

# 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	18APR2013 12:26:26
Data source version	GOMOS/6.01
Start time of products	13-11-2005 (13NOV2005 00:00:00)
Stop time of products	14-11-2005 (14NOV2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	225
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__2PRFIN20051113_000301_000000382042_00274_19366_8433.N1	13-NOV-2005 00:03:01	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	19366	No
2	GOM_NL__2PRFIN20051113_002053_000000382042_00274_19366_8434.N1	13-NOV-2005 00:20:53	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	19366	No
3	GOM_NL__2PRFIN20051113_002456_000000352042_00274_19366_8435.N1	13-NOV-2005 00:24:56	Bright	35.000	173	4Bet Tri	3.0040	8900.0	70	19366	No
4	GOM_NL__2PRFIN20051113_002700_000000372042_00274_19366_8436.N1	13-NOV-2005 00:27:00	Bright	36.500	73	57Gam1And	2.2600	13100.	73	19366	No
5	GOM_NL__2PRFIN20051113_003113_000000362042_00274_19366_8437.N1	13-NOV-2005 00:31:13	Bright	36.000	68	18Alp Cas	2.2250	4500.0	72	19366	No
6	GOM_NL__2PRFIN20051113_004012_000000372042_00274_19366_8438.N1	13-NOV-2005 00:40:12	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	19366	No
7	GOM_NL__2PRFIN20051113_004429_000000362042_00274_19366_8439.N1	13-NOV-2005 00:44:29	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	19366	No
8	GOM_NL__2PRFIN20051113_005010_000000372042_00274_19366_8440.N1	13-NOV-2005 00:50:10	Bright	37.000	32	77Eps UMa	1.7630	11000.	74	19366	No
9	GOM_NL__2PRFIN20051113_005145_000000522042_00274_19366_8441.N1	13-NOV-2005 00:51:45	Bright	52.000	39	85Eta UMa	1.8540	24000.	104	19366	No
10	GOM_NL__2PRFIN20051113_005515_000000352042_00274_19366_8442.N1	13-NOV-2005 00:55:15	Bright	34.500	152	12Alp2CVn	2.8900	11000.	69	19366	No
11	GOM_NL__2PRFIN20051113_010016_000000332042_00274_19366_8443.N1	13-NOV-2005 01:00:16	Bright	32.500	111	8Eta Boo	2.6800	6000.0	65	19366	No
12	GOM_NL__2PRFIN20051113_010255_000000342042_00274_19366_8444.N1	13-NOV-2005 01:02:55	Bright	33.500	138	47Eps Vir	2.8280	4700.0	67	19366	No
13	GOM_NL__2PRFIN20051113_010641_000000342042_00274_19366_8445.N1	13-NOV-2005 01:06:41	Bright	33.500	121	29Gam Vir	2.7400	7200.0	67	19366	No
14	GOM_NL__2PRFIN20051113_011139_000000432042_00274_19366_8446.N1	13-NOV-2005 01:11:39	Twilight	43.000	100	4Gam Crv	2.5800	13100.	86	19366	No
15	GOM_NL__2PRFIN20051113_011310_000000442042_00274_19366_8447.N1	13-NOV-2005 01:13:10	Twilight	44.000	171	2Eps Crv	3.0010	4250.0	88	19366	No
16	GOM_NL__2PRFIN20051113_011933_000000402042_00274_19366_8448.N1	13-NOV-2005 01:19:33	Dark	39.500	64	Gam Cen	2.2000	10600.	79	19366	No
17	GOM_NL__2PRFIN20051113_012150_000000432042_00274_19366_8449.N1	13-NOV-2005 01:21:50	Dark	42.500	26	Gam Cru	1.6240	2900.0	85	19366	No
18	GOM_NL__2PRFIN20051113_012525_000000362042_00275_19367_8432.N1	13-NOV-2005 01:25:25	Dark	36.000	124	The Car	2.7640	30000.	72	19367	No
19	GOM_NL__2PRFIN20051113_014337_000000412042_00275_19367_8433.N1	13-NOV-2005 01:43:37	Straylight	40.500	157	The1Eri	2.9060	9300.0	81	19367	No
20	GOM_NL__2PRFIN20051113_020128_000000372042_00275_19367_8434.N1	13-NOV-2005 02:01:28	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	19367	No
21	GOM_NL__2PRFIN20051113_020532_000000362042_00275_19367_8435.N1	13-NOV-2005 02:05:32	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	19367	No
22	GOM_NL__2PRFIN20051113_020736_000000392042_00275_19367_8436.N1	13-NOV-2005 02:07:36	Bright	38.500	73	57Gam1And	2.2600	13100.	77	19367	No
23	GOM_NL__2PRFIN20051113_021148_000000352042_00275_19367_8437.N1	13-NOV-2005 02:11:48	Bright	34.500	68	18Alp Cas	2.2250	4500.0	69	19367	No
24	GOM_NL__2PRFIN20051113_022048_000000352042_00275_19367_8438.N1	13-NOV-2005 02:20:48	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	19367	No
25	GOM_NL__2PRFIN20051113_022505_000000372042_00275_19367_8439.N1	13-NOV-2005 02:25:05	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	19367	No
26	GOM_NL__2PRFIN20051113_023046_000000462042_00275_19367_8440.N1	13-NOV-2005 02:30:46	Bright	46.000	32	77Eps UMa	1.7630	11000.	92	19367	No
27	GOM_NL__2PRFIN20051113_023221_000000352042_00275_19367_8441.N1	13-NOV-2005 02:32:21	Bright	35.000	39	85Eta UMa	1.8540	24000.	70	19367	No
28	GOM_NL__2PRFIN20051113_023551_000000342042_00275_19367_8442.N1	13-NOV-2005 02:35:51	Bright	34.000	152	12Alp2CVn	2.8900	11000.	68	19367	No
29	GOM_NL__2PRFIN20051113_024052_000000332042_00275_19367_8443.N1	13-NOV-2005 02:40:52	Bright	32.500	111	8Eta Boo	2.6800	6000.0	65	19367	No
30	GOM_NL__2PRFIN20051113_024331_000000332042_00275_19367_8444.N1	13-NOV-2005 02:43:31	Bright	33.000	138	47Eps Vir	2.8280	4700.0	66	19367	No
31	GOM_NL__2PRFIN20051113_024718_000000352042_00275_19367_8445.N1	13-NOV-2005 02:47:18	Bright	34.500	121	29Gam Vir	2.7400	7200.0	69	19367	No
32	GOM_NL__2PRFIN20051113_025216_000000422042_00275_19367_8446.N1	13-NOV-2005 02:52:16	Twilight	42.000	100	4Gam Crv	2.5800	13100.	84	19367	No
33	GOM_NL__2PRFIN20051113_025346_000000432042_00275_19367_8447.N1	13-NOV-2005 02:53:46	Twilight	42.500	171	2Eps Crv	3.0010	4250.0	85	19367	No
34	GOM_NL__2PRFIN20051113_030009_000000392042_00275_19367_8448.N1	13-NOV-2005 03:00:09	Dark	38.500	64	Gam Cen	2.2000	10600.	77	19367	No
35	GOM_NL__2PRFIN20051113_030226_000000502042_00275_19367_8449.N1	13-NOV-2005 03:02:26	Dark	49.500	26	Gam Cru	1.6240	2900.0	99	19367	No
36	GOM_NL__2PRFIN20051113_030601_000000372042_00276_19368_8432.N1	13-NOV-2005 03:06:01	Dark	37.000	124	The Car	2.7640	30000.	74	19368	No
37	GOM_NL__2PRFIN20051113_032414_000000382042_00276_19368_8433.N1	13-NOV-2005 03:24:14	Straylight	37.500	157	The1Eri	2.9060	9300.0	75	19368	No
38	GOM_NL__2PRFIN20051113_034204_000000372042_00276_19368_8434.N1	13-NOV-2005 03:42:04	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	19368	No
39	GOM_NL__2PRFIN20051113_034608_000000362042_00276_19368_8435.N1	13-NOV-2005 03:46:08	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	19368	No
40	GOM_NL__2PRFIN20051113_034812_000000382042_00276_19368_8436.N1	13-NOV-2005 03:48:12	Bright	38.000	73	57Gam1And	2.2600	13100.	76	19368	No
41	GOM_NL__2PRFIN20051113_035225_000000362042_00276_19368_8437.N1	13-NOV-2005 03:52:25	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	19368	No
42	GOM_NL__2PRFIN20051113_040124_000000352042_00276_19368_8438.N1	13-NOV-2005 04:01:24	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	19368	No





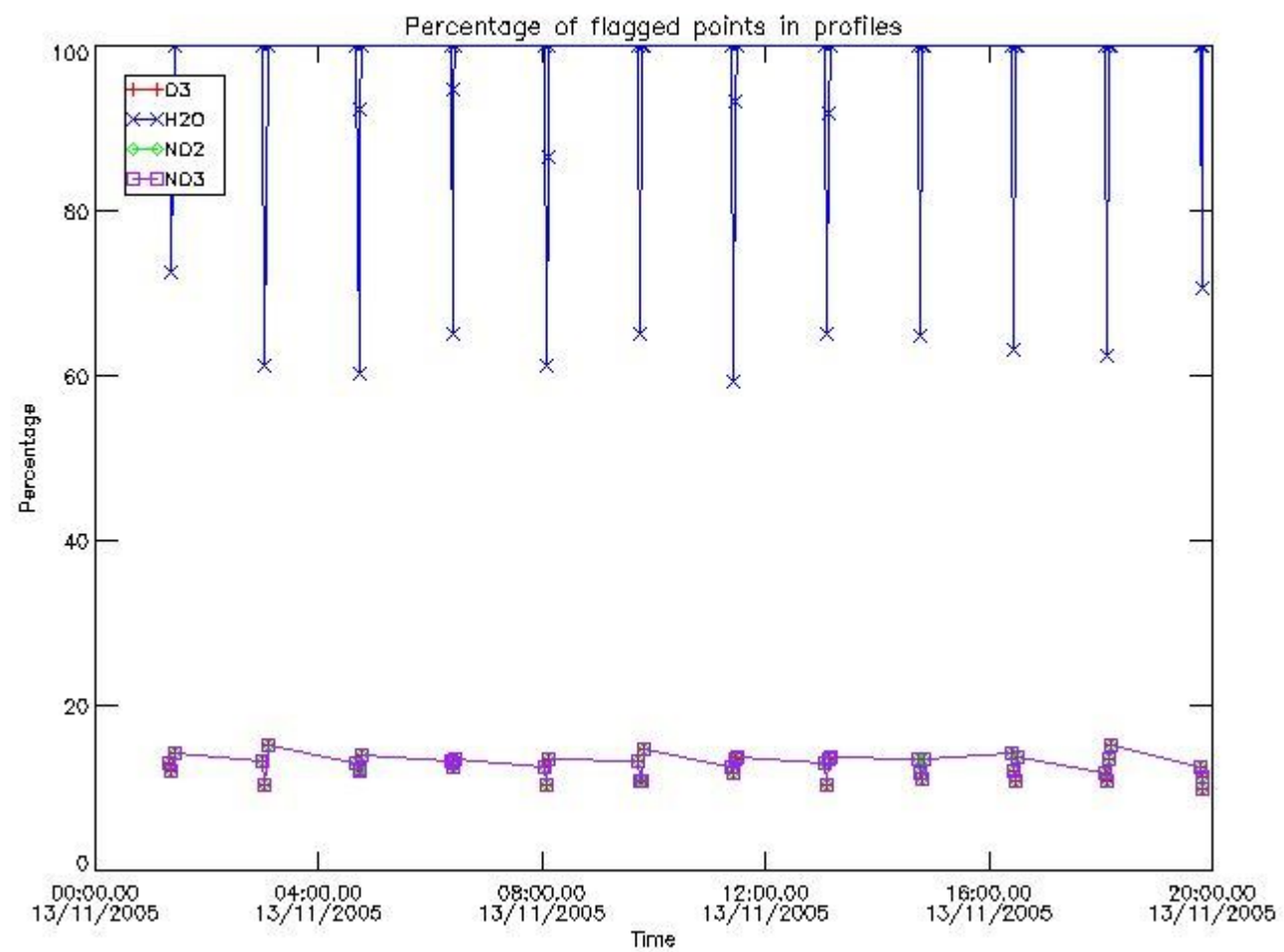


220	GOM_NL__2PRFIN20051113_193320_000000532042_00285_19377_8465.N1	13-NOV-2005 19:33:20	Bright	53.000	121	29Gam Vir	2.7400	7200.0	106	19377	No
221	GOM_NL__2PRFIN20051113_193819_000000432042_00285_19377_8466.N1	13-NOV-2005 19:38:19	Twilight	42.500	100	4Gam Crv	2.5800	13100.	85	19377	No
222	GOM_NL__2PRFIN20051113_193950_000000392042_00285_19377_8467.N1	13-NOV-2005 19:39:50	Twilight	39.000	171	2Eps Crv	3.0010	4250.0	78	19377	No
223	GOM_NL__2PRFIN20051113_194610_000000412042_00285_19377_8468.N1	13-NOV-2005 19:46:10	Dark	40.500	64	Gam Cen	2.2000	10600.	81	19377	No
224	GOM_NL__2PRFIN20051113_194828_000000522042_00285_19377_8469.N1	13-NOV-2005 19:48:28	Dark	51.500	26	Gam Cru	1.6240	2900.0	103	19377	No
225	GOM_NL__2PRFIN20051113_195005_000000452042_00285_19377_8470.N1	13-NOV-2005 19:50:05	Dark	44.500	12	Alp1Cru	0.77500	30000.	89	19377	No

### 3. Quality information per product

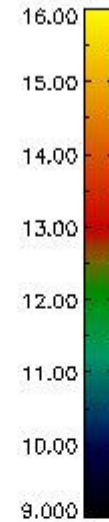
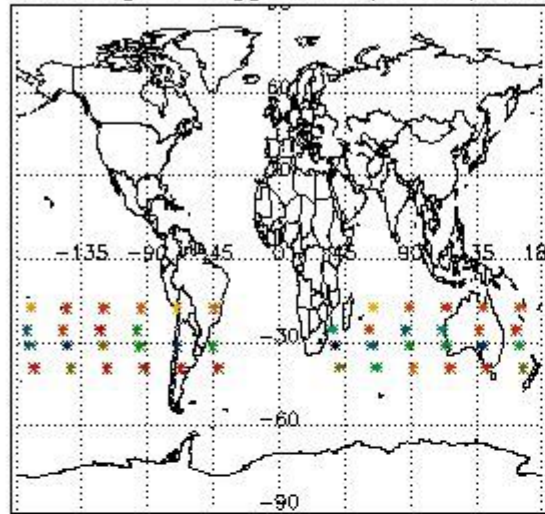
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

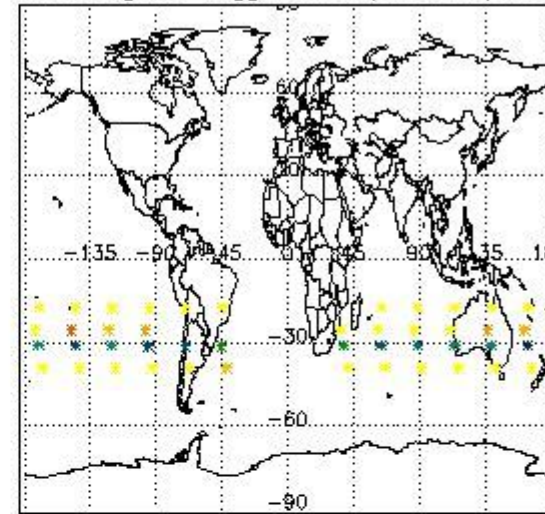


#### 3.2 Plot quality information per product (world map)

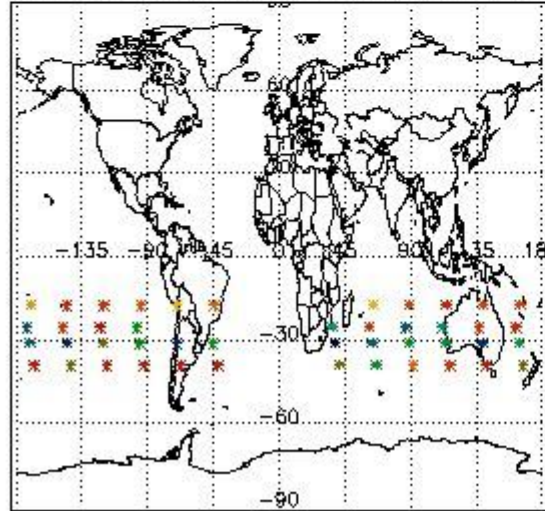
Percentage of flagged data per O3 profile



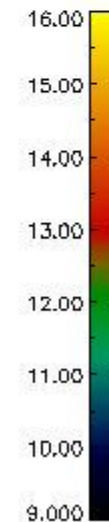
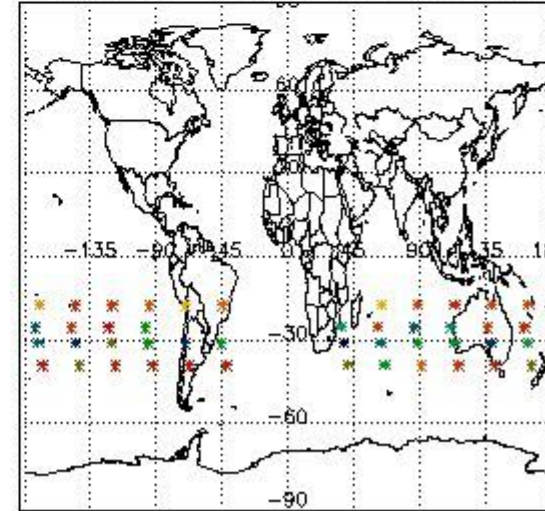
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

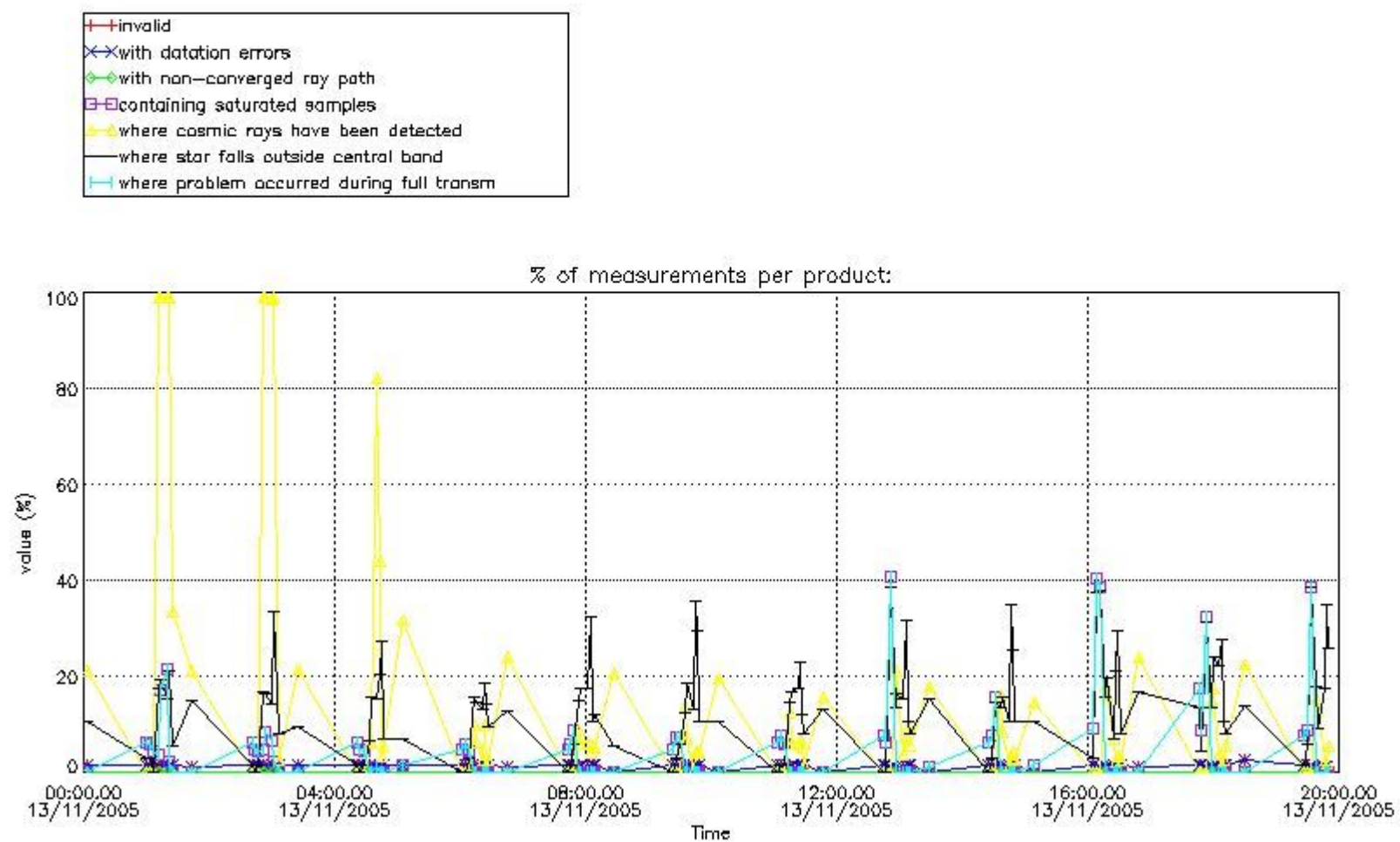


#### 4. Level 1 quality information per product

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.

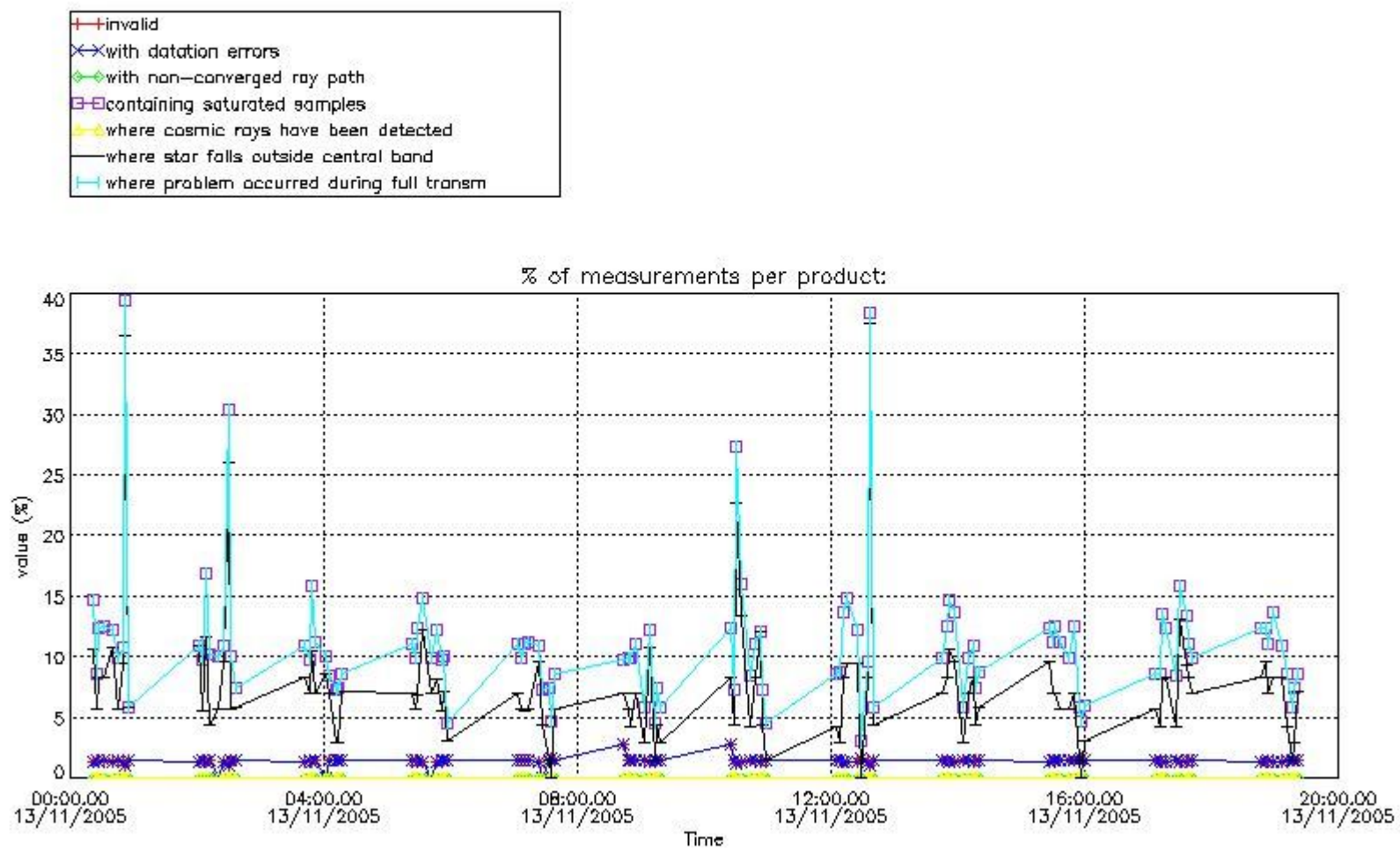
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

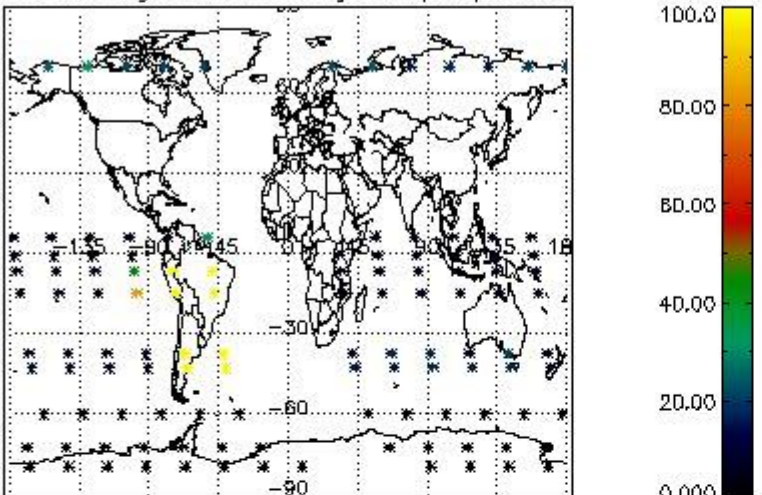




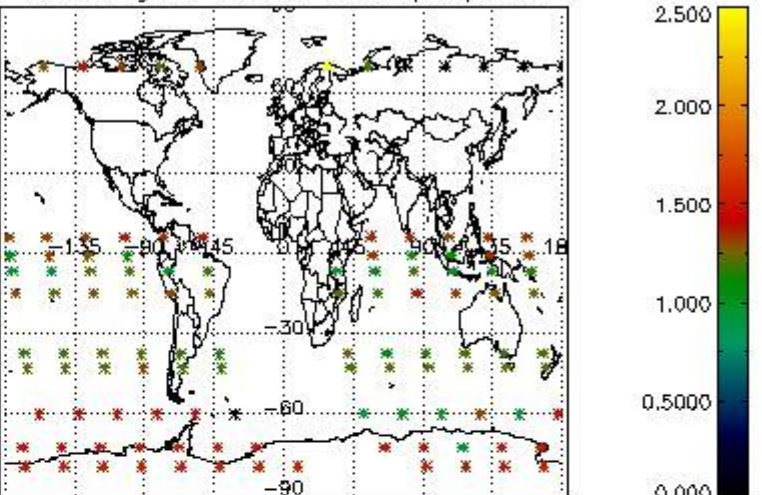
4.2 Plot quality information per product coming from level 1b processing (world map)

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

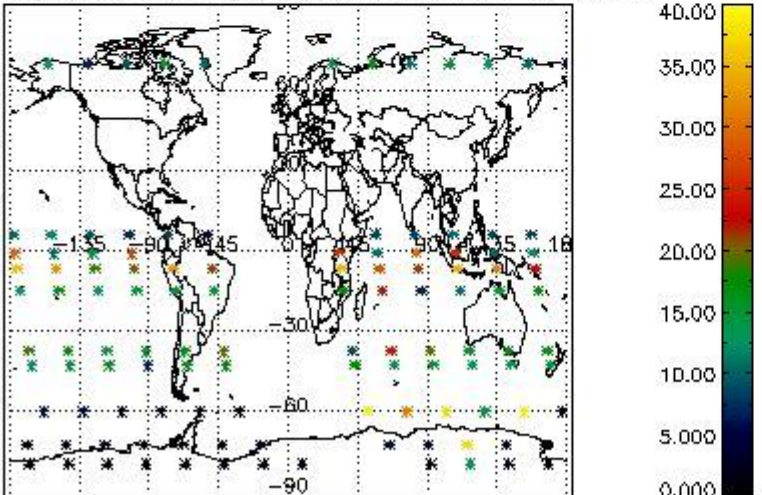
Percentage of cosmic ray hits per profile



