

# 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	29APR2013 15:09:11
Data source version	GOMOS/6.01
Start time of products	10-09-2010 (10SEP2010 00:00:00)
Stop time of products	11-09-2010 (11SEP2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	39
Nb of prods with errors	0

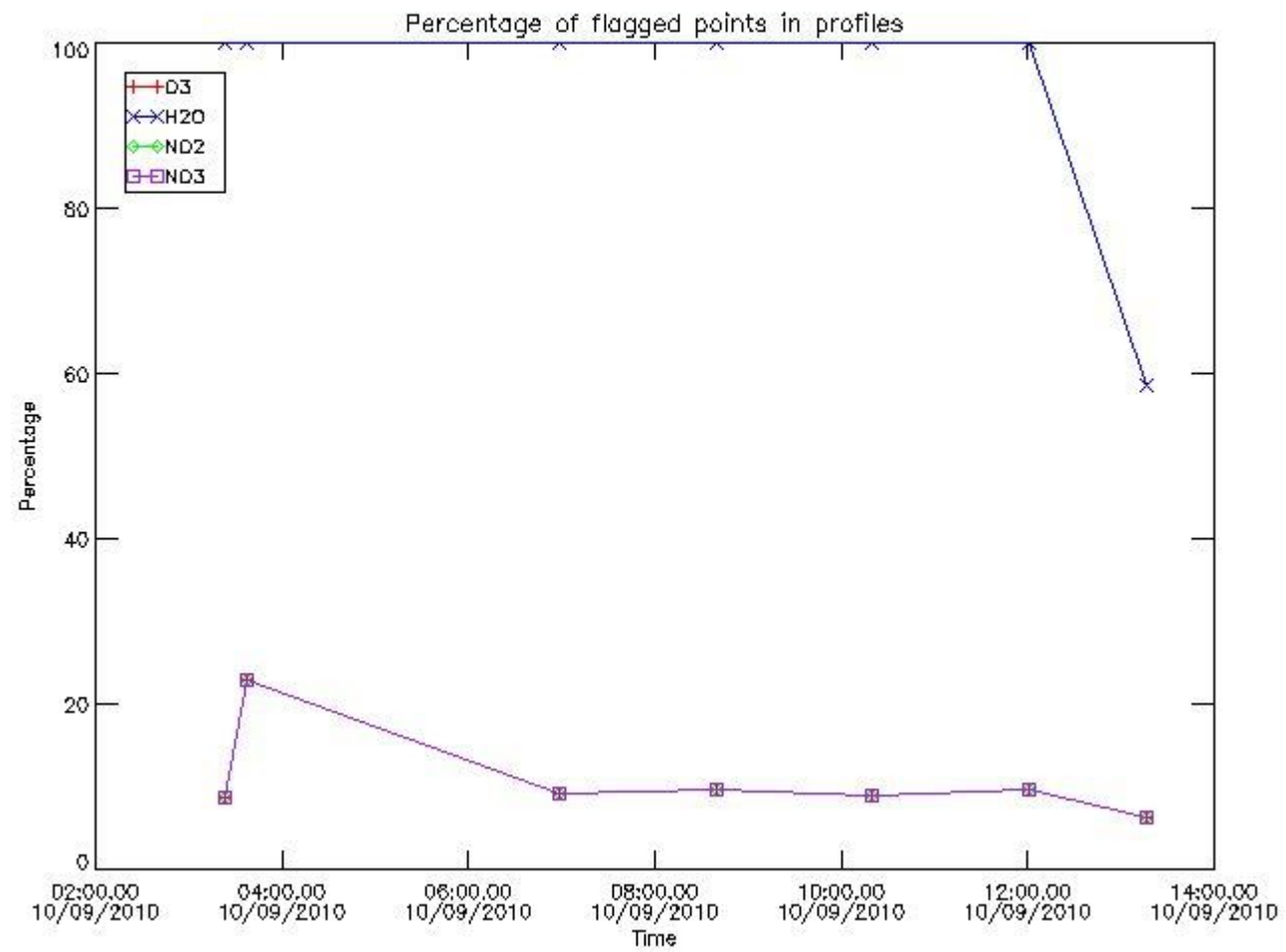
## 2. Summary of processed GOM\_NL\_\_2P products.

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100910_004445_000000402092_00446_44588_4052.N1	10-SEP-2010 00:44:45	Twilight	40.000	140	88Gam Peg	2.8340	26000.	80	44588	No
2	GOM_NL__2PRFIN20100910_004918_000000532092_00446_44588_4053.N1	10-SEP-2010 00:49:18	Bright	52.500	58	21Alp And	2.0730	11000.	105	44588	No
3	GOM_NL__2PRFIN20100910_011424_000000692092_00446_44588_4054.N1	10-SEP-2010 01:14:24	Bright	68.500	6	13Alp Aur	0.080000	3400.0	137	44588	No
4	GOM_NL__2PRFIN20100910_011847_000000572092_00446_44588_4055.N1	10-SEP-2010 01:18:47	Bright	56.500	107	37The Aur	2.6490	11000.	113	44588	No
5	GOM_NL__2PRFIN20100910_012640_000000582092_00446_44588_4056.N1	10-SEP-2010 01:26:40	Twilight	57.500	44	24Gam Gem	1.9280	11000.	115	44588	No
6	GOM_NL__2PRFIN20100910_021139_000000132092_00447_44589_4064.N1	10-SEP-2010 02:11:39	Straylight	12.500	52	16Bet Cet	2.0370	4500.0	25	44589	No
7	GOM_NL__2PRFIN20100910_022952_000000532092_00447_44589_4065.N1	10-SEP-2010 02:29:52	Bright	53.000	58	21Alp And	2.0730	11000.	106	44589	No
8	GOM_NL__2PRFIN20100910_025923_000000342092_00447_44589_4066.N1	10-SEP-2010 02:59:23	Twilight	34.000	107	37The Aur	2.6490	11000.	68	44589	No
9	GOM_NL__2PRFIN20100910_032306_000000642092_00447_44589_4067.N1	10-SEP-2010 03:23:06	Dark	64.000	101	11Alp Lep	2.5820	7000.0	128	44589	No
10	GOM_NL__2PRFIN20100910_033736_000000232092_00448_44590_4074.N1	10-SEP-2010 03:37:36	Dark	22.500	157	The1Eri	2.9060	9300.0	45	44590	No
11	GOM_NL__2PRFIN20100910_035216_000000682092_00448_44590_4075.N1	10-SEP-2010 03:52:16	Twilight	68.000	52	16Bet Cet	2.0370	4500.0	136	44590	No
12	GOM_NL__2PRFIN20100910_041027_000000542092_00448_44590_4076.N1	10-SEP-2010 04:10:27	Bright	54.000	58	21Alp And	2.0730	11000.	108	44590	No
13	GOM_NL__2PRFIN20100910_043959_000000542092_00448_44590_4077.N1	10-SEP-2010 04:39:59	Bright	54.000	107	37The Aur	2.6490	11000.	108	44590	No
14	GOM_NL__2PRFIN20100910_053251_000000712092_00449_44591_4085.N1	10-SEP-2010 05:32:51	Twilight	70.500	52	16Bet Cet	2.0370	4500.0	141	44591	No
15	GOM_NL__2PRFIN20100910_055102_000000542092_00449_44591_4086.N1	10-SEP-2010 05:51:02	Bright	54.000	58	21Alp And	2.0730	11000.	108	44591	No
16	GOM_NL__2PRFIN20100910_062035_000000562092_00449_44591_4087.N1	10-SEP-2010 06:20:35	Bright	55.500	107	37The Aur	2.6490	11000.	111	44591	No
17	GOM_NL__2PRFIN20100910_065850_000000562092_00450_44592_4107.N1	10-SEP-2010 06:58:50	Dark	55.500	157	The1Eri	2.9060	9300.0	111	44592	No
18	GOM_NL__2PRFIN20100910_071328_000000392092_00450_44592_4108.N1	10-SEP-2010 07:13:28	Twilight	39.000	52	16Bet Cet	2.0370	4500.0	78	44592	No
19	GOM_NL__2PRFIN20100910_080111_000000542092_00450_44592_4109.N1	10-SEP-2010 08:01:11	Bright	53.500	107	37The Aur	2.6490	11000.	107	44592	No
20	GOM_NL__2PRFIN20100910_083928_000000532092_00451_44593_4139.N1	10-SEP-2010 08:39:28	Dark	53.000	157	The1Eri	2.9060	9300.0	106	44593	No
21	GOM_NL__2PRFIN20100910_085404_000000662092_00451_44593_4140.N1	10-SEP-2010 08:54:04	Twilight	65.500	52	16Bet Cet	2.0370	4500.0	131	44593	No
22	GOM_NL__2PRFIN20100910_090740_000000582092_00451_44593_4141.N1	10-SEP-2010 09:07:40	Bright	58.000	140	88Gam Peg	2.8340	26000.	116	44593	No
23	GOM_NL__2PRFIN20100910_091212_000000562092_00451_44593_4142.N1	10-SEP-2010 09:12:12	Bright	56.000	58	21Alp And	2.0730	11000.	112	44593	No
24	GOM_NL__2PRFIN20100910_094147_000000352092_00451_44593_4143.N1	10-SEP-2010 09:41:47	Twilight	34.500	107	37The Aur	2.6490	11000.	69	44593	No
25	GOM_NL__2PRFIN20100910_102005_000000572092_00452_44594_4208.N1	10-SEP-2010 10:20:05	Dark	57.000	157	The1Eri	2.9060	9300.0	114	44594	No
26	GOM_NL__2PRFIN20100910_103440_000000662092_00452_44594_4209.N1	10-SEP-2010 10:34:40	Twilight	66.000	52	16Bet Cet	2.0370	4500.0	132	44594	No
27	GOM_NL__2PRFIN20100910_105247_000000562092_00452_44594_4210.N1	10-SEP-2010 10:52:47	Bright	55.500	58	21Alp And	2.0730	11000.	111	44594	No
28	GOM_NL__2PRFIN20100910_110904_000000602092_00452_44594_4211.N1	10-SEP-2010 11:09:04	Bright	60.000	160	23Gam Per	2.9300	4700.0	120	44594	No
29	GOM_NL__2PRFIN20100910_111110_000000662092_00452_44594_4212.N1	10-SEP-2010 11:11:10	Bright	66.000	35	33Alp Per	1.7950	6250.0	132	44594	No
30	GOM_NL__2PRFIN20100910_111757_000000182092_00452_44594_4213.N1	10-SEP-2010 11:17:57	Twilight	17.500	6	13Alp Aur	0.080000	3400.0	35	44594	No
31	GOM_NL__2PRFIN20100910_112223_000000152092_00452_44594_4214.N1	10-SEP-2010 11:22:23	Straylight	14.500	107	37The Aur	2.6490	11000.	29	44594	No
32	GOM_NL__2PRFIN20100910_113019_000000482092_00452_44594_4215.N1	10-SEP-2010 11:30:19	Twilight	48.000	44	24Gam Gem	1.9280	11000.	96	44594	No
33	GOM_NL__2PRFIN20100910_120042_000000582092_00453_44595_4248.N1	10-SEP-2010 12:00:42	Dark	57.500	157	The1Eri	2.9060	9300.0	115	44595	No
34	GOM_NL__2PRFIN20100910_121515_000000712092_00453_44595_4249.N1	10-SEP-2010 12:15:15	Twilight	71.000	52	16Bet Cet	2.0370	4500.0	142	44595	No
35	GOM_NL__2PRFIN20100910_122850_000000582092_00453_44595_4250.N1	10-SEP-2010 12:28:50	Bright	57.500	140	88Gam Peg	2.8340	26000.	115	44595	No
36	GOM_NL__2PRFIN20100910_123322_000000512092_00453_44595_4251.N1	10-SEP-2010 12:33:22	Bright	51.000	58	21Alp And	2.0730	11000.	102	44595	No
37	GOM_NL__2PRFIN20100910_125833_000000652092_00453_44595_4252.N1	10-SEP-2010 12:58:33	Bright	65.000	6	13Alp Aur	0.080000	3400.0	130	44595	No
38	GOM_NL__2PRFIN20100910_130258_000000592092_00453_44595_4253.N1	10-SEP-2010 13:02:58	Bright	59.000	107	37The Aur	2.6490	11000.	118	44595	No
39	GOM_NL__2PRFIN20100910_131651_000000912092_00453_44595_4254.N1	10-SEP-2010 13:16:51	Dark	90.500	14	58Alp Ori	0.87000	3000.0	181	44595	No

## 3. Quality information per product

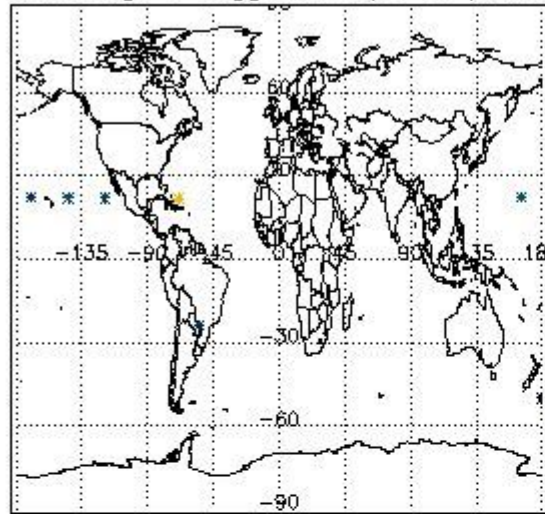
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

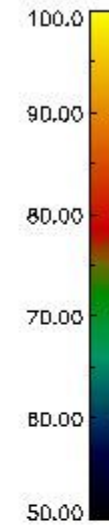
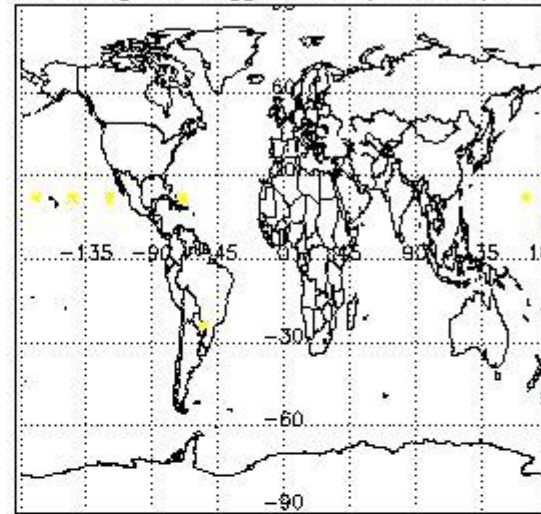


### 3.2 Plot quality information per product (world map)

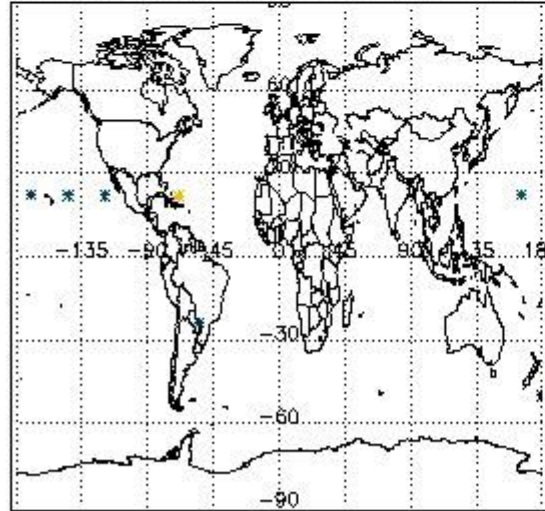
Percentage of flagged data per O3 profile



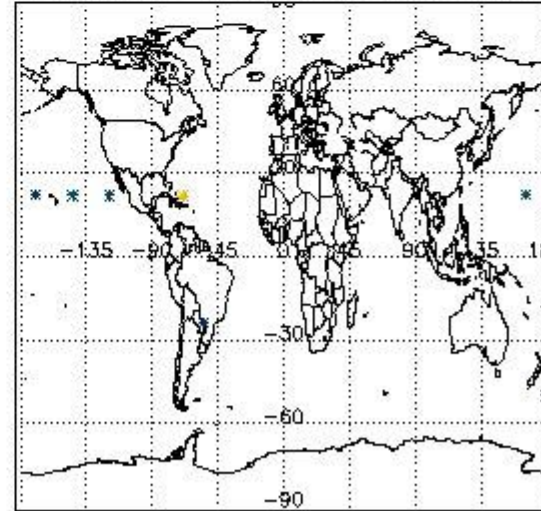
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

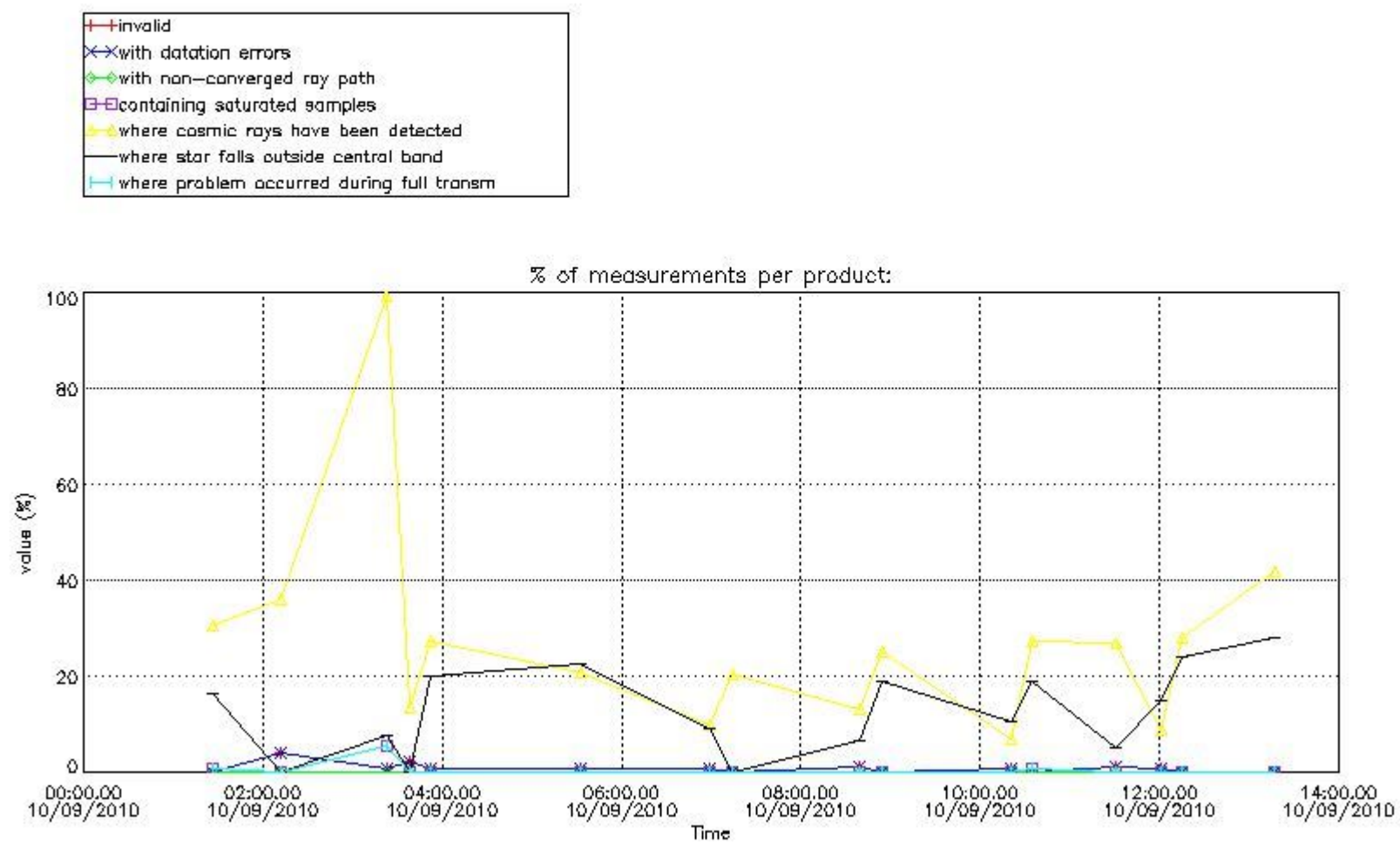


#### 4. Level 1 quality information per product

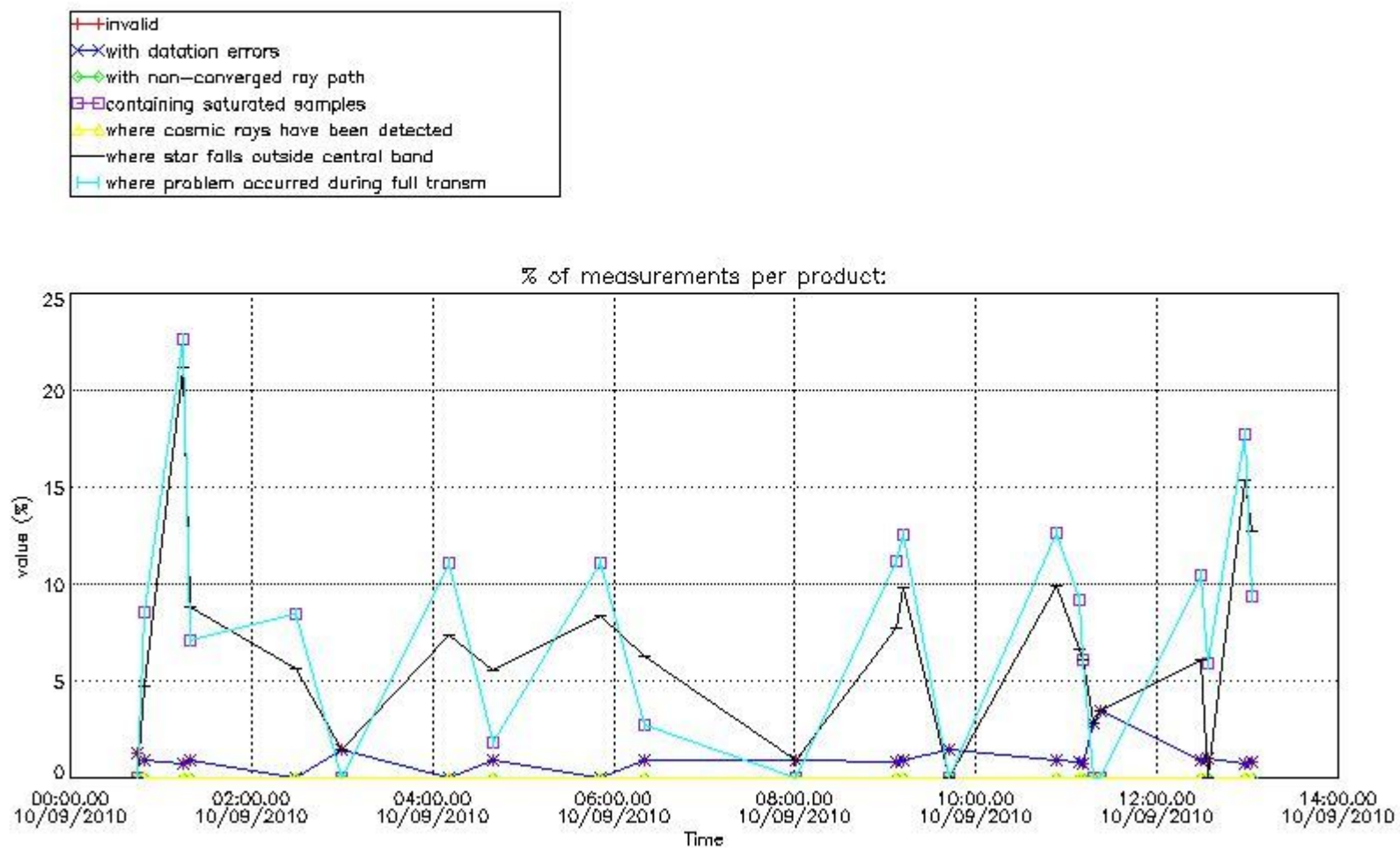
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

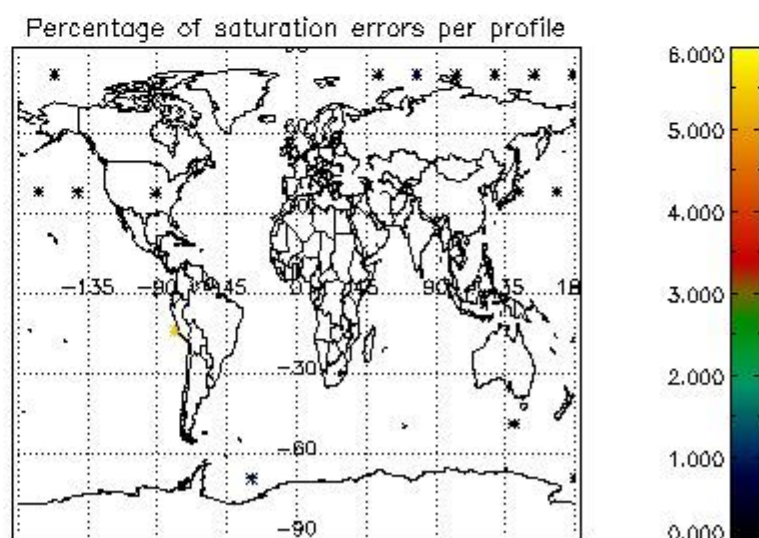
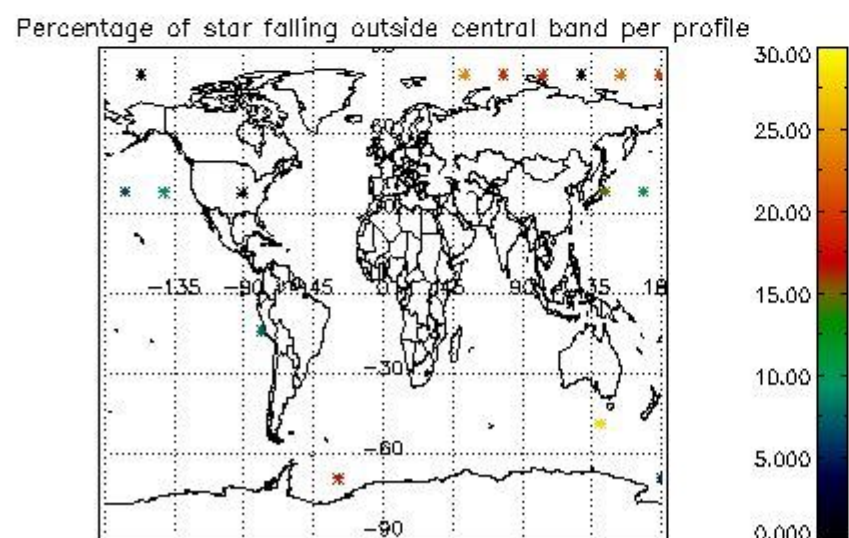
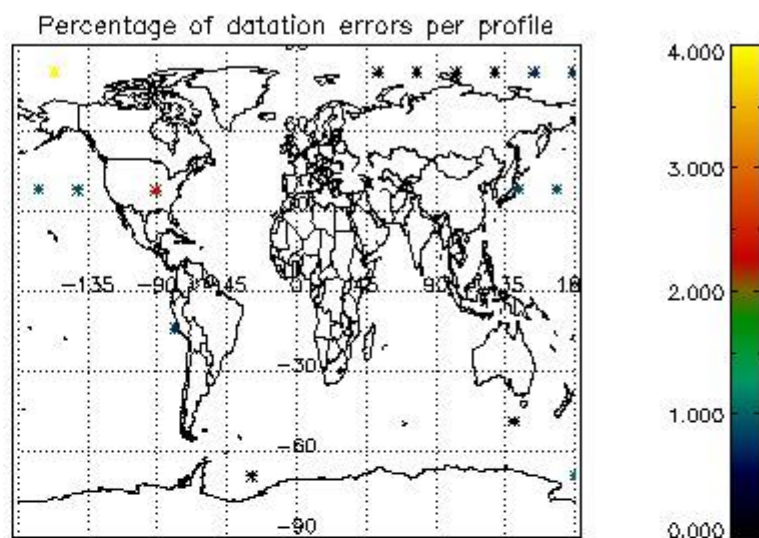
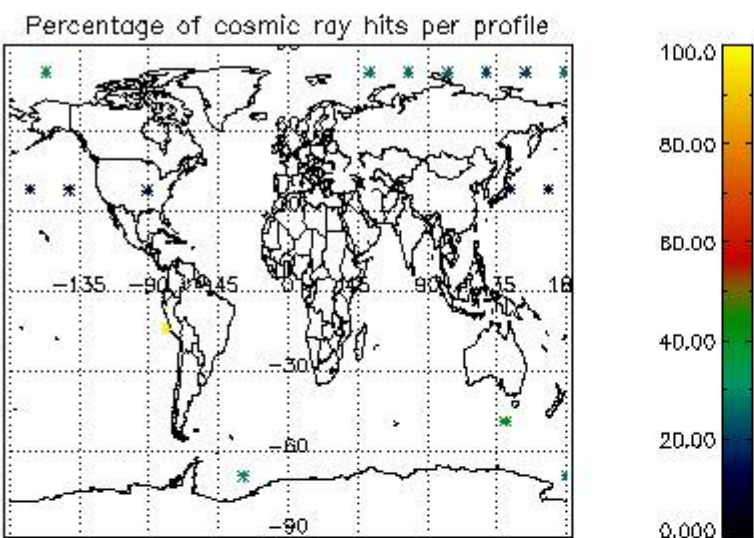


