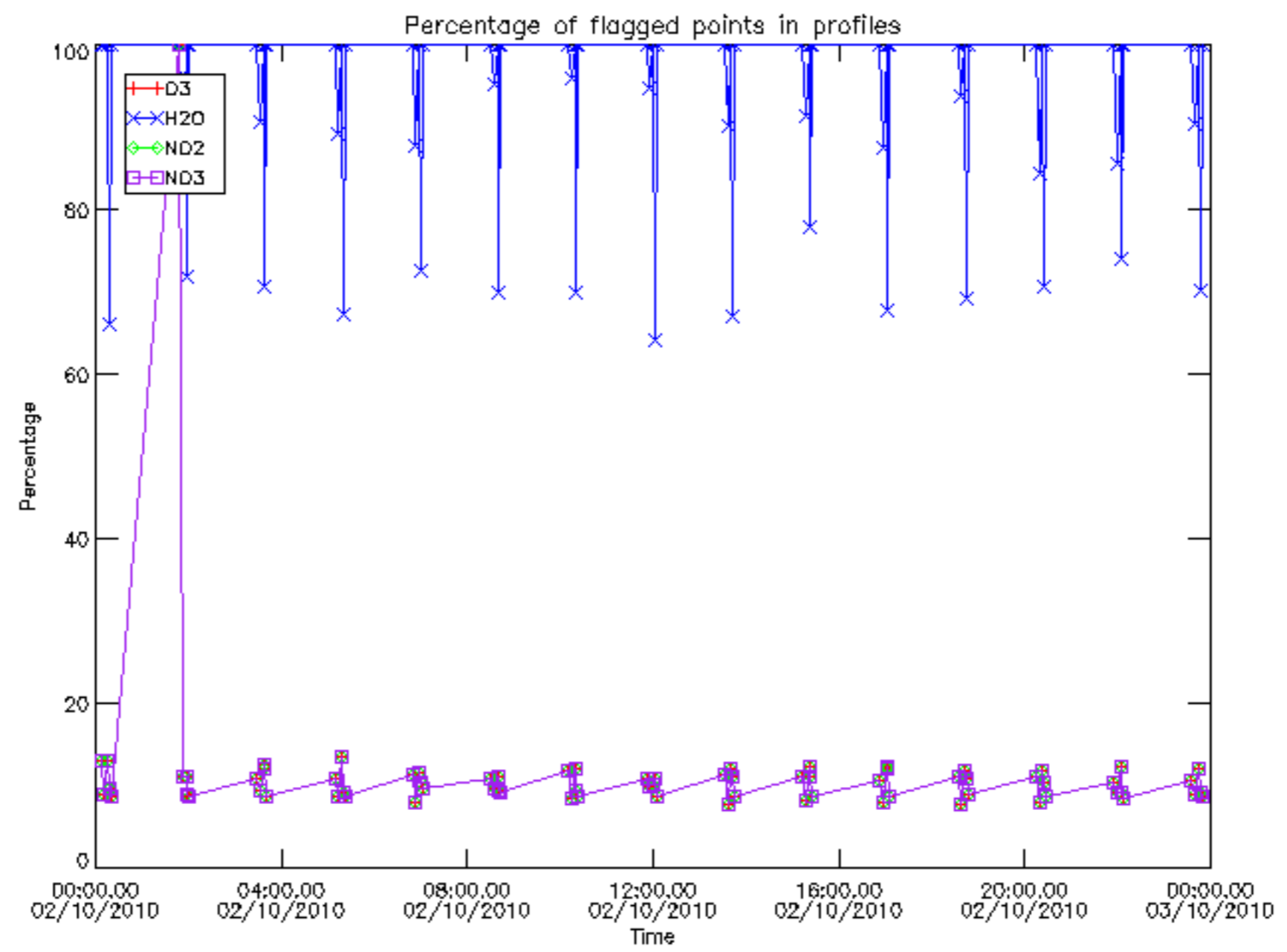
The colorbar represents the latitude.



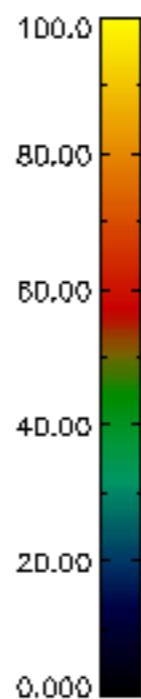
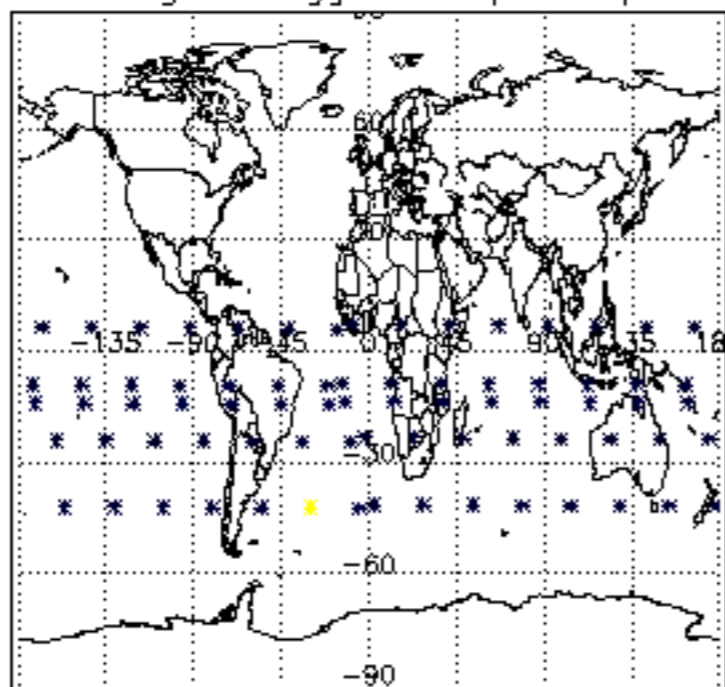
## 6. Auxiliary Data Files used for the production reported in section 2

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

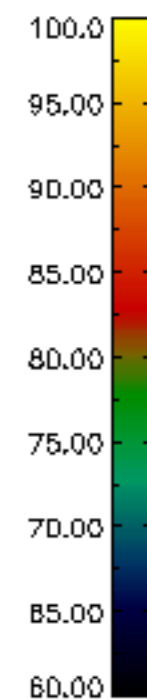
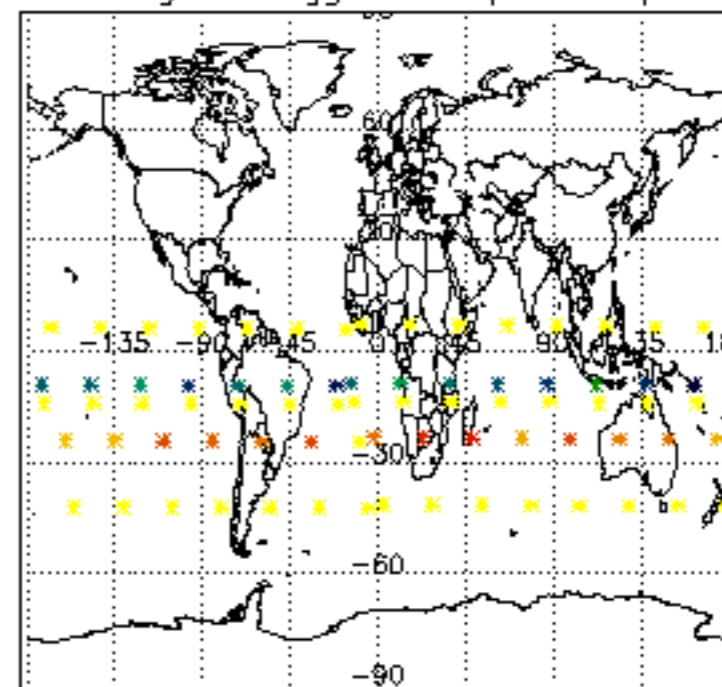
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	02-OCT-2010 00:07:03
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	02-OCT-2010 00:07:03
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	02-OCT-2010 00:07:03



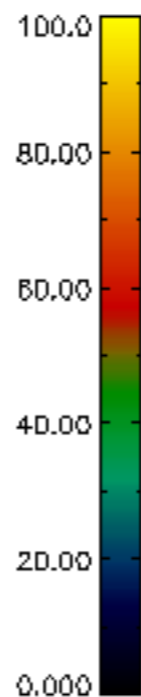
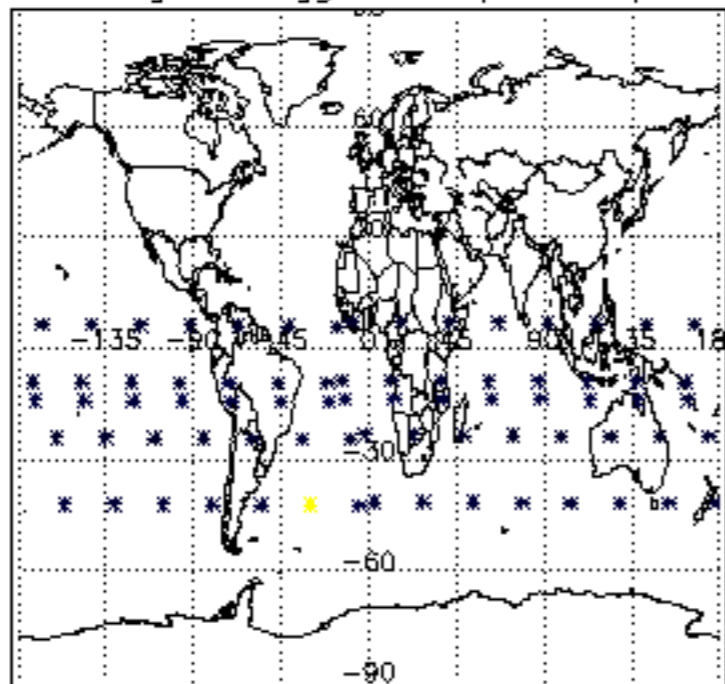
Percentage of flagged data per D3 profile



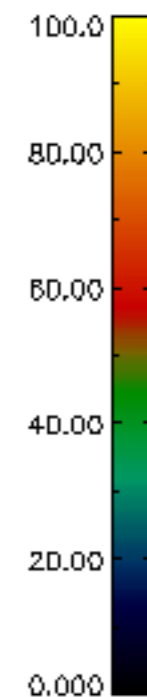
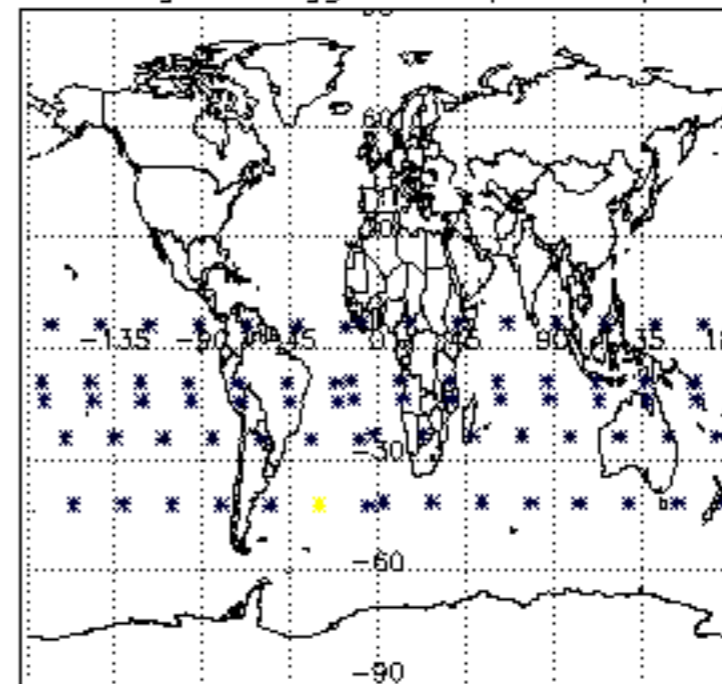
Percentage of flagged data per H2O profile

