

# GOMOS Level 2 Daily Report

## SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Item	Value
Time of report generation	17APR2013 20:01:13
Data source version	GOMOS/6.01
Start time of products	08-11-2002 (08NOV2002 00:00:00)
Stop time of products	09-11-2002 (09NOV2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	246
Nb of prods with errors	8

## 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__2PRFIN20021108_000145_000000462011_00045_03606_1489.N1	08-NOV-2002 00:01:45	Dark	46.000	9	Alp Eri	0.45300	24000.	92	3606	No
2	GOM_NL__2PRFIN20021108_000517_000000472011_00045_03606_1490.N1	08-NOV-2002 00:05:17	Straylight	47.000	157	The1Eri	2.9060	9300.0	94	3606	No
3	GOM_NL__2PRFIN20021108_000850_000002012011_00045_03606_1491.N1	08-NOV-2002 00:08:50	Straylight	201.00	47	2Bet CMa	1.9760	28000.	402	3606	No
4	GOM_NL__2PRFIN20021108_001633_000001562011_00045_03606_1492.N1	08-NOV-2002 00:16:33	Bright	156.00	7	19Bet Ori	0.10000	14000.	312	3606	No
5	GOM_NL__2PRFIN20021108_002329_000000462011_00045_03606_1493.N1	08-NOV-2002 00:23:29	Bright	45.500	105	6Bet Ari	2.6450	8900.0	91	3606	No
6	GOM_NL__2PRFIN20021108_002639_000000452011_00045_03606_1494.N1	08-NOV-2002 00:26:39	Bright	45.000	58	21Alp And	2.0730	11000.	90	3606	No
7	GOM_NL__2PRFIN20021108_002944_000000462011_00045_03606_1495.N1	08-NOV-2002 00:29:44	Bright	45.500	73	57Gam1And	2.2600	13100.	91	3606	No
8	GOM_NL__2PRFIN20021108_003338_000000442011_00045_03606_1496.N1	08-NOV-2002 00:33:38	Bright	43.500	68	18Alp Cas	2.2250	4500.0	87	3606	No
9	GOM_NL__2PRFIN20021108_003827_000000752011_00045_03606_1497.N1	08-NOV-2002 00:38:27	Bright	74.500	6	13Alp Aur	0.080000	3400.0	149	3606	No
10	GOM_NL__2PRFIN20021108_004248_000000422011_00045_03606_1498.N1	08-NOV-2002 00:42:48	Bright	41.500	49	1Alp UMi	1.9900	6300.0	83	3606	No
11	GOM_NL__2PRFIN20021108_004654_000000452011_00045_03606_1499.N1	08-NOV-2002 00:46:54	Bright	45.000	60	7Bet UMi	2.0810	3950.0	90	3606	No
12	GOM_NL__2PRFIN20021108_005044_000000512011_00045_03606_1500.N1	08-NOV-2002 00:50:44	Bright	51.000	36	50Alp UMa	1.8000	6300.0	102	3606	No
13	GOM_NL__2PRFIN20021108_005222_000000502011_00045_03606_1501.N1	08-NOV-2002 00:52:22	Bright	50.000	82	48Bet UMa	2.3650	10600.	100	3606	No
14	GOM_NL__2PRFIN20021108_005408_000000422011_00045_03606_1502.N1	08-NOV-2002 00:54:08	Bright	41.500	39	85Eta UMa	1.8540	24000.	83	3606	No
15	GOM_NL__2PRFIN20021108_005613_000000512011_00045_03606_1503.N1	08-NOV-2002 00:56:13	Bright	50.500	174	52Psi UMa	3.0040	4400.0	101	3606	No
16	GOM_NL__2PRFIN20021108_010458_000000822011_00045_03606_1504.N1	08-NOV-2002 01:04:58	Bright	81.500	166	17Eps Leo	2.9800	6000.0	163	3606	No
17	GOM_NL__2PRFIN20021108_011044_000001672011_00045_03606_1505.N1	08-NOV-2002 01:10:44	Dark	167.00	1015	Jupiter	0.0000	0.0000	334	3606	Yes
18	GOM_NL__2PRFIN20021108_012000_000001062011_00045_03606_1506.N1	08-NOV-2002 01:20:00	Dark	105.50	48	30Alp Hya	1.9770	4100.0	211	3606	No
19	GOM_NL__2PRFIN20021108_012415_000000462011_00045_03606_1507.N1	08-NOV-2002 01:24:15	Dark	45.500	26	Gam Cru	1.6240	2900.0	91	3606	No
20	GOM_NL__2PRFIN20021108_012555_000000482011_00045_03606_1508.N1	08-NOV-2002 01:25:55	Dark	47.500	12	Alp1Cru	0.77500	30000.	95	3606	No
21	GOM_NL__2PRFIN20021108_012814_000000482011_00046_03607_1485.N1	08-NOV-2002 01:28:14	Dark	48.000	91	Kap Vel	2.4900	26000.	96	3607	No
22	GOM_NL__2PRFIN20021108_012944_000000502011_00046_03607_1486.N1	08-NOV-2002 01:29:44	Dark	50.000	46	Del Vel	1.9540	10600.	100	3607	No
23	GOM_NL__2PRFIN20021108_013619_000000602011_00046_03607_1487.N1	08-NOV-2002 01:36:19	Dark	60.000	2	Alp Car	-0.73600	7000.0	120	3607	No
24	GOM_NL__2PRFIN20021108_013916_000000982011_00046_03607_1488.N1	08-NOV-2002 01:39:16	Dark	98.000	23	21Eps CMa	1.5020	26000.	196	3607	No
25	GOM_NL__2PRFIN20021108_014221_000000552011_00046_03607_1489.N1	08-NOV-2002 01:42:21	Dark	54.500	9	Alp Eri	0.45300	24000.	109	3607	No
26	GOM_NL__2PRFIN20021108_014553_000000482011_00046_03607_1490.N1	08-NOV-2002 01:45:53	Straylight	47.500	157	The1Eri	2.9060	9300.0	95	3607	No
27	GOM_NL__2PRFIN20021108_014927_000001952011_00046_03607_1491.N1	08-NOV-2002 01:49:27	Straylight	194.50	47	2Bet CMa	1.9760	28000.	389	3607	No
28	GOM_NL__2PRFIN20021108_015709_000001422011_00046_03607_1492.N1	08-NOV-2002 01:57:09	Twilight_and_stray	141.50	7	19Bet Ori	0.10000	14000.	283	3607	No
29	GOM_NL__2PRFIN20021108_020405_000000452011_00046_03607_1493.N1	08-NOV-2002 02:04:05	Bright	45.000	105	6Bet Ari	2.6450	8900.0	90	3607	No
30	GOM_NL__2PRFIN20021108_020715_000000442011_00046_03607_1494.N1	08-NOV-2002 02:07:15	Bright	44.000	58	21Alp And	2.0730	11000.	88	3607	No
31	GOM_NL__2PRFIN20021108_021020_000000462011_00046_03607_1495.N1	08-NOV-2002 02:10:20	Bright	45.500	73	57Gam1And	2.2600	13100.	91	3607	No
32	GOM_NL__2PRFIN20021108_021415_000000452011_00046_03607_1496.N1	08-NOV-2002 02:14:15	Bright	44.500	68	18Alp Cas	2.2250	4500.0	89	3607	No
33	GOM_NL__2PRFIN20021108_021902_000000942011_00046_03607_1497.N1	08-NOV-2002 02:19:02	Bright	94.000	6	13Alp Aur	0.080000	3400.0	188	3607	No
34	GOM_NL__2PRFIN20021108_022324_000000402011_00046_03607_1498.N1	08-NOV-2002 02:23:24	Bright	40.000	49	1Alp UMi	1.9900	6300.0	80	3607	No
35	GOM_NL__2PRFIN20021108_022731_000000462011_00046_03607_1499.N1	08-NOV-2002 02:27:31	Bright	45.500	60	7Bet UMi	2.0810	3950.0	91	3607	No
36	GOM_NL__2PRFIN20021108_023122_000000502011_00046_03607_1500.N1	08-NOV-2002 02:31:22	Bright	49.500	36	50Alp UMa	1.8000	6300.0	99	3607	No
37	GOM_NL__2PRFIN20021108_023259_000000462011_00046_03607_1501.N1	08-NOV-2002 02:32:59	Bright	46.000	82	48Bet UMa	2.3650	10600.	92	3607	No
38	GOM_NL__2PRFIN20021108_023445_000000412011_00046_03607_1502.N1	08-NOV-2002 02:34:45	Bright	41.000	39	85Eta UMa	1.8540	24000.	82	3607	No
39	GOM_NL__2PRFIN20021108_023649_000000482011_00046_03607_1503.N1	08-NOV-2002 02:36:49	Bright	48.000	174	52Psi UMa	3.0040	4400.0	96	3607	No
40	GOM_NL__2PRFIN20021108_024535_000000832011_00046_03607_1504.N1	08-NOV-2002 02:45:35	Bright	82.500	166	17Eps Leo	2.9800	6000.0	165	3607	No
41	GOM_NL__2PRFIN20021108_025122_000001672011_00046_03607_1505.N1	08-NOV-2002 02:51:22	Dark	167.00	1015	Jupiter	0.0000	0.0000	334	3607	Yes
42	GOM_NL__2PRFIN20021108_030037_000000912011_00046_03607_1506.N1	08-NOV-2002 03:00:37	Dark	90.500	48	30Alp Hya	1.9770	4100.0	181	3607	No





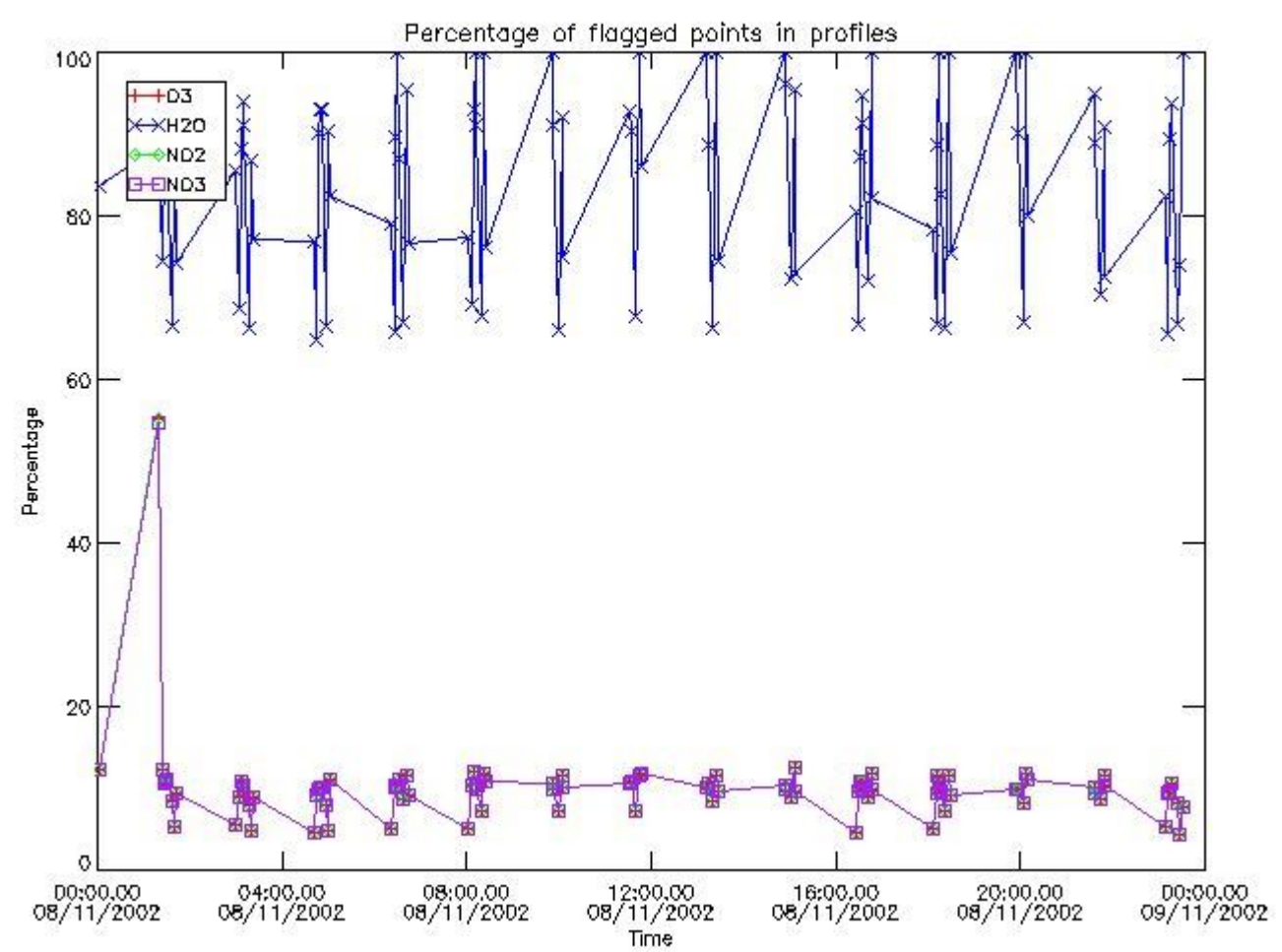


220	GOM_NL__2PRFIN20021108_221115_000000462011_00058_03619_1498.N1	08-NOV-2002 22:11:15	Bright	46.000	105	6Bet Ari	2.6450	8900.0	92	3619	No
221	GOM_NL__2PRFIN20021108_221431_000000452011_00058_03619_1499.N1	08-NOV-2002 22:14:31	Bright	44.500	58	21Alp And	2.0730	11000.	89	3619	No
222	GOM_NL__2PRFIN20021108_221730_000000472011_00058_03619_1500.N1	08-NOV-2002 22:17:30	Bright	46.500	73	57Gam1And	2.2600	13100.	93	3619	No
223	GOM_NL__2PRFIN20021108_221948_000000562011_00058_03619_1501.N1	08-NOV-2002 22:19:48	Bright	55.500	149	45Eps Per	2.8880	30000.	111	3619	No
224	GOM_NL__2PRFIN20021108_222137_000000502011_00058_03619_1502.N1	08-NOV-2002 22:21:37	Bright	50.000	160	23Gam Per	2.9300	4700.0	100	3619	No
225	GOM_NL__2PRFIN20021108_222559_000000892011_00058_03619_1503.N1	08-NOV-2002 22:25:59	Bright	89.000	6	13Alp Aur	0.080000	3400.0	178	3619	No
226	GOM_NL__2PRFIN20021108_223035_000000442011_00058_03619_1504.N1	08-NOV-2002 22:30:35	Bright	43.500	49	1Alp UMi	1.9900	6300.0	87	3619	No
227	GOM_NL__2PRFIN20021108_223443_000000432011_00058_03619_1505.N1	08-NOV-2002 22:34:43	Bright	43.000	60	7Bet UMi	2.0810	3950.0	86	3619	No
228	GOM_NL__2PRFIN20021108_223830_000000532011_00058_03619_1506.N1	08-NOV-2002 22:38:30	Bright	52.500	36	50Alp UMa	1.8000	6300.0	105	3619	No
229	GOM_NL__2PRFIN20021108_224008_000000502011_00058_03619_1507.N1	08-NOV-2002 22:40:08	Bright	49.500	82	48Bet UMa	2.3650	10600.	99	3619	No
230	GOM_NL__2PRFIN20021108_224159_000000412011_00058_03619_1508.N1	08-NOV-2002 22:41:59	Bright	41.000	39	85Eta UMa	1.8540	24000.	82	3619	No
231	GOM_NL__2PRFIN20021108_224400_000000512011_00058_03619_1509.N1	08-NOV-2002 22:44:00	Bright	50.500	174	52Psi UMa	3.0040	4400.0	101	3619	No
232	GOM_NL__2PRFIN20021108_225253_000000842011_00058_03619_1510.N1	08-NOV-2002 22:52:53	Bright	84.000	166	17Eps Leo	2.9800	6000.0	168	3619	No
233	GOM_NL__2PRFIN20021108_225854_000001532011_00058_03619_1511.N1	08-NOV-2002 22:58:54	Dark	153.00	1015	Jupiter	0.0000	0.0000	306	3619	Yes
234	GOM_NL__2PRFIN20021108_230812_000001152011_00058_03619_1512.N1	08-NOV-2002 23:08:12	Dark	114.50	48	30Alp Hya	1.9770	4100.0	229	3619	No
235	GOM_NL__2PRFIN20021108_231205_000000542011_00058_03619_1513.N1	08-NOV-2002 23:12:05	Dark	54.000	26	Gam Cru	1.6240	2900.0	108	3619	No
236	GOM_NL__2PRFIN20021108_231344_000000532011_00058_03619_1514.N1	08-NOV-2002 23:13:44	Dark	52.500	12	Alp1Cru	0.77500	30000.	105	3619	No
237	GOM_NL__2PRFIN20021108_231609_000000482011_00059_03620_1489.N1	08-NOV-2002 23:16:09	Dark	48.000	91	Kap Vel	2.4900	26000.	96	3620	No
238	GOM_NL__2PRFIN20021108_232415_000000622011_00059_03620_1490.N1	08-NOV-2002 23:24:15	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	3620	No
239	GOM_NL__2PRFIN20021108_232727_000001202011_00059_03620_1491.N1	08-NOV-2002 23:27:27	Dark	119.50	37	25Del CMa	1.8300	5900.0	239	3620	No
240	GOM_NL__2PRFIN20021108_233054_000000662011_00059_03620_1492.N1	08-NOV-2002 23:30:54	Dark	65.500	108	Alp Col	2.6520	15200.	131	3620	No
241	GOM_NL__2PRFIN20021108_233345_000000482011_00059_03620_1493.N1	08-NOV-2002 23:33:45	Straylight	47.500	157	The1Eri	2.9060	9300.0	95	3620	No
242	GOM_NL__2PRFIN20021108_233724_000001982011_00059_03620_1494.N1	08-NOV-2002 23:37:24	Straylight	198.00	47	2Bet CMa	1.9760	28000.	396	3620	No
243	GOM_NL__2PRFIN20021108_234447_000001382011_00059_03620_1495.N1	08-NOV-2002 23:44:47	Tw_i_and_stray	137.50	7	19Bet Ori	0.10000	14000.	275	3620	No
244	GOM_NL__2PRFIN20021108_235151_000000462011_00059_03620_1496.N1	08-NOV-2002 23:51:51	Bright	46.000	105	6Bet Ari	2.6450	8900.0	92	3620	No
245	GOM_NL__2PRFIN20021108_235507_000000442011_00059_03620_1497.N1	08-NOV-2002 23:55:07	Bright	43.500	58	21Alp And	2.0730	11000.	87	3620	No
246	GOM_NL__2PRFIN20021108_235806_000000452011_00059_03620_1498.N1	08-NOV-2002 23:58:06	Bright	45.000	73	57Gam1And	2.2600	13100.	90	3620	No

### 3. Quality information per product

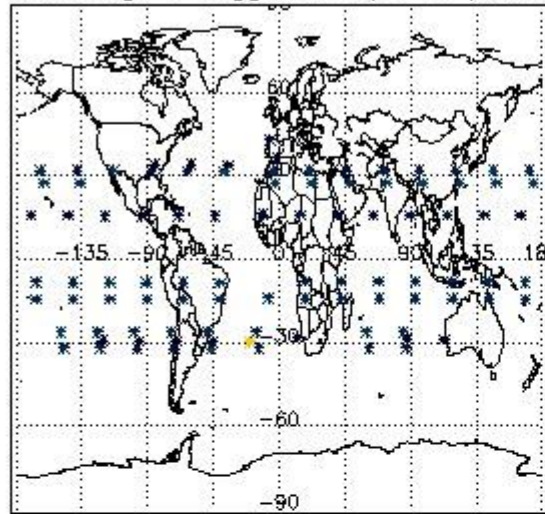
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

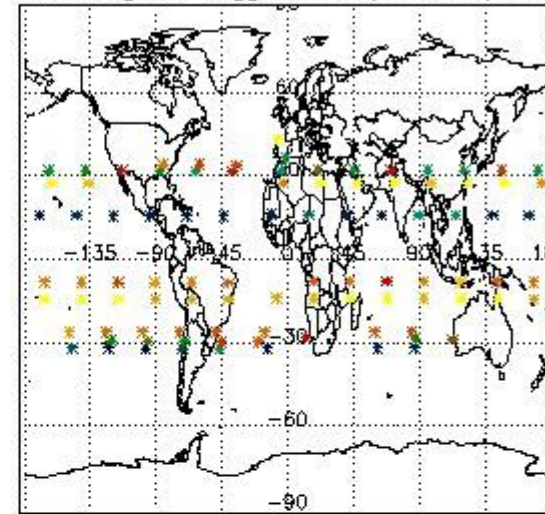


3.2 Plot quality information per product (world map)

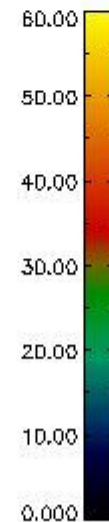
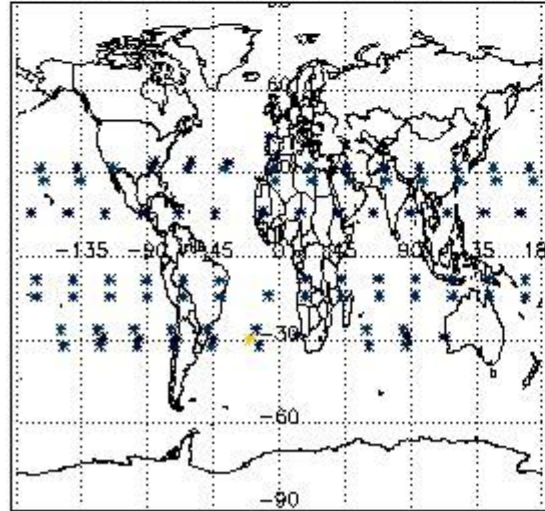
Percentage of flagged data per O3 profile



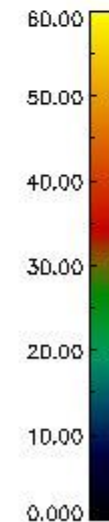
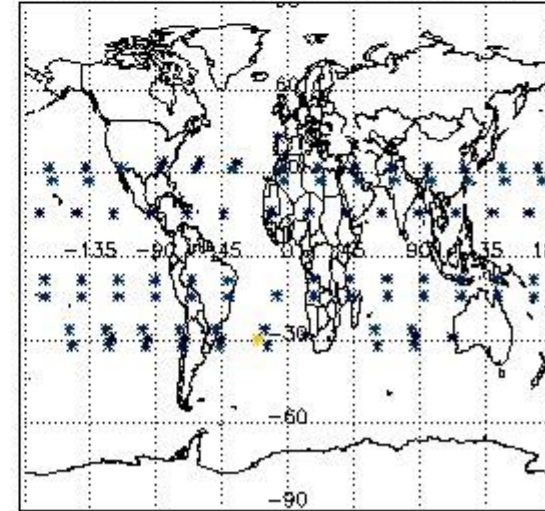
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



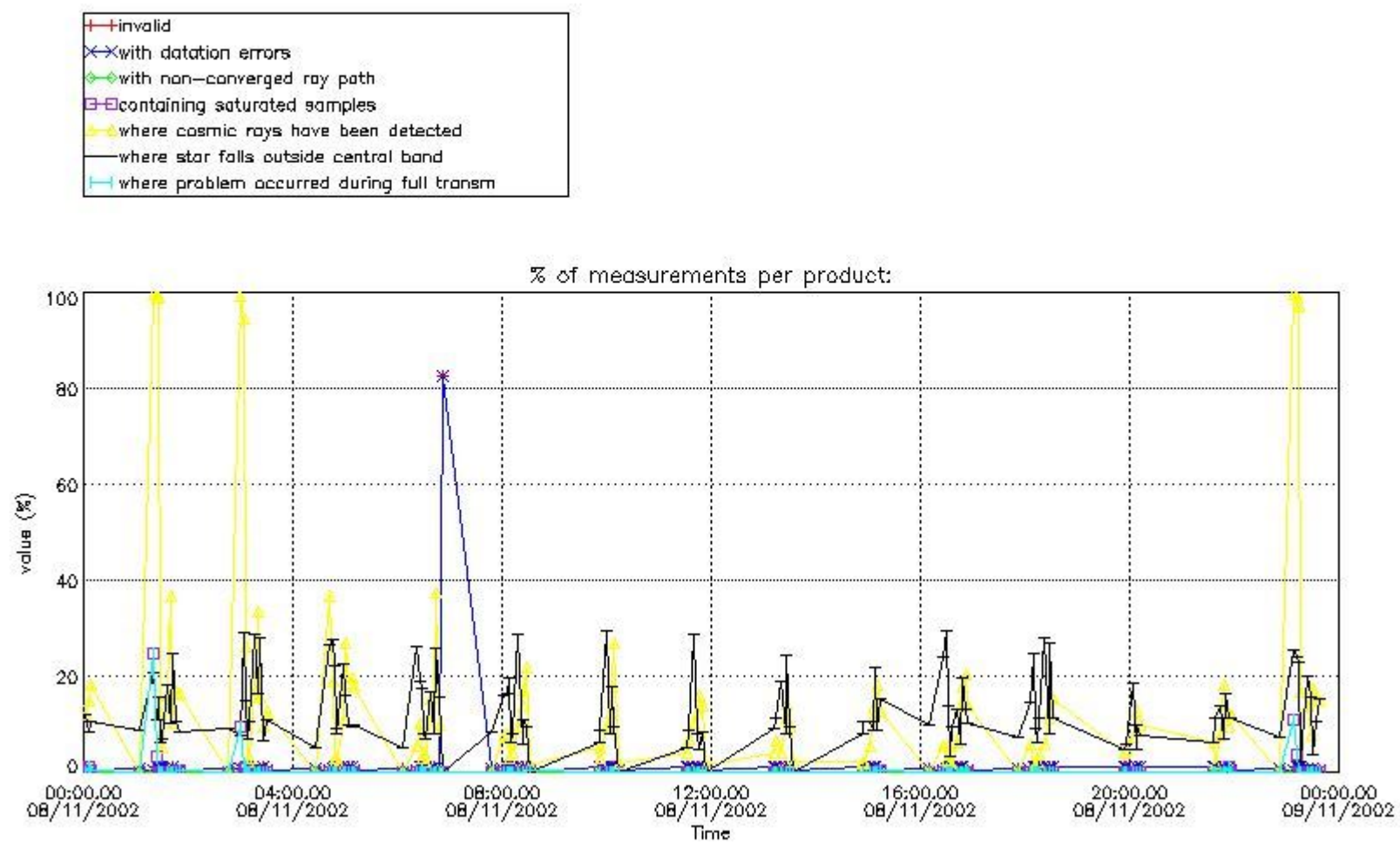
#### 4. Level 1 quality information per product

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.