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



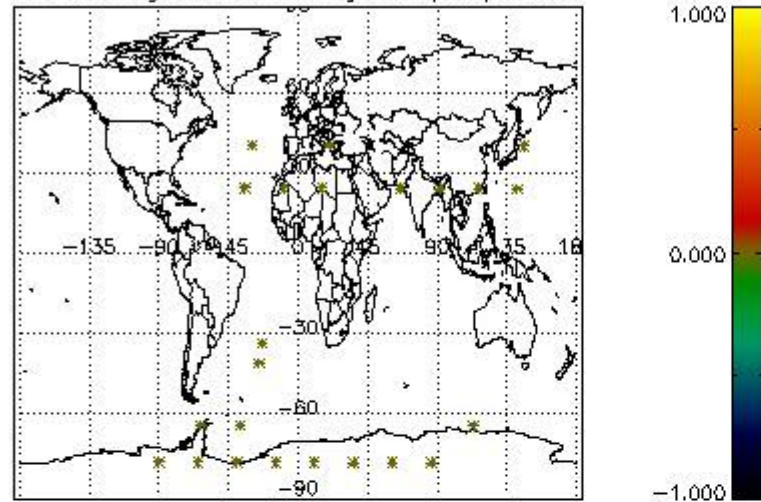
4.2 Plot quality information per product coming from level 1b processing (world map)

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

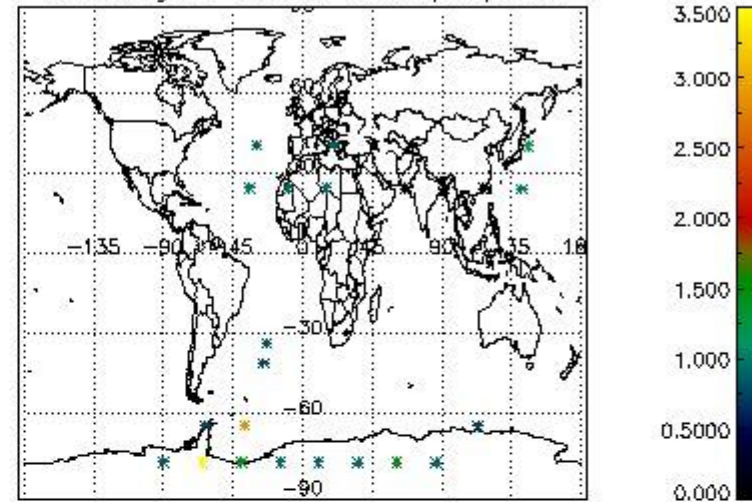


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

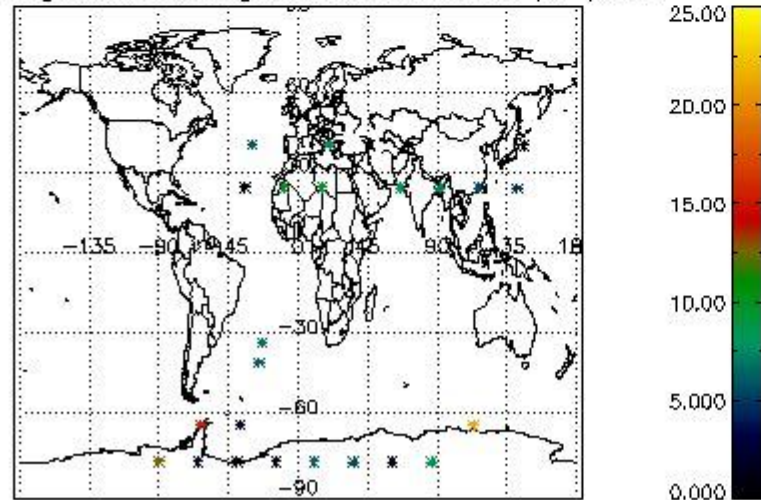
Percentage of cosmic ray hits per profile



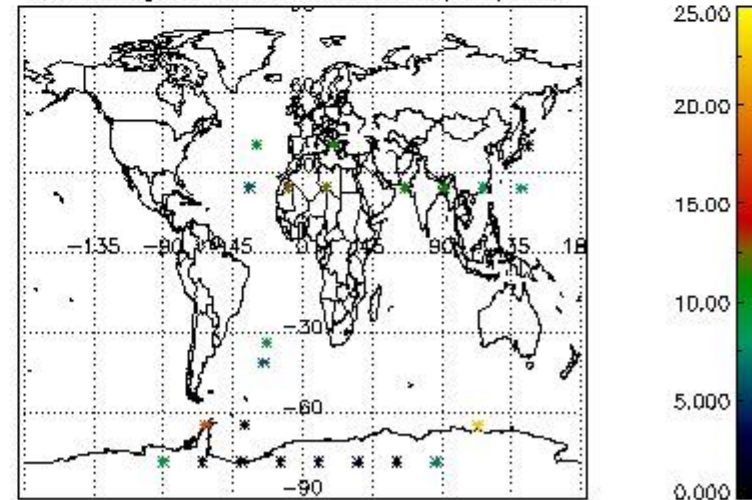
Percentage of datation errors per profile



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.

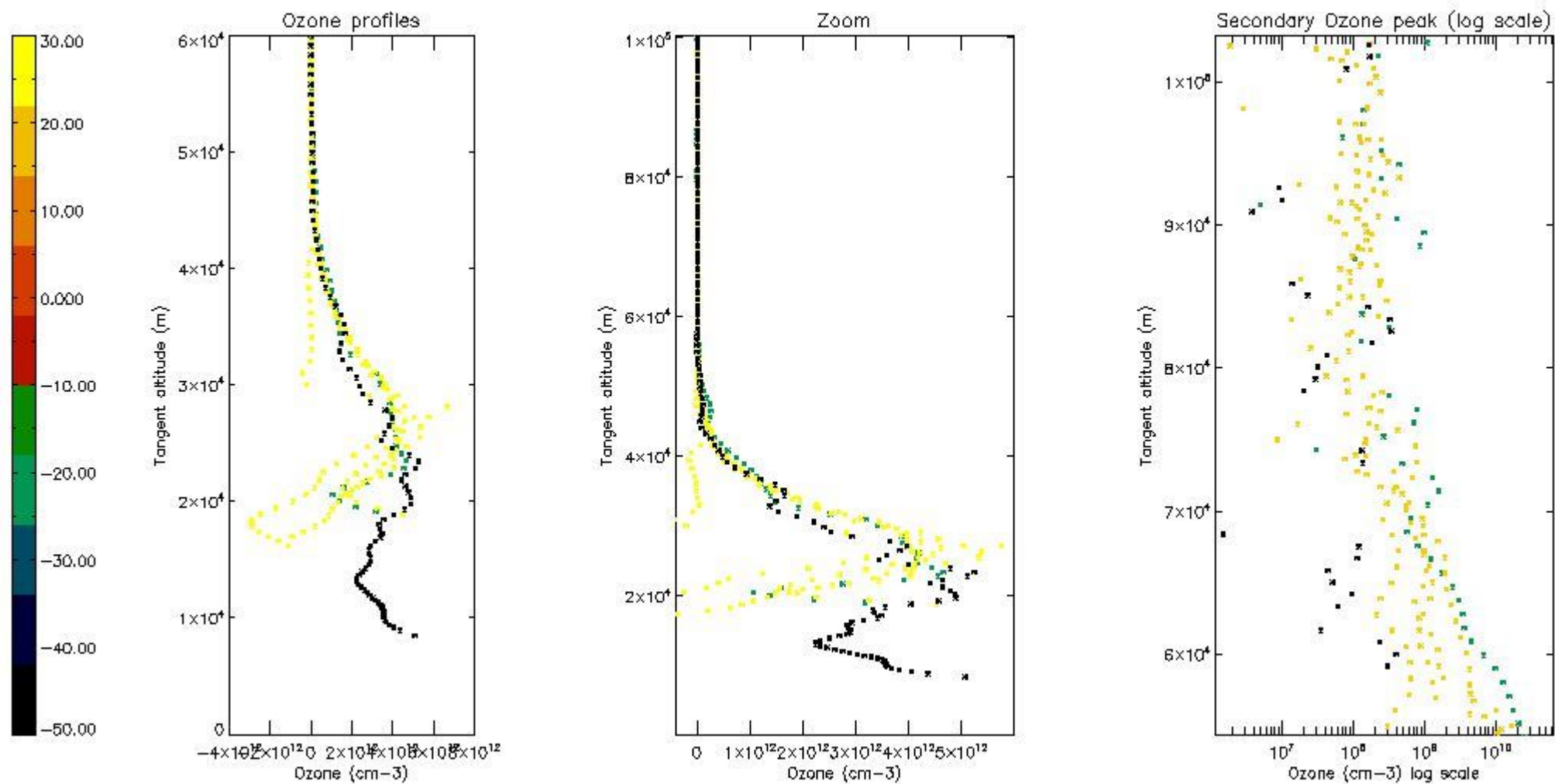
Criteria	% of total production
All STD	20
STD < 20	7



STD < 10	5
STD < 5	1

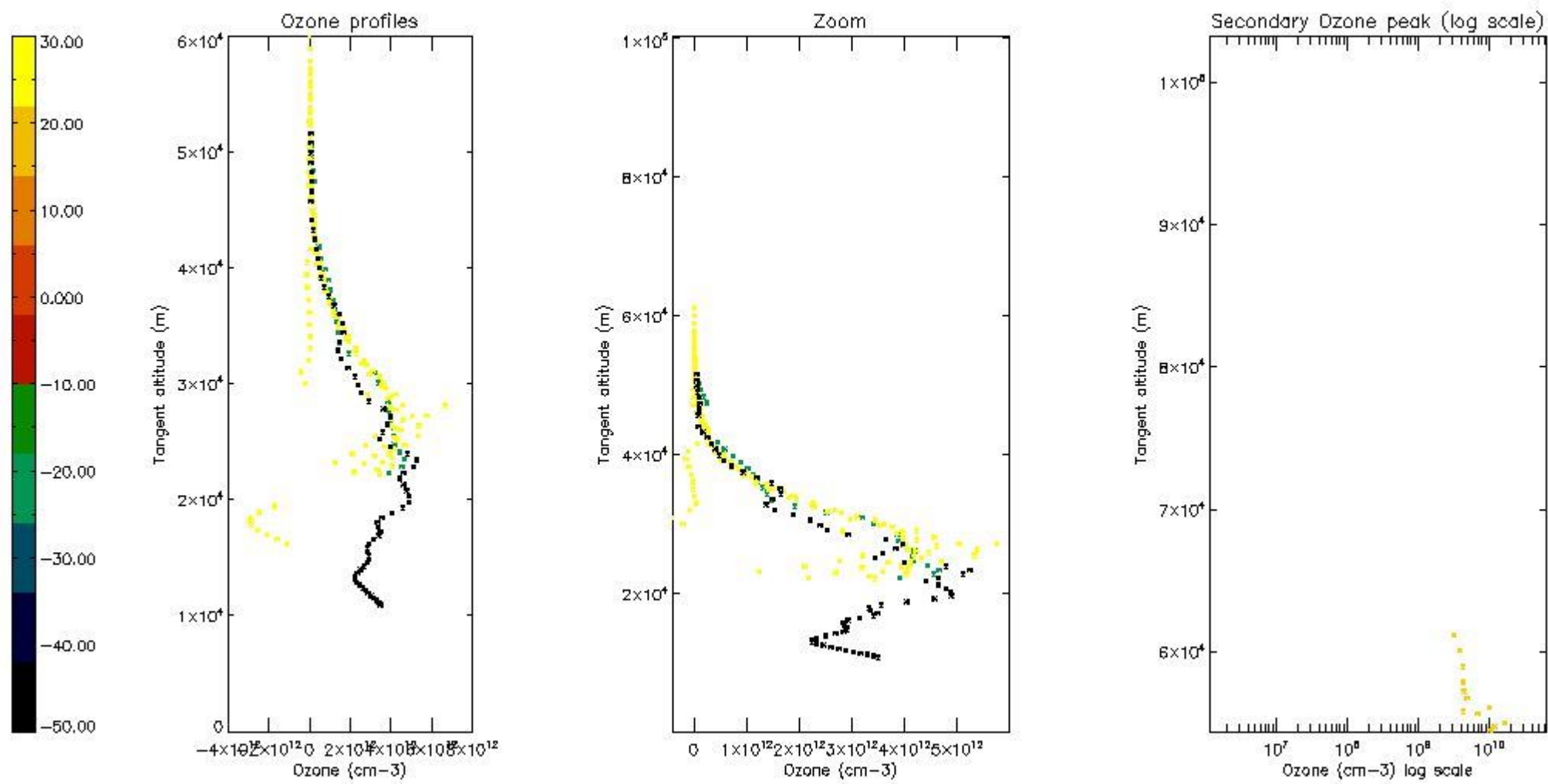
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



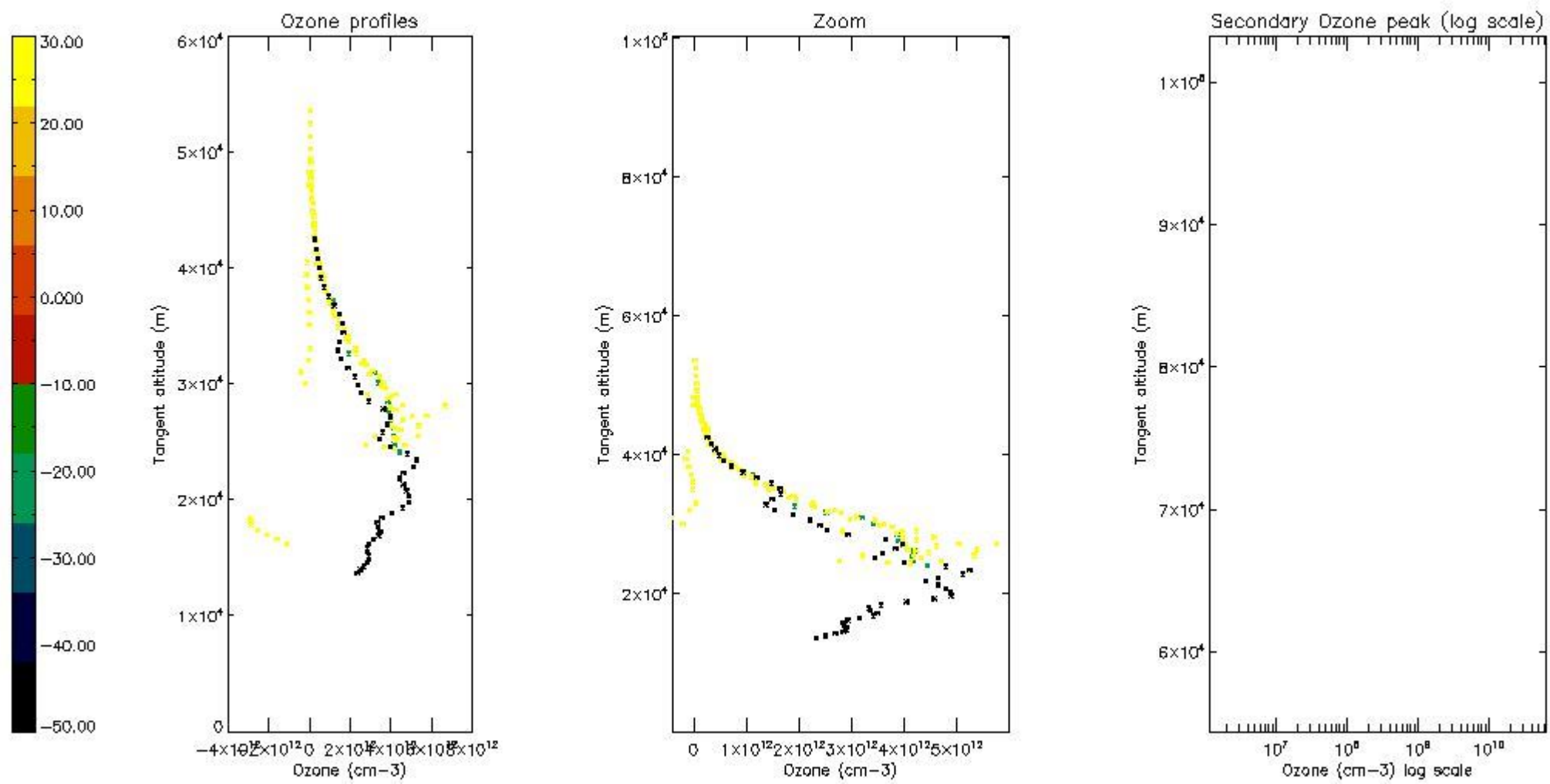
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



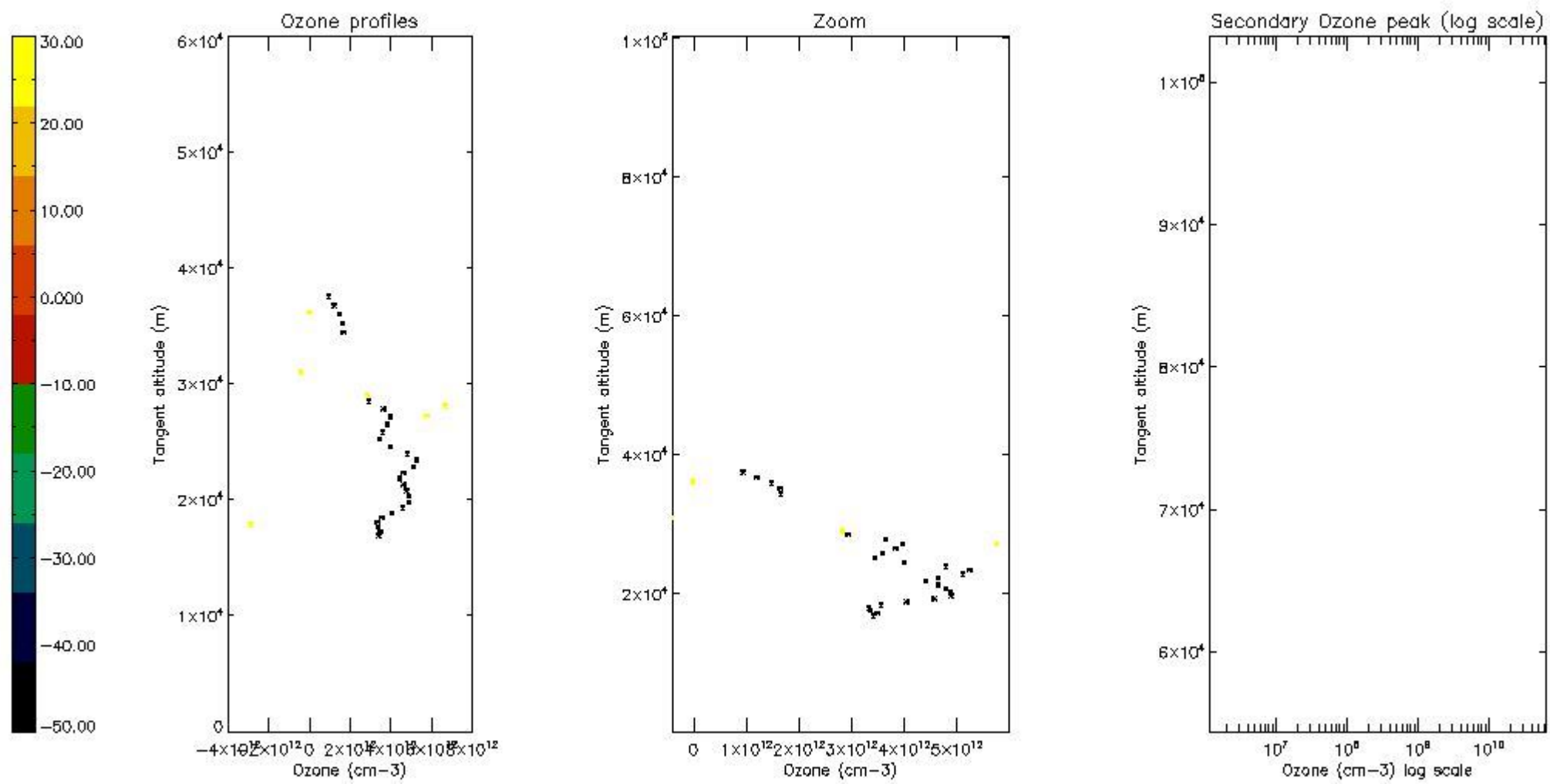
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



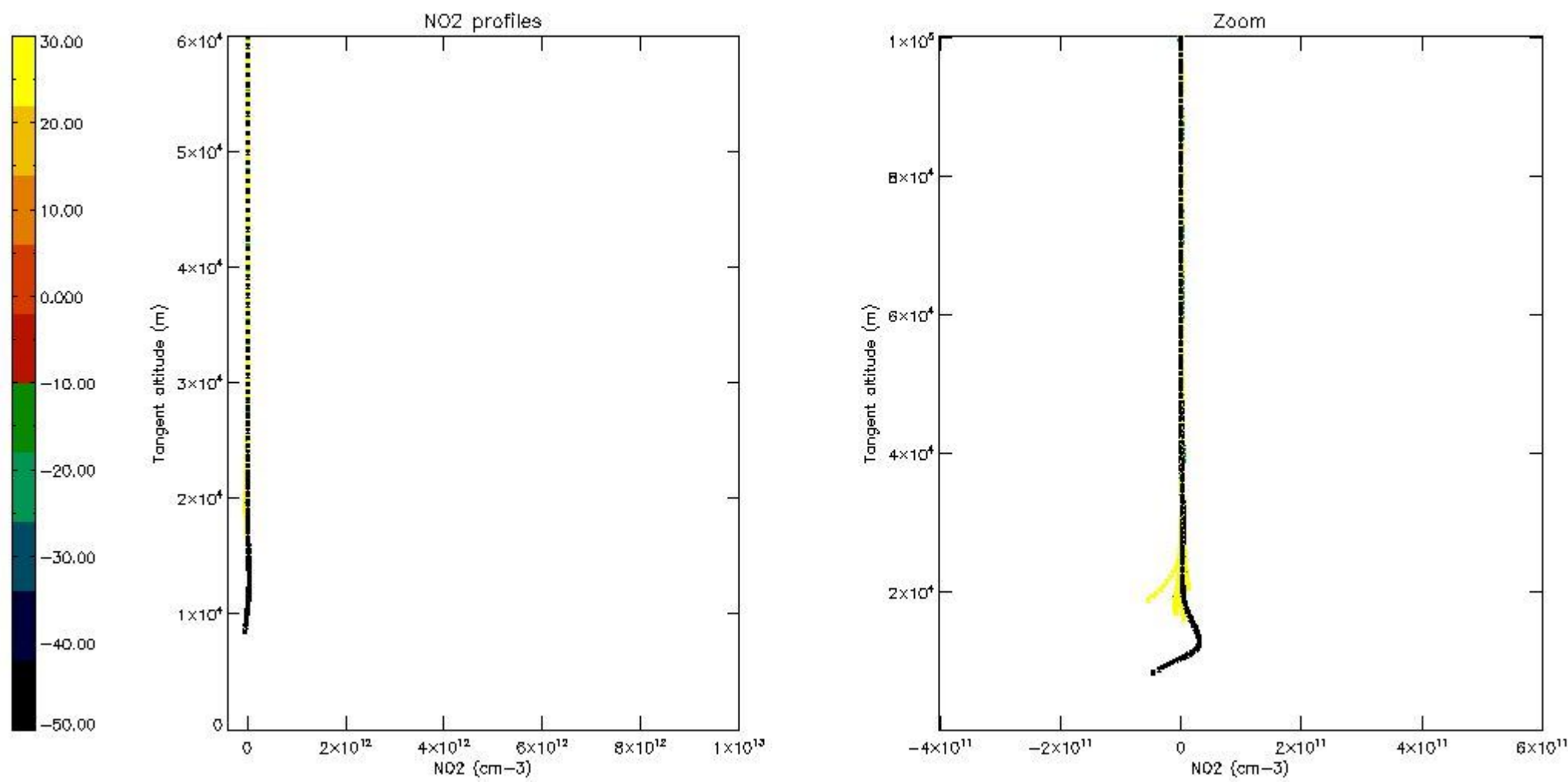
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



