

# 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 20:30:21
Data source version	GOMOS/6.01
Start time of products	02-10-2008 (02OCT2008 00:00:00)
Stop time of products	03-10-2008 (03OCT2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	259
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__2PRFIN20081002_000613_000000382072_00331_34453_0483.N1	02-OCT-2008 00:06:13	Bright	38.000	74	11Bet Cas	2.2680	6600.0	76	34453	No
2	GOM_NL__2PRFIN20081002_000731_000000402072_00331_34453_0484.N1	02-OCT-2008 00:07:31	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	34453	No
3	GOM_NL__2PRFIN20081002_001414_000000392072_00331_34453_0485.N1	02-OCT-2008 00:14:14	Bright	38.500	49	1Alp UMi	1.9900	6300.0	77	34453	No
4	GOM_NL__2PRFIN20081002_002213_000000352072_00331_34453_0486.N1	02-OCT-2008 00:22:13	Bright	34.500	36	50Alp UMa	1.8000	6300.0	69	34453	No
5	GOM_NL__2PRFIN20081002_002344_000000362072_00331_34453_0487.N1	02-OCT-2008 00:23:44	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	34453	No
6	GOM_NL__2PRFIN20081002_003337_000000362072_00331_34453_0488.N1	02-OCT-2008 00:33:37	Bright	36.000	166	17Eps Leo	2.9800	6000.0	72	34453	No
7	GOM_NL__2PRFIN20081002_004315_000000472072_00331_34453_0489.N1	02-OCT-2008 00:43:15	Twilight	46.500	48	30Alp Hya	1.9770	4100.0	93	34453	No
8	GOM_NL__2PRFIN20081002_005028_000000472072_00331_34453_0490.N1	02-OCT-2008 00:50:28	Dark	46.500	132	15Rho Pup	2.8030	6900.0	93	34453	No
9	GOM_NL__2PRFIN20081002_005255_000000432072_00331_34453_0491.N1	02-OCT-2008 00:52:55	Dark	43.000	65	Lam Vel	2.2040	4400.0	86	34453	No
10	GOM_NL__2PRFIN20081002_005414_000000412072_00331_34453_0492.N1	02-OCT-2008 00:54:14	Dark	40.500	70	Zet Pup	2.2460	39000.	81	34453	No
11	GOM_NL__2PRFIN20081002_005534_000000412072_00331_34453_0493.N1	02-OCT-2008 00:55:34	Dark	41.000	34	Gam2Vel	1.7930	23000.	82	34453	No
12	GOM_NL__2PRFIN20081002_005922_000000432072_00332_34454_0611.N1	02-OCT-2008 00:59:22	Dark	42.500	161	Tau Pup	2.9310	4500.0	85	34454	No
13	GOM_NL__2PRFIN20081002_010047_000000582072_00332_34454_0612.N1	02-OCT-2008 01:00:47	Dark	57.500	2	Alp Car	-0.73600	7000.0	115	34454	No
14	GOM_NL__2PRFIN20081002_011001_000000382072_00332_34454_0613.N1	02-OCT-2008 01:10:01	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	34454	No
15	GOM_NL__2PRFIN20081002_011129_000000502072_00332_34454_0614.N1	02-OCT-2008 01:11:29	Dark	49.500	9	Alp Eri	0.45300	24000.	99	34454	No
16	GOM_NL__2PRFIN20081002_011648_000000432072_00332_34454_0615.N1	02-OCT-2008 01:16:48	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	34454	No
17	GOM_NL__2PRFIN20081002_012342_000000482072_00332_34454_0616.N1	02-OCT-2008 01:23:42	Straylight	48.000	52	16Bet Cet	2.0370	4500.0	96	34454	No
18	GOM_NL__2PRFIN20081002_013351_000000362072_00332_34454_0617.N1	02-OCT-2008 01:33:51	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	34454	No
19	GOM_NL__2PRFIN20081002_013728_000000382072_00332_34454_0618.N1	02-OCT-2008 01:37:28	Bright	37.500	93	53Bet Peg	2.5200	3100.0	75	34454	No
20	GOM_NL__2PRFIN20081002_014648_000000382072_00332_34454_0619.N1	02-OCT-2008 01:46:48	Bright	38.000	74	11Bet Cas	2.2680	6600.0	76	34454	No
21	GOM_NL__2PRFIN20081002_014806_000000392072_00332_34454_0620.N1	02-OCT-2008 01:48:06	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	34454	No
22	GOM_NL__2PRFIN20081002_015450_000000352072_00332_34454_0621.N1	02-OCT-2008 01:54:50	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	34454	No
23	GOM_NL__2PRFIN20081002_020249_000000362072_00332_34454_0622.N1	02-OCT-2008 02:02:49	Bright	36.000	36	50Alp UMa	1.8000	6300.0	72	34454	No
24	GOM_NL__2PRFIN20081002_020420_000000522072_00332_34454_0623.N1	02-OCT-2008 02:04:20	Bright	52.000	82	48Bet UMa	2.3650	10600.	104	34454	No
25	GOM_NL__2PRFIN20081002_021413_000000362072_00332_34454_0624.N1	02-OCT-2008 02:14:13	Bright	36.000	166	17Eps Leo	2.9800	6000.0	72	34454	No
26	GOM_NL__2PRFIN20081002_022351_000000462072_00332_34454_0625.N1	02-OCT-2008 02:23:51	Twilight	46.000	48	30Alp Hya	1.9770	4100.0	92	34454	No
27	GOM_NL__2PRFIN20081002_023331_000000432072_00332_34454_0626.N1	02-OCT-2008 02:33:31	Dark	42.500	65	Lam Vel	2.2040	4400.0	85	34454	No
28	GOM_NL__2PRFIN20081002_023450_000000422072_00332_34454_0627.N1	02-OCT-2008 02:34:50	Dark	41.500	70	Zet Pup	2.2460	39000.	83	34454	No
29	GOM_NL__2PRFIN20081002_023610_000000402072_00332_34454_0628.N1	02-OCT-2008 02:36:10	Dark	40.000	34	Gam2Vel	1.7930	23000.	80	34454	No
30	GOM_NL__2PRFIN20081002_023959_000000422072_00333_34455_0632.N1	02-OCT-2008 02:39:59	Dark	41.500	161	Tau Pup	2.9310	4500.0	83	34455	No
31	GOM_NL__2PRFIN20081002_024123_000000452072_00333_34455_0633.N1	02-OCT-2008 02:41:23	Dark	45.000	2	Alp Car	-0.73600	7000.0	90	34455	No
32	GOM_NL__2PRFIN20081002_025037_000000372072_00333_34455_0634.N1	02-OCT-2008 02:50:37	Dark	37.000	143	Alp Hyi	2.8570	7200.0	74	34455	No
33	GOM_NL__2PRFIN20081002_025205_000000422072_00333_34455_0635.N1	02-OCT-2008 02:52:05	Dark	41.500	9	Alp Eri	0.45300	24000.	83	34455	No
34	GOM_NL__2PRFIN20081002_025724_000000442072_00333_34455_0636.N1	02-OCT-2008 02:57:24	Straylight	44.000	84	Alp Phe	2.3970	4500.0	88	34455	No
35	GOM_NL__2PRFIN20081002_030418_000000472072_00333_34455_0637.N1	02-OCT-2008 03:04:18	Straylight	47.000	52	16Bet Cet	2.0370	4500.0	94	34455	No
36	GOM_NL__2PRFIN20081002_031427_000000362072_00333_34455_0638.N1	02-OCT-2008 03:14:27	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	34455	No
37	GOM_NL__2PRFIN20081002_031804_000000382072_00333_34455_0639.N1	02-OCT-2008 03:18:04	Bright	38.000	93	53Bet Peg	2.5200	3100.0	76	34455	No
38	GOM_NL__2PRFIN20081002_032724_000000362072_00333_34455_0640.N1	02-OCT-2008 03:27:24	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	34455	No
39	GOM_NL__2PRFIN20081002_032842_000000392072_00333_34455_0641.N1	02-OCT-2008 03:28:42	Bright	38.500	76	27Gam Cas	2.3000	30000.	77	34455	No
40	GOM_NL__2PRFIN20081002_033526_000000372072_00333_34455_0642.N1	02-OCT-2008 03:35:26	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	34455	No
41	GOM_NL__2PRFIN20081002_034325_000000352072_00333_34455_0643.N1	02-OCT-2008 03:43:25	Bright	34.500	36	50Alp UMa	1.8000	6300.0	69	34455	No
42	GOM_NL__2PRFIN20081002_034456_000000342072_00333_34455_0644.N1	02-OCT-2008 03:44:56	Bright	34.000	82	48Bet UMa	2.3650	10600.	68	34455	No





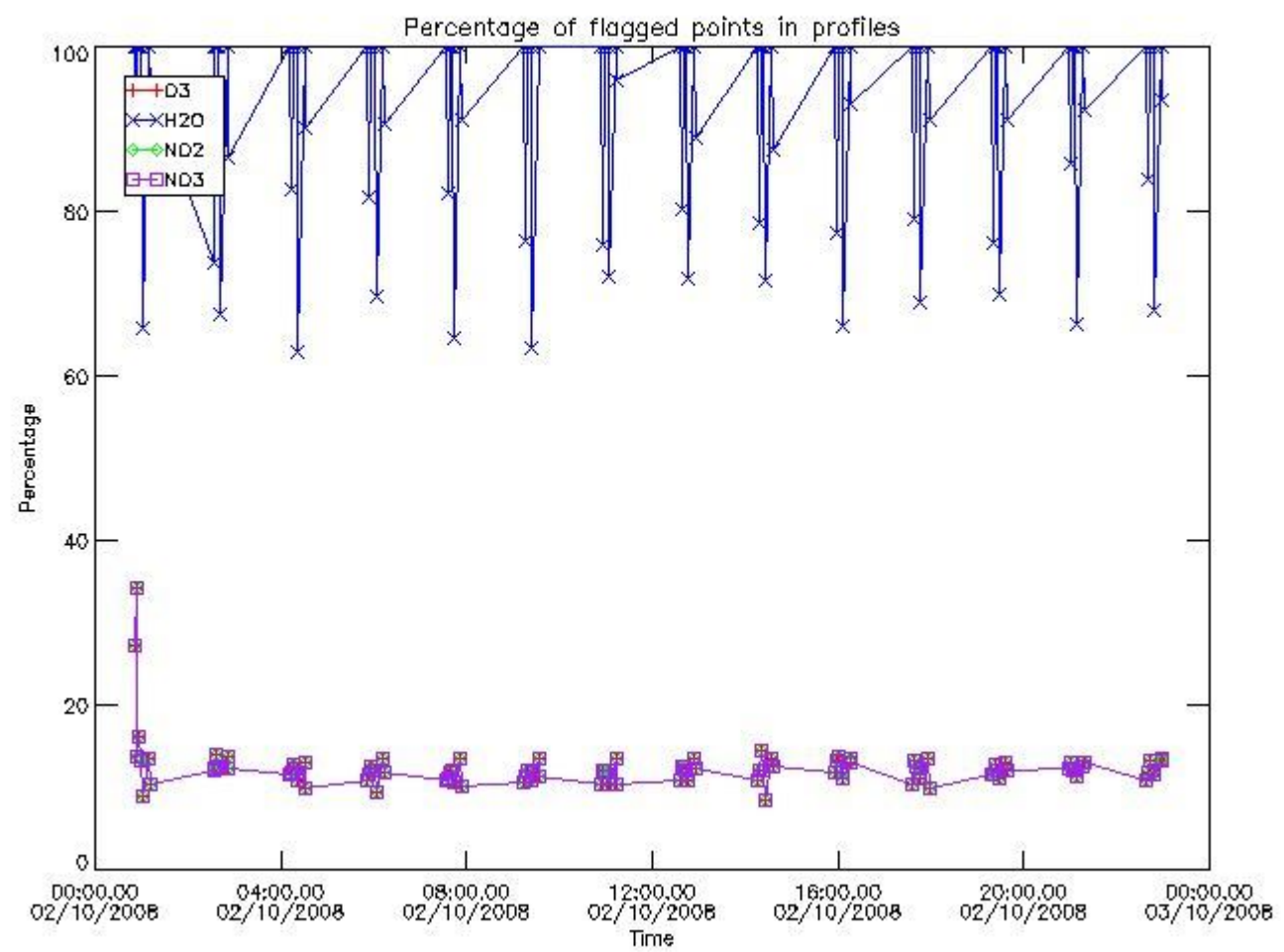


220	GOM_NL__2PRFIN20081002_201438_000000402072_00343_34465_0884.N1	02-OCT-2008 20:14:38	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	34465	No
221	GOM_NL__2PRFIN20081002_202125_000000362072_00343_34465_0885.N1	02-OCT-2008 20:21:25	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34465	No
222	GOM_NL__2PRFIN20081002_202926_000000372072_00343_34465_0886.N1	02-OCT-2008 20:29:26	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34465	No
223	GOM_NL__2PRFIN20081002_203056_000000362072_00343_34465_0887.N1	02-OCT-2008 20:30:56	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	34465	No
224	GOM_NL__2PRFIN20081002_204051_000000362072_00343_34465_0888.N1	02-OCT-2008 20:40:51	Bright	35.500	166	17Eps Leo	2.9800	6000.0	71	34465	No
225	GOM_NL__2PRFIN20081002_205031_000000482072_00343_34465_0889.N1	02-OCT-2008 20:50:31	Twilight	48.000	48	30Alp Hya	1.9770	4100.0	96	34465	No
226	GOM_NL__2PRFIN20081002_205749_000000462072_00343_34465_0890.N1	02-OCT-2008 20:57:49	Dark	45.500	132	15Rho Pup	2.8030	6900.0	91	34465	No
227	GOM_NL__2PRFIN20081002_210011_000000392072_00343_34465_0891.N1	02-OCT-2008 21:00:11	Dark	39.000	65	Lam Vel	2.2040	4400.0	78	34465	No
228	GOM_NL__2PRFIN20081002_210252_000000422072_00343_34465_0892.N1	02-OCT-2008 21:02:52	Dark	42.000	34	Gam2Vel	1.7930	23000.	84	34465	No
229	GOM_NL__2PRFIN20081002_210643_000000422072_00344_34466_0896.N1	02-OCT-2008 21:06:43	Dark	42.000	161	Tau Pup	2.9310	4500.0	84	34466	No
230	GOM_NL__2PRFIN20081002_210807_000000452072_00344_34466_0897.N1	02-OCT-2008 21:08:07	Dark	45.000	2	Alp Car	-0.73600	7000.0	90	34466	No
231	GOM_NL__2PRFIN20081002_211717_000000412072_00344_34466_0898.N1	02-OCT-2008 21:17:17	Dark	40.500	143	Alp Hyi	2.8570	7200.0	81	34466	No
232	GOM_NL__2PRFIN20081002_211844_000000392072_00344_34466_0899.N1	02-OCT-2008 21:18:44	Dark	39.000	9	Alp Eri	0.45300	24000.	78	34466	No
233	GOM_NL__2PRFIN20081002_212403_000000422072_00344_34466_0900.N1	02-OCT-2008 21:24:03	Straylight	42.000	84	Alp Phe	2.3970	4500.0	84	34466	No
234	GOM_NL__2PRFIN20081002_213055_000000482072_00344_34466_0901.N1	02-OCT-2008 21:30:55	Straylight	48.000	52	16Bet Cet	2.0370	4500.0	96	34466	No
235	GOM_NL__2PRFIN20081002_214103_000000362072_00344_34466_0902.N1	02-OCT-2008 21:41:03	Bright	35.500	90	54Alp Peg	2.4870	11000.	71	34466	No
236	GOM_NL__2PRFIN20081002_214440_000000372072_00344_34466_0903.N1	02-OCT-2008 21:44:40	Bright	37.000	93	53Bet Peg	2.5200	3100.0	74	34466	No
237	GOM_NL__2PRFIN20081002_215357_000000382072_00344_34466_0904.N1	02-OCT-2008 21:53:57	Bright	38.000	74	11Bet Cas	2.2680	6600.0	76	34466	No
238	GOM_NL__2PRFIN20081002_215513_000000402072_00344_34466_0905.N1	02-OCT-2008 21:55:13	Bright	40.000	76	27Gam Cas	2.3000	30000.	80	34466	No
239	GOM_NL__2PRFIN20081002_220201_000000362072_00344_34466_0906.N1	02-OCT-2008 22:02:01	Bright	36.000	49	1Alp UMi	1.9900	6300.0	72	34466	No
240	GOM_NL__2PRFIN20081002_221002_000000372072_00344_34466_0907.N1	02-OCT-2008 22:10:02	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34466	No
241	GOM_NL__2PRFIN20081002_221132_000000522072_00344_34466_0908.N1	02-OCT-2008 22:11:32	Bright	52.000	82	48Bet UMa	2.3650	10600.	104	34466	No
242	GOM_NL__2PRFIN20081002_222127_000000362072_00344_34466_0909.N1	02-OCT-2008 22:21:27	Bright	36.000	166	17Eps Leo	2.9800	6000.0	72	34466	No
243	GOM_NL__2PRFIN20081002_223107_000000502072_00344_34466_0910.N1	02-OCT-2008 22:31:07	Twilight	49.500	48	30Alp Hya	1.9770	4100.0	99	34466	No
244	GOM_NL__2PRFIN20081002_223826_000000472072_00344_34466_0911.N1	02-OCT-2008 22:38:26	Dark	46.500	132	15Rho Pup	2.8030	6900.0	93	34466	No
245	GOM_NL__2PRFIN20081002_224047_000000442072_00344_34466_0912.N1	02-OCT-2008 22:40:47	Dark	43.500	65	Lam Vel	2.2040	4400.0	87	34466	No
246	GOM_NL__2PRFIN20081002_224328_000000422072_00344_34466_0913.N1	02-OCT-2008 22:43:28	Dark	42.000	34	Gam2Vel	1.7930	23000.	84	34466	No
247	GOM_NL__2PRFIN20081002_224719_000000432072_00345_34467_0921.N1	02-OCT-2008 22:47:19	Dark	42.500	161	Tau Pup	2.9310	4500.0	85	34467	No
248	GOM_NL__2PRFIN20081002_224844_000000442072_00345_34467_0922.N1	02-OCT-2008 22:48:44	Dark	44.000	2	Alp Car	-0.73600	7000.0	88	34467	No
249	GOM_NL__2PRFIN20081002_225753_000000382072_00345_34467_0923.N1	02-OCT-2008 22:57:53	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	34467	No
250	GOM_NL__2PRFIN20081002_225921_000000392072_00345_34467_0924.N1	02-OCT-2008 22:59:21	Dark	38.500	9	Alp Eri	0.45300	24000.	77	34467	No
251	GOM_NL__2PRFIN20081002_230439_000000412072_00345_34467_0925.N1	02-OCT-2008 23:04:39	Straylight	41.000	84	Alp Phe	2.3970	4500.0	82	34467	No
252	GOM_NL__2PRFIN20081002_231131_000000482072_00345_34467_0926.N1	02-OCT-2008 23:11:31	Straylight	47.500	52	16Bet Cet	2.0370	4500.0	95	34467	No
253	GOM_NL__2PRFIN20081002_232139_000000362072_00345_34467_0927.N1	02-OCT-2008 23:21:39	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	34467	No
254	GOM_NL__2PRFIN20081002_232516_000000372072_00345_34467_0928.N1	02-OCT-2008 23:25:16	Bright	37.000	93	53Bet Peg	2.5200	3100.0	74	34467	No
255	GOM_NL__2PRFIN20081002_233433_000000382072_00345_34467_0929.N1	02-OCT-2008 23:34:33	Bright	37.500	74	11Bet Cas	2.2680	6600.0	75	34467	No
256	GOM_NL__2PRFIN20081002_233549_000000392072_00345_34467_0930.N1	02-OCT-2008 23:35:49	Bright	39.000	76	27Gam Cas	2.3000	30000.	78	34467	No
257	GOM_NL__2PRFIN20081002_234237_000000402072_00345_34467_0931.N1	02-OCT-2008 23:42:37	Bright	39.500	49	1Alp UMi	1.9900	6300.0	79	34467	No
258	GOM_NL__2PRFIN20081002_235038_000000372072_00345_34467_0932.N1	02-OCT-2008 23:50:38	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	34467	No
259	GOM_NL__2PRFIN20081002_235208_000000342072_00345_34467_0933.N1	02-OCT-2008 23:52:08	Bright	33.500	82	48Bet UMa	2.3650	10600.	67	34467	No

### 3. Quality information per product

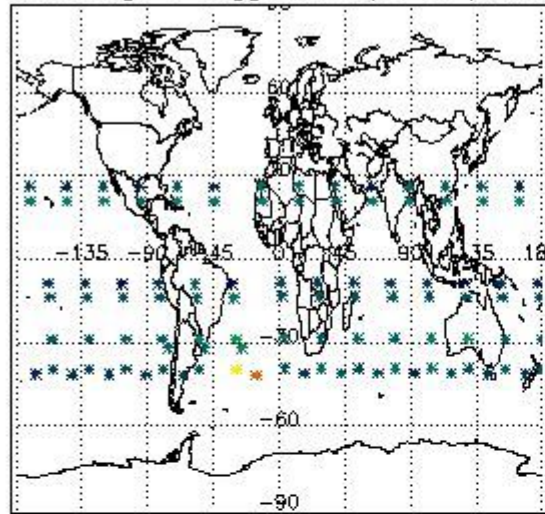
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

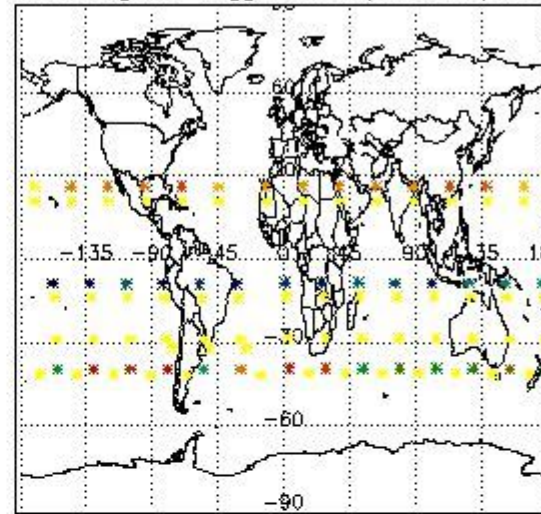


3.2 Plot quality information per product (world map)

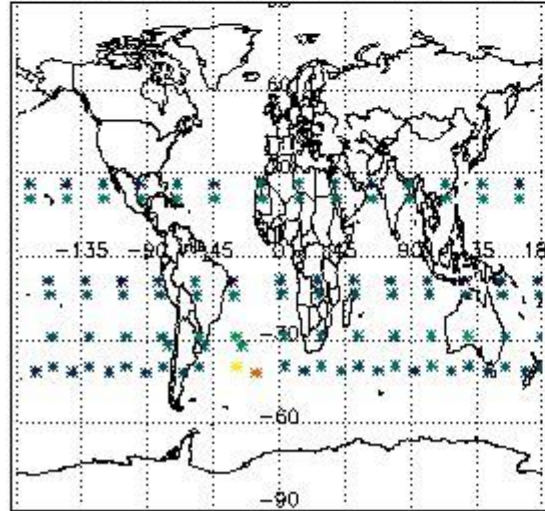
Percentage of flagged data per O3 profile



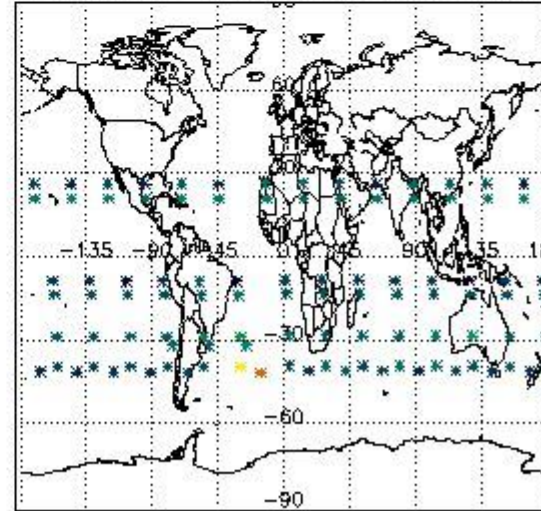
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



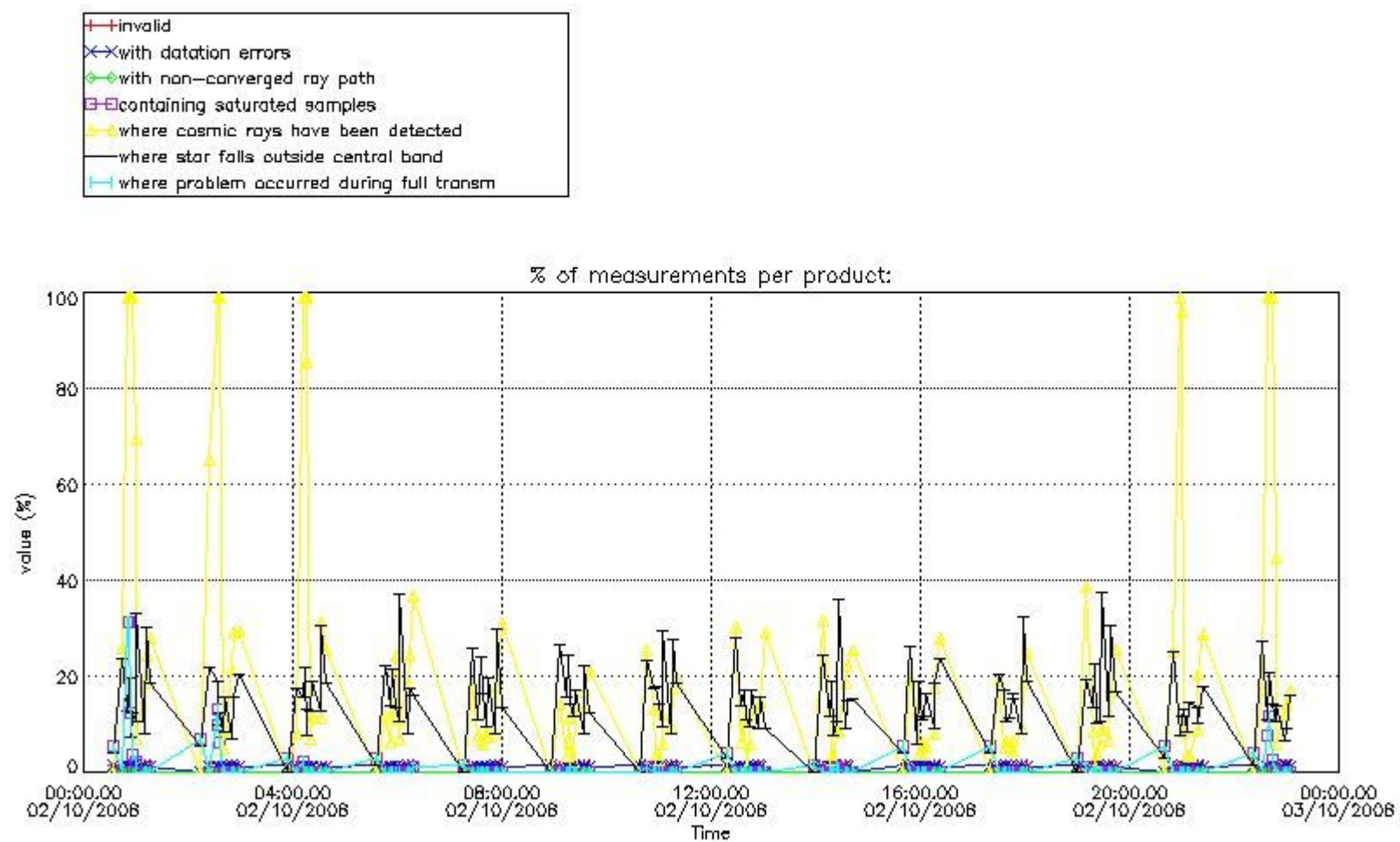
#### 4. Level 1 quality information per product

