

# 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](#)

#### [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](#)

#### [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](#)

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 19:47:19
Data source version	GOMOS/6.01
Start time of products	28-10-2002 (28OCT2002 00:00:00)
Stop time of products	29-10-2002 (29OCT2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	208
Nb of prods with errors	64

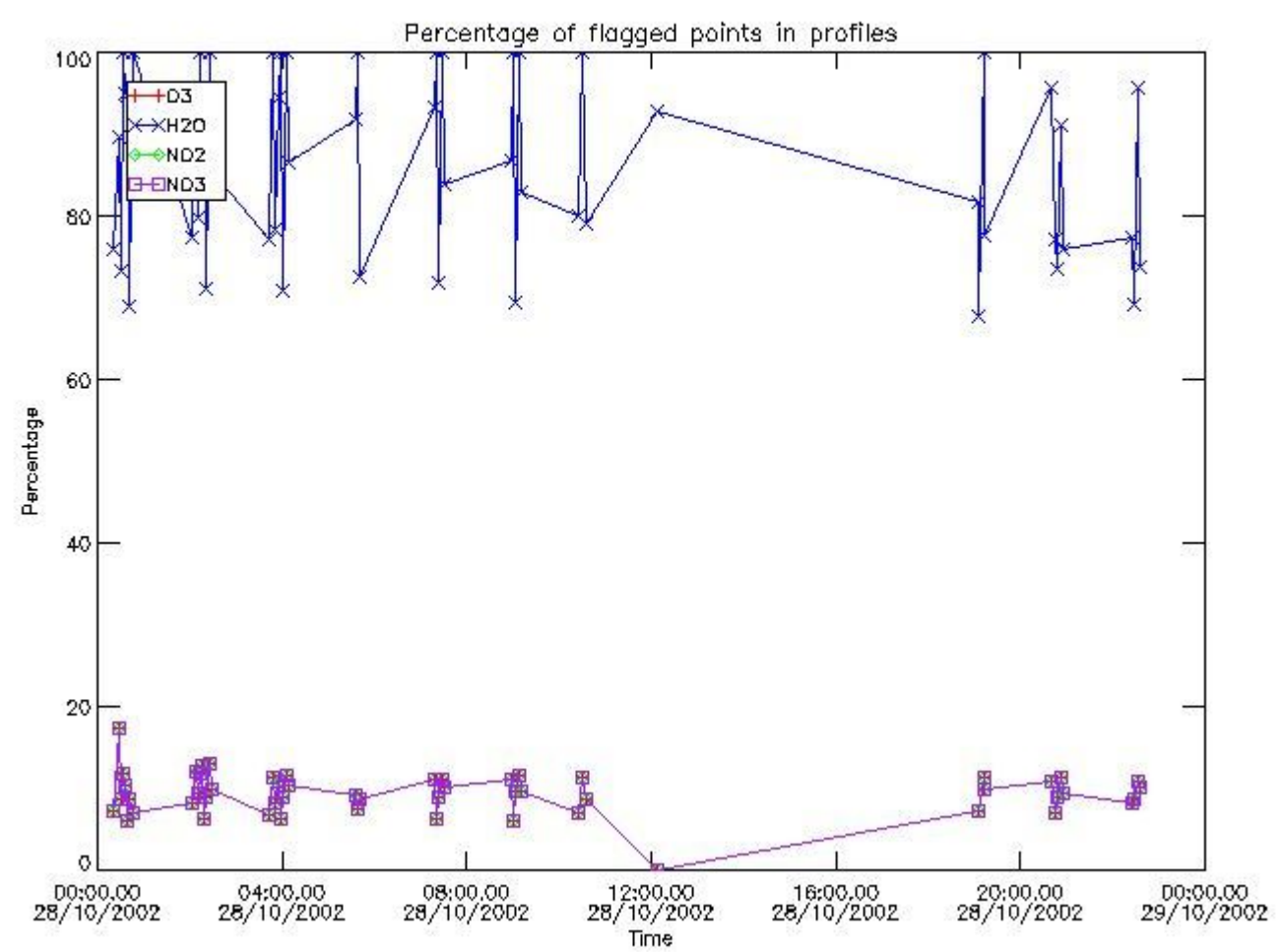
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20021028_000139_000000442010_00388_03448_3408.N1	28-OCT-2002 00:01:39	Bright	44.000	174	52Psi UMa	3.0040	4400.0	88	3448	No
2	GOM_NL__2PRFIN20021028_000915_000000822010_00388_03448_3409.N1	28-OCT-2002 00:09:15	Bright	82.000	166	17Eps Leo	2.9800	6000.0	164	3448	No
3	GOM_NL__2PRFIN20021028_001141_000002552010_00388_03448_3410.N1	28-OCT-2002 00:11:41	Twilight	255.00	17	78Bet Gem	1.1610	4500.0	510	3448	No
4	GOM_NL__2PRFIN20021028_002137_000000862010_00388_03448_3411.N1	28-OCT-2002 00:21:37	Dark	85.500	48	30Alp Hya	1.9770	4100.0	171	3448	No
5	GOM_NL__2PRFIN20021028_002749_000000442010_00388_03448_3412.N1	28-OCT-2002 00:27:49	Dark	44.000	99	Del Cen	2.5750	26000.	88	3448	No
6	GOM_NL__2PRFIN20021028_003038_000000592010_00388_03448_3413.N1	28-OCT-2002 00:30:38	Dark	58.500	65	Lam Vel	2.2040	4400.0	117	3448	No
7	GOM_NL__2PRFIN20021028_003219_000000442010_00389_03449_9420.N1	28-OCT-2002 00:32:19	Dark	43.500	124	The Car	2.7640	30000.	87	3449	No
8	GOM_NL__2PRFIN20021028_003459_000000502010_00389_03449_9421.N1	28-OCT-2002 00:34:59	Dark	49.500	29	Bet Car	1.6720	10200.	99	3449	No
9	GOM_NL__2PRFIN20021028_003714_000000852010_00389_03449_9422.N1	28-OCT-2002 00:37:14	Dark	84.500	88	31Eta CMa	2.4480	20000.	169	3449	No
10	GOM_NL__2PRFIN20021028_003944_000000592010_00389_03449_9423.N1	28-OCT-2002 00:39:44	Dark	58.500	2	Alp Car	-0.73600	7000.0	117	3449	No
11	GOM_NL__2PRFIN20021028_004550_000000742010_00389_03449_9424.N1	28-OCT-2002 00:45:50	Dark	74.000	108	Alp Col	2.6520	15200.	148	3449	No
12	GOM_NL__2PRFIN20021028_004850_000002202010_00389_03449_9425.N1	28-OCT-2002 00:48:50	Straylight	220.00	1	9Alp CMa	-1.4400	11000.	440	3449	No
13	GOM_NL__2PRFIN20021028_005303_000001342010_00389_03449_9426.N1	28-OCT-2002 00:53:03	Straylight	133.50	139	9Bet Lep	2.8330	5600.0	267	3449	No
14	GOM_NL__2PRFIN20021028_005843_000000492010_00389_03449_3393.N1	28-OCT-2002 00:58:43	Straylight	49.000	52	16Bet Cet	2.0370	4500.0	98	3449	No
15	GOM_NL__2PRFIN20021028_010537_000000732010_00389_03449_3394.N1	28-OCT-2002 01:05:37	Bright	73.000	94	92Alp Cet	2.5260	3100.0	146	3449	No
16	GOM_NL__2PRFIN20021028_010811_000000422010_00389_03449_3395.N1	28-OCT-2002 01:08:11	Bright	42.000	140	88Gam Peg	2.8340	26000.	84	3449	No
17	GOM_NL__2PRFIN20021028_010953_000000492010_00389_03449_3396.N1	28-OCT-2002 01:09:53	Bright	48.500	105	6Bet Ari	2.6450	8900.0	97	3449	No
18	GOM_NL__2PRFIN20021028_011204_000000442010_00389_03449_3397.N1	28-OCT-2002 01:12:04	Bright	44.000	58	21Alp And	2.0730	11000.	88	3449	No
19	GOM_NL__2PRFIN20021028_011347_000000472010_00389_03449_3398.N1	28-OCT-2002 01:13:47	Bright	46.500	53	43Bet And	2.0480	3300.0	93	3449	No
20	GOM_NL__2PRFIN20021028_011628_000000522010_00389_03449_3399.N1	28-OCT-2002 01:16:28	Bright	51.500	73	57Gam1And	2.2600	13100.	103	3449	No
21	GOM_NL__2PRFIN20021028_012350_000000452010_00389_03449_3400.N1	28-OCT-2002 01:23:50	Bright	44.500	89	5Alp Cep	2.4510	8000.0	89	3449	No
22	GOM_NL__2PRFIN20021028_012852_000000452010_00389_03449_3401.N1	28-OCT-2002 01:28:52	Bright	45.000	49	1Alp UMi	1.9900	6300.0	90	3449	No
23	GOM_NL__2PRFIN20021028_013231_000000452010_00389_03449_3402.N1	28-OCT-2002 01:32:31	Bright	44.500	60	7Bet UMi	2.0810	3950.0	89	3449	No
24	GOM_NL__2PRFIN20021028_013704_000000492010_00389_03449_3403.N1	28-OCT-2002 01:37:04	Bright	48.500	36	50Alp UMa	1.8000	6300.0	97	3449	No
25	GOM_NL__2PRFIN20021028_013839_000000472010_00389_03449_3404.N1	28-OCT-2002 01:38:39	Bright	47.000	82	48Bet UMa	2.3650	10600.	94	3449	No
26	GOM_NL__2PRFIN20021028_014215_000000452010_00389_03449_3405.N1	28-OCT-2002 01:42:15	Bright	44.500	174	52Psi UMa	3.0040	4400.0	89	3449	No
27	GOM_NL__2PRFIN20021028_014952_000000602010_00389_03449_3406.N1	28-OCT-2002 01:49:52	Bright	60.000	166	17Eps Leo	2.9800	6000.0	120	3449	No
28	GOM_NL__2PRFIN20021028_015219_000002552010_00389_03449_3407.N1	28-OCT-2002 01:52:19	Twilight	255.00	17	78Bet Gem	1.1610	4500.0	510	3449	No
29	GOM_NL__2PRFIN20021028_020213_000000692010_00389_03449_3408.N1	28-OCT-2002 02:02:13	Dark	69.000	48	30Alp Hya	1.9770	4100.0	138	3449	No
30	GOM_NL__2PRFIN20021028_020825_000000432010_00389_03449_3409.N1	28-OCT-2002 02:08:25	Dark	42.500	99	Del Cen	2.5750	26000.	85	3449	No
31	GOM_NL__2PRFIN20021028_021115_000000552010_00389_03449_3410.N1	28-OCT-2002 02:11:15	Dark	54.500	65	Lam Vel	2.2040	4400.0	109	3449	No
32	GOM_NL__2PRFIN20021028_021255_000000442010_00390_03450_2757.N1	28-OCT-2002 02:12:55	Dark	43.500	124	The Car	2.7640	30000.	87	3450	No
33	GOM_NL__2PRFIN20021028_021535_000000442010_00390_03450_2758.N1	28-OCT-2002 02:15:35	Dark	44.000	29	Bet Car	1.6720	10200.	88	3450	No
34	GOM_NL__2PRFIN20021028_021752_000000822010_00390_03450_2759.N1	28-OCT-2002 02:17:52	Dark	81.500	88	31Eta CMa	2.4480	20000.	163	3450	No
35	GOM_NL__2PRFIN20021028_022021_000000582010_00390_03450_2760.N1	28-OCT-2002 02:20:21	Dark	57.500	2	Alp Car	-0.73600	7000.0	115	3450	No
36	GOM_NL__2PRFIN20021028_022633_000000432010_00390_03450_2761.N1	28-OCT-2002 02:26:33	Dark	43.000	143	Alp Hyi	2.8570	7200.0	86	3450	No
37	GOM_NL__2PRFIN20021028_022757_000000522010_00390_03450_2762.N1	28-OCT-2002 02:27:57	Dark	52.000	9	Alp Eri	0.45300	24000.	104	3450	No
38	GOM_NL__2PRFIN20021028_023104_000000522010_00390_03450_2763.N1	28-OCT-2002 02:31:04	Straylight	52.000	157	The1Eri	2.9060	9300.0	104	3450	No
39	GOM_NL__2PRFIN20021028_023245_000000502010_00390_03450_2764.N1	28-OCT-2002 02:32:45	Straylight	50.000	84	Alp Phe	2.3970	4500.0	100	3450	No
40	GOM_NL__2PRFIN20021028_023919_000000492010_00390_03450_2765.N1	28-OCT-2002 02:39:19	Straylight	48.500	52	16Bet Cet	2.0370	4500.0	97	3450	No
41	GOM_NL__2PRFIN20021028_024613_000000822010_00390_03450_2766.N1	28-OCT-2002 02:46:13	Bright	81.500	94	92Alp Cet	2.5260	3100.0	163	3450	No
42	GOM_NL__2PRFIN20021028_024848_000000432010_00390_03450_2767.N1	28-OCT-2002 02:48:48	Bright	42.500	140	88Gam Peg	2.8340	26000.	85	3450	No



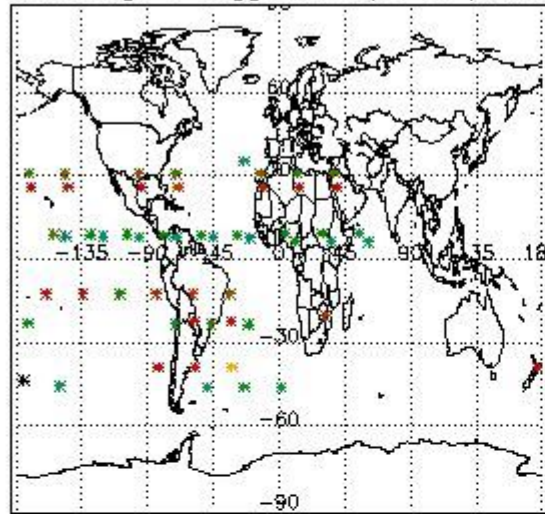




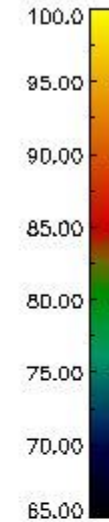
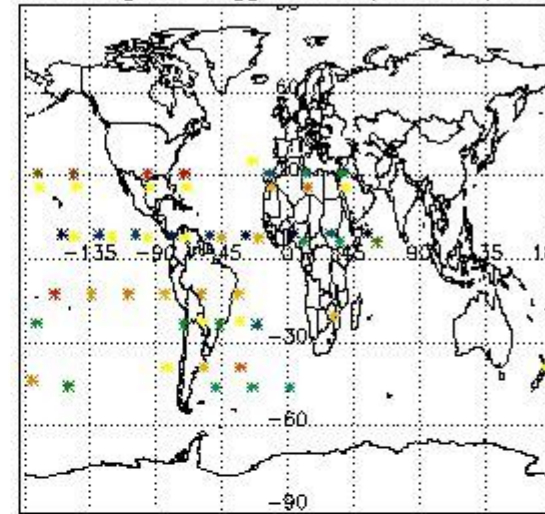


3.2 Plot quality information per product (world map)

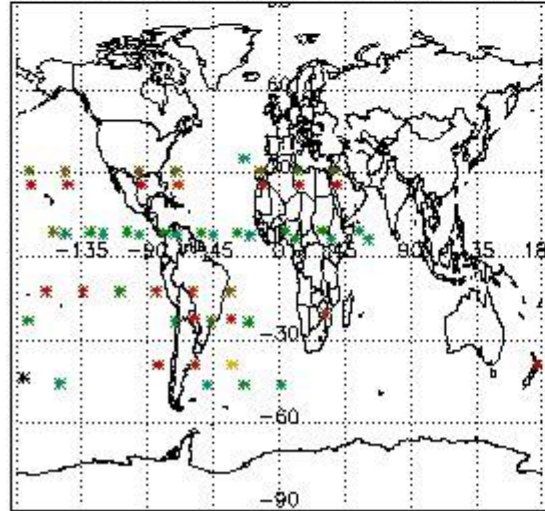
Percentage of flagged data per O3 profile



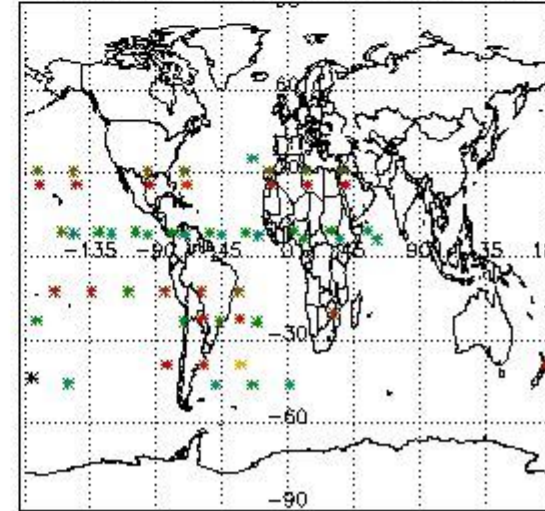
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

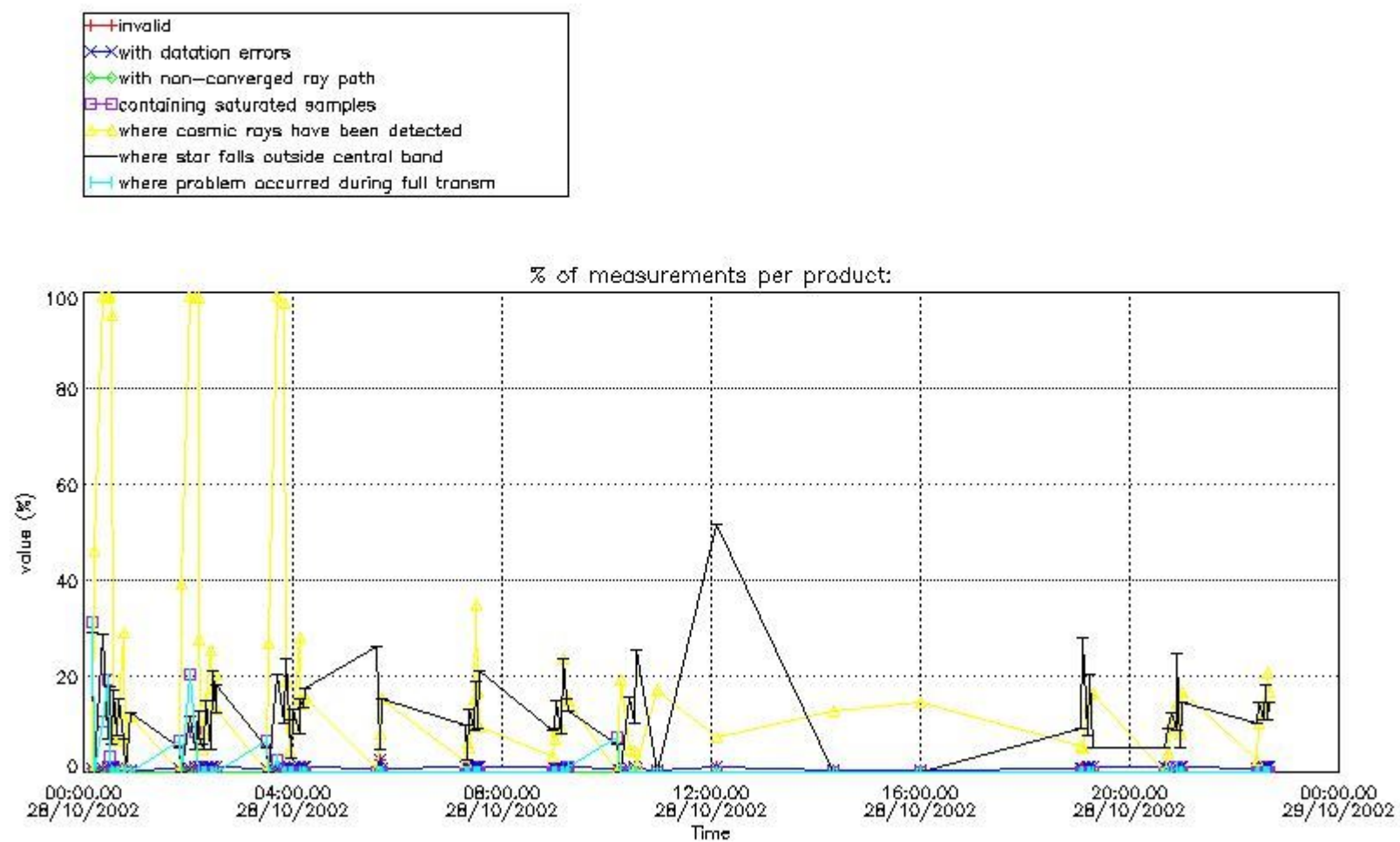


#### 4. Level 1 quality information per product

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.

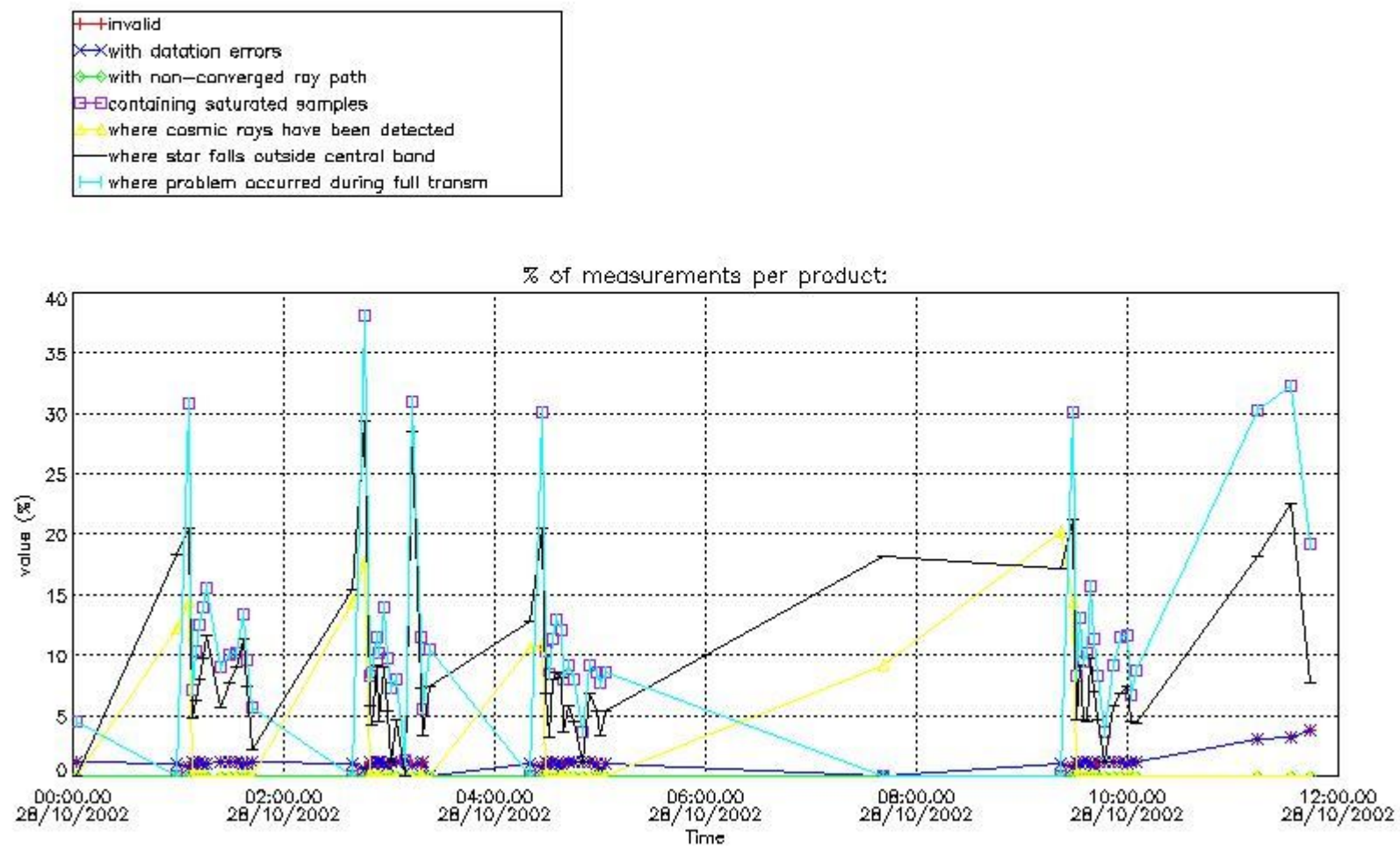
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

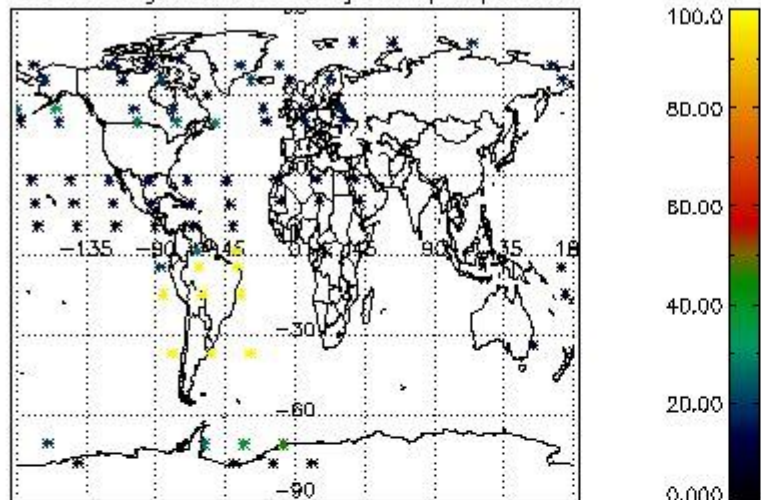




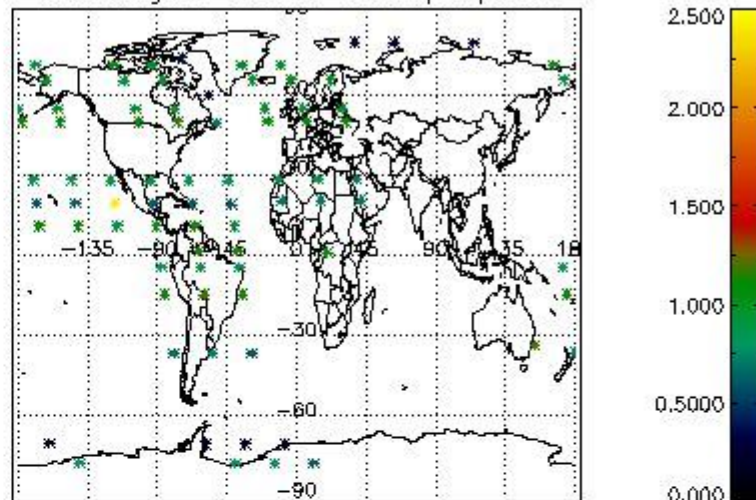
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

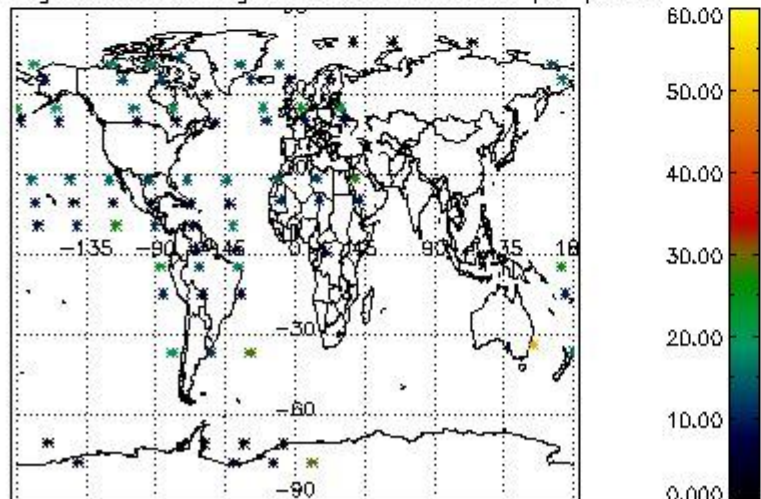
Percentage of cosmic ray hits per profile



