

# 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 19:39:51
Data source version	GOMOS/6.01
Start time of products	24-10-2002 (24OCT2002 00:00:00)
Stop time of products	25-10-2002 (25OCT2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	208
Nb of prods with errors	174

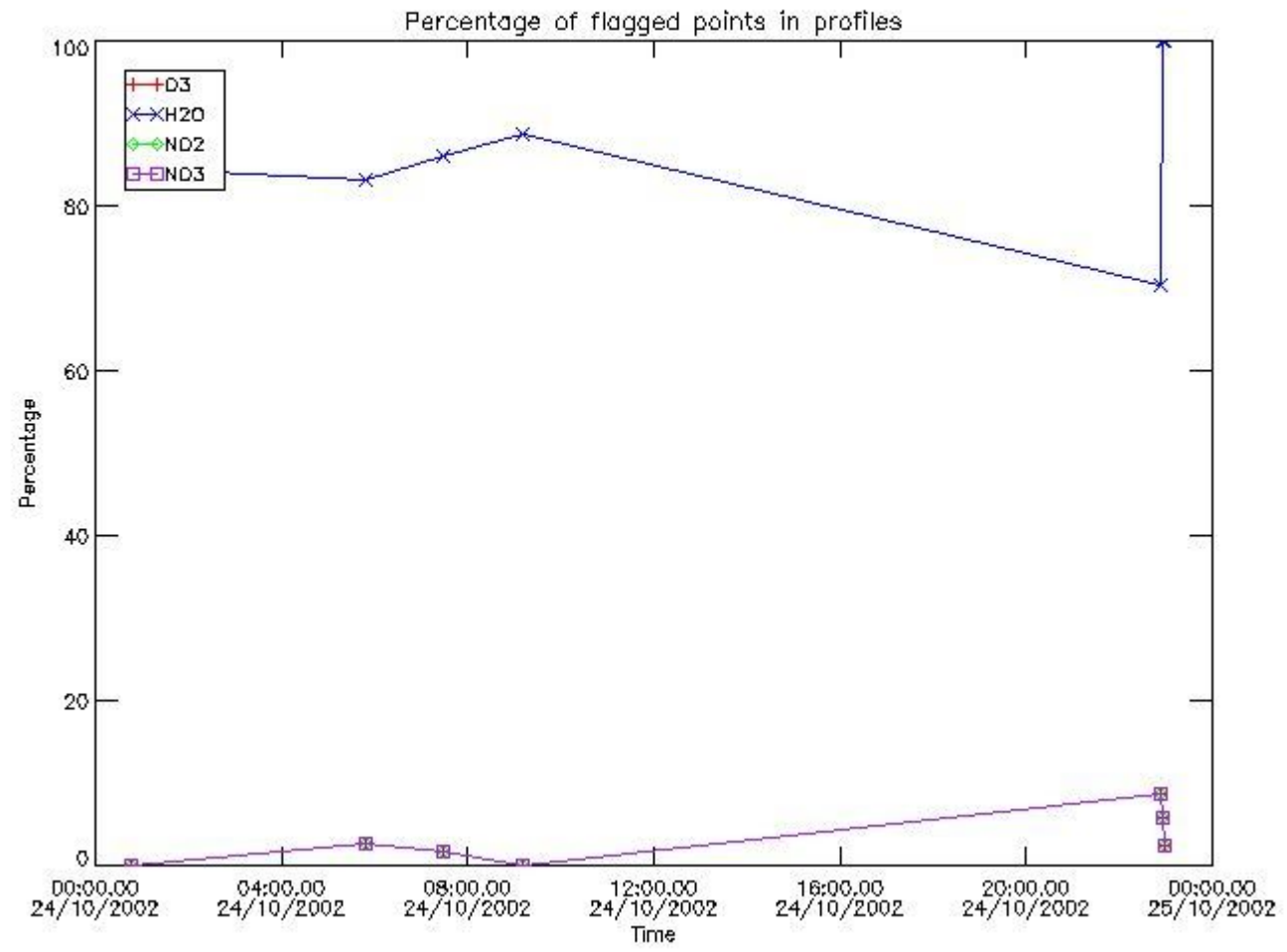
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20021024_000042_000000172010_00331_03391_2130.N1	24-OCT-2002 00:00:42	Dark	16.500	173	4Bet Tri	3.0040	8900.0	33	3391	Yes
2	GOM_NL__2PRFIN20021024_000240_000000182010_00331_03391_2131.N1	24-OCT-2002 00:02:40	Dark	17.500	73	57Gam1And	2.2600	13100.	35	3391	Yes
3	GOM_NL__2PRFIN20021024_000524_000000162010_00331_03391_2132.N1	24-OCT-2002 00:05:24	Dark	16.000	68	18Alp Cas	2.2250	4500.0	32	3391	Yes
4	GOM_NL__2PRFIN20021024_001438_000000152010_00331_03391_2133.N1	24-OCT-2002 00:14:38	Bright	14.500	49	1Alp UMi	1.9900	6300.0	29	3391	No
5	GOM_NL__2PRFIN20021024_001804_000000162010_00331_03391_2134.N1	24-OCT-2002 00:18:04	Dark	15.500	60	7Bet UMi	2.0810	3950.0	31	3391	Yes
6	GOM_NL__2PRFIN20021024_002001_000000332010_00331_03391_2135.N1	24-OCT-2002 00:20:01	Dark	33.000	42	34Bet Aur	1.9000	10200.	66	3391	Yes
7	GOM_NL__2PRFIN20021024_002253_000000162010_00331_03391_2136.N1	24-OCT-2002 00:22:53	Dark	16.000	36	50Alp UMa	1.8000	6300.0	32	3391	Yes
8	GOM_NL__2PRFIN20021024_002403_000000122010_00331_03391_2137.N1	24-OCT-2002 00:24:03	Dark	12.000	32	77Eps UMa	1.7630	11000.	24	3391	Yes
9	GOM_NL__2PRFIN20021024_002508_000000132010_00331_03391_2138.N1	24-OCT-2002 00:25:08	Bright	12.500	87	64Gam UMa	2.4330	11000.	25	3391	No
10	GOM_NL__2PRFIN20021024_002759_000000162010_00331_03391_2139.N1	24-OCT-2002 00:27:59	Dark	15.500	174	52Psi UMa	3.0040	4400.0	31	3391	Yes
11	GOM_NL__2PRFIN20021024_003451_000000682010_00331_03391_2140.N1	24-OCT-2002 00:34:51	Dark	67.500	24	66Alp Gem	1.5800	10200.	135	3391	Yes
12	GOM_NL__2PRFIN20021024_003757_000000852010_00331_03391_2141.N1	24-OCT-2002 00:37:57	Dark	85.000	17	78Bet Gem	1.1610	4500.0	170	3391	Yes
13	GOM_NL__2PRFIN20021024_004708_000000302010_00331_03391_2142.N1	24-OCT-2002 00:47:08	Dark	29.500	48	30Alp Hya	1.9770	4100.0	59	3391	No
14	GOM_NL__2PRFIN20021024_005435_000000202010_00331_03391_2143.N1	24-OCT-2002 00:54:35	Dark	19.500	113	Mu Vel	2.6920	5000.0	39	3391	Yes
15	GOM_NL__2PRFIN20021024_005618_000000252010_00331_03391_2144.N1	24-OCT-2002 00:56:18	Dark	24.500	65	Lam Vel	2.2040	4400.0	49	3391	Yes
16	GOM_NL__2PRFIN20021024_010101_000000252010_00332_03392_2117.N1	24-OCT-2002 01:01:01	Dark	24.500	29	Bet Car	1.6720	10200.	49	3392	Yes
17	GOM_NL__2PRFIN20021024_010410_000000202010_00332_03392_2118.N1	24-OCT-2002 01:04:10	Dark	20.000	161	Tau Pup	2.9310	4500.0	40	3392	Yes
18	GOM_NL__2PRFIN20021024_010524_000000242010_00332_03392_2119.N1	24-OCT-2002 01:05:24	Dark	24.000	2	Alp Car	-0.73600	7000.0	48	3392	Yes
19	GOM_NL__2PRFIN20021024_010905_000000332010_00332_03392_2120.N1	24-OCT-2002 01:09:05	Dark	32.500	177	1Zet CMa	3.0220	26000.	65	3392	Yes
20	GOM_NL__2PRFIN20021024_011122_000000282010_00332_03392_2121.N1	24-OCT-2002 01:11:22	Dark	27.500	108	Alp Col	2.6520	15200.	55	3392	Yes
21	GOM_NL__2PRFIN20021024_011353_0000002082010_00332_03392_2122.N1	24-OCT-2002 01:13:53	Straylight	208.00	1	9Alp CMa	-1.4400	11000.	416	3392	No
22	GOM_NL__2PRFIN20021024_011928_000000612010_00332_03392_2123.N1	24-OCT-2002 01:19:28	Dark	61.000	139	9Bet Lep	2.8330	5600.0	122	3392	Yes
23	GOM_NL__2PRFIN20021024_012454_000000182010_00332_03392_2124.N1	24-OCT-2002 01:24:54	Dark	18.000	52	16Bet Cet	2.0370	4500.0	36	3392	Yes
24	GOM_NL__2PRFIN20021024_013239_000000282010_00332_03392_2125.N1	24-OCT-2002 01:32:39	Dark	28.000	94	92Alp Cet	2.5260	3100.0	56	3392	Yes
25	GOM_NL__2PRFIN20021024_013423_000000142010_00332_03392_2126.N1	24-OCT-2002 01:34:23	Dark	14.000	140	88Gam Peg	2.8340	26000.	28	3392	Yes
26	GOM_NL__2PRFIN20021024_013633_000000172010_00332_03392_2127.N1	24-OCT-2002 01:36:33	Bright	17.000	105	6Bet Ari	2.6450	8900.0	34	3392	No
27	GOM_NL__2PRFIN20021024_013817_000000142010_00332_03392_2128.N1	24-OCT-2002 01:38:17	Dark	14.000	58	21Alp And	2.0730	11000.	28	3392	Yes
28	GOM_NL__2PRFIN20021024_014016_000000192010_00332_03392_2129.N1	24-OCT-2002 01:40:16	Dark	19.000	53	43Bet And	2.0480	3300.0	38	3392	Yes
29	GOM_NL__2PRFIN20021024_014118_000000152010_00332_03392_2130.N1	24-OCT-2002 01:41:18	Dark	15.000	173	4Bet Tri	3.0040	8900.0	30	3392	Yes
30	GOM_NL__2PRFIN20021024_014315_000000182010_00332_03392_2131.N1	24-OCT-2002 01:43:15	Dark	17.500	73	57Gam1And	2.2600	13100.	35	3392	Yes
31	GOM_NL__2PRFIN20021024_014600_000000172010_00332_03392_2132.N1	24-OCT-2002 01:46:00	Dark	16.500	68	18Alp Cas	2.2250	4500.0	33	3392	Yes
32	GOM_NL__2PRFIN20021024_015514_000000132010_00332_03392_2133.N1	24-OCT-2002 01:55:14	Bright	12.500	49	1Alp UMi	1.9900	6300.0	25	3392	No
33	GOM_NL__2PRFIN20021024_015840_000000152010_00332_03392_2134.N1	24-OCT-2002 01:58:40	Dark	15.000	60	7Bet UMi	2.0810	3950.0	30	3392	Yes
34	GOM_NL__2PRFIN20021024_020036_000000322010_00332_03392_2135.N1	24-OCT-2002 02:00:36	Dark	31.500	42	34Bet Aur	1.9000	10200.	63	3392	Yes
35	GOM_NL__2PRFIN20021024_020329_000000162010_00332_03392_2136.N1	24-OCT-2002 02:03:29	Dark	16.000	36	50Alp UMa	1.8000	6300.0	32	3392	Yes
36	GOM_NL__2PRFIN20021024_020440_000000142010_00332_03392_2137.N1	24-OCT-2002 02:04:40	Dark	14.000	32	77Eps UMa	1.7630	11000.	28	3392	Yes
37	GOM_NL__2PRFIN20021024_020544_000000152010_00332_03392_2138.N1	24-OCT-2002 02:05:44	Bright	14.500	87	64Gam UMa	2.4330	11000.	29	3392	No
38	GOM_NL__2PRFIN20021024_042214_000000242010_00334_03394_2117.N1	24-OCT-2002 04:22:14	Dark	24.000	29	Bet Car	1.6720	10200.	48	3394	Yes
39	GOM_NL__2PRFIN20021024_042523_000000202010_00334_03394_2118.N1	24-OCT-2002 04:25:23	Dark	19.500	161	Tau Pup	2.9310	4500.0	39	3394	Yes
40	GOM_NL__2PRFIN20021024_042637_000000242010_00334_03394_2119.N1	24-OCT-2002 04:26:37	Dark	24.000	2	Alp Car	-0.73600	7000.0	48	3394	Yes
41	GOM_NL__2PRFIN20021024_043020_000000352010_00334_03394_2120.N1	24-OCT-2002 04:30:20	Dark	35.000	177	1Zet CMa	3.0220	26000.	70	3394	Yes
42	GOM_NL__2PRFIN20021024_043236_000000302010_00334_03394_2121.N1	24-OCT-2002 04:32:36	Dark	30.000	108	Alp Col	2.6520	15200.	60	3394	Yes



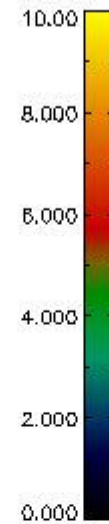
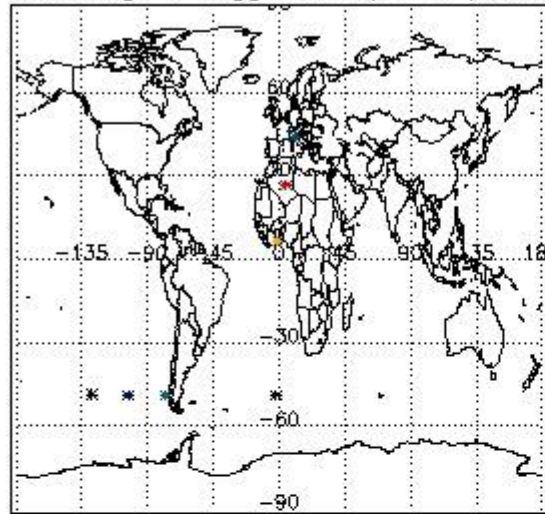




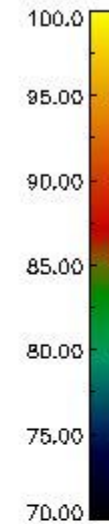
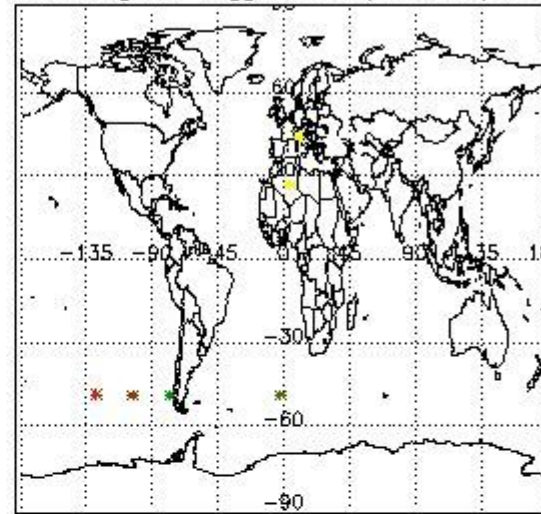


*3.2 Plot quality information per product (world map)*

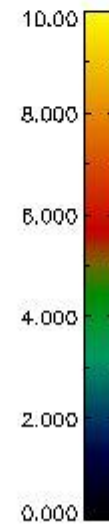
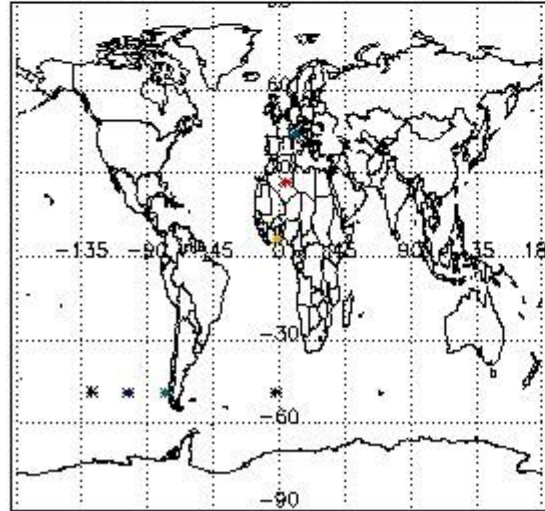
Percentage of flagged data per O3 profile



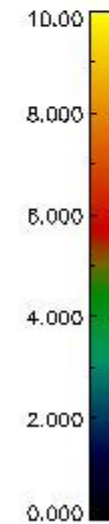
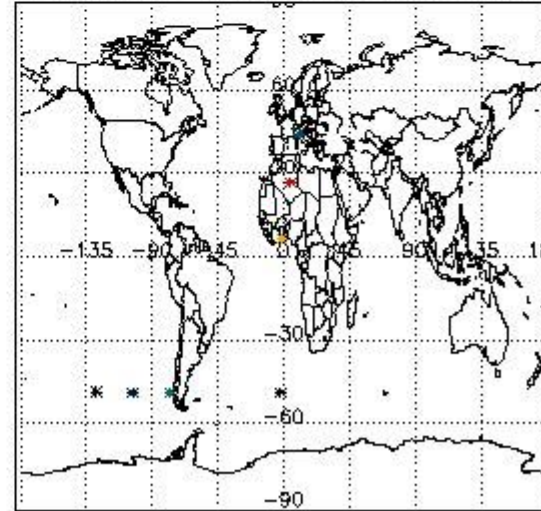
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

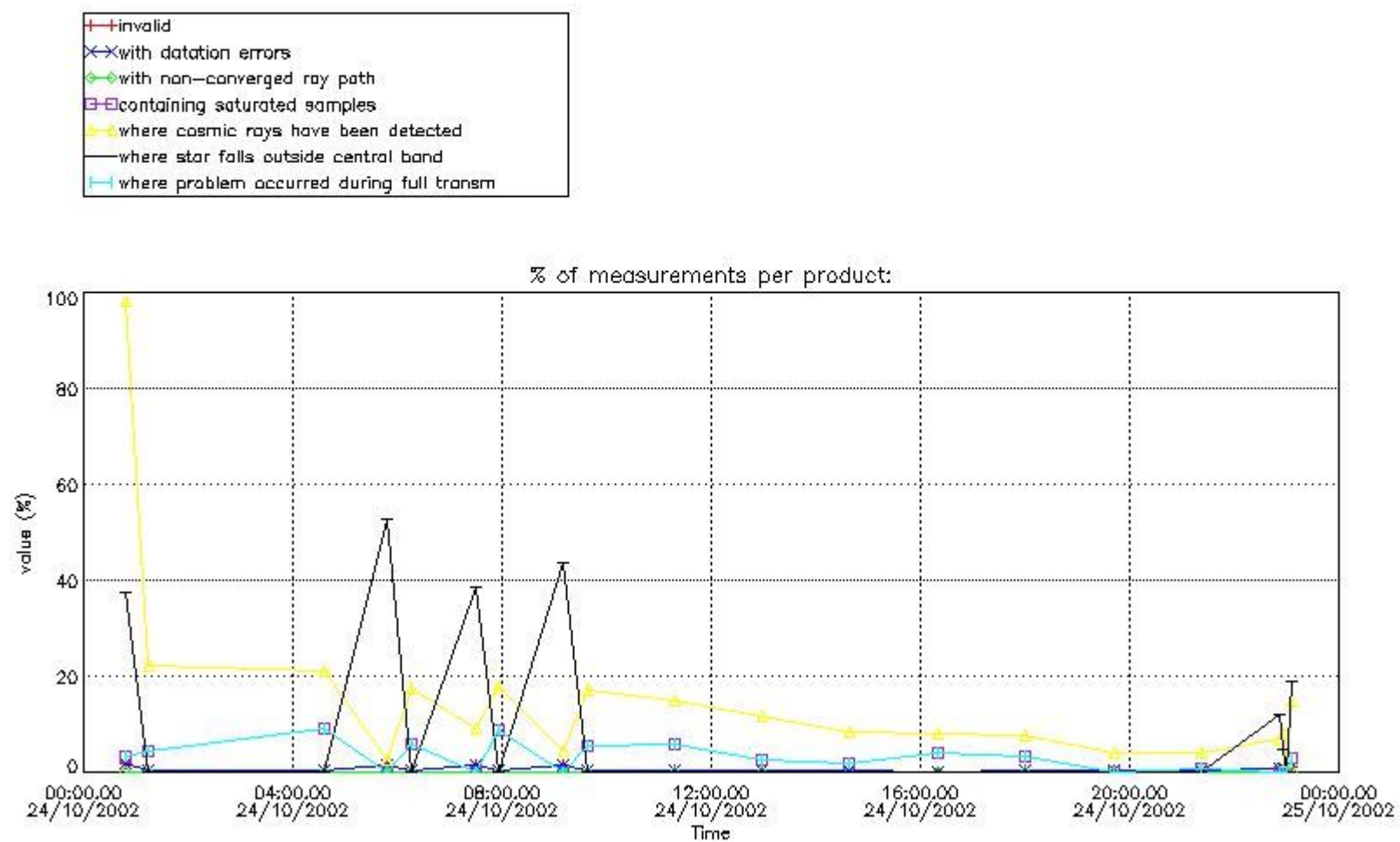


#### 4. Level 1 quality information per product

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.

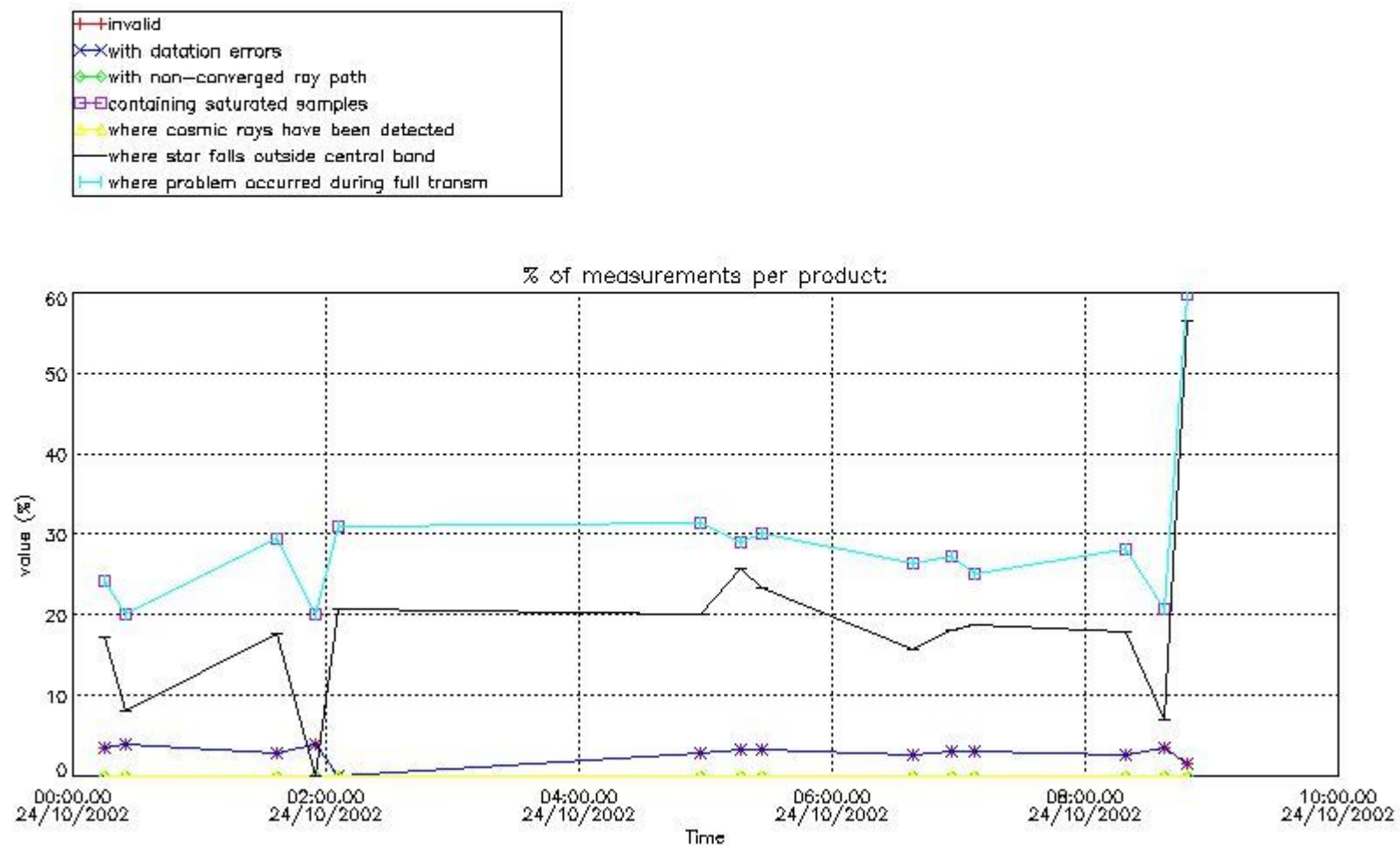
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

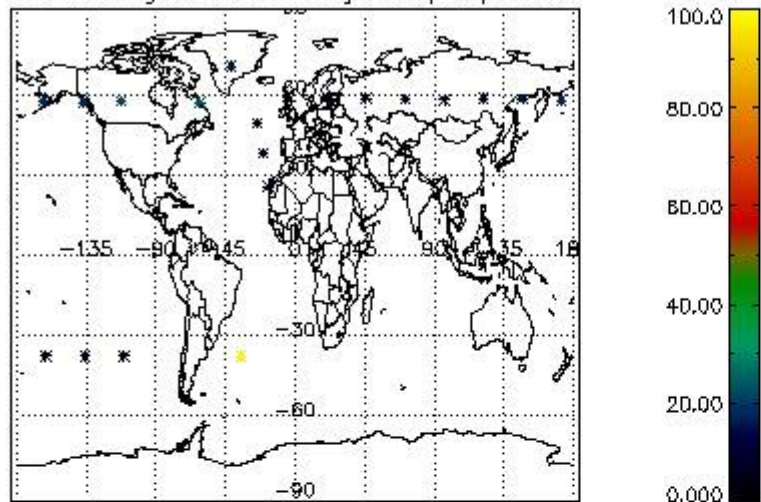




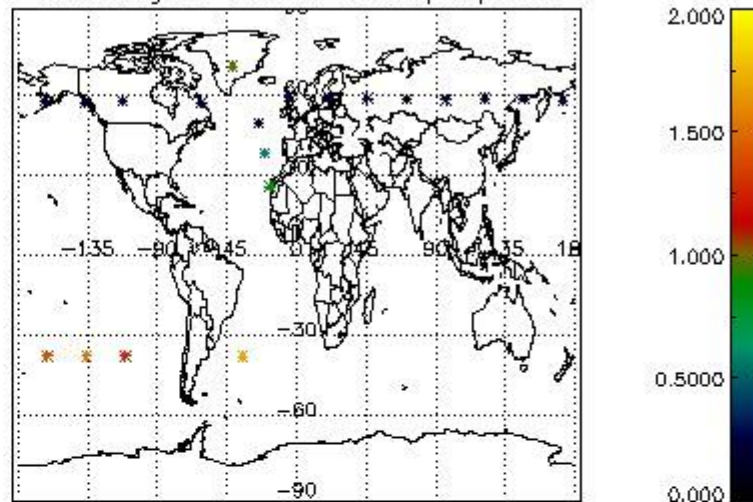
4.2 Plot quality information per product coming from level 1b processing (world map)

