

# 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	29APR2013 11:09:21
Data source version	GOMOS/6.01
Start time of products	25-05-2010 (25MAY2010 00:00:00)
Stop time of products	26-05-2010 (26MAY2010 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	238
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__2PRFIN20100525_000139_000000462089_00403_43042_1380.N1	25-MAY-2010 00:01:39	Dark	45.500	31	Alp Gru	1.7340	15200.	91	43042	No
2	GOM_NL__2PRFIN20100525_000658_000000422089_00403_43042_1381.N1	25-MAY-2010 00:06:58	Dark	42.000	45	Alp Pav	1.9400	26000.	84	43042	No
3	GOM_NL__2PRFIN20100525_001340_000000442089_00403_43042_1382.N1	25-MAY-2010 00:13:40	Straylight	43.500	141	Bet Ara	2.8400	4600.0	87	43042	No
4	GOM_NL__2PRFIN20100525_001628_000000502089_00403_43042_1383.N1	25-MAY-2010 00:16:28	Straylight	49.500	40	The Sco	1.8590	7100.0	99	43042	No
5	GOM_NL__2PRFIN20100525_001819_000000502089_00403_43042_1384.N1	25-MAY-2010 00:18:19	Straylight	49.500	25	35Lam Sco	1.6200	28000.	99	43042	No
6	GOM_NL__2PRFIN20100525_002018_000000502089_00403_43042_1385.N1	25-MAY-2010 00:20:18	Twilight_stray	49.500	75	26Eps Sco	2.2910	4250.0	99	43042	No
7	GOM_NL__2PRFIN20100525_002308_000000522089_00403_43042_1386.N1	25-MAY-2010 00:23:08	Bright	52.000	16	21Alp Sco	1.0200	3000.0	104	43042	No
8	GOM_NL__2PRFIN20100525_002530_000000402089_00403_43042_1387.N1	25-MAY-2010 00:25:30	Bright	39.500	97	8Bet1Sco	2.5610	30000.	79	43042	No
9	GOM_NL__2PRFIN20100525_002858_000000382089_00403_43042_1388.N1	25-MAY-2010 00:28:58	Bright	37.500	104	27Bet Lib	2.6140	13100.	75	43042	No
10	GOM_NL__2PRFIN20100525_003041_000000462089_00403_43042_1389.N1	25-MAY-2010 00:30:41	Bright	45.500	120	1Del Oph	2.7340	3200.0	91	43042	No
11	GOM_NL__2PRFIN20100525_003345_000000392089_00403_43042_1390.N1	25-MAY-2010 00:33:45	Bright	39.000	102	24Alp Ser	2.6000	4250.0	78	43042	No
12	GOM_NL__2PRFIN20100525_003932_000000392089_00403_43042_1391.N1	25-MAY-2010 00:39:32	Bright	38.500	83		2.3780	11000.	77	43042	No
13	GOM_NL__2PRFIN20100525_005041_000000392089_00403_43042_1392.N1	25-MAY-2010 00:50:41	Bright	38.500	119	14Eta Dra	2.7270	4700.0	77	43042	No
14	GOM_NL__2PRFIN20100525_005253_000000382089_00403_43042_1393.N1	25-MAY-2010 00:52:53	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	43042	No
15	GOM_NL__2PRFIN20100525_010538_000000542089_00403_43042_1394.N1	25-MAY-2010 01:05:38	Bright	54.000	76	27Gam Cas	2.3000	30000.	108	43042	No
16	GOM_NL__2PRFIN20100525_010650_000000392089_00403_43042_1395.N1	25-MAY-2010 01:06:50	Bright	38.500	68	18Alp Cas	2.2250	4500.0	77	43042	No
17	GOM_NL__2PRFIN20100525_011305_000000392089_00403_43042_1396.N1	25-MAY-2010 01:13:05	Bright	39.000	53	43Bet And	2.0480	3300.0	78	43042	No
18	GOM_NL__2PRFIN20100525_011538_000000452089_00403_43042_1397.N1	25-MAY-2010 01:15:38	Twilight_stray	44.500	58	21Alp And	2.0730	11000.	89	43042	No
19	GOM_NL__2PRFIN20100525_012009_000000462089_00403_43042_1398.N1	25-MAY-2010 01:20:09	Dark	46.000	140	88Gam Peg	2.8340	26000.	92	43042	No
20	GOM_NL__2PRFIN20100525_012859_000000462089_00403_43042_1399.N1	25-MAY-2010 01:28:59	Dark	45.500	52	16Bet Cet	2.0370	4500.0	91	43042	No
21	GOM_NL__2PRFIN20100525_014032_000000482089_00403_43042_1400.N1	25-MAY-2010 01:40:32	Dark	47.500	63	Bet Gru	2.1500	2800.0	95	43042	No
22	GOM_NL__2PRFIN20100525_014215_000000442089_00404_43043_1388.N1	25-MAY-2010 01:42:15	Dark	44.000	31	Alp Gru	1.7340	15200.	88	43043	No
23	GOM_NL__2PRFIN20100525_014735_000000422089_00404_43043_1389.N1	25-MAY-2010 01:47:35	Dark	42.000	45	Alp Pav	1.9400	26000.	84	43043	No
24	GOM_NL__2PRFIN20100525_015416_000000432089_00404_43043_1390.N1	25-MAY-2010 01:54:16	Straylight	43.000	141	Bet Ara	2.8400	4600.0	86	43043	No
25	GOM_NL__2PRFIN20100525_015705_000000482089_00404_43043_1391.N1	25-MAY-2010 01:57:05	Straylight	47.500	40	The Sco	1.8590	7100.0	95	43043	No
26	GOM_NL__2PRFIN20100525_015855_000000512089_00404_43043_1392.N1	25-MAY-2010 01:58:55	Straylight	50.500	25	35Lam Sco	1.6200	28000.	101	43043	No
27	GOM_NL__2PRFIN20100525_020055_000000512089_00404_43043_1393.N1	25-MAY-2010 02:00:55	Twilight_stray	51.000	75	26Eps Sco	2.2910	4250.0	102	43043	No
28	GOM_NL__2PRFIN20100525_020344_000000562089_00404_43043_1394.N1	25-MAY-2010 02:03:44	Bright	56.000	16	21Alp Sco	1.0200	3000.0	112	43043	No
29	GOM_NL__2PRFIN20100525_020606_000000412089_00404_43043_1395.N1	25-MAY-2010 02:06:06	Bright	40.500	97	8Bet1Sco	2.5610	30000.	81	43043	No
30	GOM_NL__2PRFIN20100525_020934_000000372089_00404_43043_1396.N1	25-MAY-2010 02:09:34	Bright	36.500	104	27Bet Lib	2.6140	13100.	73	43043	No
31	GOM_NL__2PRFIN20100525_021117_000000452089_00404_43043_1397.N1	25-MAY-2010 02:11:17	Bright	44.500	120	1Del Oph	2.7340	3200.0	89	43043	No
32	GOM_NL__2PRFIN20100525_021420_000000392089_00404_43043_1398.N1	25-MAY-2010 02:14:20	Bright	39.000	102	24Alp Ser	2.6000	4250.0	78	43043	No
33	GOM_NL__2PRFIN20100525_022007_000000402089_00404_43043_1399.N1	25-MAY-2010 02:20:07	Bright	39.500	83		2.3780	11000.	79	43043	No
34	GOM_NL__2PRFIN20100525_023117_000000382089_00404_43043_1400.N1	25-MAY-2010 02:31:17	Bright	37.500	119	14Eta Dra	2.7270	4700.0	75	43043	No
35	GOM_NL__2PRFIN20100525_023329_000000342089_00404_43043_1401.N1	25-MAY-2010 02:33:29	Bright	34.000	60	7Bet UMi	2.0810	3950.0	68	43043	No
36	GOM_NL__2PRFIN20100525_024614_000000382089_00404_43043_1402.N1	25-MAY-2010 02:46:14	Bright	38.000	76	27Gam Cas	2.3000	30000.	76	43043	No
37	GOM_NL__2PRFIN20100525_024726_000000552089_00404_43043_1403.N1	25-MAY-2010 02:47:26	Bright	55.000	68	18Alp Cas	2.2250	4500.0	110	43043	No
38	GOM_NL__2PRFIN20100525_025341_000000392089_00404_43043_1404.N1	25-MAY-2010 02:53:41	Bright	39.000	53	43Bet And	2.0480	3300.0	78	43043	No
39	GOM_NL__2PRFIN20100525_025614_000000502089_00404_43043_1405.N1	25-MAY-2010 02:56:14	Twilight_stray	49.500	58	21Alp And	2.0730	11000.	99	43043	No
40	GOM_NL__2PRFIN20100525_030045_000000482089_00404_43043_1406.N1	25-MAY-2010 03:00:45	Dark	48.000	140	88Gam Peg	2.8340	26000.	96	43043	No
41	GOM_NL__2PRFIN20100525_030936_000000452089_00404_43043_1407.N1	25-MAY-2010 03:09:36	Dark	44.500	52	16Bet Cet	2.0370	4500.0	89	43043	No
42	GOM_NL__2PRFIN20100525_032109_000000532089_00404_43043_1408.N1	25-MAY-2010 03:21:09	Dark	52.500	63	Bet Gru	2.1500	2800.0	105	43043	No