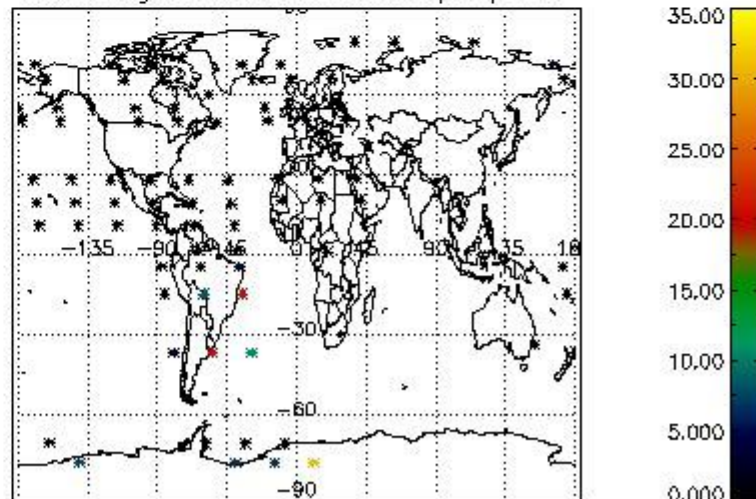
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

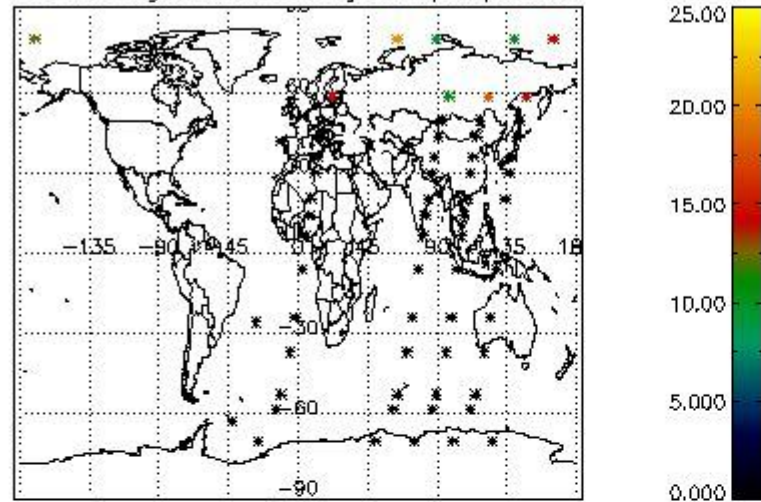


Percentage of saturation errors per profile

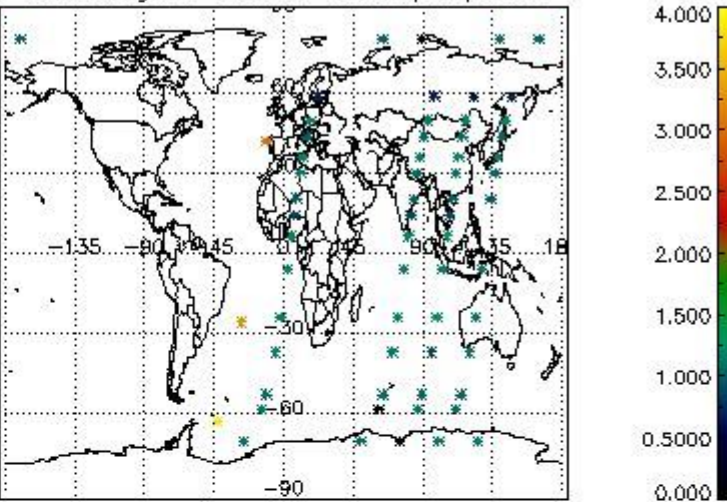


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

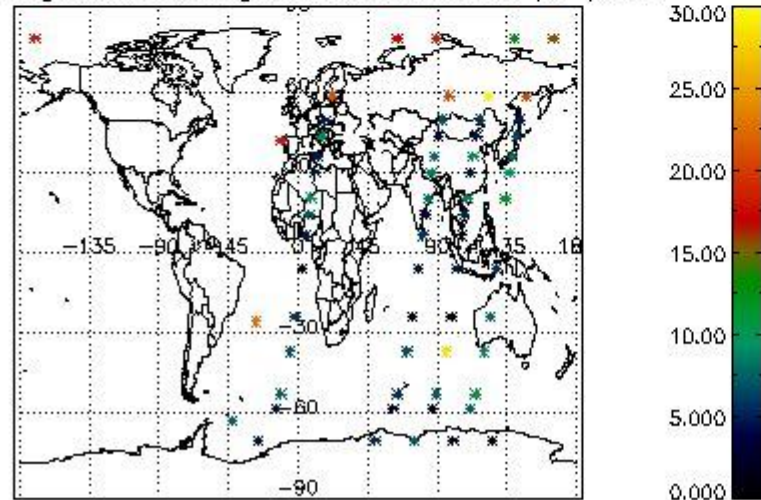
Percentage of cosmic ray hits per profile



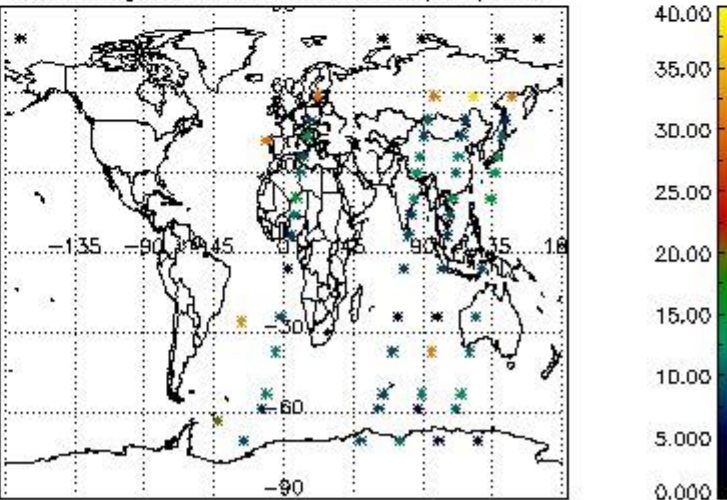
Percentage of datation errors per profile



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

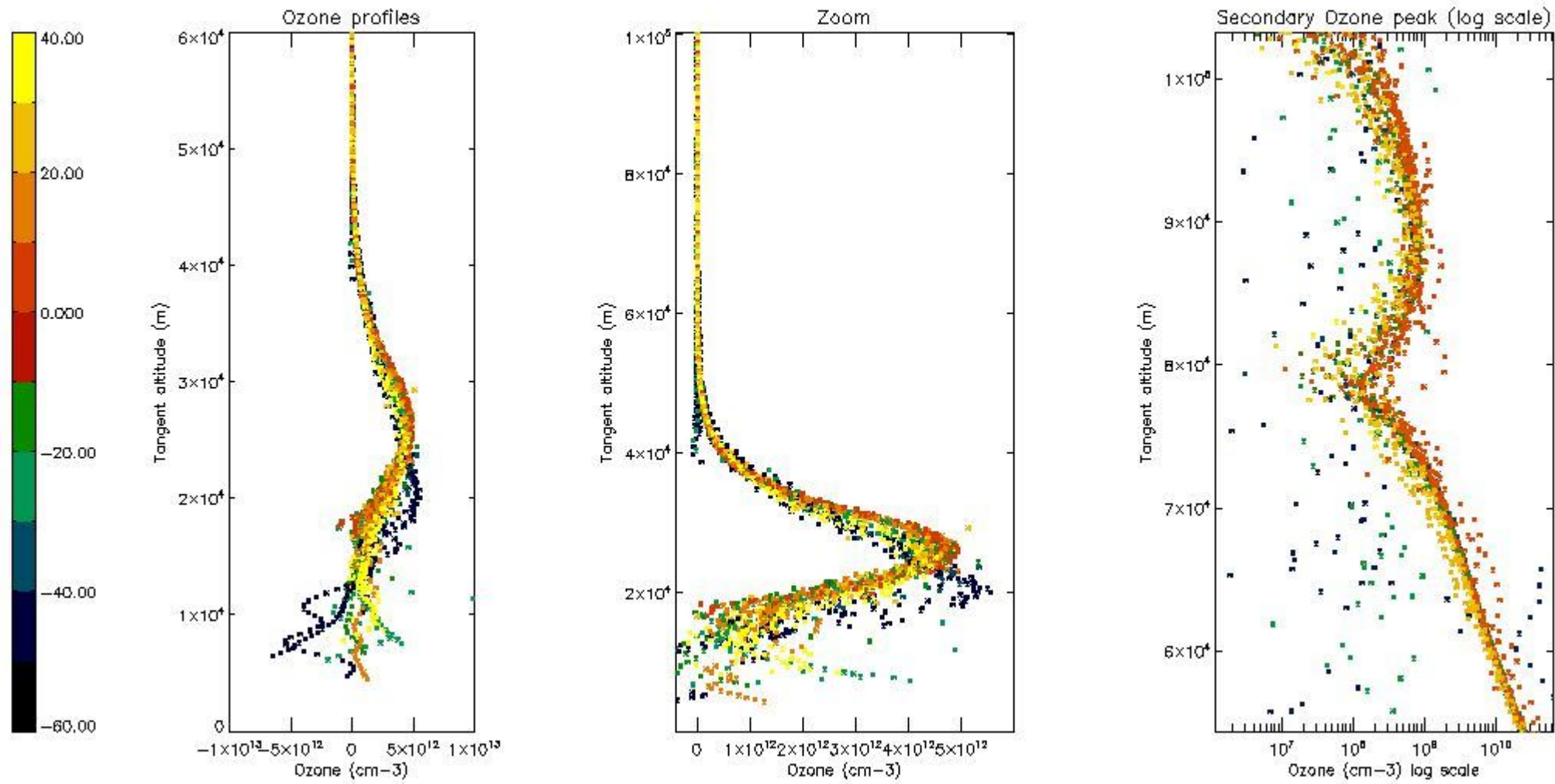
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	36
STD < 20	19

STD < 10	17
STD < 5	13

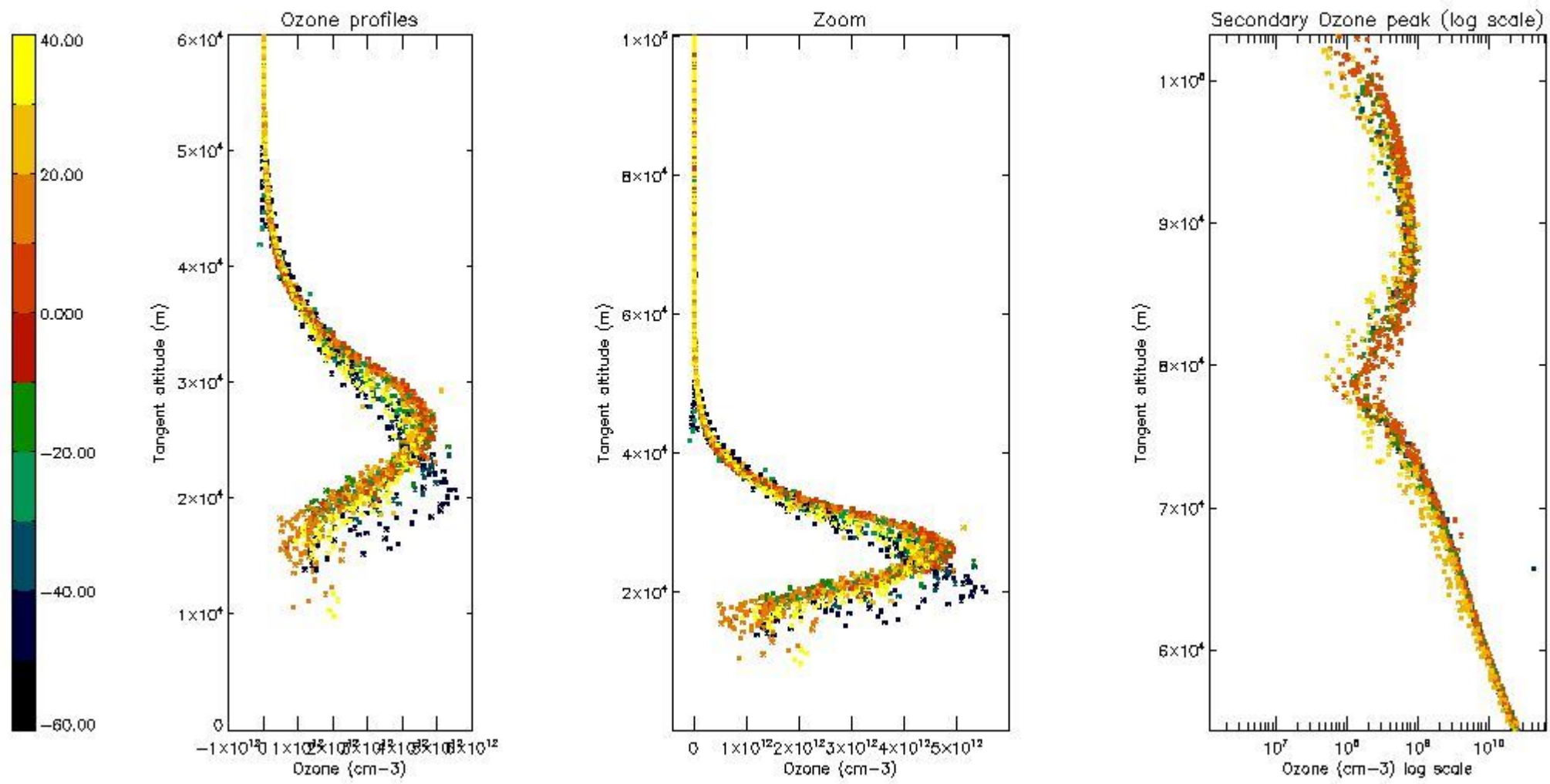
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



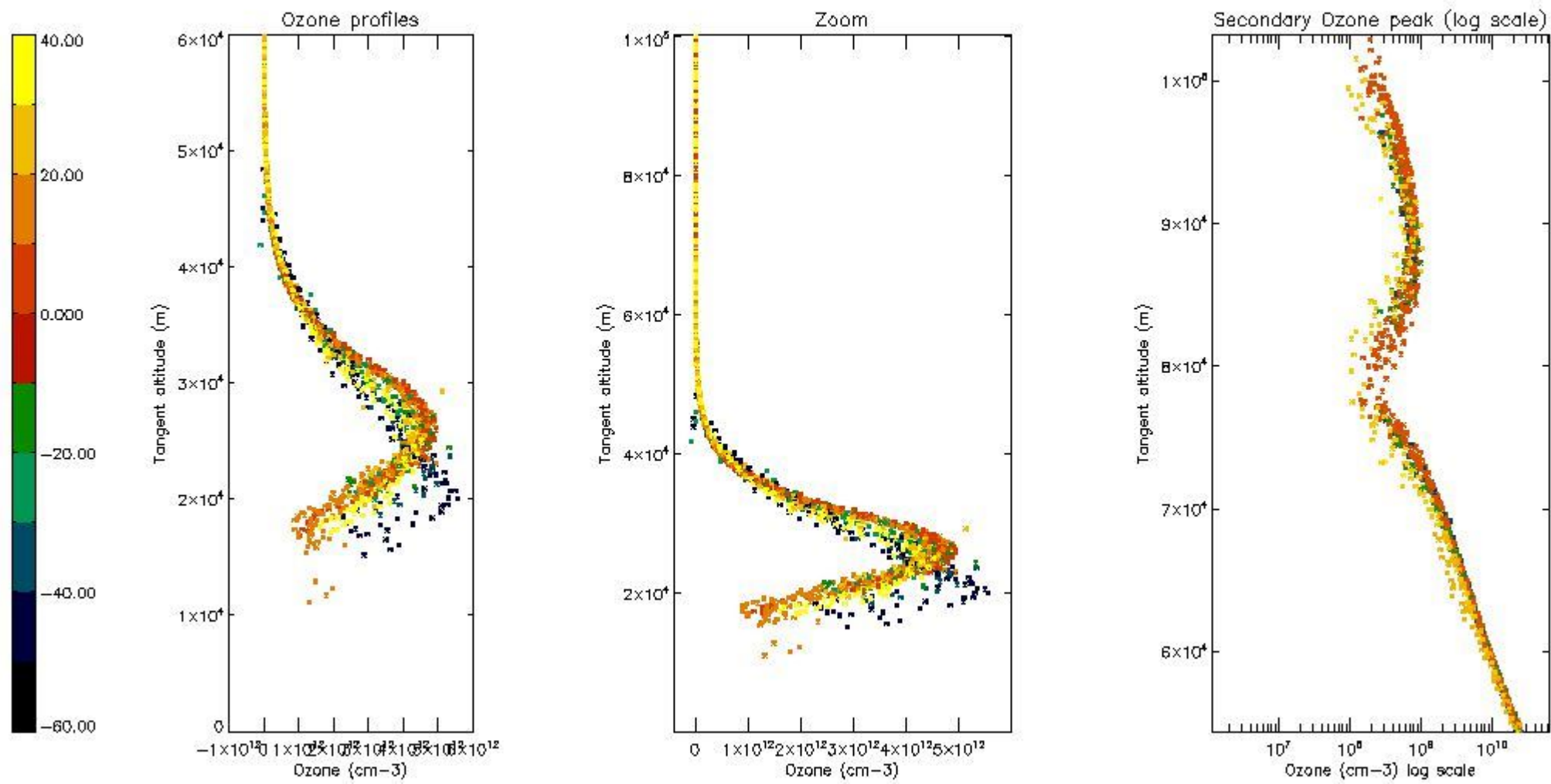
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



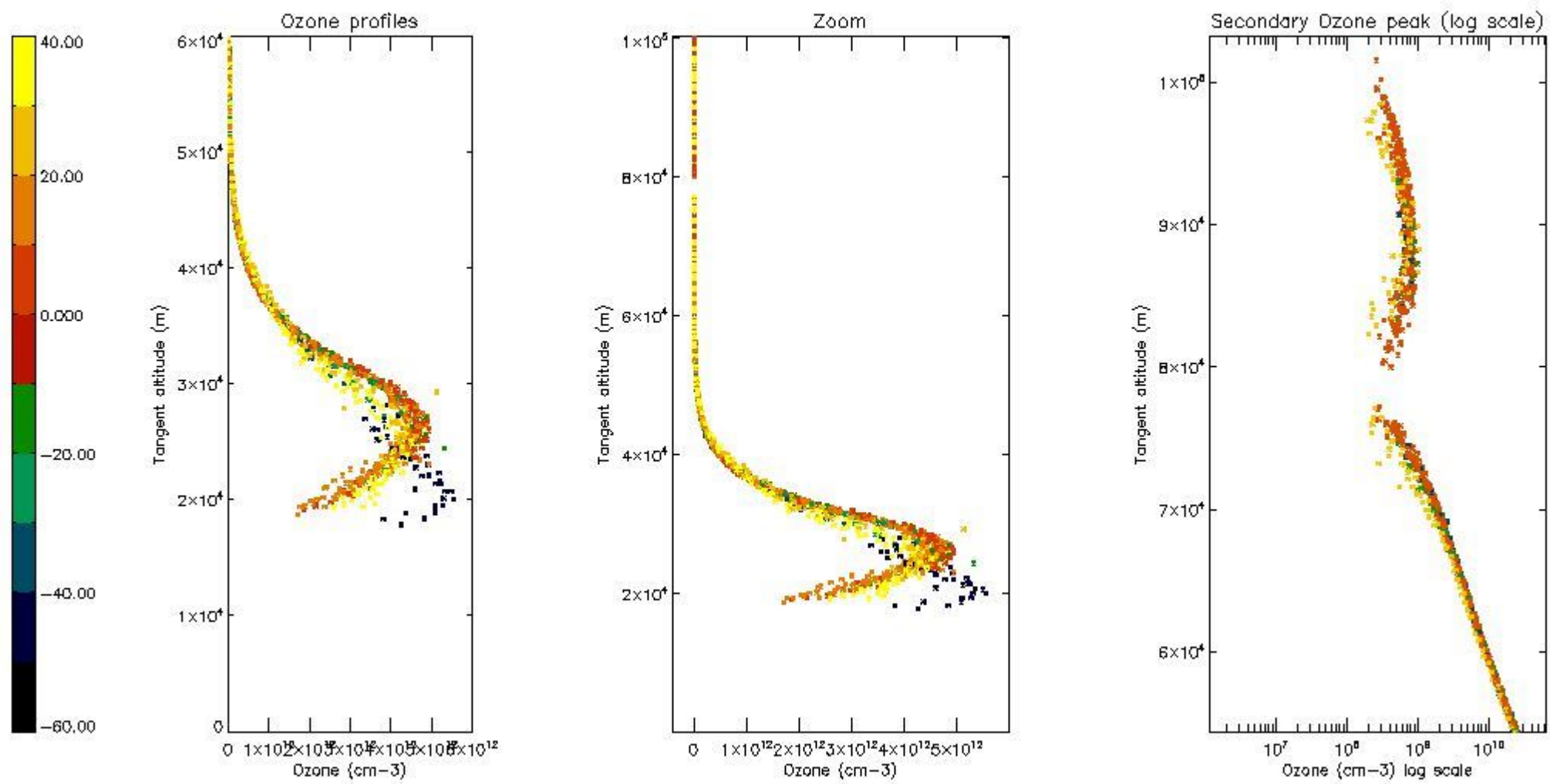
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



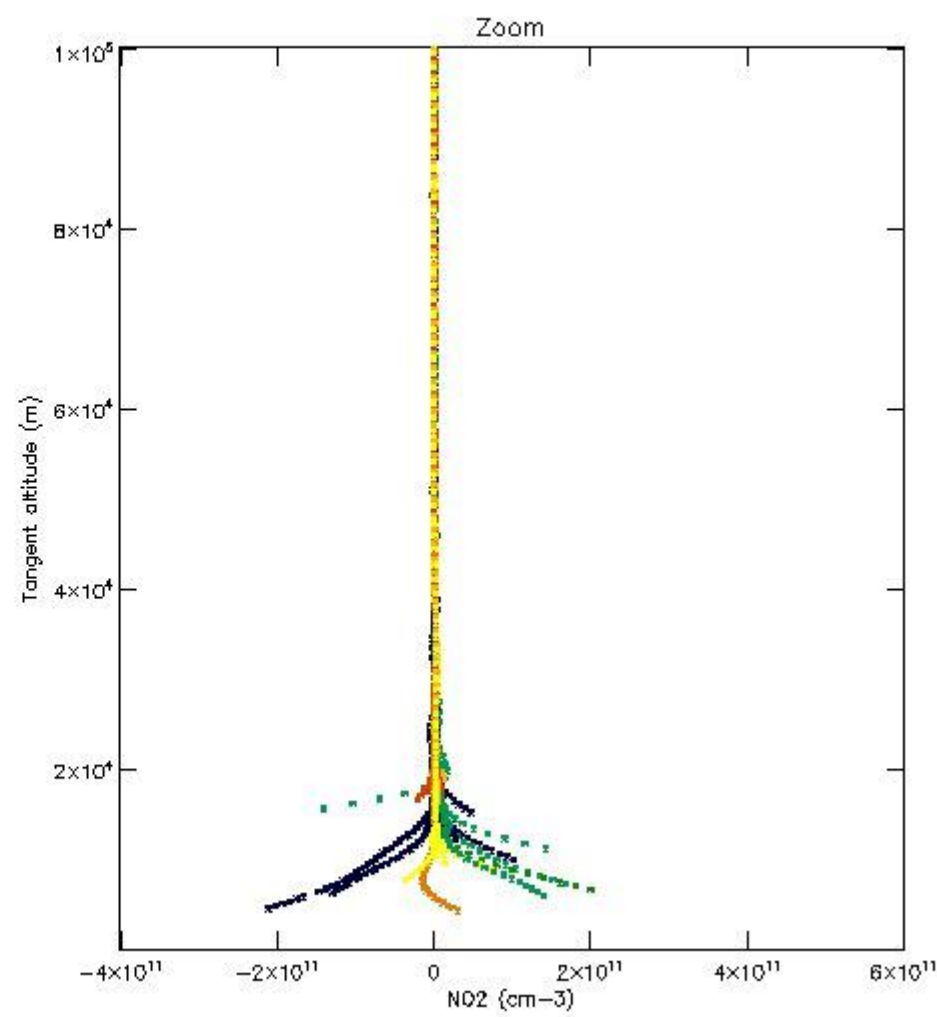
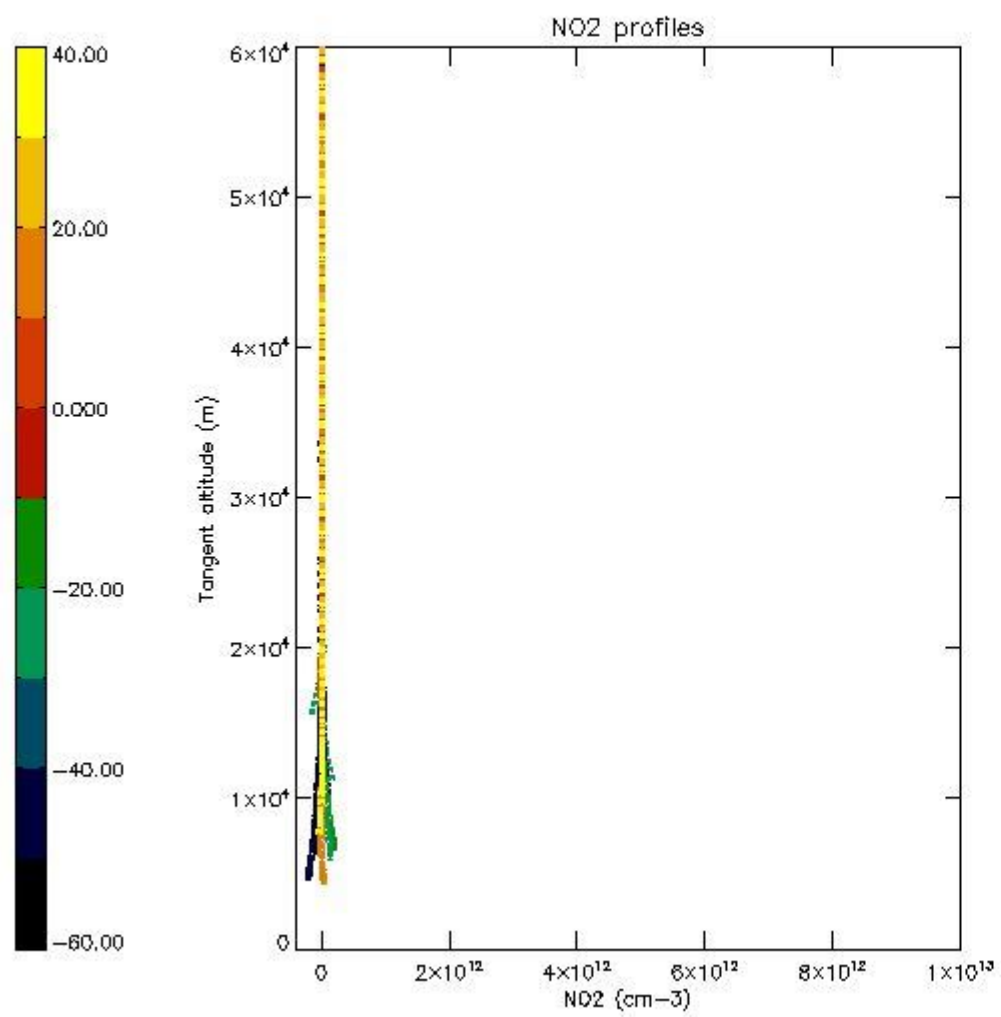
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

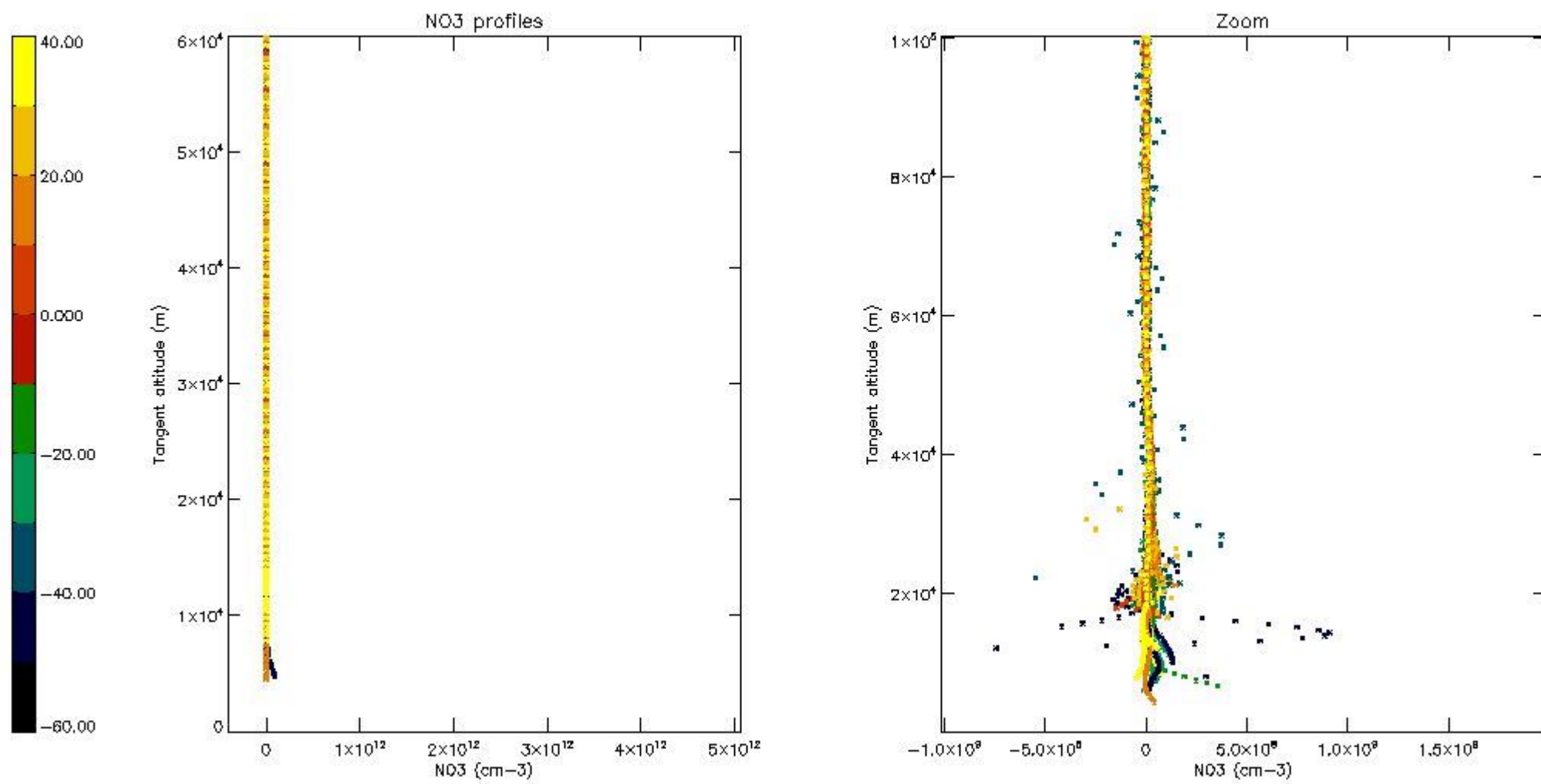
The colorbar represents the latitude.



