

# 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	19APR2013 02:08:26
Data source version	GOMOS/6.01
Start time of products	16-05-2004 (16MAY2004 00:00:00)
Stop time of products	17-05-2004 (17MAY2004 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	457
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__2PRFIN20040516_000017_000000392026_00474_11550_2498.N1	16-MAY-2004 00:00:17	Bright	39.000	49	1Alp UMi	1.9900	6300.0	78	11550	No
2	GOM_NL__2PRFIN20040516_000518_000000462026_00474_11550_2499.N1	16-MAY-2004 00:05:18	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	11550	No
3	GOM_NL__2PRFIN20040516_000829_000000532026_00474_11550_2500.N1	16-MAY-2004 00:08:29	Bright	53.000	76	27Gam Cas	2.3000	30000.	106	11550	No
4	GOM_NL__2PRFIN20040516_000943_000000532026_00474_11550_2501.N1	16-MAY-2004 00:09:43	Bright	53.000	68	18Alp Cas	2.2250	4500.0	106	11550	No
5	GOM_NL__2PRFIN20040516_001140_000001062026_00474_11550_2502.N1	16-MAY-2004 00:11:40	Bright	106.00	66	37Gam Cyg	2.2080	5900.0	212	11550	No
6	GOM_NL__2PRFIN20040516_001807_000000482026_00474_11550_2503.N1	16-MAY-2004 00:18:07	Bright	48.000	58	21Alp And	2.0730	11000.	96	11550	No
7	GOM_NL__2PRFIN20040516_002217_000000452026_00474_11550_2504.N1	16-MAY-2004 00:22:17	Twilight	45.000	140	88Gam Peg	2.8340	26000.	90	11550	No
8	GOM_NL__2PRFIN20040516_002356_000000582026_00474_11550_2505.N1	16-MAY-2004 00:23:56	Dark	57.500	90	54Alp Peg	2.4870	11000.	115	11550	No
9	GOM_NL__2PRFIN20040516_003100_000000462026_00474_11550_2506.N1	16-MAY-2004 00:31:00	Dark	45.500	52	16Bet Cet	2.0370	4500.0	91	11550	No
10	GOM_NL__2PRFIN20040516_003735_000000542026_00474_11550_2507.N1	16-MAY-2004 00:37:35	Dark	53.500	18	24Alp PsA	1.1660	9700.0	107	11550	No
11	GOM_NL__2PRFIN20040516_004155_000000492026_00474_11550_2508.N1	16-MAY-2004 00:41:55	Dark	48.500	63	Bet Gru	2.1500	2800.0	97	11550	No
12	GOM_NL__2PRFIN20040516_004659_000000392026_00475_11551_2478.N1	16-MAY-2004 00:46:59	Dark	38.500	135	Bet Hyi	2.8200	5800.0	77	11551	No
13	GOM_NL__2PRFIN20040516_004857_000000452026_00475_11551_2479.N1	16-MAY-2004 00:48:57	Dark	45.000	45	Alp Pav	1.9400	26000.	90	11551	No
14	GOM_NL__2PRFIN20040516_005414_000000432026_00475_11551_2480.N1	16-MAY-2004 00:54:14	Straylight	43.000	43	Alp TrA	1.9100	4250.0	86	11551	No
15	GOM_NL__2PRFIN20040516_005540_000000392026_00475_11551_2481.N1	16-MAY-2004 00:55:40	Straylight	38.500	145	Gam TrA	2.8720	10600.	77	11551	No
16	GOM_NL__2PRFIN20040516_005808_000000522026_00475_11551_2482.N1	16-MAY-2004 00:58:08	Straylight	52.000	4	Alp1Cen	-0.010000	5800.0	104	11551	No
17	GOM_NL__2PRFIN20040516_010035_000000562026_00475_11551_2483.N1	16-MAY-2004 01:00:35	Straylight	55.500	25	35Lam Sco	1.6200	28000.	111	11551	No
18	GOM_NL__2PRFIN20040516_010314_000000412026_00475_11551_2484.N1	16-MAY-2004 01:03:14	Twilight	40.500	81	Eta Cen	2.3560	28000.	81	11551	No
19	GOM_NL__2PRFIN20040516_010559_000000642026_00475_11551_2485.N1	16-MAY-2004 01:05:59	Twilight	64.000	16	21Alp Sco	1.0200	3000.0	128	11551	No
20	GOM_NL__2PRFIN20040516_010742_000000502026_00475_11551_2486.N1	16-MAY-2004 01:07:42	Bright	49.500	80	7Del Sco	2.3160	30000.	99	11551	No
21	GOM_NL__2PRFIN20040516_010940_000000602026_00475_11551_2487.N1	16-MAY-2004 01:09:40	Bright	59.500	86	35Eta Oph	2.4300	10200.	119	11551	No
22	GOM_NL__2PRFIN20040516_011214_000000432026_00475_11551_2488.N1	16-MAY-2004 01:12:14	Bright	42.500	104	27Bet Lib	2.6140	13100.	85	11551	No
23	GOM_NL__2PRFIN20040516_011423_000000512026_00475_11551_2489.N1	16-MAY-2004 01:14:23	Bright	51.000	120	1Del Oph	2.7340	3200.0	102	11551	No
24	GOM_NL__2PRFIN20040516_011734_000000452026_00475_11551_2490.N1	16-MAY-2004 01:17:34	Bright	45.000	102	24Alp Ser	2.6000	4250.0	90	11551	No
25	GOM_NL__2PRFIN20040516_012030_000000372026_00475_11551_2491.N1	16-MAY-2004 01:20:30	Bright	37.000	111	8Eta Boo	2.6800	6000.0	74	11551	No
26	GOM_NL__2PRFIN20040516_012309_000000422026_00475_11551_2492.N1	16-MAY-2004 01:23:09	Bright	41.500	83		2.3780	11000.	83	11551	No
27	GOM_NL__2PRFIN20040516_012617_000000402026_00475_11551_2493.N1	16-MAY-2004 01:26:17	Bright	40.000	180	27Gam Boo	3.0400	8000.0	80	11551	No
28	GOM_NL__2PRFIN20040516_012910_000000412026_00475_11551_2494.N1	16-MAY-2004 01:29:10	Bright	40.500	39	85Eta UMa	1.8540	24000.	81	11551	No
29	GOM_NL__2PRFIN20040516_013049_000000352026_00475_11551_2495.N1	16-MAY-2004 01:30:49	Bright	35.000	55	79Zet UMa	2.0600	10200.	70	11551	No
30	GOM_NL__2PRFIN20040516_013430_000000402026_00475_11551_2496.N1	16-MAY-2004 01:34:30	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	11551	No
31	GOM_NL__2PRFIN20040516_013630_000000372026_00475_11551_2497.N1	16-MAY-2004 01:36:30	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	11551	No
32	GOM_NL__2PRFIN20040516_014053_000000382026_00475_11551_2498.N1	16-MAY-2004 01:40:53	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	11551	No
33	GOM_NL__2PRFIN20040516_014554_000000472026_00475_11551_2499.N1	16-MAY-2004 01:45:54	Bright	46.500	89	5Alp Cep	2.4510	8000.0	93	11551	No
34	GOM_NL__2PRFIN20040516_014905_000000532026_00475_11551_2500.N1	16-MAY-2004 01:49:05	Bright	53.000	76	27Gam Cas	2.3000	30000.	106	11551	No
35	GOM_NL__2PRFIN20040516_015019_000000402026_00475_11551_2501.N1	16-MAY-2004 01:50:19	Bright	40.000	68	18Alp Cas	2.2250	4500.0	80	11551	No
36	GOM_NL__2PRFIN20040516_015215_000001052026_00475_11551_2502.N1	16-MAY-2004 01:52:15	Bright	105.00	66	37Gam Cyg	2.2080	5900.0	210	11551	No
37	GOM_NL__2PRFIN20040516_015842_000000482026_00475_11551_2503.N1	16-MAY-2004 01:58:42	Bright	47.500	58	21Alp And	2.0730	11000.	95	11551	No
38	GOM_NL__2PRFIN20040516_020253_000000442026_00475_11551_2504.N1	16-MAY-2004 02:02:53	Twilight	43.500	140	88Gam Peg	2.8340	26000.	87	11551	No
39	GOM_NL__2PRFIN20040516_020433_000000582026_00475_11551_2505.N1	16-MAY-2004 02:04:33	Dark	57.500	90	54Alp Peg	2.4870	11000.	115	11551	No
40	GOM_NL__2PRFIN20040516_021135_000000462026_00475_11551_2506.N1	16-MAY-2004 02:11:35	Dark	46.000	52	16Bet Cet	2.0370	4500.0	92	11551	No
41	GOM_NL__2PRFIN20040516_021811_000000562026_00475_11551_2507.N1	16-MAY-2004 02:18:11	Dark	56.000	18	24Alp PsA	1.1660	9700.0	112	11551	No
42	GOM_NL__2PRFIN20040516_022232_000000572026_00475_11551_2508.N1	16-MAY-2004 02:22:32	Dark	57.000	63	Bet Gru	2.1500	2800.0	114	11551	No















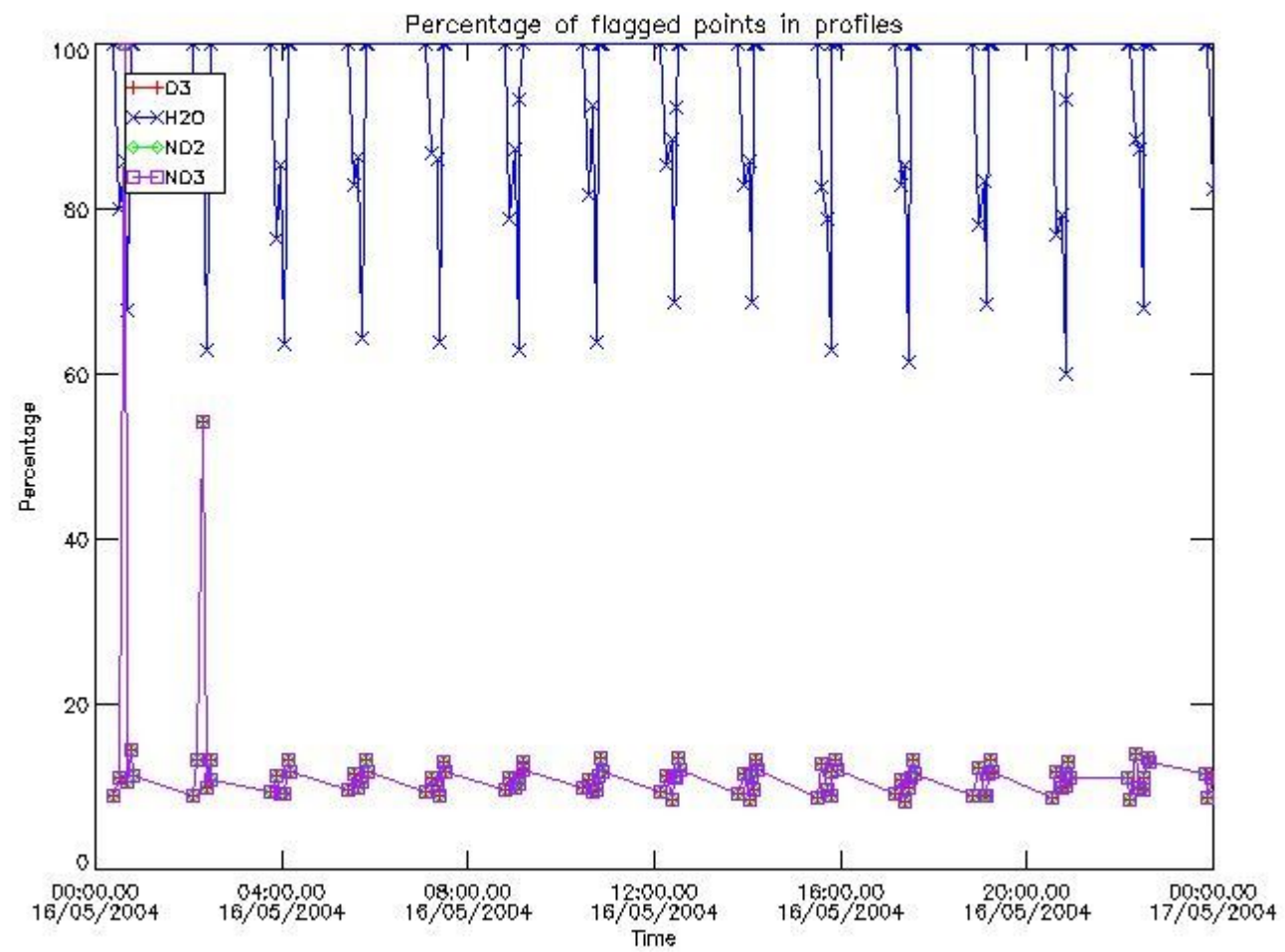


456	GOM_NL__2PRFIN20040516_235227_000000592026_00488_11564_2526.N1	16-MAY-2004 23:52:27	Dark	58.500	90	54Alp Peg	2.4870	11000.	117	11564	No
457	GOM_NL__2PRFIN20040516_235929_000000462026_00488_11564_2527.N1	16-MAY-2004 23:59:29	Dark	46.000	52	16Bet Cet	2.0370	4500.0	92	11564	No

### 3. Quality information per product

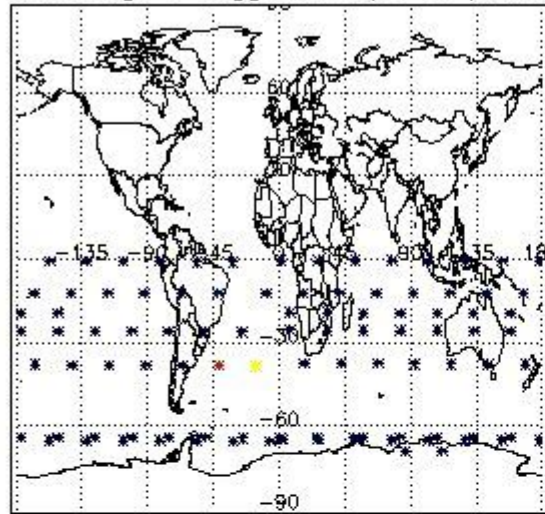
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

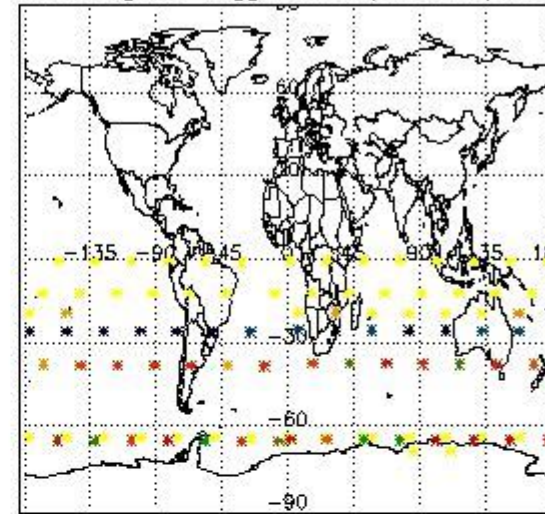


#### 3.2 Plot quality information per product (world map)

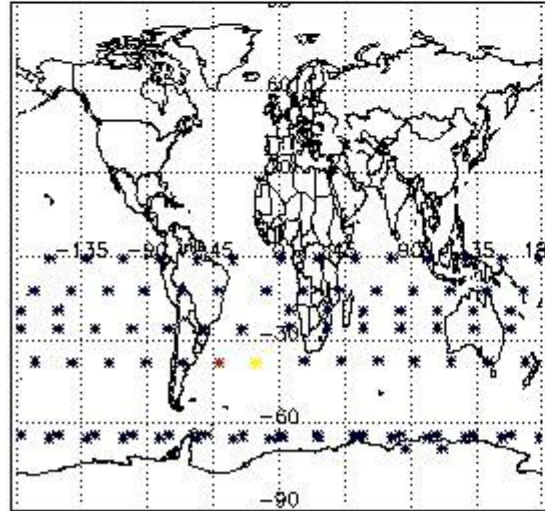
Percentage of flagged data per O3 profile



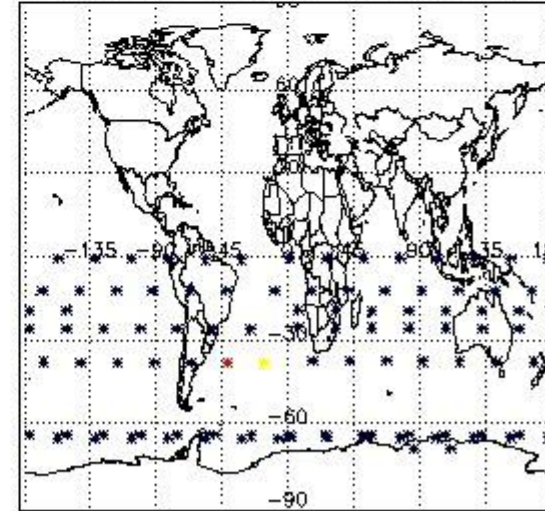
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

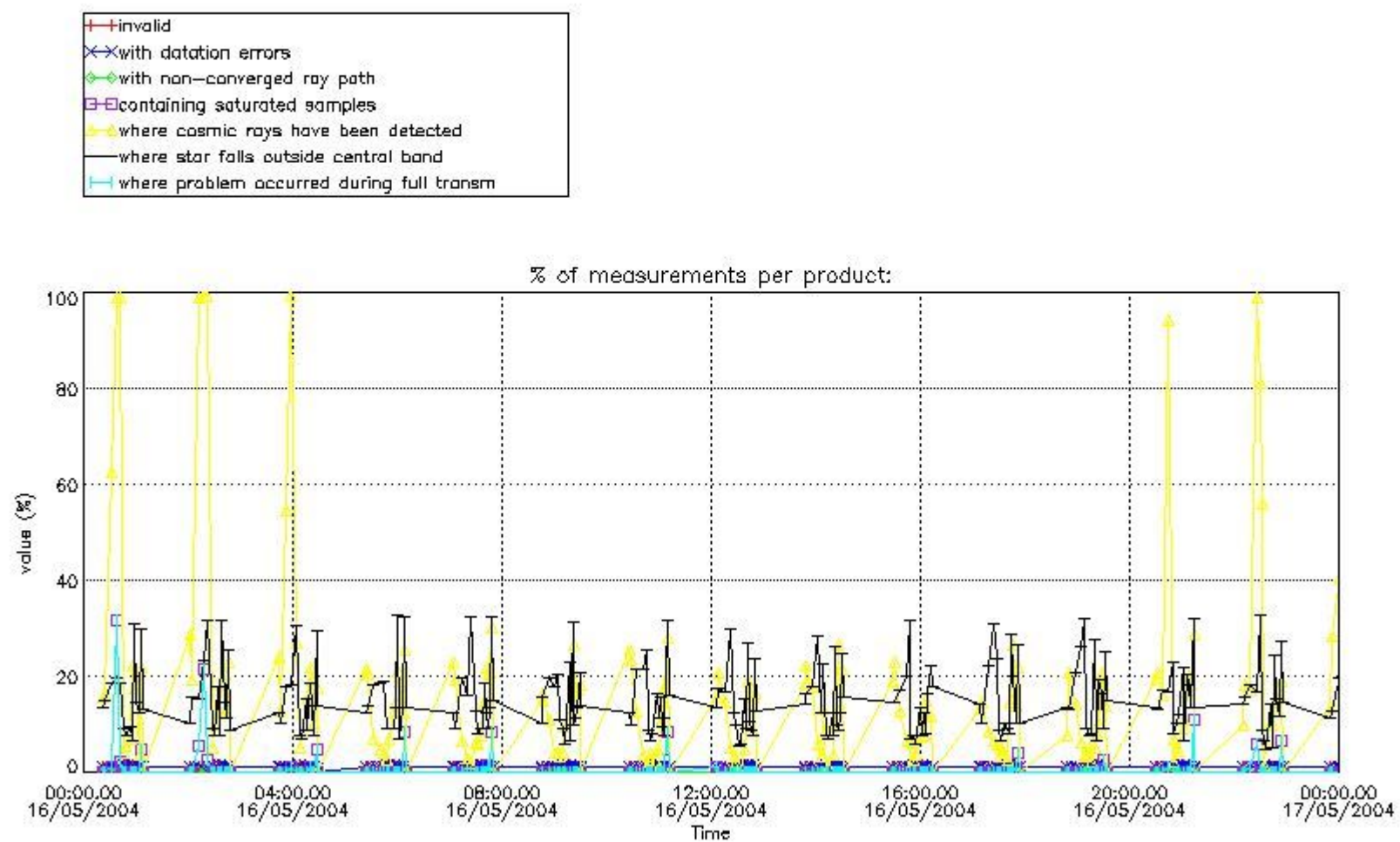


#### 4. Level 1 quality information per product

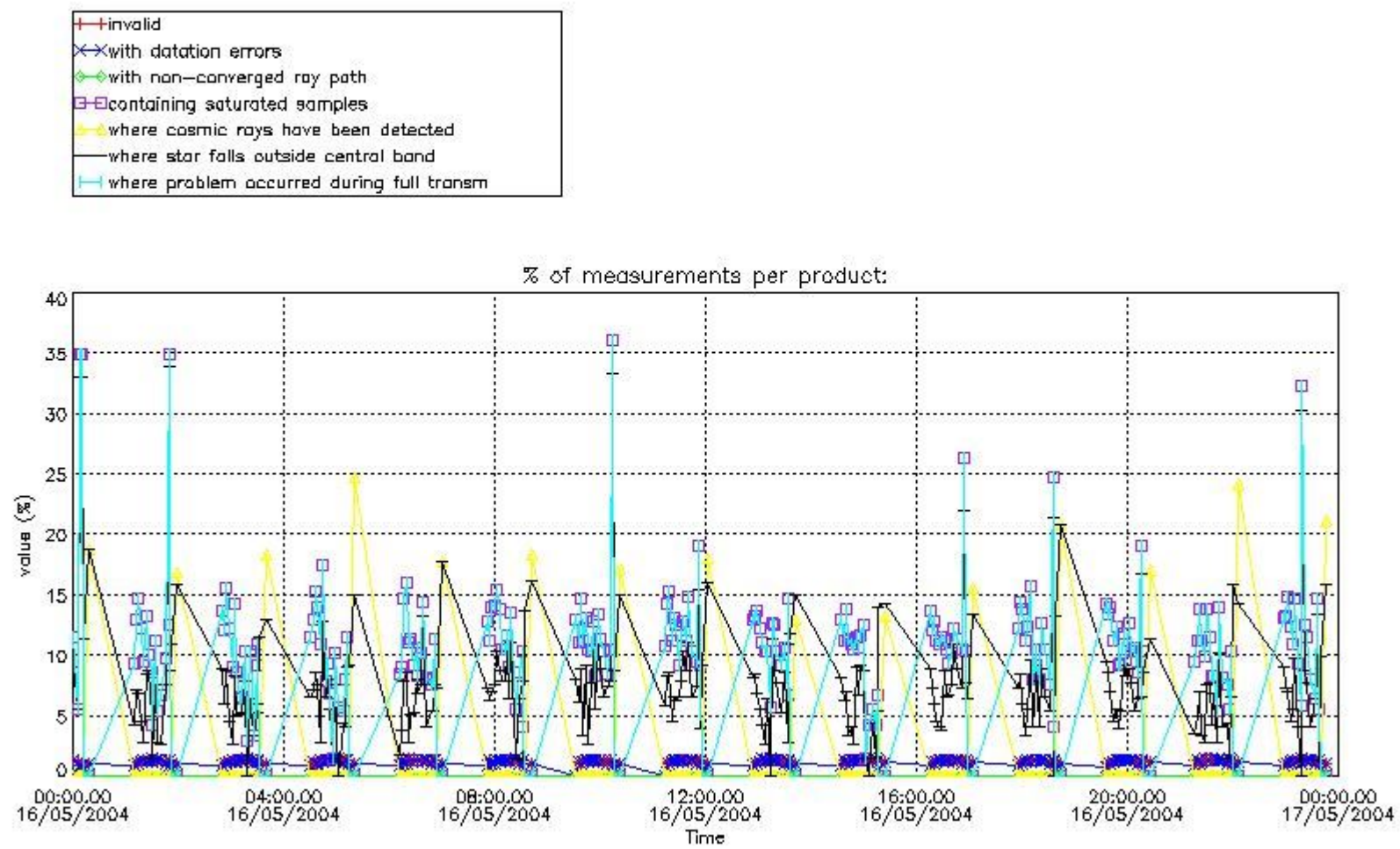
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

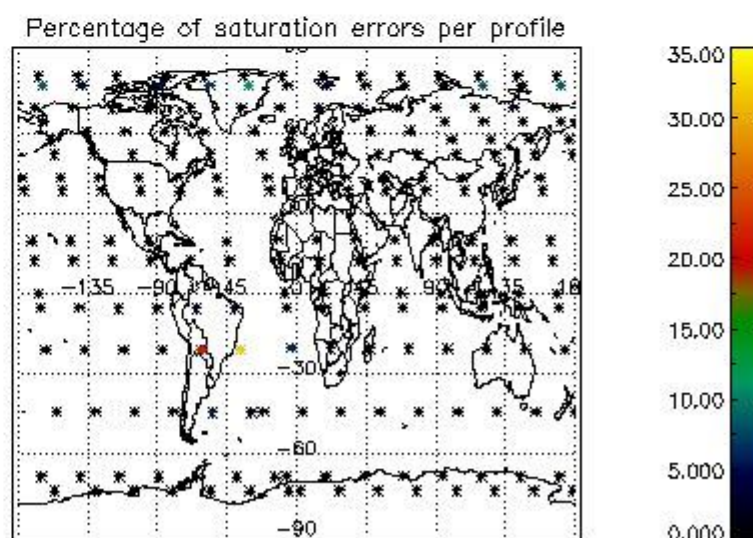
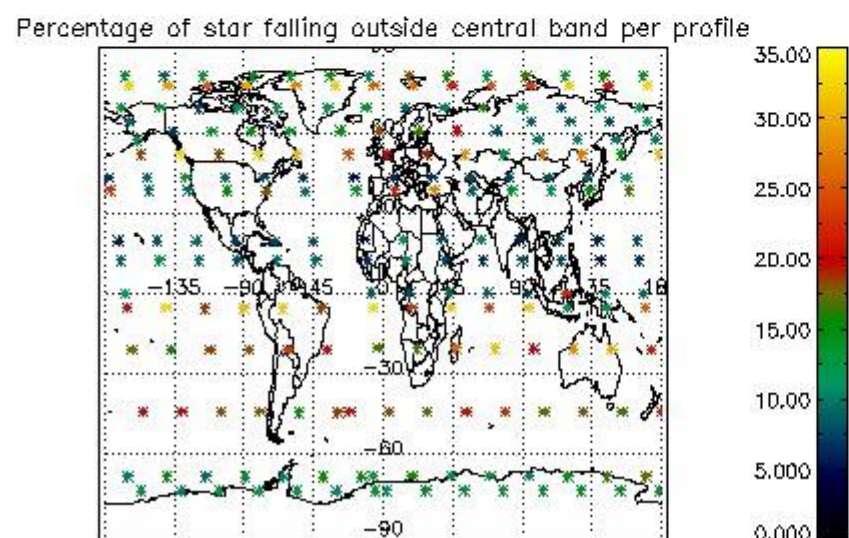
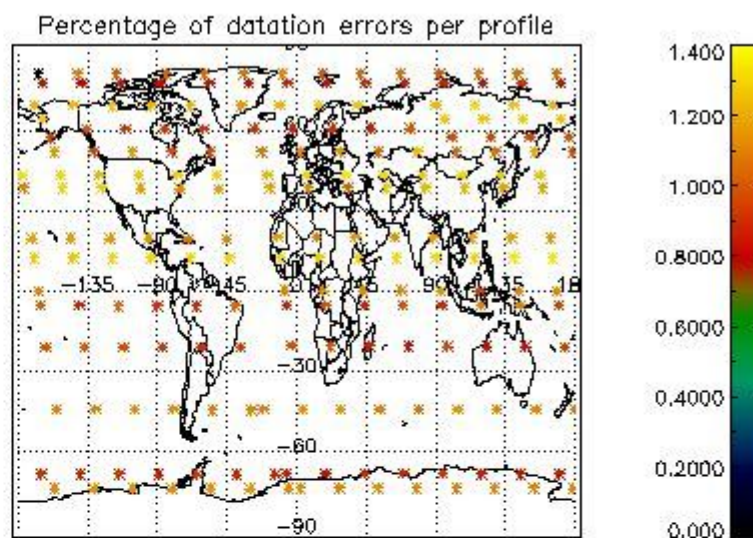
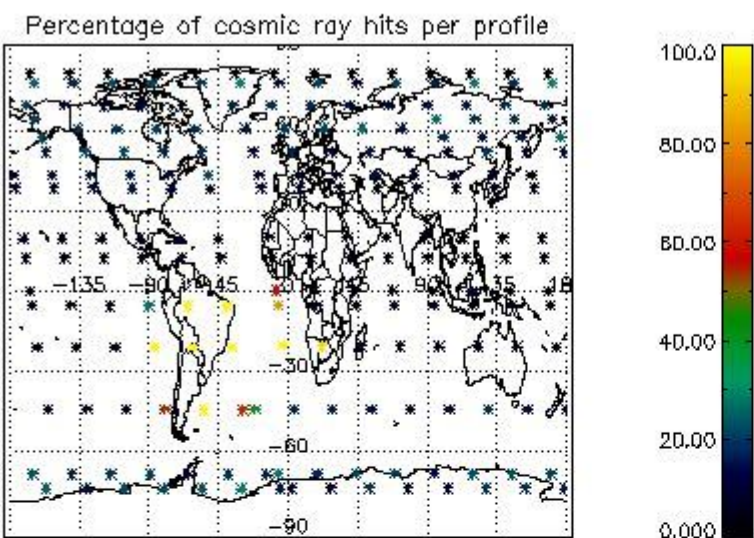


