

# 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	24APR2013 12:33:50
Data source version	GOMOS/6.01
Start time of products	18-04-2011 (18APR2011 00:00:00)
Stop time of products	19-04-2011 (19APR2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	291
Nb of prods with errors	1

## 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__2PRFIN20110418_000102_000000593101_00318_47746_4688.N1	18-APR-2011 00:01:02	Bright	59.000	122	9Alp2Lib	2.7470	9700.0	118	47746	No
2	GOM_NL__2PRFIN20110418_000306_000000433101_00318_47746_4689.N1	18-APR-2011 00:03:06	Bright	43.000	15	67Alp Vir	0.97600	28000.	86	47746	No
3	GOM_NL__2PRFIN20110418_000947_000000393101_00318_47746_4690.N1	18-APR-2011 00:09:47	Bright	38.500	138	47Eps Vir	2.8280	4700.0	77	47746	No
4	GOM_NL__2PRFIN20110418_001255_000000453101_00318_47746_4691.N1	18-APR-2011 00:12:55	Bright	45.000	111	8Eta Boo	2.6800	6000.0	90	47746	No
5	GOM_NL__2PRFIN20110418_001747_000000363101_00318_47746_4692.N1	18-APR-2011 00:17:47	Bright	36.000	152	12Alp2CVn	2.8900	11000.	72	47746	No
6	GOM_NL__2PRFIN20110418_002033_000000463101_00318_47746_4693.N1	18-APR-2011 00:20:33	Bright	46.000	180	27Gam Boo	3.0400	8000.0	92	47746	No
7	GOM_NL__2PRFIN20110418_002256_000000363101_00318_47746_4694.N1	18-APR-2011 00:22:56	Bright	36.000	55	79Zet UMa	2.0600	10200.	72	47746	No
8	GOM_NL__2PRFIN20110418_002907_000000383101_00318_47746_4695.N1	18-APR-2011 00:29:07	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	47746	No
9	GOM_NL__2PRFIN20110418_003915_000000393101_00318_47746_4696.N1	18-APR-2011 00:39:15	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	47746	No
10	GOM_NL__2PRFIN20110418_004429_000000513101_00318_47746_4697.N1	18-APR-2011 00:44:29	Bright	51.000	19	50Alp Cyg	1.2460	10500.	102	47746	No
11	GOM_NL__2PRFIN20110418_004616_000000583101_00318_47746_4698.N1	18-APR-2011 00:46:16	Bright	57.500	66	37Gam Cyg	2.2080	5900.0	115	47746	No
12	GOM_NL__2PRFIN20110418_004857_000000593101_00318_47746_4699.N1	18-APR-2011 00:48:57	Bright	59.000	92	53Eps Cyg	2.5000	4500.0	118	47746	No
13	GOM_NL__2PRFIN20110418_005638_000000523101_00318_47746_4700.N1	18-APR-2011 00:56:38	Dark	52.000	61	8Eps Peg	2.1000	3900.0	104	47746	No
14	GOM_NL__2PRFIN20110418_005905_000000473101_00318_47746_4701.N1	18-APR-2011 00:59:05	Dark	46.500	162	34Alp Aqr	2.9440	5350.0	93	47746	No
15	GOM_NL__2PRFIN20110418_010151_000000523101_00318_47746_4702.N1	18-APR-2011 01:01:51	Dark	52.000	154	22Bet Aqr	2.8990	5700.0	104	47746	No
16	GOM_NL__2PRFIN20110418_010411_000000433101_00318_47746_4703.N1	18-APR-2011 01:04:11	Dark	43.000	142	49Del Cap	2.8500	8900.0	86	47746	No
17	GOM_NL__2PRFIN20110418_011851_000000583101_00319_47747_4694.N1	18-APR-2011 01:18:51	Dark	58.000	103	38Zet Sgr	2.6000	9700.0	116	47747	No
18	GOM_NL__2PRFIN20110418_012218_000000613101_00319_47747_4695.N1	18-APR-2011 01:22:18	Dark	61.000	38	20Eps Sgr	1.8360	11000.	122	47747	No
19	GOM_NL__2PRFIN20110418_012427_000000563101_00319_47747_4696.N1	18-APR-2011 01:24:27	Dark	56.000	178	lot1Sco	3.0220	6550.0	112	47747	No
20	GOM_NL__2PRFIN20110418_012603_000000653101_00319_47747_4697.N1	18-APR-2011 01:26:03	Straylight	64.500	25	35Lam Sco	1.6200	28000.	129	47747	No
21	GOM_NL__2PRFIN20110418_012951_000000703101_00319_47747_4698.N1	18-APR-2011 01:29:51	Straylight	69.500	75	26Eps Sco	2.2910	4250.0	139	47747	No
22	GOM_NL__2PRFIN20110418_013254_000000463101_00319_47747_4699.N1	18-APR-2011 01:32:54	Straylight	45.500	81	Eta Cen	2.3560	28000.	91	47747	No
23	GOM_NL__2PRFIN20110418_013512_000000453101_00319_47747_4700.N1	18-APR-2011 01:35:12	Straylight	44.500	54	5The Cen	2.0550	4500.0	89	47747	No
24	GOM_NL__2PRFIN20110418_014117_000000633101_00319_47747_4701.N1	18-APR-2011 01:41:17	Bright	62.500	122	9Alp2Lib	2.7470	9700.0	125	47747	No
25	GOM_NL__2PRFIN20110418_014320_000000433101_00319_47747_4702.N1	18-APR-2011 01:43:20	Bright	42.500	15	67Alp Vir	0.97600	28000.	85	47747	No
26	GOM_NL__2PRFIN20110418_015001_000000393101_00319_47747_4703.N1	18-APR-2011 01:50:01	Bright	38.500	138	47Eps Vir	2.8280	4700.0	77	47747	No
27	GOM_NL__2PRFIN20110418_015308_000000453101_00319_47747_4704.N1	18-APR-2011 01:53:08	Bright	44.500	111	8Eta Boo	2.6800	6000.0	89	47747	No
28	GOM_NL__2PRFIN20110418_015801_000000363101_00319_47747_4705.N1	18-APR-2011 01:58:01	Bright	36.000	152	12Alp2CVn	2.8900	11000.	72	47747	No
29	GOM_NL__2PRFIN20110418_020046_000000573101_00319_47747_4706.N1	18-APR-2011 02:00:46	Bright	56.500	180	27Gam Boo	3.0400	8000.0	113	47747	No
30	GOM_NL__2PRFIN20110418_020310_000000403101_00319_47747_4707.N1	18-APR-2011 02:03:10	Bright	39.500	55	79Zet UMa	2.0600	10200.	79	47747	No
31	GOM_NL__2PRFIN20110418_020921_000000403101_00319_47747_4708.N1	18-APR-2011 02:09:21	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	47747	No
32	GOM_NL__2PRFIN20110418_021928_000000373101_00319_47747_4709.N1	18-APR-2011 02:19:28	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	47747	No
33	GOM_NL__2PRFIN20110418_022442_000000513101_00319_47747_4710.N1	18-APR-2011 02:24:42	Bright	51.000	19	50Alp Cyg	1.2460	10500.	102	47747	No
34	GOM_NL__2PRFIN20110418_022630_000000573101_00319_47747_4711.N1	18-APR-2011 02:26:30	Bright	57.000	66	37Gam Cyg	2.2080	5900.0	114	47747	No
35	GOM_NL__2PRFIN20110418_022912_000000553101_00319_47747_4712.N1	18-APR-2011 02:29:12	Bright	54.500	92	53Eps Cyg	2.5000	4500.0	109	47747	No
36	GOM_NL__2PRFIN20110418_023652_000000553101_00319_47747_4713.N1	18-APR-2011 02:36:52	Dark	54.500	61	8Eps Peg	2.1000	3900.0	109	47747	No
37	GOM_NL__2PRFIN20110418_023920_000000493101_00319_47747_4714.N1	18-APR-2011 02:39:20	Dark	49.000	162	34Alp Aqr	2.9440	5350.0	98	47747	No
38	GOM_NL__2PRFIN20110418_024206_000000513101_00319_47747_4715.N1	18-APR-2011 02:42:06	Dark	50.500	154	22Bet Aqr	2.8990	5700.0	101	47747	No
39	GOM_NL__2PRFIN20110418_024426_000000443101_00319_47747_4716.N1	18-APR-2011 02:44:26	Dark	44.000	142	49Del Cap	2.8500	8900.0	88	47747	No
40	GOM_NL__2PRFIN20110418_025907_000000553101_00320_47748_4707.N1	18-APR-2011 02:59:07	Dark	55.000	103	38Zet Sgr	2.6000	9700.0	110	47748	No
41	GOM_NL__2PRFIN20110418_030233_000000673101_00320_47748_4708.N1	18-APR-2011 03:02:33	Dark	67.000	38	20Eps Sgr	1.8360	11000.	134	47748	No
42	GOM_NL__2PRFIN20110418_030443_000000563101_00320_47748_4709.N1	18-APR-2011 03:04:43	Dark	56.000	178	lot1Sco	3.0220	6550.0	112	47748	No







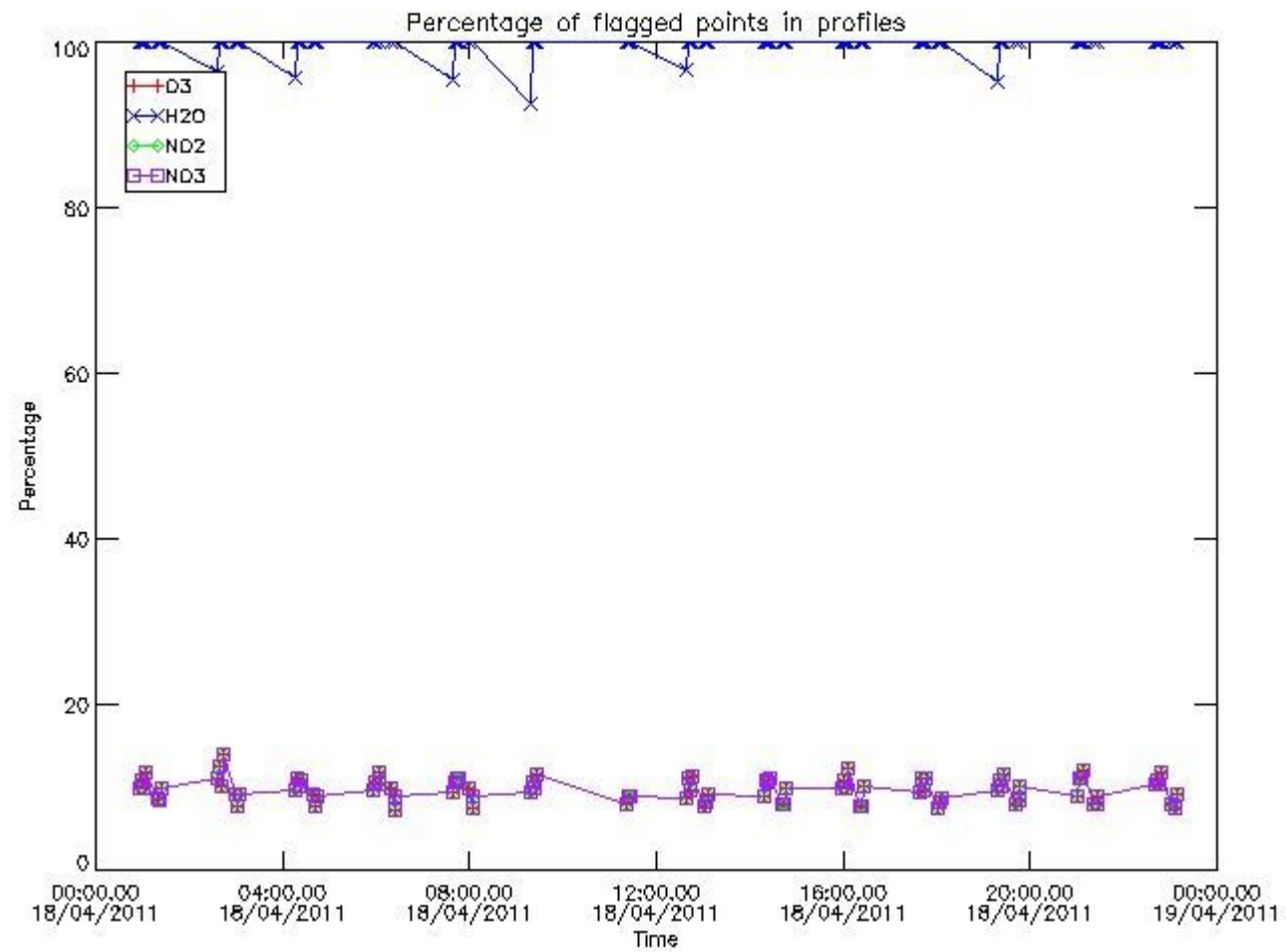


279	GOM_NL__2PRFIN20110418_230215_000000643101_00332_47760_5107.N1	18-APR-2011 23:02:15	Dark	63.500	103	38Zet Sgr	2.6000	9700.0	127	47760	No
280	GOM_NL__2PRFIN20110418_230540_000000693101_00332_47760_5108.N1	18-APR-2011 23:05:40	Dark	68.500	38	20Eps Sgr	1.8360	11000.	137	47760	No
281	GOM_NL__2PRFIN20110418_230744_000000563101_00332_47760_5109.N1	18-APR-2011 23:07:44	Dark	55.500	178	lot1Sco	3.0220	6550.0	111	47760	No
282	GOM_NL__2PRFIN20110418_230921_000000623101_00332_47760_5110.N1	18-APR-2011 23:09:21	Straylight	62.000	25	35Lam Sco	1.6200	28000.	124	47760	No
283	GOM_NL__2PRFIN20110418_231307_000000693101_00332_47760_5111.N1	18-APR-2011 23:13:07	Straylight	68.500	75	26Eps Sco	2.2910	4250.0	137	47760	No
284	GOM_NL__2PRFIN20110418_231508_000000463101_00332_47760_5112.N1	18-APR-2011 23:15:08	Straylight	45.500	109	Bet Lup	2.6770	26000.	91	47760	No
285	GOM_NL__2PRFIN20110418_231851_000000613101_00332_47760_5113.N1	18-APR-2011 23:18:51	Twl_and_stray	60.500	158	6Pi Sco	2.9060	28000.	121	47760	No
286	GOM_NL__2PRFIN20110418_232420_000000623101_00332_47760_5114.N1	18-APR-2011 23:24:20	Bright	61.500	122	9Alp2Lib	2.7470	9700.0	123	47760	No
287	GOM_NL__2PRFIN20110418_233605_000000443101_00332_47760_5115.N1	18-APR-2011 23:36:05	Bright	43.500	111	8Eta Boo	2.6800	6000.0	87	47760	No
288	GOM_NL__2PRFIN20110418_234056_000000533101_00332_47760_5116.N1	18-APR-2011 23:40:56	Bright	53.000	83		2.3780	11000.	106	47760	No
289	GOM_NL__2PRFIN20110418_234338_000000553101_00332_47760_5117.N1	18-APR-2011 23:43:38	Bright	54.500	180	27Gam Boo	3.0400	8000.0	109	47760	No
290	GOM_NL__2PRFIN20110418_234608_000000383101_00332_47760_5118.N1	18-APR-2011 23:46:08	Bright	37.500	55	79Zet UMa	2.0600	10200.	75	47760	No
291	GOM_NL__2PRFIN20110418_235221_000000343101_00332_47760_5119.N1	18-APR-2011 23:52:21	Bright	33.500	60	7Bet UMi	2.0810	3950.0	67	47760	No

### 3. Quality information per product

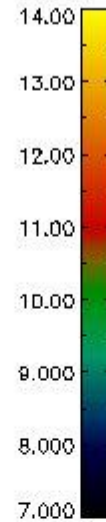
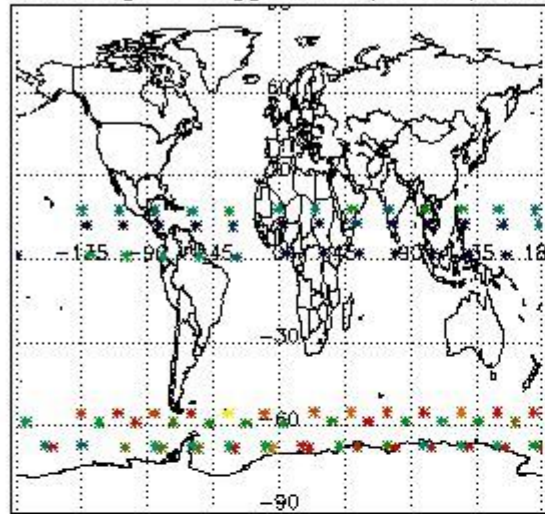
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

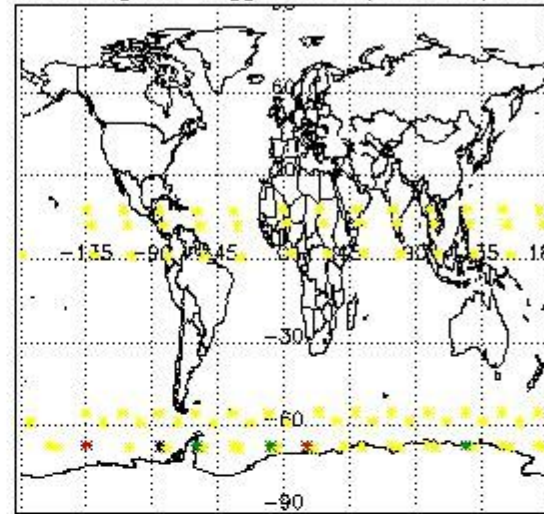


#### 3.2 Plot quality information per product (world map)

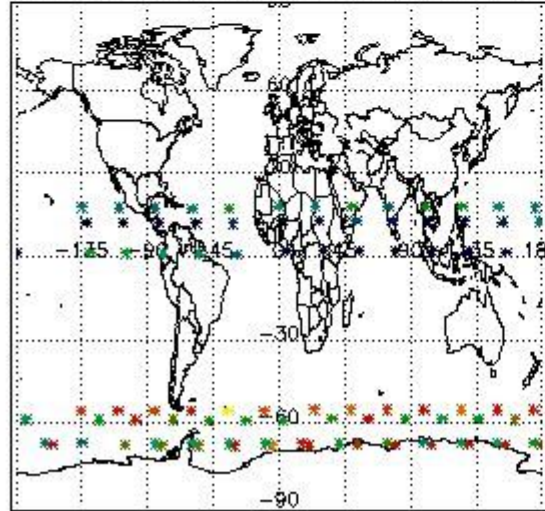
Percentage of flagged data per O3 profile



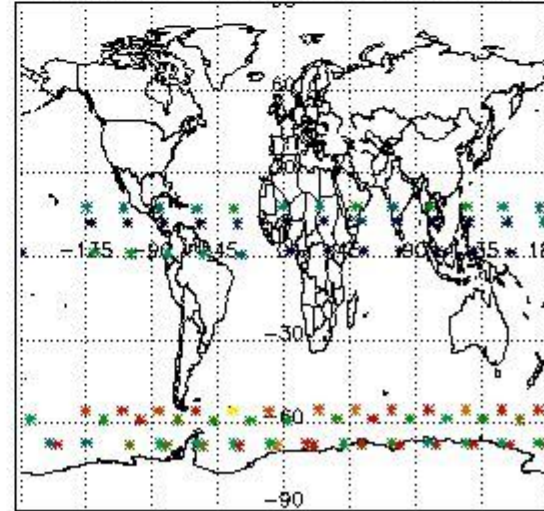
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



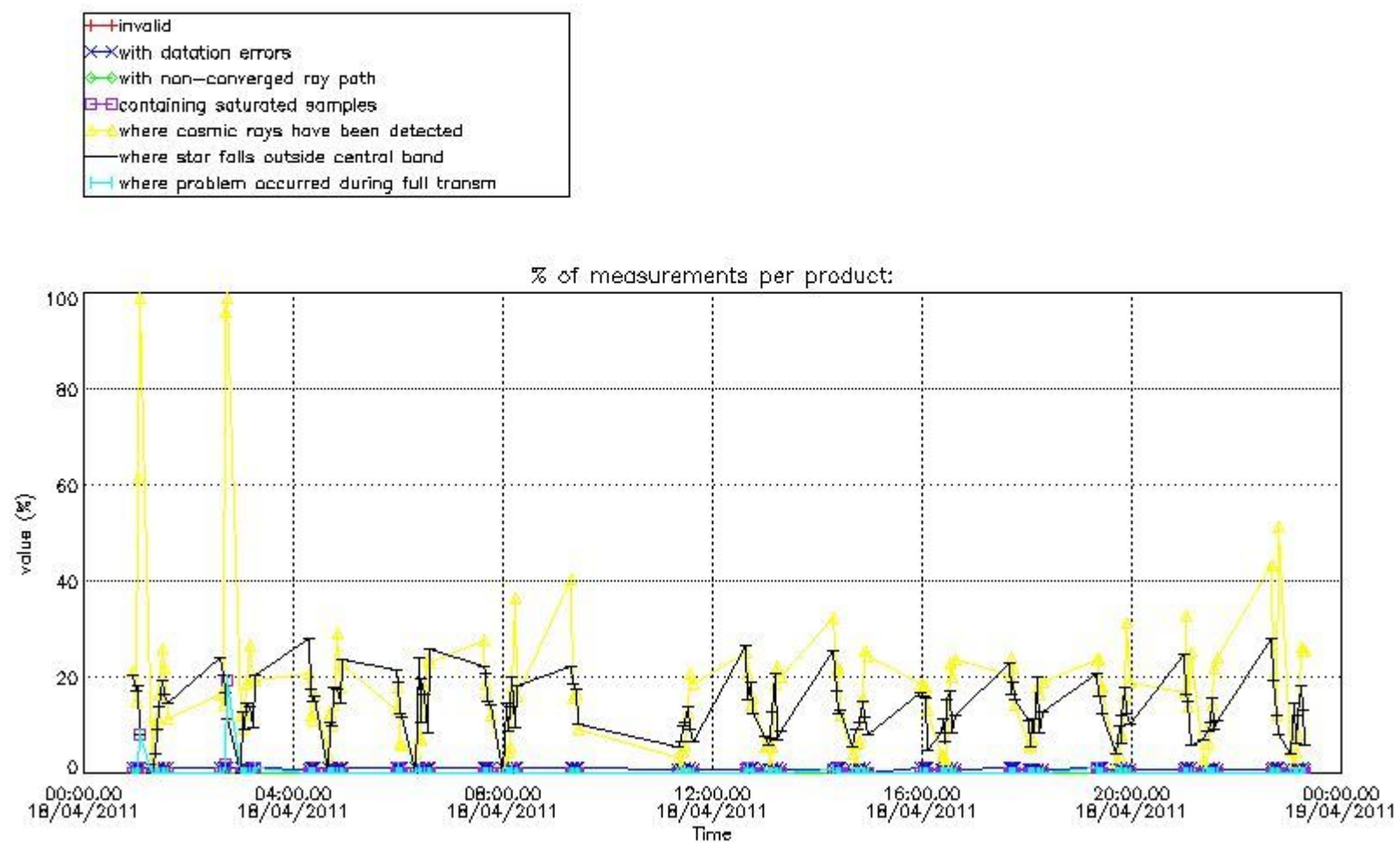
#### 4. Level 1 quality information per product

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.

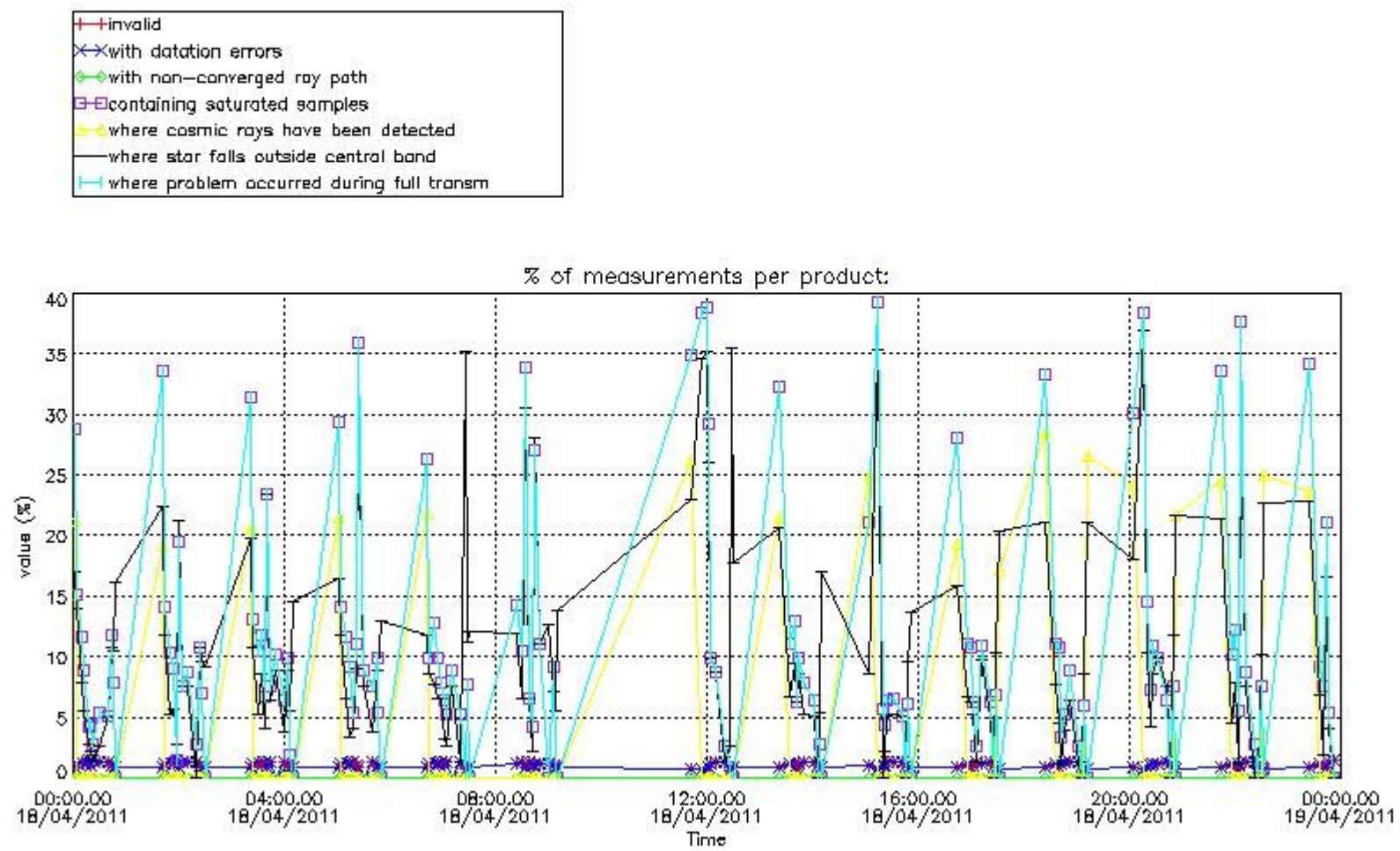
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





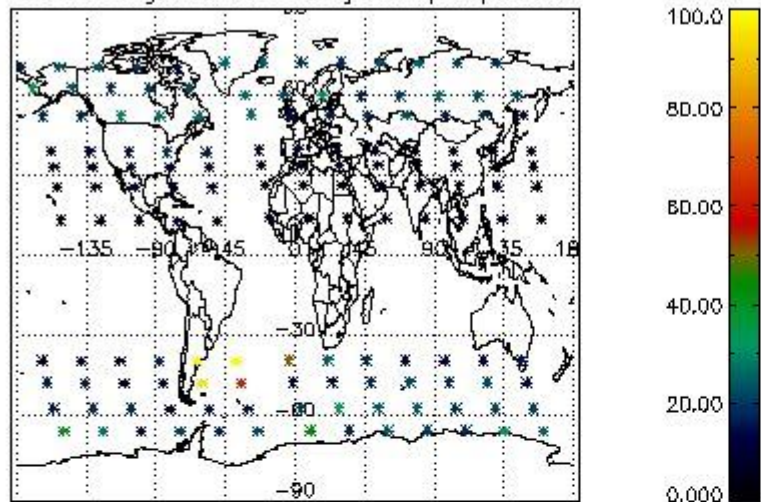
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



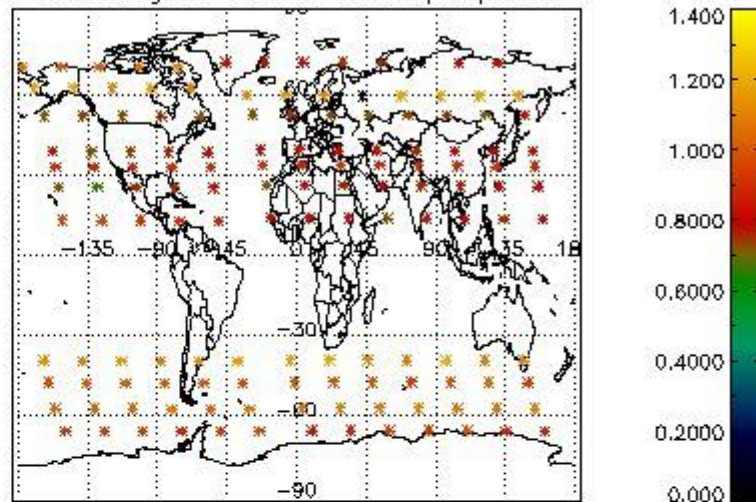
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