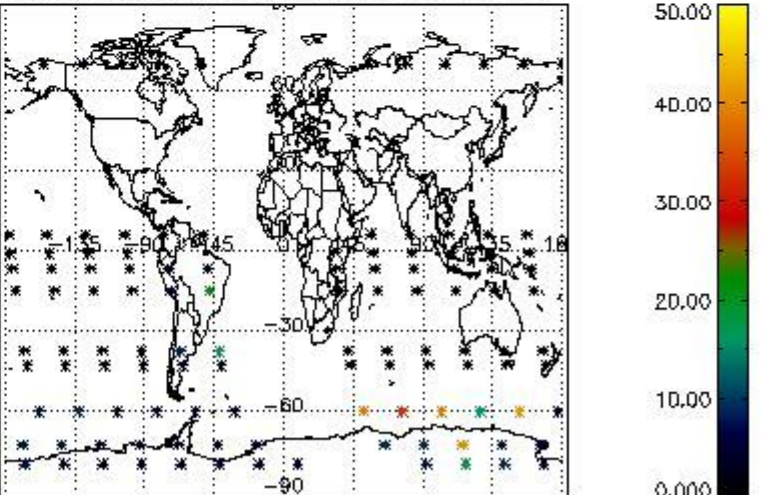
Percentage of datation errors per profile



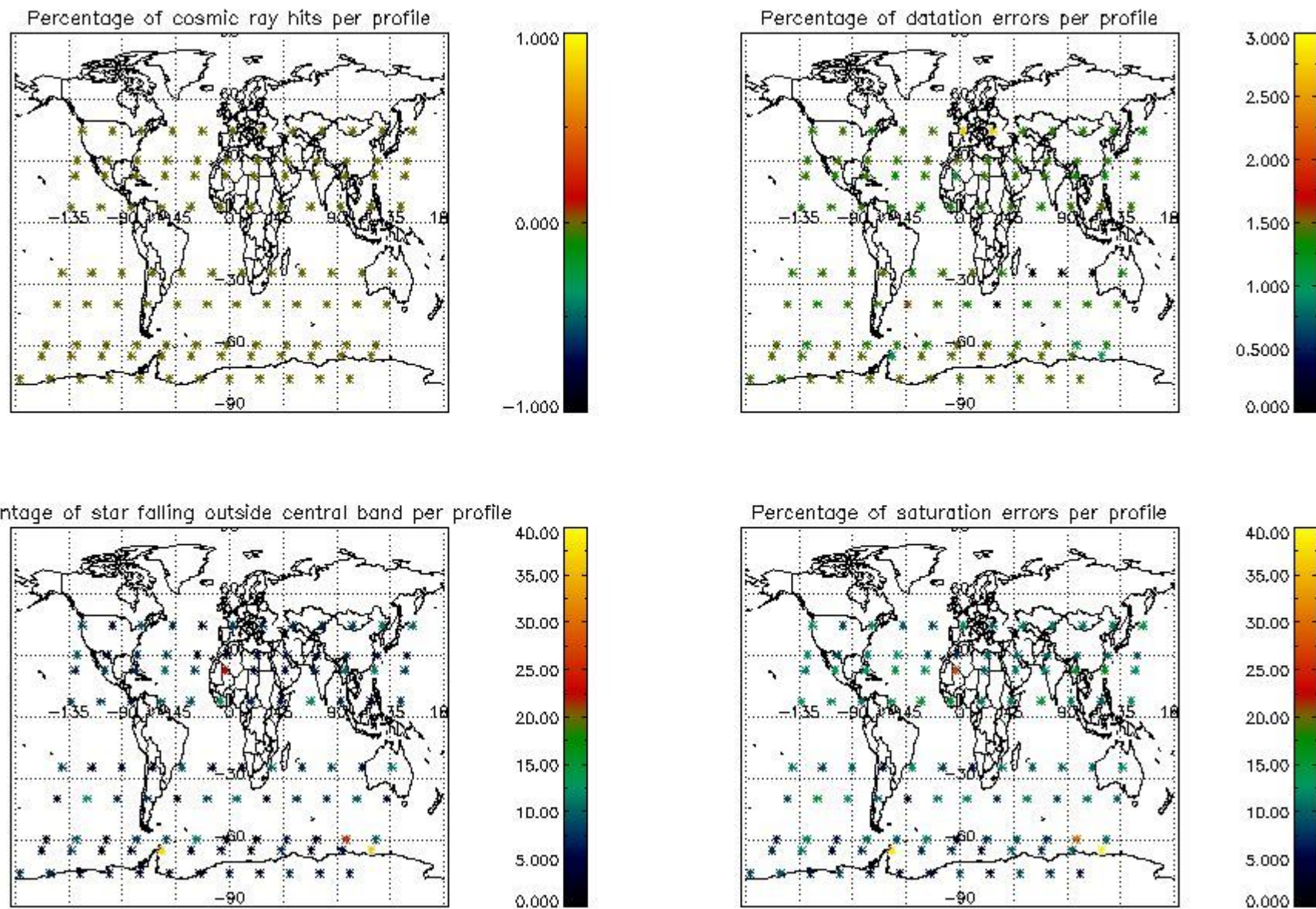
Percentage of star falling outside central band per profile



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

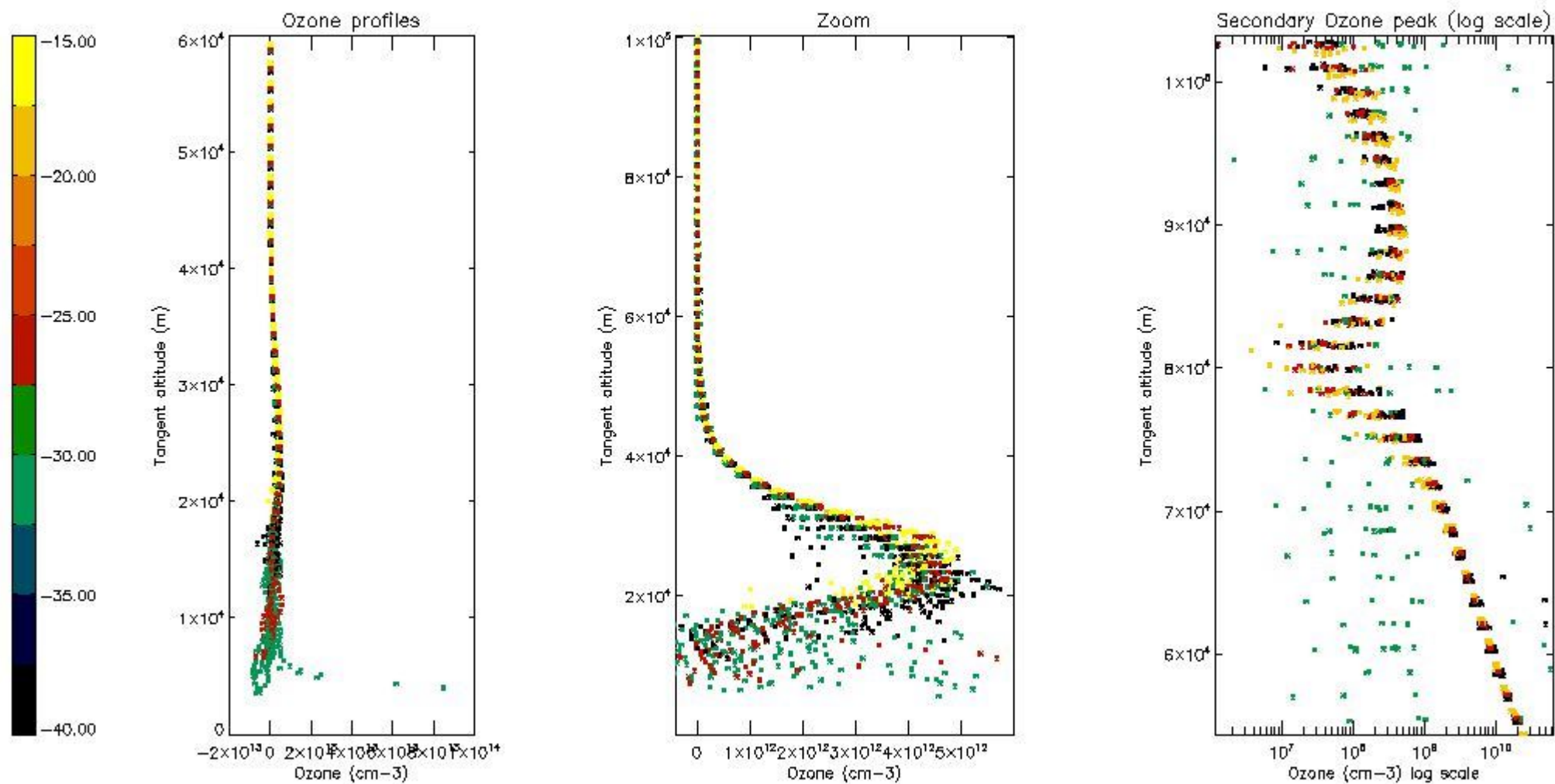
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	23
STD < 20	13

STD < 10	10
STD < 5	7

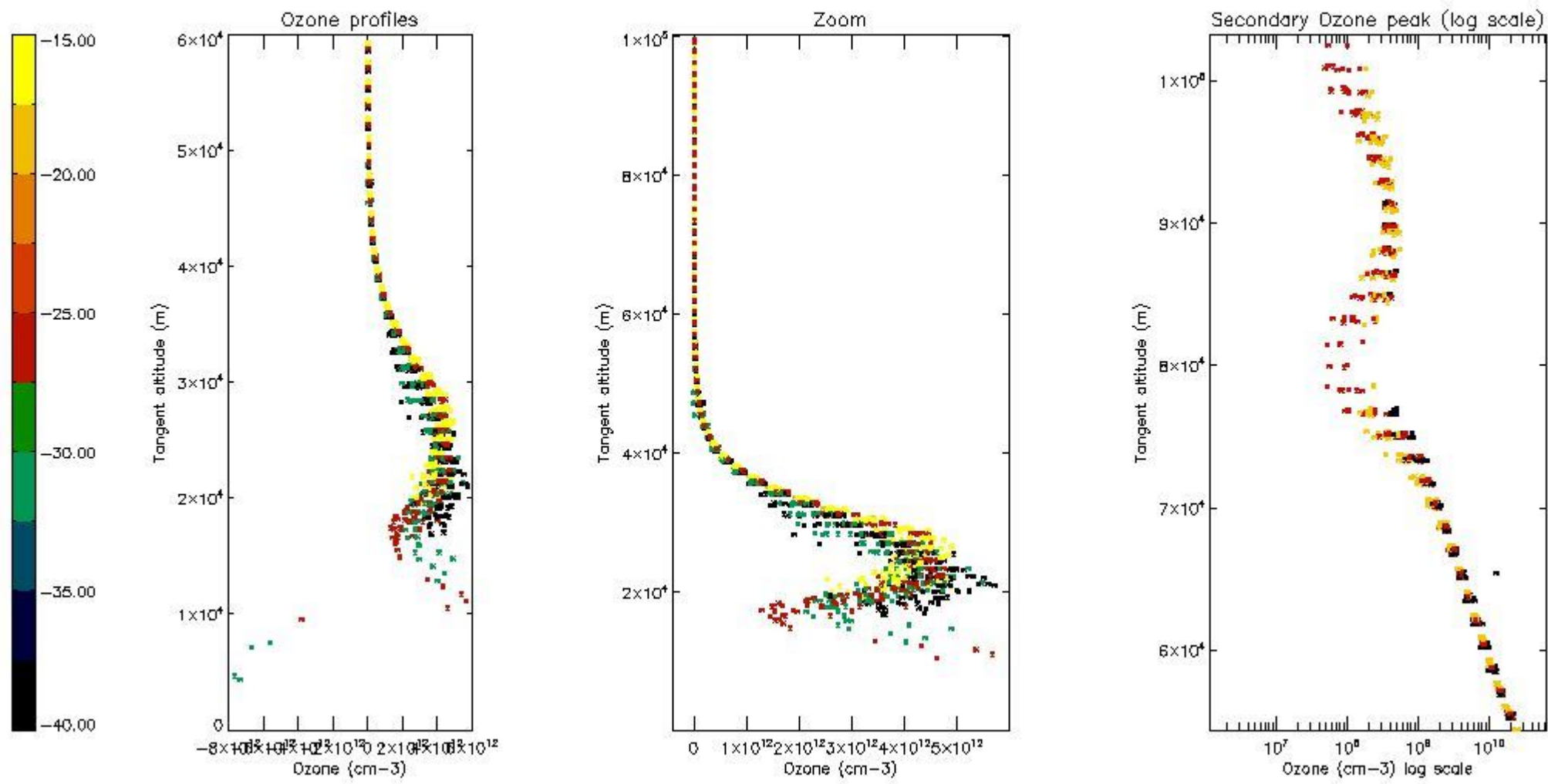
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



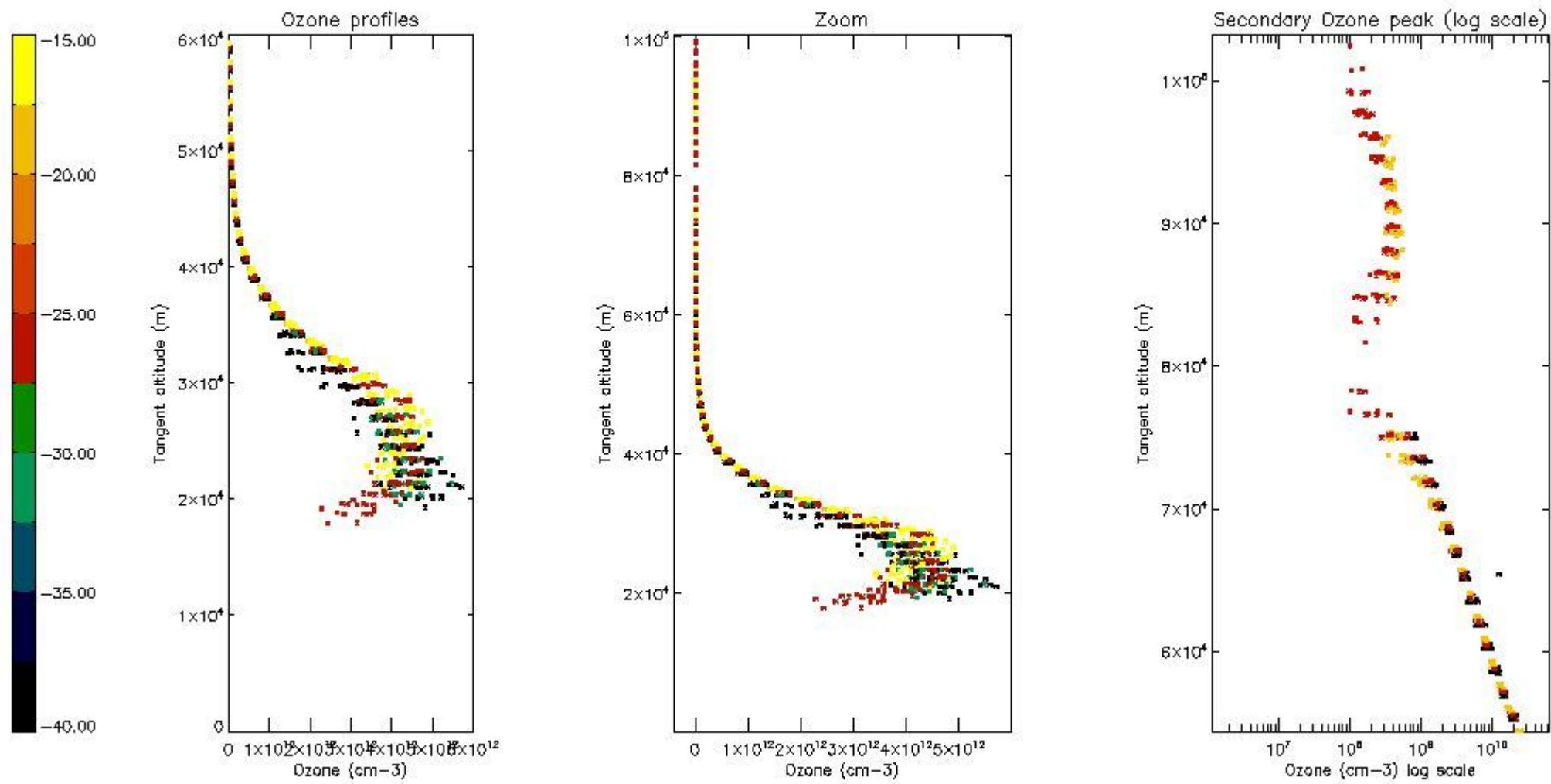
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



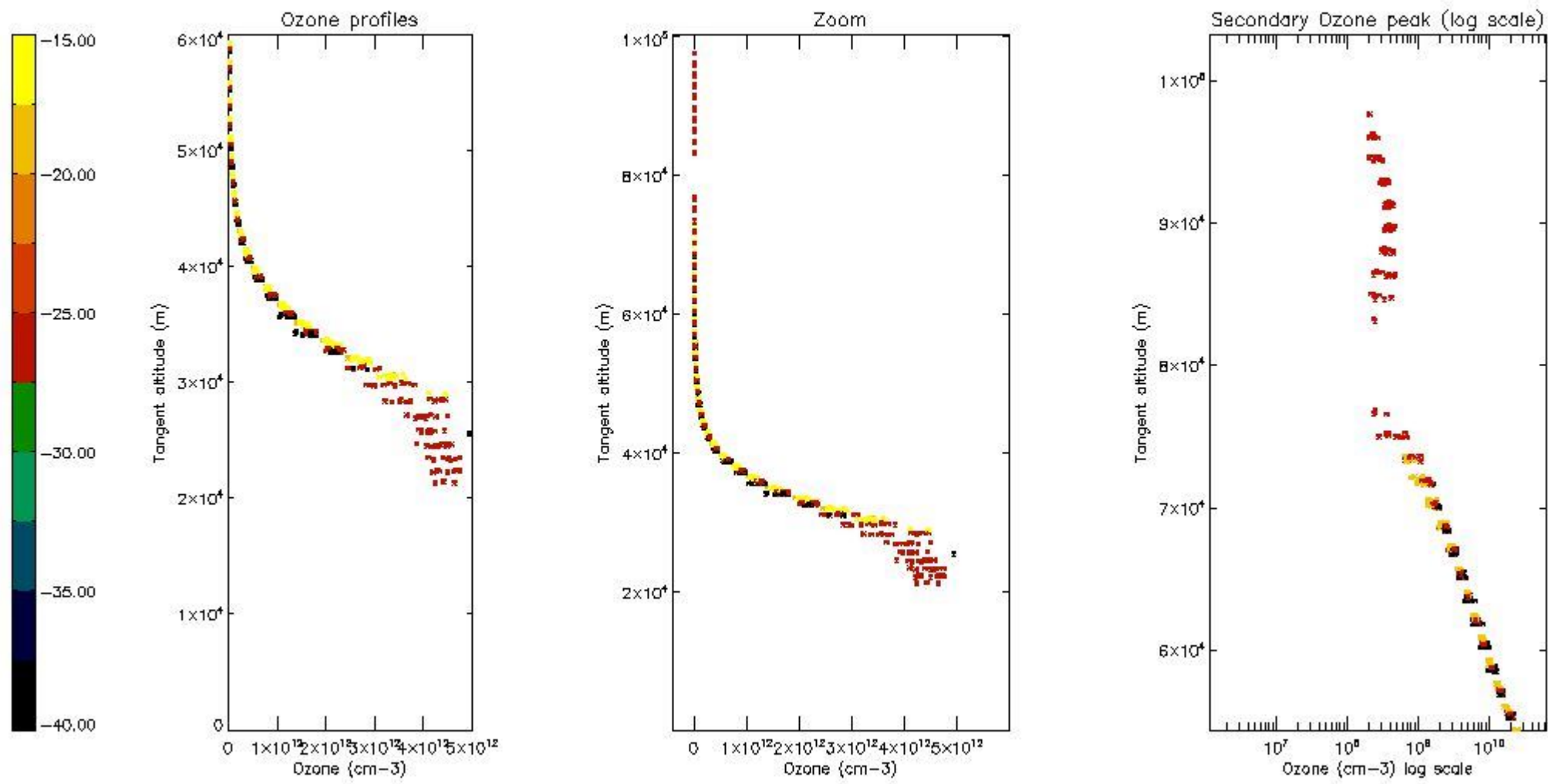
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



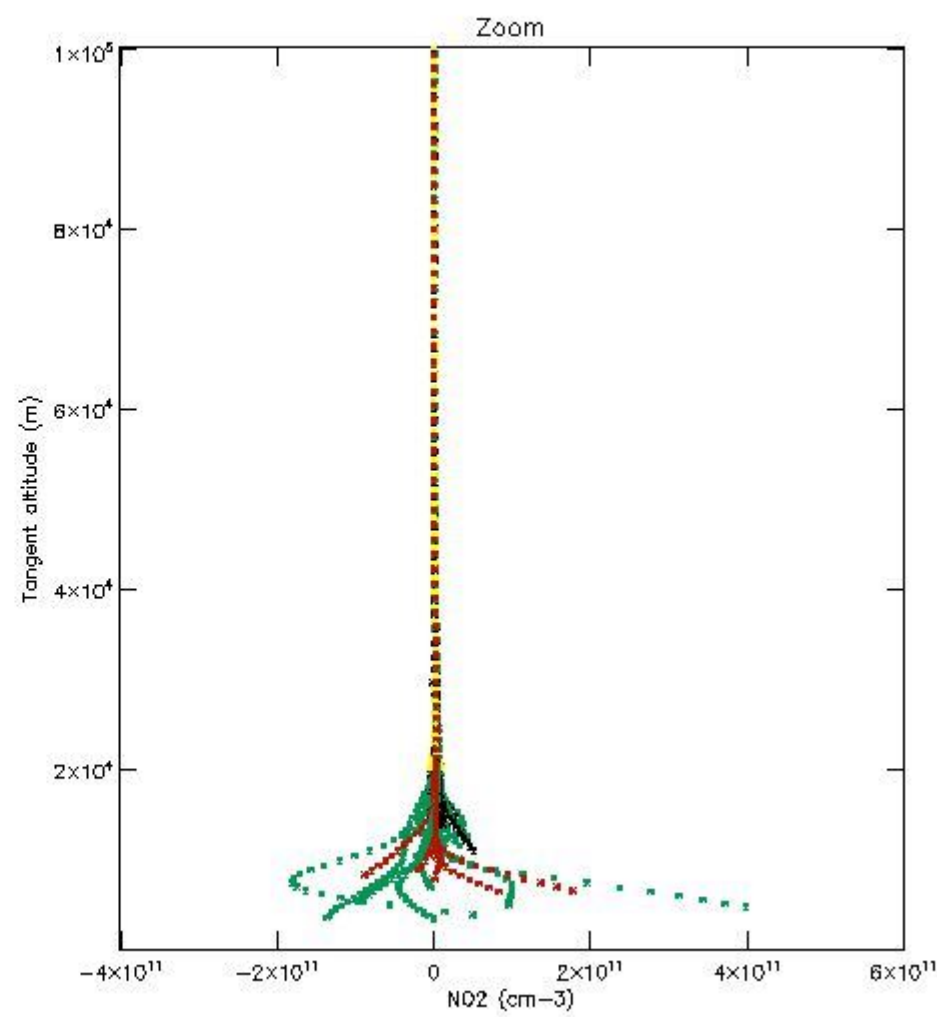
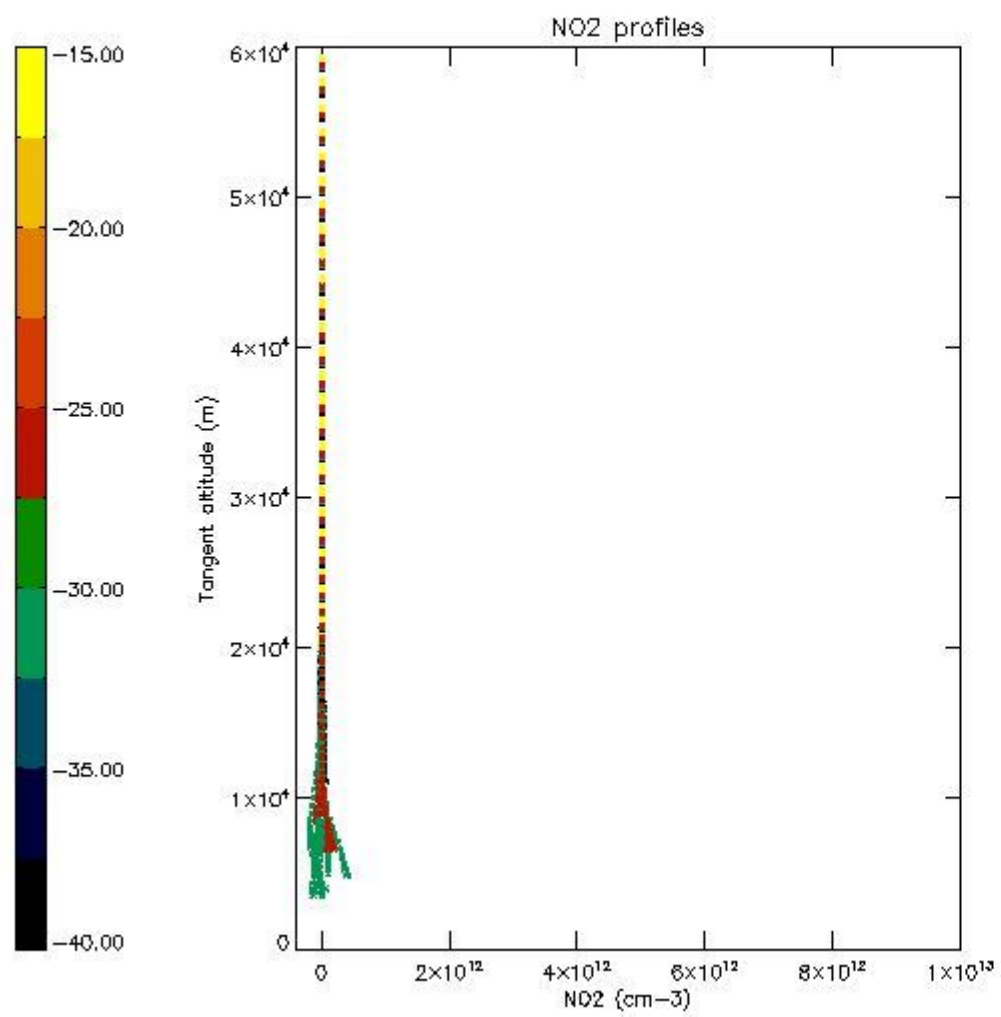
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

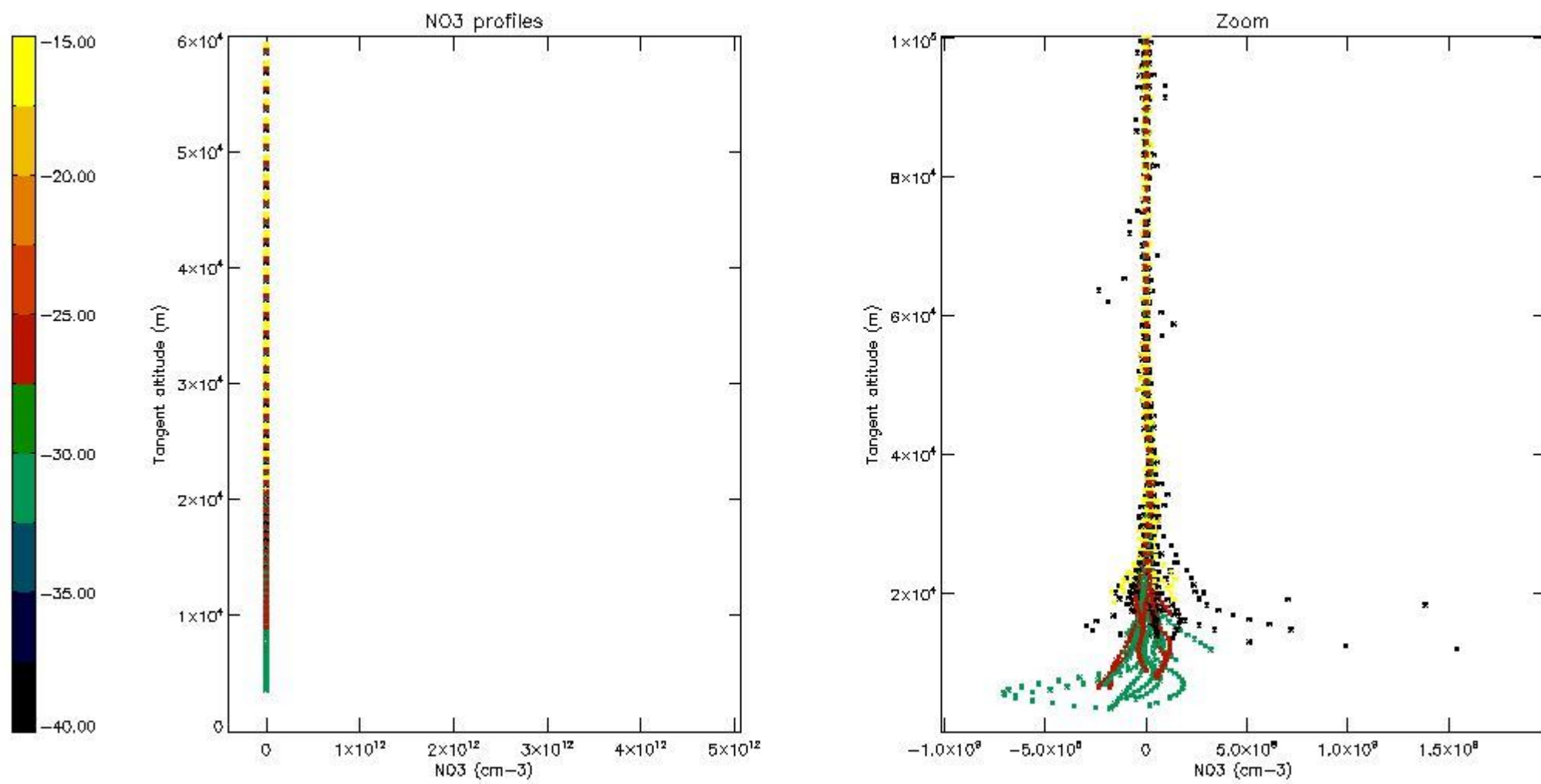
The colorbar represents the latitude.



