

# 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](#)





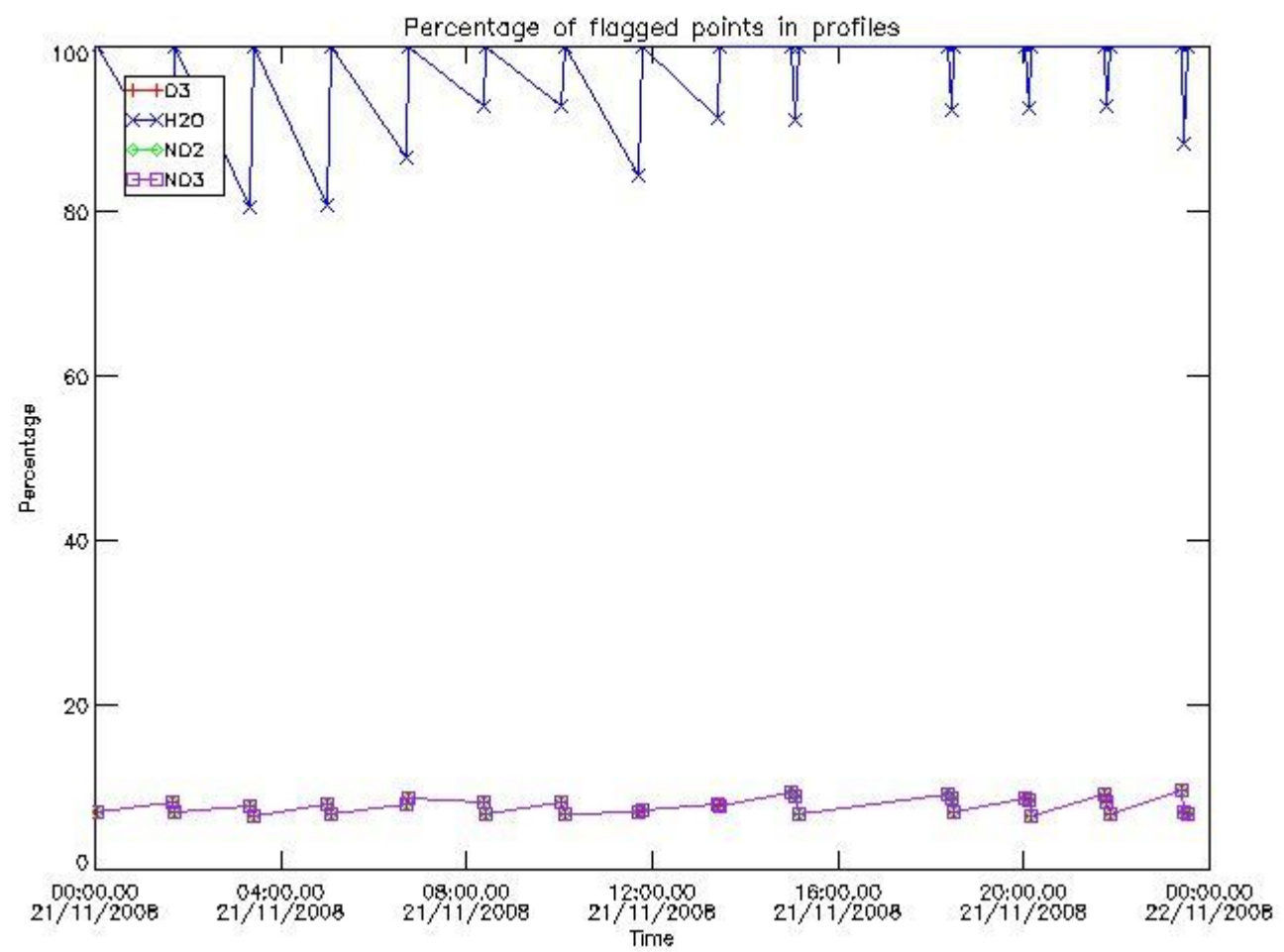


161	GOM_NL__2PRFIN20081121_202229_00000692074_00057_35181_3998.N1	21-NOV-2008 20:22:29	Straylight	68.500	7	19Bet Ori	0.10000	14000.	137	35181	No
162	GOM_NL__2PRFIN20081121_202625_00000852074_00057_35181_3999.N1	21-NOV-2008 20:26:25	Twilight_stray	84.500	30	46Eps Ori	1.6940	30000.	169	35181	No
163	GOM_NL__2PRFIN20081121_203111_00000552074_00057_35181_4000.N1	21-NOV-2008 20:31:11	Bright	54.500	13	87Alp Tau	0.86700	3800.0	109	35181	No
164	GOM_NL__2PRFIN20081121_203740_00000522074_00057_35181_4001.N1	21-NOV-2008 20:37:40	Bright	52.000	114	31ot Aur	2.6930	4600.0	104	35181	No
165	GOM_NL__2PRFIN20081121_204206_00000522074_00057_35181_4002.N1	21-NOV-2008 20:42:06	Bright	51.500	6	13Alp Aur	0.080000	3400.0	103	35181	No
166	GOM_NL__2PRFIN20081121_204436_00000582074_00057_35181_4003.N1	21-NOV-2008 20:44:36	Bright	57.500	42	34Bet Aur	1.9000	10200.	115	35181	No
167	GOM_NL__2PRFIN20081121_210312_00000482074_00057_35181_4004.N1	21-NOV-2008 21:03:12	Bright	48.000	174	52Psi UMa	3.0040	4400.0	96	35181	No
168	GOM_NL__2PRFIN20081121_211240_00000542074_00057_35181_4005.N1	21-NOV-2008 21:12:40	Bright	53.500	96	68Del Leo	2.5600	9300.0	107	35181	No
169	GOM_NL__2PRFIN20081121_211533_000001022074_00057_35181_4006.N1	21-NOV-2008 21:15:33	Twilight_stray	102.00	51	41Gam1Leo	2.0100	4500.0	204	35181	No
170	GOM_NL__2PRFIN20081121_212129_00000372074_00057_35181_4007.N1	21-NOV-2008 21:21:29	Straylight	37.000	22	32Alp Leo	1.3600	15200.	74	35181	No
171	GOM_NL__2PRFIN20081121_214305_00000552074_00058_35182_4046.N1	21-NOV-2008 21:43:05	Dark	55.000	70	Zet Pup	2.2460	39000.	110	35182	No
172	GOM_NL__2PRFIN20081121_214655_00000692074_00058_35182_4047.N1	21-NOV-2008 21:46:55	Dark	69.000	117	Pi Pup	2.7060	3800.0	138	35182	No
173	GOM_NL__2PRFIN20081121_215057_00000752074_00058_35182_4048.N1	21-NOV-2008 21:50:57	Dark	74.500	23	21Eps CMa	1.5020	26000.	149	35182	No
174	GOM_NL__2PRFIN20081121_215315_00000842074_00058_35182_4049.N1	21-NOV-2008 21:53:15	Straylight	84.000	179	24Omi2CMa	3.0320	24000.	168	35182	No
175	GOM_NL__2PRFIN20081121_215814_00000872074_00058_35182_4050.N1	21-NOV-2008 21:58:14	Straylight	87.000	47	2Bet CMa	1.9760	28000.	174	35182	No
176	GOM_NL__2PRFIN20081121_220305_00000682074_00058_35182_4051.N1	21-NOV-2008 22:03:05	Straylight	67.500	7	19Bet Ori	0.10000	14000.	135	35182	No
177	GOM_NL__2PRFIN20081121_220701_00000832074_00058_35182_4052.N1	21-NOV-2008 22:07:01	Twilight_stray	83.000	30	46Eps Ori	1.6940	30000.	166	35182	No
178	GOM_NL__2PRFIN20081121_221147_00000572074_00058_35182_4053.N1	21-NOV-2008 22:11:47	Bright	57.000	13	87Alp Tau	0.86700	3800.0	114	35182	No
179	GOM_NL__2PRFIN20081121_221815_00000502074_00058_35182_4054.N1	21-NOV-2008 22:18:15	Bright	50.000	114	31ot Aur	2.6930	4600.0	100	35182	No
180	GOM_NL__2PRFIN20081121_222241_00000522074_00058_35182_4055.N1	21-NOV-2008 22:22:41	Bright	51.500	6	13Alp Aur	0.080000	3400.0	103	35182	No
181	GOM_NL__2PRFIN20081121_222511_00000582074_00058_35182_4056.N1	21-NOV-2008 22:25:11	Bright	58.000	42	34Bet Aur	1.9000	10200.	116	35182	No
182	GOM_NL__2PRFIN20081121_224347_00000492074_00058_35182_4057.N1	21-NOV-2008 22:43:47	Bright	48.500	174	52Psi UMa	3.0040	4400.0	97	35182	No
183	GOM_NL__2PRFIN20081121_225317_00000552074_00058_35182_4058.N1	21-NOV-2008 22:53:17	Bright	54.500	96	68Del Leo	2.5600	9300.0	109	35182	No
184	GOM_NL__2PRFIN20081121_225610_000001092074_00058_35182_4059.N1	21-NOV-2008 22:56:10	Twilight_stray	108.50	51	41Gam1Leo	2.0100	4500.0	217	35182	No
185	GOM_NL__2PRFIN20081121_230207_00000282074_00058_35182_4060.N1	21-NOV-2008 23:02:07	Straylight	28.000	22	32Alp Leo	1.3600	15200.	56	35182	No
186	GOM_NL__2PRFIN20081121_232342_00000532074_00059_35183_4078.N1	21-NOV-2008 23:23:42	Dark	52.500	70	Zet Pup	2.2460	39000.	105	35183	No
187	GOM_NL__2PRFIN20081121_232731_00000732074_00059_35183_4079.N1	21-NOV-2008 23:27:31	Dark	73.000	117	Pi Pup	2.7060	3800.0	146	35183	No
188	GOM_NL__2PRFIN20081121_233134_00000752074_00059_35183_4080.N1	21-NOV-2008 23:31:34	Dark	74.500	23	21Eps CMa	1.5020	26000.	149	35183	No
189	GOM_NL__2PRFIN20081121_233352_00000902074_00059_35183_4081.N1	21-NOV-2008 23:33:52	Straylight	89.500	179	24Omi2CMa	3.0320	24000.	179	35183	No
190	GOM_NL__2PRFIN20081121_233850_00000882074_00059_35183_4082.N1	21-NOV-2008 23:38:50	Straylight	88.000	47	2Bet CMa	1.9760	28000.	176	35183	No
191	GOM_NL__2PRFIN20081121_234340_00000682074_00059_35183_4083.N1	21-NOV-2008 23:43:40	Straylight	67.500	7	19Bet Ori	0.10000	14000.	135	35183	No
192	GOM_NL__2PRFIN20081121_234736_00000852074_00059_35183_4084.N1	21-NOV-2008 23:47:36	Twilight_stray	85.000	30	46Eps Ori	1.6940	30000.	170	35183	No
193	GOM_NL__2PRFIN20081121_235222_00000572074_00059_35183_4085.N1	21-NOV-2008 23:52:22	Bright	56.500	13	87Alp Tau	0.86700	3800.0	113	35183	No
194	GOM_NL__2PRFIN20081121_235850_00000532074_00059_35183_4086.N1	21-NOV-2008 23:58:50	Bright	52.500	114	31ot Aur	2.6930	4600.0	105	35183	No

### 3. Quality information per product

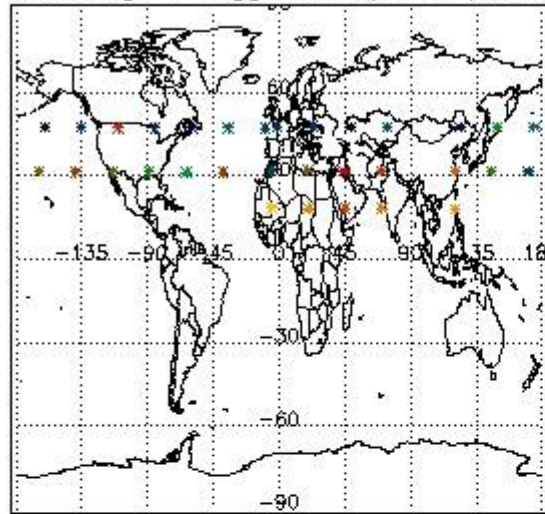
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

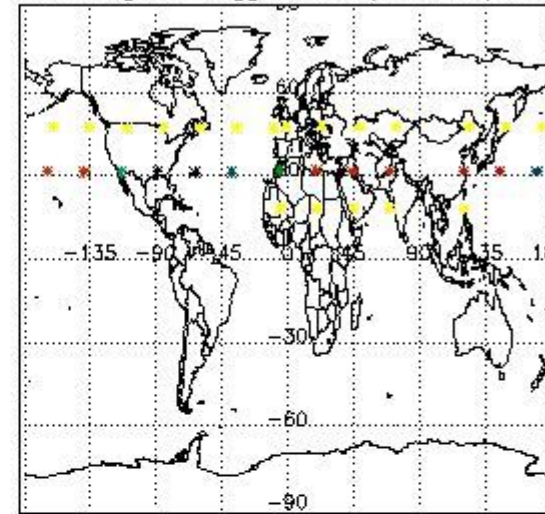


*3.2 Plot quality information per product (world map)*

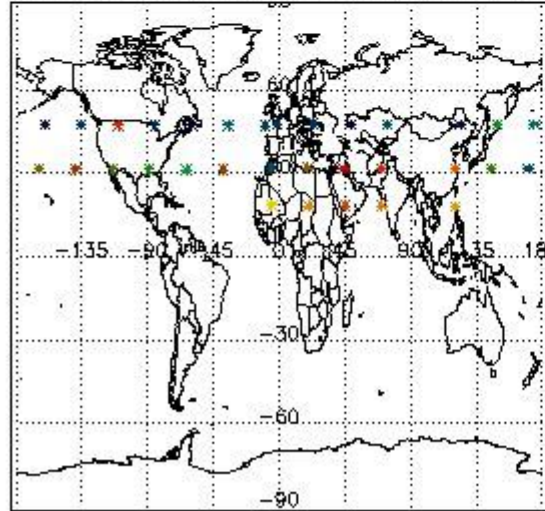
Percentage of flagged data per O3 profile



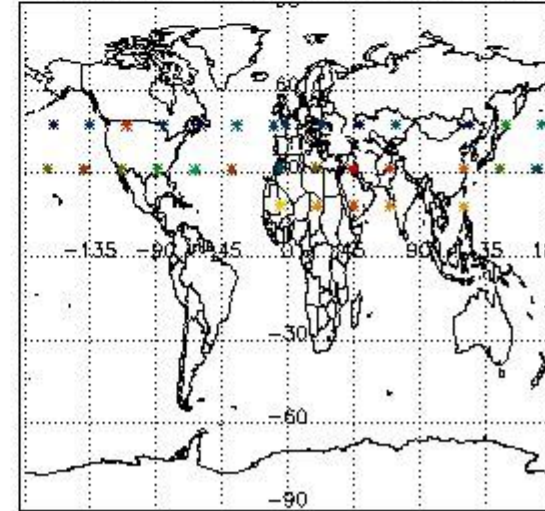
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

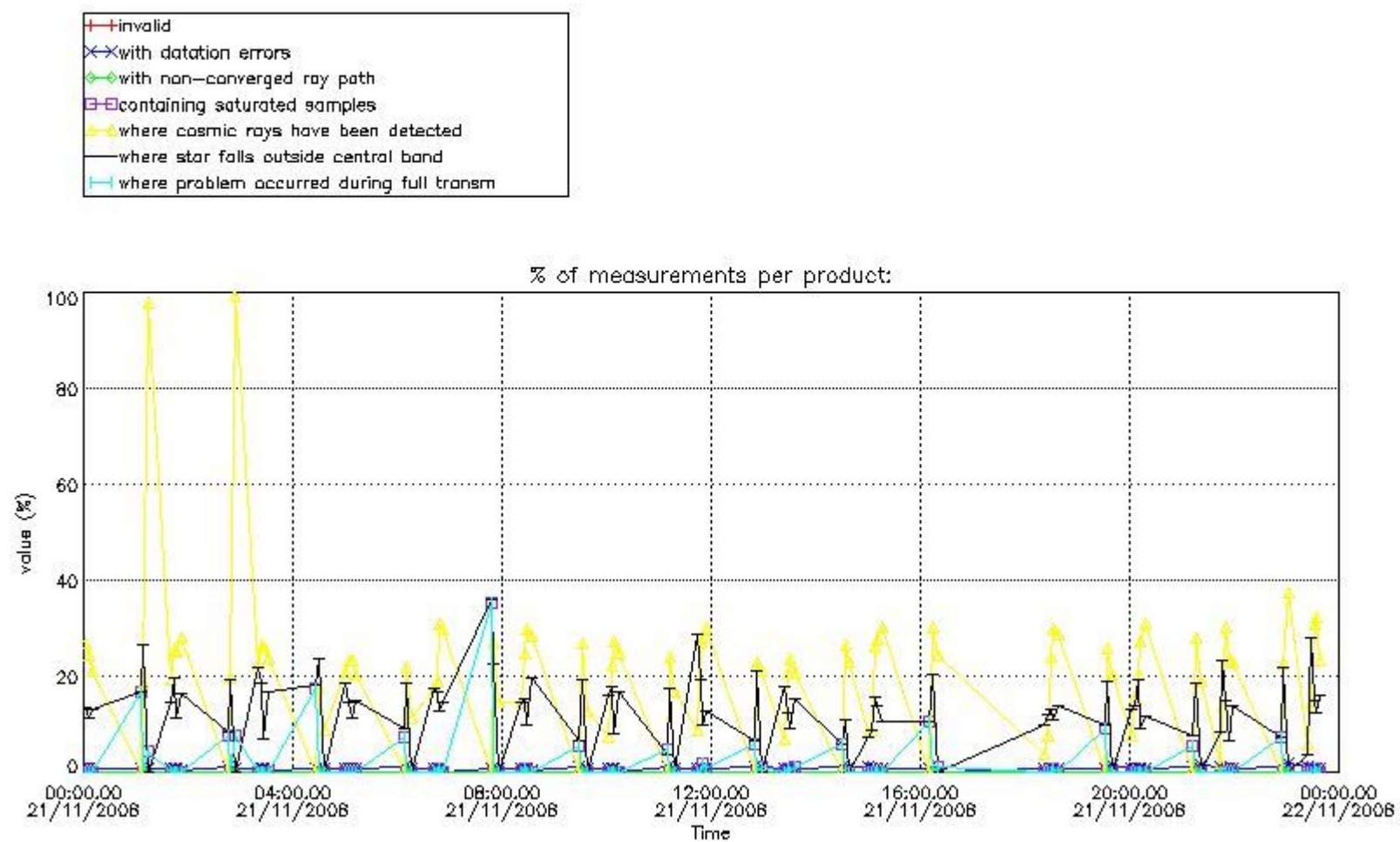


#### 4. Level 1 quality information per product

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.

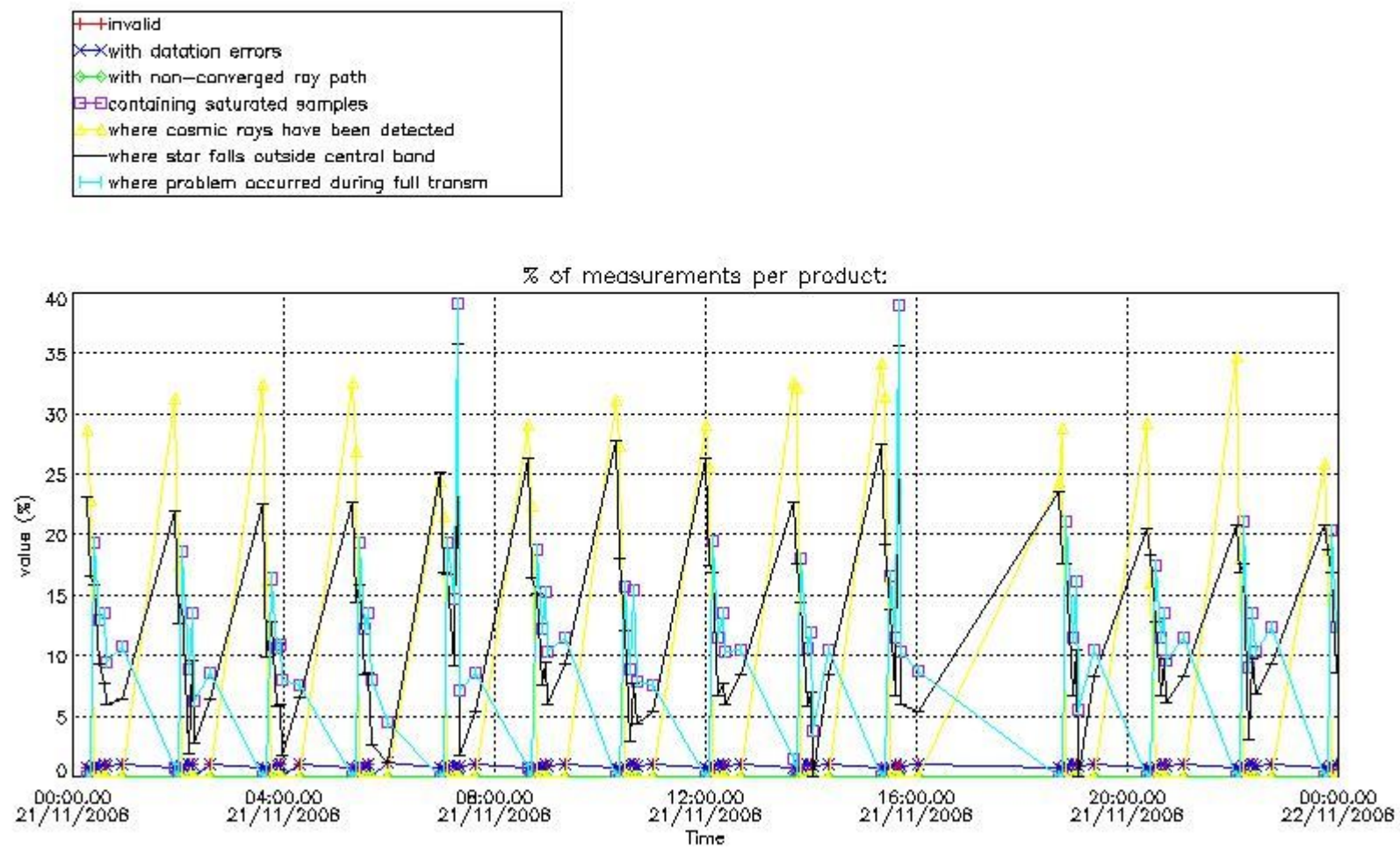
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



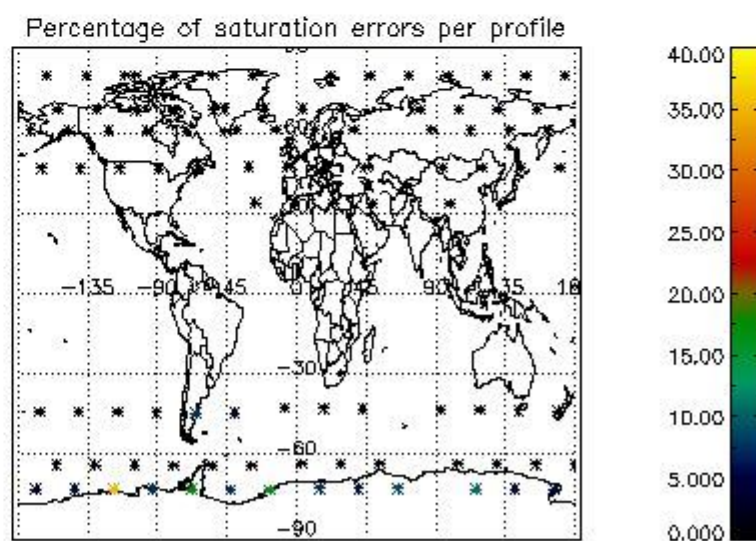
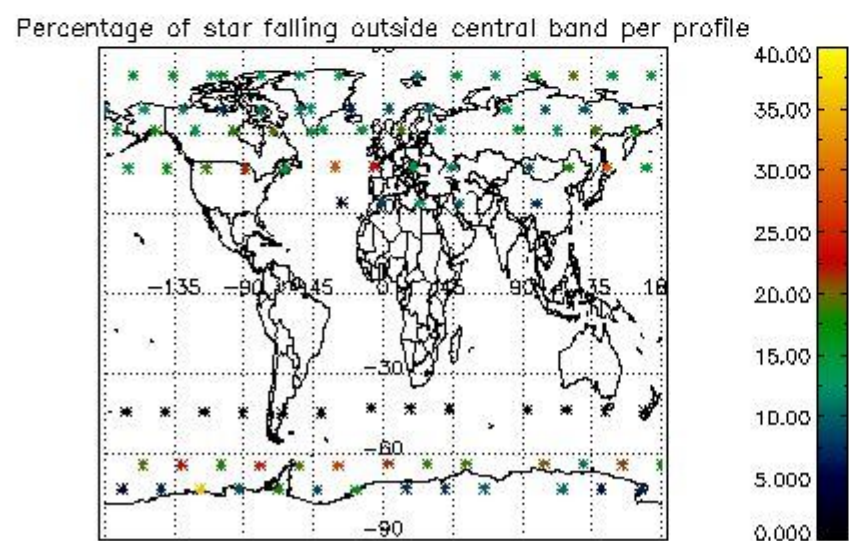
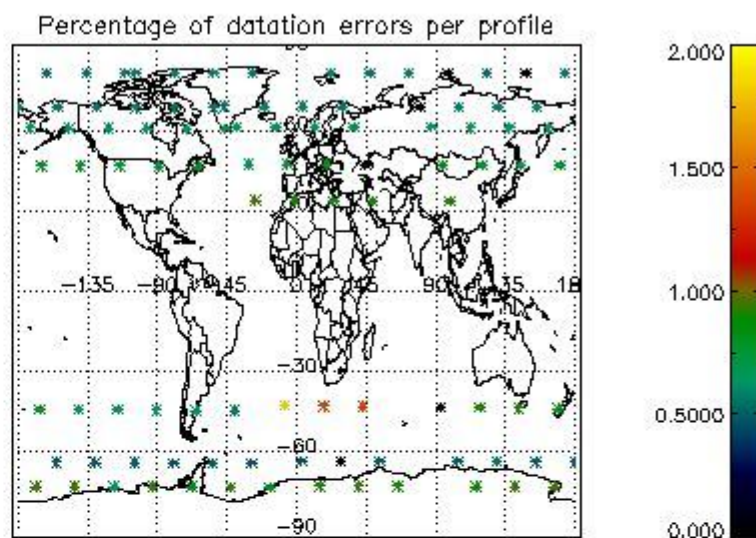
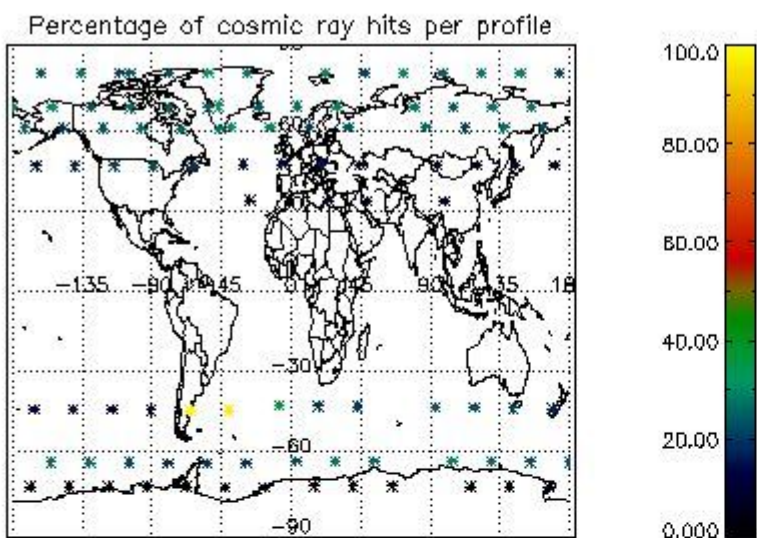
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes





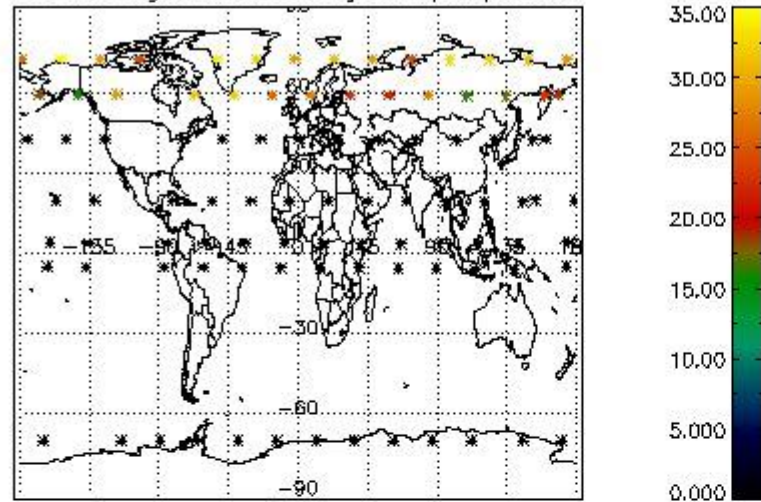
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