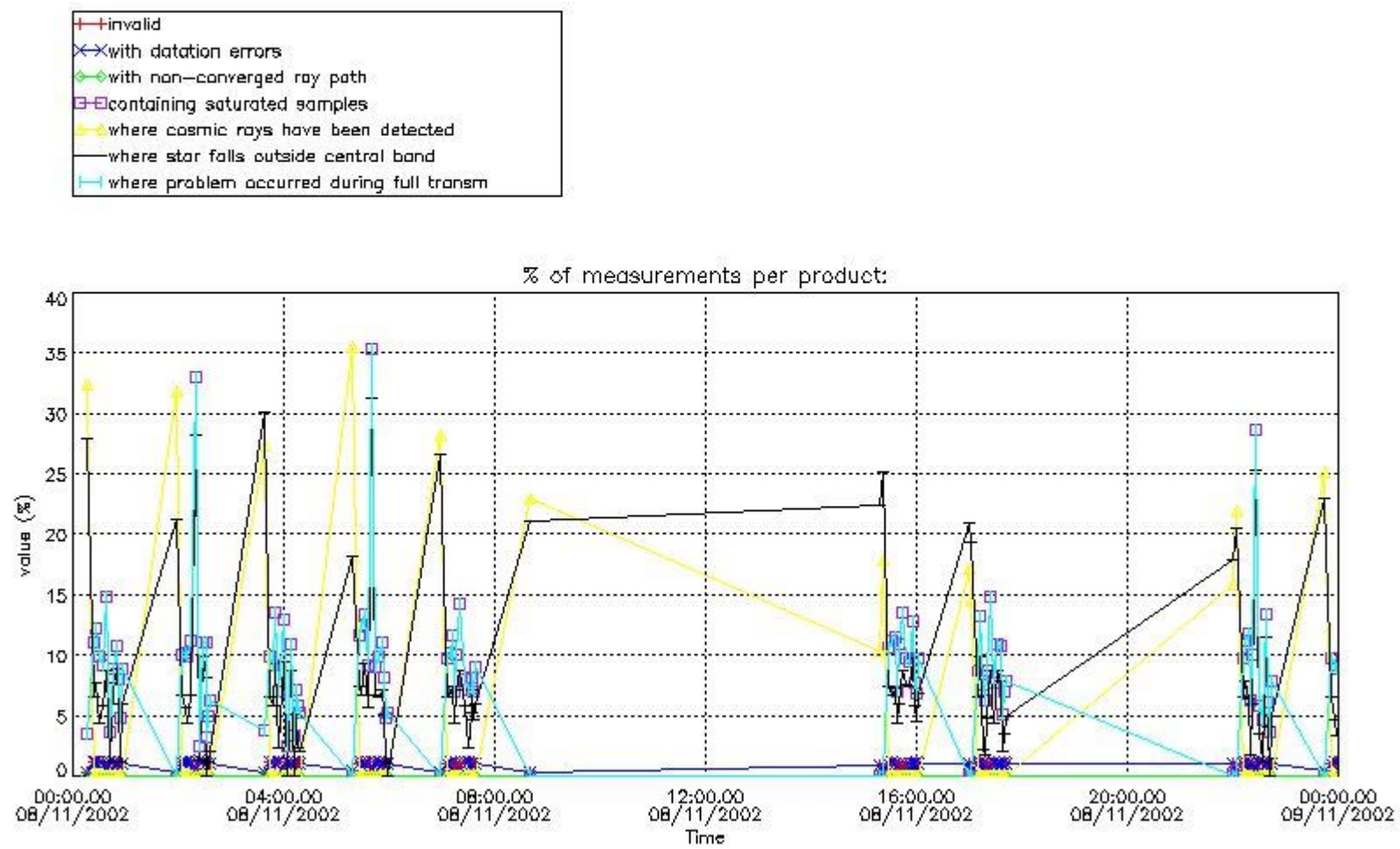
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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





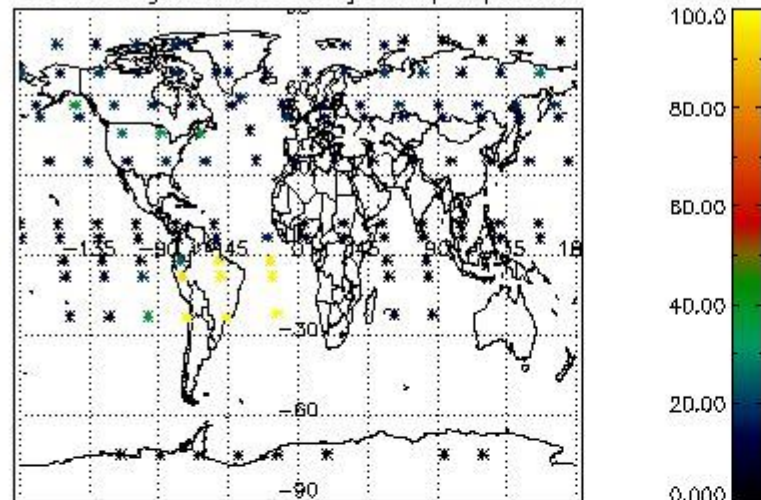
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



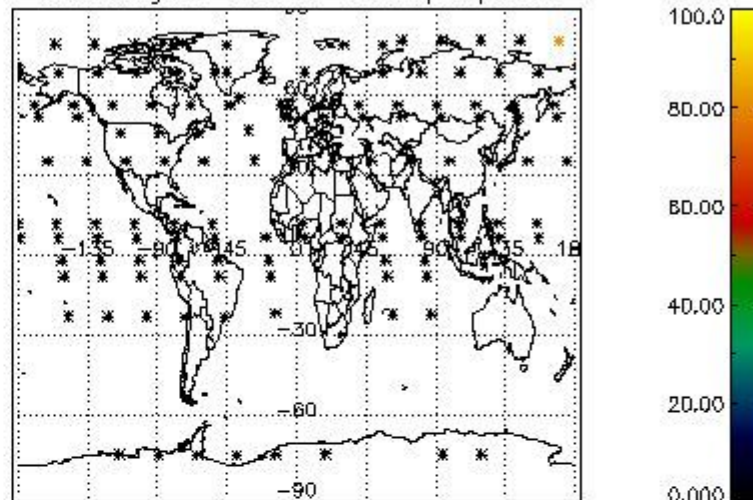
4.2 Plot quality information per product coming from level 1b processing (world map)

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

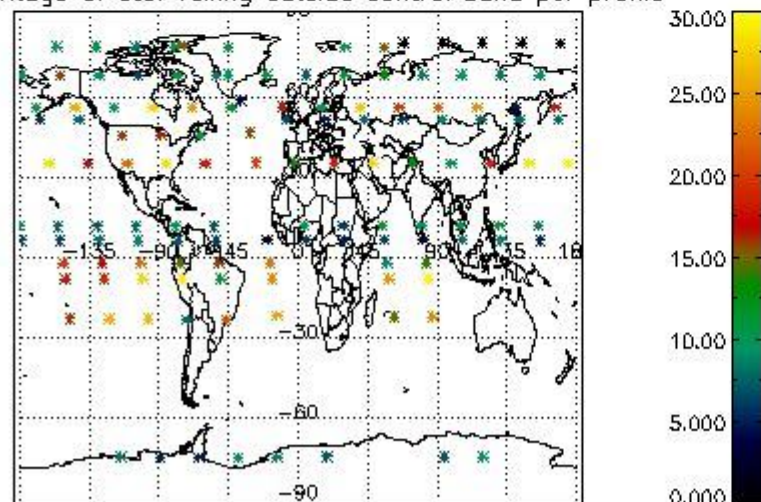
Percentage of cosmic ray hits per profile



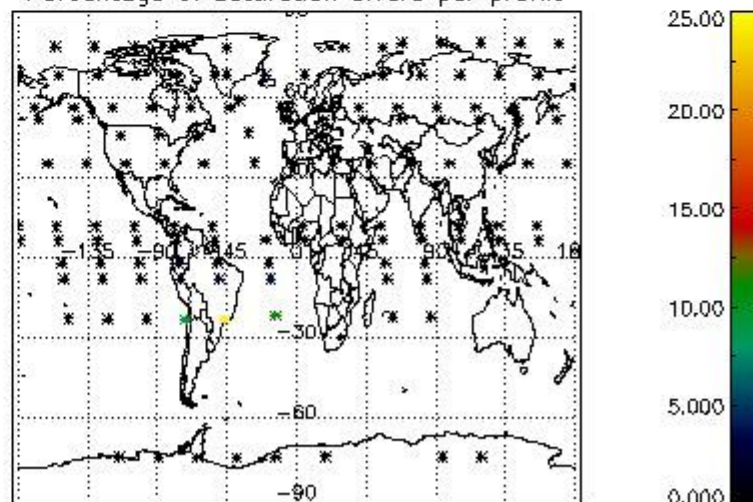
Percentage of datation errors per profile



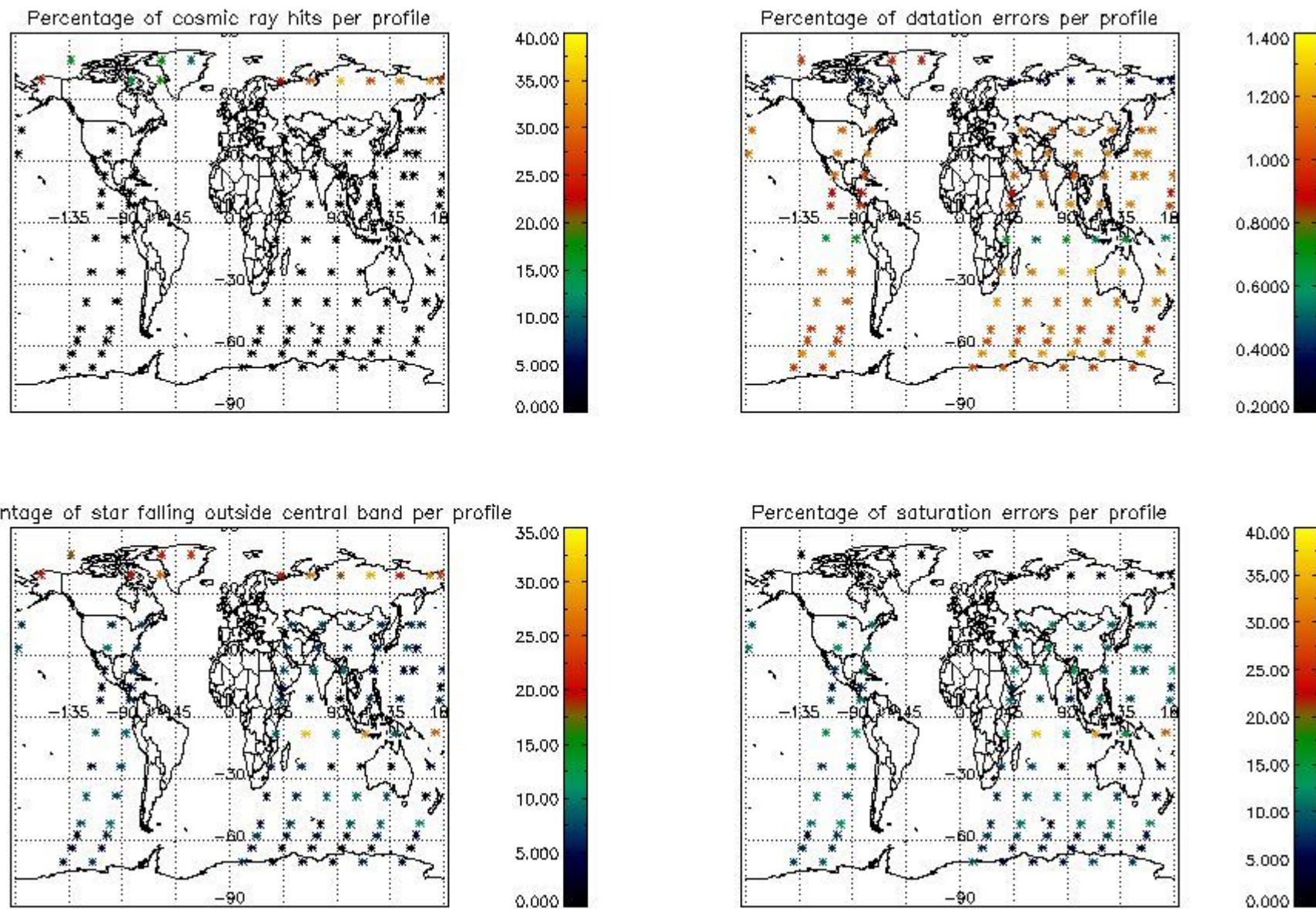
Percentage of star falling outside central band per profile



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

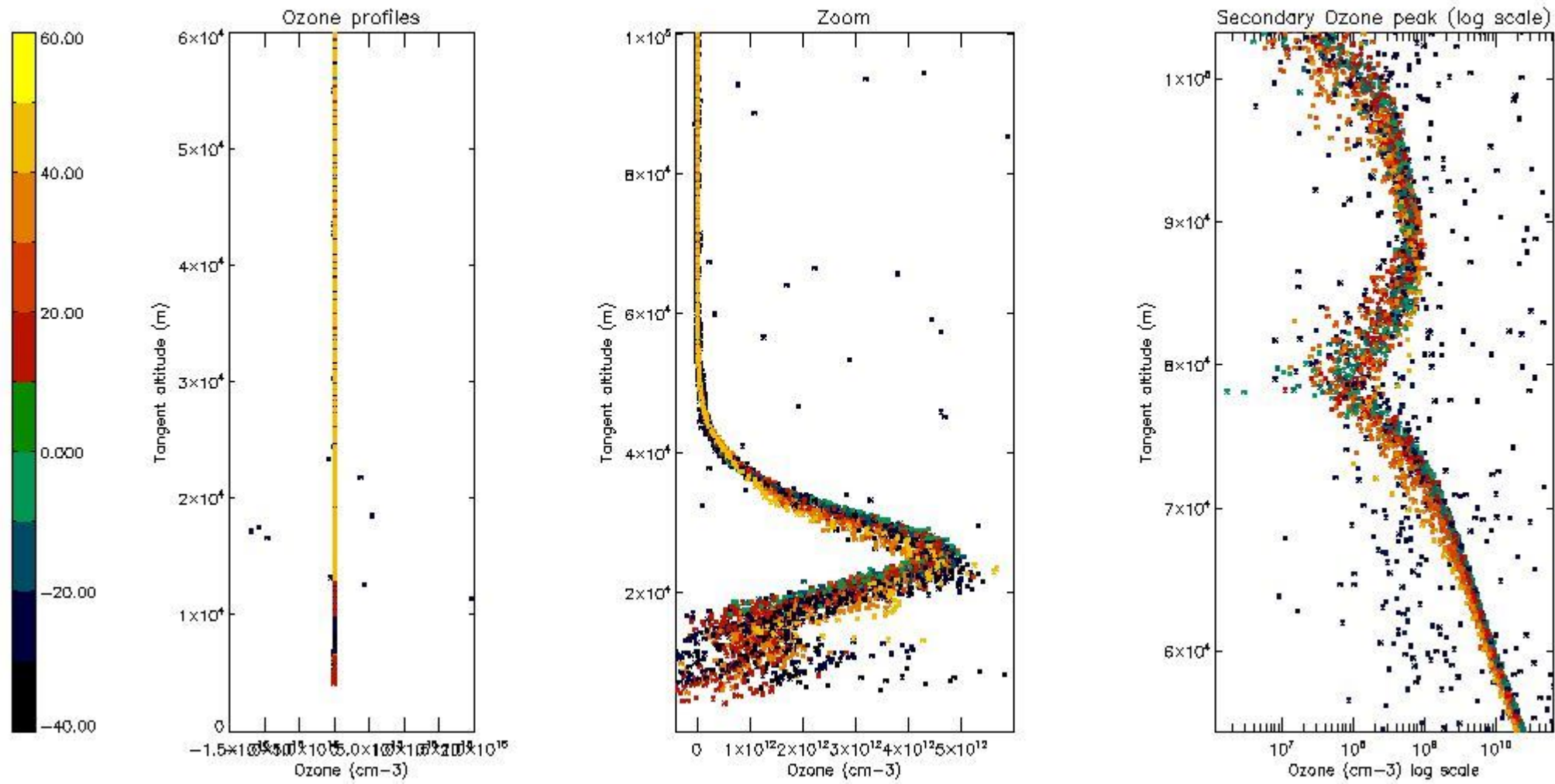
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	36
STD < 20	19

STD < 10	17
STD < 5	13

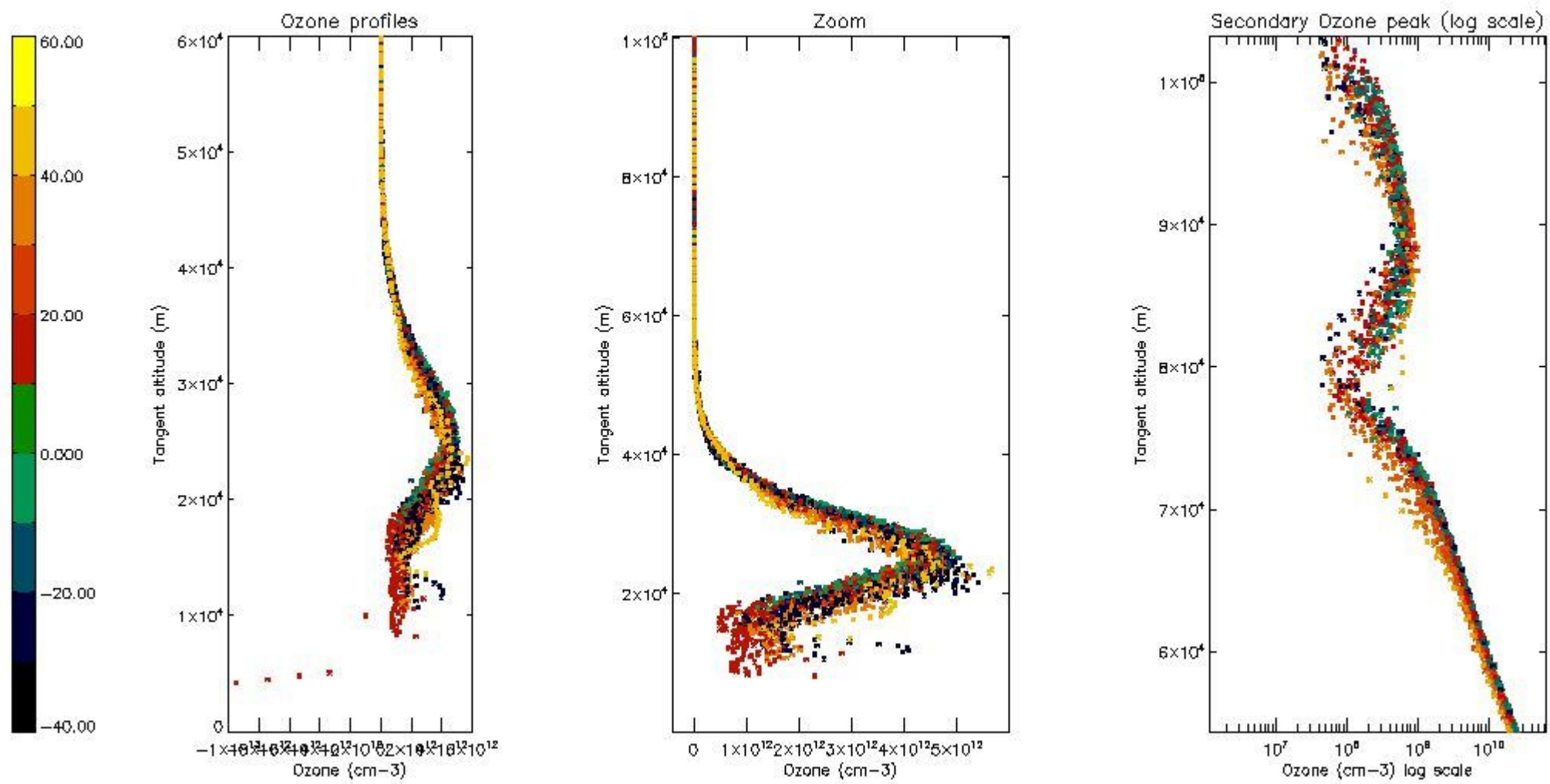
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



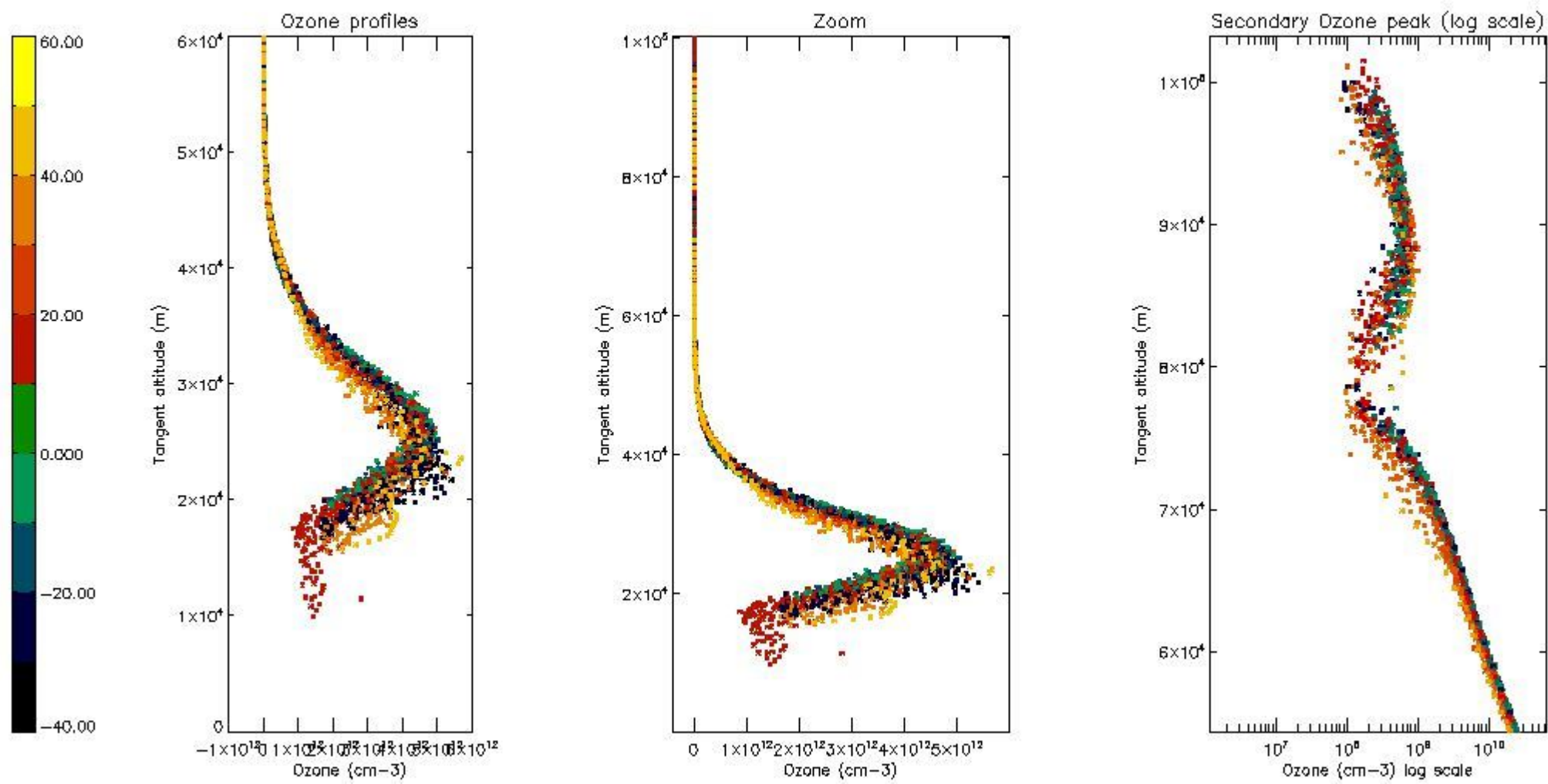
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



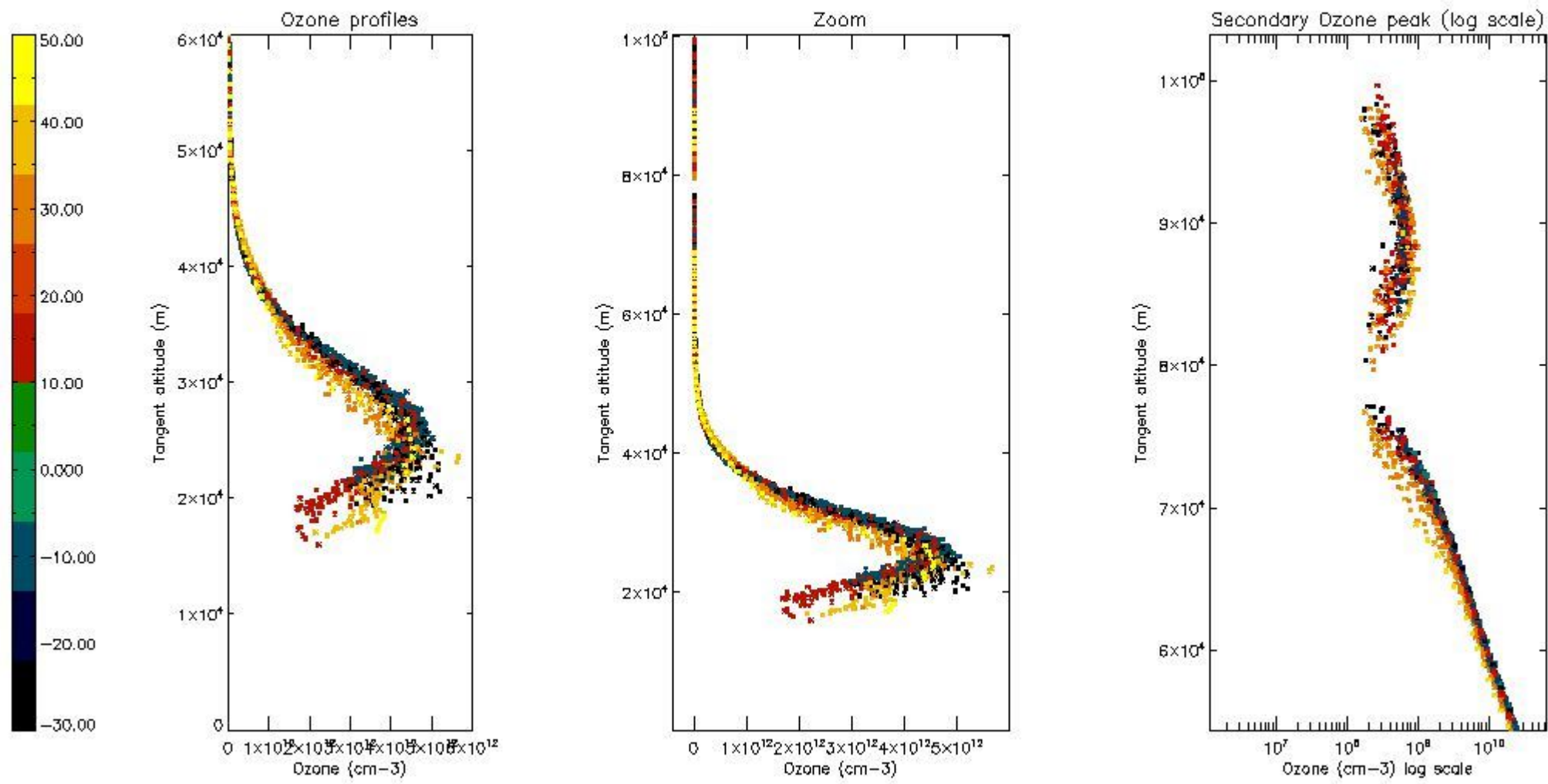
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

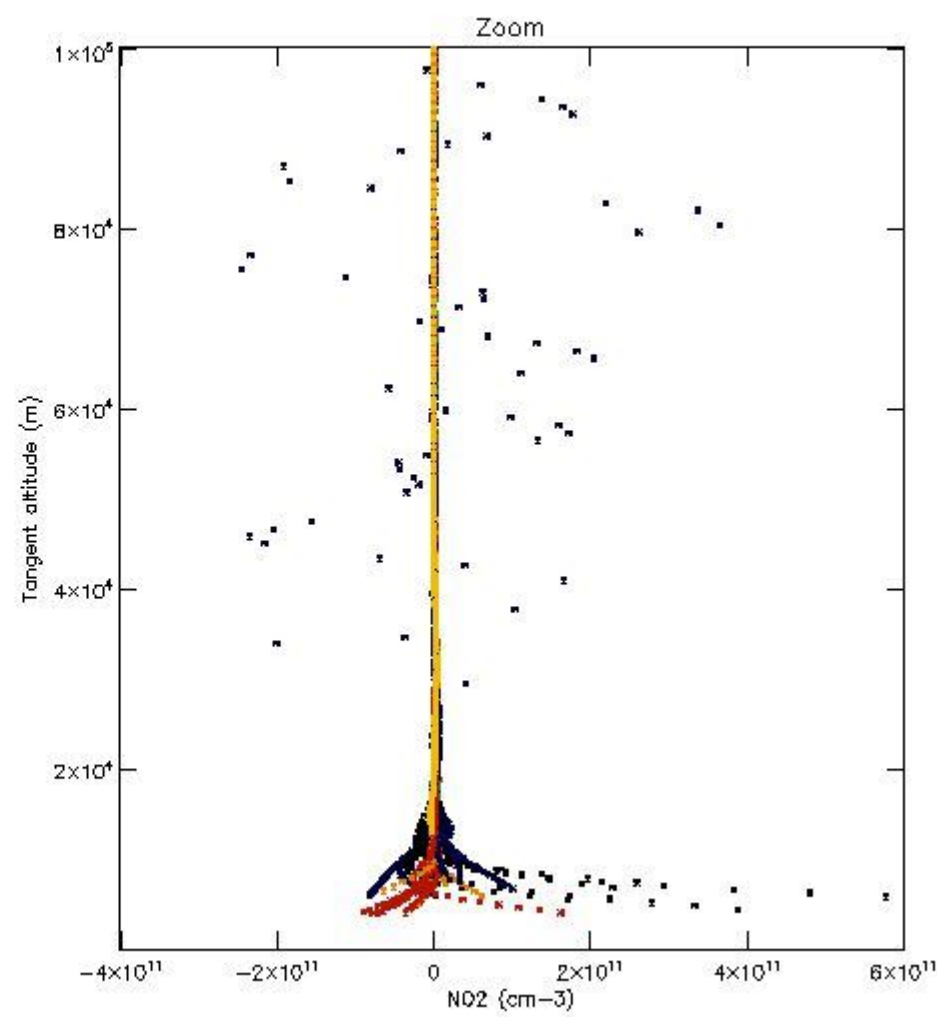
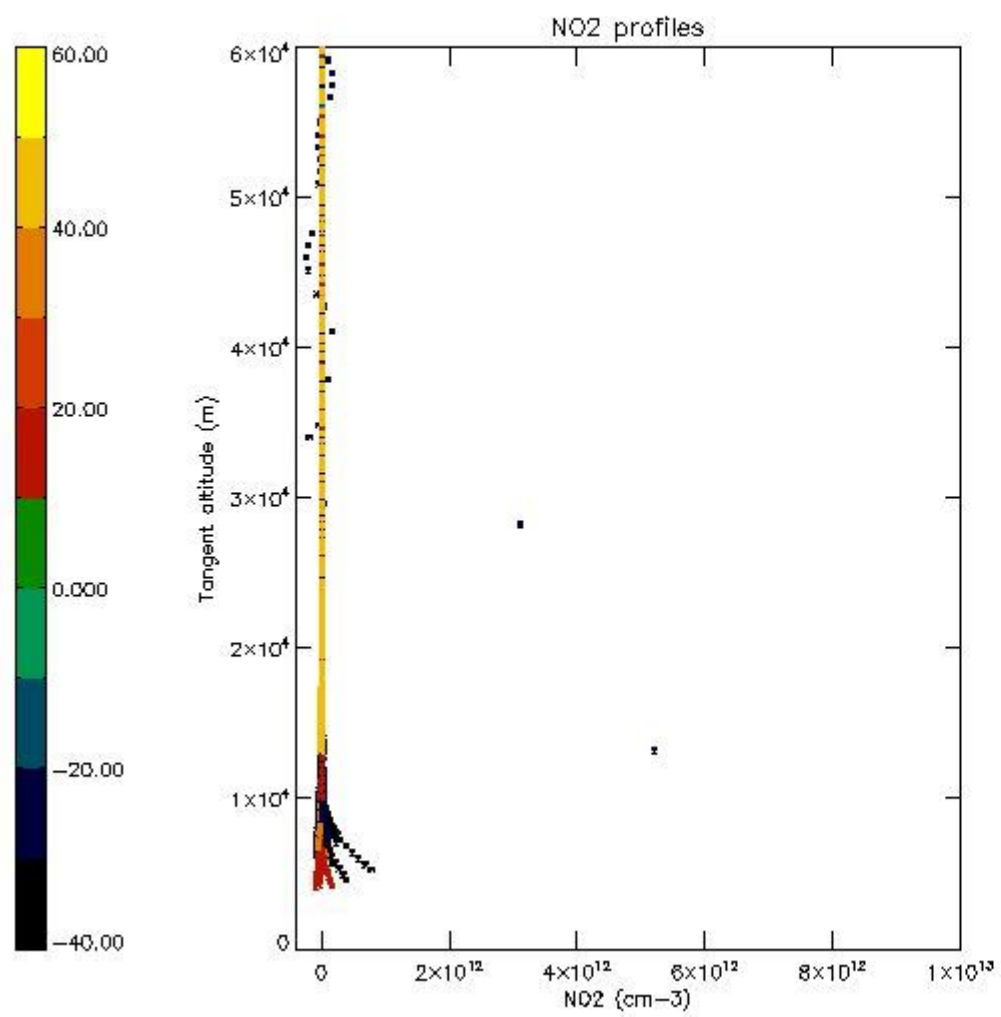
The colorbar represents the latitude.



