

# GOMOS Level 2 Daily Report

## SUMMARY

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

### [2. Summary of processed GOM\\_NL\\_2P products](#)

### [3. Level 2 Quality information per product](#)

#### [3.1 Plot of level 2 quality information per product \(time dependant\)](#)

#### [3.2 Plot of level 2 quality information per product \(world map\)](#)

### [4. Level 1 Quality information per product \(stored on level 2 products\)](#)

#### [4.1 Plot of level 1 quality information per product \(time dependant\)](#)

##### [4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

##### [4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

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

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

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

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

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

#### [5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

#### [5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

#### [5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

#### [5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

#### [5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

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

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

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

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	18APR2013 11:31:40
Data source version	GOMOS/6.01
Start time of products	10-10-2005 (10OCT2005 00:00:00)
Stop time of products	11-10-2005 (11OCT2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	232
Nb of prods with errors	2

## 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__2PRFIN20051010_005411_000000372041_00289_18880_7476.N1	10-OCT-2005 00:54:11	Dark	36.500	29	Bet Car	1.6720	10200.	73	18880	No
2	GOM_NL__2PRFIN20051010_010507_000000402041_00289_18880_7477.N1	10-OCT-2005 01:05:07	Dark	39.500	143	Alp Hyi	2.8570	7200.0	79	18880	No
3	GOM_NL__2PRFIN20051010_010634_000000492041_00289_18880_7478.N1	10-OCT-2005 01:06:34	Dark	48.500	9	Alp Eri	0.45300	24000.	97	18880	No
4	GOM_NL__2PRFIN20051010_011143_000000432041_00289_18880_7479.N1	10-OCT-2005 01:11:43	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	18880	No
5	GOM_NL__2PRFIN20051010_012831_000000362041_00289_18880_7480.N1	10-OCT-2005 01:28:31	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	18880	No
6	GOM_NL__2PRFIN20051010_013204_000000392041_00289_18880_7481.N1	10-OCT-2005 01:32:04	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	18880	No
7	GOM_NL__2PRFIN20051010_014240_000000362041_00289_18880_7482.N1	10-OCT-2005 01:42:40	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18880	No
8	GOM_NL__2PRFIN20051010_014915_000000322041_00289_18880_7483.N1	10-OCT-2005 01:49:15	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	18880	No
9	GOM_NL__2PRFIN20051010_015155_000000362041_00289_18880_7484.N1	10-OCT-2005 01:51:55	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	18880	No
10	GOM_NL__2PRFIN20051010_015725_000000362041_00289_18880_7485.N1	10-OCT-2005 01:57:25	Bright	35.500	36	50Alp UMa	1.8000	6300.0	71	18880	No
11	GOM_NL__2PRFIN20051010_015857_000000352041_00289_18880_7486.N1	10-OCT-2005 01:58:57	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	18880	No
12	GOM_NL__2PRFIN20051010_020216_000000342041_00289_18880_7487.N1	10-OCT-2005 02:02:16	Bright	33.500	174	52Psi UMa	3.0040	4400.0	67	18880	No
13	GOM_NL__2PRFIN20051010_020946_000000362041_00289_18880_7488.N1	10-OCT-2005 02:09:46	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18880	No
14	GOM_NL__2PRFIN20051010_021213_000000392041_00289_18880_7489.N1	10-OCT-2005 02:12:13	Bright	38.500	22	32Alp Leo	1.3600	15200.	77	18880	No
15	GOM_NL__2PRFIN20051010_022849_000000492041_00289_18880_7490.N1	10-OCT-2005 02:28:49	Dark	49.000	65	Lam Vel	2.2040	4400.0	98	18880	No
16	GOM_NL__2PRFIN20051010_023202_000000382041_00289_18880_7491.N1	10-OCT-2005 02:32:02	Dark	38.000	46	Del Vel	1.9540	10600.	76	18880	No
17	GOM_NL__2PRFIN20051010_023448_000000372041_00290_18881_7476.N1	10-OCT-2005 02:34:48	Dark	36.500	29	Bet Car	1.6720	10200.	73	18881	No
18	GOM_NL__2PRFIN20051010_024543_000000392041_00290_18881_7477.N1	10-OCT-2005 02:45:43	Dark	39.000	143	Alp Hyi	2.8570	7200.0	78	18881	No
19	GOM_NL__2PRFIN20051010_024711_000000512041_00290_18881_7478.N1	10-OCT-2005 02:47:11	Dark	51.000	9	Alp Eri	0.45300	24000.	102	18881	No
20	GOM_NL__2PRFIN20051010_025219_000000452041_00290_18881_7479.N1	10-OCT-2005 02:52:19	Straylight	45.000	84	Alp Phe	2.3970	4500.0	90	18881	No
21	GOM_NL__2PRFIN20051010_030907_000000362041_00290_18881_7480.N1	10-OCT-2005 03:09:07	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	18881	No
22	GOM_NL__2PRFIN20051010_031240_000000362041_00290_18881_7481.N1	10-OCT-2005 03:12:40	Bright	36.000	93	53Bet Peg	2.5200	3100.0	72	18881	No
23	GOM_NL__2PRFIN20051010_032316_000000372041_00290_18881_7482.N1	10-OCT-2005 03:23:16	Bright	36.500	89	5Alp Cep	2.4510	8000.0	73	18881	No
24	GOM_NL__2PRFIN20051010_032951_000000322041_00290_18881_7483.N1	10-OCT-2005 03:29:51	Bright	31.500	49	1Alp UMi	1.9900	6300.0	63	18881	No
25	GOM_NL__2PRFIN20051010_033231_000000372041_00290_18881_7484.N1	10-OCT-2005 03:32:31	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	18881	No
26	GOM_NL__2PRFIN20051010_033801_000000372041_00290_18881_7485.N1	10-OCT-2005 03:38:01	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	18881	No
27	GOM_NL__2PRFIN20051010_033933_000000352041_00290_18881_7486.N1	10-OCT-2005 03:39:33	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	18881	No
28	GOM_NL__2PRFIN20051010_034252_000000352041_00290_18881_7487.N1	10-OCT-2005 03:42:52	Bright	35.000	174	52Psi UMa	3.0040	4400.0	70	18881	No
29	GOM_NL__2PRFIN20051010_035022_000000362041_00290_18881_7488.N1	10-OCT-2005 03:50:22	Bright	36.000	51	41Gam1Leo	2.0100	4500.0	72	18881	No
30	GOM_NL__2PRFIN20051010_035249_000000362041_00290_18881_7489.N1	10-OCT-2005 03:52:49	Bright	36.000	22	32Alp Leo	1.3600	15200.	72	18881	No
31	GOM_NL__2PRFIN20051010_040926_000000462041_00290_18881_7490.N1	10-OCT-2005 04:09:26	Dark	46.000	65	Lam Vel	2.2040	4400.0	92	18881	No
32	GOM_NL__2PRFIN20051010_041238_000000392041_00290_18881_7491.N1	10-OCT-2005 04:12:38	Dark	38.500	46	Del Vel	1.9540	10600.	77	18881	No
33	GOM_NL__2PRFIN20051010_041524_000000382041_00291_18882_7476.N1	10-OCT-2005 04:15:24	Dark	38.000	29	Bet Car	1.6720	10200.	76	18882	No
34	GOM_NL__2PRFIN20051010_042620_000000382041_00291_18882_7477.N1	10-OCT-2005 04:26:20	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	18882	No
35	GOM_NL__2PRFIN20051010_042747_000000452041_00291_18882_7478.N1	10-OCT-2005 04:27:47	Dark	44.500	9	Alp Eri	0.45300	24000.	89	18882	No
36	GOM_NL__2PRFIN20051010_043255_000000412041_00291_18882_7479.N1	10-OCT-2005 04:32:55	Straylight	41.000	84	Alp Phe	2.3970	4500.0	82	18882	No
37	GOM_NL__2PRFIN20051010_044943_000000362041_00291_18882_7480.N1	10-OCT-2005 04:49:43	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	18882	No
38	GOM_NL__2PRFIN20051010_045316_000000362041_00291_18882_7481.N1	10-OCT-2005 04:53:16	Bright	36.000	93	53Bet Peg	2.5200	3100.0	72	18882	No
39	GOM_NL__2PRFIN20051010_050205_000000012041_00291_18882_7482.N1	10-OCT-2005 05:02:05	Dark	1.0000	74	11Bet Cas	2.2680	6600.0	2	18882	Yes
40	GOM_NL__2PRFIN20051010_050352_000000362041_00291_18882_7483.N1	10-OCT-2005 05:03:52	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18882	No
41	GOM_NL__2PRFIN20051010_051027_000000352041_00291_18882_7484.N1	10-OCT-2005 05:10:27	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	18882	No
42	GOM_NL__2PRFIN20051010_051307_000000392041_00291_18882_7485.N1	10-OCT-2005 05:13:07	Bright	38.500	60	7Bet UMi	2.0810	3950.0	77	18882	No





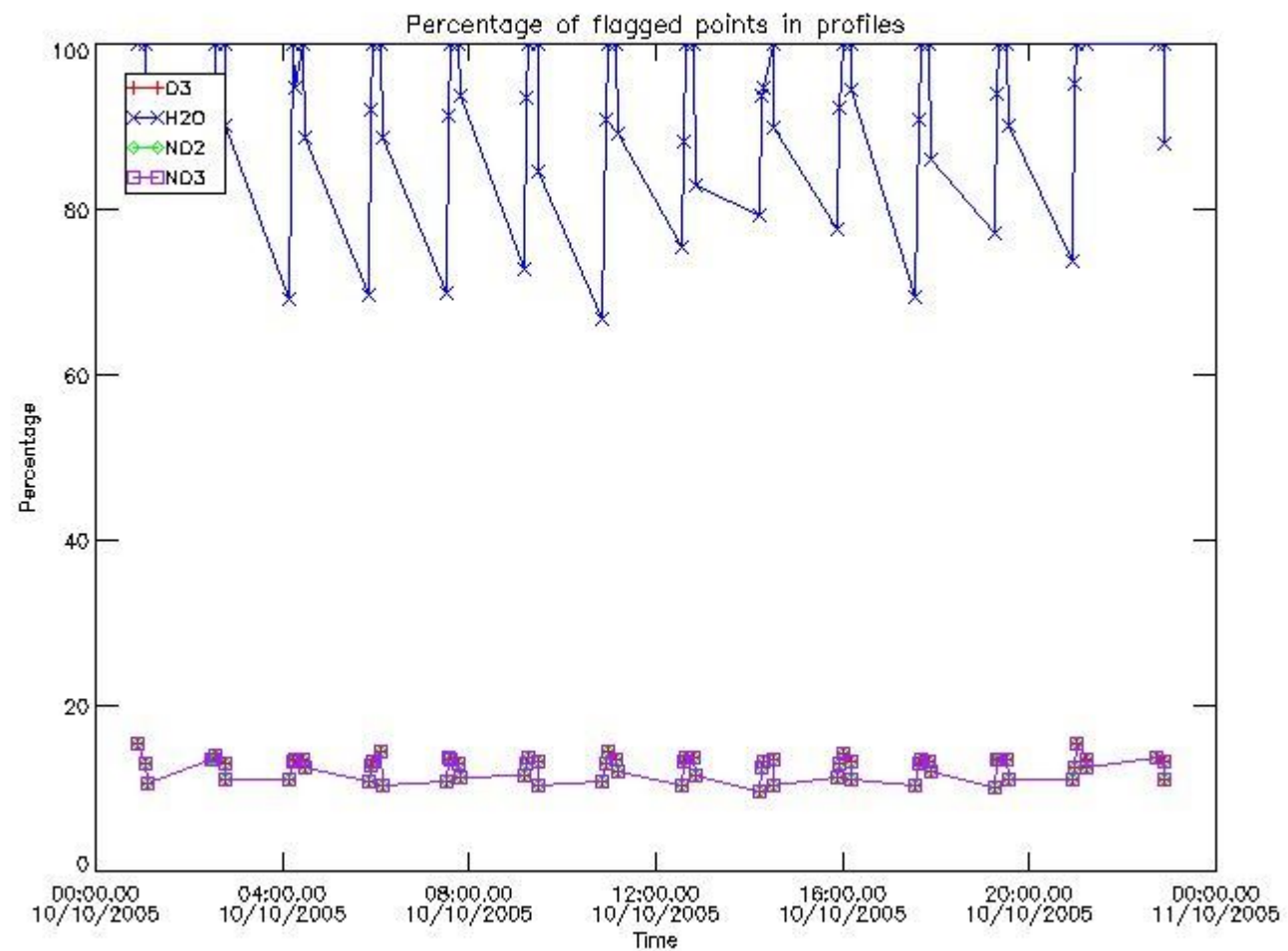


220	GOM_NL__2PRFIN20051010_225426_000000462041_00302_18893_7498.N1	10-OCT-2005 22:54:26	Dark	46.000	9	Alp Eri	0.45300	24000.	92	18893	No
221	GOM_NL__2PRFIN20051010_225933_000000392041_00302_18893_7499.N1	10-OCT-2005 22:59:33	Straylight	39.000	84	Alp Phe	2.3970	4500.0	78	18893	No
222	GOM_NL__2PRFIN20051010_230613_000000092041_00302_18893_7500.N1	10-OCT-2005 23:06:13	Straylight	9.0000	52	16Bet Cet	2.0370	4500.0	18	18893	No
223	GOM_NL__2PRFIN20051010_231620_000000372041_00302_18893_7501.N1	10-OCT-2005 23:16:20	Bright	36.500	90	54Alp Peg	2.4870	11000.	73	18893	No
224	GOM_NL__2PRFIN20051010_231953_000000392041_00302_18893_7502.N1	10-OCT-2005 23:19:53	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	18893	No
225	GOM_NL__2PRFIN20051010_232839_000000332041_00302_18893_7503.N1	10-OCT-2005 23:28:39	Bright	33.000	74	11Bet Cas	2.2680	6600.0	66	18893	No
226	GOM_NL__2PRFIN20051010_233031_000000362041_00302_18893_7504.N1	10-OCT-2005 23:30:31	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18893	No
227	GOM_NL__2PRFIN20051010_233703_000000332041_00302_18893_7505.N1	10-OCT-2005 23:37:03	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	18893	No
228	GOM_NL__2PRFIN20051010_233945_000000362041_00302_18893_7506.N1	10-OCT-2005 23:39:45	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	18893	No
229	GOM_NL__2PRFIN20051010_234513_000000382041_00302_18893_7507.N1	10-OCT-2005 23:45:13	Bright	37.500	36	50Alp UMa	1.8000	6300.0	75	18893	No
230	GOM_NL__2PRFIN20051010_234645_000000362041_00302_18893_7508.N1	10-OCT-2005 23:46:45	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	18893	No
231	GOM_NL__2PRFIN20051010_235005_000000362041_00302_18893_7509.N1	10-OCT-2005 23:50:05	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	18893	No
232	GOM_NL__2PRFIN20051010_235736_000000362041_00302_18893_7510.N1	10-OCT-2005 23:57:36	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18893	No

### 3. Quality information per product

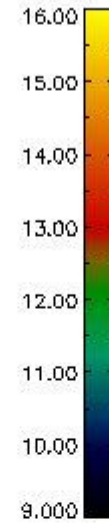
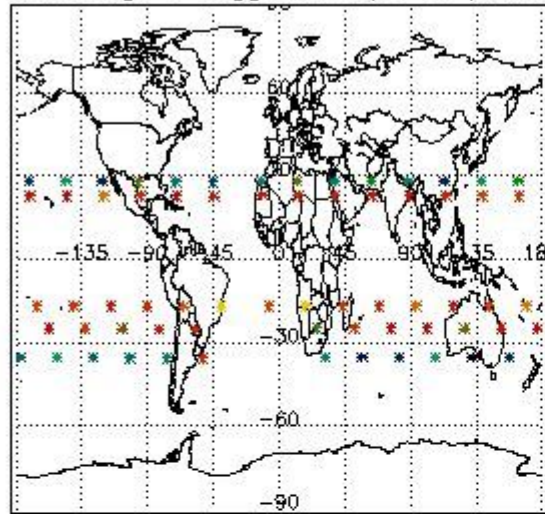
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

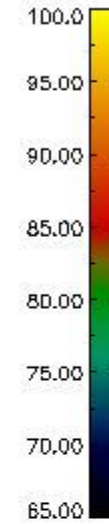
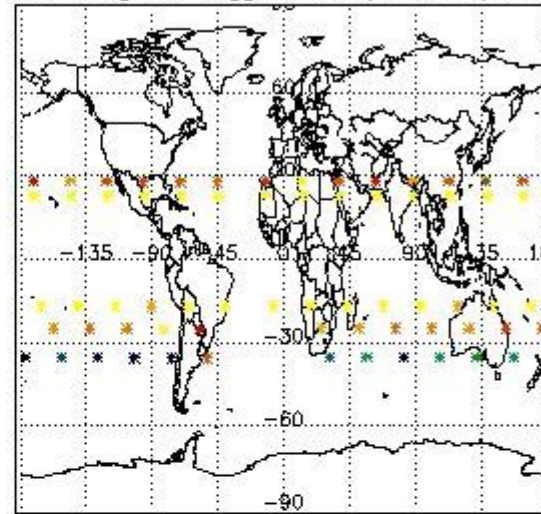


#### 3.2 Plot quality information per product (world map)

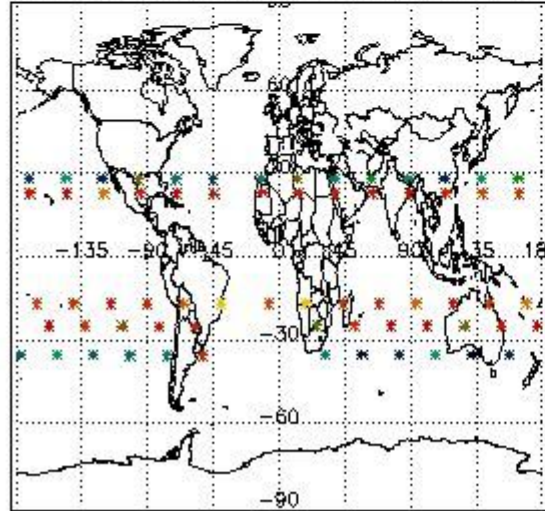
Percentage of flagged data per O3 profile



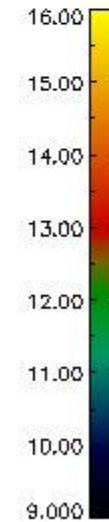
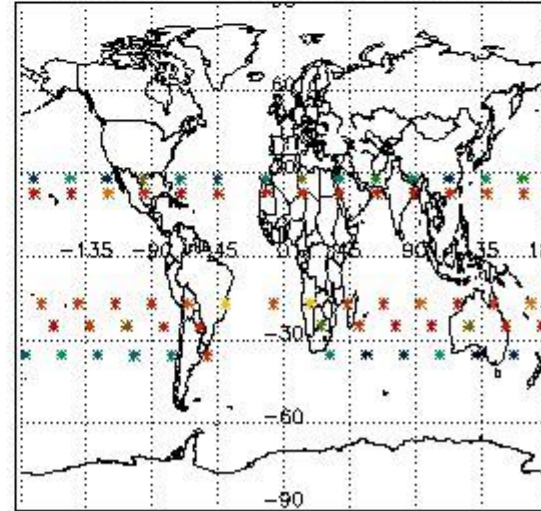
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

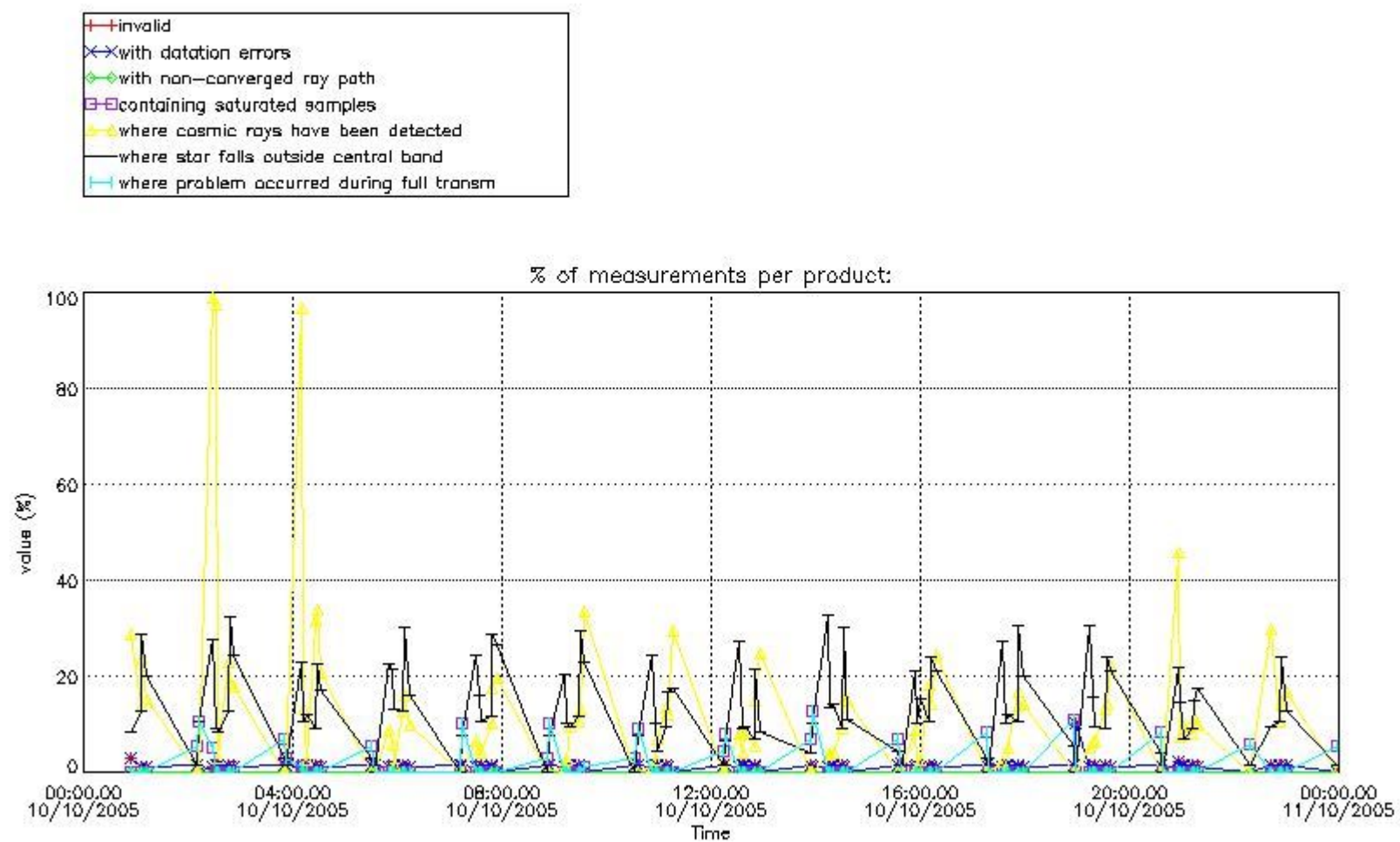


#### 4. Level 1 quality information per product

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.

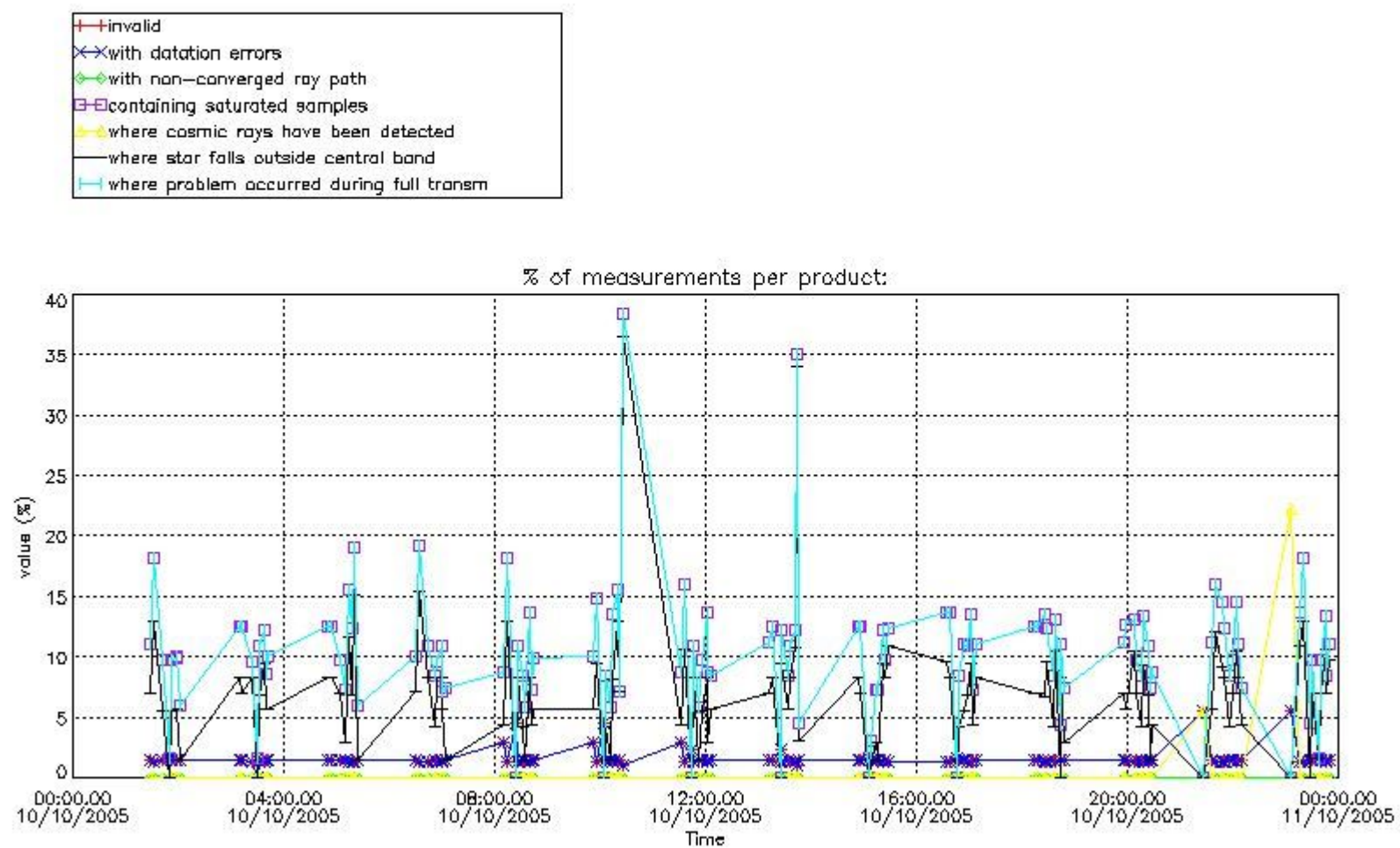
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