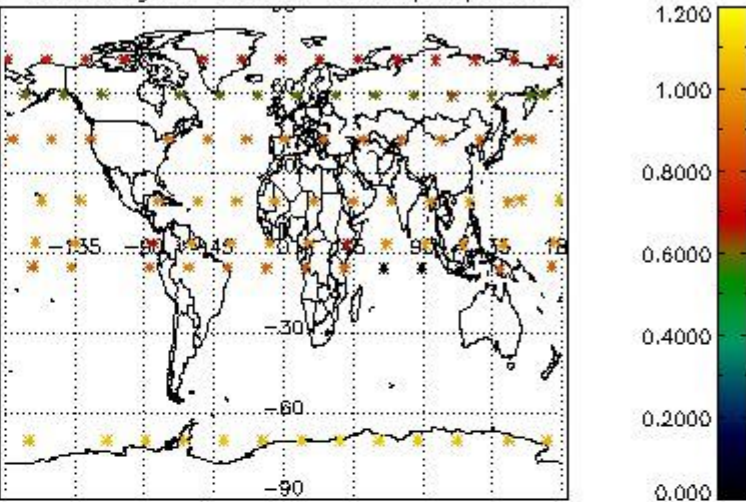


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

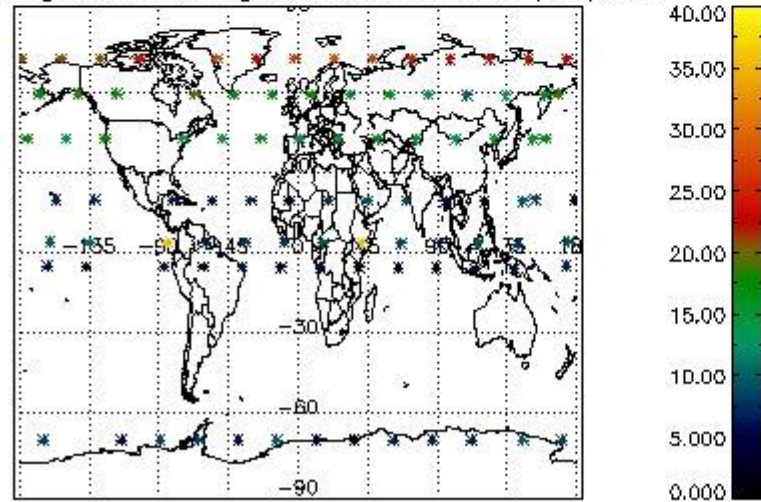
Percentage of cosmic ray hits per profile



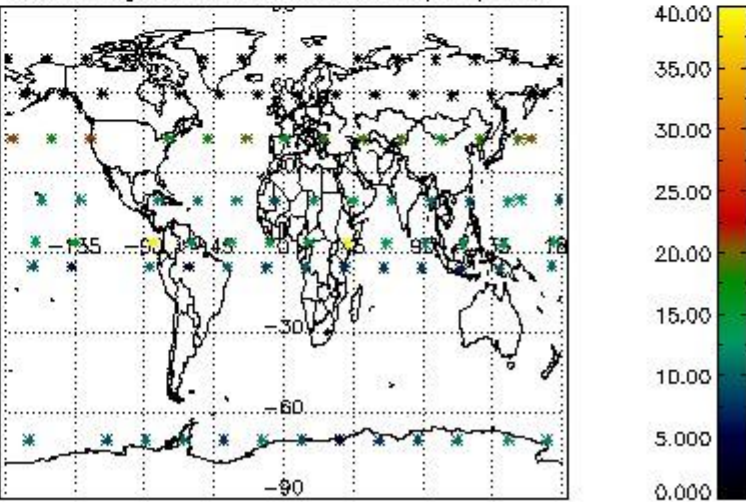
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

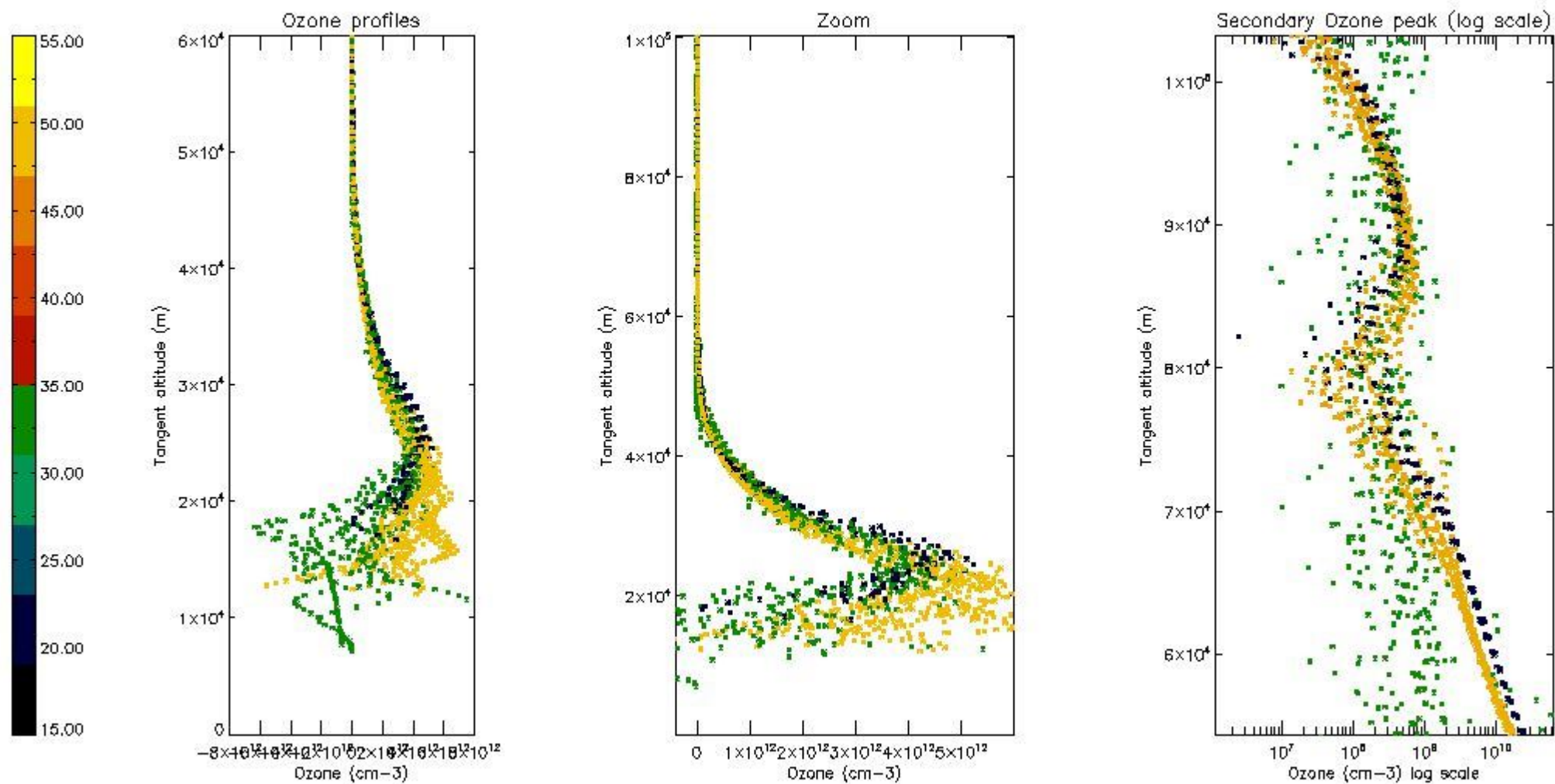
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	17
STD < 20	9

STD < 10	7
STD < 5	6

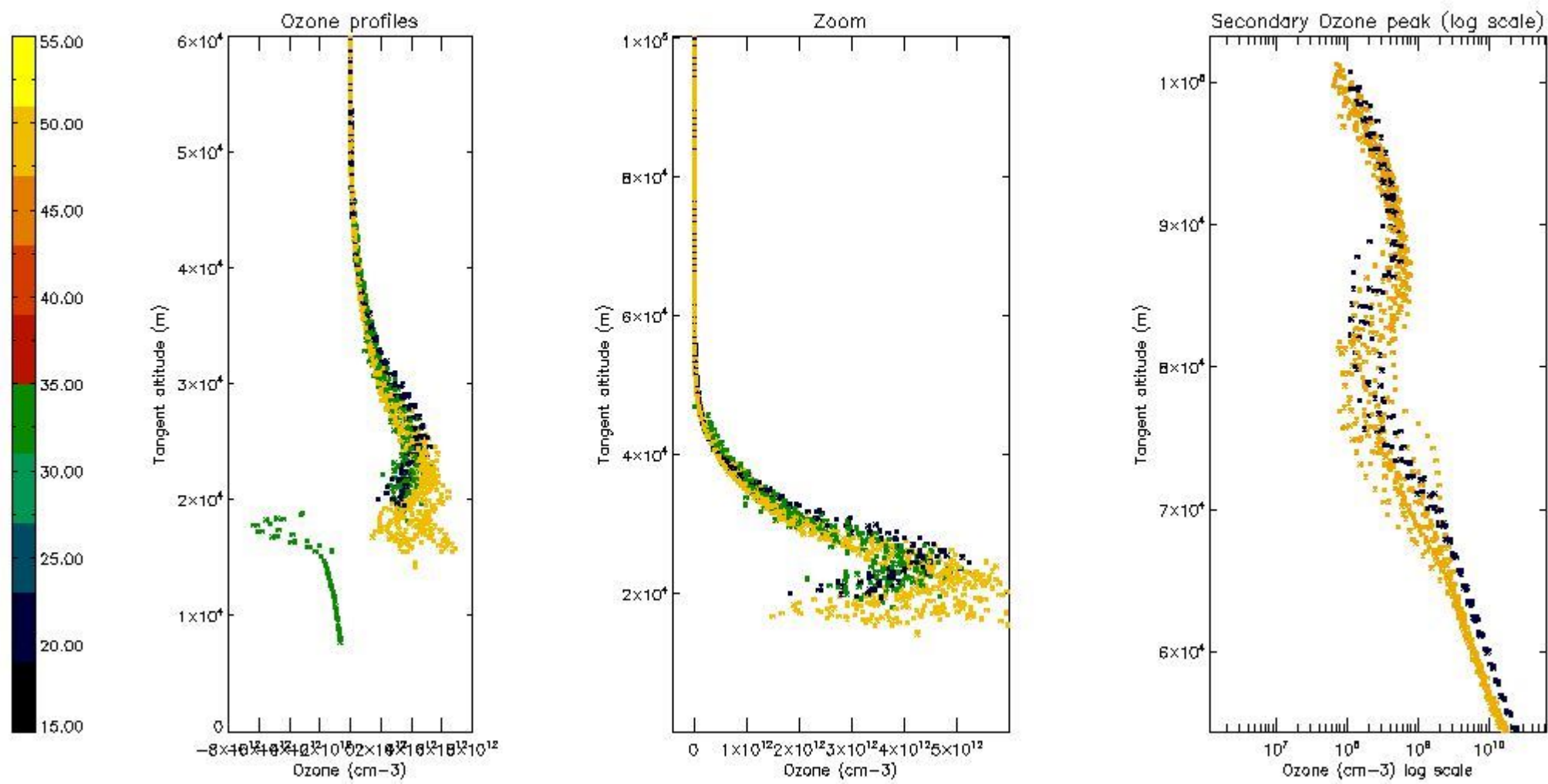
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



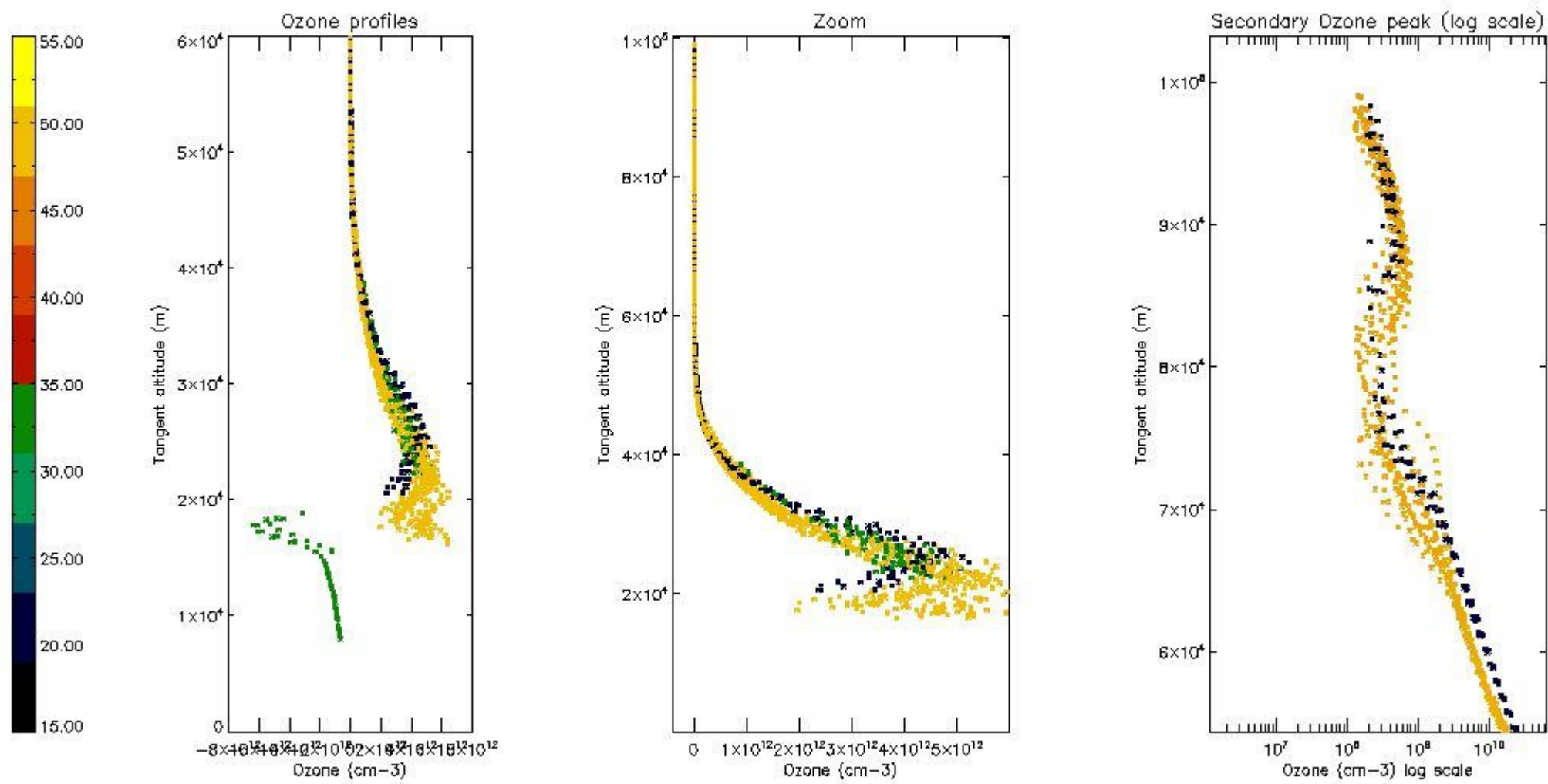
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



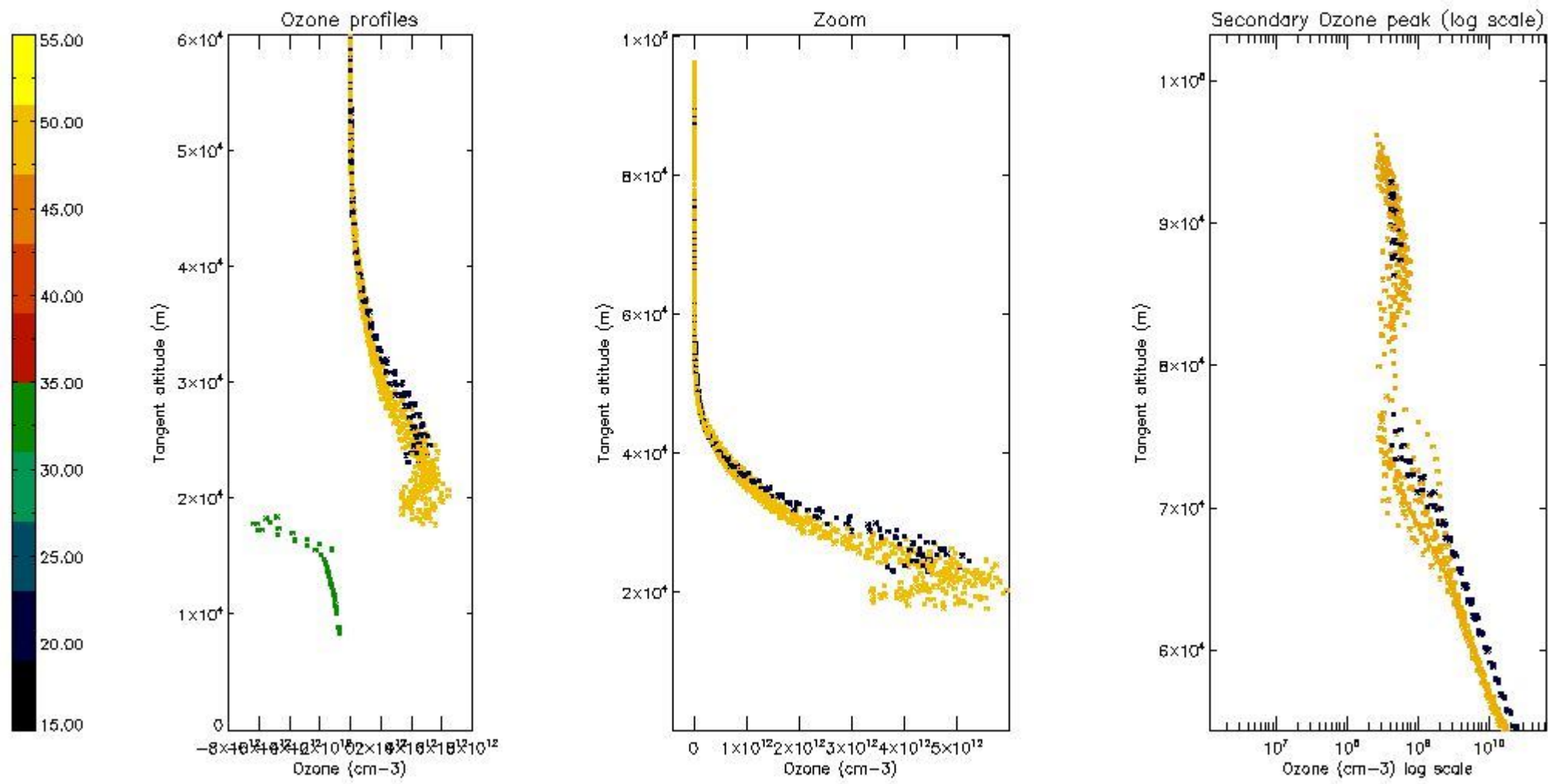
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



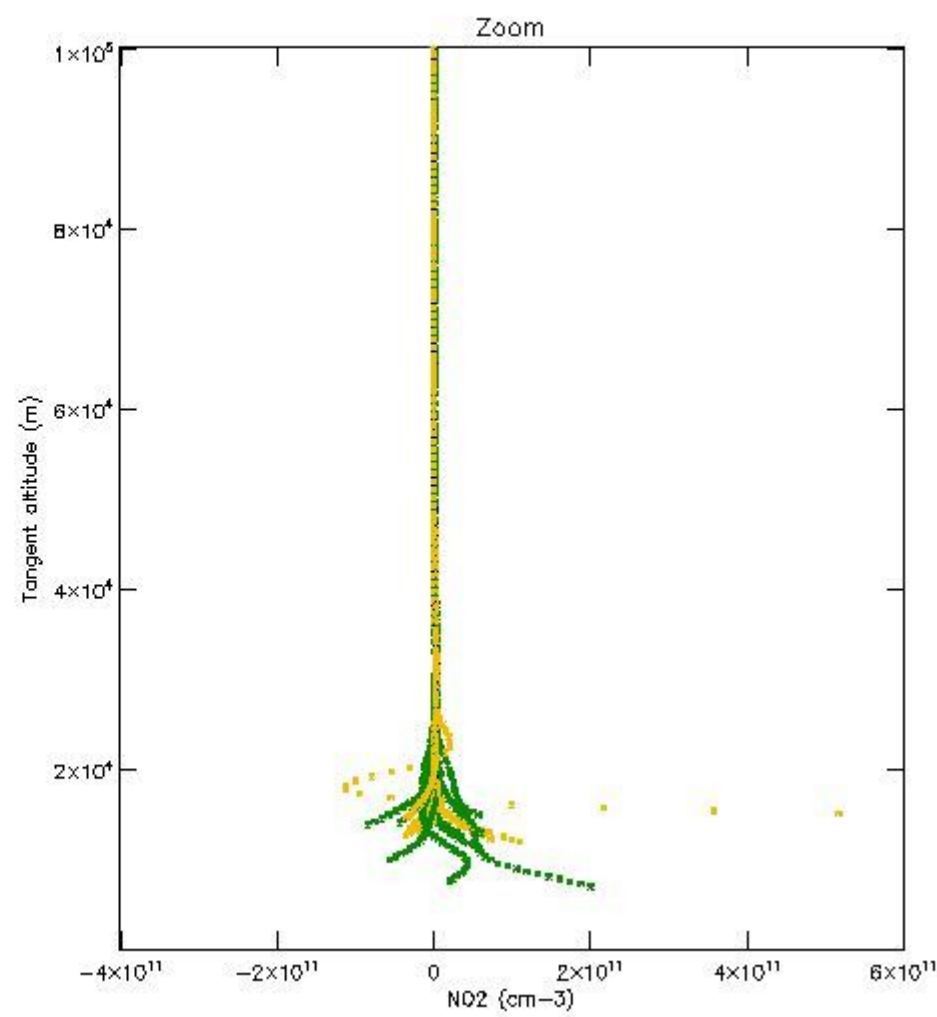
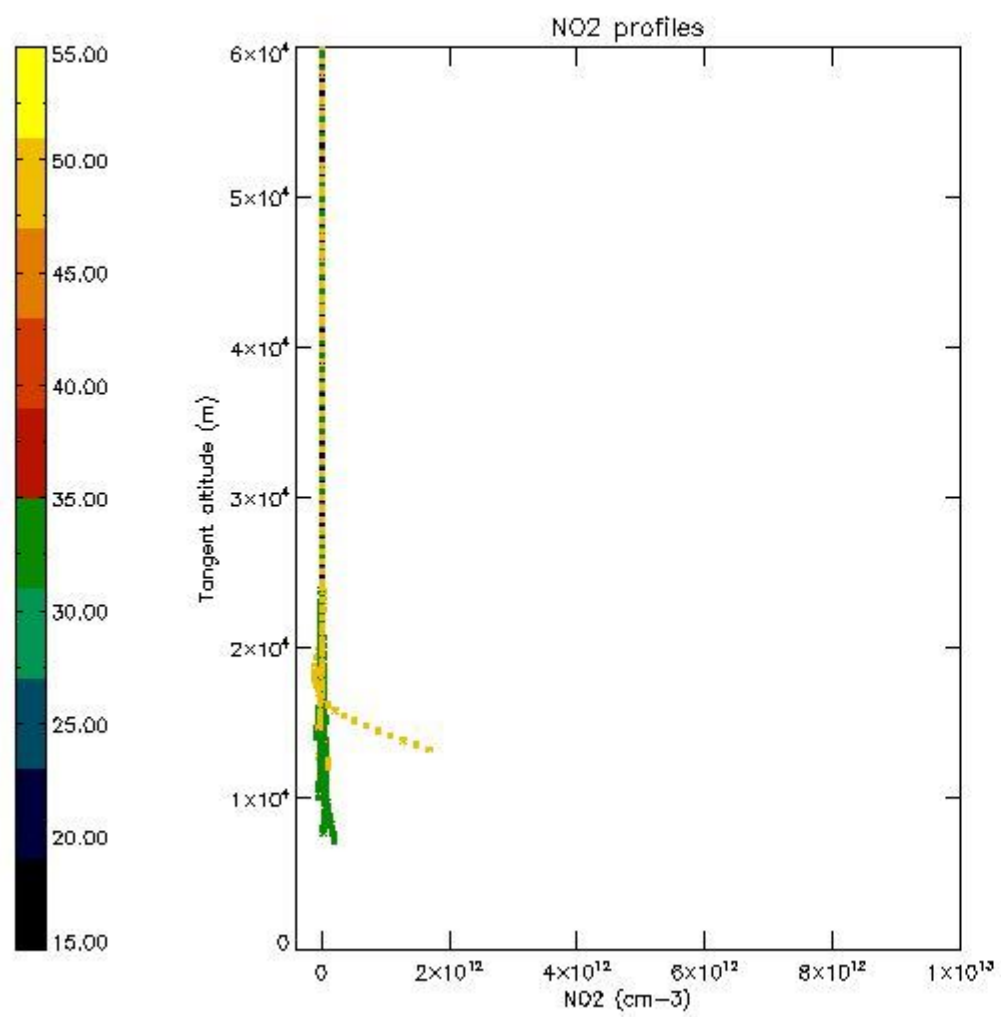
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

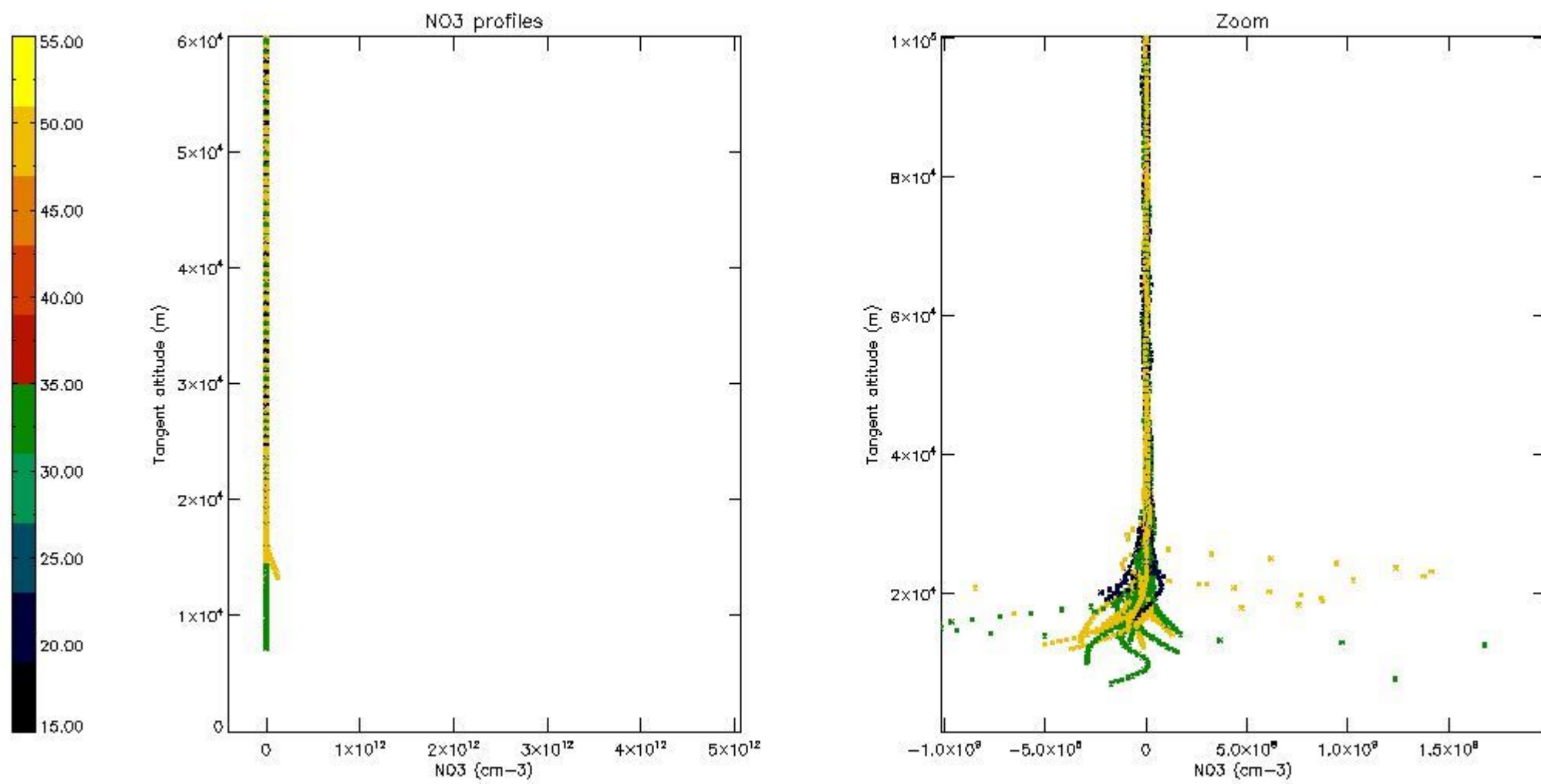
The colorbar represents the latitude.



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

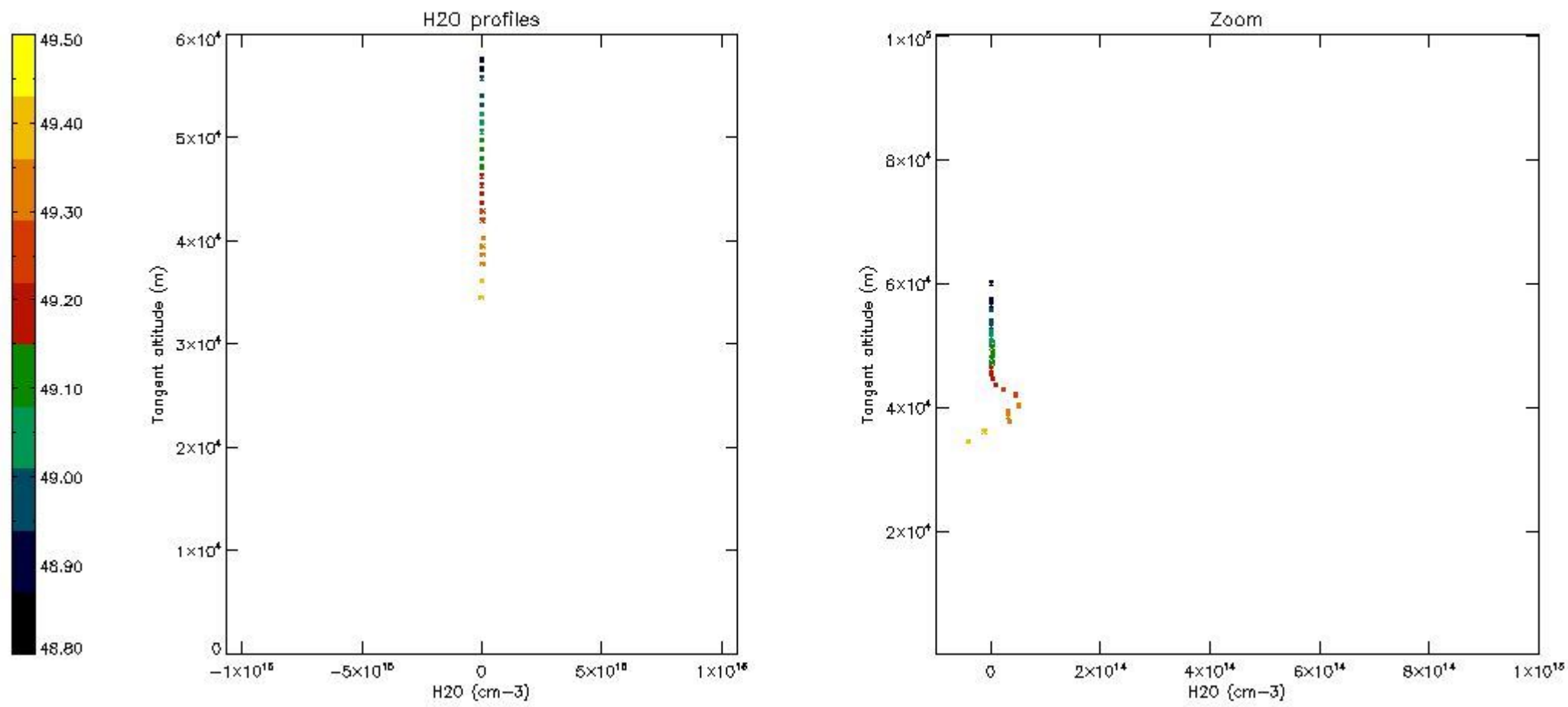
The colorbar represents the latitude.





