

# 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	17APR2013 17:24:24
Data source version	GOMOS/6.01
Start time of products	17-04-2002 (17APR2002 00:00:00)
Stop time of products	18-04-2002 (18APR2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	66
Nb of prods with errors	0

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

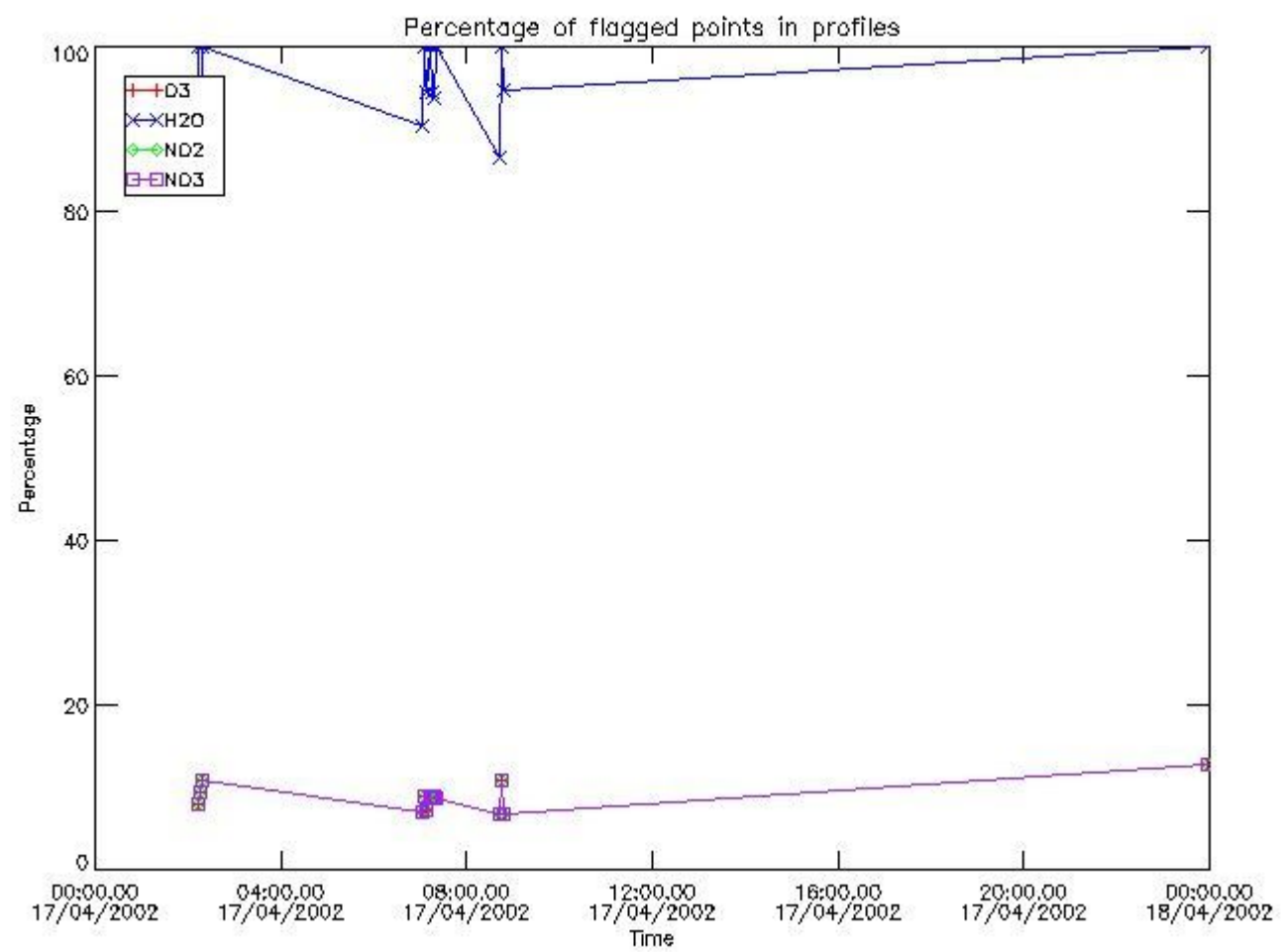
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20020417_021334_000000652005_00118_00673_0591.N1	17-APR-2002 02:13:34	Dark	64.500	57	34Sig Sgr	2.0660	26000.	129	673	No
2	GOM_NL__2PRFIN20020417_021614_000000552005_00118_00673_0592.N1	17-APR-2002 02:16:14	Dark	54.500	38	20Eps Sgr	1.8360	11000.	109	673	No
3	GOM_NL__2PRFIN20020417_021812_000000382005_00118_00673_0593.N1	17-APR-2002 02:18:12	Dark	37.500	147	Alp Ara	2.8770	26000.	75	673	No
4	GOM_NL__2PRFIN20020417_022205_000000602005_00118_00673_0594.N1	17-APR-2002 02:20:05	Straylight	59.500	25	35Lam Sco	1.6200	28000.	119	673	No
5	GOM_NL__2PRFIN20020417_022224_000000482005_00118_00673_0595.N1	17-APR-2002 02:22:24	Straylight	48.000	4	Alp1Cen	-0.010000	5800.0	96	673	No
6	GOM_NL__2PRFIN20020417_022349_000000382005_00118_00673_0596.N1	17-APR-2002 02:23:49	Straylight	37.500	12	Alp1Cru	0.77500	30000.	75	673	No
7	GOM_NL__2PRFIN20020417_022537_000000382005_00118_00673_0597.N1	17-APR-2002 02:25:37	Straylight	37.500	78	Alp Lup	2.3040	28000.	75	673	No
8	GOM_NL__2PRFIN20020417_022712_000000382005_00118_00673_0598.N1	17-APR-2002 02:27:12	Straylight	37.500	81	Eta Cen	2.3560	28000.	75	673	No
9	GOM_NL__2PRFIN20020417_022933_000000412005_00118_00673_0599.N1	17-APR-2002 02:29:33	Straylight	41.000	54	5The Cen	2.0550	4500.0	82	673	No
10	GOM_NL__2PRFIN20020417_023140_000000662005_00118_00673_0600.N1	17-APR-2002 02:31:40	Twilight	65.500	80	7Del Sco	2.3160	30000.	131	673	No
11	GOM_NL__2PRFIN20020417_023749_000000382005_00118_00673_0601.N1	17-APR-2002 02:37:49	Bright	38.000	15	67Alp Vir	0.97600	28000.	76	673	No
12	GOM_NL__2PRFIN20020417_024537_000000302005_00118_00673_0602.N1	17-APR-2002 02:45:37	Bright	30.000	62	94Bet Leo	2.1360	9700.0	60	673	No
13	GOM_NL__2PRFIN20020417_024854_000000532005_00118_00673_0603.N1	17-APR-2002 02:48:54	Bright	52.500	3	16Alp Boo	-0.050000	4250.0	105	673	No
14	GOM_NL__2PRFIN20020417_025310_000000482005_00118_00673_0604.N1	17-APR-2002 02:53:10	Bright	48.000	83		2.3780	11000.	96	673	No
15	GOM_NL__2PRFIN20020417_025656_000000352005_00118_00673_0605.N1	17-APR-2002 02:56:56	Bright	34.500	39	85Eta UMa	1.8540	24000.	69	673	No
16	GOM_NL__2PRFIN20020417_025857_000000292005_00118_00673_0606.N1	17-APR-2002 02:58:57	Bright	28.500	36	50Alp UMa	1.8000	6300.0	57	673	No
17	GOM_NL__2PRFIN20020417_030404_000000322005_00118_00673_0607.N1	17-APR-2002 03:04:04	Bright	31.500	60	7Bet UMi	2.0810	3950.0	63	673	No
18	GOM_NL__2PRFIN20020417_030658_000000322005_00118_00673_0608.N1	17-APR-2002 03:06:58	Bright	31.500	49	1Alp UMi	1.9900	6300.0	63	673	No
19	GOM_NL__2PRFIN20020417_031428_000000312005_00118_00673_0609.N1	17-APR-2002 03:14:28	Bright	30.500	76	27Gam Cas	2.3000	30000.	61	673	No
20	GOM_NL__2PRFIN20020417_031547_000000282005_00118_00673_0610.N1	17-APR-2002 03:15:47	Bright	28.000	68	18Alp Cas	2.2250	4500.0	56	673	No
21	GOM_NL__2PRFIN20020417_031813_000000442005_00118_00673_0611.N1	17-APR-2002 03:18:13	Bright	43.500	485	32 Cyg	3.9400	4600.0	87	673	No
22	GOM_NL__2PRFIN20020417_032005_000000932005_00118_00673_0612.N1	17-APR-2002 03:20:05	Bright	92.500	5	3Alp Lyr	0.033000	11000.	185	673	No
23	GOM_NL__2PRFIN20020417_032354_000000492005_00118_00673_0613.N1	17-APR-2002 03:23:54	Bright	48.500	92	53Eps Cyg	2.5000	4500.0	97	673	No
24	GOM_NL__2PRFIN20020417_060649_000000312005_00120_00675_0592.N1	17-APR-2002 06:06:49	Bright	30.500	62	94Bet Leo	2.1360	9700.0	61	675	No
25	GOM_NL__2PRFIN20020417_061005_000000522005_00120_00675_0593.N1	17-APR-2002 06:10:05	Bright	51.500	3	16Alp Boo	-0.050000	4250.0	103	675	No
26	GOM_NL__2PRFIN20020417_061420_000000502005_00120_00675_0594.N1	17-APR-2002 06:14:20	Bright	50.000	83		2.3780	11000.	100	675	No
27	GOM_NL__2PRFIN20020417_061807_000000342005_00120_00675_0595.N1	17-APR-2002 06:18:07	Bright	34.000	39	85Eta UMa	1.8540	24000.	68	675	No
28	GOM_NL__2PRFIN20020417_062009_000000322005_00120_00675_0596.N1	17-APR-2002 06:20:09	Bright	32.000	36	50Alp UMa	1.8000	6300.0	64	675	No
29	GOM_NL__2PRFIN20020417_062515_000000352005_00120_00675_0597.N1	17-APR-2002 06:25:15	Bright	35.000	60	7Bet UMi	2.0810	3950.0	70	675	No
30	GOM_NL__2PRFIN20020417_062810_000000312005_00120_00675_0598.N1	17-APR-2002 06:28:10	Bright	31.000	49	1Alp UMi	1.9900	6300.0	62	675	No
31	GOM_NL__2PRFIN20020417_063541_000000292005_00120_00675_0599.N1	17-APR-2002 06:35:41	Bright	28.500	76	27Gam Cas	2.3000	30000.	57	675	No
32	GOM_NL__2PRFIN20020417_063659_000000312005_00120_00675_0600.N1	17-APR-2002 06:36:59	Bright	30.500	68	18Alp Cas	2.2250	4500.0	61	675	No
33	GOM_NL__2PRFIN20020417_063925_000000432005_00120_00675_0601.N1	17-APR-2002 06:39:25	Bright	43.000	485	32 Cyg	3.9400	4600.0	86	675	No
34	GOM_NL__2PRFIN20020417_064116_000001182005_00120_00675_0602.N1	17-APR-2002 06:41:16	Bright	117.50	5	3Alp Lyr	0.033000	11000.	235	675	No
35	GOM_NL__2PRFIN20020417_064506_000000492005_00120_00675_0603.N1	17-APR-2002 06:45:06	Bright	49.000	92	53Eps Cyg	2.5000	4500.0	98	675	No
36	GOM_NL__2PRFIN20020417_070155_000000372005_00120_00675_0604.N1	17-APR-2002 07:01:55	Dark	37.000	18	24Alp PsA	1.1660	9700.0	74	675	No
37	GOM_NL__2PRFIN20020417_070442_000000572005_00120_00675_0605.N1	17-APR-2002 07:04:42	Dark	57.000	188	9Bet Cap	3.0800	8900.0	114	675	No
38	GOM_NL__2PRFIN20020417_070724_000000362005_00120_00675_0606.N1	17-APR-2002 07:07:24	Dark	36.000	31	Alp Gru	1.7340	15200.	72	675	No
39	GOM_NL__2PRFIN20020417_071226_000000352005_00121_00676_0592.N1	17-APR-2002 07:12:26	Dark	35.000	45	Alp Pav	1.9400	26000.	70	676	No
40	GOM_NL__2PRFIN20020417_071527_000000652005_00121_00676_0593.N1	17-APR-2002 07:15:27	Dark	64.500	57	34Sig Sgr	2.0660	26000.	129	676	No
41	GOM_NL__2PRFIN20020417_071806_000000572005_00121_00676_0594.N1	17-APR-2002 07:18:06	Dark	57.000	38	20Eps Sgr	1.8360	11000.	114	676	No
42	GOM_NL__2PRFIN20020417_072003_000000412005_00121_00676_0595.N1	17-APR-2002 07:20:03	Dark	41.000	147	Alp Ara	2.8770	26000.	82	676	No

43	GOM_NL__2PRFIN20020417_072156_000000652005_00121_00676_0596.N1	17-APR-2002 07:21:56	Straylight	64.500	25	35Lam Sco	1.6200	28000.	129	676	No
44	GOM_NL__2PRFIN20020417_072413_000000392005_00121_00676_0597.N1	17-APR-2002 07:24:13	Straylight	38.500	4	Alp1Cen	-0.010000	5800.0	77	676	No
45	GOM_NL__2PRFIN20020417_072537_000000372005_00121_00676_0598.N1	17-APR-2002 07:25:37	Straylight	36.500	12	Alp1Cru	0.77500	30000.	73	676	No
46	GOM_NL__2PRFIN20020417_072726_000000362005_00121_00676_0599.N1	17-APR-2002 07:27:26	Straylight	36.000	78	Alp Lup	2.3040	28000.	72	676	No
47	GOM_NL__2PRFIN20020417_072901_000000392005_00121_00676_0600.N1	17-APR-2002 07:29:01	Straylight	39.000	81	Eta Cen	2.3560	28000.	78	676	No
48	GOM_NL__2PRFIN20020417_073121_000000402005_00121_00676_0601.N1	17-APR-2002 07:31:21	Straylight	39.500	54	5The Cen	2.0550	4500.0	79	676	No
49	GOM_NL__2PRFIN20020417_073329_000000712005_00121_00676_0602.N1	17-APR-2002 07:33:29	Tw_i_and_stray	71.000	80	7Del Sco	2.3160	30000.	142	676	No
50	GOM_NL__2PRFIN20020417_073937_000000392005_00121_00676_0603.N1	17-APR-2002 07:39:37	Bright	38.500	15	67Alp Vir	0.97600	28000.	77	676	No
51	GOM_NL__2PRFIN20020417_074725_000000302005_00121_00676_0604.N1	17-APR-2002 07:47:25	Bright	30.000	62	94Bet Leo	2.1360	9700.0	60	676	No
52	GOM_NL__2PRFIN20020417_075040_000000512005_00121_00676_0605.N1	17-APR-2002 07:50:40	Bright	50.500	3	16Alp Boo	-0.050000	4250.0	101	676	No
53	GOM_NL__2PRFIN20020417_075455_000000512005_00121_00676_0606.N1	17-APR-2002 07:54:55	Bright	51.000	83		2.3780	11000.	102	676	No
54	GOM_NL__2PRFIN20020417_075842_000000372005_00121_00676_0607.N1	17-APR-2002 07:58:42	Bright	37.000	39	85Eta UMa	1.8540	24000.	74	676	No
55	GOM_NL__2PRFIN20020417_080045_000000322005_00121_00676_0608.N1	17-APR-2002 08:00:45	Bright	31.500	36	50Alp UMa	1.8000	6300.0	63	676	No
56	GOM_NL__2PRFIN20020417_080551_000000352005_00121_00676_0609.N1	17-APR-2002 08:05:51	Bright	34.500	60	7Bet UMi	2.0810	3950.0	69	676	No
57	GOM_NL__2PRFIN20020417_080846_000000282005_00121_00676_0610.N1	17-APR-2002 08:08:46	Bright	27.500	49	1Alp UMi	1.9900	6300.0	55	676	No
58	GOM_NL__2PRFIN20020417_081617_000000312005_00121_00676_0611.N1	17-APR-2002 08:16:17	Bright	30.500	76	27Gam Cas	2.3000	30000.	61	676	No
59	GOM_NL__2PRFIN20020417_081735_000000302005_00121_00676_0612.N1	17-APR-2002 08:17:35	Bright	29.500	68	18Alp Cas	2.2250	4500.0	59	676	No
60	GOM_NL__2PRFIN20020417_082001_000000432005_00121_00676_0613.N1	17-APR-2002 08:20:01	Bright	43.000	485	32 Cyg	3.9400	4600.0	86	676	No
61	GOM_NL__2PRFIN20020417_082151_000000972005_00121_00676_0614.N1	17-APR-2002 08:21:51	Bright	97.000	5	3Alp Lyr	0.033000	11000.	194	676	No
62	GOM_NL__2PRFIN20020417_082542_000000502005_00121_00676_0615.N1	17-APR-2002 08:25:42	Bright	49.500	92	53Eps Cyg	2.5000	4500.0	99	676	No
63	GOM_NL__2PRFIN20020417_084231_000000382005_00121_00676_0616.N1	17-APR-2002 08:42:31	Dark	37.500	18	24Alp PsA	1.1660	9700.0	75	676	No
64	GOM_NL__2PRFIN20020417_084519_000000522005_00121_00676_0617.N1	17-APR-2002 08:45:19	Dark	51.500	188	9Bet Cap	3.0800	8900.0	103	676	No
65	GOM_NL__2PRFIN20020417_084801_000000382005_00121_00676_0618.N1	17-APR-2002 08:48:01	Dark	38.000	31	Alp Gru	1.7340	15200.	76	676	No
66	GOM_NL__2PRFIN20020417_235828_000000362005_00131_00686_0619.N1	17-APR-2002 23:58:28	Dark	36.000	45	Alp Pav	1.9400	26000.	72	686	No

### 3. Quality information per product

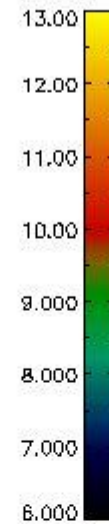
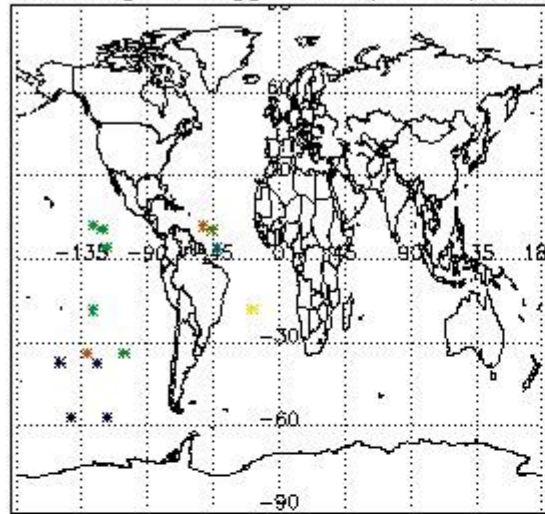
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

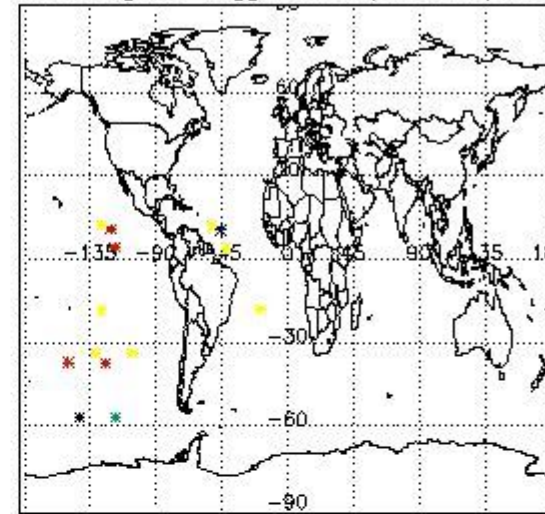


3.2 Plot quality information per product (world map)

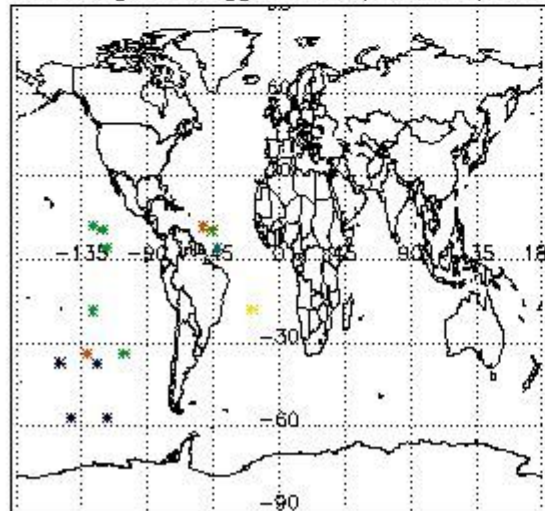
Percentage of flagged data per O3 profile



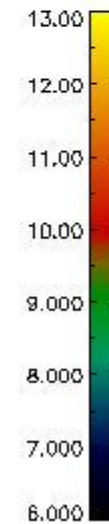
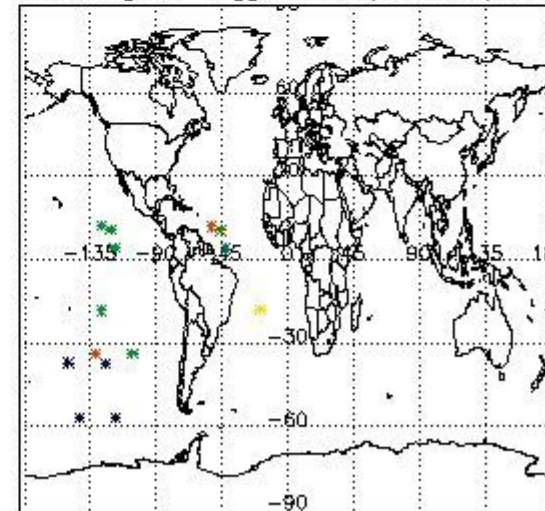
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

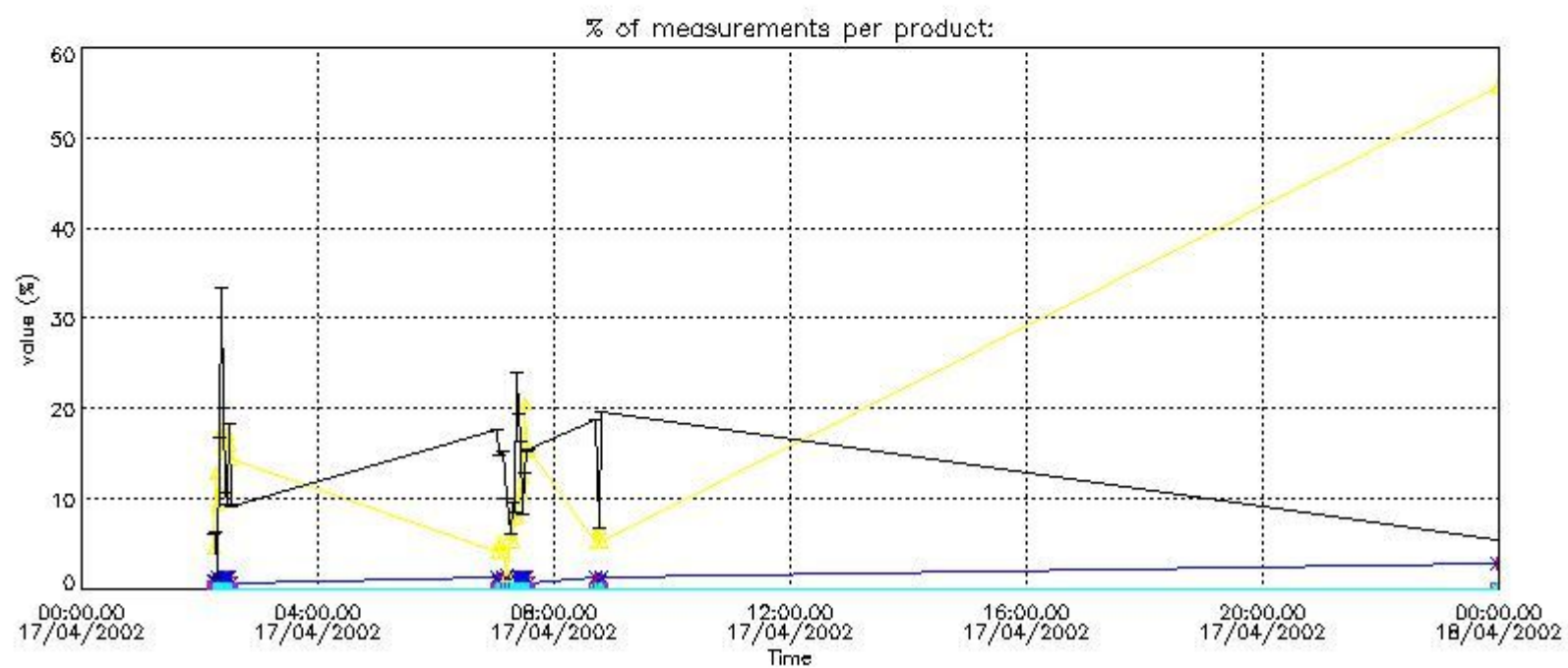
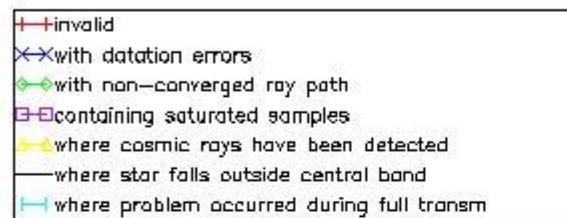


#### 4. Level 1 quality information per product

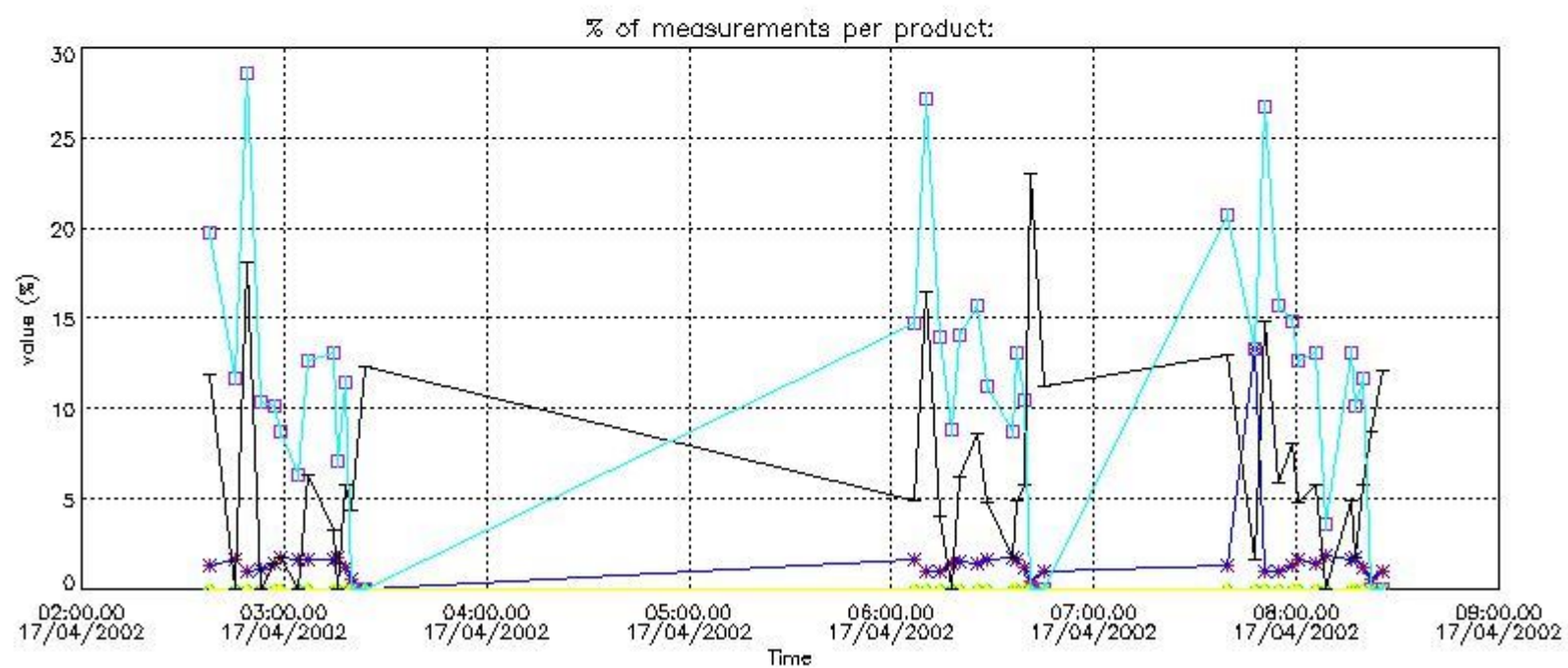
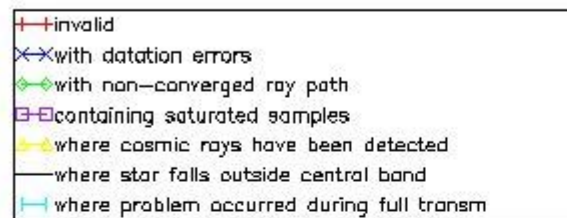
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



