

# 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 00:14:44
Data source version	GOMOS/6.01
Start time of products	21-06-2006 (21JUN2006 00:00:00)
Stop time of products	22-06-2006 (22JUN2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	246
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__2PRFIN20060621_000159_000000402048_00417_22515_9294.N1	21-JUN-2006 00:01:59	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22515	No
2	GOM_NL__2PRFIN20060621_000425_000000412048_00417_22515_9295.N1	21-JUN-2006 00:04:25	Bright	40.500	59	55Alp Oph	2.0800	8900.0	81	22515	No
3	GOM_NL__2PRFIN20060621_001608_000000382048_00417_22515_9296.N1	21-JUN-2006 00:16:08	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	22515	No
4	GOM_NL__2PRFIN20060621_002609_000000462048_00417_22515_9297.N1	21-JUN-2006 00:26:09	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	22515	No
5	GOM_NL__2PRFIN20060621_003258_000000432048_00417_22515_9298.N1	21-JUN-2006 00:32:58	Bright	43.000	74	11Bet Cas	2.2680	6600.0	86	22515	No
6	GOM_NL__2PRFIN20060621_003426_000000452048_00417_22515_9299.N1	21-JUN-2006 00:34:26	Bright	45.000	68	18Alp Cas	2.2250	4500.0	90	22515	No
7	GOM_NL__2PRFIN20060621_003956_000000432048_00417_22515_9300.N1	21-JUN-2006 00:39:56	Bright	42.500	73	57Gam1And	2.2600	13100.	85	22515	No
8	GOM_NL__2PRFIN20060621_004220_000000562048_00417_22515_9301.N1	21-JUN-2006 00:42:20	Twilight	56.000	53	43Bet And	2.0480	3300.0	112	22515	No
9	GOM_NL__2PRFIN20060621_004603_000000492048_00417_22515_9302.N1	21-JUN-2006 00:46:03	Twilight	49.000	50	13Alp Ari	2.0070	4250.0	98	22515	No
10	GOM_NL__2PRFIN20060621_010249_000000642048_00417_22515_9303.N1	21-JUN-2006 01:02:49	Dark	63.500	52	16Bet Cet	2.0370	4500.0	127	22515	No
11	GOM_NL__2PRFIN20060621_010840_000000582048_00417_22515_9304.N1	21-JUN-2006 01:08:40	Dark	57.500	84	Alp Phe	2.3970	4500.0	115	22515	No
12	GOM_NL__2PRFIN20060621_011504_000000542048_00418_22516_9288.N1	21-JUN-2006 01:15:04	Dark	53.500	63	Bet Gru	2.1500	2800.0	107	22516	No
13	GOM_NL__2PRFIN20060621_011707_000000482048_00418_22516_9289.N1	21-JUN-2006 01:17:07	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	22516	No
14	GOM_NL__2PRFIN20060621_012029_000000422048_00418_22516_9290.N1	21-JUN-2006 01:20:29	Straylight	41.500	45	Alp Pav	1.9400	26000.	83	22516	No
15	GOM_NL__2PRFIN20060621_012952_000000482048_00418_22516_9291.N1	21-JUN-2006 01:29:52	Twilight	47.500	38	20Eps Sgr	1.8360	11000.	95	22516	No
16	GOM_NL__2PRFIN20060621_013118_000000462048_00418_22516_9292.N1	21-JUN-2006 01:31:18	Twilight	45.500	116	19Del Sgr	2.7000	4100.0	91	22516	No
17	GOM_NL__2PRFIN20060621_013235_000000462048_00418_22516_9293.N1	21-JUN-2006 01:32:35	Bright	46.000	137	22Lam Sgr	2.8240	4400.0	92	22516	No
18	GOM_NL__2PRFIN20060621_014234_000000402048_00418_22516_9294.N1	21-JUN-2006 01:42:34	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22516	No
19	GOM_NL__2PRFIN20060621_014501_000000402048_00418_22516_9295.N1	21-JUN-2006 01:45:01	Bright	40.000	59	55Alp Oph	2.0800	8900.0	80	22516	No
20	GOM_NL__2PRFIN20060621_015643_000000362048_00418_22516_9296.N1	21-JUN-2006 01:56:43	Bright	35.500	130	23Bet Dra	2.7990	5800.0	71	22516	No
21	GOM_NL__2PRFIN20060621_020644_000000462048_00418_22516_9297.N1	21-JUN-2006 02:06:44	Bright	46.000	89	5Alp Cep	2.4510	8000.0	92	22516	No
22	GOM_NL__2PRFIN20060621_021333_000000462048_00418_22516_9298.N1	21-JUN-2006 02:13:33	Bright	45.500	74	11Bet Cas	2.2680	6600.0	91	22516	No
23	GOM_NL__2PRFIN20060621_021502_000000422048_00418_22516_9299.N1	21-JUN-2006 02:15:02	Bright	42.000	68	18Alp Cas	2.2250	4500.0	84	22516	No
24	GOM_NL__2PRFIN20060621_022032_000000432048_00418_22516_9300.N1	21-JUN-2006 02:20:32	Bright	42.500	73	57Gam1And	2.2600	13100.	85	22516	No
25	GOM_NL__2PRFIN20060621_022256_000000492048_00418_22516_9301.N1	21-JUN-2006 02:22:56	Twilight	49.000	53	43Bet And	2.0480	3300.0	98	22516	No
26	GOM_NL__2PRFIN20060621_022639_000000522048_00418_22516_9302.N1	21-JUN-2006 02:26:39	Twilight	52.000	50	13Alp Ari	2.0070	4250.0	104	22516	No
27	GOM_NL__2PRFIN20060621_024326_000000592048_00418_22516_9303.N1	21-JUN-2006 02:43:26	Dark	58.500	52	16Bet Cet	2.0370	4500.0	117	22516	No
28	GOM_NL__2PRFIN20060621_024917_000000512048_00418_22516_9304.N1	21-JUN-2006 02:49:17	Dark	50.500	84	Alp Phe	2.3970	4500.0	101	22516	No
29	GOM_NL__2PRFIN20060621_025541_000000522048_00419_22517_9288.N1	21-JUN-2006 02:55:41	Dark	51.500	63	Bet Gru	2.1500	2800.0	103	22517	No
30	GOM_NL__2PRFIN20060621_025744_000000492048_00419_22517_9289.N1	21-JUN-2006 02:57:44	Straylight	48.500	31	Alp Gru	1.7340	15200.	97	22517	No
31	GOM_NL__2PRFIN20060621_030106_000000422048_00419_22517_9290.N1	21-JUN-2006 03:01:06	Straylight	41.500	45	Alp Pav	1.9400	26000.	83	22517	No
32	GOM_NL__2PRFIN20060621_031028_000000442048_00419_22517_9291.N1	21-JUN-2006 03:10:28	Twilight	43.500	38	20Eps Sgr	1.8360	11000.	87	22517	No
33	GOM_NL__2PRFIN20060621_031154_000000462048_00419_22517_9292.N1	21-JUN-2006 03:11:54	Twilight	46.000	116	19Del Sgr	2.7000	4100.0	92	22517	No
34	GOM_NL__2PRFIN20060621_031311_000000462048_00419_22517_9293.N1	21-JUN-2006 03:13:11	Bright	45.500	137	22Lam Sgr	2.8240	4400.0	91	22517	No
35	GOM_NL__2PRFIN20060621_032310_000000402048_00419_22517_9294.N1	21-JUN-2006 03:23:10	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22517	No
36	GOM_NL__2PRFIN20060621_032536_000000402048_00419_22517_9295.N1	21-JUN-2006 03:25:36	Bright	40.000	59	55Alp Oph	2.0800	8900.0	80	22517	No
37	GOM_NL__2PRFIN20060621_033719_000000382048_00419_22517_9296.N1	21-JUN-2006 03:37:19	Bright	38.000	130	23Bet Dra	2.7990	5800.0	76	22517	No
38	GOM_NL__2PRFIN20060621_034719_000000462048_00419_22517_9297.N1	21-JUN-2006 03:47:19	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	22517	No
39	GOM_NL__2PRFIN20060621_035408_000000442048_00419_22517_9298.N1	21-JUN-2006 03:54:08	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	22517	No
40	GOM_NL__2PRFIN20060621_035538_000000432048_00419_22517_9299.N1	21-JUN-2006 03:55:38	Bright	42.500	68	18Alp Cas	2.2250	4500.0	85	22517	No
41	GOM_NL__2PRFIN20060621_040108_000000422048_00419_22517_9300.N1	21-JUN-2006 04:01:08	Bright	42.000	73	57Gam1And	2.2600	13100.	84	22517	No
42	GOM_NL__2PRFIN20060621_040332_000000492048_00419_22517_9301.N1	21-JUN-2006 04:03:32	Twilight	49.000	53	43Bet And	2.0480	3300.0	98	22517	No





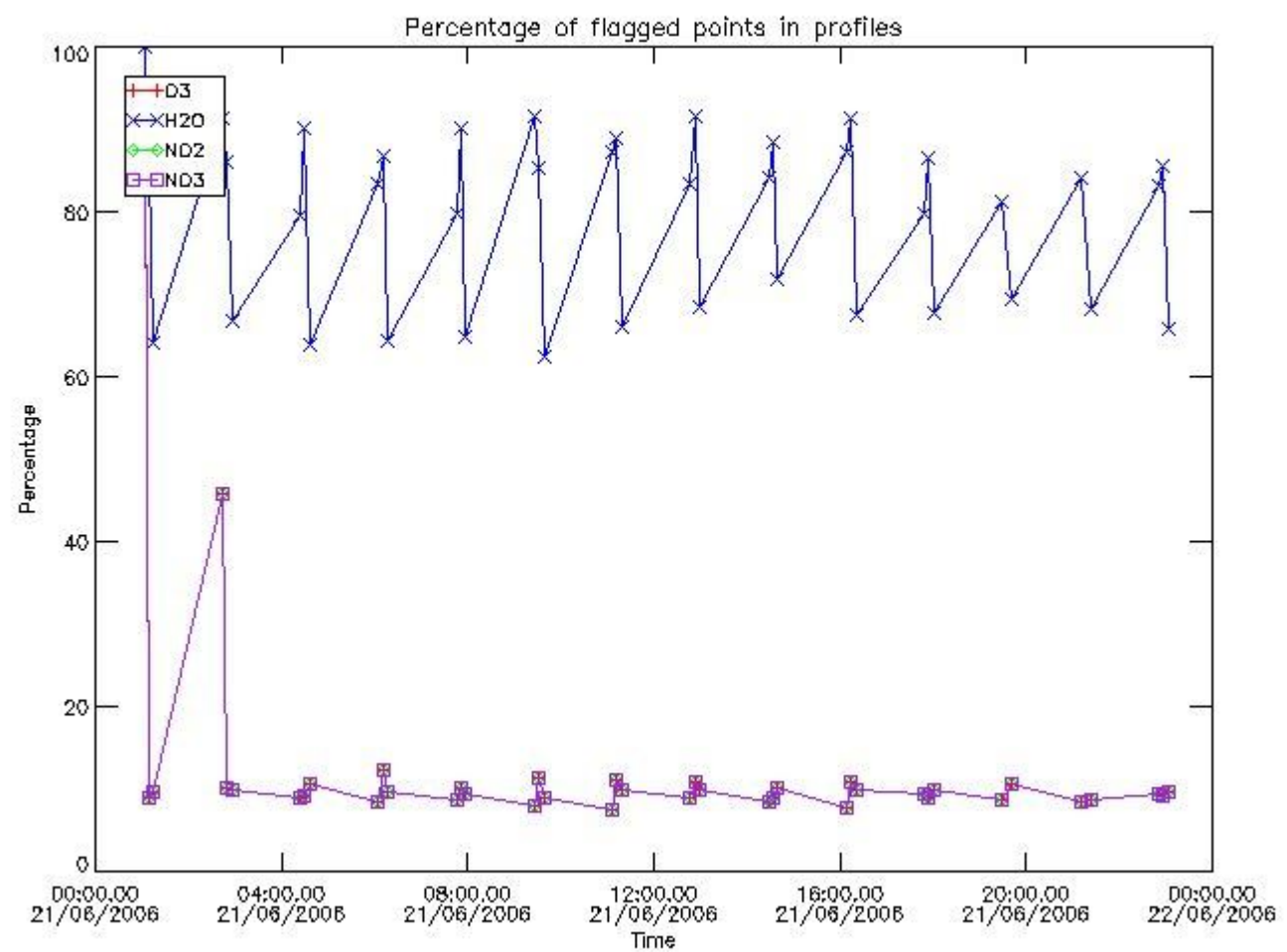


220	GOM_NL__2PRFIN20060621_212747_000000422048_00430_22528_9311.N1	21-JUN-2006 21:27:47	Straylight	41.500	45	Alp Pav	1.9400	26000.	83	22528	No
221	GOM_NL__2PRFIN20060621_213707_000000432048_00430_22528_9312.N1	21-JUN-2006 21:37:07	Tw_i_and_stray	43.000	38	20Eps Sgr	1.8360	11000.	86	22528	No
222	GOM_NL__2PRFIN20060621_213833_000000482048_00430_22528_9313.N1	21-JUN-2006 21:38:33	Tw_i_and_stray	48.000	116	19Del Sgr	2.7000	4100.0	96	22528	No
223	GOM_NL__2PRFIN20060621_214044_000000372048_00430_22528_9314.N1	21-JUN-2006 21:40:44	Bright	37.000	155	41Pi Sgr	2.9000	6600.0	74	22528	No
224	GOM_NL__2PRFIN20060621_214944_000000402048_00430_22528_9315.N1	21-JUN-2006 21:49:44	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22528	No
225	GOM_NL__2PRFIN20060621_215209_000000402048_00430_22528_9316.N1	21-JUN-2006 21:52:09	Bright	39.500	59	55Alp Oph	2.0800	8900.0	79	22528	No
226	GOM_NL__2PRFIN20060621_220204_000000472048_00430_22528_9317.N1	21-JUN-2006 22:02:04	Bright	47.000	5	3Alp Lyr	0.033000	11000.	94	22528	No
227	GOM_NL__2PRFIN20060621_220351_000000402048_00430_22528_9318.N1	21-JUN-2006 22:03:51	Bright	39.500	130	23Bet Dra	2.7990	5800.0	79	22528	No
228	GOM_NL__2PRFIN20060621_221347_000000472048_00430_22528_9319.N1	21-JUN-2006 22:13:47	Bright	46.500	89	5Alp Cep	2.4510	8000.0	93	22528	No
229	GOM_NL__2PRFIN20060621_222040_000000432048_00430_22528_9320.N1	21-JUN-2006 22:20:40	Bright	42.500	74	11Bet Cas	2.2680	6600.0	85	22528	No
230	GOM_NL__2PRFIN20060621_222210_000000462048_00430_22528_9321.N1	21-JUN-2006 22:22:10	Bright	45.500	68	18Alp Cas	2.2250	4500.0	91	22528	No
231	GOM_NL__2PRFIN20060621_222743_000000442048_00430_22528_9322.N1	21-JUN-2006 22:27:43	Bright	43.500	73	57Gam1And	2.2600	13100.	87	22528	No
232	GOM_NL__2PRFIN20060621_223006_000000442048_00430_22528_9323.N1	21-JUN-2006 22:30:06	Tw_i_and_stray	43.500	173	4Bet Tri	3.0040	8900.0	87	22528	No
233	GOM_NL__2PRFIN20060621_223353_000000502048_00430_22528_9324.N1	21-JUN-2006 22:33:53	Twilight	50.000	50	13Alp Ari	2.0070	4250.0	100	22528	No
234	GOM_NL__2PRFIN20060621_225053_000000542048_00430_22528_9325.N1	21-JUN-2006 22:50:53	Dark	54.000	52	16Bet Cet	2.0370	4500.0	108	22528	No
235	GOM_NL__2PRFIN20060621_225639_000000562048_00430_22528_9326.N1	21-JUN-2006 22:56:39	Dark	55.500	84	Alp Phe	2.3970	4500.0	111	22528	No
236	GOM_NL__2PRFIN20060621_230304_000000532048_00431_22529_9309.N1	21-JUN-2006 23:03:04	Dark	53.000	63	Bet Gru	2.1500	2800.0	106	22529	No
237	GOM_NL__2PRFIN20060621_230507_000000482048_00431_22529_9310.N1	21-JUN-2006 23:05:07	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	22529	No
238	GOM_NL__2PRFIN20060621_230824_000000432048_00431_22529_9311.N1	21-JUN-2006 23:08:24	Straylight	43.000	45	Alp Pav	1.9400	26000.	86	22529	No
239	GOM_NL__2PRFIN20060621_231743_000000462048_00431_22529_9312.N1	21-JUN-2006 23:17:43	Tw_i_and_stray	46.000	38	20Eps Sgr	1.8360	11000.	92	22529	No
240	GOM_NL__2PRFIN20060621_231909_000000482048_00431_22529_9313.N1	21-JUN-2006 23:19:09	Tw_i_and_stray	48.000	116	19Del Sgr	2.7000	4100.0	96	22529	No
241	GOM_NL__2PRFIN20060621_232120_000000372048_00431_22529_9314.N1	21-JUN-2006 23:21:20	Bright	37.000	155	41Pi Sgr	2.9000	6600.0	74	22529	No
242	GOM_NL__2PRFIN20060621_233020_000000402048_00431_22529_9315.N1	21-JUN-2006 23:30:20	Bright	39.500	126	60Bet Oph	2.7700	4250.0	79	22529	No
243	GOM_NL__2PRFIN20060621_233245_000000392048_00431_22529_9316.N1	21-JUN-2006 23:32:45	Bright	39.000	59	55Alp Oph	2.0800	8900.0	78	22529	No
244	GOM_NL__2PRFIN20060621_234239_000000432048_00431_22529_9317.N1	21-JUN-2006 23:42:39	Bright	43.000	5	3Alp Lyr	0.033000	11000.	86	22529	No
245	GOM_NL__2PRFIN20060621_234427_000000382048_00431_22529_9318.N1	21-JUN-2006 23:44:27	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	22529	No
246	GOM_NL__2PRFIN20060621_235422_000000442048_00431_22529_9319.N1	21-JUN-2006 23:54:22	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	22529	No

### 3. Quality information per product

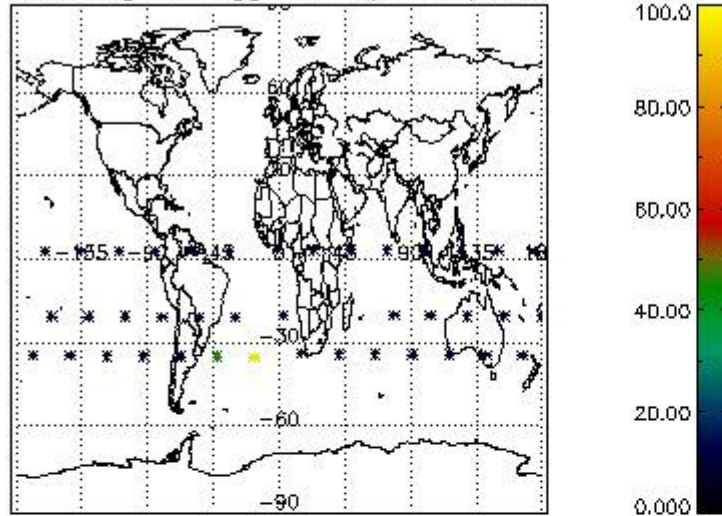
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

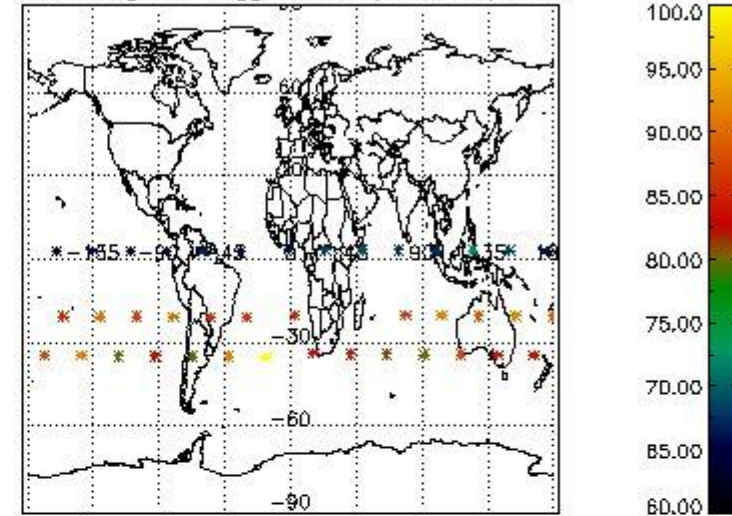


3.2 Plot quality information per product (world map)

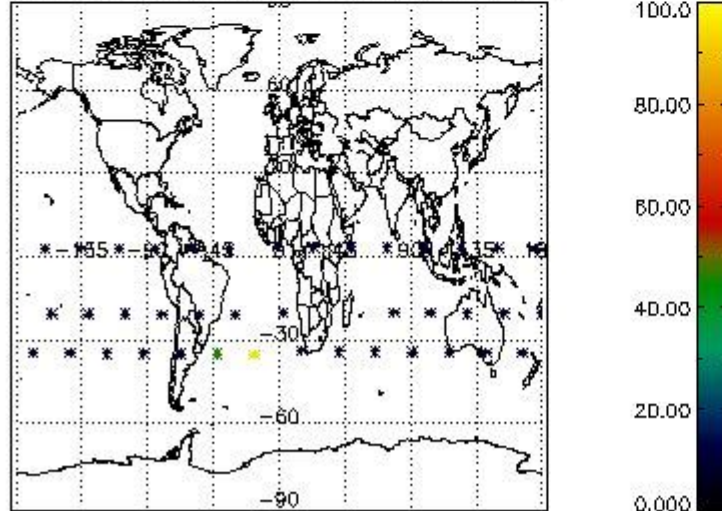
Percentage of flagged data per O3 profile



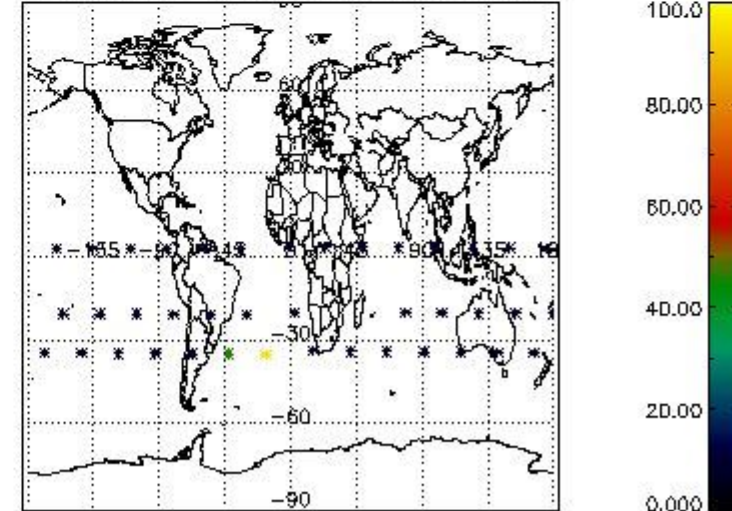
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



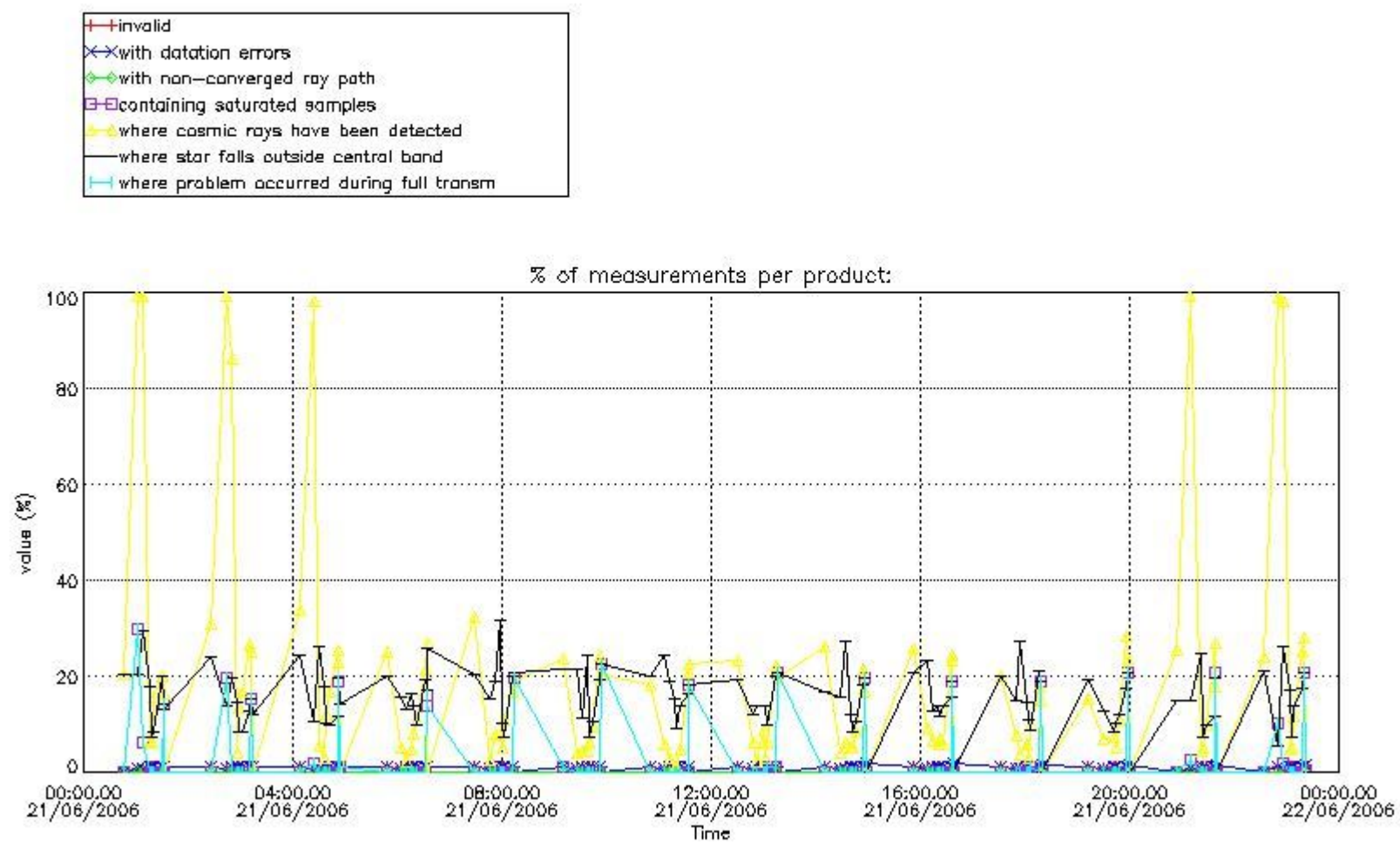
#### 4. Level 1 quality information per product

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.