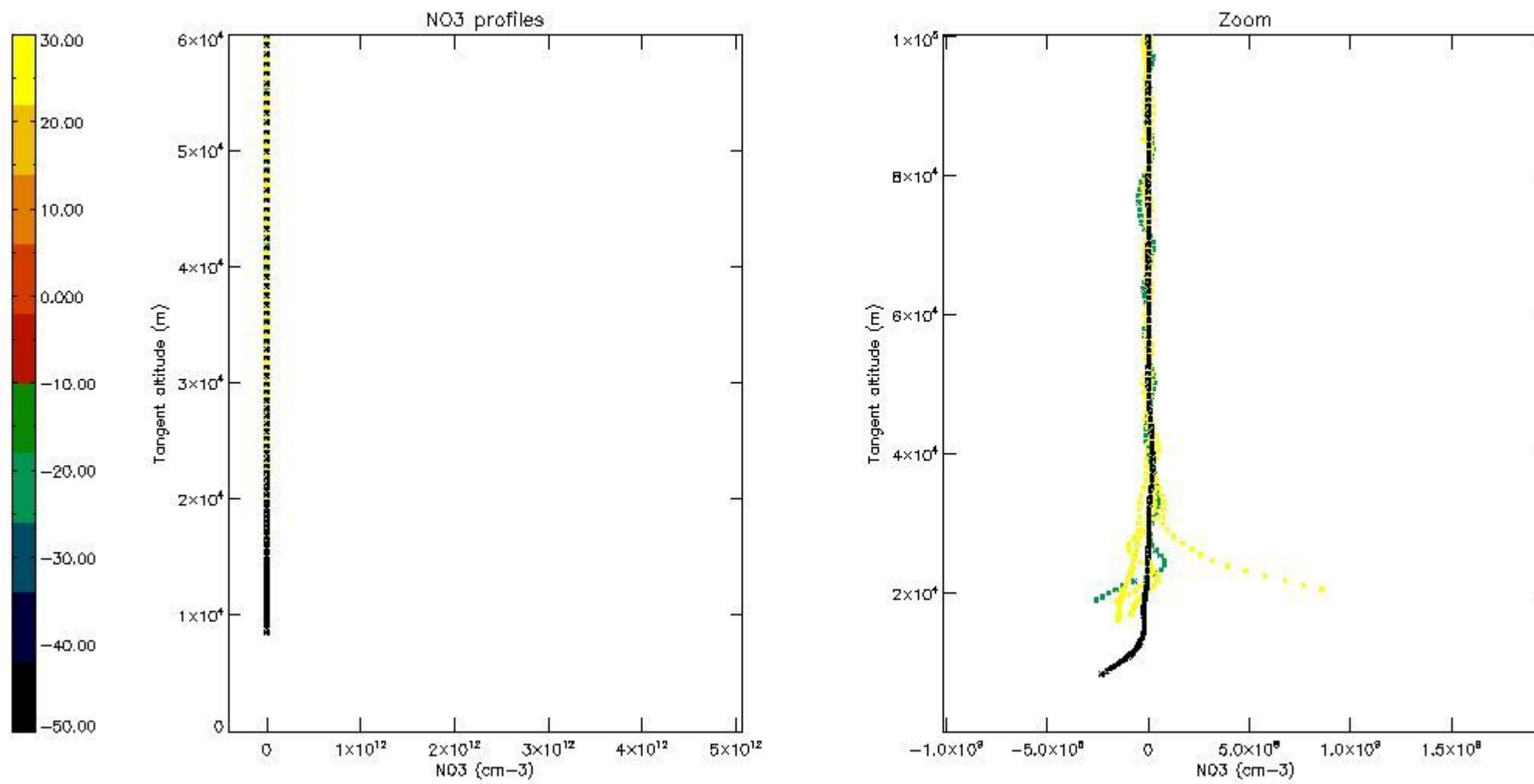
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

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_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	10-SEP-2010 00:44:45
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	10-SEP-2010 00:44:45
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	10-SEP-2010 00:44:45

# 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	29APR2013 15:09:11
Data source version	GOMOS/6.01
Start time of products	10-09-2010 (10SEP2010 00:00:00)
Stop time of products	11-09-2010 (11SEP2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	39
Nb of prods with errors	0

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

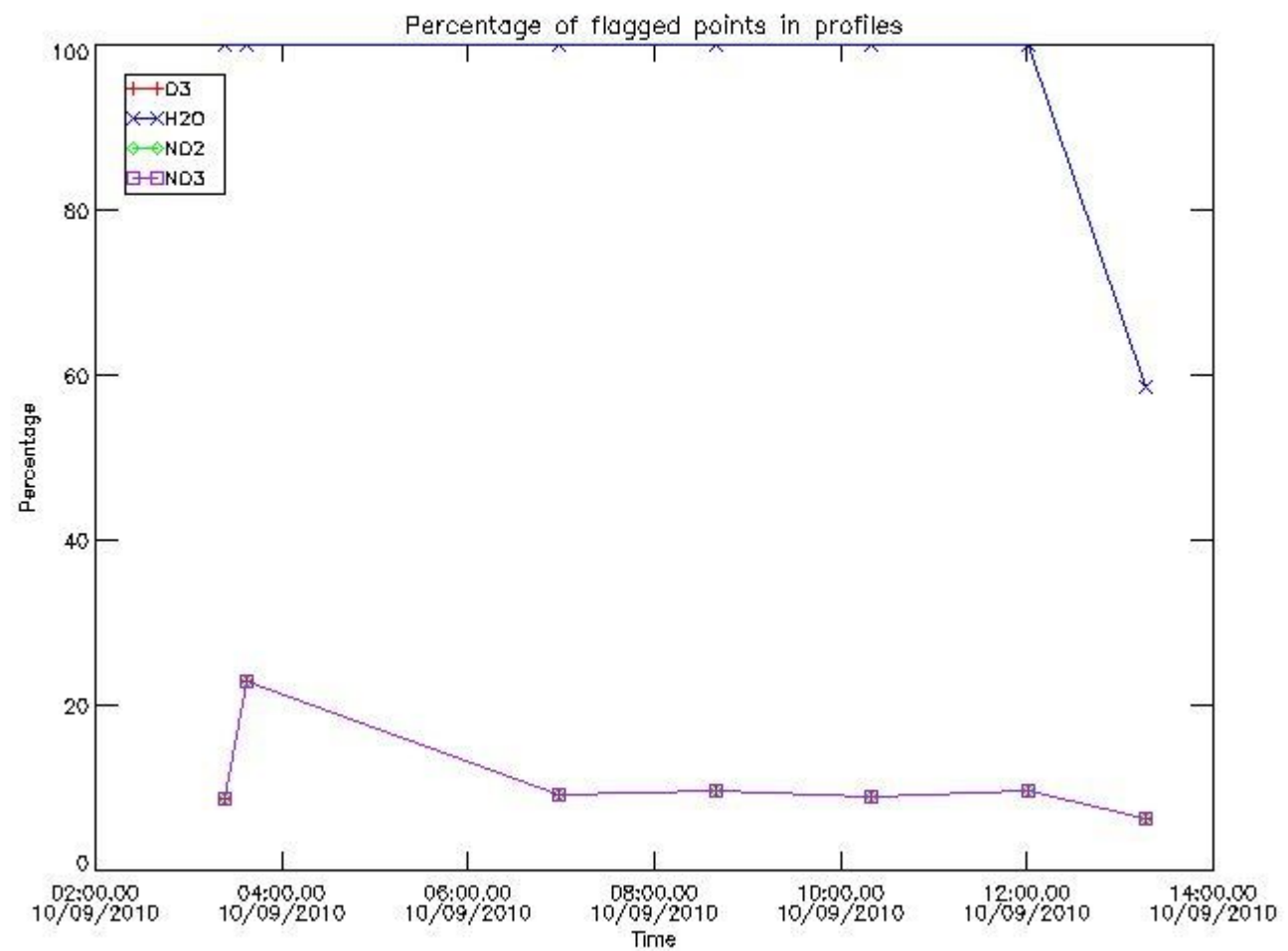
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20100910_004445_000000402092_00446_44588_4052.N1	10-SEP-2010 00:44:45	Twilight	40.000	140	88Gam Peg	2.8340	26000.	80	44588	No
2	GOM_NL__2PRFIN20100910_004918_000000532092_00446_44588_4053.N1	10-SEP-2010 00:49:18	Bright	52.500	58	21Alp And	2.0730	11000.	105	44588	No
3	GOM_NL__2PRFIN20100910_011424_000000692092_00446_44588_4054.N1	10-SEP-2010 01:14:24	Bright	68.500	6	13Alp Aur	0.080000	3400.0	137	44588	No
4	GOM_NL__2PRFIN20100910_011847_000000572092_00446_44588_4055.N1	10-SEP-2010 01:18:47	Bright	56.500	107	37The Aur	2.6490	11000.	113	44588	No
5	GOM_NL__2PRFIN20100910_012640_000000582092_00446_44588_4056.N1	10-SEP-2010 01:26:40	Twilight	57.500	44	24Gam Gem	1.9280	11000.	115	44588	No
6	GOM_NL__2PRFIN20100910_021139_000000132092_00447_44589_4064.N1	10-SEP-2010 02:11:39	Straylight	12.500	52	16Bet Cet	2.0370	4500.0	25	44589	No
7	GOM_NL__2PRFIN20100910_022952_000000532092_00447_44589_4065.N1	10-SEP-2010 02:29:52	Bright	53.000	58	21Alp And	2.0730	11000.	106	44589	No
8	GOM_NL__2PRFIN20100910_025923_000000342092_00447_44589_4066.N1	10-SEP-2010 02:59:23	Twilight	34.000	107	37The Aur	2.6490	11000.	68	44589	No
9	GOM_NL__2PRFIN20100910_032306_000000642092_00447_44589_4067.N1	10-SEP-2010 03:23:06	Dark	64.000	101	11Alp Lep	2.5820	7000.0	128	44589	No
10	GOM_NL__2PRFIN20100910_033736_000000232092_00448_44590_4074.N1	10-SEP-2010 03:37:36	Dark	22.500	157	The1Eri	2.9060	9300.0	45	44590	No
11	GOM_NL__2PRFIN20100910_035216_000000682092_00448_44590_4075.N1	10-SEP-2010 03:52:16	Twilight	68.000	52	16Bet Cet	2.0370	4500.0	136	44590	No
12	GOM_NL__2PRFIN20100910_041027_000000542092_00448_44590_4076.N1	10-SEP-2010 04:10:27	Bright	54.000	58	21Alp And	2.0730	11000.	108	44590	No
13	GOM_NL__2PRFIN20100910_043959_000000542092_00448_44590_4077.N1	10-SEP-2010 04:39:59	Bright	54.000	107	37The Aur	2.6490	11000.	108	44590	No
14	GOM_NL__2PRFIN20100910_053251_000000712092_00449_44591_4085.N1	10-SEP-2010 05:32:51	Twilight	70.500	52	16Bet Cet	2.0370	4500.0	141	44591	No
15	GOM_NL__2PRFIN20100910_055102_000000542092_00449_44591_4086.N1	10-SEP-2010 05:51:02	Bright	54.000	58	21Alp And	2.0730	11000.	108	44591	No
16	GOM_NL__2PRFIN20100910_062035_000000562092_00449_44591_4087.N1	10-SEP-2010 06:20:35	Bright	55.500	107	37The Aur	2.6490	11000.	111	44591	No
17	GOM_NL__2PRFIN20100910_065850_000000562092_00450_44592_4107.N1	10-SEP-2010 06:58:50	Dark	55.500	157	The1Eri	2.9060	9300.0	111	44592	No
18	GOM_NL__2PRFIN20100910_071328_000000392092_00450_44592_4108.N1	10-SEP-2010 07:13:28	Twilight	39.000	52	16Bet Cet	2.0370	4500.0	78	44592	No
19	GOM_NL__2PRFIN20100910_080111_000000542092_00450_44592_4109.N1	10-SEP-2010 08:01:11	Bright	53.500	107	37The Aur	2.6490	11000.	107	44592	No
20	GOM_NL__2PRFIN20100910_083928_000000532092_00451_44593_4139.N1	10-SEP-2010 08:39:28	Dark	53.000	157	The1Eri	2.9060	9300.0	106	44593	No
21	GOM_NL__2PRFIN20100910_085404_000000662092_00451_44593_4140.N1	10-SEP-2010 08:54:04	Twilight	65.500	52	16Bet Cet	2.0370	4500.0	131	44593	No
22	GOM_NL__2PRFIN20100910_090740_000000582092_00451_44593_4141.N1	10-SEP-2010 09:07:40	Bright	58.000	140	88Gam Peg	2.8340	26000.	116	44593	No
23	GOM_NL__2PRFIN20100910_091212_000000562092_00451_44593_4142.N1	10-SEP-2010 09:12:12	Bright	56.000	58	21Alp And	2.0730	11000.	112	44593	No
24	GOM_NL__2PRFIN20100910_094147_000000352092_00451_44593_4143.N1	10-SEP-2010 09:41:47	Twilight	34.500	107	37The Aur	2.6490	11000.	69	44593	No
25	GOM_NL__2PRFIN20100910_102005_000000572092_00452_44594_4208.N1	10-SEP-2010 10:20:05	Dark	57.000	157	The1Eri	2.9060	9300.0	114	44594	No
26	GOM_NL__2PRFIN20100910_103440_000000662092_00452_44594_4209.N1	10-SEP-2010 10:34:40	Twilight	66.000	52	16Bet Cet	2.0370	4500.0	132	44594	No
27	GOM_NL__2PRFIN20100910_105247_000000562092_00452_44594_4210.N1	10-SEP-2010 10:52:47	Bright	55.500	58	21Alp And	2.0730	11000.	111	44594	No
28	GOM_NL__2PRFIN20100910_110904_000000602092_00452_44594_4211.N1	10-SEP-2010 11:09:04	Bright	60.000	160	23Gam Per	2.9300	4700.0	120	44594	No
29	GOM_NL__2PRFIN20100910_111110_000000662092_00452_44594_4212.N1	10-SEP-2010 11:11:10	Bright	66.000	35	33Alp Per	1.7950	6250.0	132	44594	No
30	GOM_NL__2PRFIN20100910_111757_000000182092_00452_44594_4213.N1	10-SEP-2010 11:17:57	Twilight	17.500	6	13Alp Aur	0.080000	3400.0	35	44594	No
31	GOM_NL__2PRFIN20100910_112223_000000152092_00452_44594_4214.N1	10-SEP-2010 11:22:23	Straylight	14.500	107	37The Aur	2.6490	11000.	29	44594	No
32	GOM_NL__2PRFIN20100910_113019_000000482092_00452_44594_4215.N1	10-SEP-2010 11:30:19	Twilight	48.000	44	24Gam Gem	1.9280	11000.	96	44594	No
33	GOM_NL__2PRFIN20100910_120042_000000582092_00453_44595_4248.N1	10-SEP-2010 12:00:42	Dark	57.500	157	The1Eri	2.9060	9300.0	115	44595	No
34	GOM_NL__2PRFIN20100910_121515_000000712092_00453_44595_4249.N1	10-SEP-2010 12:15:15	Twilight	71.000	52	16Bet Cet	2.0370	4500.0	142	44595	No
35	GOM_NL__2PRFIN20100910_122850_000000582092_00453_44595_4250.N1	10-SEP-2010 12:28:50	Bright	57.500	140	88Gam Peg	2.8340	26000.	115	44595	No
36	GOM_NL__2PRFIN20100910_123322_000000512092_00453_44595_4251.N1	10-SEP-2010 12:33:22	Bright	51.000	58	21Alp And	2.0730	11000.	102	44595	No
37	GOM_NL__2PRFIN20100910_125833_000000652092_00453_44595_4252.N1	10-SEP-2010 12:58:33	Bright	65.000	6	13Alp Aur	0.080000	3400.0	130	44595	No
38	GOM_NL__2PRFIN20100910_130258_000000592092_00453_44595_4253.N1	10-SEP-2010 13:02:58	Bright	59.000	107	37The Aur	2.6490	11000.	118	44595	No
39	GOM_NL__2PRFIN20100910_131651_000000912092_00453_44595_4254.N1	10-SEP-2010 13:16:51	Dark	90.500	14	58Alp Ori	0.87000	3000.0	181	44595	No

## 3. Quality information per product



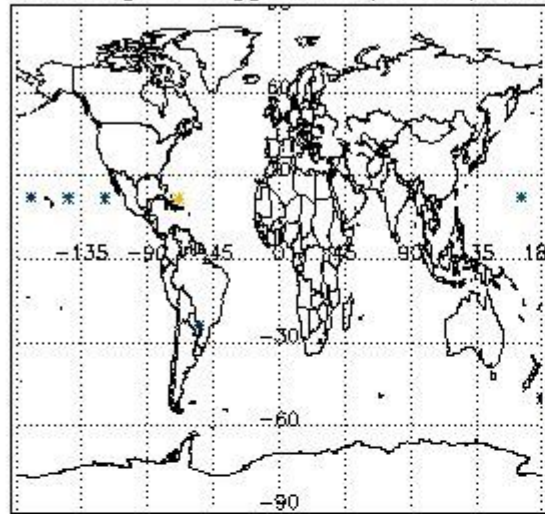
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

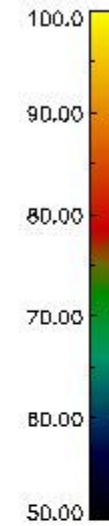
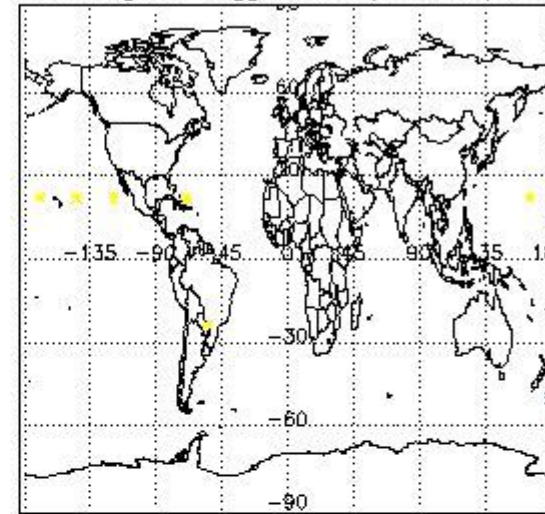


### 3.2 Plot quality information per product (world map)

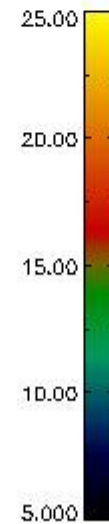
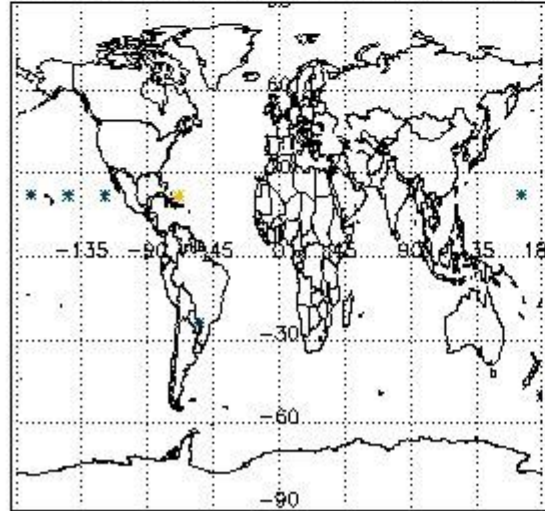
Percentage of flagged data per O3 profile



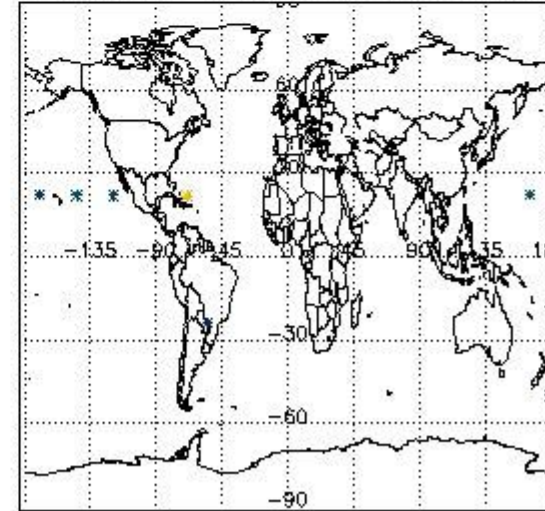
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

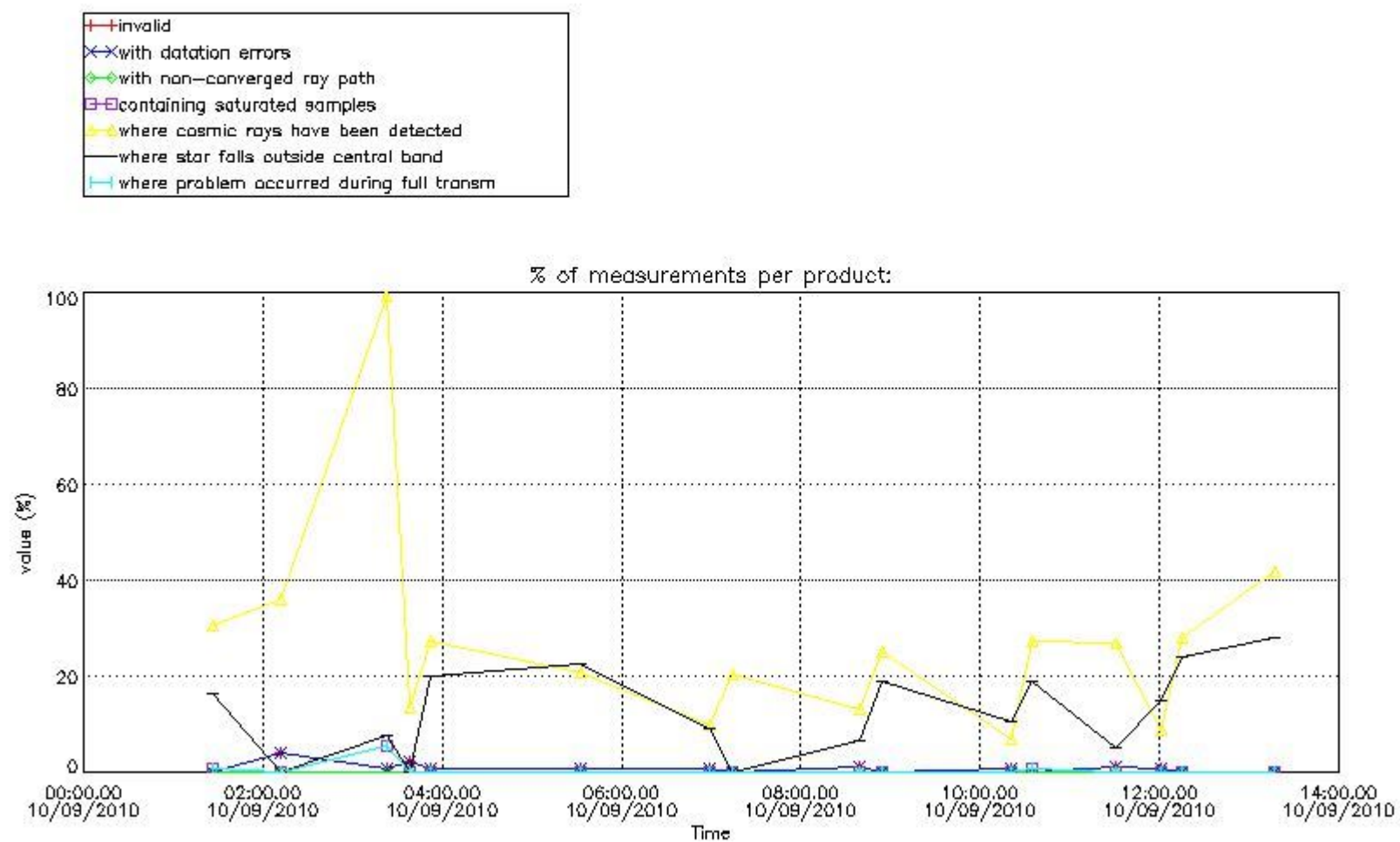


#### 4. Level 1 quality information per product

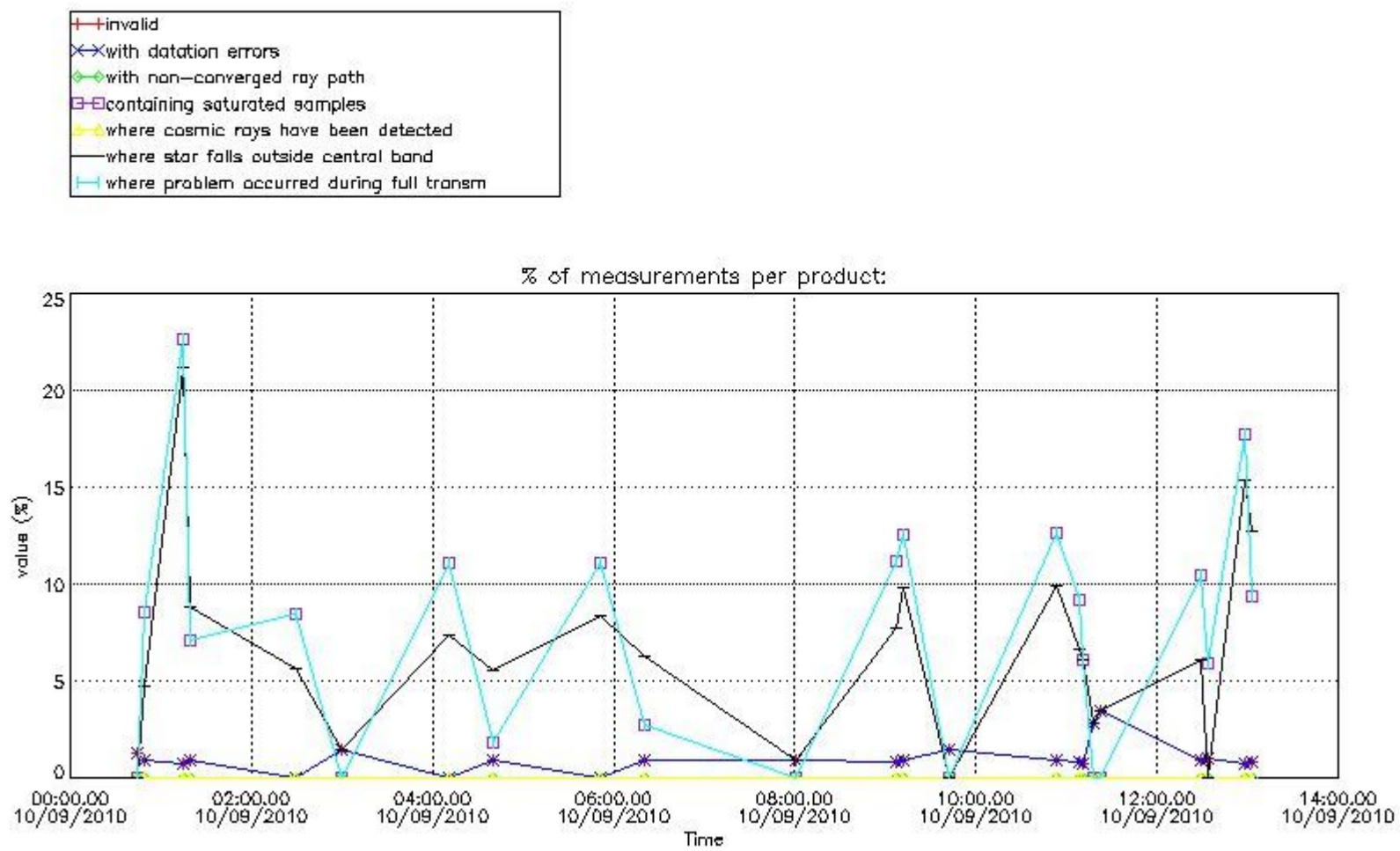
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