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

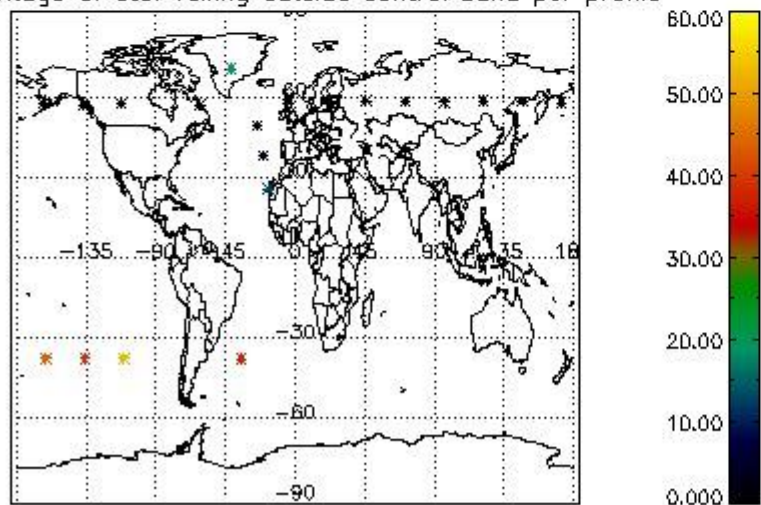
Percentage of cosmic ray hits per profile



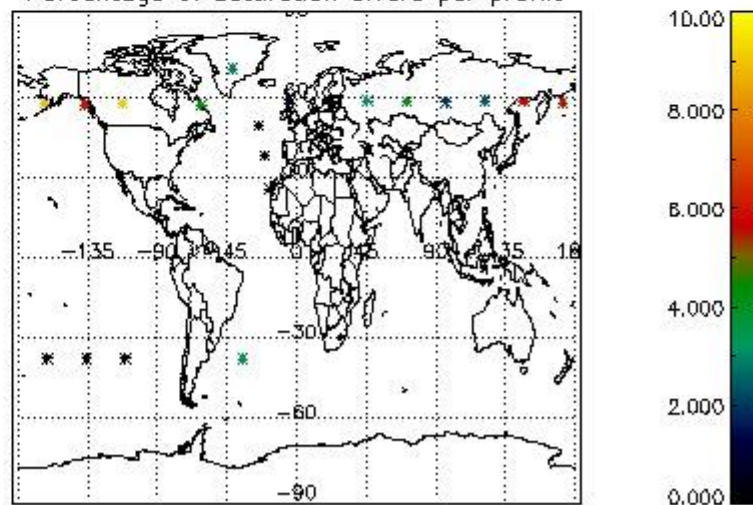
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

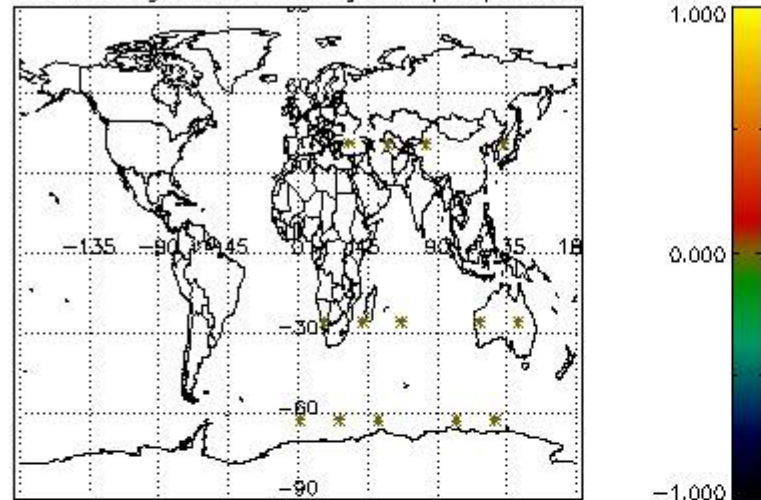


Percentage of saturation errors per profile

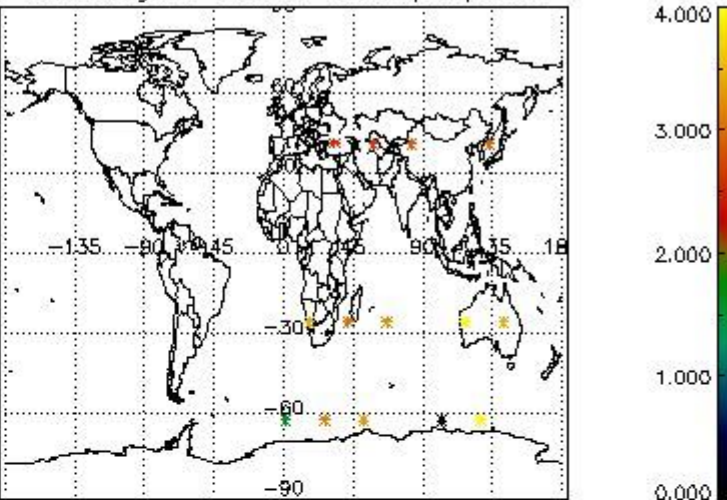


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

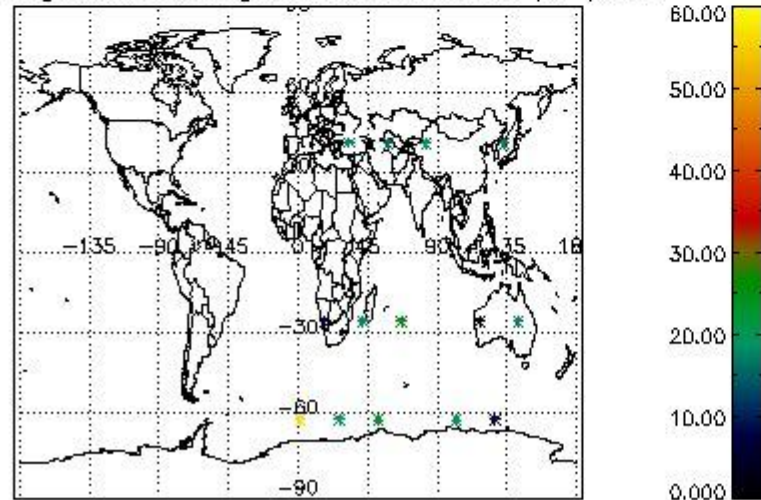
Percentage of cosmic ray hits per profile



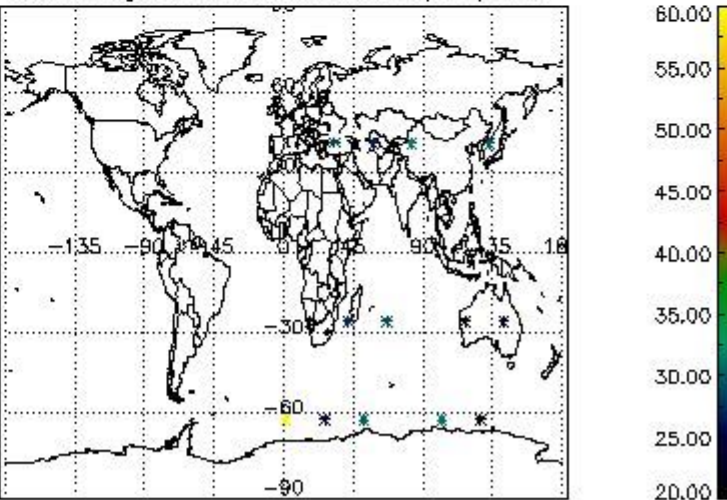
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 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

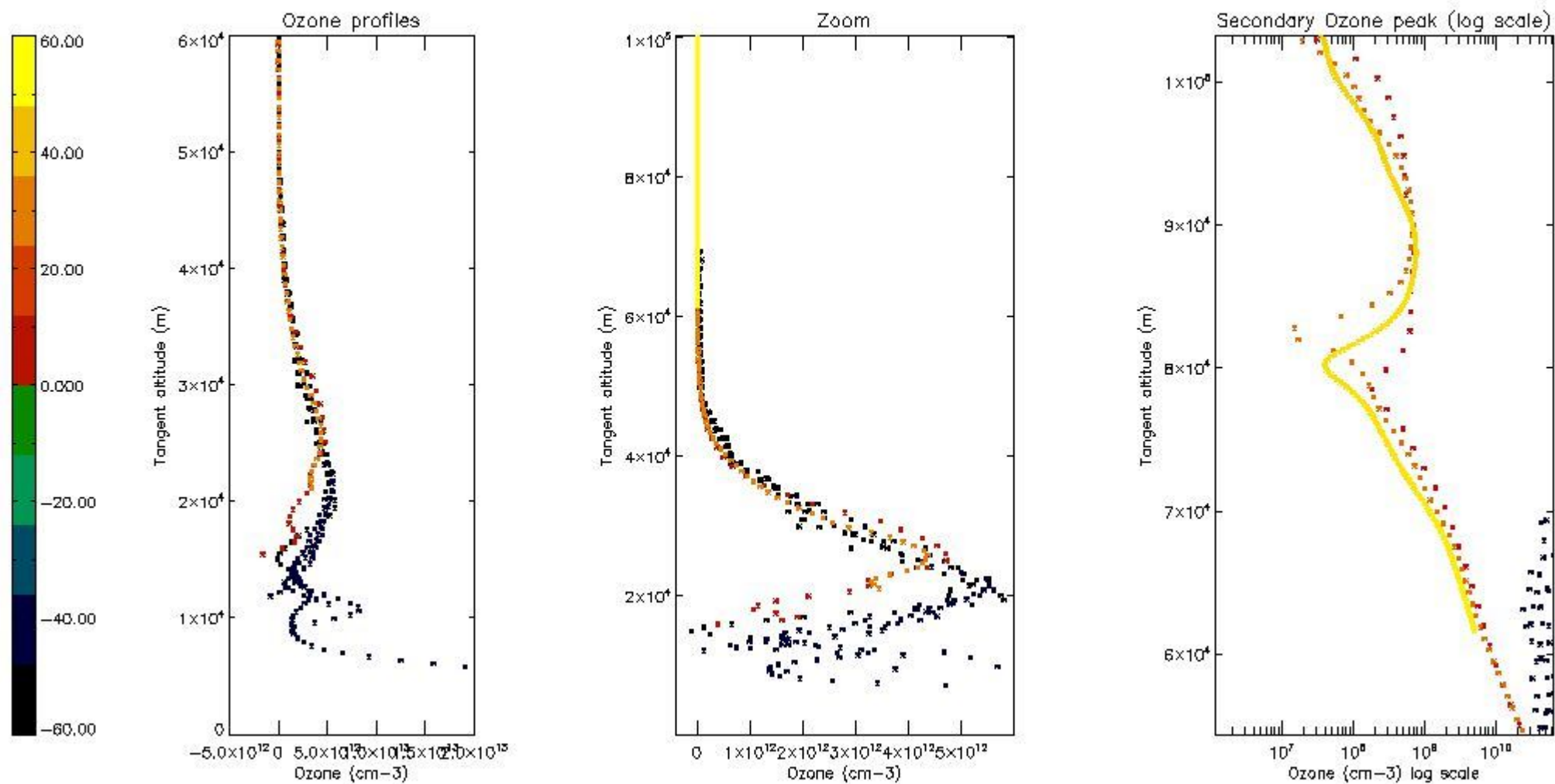
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	49
STD < 20	30

STD < 10	27
STD < 5	22

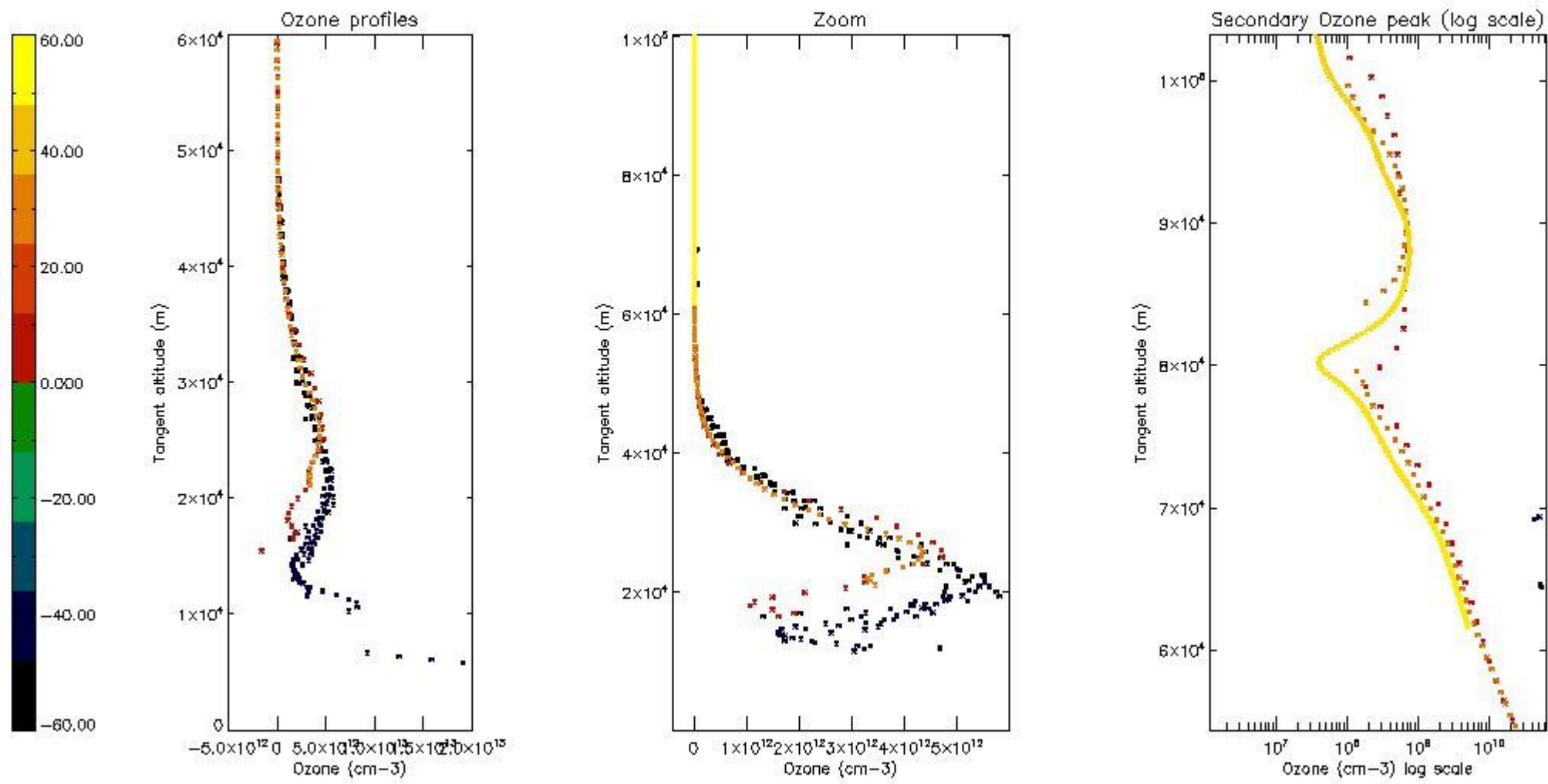
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



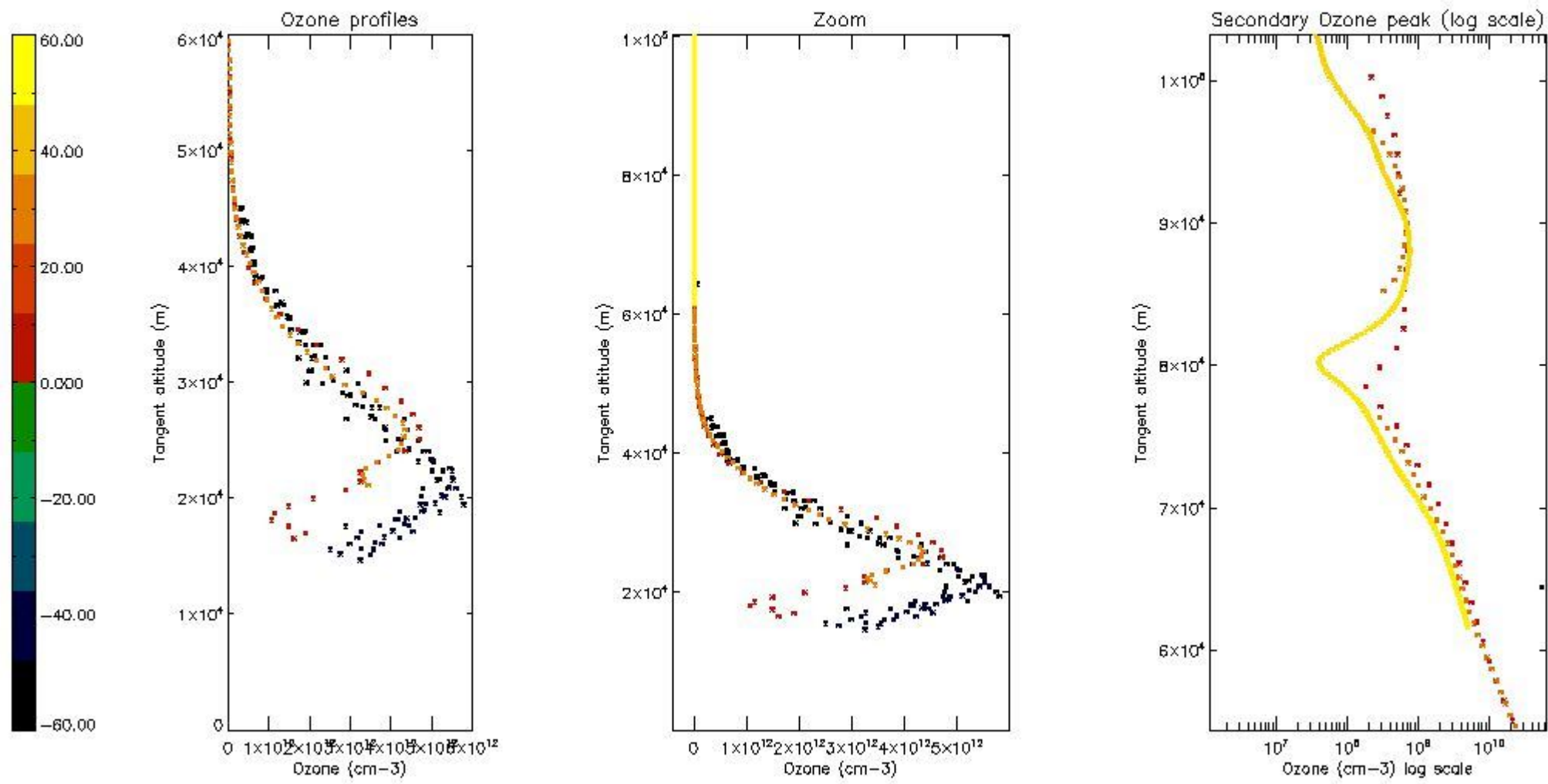
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



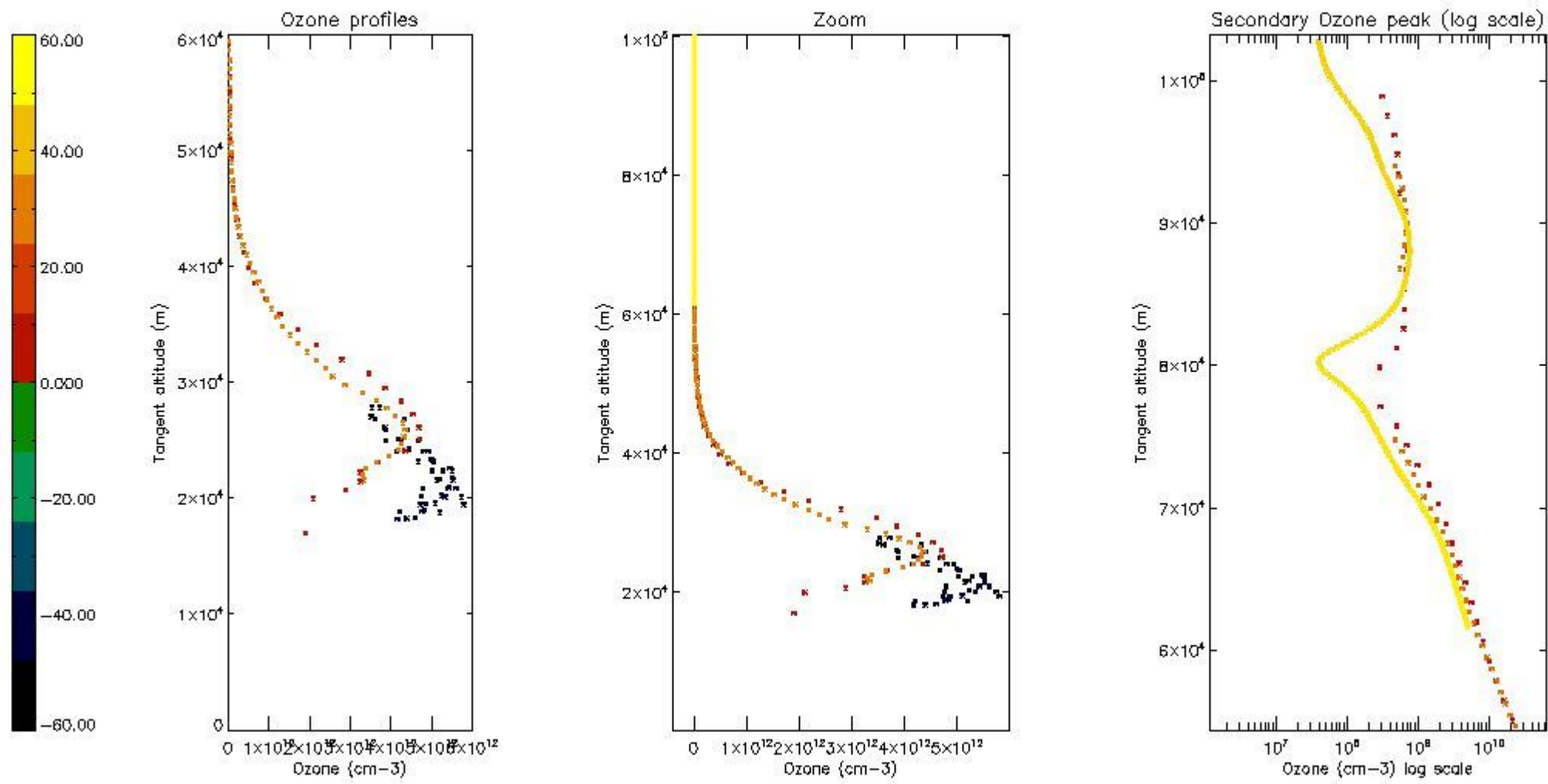
5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)

The colorbar represents the latitude.



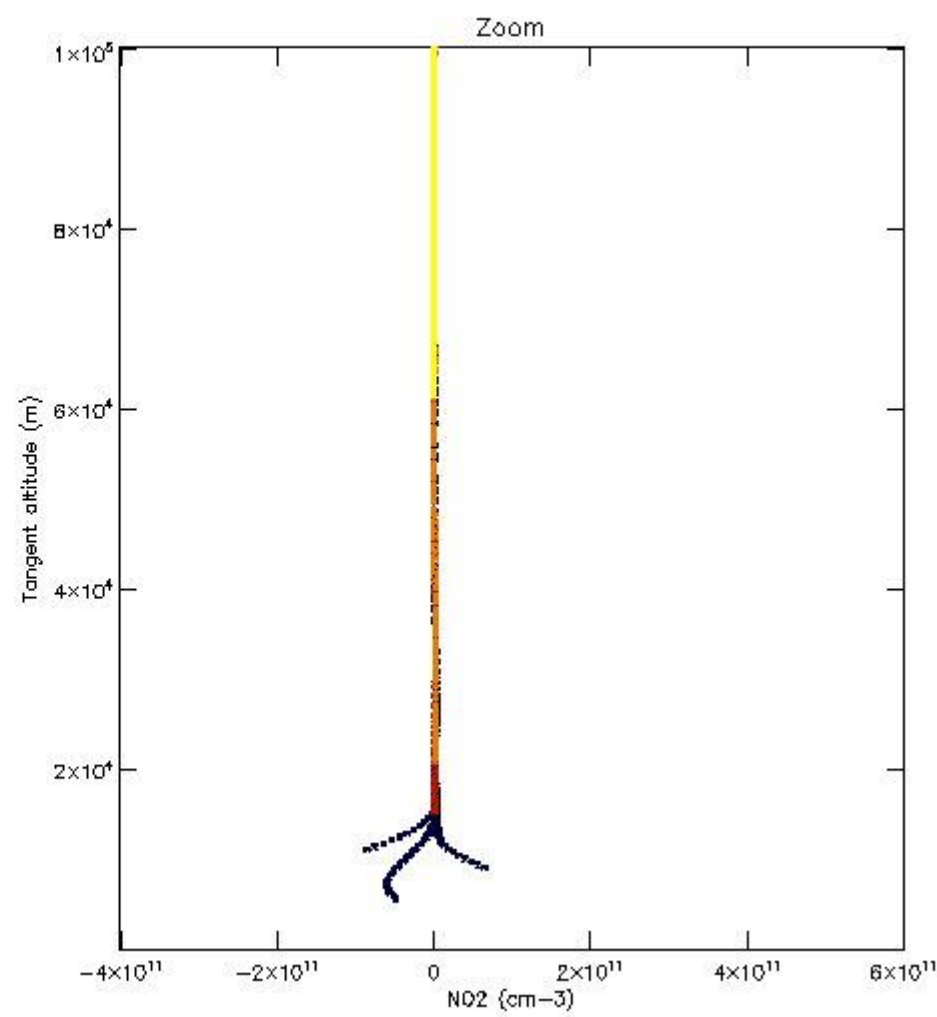
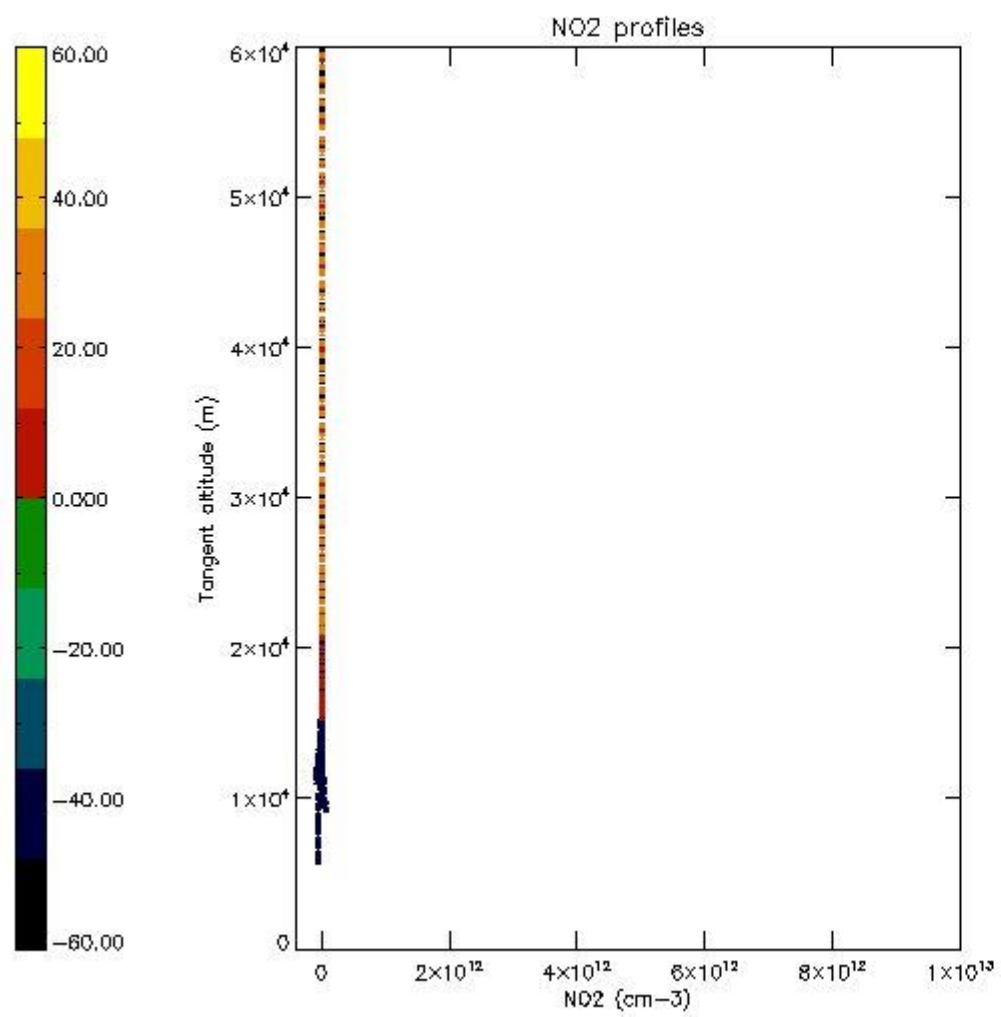
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