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

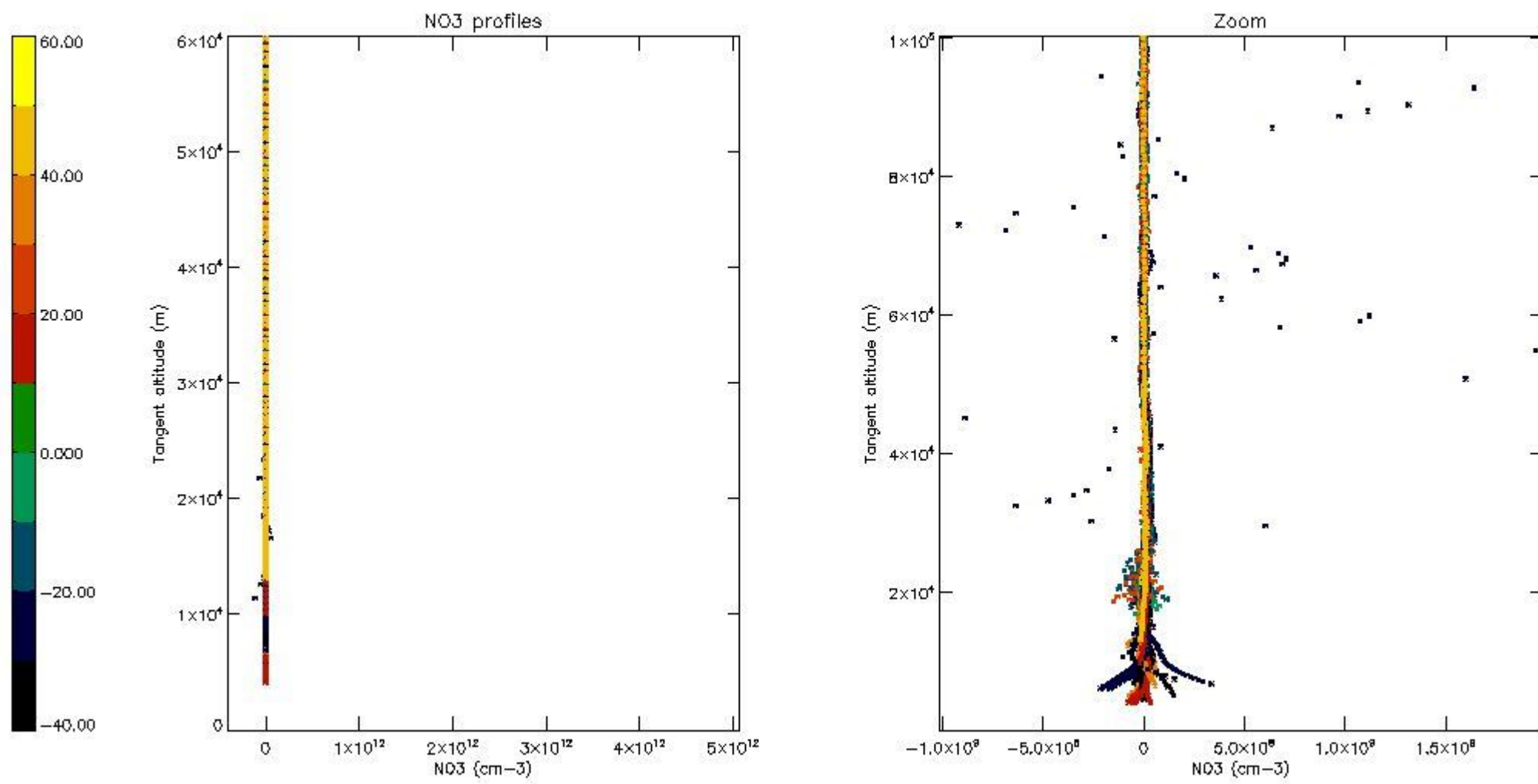
The colorbar represents the latitude.





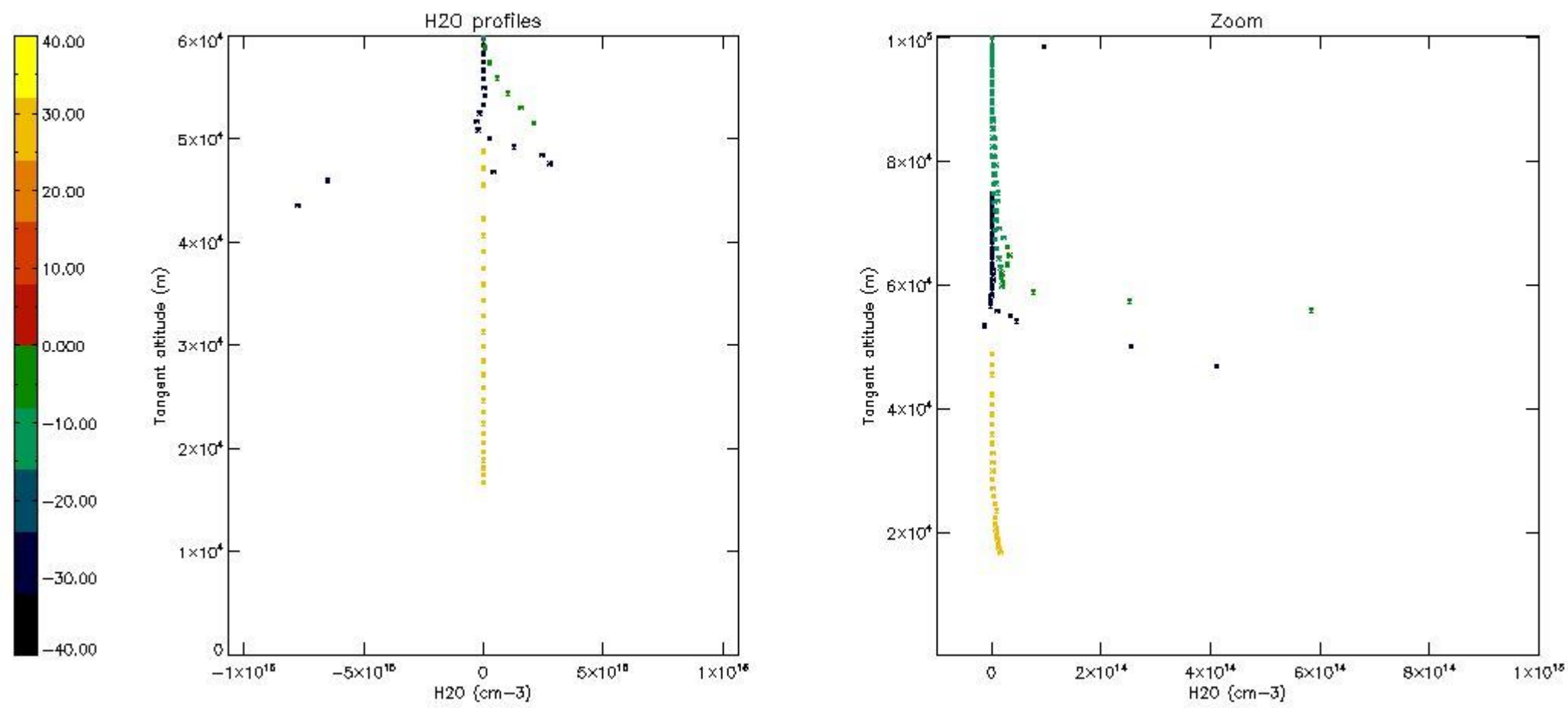
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	08-NOV-2002 00:01:45
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-NOV-2002 00:01:45
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-NOV-2002 00:01:45

# GOMOS Level 2 Daily Report

## SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Item	Value
Time of report generation	17APR2013 20:01:13
Data source version	GOMOS/6.01
Start time of products	08-11-2002 (08NOV2002 00:00:00)
Stop time of products	09-11-2002 (09NOV2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	246
Nb of prods with errors	8

## 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__2PRFIN20021108_000145_000000462011_00045_03606_1489.N1	08-NOV-2002 00:01:45	Dark	46.000	9	Alp Eri	0.45300	24000.	92	3606	No
2	GOM_NL__2PRFIN20021108_000517_000000472011_00045_03606_1490.N1	08-NOV-2002 00:05:17	Straylight	47.000	157	The1Eri	2.9060	9300.0	94	3606	No
3	GOM_NL__2PRFIN20021108_000850_000002012011_00045_03606_1491.N1	08-NOV-2002 00:08:50	Straylight	201.00	47	2Bet CMa	1.9760	28000.	402	3606	No
4	GOM_NL__2PRFIN20021108_001633_000001562011_00045_03606_1492.N1	08-NOV-2002 00:16:33	Bright	156.00	7	19Bet Ori	0.10000	14000.	312	3606	No
5	GOM_NL__2PRFIN20021108_002329_000000462011_00045_03606_1493.N1	08-NOV-2002 00:23:29	Bright	45.500	105	6Bet Ari	2.6450	8900.0	91	3606	No
6	GOM_NL__2PRFIN20021108_002639_000000452011_00045_03606_1494.N1	08-NOV-2002 00:26:39	Bright	45.000	58	21Alp And	2.0730	11000.	90	3606	No
7	GOM_NL__2PRFIN20021108_002944_000000462011_00045_03606_1495.N1	08-NOV-2002 00:29:44	Bright	45.500	73	57Gam1And	2.2600	13100.	91	3606	No
8	GOM_NL__2PRFIN20021108_003338_000000442011_00045_03606_1496.N1	08-NOV-2002 00:33:38	Bright	43.500	68	18Alp Cas	2.2250	4500.0	87	3606	No
9	GOM_NL__2PRFIN20021108_003827_000000752011_00045_03606_1497.N1	08-NOV-2002 00:38:27	Bright	74.500	6	13Alp Aur	0.080000	3400.0	149	3606	No
10	GOM_NL__2PRFIN20021108_004248_000000422011_00045_03606_1498.N1	08-NOV-2002 00:42:48	Bright	41.500	49	1Alp UMi	1.9900	6300.0	83	3606	No
11	GOM_NL__2PRFIN20021108_004654_000000452011_00045_03606_1499.N1	08-NOV-2002 00:46:54	Bright	45.000	60	7Bet UMi	2.0810	3950.0	90	3606	No
12	GOM_NL__2PRFIN20021108_005044_000000512011_00045_03606_1500.N1	08-NOV-2002 00:50:44	Bright	51.000	36	50Alp UMa	1.8000	6300.0	102	3606	No
13	GOM_NL__2PRFIN20021108_005222_000000502011_00045_03606_1501.N1	08-NOV-2002 00:52:22	Bright	50.000	82	48Bet UMa	2.3650	10600.	100	3606	No
14	GOM_NL__2PRFIN20021108_005408_000000422011_00045_03606_1502.N1	08-NOV-2002 00:54:08	Bright	41.500	39	85Eta UMa	1.8540	24000.	83	3606	No
15	GOM_NL__2PRFIN20021108_005613_000000512011_00045_03606_1503.N1	08-NOV-2002 00:56:13	Bright	50.500	174	52Psi UMa	3.0040	4400.0	101	3606	No
16	GOM_NL__2PRFIN20021108_010458_000000822011_00045_03606_1504.N1	08-NOV-2002 01:04:58	Bright	81.500	166	17Eps Leo	2.9800	6000.0	163	3606	No
17	GOM_NL__2PRFIN20021108_011044_000001672011_00045_03606_1505.N1	08-NOV-2002 01:10:44	Dark	167.00	1015	Jupiter	0.0000	0.0000	334	3606	Yes
18	GOM_NL__2PRFIN20021108_012000_000001062011_00045_03606_1506.N1	08-NOV-2002 01:20:00	Dark	105.50	48	30Alp Hya	1.9770	4100.0	211	3606	No
19	GOM_NL__2PRFIN20021108_012415_000000462011_00045_03606_1507.N1	08-NOV-2002 01:24:15	Dark	45.500	26	Gam Cru	1.6240	2900.0	91	3606	No
20	GOM_NL__2PRFIN20021108_012555_000000482011_00045_03606_1508.N1	08-NOV-2002 01:25:55	Dark	47.500	12	Alp1Cru	0.77500	30000.	95	3606	No
21	GOM_NL__2PRFIN20021108_012814_000000482011_00046_03607_1485.N1	08-NOV-2002 01:28:14	Dark	48.000	91	Kap Vel	2.4900	26000.	96	3607	No
22	GOM_NL__2PRFIN20021108_012944_000000502011_00046_03607_1486.N1	08-NOV-2002 01:29:44	Dark	50.000	46	Del Vel	1.9540	10600.	100	3607	No
23	GOM_NL__2PRFIN20021108_013619_000000602011_00046_03607_1487.N1	08-NOV-2002 01:36:19	Dark	60.000	2	Alp Car	-0.73600	7000.0	120	3607	No
24	GOM_NL__2PRFIN20021108_013916_000000982011_00046_03607_1488.N1	08-NOV-2002 01:39:16	Dark	98.000	23	21Eps CMa	1.5020	26000.	196	3607	No
25	GOM_NL__2PRFIN20021108_014221_000000552011_00046_03607_1489.N1	08-NOV-2002 01:42:21	Dark	54.500	9	Alp Eri	0.45300	24000.	109	3607	No
26	GOM_NL__2PRFIN20021108_014553_000000482011_00046_03607_1490.N1	08-NOV-2002 01:45:53	Straylight	47.500	157	The1Eri	2.9060	9300.0	95	3607	No
27	GOM_NL__2PRFIN20021108_014927_000001952011_00046_03607_1491.N1	08-NOV-2002 01:49:27	Straylight	194.50	47	2Bet CMa	1.9760	28000.	389	3607	No
28	GOM_NL__2PRFIN20021108_015709_000001422011_00046_03607_1492.N1	08-NOV-2002 01:57:09	Tw_i_and_stray	141.50	7	19Bet Ori	0.10000	14000.	283	3607	No
29	GOM_NL__2PRFIN20021108_020405_000000452011_00046_03607_1493.N1	08-NOV-2002 02:04:05	Bright	45.000	105	6Bet Ari	2.6450	8900.0	90	3607	No
30	GOM_NL__2PRFIN20021108_020715_000000442011_00046_03607_1494.N1	08-NOV-2002 02:07:15	Bright	44.000	58	21Alp And	2.0730	11000.	88	3607	No
31	GOM_NL__2PRFIN20021108_021020_000000462011_00046_03607_1495.N1	08-NOV-2002 02:10:20	Bright	45.500	73	57Gam1And	2.2600	13100.	91	3607	No
32	GOM_NL__2PRFIN20021108_021415_000000452011_00046_03607_1496.N1	08-NOV-2002 02:14:15	Bright	44.500	68	18Alp Cas	2.2250	4500.0	89	3607	No
33	GOM_NL__2PRFIN20021108_021902_000000942011_00046_03607_1497.N1	08-NOV-2002 02:19:02	Bright	94.000	6	13Alp Aur	0.080000	3400.0	188	3607	No
34	GOM_NL__2PRFIN20021108_022324_000000402011_00046_03607_1498.N1	08-NOV-2002 02:23:24	Bright	40.000	49	1Alp UMi	1.9900	6300.0	80	3607	No
35	GOM_NL__2PRFIN20021108_022731_000000462011_00046_03607_1499.N1	08-NOV-2002 02:27:31	Bright	45.500	60	7Bet UMi	2.0810	3950.0	91	3607	No
36	GOM_NL__2PRFIN20021108_023122_000000502011_00046_03607_1500.N1	08-NOV-2002 02:31:22	Bright	49.500	36	50Alp UMa	1.8000	6300.0	99	3607	No
37	GOM_NL__2PRFIN20021108_023259_000000462011_00046_03607_1501.N1	08-NOV-2002 02:32:59	Bright	46.000	82	48Bet UMa	2.3650	10600.	92	3607	No
38	GOM_NL__2PRFIN20021108_023445_000000412011_00046_03607_1502.N1	08-NOV-2002 02:34:45	Bright	41.000	39	85Eta UMa	1.8540	24000.	82	3607	No
39	GOM_NL__2PRFIN20021108_023649_000000482011_00046_03607_1503.N1	08-NOV-2002 02:36:49	Bright	48.000	174	52Psi UMa	3.0040	4400.0	96	3607	No
40	GOM_NL__2PRFIN20021108_024535_000000832011_00046_03607_1504.N1	08-NOV-2002 02:45:35	Bright	82.500	166	17Eps Leo	2.9800	6000.0	165	3607	No
41	GOM_NL__2PRFIN20021108_025122_000001672011_00046_03607_1505.N1	08-NOV-2002 02:51:22	Dark	167.00	1015	Jupiter	0.0000	0.0000	334	3607	Yes
42	GOM_NL__2PRFIN20021108_030037_000000912011_00046_03607_1506.N1	08-NOV-2002 03:00:37	Dark	90.500	48	30Alp Hya	1.9770	4100.0	181	3607	No







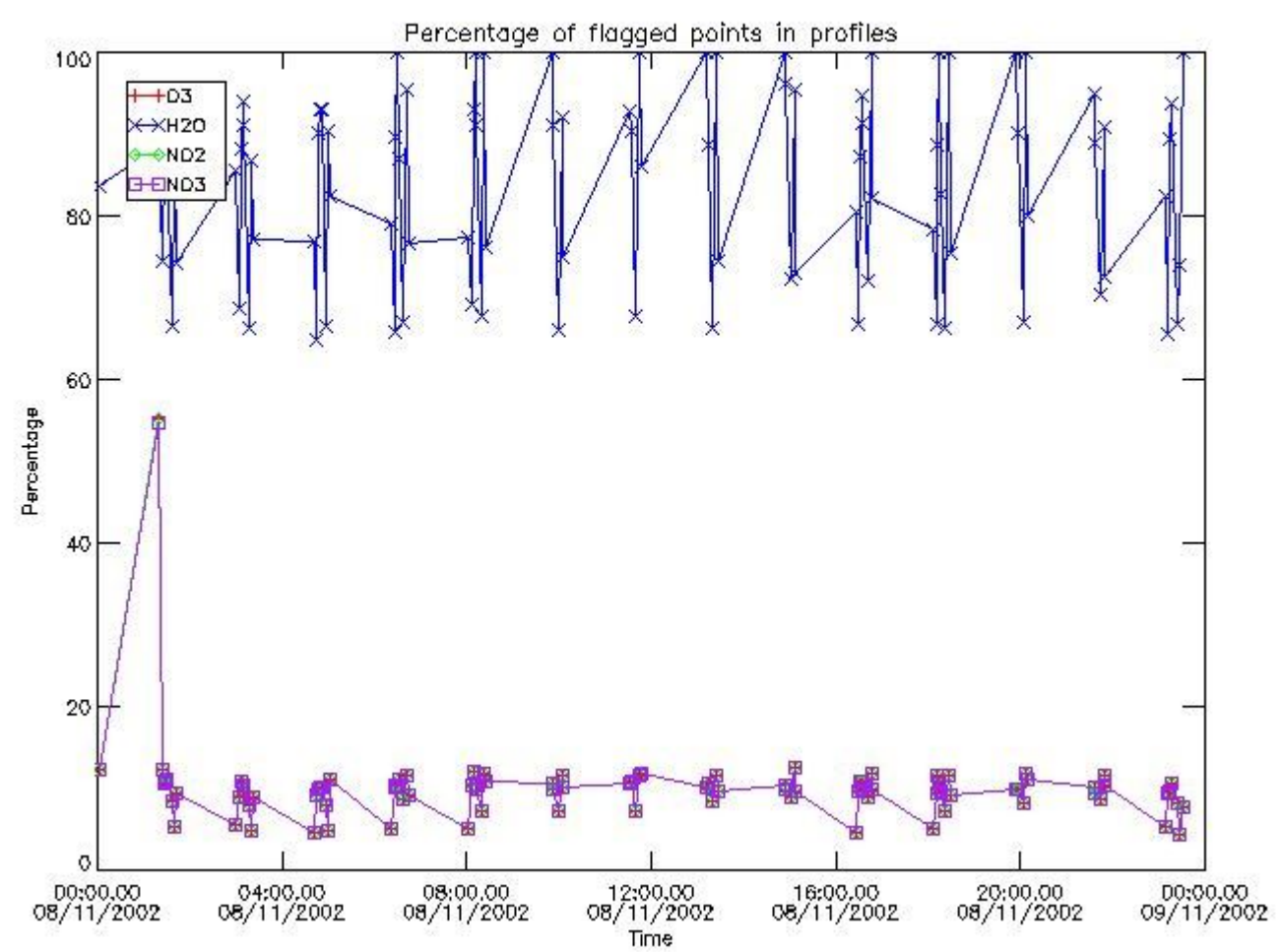


220	GOM_NL__2PRFIN20021108_221115_000000462011_00058_03619_1498.N1	08-NOV-2002 22:11:15	Bright	46.000	105	6Bet Ari	2.6450	8900.0	92	3619	No
221	GOM_NL__2PRFIN20021108_221431_000000452011_00058_03619_1499.N1	08-NOV-2002 22:14:31	Bright	44.500	58	21Alp And	2.0730	11000.	89	3619	No
222	GOM_NL__2PRFIN20021108_221730_000000472011_00058_03619_1500.N1	08-NOV-2002 22:17:30	Bright	46.500	73	57Gam1And	2.2600	13100.	93	3619	No
223	GOM_NL__2PRFIN20021108_221948_000000562011_00058_03619_1501.N1	08-NOV-2002 22:19:48	Bright	55.500	149	45Eps Per	2.8880	30000.	111	3619	No
224	GOM_NL__2PRFIN20021108_222137_000000502011_00058_03619_1502.N1	08-NOV-2002 22:21:37	Bright	50.000	160	23Gam Per	2.9300	4700.0	100	3619	No
225	GOM_NL__2PRFIN20021108_222559_000000892011_00058_03619_1503.N1	08-NOV-2002 22:25:59	Bright	89.000	6	13Alp Aur	0.080000	3400.0	178	3619	No
226	GOM_NL__2PRFIN20021108_223035_000000442011_00058_03619_1504.N1	08-NOV-2002 22:30:35	Bright	43.500	49	1Alp UMi	1.9900	6300.0	87	3619	No
227	GOM_NL__2PRFIN20021108_223443_000000432011_00058_03619_1505.N1	08-NOV-2002 22:34:43	Bright	43.000	60	7Bet UMi	2.0810	3950.0	86	3619	No
228	GOM_NL__2PRFIN20021108_223830_000000532011_00058_03619_1506.N1	08-NOV-2002 22:38:30	Bright	52.500	36	50Alp UMa	1.8000	6300.0	105	3619	No
229	GOM_NL__2PRFIN20021108_224008_000000502011_00058_03619_1507.N1	08-NOV-2002 22:40:08	Bright	49.500	82	48Bet UMa	2.3650	10600.	99	3619	No
230	GOM_NL__2PRFIN20021108_224159_000000412011_00058_03619_1508.N1	08-NOV-2002 22:41:59	Bright	41.000	39	85Eta UMa	1.8540	24000.	82	3619	No
231	GOM_NL__2PRFIN20021108_224400_000000512011_00058_03619_1509.N1	08-NOV-2002 22:44:00	Bright	50.500	174	52Psi UMa	3.0040	4400.0	101	3619	No
232	GOM_NL__2PRFIN20021108_225253_000000842011_00058_03619_1510.N1	08-NOV-2002 22:52:53	Bright	84.000	166	17Eps Leo	2.9800	6000.0	168	3619	No
233	GOM_NL__2PRFIN20021108_225854_000001532011_00058_03619_1511.N1	08-NOV-2002 22:58:54	Dark	153.00	1015	Jupiter	0.0000	0.0000	306	3619	Yes
234	GOM_NL__2PRFIN20021108_230812_000001152011_00058_03619_1512.N1	08-NOV-2002 23:08:12	Dark	114.50	48	30Alp Hya	1.9770	4100.0	229	3619	No
235	GOM_NL__2PRFIN20021108_231205_000000542011_00058_03619_1513.N1	08-NOV-2002 23:12:05	Dark	54.000	26	Gam Cru	1.6240	2900.0	108	3619	No
236	GOM_NL__2PRFIN20021108_231344_000000532011_00058_03619_1514.N1	08-NOV-2002 23:13:44	Dark	52.500	12	Alp1Cru	0.77500	30000.	105	3619	No
237	GOM_NL__2PRFIN20021108_231609_000000482011_00059_03620_1489.N1	08-NOV-2002 23:16:09	Dark	48.000	91	Kap Vel	2.4900	26000.	96	3620	No
238	GOM_NL__2PRFIN20021108_232415_000000622011_00059_03620_1490.N1	08-NOV-2002 23:24:15	Dark	62.000	2	Alp Car	-0.73600	7000.0	124	3620	No
239	GOM_NL__2PRFIN20021108_232727_000001202011_00059_03620_1491.N1	08-NOV-2002 23:27:27	Dark	119.50	37	25Del CMa	1.8300	5900.0	239	3620	No
240	GOM_NL__2PRFIN20021108_233054_000000662011_00059_03620_1492.N1	08-NOV-2002 23:30:54	Dark	65.500	108	Alp Col	2.6520	15200.	131	3620	No
241	GOM_NL__2PRFIN20021108_233345_000000482011_00059_03620_1493.N1	08-NOV-2002 23:33:45	Straylight	47.500	157	The1Eri	2.9060	9300.0	95	3620	No
242	GOM_NL__2PRFIN20021108_233724_000001982011_00059_03620_1494.N1	08-NOV-2002 23:37:24	Straylight	198.00	47	2Bet CMa	1.9760	28000.	396	3620	No
243	GOM_NL__2PRFIN20021108_234447_000001382011_00059_03620_1495.N1	08-NOV-2002 23:44:47	Tw_i_and_stray	137.50	7	19Bet Ori	0.10000	14000.	275	3620	No
244	GOM_NL__2PRFIN20021108_235151_000000462011_00059_03620_1496.N1	08-NOV-2002 23:51:51	Bright	46.000	105	6Bet Ari	2.6450	8900.0	92	3620	No
245	GOM_NL__2PRFIN20021108_235507_000000442011_00059_03620_1497.N1	08-NOV-2002 23:55:07	Bright	43.500	58	21Alp And	2.0730	11000.	87	3620	No
246	GOM_NL__2PRFIN20021108_235806_000000452011_00059_03620_1498.N1	08-NOV-2002 23:58:06	Bright	45.000	73	57Gam1And	2.2600	13100.	90	3620	No

### 3. Quality information per product

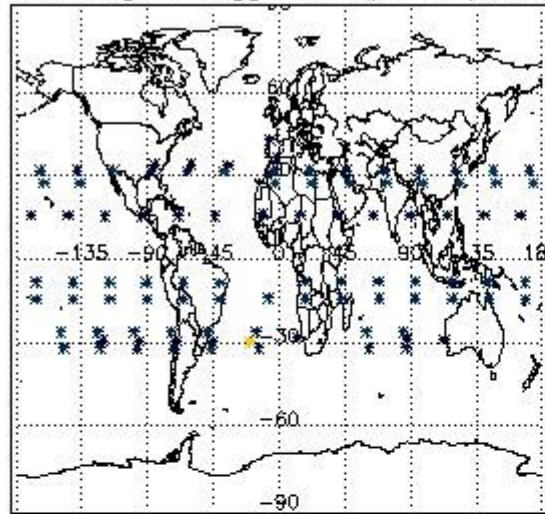
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

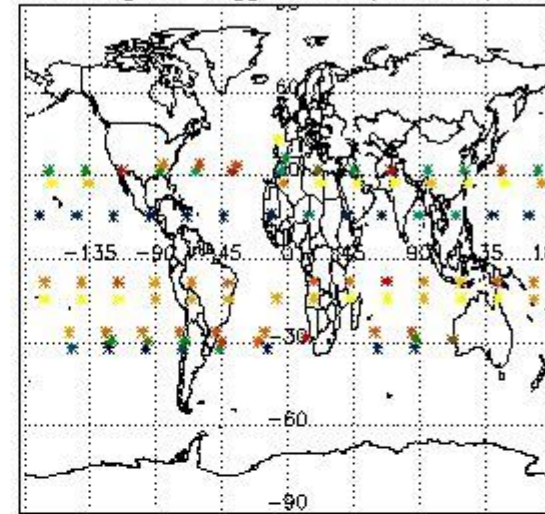


3.2 Plot quality information per product (world map)

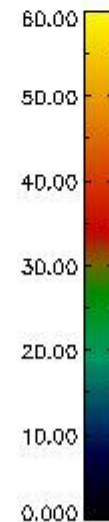
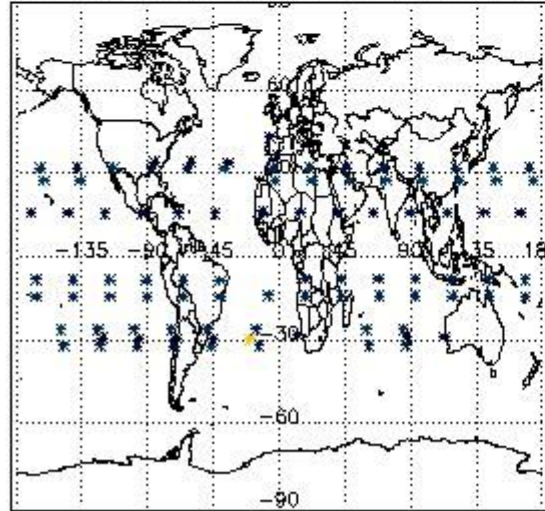
Percentage of flagged data per O3 profile



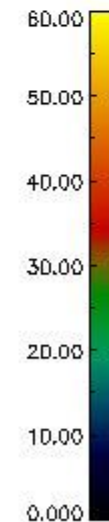
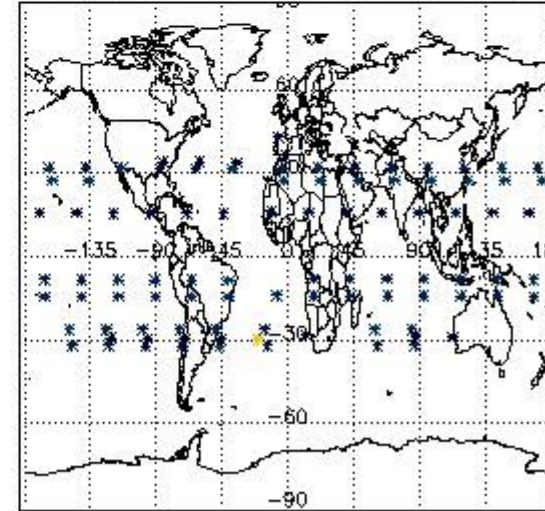
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