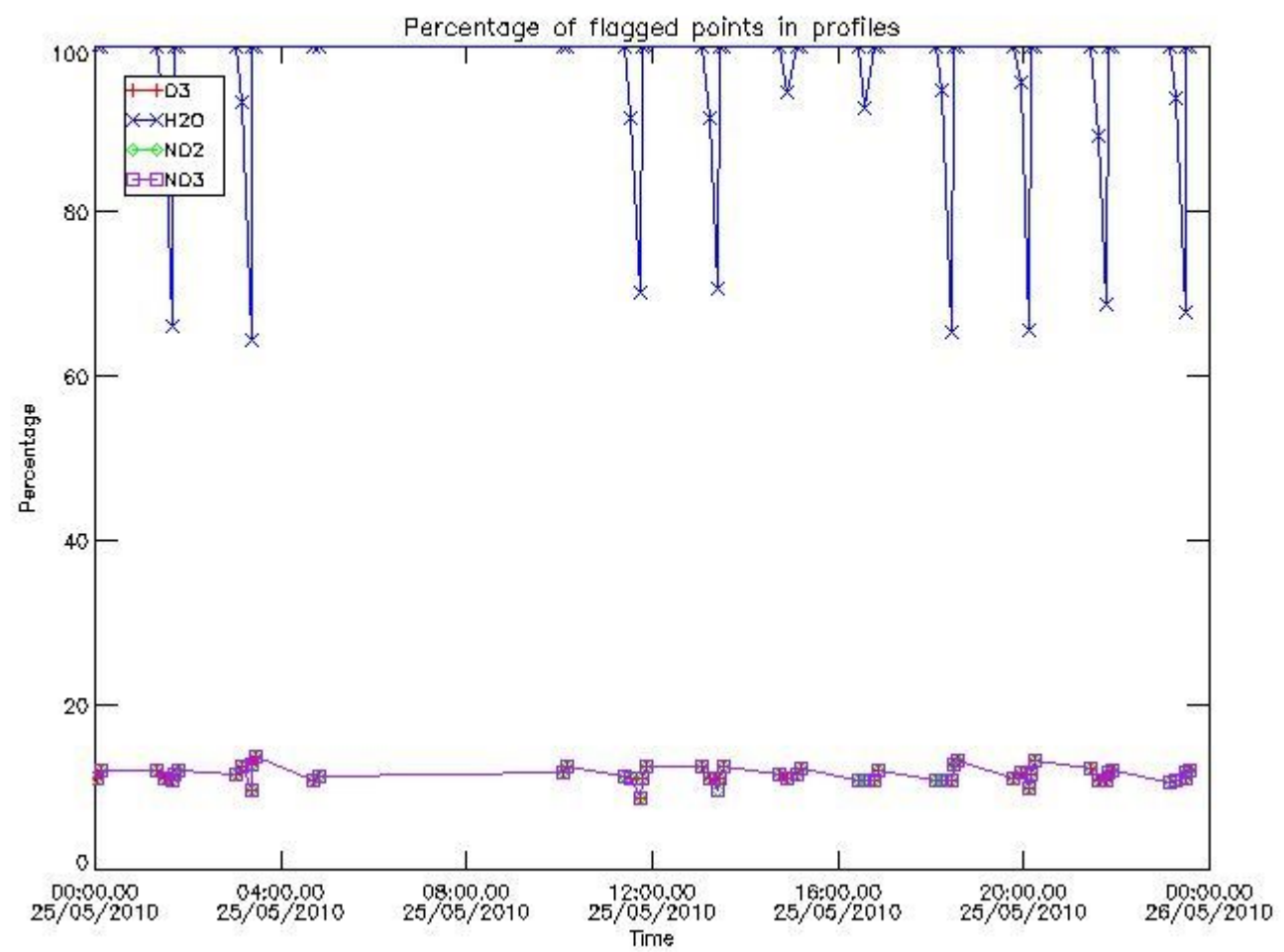


220	GOM_NL__2PRFIN20100525_223824_000000412089_00416_43055_1620.N1	25-MAY-2010 22:38:24	Bright	40.500	119	14Eta Dra	2.7270	4700.0	81	43055	No
221	GOM_NL__2PRFIN20100525_224040_000000392089_00416_43055_1621.N1	25-MAY-2010 22:40:40	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	43055	No
222	GOM_NL__2PRFIN20100525_225325_000000542089_00416_43055_1622.N1	25-MAY-2010 22:53:25	Bright	54.000	76	27Gam Cas	2.3000	30000.	108	43055	No
223	GOM_NL__2PRFIN20100525_225437_000000452089_00416_43055_1623.N1	25-MAY-2010 22:54:37	Bright	45.000	68	18Alp Cas	2.2250	4500.0	90	43055	No
224	GOM_NL__2PRFIN20100525_230054_000000402089_00416_43055_1624.N1	25-MAY-2010 23:00:54	Bright	39.500	53	43Bet And	2.0480	3300.0	79	43055	No
225	GOM_NL__2PRFIN20100525_230328_000000502089_00416_43055_1625.N1	25-MAY-2010 23:03:28	Twilight	50.000	58	21Alp And	2.0730	11000.	100	43055	No
226	GOM_NL__2PRFIN20100525_230801_000000482089_00416_43055_1626.N1	25-MAY-2010 23:08:01	Dark	48.000	140	88Gam Peg	2.8340	26000.	96	43055	No
227	GOM_NL__2PRFIN20100525_231653_000000482089_00416_43055_1627.N1	25-MAY-2010 23:16:53	Dark	47.500	52	16Bet Cet	2.0370	4500.0	95	43055	No
228	GOM_NL__2PRFIN20100525_232829_000000462089_00416_43055_1615.N1	25-MAY-2010 23:28:29	Dark	45.500	63	Bet Gru	2.1500	2800.0	91	43055	No
229	GOM_NL__2PRFIN20100525_233014_000000442089_00417_43056_1616.N1	25-MAY-2010 23:30:14	Dark	43.500	31	Alp Gru	1.7340	15200.	87	43056	No
230	GOM_NL__2PRFIN20100525_233531_000000422089_00417_43056_1617.N1	25-MAY-2010 23:35:31	Dark	42.000	45	Alp Pav	1.9400	26000.	84	43056	No
231	GOM_NL__2PRFIN20100525_234209_000000422089_00417_43056_1618.N1	25-MAY-2010 23:42:09	Straylight	41.500	141	Bet Ara	2.8400	4600.0	83	43056	No
232	GOM_NL__2PRFIN20100525_234459_000000492089_00417_43056_1619.N1	25-MAY-2010 23:44:59	Straylight	48.500	40	The Sco	1.8590	7100.0	97	43056	No
233	GOM_NL__2PRFIN20100525_234649_000000482089_00417_43056_1620.N1	25-MAY-2010 23:46:49	Straylight	48.000	25	35Lam Sco	1.6200	28000.	96	43056	No
234	GOM_NL__2PRFIN20100525_234847_000000472089_00417_43056_1621.N1	25-MAY-2010 23:48:47	Twilight	47.000	75	26Eps Sco	2.2910	4250.0	94	43056	No
235	GOM_NL__2PRFIN20100525_235055_000000452089_00417_43056_1622.N1	25-MAY-2010 23:50:55	Twilight	45.000	136	23Tau Sco	2.8220	30000.	90	43056	No
236	GOM_NL__2PRFIN20100525_235355_000000412089_00417_43056_1623.N1	25-MAY-2010 23:53:55	Bright	40.500	97	8Bet1Sco	2.5610	30000.	81	43056	No
237	GOM_NL__2PRFIN20100525_235722_000000382089_00417_43056_1624.N1	25-MAY-2010 23:57:22	Bright	37.500	104	27Bet Lib	2.6140	13100.	75	43056	No
238	GOM_NL__2PRFIN20100525_235903_000000432089_00417_43056_1625.N1	25-MAY-2010 23:59:03	Bright	42.500	120	1Del Oph	2.7340	3200.0	85	43056	No

### 3. Quality information per product

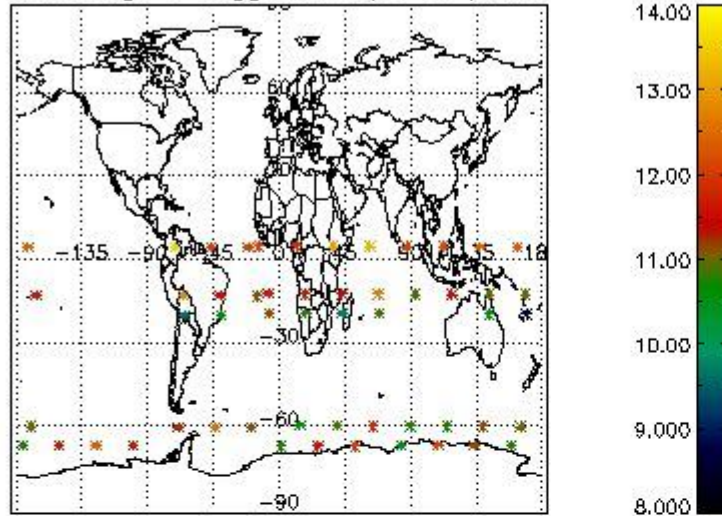
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