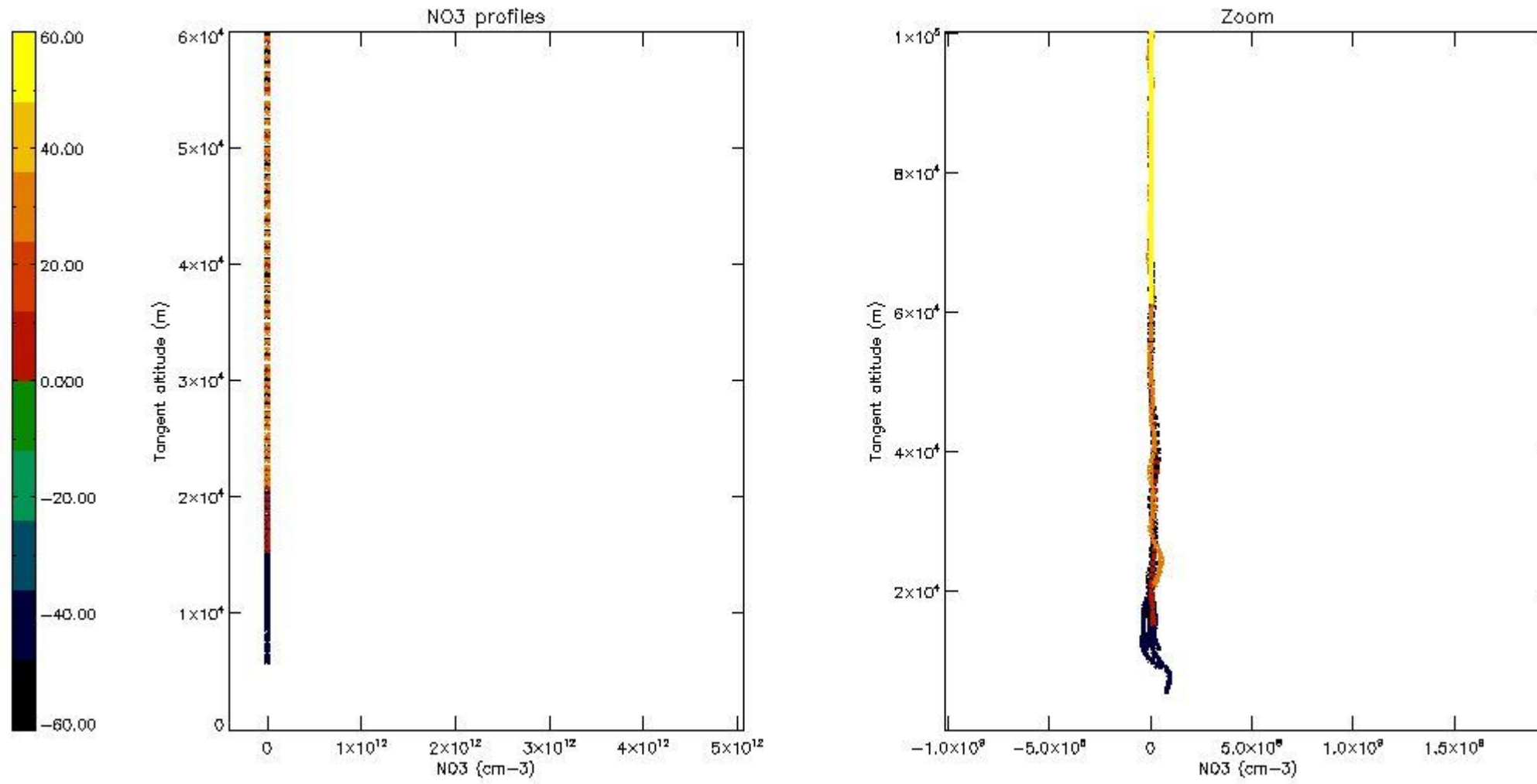
The colorbar represents the latitude.



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

The colorbar represents the latitude.





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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	24-OCT-2002 00:00:42
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-OCT-2002 00:00:42
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-OCT-2002 00:00:42

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#### [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](#)

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

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

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

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

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

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#### [5.8 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](#)

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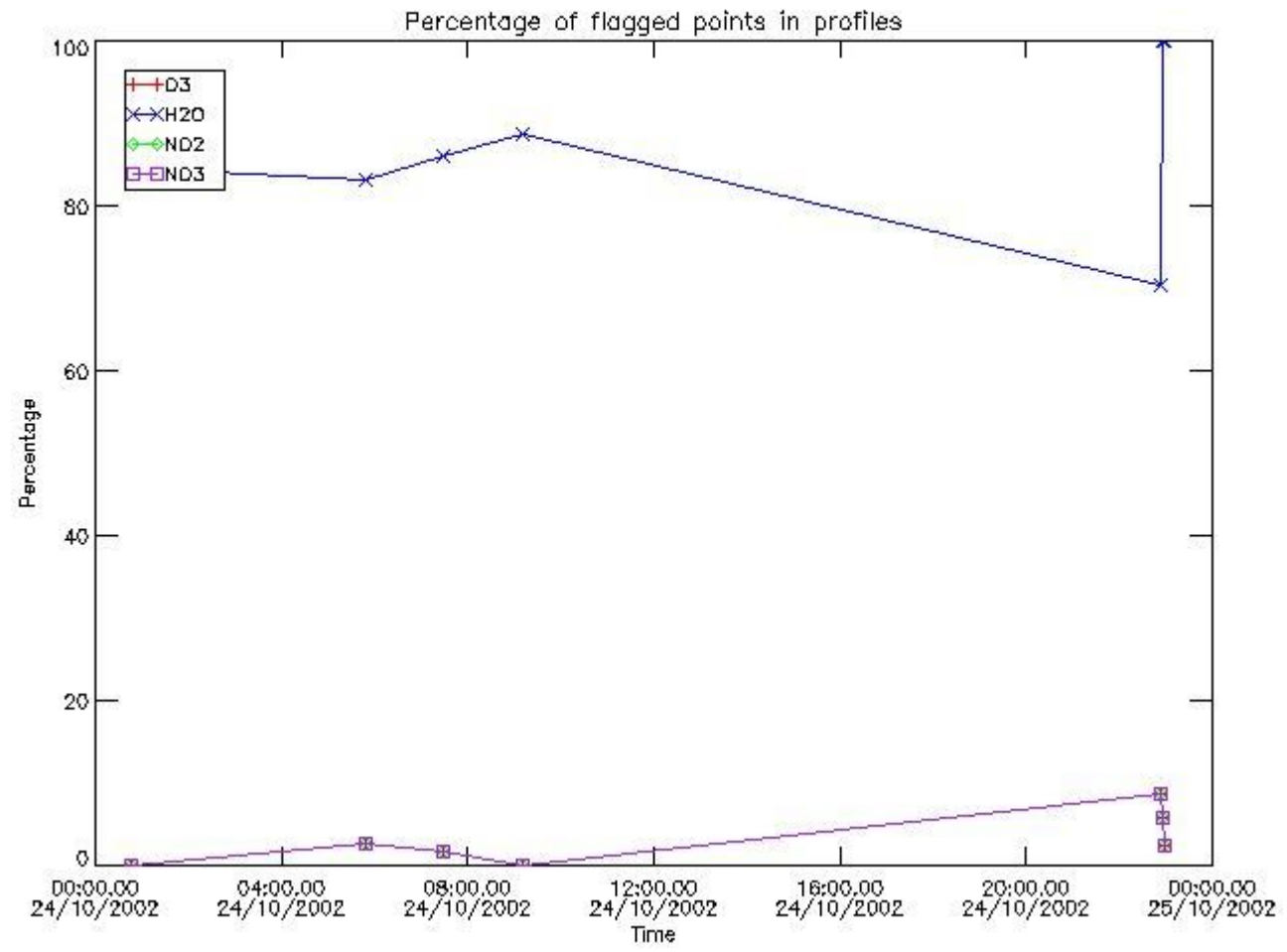
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1	GOM_NL__2PRFIN20021024_000042_000000172010_00331_03391_2130.N1	24-OCT-2002 00:00:42	Dark	16.500	173	4Bet Tri	3.0040	8900.0	33	3391	Yes
2	GOM_NL__2PRFIN20021024_000240_000000182010_00331_03391_2131.N1	24-OCT-2002 00:02:40	Dark	17.500	73	57Gam1And	2.2600	13100.	35	3391	Yes
3	GOM_NL__2PRFIN20021024_000524_000000162010_00331_03391_2132.N1	24-OCT-2002 00:05:24	Dark	16.000	68	18Alp Cas	2.2250	4500.0	32	3391	Yes
4	GOM_NL__2PRFIN20021024_001438_000000152010_00331_03391_2133.N1	24-OCT-2002 00:14:38	Bright	14.500	49	1Alp UMi	1.9900	6300.0	29	3391	No
5	GOM_NL__2PRFIN20021024_001804_000000162010_00331_03391_2134.N1	24-OCT-2002 00:18:04	Dark	15.500	60	7Bet UMi	2.0810	3950.0	31	3391	Yes
6	GOM_NL__2PRFIN20021024_002001_000000332010_00331_03391_2135.N1	24-OCT-2002 00:20:01	Dark	33.000	42	34Bet Aur	1.9000	10200.	66	3391	Yes
7	GOM_NL__2PRFIN20021024_002253_000000162010_00331_03391_2136.N1	24-OCT-2002 00:22:53	Dark	16.000	36	50Alp UMa	1.8000	6300.0	32	3391	Yes
8	GOM_NL__2PRFIN20021024_002403_000000122010_00331_03391_2137.N1	24-OCT-2002 00:24:03	Dark	12.000	32	77Eps UMa	1.7630	11000.	24	3391	Yes
9	GOM_NL__2PRFIN20021024_002508_000000132010_00331_03391_2138.N1	24-OCT-2002 00:25:08	Bright	12.500	87	64Gam UMa	2.4330	11000.	25	3391	No
10	GOM_NL__2PRFIN20021024_002759_000000162010_00331_03391_2139.N1	24-OCT-2002 00:27:59	Dark	15.500	174	52Psi UMa	3.0040	4400.0	31	3391	Yes
11	GOM_NL__2PRFIN20021024_003451_000000682010_00331_03391_2140.N1	24-OCT-2002 00:34:51	Dark	67.500	24	66Alp Gem	1.5800	10200.	135	3391	Yes
12	GOM_NL__2PRFIN20021024_003757_000000852010_00331_03391_2141.N1	24-OCT-2002 00:37:57	Dark	85.000	17	78Bet Gem	1.1610	4500.0	170	3391	Yes
13	GOM_NL__2PRFIN20021024_004708_000000302010_00331_03391_2142.N1	24-OCT-2002 00:47:08	Dark	29.500	48	30Alp Hya	1.9770	4100.0	59	3391	No
14	GOM_NL__2PRFIN20021024_005435_000000202010_00331_03391_2143.N1	24-OCT-2002 00:54:35	Dark	19.500	113	Mu Vel	2.6920	5000.0	39	3391	Yes
15	GOM_NL__2PRFIN20021024_005618_000000252010_00331_03391_2144.N1	24-OCT-2002 00:56:18	Dark	24.500	65	Lam Vel	2.2040	4400.0	49	3391	Yes
16	GOM_NL__2PRFIN20021024_010101_000000252010_00332_03392_2117.N1	24-OCT-2002 01:01:01	Dark	24.500	29	Bet Car	1.6720	10200.	49	3392	Yes
17	GOM_NL__2PRFIN20021024_010410_000000202010_00332_03392_2118.N1	24-OCT-2002 01:04:10	Dark	20.000	161	Tau Pup	2.9310	4500.0	40	3392	Yes
18	GOM_NL__2PRFIN20021024_010524_000000242010_00332_03392_2119.N1	24-OCT-2002 01:05:24	Dark	24.000	2	Alp Car	-0.73600	7000.0	48	3392	Yes
19	GOM_NL__2PRFIN20021024_010905_000000332010_00332_03392_2120.N1	24-OCT-2002 01:09:05	Dark	32.500	177	1Zet CMa	3.0220	26000.	65	3392	Yes
20	GOM_NL__2PRFIN20021024_011122_000000282010_00332_03392_2121.N1	24-OCT-2002 01:11:22	Dark	27.500	108	Alp Col	2.6520	15200.	55	3392	Yes
21	GOM_NL__2PRFIN20021024_011353_0000002082010_00332_03392_2122.N1	24-OCT-2002 01:13:53	Straylight	208.00	1	9Alp CMa	-1.4400	11000.	416	3392	No
22	GOM_NL__2PRFIN20021024_011928_000000612010_00332_03392_2123.N1	24-OCT-2002 01:19:28	Dark	61.000	139	9Bet Lep	2.8330	5600.0	122	3392	Yes
23	GOM_NL__2PRFIN20021024_012454_000000182010_00332_03392_2124.N1	24-OCT-2002 01:24:54	Dark	18.000	52	16Bet Cet	2.0370	4500.0	36	3392	Yes
24	GOM_NL__2PRFIN20021024_013239_000000282010_00332_03392_2125.N1	24-OCT-2002 01:32:39	Dark	28.000	94	92Alp Cet	2.5260	3100.0	56	3392	Yes
25	GOM_NL__2PRFIN20021024_013423_000000142010_00332_03392_2126.N1	24-OCT-2002 01:34:23	Dark	14.000	140	88Gam Peg	2.8340	26000.	28	3392	Yes
26	GOM_NL__2PRFIN20021024_013633_000000172010_00332_03392_2127.N1	24-OCT-2002 01:36:33	Bright	17.000	105	6Bet Ari	2.6450	8900.0	34	3392	No
27	GOM_NL__2PRFIN20021024_013817_000000142010_00332_03392_2128.N1	24-OCT-2002 01:38:17	Dark	14.000	58	21Alp And	2.0730	11000.	28	3392	Yes
28	GOM_NL__2PRFIN20021024_014016_000000192010_00332_03392_2129.N1	24-OCT-2002 01:40:16	Dark	19.000	53	43Bet And	2.0480	3300.0	38	3392	Yes
29	GOM_NL__2PRFIN20021024_014118_000000152010_00332_03392_2130.N1	24-OCT-2002 01:41:18	Dark	15.000	173	4Bet Tri	3.0040	8900.0	30	3392	Yes
30	GOM_NL__2PRFIN20021024_014315_000000182010_00332_03392_2131.N1	24-OCT-2002 01:43:15	Dark	17.500	73	57Gam1And	2.2600	13100.	35	3392	Yes
31	GOM_NL__2PRFIN20021024_014600_000000172010_00332_03392_2132.N1	24-OCT-2002 01:46:00	Dark	16.500	68	18Alp Cas	2.2250	4500.0	33	3392	Yes
32	GOM_NL__2PRFIN20021024_015514_000000132010_00332_03392_2133.N1	24-OCT-2002 01:55:14	Bright	12.500	49	1Alp UMi	1.9900	6300.0	25	3392	No
33	GOM_NL__2PRFIN20021024_015840_000000152010_00332_03392_2134.N1	24-OCT-2002 01:58:40	Dark	15.000	60	7Bet UMi	2.0810	3950.0	30	3392	Yes
34	GOM_NL__2PRFIN20021024_020036_000000322010_00332_03392_2135.N1	24-OCT-2002 02:00:36	Dark	31.500	42	34Bet Aur	1.9000	10200.	63	3392	Yes
35	GOM_NL__2PRFIN20021024_020329_000000162010_00332_03392_2136.N1	24-OCT-2002 02:03:29	Dark	16.000	36	50Alp UMa	1.8000	6300.0	32	3392	Yes
36	GOM_NL__2PRFIN20021024_020440_000000142010_00332_03392_2137.N1	24-OCT-2002 02:04:40	Dark	14.000	32	77Eps UMa	1.7630	11000.	28	3392	Yes
37	GOM_NL__2PRFIN20021024_020544_000000152010_00332_03392_2138.N1	24-OCT-2002 02:05:44	Bright	14.500	87	64Gam UMa	2.4330	11000.	29	3392	No
38	GOM_NL__2PRFIN20021024_042214_000000242010_00334_03394_2117.N1	24-OCT-2002 04:22:14	Dark	24.000	29	Bet Car	1.6720	10200.	48	3394	Yes
39	GOM_NL__2PRFIN20021024_042523_000000202010_00334_03394_2118.N1	24-OCT-2002 04:25:23	Dark	19.500	161	Tau Pup	2.9310	4500.0	39	3394	Yes
40	GOM_NL__2PRFIN20021024_042637_000000242010_00334_03394_2119.N1	24-OCT-2002 04:26:37	Dark	24.000	2	Alp Car	-0.73600	7000.0	48	3394	Yes
41	GOM_NL__2PRFIN20021024_043020_000000352010_00334_03394_2120.N1	24-OCT-2002 04:30:20	Dark	35.000	177	1Zet CMa	3.0220	26000.	70	3394	Yes
42	GOM_NL__2PRFIN20021024_043236_000000302010_00334_03394_2121.N1	24-OCT-2002 04:32:36	Dark	30.000	108	Alp Col	2.6520	15200.	60	3394	Yes



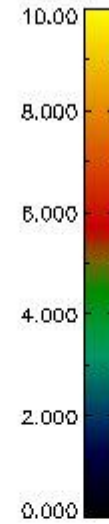
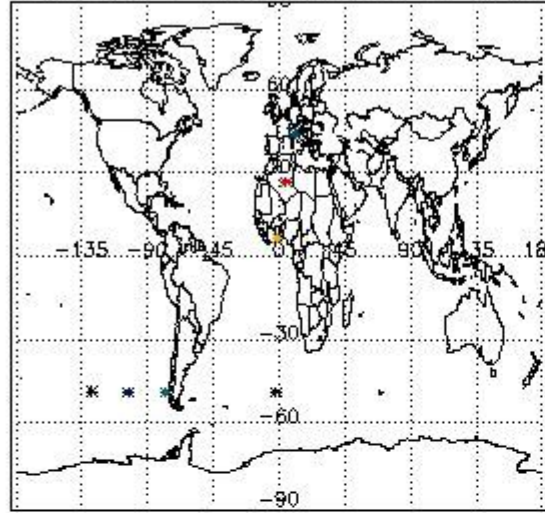




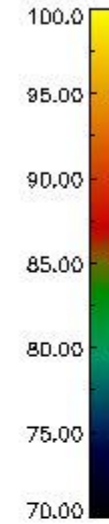
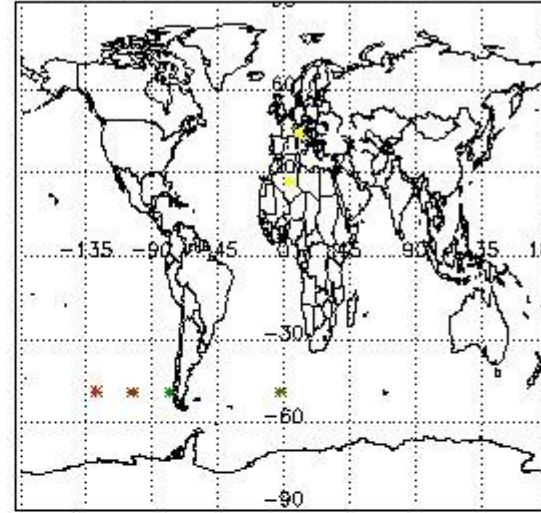


*3.2 Plot quality information per product (world map)*

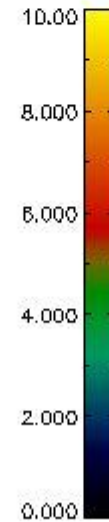
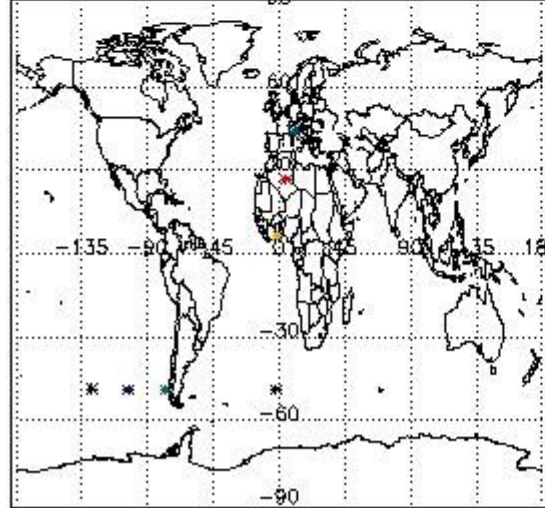
Percentage of flagged data per O3 profile



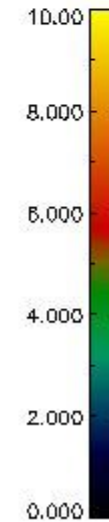
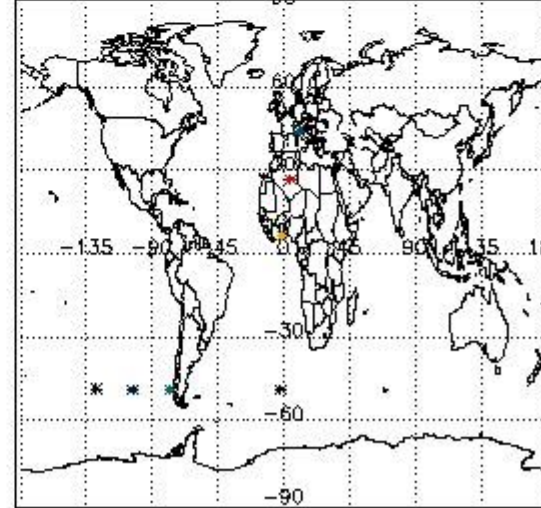
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



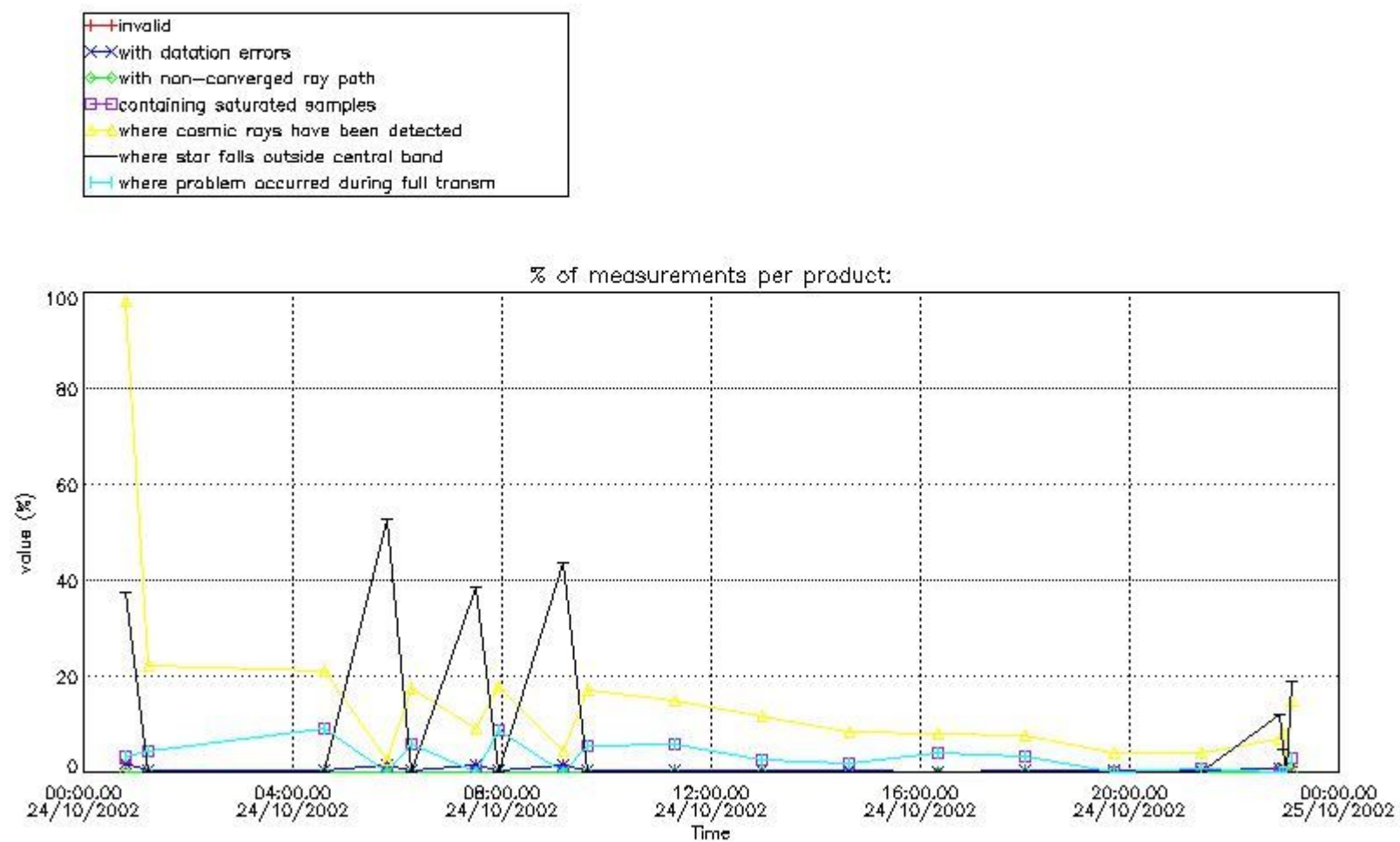
#### 4. Level 1 quality information per product

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.