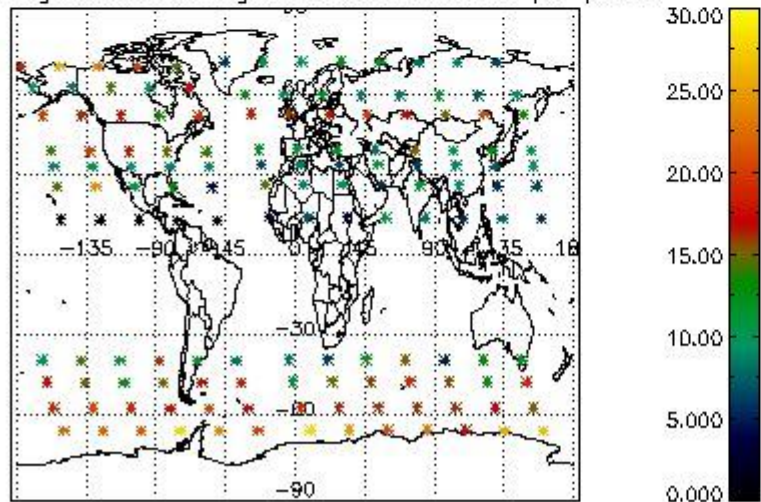
Percentage of cosmic ray hits per profile



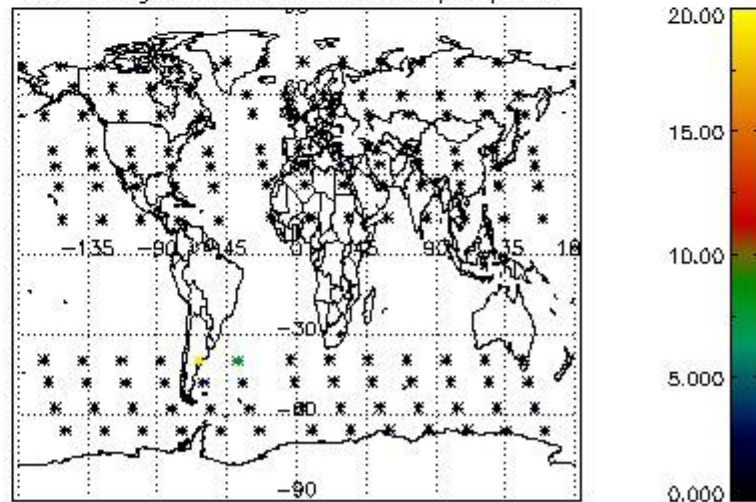
Percentage of datation errors per profile



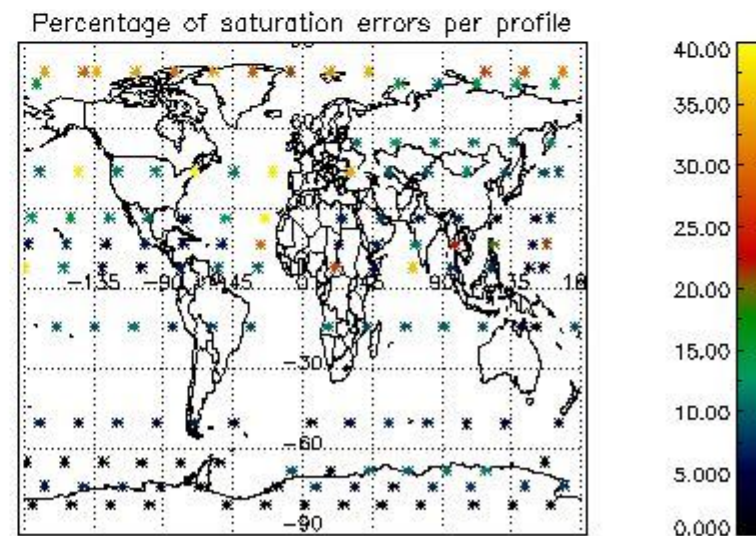
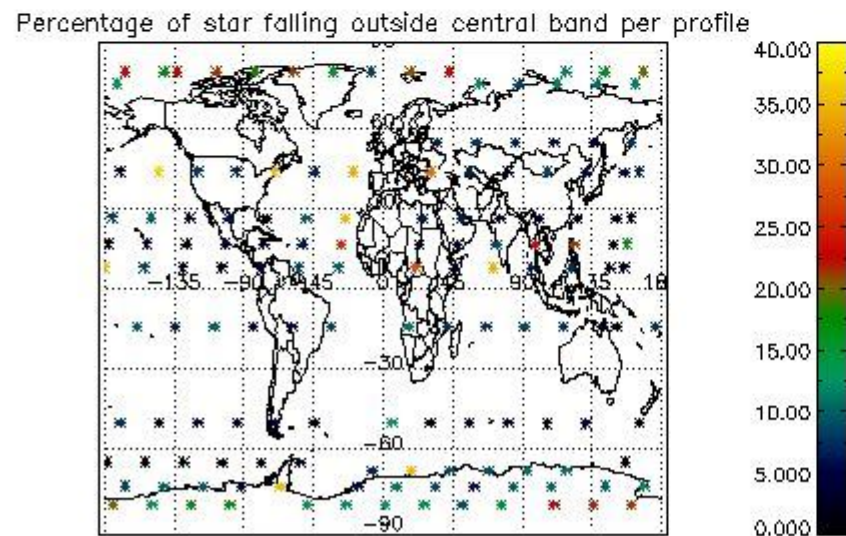
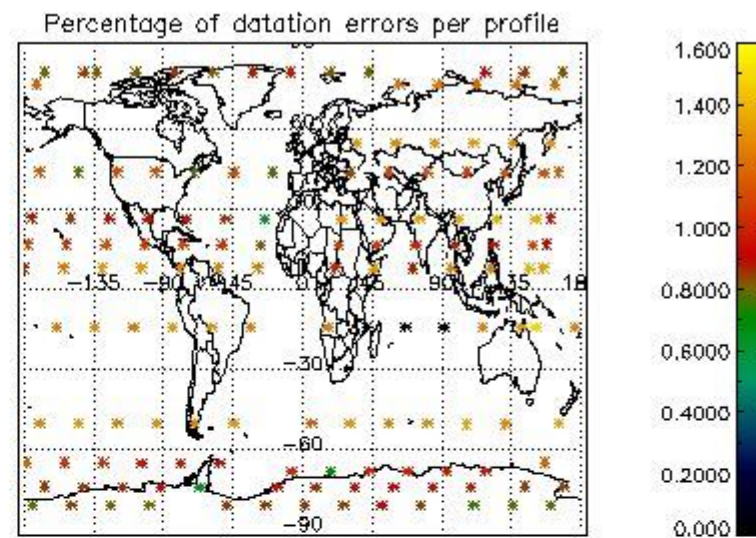
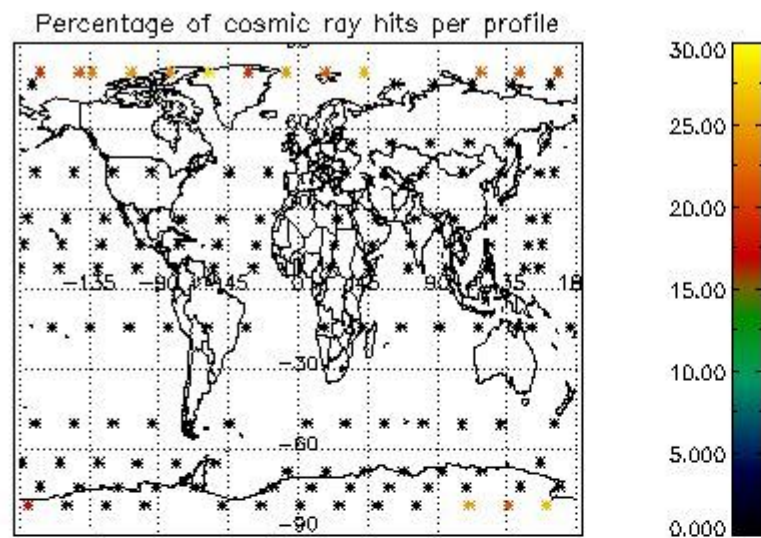
Percentage of star falling outside central band per profile



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

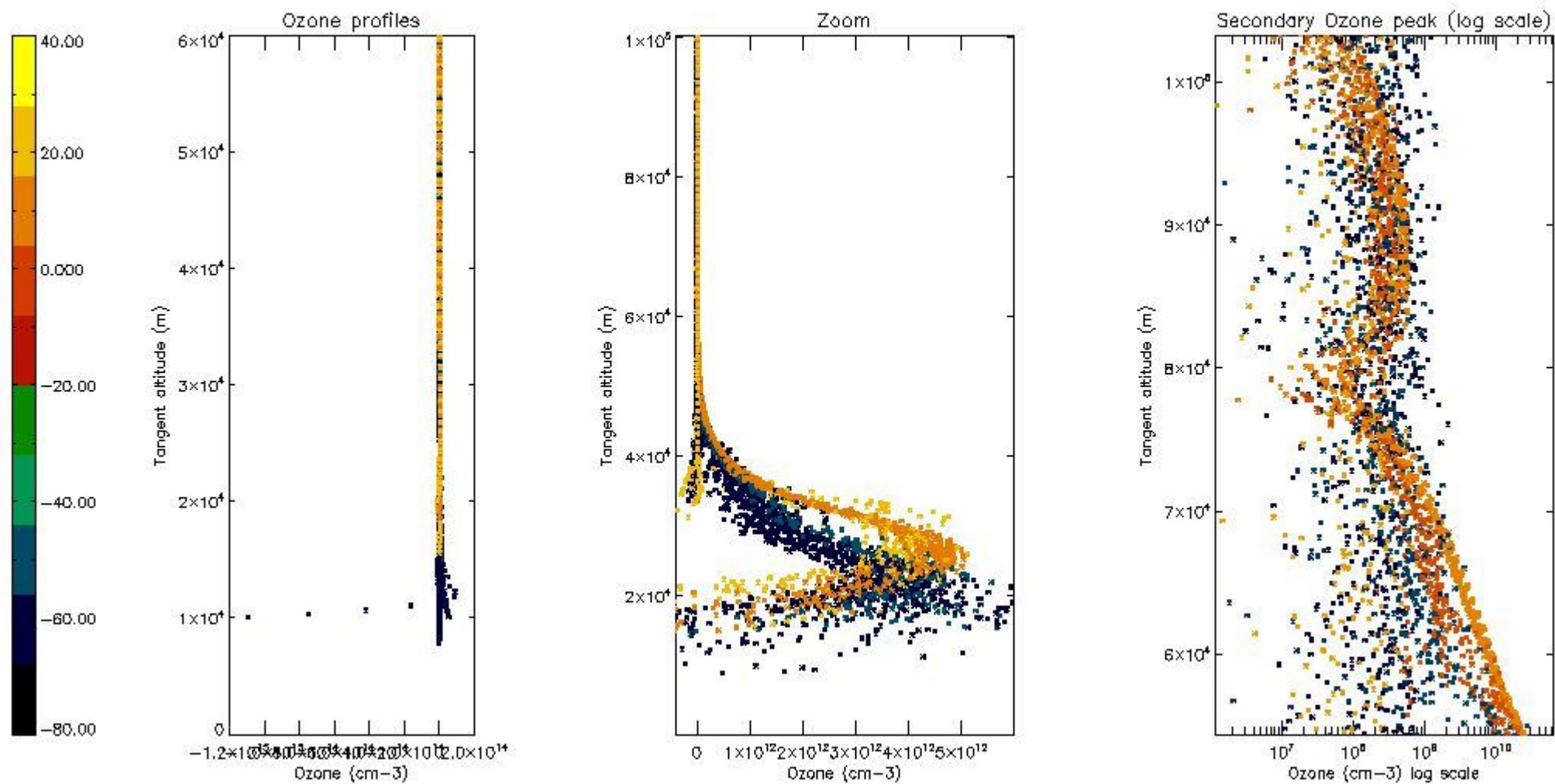
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	11

STD < 10	6
STD < 5	3

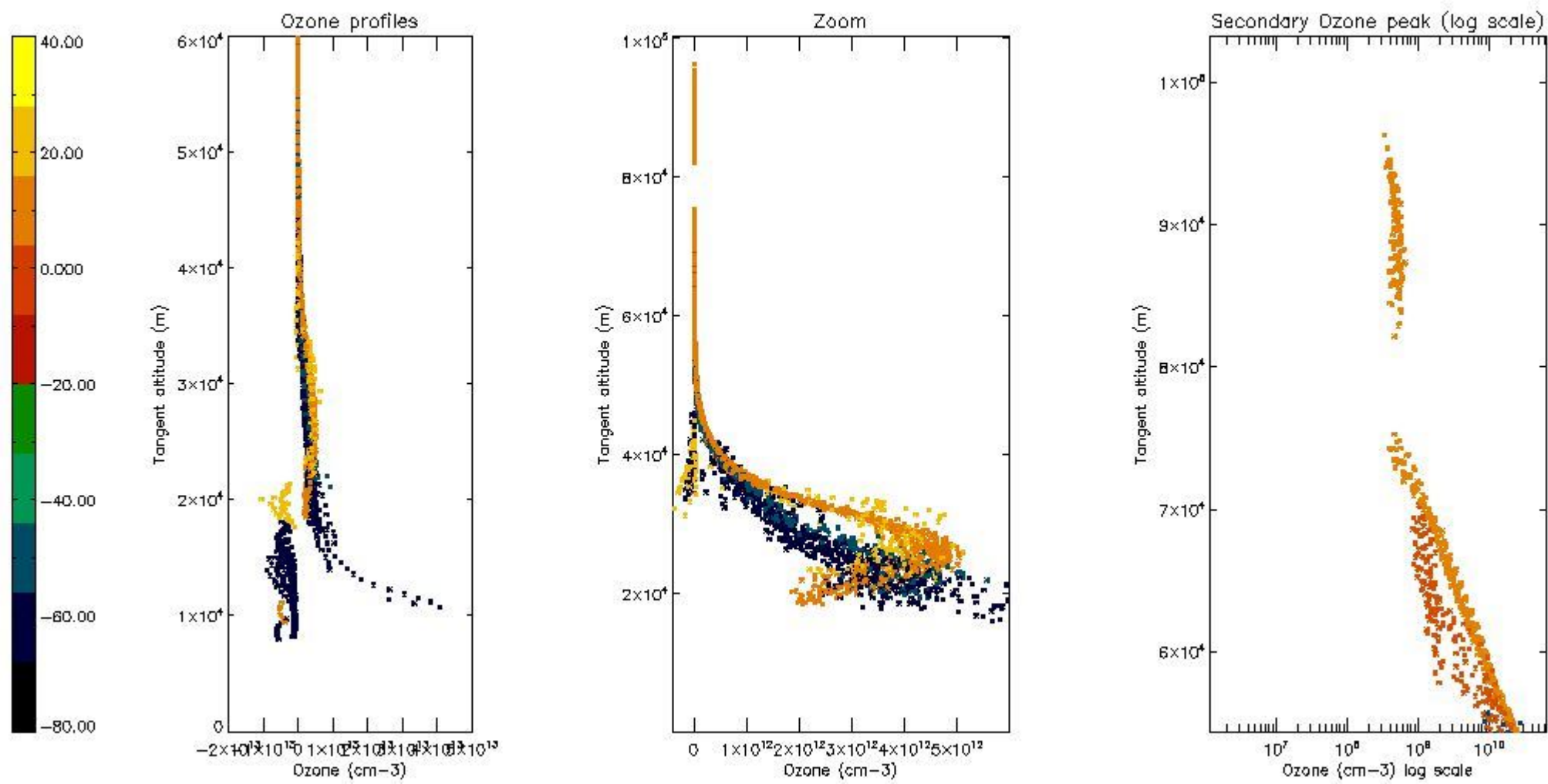
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



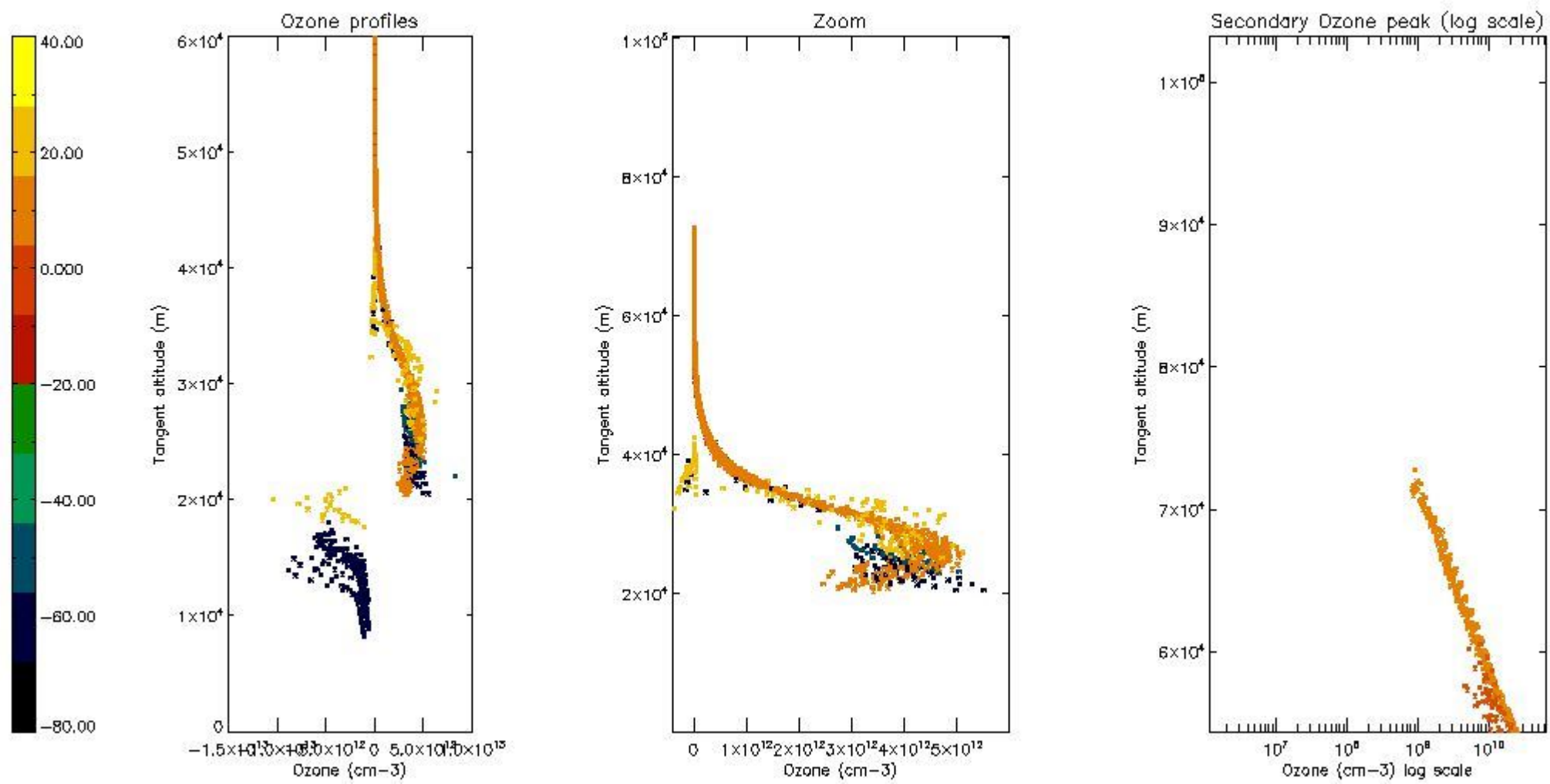
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



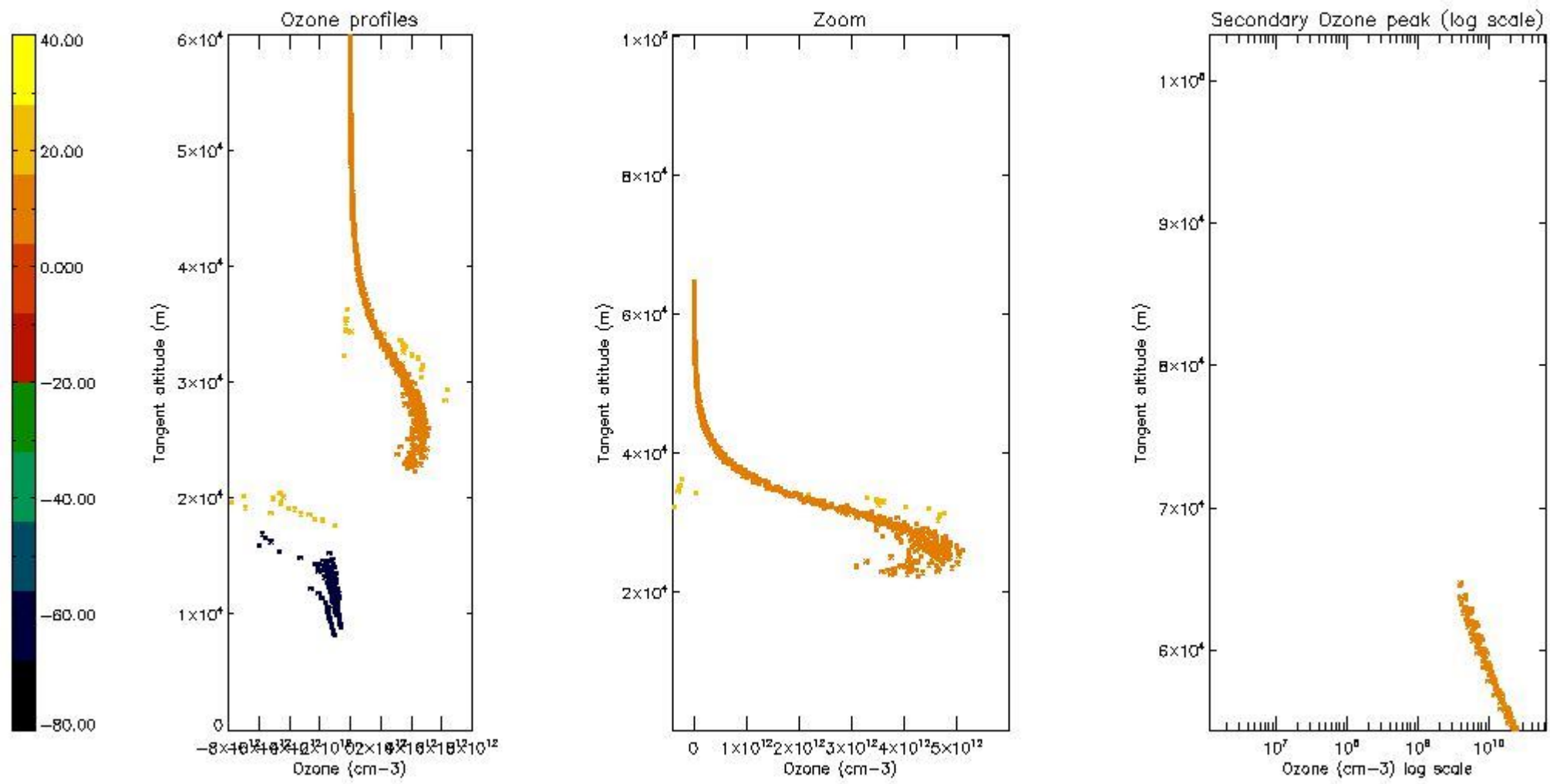
*5.4 Plot ozone profiles where  $STD < 10\%$  (dark without errors)*

The colorbar represents the latitude.



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

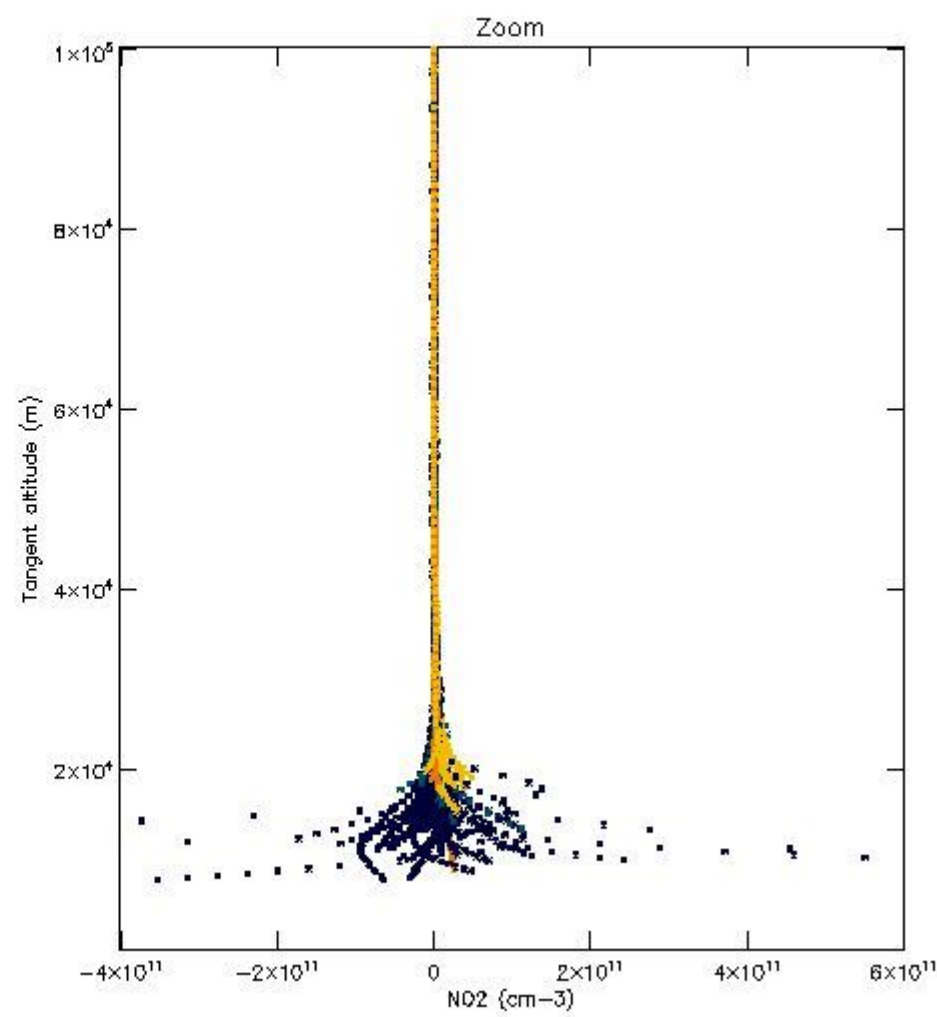
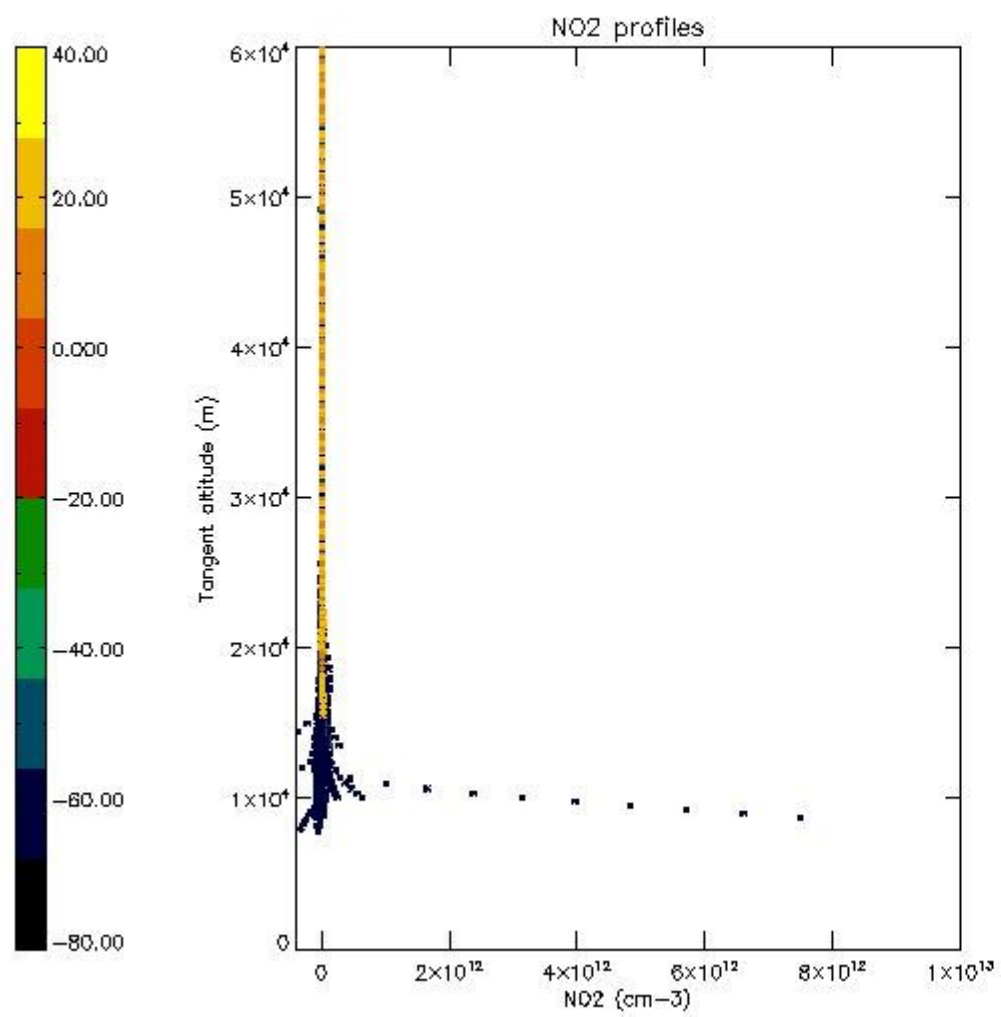
The colorbar represents the latitude.