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

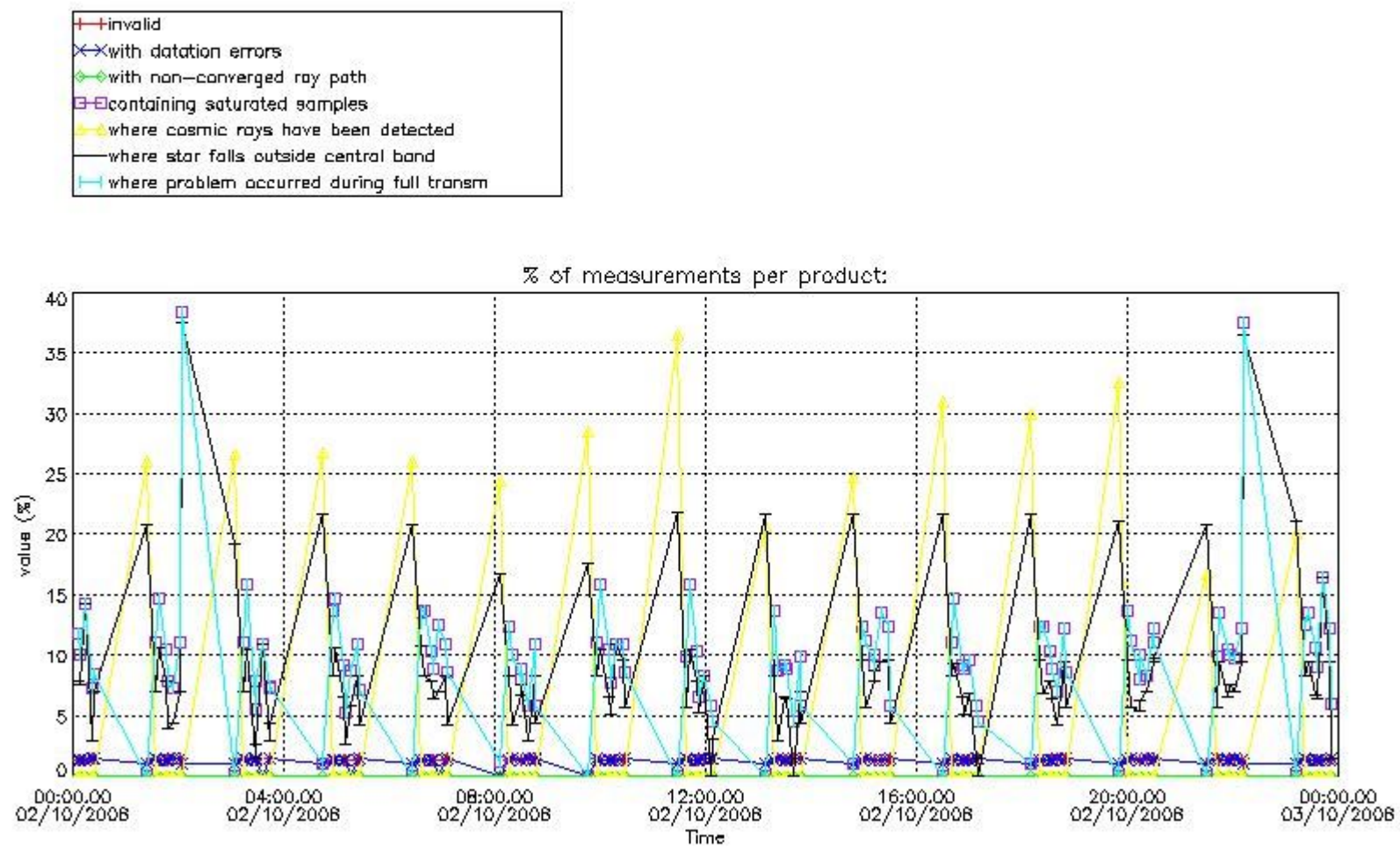
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





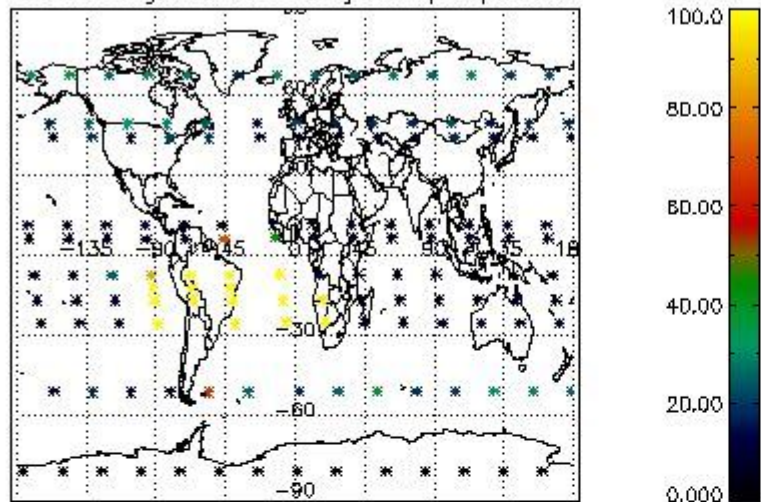
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



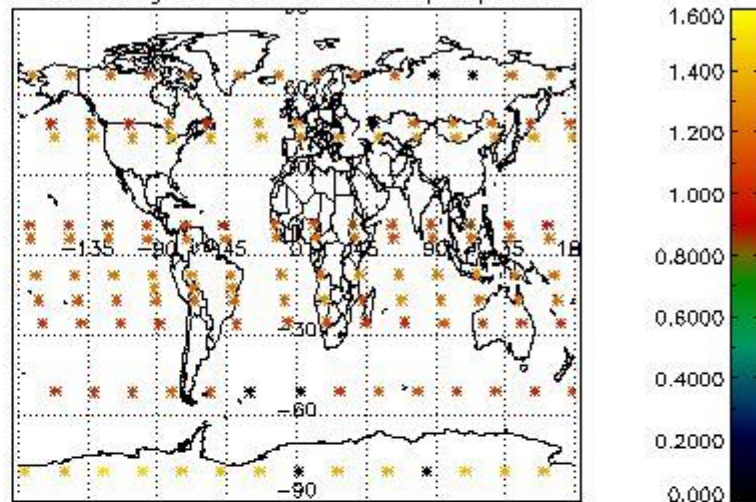
4.2 Plot quality information per product coming from level 1b processing (world map)

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

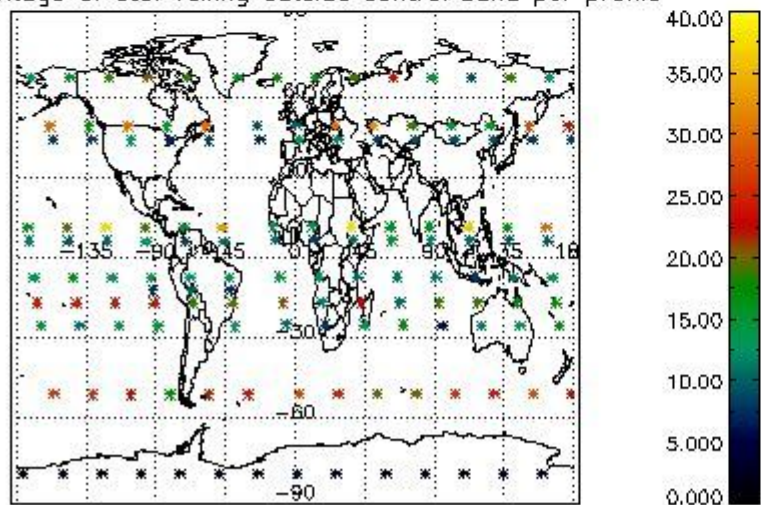
Percentage of cosmic ray hits per profile



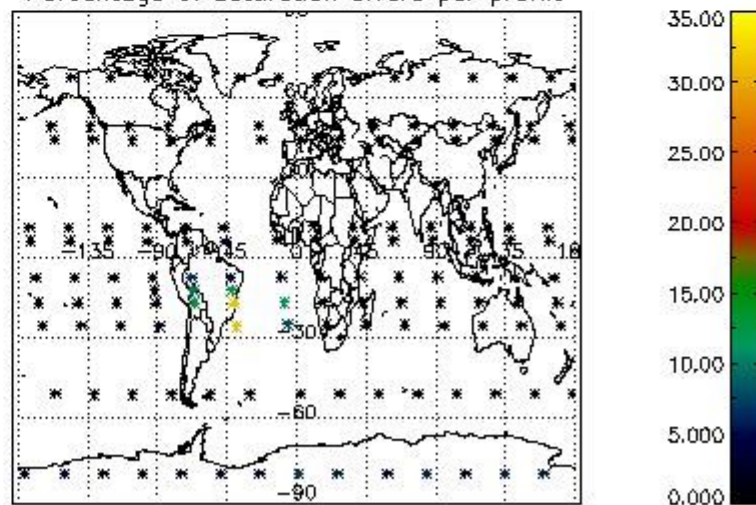
Percentage of datation errors per profile



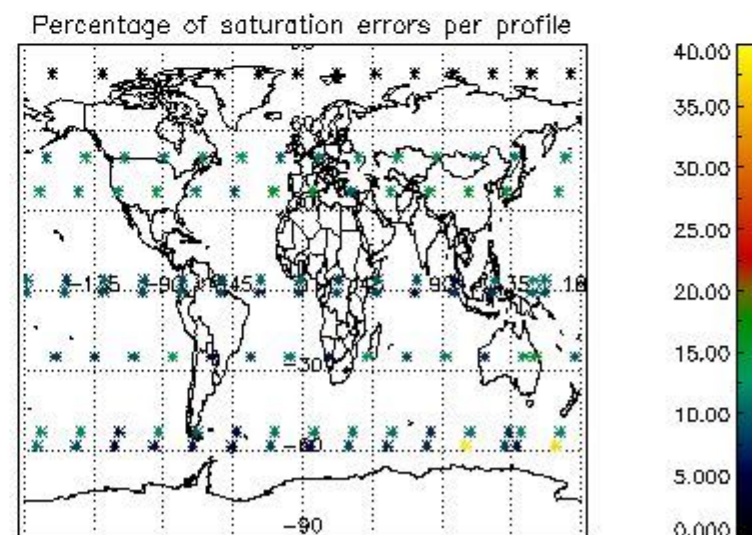
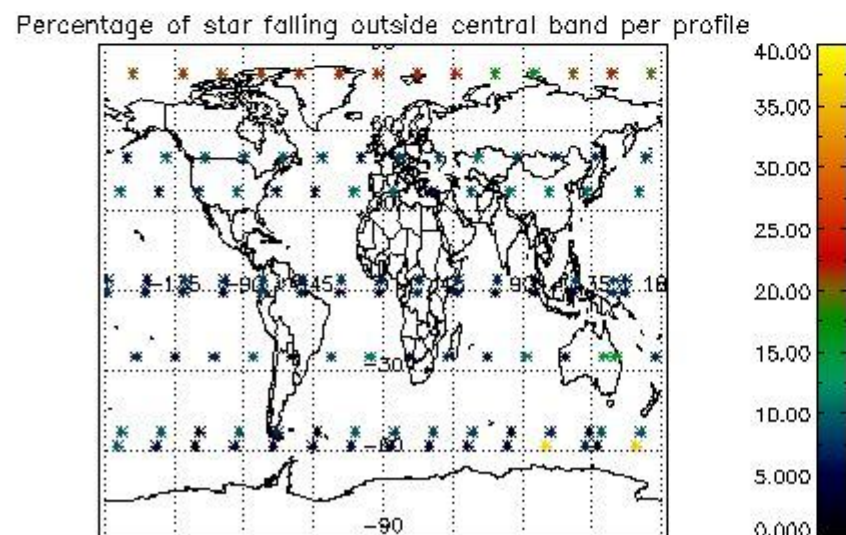
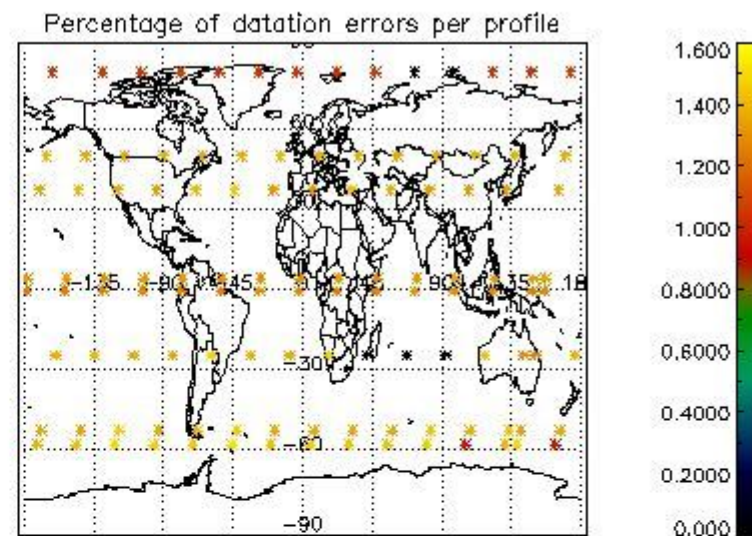
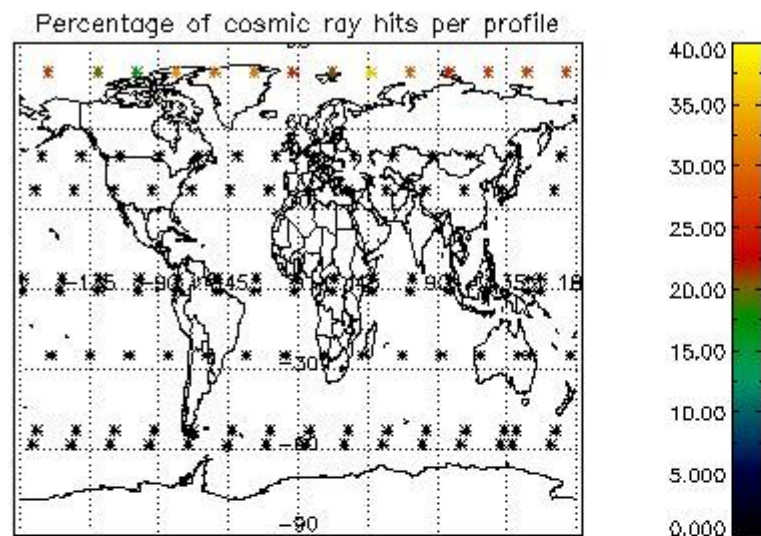
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

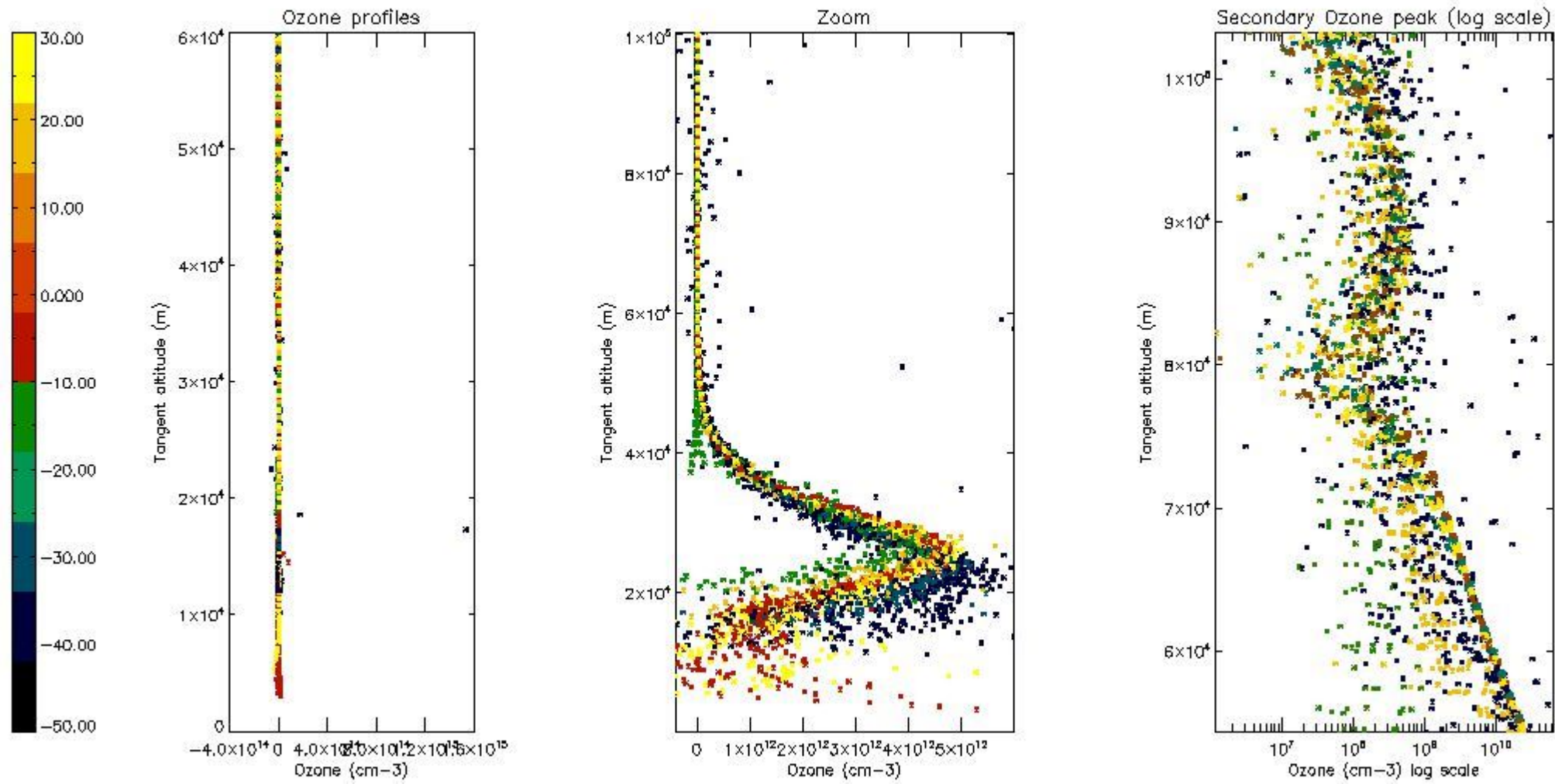
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	42
STD < 20	21

STD < 10	15
STD < 5	10

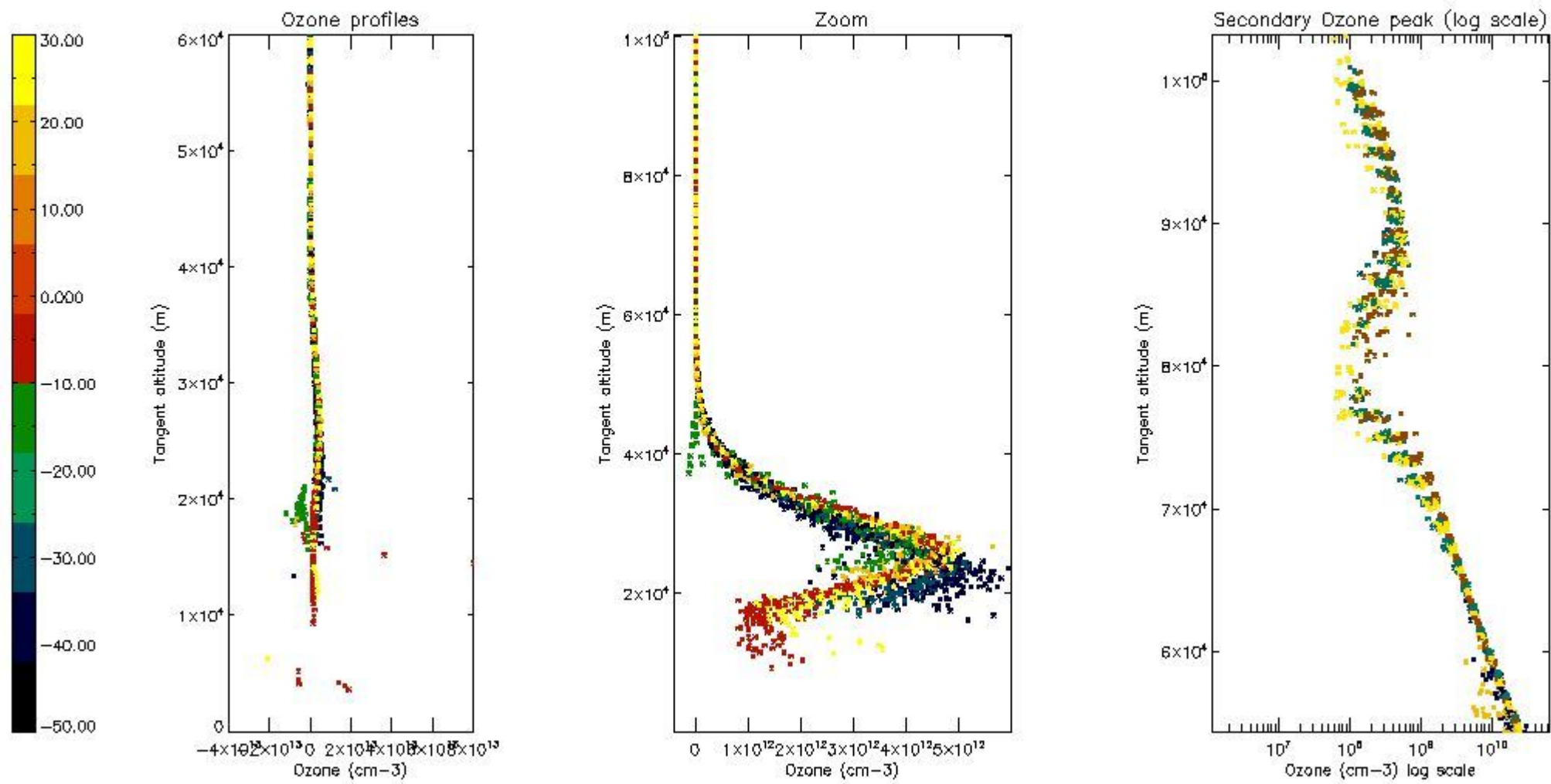
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



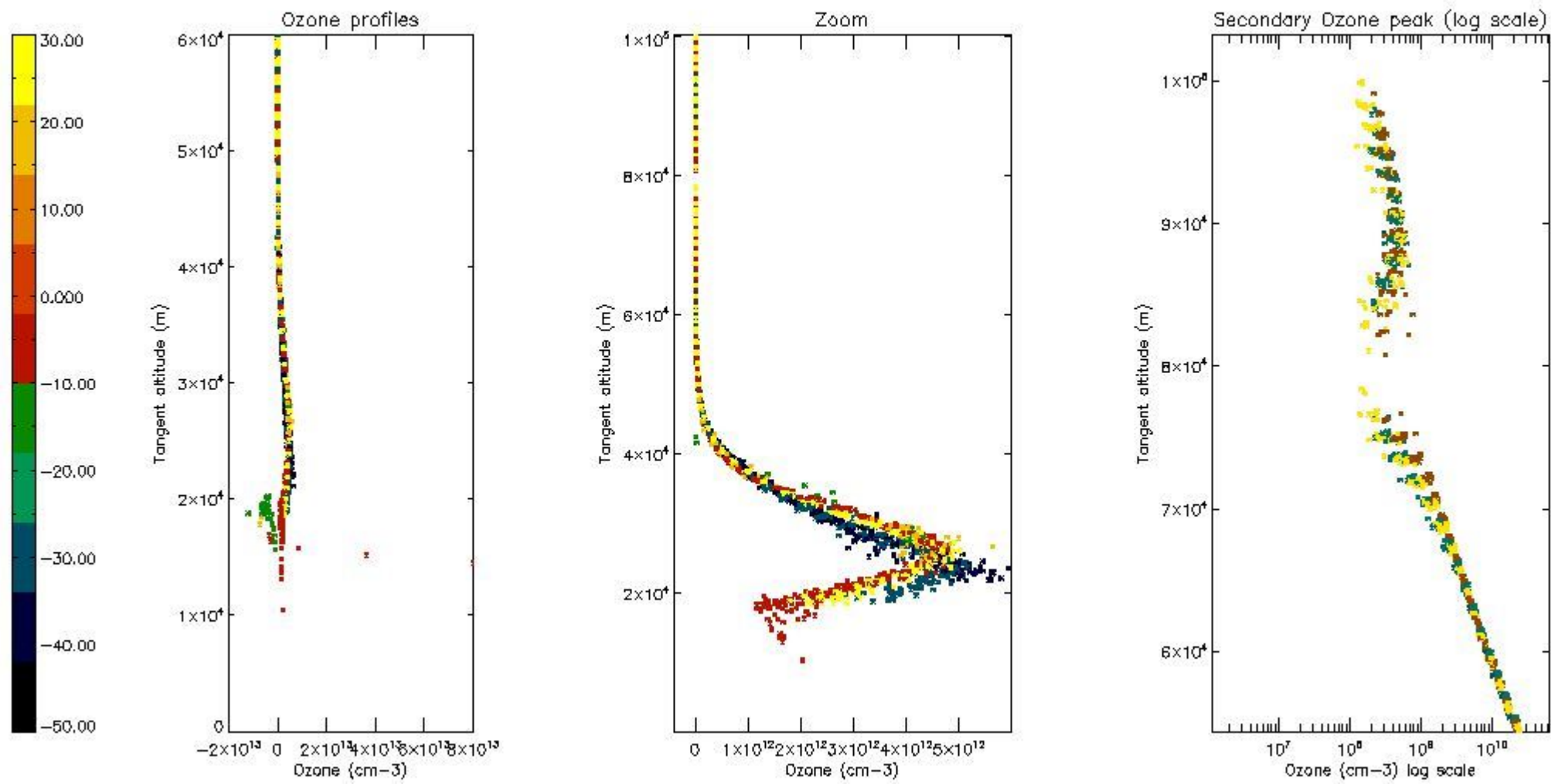
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



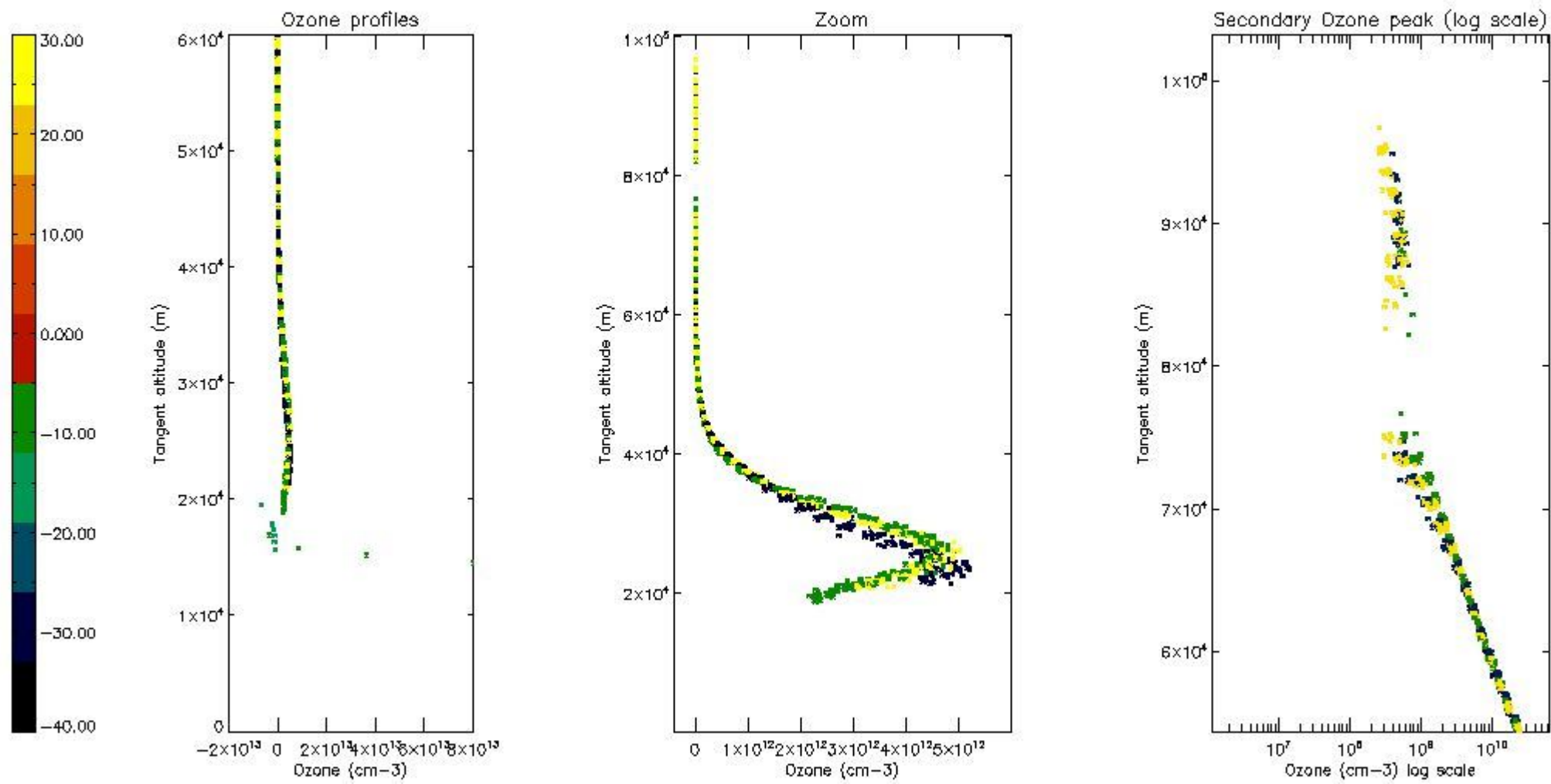
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

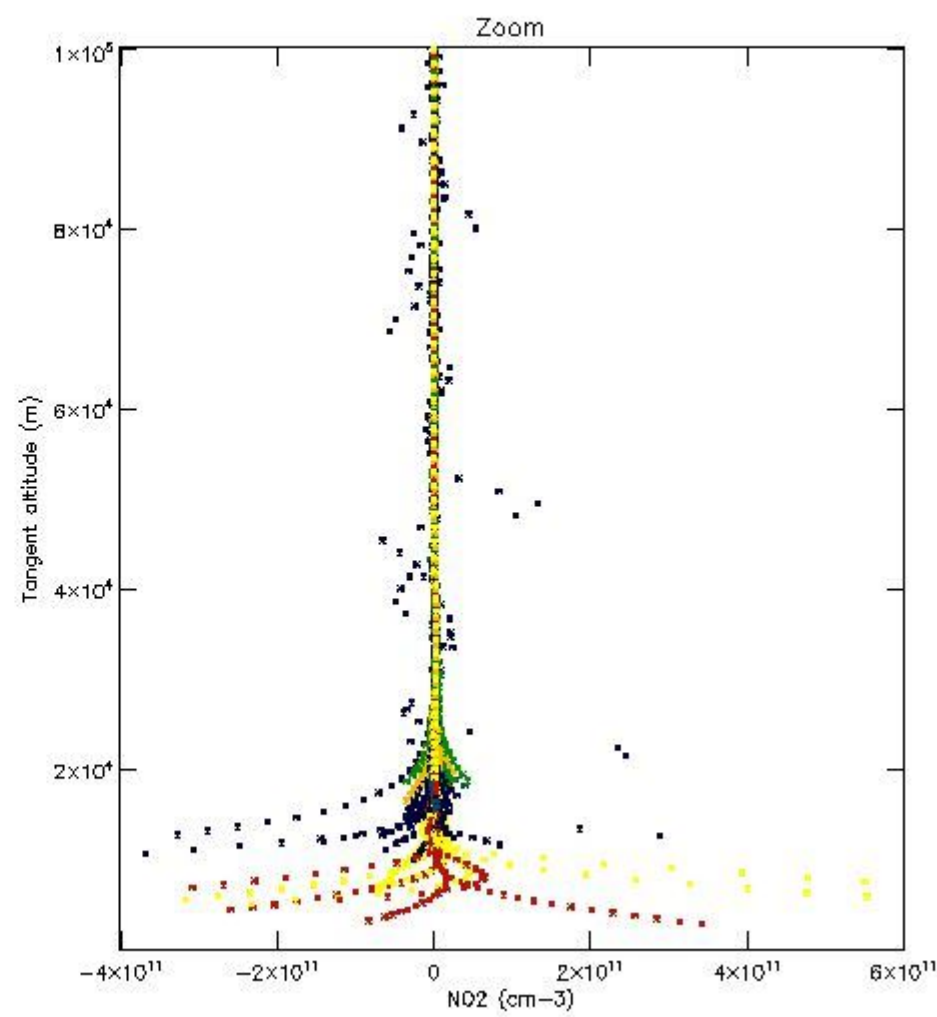
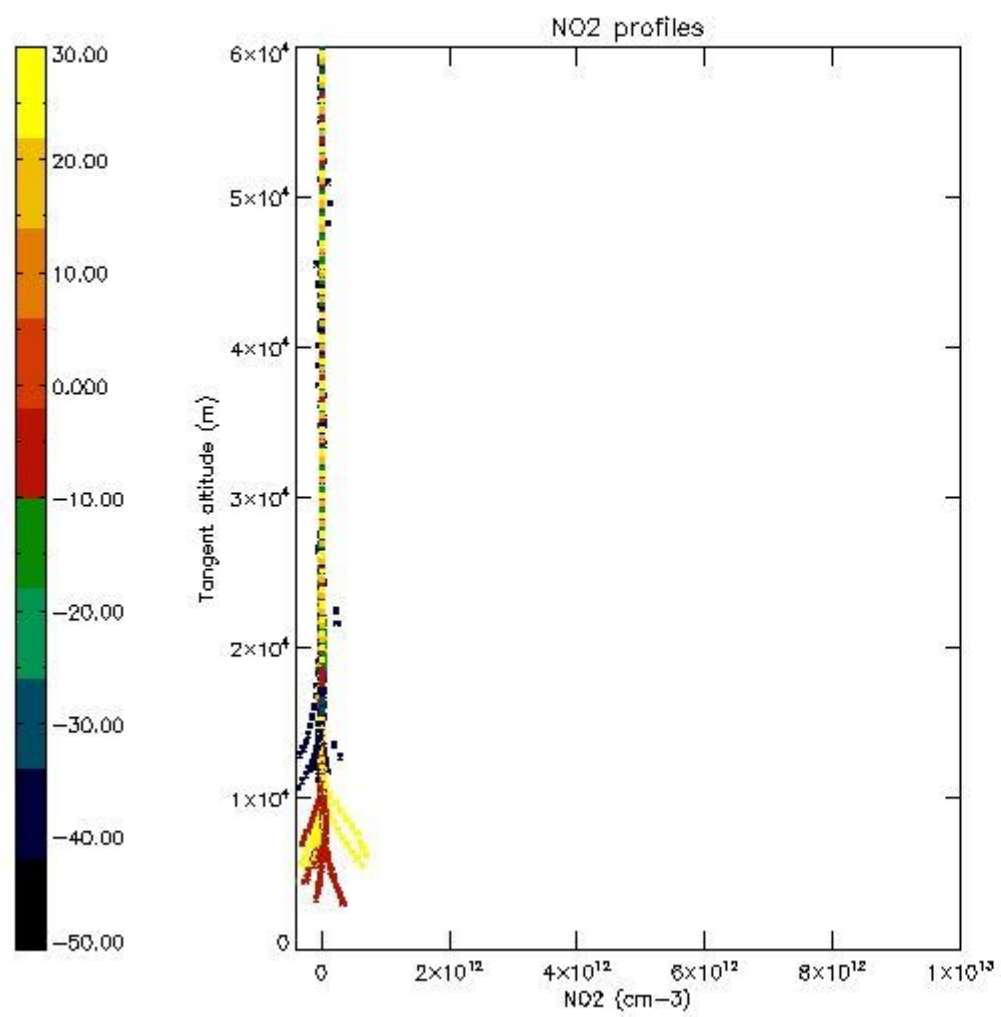
The colorbar represents the latitude.