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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	21-NOV-2008 00:02:57
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-NOV-2008 00:02:57
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-NOV-2008 00:02:57

# 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	25APR2013 22:27:27
Data source version	GOMOS/6.01
Start time of products	21-11-2008 (21NOV2008 00:00:00)
Stop time of products	22-11-2008 (22NOV2008 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	194
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__2PRFIN20081121_000257_00000742074_00045_35169_3514.N1	21-NOV-2008 00:02:57	Dark	74.000	23	21Eps CMa	1.5020	26000.	148	35169	No
2	GOM_NL__2PRFIN20081121_000516_00000902074_00045_35169_3515.N1	21-NOV-2008 00:05:16	Straylight	90.000	179	24Omi2CMa	3.0320	24000.	180	35169	No
3	GOM_NL__2PRFIN20081121_001023_00000912074_00045_35169_3516.N1	21-NOV-2008 00:10:23	Straylight	90.500	47	2Bet CMa	1.9760	28000.	181	35169	No
4	GOM_NL__2PRFIN20081121_001520_00000722074_00045_35169_3517.N1	21-NOV-2008 00:15:20	Straylight	71.500	7	19Bet Ori	0.10000	14000.	143	35169	No
5	GOM_NL__2PRFIN20081121_001924_00000882074_00045_35169_3518.N1	21-NOV-2008 00:19:24	Twilight_and_stray	87.500	30	46Eps Ori	1.6940	30000.	175	35169	No
6	GOM_NL__2PRFIN20081121_002408_00000572074_00045_35169_3519.N1	21-NOV-2008 00:24:08	Bright	57.000	13	87Alp Tau	0.86700	3800.0	114	35169	No
7	GOM_NL__2PRFIN20081121_003039_00000542074_00045_35169_3520.N1	21-NOV-2008 00:30:39	Bright	54.000	114	3lot Aur	2.6930	4600.0	108	35169	No
8	GOM_NL__2PRFIN20081121_003505_00000522074_00045_35169_3521.N1	21-NOV-2008 00:35:05	Bright	51.500	6	13Alp Aur	0.080000	3400.0	103	35169	No
9	GOM_NL__2PRFIN20081121_003739_00000582074_00045_35169_3522.N1	21-NOV-2008 00:37:39	Bright	58.000	42	34Bet Aur	1.9000	10200.	116	35169	No
10	GOM_NL__2PRFIN20081121_005602_00000472074_00045_35169_3523.N1	21-NOV-2008 00:56:02	Bright	46.500	174	52Psi UMa	3.0040	4400.0	93	35169	No
11	GOM_NL__2PRFIN20081121_010523_00000602074_00045_35169_3524.N1	21-NOV-2008 01:05:23	Bright	59.500	96	68Del Leo	2.5600	9300.0	119	35169	No
12	GOM_NL__2PRFIN20081121_010807_000001082074_00045_35169_3525.N1	21-NOV-2008 01:08:07	Twilight_and_stray	108.00	51	41Gam1Leo	2.0100	4500.0	216	35169	No
13	GOM_NL__2PRFIN20081121_011348_00000892074_00045_35169_3526.N1	21-NOV-2008 01:13:48	Straylight	89.000	22	32Alp Leo	1.3600	15200.	178	35169	No
14	GOM_NL__2PRFIN20081121_013930_00000622074_00046_35170_3670.N1	21-NOV-2008 01:39:30	Dark	62.000	117	Pi Pup	2.7060	3800.0	124	35170	No
15	GOM_NL__2PRFIN20081121_014333_00000792074_00046_35170_3671.N1	21-NOV-2008 01:43:33	Dark	79.000	23	21Eps CMa	1.5020	26000.	158	35170	No
16	GOM_NL__2PRFIN20081121_014553_00000902074_00046_35170_3672.N1	21-NOV-2008 01:45:53	Straylight	89.500	179	24Omi2CMa	3.0320	24000.	179	35170	No
17	GOM_NL__2PRFIN20081121_015100_00000932074_00046_35170_3673.N1	21-NOV-2008 01:51:00	Straylight	92.500	47	2Bet CMa	1.9760	28000.	185	35170	No
18	GOM_NL__2PRFIN20081121_015555_00000712074_00046_35170_3674.N1	21-NOV-2008 01:55:55	Straylight	70.500	7	19Bet Ori	0.10000	14000.	141	35170	No
19	GOM_NL__2PRFIN20081121_015959_00000832074_00046_35170_3675.N1	21-NOV-2008 01:59:59	Twilight_and_stray	83.000	30	46Eps Ori	1.6940	30000.	166	35170	No
20	GOM_NL__2PRFIN20081121_020443_00000572074_00046_35170_3676.N1	21-NOV-2008 02:04:43	Bright	56.500	13	87Alp Tau	0.86700	3800.0	113	35170	No
21	GOM_NL__2PRFIN20081121_021114_00000512074_00046_35170_3677.N1	21-NOV-2008 02:11:14	Bright	51.000	114	3lot Aur	2.6930	4600.0	102	35170	No
22	GOM_NL__2PRFIN20081121_021540_00000522074_00046_35170_3678.N1	21-NOV-2008 02:15:40	Bright	52.000	6	13Alp Aur	0.080000	3400.0	104	35170	No
23	GOM_NL__2PRFIN20081121_021814_00000562074_00046_35170_3679.N1	21-NOV-2008 02:18:14	Bright	55.500	42	34Bet Aur	1.9000	10200.	111	35170	No
24	GOM_NL__2PRFIN20081121_023638_00000472074_00046_35170_3680.N1	21-NOV-2008 02:36:38	Bright	46.500	174	52Psi UMa	3.0040	4400.0	93	35170	No
25	GOM_NL__2PRFIN20081121_024559_00000542074_00046_35170_3681.N1	21-NOV-2008 02:45:59	Bright	53.500	96	68Del Leo	2.5600	9300.0	107	35170	No
26	GOM_NL__2PRFIN20081121_024844_000001002074_00046_35170_3682.N1	21-NOV-2008 02:48:44	Twilight_and_stray	99.500	51	41Gam1Leo	2.0100	4500.0	199	35170	No
27	GOM_NL__2PRFIN20081121_025426_00000802074_00046_35170_3683.N1	21-NOV-2008 02:54:26	Straylight	80.000	22	32Alp Leo	1.3600	15200.	160	35170	No
28	GOM_NL__2PRFIN20081121_032008_00000672074_00047_35171_3696.N1	21-NOV-2008 03:20:08	Dark	67.000	117	Pi Pup	2.7060	3800.0	134	35171	No
29	GOM_NL__2PRFIN20081121_032410_00000792074_00047_35171_3697.N1	21-NOV-2008 03:24:10	Dark	78.500	23	21Eps CMa	1.5020	26000.	157	35171	No
30	GOM_NL__2PRFIN20081121_032629_00000862074_00047_35171_3698.N1	21-NOV-2008 03:26:29	Straylight	86.000	179	24Omi2CMa	3.0320	24000.	172	35171	No
31	GOM_NL__2PRFIN20081121_033136_00000932074_00047_35171_3699.N1	21-NOV-2008 03:31:36	Straylight	93.000	47	2Bet CMa	1.9760	28000.	186	35171	No
32	GOM_NL__2PRFIN20081121_033631_00000712074_00047_35171_3700.N1	21-NOV-2008 03:36:31	Straylight	71.000	7	19Bet Ori	0.10000	14000.	142	35171	No
33	GOM_NL__2PRFIN20081121_034034_00000812074_00047_35171_3701.N1	21-NOV-2008 03:40:34	Twilight_and_stray	80.500	30	46Eps Ori	1.6940	30000.	161	35171	No
34	GOM_NL__2PRFIN20081121_034518_00000552074_00047_35171_3702.N1	21-NOV-2008 03:45:18	Bright	55.000	13	87Alp Tau	0.86700	3800.0	110	35171	No
35	GOM_NL__2PRFIN20081121_035149_00000522074_00047_35171_3703.N1	21-NOV-2008 03:51:49	Bright	52.000	114	3lot Aur	2.6930	4600.0	104	35171	No
36	GOM_NL__2PRFIN20081121_035615_00000512074_00047_35171_3704.N1	21-NOV-2008 03:56:15	Bright	50.500	6	13Alp Aur	0.080000	3400.0	101	35171	No
37	GOM_NL__2PRFIN20081121_035849_00000572074_00047_35171_3705.N1	21-NOV-2008 03:58:49	Bright	56.500	42	34Bet Aur	1.9000	10200.	113	35171	No
38	GOM_NL__2PRFIN20081121_041713_00000462074_00047_35171_3706.N1	21-NOV-2008 04:17:13	Bright	46.000	174	52Psi UMa	3.0040	4400.0	92	35171	No
39	GOM_NL__2PRFIN20081121_042636_00000602074_00047_35171_3707.N1	21-NOV-2008 04:26:36	Bright	60.000	96	68Del Leo	2.5600	9300.0	120	35171	No
40	GOM_NL__2PRFIN20081121_042921_000001062074_00047_35171_3708.N1	21-NOV-2008 04:29:21	Twilight_and_stray	105.50	51	41Gam1Leo	2.0100	4500.0	211	35171	No
41	GOM_NL__2PRFIN20081121_043505_00000802074_00047_35171_3709.N1	21-NOV-2008 04:35:05	Straylight	80.000	22	32Alp Leo	1.3600	15200.	160	35171	No
42	GOM_NL__2PRFIN20081121_050045_00000652074_00048_35172_3721.N1	21-NOV-2008 05:00:45	Dark	65.000	117	Pi Pup	2.7060	3800.0	130	35172	No



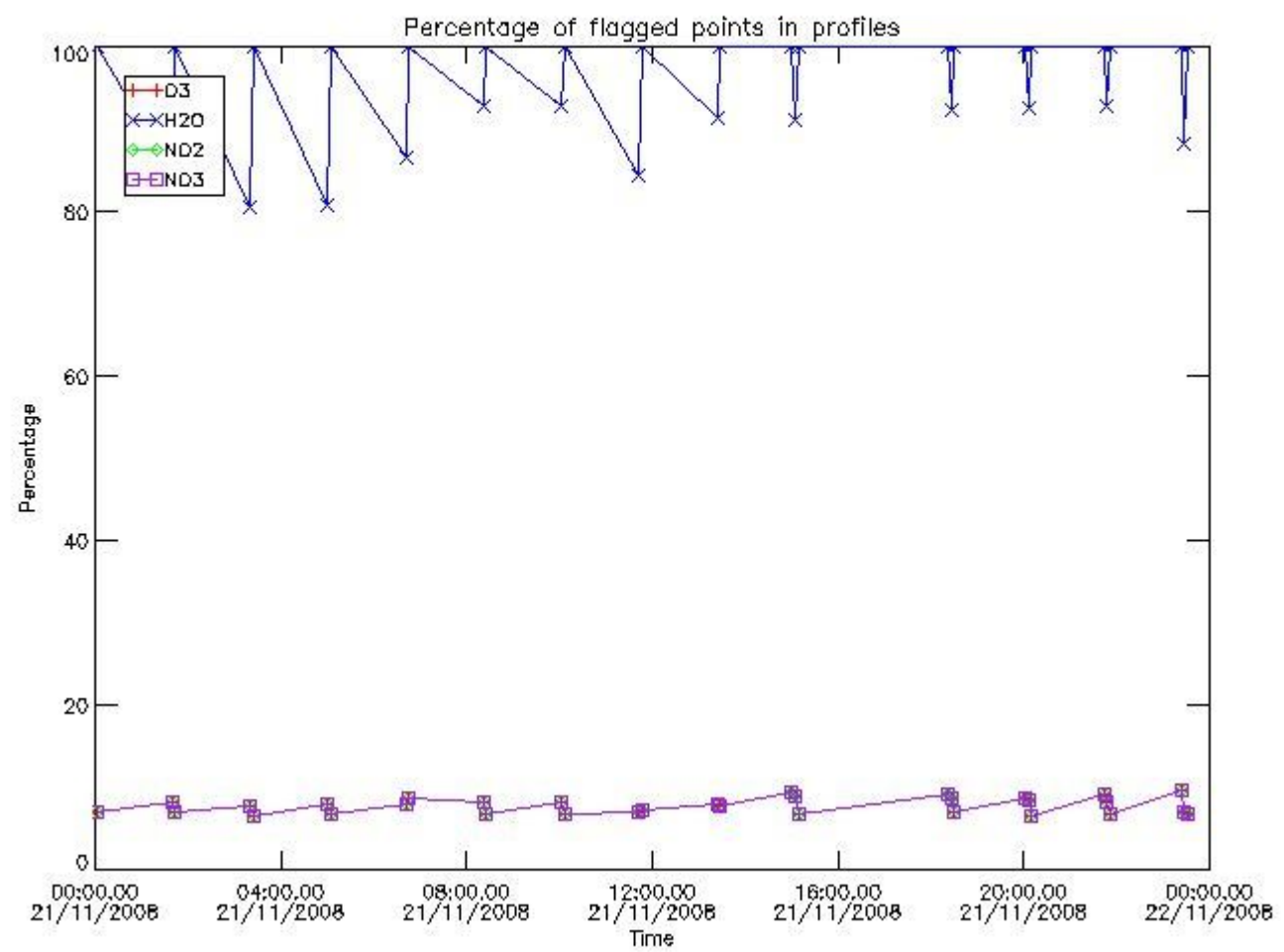


161	GOM_NL__2PRFIN20081121_202229_00000692074_00057_35181_3998.N1	21-NOV-2008 20:22:29	Straylight	68.500	7	19Bet Ori	0.10000	14000.	137	35181	No
162	GOM_NL__2PRFIN20081121_202625_00000852074_00057_35181_3999.N1	21-NOV-2008 20:26:25	Twilight_stray	84.500	30	46Eps Ori	1.6940	30000.	169	35181	No
163	GOM_NL__2PRFIN20081121_203111_00000552074_00057_35181_4000.N1	21-NOV-2008 20:31:11	Bright	54.500	13	87Alp Tau	0.86700	3800.0	109	35181	No
164	GOM_NL__2PRFIN20081121_203740_00000522074_00057_35181_4001.N1	21-NOV-2008 20:37:40	Bright	52.000	114	31ot Aur	2.6930	4600.0	104	35181	No
165	GOM_NL__2PRFIN20081121_204206_00000522074_00057_35181_4002.N1	21-NOV-2008 20:42:06	Bright	51.500	6	13Alp Aur	0.080000	3400.0	103	35181	No
166	GOM_NL__2PRFIN20081121_204436_00000582074_00057_35181_4003.N1	21-NOV-2008 20:44:36	Bright	57.500	42	34Bet Aur	1.9000	10200.	115	35181	No
167	GOM_NL__2PRFIN20081121_210312_00000482074_00057_35181_4004.N1	21-NOV-2008 21:03:12	Bright	48.000	174	52Psi UMa	3.0040	4400.0	96	35181	No
168	GOM_NL__2PRFIN20081121_211240_00000542074_00057_35181_4005.N1	21-NOV-2008 21:12:40	Bright	53.500	96	68Del Leo	2.5600	9300.0	107	35181	No
169	GOM_NL__2PRFIN20081121_211533_000001022074_00057_35181_4006.N1	21-NOV-2008 21:15:33	Twilight_stray	102.00	51	41Gam1Leo	2.0100	4500.0	204	35181	No
170	GOM_NL__2PRFIN20081121_212129_00000372074_00057_35181_4007.N1	21-NOV-2008 21:21:29	Straylight	37.000	22	32Alp Leo	1.3600	15200.	74	35181	No
171	GOM_NL__2PRFIN20081121_214305_00000552074_00058_35182_4046.N1	21-NOV-2008 21:43:05	Dark	55.000	70	Zet Pup	2.2460	39000.	110	35182	No
172	GOM_NL__2PRFIN20081121_214655_00000692074_00058_35182_4047.N1	21-NOV-2008 21:46:55	Dark	69.000	117	Pi Pup	2.7060	3800.0	138	35182	No
173	GOM_NL__2PRFIN20081121_215057_00000752074_00058_35182_4048.N1	21-NOV-2008 21:50:57	Dark	74.500	23	21Eps CMa	1.5020	26000.	149	35182	No
174	GOM_NL__2PRFIN20081121_215315_00000842074_00058_35182_4049.N1	21-NOV-2008 21:53:15	Straylight	84.000	179	24Omi2CMa	3.0320	24000.	168	35182	No
175	GOM_NL__2PRFIN20081121_215814_00000872074_00058_35182_4050.N1	21-NOV-2008 21:58:14	Straylight	87.000	47	2Bet CMa	1.9760	28000.	174	35182	No
176	GOM_NL__2PRFIN20081121_220305_00000682074_00058_35182_4051.N1	21-NOV-2008 22:03:05	Straylight	67.500	7	19Bet Ori	0.10000	14000.	135	35182	No
177	GOM_NL__2PRFIN20081121_220701_00000832074_00058_35182_4052.N1	21-NOV-2008 22:07:01	Twilight_stray	83.000	30	46Eps Ori	1.6940	30000.	166	35182	No
178	GOM_NL__2PRFIN20081121_221147_00000572074_00058_35182_4053.N1	21-NOV-2008 22:11:47	Bright	57.000	13	87Alp Tau	0.86700	3800.0	114	35182	No
179	GOM_NL__2PRFIN20081121_221815_00000502074_00058_35182_4054.N1	21-NOV-2008 22:18:15	Bright	50.000	114	31ot Aur	2.6930	4600.0	100	35182	No
180	GOM_NL__2PRFIN20081121_222241_00000522074_00058_35182_4055.N1	21-NOV-2008 22:22:41	Bright	51.500	6	13Alp Aur	0.080000	3400.0	103	35182	No
181	GOM_NL__2PRFIN20081121_222511_00000582074_00058_35182_4056.N1	21-NOV-2008 22:25:11	Bright	58.000	42	34Bet Aur	1.9000	10200.	116	35182	No
182	GOM_NL__2PRFIN20081121_224347_00000492074_00058_35182_4057.N1	21-NOV-2008 22:43:47	Bright	48.500	174	52Psi UMa	3.0040	4400.0	97	35182	No
183	GOM_NL__2PRFIN20081121_225317_00000552074_00058_35182_4058.N1	21-NOV-2008 22:53:17	Bright	54.500	96	68Del Leo	2.5600	9300.0	109	35182	No
184	GOM_NL__2PRFIN20081121_225610_000001092074_00058_35182_4059.N1	21-NOV-2008 22:56:10	Twilight_stray	108.50	51	41Gam1Leo	2.0100	4500.0	217	35182	No
185	GOM_NL__2PRFIN20081121_230207_00000282074_00058_35182_4060.N1	21-NOV-2008 23:02:07	Straylight	28.000	22	32Alp Leo	1.3600	15200.	56	35182	No
186	GOM_NL__2PRFIN20081121_232342_00000532074_00059_35183_4078.N1	21-NOV-2008 23:23:42	Dark	52.500	70	Zet Pup	2.2460	39000.	105	35183	No
187	GOM_NL__2PRFIN20081121_232731_00000732074_00059_35183_4079.N1	21-NOV-2008 23:27:31	Dark	73.000	117	Pi Pup	2.7060	3800.0	146	35183	No
188	GOM_NL__2PRFIN20081121_233134_00000752074_00059_35183_4080.N1	21-NOV-2008 23:31:34	Dark	74.500	23	21Eps CMa	1.5020	26000.	149	35183	No
189	GOM_NL__2PRFIN20081121_233352_00000902074_00059_35183_4081.N1	21-NOV-2008 23:33:52	Straylight	89.500	179	24Omi2CMa	3.0320	24000.	179	35183	No
190	GOM_NL__2PRFIN20081121_233850_00000882074_00059_35183_4082.N1	21-NOV-2008 23:38:50	Straylight	88.000	47	2Bet CMa	1.9760	28000.	176	35183	No
191	GOM_NL__2PRFIN20081121_234340_00000682074_00059_35183_4083.N1	21-NOV-2008 23:43:40	Straylight	67.500	7	19Bet Ori	0.10000	14000.	135	35183	No
192	GOM_NL__2PRFIN20081121_234736_00000852074_00059_35183_4084.N1	21-NOV-2008 23:47:36	Twilight_stray	85.000	30	46Eps Ori	1.6940	30000.	170	35183	No
193	GOM_NL__2PRFIN20081121_235222_00000572074_00059_35183_4085.N1	21-NOV-2008 23:52:22	Bright	56.500	13	87Alp Tau	0.86700	3800.0	113	35183	No
194	GOM_NL__2PRFIN20081121_235850_00000532074_00059_35183_4086.N1	21-NOV-2008 23:58:50	Bright	52.500	114	31ot Aur	2.6930	4600.0	105	35183	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.

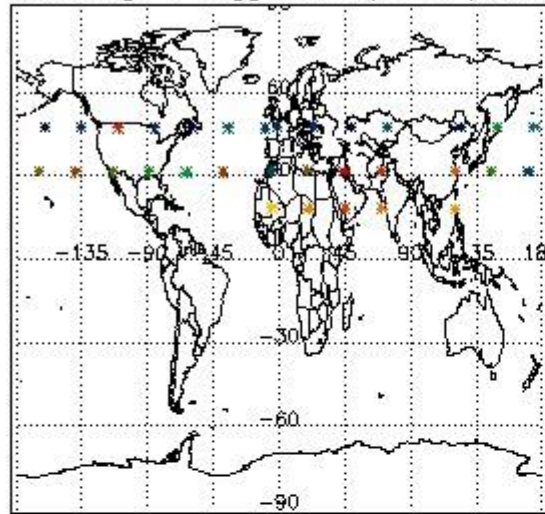
#### 3.1 Plot quality information per product (time dependant)



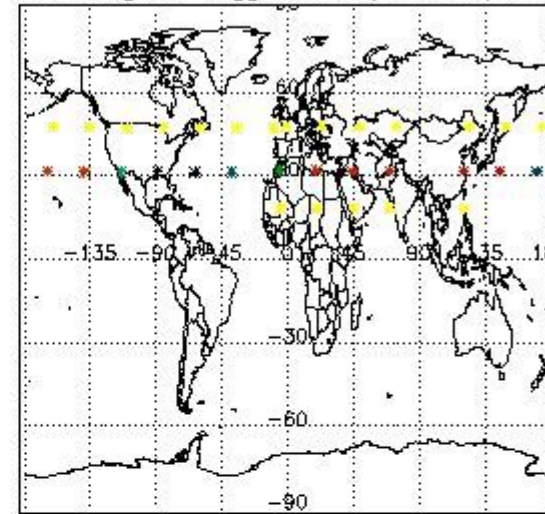
*3.2 Plot quality information per product (world map)*



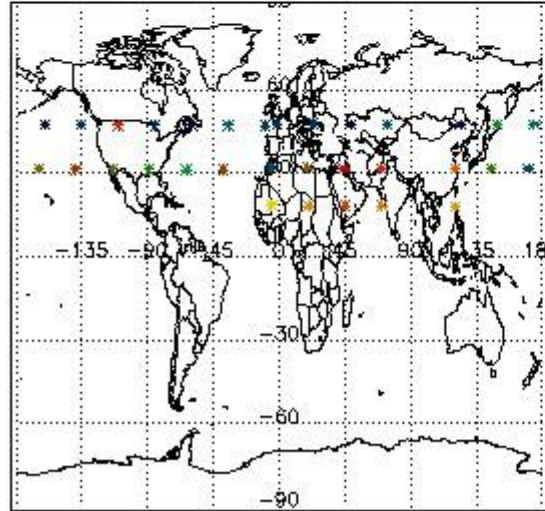
Percentage of flagged data per O3 profile



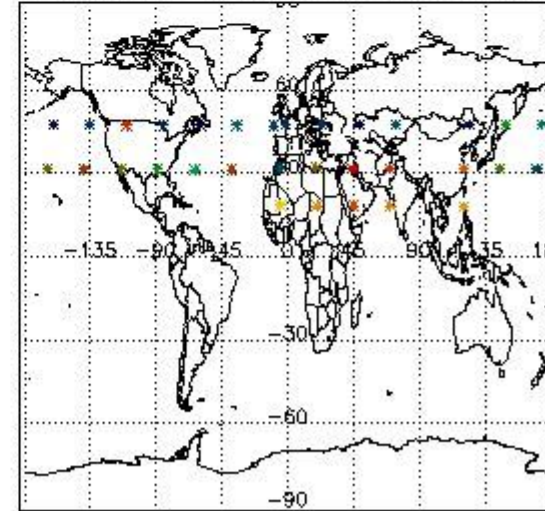
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

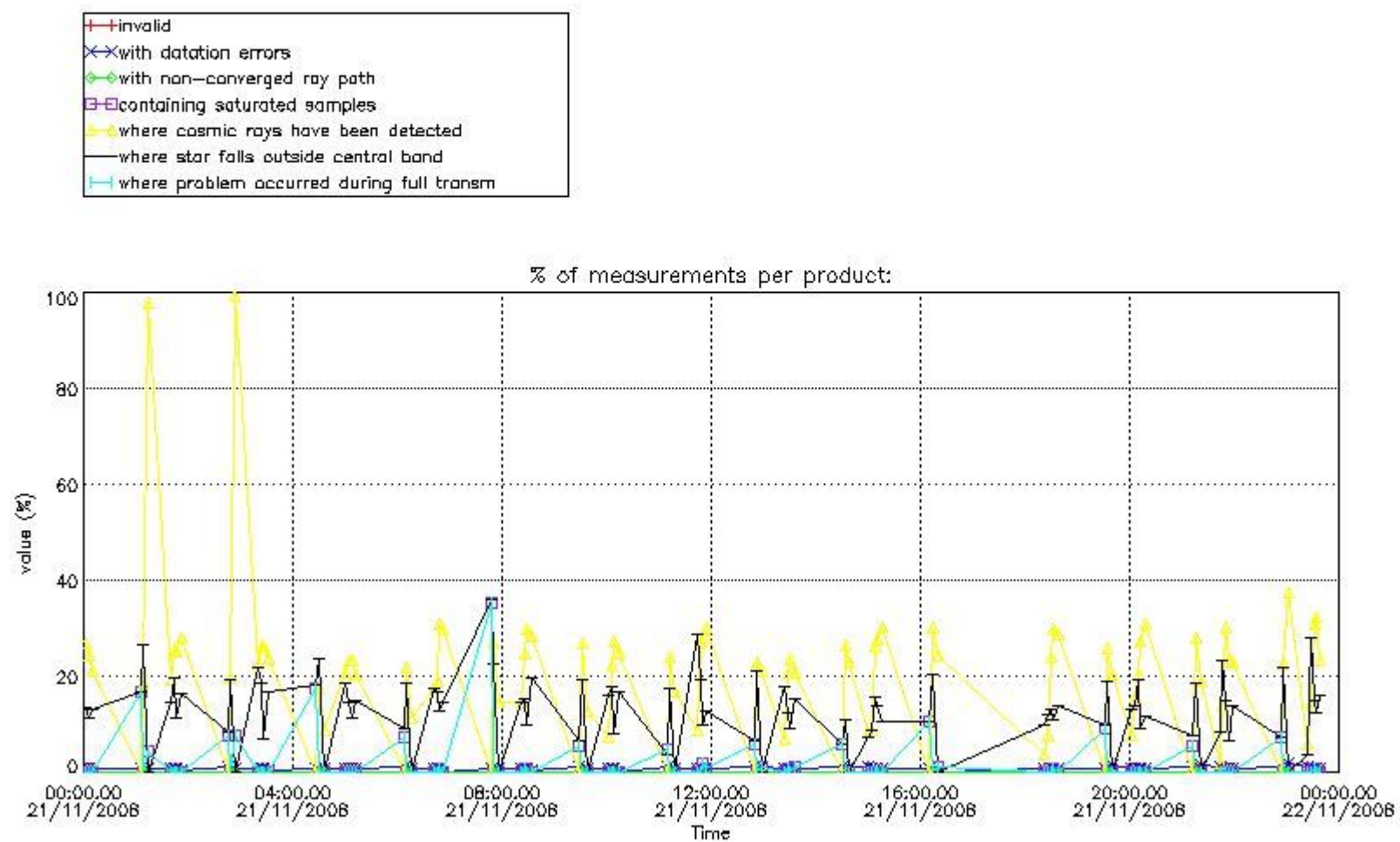


#### 4. Level 1 quality information per product

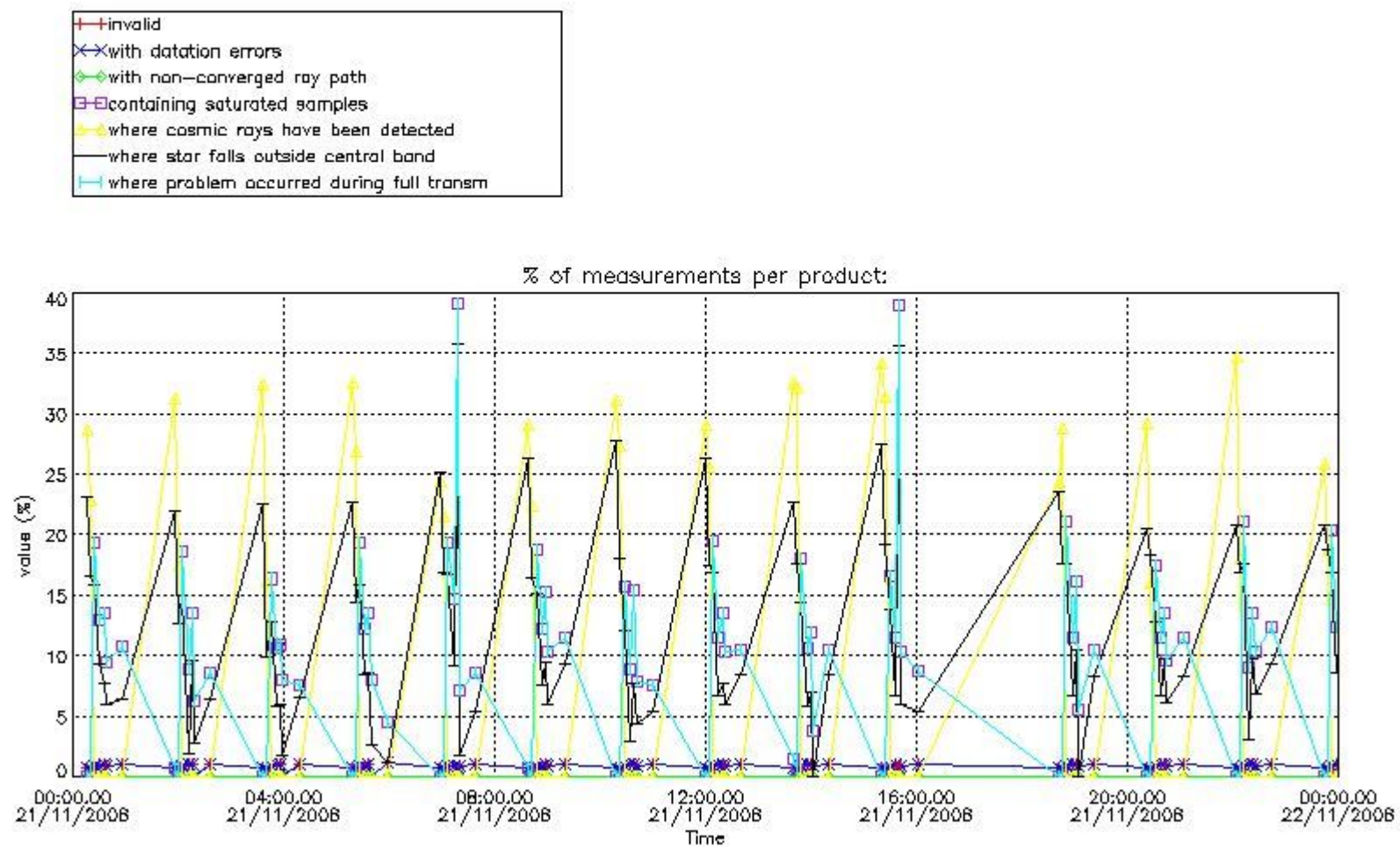
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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