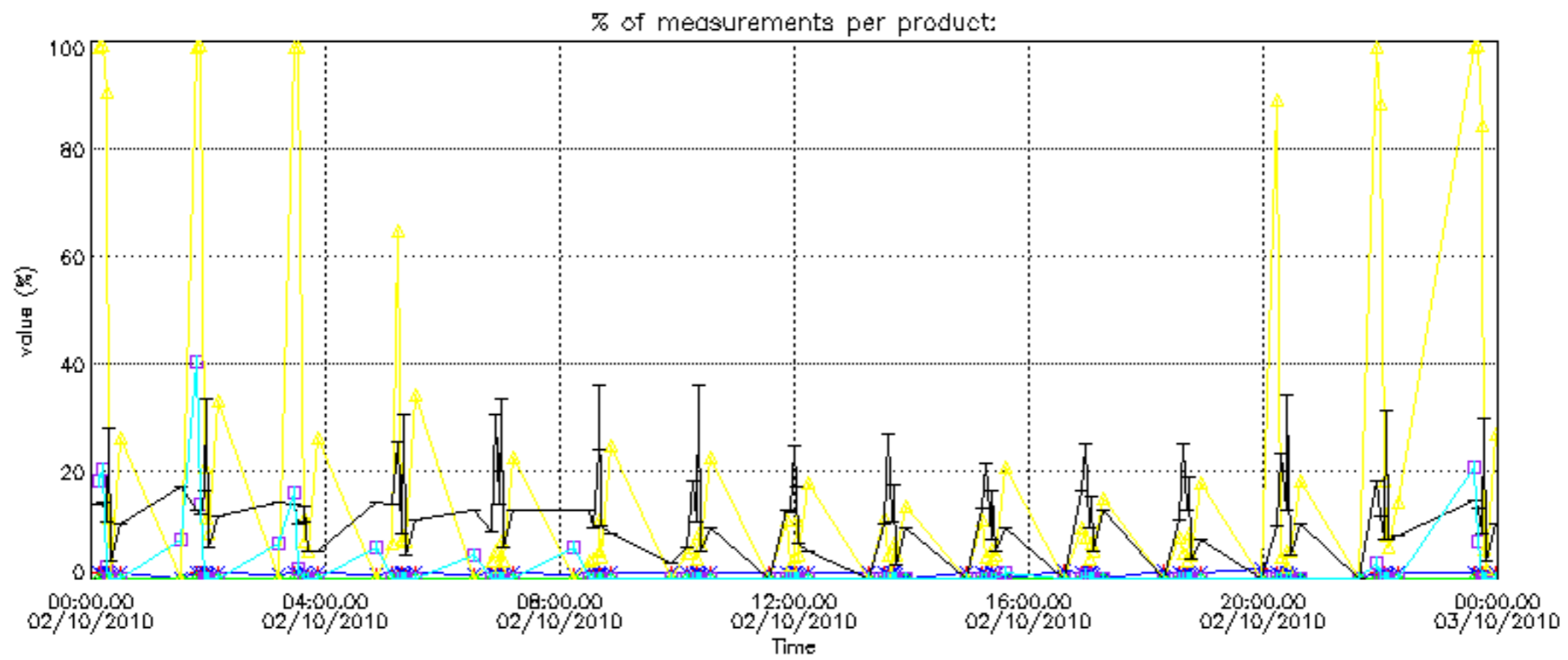
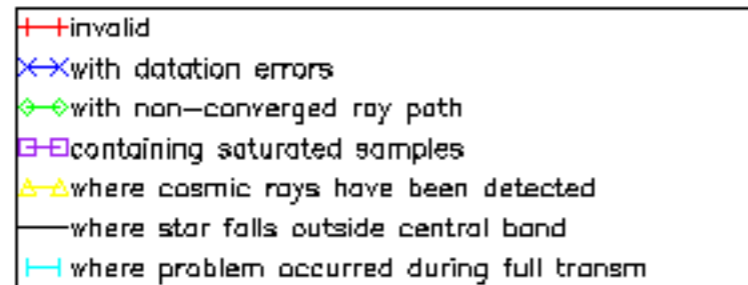


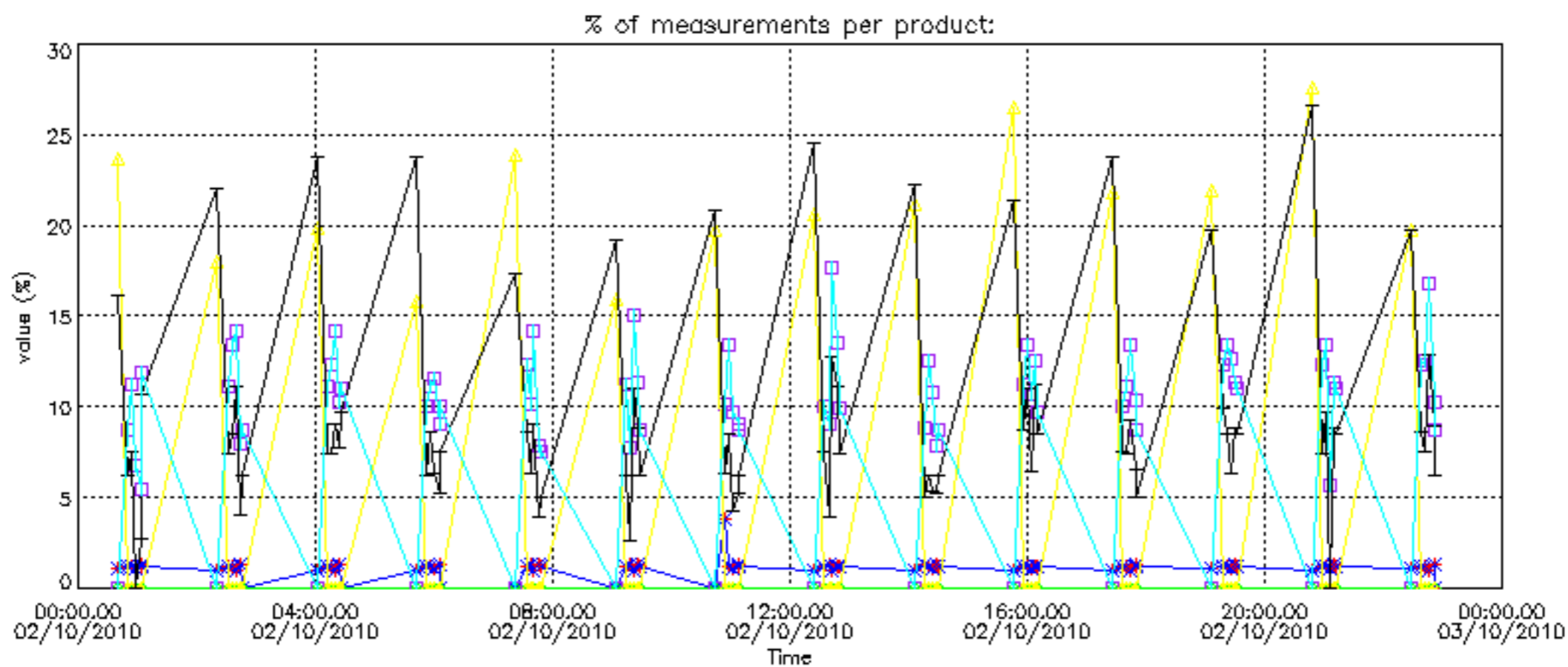
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

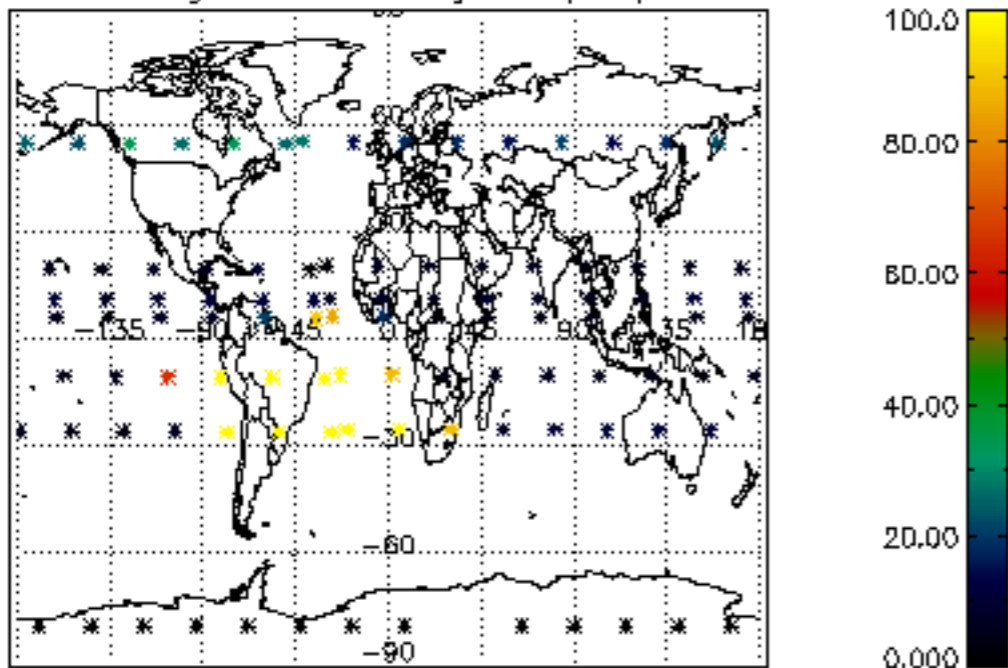




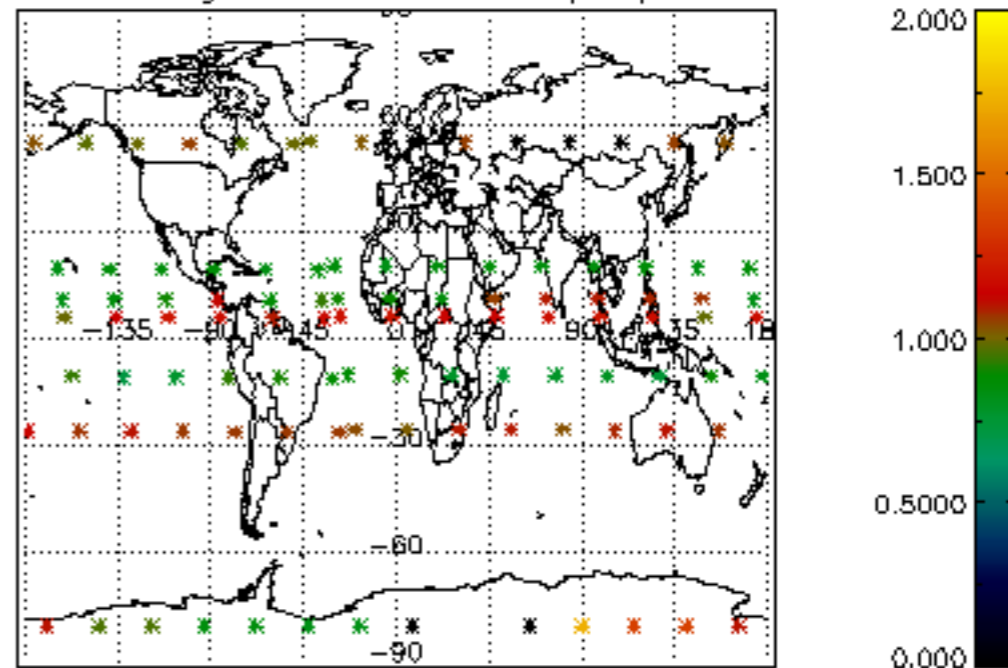




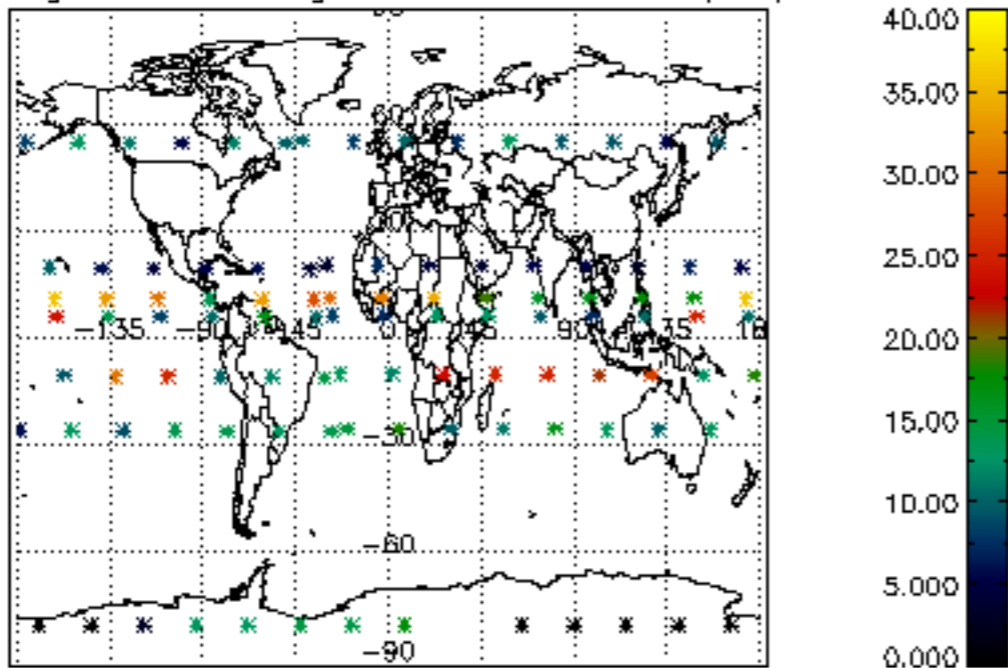
Percentage of cosmic ray hits per profile



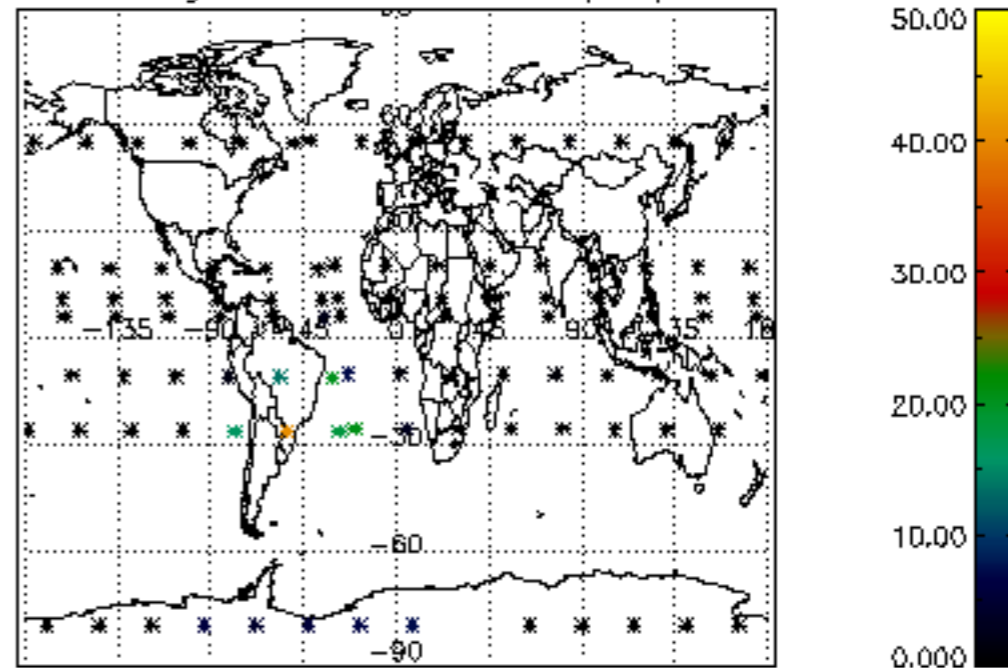
Percentage of datation errors per profile