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

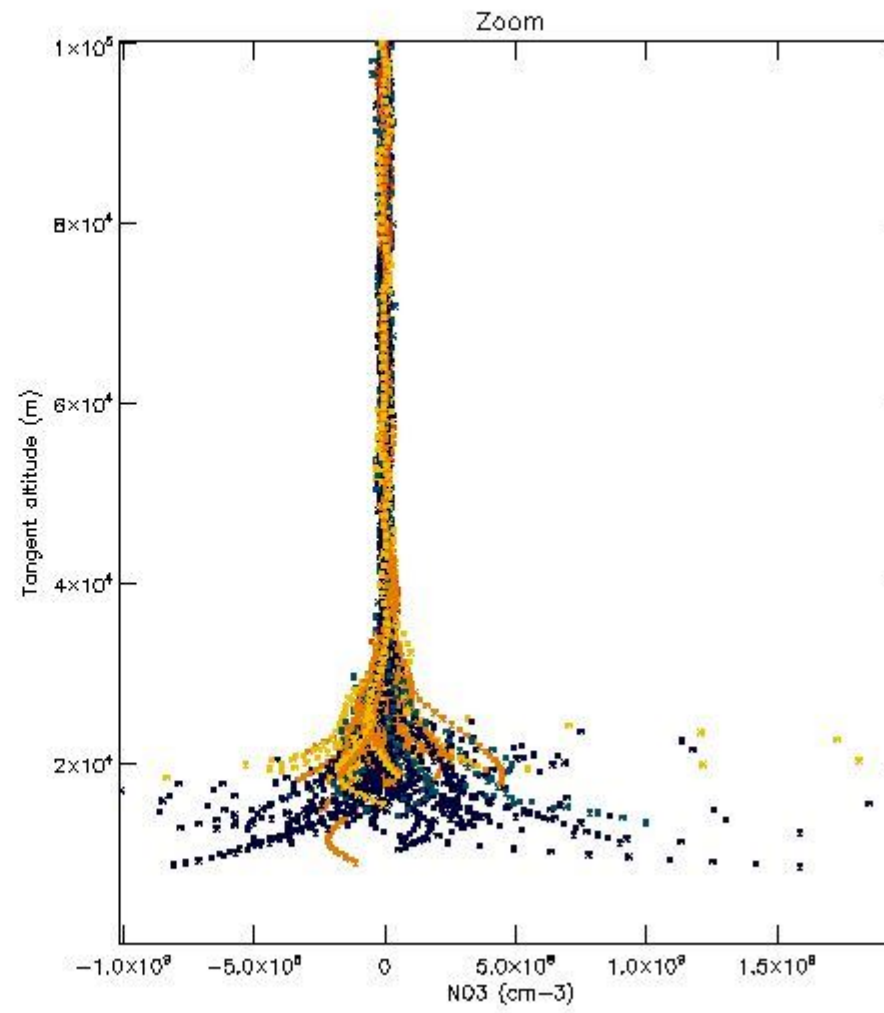
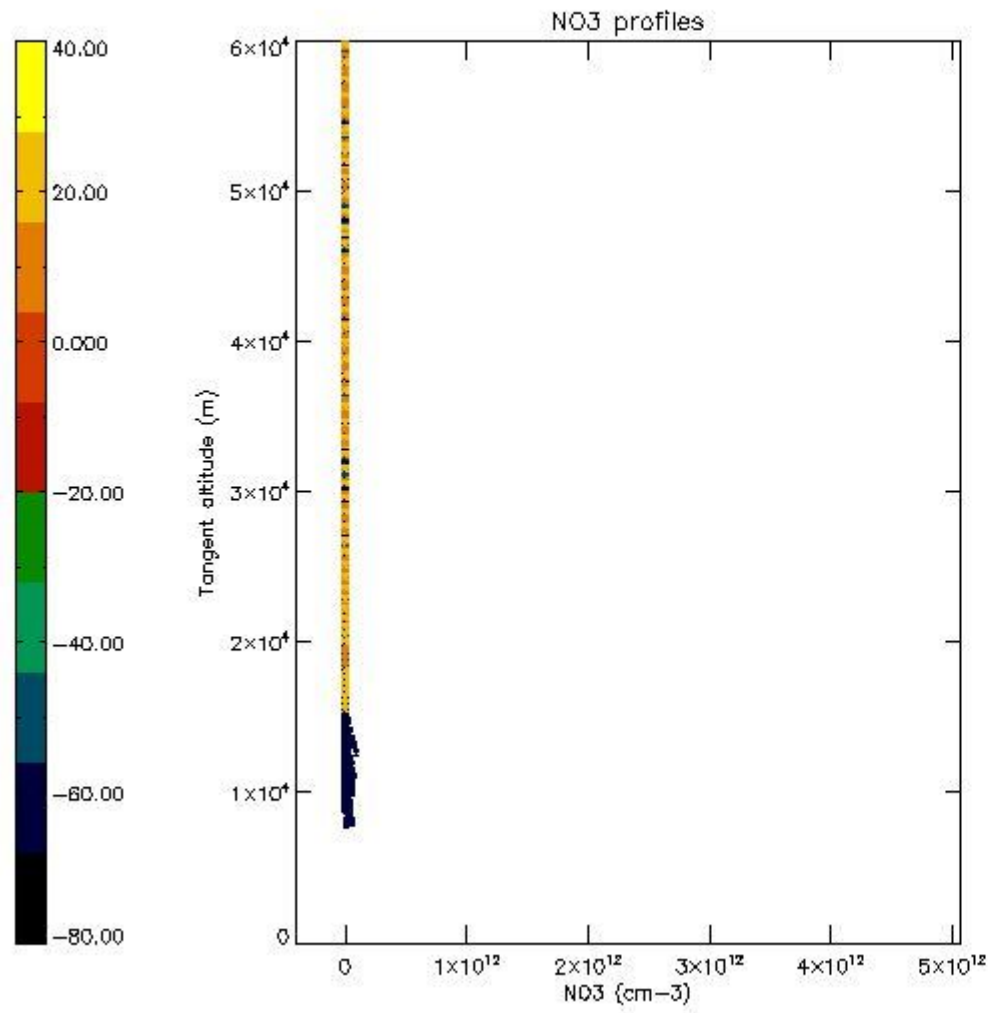
The colorbar represents the latitude.





*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	18-APR-2011 00:01:02
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-APR-2011 00:01:02
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-APR-2011 00:01:02

# 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	24APR2013 12:33:50
Data source version	GOMOS/6.01
Start time of products	18-04-2011 (18APR2011 00:00:00)
Stop time of products	19-04-2011 (19APR2011 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	291
Nb of prods with errors	1

## 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__2PRFIN20110418_000102_000000593101_00318_47746_4688.N1	18-APR-2011 00:01:02	Bright	59.000	122	9Alp2Lib	2.7470	9700.0	118	47746	No
2	GOM_NL__2PRFIN20110418_000306_000000433101_00318_47746_4689.N1	18-APR-2011 00:03:06	Bright	43.000	15	67Alp Vir	0.97600	28000.	86	47746	No
3	GOM_NL__2PRFIN20110418_000947_000000393101_00318_47746_4690.N1	18-APR-2011 00:09:47	Bright	38.500	138	47Eps Vir	2.8280	4700.0	77	47746	No
4	GOM_NL__2PRFIN20110418_001255_000000453101_00318_47746_4691.N1	18-APR-2011 00:12:55	Bright	45.000	111	8Eta Boo	2.6800	6000.0	90	47746	No
5	GOM_NL__2PRFIN20110418_001747_000000363101_00318_47746_4692.N1	18-APR-2011 00:17:47	Bright	36.000	152	12Alp2CVn	2.8900	11000.	72	47746	No
6	GOM_NL__2PRFIN20110418_002033_000000463101_00318_47746_4693.N1	18-APR-2011 00:20:33	Bright	46.000	180	27Gam Boo	3.0400	8000.0	92	47746	No
7	GOM_NL__2PRFIN20110418_002256_000000363101_00318_47746_4694.N1	18-APR-2011 00:22:56	Bright	36.000	55	79Zet UMa	2.0600	10200.	72	47746	No
8	GOM_NL__2PRFIN20110418_002907_000000383101_00318_47746_4695.N1	18-APR-2011 00:29:07	Bright	37.500	60	7Bet UMi	2.0810	3950.0	75	47746	No
9	GOM_NL__2PRFIN20110418_003915_000000393101_00318_47746_4696.N1	18-APR-2011 00:39:15	Bright	39.000	89	5Alp Cep	2.4510	8000.0	78	47746	No
10	GOM_NL__2PRFIN20110418_004429_000000513101_00318_47746_4697.N1	18-APR-2011 00:44:29	Bright	51.000	19	50Alp Cyg	1.2460	10500.	102	47746	No
11	GOM_NL__2PRFIN20110418_004616_000000583101_00318_47746_4698.N1	18-APR-2011 00:46:16	Bright	57.500	66	37Gam Cyg	2.2080	5900.0	115	47746	No
12	GOM_NL__2PRFIN20110418_004857_000000593101_00318_47746_4699.N1	18-APR-2011 00:48:57	Bright	59.000	92	53Eps Cyg	2.5000	4500.0	118	47746	No
13	GOM_NL__2PRFIN20110418_005638_000000523101_00318_47746_4700.N1	18-APR-2011 00:56:38	Dark	52.000	61	8Eps Peg	2.1000	3900.0	104	47746	No
14	GOM_NL__2PRFIN20110418_005905_000000473101_00318_47746_4701.N1	18-APR-2011 00:59:05	Dark	46.500	162	34Alp Aqr	2.9440	5350.0	93	47746	No
15	GOM_NL__2PRFIN20110418_010151_000000523101_00318_47746_4702.N1	18-APR-2011 01:01:51	Dark	52.000	154	22Bet Aqr	2.8990	5700.0	104	47746	No
16	GOM_NL__2PRFIN20110418_010411_000000433101_00318_47746_4703.N1	18-APR-2011 01:04:11	Dark	43.000	142	49Del Cap	2.8500	8900.0	86	47746	No
17	GOM_NL__2PRFIN20110418_011851_000000583101_00319_47747_4694.N1	18-APR-2011 01:18:51	Dark	58.000	103	38Zet Sgr	2.6000	9700.0	116	47747	No
18	GOM_NL__2PRFIN20110418_012218_000000613101_00319_47747_4695.N1	18-APR-2011 01:22:18	Dark	61.000	38	20Eps Sgr	1.8360	11000.	122	47747	No
19	GOM_NL__2PRFIN20110418_012427_000000563101_00319_47747_4696.N1	18-APR-2011 01:24:27	Dark	56.000	178	lot1Sco	3.0220	6550.0	112	47747	No
20	GOM_NL__2PRFIN20110418_012603_000000653101_00319_47747_4697.N1	18-APR-2011 01:26:03	Straylight	64.500	25	35Lam Sco	1.6200	28000.	129	47747	No
21	GOM_NL__2PRFIN20110418_012951_000000703101_00319_47747_4698.N1	18-APR-2011 01:29:51	Straylight	69.500	75	26Eps Sco	2.2910	4250.0	139	47747	No
22	GOM_NL__2PRFIN20110418_013254_000000463101_00319_47747_4699.N1	18-APR-2011 01:32:54	Straylight	45.500	81	Eta Cen	2.3560	28000.	91	47747	No
23	GOM_NL__2PRFIN20110418_013512_000000453101_00319_47747_4700.N1	18-APR-2011 01:35:12	Straylight	44.500	54	5The Cen	2.0550	4500.0	89	47747	No
24	GOM_NL__2PRFIN20110418_014117_000000633101_00319_47747_4701.N1	18-APR-2011 01:41:17	Bright	62.500	122	9Alp2Lib	2.7470	9700.0	125	47747	No
25	GOM_NL__2PRFIN20110418_014320_000000433101_00319_47747_4702.N1	18-APR-2011 01:43:20	Bright	42.500	15	67Alp Vir	0.97600	28000.	85	47747	No
26	GOM_NL__2PRFIN20110418_015001_000000393101_00319_47747_4703.N1	18-APR-2011 01:50:01	Bright	38.500	138	47Eps Vir	2.8280	4700.0	77	47747	No
27	GOM_NL__2PRFIN20110418_015308_000000453101_00319_47747_4704.N1	18-APR-2011 01:53:08	Bright	44.500	111	8Eta Boo	2.6800	6000.0	89	47747	No
28	GOM_NL__2PRFIN20110418_015801_000000363101_00319_47747_4705.N1	18-APR-2011 01:58:01	Bright	36.000	152	12Alp2CVn	2.8900	11000.	72	47747	No
29	GOM_NL__2PRFIN20110418_020046_000000573101_00319_47747_4706.N1	18-APR-2011 02:00:46	Bright	56.500	180	27Gam Boo	3.0400	8000.0	113	47747	No
30	GOM_NL__2PRFIN20110418_020310_000000403101_00319_47747_4707.N1	18-APR-2011 02:03:10	Bright	39.500	55	79Zet UMa	2.0600	10200.	79	47747	No
31	GOM_NL__2PRFIN20110418_020921_000000403101_00319_47747_4708.N1	18-APR-2011 02:09:21	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	47747	No
32	GOM_NL__2PRFIN20110418_021928_000000373101_00319_47747_4709.N1	18-APR-2011 02:19:28	Bright	37.000	89	5Alp Cep	2.4510	8000.0	74	47747	No
33	GOM_NL__2PRFIN20110418_022442_000000513101_00319_47747_4710.N1	18-APR-2011 02:24:42	Bright	51.000	19	50Alp Cyg	1.2460	10500.	102	47747	No
34	GOM_NL__2PRFIN20110418_022630_000000573101_00319_47747_4711.N1	18-APR-2011 02:26:30	Bright	57.000	66	37Gam Cyg	2.2080	5900.0	114	47747	No
35	GOM_NL__2PRFIN20110418_022912_000000553101_00319_47747_4712.N1	18-APR-2011 02:29:12	Bright	54.500	92	53Eps Cyg	2.5000	4500.0	109	47747	No
36	GOM_NL__2PRFIN20110418_023652_000000553101_00319_47747_4713.N1	18-APR-2011 02:36:52	Dark	54.500	61	8Eps Peg	2.1000	3900.0	109	47747	No
37	GOM_NL__2PRFIN20110418_023920_000000493101_00319_47747_4714.N1	18-APR-2011 02:39:20	Dark	49.000	162	34Alp Aqr	2.9440	5350.0	98	47747	No
38	GOM_NL__2PRFIN20110418_024206_000000513101_00319_47747_4715.N1	18-APR-2011 02:42:06	Dark	50.500	154	22Bet Aqr	2.8990	5700.0	101	47747	No
39	GOM_NL__2PRFIN20110418_024426_000000443101_00319_47747_4716.N1	18-APR-2011 02:44:26	Dark	44.000	142	49Del Cap	2.8500	8900.0	88	47747	No
40	GOM_NL__2PRFIN20110418_025907_000000553101_00320_47748_4707.N1	18-APR-2011 02:59:07	Dark	55.000	103	38Zet Sgr	2.6000	9700.0	110	47748	No
41	GOM_NL__2PRFIN20110418_030233_000000673101_00320_47748_4708.N1	18-APR-2011 03:02:33	Dark	67.000	38	20Eps Sgr	1.8360	11000.	134	47748	No
42	GOM_NL__2PRFIN20110418_030443_000000563101_00320_47748_4709.N1	18-APR-2011 03:04:43	Dark	56.000	178	lot1Sco	3.0220	6550.0	112	47748	No









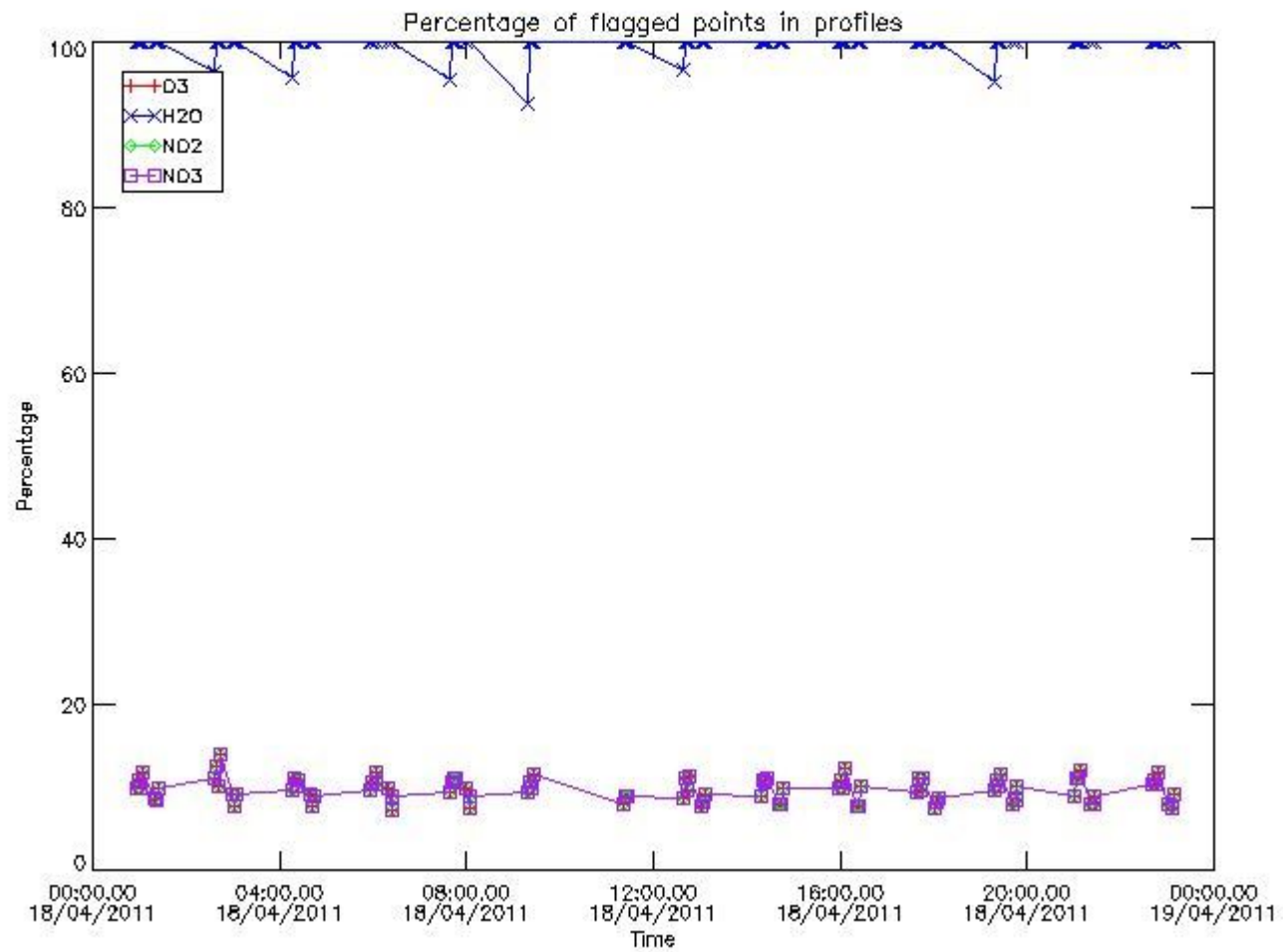


279	GOM_NL__2PRFIN20110418_230215_000000643101_00332_47760_5107.N1	18-APR-2011 23:02:15	Dark	63.500	103	38Zet Sgr	2.6000	9700.0	127	47760	No
280	GOM_NL__2PRFIN20110418_230540_000000693101_00332_47760_5108.N1	18-APR-2011 23:05:40	Dark	68.500	38	20Eps Sgr	1.8360	11000.	137	47760	No
281	GOM_NL__2PRFIN20110418_230744_000000563101_00332_47760_5109.N1	18-APR-2011 23:07:44	Dark	55.500	178	lot1Sco	3.0220	6550.0	111	47760	No
282	GOM_NL__2PRFIN20110418_230921_000000623101_00332_47760_5110.N1	18-APR-2011 23:09:21	Straylight	62.000	25	35Lam Sco	1.6200	28000.	124	47760	No
283	GOM_NL__2PRFIN20110418_231307_000000693101_00332_47760_5111.N1	18-APR-2011 23:13:07	Straylight	68.500	75	26Eps Sco	2.2910	4250.0	137	47760	No
284	GOM_NL__2PRFIN20110418_231508_000000463101_00332_47760_5112.N1	18-APR-2011 23:15:08	Straylight	45.500	109	Bet Lup	2.6770	26000.	91	47760	No
285	GOM_NL__2PRFIN20110418_231851_000000613101_00332_47760_5113.N1	18-APR-2011 23:18:51	Twilight_stray	60.500	158	6Pi Sco	2.9060	28000.	121	47760	No
286	GOM_NL__2PRFIN20110418_232420_000000623101_00332_47760_5114.N1	18-APR-2011 23:24:20	Bright	61.500	122	9Alp2Lib	2.7470	9700.0	123	47760	No
287	GOM_NL__2PRFIN20110418_233605_000000443101_00332_47760_5115.N1	18-APR-2011 23:36:05	Bright	43.500	111	8Eta Boo	2.6800	6000.0	87	47760	No
288	GOM_NL__2PRFIN20110418_234056_000000533101_00332_47760_5116.N1	18-APR-2011 23:40:56	Bright	53.000	83		2.3780	11000.	106	47760	No
289	GOM_NL__2PRFIN20110418_234338_000000553101_00332_47760_5117.N1	18-APR-2011 23:43:38	Bright	54.500	180	27Gam Boo	3.0400	8000.0	109	47760	No
290	GOM_NL__2PRFIN20110418_234608_000000383101_00332_47760_5118.N1	18-APR-2011 23:46:08	Bright	37.500	55	79Zet UMa	2.0600	10200.	75	47760	No
291	GOM_NL__2PRFIN20110418_235221_000000343101_00332_47760_5119.N1	18-APR-2011 23:52:21	Bright	33.500	60	7Bet UMi	2.0810	3950.0	67	47760	No

### 3. Quality information per product

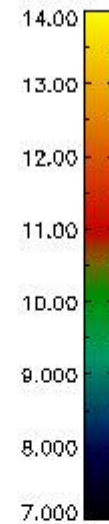
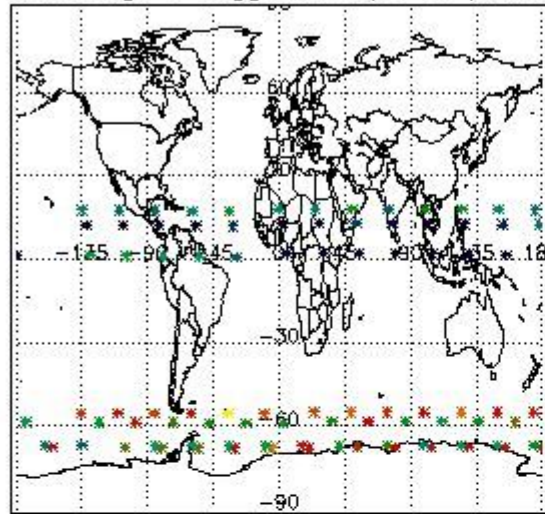
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

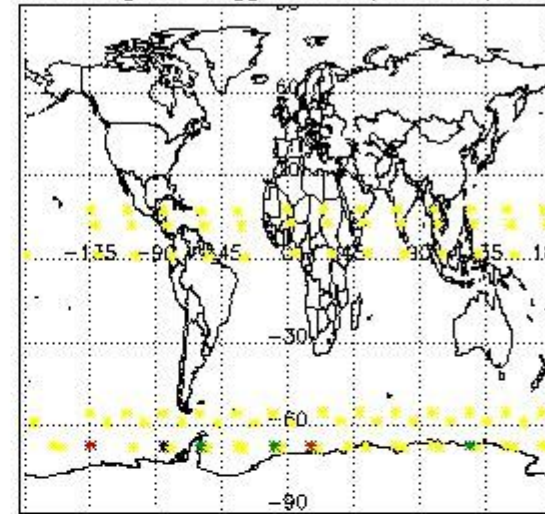


#### 3.2 Plot quality information per product (world map)

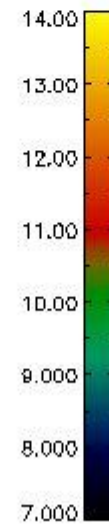
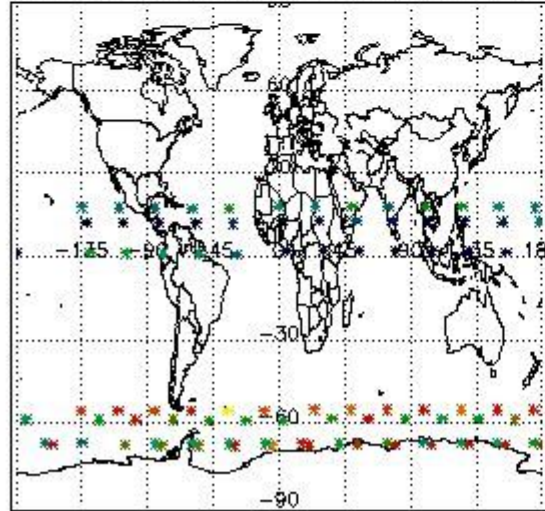
Percentage of flagged data per O3 profile



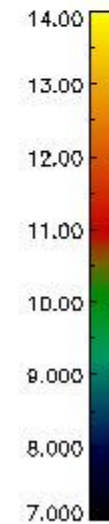
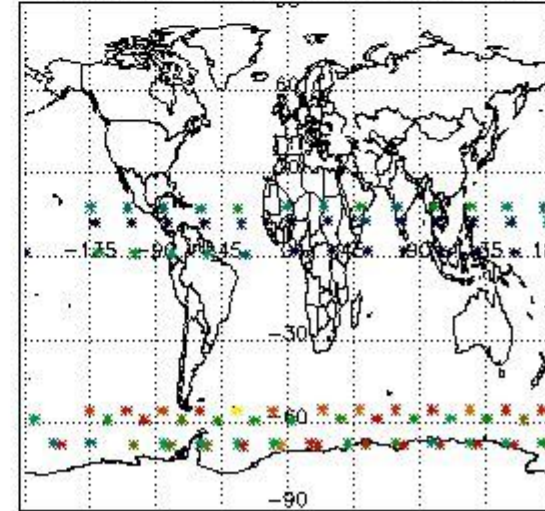
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