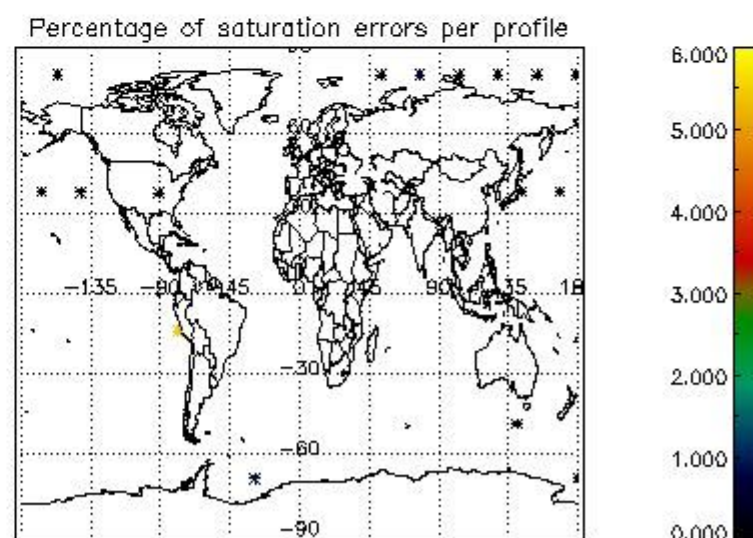
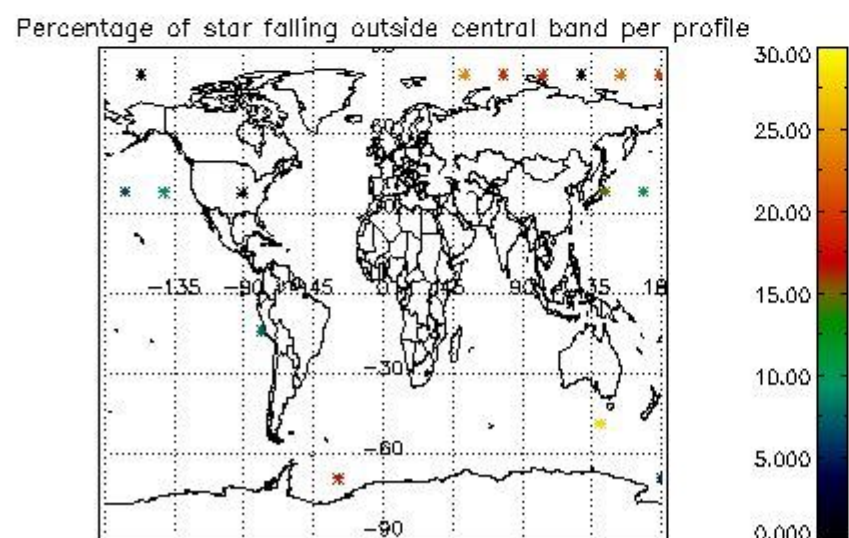
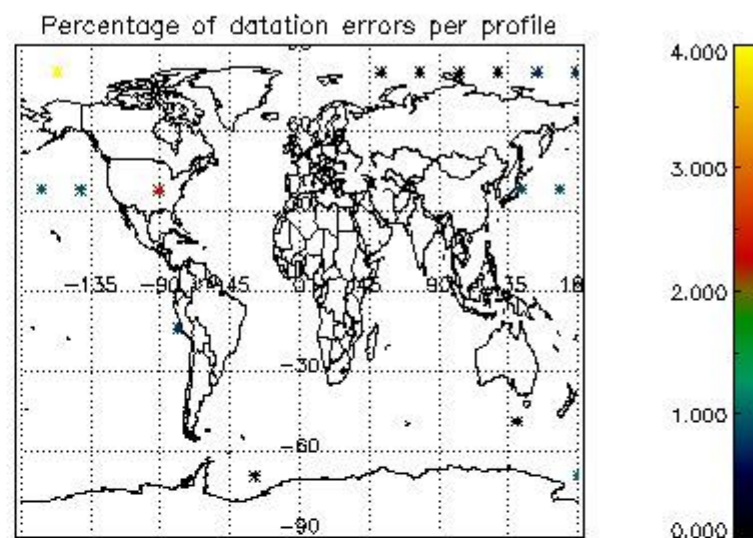
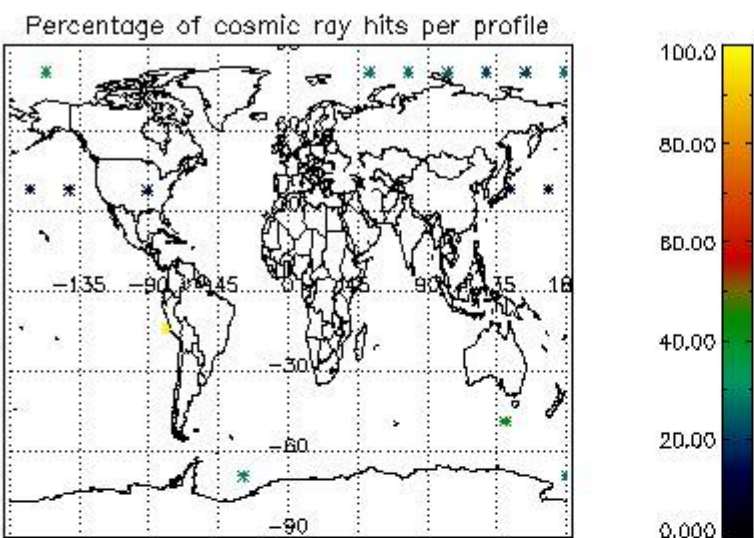


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



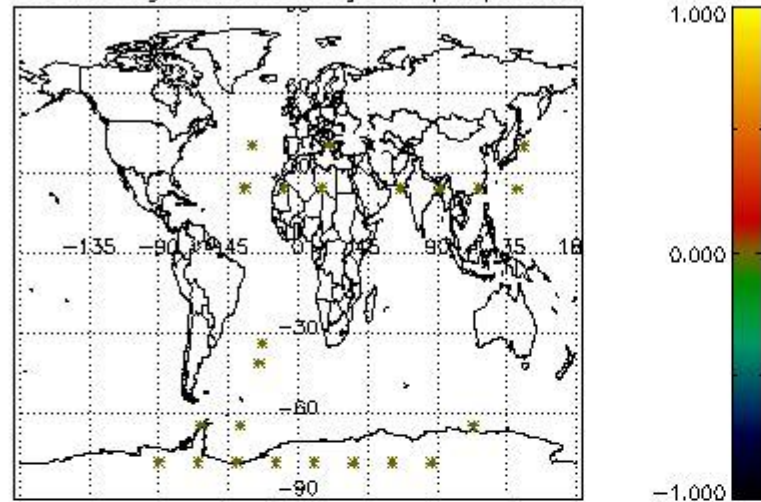
4.2 Plot quality information per product coming from level 1b processing (world map)

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

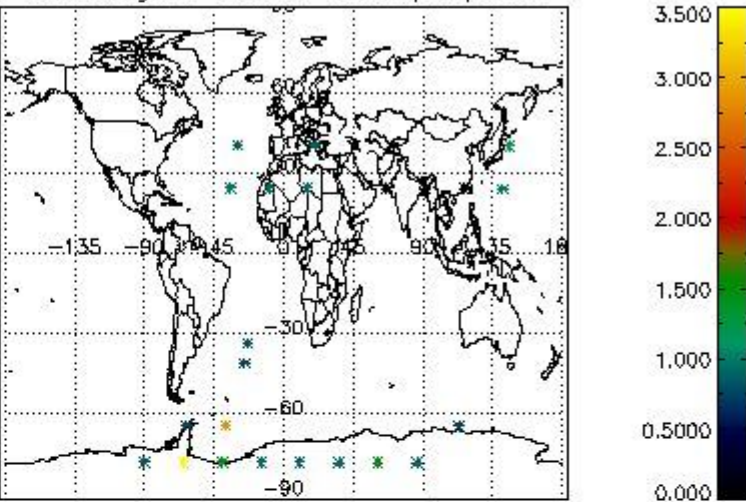


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

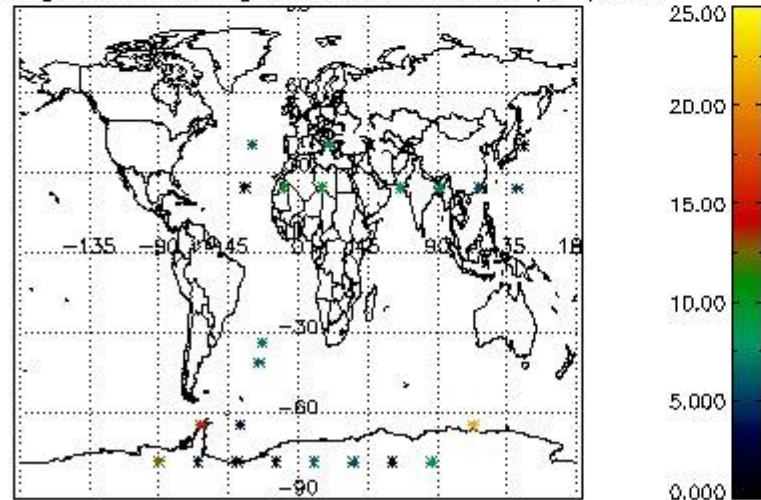
Percentage of cosmic ray hits per profile



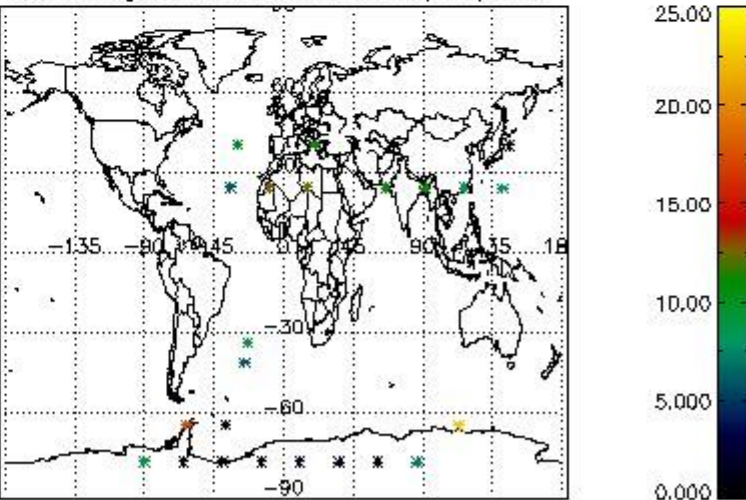
Percentage of datation errors per profile



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

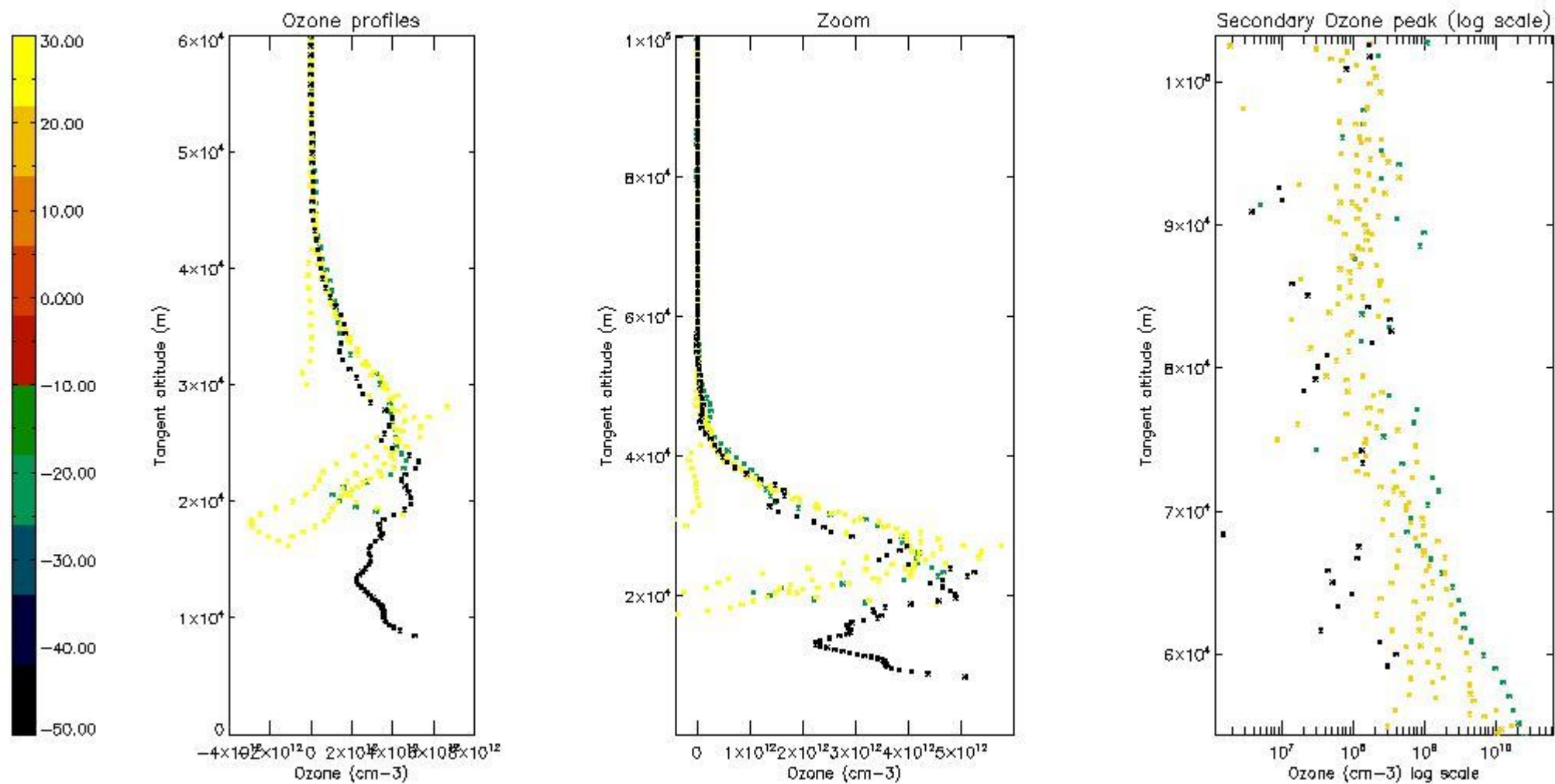
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	20
STD < 20	7

STD < 10	5
STD < 5	1

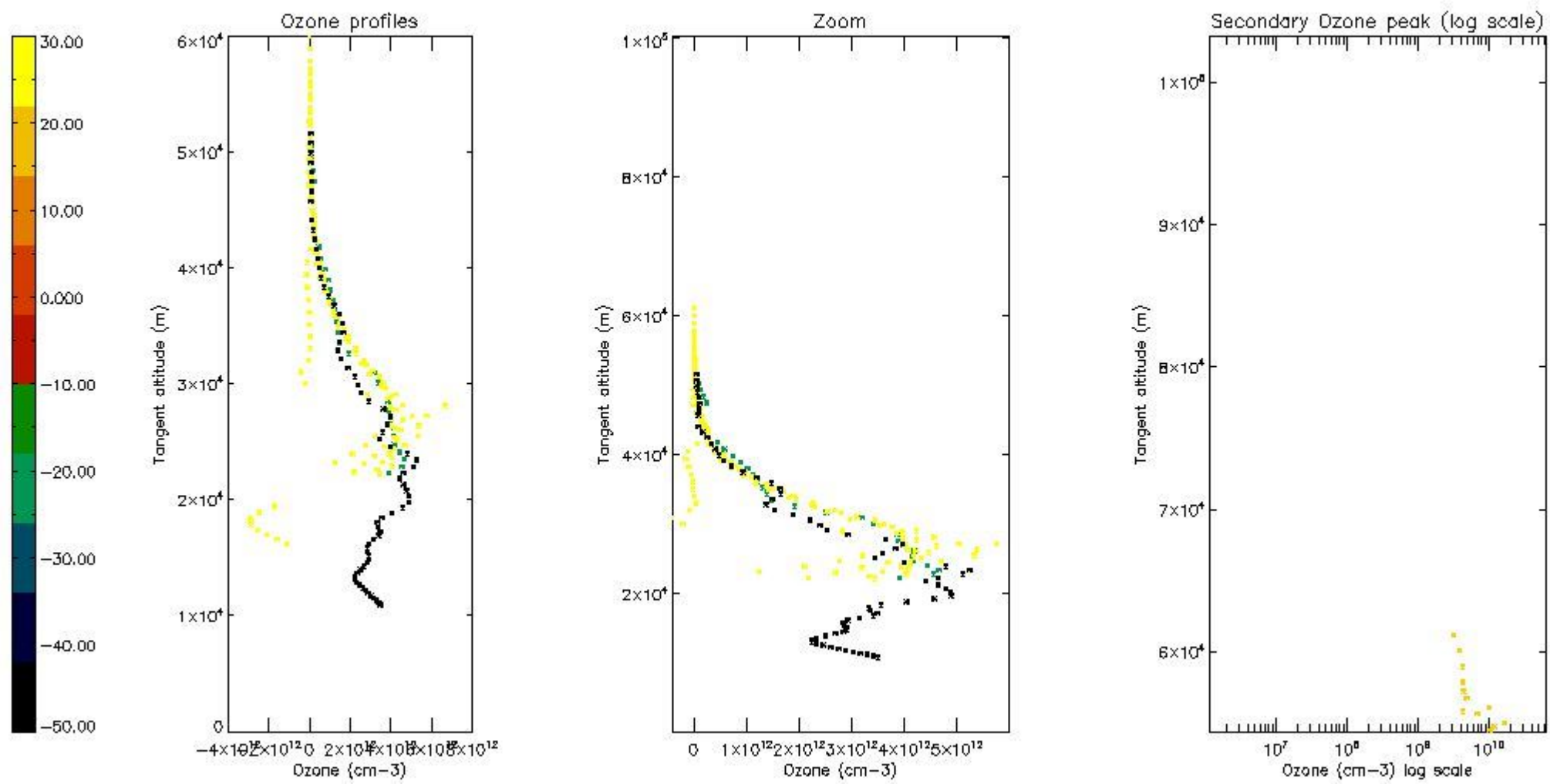
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

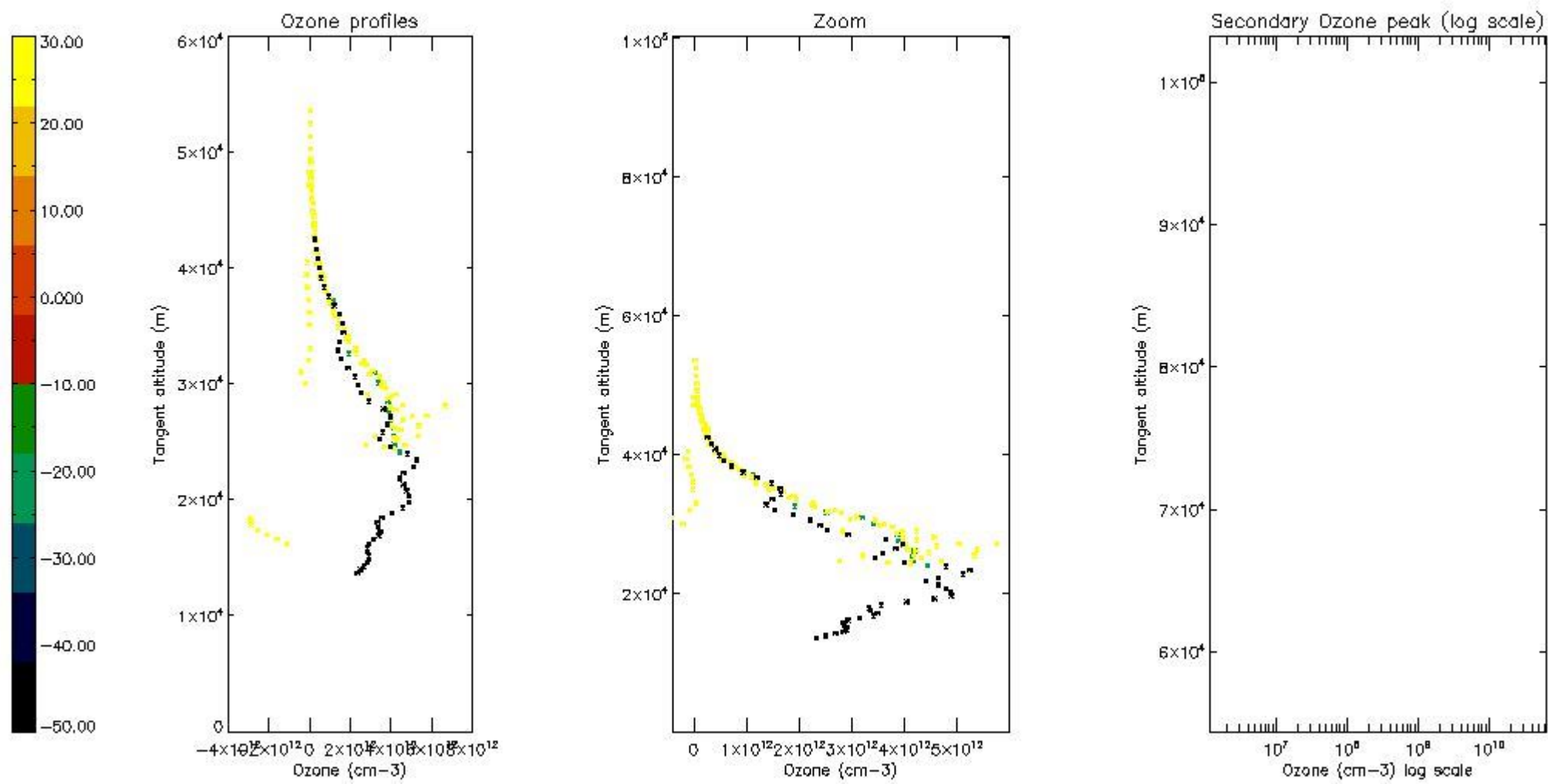
The colorbar represents the latitude.



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

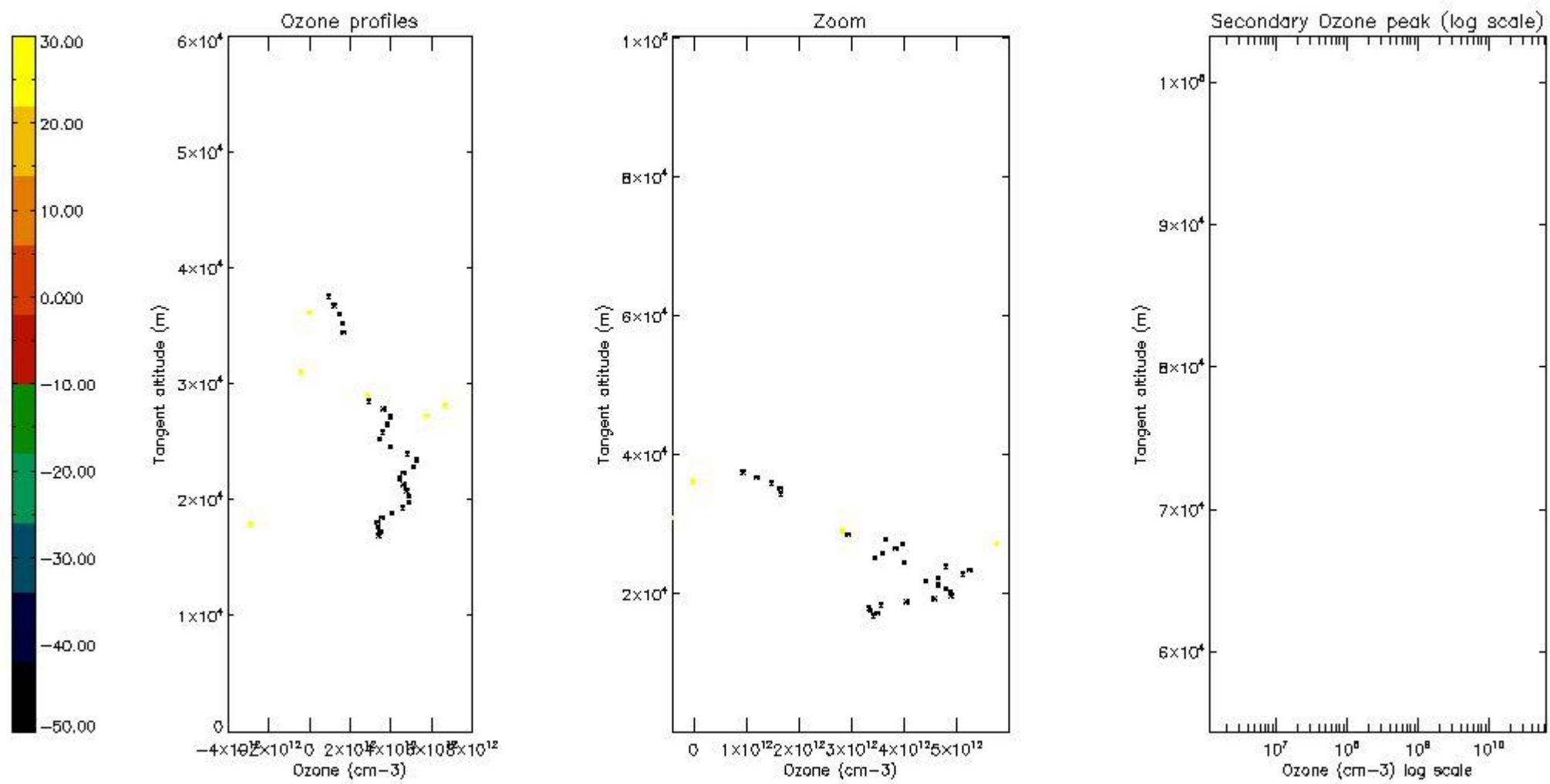
The colorbar represents the latitude.