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

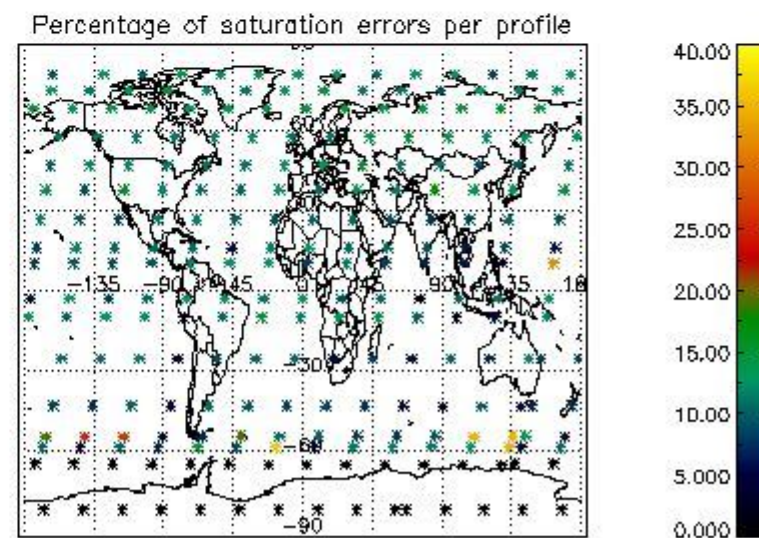
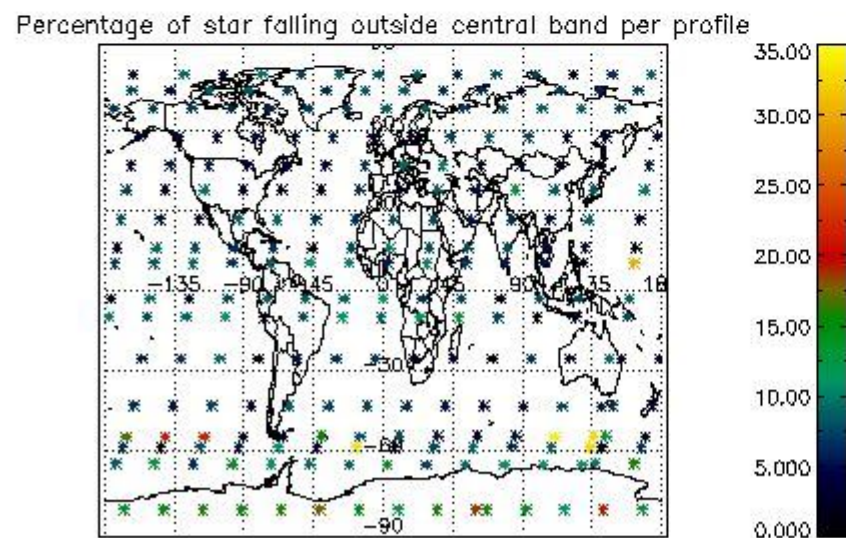
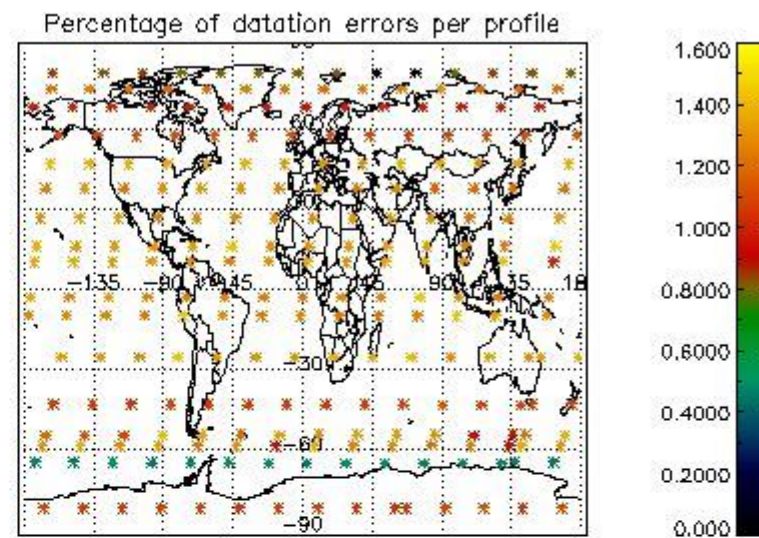
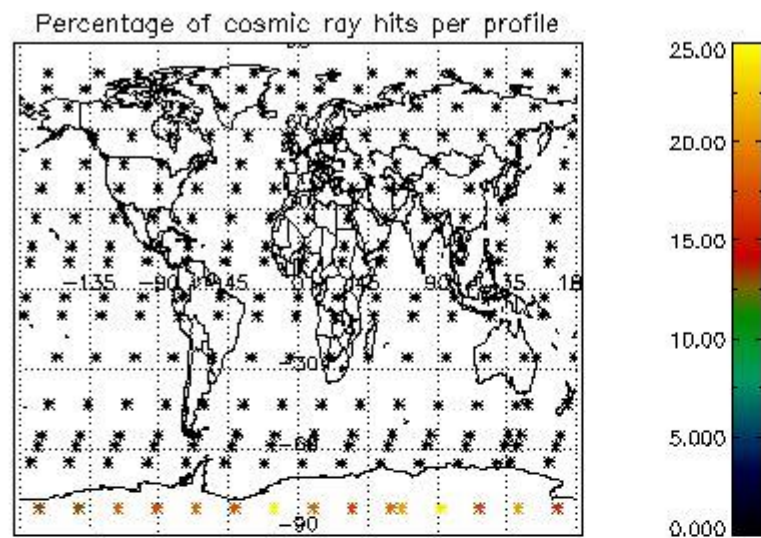


*4.2 Plot quality information per product coming from level 1b processing (world map)*

*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

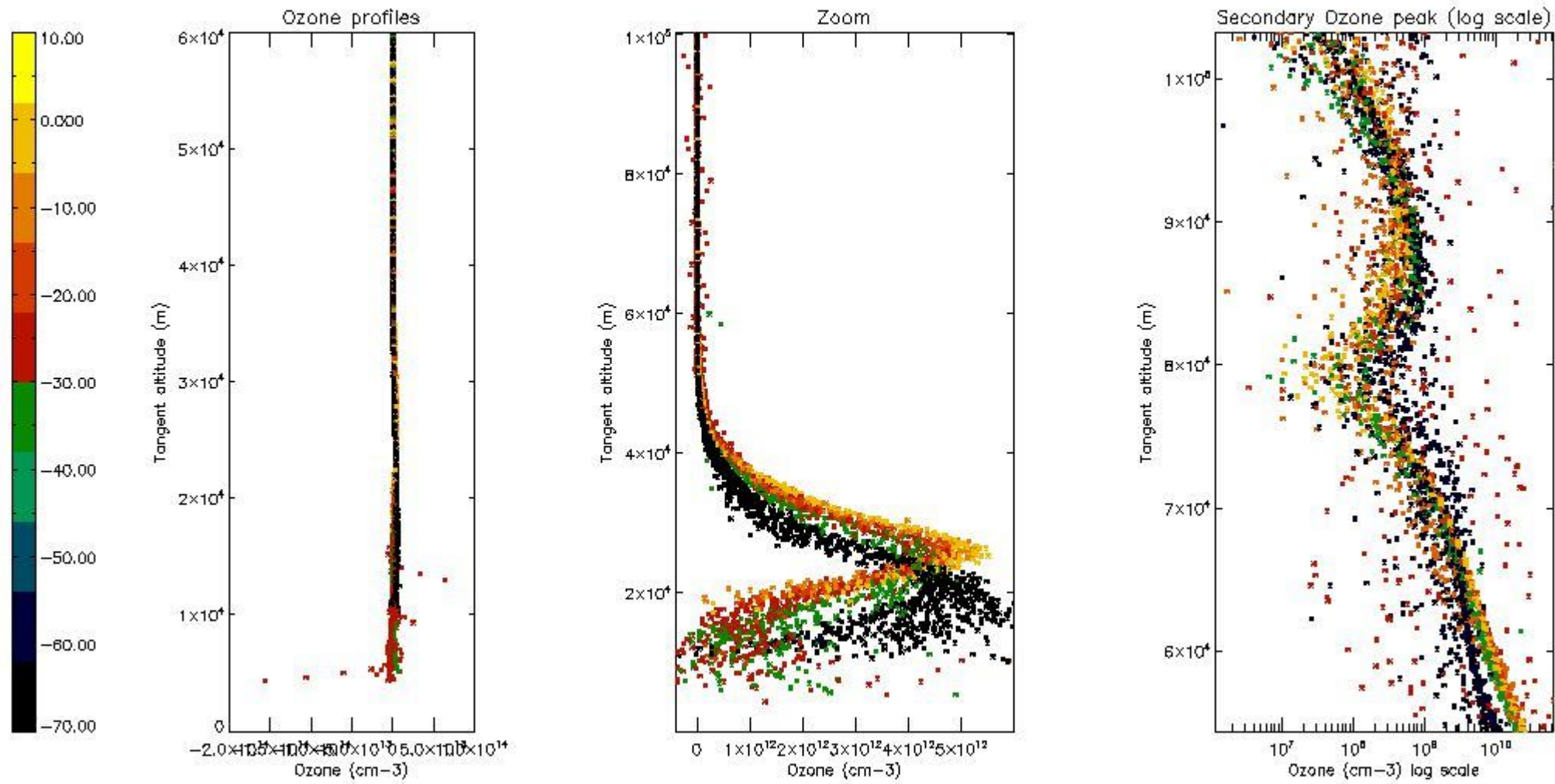
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	22
STD < 20	12

STD < 10	9
STD < 5	6

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

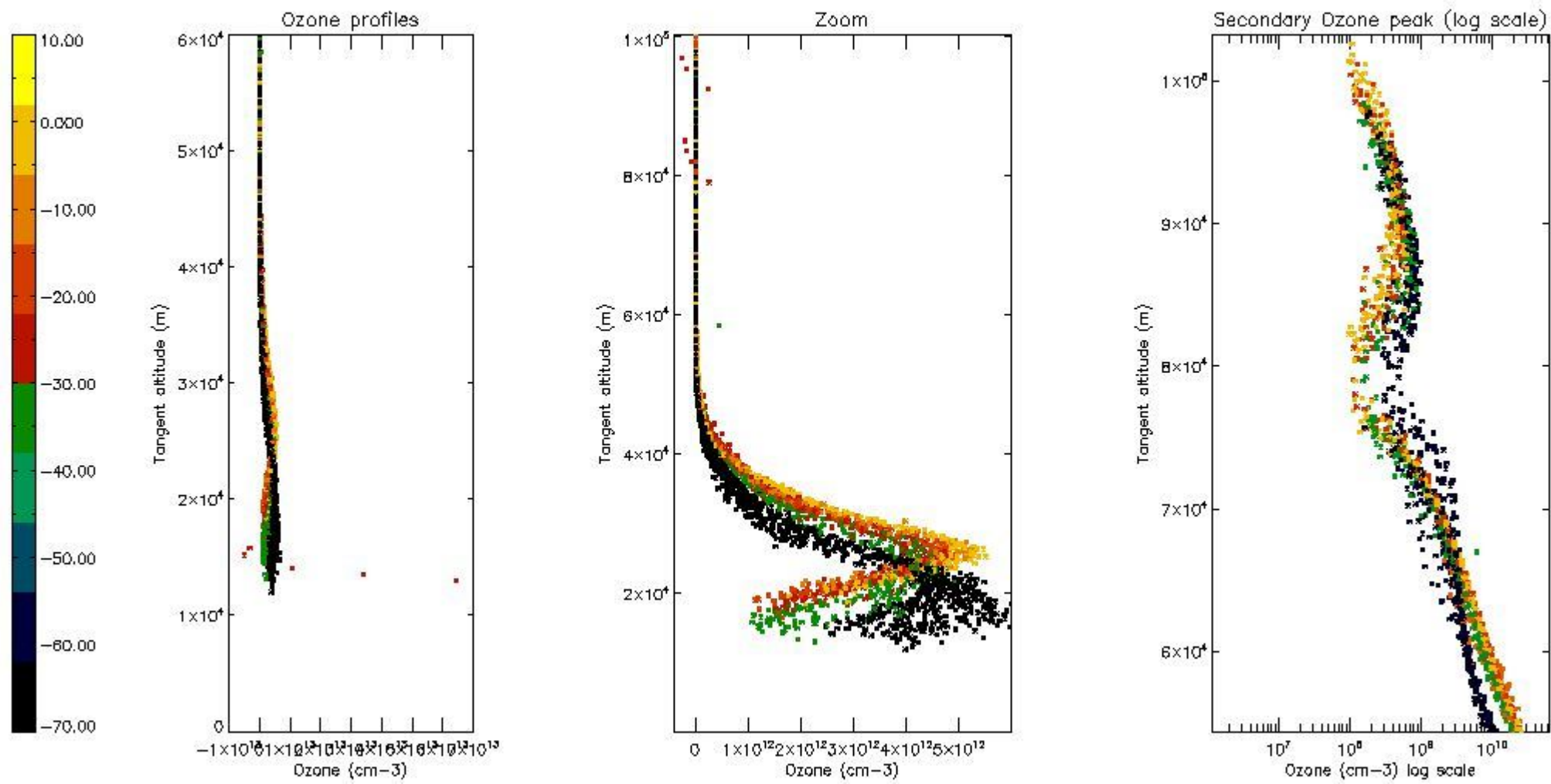
The colorbar represents the latitude.



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

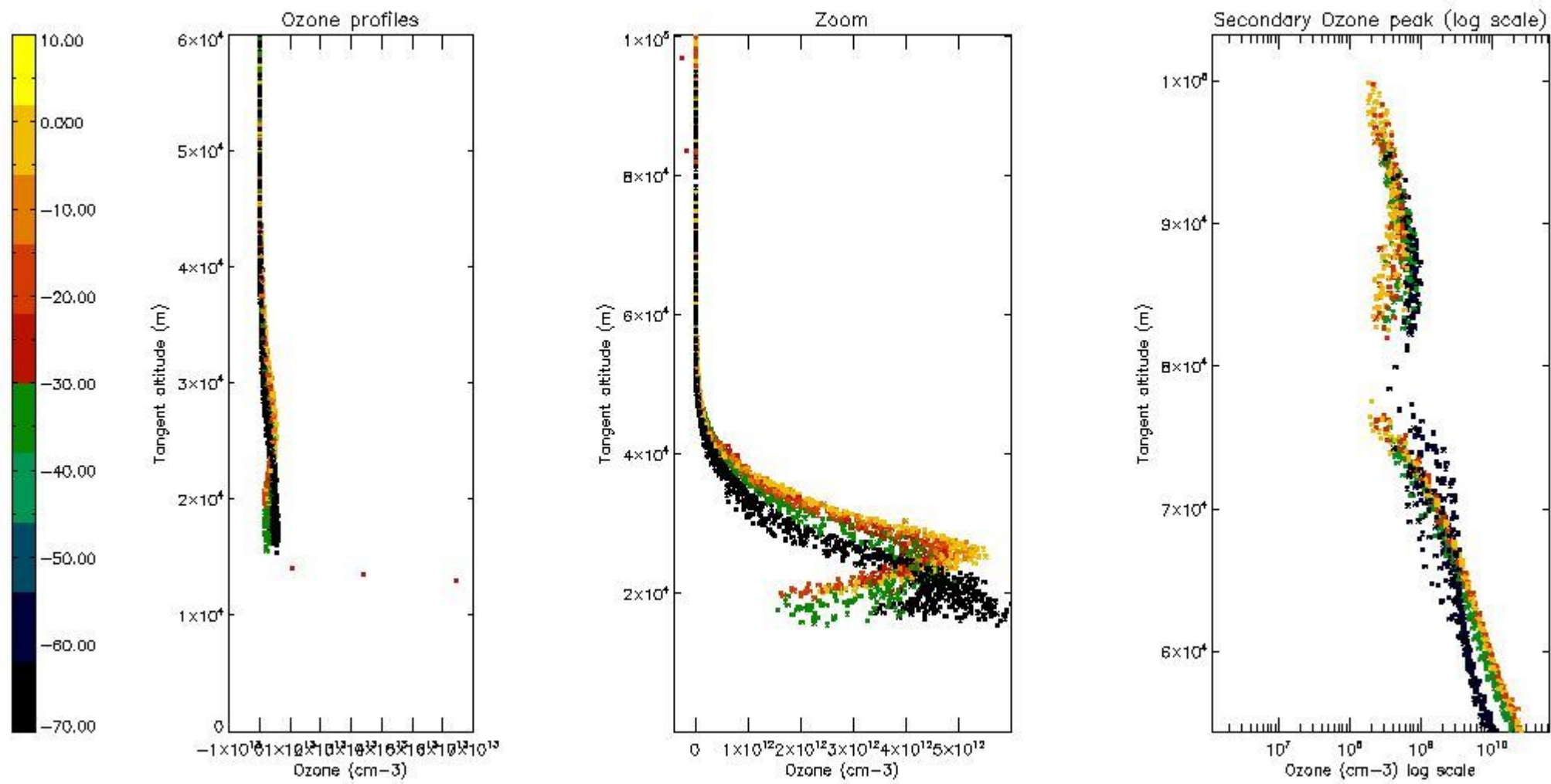
The colorbar represents the latitude.





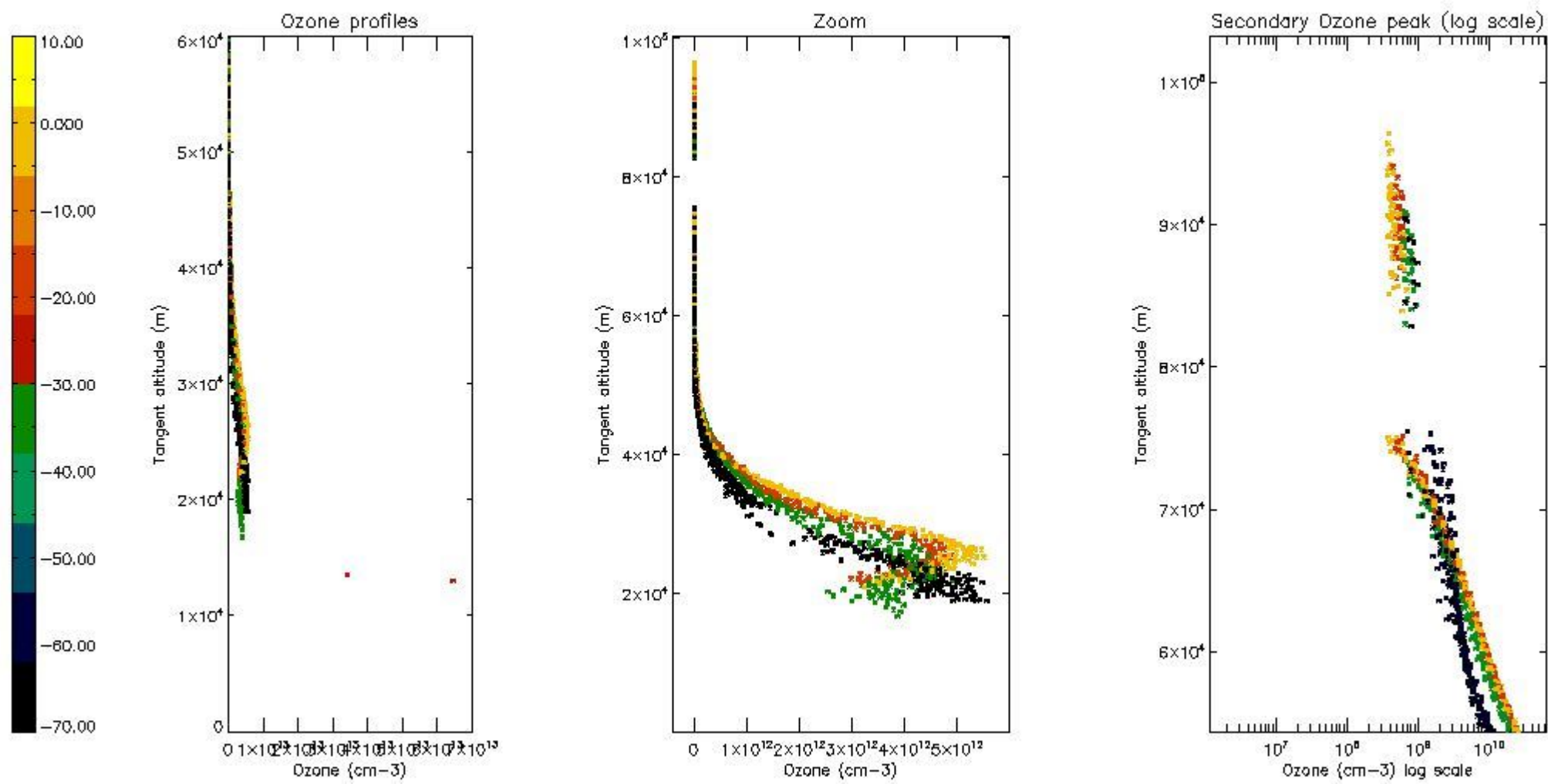
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



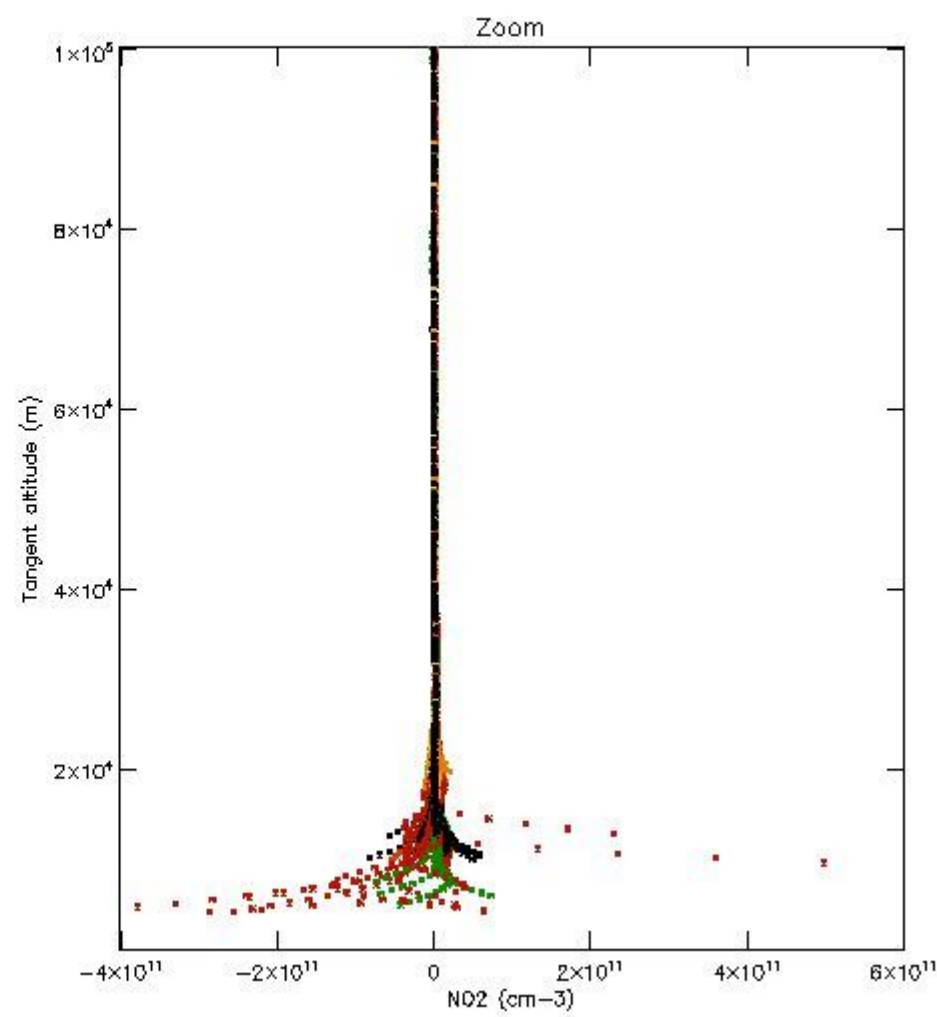
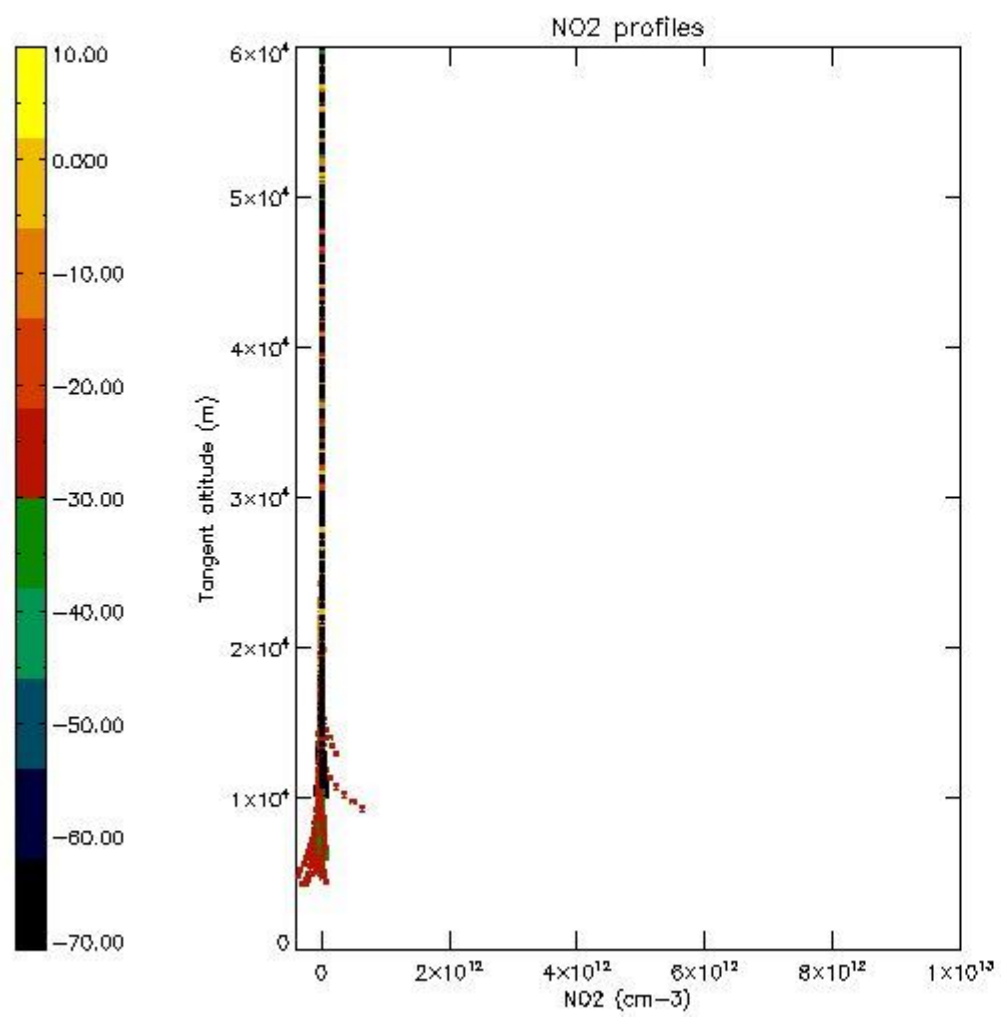
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