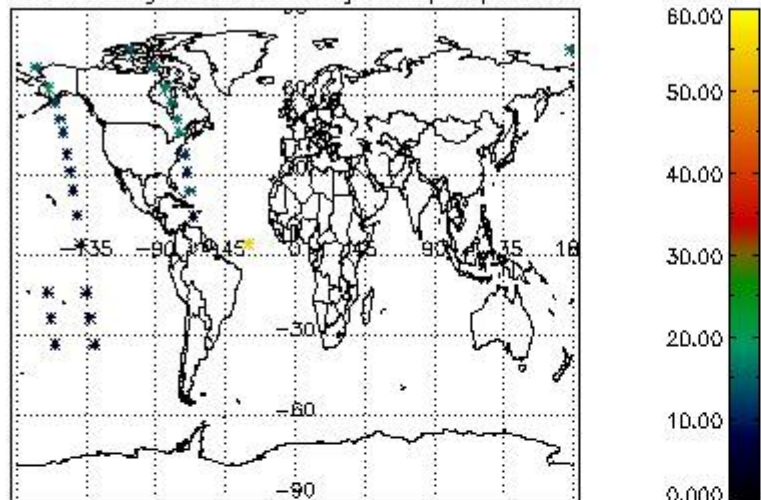
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



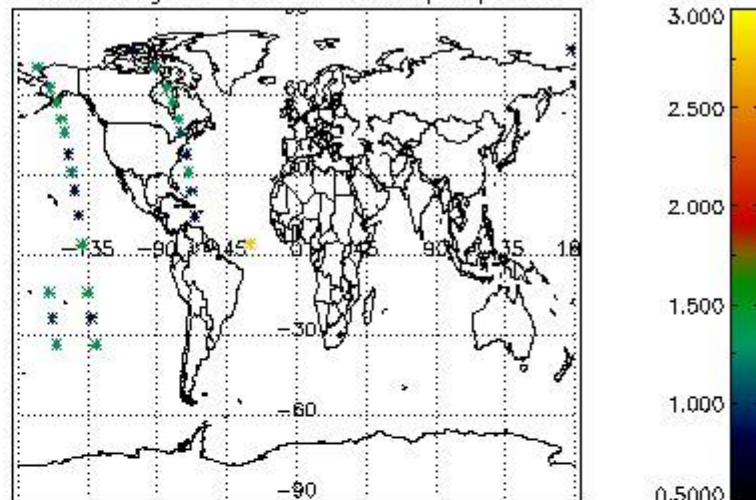
4.2 Plot quality information per product coming from level 1b processing (world map)

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

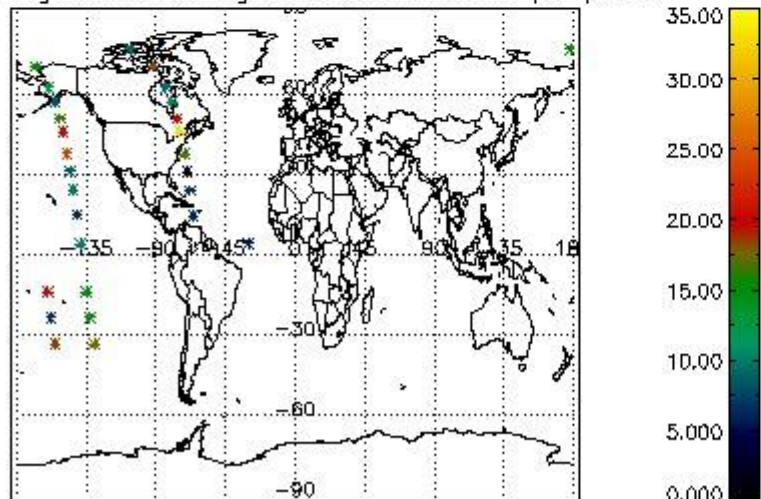
Percentage of cosmic ray hits per profile



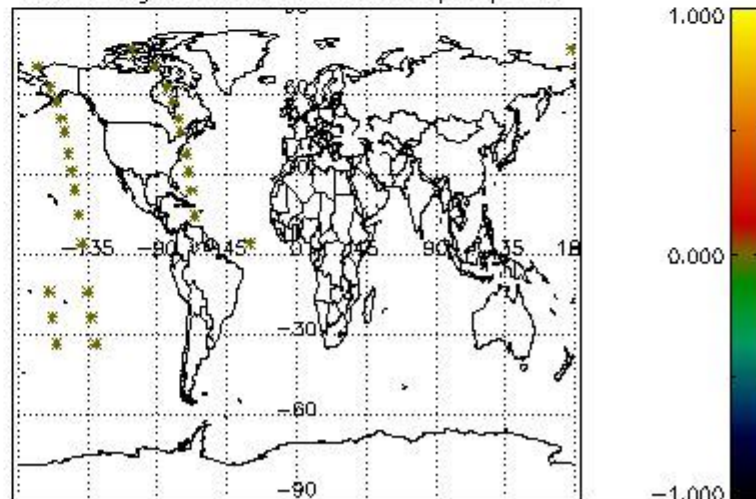
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

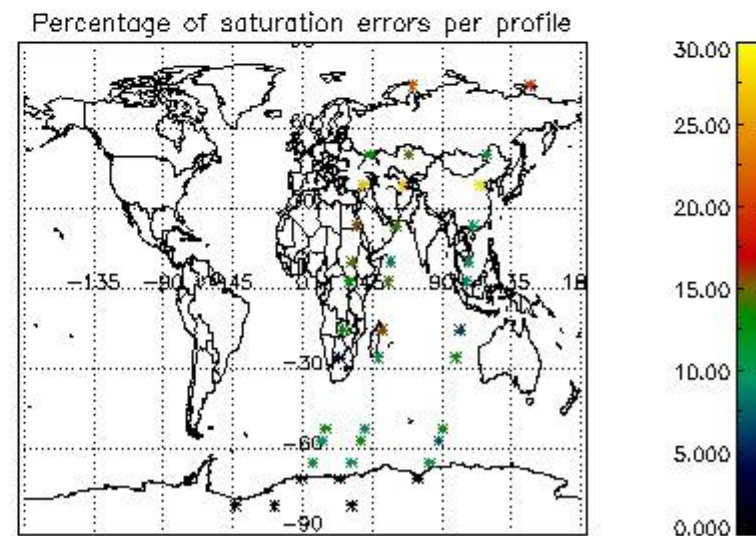
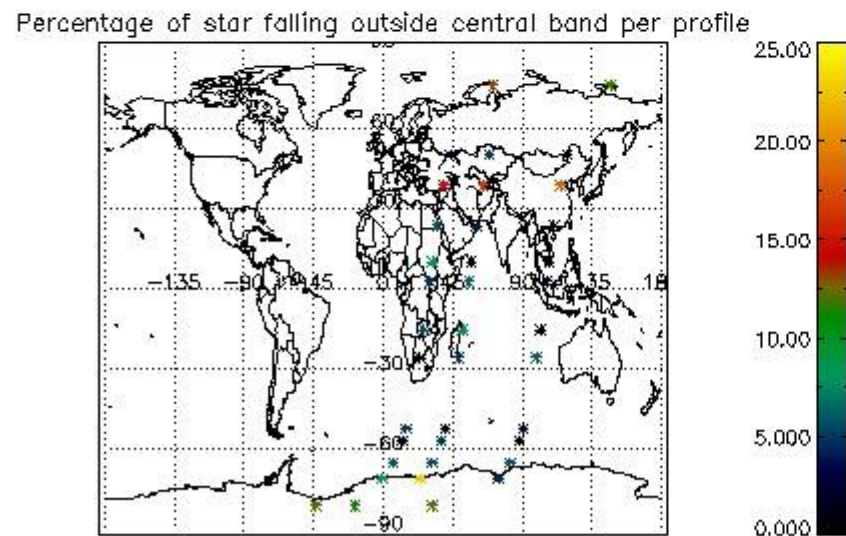
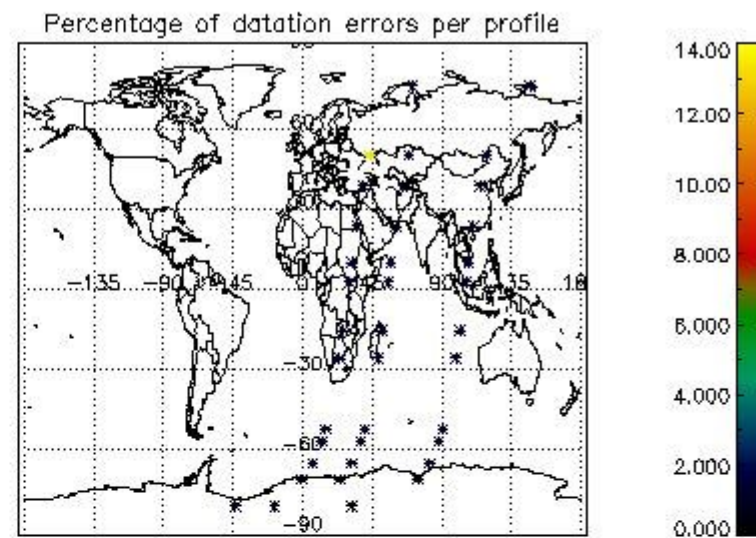
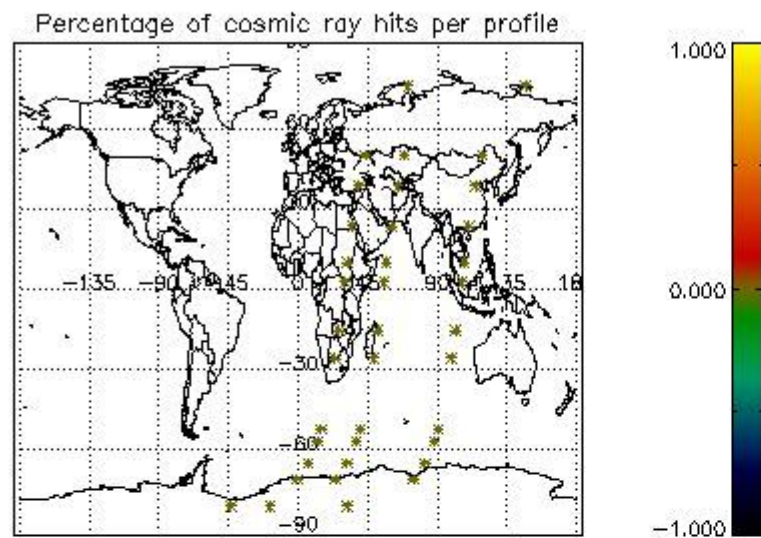


Percentage of saturation errors per profile



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

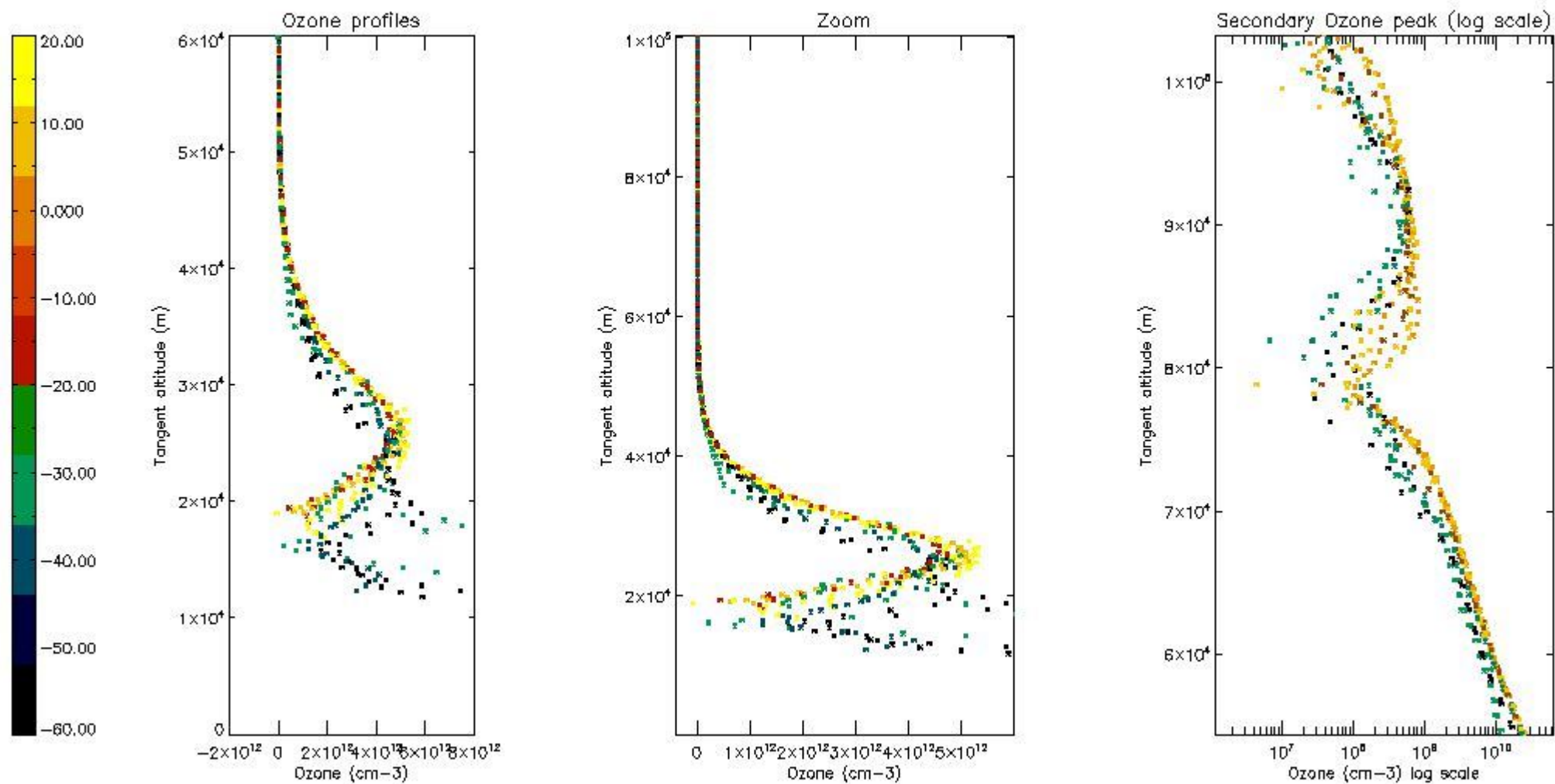
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	22
STD < 20	18

STD < 10	16
STD < 5	12

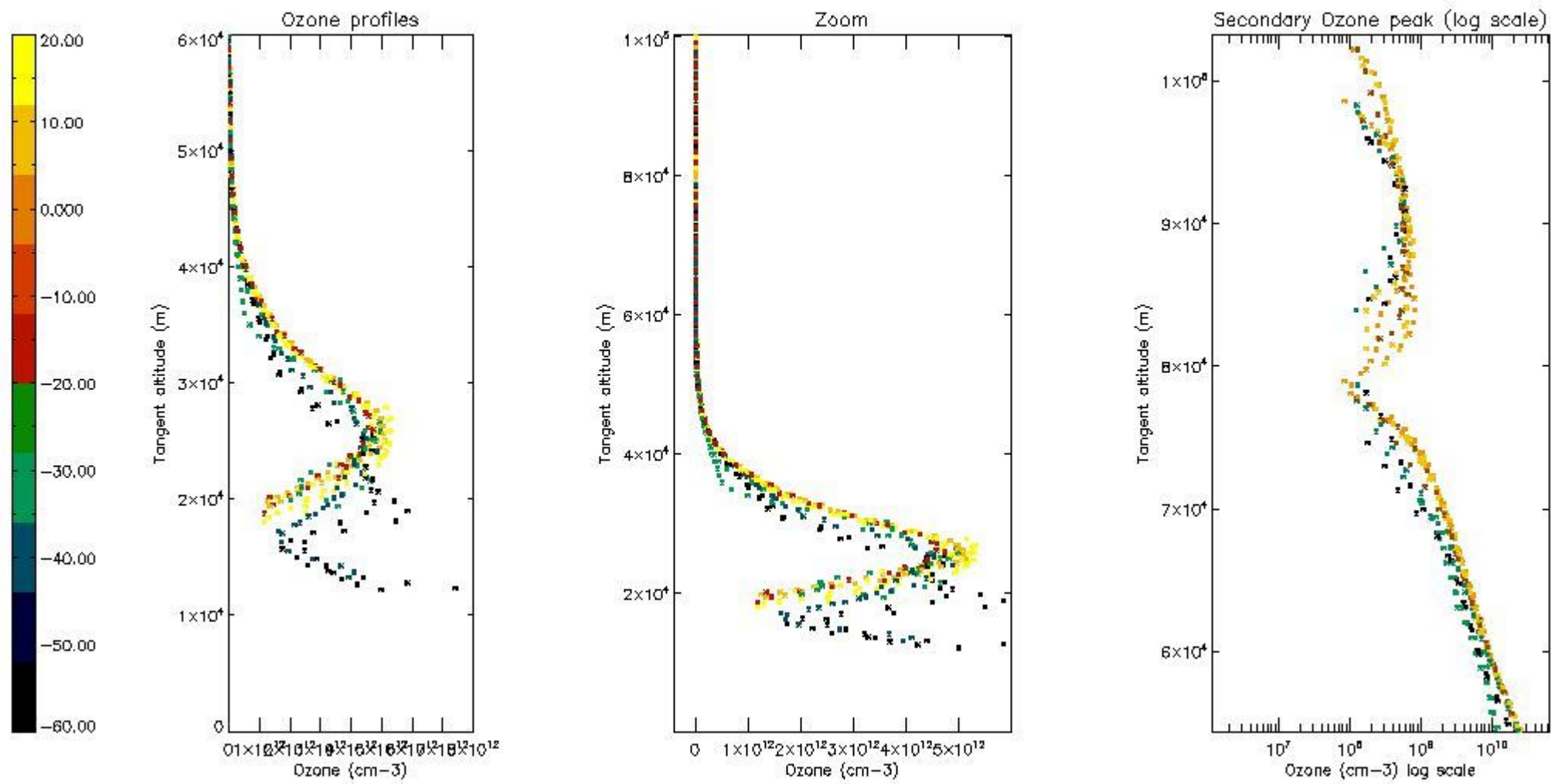
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



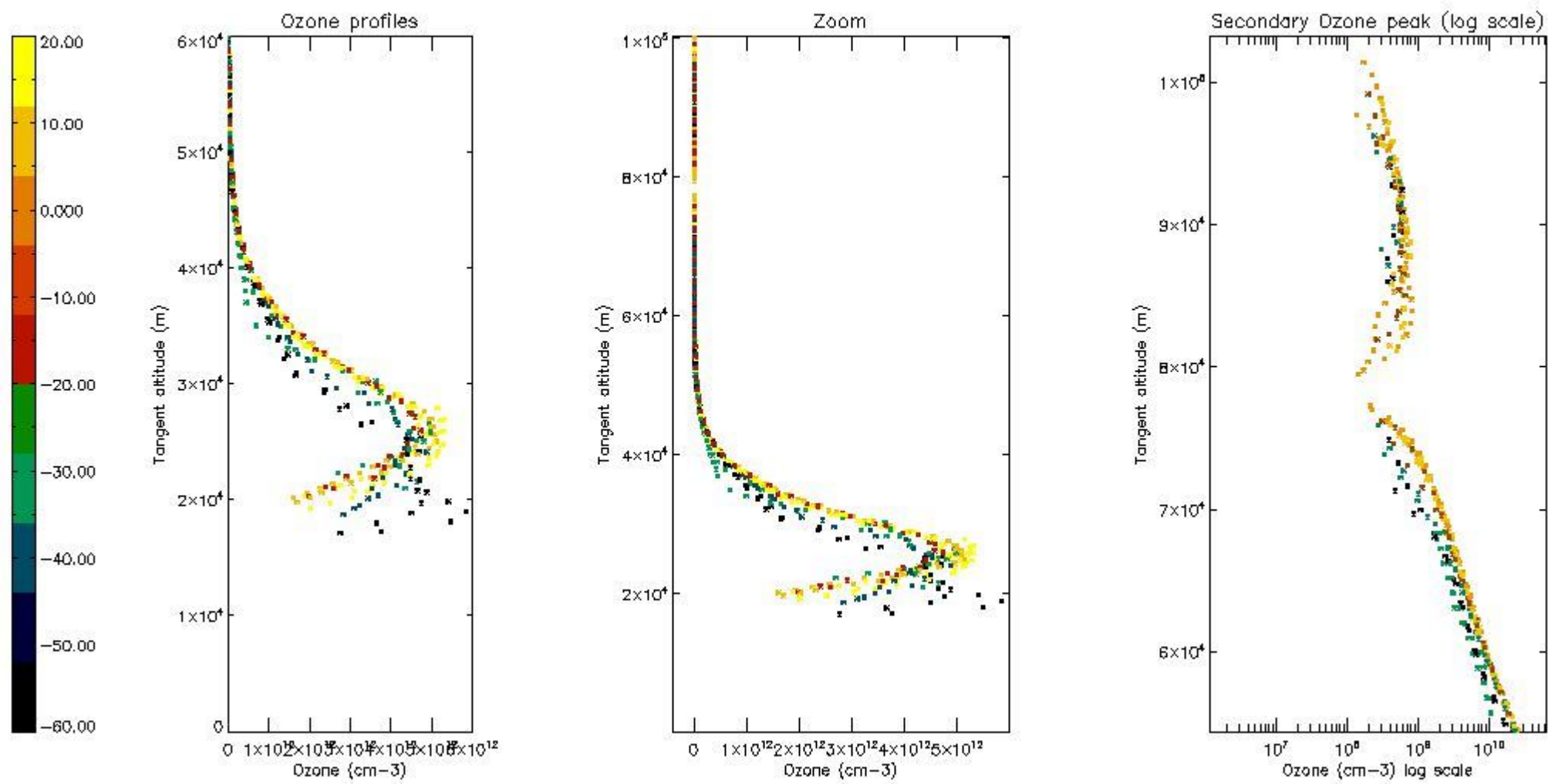
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



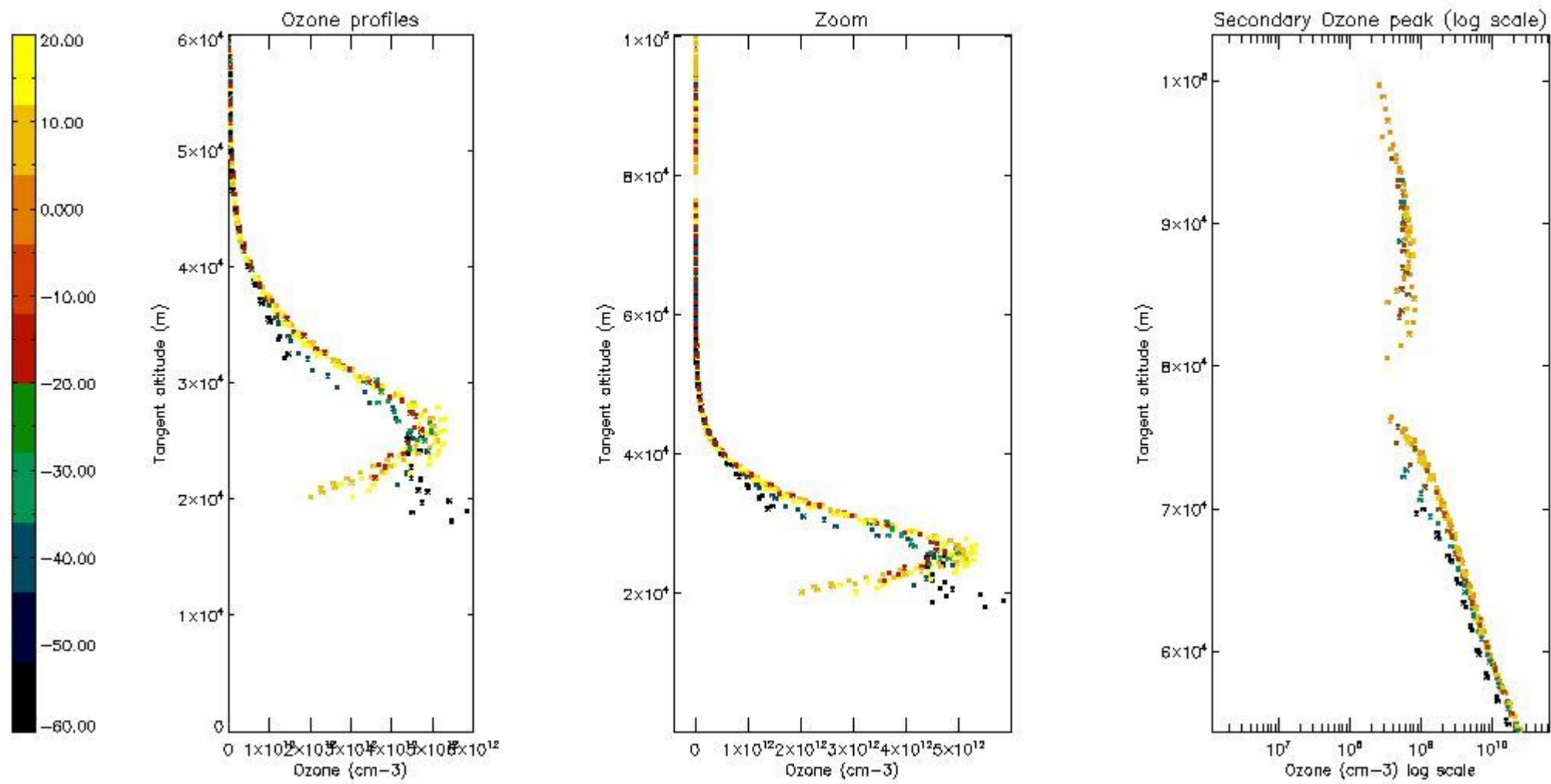
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



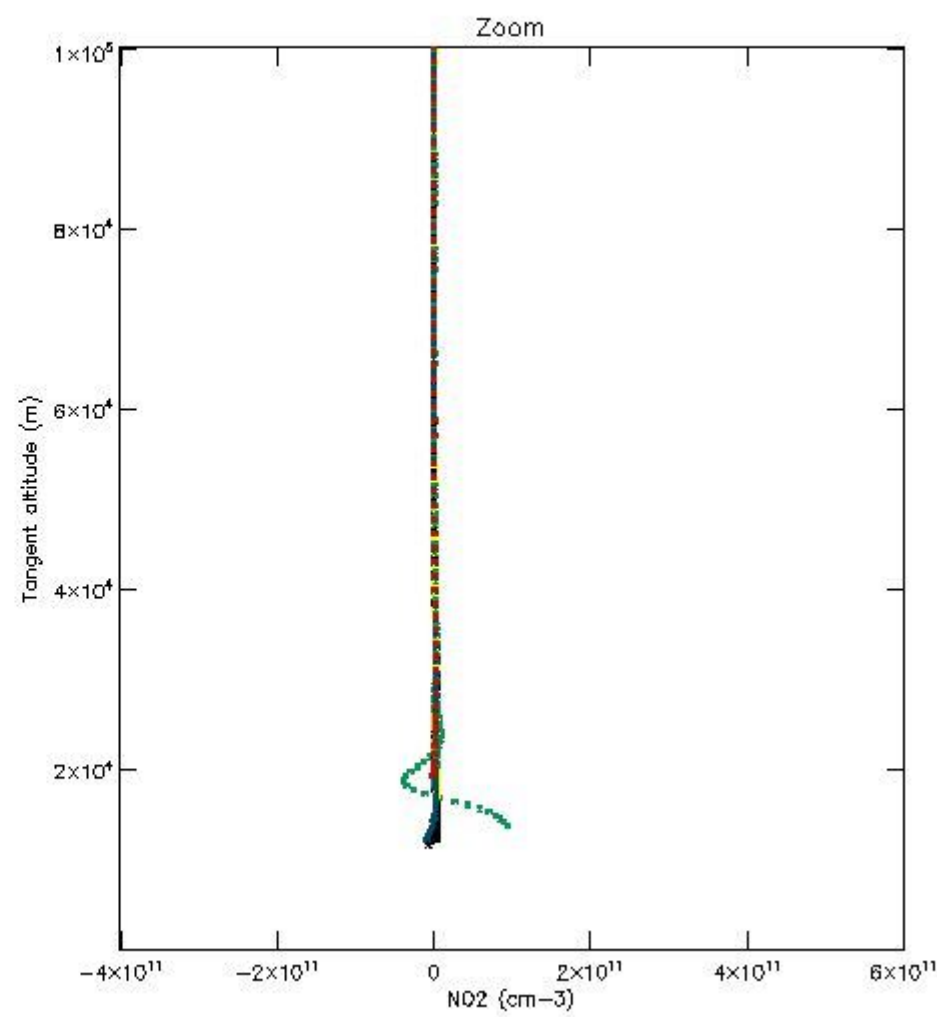
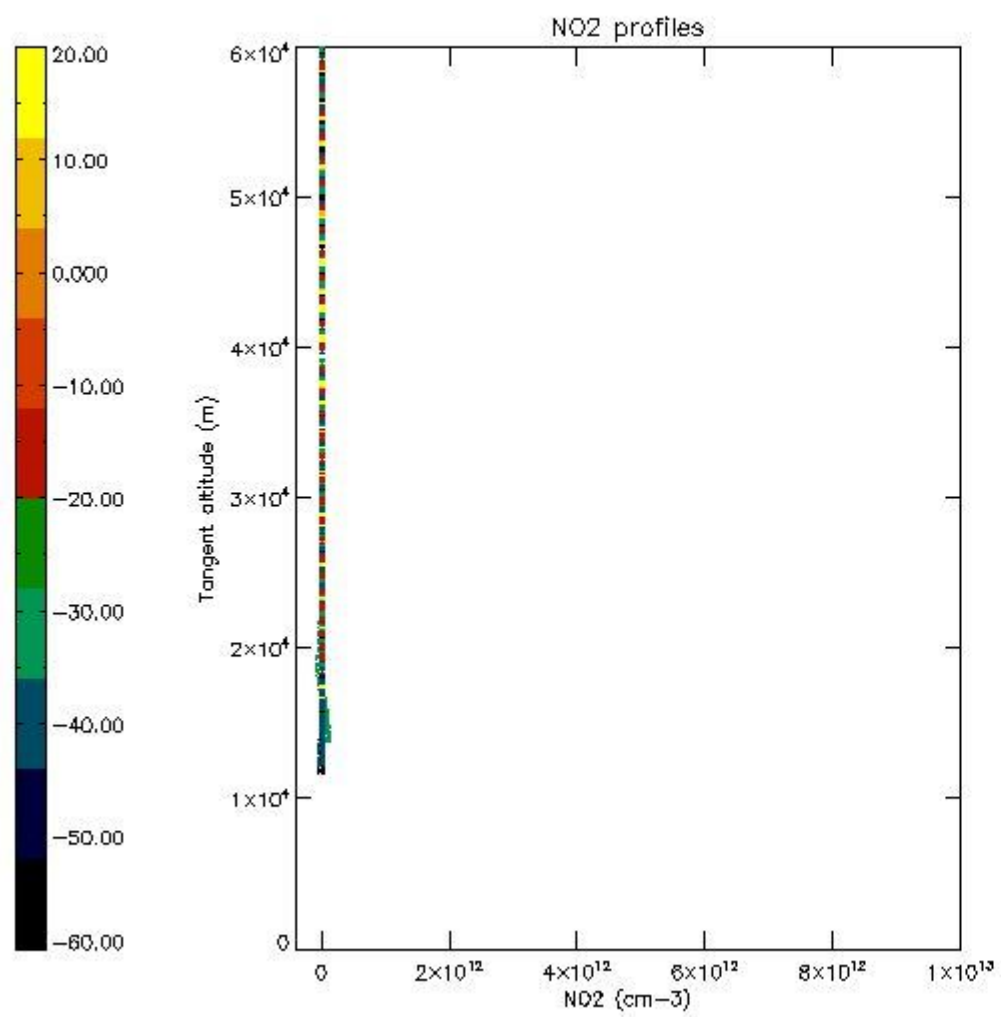
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