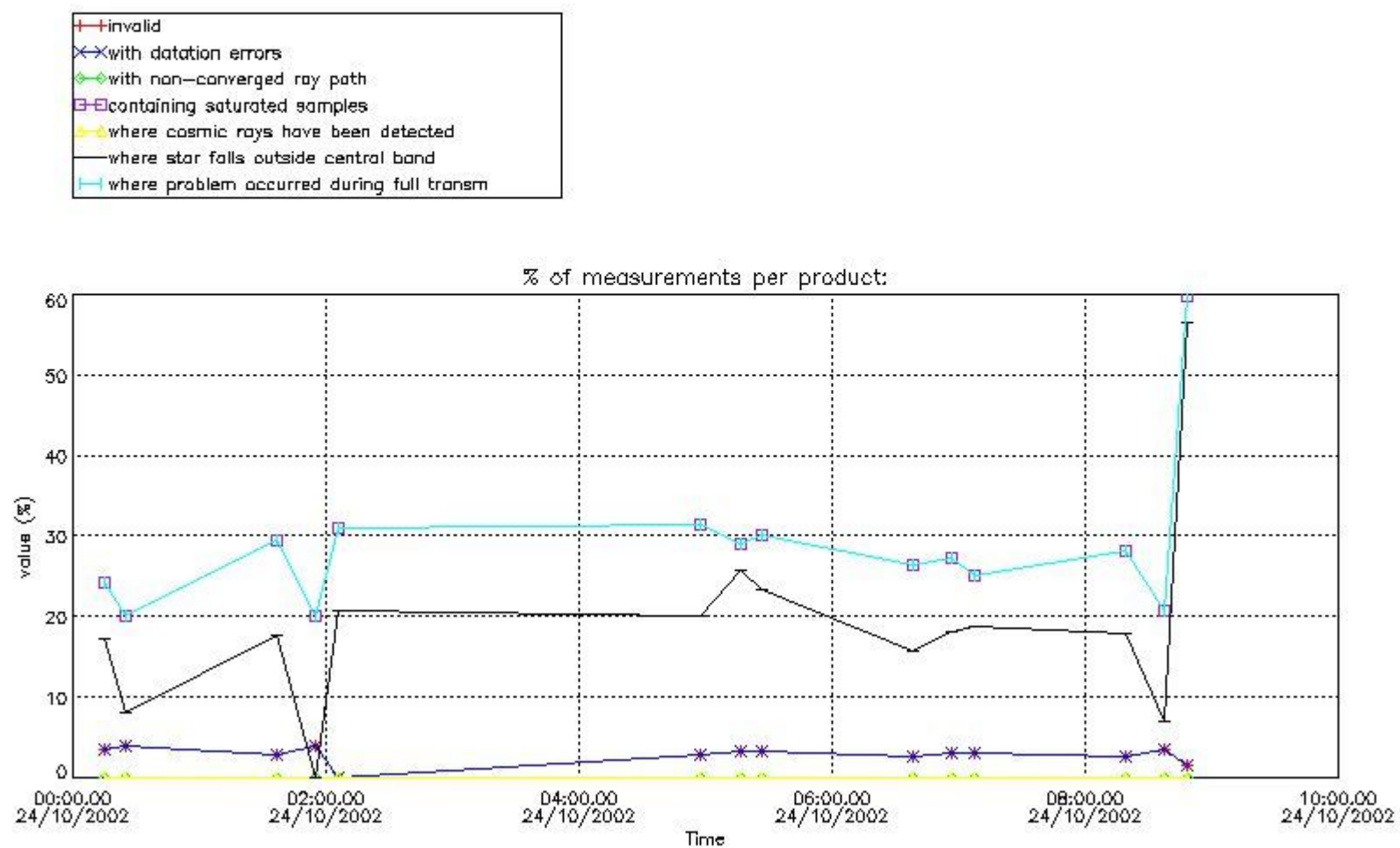
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



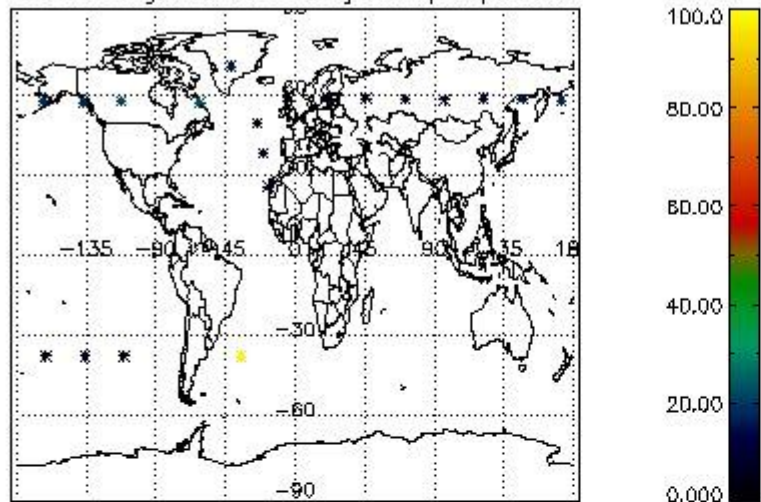


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

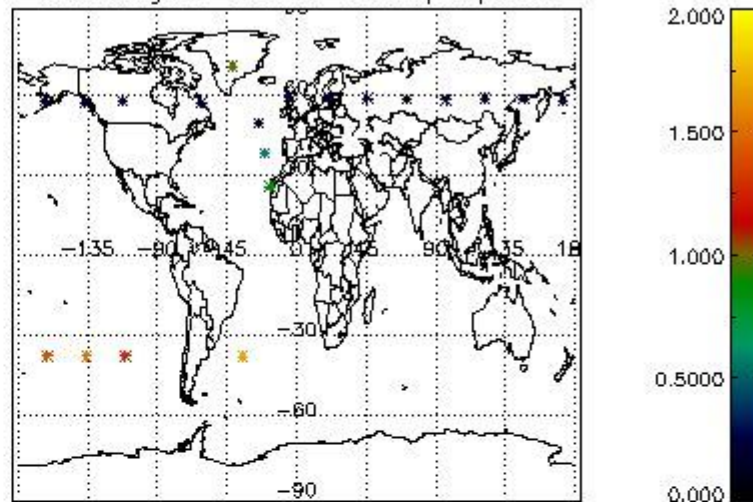


4.2 Plot quality information per product coming from level 1b processing (world map)  
 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

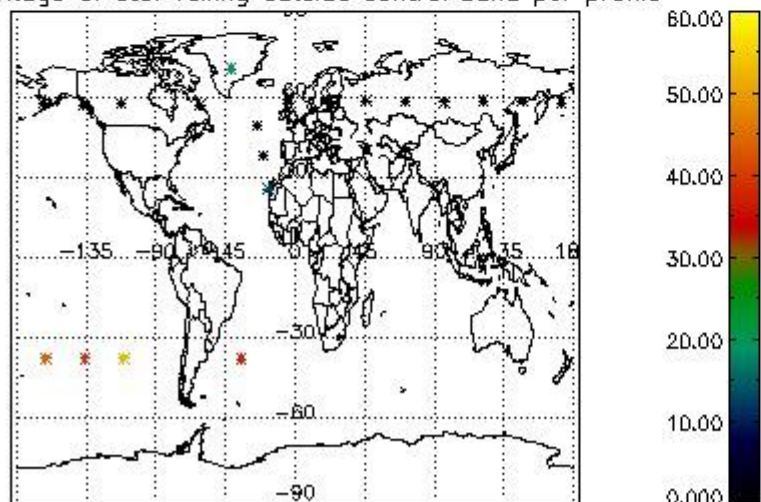
Percentage of cosmic ray hits per profile



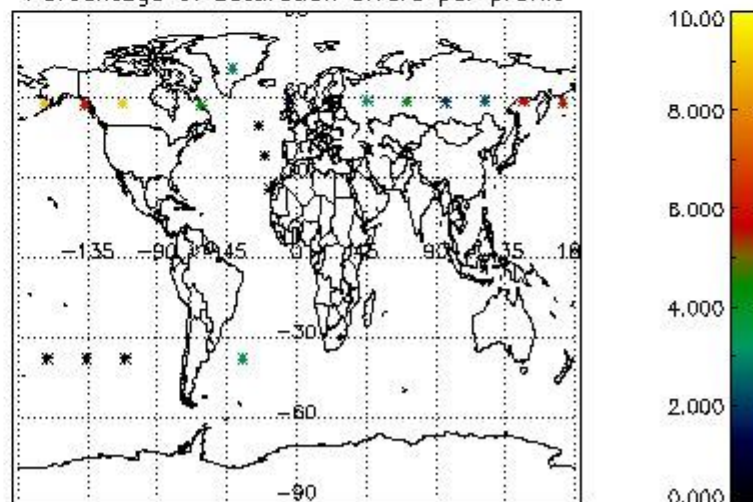
Percentage of datation errors per profile



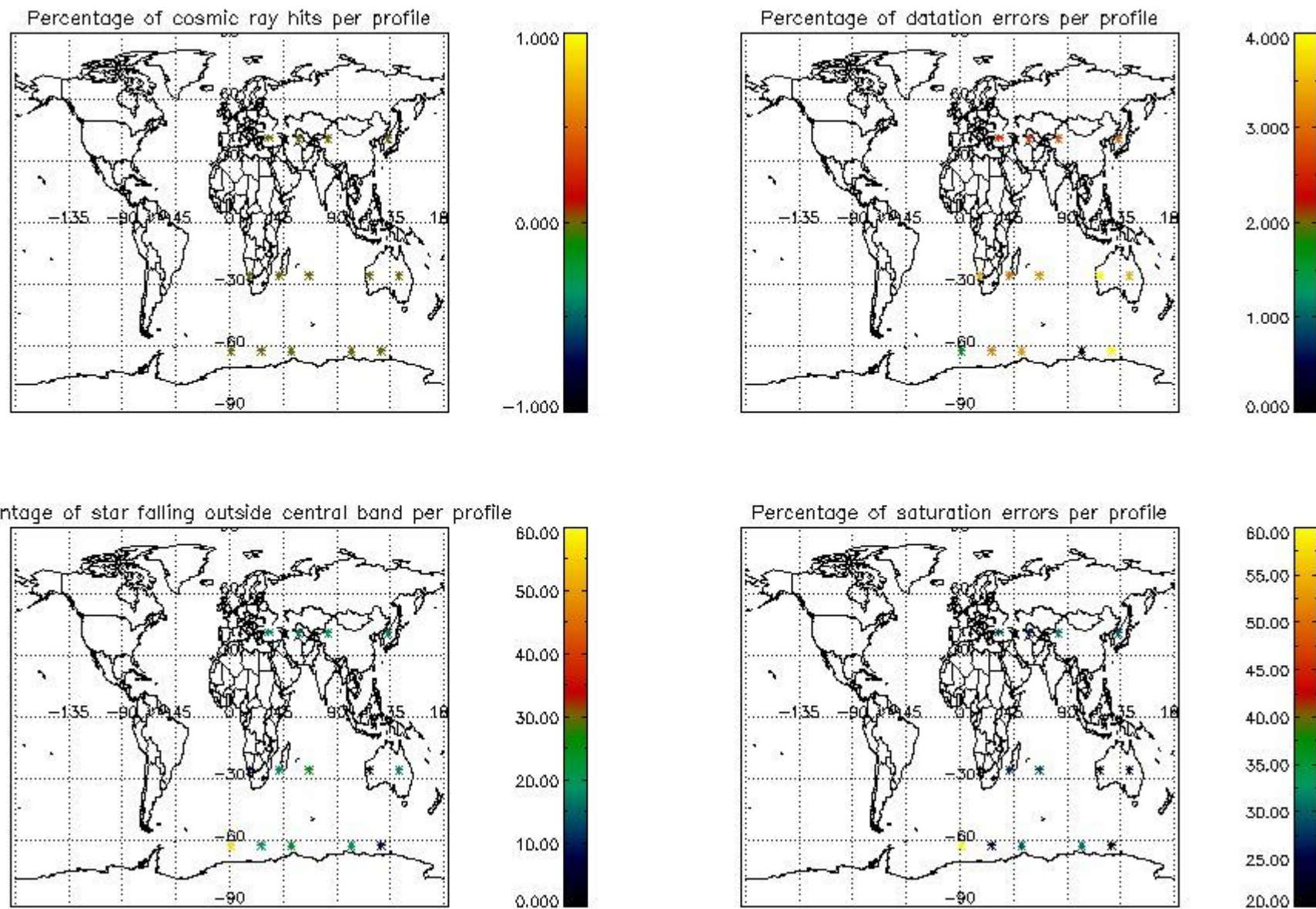
Percentage of star falling outside central band per profile



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

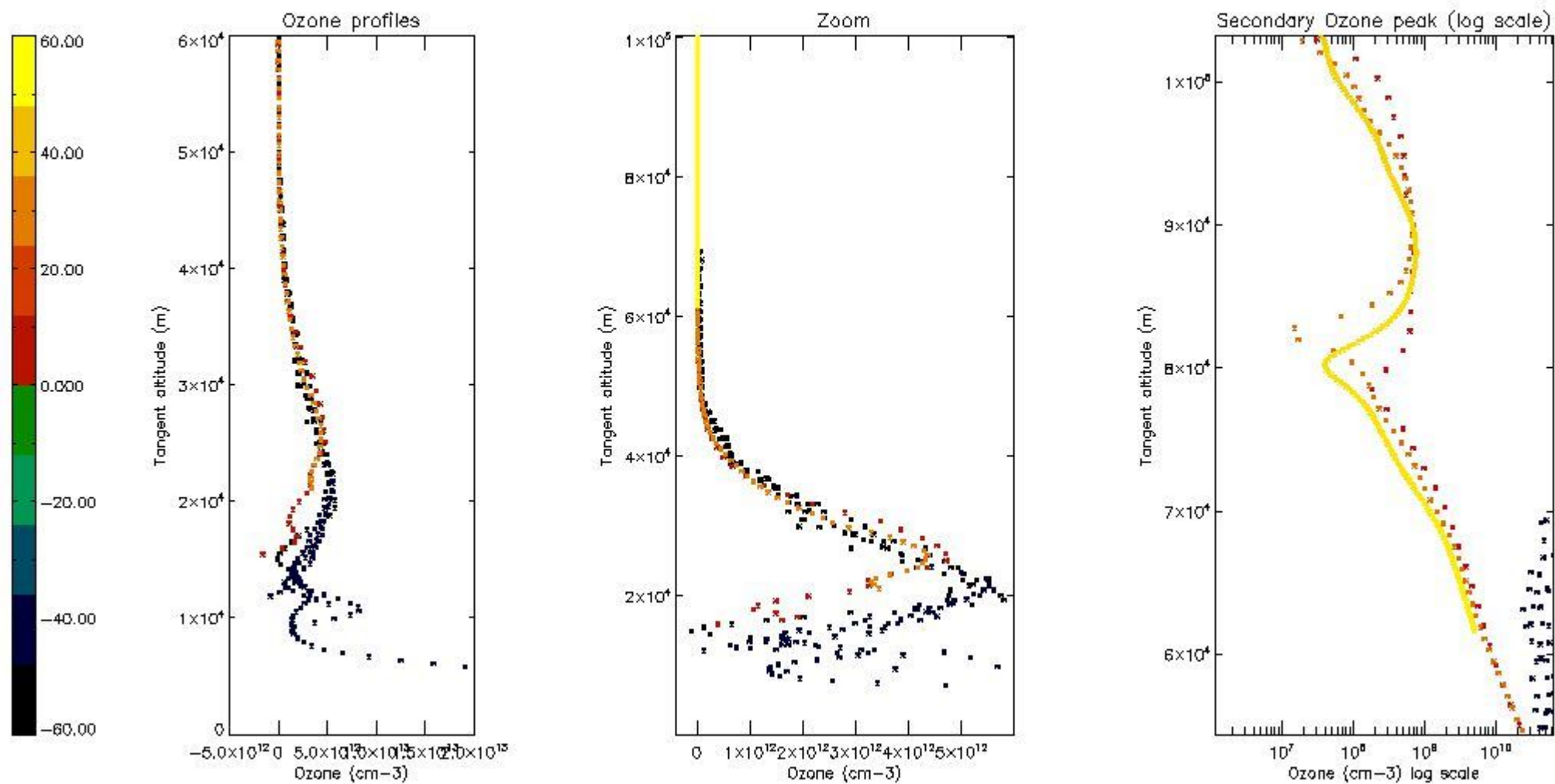
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	49
STD < 20	30

STD < 10	27
STD < 5	22

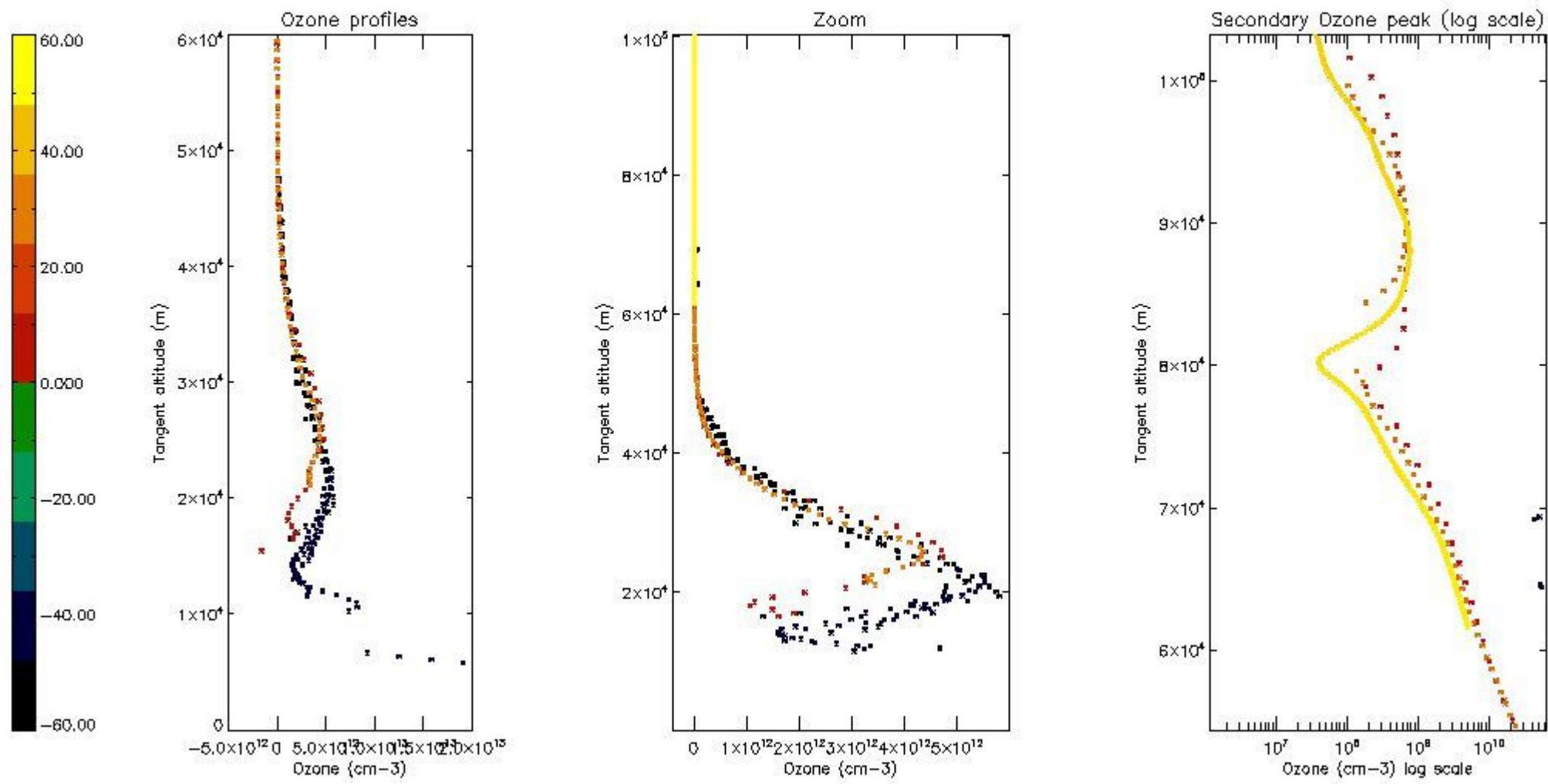
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



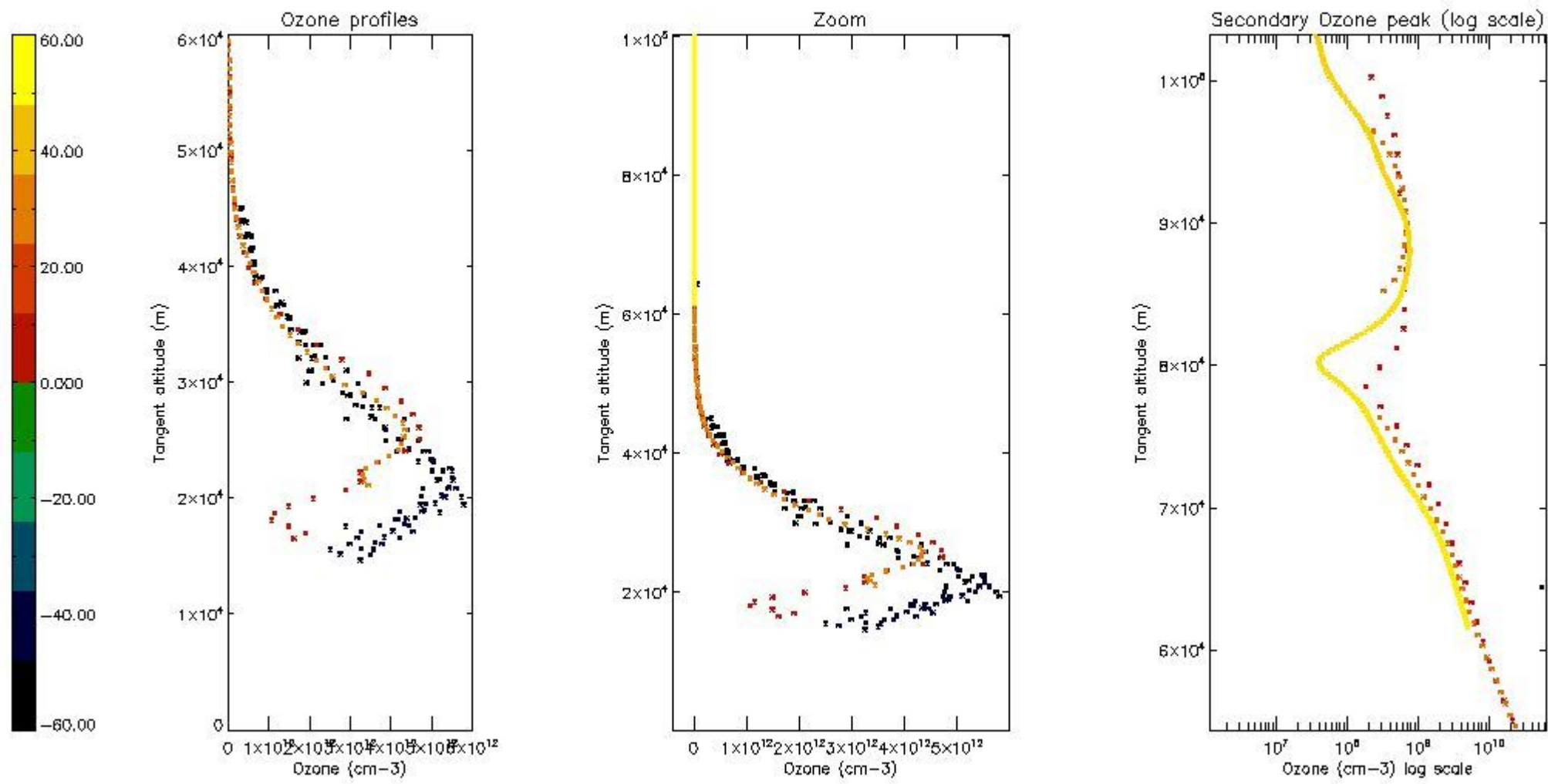
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



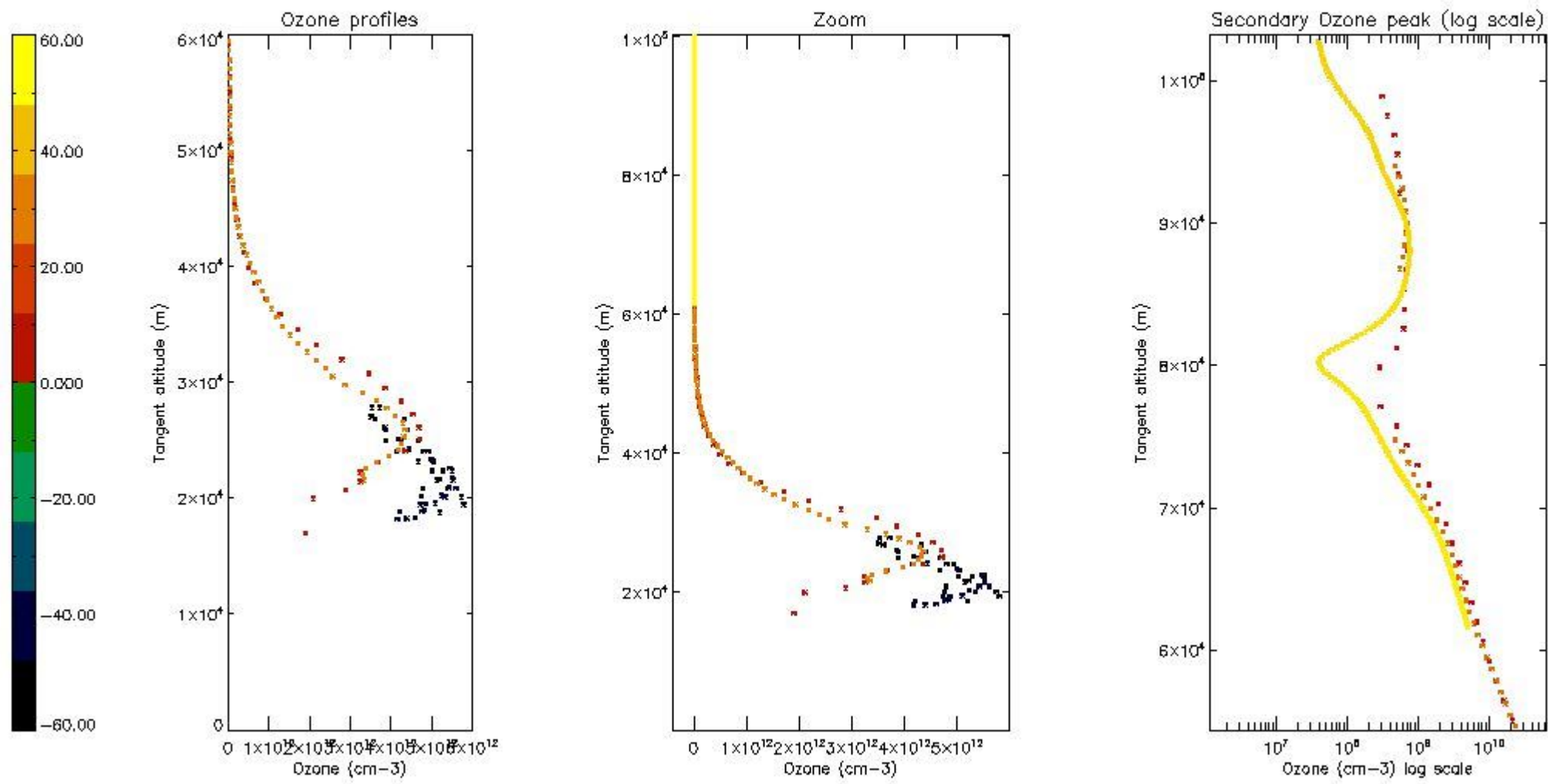
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