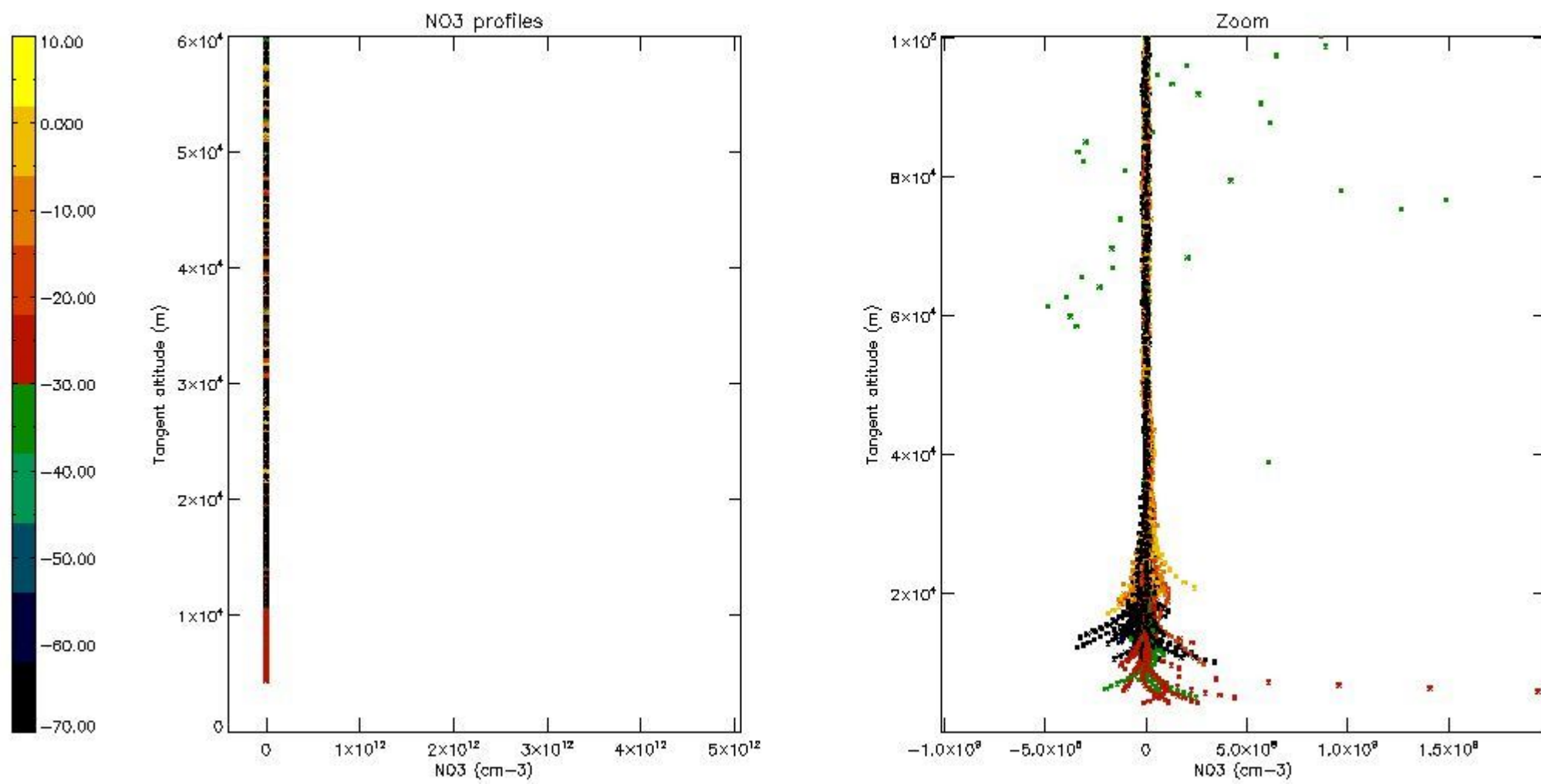
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



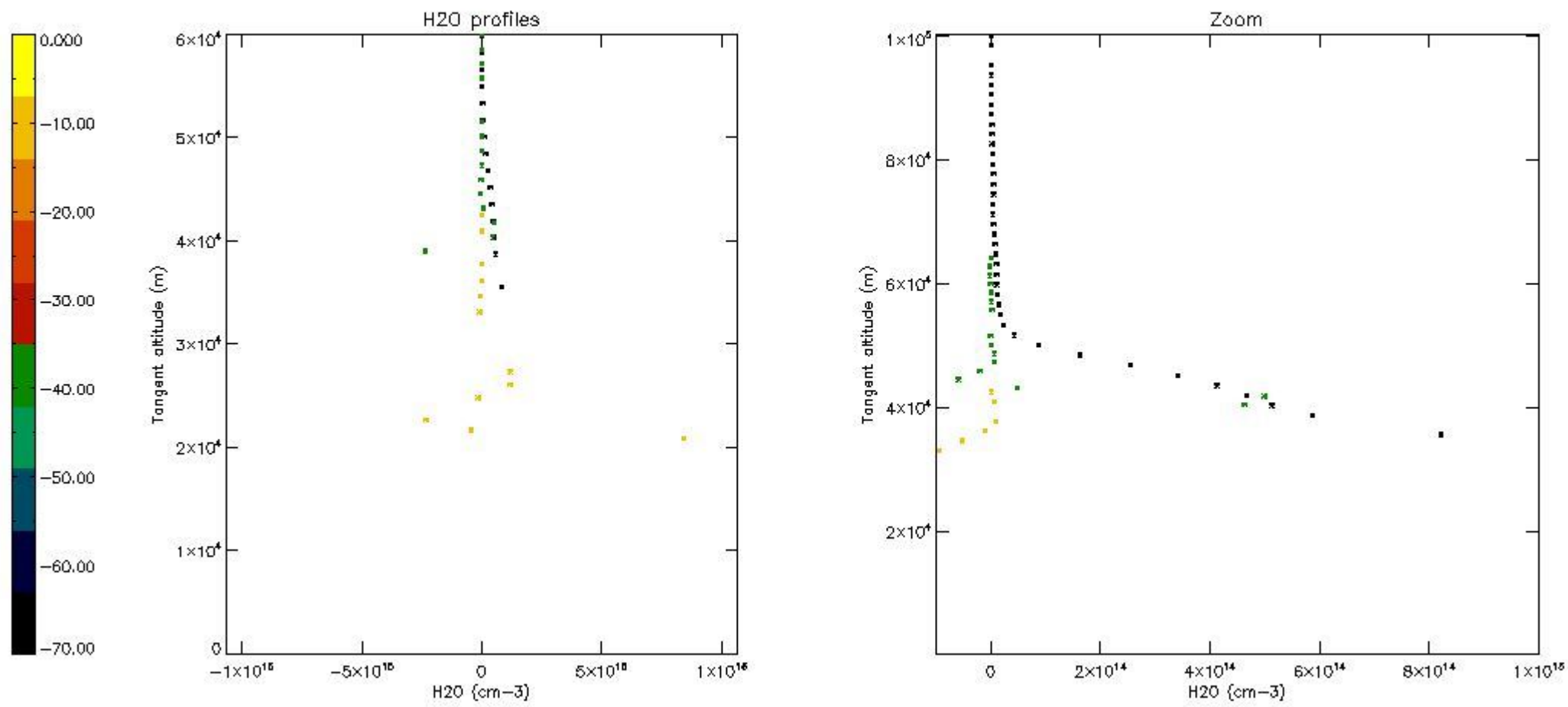
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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	16-MAY-2004 00:00:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-MAY-2004 00:00:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-MAY-2004 00:00:17

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

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

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

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

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

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

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

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

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

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

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Nb of prods with errors	0

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1	GOM_NL__2PRFIN20040516_000017_000000392026_00474_11550_2498.N1	16-MAY-2004 00:00:17	Bright	39.000	49	1Alp UMi	1.9900	6300.0	78	11550	No
2	GOM_NL__2PRFIN20040516_000518_000000462026_00474_11550_2499.N1	16-MAY-2004 00:05:18	Bright	45.500	89	5Alp Cep	2.4510	8000.0	91	11550	No
3	GOM_NL__2PRFIN20040516_000829_000000532026_00474_11550_2500.N1	16-MAY-2004 00:08:29	Bright	53.000	76	27Gam Cas	2.3000	30000.	106	11550	No
4	GOM_NL__2PRFIN20040516_000943_000000532026_00474_11550_2501.N1	16-MAY-2004 00:09:43	Bright	53.000	68	18Alp Cas	2.2250	4500.0	106	11550	No
5	GOM_NL__2PRFIN20040516_001140_000001062026_00474_11550_2502.N1	16-MAY-2004 00:11:40	Bright	106.00	66	37Gam Cyg	2.2080	5900.0	212	11550	No
6	GOM_NL__2PRFIN20040516_001807_000000482026_00474_11550_2503.N1	16-MAY-2004 00:18:07	Bright	48.000	58	21Alp And	2.0730	11000.	96	11550	No
7	GOM_NL__2PRFIN20040516_002217_000000452026_00474_11550_2504.N1	16-MAY-2004 00:22:17	Twilight	45.000	140	88Gam Peg	2.8340	26000.	90	11550	No
8	GOM_NL__2PRFIN20040516_002356_000000582026_00474_11550_2505.N1	16-MAY-2004 00:23:56	Dark	57.500	90	54Alp Peg	2.4870	11000.	115	11550	No
9	GOM_NL__2PRFIN20040516_003100_000000462026_00474_11550_2506.N1	16-MAY-2004 00:31:00	Dark	45.500	52	16Bet Cet	2.0370	4500.0	91	11550	No
10	GOM_NL__2PRFIN20040516_003735_000000542026_00474_11550_2507.N1	16-MAY-2004 00:37:35	Dark	53.500	18	24Alp PsA	1.1660	9700.0	107	11550	No
11	GOM_NL__2PRFIN20040516_004155_000000492026_00474_11550_2508.N1	16-MAY-2004 00:41:55	Dark	48.500	63	Bet Gru	2.1500	2800.0	97	11550	No
12	GOM_NL__2PRFIN20040516_004659_000000392026_00475_11551_2478.N1	16-MAY-2004 00:46:59	Dark	38.500	135	Bet Hyi	2.8200	5800.0	77	11551	No
13	GOM_NL__2PRFIN20040516_004857_000000452026_00475_11551_2479.N1	16-MAY-2004 00:48:57	Dark	45.000	45	Alp Pav	1.9400	26000.	90	11551	No
14	GOM_NL__2PRFIN20040516_005414_000000432026_00475_11551_2480.N1	16-MAY-2004 00:54:14	Straylight	43.000	43	Alp TrA	1.9100	4250.0	86	11551	No
15	GOM_NL__2PRFIN20040516_005540_000000392026_00475_11551_2481.N1	16-MAY-2004 00:55:40	Straylight	38.500	145	Gam TrA	2.8720	10600.	77	11551	No
16	GOM_NL__2PRFIN20040516_005808_000000522026_00475_11551_2482.N1	16-MAY-2004 00:58:08	Straylight	52.000	4	Alp1Cen	-0.010000	5800.0	104	11551	No
17	GOM_NL__2PRFIN20040516_010035_000000562026_00475_11551_2483.N1	16-MAY-2004 01:00:35	Straylight	55.500	25	35Lam Sco	1.6200	28000.	111	11551	No
18	GOM_NL__2PRFIN20040516_010314_000000412026_00475_11551_2484.N1	16-MAY-2004 01:03:14	Twilight	40.500	81	Eta Cen	2.3560	28000.	81	11551	No
19	GOM_NL__2PRFIN20040516_010559_000000642026_00475_11551_2485.N1	16-MAY-2004 01:05:59	Twilight	64.000	16	21Alp Sco	1.0200	3000.0	128	11551	No
20	GOM_NL__2PRFIN20040516_010742_000000502026_00475_11551_2486.N1	16-MAY-2004 01:07:42	Bright	49.500	80	7Del Sco	2.3160	30000.	99	11551	No
21	GOM_NL__2PRFIN20040516_010940_000000602026_00475_11551_2487.N1	16-MAY-2004 01:09:40	Bright	59.500	86	35Eta Oph	2.4300	10200.	119	11551	No
22	GOM_NL__2PRFIN20040516_011214_000000432026_00475_11551_2488.N1	16-MAY-2004 01:12:14	Bright	42.500	104	27Bet Lib	2.6140	13100.	85	11551	No
23	GOM_NL__2PRFIN20040516_011423_000000512026_00475_11551_2489.N1	16-MAY-2004 01:14:23	Bright	51.000	120	1Del Oph	2.7340	3200.0	102	11551	No
24	GOM_NL__2PRFIN20040516_011734_000000452026_00475_11551_2490.N1	16-MAY-2004 01:17:34	Bright	45.000	102	24Alp Ser	2.6000	4250.0	90	11551	No
25	GOM_NL__2PRFIN20040516_012030_000000372026_00475_11551_2491.N1	16-MAY-2004 01:20:30	Bright	37.000	111	8Eta Boo	2.6800	6000.0	74	11551	No
26	GOM_NL__2PRFIN20040516_012309_000000422026_00475_11551_2492.N1	16-MAY-2004 01:23:09	Bright	41.500	83		2.3780	11000.	83	11551	No
27	GOM_NL__2PRFIN20040516_012617_000000402026_00475_11551_2493.N1	16-MAY-2004 01:26:17	Bright	40.000	180	27Gam Boo	3.0400	8000.0	80	11551	No
28	GOM_NL__2PRFIN20040516_012910_000000412026_00475_11551_2494.N1	16-MAY-2004 01:29:10	Bright	40.500	39	85Eta UMa	1.8540	24000.	81	11551	No
29	GOM_NL__2PRFIN20040516_013049_000000352026_00475_11551_2495.N1	16-MAY-2004 01:30:49	Bright	35.000	55	79Zet UMa	2.0600	10200.	70	11551	No
30	GOM_NL__2PRFIN20040516_013430_000000402026_00475_11551_2496.N1	16-MAY-2004 01:34:30	Bright	40.000	36	50Alp UMa	1.8000	6300.0	80	11551	No
31	GOM_NL__2PRFIN20040516_013630_000000372026_00475_11551_2497.N1	16-MAY-2004 01:36:30	Bright	37.000	60	7Bet UMi	2.0810	3950.0	74	11551	No
32	GOM_NL__2PRFIN20040516_014053_000000382026_00475_11551_2498.N1	16-MAY-2004 01:40:53	Bright	37.500	49	1Alp UMi	1.9900	6300.0	75	11551	No
33	GOM_NL__2PRFIN20040516_014554_000000472026_00475_11551_2499.N1	16-MAY-2004 01:45:54	Bright	46.500	89	5Alp Cep	2.4510	8000.0	93	11551	No
34	GOM_NL__2PRFIN20040516_014905_000000532026_00475_11551_2500.N1	16-MAY-2004 01:49:05	Bright	53.000	76	27Gam Cas	2.3000	30000.	106	11551	No
35	GOM_NL__2PRFIN20040516_015019_000000402026_00475_11551_2501.N1	16-MAY-2004 01:50:19	Bright	40.000	68	18Alp Cas	2.2250	4500.0	80	11551	No
36	GOM_NL__2PRFIN20040516_015215_000001052026_00475_11551_2502.N1	16-MAY-2004 01:52:15	Bright	105.00	66	37Gam Cyg	2.2080	5900.0	210	11551	No
37	GOM_NL__2PRFIN20040516_015842_000000482026_00475_11551_2503.N1	16-MAY-2004 01:58:42	Bright	47.500	58	21Alp And	2.0730	11000.	95	11551	No
38	GOM_NL__2PRFIN20040516_020253_000000442026_00475_11551_2504.N1	16-MAY-2004 02:02:53	Twilight	43.500	140	88Gam Peg	2.8340	26000.	87	11551	No
39	GOM_NL__2PRFIN20040516_020433_000000582026_00475_11551_2505.N1	16-MAY-2004 02:04:33	Dark	57.500	90	54Alp Peg	2.4870	11000.	115	11551	No
40	GOM_NL__2PRFIN20040516_021135_000000462026_00475_11551_2506.N1	16-MAY-2004 02:11:35	Dark	46.000	52	16Bet Cet	2.0370	4500.0	92	11551	No
41	GOM_NL__2PRFIN20040516_021811_000000562026_00475_11551_2507.N1	16-MAY-2004 02:18:11	Dark	56.000	18	24Alp PsA	1.1660	9700.0	112	11551	No
42	GOM_NL__2PRFIN20040516_022232_000000572026_00475_11551_2508.N1	16-MAY-2004 02:22:32	Dark	57.000	63	Bet Gru	2.1500	2800.0	114	11551	No















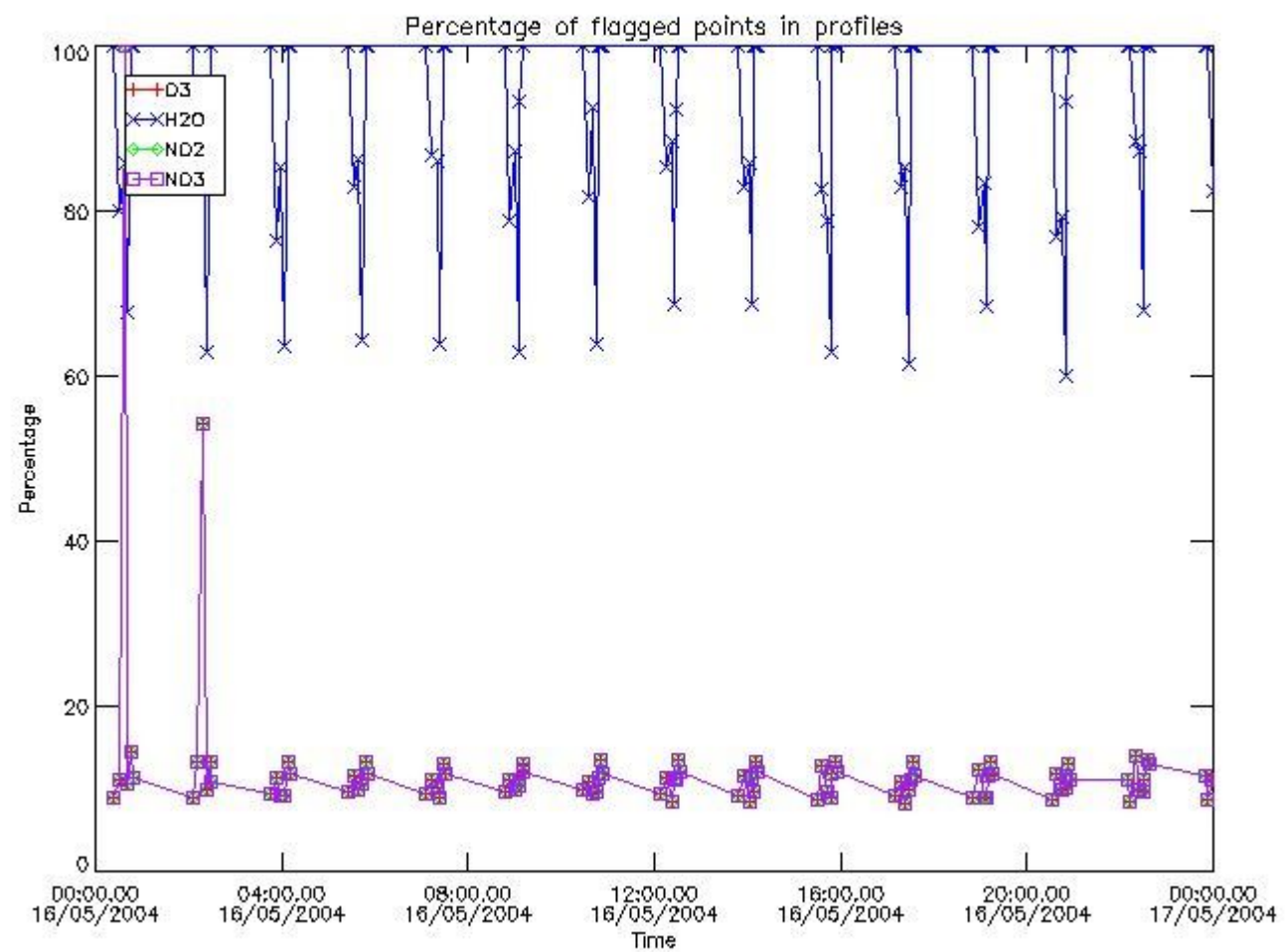


456	GOM_NL__2PRFIN20040516_235227_000000592026_00488_11564_2526.N1	16-MAY-2004 23:52:27	Dark	58.500	90	54Alp Peg	2.4870	11000.	117	11564	No
457	GOM_NL__2PRFIN20040516_235929_000000462026_00488_11564_2527.N1	16-MAY-2004 23:59:29	Dark	46.000	52	16Bet Cet	2.0370	4500.0	92	11564	No

### 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.

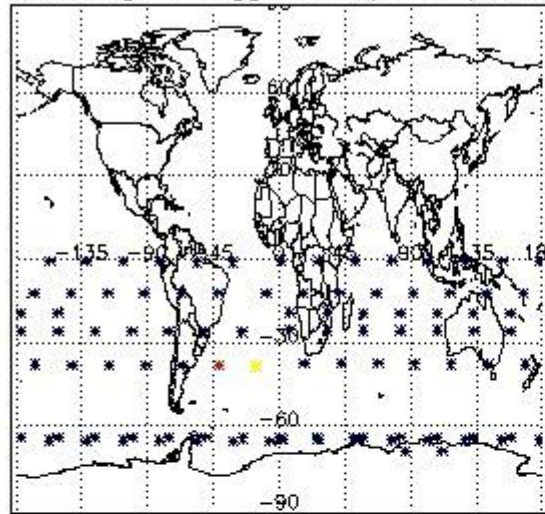
#### 3.1 Plot quality information per product (time dependant)



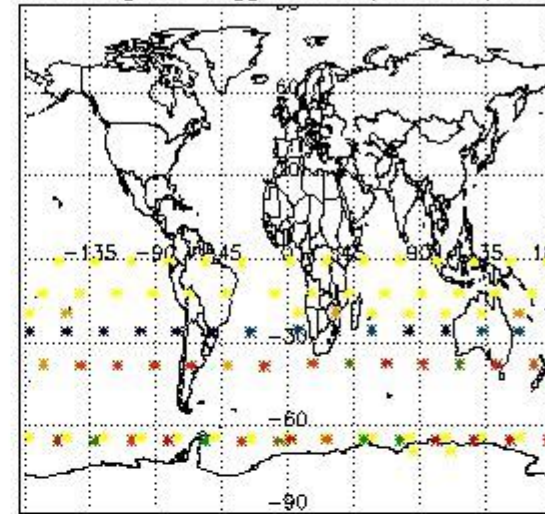
#### 3.2 Plot quality information per product (world map)



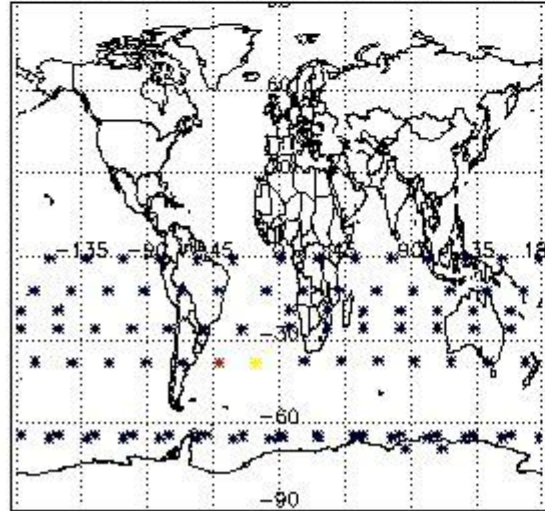
Percentage of flagged data per O3 profile



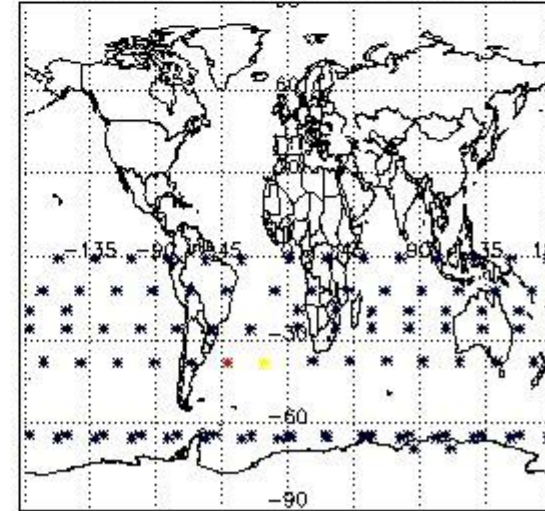
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

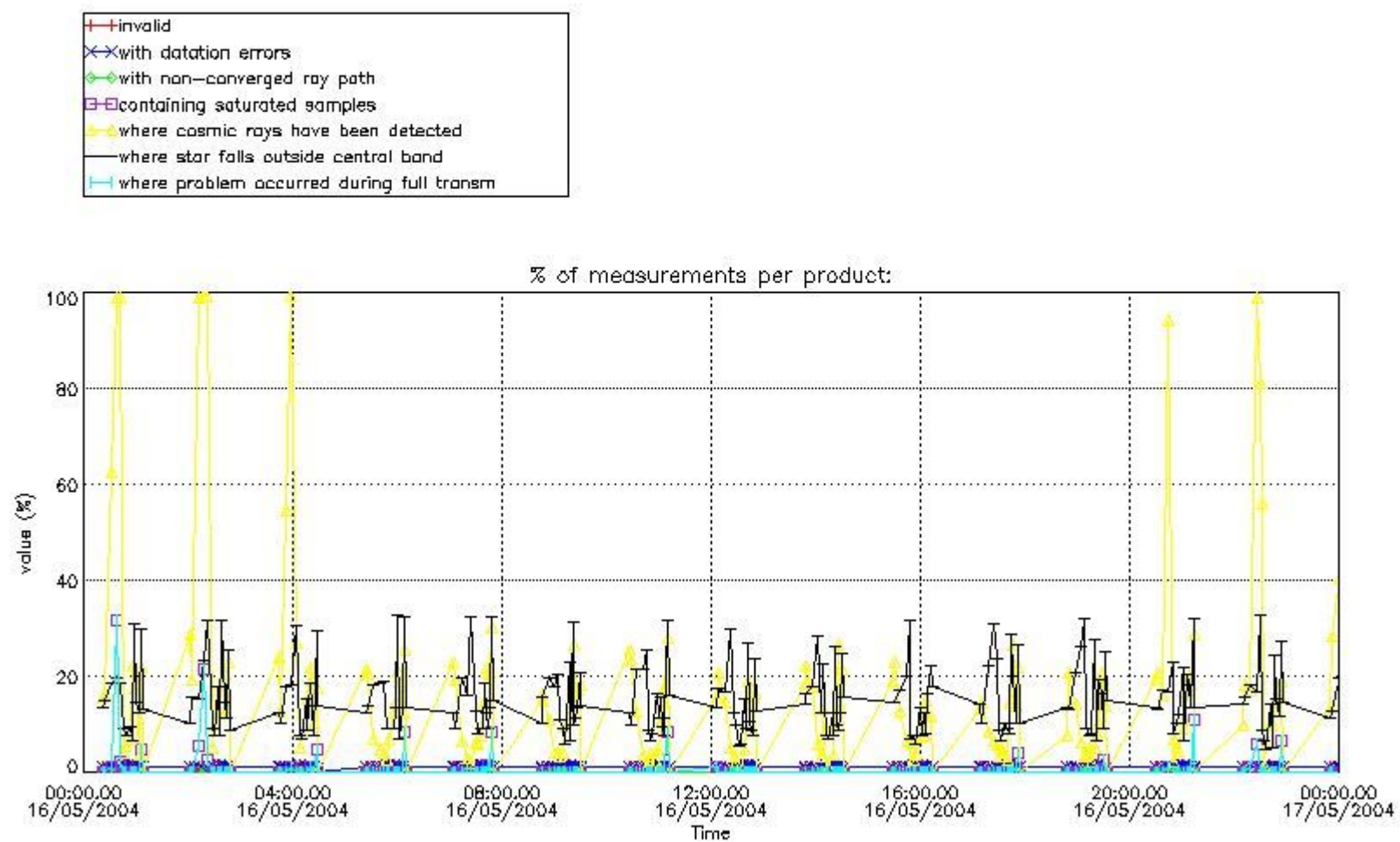


#### 4. Level 1 quality information per product

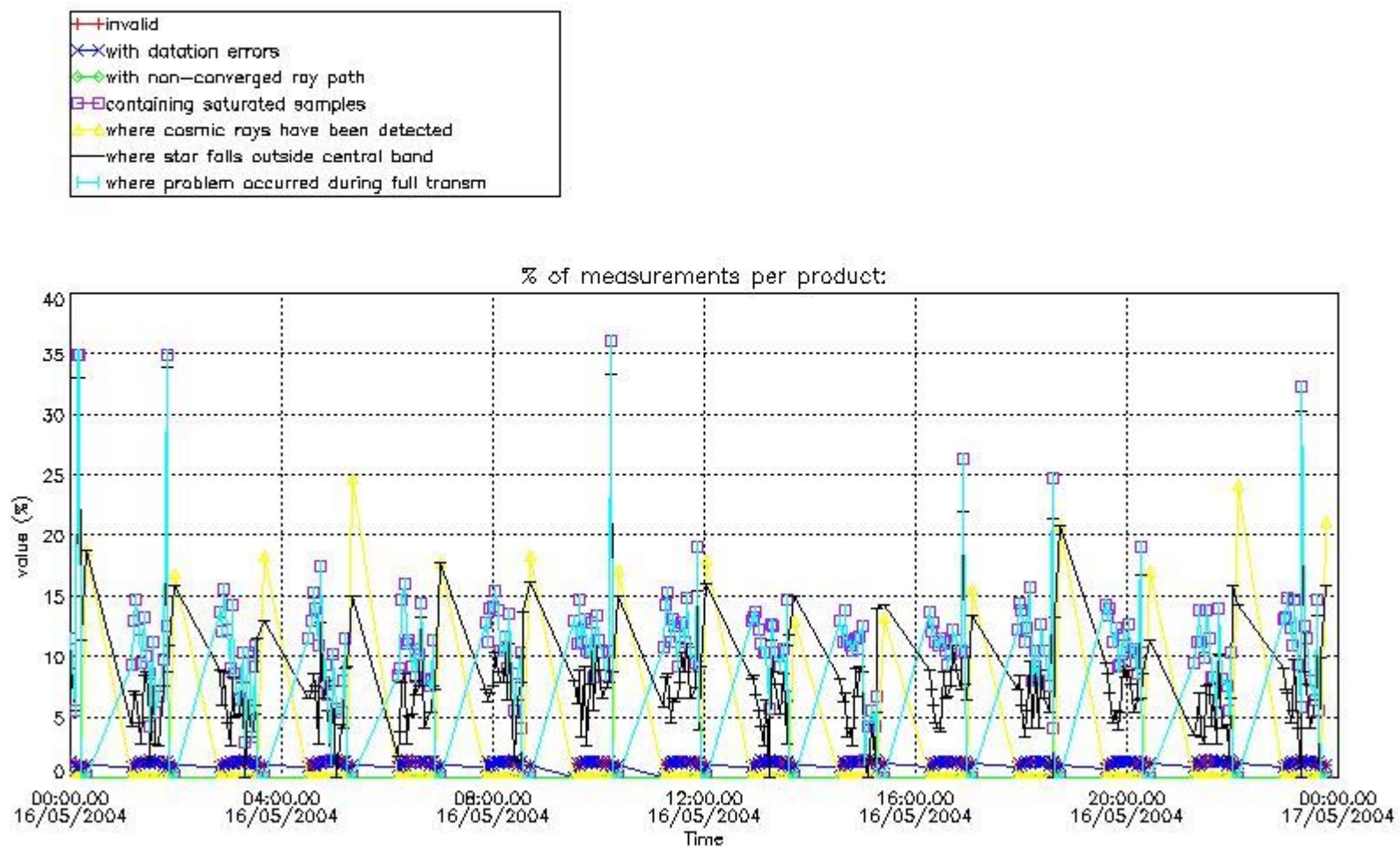
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