##### 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

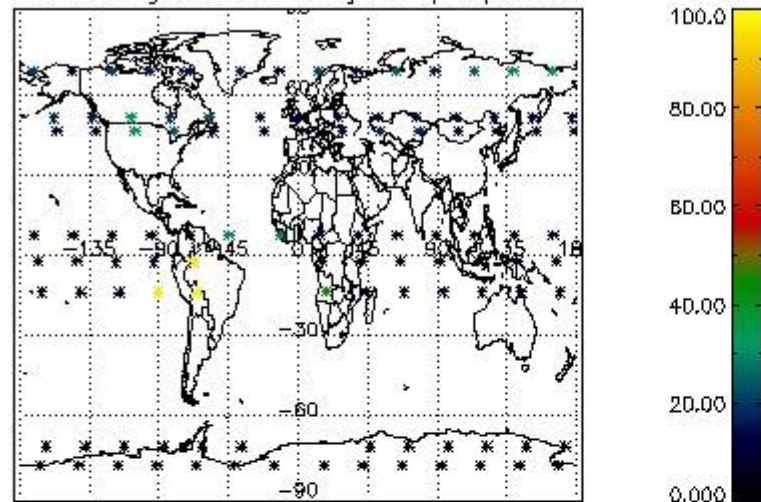




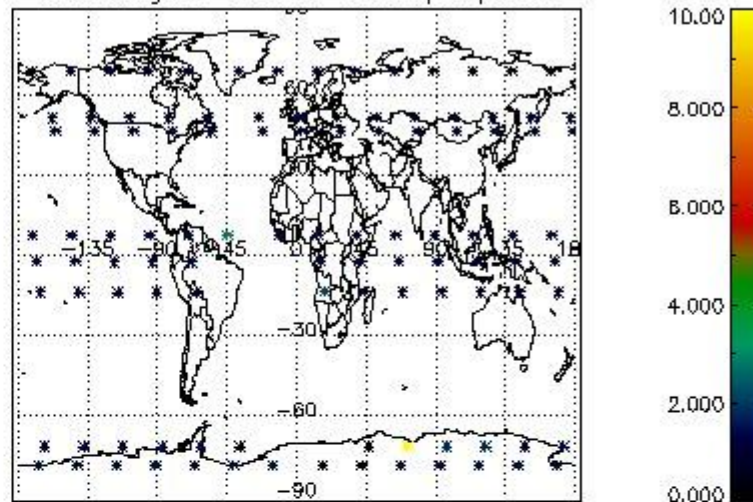
4.2 Plot quality information per product coming from level 1b processing (world map)

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

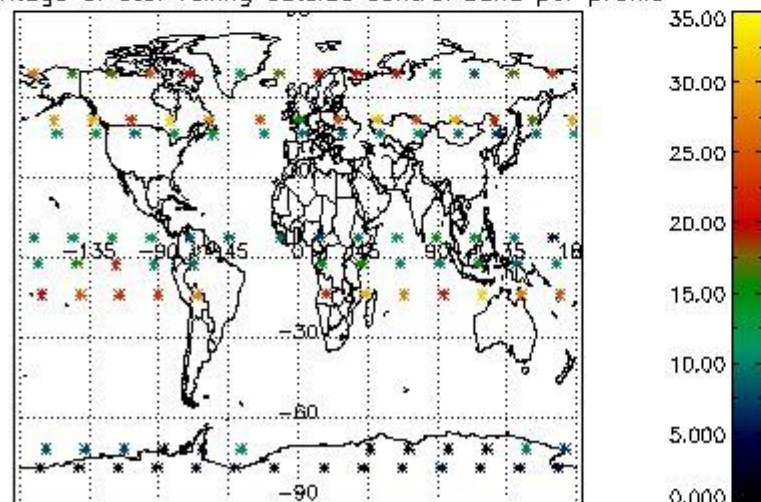
Percentage of cosmic ray hits per profile



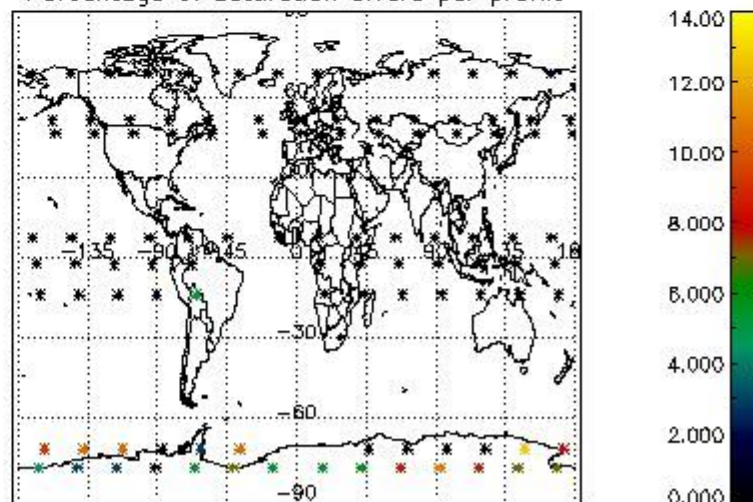
Percentage of datation errors per profile



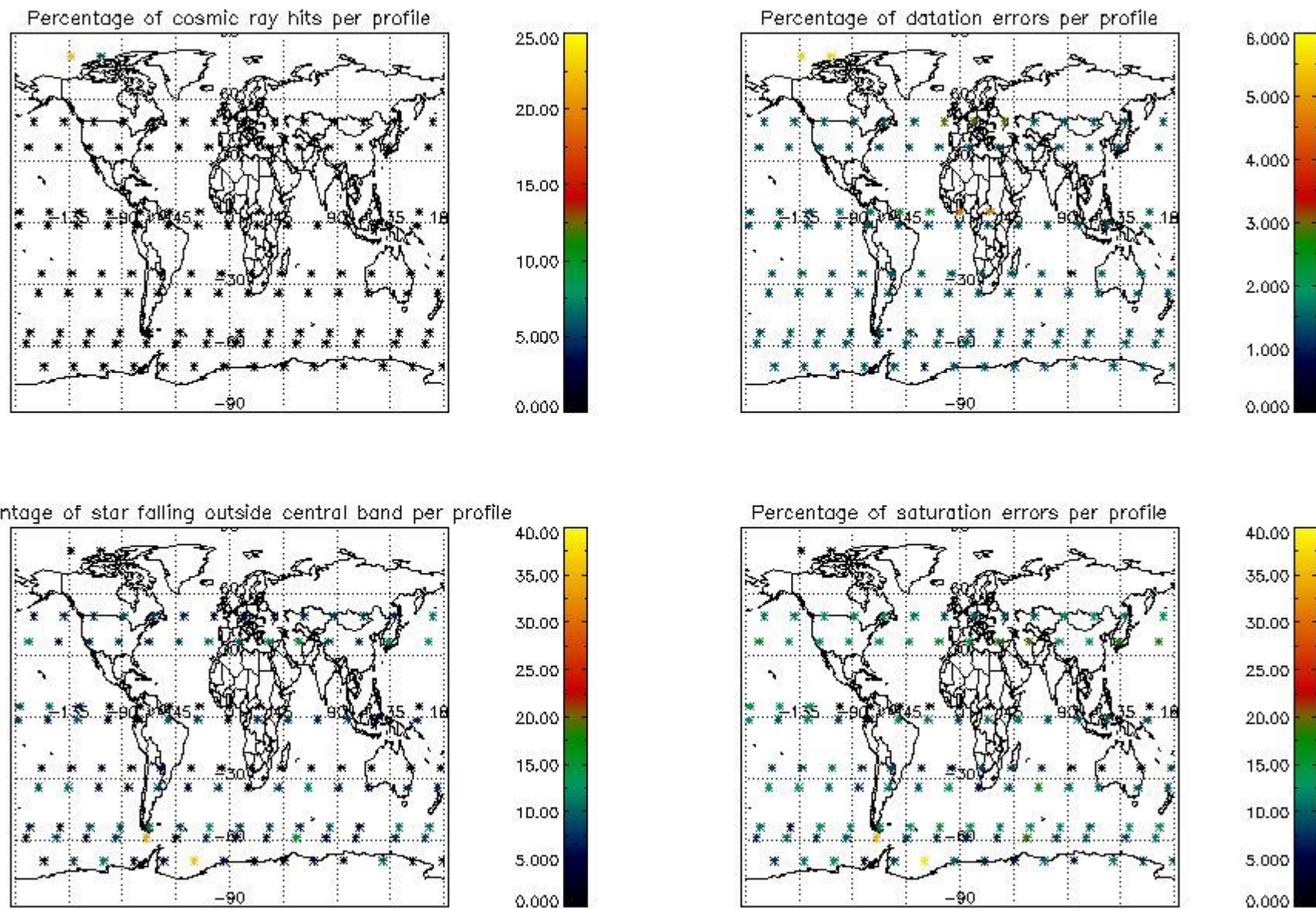
Percentage of star falling outside central band per profile



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

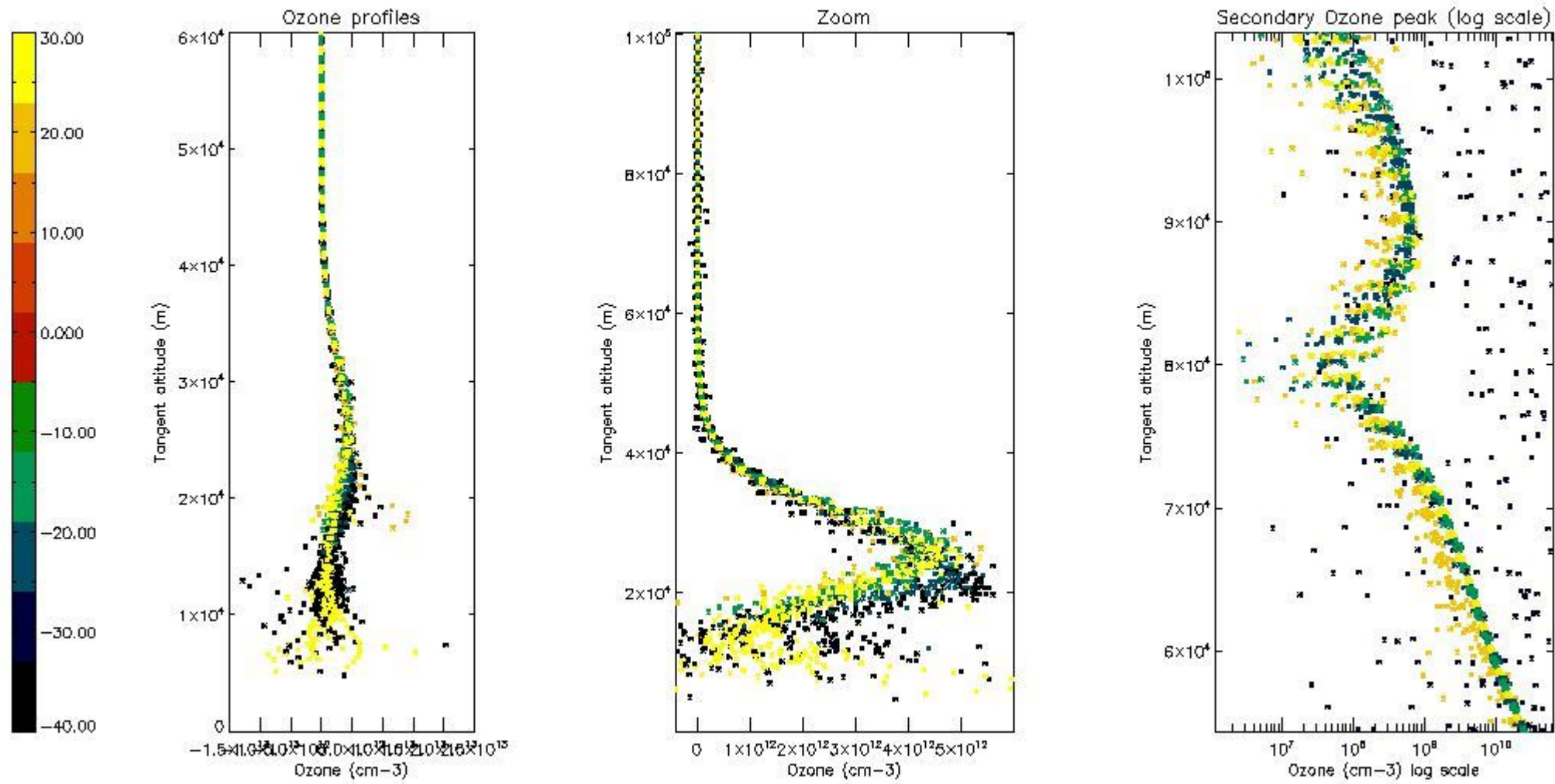
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	15
STD < 5	9

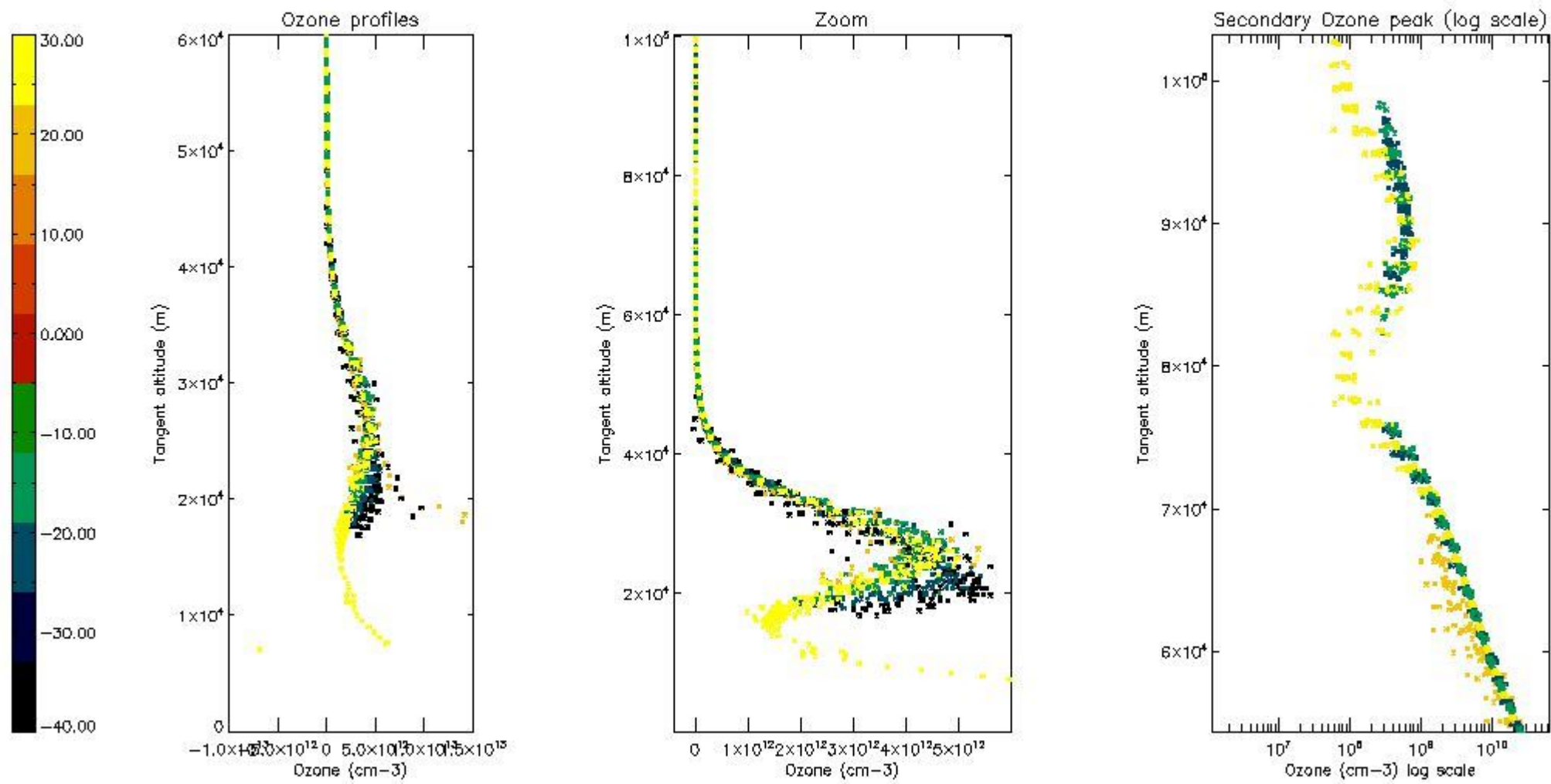
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



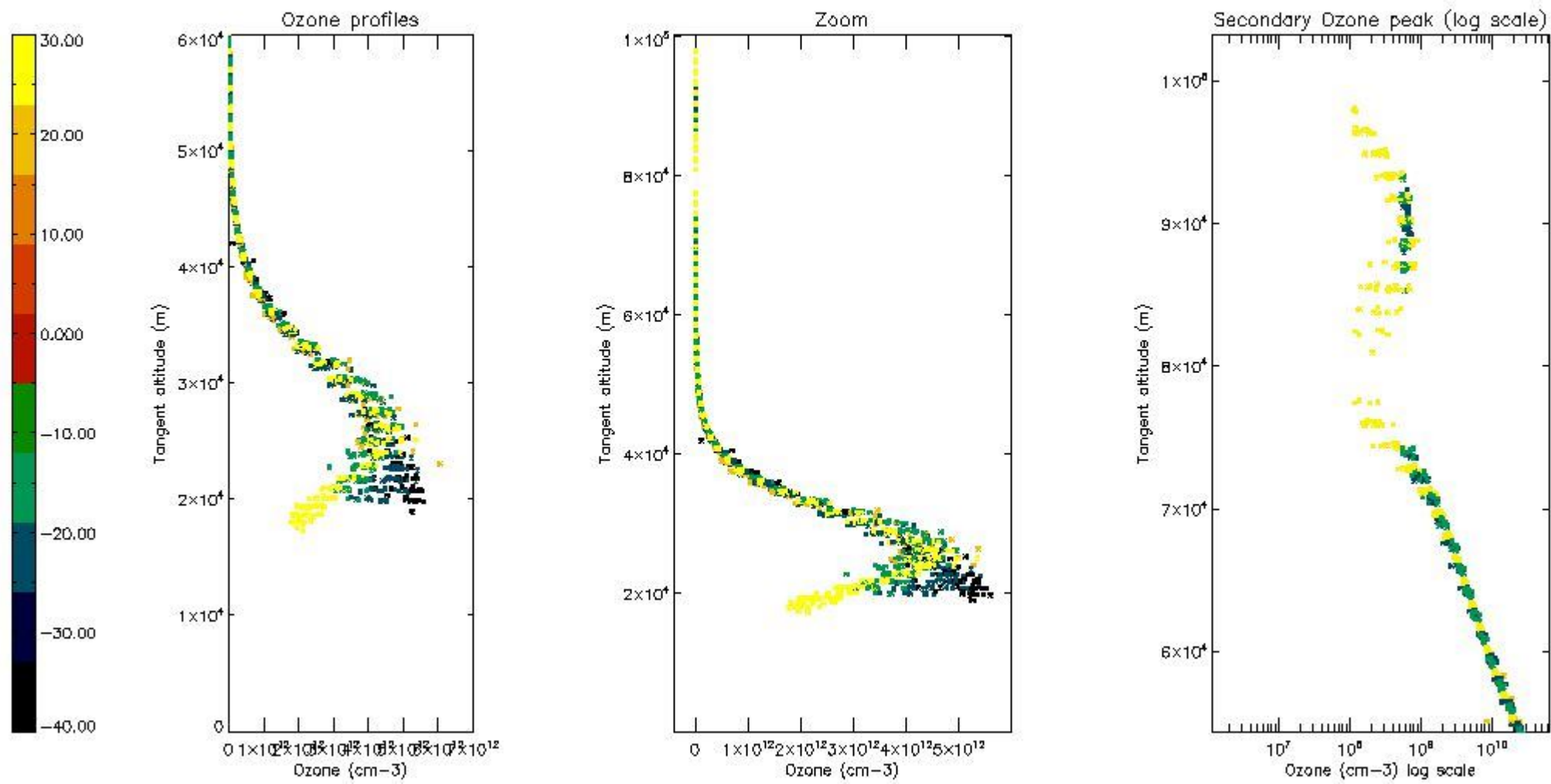
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



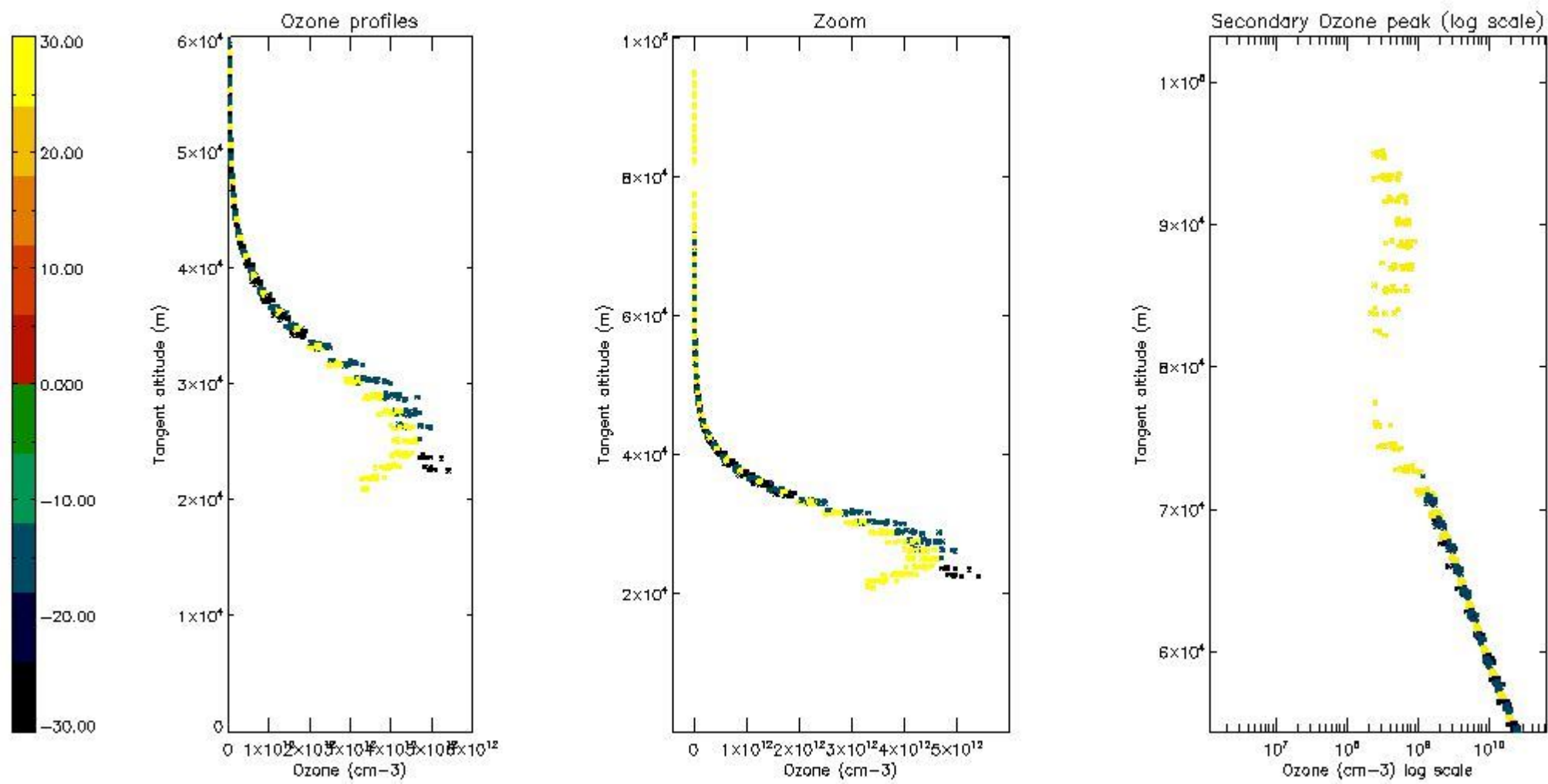
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



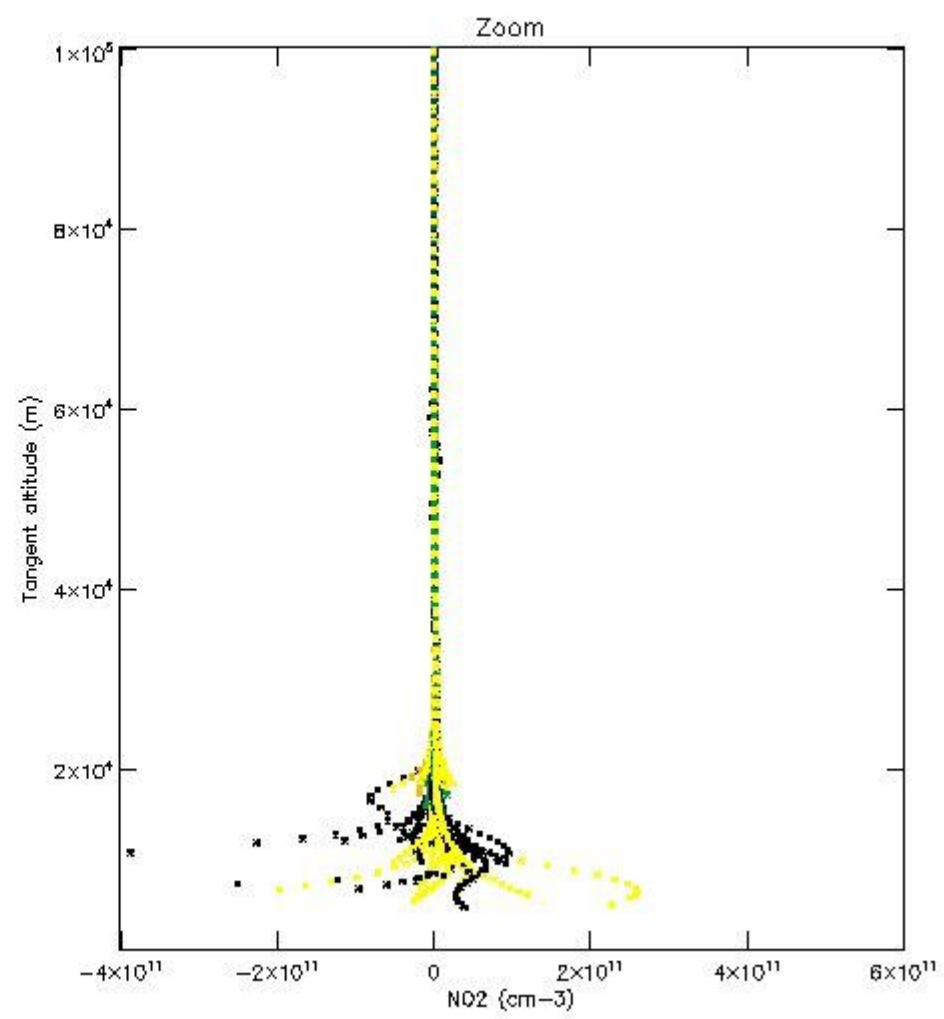
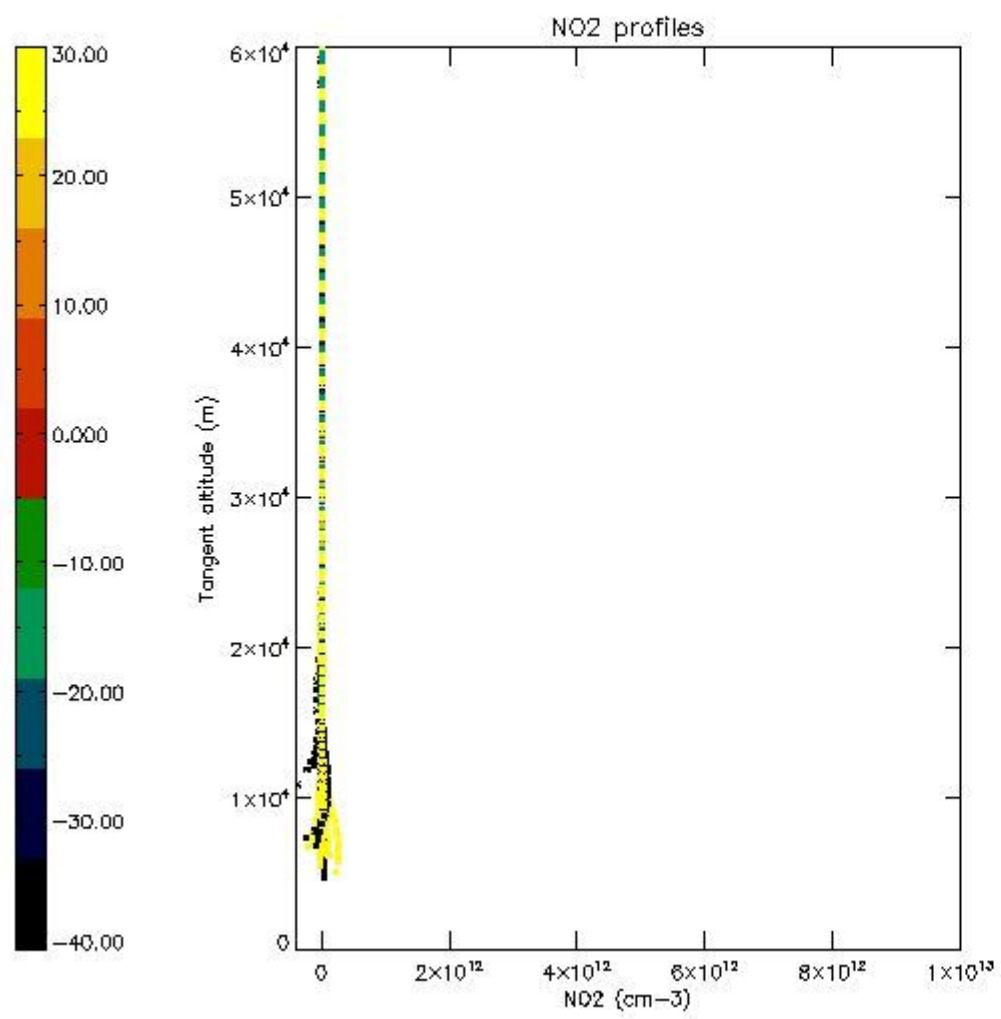
*5.5 Plot ozone profiles where  $STD < 5\%$  (dark without errors)*

The colorbar represents the latitude.