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

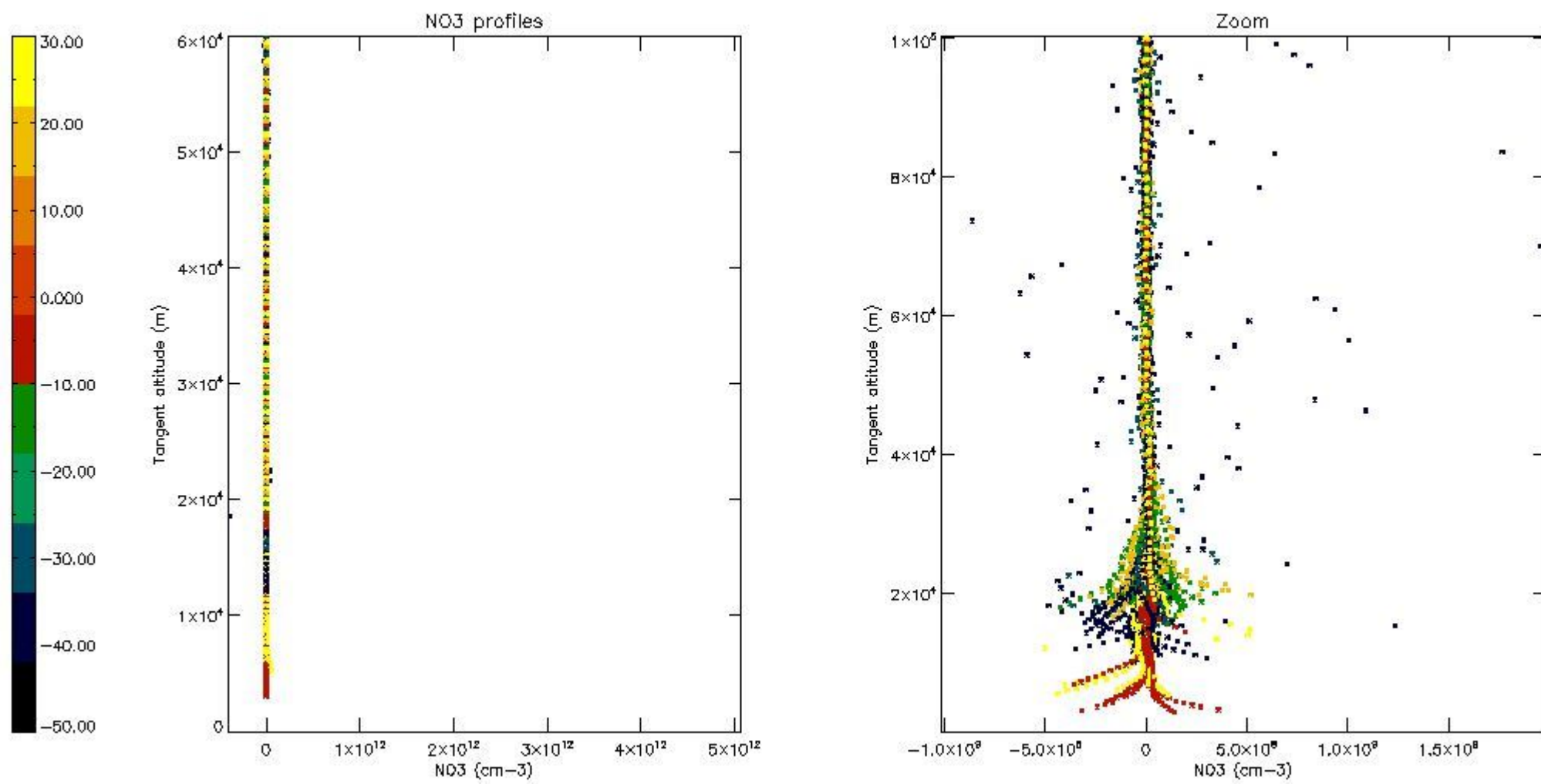
The colorbar represents the latitude.





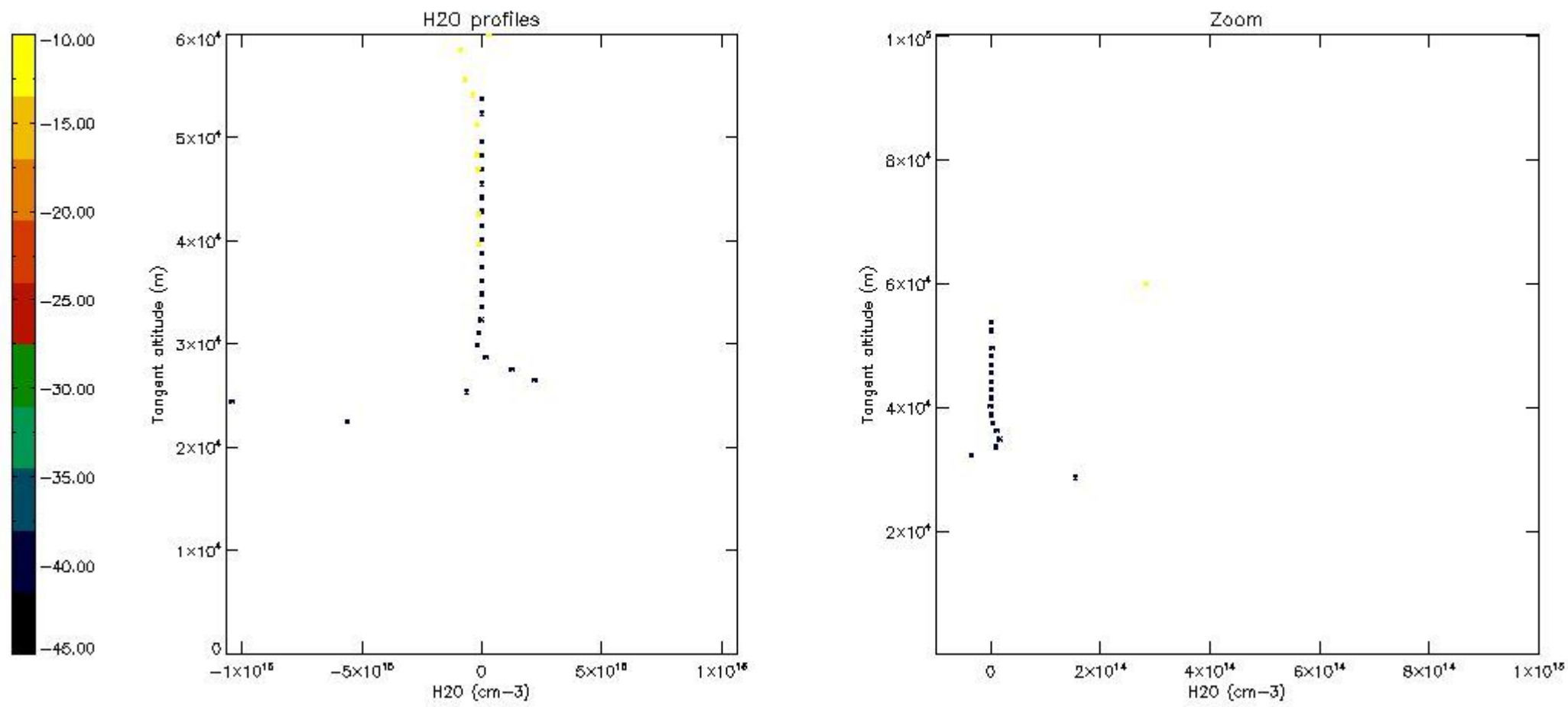
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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-2008 00:06:13
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	02-OCT-2008 00:06:13
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	02-OCT-2008 00:06:13

# GOMOS Level 2 Daily Report

## SUMMARY

### [1. General Info](#)

### [2. Summary of processed GOM\\_NL\\_2P products](#)

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

#### [3.1 Plot of level 2 quality information per product \(time dependant\)](#)

#### [3.2 Plot of level 2 quality information per product \(world map\)](#)

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

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

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

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

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

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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](#)

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

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

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

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

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

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

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

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



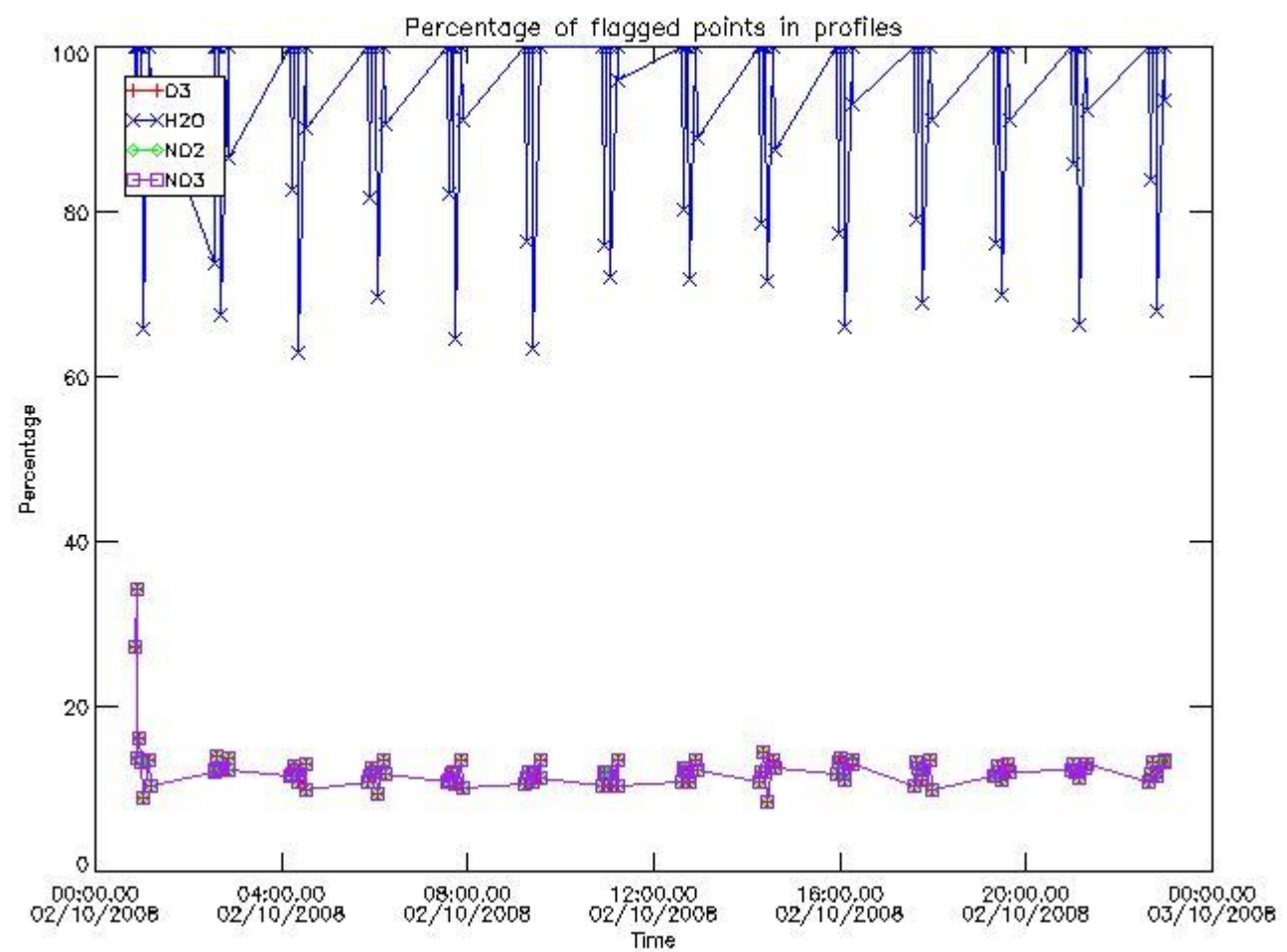






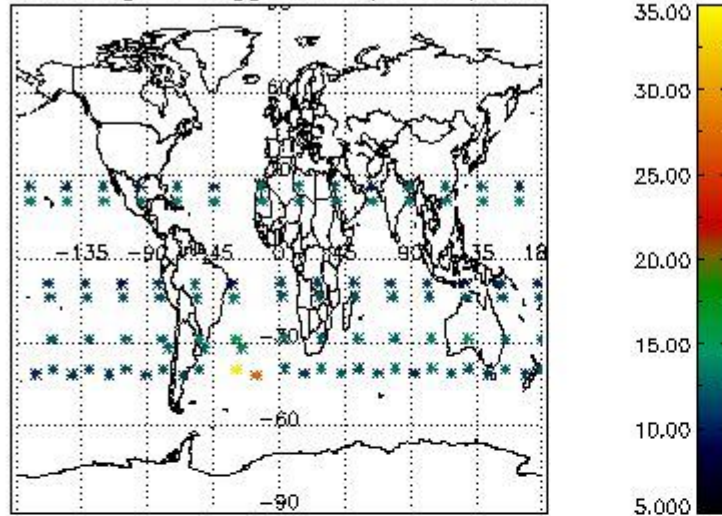




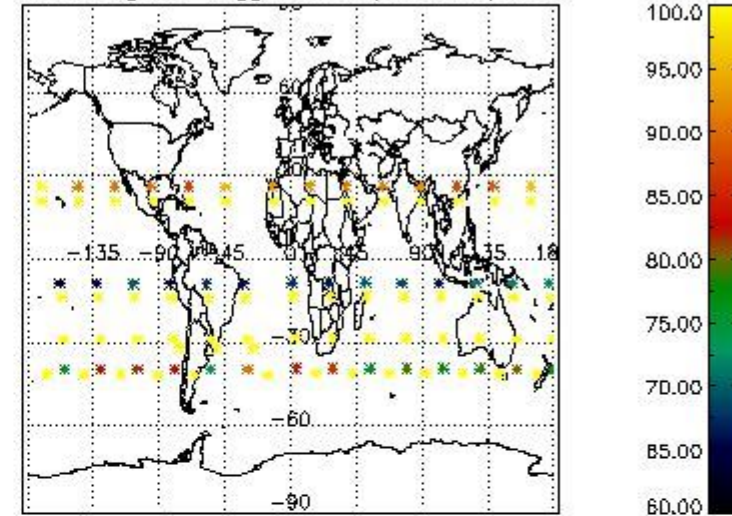


3.2 Plot quality information per product (world map)

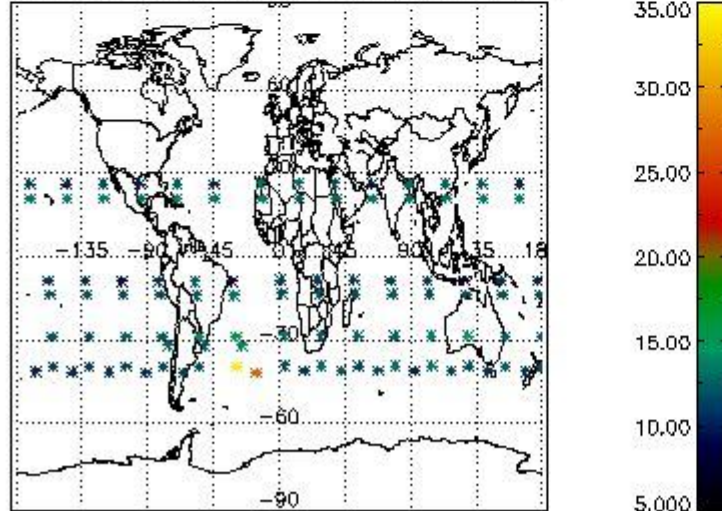
Percentage of flagged data per O3 profile



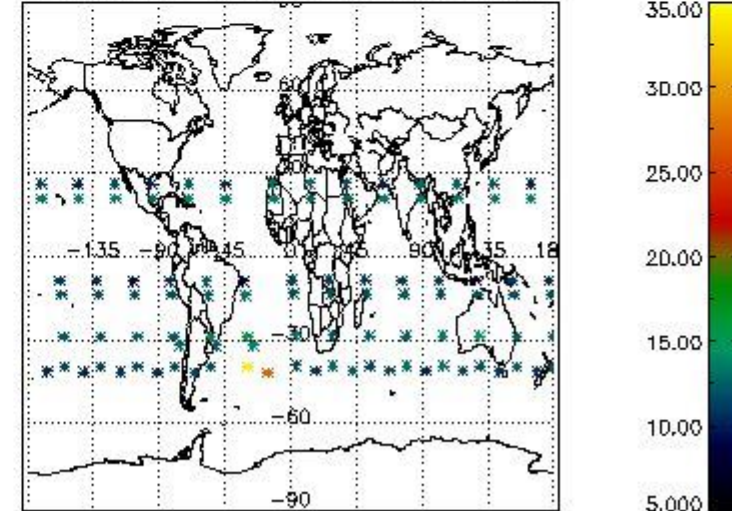
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

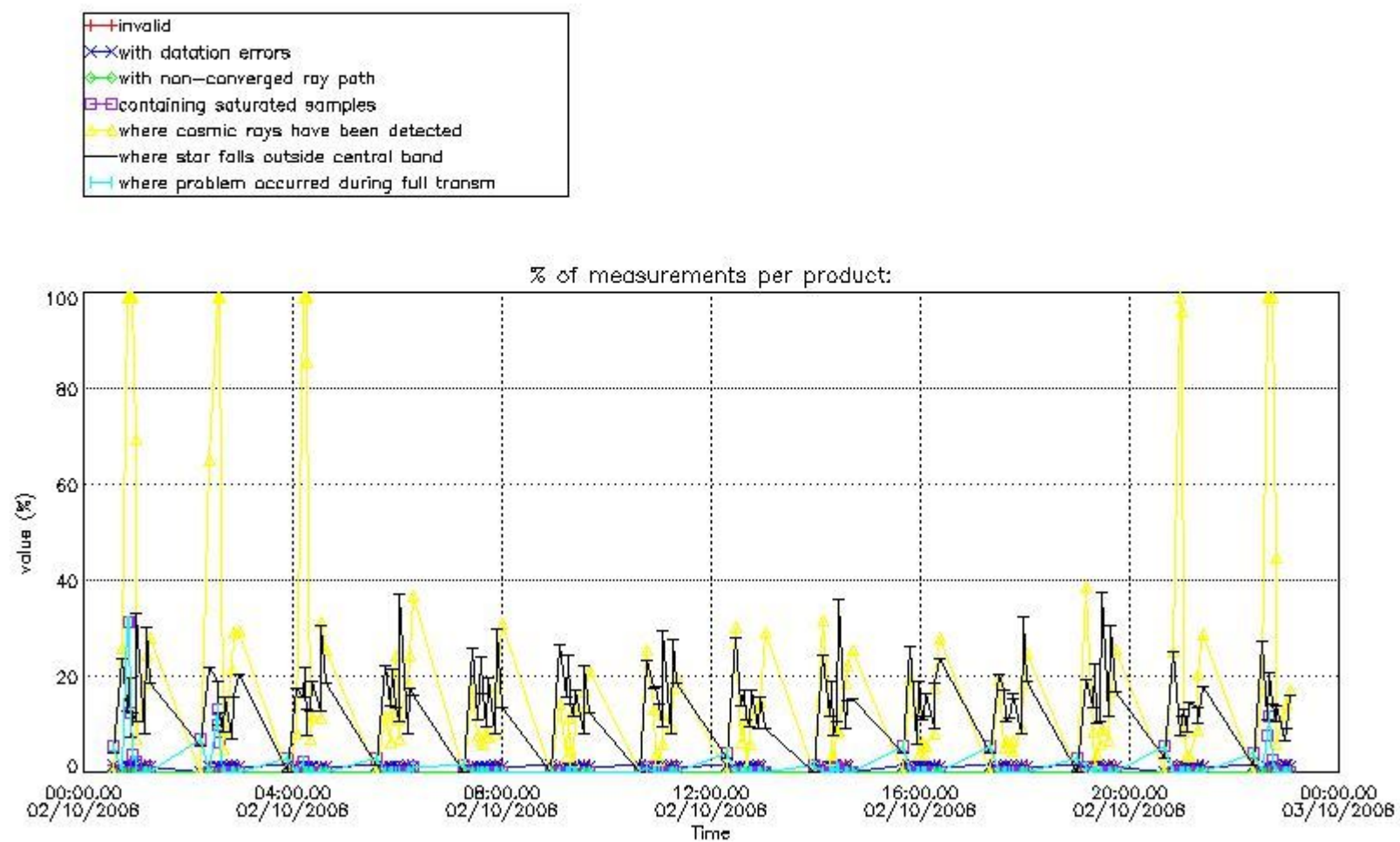


#### 4. Level 1 quality information per product

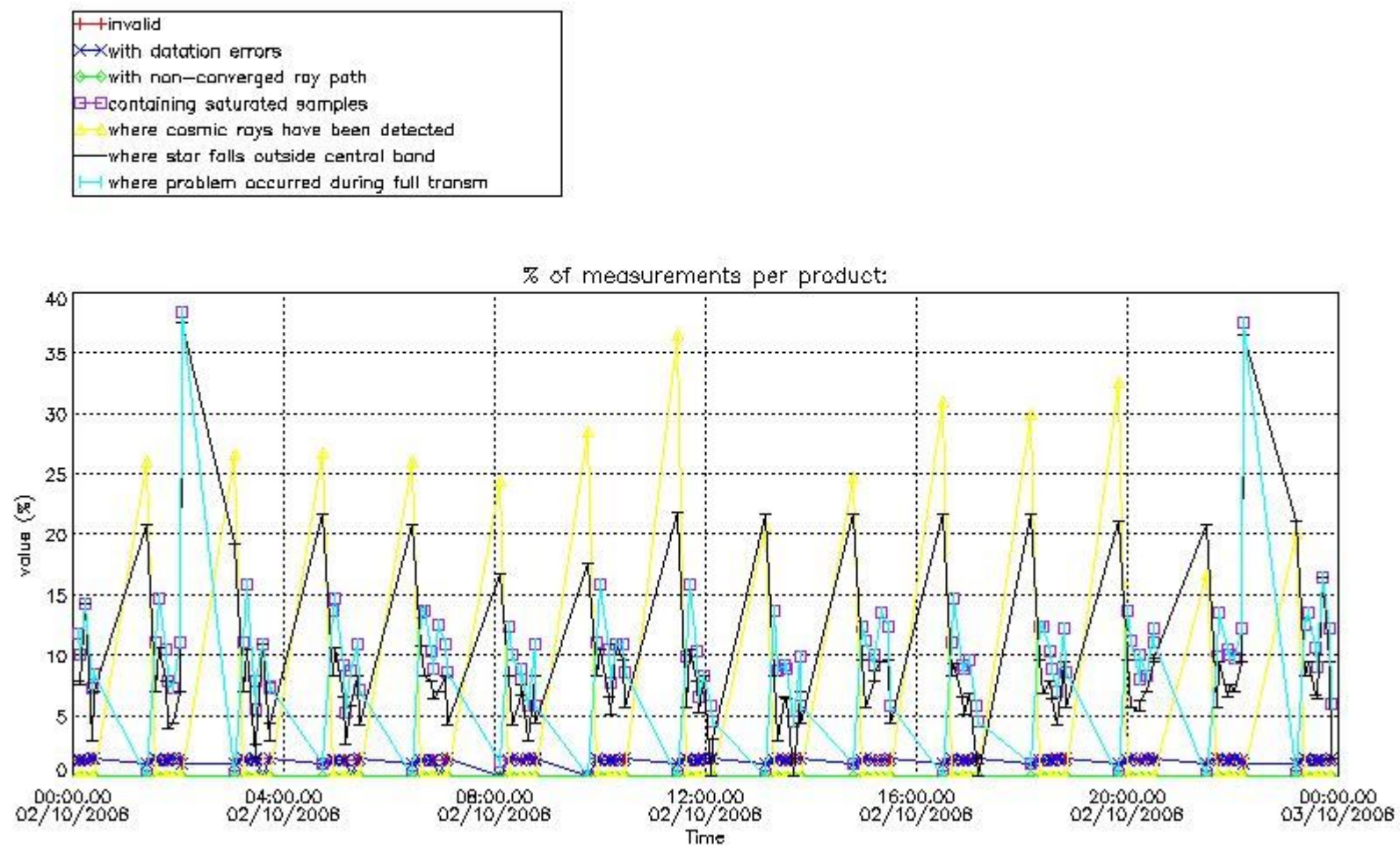
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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



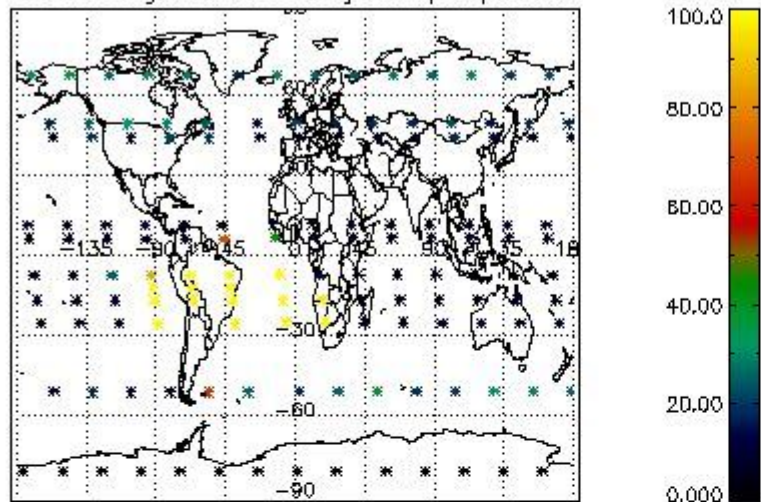
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