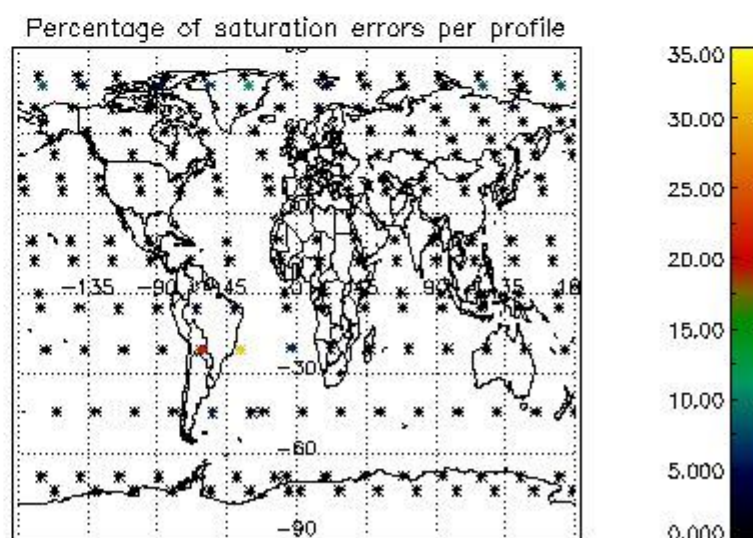
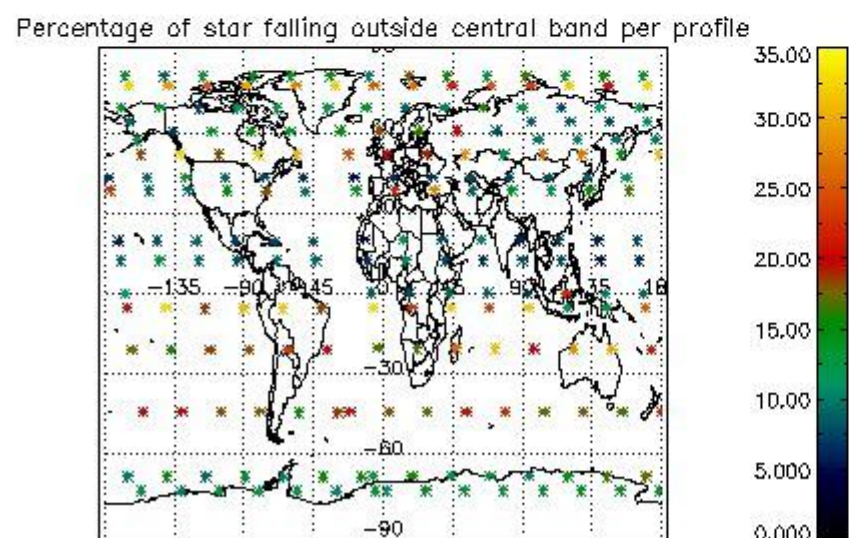
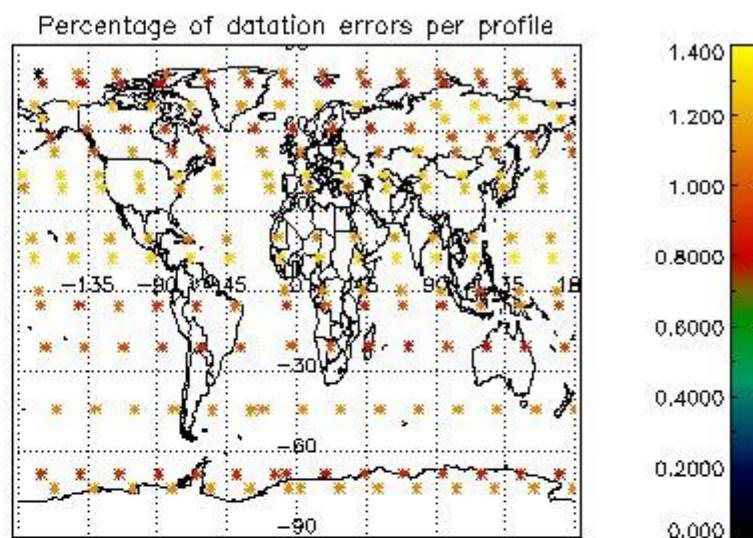
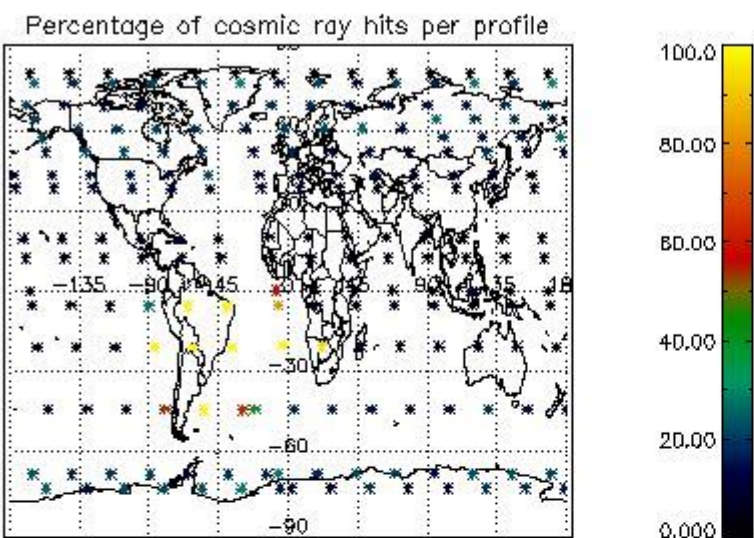


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

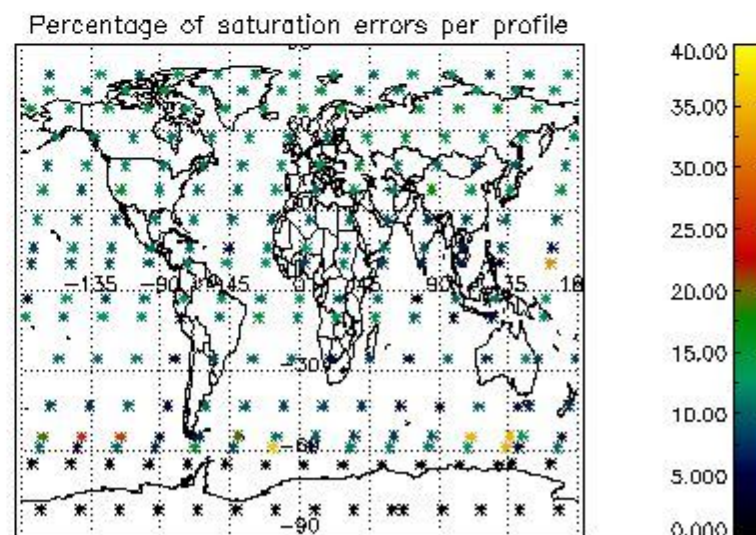
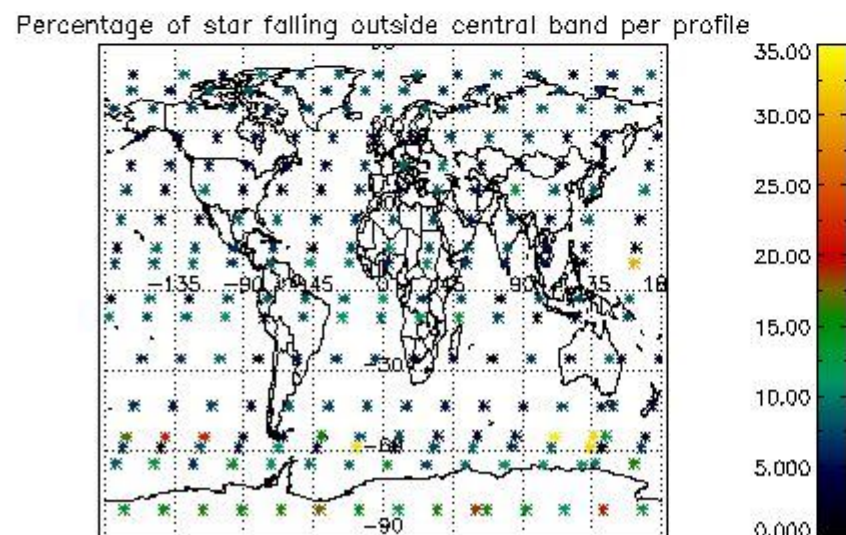
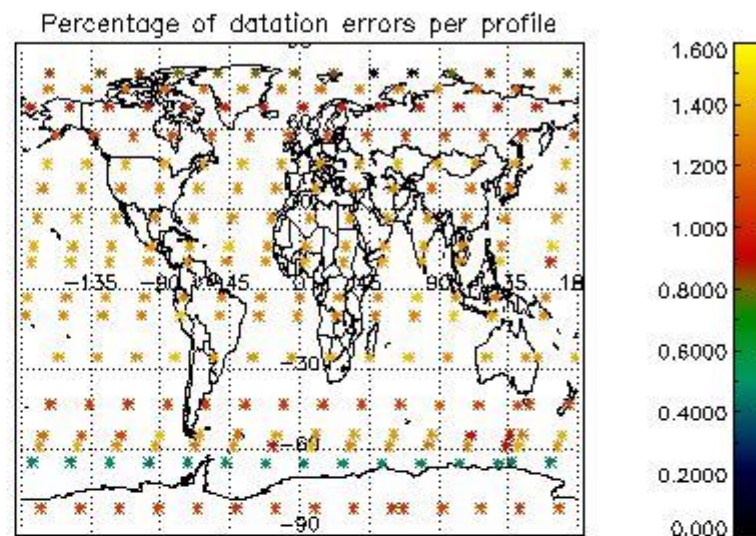
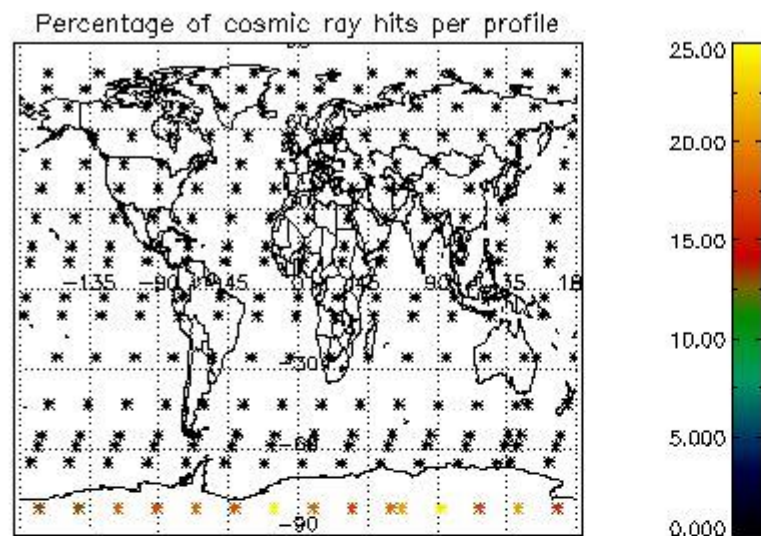


4.2 Plot quality information per product coming from level 1b processing (world map)

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

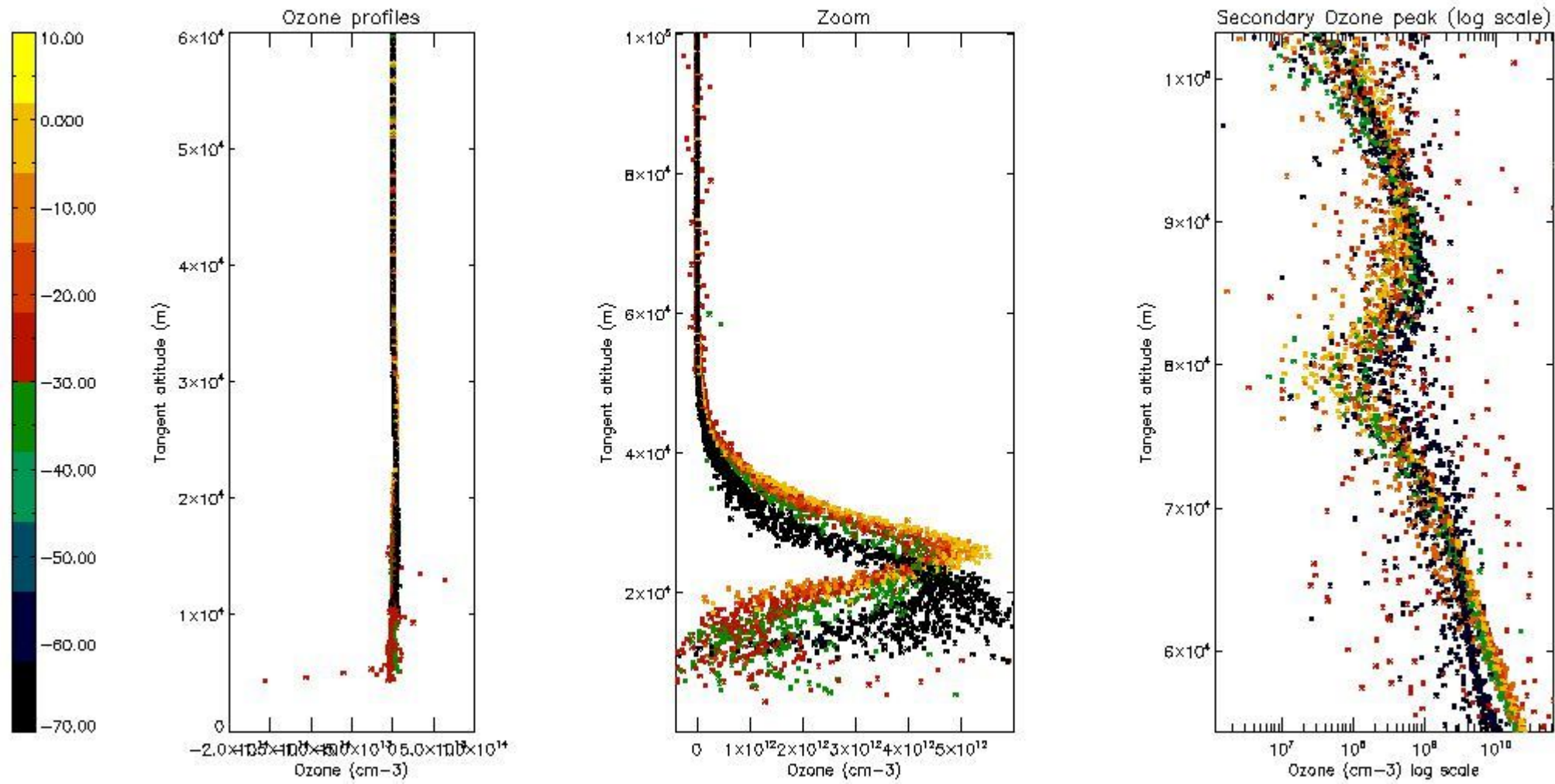
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	22
STD < 20	12

STD < 10	9
STD < 5	6

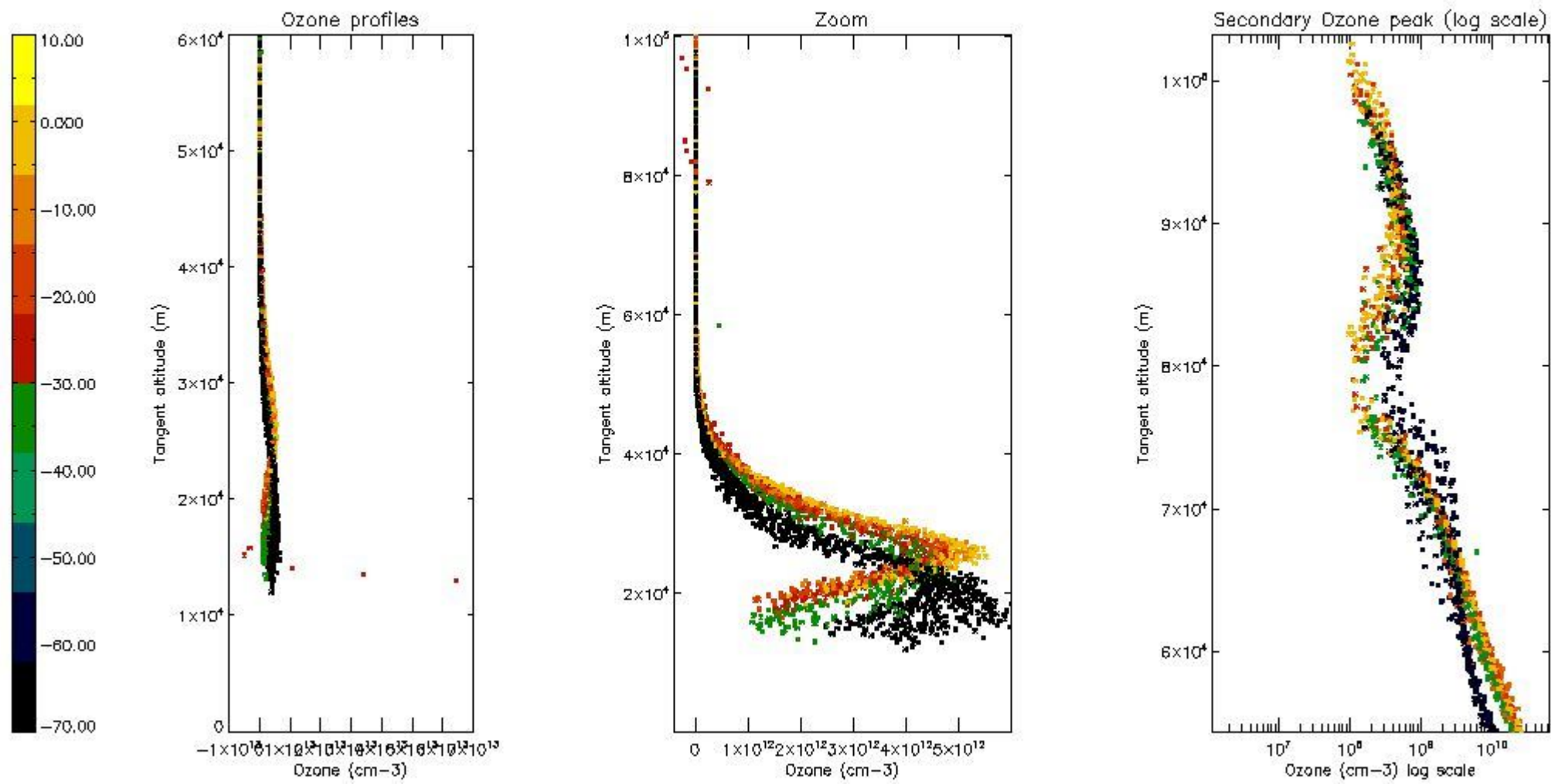
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



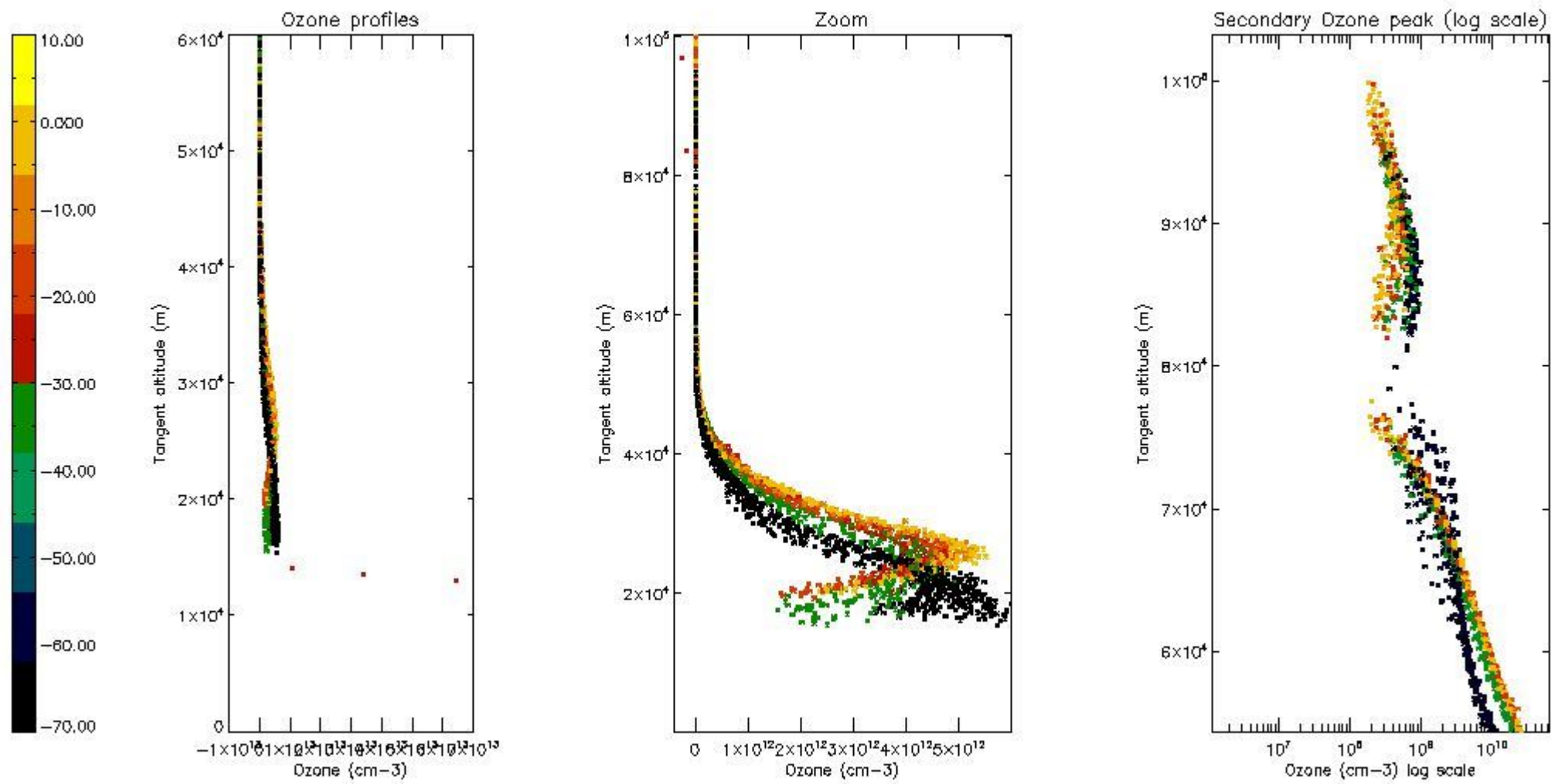
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

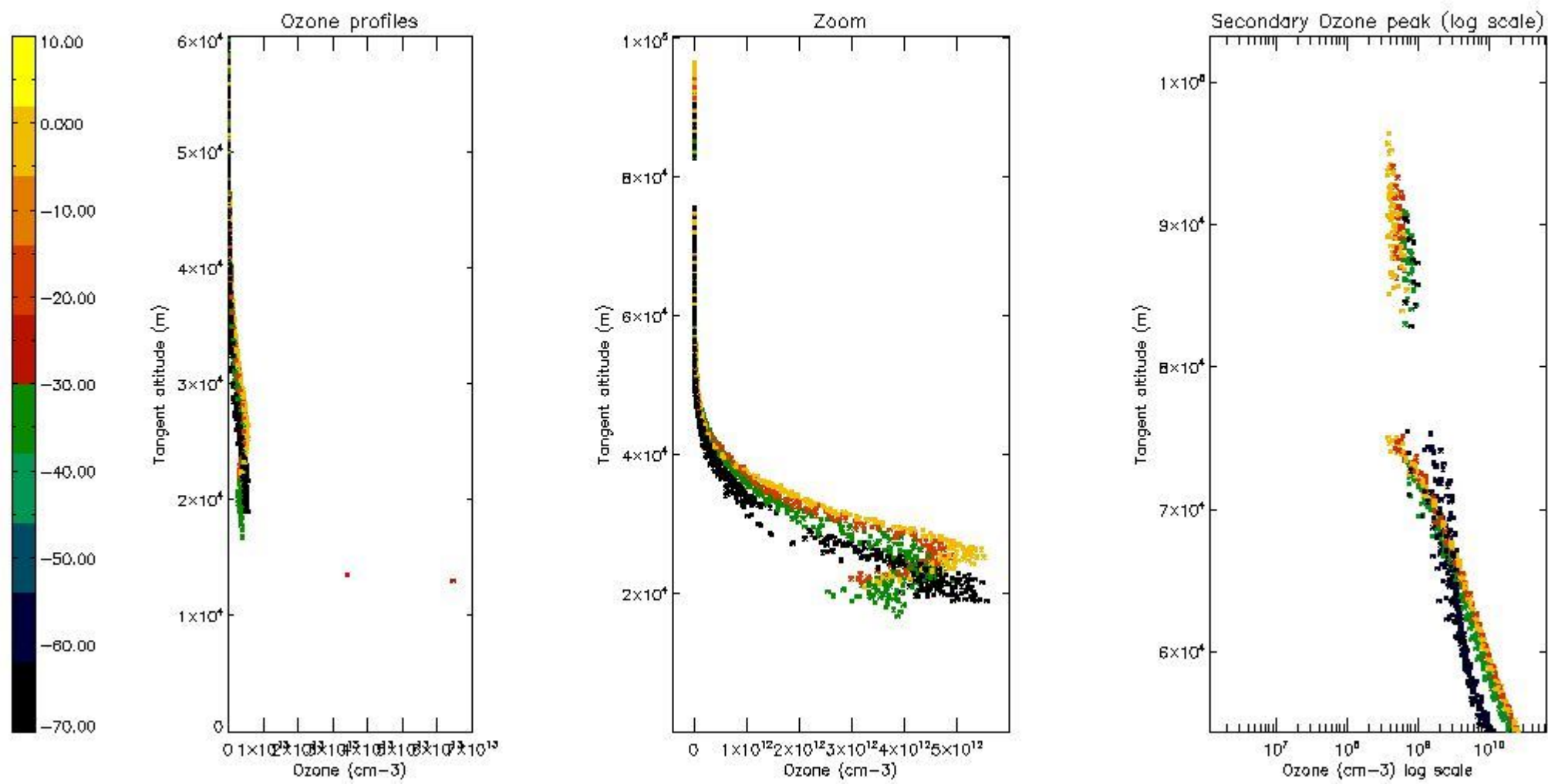
The colorbar represents the latitude.