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

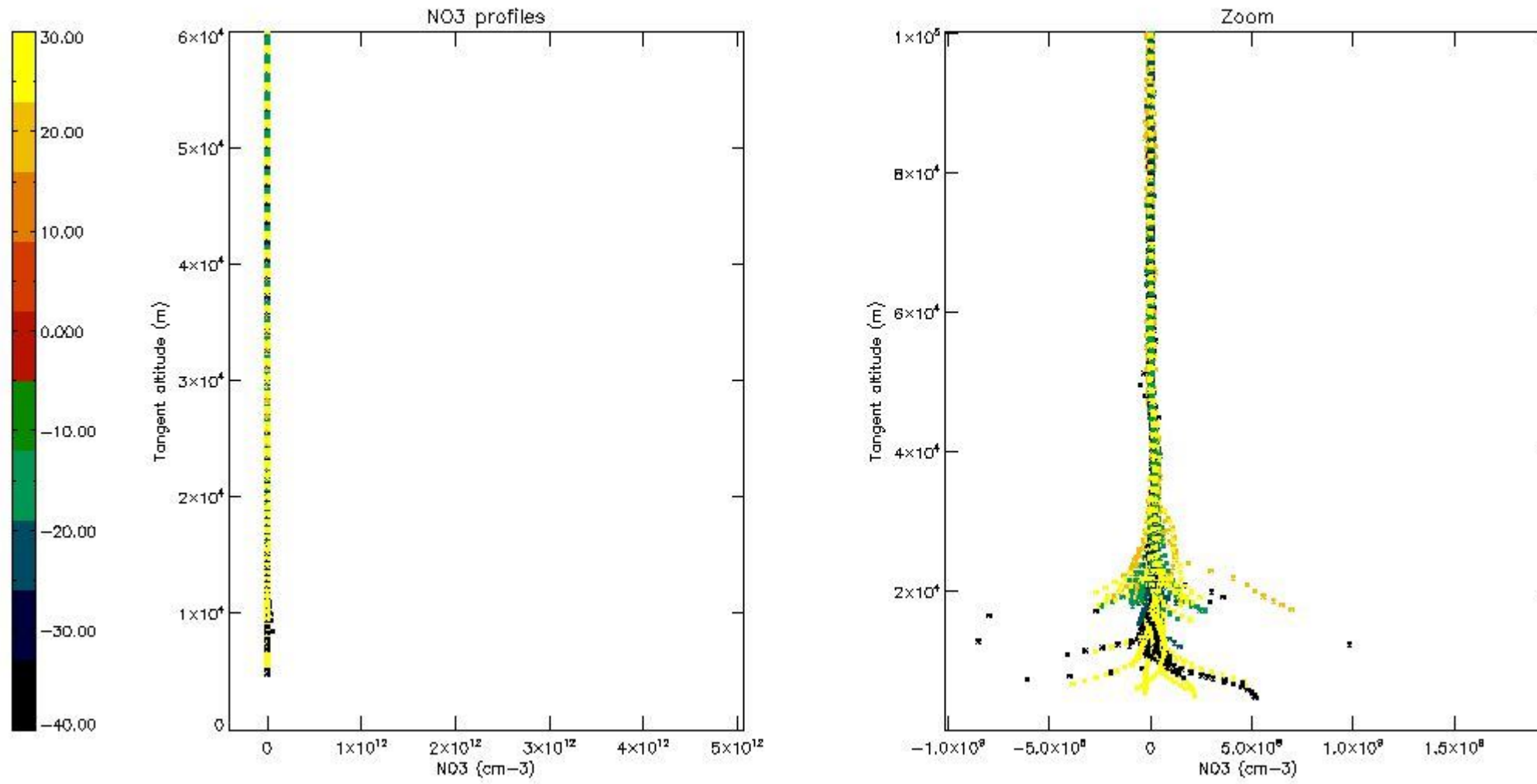
The colorbar represents the latitude.



*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-OCT-2005 00:54:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	10-OCT-2005 00:54:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	10-OCT-2005 00:54:11

# GOMOS Level 2 Daily Report

## SUMMARY

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

### [2. Summary of processed GOM\\_NL\\_2P products](#)

### [3. Level 2 Quality information per product](#)

#### [3.1 Plot of level 2 quality information per product \(time dependant\)](#)

#### [3.2 Plot of level 2 quality information per product \(world map\)](#)

### [4. Level 1 Quality information per product \(stored on level 2 products\)](#)

#### [4.1 Plot of level 1 quality information per product \(time dependant\)](#)

##### [4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

##### [4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

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

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

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

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

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

#### [5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

#### [5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

#### [5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

#### [5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

#### [5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

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

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

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

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM\_NL\_\_2P). It is intended to monitor some important parameters that will impact the quality of these products. A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	18APR2013 11:31:40
Data source version	GOMOS/6.01
Start time of products	10-10-2005 (10OCT2005 00:00:00)
Stop time of products	11-10-2005 (11OCT2005 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	232
Nb of prods with errors	2

## 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__2PRFIN20051010_005411_000000372041_00289_18880_7476.N1	10-OCT-2005 00:54:11	Dark	36.500	29	Bet Car	1.6720	10200.	73	18880	No
2	GOM_NL__2PRFIN20051010_010507_000000402041_00289_18880_7477.N1	10-OCT-2005 01:05:07	Dark	39.500	143	Alp Hyi	2.8570	7200.0	79	18880	No
3	GOM_NL__2PRFIN20051010_010634_000000492041_00289_18880_7478.N1	10-OCT-2005 01:06:34	Dark	48.500	9	Alp Eri	0.45300	24000.	97	18880	No
4	GOM_NL__2PRFIN20051010_011143_000000432041_00289_18880_7479.N1	10-OCT-2005 01:11:43	Straylight	42.500	84	Alp Phe	2.3970	4500.0	85	18880	No
5	GOM_NL__2PRFIN20051010_012831_000000362041_00289_18880_7480.N1	10-OCT-2005 01:28:31	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	18880	No
6	GOM_NL__2PRFIN20051010_013204_000000392041_00289_18880_7481.N1	10-OCT-2005 01:32:04	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	18880	No
7	GOM_NL__2PRFIN20051010_014240_000000362041_00289_18880_7482.N1	10-OCT-2005 01:42:40	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18880	No
8	GOM_NL__2PRFIN20051010_014915_000000322041_00289_18880_7483.N1	10-OCT-2005 01:49:15	Bright	32.000	49	1Alp UMi	1.9900	6300.0	64	18880	No
9	GOM_NL__2PRFIN20051010_015155_000000362041_00289_18880_7484.N1	10-OCT-2005 01:51:55	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	18880	No
10	GOM_NL__2PRFIN20051010_015725_000000362041_00289_18880_7485.N1	10-OCT-2005 01:57:25	Bright	35.500	36	50Alp UMa	1.8000	6300.0	71	18880	No
11	GOM_NL__2PRFIN20051010_015857_000000352041_00289_18880_7486.N1	10-OCT-2005 01:58:57	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	18880	No
12	GOM_NL__2PRFIN20051010_020216_000000342041_00289_18880_7487.N1	10-OCT-2005 02:02:16	Bright	33.500	174	52Psi UMa	3.0040	4400.0	67	18880	No
13	GOM_NL__2PRFIN20051010_020946_000000362041_00289_18880_7488.N1	10-OCT-2005 02:09:46	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18880	No
14	GOM_NL__2PRFIN20051010_021213_000000392041_00289_18880_7489.N1	10-OCT-2005 02:12:13	Bright	38.500	22	32Alp Leo	1.3600	15200.	77	18880	No
15	GOM_NL__2PRFIN20051010_022849_000000492041_00289_18880_7490.N1	10-OCT-2005 02:28:49	Dark	49.000	65	Lam Vel	2.2040	4400.0	98	18880	No
16	GOM_NL__2PRFIN20051010_023202_000000382041_00289_18880_7491.N1	10-OCT-2005 02:32:02	Dark	38.000	46	Del Vel	1.9540	10600.	76	18880	No
17	GOM_NL__2PRFIN20051010_023448_000000372041_00290_18881_7476.N1	10-OCT-2005 02:34:48	Dark	36.500	29	Bet Car	1.6720	10200.	73	18881	No
18	GOM_NL__2PRFIN20051010_024543_000000392041_00290_18881_7477.N1	10-OCT-2005 02:45:43	Dark	39.000	143	Alp Hyi	2.8570	7200.0	78	18881	No
19	GOM_NL__2PRFIN20051010_024711_000000512041_00290_18881_7478.N1	10-OCT-2005 02:47:11	Dark	51.000	9	Alp Eri	0.45300	24000.	102	18881	No
20	GOM_NL__2PRFIN20051010_025219_000000452041_00290_18881_7479.N1	10-OCT-2005 02:52:19	Straylight	45.000	84	Alp Phe	2.3970	4500.0	90	18881	No
21	GOM_NL__2PRFIN20051010_030907_000000362041_00290_18881_7480.N1	10-OCT-2005 03:09:07	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	18881	No
22	GOM_NL__2PRFIN20051010_031240_000000362041_00290_18881_7481.N1	10-OCT-2005 03:12:40	Bright	36.000	93	53Bet Peg	2.5200	3100.0	72	18881	No
23	GOM_NL__2PRFIN20051010_032316_000000372041_00290_18881_7482.N1	10-OCT-2005 03:23:16	Bright	36.500	89	5Alp Cep	2.4510	8000.0	73	18881	No
24	GOM_NL__2PRFIN20051010_032951_000000322041_00290_18881_7483.N1	10-OCT-2005 03:29:51	Bright	31.500	49	1Alp UMi	1.9900	6300.0	63	18881	No
25	GOM_NL__2PRFIN20051010_033231_000000372041_00290_18881_7484.N1	10-OCT-2005 03:32:31	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	18881	No
26	GOM_NL__2PRFIN20051010_033801_000000372041_00290_18881_7485.N1	10-OCT-2005 03:38:01	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	18881	No
27	GOM_NL__2PRFIN20051010_033933_000000352041_00290_18881_7486.N1	10-OCT-2005 03:39:33	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	18881	No
28	GOM_NL__2PRFIN20051010_034252_000000352041_00290_18881_7487.N1	10-OCT-2005 03:42:52	Bright	35.000	174	52Psi UMa	3.0040	4400.0	70	18881	No
29	GOM_NL__2PRFIN20051010_035022_000000362041_00290_18881_7488.N1	10-OCT-2005 03:50:22	Bright	36.000	51	41Gam1Leo	2.0100	4500.0	72	18881	No
30	GOM_NL__2PRFIN20051010_035249_000000362041_00290_18881_7489.N1	10-OCT-2005 03:52:49	Bright	36.000	22	32Alp Leo	1.3600	15200.	72	18881	No
31	GOM_NL__2PRFIN20051010_040926_000000462041_00290_18881_7490.N1	10-OCT-2005 04:09:26	Dark	46.000	65	Lam Vel	2.2040	4400.0	92	18881	No
32	GOM_NL__2PRFIN20051010_041238_000000392041_00290_18881_7491.N1	10-OCT-2005 04:12:38	Dark	38.500	46	Del Vel	1.9540	10600.	77	18881	No
33	GOM_NL__2PRFIN20051010_041524_000000382041_00291_18882_7476.N1	10-OCT-2005 04:15:24	Dark	38.000	29	Bet Car	1.6720	10200.	76	18882	No
34	GOM_NL__2PRFIN20051010_042620_000000382041_00291_18882_7477.N1	10-OCT-2005 04:26:20	Dark	38.000	143	Alp Hyi	2.8570	7200.0	76	18882	No
35	GOM_NL__2PRFIN20051010_042747_000000452041_00291_18882_7478.N1	10-OCT-2005 04:27:47	Dark	44.500	9	Alp Eri	0.45300	24000.	89	18882	No
36	GOM_NL__2PRFIN20051010_043255_000000412041_00291_18882_7479.N1	10-OCT-2005 04:32:55	Straylight	41.000	84	Alp Phe	2.3970	4500.0	82	18882	No
37	GOM_NL__2PRFIN20051010_044943_000000362041_00291_18882_7480.N1	10-OCT-2005 04:49:43	Bright	36.000	90	54Alp Peg	2.4870	11000.	72	18882	No
38	GOM_NL__2PRFIN20051010_045316_000000362041_00291_18882_7481.N1	10-OCT-2005 04:53:16	Bright	36.000	93	53Bet Peg	2.5200	3100.0	72	18882	No
39	GOM_NL__2PRFIN20051010_050205_000000012041_00291_18882_7482.N1	10-OCT-2005 05:02:05	Dark	1.0000	74	11Bet Cas	2.2680	6600.0	2	18882	Yes
40	GOM_NL__2PRFIN20051010_050352_000000362041_00291_18882_7483.N1	10-OCT-2005 05:03:52	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18882	No
41	GOM_NL__2PRFIN20051010_051027_000000352041_00291_18882_7484.N1	10-OCT-2005 05:10:27	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	18882	No
42	GOM_NL__2PRFIN20051010_051307_000000392041_00291_18882_7485.N1	10-OCT-2005 05:13:07	Bright	38.500	60	7Bet UMi	2.0810	3950.0	77	18882	No





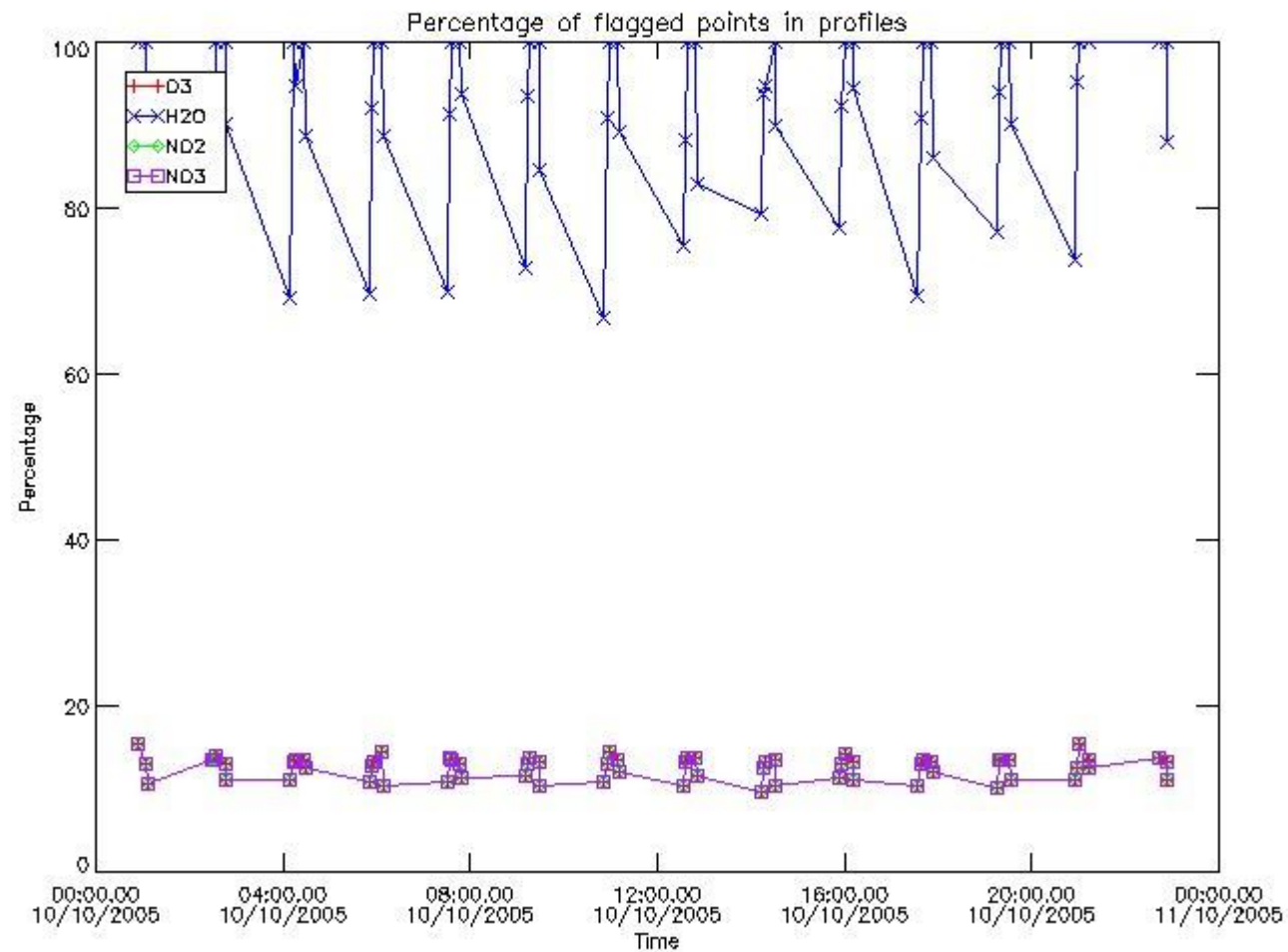


220	GOM_NL__2PRFIN20051010_225426_000000462041_00302_18893_7498.N1	10-OCT-2005 22:54:26	Dark	46.000	9	Alp Eri	0.45300	24000.	92	18893	No
221	GOM_NL__2PRFIN20051010_225933_000000392041_00302_18893_7499.N1	10-OCT-2005 22:59:33	Straylight	39.000	84	Alp Phe	2.3970	4500.0	78	18893	No
222	GOM_NL__2PRFIN20051010_230613_000000092041_00302_18893_7500.N1	10-OCT-2005 23:06:13	Straylight	9.0000	52	16Bet Cet	2.0370	4500.0	18	18893	No
223	GOM_NL__2PRFIN20051010_231620_000000372041_00302_18893_7501.N1	10-OCT-2005 23:16:20	Bright	36.500	90	54Alp Peg	2.4870	11000.	73	18893	No
224	GOM_NL__2PRFIN20051010_231953_000000392041_00302_18893_7502.N1	10-OCT-2005 23:19:53	Bright	38.500	93	53Bet Peg	2.5200	3100.0	77	18893	No
225	GOM_NL__2PRFIN20051010_232839_000000332041_00302_18893_7503.N1	10-OCT-2005 23:28:39	Bright	33.000	74	11Bet Cas	2.2680	6600.0	66	18893	No
226	GOM_NL__2PRFIN20051010_233031_000000362041_00302_18893_7504.N1	10-OCT-2005 23:30:31	Bright	36.000	89	5Alp Cep	2.4510	8000.0	72	18893	No
227	GOM_NL__2PRFIN20051010_233703_000000332041_00302_18893_7505.N1	10-OCT-2005 23:37:03	Bright	32.500	49	1Alp UMi	1.9900	6300.0	65	18893	No
228	GOM_NL__2PRFIN20051010_233945_000000362041_00302_18893_7506.N1	10-OCT-2005 23:39:45	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	18893	No
229	GOM_NL__2PRFIN20051010_234513_000000382041_00302_18893_7507.N1	10-OCT-2005 23:45:13	Bright	37.500	36	50Alp UMa	1.8000	6300.0	75	18893	No
230	GOM_NL__2PRFIN20051010_234645_000000362041_00302_18893_7508.N1	10-OCT-2005 23:46:45	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	18893	No
231	GOM_NL__2PRFIN20051010_235005_000000362041_00302_18893_7509.N1	10-OCT-2005 23:50:05	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	18893	No
232	GOM_NL__2PRFIN20051010_235736_000000362041_00302_18893_7510.N1	10-OCT-2005 23:57:36	Bright	35.500	51	41Gam1Leo	2.0100	4500.0	71	18893	No

### 3. Quality information per product

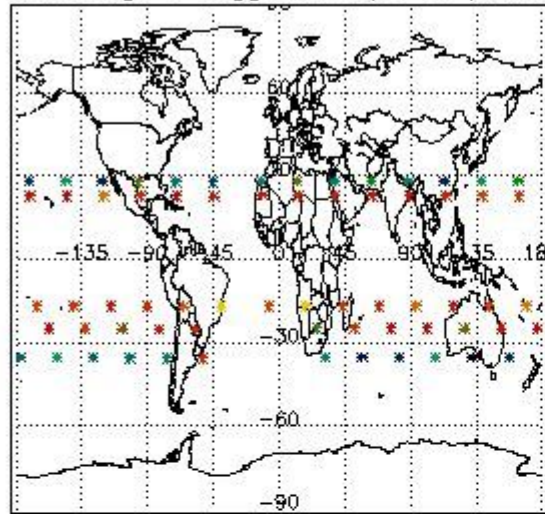
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

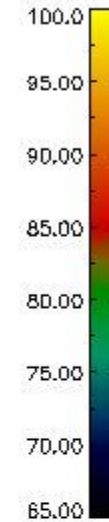
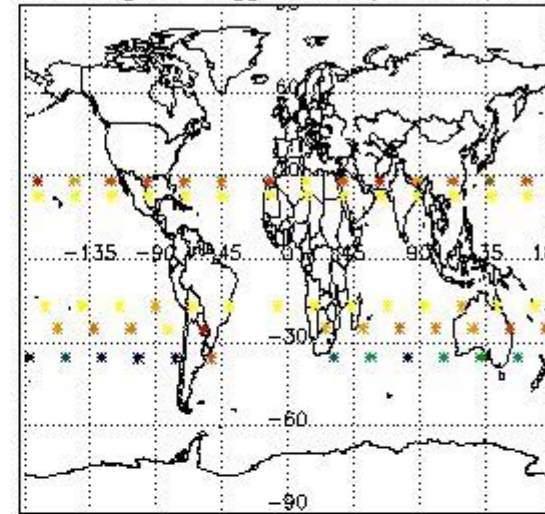


#### 3.2 Plot quality information per product (world map)

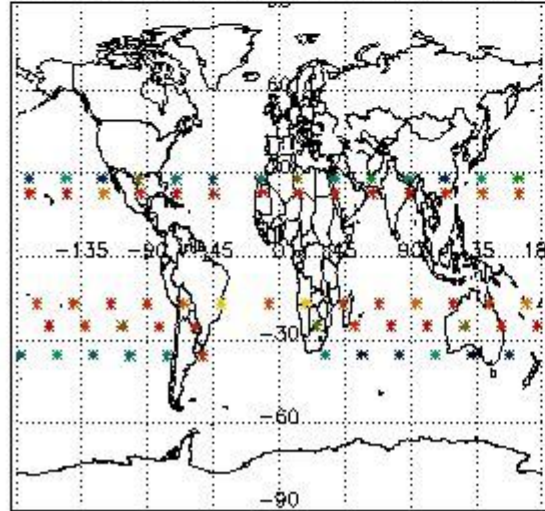
Percentage of flagged data per O3 profile



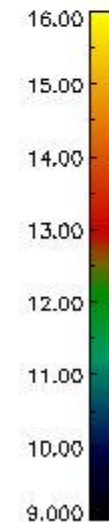
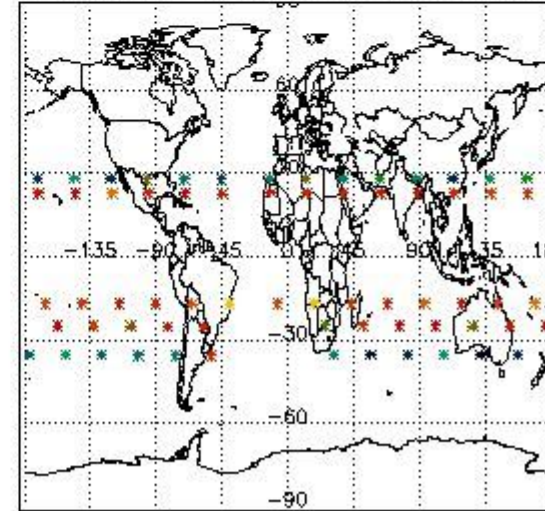
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



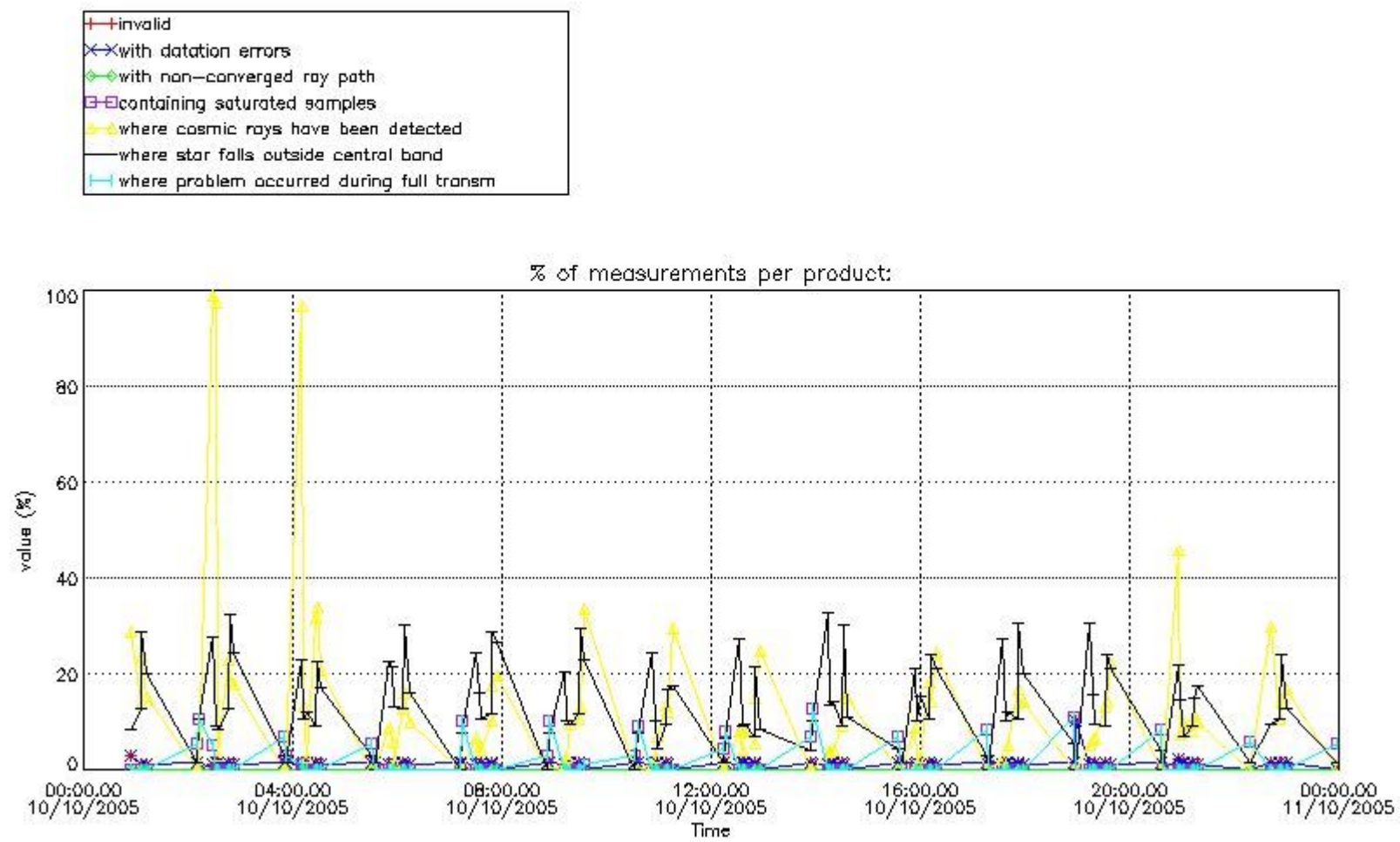
#### 4. Level 1 quality information per product

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.

