

# GOMOS Level 2 Daily Report

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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 05:02:46
Data source version	GOMOS/6.01
Start time of products	17-10-2006 (17OCT2006 00:00:00)
Stop time of products	18-10-2006 (18OCT2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	233
Nb of prods with errors	0

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

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20061017_000012_000000372052_00102_24204_2786.N1	17-OCT-2006 00:00:12	Bright	36.500	58	21Alp And	2.0730	11000.	73	24204	No
2	GOM_NL__2PRFIN20061017_000843_000000362052_00102_24204_2787.N1	17-OCT-2006 00:08:43	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	24204	No
3	GOM_NL__2PRFIN20061017_001110_000000272052_00102_24204_2788.N1	17-OCT-2006 00:11:10	Bright	27.000	89	5Alp Cep	2.4510	8000.0	54	24204	No
4	GOM_NL__2PRFIN20061017_001715_000000352052_00102_24204_2789.N1	17-OCT-2006 00:17:15	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	24204	No
5	GOM_NL__2PRFIN20061017_002018_000000402052_00102_24204_2790.N1	17-OCT-2006 00:20:18	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	24204	No
6	GOM_NL__2PRFIN20061017_002528_000000352052_00102_24204_2791.N1	17-OCT-2006 00:25:28	Bright	34.500	36	50Alp UMa	1.8000	6300.0	69	24204	No
7	GOM_NL__2PRFIN20061017_002702_000000372052_00102_24204_2792.N1	17-OCT-2006 00:27:02	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	24204	No
8	GOM_NL__2PRFIN20061017_003027_000000362052_00102_24204_2793.N1	17-OCT-2006 00:30:27	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	24204	No
9	GOM_NL__2PRFIN20061017_003713_000000342052_00102_24204_2794.N1	17-OCT-2006 00:37:13	Bright	33.500	96	68Del Leo	2.5600	9300.0	67	24204	No
10	GOM_NL__2PRFIN20061017_005744_000000432052_00102_24204_2795.N1	17-OCT-2006 00:57:44	Dark	42.500	65	Lam Vel	2.2040	4400.0	85	24204	No
11	GOM_NL__2PRFIN20061017_010049_000000412052_00103_24205_2991.N1	17-OCT-2006 01:00:49	Dark	40.500	46	Del Vel	1.9540	10600.	81	24205	No
12	GOM_NL__2PRFIN20061017_010310_000000372052_00103_24205_2992.N1	17-OCT-2006 01:03:10	Dark	37.000	29	Bet Car	1.6720	10200.	74	24205	No
13	GOM_NL__2PRFIN20061017_011413_000000372052_00103_24205_2993.N1	17-OCT-2006 01:14:13	Dark	37.000	143	Alp Hyi	2.8570	7200.0	74	24205	No
14	GOM_NL__2PRFIN20061017_011539_000000412052_00103_24205_2994.N1	17-OCT-2006 01:15:39	Dark	40.500	9	Alp Eri	0.45300	24000.	81	24205	No
15	GOM_NL__2PRFIN20061017_012039_000000422052_00103_24205_2995.N1	17-OCT-2006 01:20:39	Straylight	42.000	84	Alp Phe	2.3970	4500.0	84	24205	No
16	GOM_NL__2PRFIN20061017_012714_000000472052_00103_24205_2996.N1	17-OCT-2006 01:27:14	Straylight	46.500	52	16Bet Cet	2.0370	4500.0	93	24205	No
17	GOM_NL__2PRFIN20061017_013651_000000362052_00103_24205_2997.N1	17-OCT-2006 01:36:51	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	24205	No
18	GOM_NL__2PRFIN20061017_014048_000000362052_00103_24205_2998.N1	17-OCT-2006 01:40:48	Bright	36.000	58	21Alp And	2.0730	11000.	72	24205	No
19	GOM_NL__2PRFIN20061017_014919_000000362052_00103_24205_2999.N1	17-OCT-2006 01:49:19	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	24205	No
20	GOM_NL__2PRFIN20061017_015146_000000272052_00103_24205_3000.N1	17-OCT-2006 01:51:46	Bright	27.000	89	5Alp Cep	2.4510	8000.0	54	24205	No
21	GOM_NL__2PRFIN20061017_015750_000000352052_00103_24205_3001.N1	17-OCT-2006 01:57:50	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	24205	No
22	GOM_NL__2PRFIN20061017_020054_000000362052_00103_24205_3002.N1	17-OCT-2006 02:00:54	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	24205	No
23	GOM_NL__2PRFIN20061017_020604_000000372052_00103_24205_3003.N1	17-OCT-2006 02:06:04	Bright	36.500	36	50Alp UMa	1.8000	6300.0	73	24205	No
24	GOM_NL__2PRFIN20061017_020738_000000362052_00103_24205_3004.N1	17-OCT-2006 02:07:38	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	24205	No
25	GOM_NL__2PRFIN20061017_021103_000000362052_00103_24205_3005.N1	17-OCT-2006 02:11:03	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	24205	No
26	GOM_NL__2PRFIN20061017_021750_000000342052_00103_24205_3006.N1	17-OCT-2006 02:17:50	Bright	33.500	96	68Del Leo	2.5600	9300.0	67	24205	No
27	GOM_NL__2PRFIN20061017_023820_000000522052_00103_24205_3007.N1	17-OCT-2006 02:38:20	Dark	52.000	65	Lam Vel	2.2040	4400.0	104	24205	No
28	GOM_NL__2PRFIN20061017_024126_000000422052_00104_24206_2780.N1	17-OCT-2006 02:41:26	Dark	42.000	46	Del Vel	1.9540	10600.	84	24206	No
29	GOM_NL__2PRFIN20061017_024346_000000392052_00104_24206_2781.N1	17-OCT-2006 02:43:46	Dark	38.500	29	Bet Car	1.6720	10200.	77	24206	No
30	GOM_NL__2PRFIN20061017_025449_000000382052_00104_24206_2782.N1	17-OCT-2006 02:54:49	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	24206	No
31	GOM_NL__2PRFIN20061017_025615_000000422052_00104_24206_2783.N1	17-OCT-2006 02:56:15	Dark	42.000	9	Alp Eri	0.45300	24000.	84	24206	No
32	GOM_NL__2PRFIN20061017_030115_000000432052_00104_24206_2784.N1	17-OCT-2006 03:01:15	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	24206	No
33	GOM_NL__2PRFIN20061017_030750_000000442052_00104_24206_2785.N1	17-OCT-2006 03:07:50	Straylight	43.500	52	16Bet Cet	2.0370	4500.0	87	24206	No
34	GOM_NL__2PRFIN20061017_031727_000000362052_00104_24206_2786.N1	17-OCT-2006 03:17:27	Bright	36.000	140	88Gam Peg	2.8340	26000.	72	24206	No
35	GOM_NL__2PRFIN20061017_032124_000000362052_00104_24206_2787.N1	17-OCT-2006 03:21:24	Bright	36.000	58	21Alp And	2.0730	11000.	72	24206	No
36	GOM_NL__2PRFIN20061017_032955_000000352052_00104_24206_2788.N1	17-OCT-2006 03:29:55	Bright	34.500	74	11Bet Cas	2.2680	6600.0	69	24206	No
37	GOM_NL__2PRFIN20061017_033826_000000362052_00104_24206_2789.N1	17-OCT-2006 03:38:26	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	24206	No
38	GOM_NL__2PRFIN20061017_034130_000000522052_00104_24206_2790.N1	17-OCT-2006 03:41:30	Bright	52.000	60	7Bet UMi	2.0810	3950.0	104	24206	No
39	GOM_NL__2PRFIN20061017_034640_000000382052_00104_24206_2791.N1	17-OCT-2006 03:46:40	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	24206	No
40	GOM_NL__2PRFIN20061017_034814_000000352052_00104_24206_2792.N1	17-OCT-2006 03:48:14	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	24206	No
41	GOM_NL__2PRFIN20061017_035138_000000352052_00104_24206_2793.N1	17-OCT-2006 03:51:38	Bright	35.000	174	52Psi UMa	3.0040	4400.0	70	24206	No
42	GOM_NL__2PRFIN20061017_035826_000000332052_00104_24206_2794.N1	17-OCT-2006 03:58:26	Bright	33.000	96	68Del Leo	2.5600	9300.0	66	24206	No





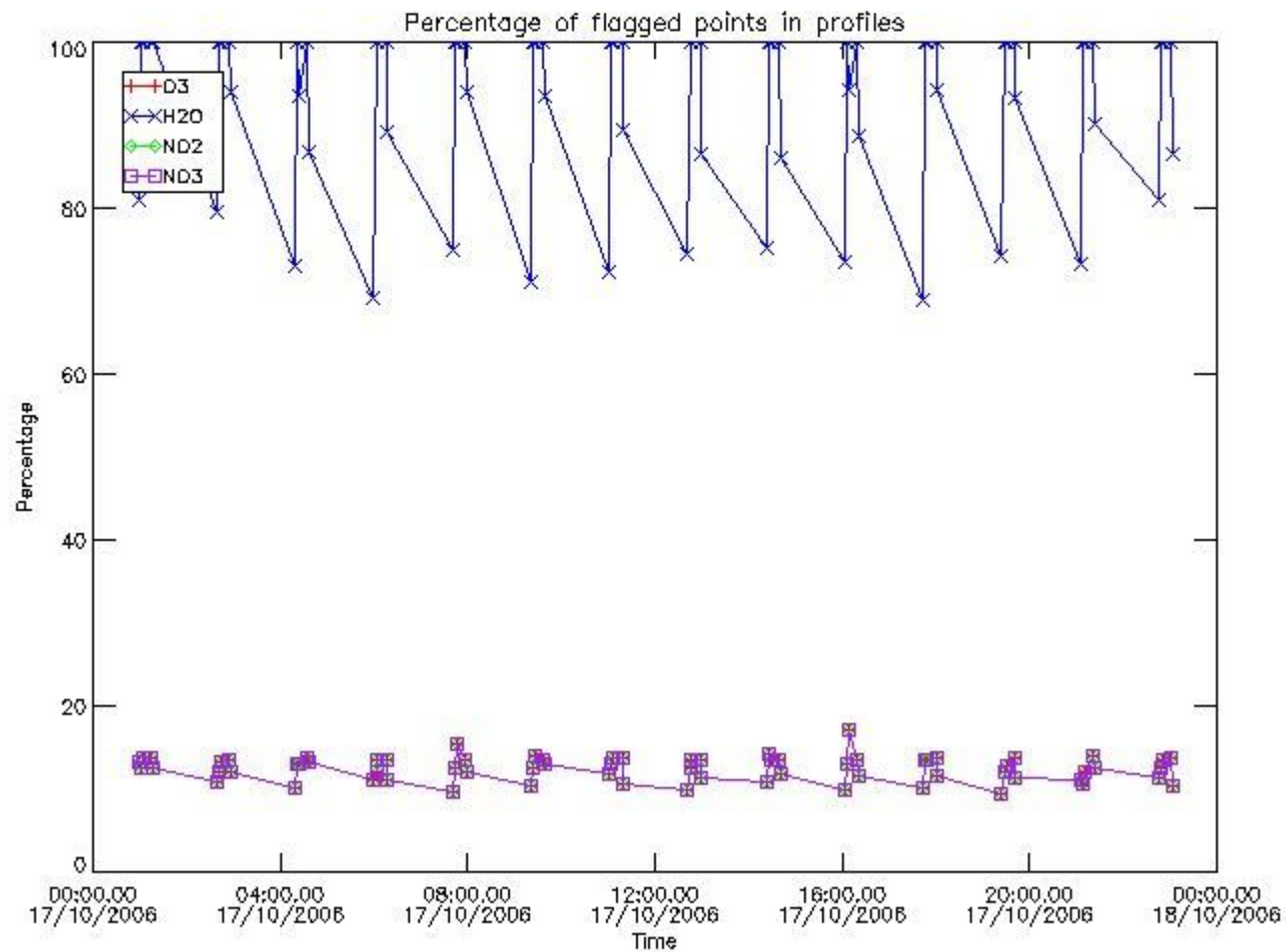


220	GOM_NL__2PRFIN20061017_224843_000000412052_00116_24218_2806.N1	17-OCT-2006 22:48:43	Dark	40.500	46	Del Vel	1.9540	10600.	81	24218	No
221	GOM_NL__2PRFIN20061017_225100_000000382052_00116_24218_2807.N1	17-OCT-2006 22:51:00	Dark	37.500	29	Bet Car	1.6720	10200.	75	24218	No
222	GOM_NL__2PRFIN20061017_230204_000000372052_00116_24218_2808.N1	17-OCT-2006 23:02:04	Dark	37.000	143	Alp Hyi	2.8570	7200.0	74	24218	No
223	GOM_NL__2PRFIN20061017_230330_000000492052_00116_24218_2809.N1	17-OCT-2006 23:03:30	Dark	49.000	9	Alp Eri	0.45300	24000.	98	24218	No
224	GOM_NL__2PRFIN20061017_230828_000000422052_00116_24218_2810.N1	17-OCT-2006 23:08:28	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	24218	No
225	GOM_NL__2PRFIN20061017_231503_000000412052_00116_24218_2811.N1	17-OCT-2006 23:15:03	Straylight	40.500	52	16Bet Cet	2.0370	4500.0	81	24218	No
226	GOM_NL__2PRFIN20061017_232439_000000342052_00116_24218_2812.N1	17-OCT-2006 23:24:39	Bright	34.000	140	88Gam Peg	2.8340	26000.	68	24218	No
227	GOM_NL__2PRFIN20061017_232835_000000362052_00116_24218_2813.N1	17-OCT-2006 23:28:35	Bright	35.500	58	21Alp And	2.0730	11000.	71	24218	No
228	GOM_NL__2PRFIN20061017_233705_000000352052_00116_24218_2814.N1	17-OCT-2006 23:37:05	Bright	35.000	74	11Bet Cas	2.2680	6600.0	70	24218	No
229	GOM_NL__2PRFIN20061017_234537_000000362052_00116_24218_2815.N1	17-OCT-2006 23:45:37	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	24218	No
230	GOM_NL__2PRFIN20061017_234844_000000372052_00116_24218_2816.N1	17-OCT-2006 23:48:44	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	24218	No
231	GOM_NL__2PRFIN20061017_235352_000000362052_00116_24218_2817.N1	17-OCT-2006 23:53:52	Bright	35.500	36	50Alp UMa	1.8000	6300.0	71	24218	No
232	GOM_NL__2PRFIN20061017_235525_000000372052_00116_24218_2818.N1	17-OCT-2006 23:55:25	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	24218	No
233	GOM_NL__2PRFIN20061017_235850_000000372052_00116_24218_2819.N1	17-OCT-2006 23:58:50	Bright	36.500	174	52Psi UMa	3.0040	4400.0	73	24218	No

### 3. Quality information per product

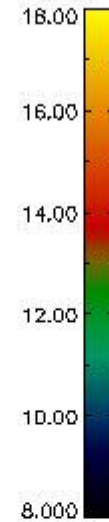
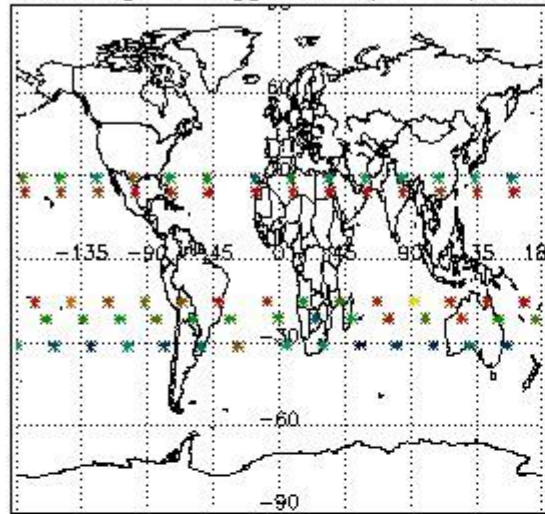
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

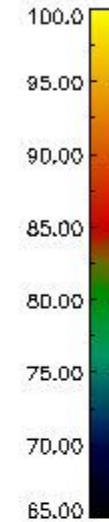
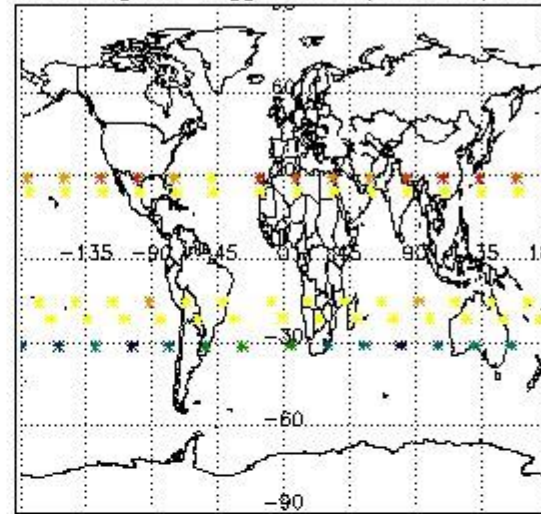


#### 3.2 Plot quality information per product (world map)

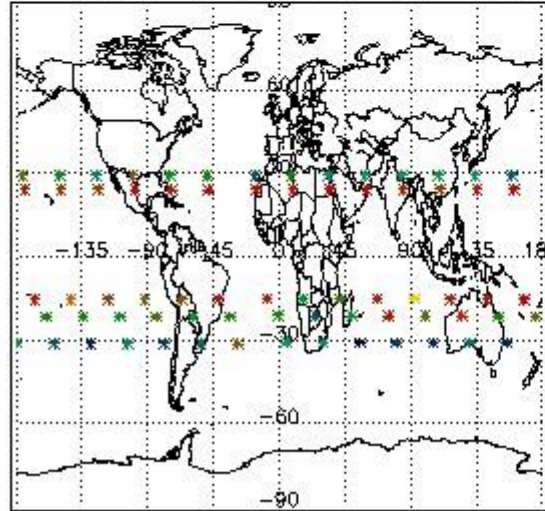
Percentage of flagged data per O3 profile



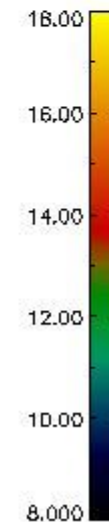
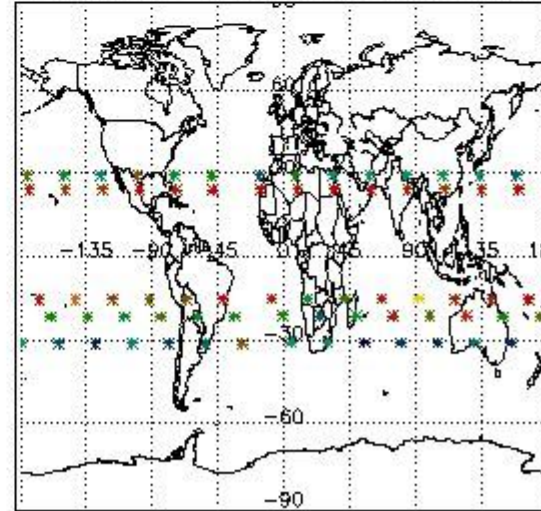
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

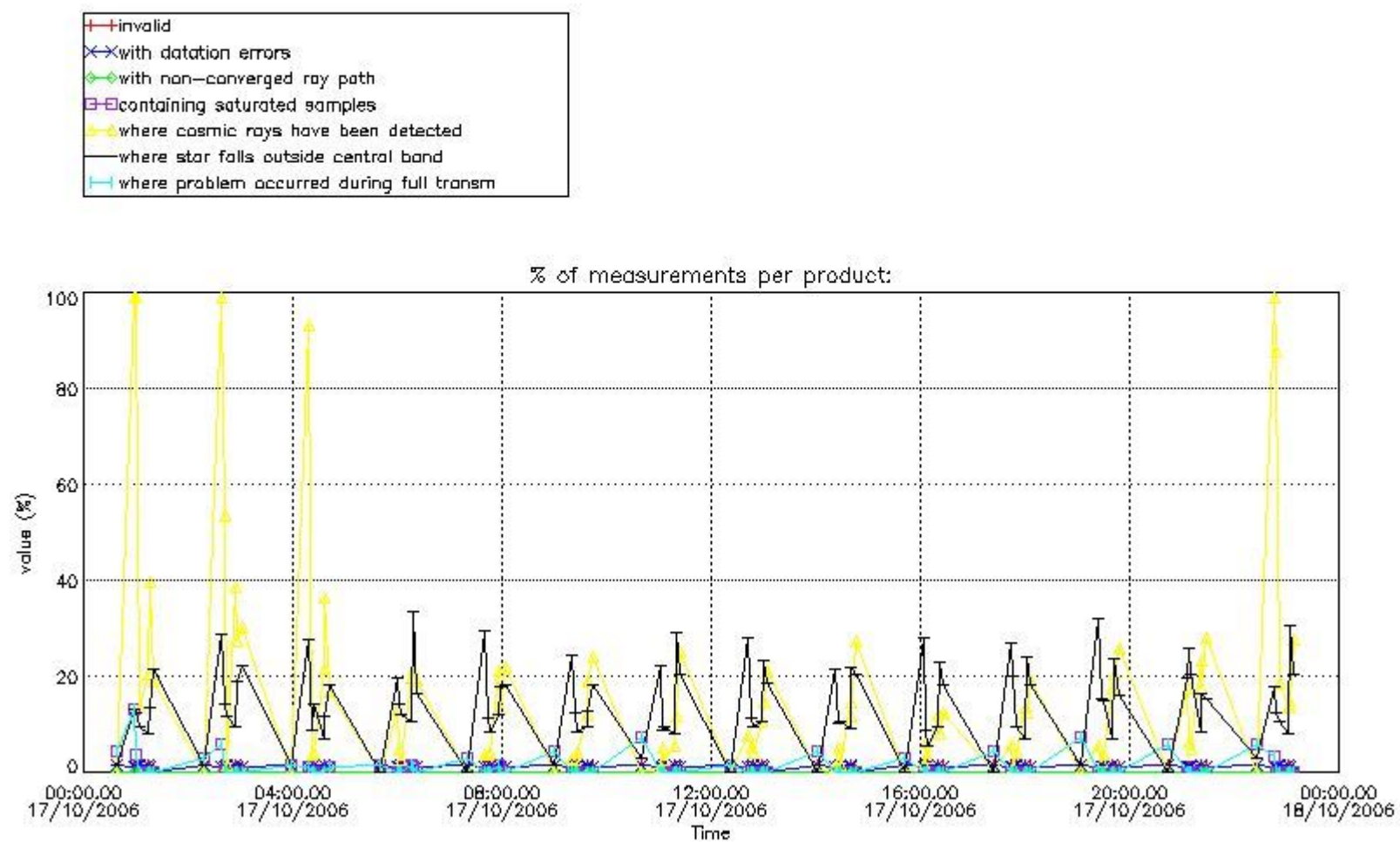


#### 4. Level 1 quality information per product

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.

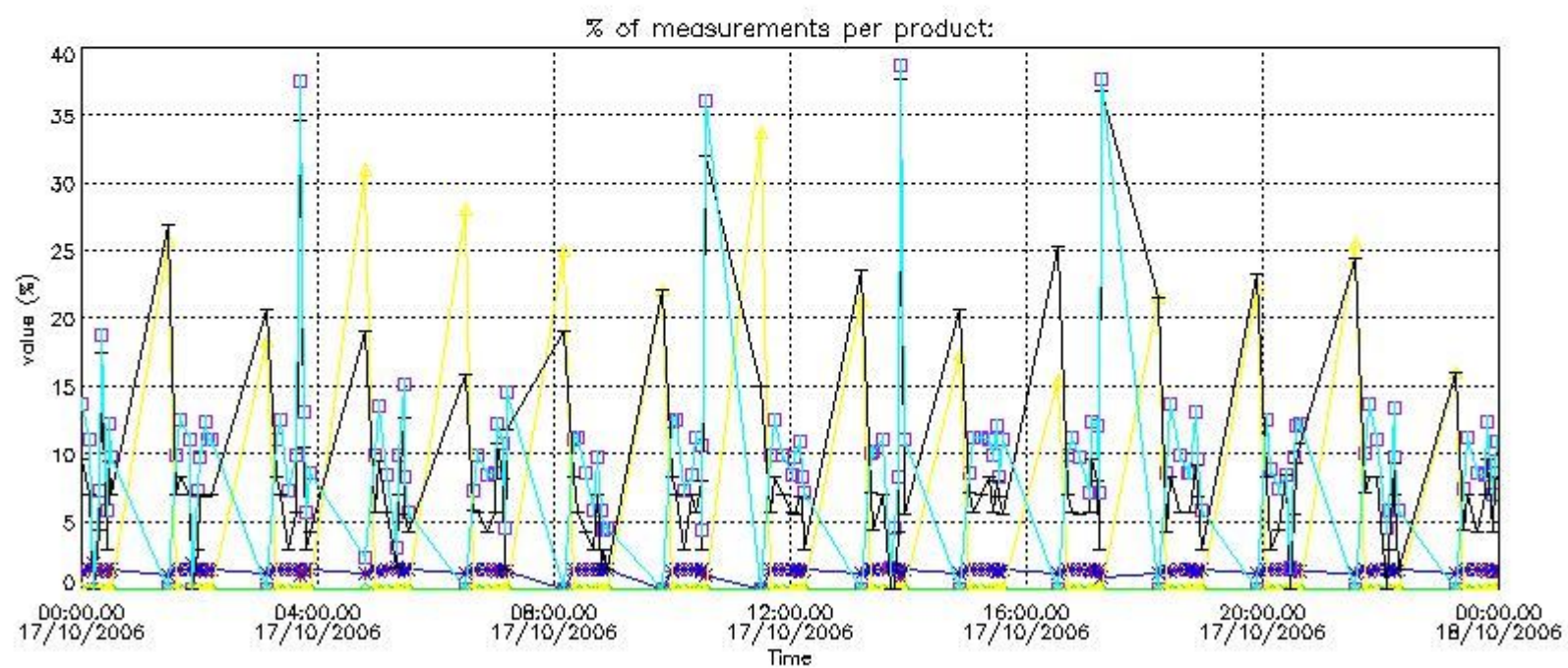
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

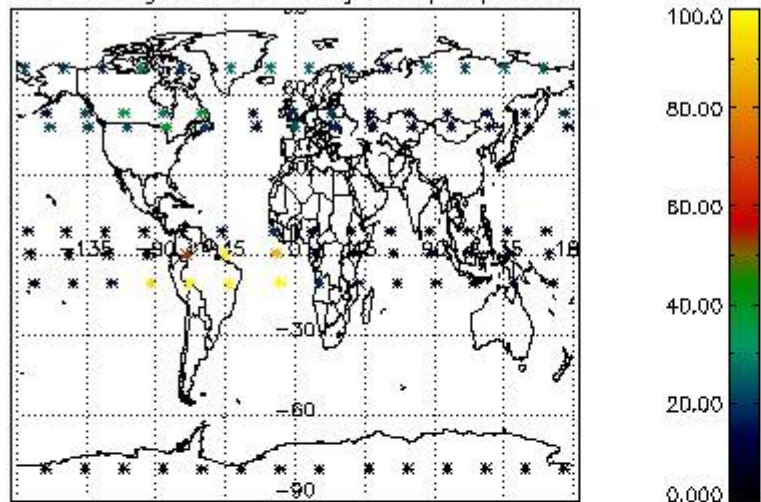




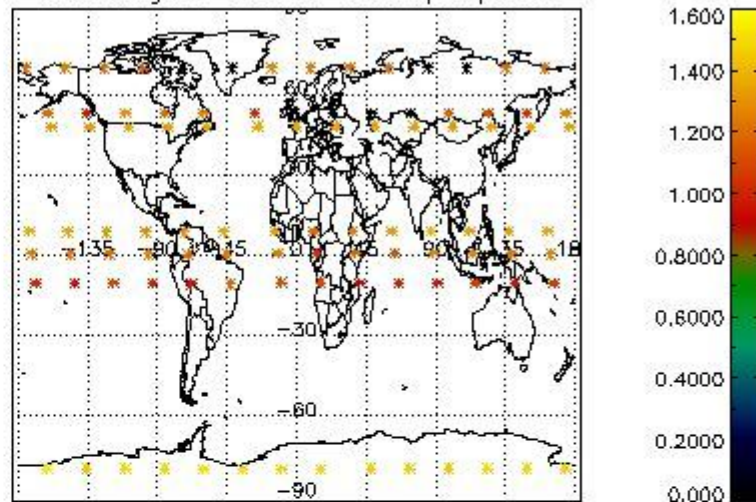
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