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

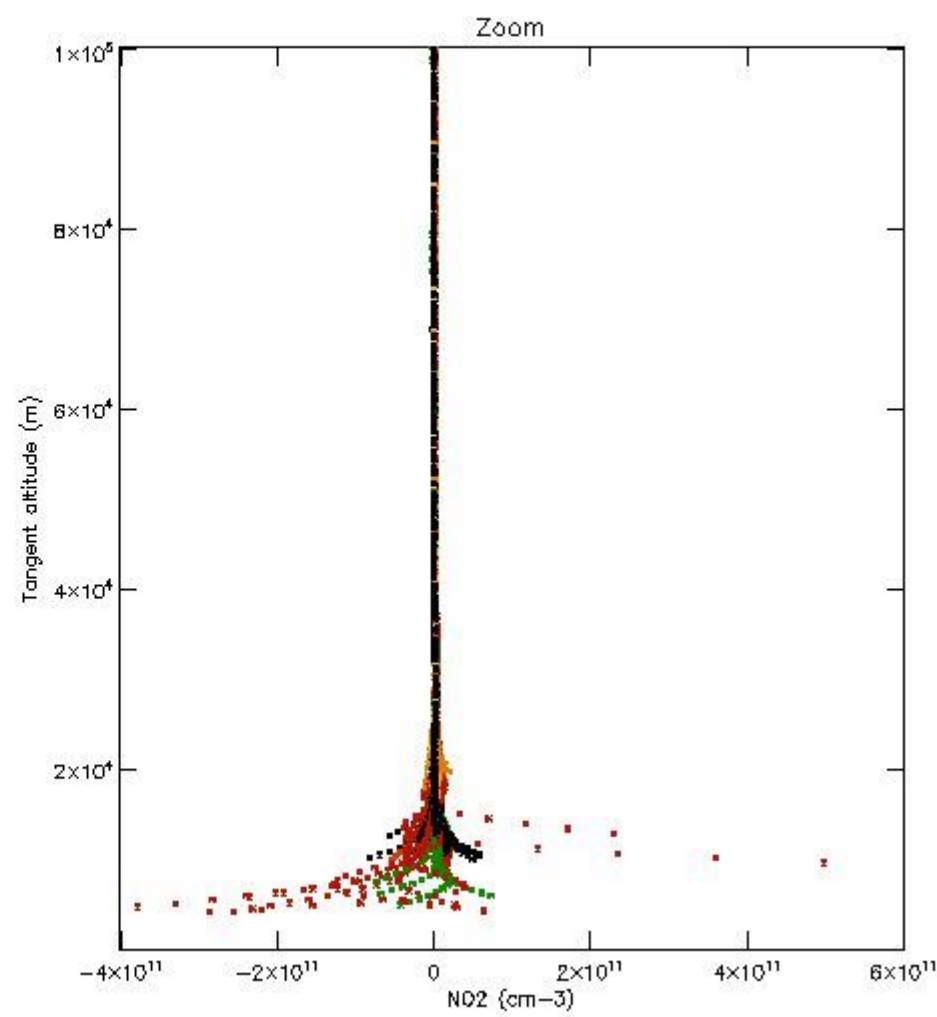
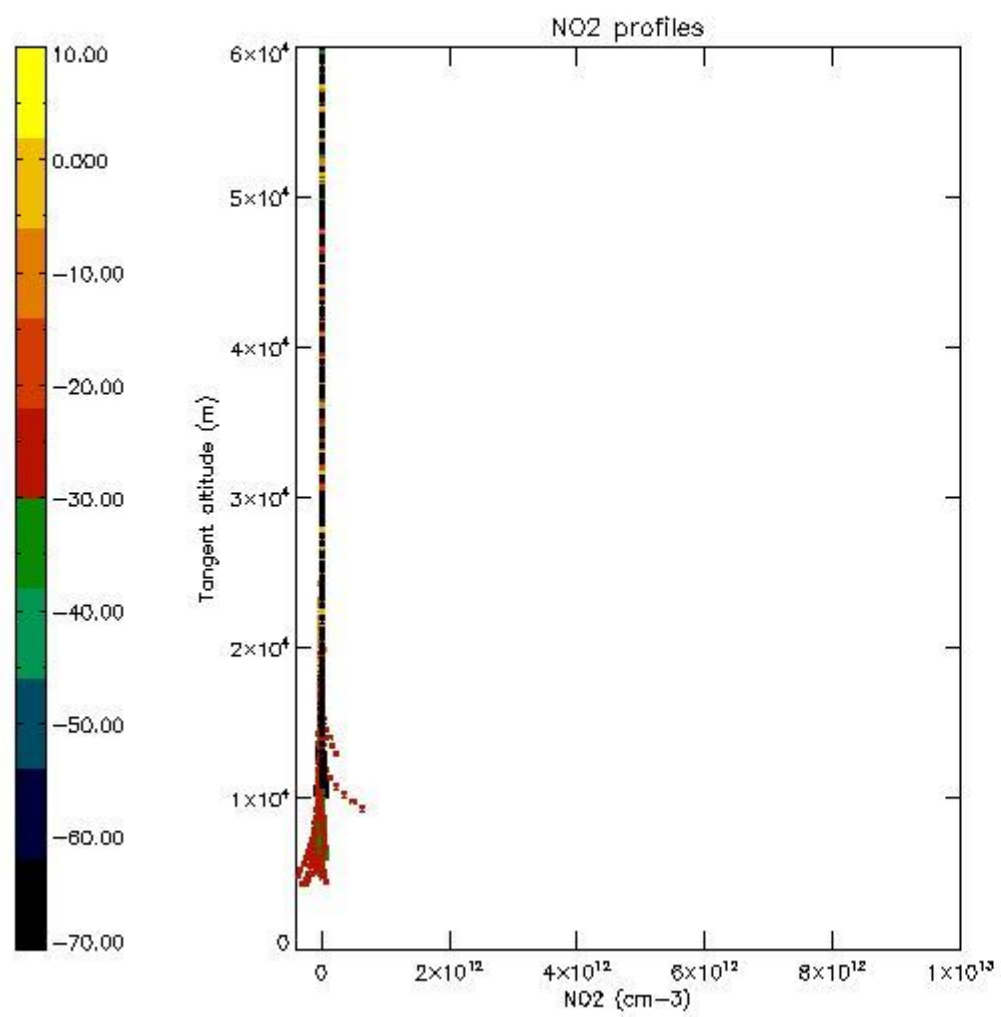
The colorbar represents the latitude.





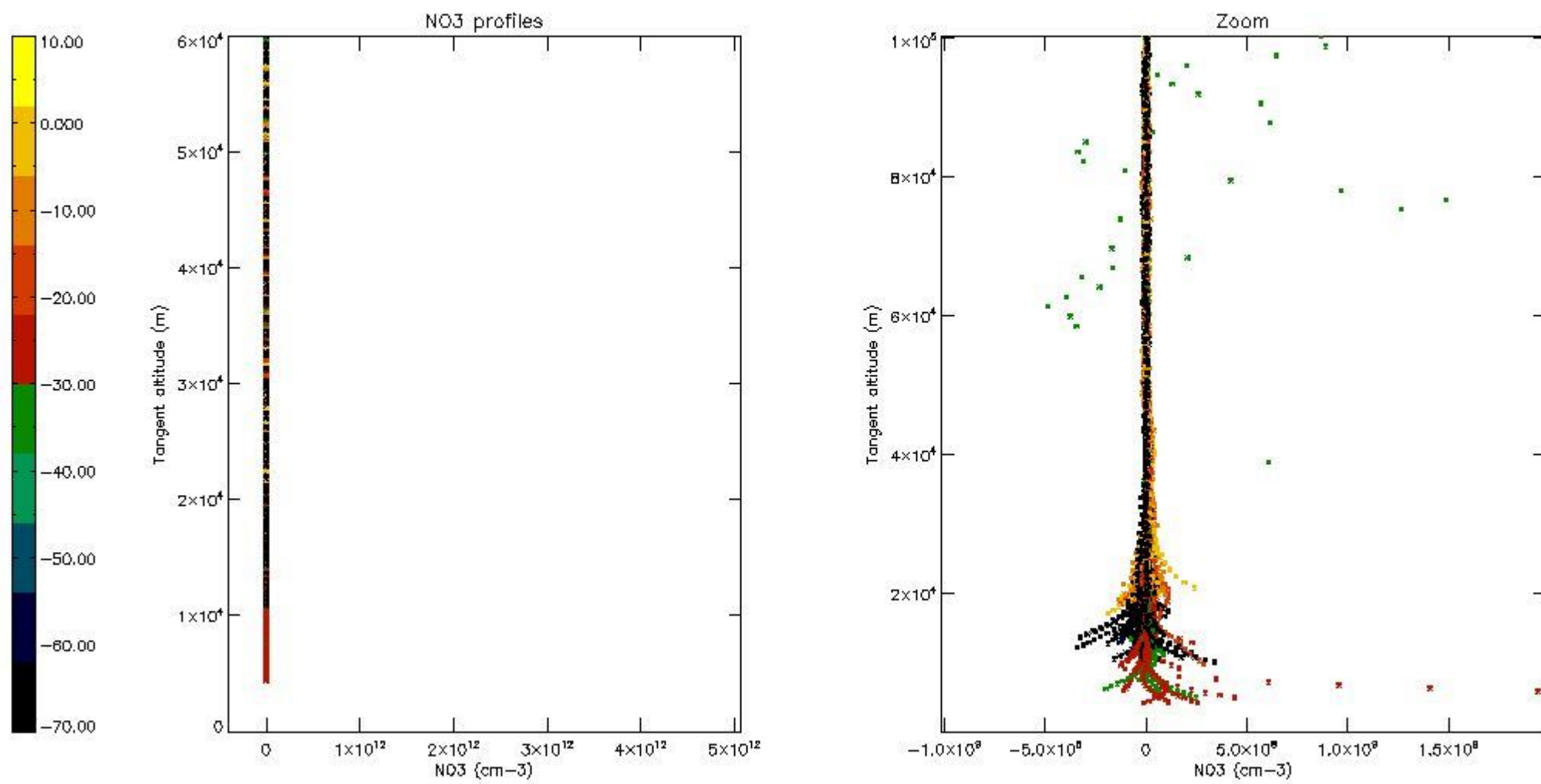
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



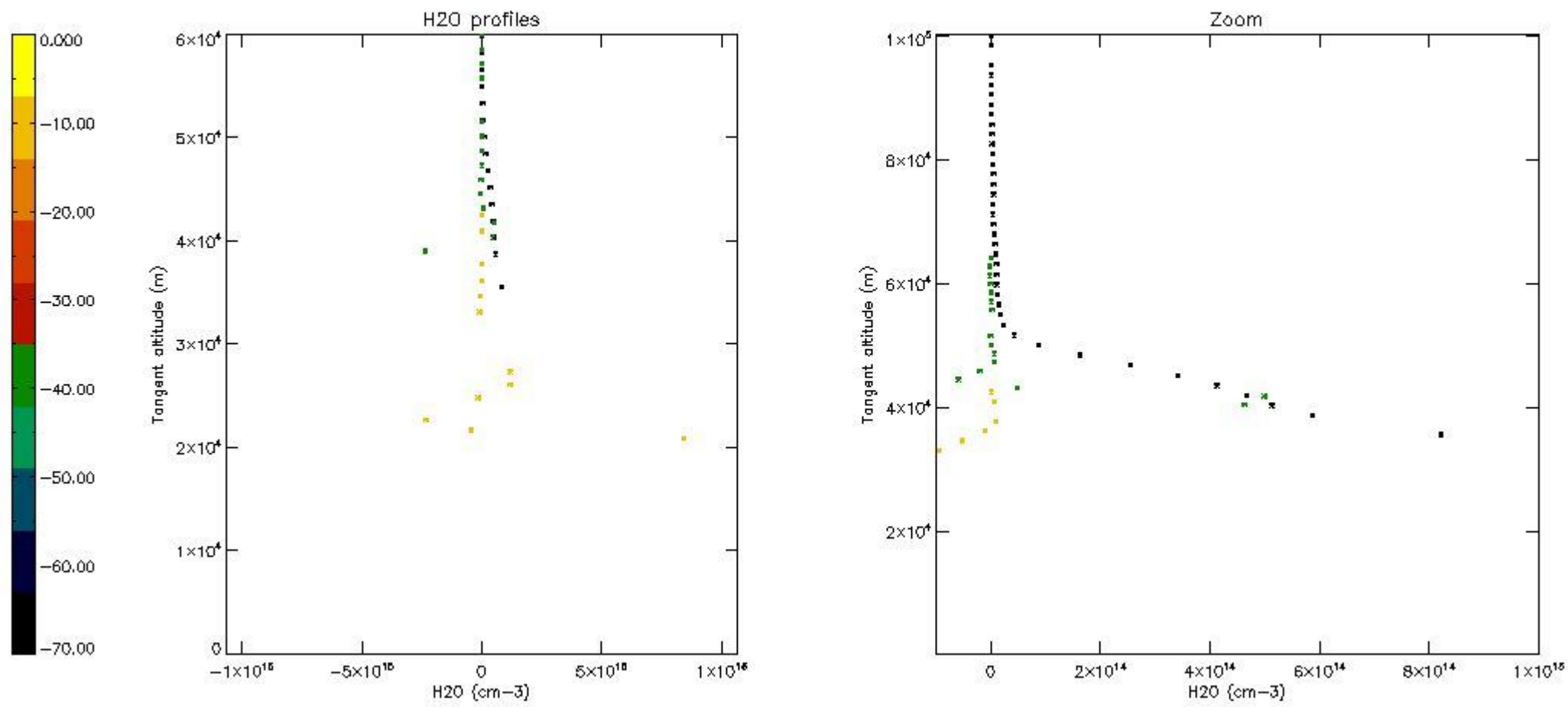
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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)

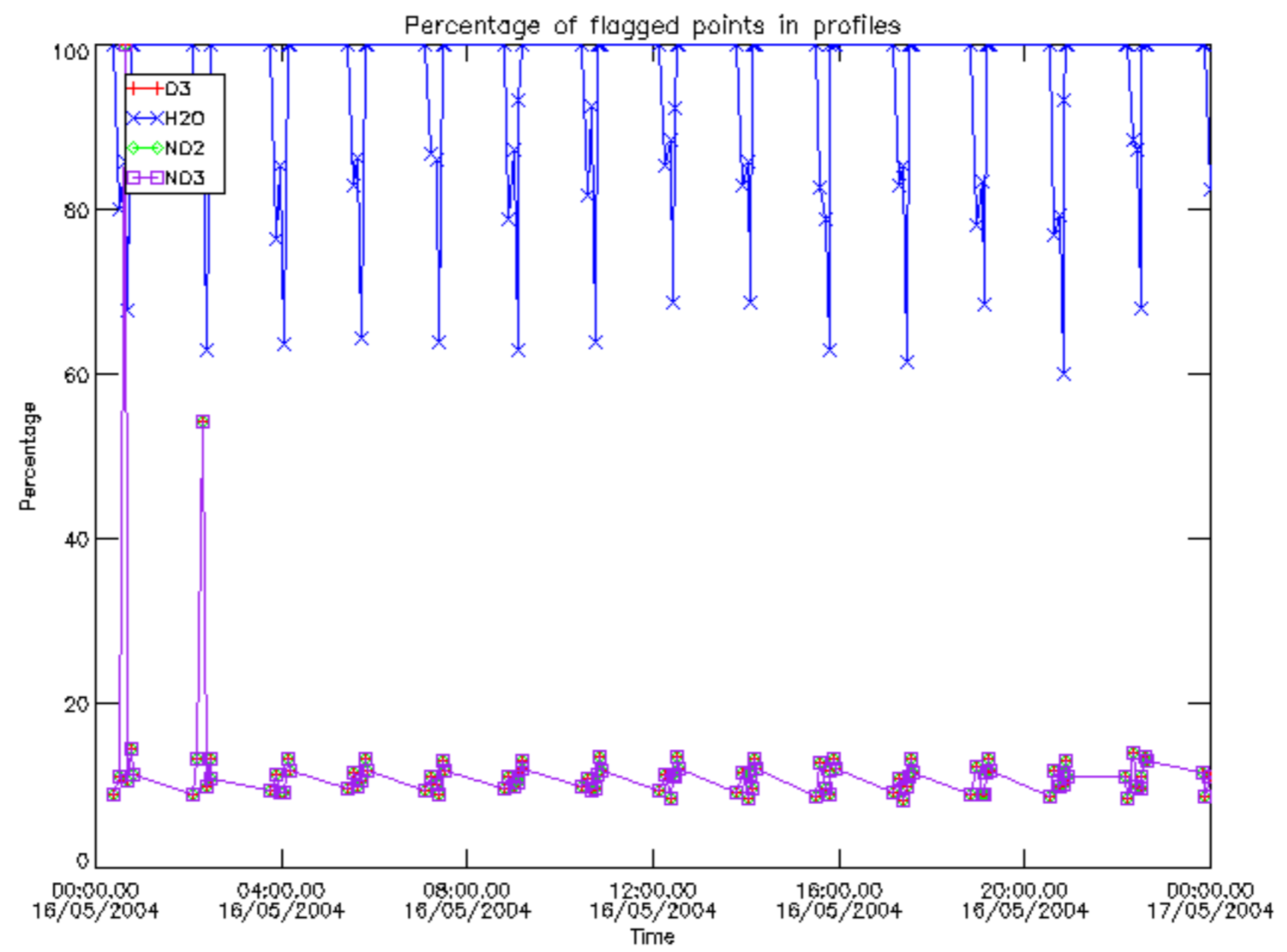
The colorbar represents the latitude.



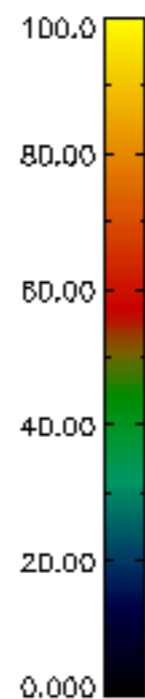
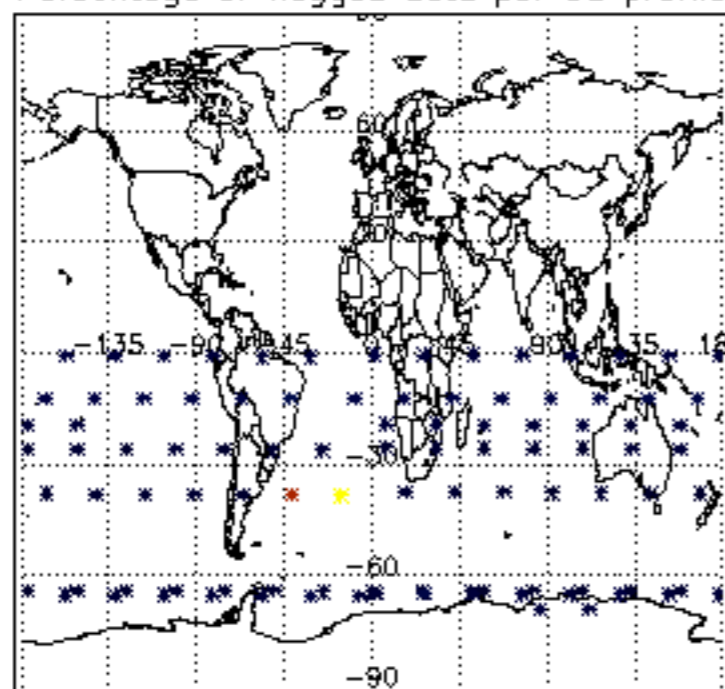
## 6. Auxiliary Data Files used for the production reported in section 2

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.

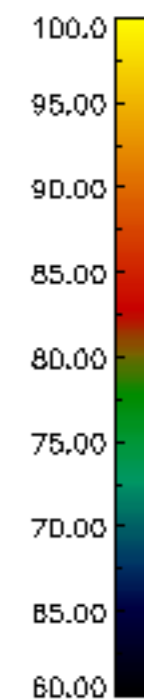
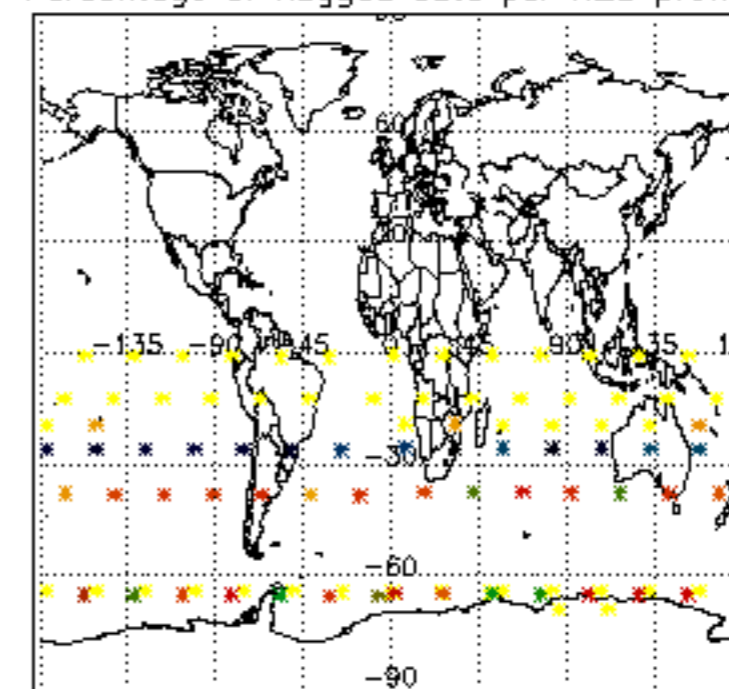
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	16-MAY-2004 00:00:17
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	16-MAY-2004 00:00:17
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	16-MAY-2004 00:00:17



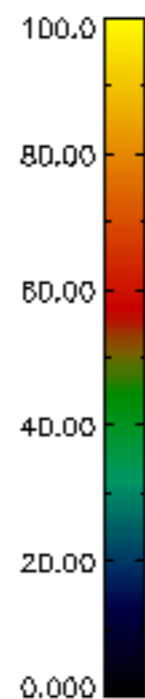
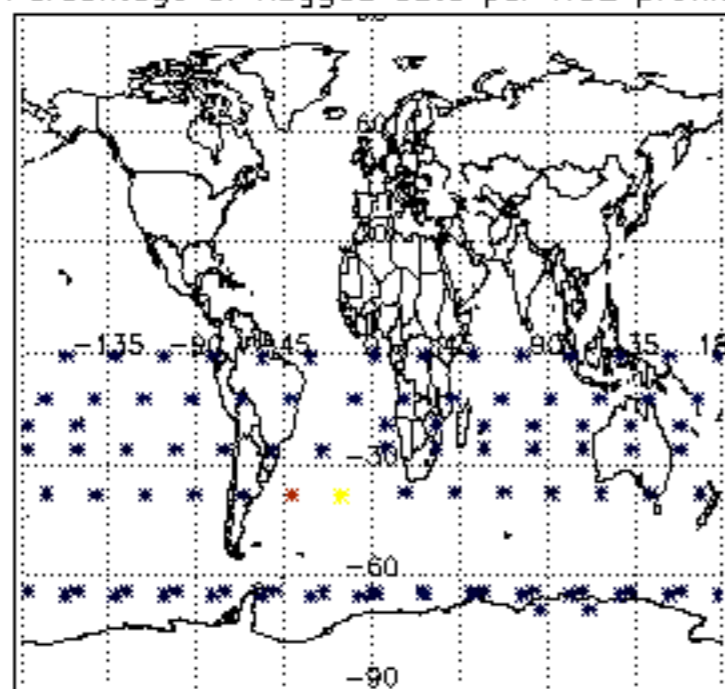
Percentage of flagged data per D3 profile



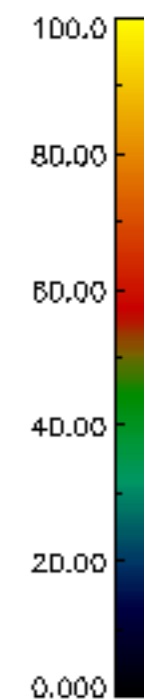
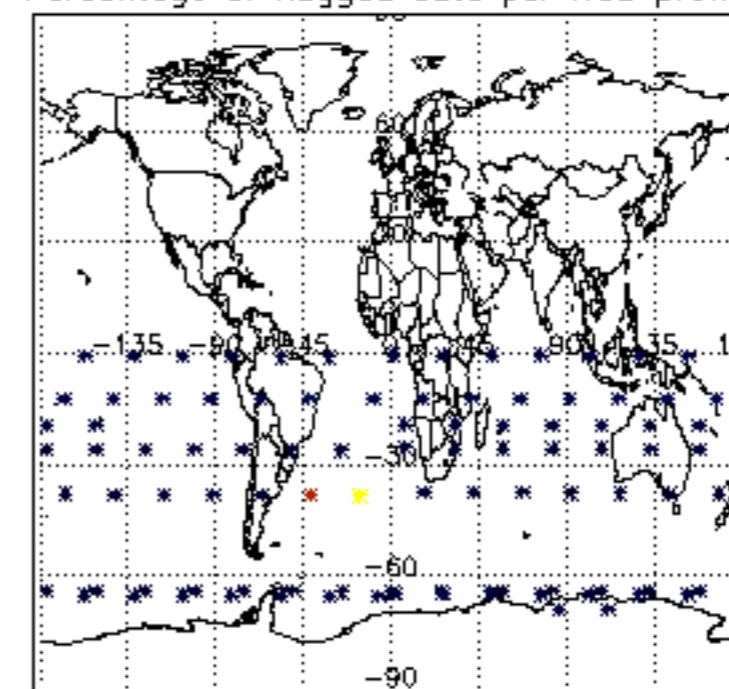
Percentage of flagged data per H2O profile

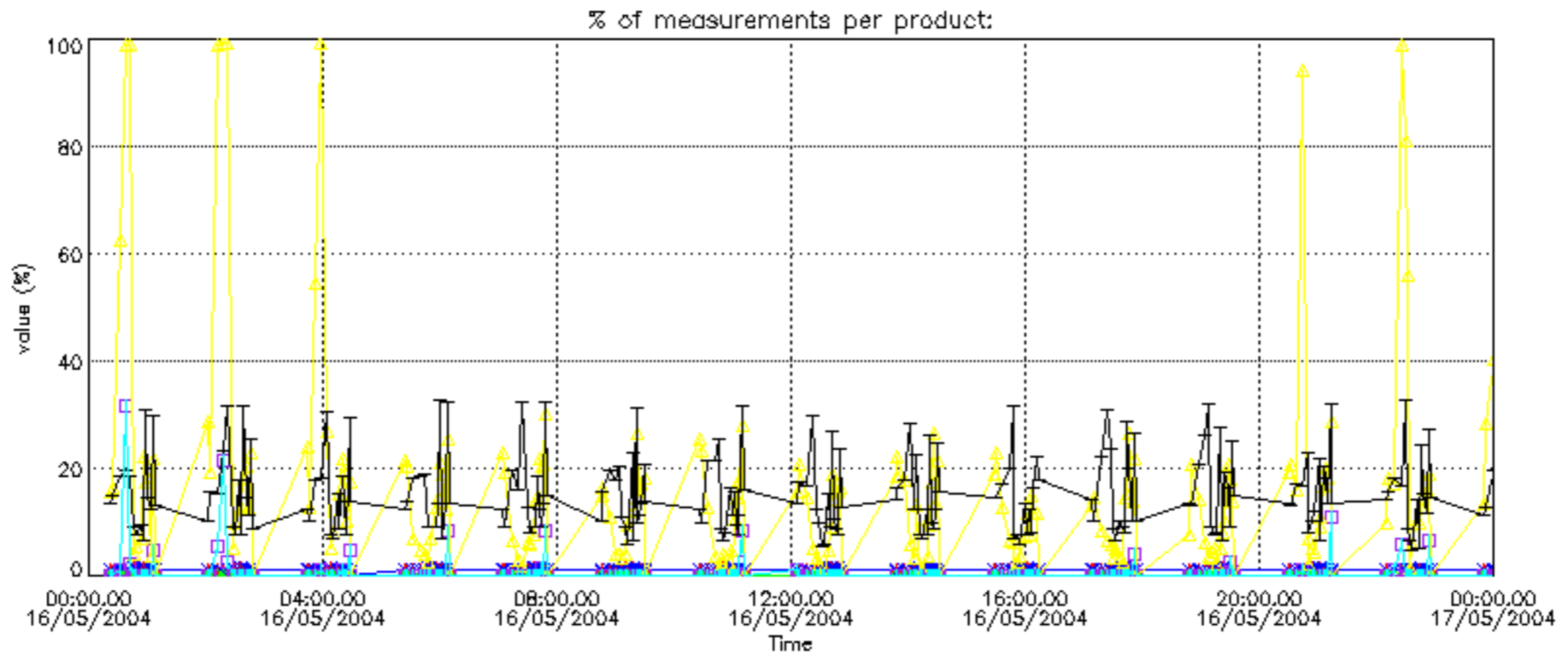


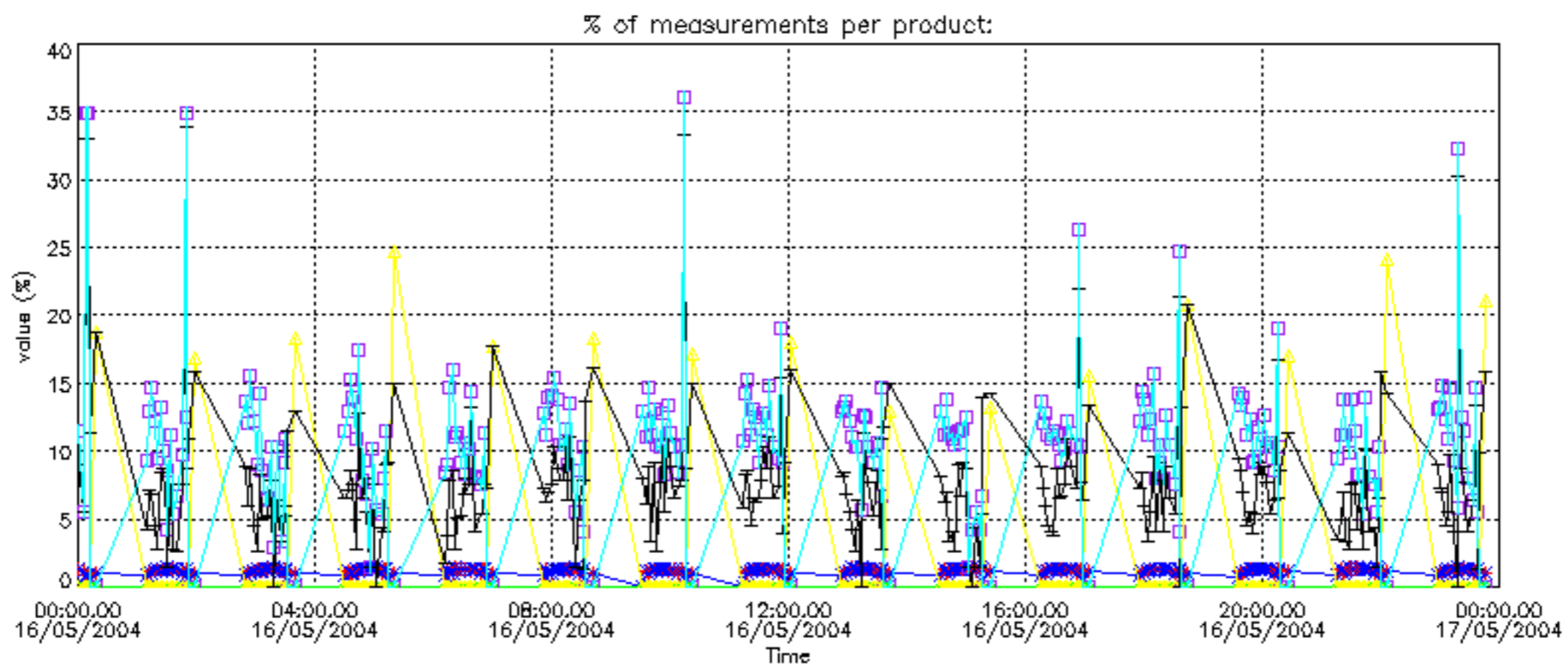
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