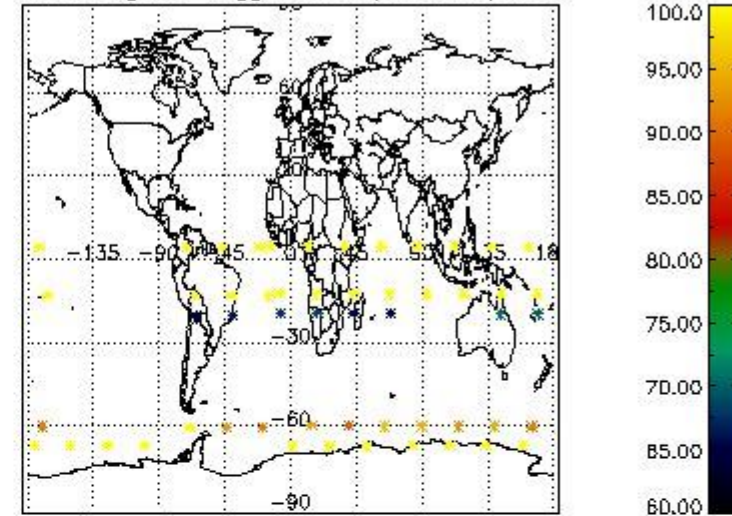


3.2 Plot quality information per product (world map)

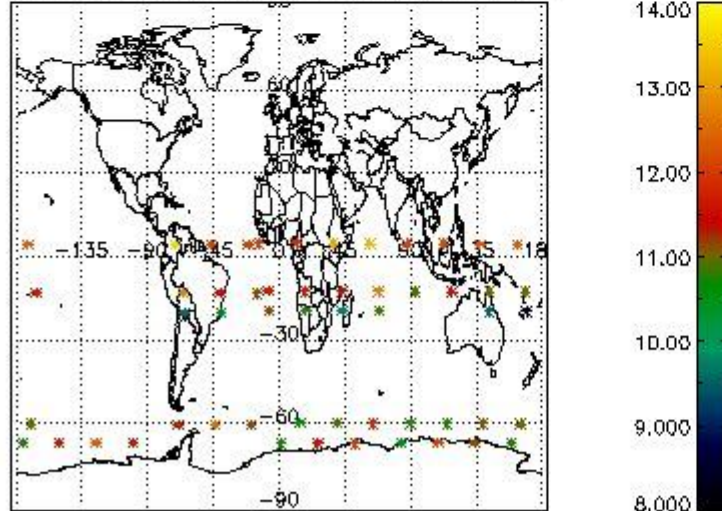
Percentage of flagged data per O3 profile



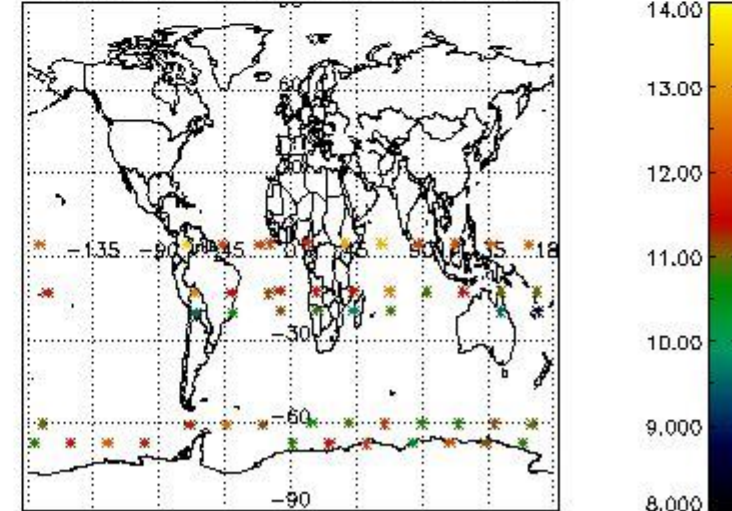
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



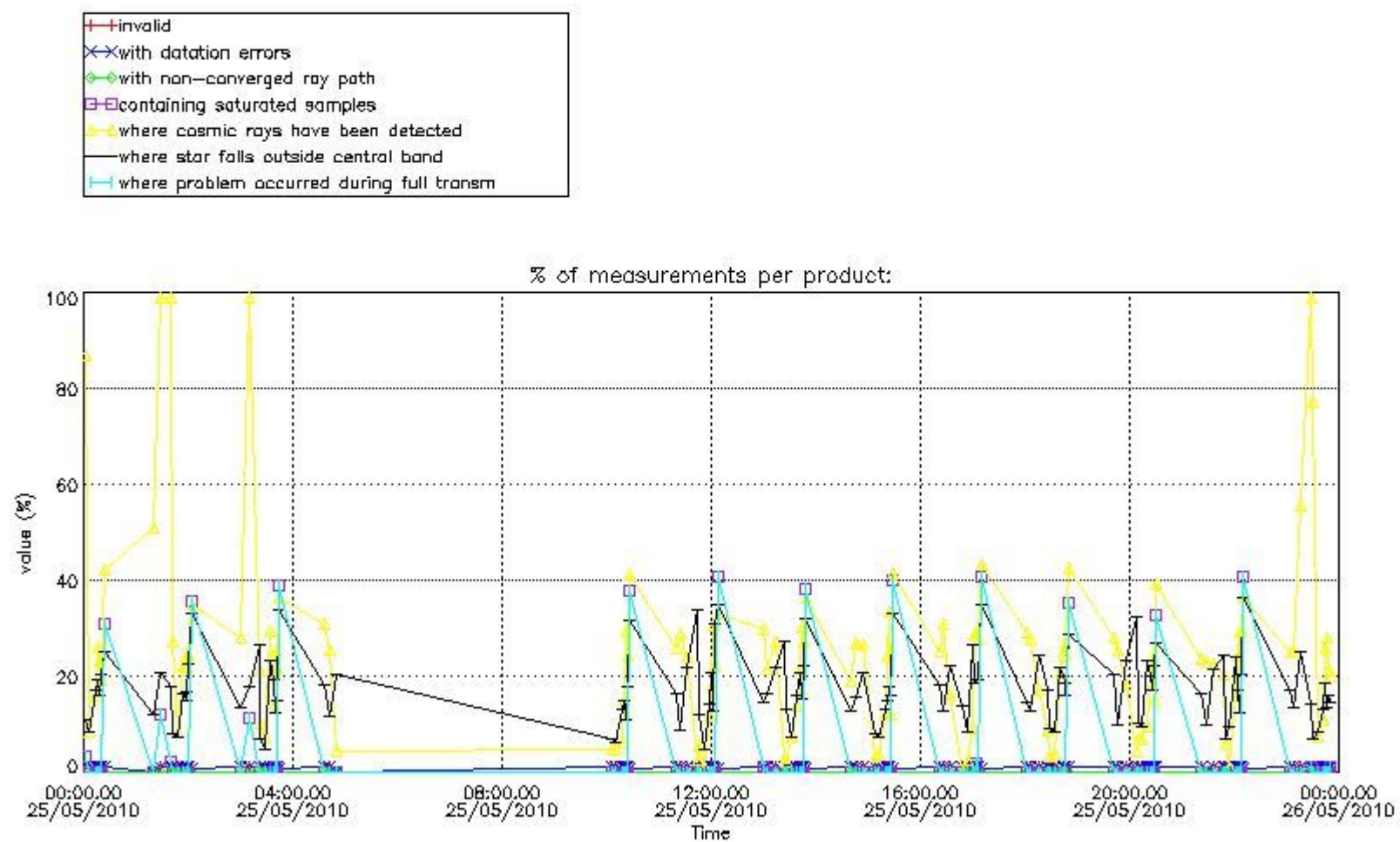
#### 4. Level 1 quality information per product

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.

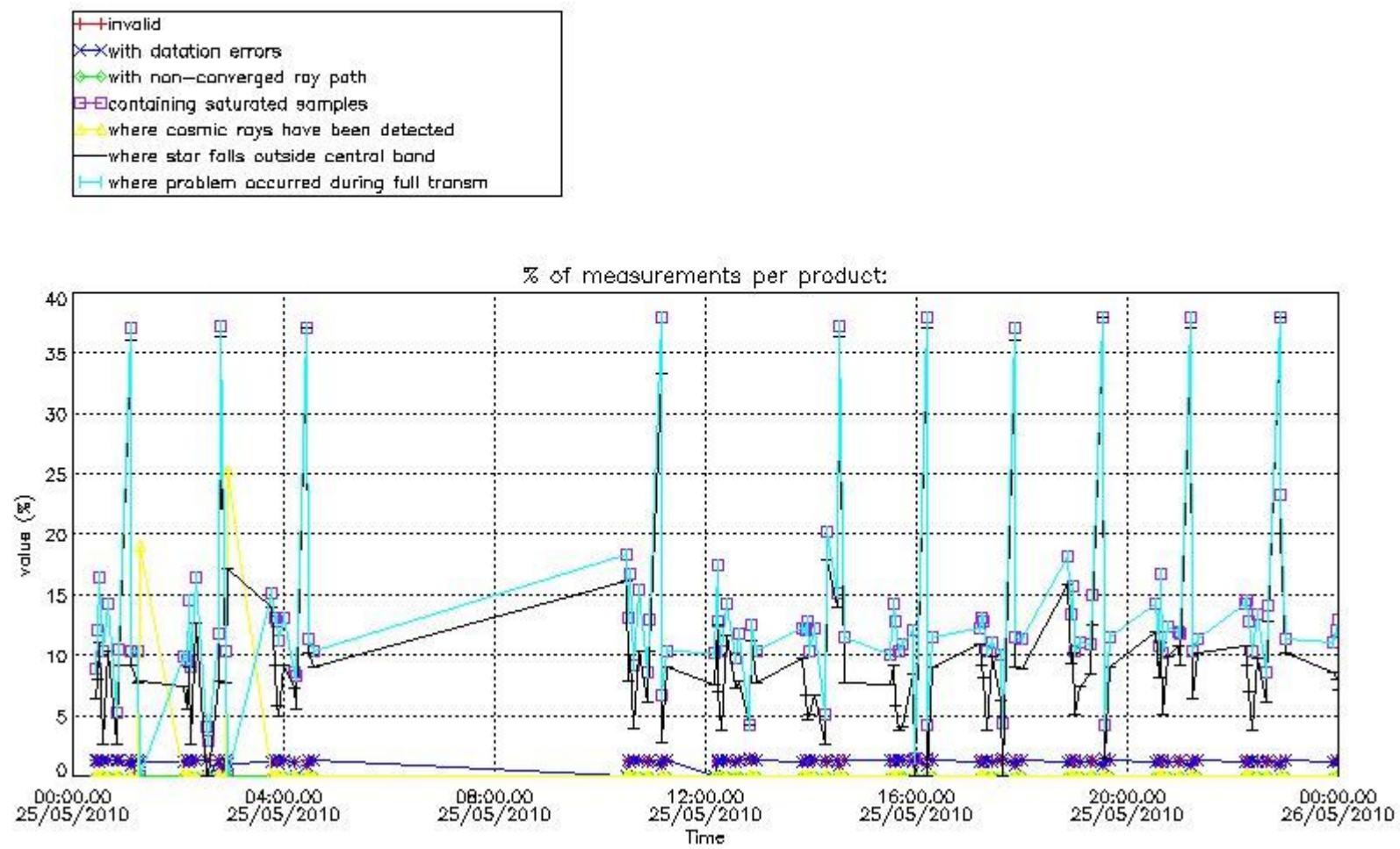
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