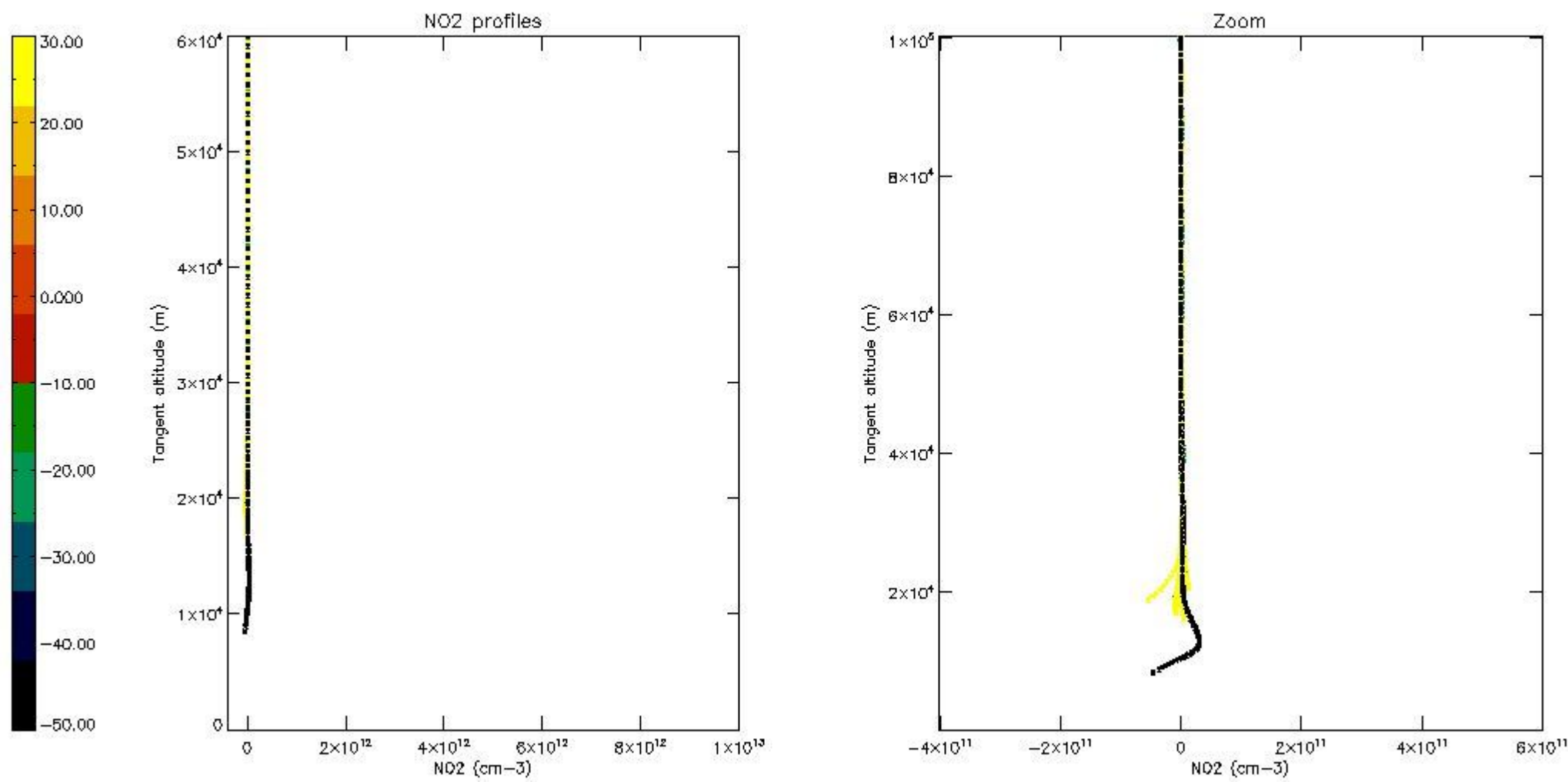
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



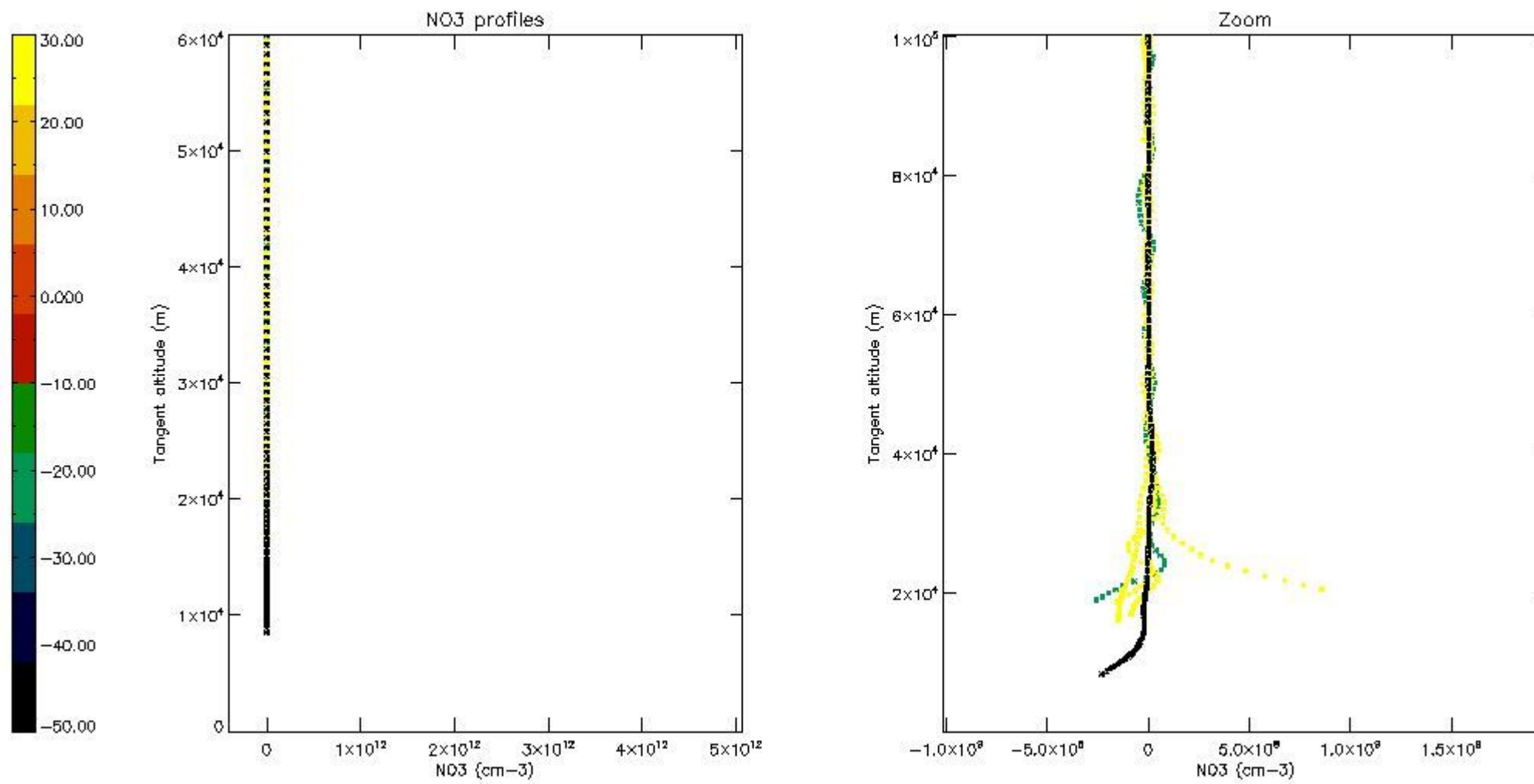
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

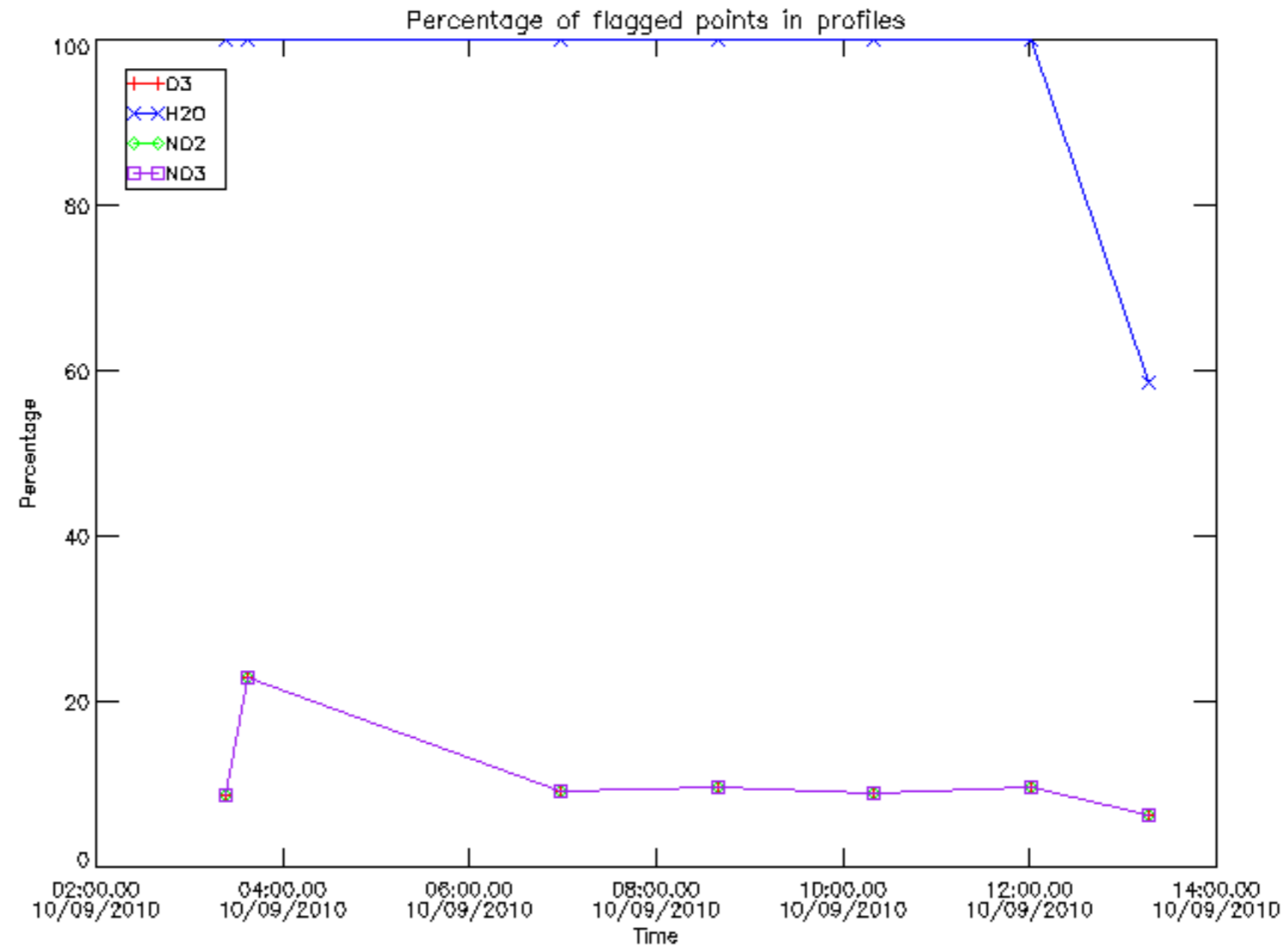
The colorbar represents the latitude.



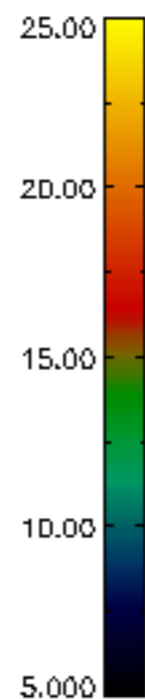
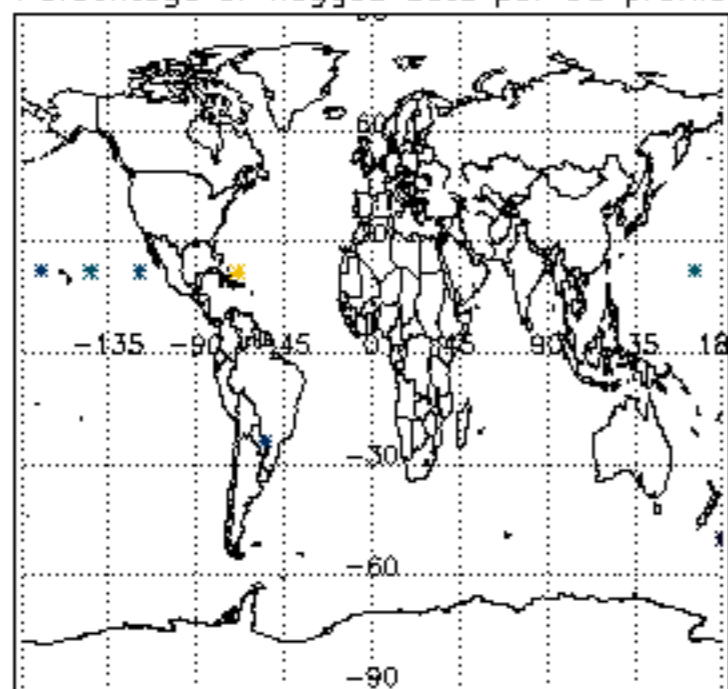
## 6. Auxiliary Data Files used for the production reported in section 2

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.

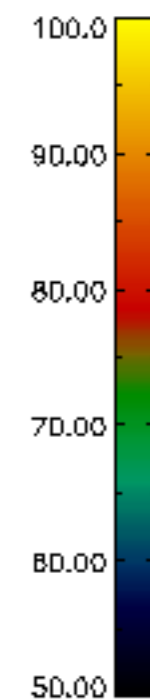
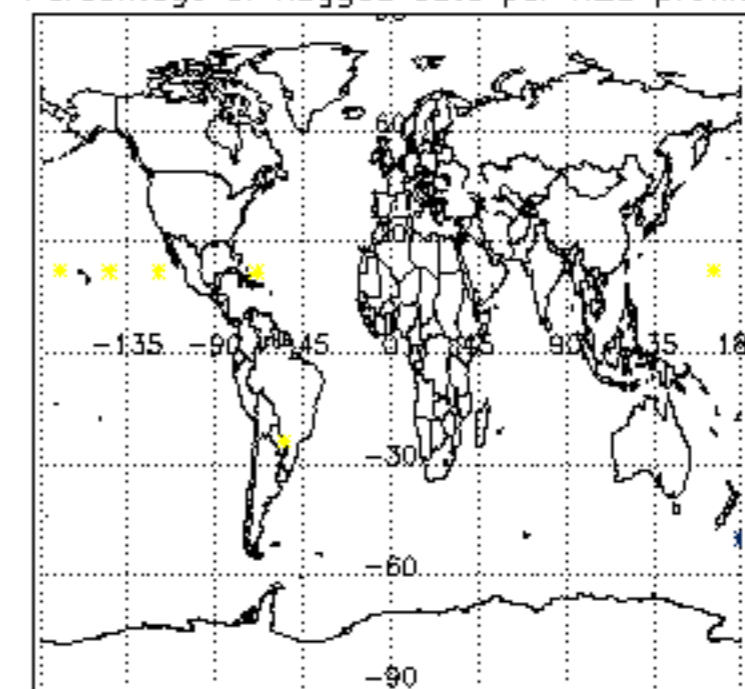
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	10-SEP-2010 00:44:45
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	10-SEP-2010 00:44:45
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	10-SEP-2010 00:44:45



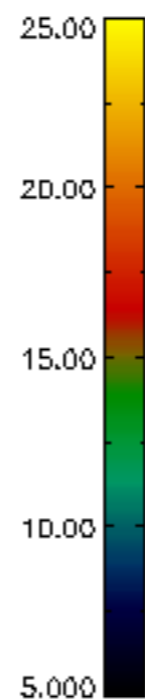
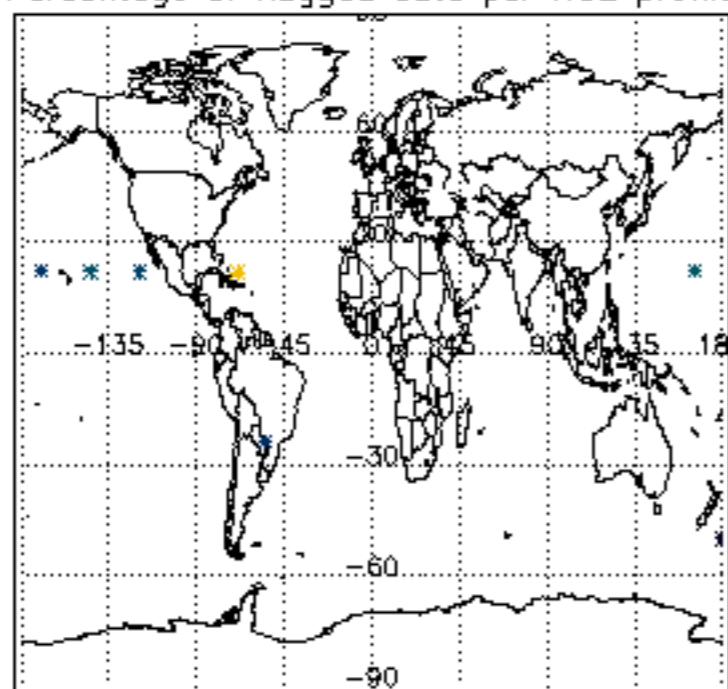
Percentage of flagged data per D3 profile



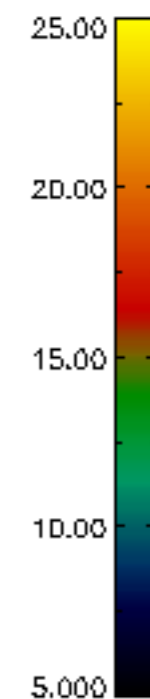
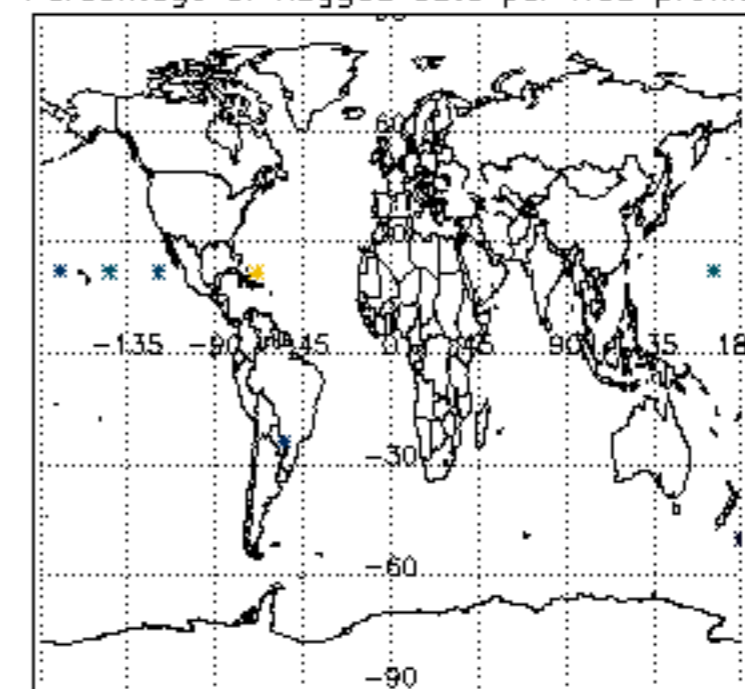
Percentage of flagged data per H2O profile

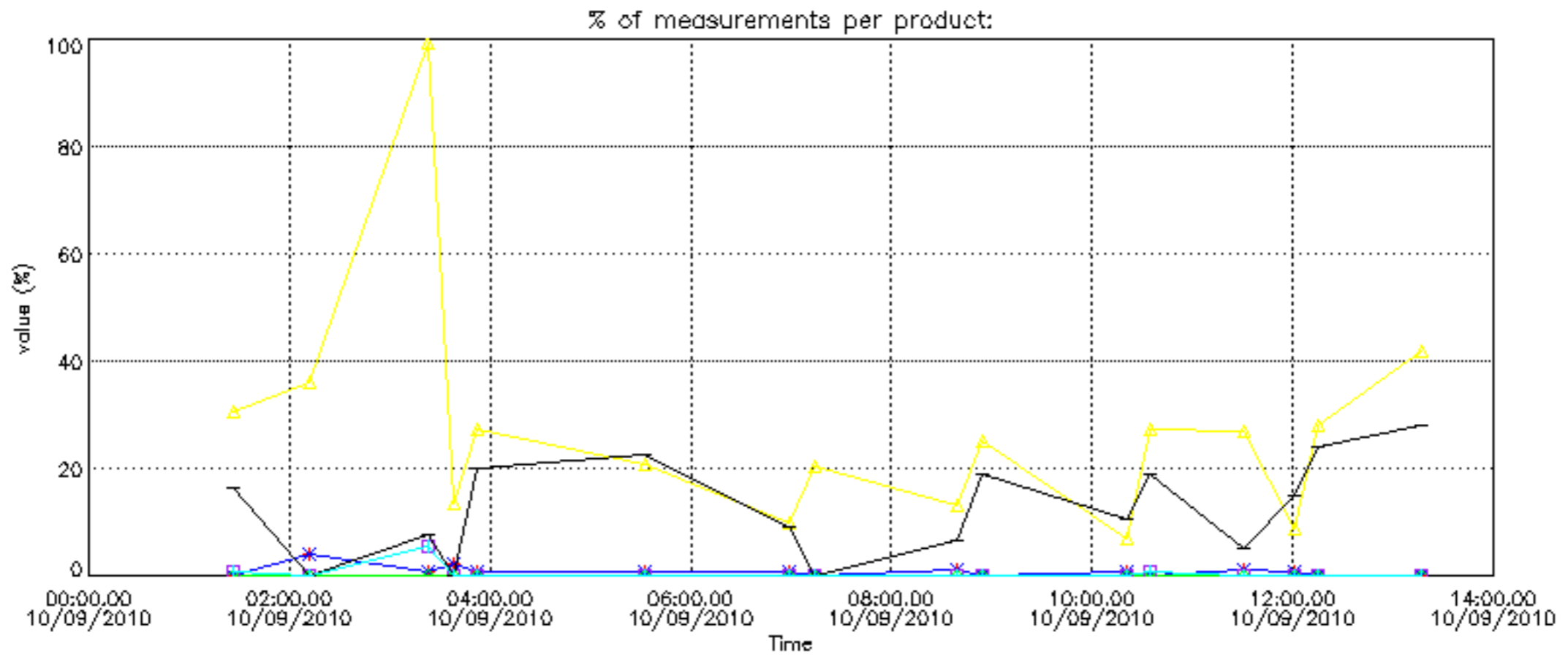


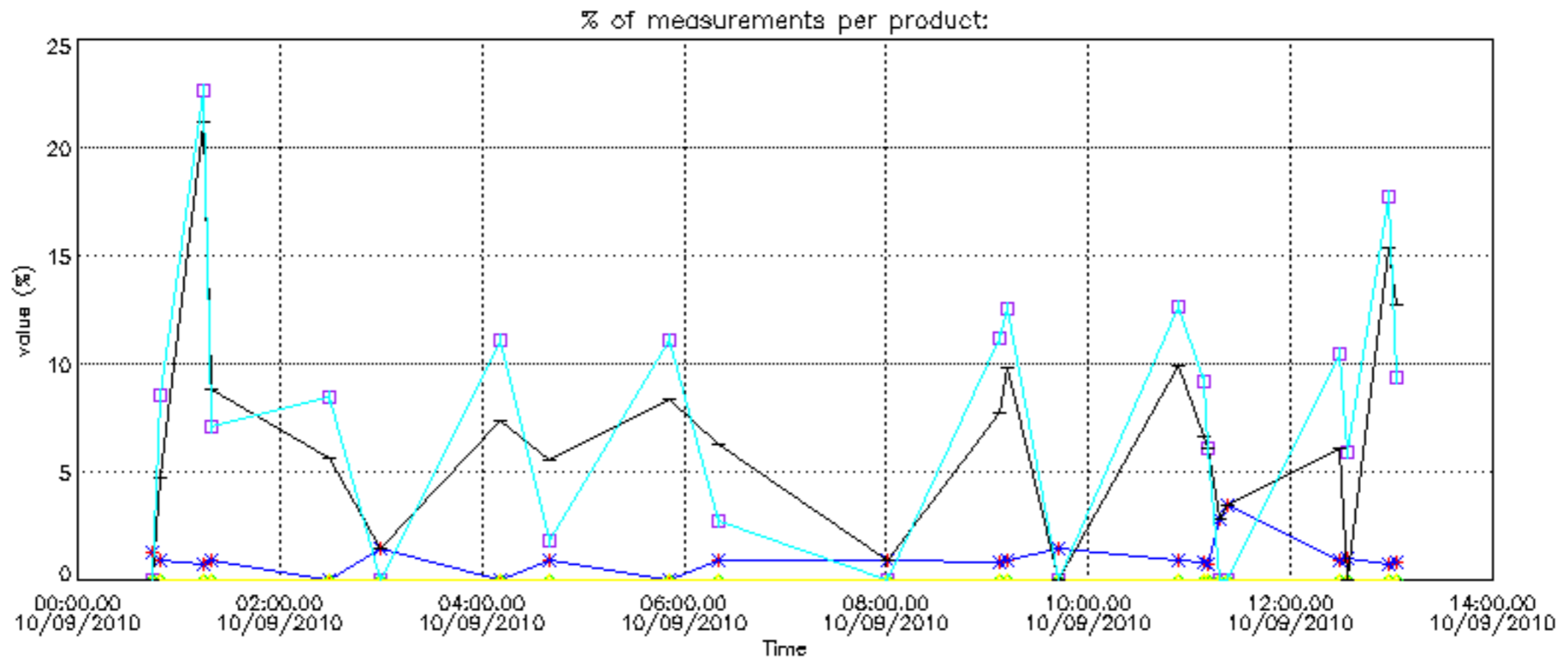
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