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

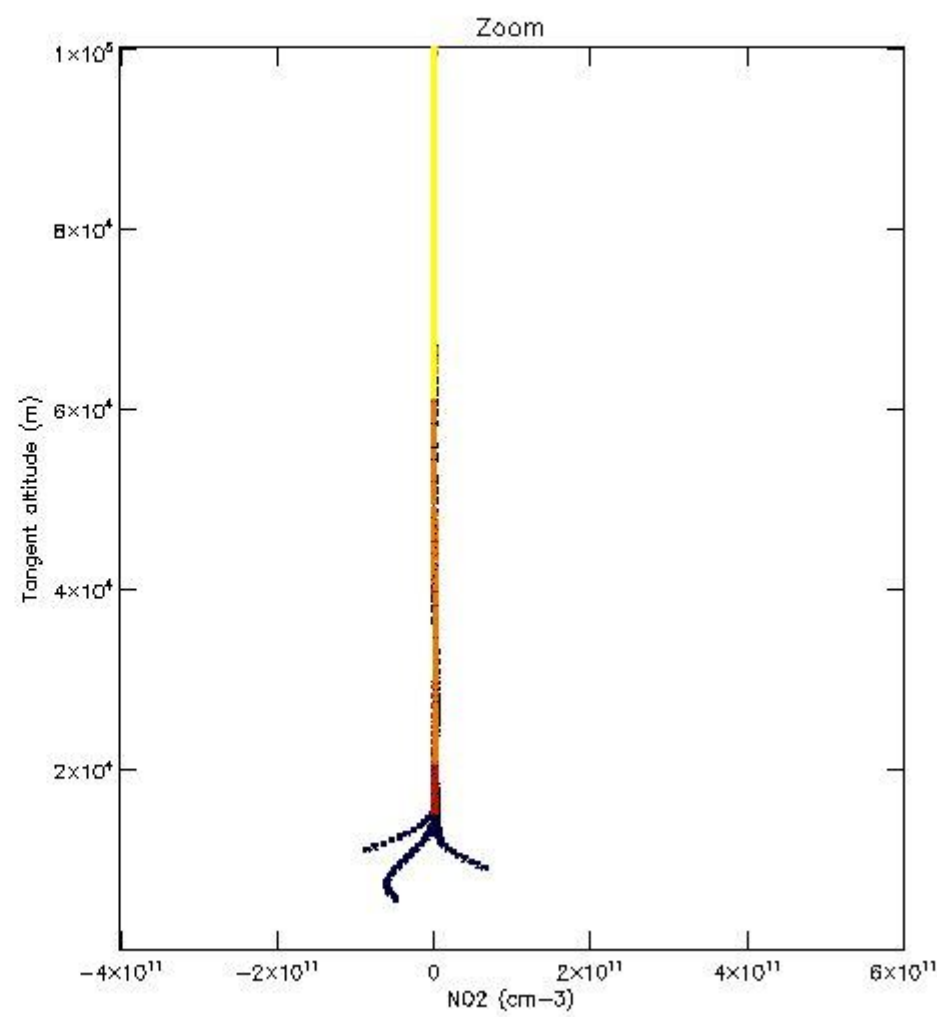
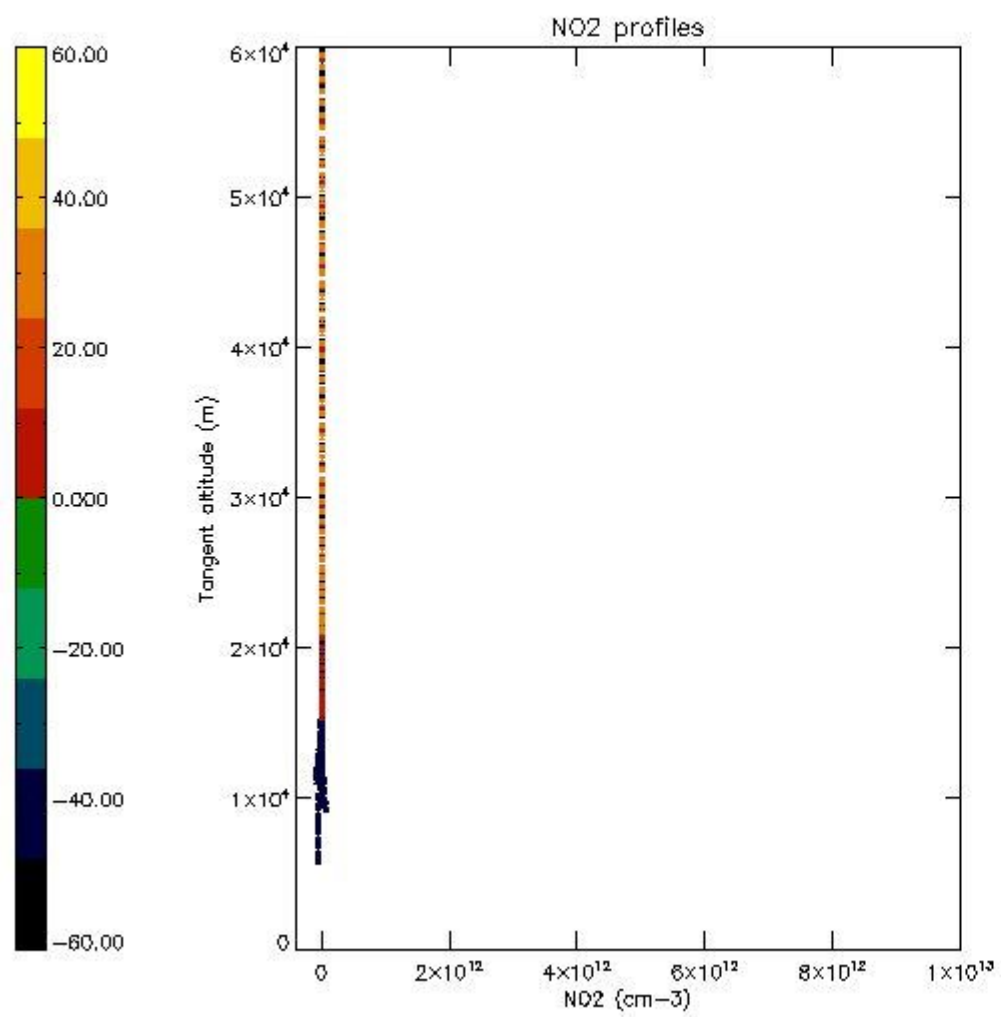
The colorbar represents the latitude.



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

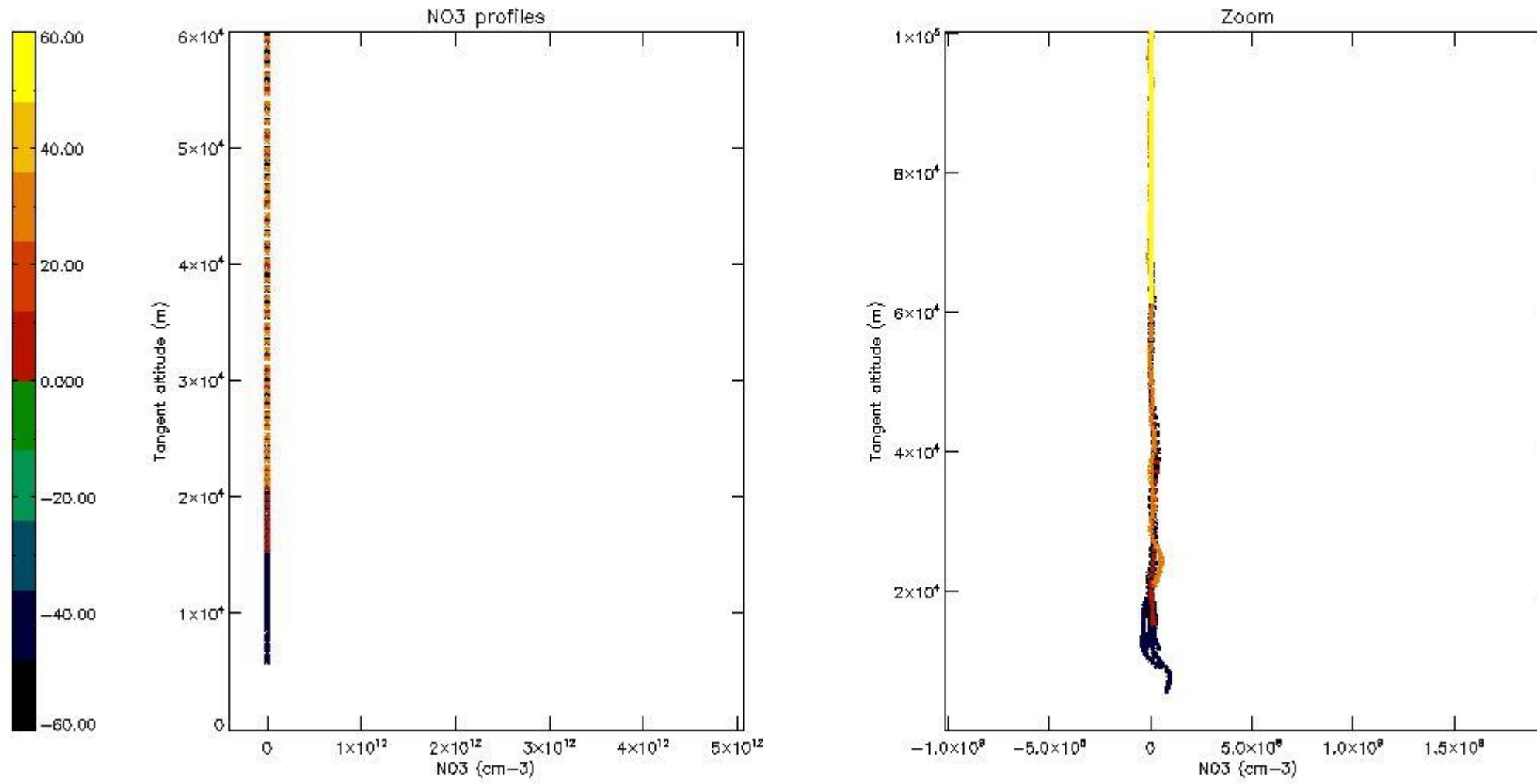
The colorbar represents the latitude.





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

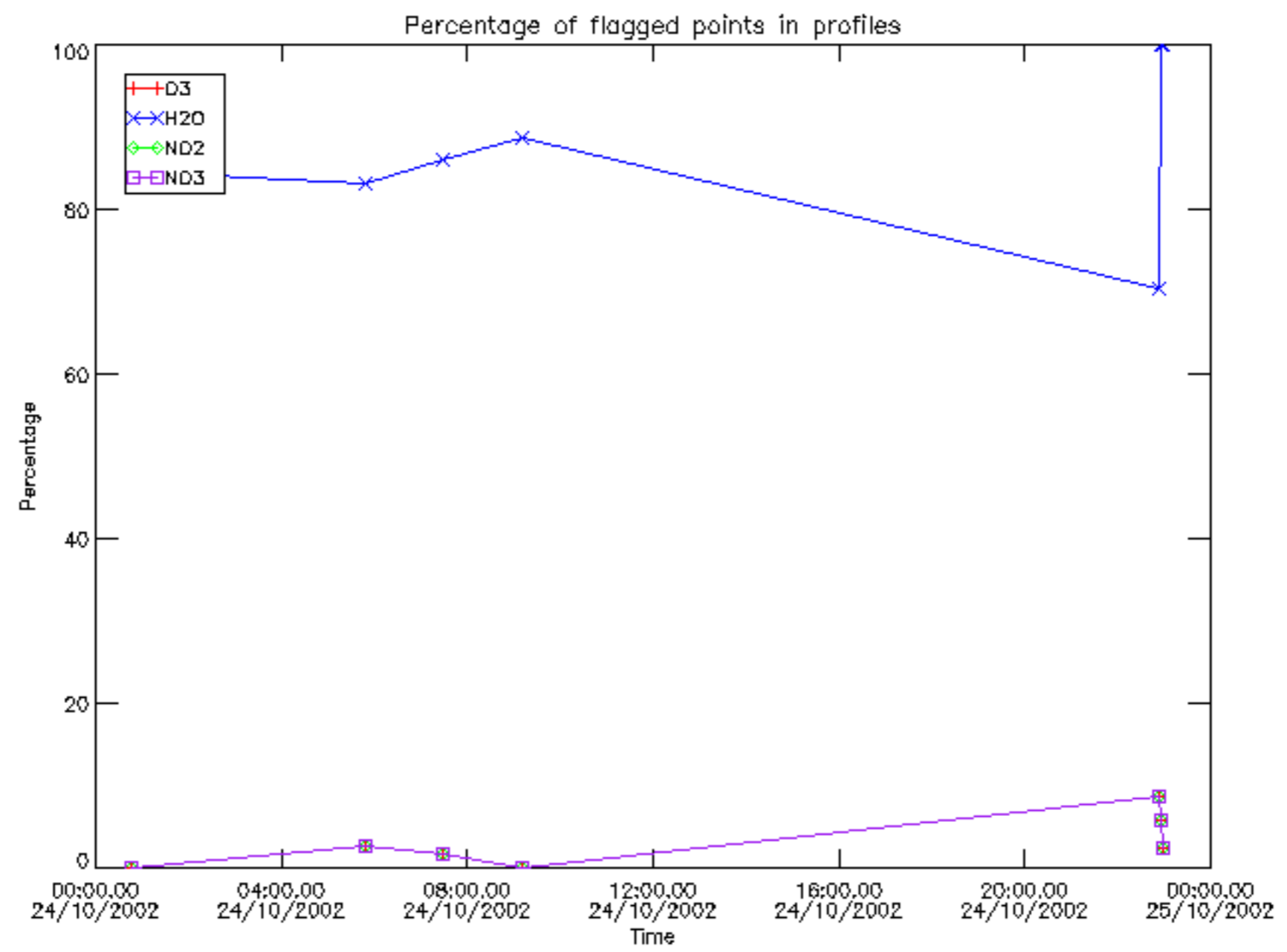
The colorbar represents the latitude.



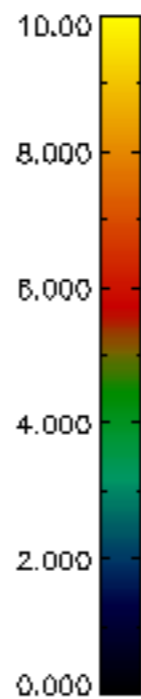
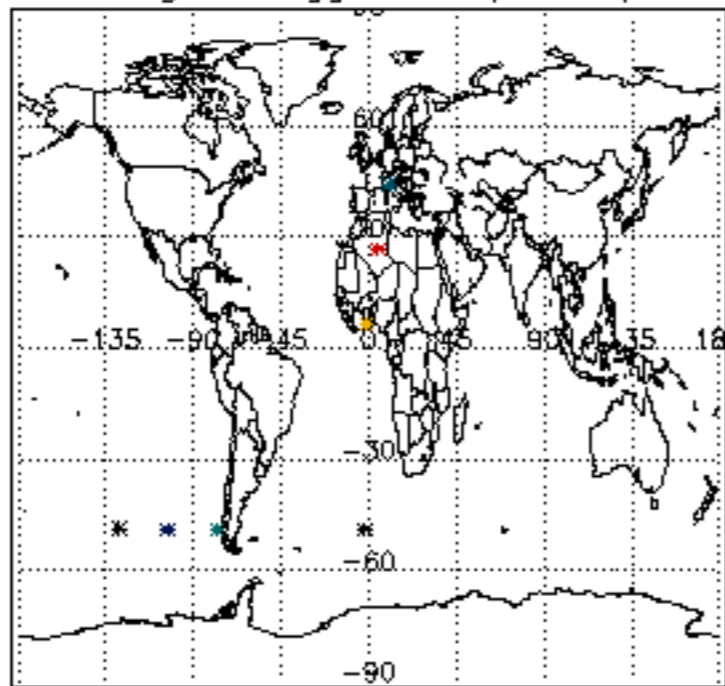
## 6. Auxiliary Data Files used for the production reported in section 2

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

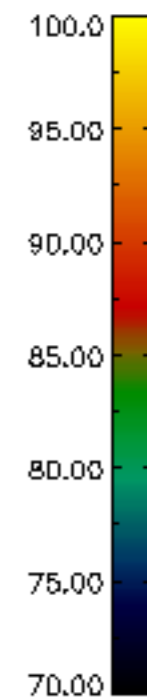
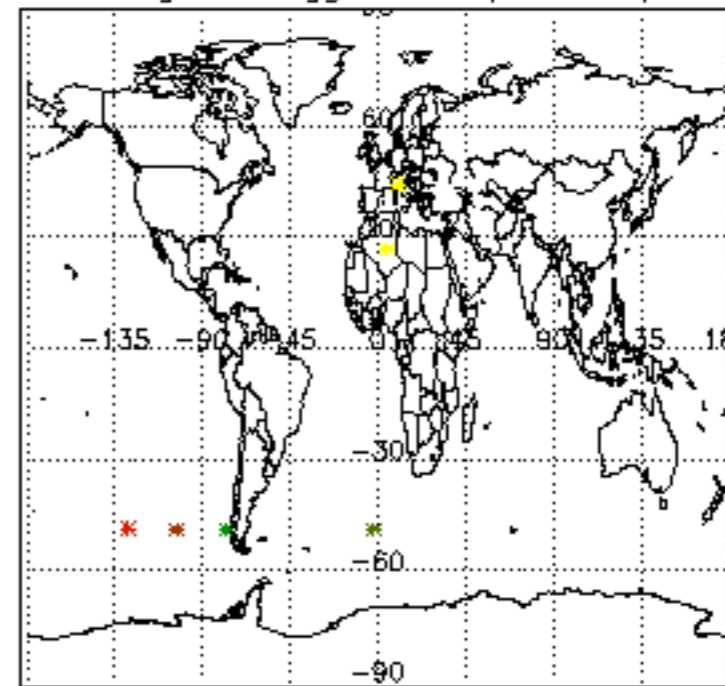
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	24-OCT-2002 00:00:42
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-OCT-2002 00:00:42
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-OCT-2002 00:00:42



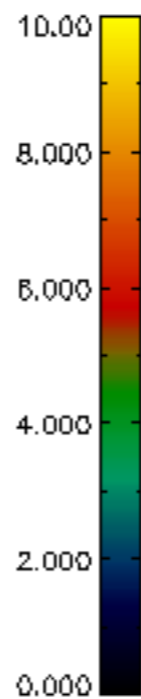
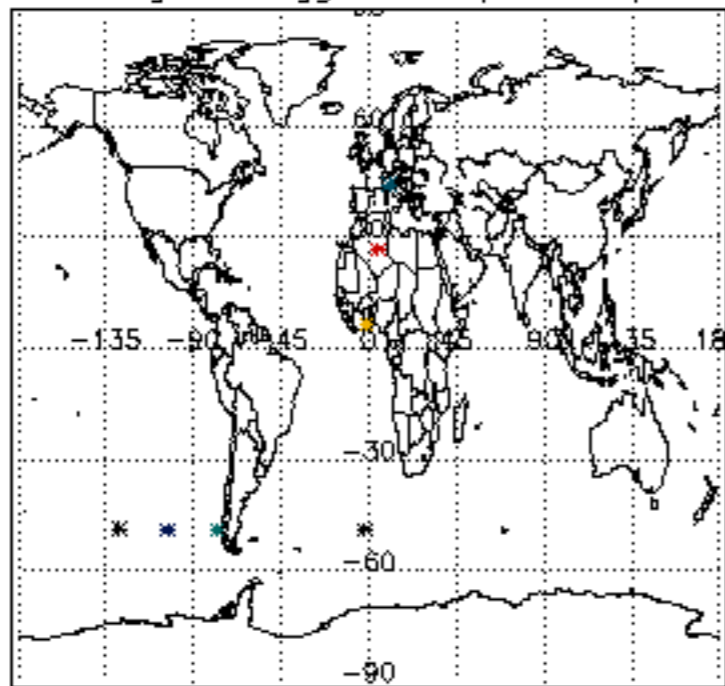
Percentage of flagged data per D3 profile



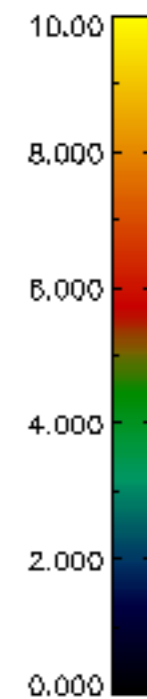
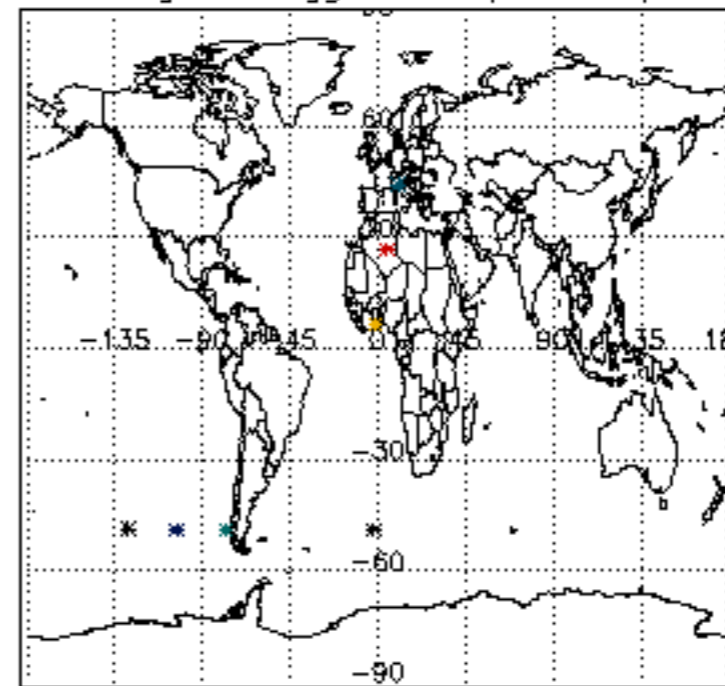
Percentage of flagged data per H2O profile

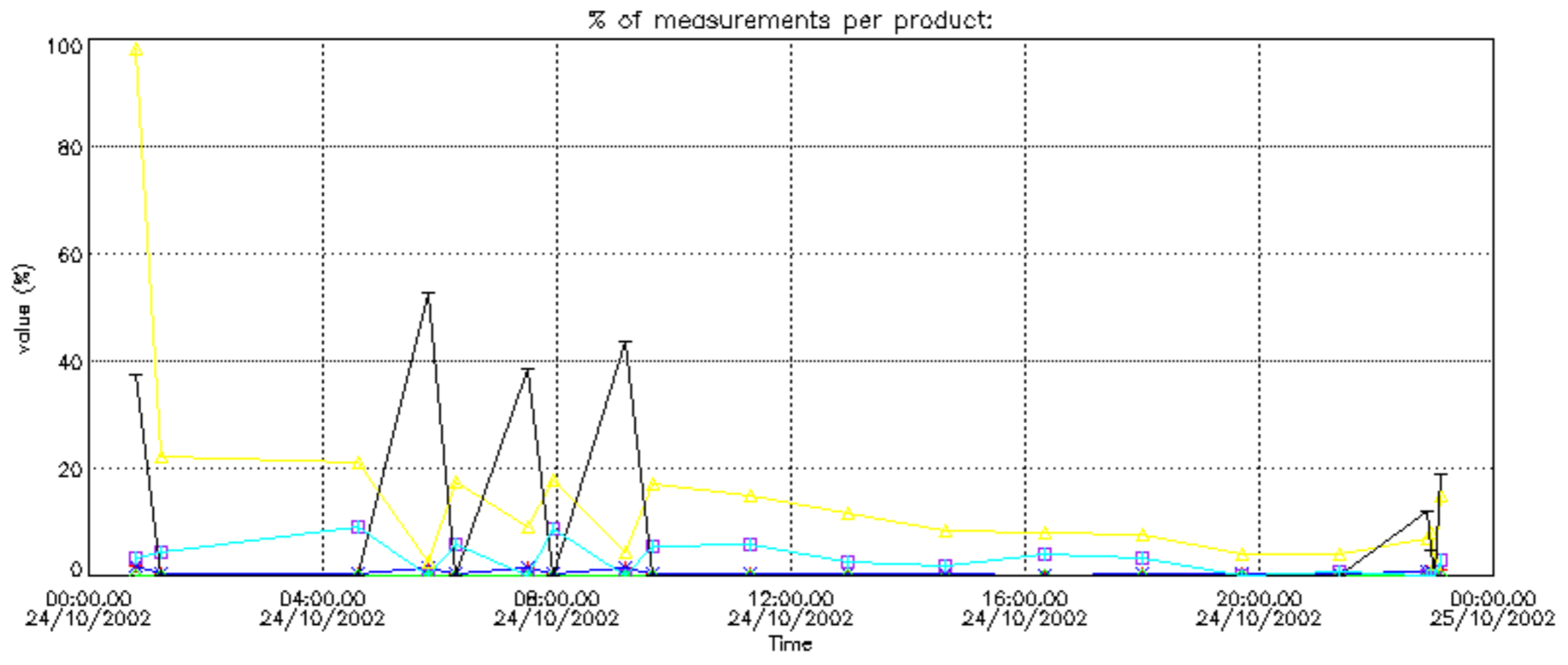


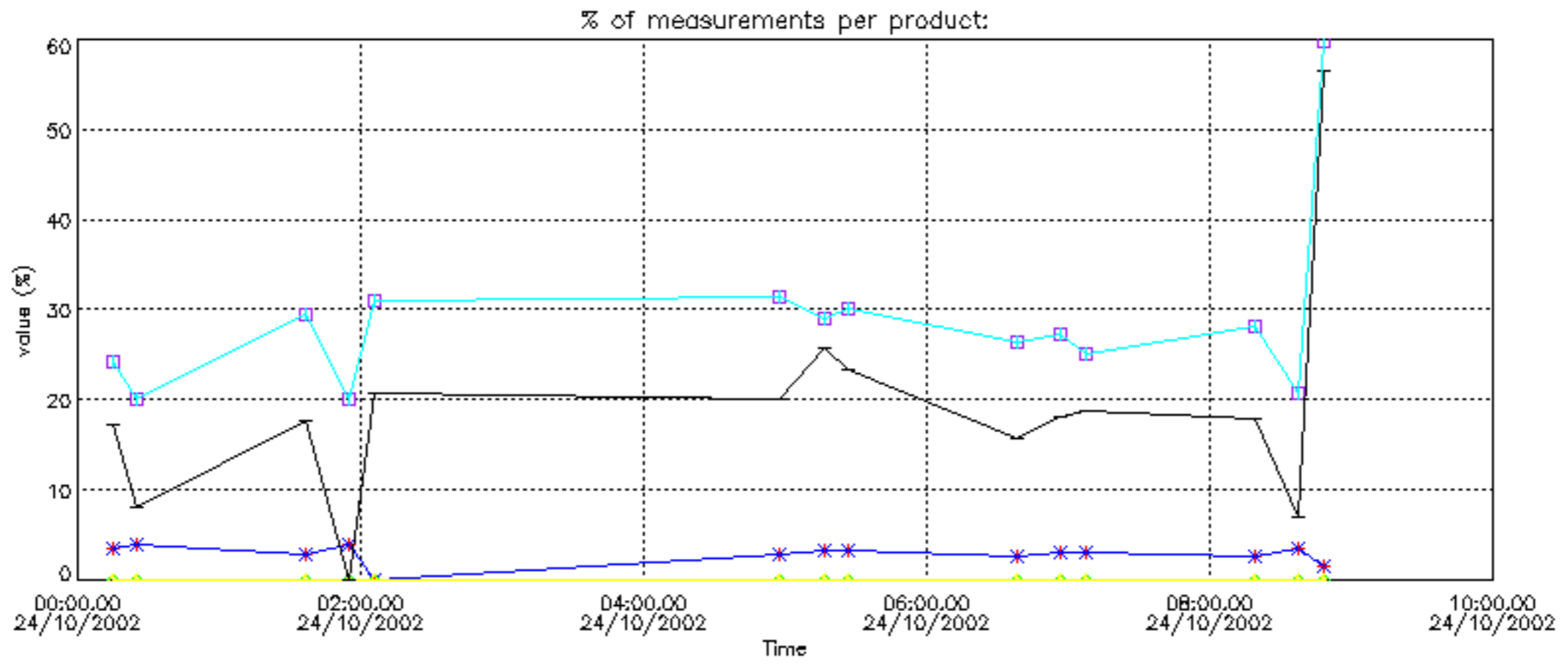
Percentage of flagged data per NO2 profile