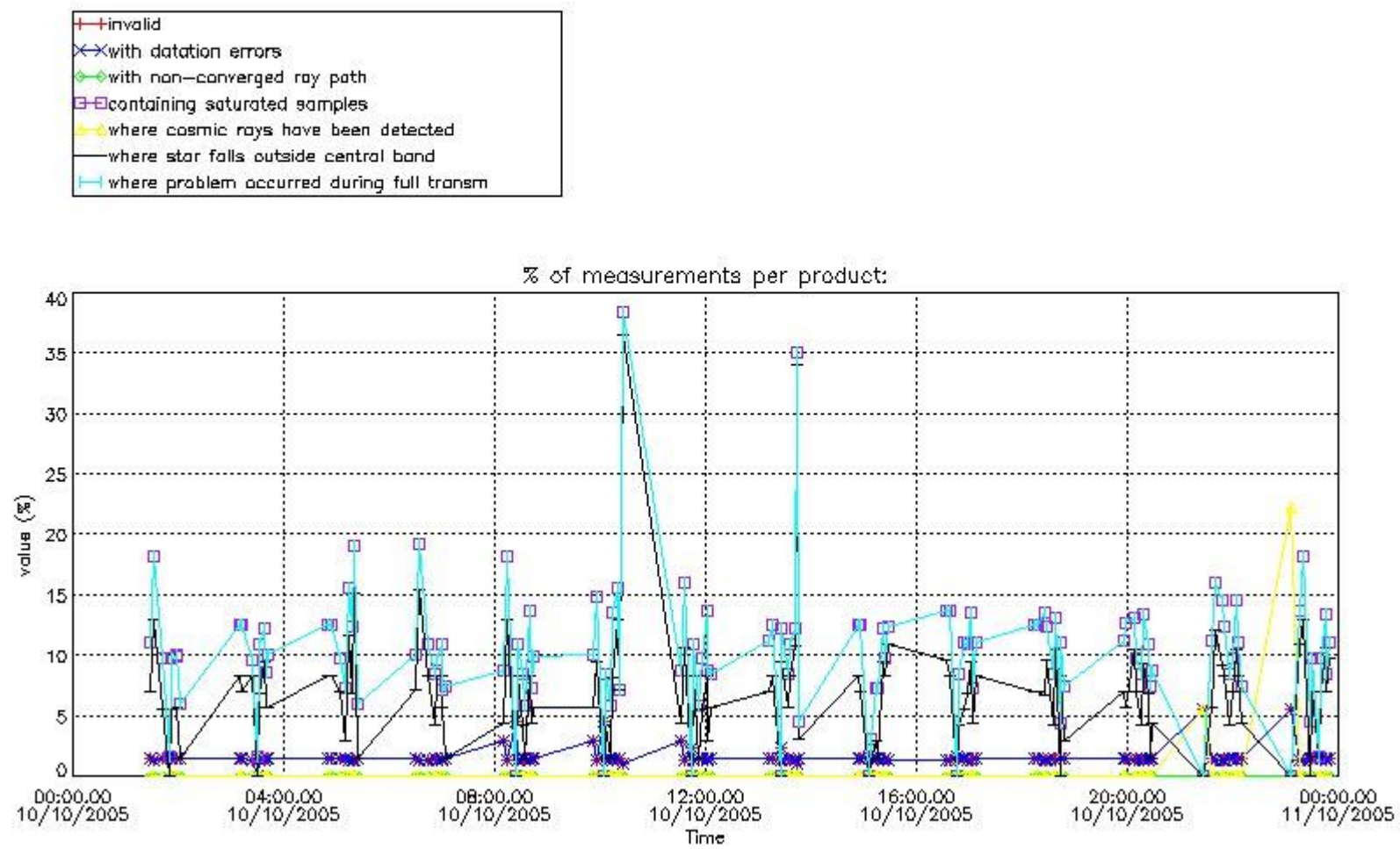
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





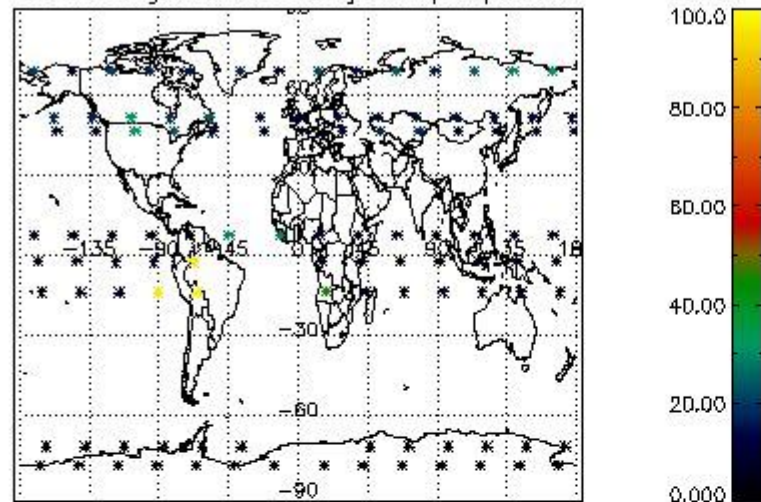
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



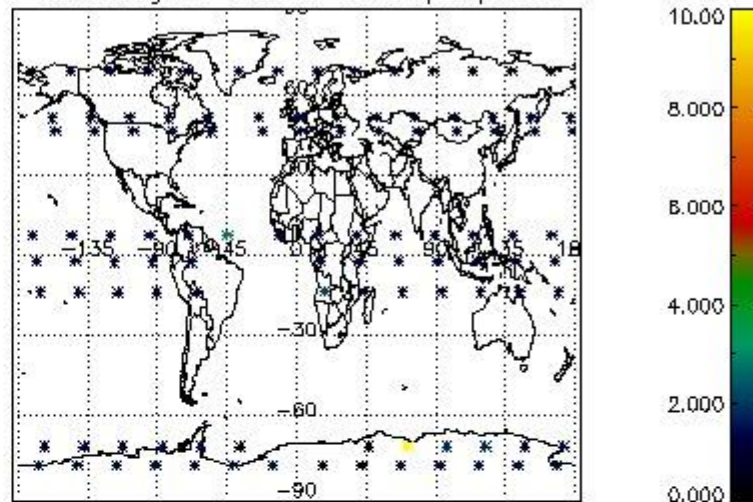
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

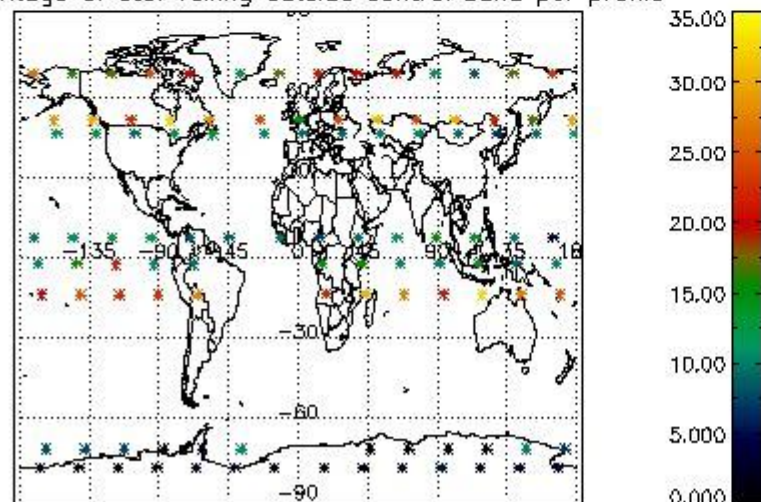
Percentage of cosmic ray hits per profile



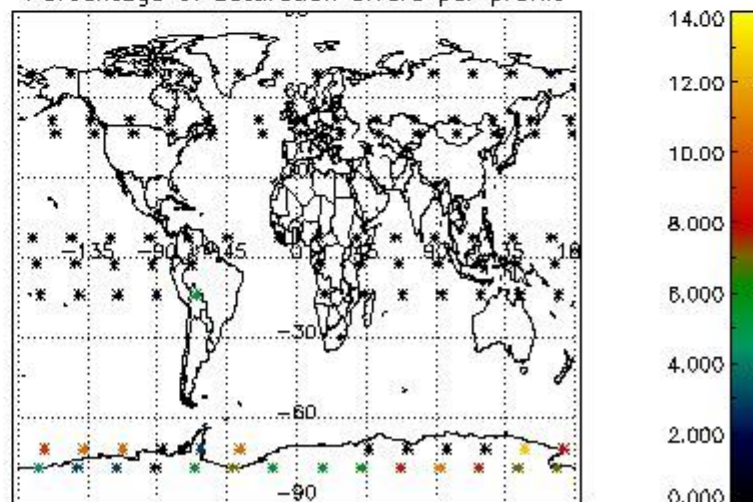
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

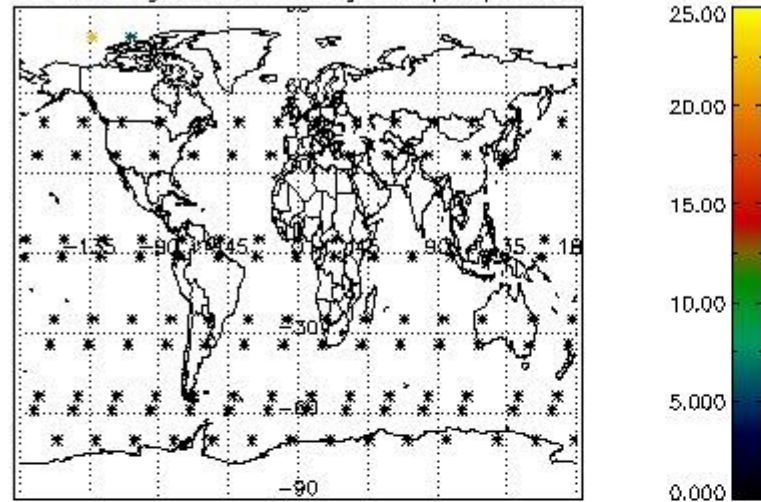


Percentage of saturation errors per profile

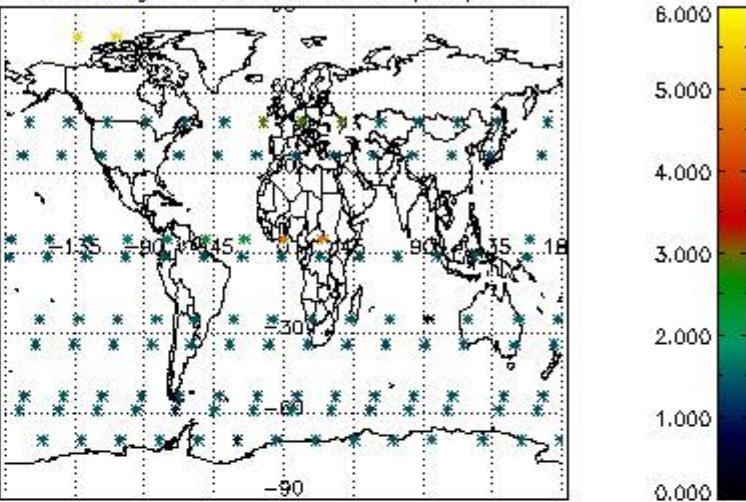


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

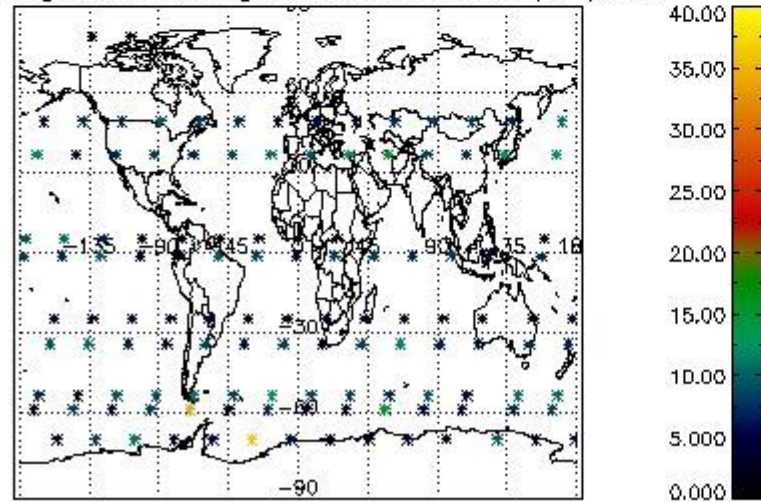
Percentage of cosmic ray hits per profile



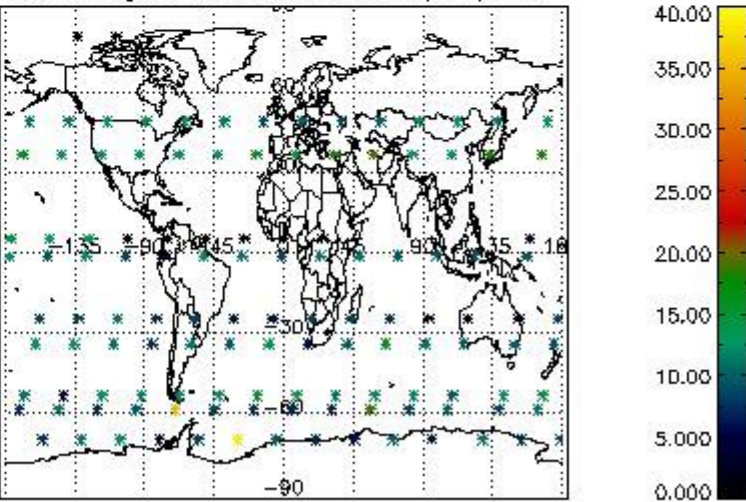
Percentage of datation errors per profile



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

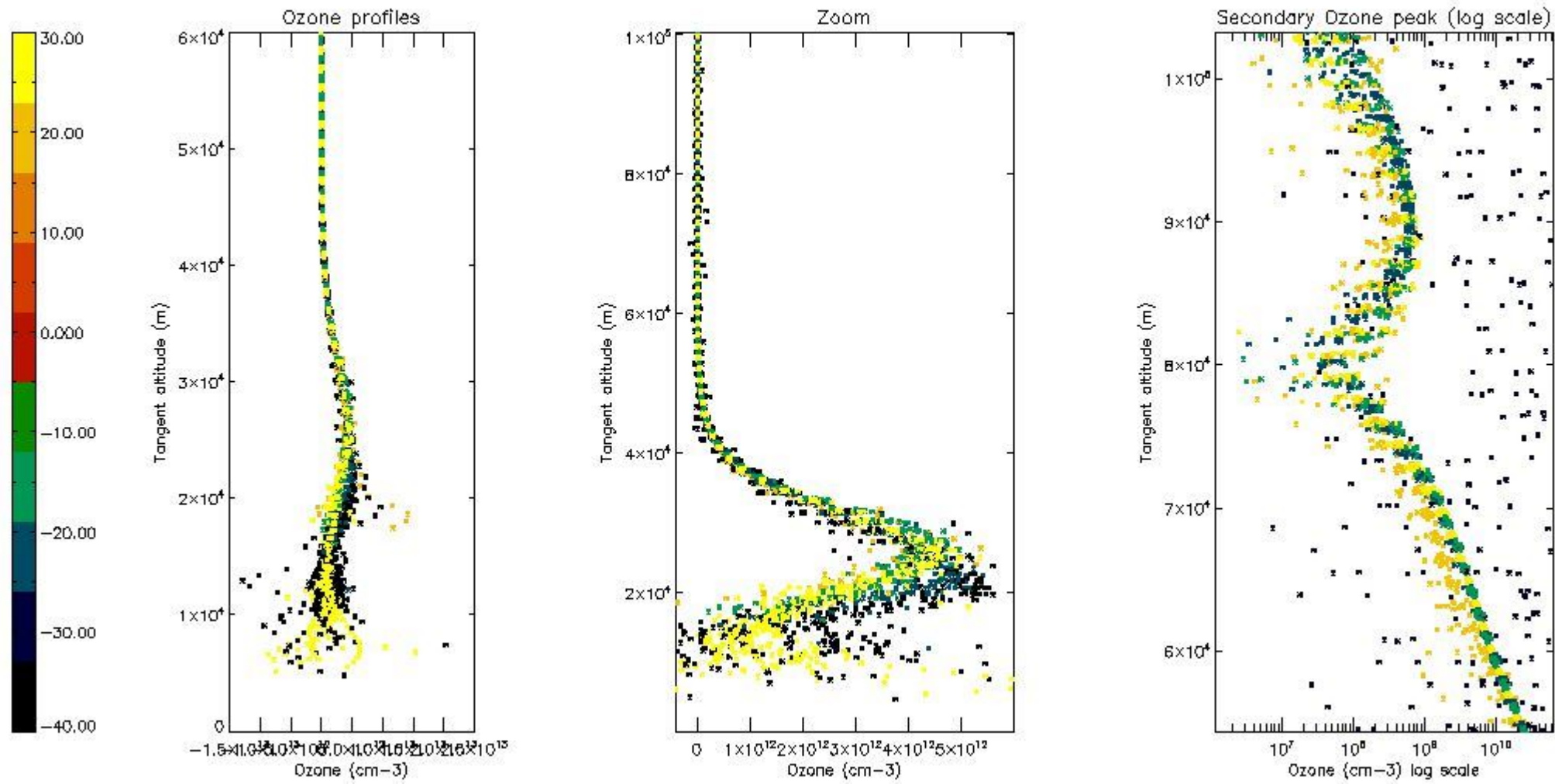
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	34
STD < 20	19

STD < 10	15
STD < 5	9

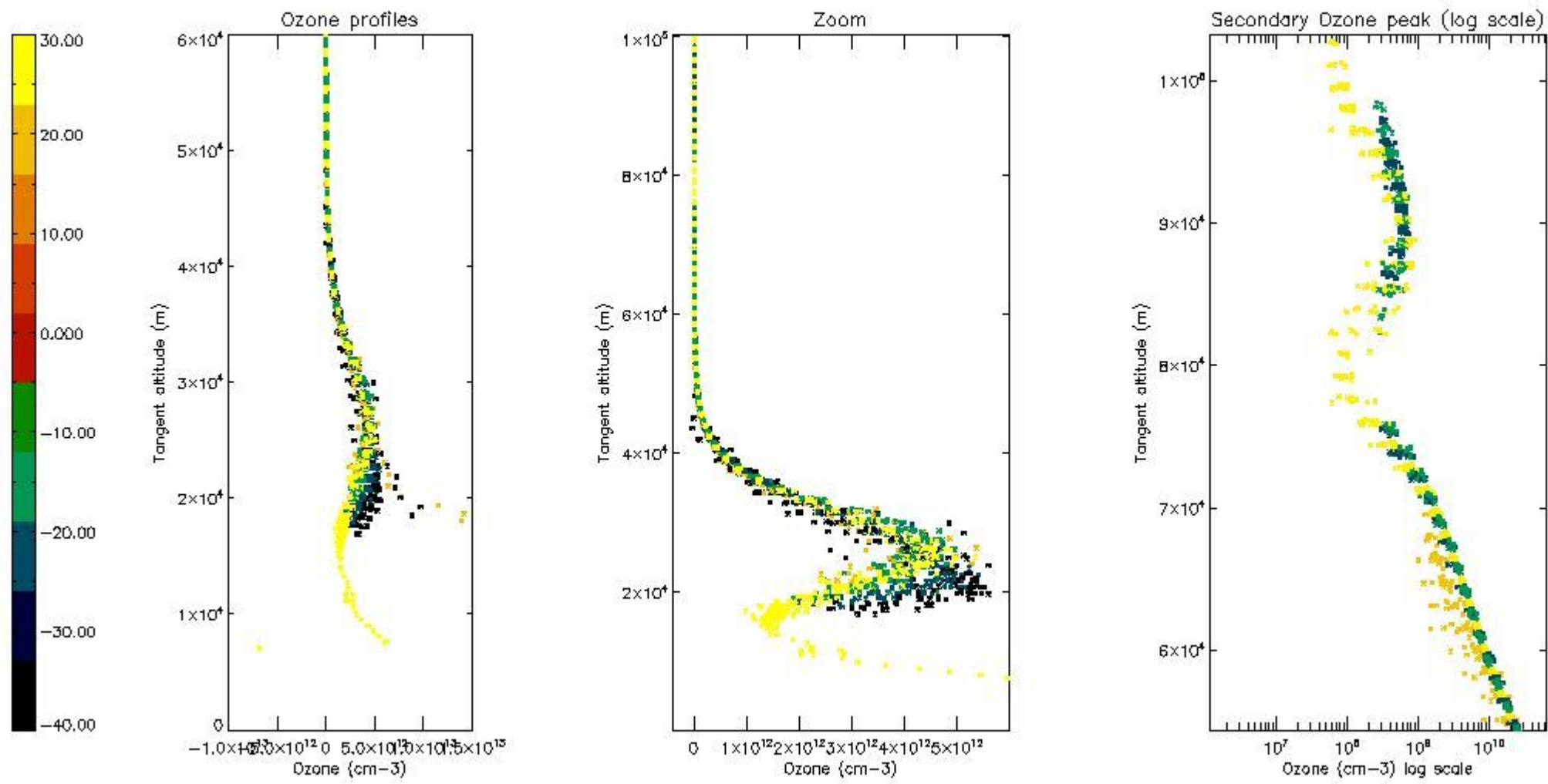
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



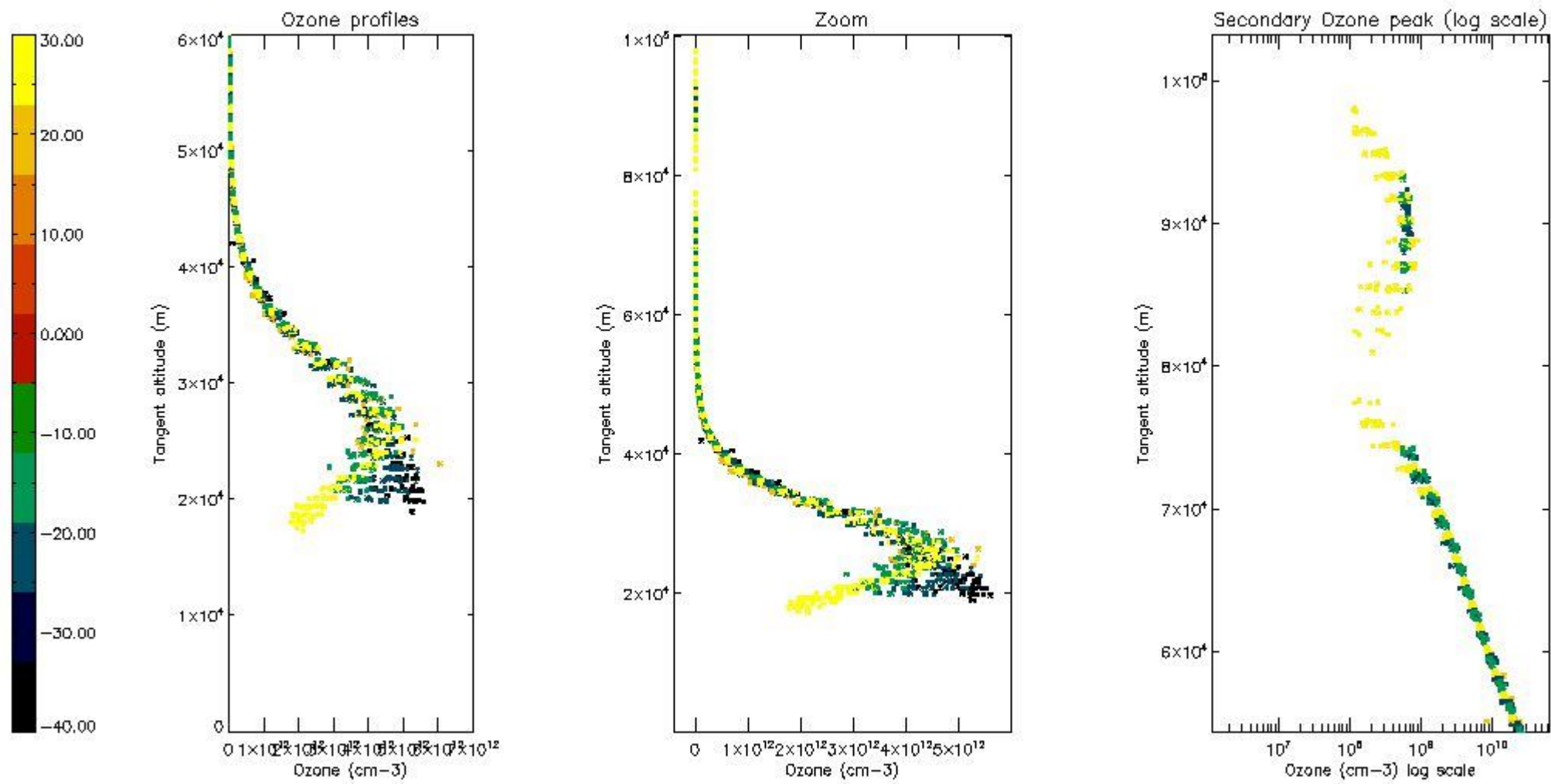
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



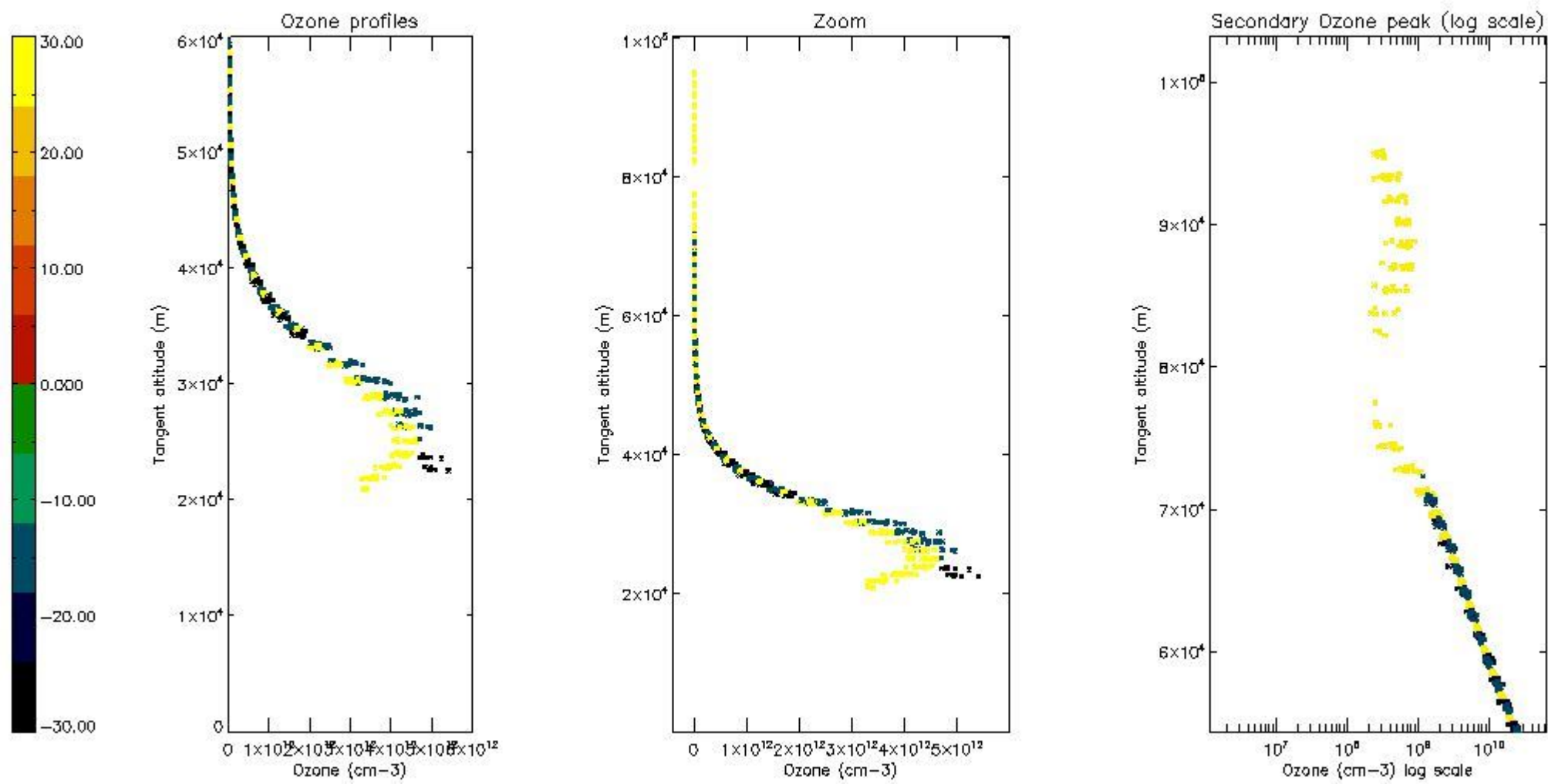
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