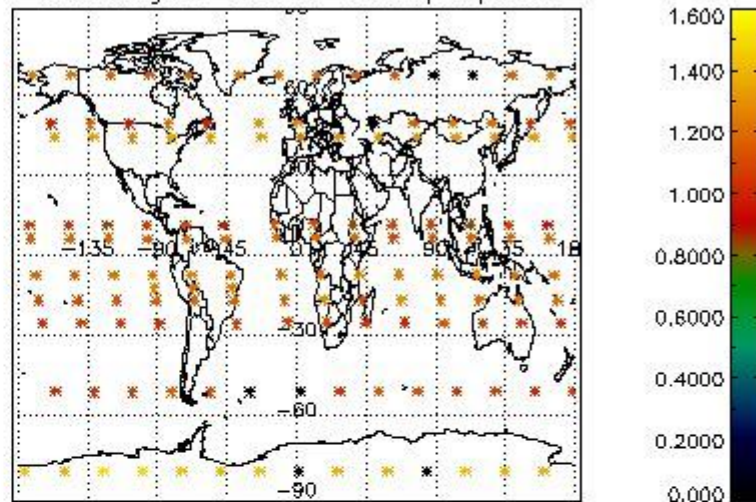
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

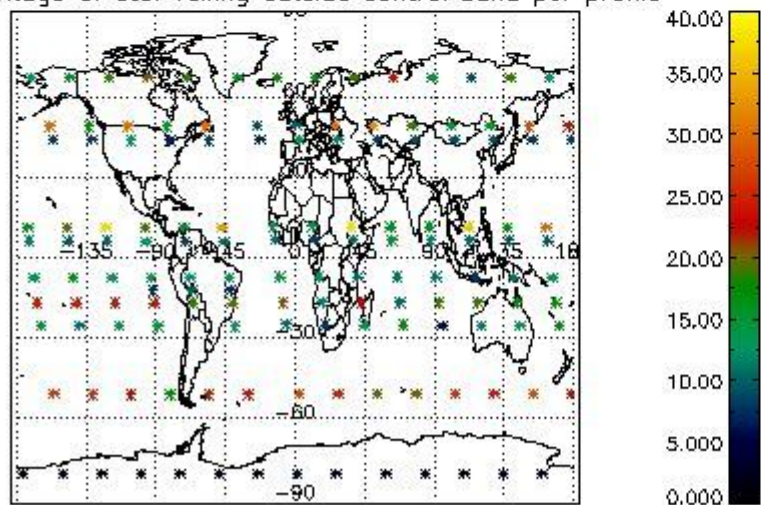
Percentage of cosmic ray hits per profile



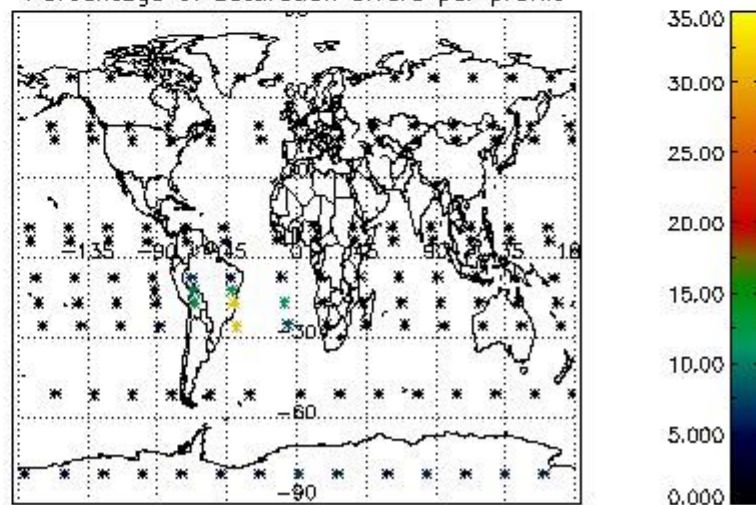
Percentage of datation errors per profile



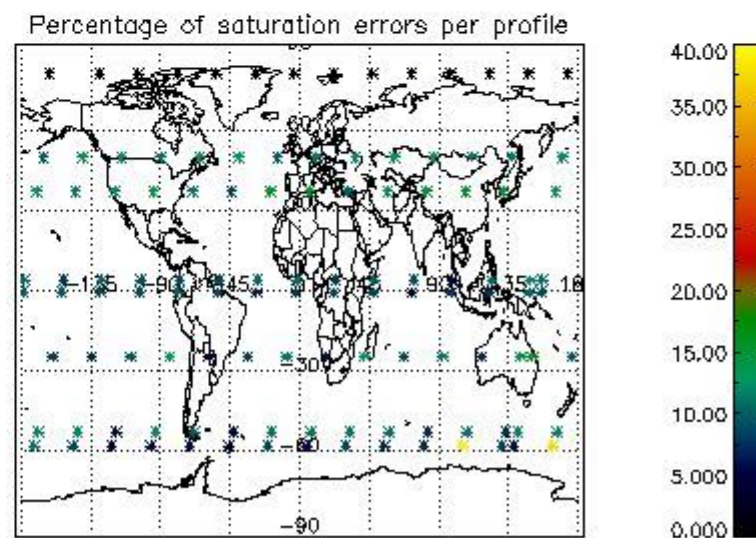
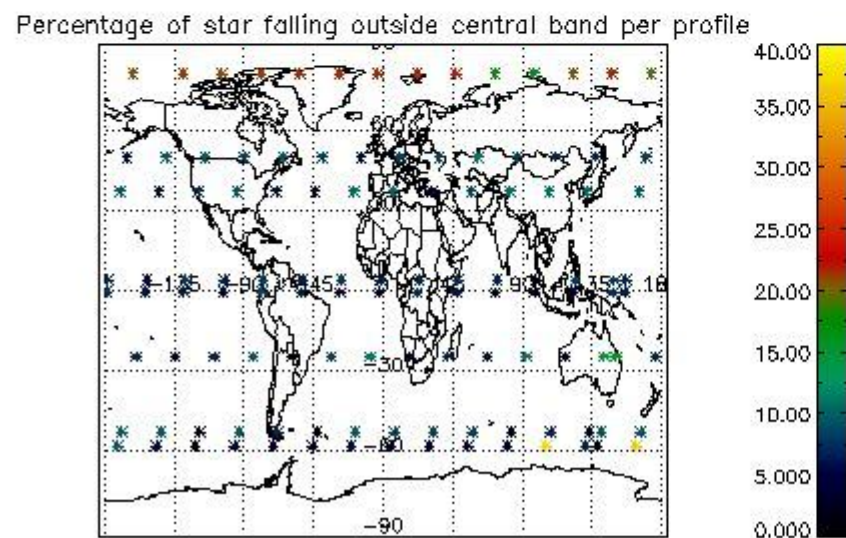
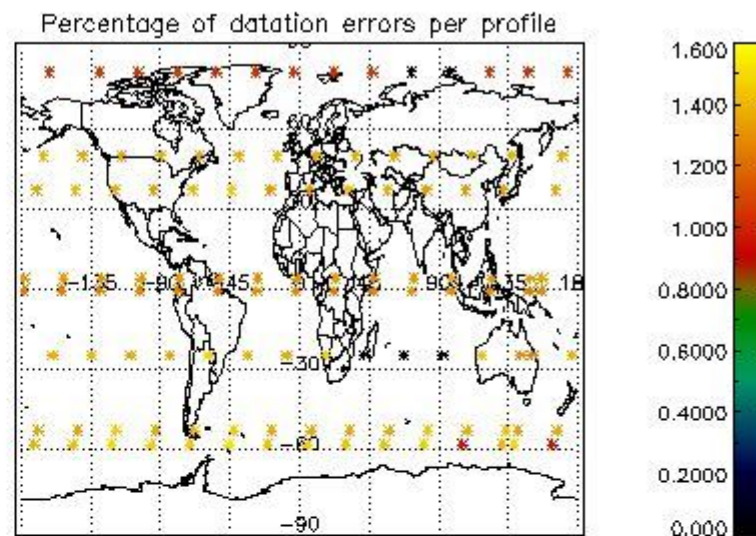
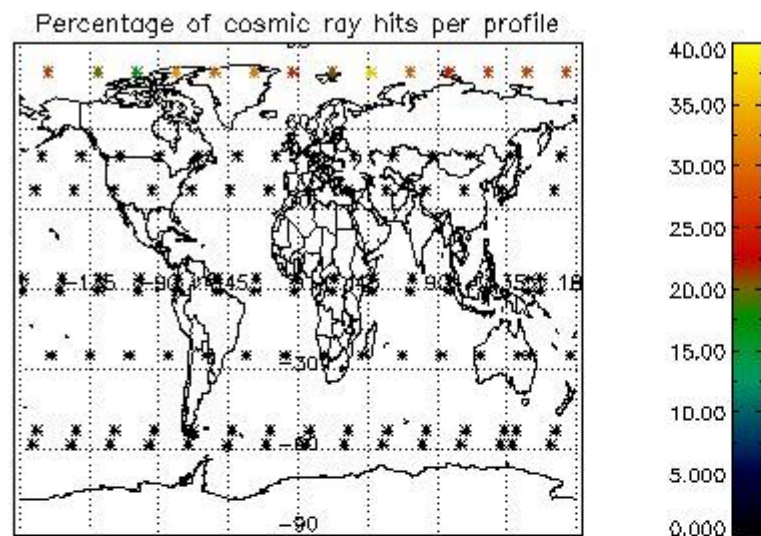
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

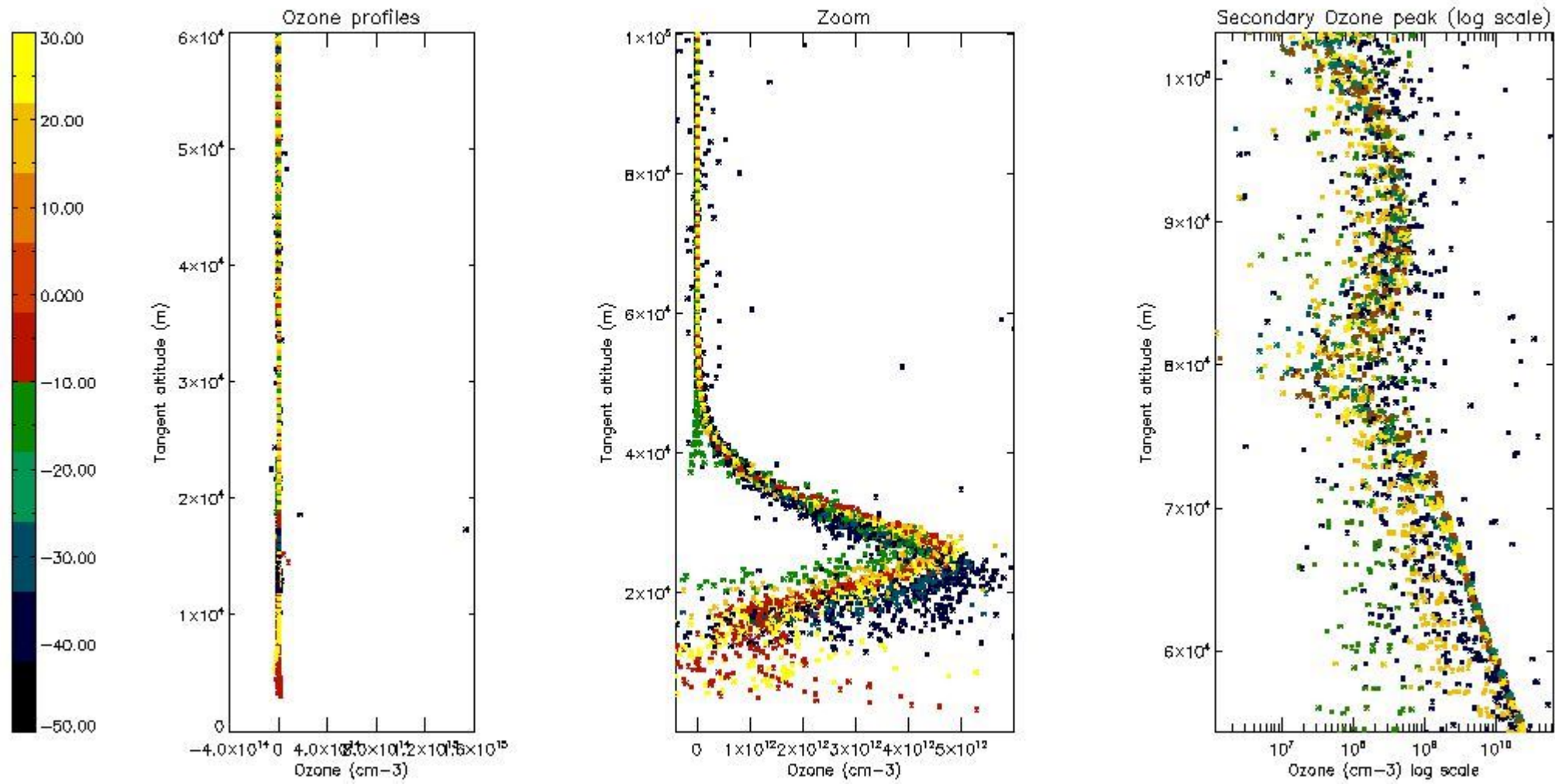
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	42
STD < 20	21

STD < 10	15
STD < 5	10

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

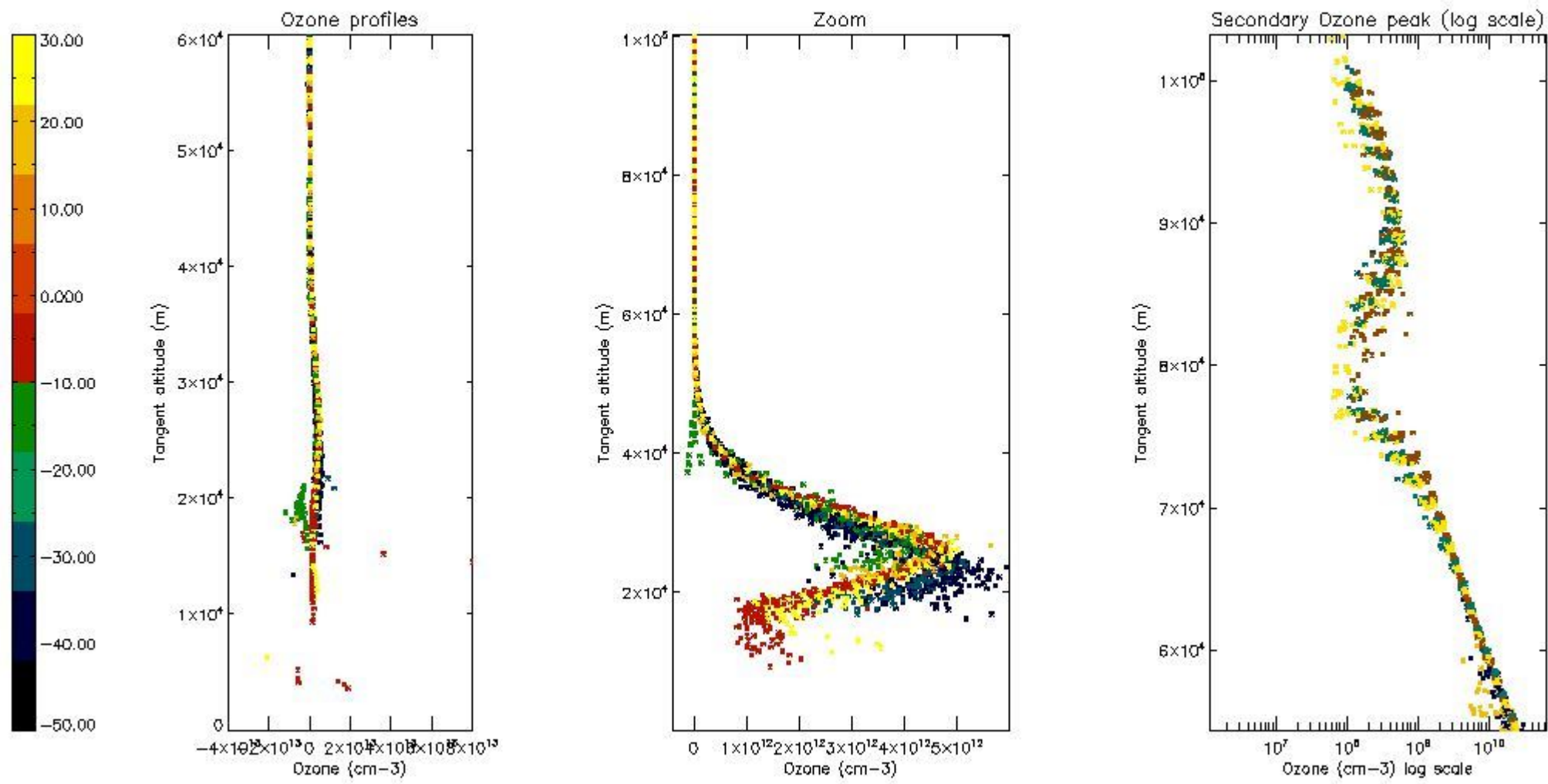
The colorbar represents the latitude.



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

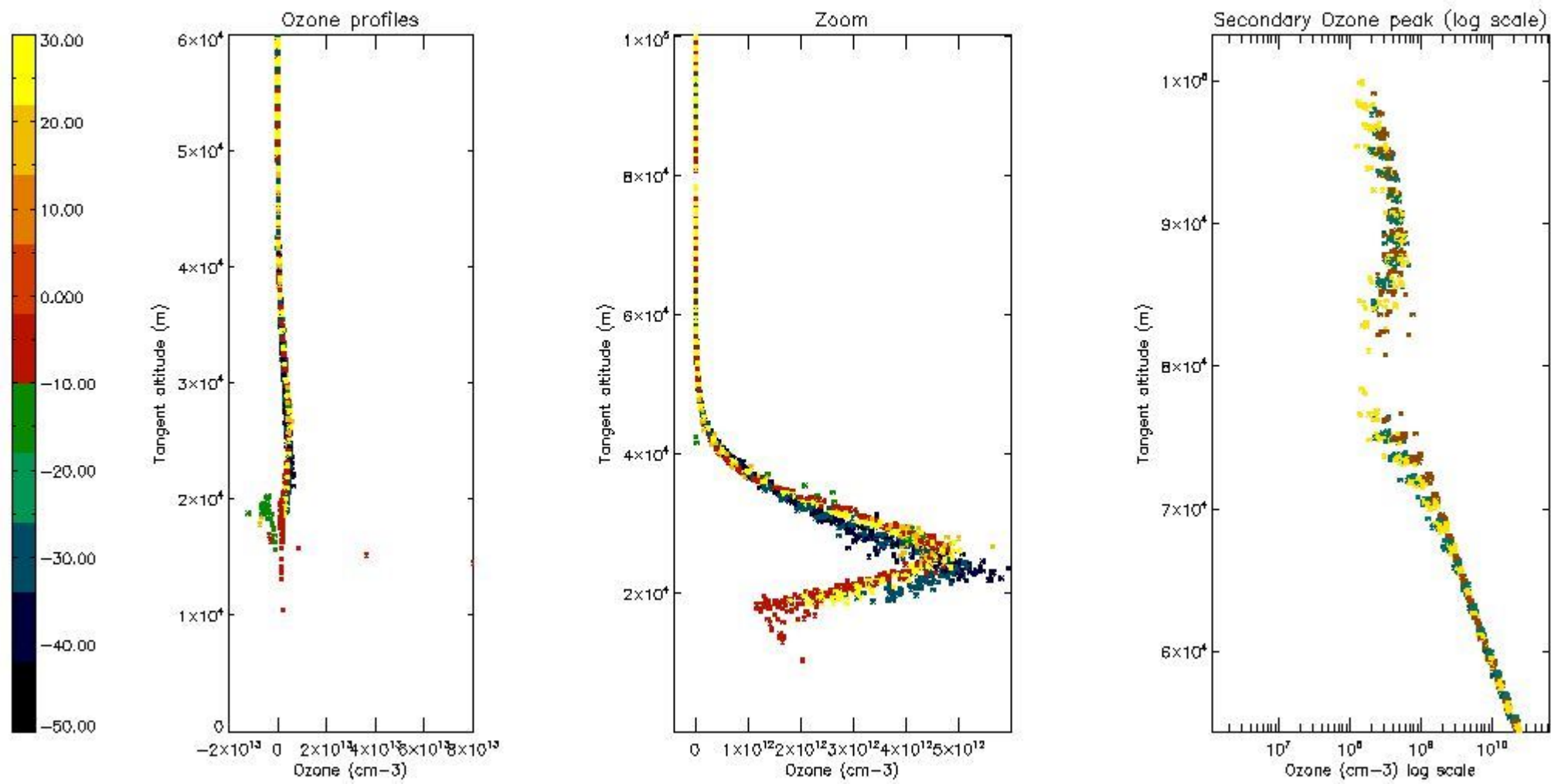
The colorbar represents the latitude.





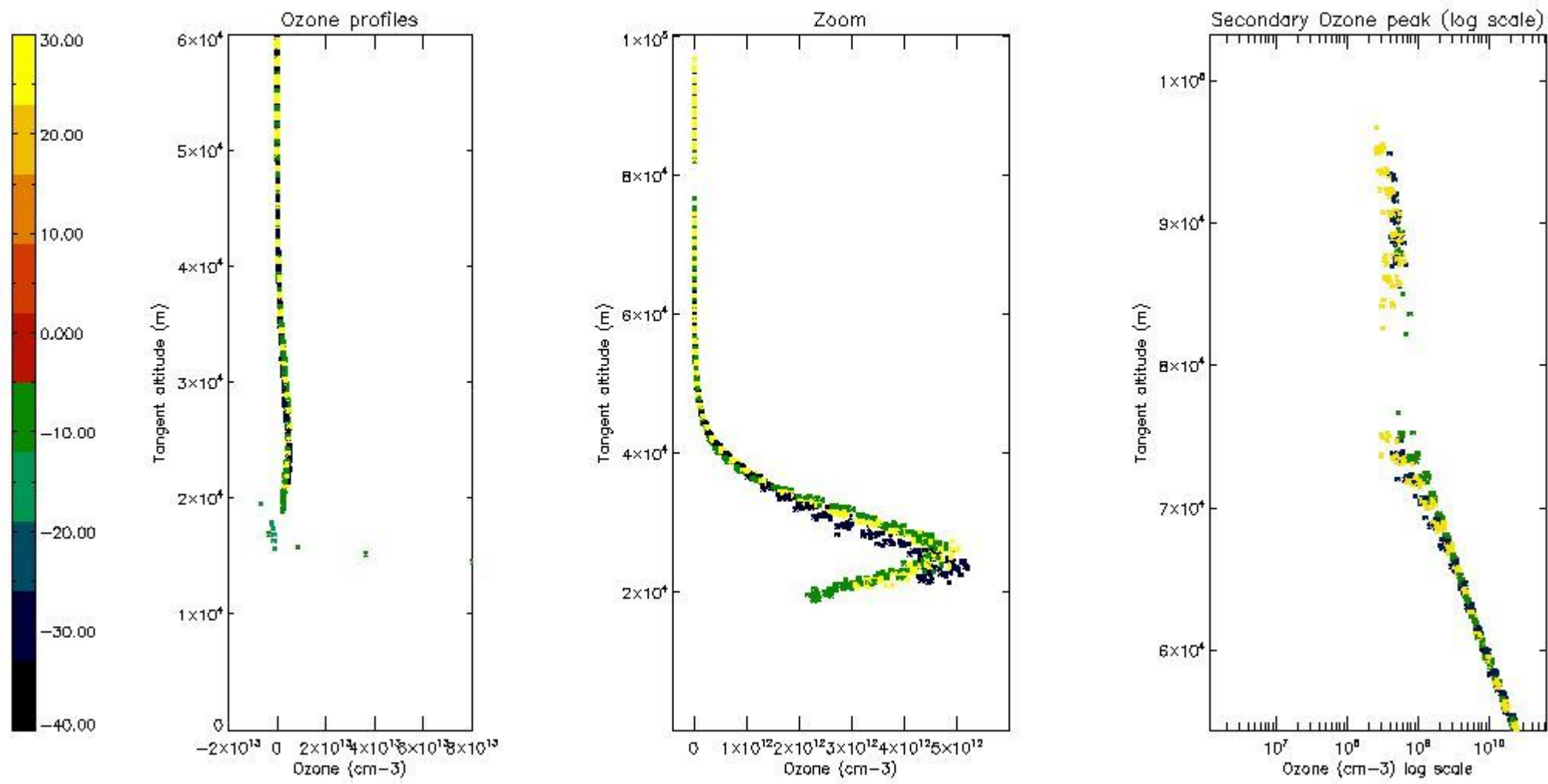
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



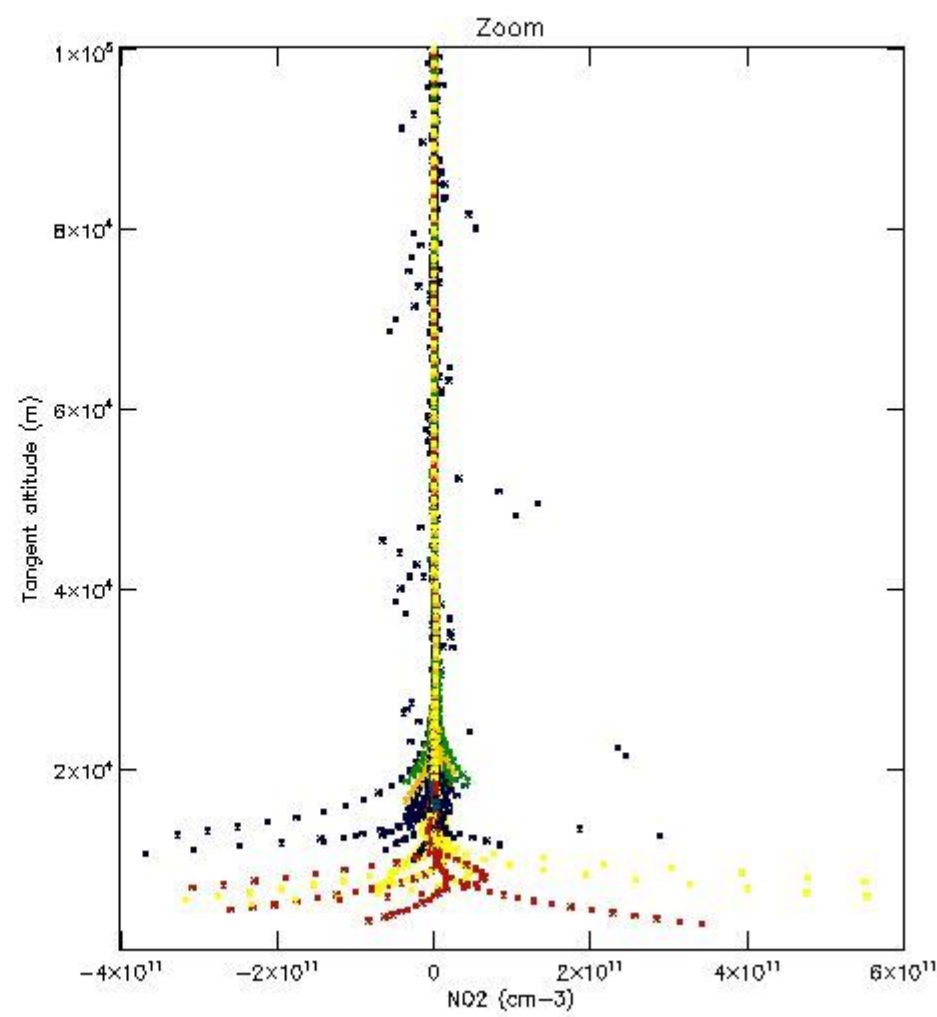
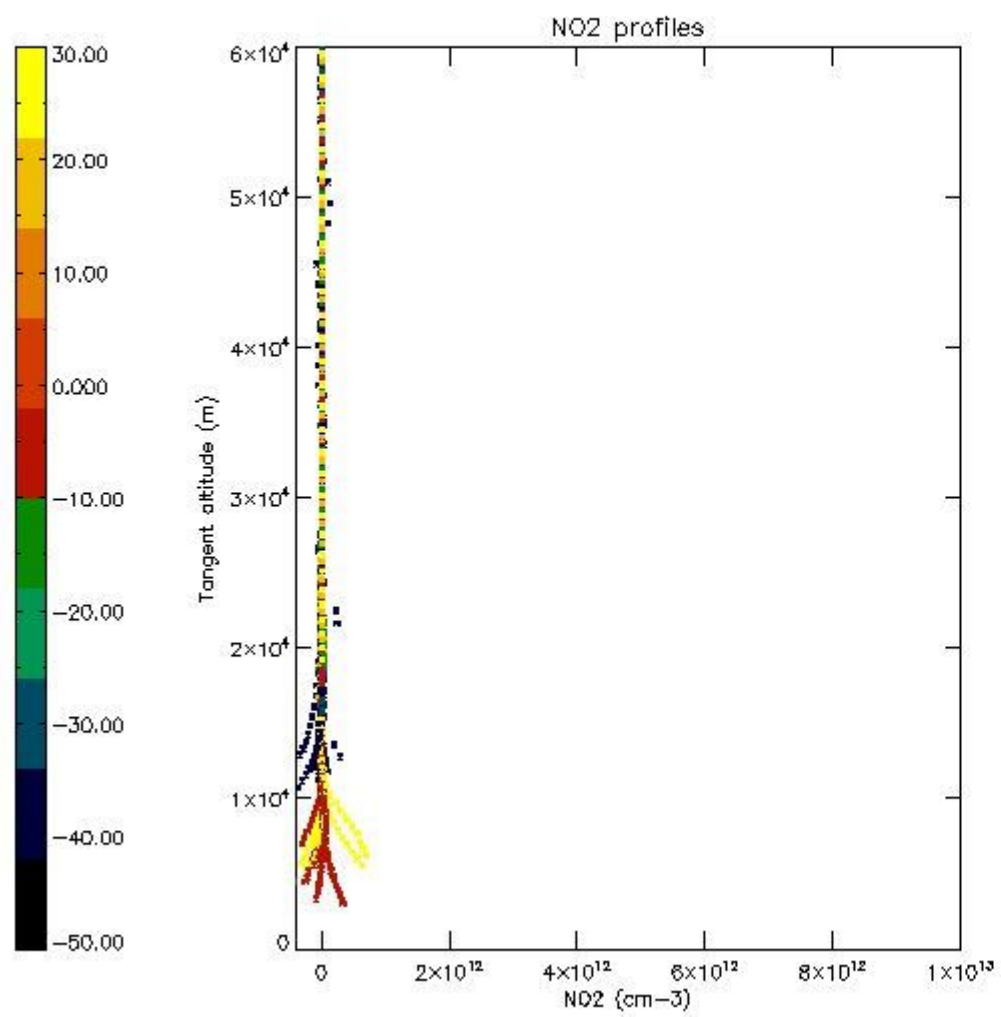
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