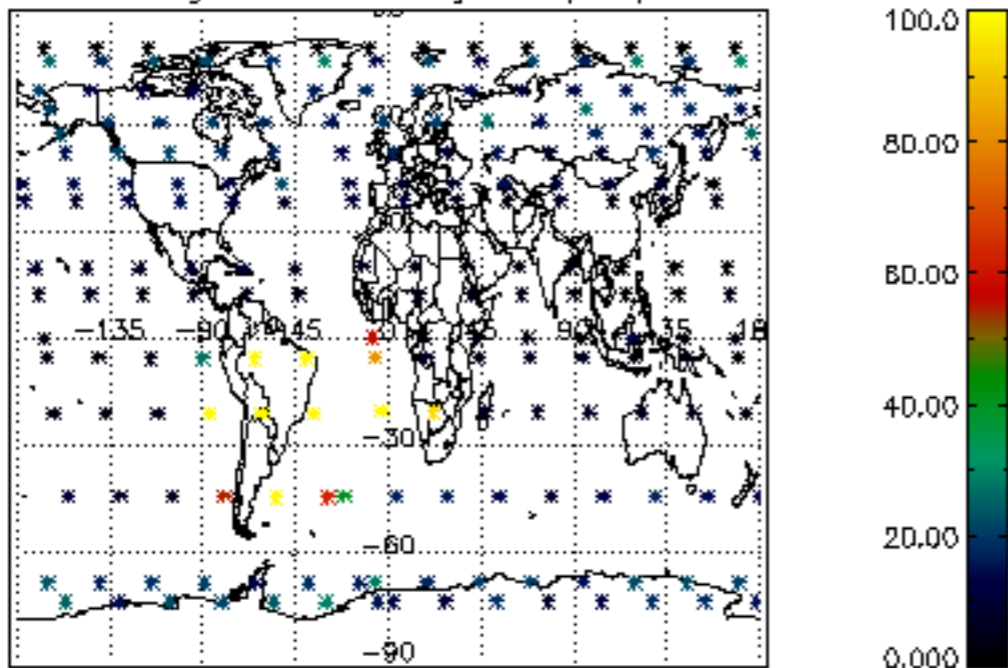




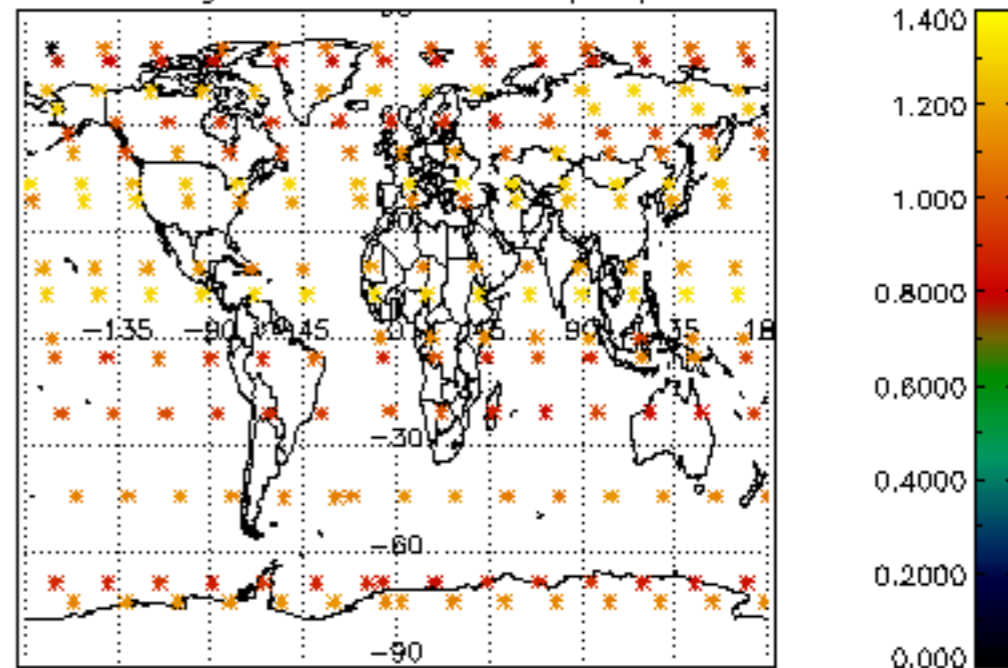




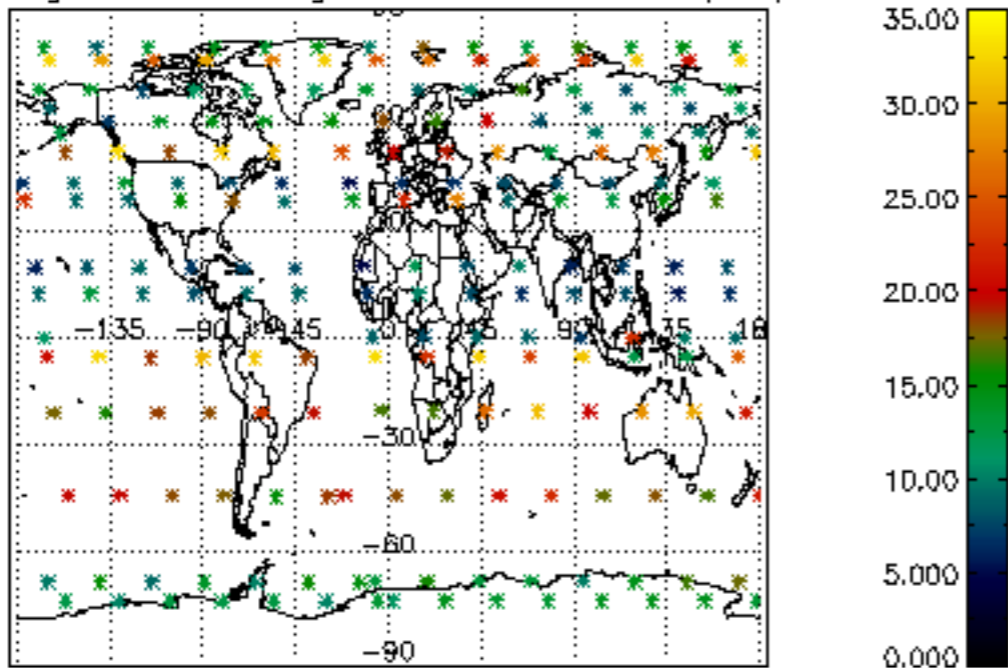
Percentage of cosmic ray hits per profile



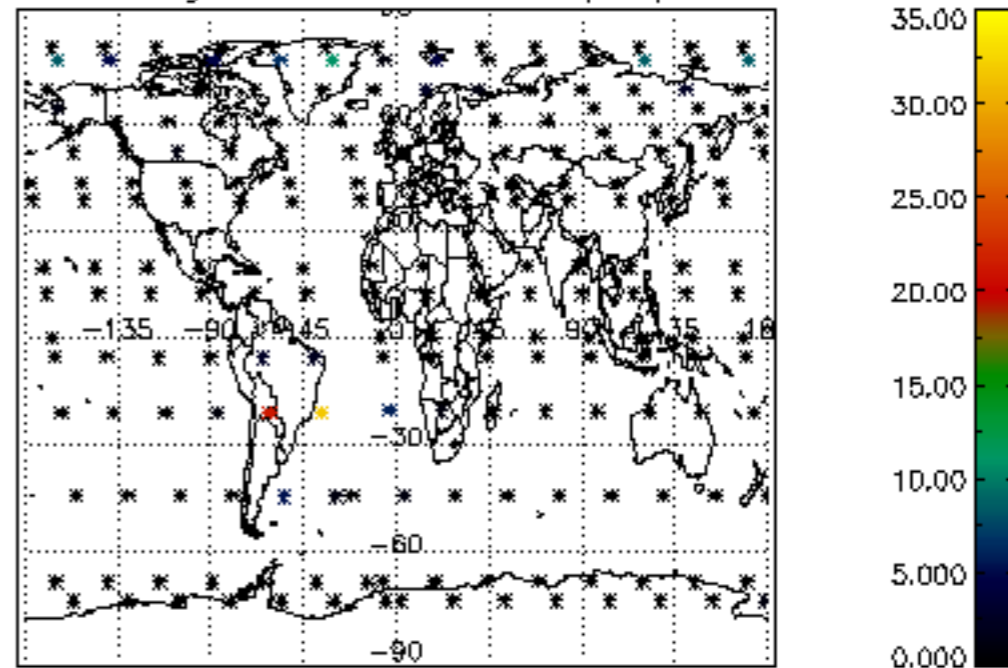
Percentage of datation errors per profile



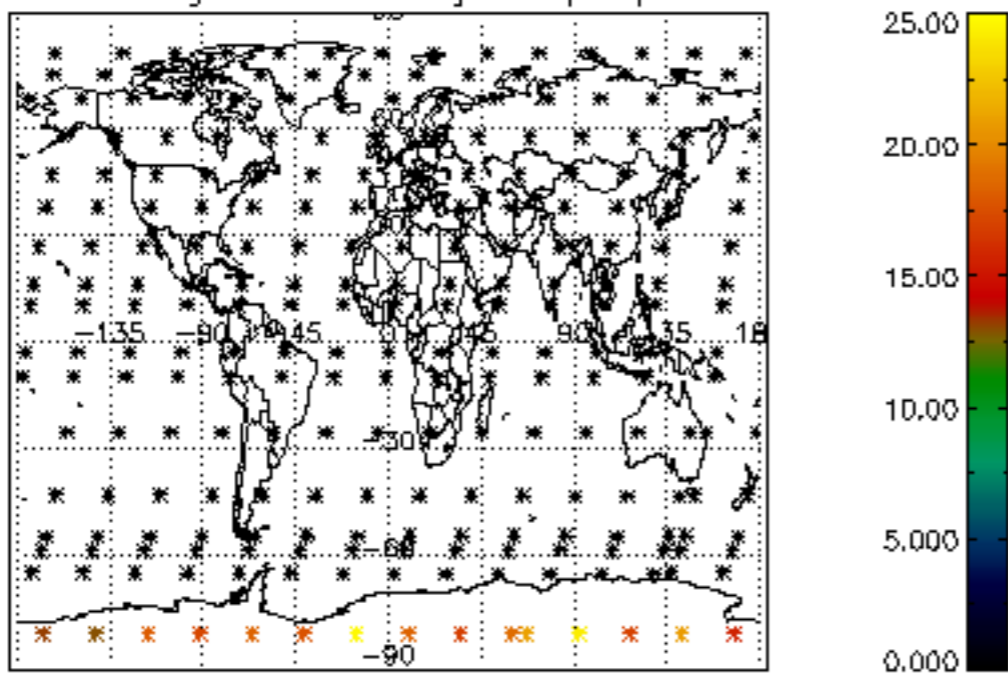
Percentage of star falling outside central band per profile



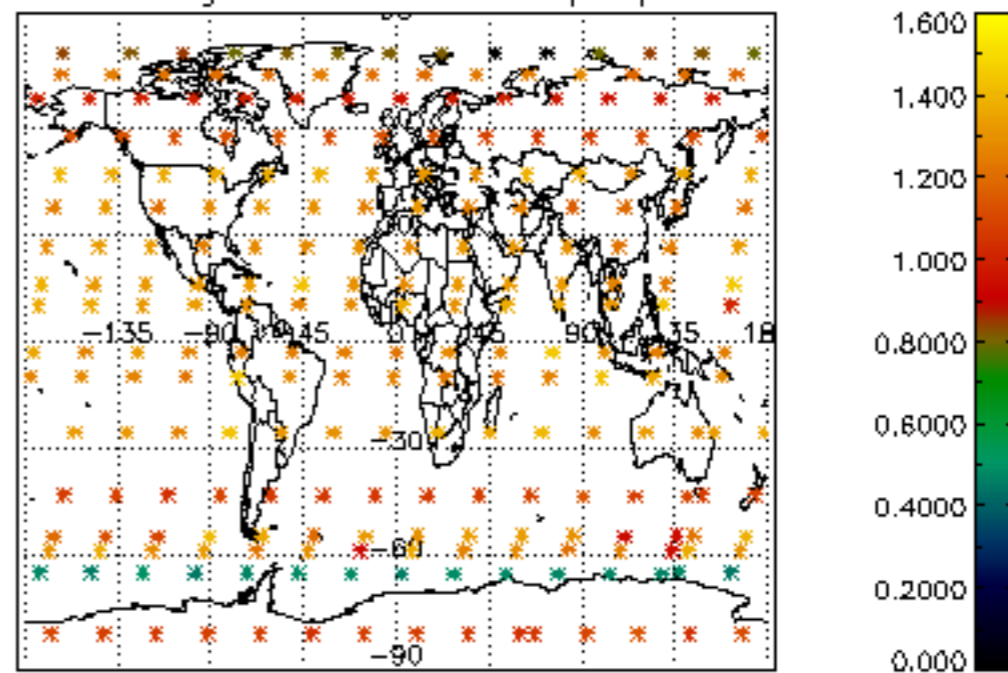
Percentage of saturation errors per profile



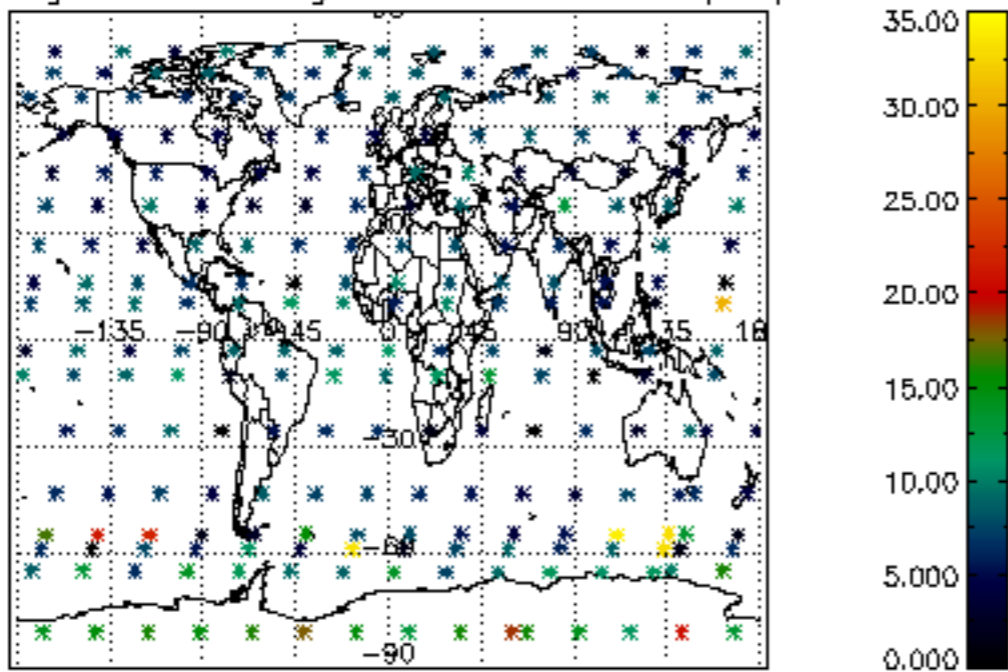
Percentage of cosmic ray hits per profile



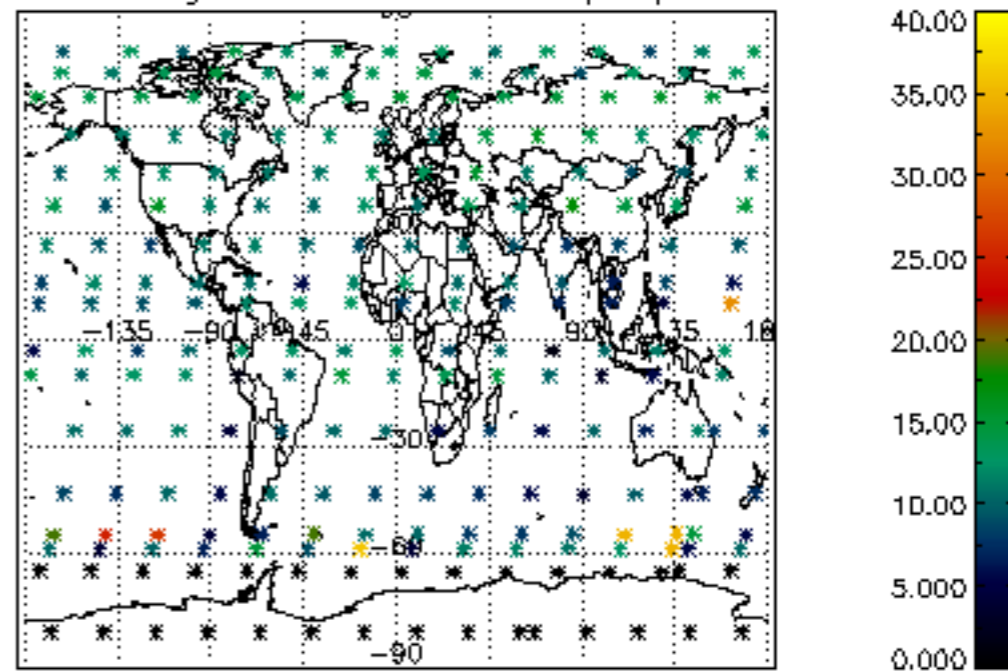
Percentage of datation errors per profile

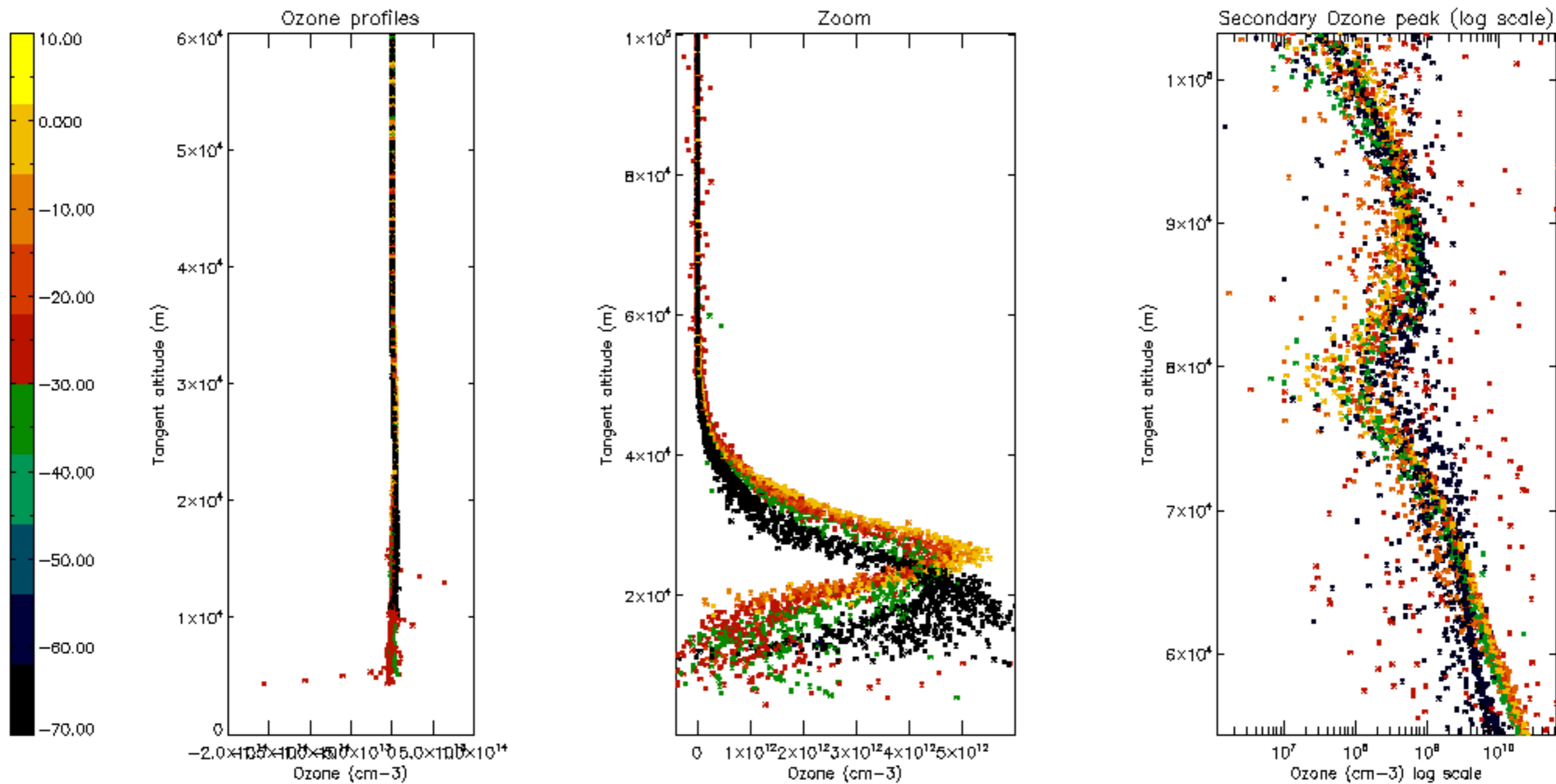


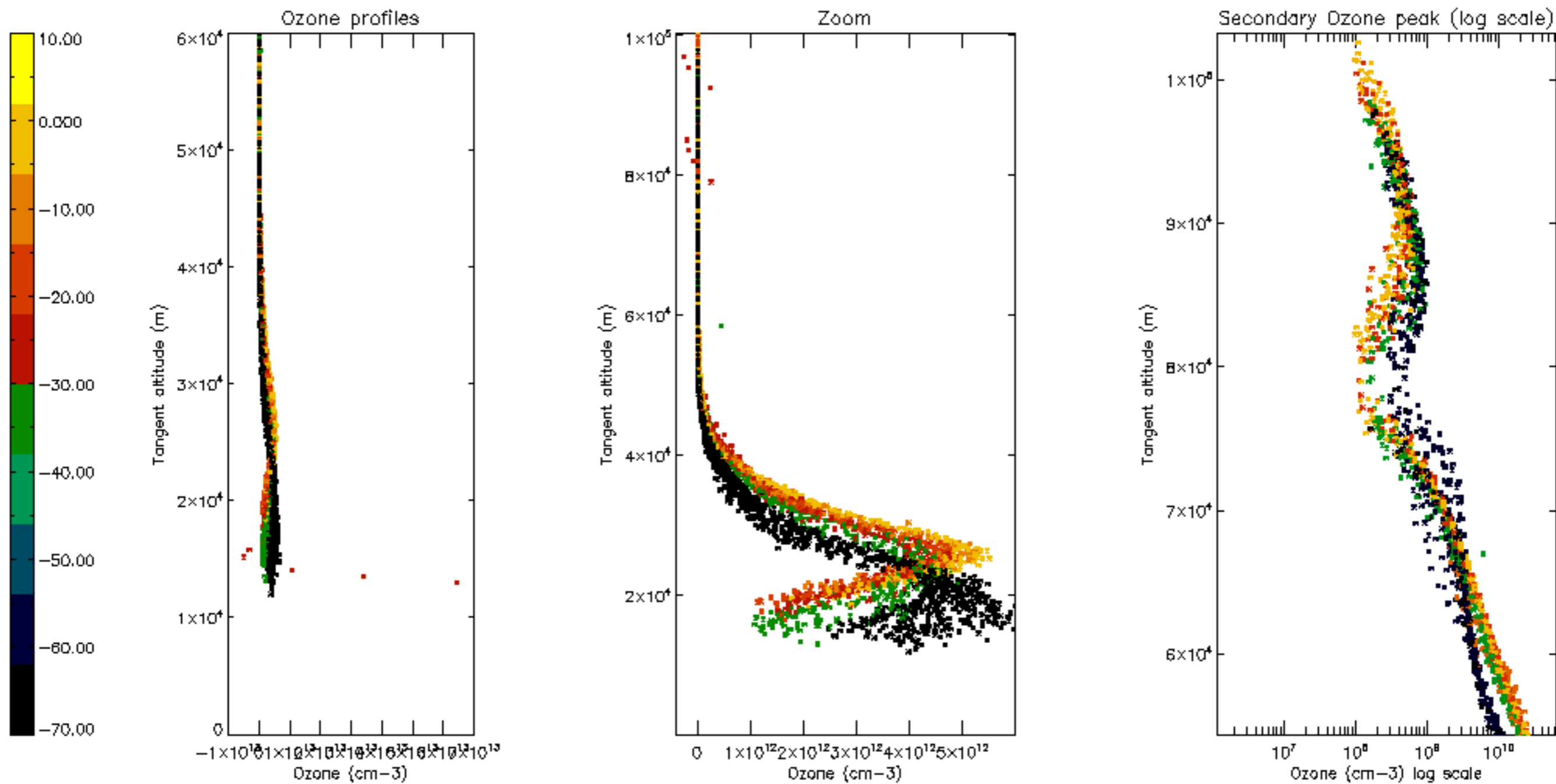
Percentage of star falling outside central band per profile

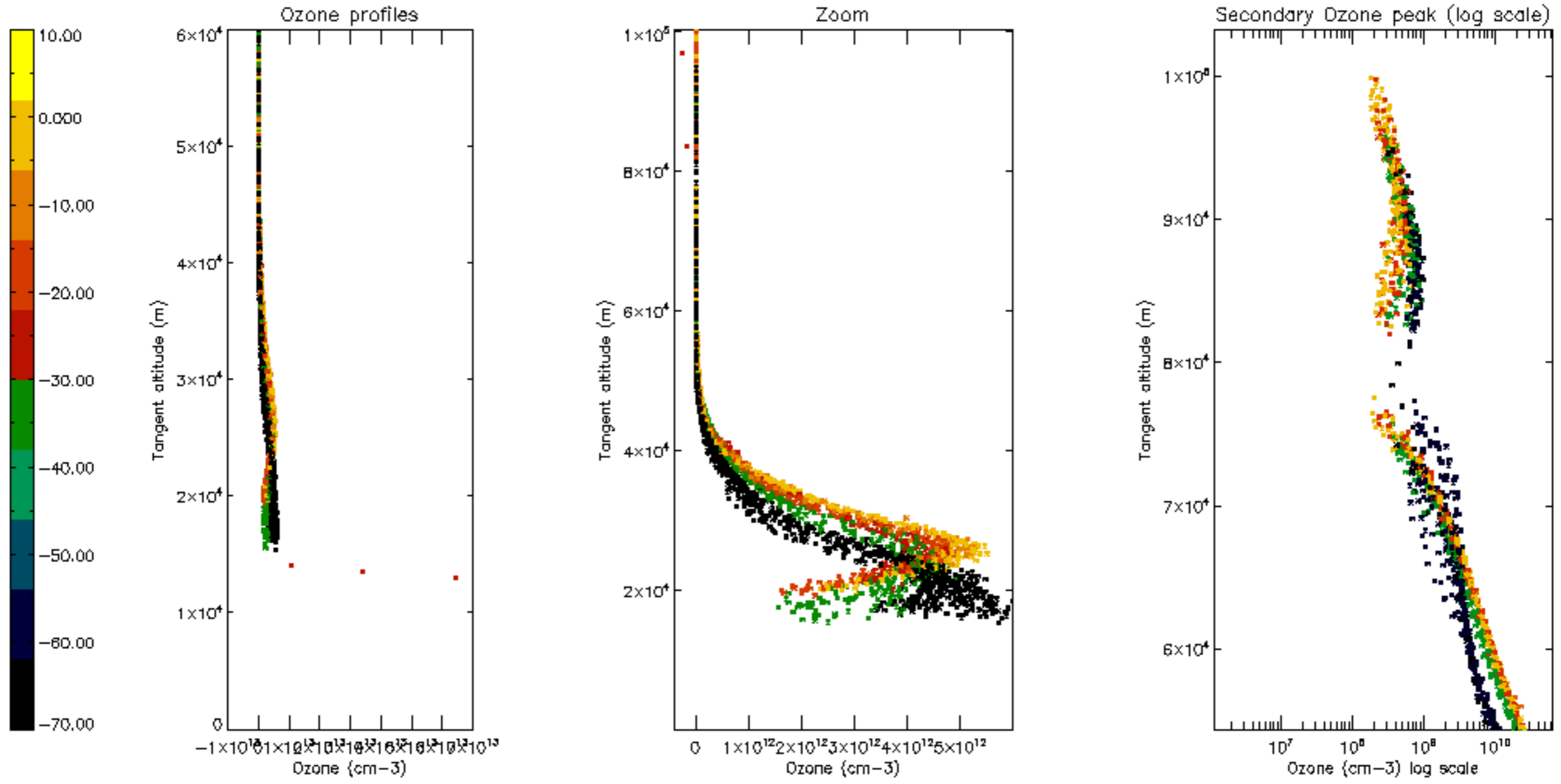


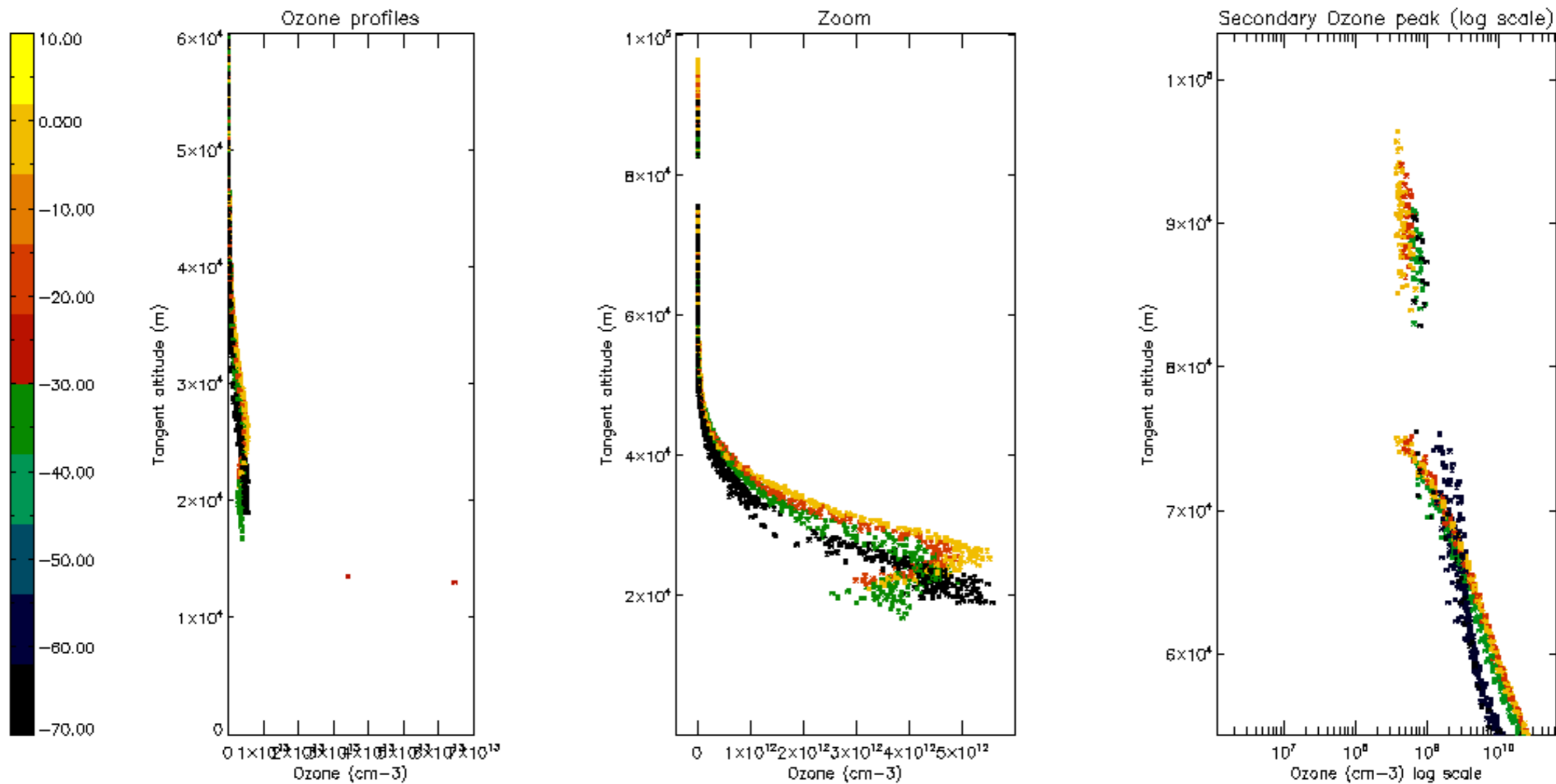
Percentage of saturation errors per profile