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

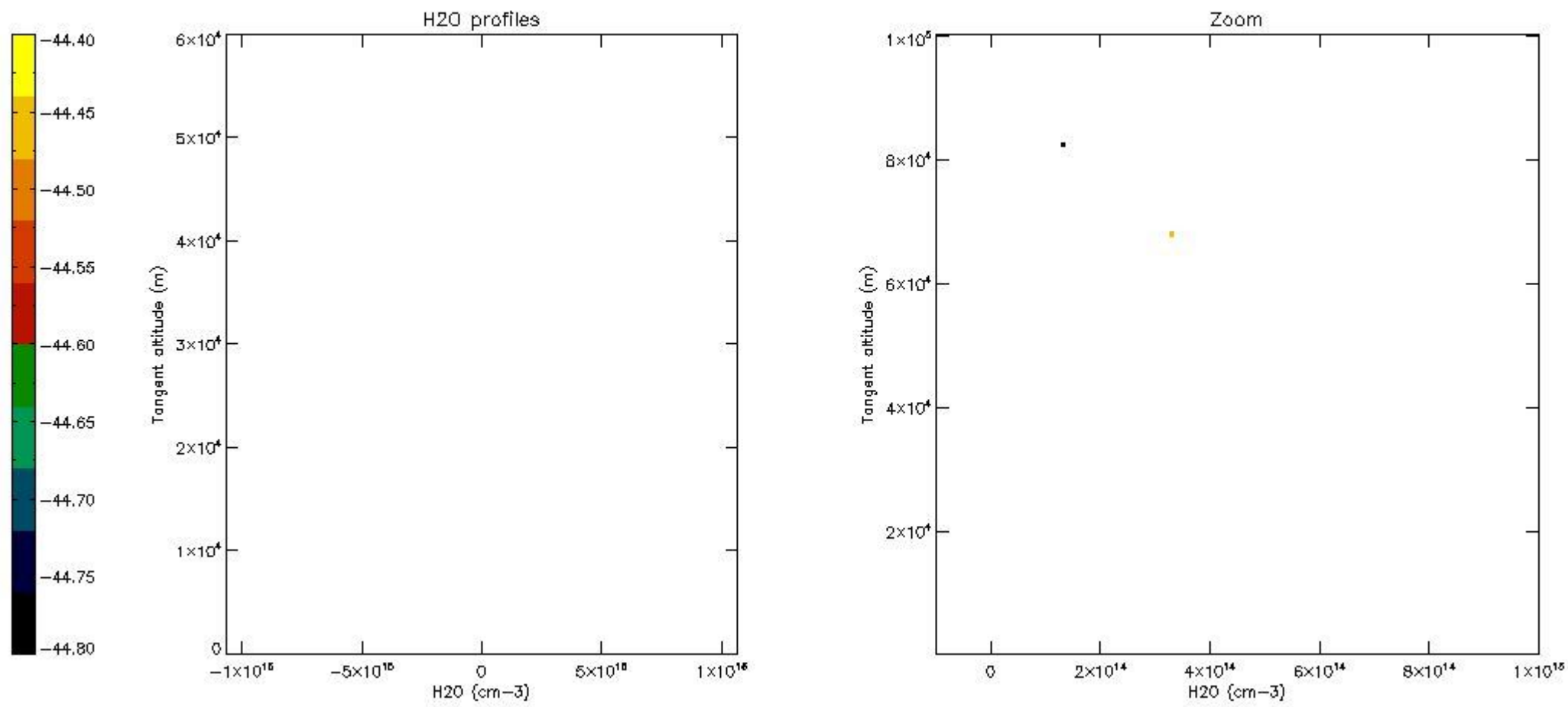
The colorbar represents the latitude.





*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	28-OCT-2002 00:01:39
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-OCT-2002 00:01:39
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-OCT-2002 00:01:39

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### [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](#)

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

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

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Nb of prods with errors	64

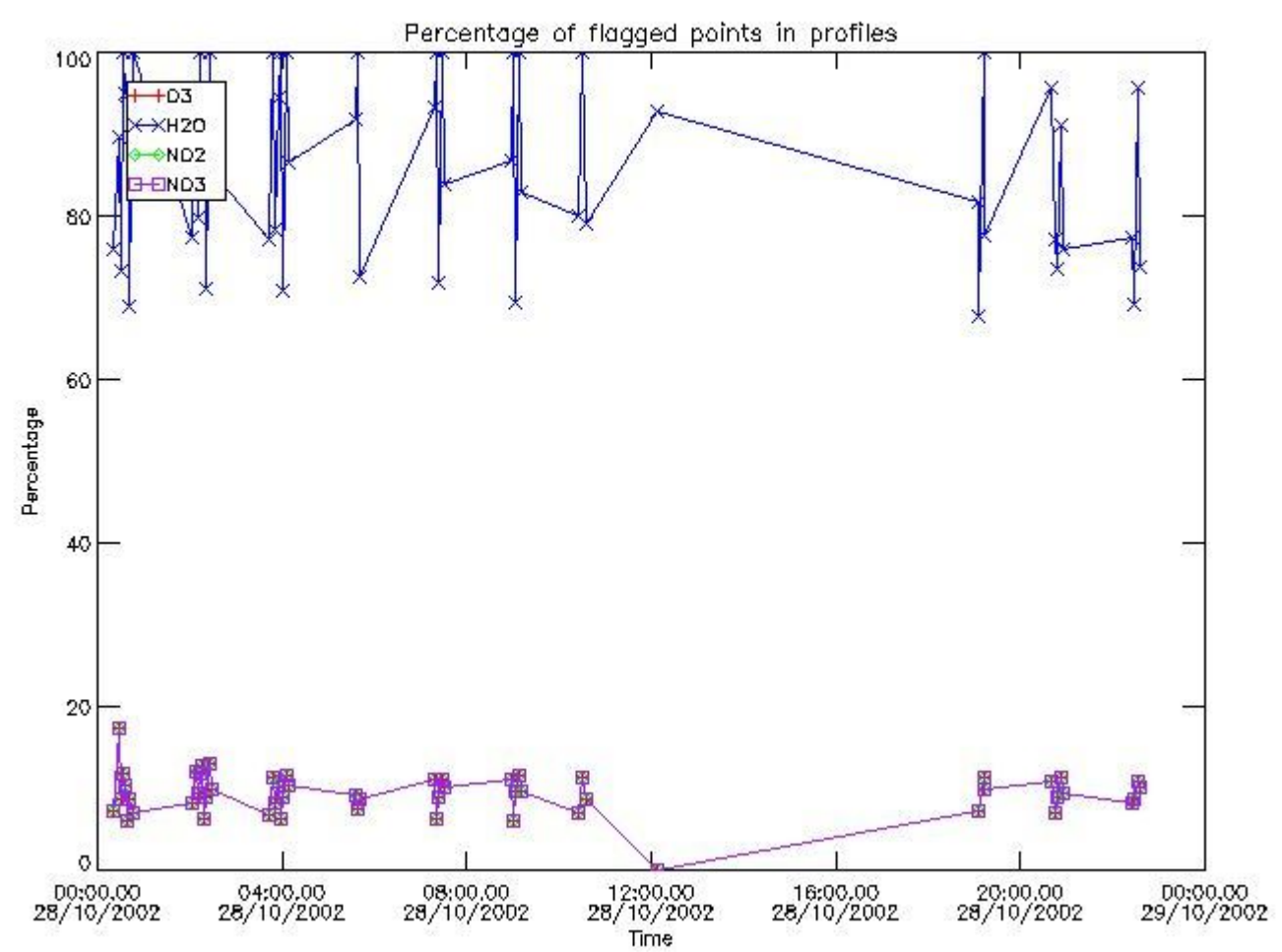
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1	GOM_NL__2PRFIN20021028_000139_000000442010_00388_03448_3408.N1	28-OCT-2002 00:01:39	Bright	44.000	174	52Psi UMa	3.0040	4400.0	88	3448	No
2	GOM_NL__2PRFIN20021028_000915_000000822010_00388_03448_3409.N1	28-OCT-2002 00:09:15	Bright	82.000	166	17Eps Leo	2.9800	6000.0	164	3448	No
3	GOM_NL__2PRFIN20021028_001141_000002552010_00388_03448_3410.N1	28-OCT-2002 00:11:41	Twilight	255.00	17	78Bet Gem	1.1610	4500.0	510	3448	No
4	GOM_NL__2PRFIN20021028_002137_000000862010_00388_03448_3411.N1	28-OCT-2002 00:21:37	Dark	85.500	48	30Alp Hya	1.9770	4100.0	171	3448	No
5	GOM_NL__2PRFIN20021028_002749_000000442010_00388_03448_3412.N1	28-OCT-2002 00:27:49	Dark	44.000	99	Del Cen	2.5750	26000.	88	3448	No
6	GOM_NL__2PRFIN20021028_003038_000000592010_00388_03448_3413.N1	28-OCT-2002 00:30:38	Dark	58.500	65	Lam Vel	2.2040	4400.0	117	3448	No
7	GOM_NL__2PRFIN20021028_003219_000000442010_00389_03449_9420.N1	28-OCT-2002 00:32:19	Dark	43.500	124	The Car	2.7640	30000.	87	3449	No
8	GOM_NL__2PRFIN20021028_003459_000000502010_00389_03449_9421.N1	28-OCT-2002 00:34:59	Dark	49.500	29	Bet Car	1.6720	10200.	99	3449	No
9	GOM_NL__2PRFIN20021028_003714_000000852010_00389_03449_9422.N1	28-OCT-2002 00:37:14	Dark	84.500	88	31Eta CMa	2.4480	20000.	169	3449	No
10	GOM_NL__2PRFIN20021028_003944_000000592010_00389_03449_9423.N1	28-OCT-2002 00:39:44	Dark	58.500	2	Alp Car	-0.73600	7000.0	117	3449	No
11	GOM_NL__2PRFIN20021028_004550_000000742010_00389_03449_9424.N1	28-OCT-2002 00:45:50	Dark	74.000	108	Alp Col	2.6520	15200.	148	3449	No
12	GOM_NL__2PRFIN20021028_004850_000002202010_00389_03449_9425.N1	28-OCT-2002 00:48:50	Straylight	220.00	1	9Alp CMa	-1.4400	11000.	440	3449	No
13	GOM_NL__2PRFIN20021028_005303_000001342010_00389_03449_9426.N1	28-OCT-2002 00:53:03	Straylight	133.50	139	9Bet Lep	2.8330	5600.0	267	3449	No
14	GOM_NL__2PRFIN20021028_005843_000000492010_00389_03449_3393.N1	28-OCT-2002 00:58:43	Straylight	49.000	52	16Bet Cet	2.0370	4500.0	98	3449	No
15	GOM_NL__2PRFIN20021028_010537_000000732010_00389_03449_3394.N1	28-OCT-2002 01:05:37	Bright	73.000	94	92Alp Cet	2.5260	3100.0	146	3449	No
16	GOM_NL__2PRFIN20021028_010811_000000422010_00389_03449_3395.N1	28-OCT-2002 01:08:11	Bright	42.000	140	88Gam Peg	2.8340	26000.	84	3449	No
17	GOM_NL__2PRFIN20021028_010953_000000492010_00389_03449_3396.N1	28-OCT-2002 01:09:53	Bright	48.500	105	6Bet Ari	2.6450	8900.0	97	3449	No
18	GOM_NL__2PRFIN20021028_011204_000000442010_00389_03449_3397.N1	28-OCT-2002 01:12:04	Bright	44.000	58	21Alp And	2.0730	11000.	88	3449	No
19	GOM_NL__2PRFIN20021028_011347_000000472010_00389_03449_3398.N1	28-OCT-2002 01:13:47	Bright	46.500	53	43Bet And	2.0480	3300.0	93	3449	No
20	GOM_NL__2PRFIN20021028_011628_000000522010_00389_03449_3399.N1	28-OCT-2002 01:16:28	Bright	51.500	73	57Gam1And	2.2600	13100.	103	3449	No
21	GOM_NL__2PRFIN20021028_012350_000000452010_00389_03449_3400.N1	28-OCT-2002 01:23:50	Bright	44.500	89	5Alp Cep	2.4510	8000.0	89	3449	No
22	GOM_NL__2PRFIN20021028_012852_000000452010_00389_03449_3401.N1	28-OCT-2002 01:28:52	Bright	45.000	49	1Alp UMi	1.9900	6300.0	90	3449	No
23	GOM_NL__2PRFIN20021028_013231_000000452010_00389_03449_3402.N1	28-OCT-2002 01:32:31	Bright	44.500	60	7Bet UMi	2.0810	3950.0	89	3449	No
24	GOM_NL__2PRFIN20021028_013704_000000492010_00389_03449_3403.N1	28-OCT-2002 01:37:04	Bright	48.500	36	50Alp UMa	1.8000	6300.0	97	3449	No
25	GOM_NL__2PRFIN20021028_013839_000000472010_00389_03449_3404.N1	28-OCT-2002 01:38:39	Bright	47.000	82	48Bet UMa	2.3650	10600.	94	3449	No
26	GOM_NL__2PRFIN20021028_014215_000000452010_00389_03449_3405.N1	28-OCT-2002 01:42:15	Bright	44.500	174	52Psi UMa	3.0040	4400.0	89	3449	No
27	GOM_NL__2PRFIN20021028_014952_000000602010_00389_03449_3406.N1	28-OCT-2002 01:49:52	Bright	60.000	166	17Eps Leo	2.9800	6000.0	120	3449	No
28	GOM_NL__2PRFIN20021028_015219_000002552010_00389_03449_3407.N1	28-OCT-2002 01:52:19	Twilight	255.00	17	78Bet Gem	1.1610	4500.0	510	3449	No
29	GOM_NL__2PRFIN20021028_020213_000000692010_00389_03449_3408.N1	28-OCT-2002 02:02:13	Dark	69.000	48	30Alp Hya	1.9770	4100.0	138	3449	No
30	GOM_NL__2PRFIN20021028_020825_000000432010_00389_03449_3409.N1	28-OCT-2002 02:08:25	Dark	42.500	99	Del Cen	2.5750	26000.	85	3449	No
31	GOM_NL__2PRFIN20021028_021115_000000552010_00389_03449_3410.N1	28-OCT-2002 02:11:15	Dark	54.500	65	Lam Vel	2.2040	4400.0	109	3449	No
32	GOM_NL__2PRFIN20021028_021255_000000442010_00390_03450_2757.N1	28-OCT-2002 02:12:55	Dark	43.500	124	The Car	2.7640	30000.	87	3450	No
33	GOM_NL__2PRFIN20021028_021535_000000442010_00390_03450_2758.N1	28-OCT-2002 02:15:35	Dark	44.000	29	Bet Car	1.6720	10200.	88	3450	No
34	GOM_NL__2PRFIN20021028_021752_000000822010_00390_03450_2759.N1	28-OCT-2002 02:17:52	Dark	81.500	88	31Eta CMa	2.4480	20000.	163	3450	No
35	GOM_NL__2PRFIN20021028_022021_000000582010_00390_03450_2760.N1	28-OCT-2002 02:20:21	Dark	57.500	2	Alp Car	-0.73600	7000.0	115	3450	No
36	GOM_NL__2PRFIN20021028_022633_000000432010_00390_03450_2761.N1	28-OCT-2002 02:26:33	Dark	43.000	143	Alp Hyi	2.8570	7200.0	86	3450	No
37	GOM_NL__2PRFIN20021028_022757_000000522010_00390_03450_2762.N1	28-OCT-2002 02:27:57	Dark	52.000	9	Alp Eri	0.45300	24000.	104	3450	No
38	GOM_NL__2PRFIN20021028_023104_000000522010_00390_03450_2763.N1	28-OCT-2002 02:31:04	Straylight	52.000	157	The1Eri	2.9060	9300.0	104	3450	No
39	GOM_NL__2PRFIN20021028_023245_000000502010_00390_03450_2764.N1	28-OCT-2002 02:32:45	Straylight	50.000	84	Alp Phe	2.3970	4500.0	100	3450	No
40	GOM_NL__2PRFIN20021028_023919_000000492010_00390_03450_2765.N1	28-OCT-2002 02:39:19	Straylight	48.500	52	16Bet Cet	2.0370	4500.0	97	3450	No
41	GOM_NL__2PRFIN20021028_024613_000000822010_00390_03450_2766.N1	28-OCT-2002 02:46:13	Bright	81.500	94	92Alp Cet	2.5260	3100.0	163	3450	No
42	GOM_NL__2PRFIN20021028_024848_000000432010_00390_03450_2767.N1	28-OCT-2002 02:48:48	Bright	42.500	140	88Gam Peg	2.8340	26000.	85	3450	No





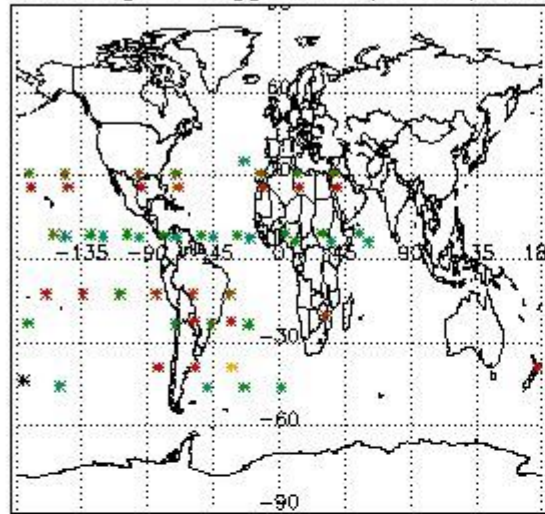




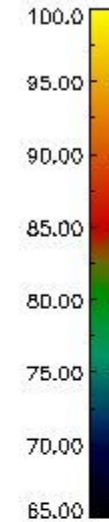
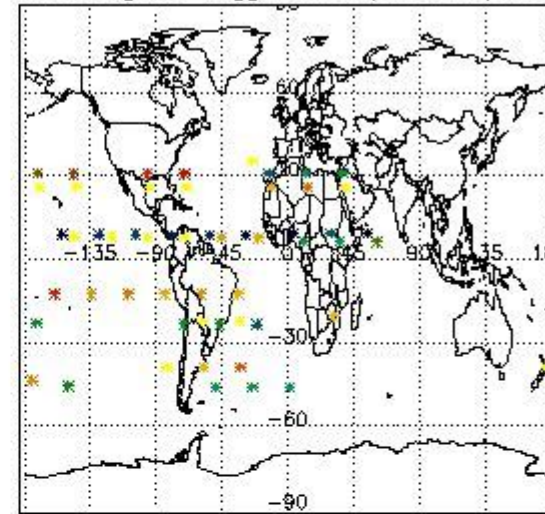
*3.2 Plot quality information per product (world map)*



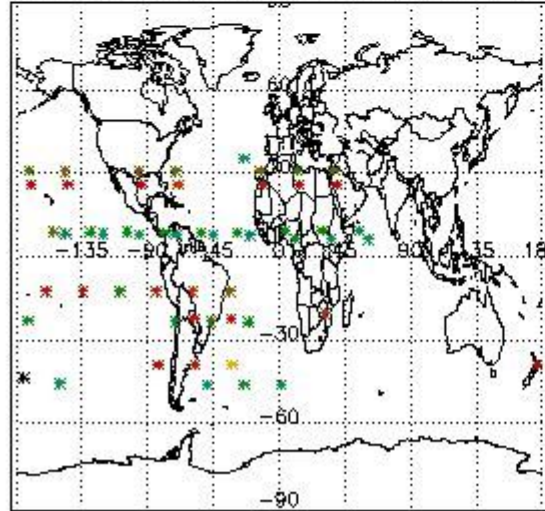
Percentage of flagged data per O3 profile



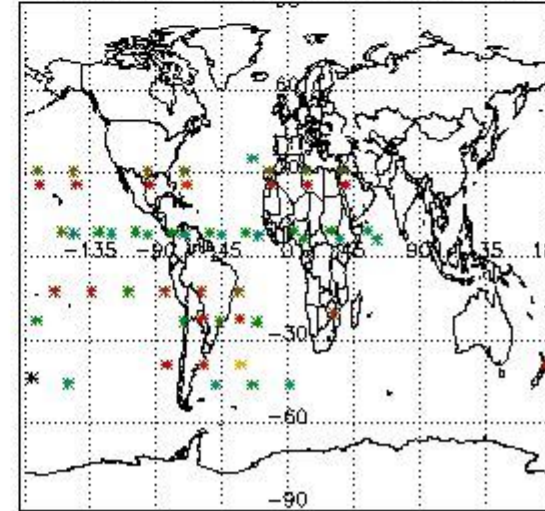
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

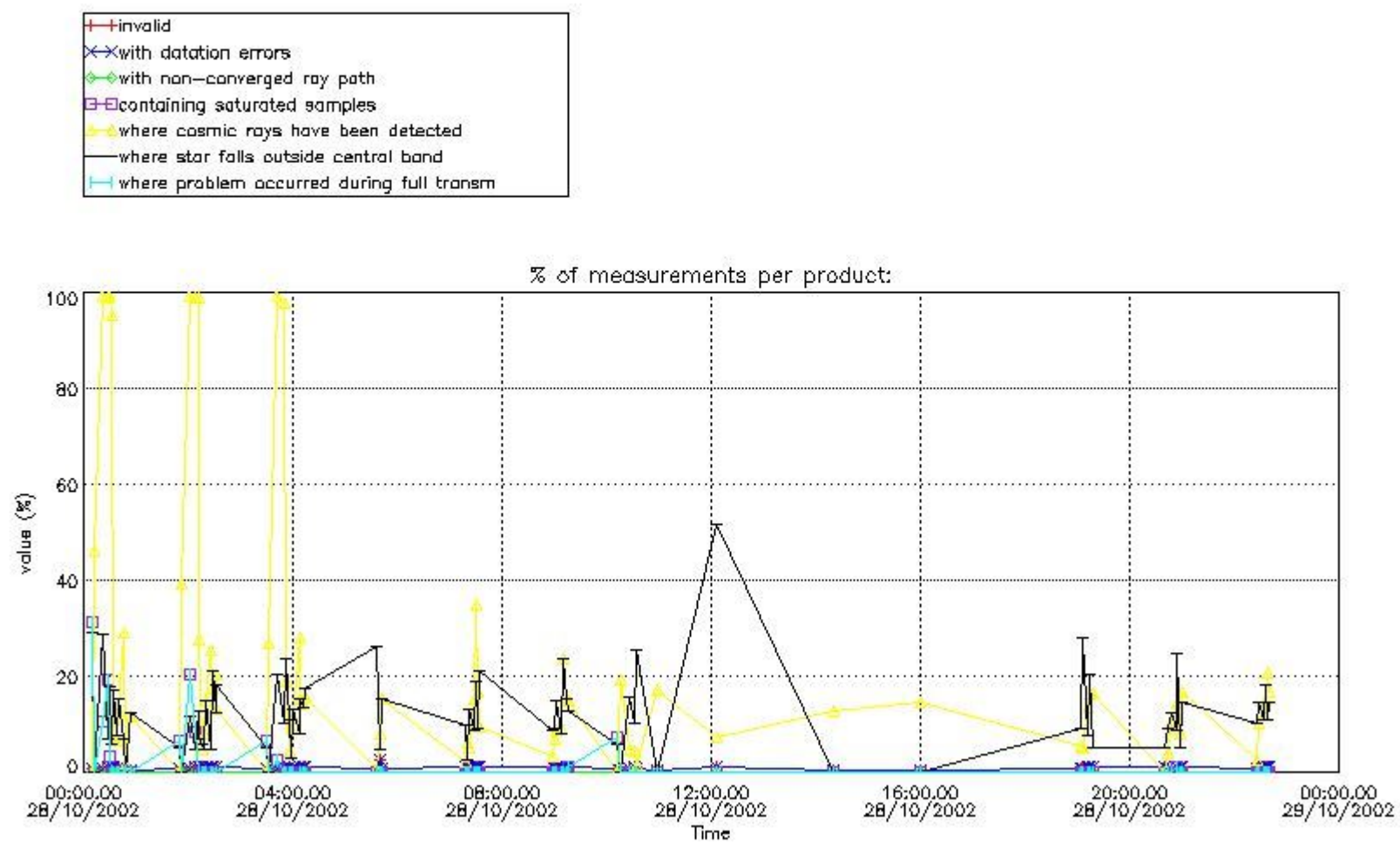


#### 4. Level 1 quality information per product

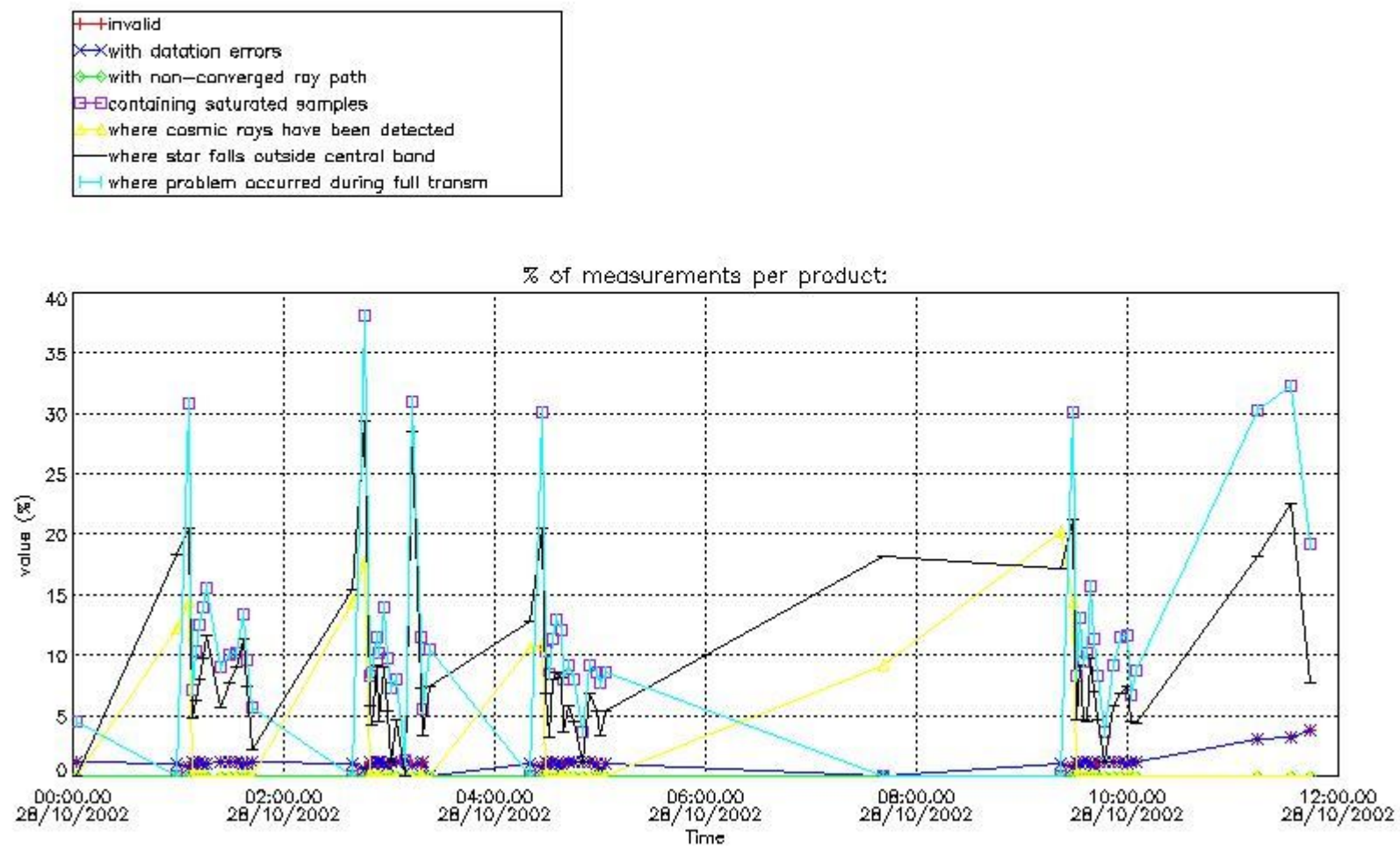
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