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

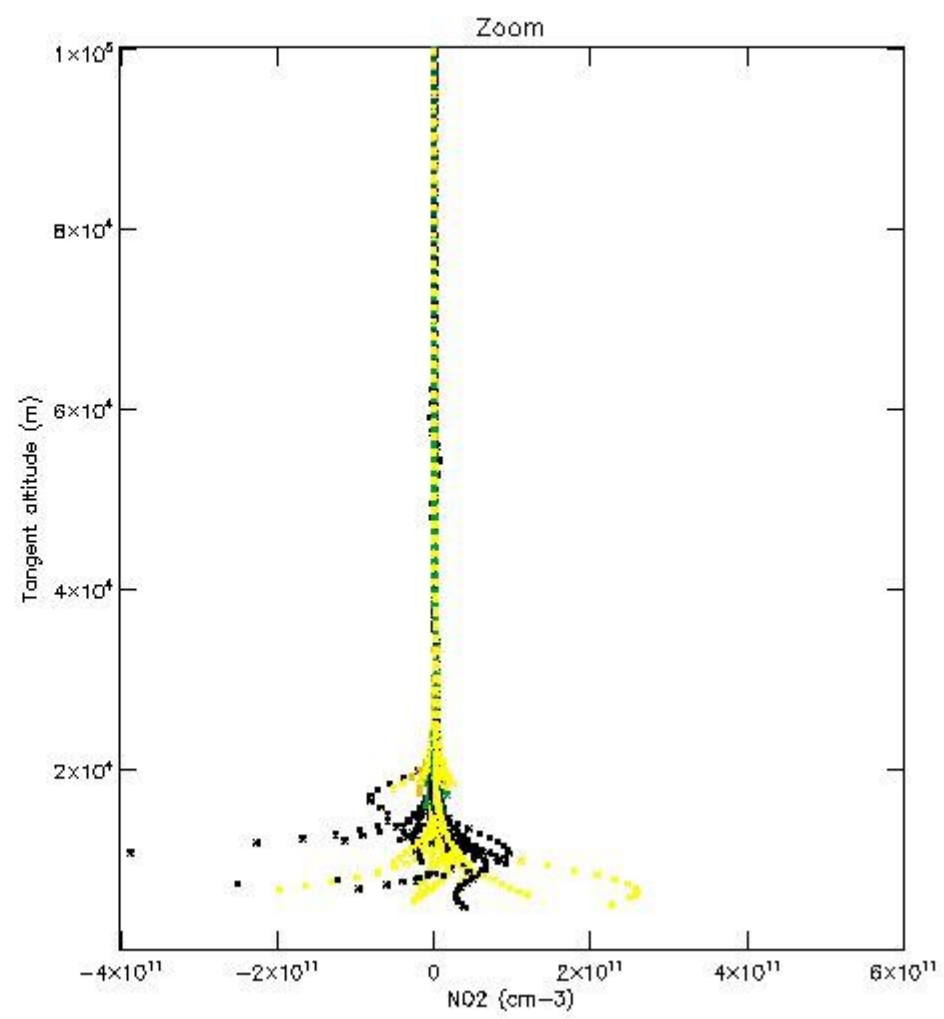
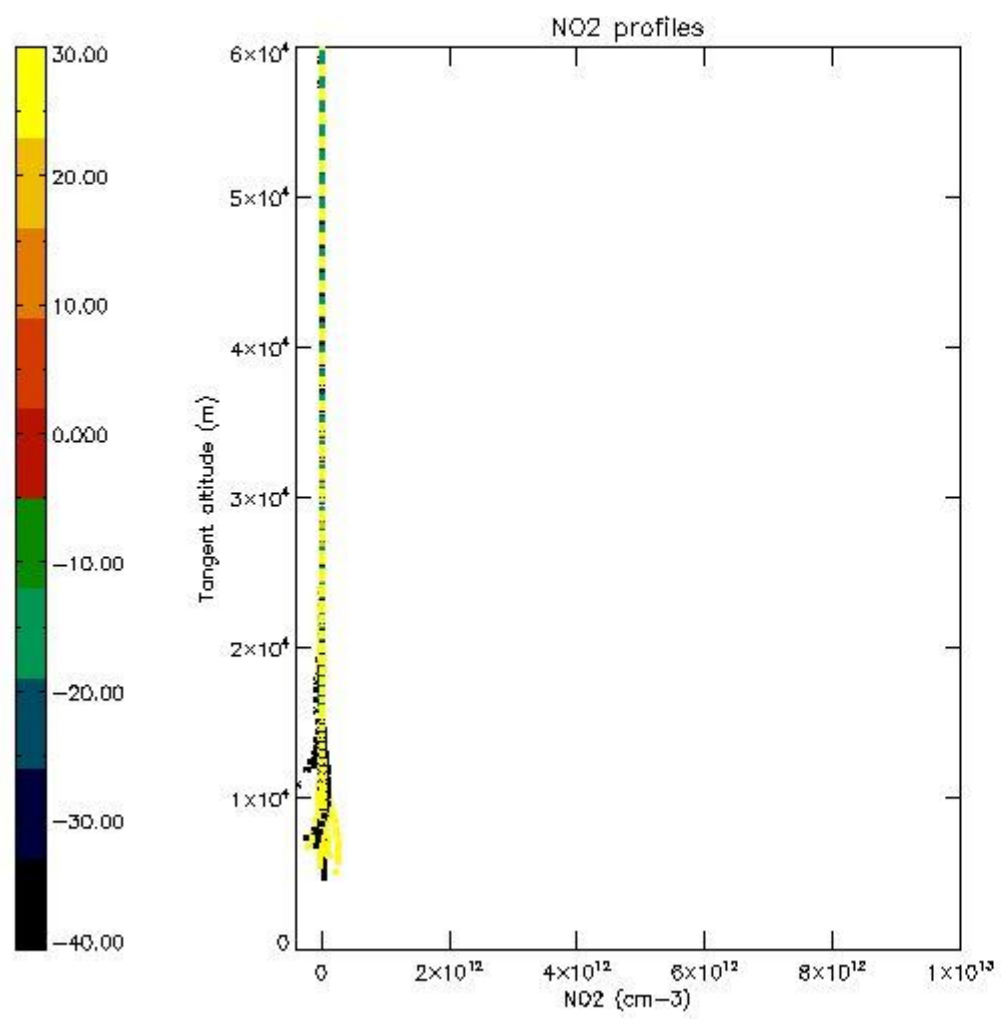
The colorbar represents the latitude.



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

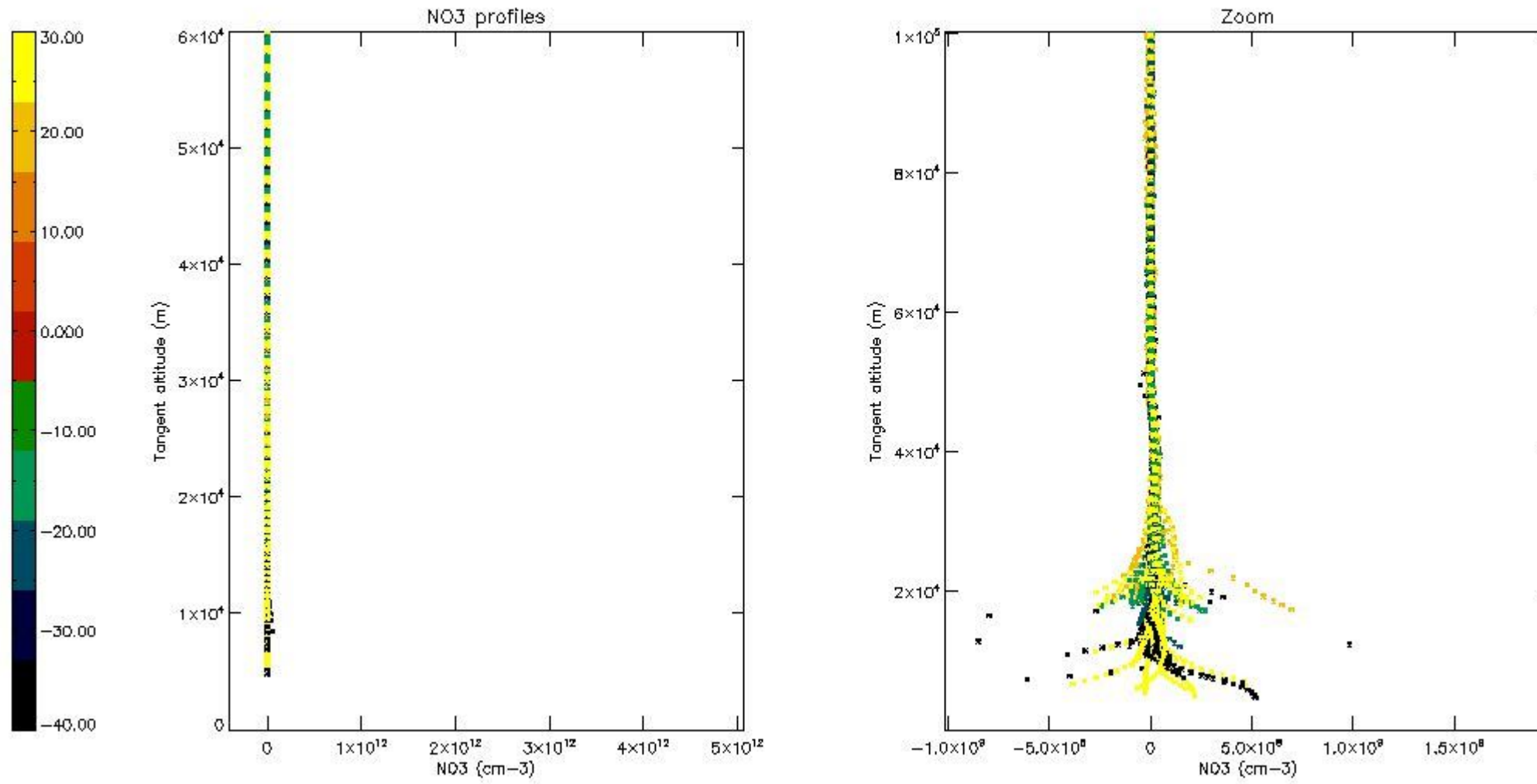
The colorbar represents the latitude.





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

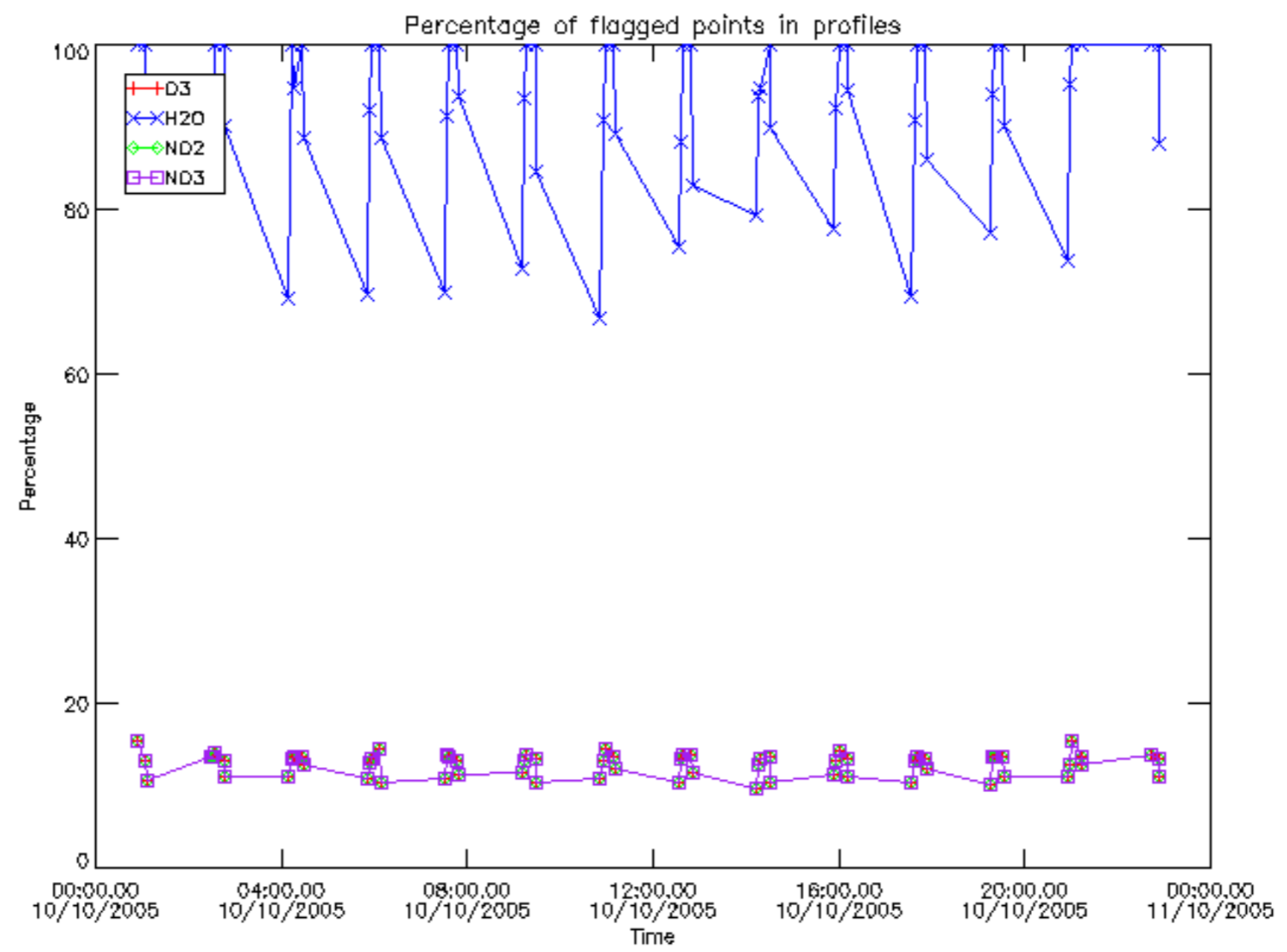
The colorbar represents the latitude.



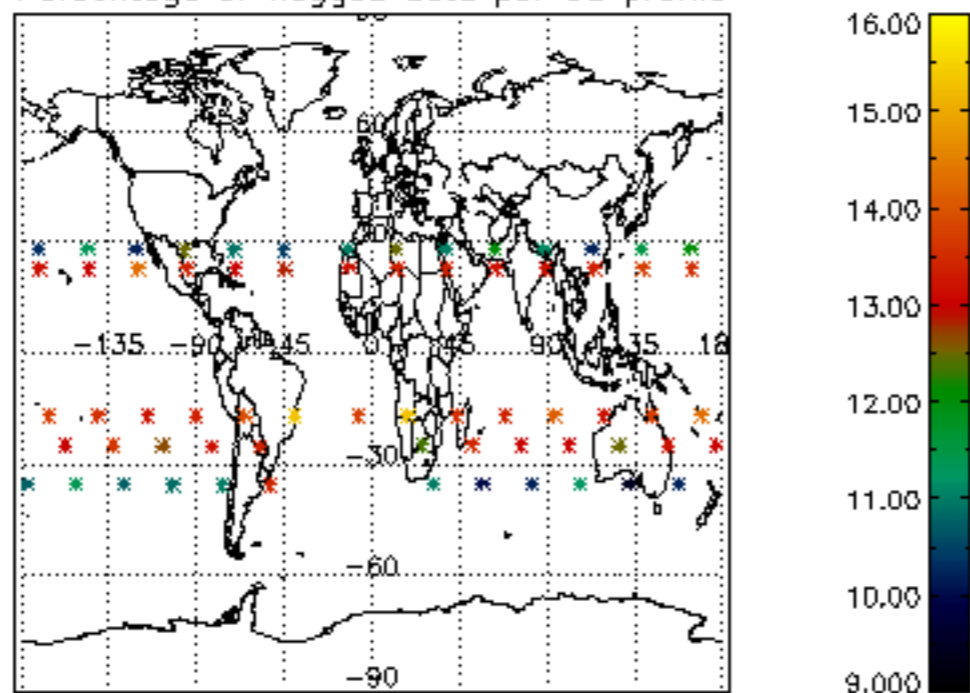
## 6. Auxiliary Data Files used for the production reported in section 2

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.

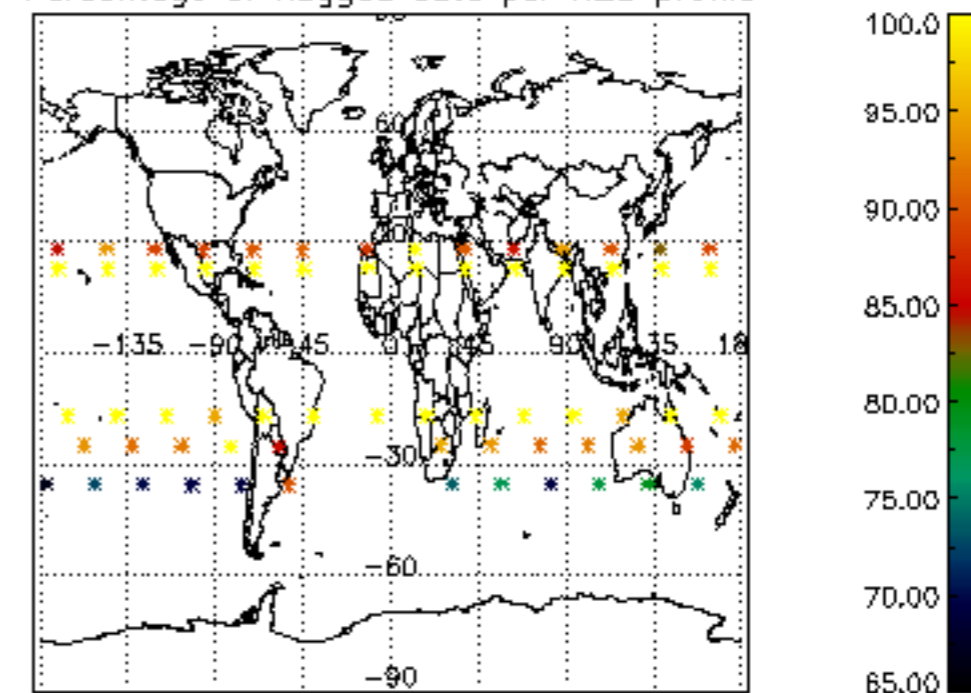
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	10-OCT-2005 00:54:11
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	10-OCT-2005 00:54:11
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	10-OCT-2005 00:54:11



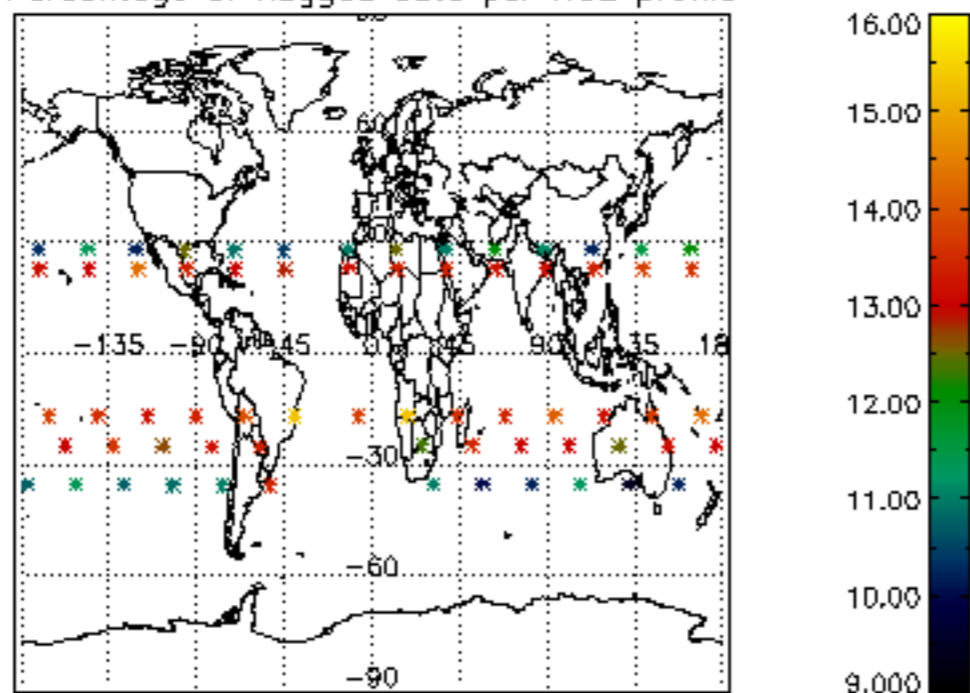
Percentage of flagged data per D3 profile



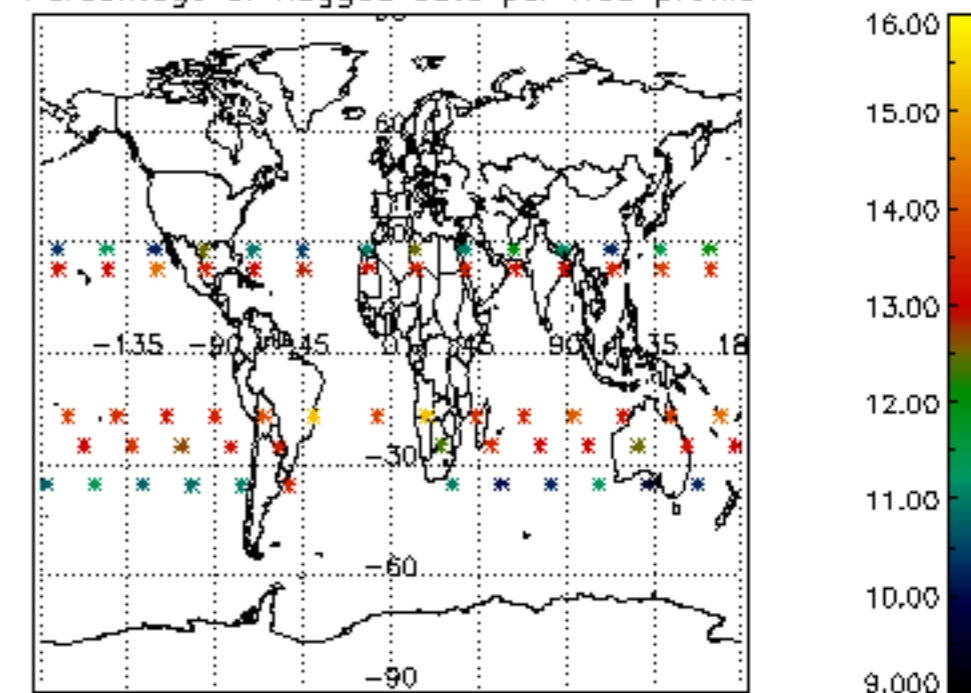
Percentage of flagged data per H2O profile

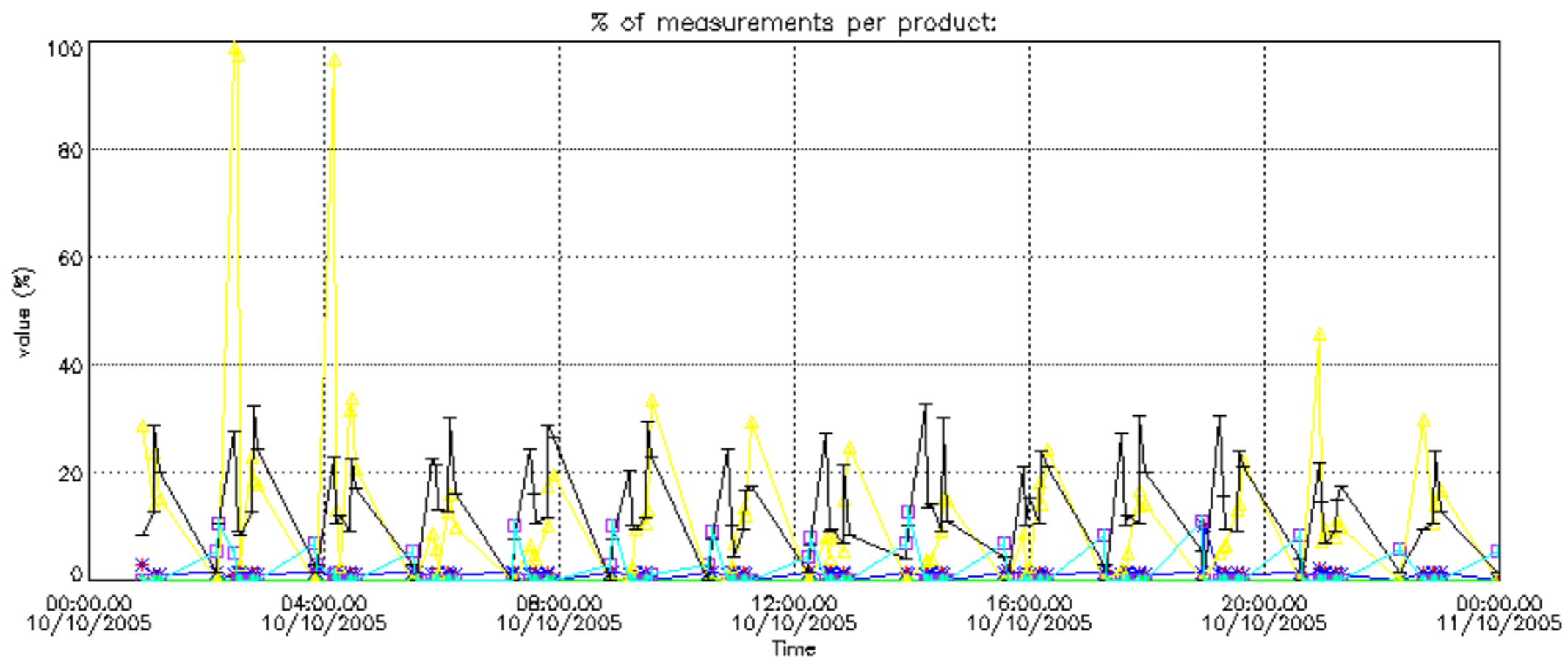


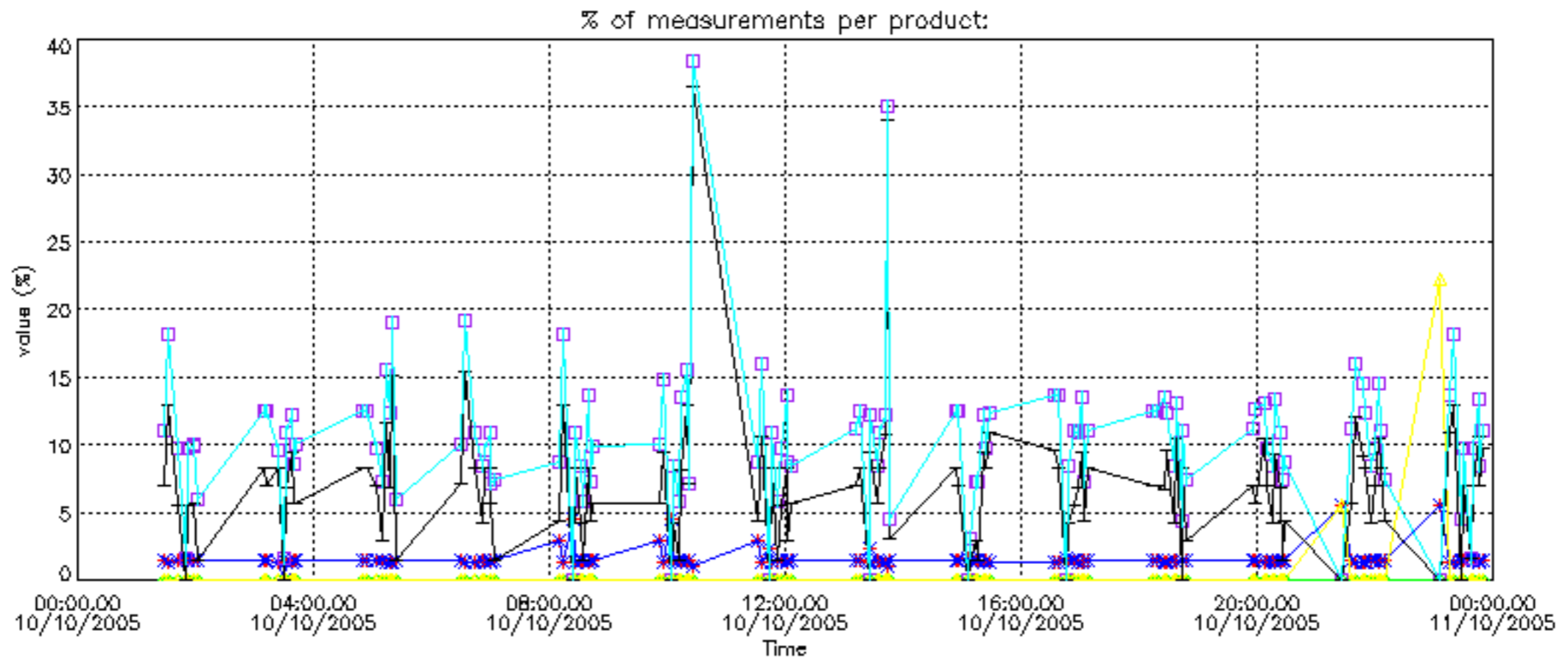
Percentage of flagged data per NO2 profile