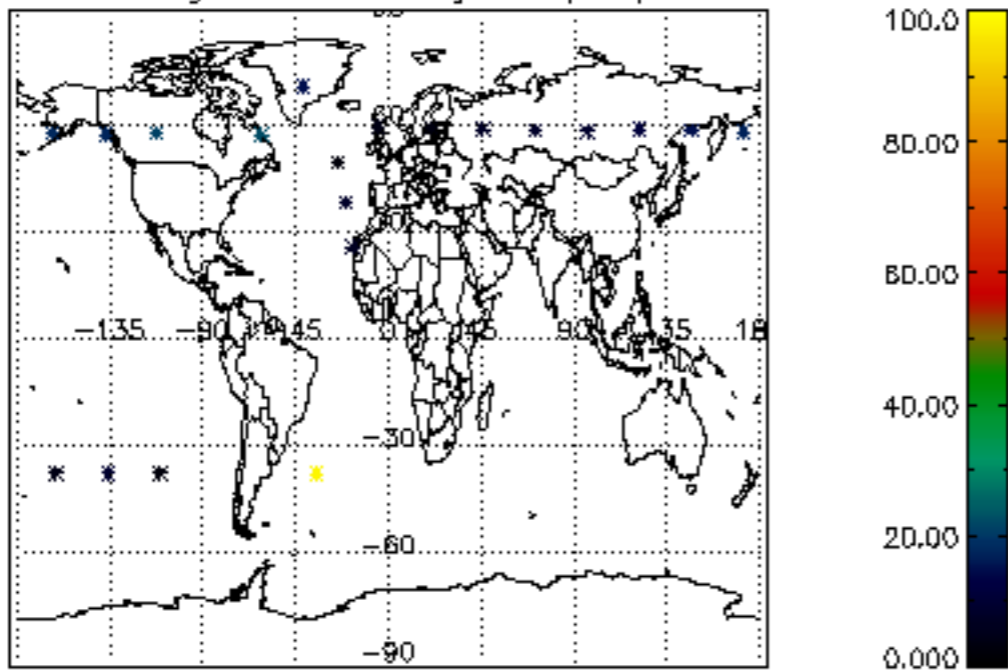
Percentage of flagged data per NO3 profile



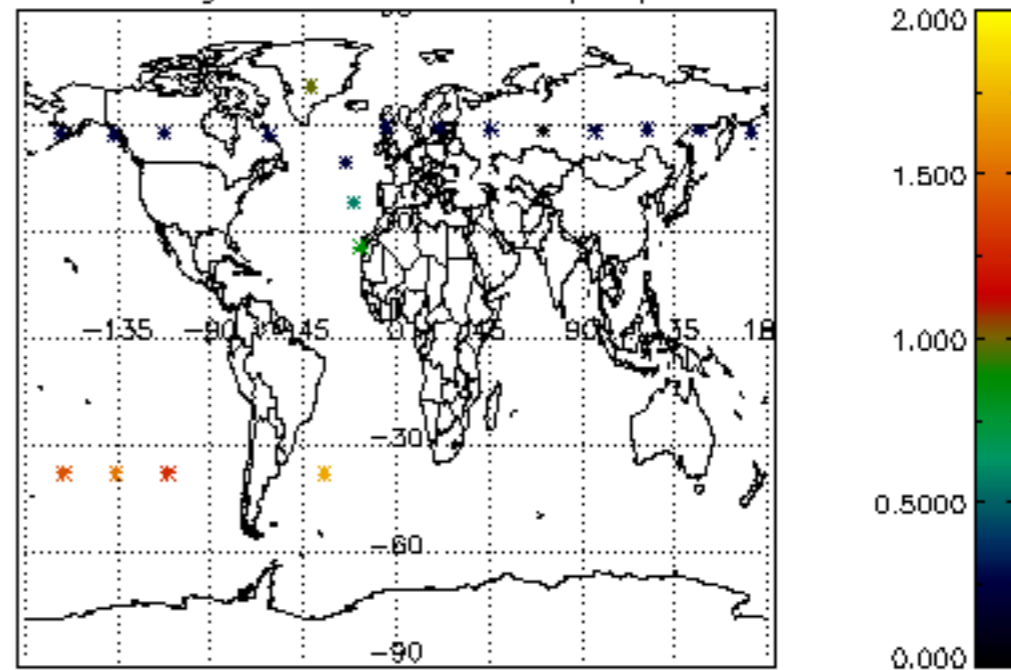




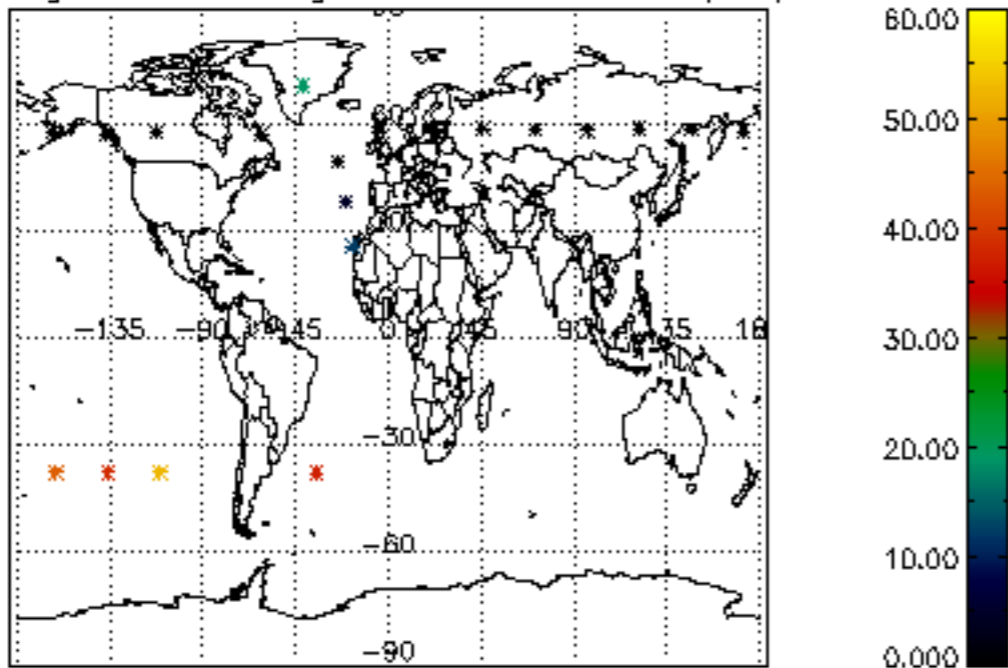
Percentage of cosmic ray hits per profile



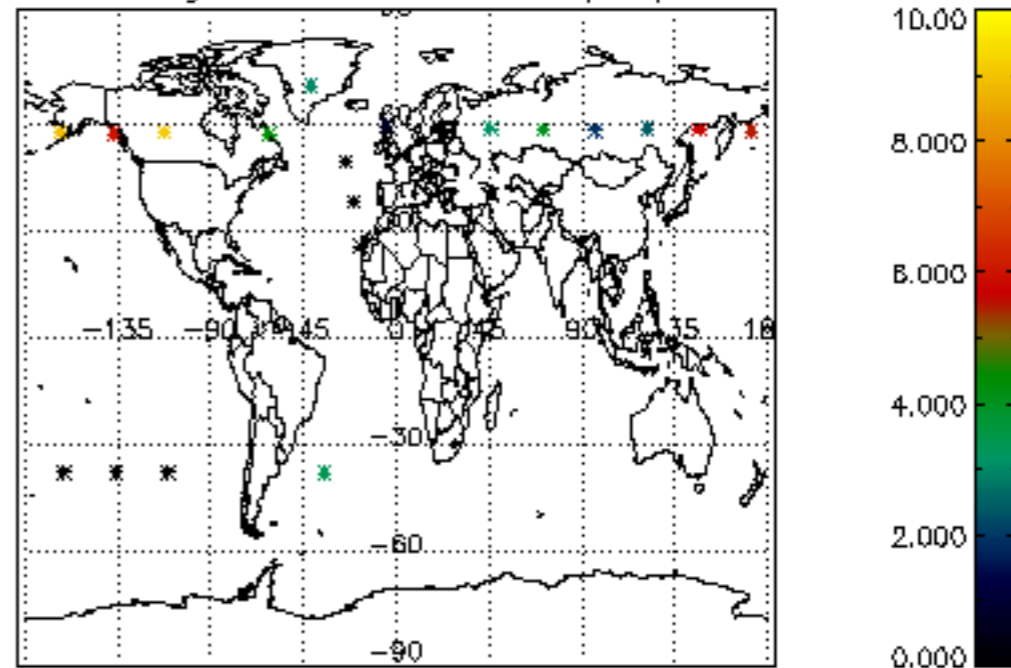
Percentage of datation errors per profile



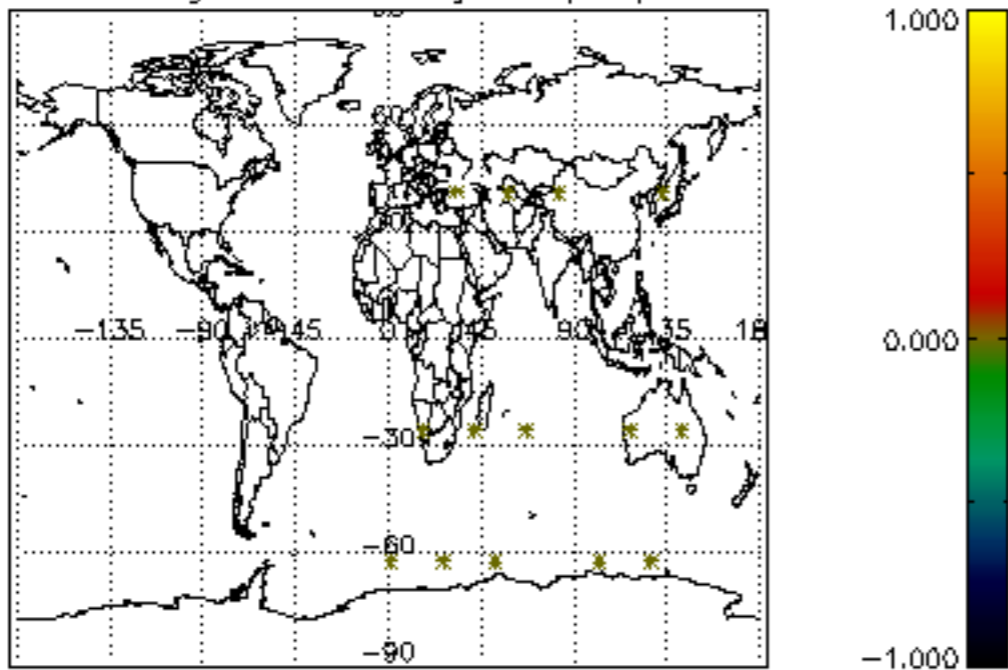
Percentage of star falling outside central band per profile



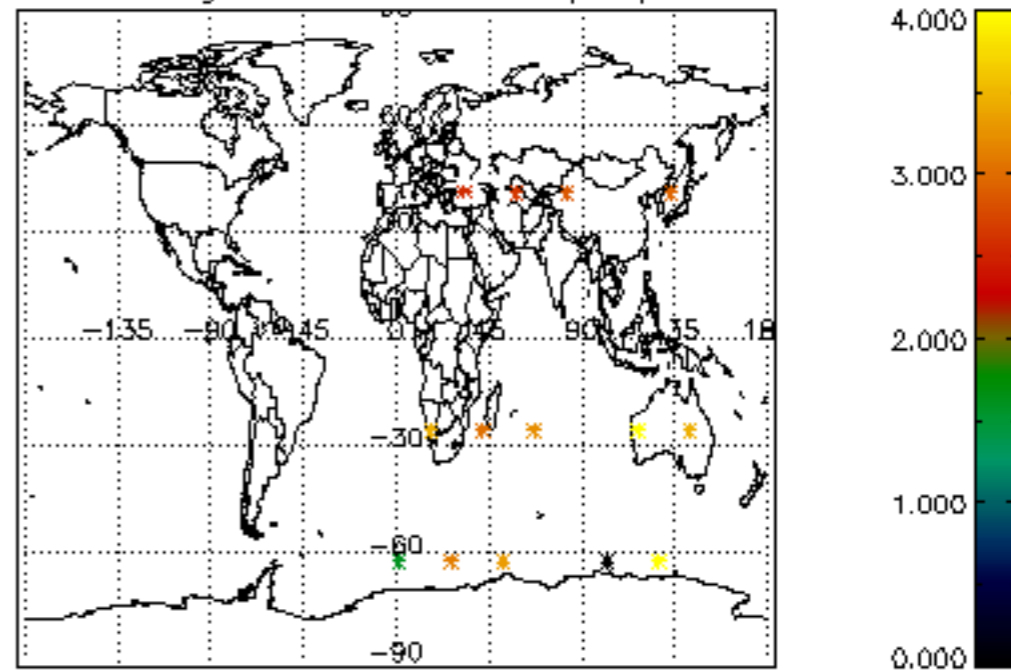
Percentage of saturation errors per profile



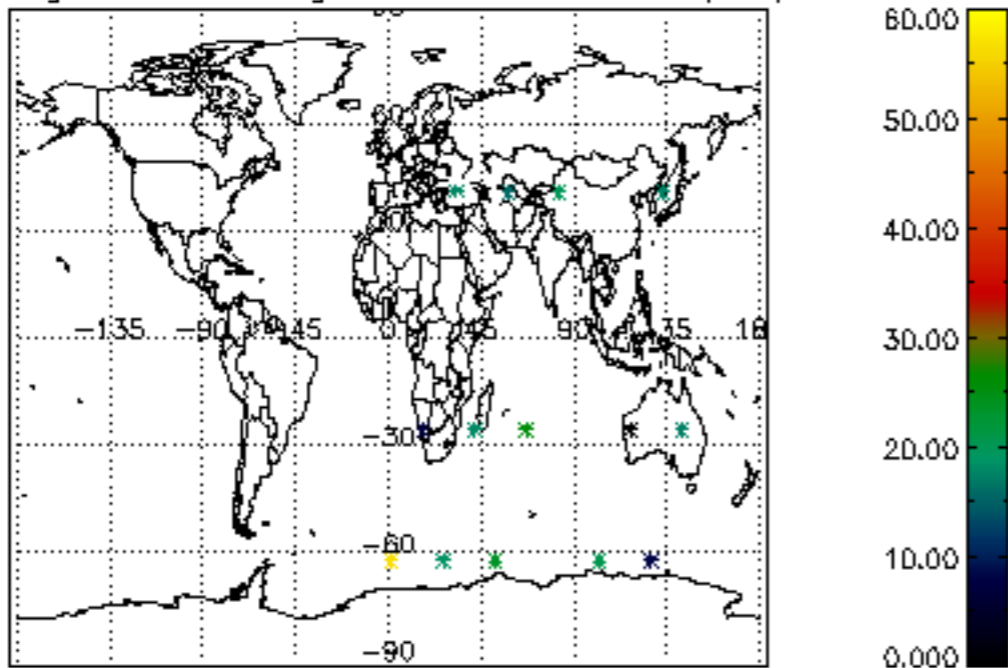
Percentage of cosmic ray hits per profile



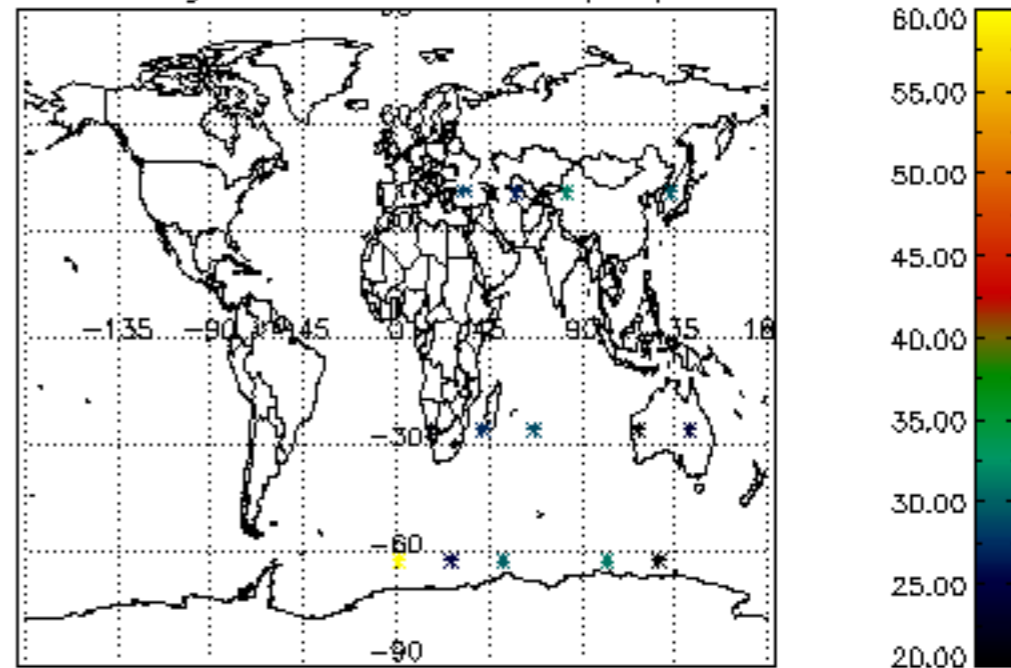
Percentage of datation errors per profile



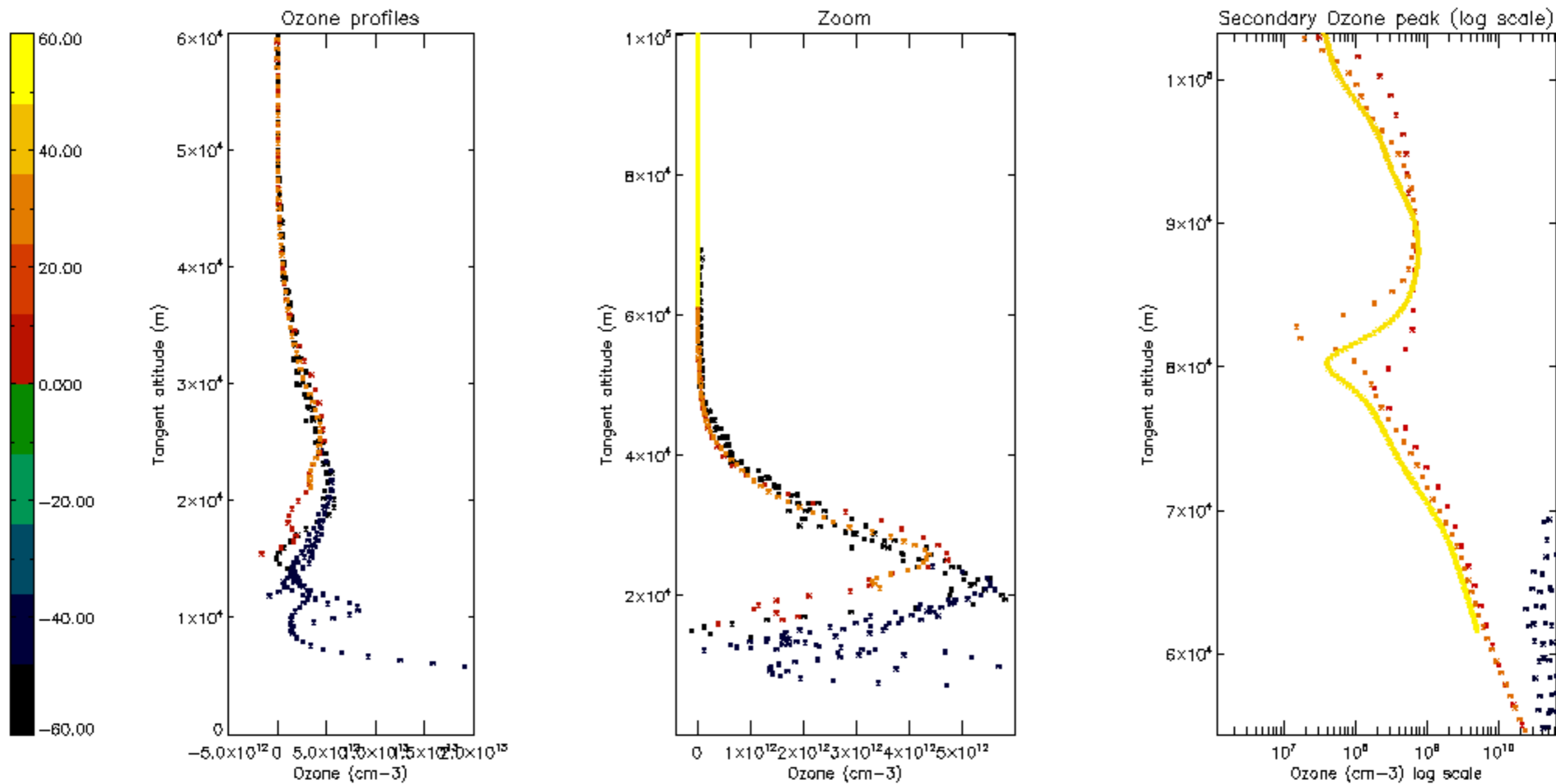
Percentage of star falling outside central band per profile

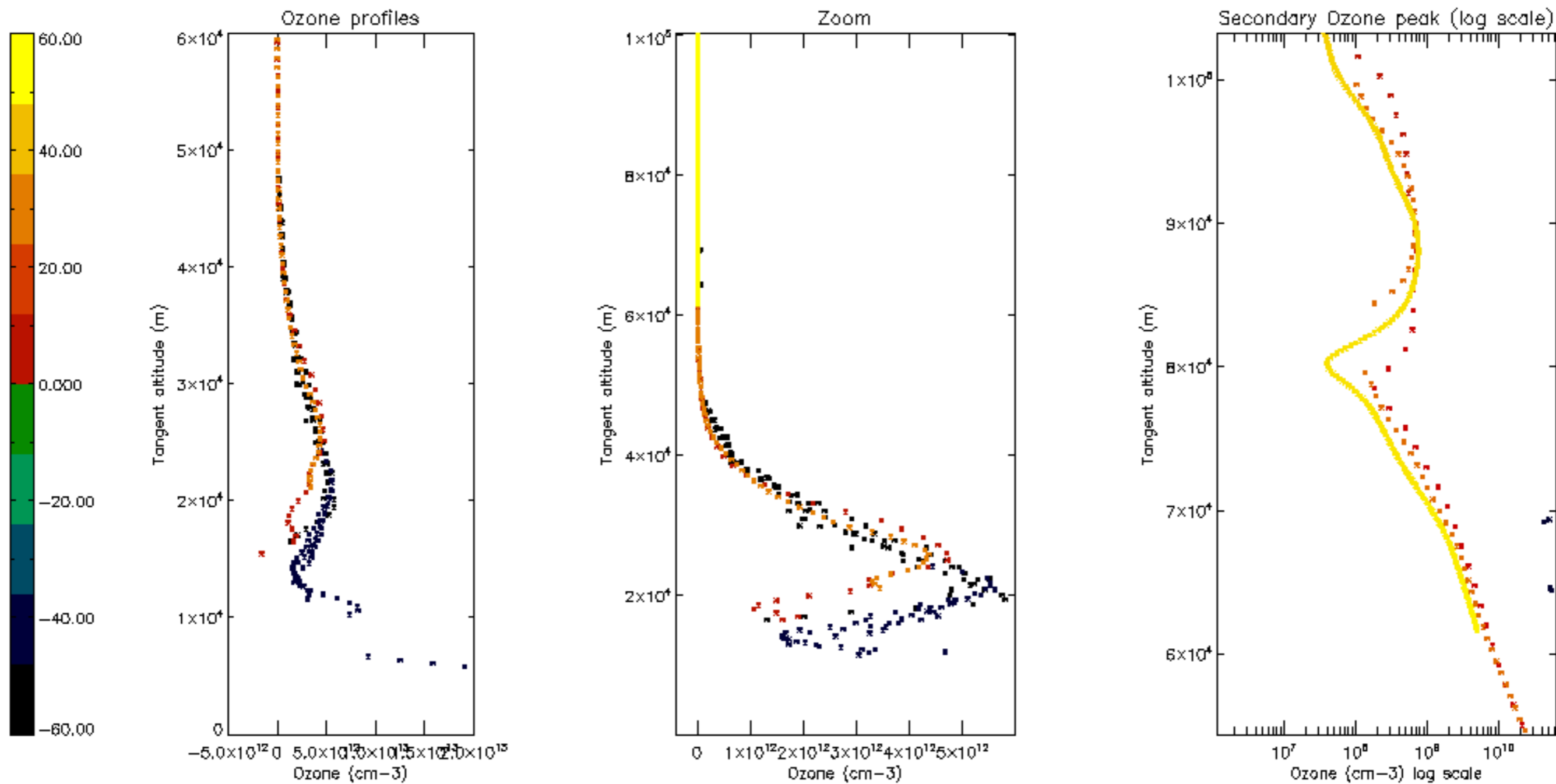


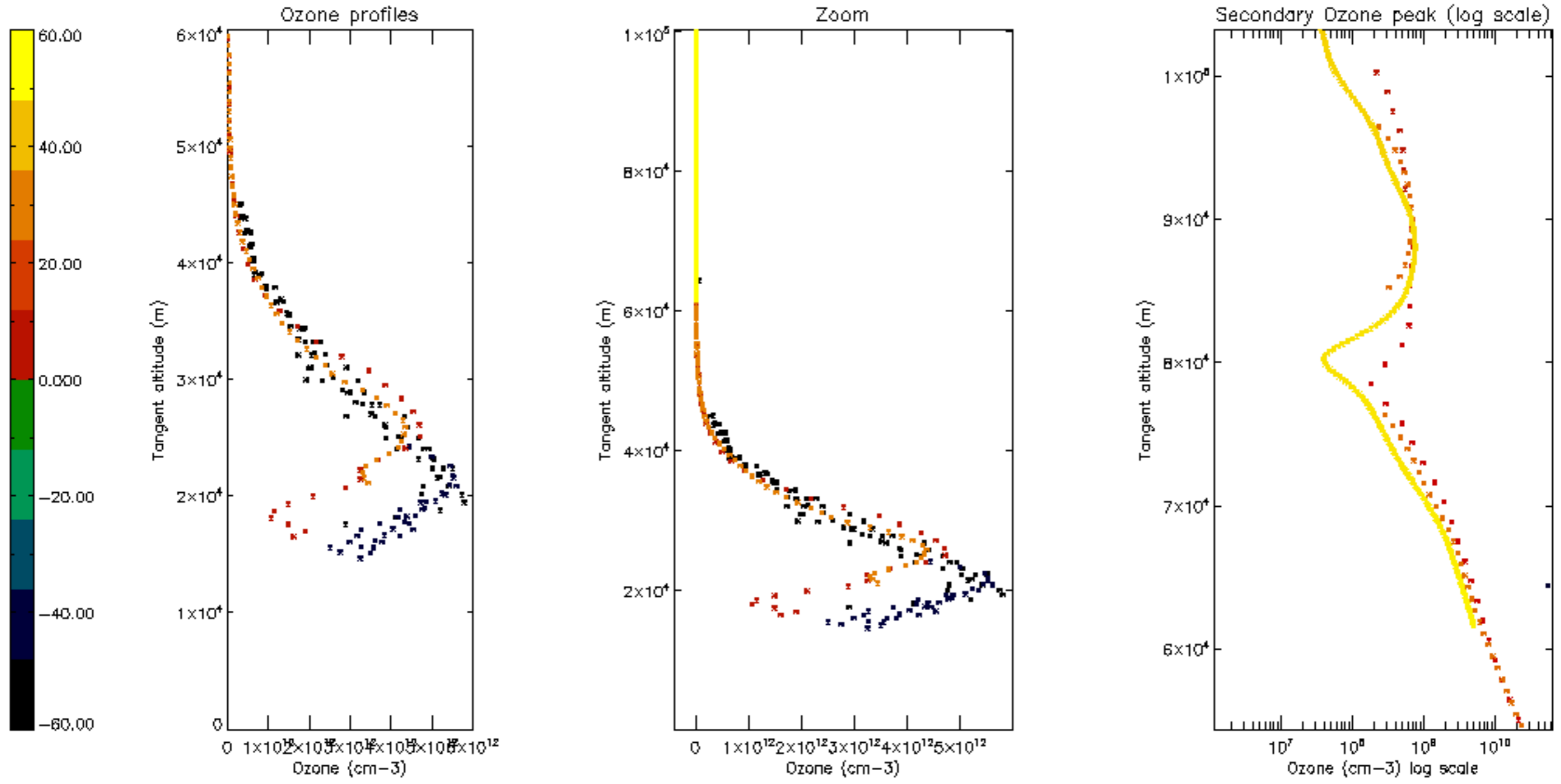
Percentage of saturation errors per profile