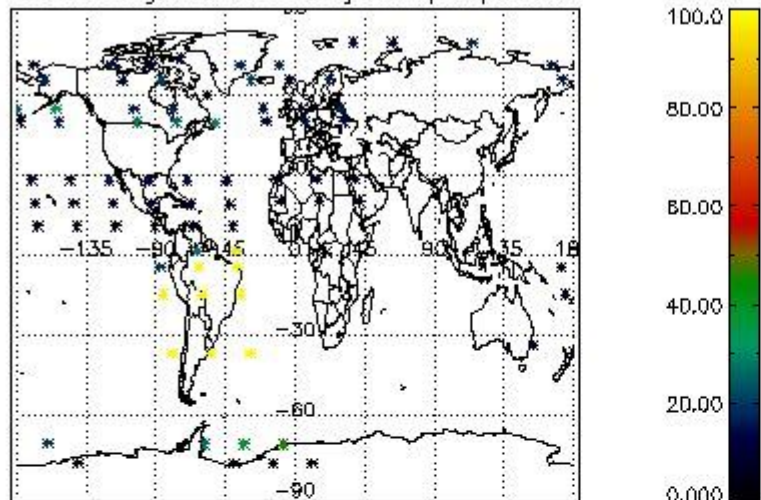
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



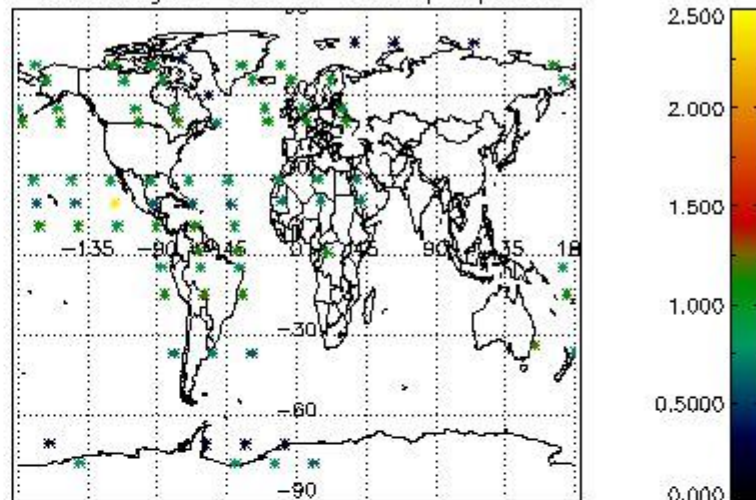
4.2 Plot quality information per product coming from level 1b processing (world map)

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

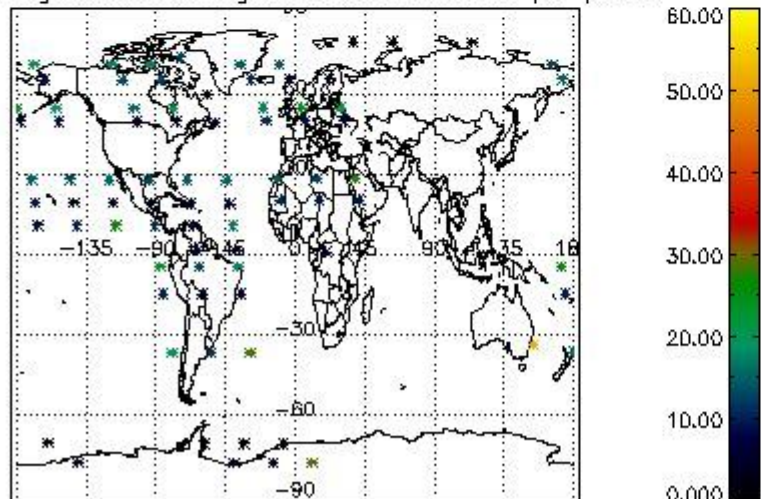
Percentage of cosmic ray hits per profile



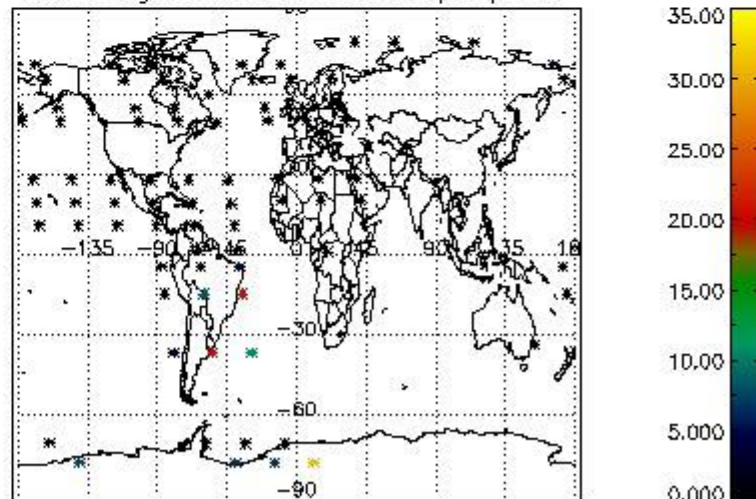
Percentage of datation errors per profile



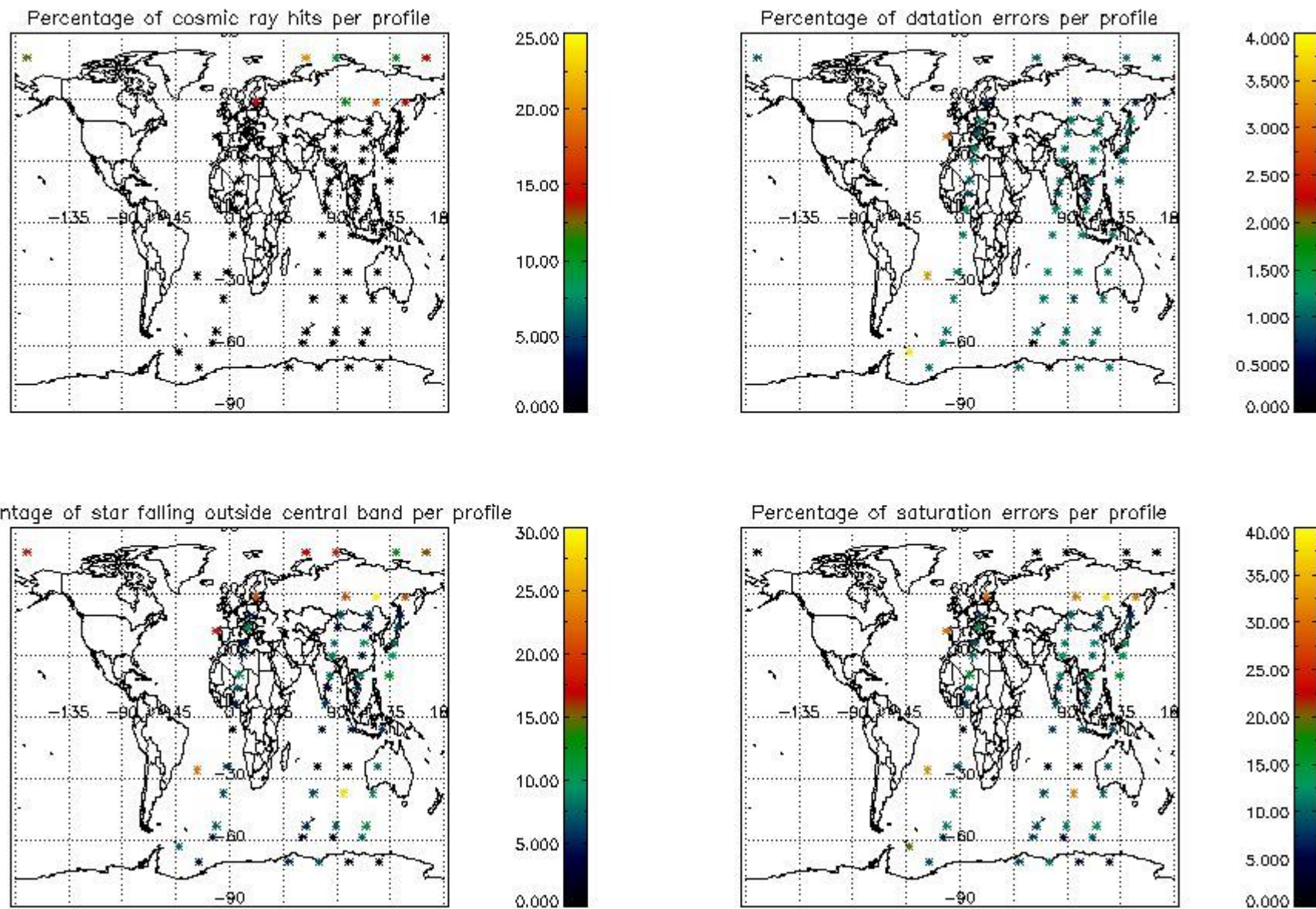
Percentage of star falling outside central band per profile



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

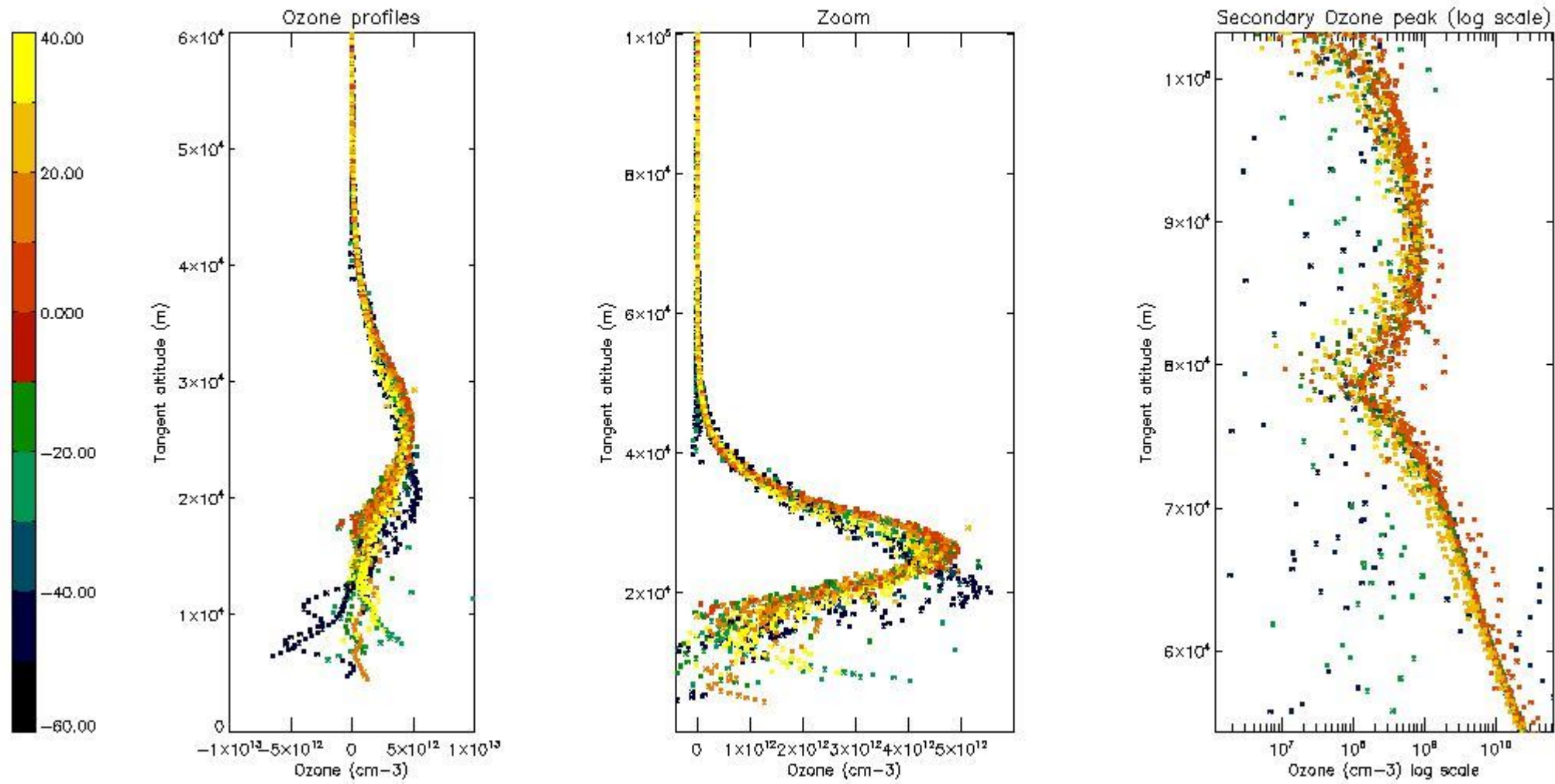
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	36
STD < 20	19

STD < 10	17
STD < 5	13

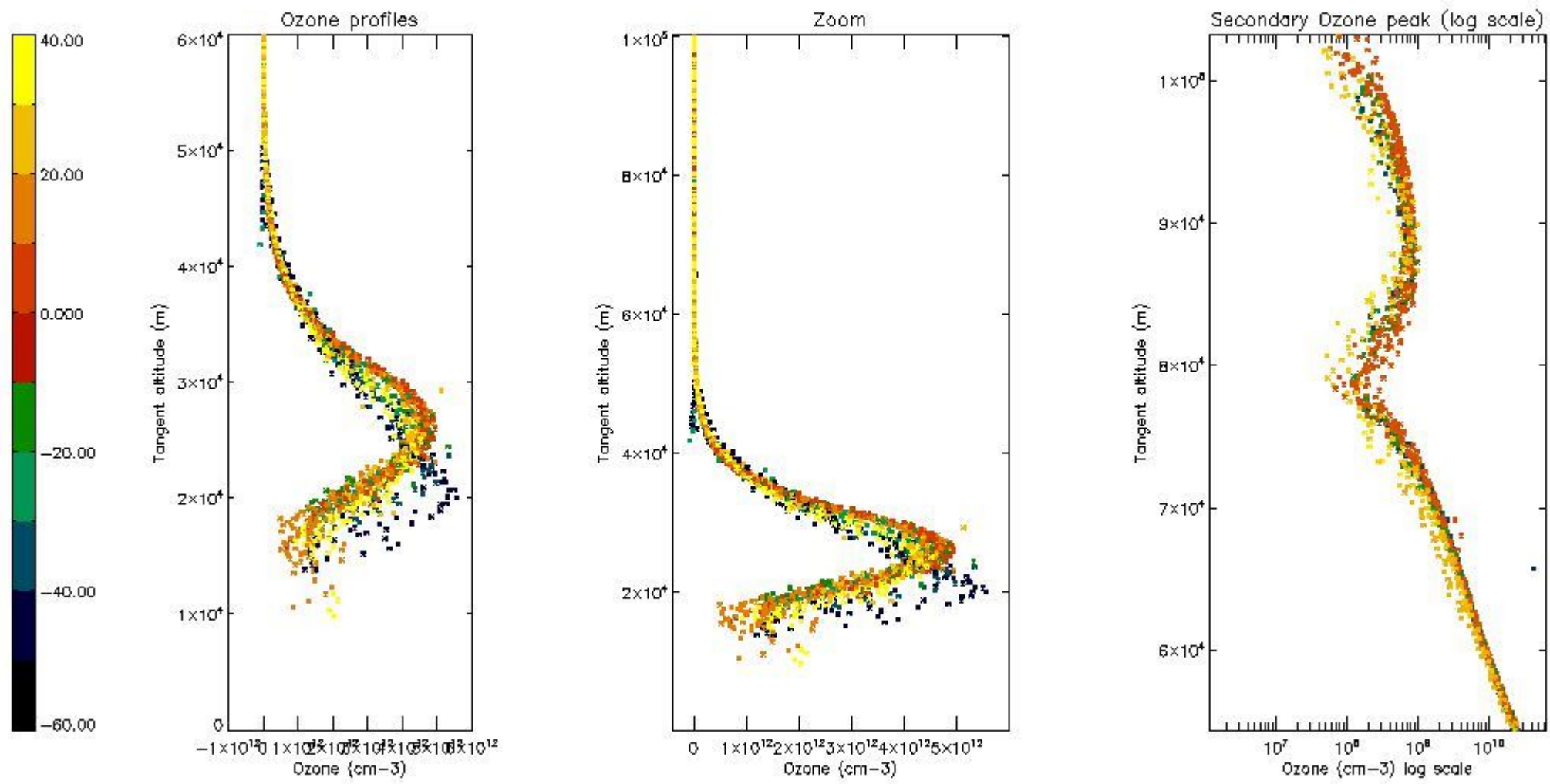
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



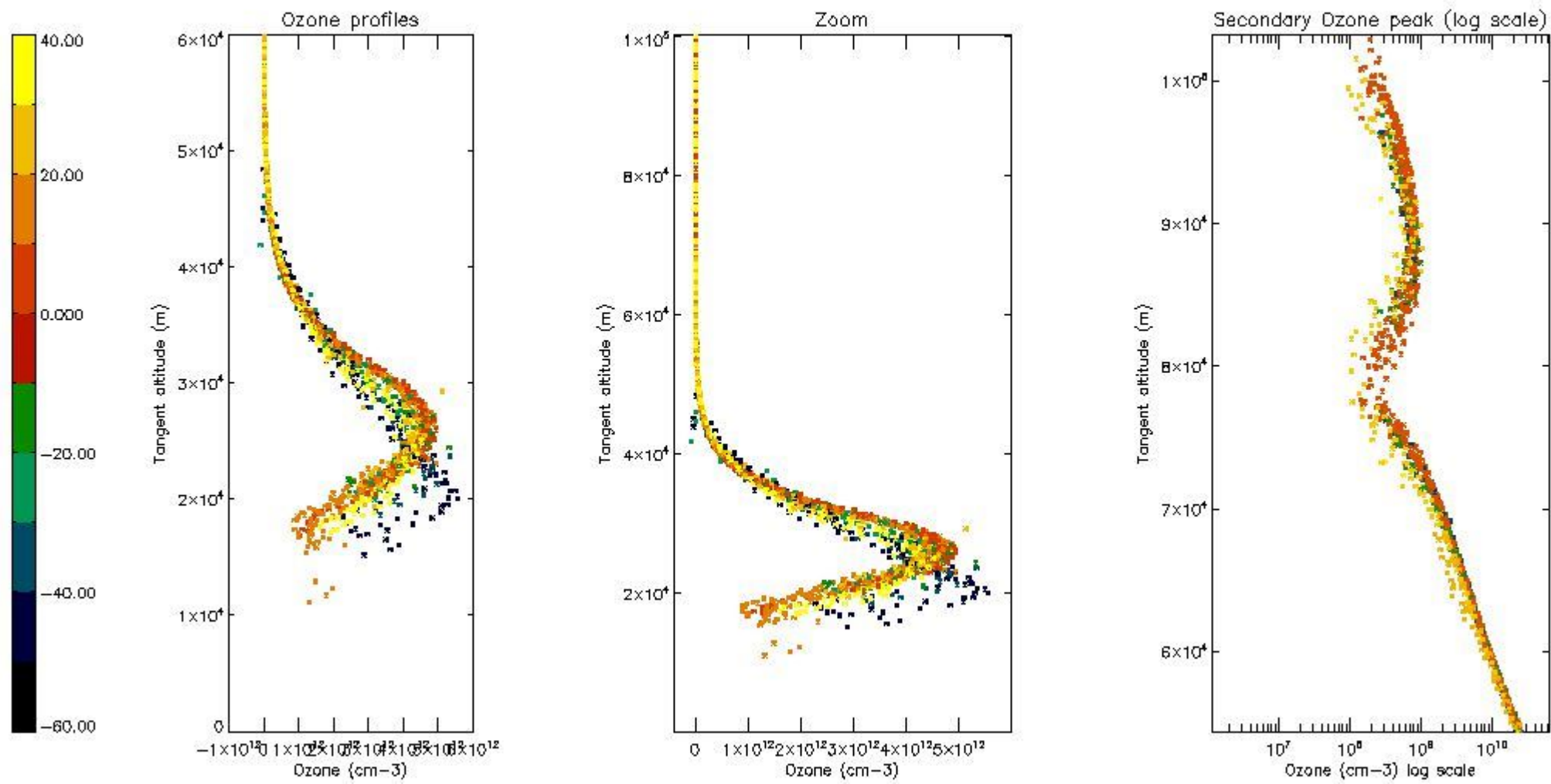
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

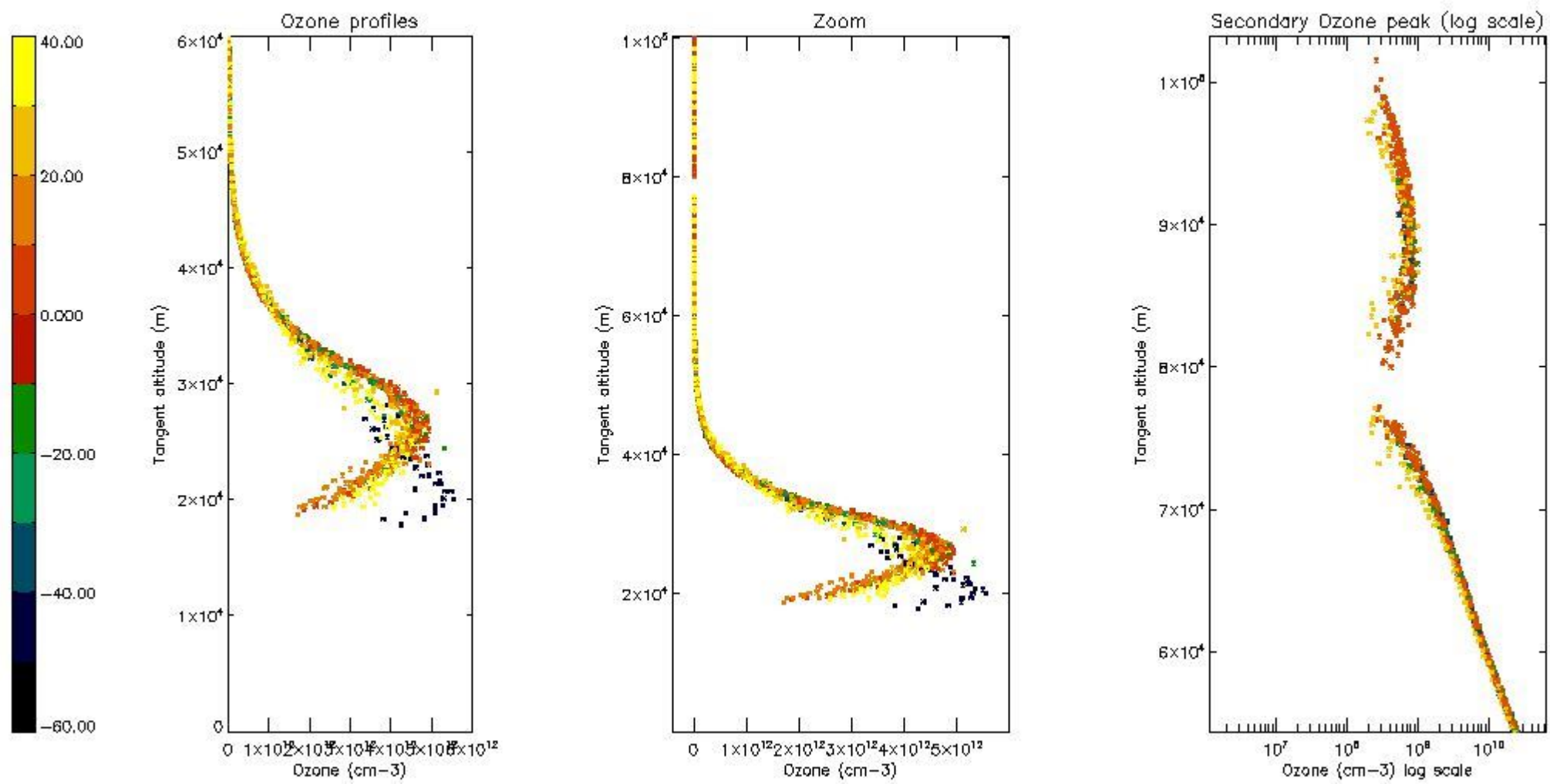
The colorbar represents the latitude.



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

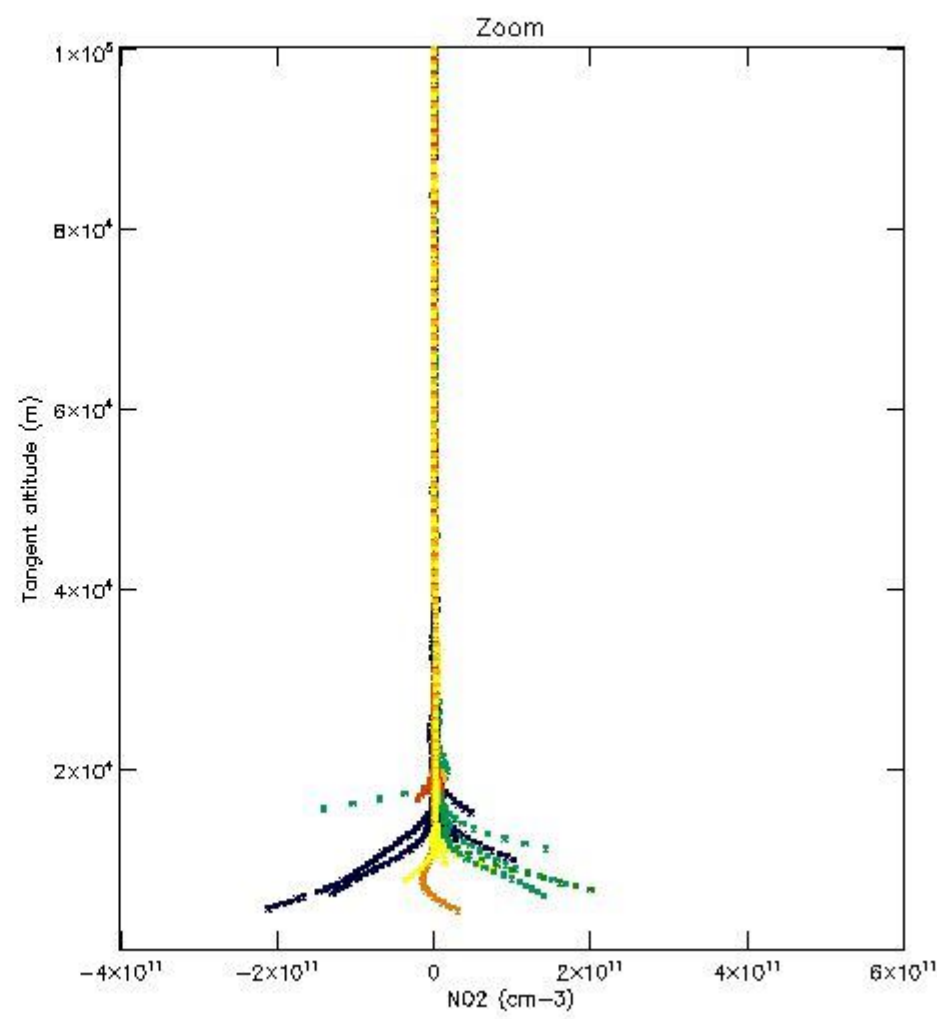
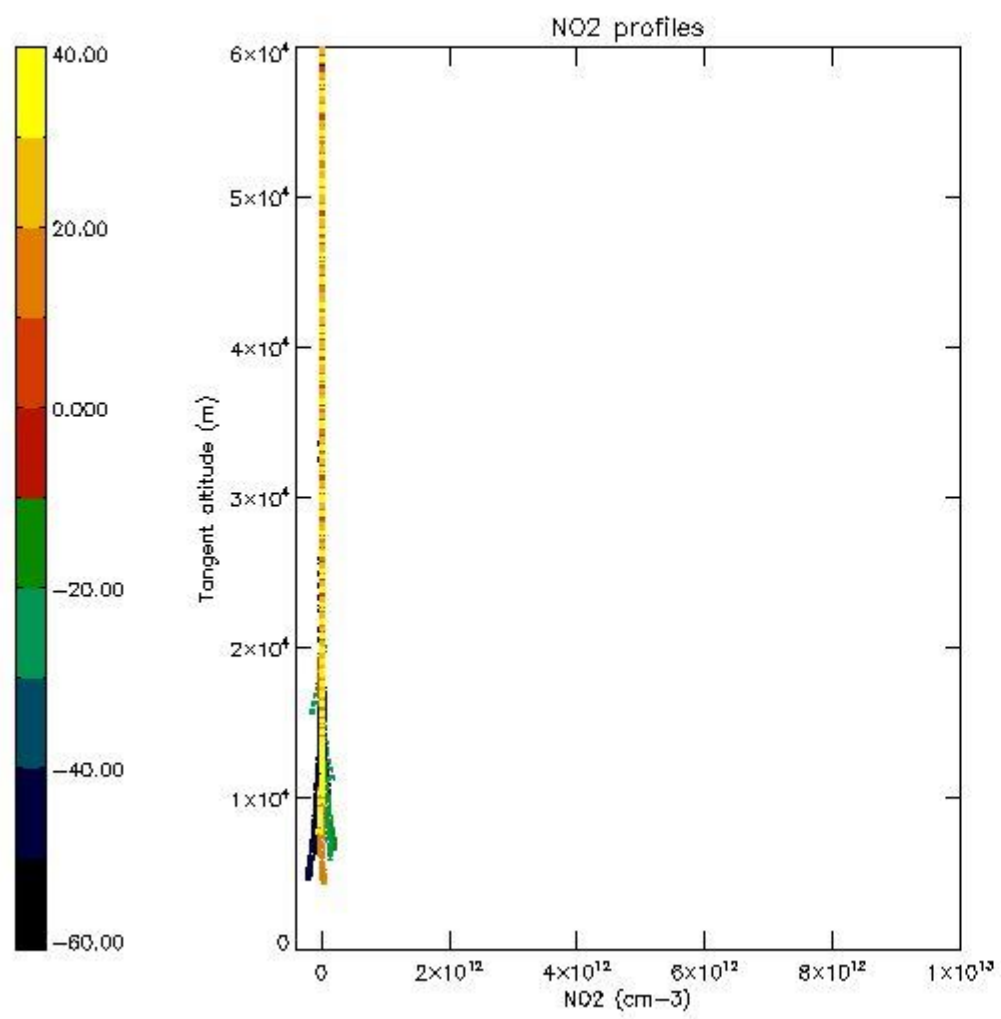
The colorbar represents the latitude.