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

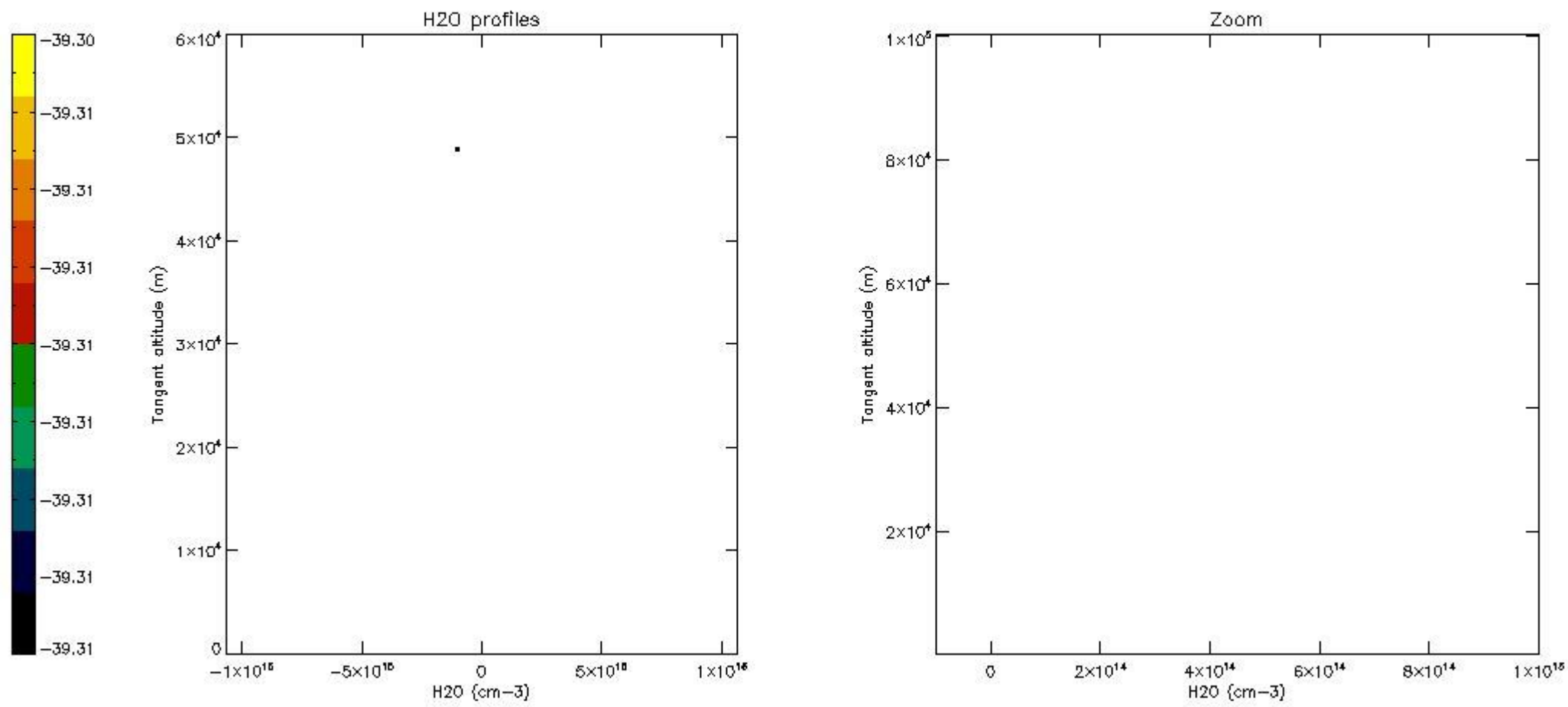
The colorbar represents the latitude.





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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	13-NOV-2005 00:03:01
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-NOV-2005 00:03:01
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-NOV-2005 00:03:01

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

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#### [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% \(dark without errors\)](#)

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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](#)

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.

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Time of report generation	18APR2013 12:26:26
Data source version	GOMOS/6.01
Start time of products	13-11-2005 (13NOV2005 00:00:00)
Stop time of products	14-11-2005 (14NOV2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	225
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__2PRFIN20051113_000301_000000382042_00274_19366_8433.N1	13-NOV-2005 00:03:01	Straylight	38.000	157	The1Eri	2.9060	9300.0	76	19366	No
2	GOM_NL__2PRFIN20051113_002053_000000382042_00274_19366_8434.N1	13-NOV-2005 00:20:53	Bright	37.500	105	6Bet Ari	2.6450	8900.0	75	19366	No
3	GOM_NL__2PRFIN20051113_002456_000000352042_00274_19366_8435.N1	13-NOV-2005 00:24:56	Bright	35.000	173	4Bet Tri	3.0040	8900.0	70	19366	No
4	GOM_NL__2PRFIN20051113_002700_000000372042_00274_19366_8436.N1	13-NOV-2005 00:27:00	Bright	36.500	73	57Gam1And	2.2600	13100.	73	19366	No
5	GOM_NL__2PRFIN20051113_003113_000000362042_00274_19366_8437.N1	13-NOV-2005 00:31:13	Bright	36.000	68	18Alp Cas	2.2250	4500.0	72	19366	No
6	GOM_NL__2PRFIN20051113_004012_000000372042_00274_19366_8438.N1	13-NOV-2005 00:40:12	Bright	37.000	49	1Alp UMi	1.9900	6300.0	74	19366	No
7	GOM_NL__2PRFIN20051113_004429_000000362042_00274_19366_8439.N1	13-NOV-2005 00:44:29	Bright	35.500	60	7Bet UMi	2.0810	3950.0	71	19366	No
8	GOM_NL__2PRFIN20051113_005010_000000372042_00274_19366_8440.N1	13-NOV-2005 00:50:10	Bright	37.000	32	77Eps UMa	1.7630	11000.	74	19366	No
9	GOM_NL__2PRFIN20051113_005145_000000522042_00274_19366_8441.N1	13-NOV-2005 00:51:45	Bright	52.000	39	85Eta UMa	1.8540	24000.	104	19366	No
10	GOM_NL__2PRFIN20051113_005515_000000352042_00274_19366_8442.N1	13-NOV-2005 00:55:15	Bright	34.500	152	12Alp2CVn	2.8900	11000.	69	19366	No
11	GOM_NL__2PRFIN20051113_010016_000000332042_00274_19366_8443.N1	13-NOV-2005 01:00:16	Bright	32.500	111	8Eta Boo	2.6800	6000.0	65	19366	No
12	GOM_NL__2PRFIN20051113_010255_000000342042_00274_19366_8444.N1	13-NOV-2005 01:02:55	Bright	33.500	138	47Eps Vir	2.8280	4700.0	67	19366	No
13	GOM_NL__2PRFIN20051113_010641_000000342042_00274_19366_8445.N1	13-NOV-2005 01:06:41	Bright	33.500	121	29Gam Vir	2.7400	7200.0	67	19366	No
14	GOM_NL__2PRFIN20051113_011139_000000432042_00274_19366_8446.N1	13-NOV-2005 01:11:39	Twi_and_stray	43.000	100	4Gam Crv	2.5800	13100.	86	19366	No
15	GOM_NL__2PRFIN20051113_011310_000000442042_00274_19366_8447.N1	13-NOV-2005 01:13:10	Twilight	44.000	171	2Eps Crv	3.0010	4250.0	88	19366	No
16	GOM_NL__2PRFIN20051113_011933_000000402042_00274_19366_8448.N1	13-NOV-2005 01:19:33	Dark	39.500	64	Gam Cen	2.2000	10600.	79	19366	No
17	GOM_NL__2PRFIN20051113_012150_000000432042_00274_19366_8449.N1	13-NOV-2005 01:21:50	Dark	42.500	26	Gam Cru	1.6240	2900.0	85	19366	No
18	GOM_NL__2PRFIN20051113_012525_000000362042_00275_19367_8432.N1	13-NOV-2005 01:25:25	Dark	36.000	124	The Car	2.7640	30000.	72	19367	No
19	GOM_NL__2PRFIN20051113_014337_000000412042_00275_19367_8433.N1	13-NOV-2005 01:43:37	Straylight	40.500	157	The1Eri	2.9060	9300.0	81	19367	No
20	GOM_NL__2PRFIN20051113_020128_000000372042_00275_19367_8434.N1	13-NOV-2005 02:01:28	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	19367	No
21	GOM_NL__2PRFIN20051113_020532_000000362042_00275_19367_8435.N1	13-NOV-2005 02:05:32	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	19367	No
22	GOM_NL__2PRFIN20051113_020736_000000392042_00275_19367_8436.N1	13-NOV-2005 02:07:36	Bright	38.500	73	57Gam1And	2.2600	13100.	77	19367	No
23	GOM_NL__2PRFIN20051113_021148_000000352042_00275_19367_8437.N1	13-NOV-2005 02:11:48	Bright	34.500	68	18Alp Cas	2.2250	4500.0	69	19367	No
24	GOM_NL__2PRFIN20051113_022048_000000352042_00275_19367_8438.N1	13-NOV-2005 02:20:48	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	19367	No
25	GOM_NL__2PRFIN20051113_022505_000000372042_00275_19367_8439.N1	13-NOV-2005 02:25:05	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	19367	No
26	GOM_NL__2PRFIN20051113_023046_000000462042_00275_19367_8440.N1	13-NOV-2005 02:30:46	Bright	46.000	32	77Eps UMa	1.7630	11000.	92	19367	No
27	GOM_NL__2PRFIN20051113_023221_000000352042_00275_19367_8441.N1	13-NOV-2005 02:32:21	Bright	35.000	39	85Eta UMa	1.8540	24000.	70	19367	No
28	GOM_NL__2PRFIN20051113_023551_000000342042_00275_19367_8442.N1	13-NOV-2005 02:35:51	Bright	34.000	152	12Alp2CVn	2.8900	11000.	68	19367	No
29	GOM_NL__2PRFIN20051113_024052_000000332042_00275_19367_8443.N1	13-NOV-2005 02:40:52	Bright	32.500	111	8Eta Boo	2.6800	6000.0	65	19367	No
30	GOM_NL__2PRFIN20051113_024331_000000332042_00275_19367_8444.N1	13-NOV-2005 02:43:31	Bright	33.000	138	47Eps Vir	2.8280	4700.0	66	19367	No
31	GOM_NL__2PRFIN20051113_024718_000000352042_00275_19367_8445.N1	13-NOV-2005 02:47:18	Bright	34.500	121	29Gam Vir	2.7400	7200.0	69	19367	No
32	GOM_NL__2PRFIN20051113_025216_000000422042_00275_19367_8446.N1	13-NOV-2005 02:52:16	Twi_and_stray	42.000	100	4Gam Crv	2.5800	13100.	84	19367	No
33	GOM_NL__2PRFIN20051113_025346_000000432042_00275_19367_8447.N1	13-NOV-2005 02:53:46	Twilight	42.500	171	2Eps Crv	3.0010	4250.0	85	19367	No
34	GOM_NL__2PRFIN20051113_030009_000000392042_00275_19367_8448.N1	13-NOV-2005 03:00:09	Dark	38.500	64	Gam Cen	2.2000	10600.	77	19367	No
35	GOM_NL__2PRFIN20051113_030226_000000502042_00275_19367_8449.N1	13-NOV-2005 03:02:26	Dark	49.500	26	Gam Cru	1.6240	2900.0	99	19367	No
36	GOM_NL__2PRFIN20051113_030601_000000372042_00276_19368_8432.N1	13-NOV-2005 03:06:01	Dark	37.000	124	The Car	2.7640	30000.	74	19368	No
37	GOM_NL__2PRFIN20051113_032414_000000382042_00276_19368_8433.N1	13-NOV-2005 03:24:14	Straylight	37.500	157	The1Eri	2.9060	9300.0	75	19368	No
38	GOM_NL__2PRFIN20051113_034204_000000372042_00276_19368_8434.N1	13-NOV-2005 03:42:04	Bright	36.500	105	6Bet Ari	2.6450	8900.0	73	19368	No
39	GOM_NL__2PRFIN20051113_034608_000000362042_00276_19368_8435.N1	13-NOV-2005 03:46:08	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	19368	No
40	GOM_NL__2PRFIN20051113_034812_000000382042_00276_19368_8436.N1	13-NOV-2005 03:48:12	Bright	38.000	73	57Gam1And	2.2600	13100.	76	19368	No
41	GOM_NL__2PRFIN20051113_035225_000000362042_00276_19368_8437.N1	13-NOV-2005 03:52:25	Bright	35.500	68	18Alp Cas	2.2250	4500.0	71	19368	No
42	GOM_NL__2PRFIN20051113_040124_000000352042_00276_19368_8438.N1	13-NOV-2005 04:01:24	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	19368	No





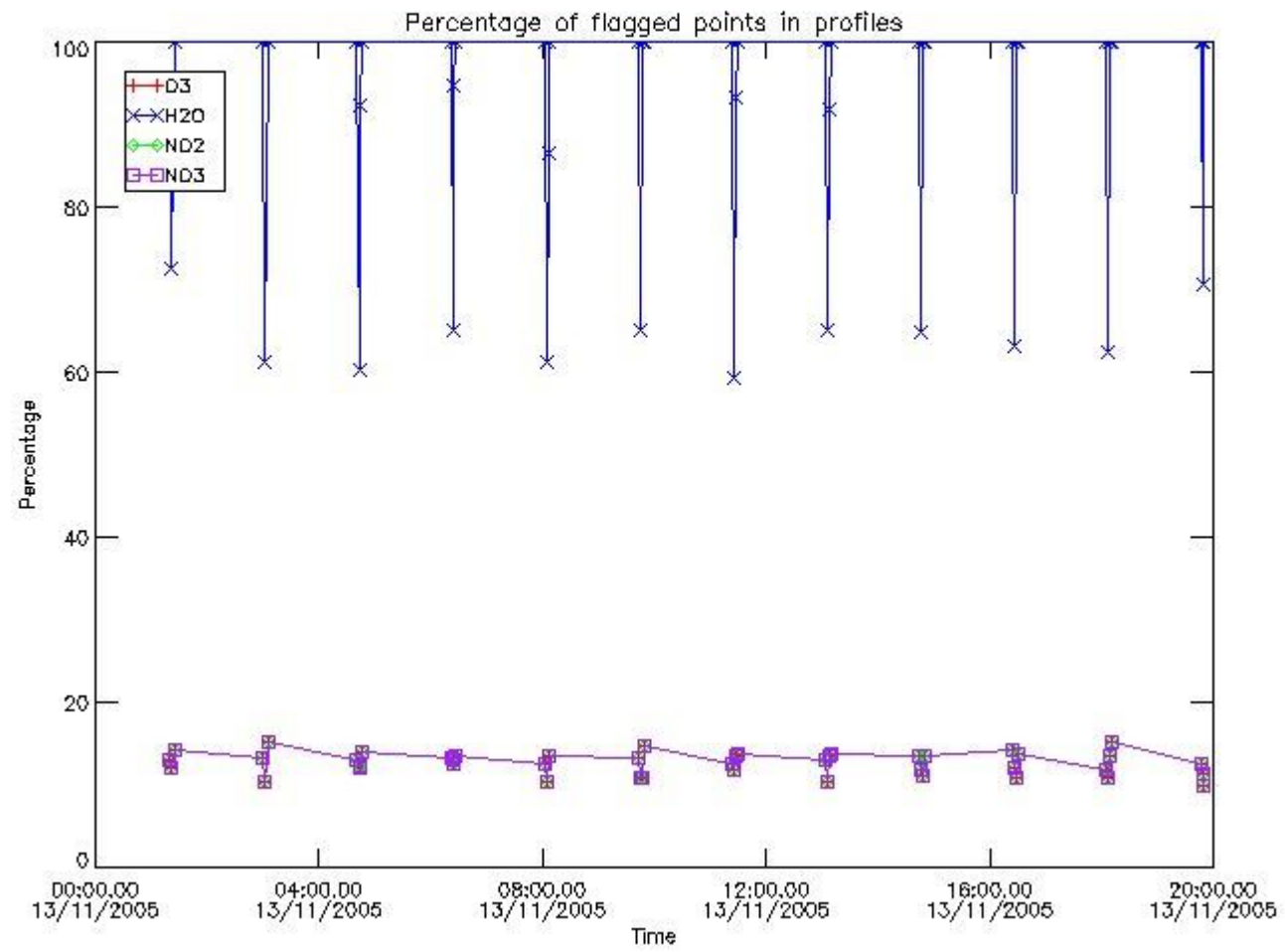


220	GOM_NL__2PRFIN20051113_193320_000000532042_00285_19377_8465.N1	13-NOV-2005 19:33:20	Bright	53.000	121	29Gam Vir	2.7400	7200.0	106	19377	No
221	GOM_NL__2PRFIN20051113_193819_000000432042_00285_19377_8466.N1	13-NOV-2005 19:38:19	Twilight	42.500	100	4Gam Crv	2.5800	13100.	85	19377	No
222	GOM_NL__2PRFIN20051113_193950_000000392042_00285_19377_8467.N1	13-NOV-2005 19:39:50	Twilight	39.000	171	2Eps Crv	3.0010	4250.0	78	19377	No
223	GOM_NL__2PRFIN20051113_194610_000000412042_00285_19377_8468.N1	13-NOV-2005 19:46:10	Dark	40.500	64	Gam Cen	2.2000	10600.	81	19377	No
224	GOM_NL__2PRFIN20051113_194828_000000522042_00285_19377_8469.N1	13-NOV-2005 19:48:28	Dark	51.500	26	Gam Cru	1.6240	2900.0	103	19377	No
225	GOM_NL__2PRFIN20051113_195005_000000452042_00285_19377_8470.N1	13-NOV-2005 19:50:05	Dark	44.500	12	Alp1Cru	0.77500	30000.	89	19377	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.

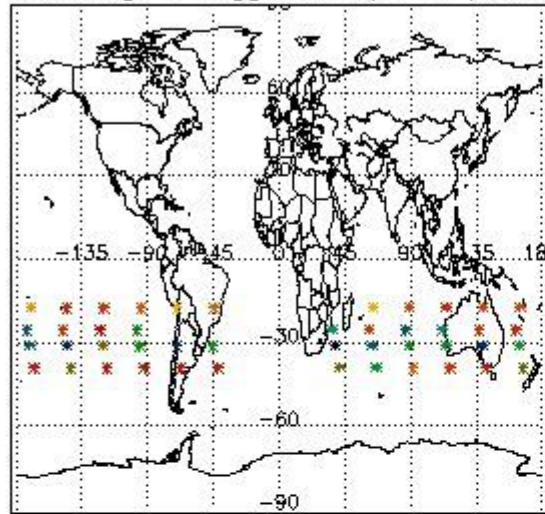
#### 3.1 Plot quality information per product (time dependant)



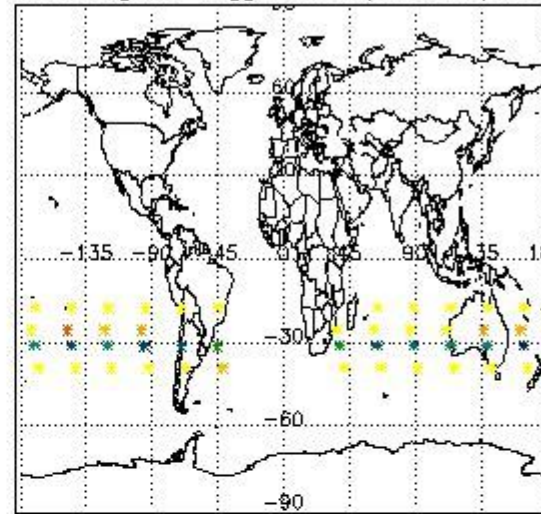
#### 3.2 Plot quality information per product (world map)



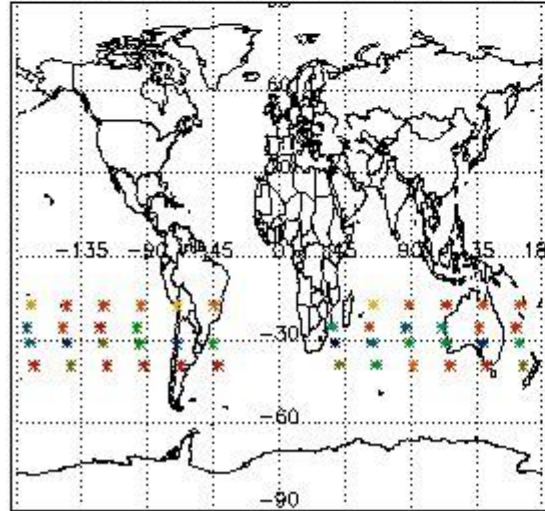
Percentage of flagged data per O3 profile



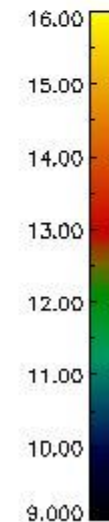
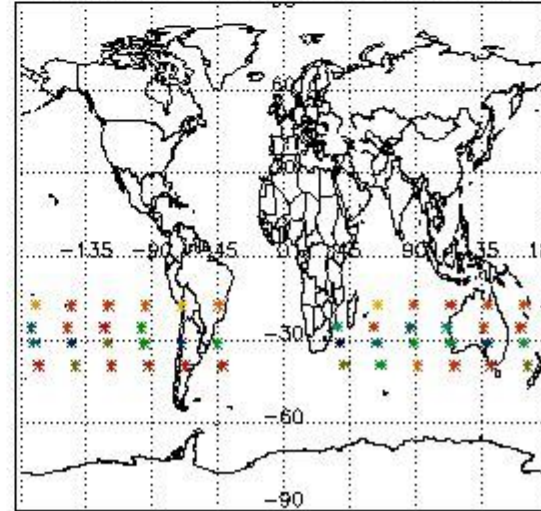
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

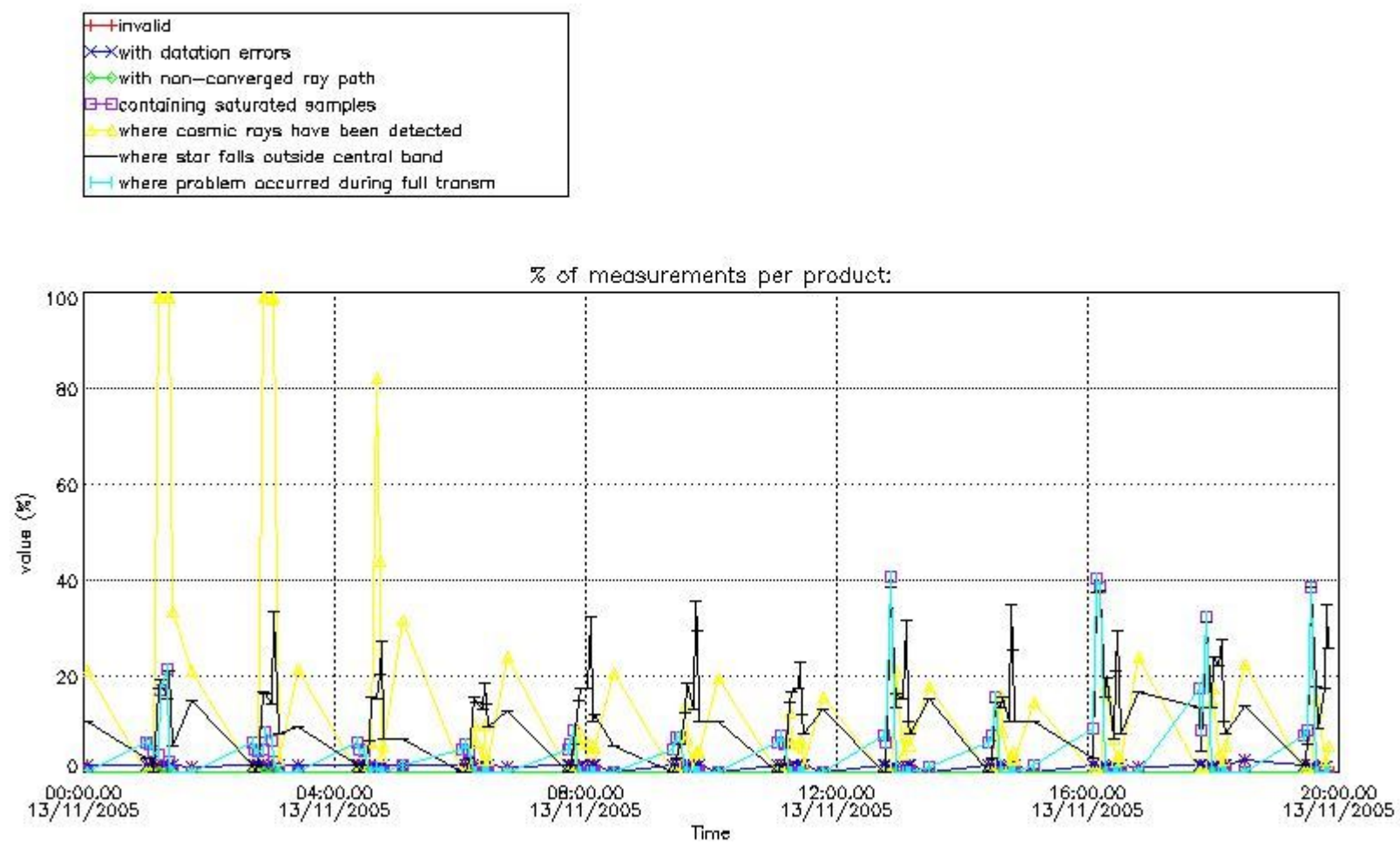


#### 4. Level 1 quality information per product

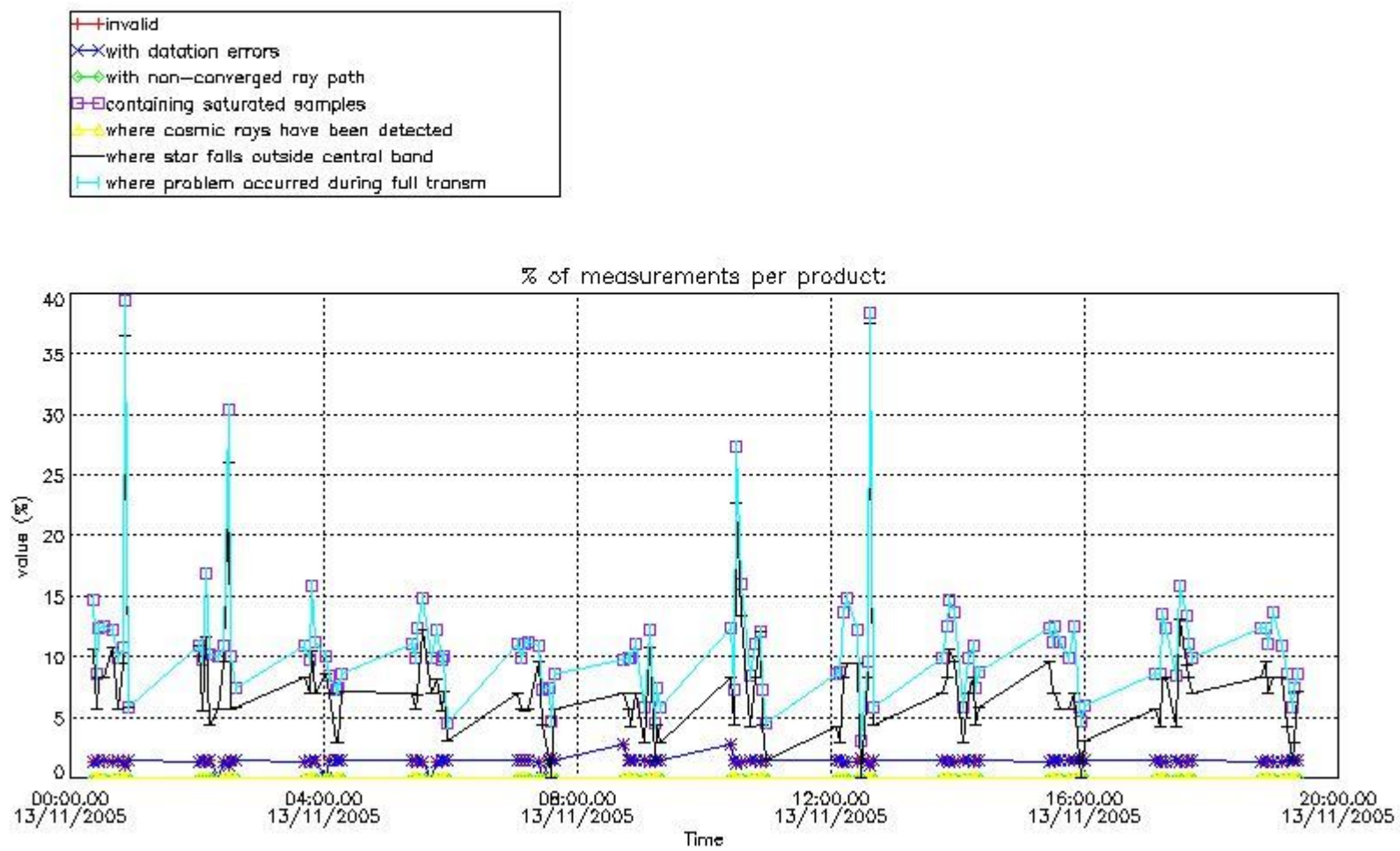
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