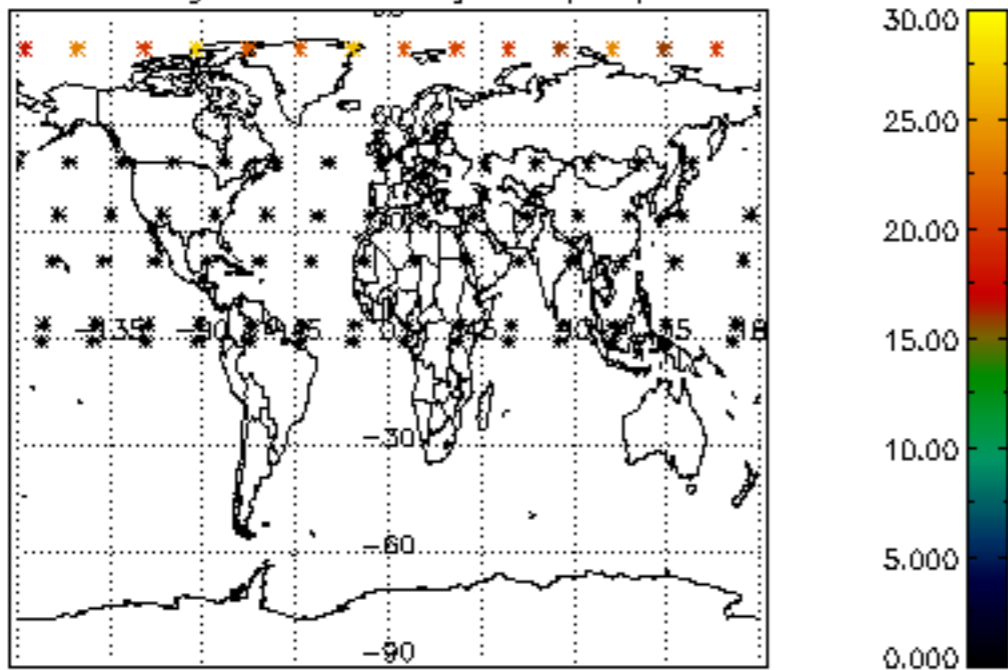
Percentage of star falling outside central band per profile



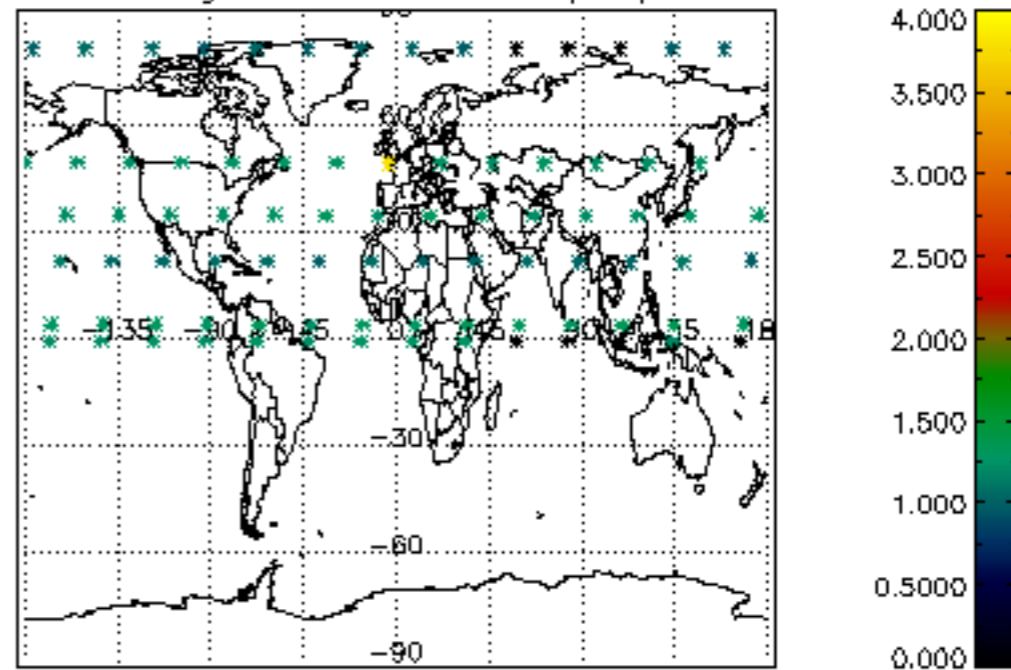
Percentage of saturation errors per profile



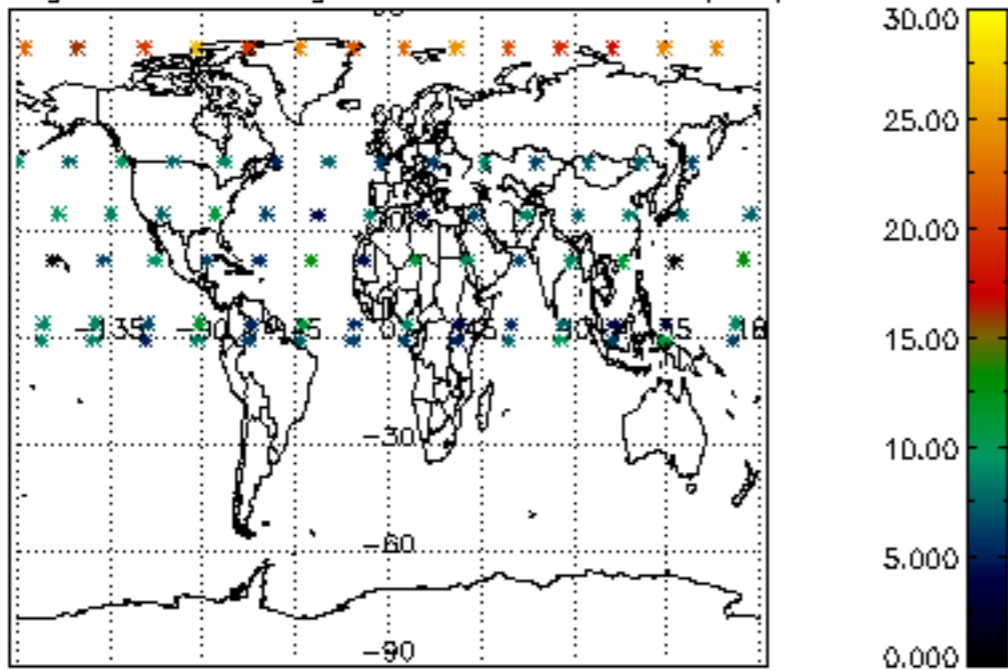
Percentage of cosmic ray hits per profile



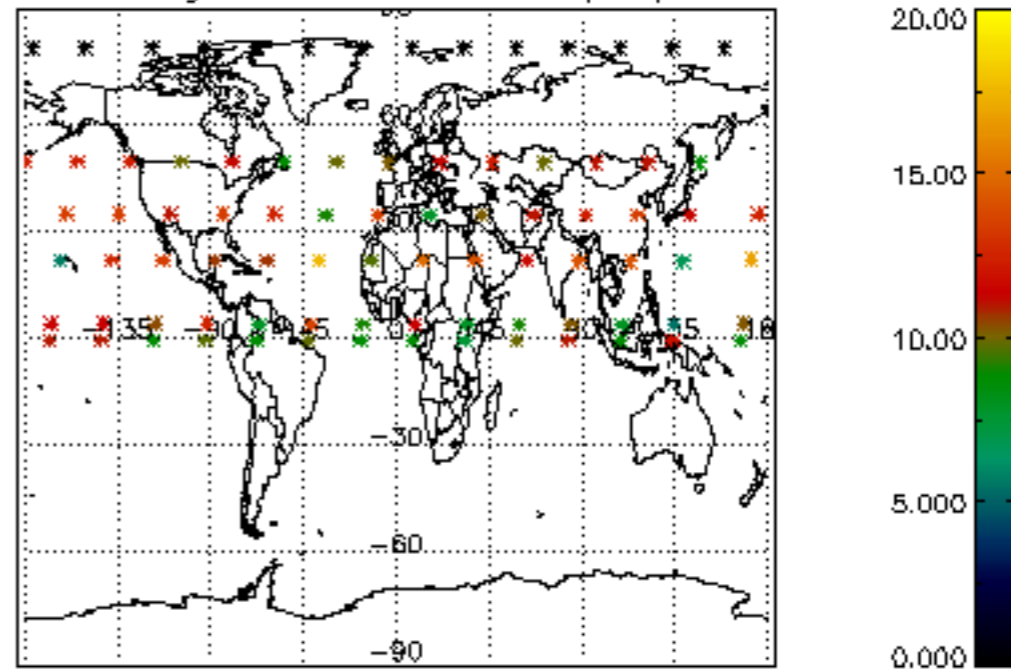
Percentage of datation errors per profile