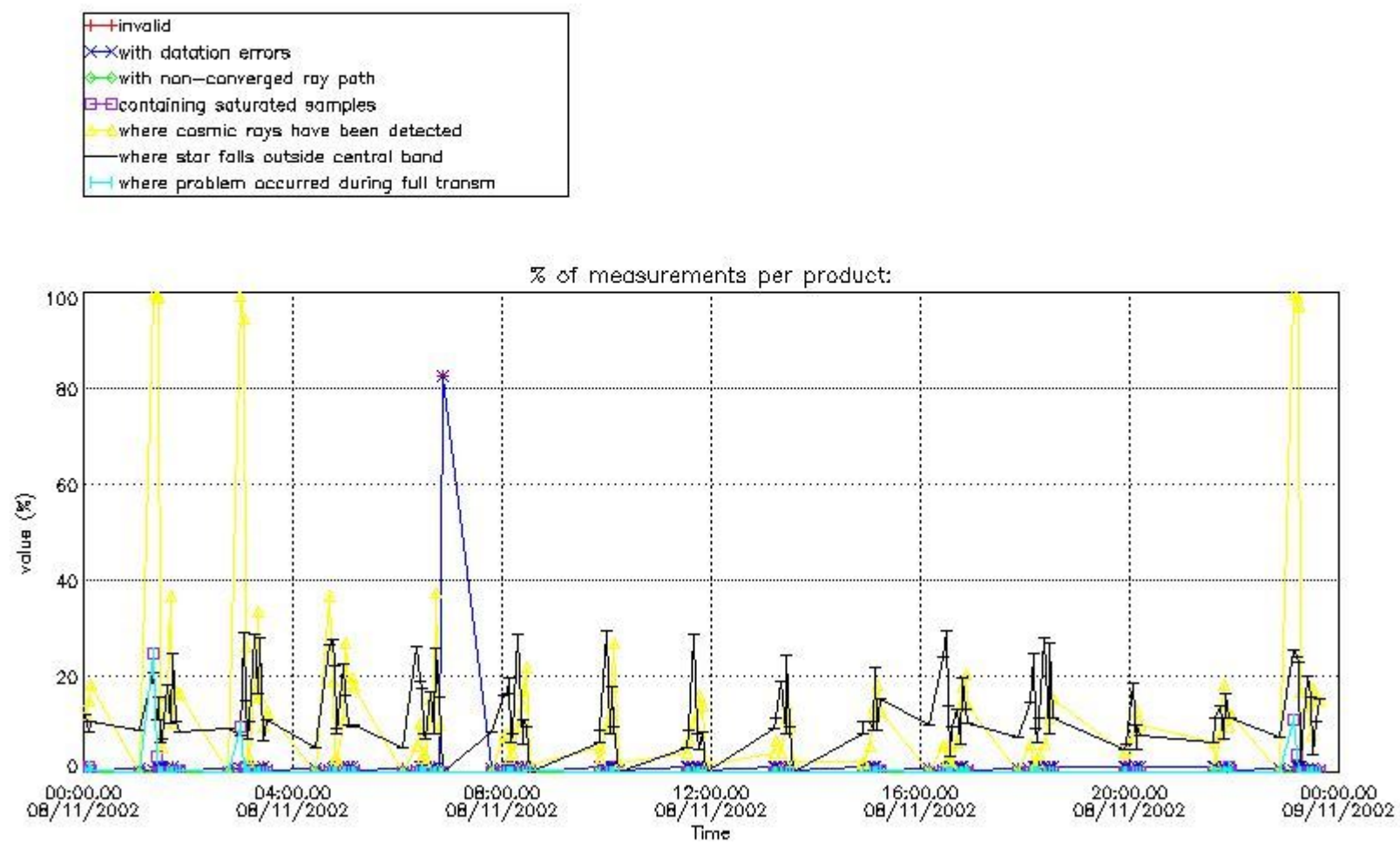


#### 4. Level 1 quality information per product

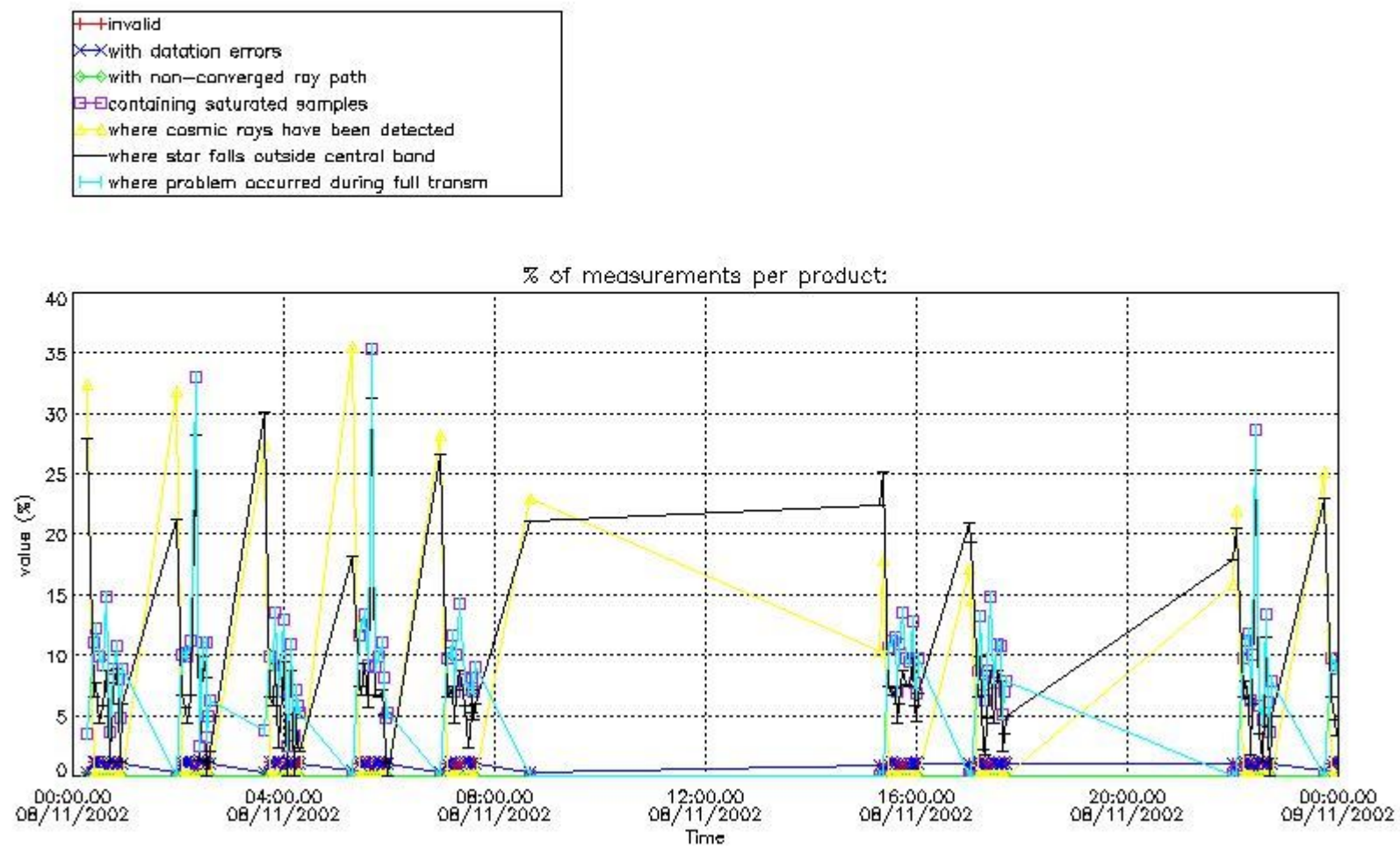
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



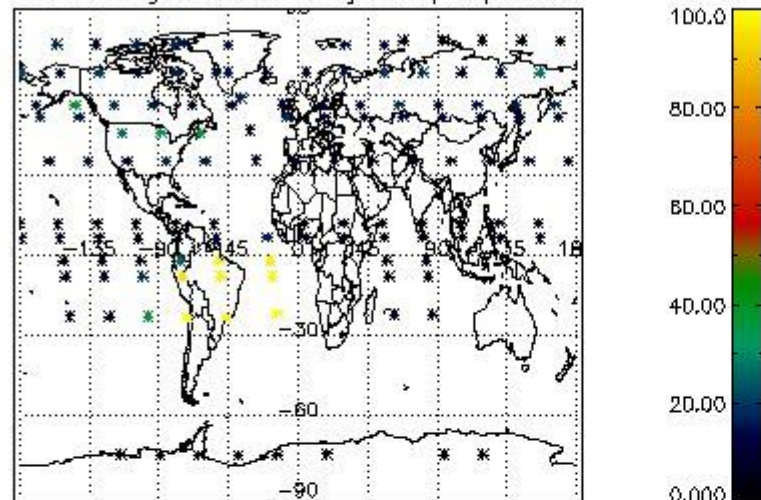
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes



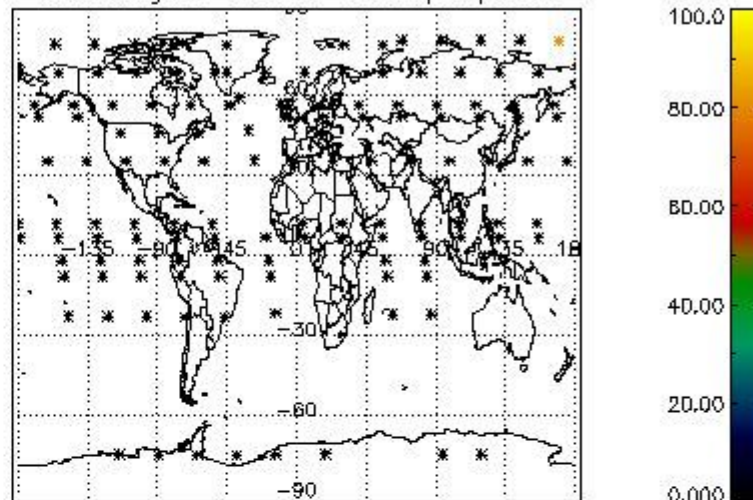
*4.2 Plot quality information per product coming from level 1b processing (world map)*

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

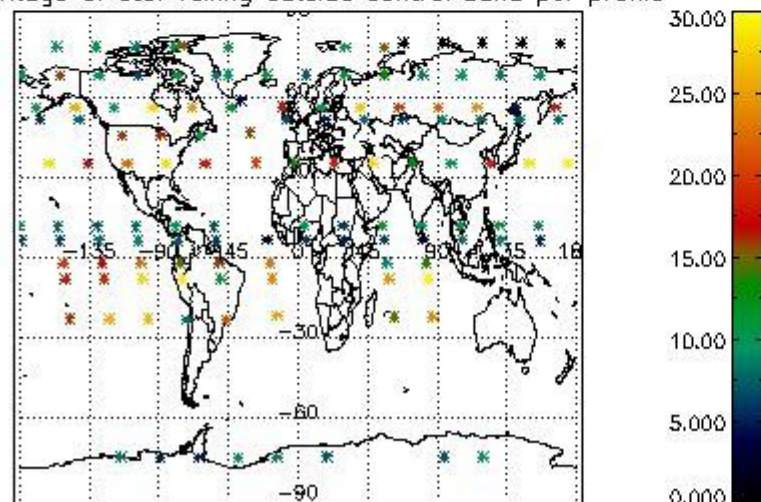
Percentage of cosmic ray hits per profile



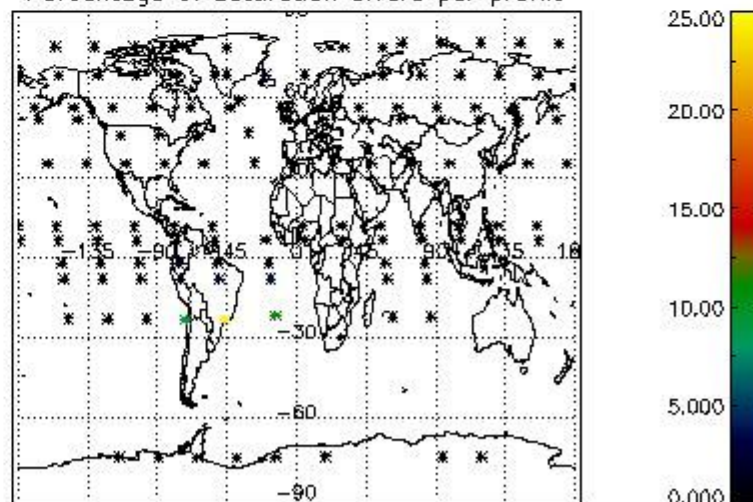
Percentage of datation errors per profile



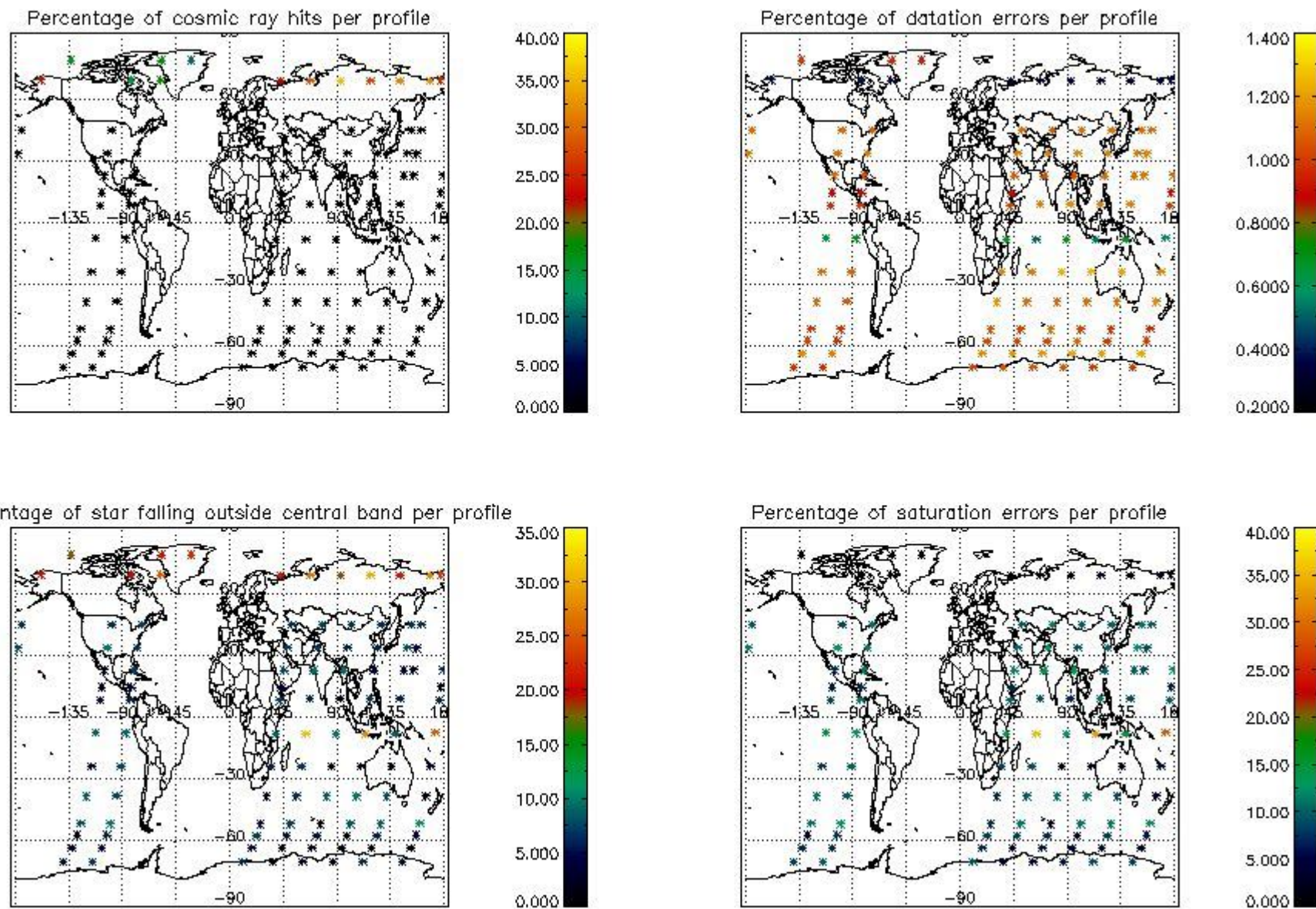
Percentage of star falling outside central band per profile



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

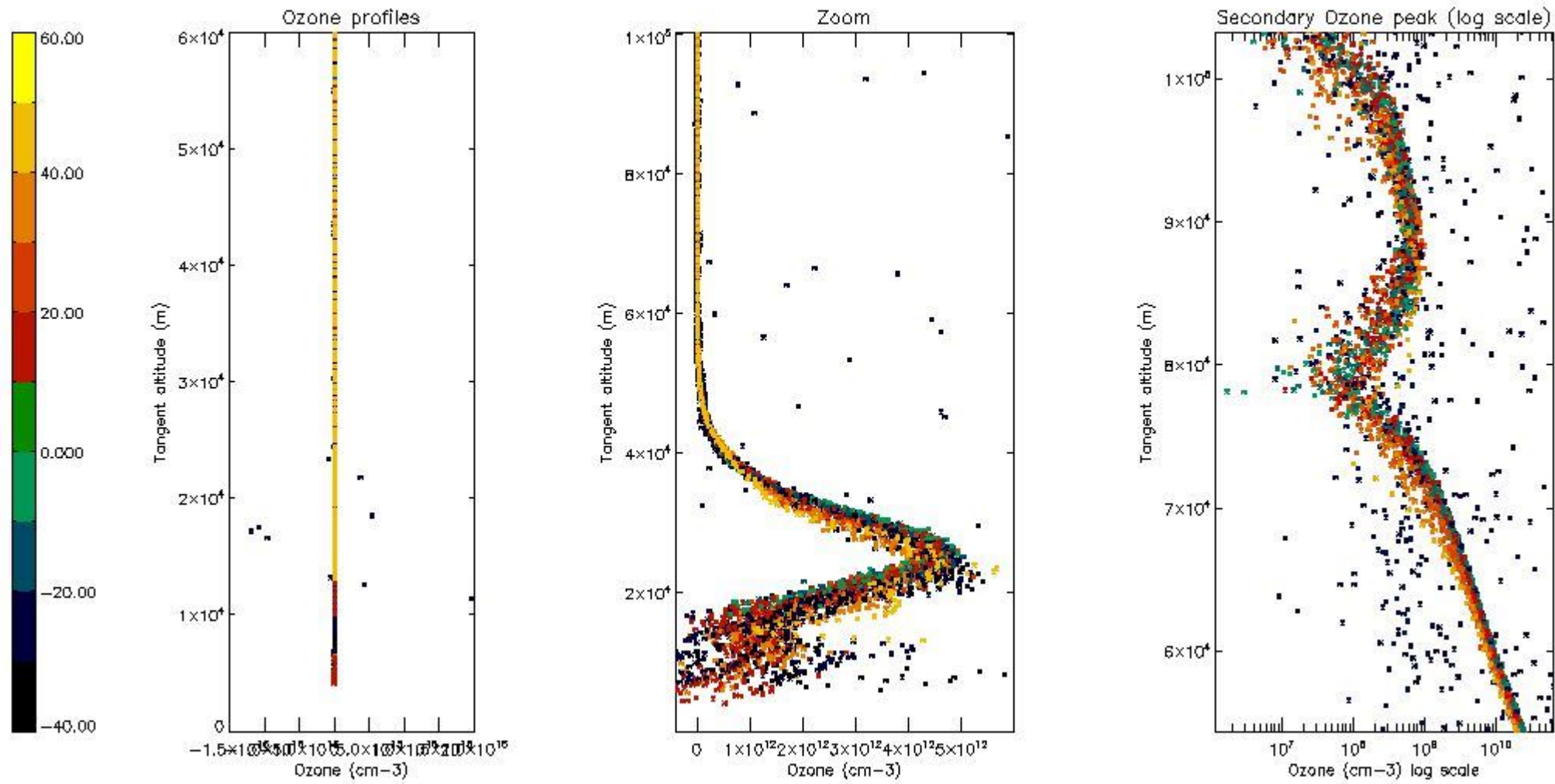
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	36
STD < 20	19

STD < 10	17
STD < 5	13

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

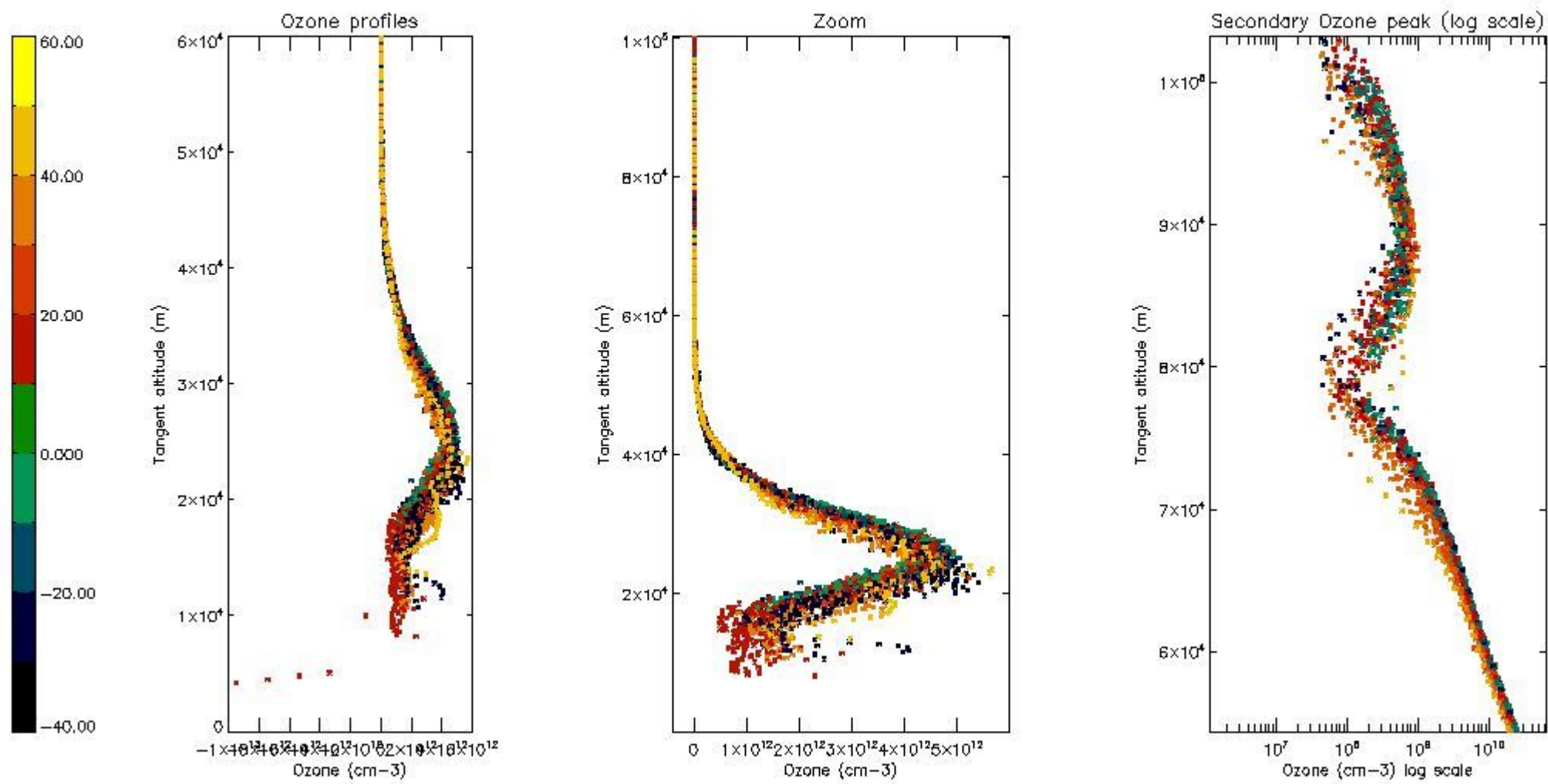
The colorbar represents the latitude.



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

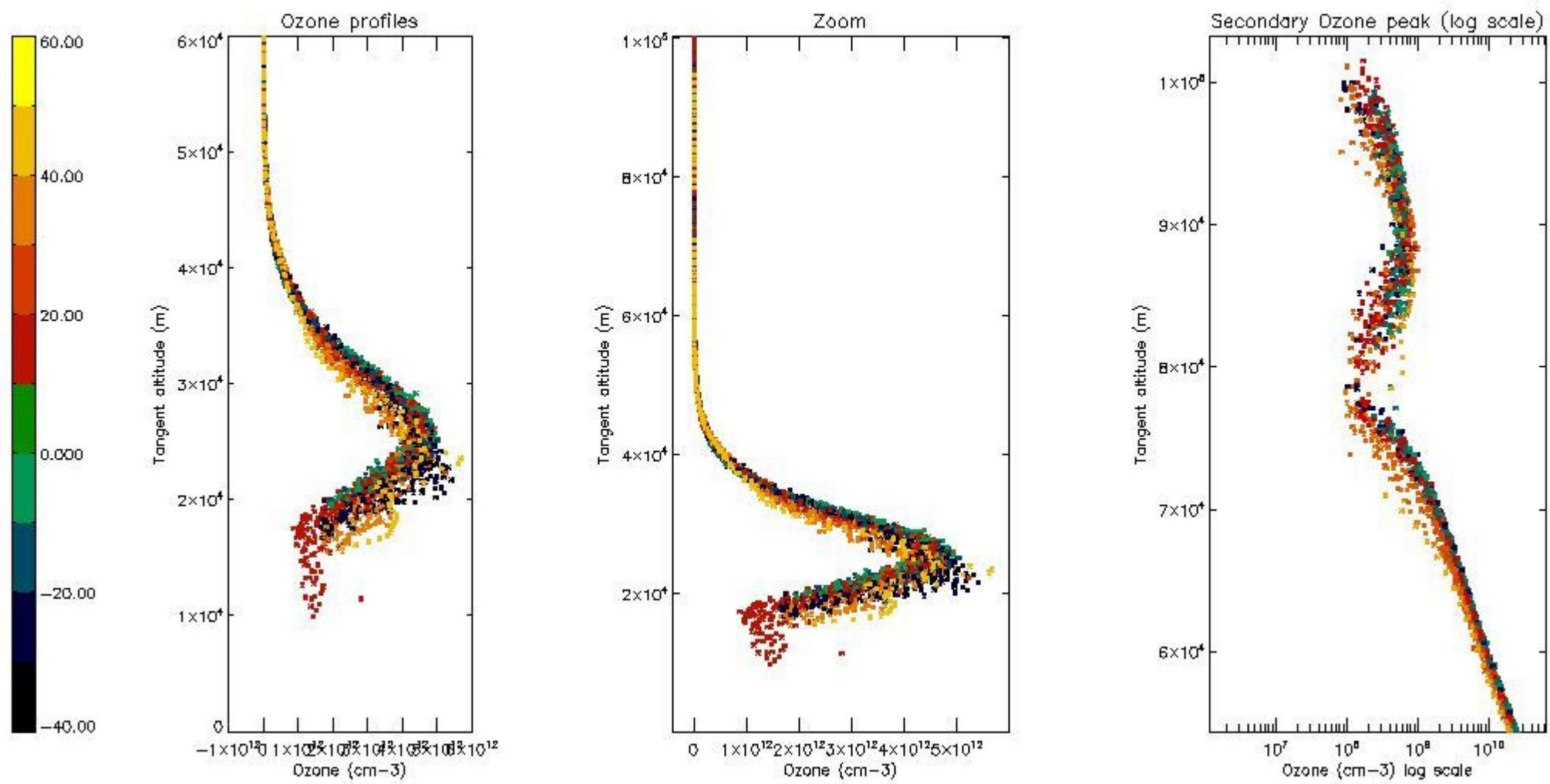
The colorbar represents the latitude.