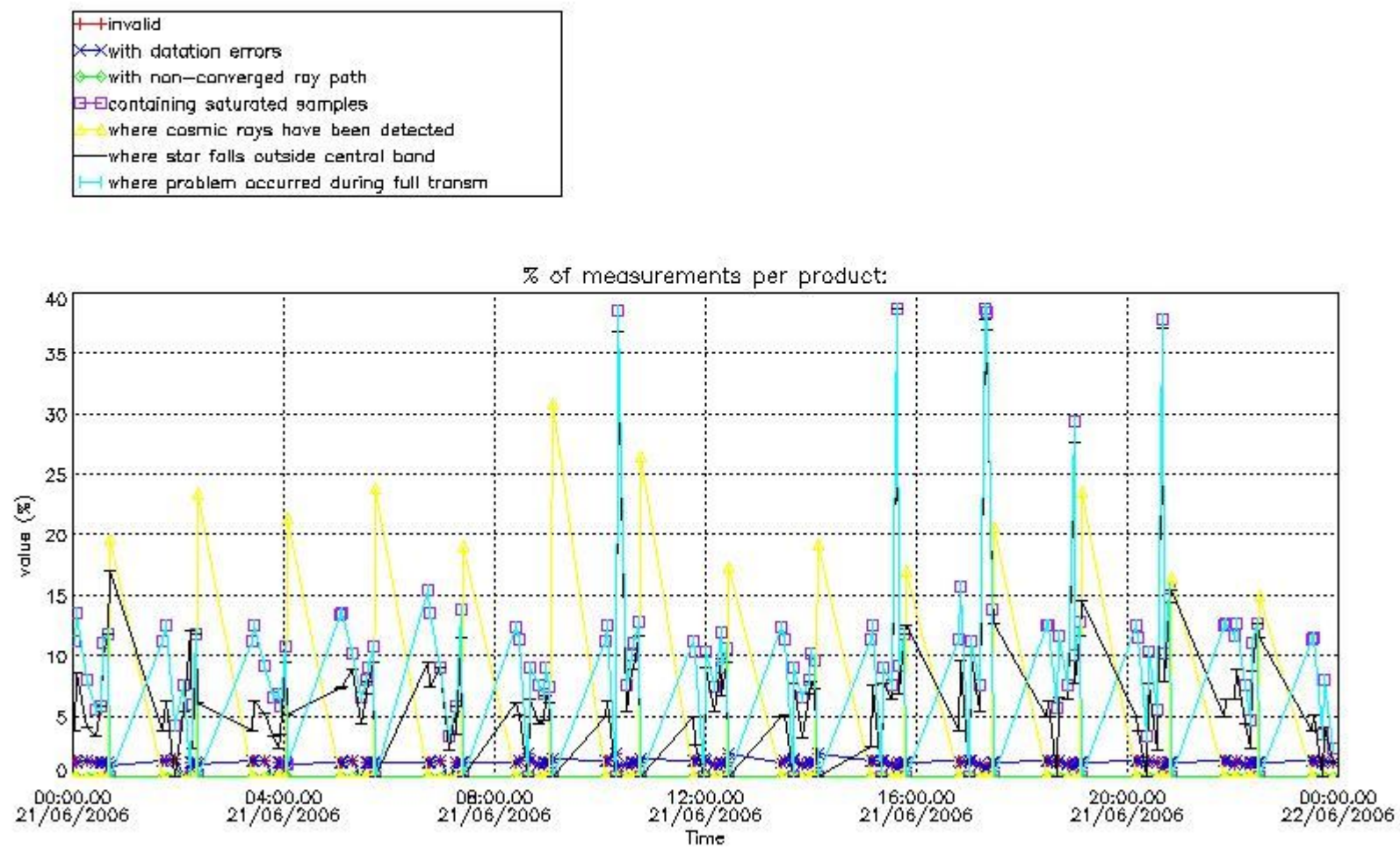
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





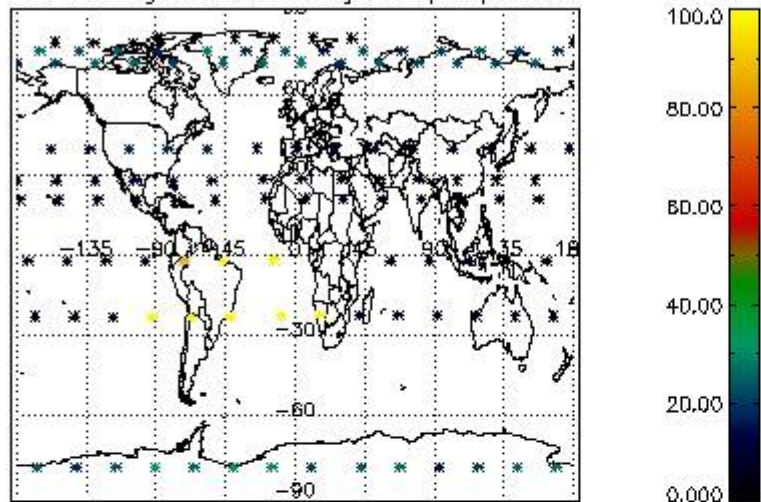
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



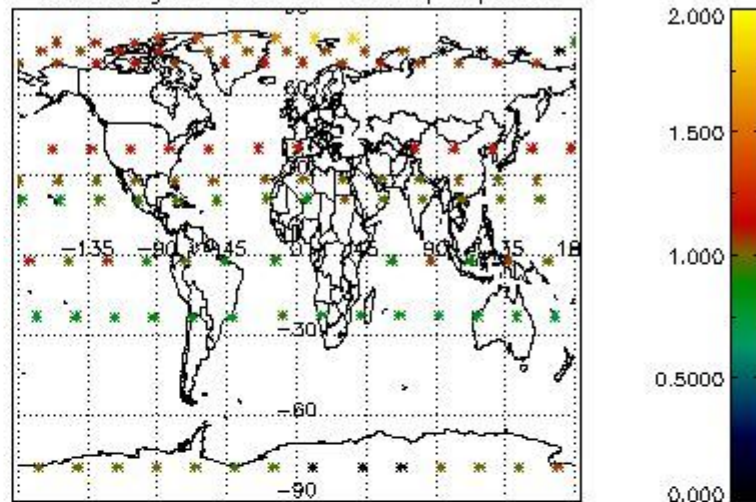
4.2 Plot quality information per product coming from level 1b processing (world map)

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

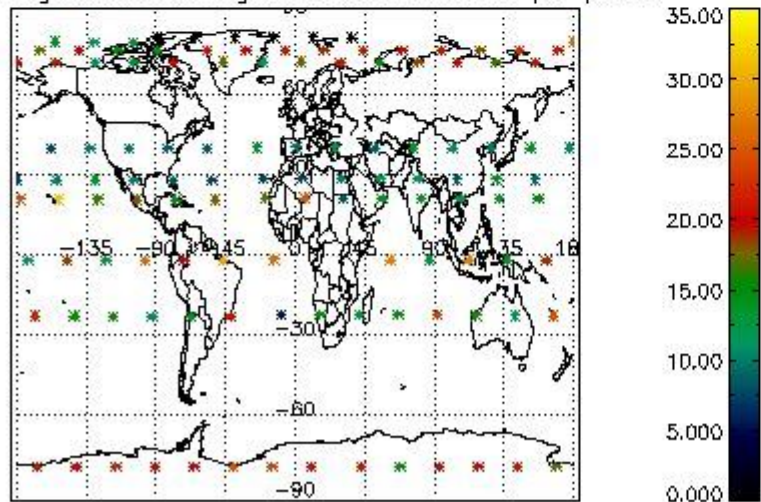
Percentage of cosmic ray hits per profile



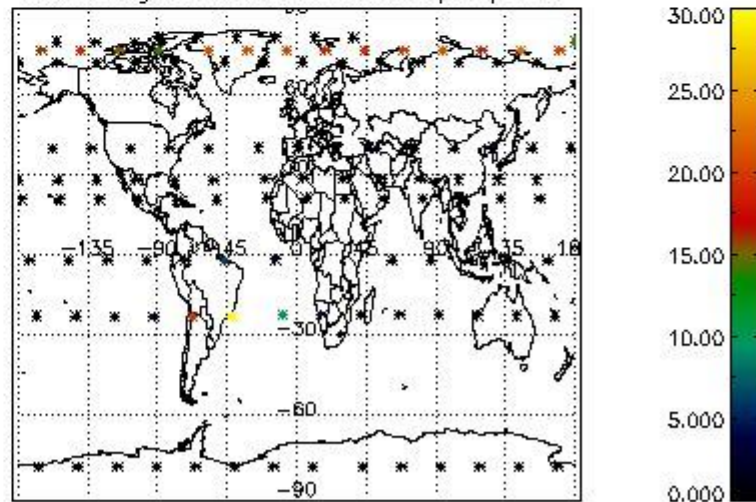
Percentage of datation errors per profile



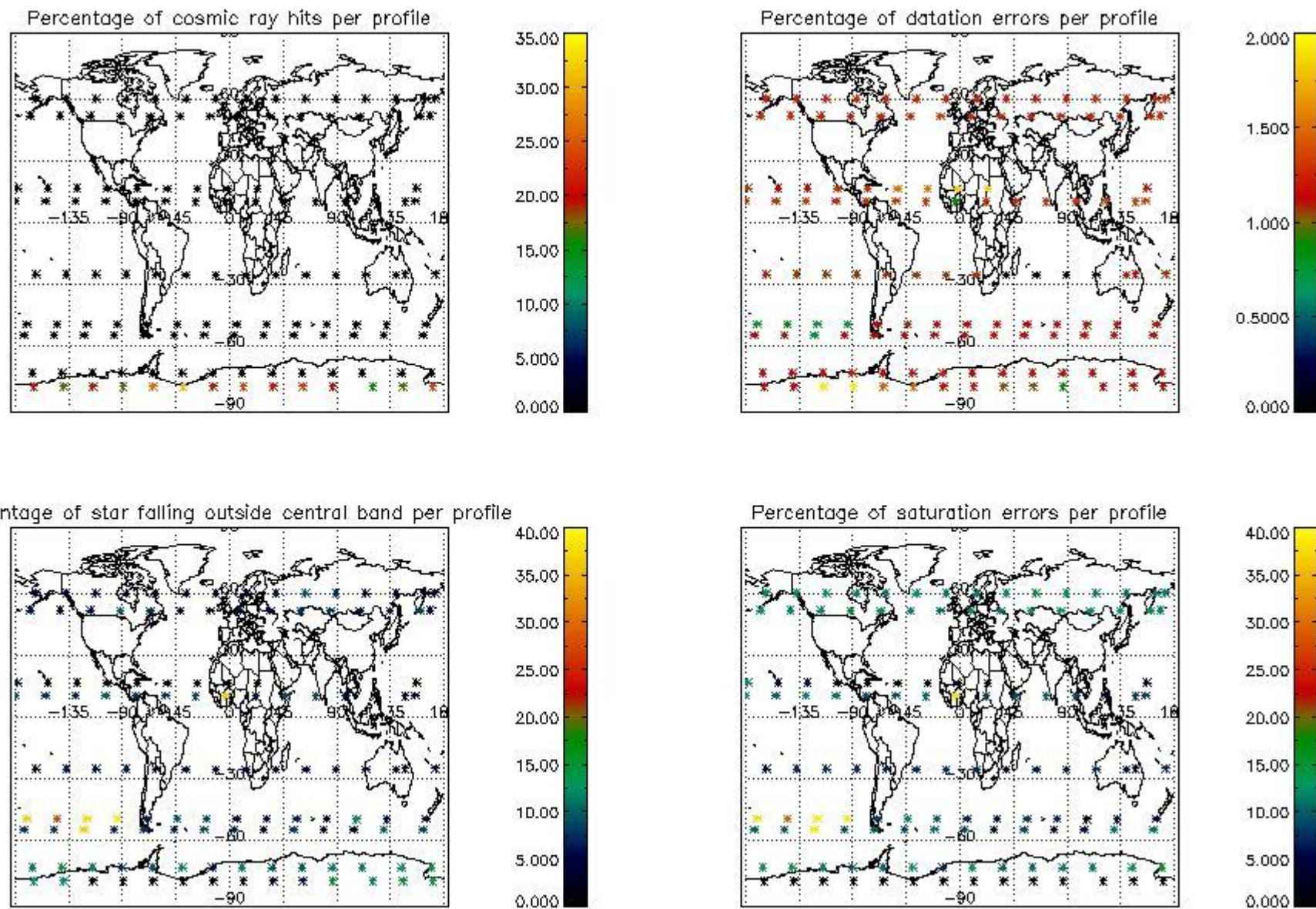
Percentage of star falling outside central band per profile



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

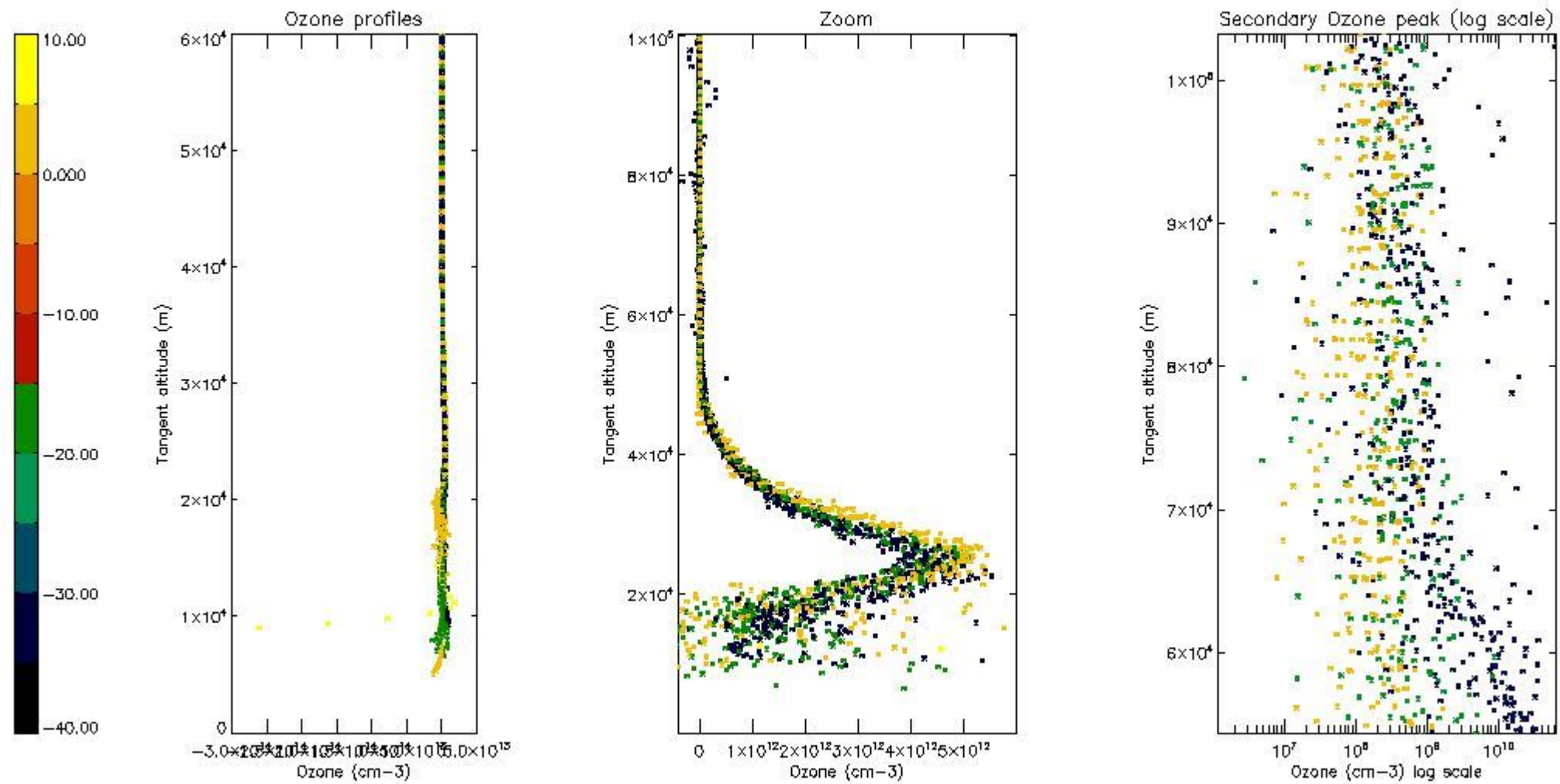
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	20
STD < 20	6

STD < 10	3
STD < 5	1

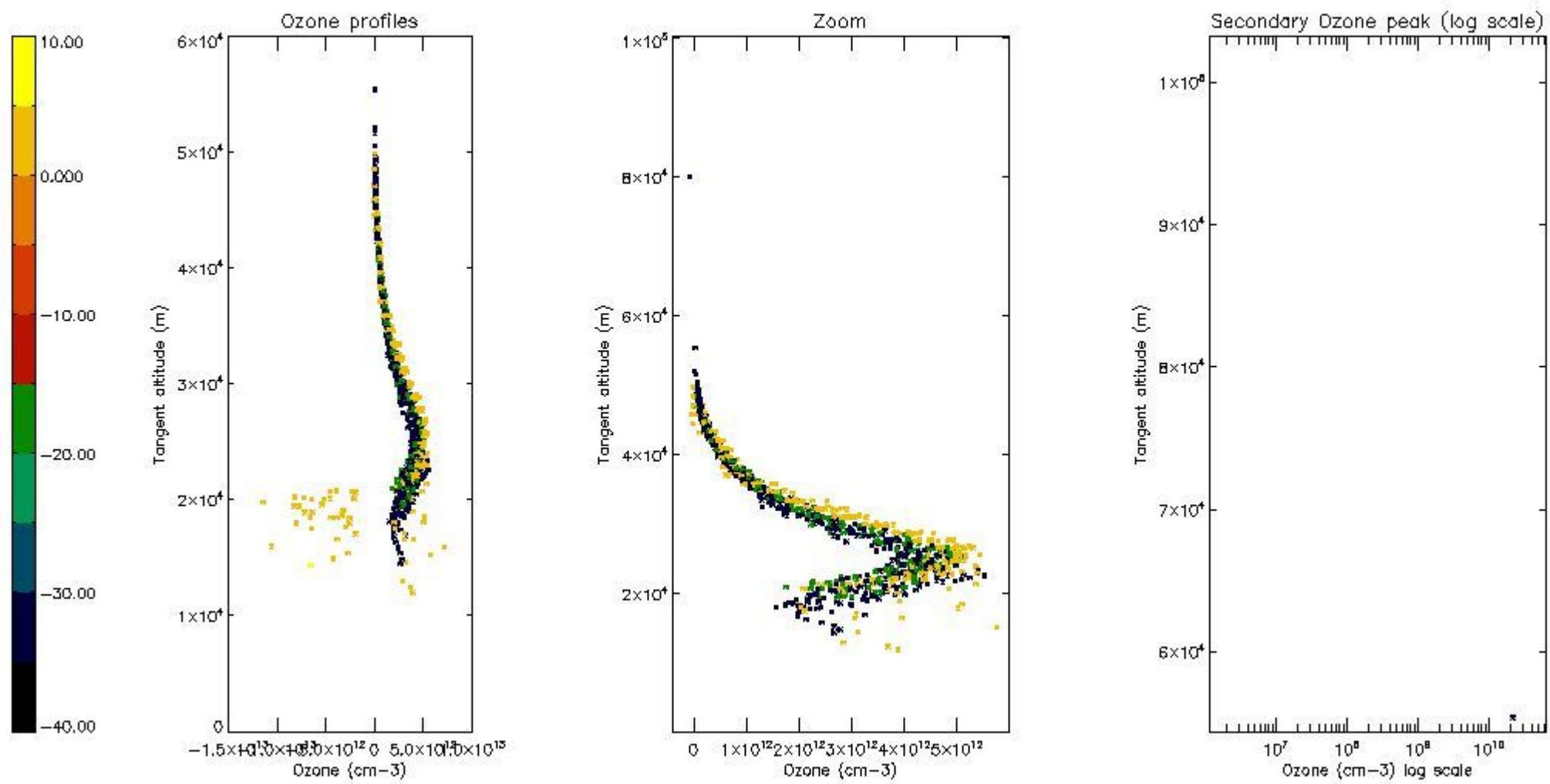
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



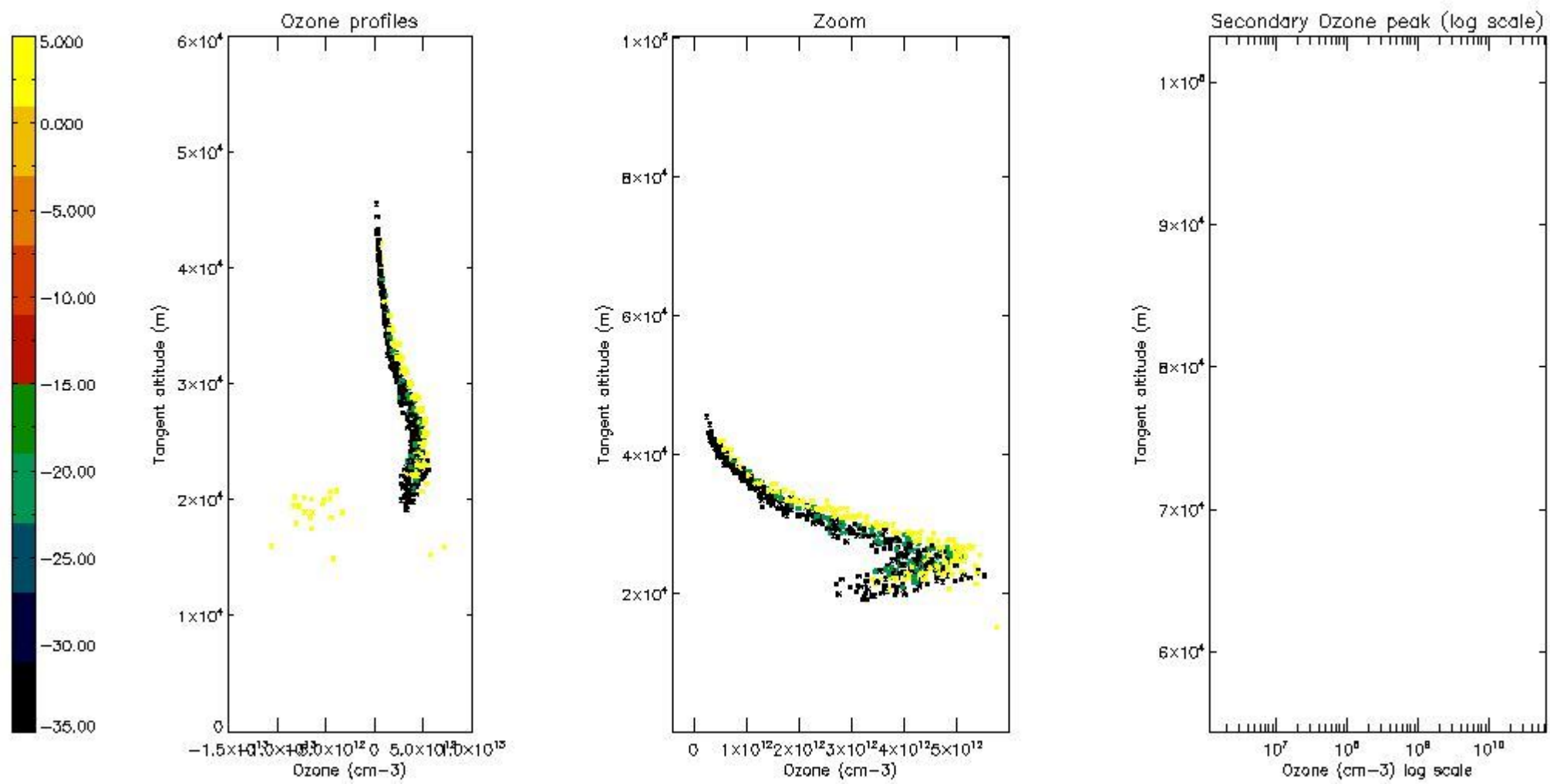
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



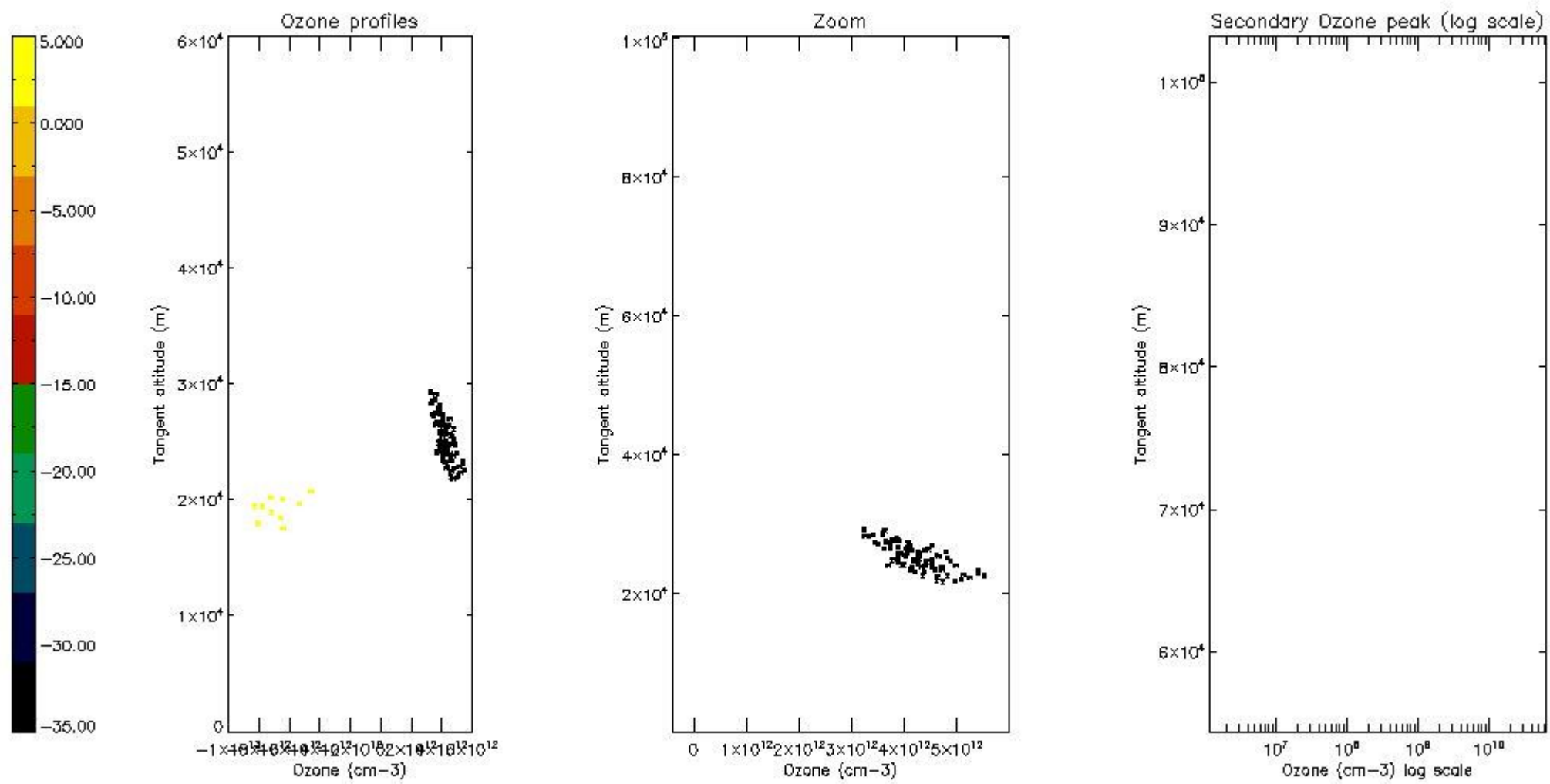
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

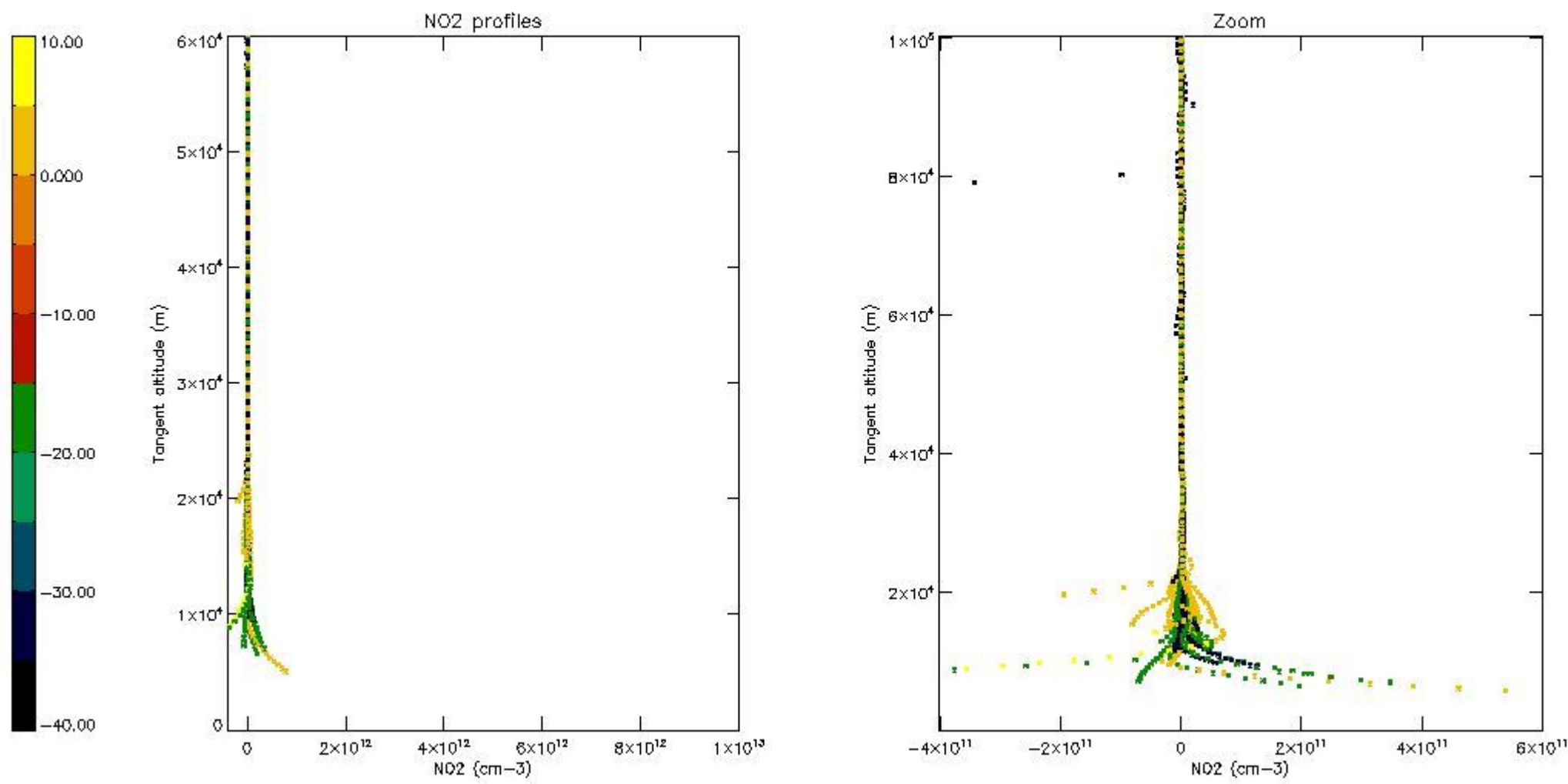
The colorbar represents the latitude.