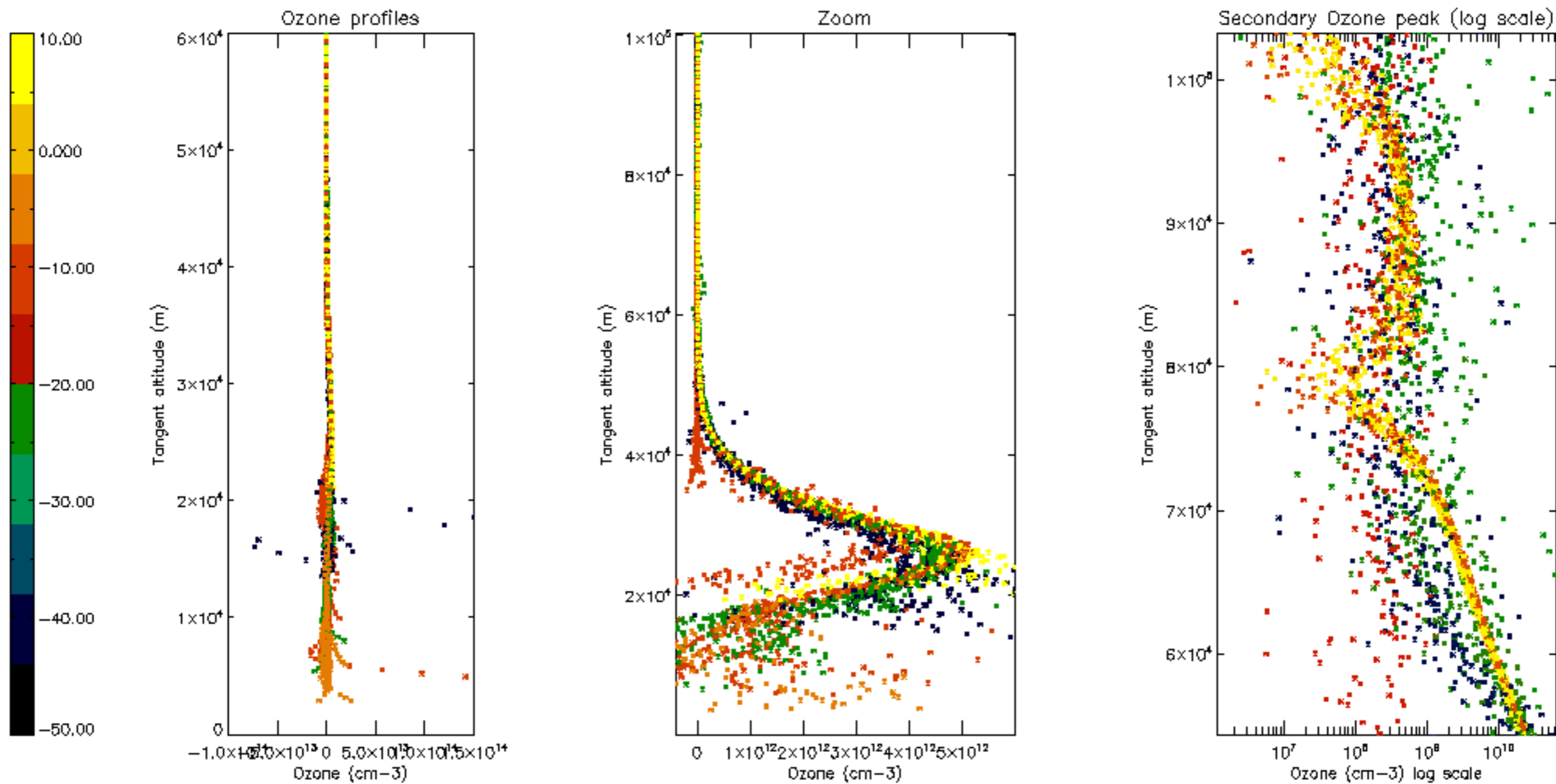


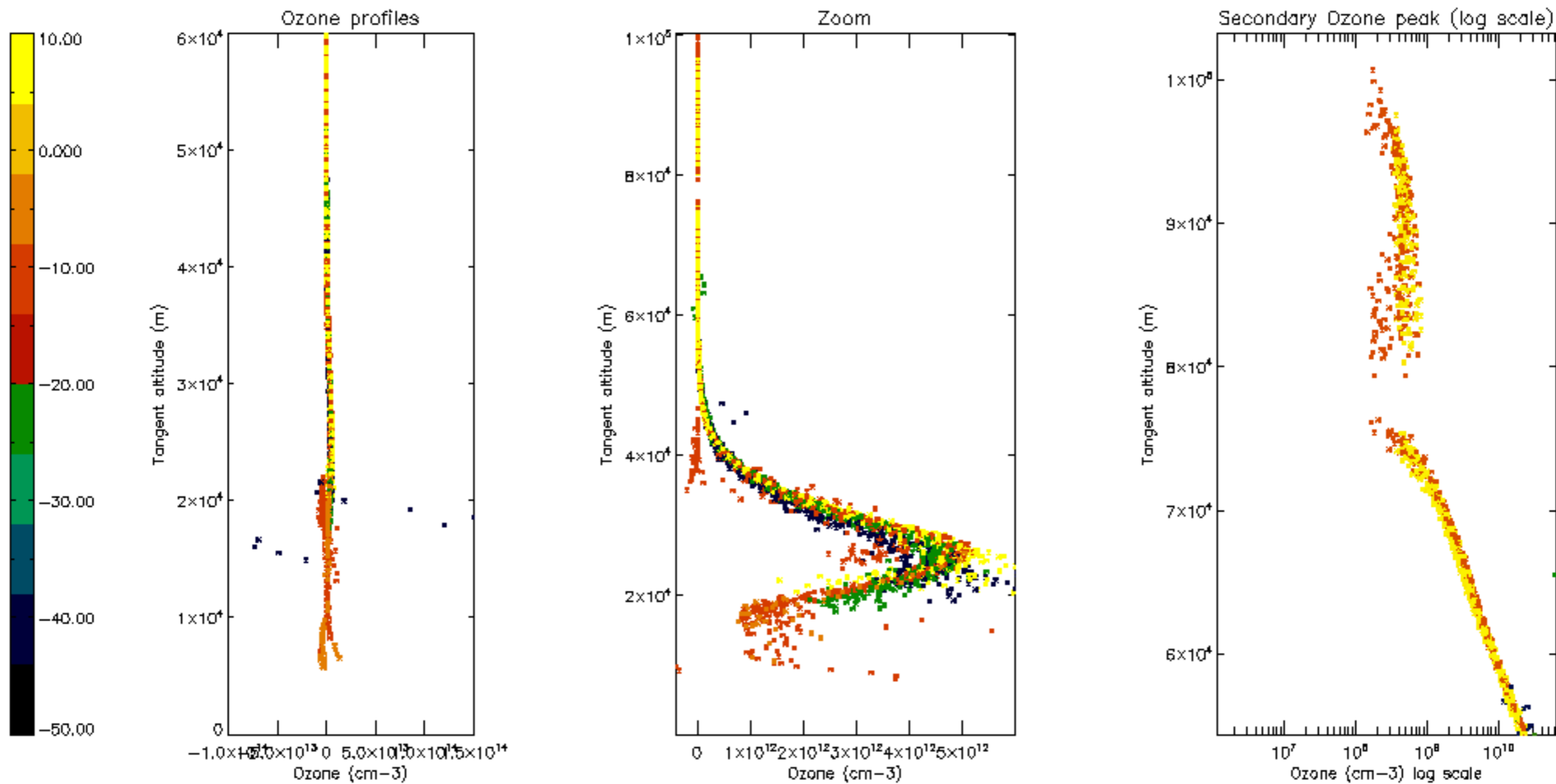
Percentage of star falling outside central band per profile

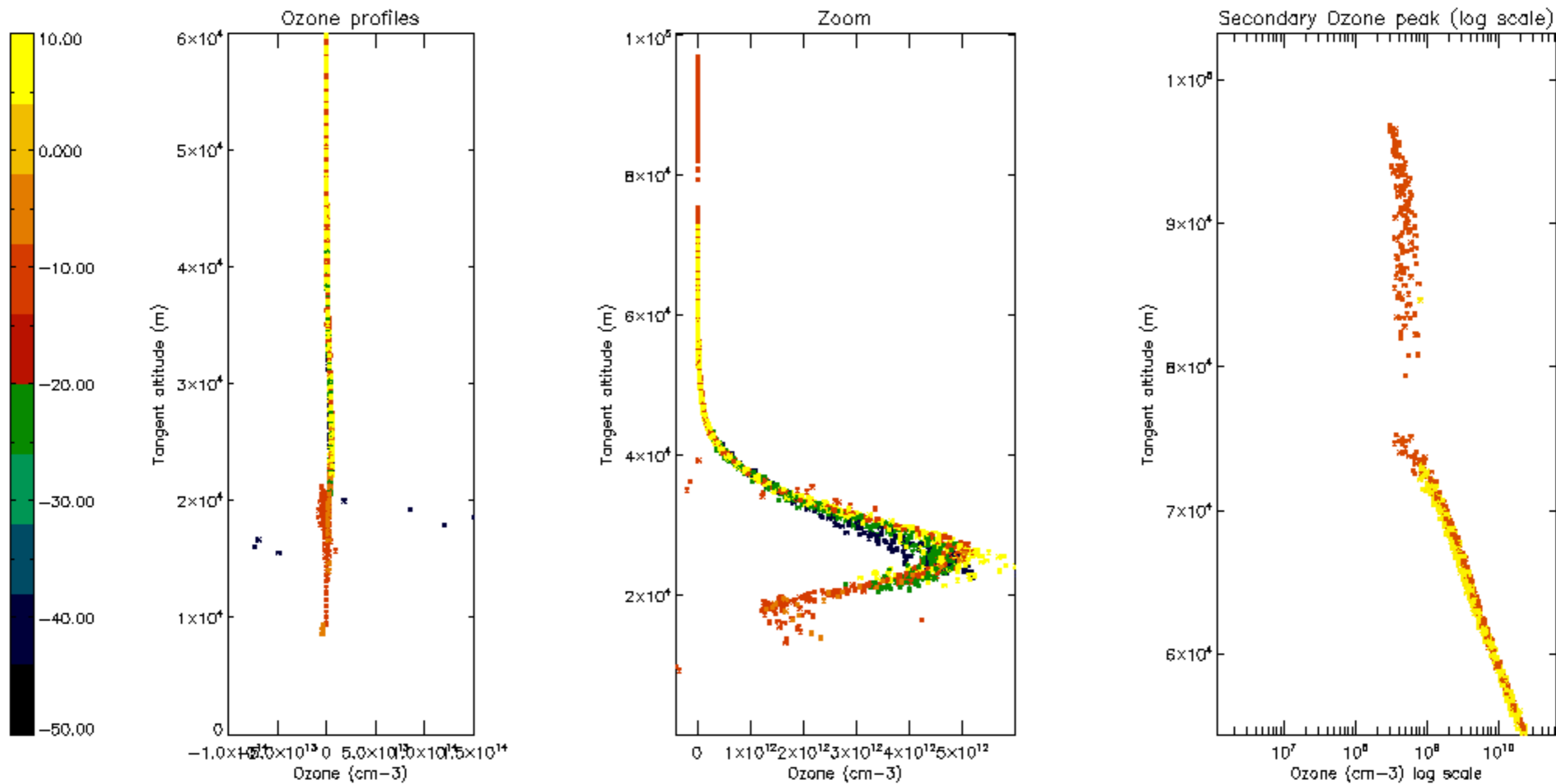


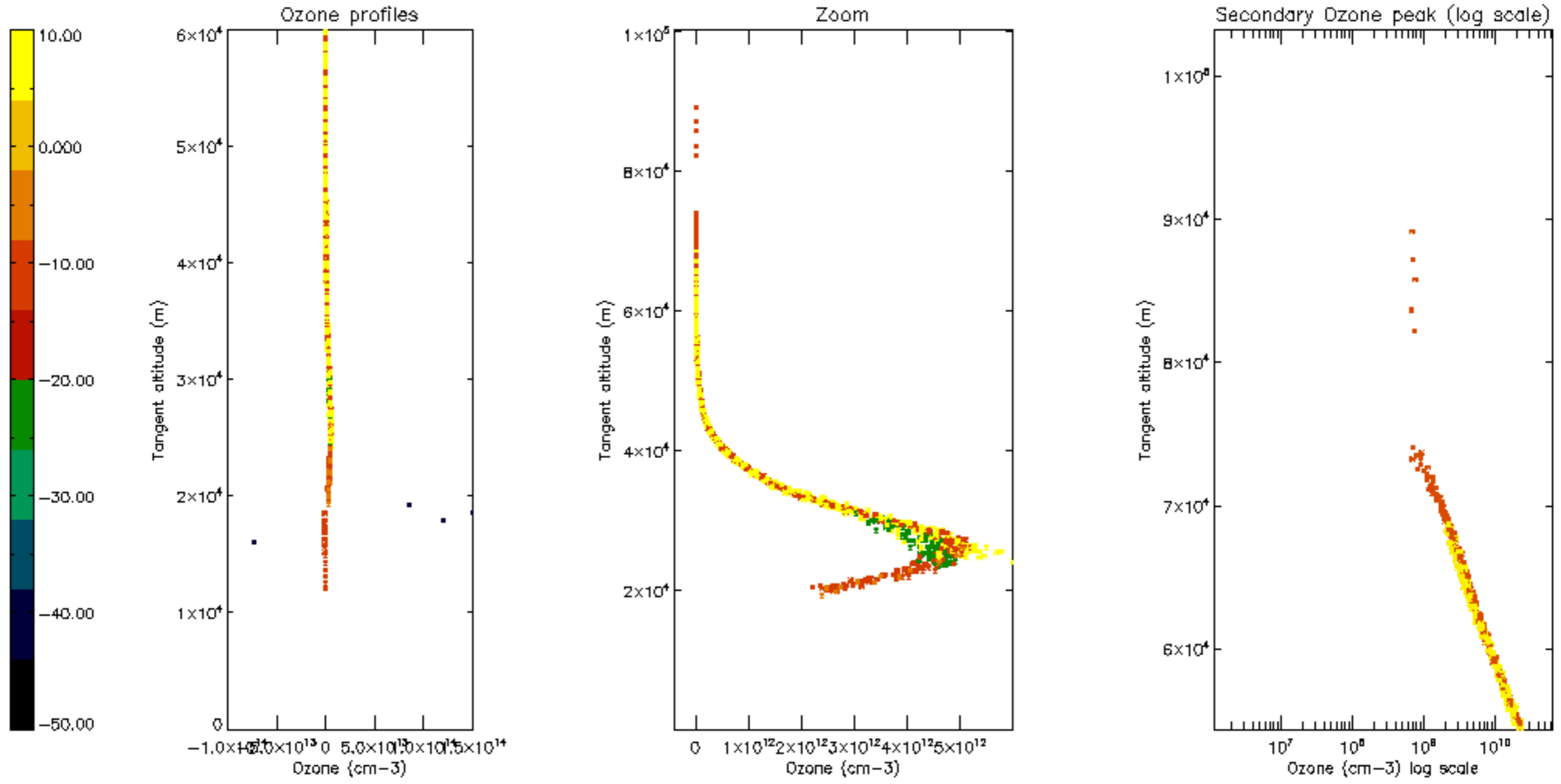
Percentage of saturation errors per profile