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



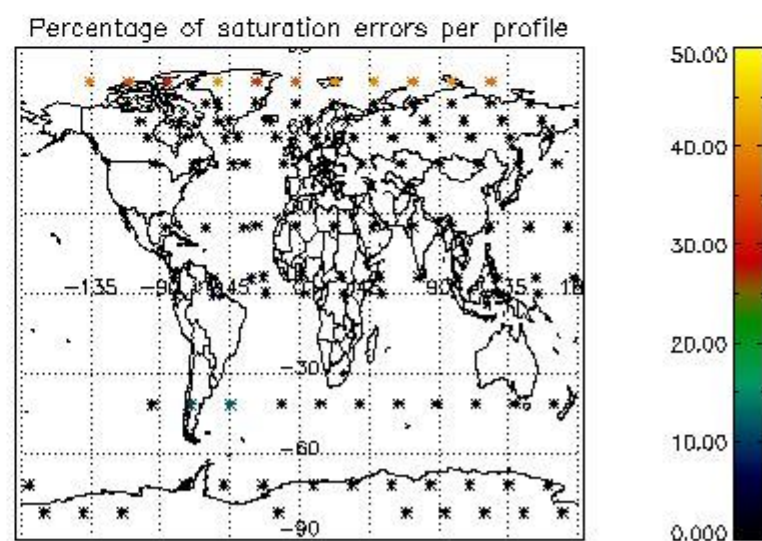
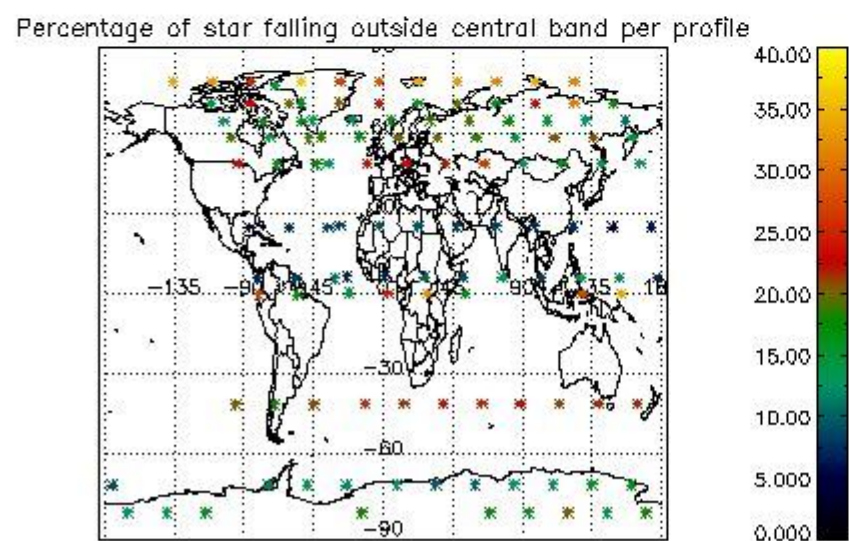
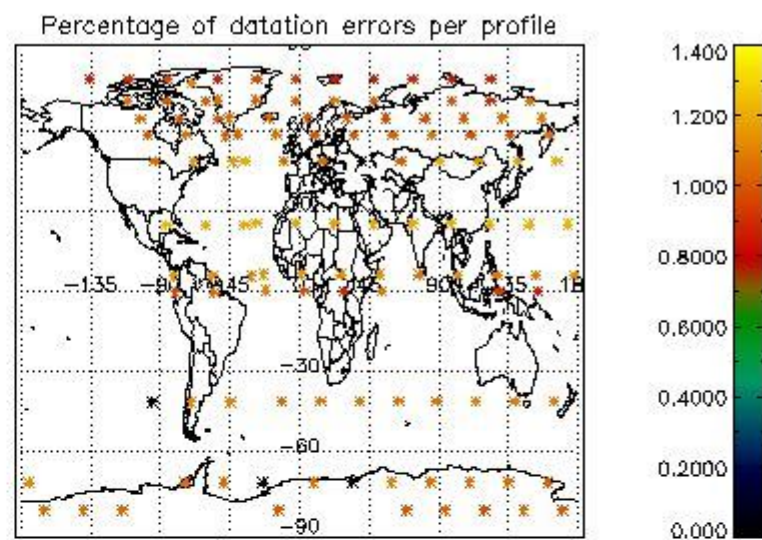
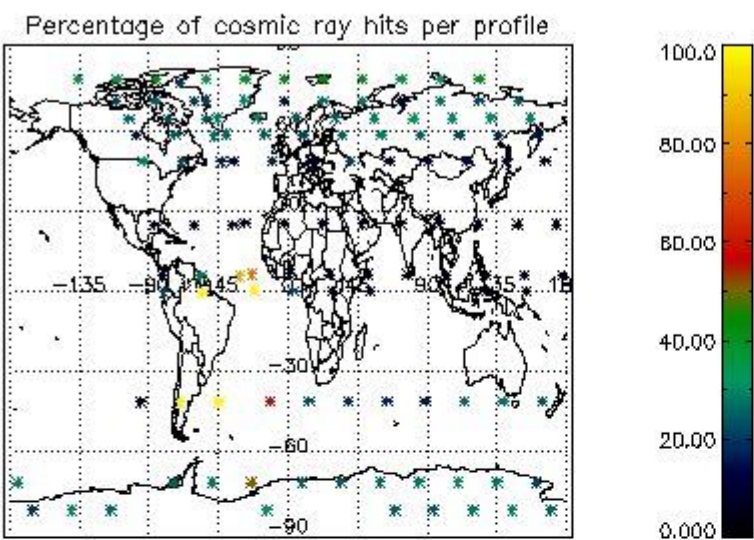