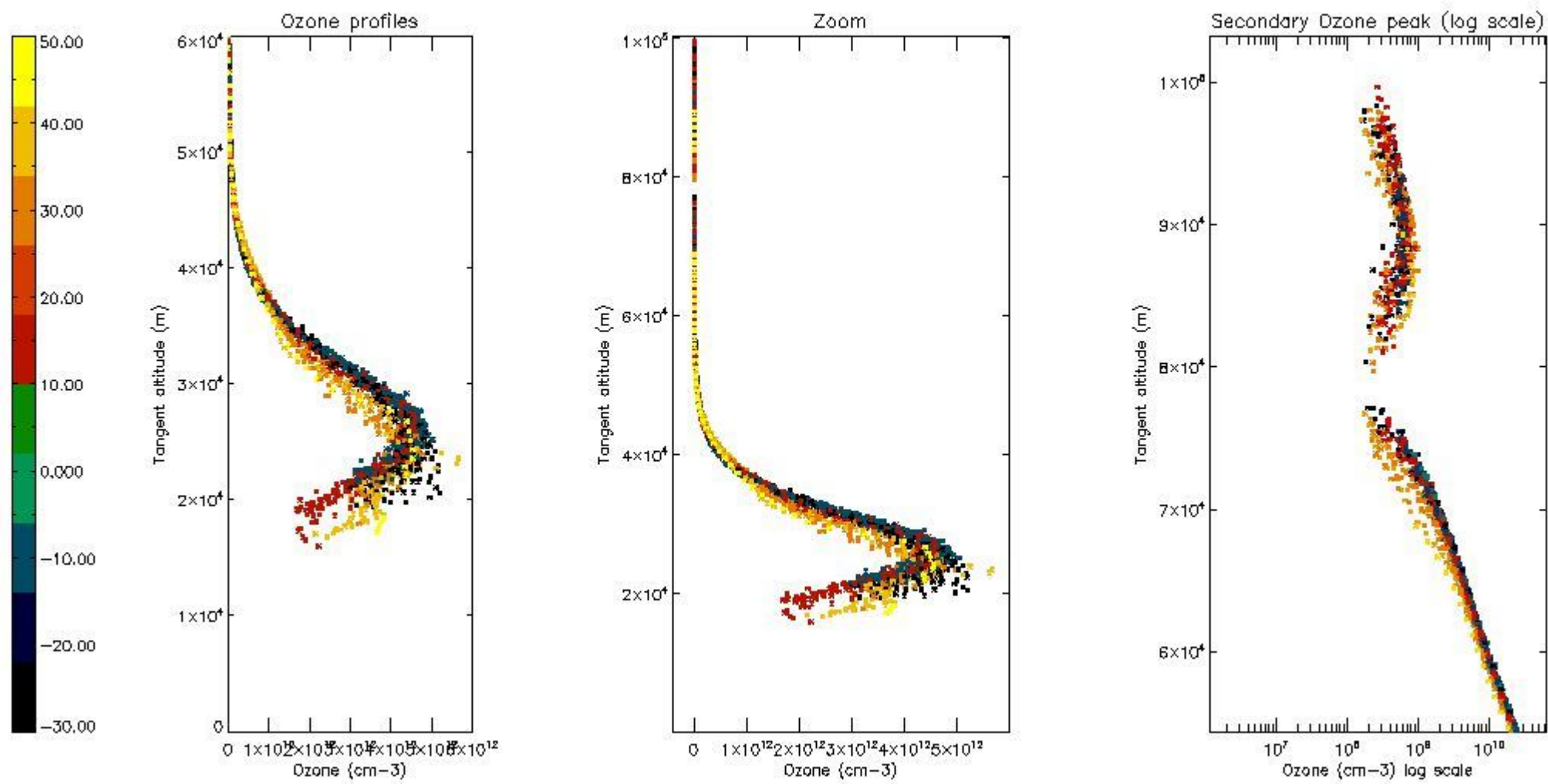
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



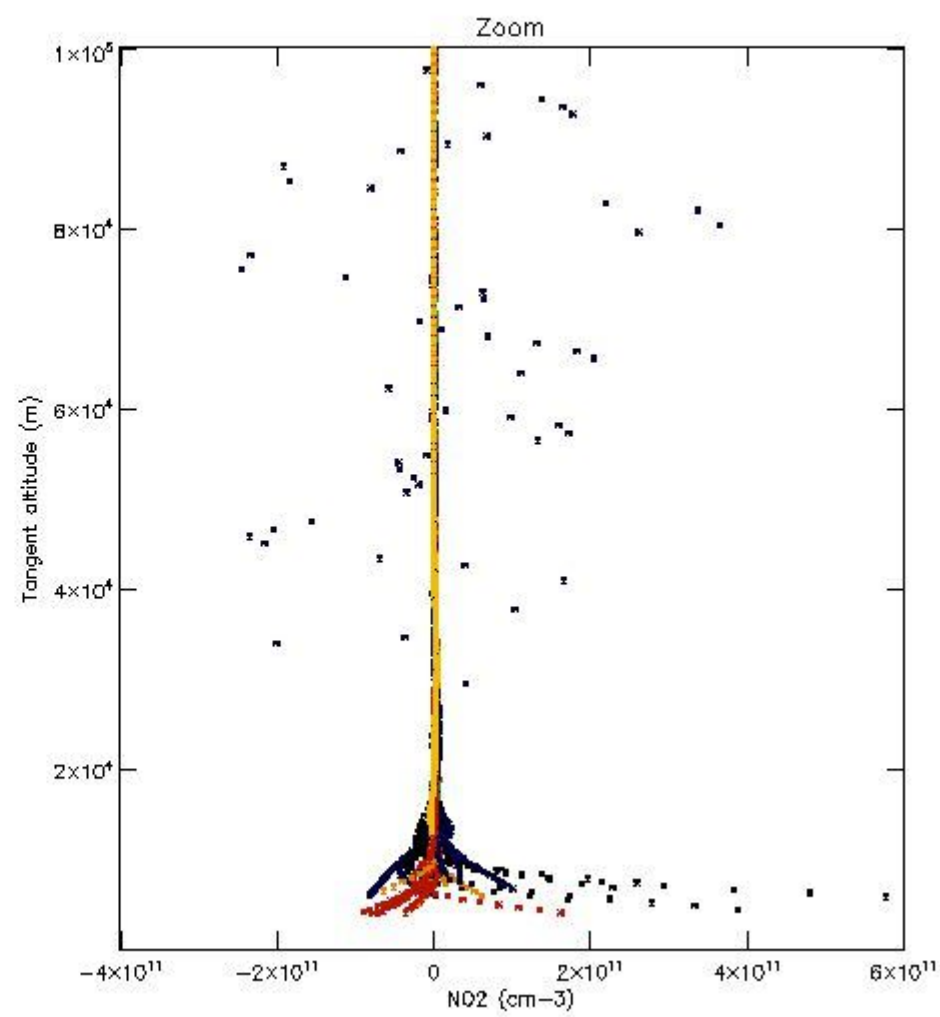
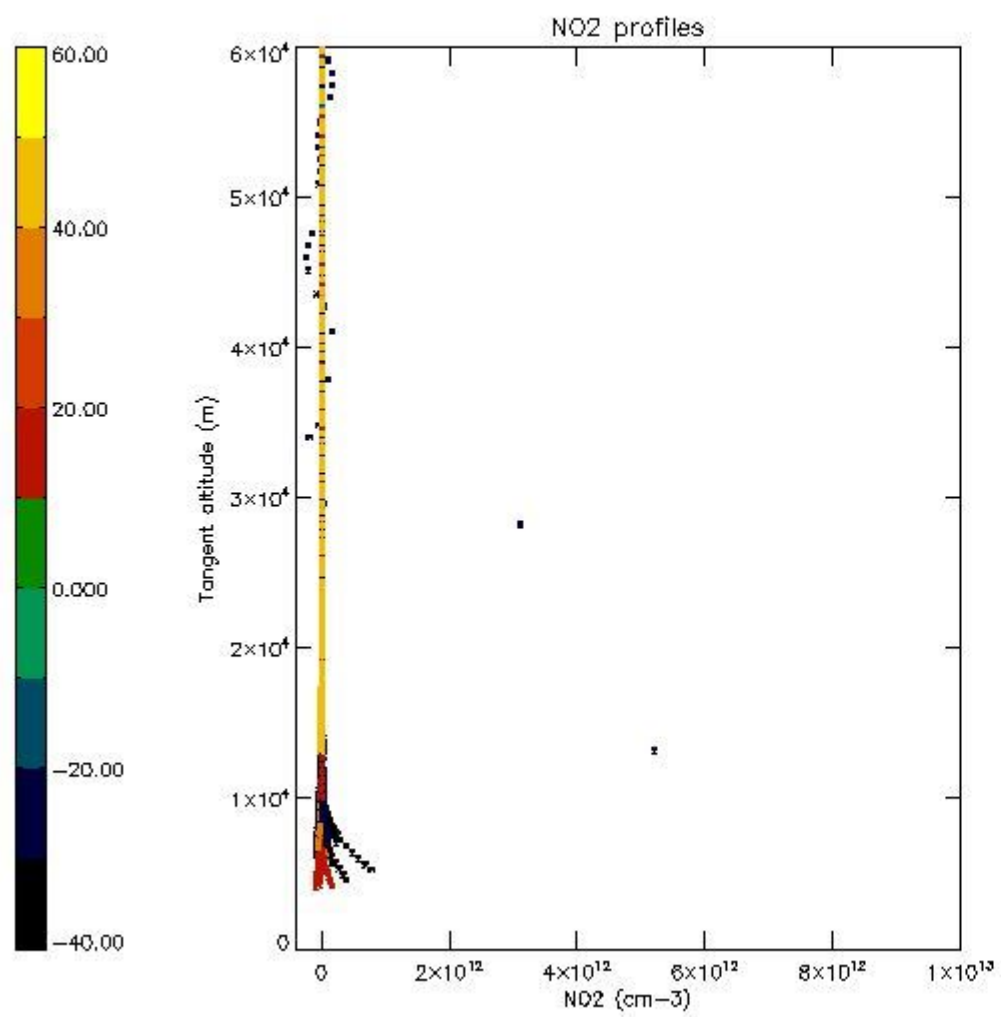
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



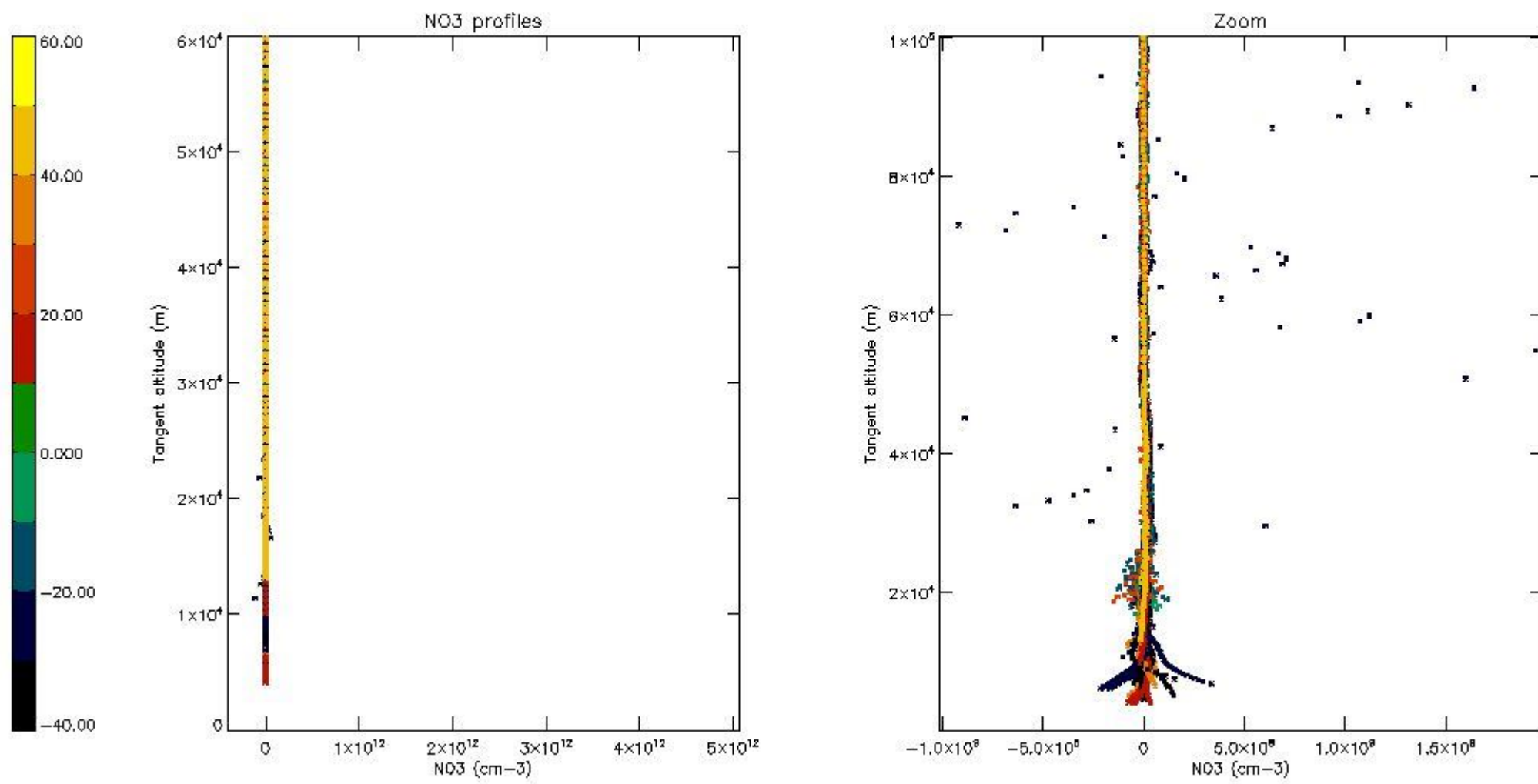
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



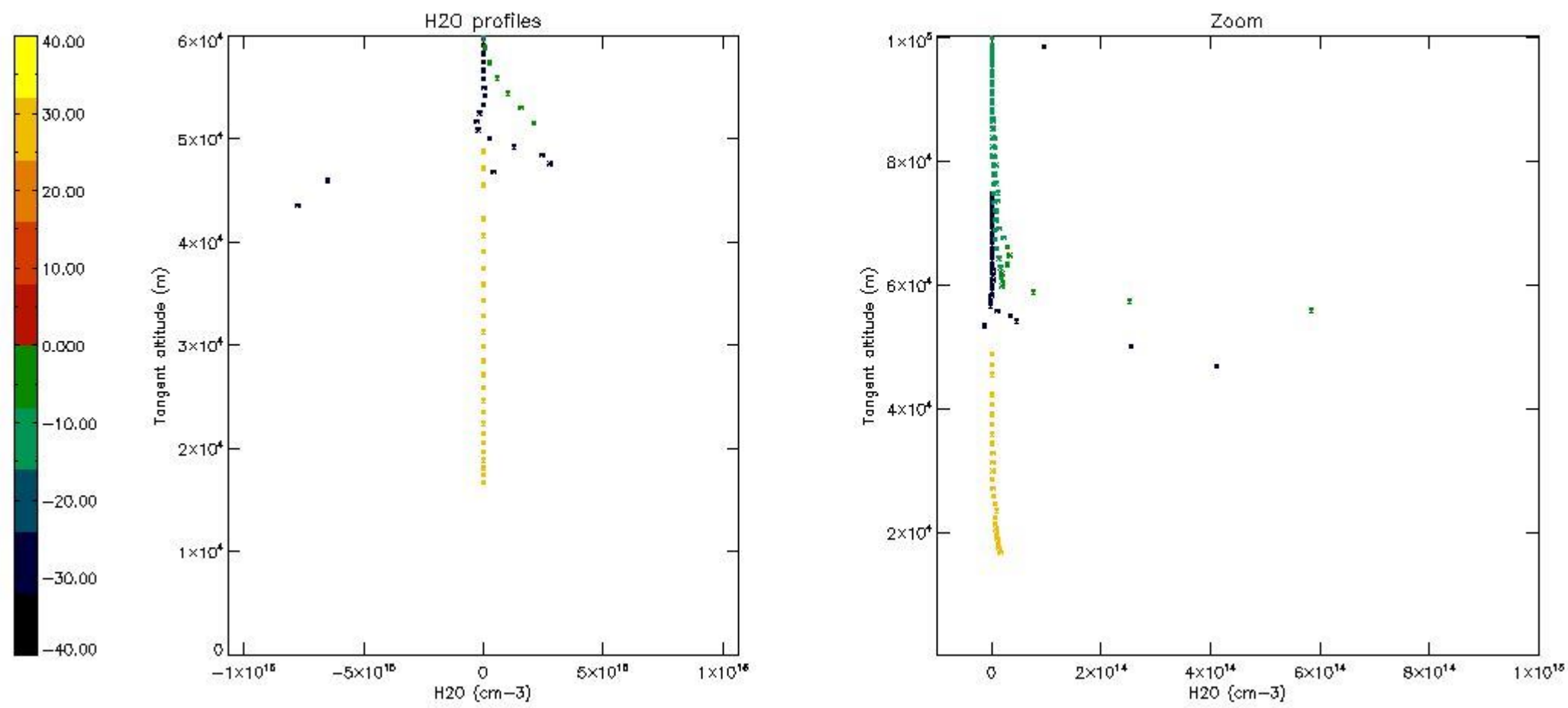
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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)*

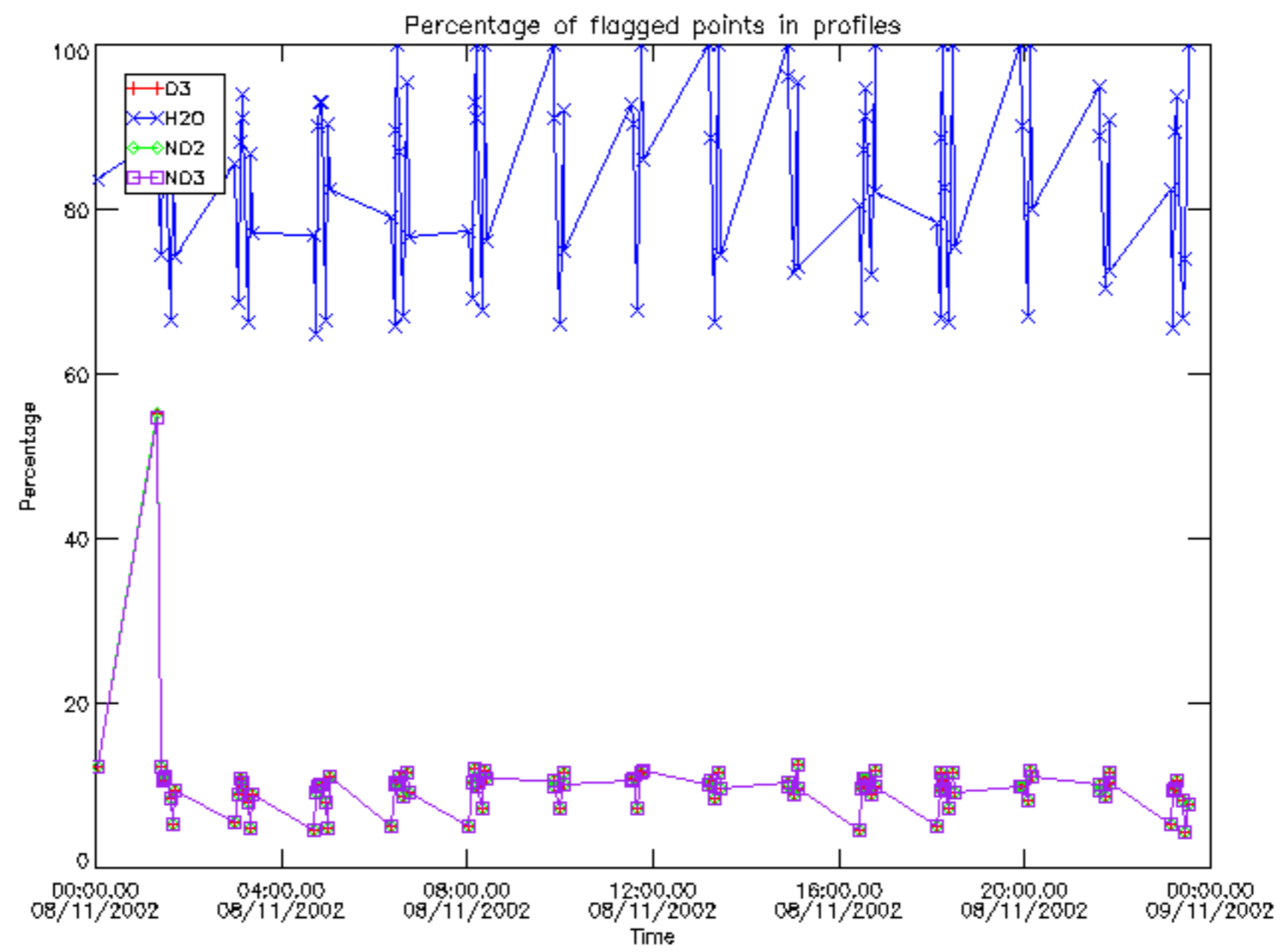
The colorbar represents the latitude.



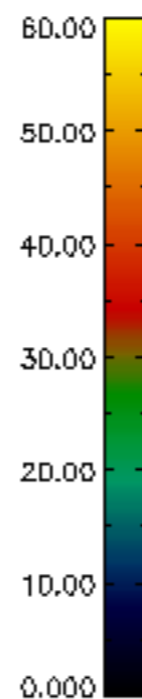
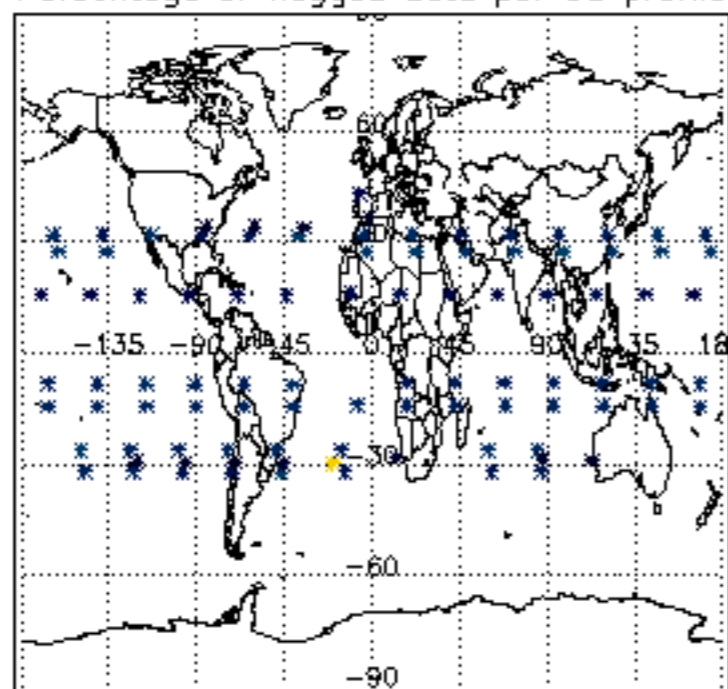
## 6. Auxiliary Data Files used for the production reported in section 2

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.

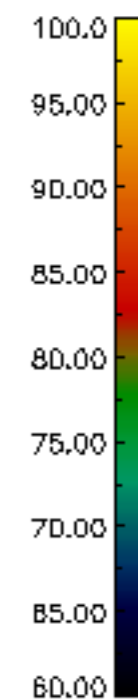
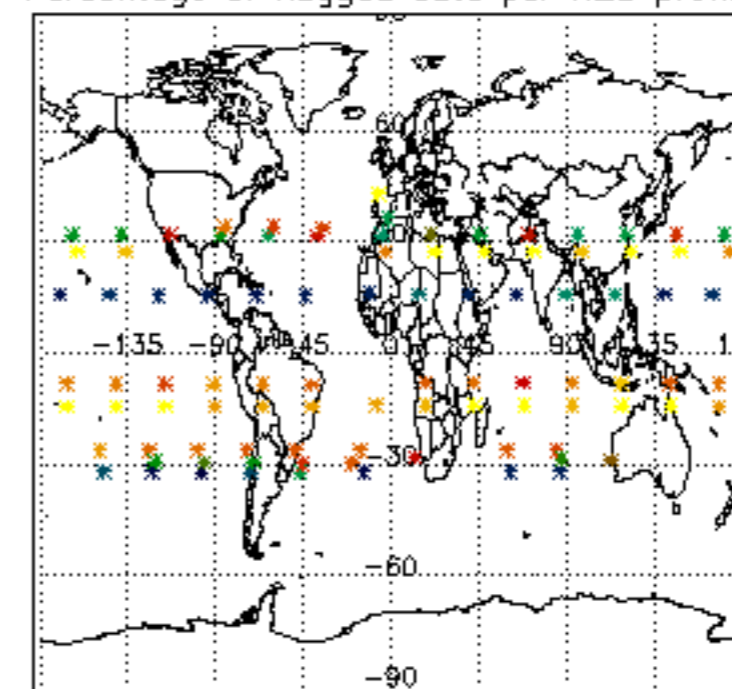
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	08-NOV-2002 00:01:45
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	08-NOV-2002 00:01:45
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	08-NOV-2002 00:01:45



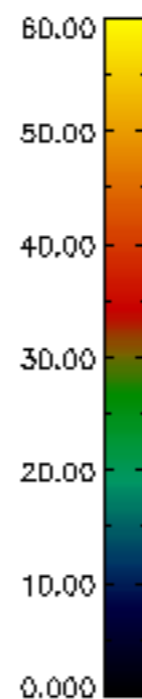
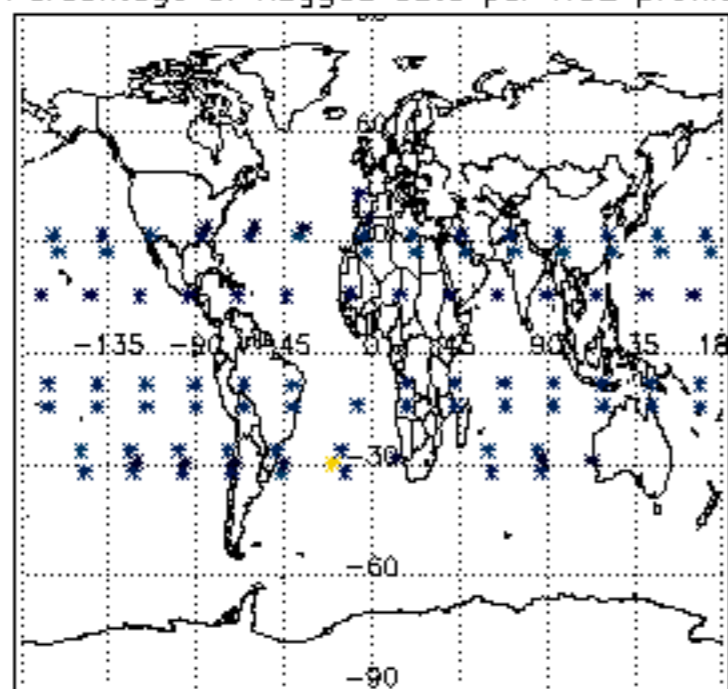
Percentage of flagged data per D3 profile



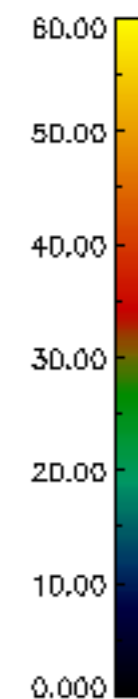
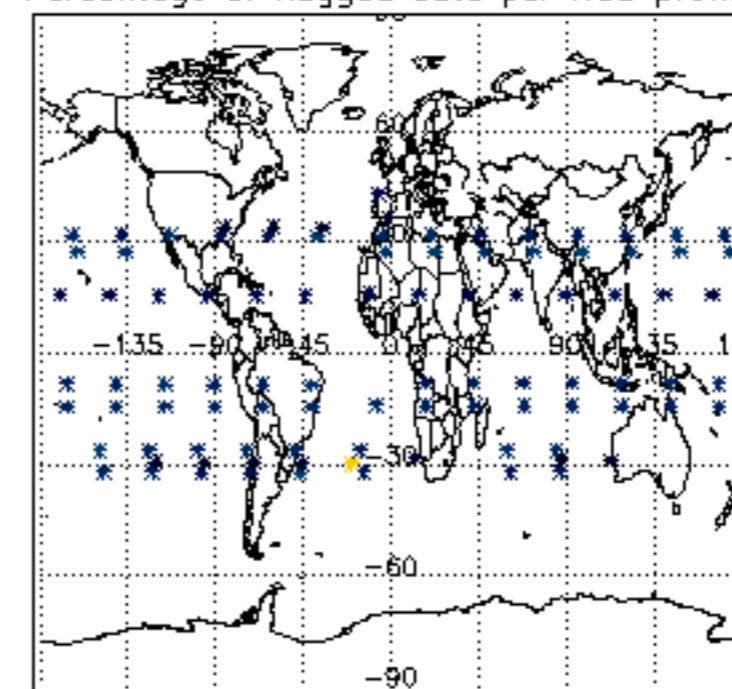
Percentage of flagged data per H2O profile



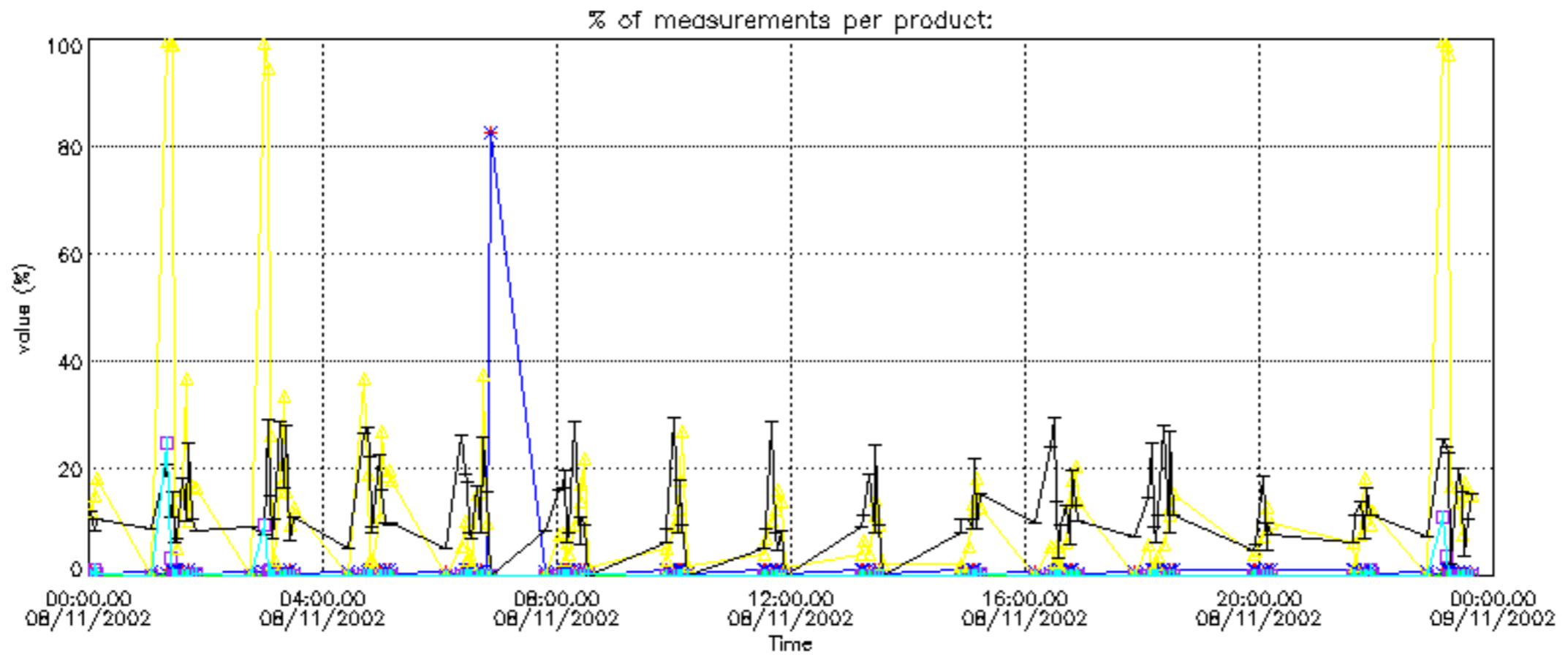
Percentage of flagged data per NO2 profile