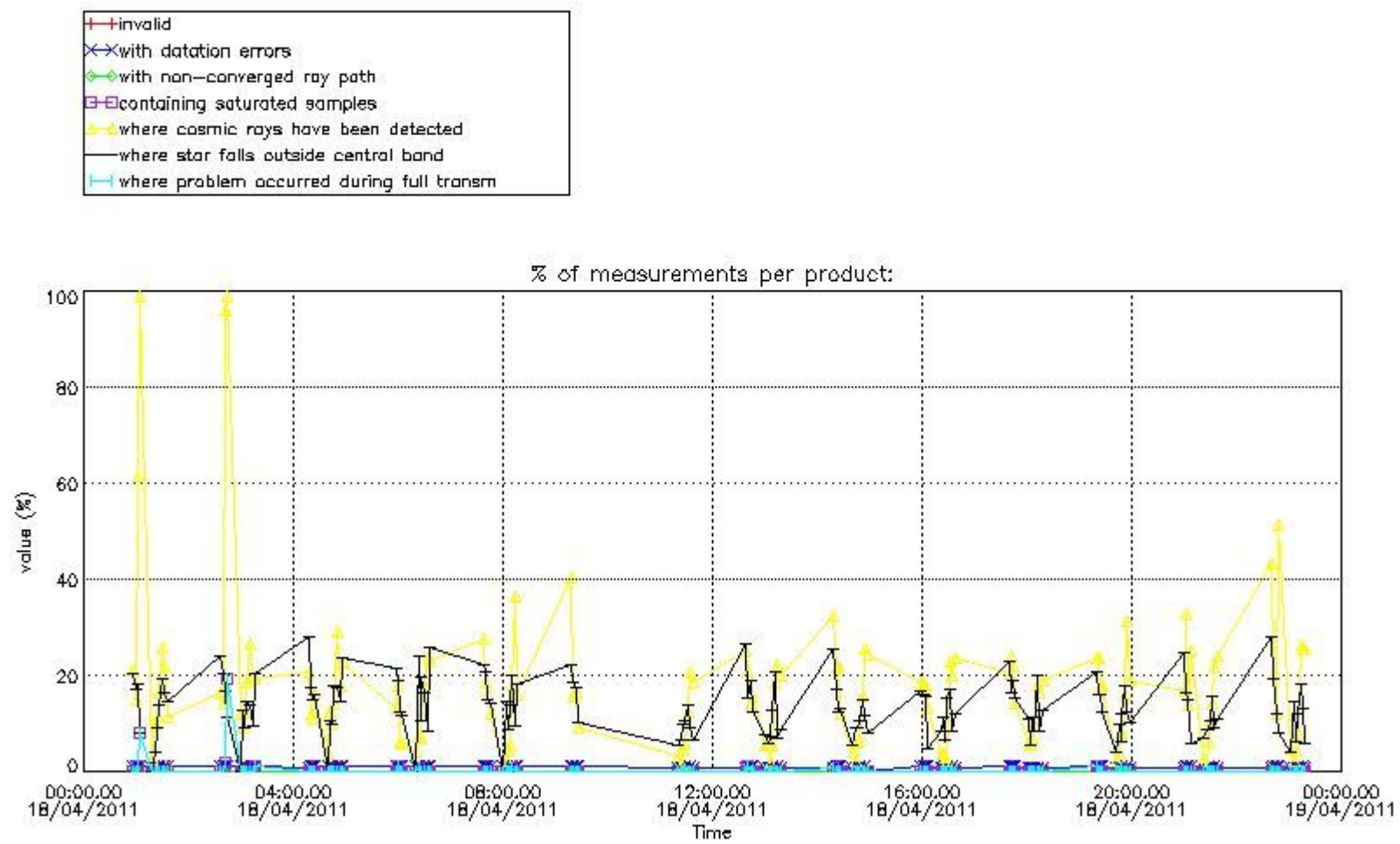


#### 4. Level 1 quality information per product

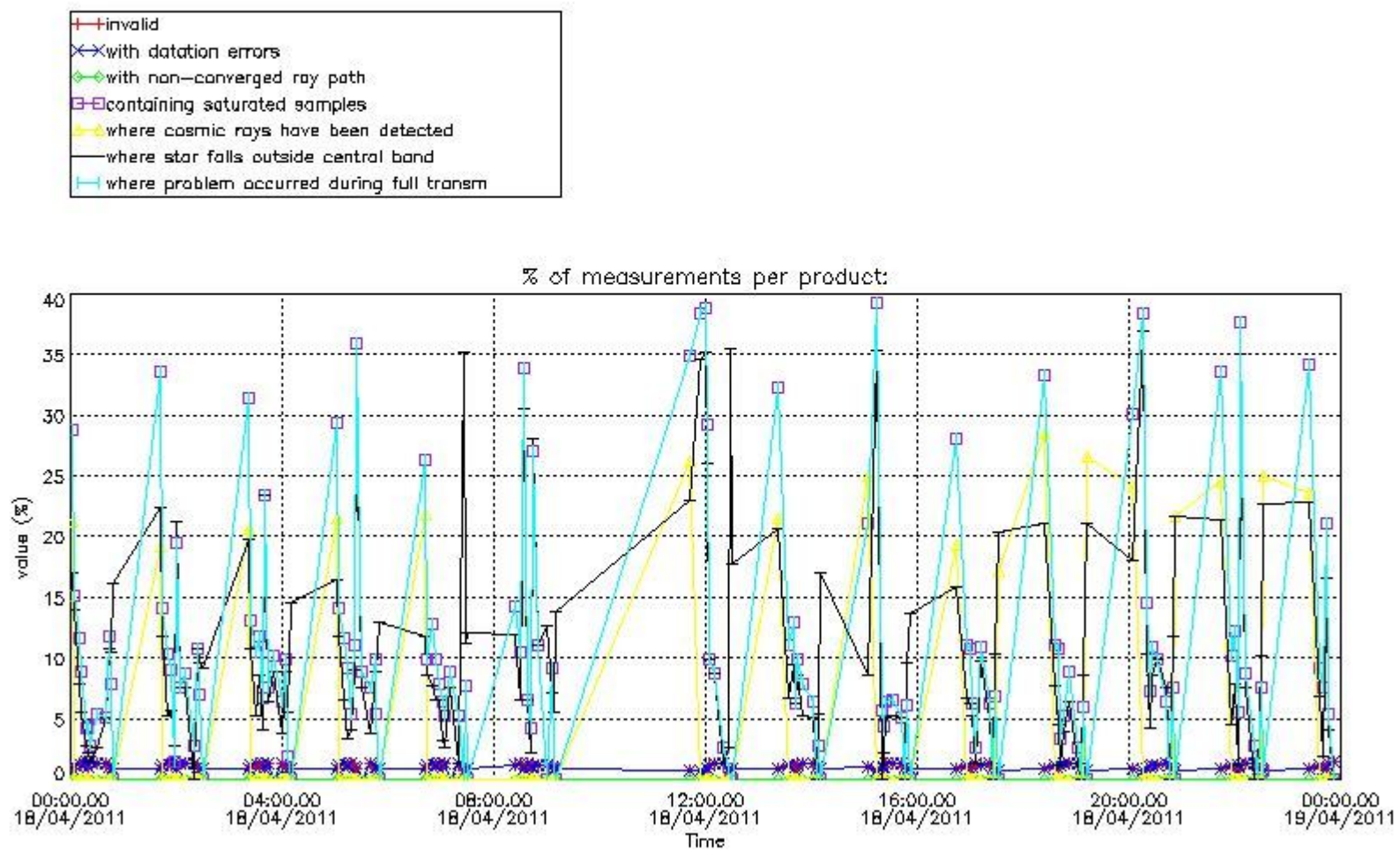
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



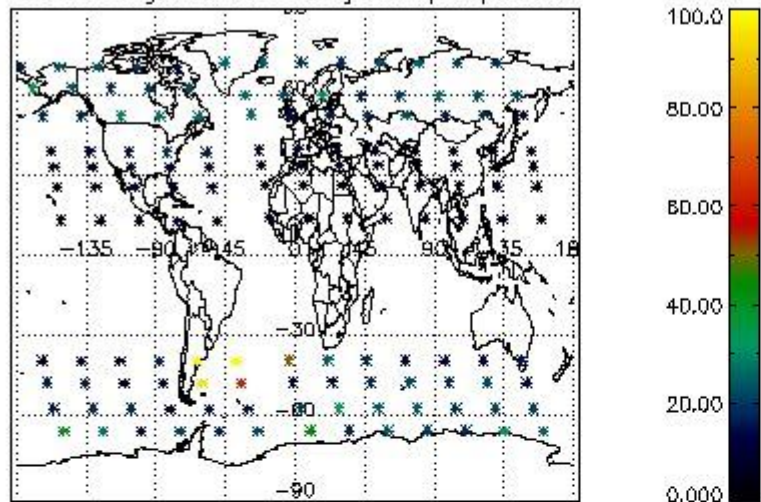
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



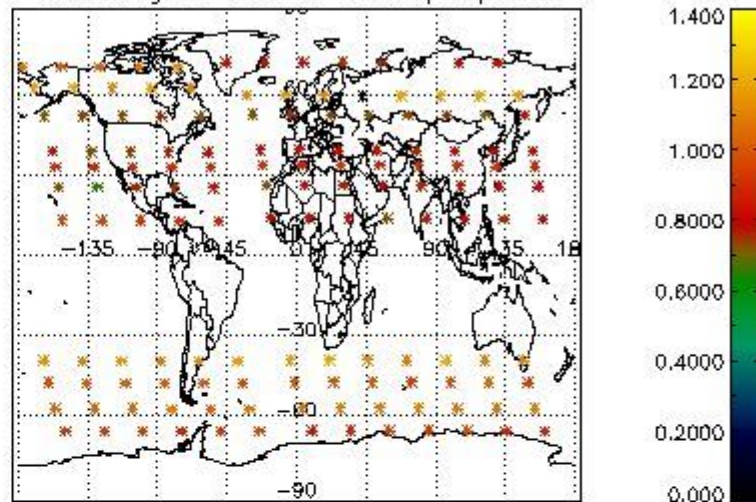
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

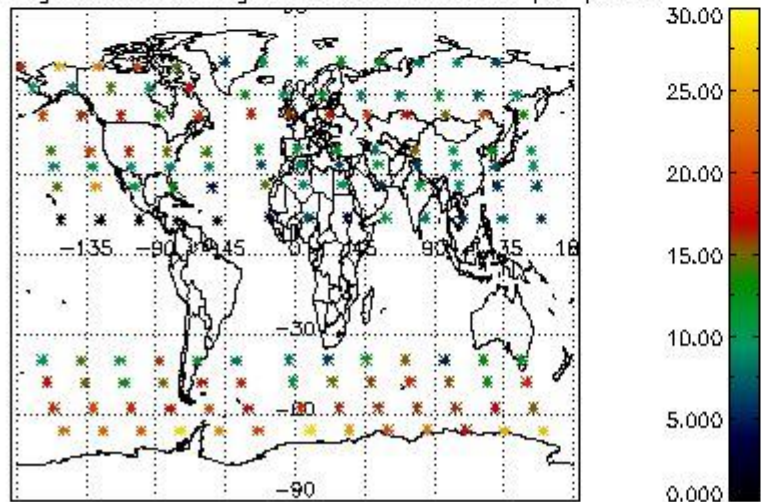
Percentage of cosmic ray hits per profile



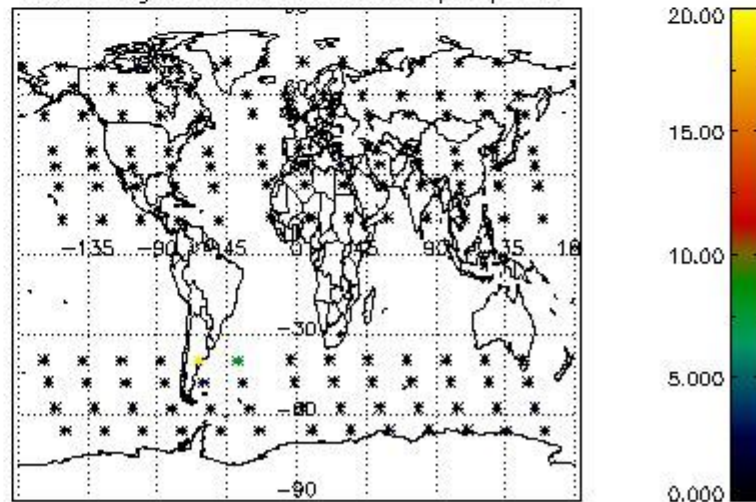
Percentage of datation errors per profile



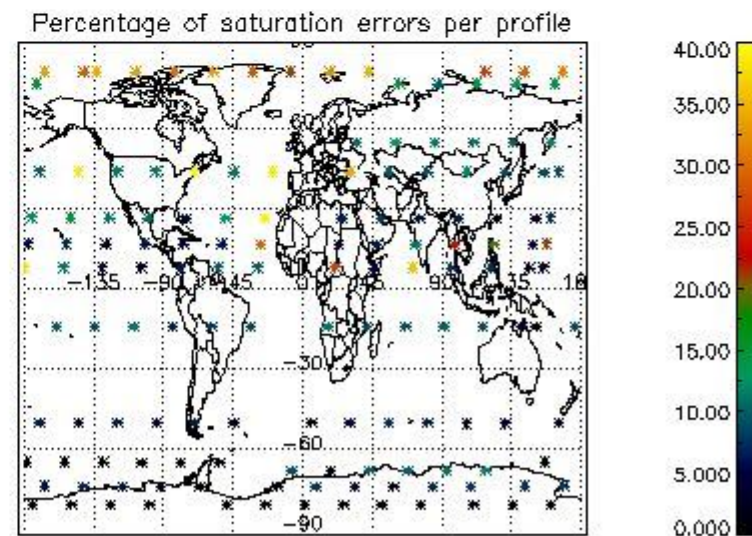
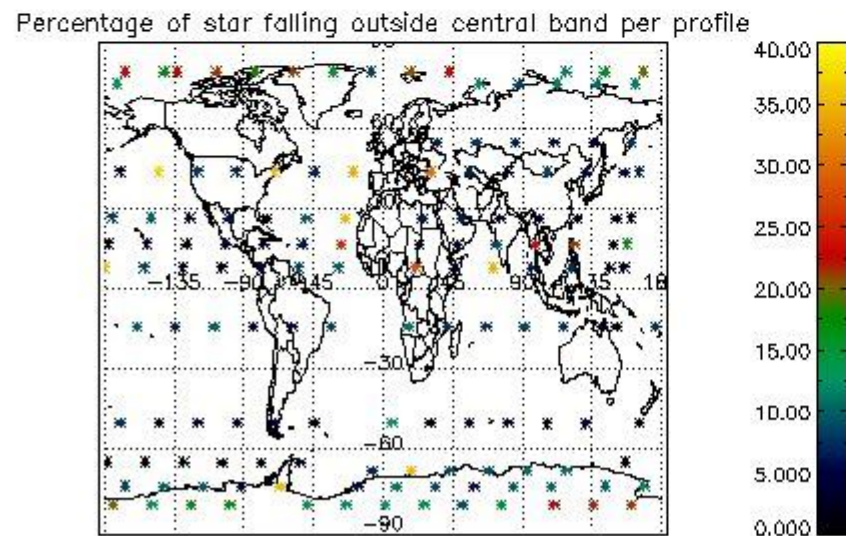
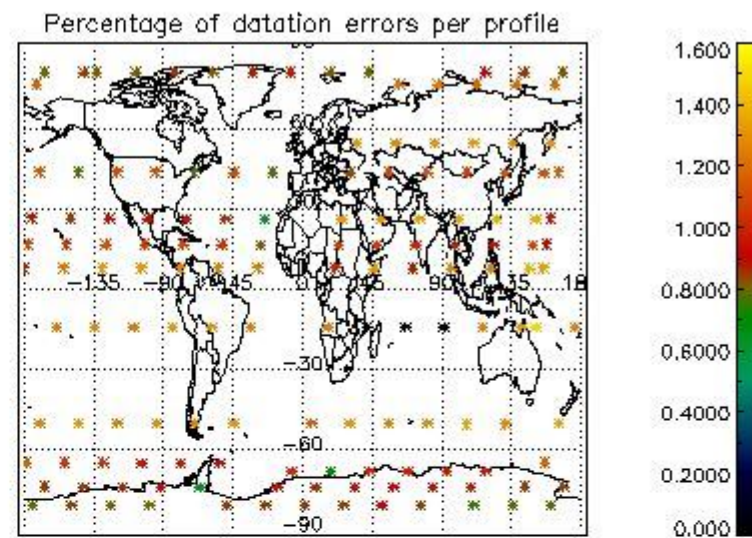
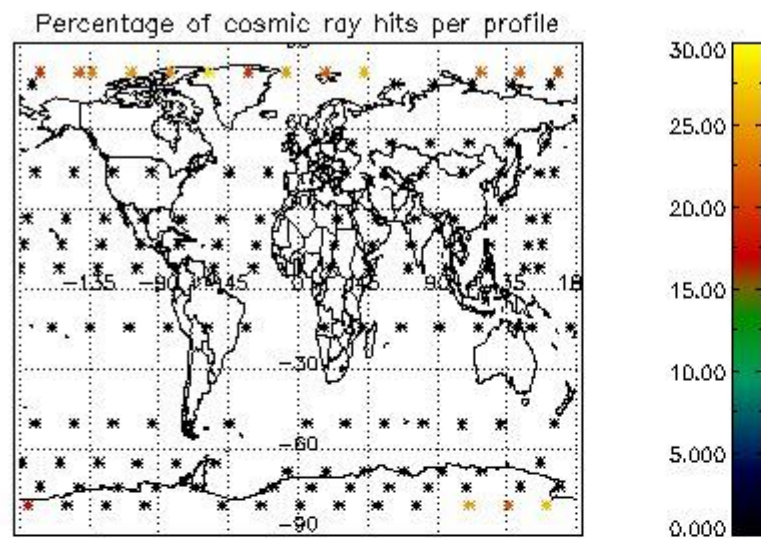
Percentage of star falling outside central band per profile



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

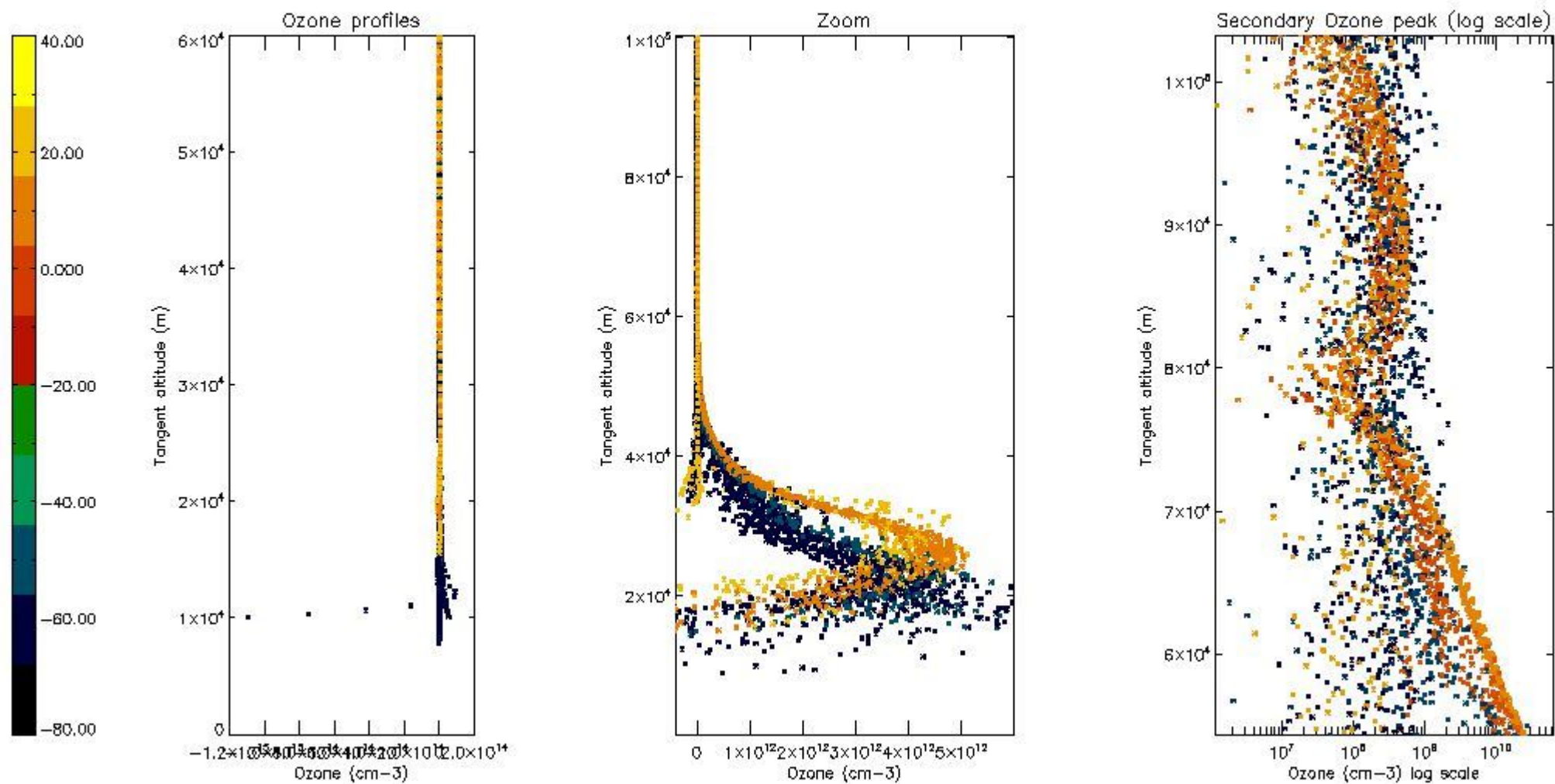
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	33
STD < 20	11

STD < 10	6
STD < 5	3

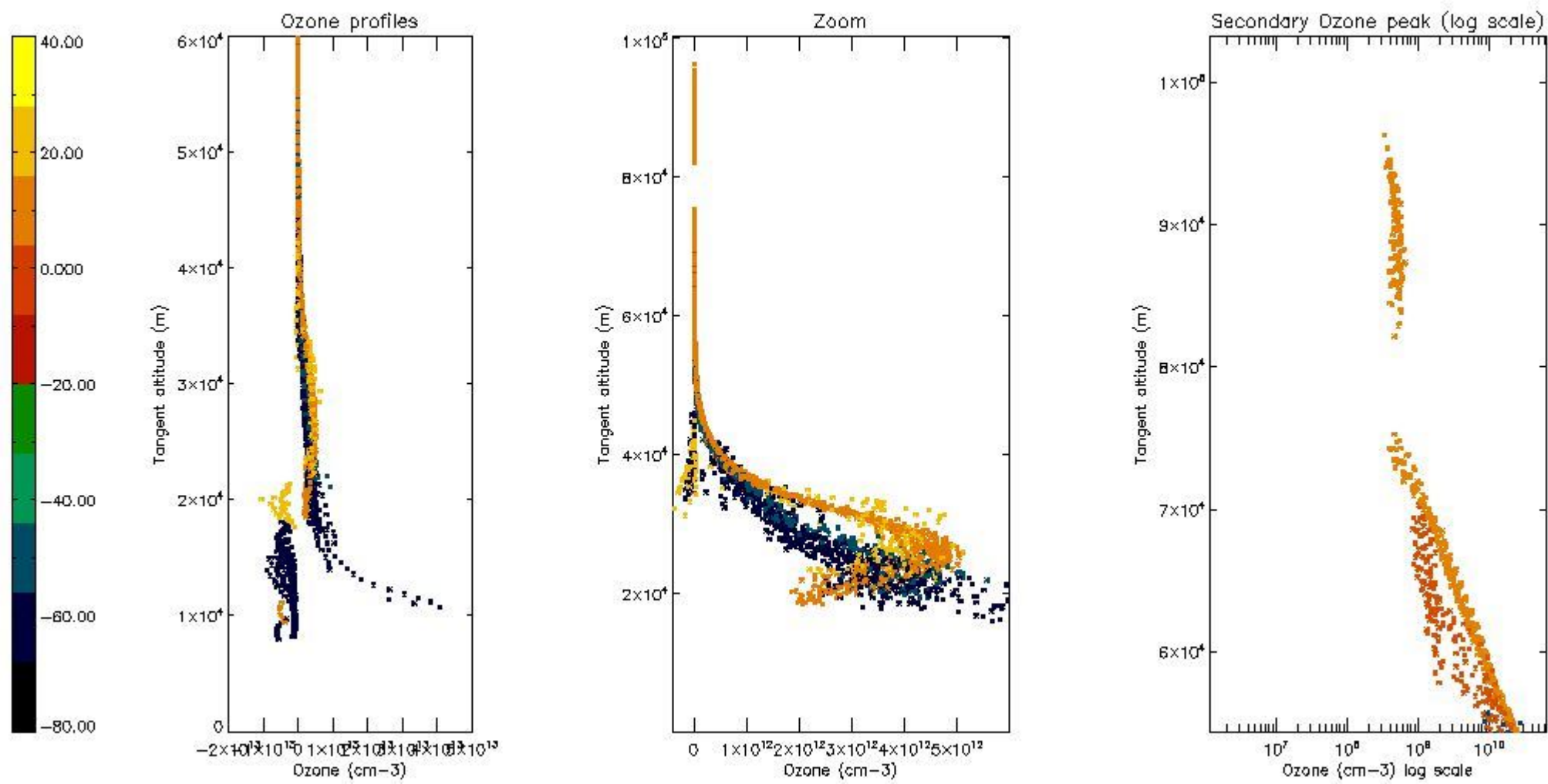
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

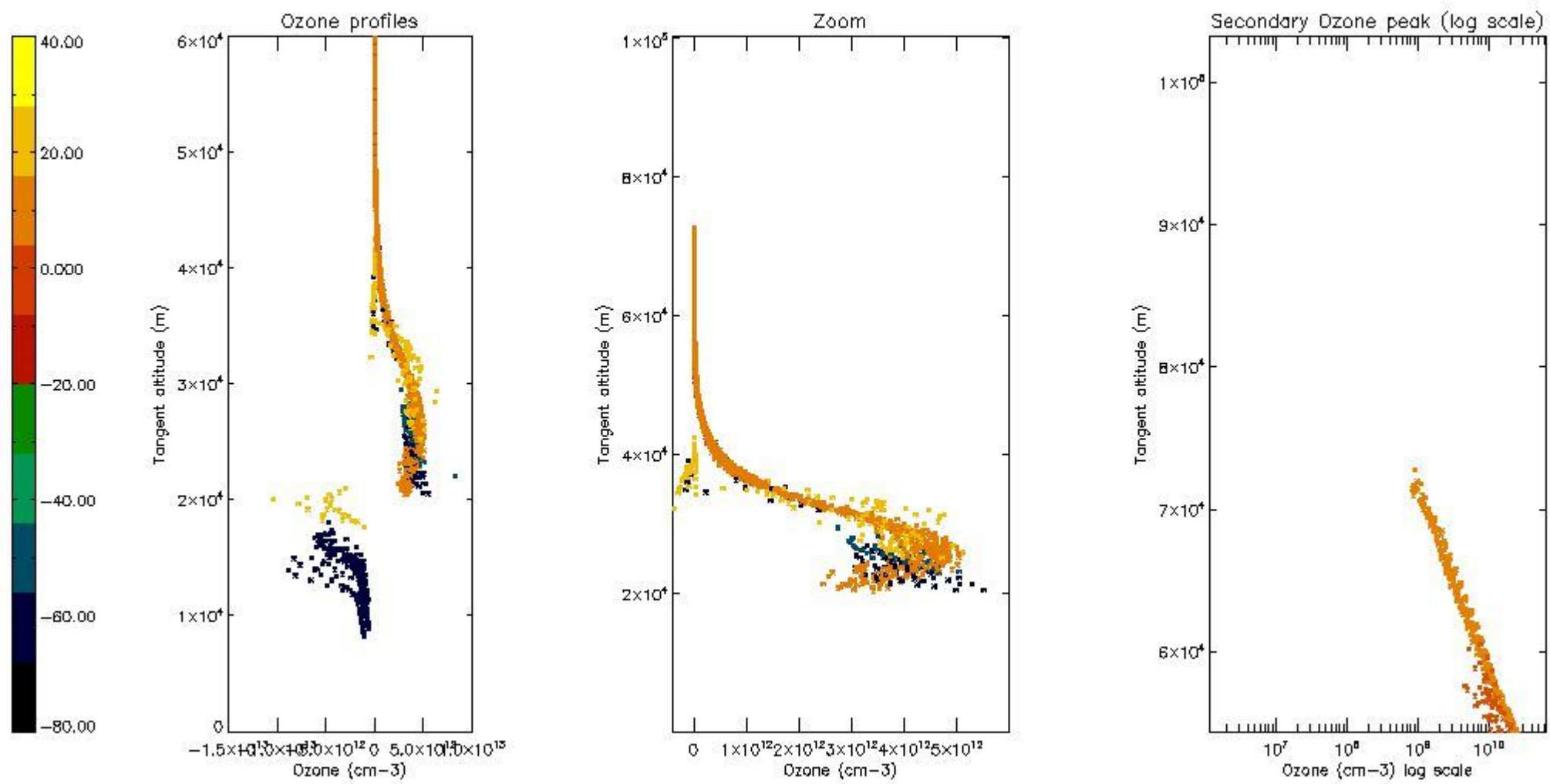
The colorbar represents the latitude.