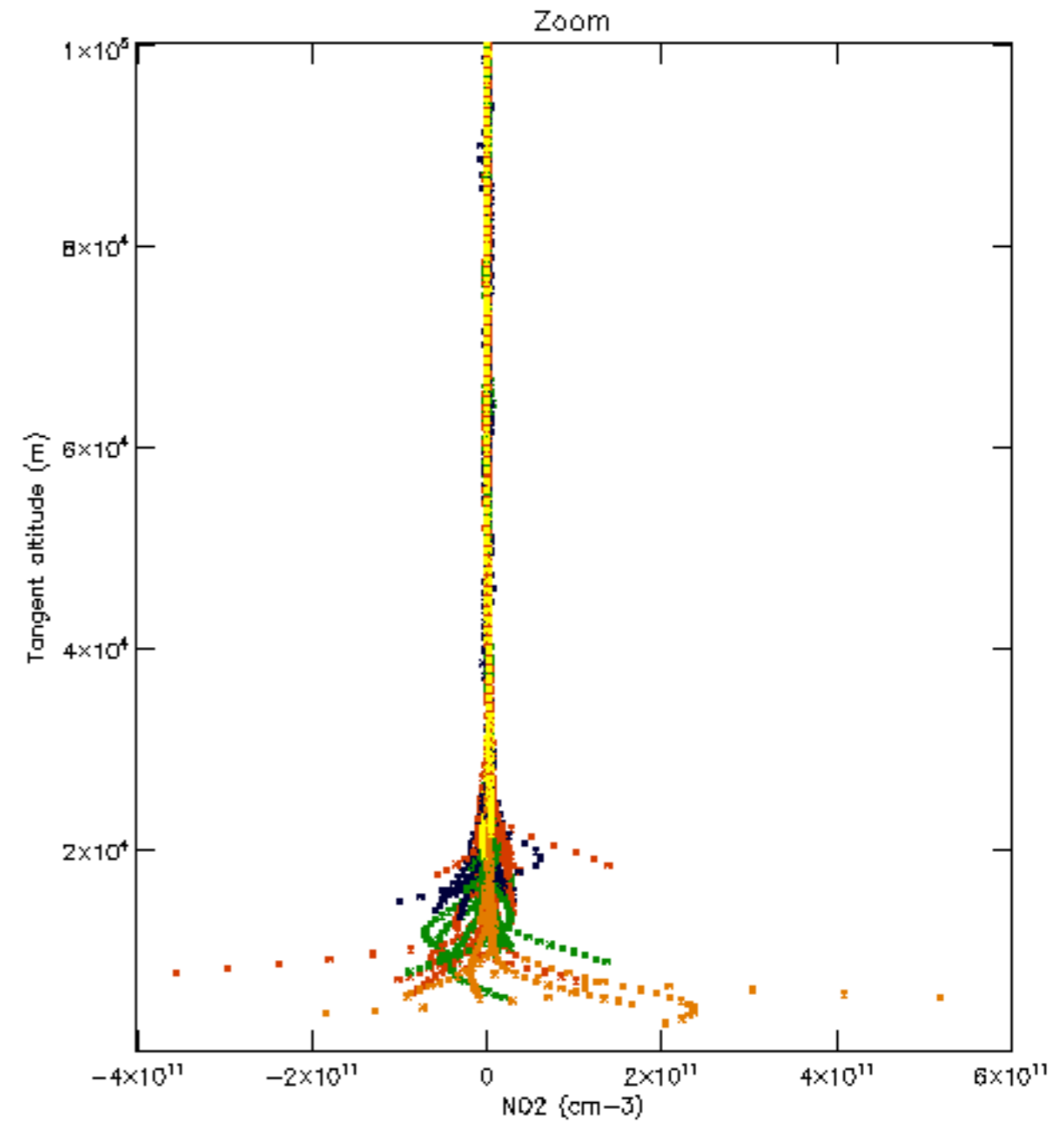
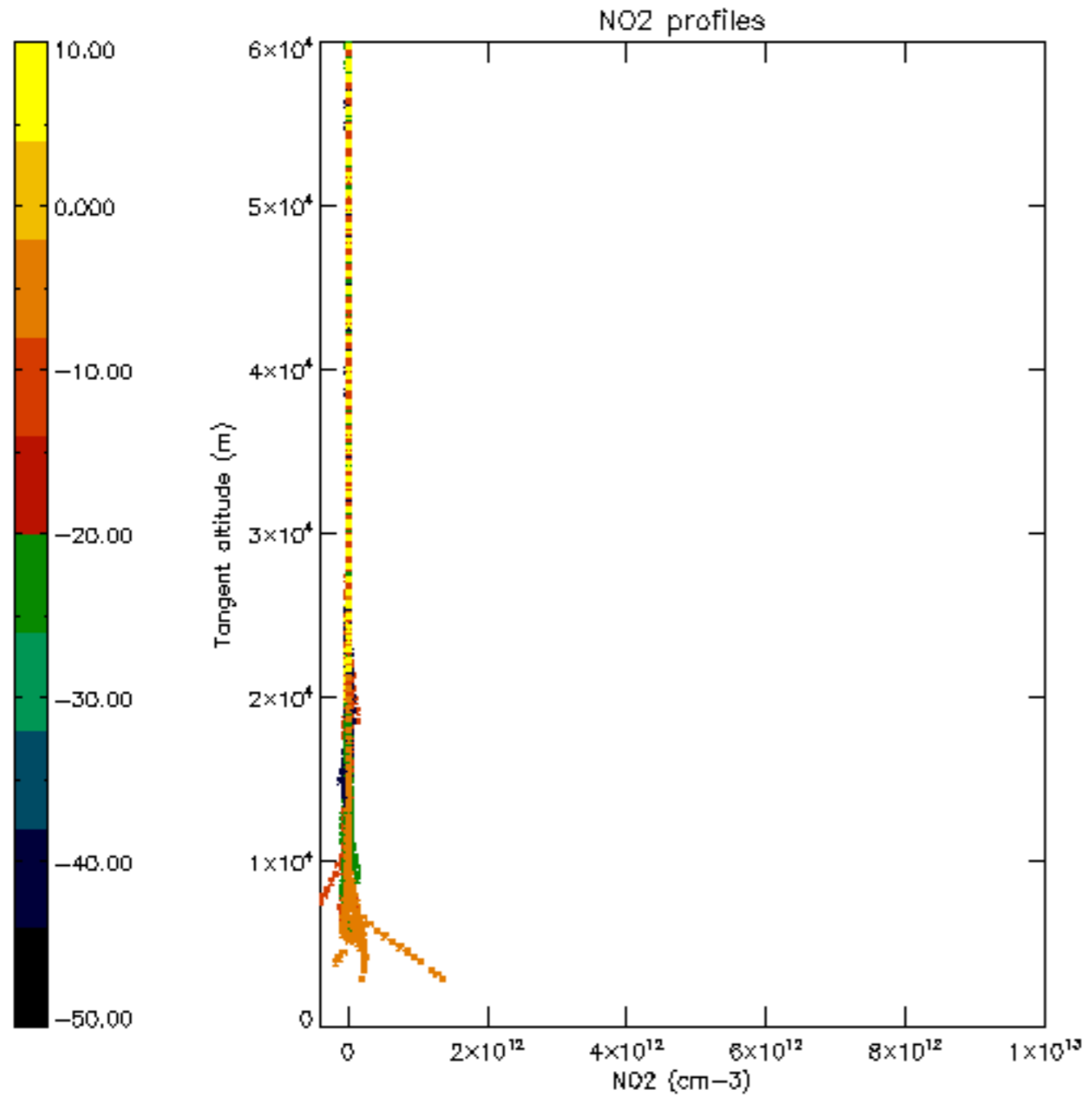


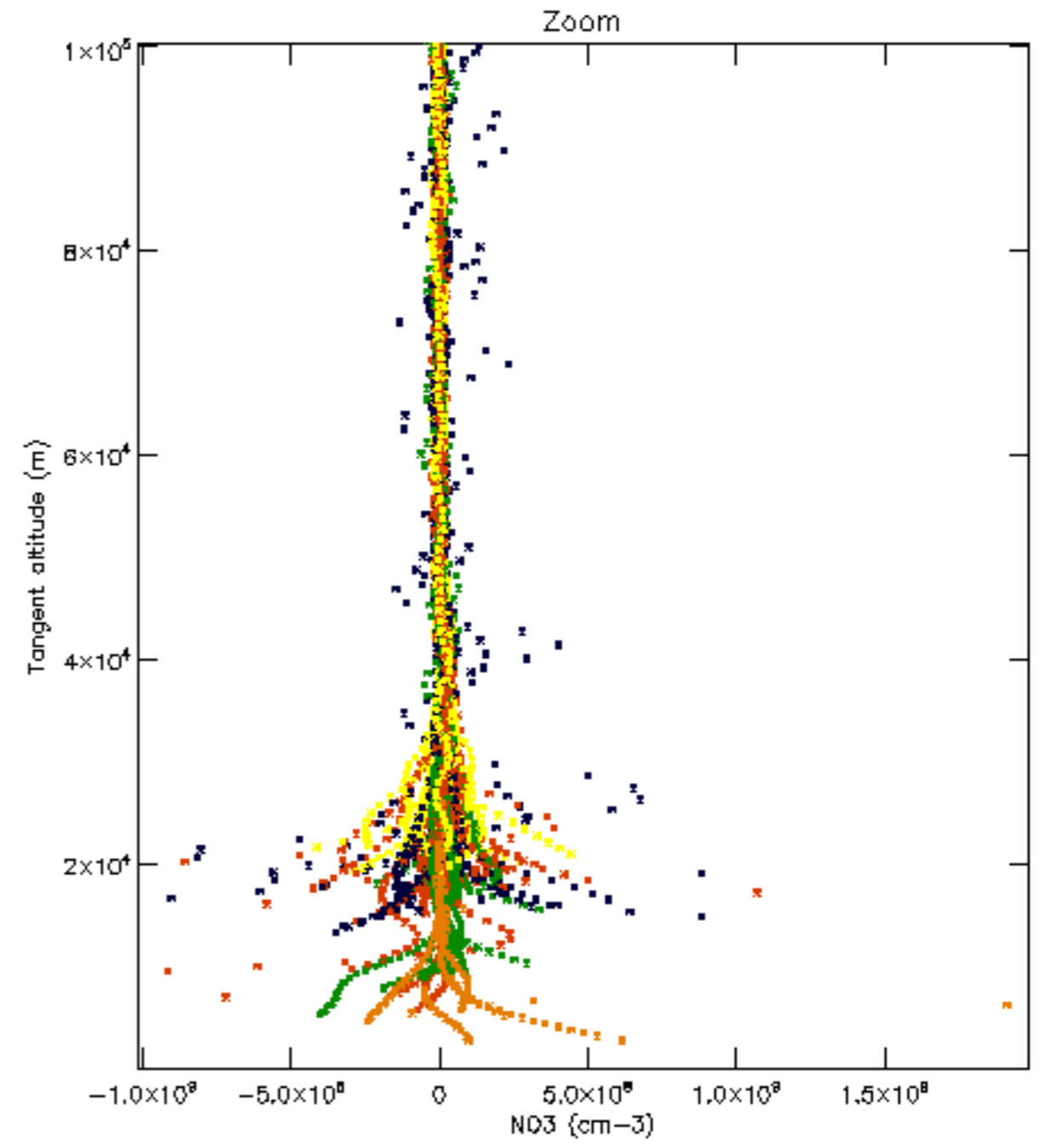
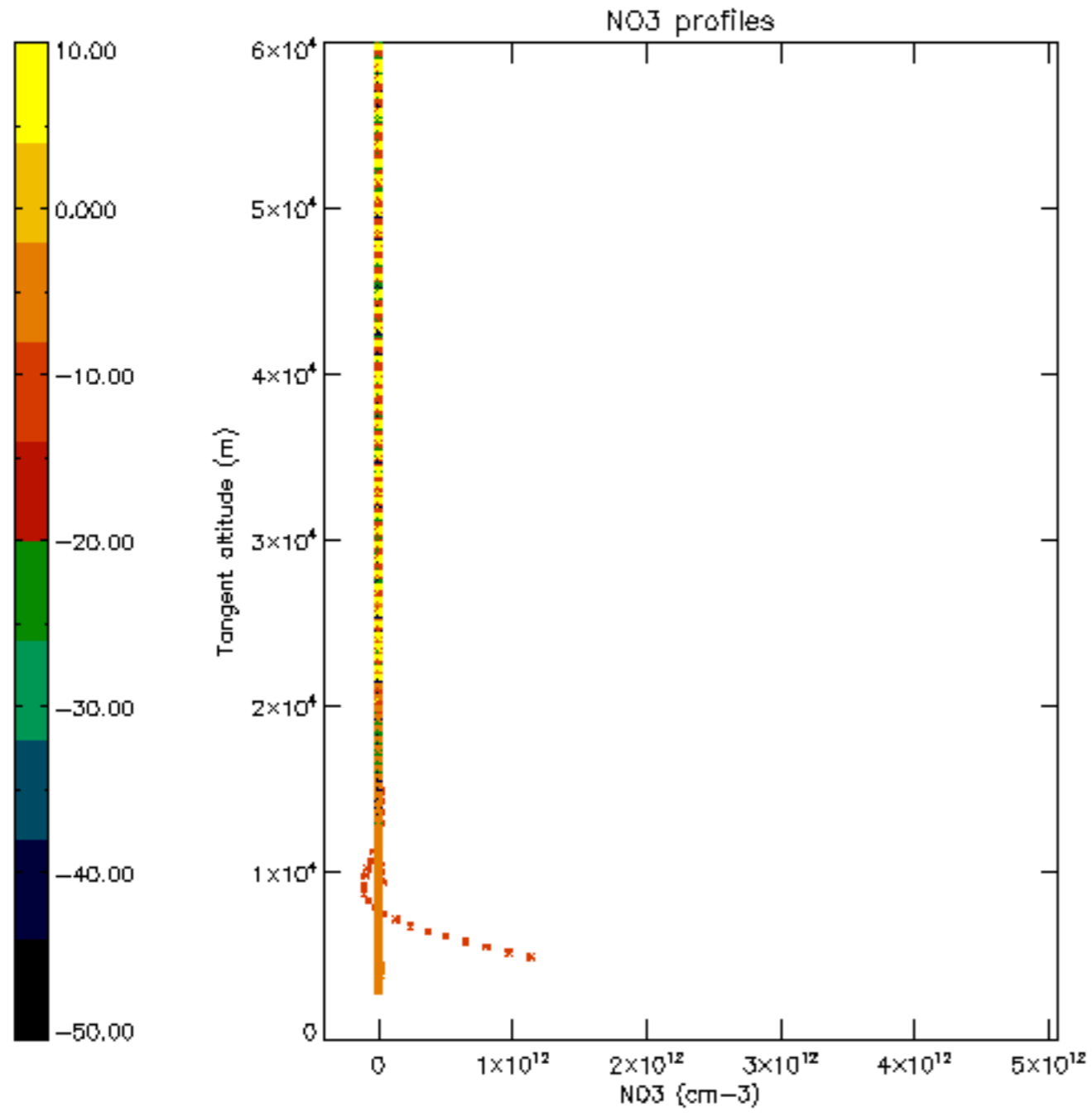