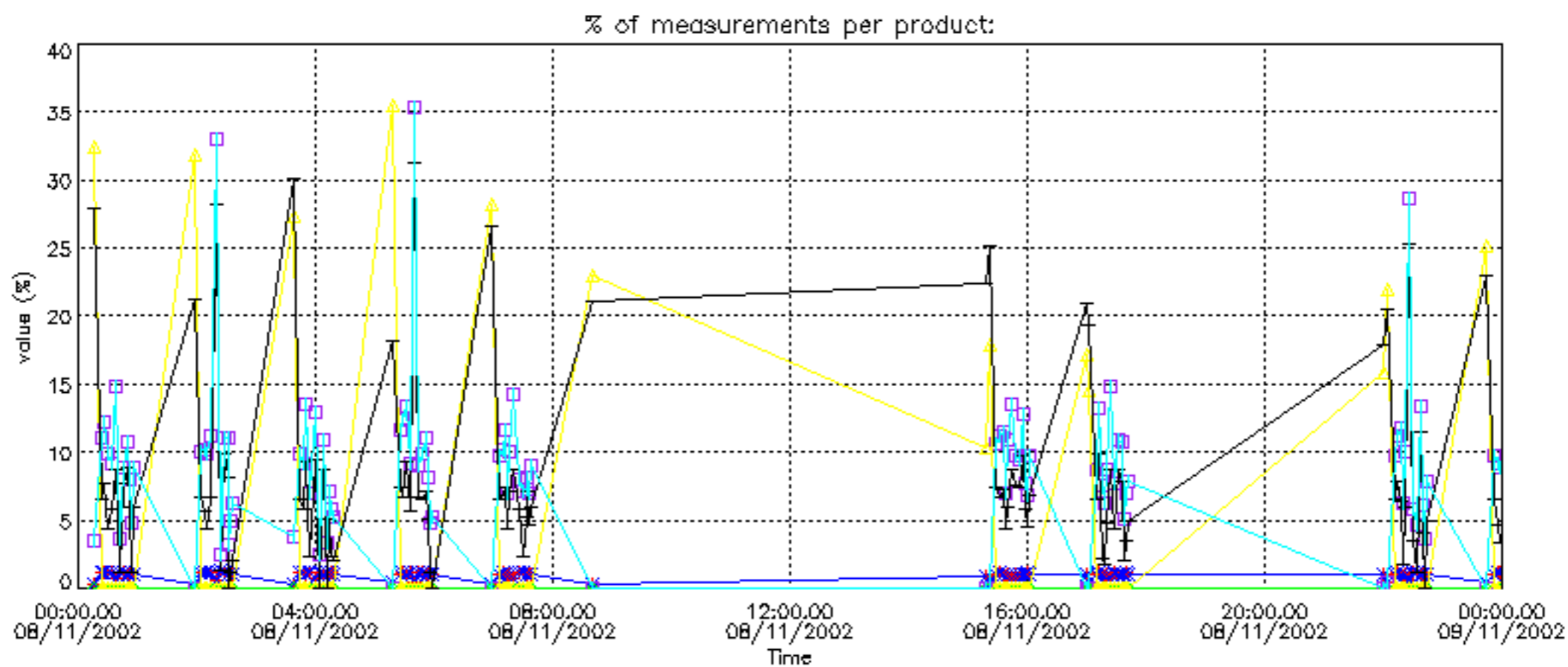


Percentage of flagged data per NO3 profile

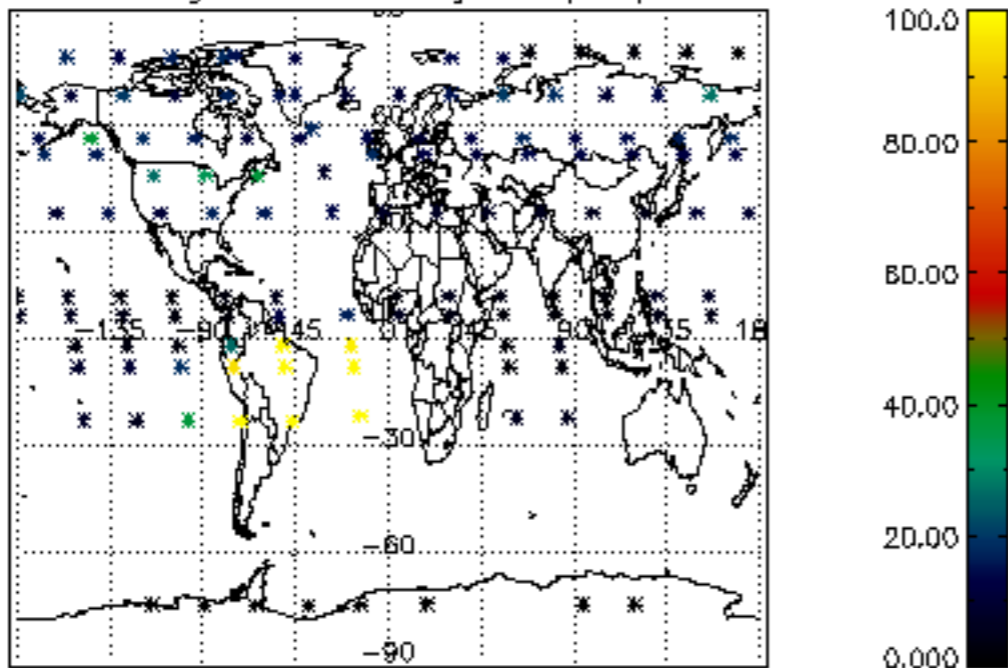




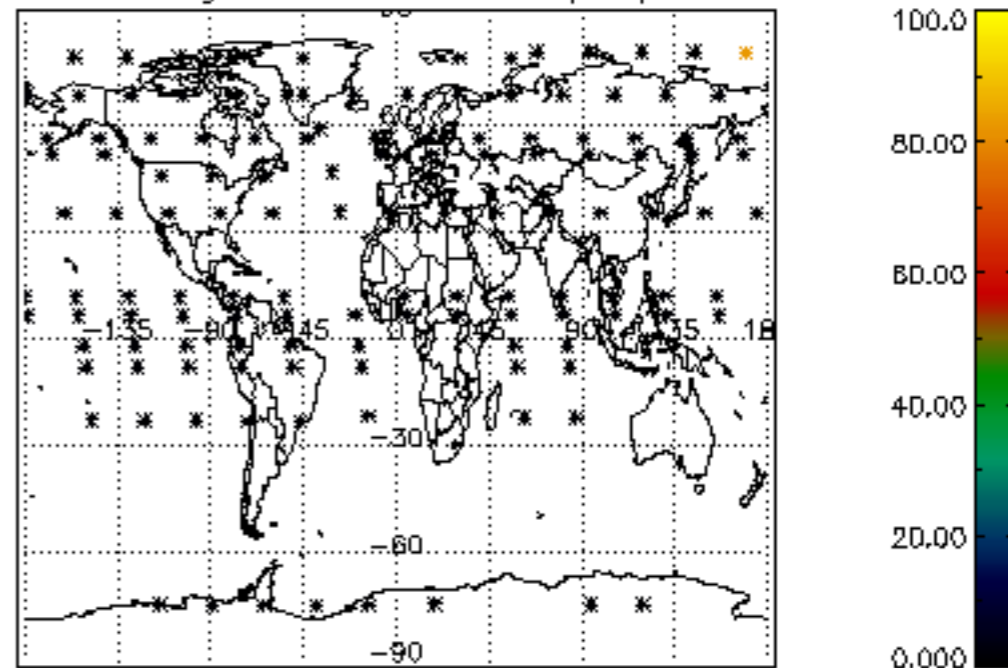




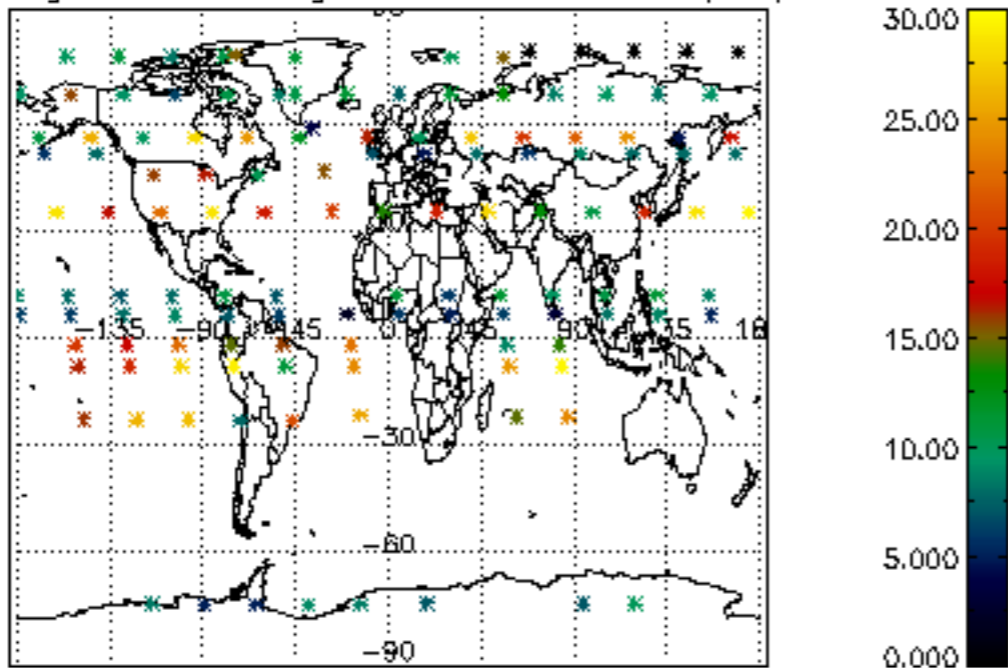
Percentage of cosmic ray hits per profile



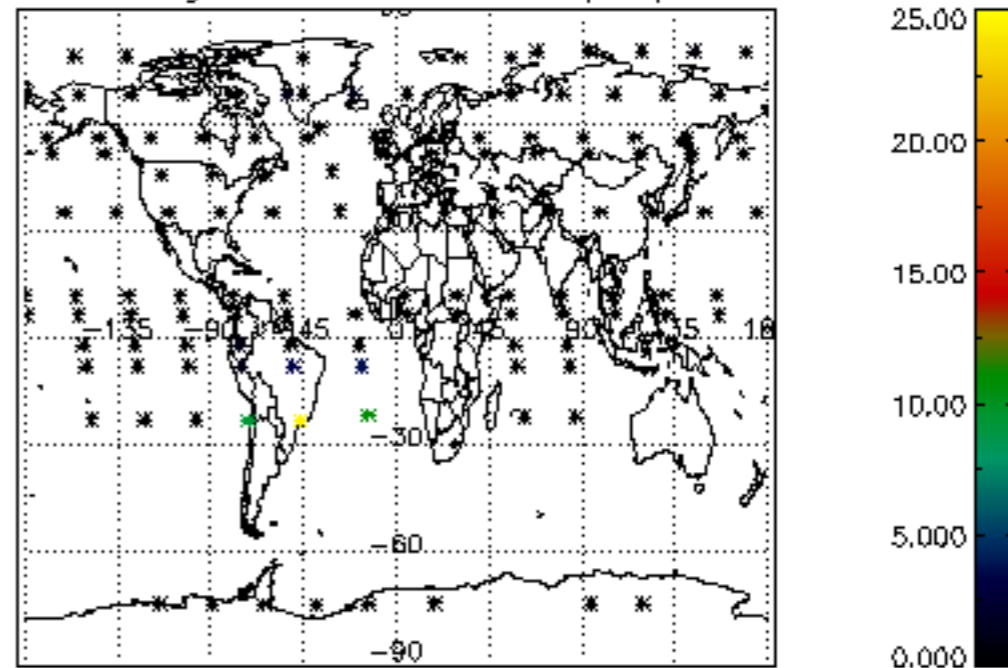
Percentage of datation errors per profile



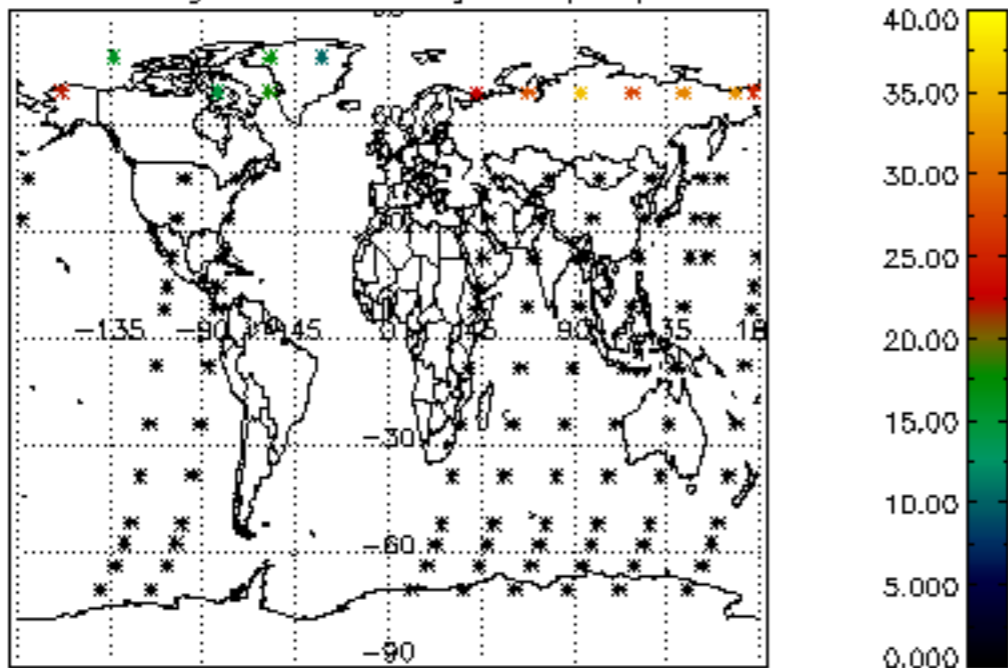
Percentage of star falling outside central band per profile



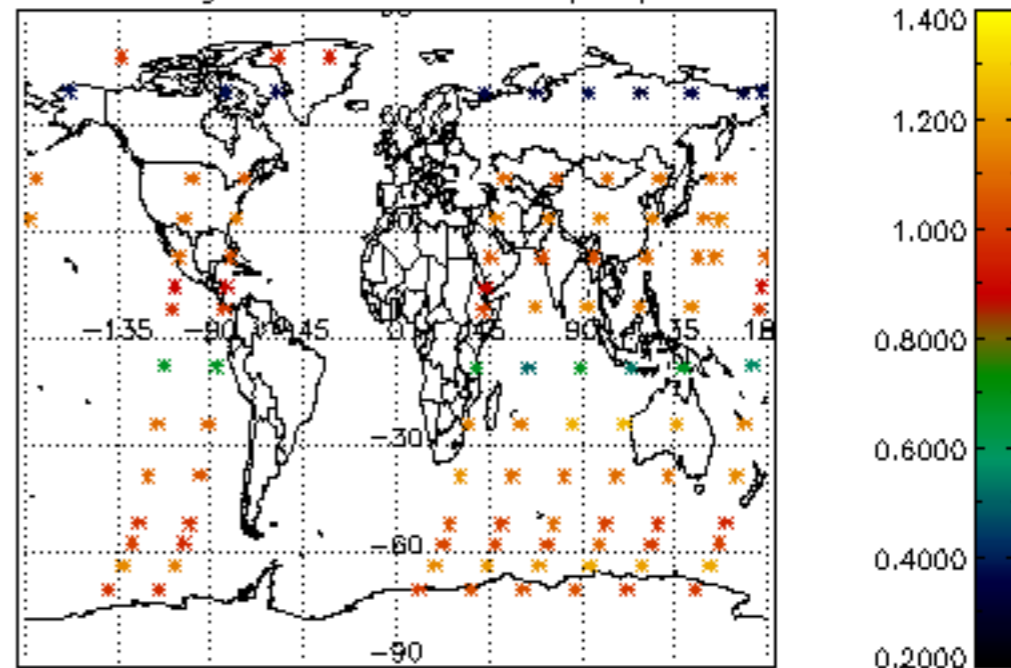
Percentage of saturation errors per profile



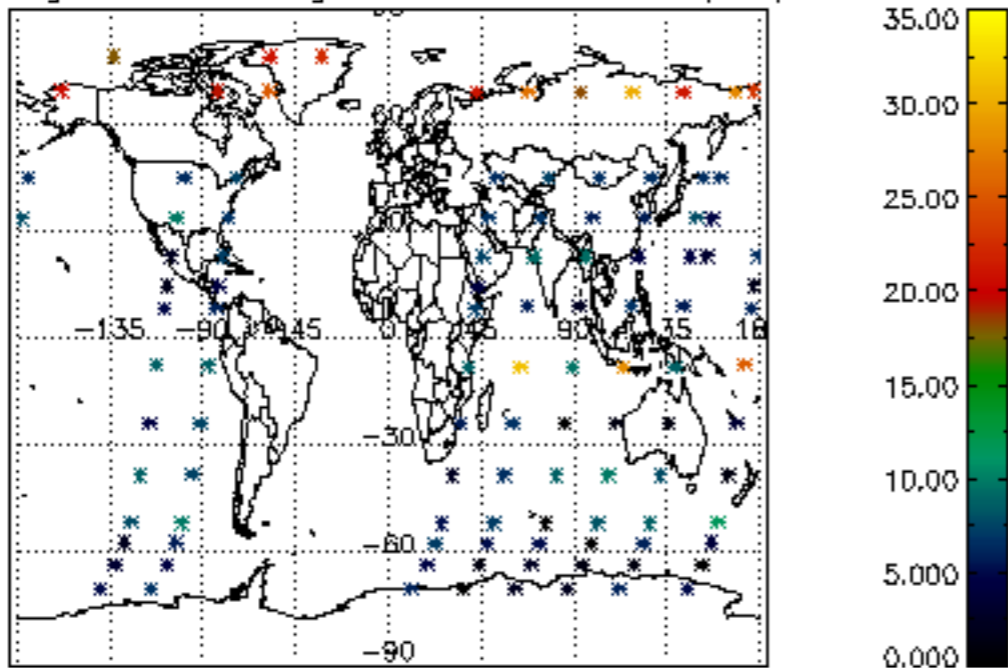
Percentage of cosmic ray hits per profile



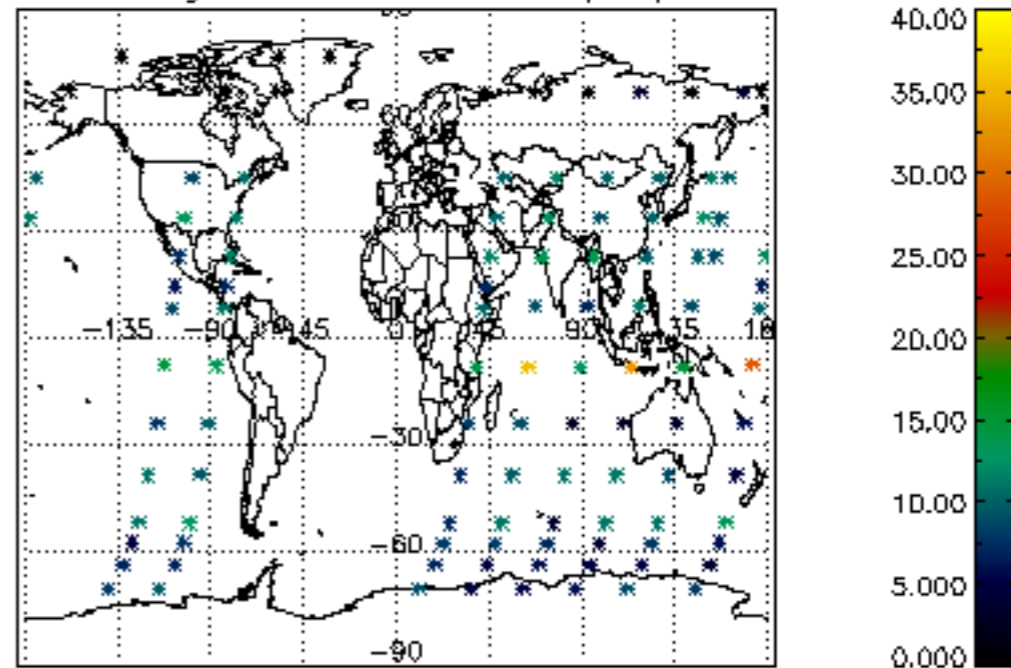
Percentage of datation errors per profile

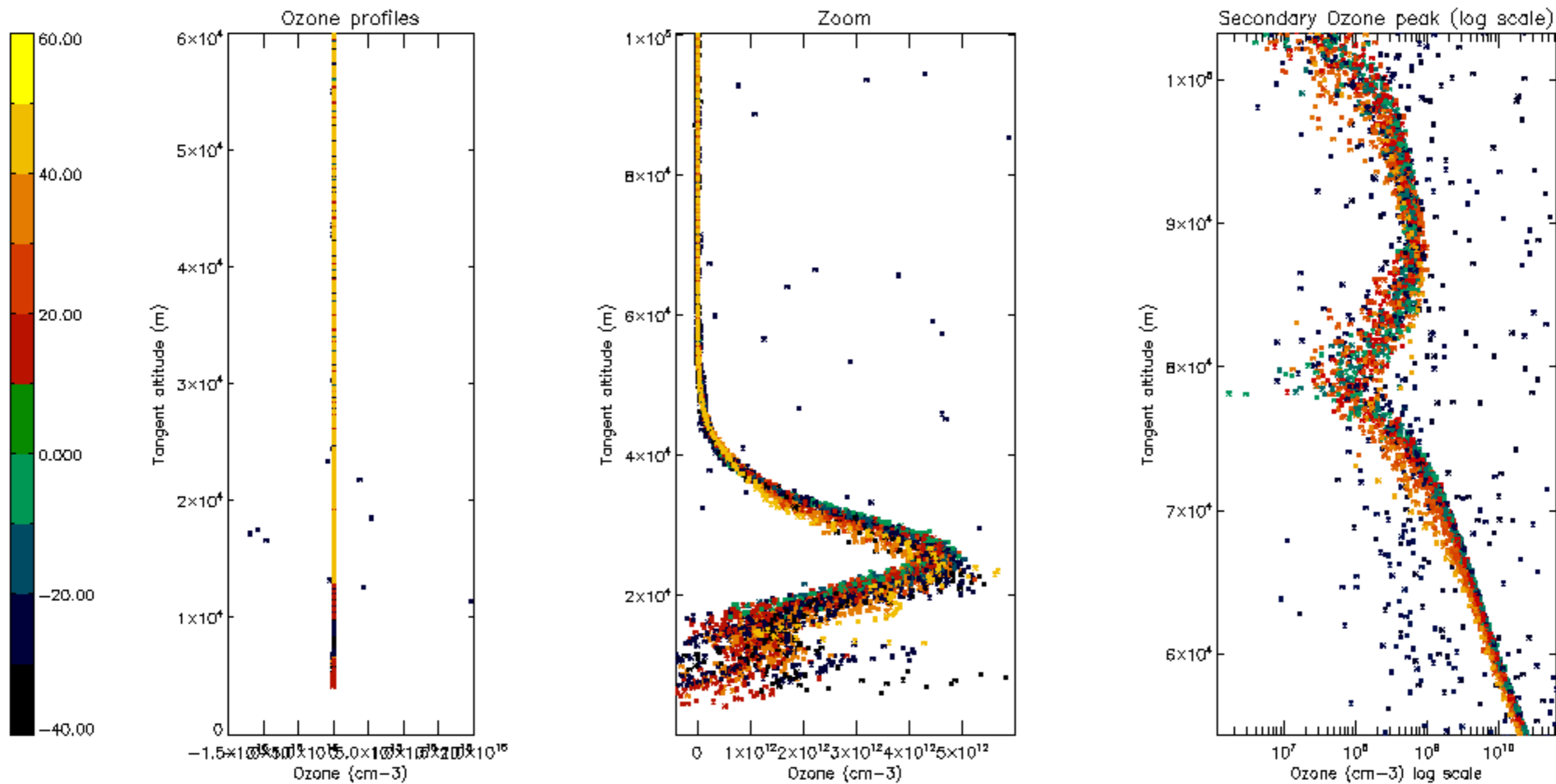


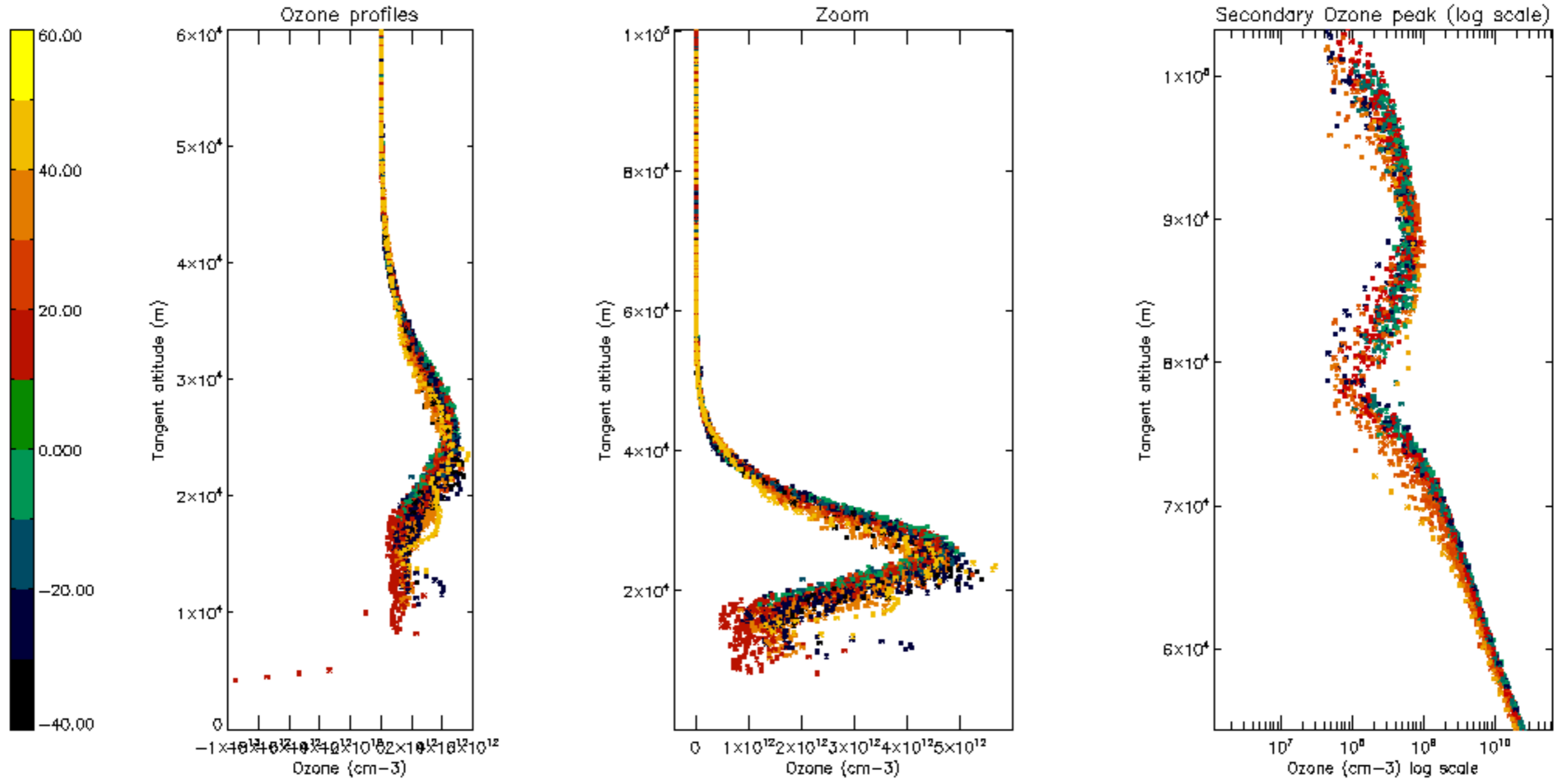
Percentage of star falling outside central band per profile