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

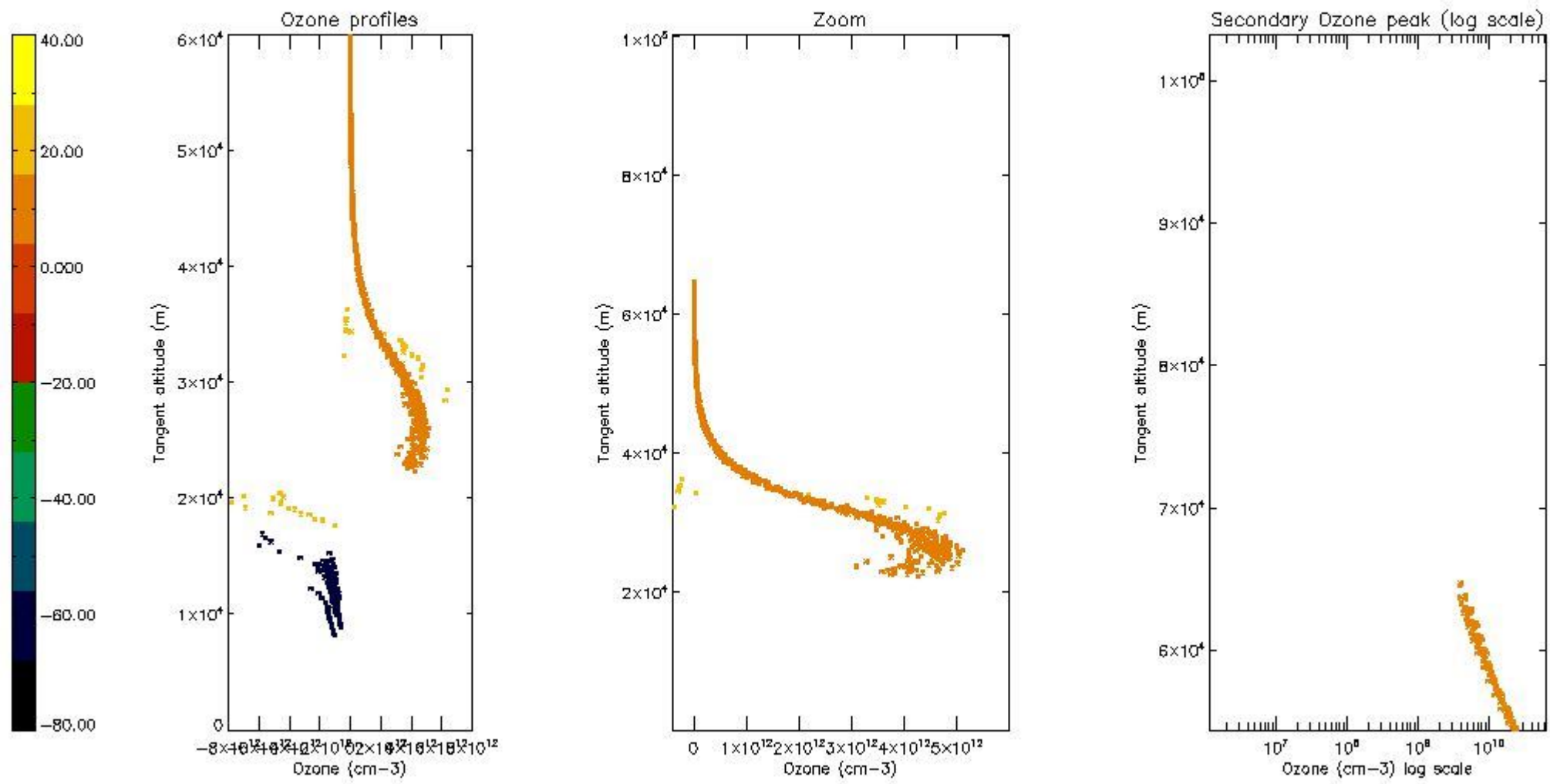
The colorbar represents the latitude.





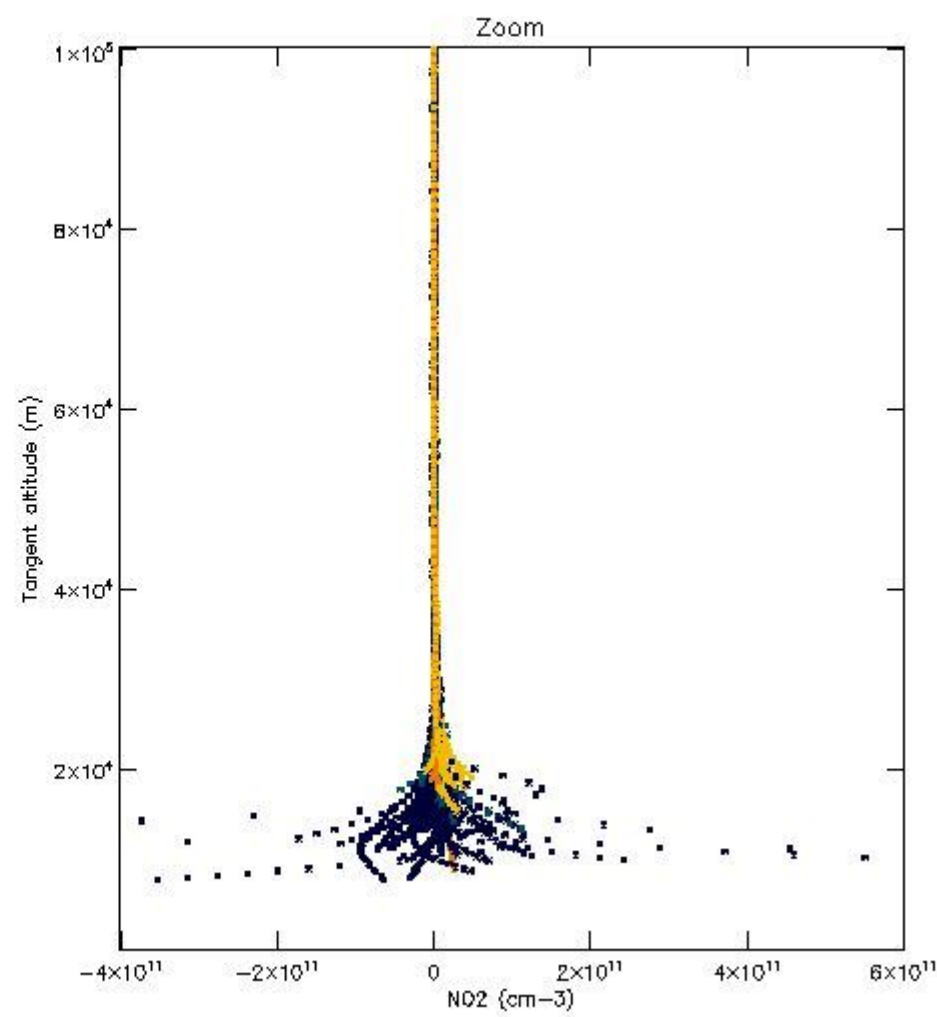
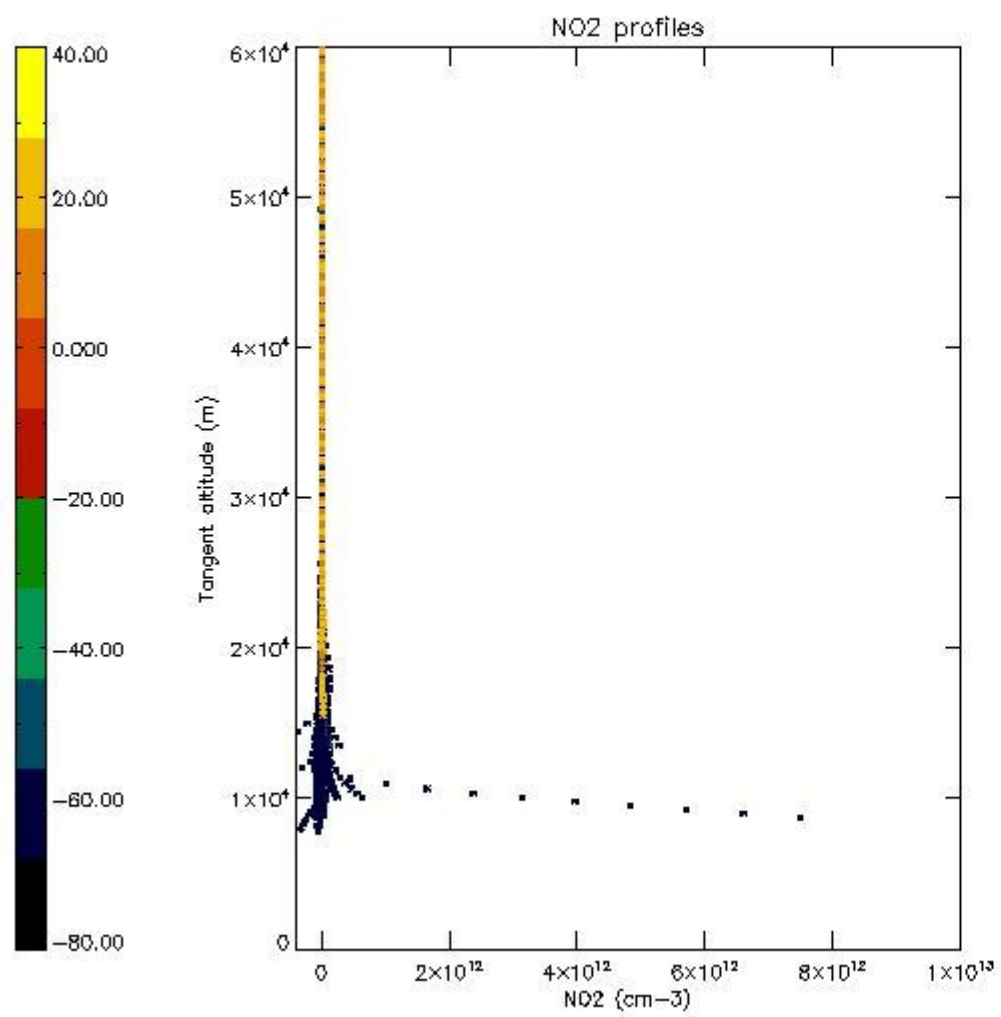
*5.5 Plot ozone profiles where  $STD < 5\%$  (dark without errors)*

The colorbar represents the latitude.



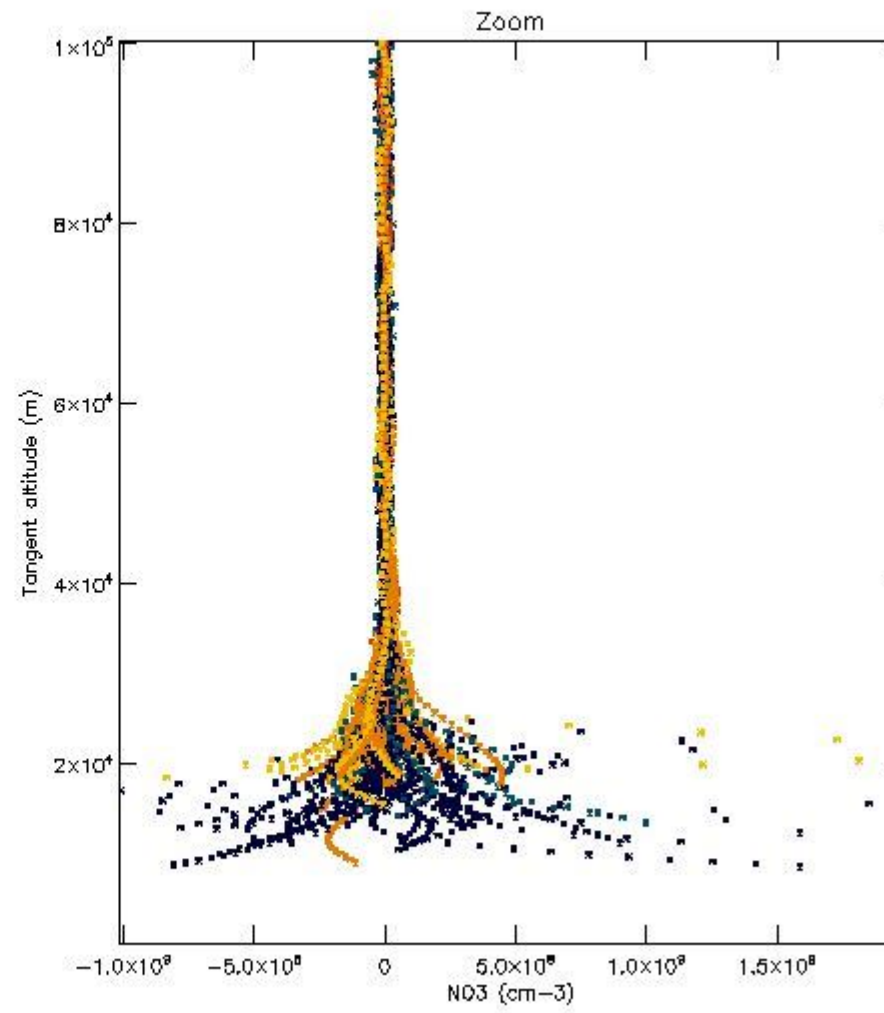
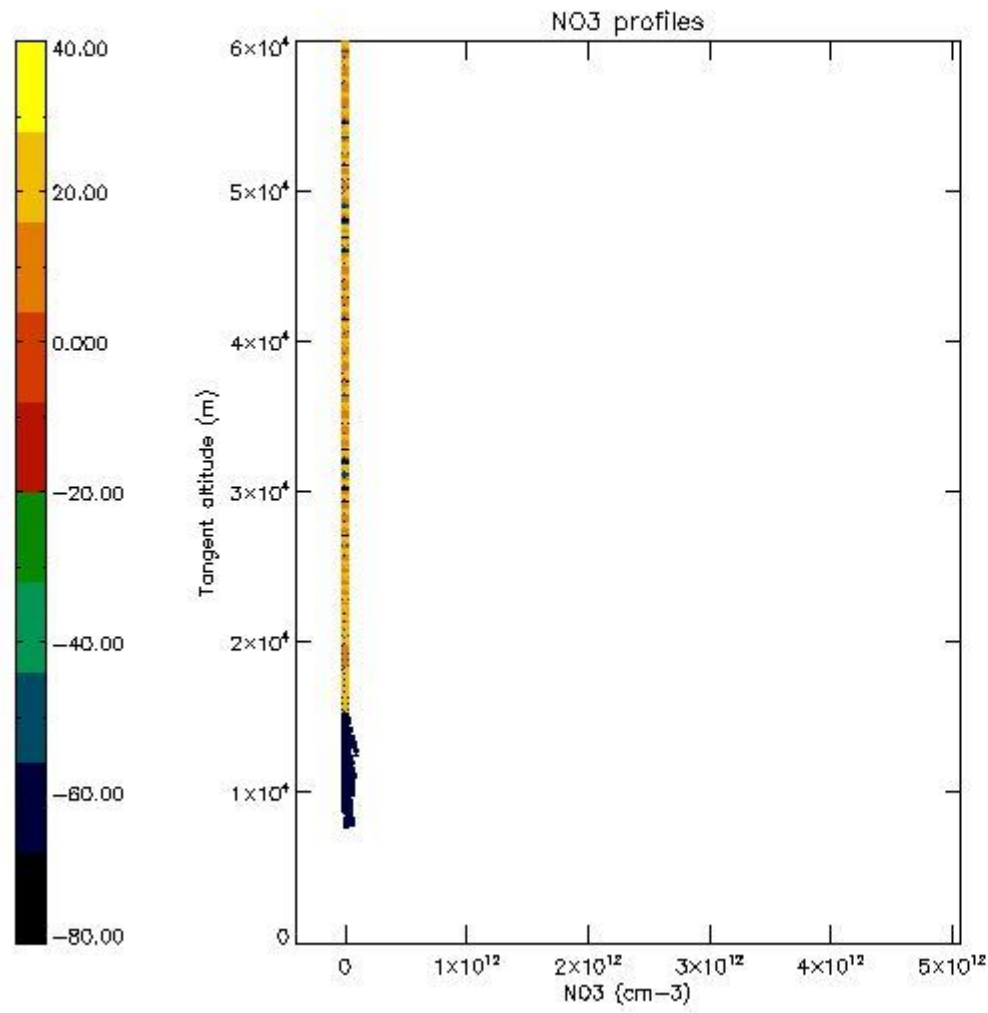
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

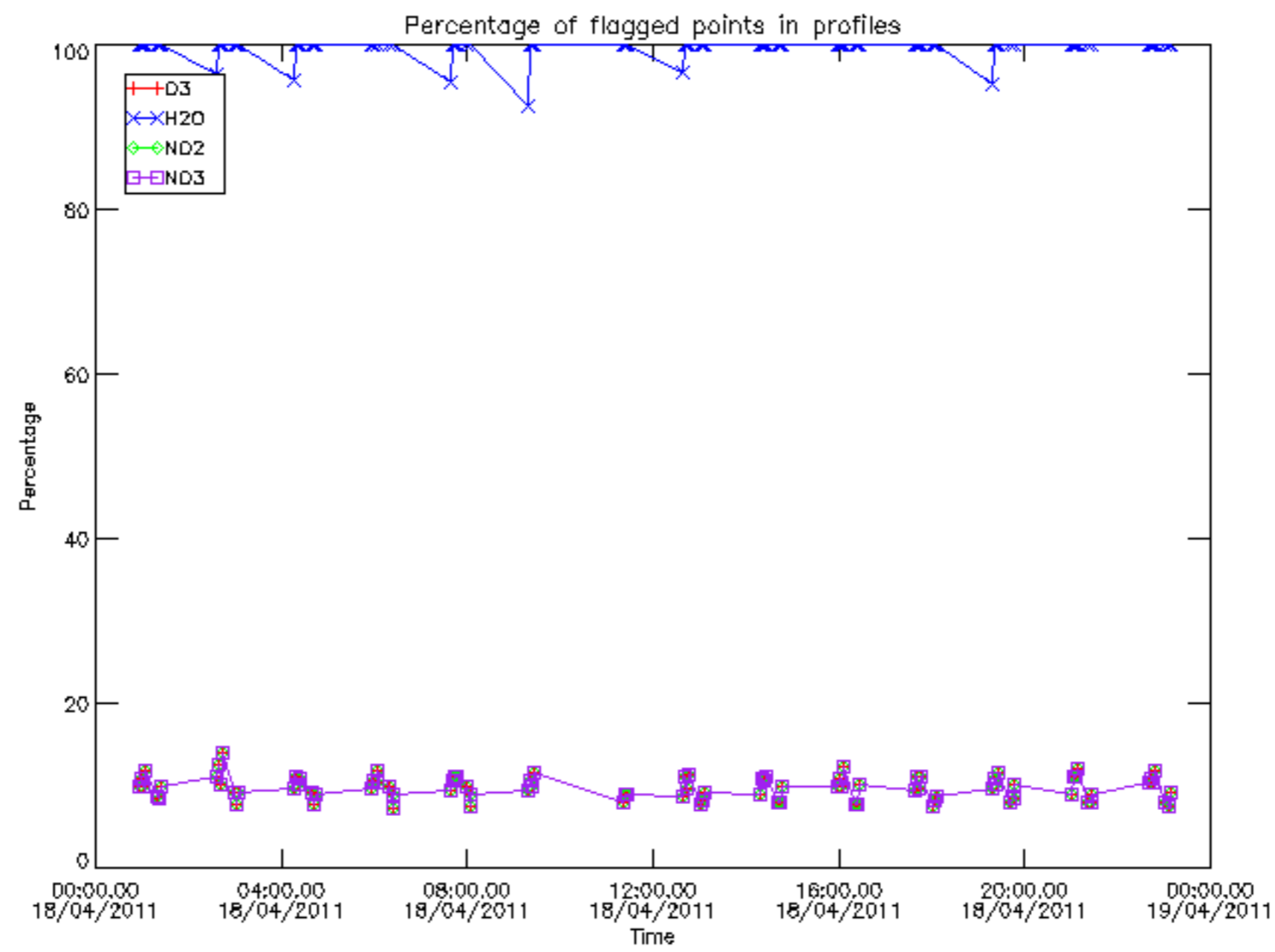
The colorbar represents the latitude.



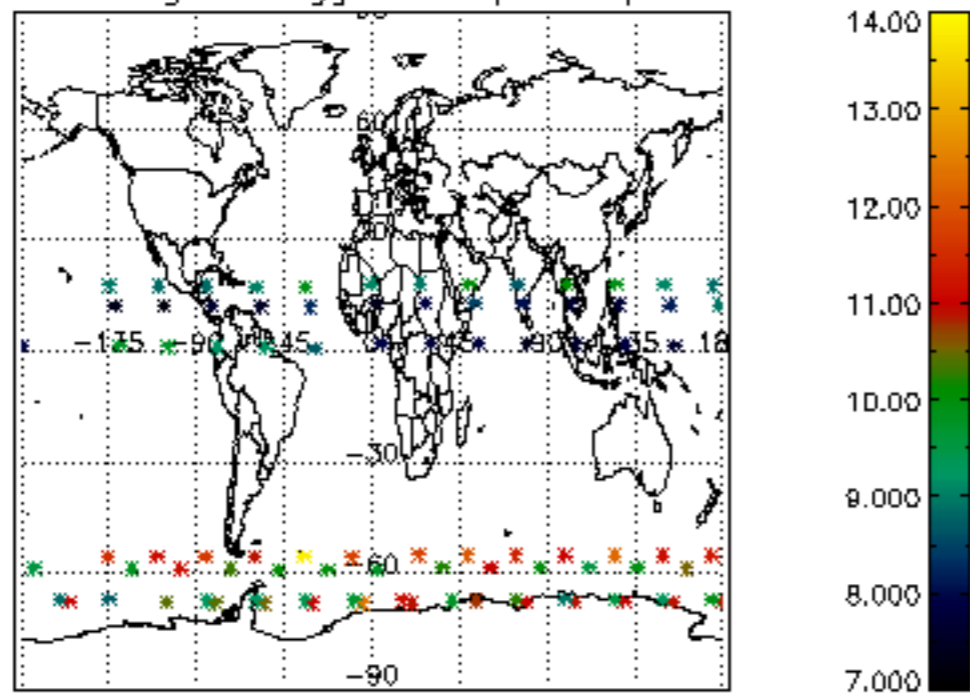
## 6. Auxiliary Data Files used for the production reported in section 2

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.

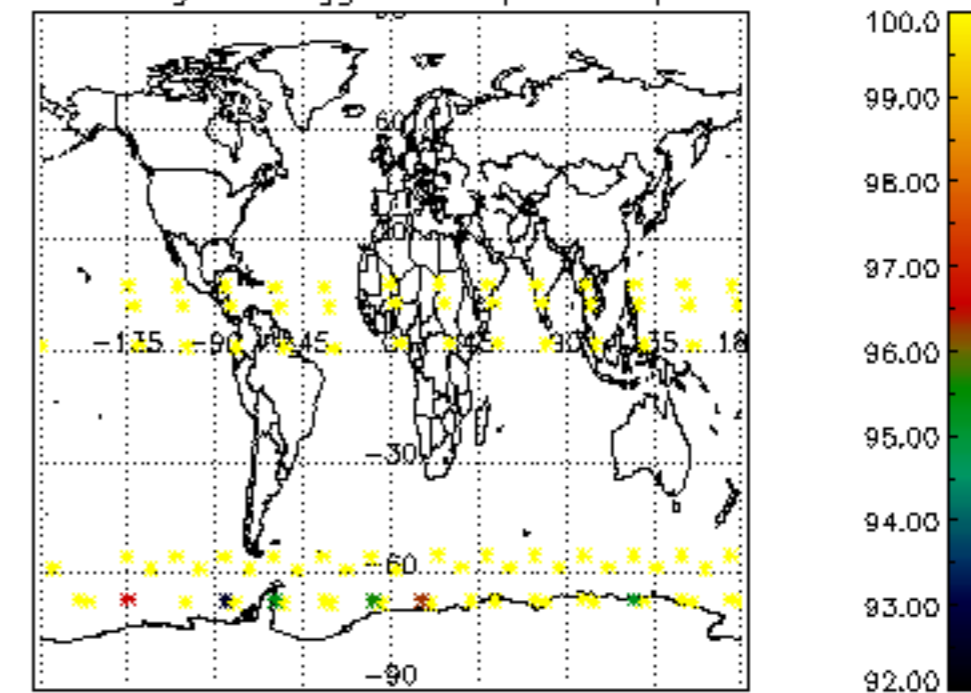
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	18-APR-2011 00:01:02
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	18-APR-2011 00:01:02
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	18-APR-2011 00:01:02



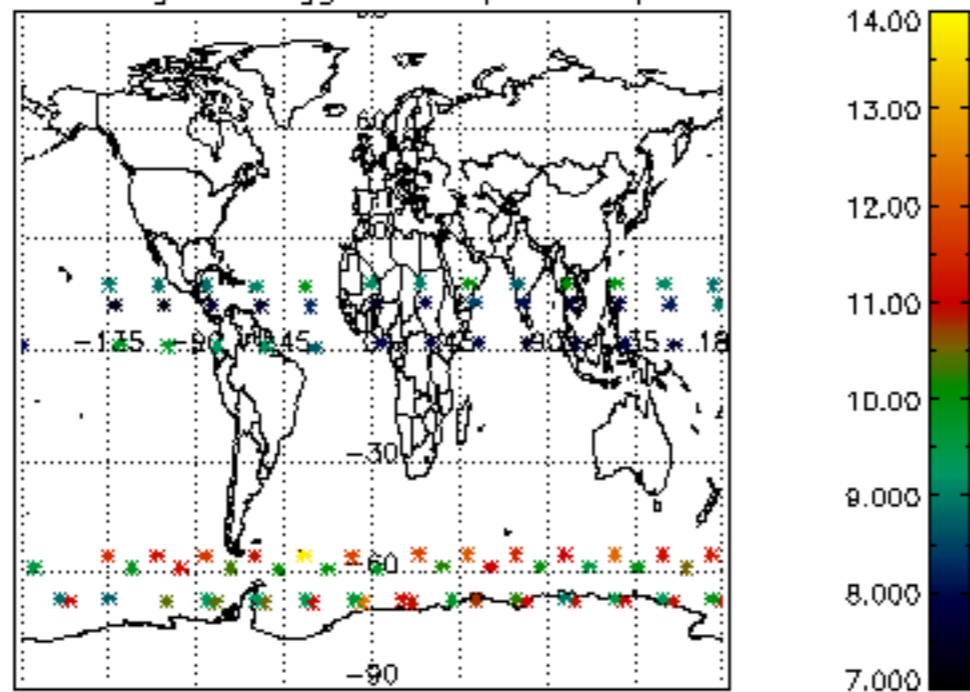
Percentage of flagged data per D3 profile



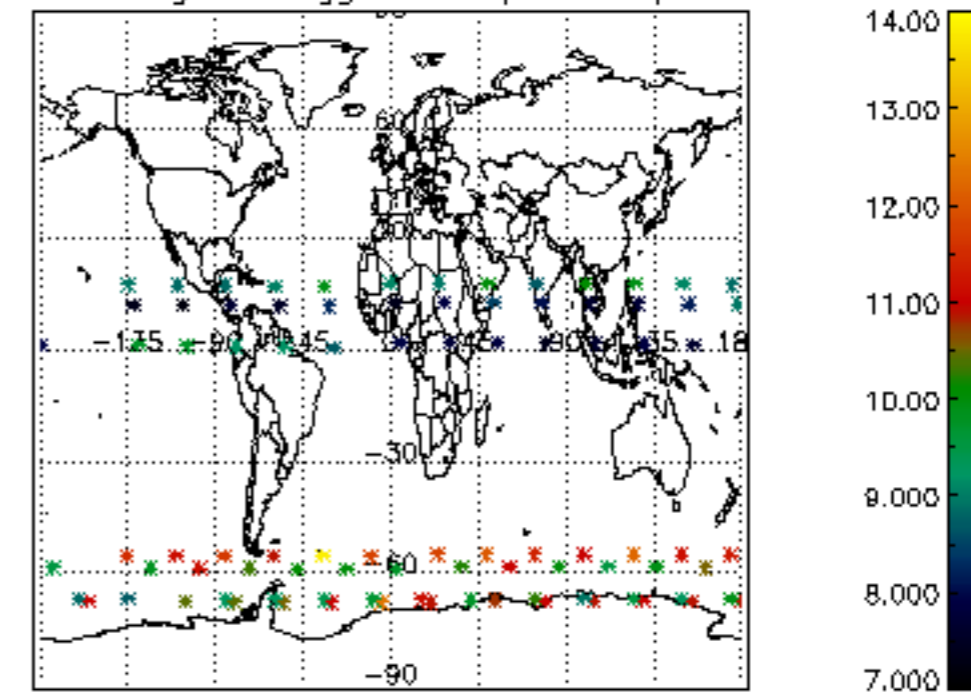
Percentage of flagged data per H2O profile