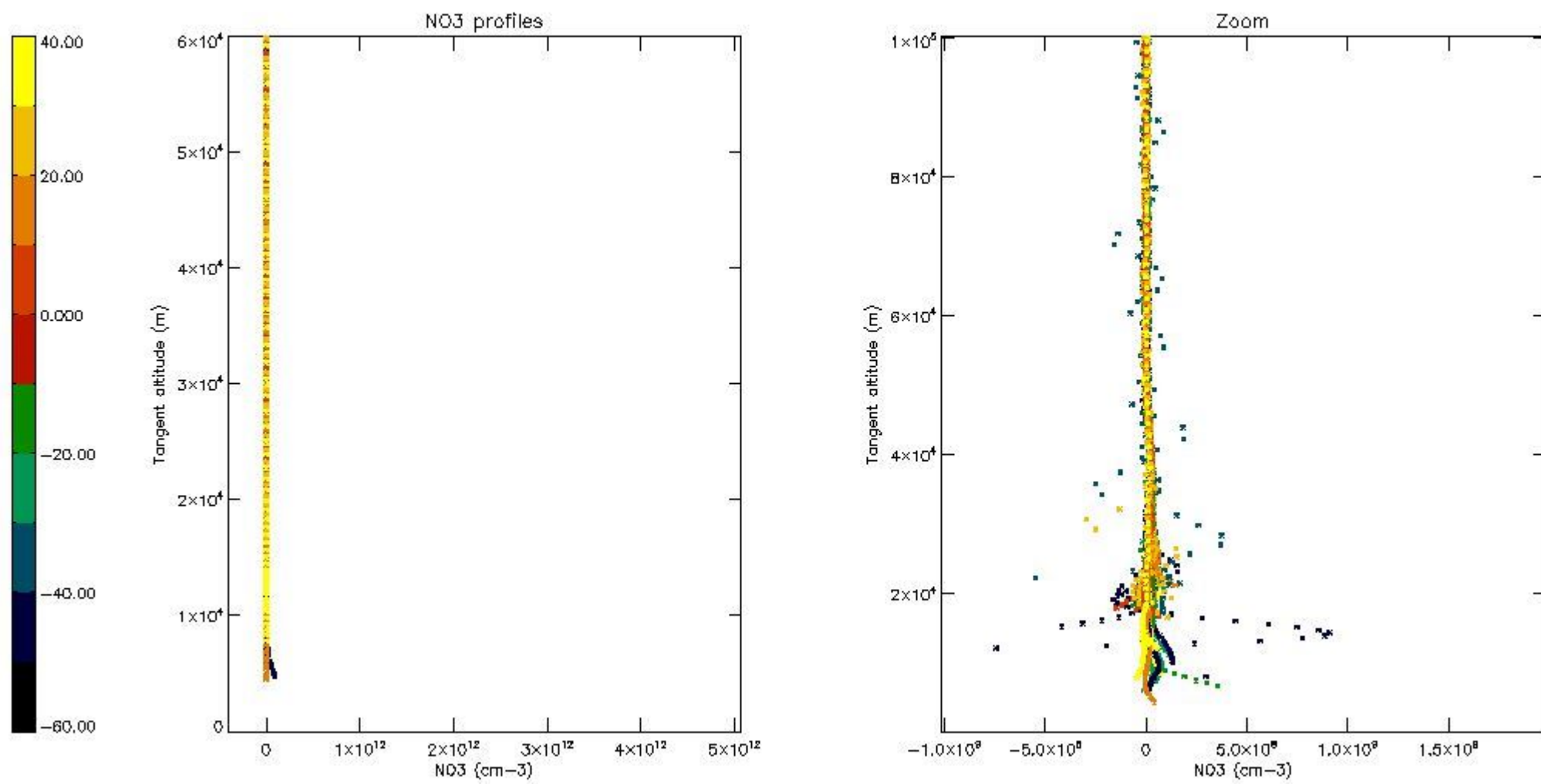
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



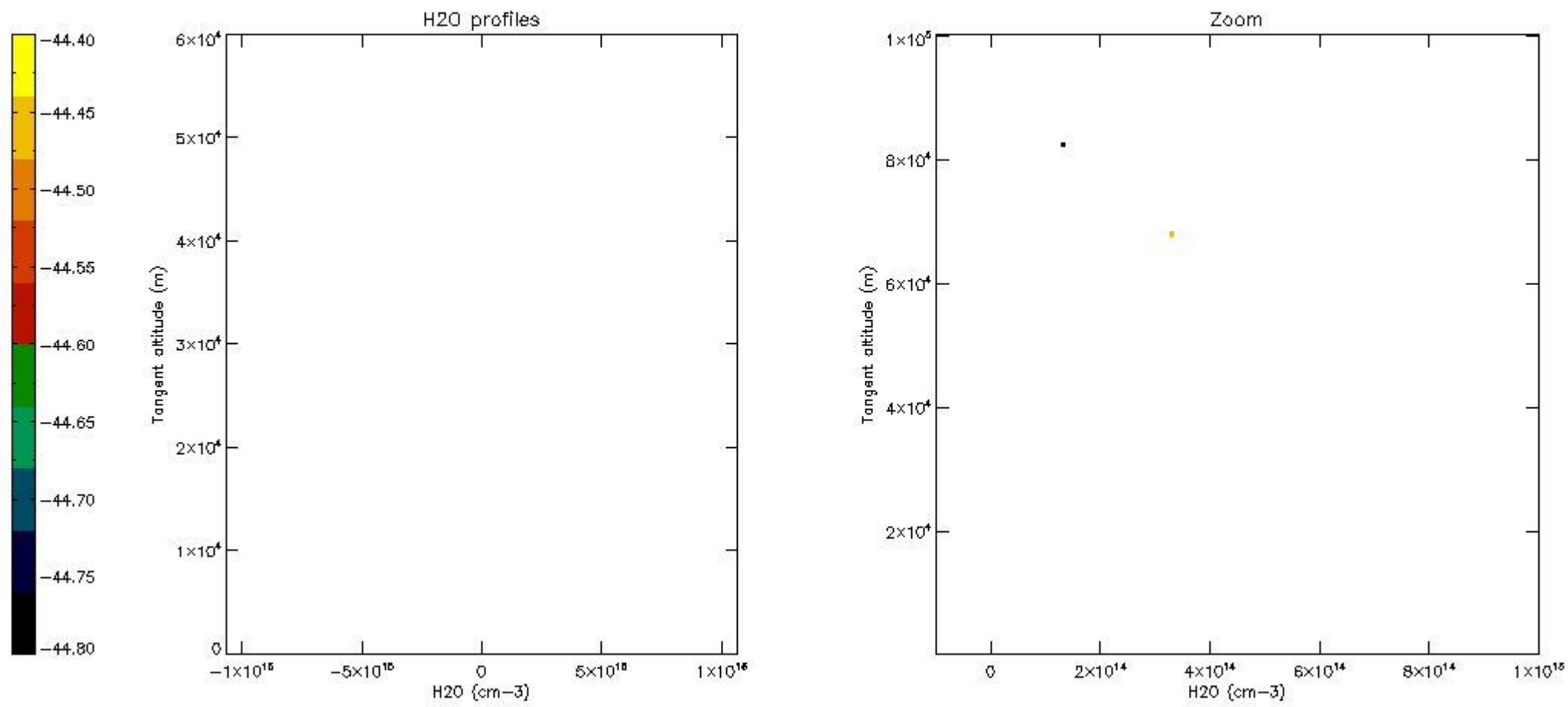
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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)*

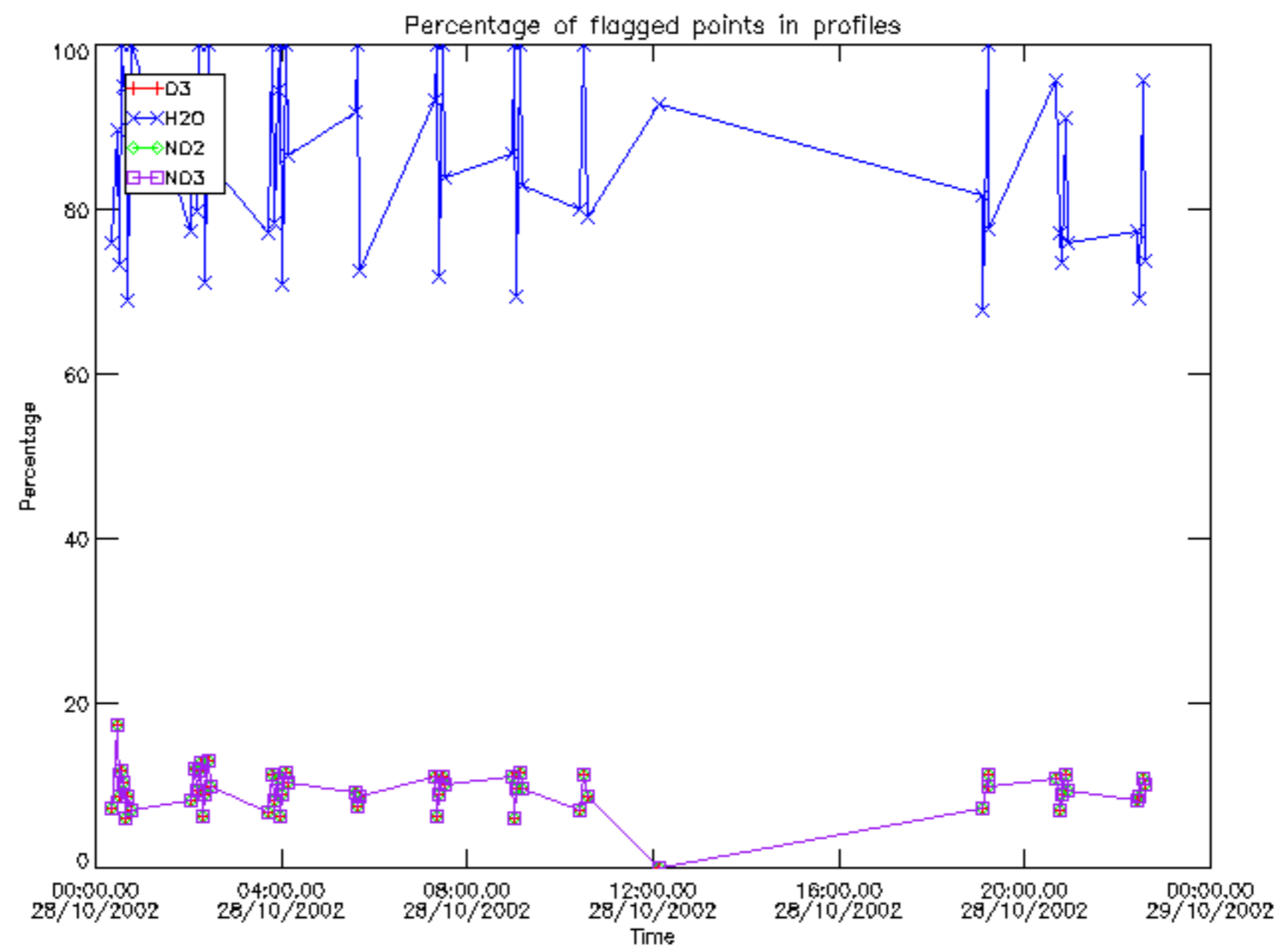
The colorbar represents the latitude.



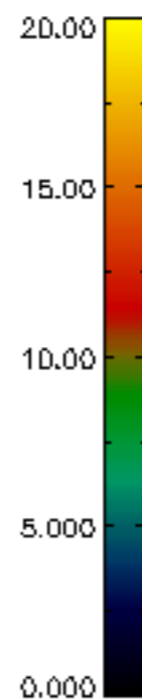
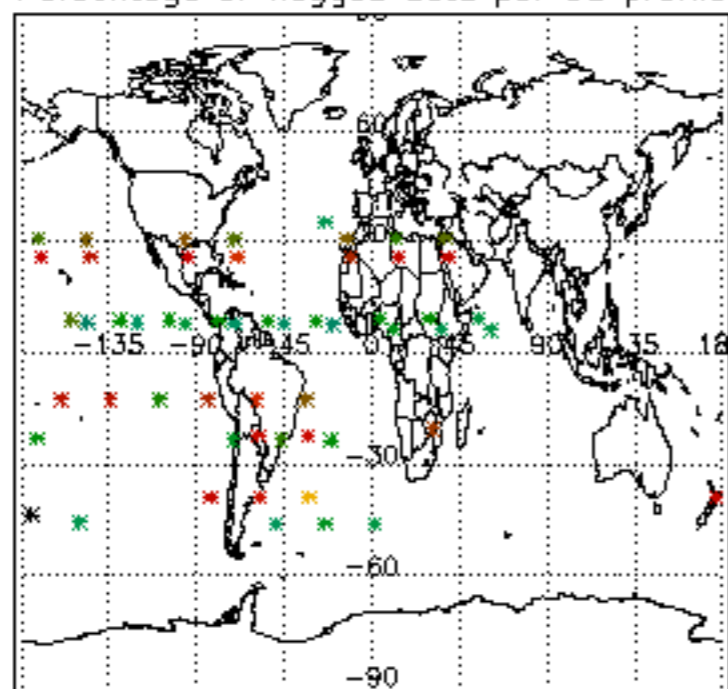
## 6. Auxiliary Data Files used for the production reported in section 2

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.

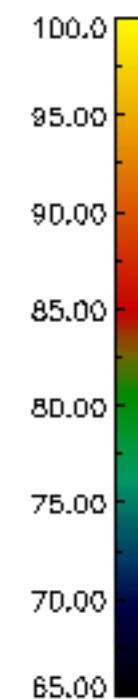
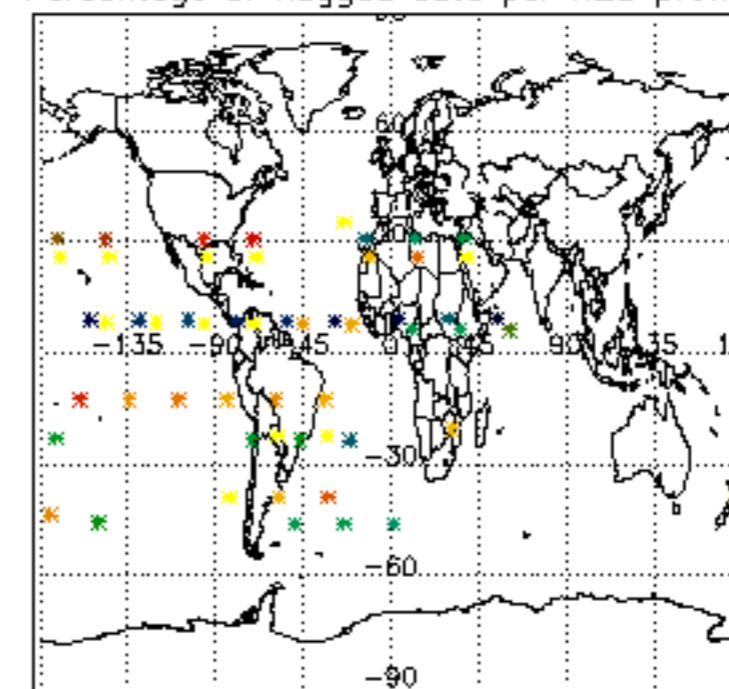
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	28-OCT-2002 00:01:39
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	28-OCT-2002 00:01:39
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	28-OCT-2002 00:01:39



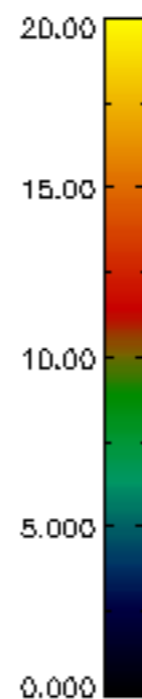
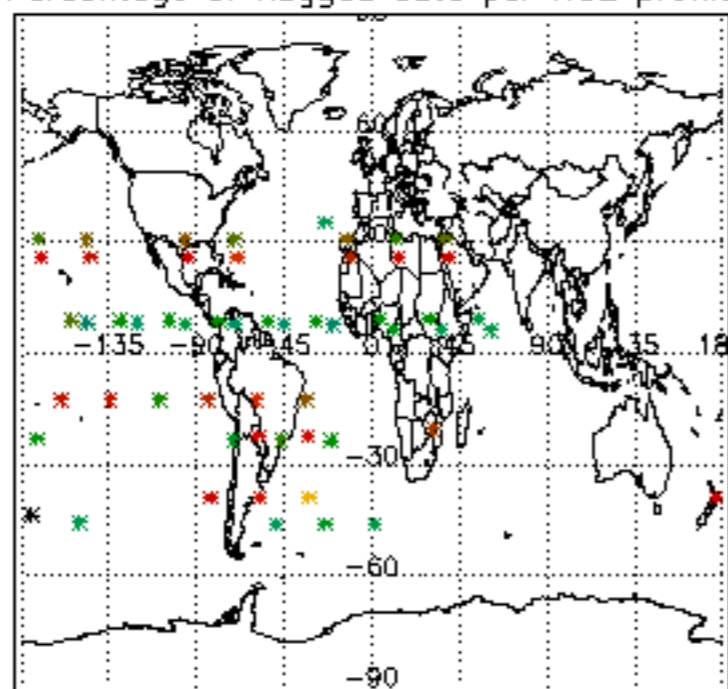
Percentage of flagged data per D3 profile



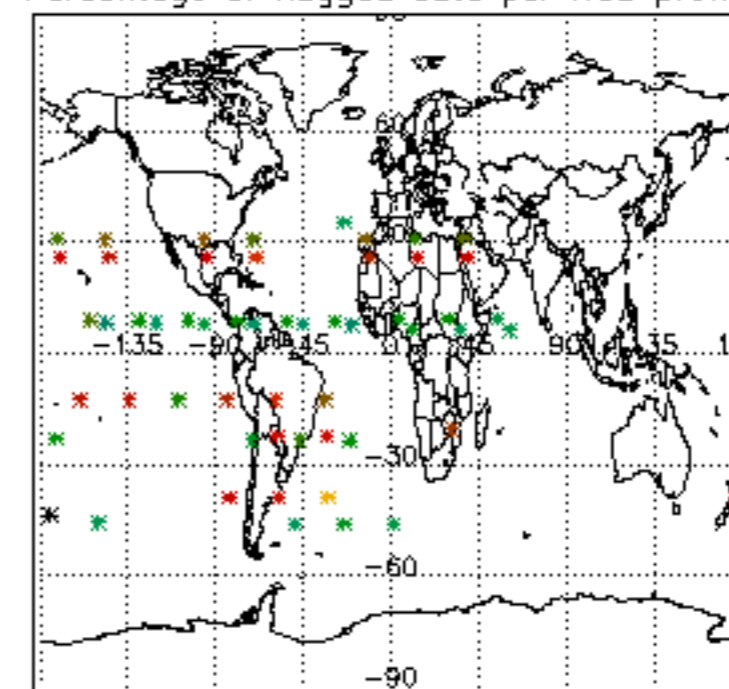
Percentage of flagged data per H2O profile

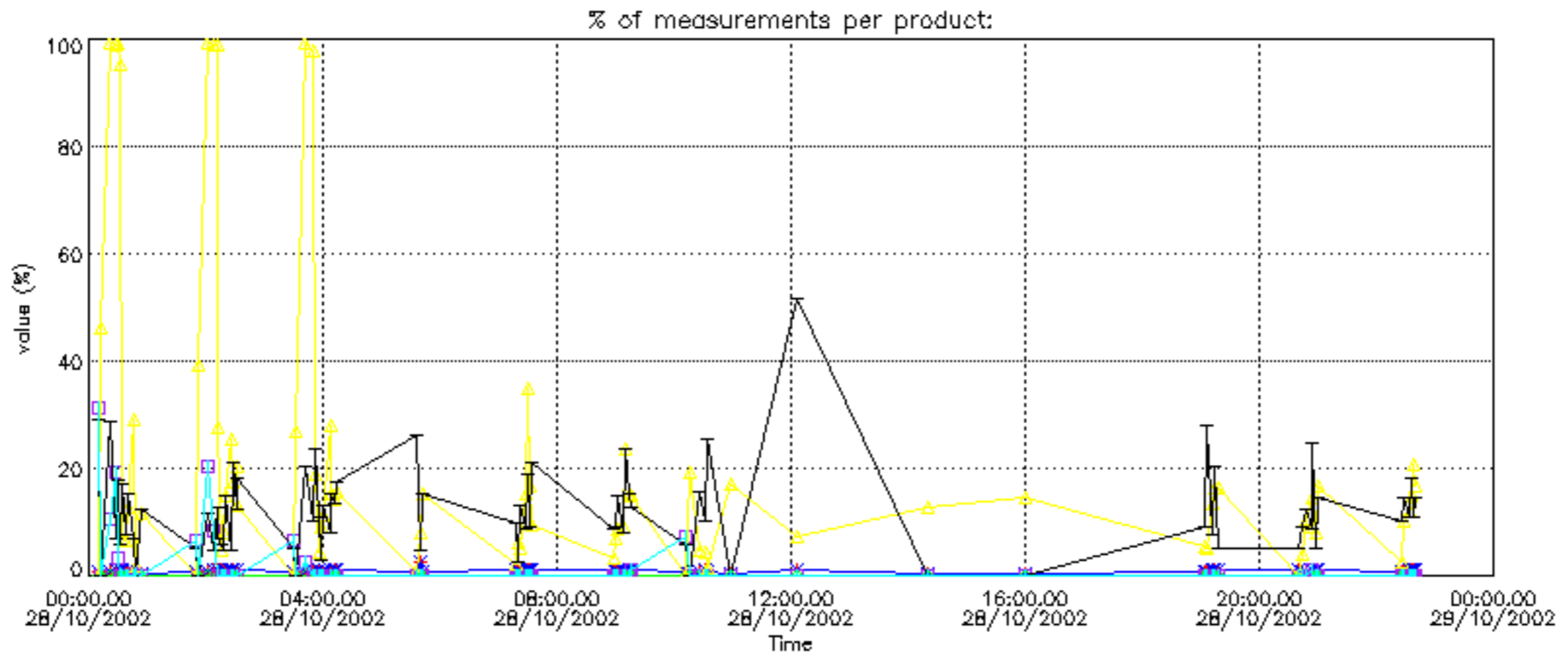
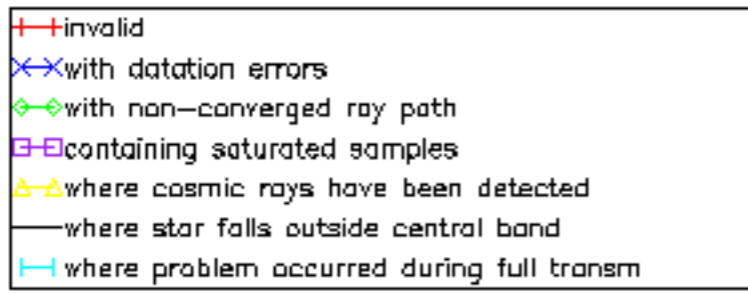


Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

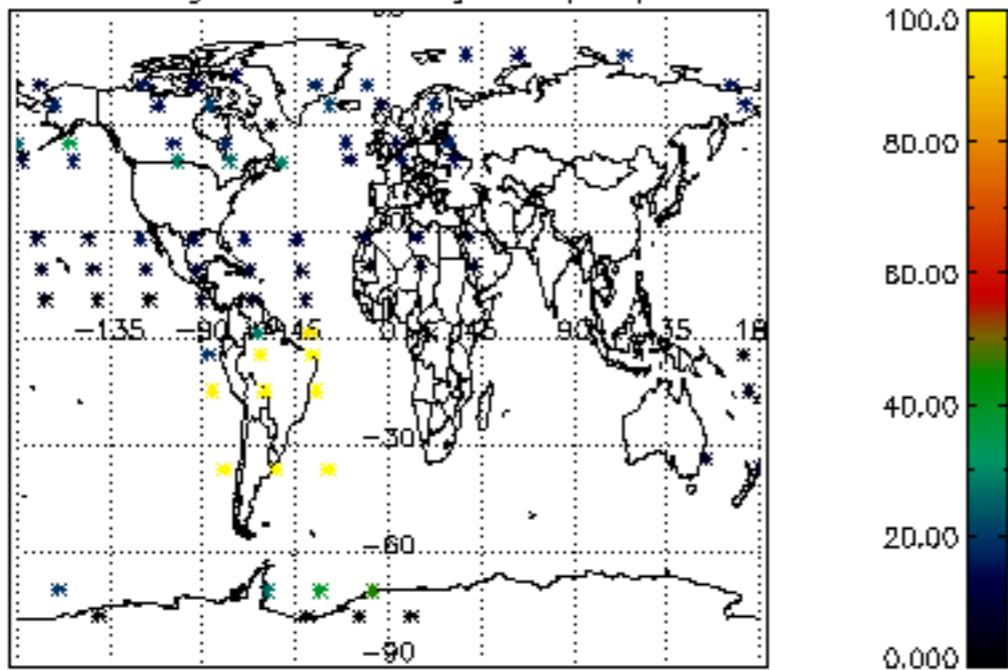




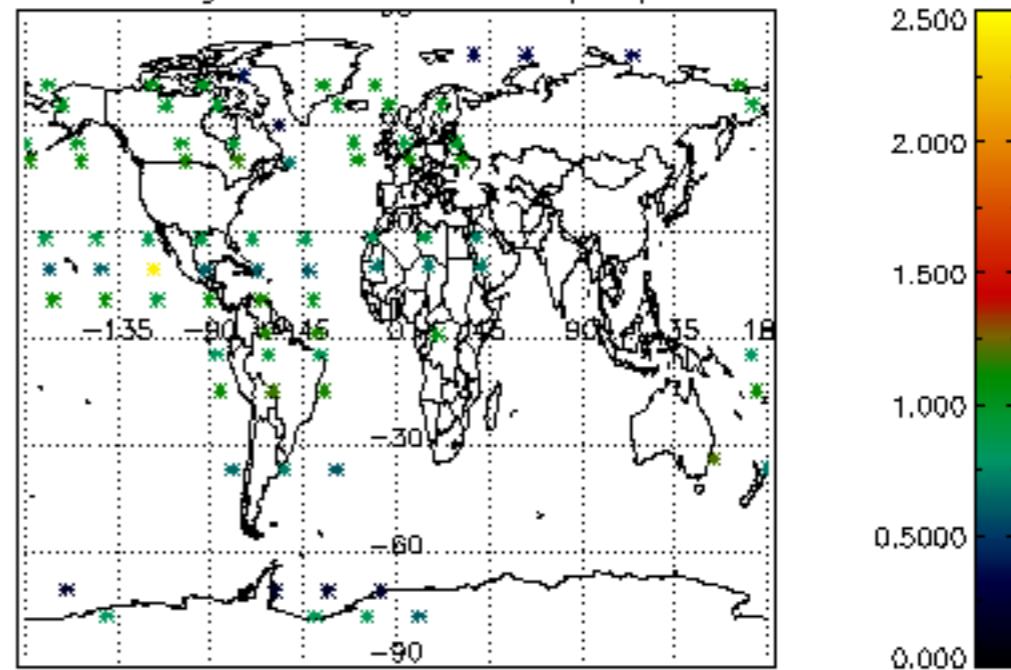




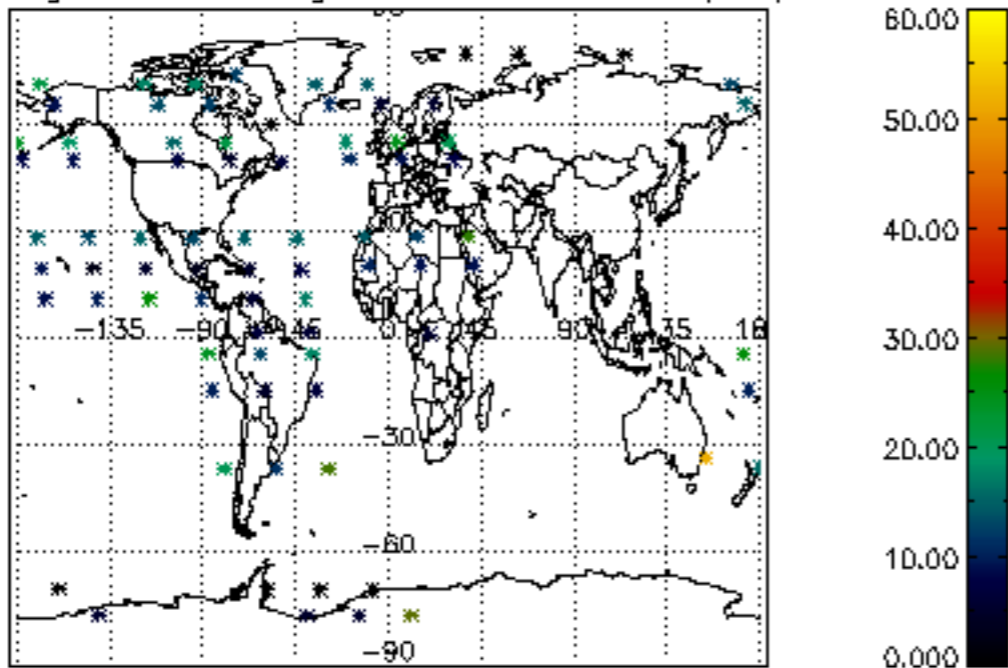
Percentage of cosmic ray hits per profile



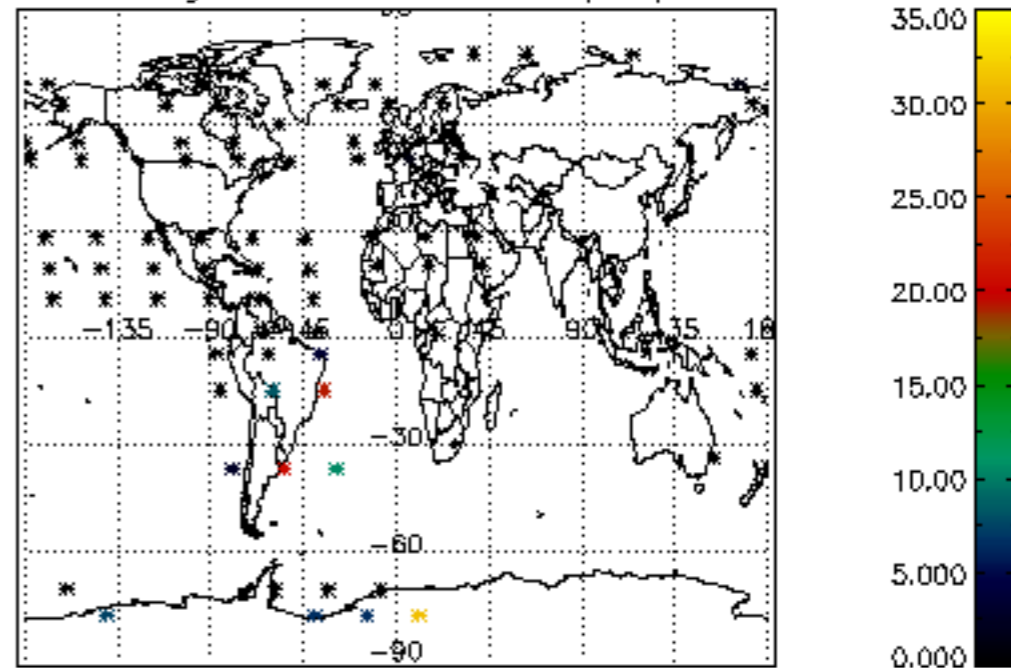
Percentage of datation errors per profile



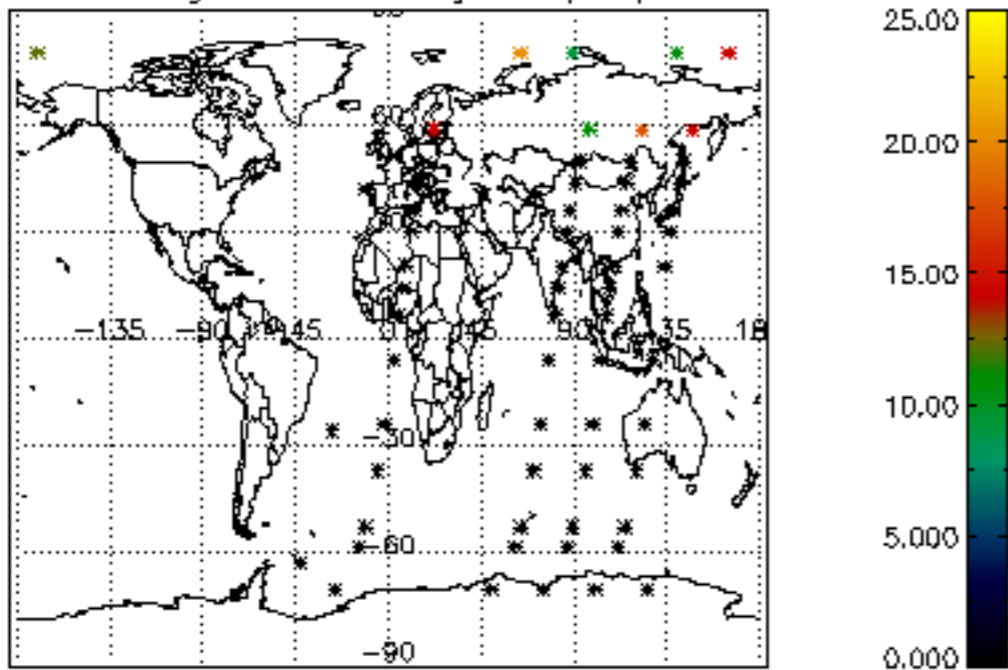
Percentage of star falling outside central band per profile



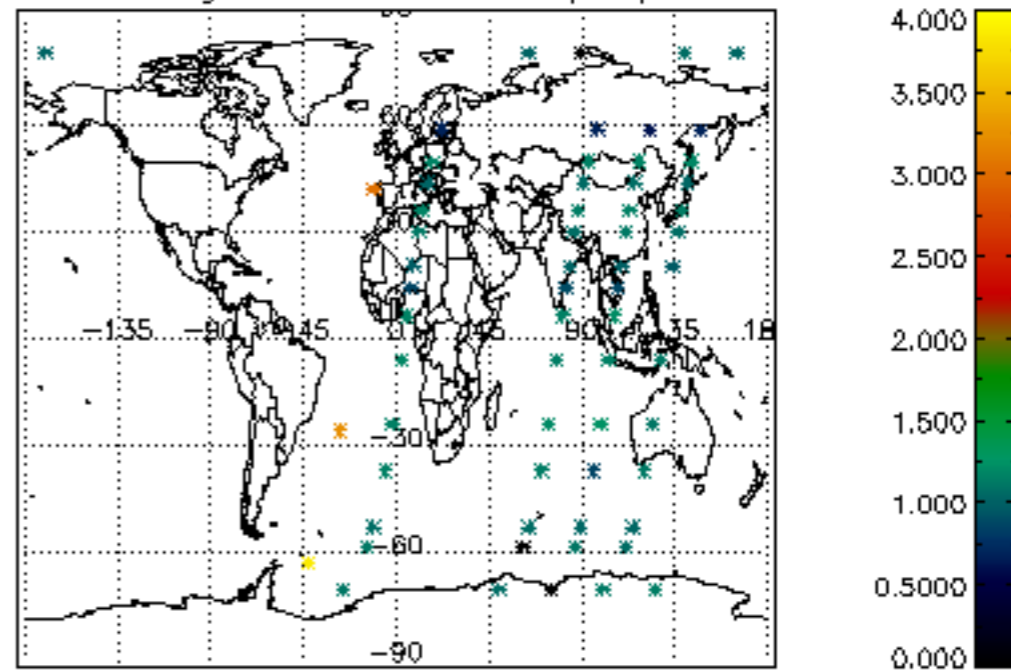
Percentage of saturation errors per profile



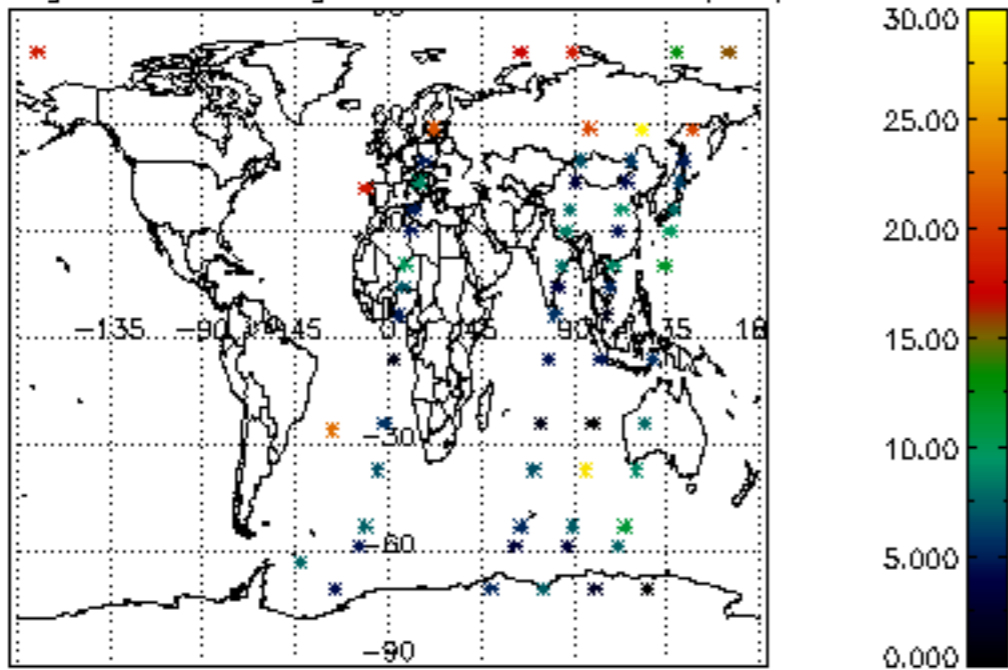
Percentage of cosmic ray hits per profile



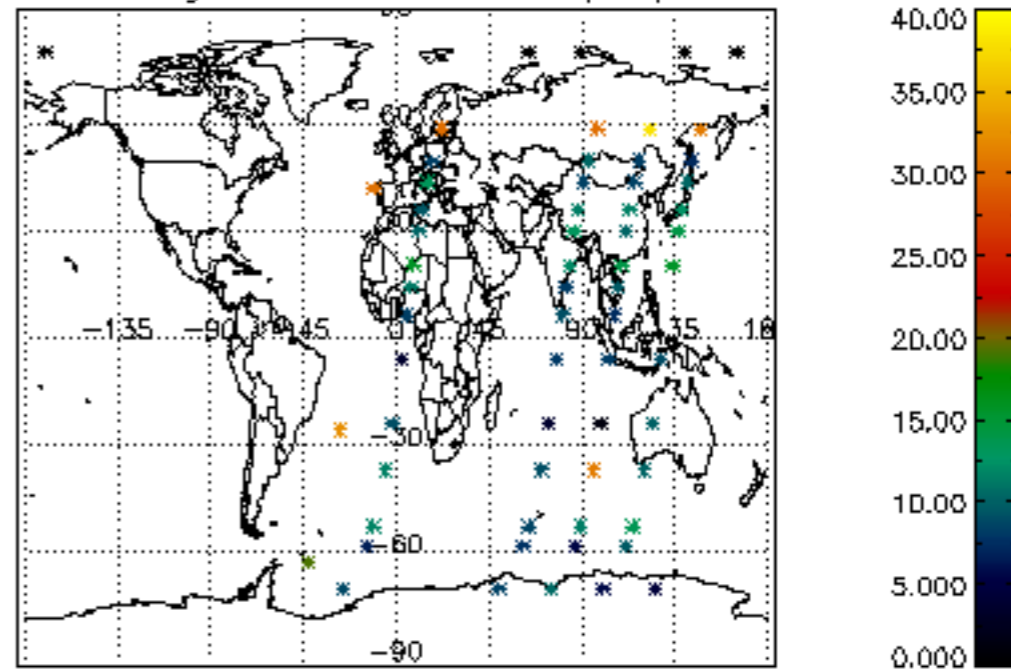
Percentage of datation errors per profile

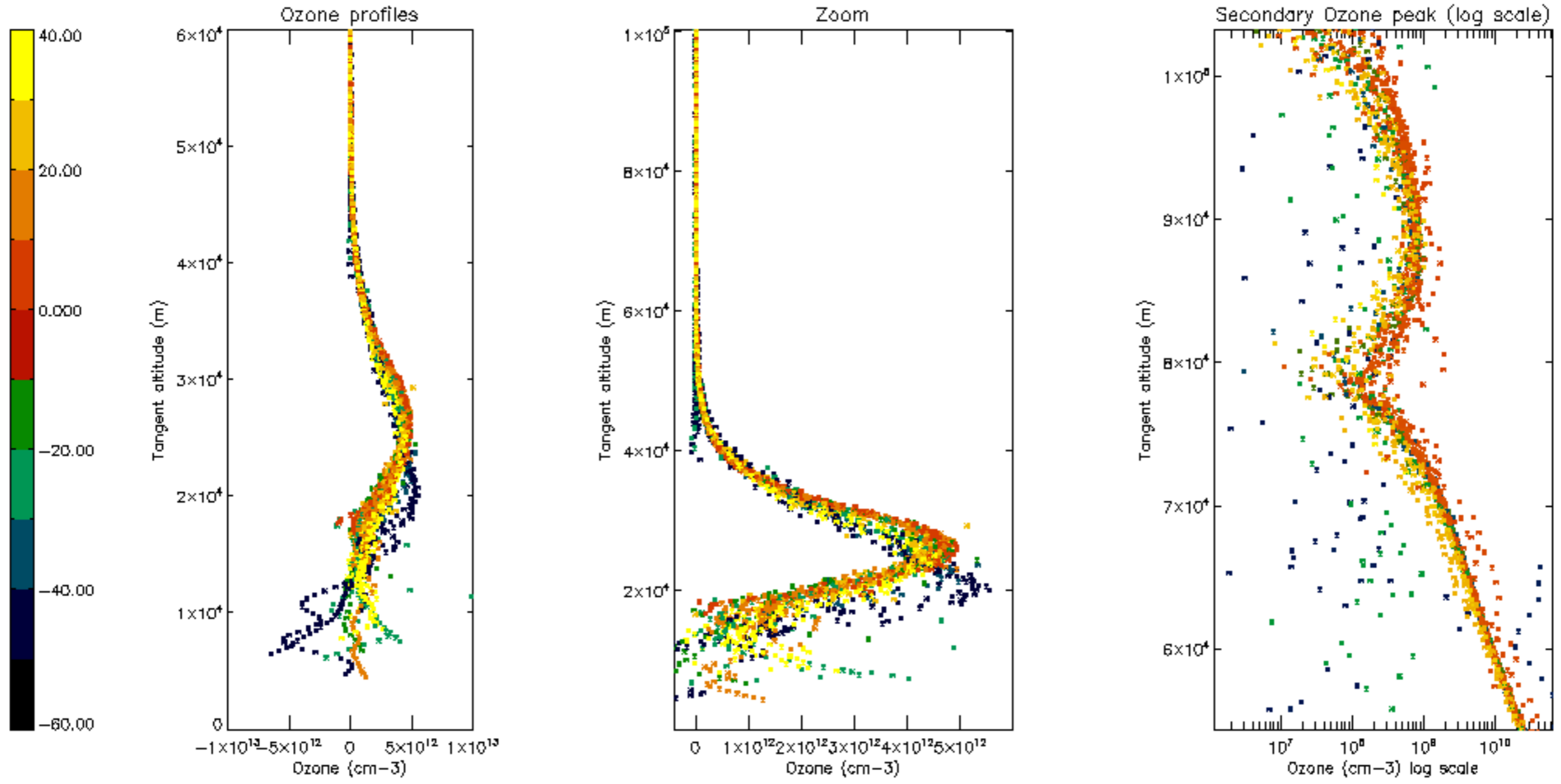


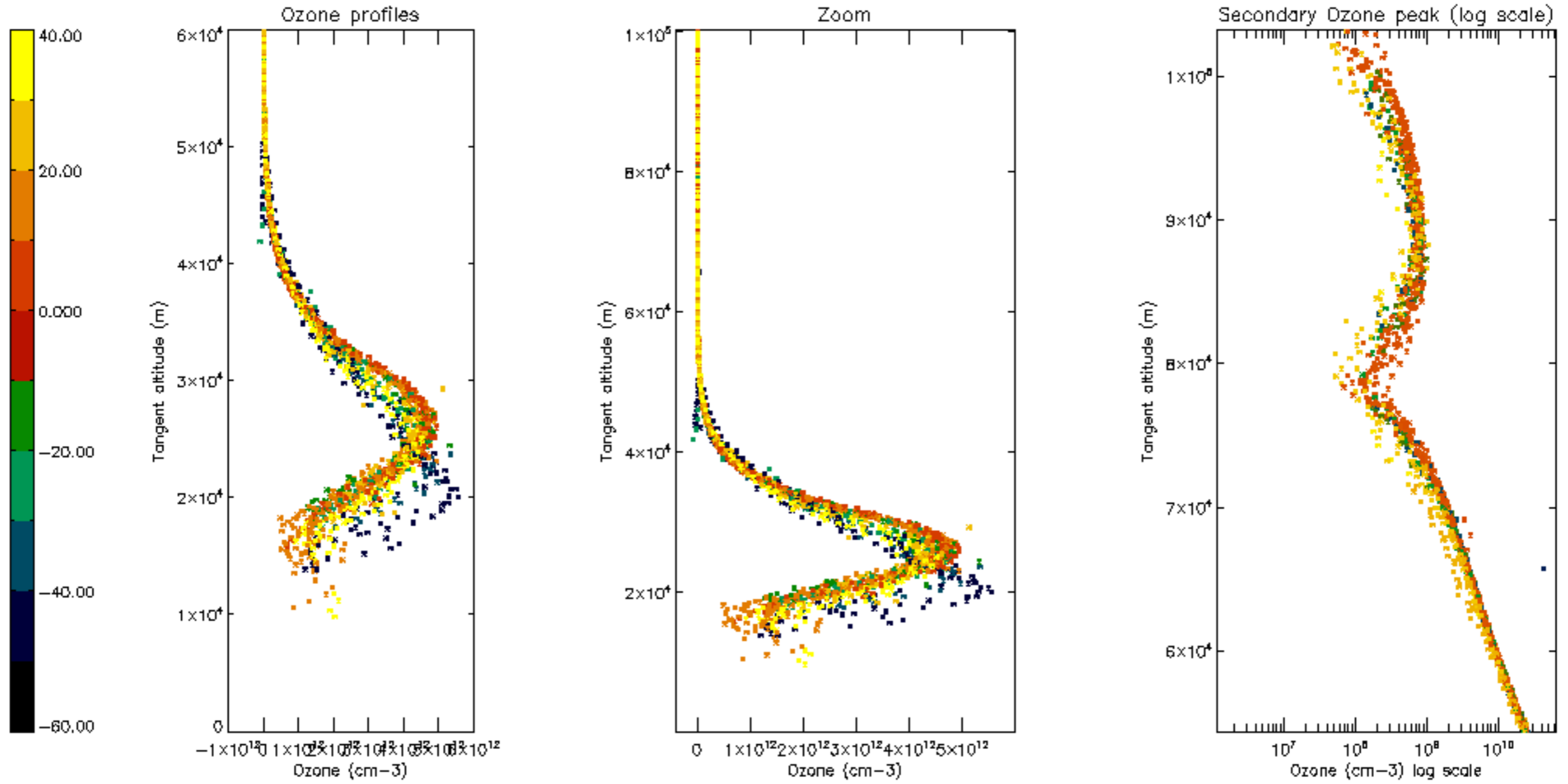
Percentage of star falling outside central band per profile

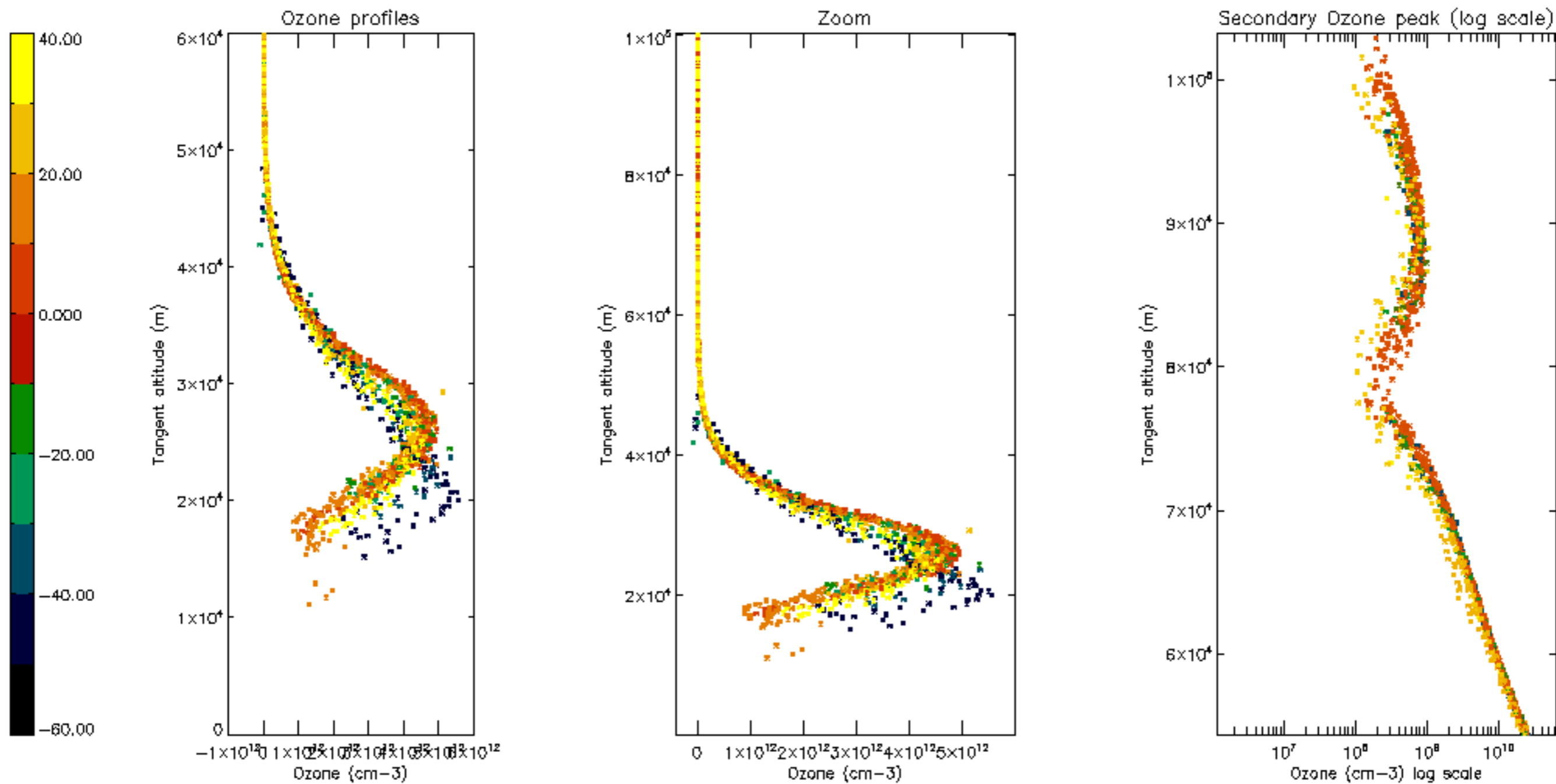


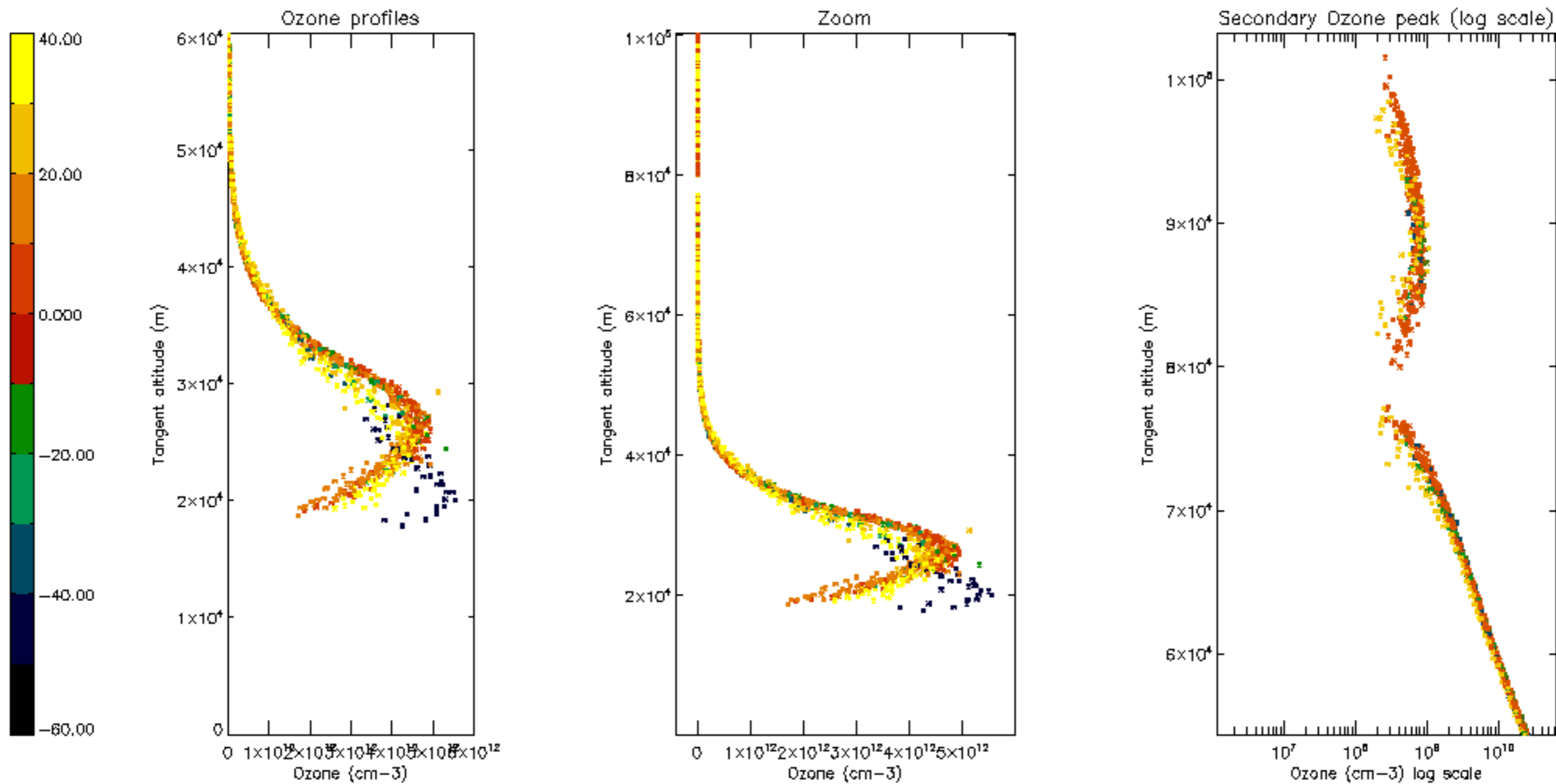
Percentage of saturation errors per profile