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

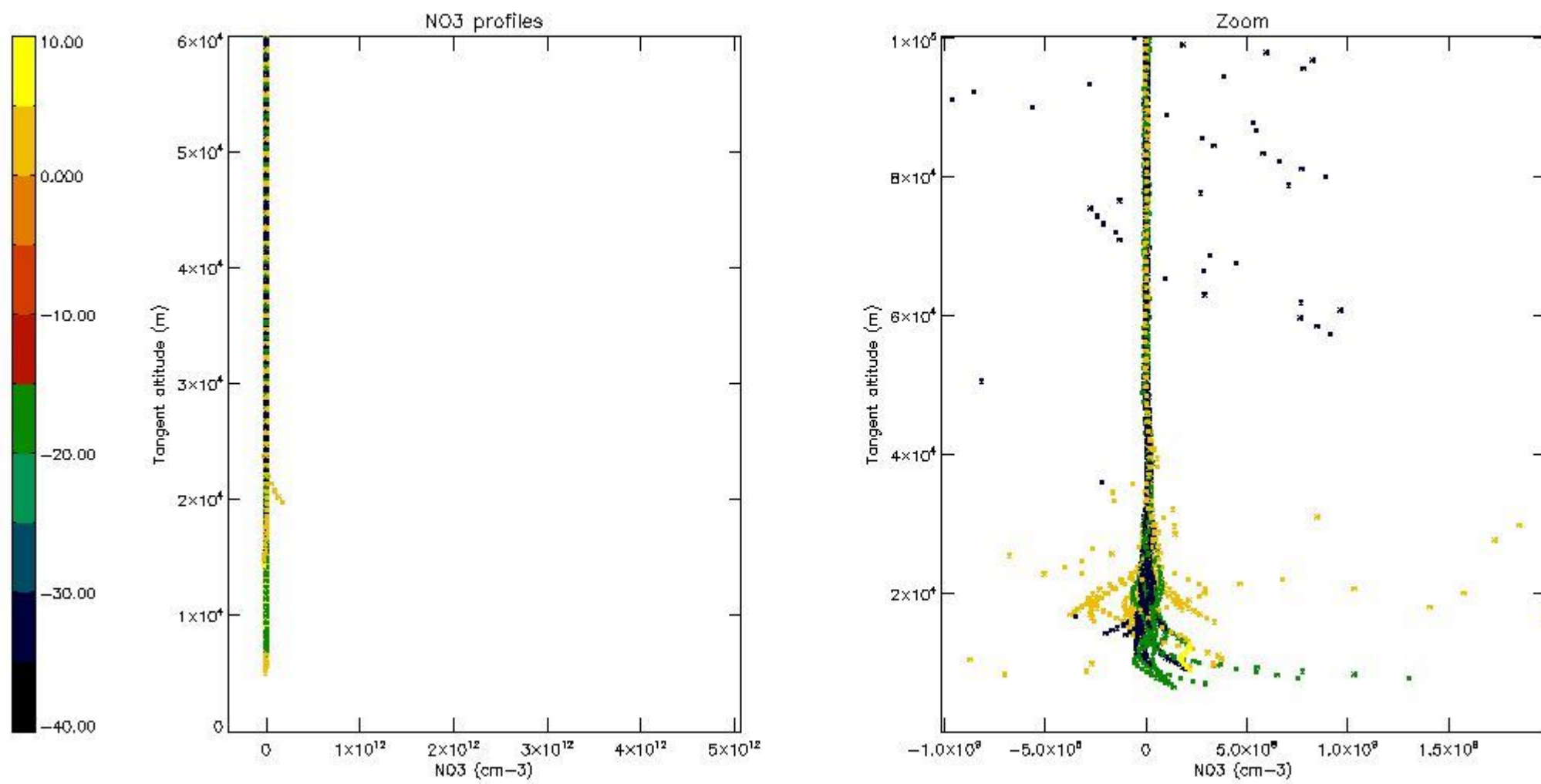
The colorbar represents the latitude.





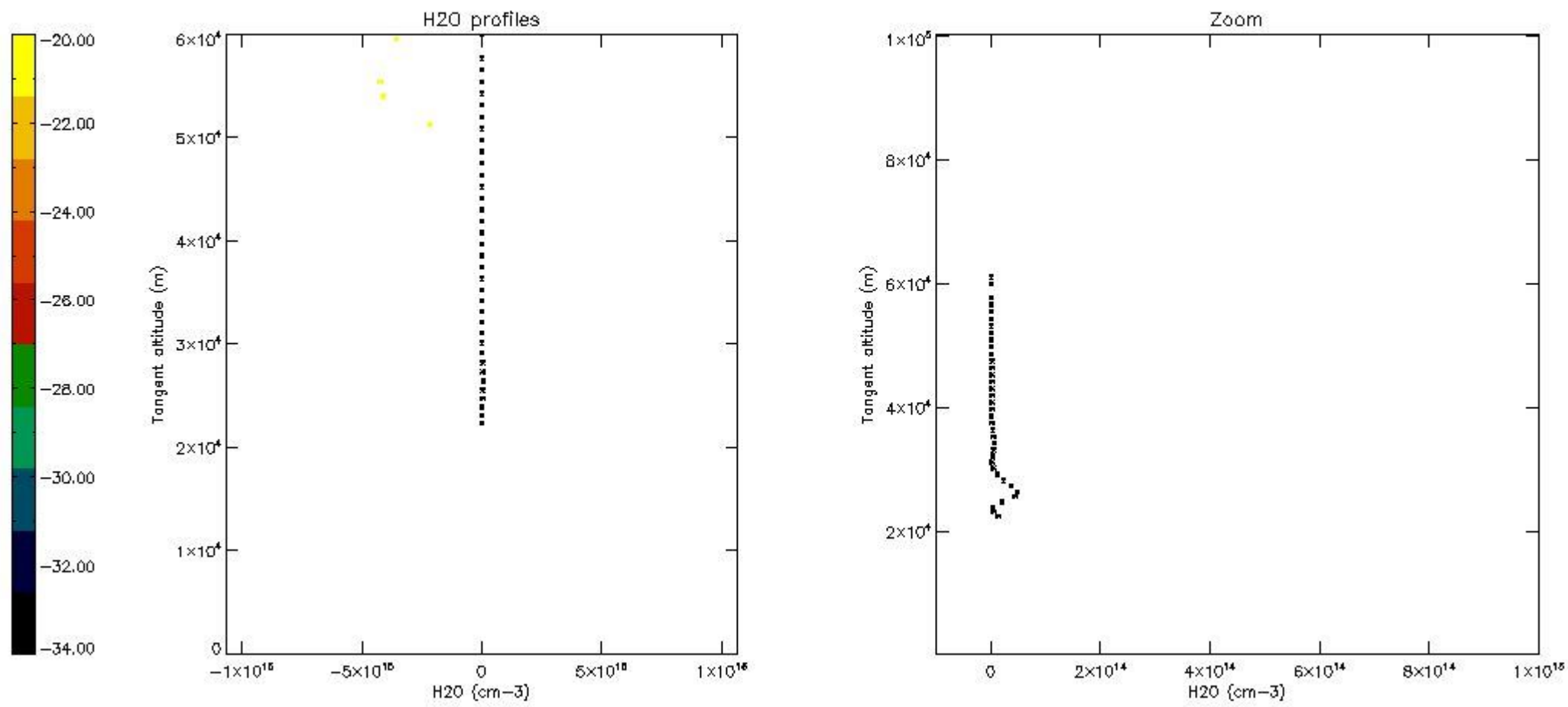
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	21-JUN-2006 00:01:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-JUN-2006 00:01:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-JUN-2006 00:01:59

# GOMOS Level 2 Daily Report

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

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

Item	Value
Time of report generation	24APR2013 00:14:44
Data source version	GOMOS/6.01
Start time of products	21-06-2006 (21JUN2006 00:00:00)
Stop time of products	22-06-2006 (22JUN2006 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	246
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__2PRFIN20060621_000159_000000402048_00417_22515_9294.N1	21-JUN-2006 00:01:59	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22515	No
2	GOM_NL__2PRFIN20060621_000425_000000412048_00417_22515_9295.N1	21-JUN-2006 00:04:25	Bright	40.500	59	55Alp Oph	2.0800	8900.0	81	22515	No
3	GOM_NL__2PRFIN20060621_001608_000000382048_00417_22515_9296.N1	21-JUN-2006 00:16:08	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	22515	No
4	GOM_NL__2PRFIN20060621_002609_000000462048_00417_22515_9297.N1	21-JUN-2006 00:26:09	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	22515	No
5	GOM_NL__2PRFIN20060621_003258_000000432048_00417_22515_9298.N1	21-JUN-2006 00:32:58	Bright	43.000	74	11Bet Cas	2.2680	6600.0	86	22515	No
6	GOM_NL__2PRFIN20060621_003426_000000452048_00417_22515_9299.N1	21-JUN-2006 00:34:26	Bright	45.000	68	18Alp Cas	2.2250	4500.0	90	22515	No
7	GOM_NL__2PRFIN20060621_003956_000000432048_00417_22515_9300.N1	21-JUN-2006 00:39:56	Bright	42.500	73	57Gam1And	2.2600	13100.	85	22515	No
8	GOM_NL__2PRFIN20060621_004220_000000562048_00417_22515_9301.N1	21-JUN-2006 00:42:20	Twilight	56.000	53	43Bet And	2.0480	3300.0	112	22515	No
9	GOM_NL__2PRFIN20060621_004603_000000492048_00417_22515_9302.N1	21-JUN-2006 00:46:03	Twilight	49.000	50	13Alp Ari	2.0070	4250.0	98	22515	No
10	GOM_NL__2PRFIN20060621_010249_000000642048_00417_22515_9303.N1	21-JUN-2006 01:02:49	Dark	63.500	52	16Bet Cet	2.0370	4500.0	127	22515	No
11	GOM_NL__2PRFIN20060621_010840_000000582048_00417_22515_9304.N1	21-JUN-2006 01:08:40	Dark	57.500	84	Alp Phe	2.3970	4500.0	115	22515	No
12	GOM_NL__2PRFIN20060621_011504_000000542048_00418_22516_9288.N1	21-JUN-2006 01:15:04	Dark	53.500	63	Bet Gru	2.1500	2800.0	107	22516	No
13	GOM_NL__2PRFIN20060621_011707_000000482048_00418_22516_9289.N1	21-JUN-2006 01:17:07	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	22516	No
14	GOM_NL__2PRFIN20060621_012029_000000422048_00418_22516_9290.N1	21-JUN-2006 01:20:29	Straylight	41.500	45	Alp Pav	1.9400	26000.	83	22516	No
15	GOM_NL__2PRFIN20060621_012952_000000482048_00418_22516_9291.N1	21-JUN-2006 01:29:52	Twilight	47.500	38	20Eps Sgr	1.8360	11000.	95	22516	No
16	GOM_NL__2PRFIN20060621_013118_000000462048_00418_22516_9292.N1	21-JUN-2006 01:31:18	Twilight	45.500	116	19Del Sgr	2.7000	4100.0	91	22516	No
17	GOM_NL__2PRFIN20060621_013235_000000462048_00418_22516_9293.N1	21-JUN-2006 01:32:35	Bright	46.000	137	22Lam Sgr	2.8240	4400.0	92	22516	No
18	GOM_NL__2PRFIN20060621_014234_000000402048_00418_22516_9294.N1	21-JUN-2006 01:42:34	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22516	No
19	GOM_NL__2PRFIN20060621_014501_000000402048_00418_22516_9295.N1	21-JUN-2006 01:45:01	Bright	40.000	59	55Alp Oph	2.0800	8900.0	80	22516	No
20	GOM_NL__2PRFIN20060621_015643_000000362048_00418_22516_9296.N1	21-JUN-2006 01:56:43	Bright	35.500	130	23Bet Dra	2.7990	5800.0	71	22516	No
21	GOM_NL__2PRFIN20060621_020644_000000462048_00418_22516_9297.N1	21-JUN-2006 02:06:44	Bright	46.000	89	5Alp Cep	2.4510	8000.0	92	22516	No
22	GOM_NL__2PRFIN20060621_021333_000000462048_00418_22516_9298.N1	21-JUN-2006 02:13:33	Bright	45.500	74	11Bet Cas	2.2680	6600.0	91	22516	No
23	GOM_NL__2PRFIN20060621_021502_000000422048_00418_22516_9299.N1	21-JUN-2006 02:15:02	Bright	42.000	68	18Alp Cas	2.2250	4500.0	84	22516	No
24	GOM_NL__2PRFIN20060621_022032_000000432048_00418_22516_9300.N1	21-JUN-2006 02:20:32	Bright	42.500	73	57Gam1And	2.2600	13100.	85	22516	No
25	GOM_NL__2PRFIN20060621_022256_000000492048_00418_22516_9301.N1	21-JUN-2006 02:22:56	Twilight	49.000	53	43Bet And	2.0480	3300.0	98	22516	No
26	GOM_NL__2PRFIN20060621_022639_000000522048_00418_22516_9302.N1	21-JUN-2006 02:26:39	Twilight	52.000	50	13Alp Ari	2.0070	4250.0	104	22516	No
27	GOM_NL__2PRFIN20060621_024326_000000592048_00418_22516_9303.N1	21-JUN-2006 02:43:26	Dark	58.500	52	16Bet Cet	2.0370	4500.0	117	22516	No
28	GOM_NL__2PRFIN20060621_024917_000000512048_00418_22516_9304.N1	21-JUN-2006 02:49:17	Dark	50.500	84	Alp Phe	2.3970	4500.0	101	22516	No
29	GOM_NL__2PRFIN20060621_025541_000000522048_00419_22517_9288.N1	21-JUN-2006 02:55:41	Dark	51.500	63	Bet Gru	2.1500	2800.0	103	22517	No
30	GOM_NL__2PRFIN20060621_025744_000000492048_00419_22517_9289.N1	21-JUN-2006 02:57:44	Straylight	48.500	31	Alp Gru	1.7340	15200.	97	22517	No
31	GOM_NL__2PRFIN20060621_030106_000000422048_00419_22517_9290.N1	21-JUN-2006 03:01:06	Straylight	41.500	45	Alp Pav	1.9400	26000.	83	22517	No
32	GOM_NL__2PRFIN20060621_031028_000000442048_00419_22517_9291.N1	21-JUN-2006 03:10:28	Twilight	43.500	38	20Eps Sgr	1.8360	11000.	87	22517	No
33	GOM_NL__2PRFIN20060621_031154_000000462048_00419_22517_9292.N1	21-JUN-2006 03:11:54	Twilight	46.000	116	19Del Sgr	2.7000	4100.0	92	22517	No
34	GOM_NL__2PRFIN20060621_031311_000000462048_00419_22517_9293.N1	21-JUN-2006 03:13:11	Bright	45.500	137	22Lam Sgr	2.8240	4400.0	91	22517	No
35	GOM_NL__2PRFIN20060621_032310_000000402048_00419_22517_9294.N1	21-JUN-2006 03:23:10	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22517	No
36	GOM_NL__2PRFIN20060621_032536_000000402048_00419_22517_9295.N1	21-JUN-2006 03:25:36	Bright	40.000	59	55Alp Oph	2.0800	8900.0	80	22517	No
37	GOM_NL__2PRFIN20060621_033719_000000382048_00419_22517_9296.N1	21-JUN-2006 03:37:19	Bright	38.000	130	23Bet Dra	2.7990	5800.0	76	22517	No
38	GOM_NL__2PRFIN20060621_034719_000000462048_00419_22517_9297.N1	21-JUN-2006 03:47:19	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	22517	No
39	GOM_NL__2PRFIN20060621_035408_000000442048_00419_22517_9298.N1	21-JUN-2006 03:54:08	Bright	43.500	74	11Bet Cas	2.2680	6600.0	87	22517	No
40	GOM_NL__2PRFIN20060621_035538_000000432048_00419_22517_9299.N1	21-JUN-2006 03:55:38	Bright	42.500	68	18Alp Cas	2.2250	4500.0	85	22517	No
41	GOM_NL__2PRFIN20060621_040108_000000422048_00419_22517_9300.N1	21-JUN-2006 04:01:08	Bright	42.000	73	57Gam1And	2.2600	13100.	84	22517	No
42	GOM_NL__2PRFIN20060621_040332_000000492048_00419_22517_9301.N1	21-JUN-2006 04:03:32	Twilight	49.000	53	43Bet And	2.0480	3300.0	98	22517	No







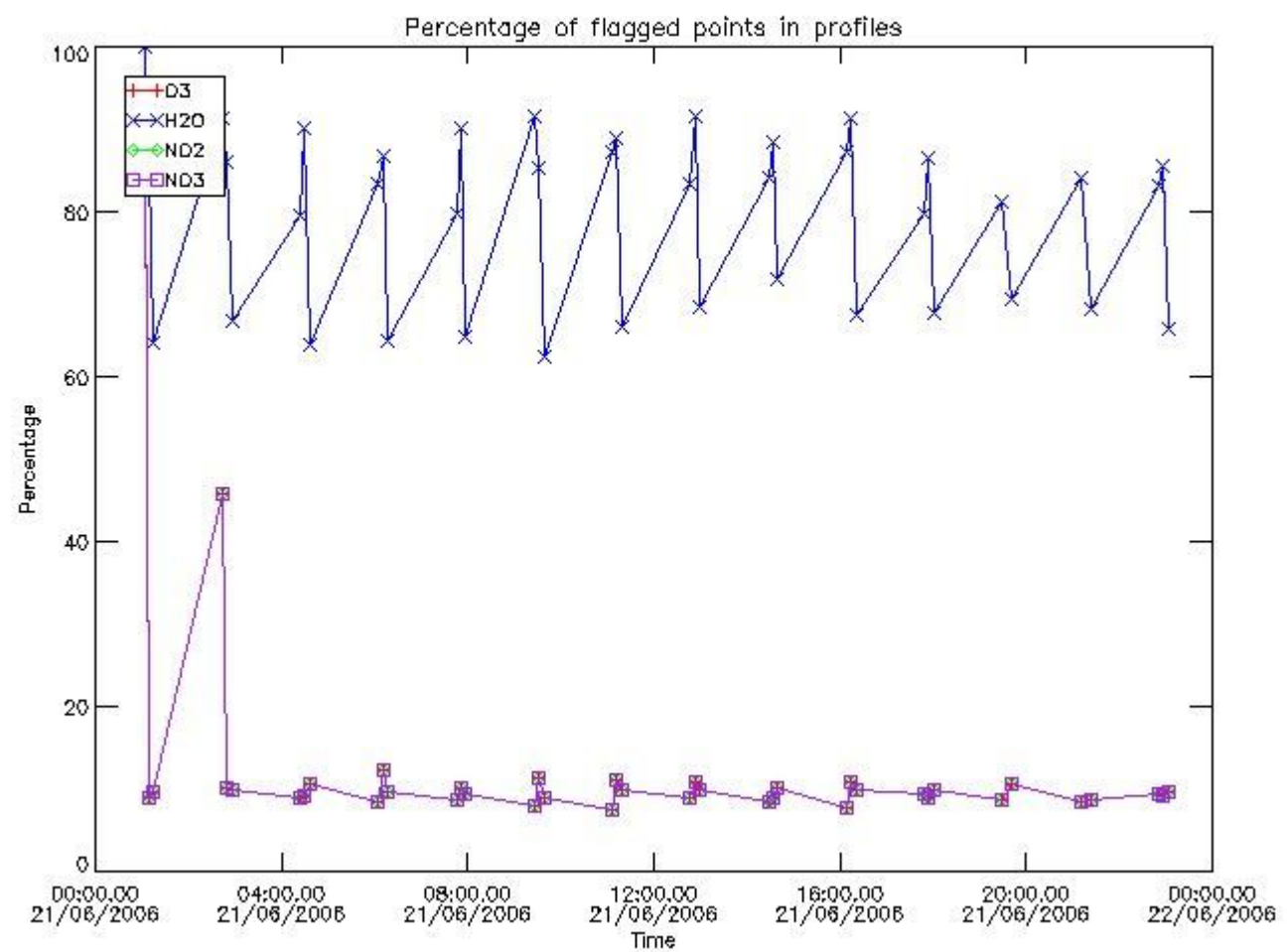


220	GOM_NL__2PRFIN20060621_212747_000000422048_00430_22528_9311.N1	21-JUN-2006 21:27:47	Straylight	41.500	45	Alp Pav	1.9400	26000.	83	22528	No
221	GOM_NL__2PRFIN20060621_213707_000000432048_00430_22528_9312.N1	21-JUN-2006 21:37:07	Twilight	43.000	38	20Eps Sgr	1.8360	11000.	86	22528	No
222	GOM_NL__2PRFIN20060621_213833_000000482048_00430_22528_9313.N1	21-JUN-2006 21:38:33	Twilight	48.000	116	19Del Sgr	2.7000	4100.0	96	22528	No
223	GOM_NL__2PRFIN20060621_214044_000000372048_00430_22528_9314.N1	21-JUN-2006 21:40:44	Bright	37.000	155	41Pi Sgr	2.9000	6600.0	74	22528	No
224	GOM_NL__2PRFIN20060621_214944_000000402048_00430_22528_9315.N1	21-JUN-2006 21:49:44	Bright	40.000	126	60Bet Oph	2.7700	4250.0	80	22528	No
225	GOM_NL__2PRFIN20060621_215209_000000402048_00430_22528_9316.N1	21-JUN-2006 21:52:09	Bright	39.500	59	55Alp Oph	2.0800	8900.0	79	22528	No
226	GOM_NL__2PRFIN20060621_220204_000000472048_00430_22528_9317.N1	21-JUN-2006 22:02:04	Bright	47.000	5	3Alp Lyr	0.033000	11000.	94	22528	No
227	GOM_NL__2PRFIN20060621_220351_000000402048_00430_22528_9318.N1	21-JUN-2006 22:03:51	Bright	39.500	130	23Bet Dra	2.7990	5800.0	79	22528	No
228	GOM_NL__2PRFIN20060621_221347_000000472048_00430_22528_9319.N1	21-JUN-2006 22:13:47	Bright	46.500	89	5Alp Cep	2.4510	8000.0	93	22528	No
229	GOM_NL__2PRFIN20060621_222040_000000432048_00430_22528_9320.N1	21-JUN-2006 22:20:40	Bright	42.500	74	11Bet Cas	2.2680	6600.0	85	22528	No
230	GOM_NL__2PRFIN20060621_222210_000000462048_00430_22528_9321.N1	21-JUN-2006 22:22:10	Bright	45.500	68	18Alp Cas	2.2250	4500.0	91	22528	No
231	GOM_NL__2PRFIN20060621_222743_000000442048_00430_22528_9322.N1	21-JUN-2006 22:27:43	Bright	43.500	73	57Gam1And	2.2600	13100.	87	22528	No
232	GOM_NL__2PRFIN20060621_223006_000000442048_00430_22528_9323.N1	21-JUN-2006 22:30:06	Twilight	43.500	173	4Bet Tri	3.0040	8900.0	87	22528	No
233	GOM_NL__2PRFIN20060621_223353_000000502048_00430_22528_9324.N1	21-JUN-2006 22:33:53	Twilight	50.000	50	13Alp Ari	2.0070	4250.0	100	22528	No
234	GOM_NL__2PRFIN20060621_225053_000000542048_00430_22528_9325.N1	21-JUN-2006 22:50:53	Dark	54.000	52	16Bet Cet	2.0370	4500.0	108	22528	No
235	GOM_NL__2PRFIN20060621_225639_000000562048_00430_22528_9326.N1	21-JUN-2006 22:56:39	Dark	55.500	84	Alp Phe	2.3970	4500.0	111	22528	No
236	GOM_NL__2PRFIN20060621_230304_000000532048_00431_22529_9309.N1	21-JUN-2006 23:03:04	Dark	53.000	63	Bet Gru	2.1500	2800.0	106	22529	No
237	GOM_NL__2PRFIN20060621_230507_000000482048_00431_22529_9310.N1	21-JUN-2006 23:05:07	Straylight	48.000	31	Alp Gru	1.7340	15200.	96	22529	No
238	GOM_NL__2PRFIN20060621_230824_000000432048_00431_22529_9311.N1	21-JUN-2006 23:08:24	Straylight	43.000	45	Alp Pav	1.9400	26000.	86	22529	No
239	GOM_NL__2PRFIN20060621_231743_000000462048_00431_22529_9312.N1	21-JUN-2006 23:17:43	Twilight	46.000	38	20Eps Sgr	1.8360	11000.	92	22529	No
240	GOM_NL__2PRFIN20060621_231909_000000482048_00431_22529_9313.N1	21-JUN-2006 23:19:09	Twilight	48.000	116	19Del Sgr	2.7000	4100.0	96	22529	No
241	GOM_NL__2PRFIN20060621_232120_000000372048_00431_22529_9314.N1	21-JUN-2006 23:21:20	Bright	37.000	155	41Pi Sgr	2.9000	6600.0	74	22529	No
242	GOM_NL__2PRFIN20060621_233020_000000402048_00431_22529_9315.N1	21-JUN-2006 23:30:20	Bright	39.500	126	60Bet Oph	2.7700	4250.0	79	22529	No
243	GOM_NL__2PRFIN20060621_233245_000000392048_00431_22529_9316.N1	21-JUN-2006 23:32:45	Bright	39.000	59	55Alp Oph	2.0800	8900.0	78	22529	No
244	GOM_NL__2PRFIN20060621_234239_000000432048_00431_22529_9317.N1	21-JUN-2006 23:42:39	Bright	43.000	5	3Alp Lyr	0.033000	11000.	86	22529	No
245	GOM_NL__2PRFIN20060621_234427_000000382048_00431_22529_9318.N1	21-JUN-2006 23:44:27	Bright	37.500	130	23Bet Dra	2.7990	5800.0	75	22529	No
246	GOM_NL__2PRFIN20060621_235422_000000442048_00431_22529_9319.N1	21-JUN-2006 23:54:22	Bright	43.500	89	5Alp Cep	2.4510	8000.0	87	22529	No

### 3. Quality information per product

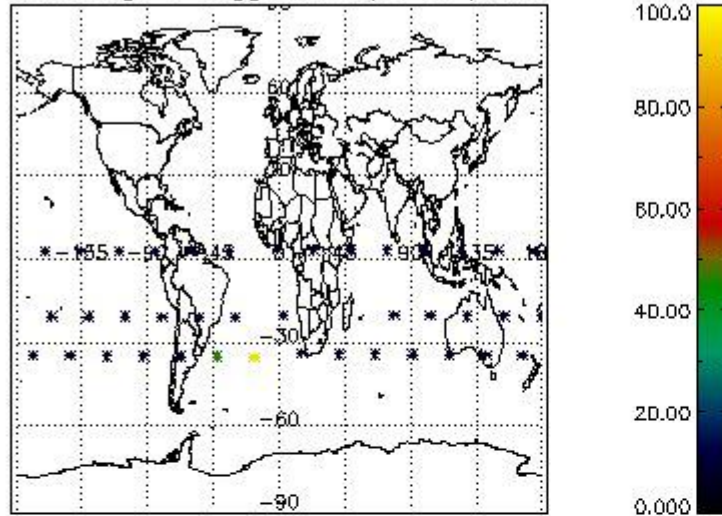
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

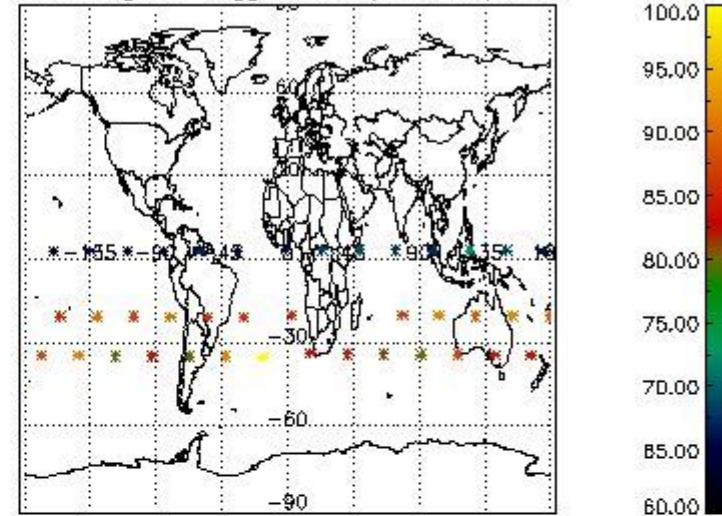


*3.2 Plot quality information per product (world map)*

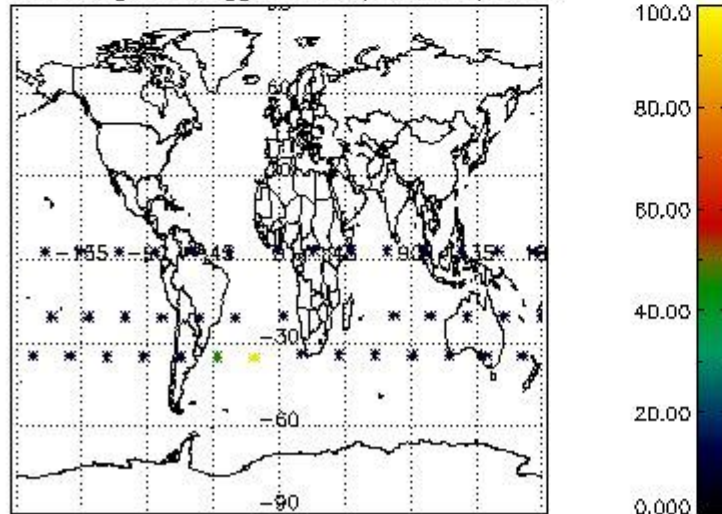
Percentage of flagged data per O3 profile



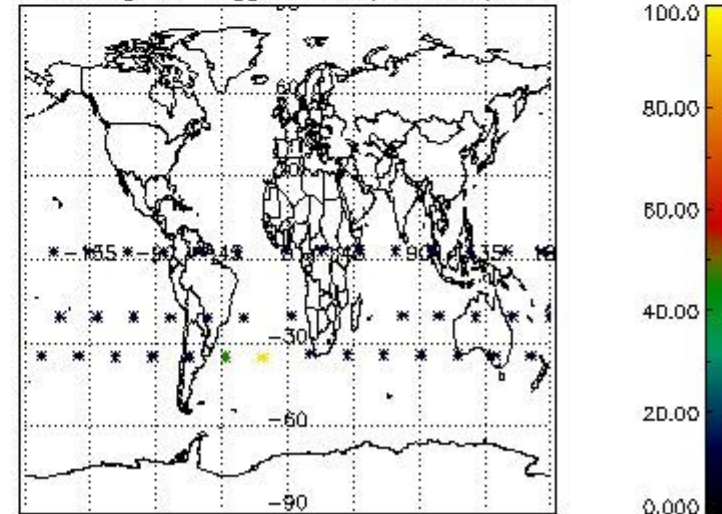
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