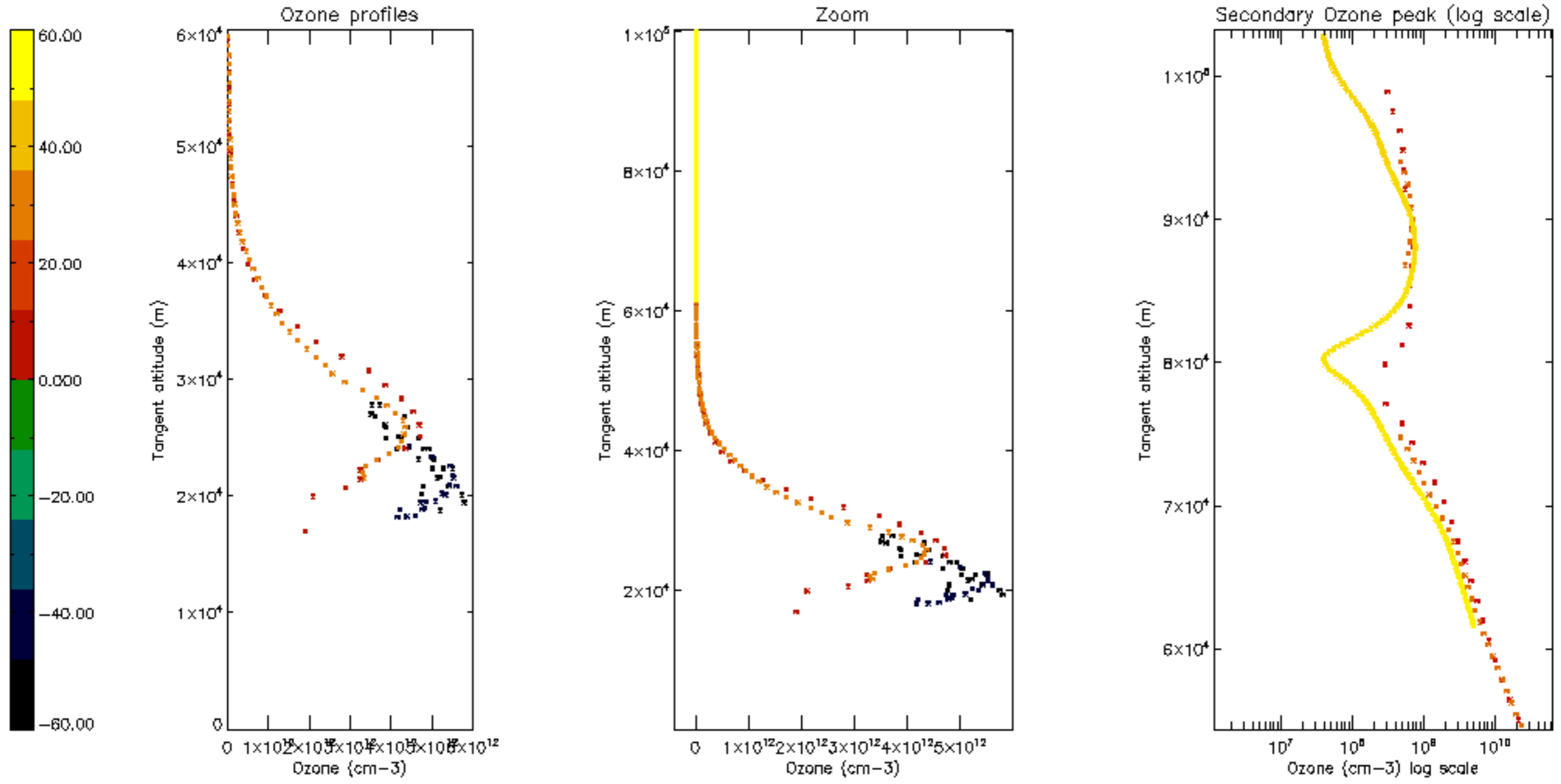


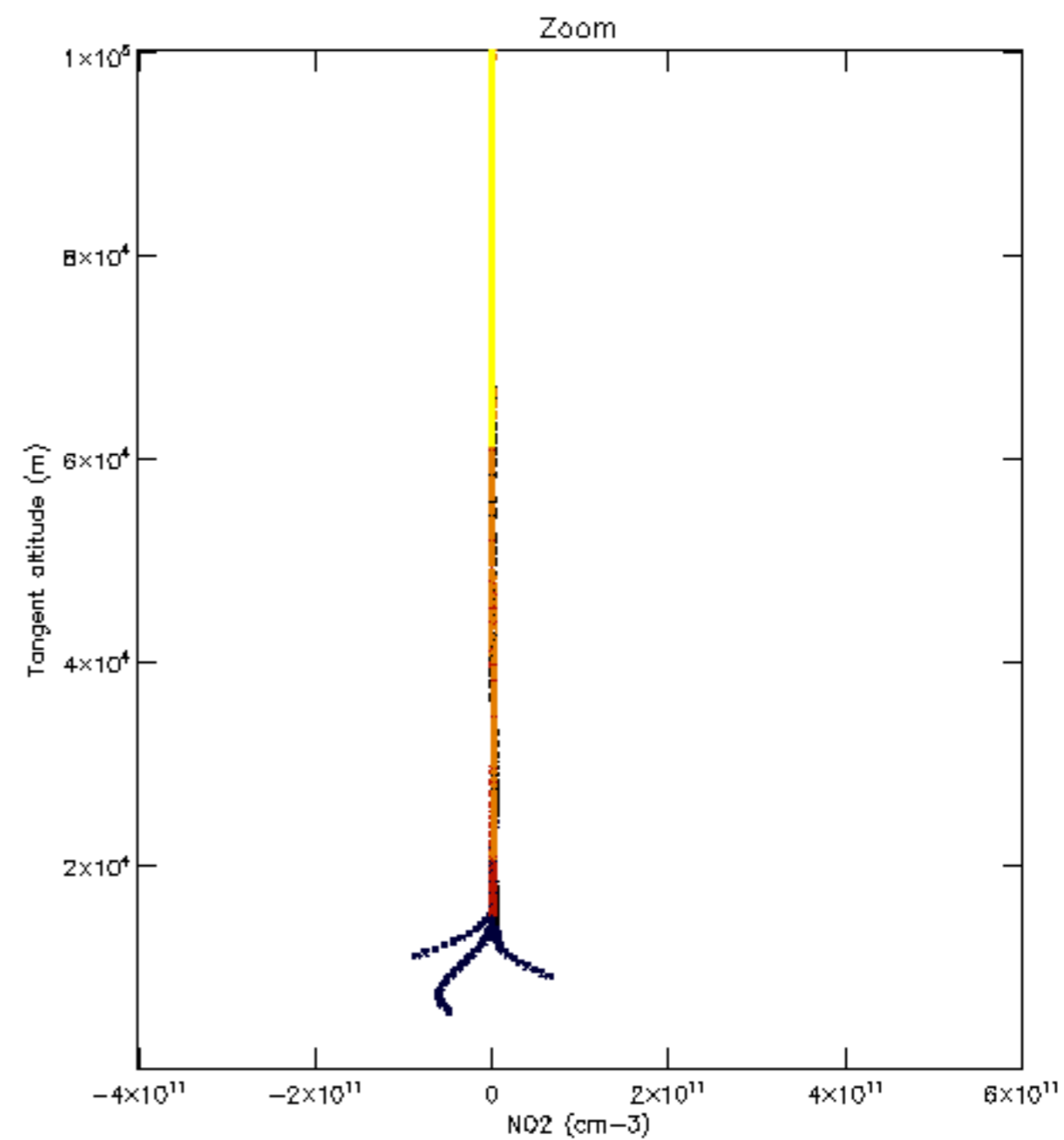
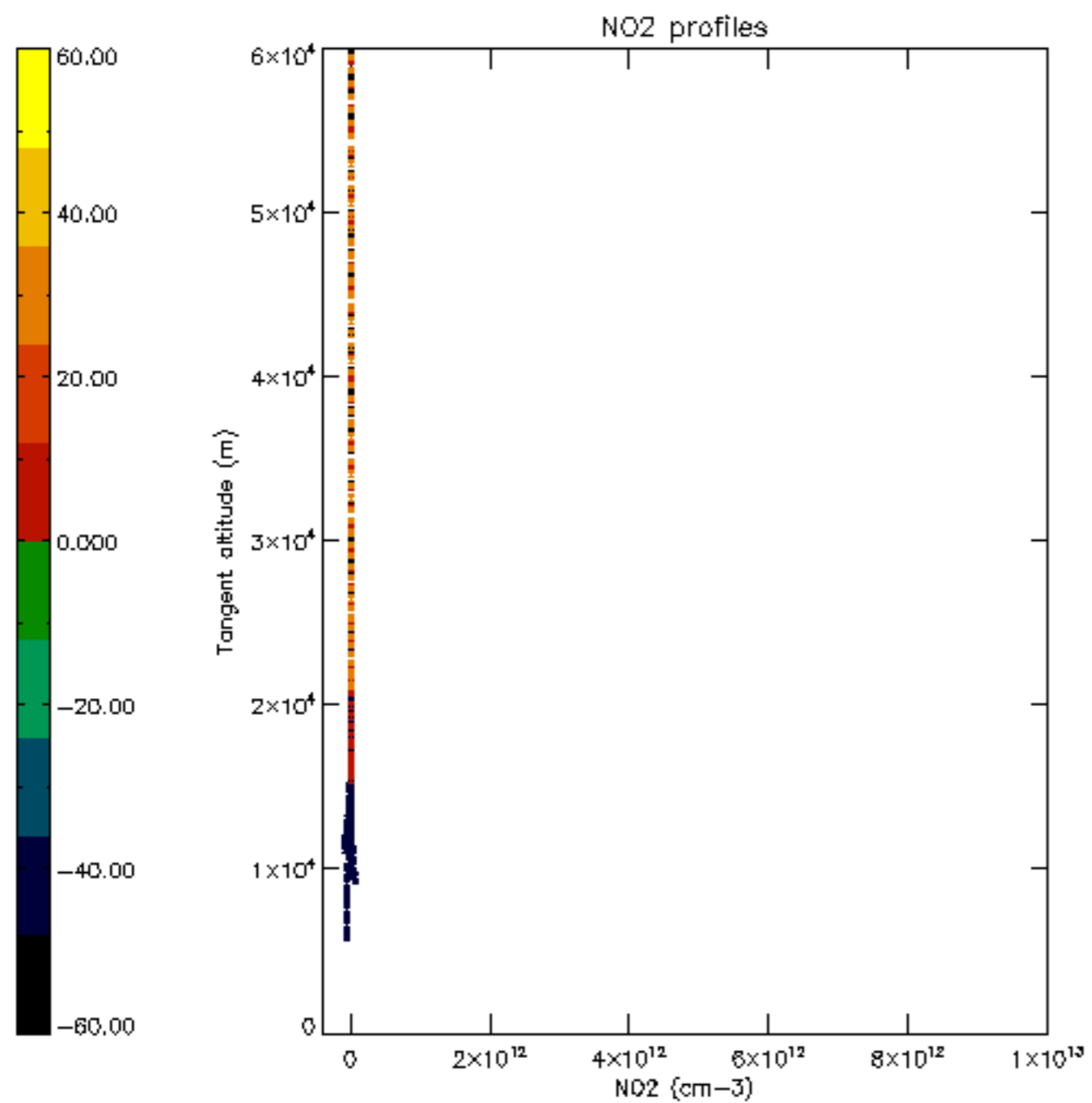


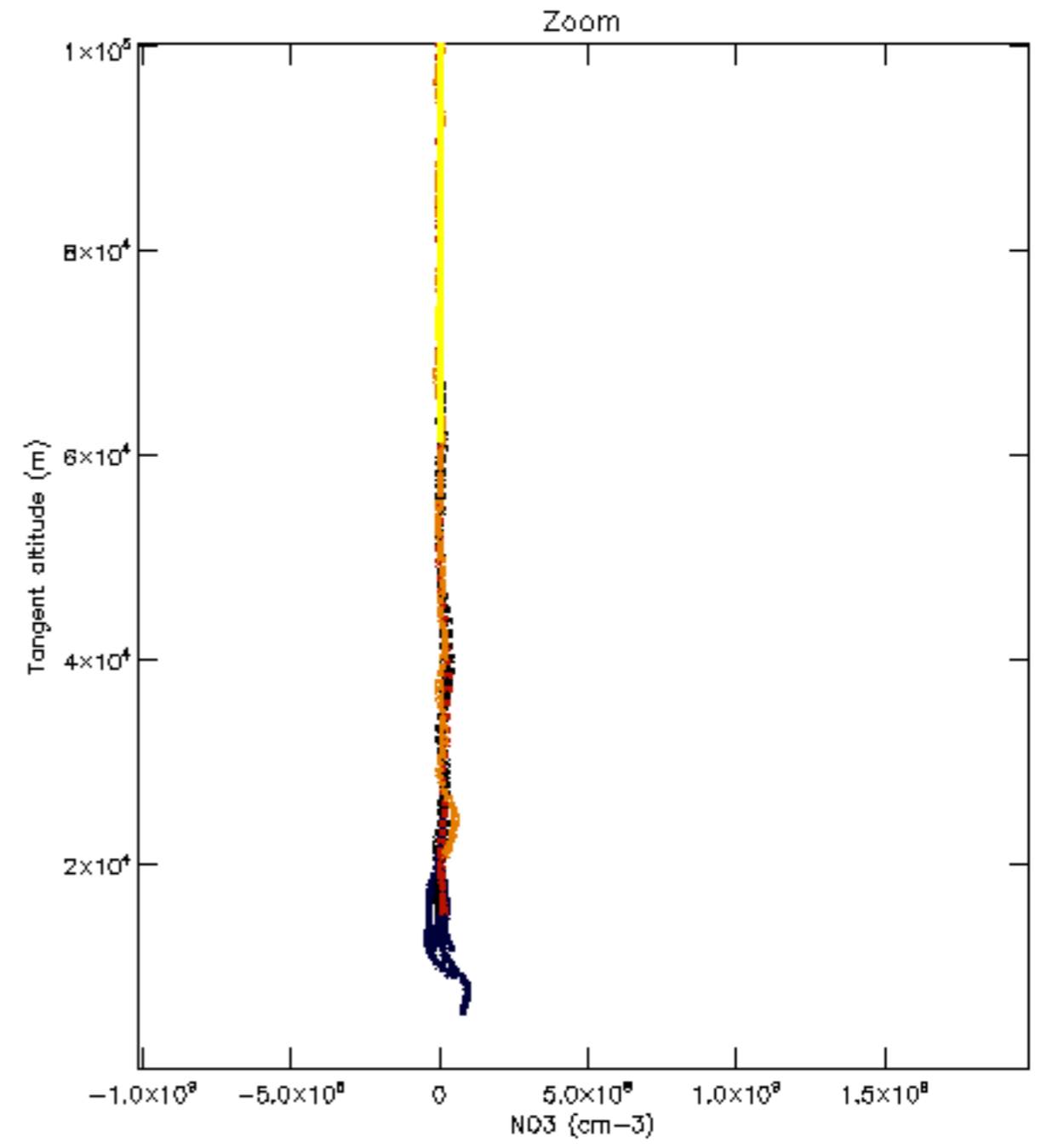
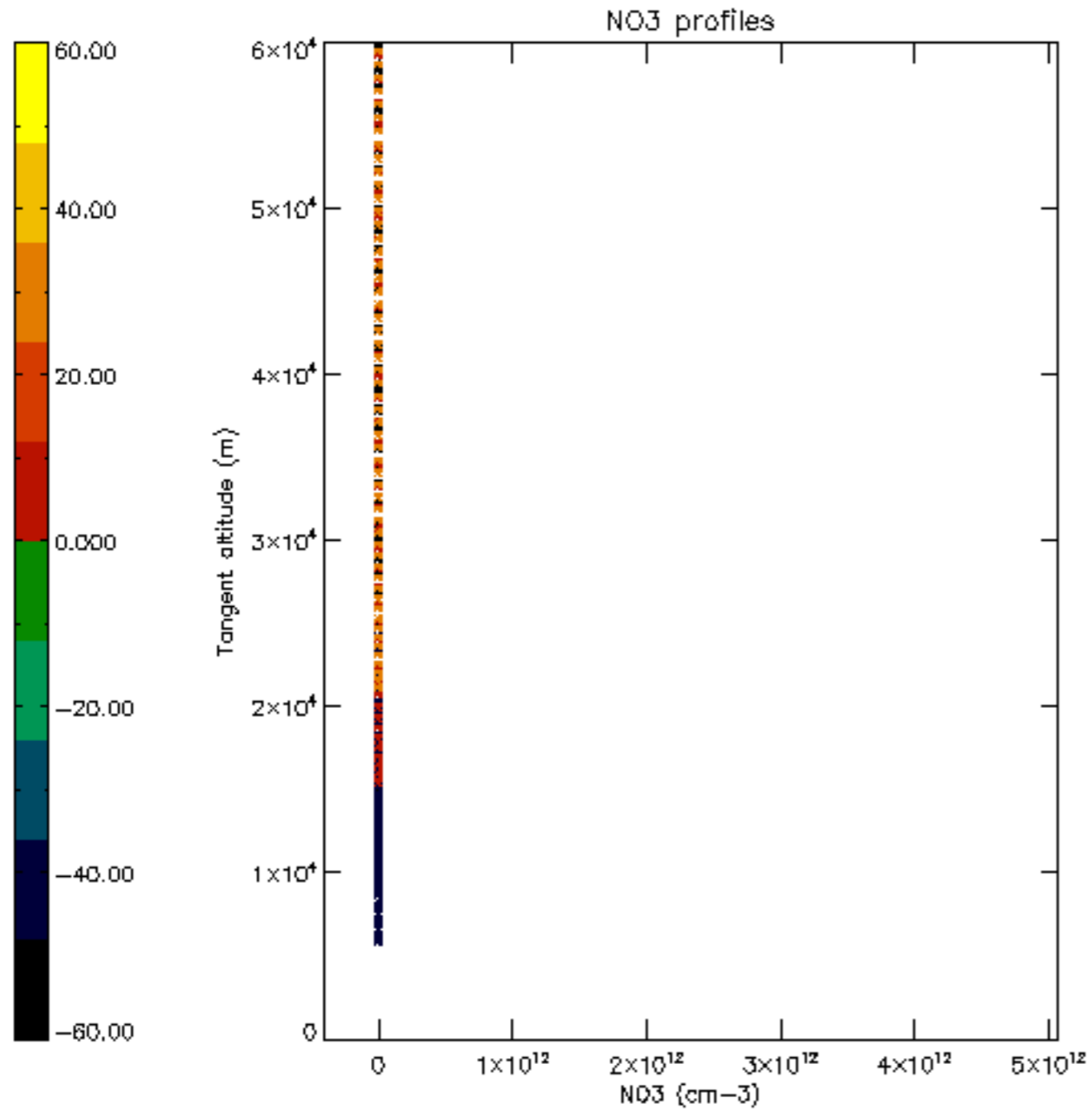


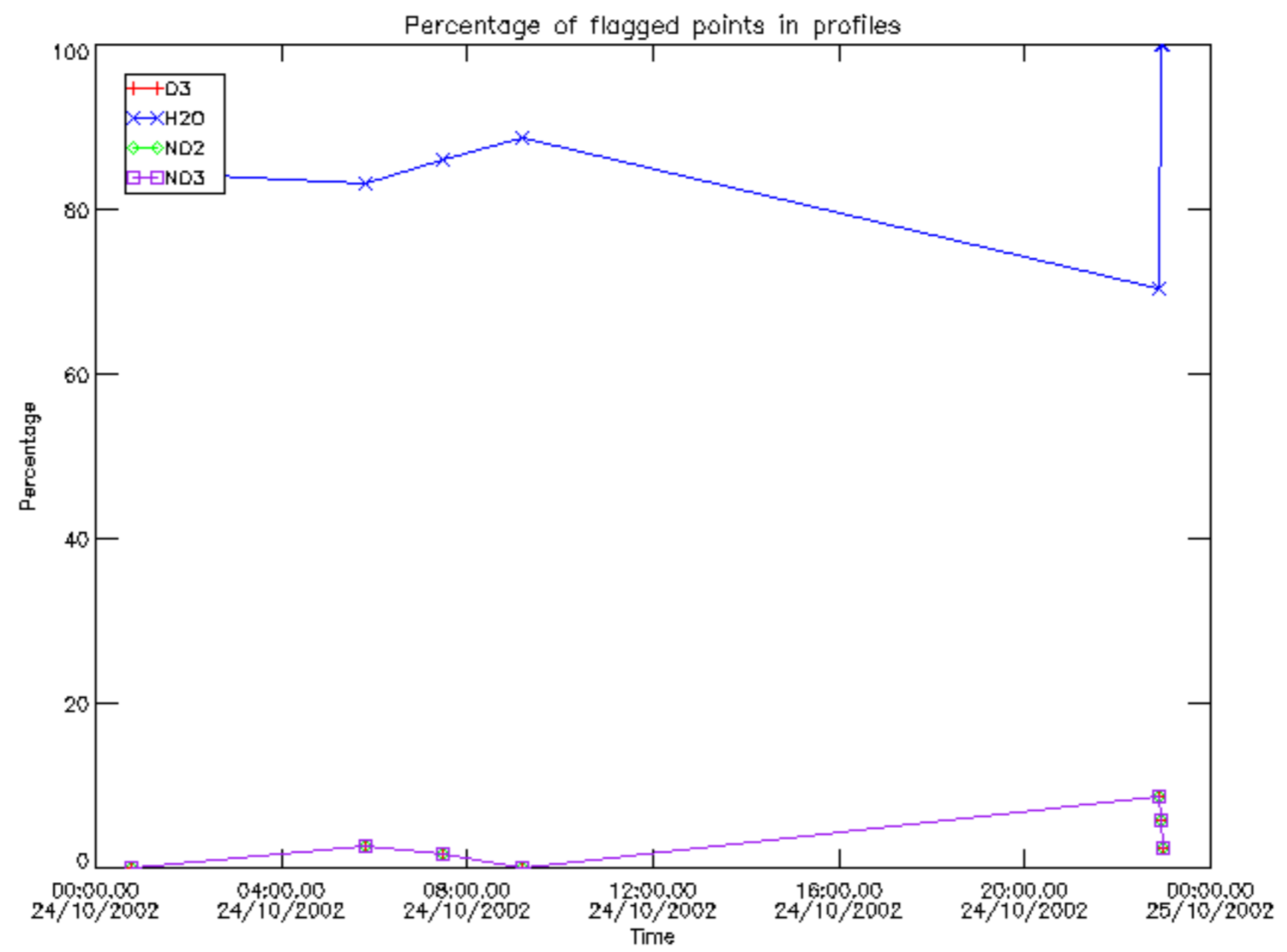




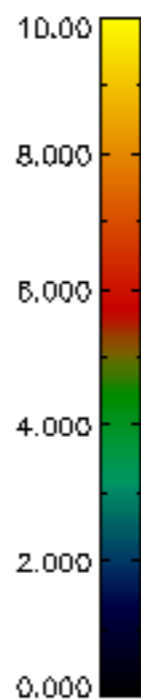
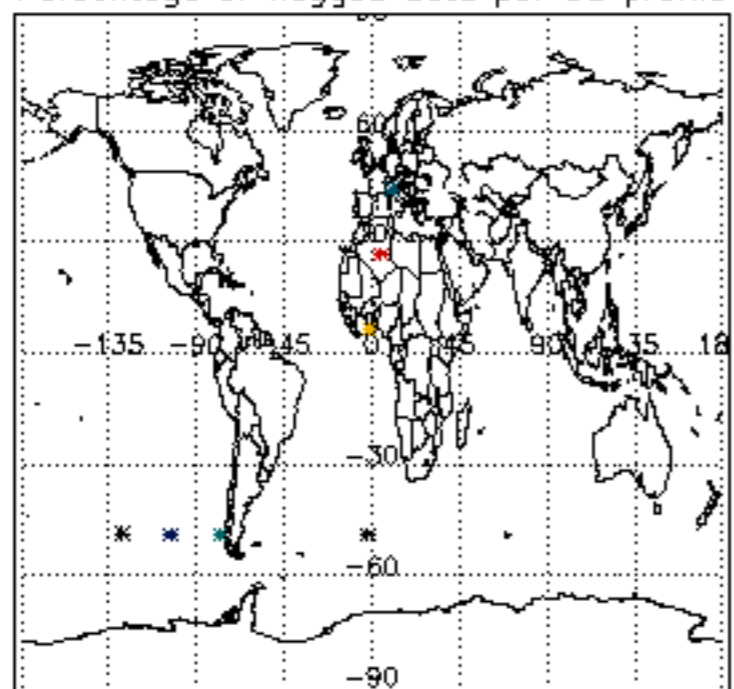