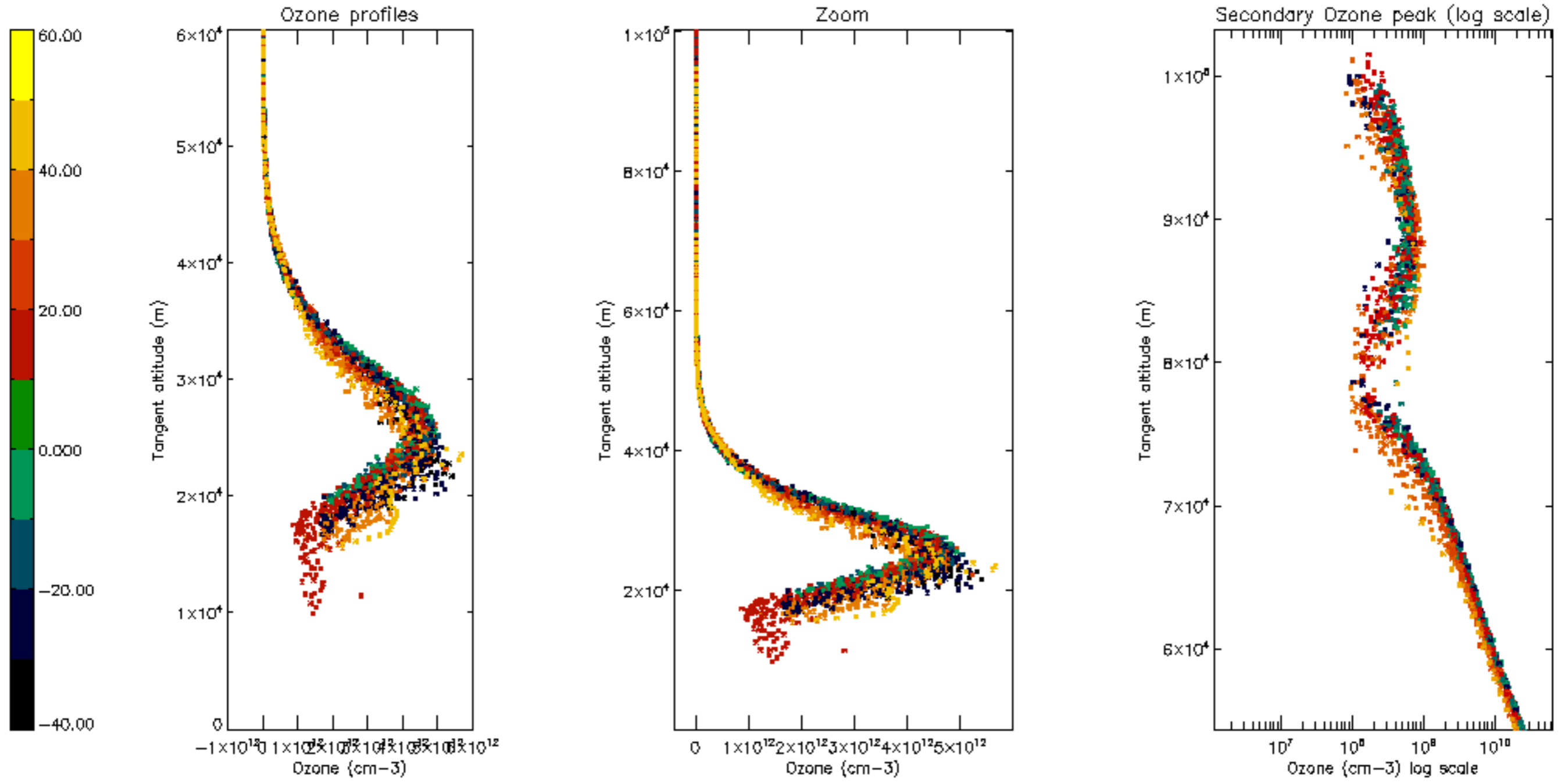


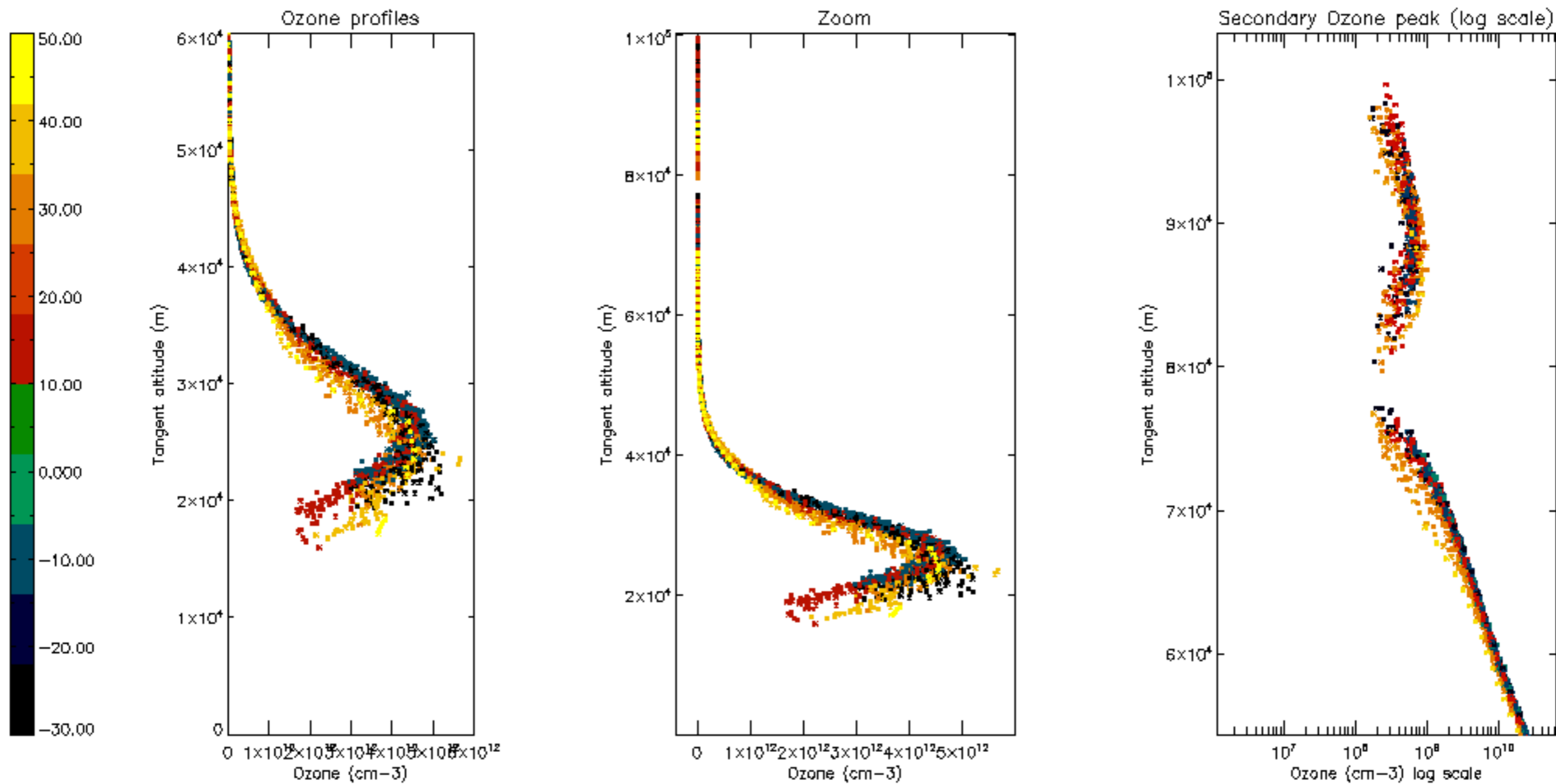
Percentage of saturation errors per profile



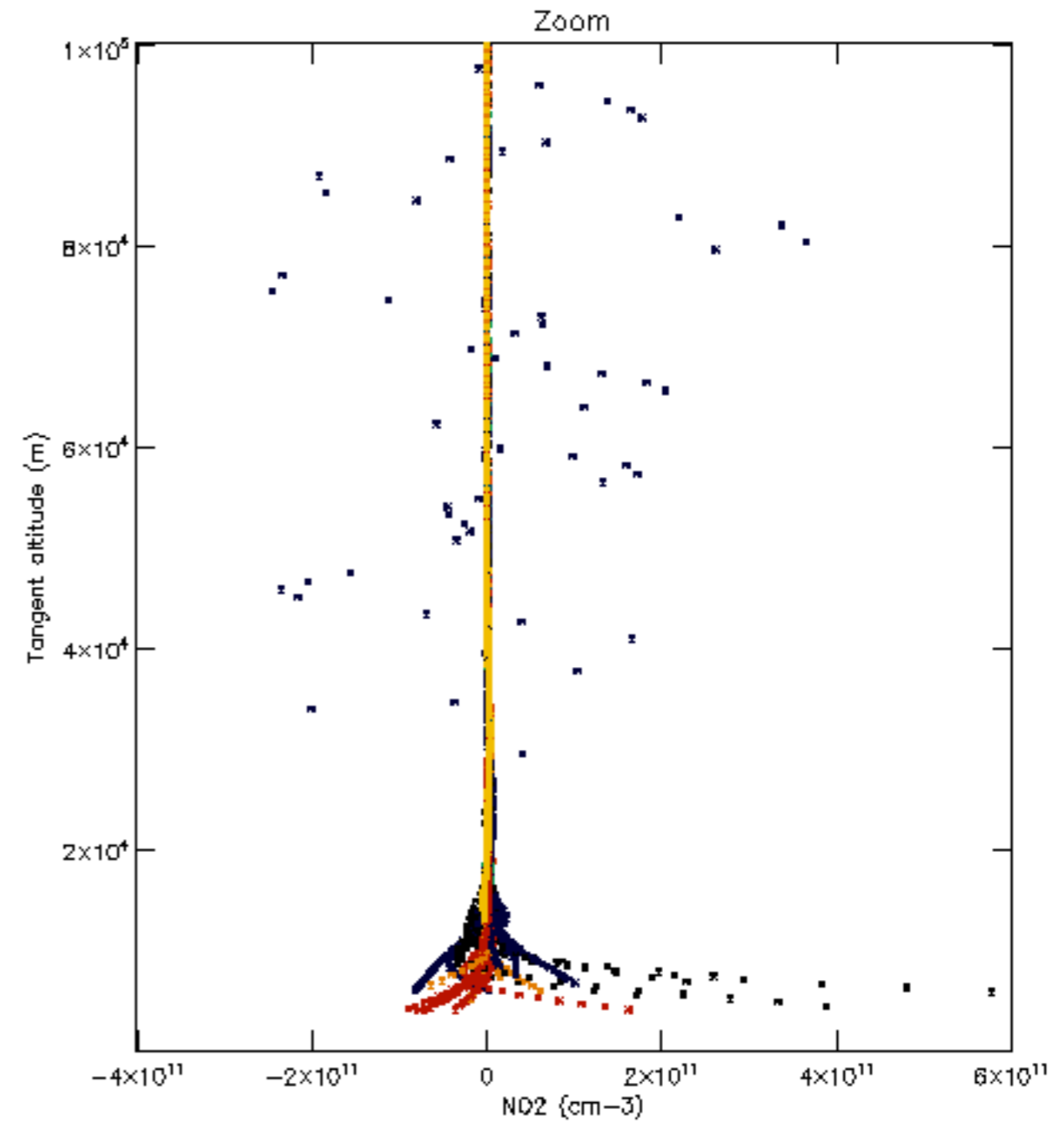
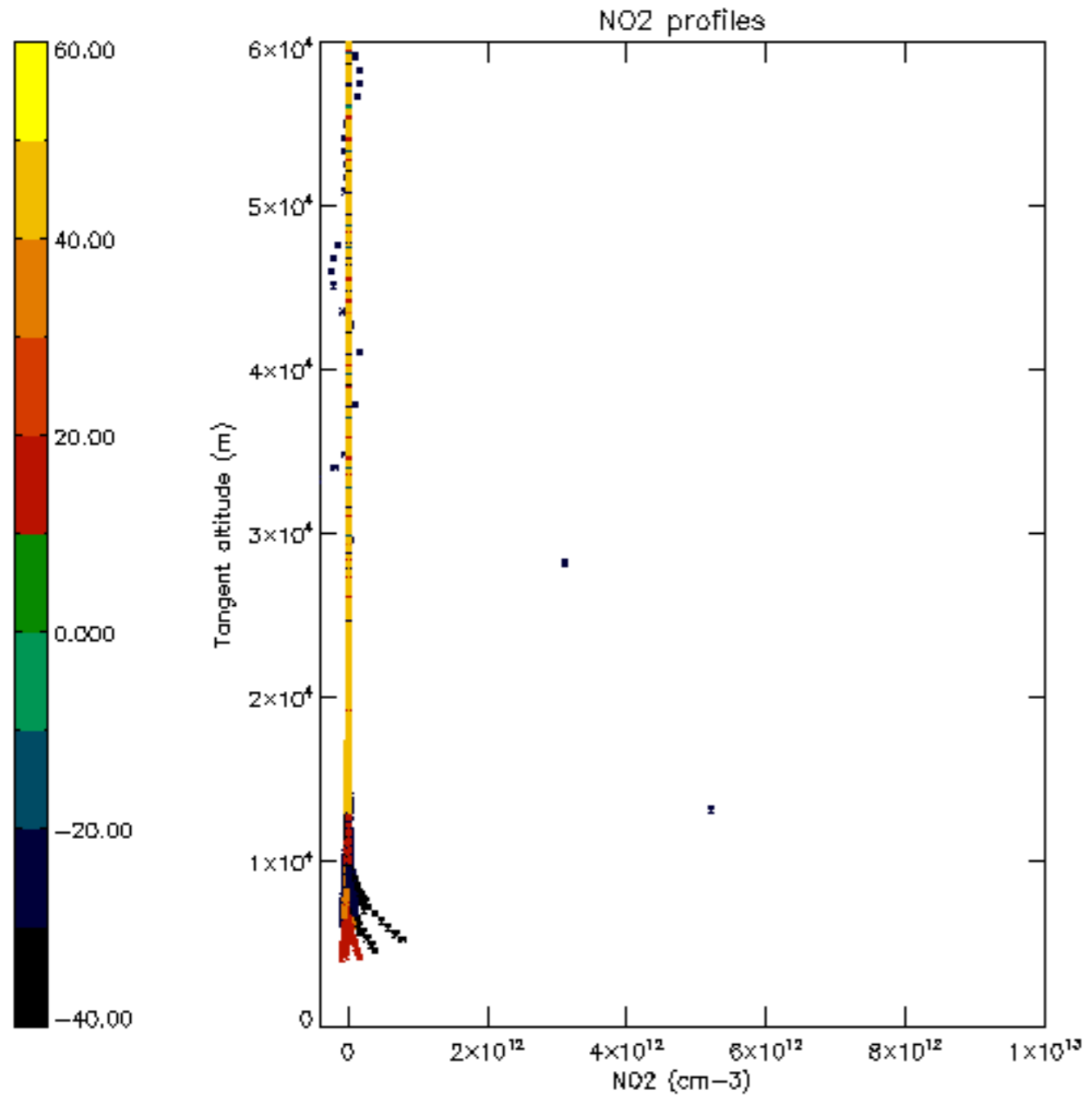


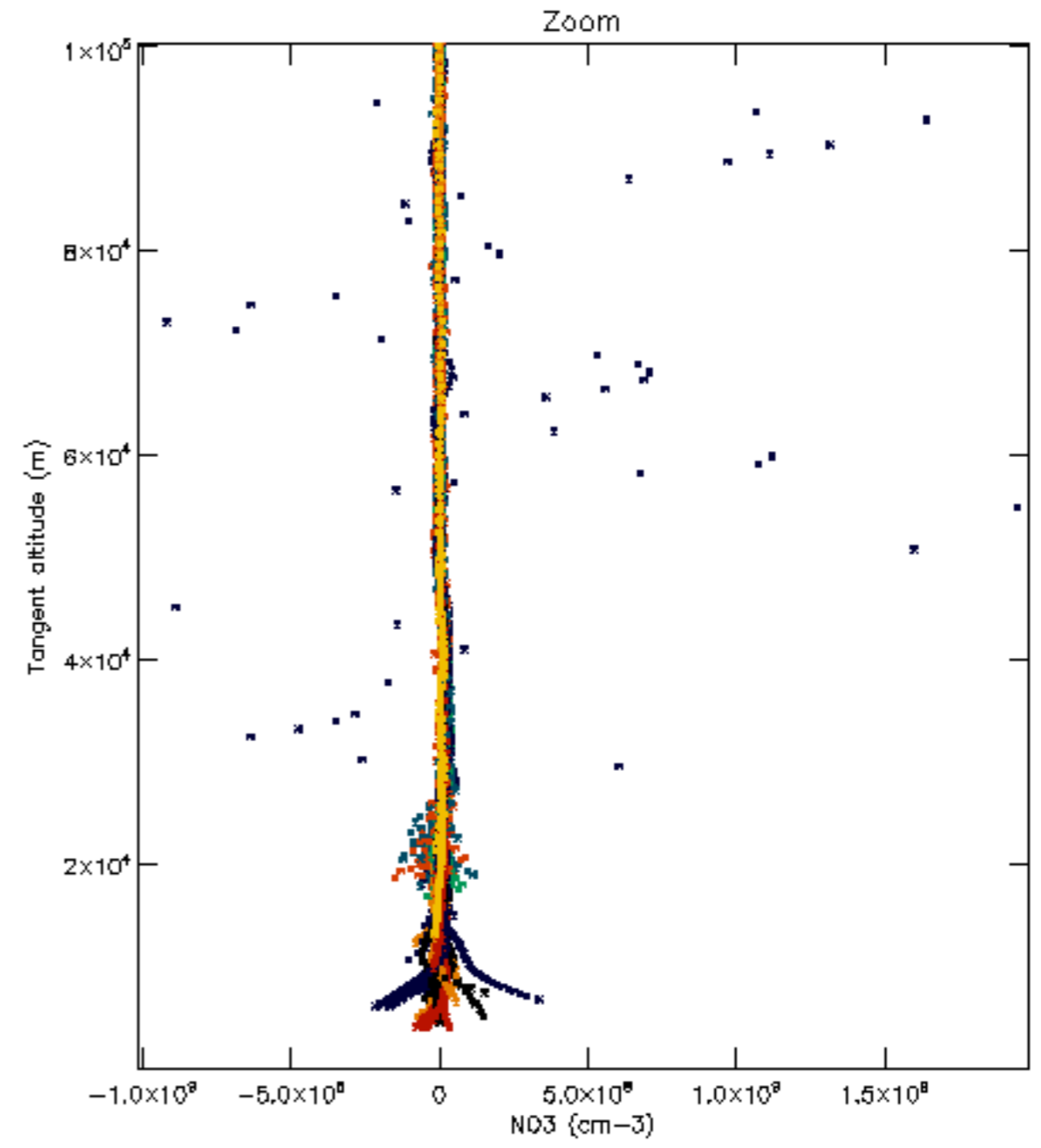
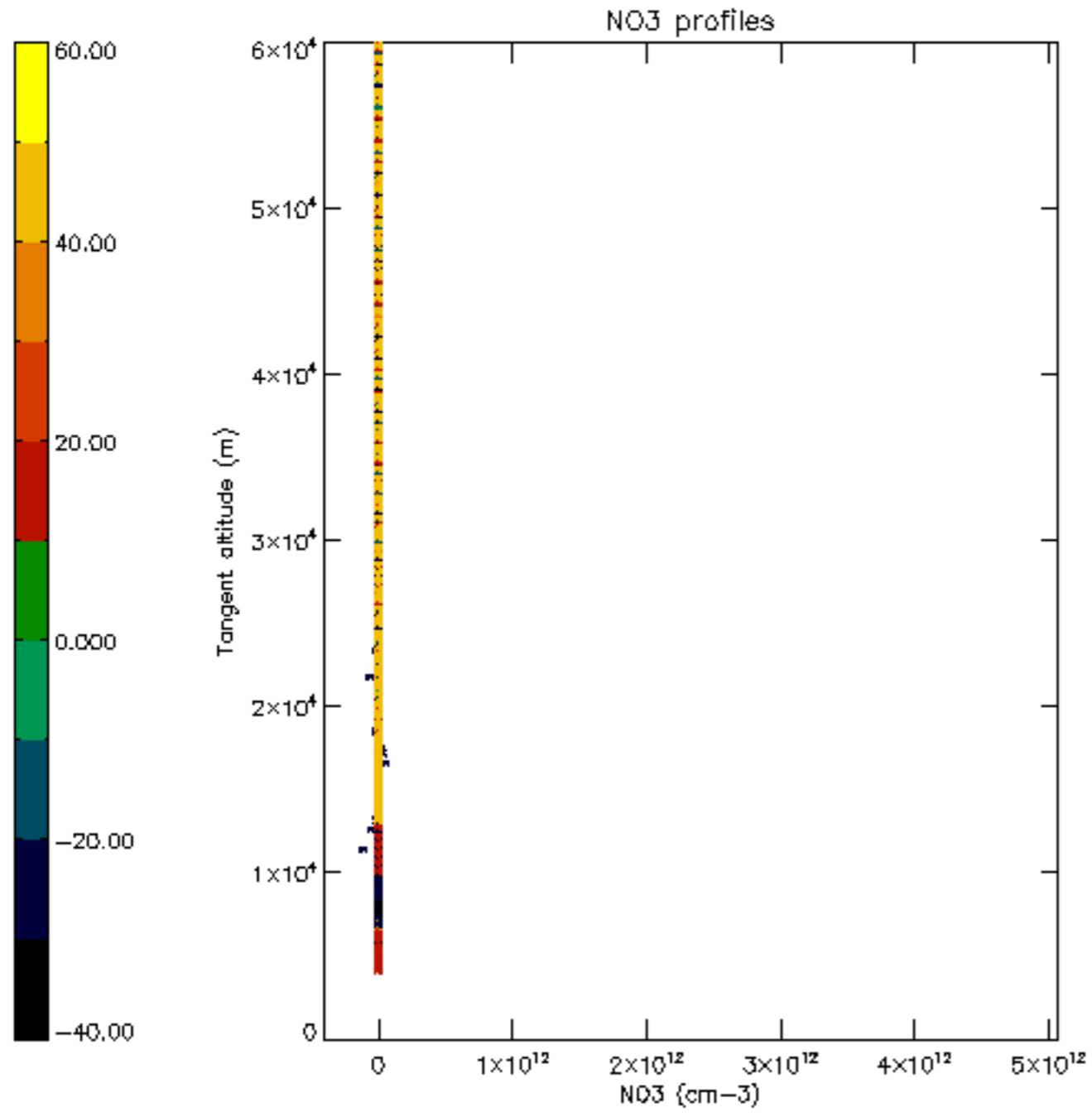


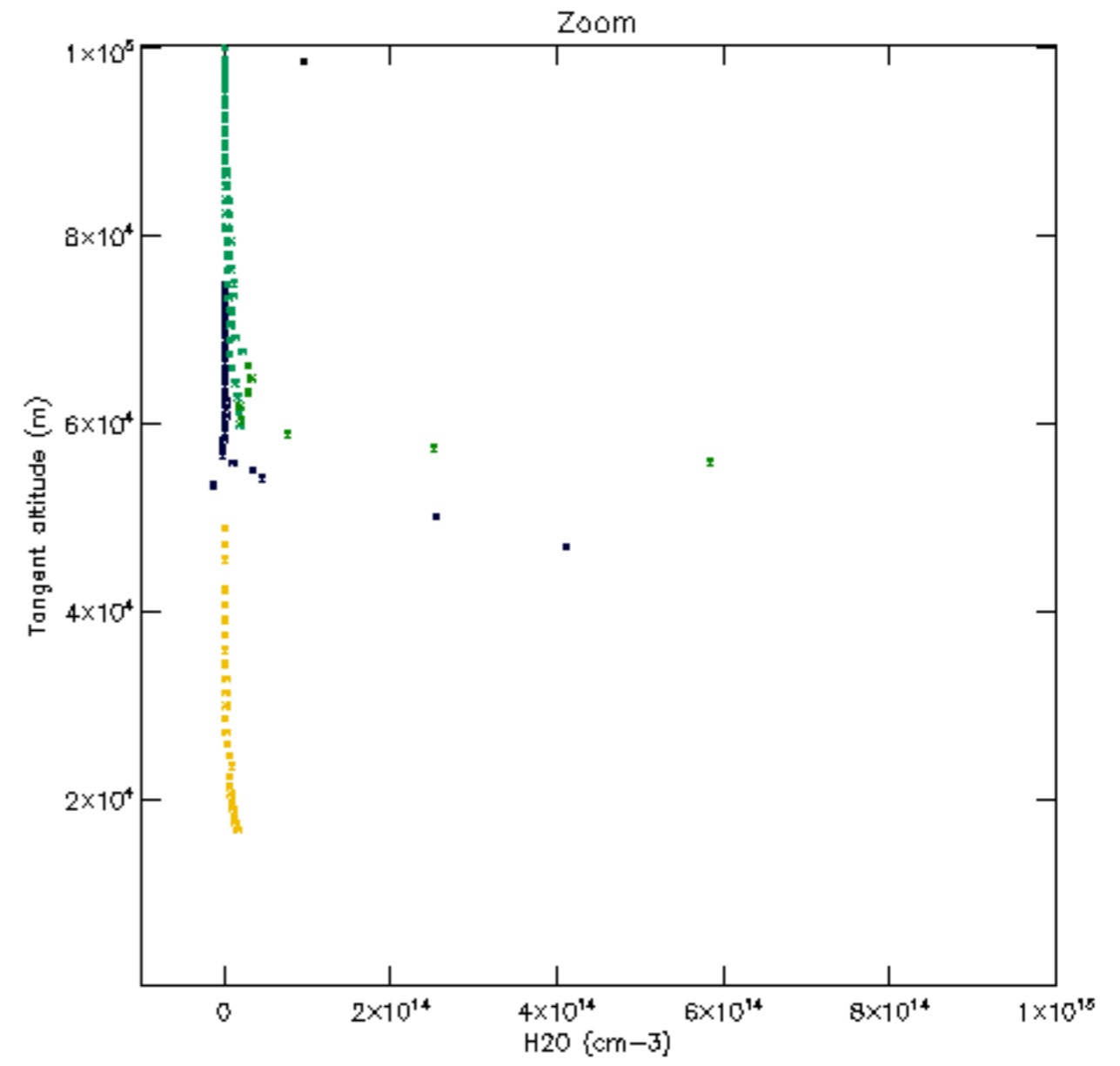
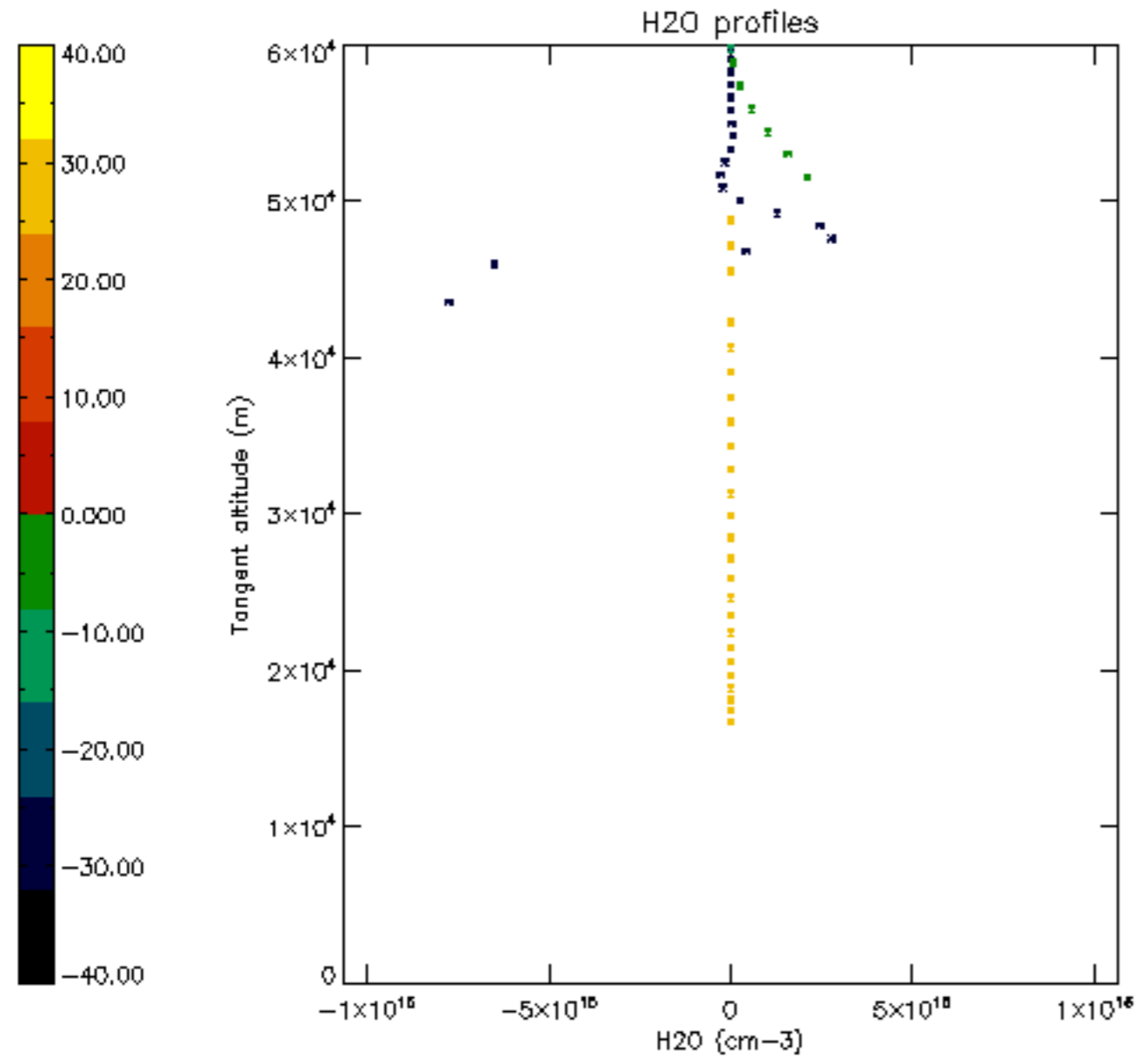