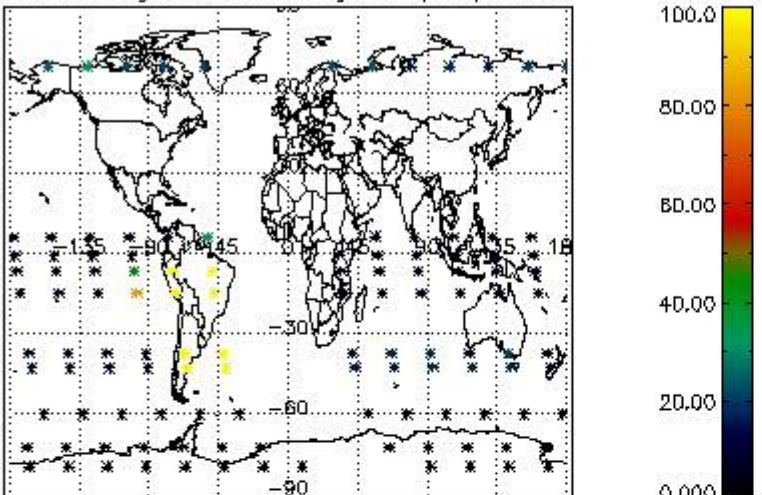
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



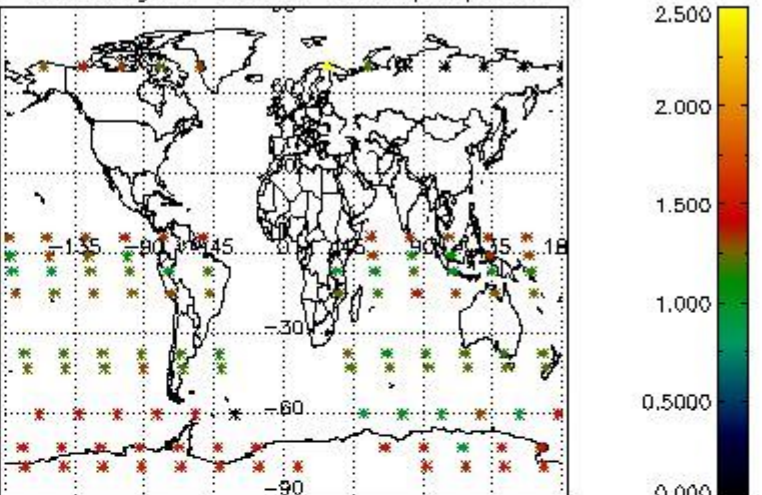
4.2 Plot quality information per product coming from level 1b processing (world map)

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

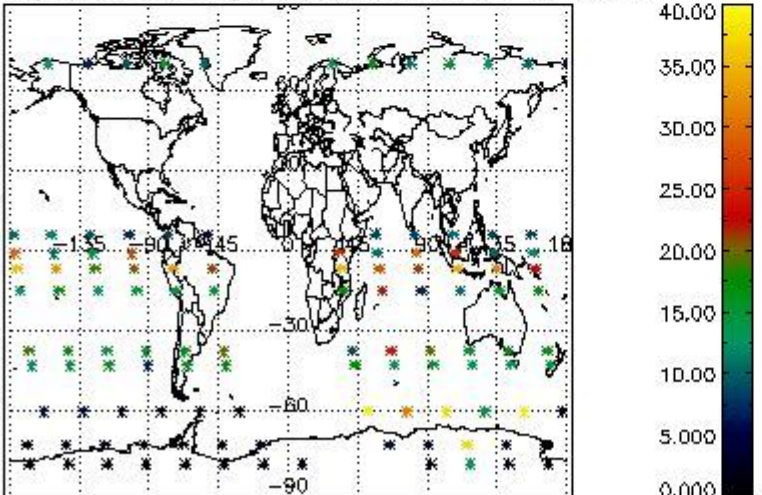
Percentage of cosmic ray hits per profile



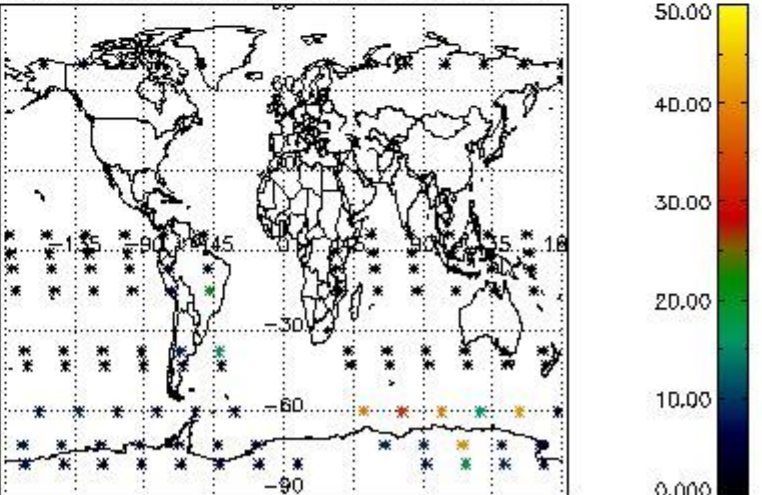
Percentage of datation errors per profile



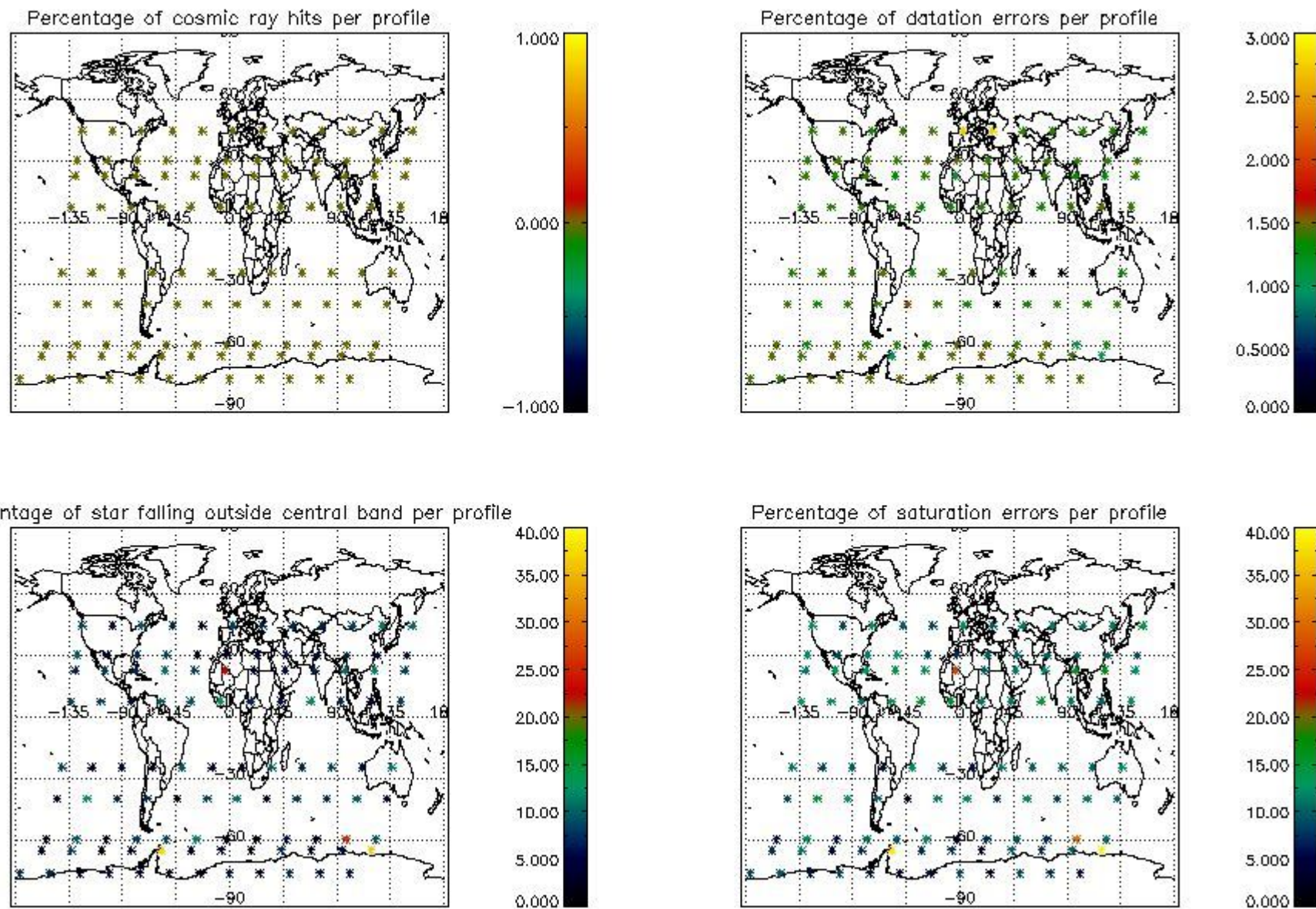
Percentage of star falling outside central band per profile



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

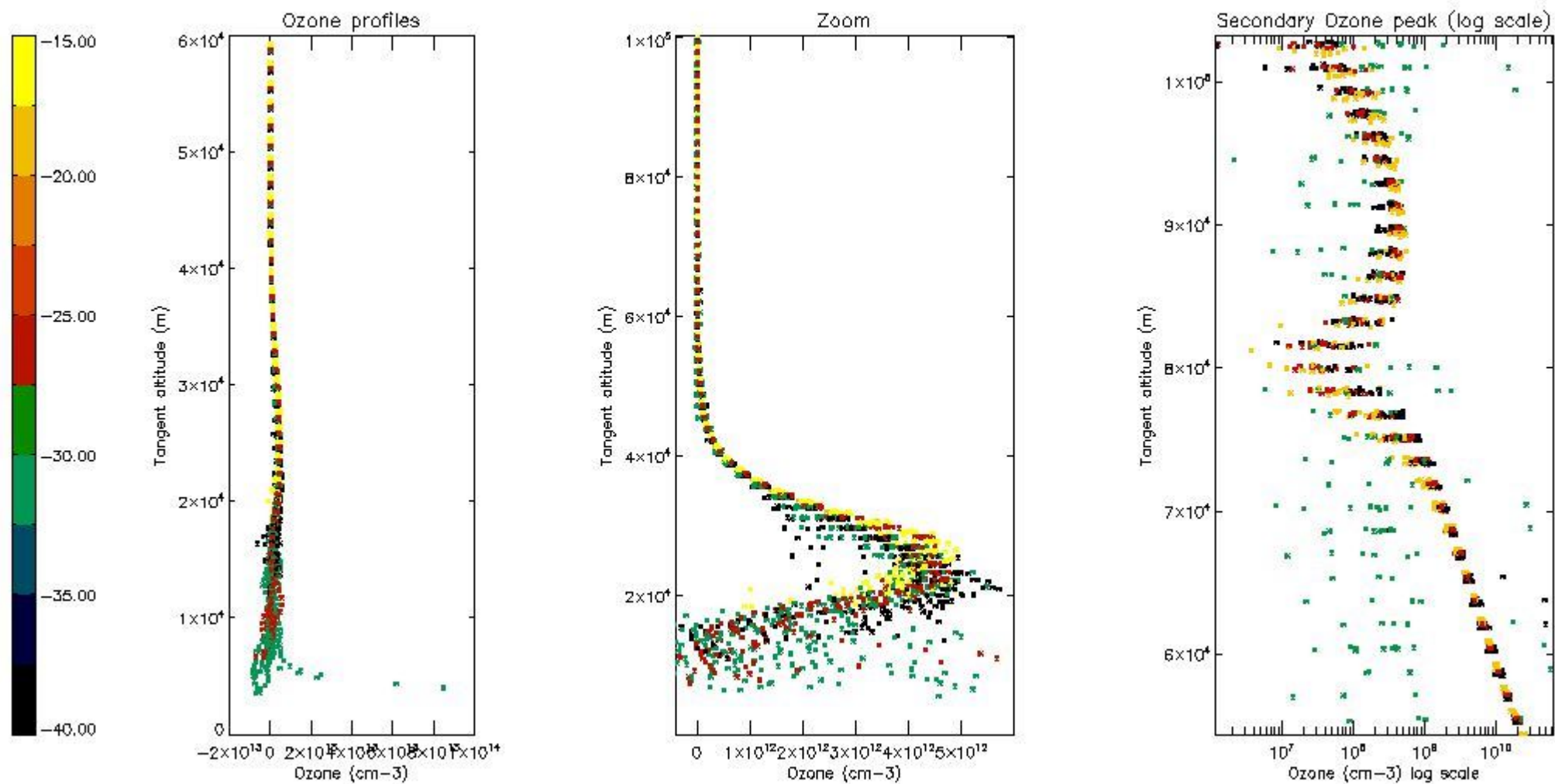
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	23
STD < 20	13

STD < 10	10
STD < 5	7

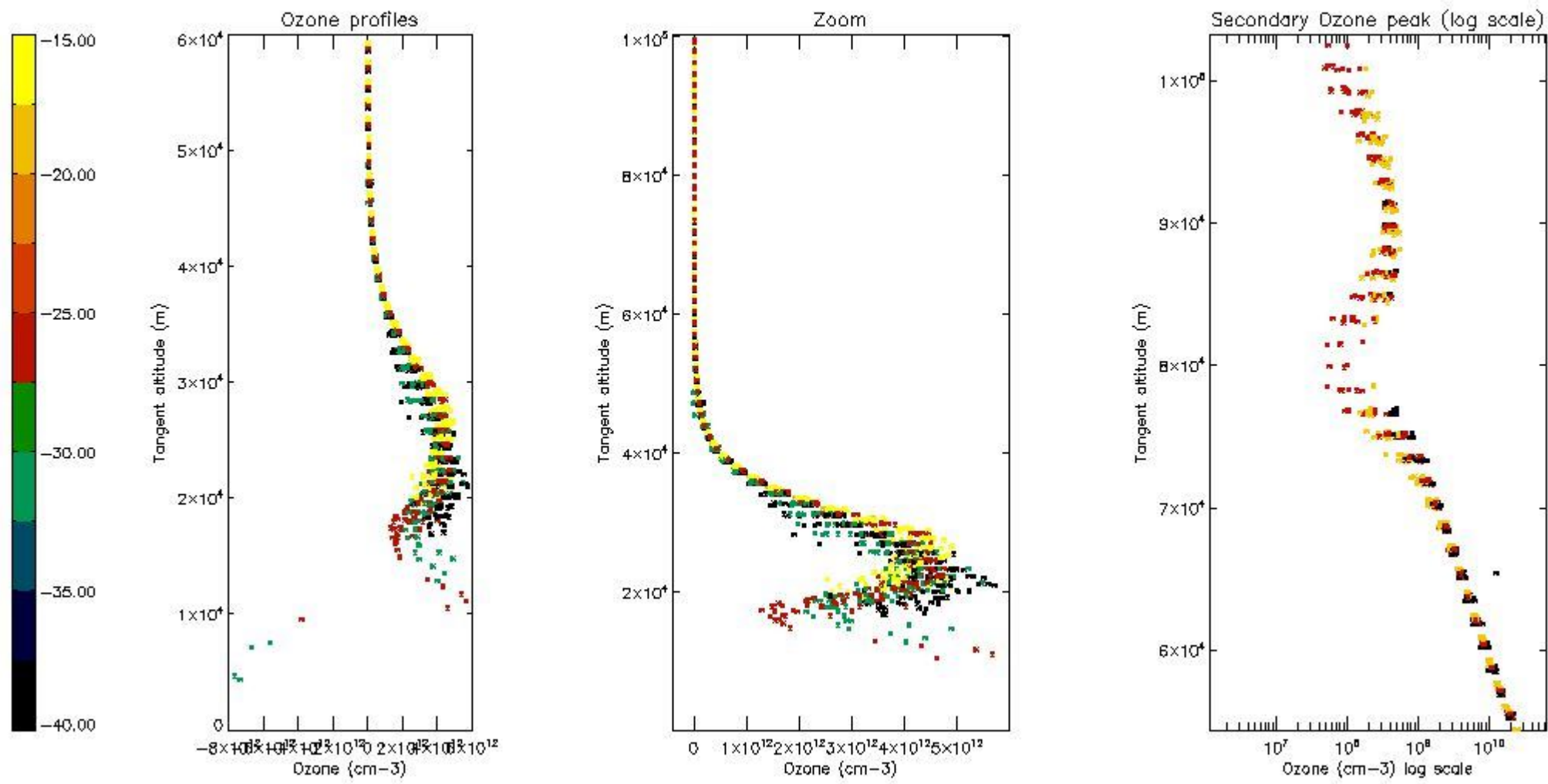
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



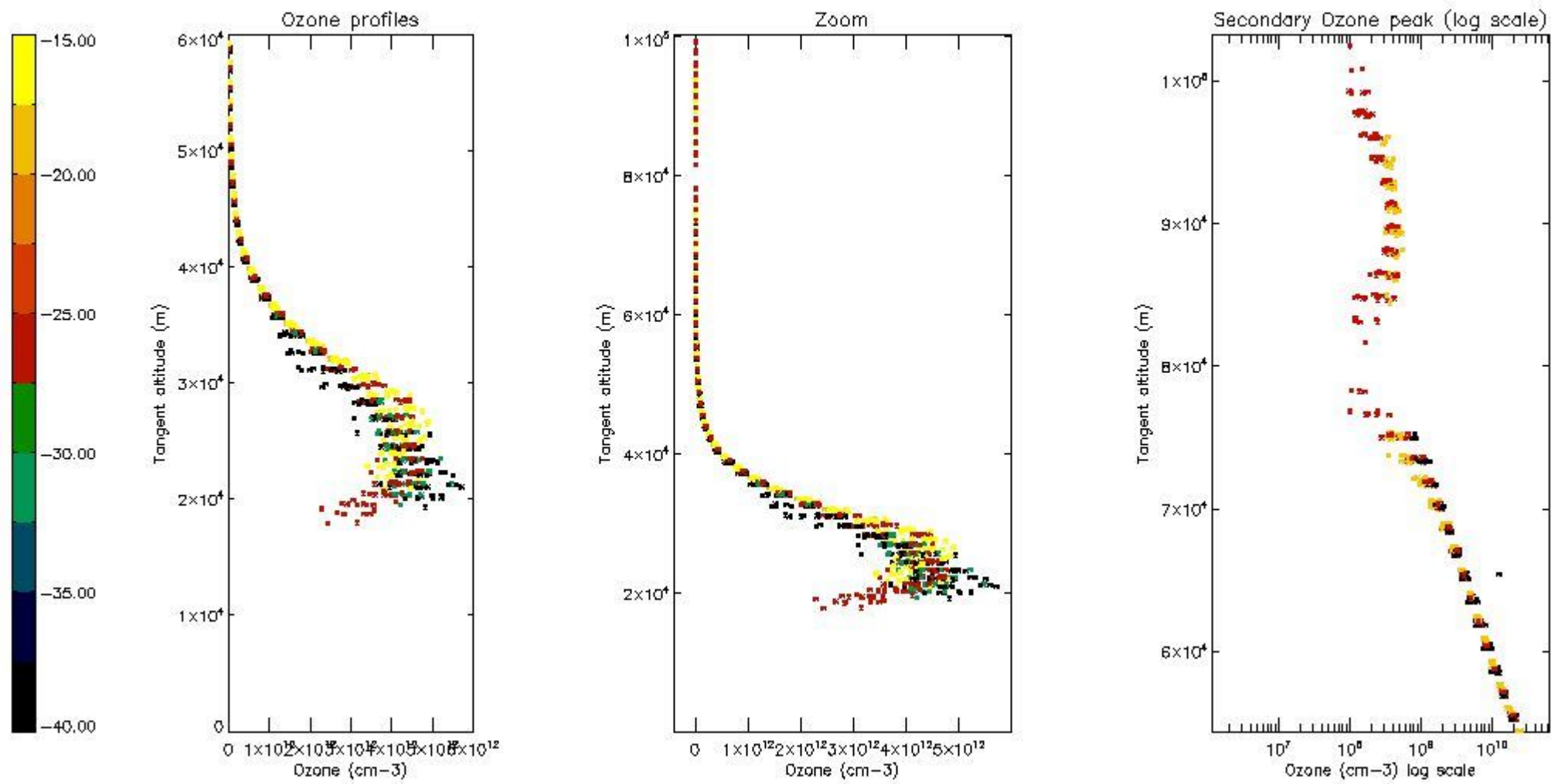
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

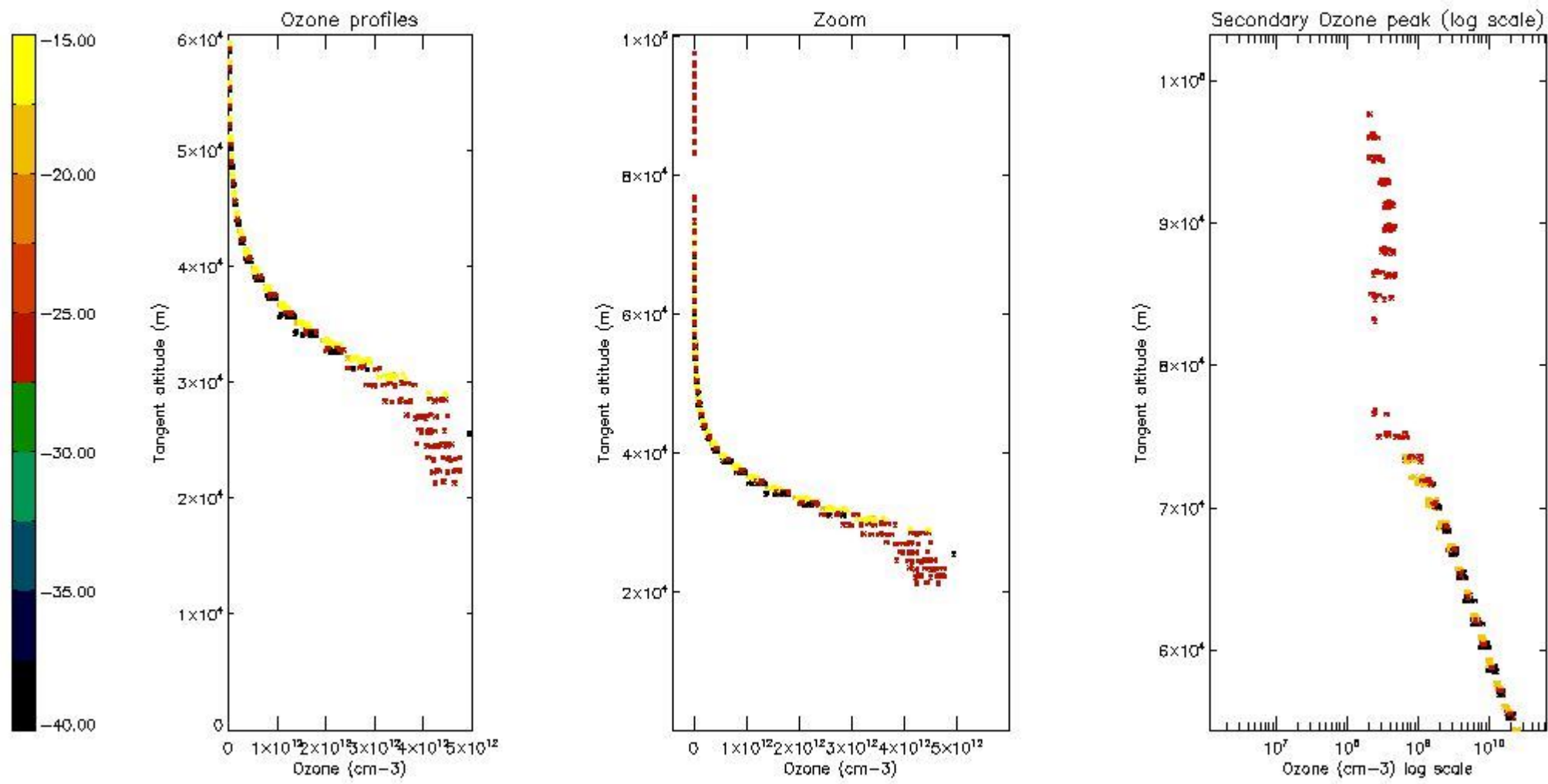
The colorbar represents the latitude.



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

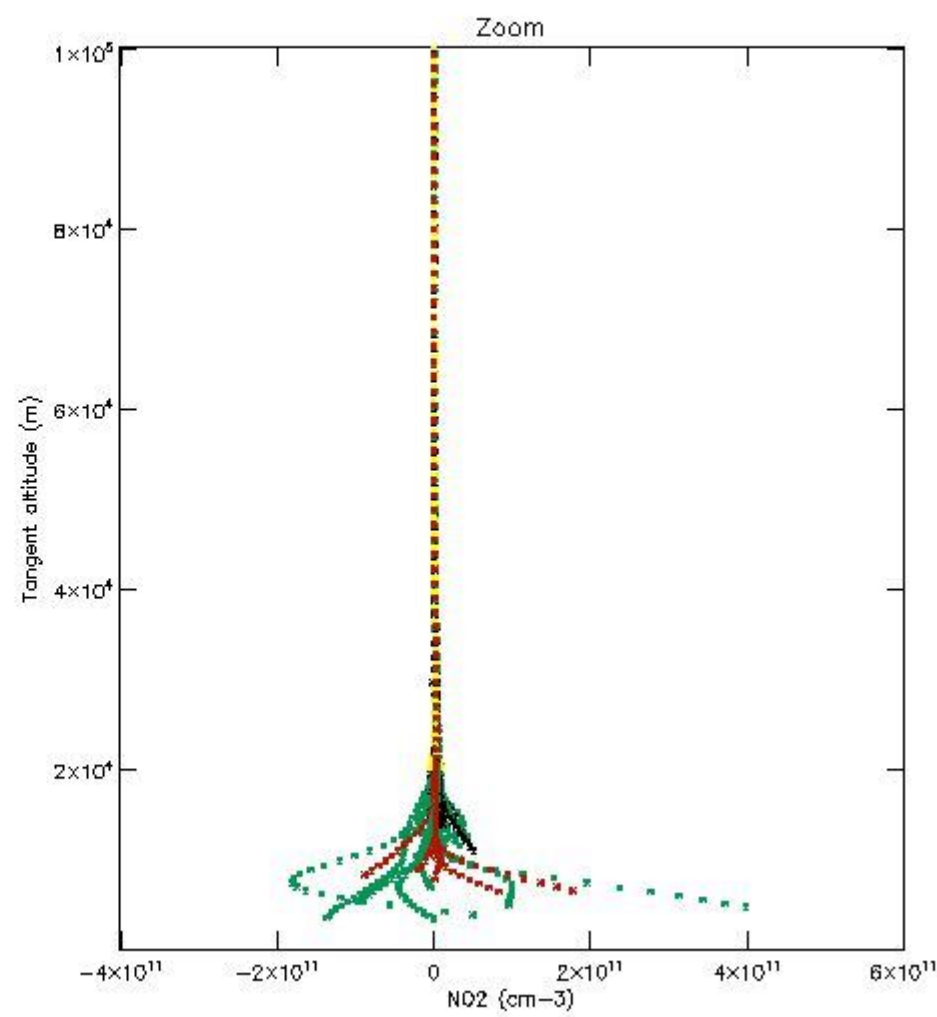
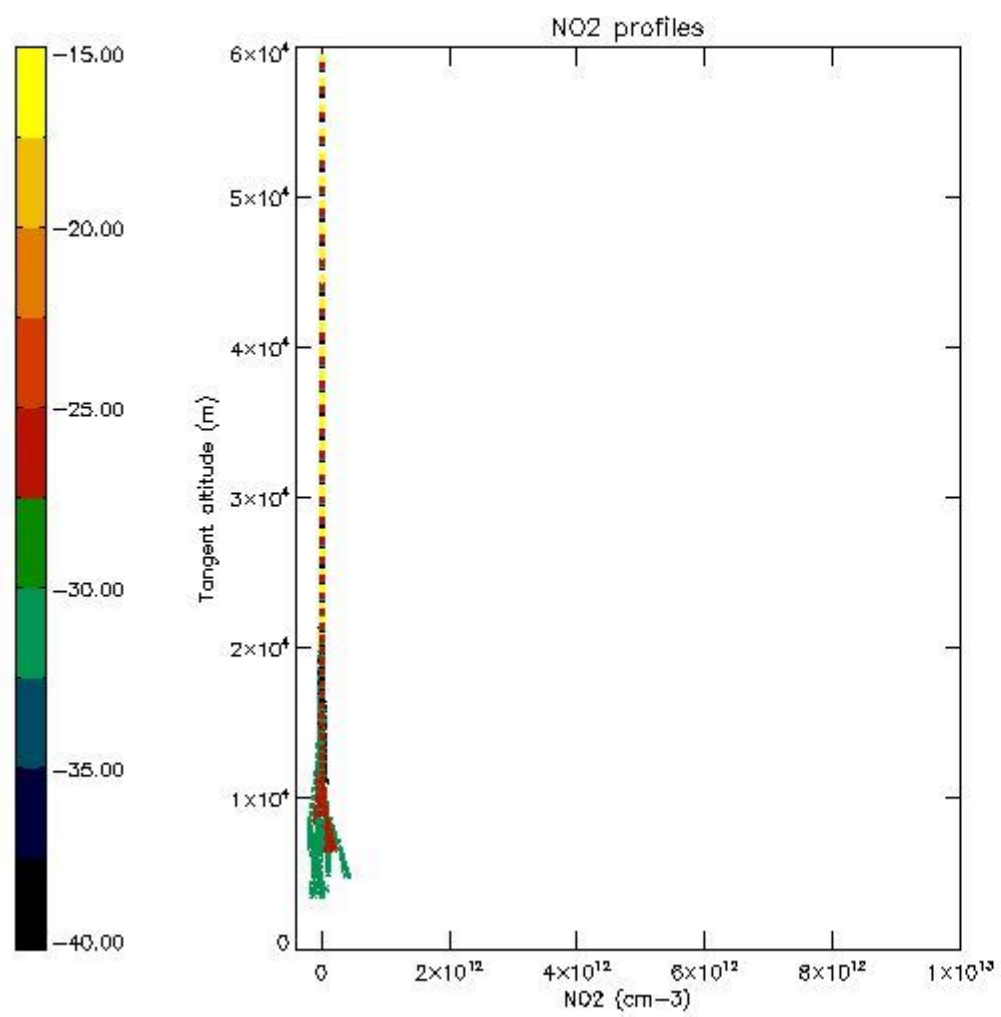
The colorbar represents the latitude.