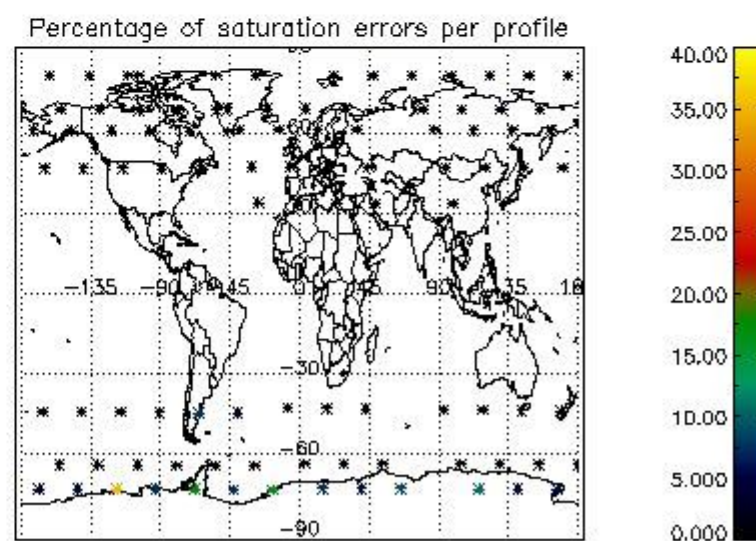
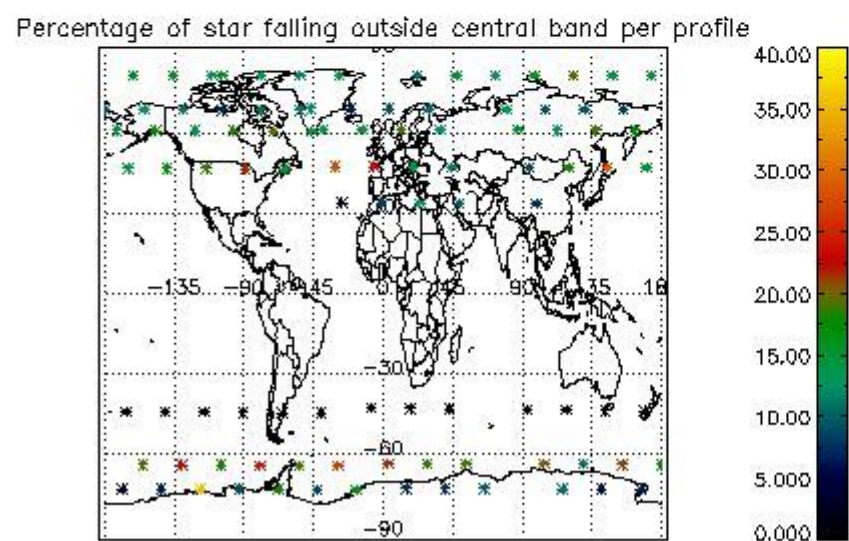
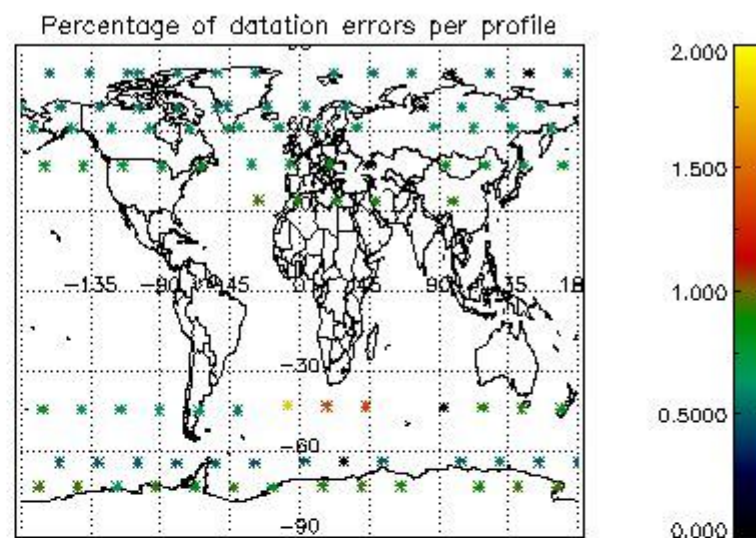
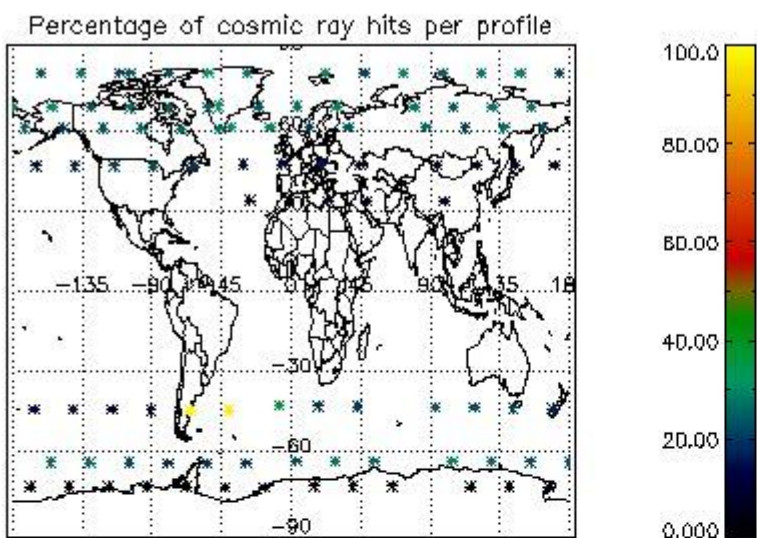


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



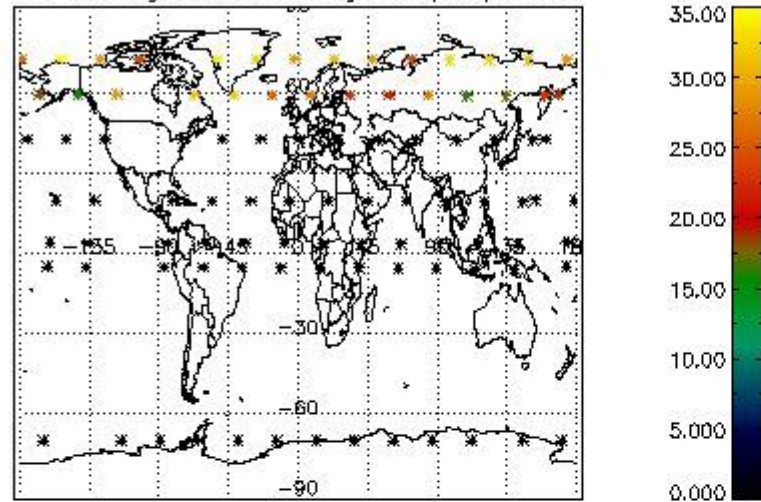
4.2 Plot quality information per product coming from level 1b processing (world map)

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

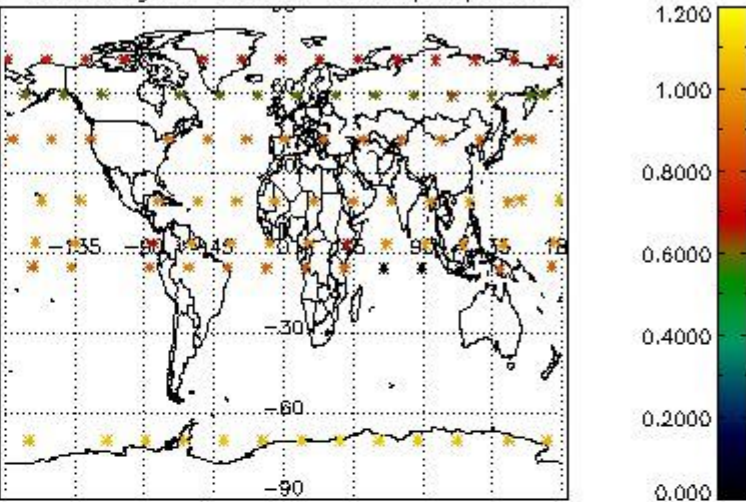


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

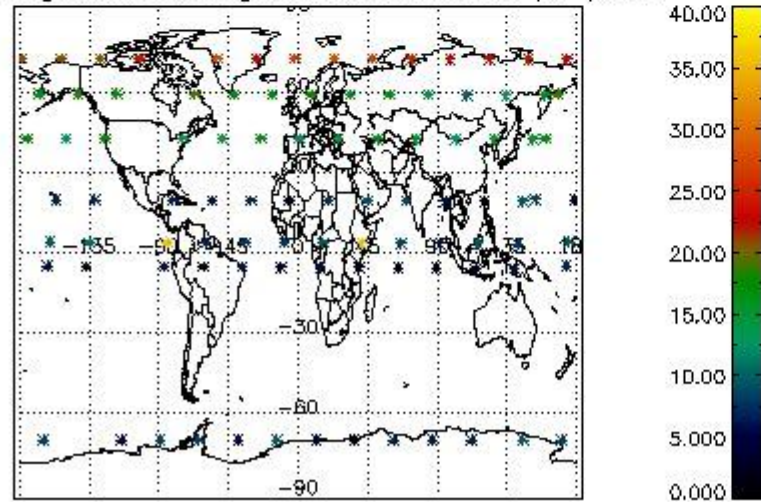
Percentage of cosmic ray hits per profile



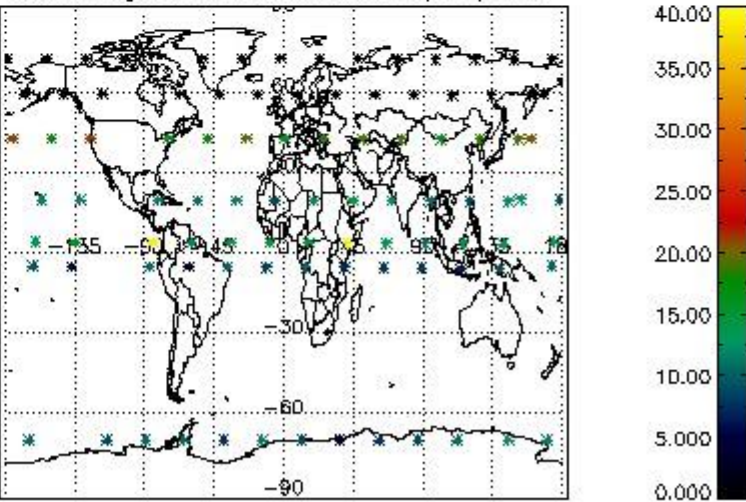
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

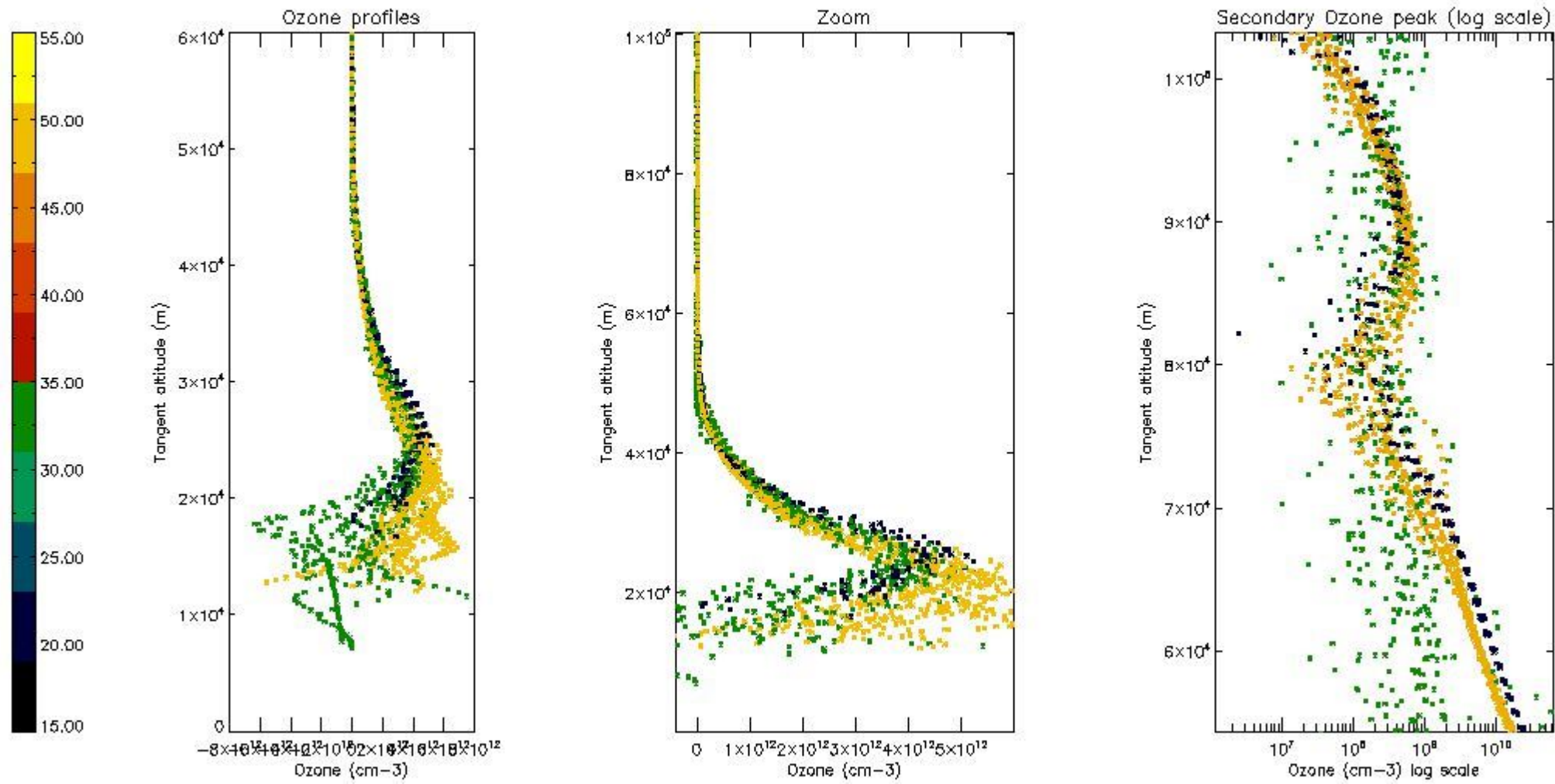
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	17
STD < 20	9

STD < 10	7
STD < 5	6

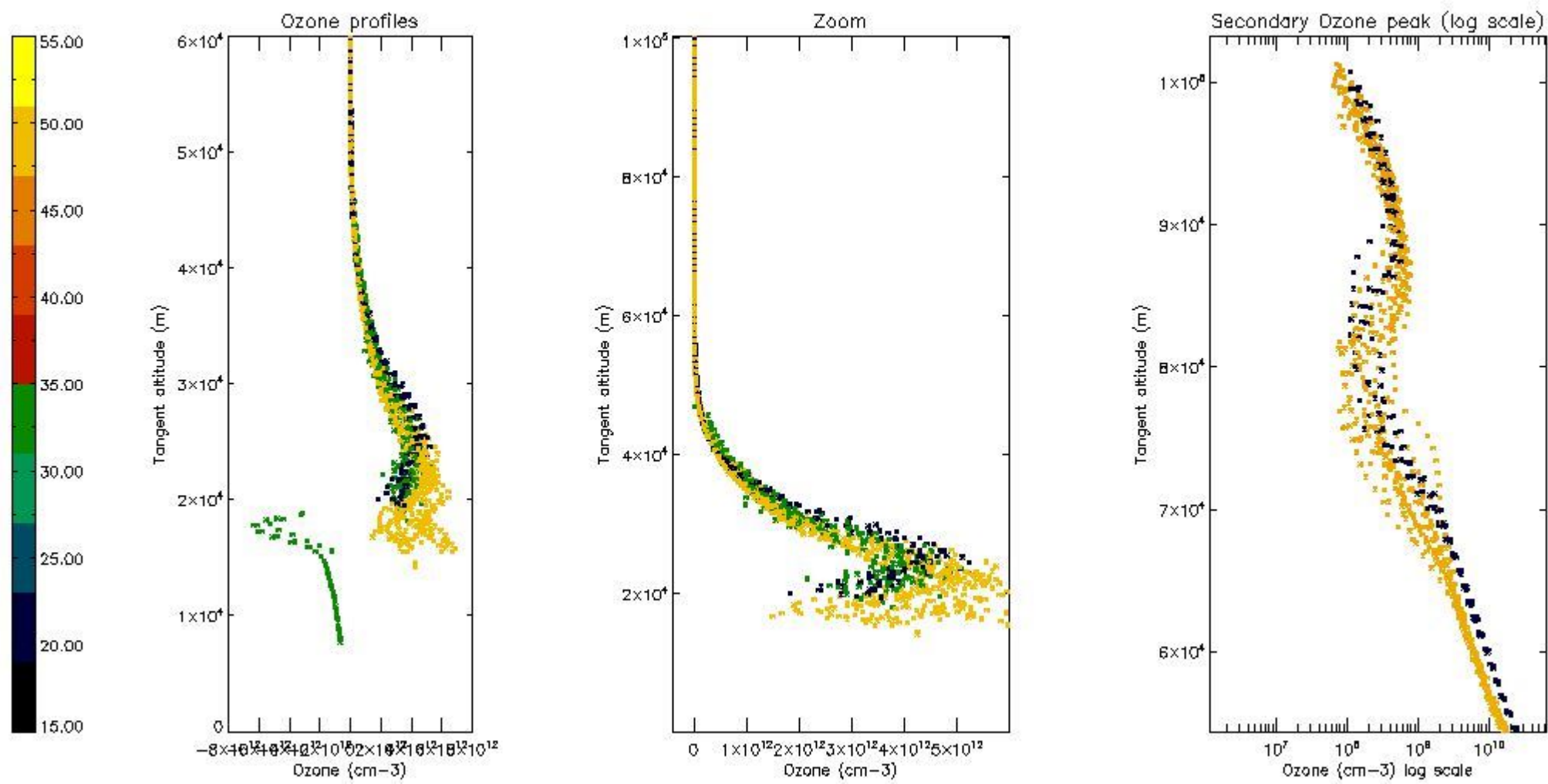
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



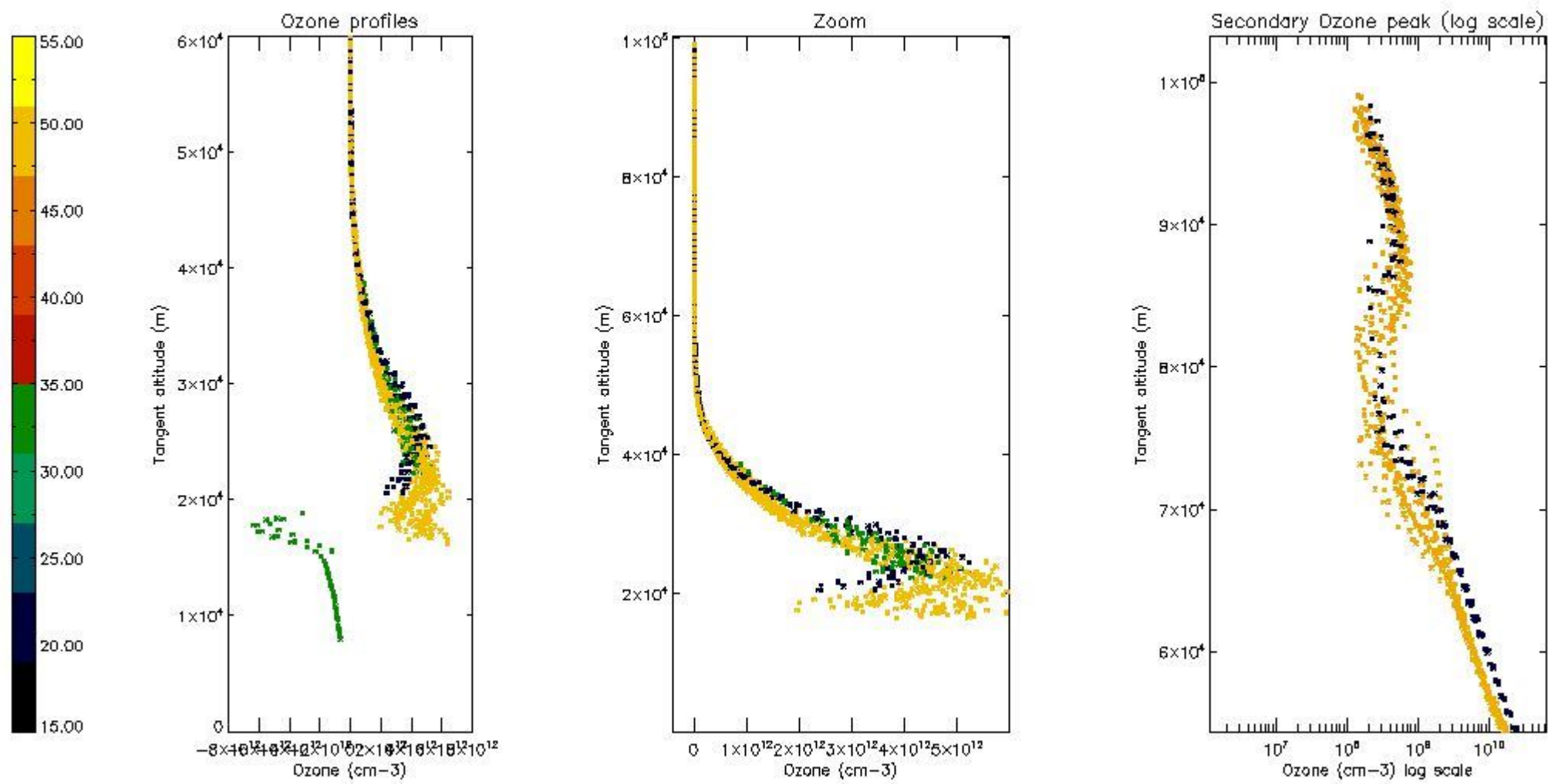
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



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

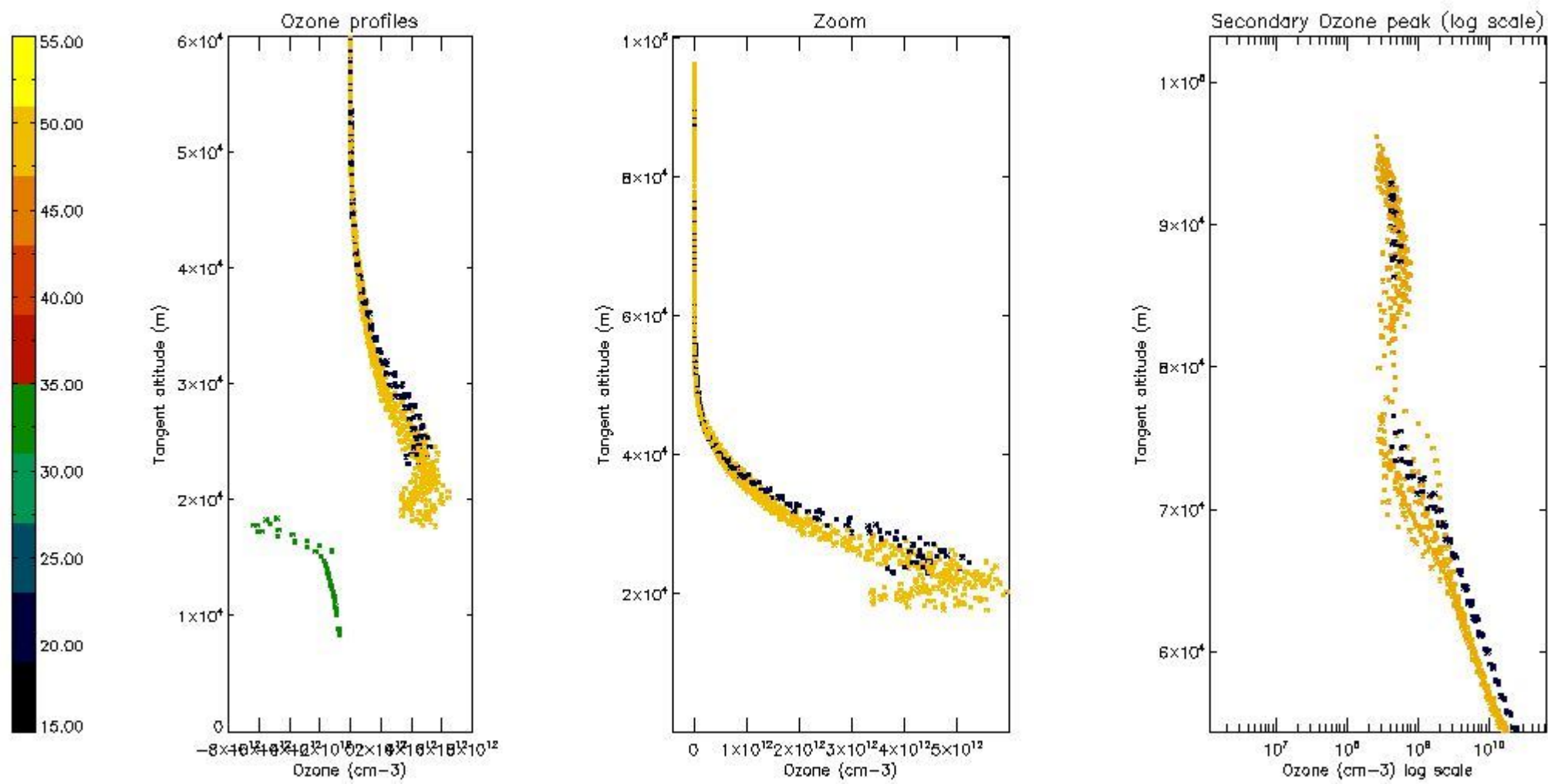
The colorbar represents the latitude.