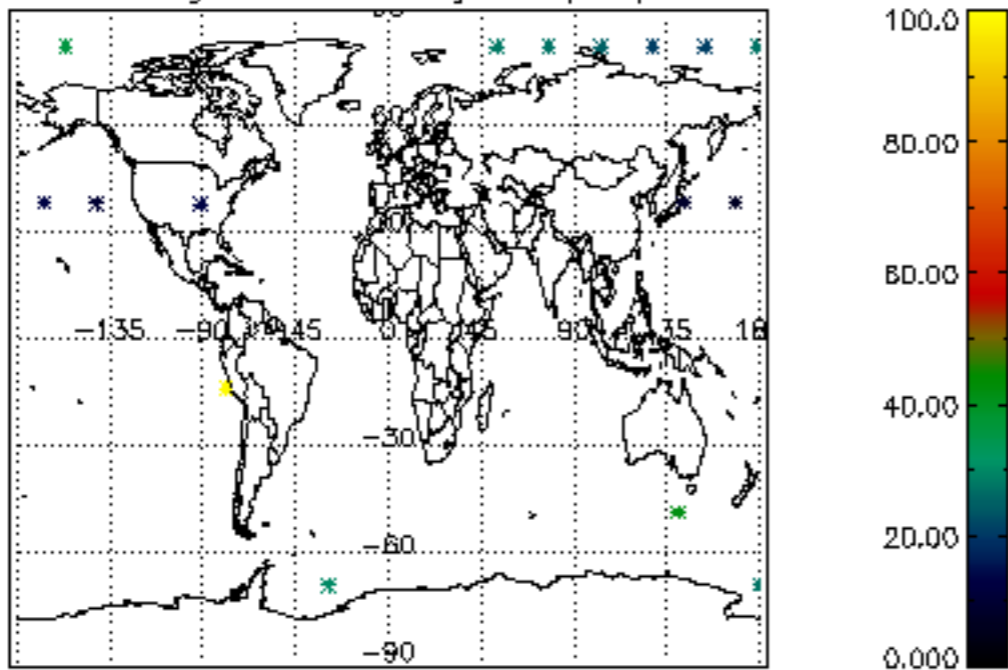




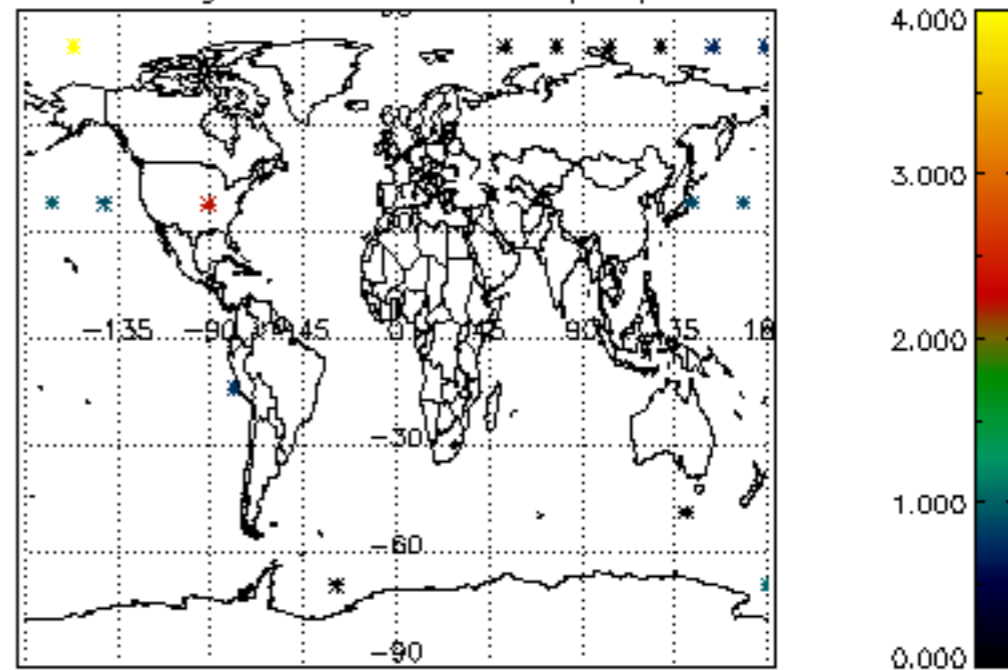




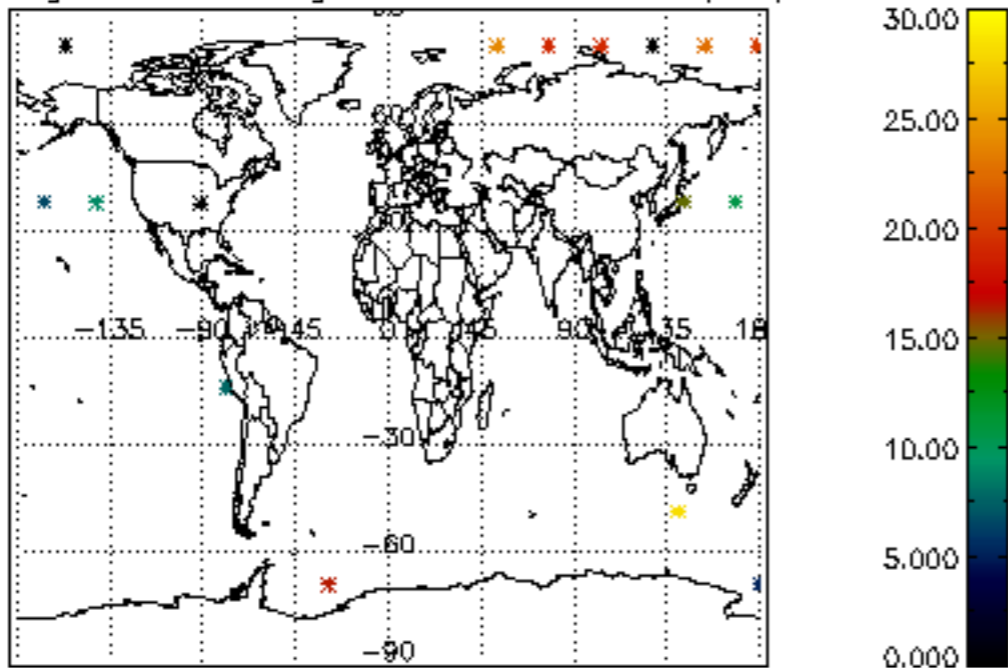
Percentage of cosmic ray hits per profile



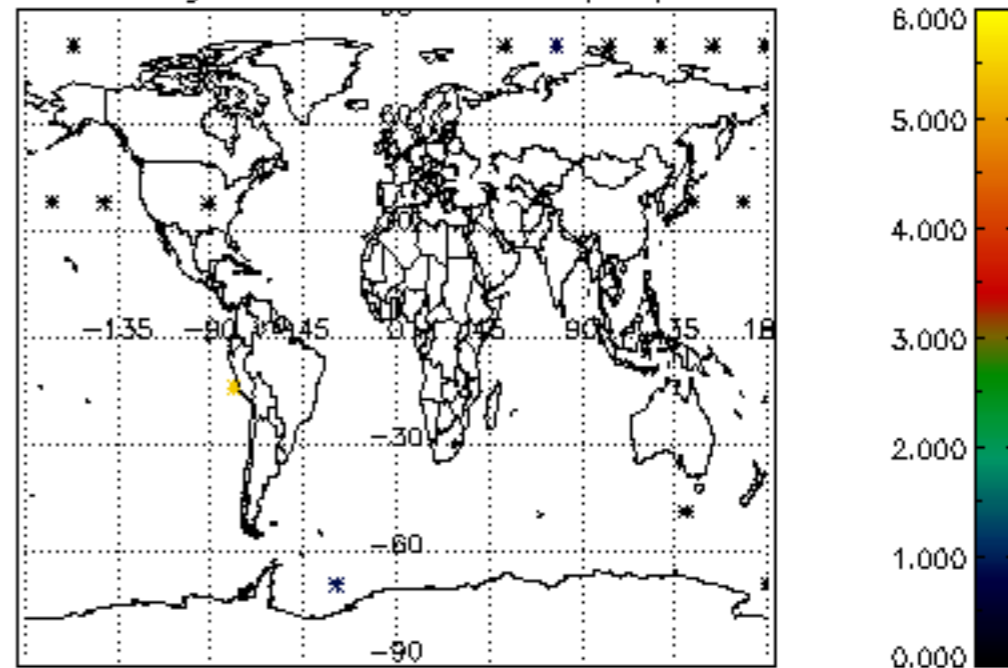
Percentage of datation errors per profile



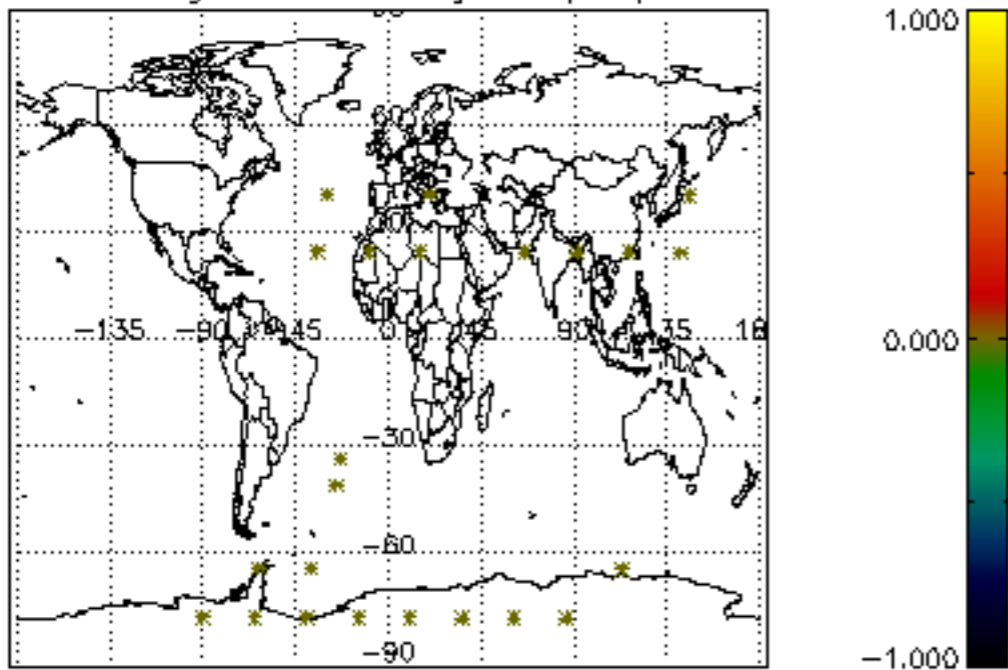
Percentage of star falling outside central band per profile



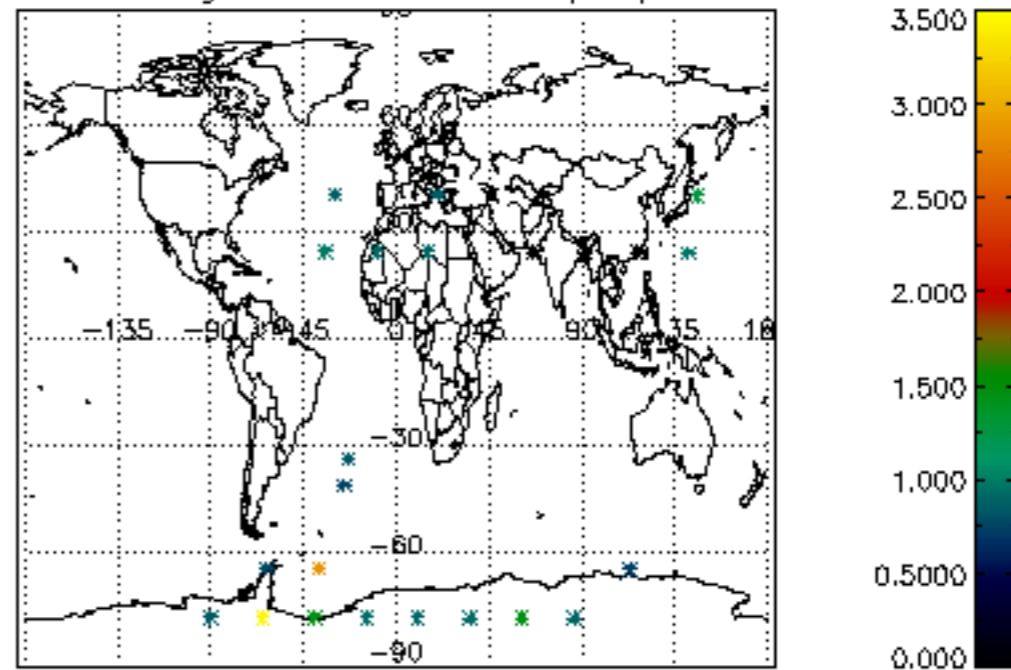
Percentage of saturation errors per profile



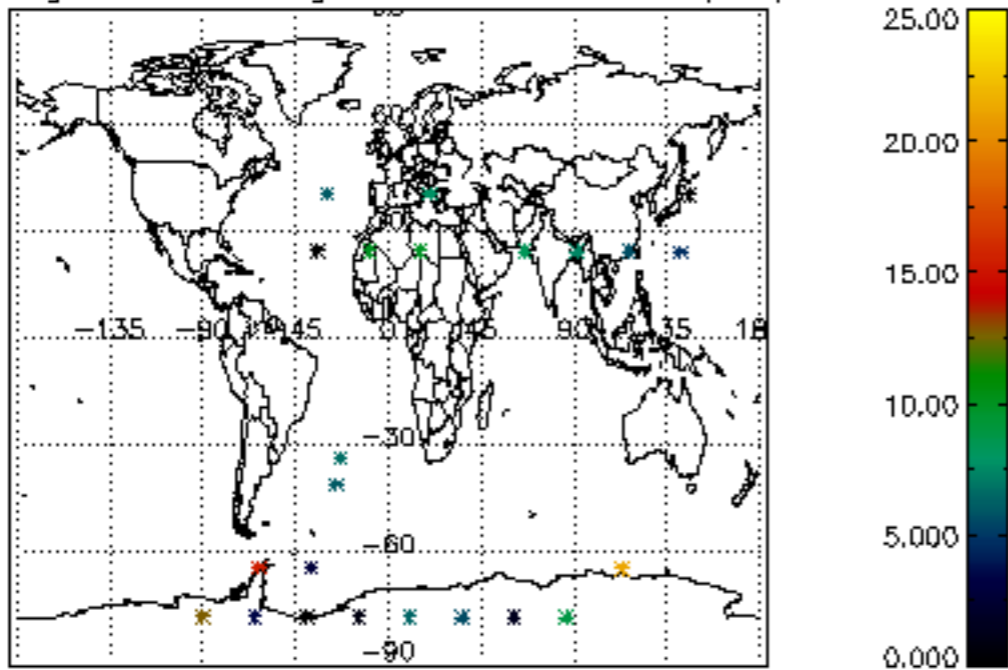
Percentage of cosmic ray hits per profile



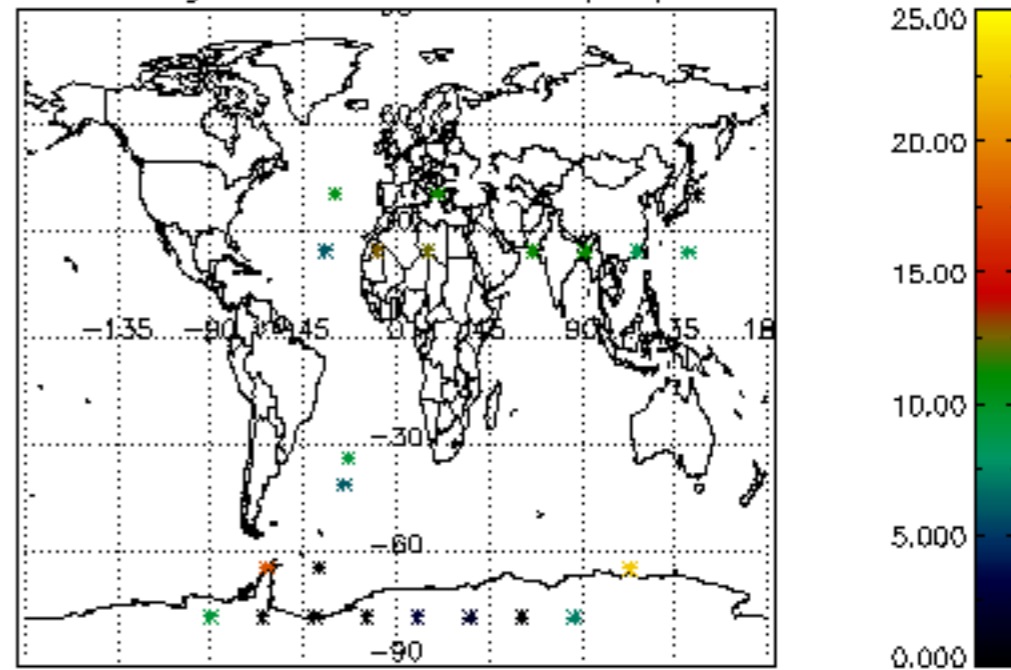
Percentage of datation errors per profile

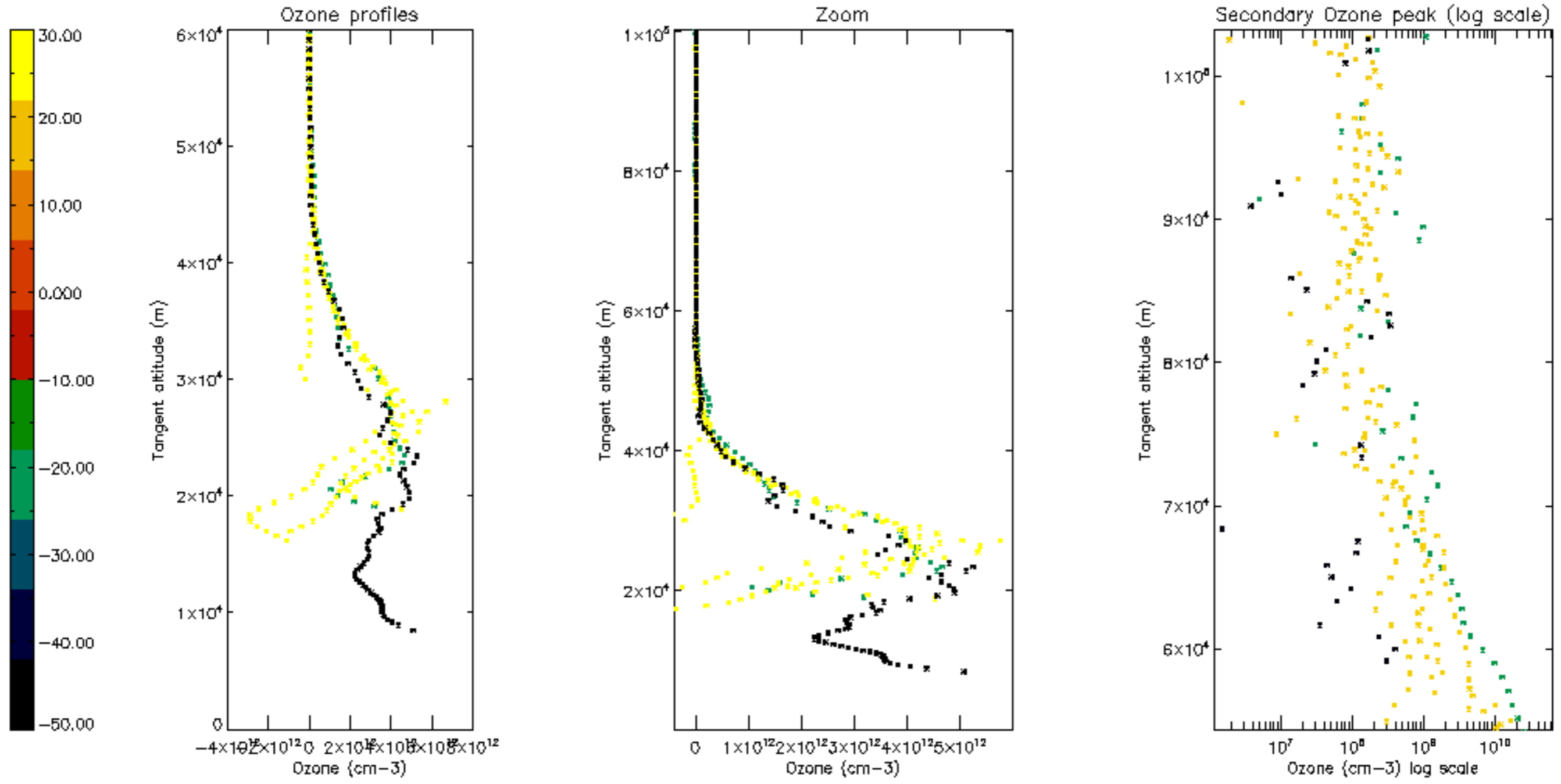


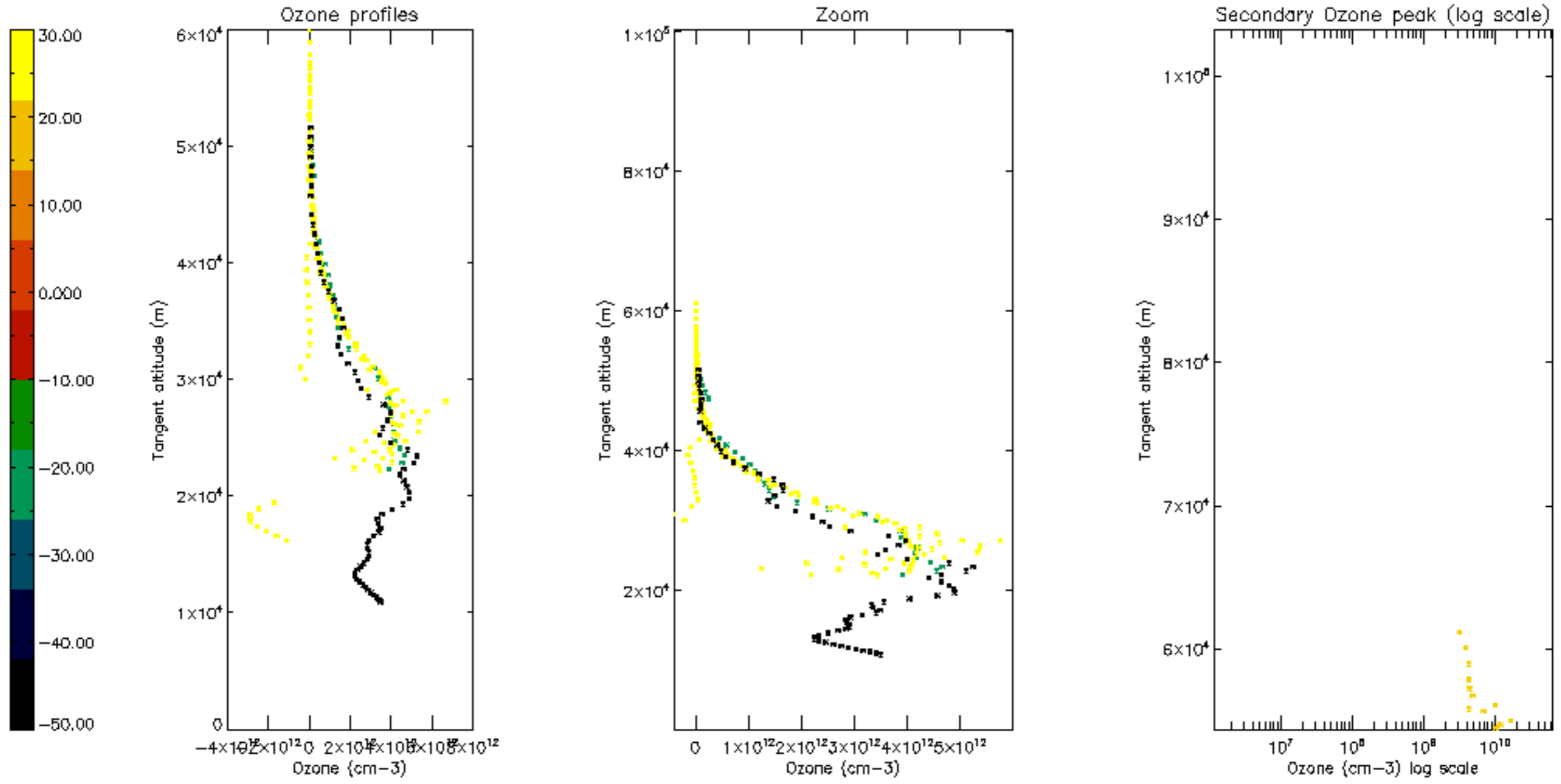
Percentage of star falling outside central band per profile