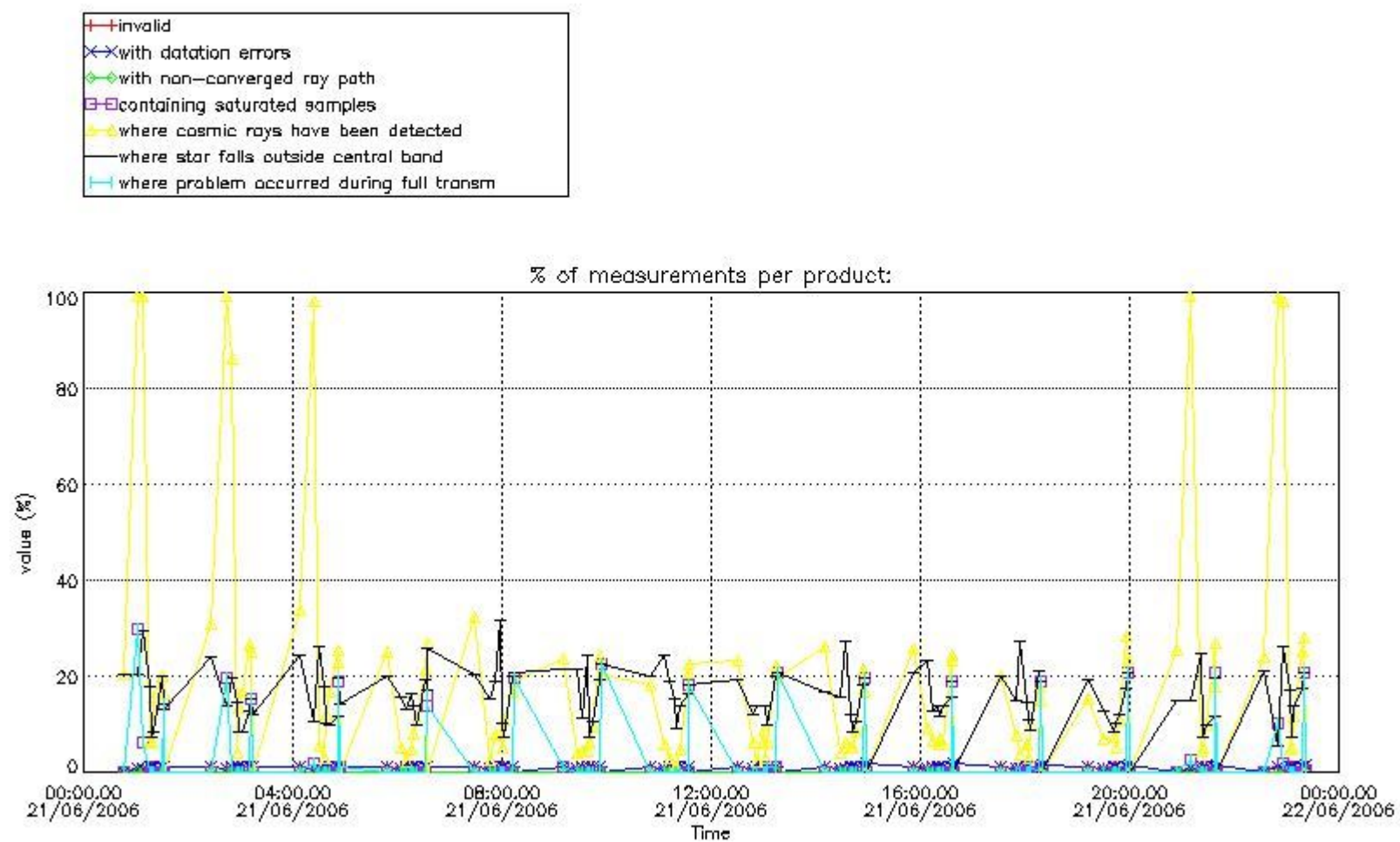


#### 4. Level 1 quality information per product

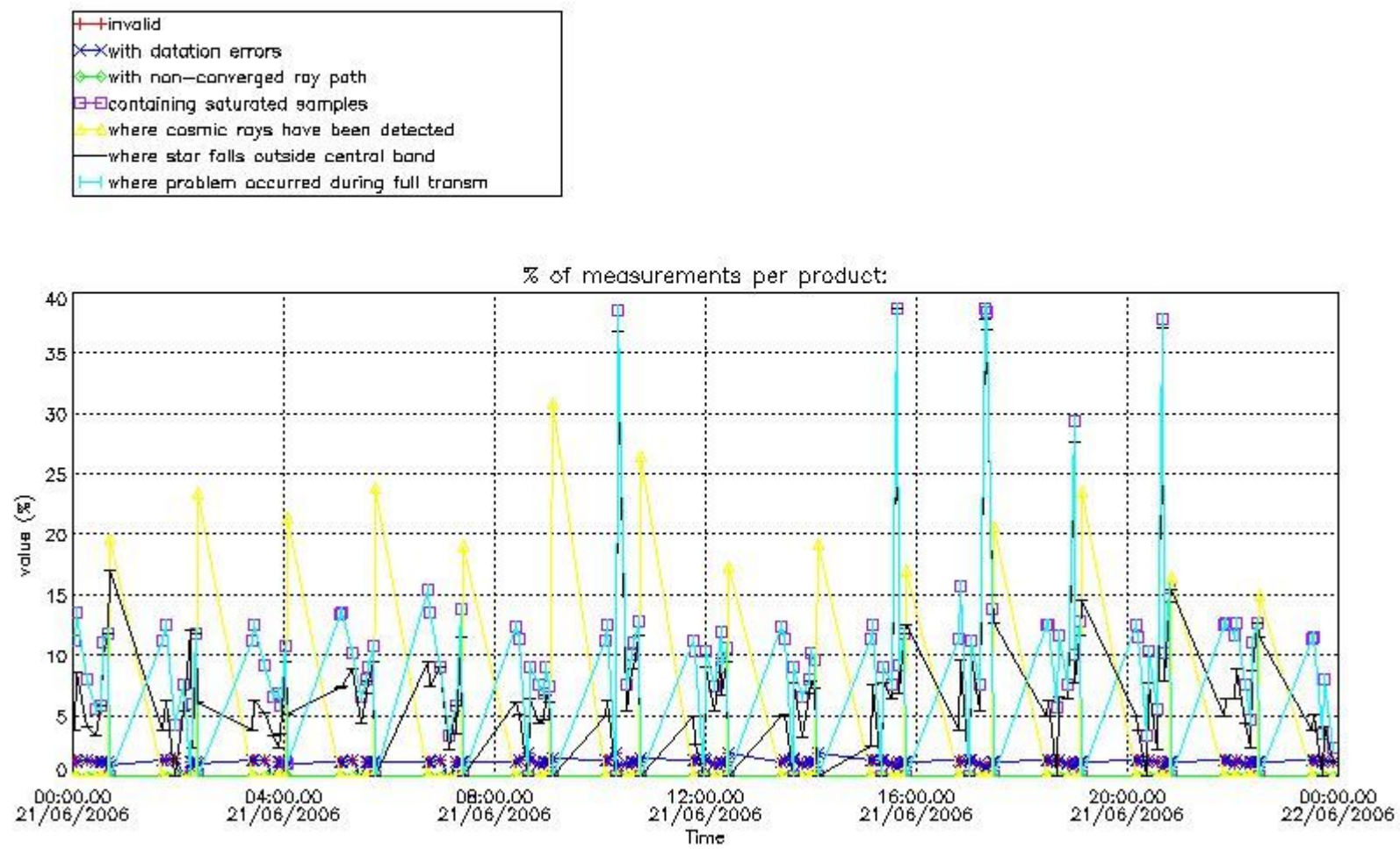
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

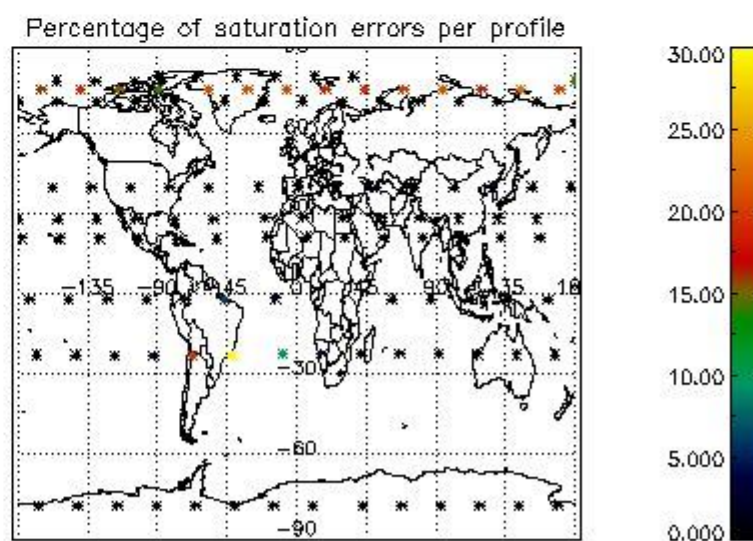
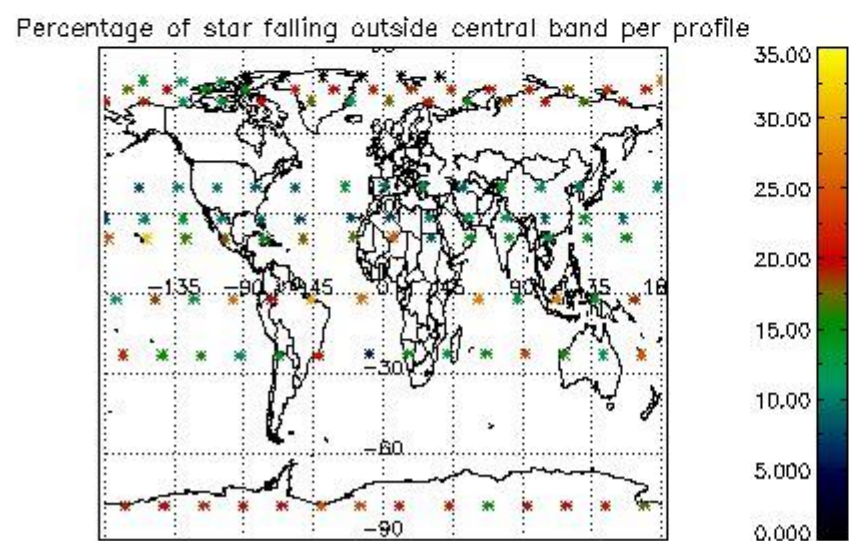
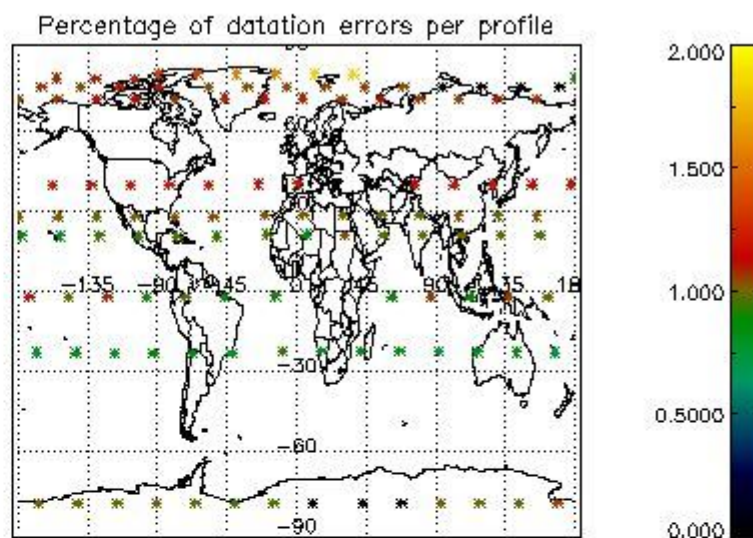
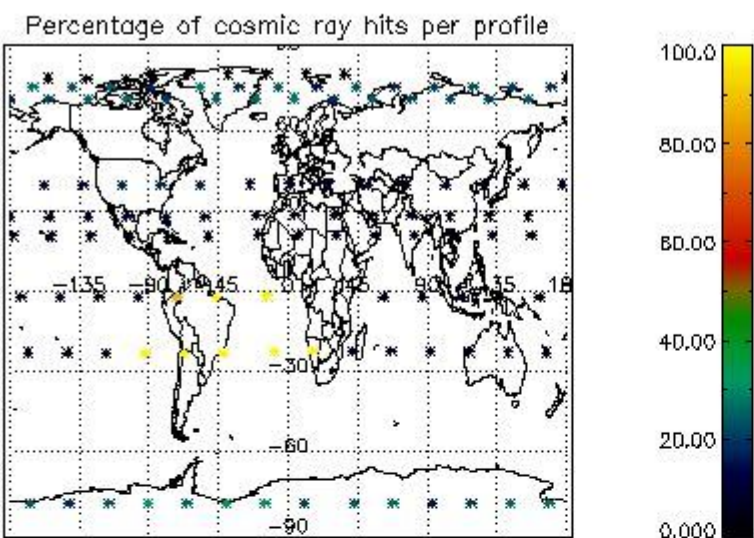


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

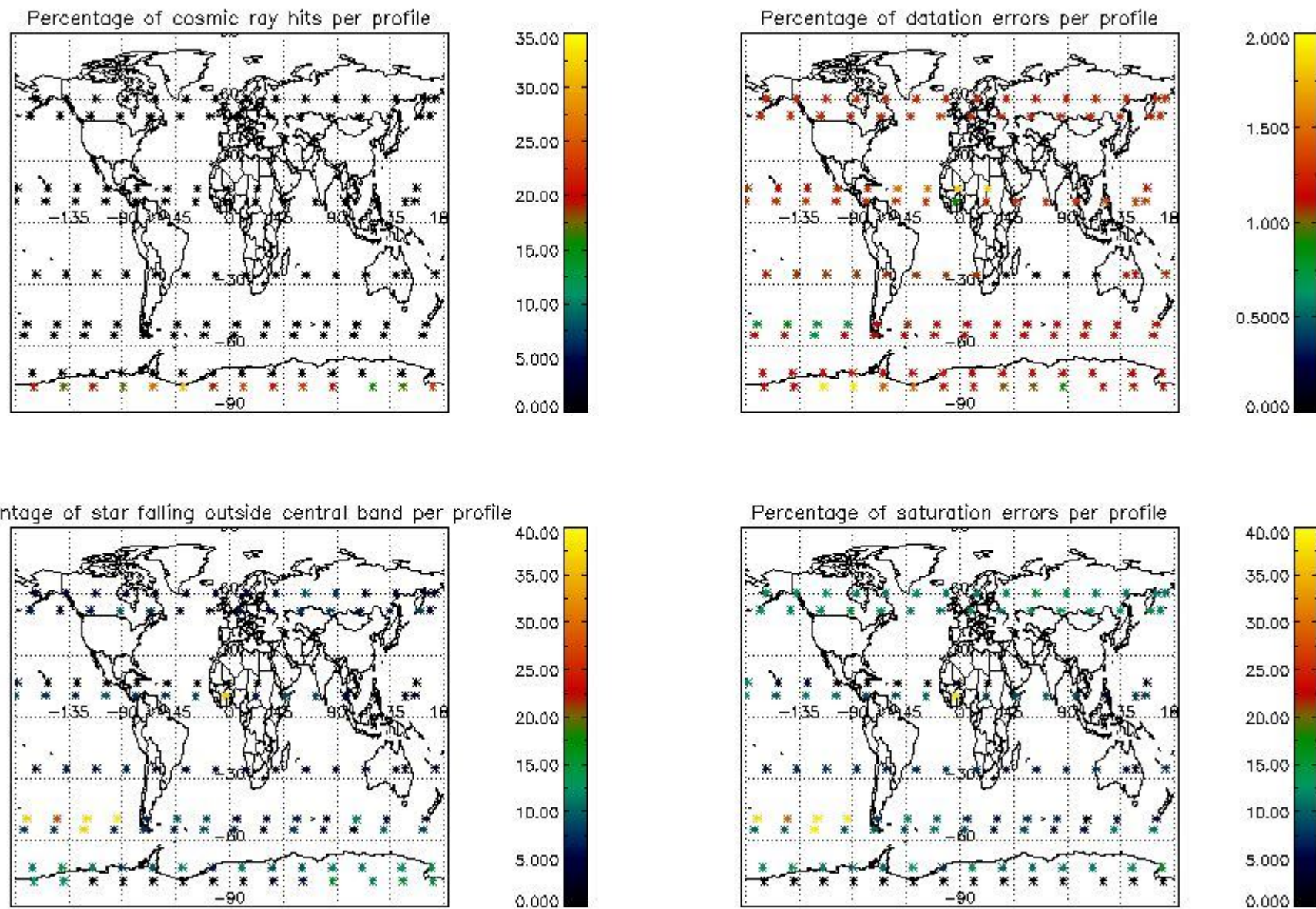


*4.2 Plot quality information per product coming from level 1b processing (world map)*

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



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

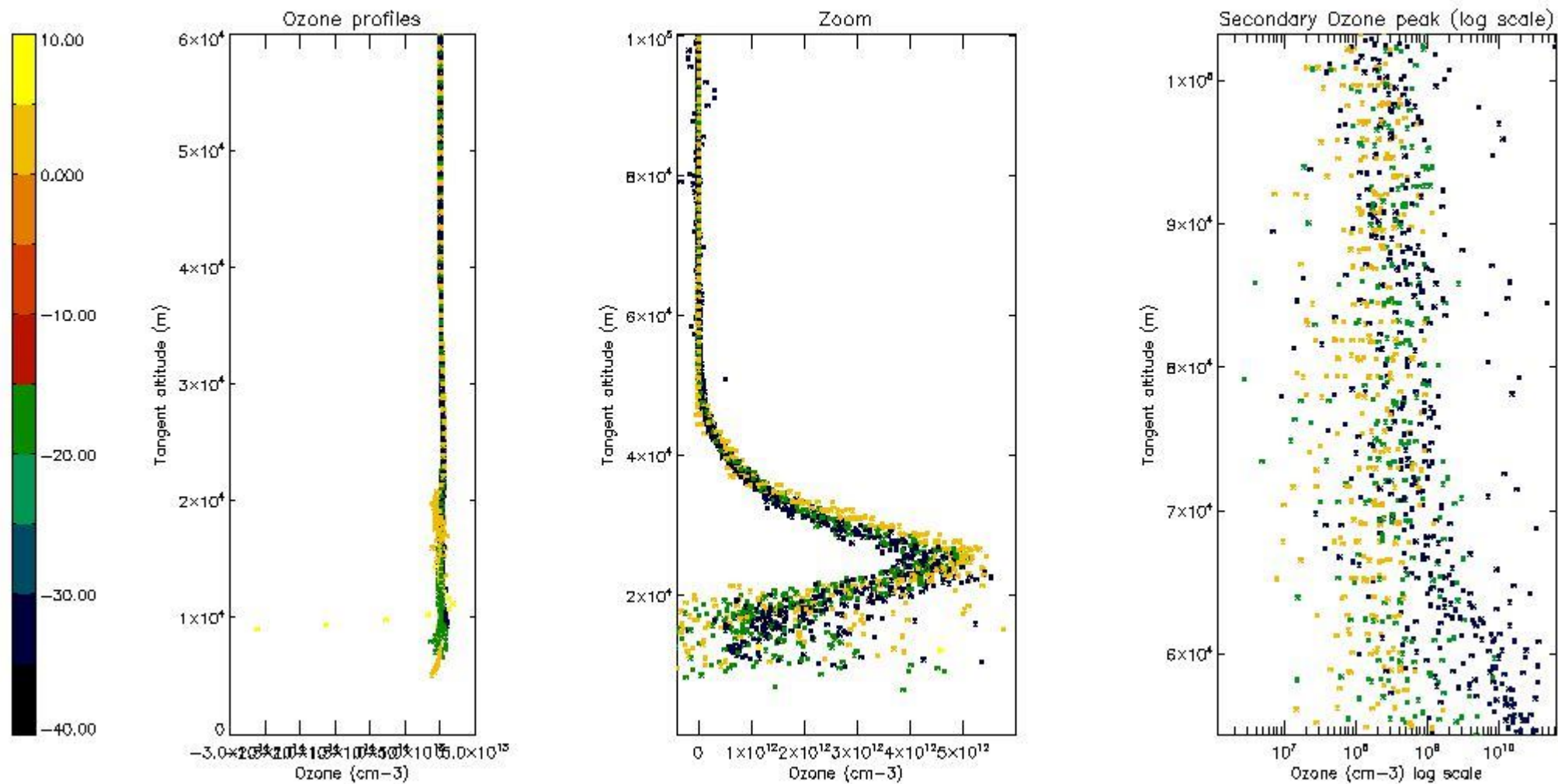
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	20
STD < 20	6

STD < 10	3
STD < 5	1

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

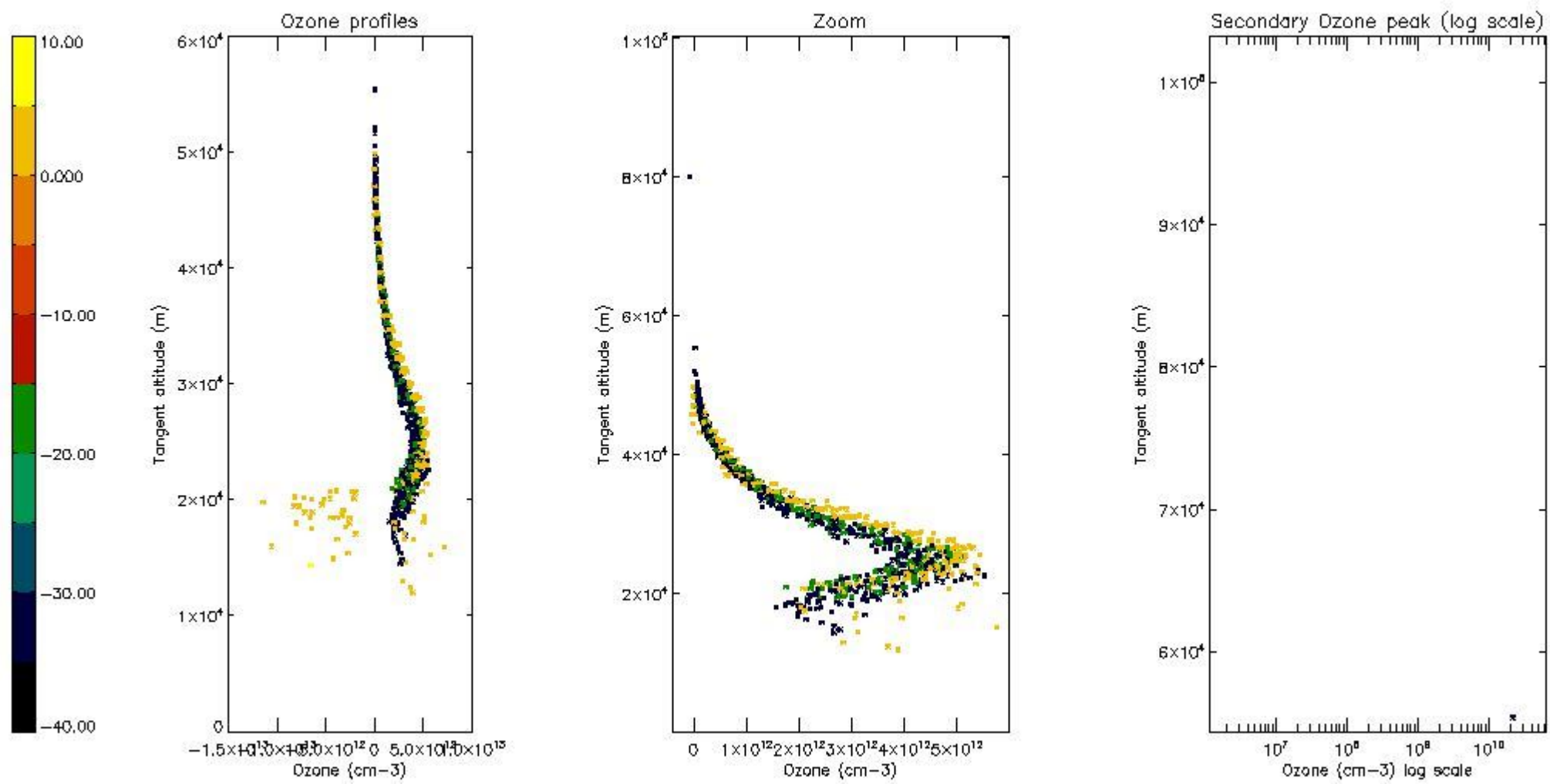
The colorbar represents the latitude.



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

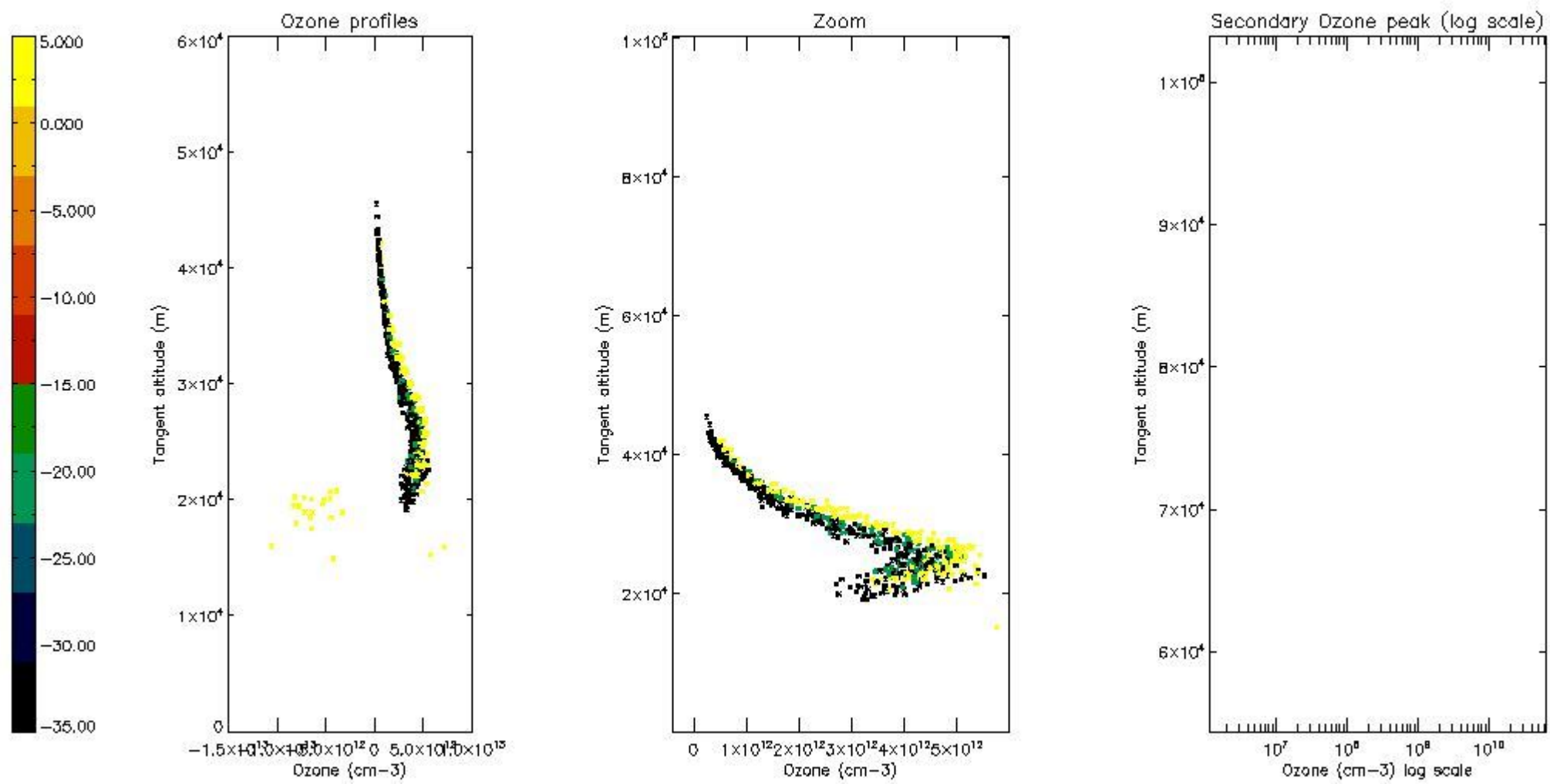
The colorbar represents the latitude.