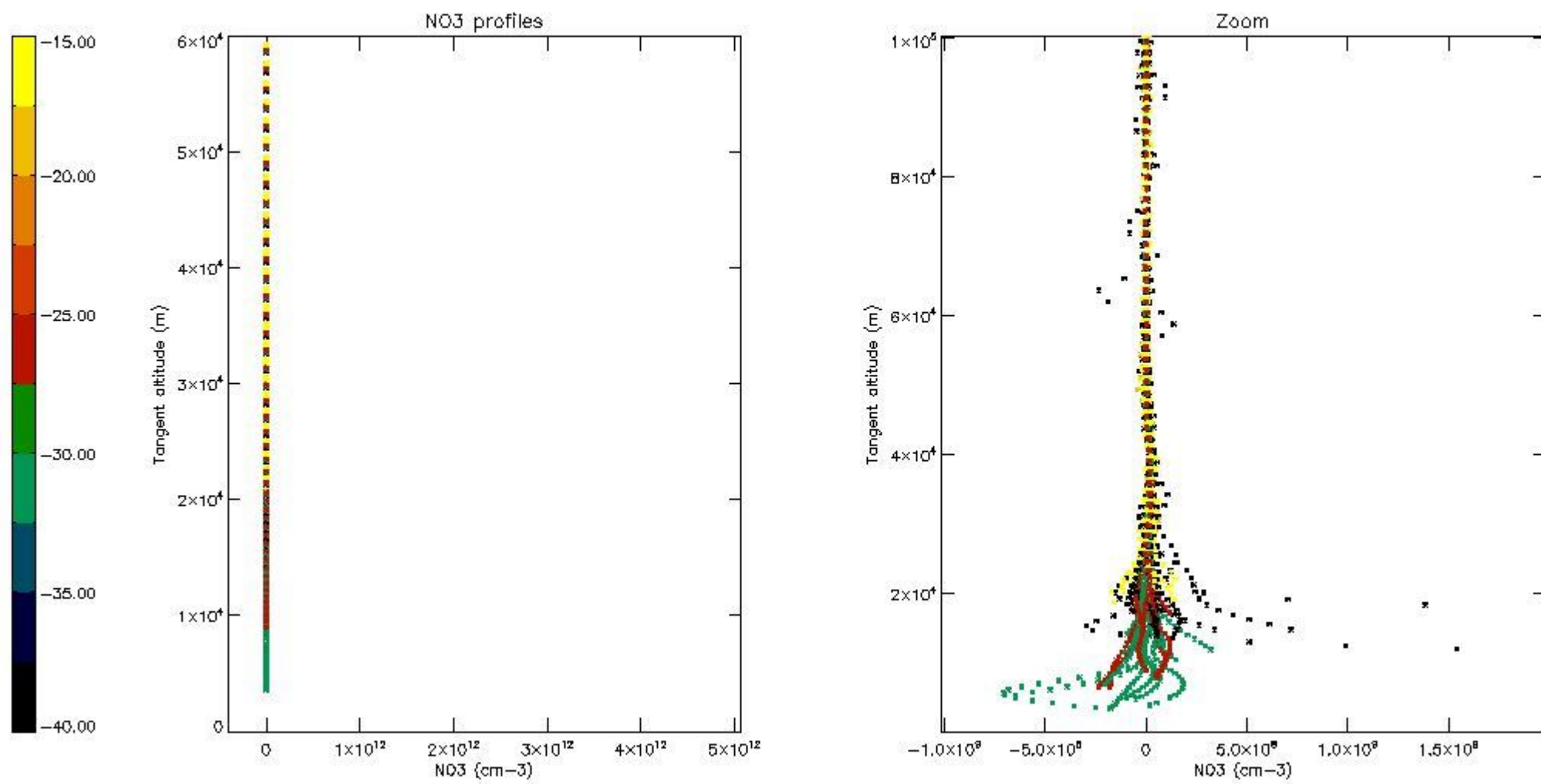
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



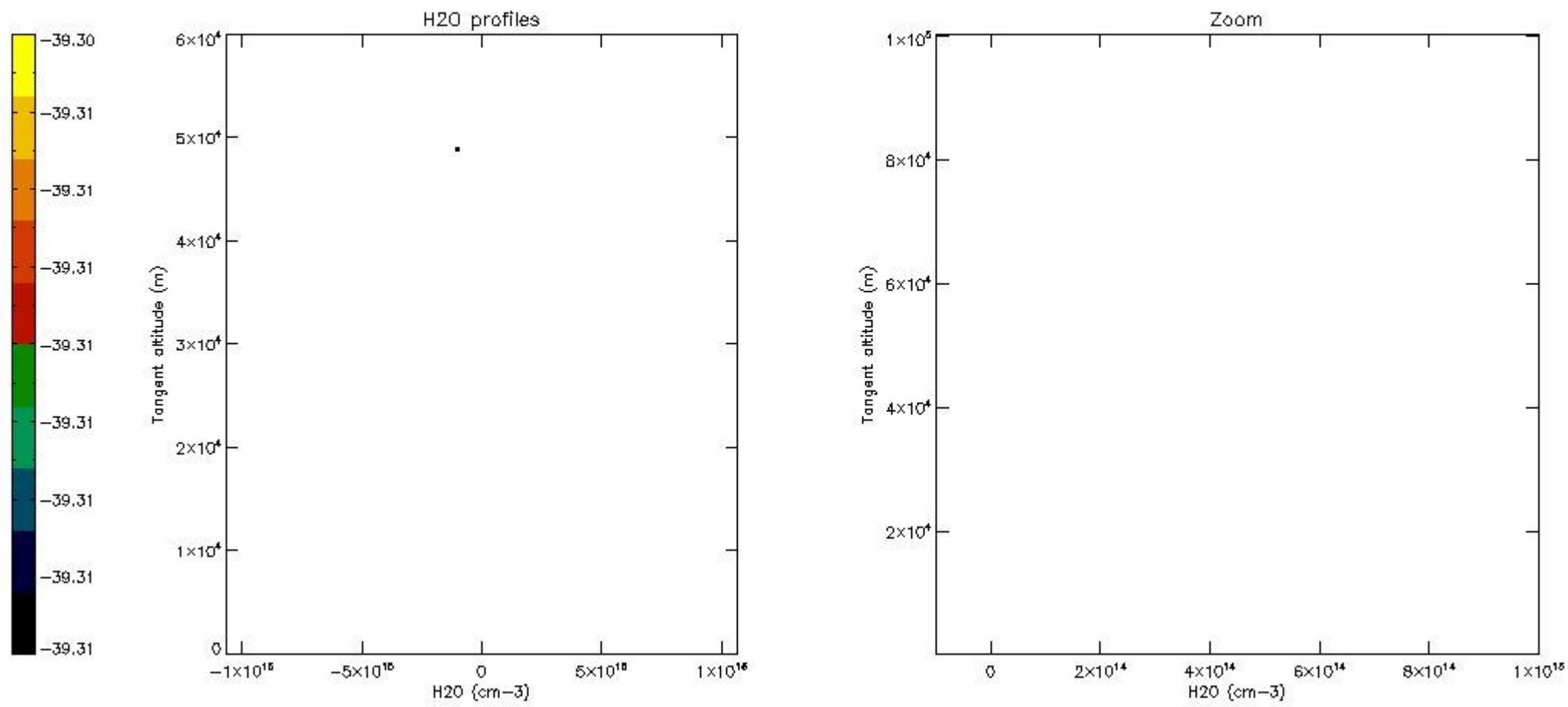
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

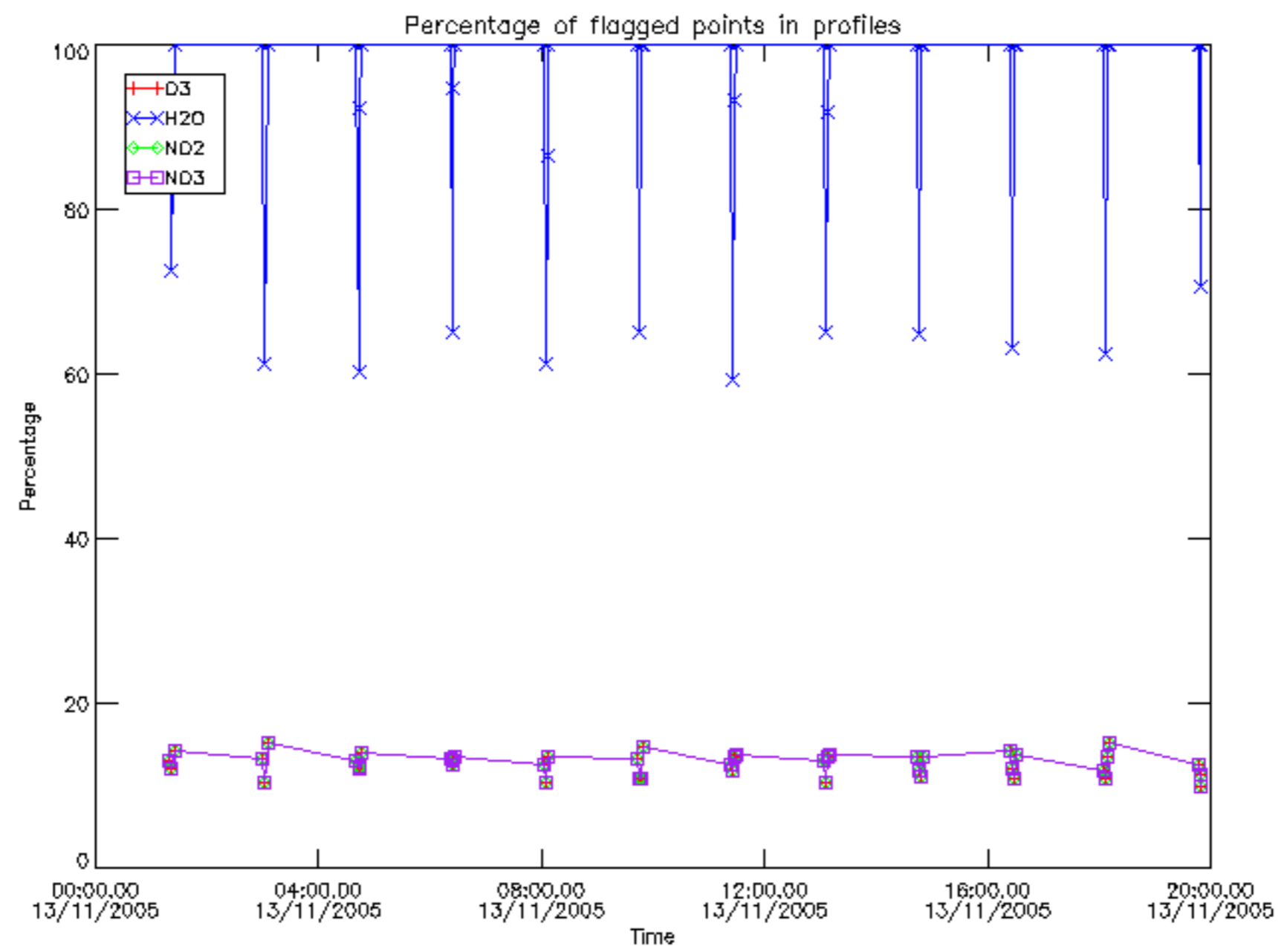
The colorbar represents the latitude.



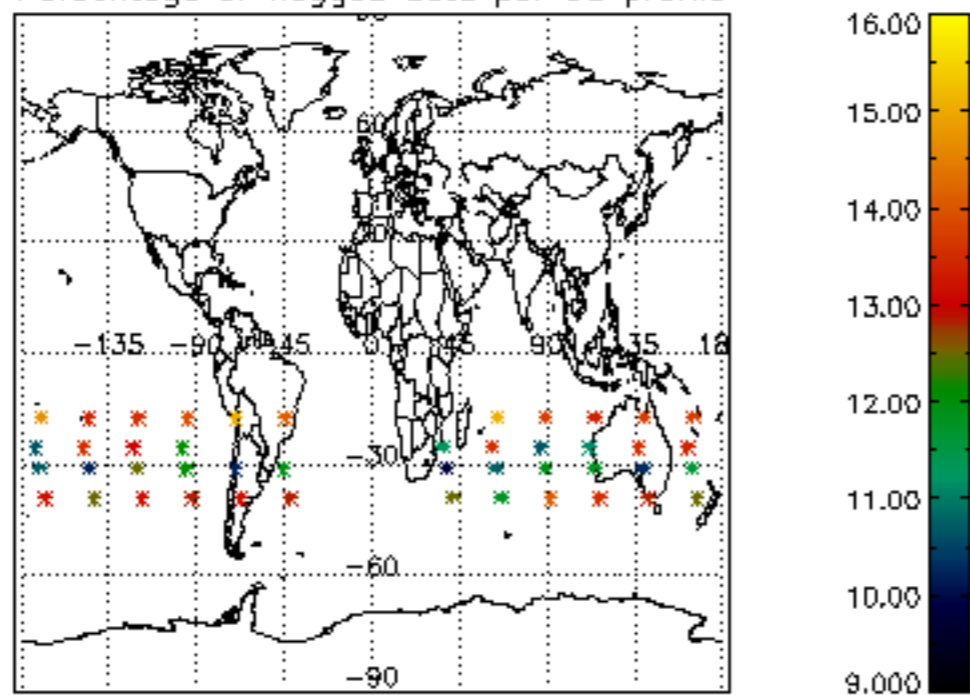
## 6. Auxiliary Data Files used for the production reported in section 2

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

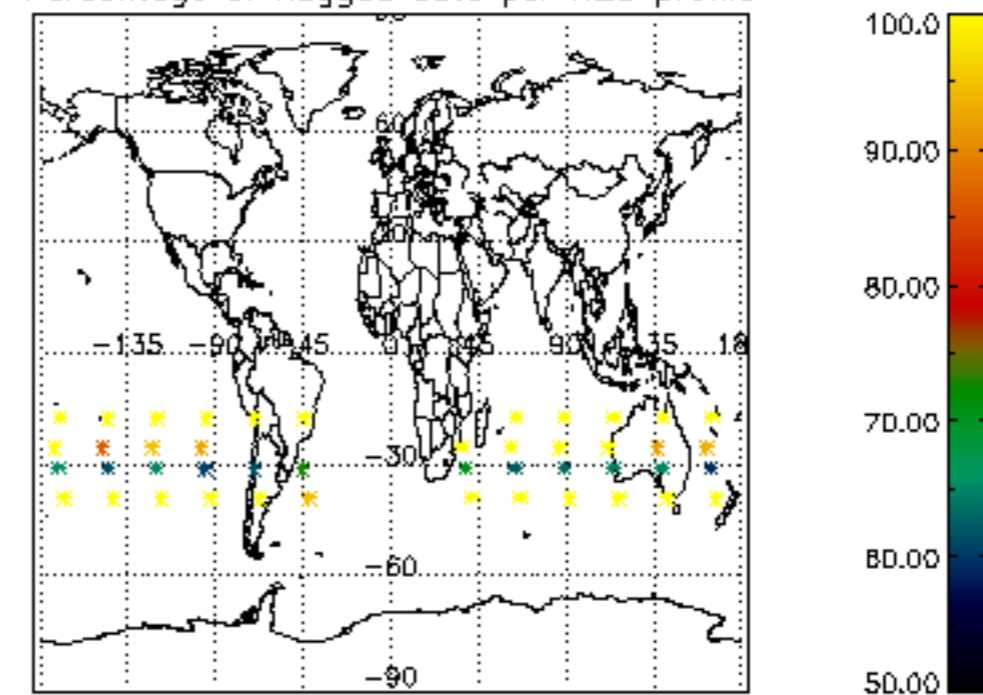
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	13-NOV-2005 00:03:01
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	13-NOV-2005 00:03:01
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	13-NOV-2005 00:03:01



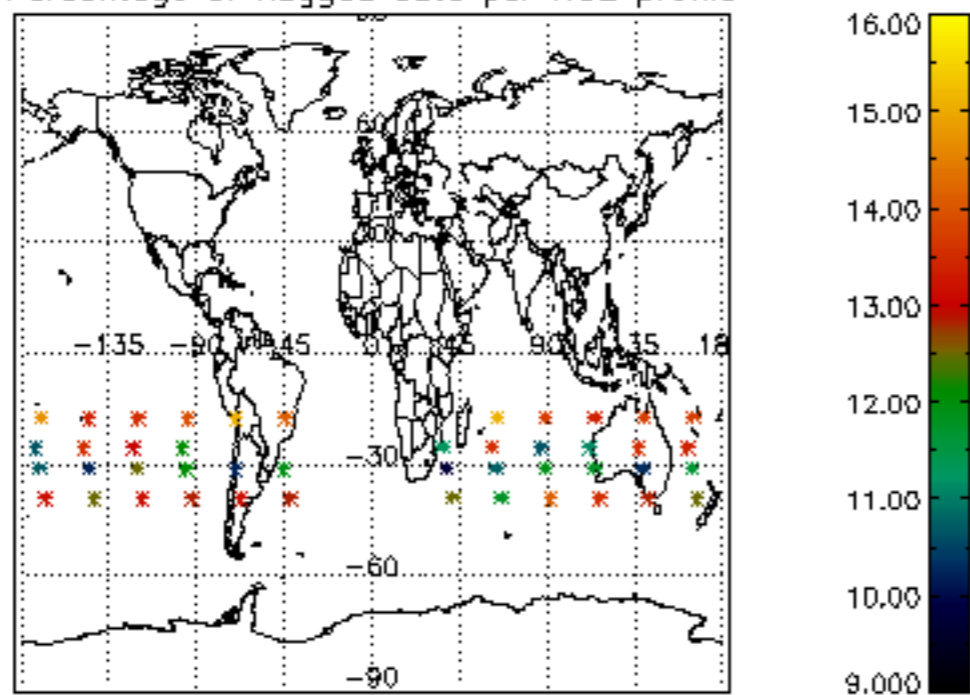
Percentage of flagged data per D3 profile



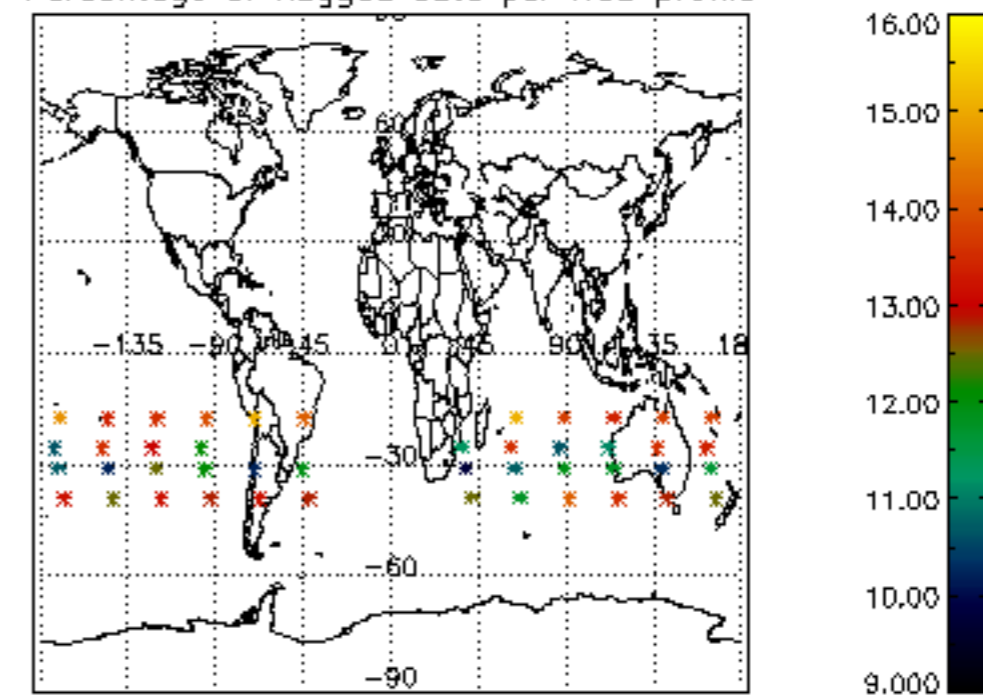
Percentage of flagged data per H2O profile

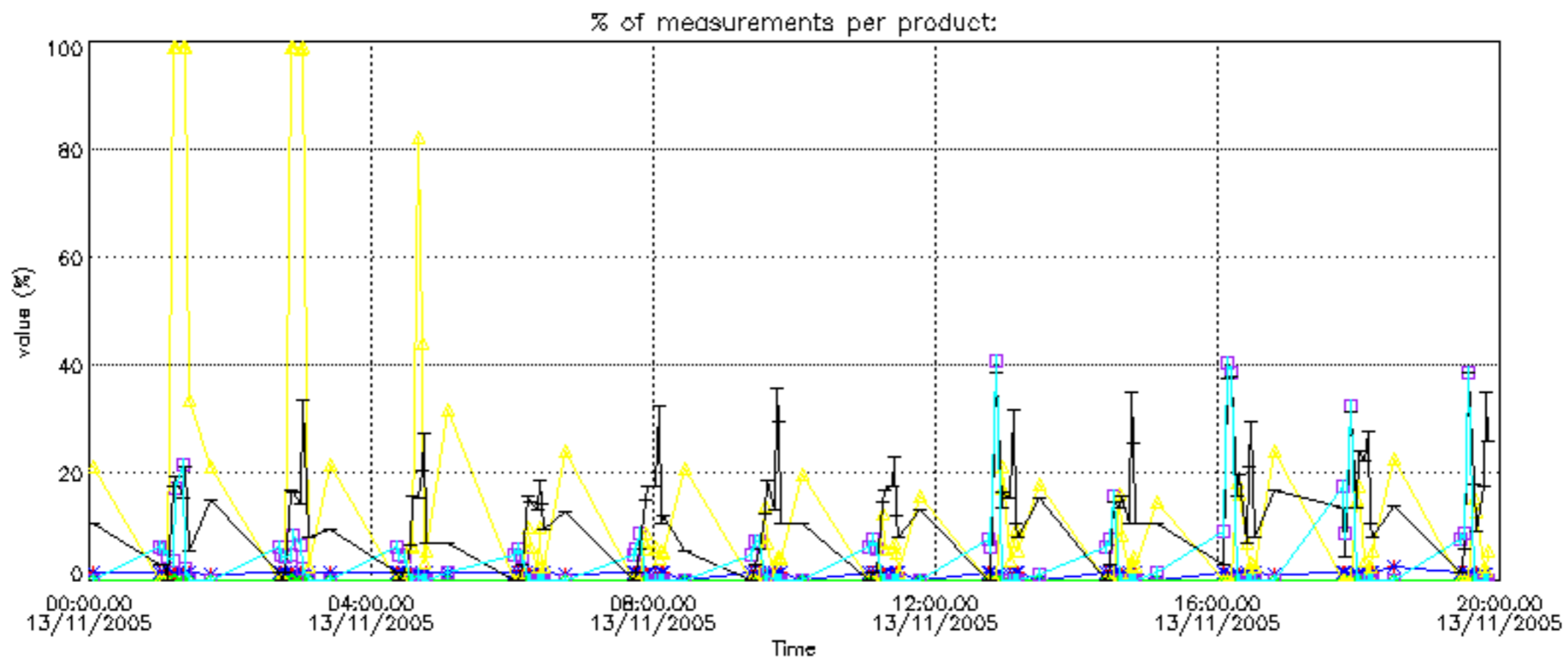


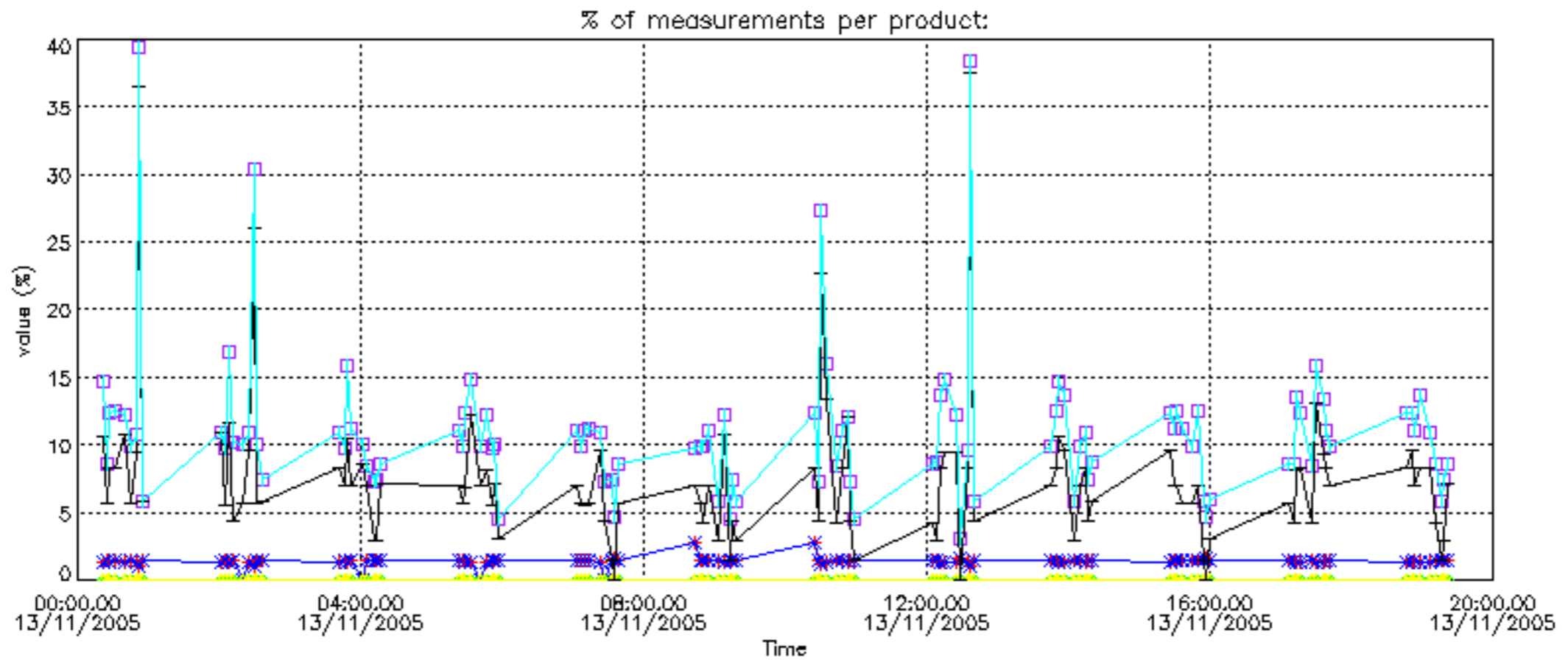
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