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

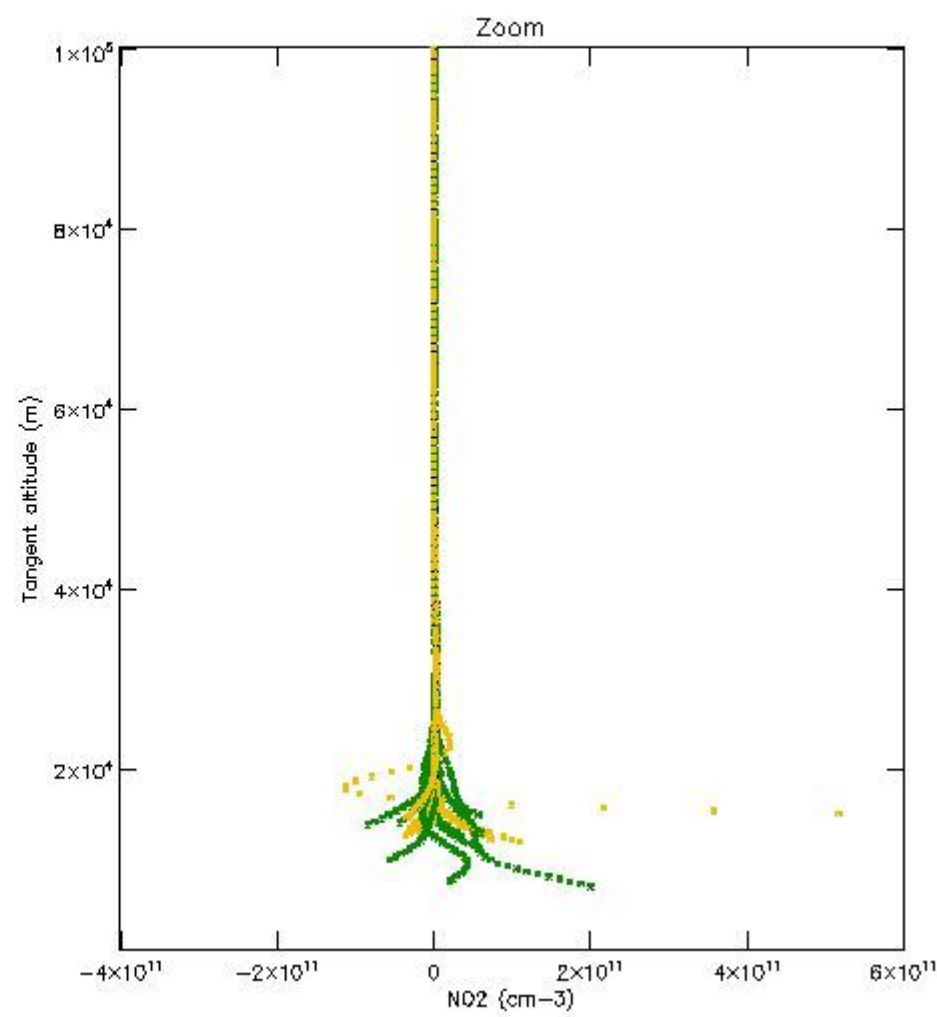
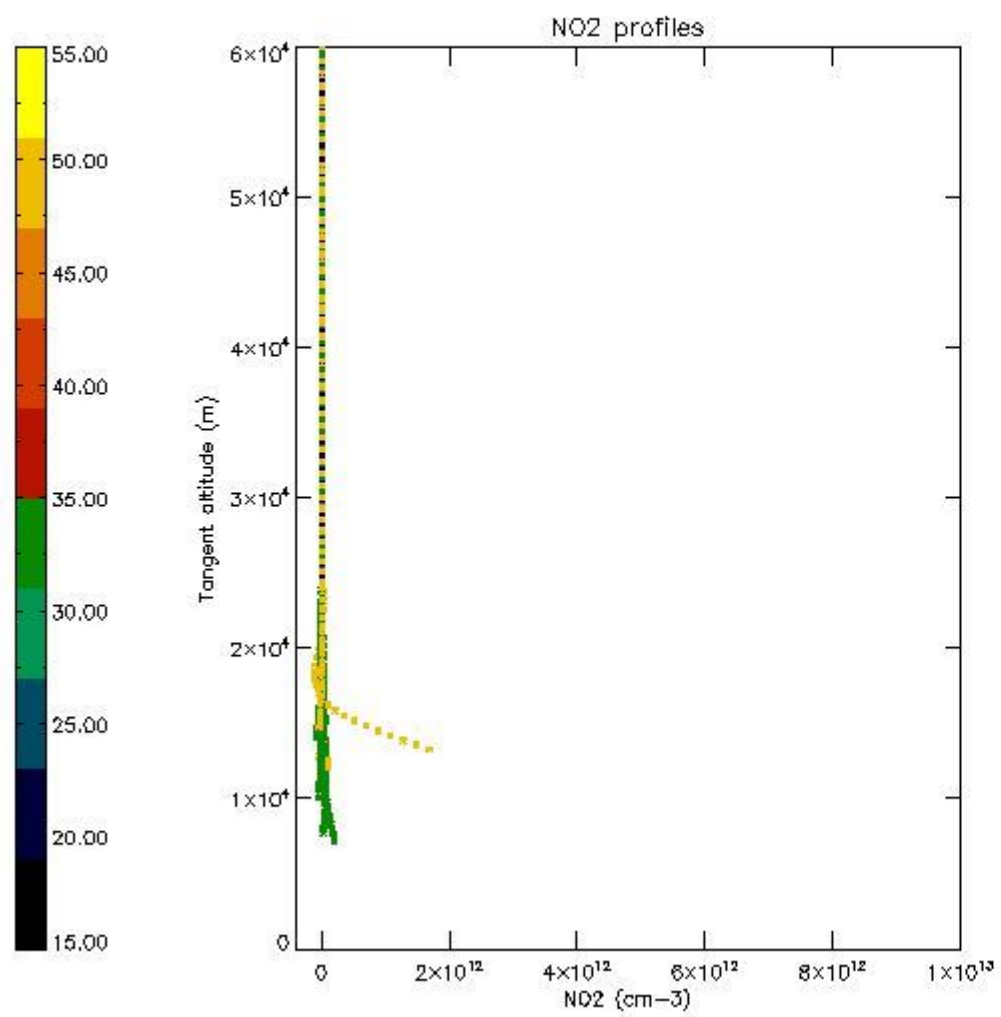
The colorbar represents the latitude.





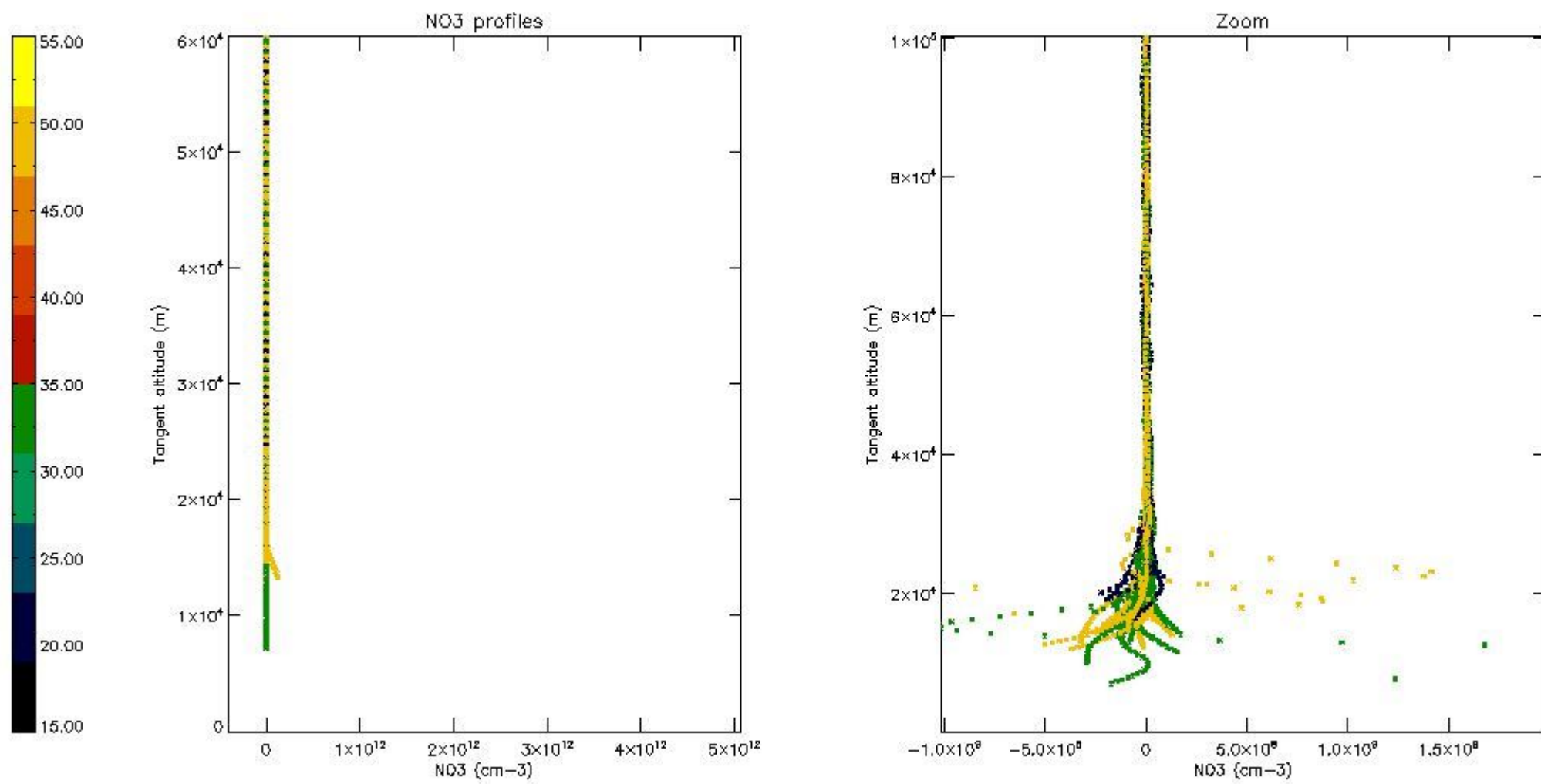
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



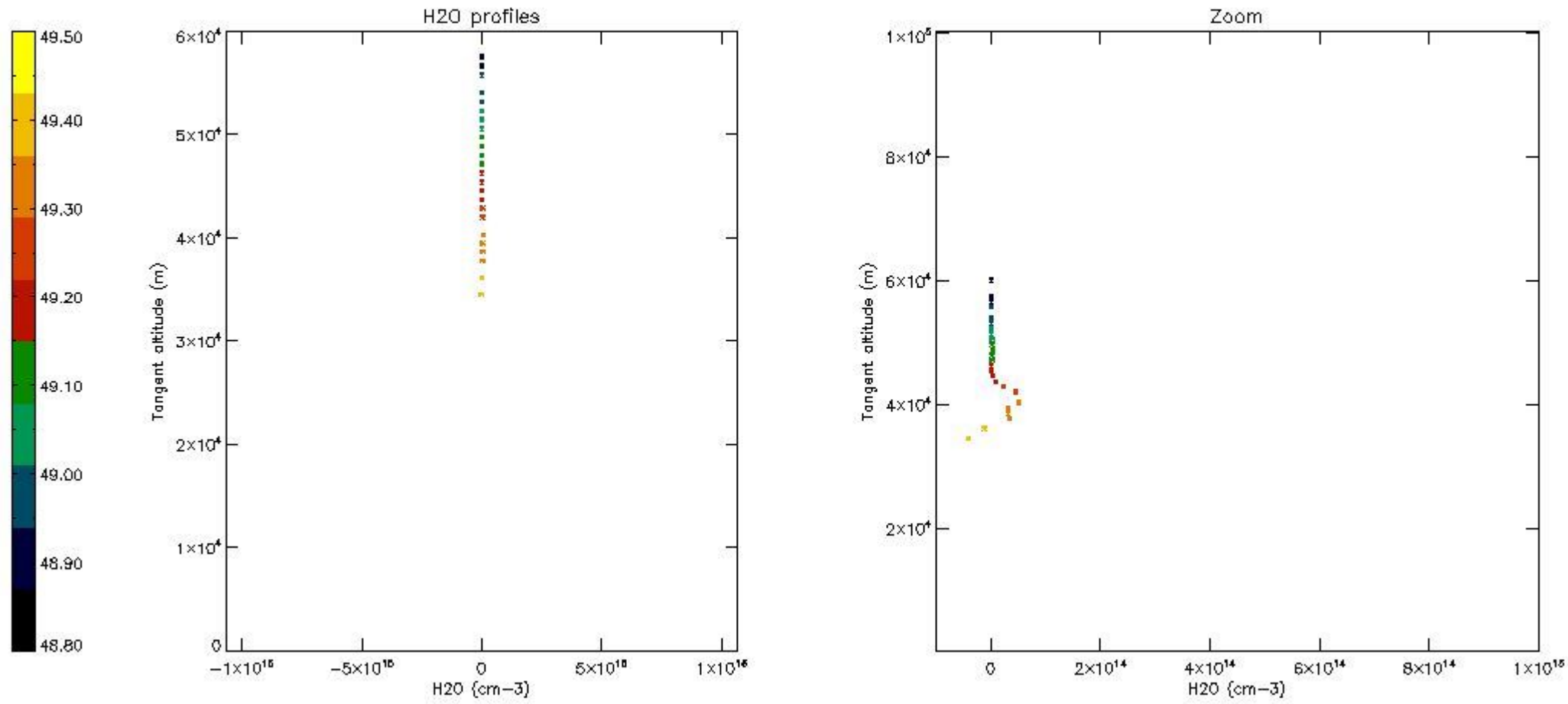
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

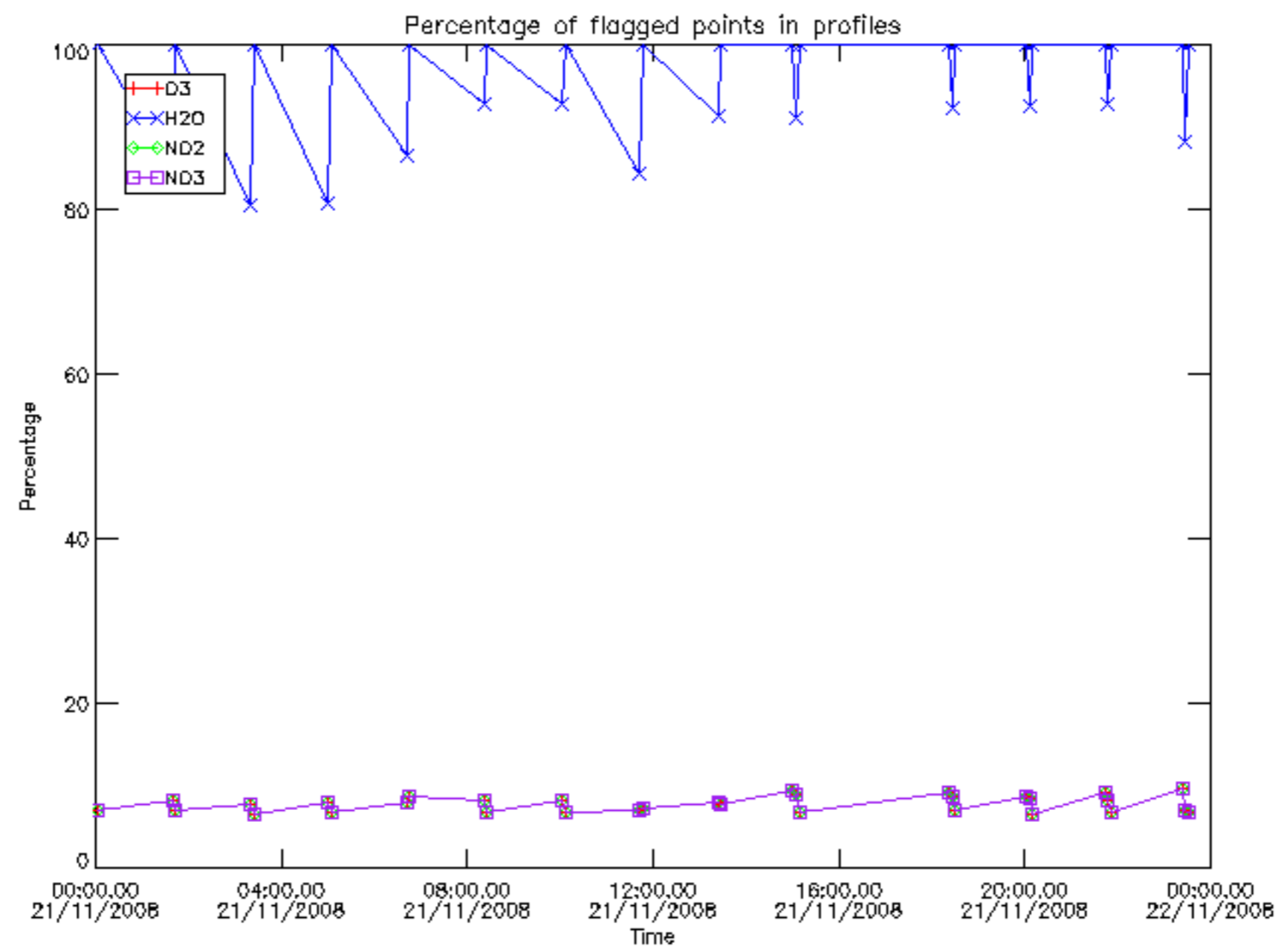
The colorbar represents the latitude.



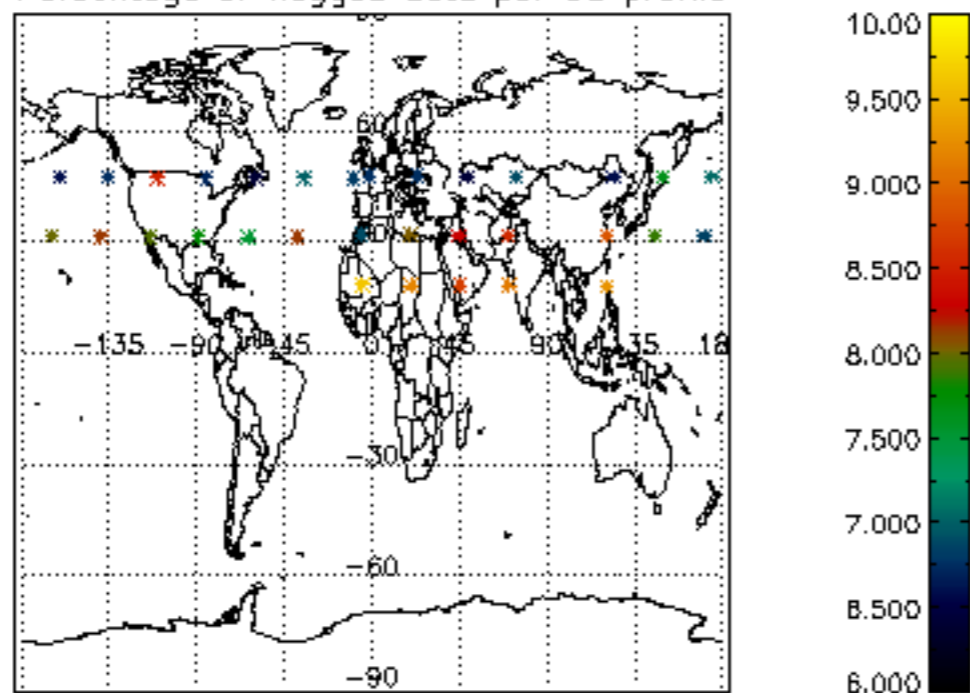
## 6. Auxiliary Data Files used for the production reported in section 2

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

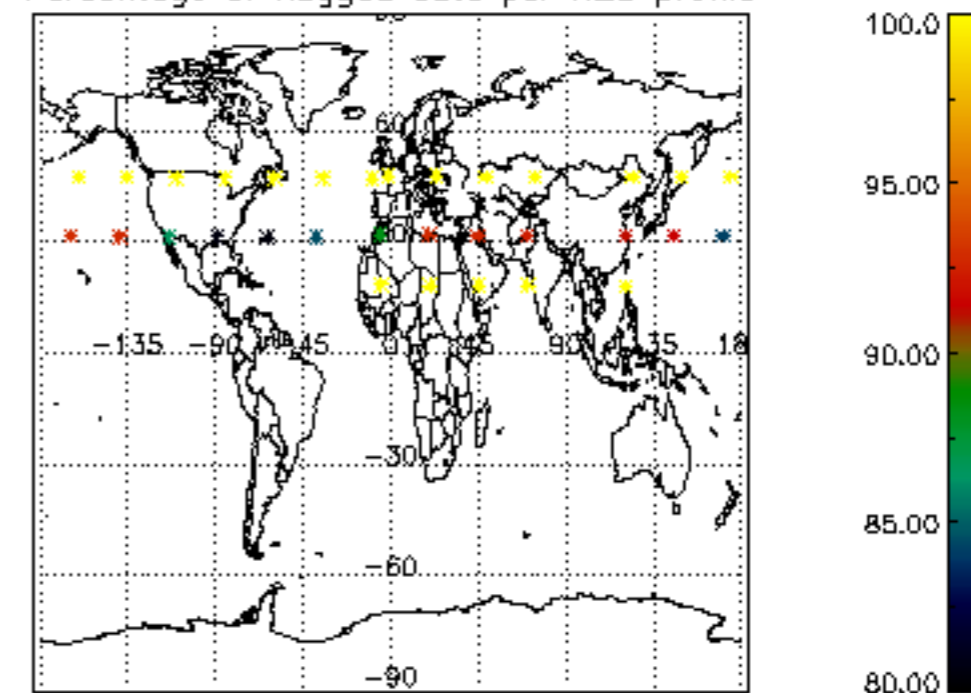
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	21-NOV-2008 00:02:57
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	21-NOV-2008 00:02:57
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	21-NOV-2008 00:02:57



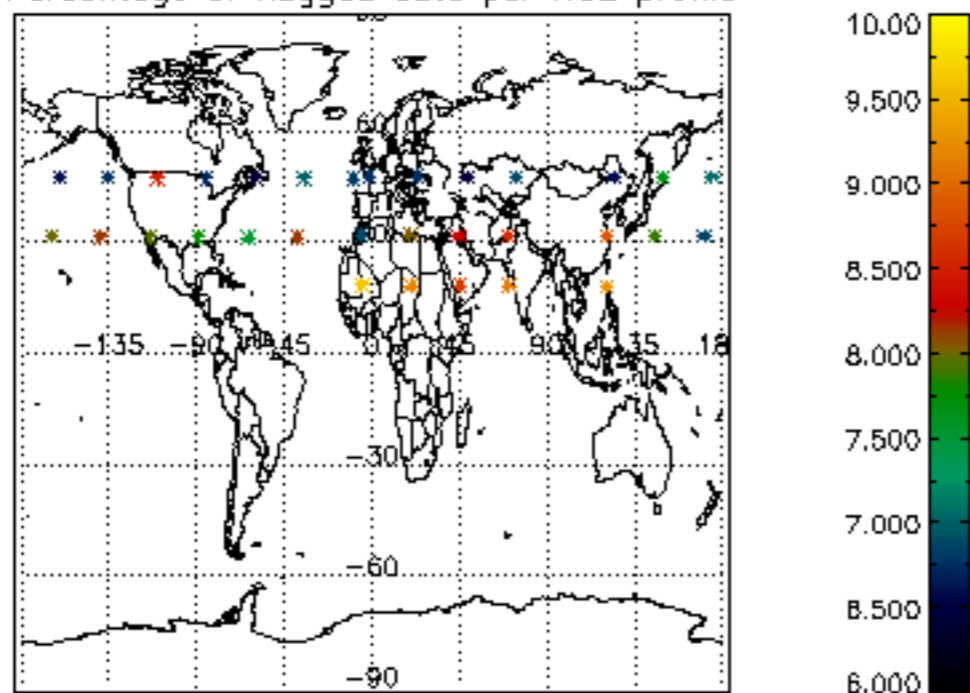
Percentage of flagged data per D3 profile



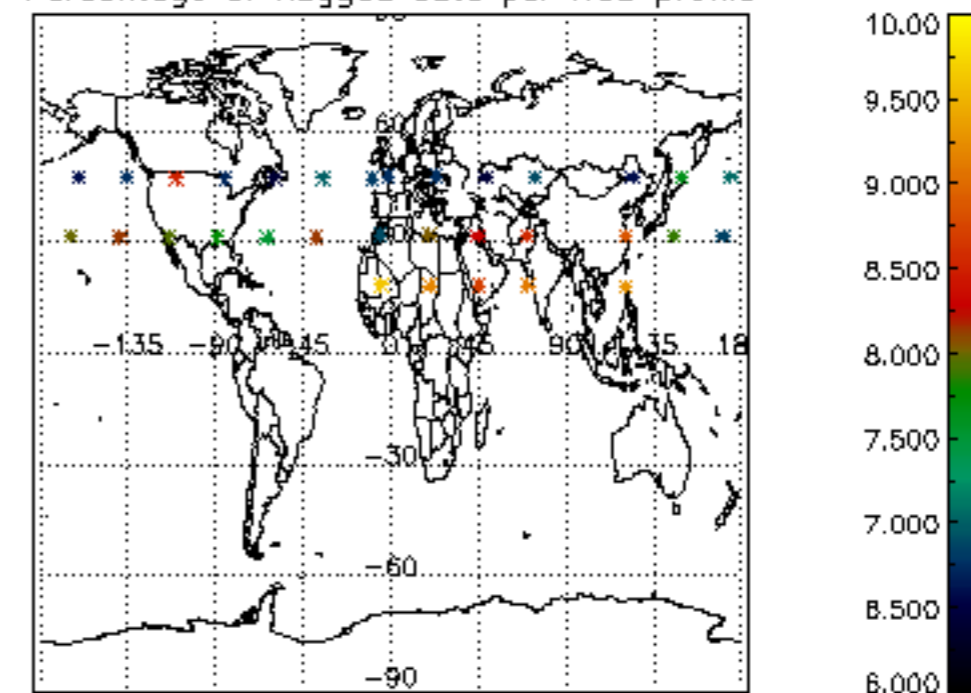
Percentage of flagged data per H2O profile

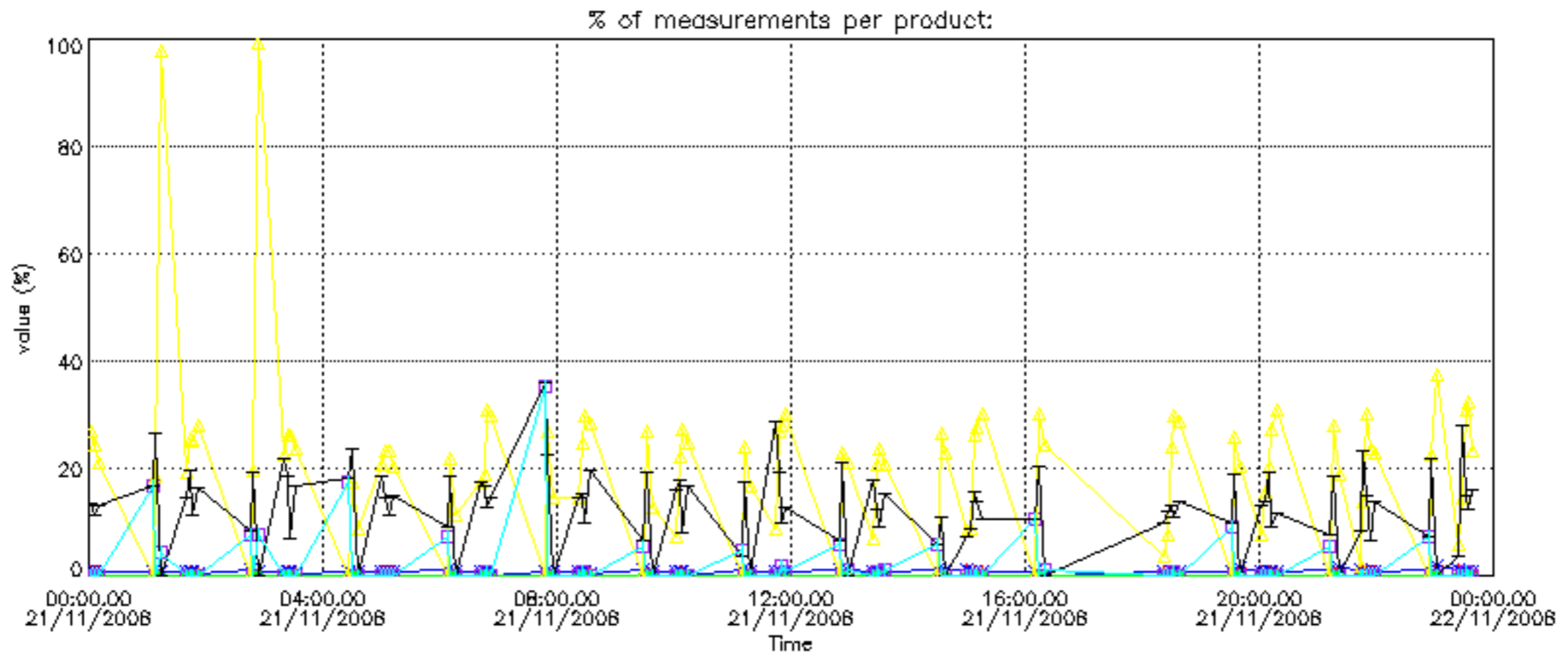


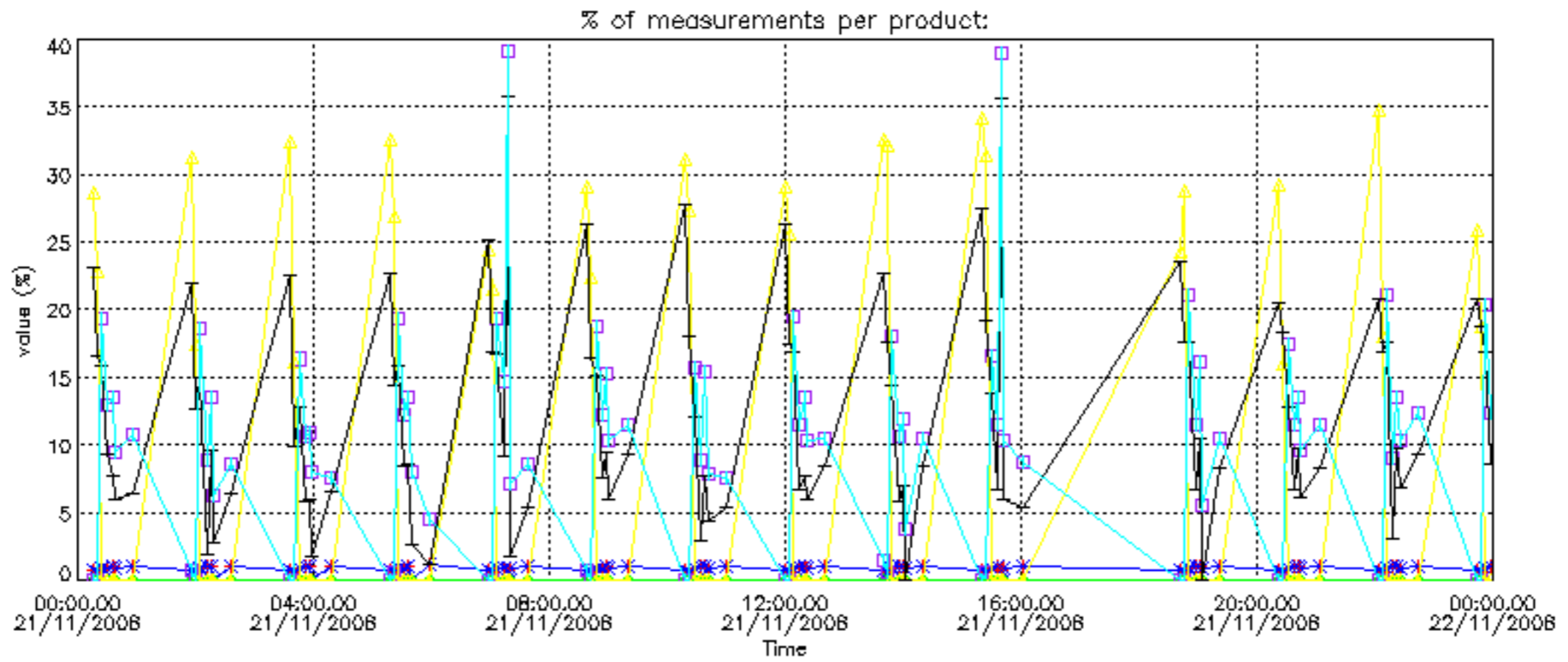
Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