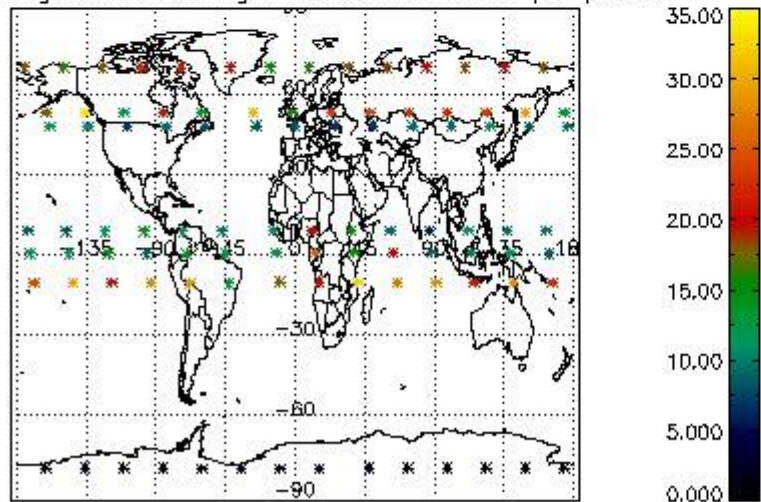
Percentage of cosmic ray hits per profile



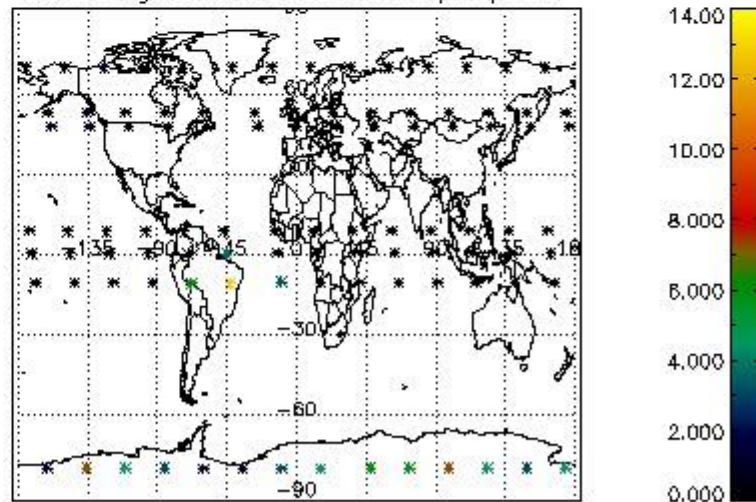
Percentage of datation errors per profile



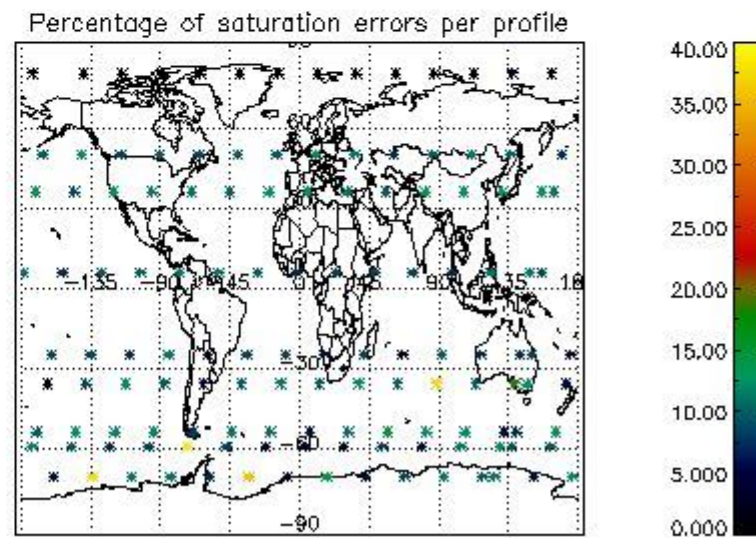
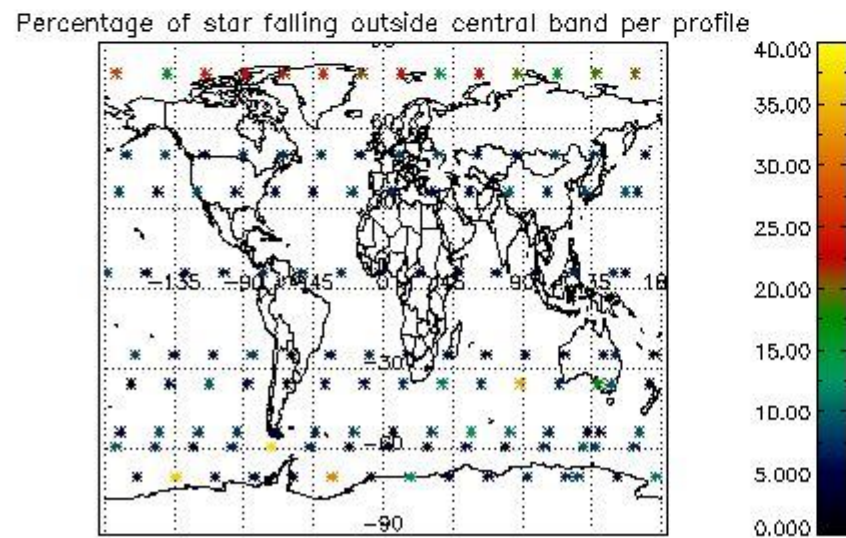
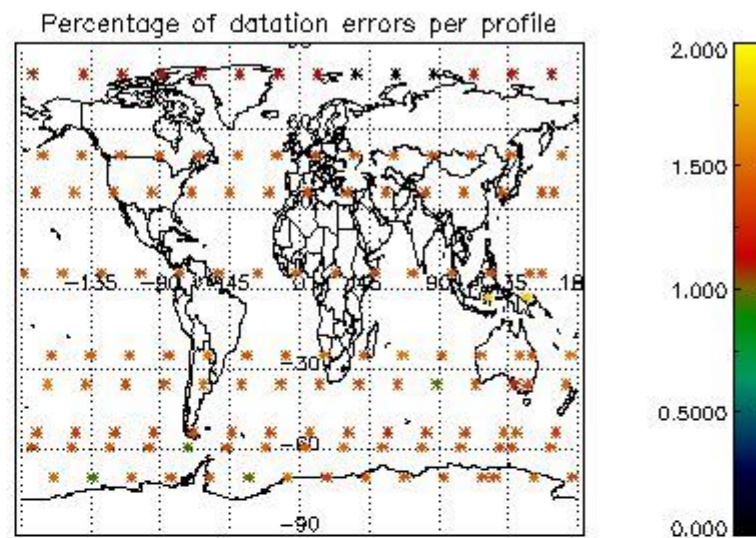
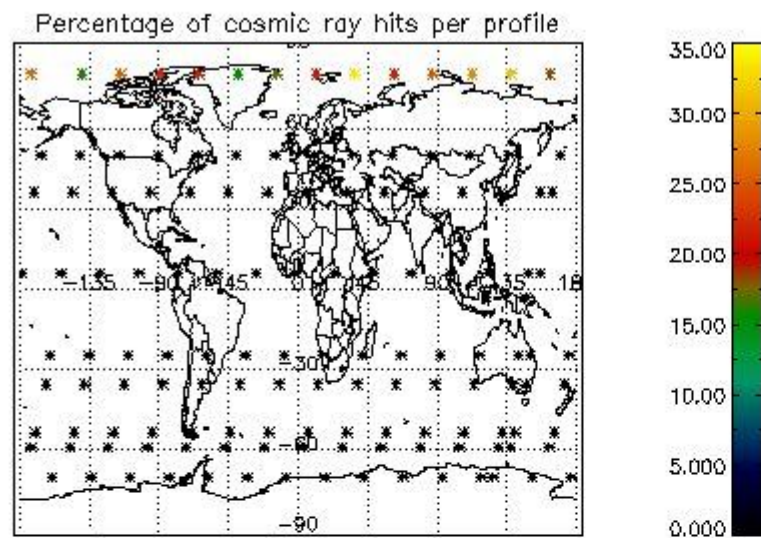
Percentage of star falling outside central band per profile



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

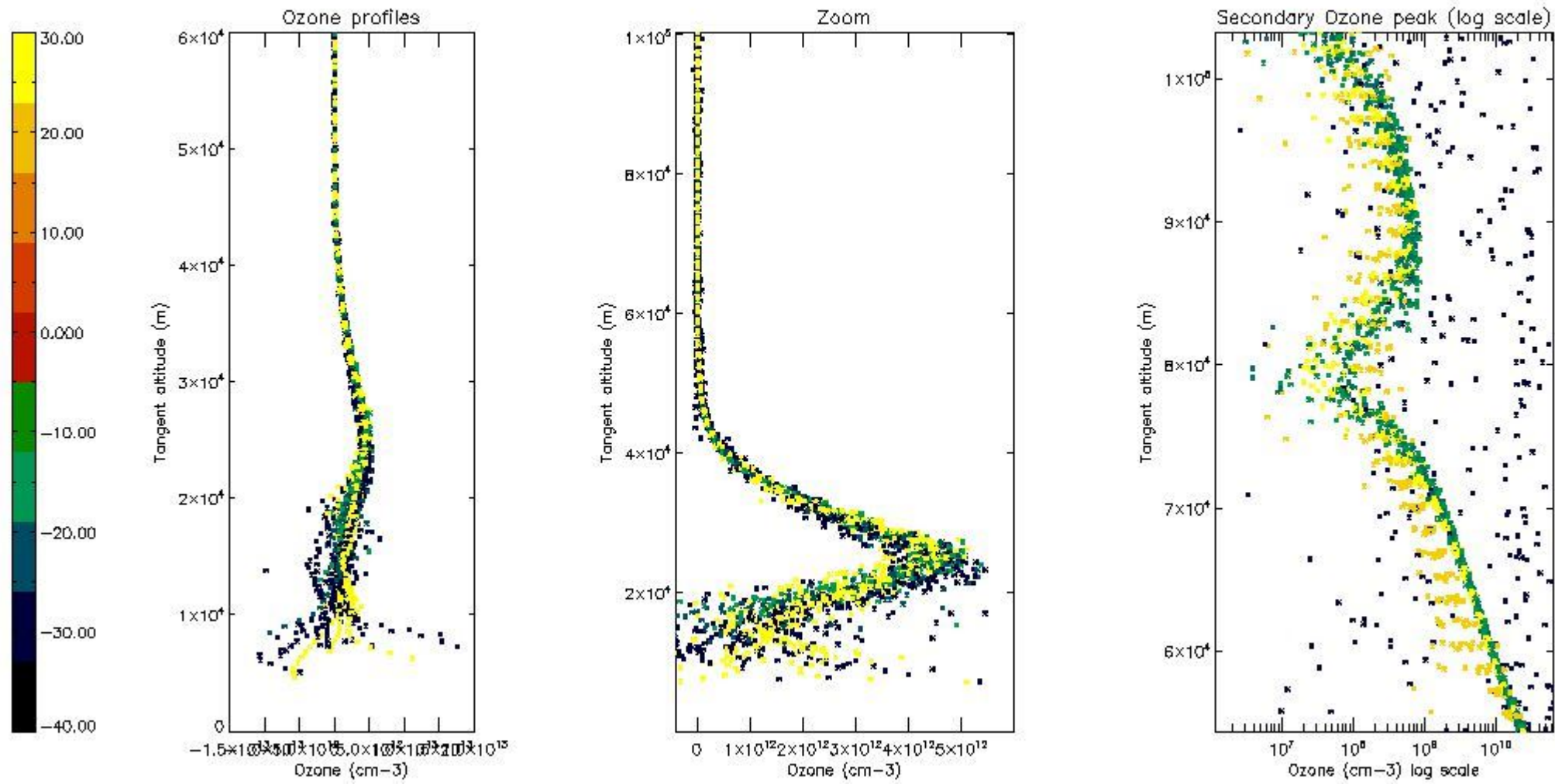
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	14
STD < 5	9

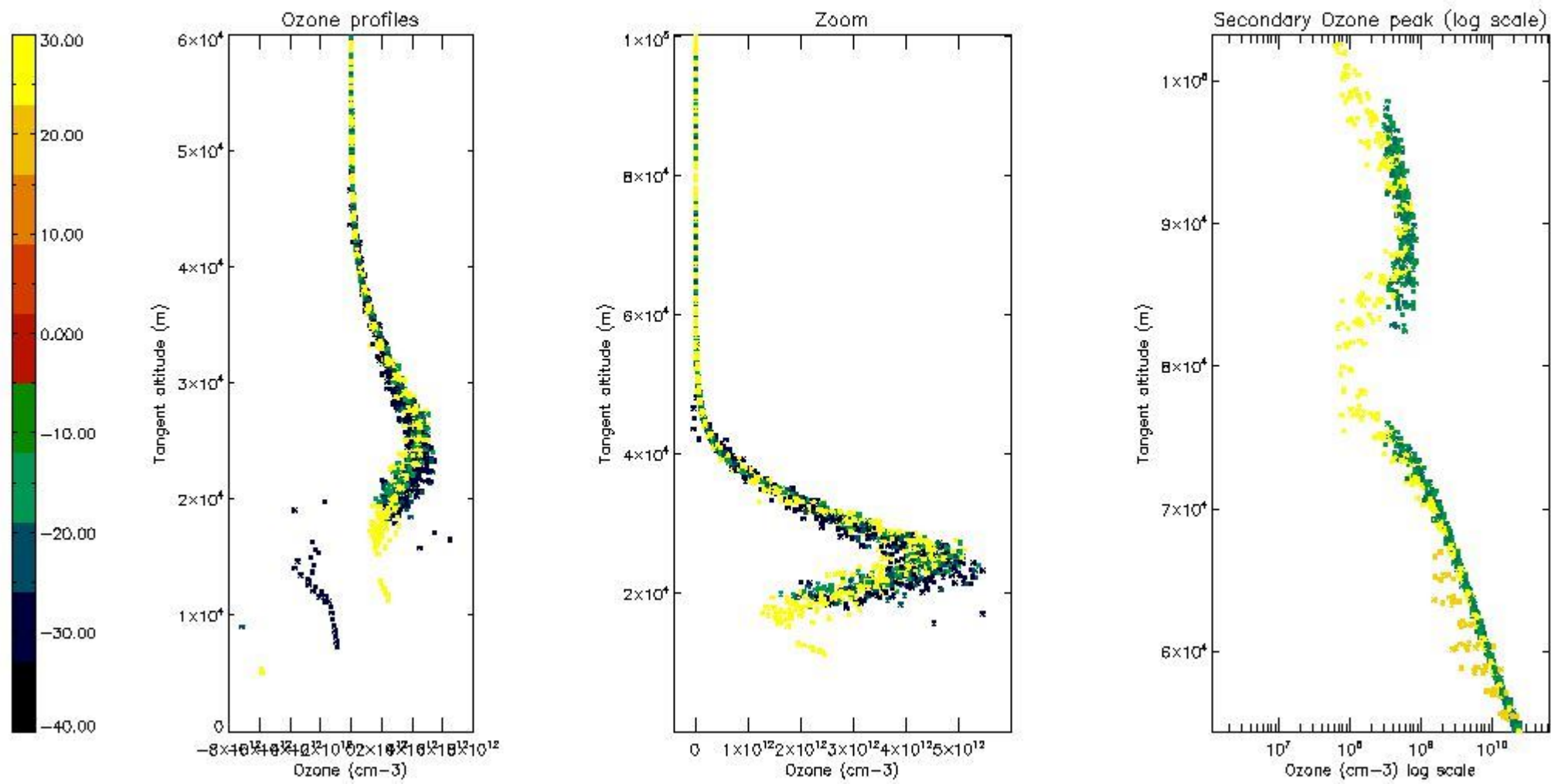
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



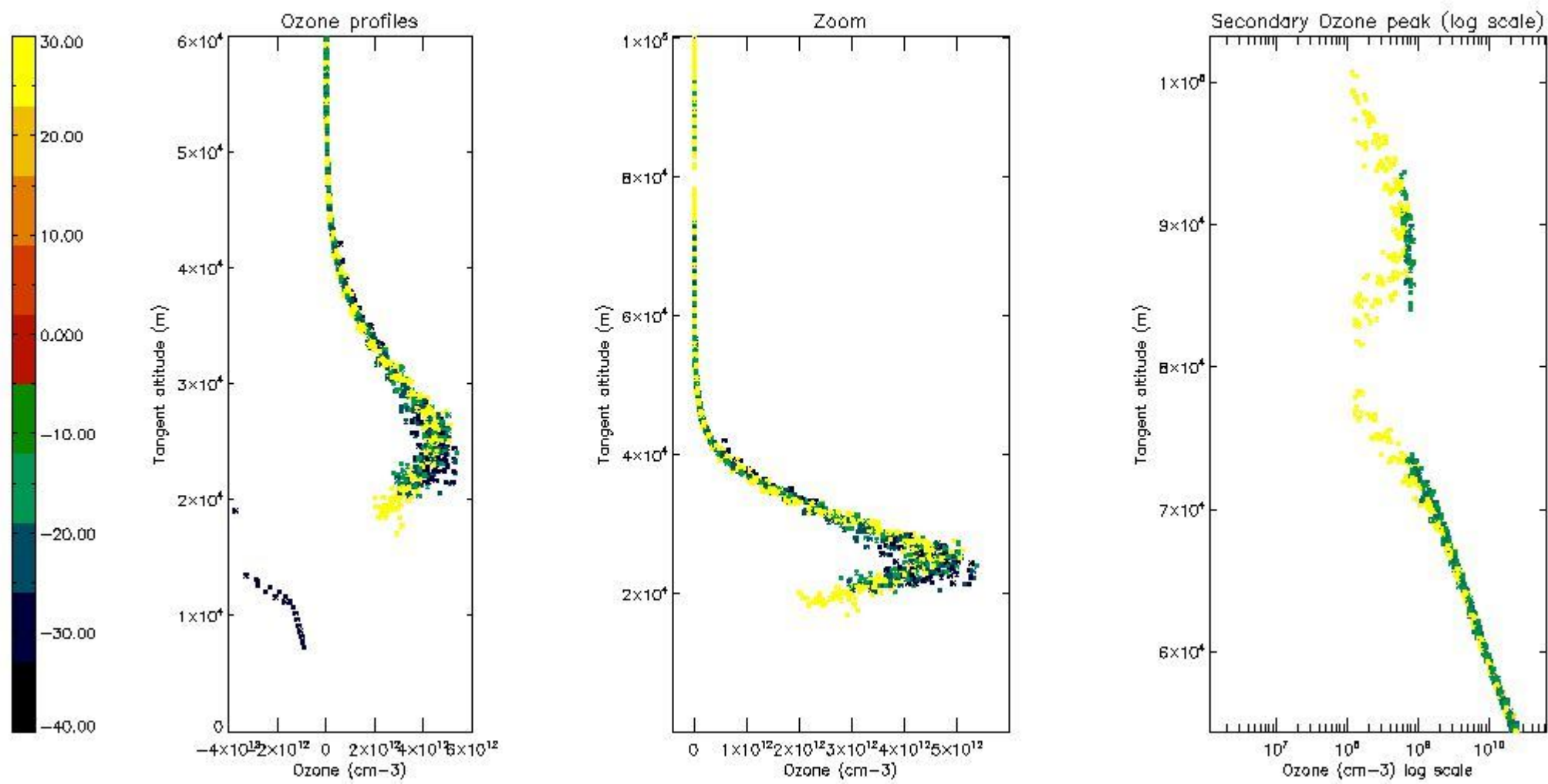
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



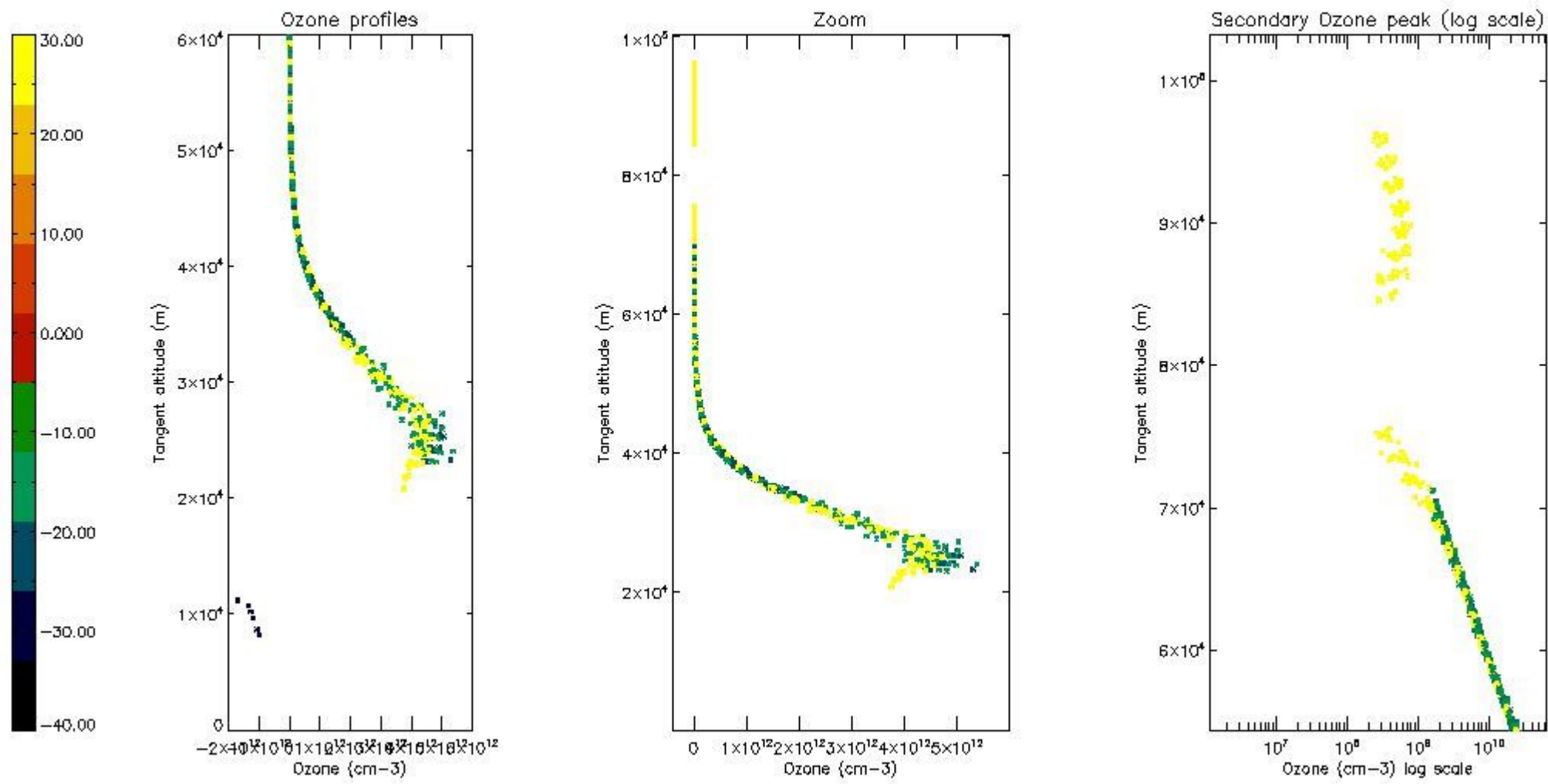
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



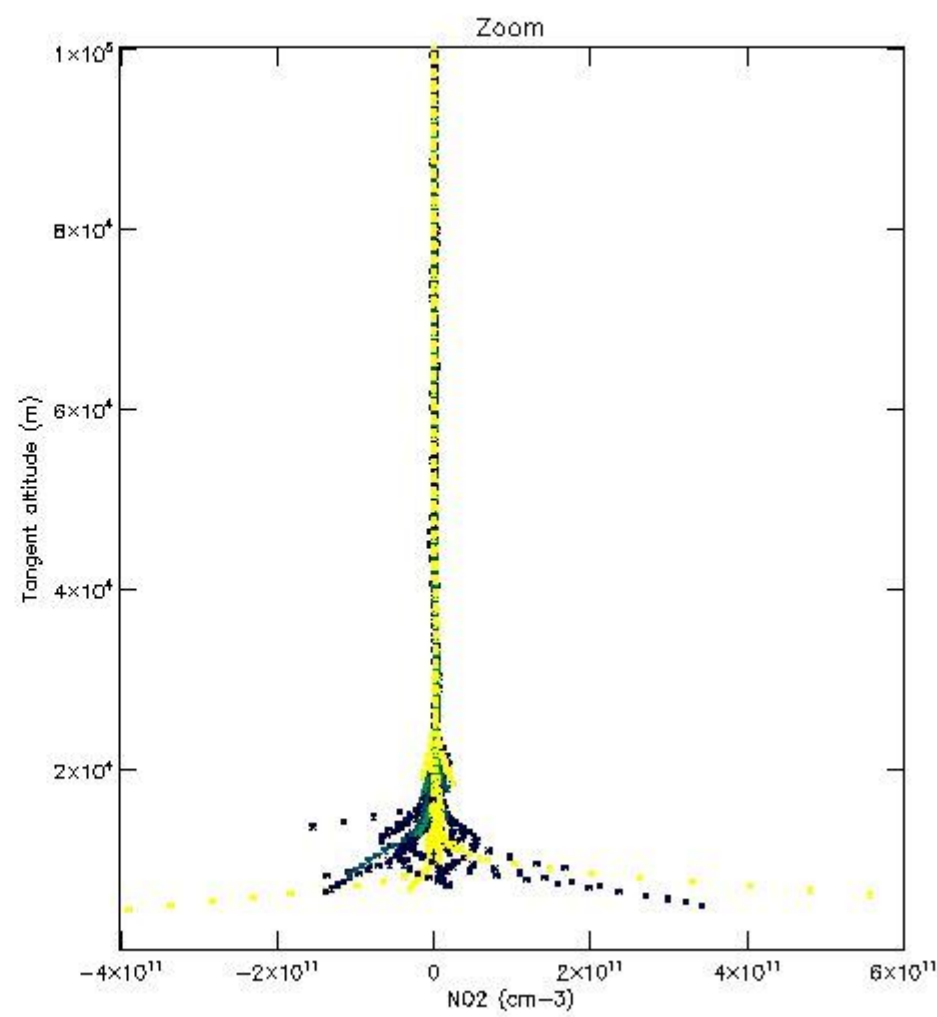
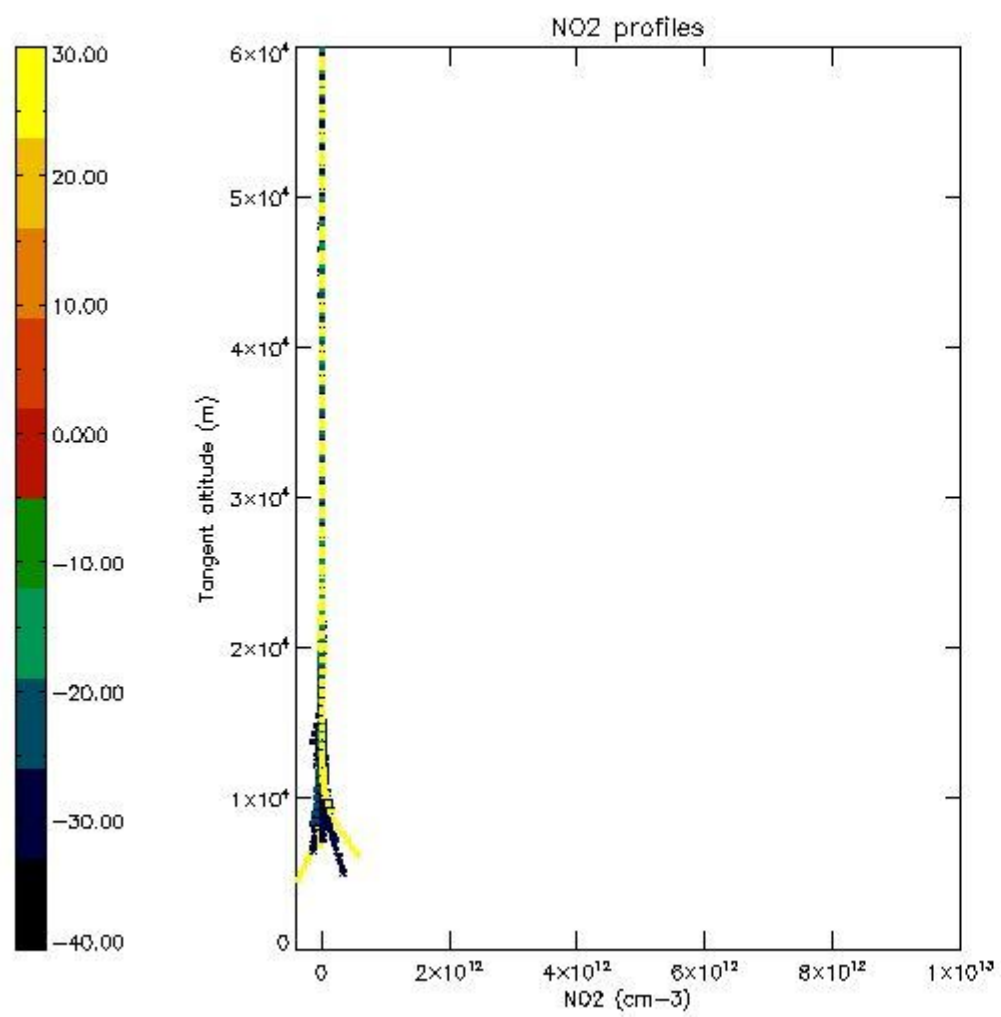
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