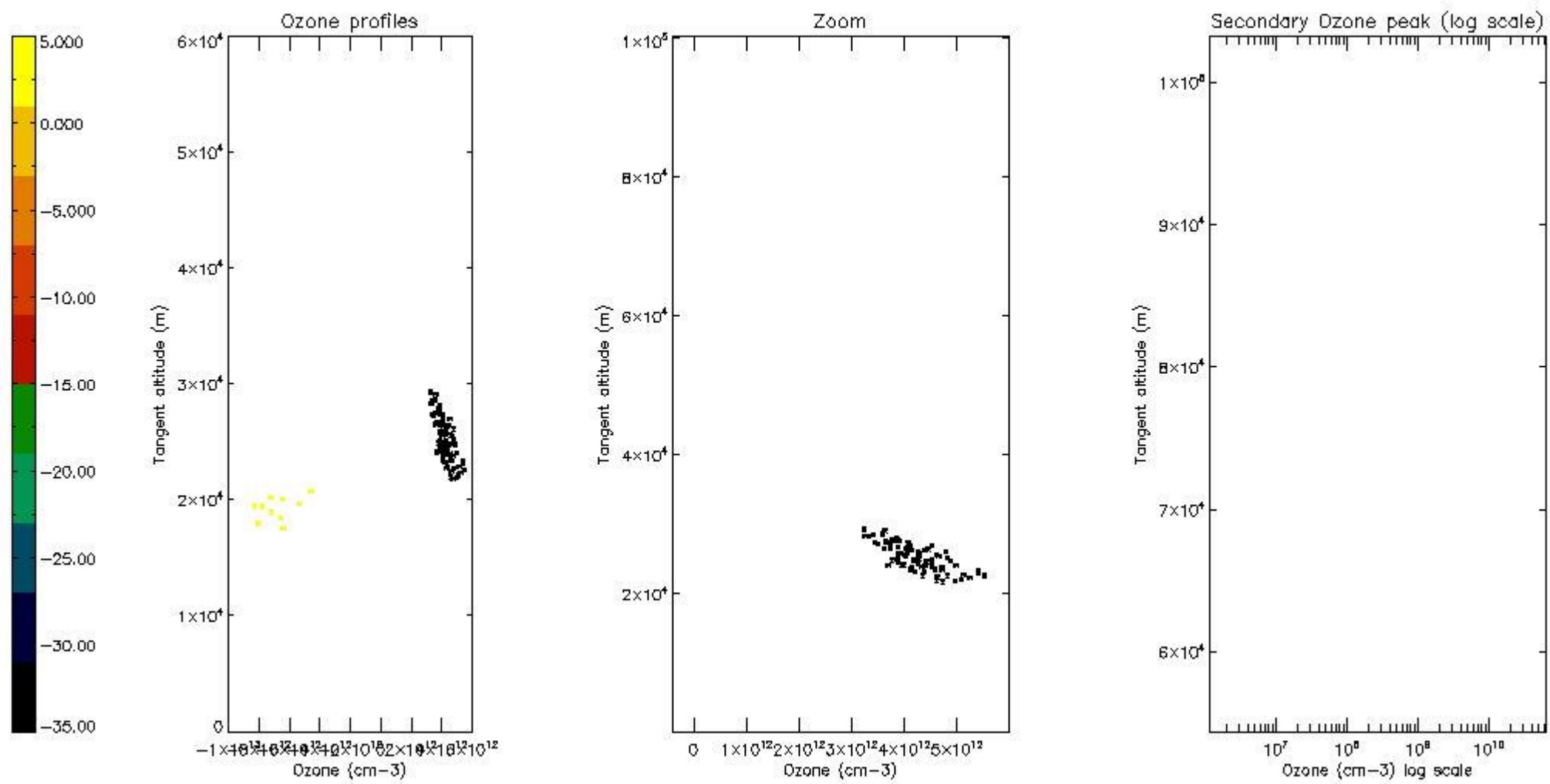
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



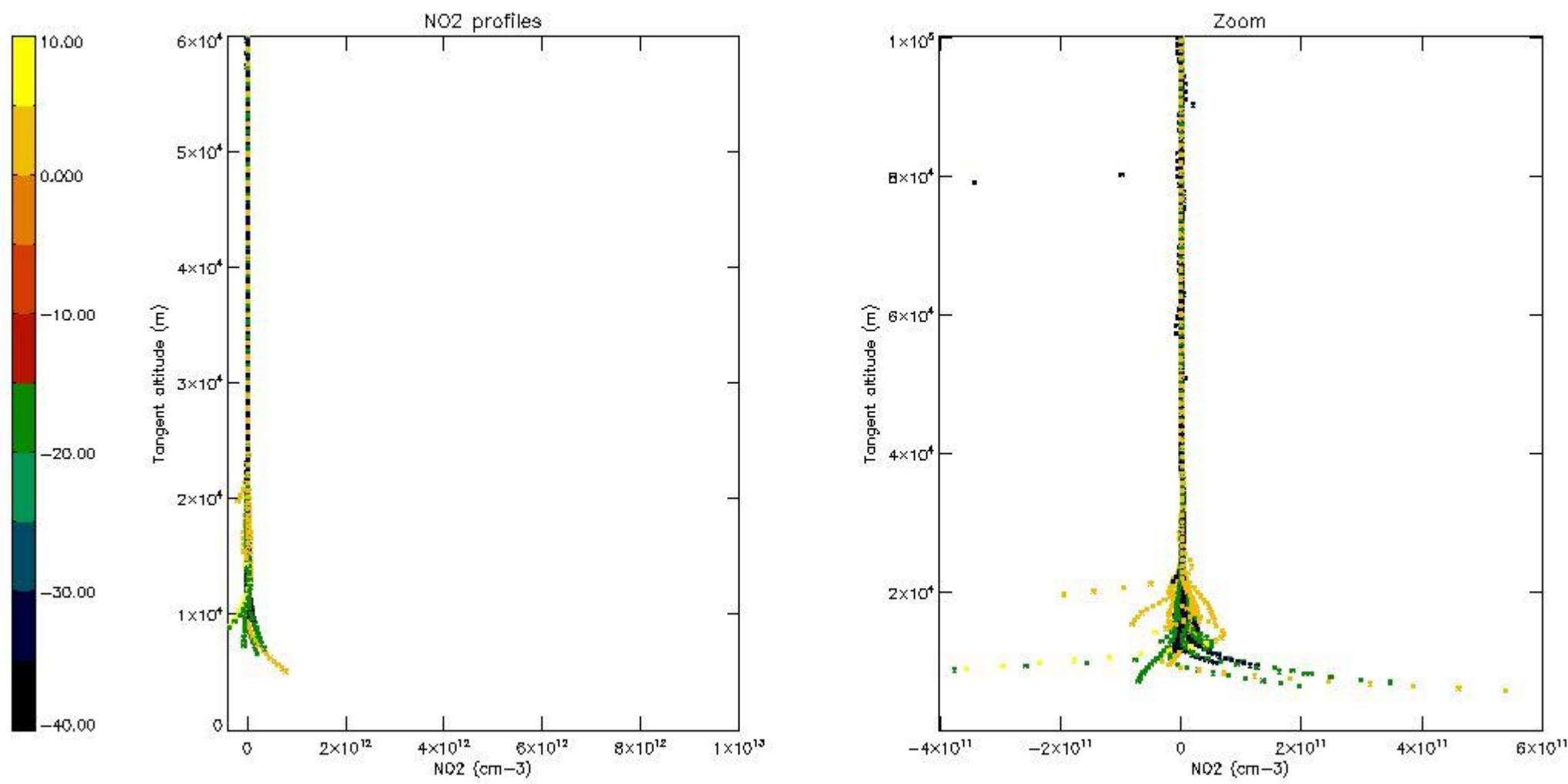
*5.5 Plot ozone profiles where  $STD < 5\%$  (dark without errors)*

The colorbar represents the latitude.



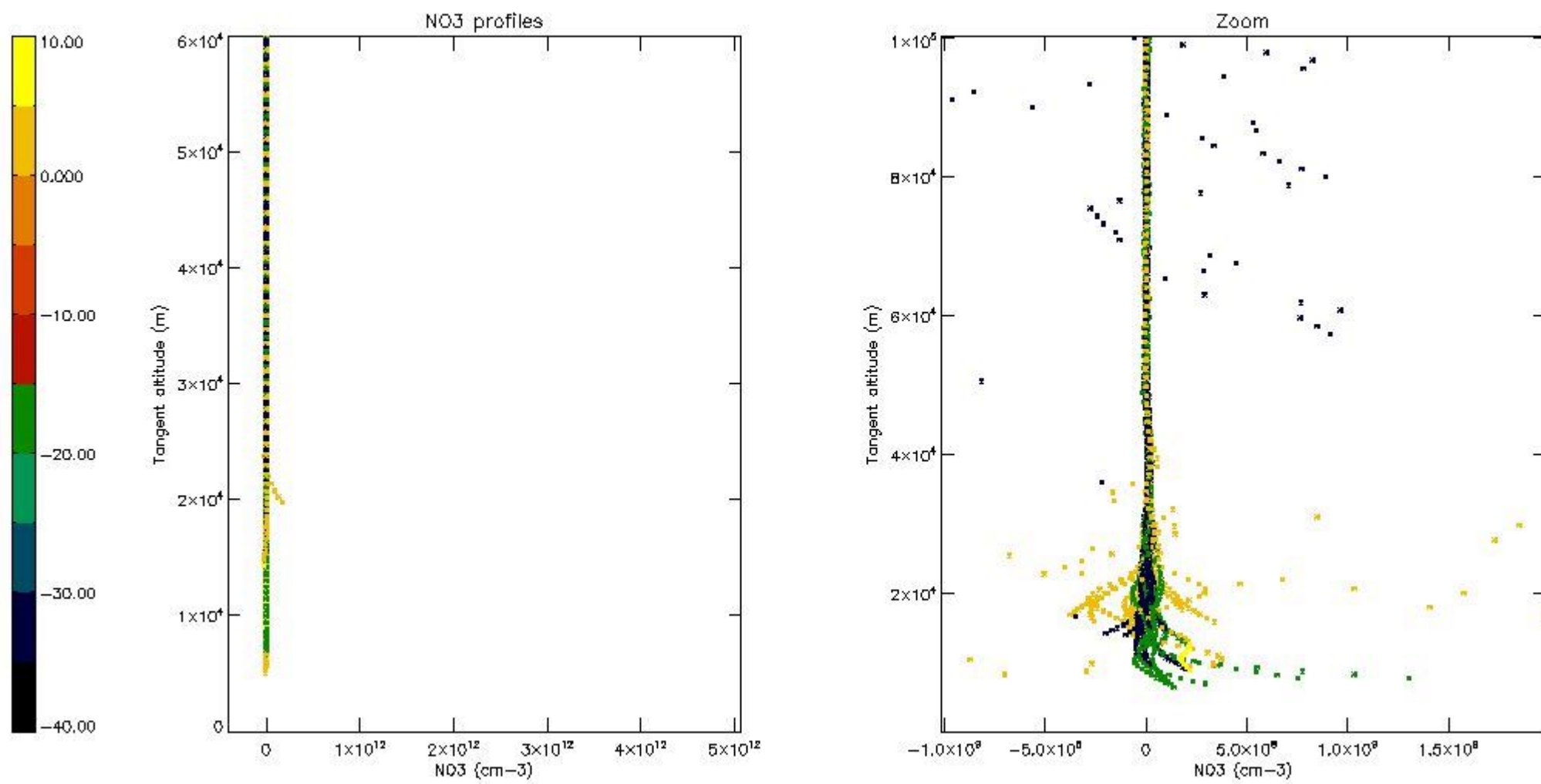
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



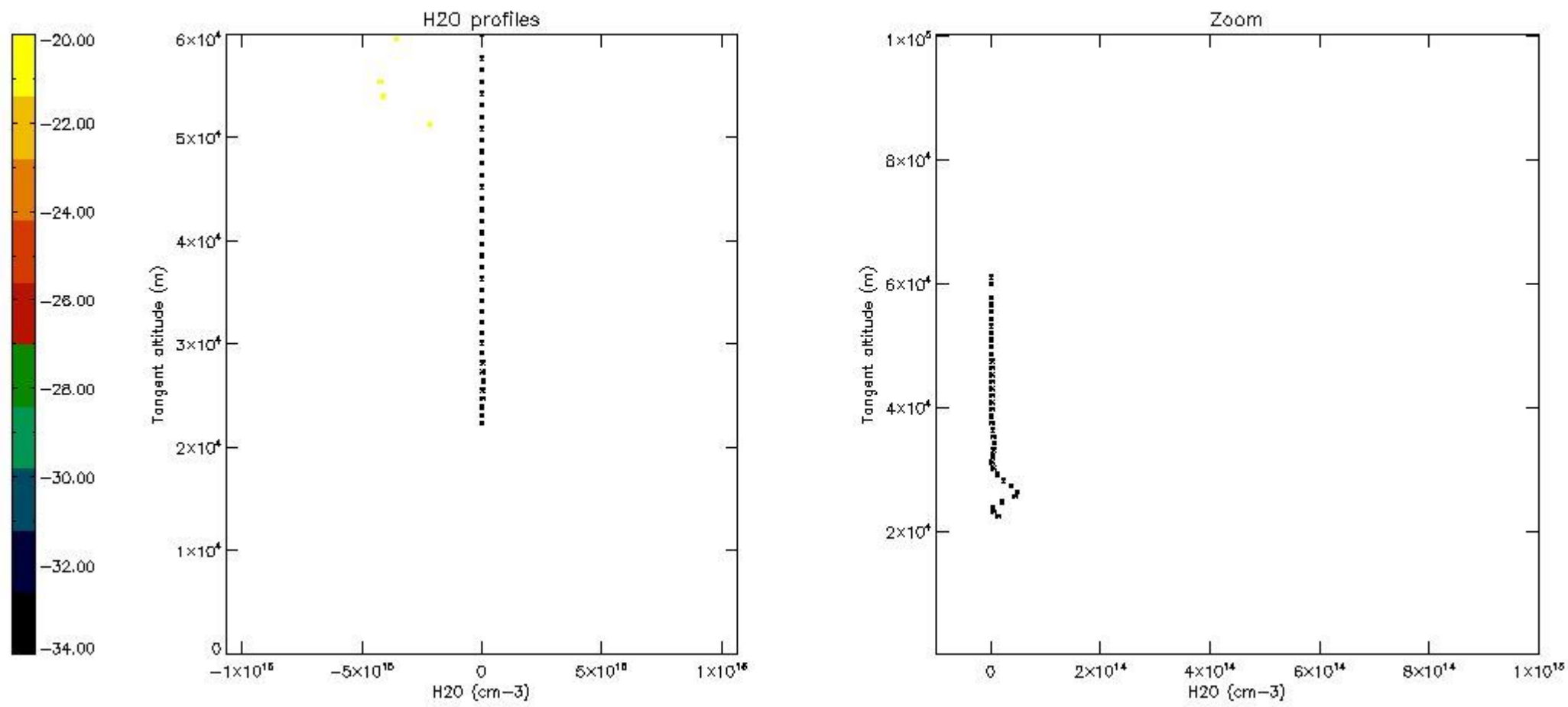
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

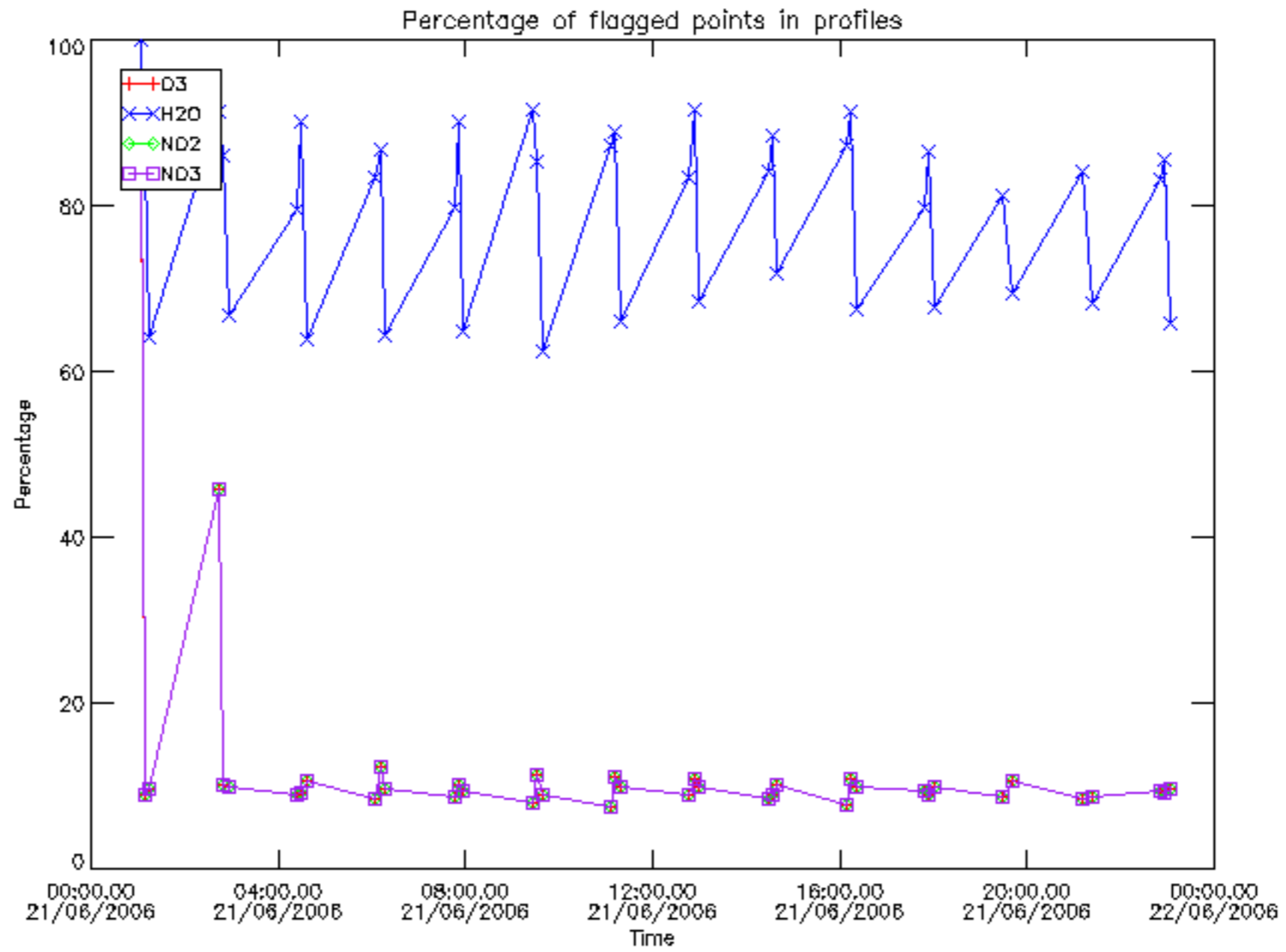
The colorbar represents the latitude.



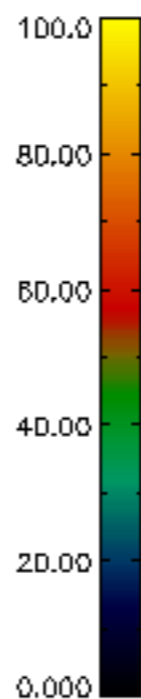
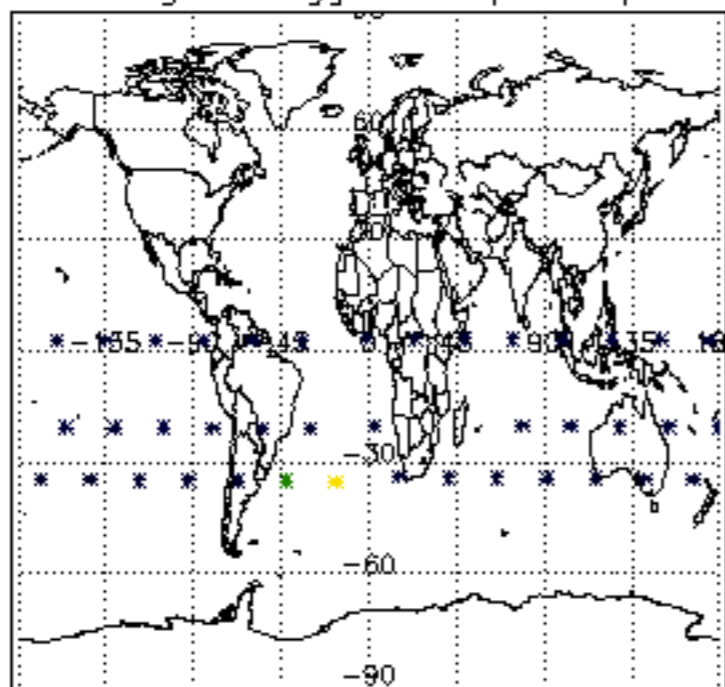
## 6. Auxiliary Data Files used for the production reported in section 2

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

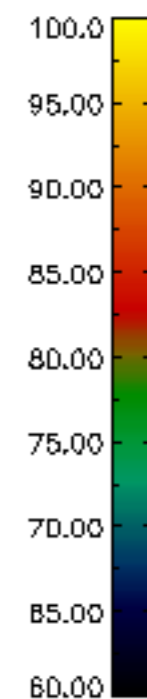
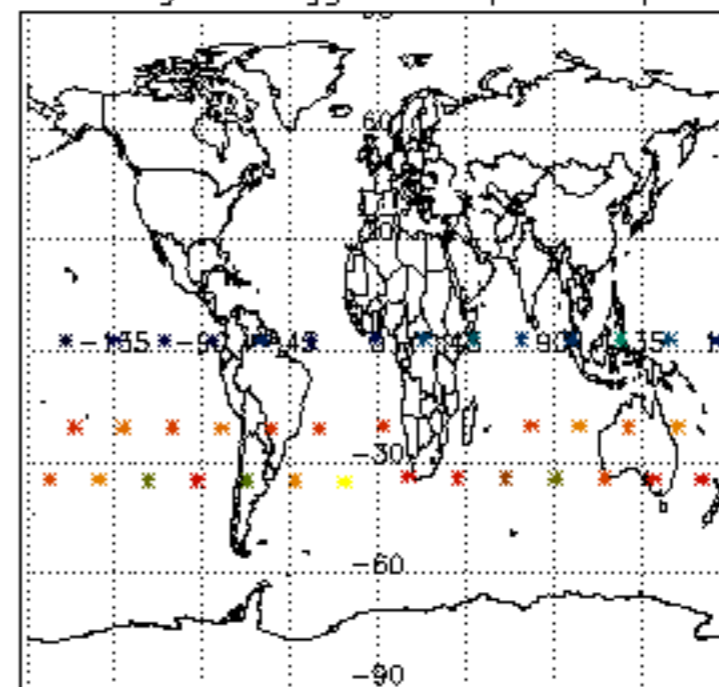
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	21-JUN-2006 00:01:59
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-JUN-2006 00:01:59
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-JUN-2006 00:01:59



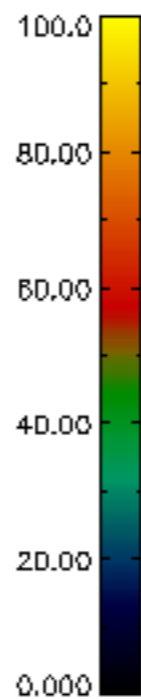
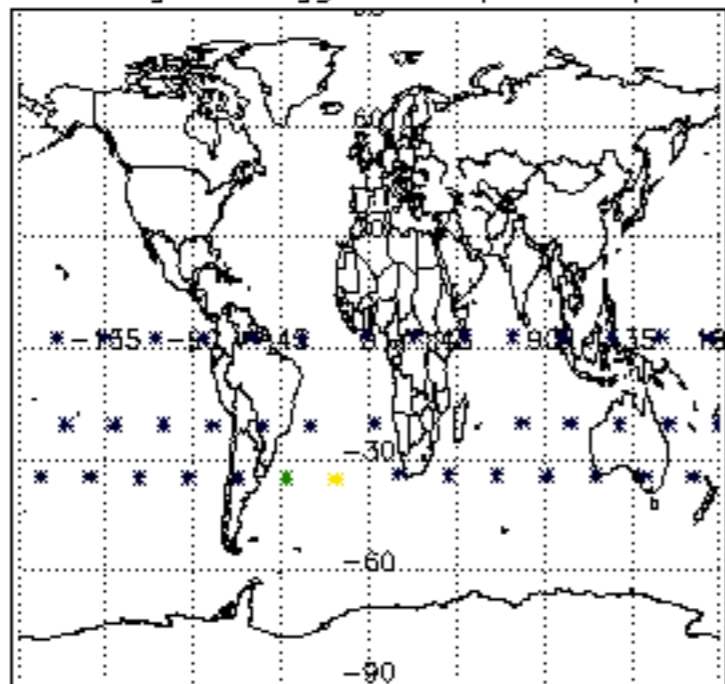
Percentage of flagged data per D3 profile



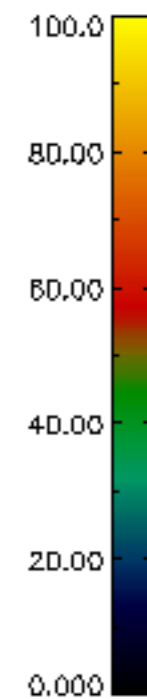
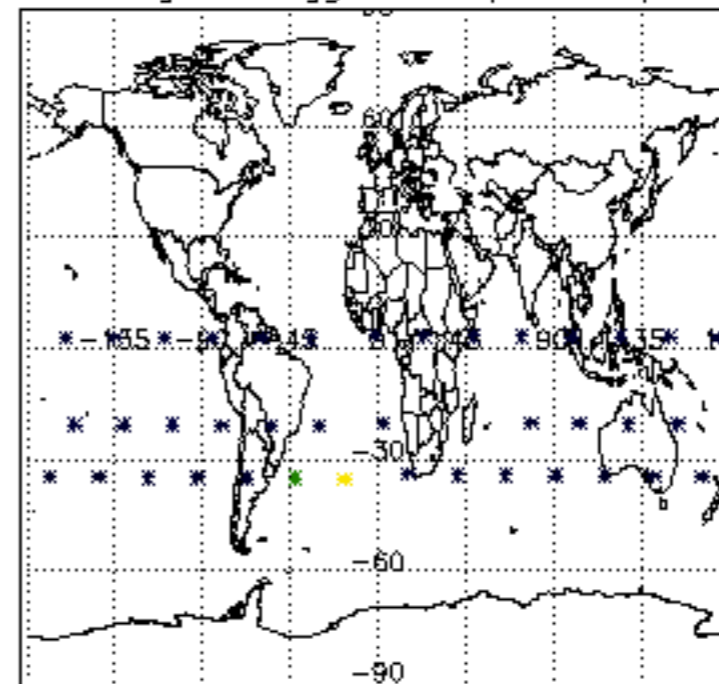
Percentage of flagged data per H2O profile



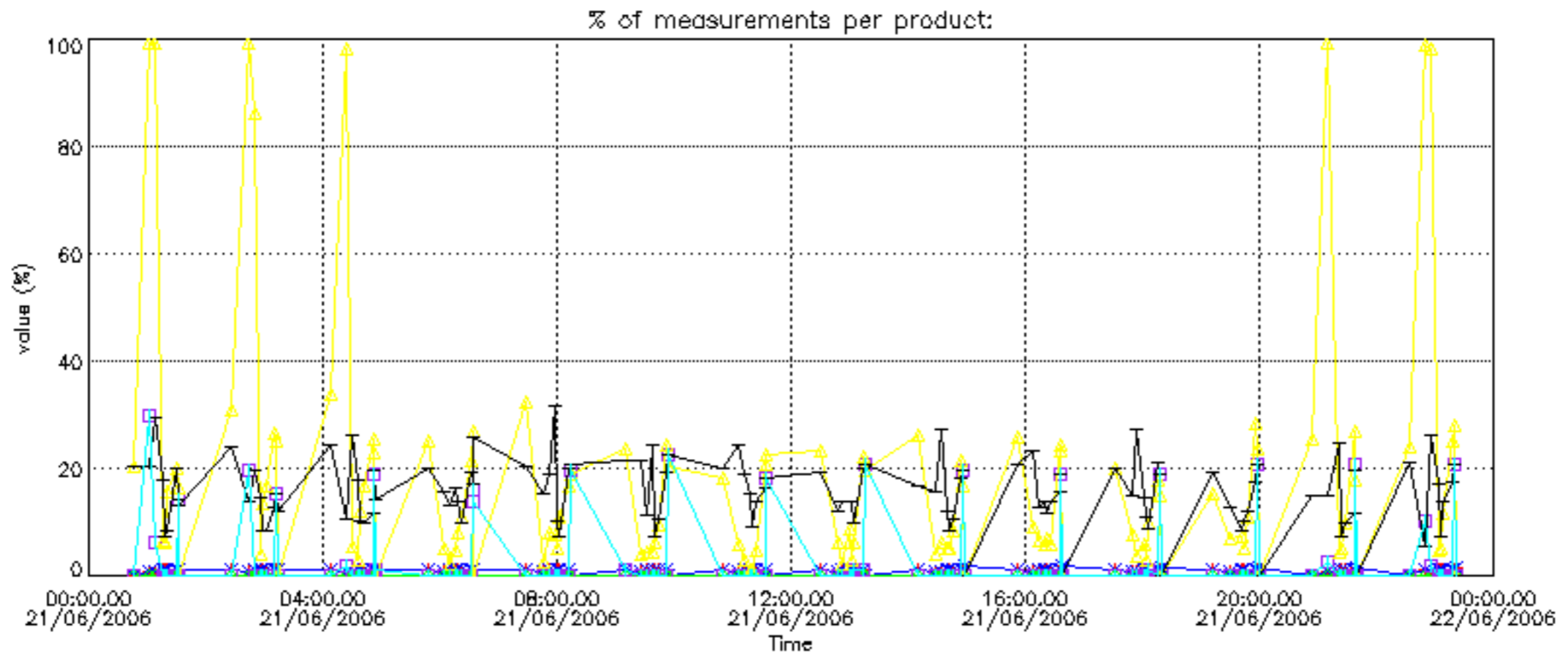
Percentage of flagged data per NO2 profile