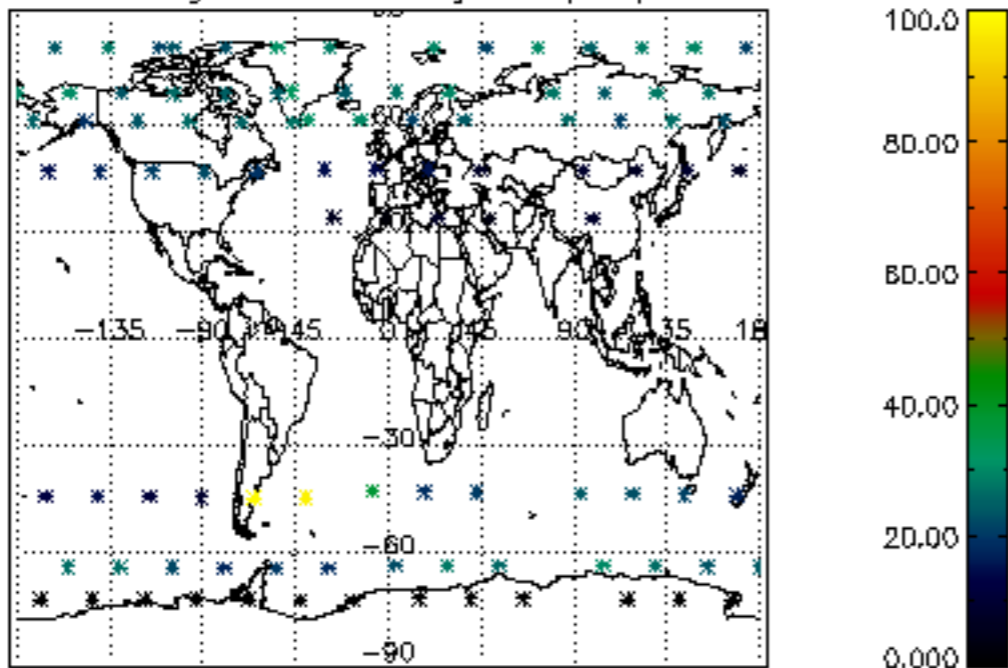




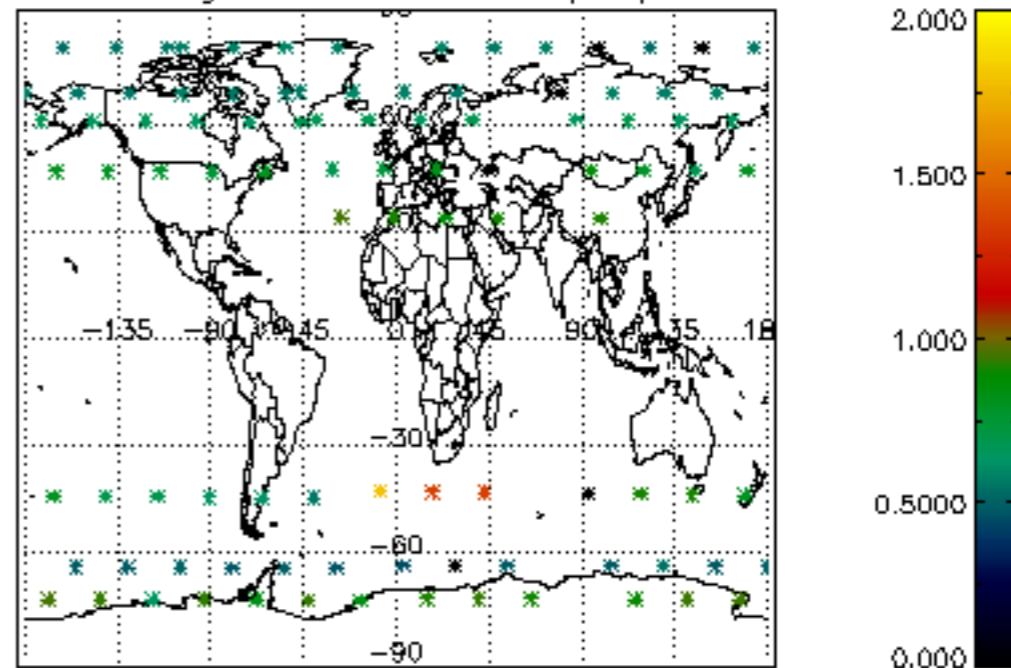




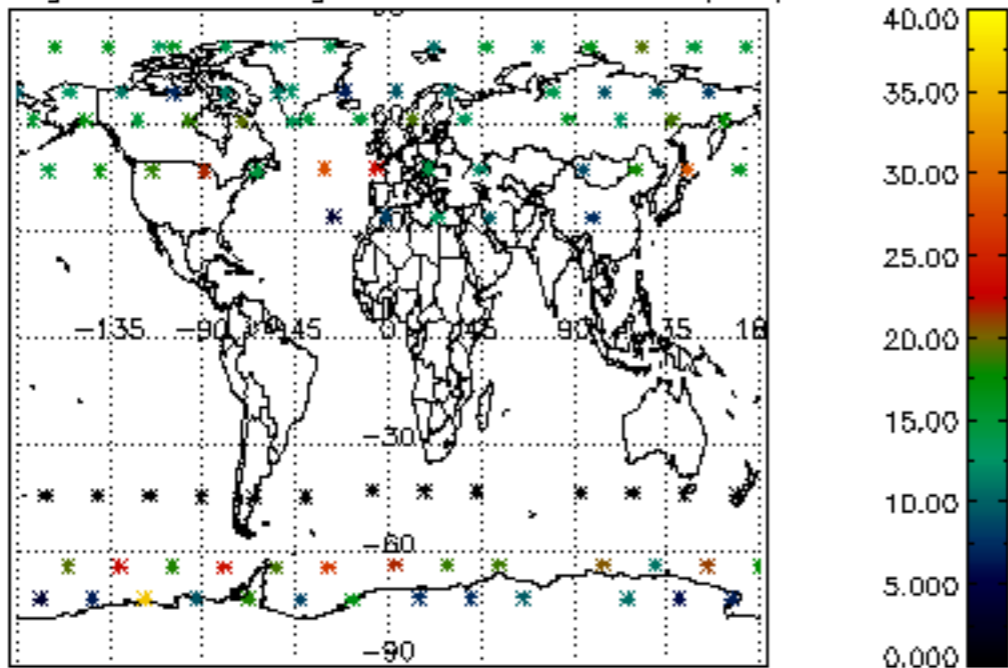
Percentage of cosmic ray hits per profile



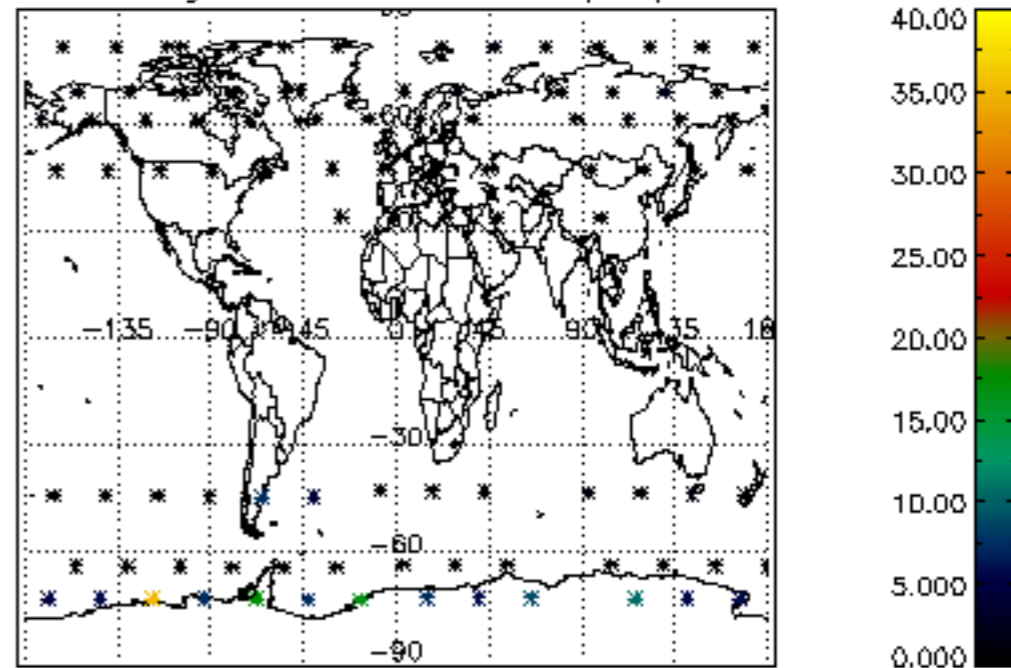
Percentage of datation errors per profile



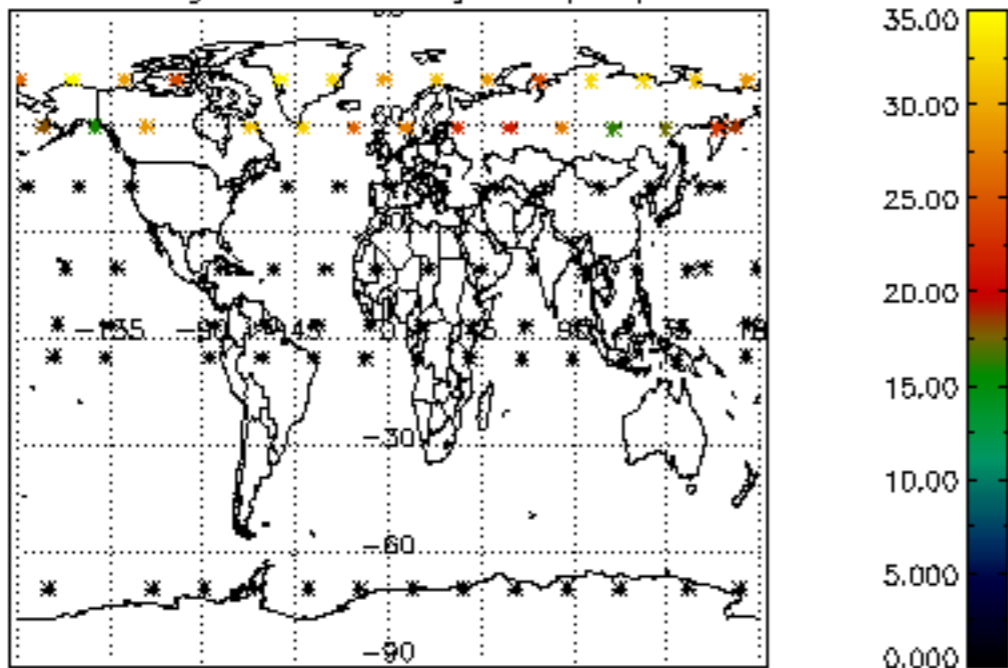
Percentage of star falling outside central band per profile



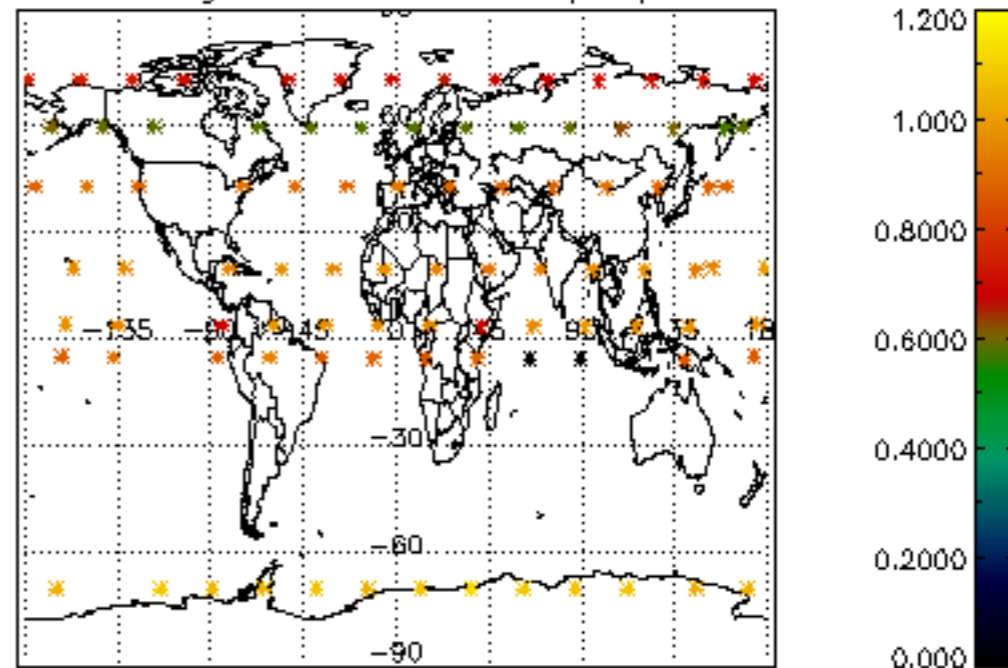
Percentage of saturation errors per profile



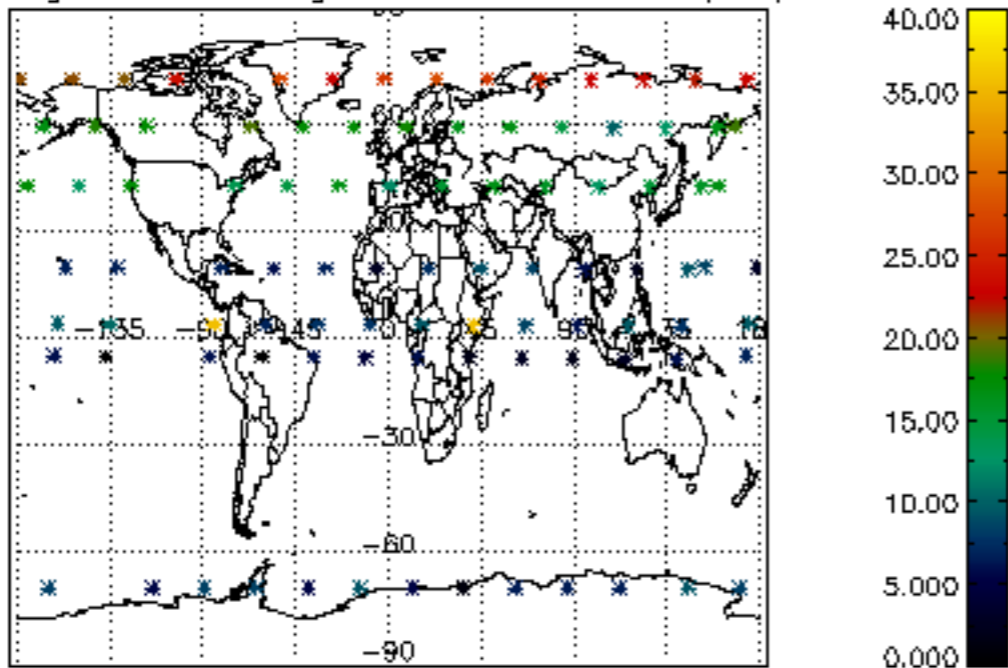
Percentage of cosmic ray hits per profile



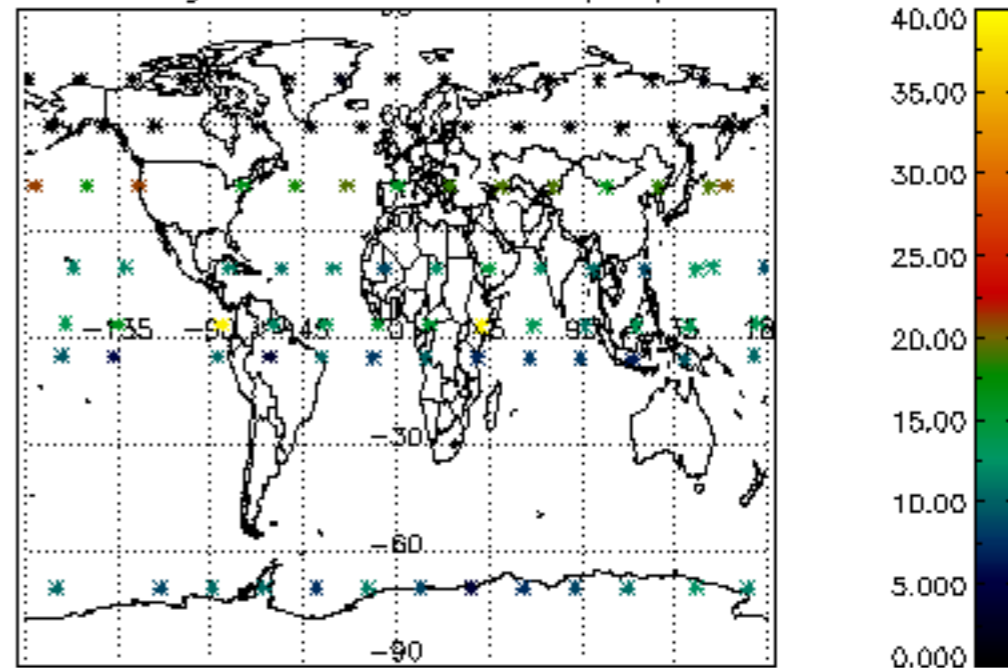
Percentage of datation errors per profile

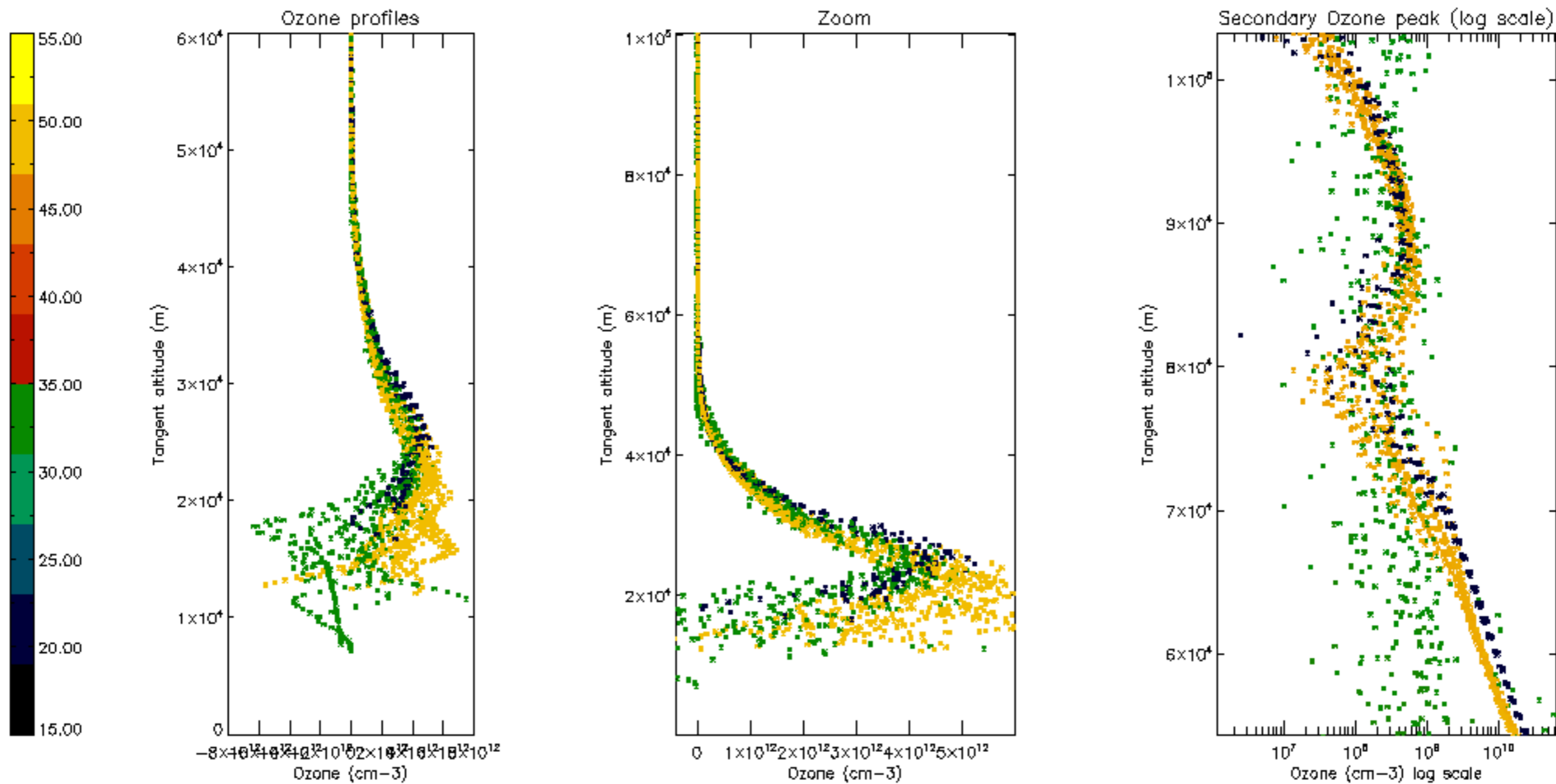


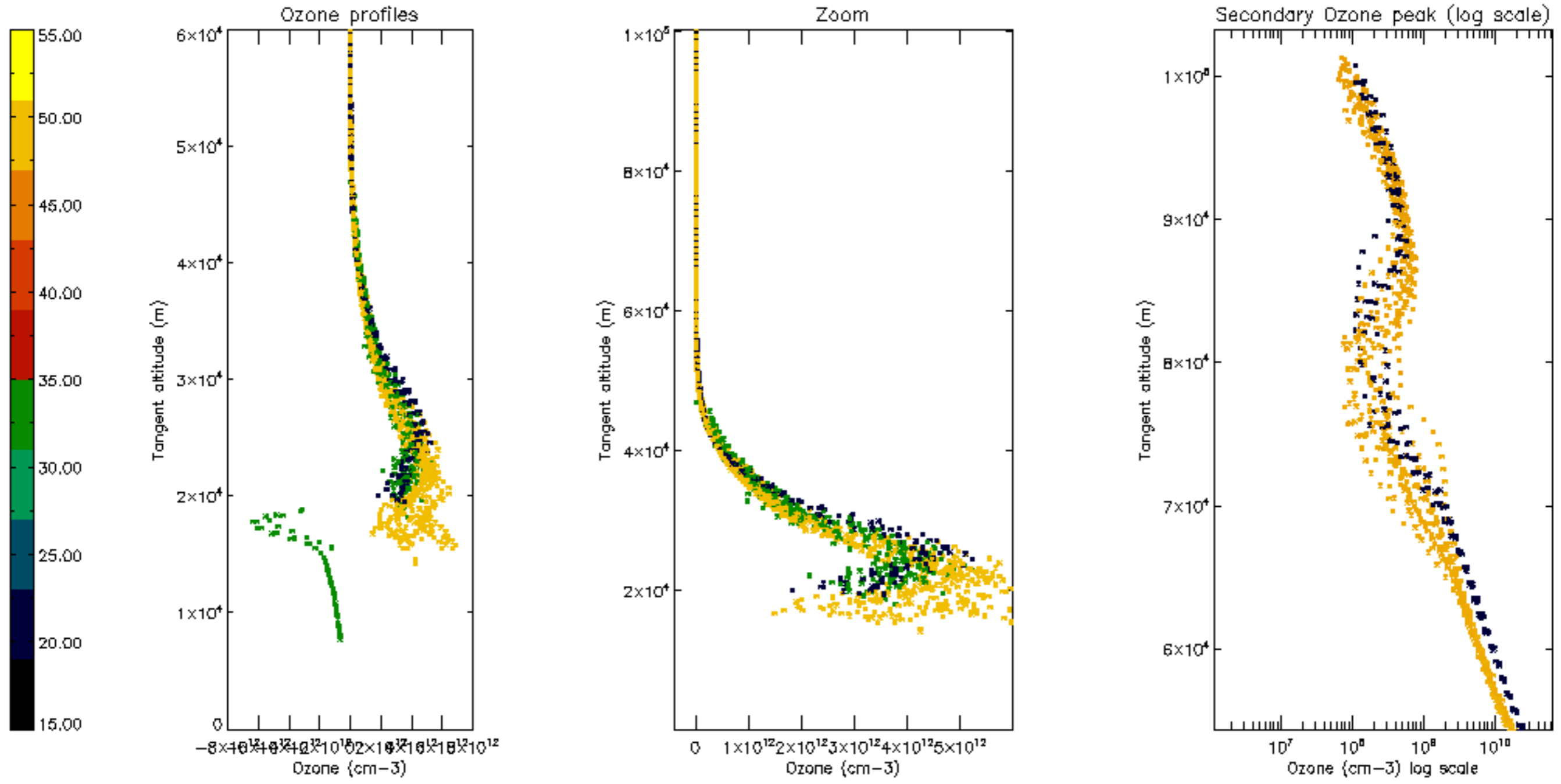
Percentage of star falling outside central band per profile