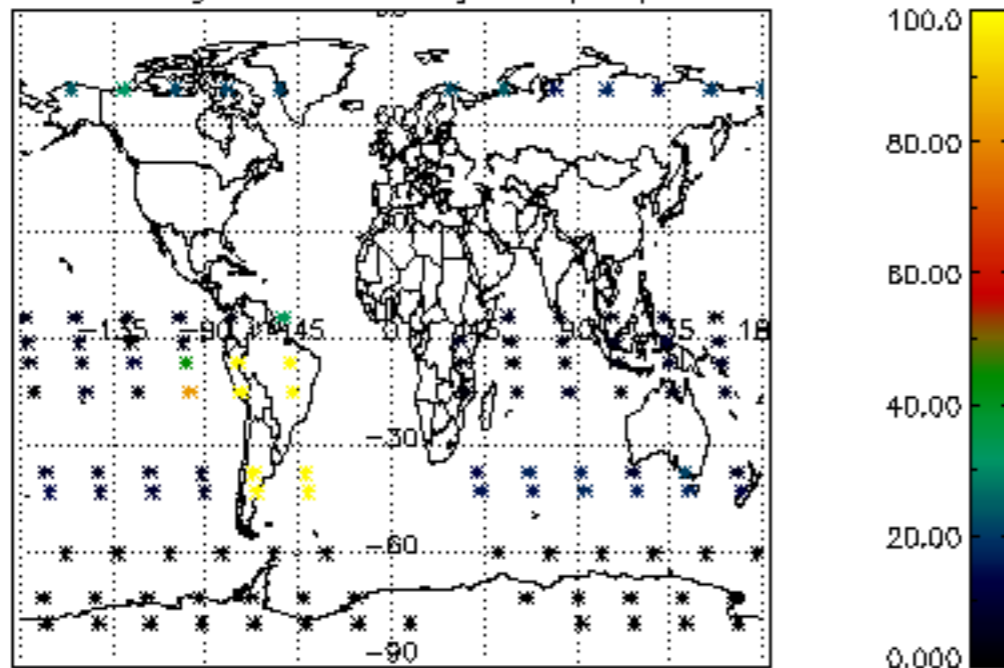




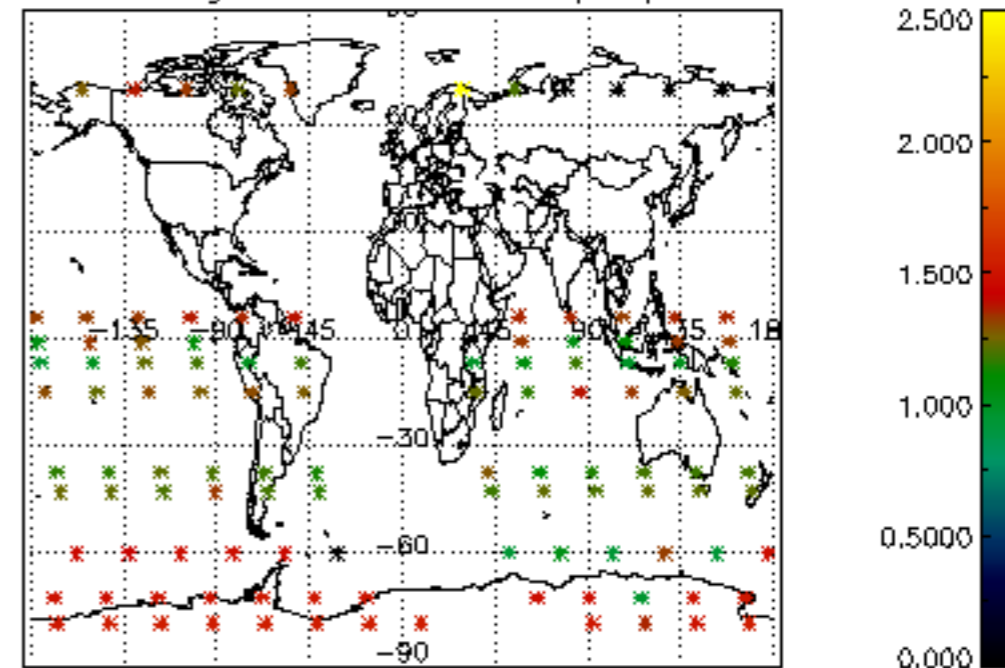




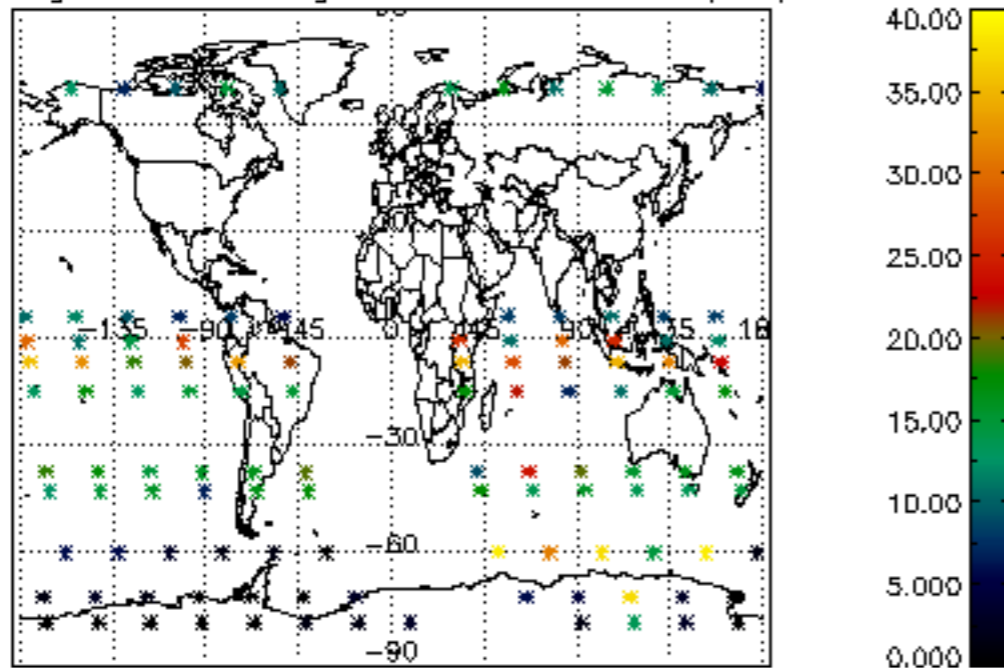
Percentage of cosmic ray hits per profile



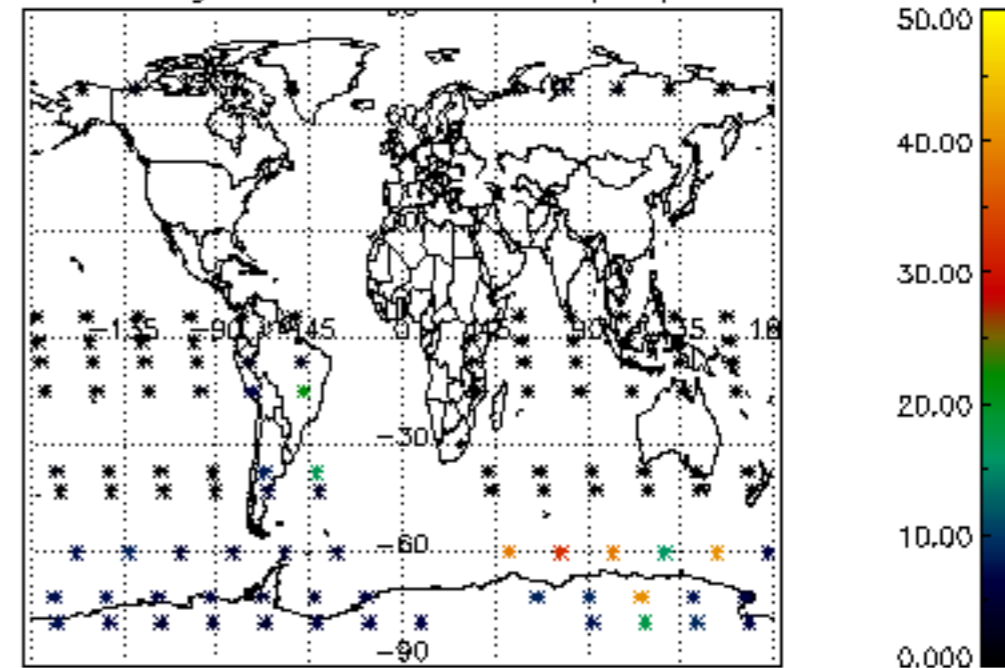
Percentage of datation errors per profile



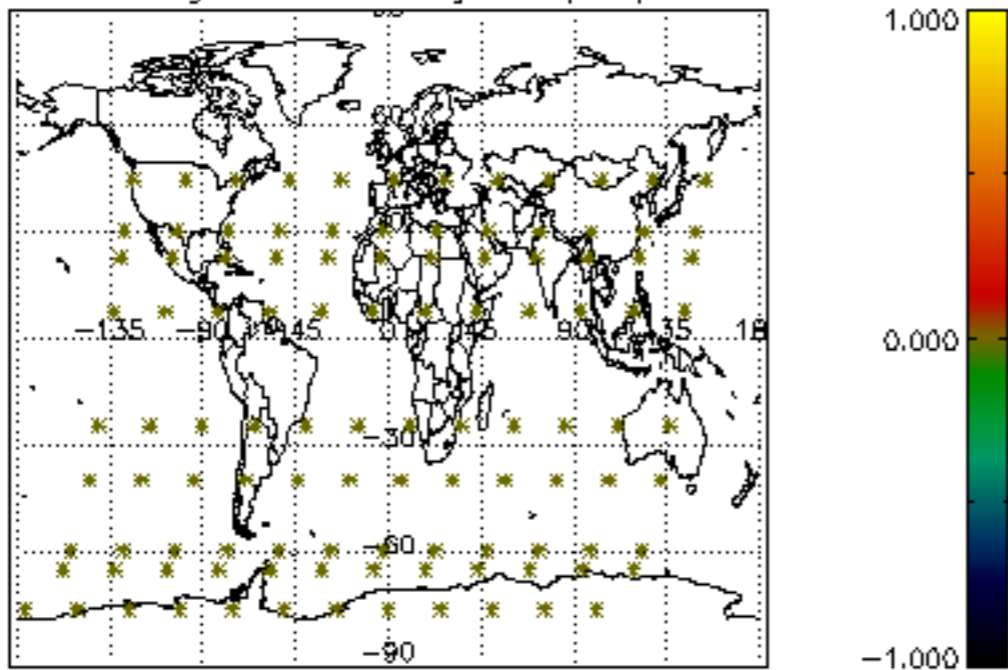
Percentage of star falling outside central band per profile



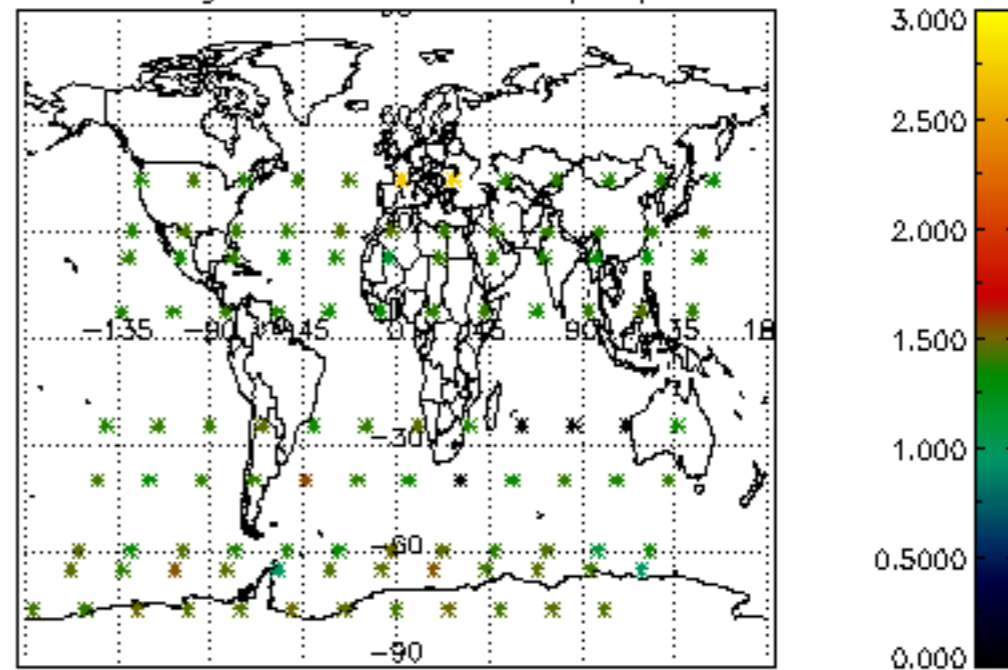
Percentage of saturation errors per profile



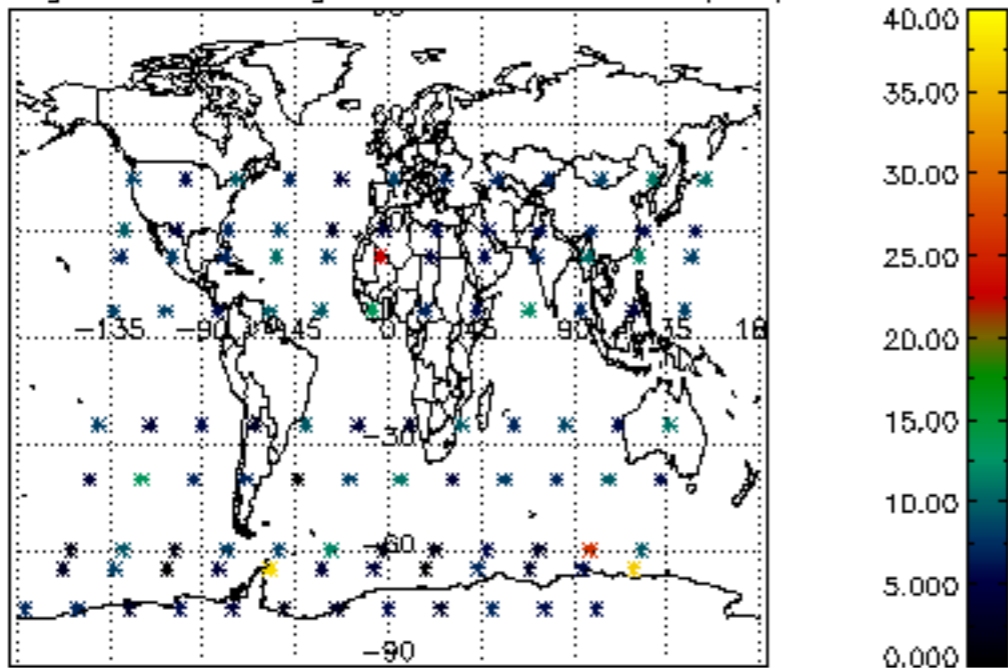
Percentage of cosmic ray hits per profile



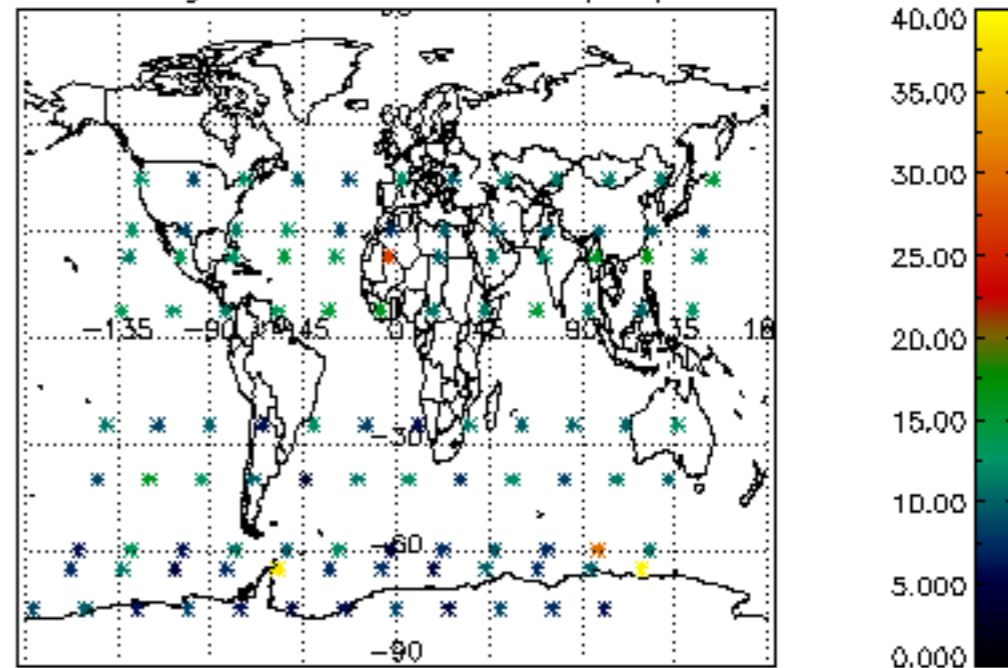
Percentage of datation errors per profile

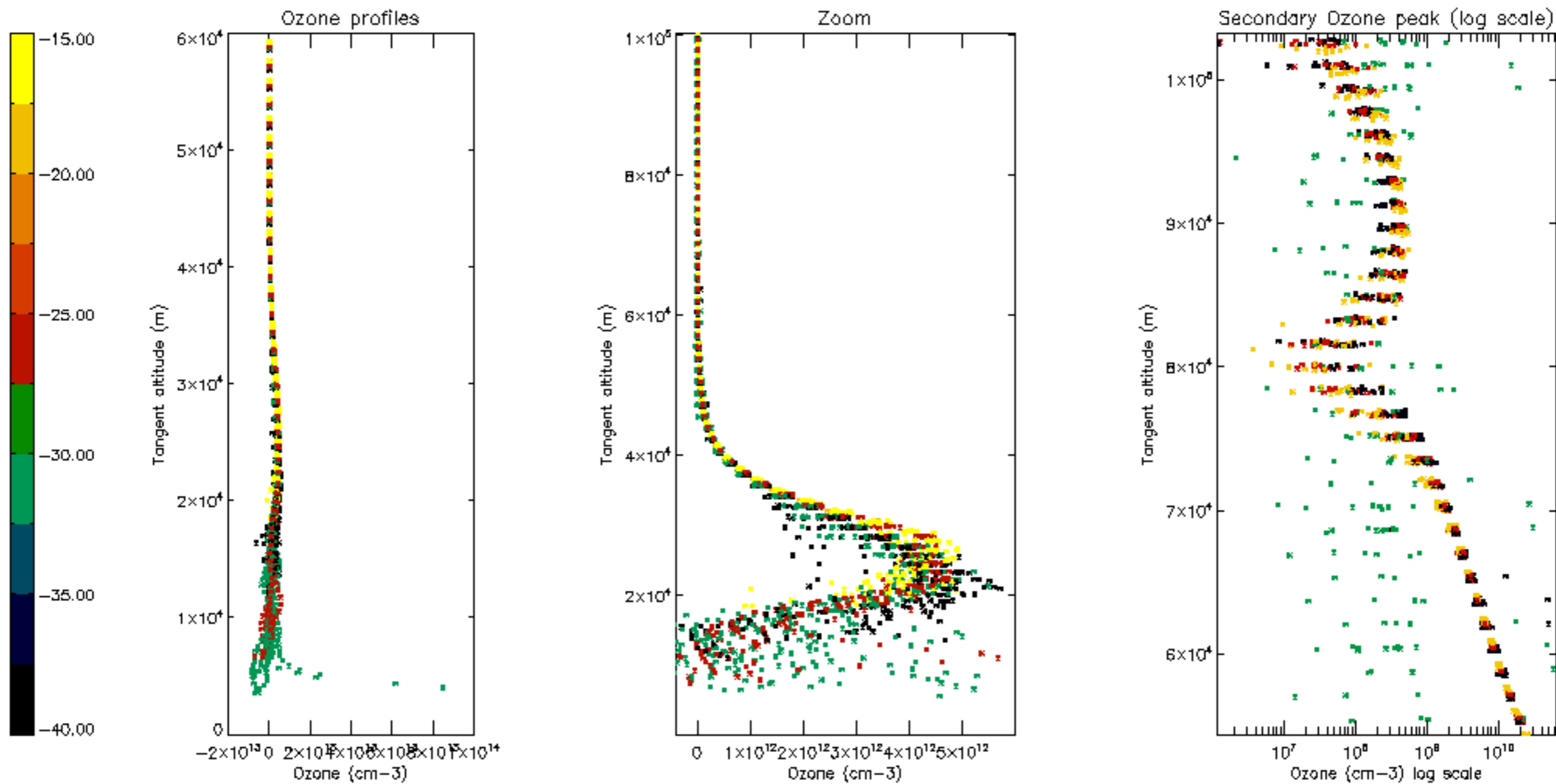


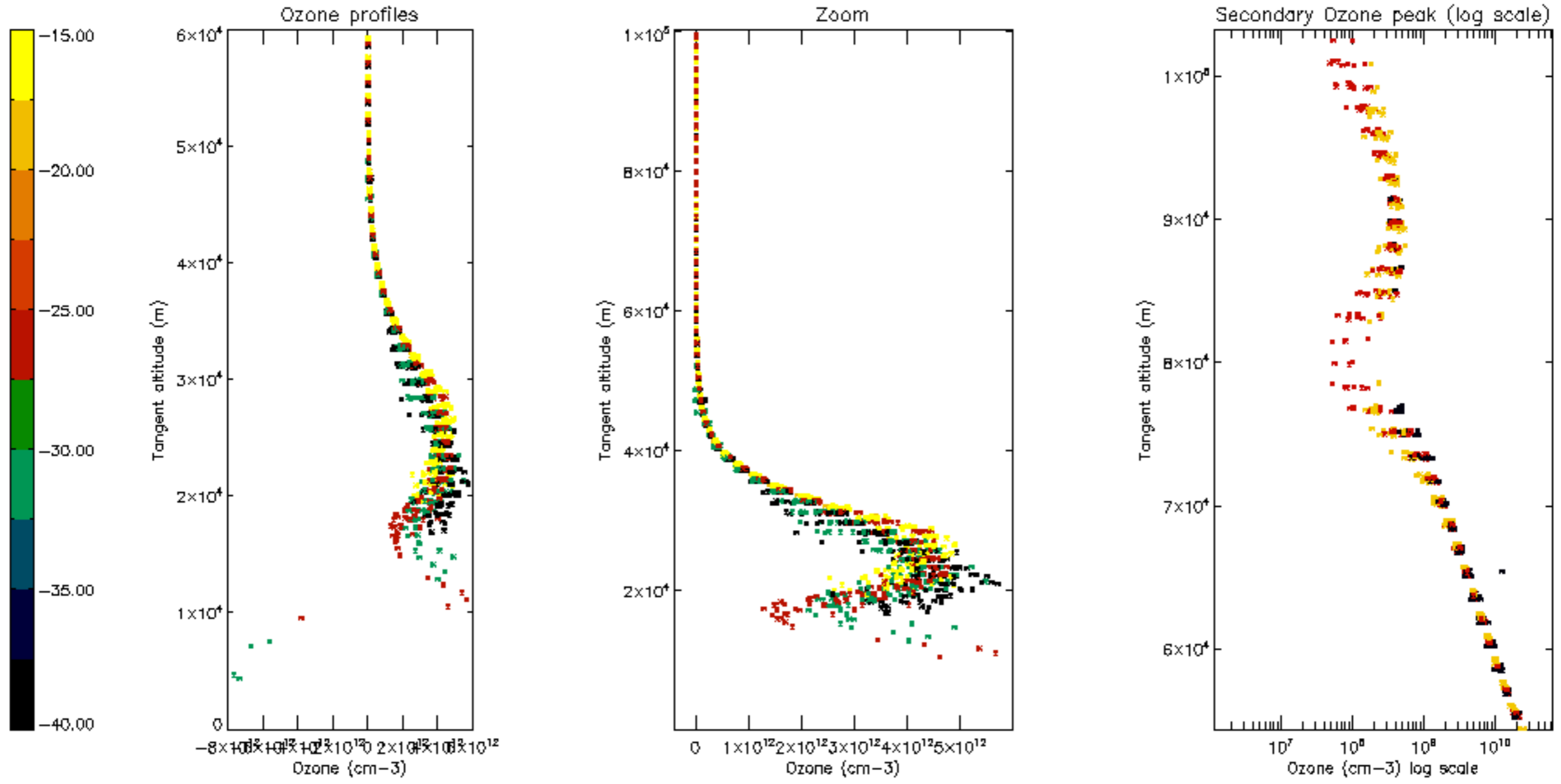
Percentage of star falling outside central band per profile

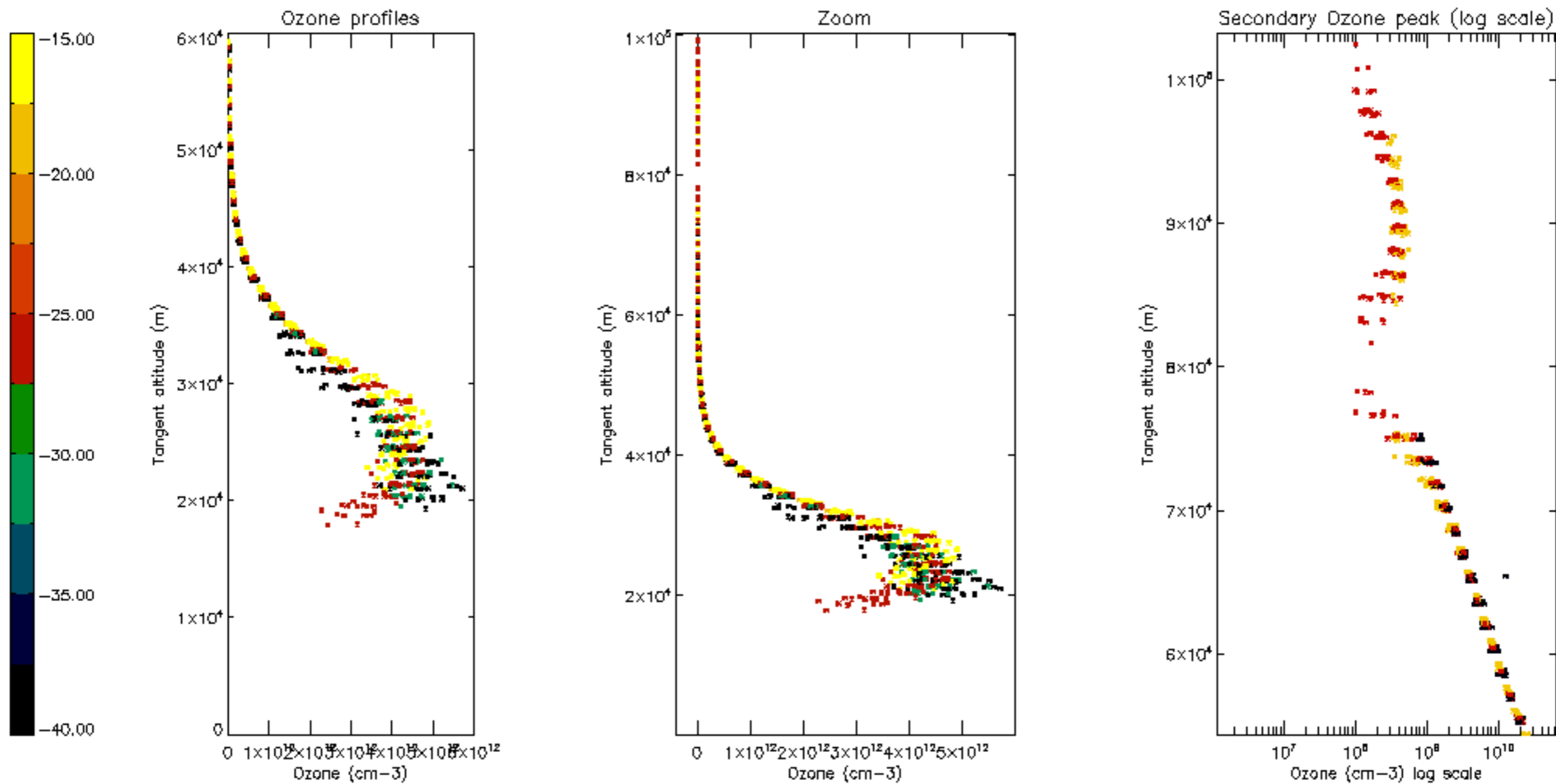


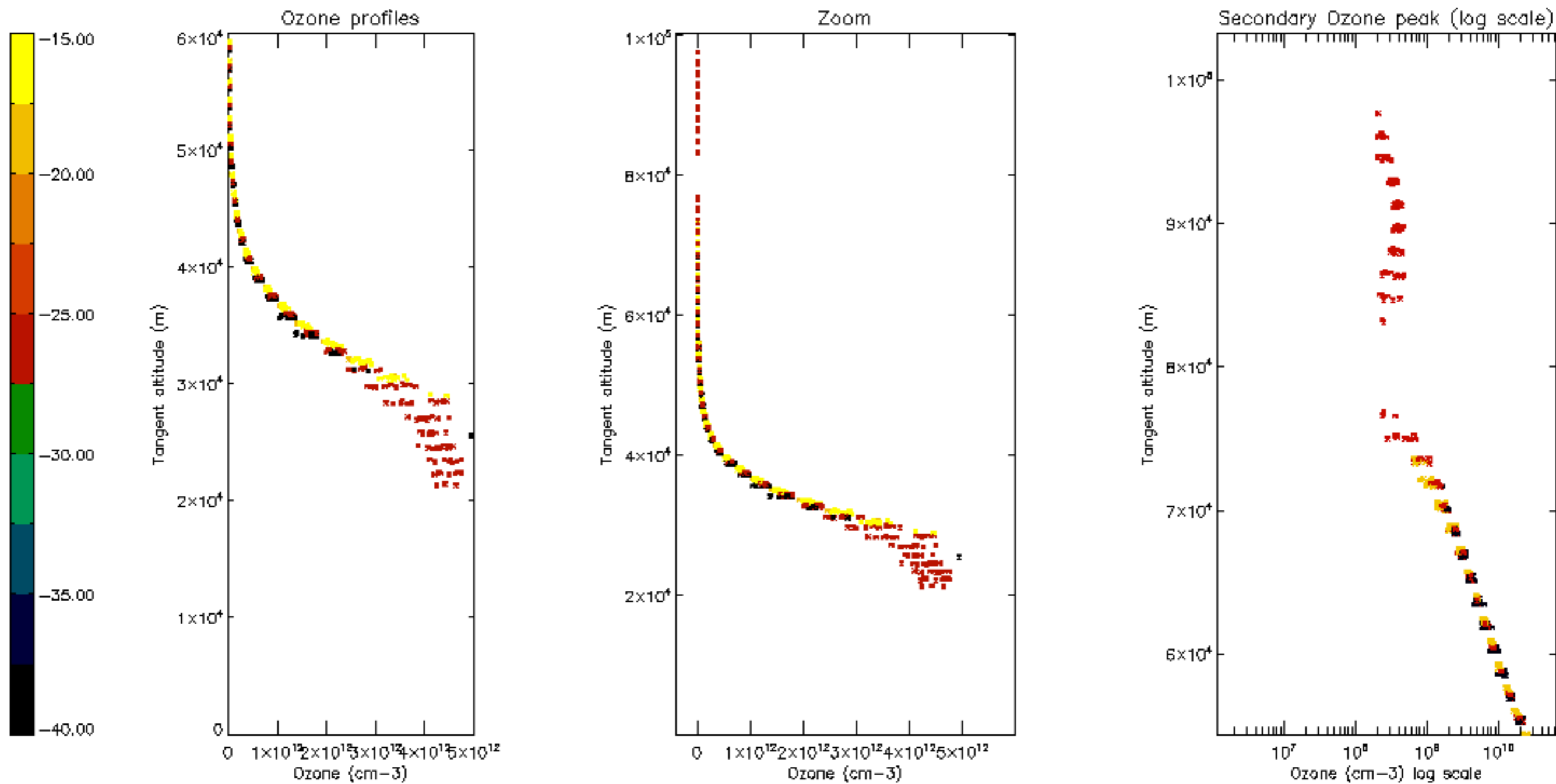
Percentage of saturation errors per profile