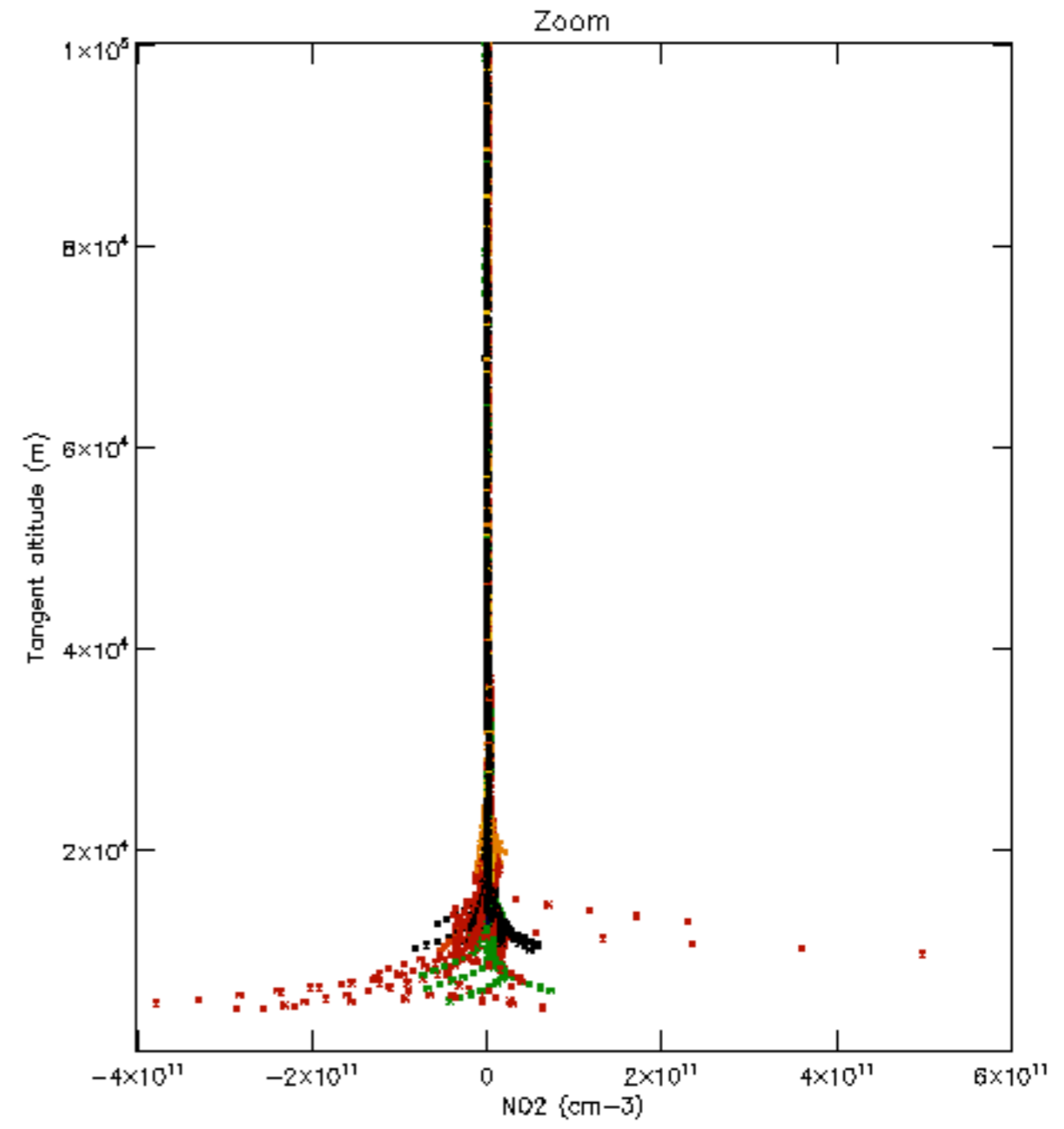
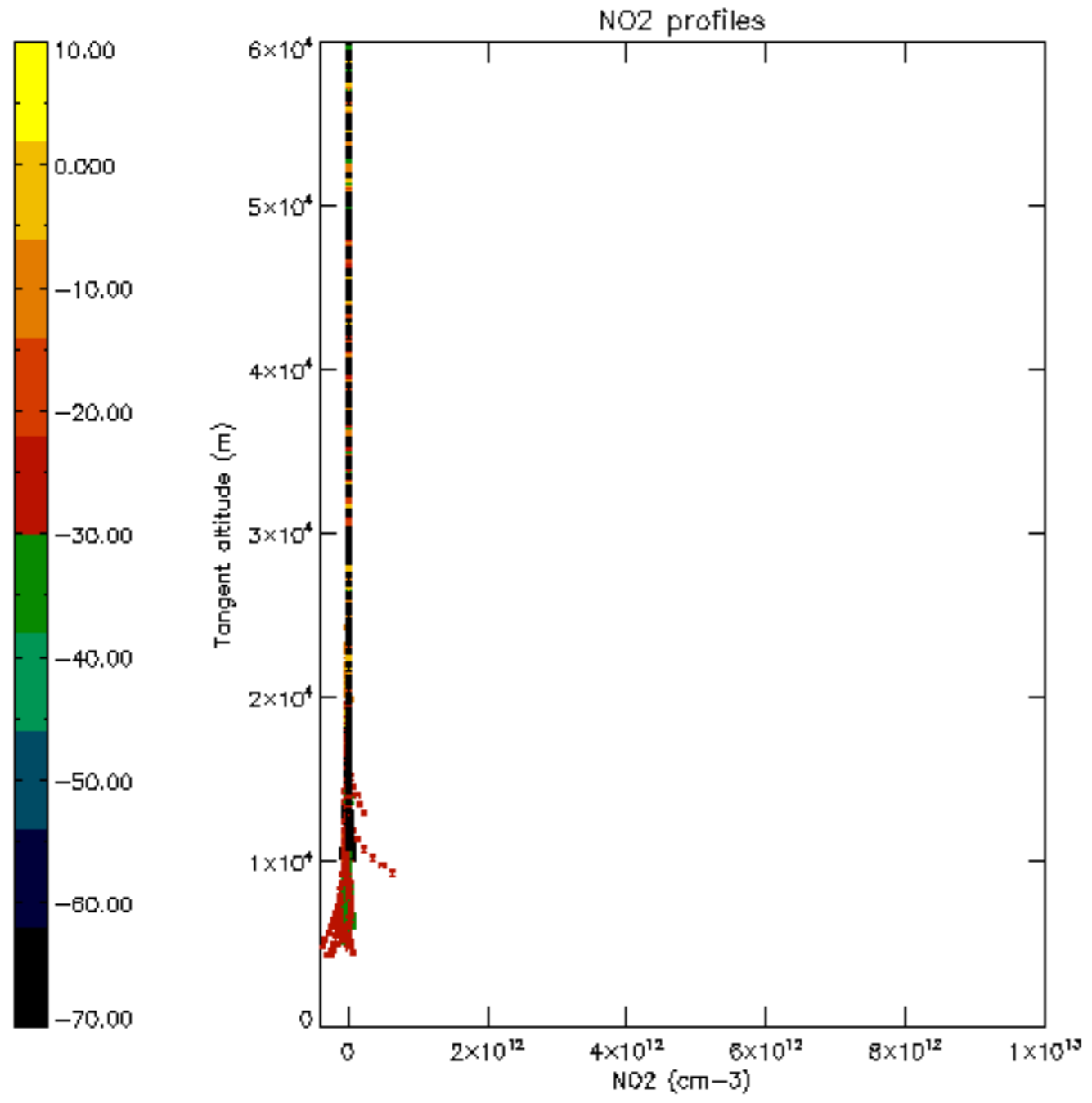


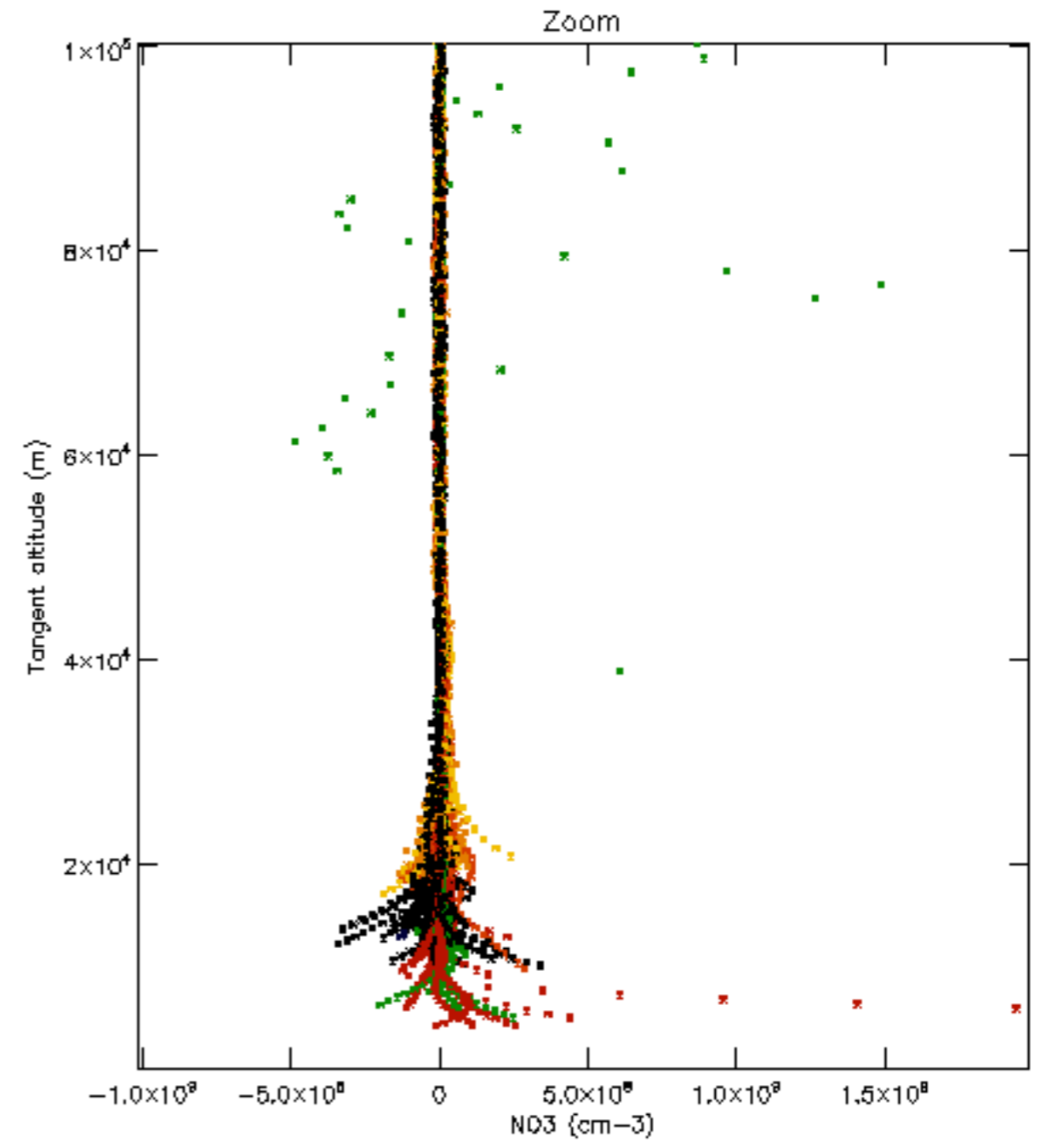
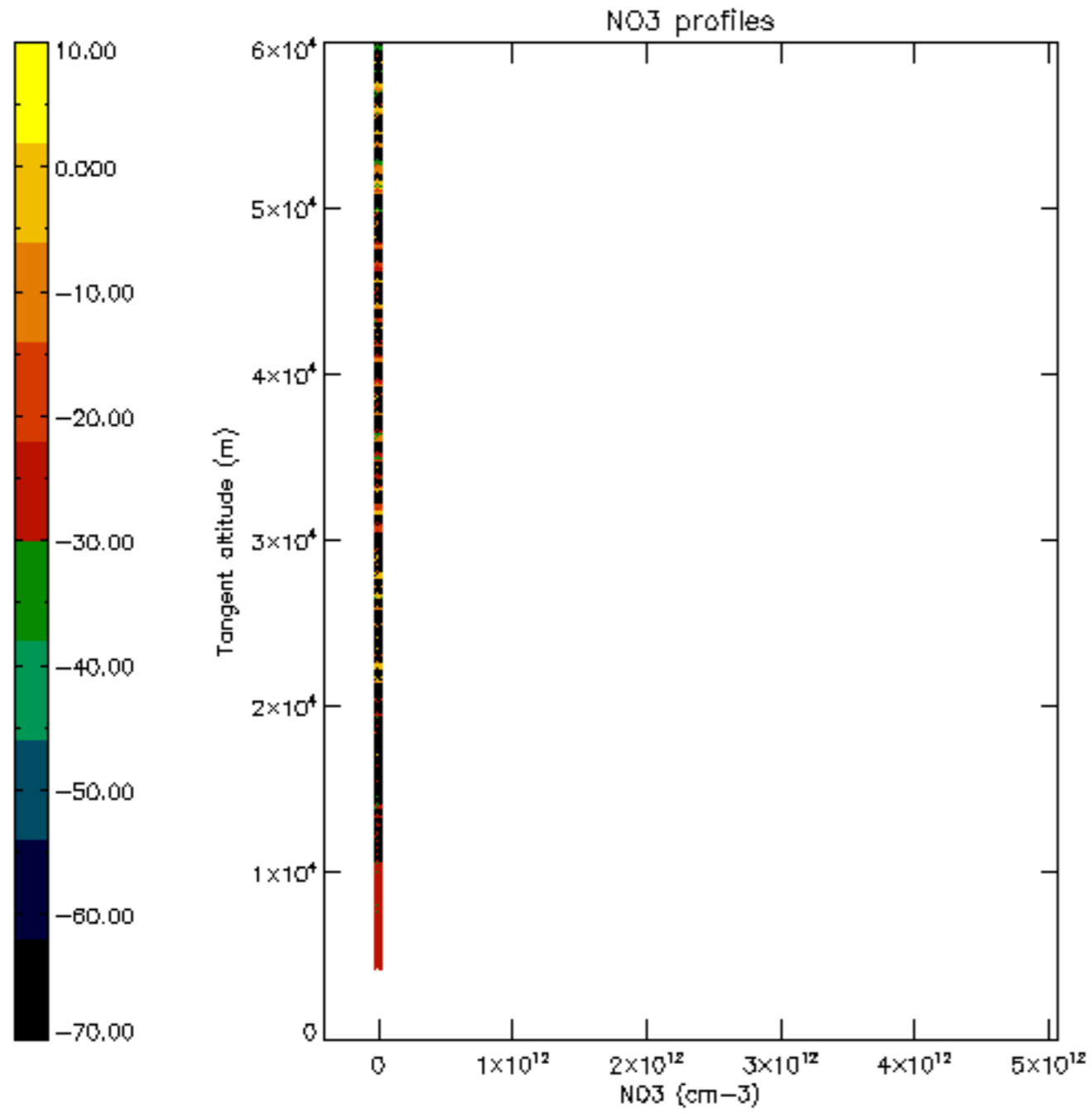




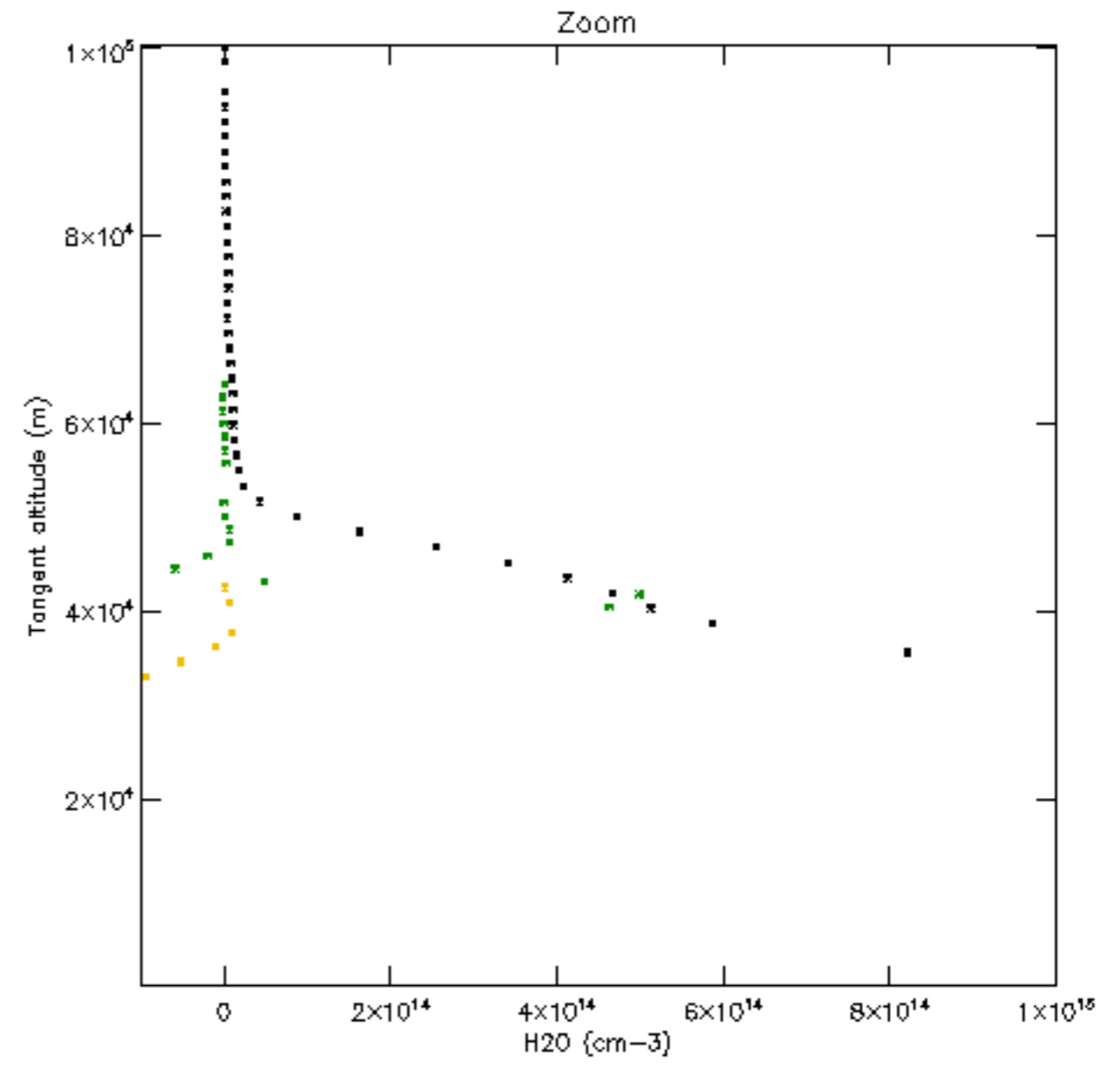
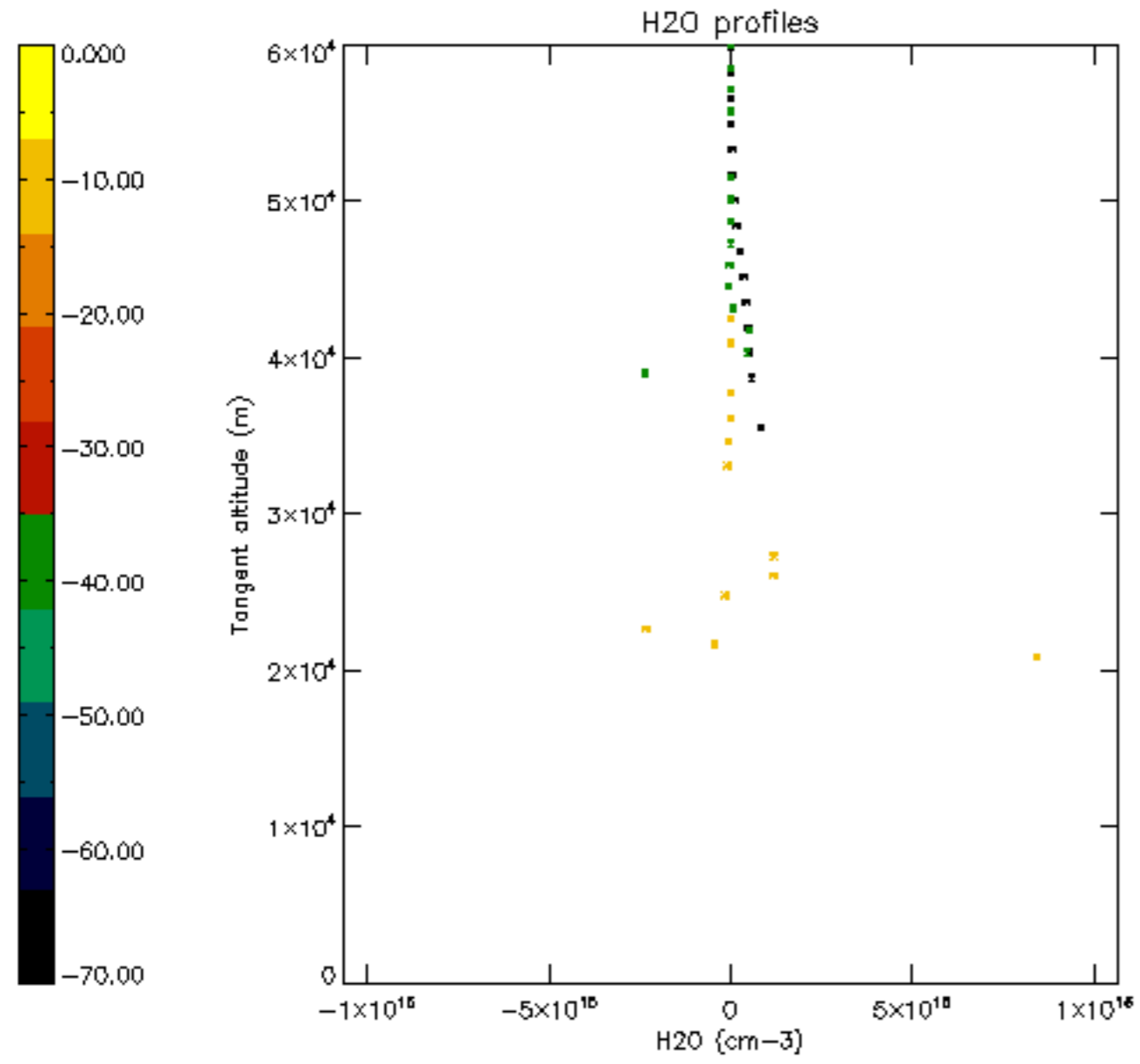


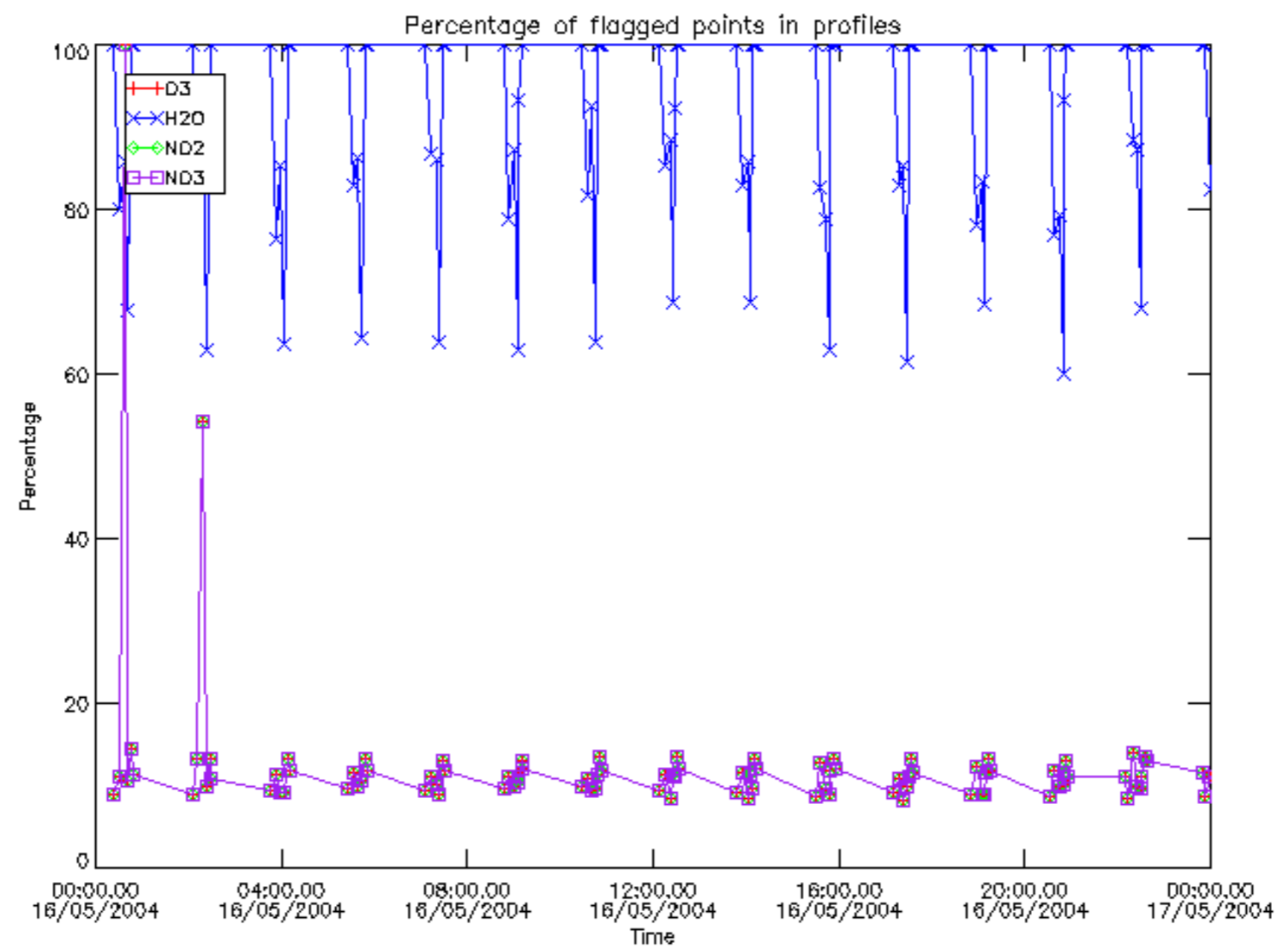




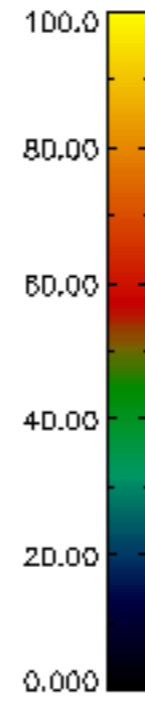
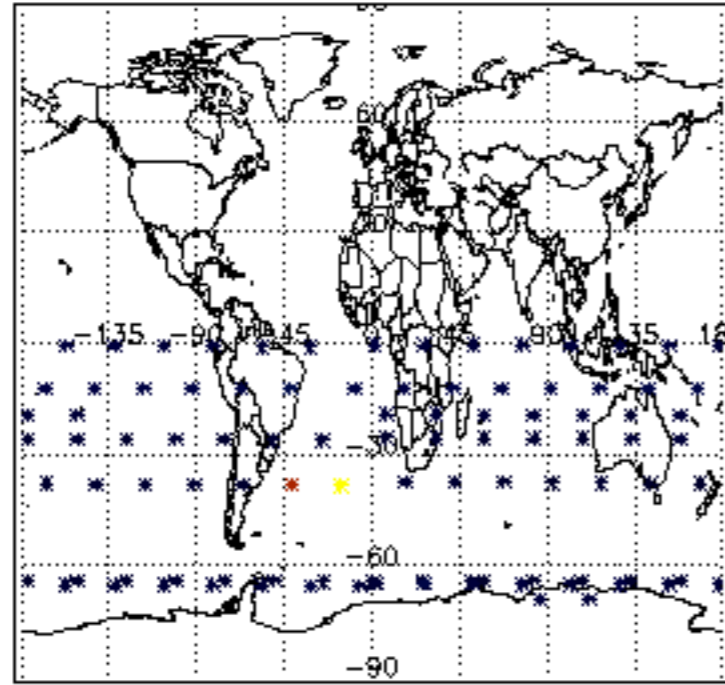