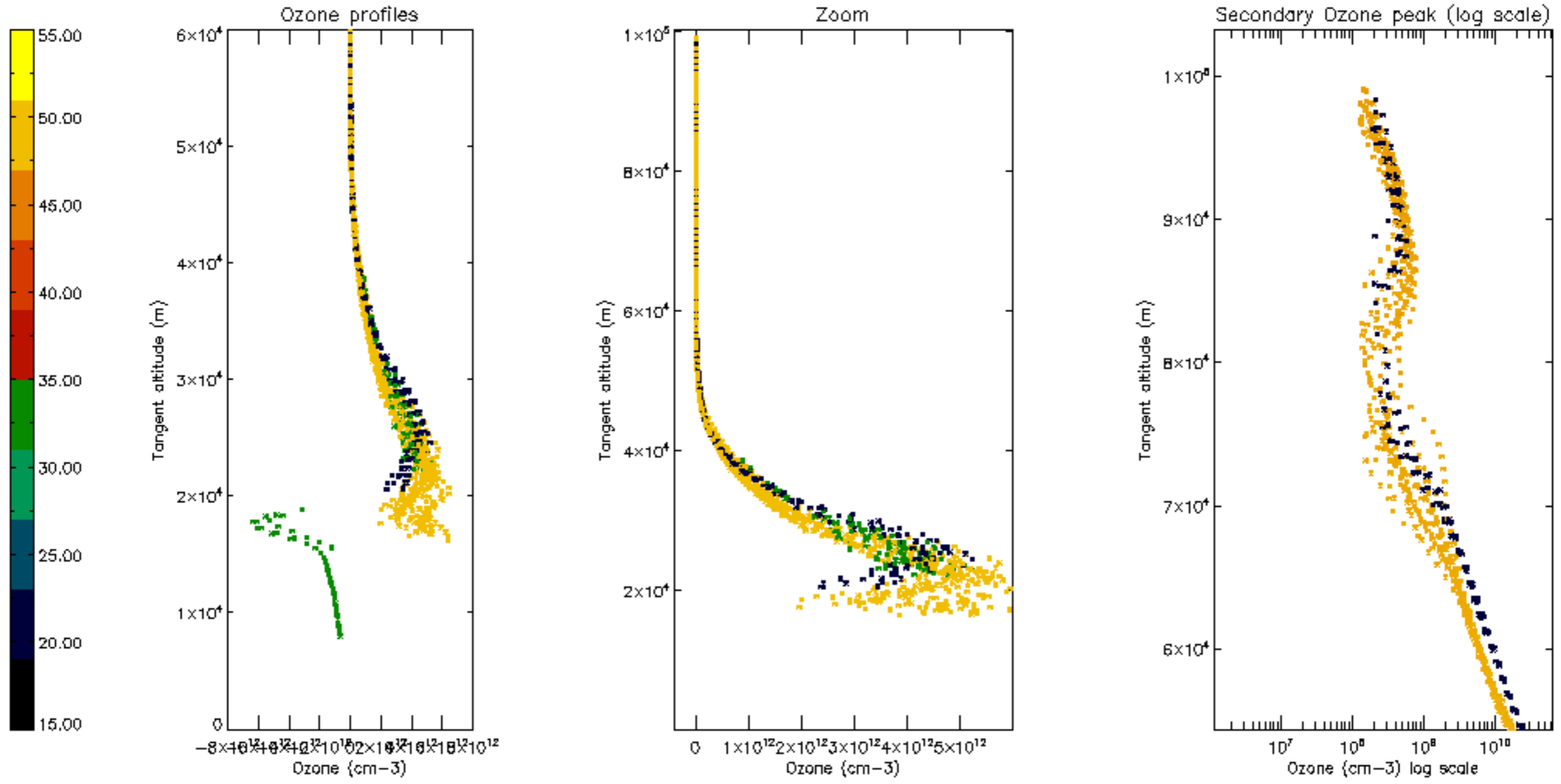


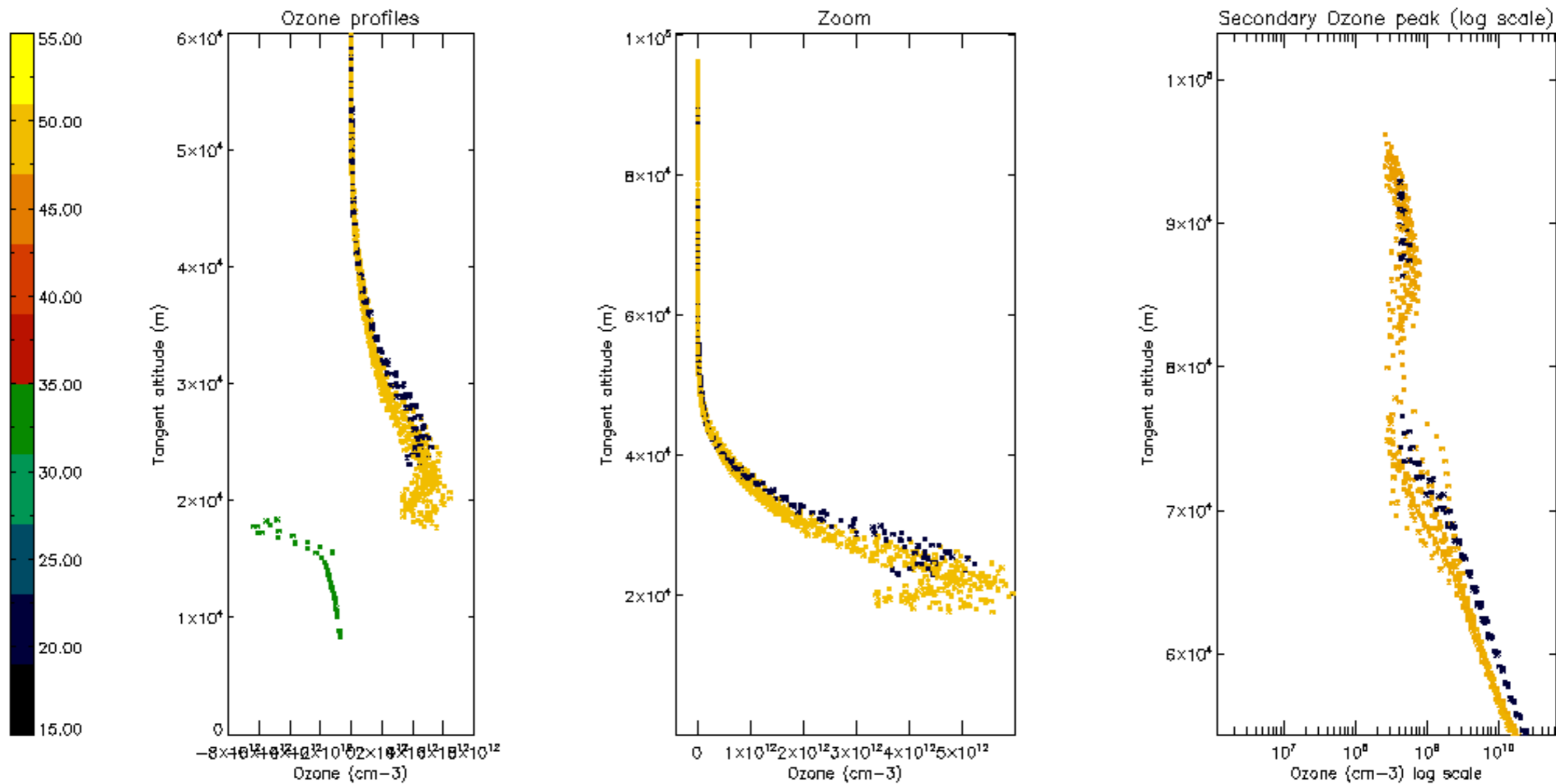
Percentage of saturation errors per profile

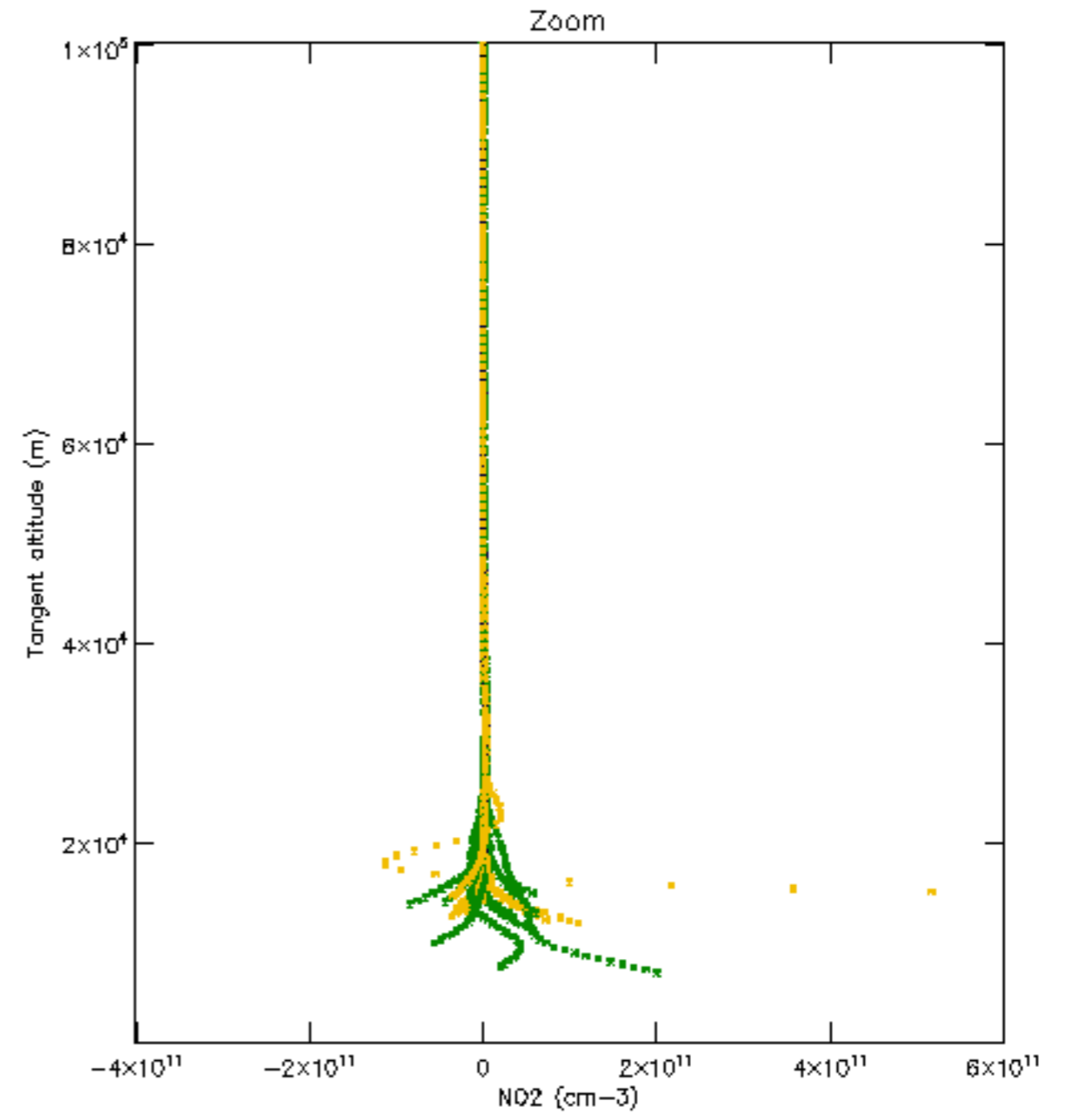
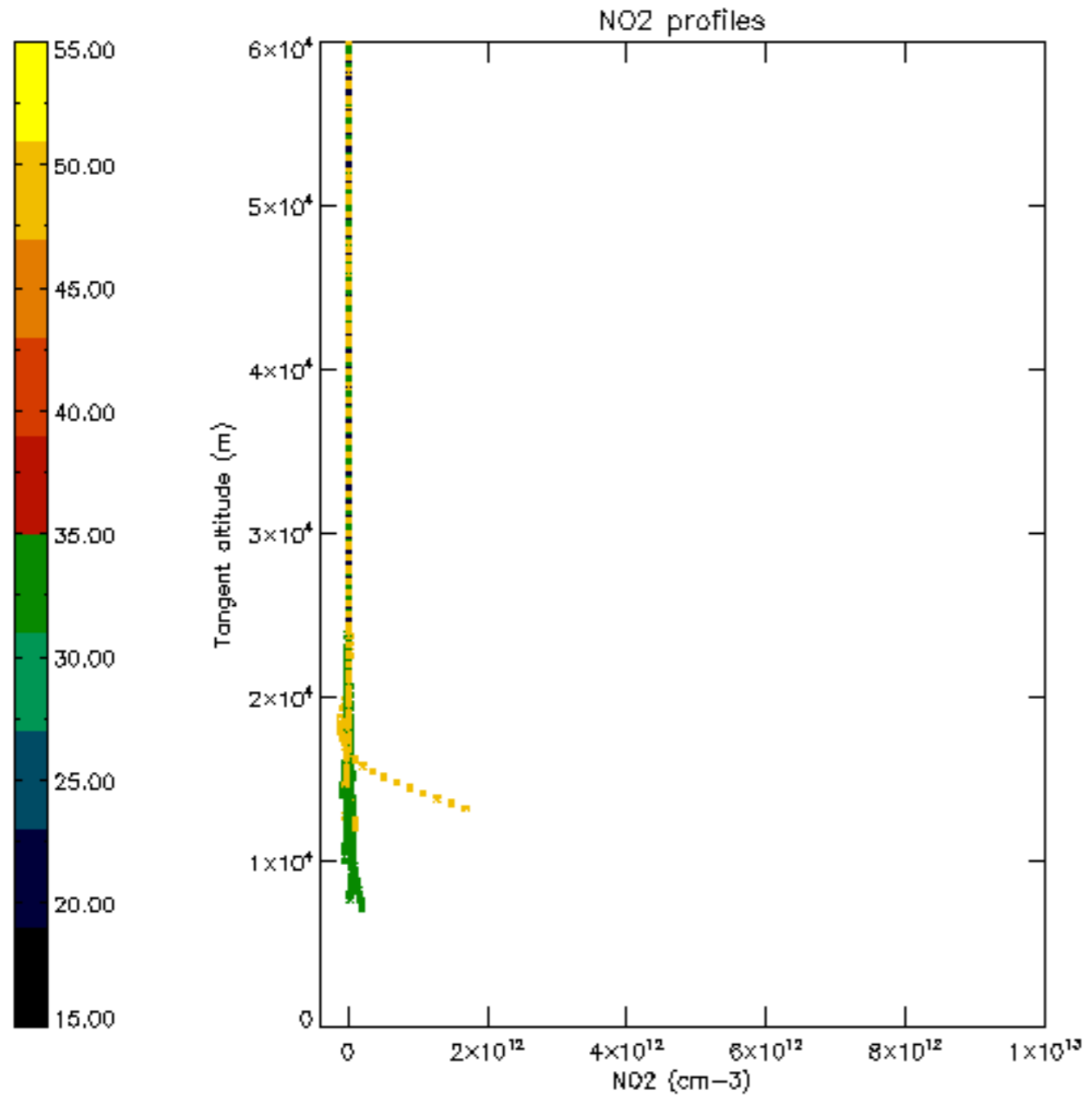


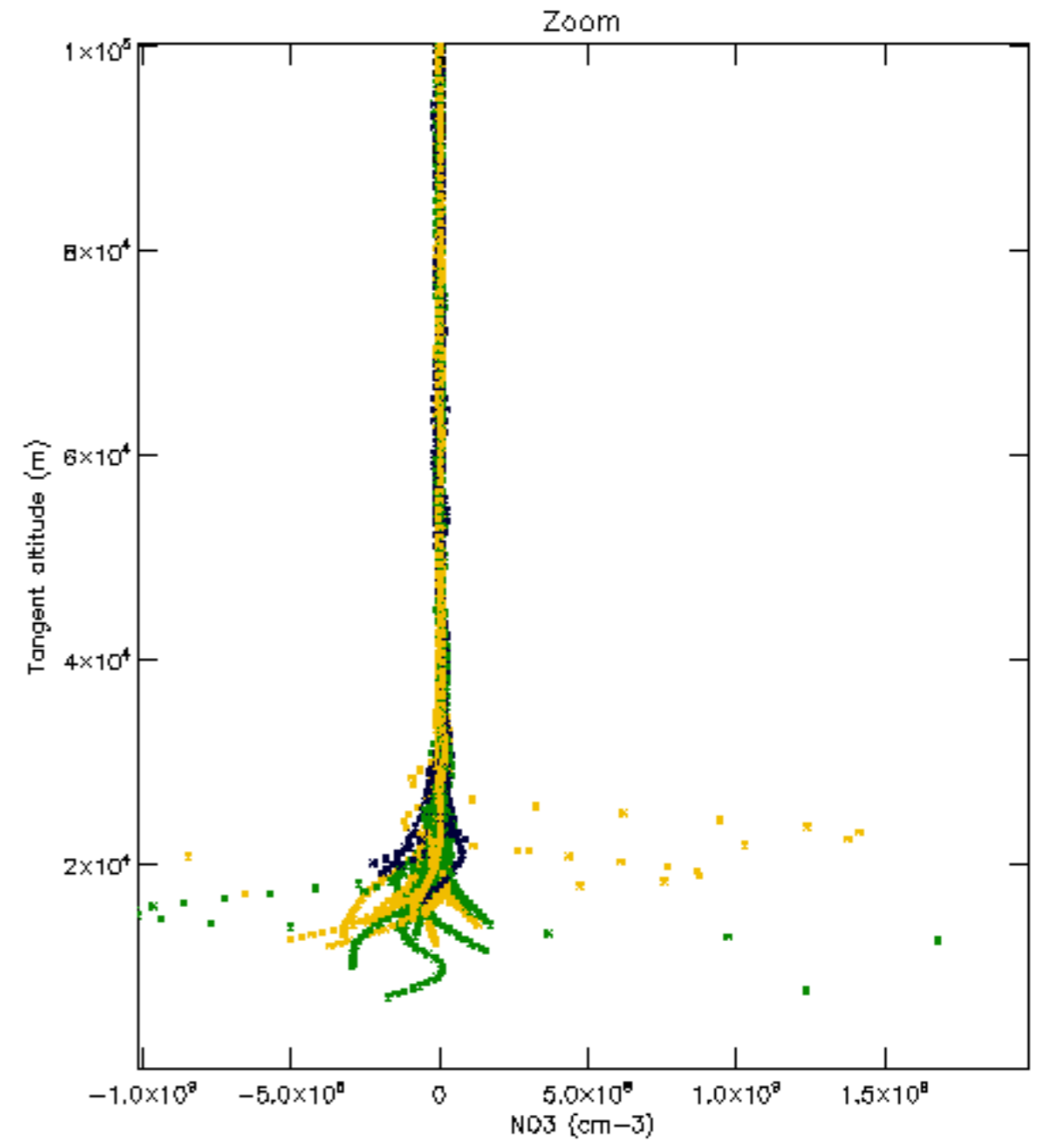
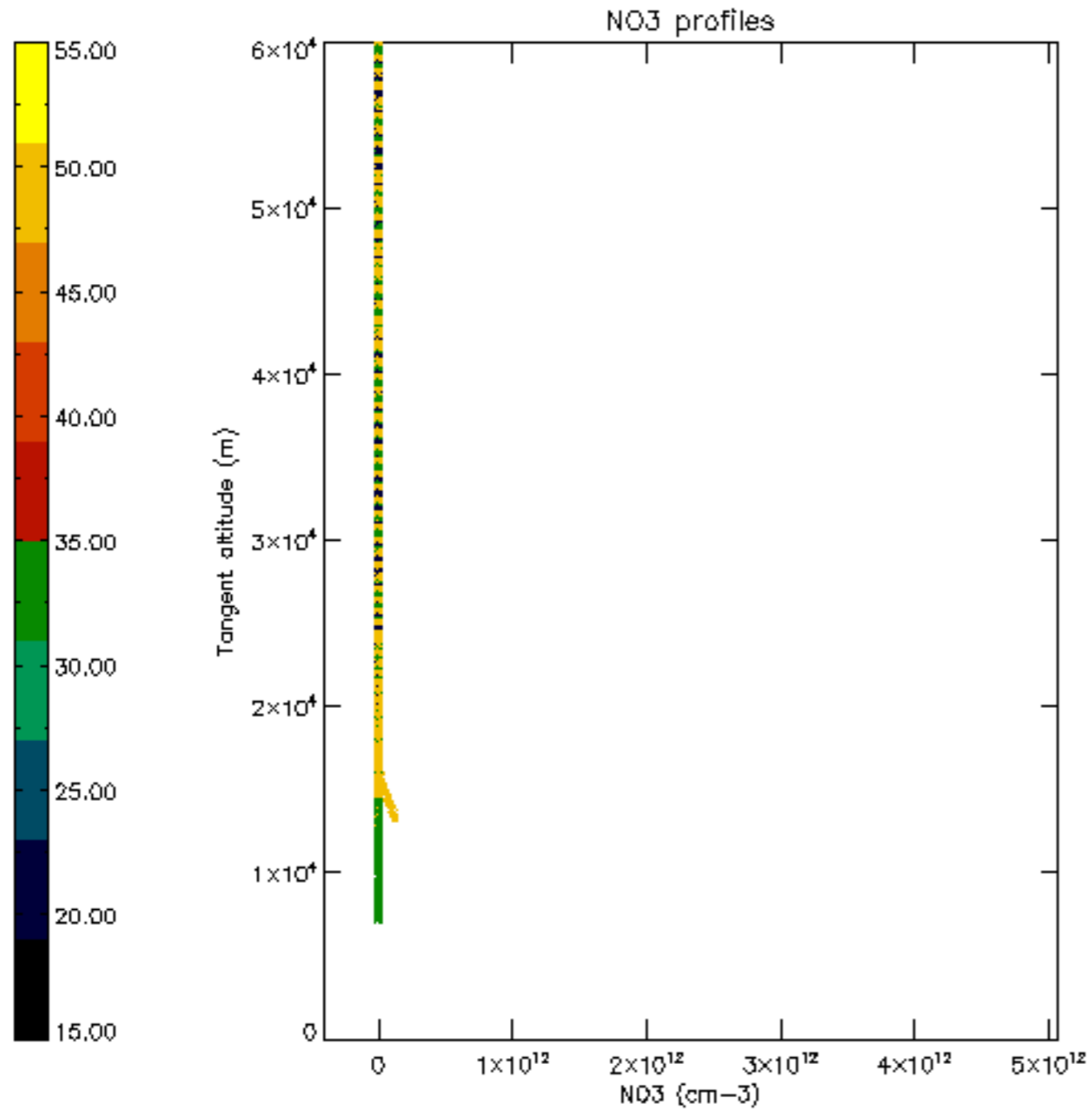




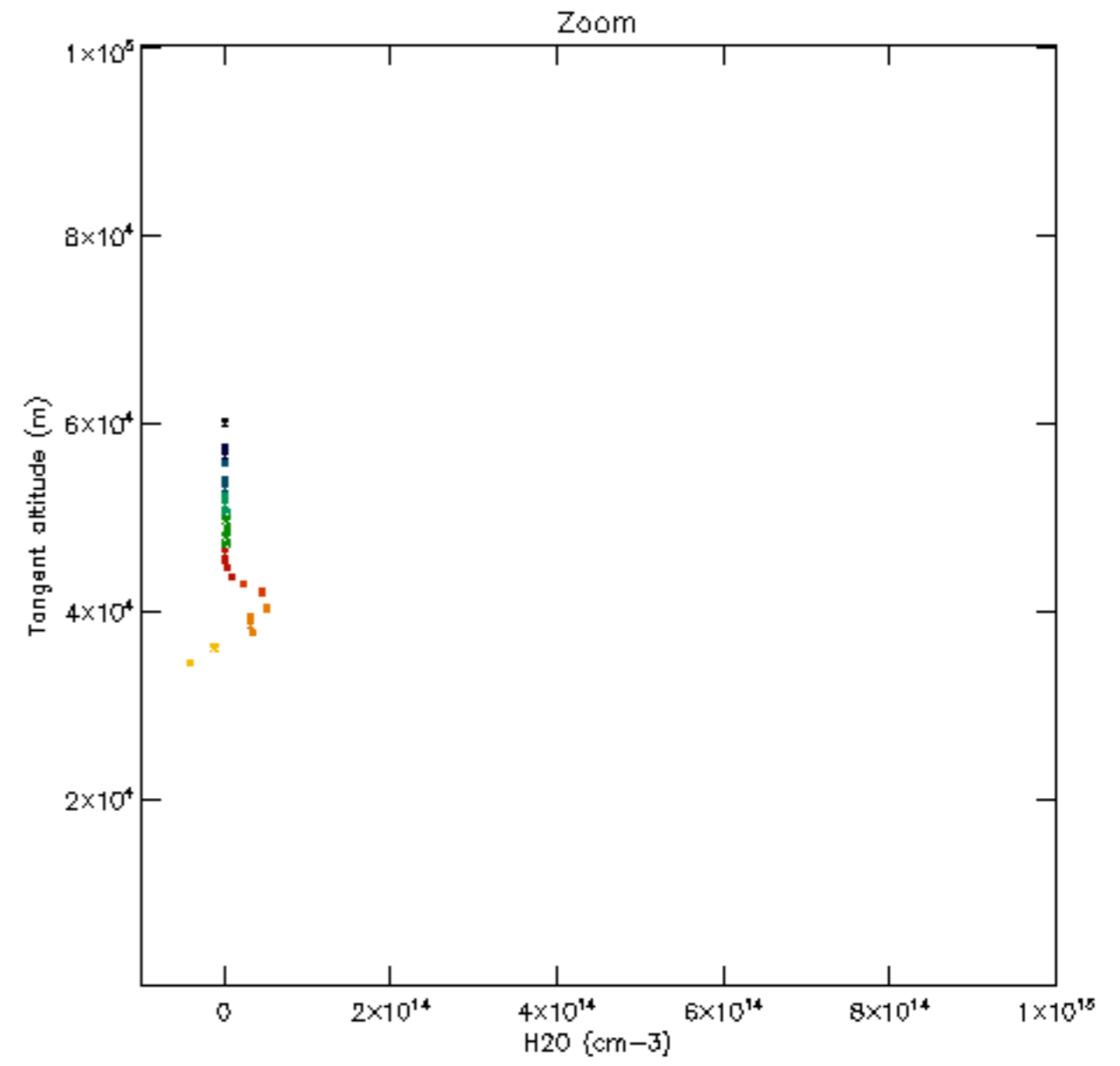
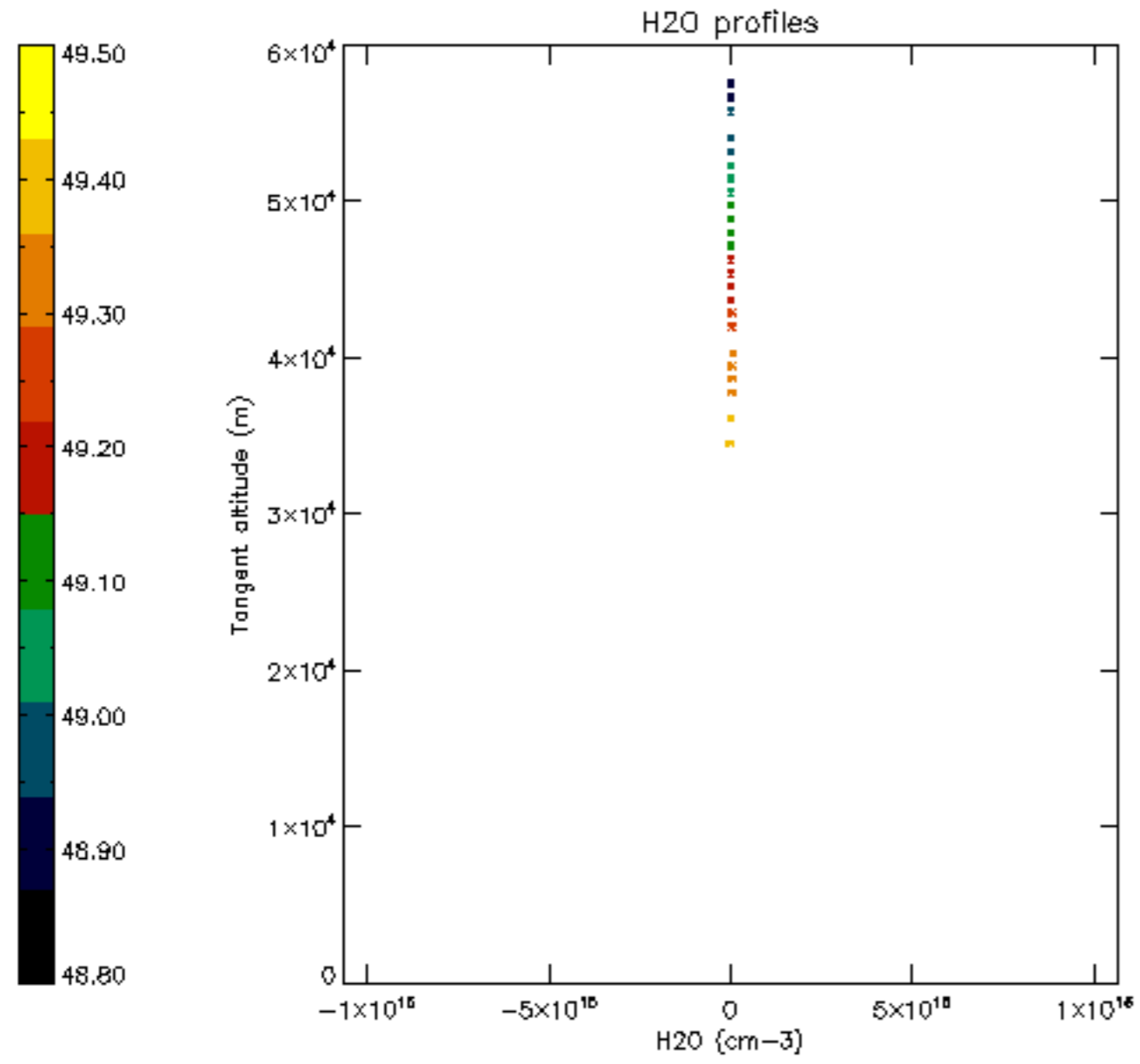