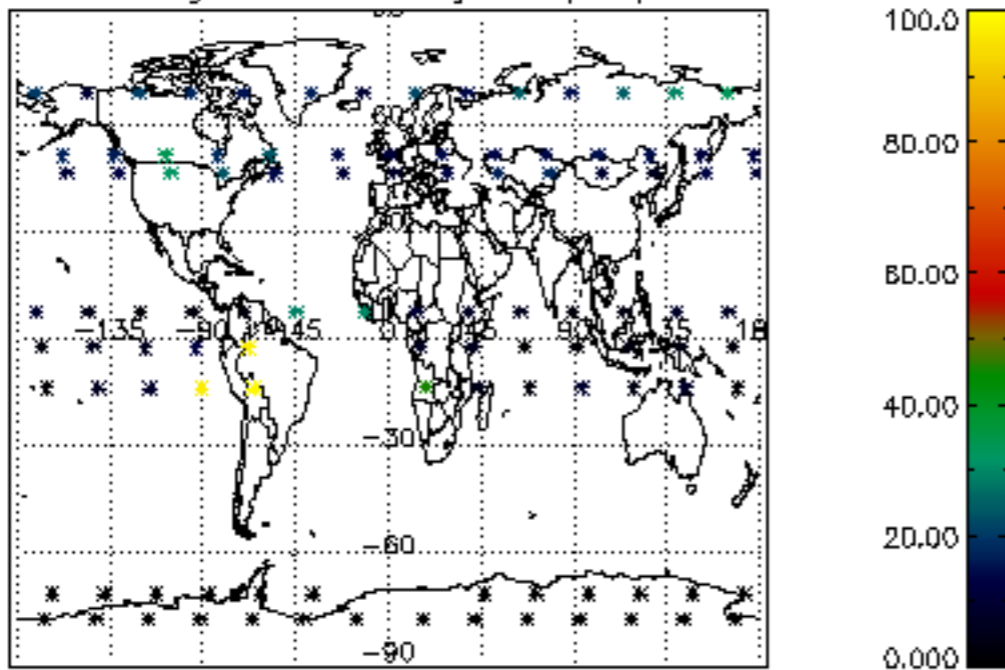
Percentage of flagged data per NO3 profile



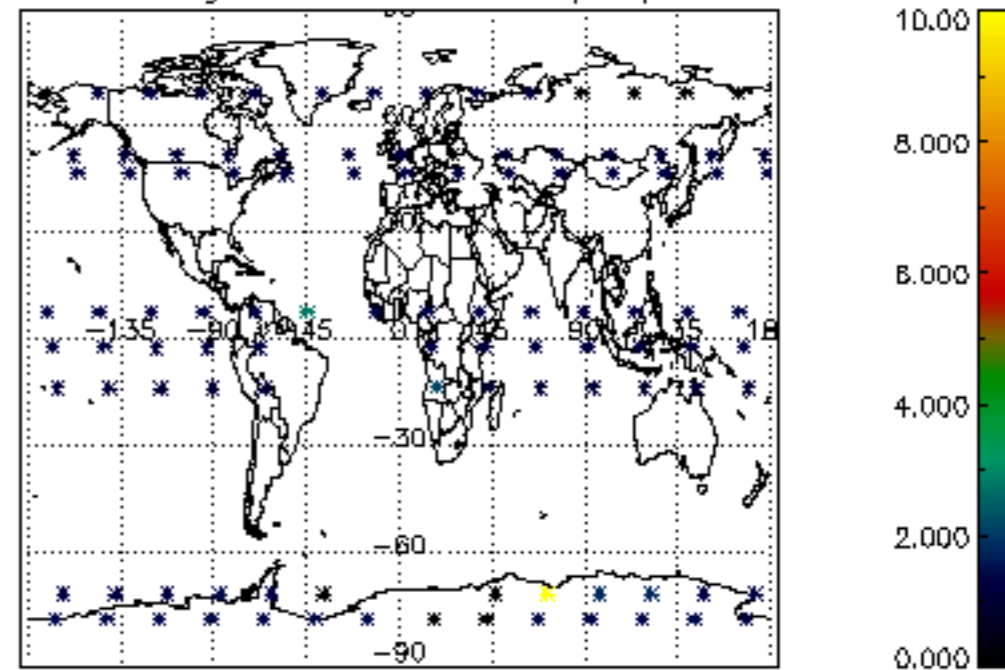




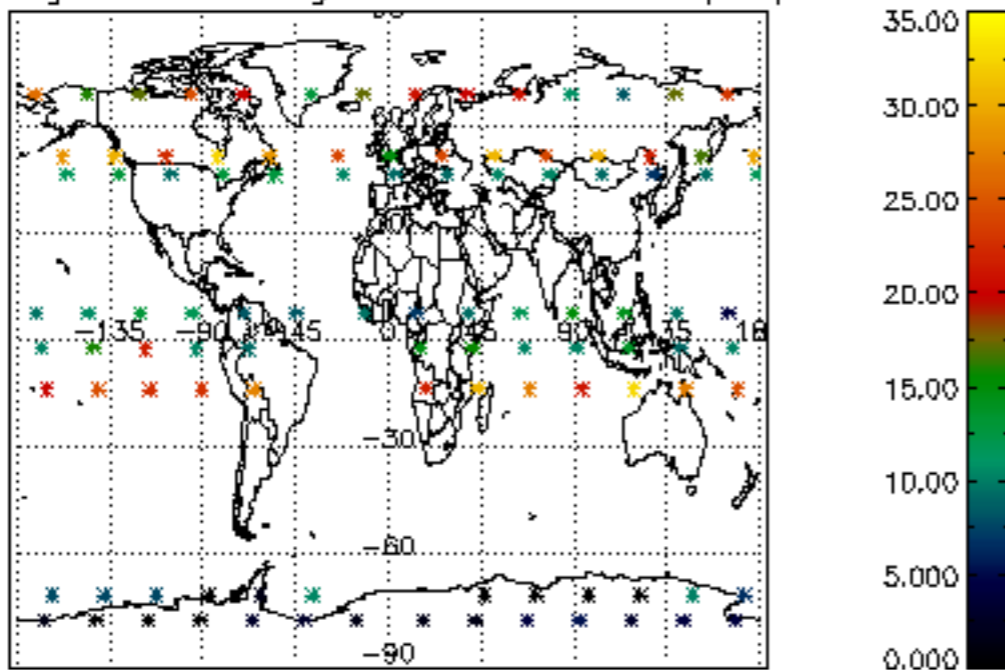
Percentage of cosmic ray hits per profile



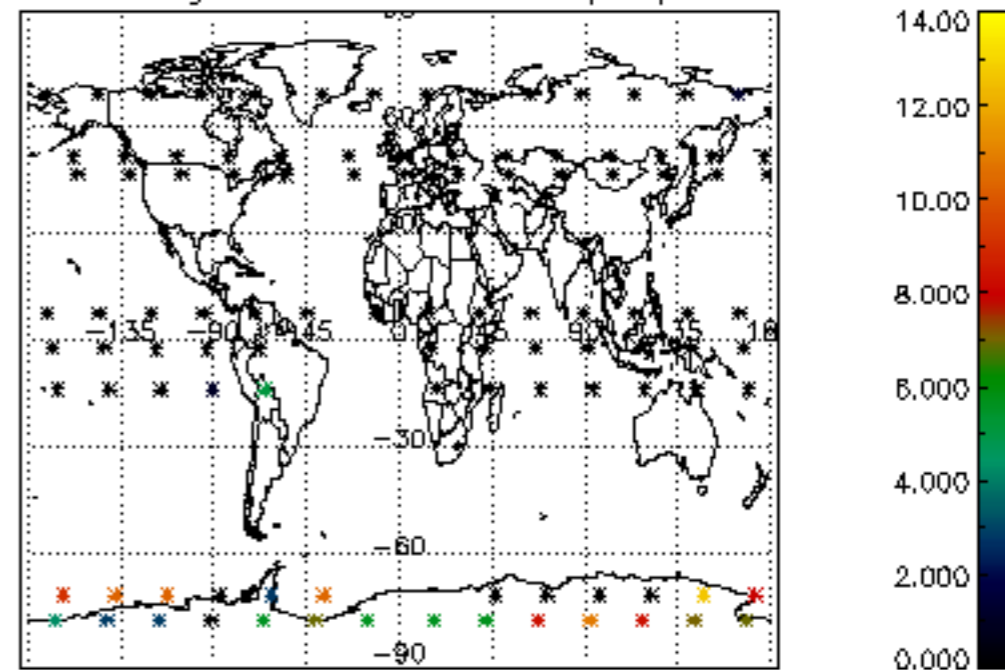
Percentage of datation errors per profile



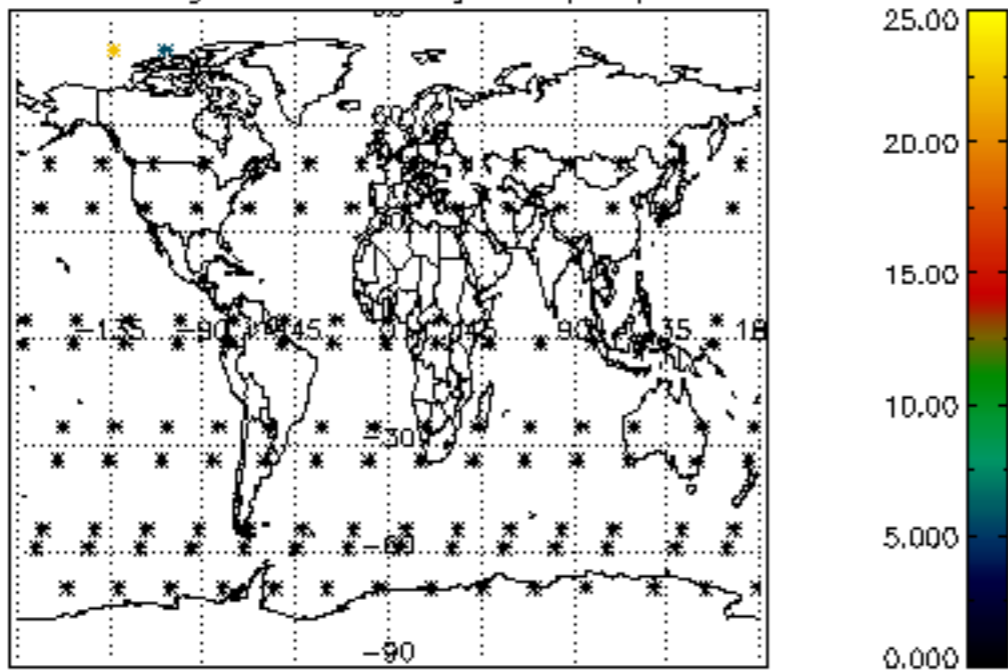
Percentage of star falling outside central band per profile



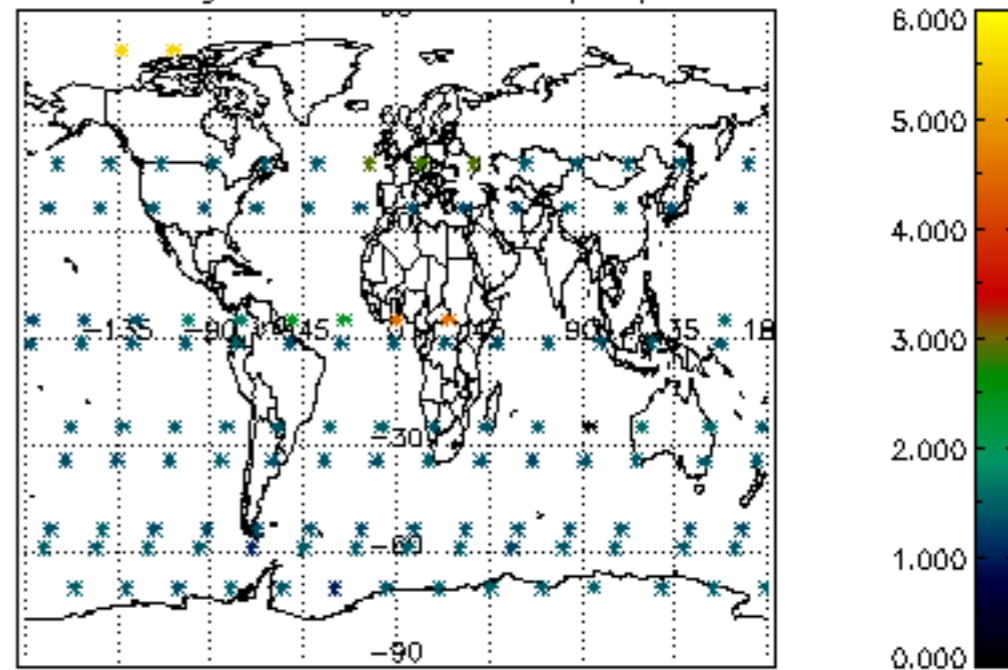
Percentage of saturation errors per profile



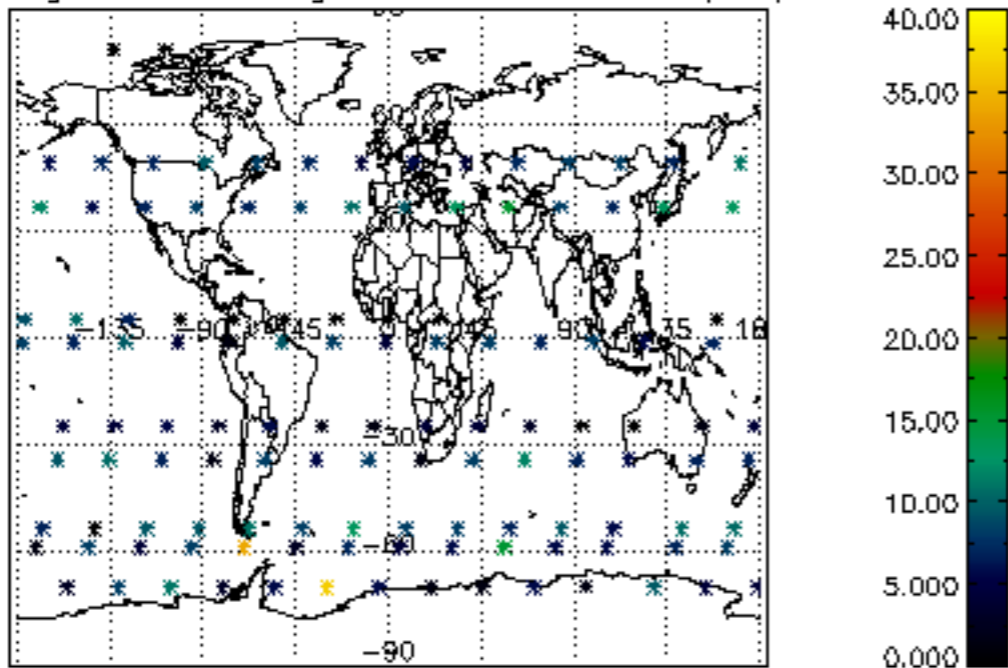
Percentage of cosmic ray hits per profile



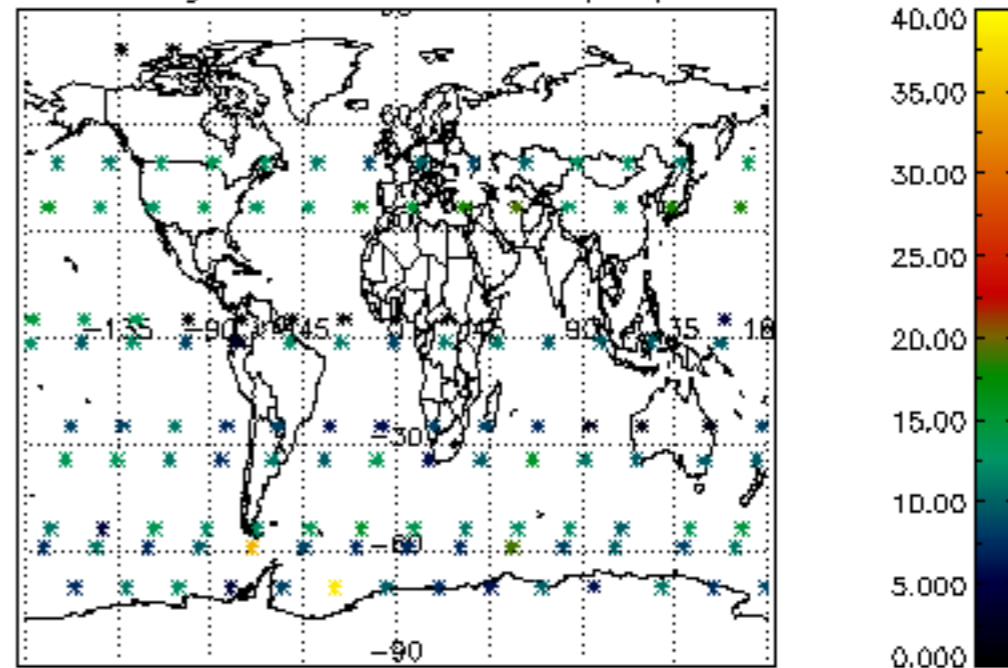
Percentage of datation errors per profile



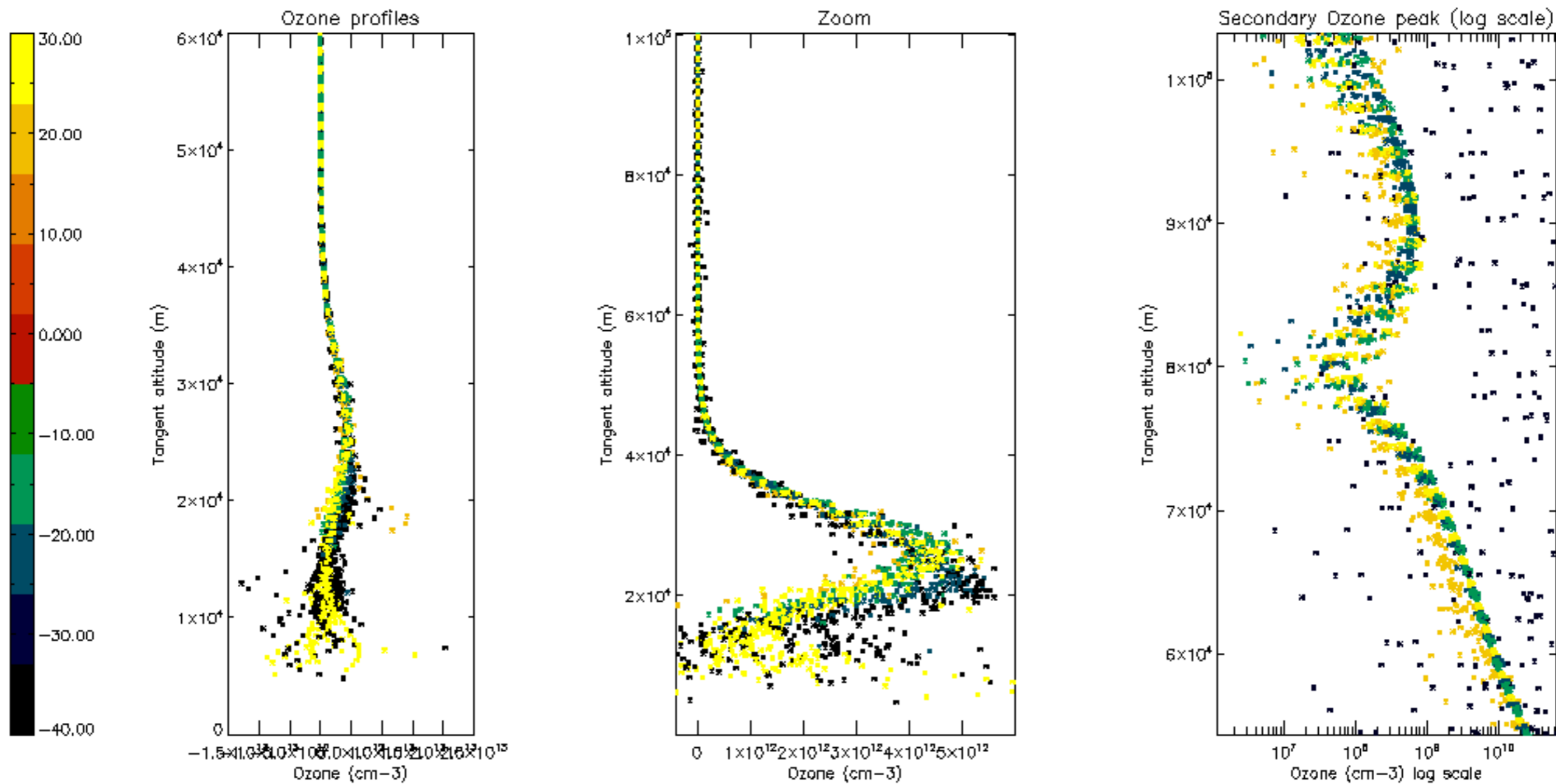
Percentage of star falling outside central band per profile

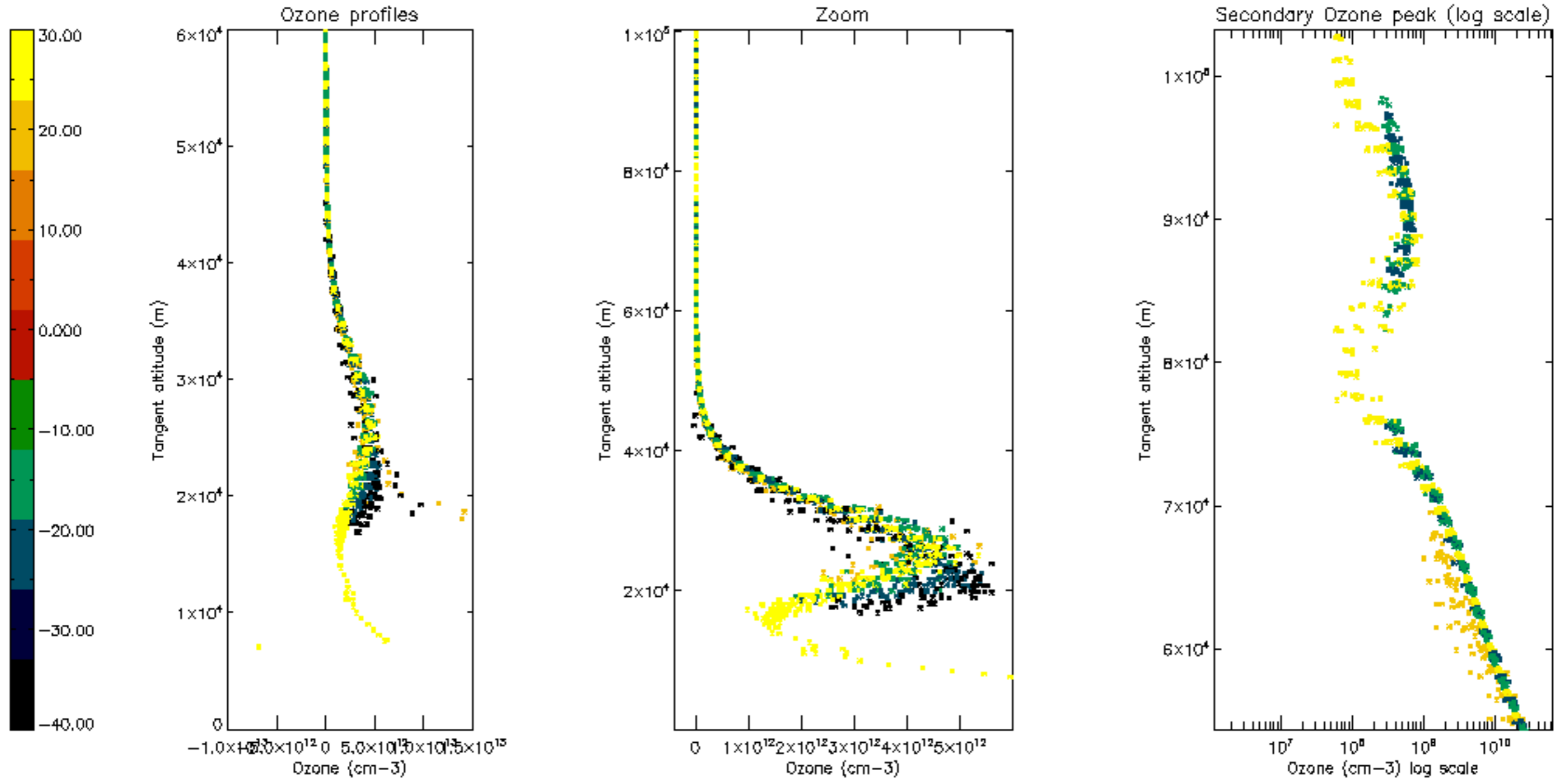


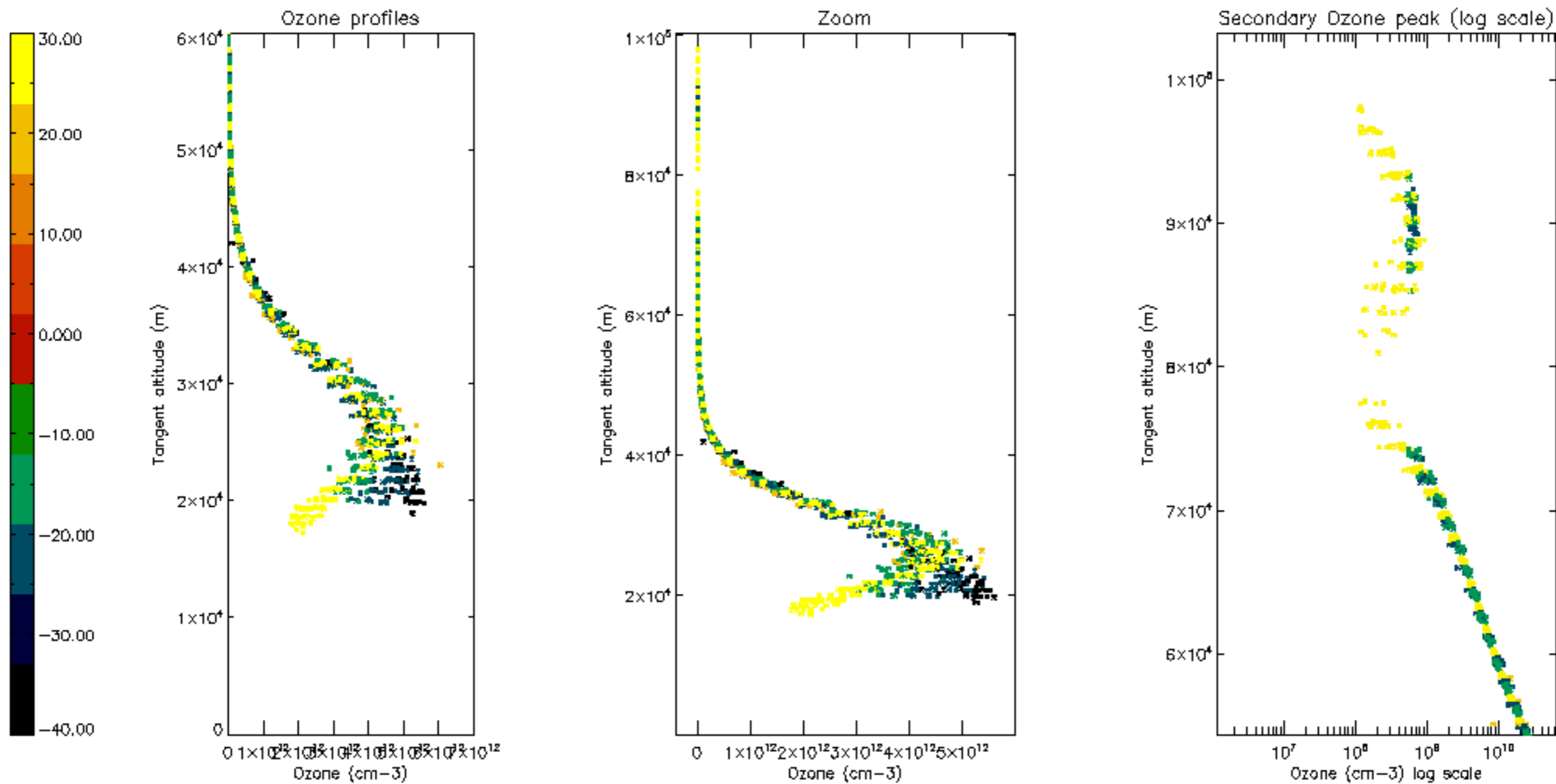
Percentage of saturation errors per profile