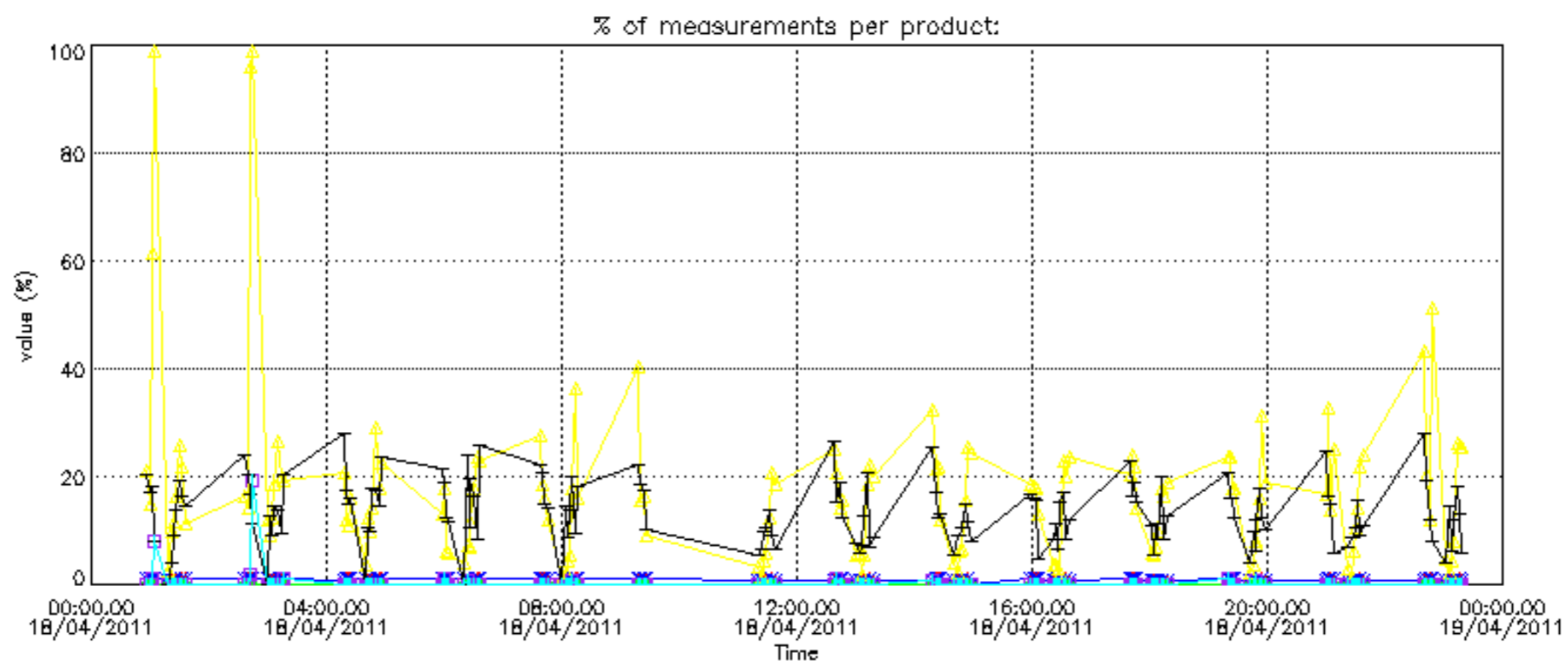
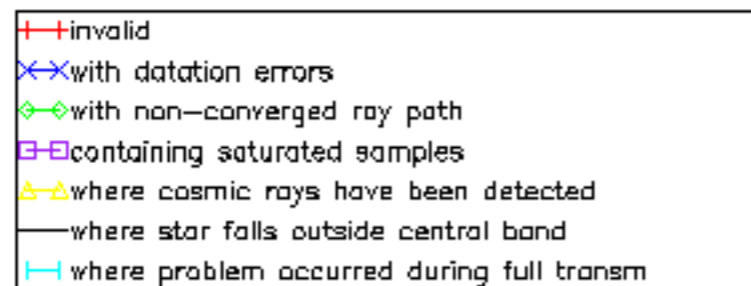


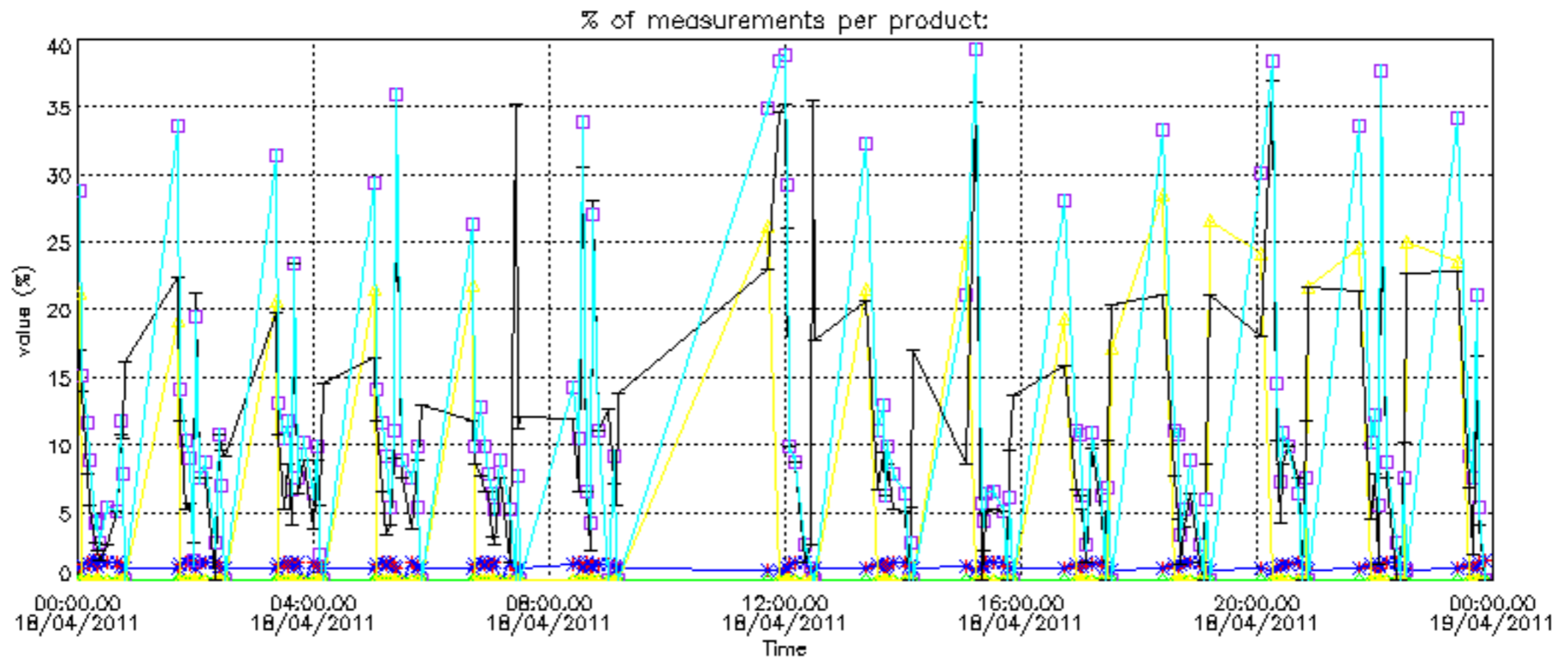
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

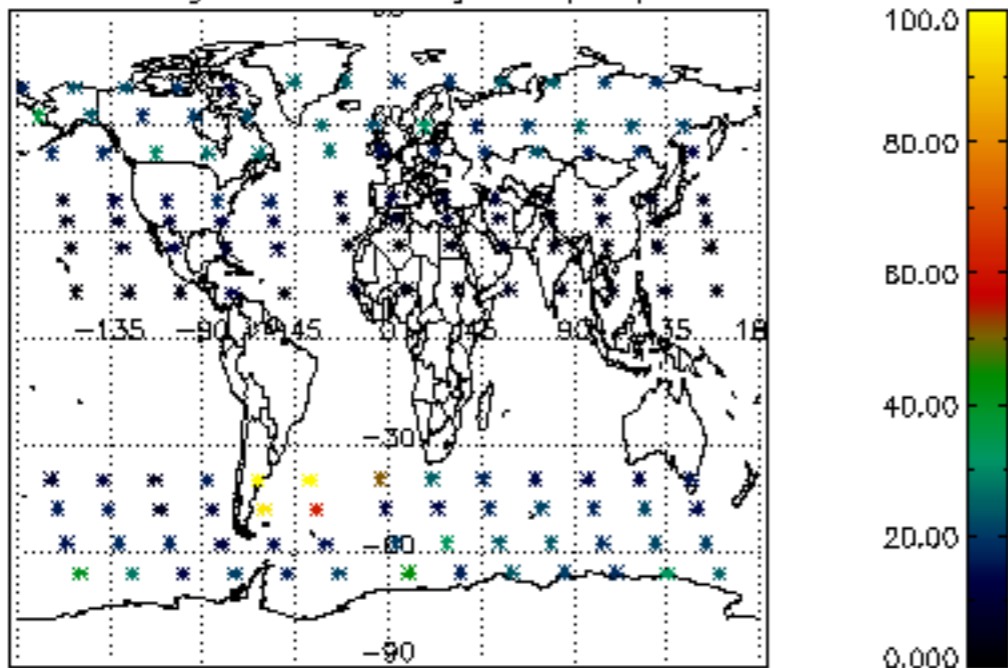




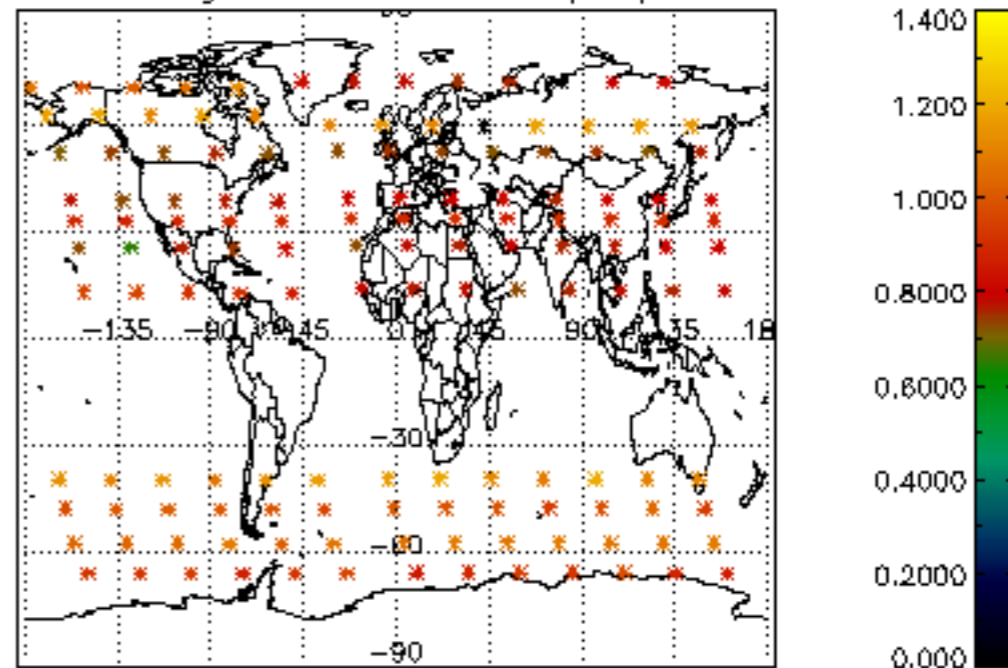




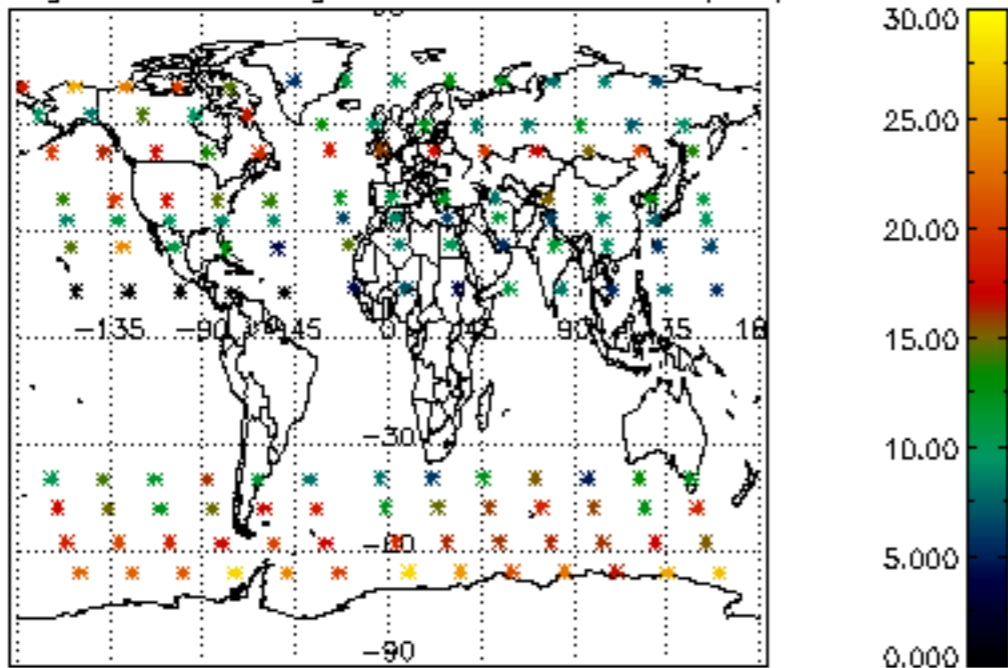
Percentage of cosmic ray hits per profile



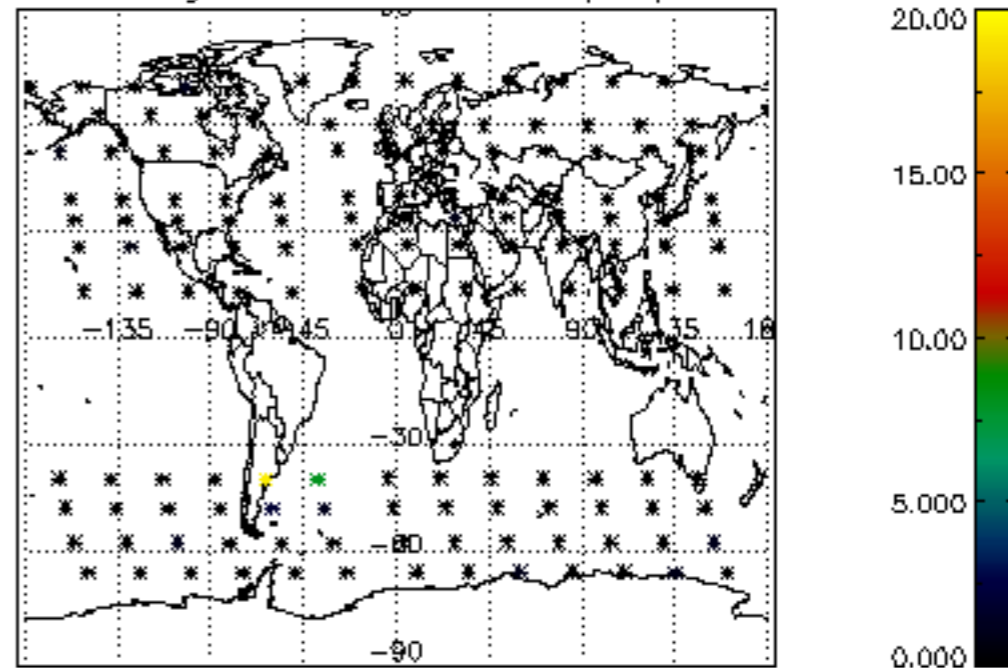
Percentage of datation errors per profile



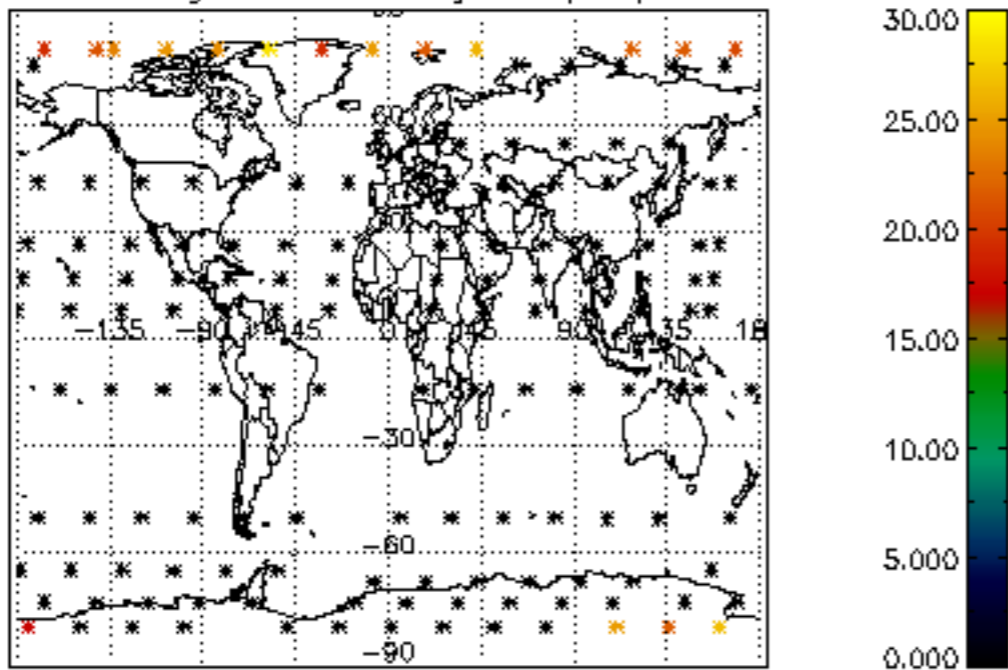
Percentage of star falling outside central band per profile



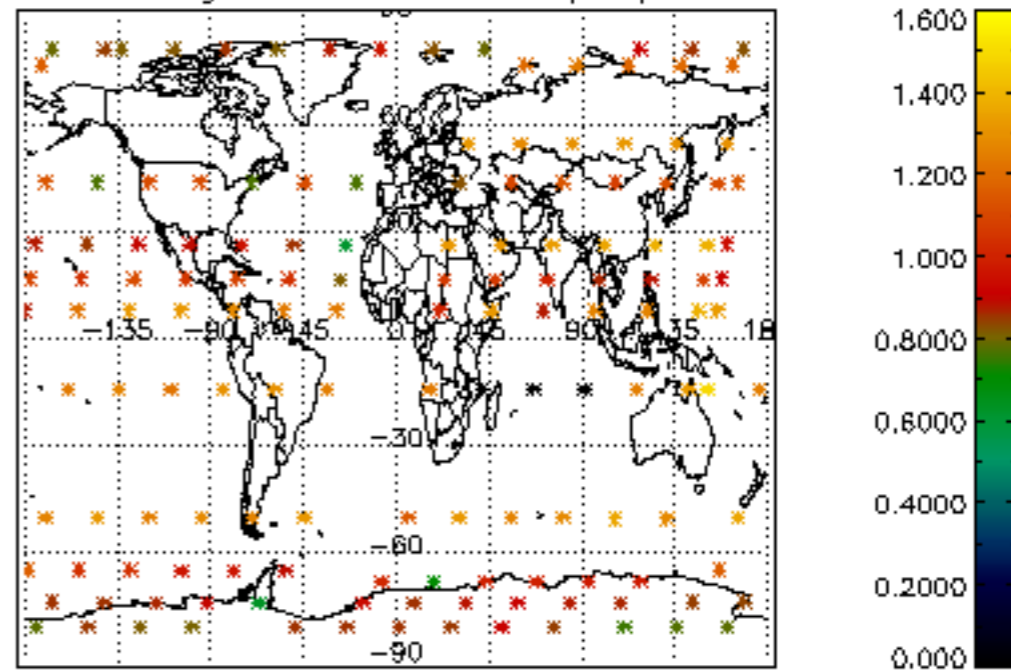
Percentage of saturation errors per profile



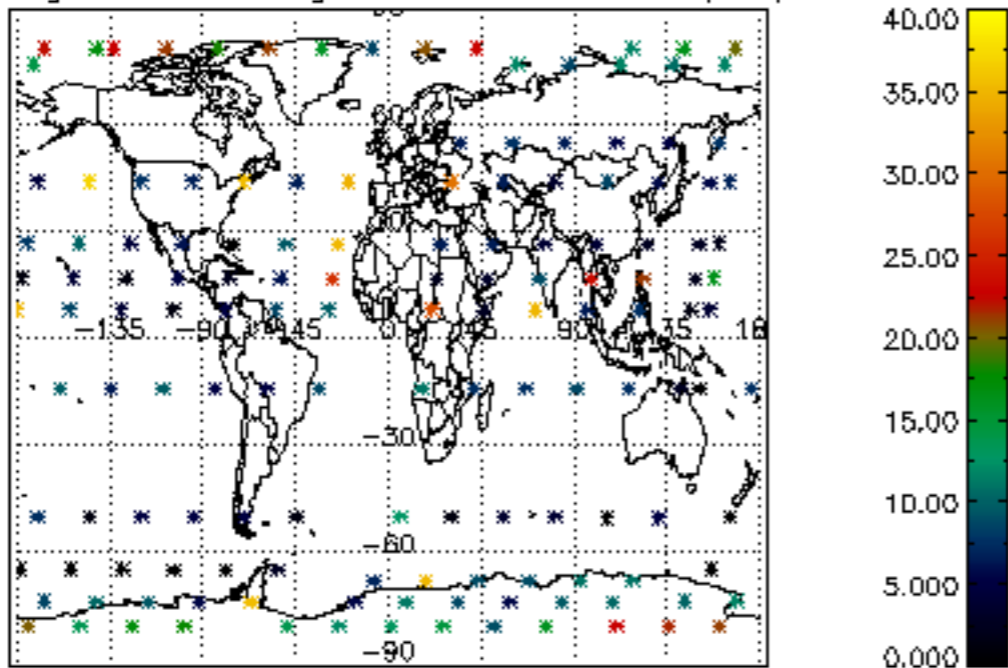
Percentage of cosmic ray hits per profile



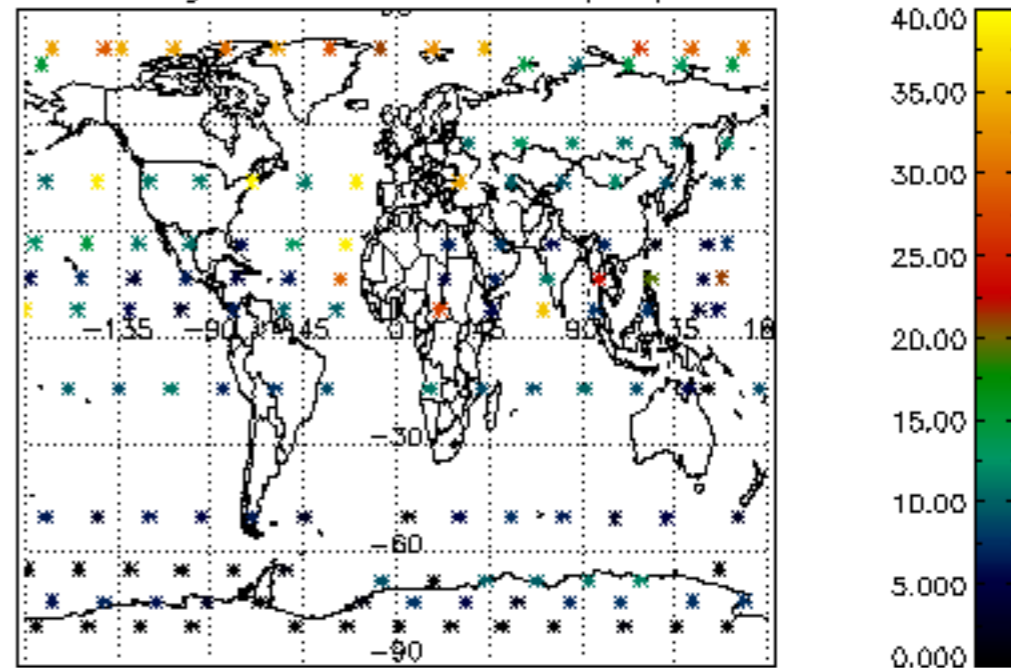
Percentage of datation errors per profile

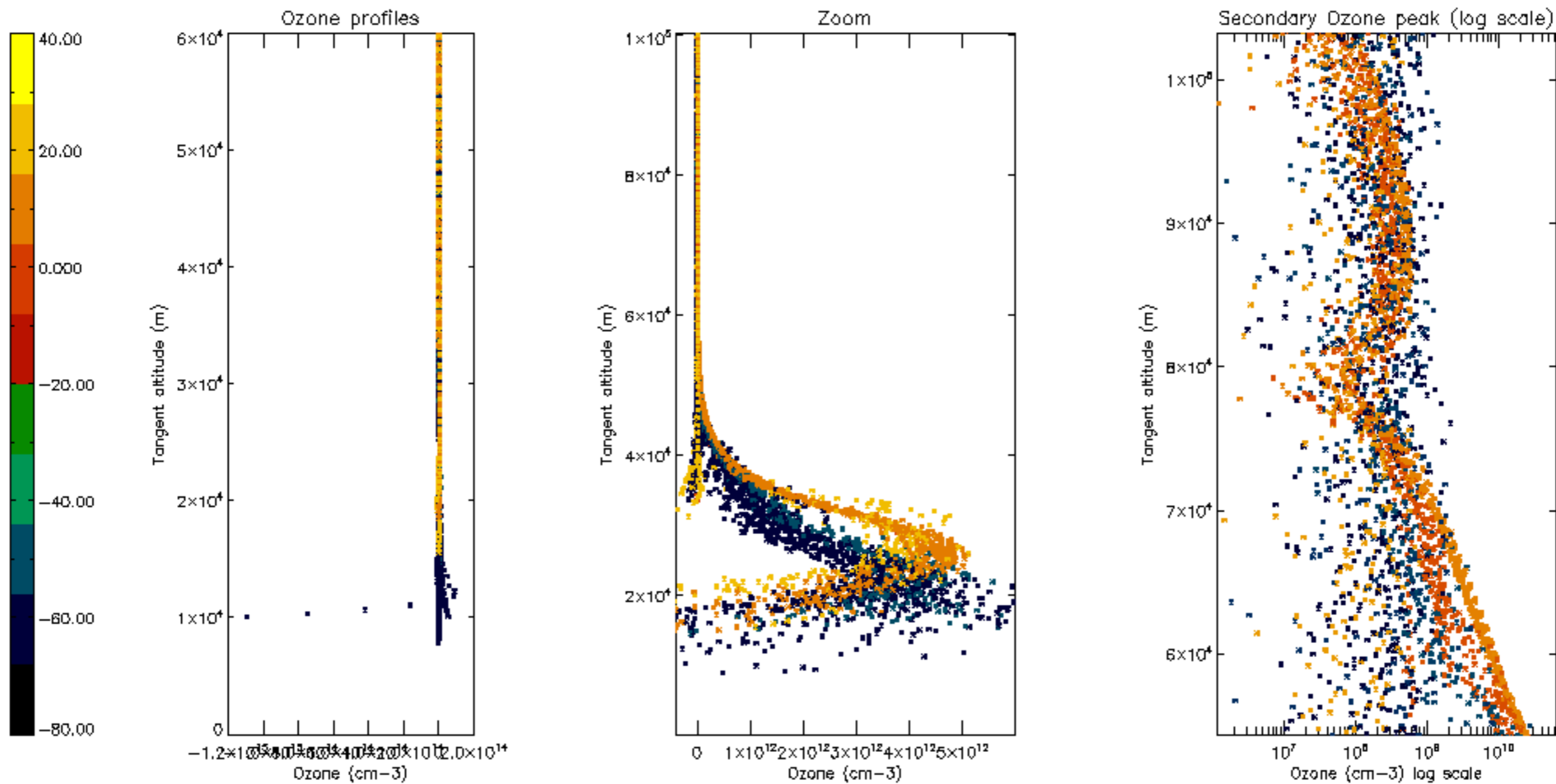


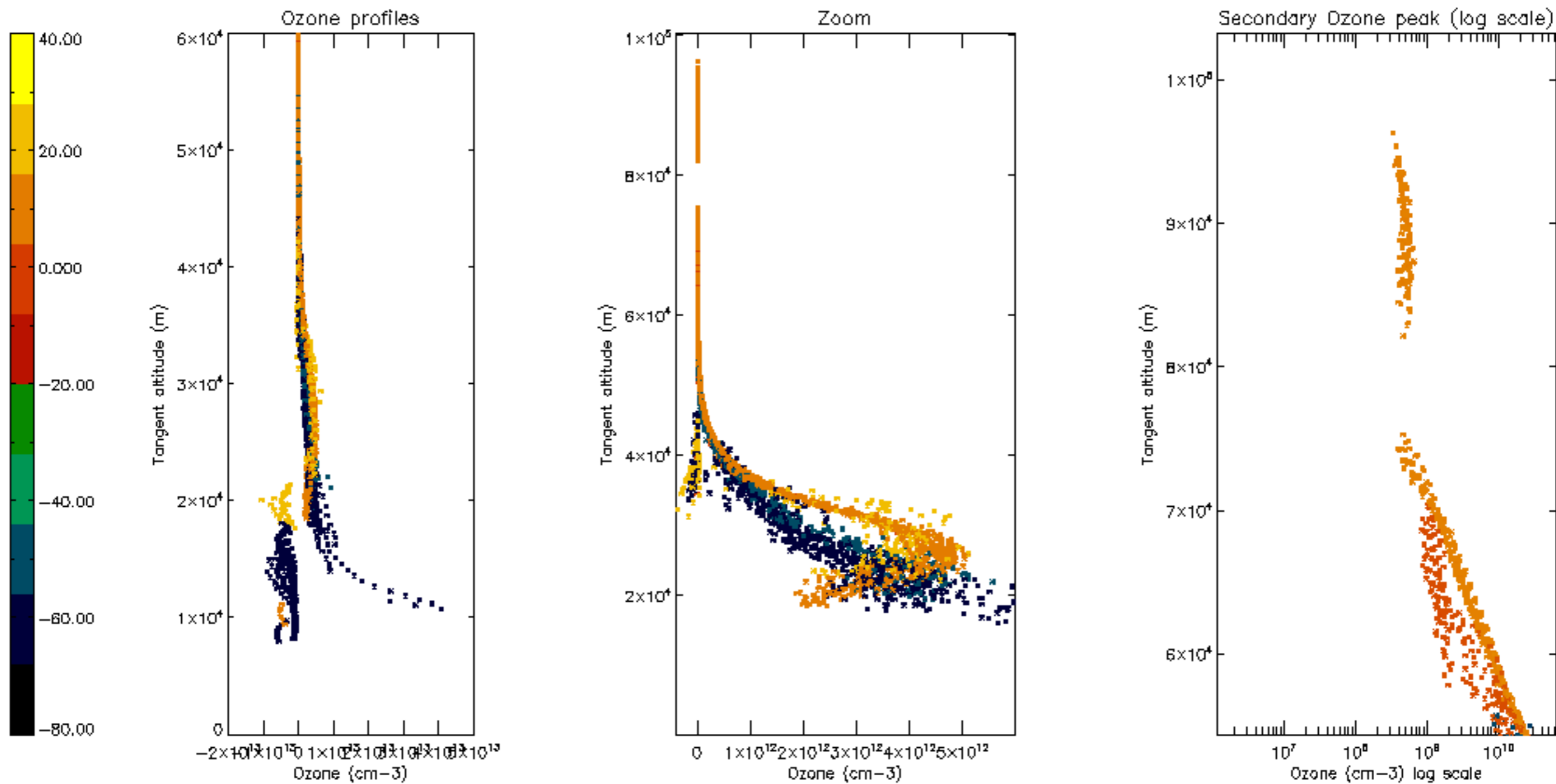
Percentage of star falling outside central band per profile