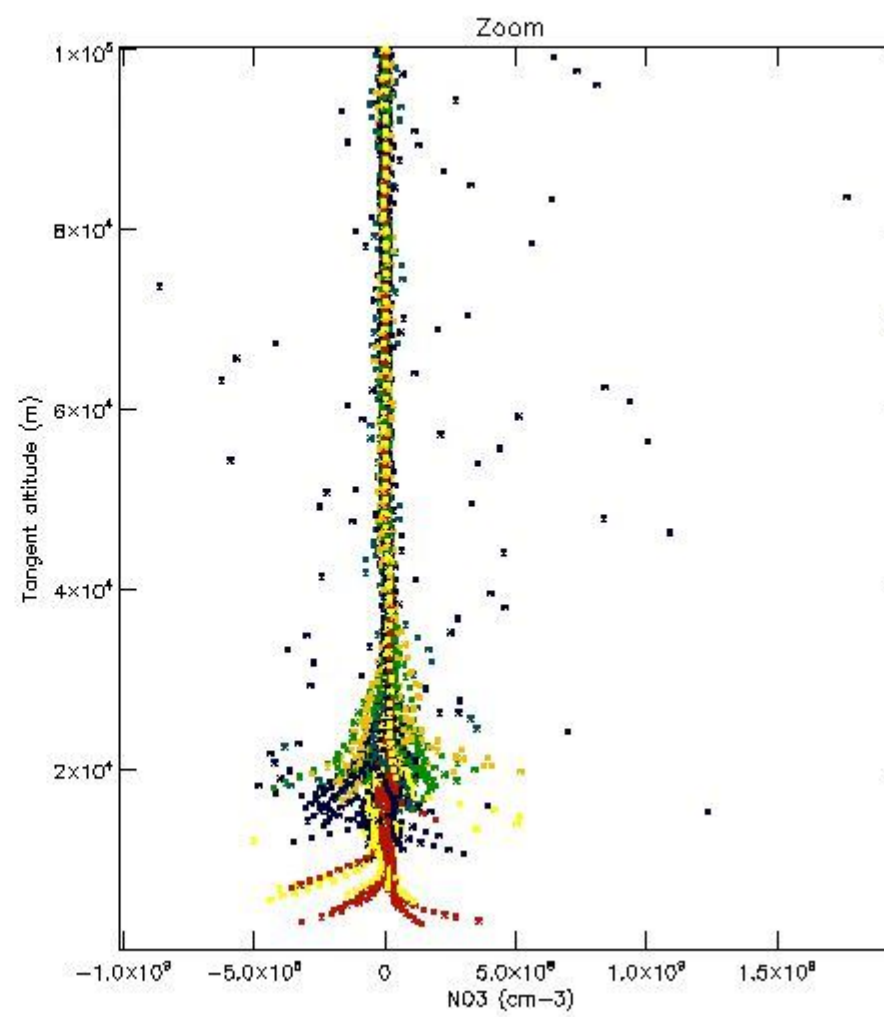
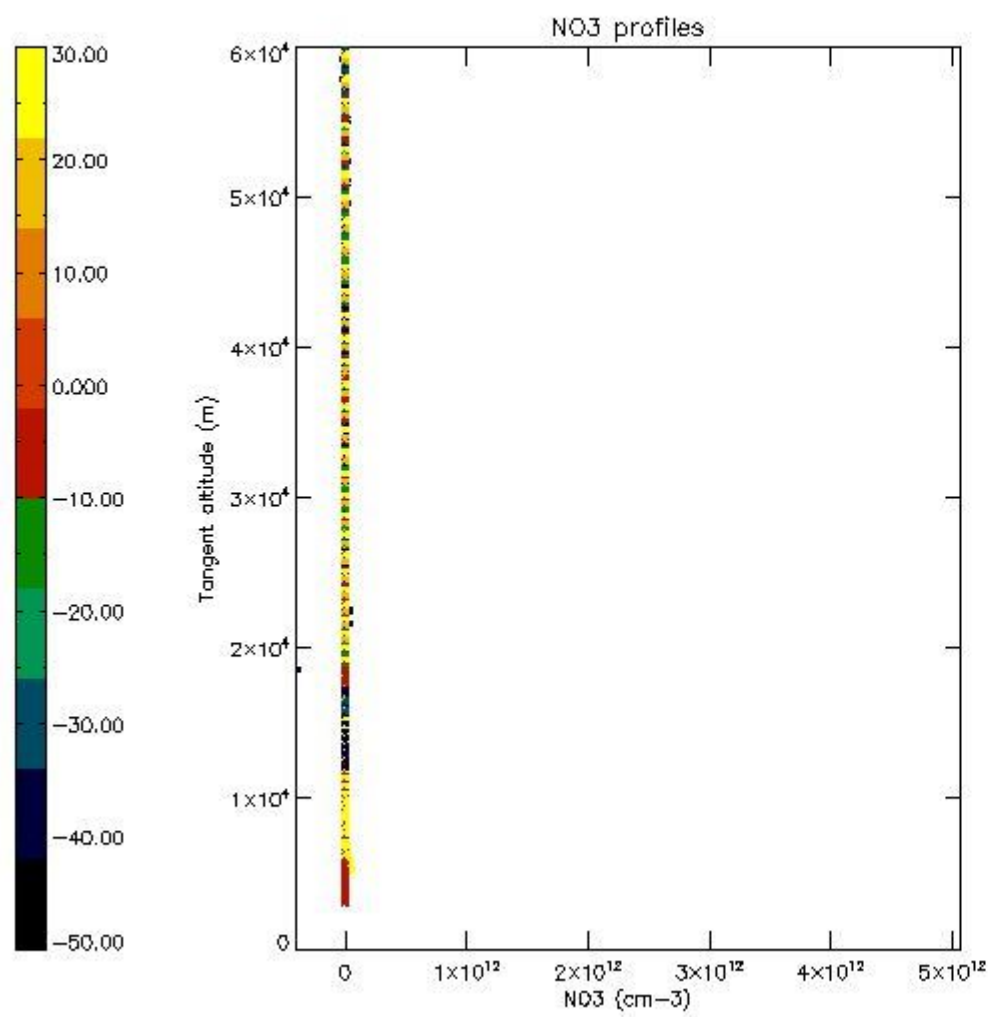
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



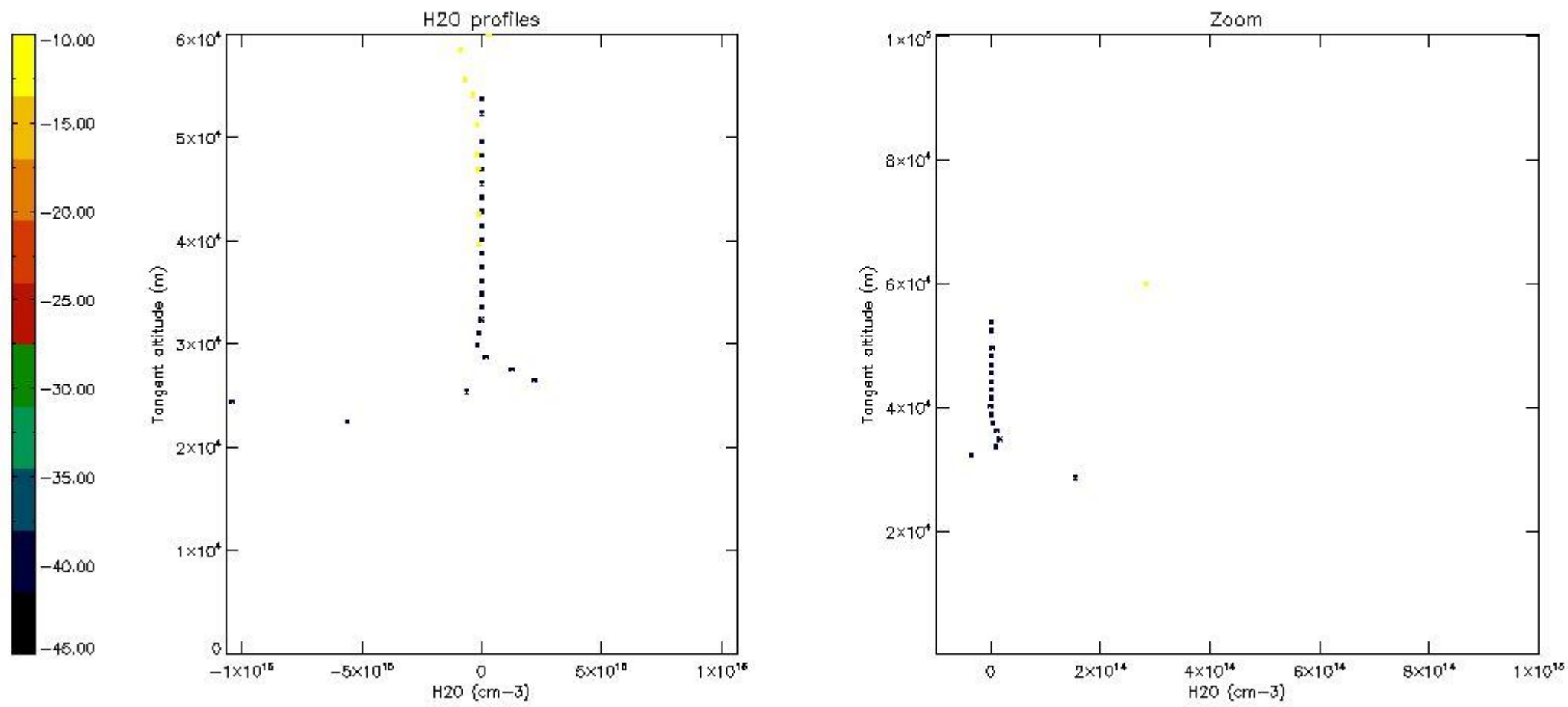
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H<sub>2</sub>O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

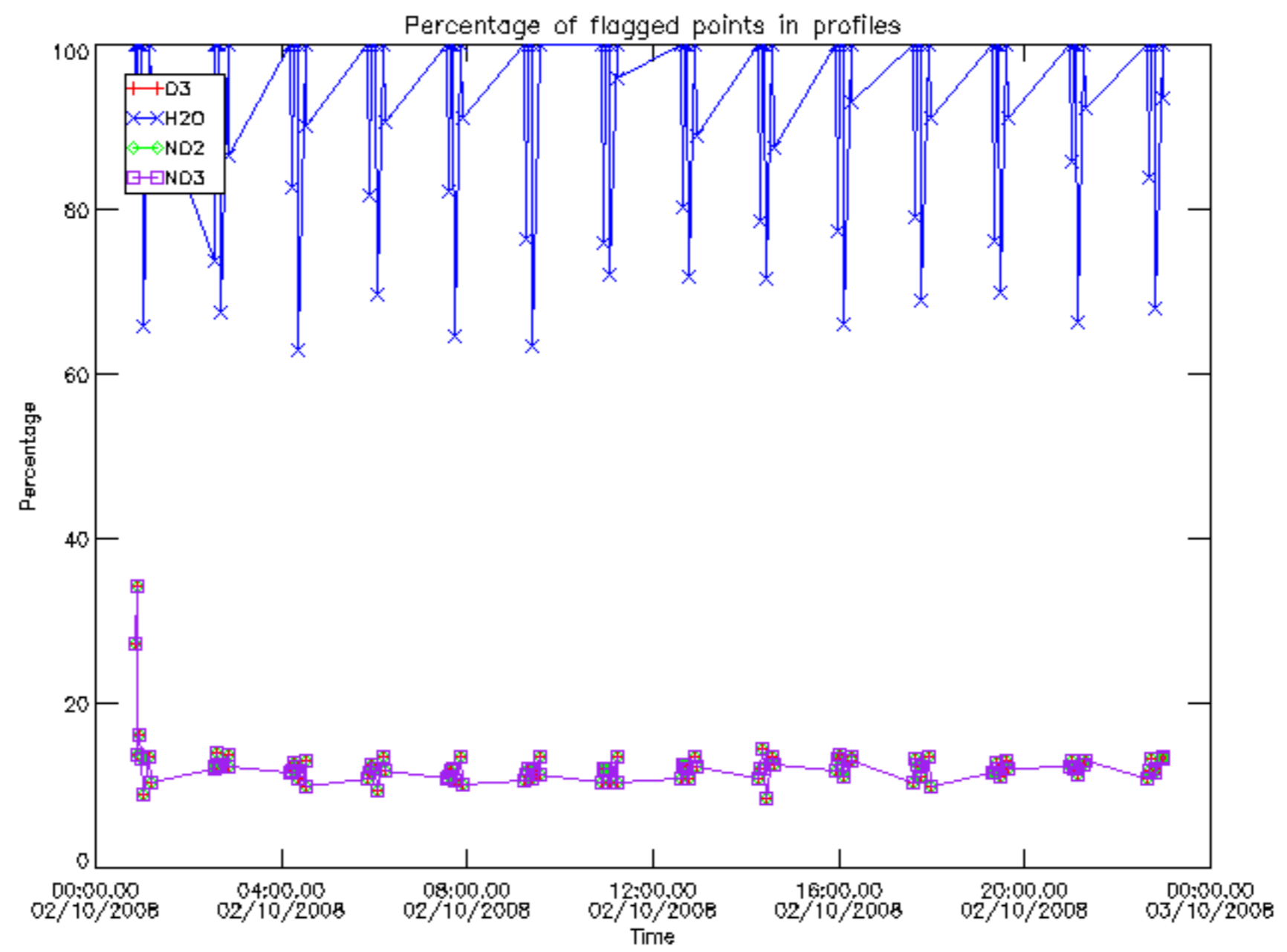
The colorbar represents the latitude.



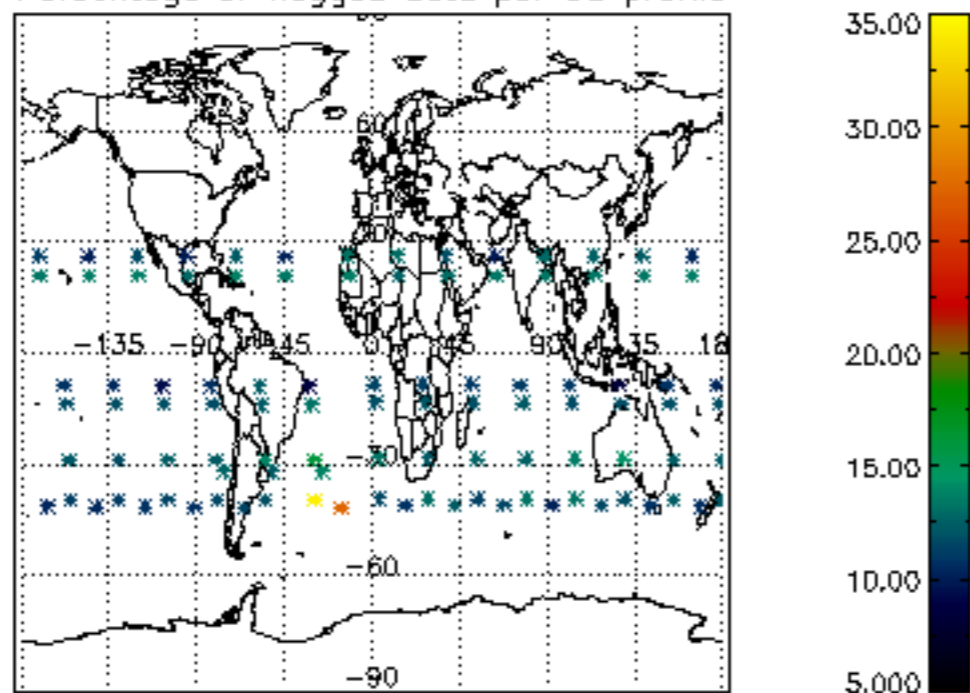
## 6. Auxiliary Data Files used for the production reported in section 2

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.

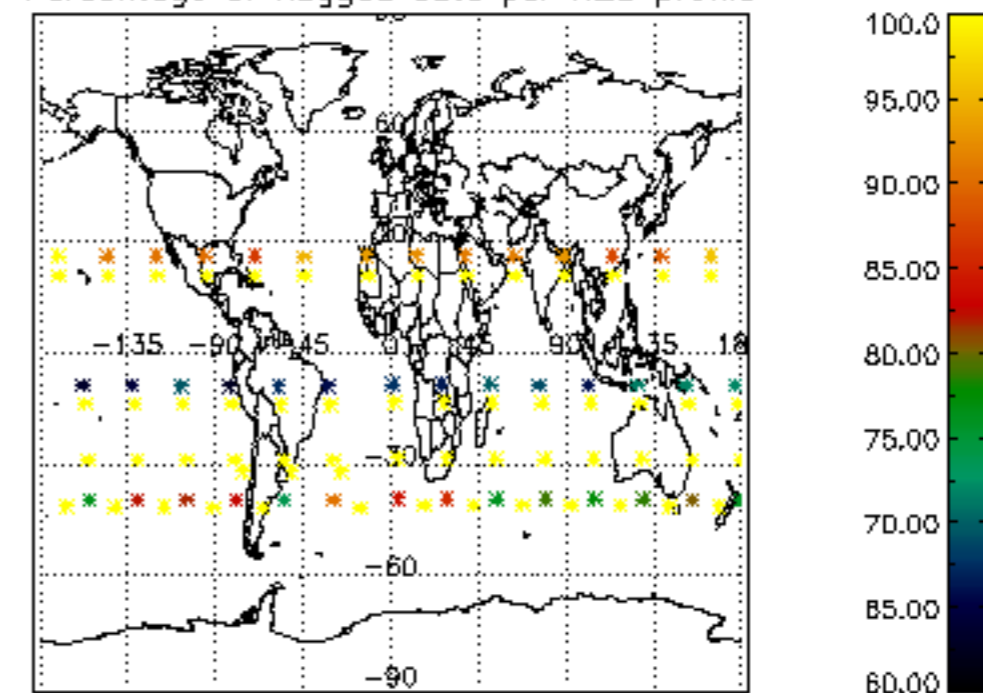
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	02-OCT-2008 00:06:13
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	02-OCT-2008 00:06:13
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	02-OCT-2008 00:06:13



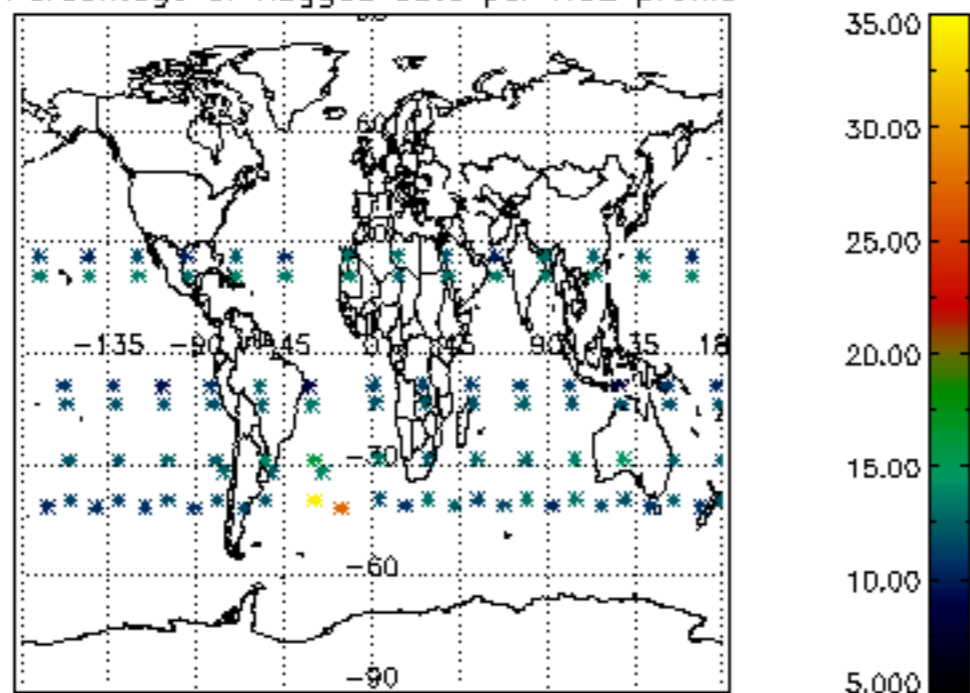
Percentage of flagged data per D3 profile



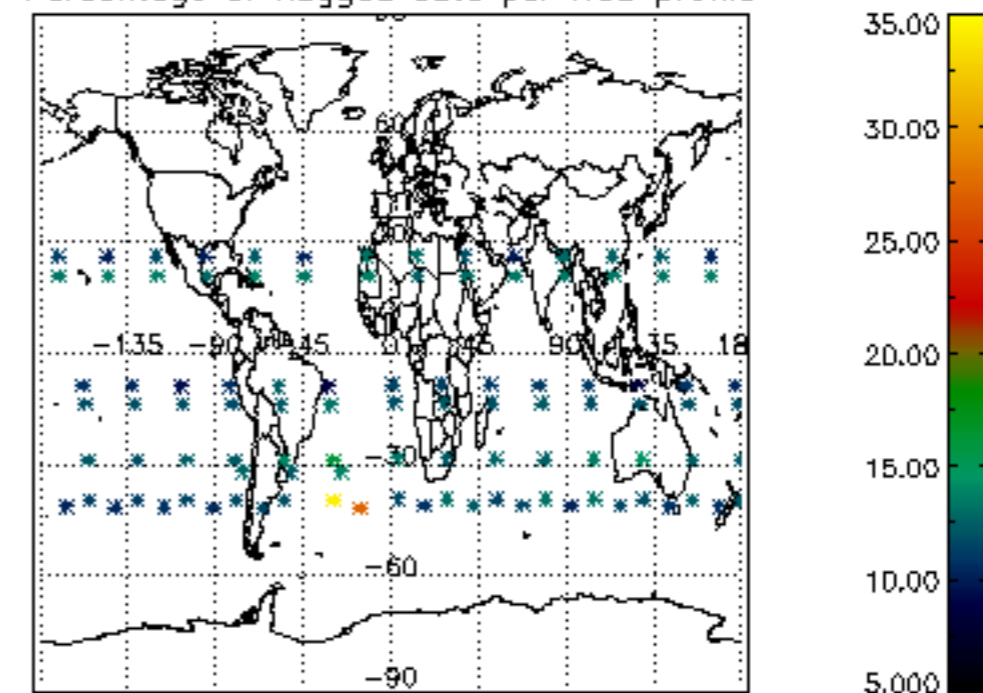
Percentage of flagged data per H2O profile



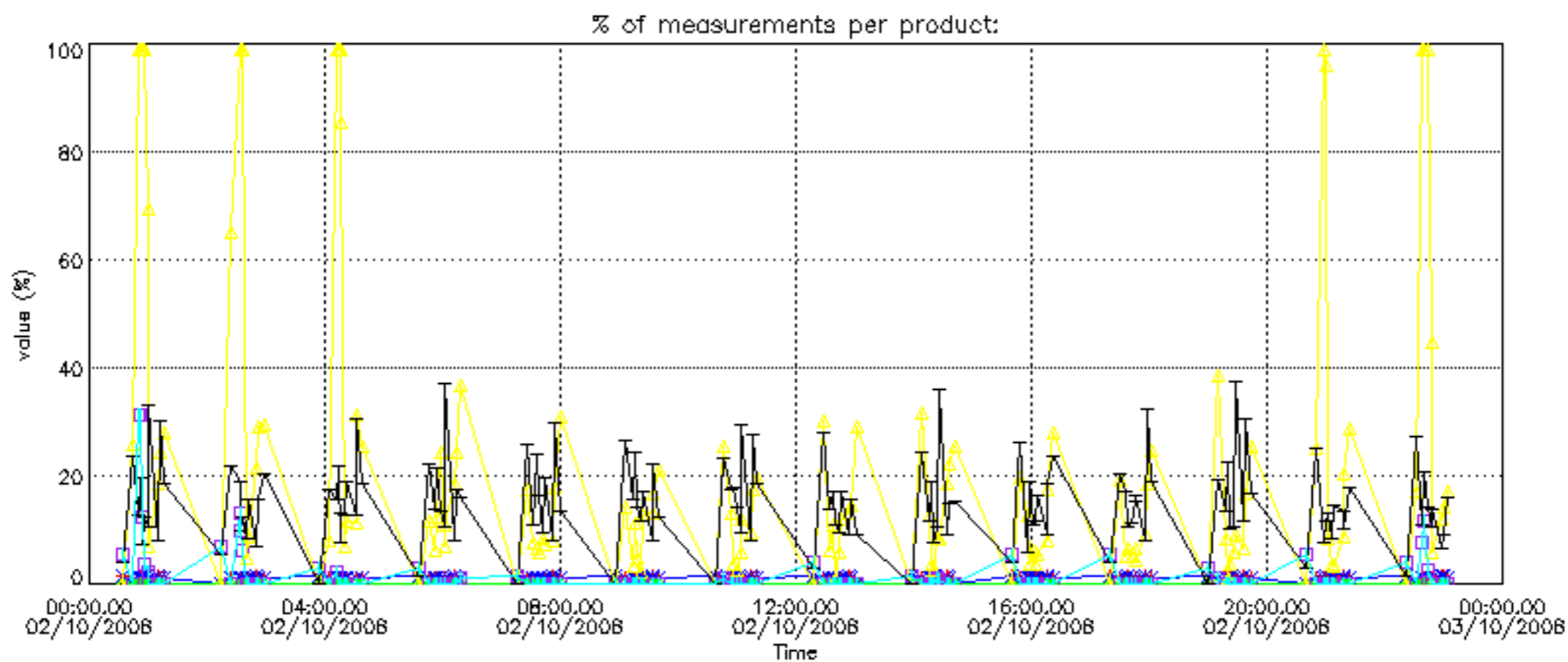
Percentage of flagged data per NO2 profile