4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

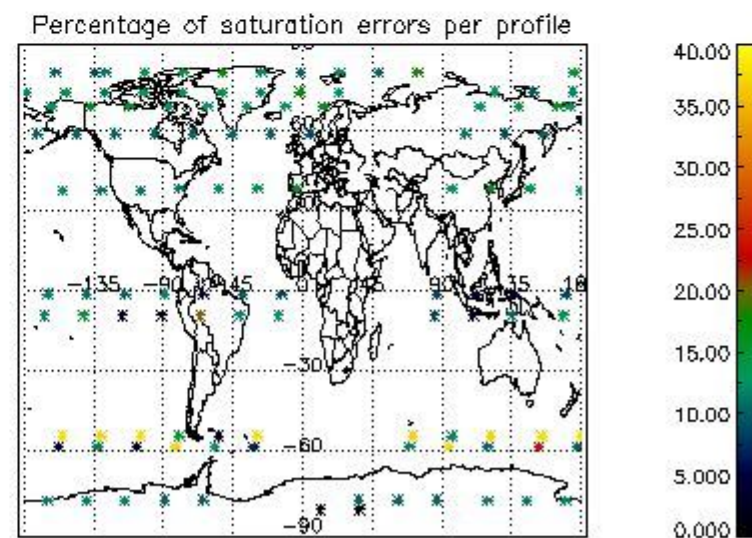
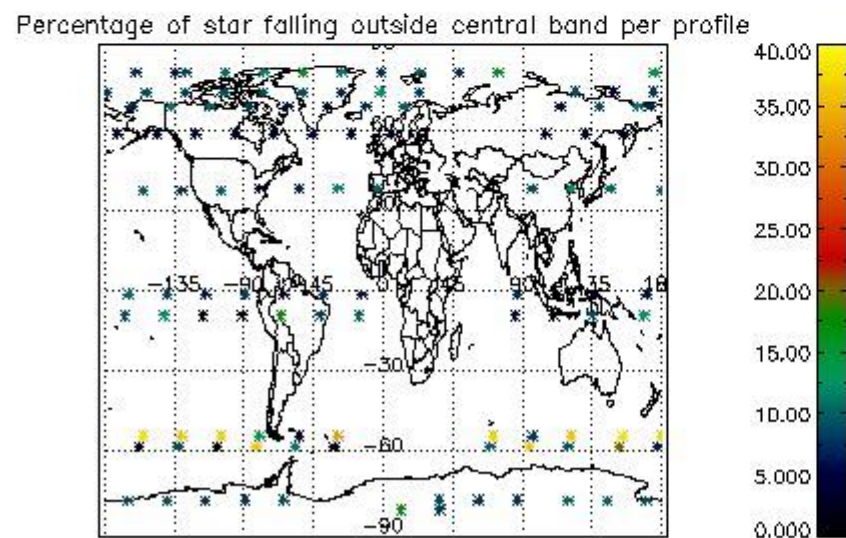
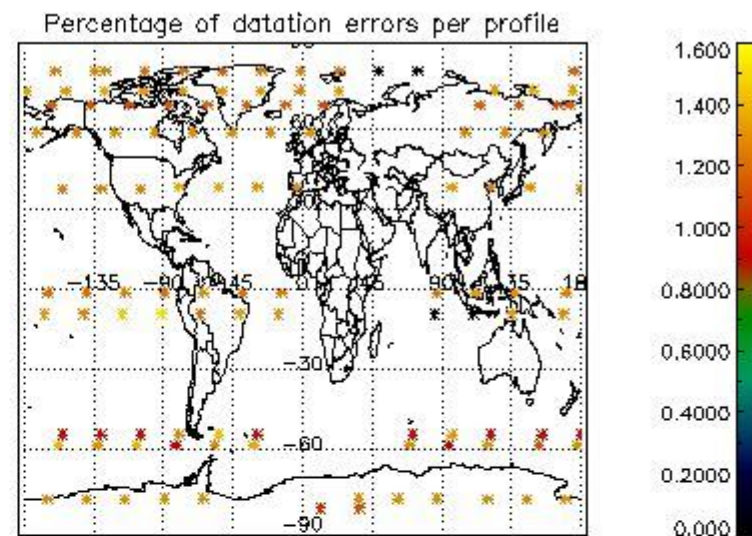
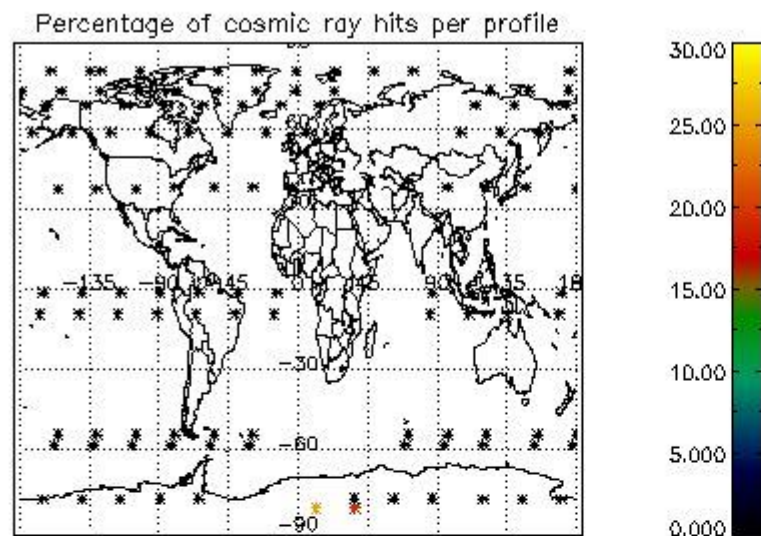


4.2 Plot quality information per product coming from level 1b processing (world map)

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



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

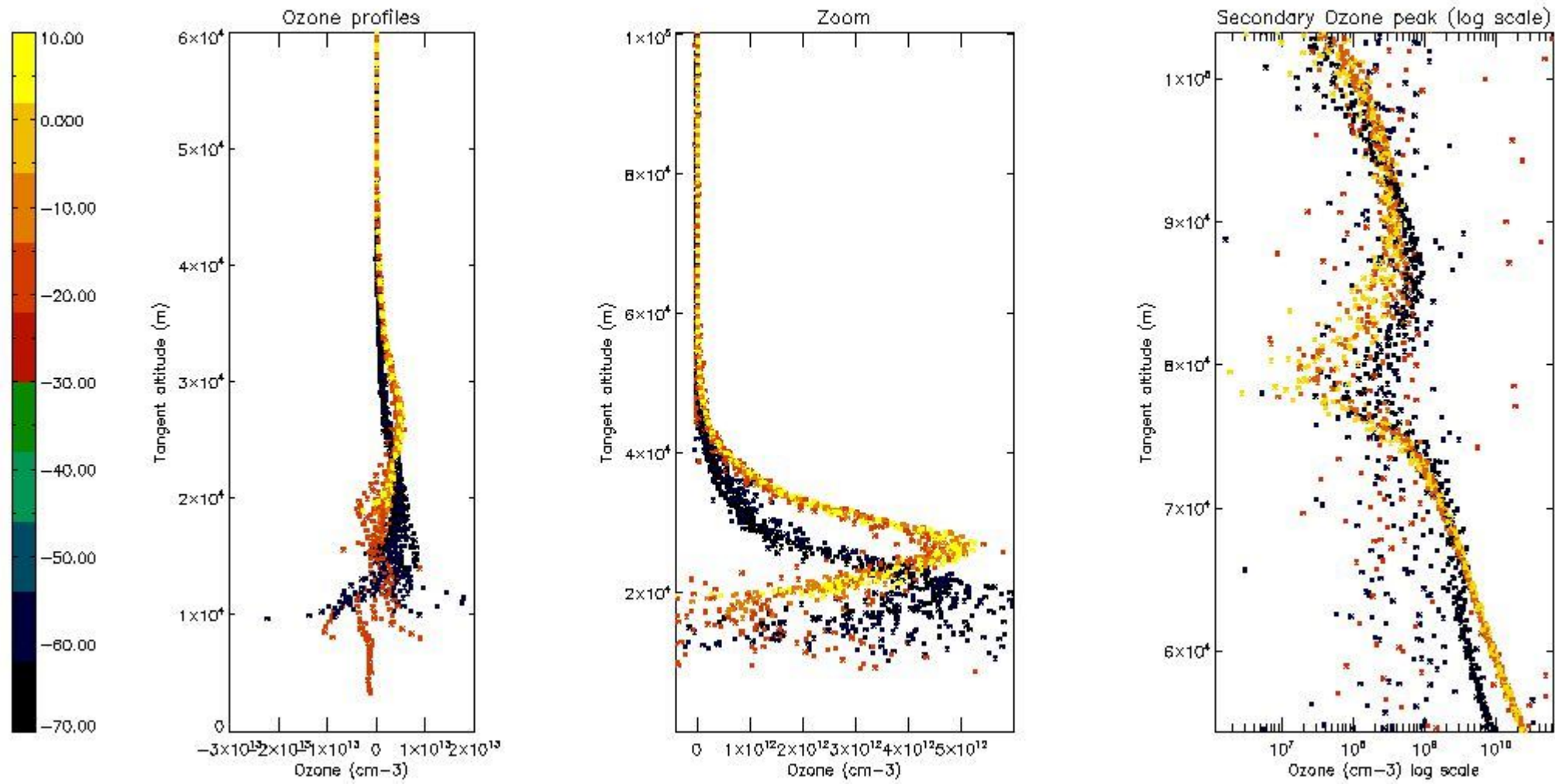
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	24
STD < 20	13

STD < 10	9
STD < 5	7

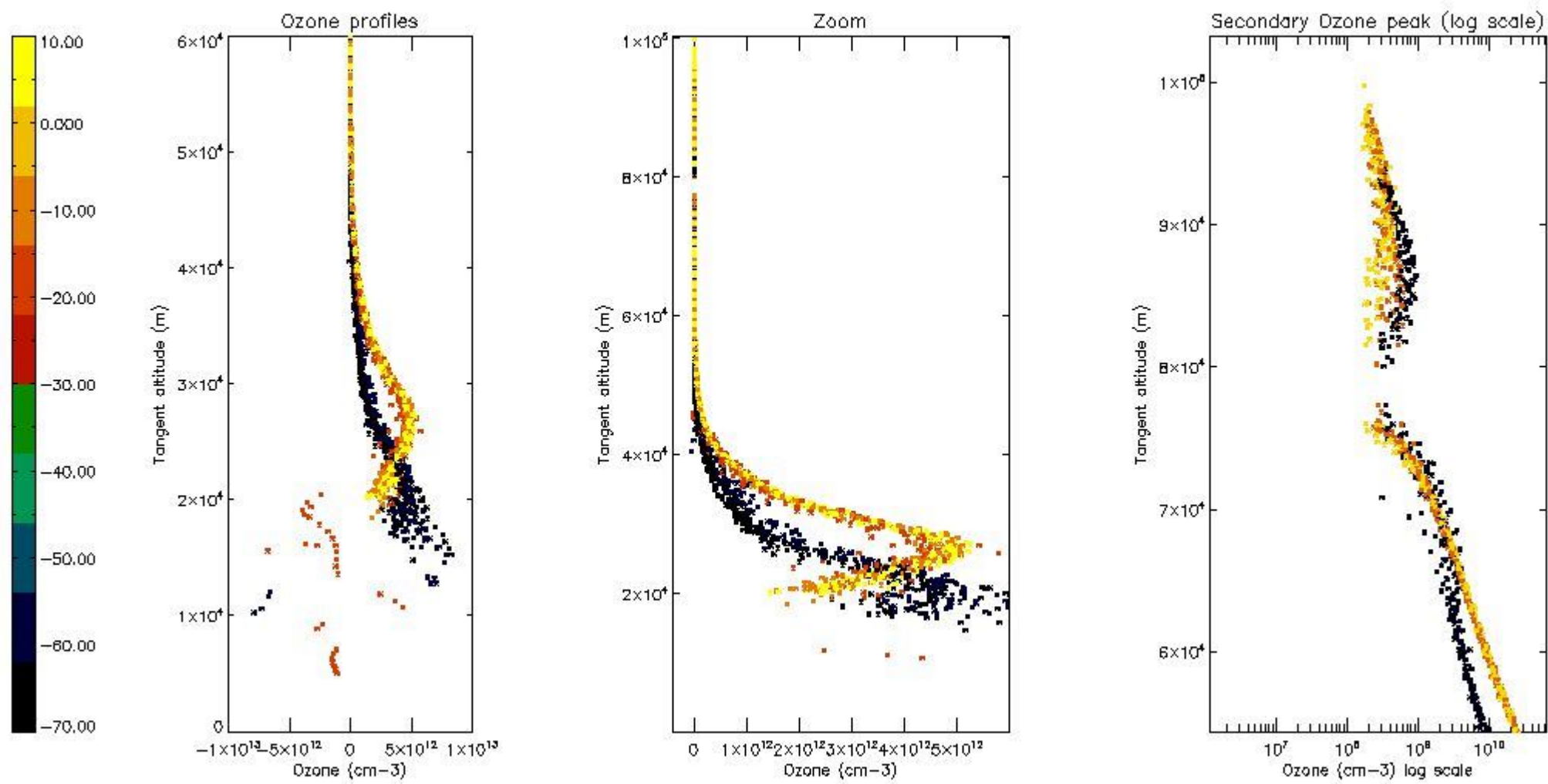
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