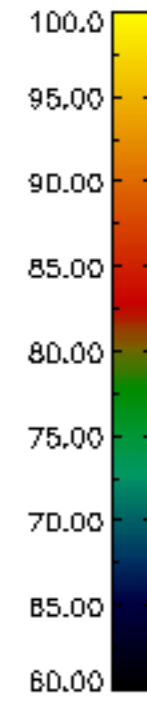
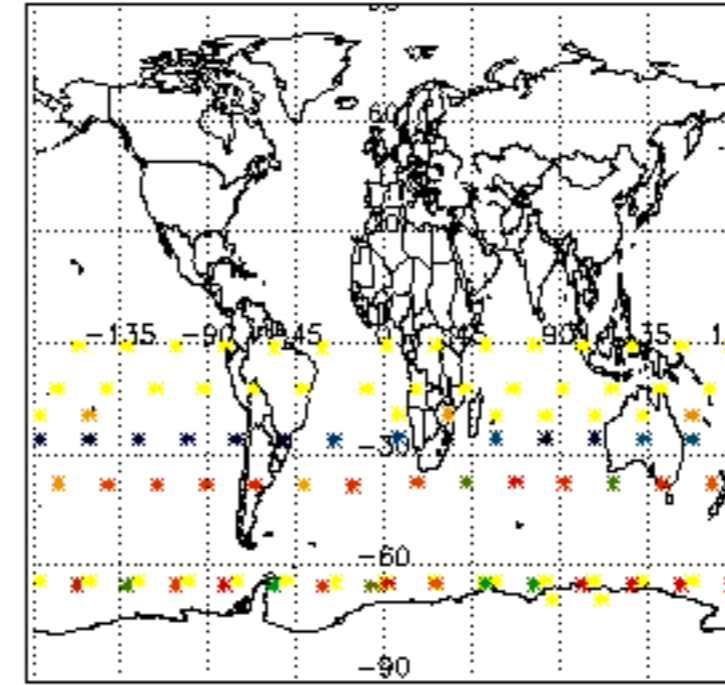




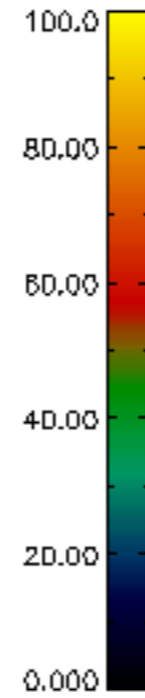
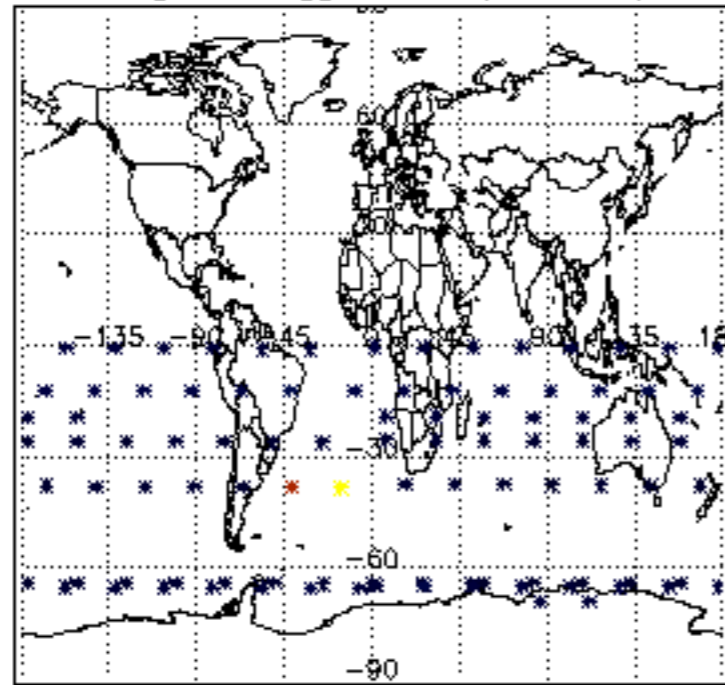
Percentage of flagged data per D3 profile



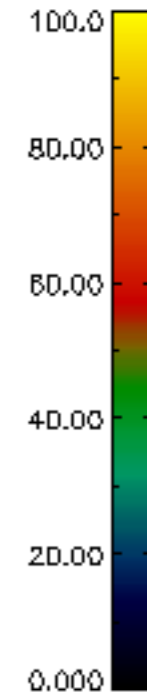
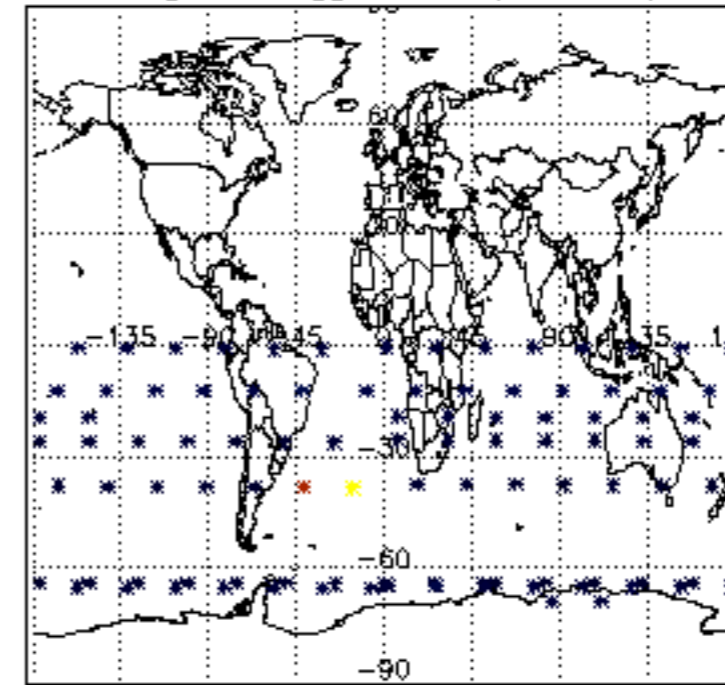
Percentage of flagged data per H2O profile

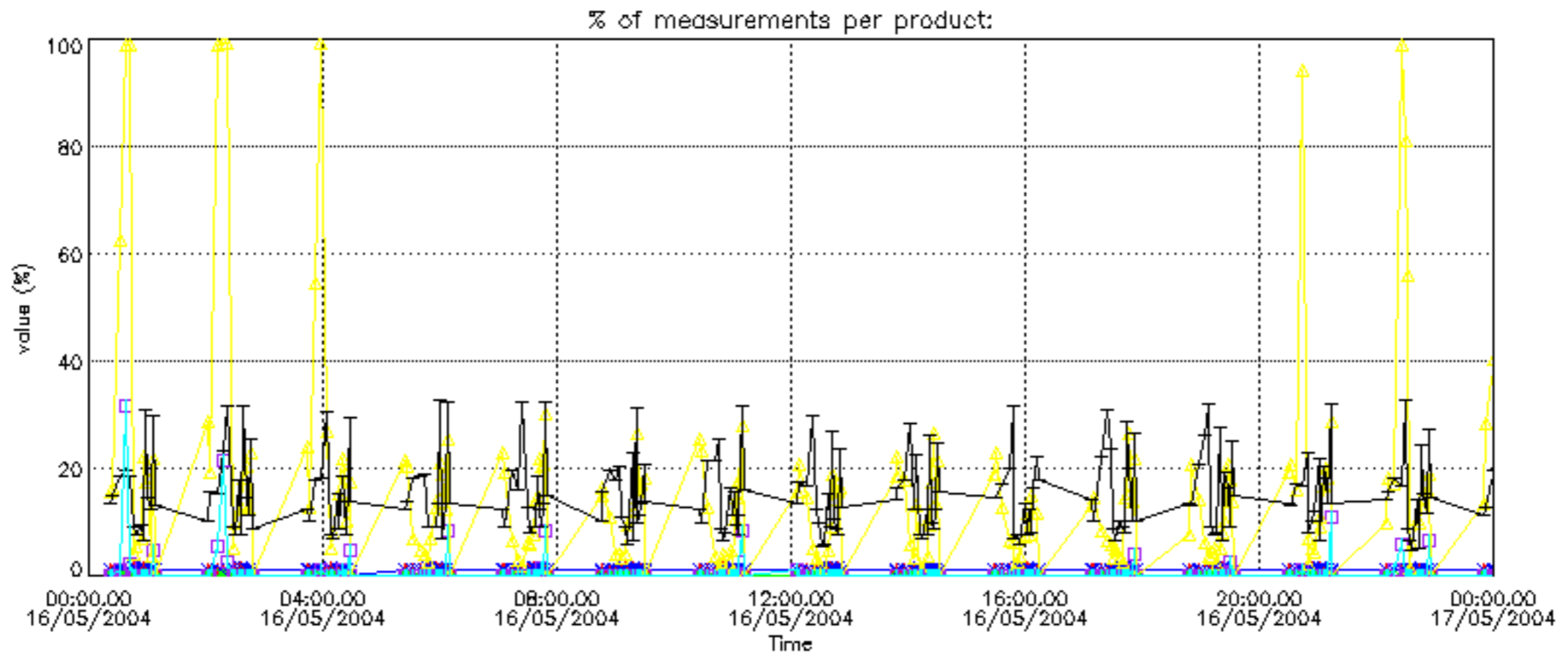


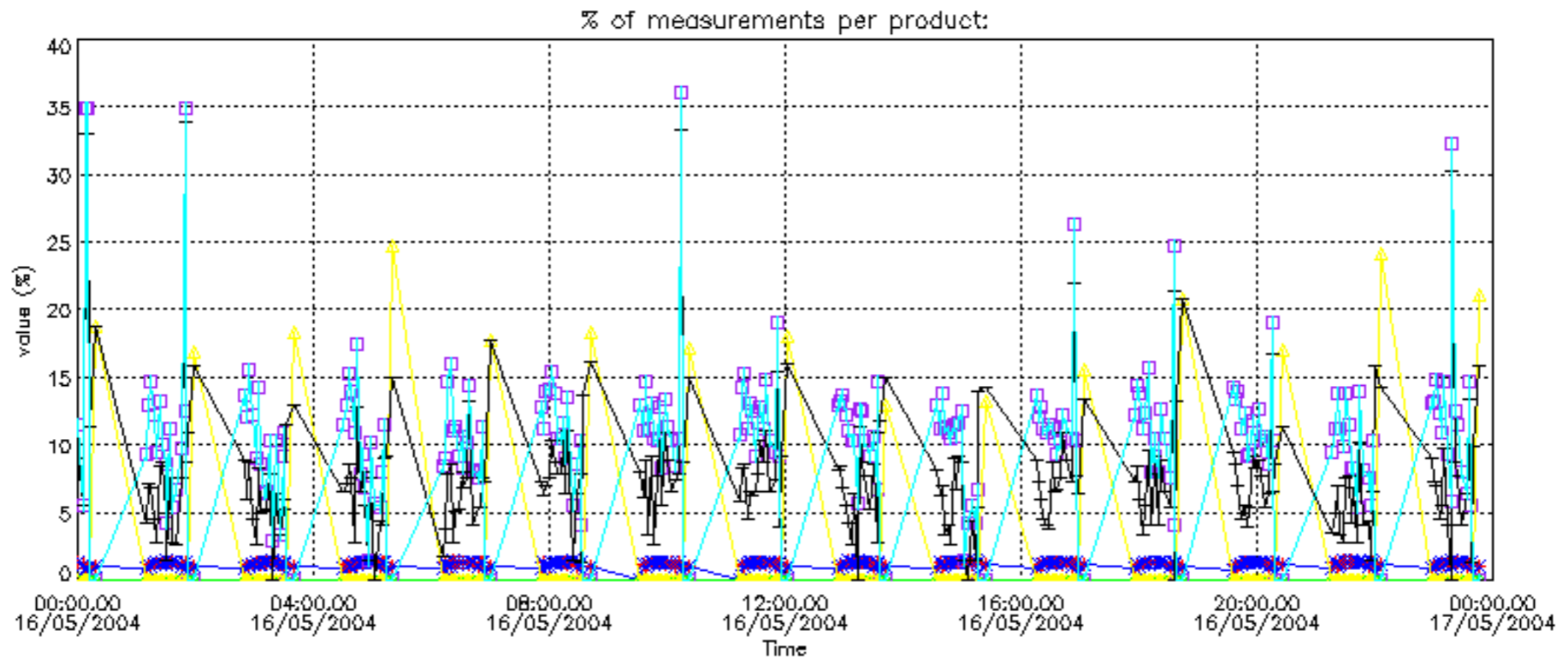
Percentage of flagged data per NO2 profile



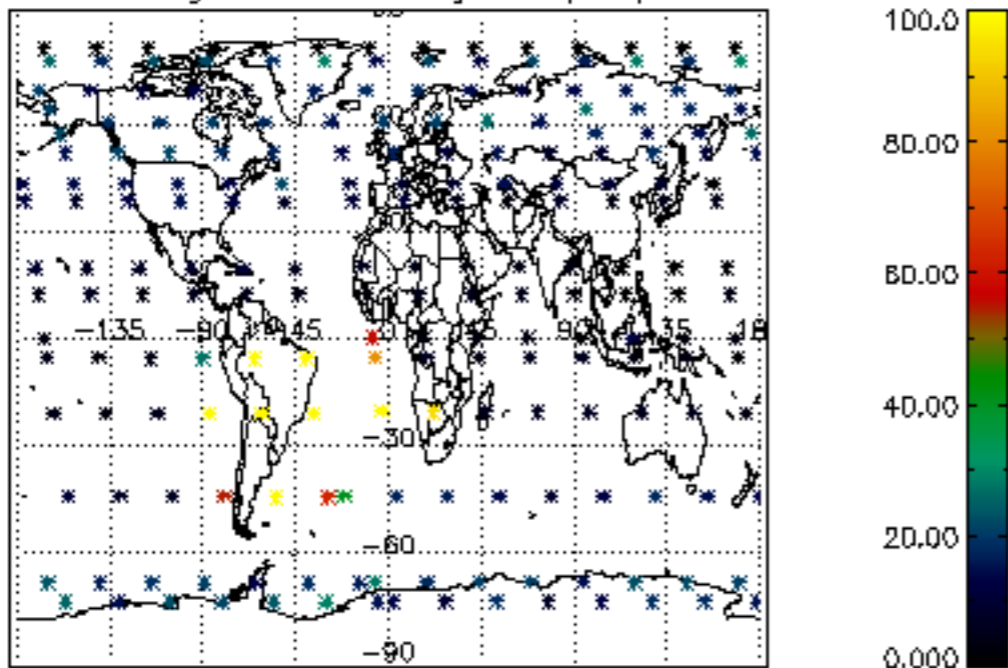
Percentage of flagged data per NO3 profile



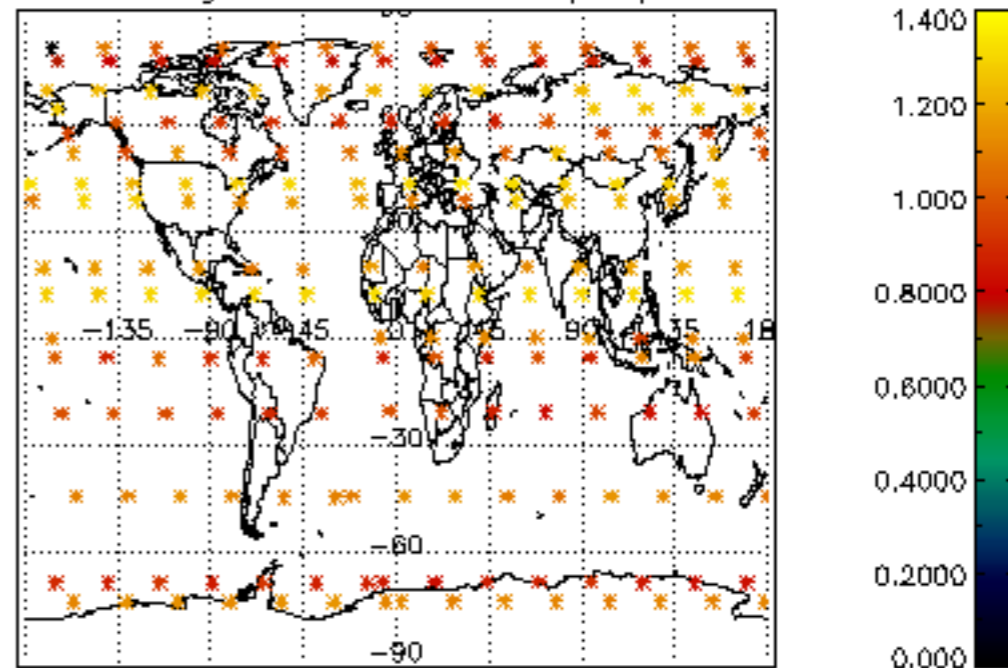




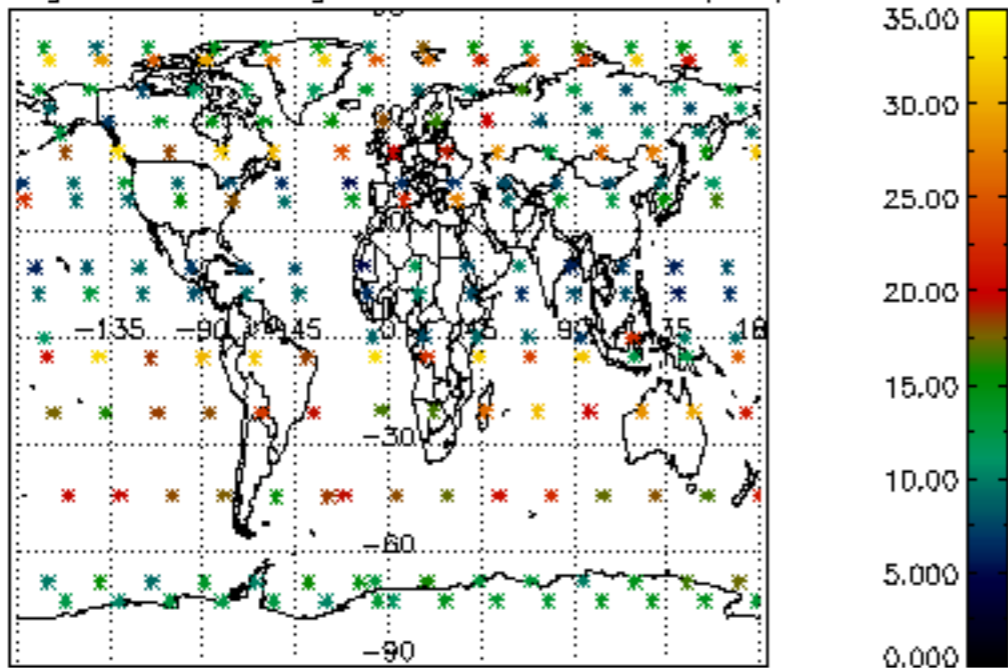
Percentage of cosmic ray hits per profile



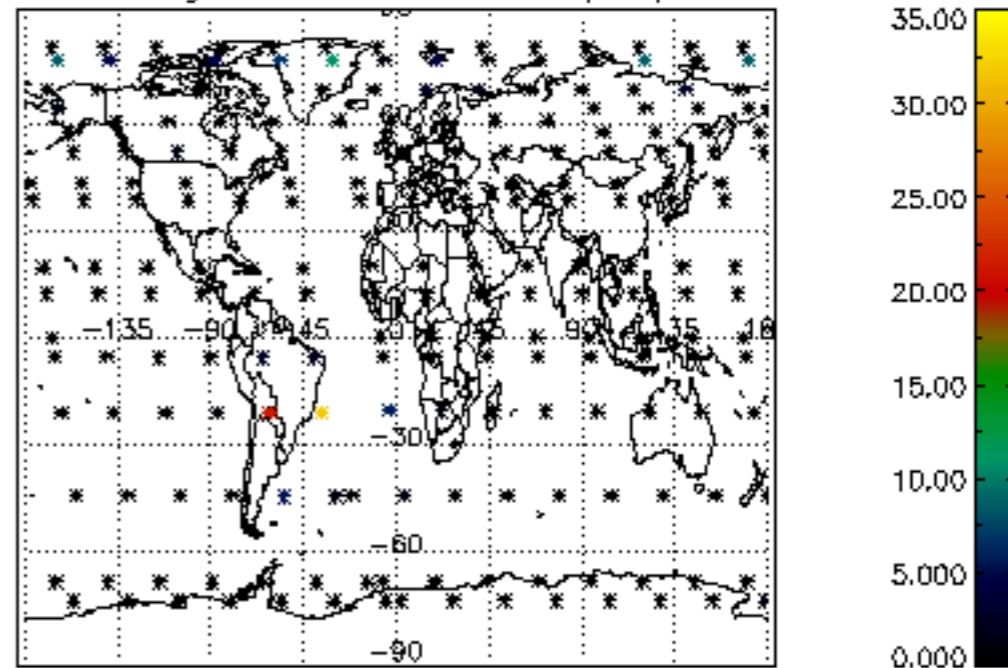
Percentage of datation errors per profile



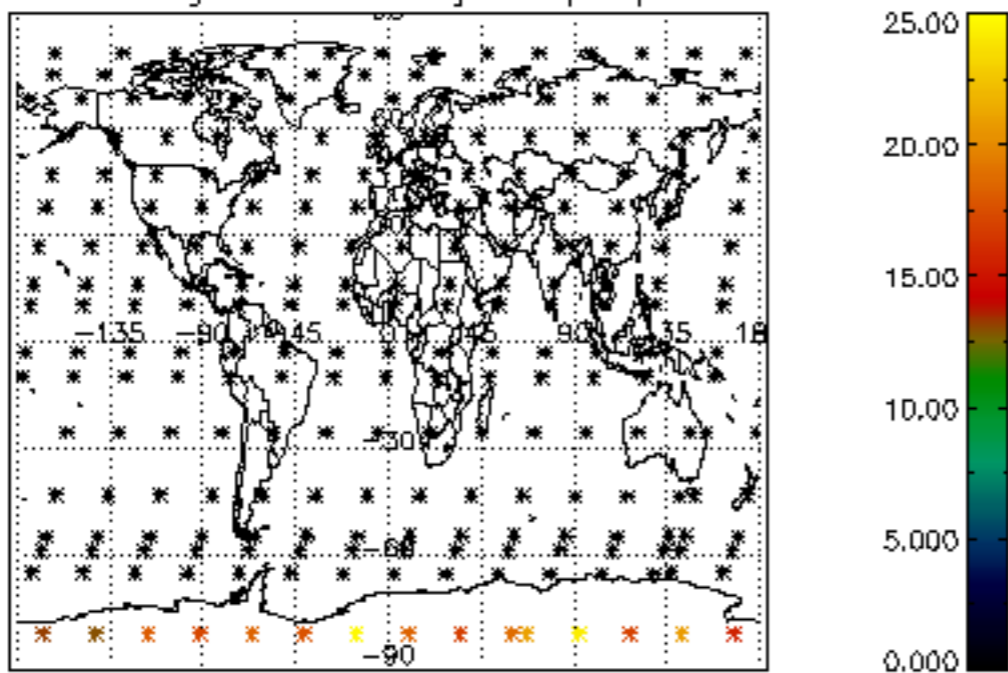
Percentage of star falling outside central band per profile



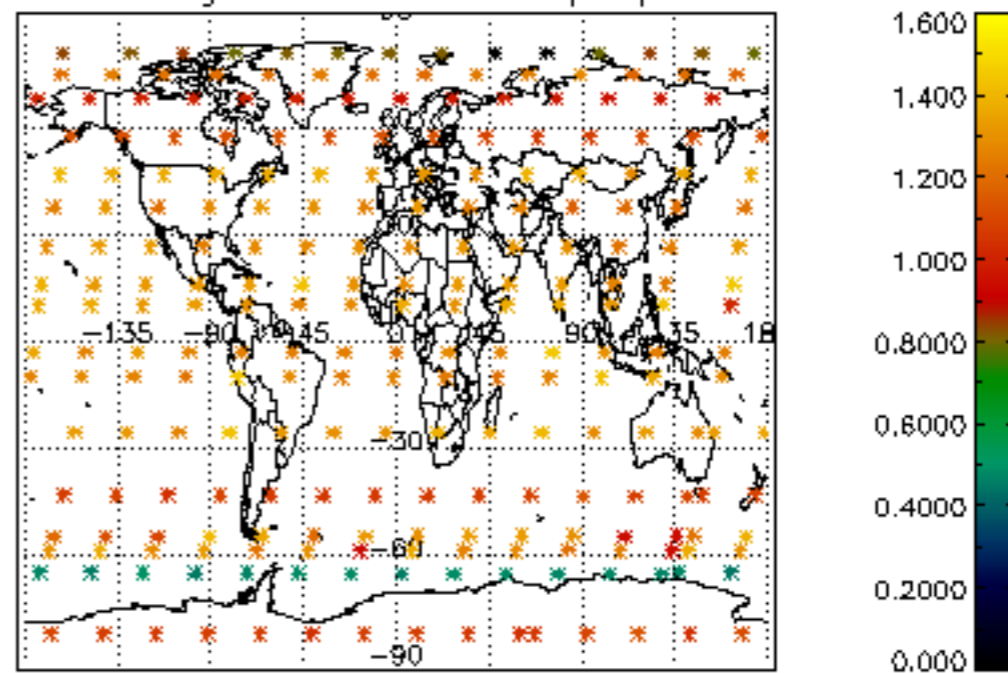
Percentage of saturation errors per profile



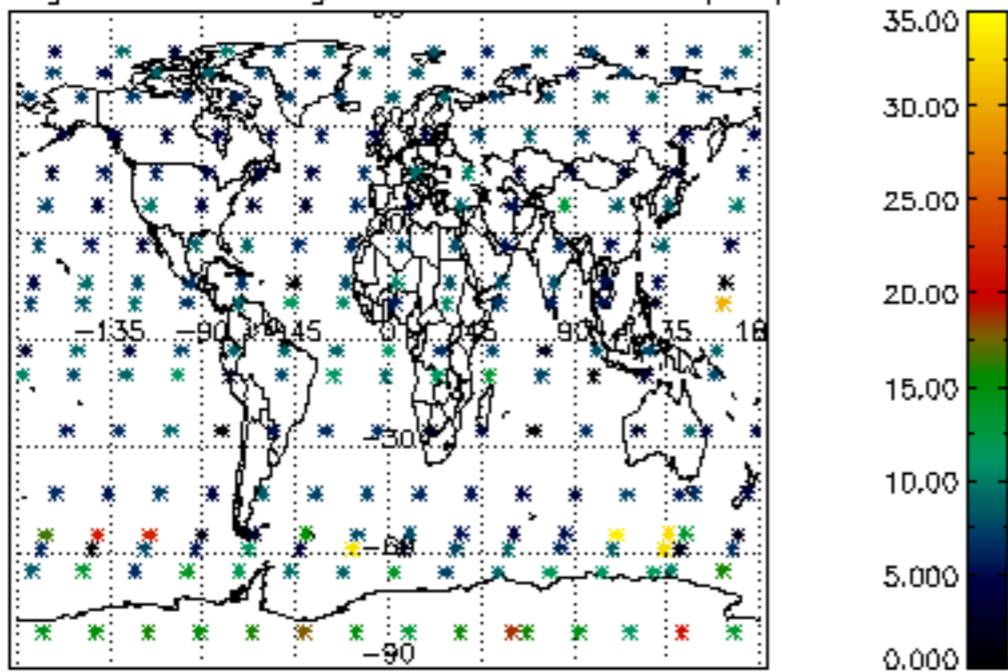
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