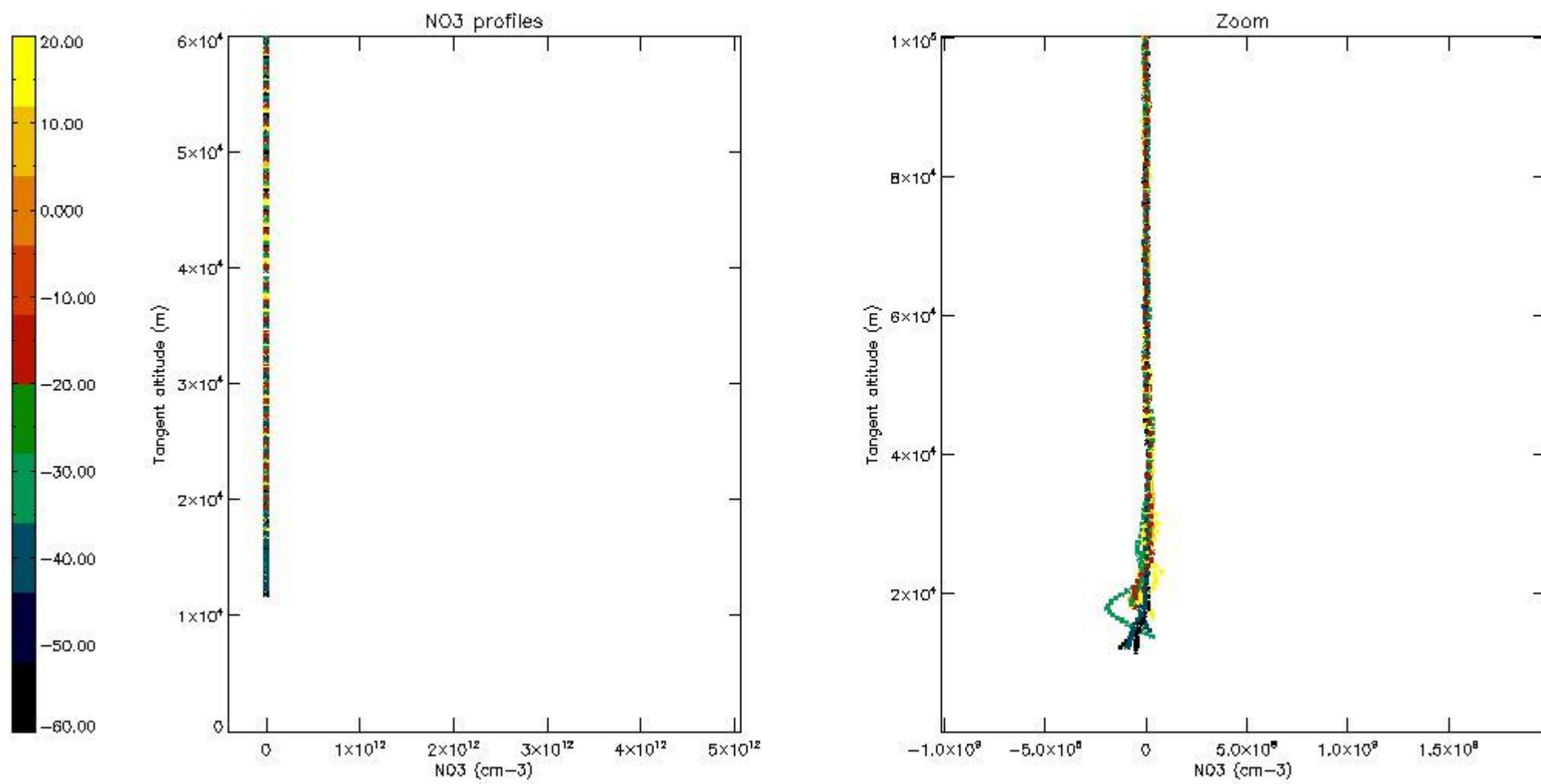
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



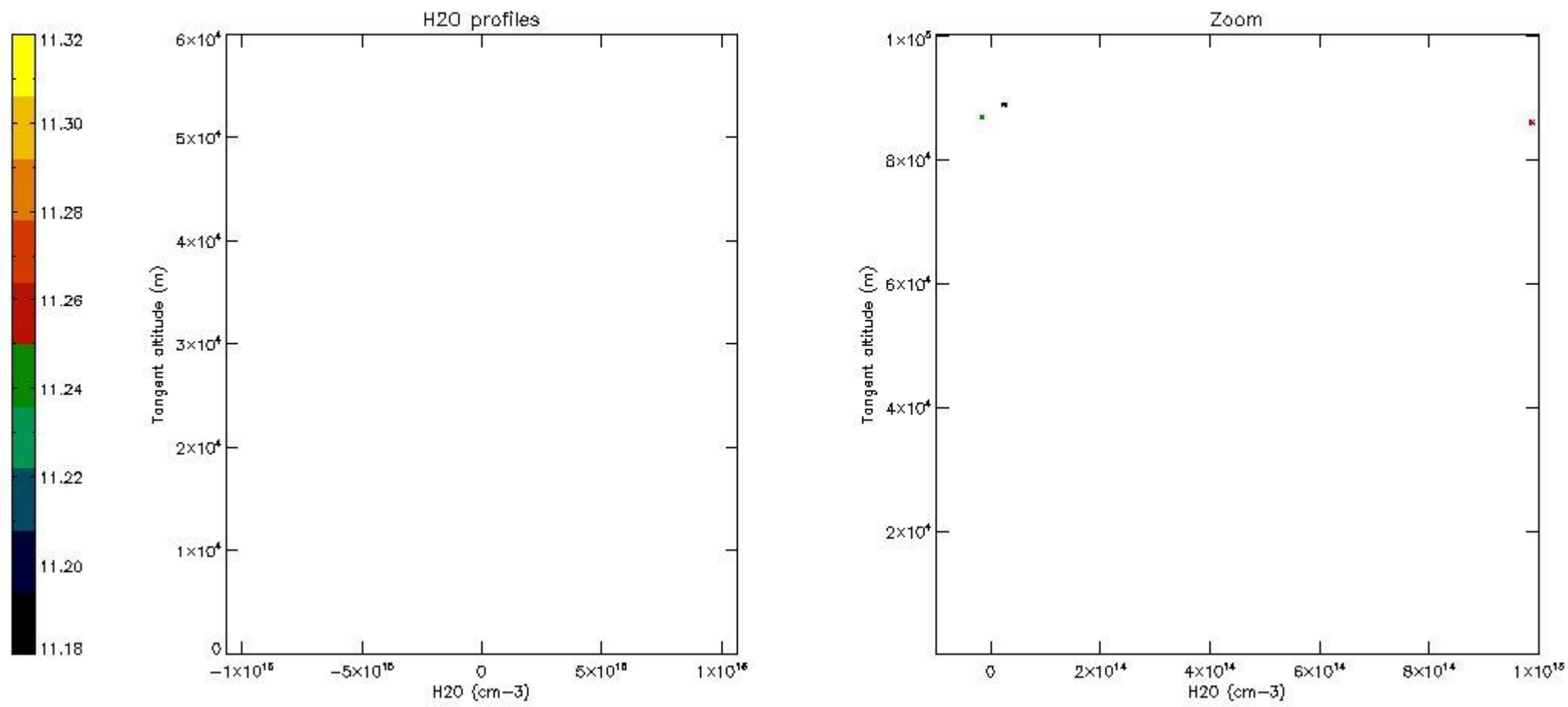
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	17-APR-2002 02:13:34
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	17-APR-2002 02:13:34
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	17-APR-2002 02:13:34



# GOMOS Level 2 Daily Report

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

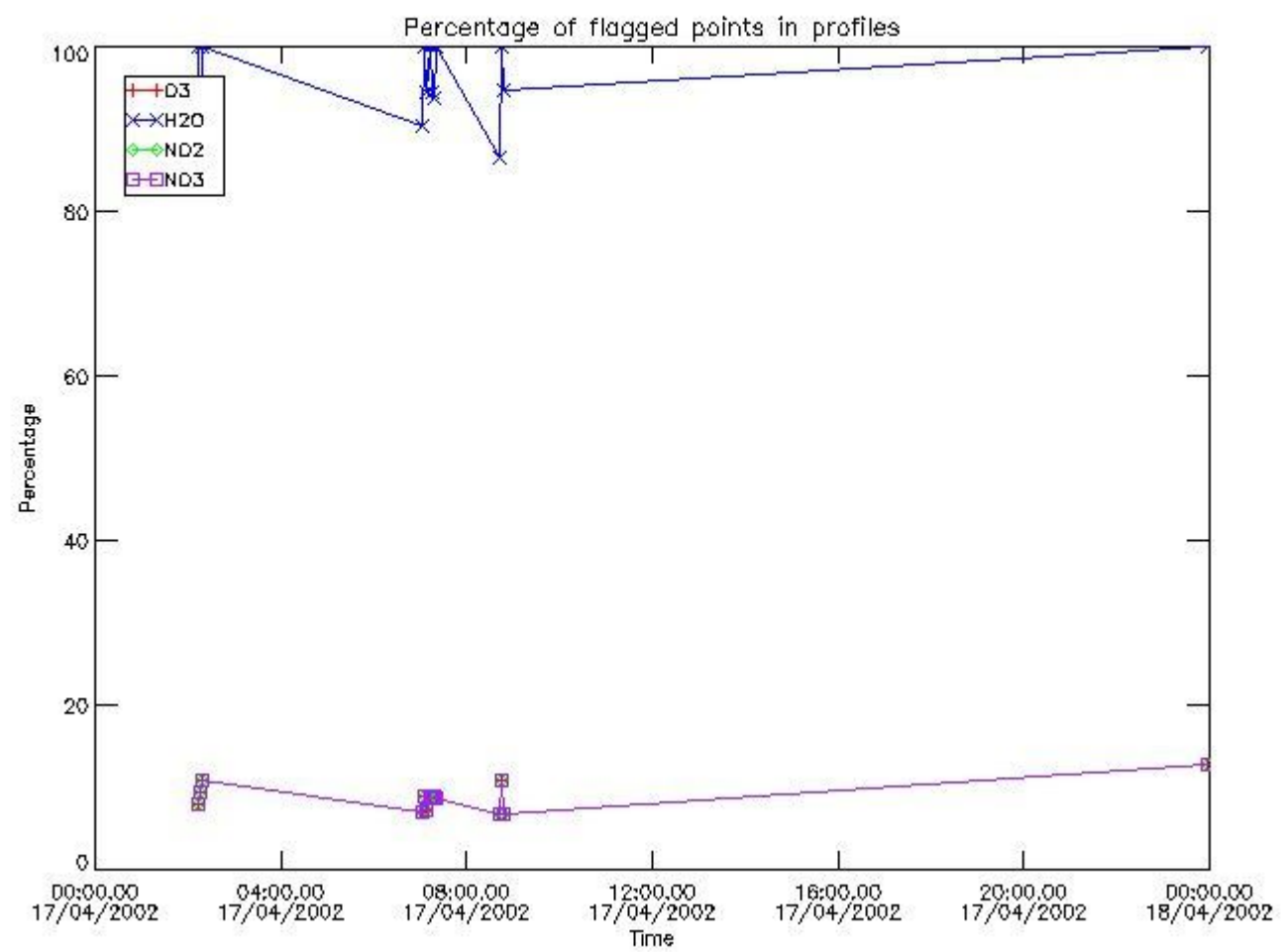


43	GOM_NL__2PRFIN20020417_072156_000000652005_00121_00676_0596.N1	17-APR-2002 07:21:56	Straylight	64.500	25	35Lam Sco	1.6200	28000.	129	676	No
44	GOM_NL__2PRFIN20020417_072413_000000392005_00121_00676_0597.N1	17-APR-2002 07:24:13	Straylight	38.500	4	Alp1Cen	-0.010000	5800.0	77	676	No
45	GOM_NL__2PRFIN20020417_072537_000000372005_00121_00676_0598.N1	17-APR-2002 07:25:37	Straylight	36.500	12	Alp1Cru	0.77500	30000.	73	676	No
46	GOM_NL__2PRFIN20020417_072726_000000362005_00121_00676_0599.N1	17-APR-2002 07:27:26	Straylight	36.000	78	Alp Lup	2.3040	28000.	72	676	No
47	GOM_NL__2PRFIN20020417_072901_000000392005_00121_00676_0600.N1	17-APR-2002 07:29:01	Straylight	39.000	81	Eta Cen	2.3560	28000.	78	676	No
48	GOM_NL__2PRFIN20020417_073121_000000402005_00121_00676_0601.N1	17-APR-2002 07:31:21	Straylight	39.500	54	5The Cen	2.0550	4500.0	79	676	No
49	GOM_NL__2PRFIN20020417_073329_000000712005_00121_00676_0602.N1	17-APR-2002 07:33:29	Tw_i_and_stray	71.000	80	7Del Sco	2.3160	30000.	142	676	No
50	GOM_NL__2PRFIN20020417_073937_000000392005_00121_00676_0603.N1	17-APR-2002 07:39:37	Bright	38.500	15	67Alp Vir	0.97600	28000.	77	676	No
51	GOM_NL__2PRFIN20020417_074725_000000302005_00121_00676_0604.N1	17-APR-2002 07:47:25	Bright	30.000	62	94Bet Leo	2.1360	9700.0	60	676	No
52	GOM_NL__2PRFIN20020417_075040_000000512005_00121_00676_0605.N1	17-APR-2002 07:50:40	Bright	50.500	3	16Alp Boo	-0.050000	4250.0	101	676	No
53	GOM_NL__2PRFIN20020417_075455_000000512005_00121_00676_0606.N1	17-APR-2002 07:54:55	Bright	51.000	83		2.3780	11000.	102	676	No
54	GOM_NL__2PRFIN20020417_075842_000000372005_00121_00676_0607.N1	17-APR-2002 07:58:42	Bright	37.000	39	85Eta UMa	1.8540	24000.	74	676	No
55	GOM_NL__2PRFIN20020417_080045_000000322005_00121_00676_0608.N1	17-APR-2002 08:00:45	Bright	31.500	36	50Alp UMa	1.8000	6300.0	63	676	No
56	GOM_NL__2PRFIN20020417_080551_000000352005_00121_00676_0609.N1	17-APR-2002 08:05:51	Bright	34.500	60	7Bet UMi	2.0810	3950.0	69	676	No
57	GOM_NL__2PRFIN20020417_080846_000000282005_00121_00676_0610.N1	17-APR-2002 08:08:46	Bright	27.500	49	1Alp UMi	1.9900	6300.0	55	676	No
58	GOM_NL__2PRFIN20020417_081617_000000312005_00121_00676_0611.N1	17-APR-2002 08:16:17	Bright	30.500	76	27Gam Cas	2.3000	30000.	61	676	No
59	GOM_NL__2PRFIN20020417_081735_000000302005_00121_00676_0612.N1	17-APR-2002 08:17:35	Bright	29.500	68	18Alp Cas	2.2250	4500.0	59	676	No
60	GOM_NL__2PRFIN20020417_082001_000000432005_00121_00676_0613.N1	17-APR-2002 08:20:01	Bright	43.000	485	32 Cyg	3.9400	4600.0	86	676	No
61	GOM_NL__2PRFIN20020417_082151_000000972005_00121_00676_0614.N1	17-APR-2002 08:21:51	Bright	97.000	5	3Alp Lyr	0.033000	11000.	194	676	No
62	GOM_NL__2PRFIN20020417_082542_000000502005_00121_00676_0615.N1	17-APR-2002 08:25:42	Bright	49.500	92	53Eps Cyg	2.5000	4500.0	99	676	No
63	GOM_NL__2PRFIN20020417_084231_000000382005_00121_00676_0616.N1	17-APR-2002 08:42:31	Dark	37.500	18	24Alp PsA	1.1660	9700.0	75	676	No
64	GOM_NL__2PRFIN20020417_084519_000000522005_00121_00676_0617.N1	17-APR-2002 08:45:19	Dark	51.500	188	9Bet Cap	3.0800	8900.0	103	676	No
65	GOM_NL__2PRFIN20020417_084801_000000382005_00121_00676_0618.N1	17-APR-2002 08:48:01	Dark	38.000	31	Alp Gru	1.7340	15200.	76	676	No
66	GOM_NL__2PRFIN20020417_235828_000000362005_00131_00686_0619.N1	17-APR-2002 23:58:28	Dark	36.000	45	Alp Pav	1.9400	26000.	72	686	No

### 3. Quality information per product

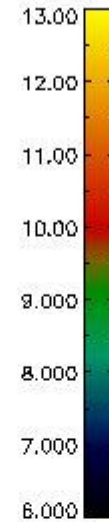
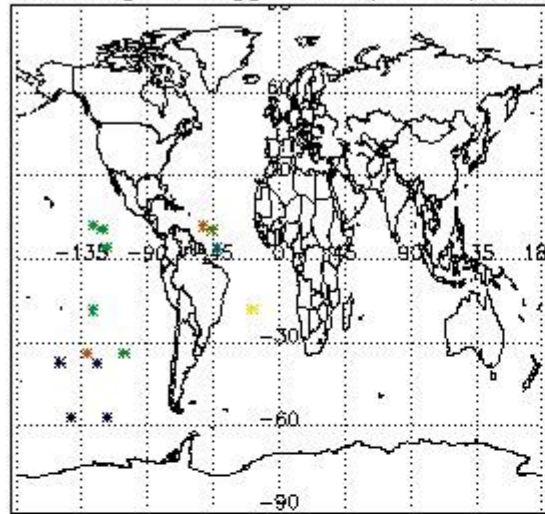
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

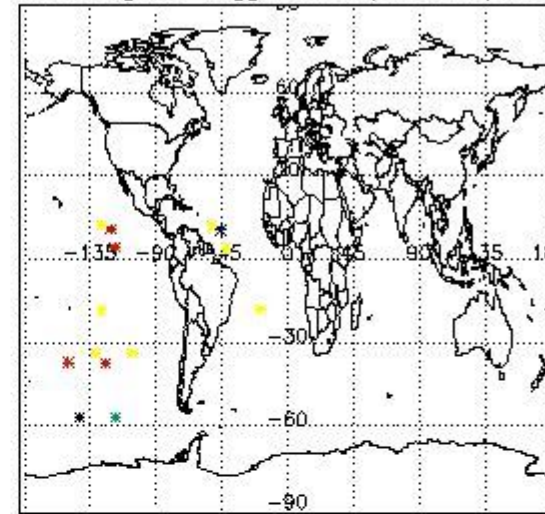


*3.2 Plot quality information per product (world map)*

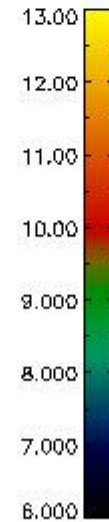
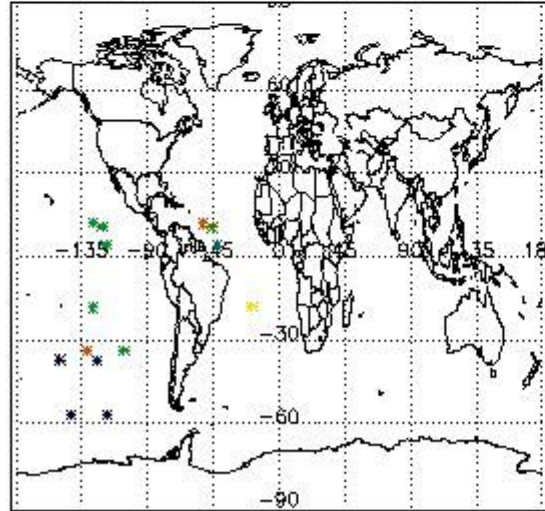
Percentage of flagged data per O3 profile



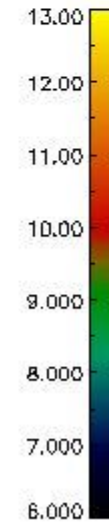
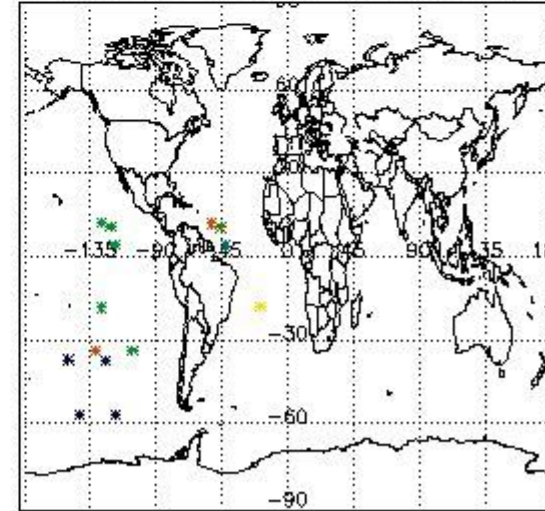
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

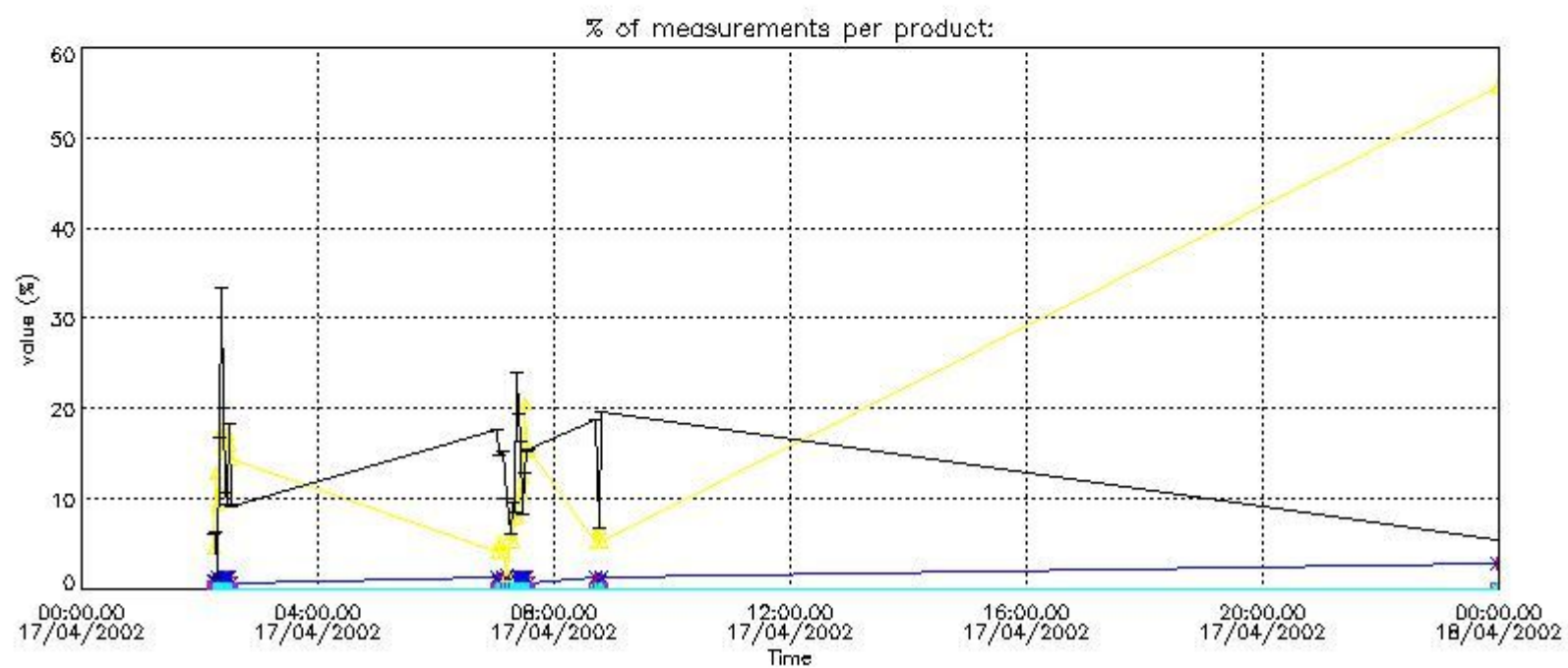
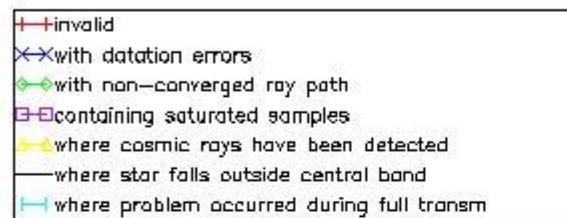


#### 4. Level 1 quality information per product

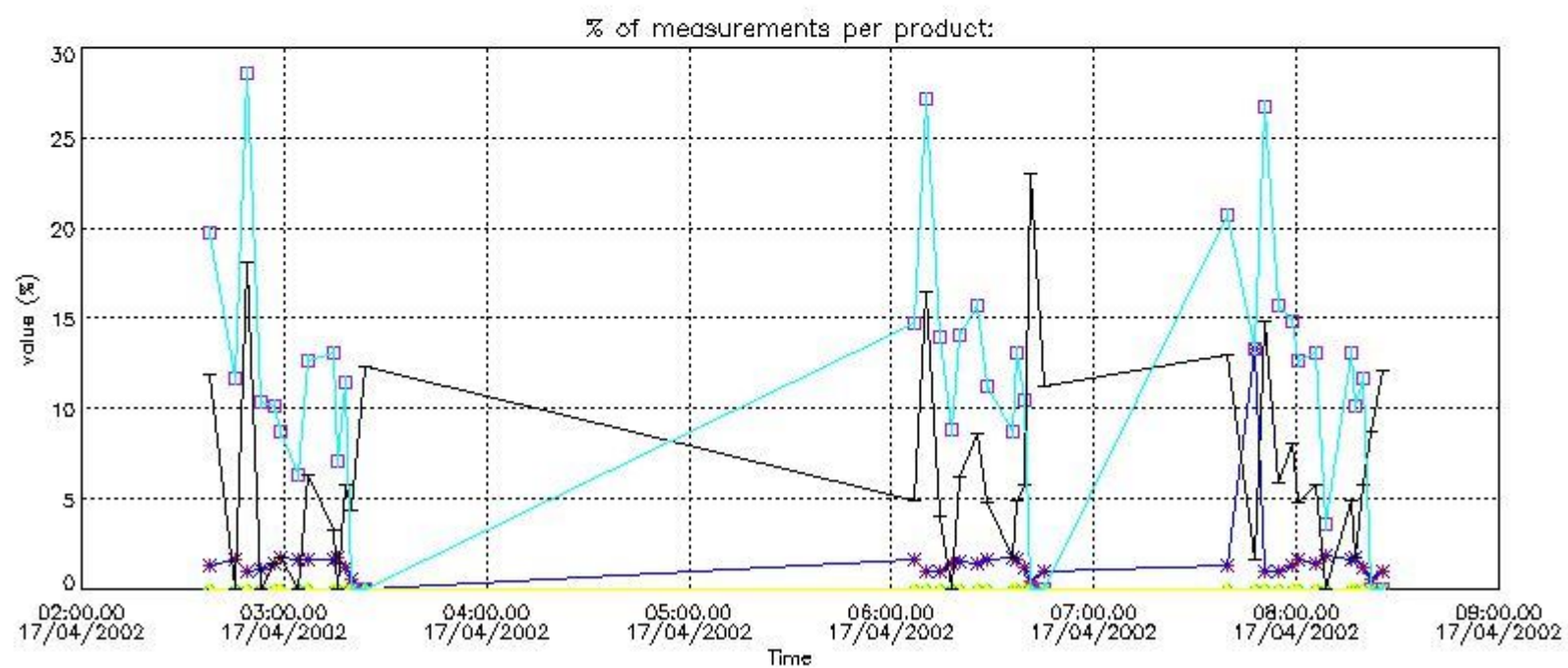
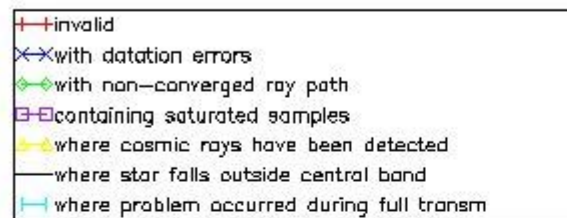
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