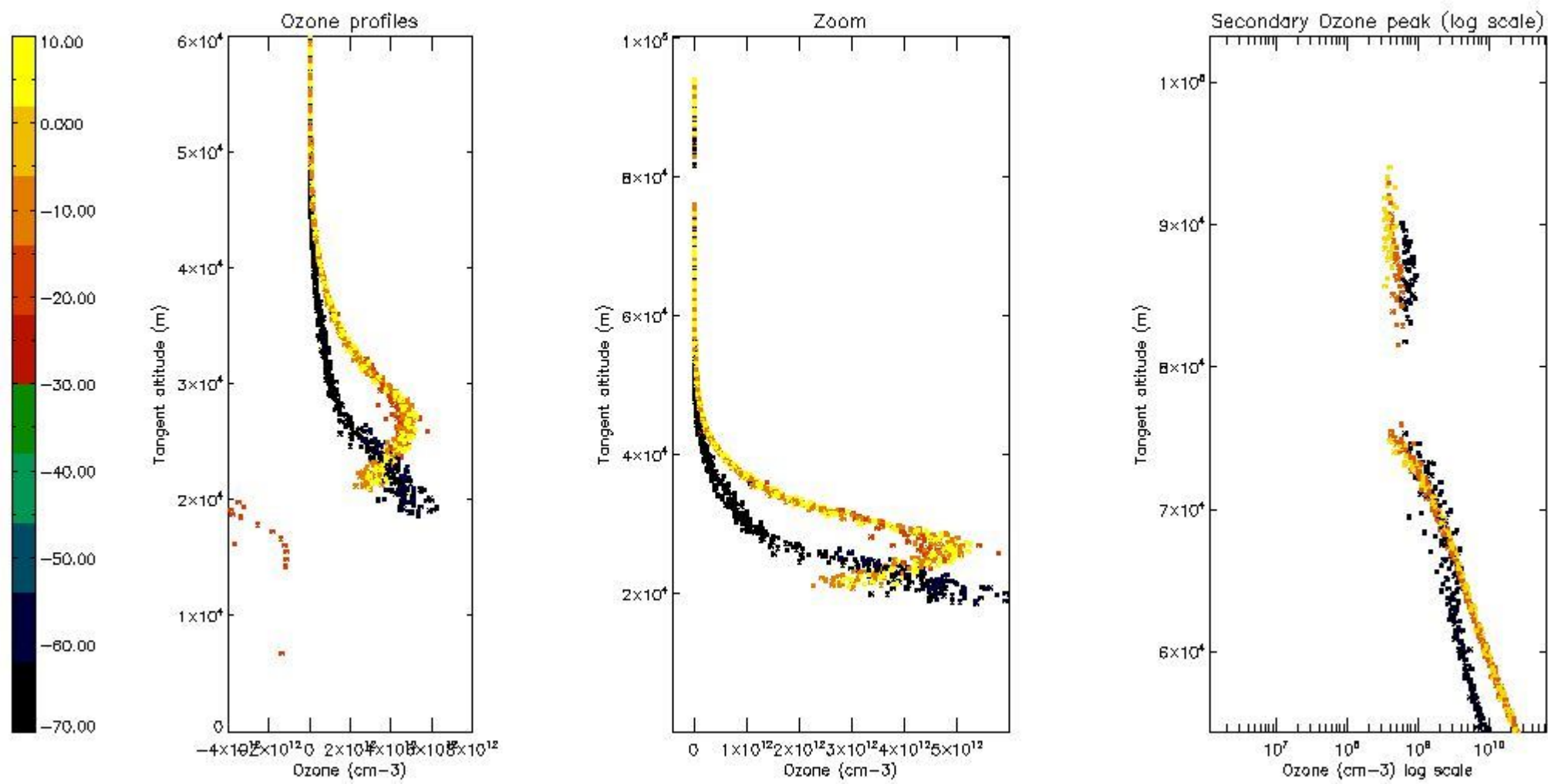
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



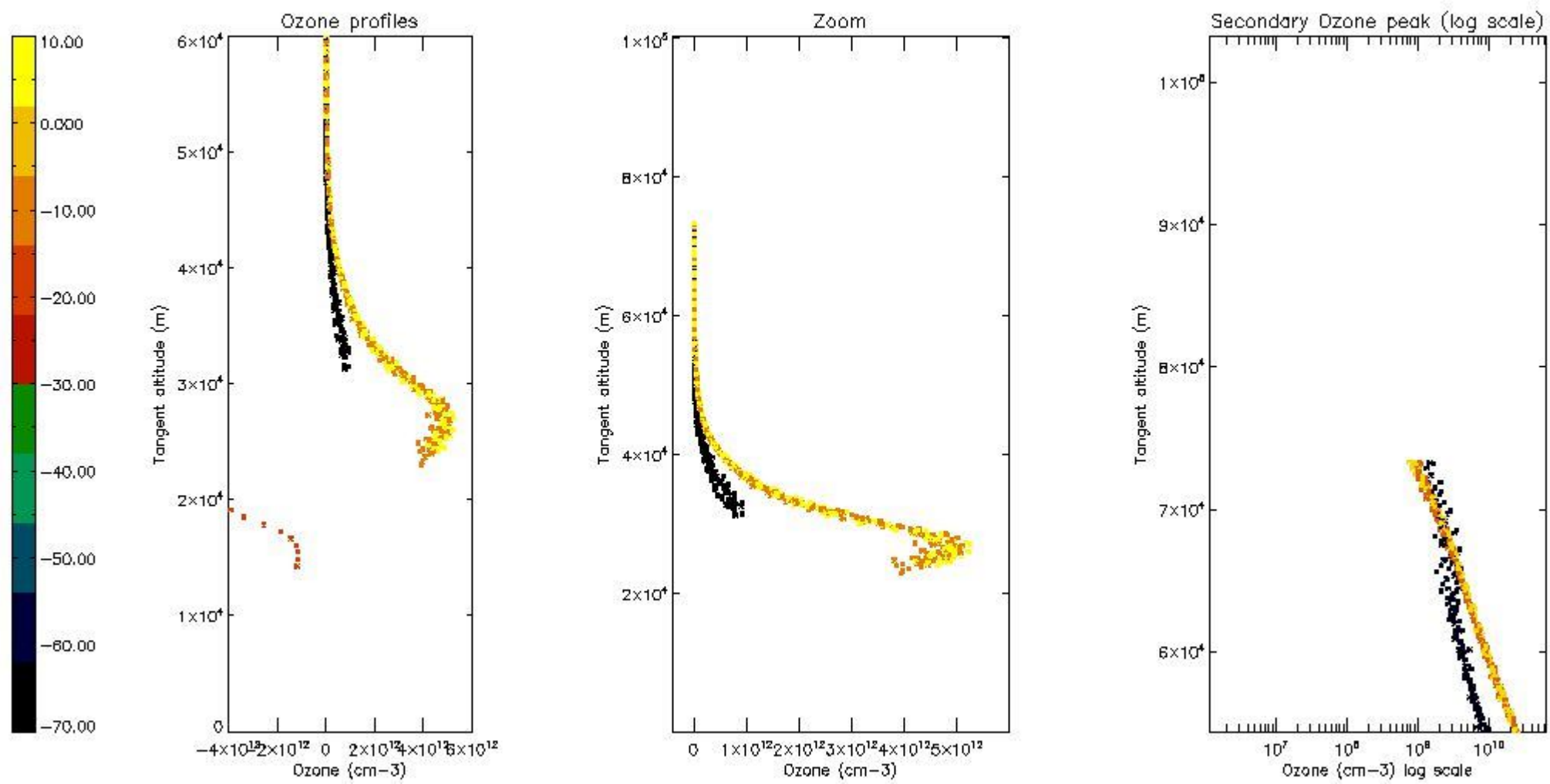
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