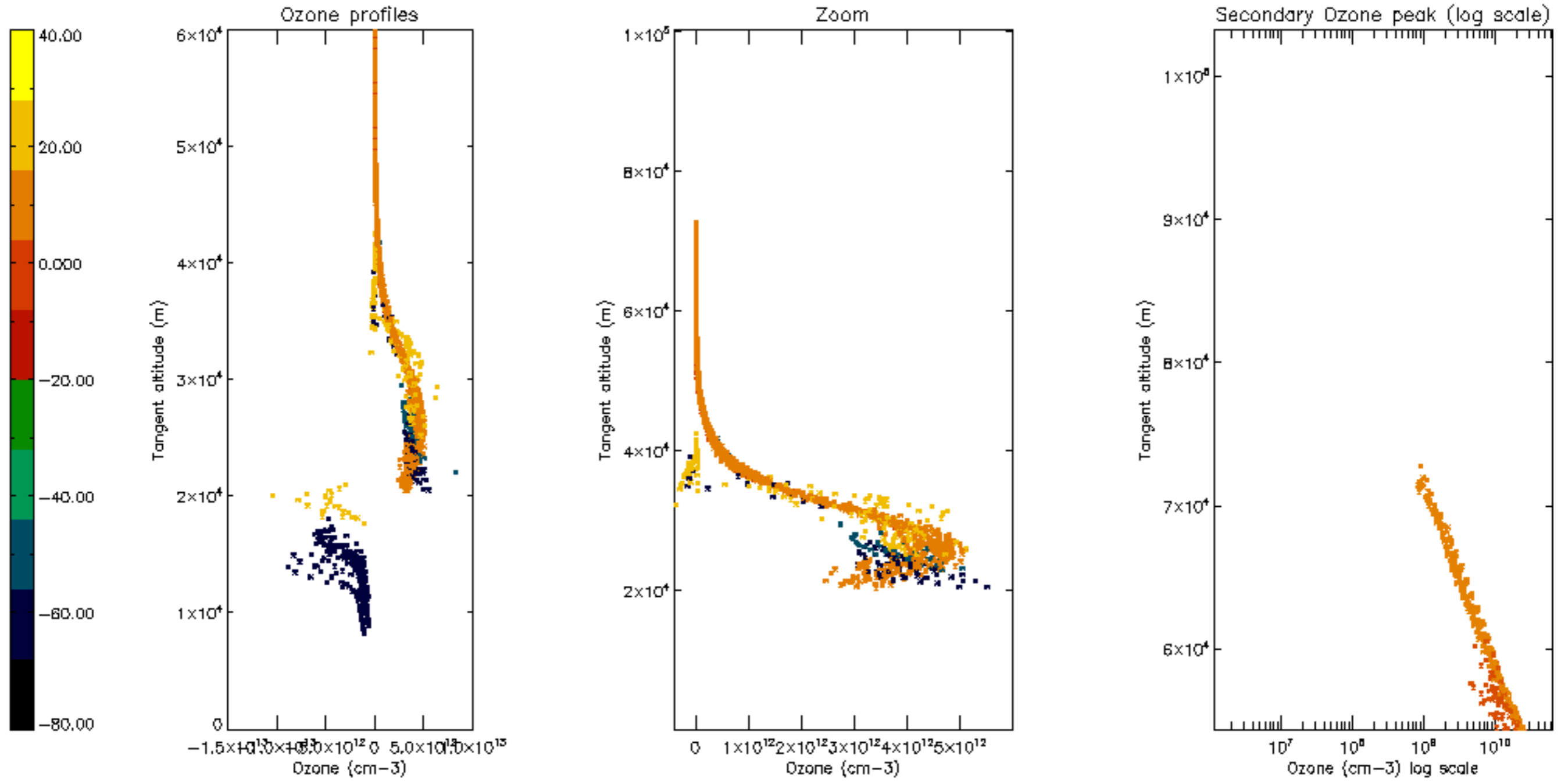


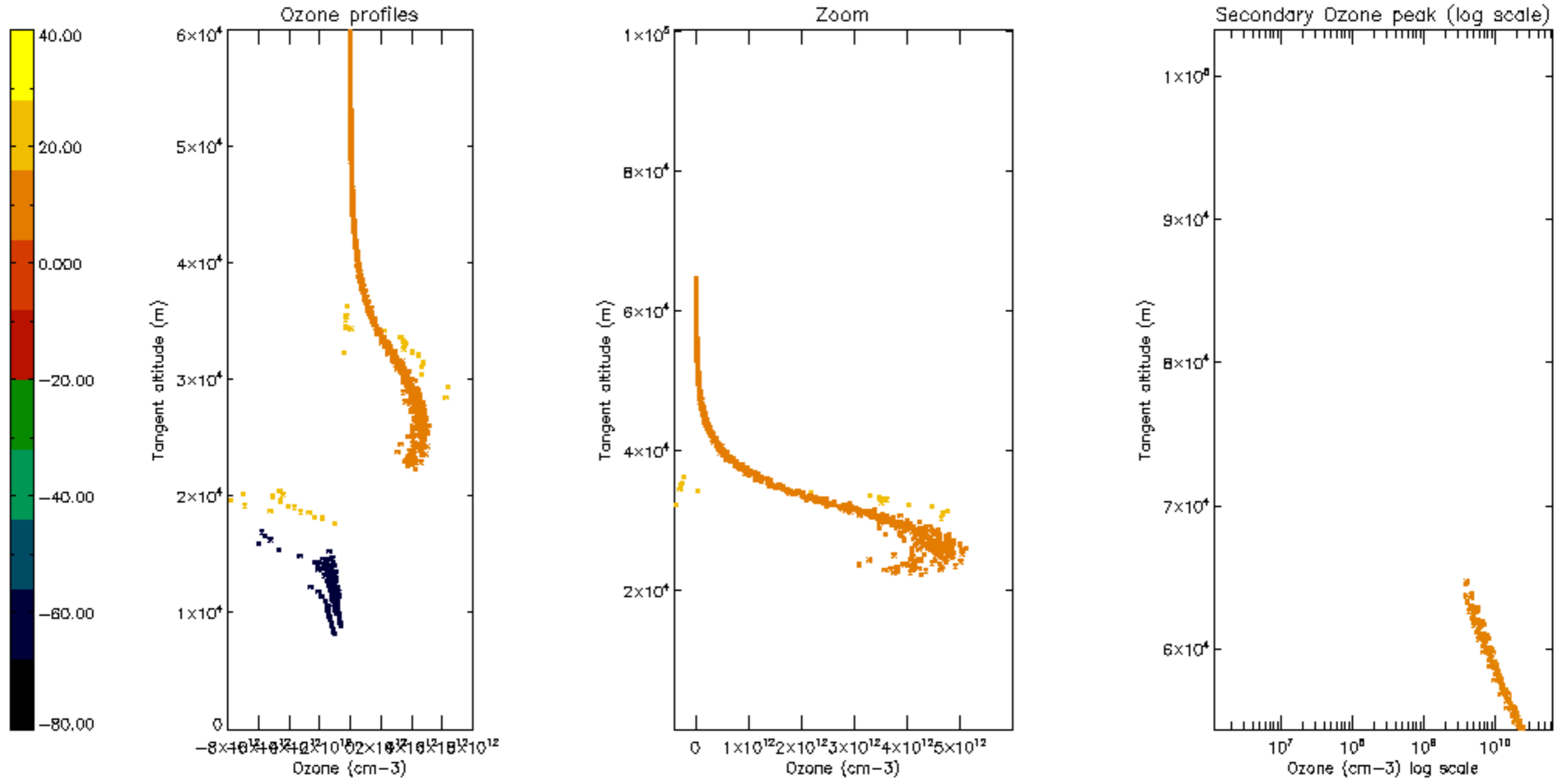
Percentage of saturation errors per profile

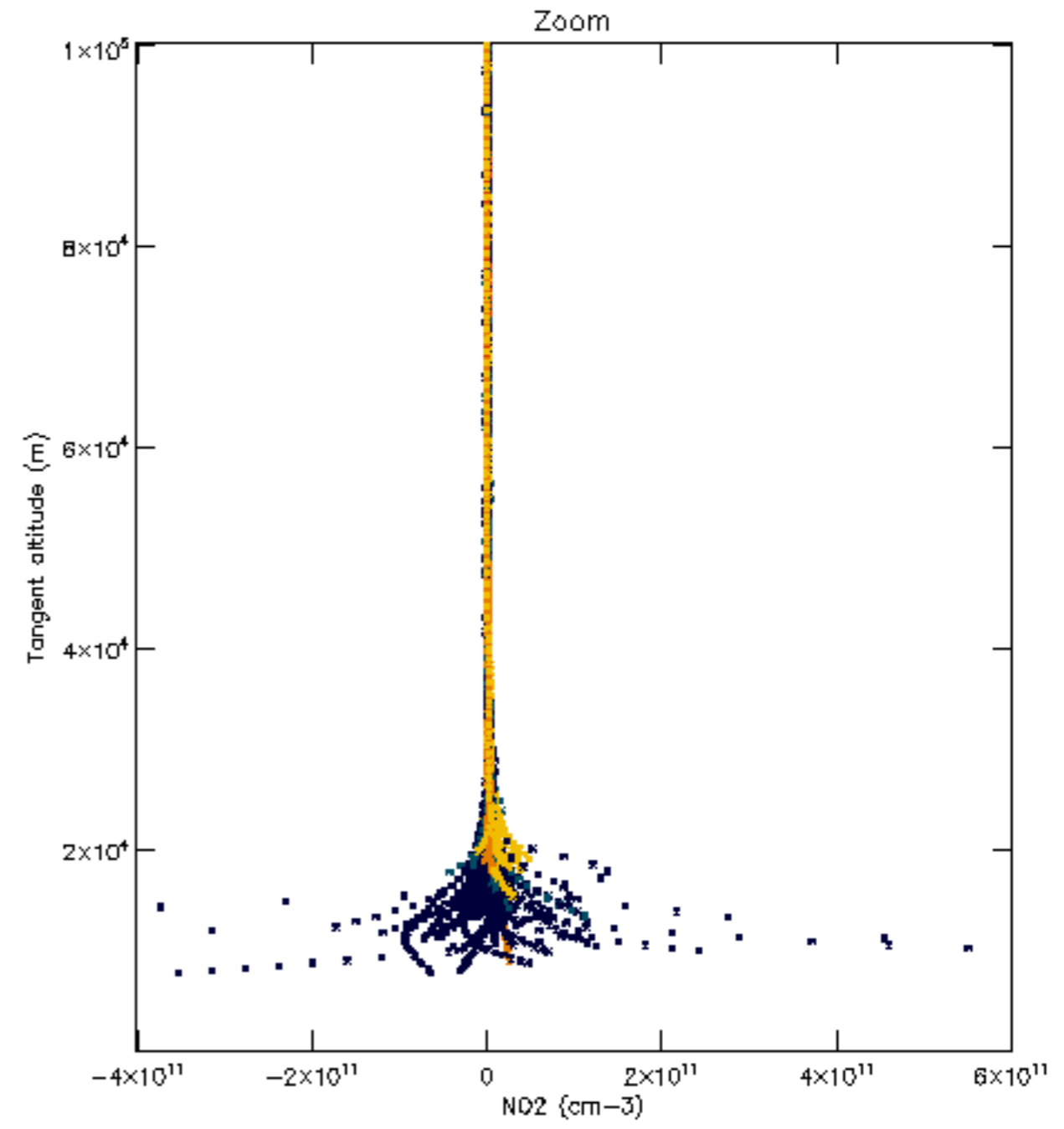
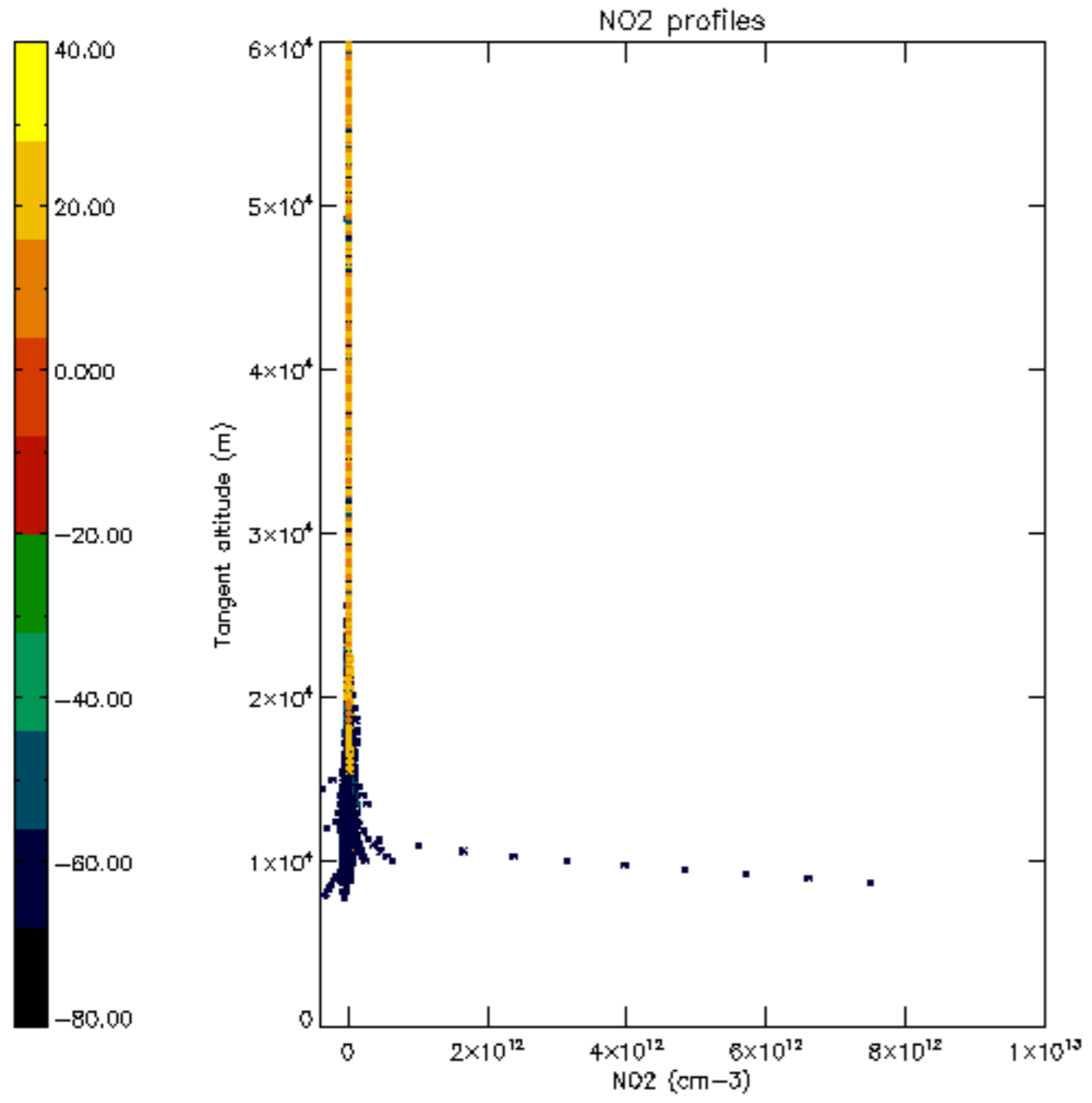


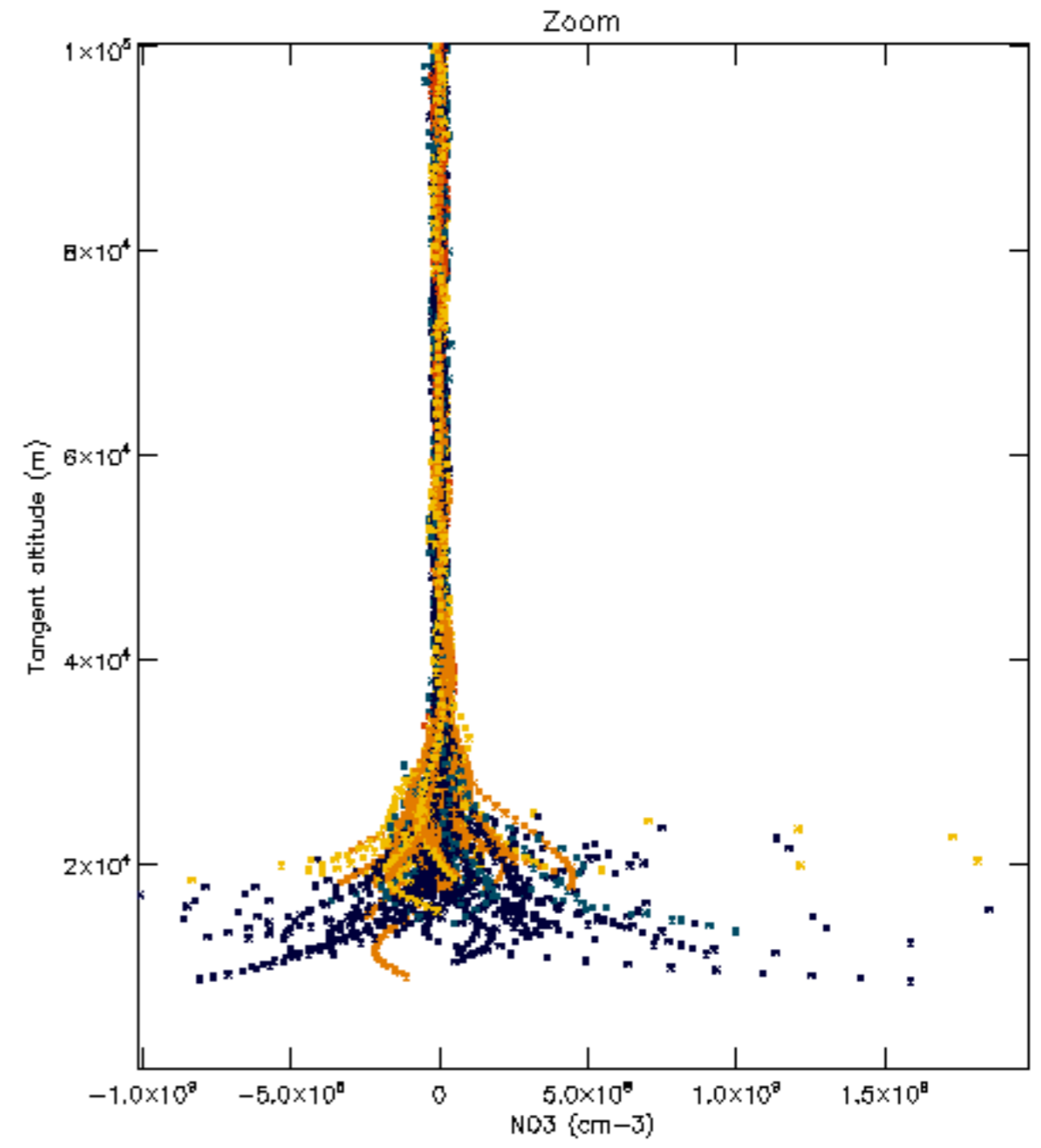
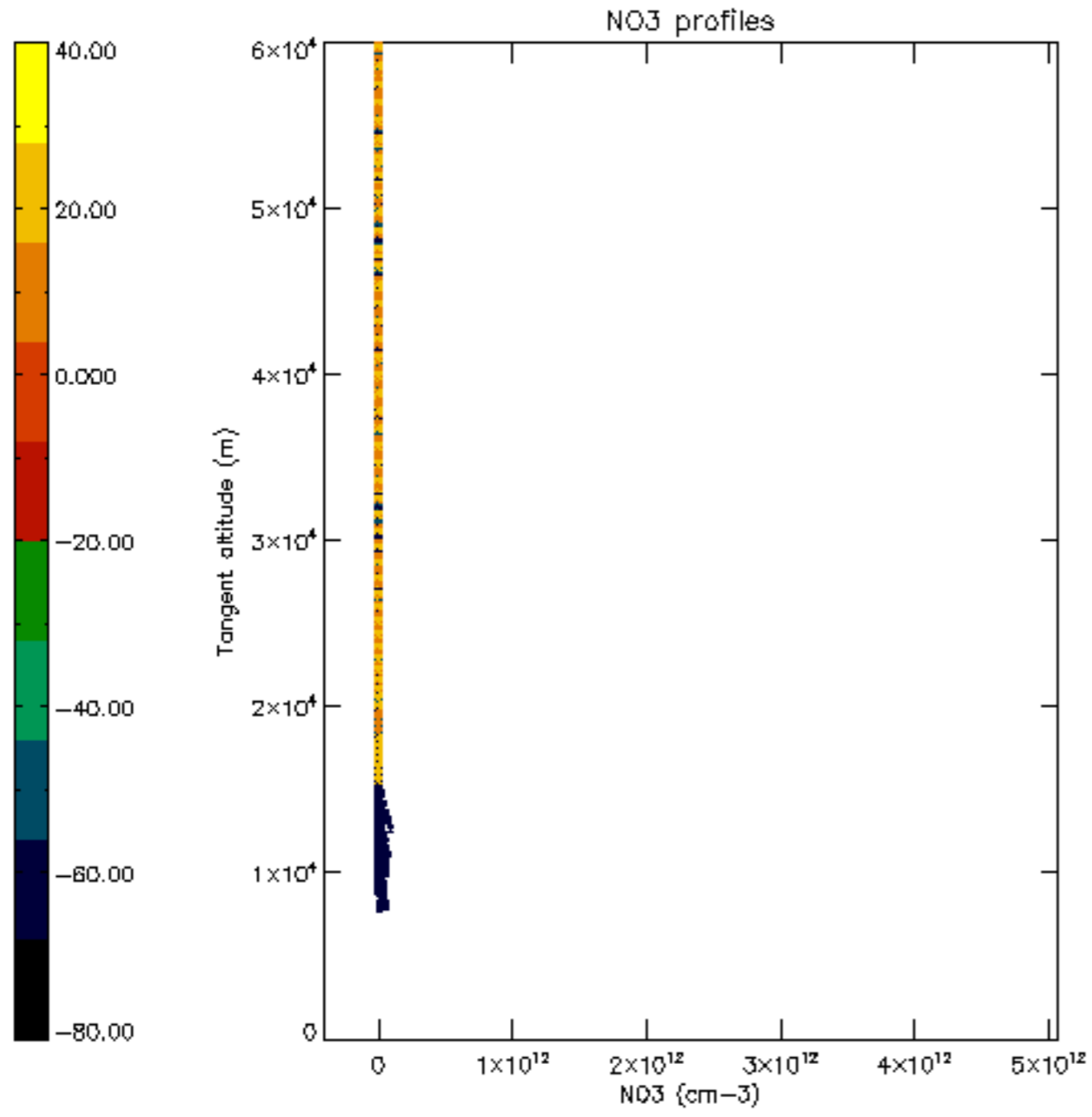




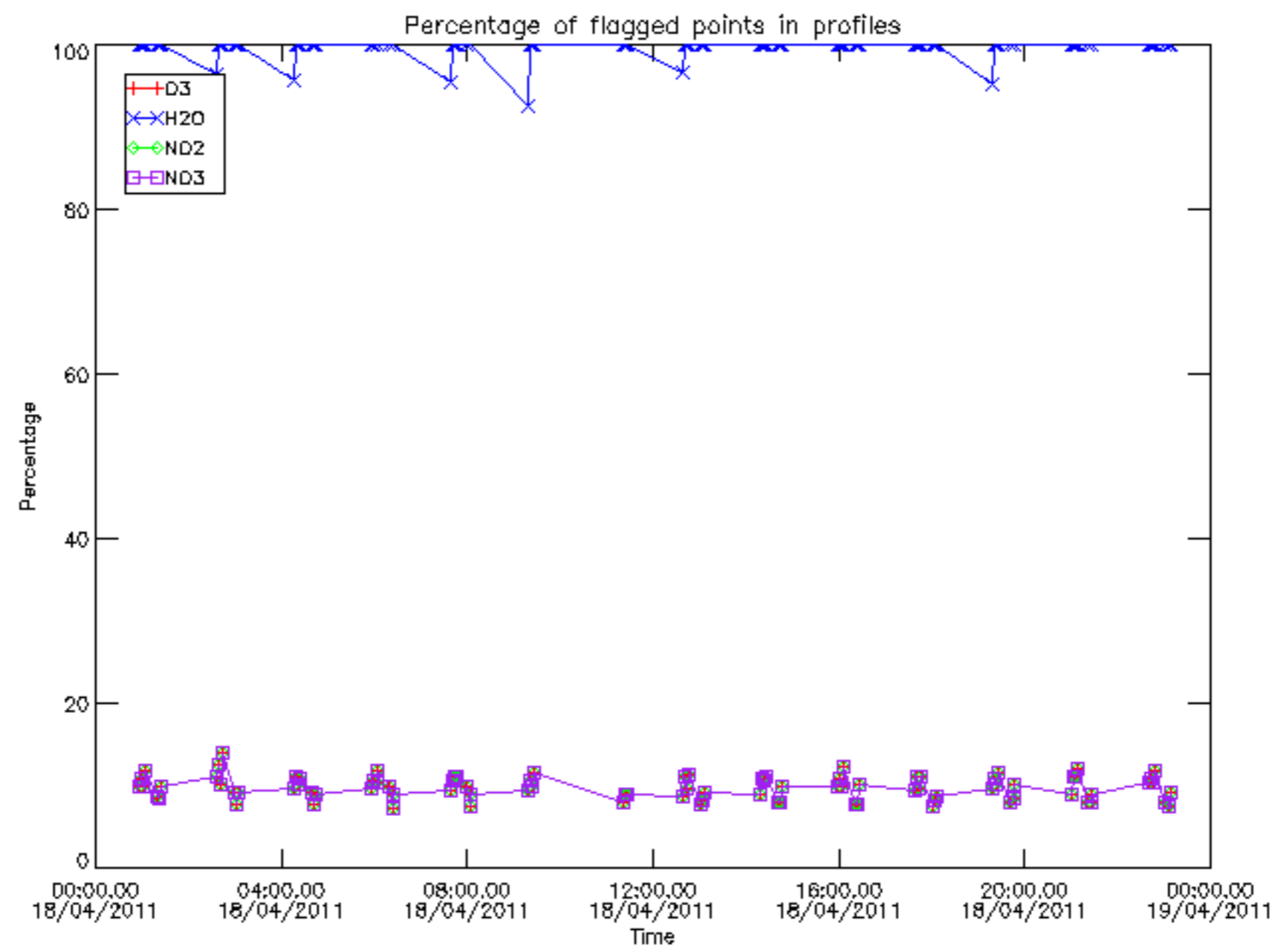




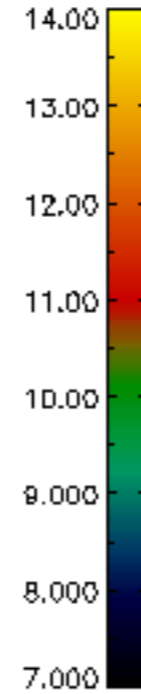
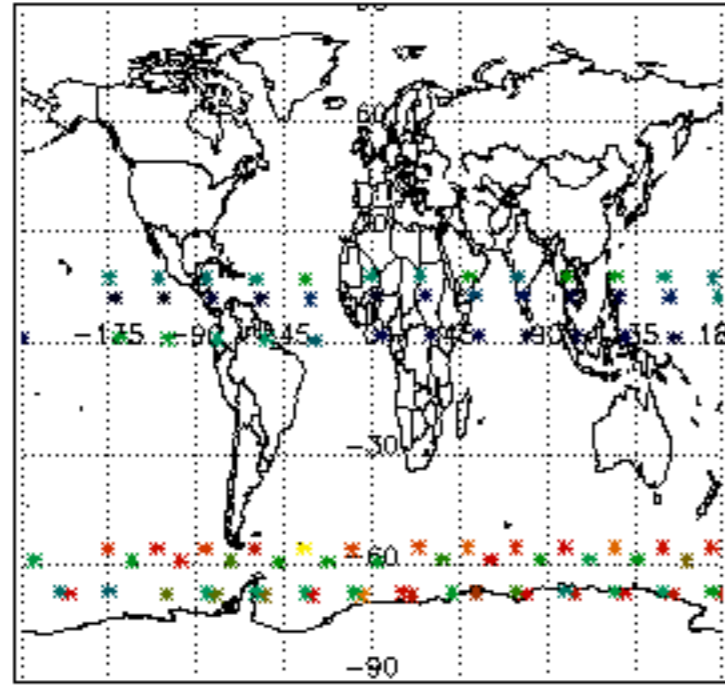