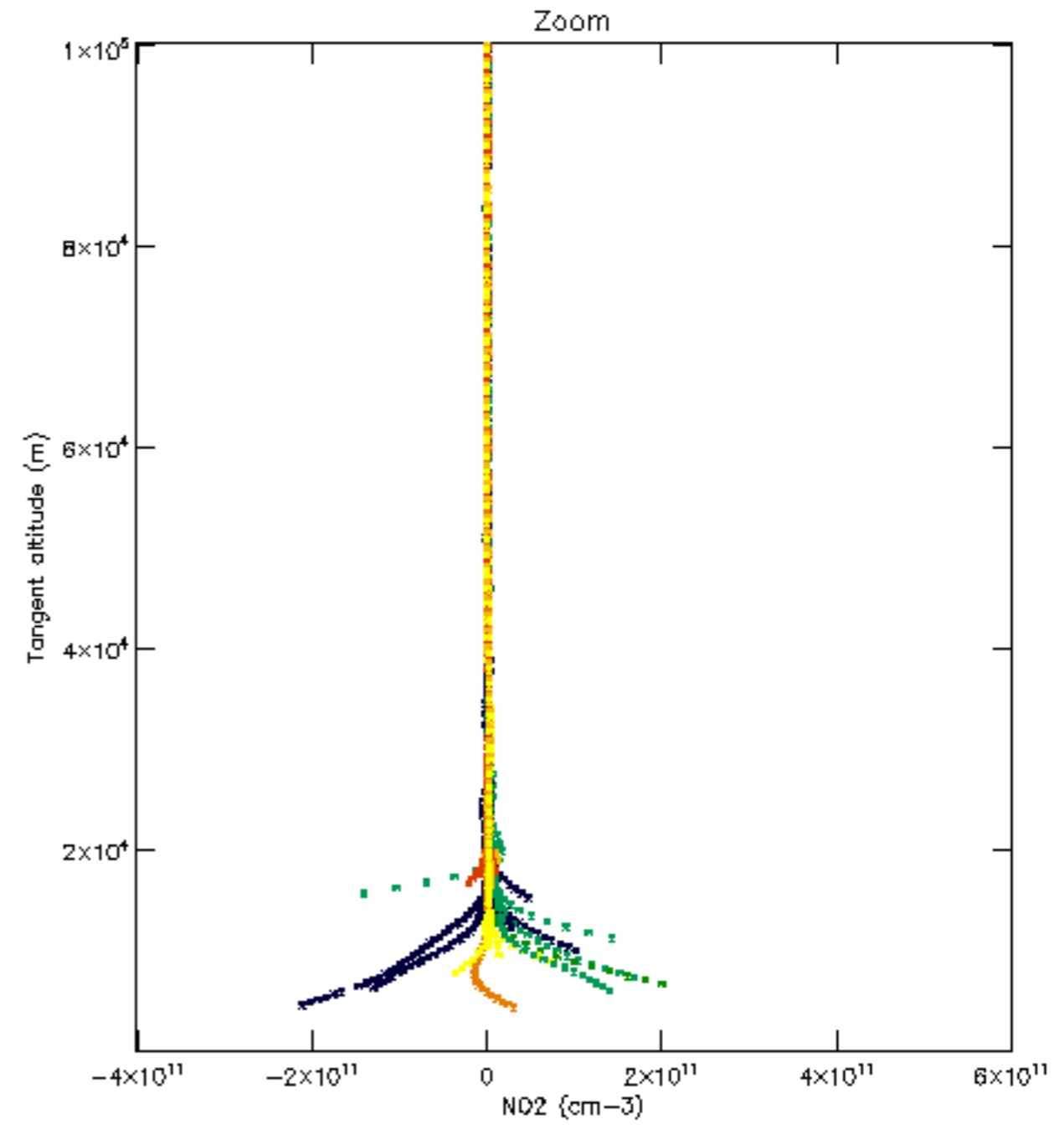
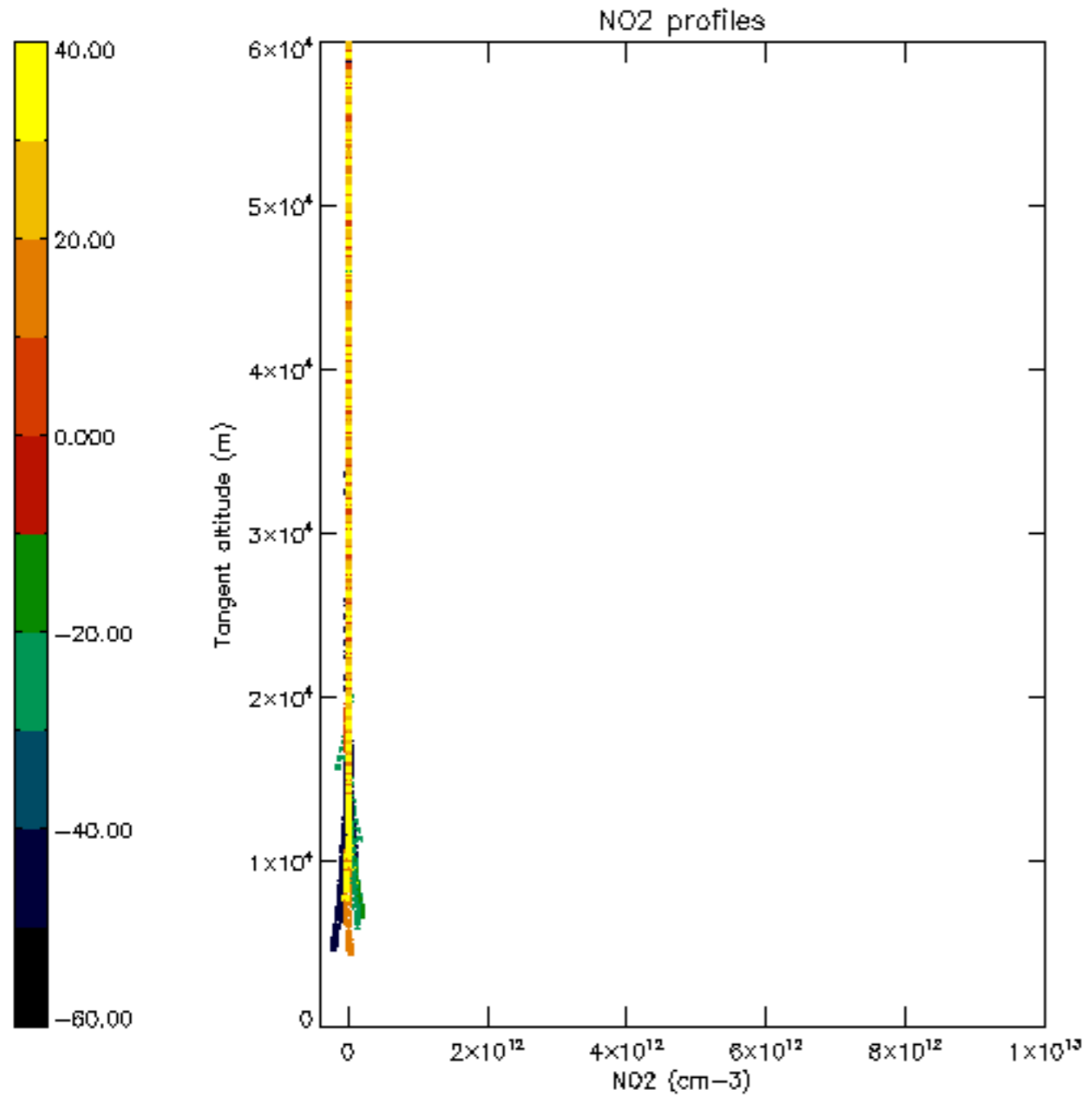


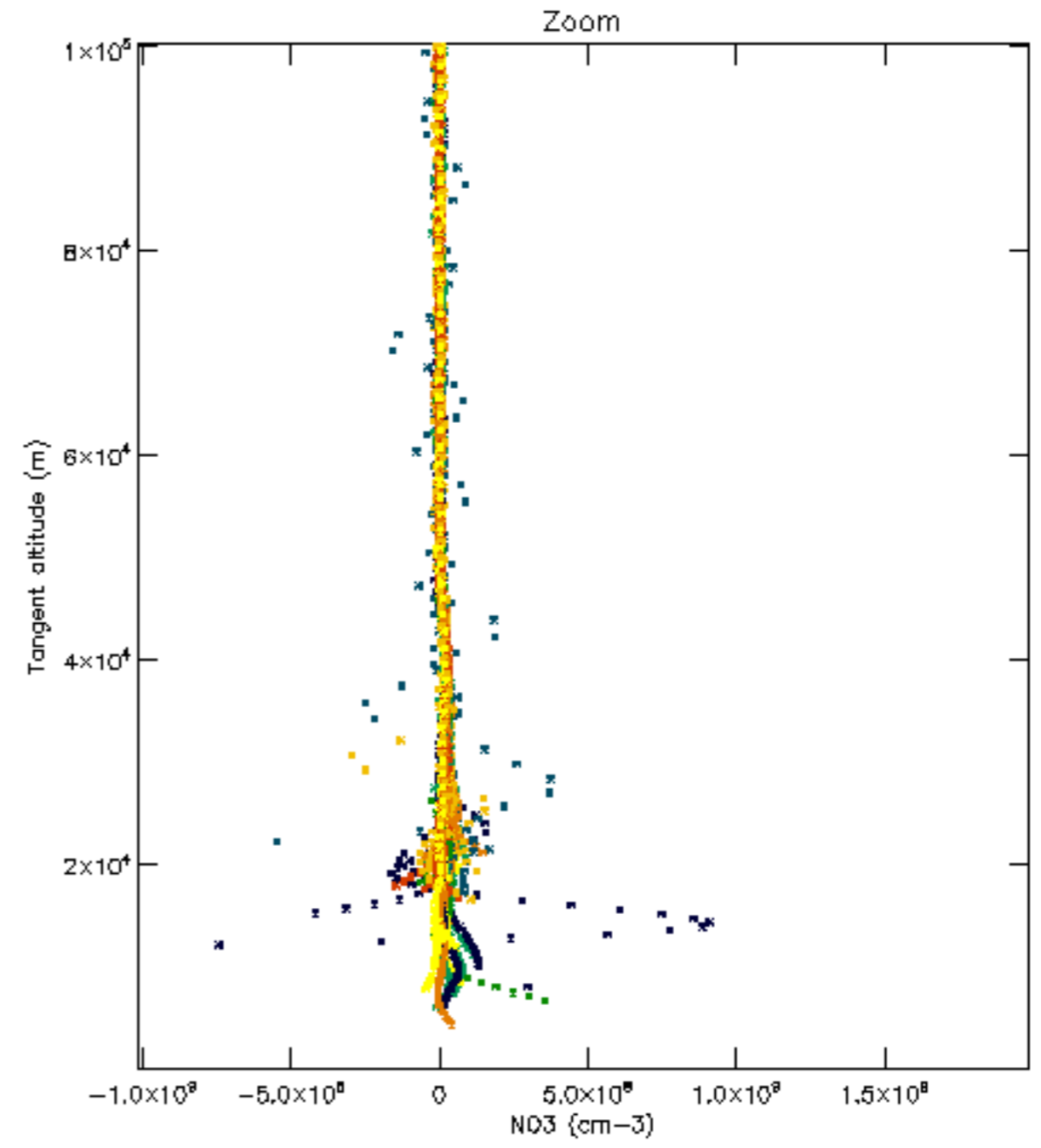
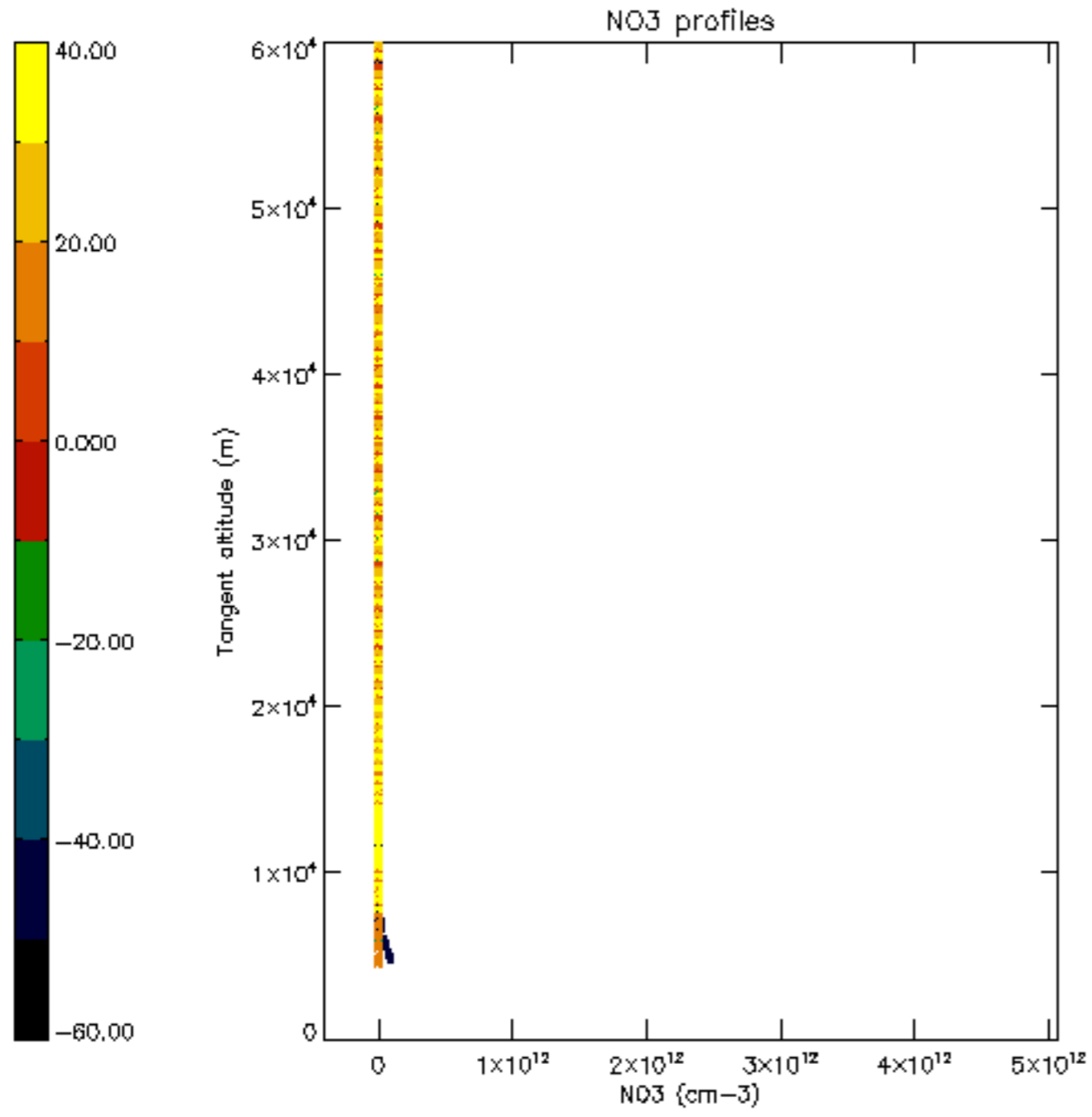




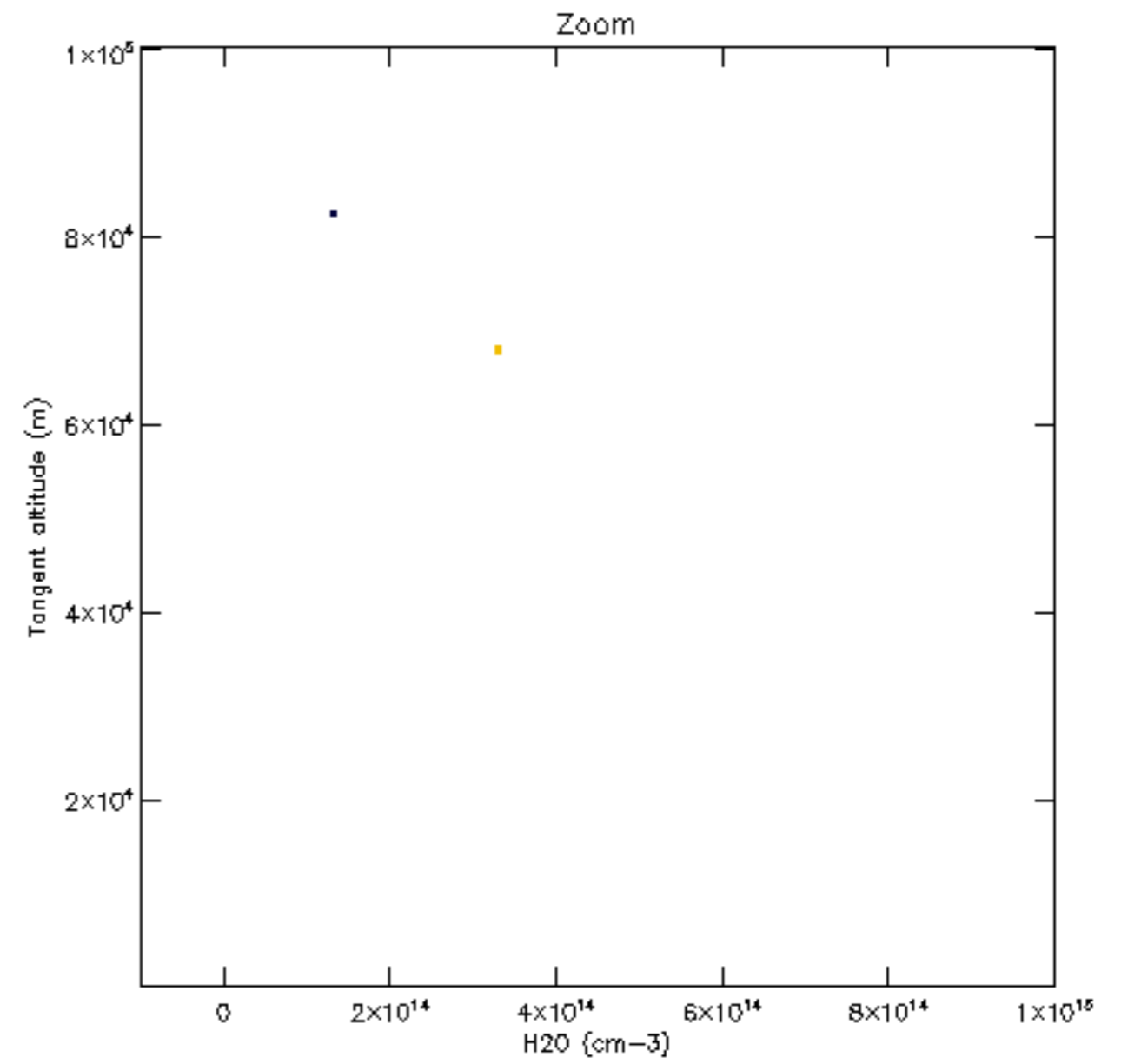
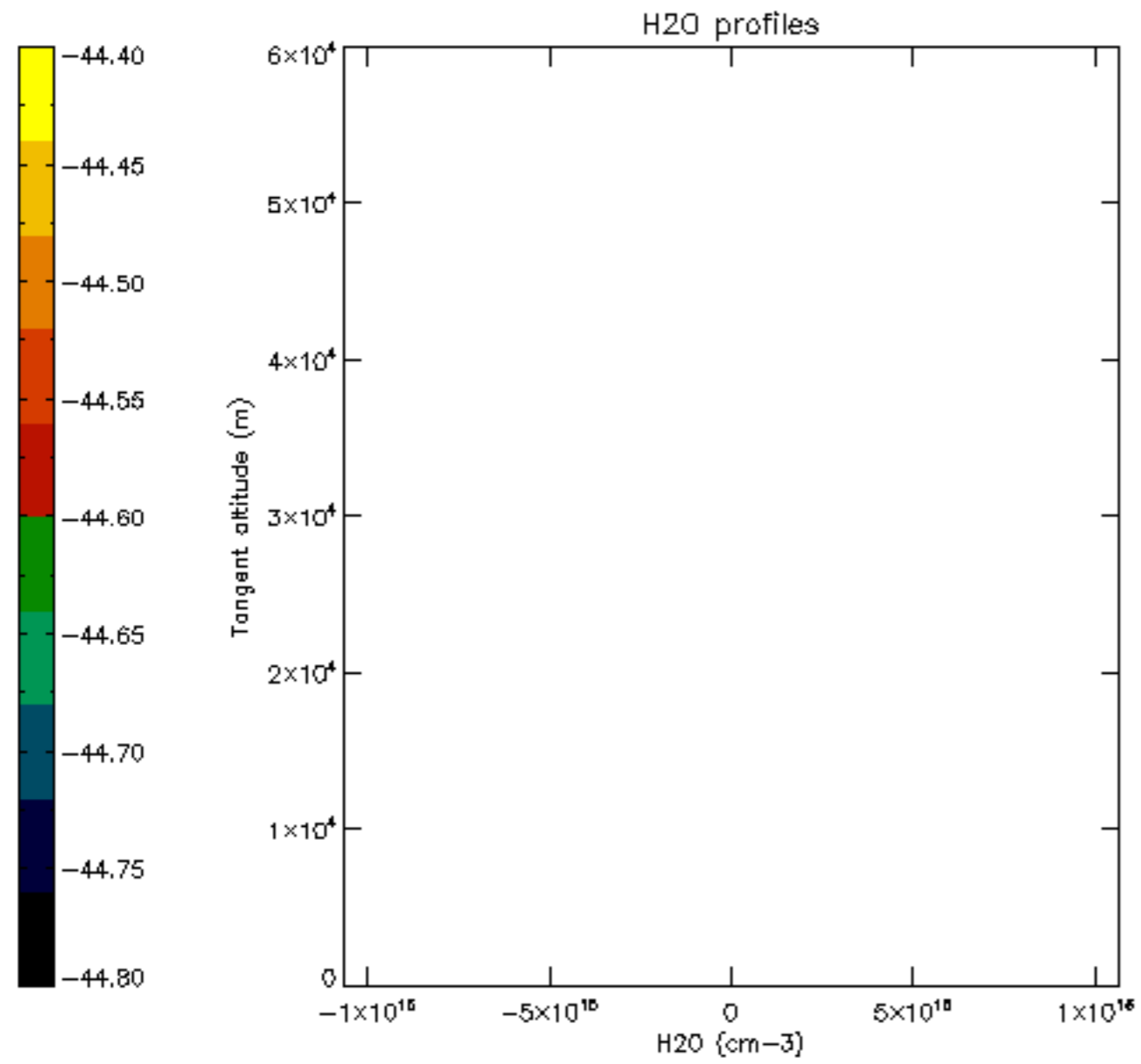


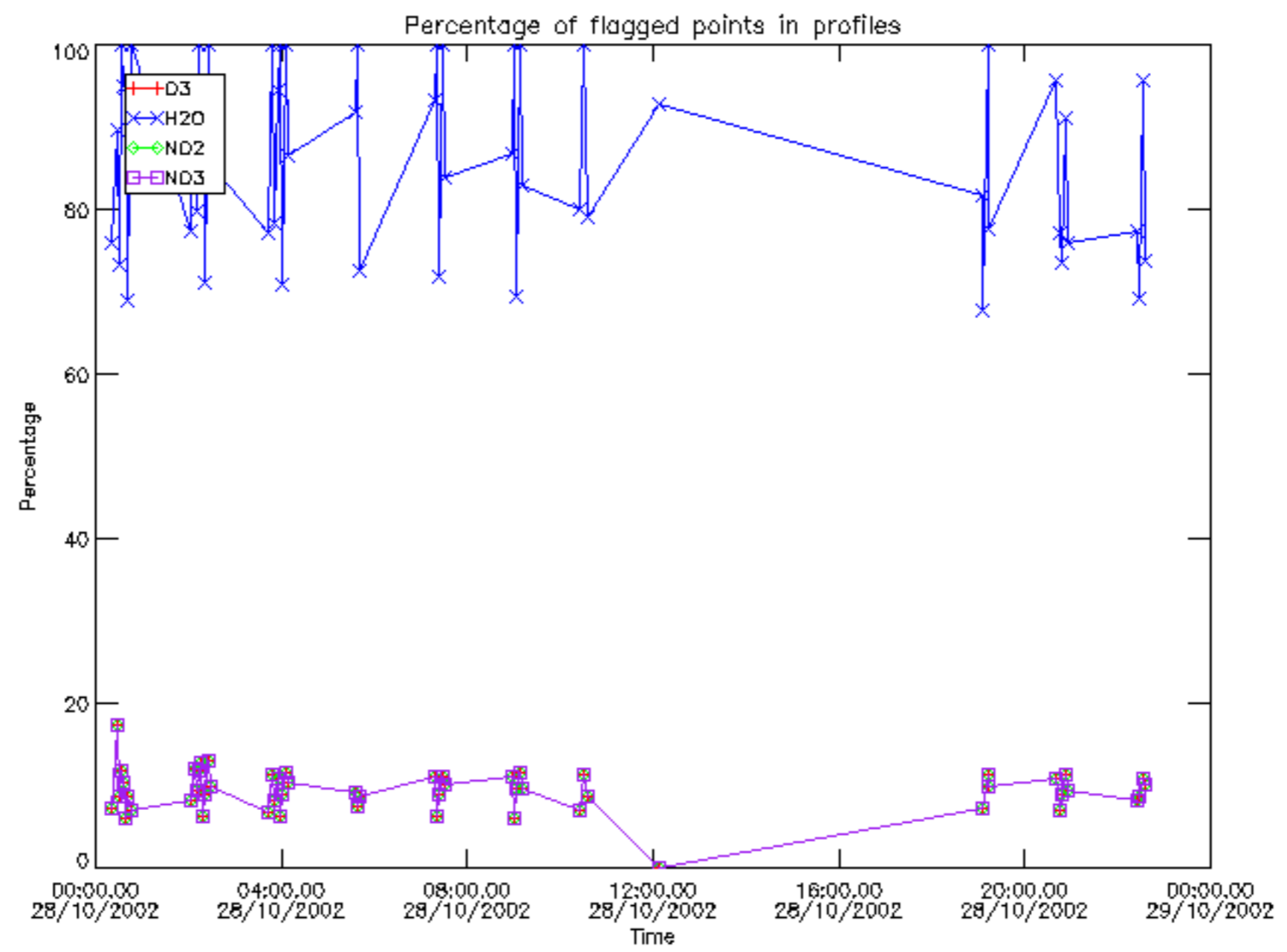




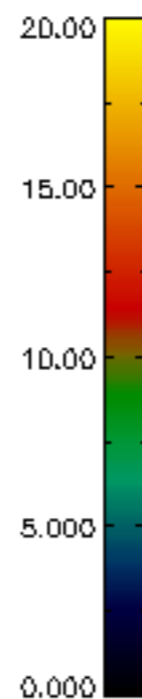
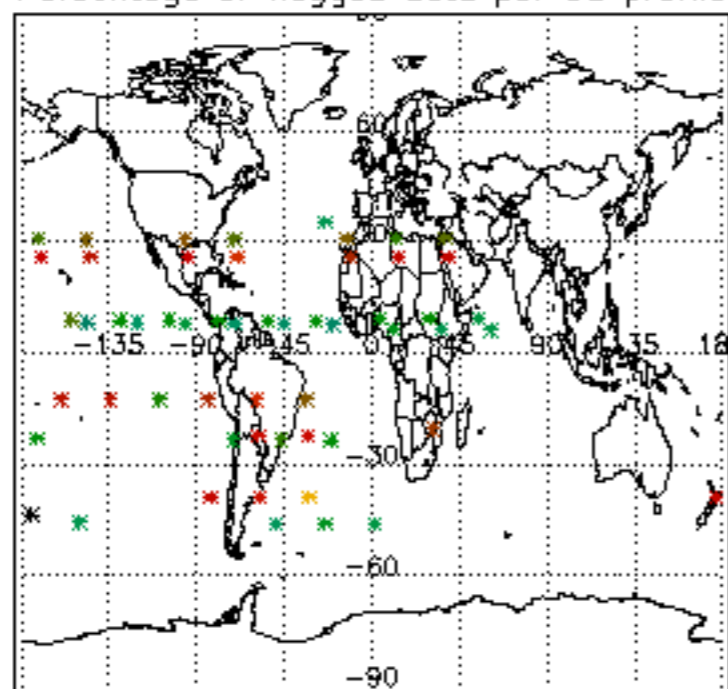