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

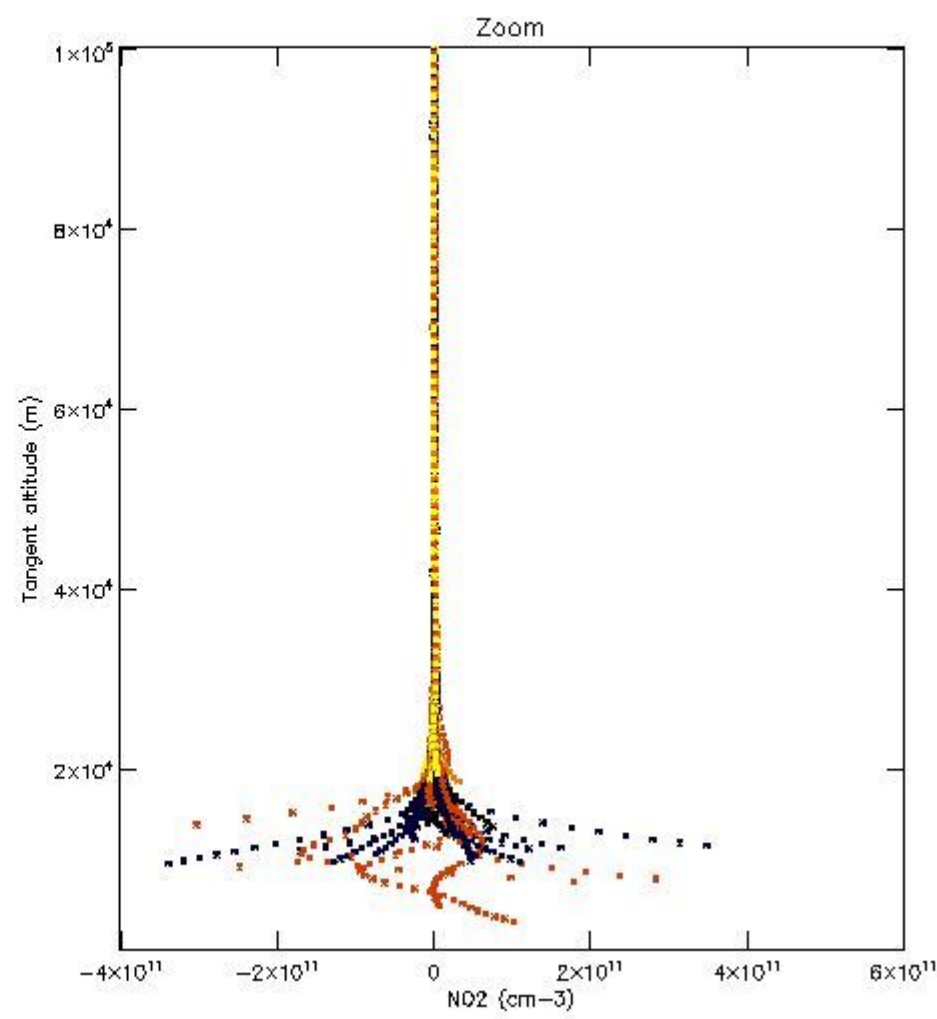
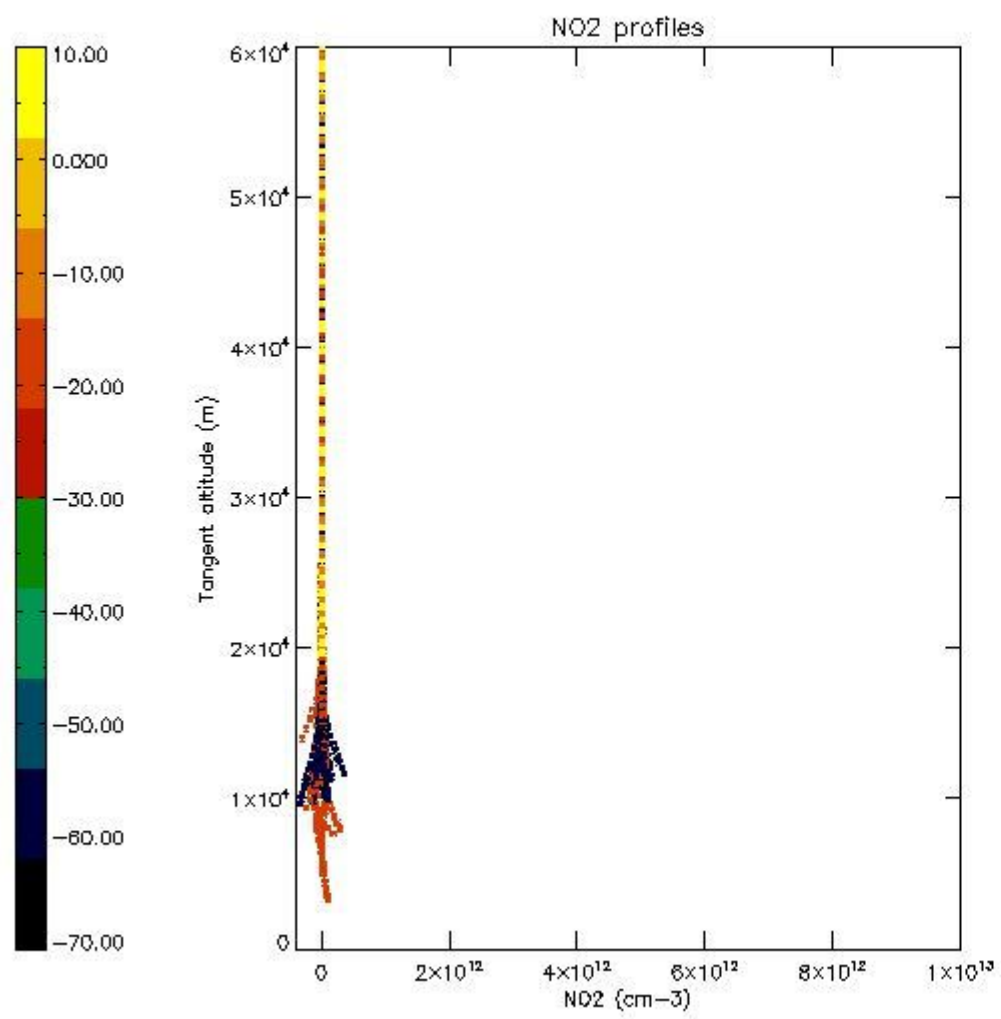
The colorbar represents the latitude.



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

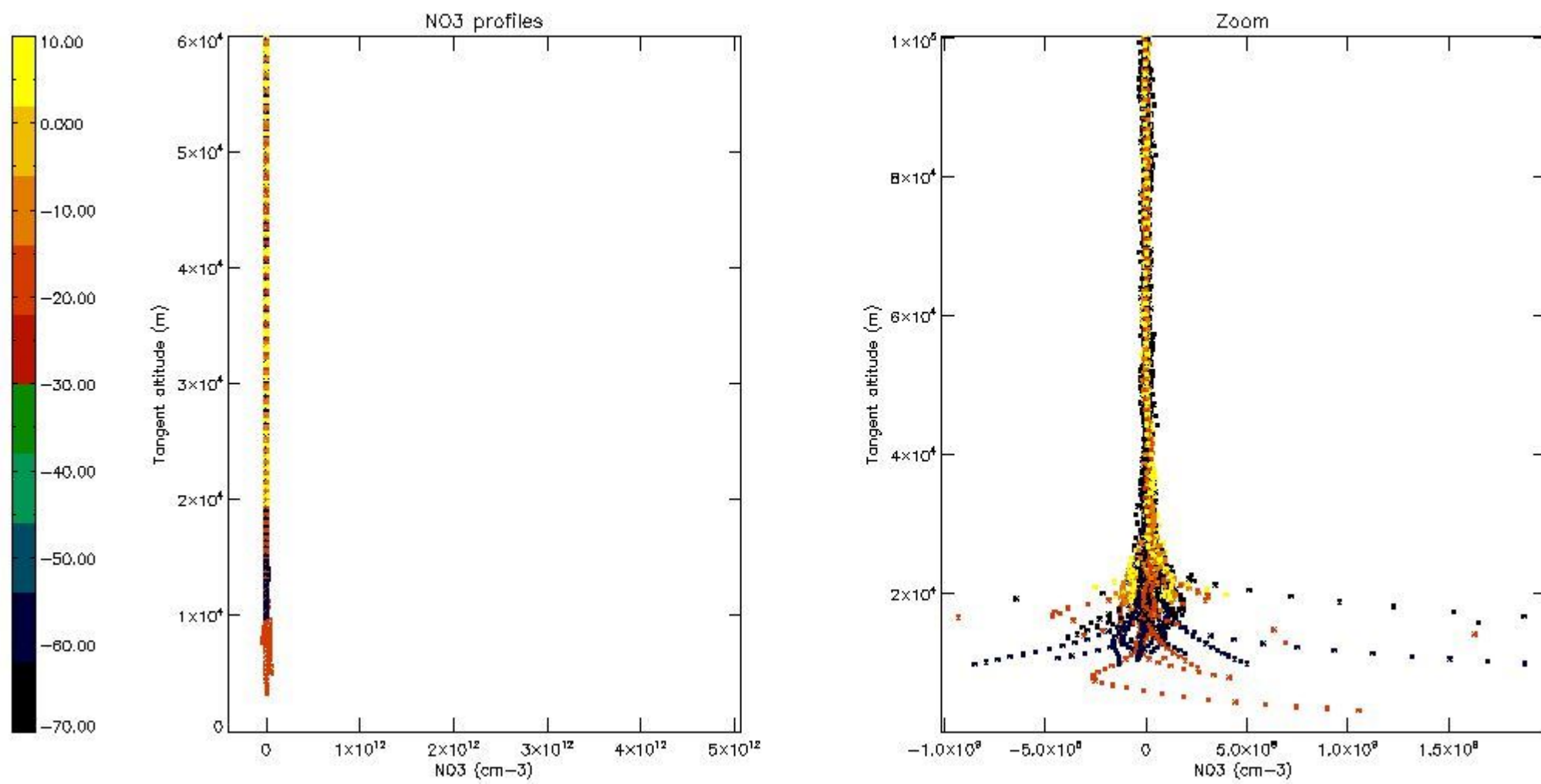
The colorbar represents the latitude.