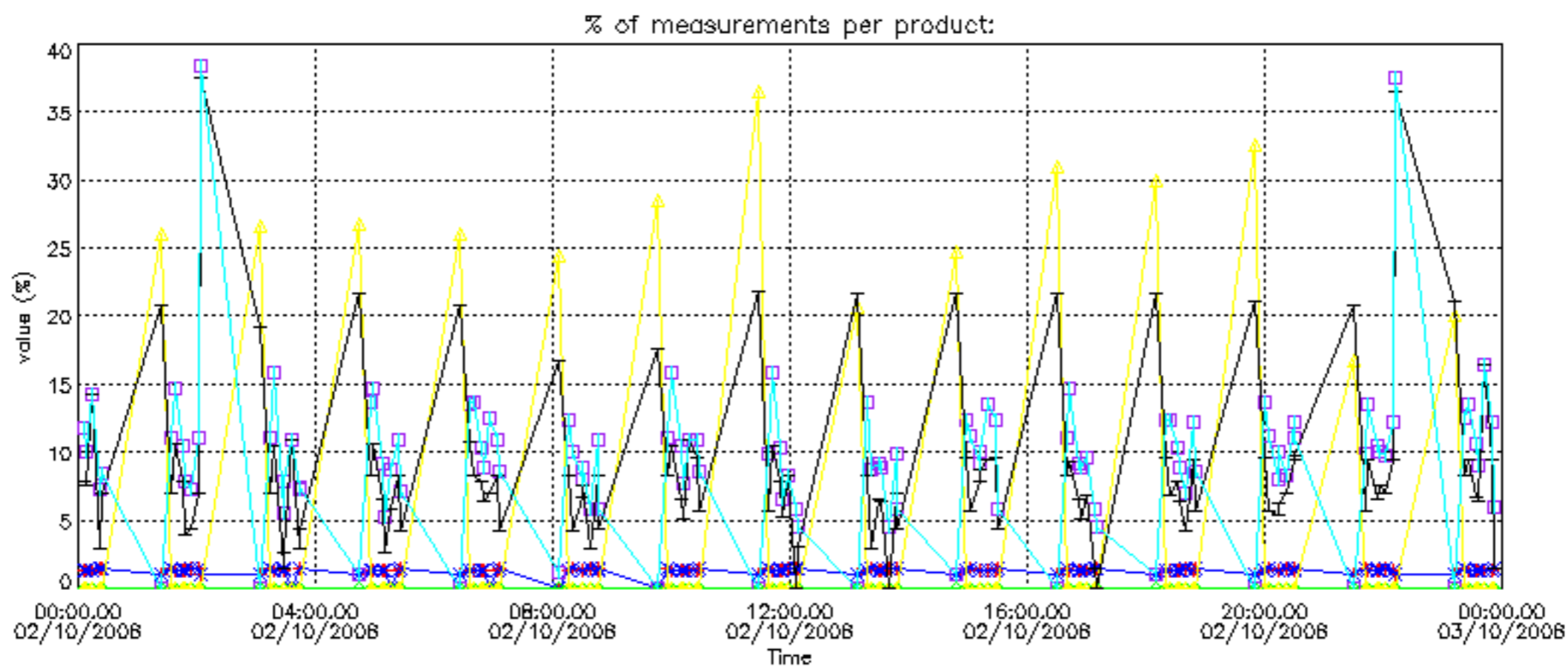


Percentage of flagged data per NO3 profile

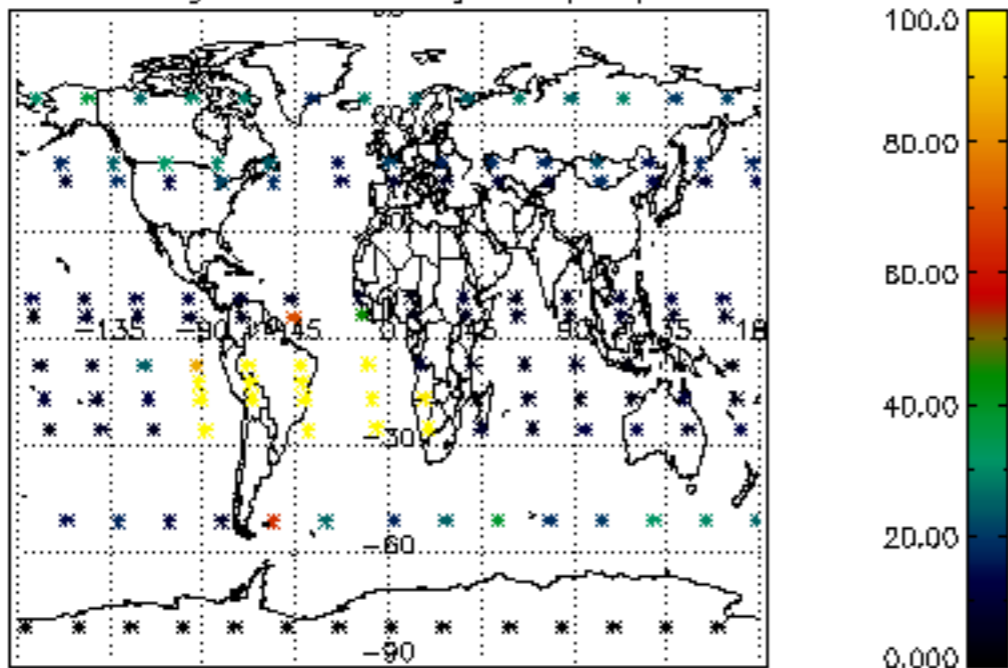




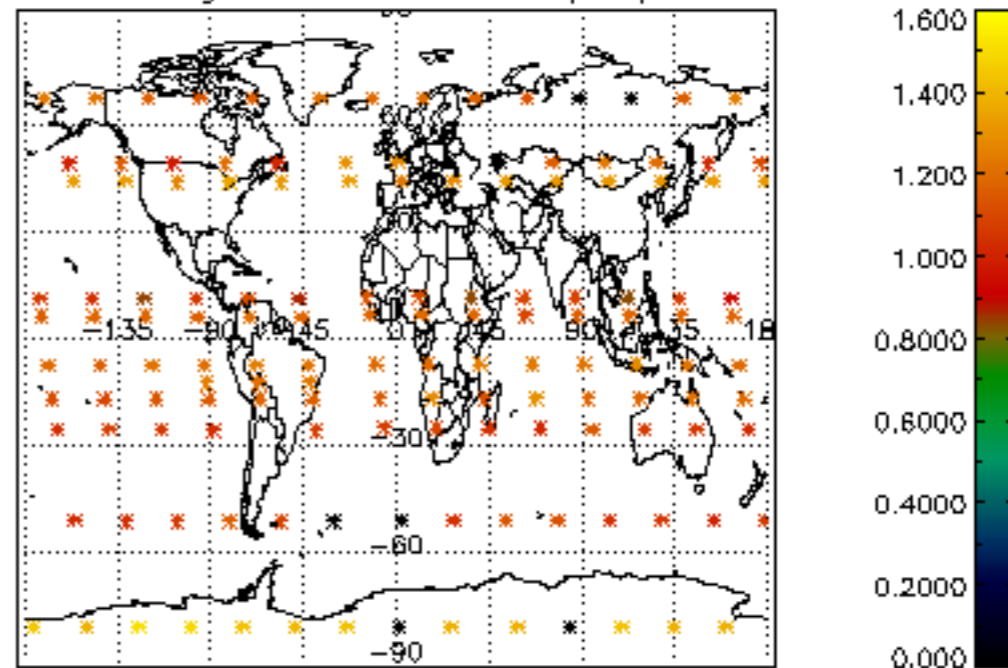




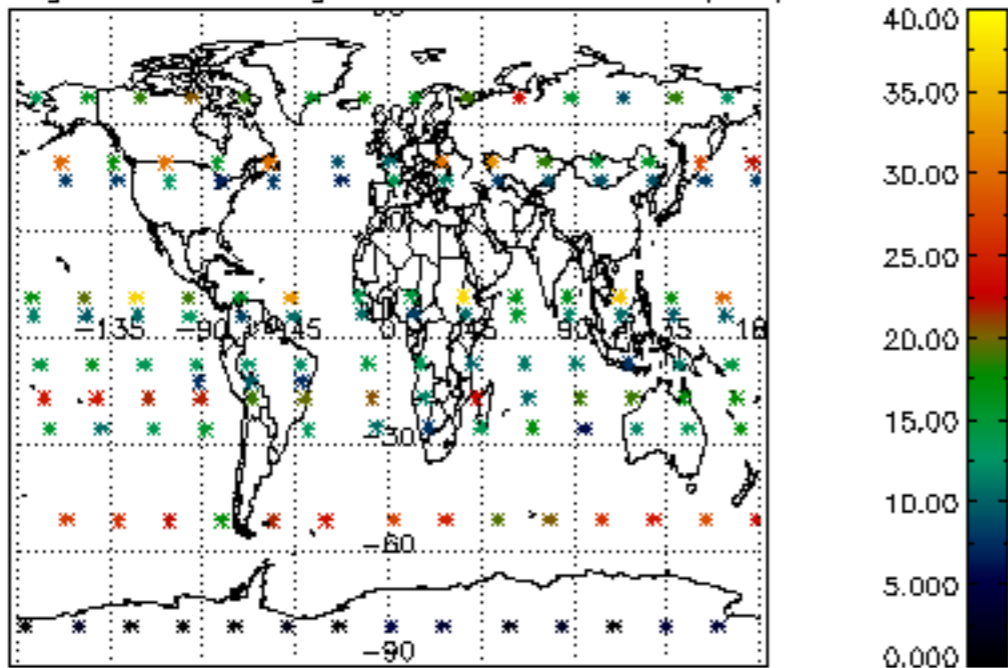
Percentage of cosmic ray hits per profile



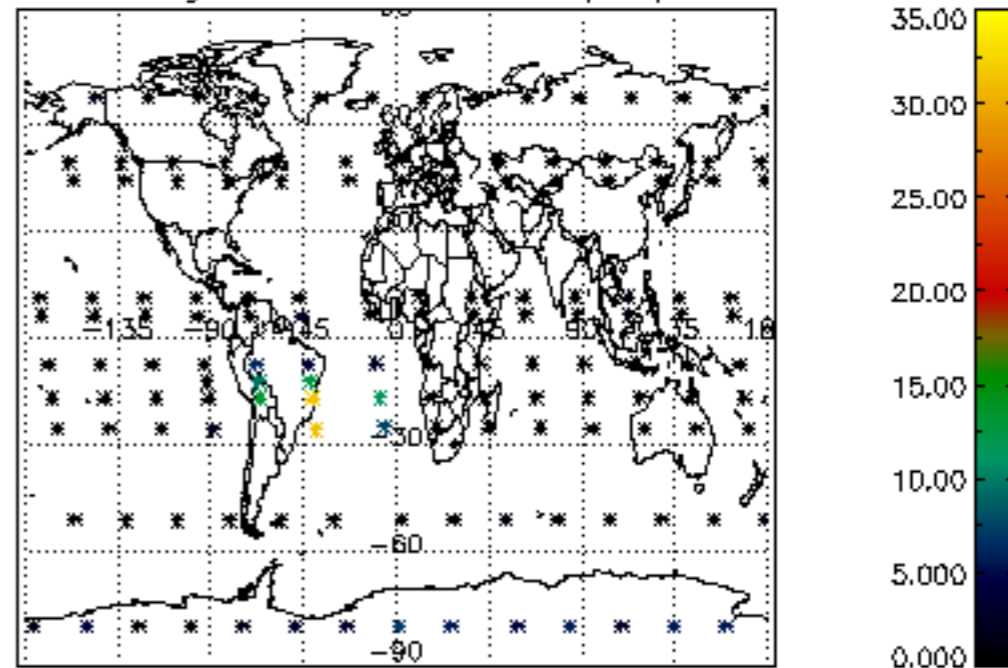
Percentage of datation errors per profile



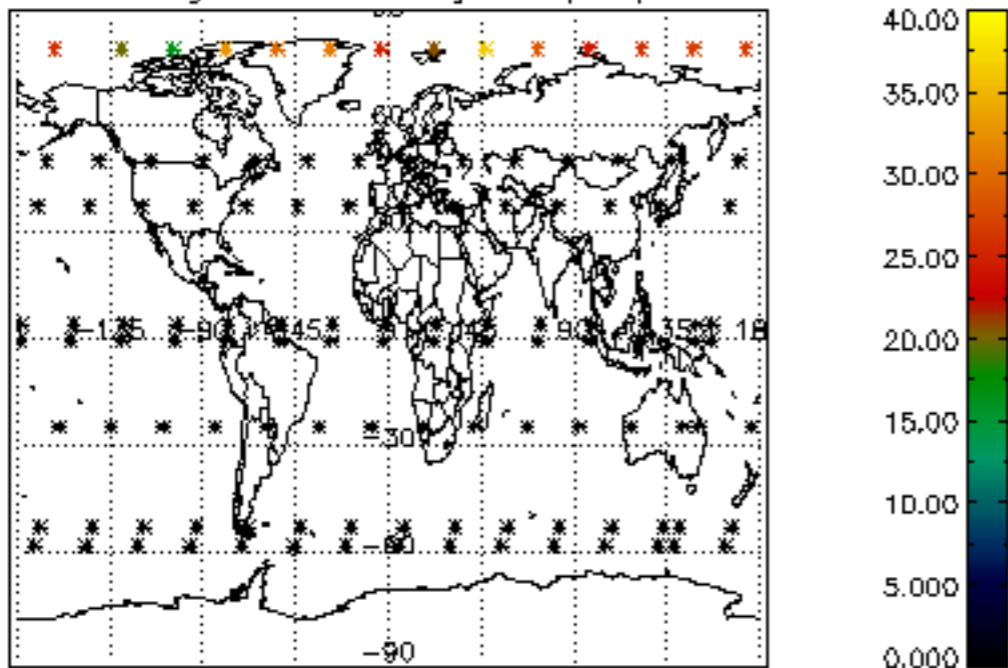
Percentage of star falling outside central band per profile



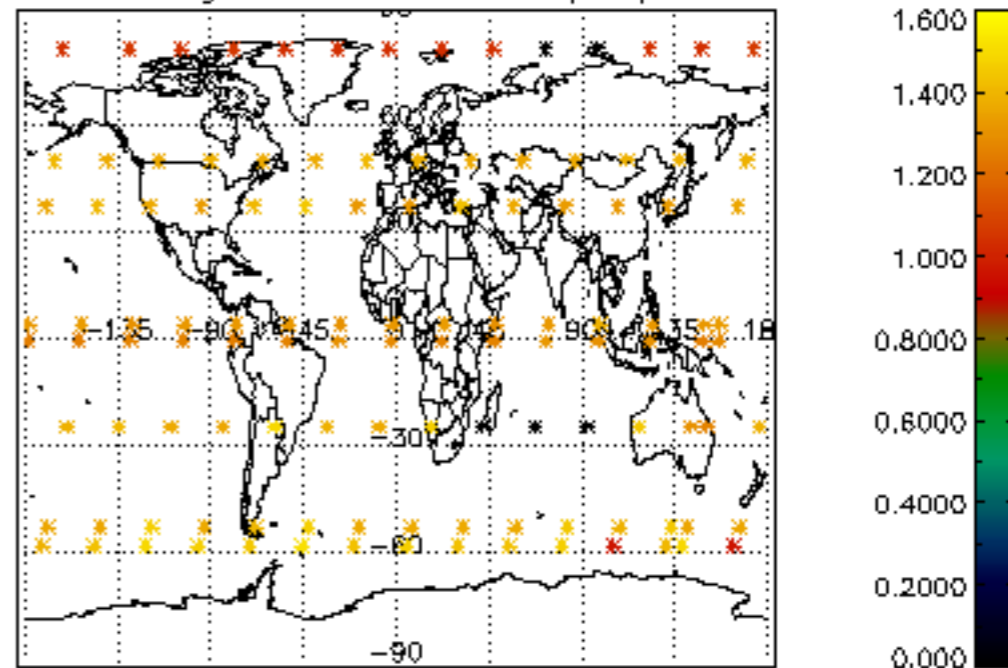
Percentage of saturation errors per profile



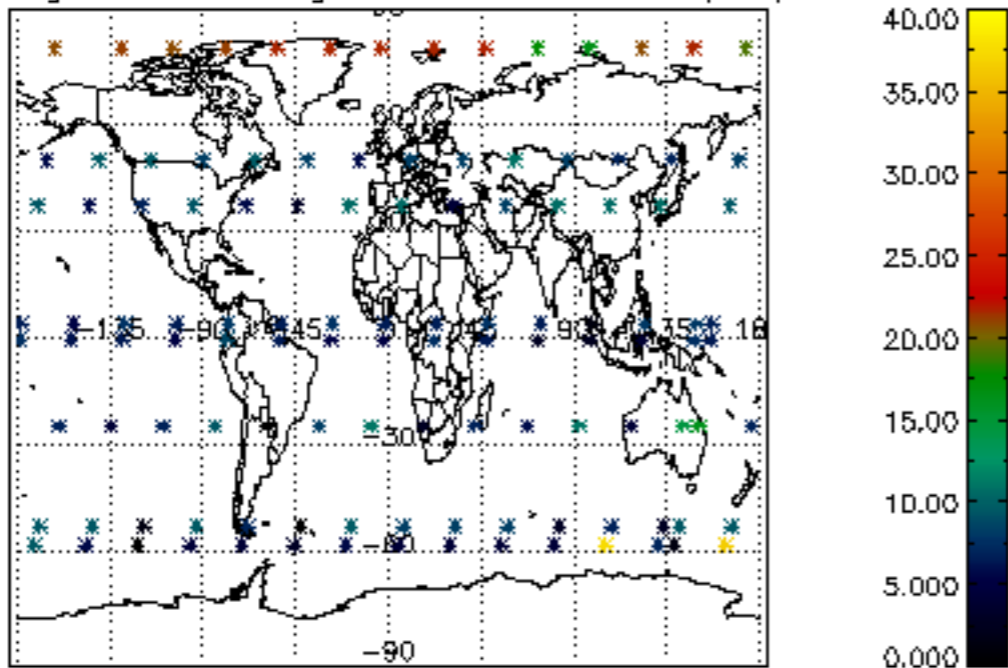
Percentage of cosmic ray hits per profile



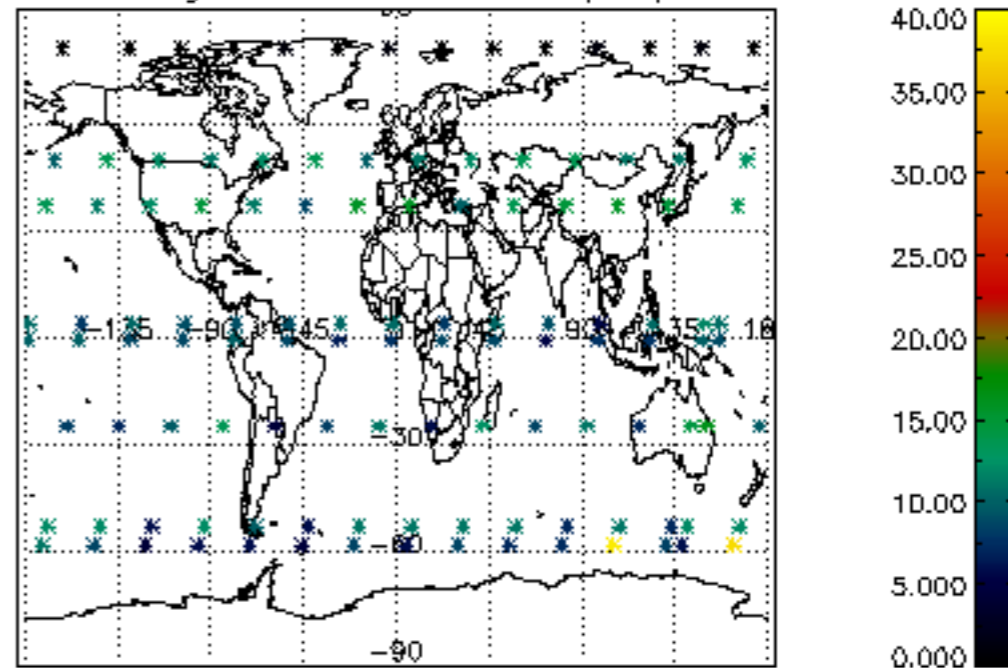
Percentage of datation errors per profile

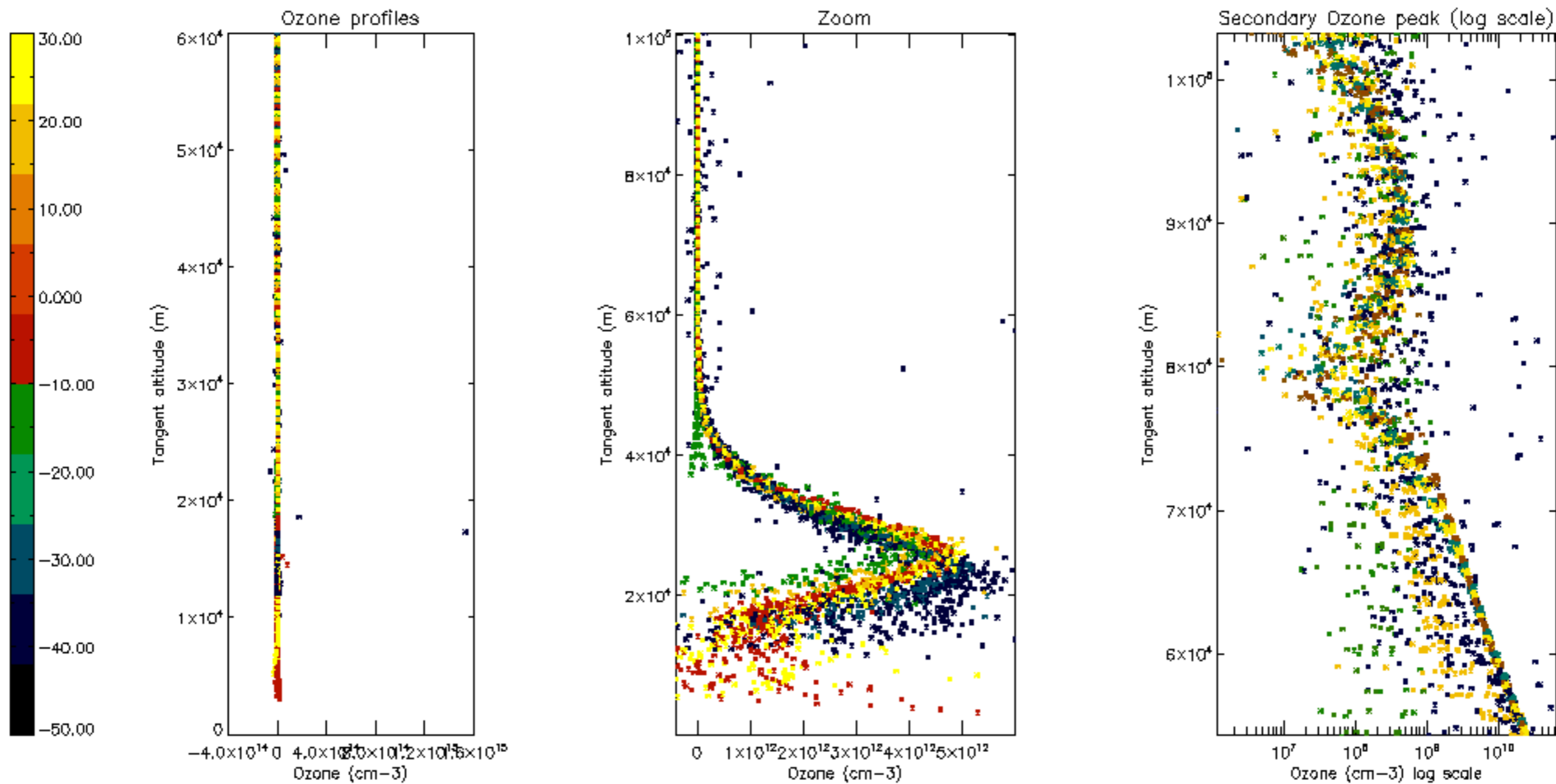


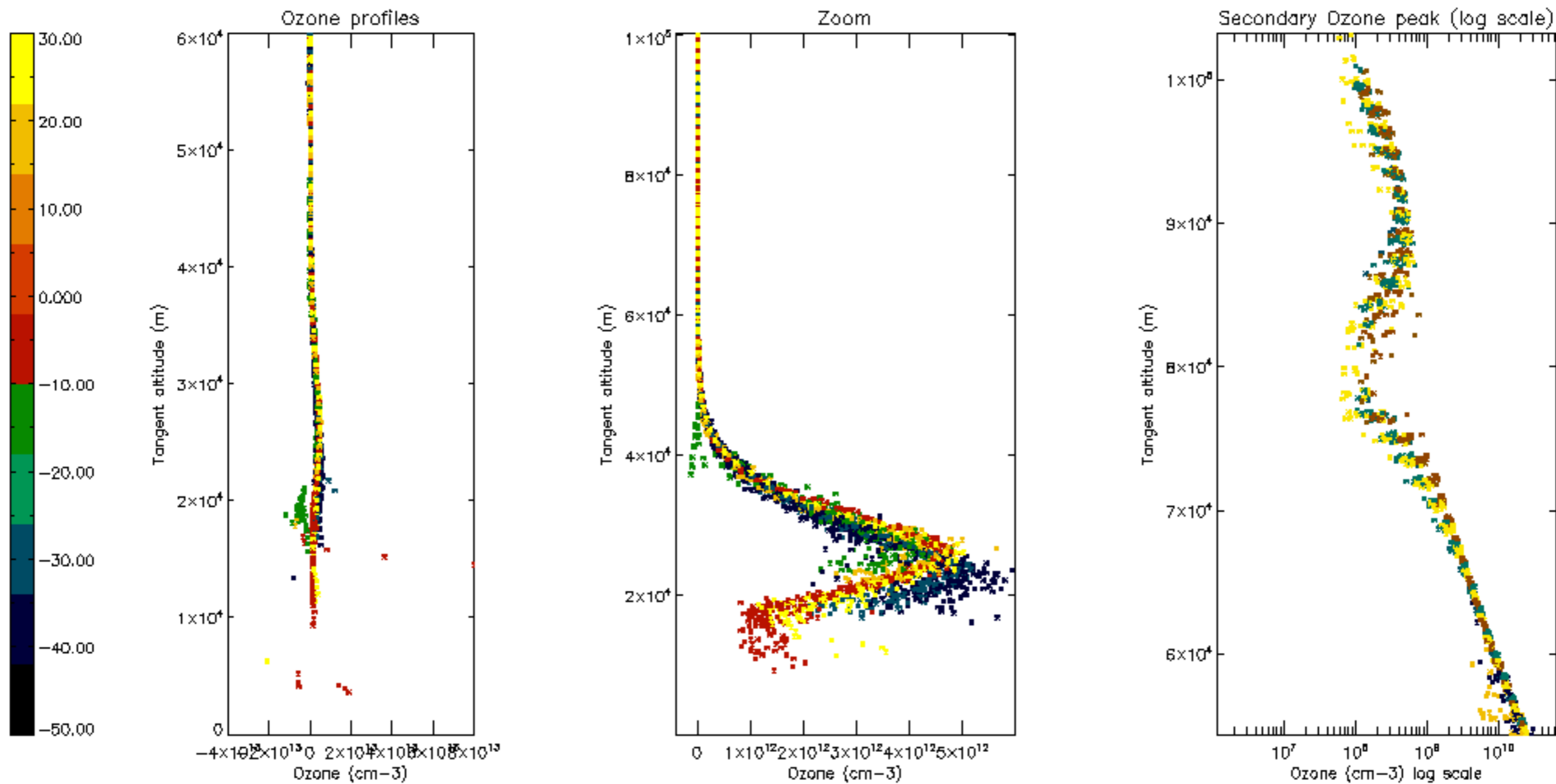
Percentage of star falling outside central band per profile

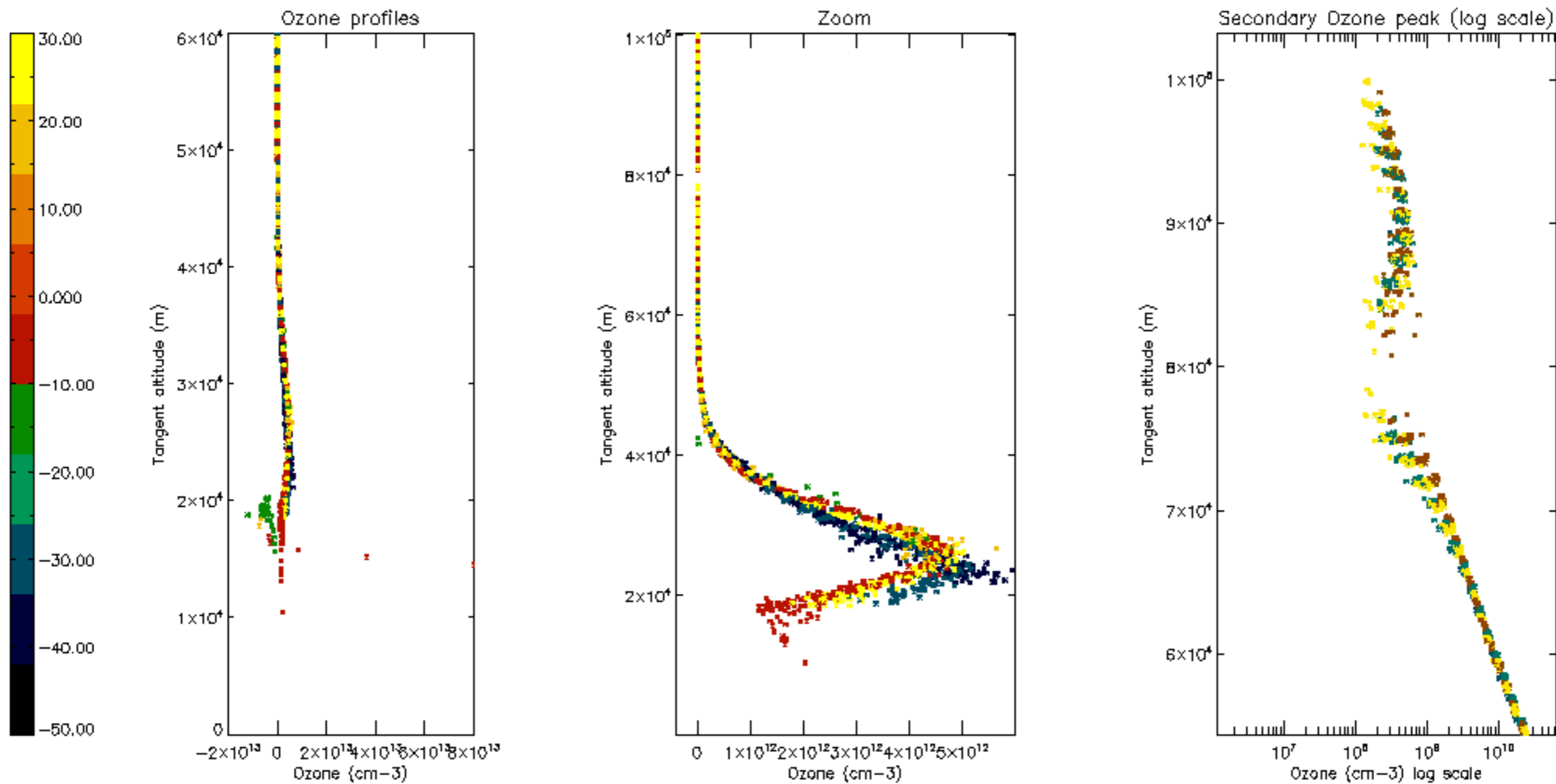


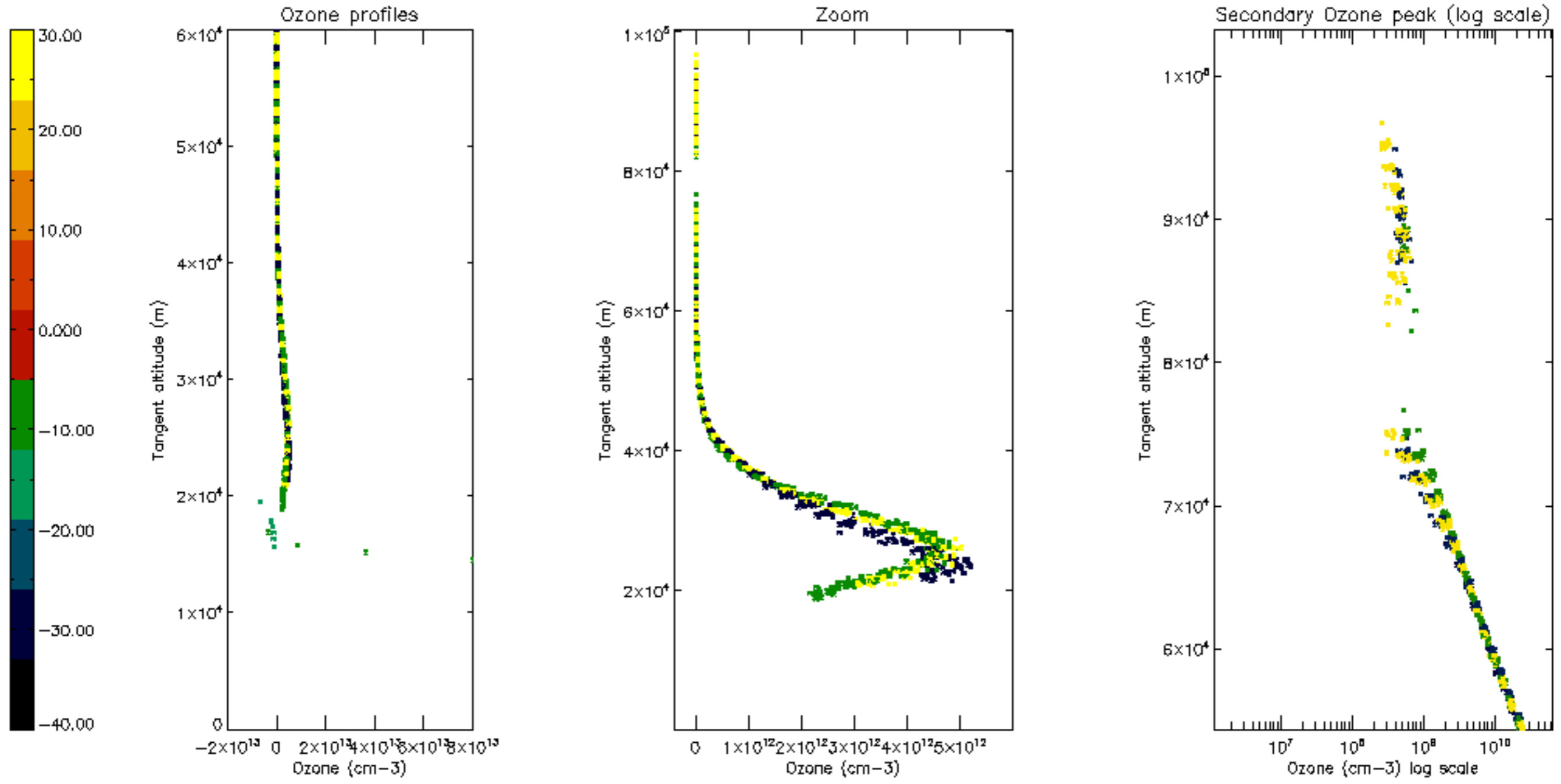
Percentage of saturation errors per profile