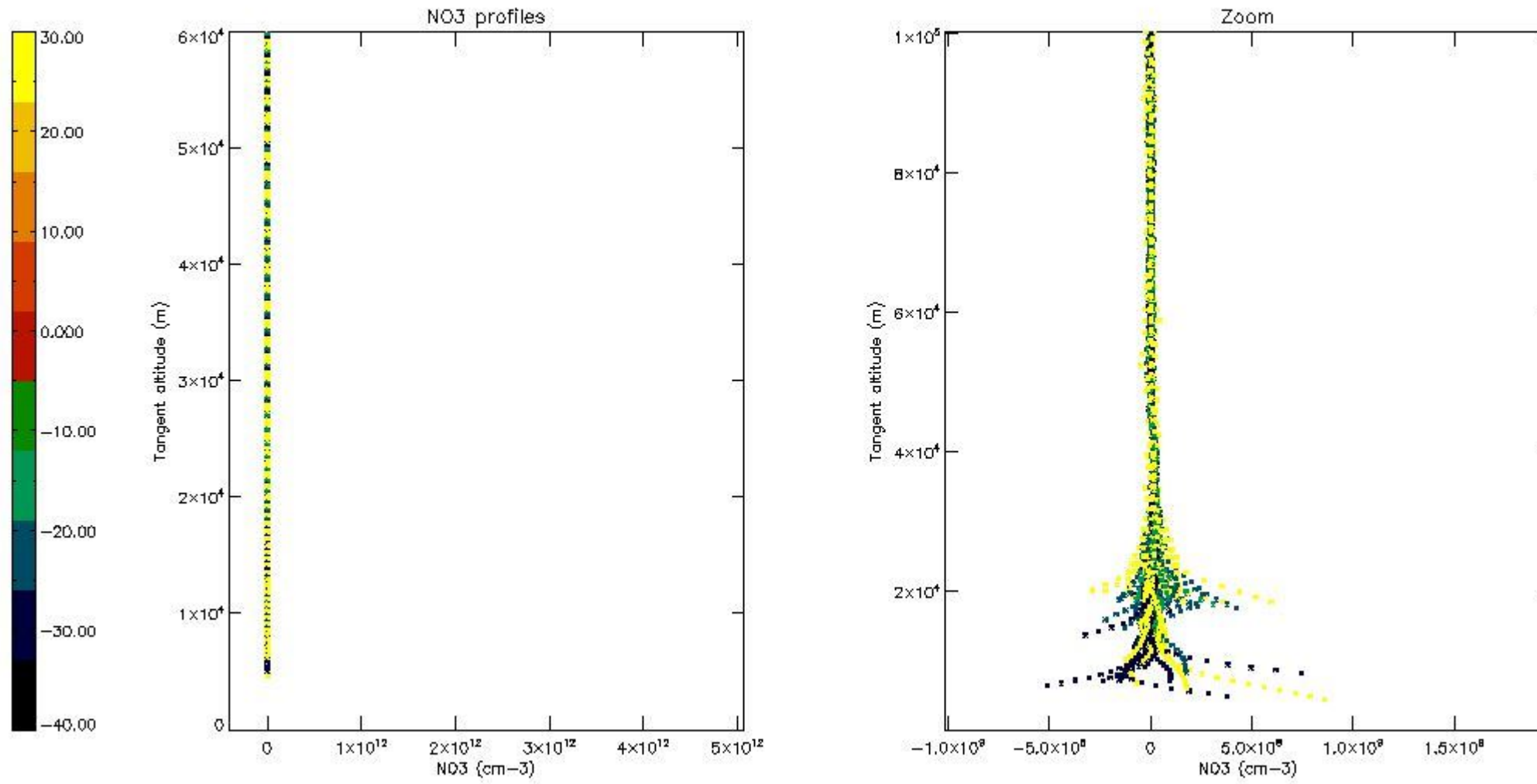
The colorbar represents the latitude.



*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	17-OCT-2006 00:00:12
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	17-OCT-2006 00:00:12
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	17-OCT-2006 00:00:12

# GOMOS Level 2 Daily Report

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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 05:02:46
Data source version	GOMOS/6.01
Start time of products	17-10-2006 (17OCT2006 00:00:00)
Stop time of products	18-10-2006 (18OCT2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	233
Nb of prods with errors	0

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

Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20061017_000012_000000372052_00102_24204_2786.N1	17-OCT-2006 00:00:12	Bright	36.500	58	21Alp And	2.0730	11000.	73	24204	No
2	GOM_NL__2PRFIN20061017_000843_000000362052_00102_24204_2787.N1	17-OCT-2006 00:08:43	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	24204	No
3	GOM_NL__2PRFIN20061017_001110_000000272052_00102_24204_2788.N1	17-OCT-2006 00:11:10	Bright	27.000	89	5Alp Cep	2.4510	8000.0	54	24204	No
4	GOM_NL__2PRFIN20061017_001715_000000352052_00102_24204_2789.N1	17-OCT-2006 00:17:15	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	24204	No
5	GOM_NL__2PRFIN20061017_002018_000000402052_00102_24204_2790.N1	17-OCT-2006 00:20:18	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	24204	No
6	GOM_NL__2PRFIN20061017_002528_000000352052_00102_24204_2791.N1	17-OCT-2006 00:25:28	Bright	34.500	36	50Alp UMa	1.8000	6300.0	69	24204	No
7	GOM_NL__2PRFIN20061017_002702_000000372052_00102_24204_2792.N1	17-OCT-2006 00:27:02	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	24204	No
8	GOM_NL__2PRFIN20061017_003027_000000362052_00102_24204_2793.N1	17-OCT-2006 00:30:27	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	24204	No
9	GOM_NL__2PRFIN20061017_003713_000000342052_00102_24204_2794.N1	17-OCT-2006 00:37:13	Bright	33.500	96	68Del Leo	2.5600	9300.0	67	24204	No
10	GOM_NL__2PRFIN20061017_005744_000000432052_00102_24204_2795.N1	17-OCT-2006 00:57:44	Dark	42.500	65	Lam Vel	2.2040	4400.0	85	24204	No
11	GOM_NL__2PRFIN20061017_010049_000000412052_00103_24205_2991.N1	17-OCT-2006 01:00:49	Dark	40.500	46	Del Vel	1.9540	10600.	81	24205	No
12	GOM_NL__2PRFIN20061017_010310_000000372052_00103_24205_2992.N1	17-OCT-2006 01:03:10	Dark	37.000	29	Bet Car	1.6720	10200.	74	24205	No
13	GOM_NL__2PRFIN20061017_011413_000000372052_00103_24205_2993.N1	17-OCT-2006 01:14:13	Dark	37.000	143	Alp Hyi	2.8570	7200.0	74	24205	No
14	GOM_NL__2PRFIN20061017_011539_000000412052_00103_24205_2994.N1	17-OCT-2006 01:15:39	Dark	40.500	9	Alp Eri	0.45300	24000.	81	24205	No
15	GOM_NL__2PRFIN20061017_012039_000000422052_00103_24205_2995.N1	17-OCT-2006 01:20:39	Straylight	42.000	84	Alp Phe	2.3970	4500.0	84	24205	No
16	GOM_NL__2PRFIN20061017_012714_000000472052_00103_24205_2996.N1	17-OCT-2006 01:27:14	Straylight	46.500	52	16Bet Cet	2.0370	4500.0	93	24205	No
17	GOM_NL__2PRFIN20061017_013651_000000362052_00103_24205_2997.N1	17-OCT-2006 01:36:51	Bright	35.500	140	88Gam Peg	2.8340	26000.	71	24205	No
18	GOM_NL__2PRFIN20061017_014048_000000362052_00103_24205_2998.N1	17-OCT-2006 01:40:48	Bright	36.000	58	21Alp And	2.0730	11000.	72	24205	No
19	GOM_NL__2PRFIN20061017_014919_000000362052_00103_24205_2999.N1	17-OCT-2006 01:49:19	Bright	36.000	74	11Bet Cas	2.2680	6600.0	72	24205	No
20	GOM_NL__2PRFIN20061017_015146_000000272052_00103_24205_3000.N1	17-OCT-2006 01:51:46	Bright	27.000	89	5Alp Cep	2.4510	8000.0	54	24205	No
21	GOM_NL__2PRFIN20061017_015750_000000352052_00103_24205_3001.N1	17-OCT-2006 01:57:50	Bright	34.500	49	1Alp UMi	1.9900	6300.0	69	24205	No
22	GOM_NL__2PRFIN20061017_020054_000000362052_00103_24205_3002.N1	17-OCT-2006 02:00:54	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	24205	No
23	GOM_NL__2PRFIN20061017_020604_000000372052_00103_24205_3003.N1	17-OCT-2006 02:06:04	Bright	36.500	36	50Alp UMa	1.8000	6300.0	73	24205	No
24	GOM_NL__2PRFIN20061017_020738_000000362052_00103_24205_3004.N1	17-OCT-2006 02:07:38	Bright	36.000	82	48Bet UMa	2.3650	10600.	72	24205	No
25	GOM_NL__2PRFIN20061017_021103_000000362052_00103_24205_3005.N1	17-OCT-2006 02:11:03	Bright	36.000	174	52Psi UMa	3.0040	4400.0	72	24205	No
26	GOM_NL__2PRFIN20061017_021750_000000342052_00103_24205_3006.N1	17-OCT-2006 02:17:50	Bright	33.500	96	68Del Leo	2.5600	9300.0	67	24205	No
27	GOM_NL__2PRFIN20061017_023820_000000522052_00103_24205_3007.N1	17-OCT-2006 02:38:20	Dark	52.000	65	Lam Vel	2.2040	4400.0	104	24205	No
28	GOM_NL__2PRFIN20061017_024126_000000422052_00104_24206_2780.N1	17-OCT-2006 02:41:26	Dark	42.000	46	Del Vel	1.9540	10600.	84	24206	No
29	GOM_NL__2PRFIN20061017_024346_000000392052_00104_24206_2781.N1	17-OCT-2006 02:43:46	Dark	38.500	29	Bet Car	1.6720	10200.	77	24206	No
30	GOM_NL__2PRFIN20061017_025449_000000382052_00104_24206_2782.N1	17-OCT-2006 02:54:49	Dark	37.500	143	Alp Hyi	2.8570	7200.0	75	24206	No
31	GOM_NL__2PRFIN20061017_025615_000000422052_00104_24206_2783.N1	17-OCT-2006 02:56:15	Dark	42.000	9	Alp Eri	0.45300	24000.	84	24206	No
32	GOM_NL__2PRFIN20061017_030115_000000432052_00104_24206_2784.N1	17-OCT-2006 03:01:15	Straylight	43.000	84	Alp Phe	2.3970	4500.0	86	24206	No
33	GOM_NL__2PRFIN20061017_030750_000000442052_00104_24206_2785.N1	17-OCT-2006 03:07:50	Straylight	43.500	52	16Bet Cet	2.0370	4500.0	87	24206	No
34	GOM_NL__2PRFIN20061017_031727_000000362052_00104_24206_2786.N1	17-OCT-2006 03:17:27	Bright	36.000	140	88Gam Peg	2.8340	26000.	72	24206	No
35	GOM_NL__2PRFIN20061017_032124_000000362052_00104_24206_2787.N1	17-OCT-2006 03:21:24	Bright	36.000	58	21Alp And	2.0730	11000.	72	24206	No
36	GOM_NL__2PRFIN20061017_032955_000000352052_00104_24206_2788.N1	17-OCT-2006 03:29:55	Bright	34.500	74	11Bet Cas	2.2680	6600.0	69	24206	No
37	GOM_NL__2PRFIN20061017_033826_000000362052_00104_24206_2789.N1	17-OCT-2006 03:38:26	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	24206	No
38	GOM_NL__2PRFIN20061017_034130_000000522052_00104_24206_2790.N1	17-OCT-2006 03:41:30	Bright	52.000	60	7Bet UMi	2.0810	3950.0	104	24206	No
39	GOM_NL__2PRFIN20061017_034640_000000382052_00104_24206_2791.N1	17-OCT-2006 03:46:40	Bright	38.000	36	50Alp UMa	1.8000	6300.0	76	24206	No
40	GOM_NL__2PRFIN20061017_034814_000000352052_00104_24206_2792.N1	17-OCT-2006 03:48:14	Bright	35.000	82	48Bet UMa	2.3650	10600.	70	24206	No
41	GOM_NL__2PRFIN20061017_035138_000000352052_00104_24206_2793.N1	17-OCT-2006 03:51:38	Bright	35.000	174	52Psi UMa	3.0040	4400.0	70	24206	No
42	GOM_NL__2PRFIN20061017_035826_000000332052_00104_24206_2794.N1	17-OCT-2006 03:58:26	Bright	33.000	96	68Del Leo	2.5600	9300.0	66	24206	No





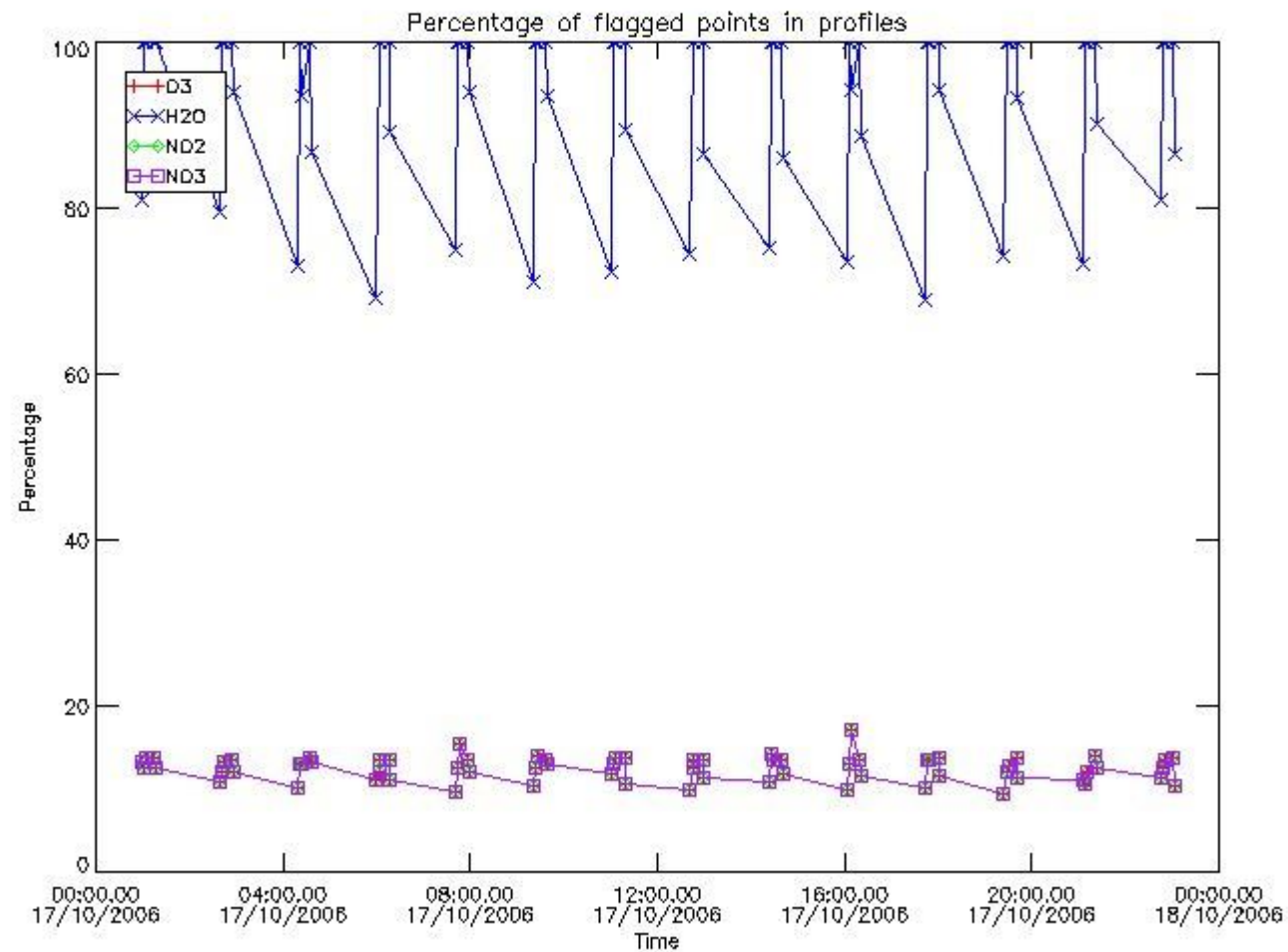


220	GOM_NL__2PRFIN20061017_224843_000000412052_00116_24218_2806.N1	17-OCT-2006 22:48:43	Dark	40.500	46	Del Vel	1.9540	10600.	81	24218	No
221	GOM_NL__2PRFIN20061017_225100_000000382052_00116_24218_2807.N1	17-OCT-2006 22:51:00	Dark	37.500	29	Bet Car	1.6720	10200.	75	24218	No
222	GOM_NL__2PRFIN20061017_230204_000000372052_00116_24218_2808.N1	17-OCT-2006 23:02:04	Dark	37.000	143	Alp Hyi	2.8570	7200.0	74	24218	No
223	GOM_NL__2PRFIN20061017_230330_000000492052_00116_24218_2809.N1	17-OCT-2006 23:03:30	Dark	49.000	9	Alp Eri	0.45300	24000.	98	24218	No
224	GOM_NL__2PRFIN20061017_230828_000000422052_00116_24218_2810.N1	17-OCT-2006 23:08:28	Straylight	41.500	84	Alp Phe	2.3970	4500.0	83	24218	No
225	GOM_NL__2PRFIN20061017_231503_000000412052_00116_24218_2811.N1	17-OCT-2006 23:15:03	Straylight	40.500	52	16Bet Cet	2.0370	4500.0	81	24218	No
226	GOM_NL__2PRFIN20061017_232439_000000342052_00116_24218_2812.N1	17-OCT-2006 23:24:39	Bright	34.000	140	88Gam Peg	2.8340	26000.	68	24218	No
227	GOM_NL__2PRFIN20061017_232835_000000362052_00116_24218_2813.N1	17-OCT-2006 23:28:35	Bright	35.500	58	21Alp And	2.0730	11000.	71	24218	No
228	GOM_NL__2PRFIN20061017_233705_000000352052_00116_24218_2814.N1	17-OCT-2006 23:37:05	Bright	35.000	74	11Bet Cas	2.2680	6600.0	70	24218	No
229	GOM_NL__2PRFIN20061017_234537_000000362052_00116_24218_2815.N1	17-OCT-2006 23:45:37	Bright	35.500	49	1Alp UMi	1.9900	6300.0	71	24218	No
230	GOM_NL__2PRFIN20061017_234844_000000372052_00116_24218_2816.N1	17-OCT-2006 23:48:44	Bright	36.500	60	7Bet UMi	2.0810	3950.0	73	24218	No
231	GOM_NL__2PRFIN20061017_235352_000000362052_00116_24218_2817.N1	17-OCT-2006 23:53:52	Bright	35.500	36	50Alp UMa	1.8000	6300.0	71	24218	No
232	GOM_NL__2PRFIN20061017_235525_000000372052_00116_24218_2818.N1	17-OCT-2006 23:55:25	Bright	37.000	82	48Bet UMa	2.3650	10600.	74	24218	No
233	GOM_NL__2PRFIN20061017_235850_000000372052_00116_24218_2819.N1	17-OCT-2006 23:58:50	Bright	36.500	174	52Psi UMa	3.0040	4400.0	73	24218	No

### 3. Quality information per product

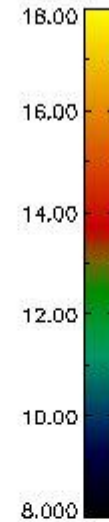
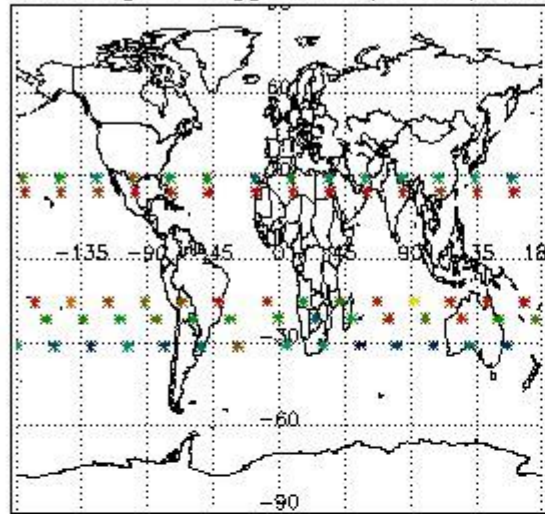
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

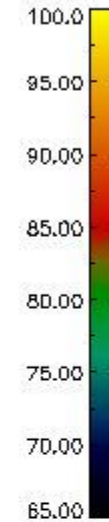
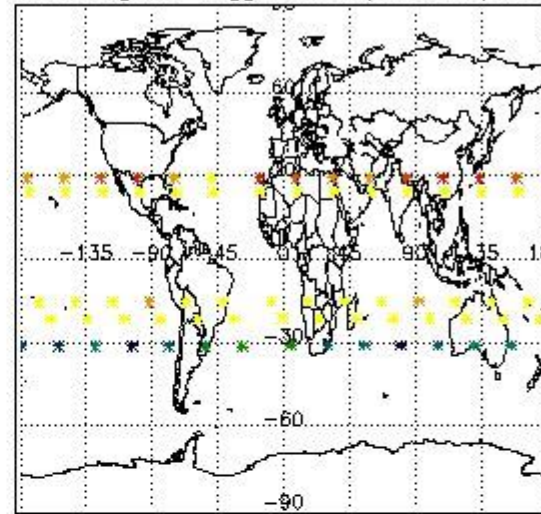


#### 3.2 Plot quality information per product (world map)

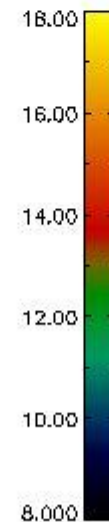
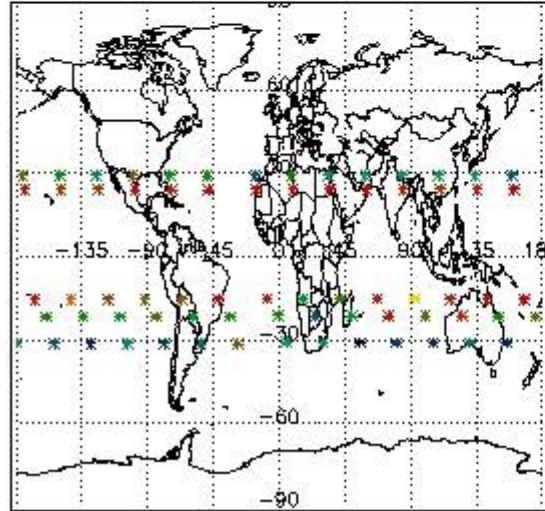
Percentage of flagged data per O3 profile



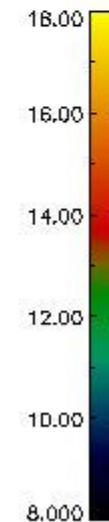
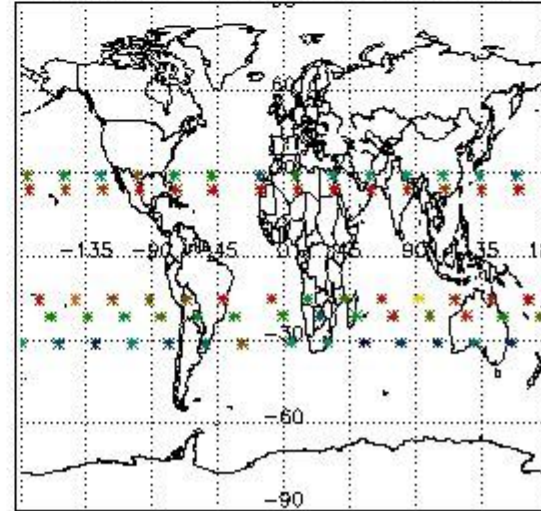
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



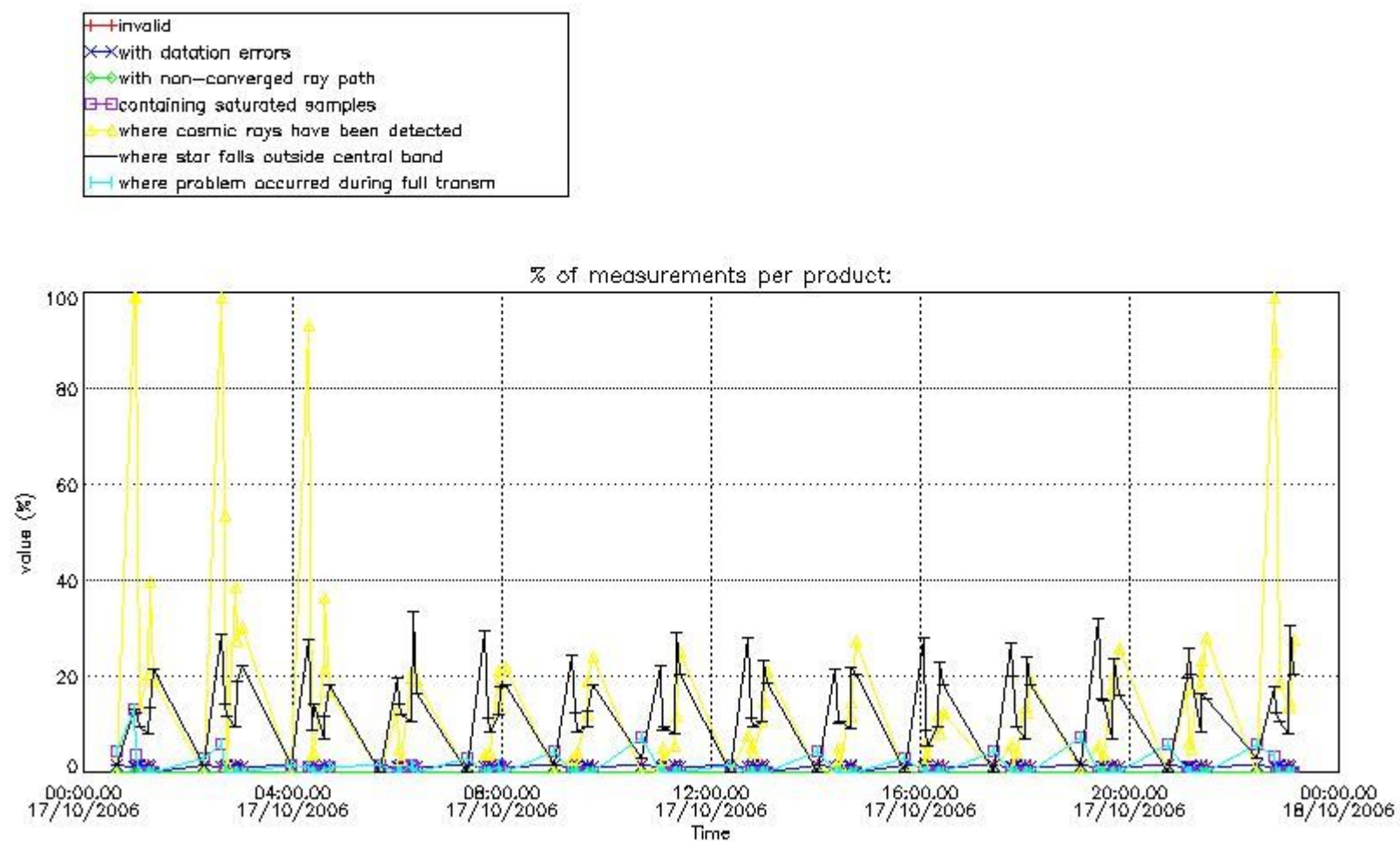
#### 4. Level 1 quality information per product

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.