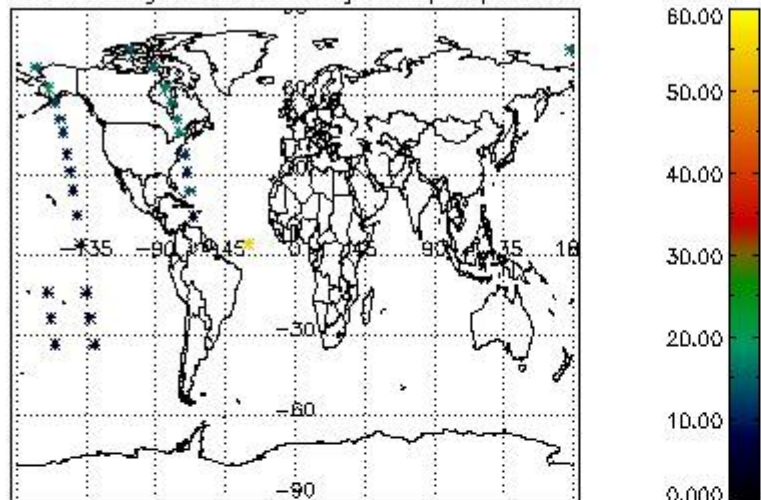
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



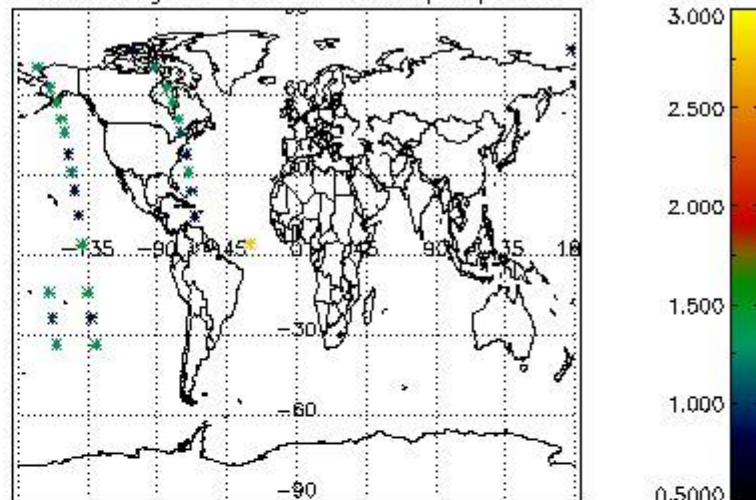
4.2 Plot quality information per product coming from level 1b processing (world map)

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

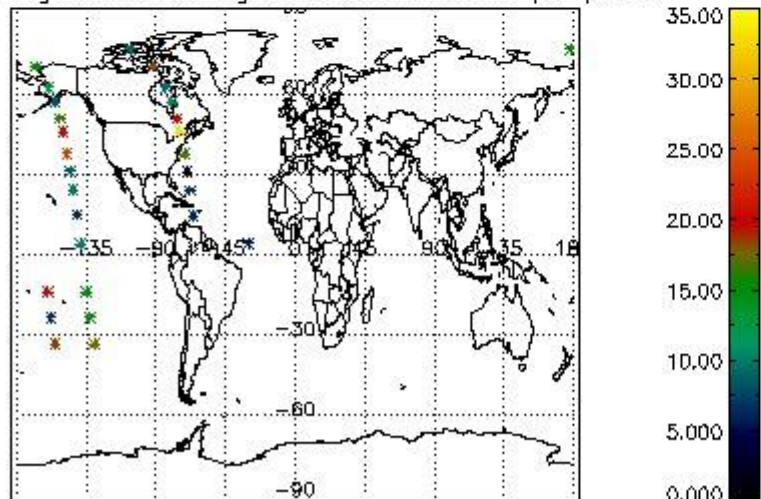
Percentage of cosmic ray hits per profile



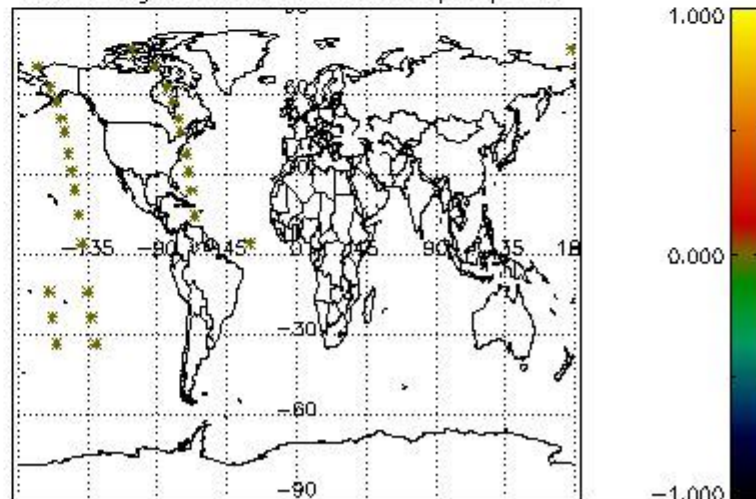
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

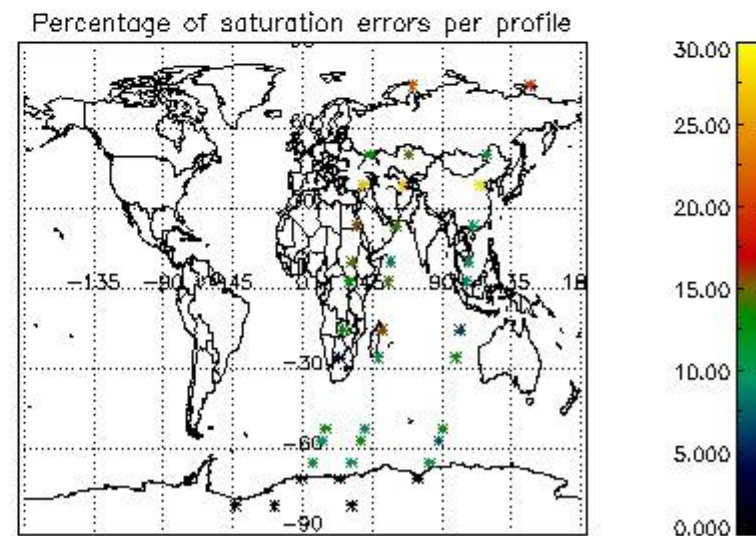
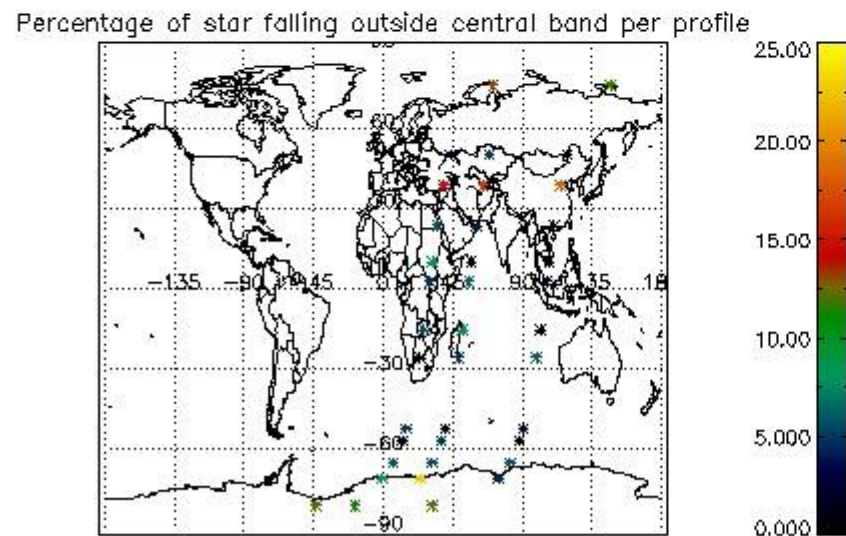
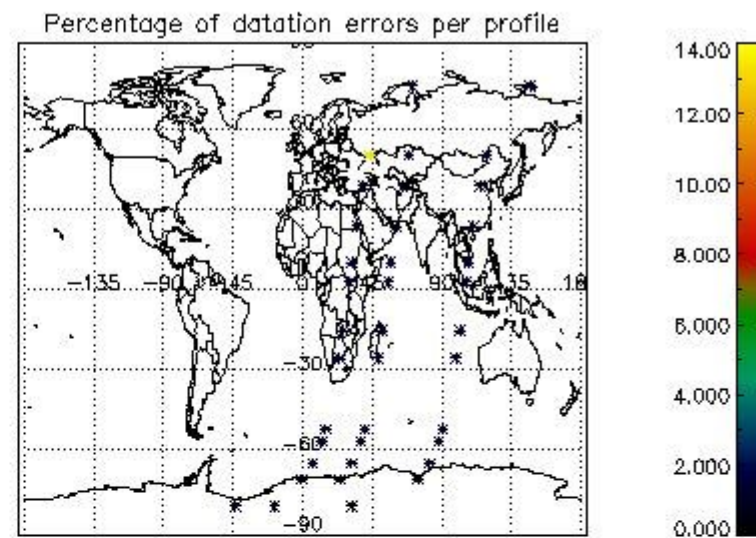
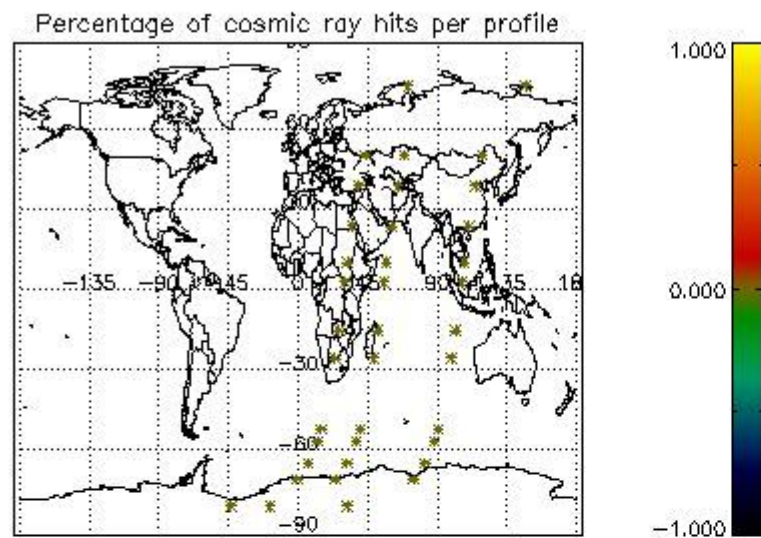


Percentage of saturation errors per profile



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

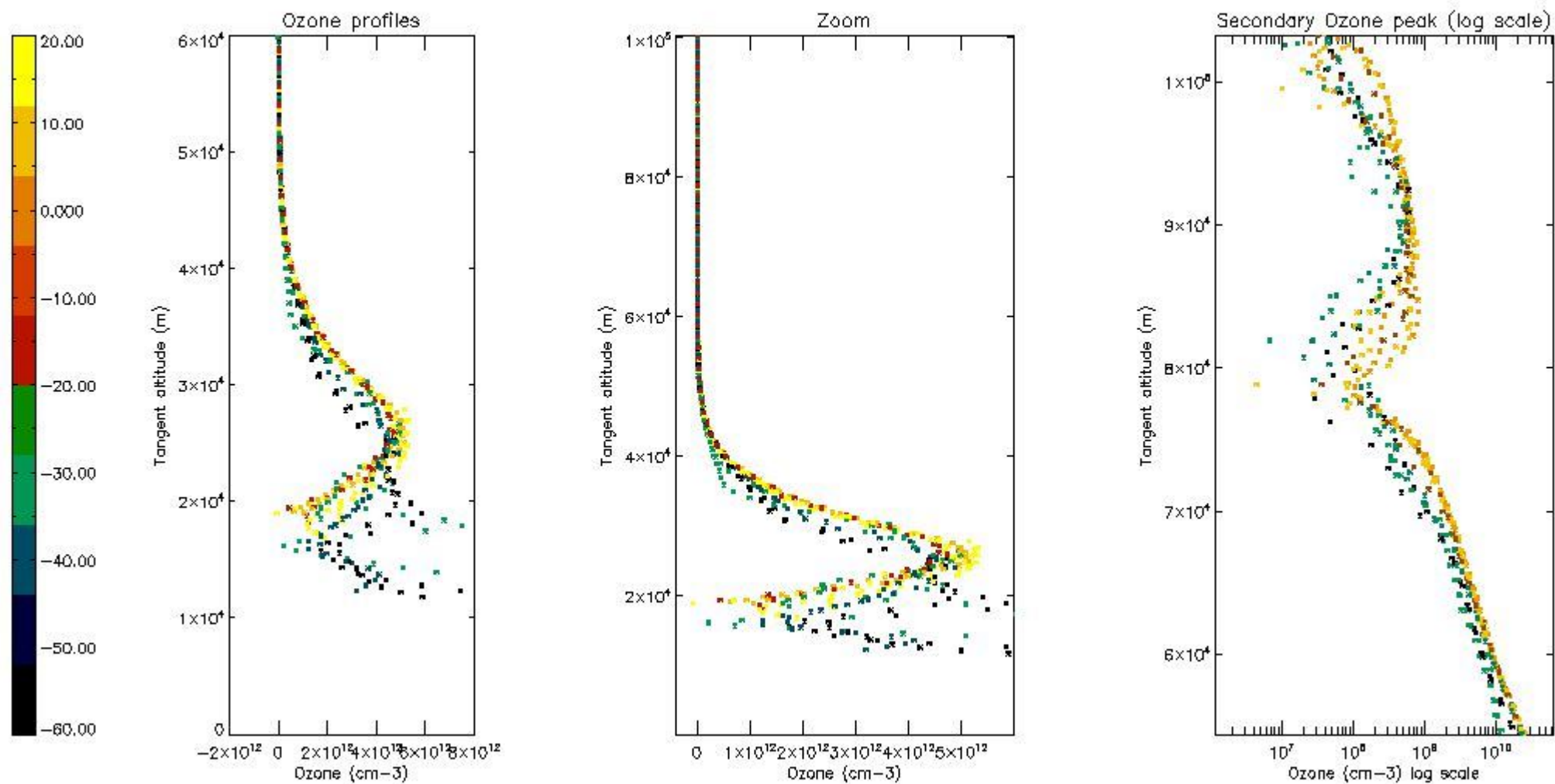
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	22
STD < 20	18

STD < 10	16
STD < 5	12

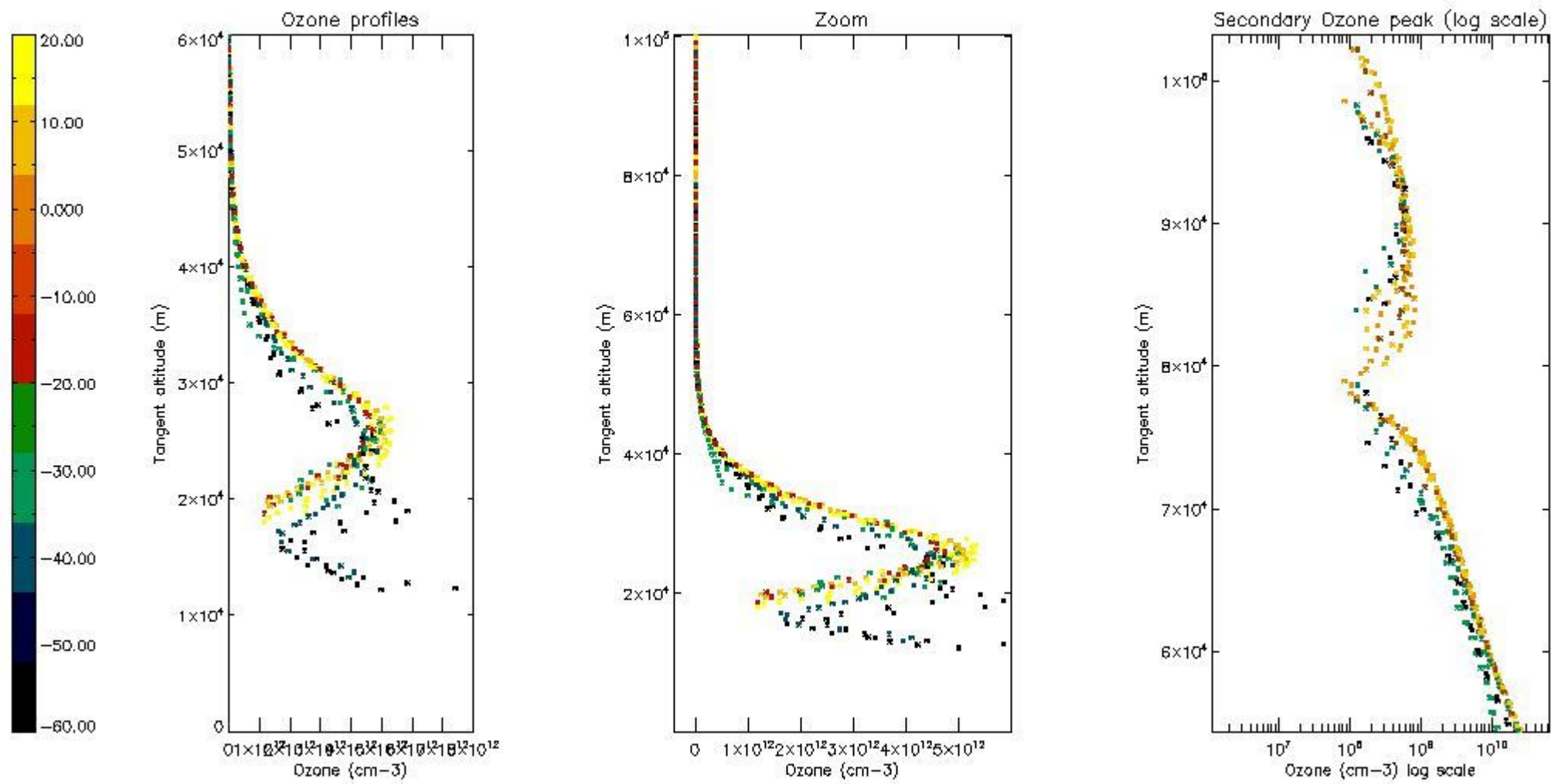
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



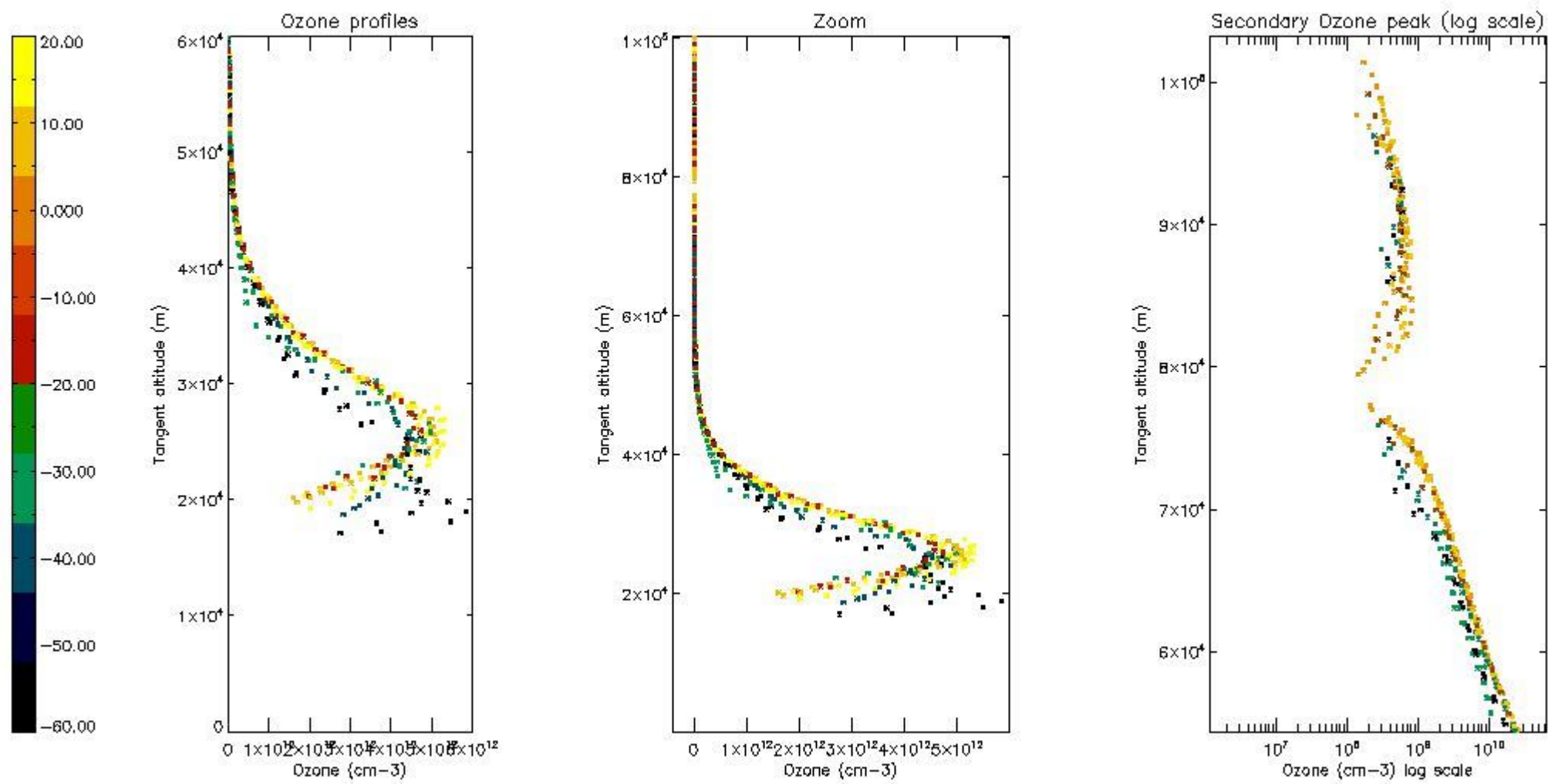
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



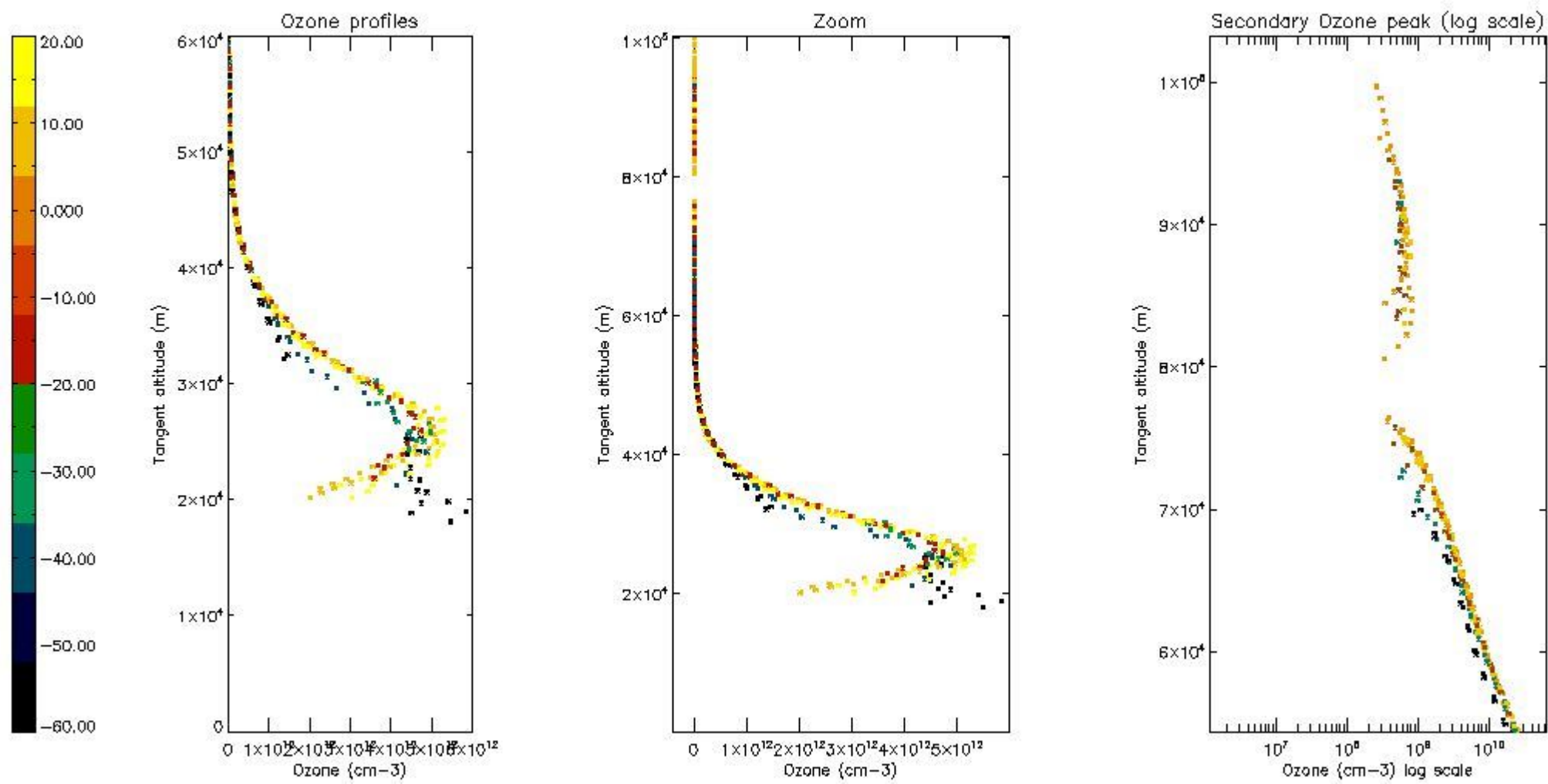
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