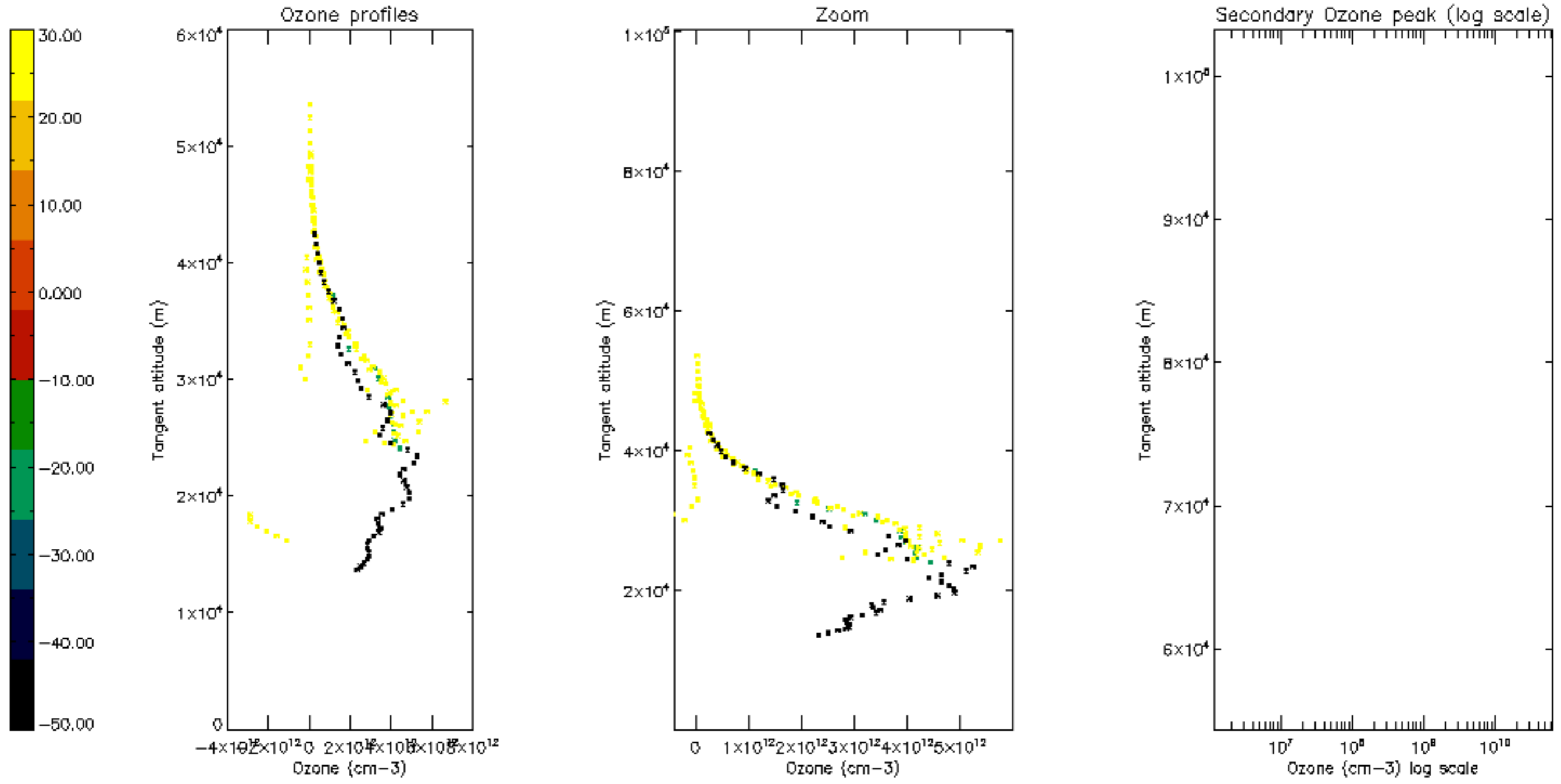


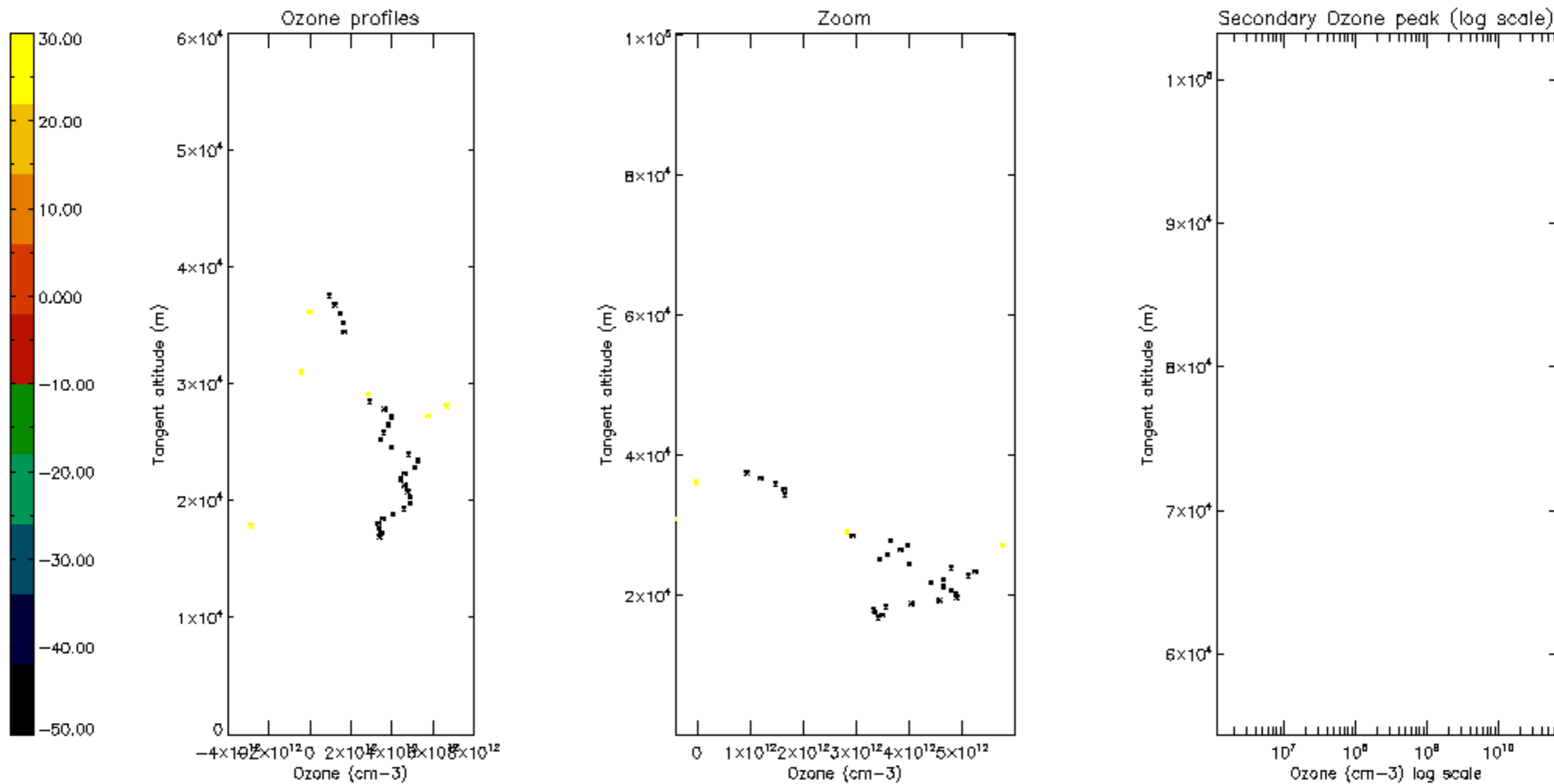
Percentage of saturation errors per profile

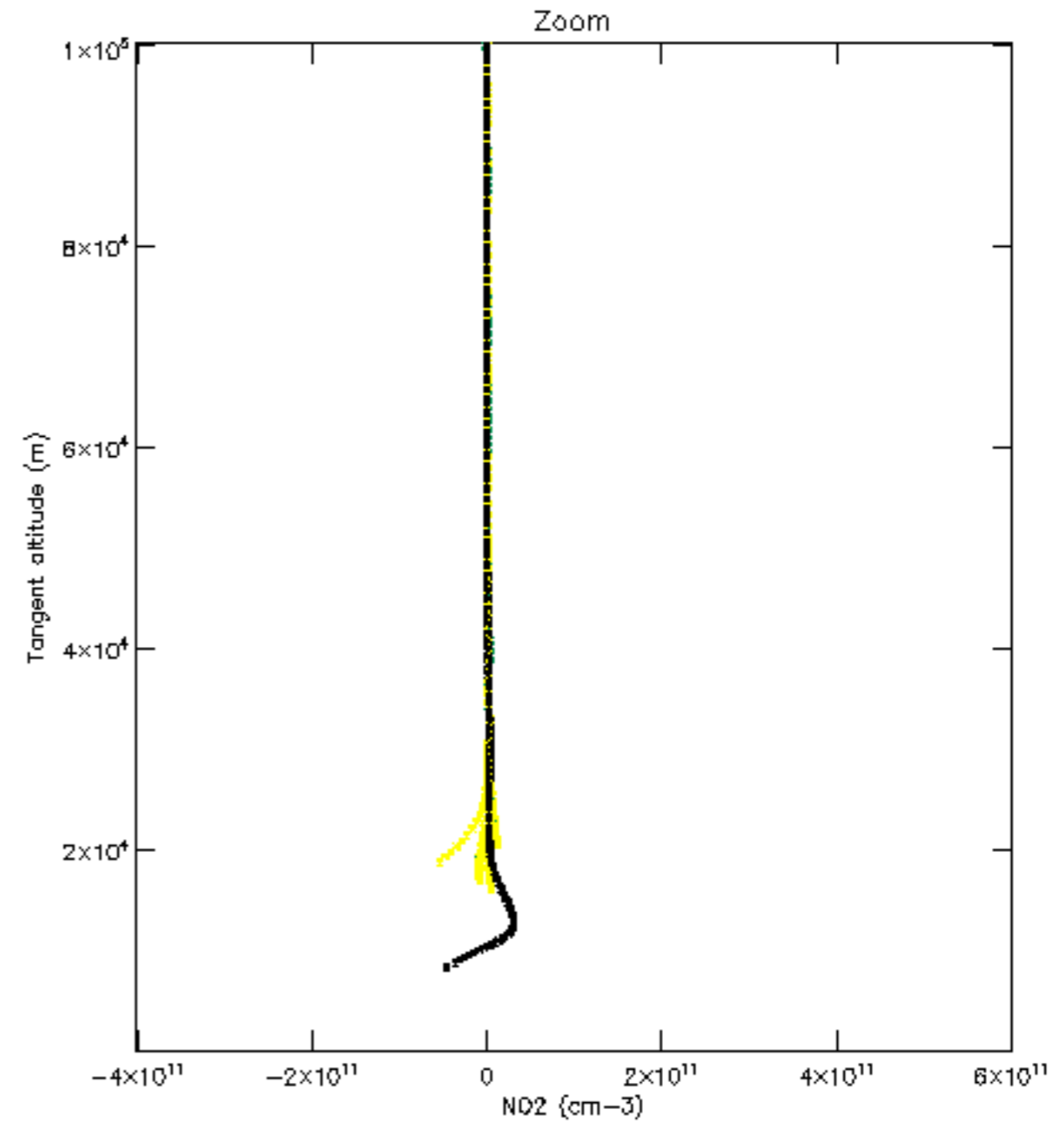
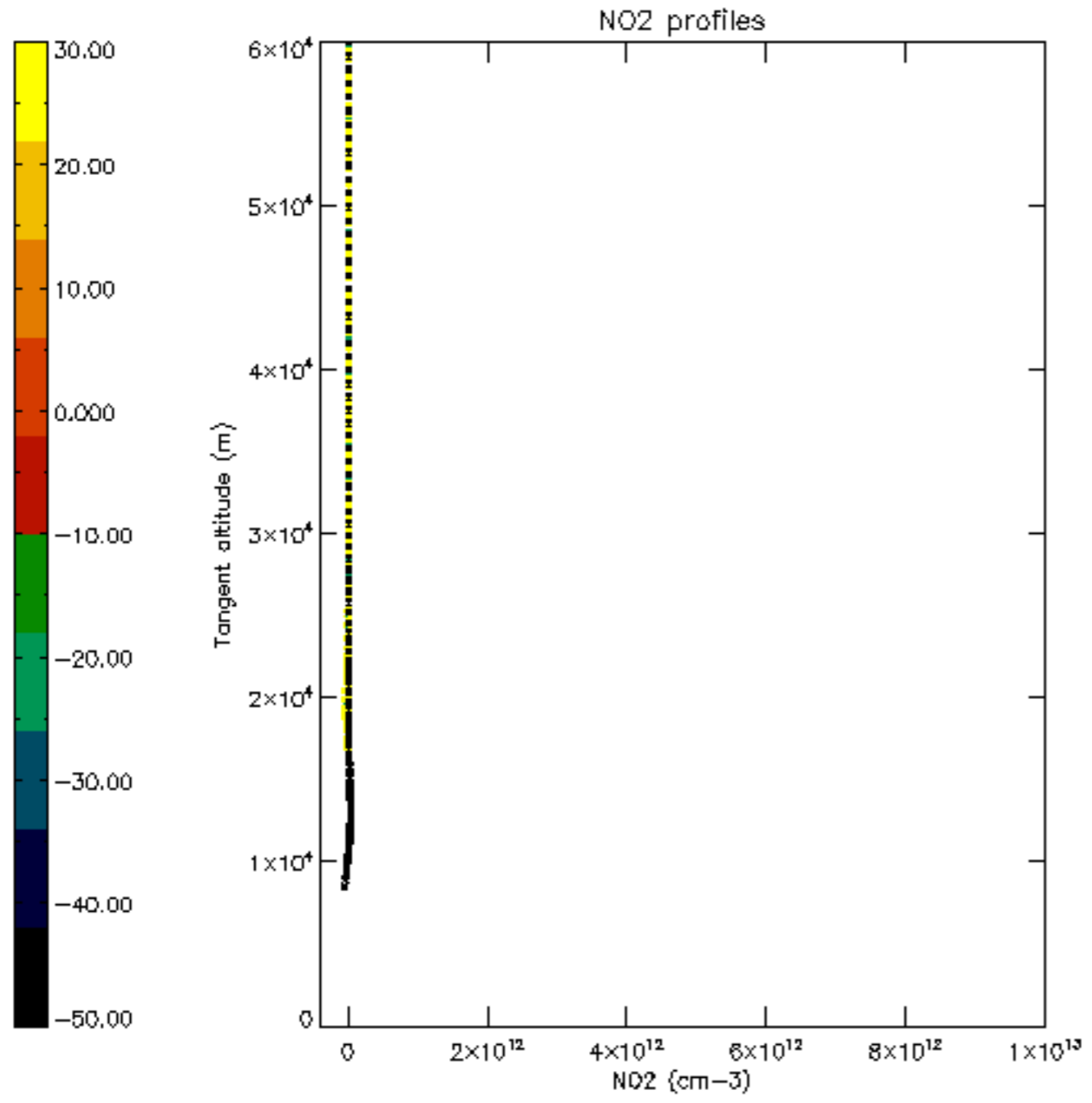


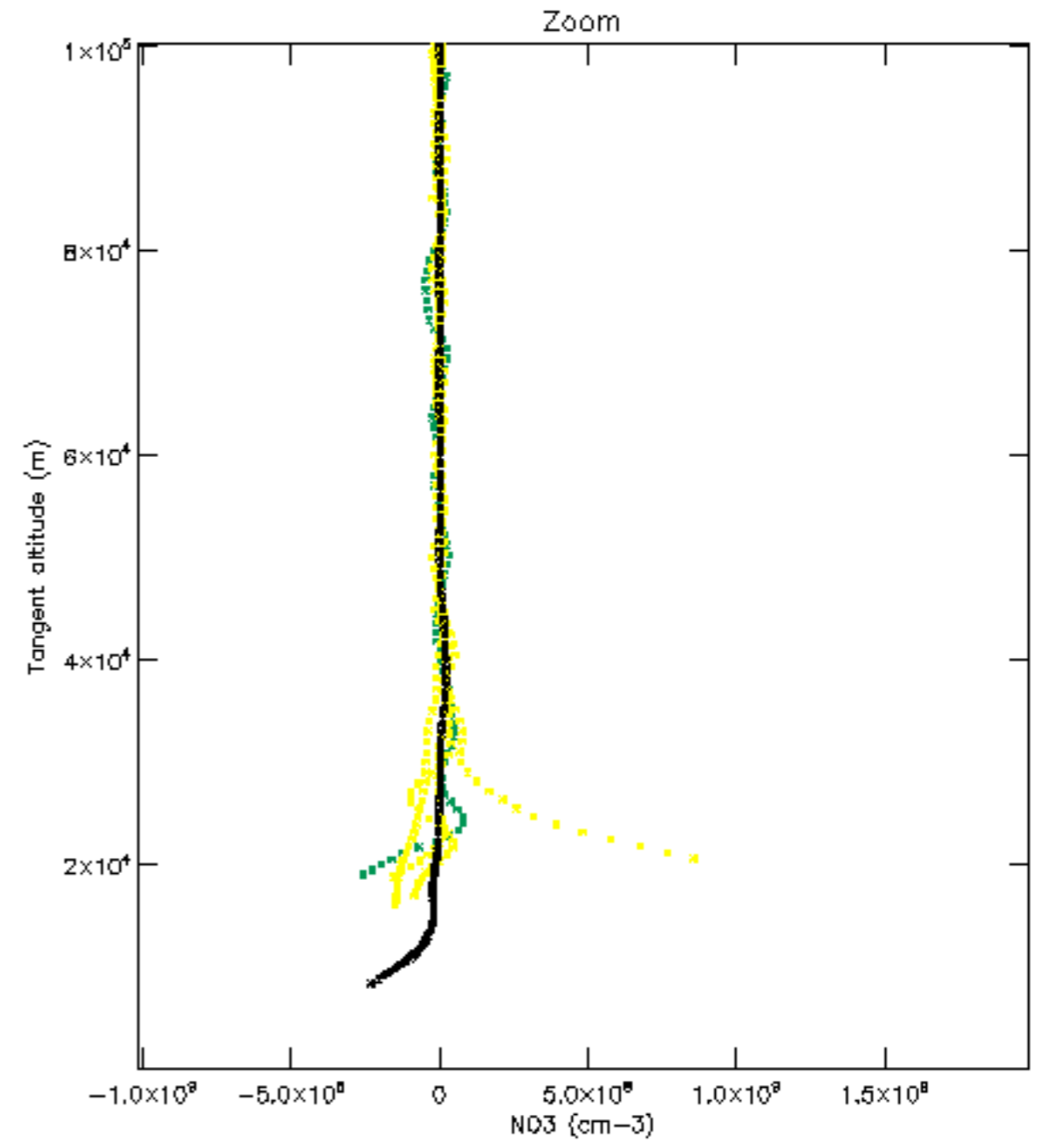
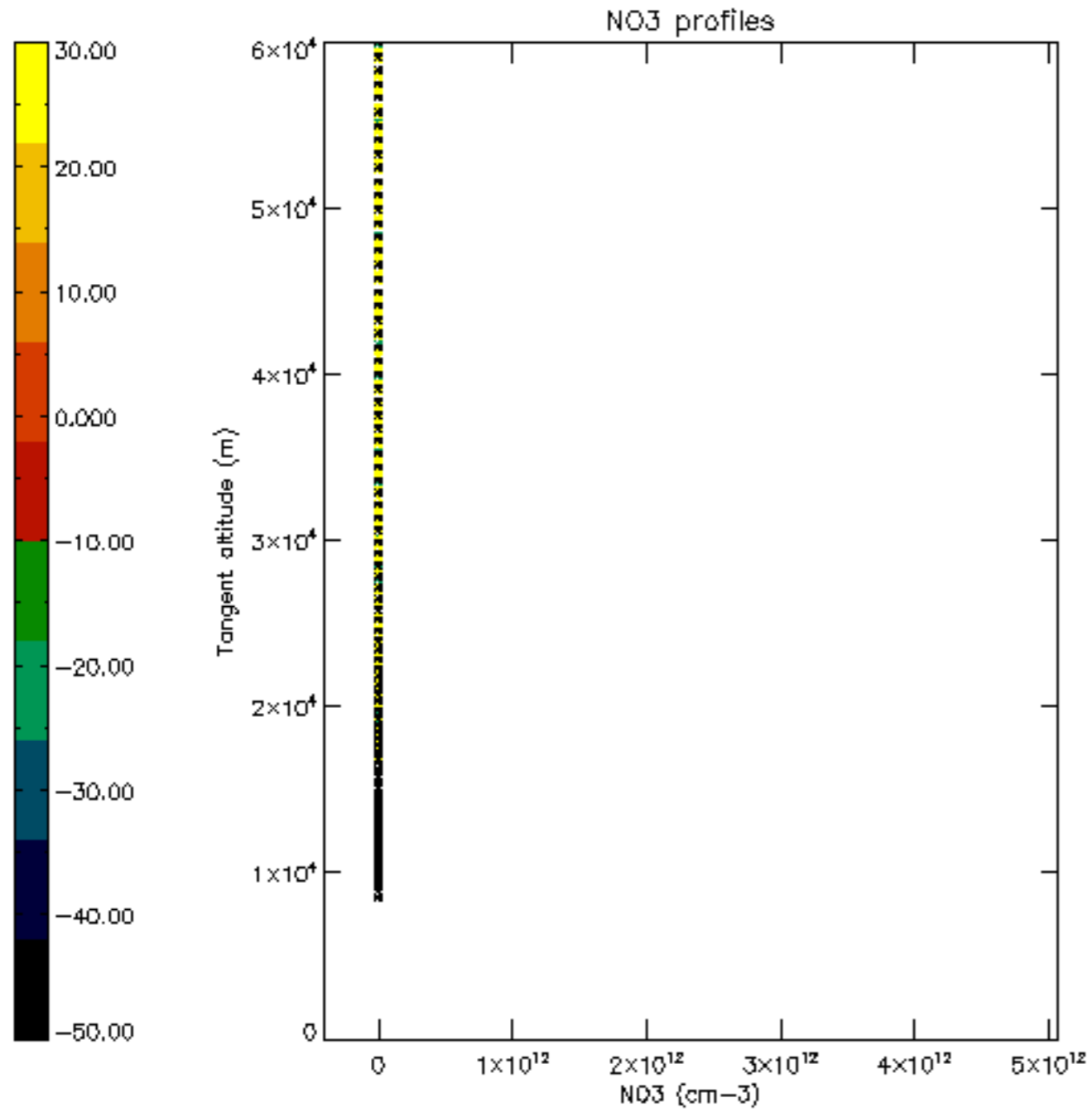




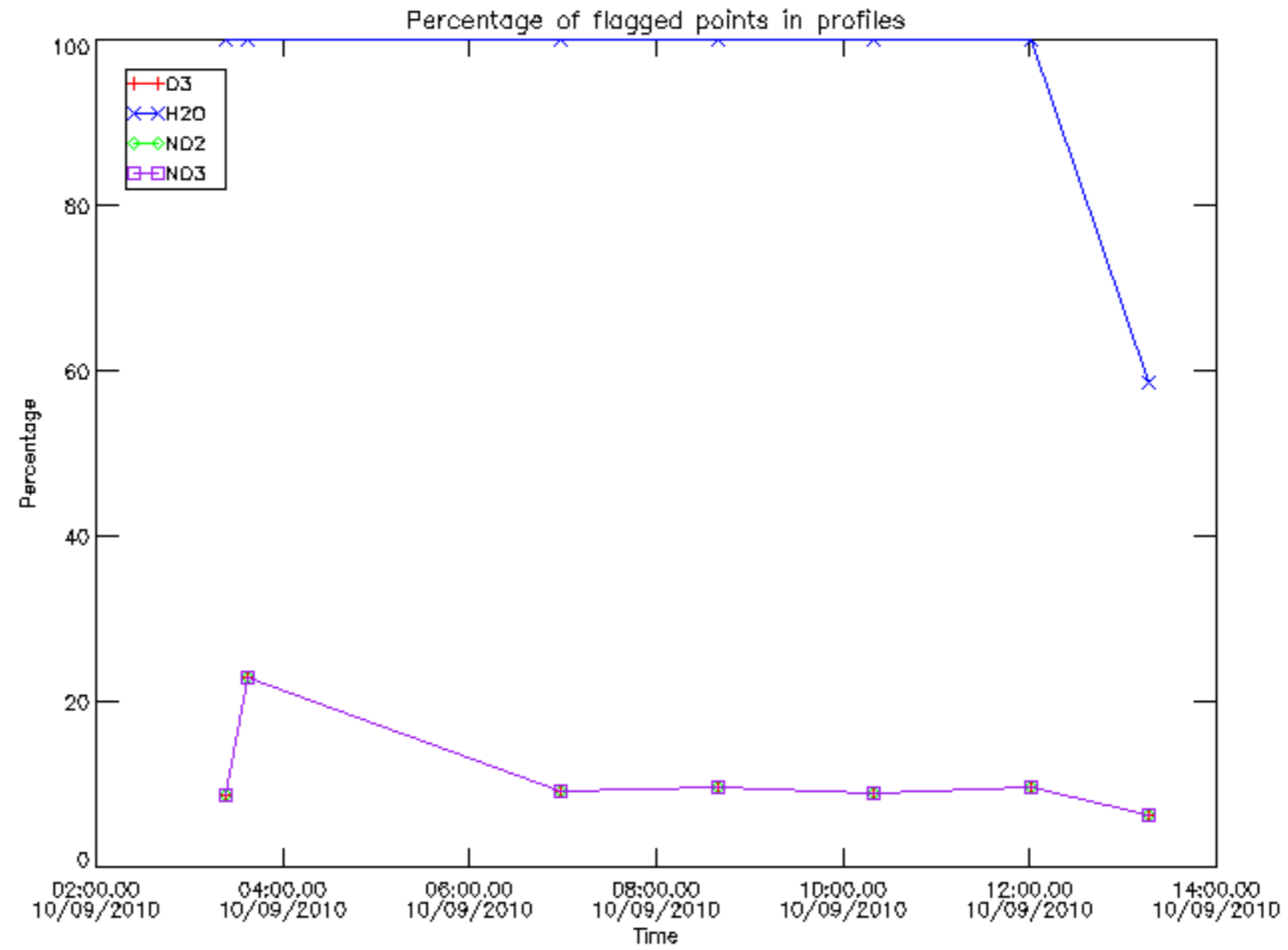




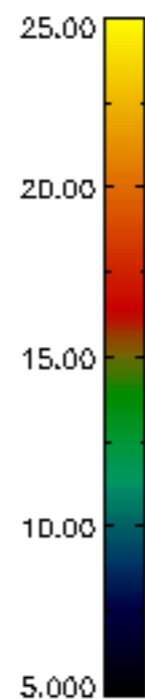
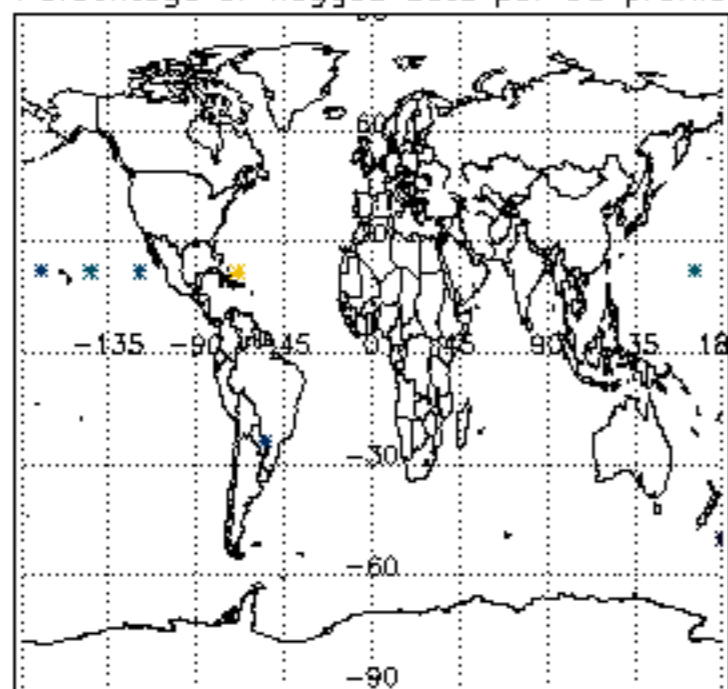