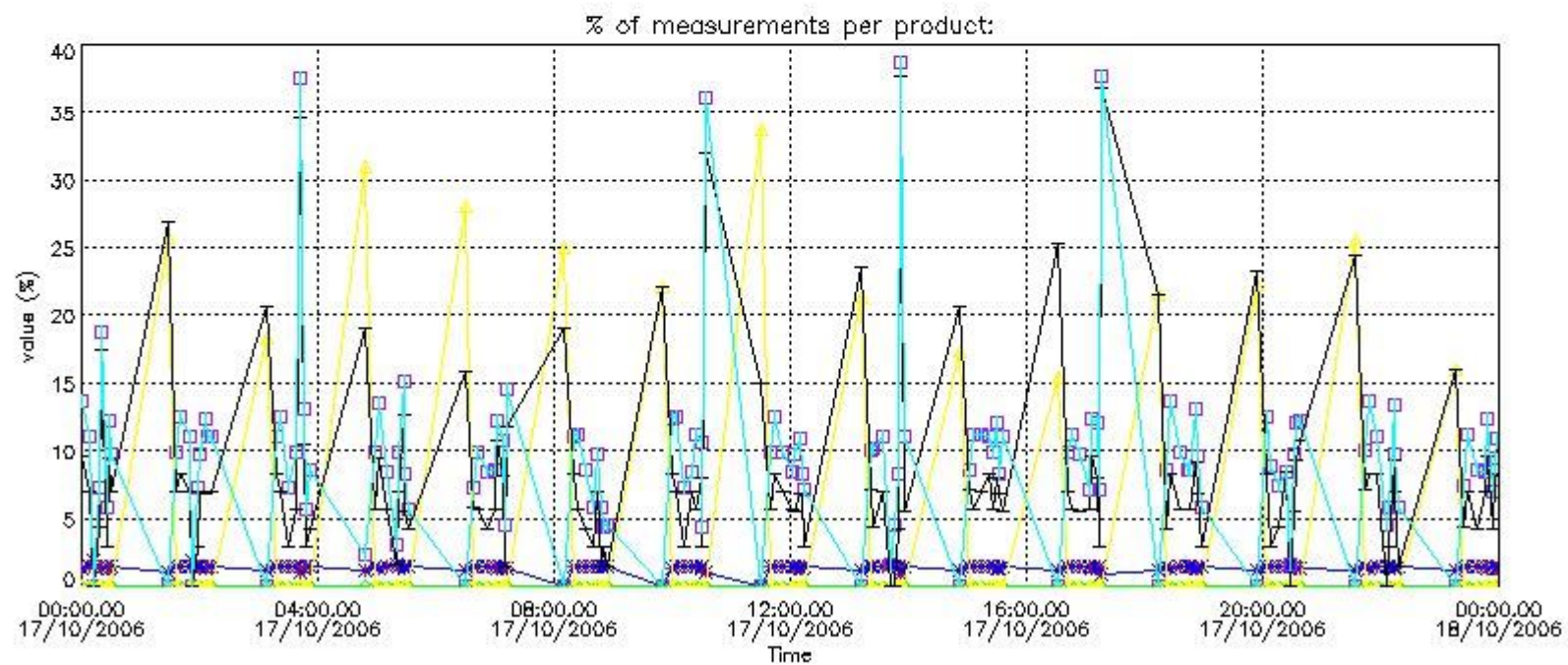
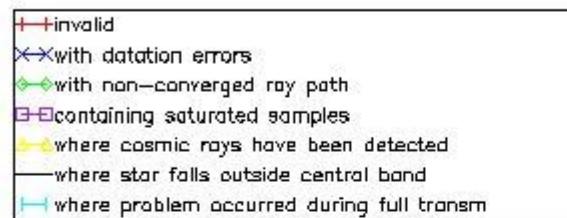
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





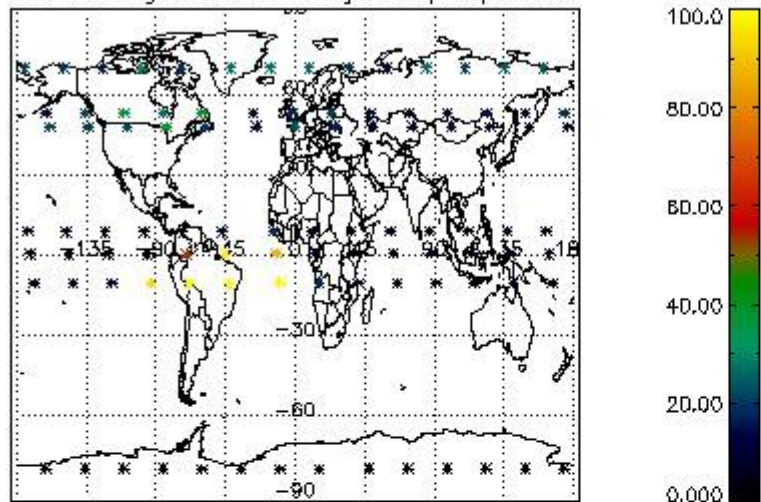
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



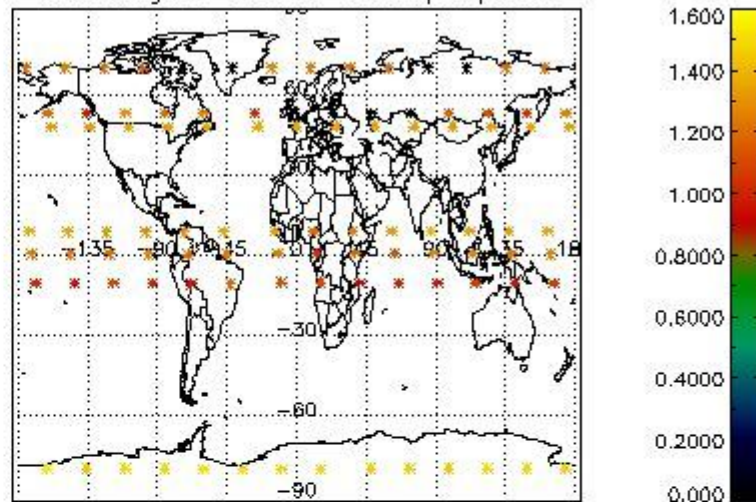
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

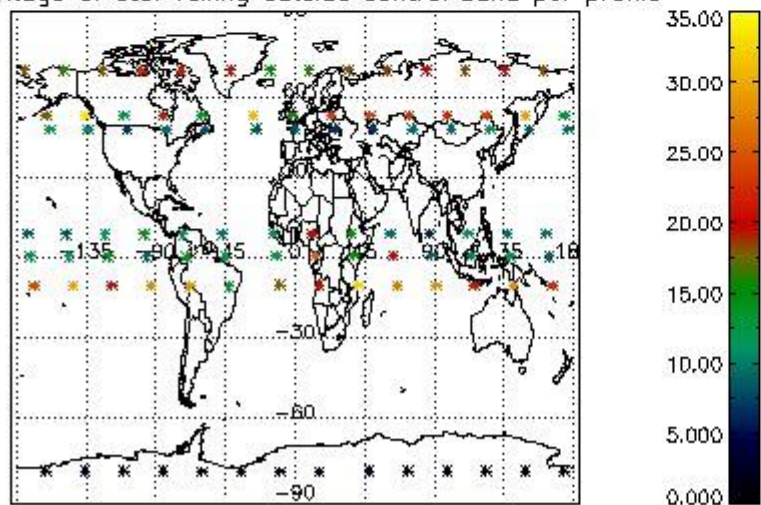
Percentage of cosmic ray hits per profile



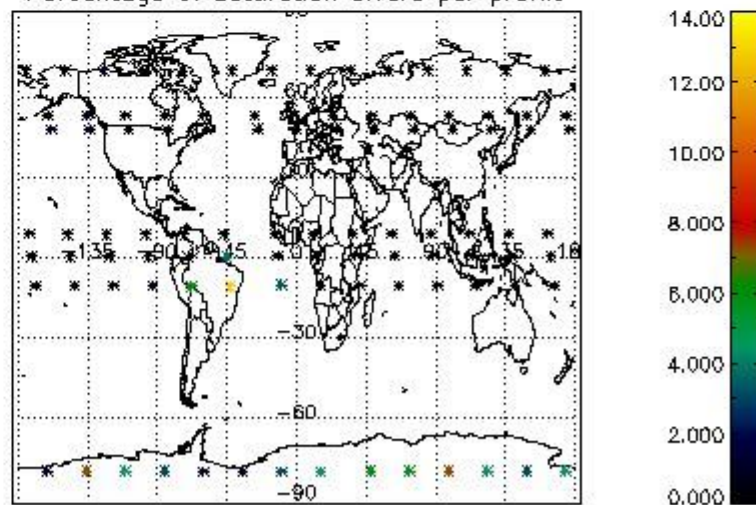
Percentage of datation errors per profile



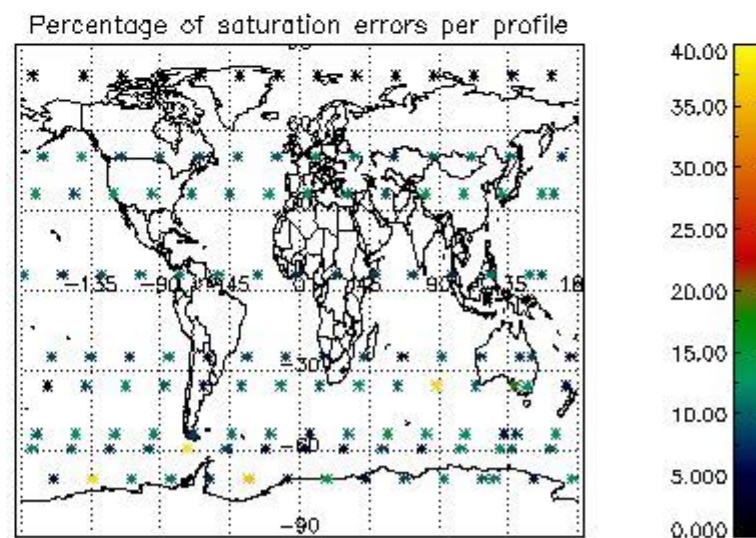
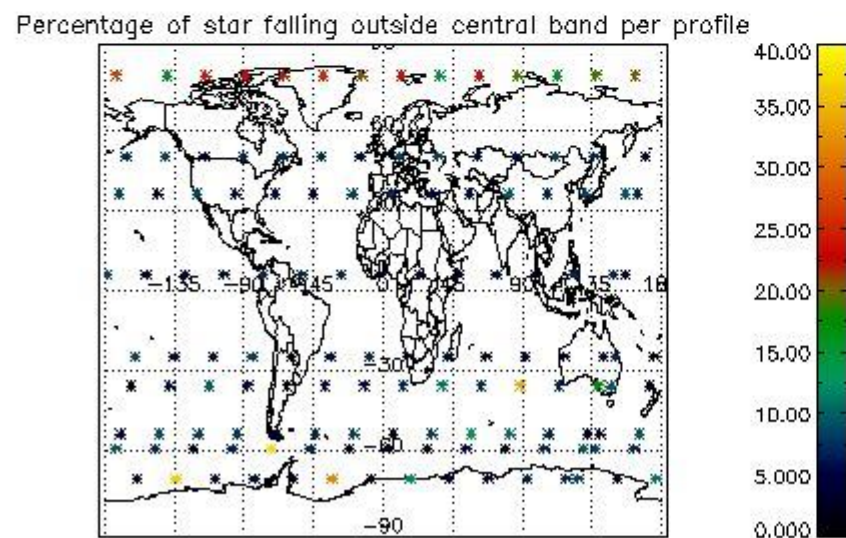
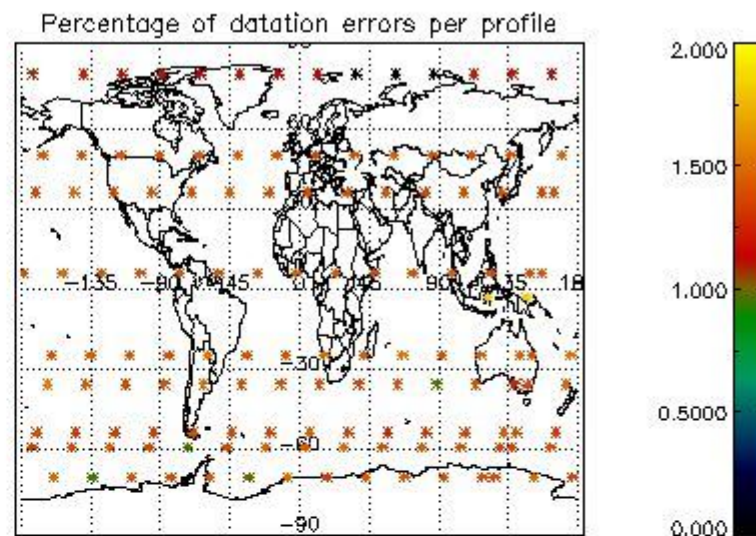
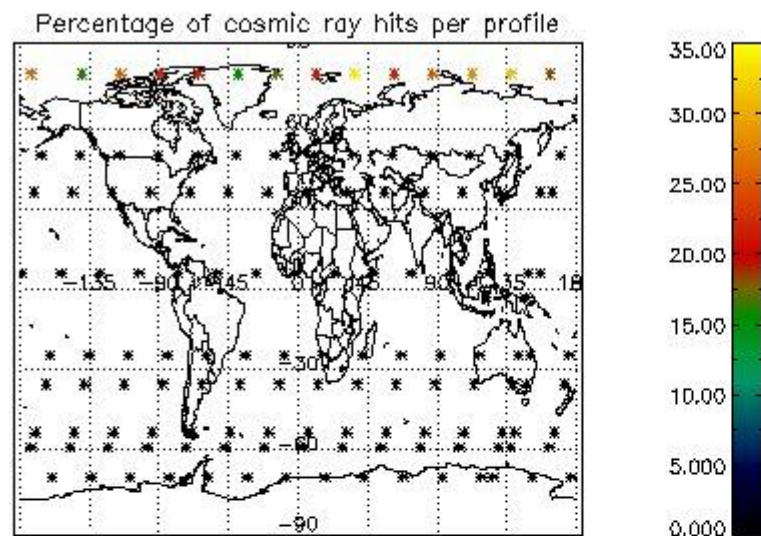
Percentage of star falling outside central band per profile



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

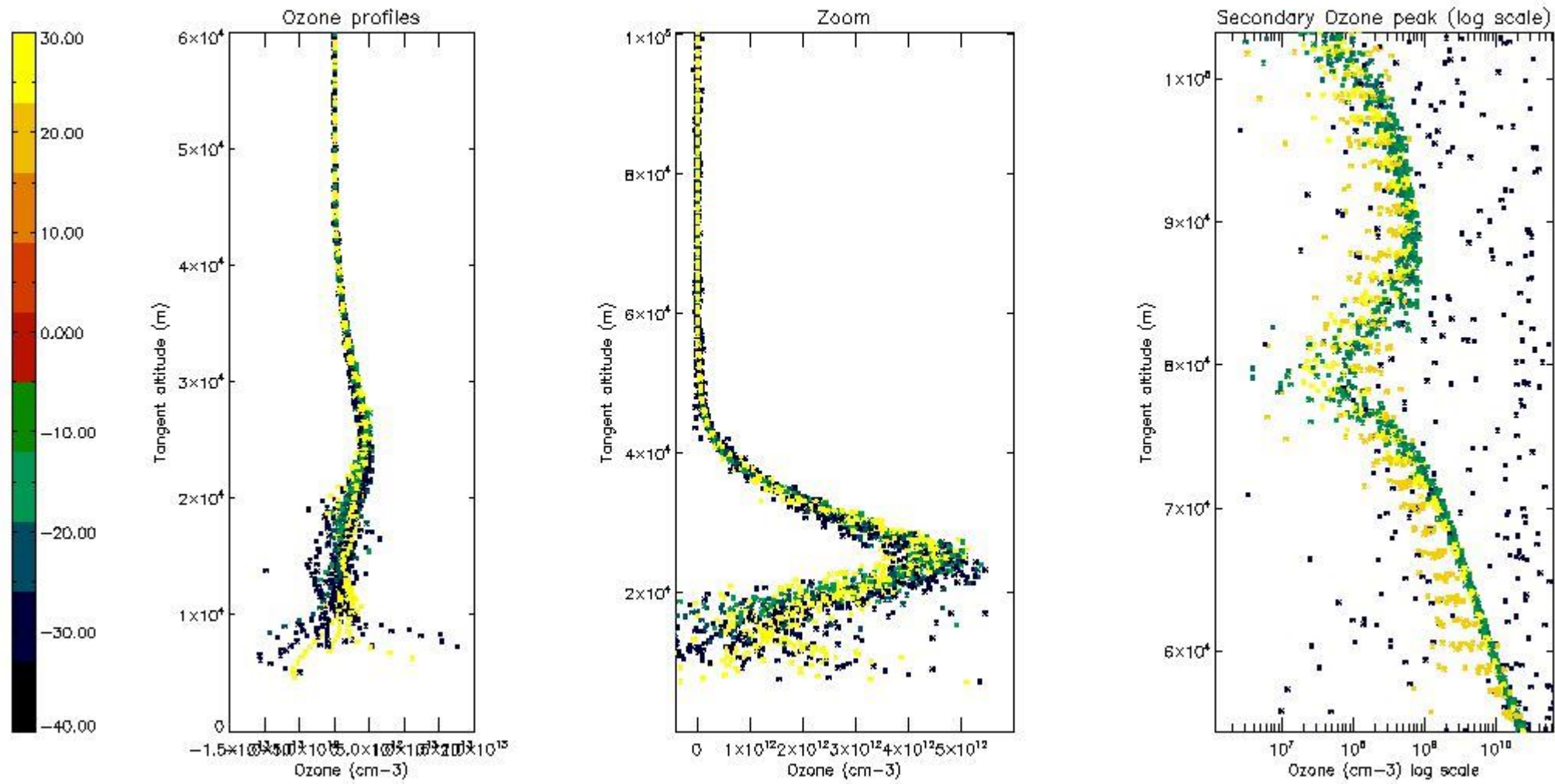
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

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

STD < 10	14
STD < 5	9

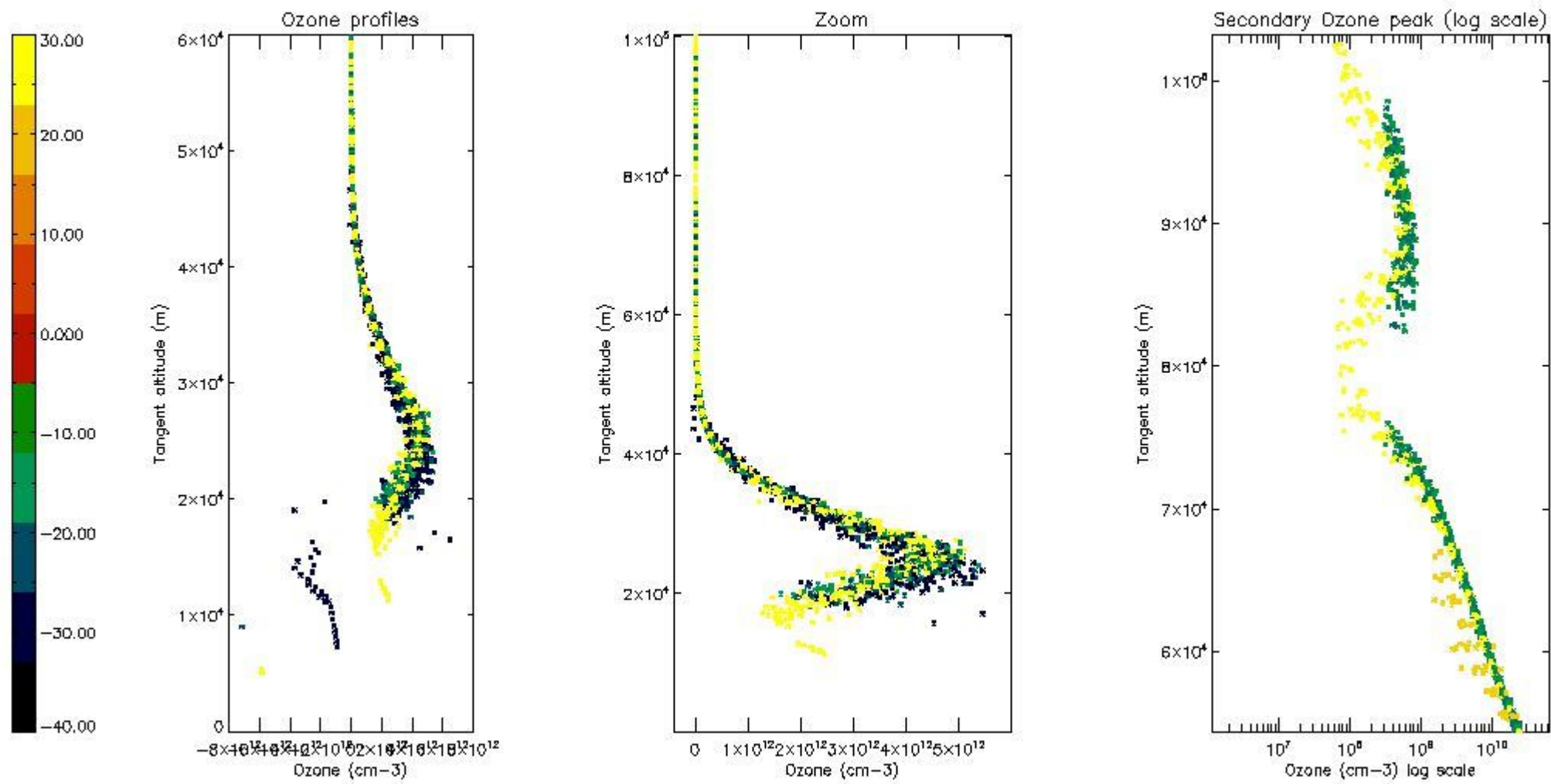
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



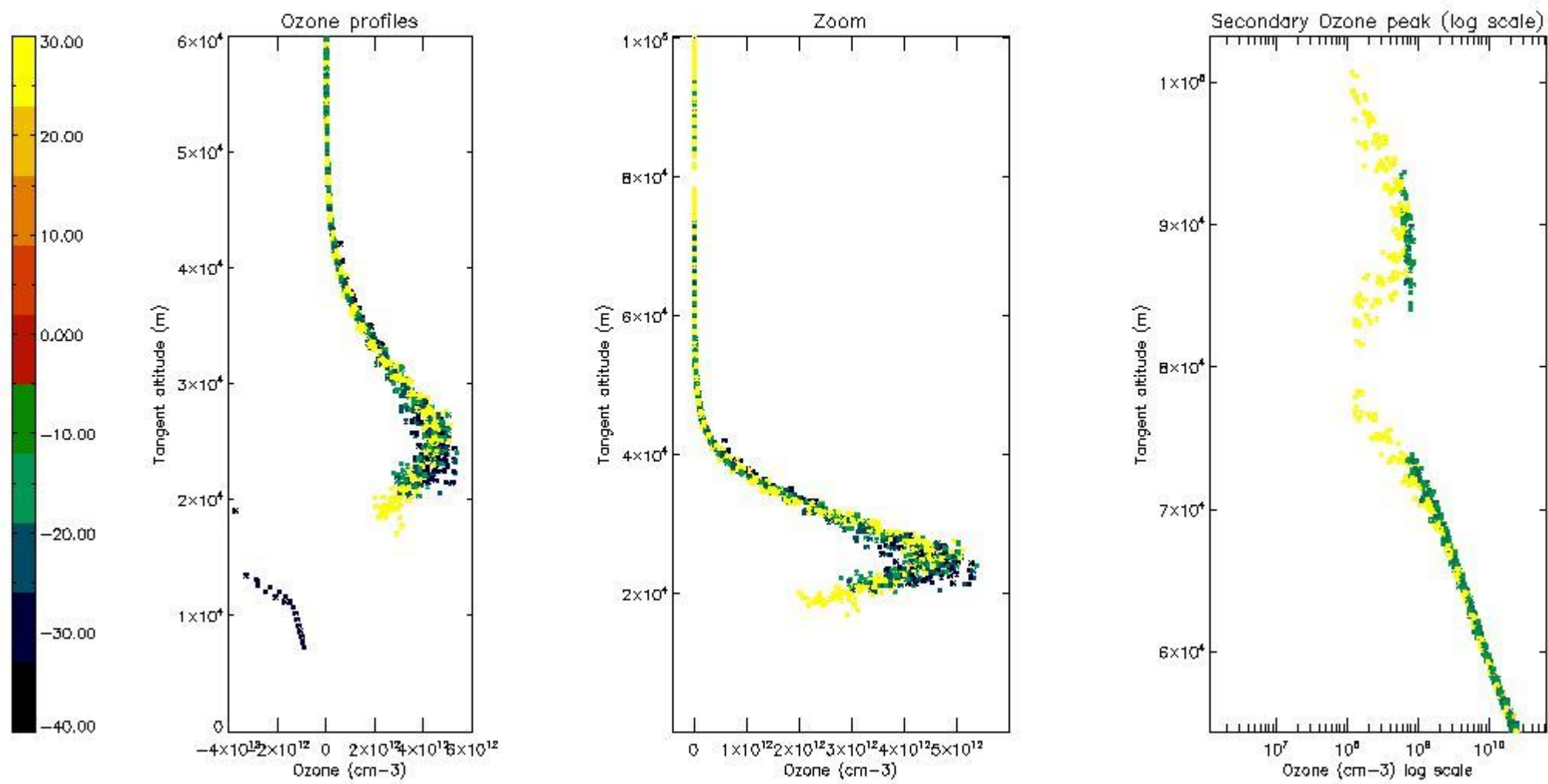
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