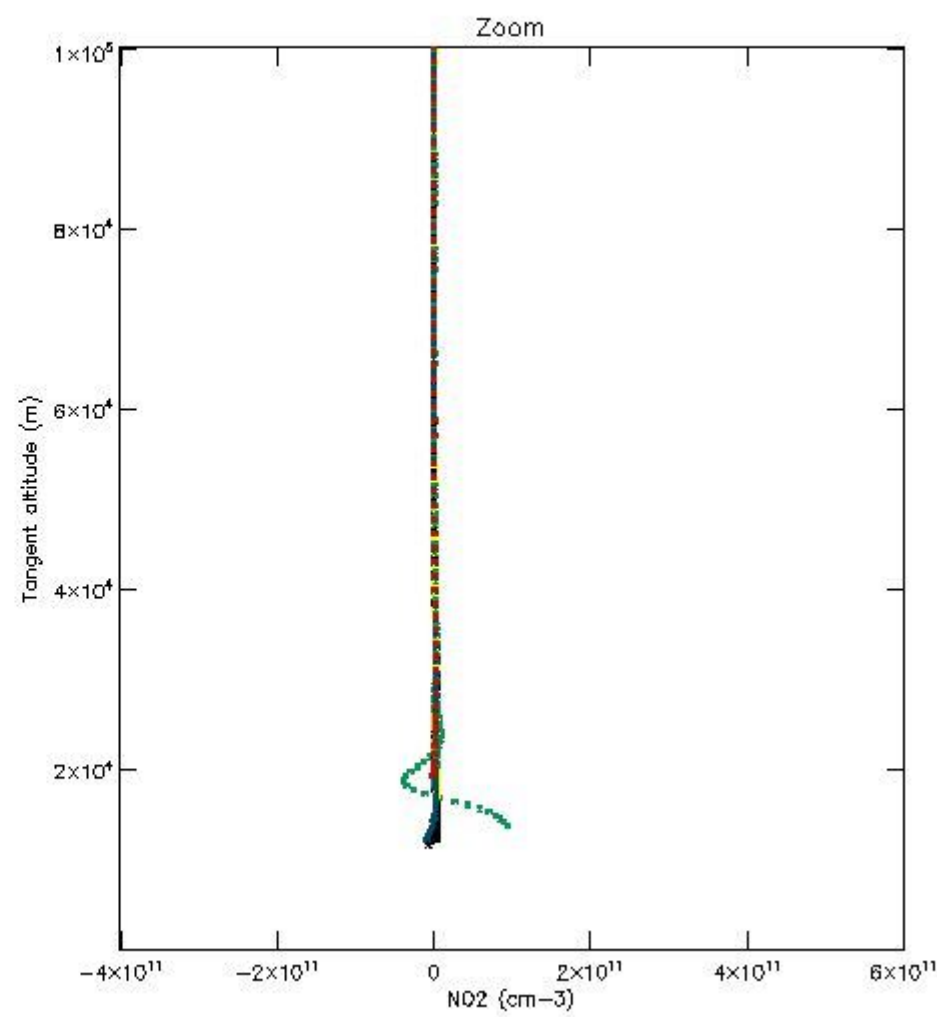
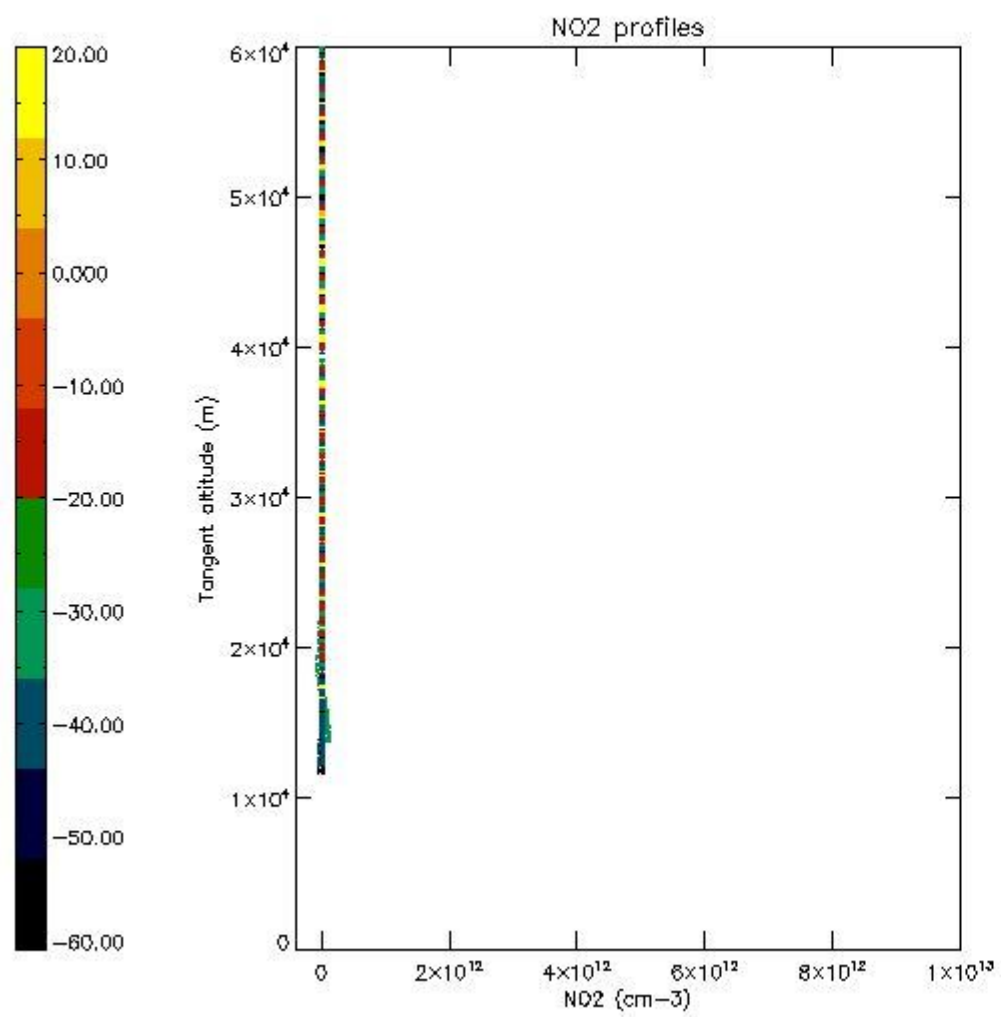
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



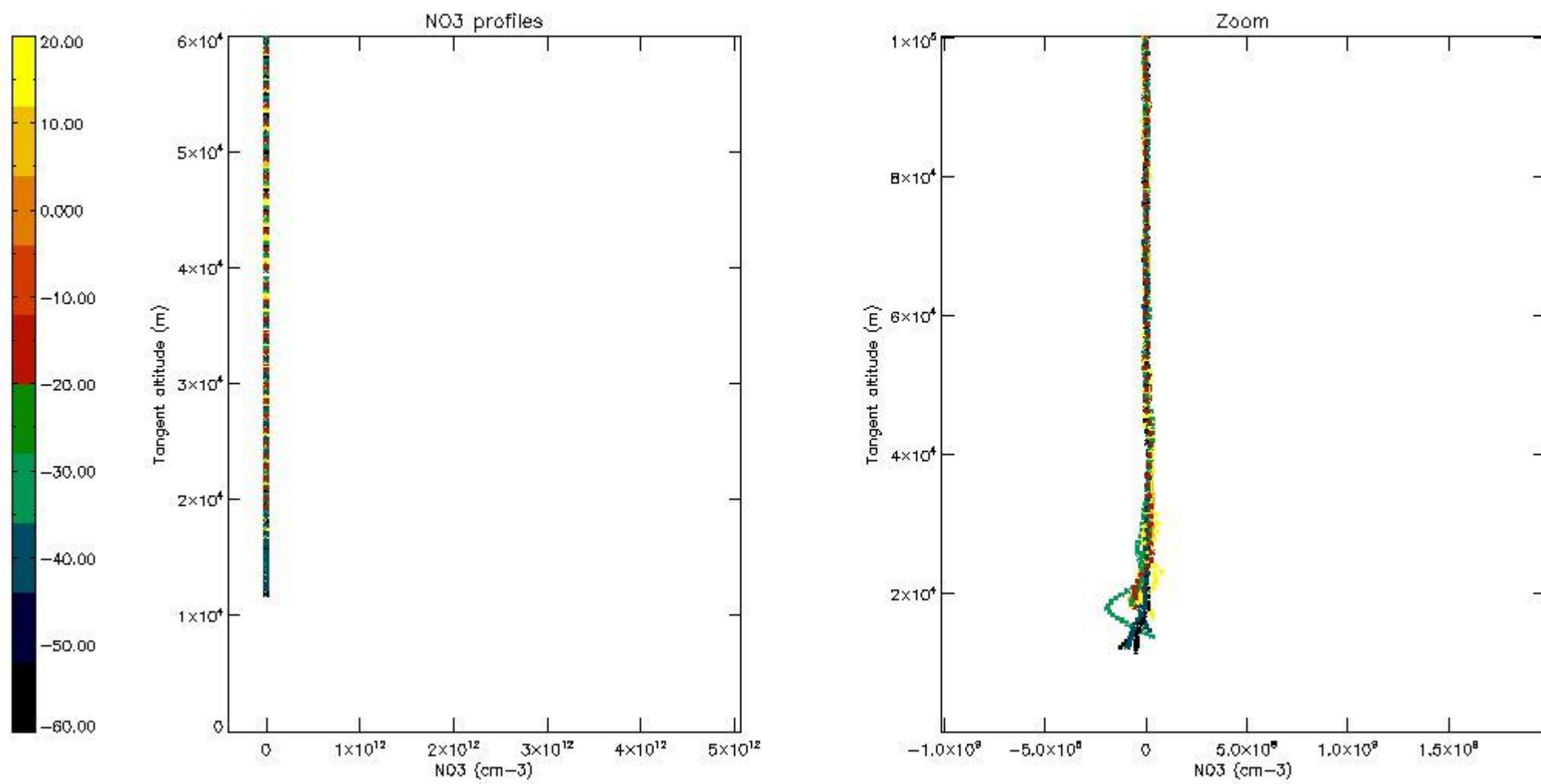
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



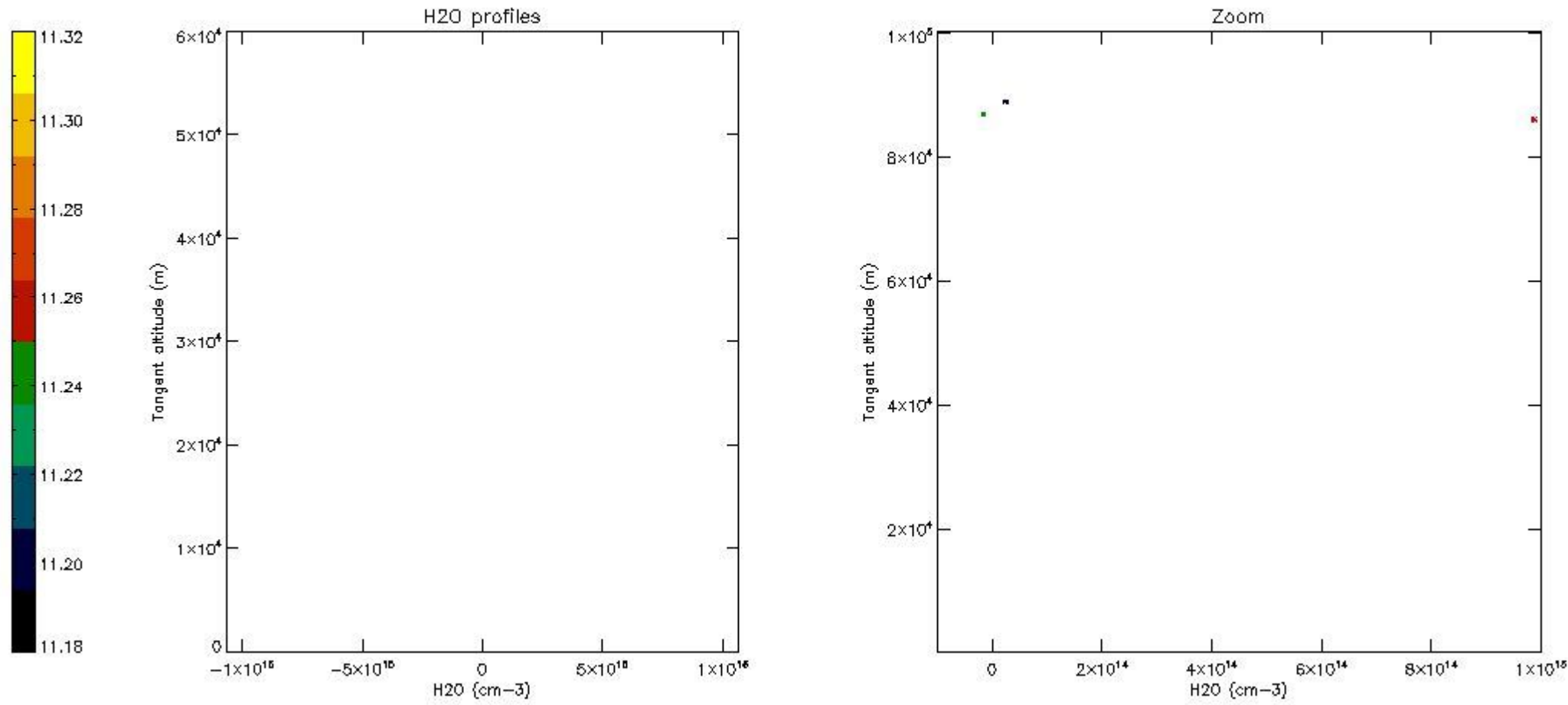
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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.

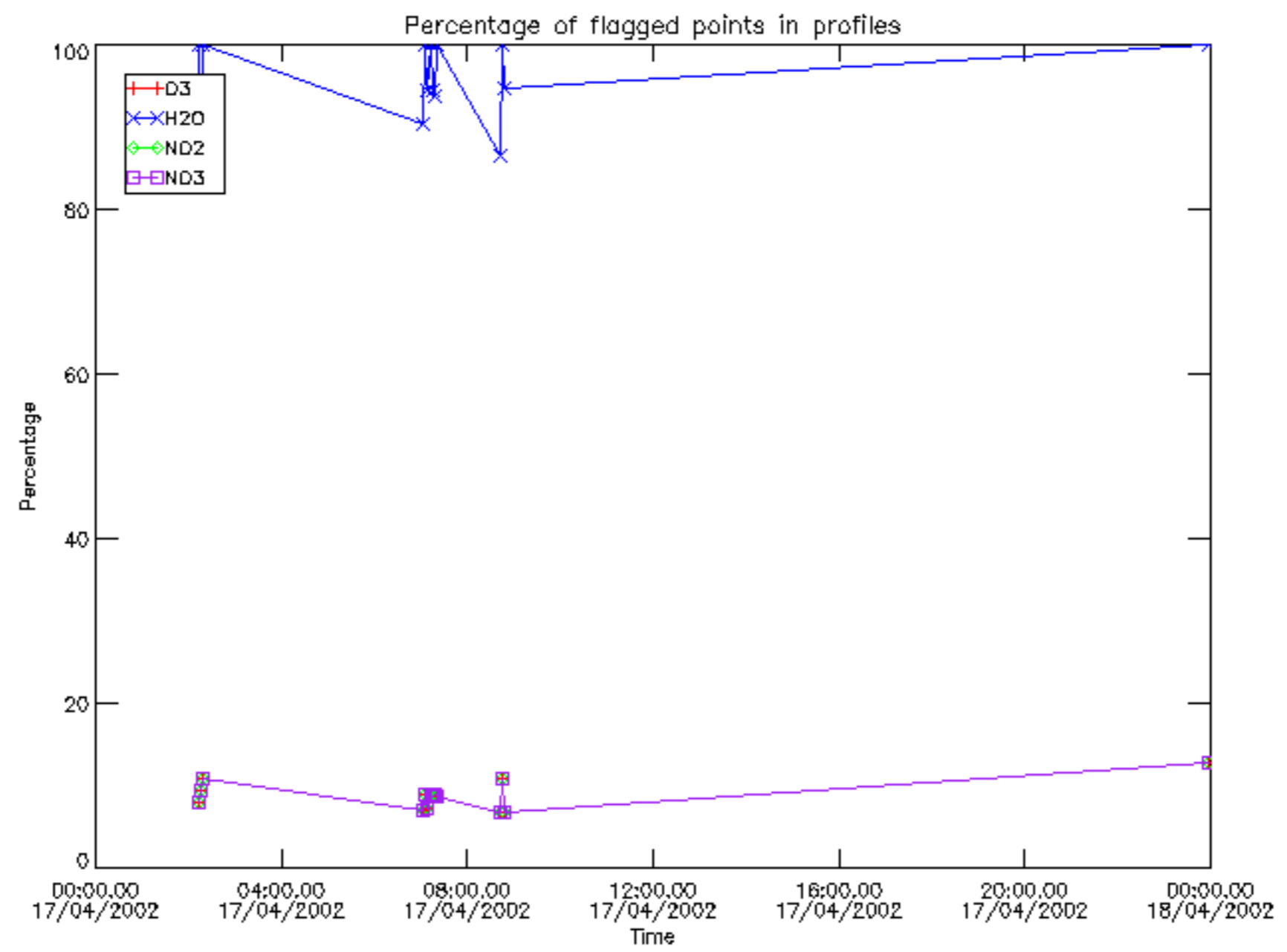


## 6. Auxiliary Data Files used for the production reported in section 2

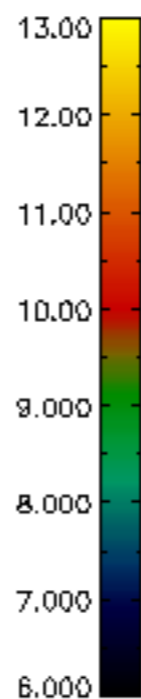
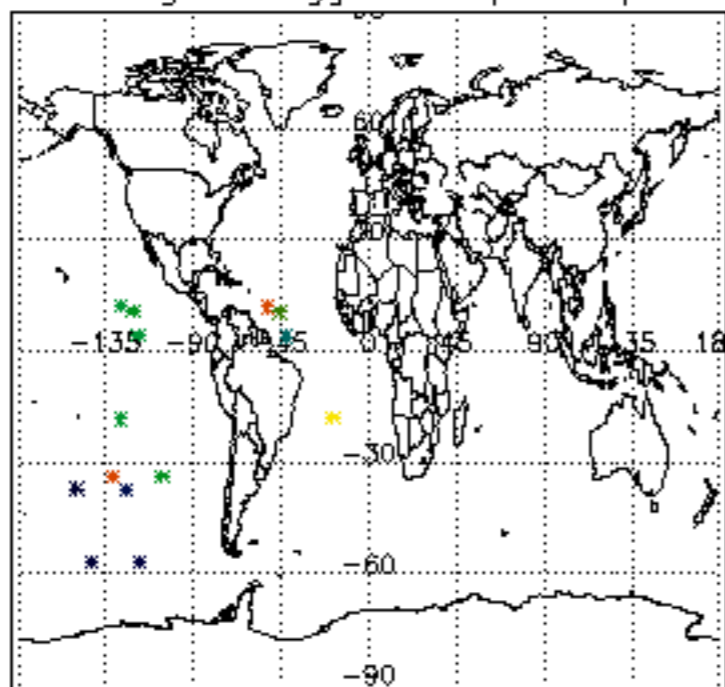
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	17-APR-2002 02:13:34
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	17-APR-2002 02:13:34
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	17-APR-2002 02:13:34

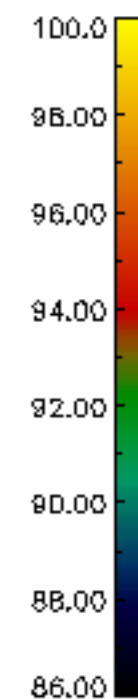
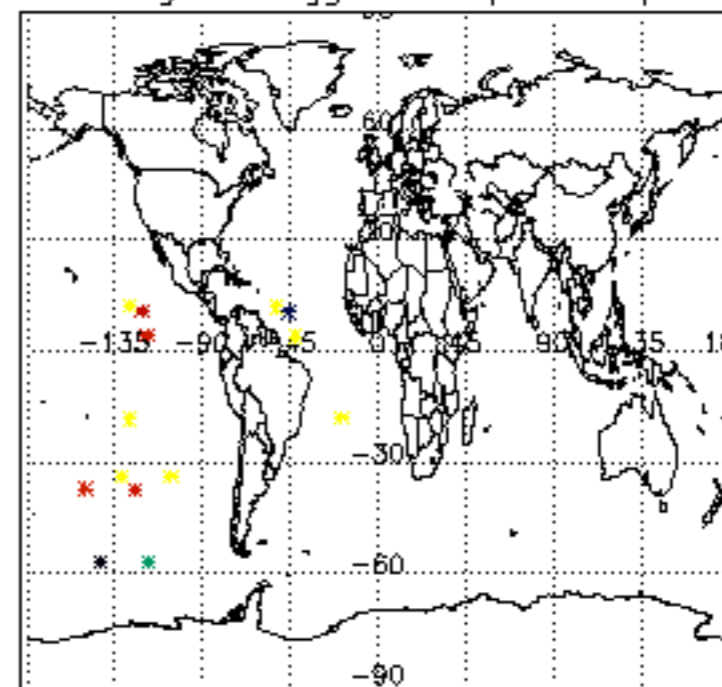




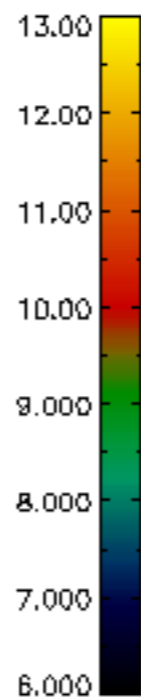
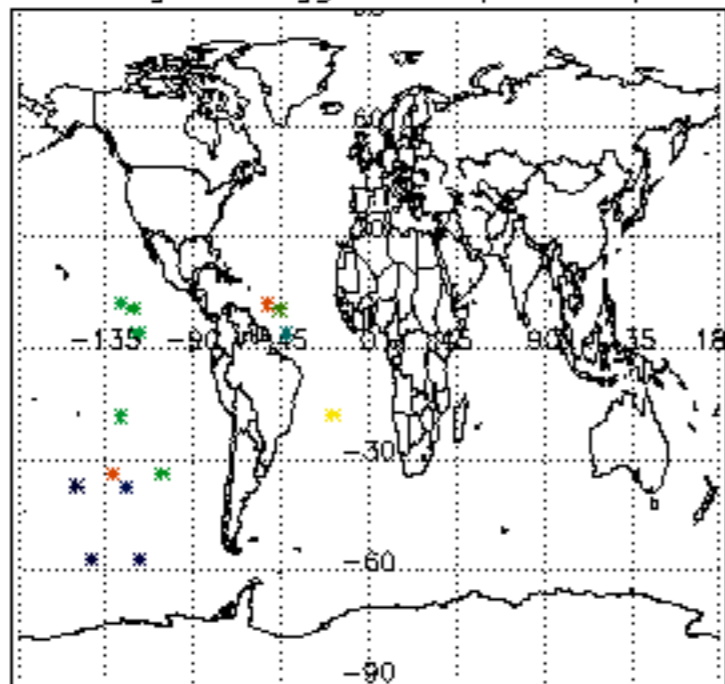
Percentage of flagged data per D3 profile



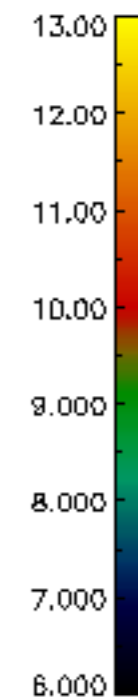
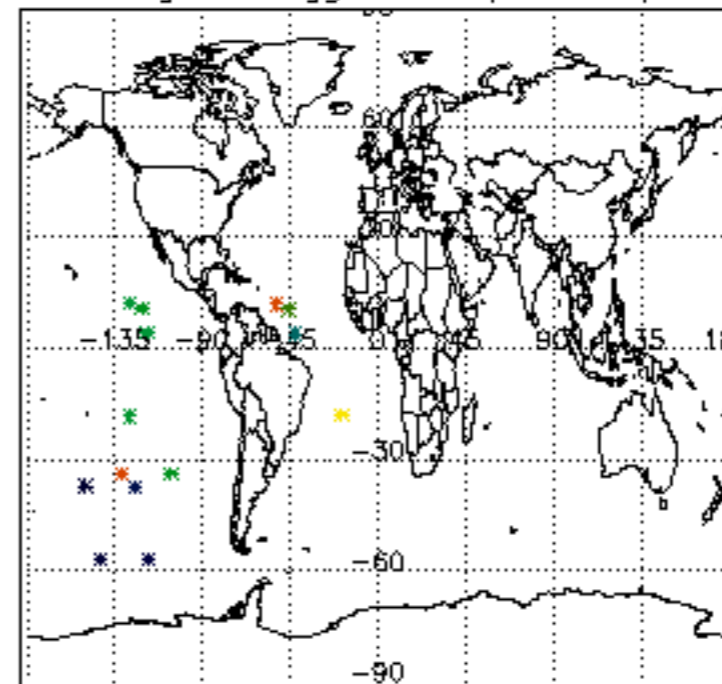
Percentage of flagged data per H2O profile

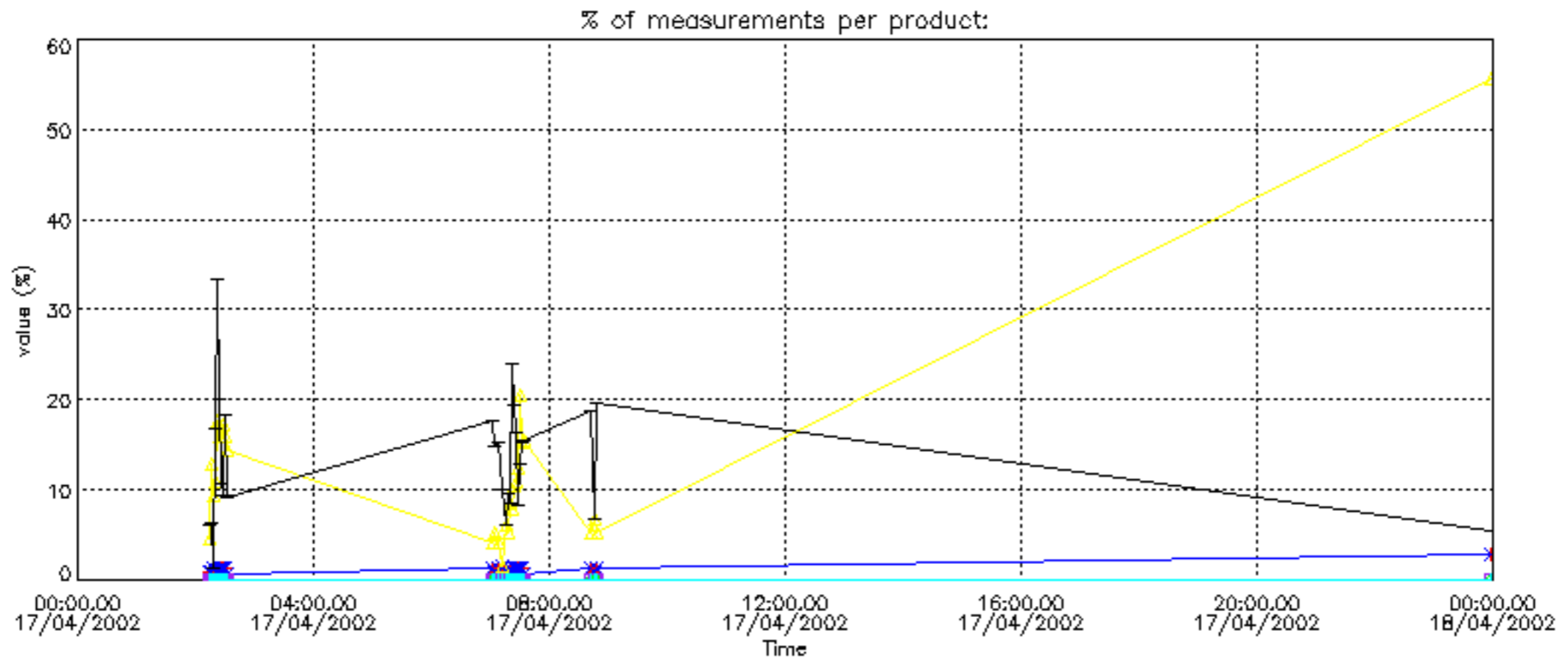


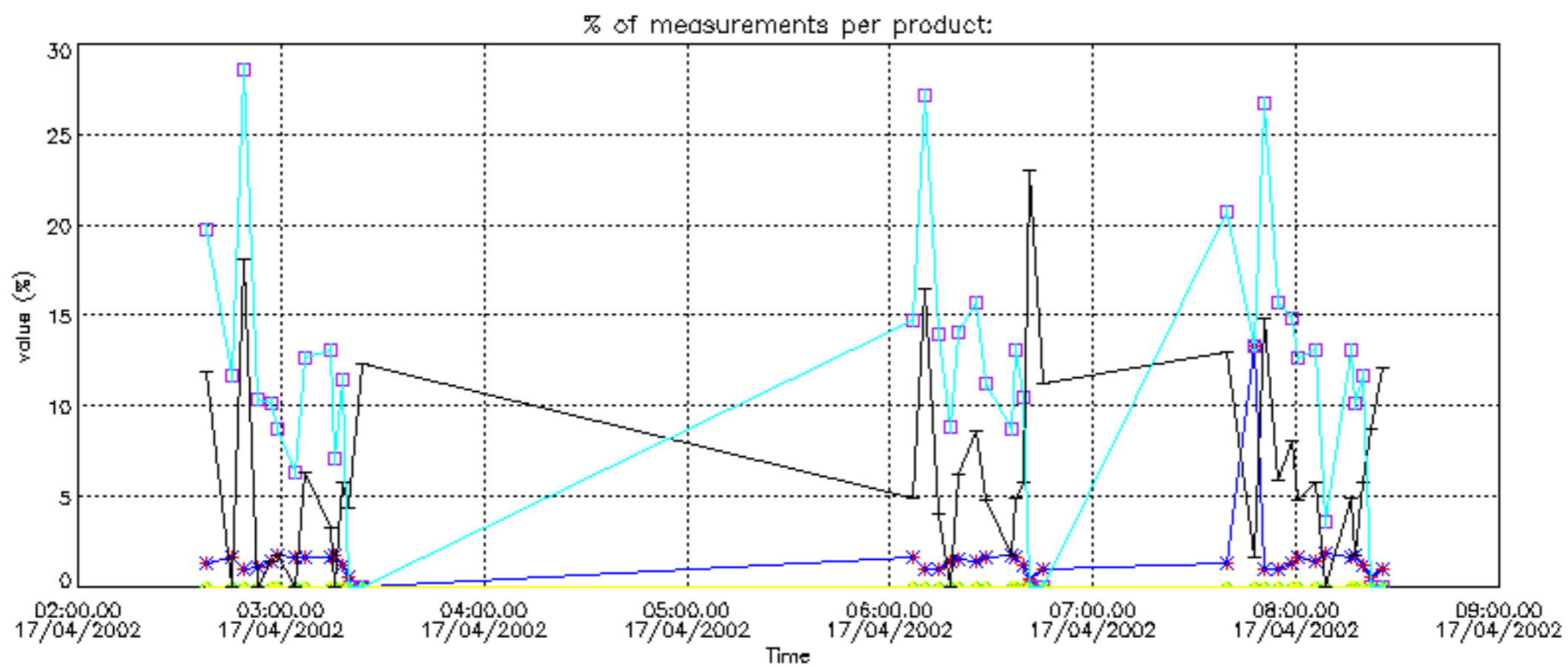
Percentage of flagged data per NO2 profile