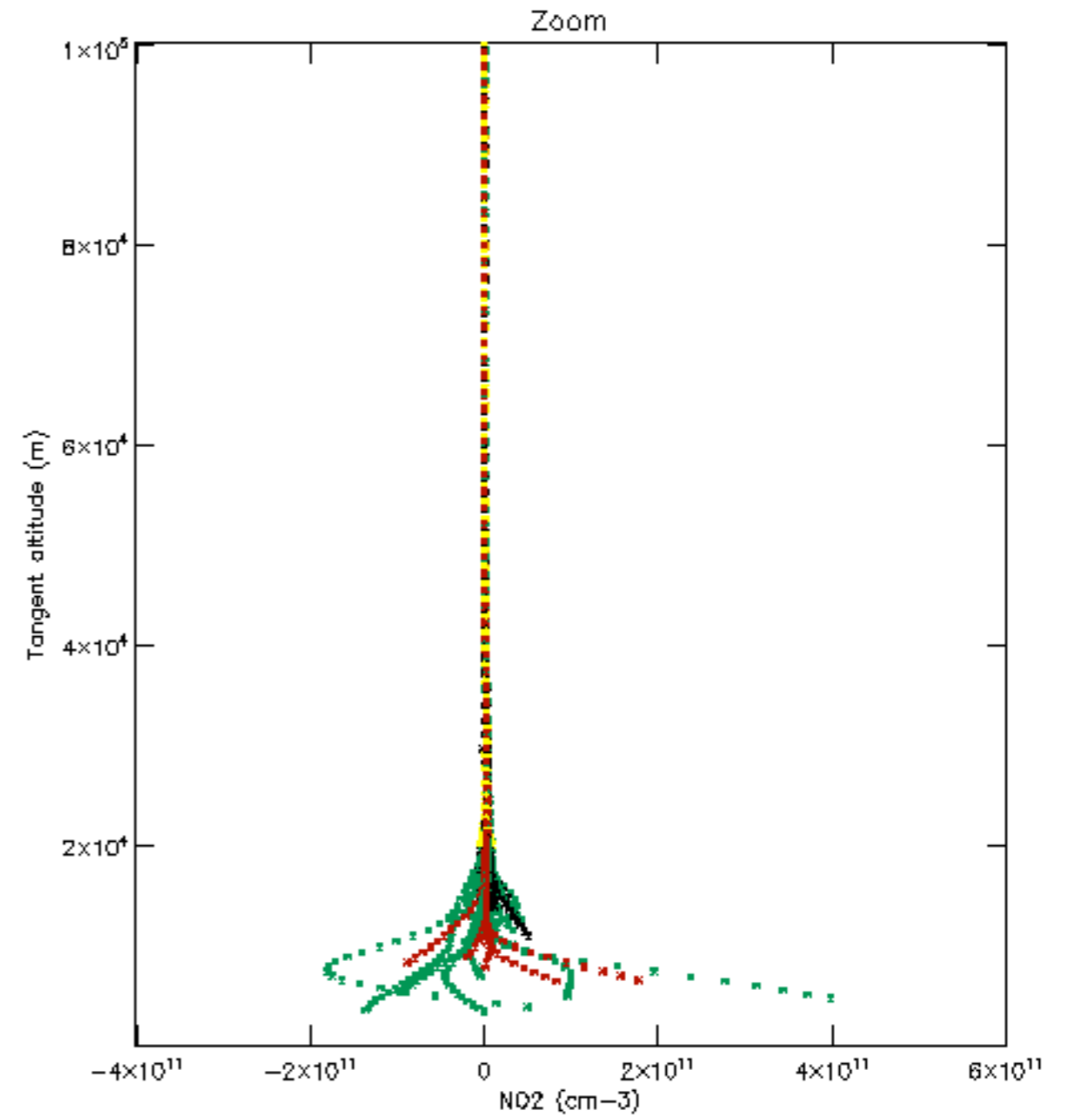
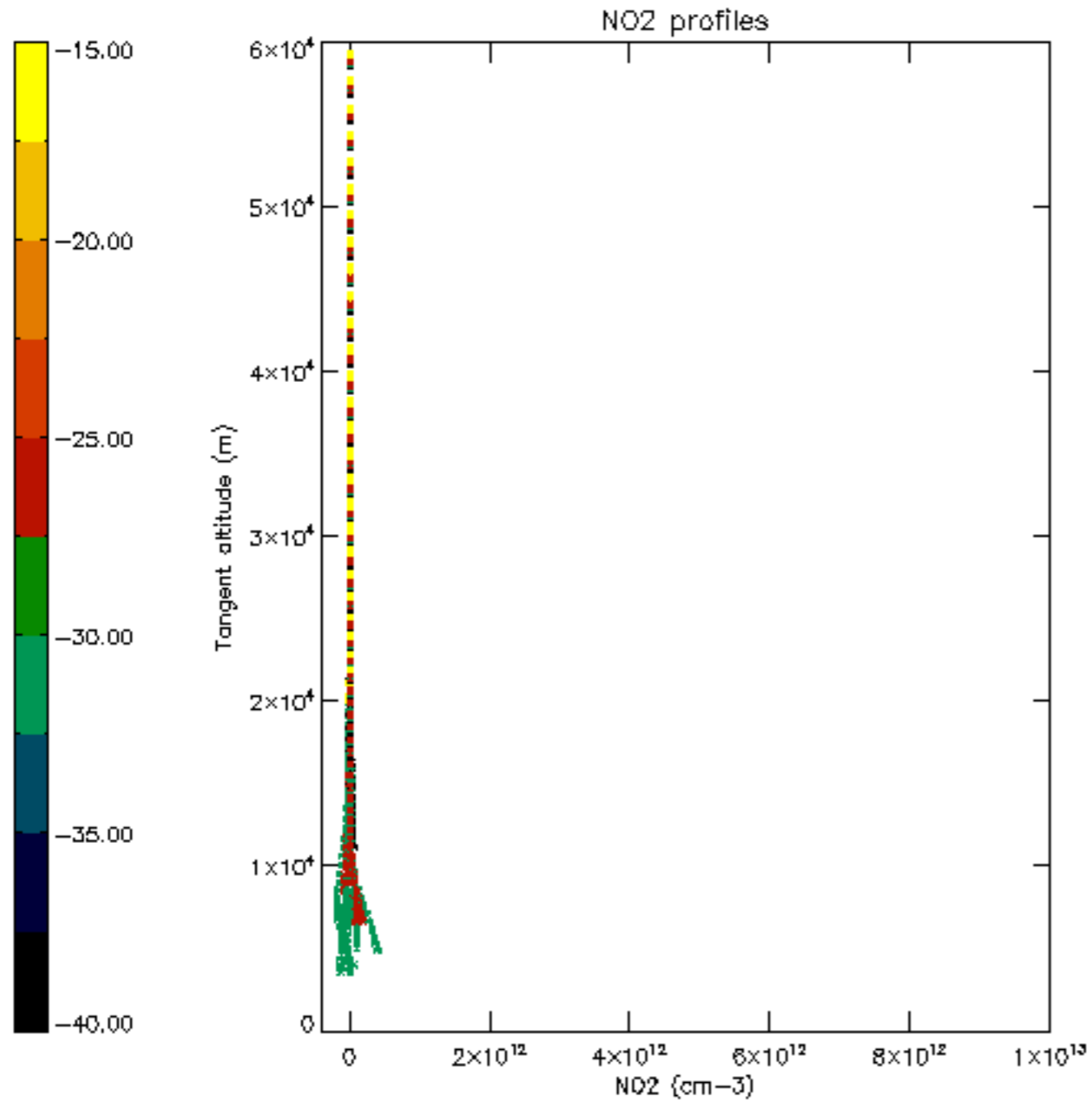


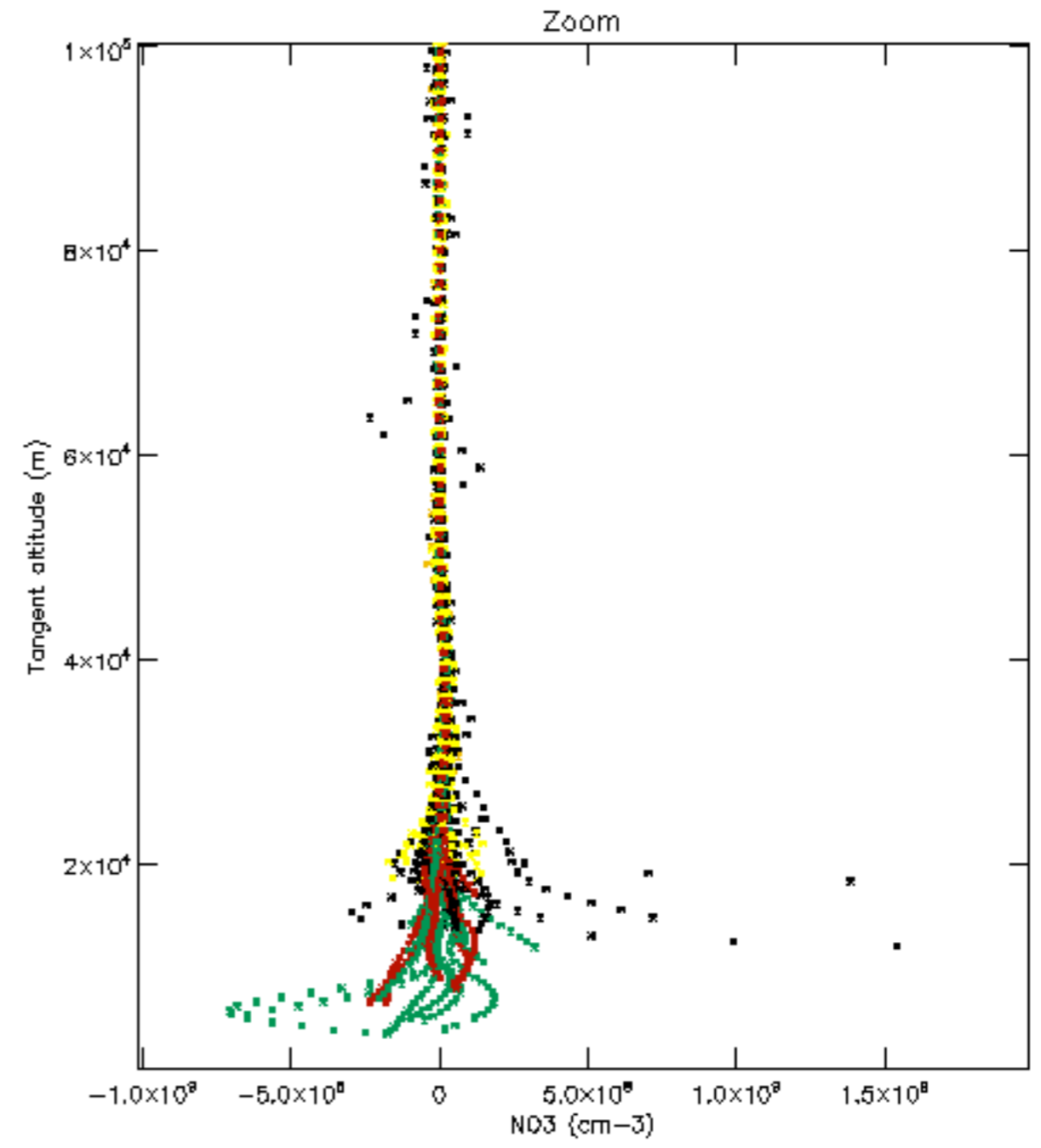
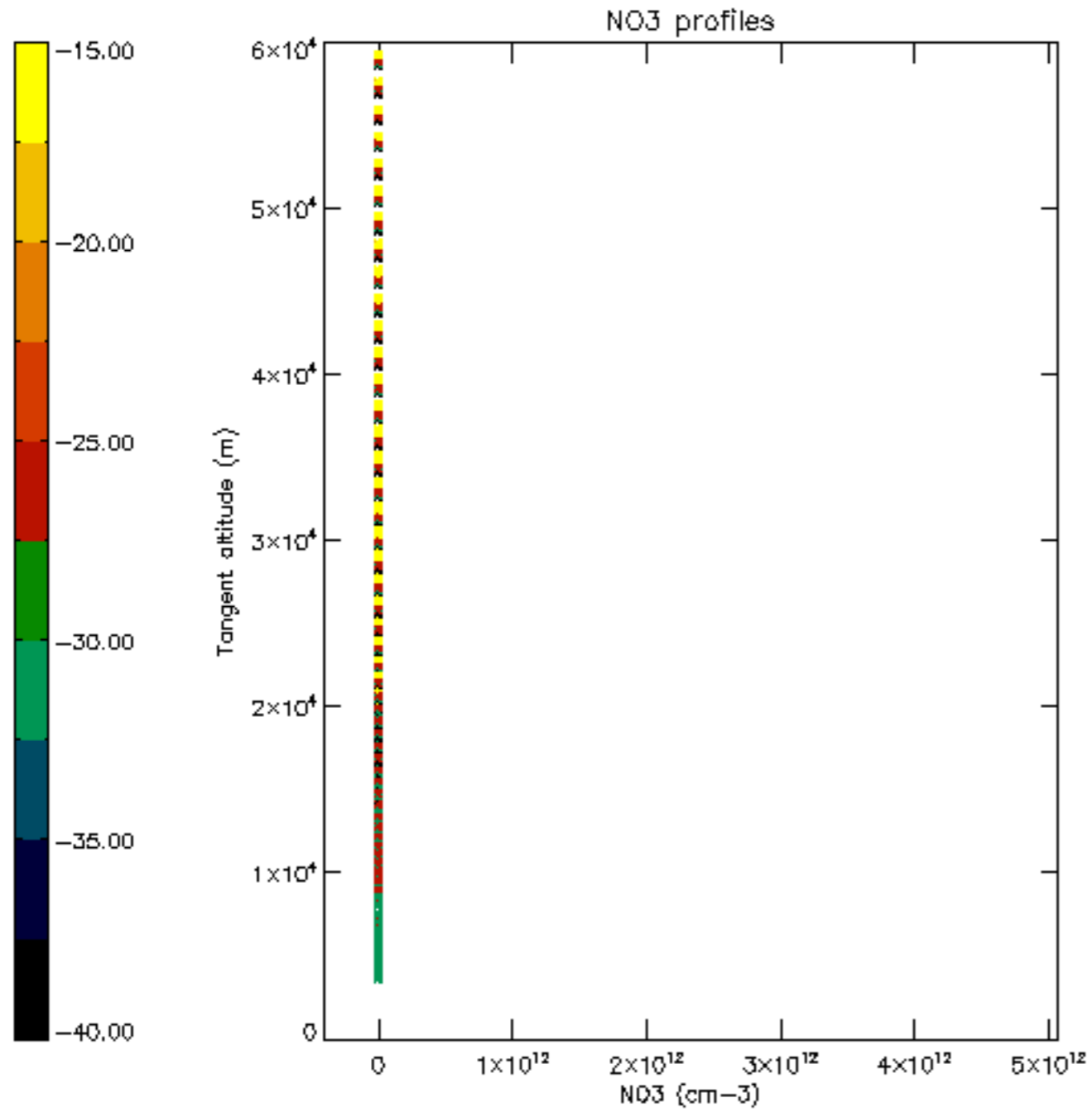




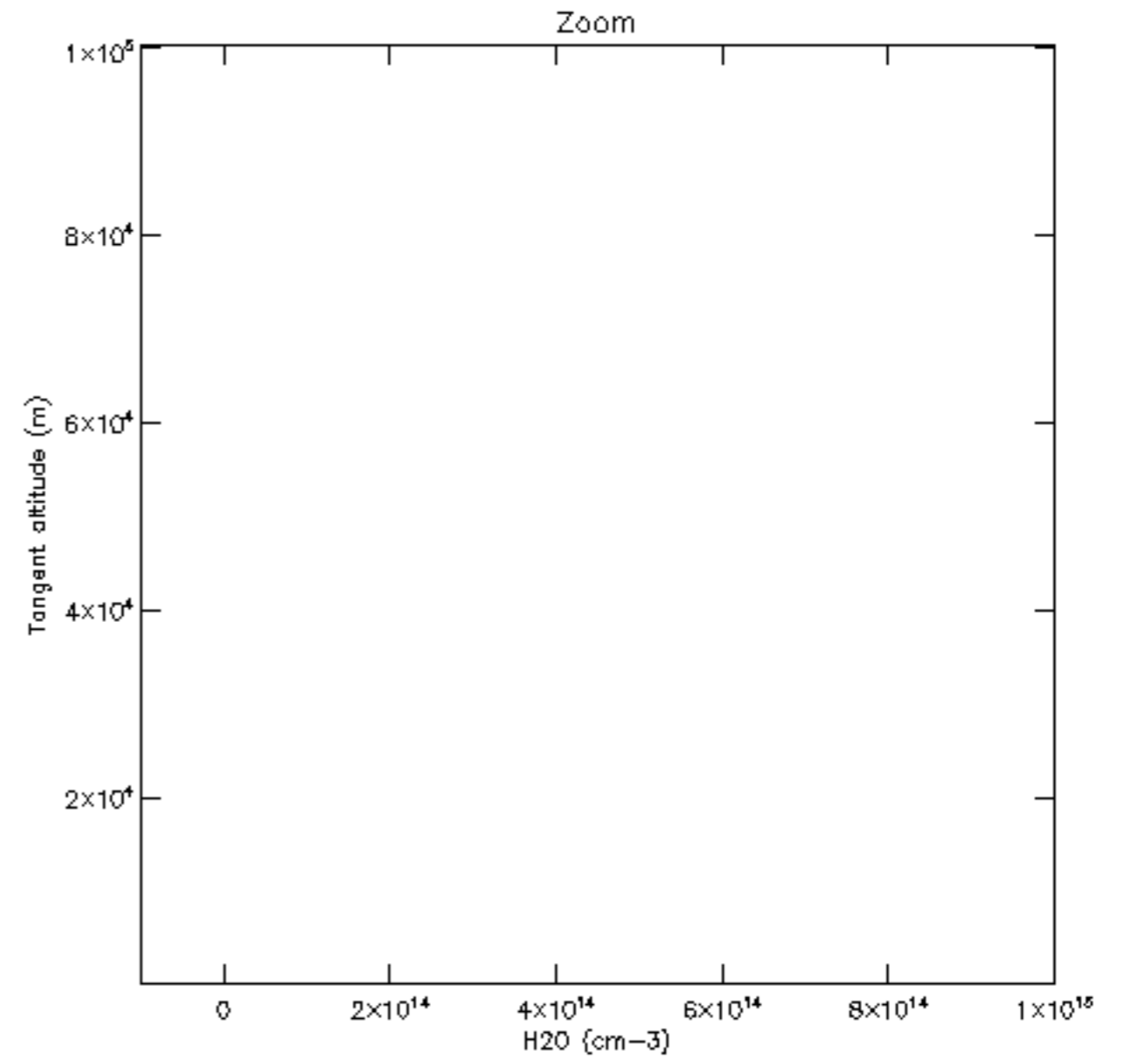
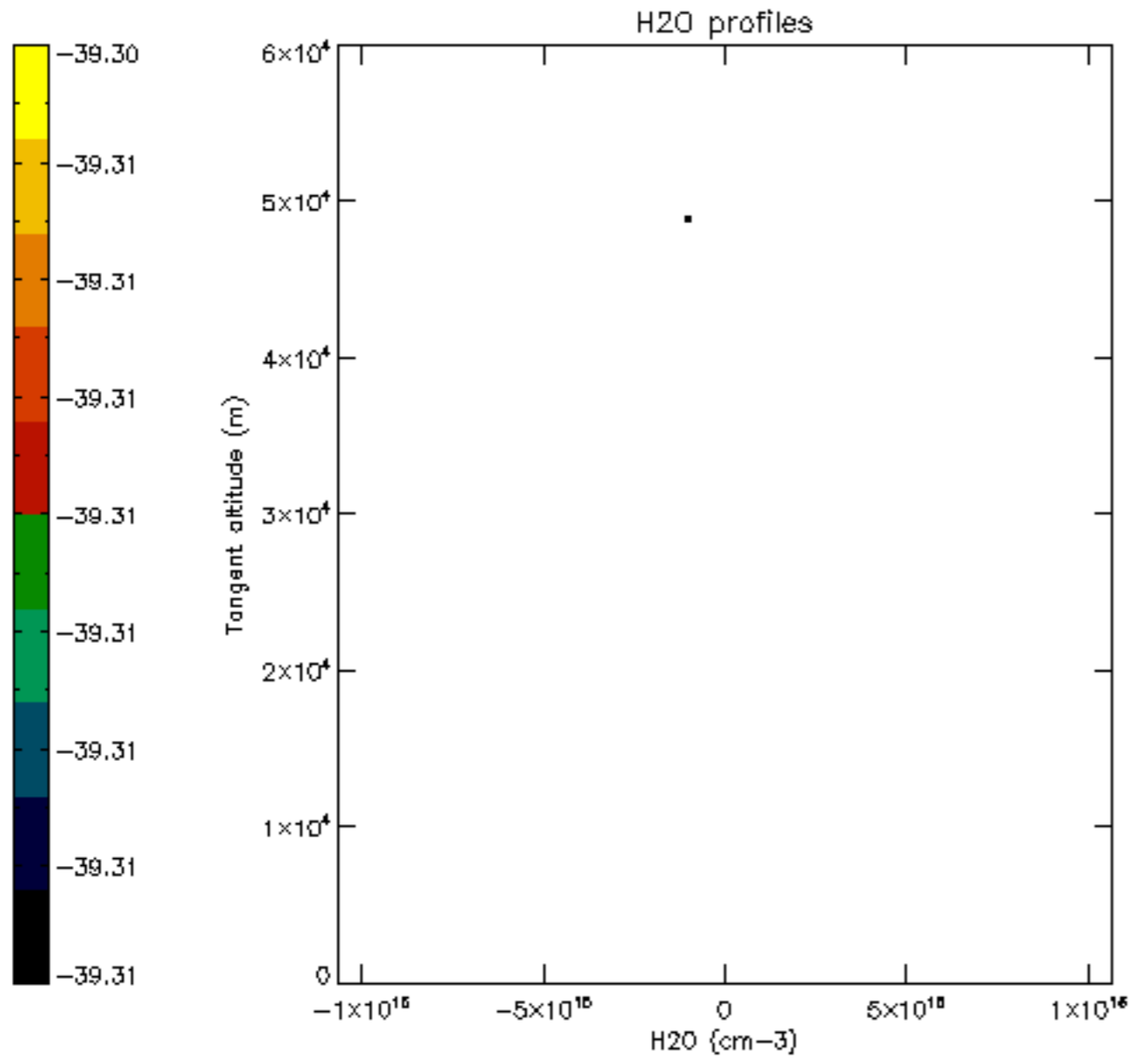