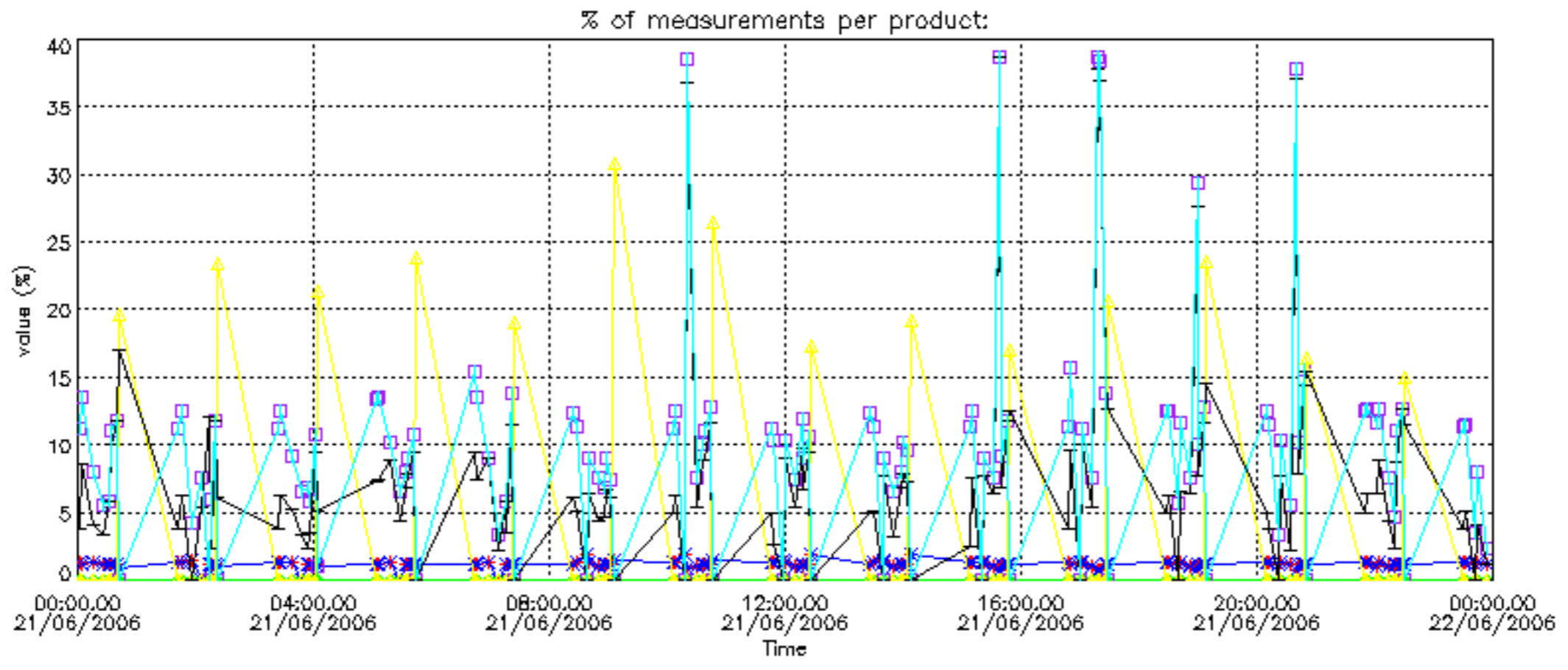


Percentage of flagged data per NO3 profile

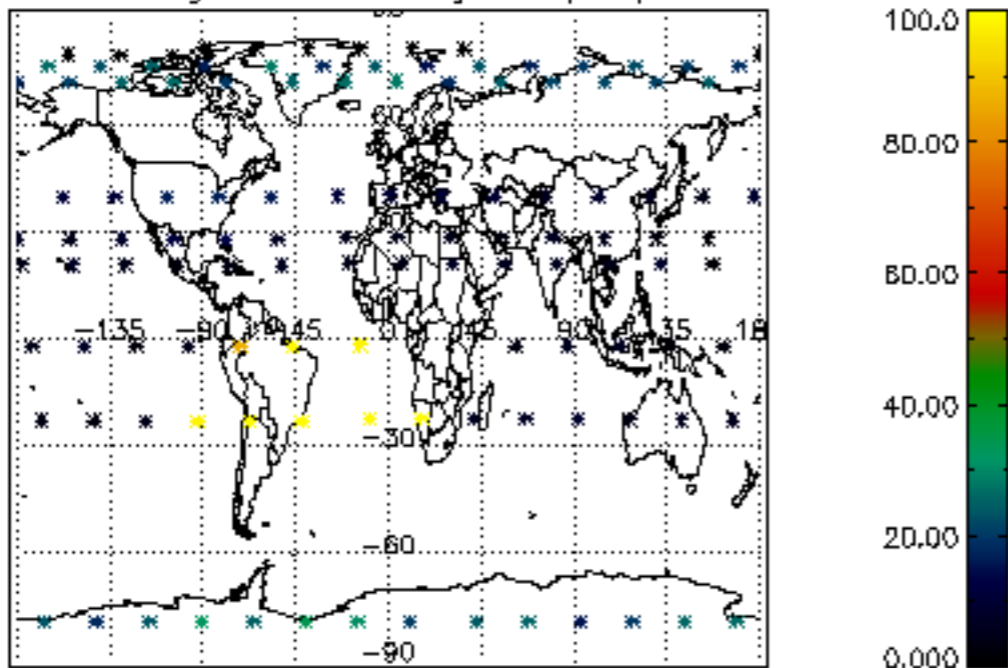




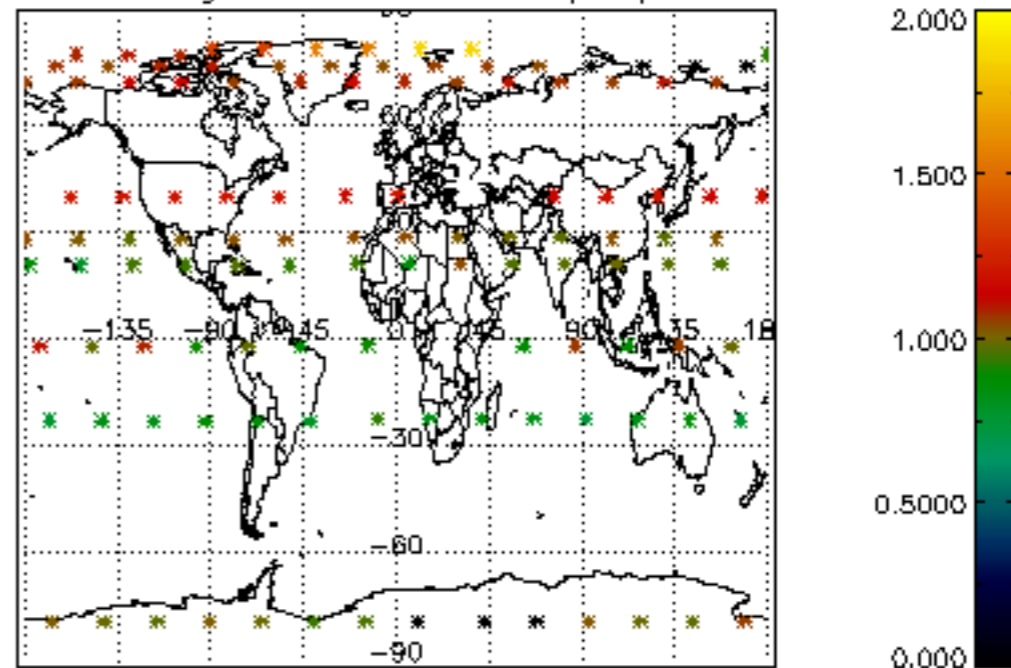




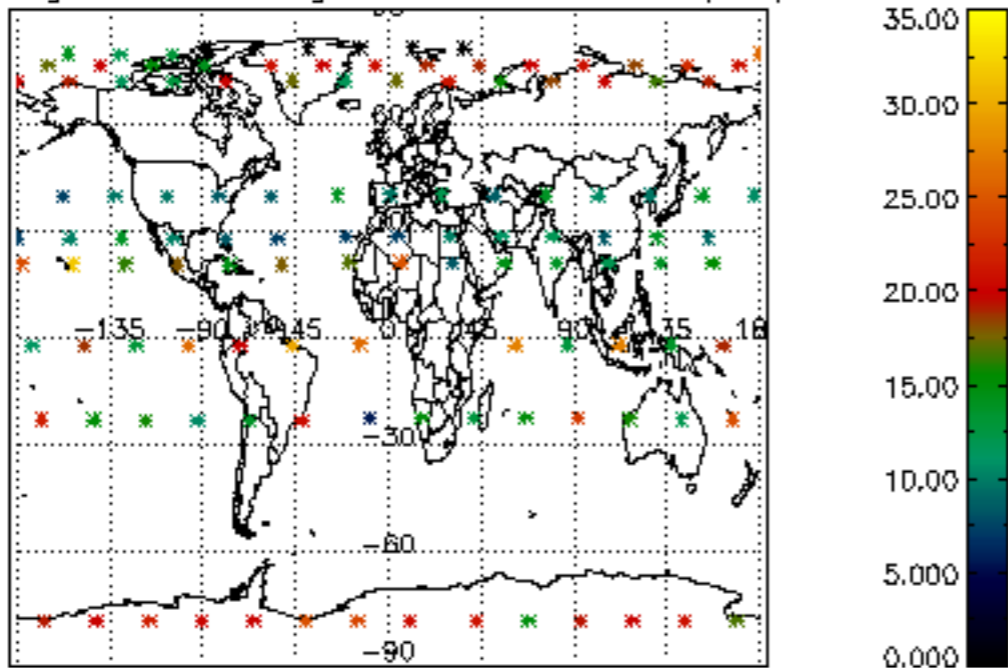
Percentage of cosmic ray hits per profile



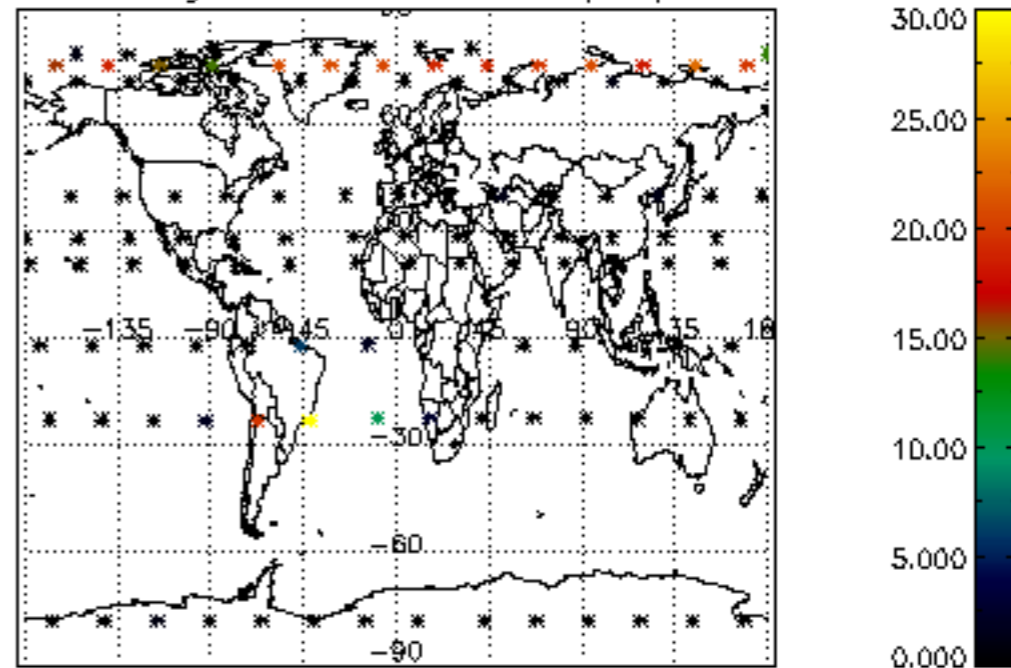
Percentage of datation errors per profile



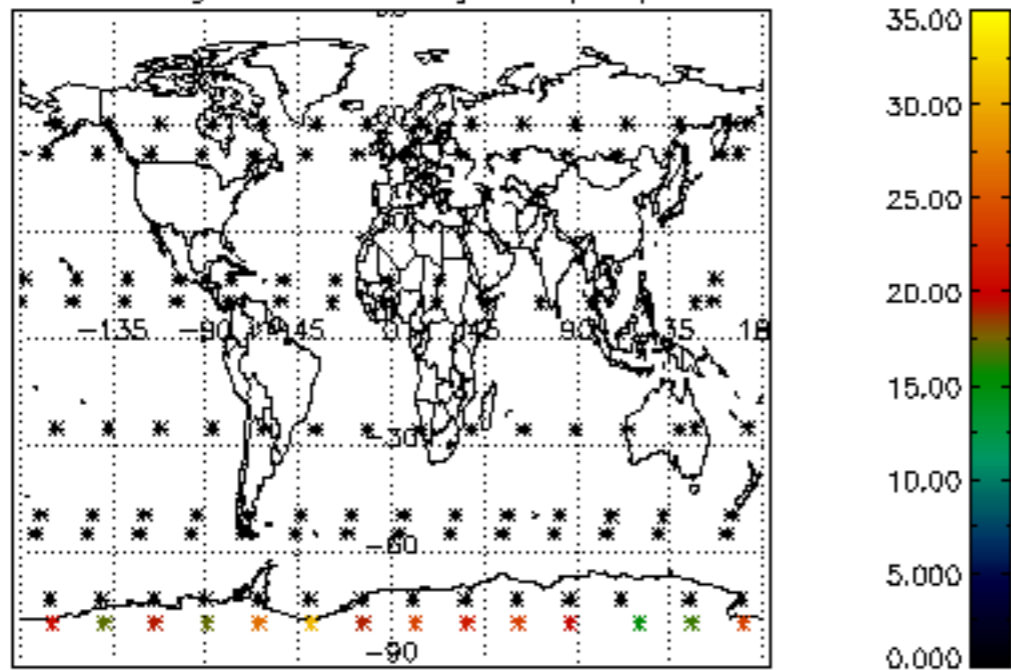
Percentage of star falling outside central band per profile



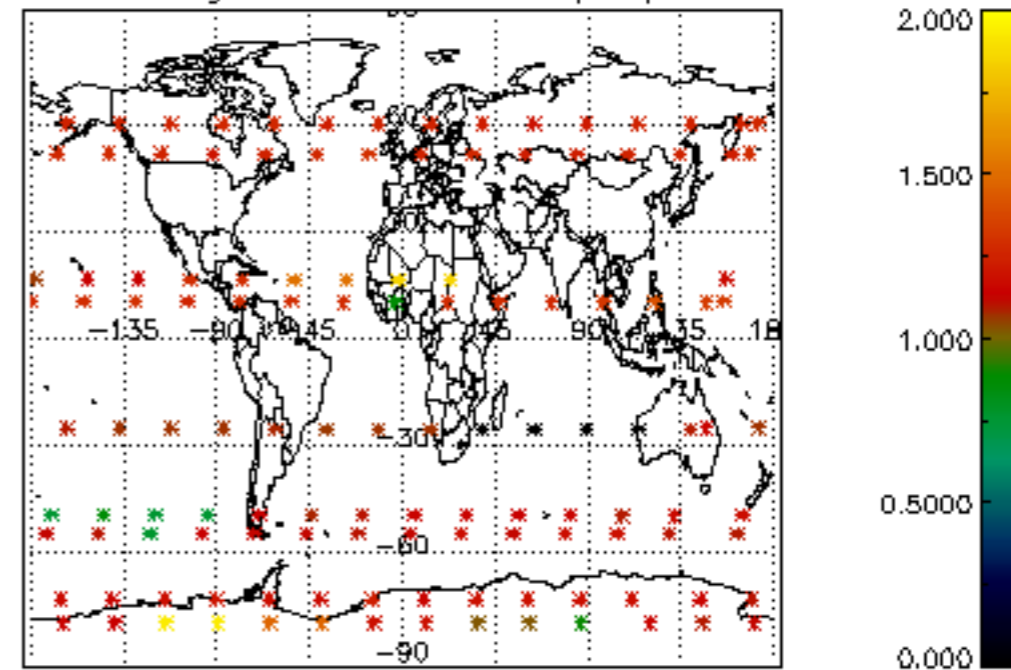
Percentage of saturation errors per profile



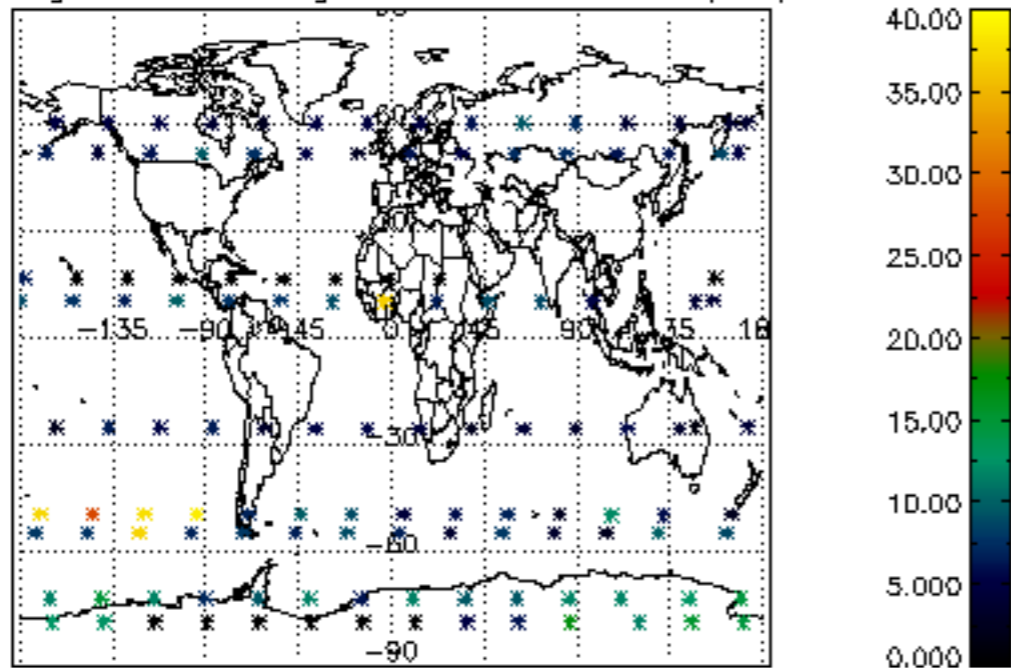
Percentage of cosmic ray hits per profile



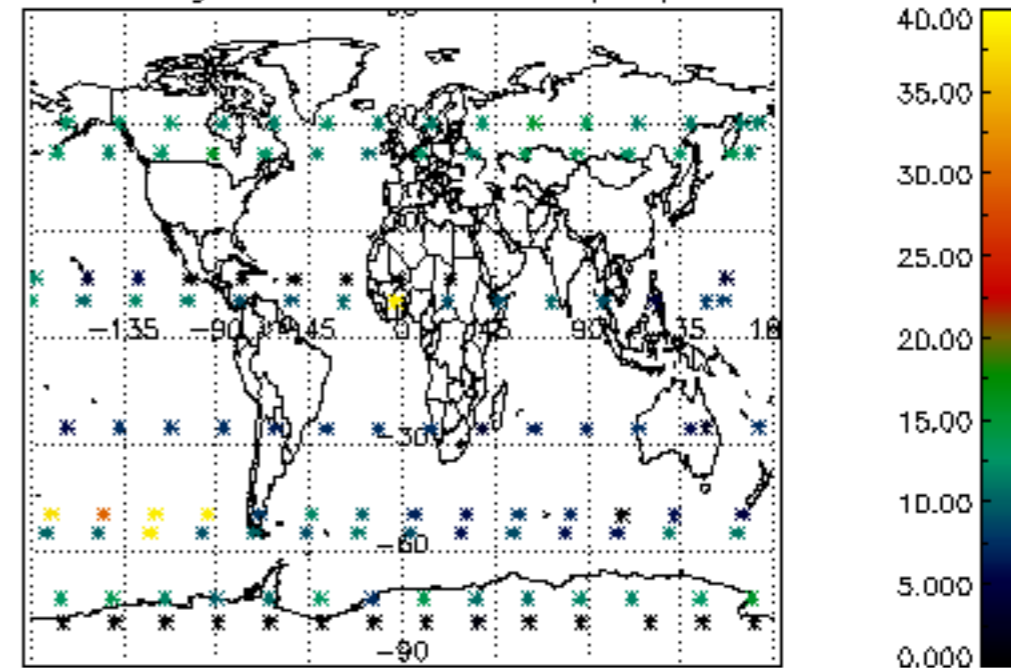
Percentage of datation errors per profile

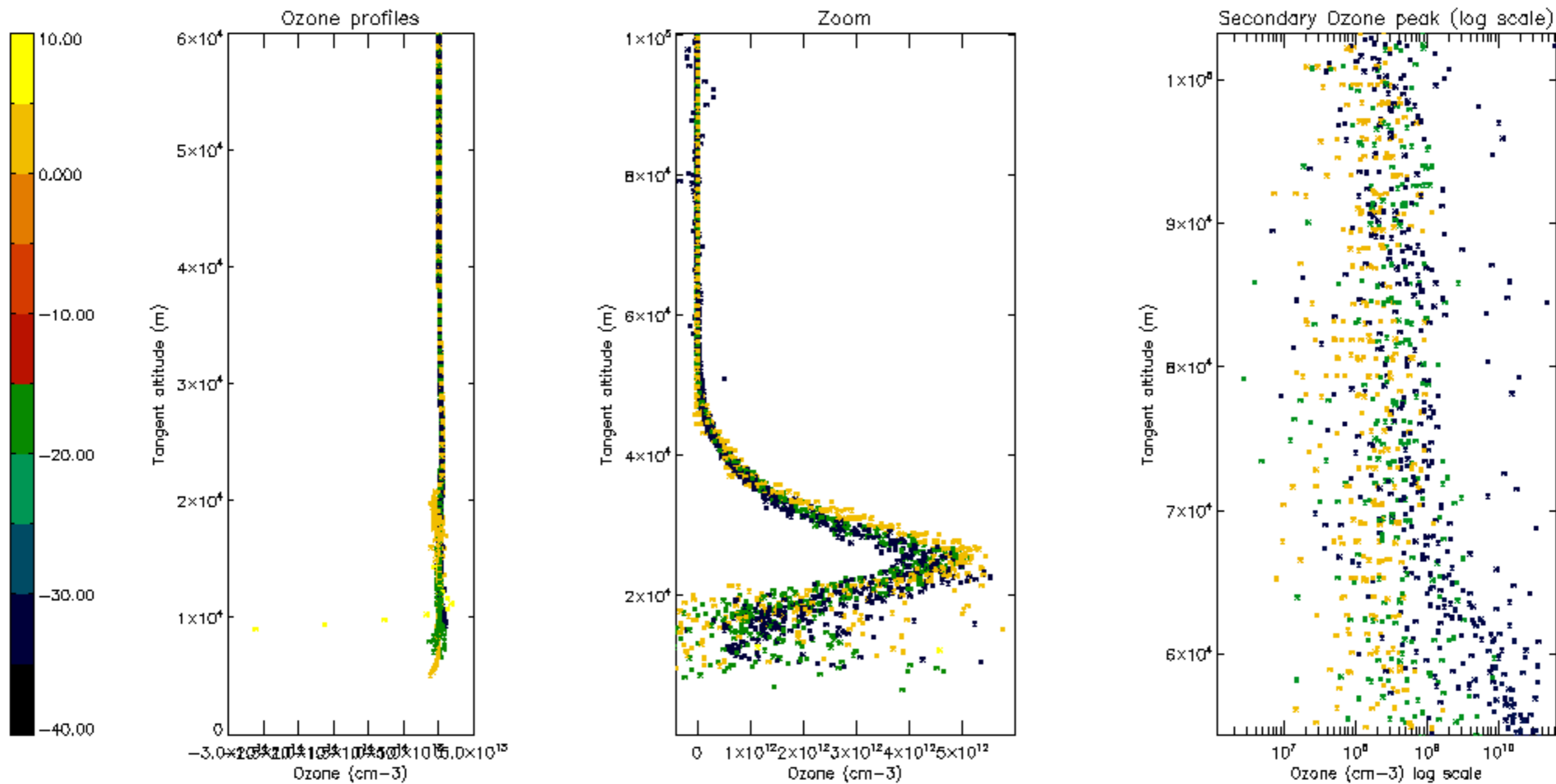


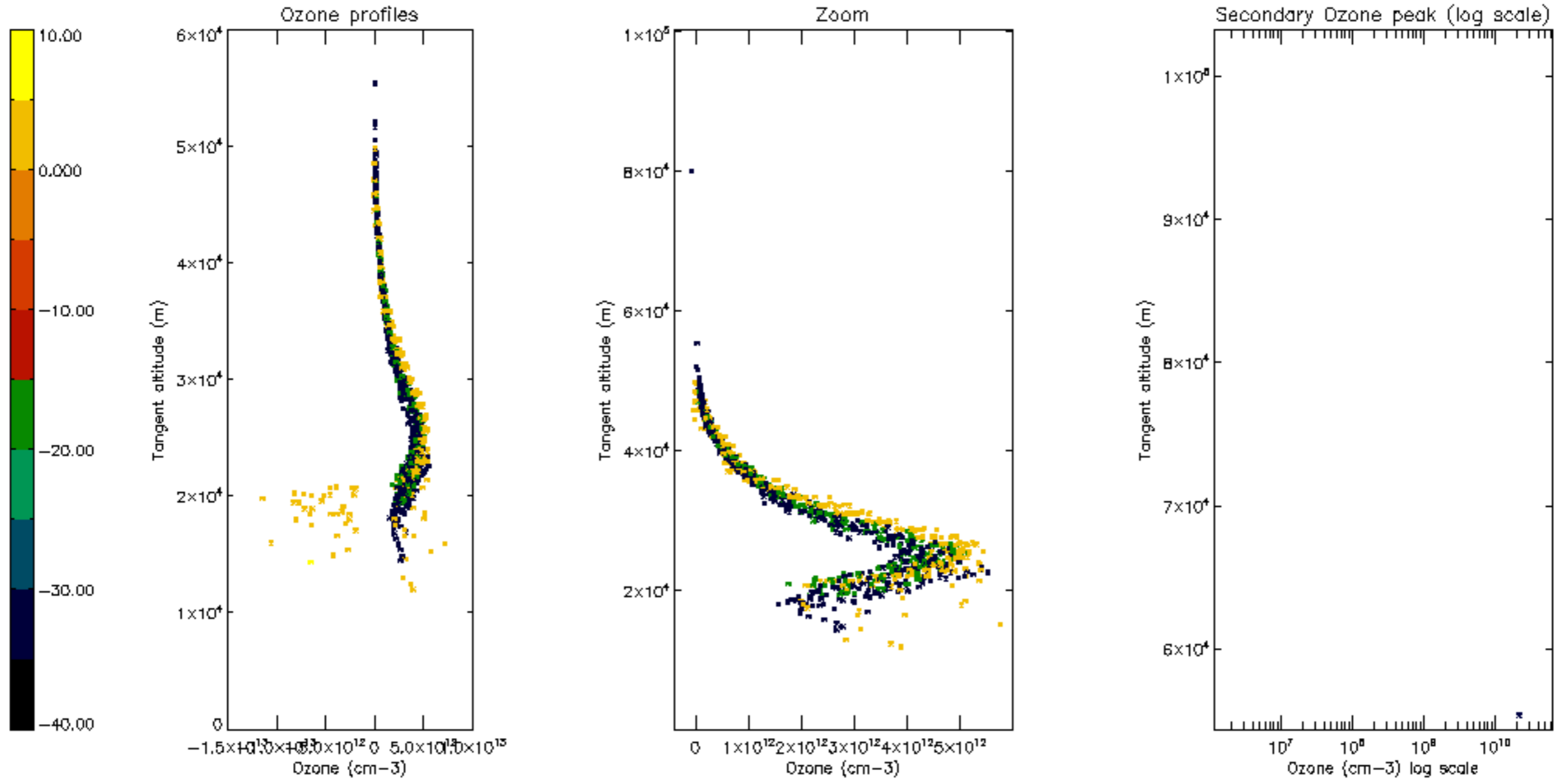
Percentage of star falling outside central band per profile