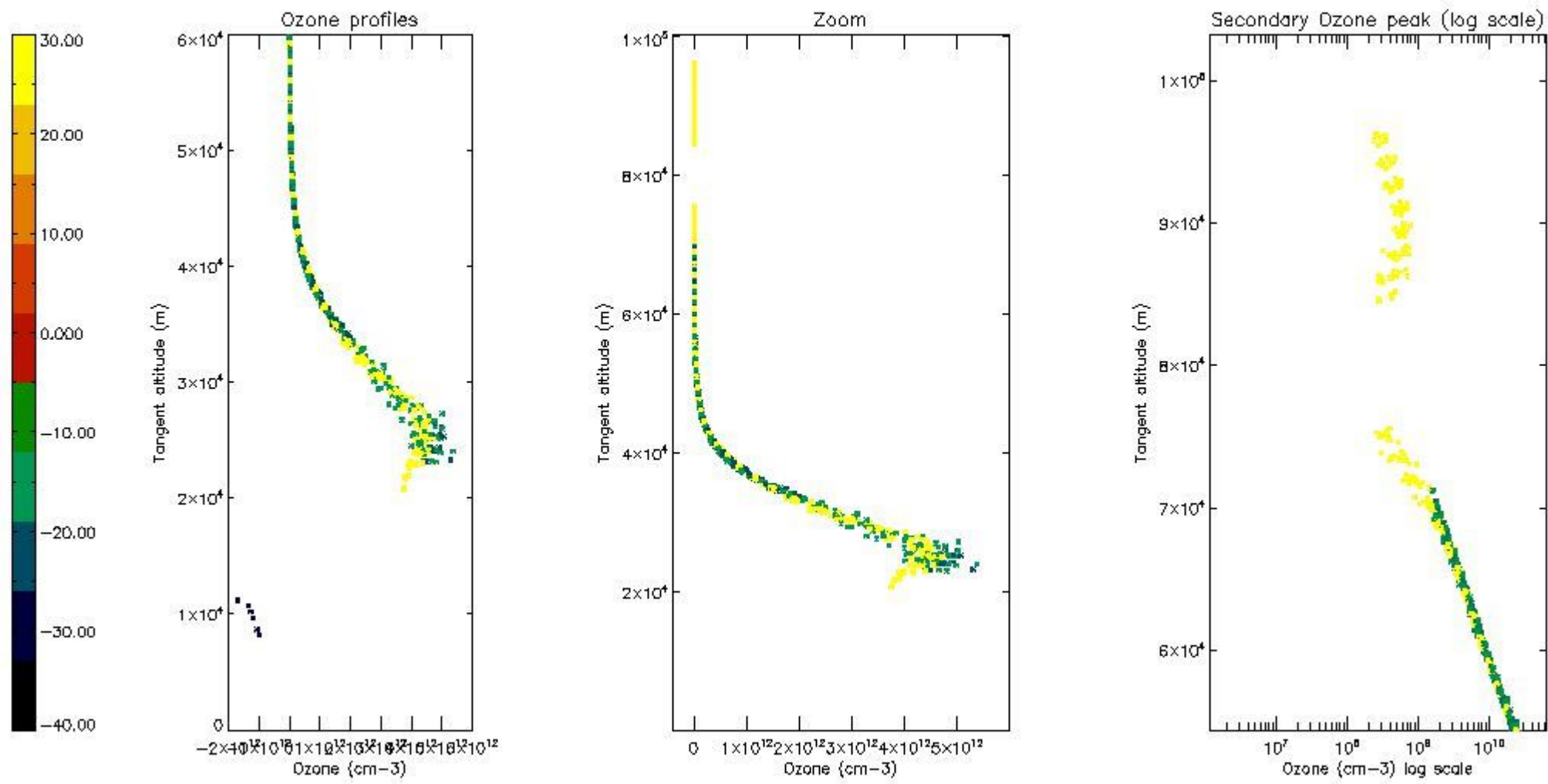
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

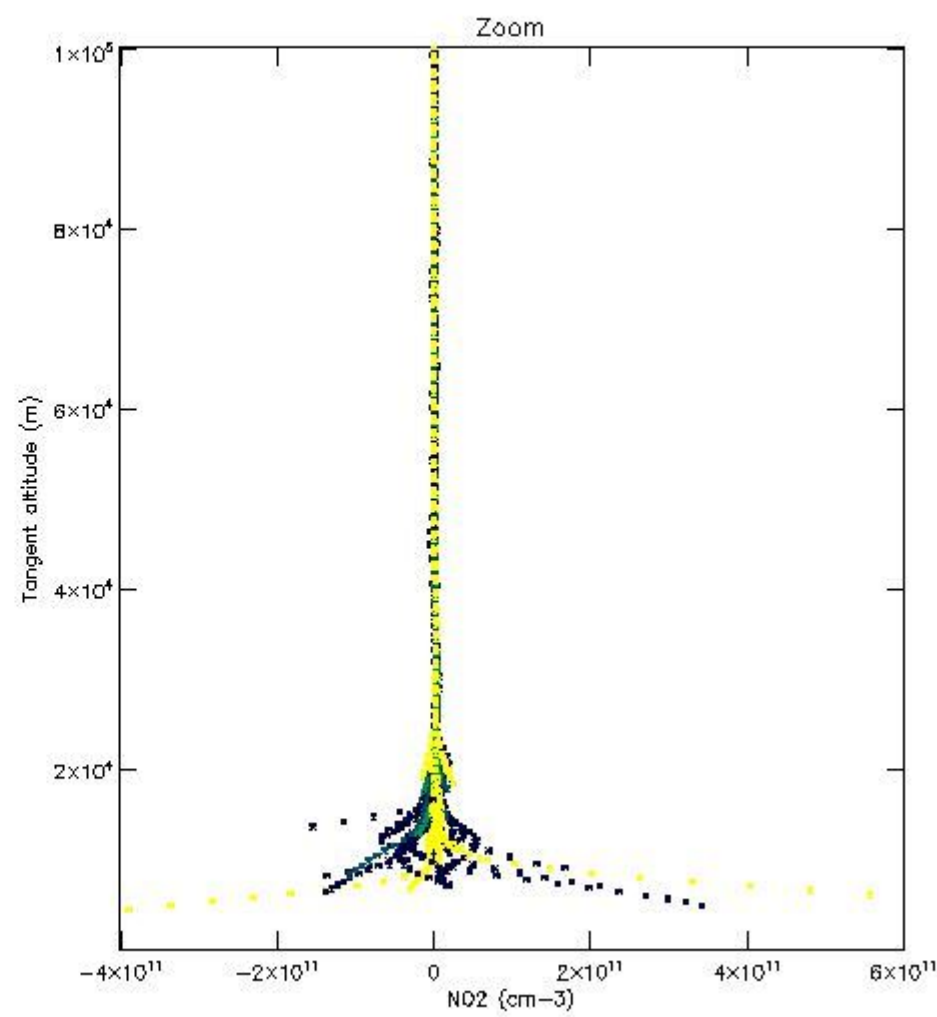
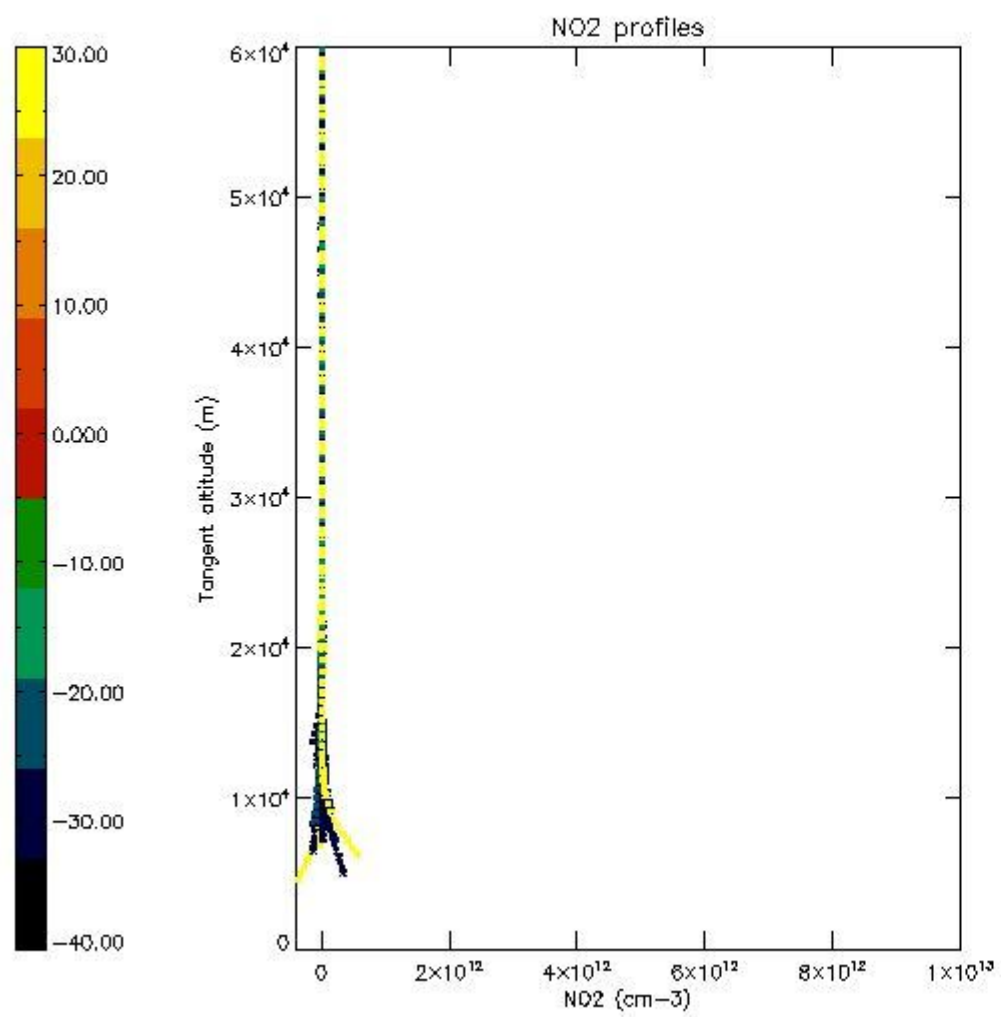
The colorbar represents the latitude.



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

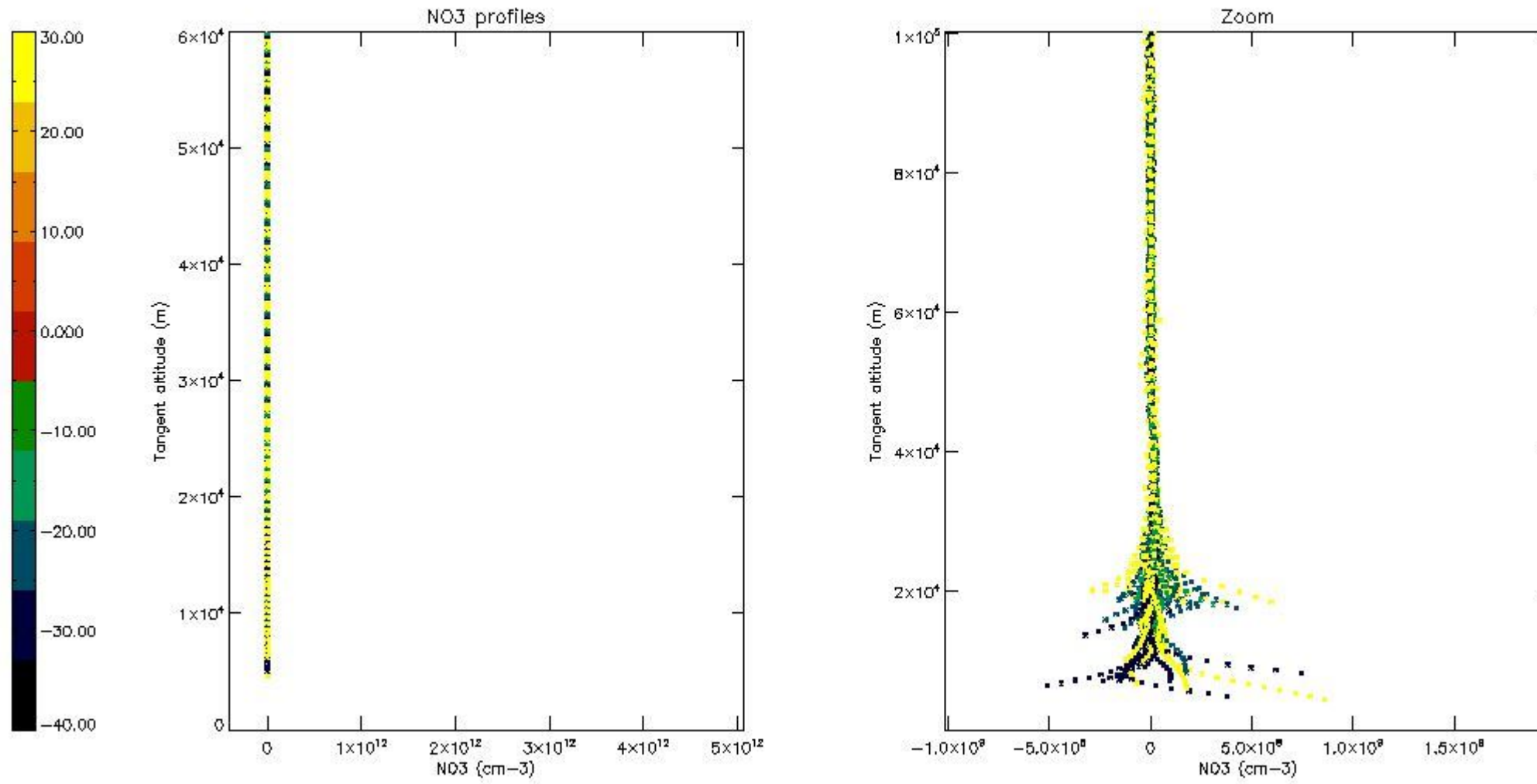
The colorbar represents the latitude.





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

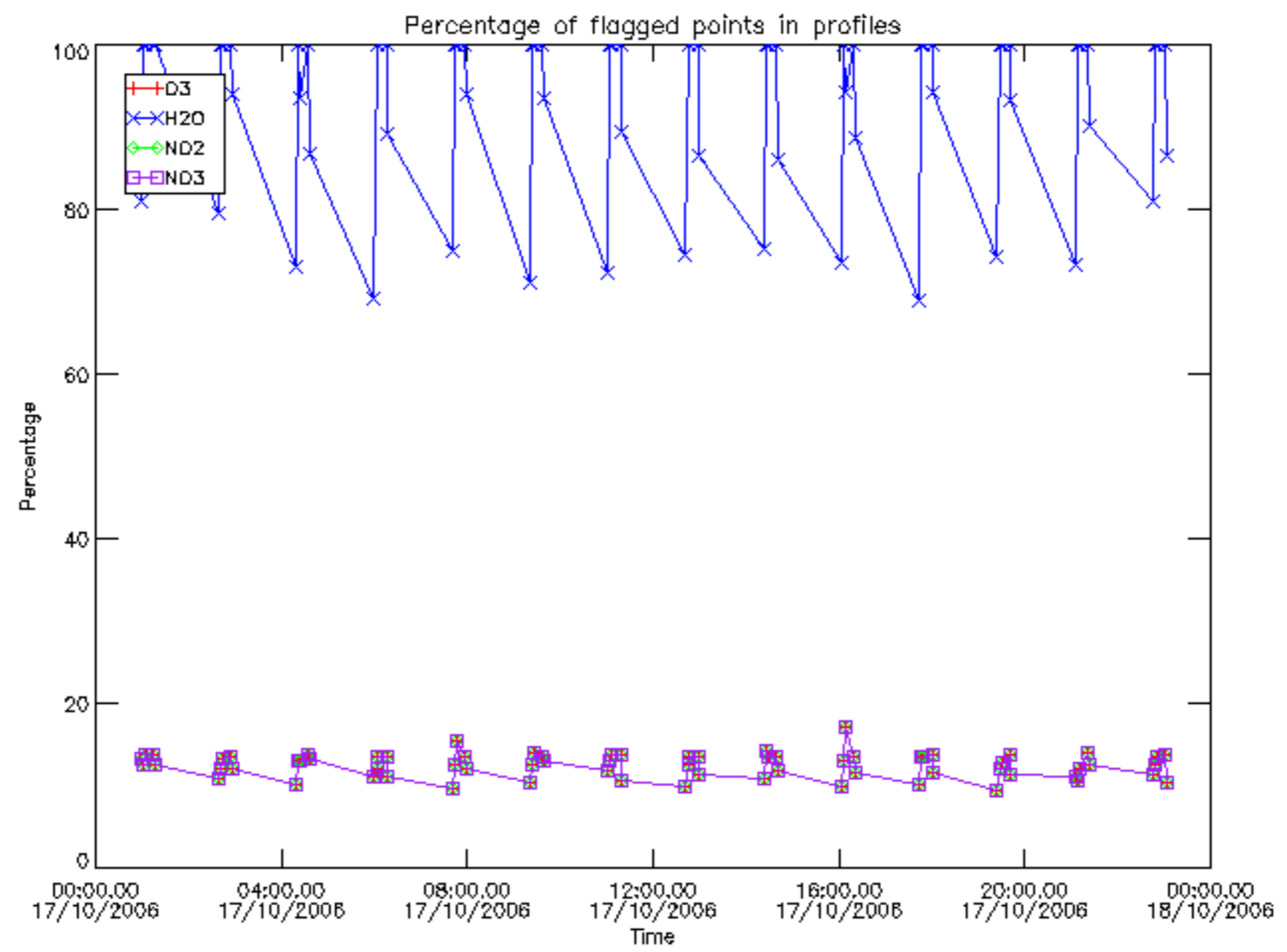
The colorbar represents the latitude.



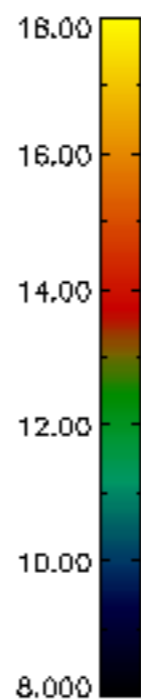
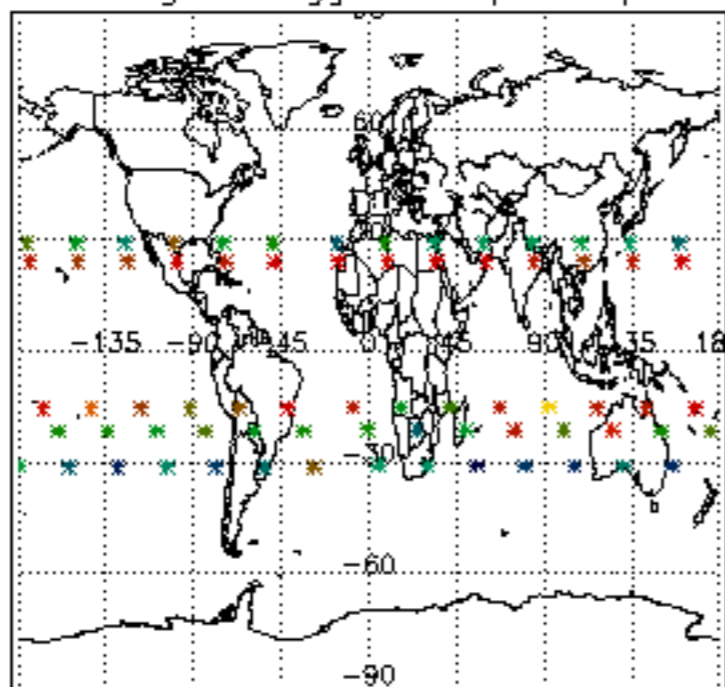
## 6. Auxiliary Data Files used for the production reported in section 2

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.

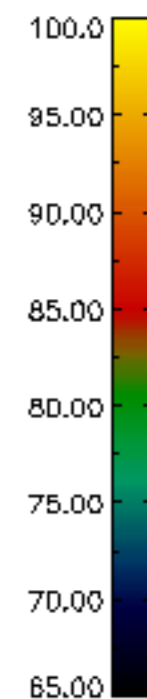
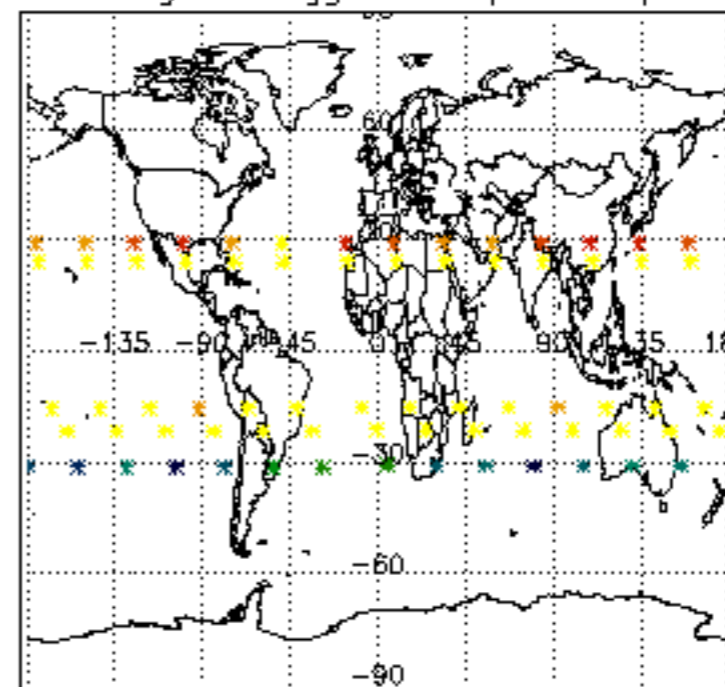
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	17-OCT-2006 00:00:12
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	17-OCT-2006 00:00:12
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	17-OCT-2006 00:00:12



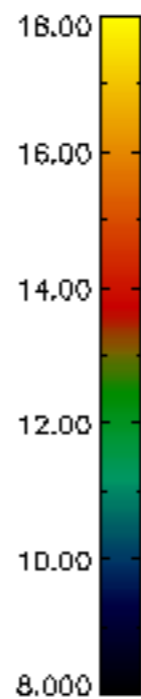
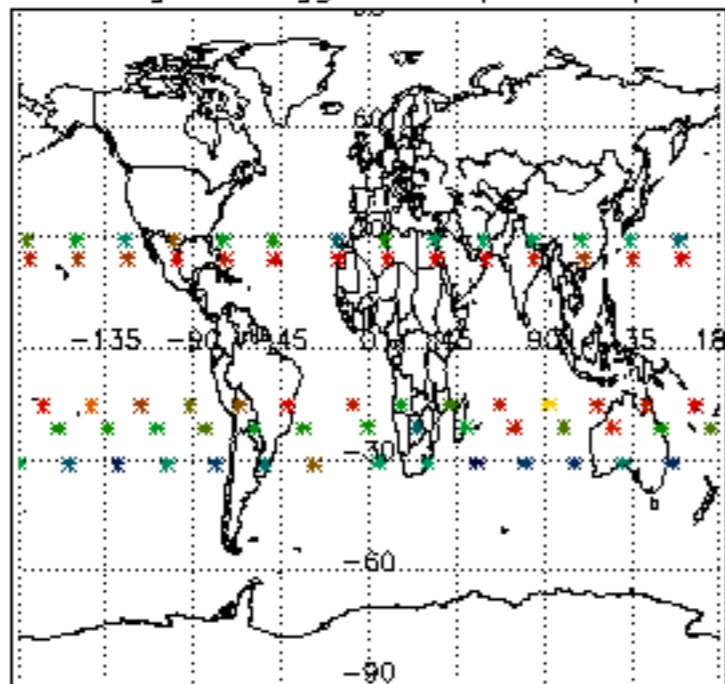
Percentage of flagged data per D3 profile



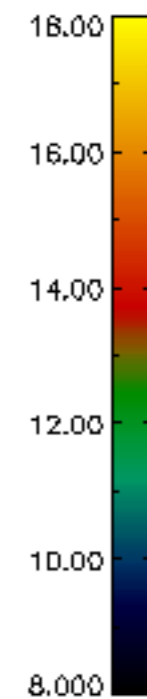
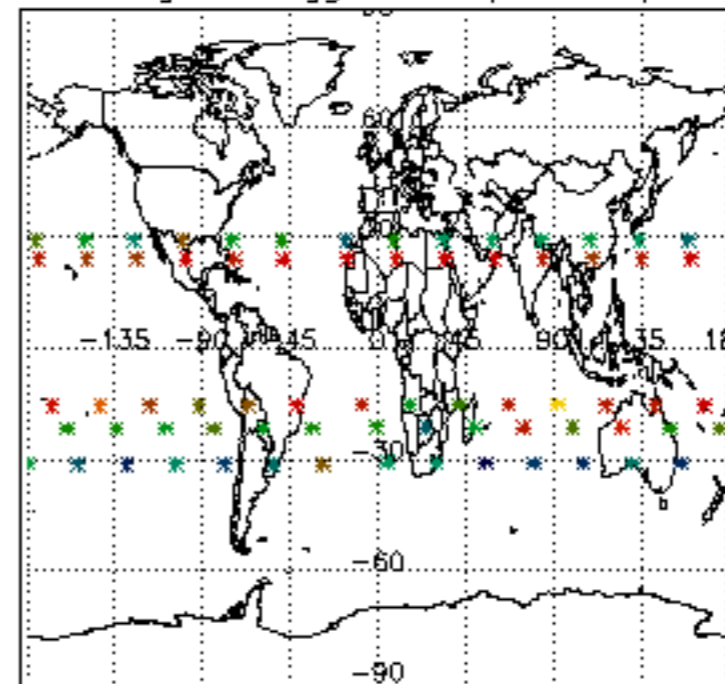
Percentage of flagged data per H2O profile