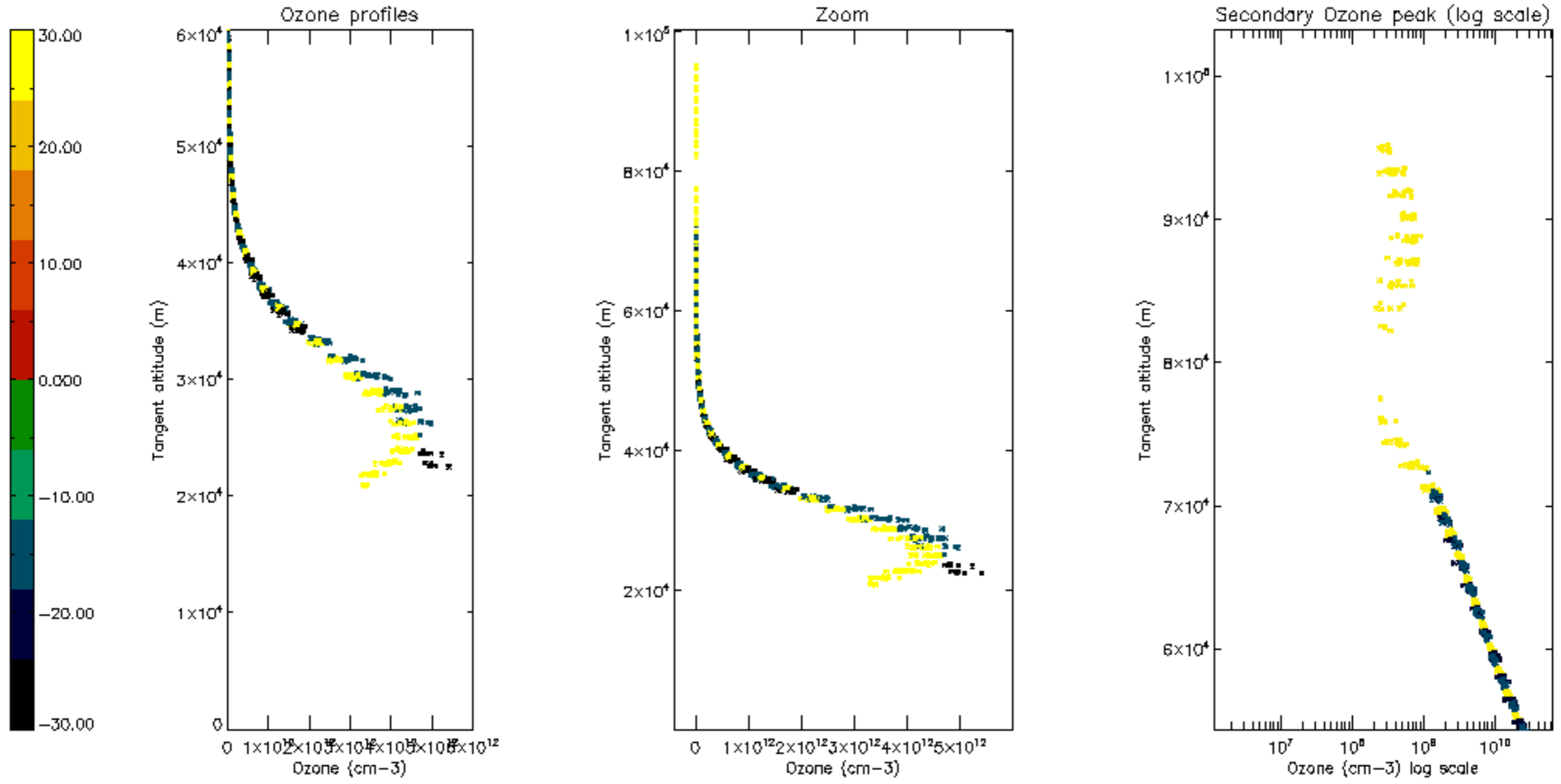


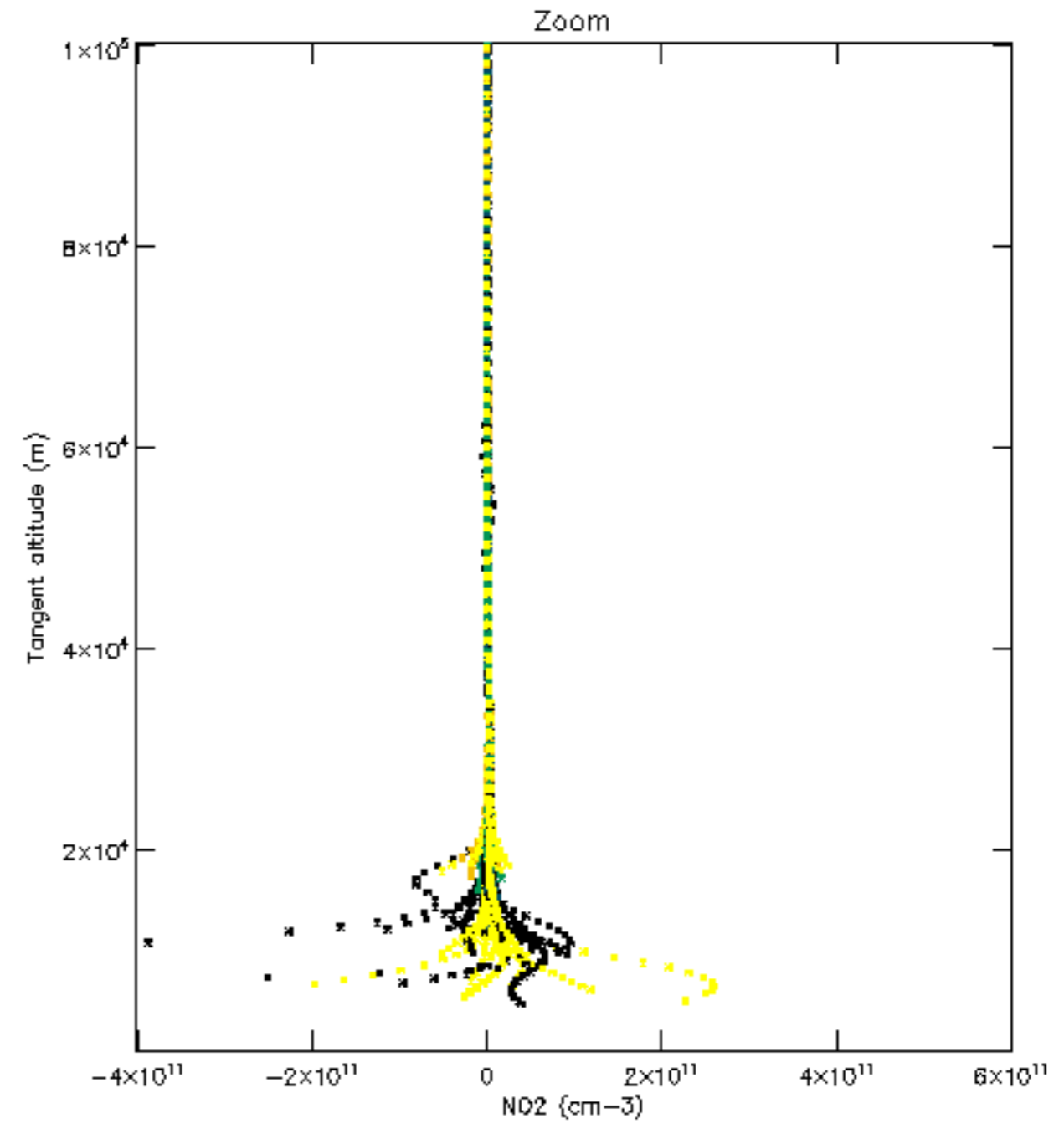
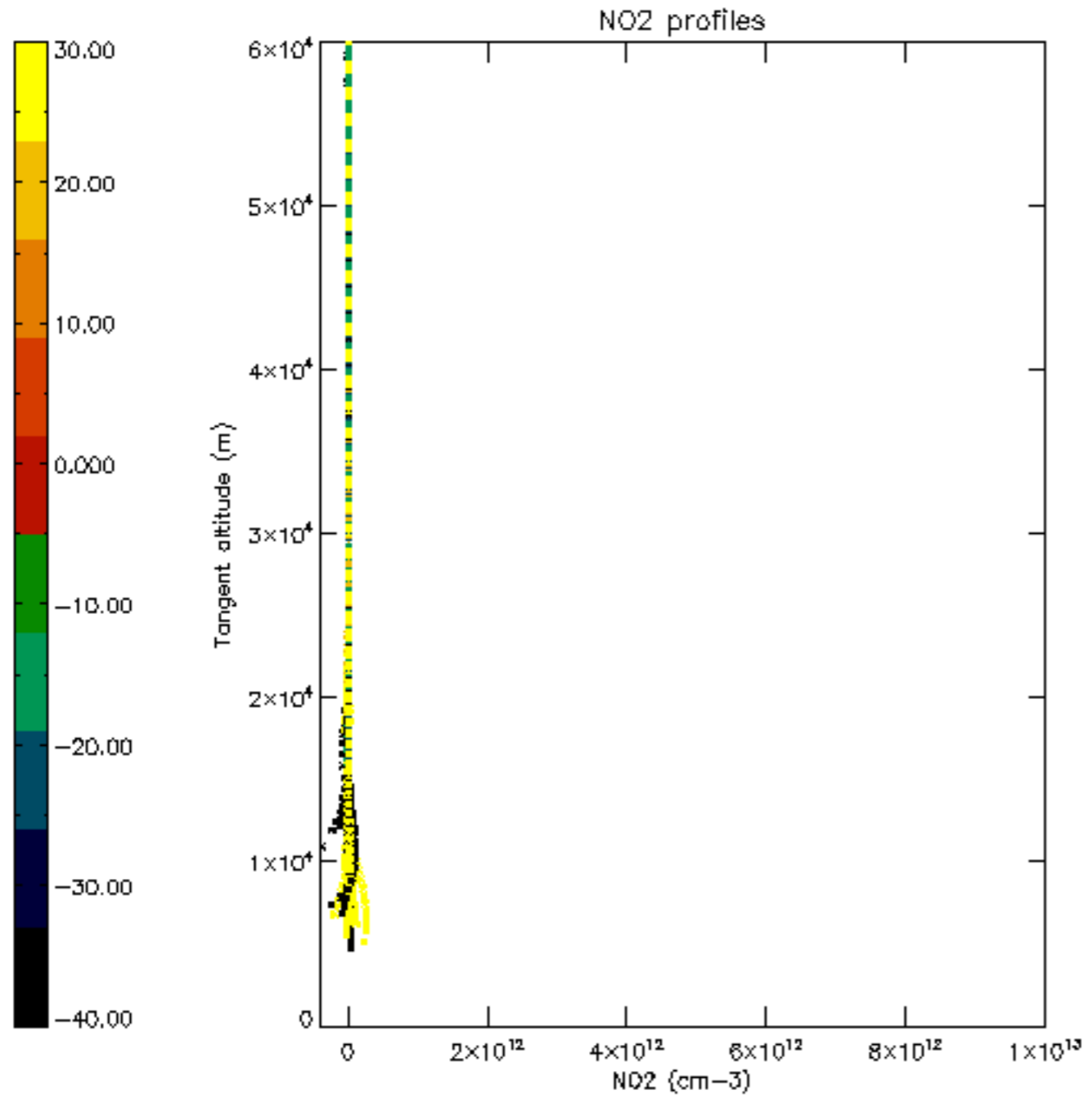


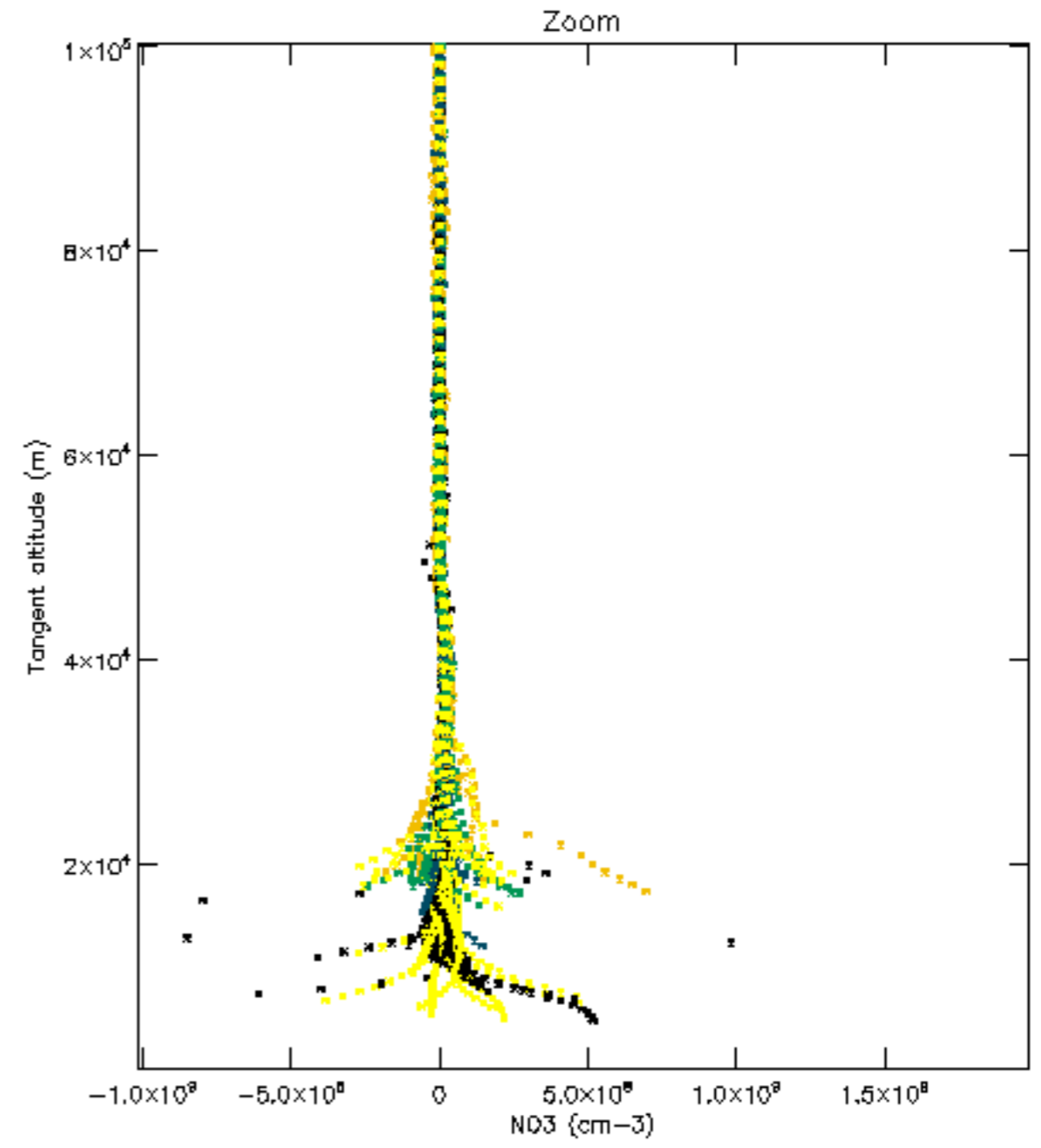
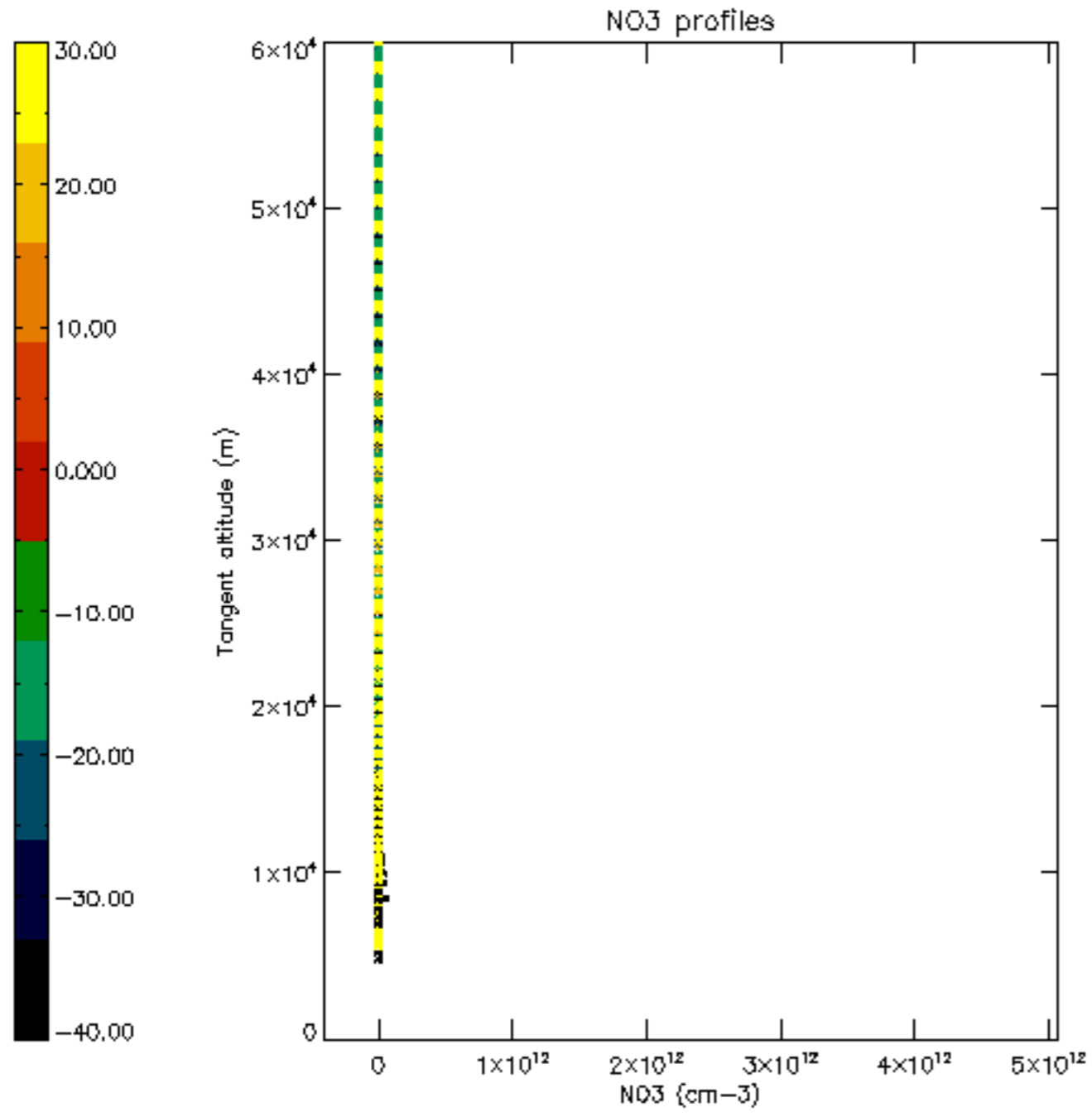