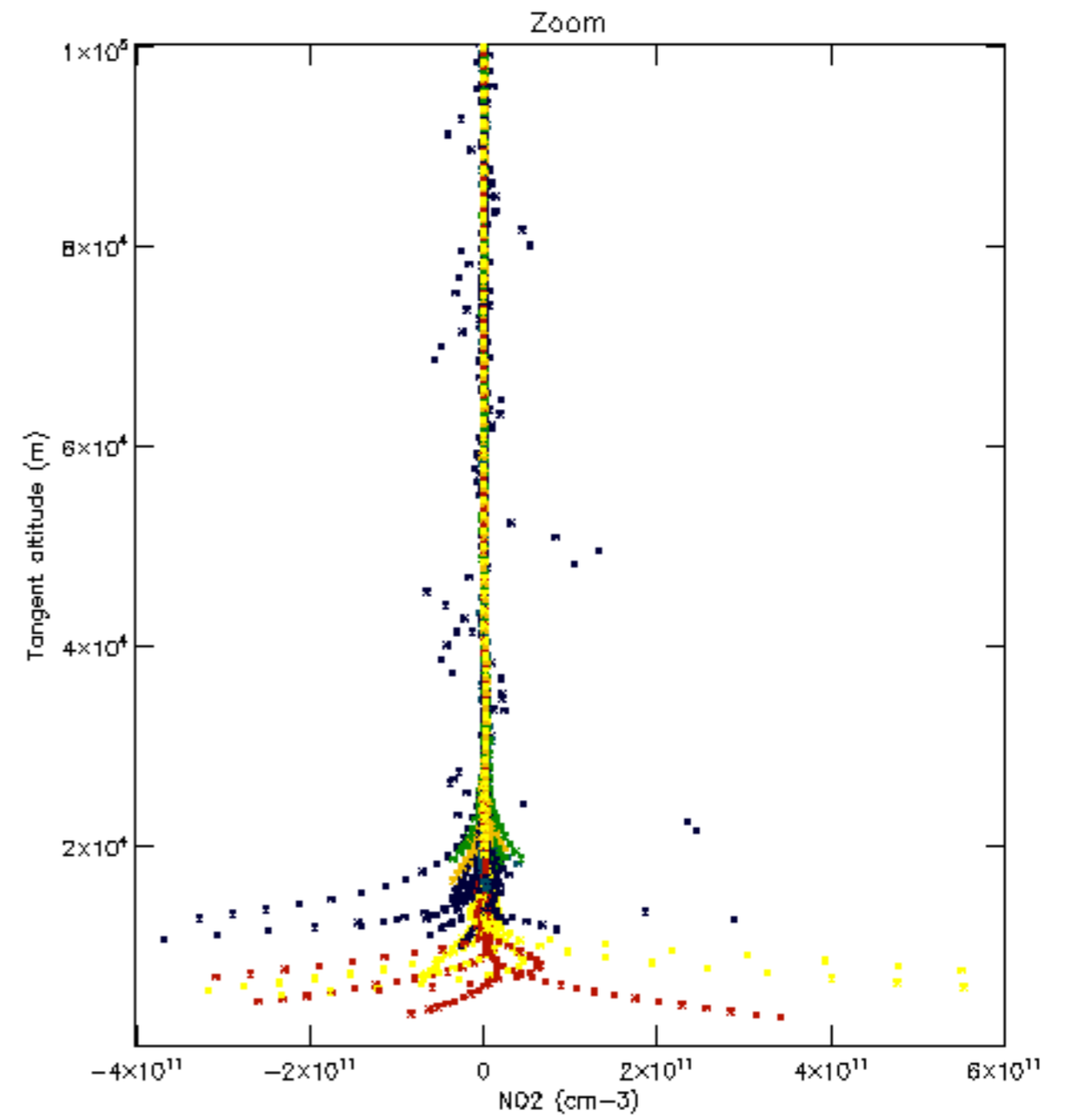
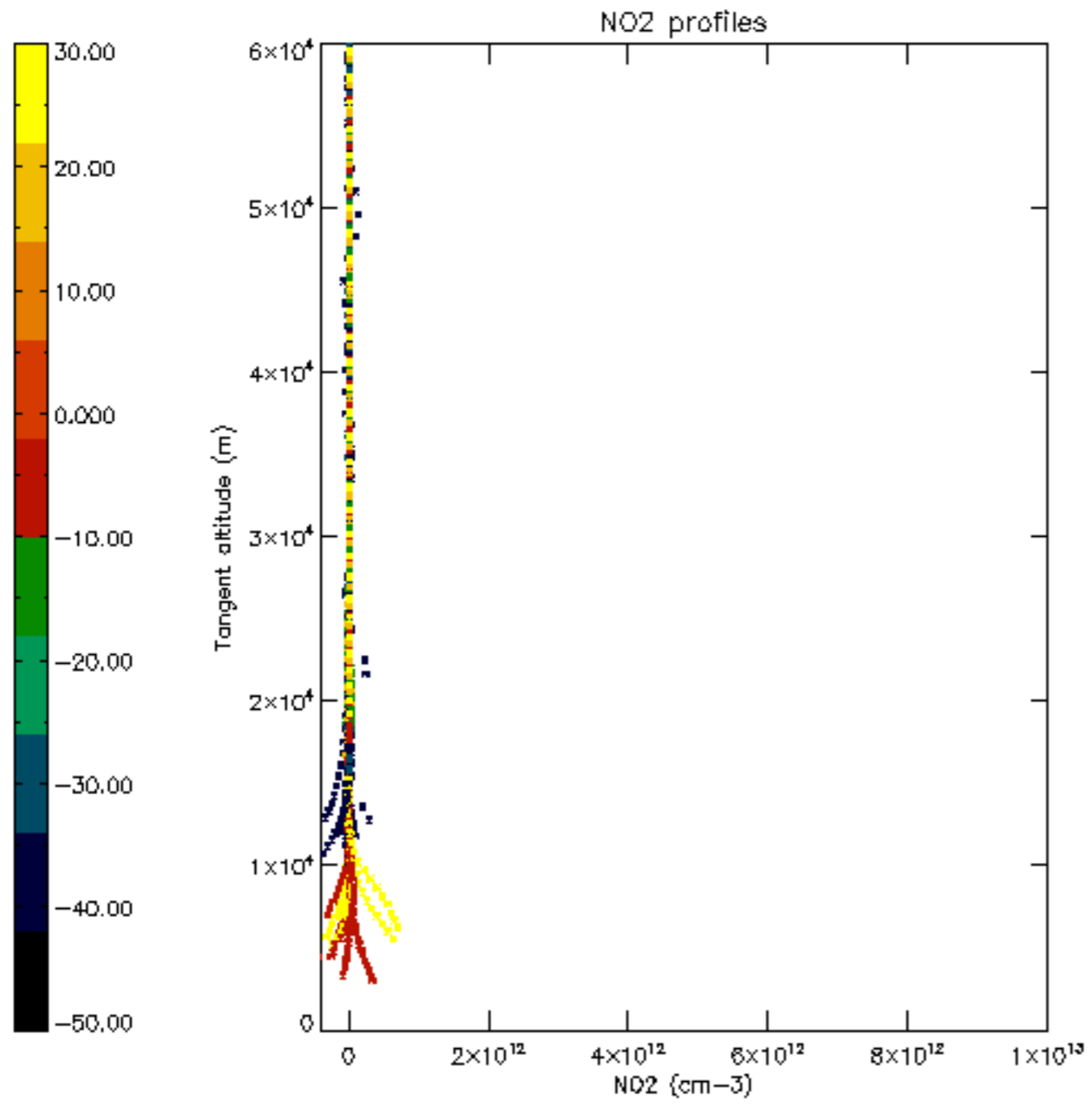


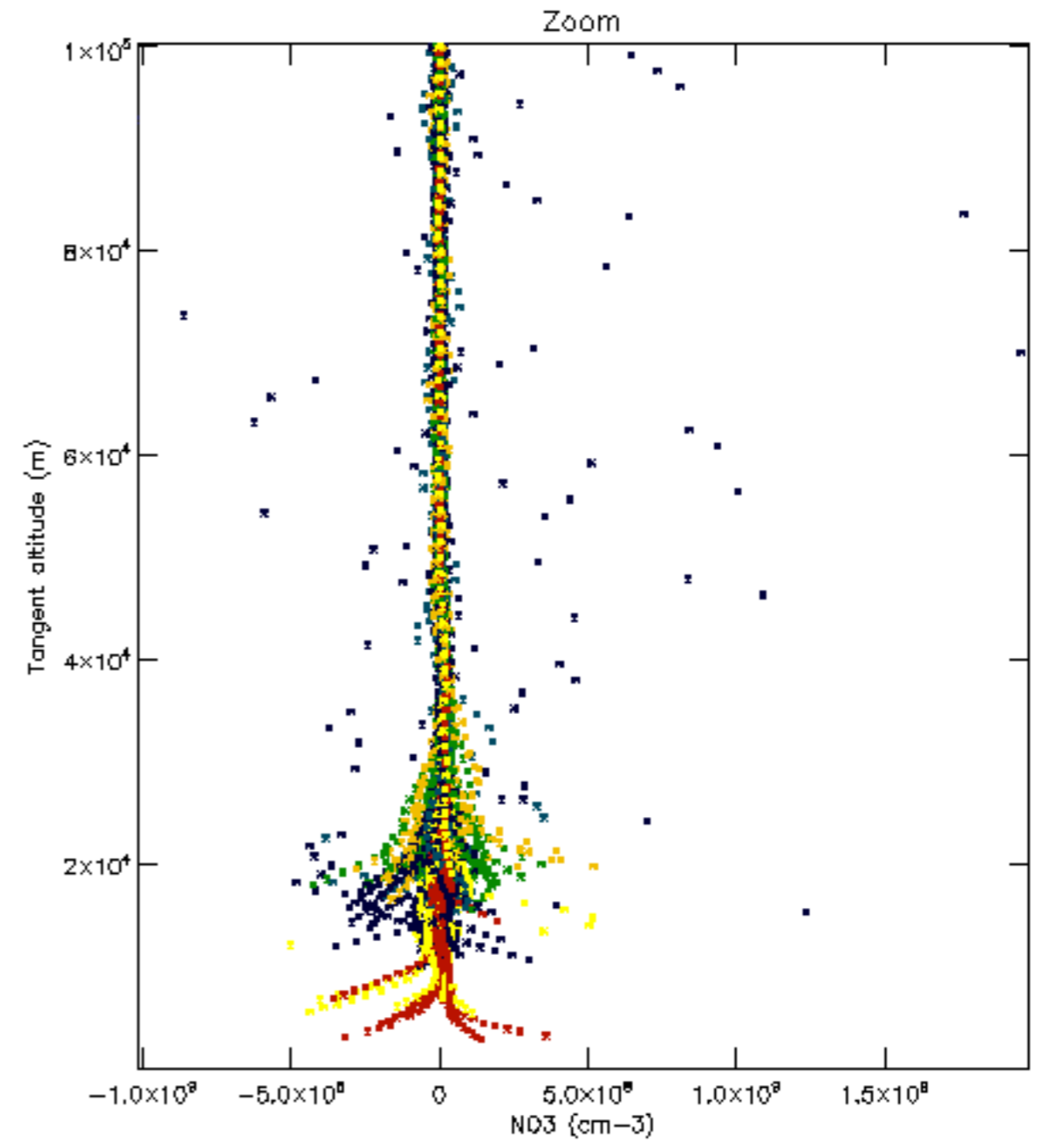
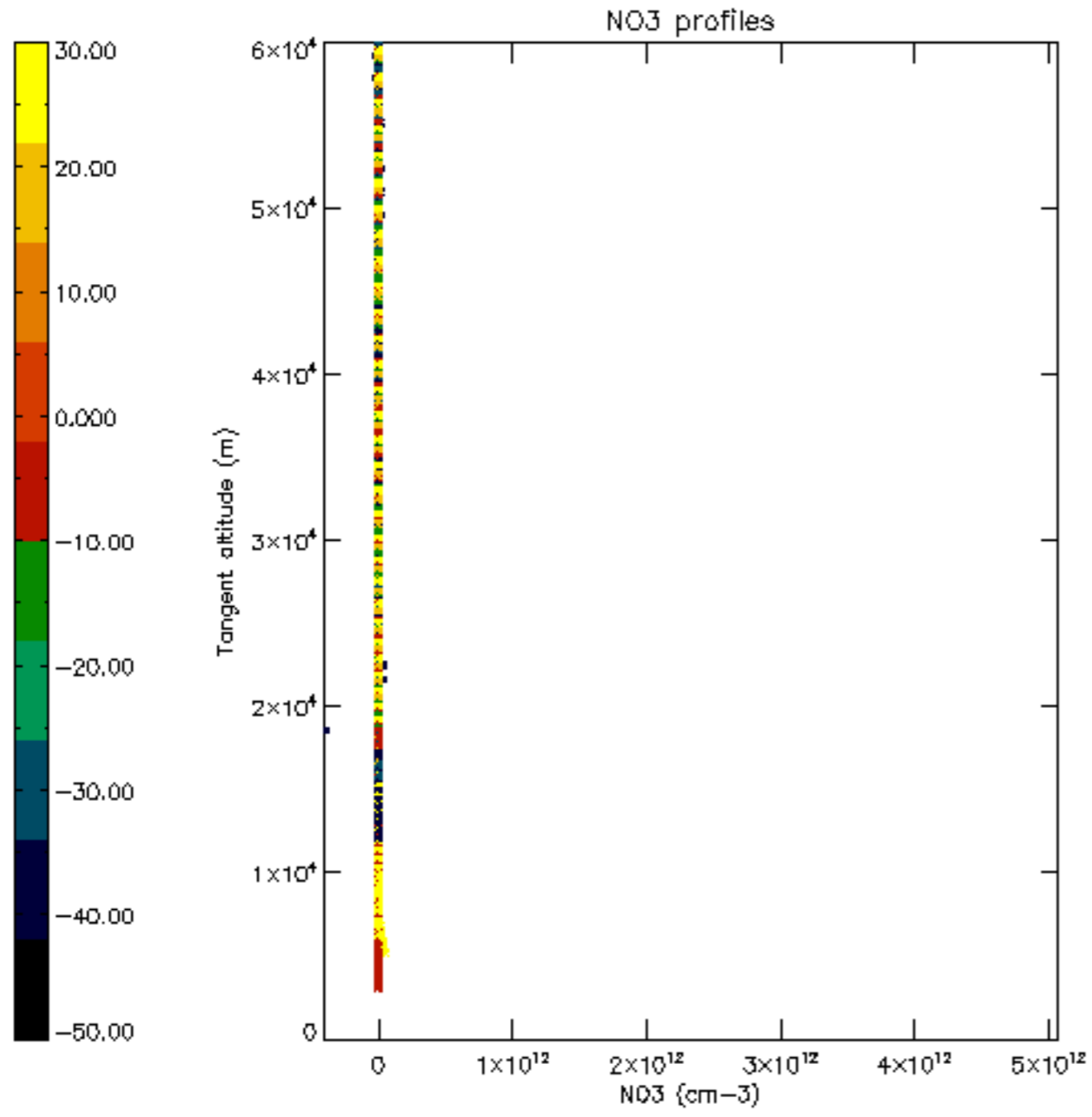


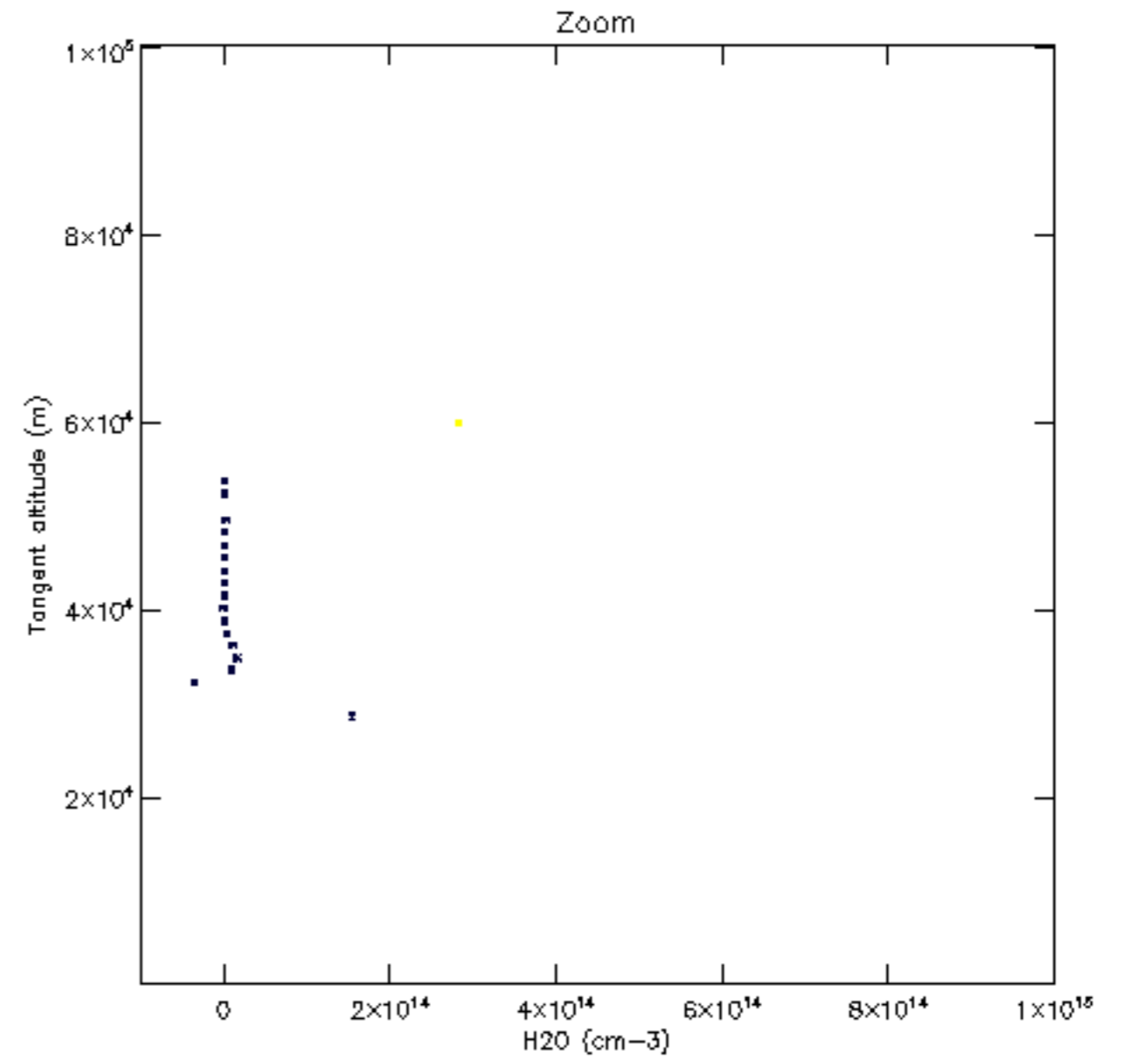
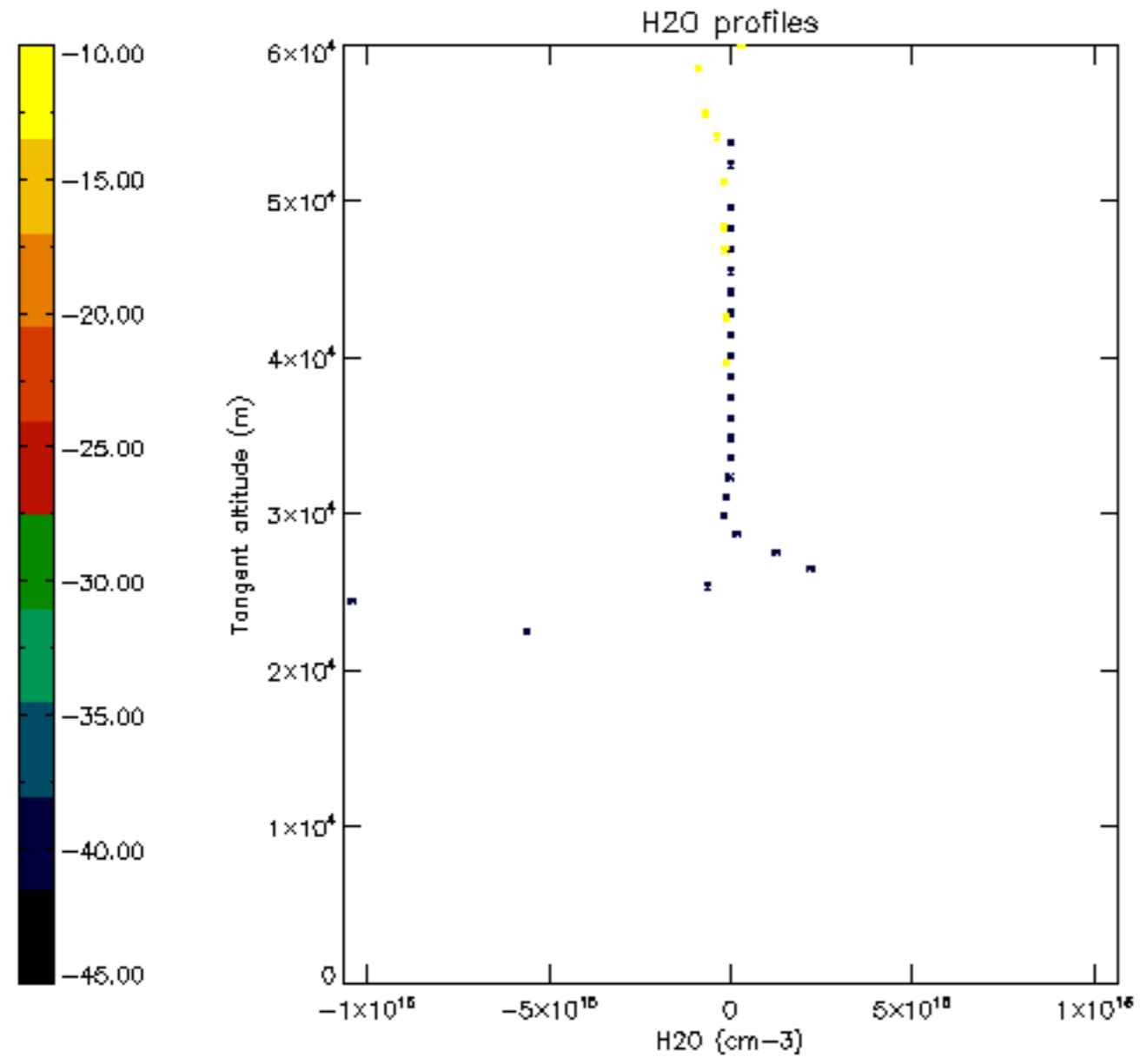