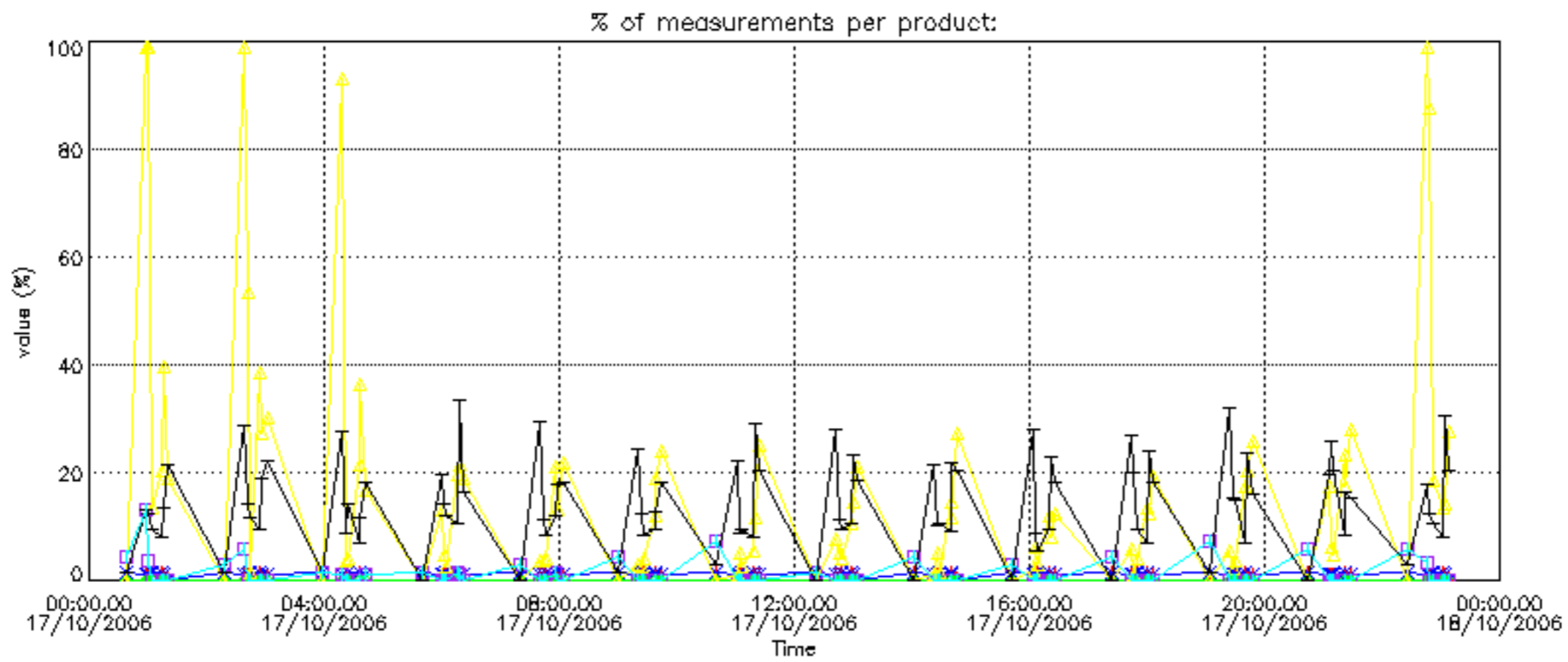


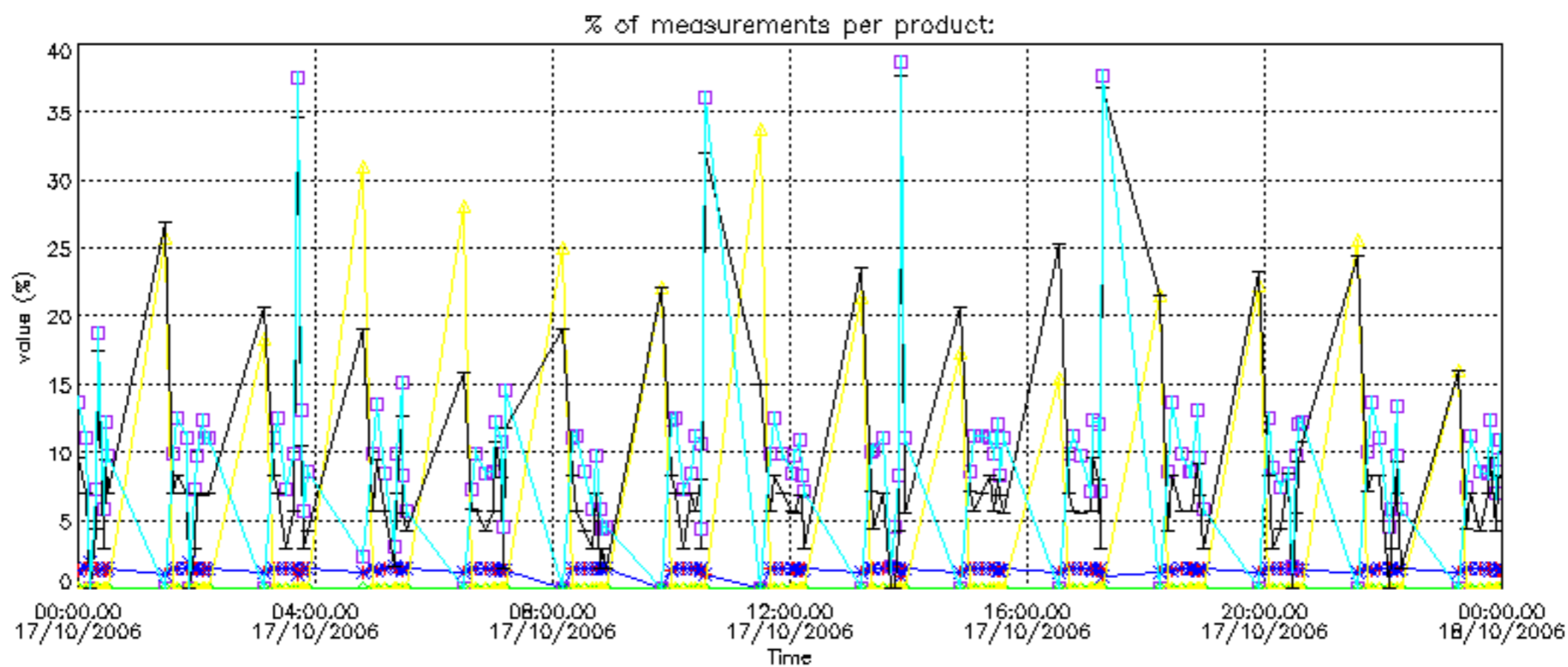
Percentage of flagged data per NO2 profile



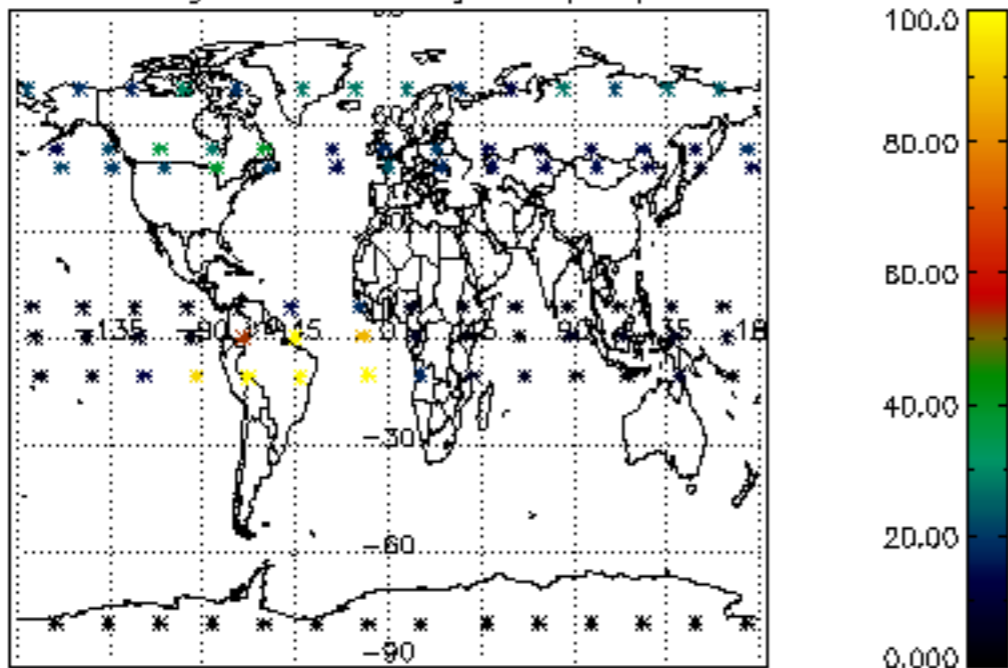
Percentage of flagged data per NO3 profile



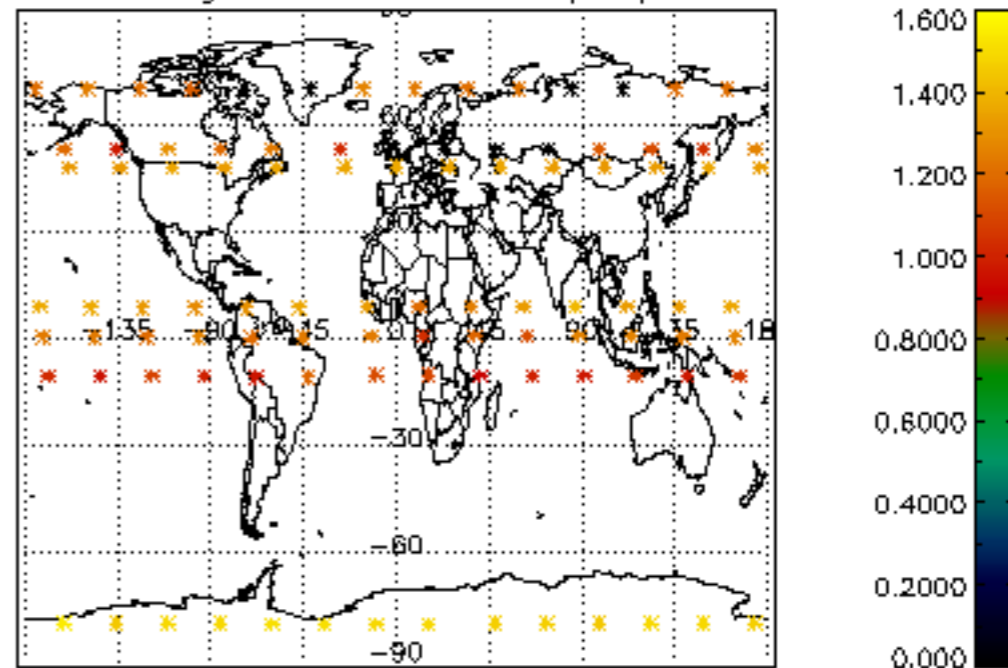




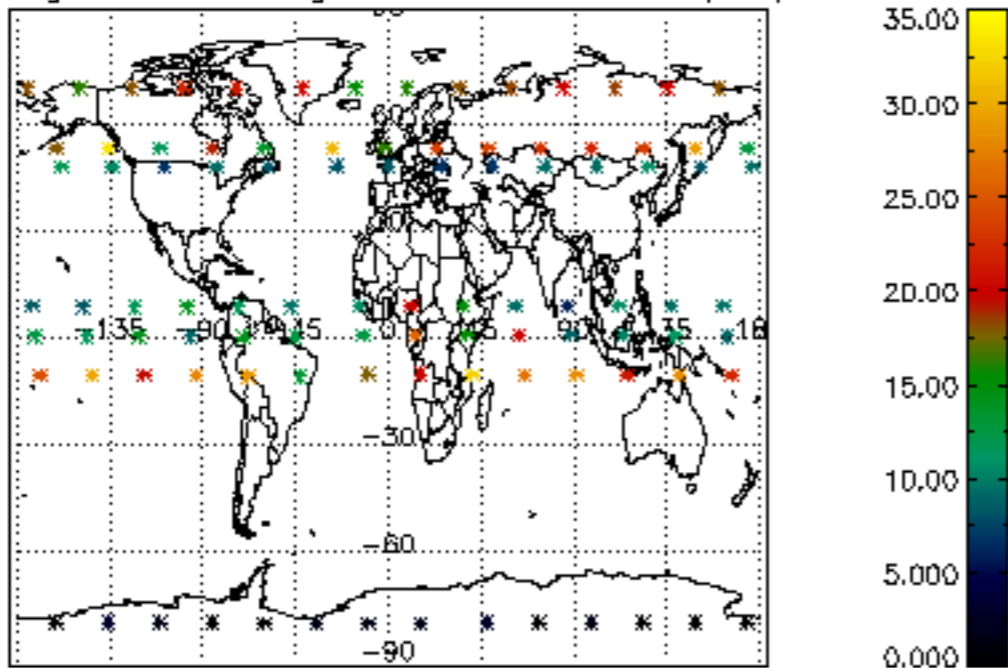
Percentage of cosmic ray hits per profile



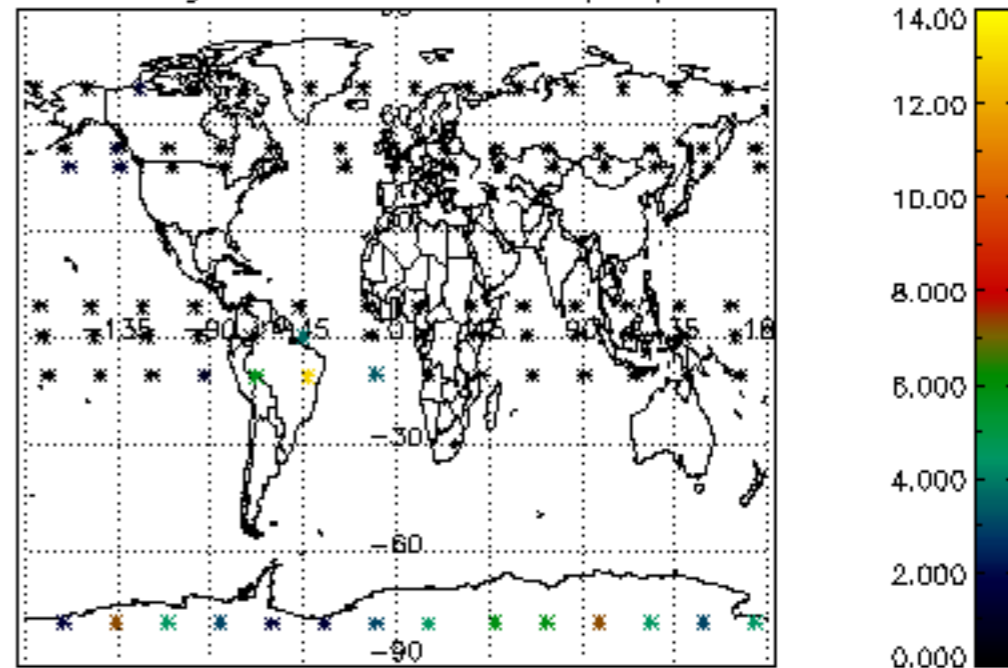
Percentage of datation errors per profile



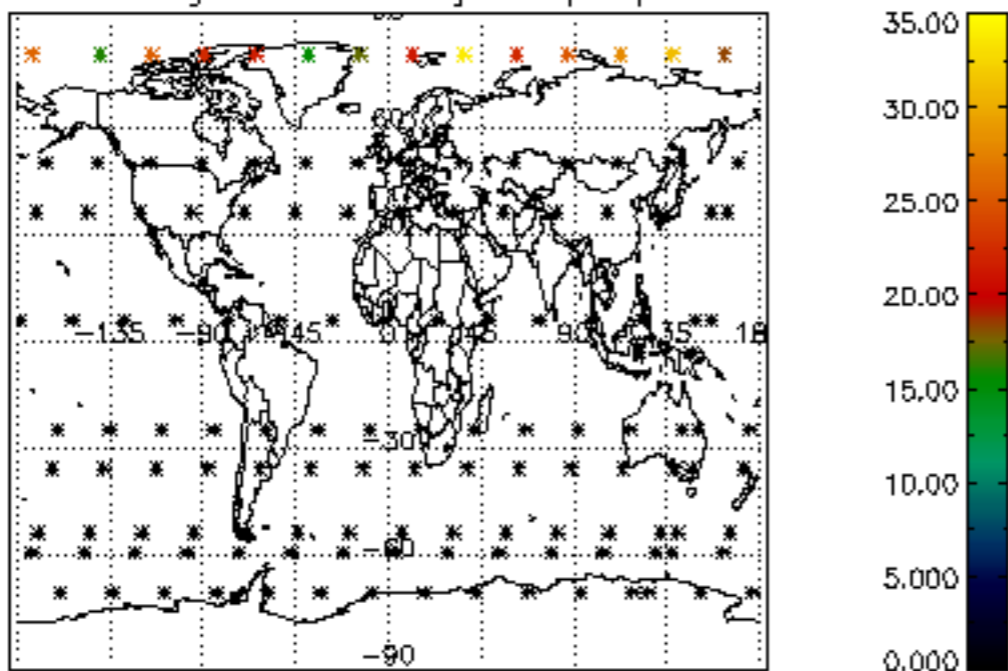
Percentage of star falling outside central band per profile



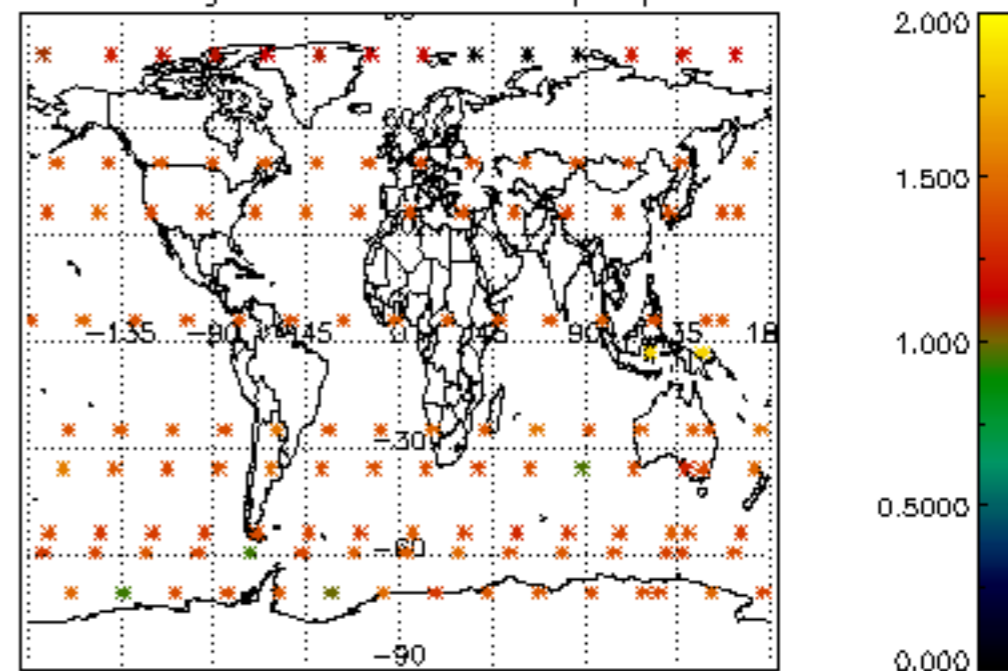
Percentage of saturation errors per profile



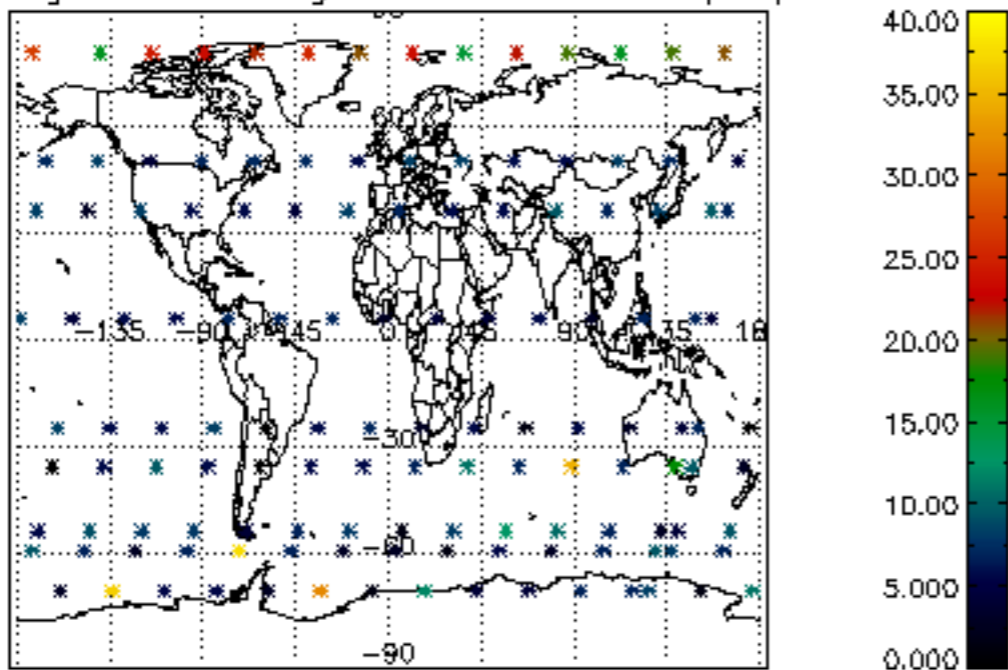
Percentage of cosmic ray hits per profile



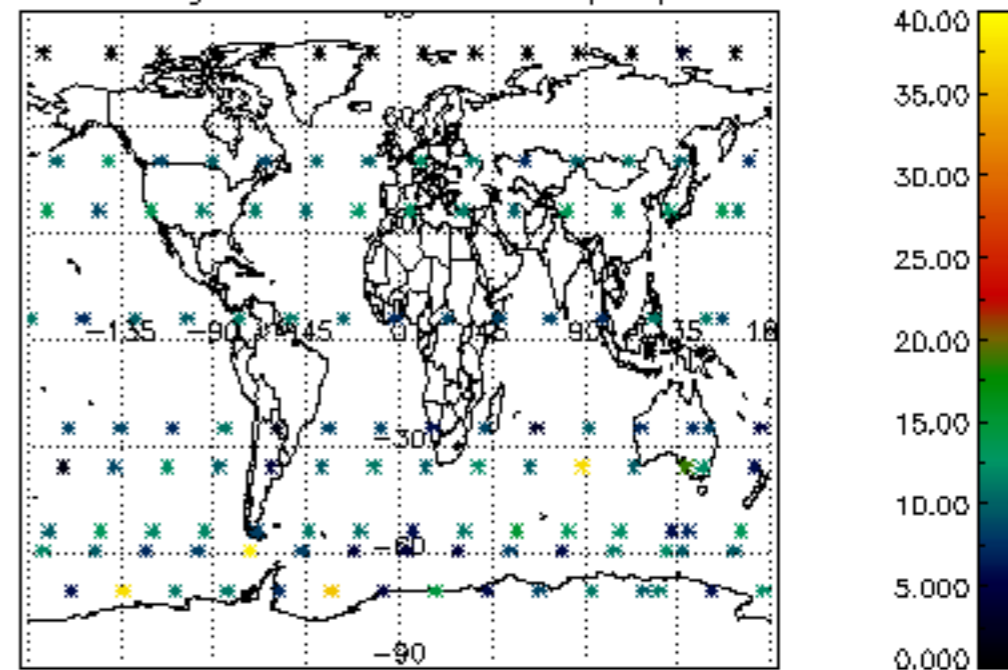
Percentage of datation errors per profile



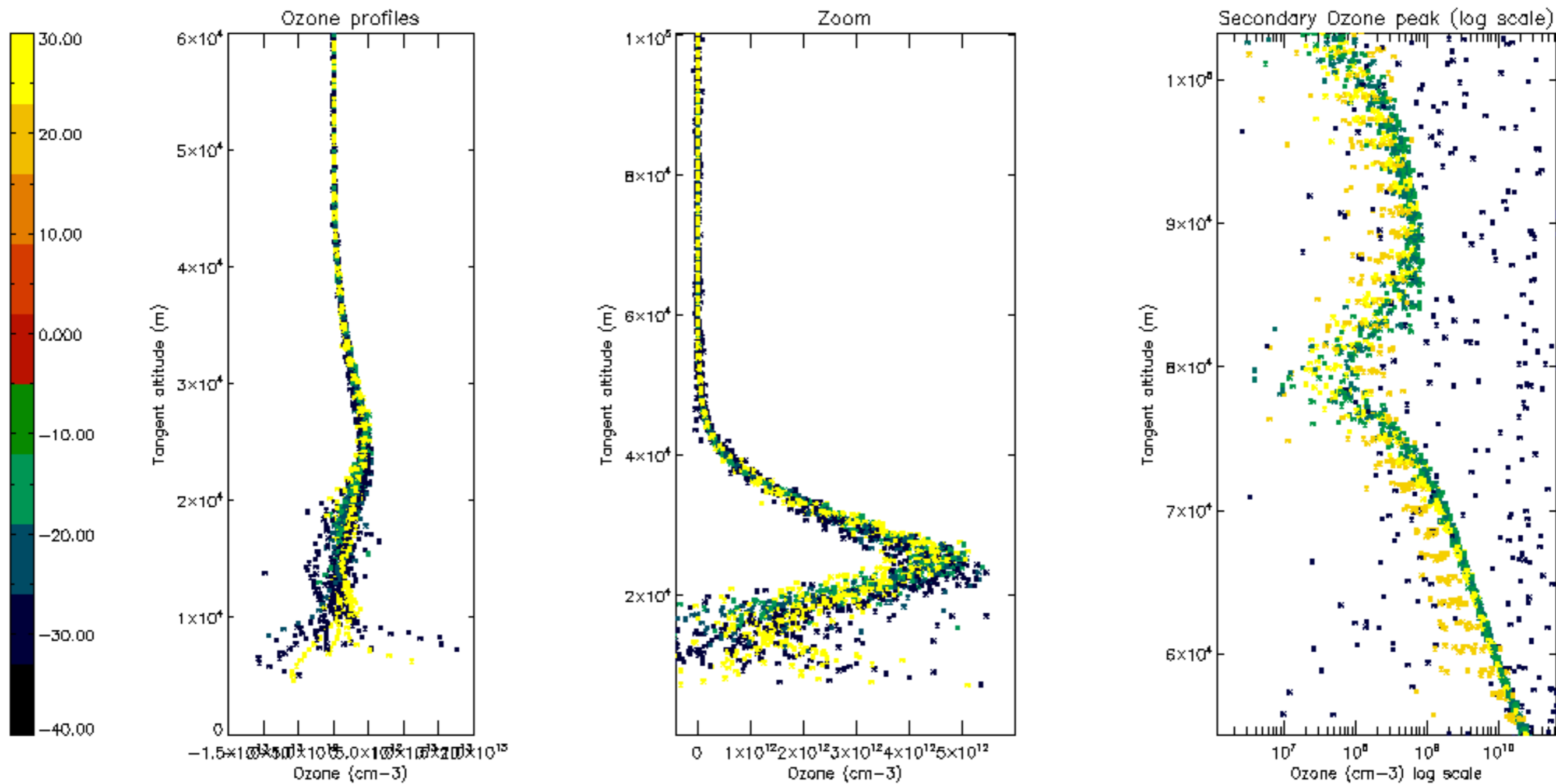
Percentage of star falling outside central band per profile