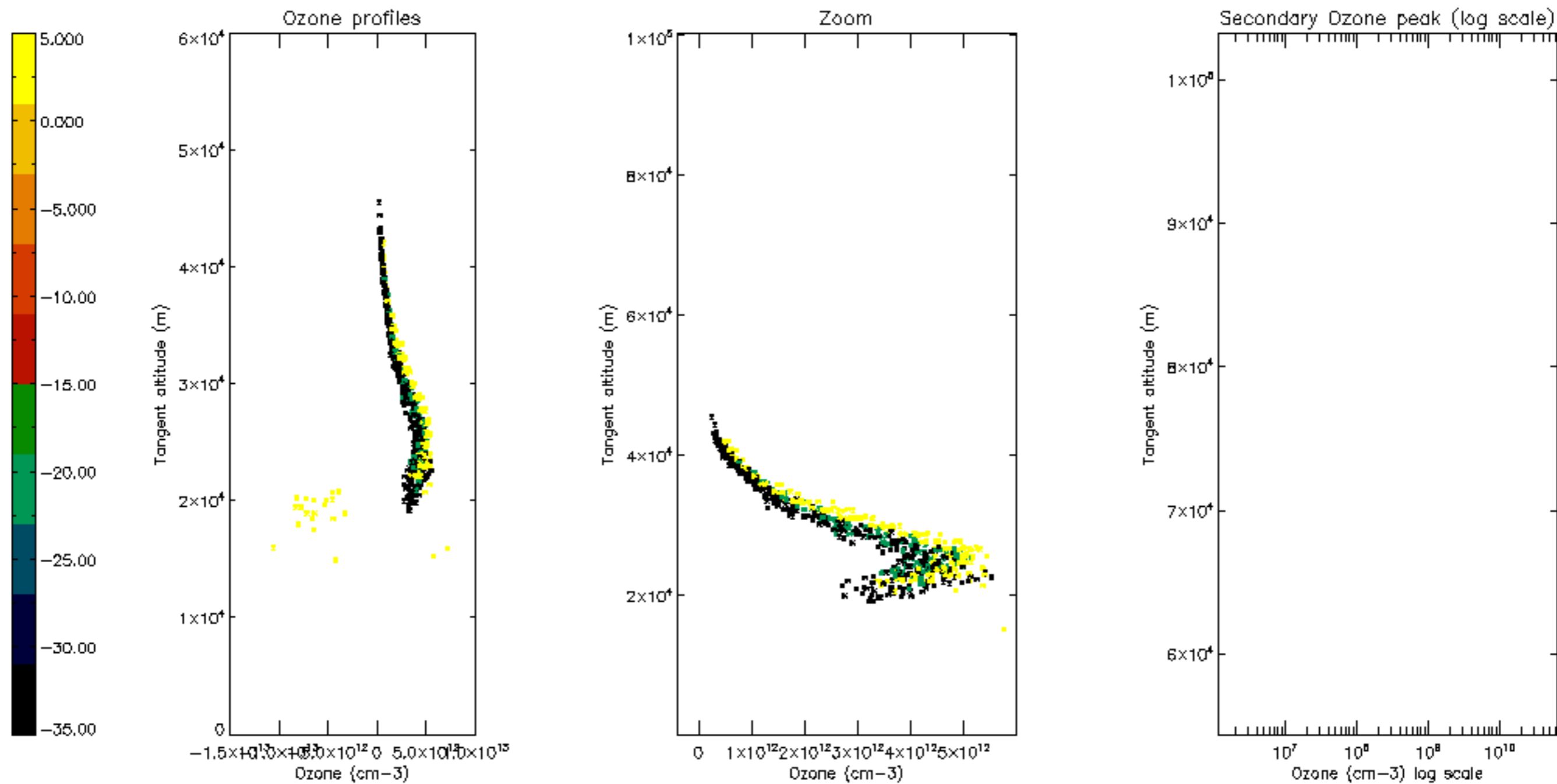


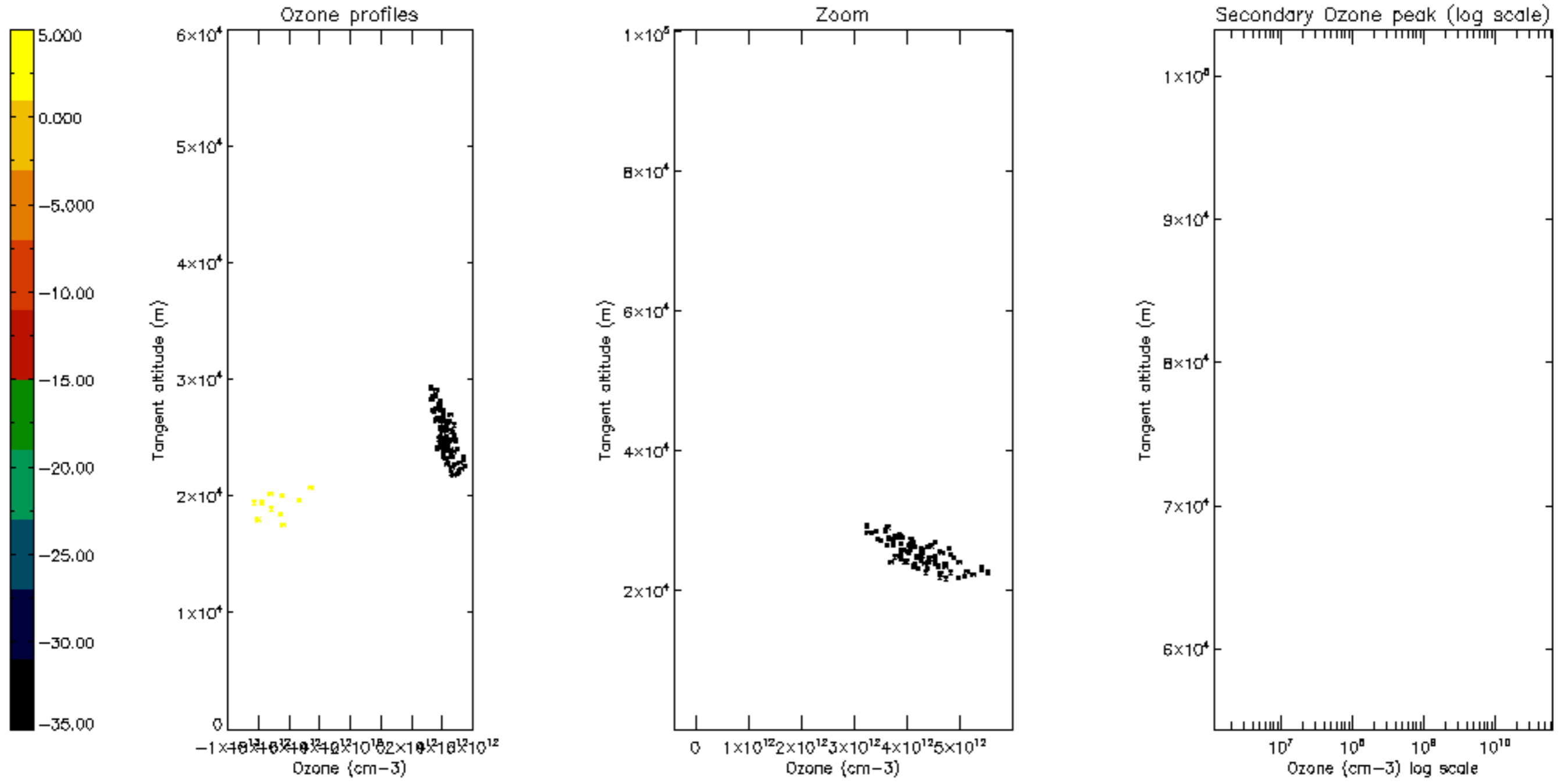
Percentage of saturation errors per profile



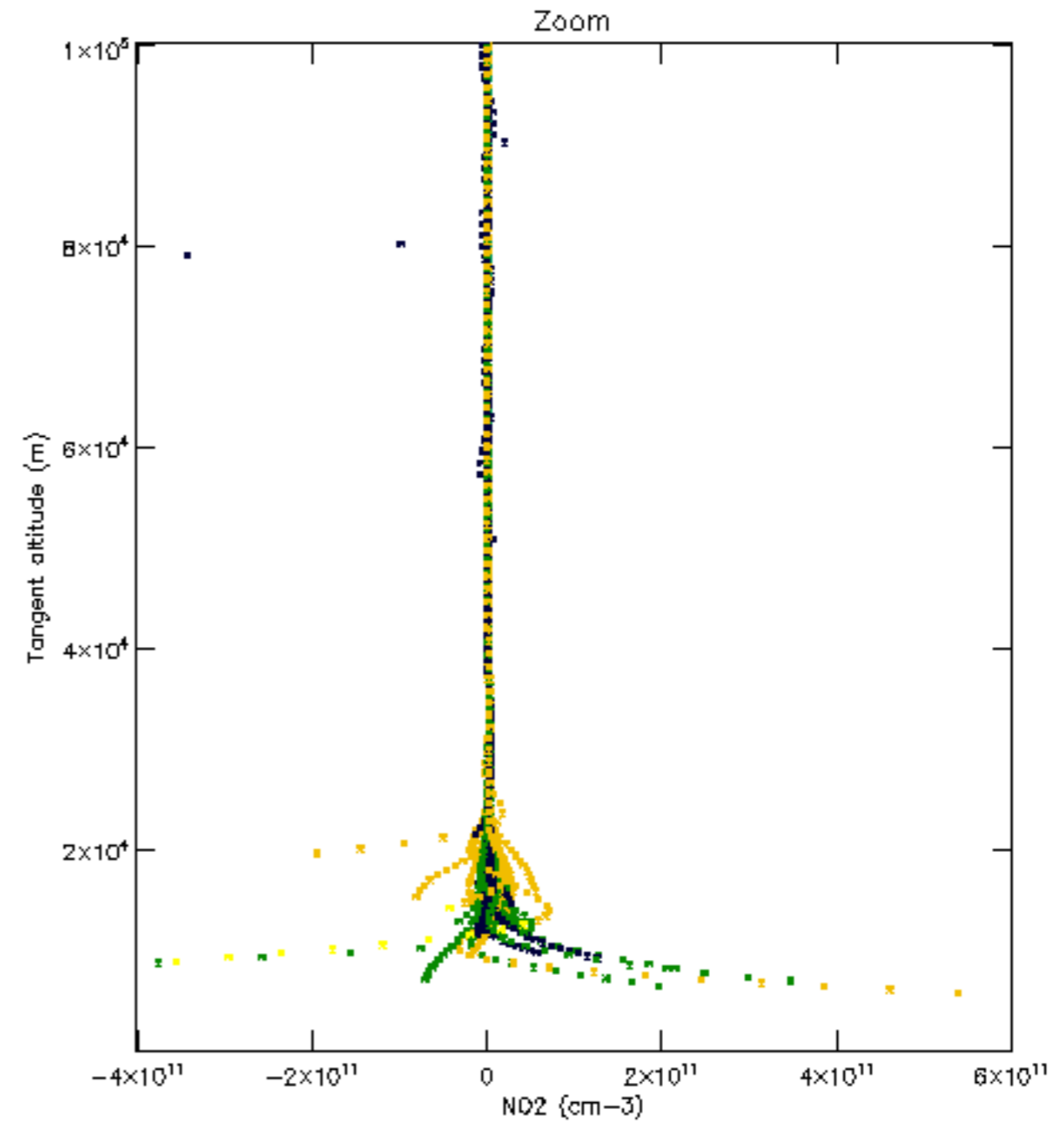
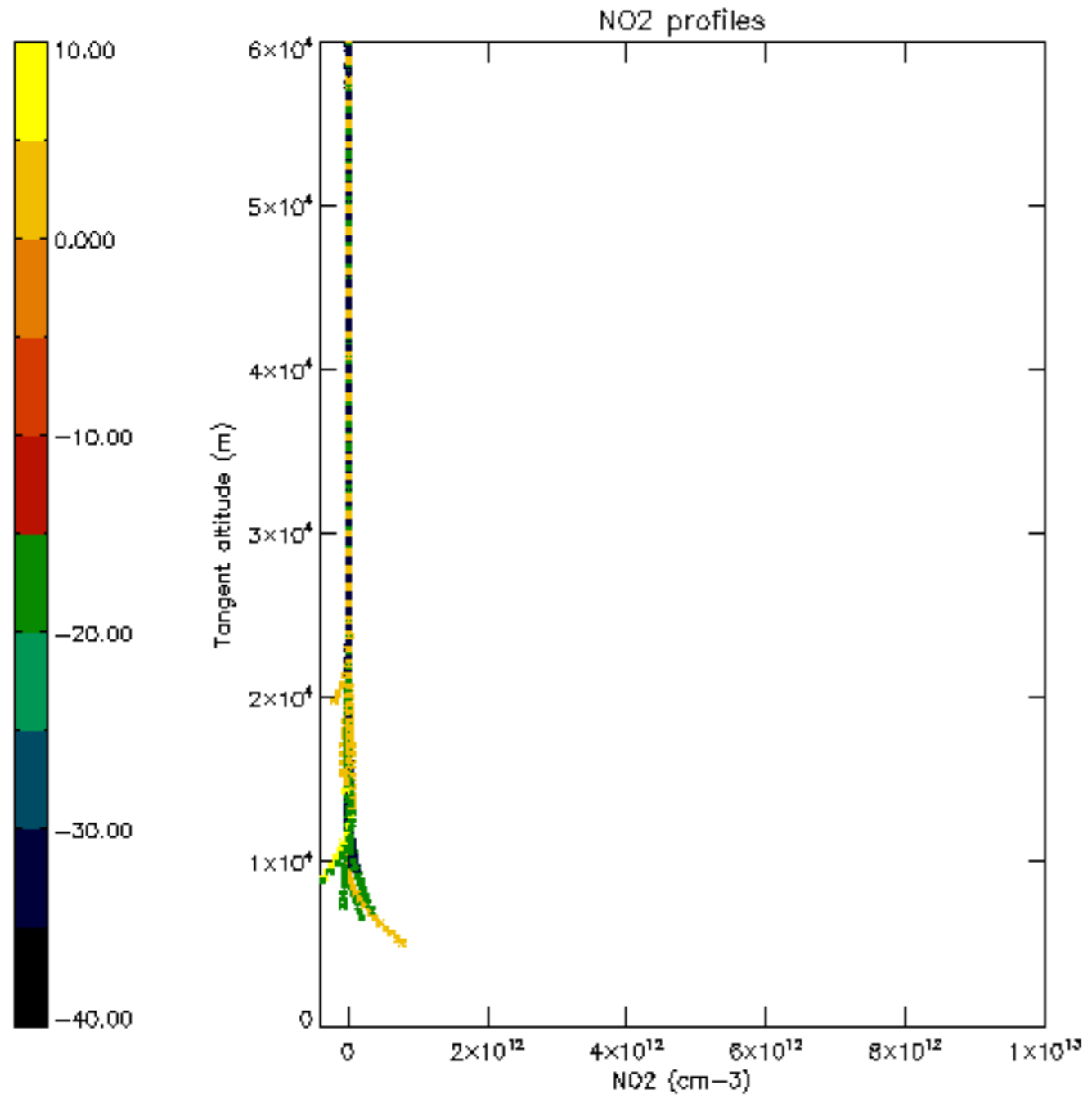


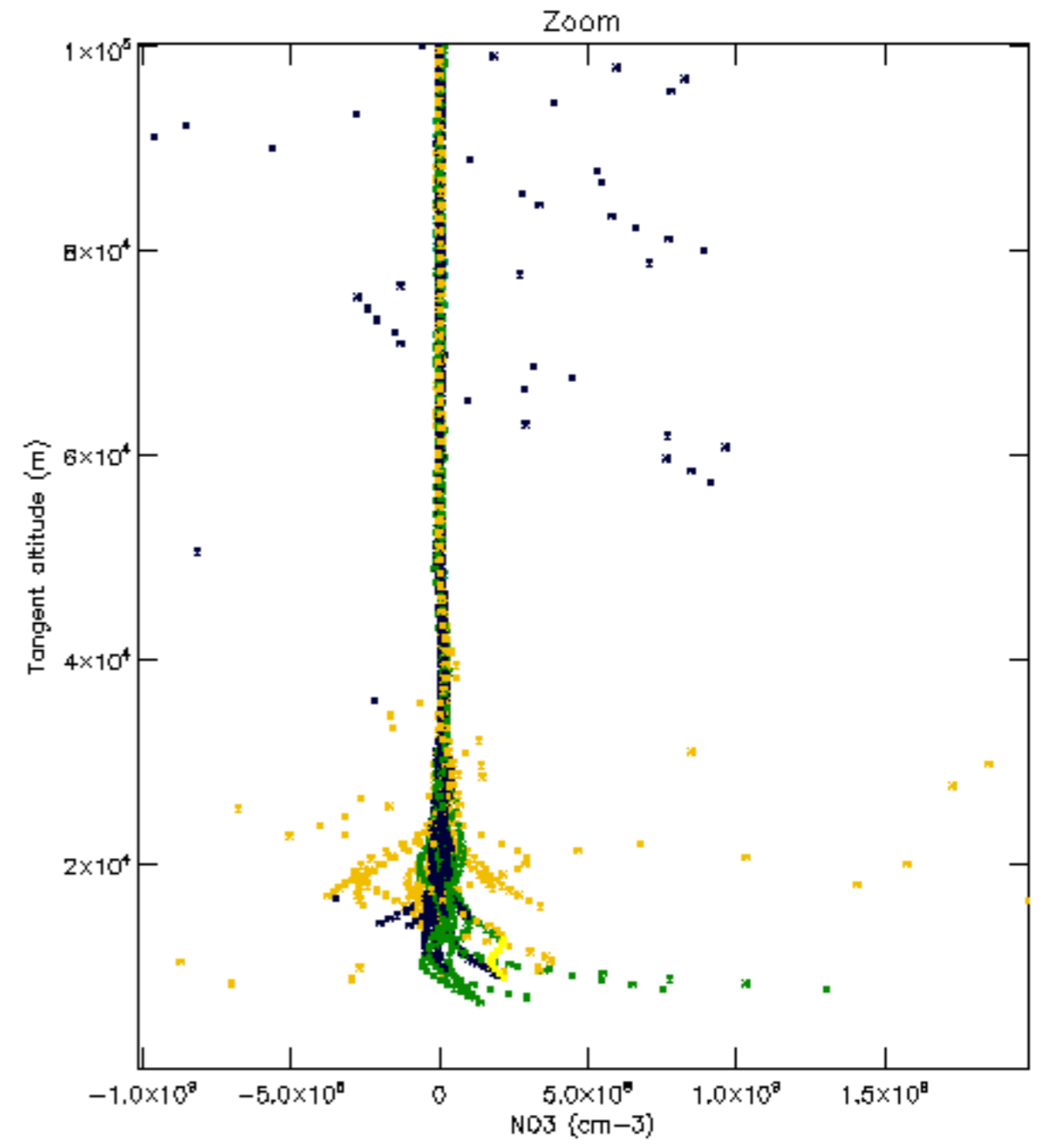
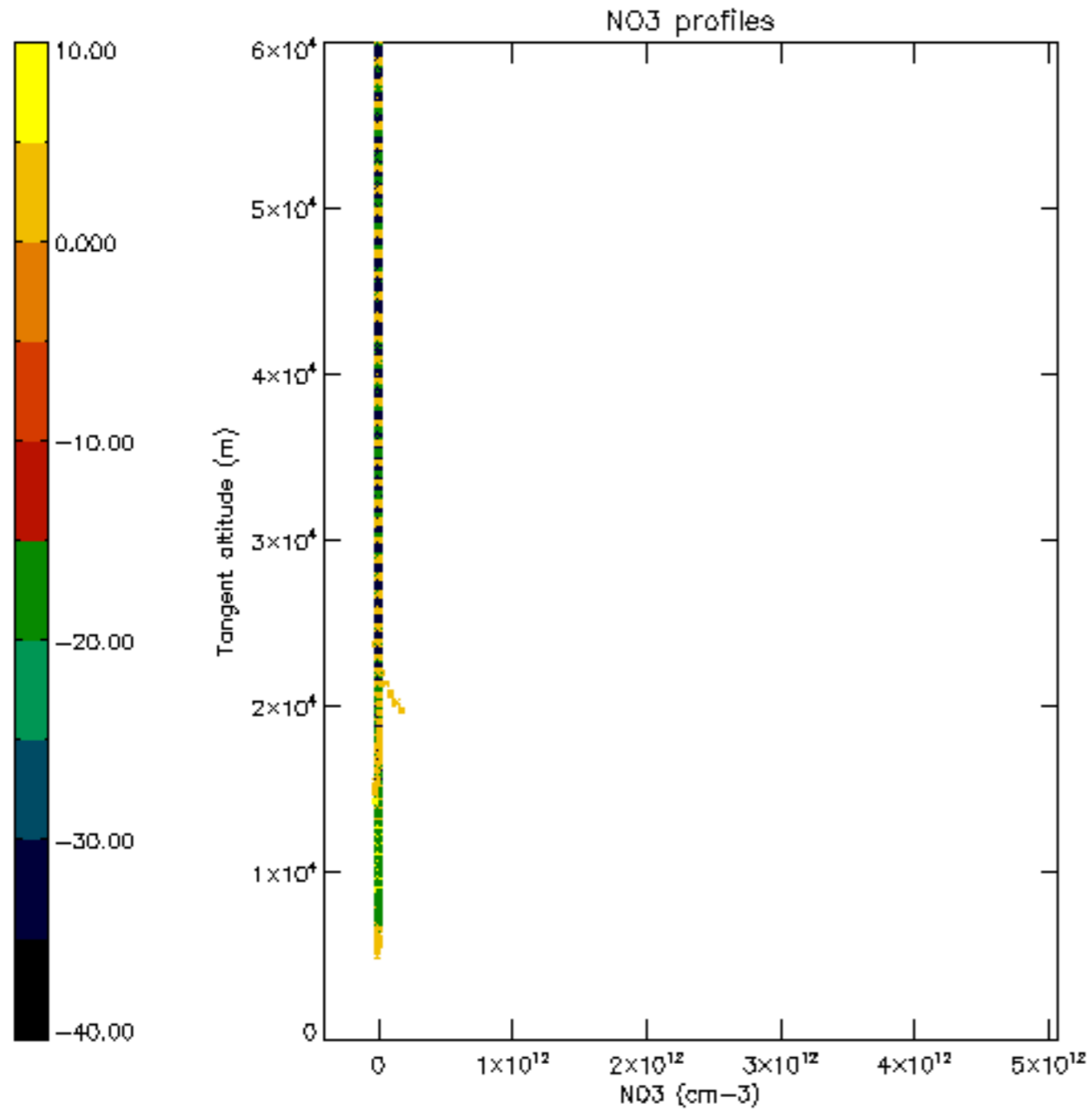


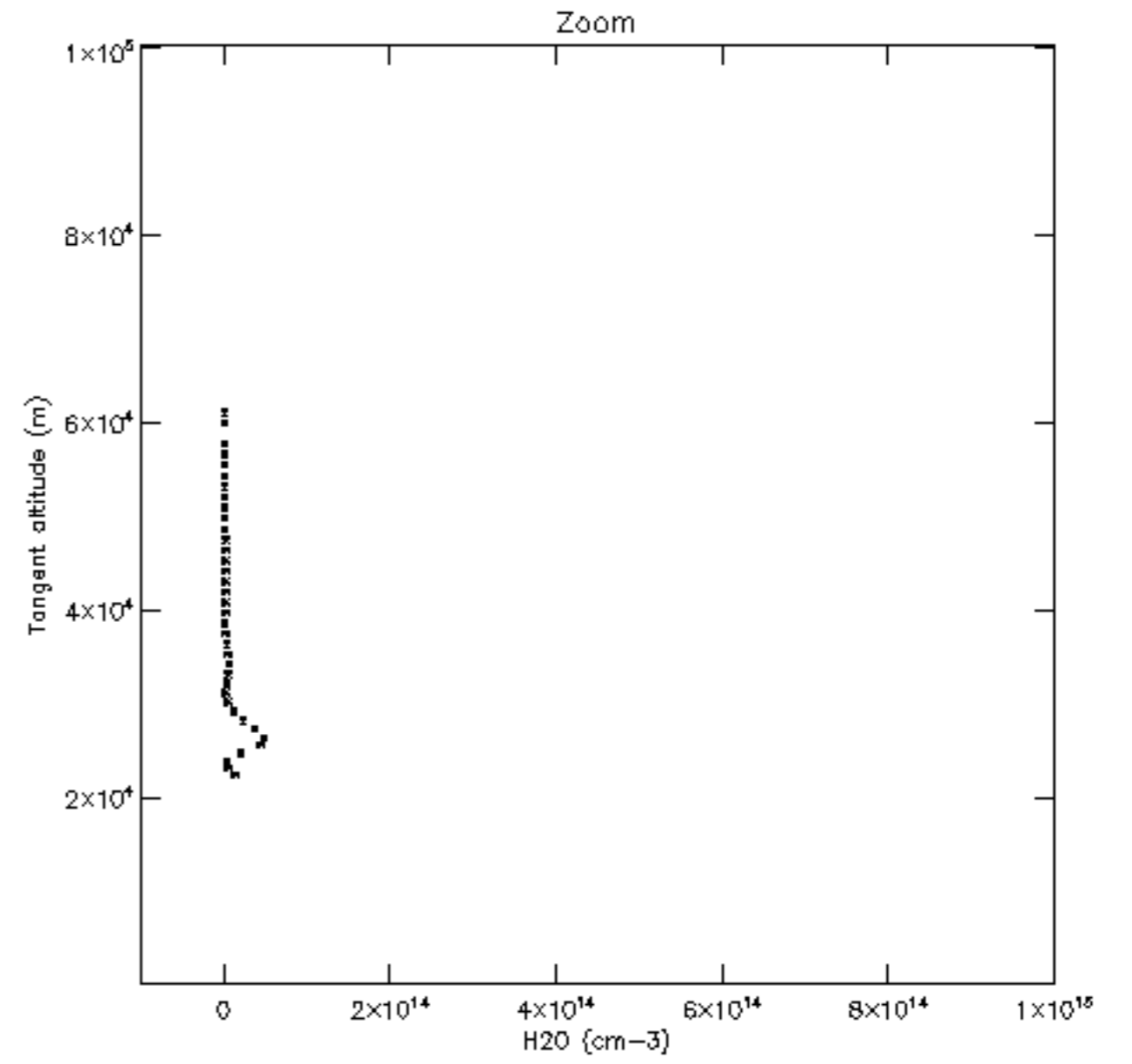
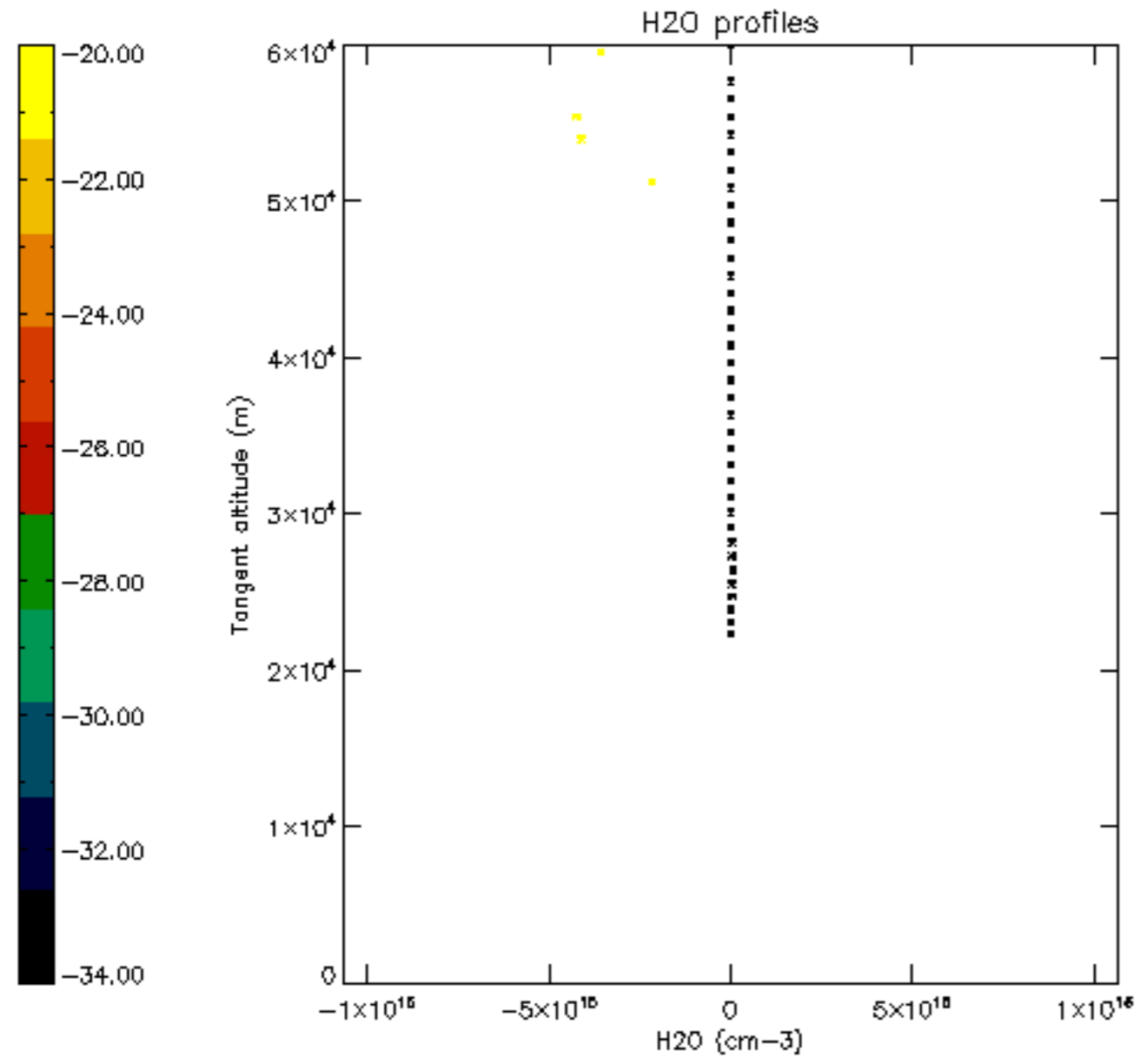


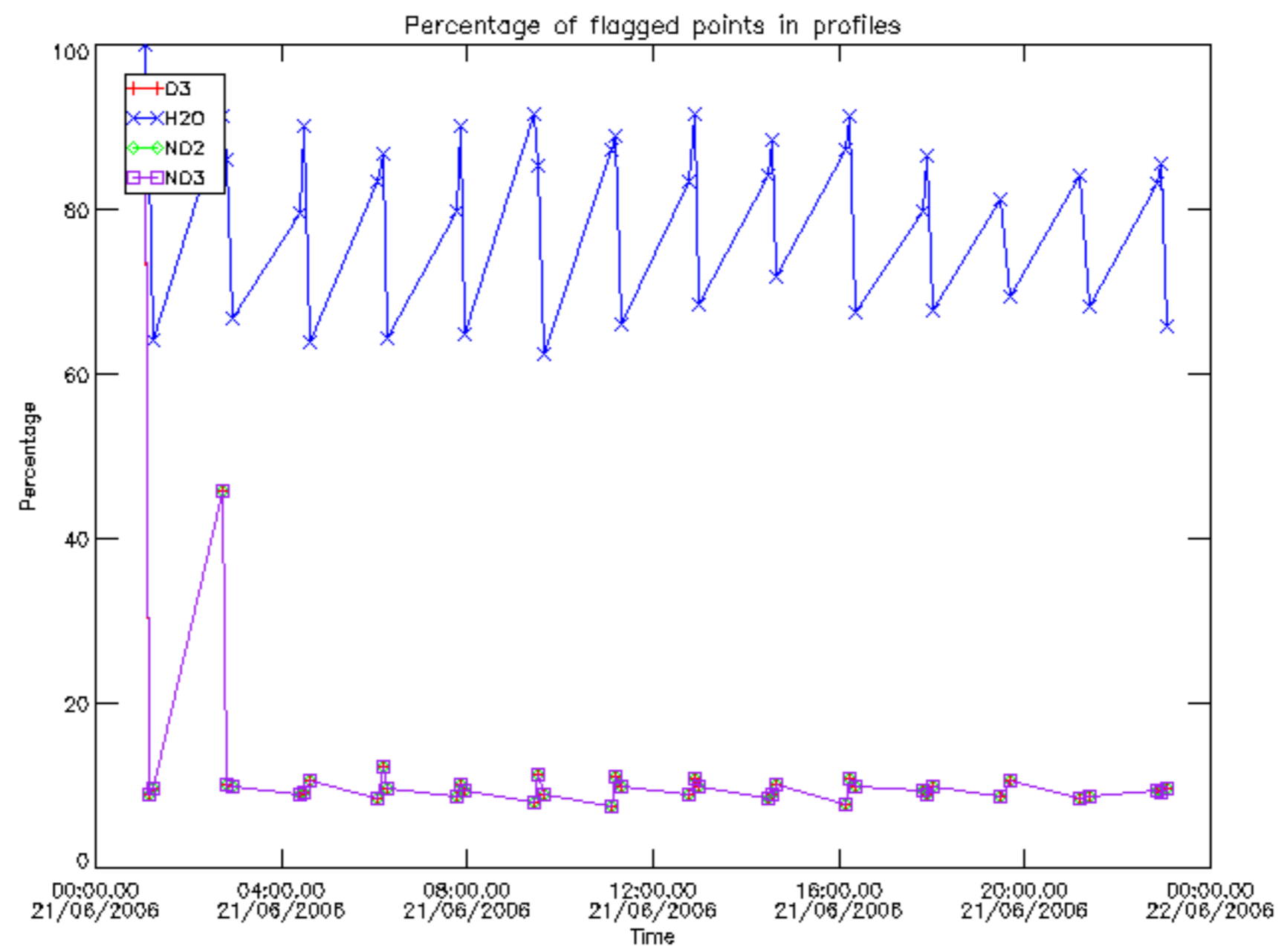




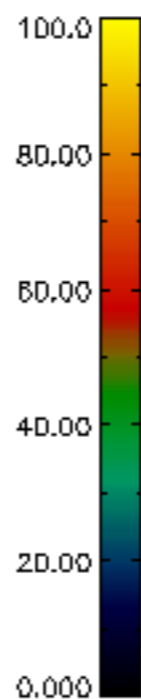
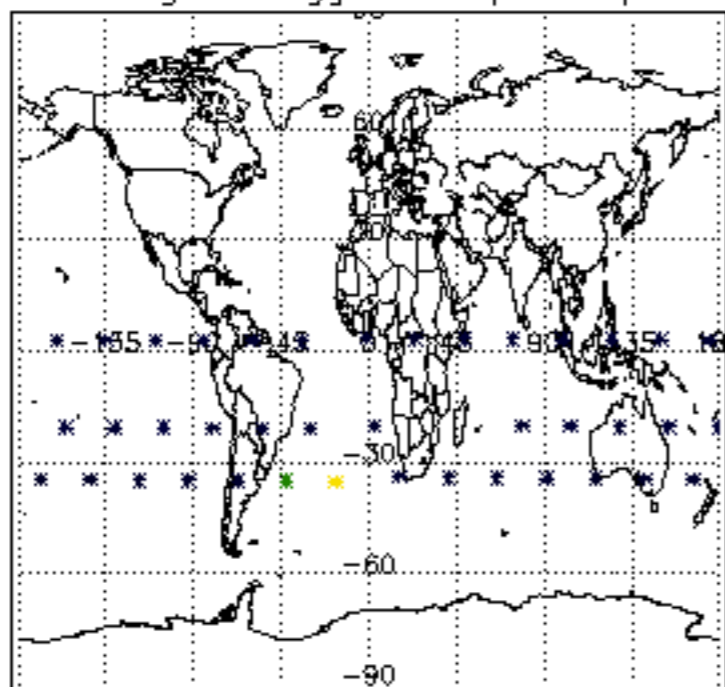