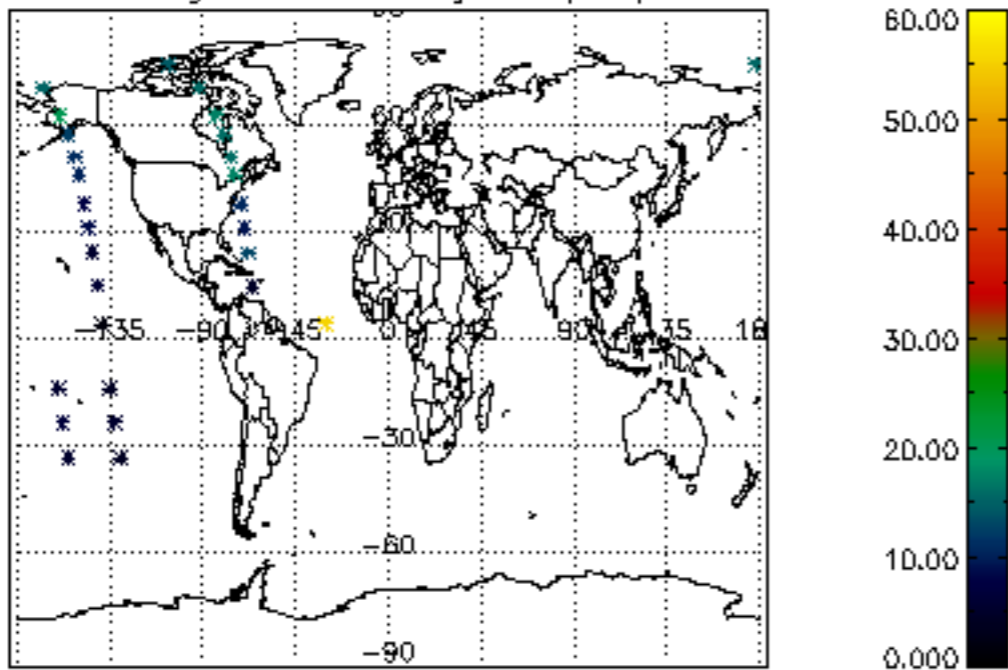
Percentage of flagged data per NO3 profile



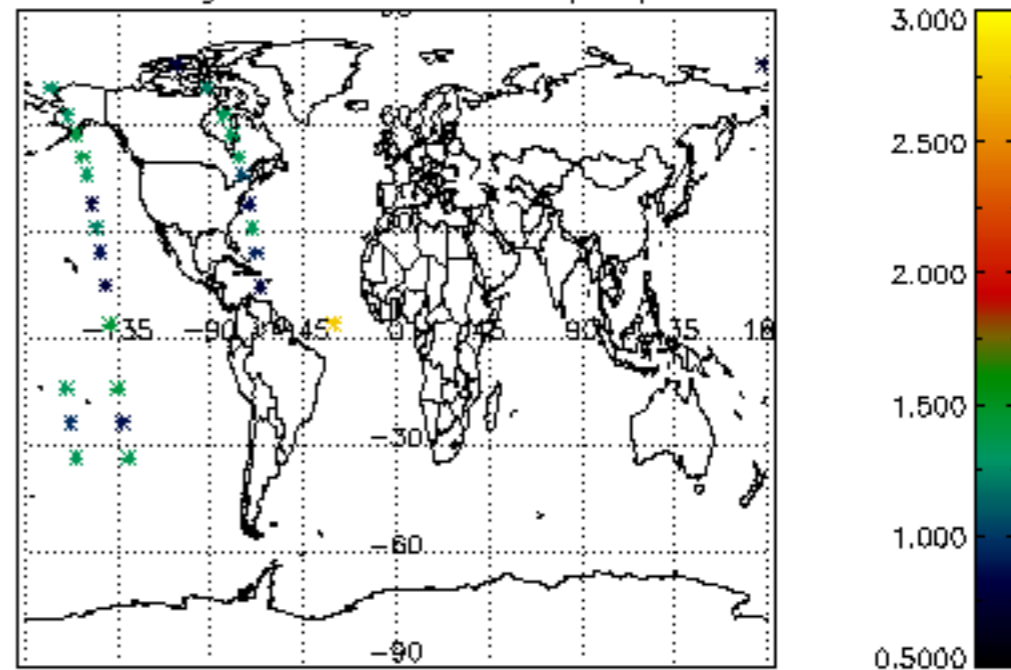




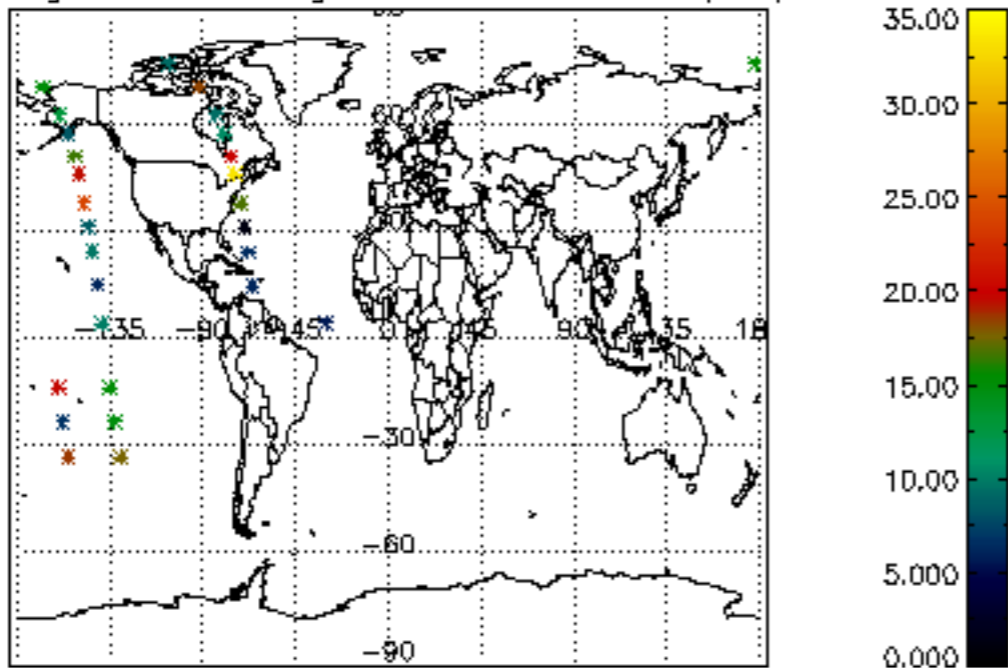
Percentage of cosmic ray hits per profile



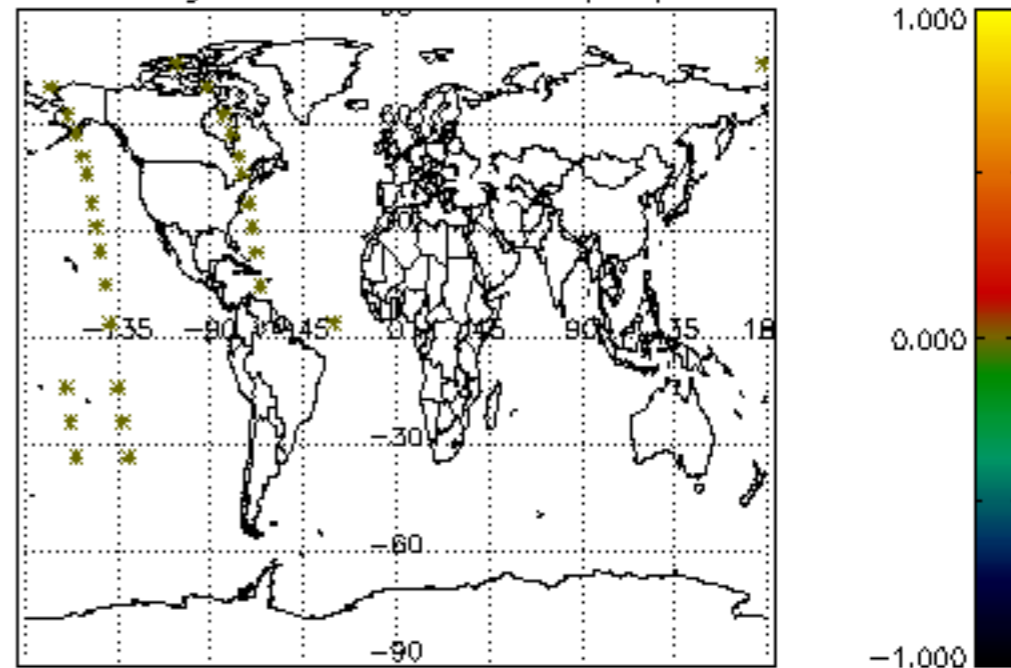
Percentage of datation errors per profile



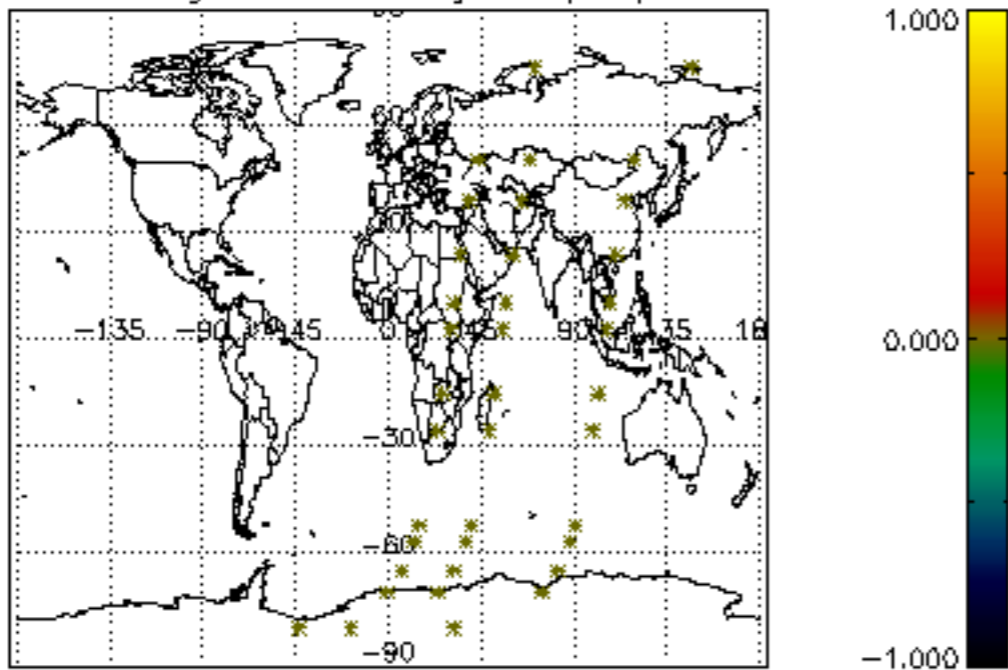
Percentage of star falling outside central band per profile



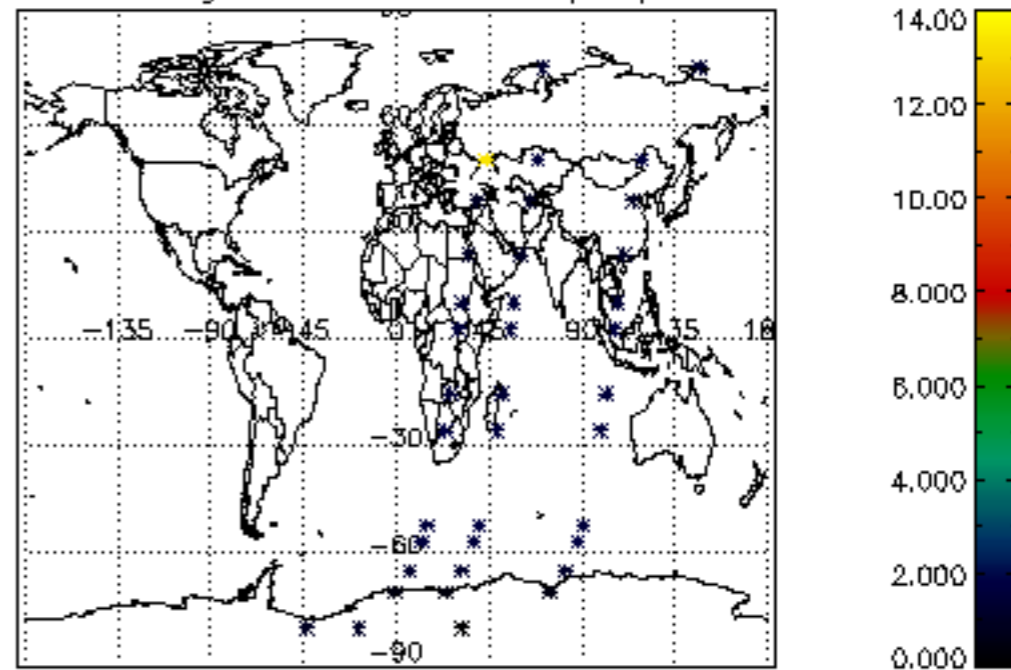
Percentage of saturation errors per profile



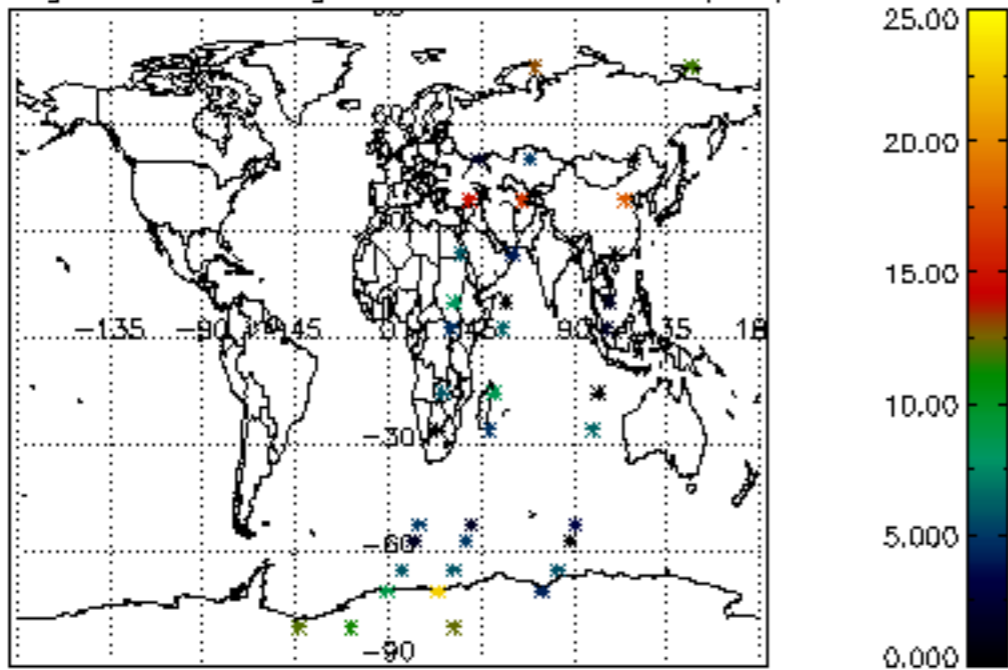
Percentage of cosmic ray hits per profile



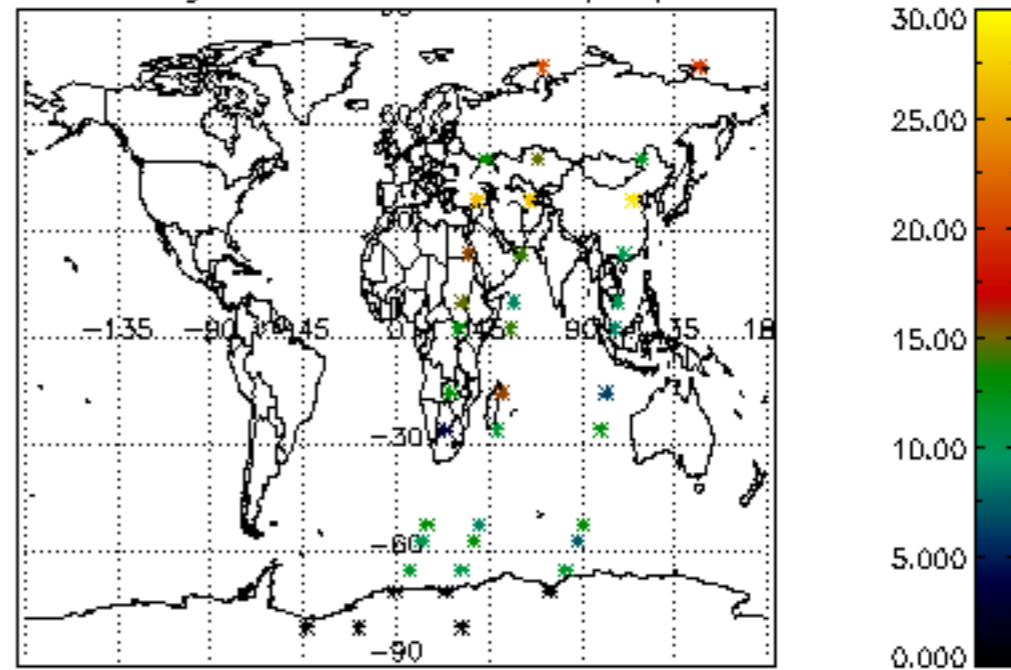
Percentage of datation errors per profile

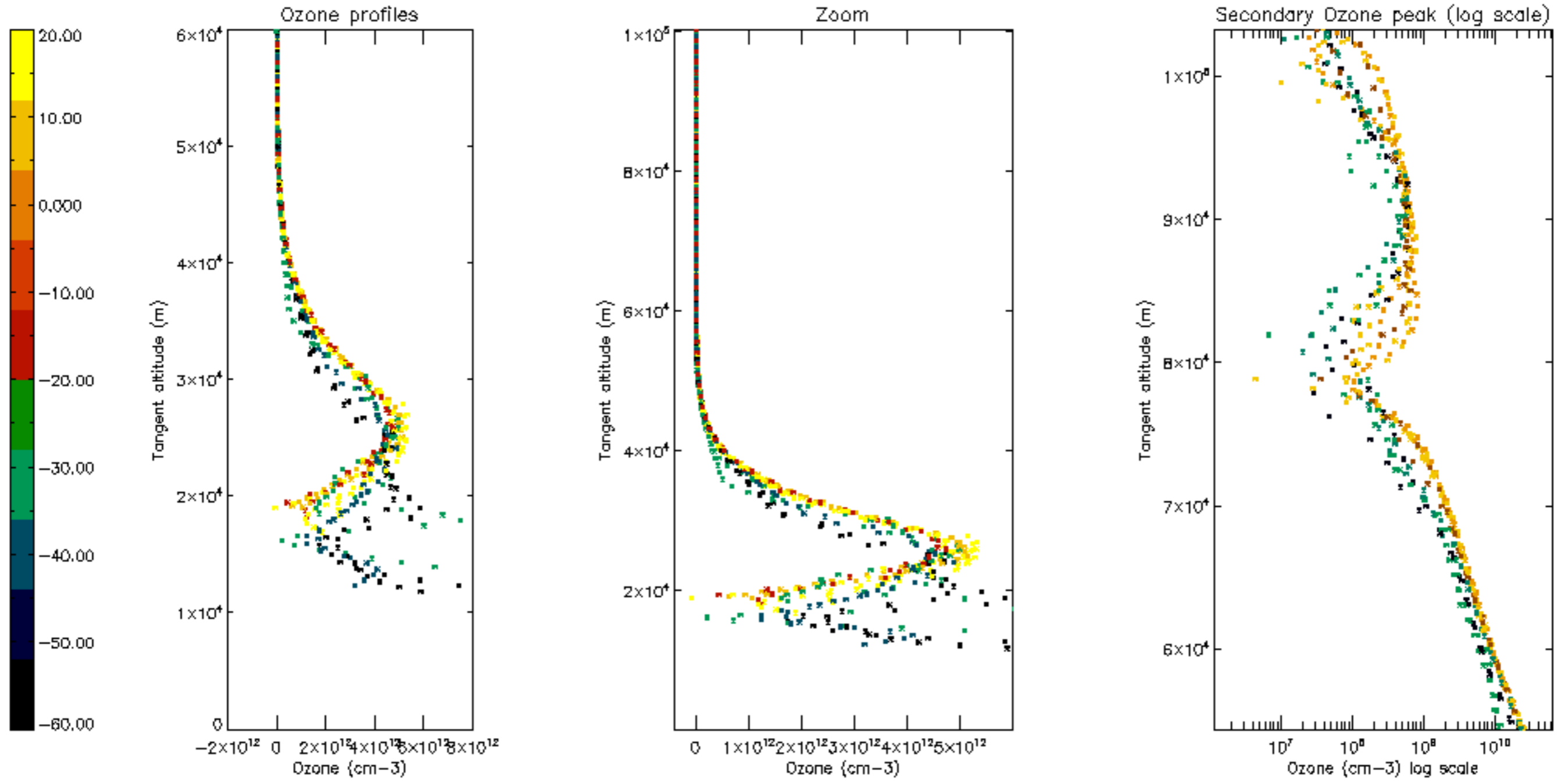


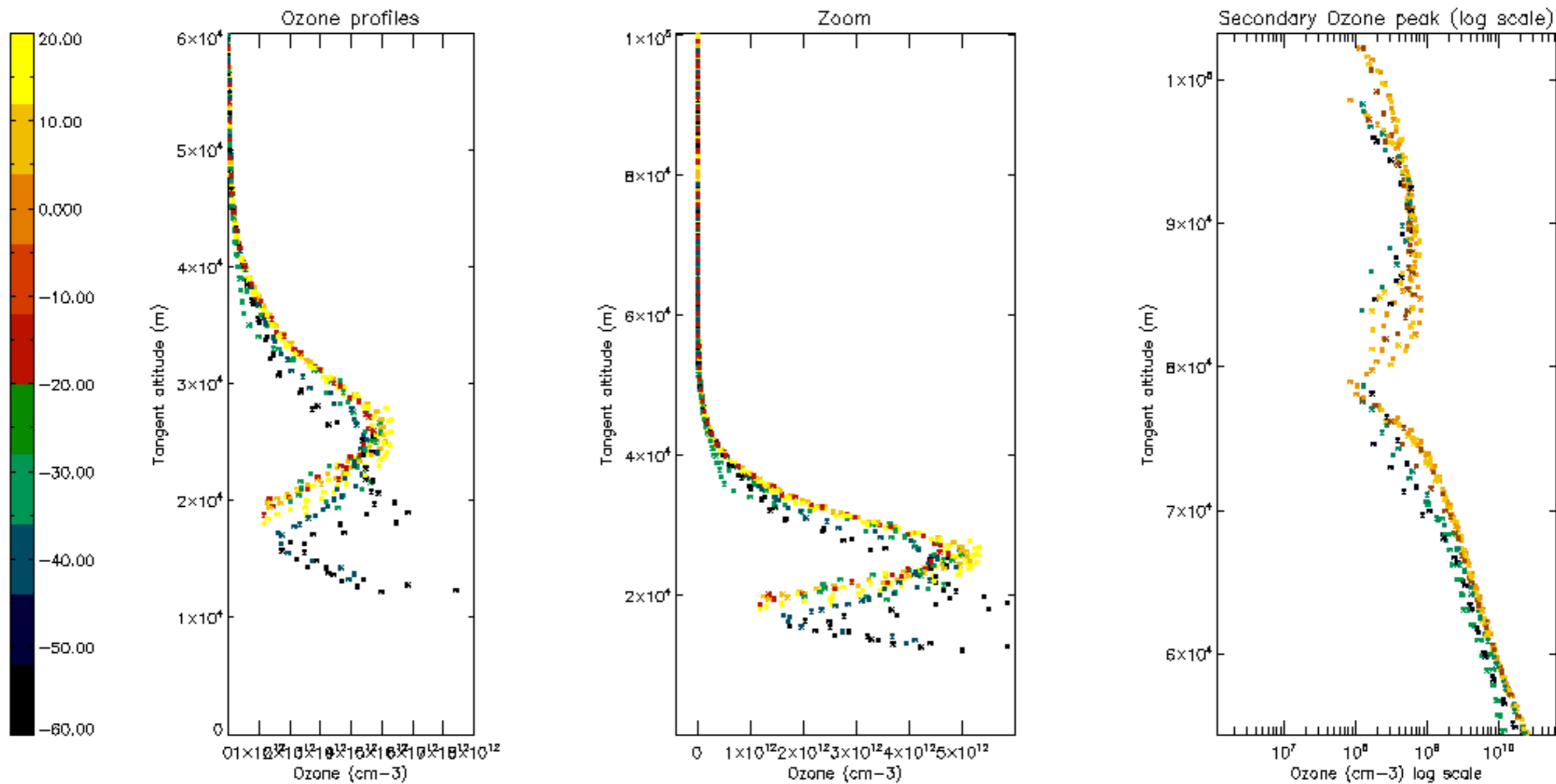
Percentage of star falling outside central band per profile



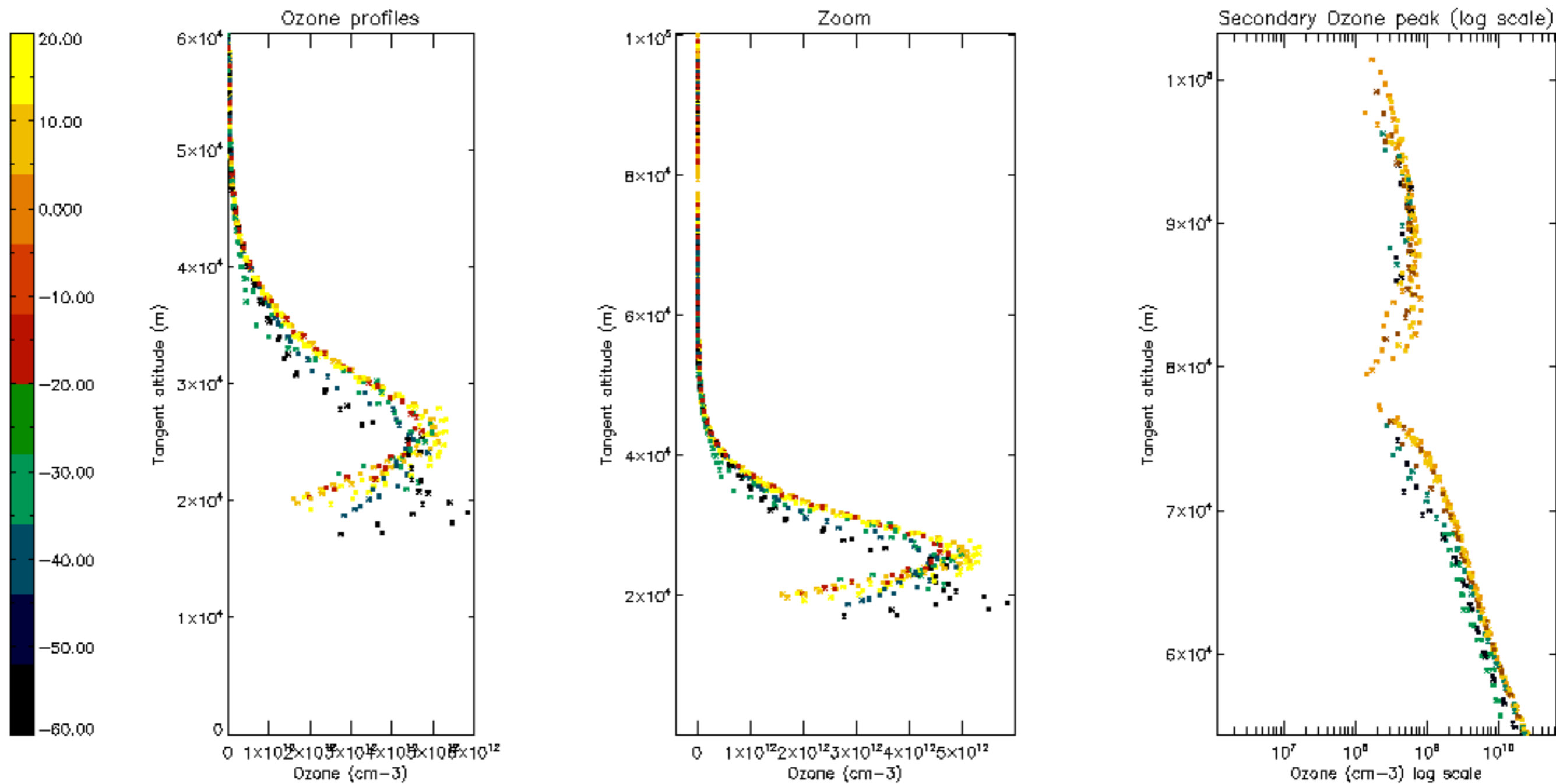
Percentage of saturation errors per profile