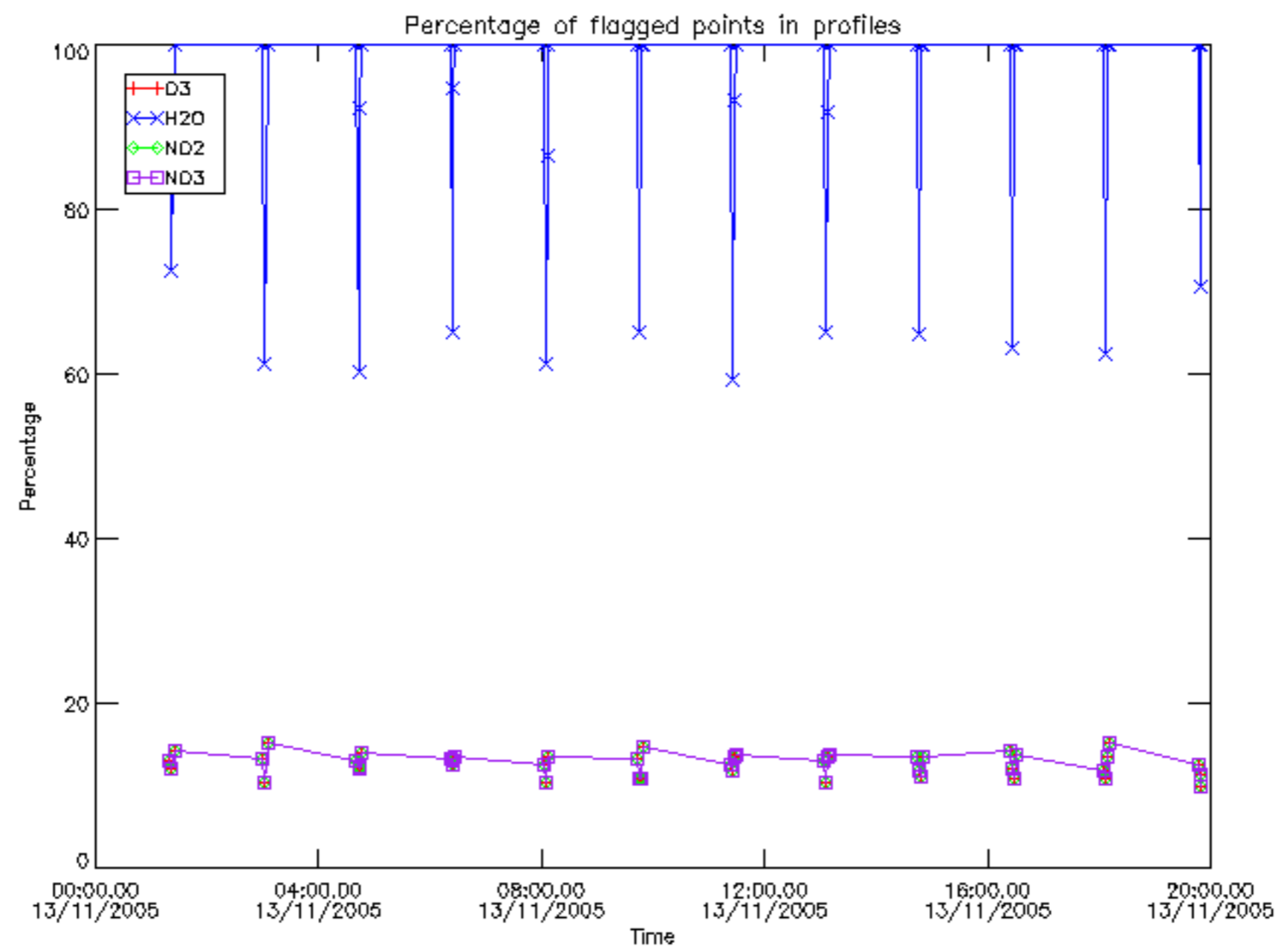




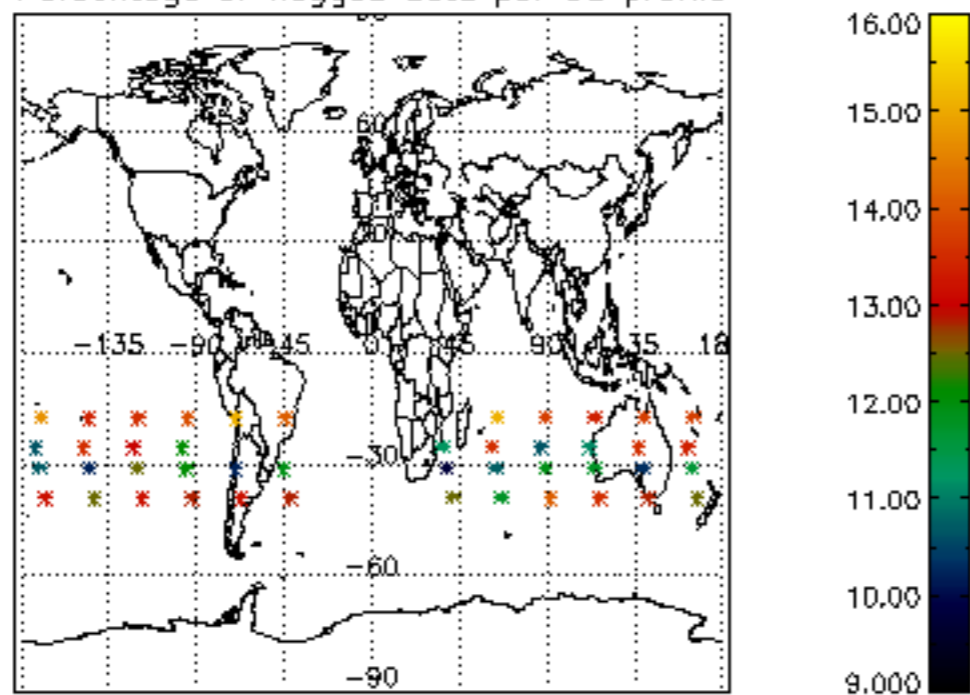




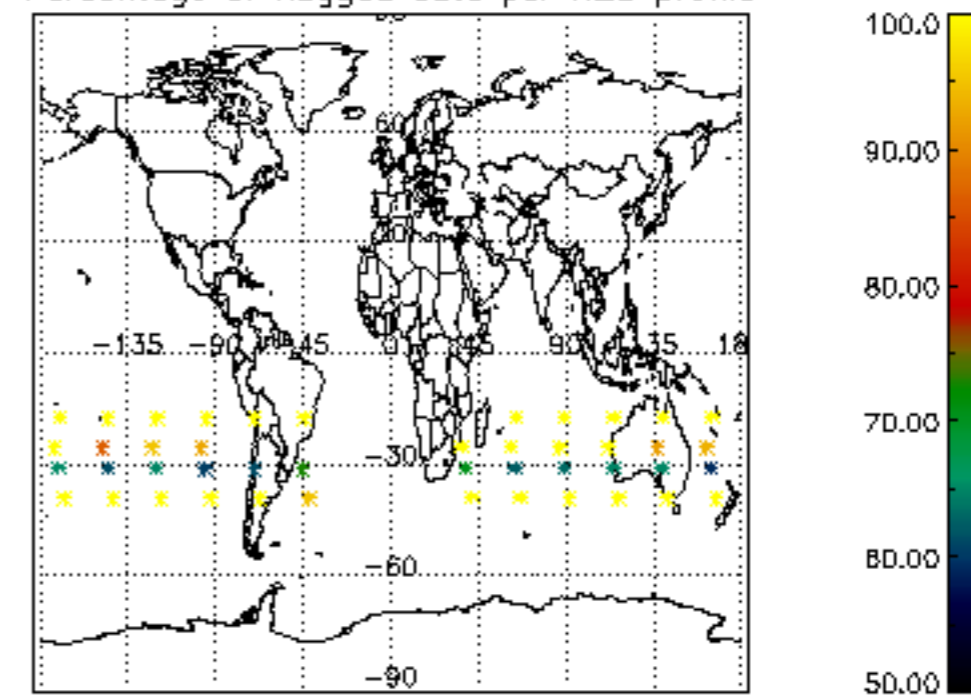




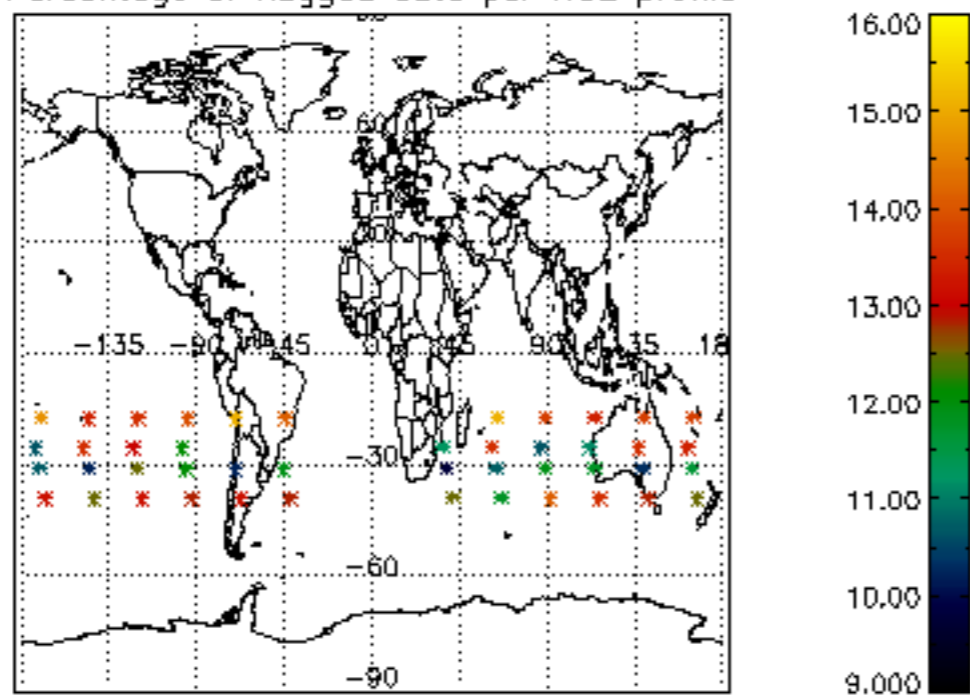
Percentage of flagged data per D3 profile



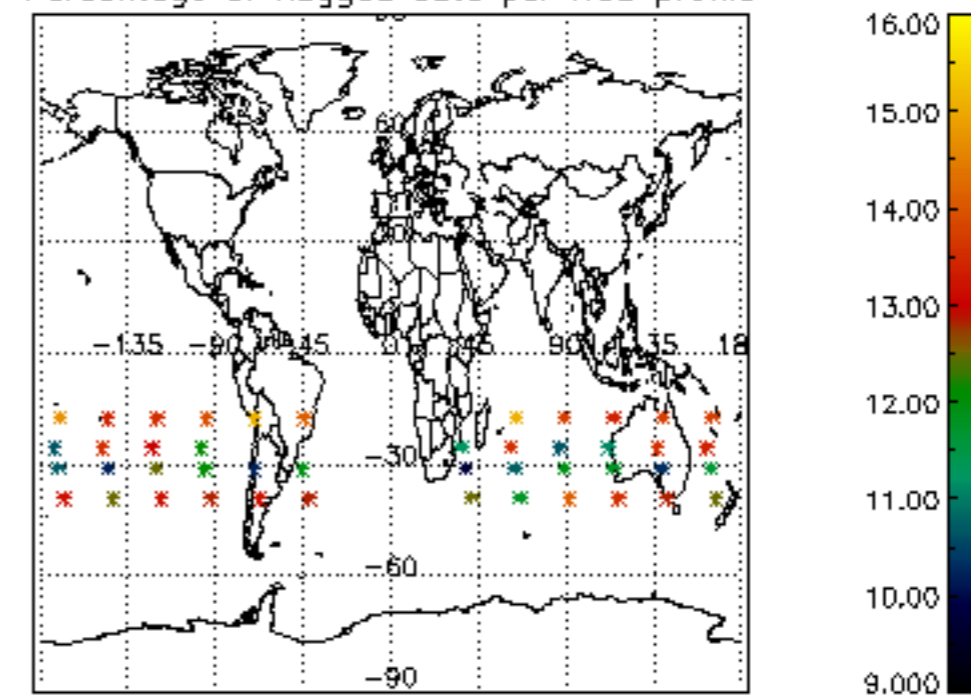
Percentage of flagged data per H2O profile

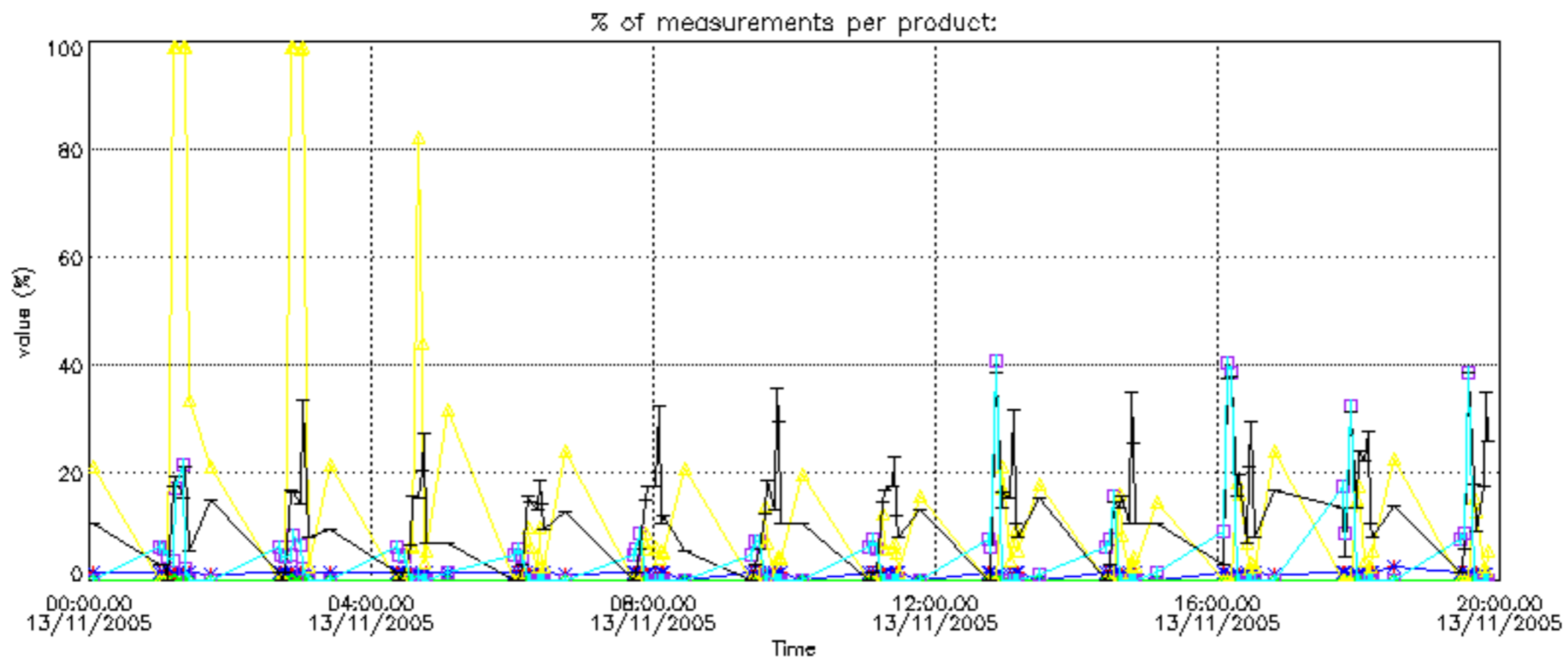


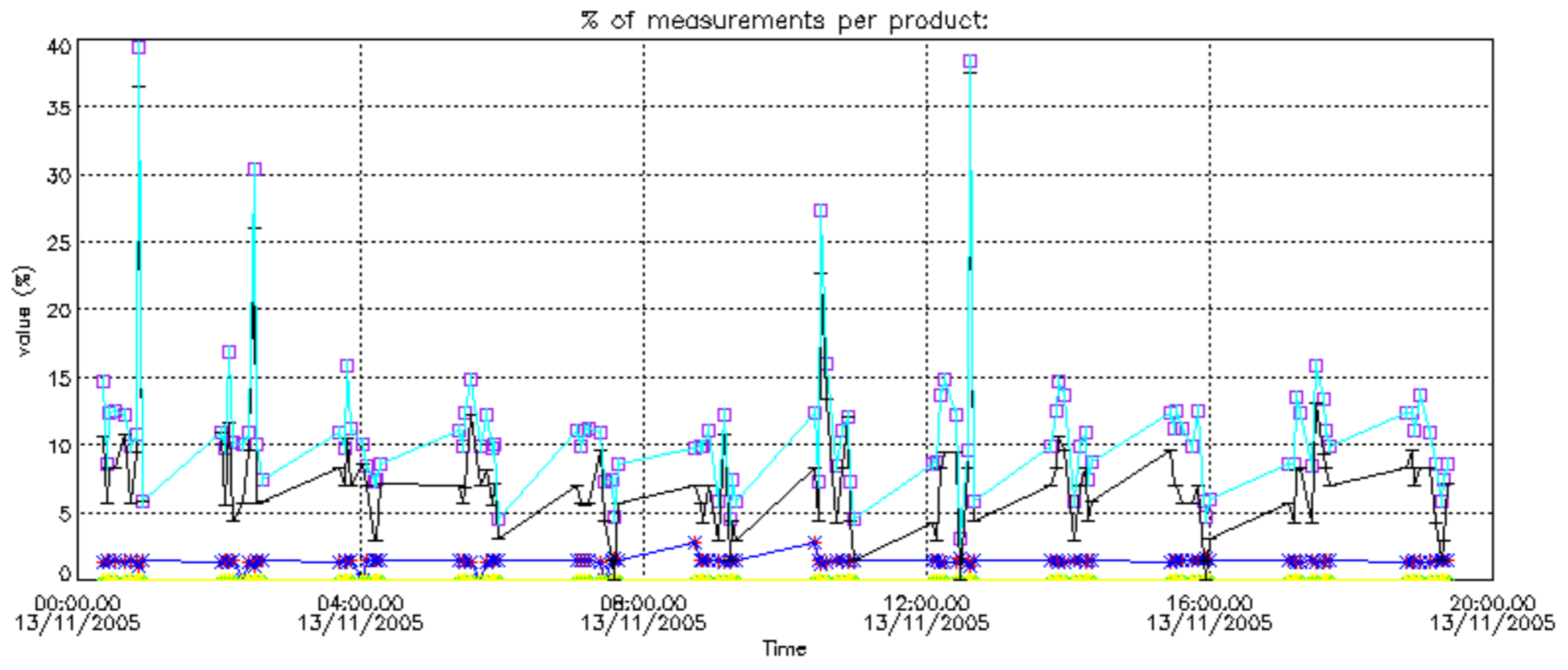
Percentage of flagged data per NO2 profile



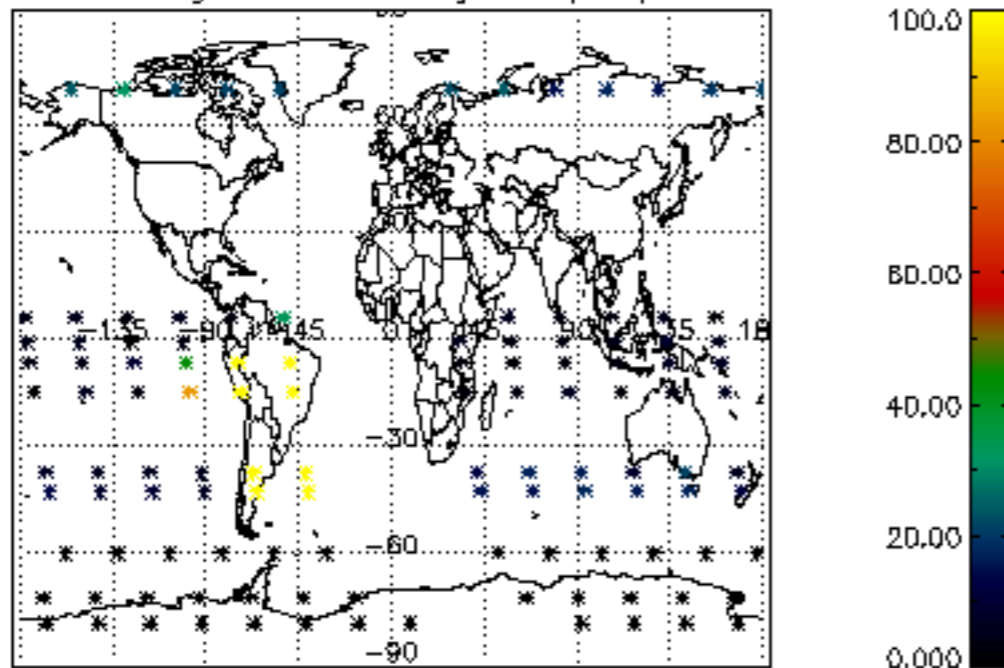
Percentage of flagged data per NO3 profile



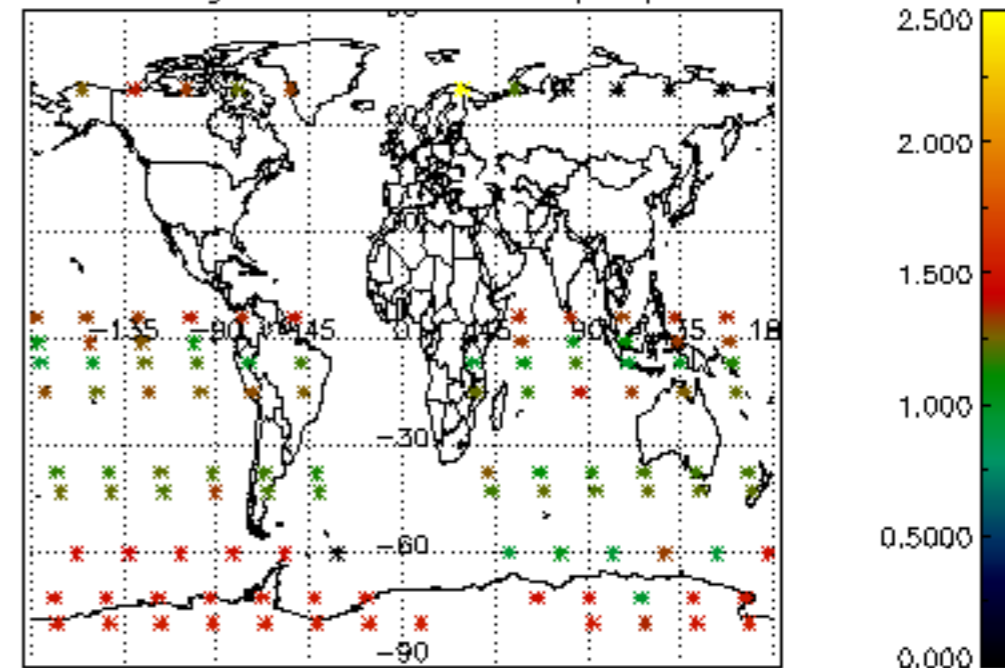




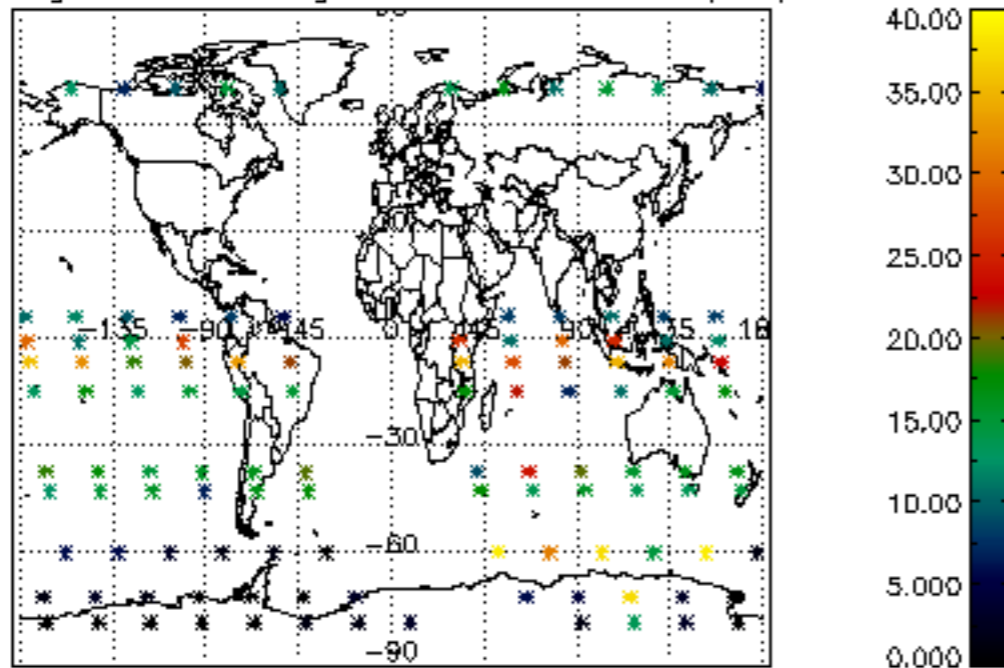
Percentage of cosmic ray hits per profile



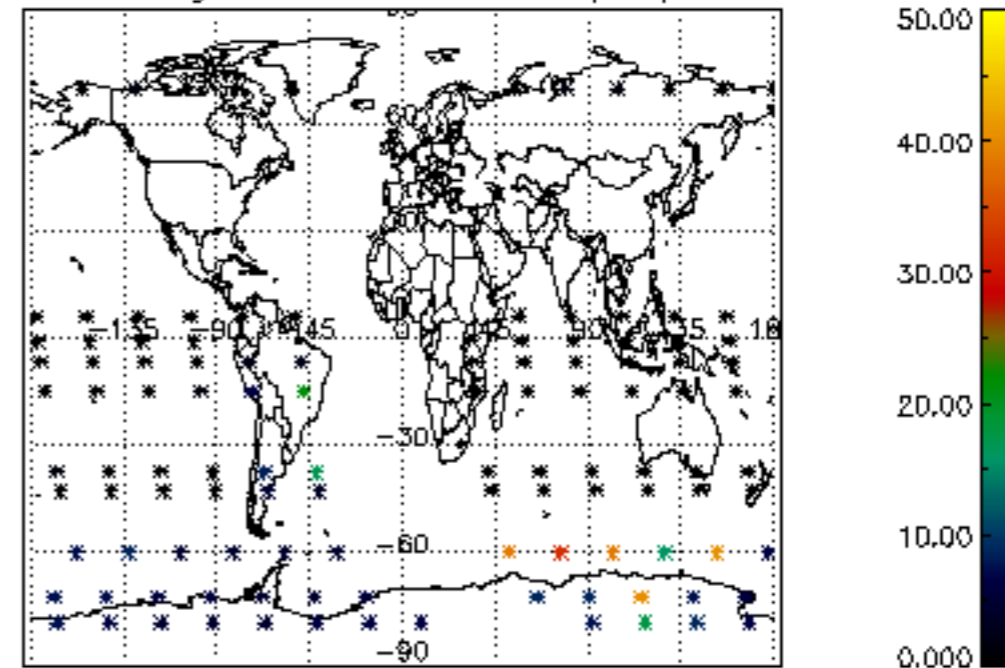
Percentage of datation errors per profile



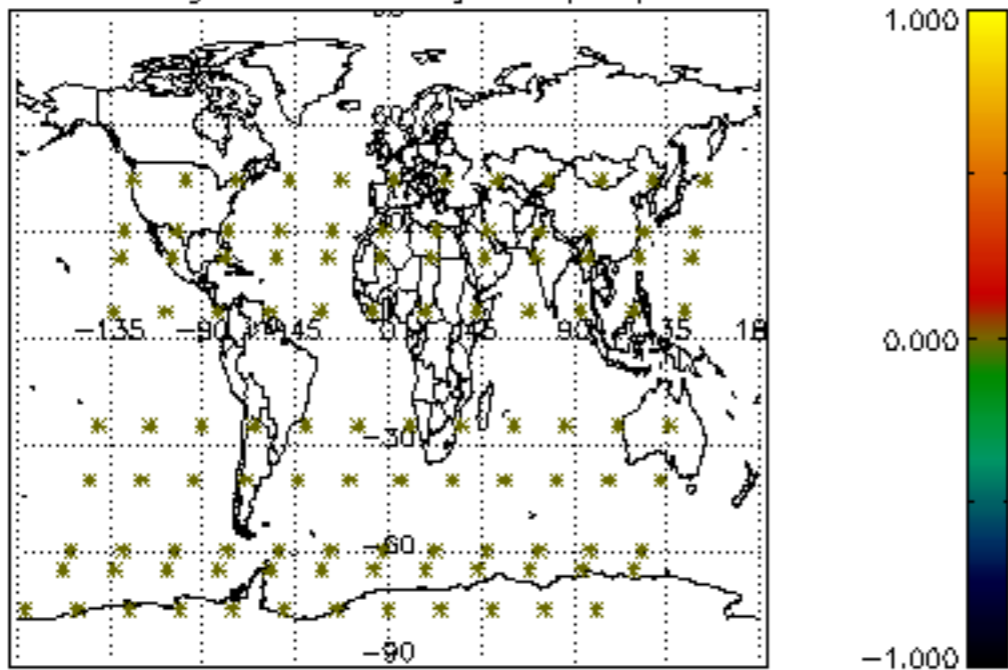
Percentage of star falling outside central band per profile



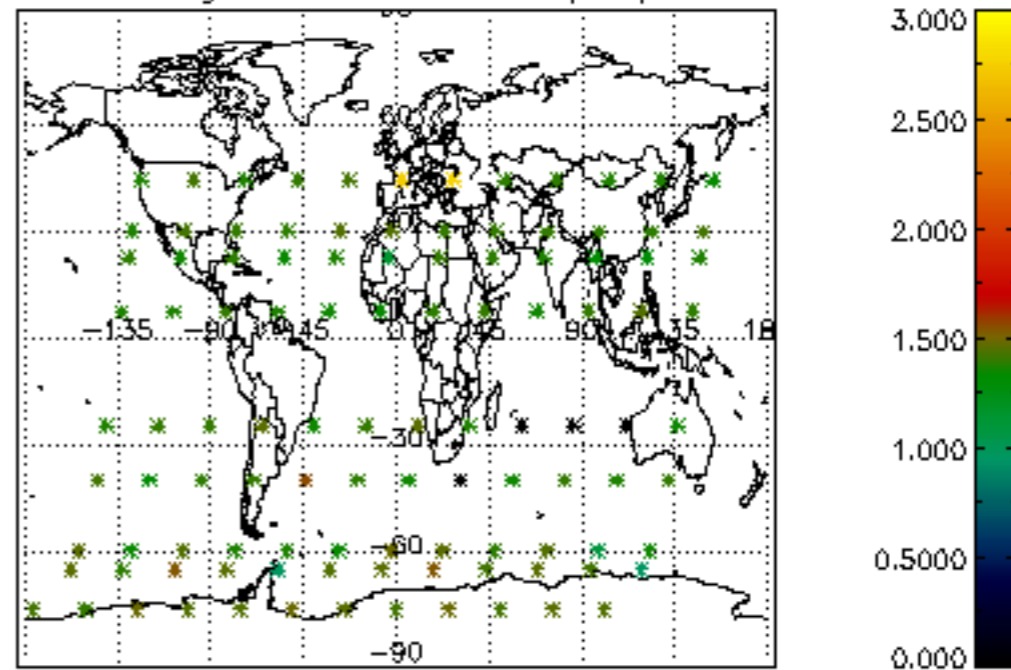
Percentage of saturation errors per profile



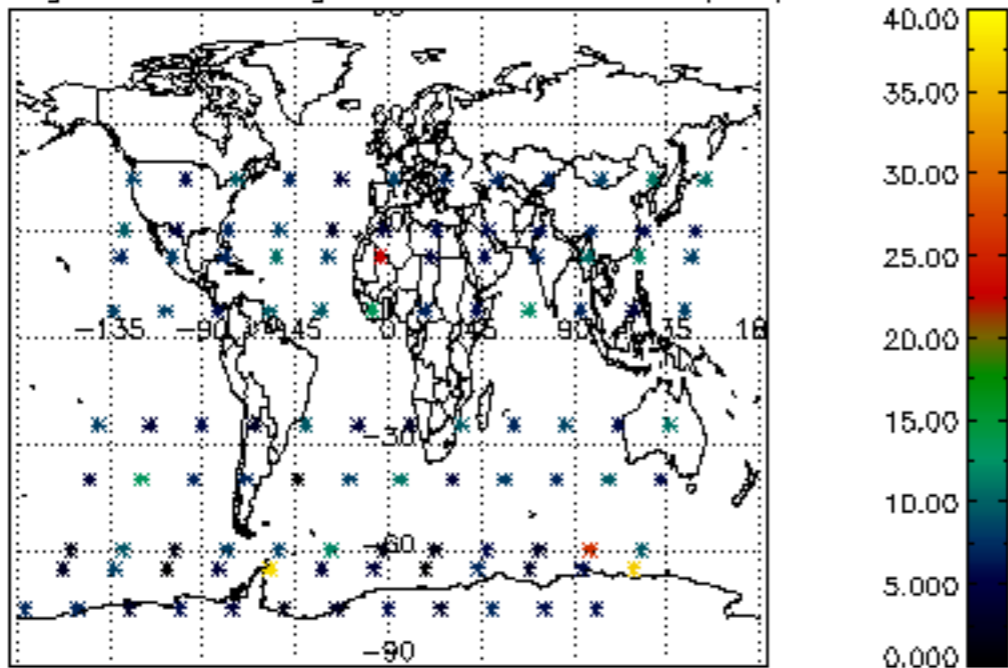
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