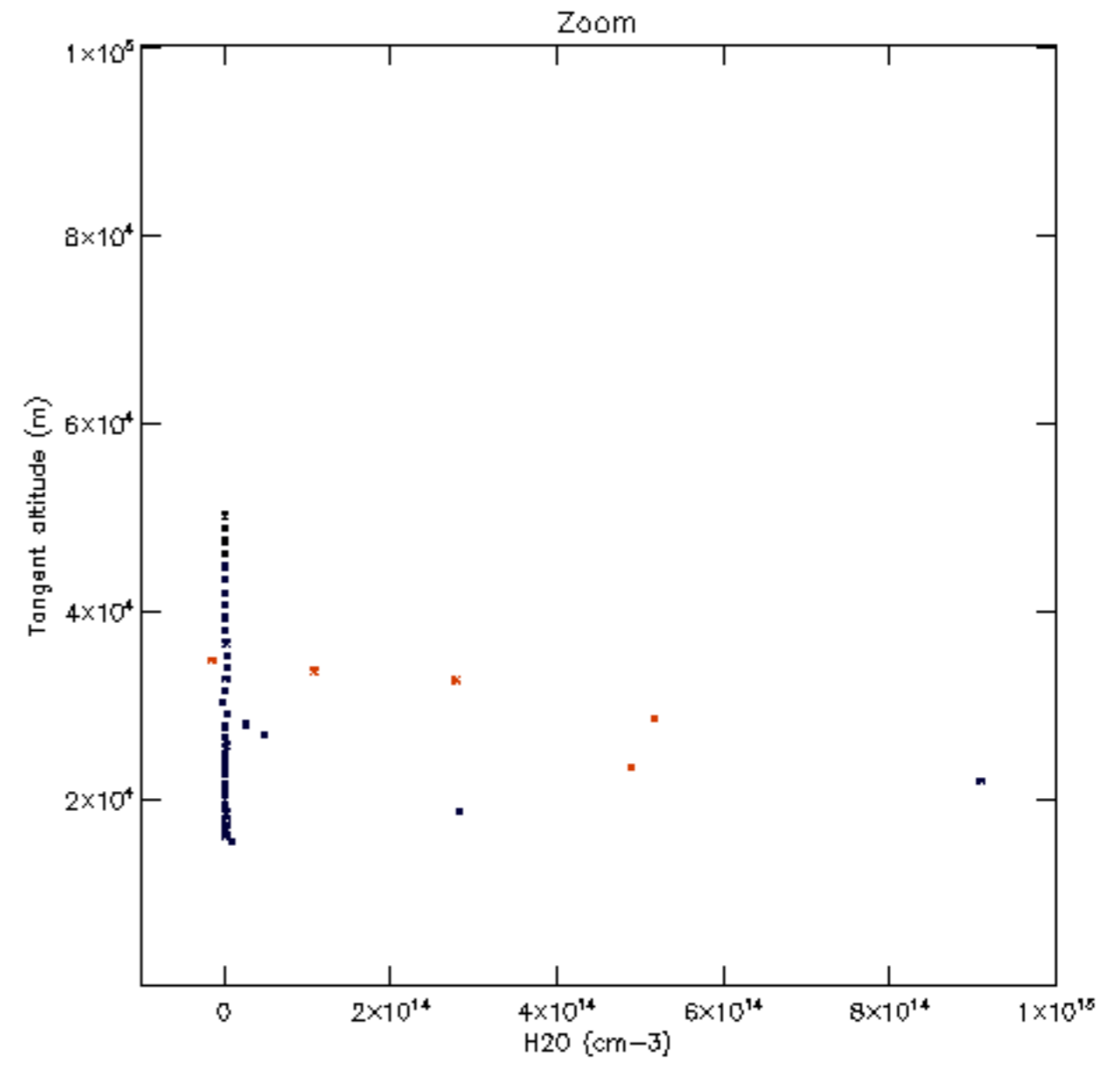
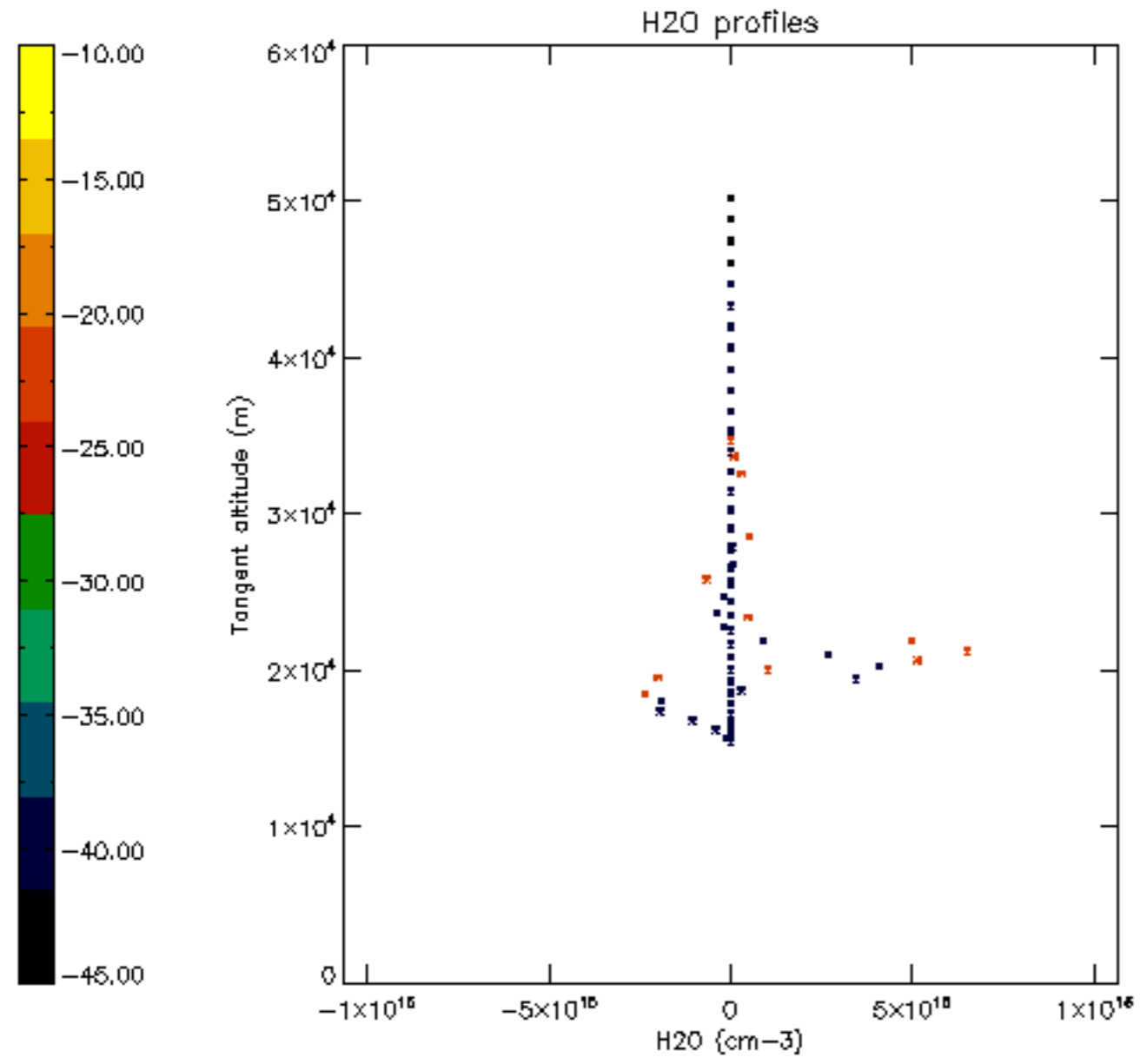


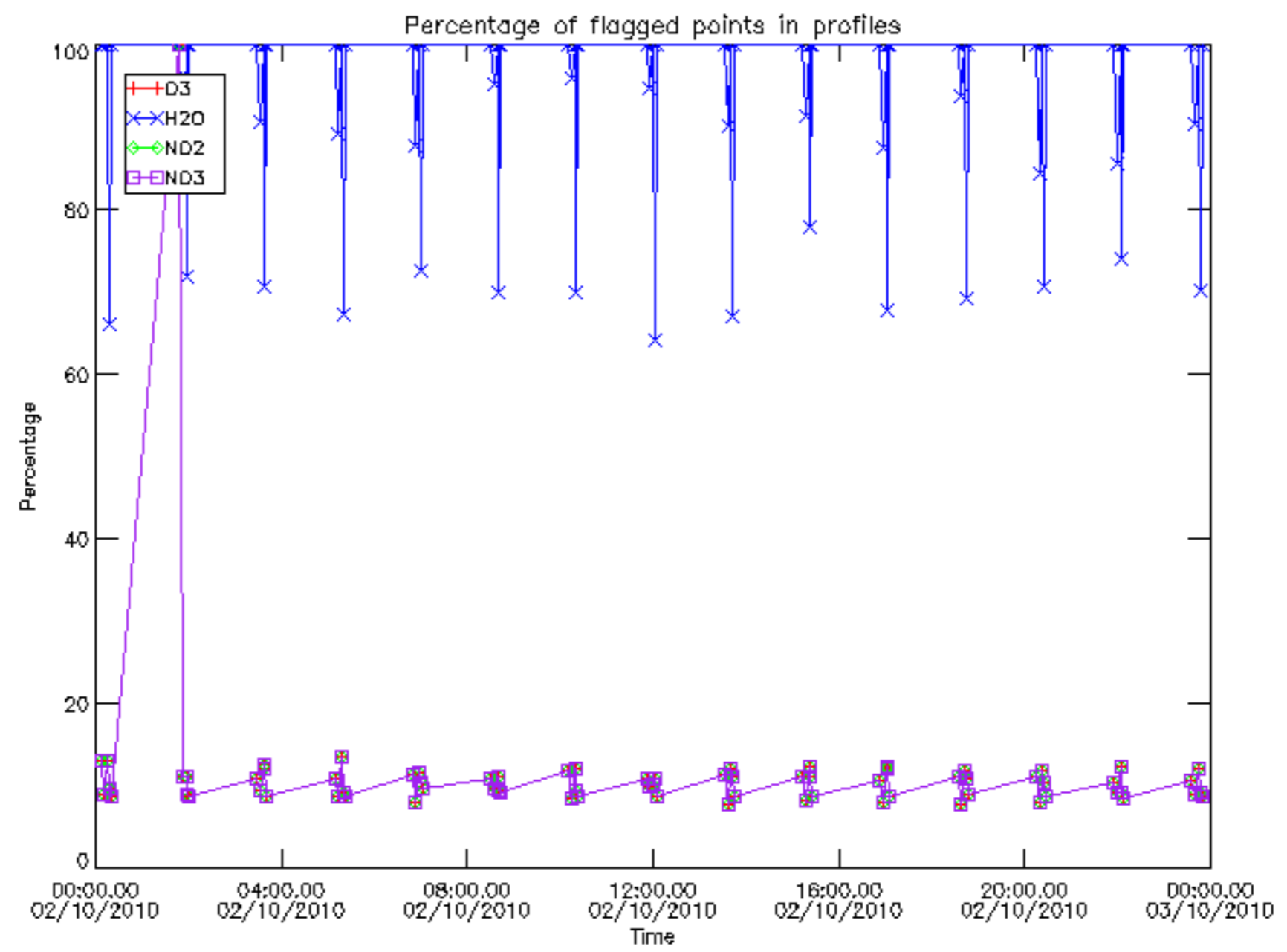




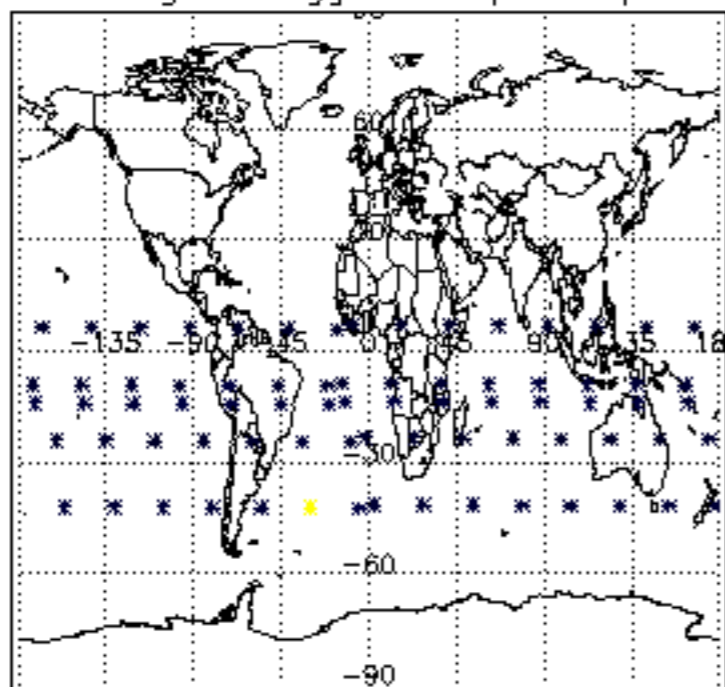




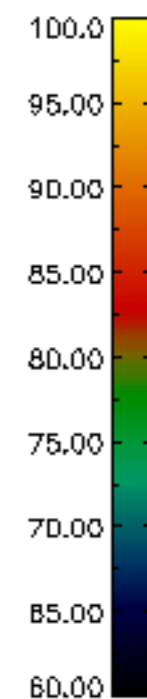
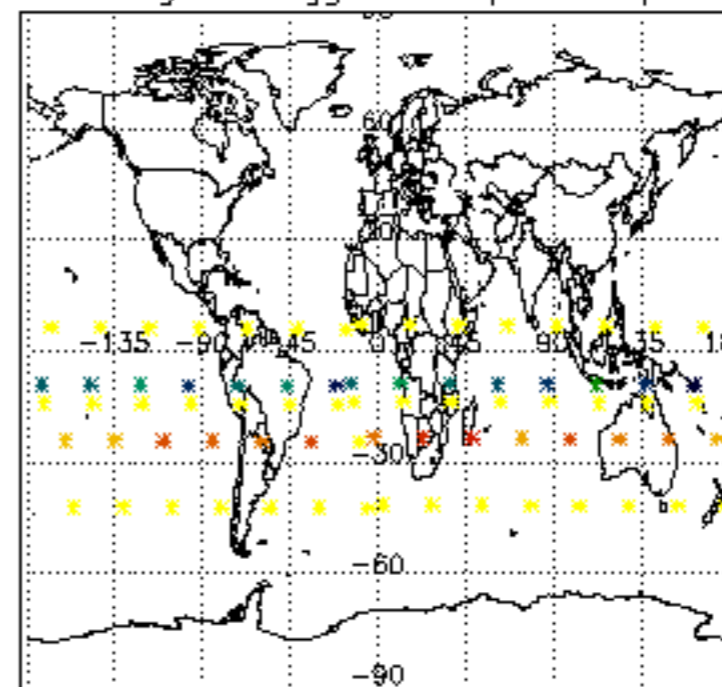