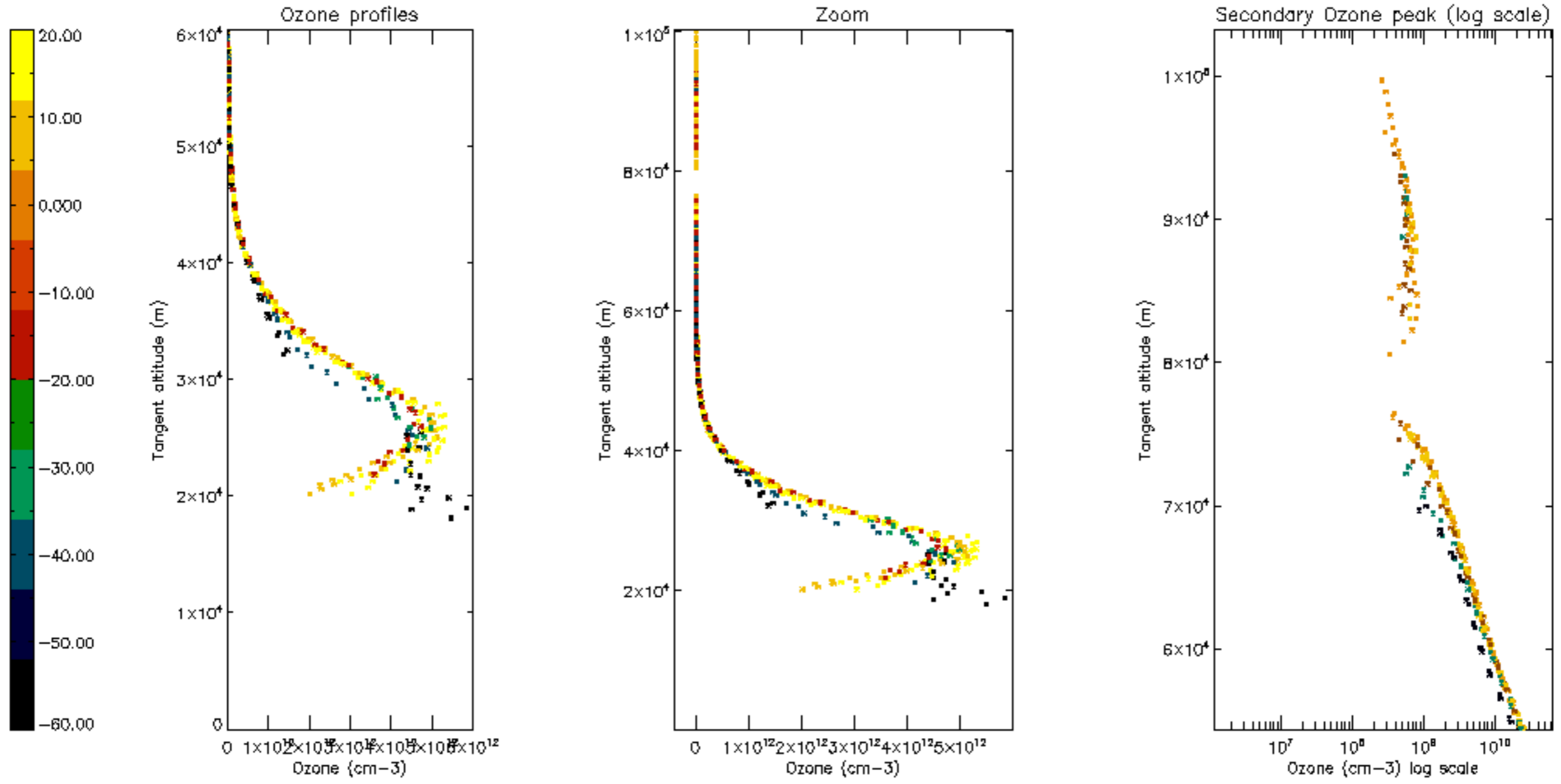


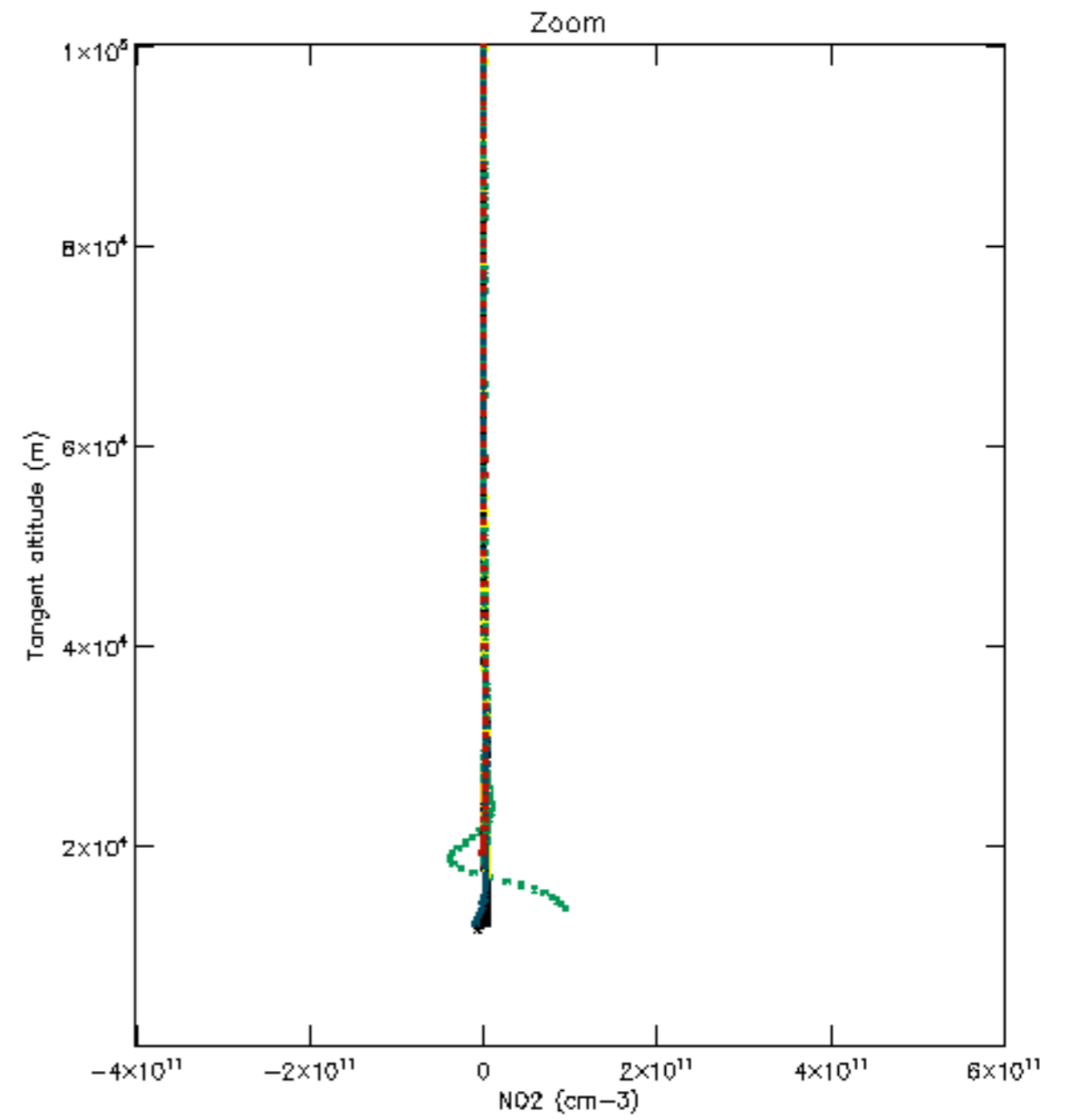
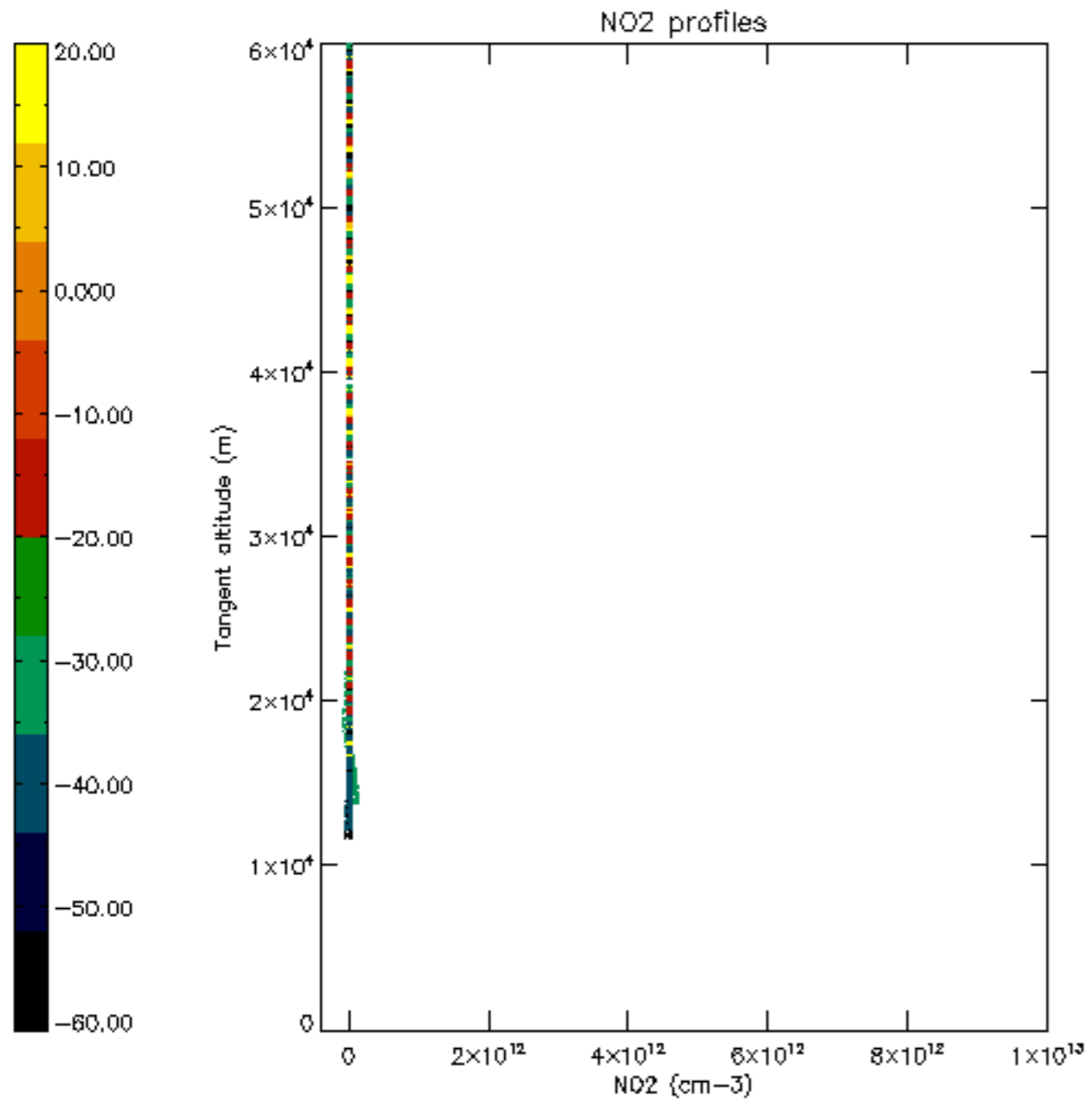


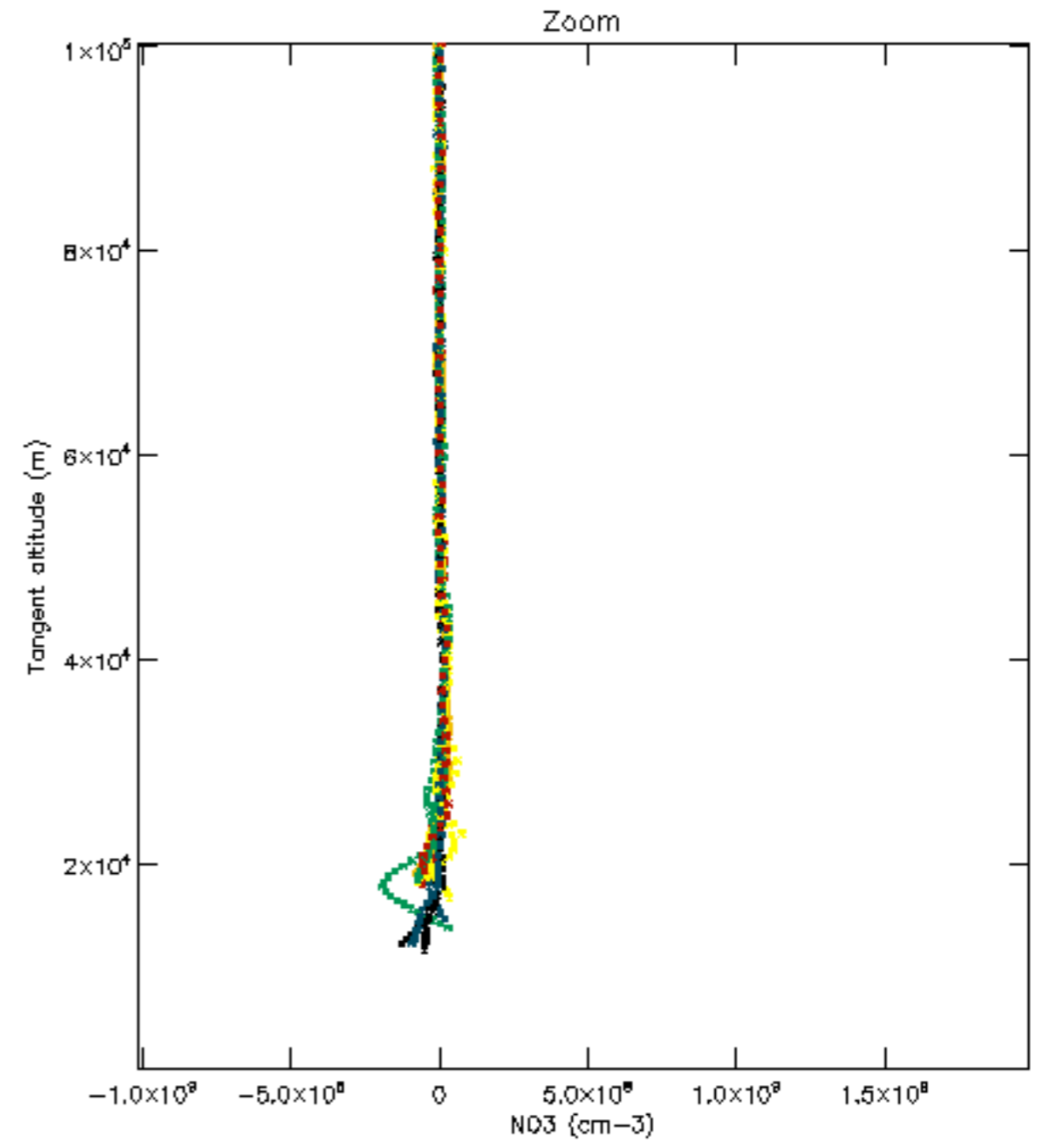
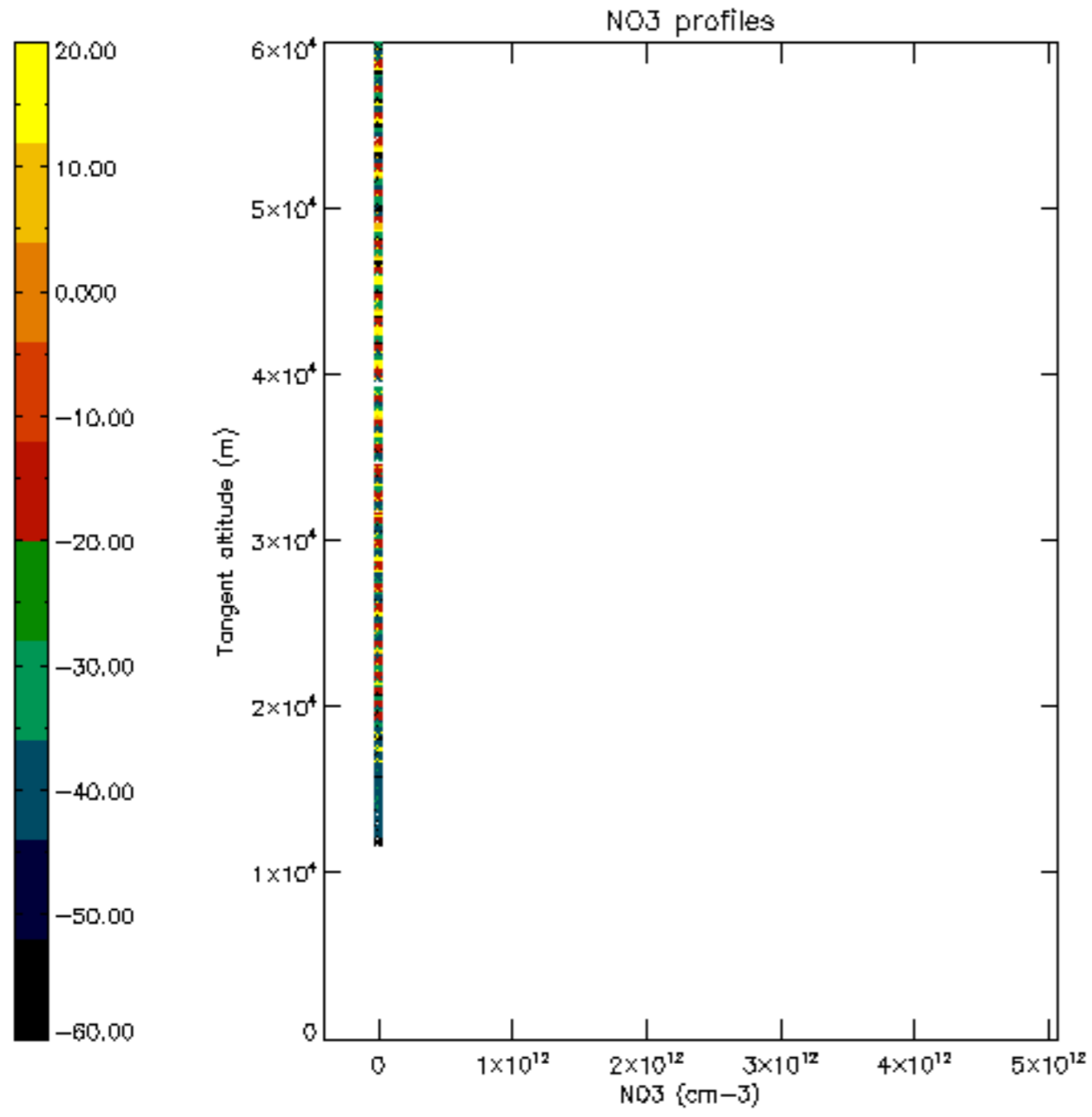


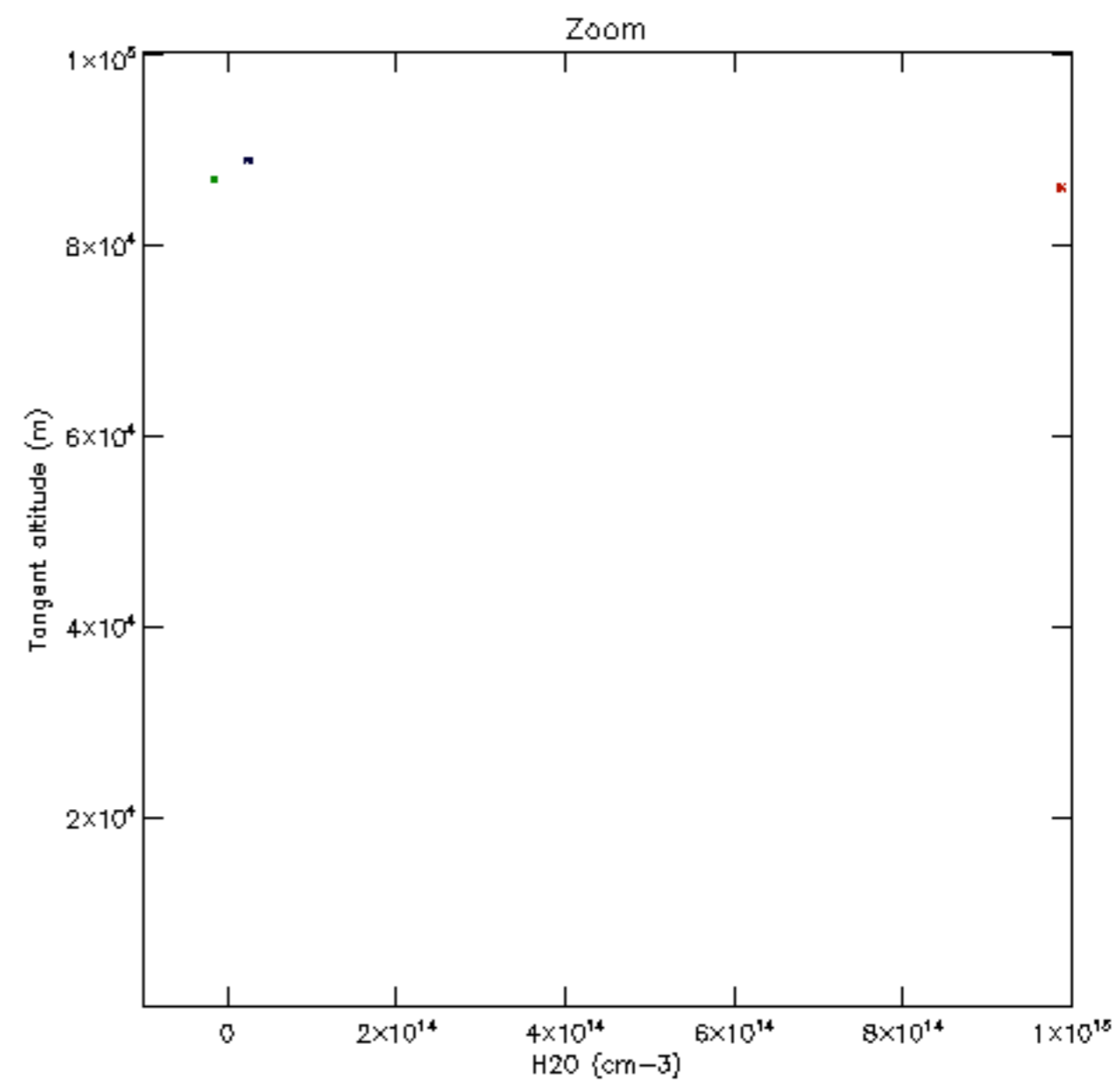
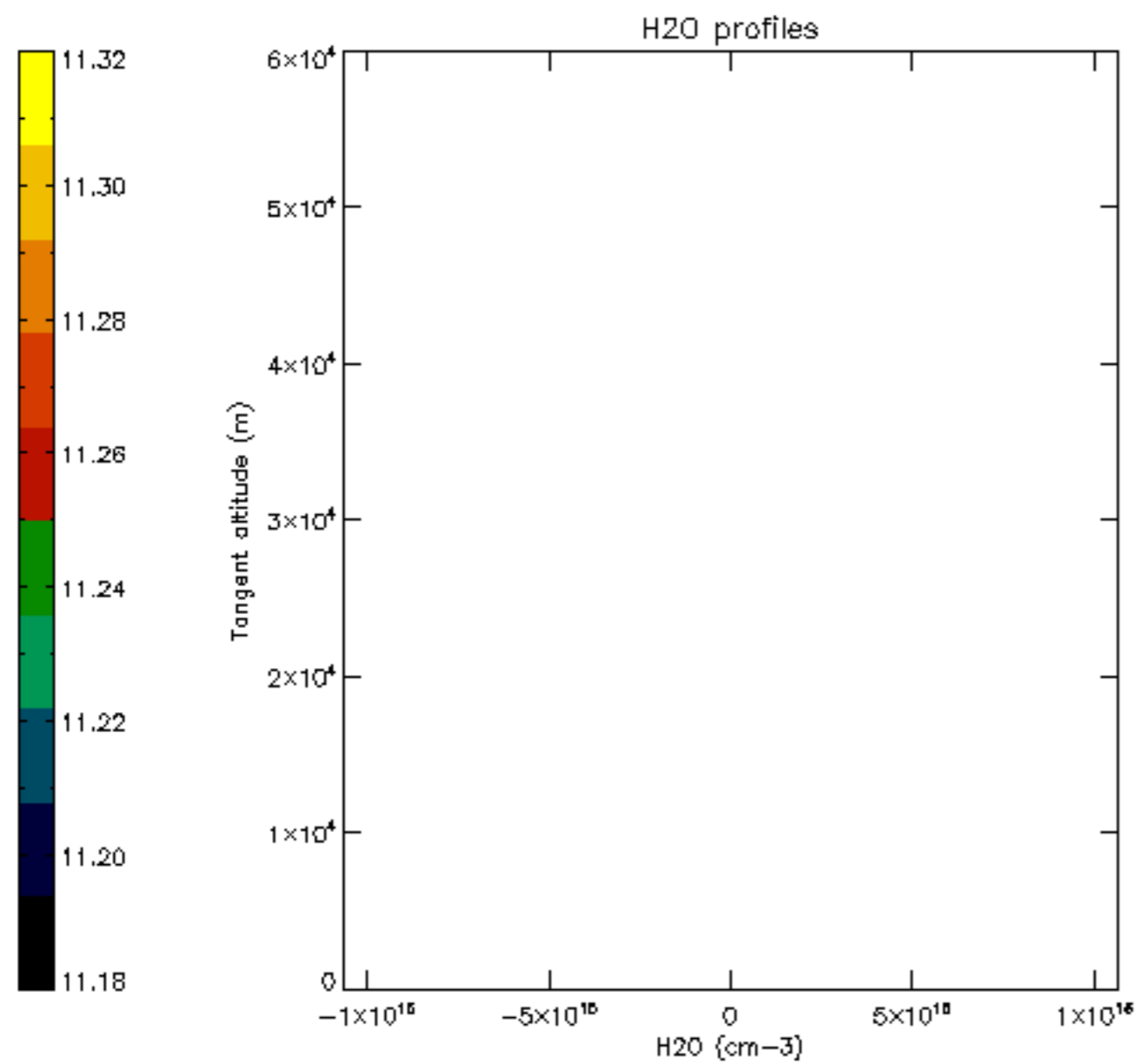


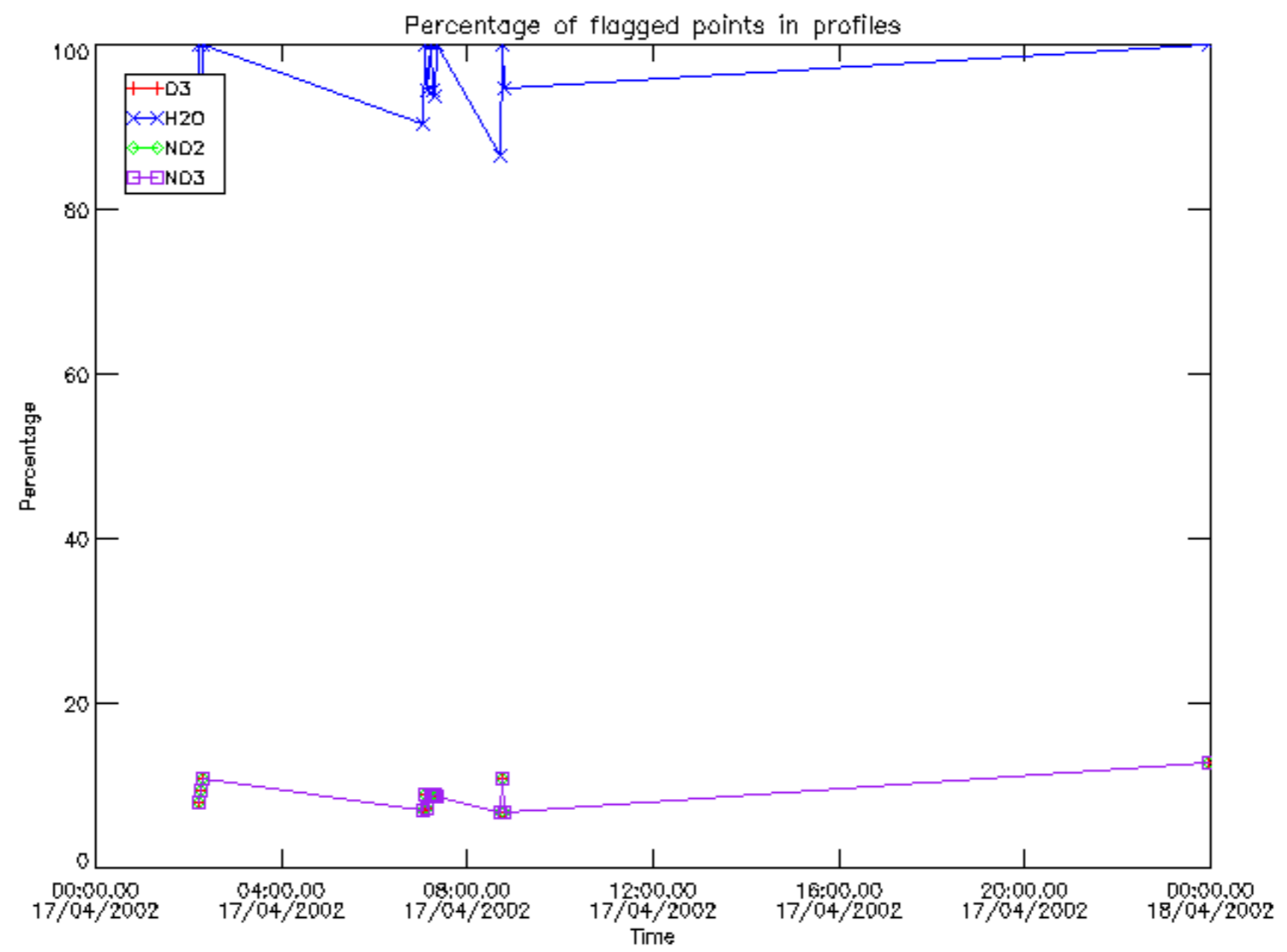




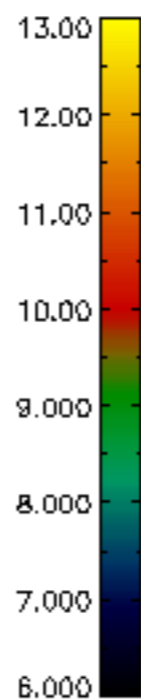
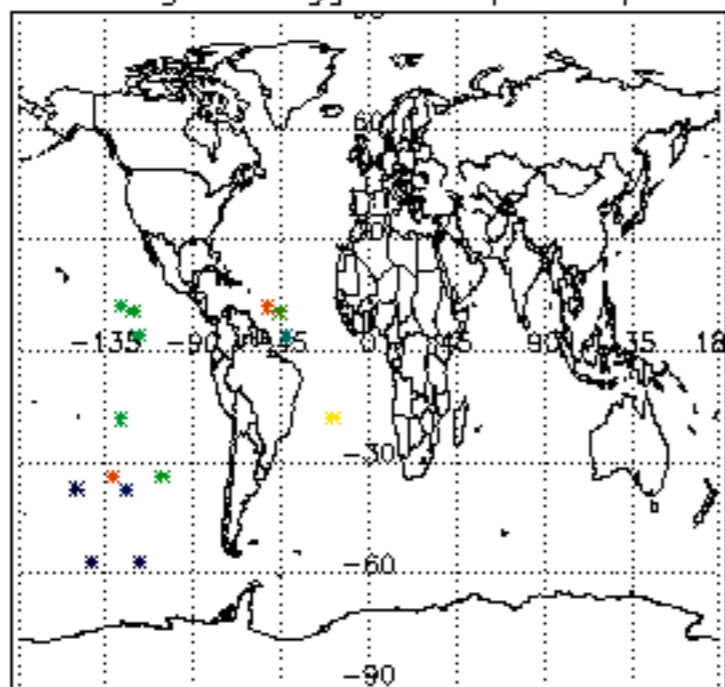