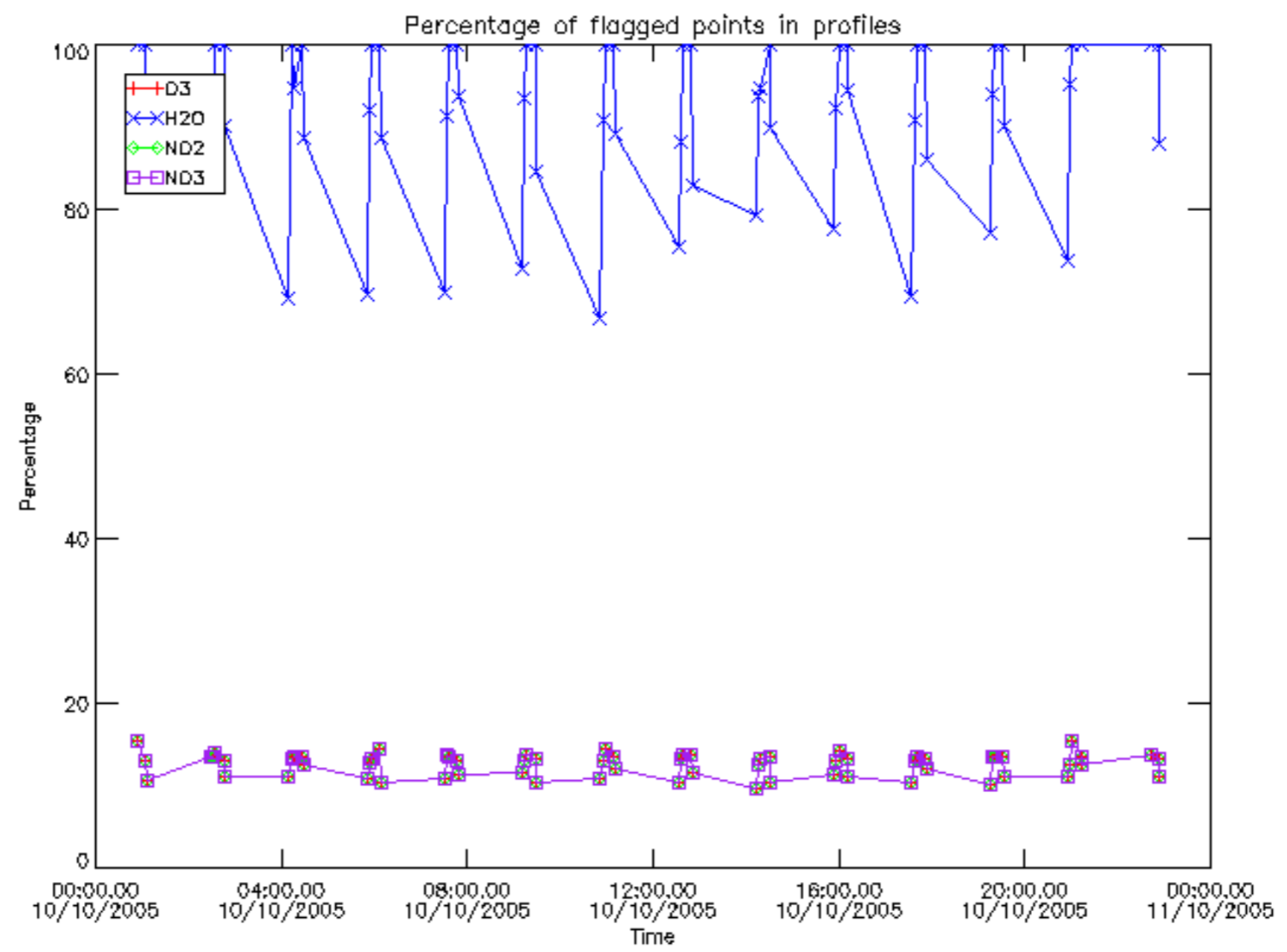




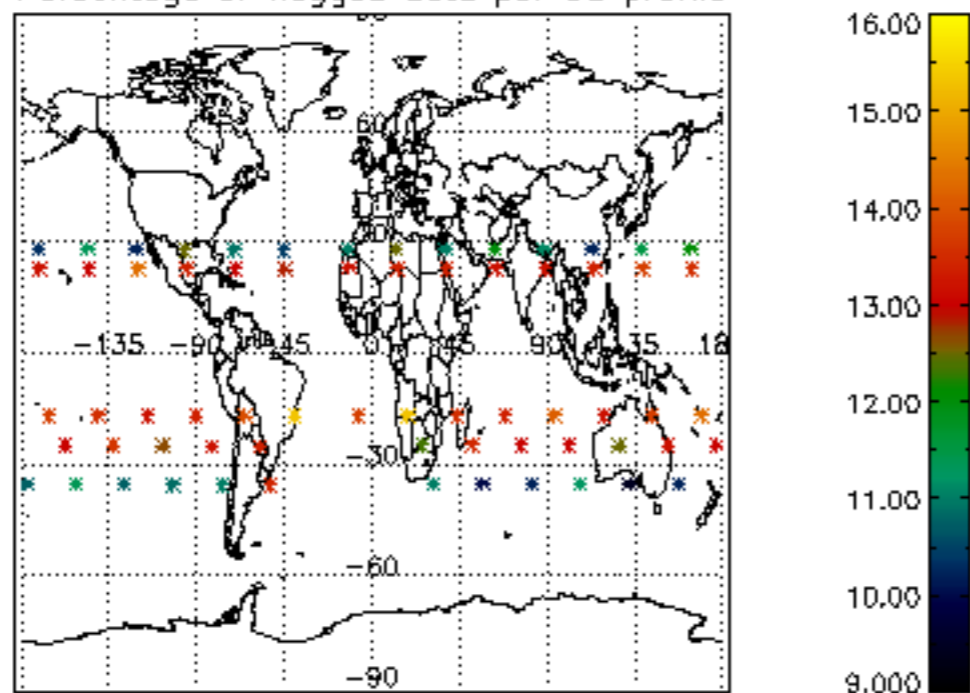




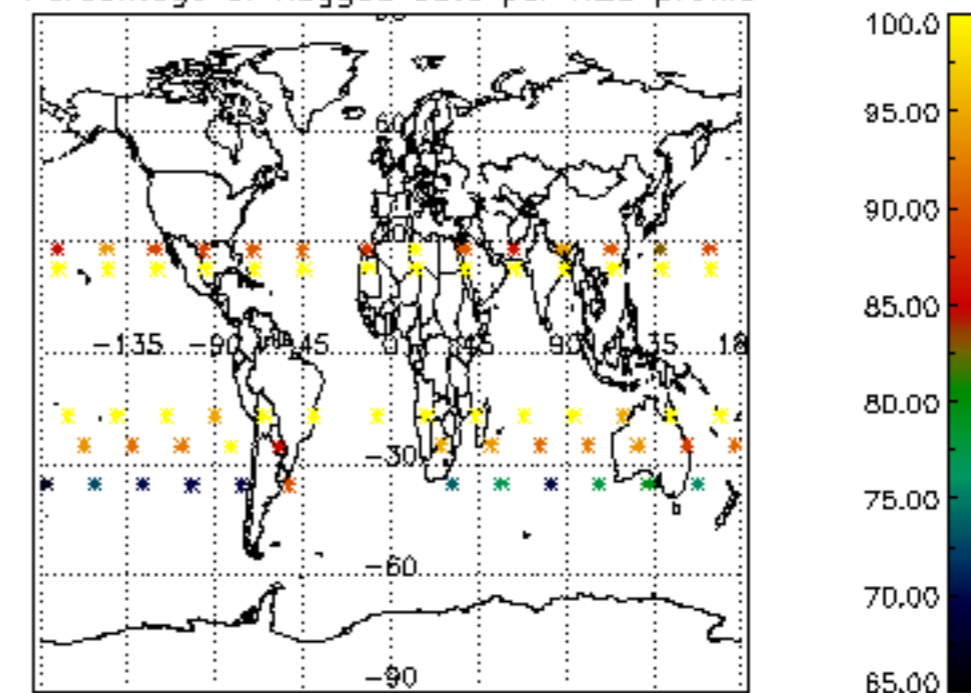




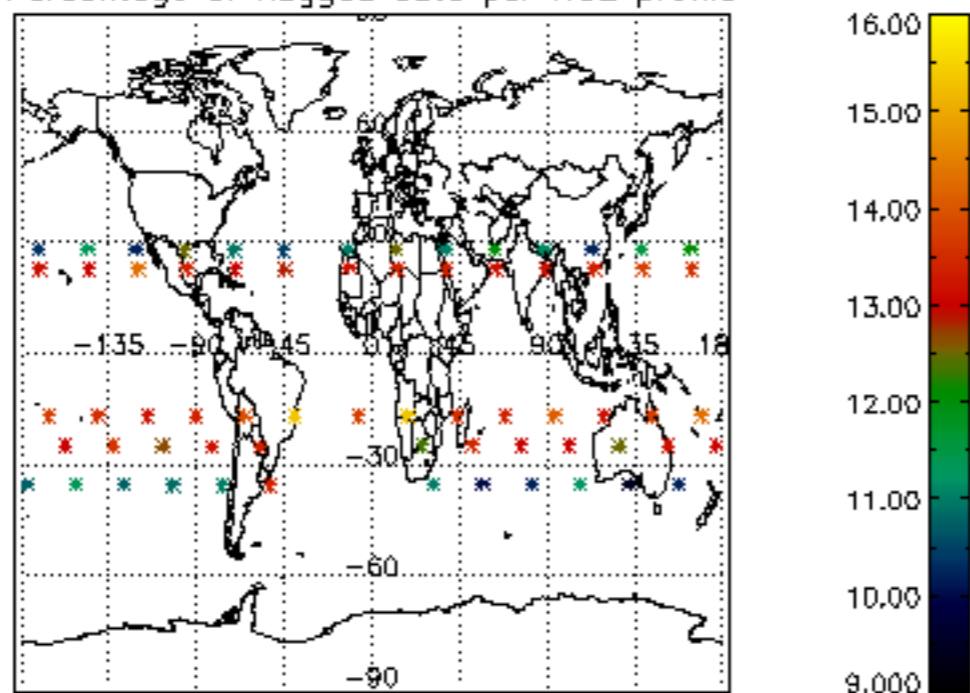
Percentage of flagged data per D3 profile



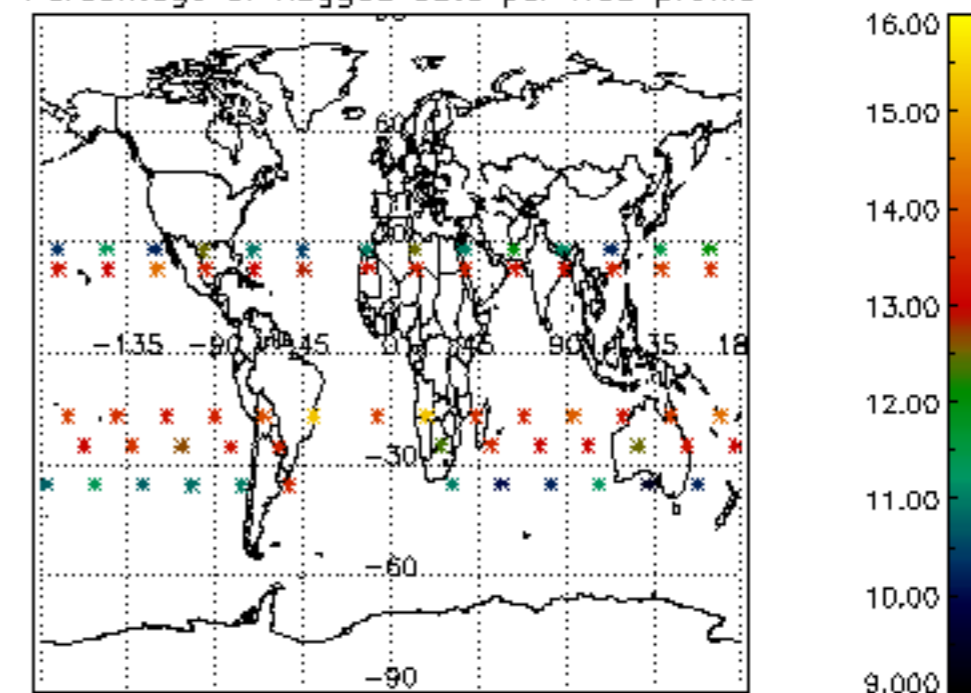
Percentage of flagged data per H2O profile



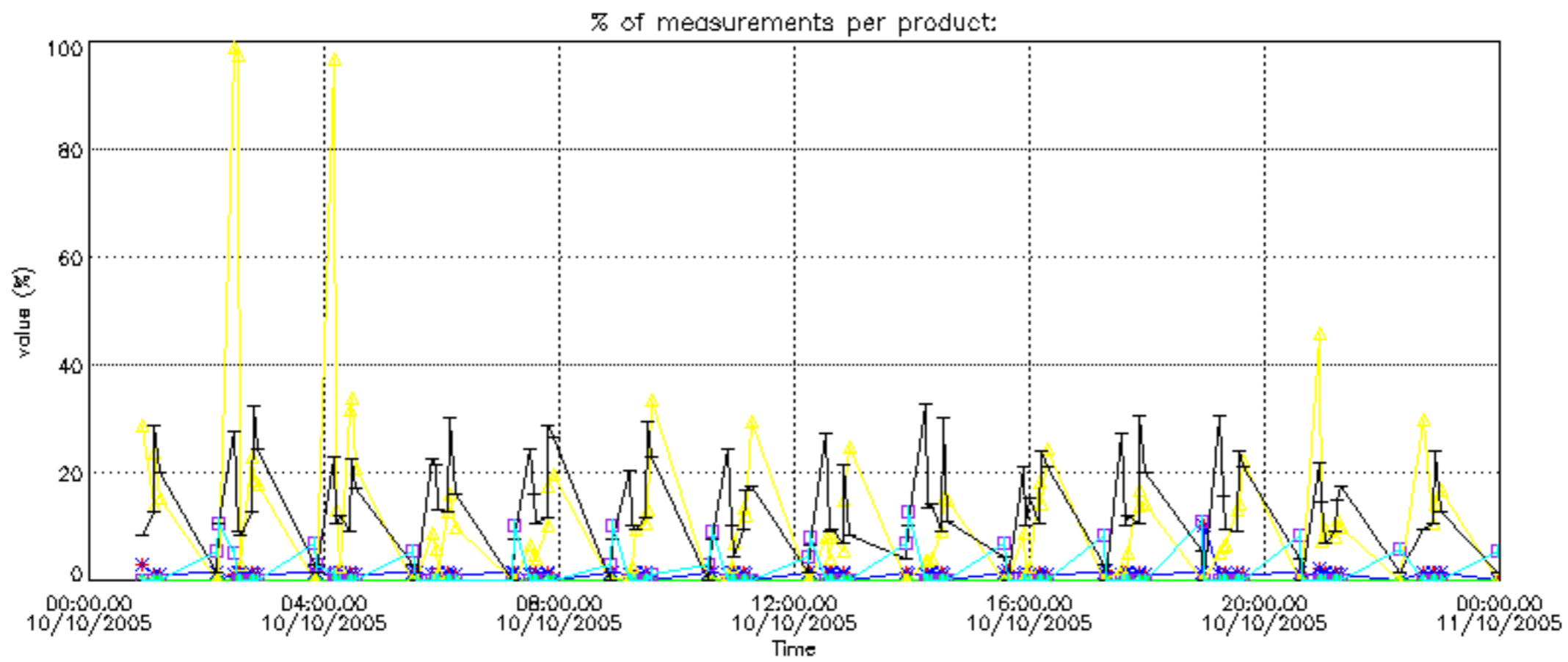
Percentage of flagged data per NO2 profile

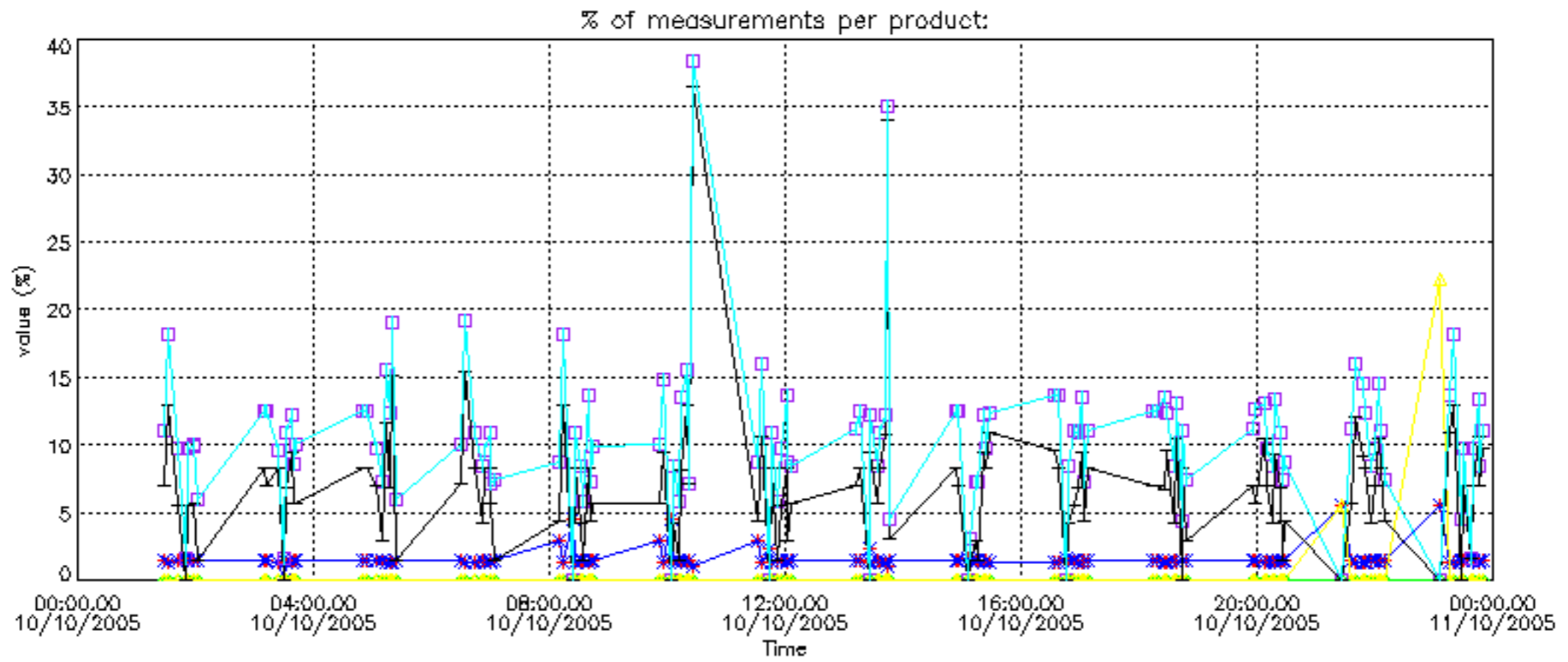


Percentage of flagged data per NO3 profile

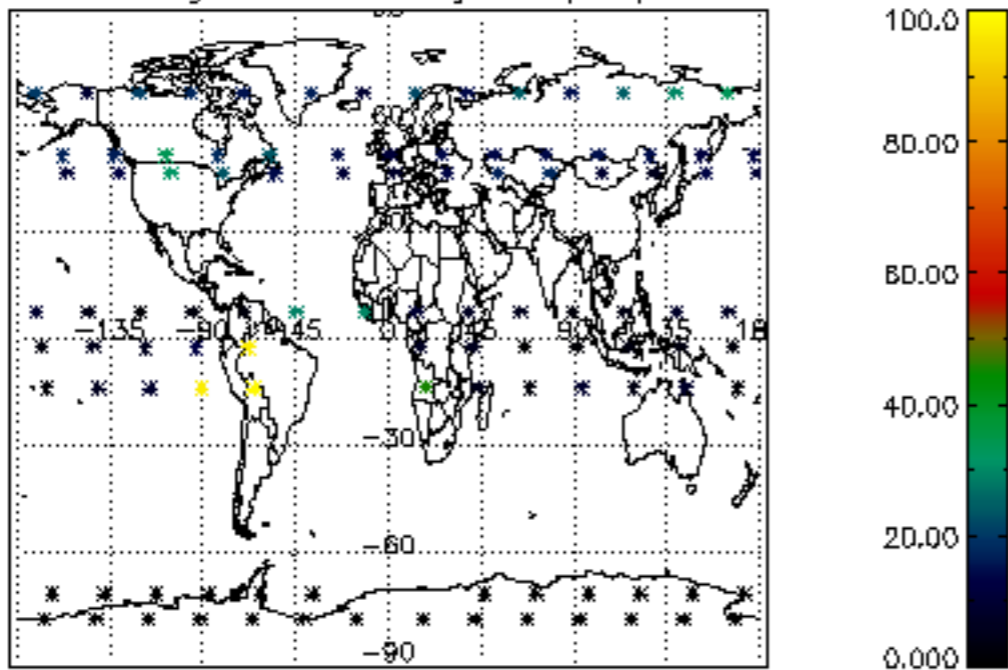




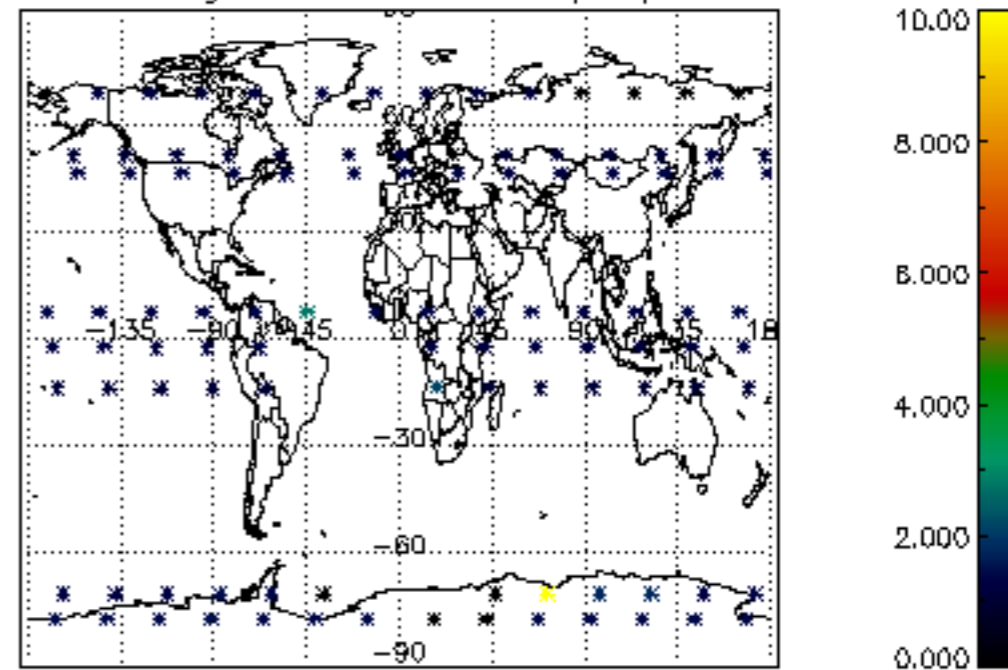




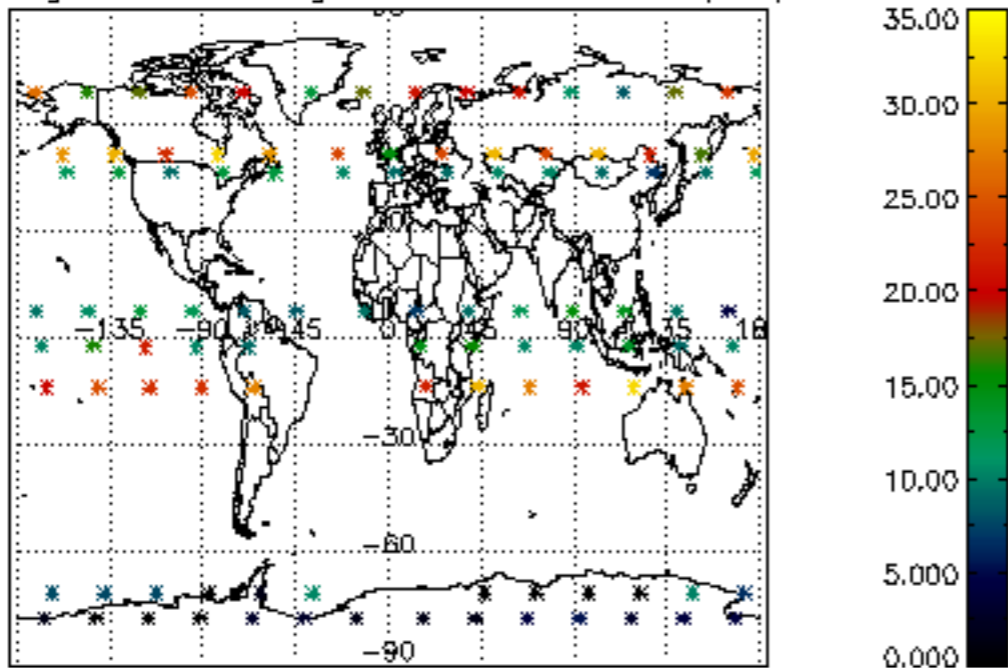
Percentage of cosmic ray hits per profile



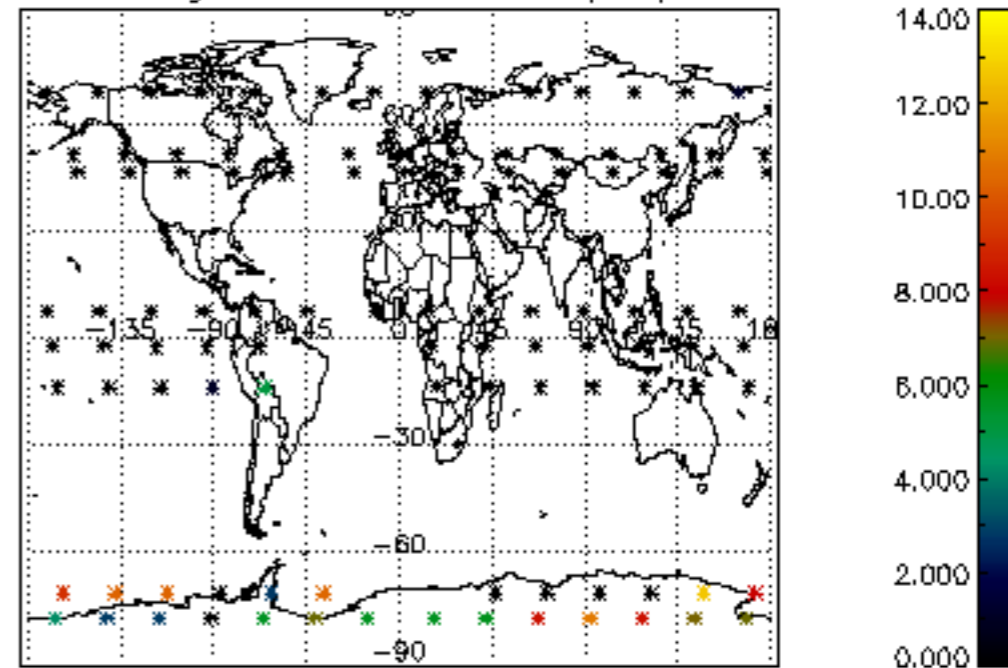
Percentage of datation errors per profile



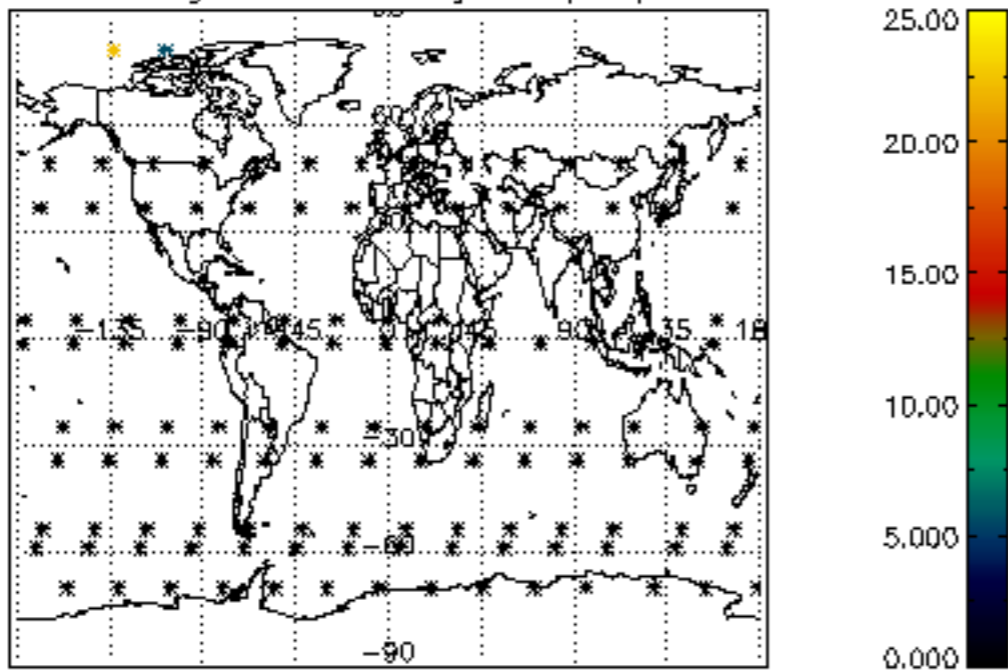
Percentage of star falling outside central band per profile



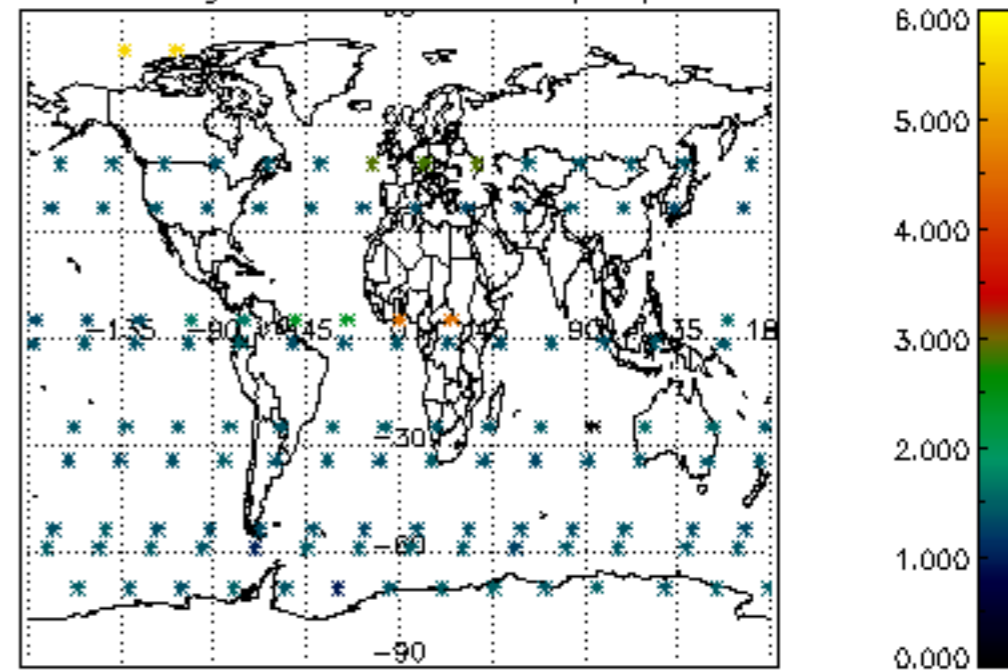
Percentage of saturation errors per profile



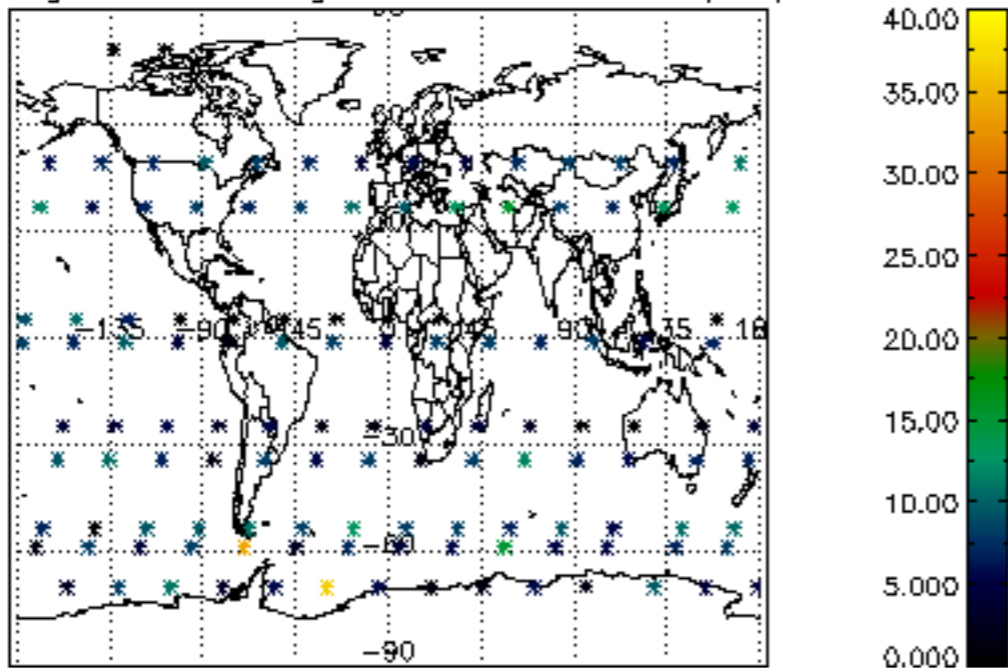
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