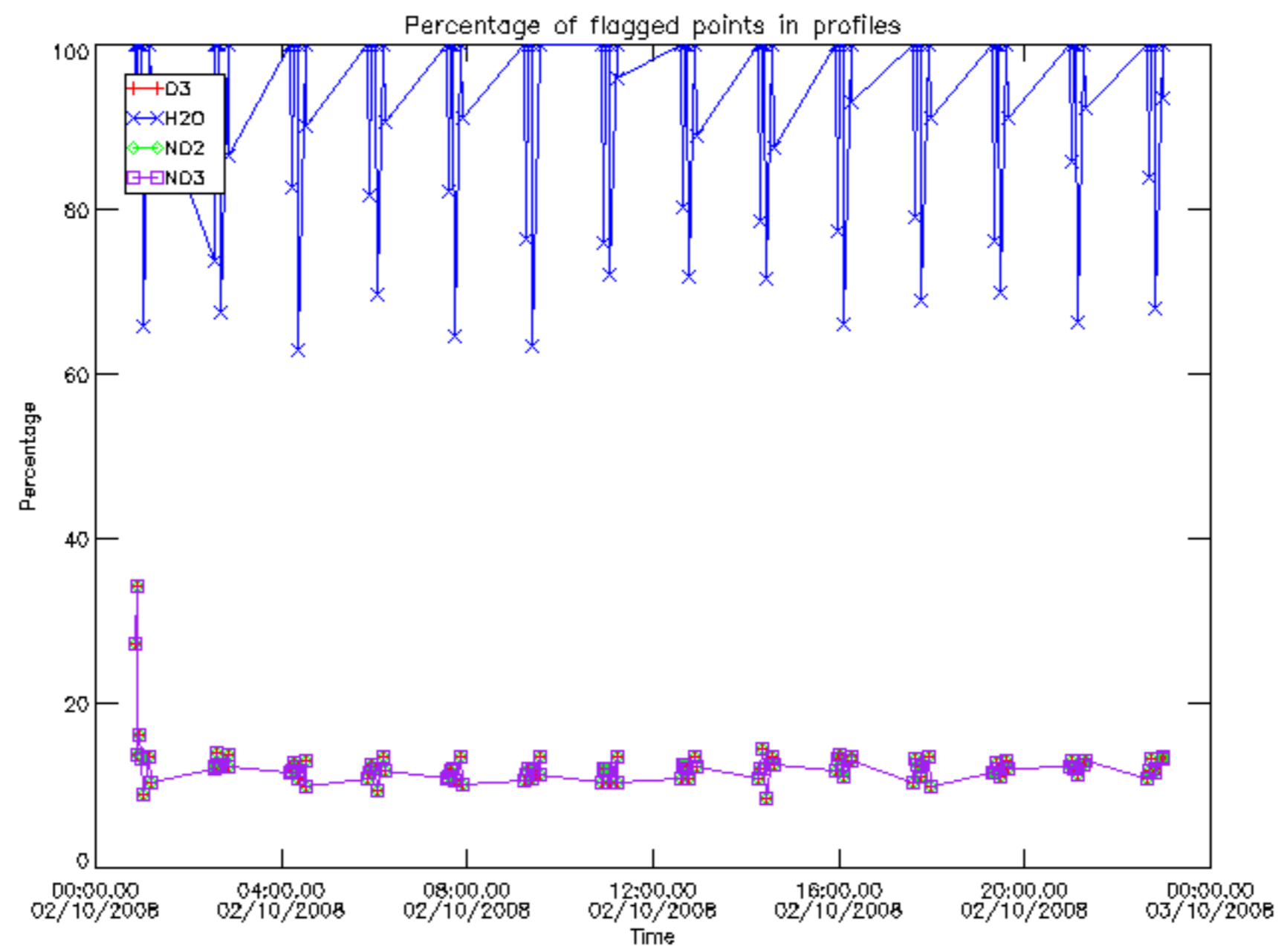




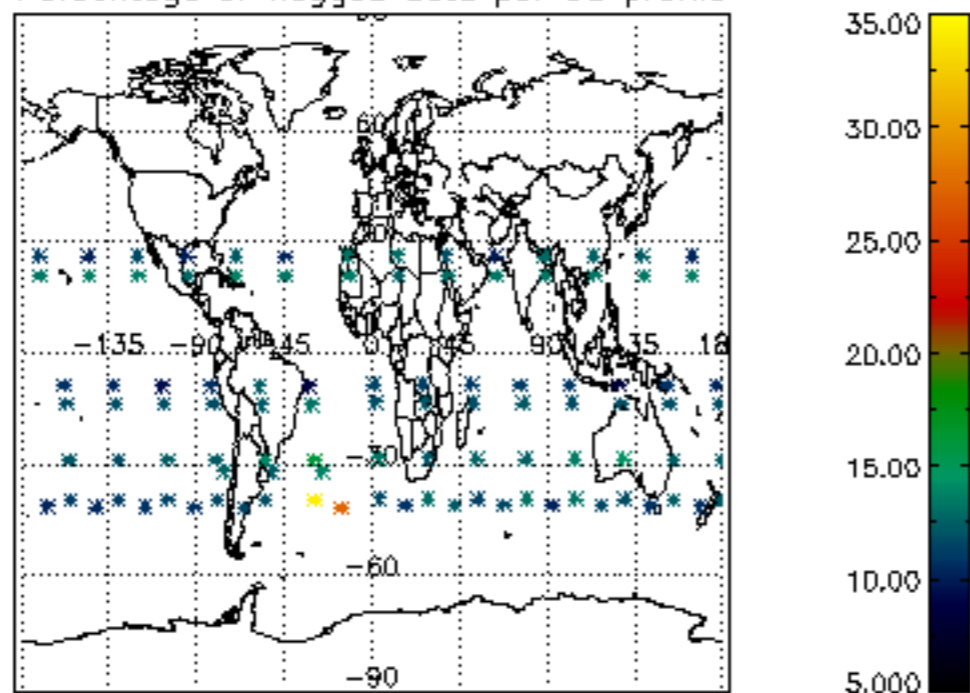




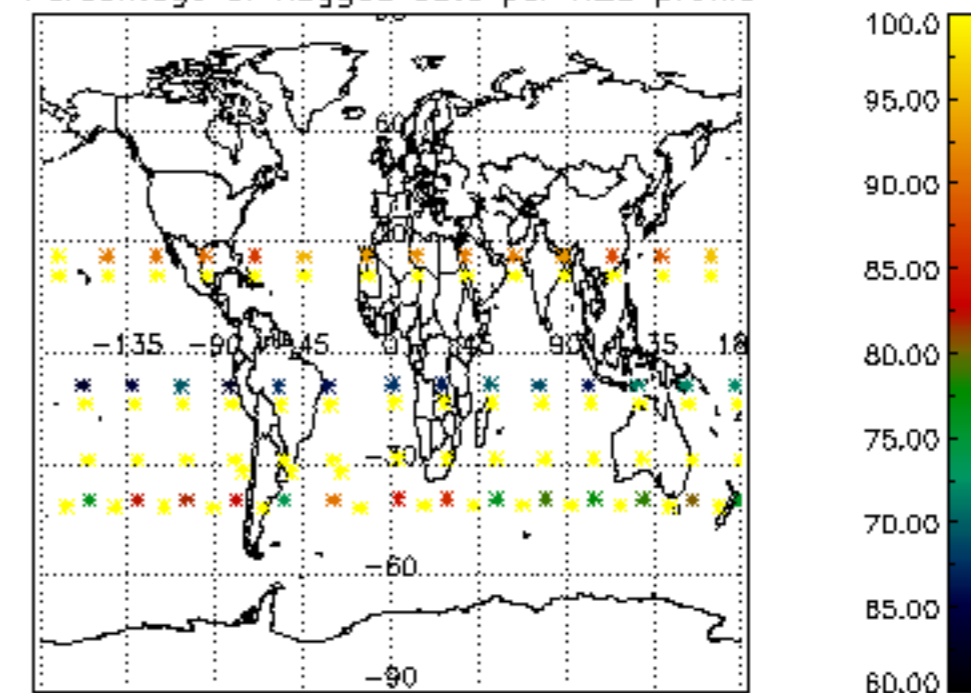




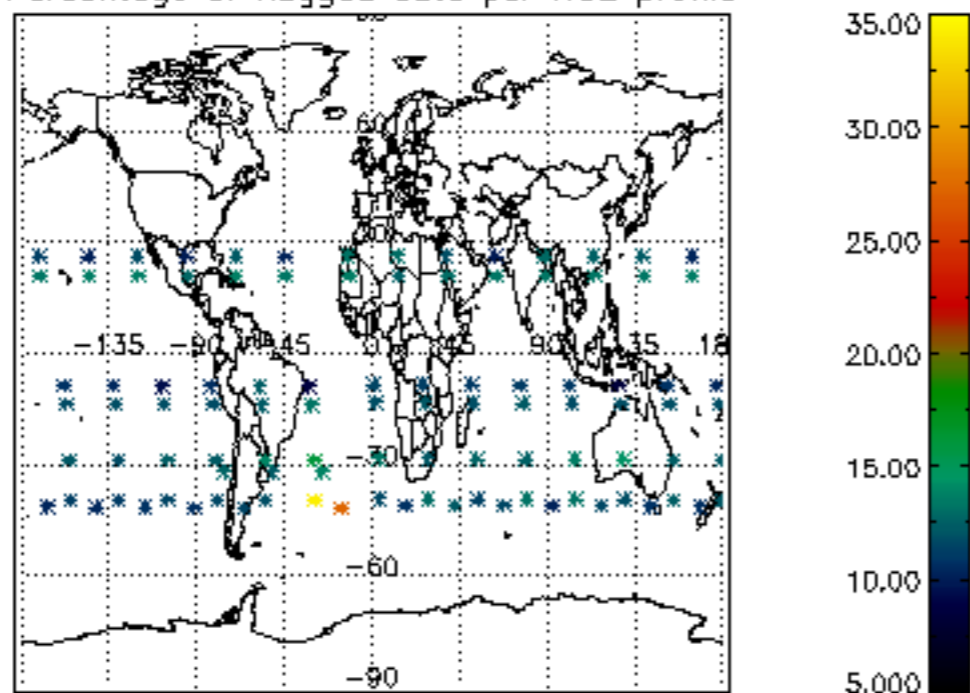
Percentage of flagged data per D3 profile



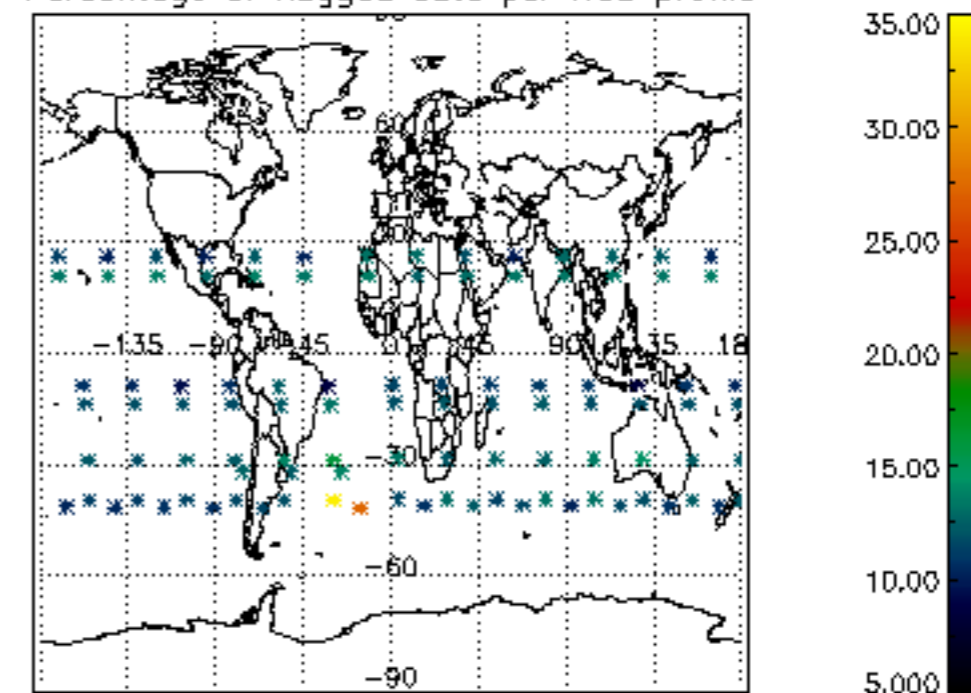
Percentage of flagged data per H2O profile

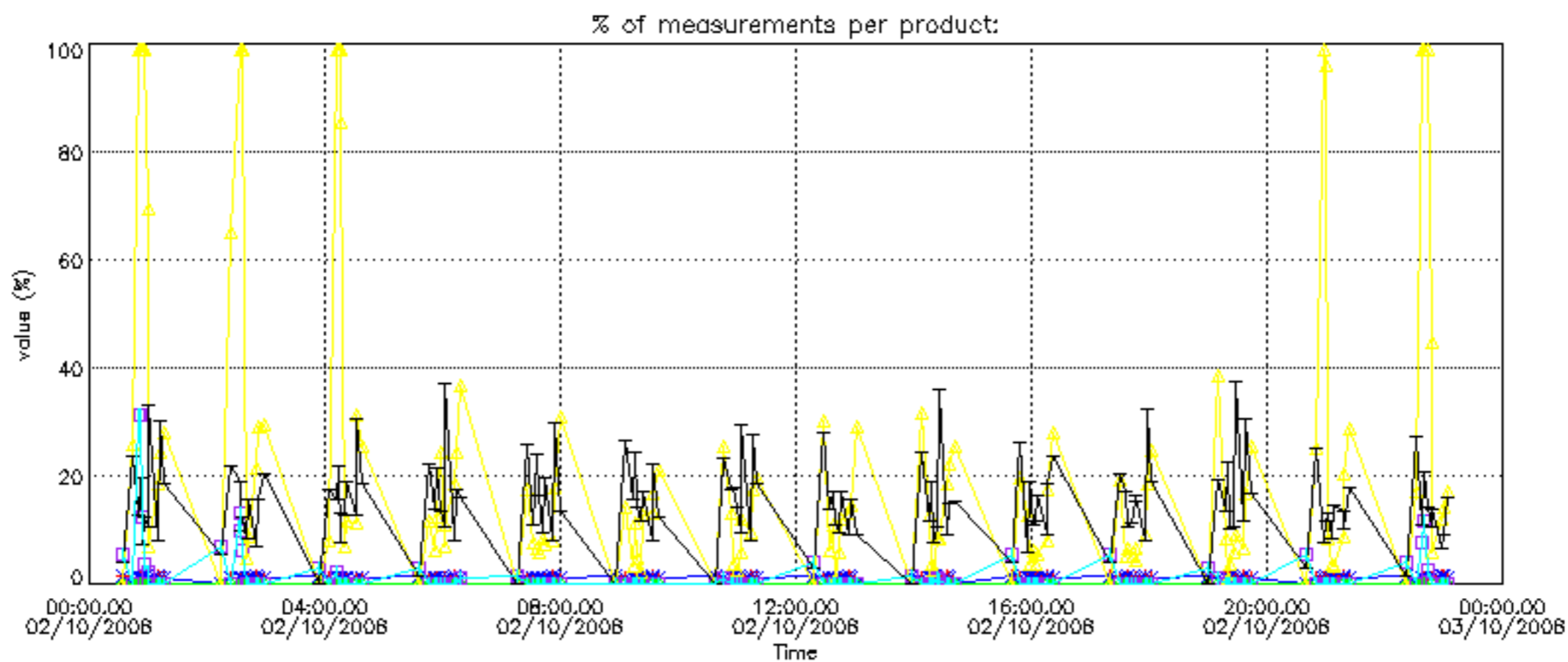


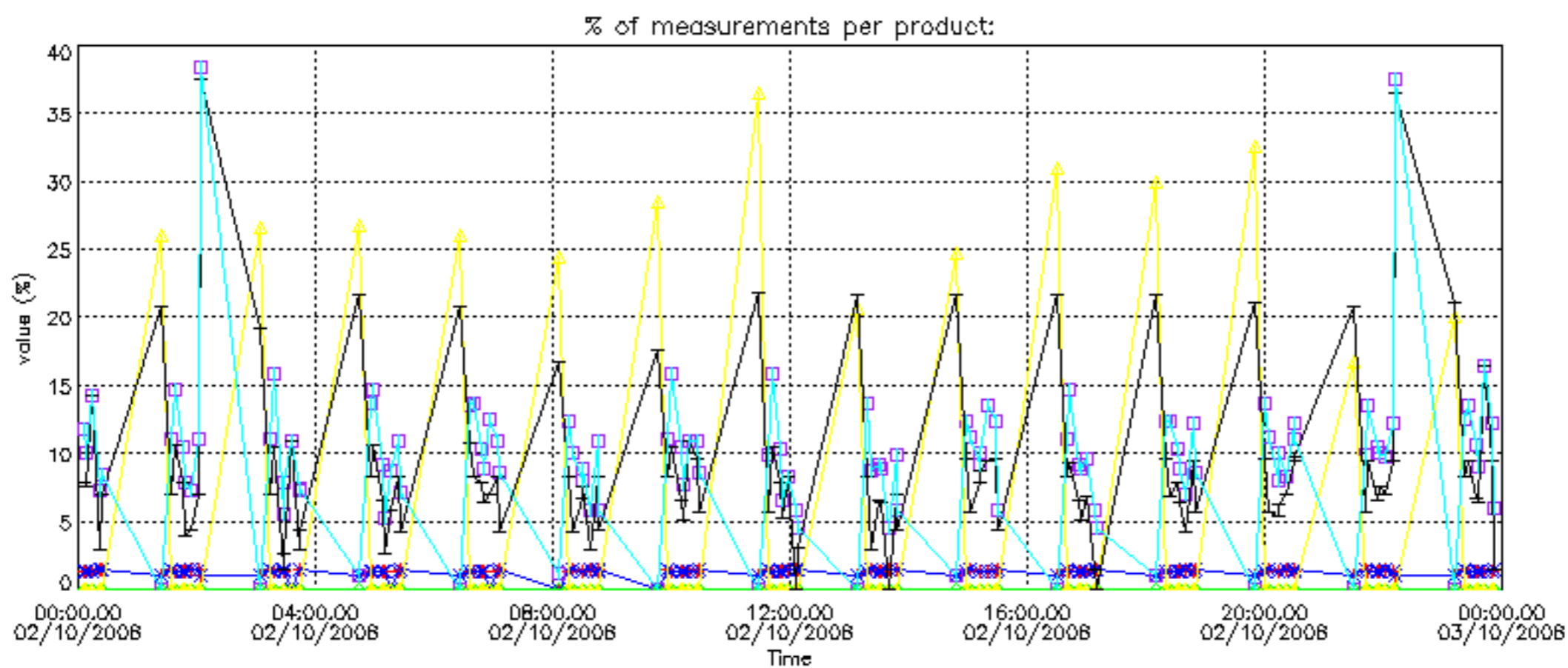
Percentage of flagged data per NO2 profile



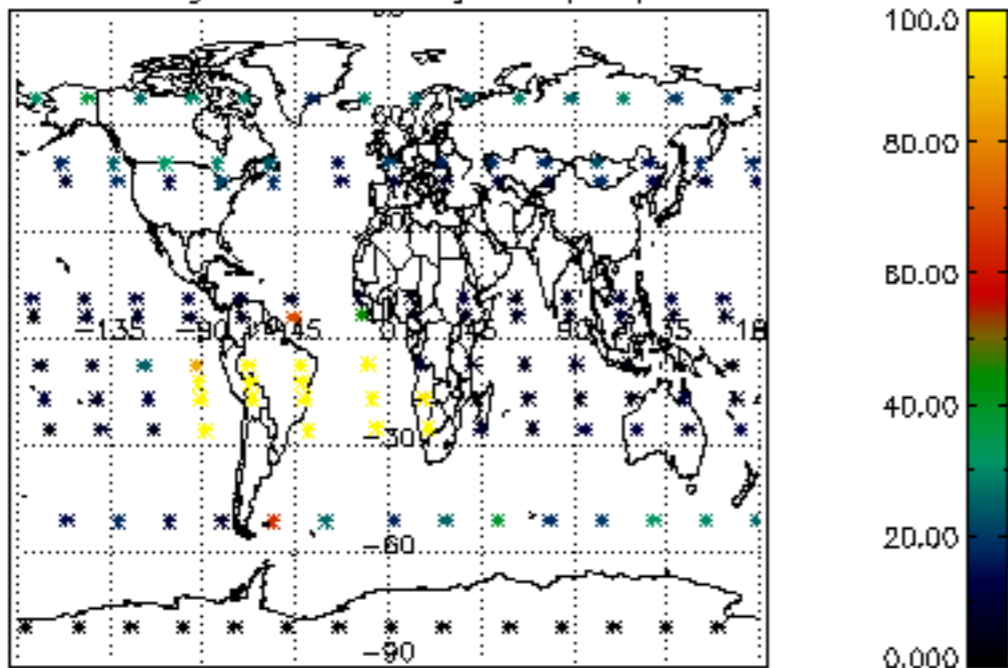
Percentage of flagged data per NO3 profile



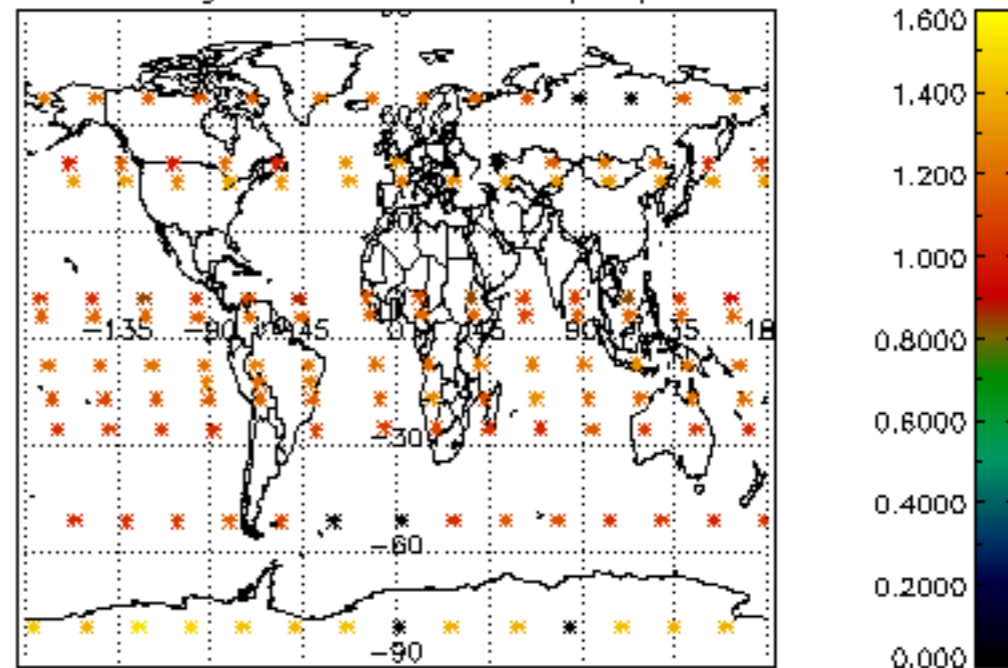




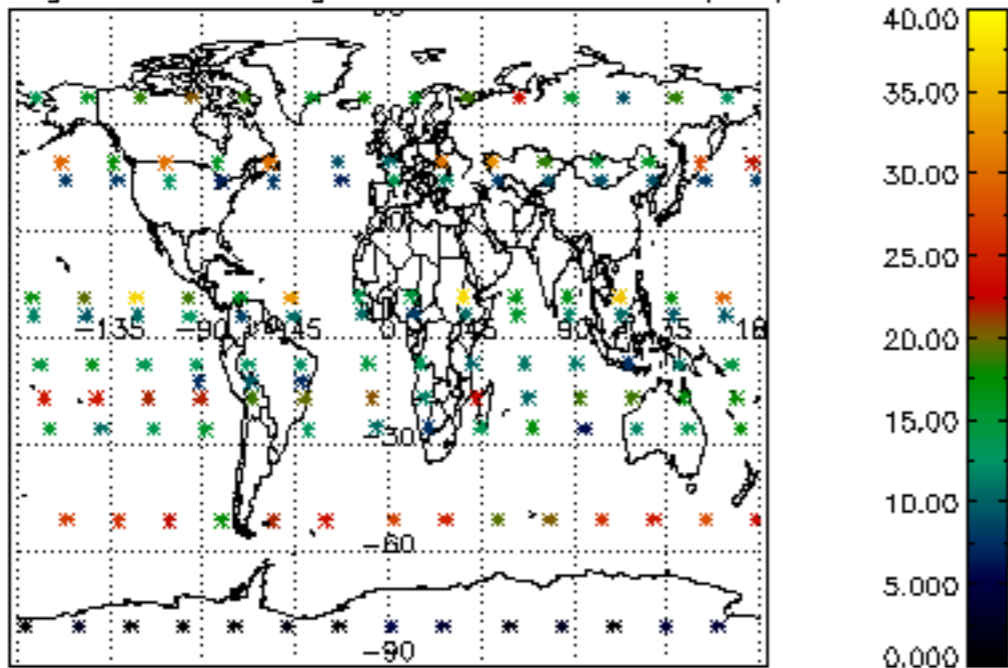
Percentage of cosmic ray hits per profile



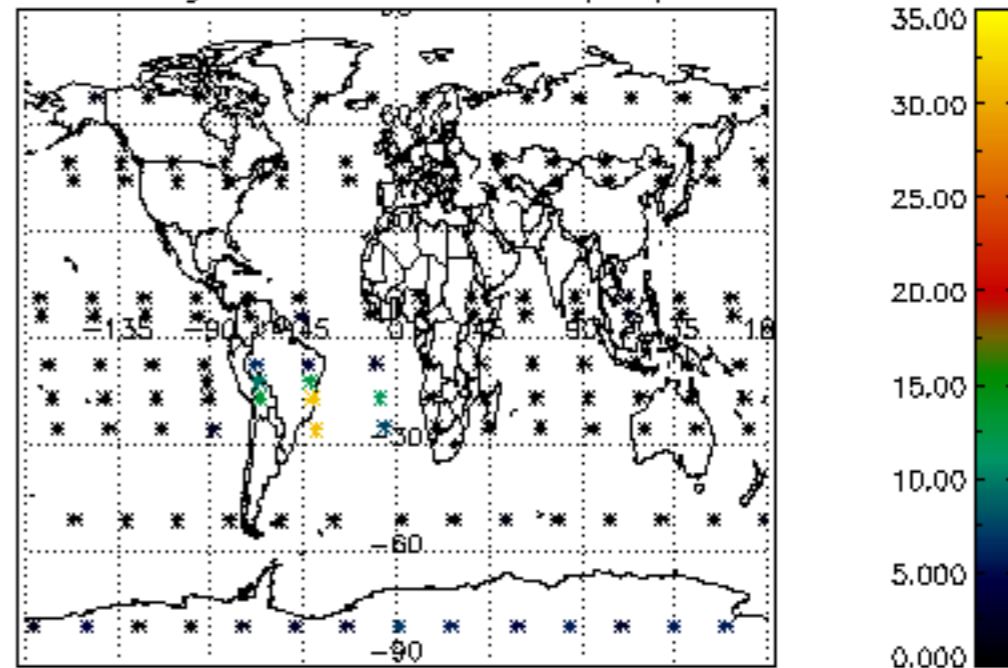
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

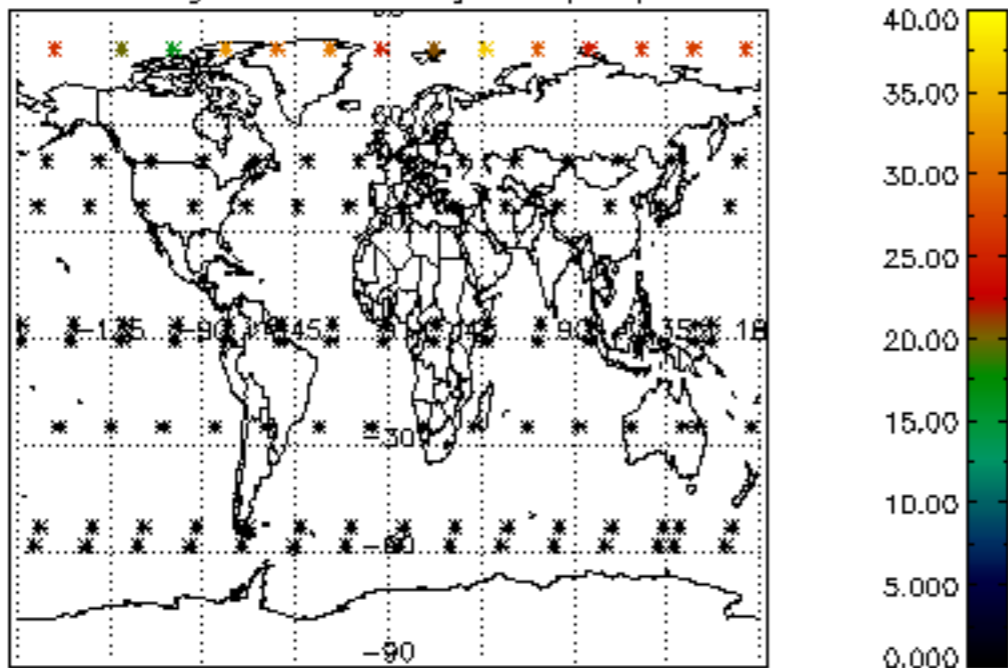


Percentage of saturation errors per profile

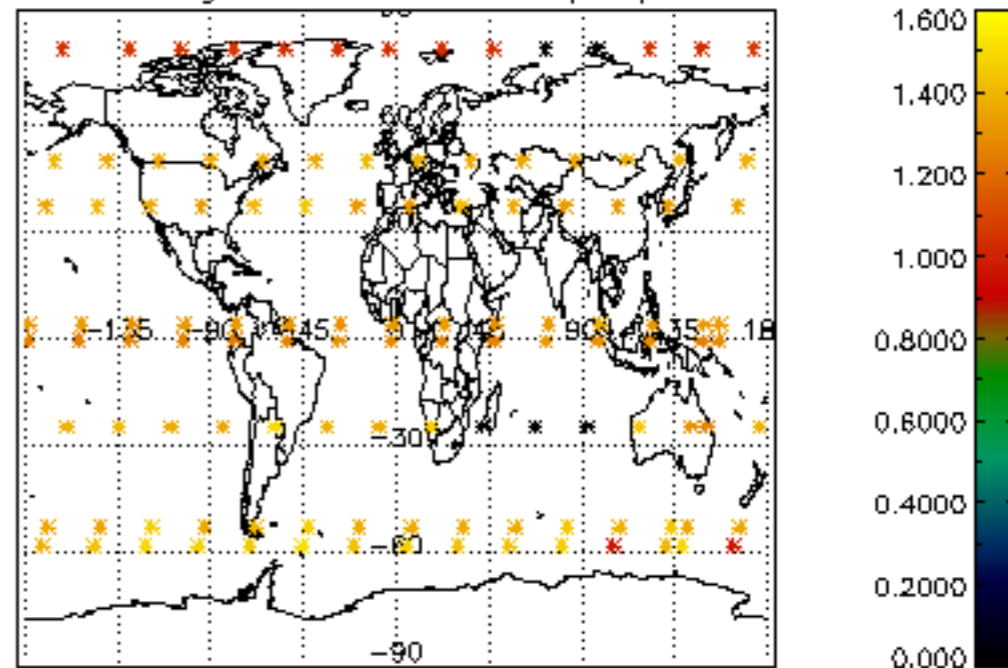




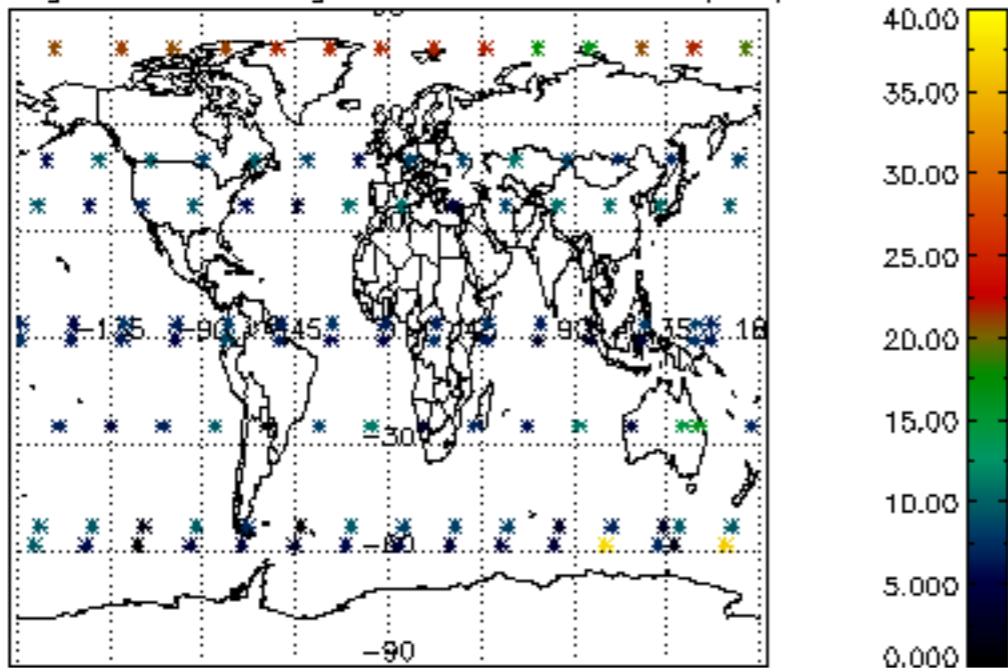
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