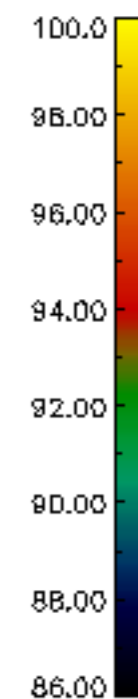
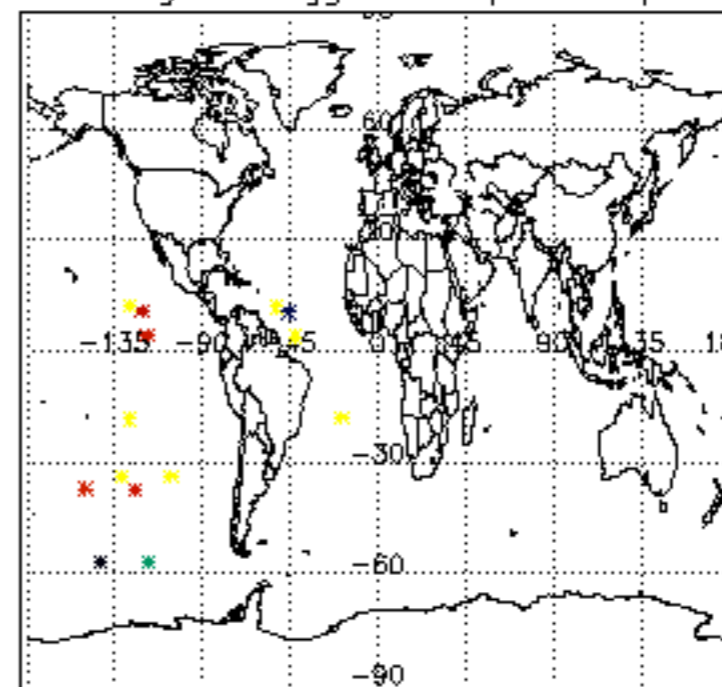




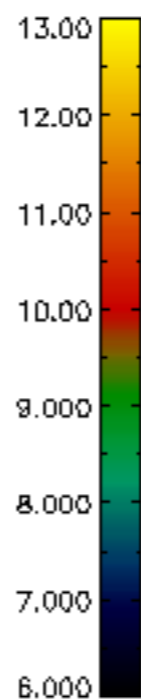
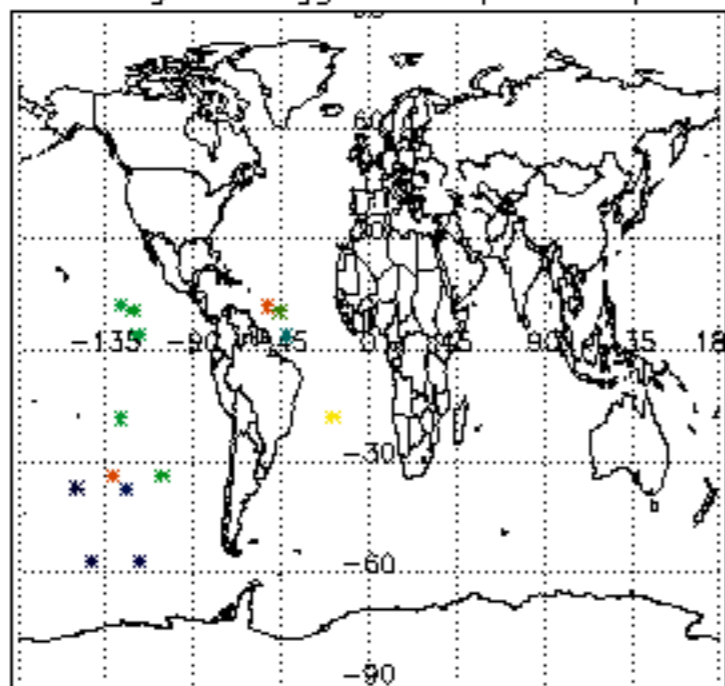
Percentage of flagged data per D3 profile



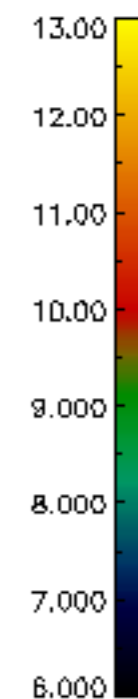
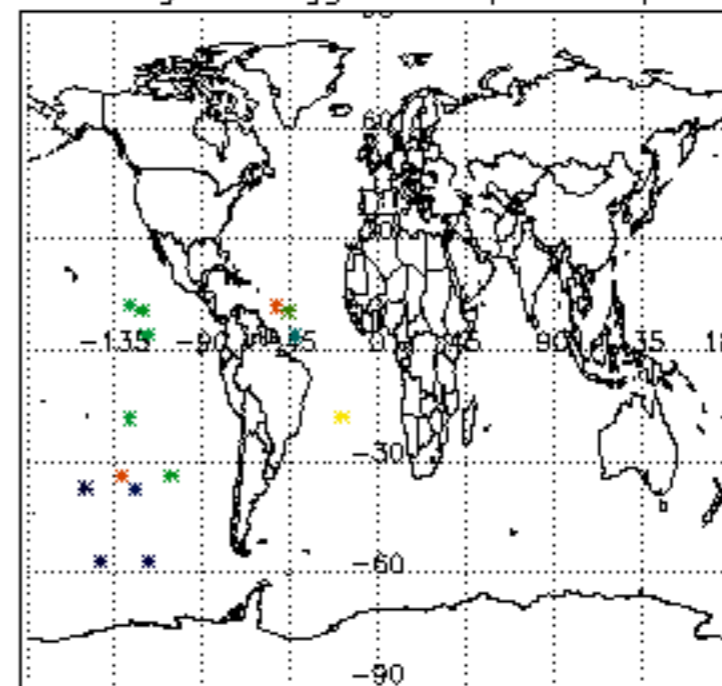
Percentage of flagged data per H2O profile

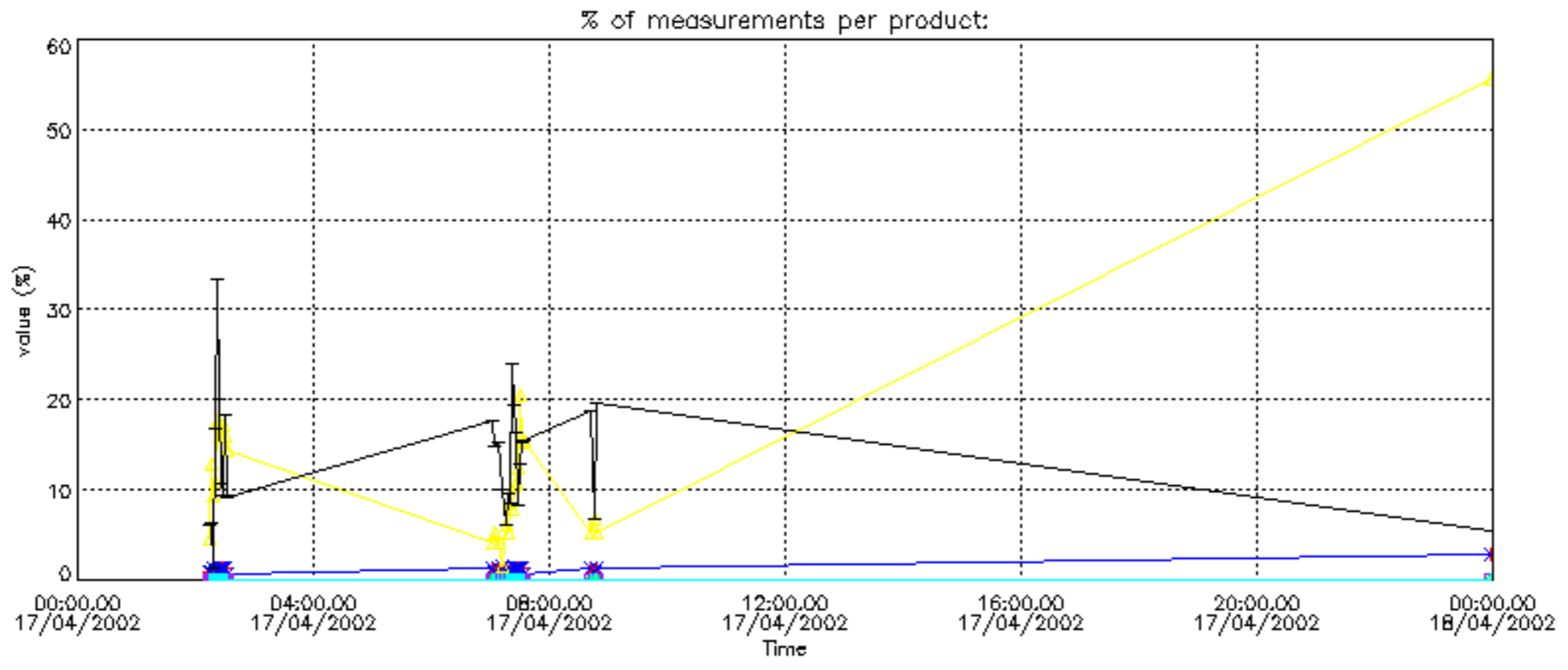


Percentage of flagged data per NO2 profile

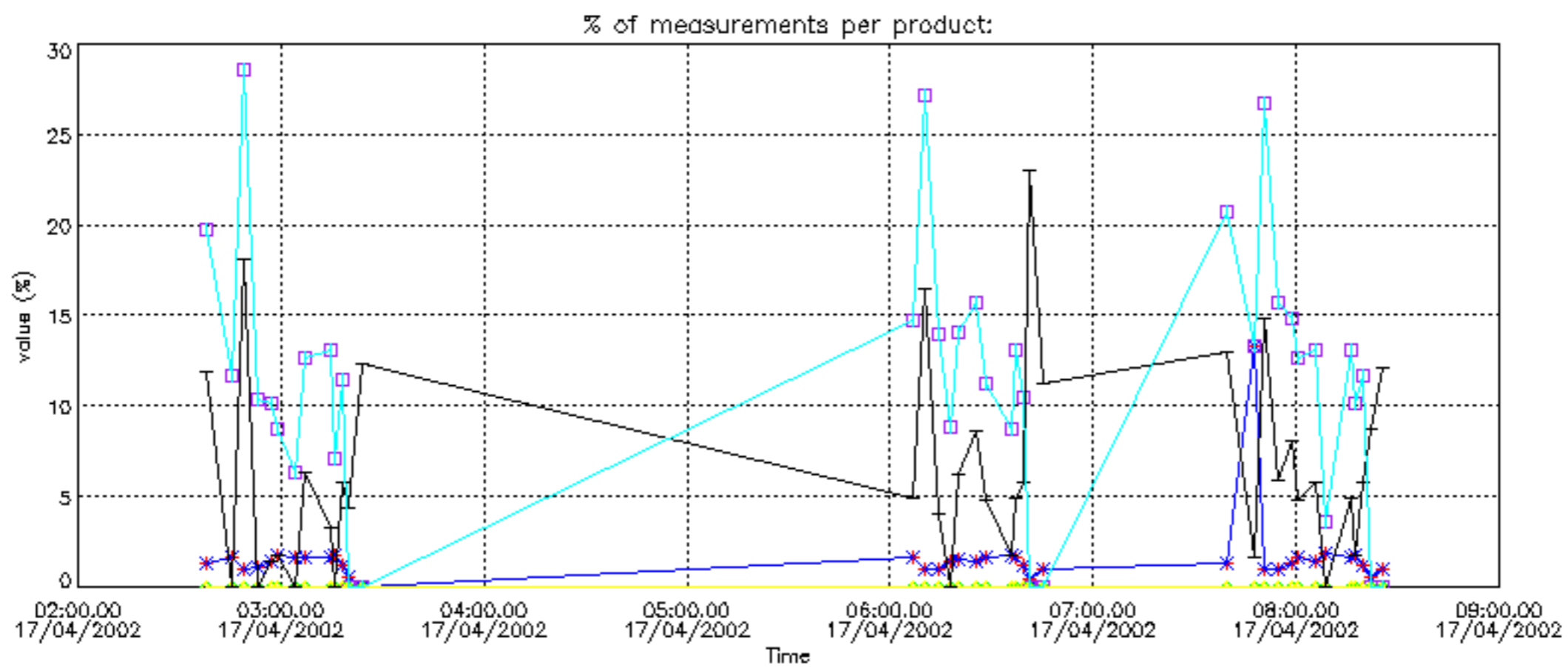


Percentage of flagged data per NO3 profile

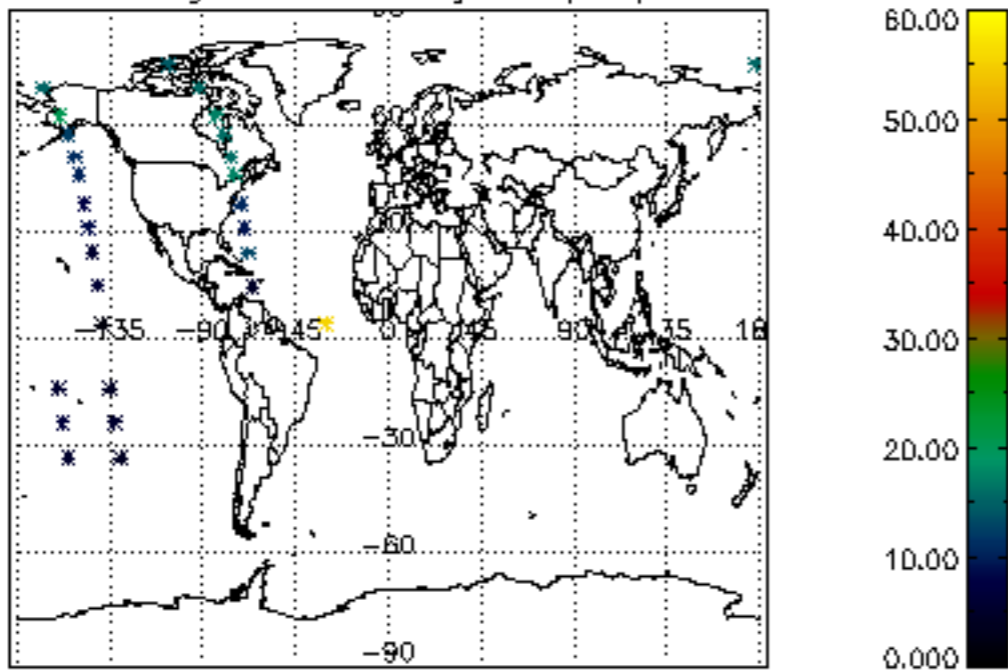




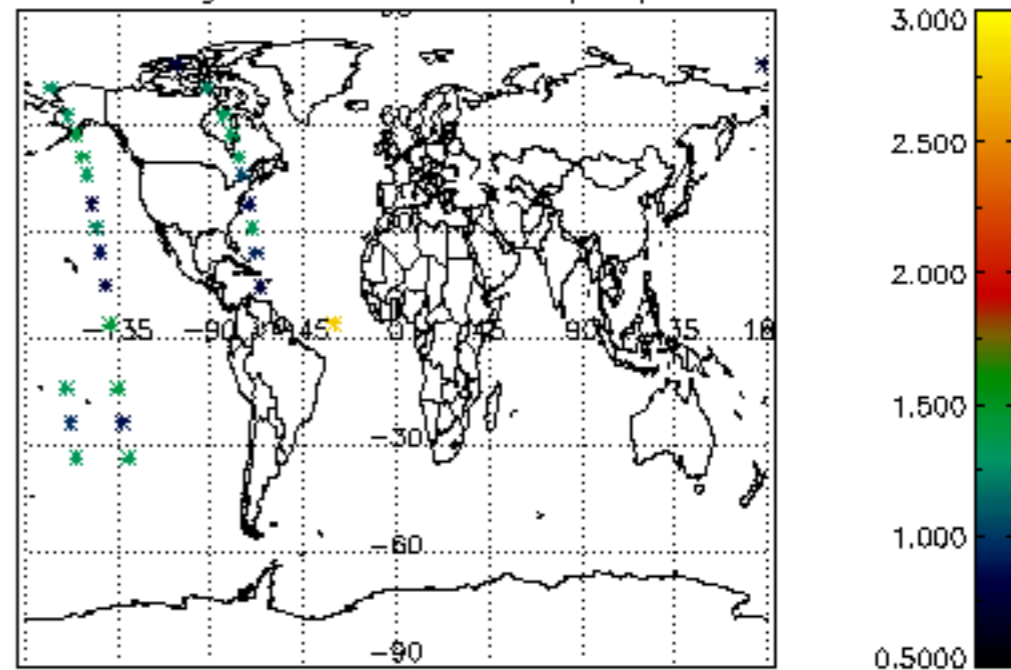




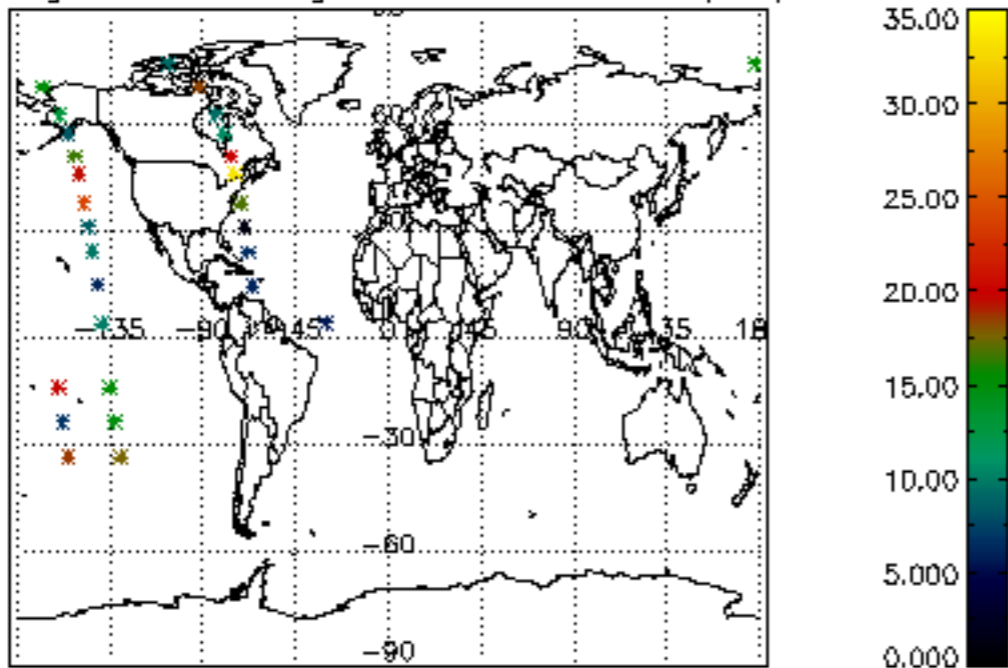
Percentage of cosmic ray hits per profile



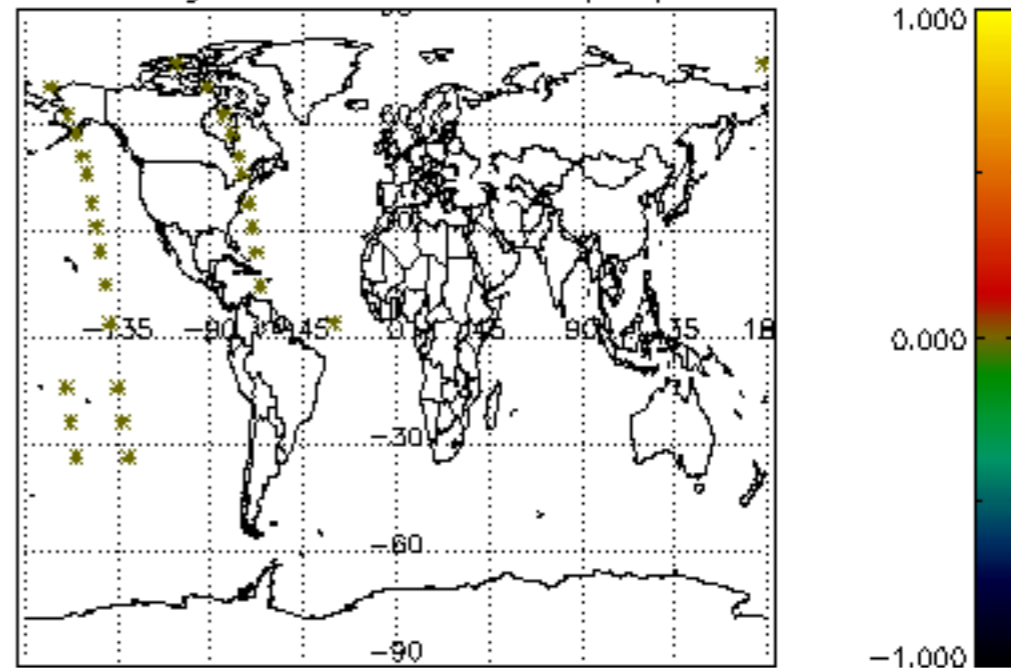
Percentage of datation errors per profile



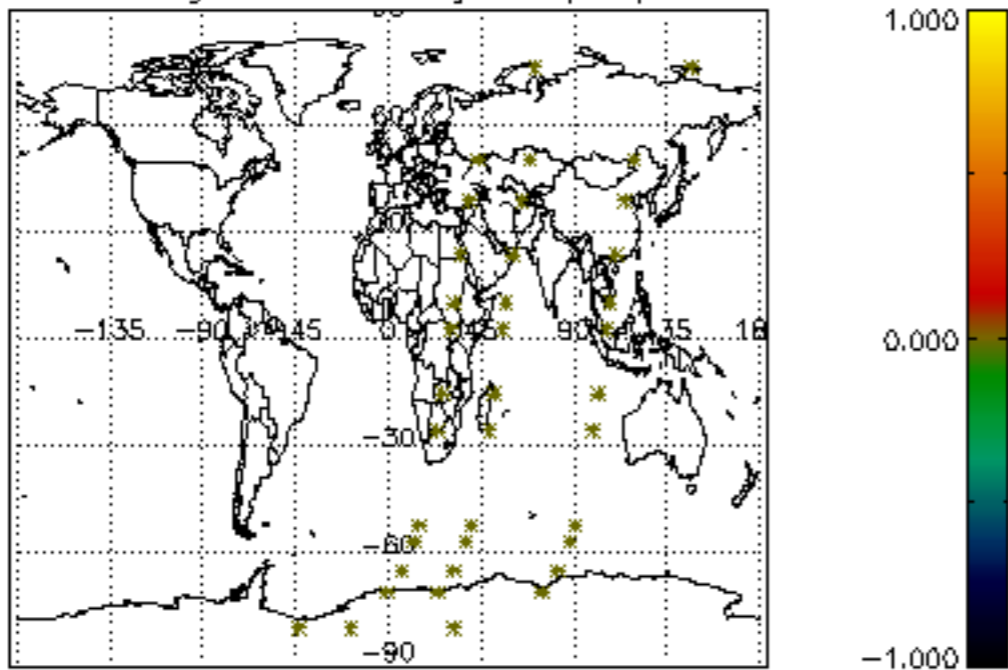
Percentage of star falling outside central band per profile



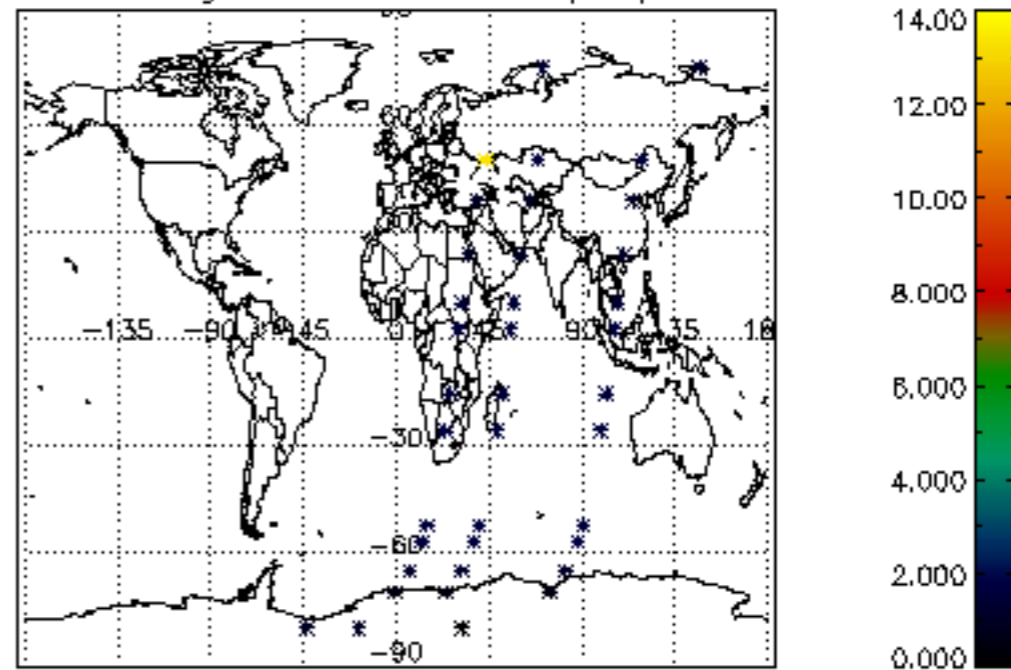
Percentage of saturation errors per profile



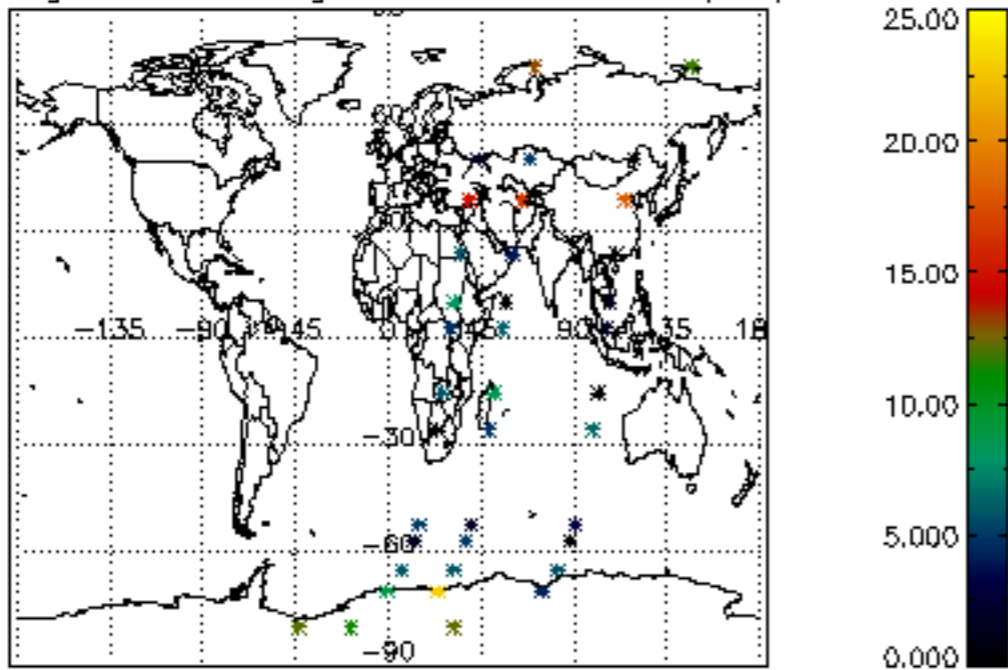
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