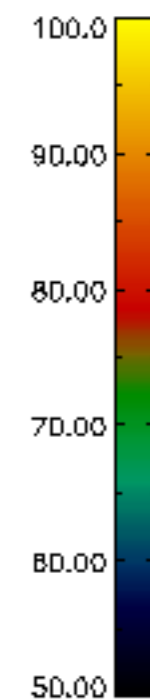
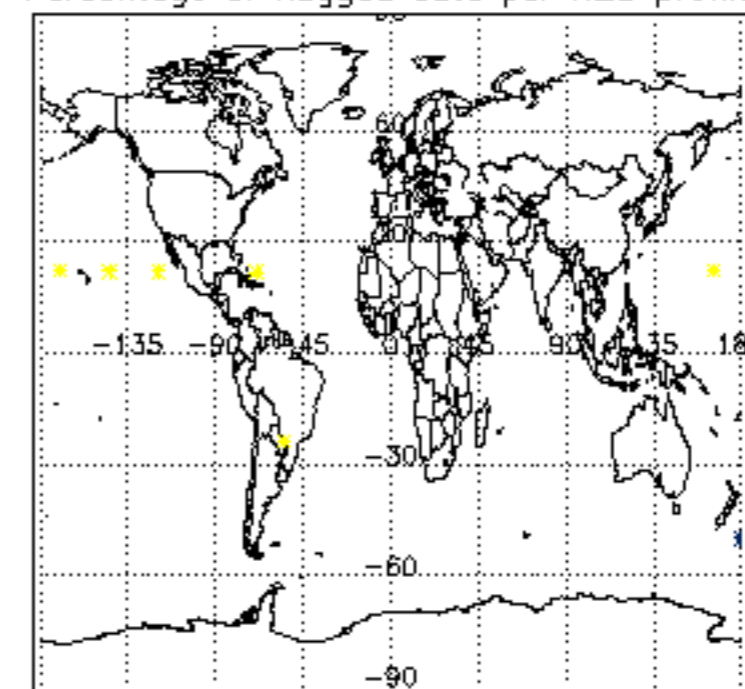




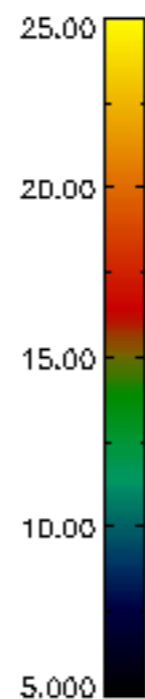
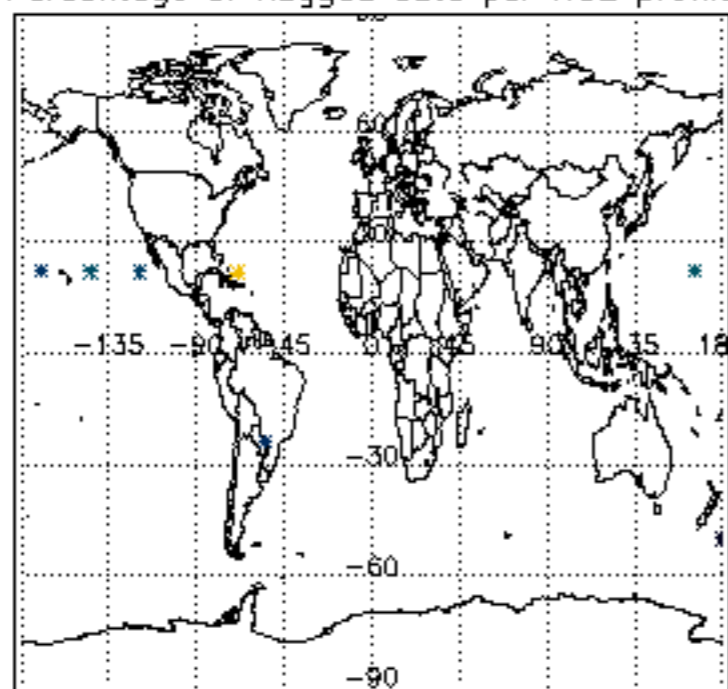
Percentage of flagged data per D3 profile



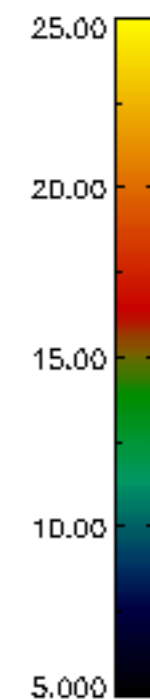
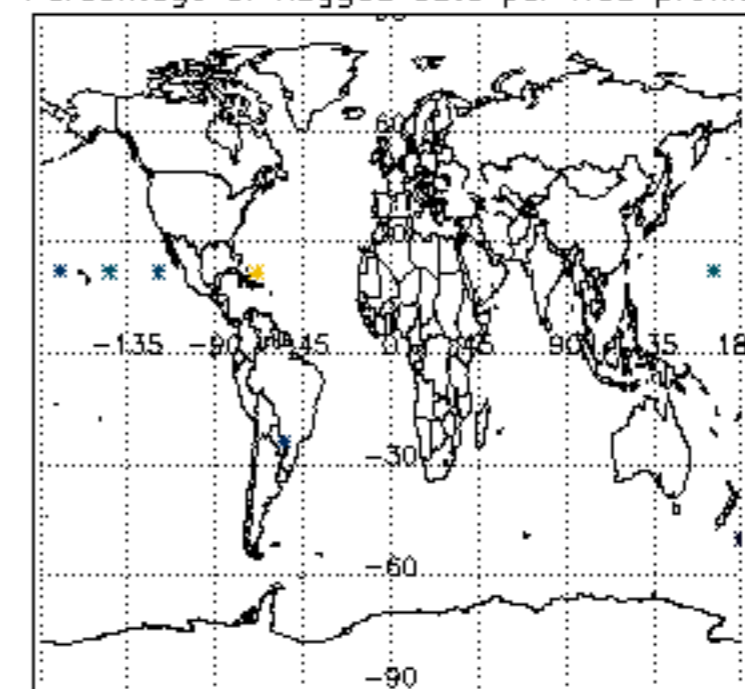
Percentage of flagged data per H2O profile

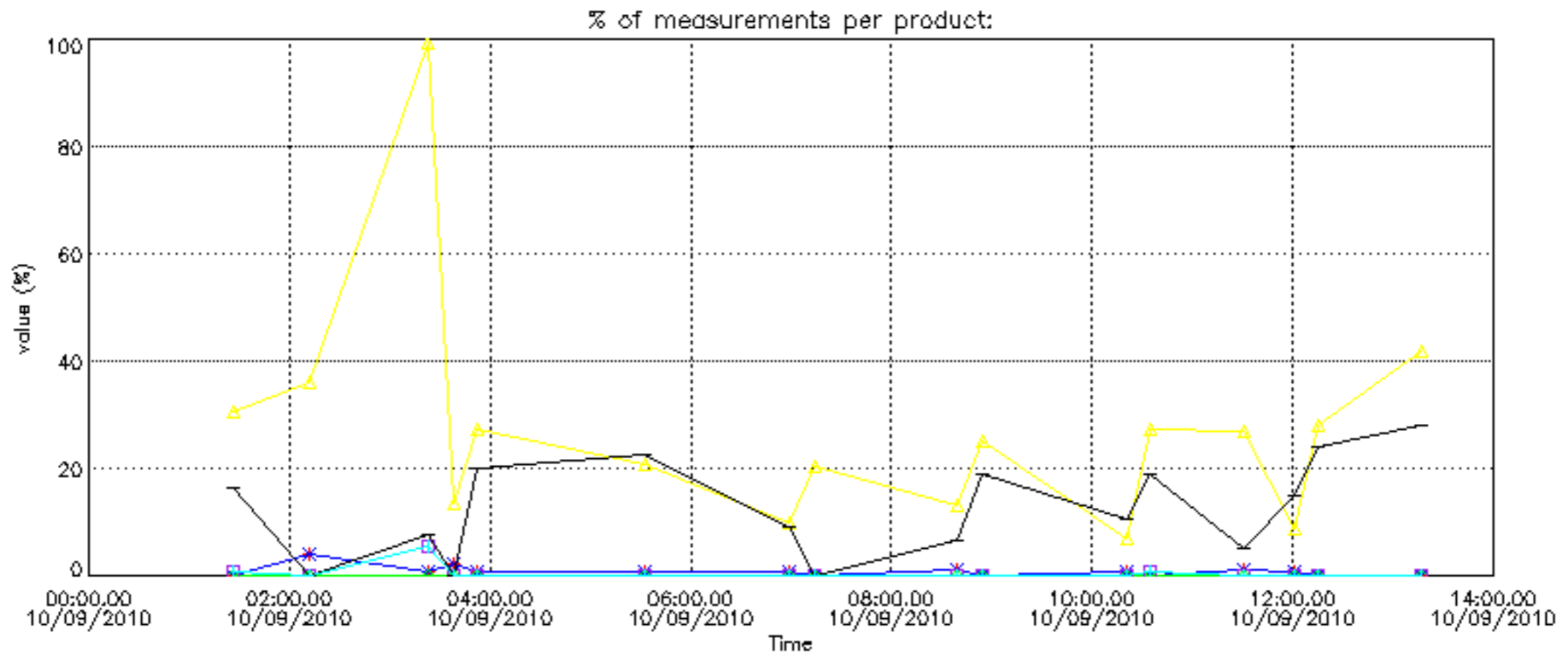


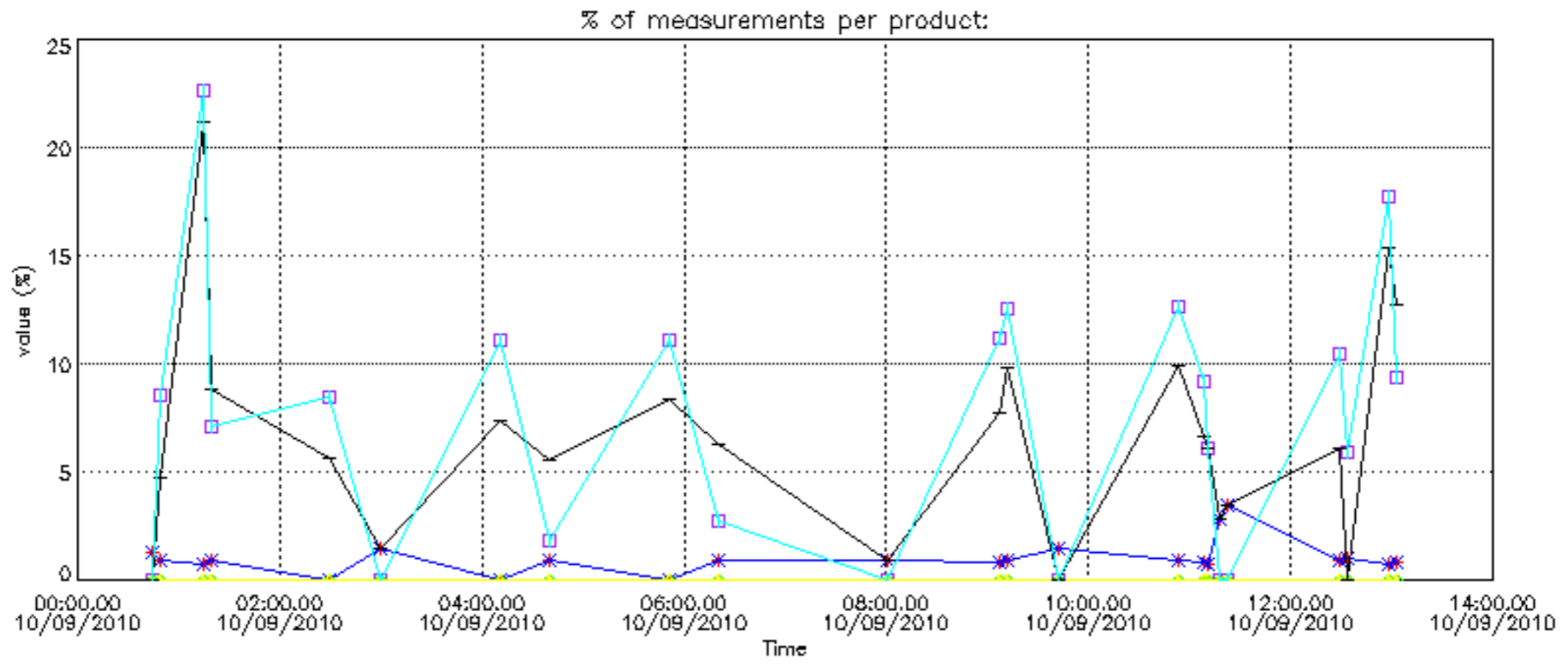
Percentage of flagged data per NO2 profile



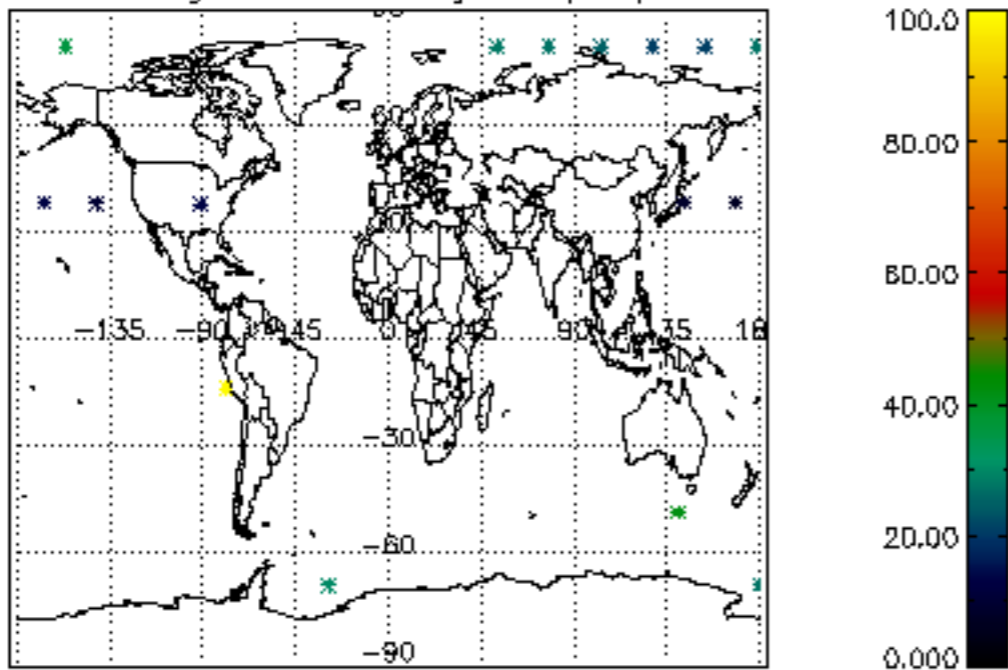
Percentage of flagged data per NO3 profile



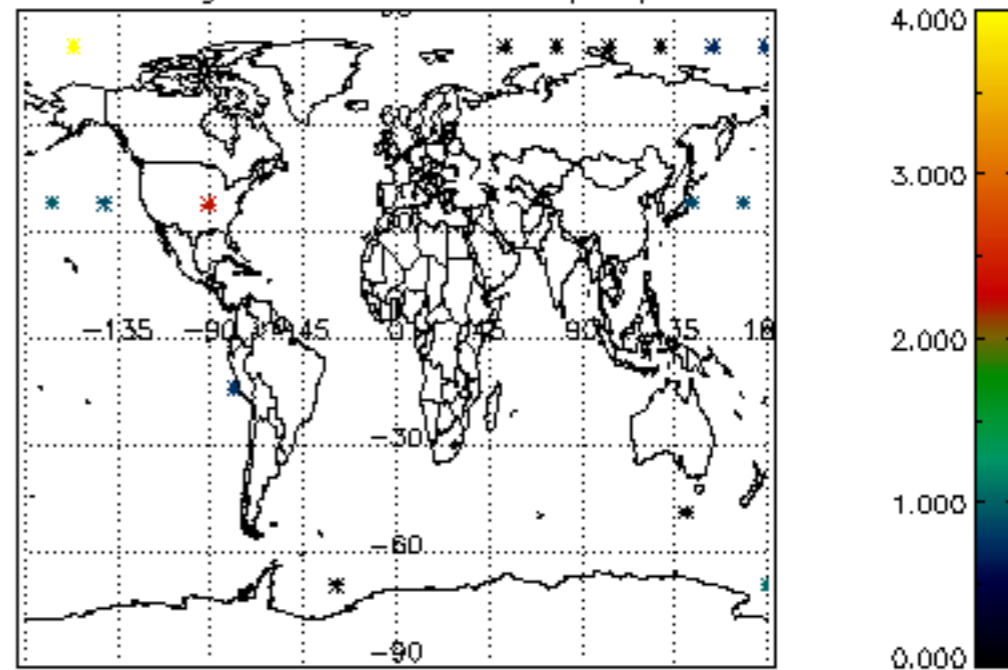




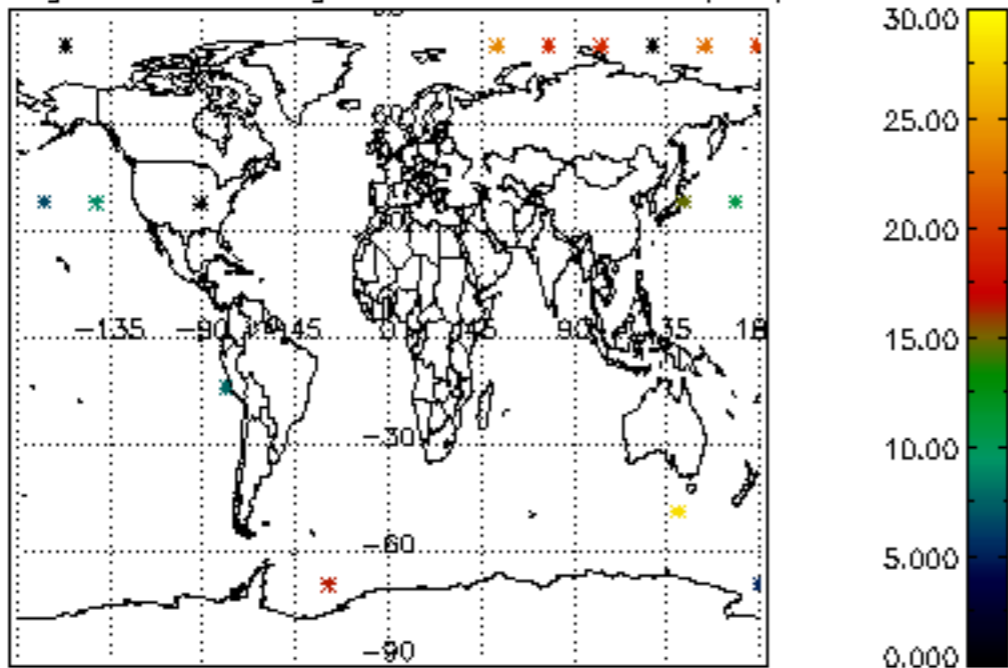
Percentage of cosmic ray hits per profile



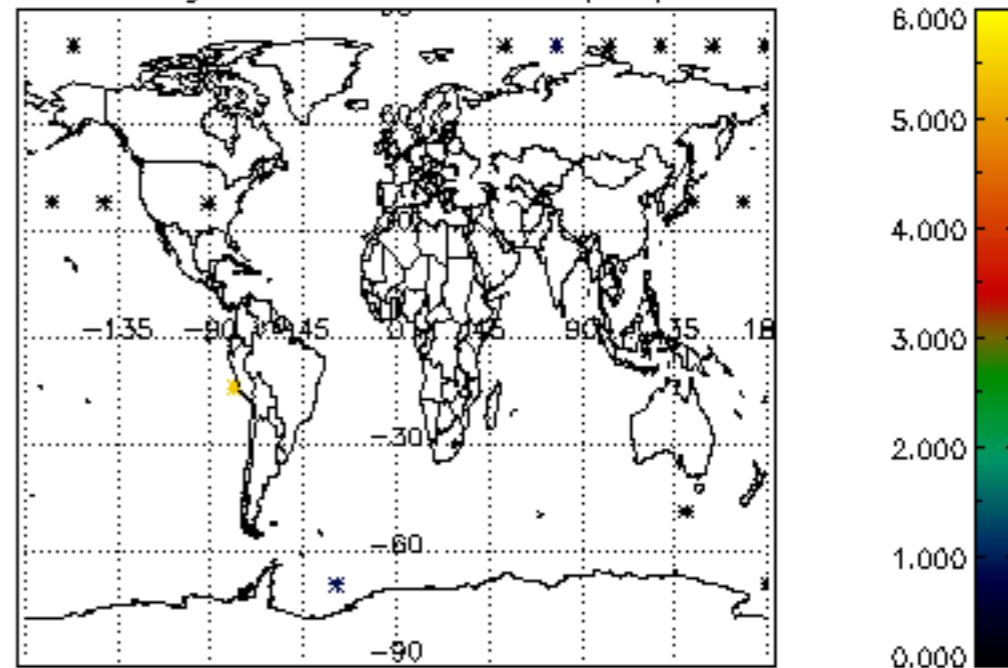
Percentage of datation errors per profile



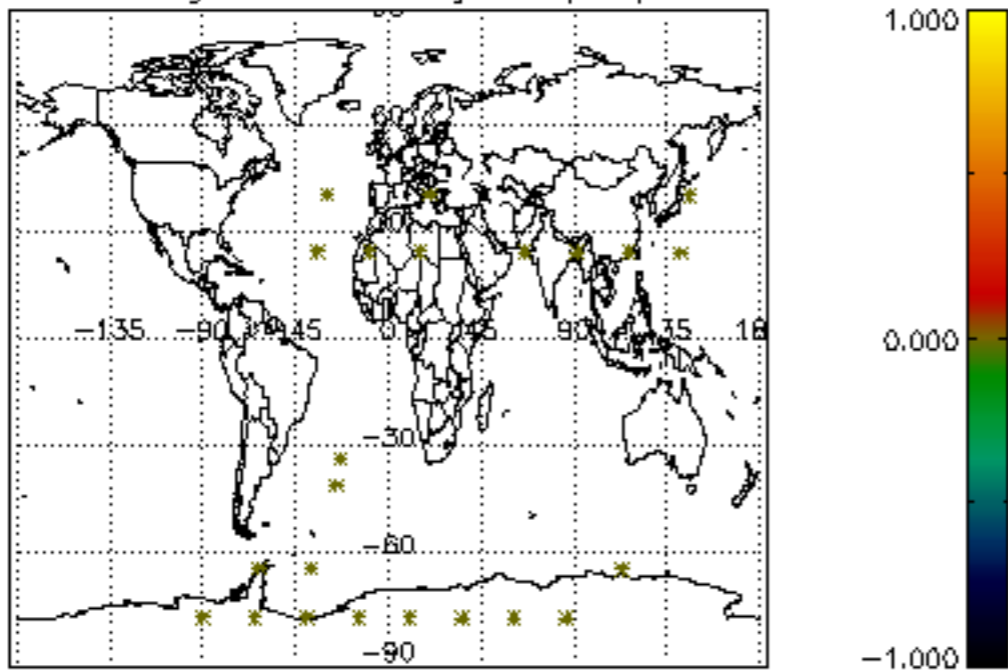
Percentage of star falling outside central band per profile



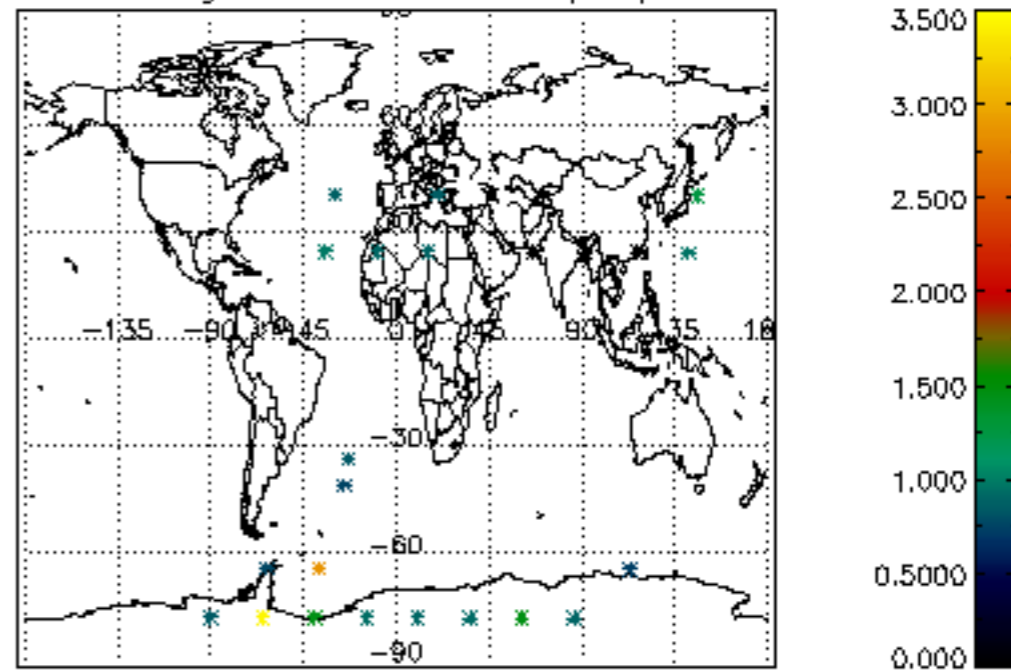
Percentage of saturation errors per profile



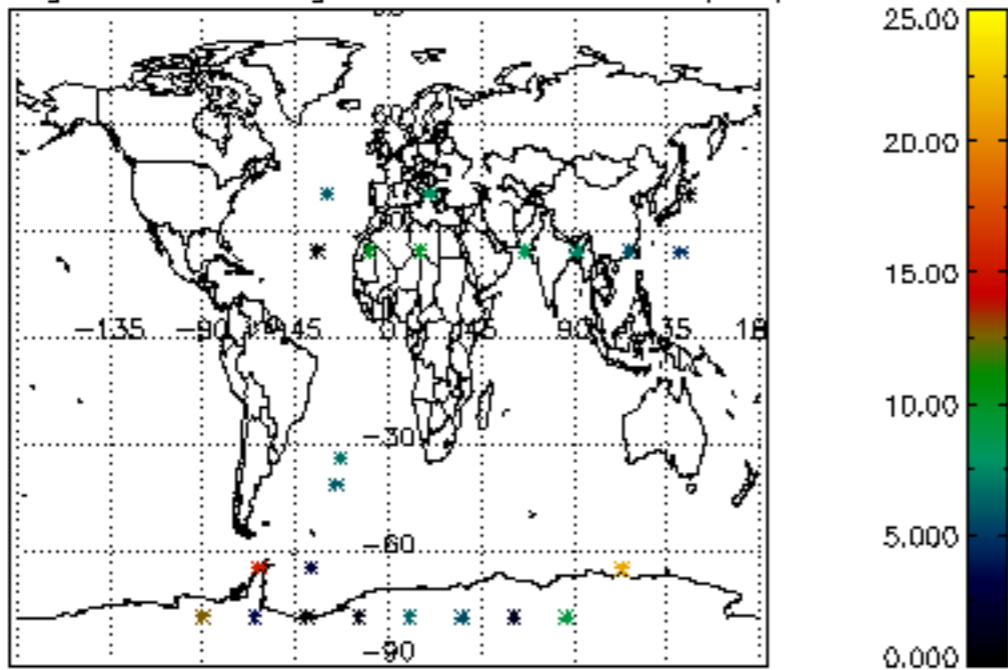
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