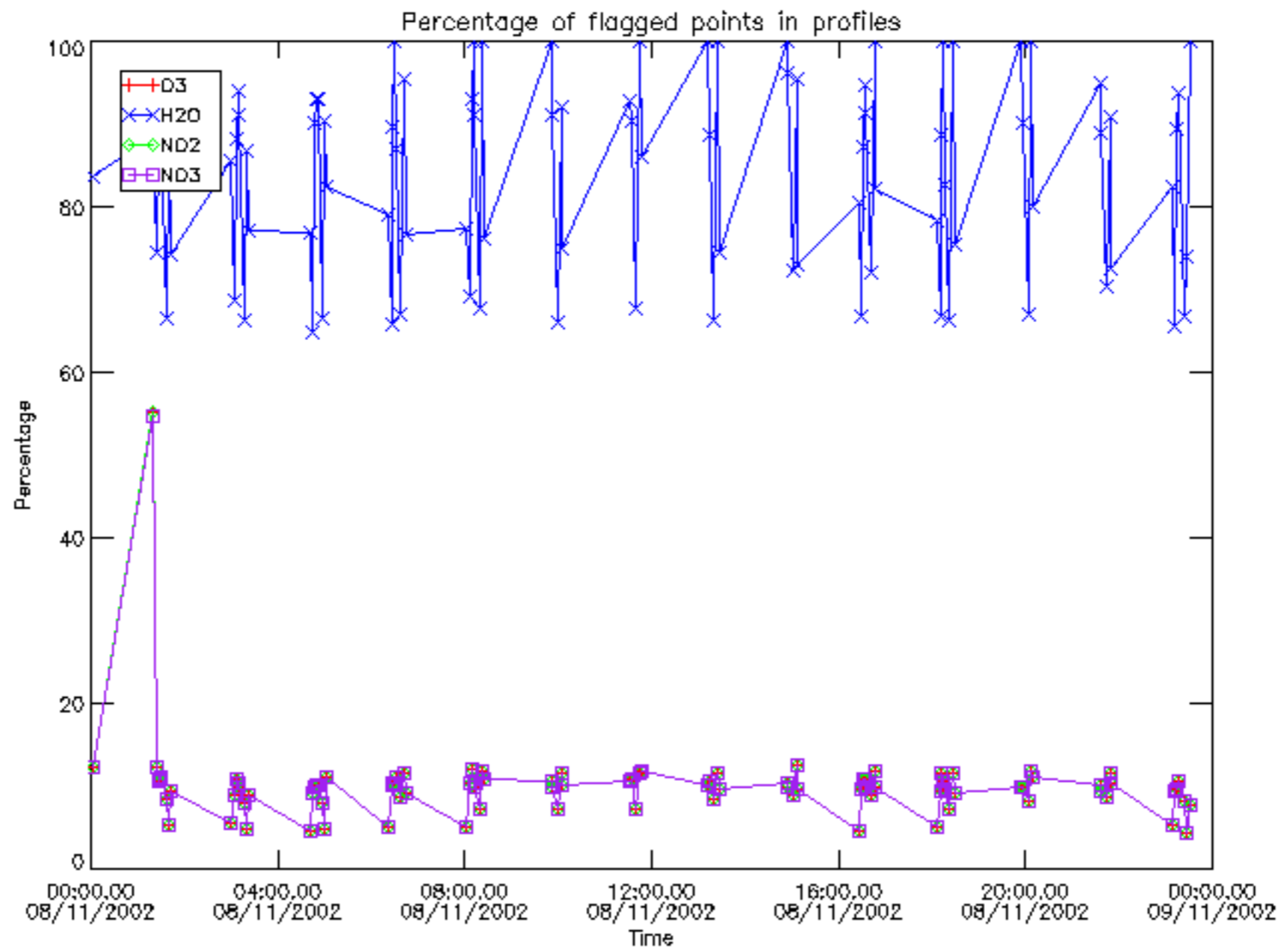




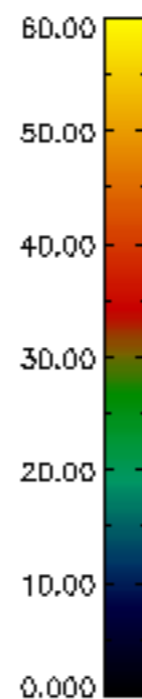
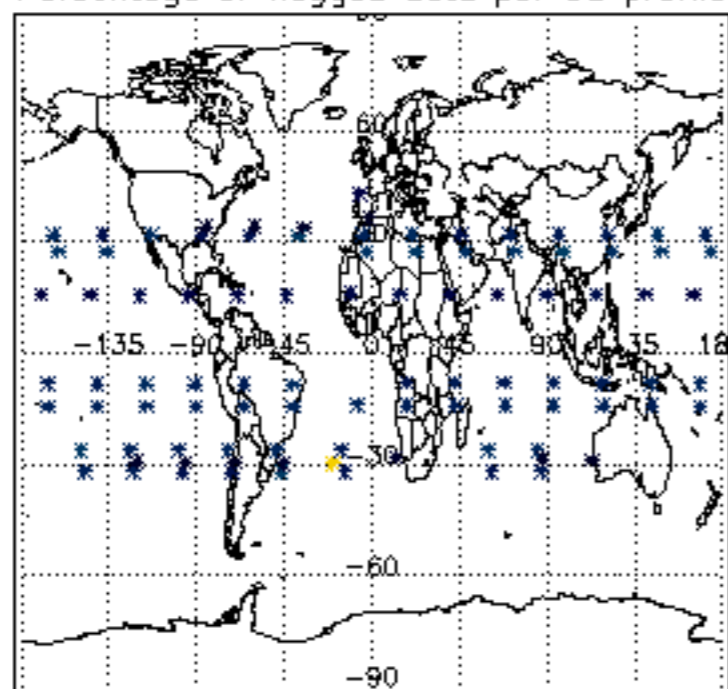




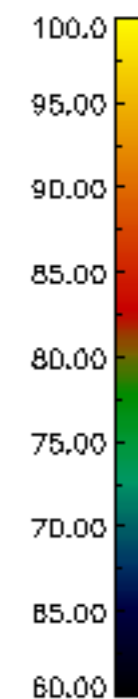
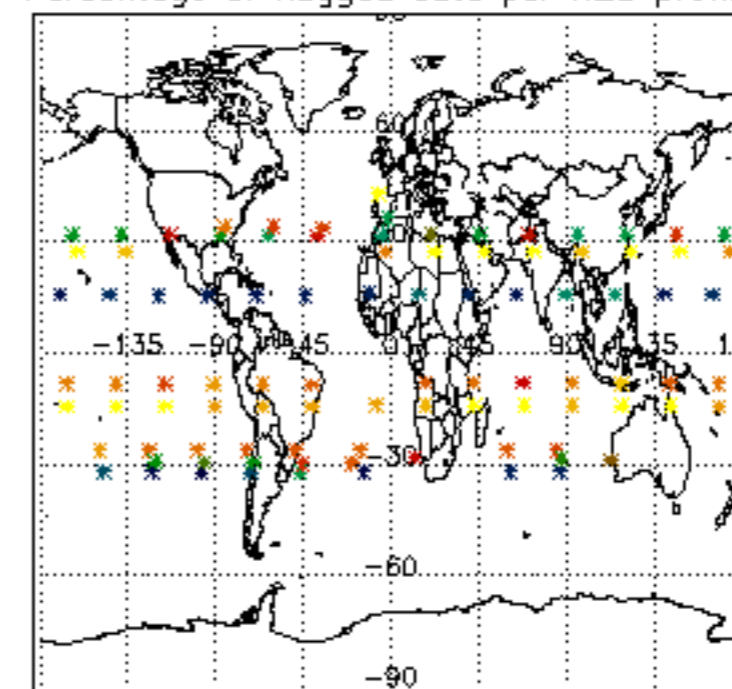




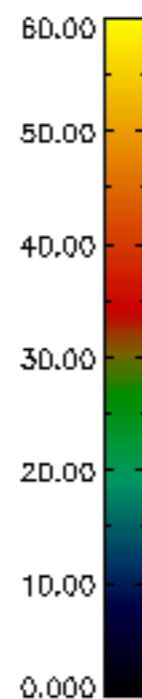
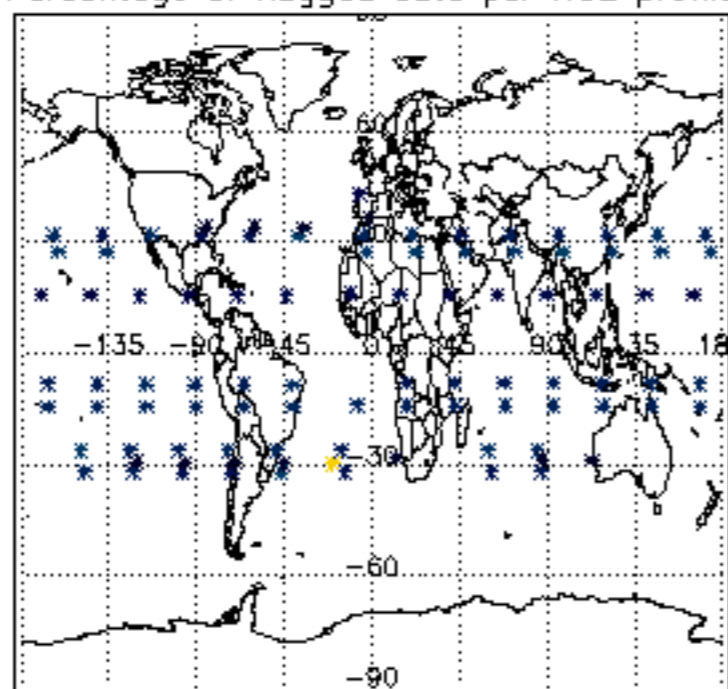
Percentage of flagged data per D3 profile



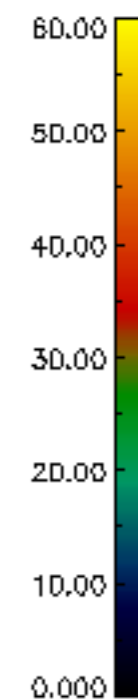
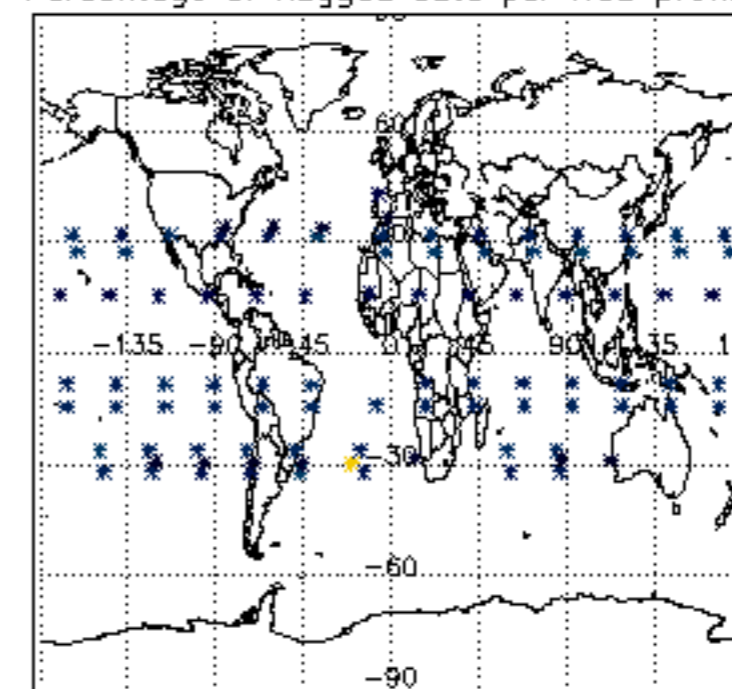
Percentage of flagged data per H2O profile

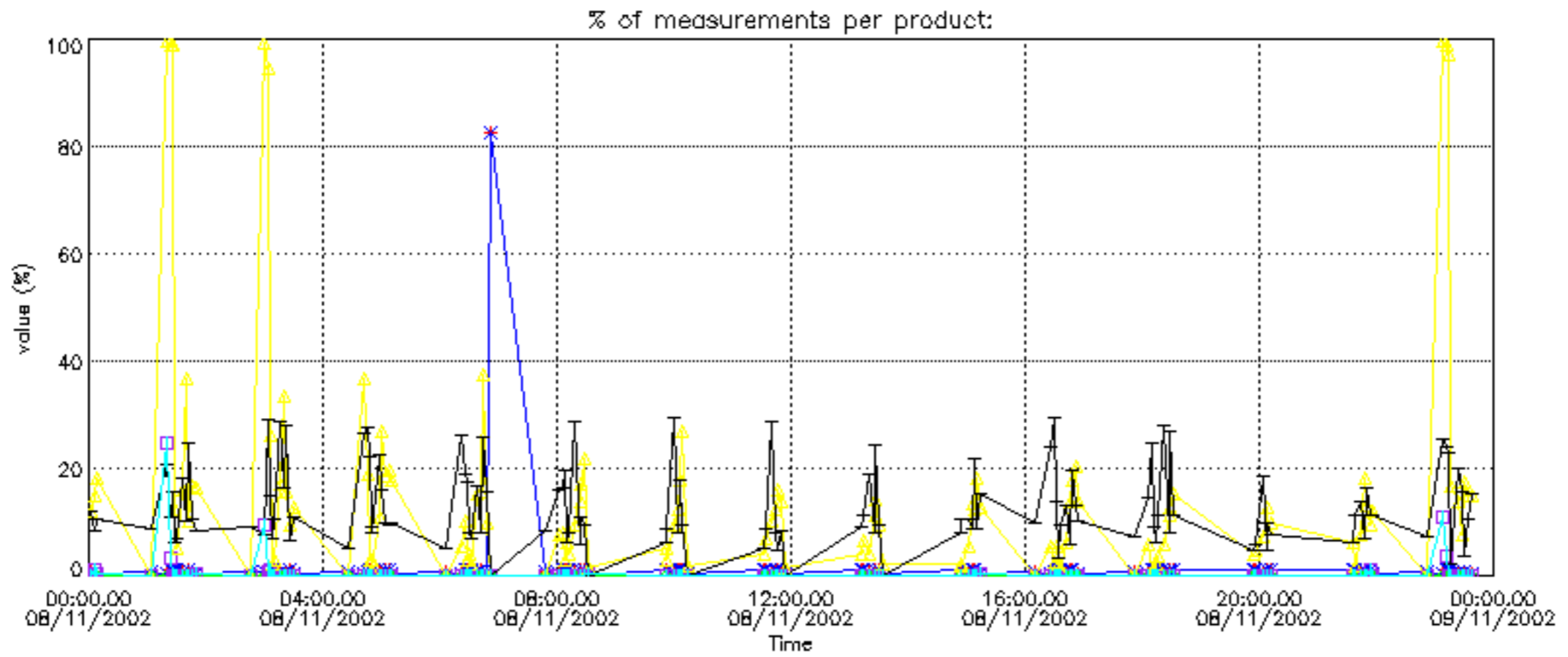


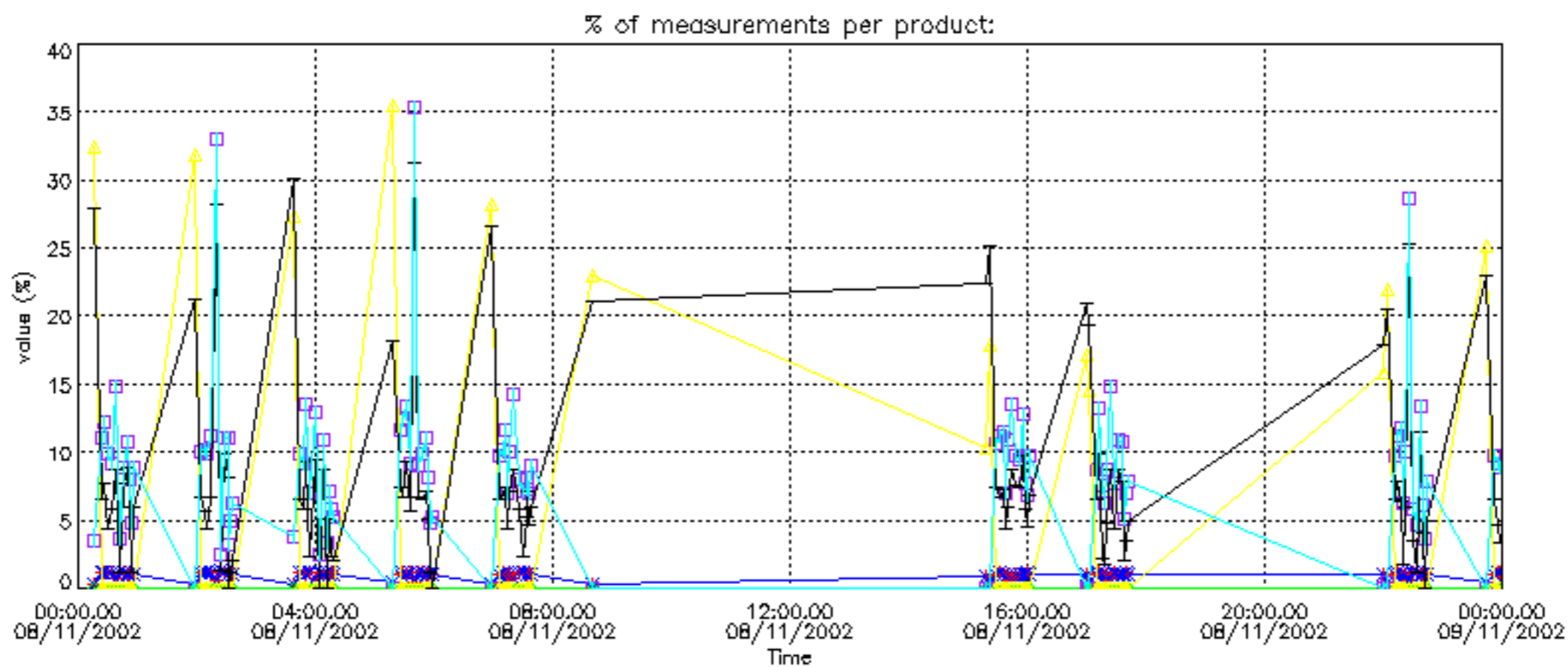
Percentage of flagged data per NO2 profile



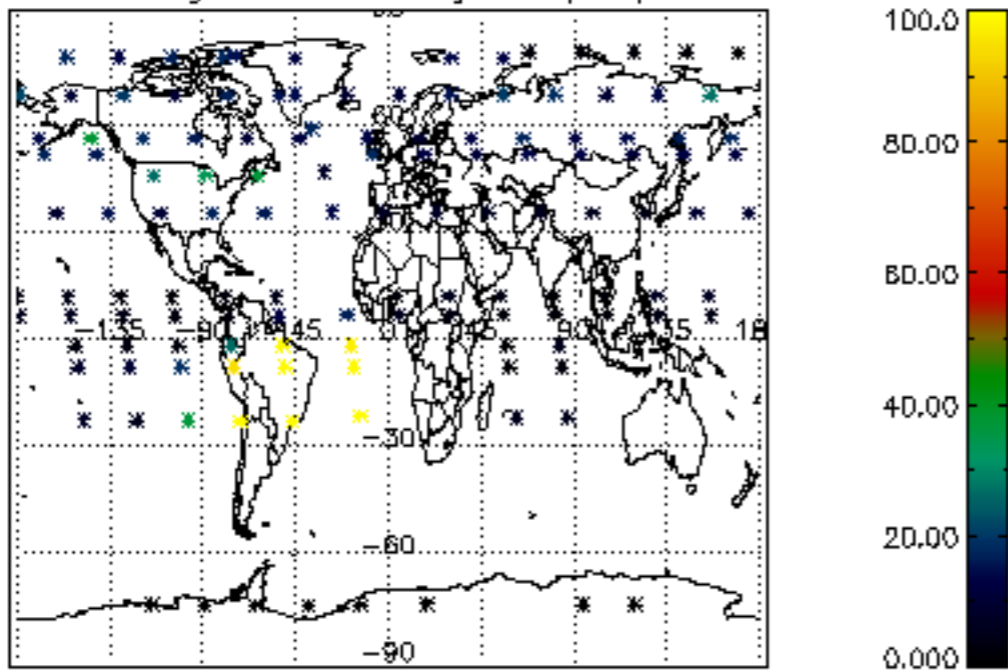
Percentage of flagged data per NO3 profile



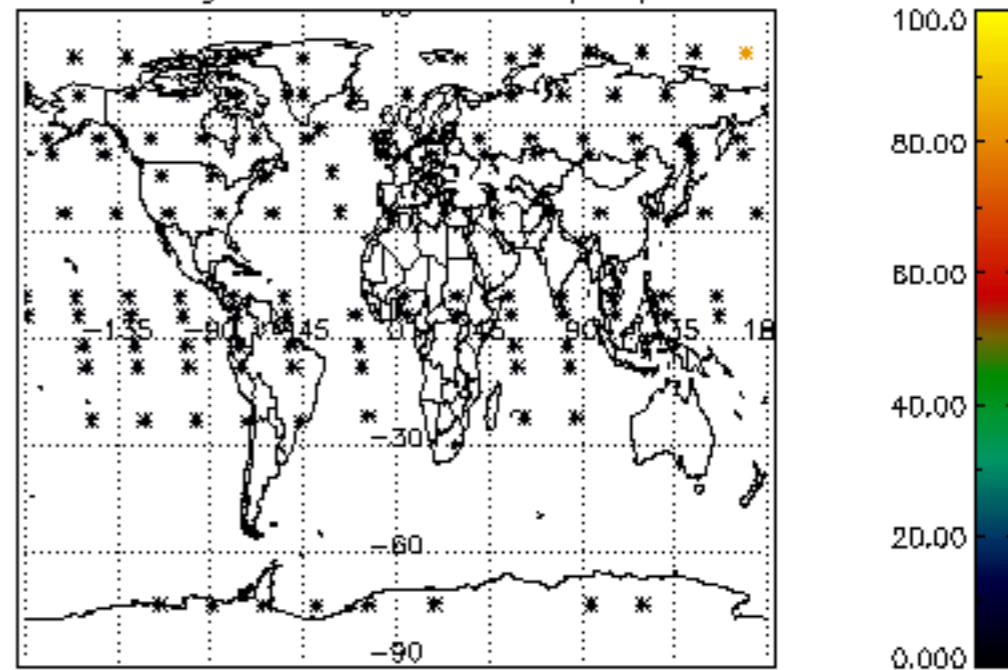




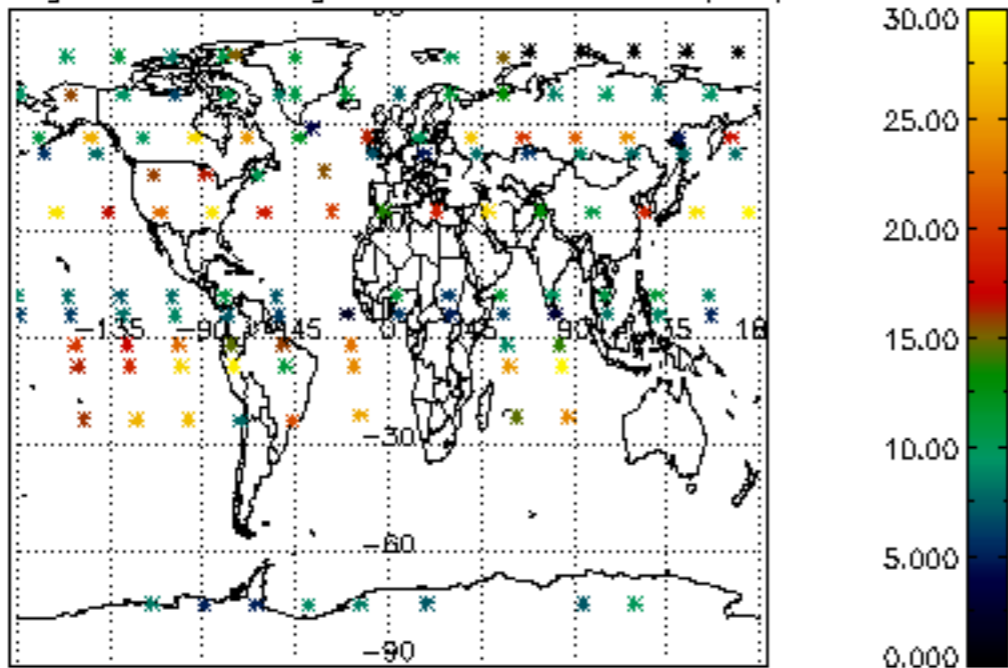
Percentage of cosmic ray hits per profile



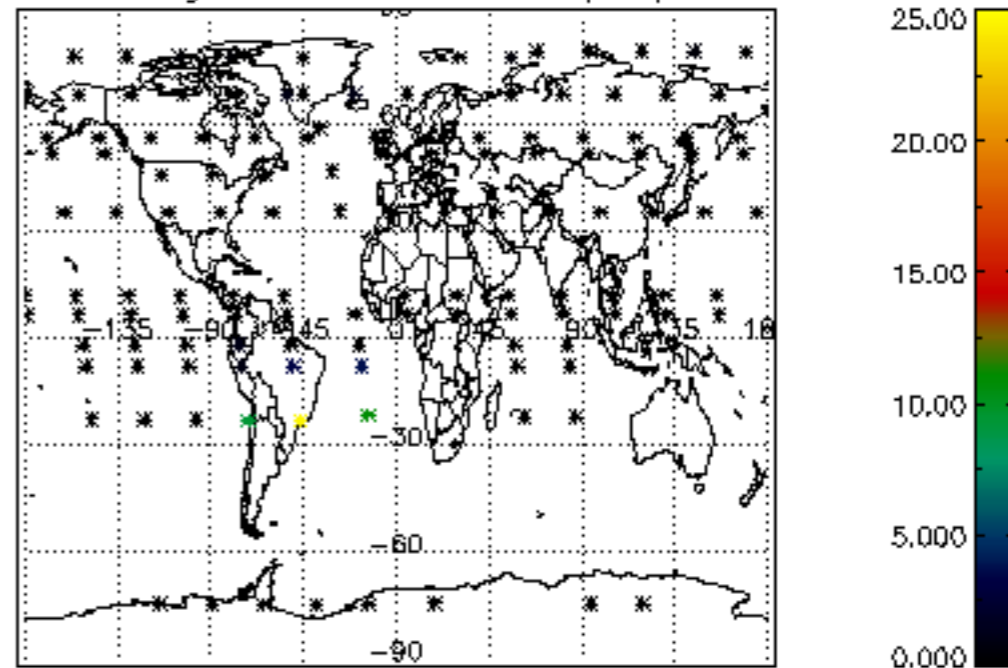
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

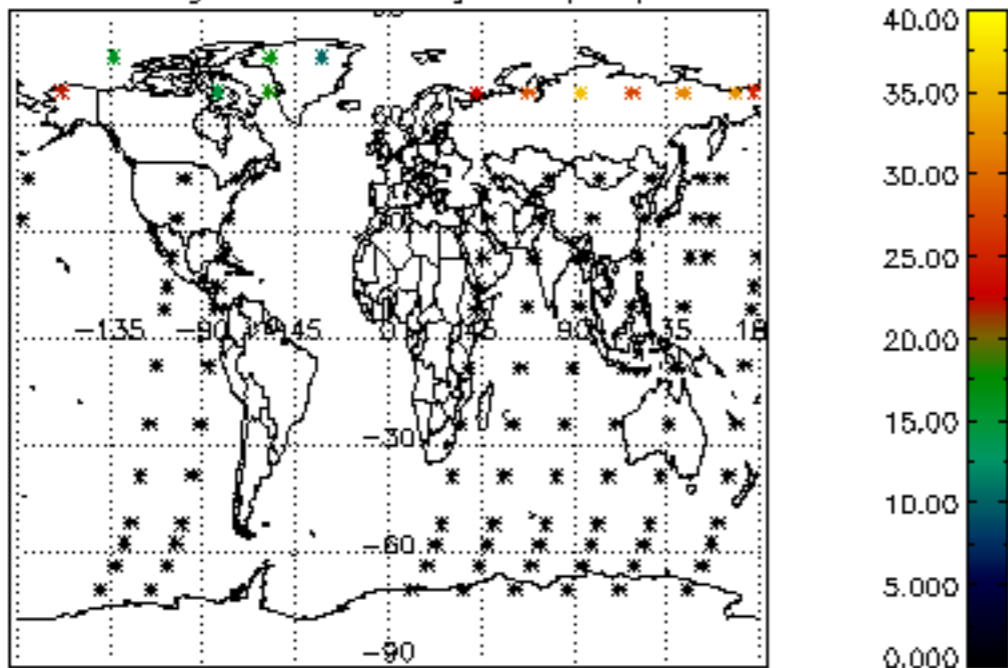


Percentage of saturation errors per profile

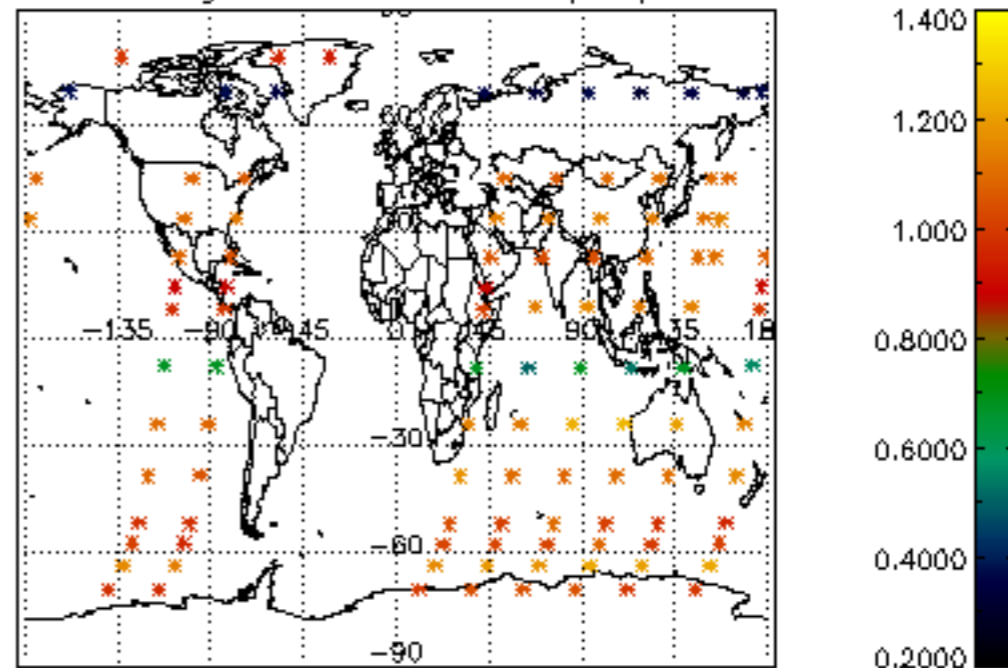




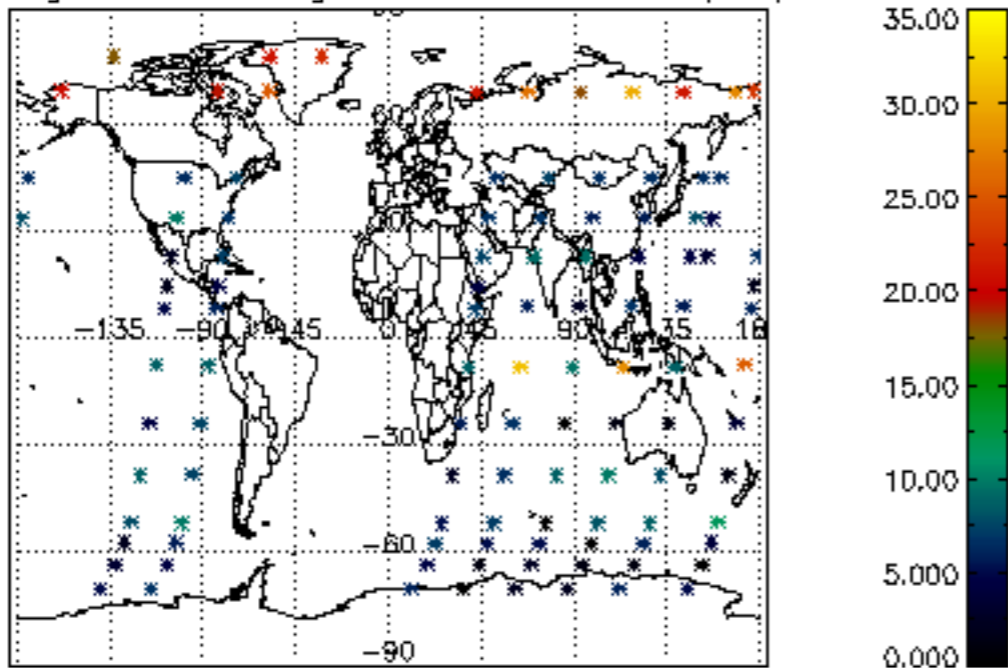
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