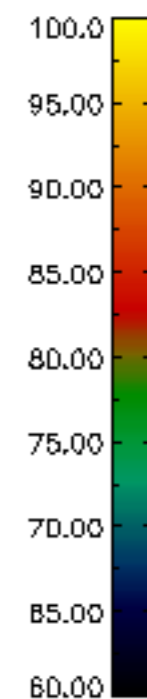
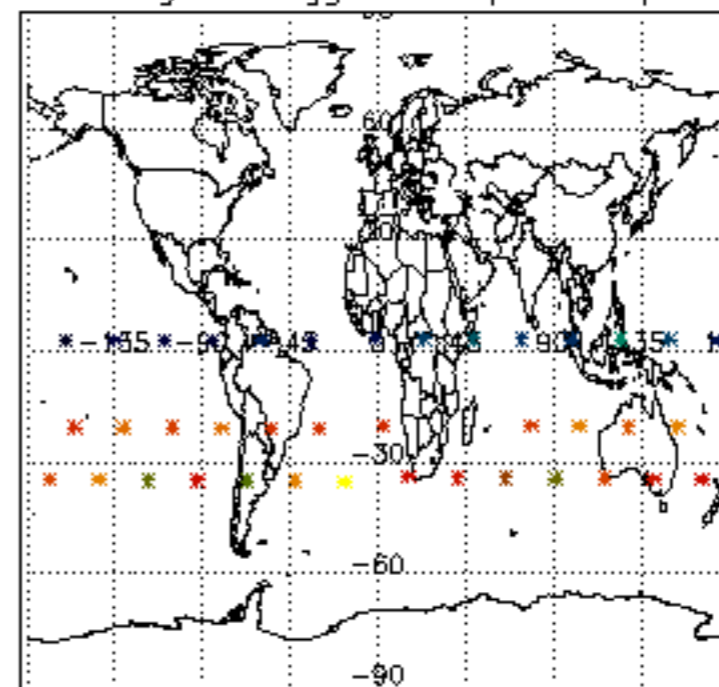




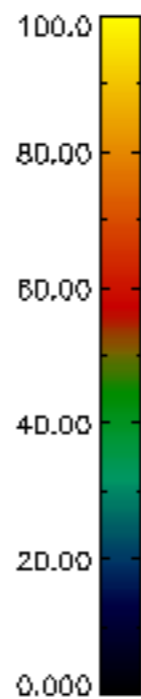
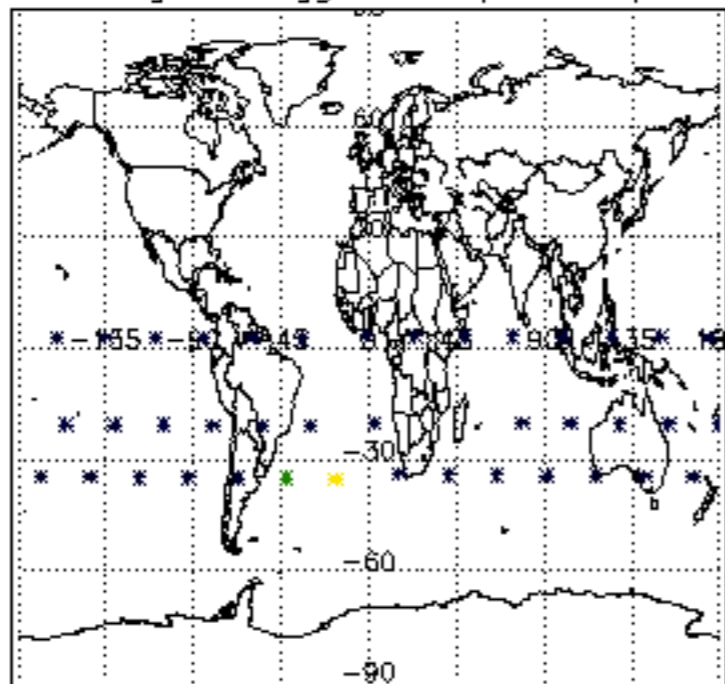
Percentage of flagged data per D3 profile



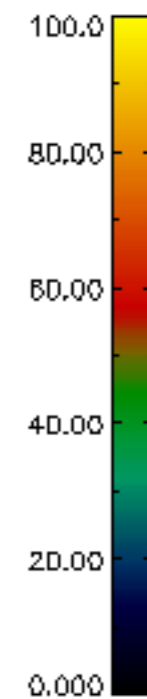
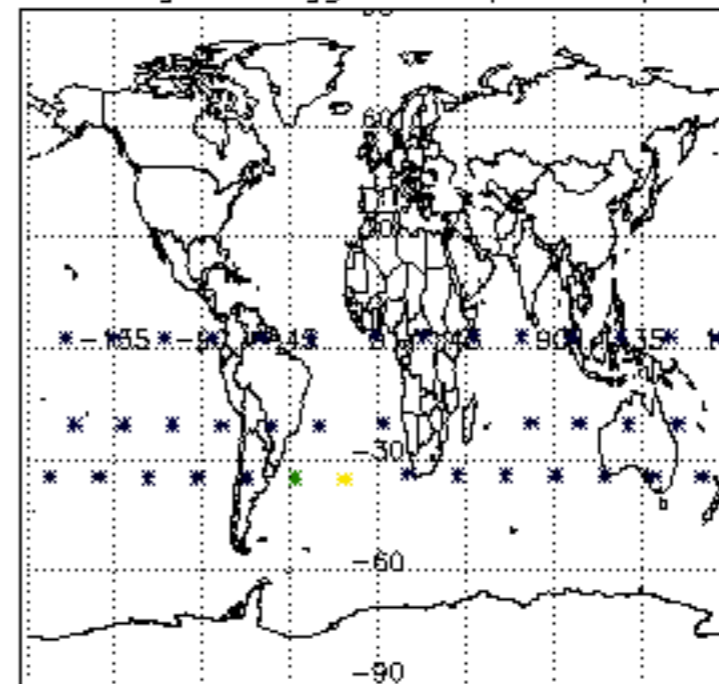
Percentage of flagged data per H2O profile

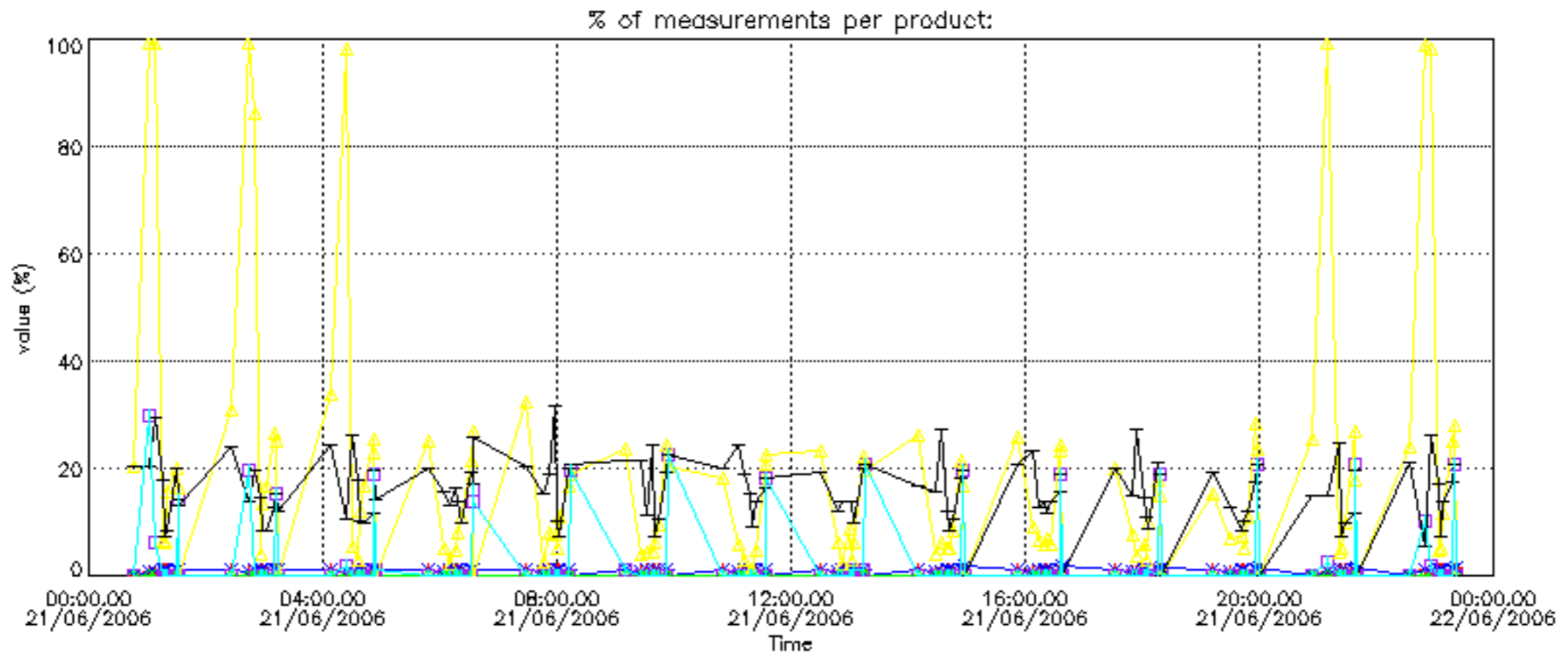


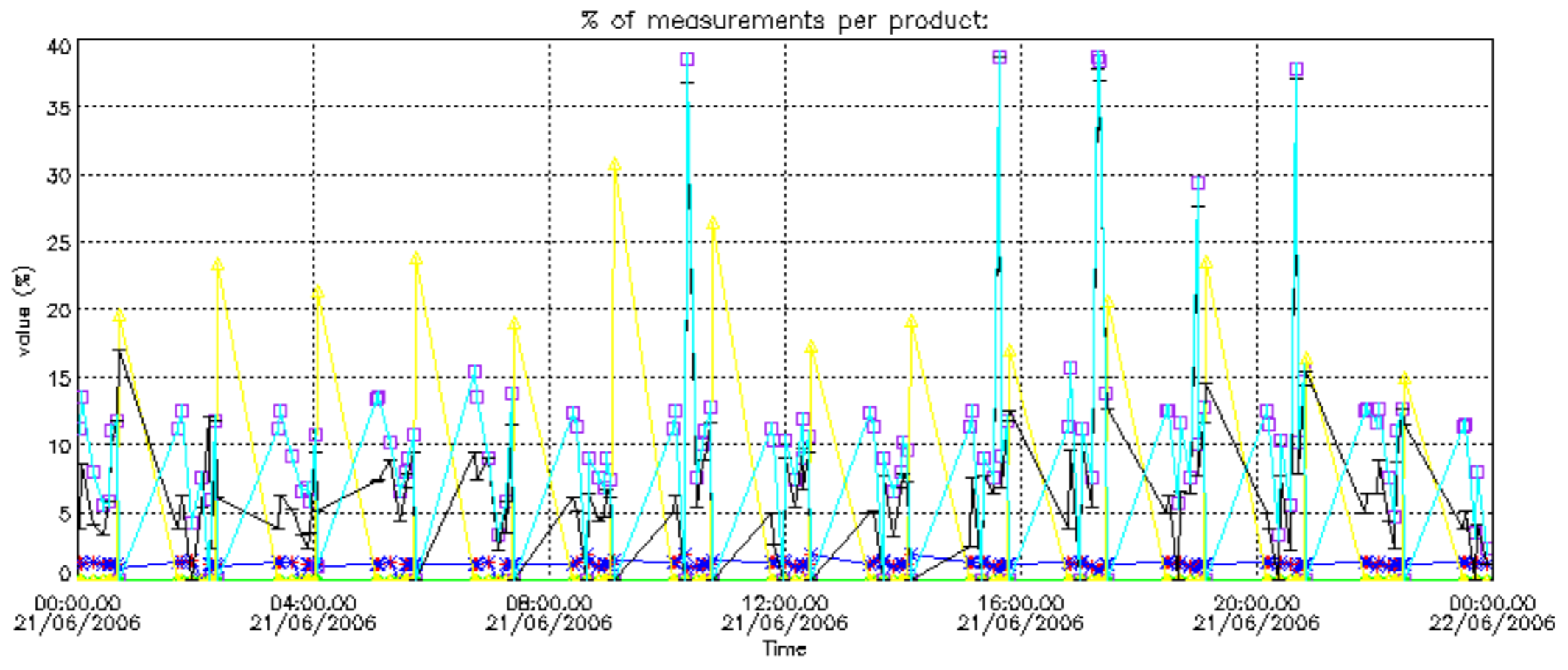
Percentage of flagged data per NO2 profile



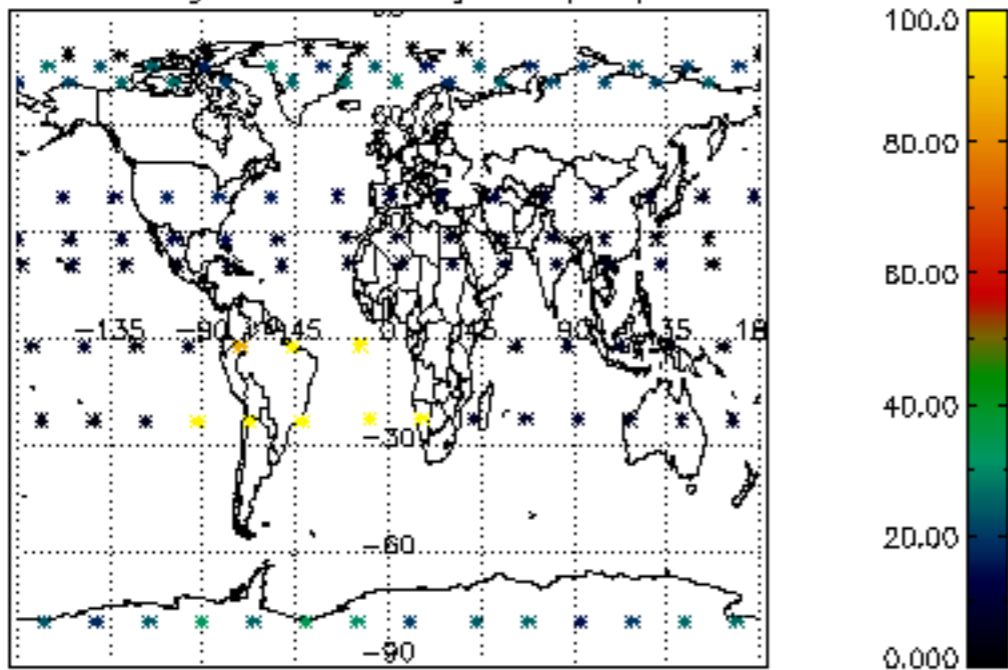
Percentage of flagged data per NO3 profile



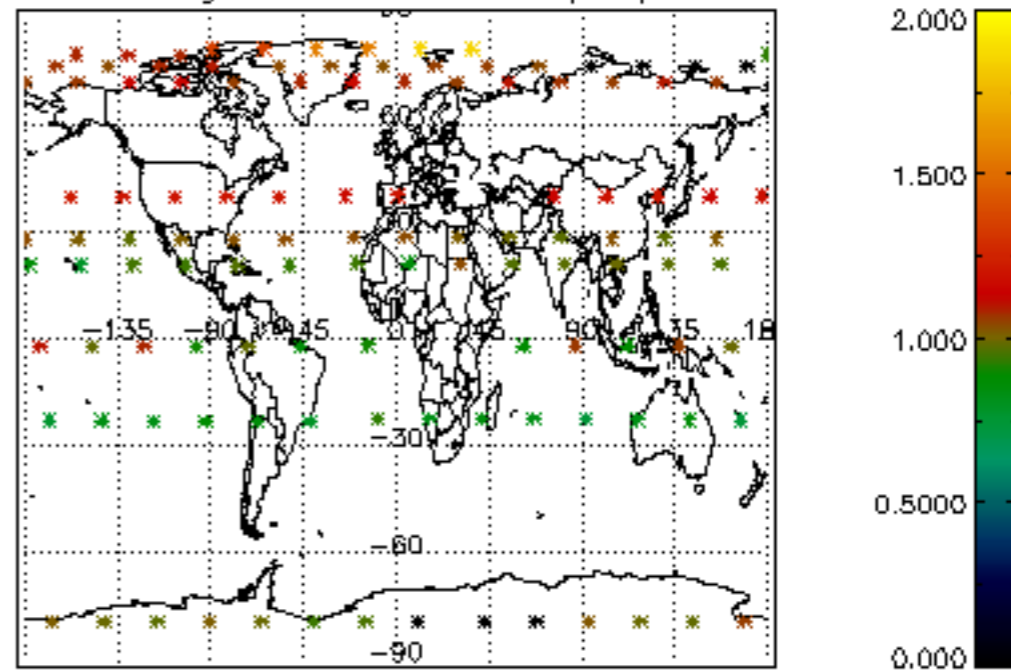




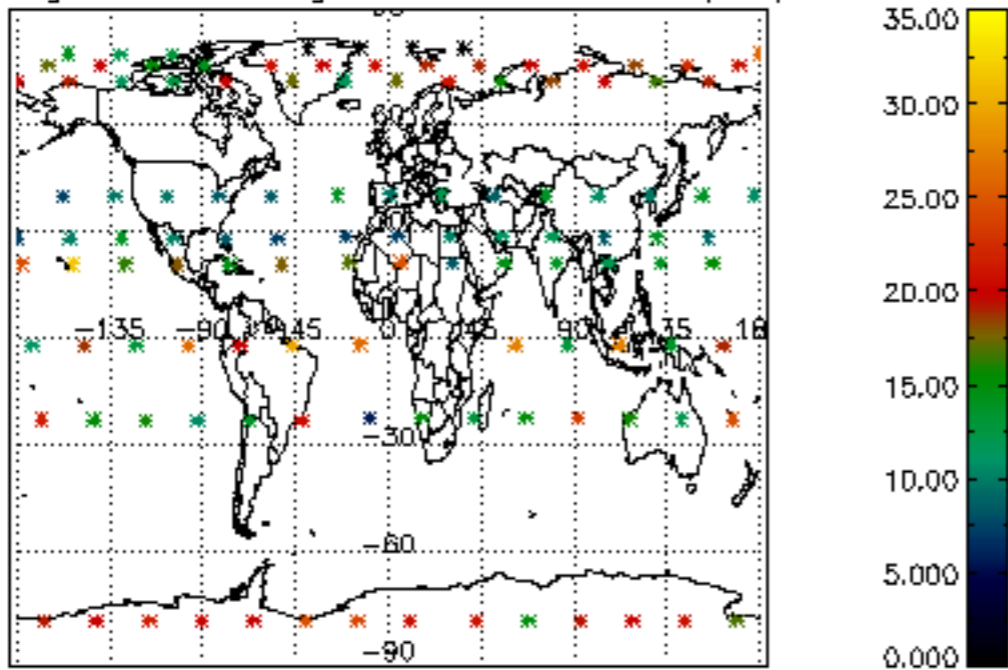
Percentage of cosmic ray hits per profile



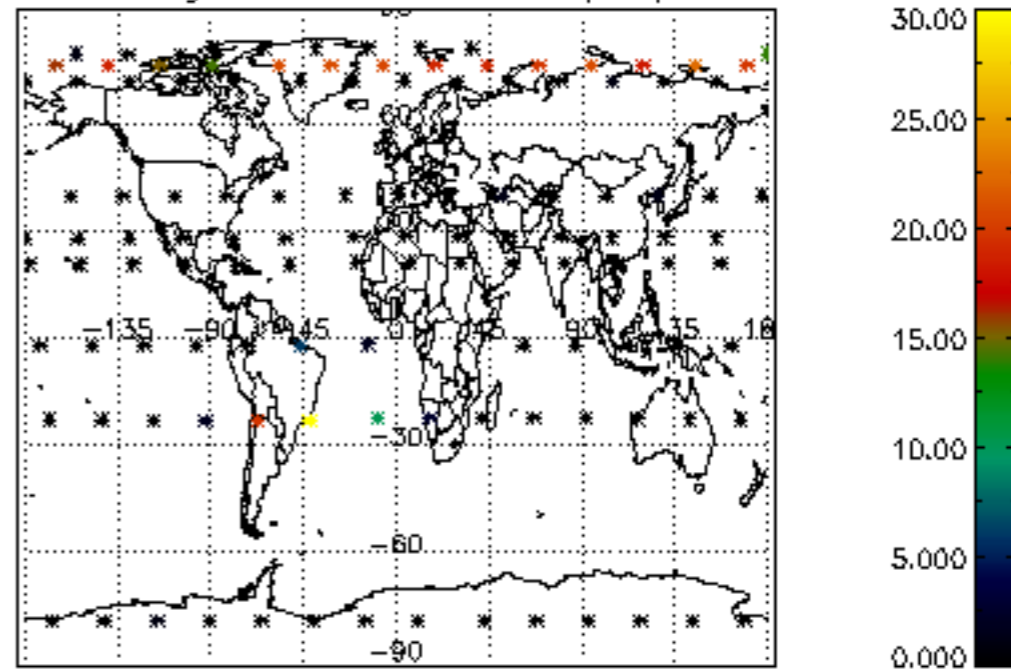
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

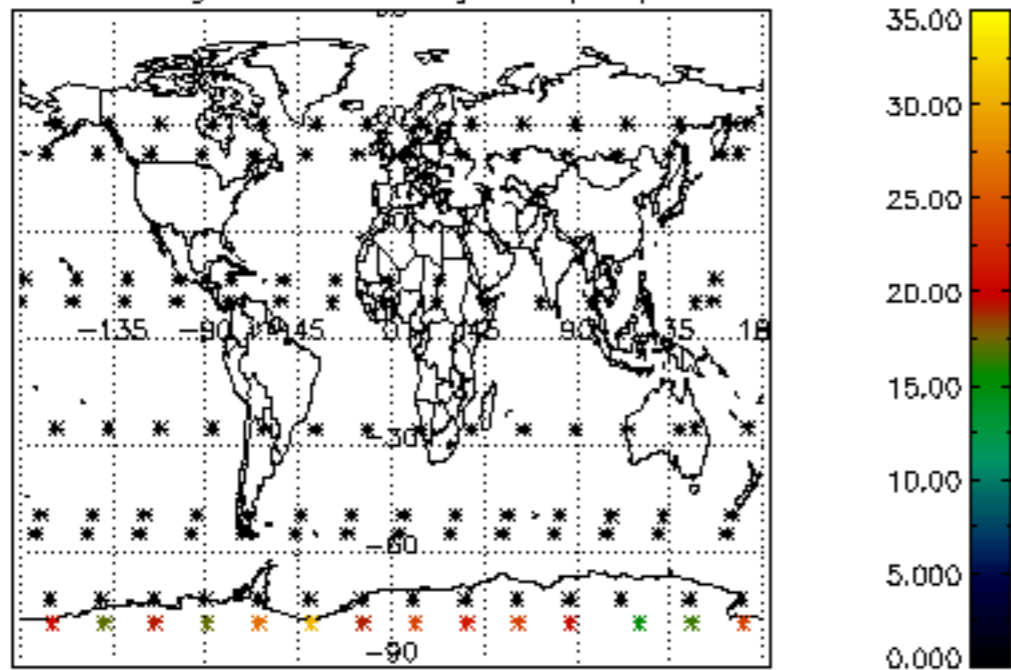


Percentage of saturation errors per profile

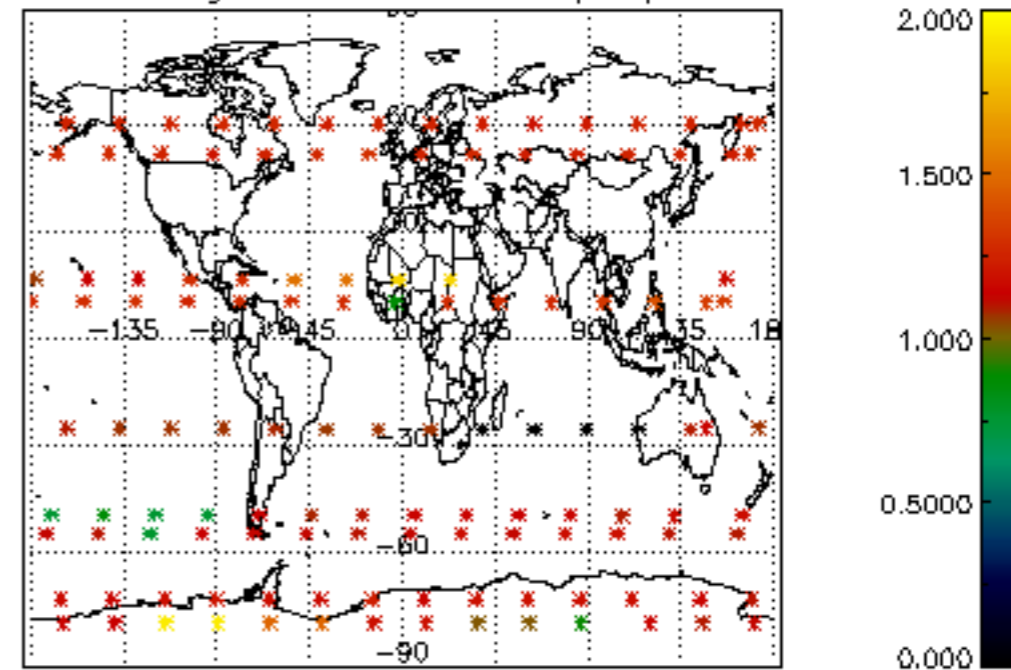




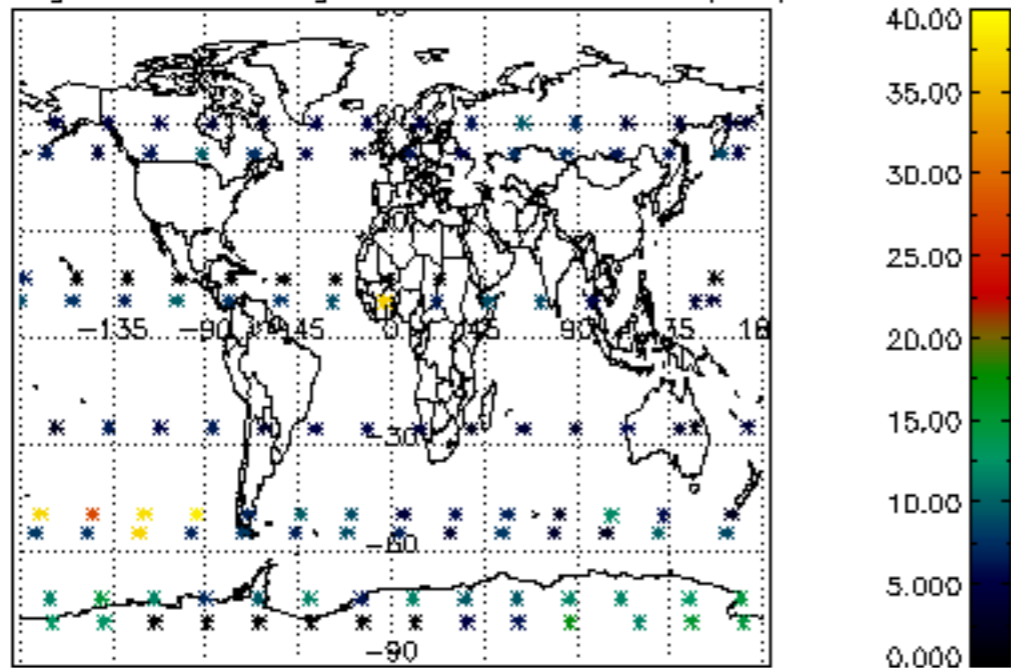
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