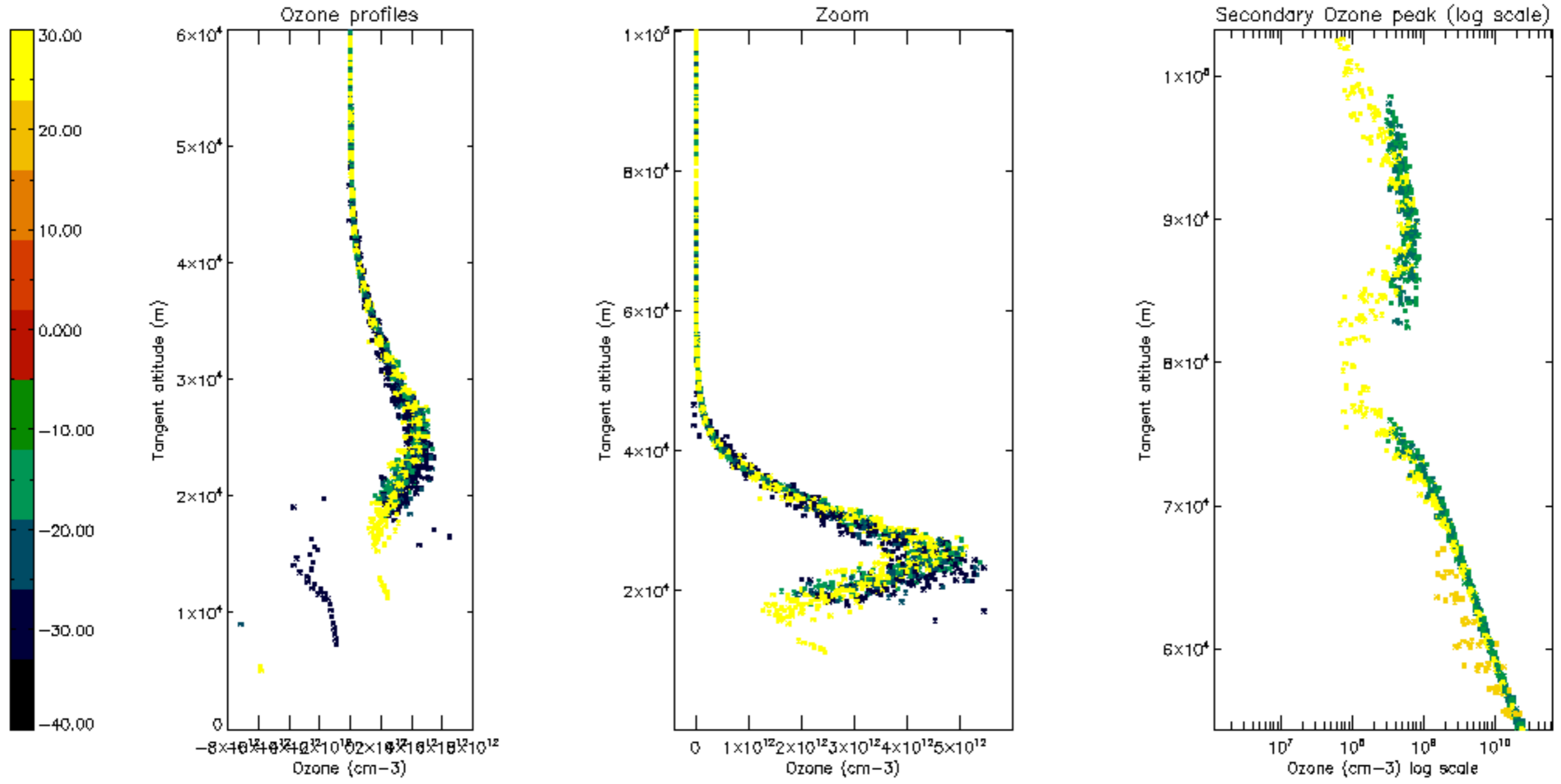


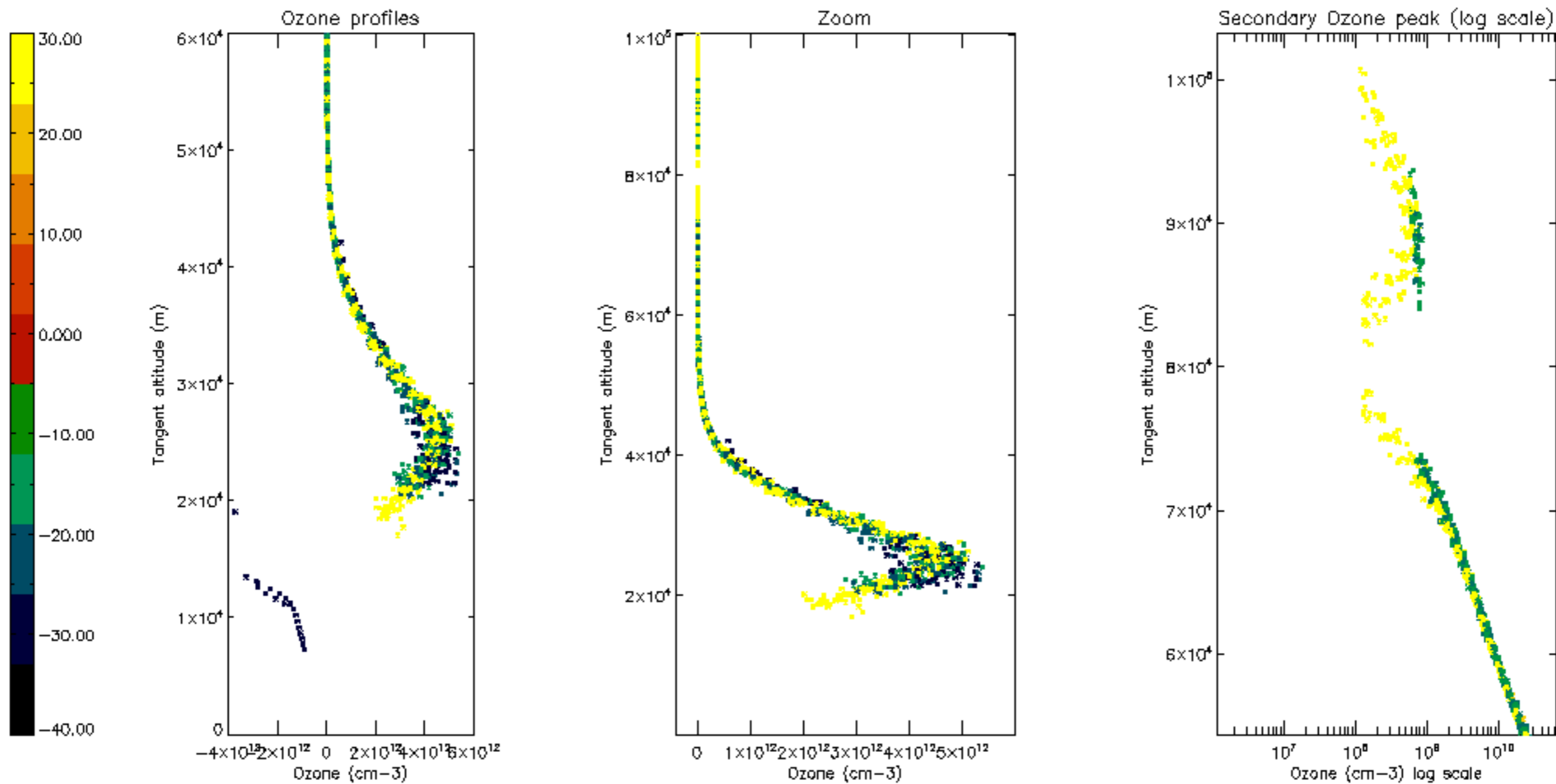
Percentage of saturation errors per profile

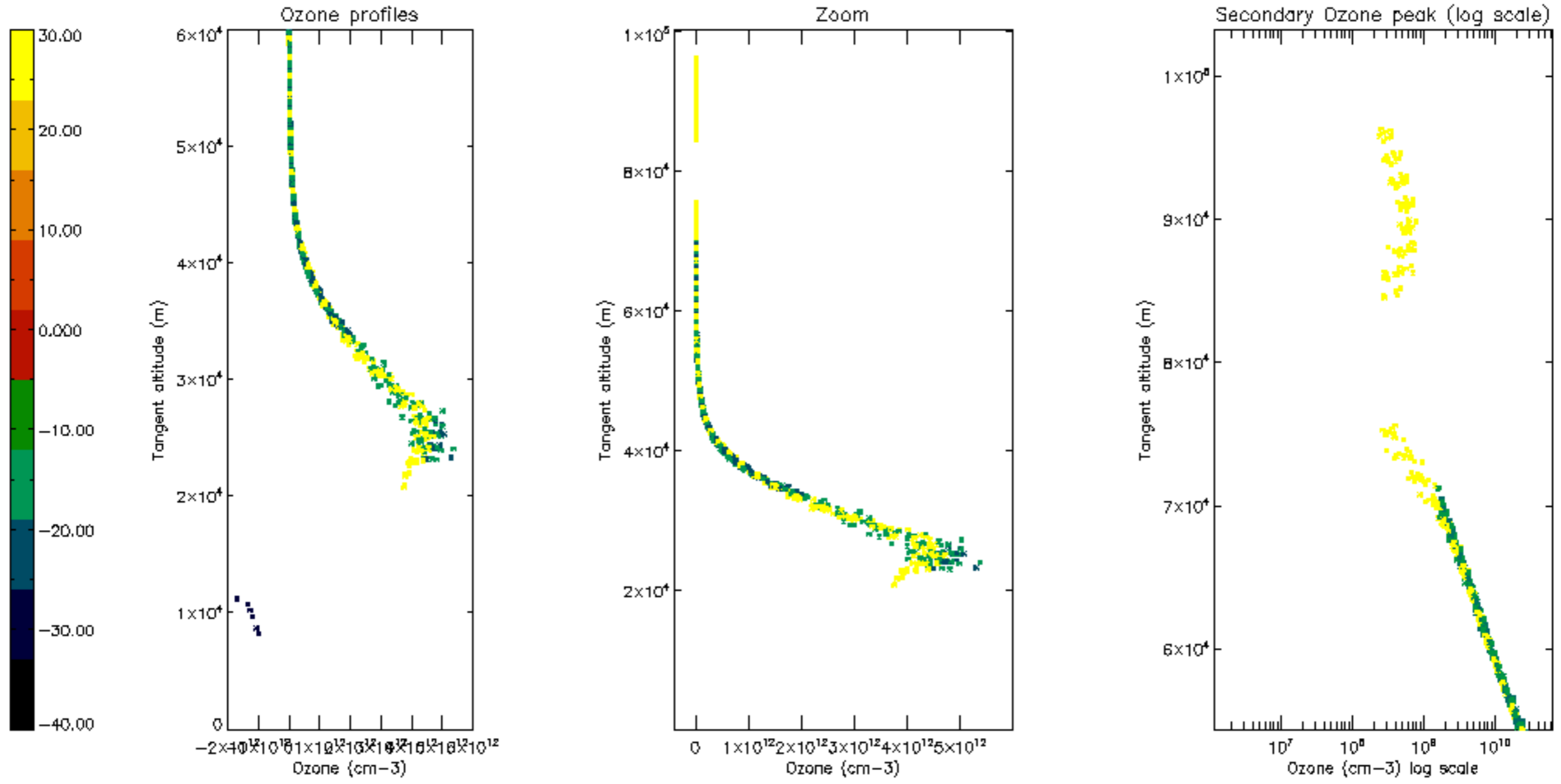


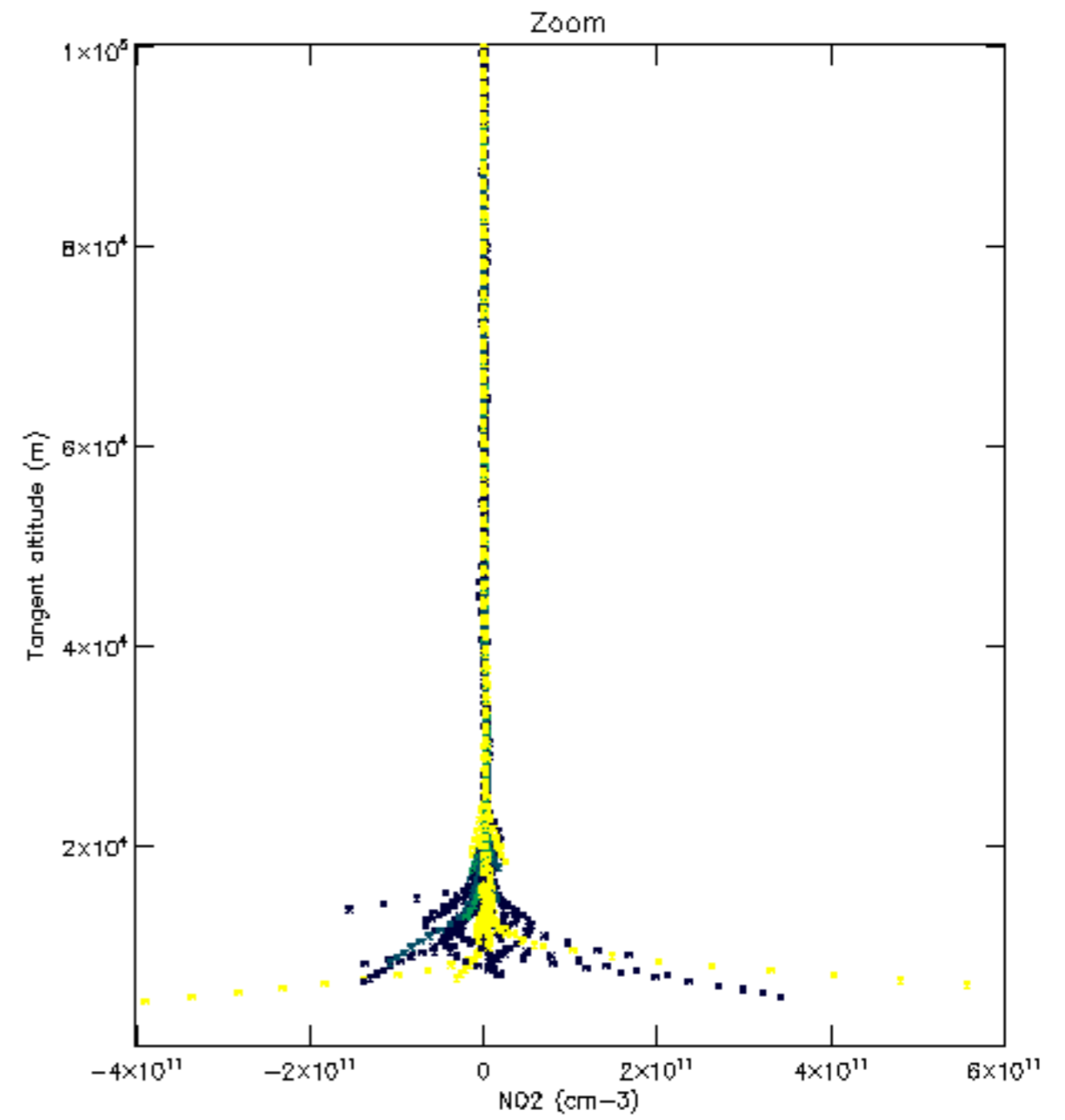
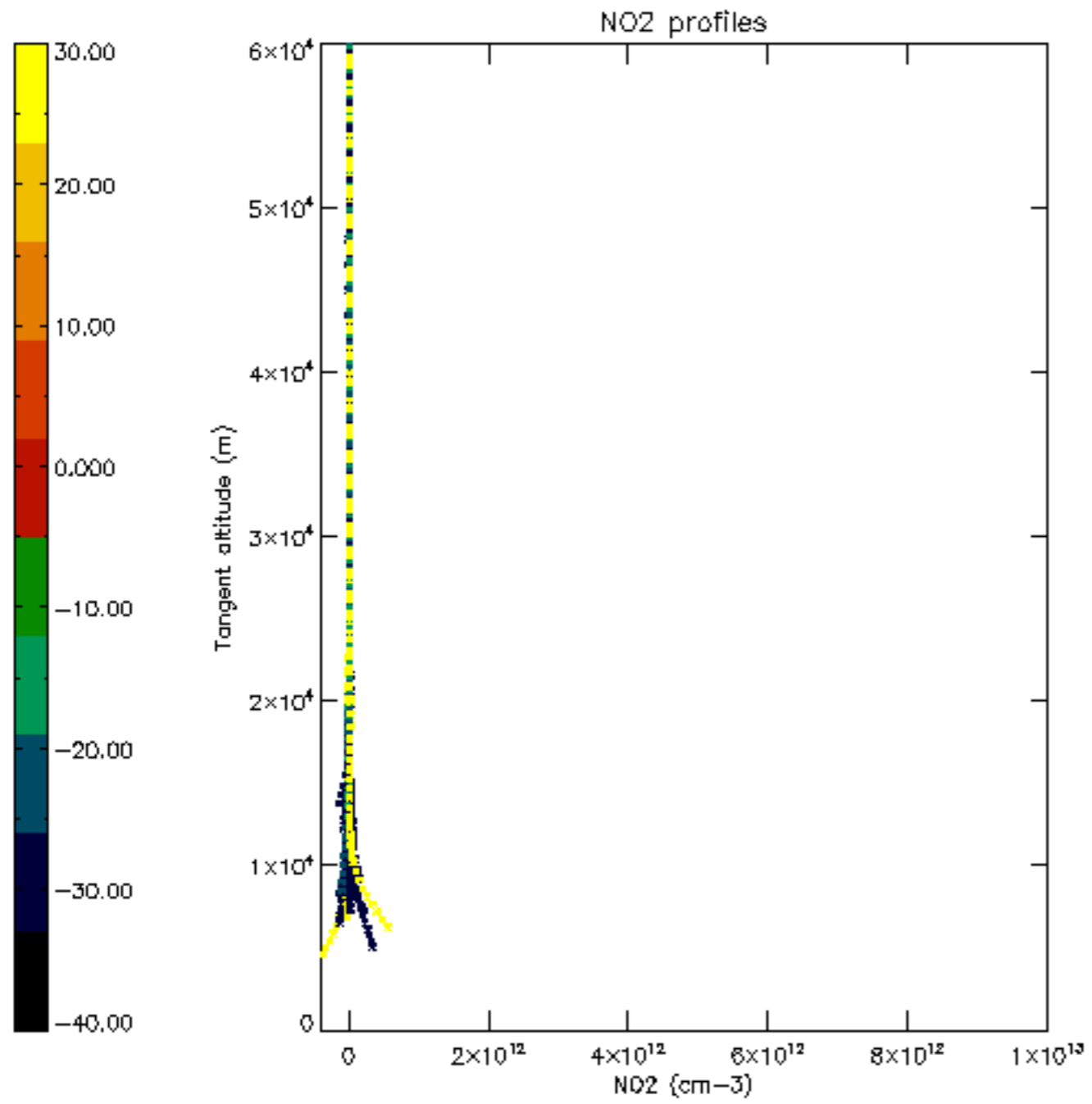


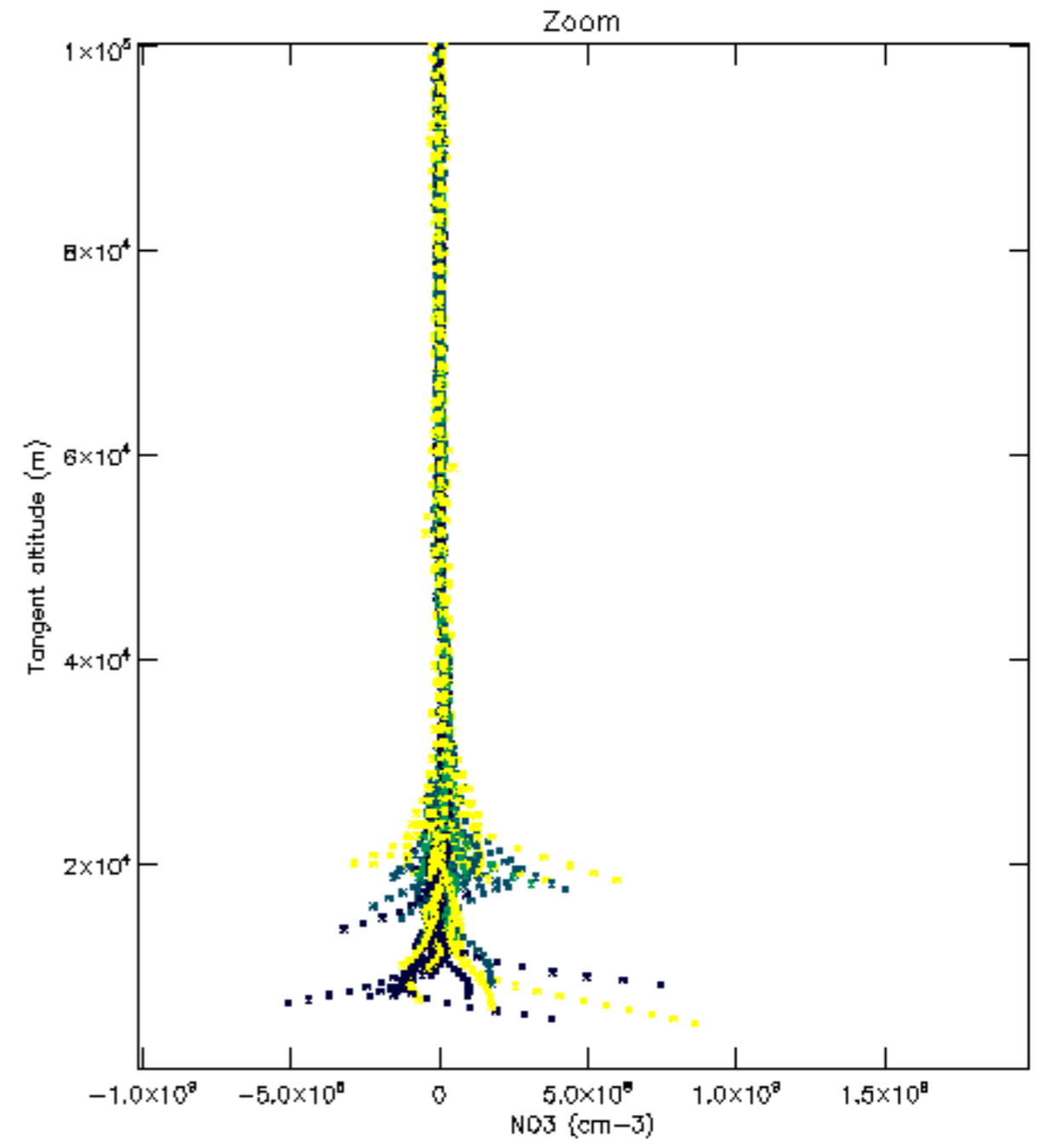
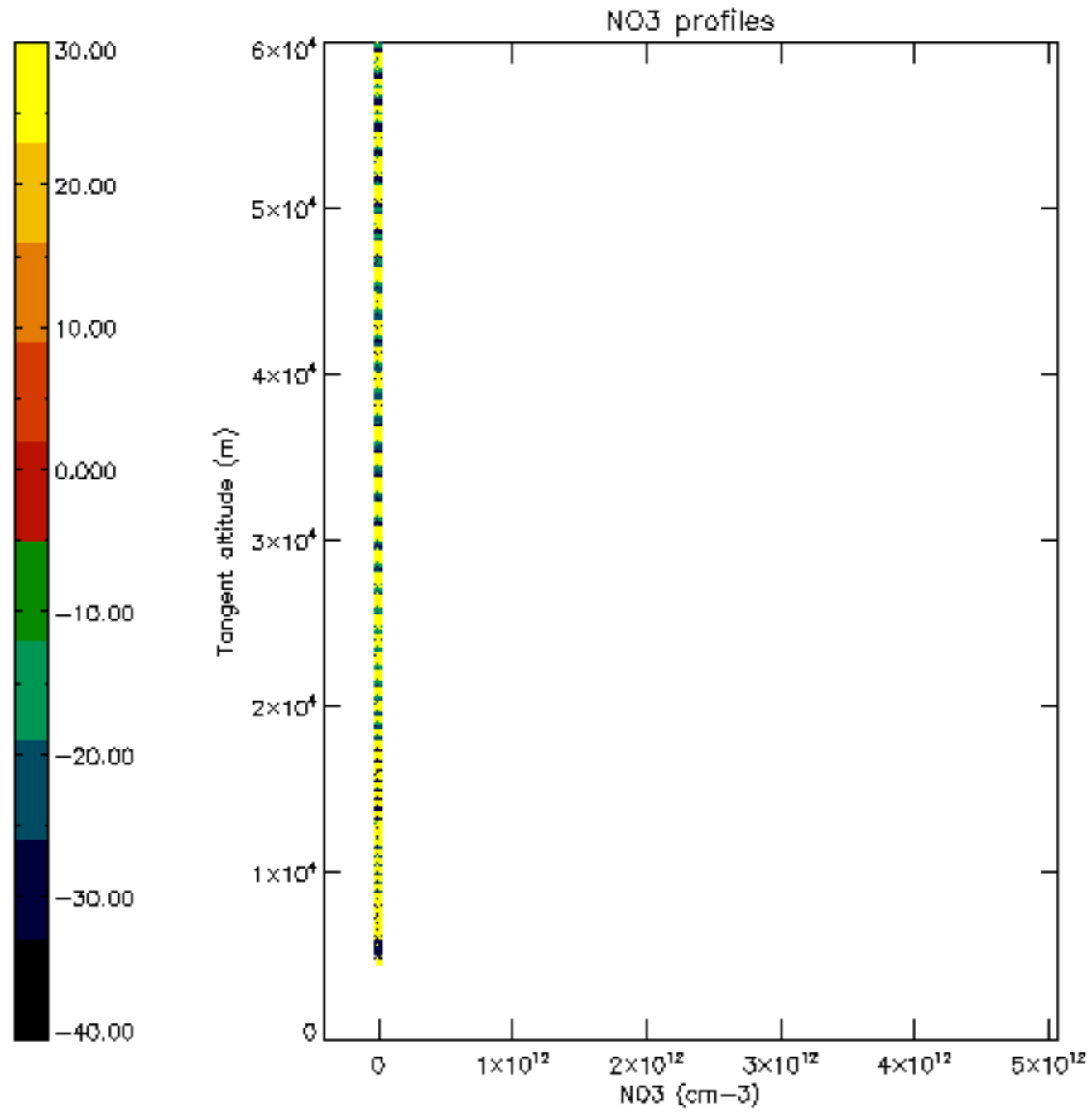


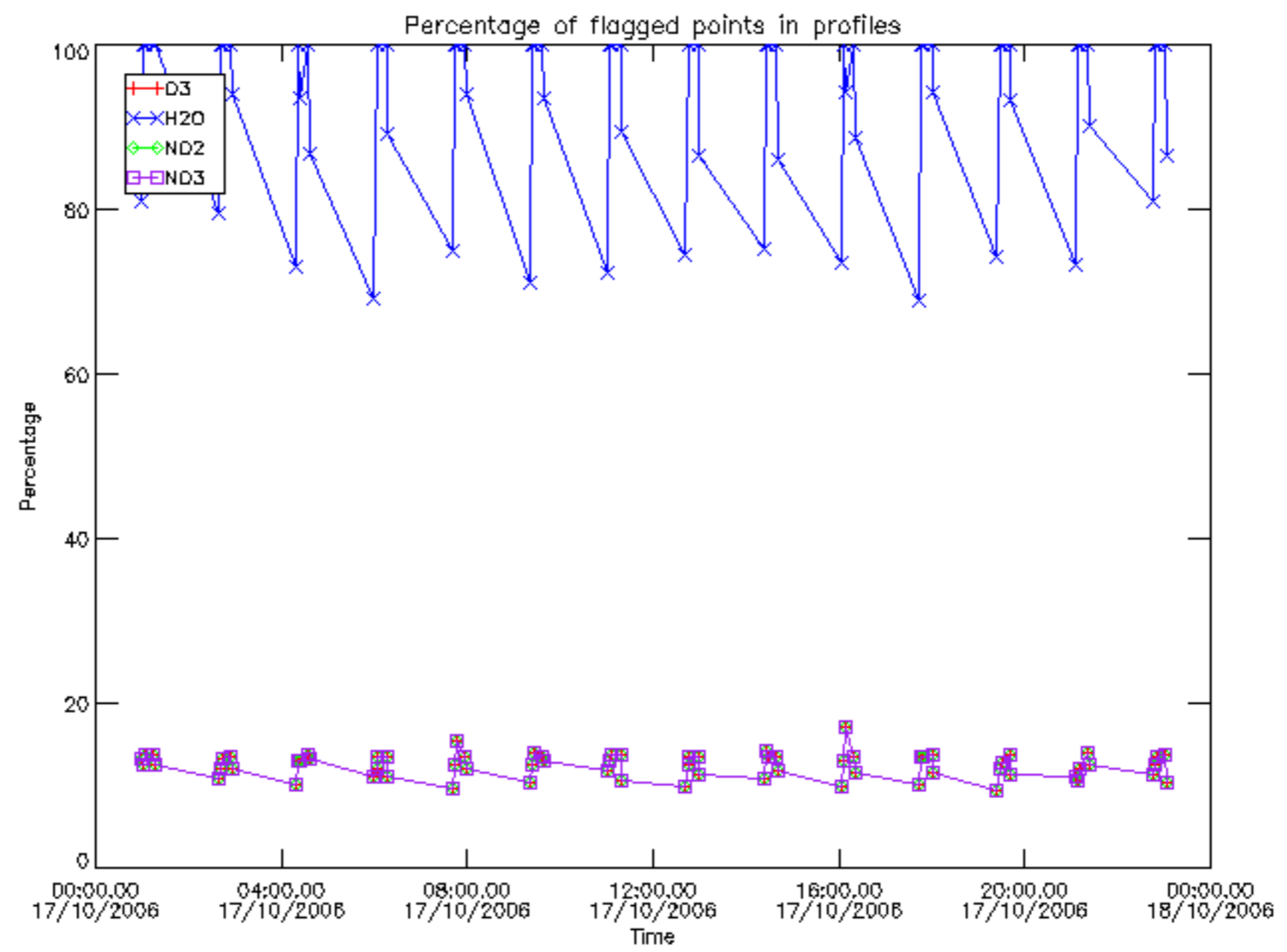




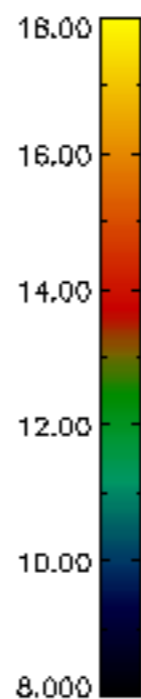
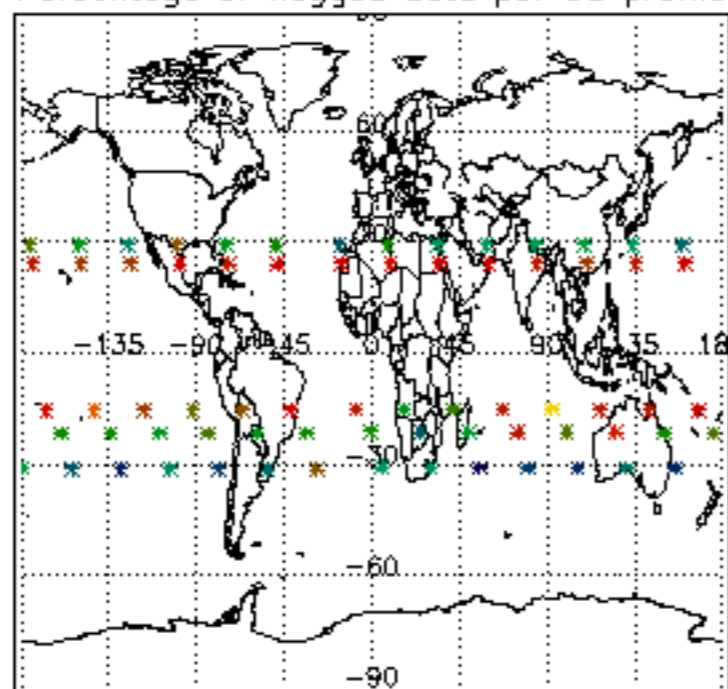