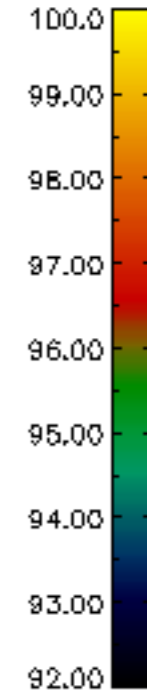
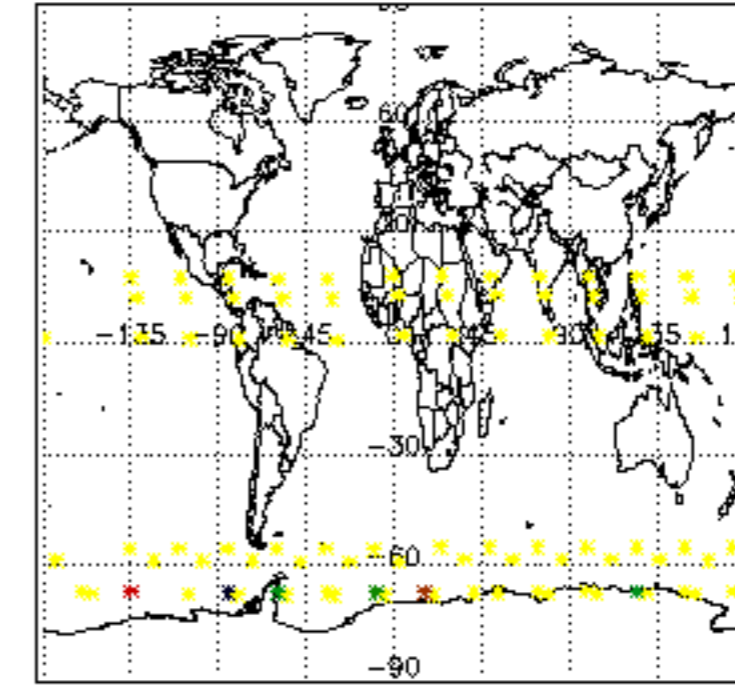




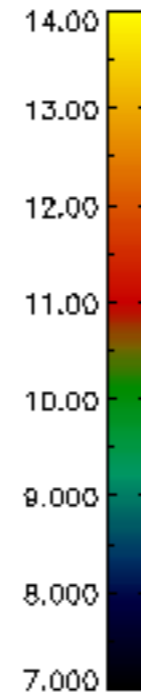
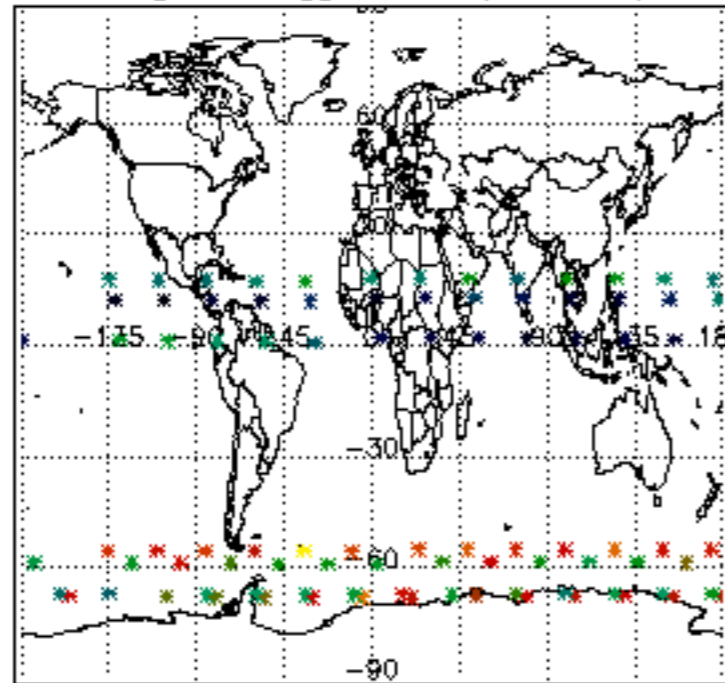
Percentage of flagged data per D3 profile



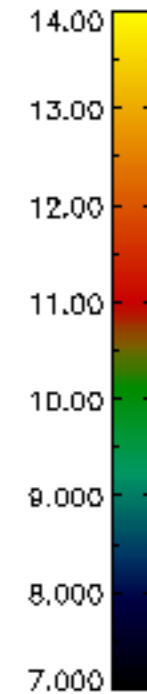
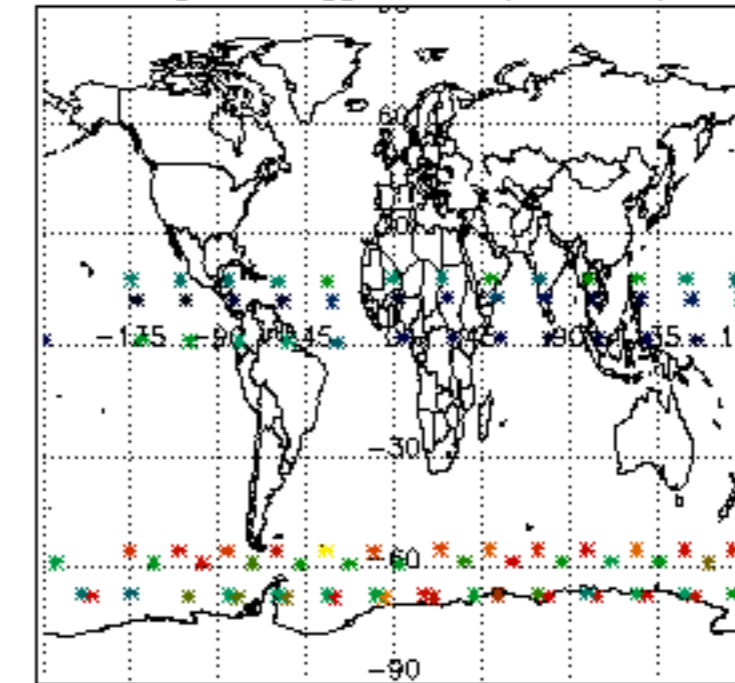
Percentage of flagged data per H2O profile

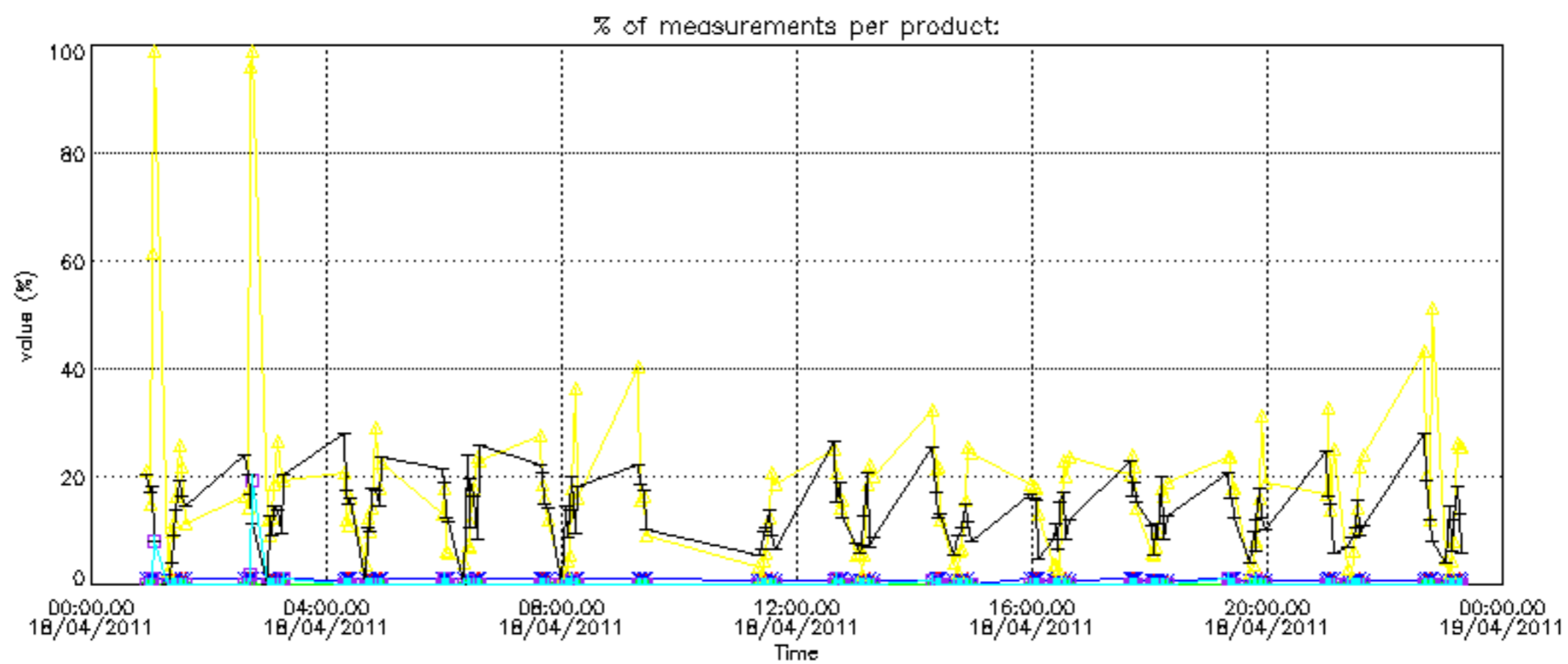
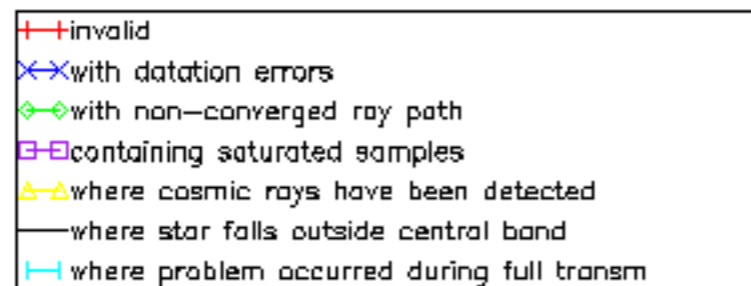


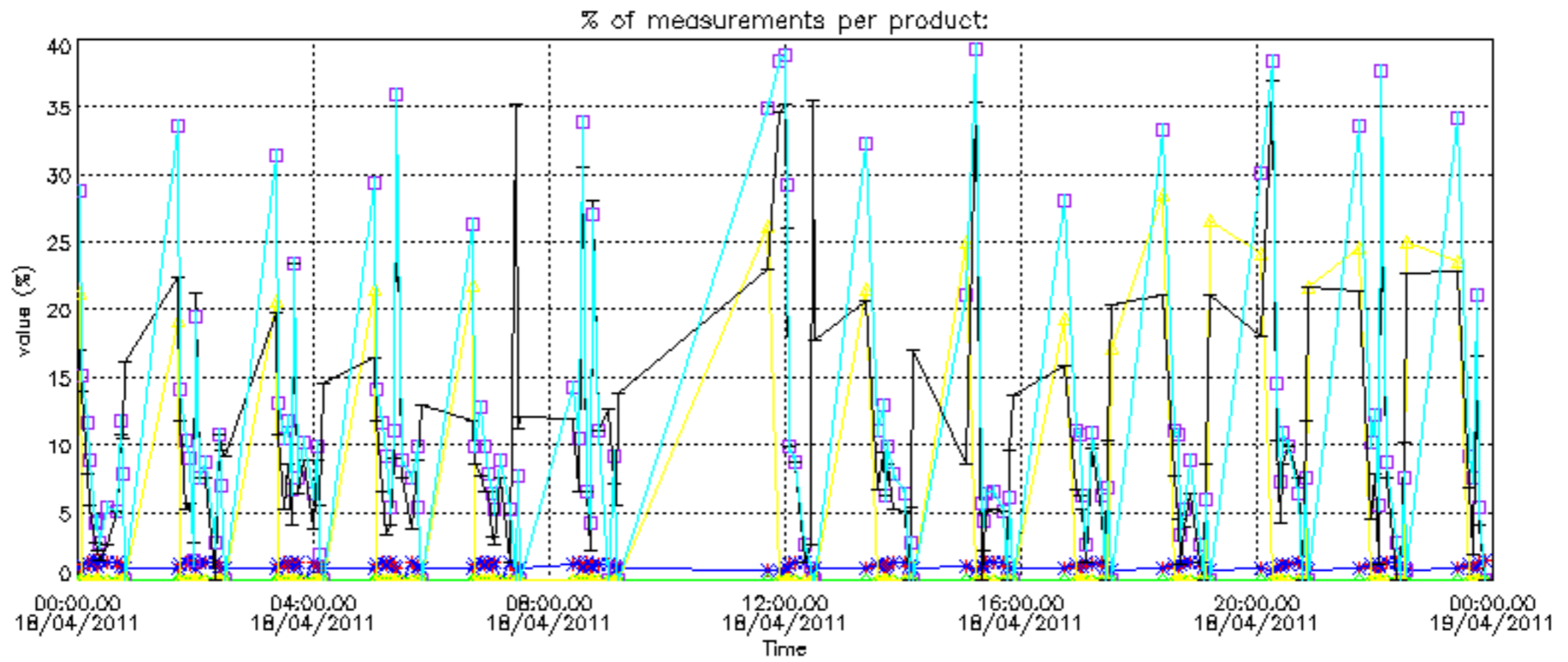
Percentage of flagged data per NO2 profile



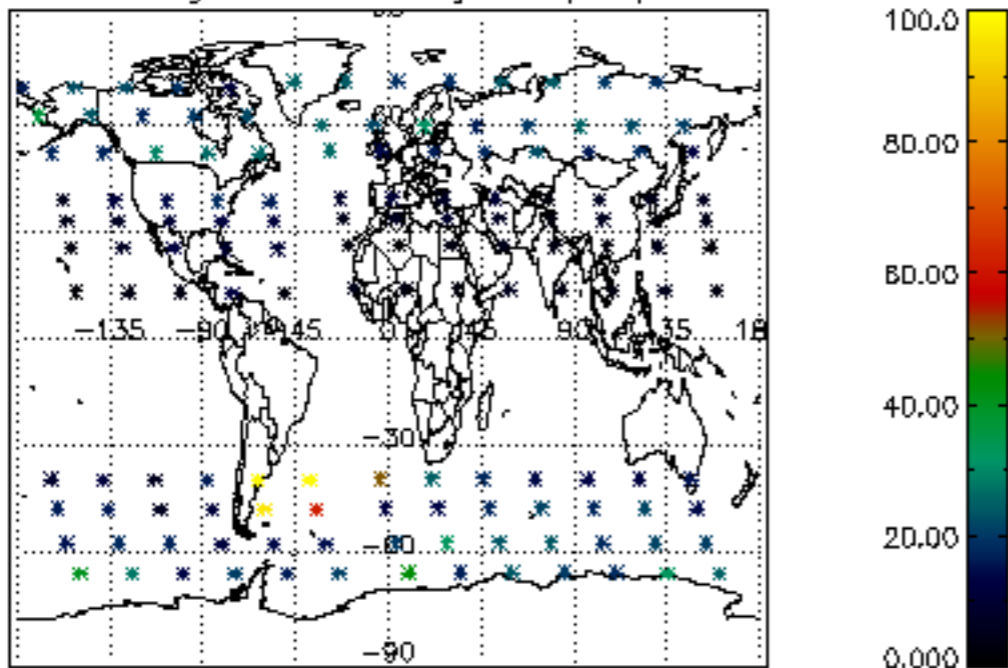
Percentage of flagged data per NO3 profile



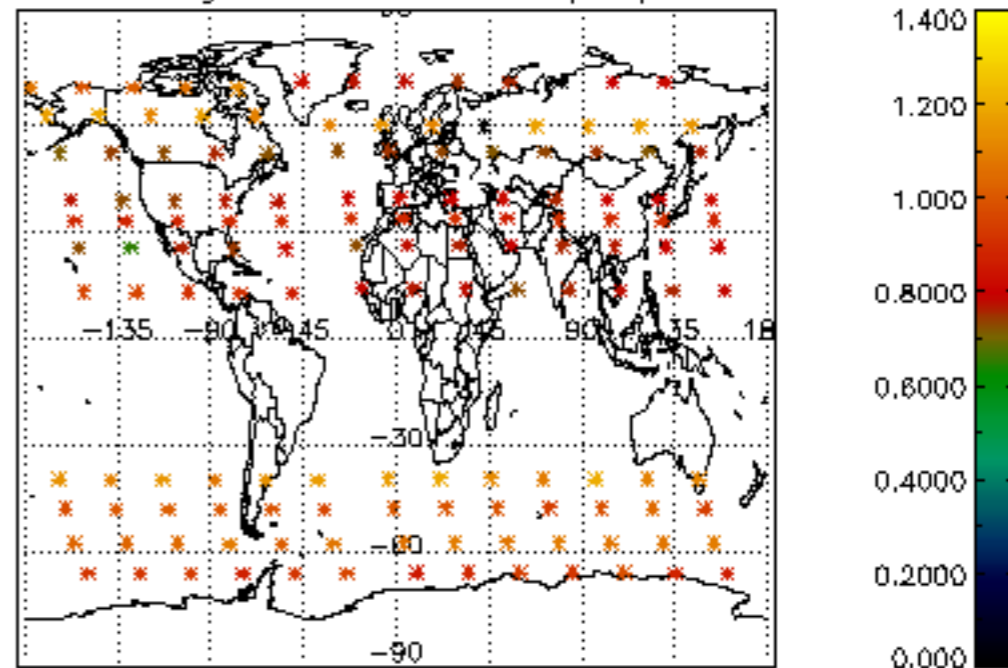




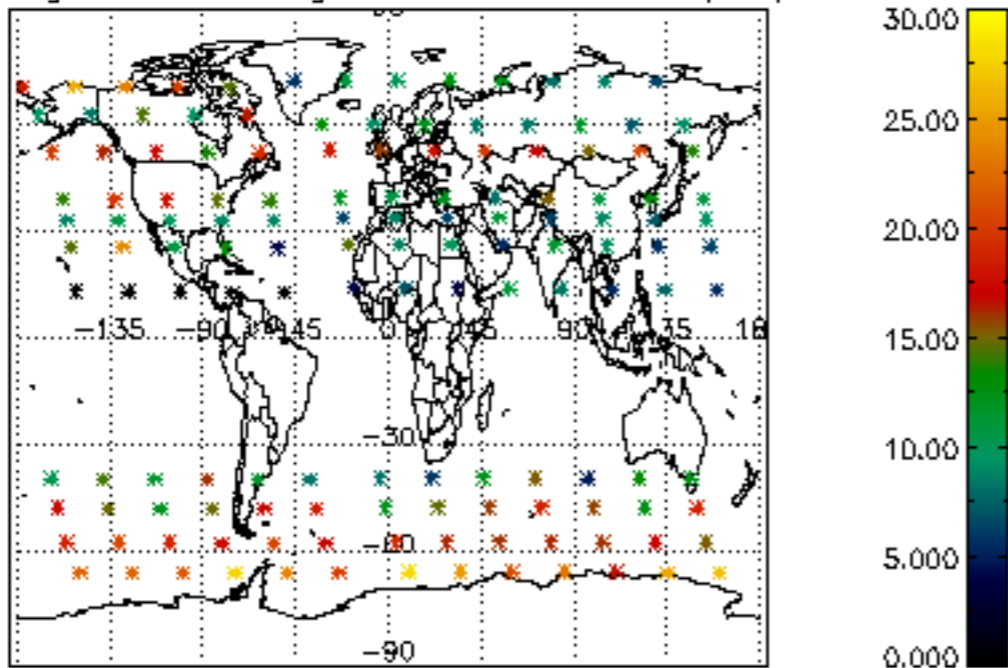
Percentage of cosmic ray hits per profile



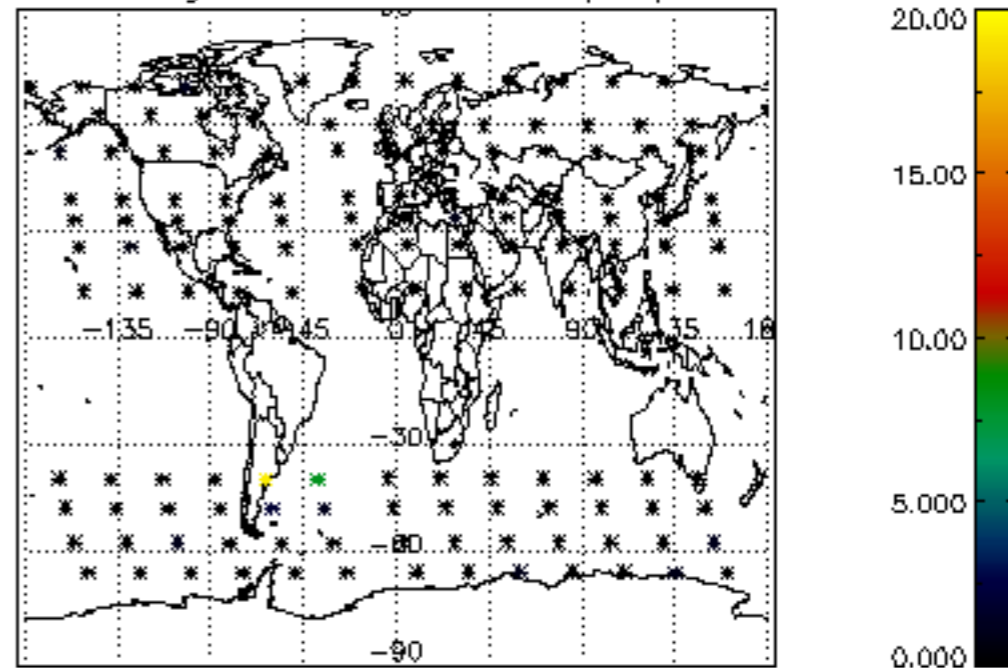
Percentage of datation errors per profile



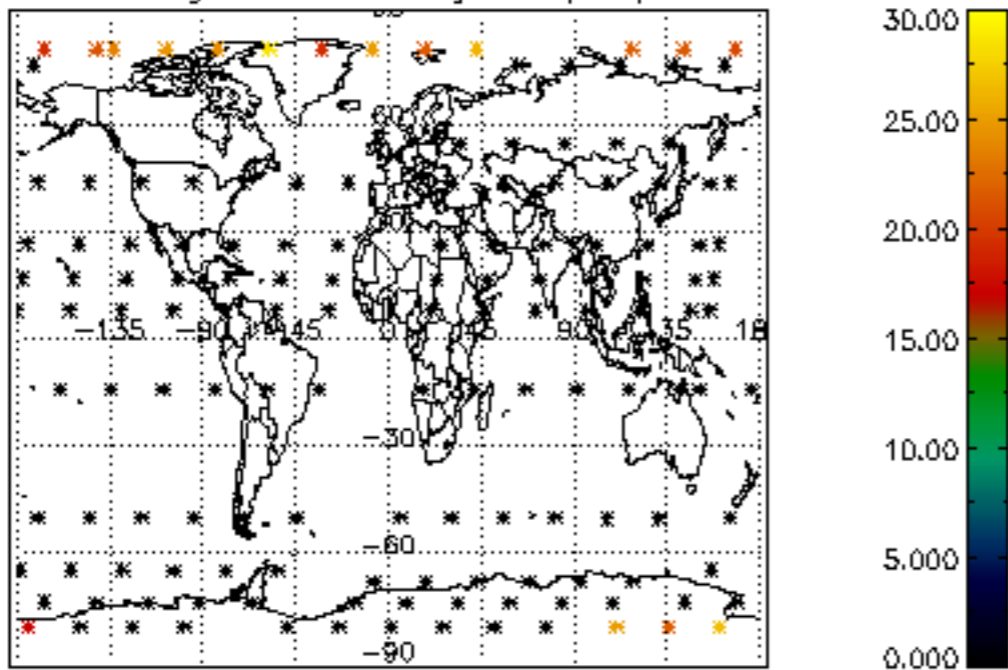
Percentage of star falling outside central band per profile



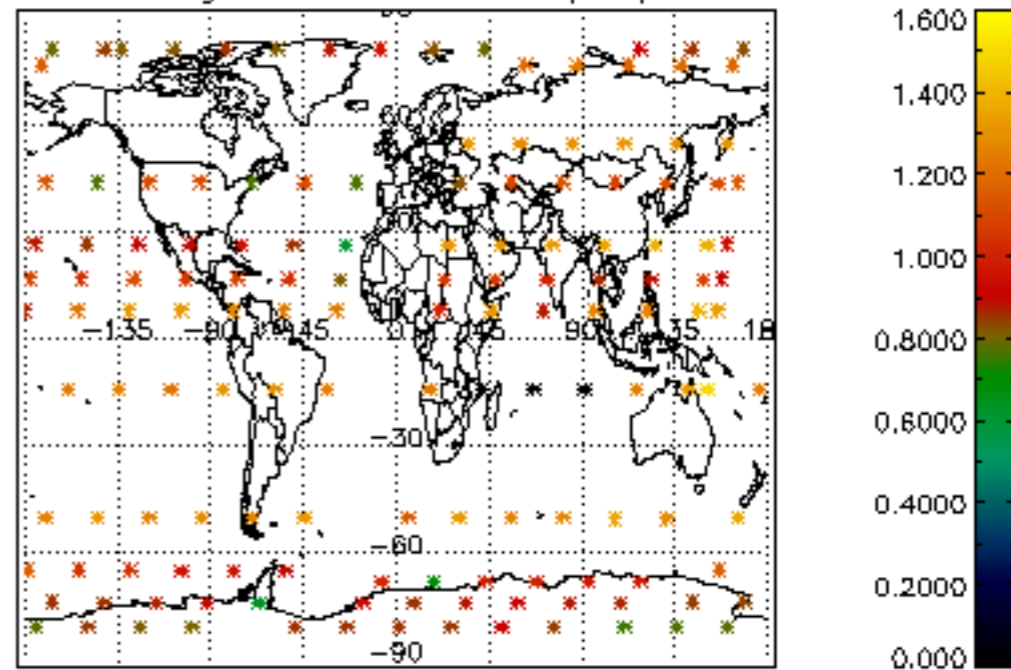
Percentage of saturation errors per profile



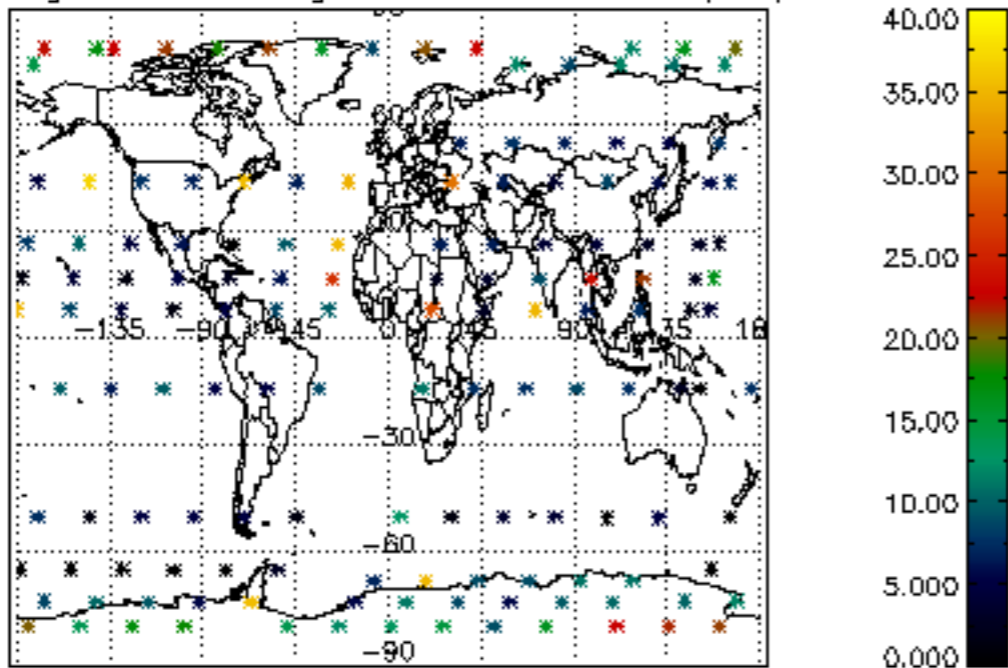
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