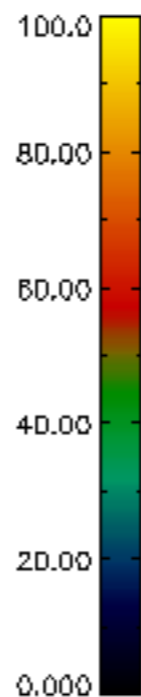
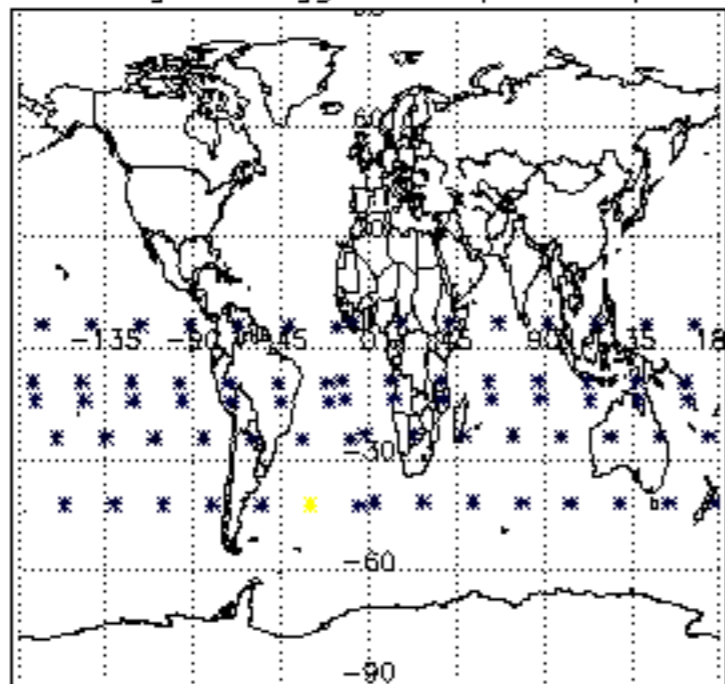
Percentage of flagged data per D3 profile



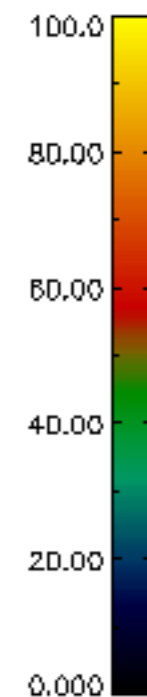
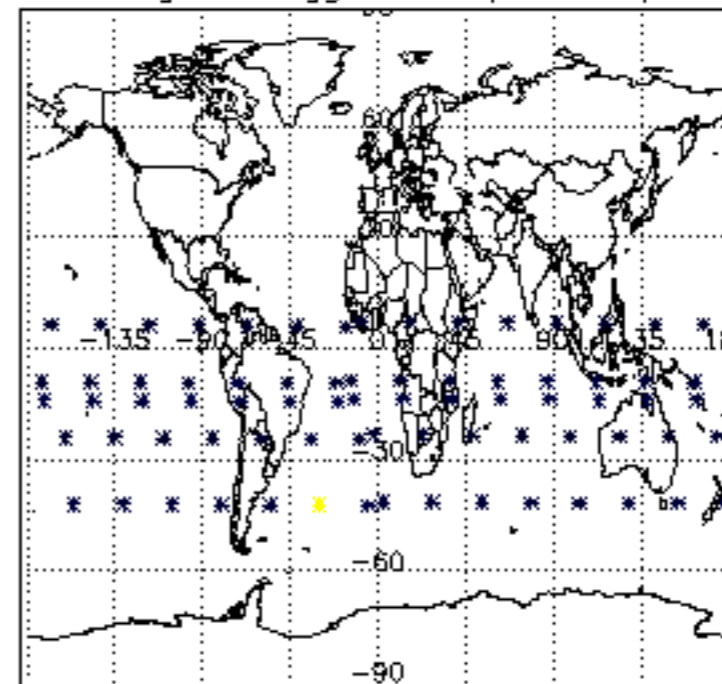
Percentage of flagged data per H2O profile

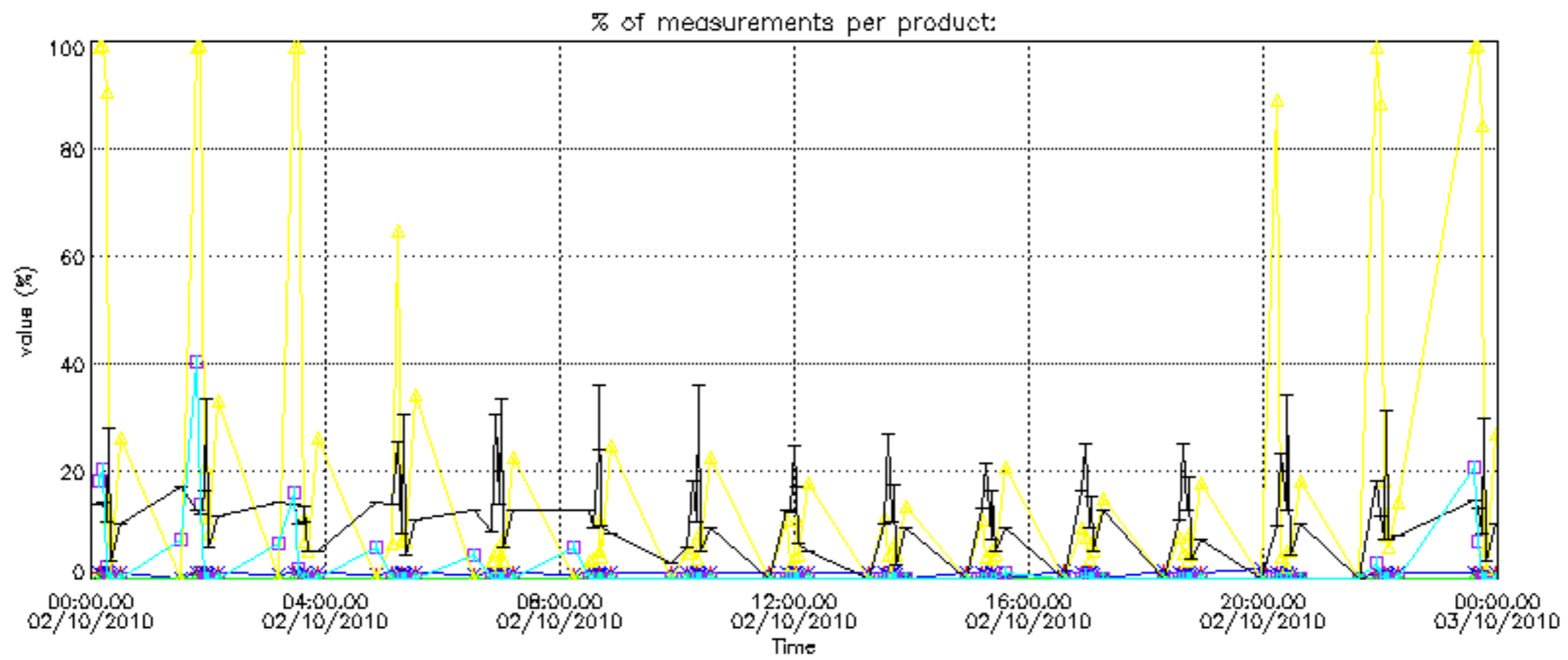
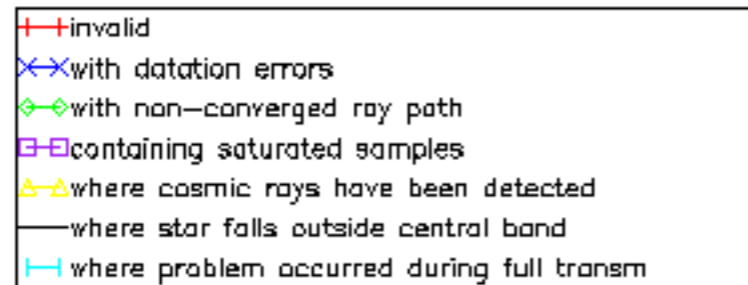


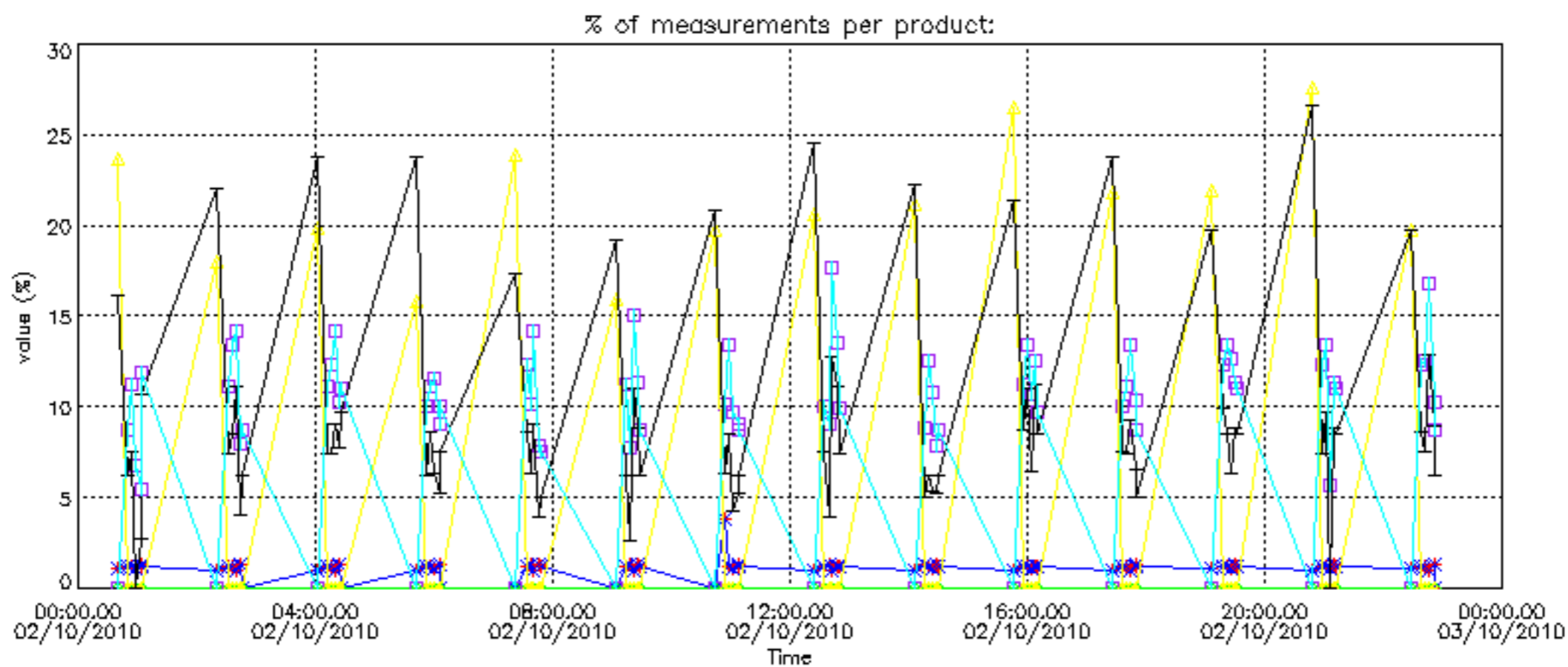
Percentage of flagged data per NO2 profile



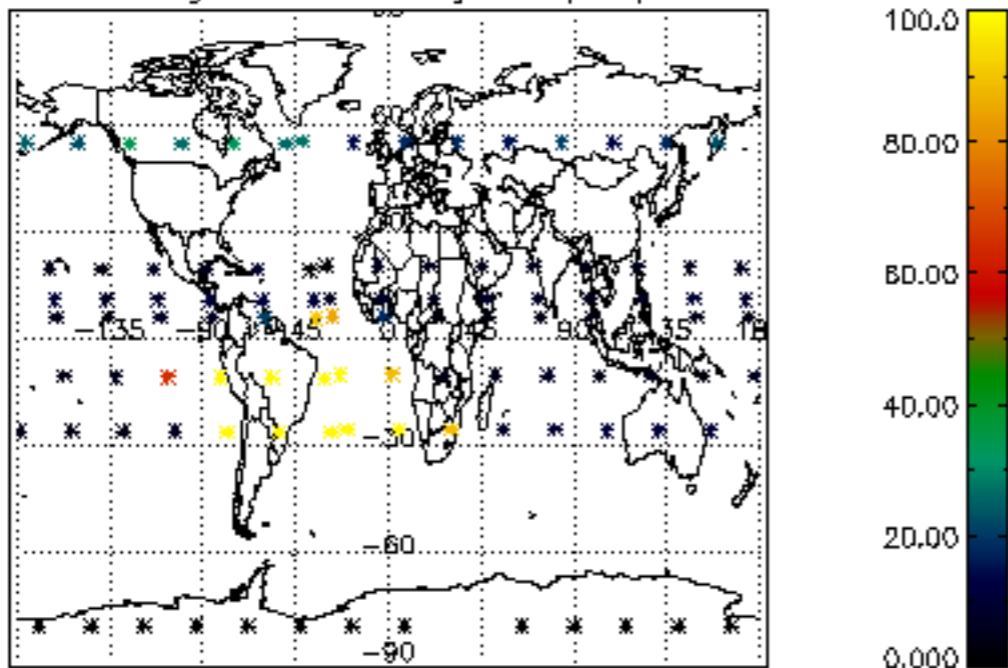
Percentage of flagged data per NO3 profile