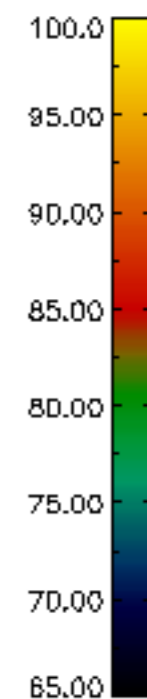
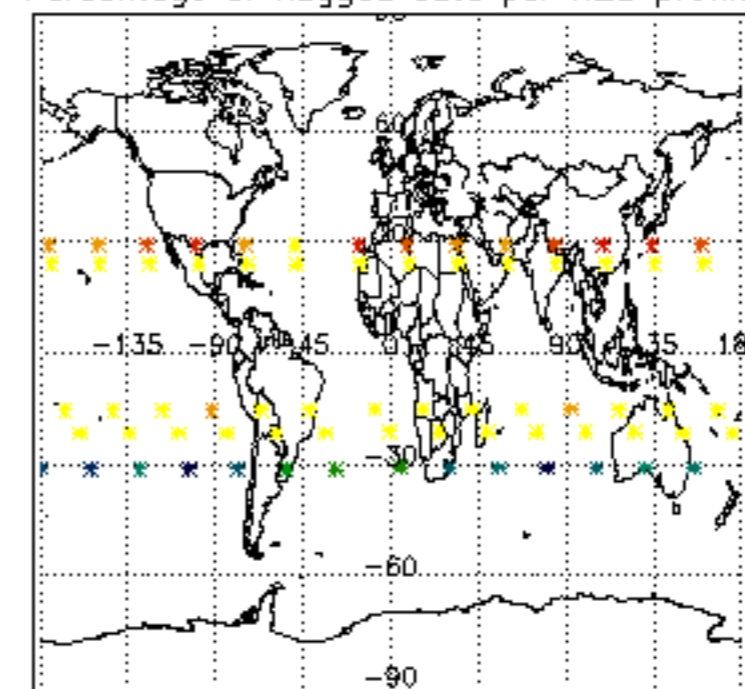




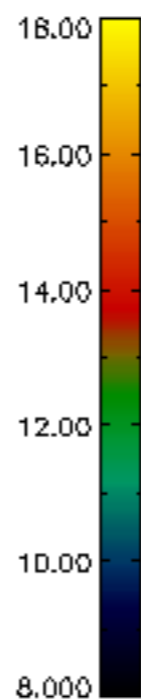
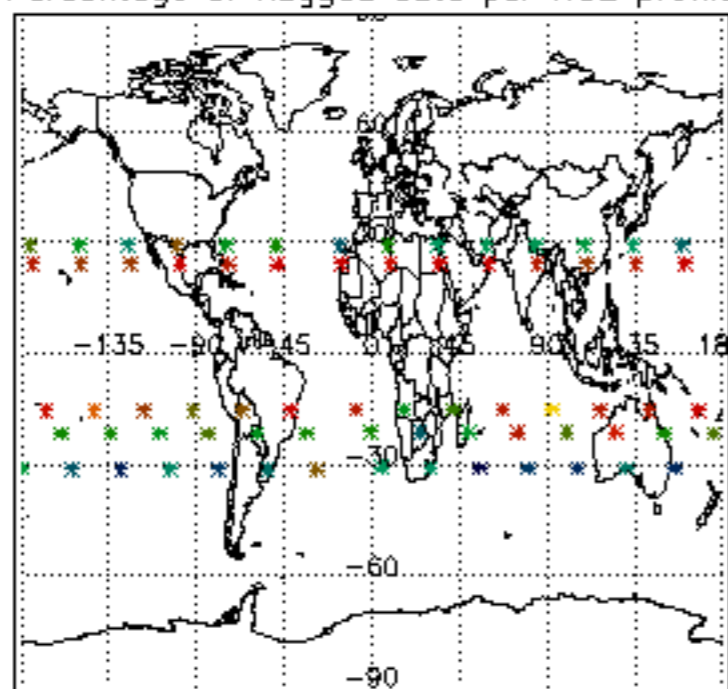
Percentage of flagged data per D3 profile



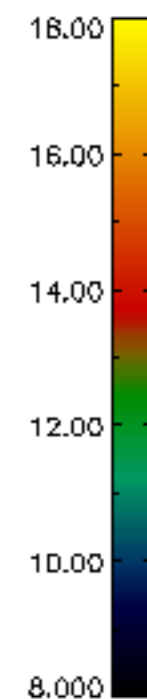
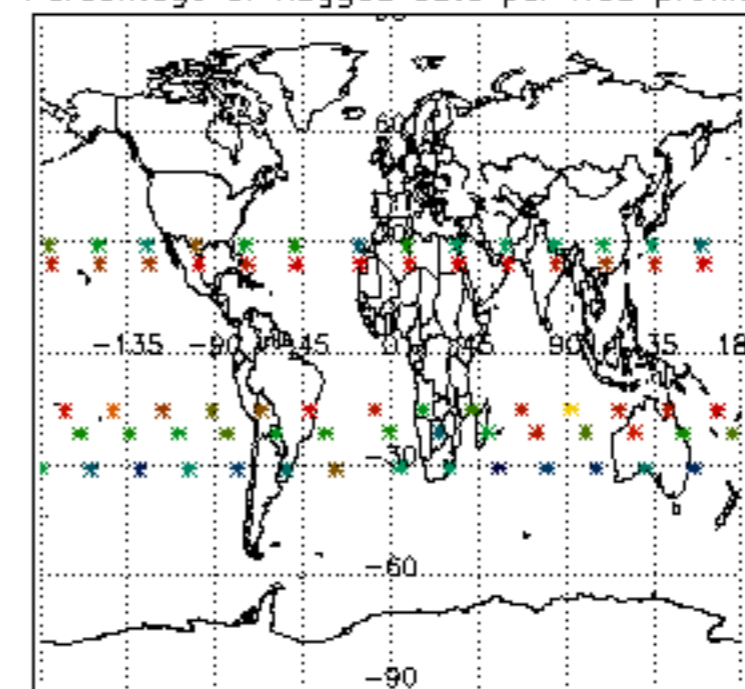
Percentage of flagged data per H2O profile



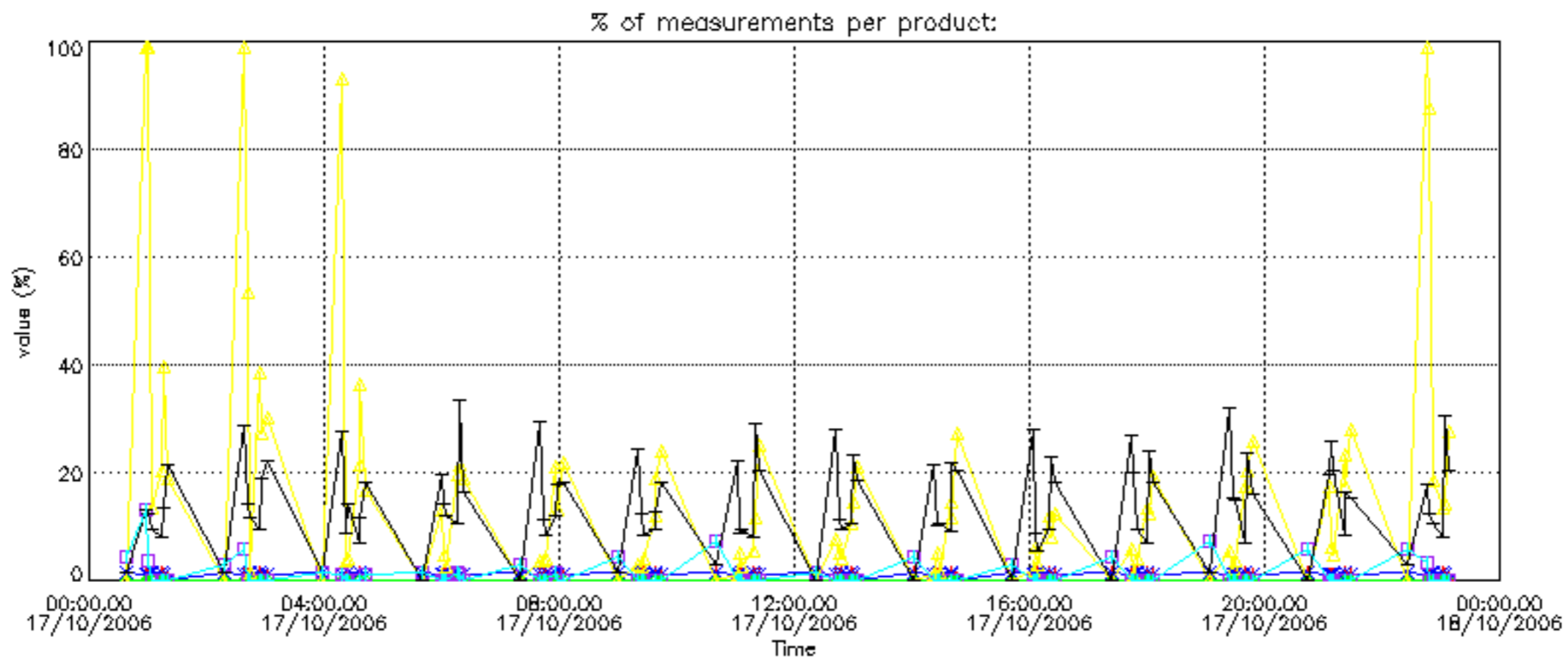
Percentage of flagged data per NO2 profile

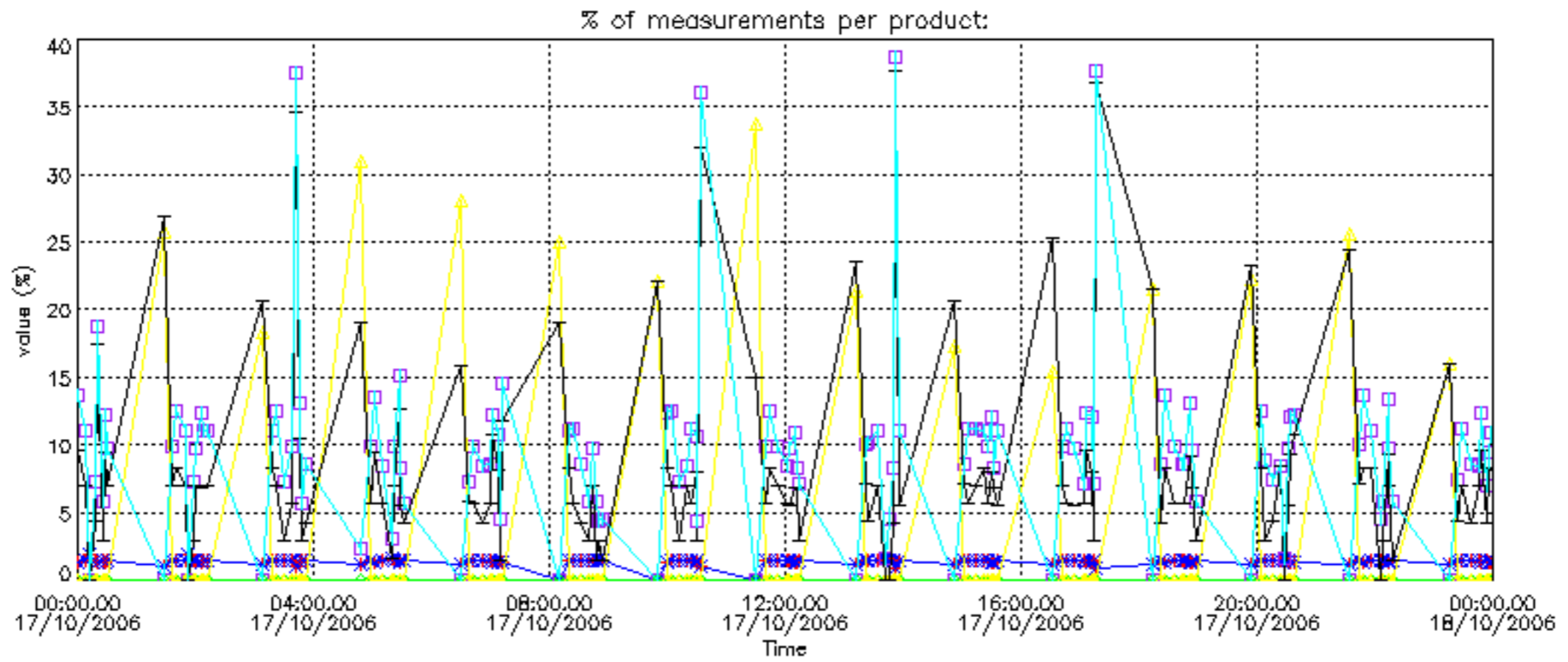


Percentage of flagged data per NO3 profile

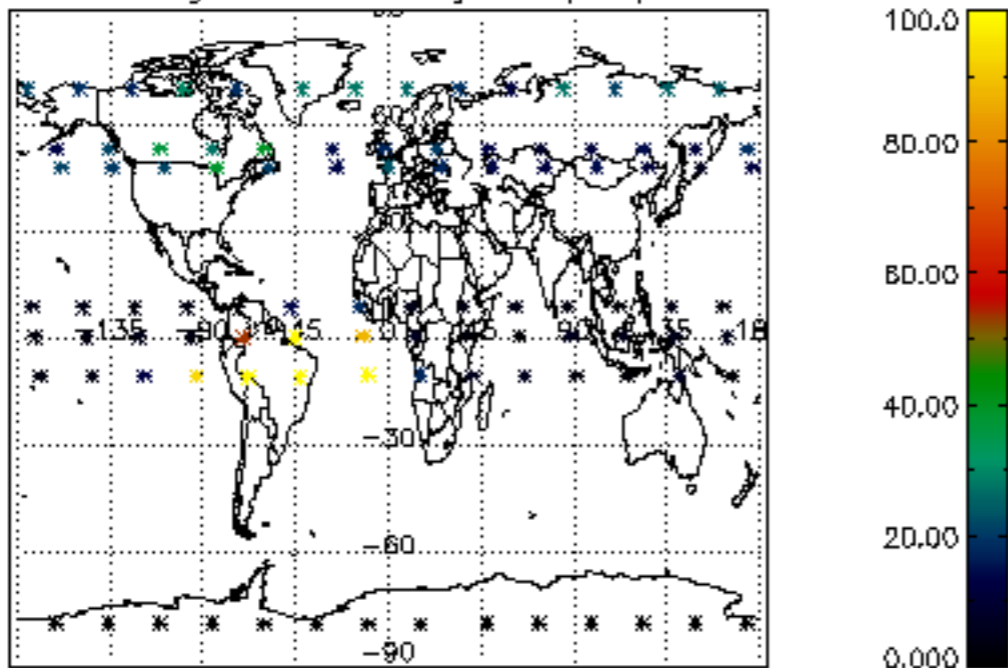




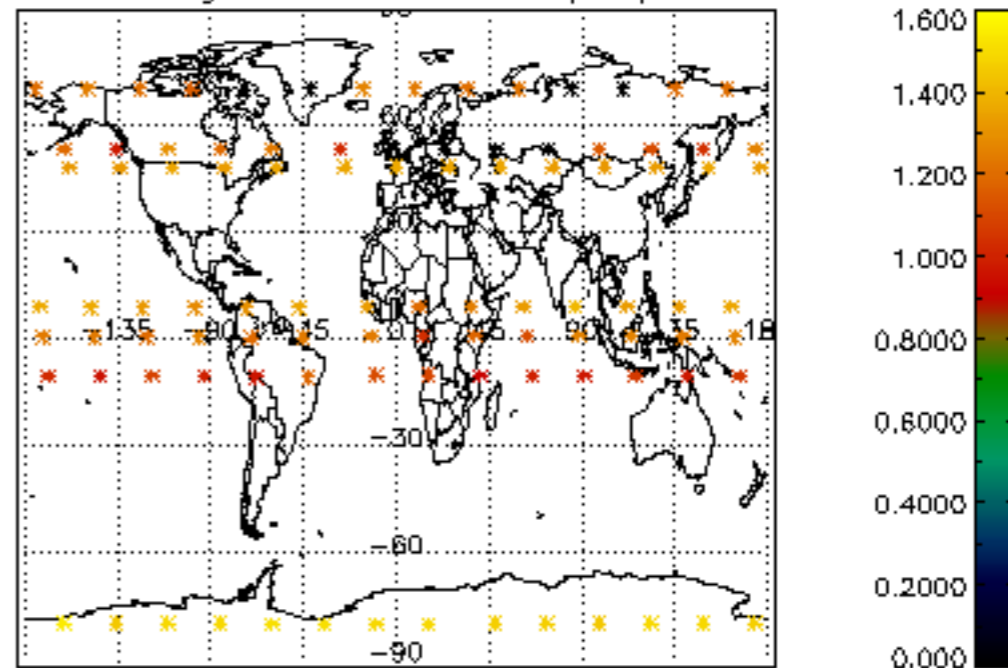




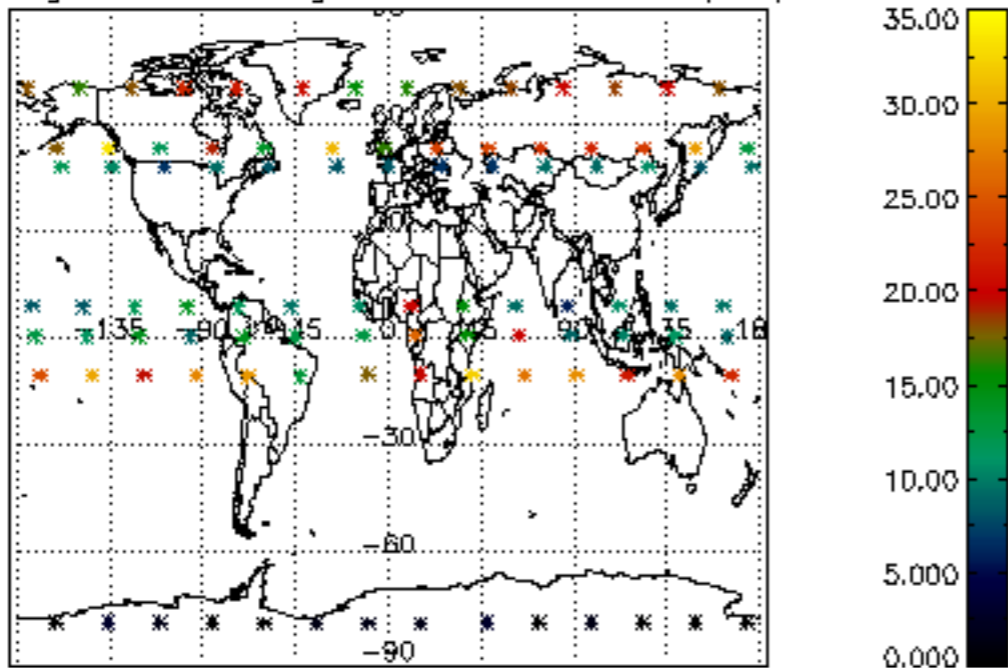
Percentage of cosmic ray hits per profile



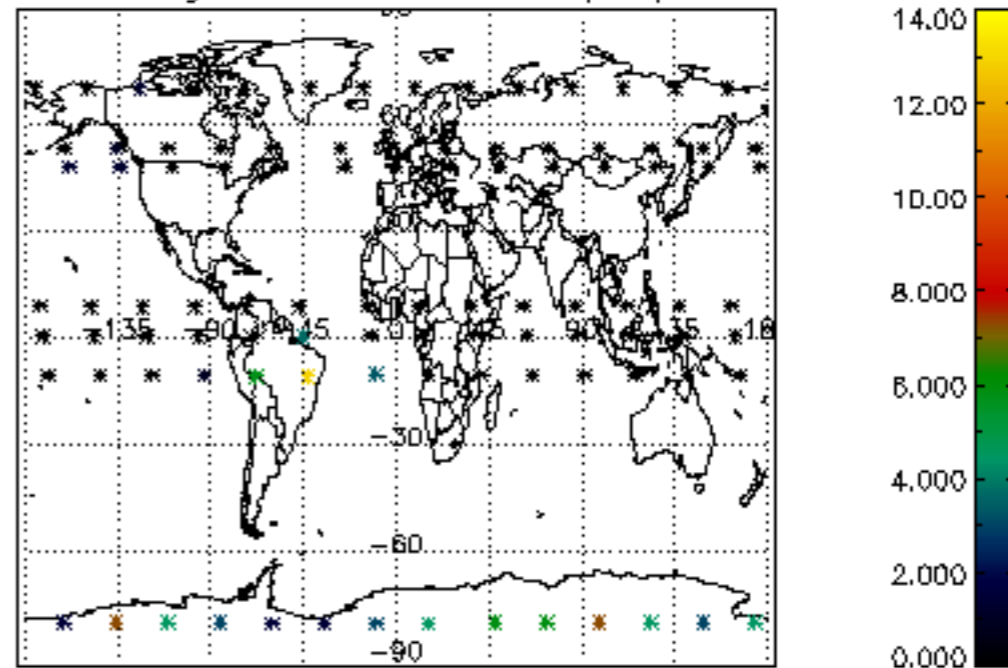
Percentage of datation errors per profile



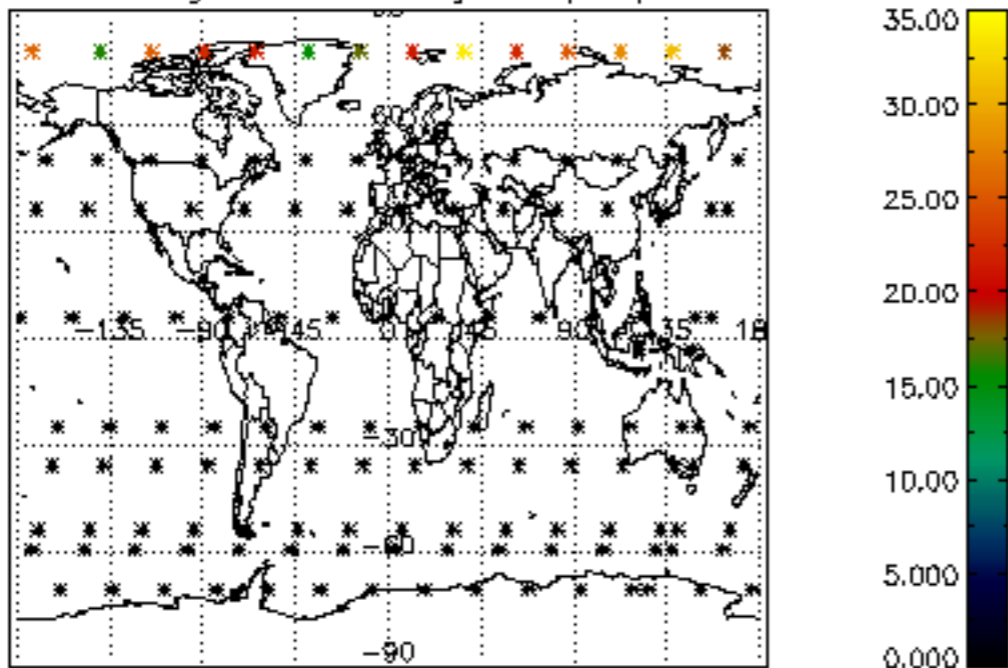
Percentage of star falling outside central band per profile



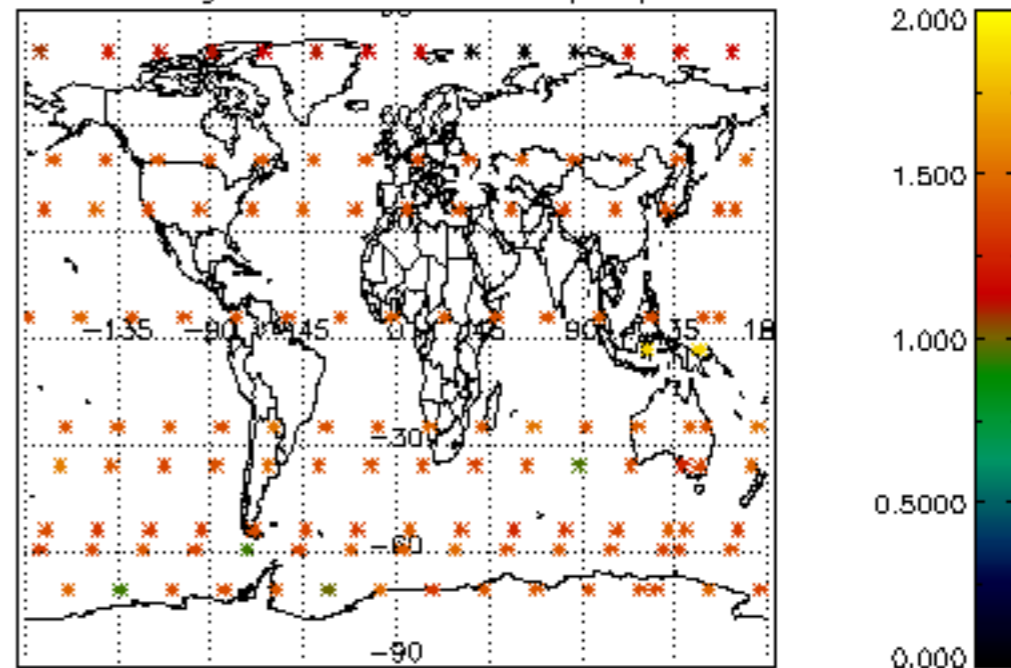
Percentage of saturation errors per profile



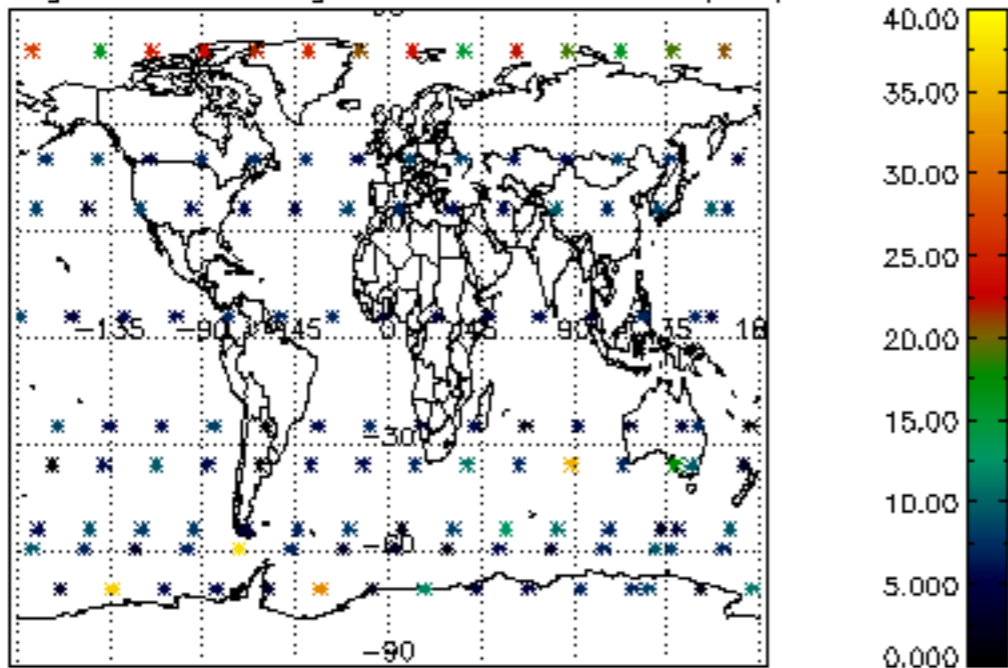
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