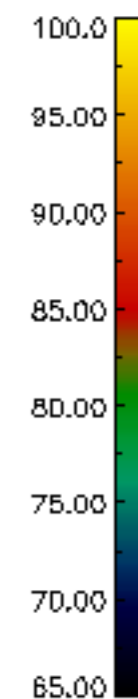
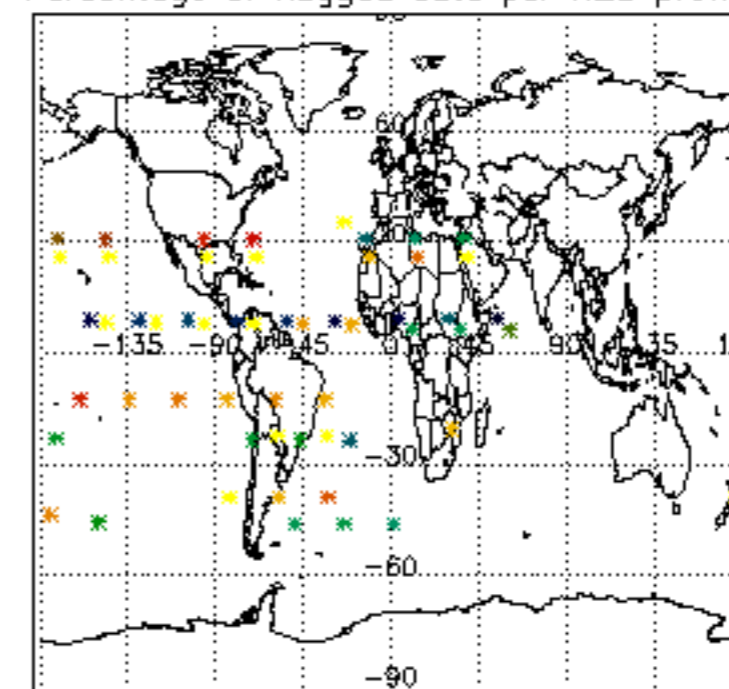




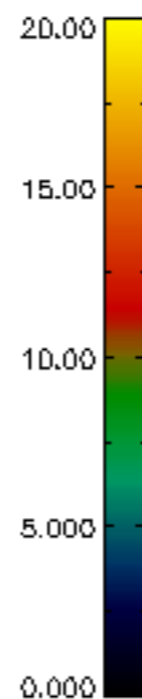
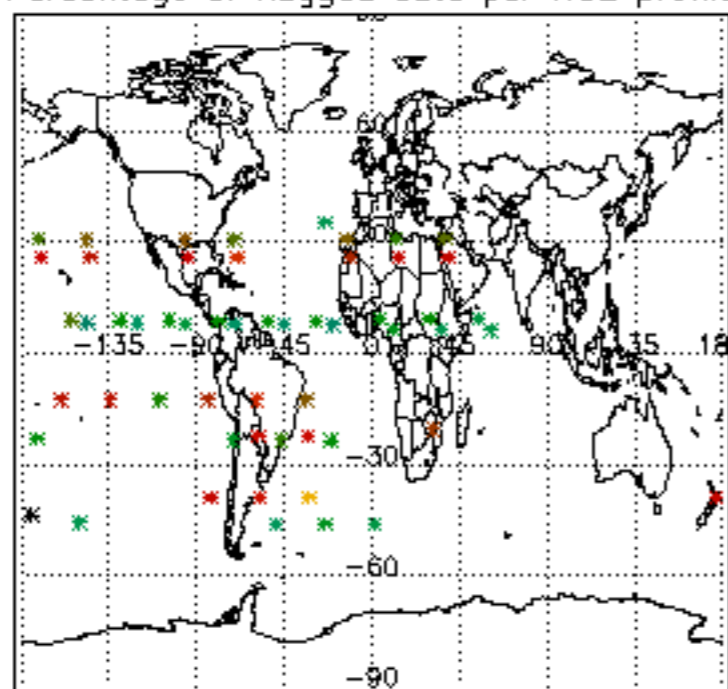
Percentage of flagged data per D3 profile



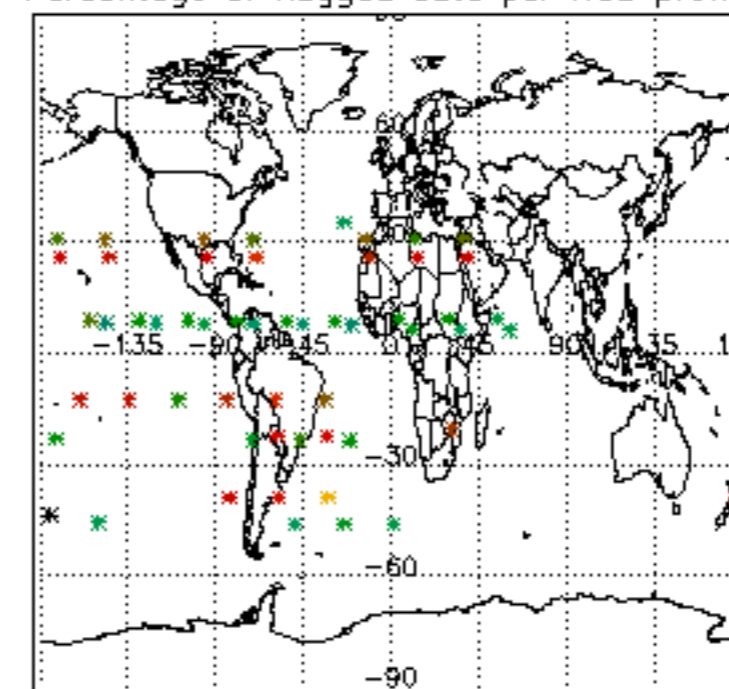
Percentage of flagged data per H2O profile

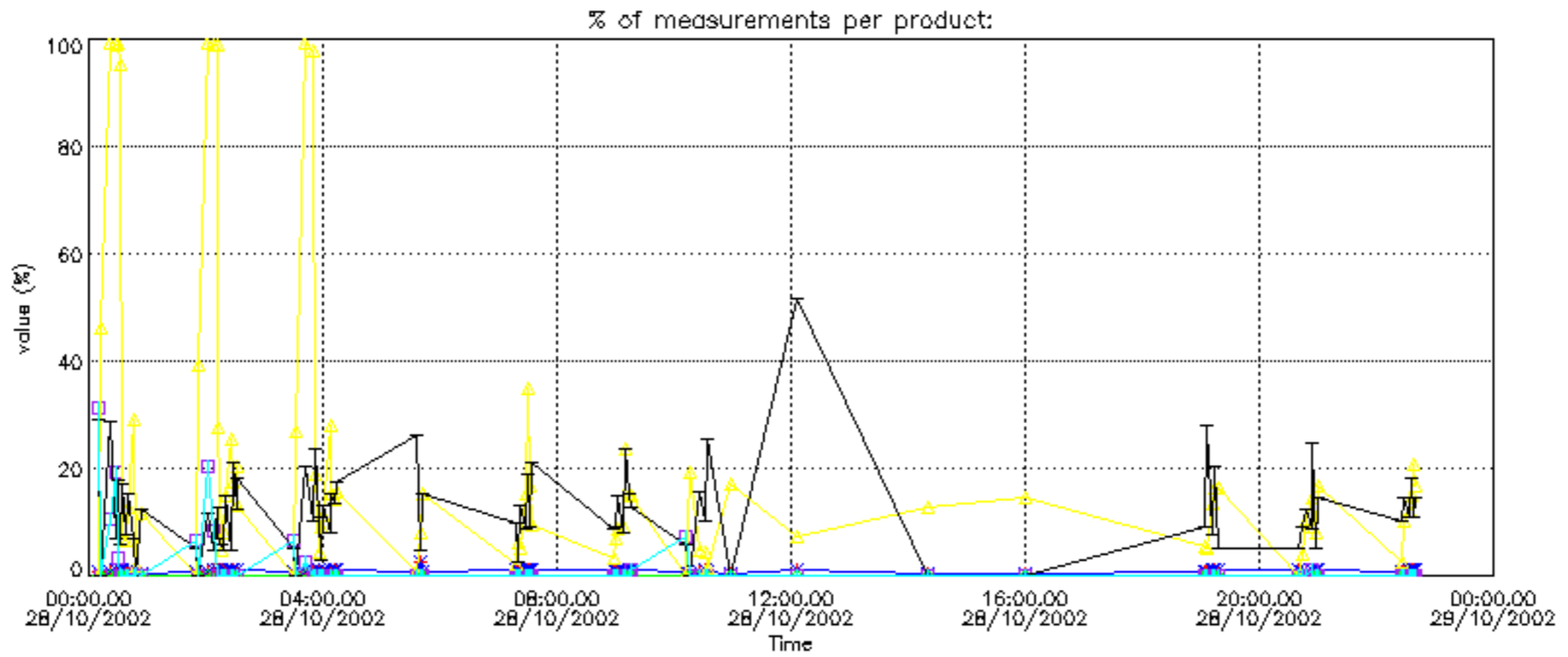


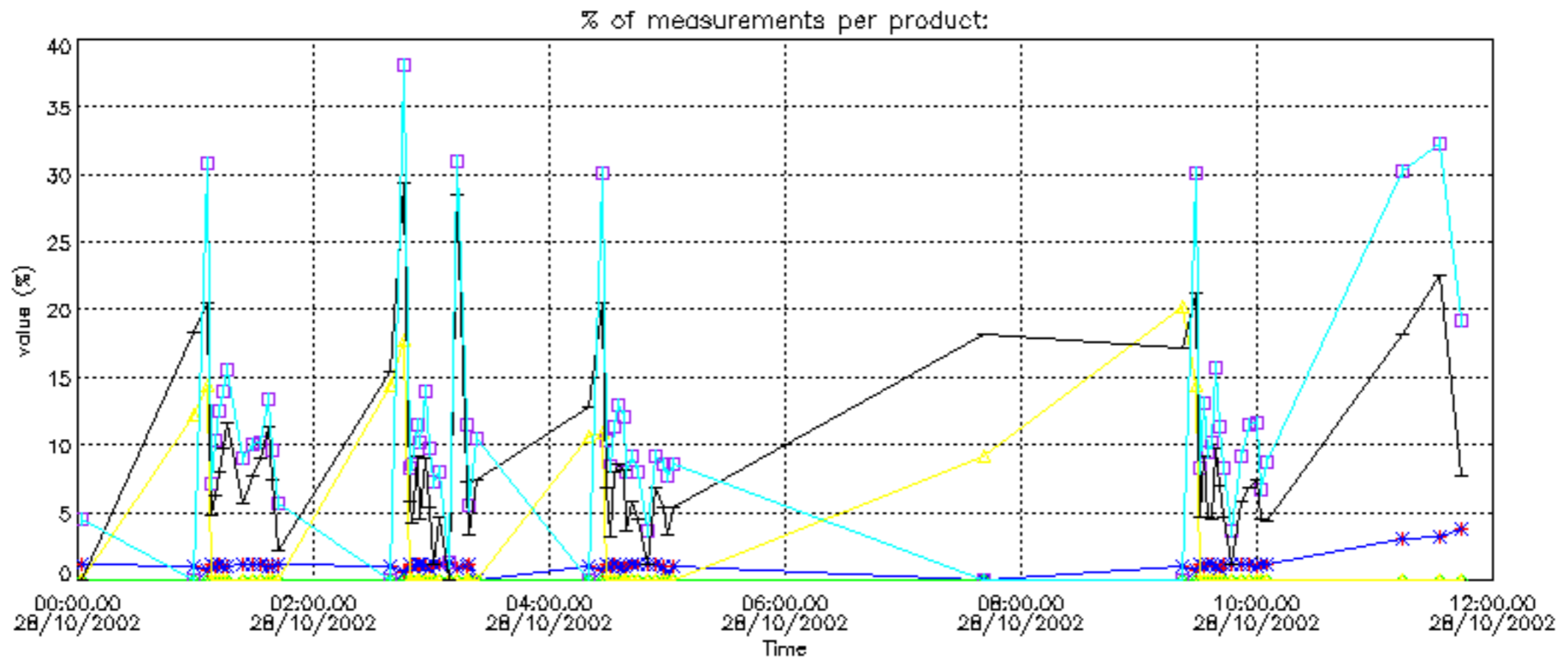
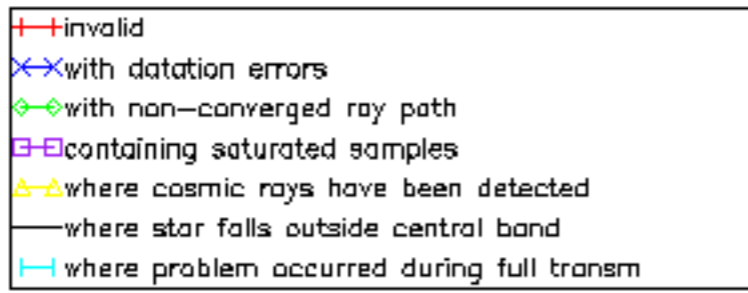
Percentage of flagged data per NO2 profile



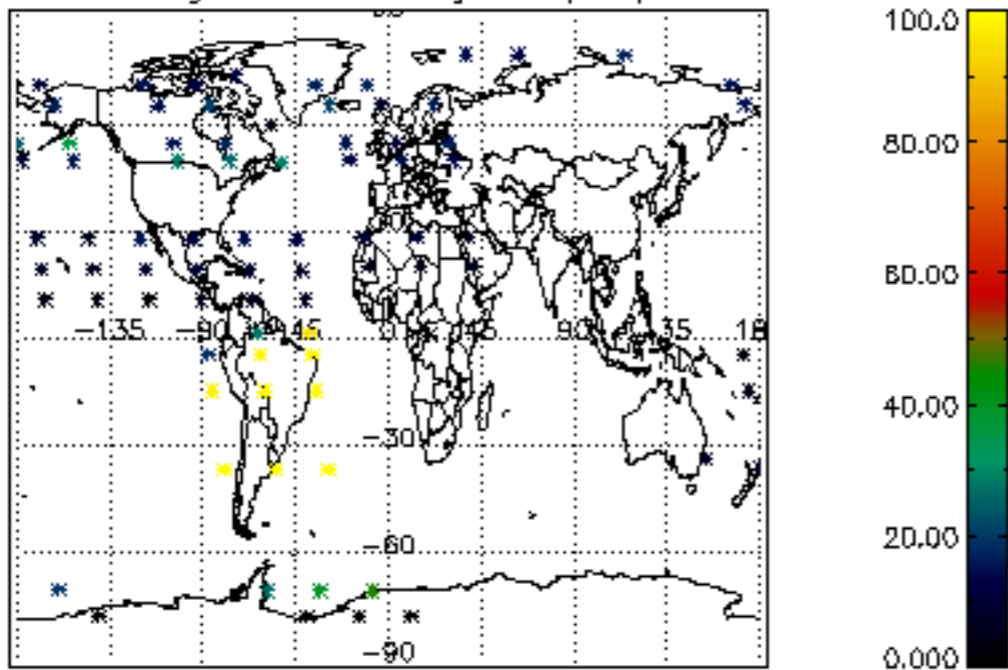
Percentage of flagged data per NO3 profile



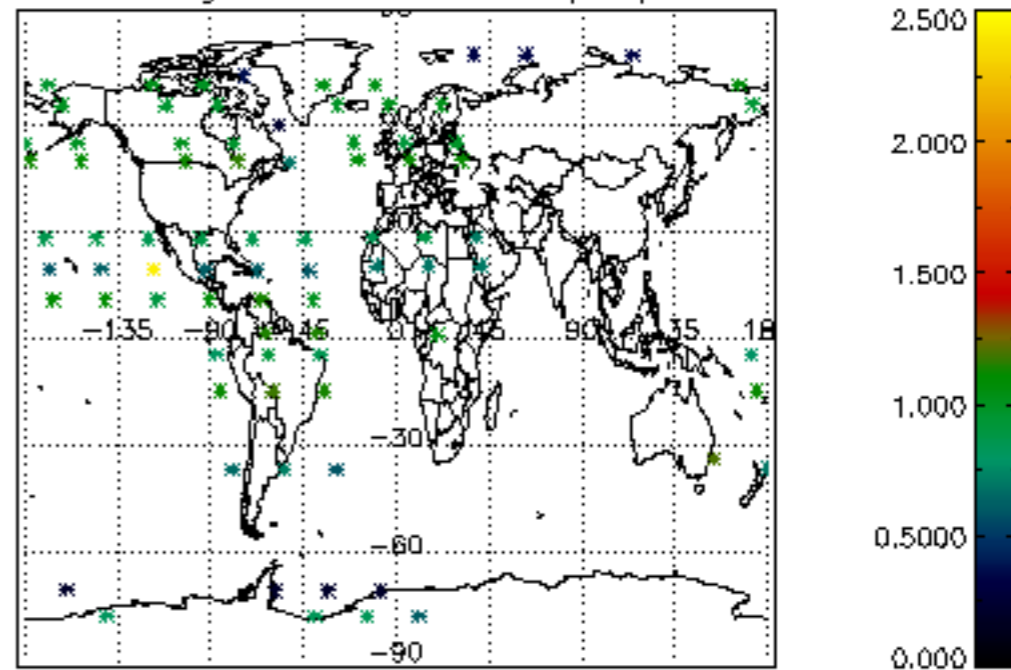




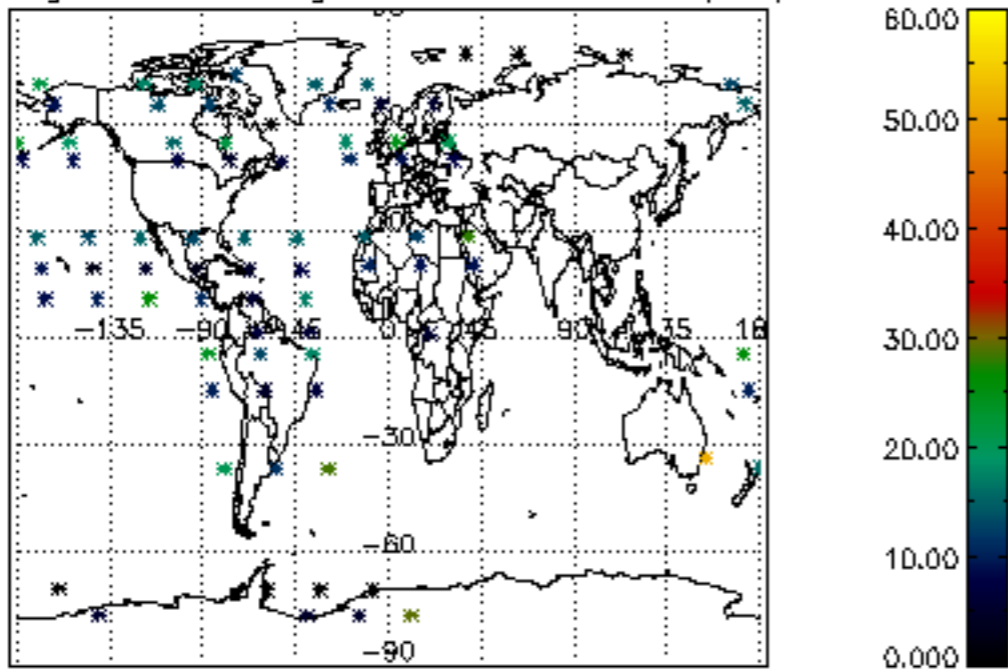
Percentage of cosmic ray hits per profile



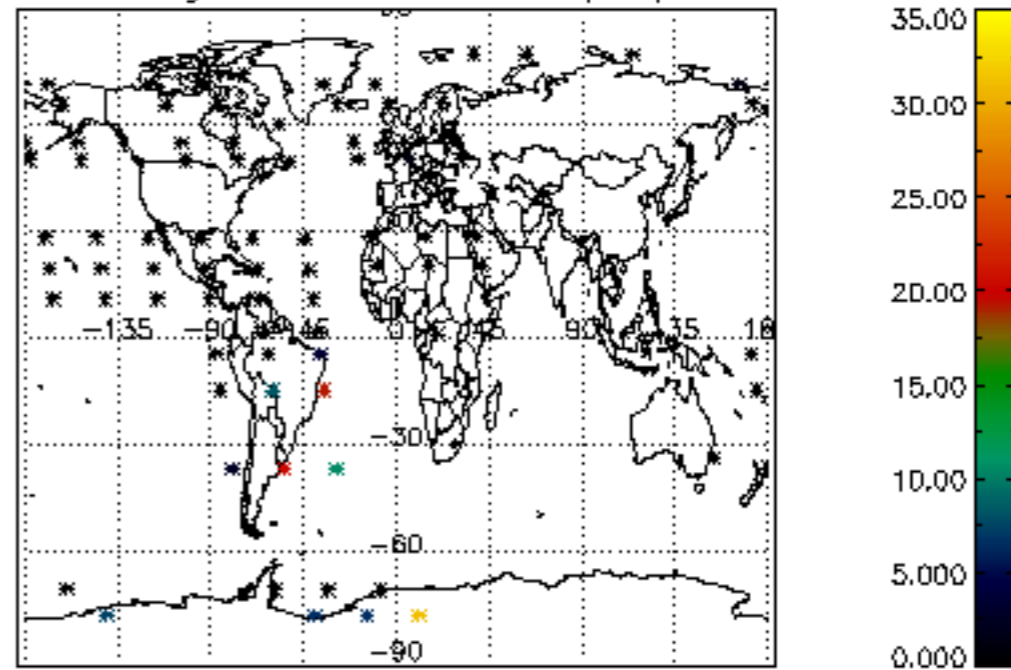
Percentage of datation errors per profile



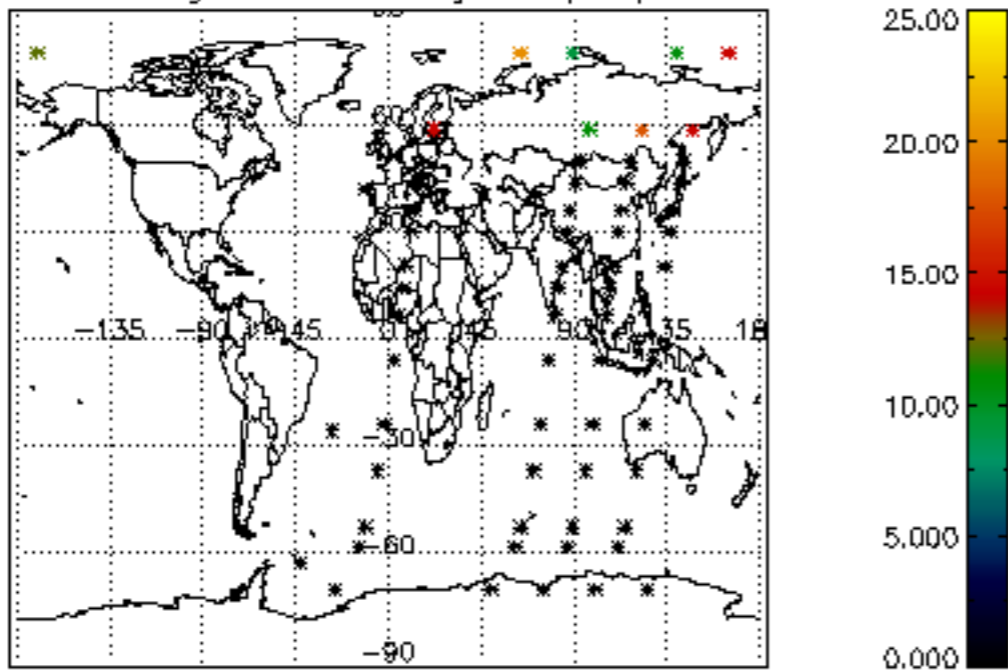
Percentage of star falling outside central band per profile



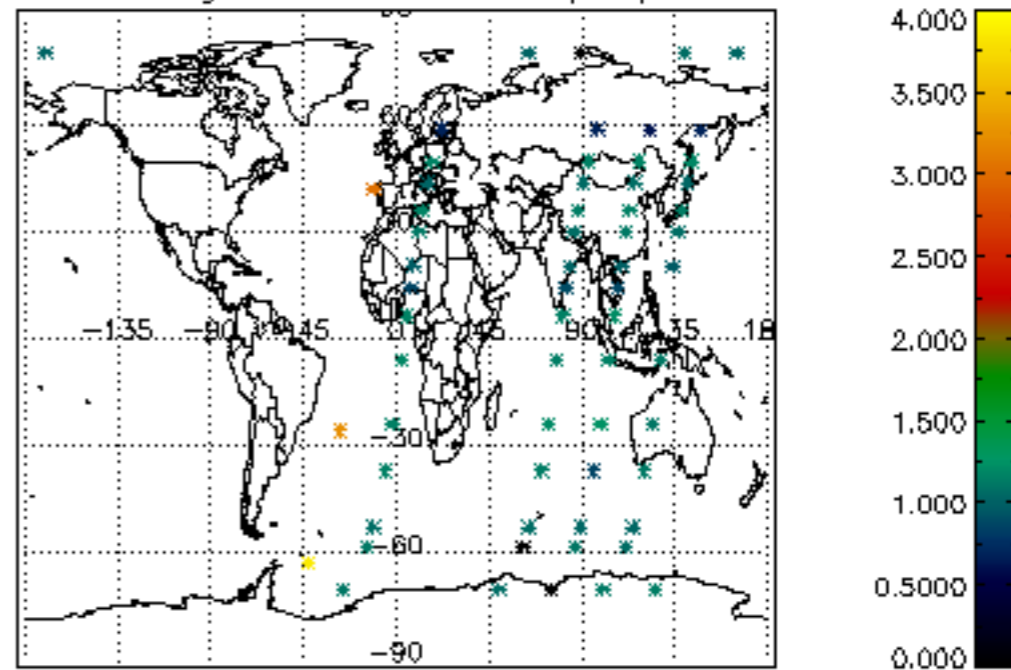
Percentage of saturation errors per profile



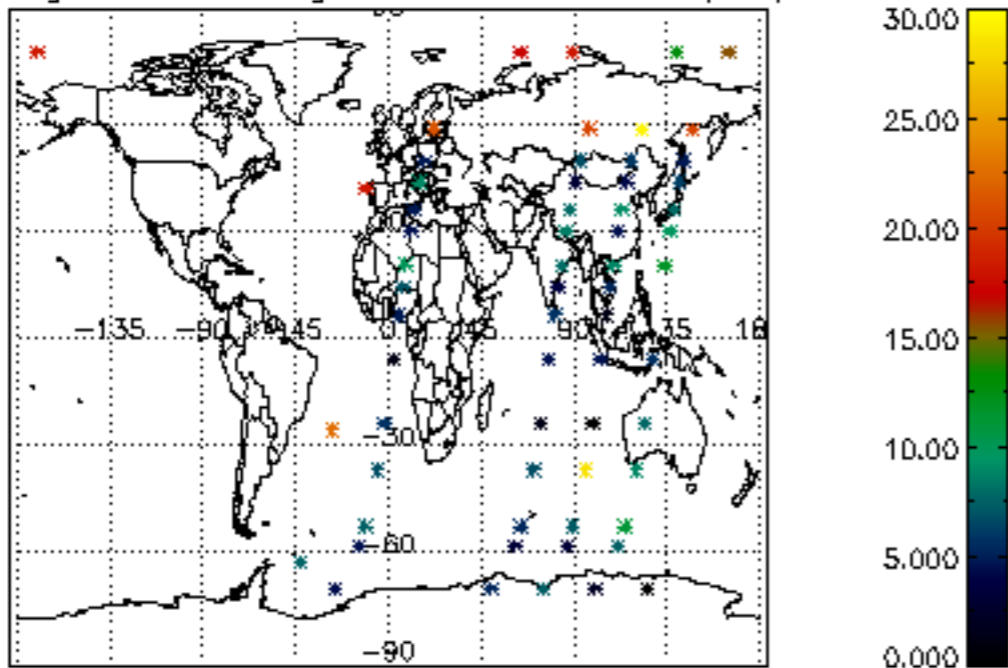
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