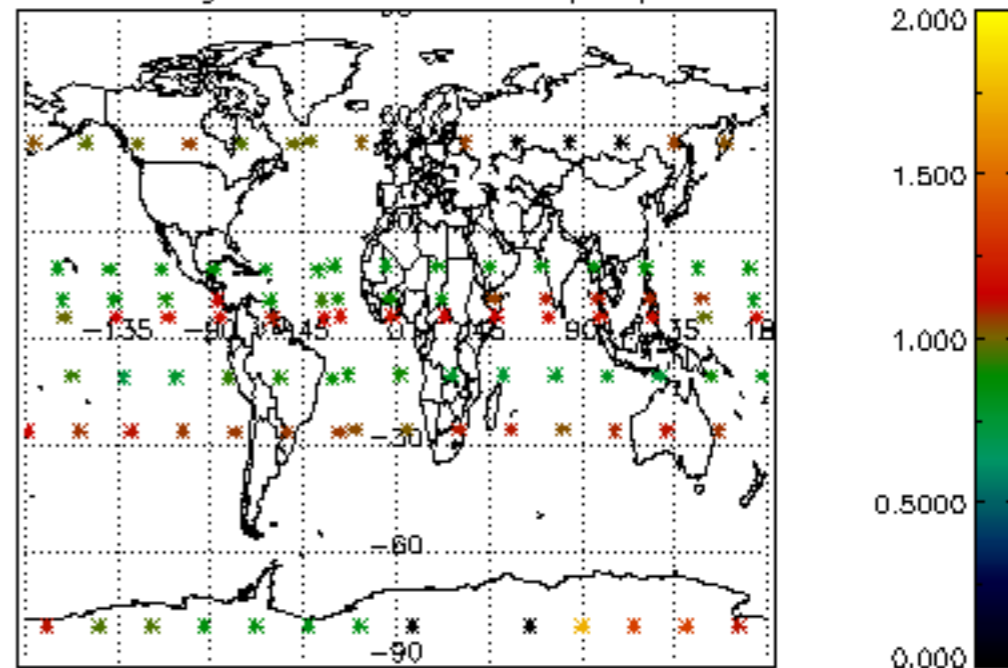




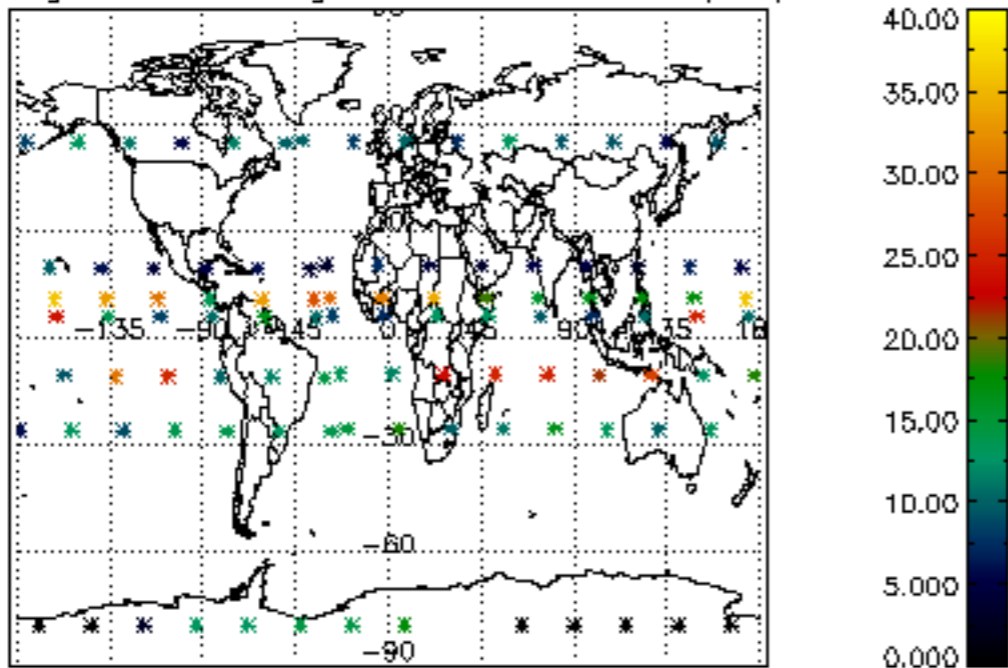
Percentage of cosmic ray hits per profile



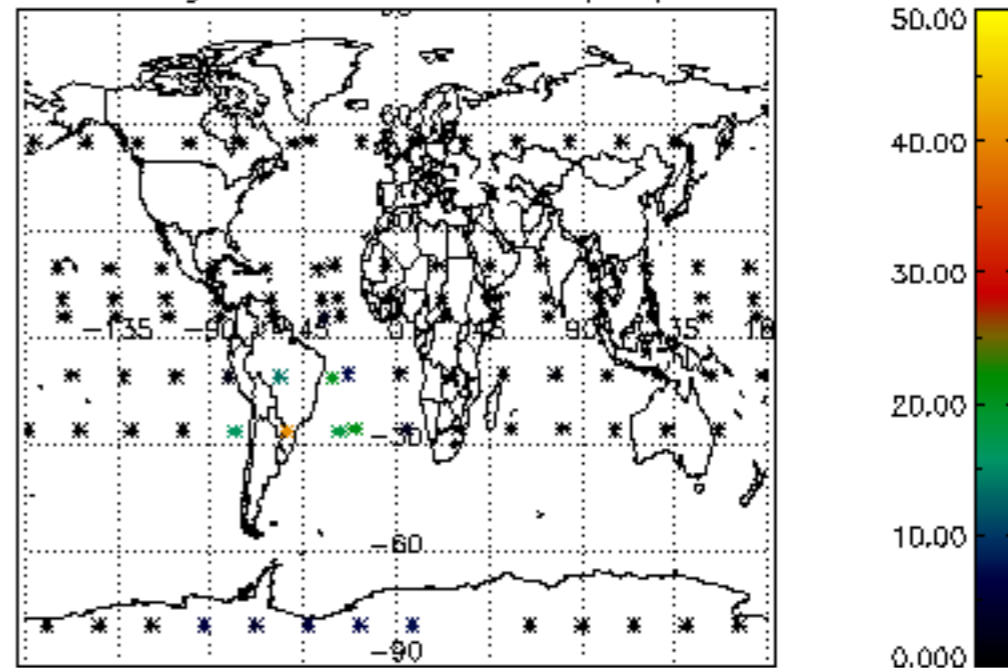
Percentage of datation errors per profile



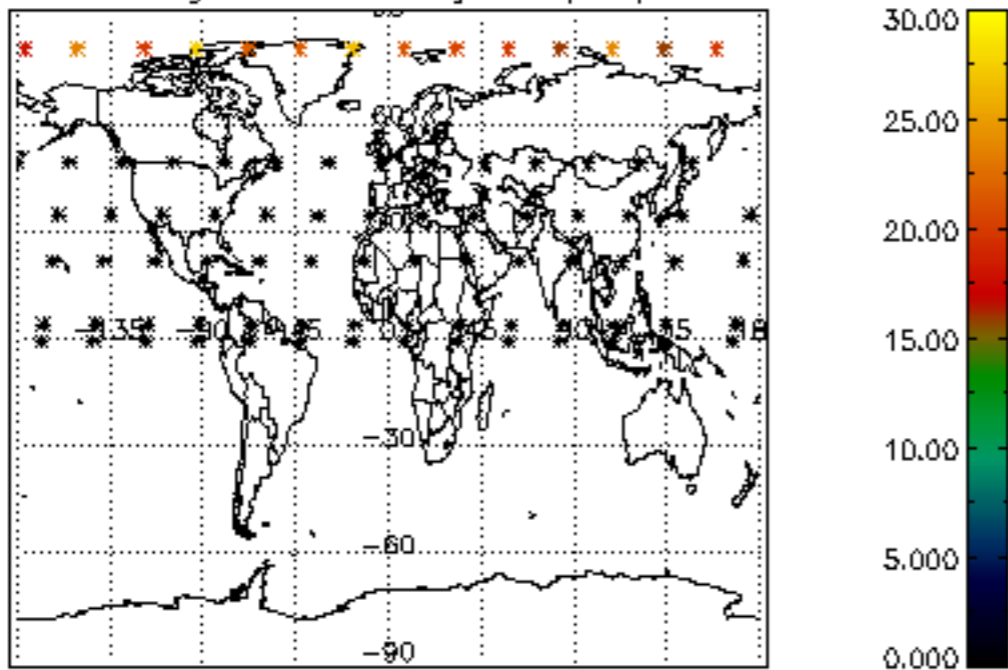
Percentage of star falling outside central band per profile



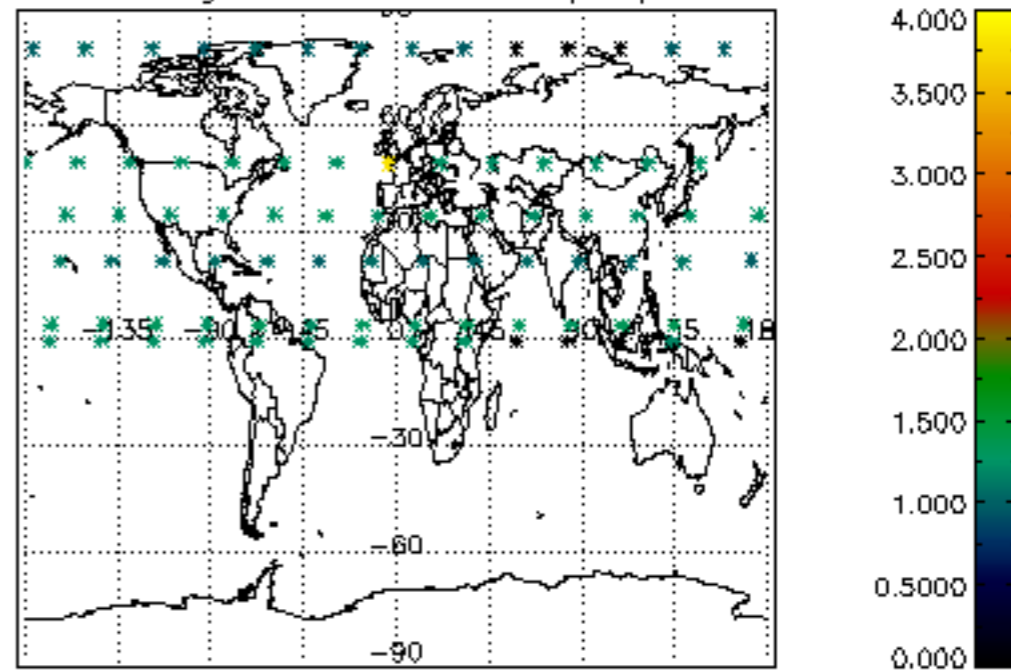
Percentage of saturation errors per profile



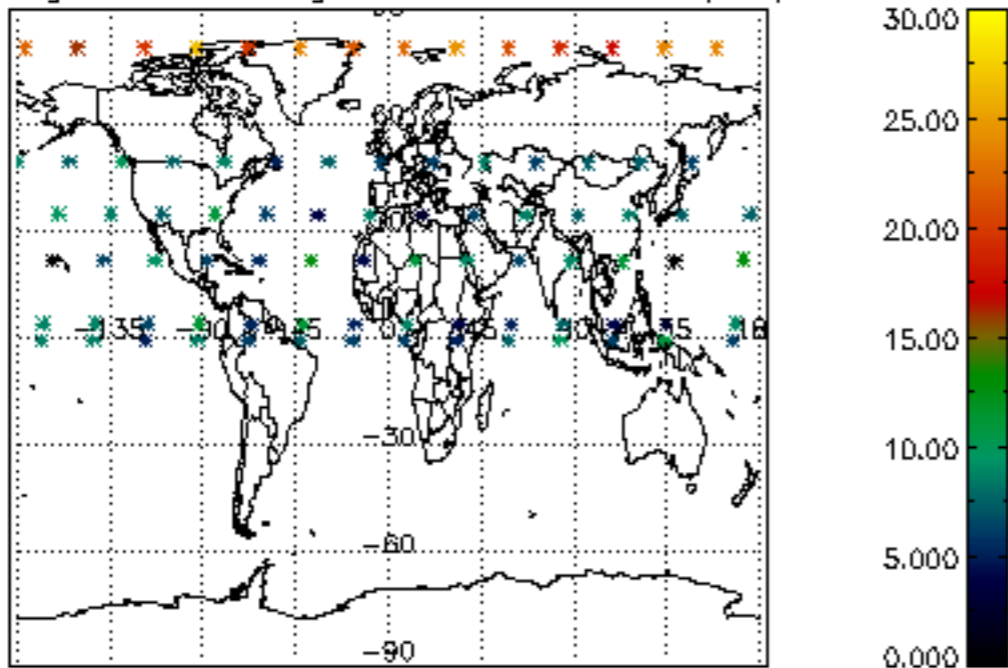
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