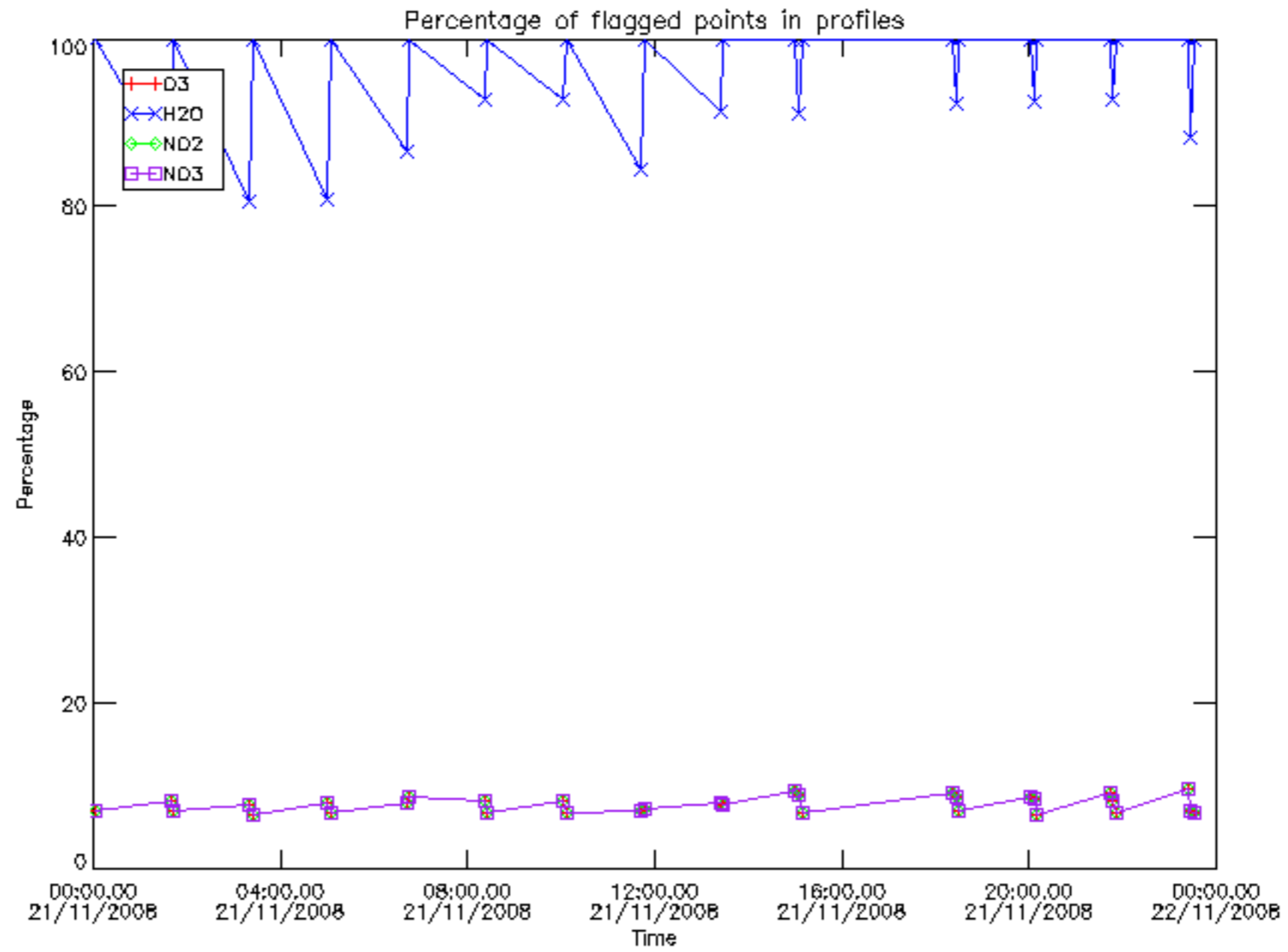




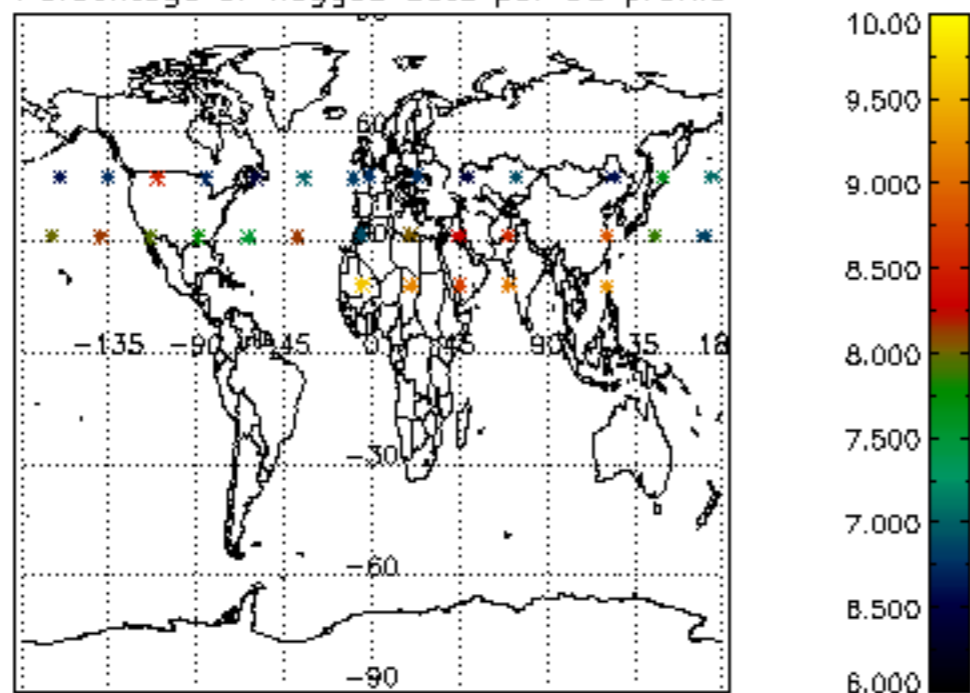




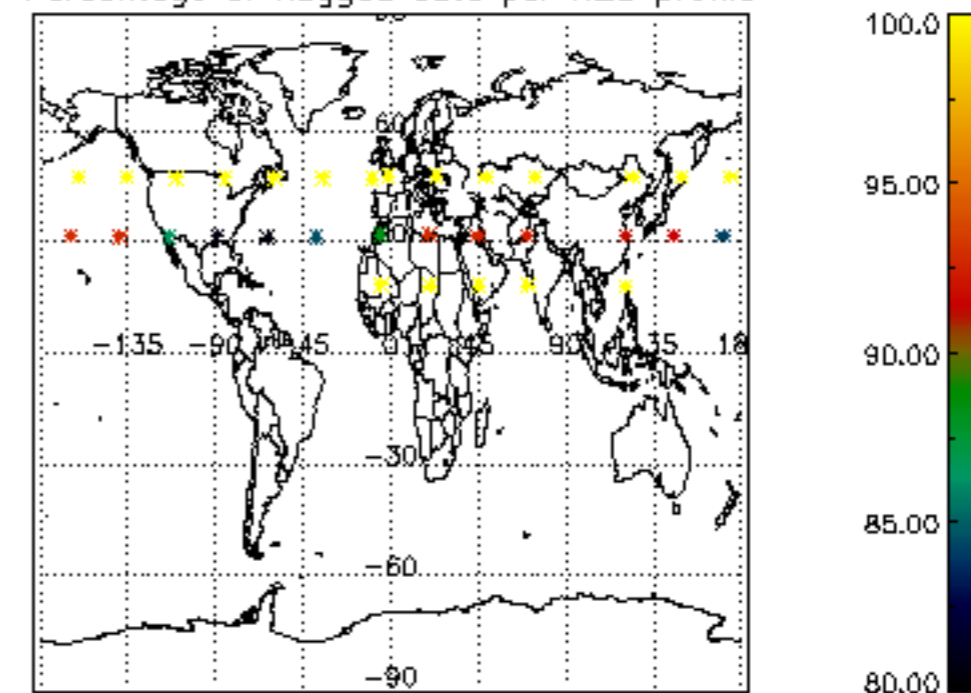




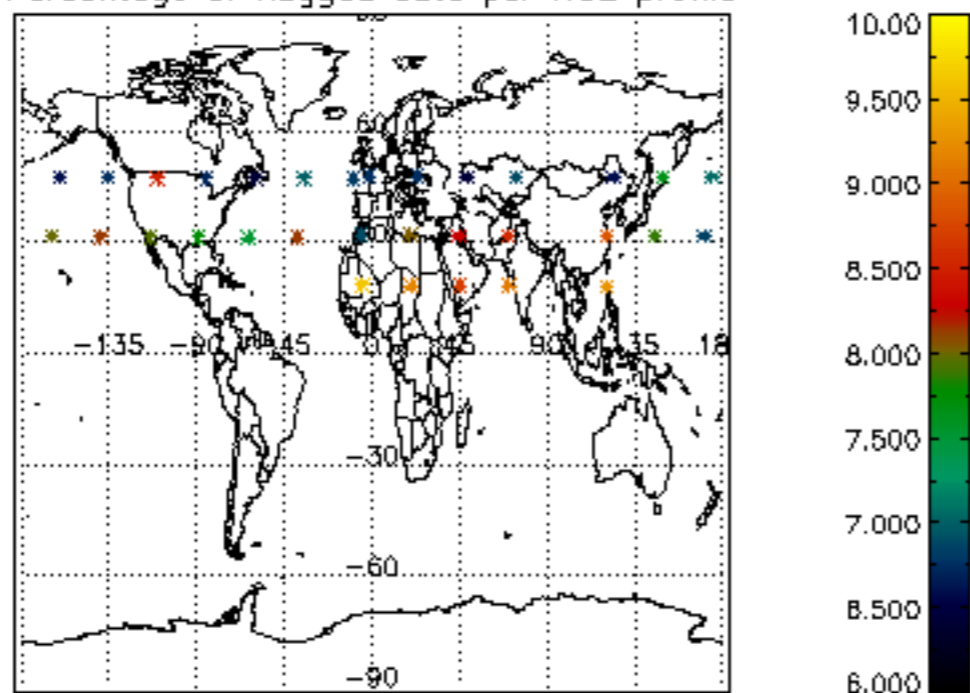
Percentage of flagged data per D3 profile



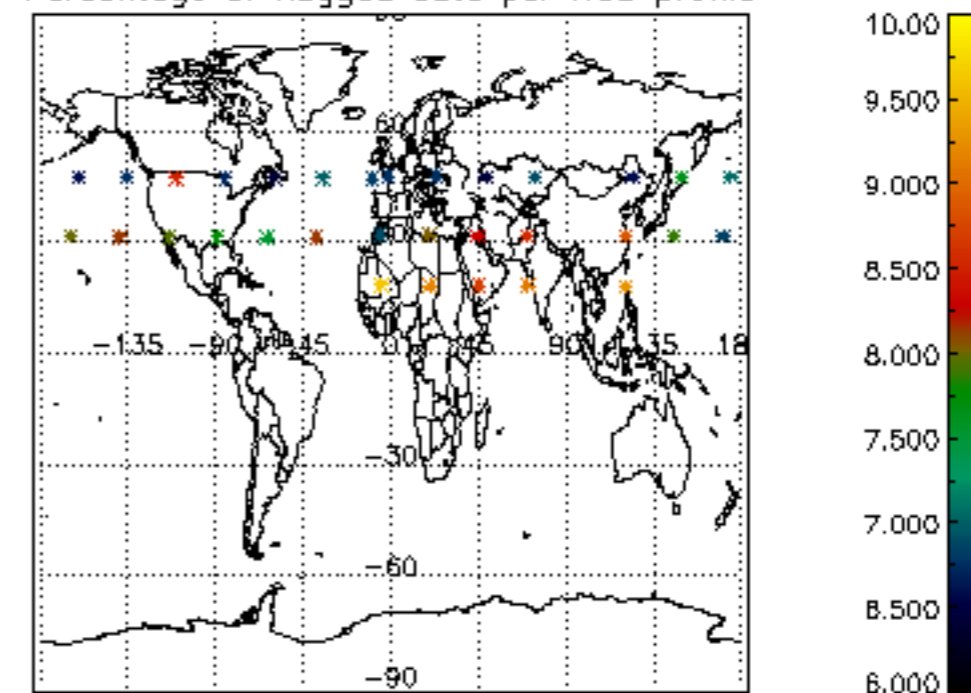
Percentage of flagged data per H2O profile

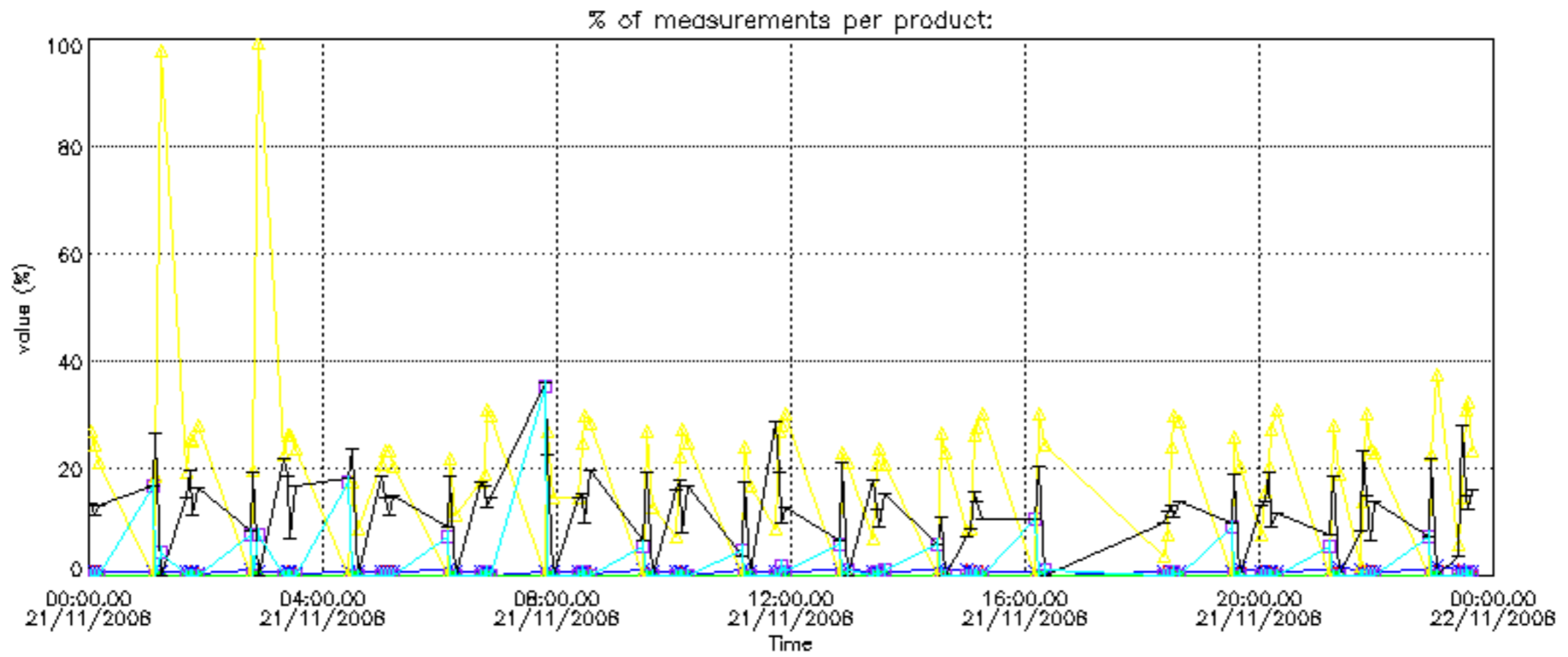


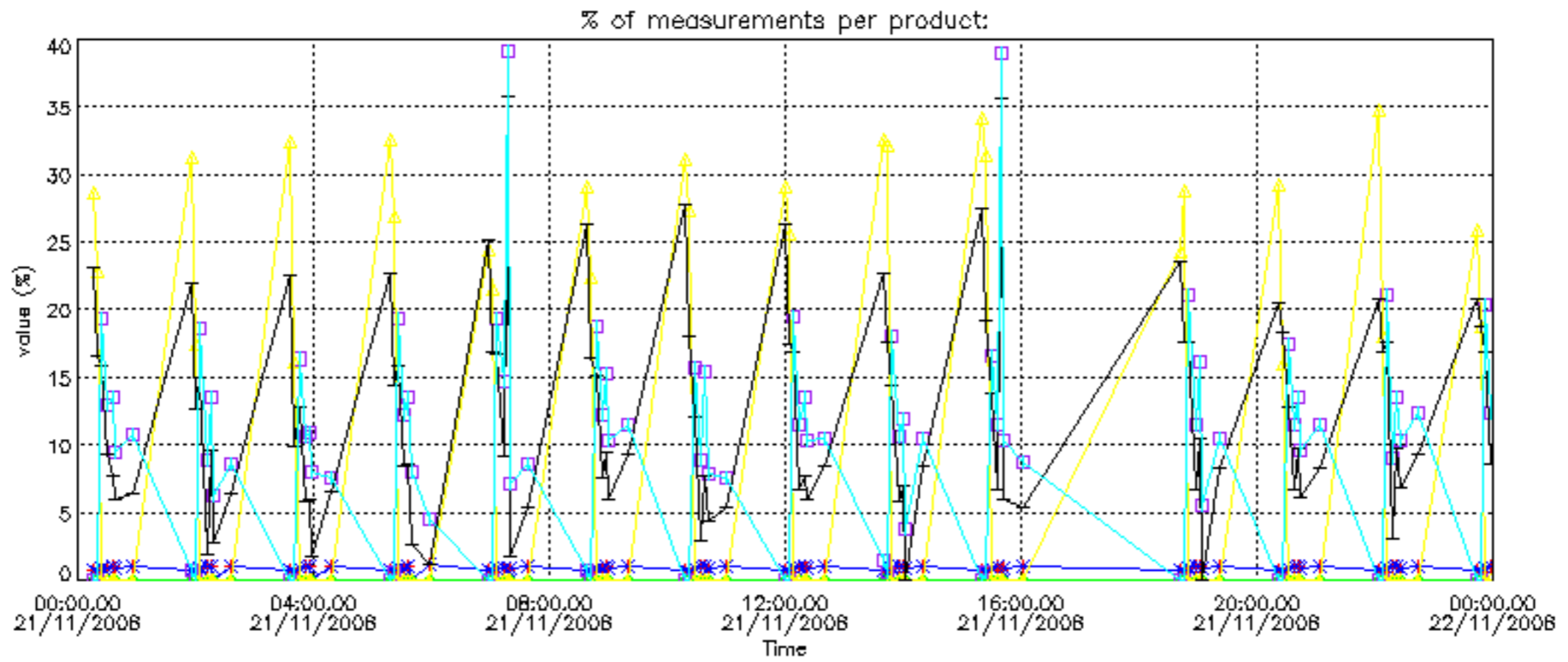
Percentage of flagged data per NO2 profile



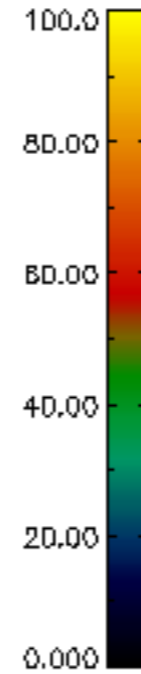
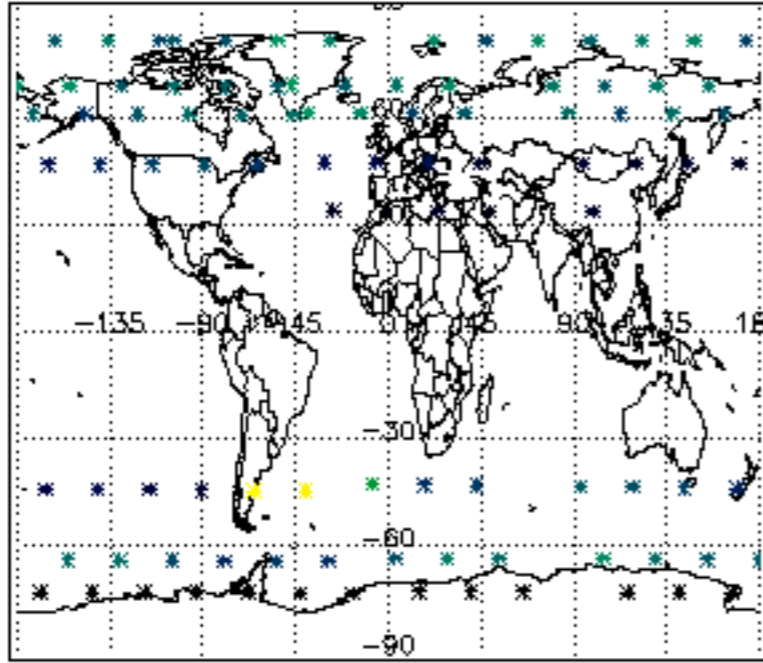
Percentage of flagged data per NO3 profile



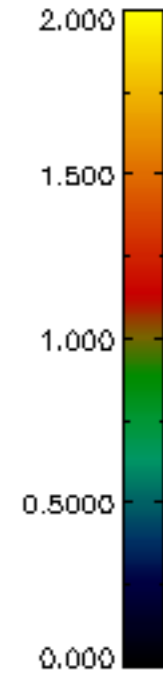
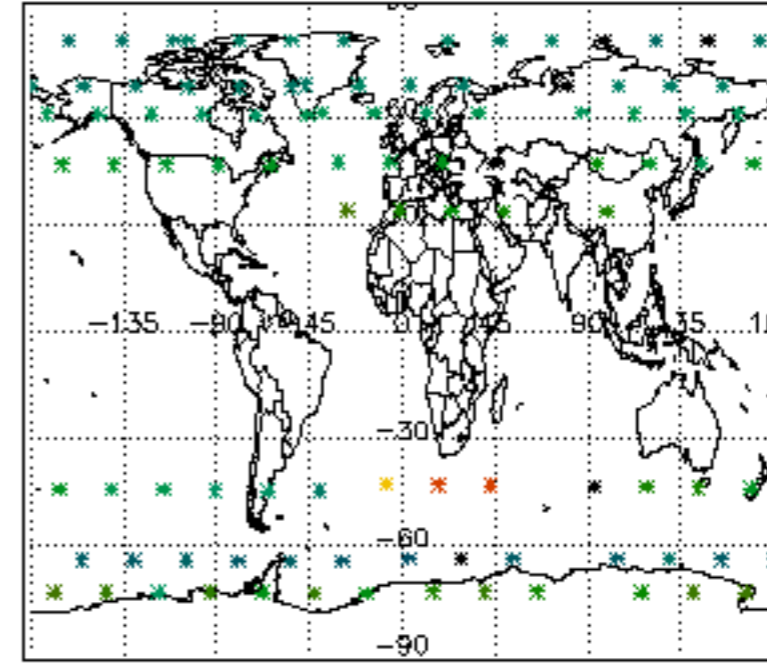




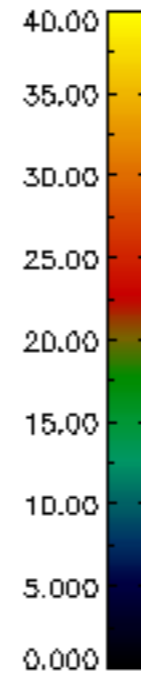
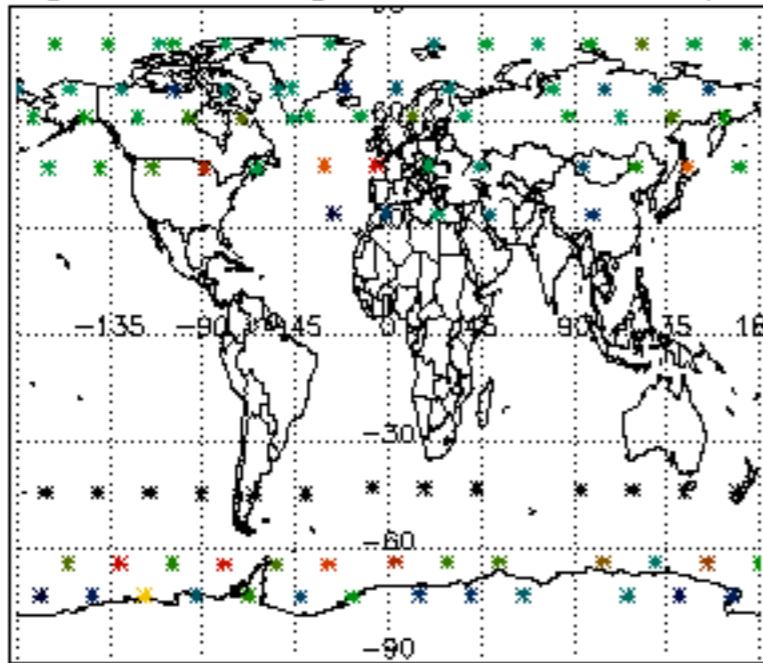
Percentage of cosmic ray hits per profile



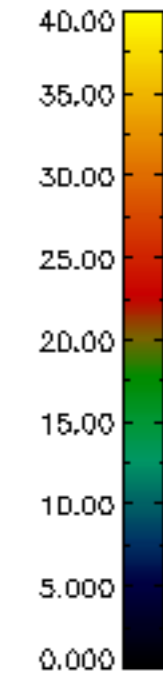
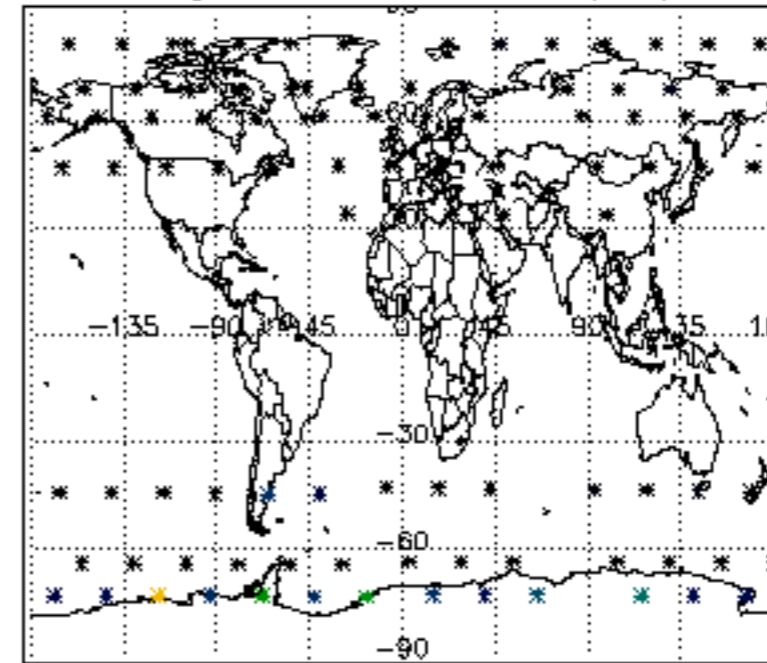
Percentage of datation errors per profile



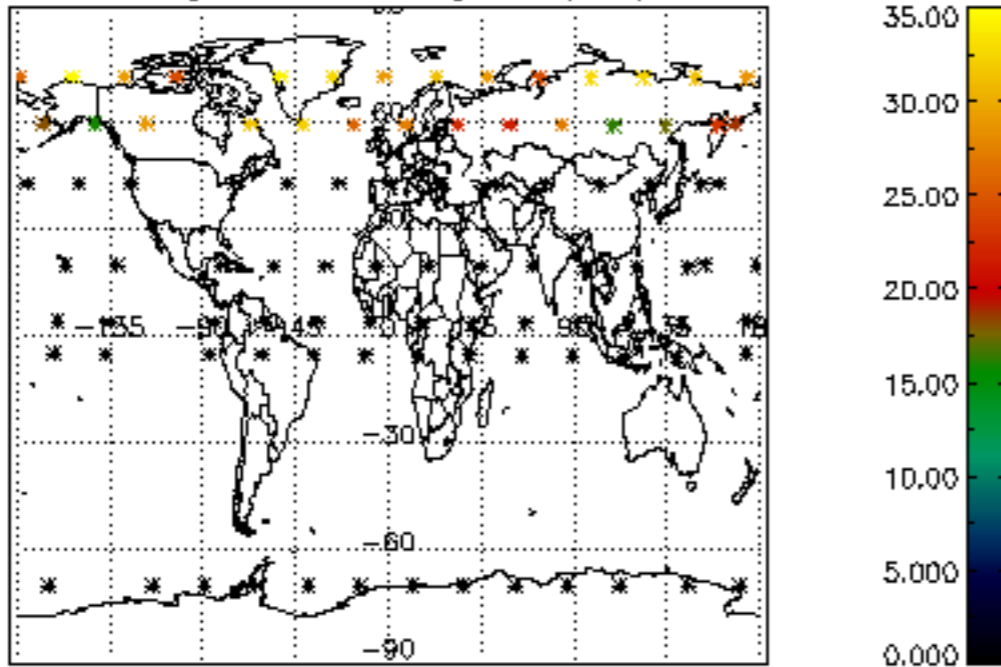
Percentage of star falling outside central band per profile



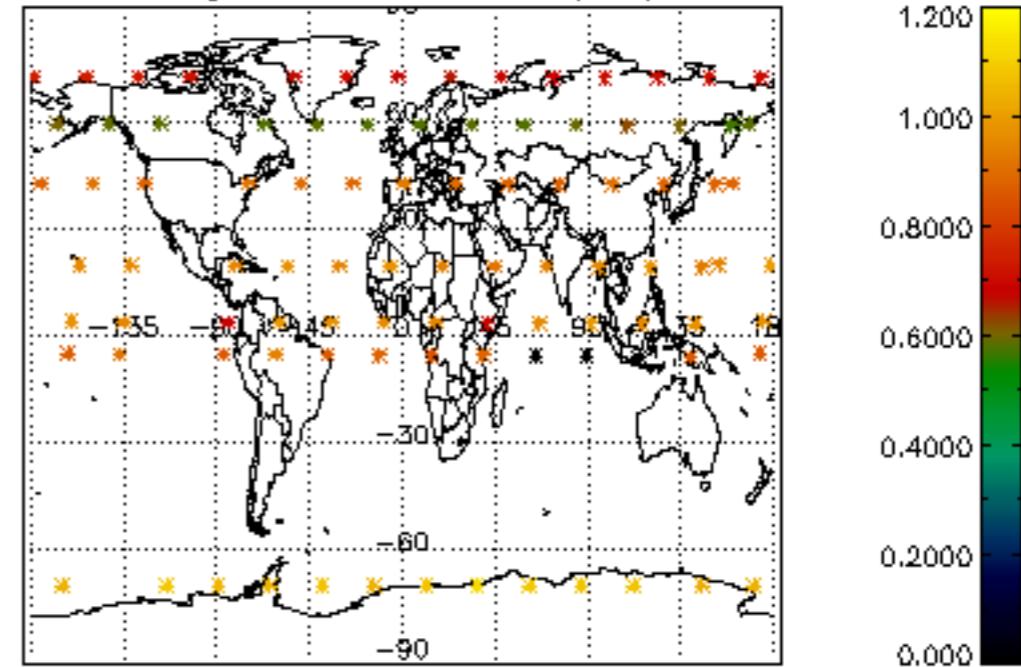
Percentage of saturation errors per profile



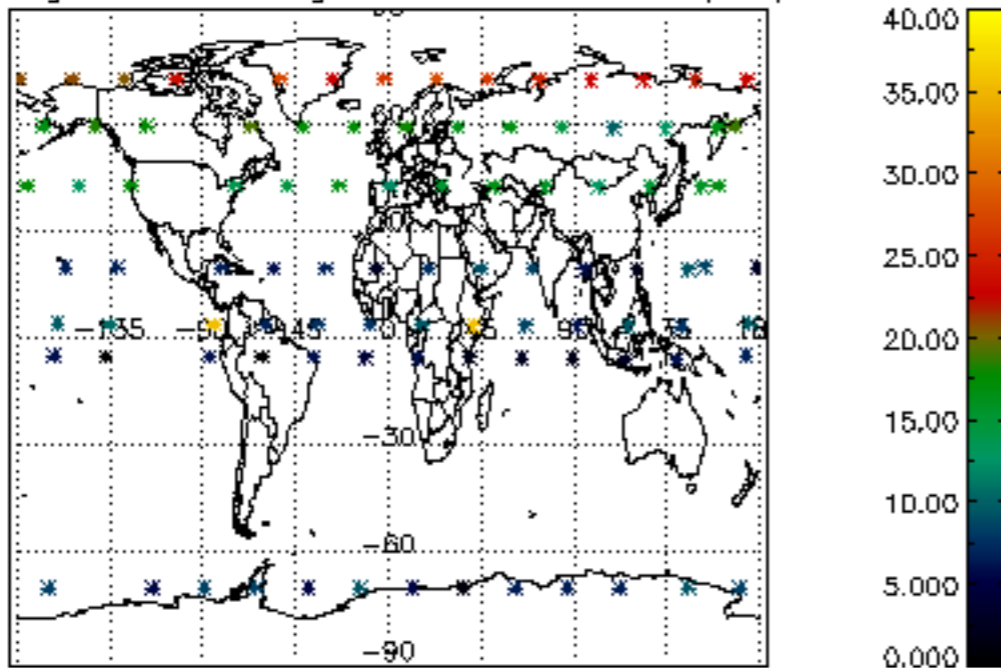
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