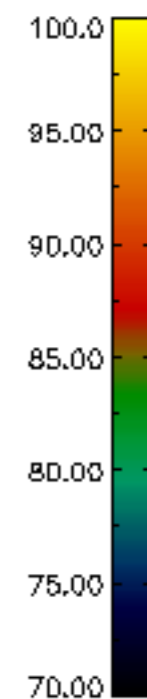
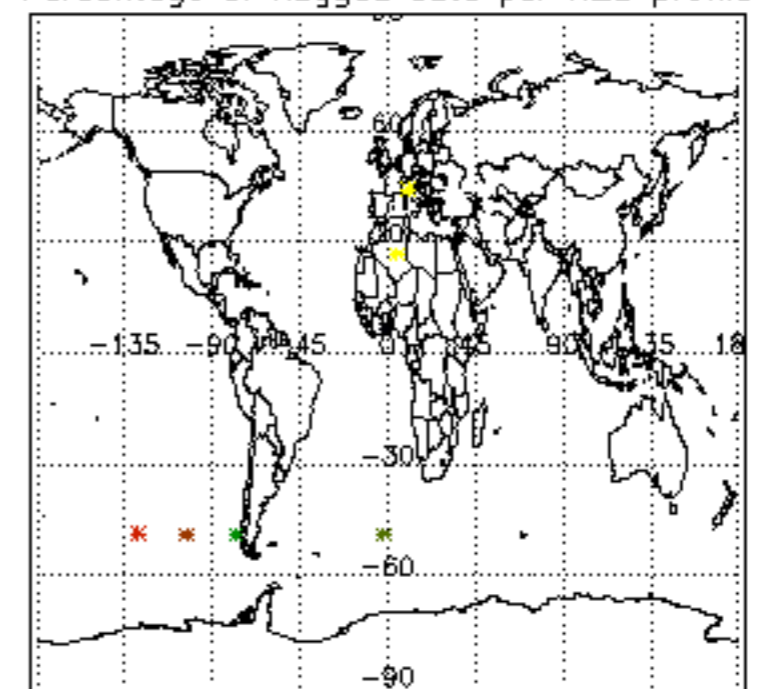




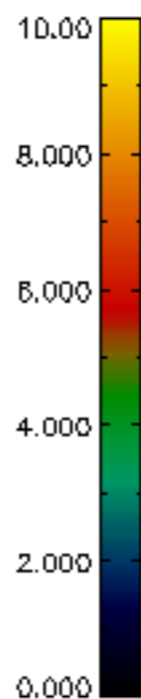
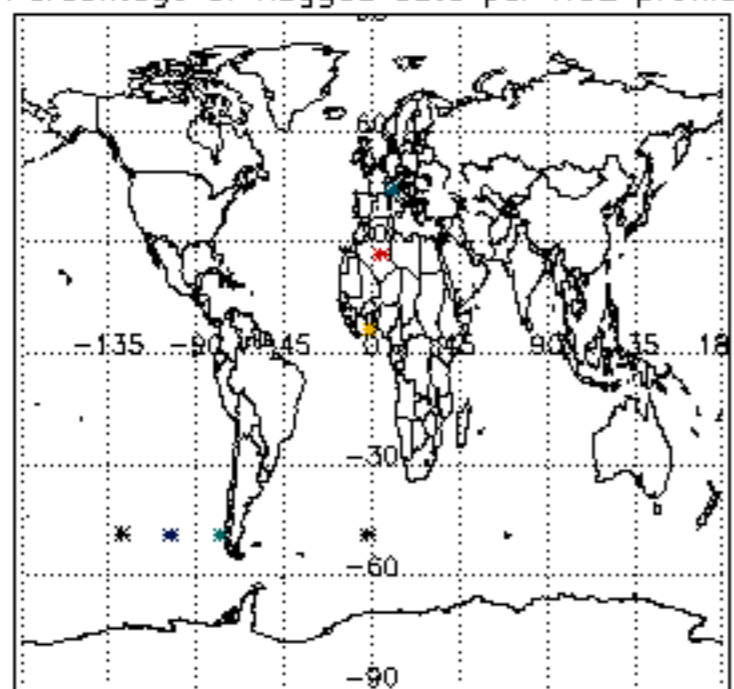
Percentage of flagged data per D3 profile



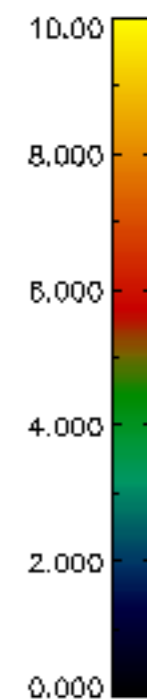
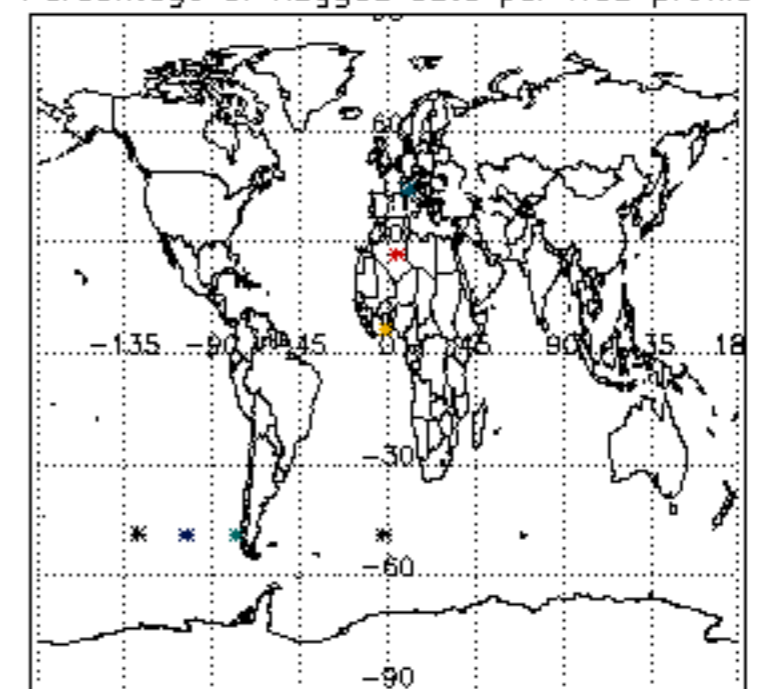
Percentage of flagged data per H2O profile



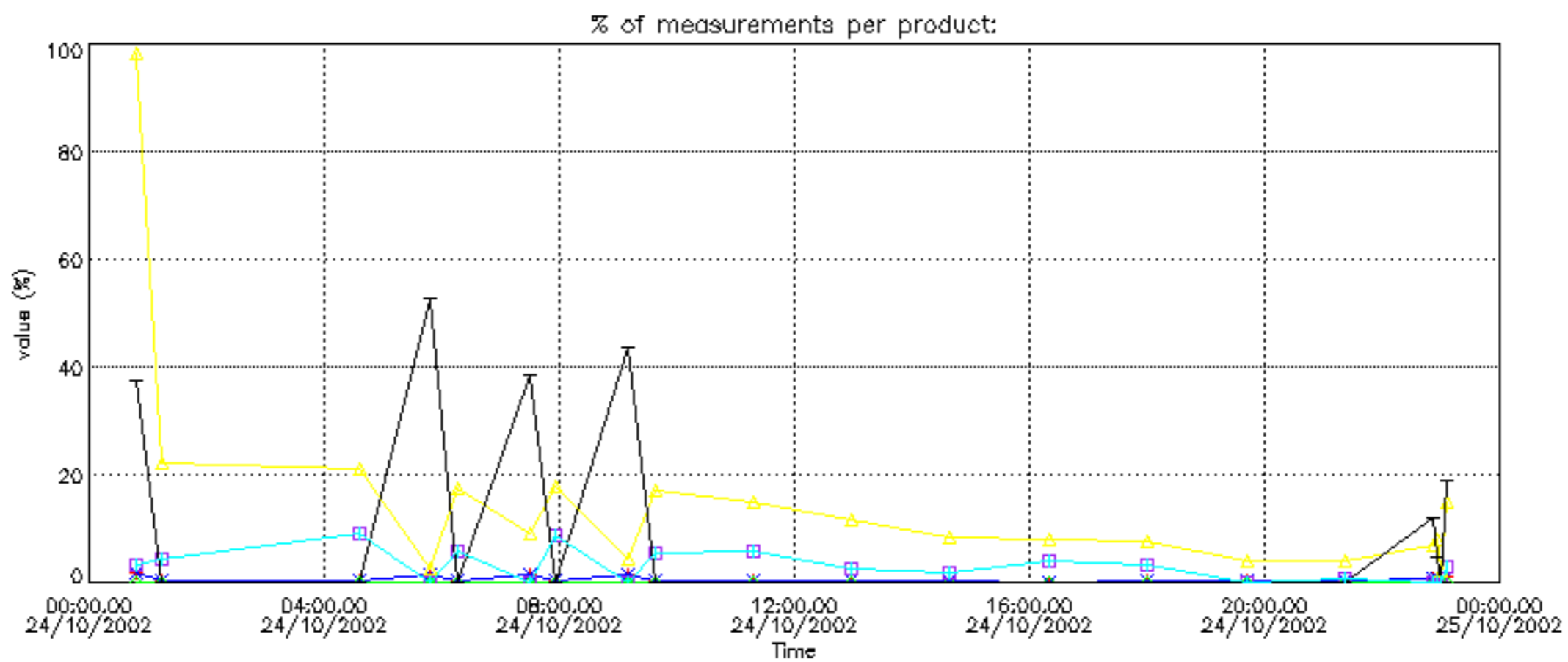
Percentage of flagged data per NO2 profile

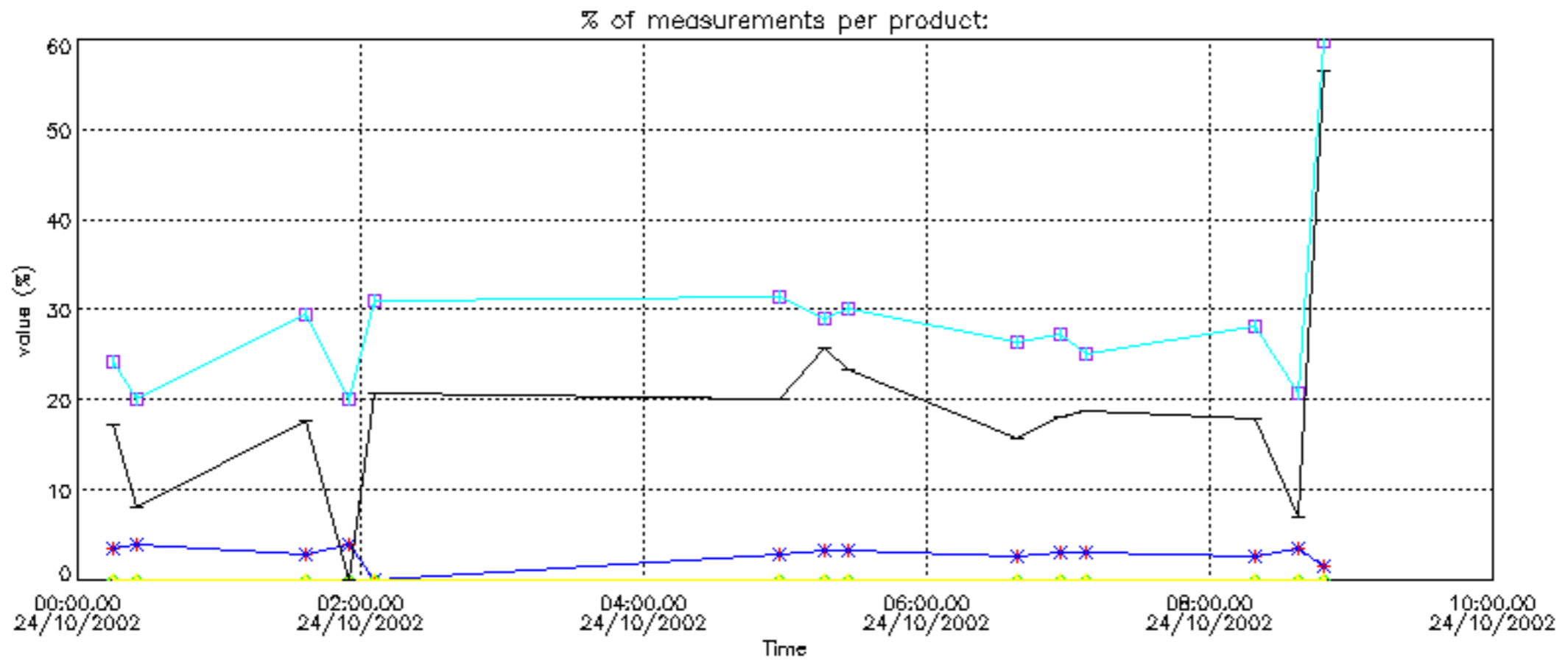


Percentage of flagged data per NO3 profile

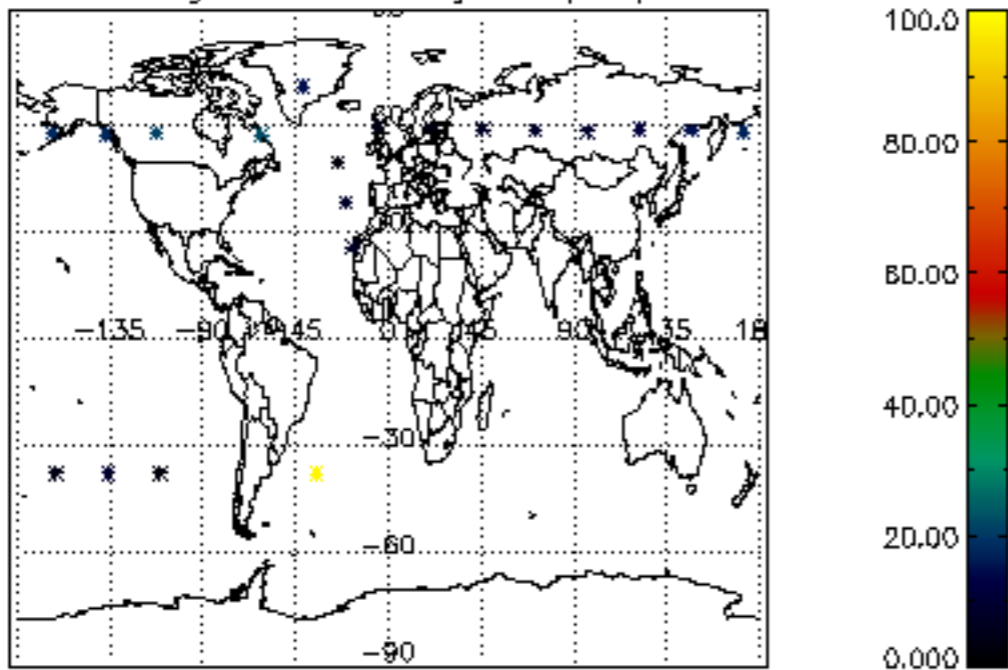




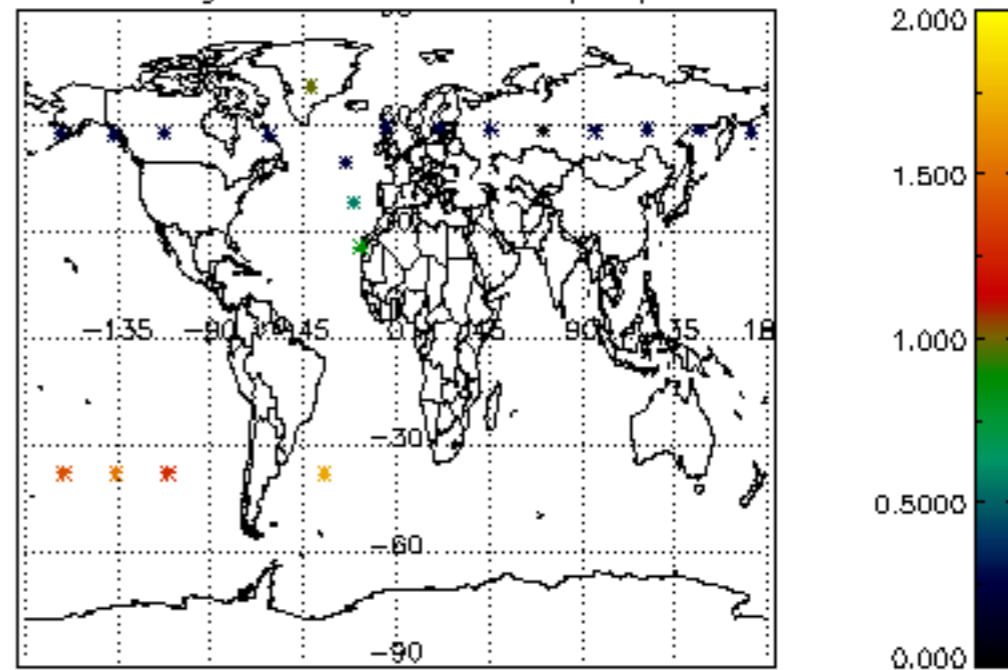




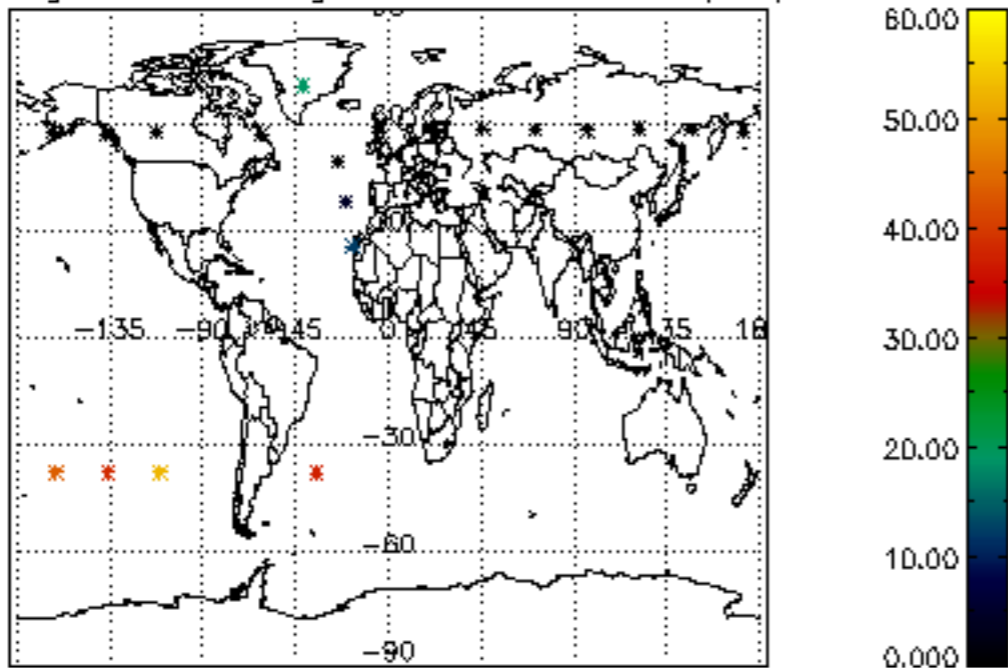
Percentage of cosmic ray hits per profile



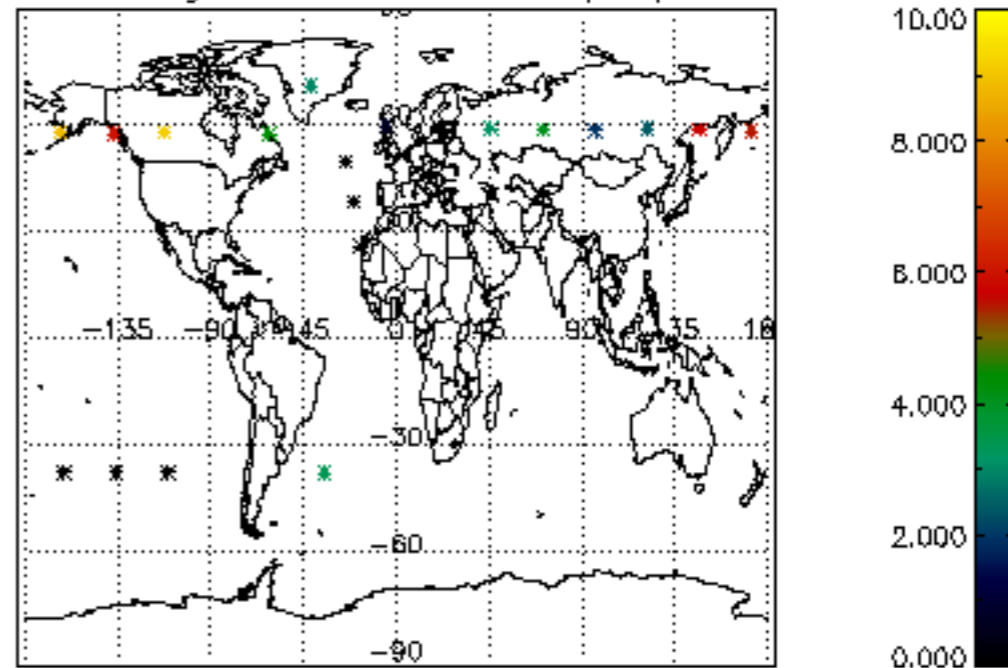
Percentage of datation errors per profile



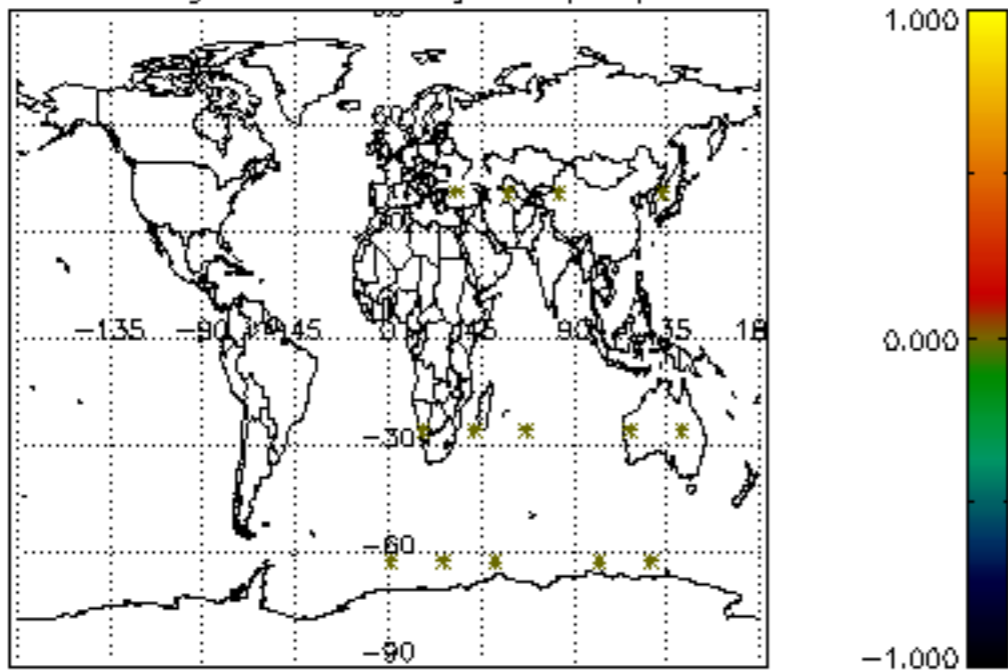
Percentage of star falling outside central band per profile



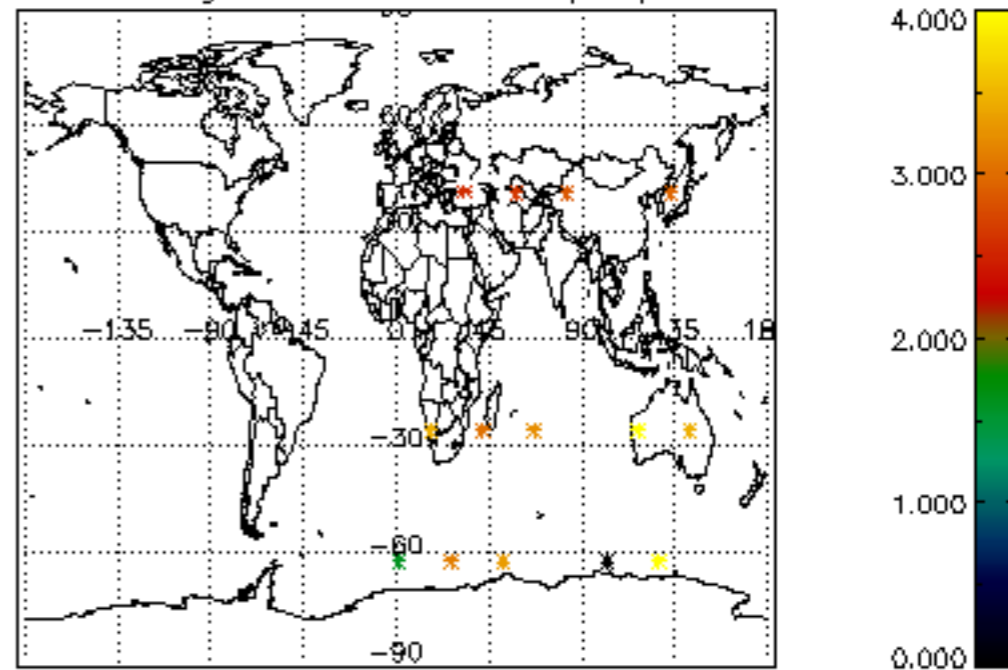
Percentage of saturation errors per profile



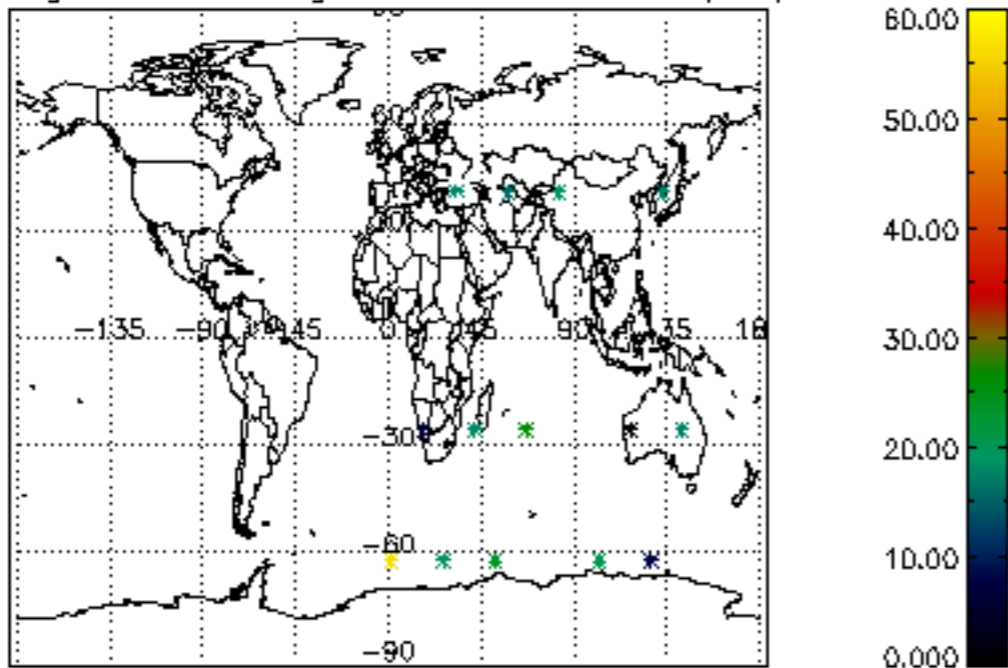
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