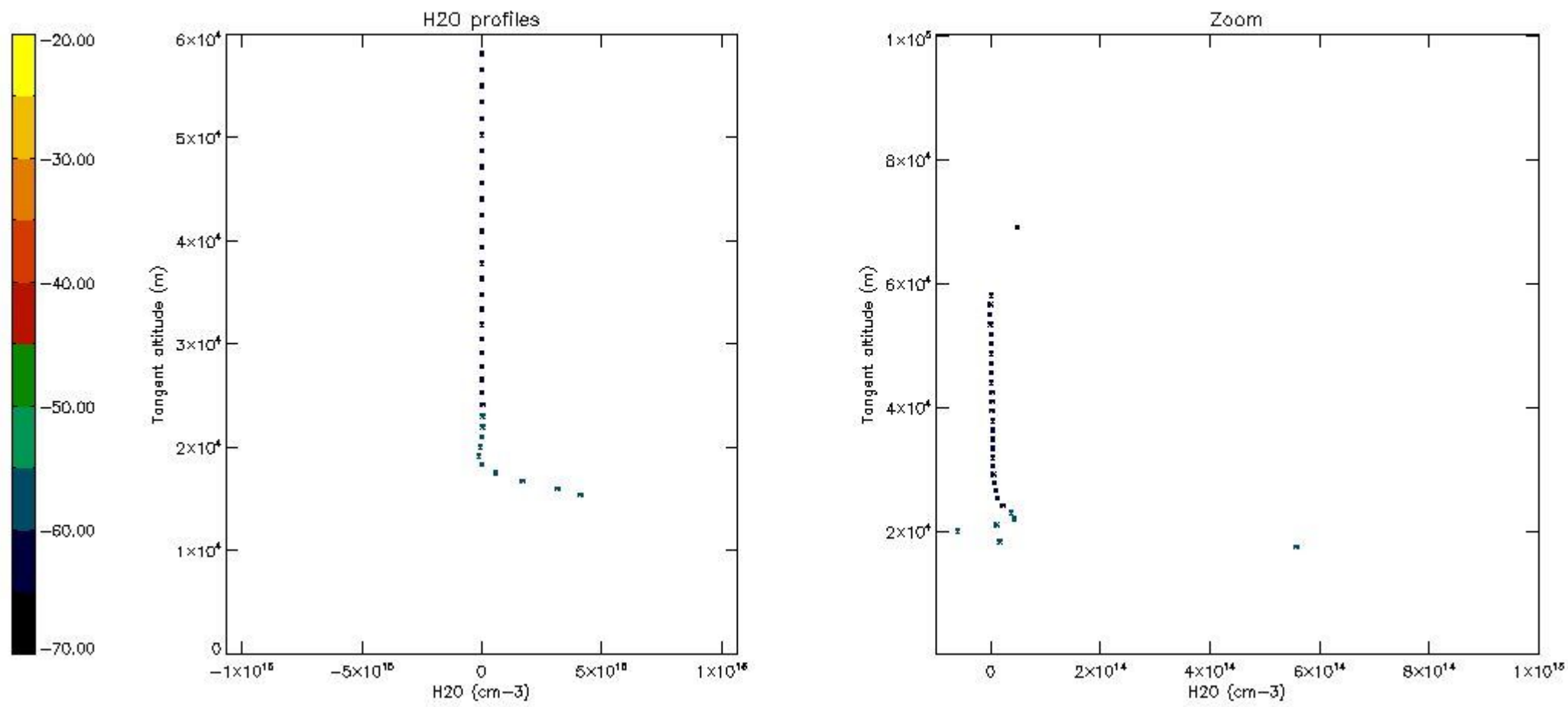
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

The colorbar represents the latitude.



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

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

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	25-MAY-2010 00:01:39
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-MAY-2010 00:01:39
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-MAY-2010 00:01:39

# 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](#)









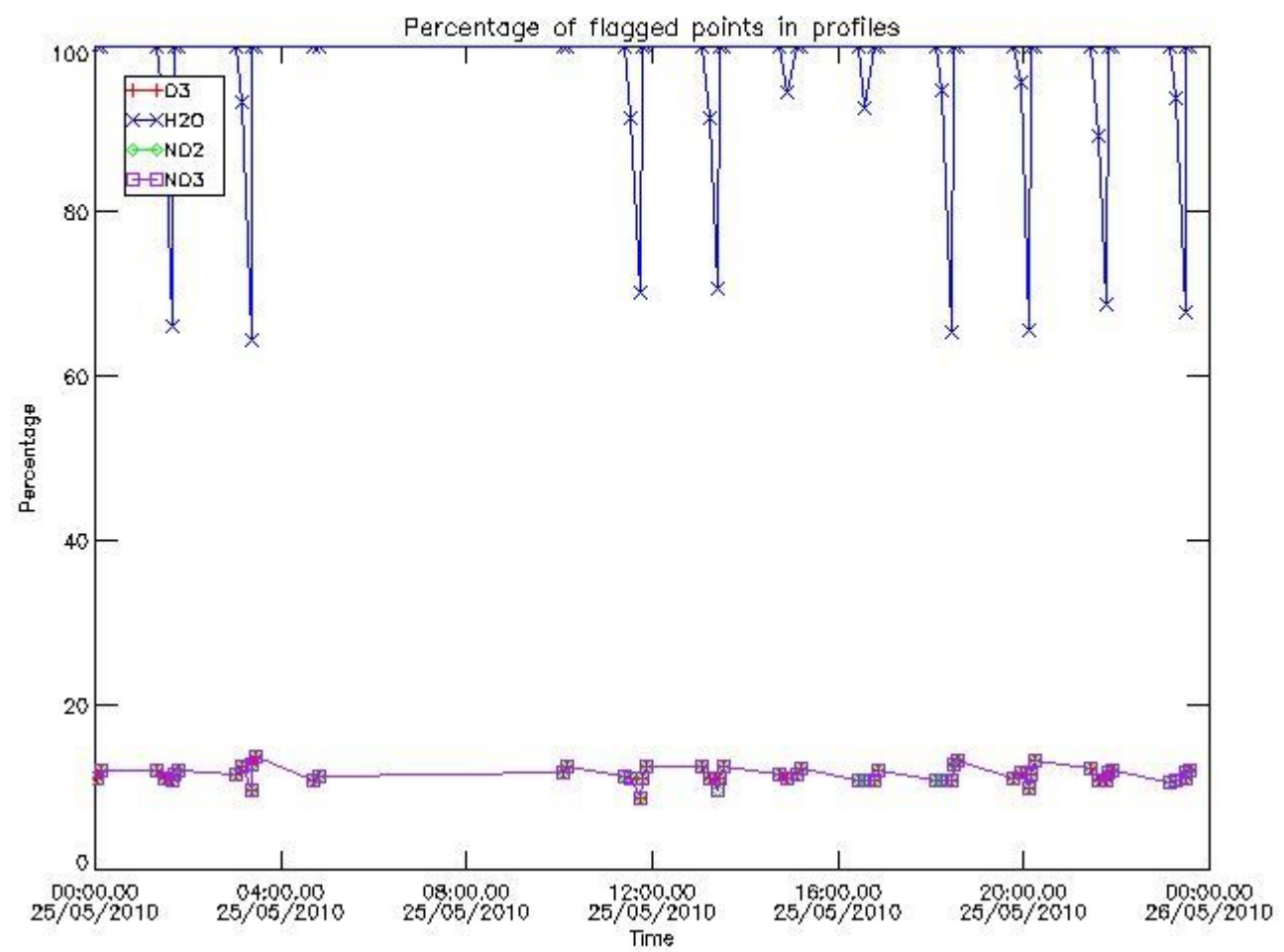


220	GOM_NL__2PRFIN20100525_223824_000000412089_00416_43055_1620.N1	25-MAY-2010 22:38:24	Bright	40.500	119	14Eta Dra	2.7270	4700.0	81	43055	No
221	GOM_NL__2PRFIN20100525_224040_000000392089_00416_43055_1621.N1	25-MAY-2010 22:40:40	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	43055	No
222	GOM_NL__2PRFIN20100525_225325_000000542089_00416_43055_1622.N1	25-MAY-2010 22:53:25	Bright	54.000	76	27Gam Cas	2.3000	30000.	108	43055	No
223	GOM_NL__2PRFIN20100525_225437_000000452089_00416_43055_1623.N1	25-MAY-2010 22:54:37	Bright	45.000	68	18Alp Cas	2.2250	4500.0	90	43055	No
224	GOM_NL__2PRFIN20100525_230054_000000402089_00416_43055_1624.N1	25-MAY-2010 23:00:54	Bright	39.500	53	43Bet And	2.0480	3300.0	79	43055	No
225	GOM_NL__2PRFIN20100525_230328_000000502089_00416_43055_1625.N1	25-MAY-2010 23:03:28	Twilight	50.000	58	21Alp And	2.0730	11000.	100	43055	No
226	GOM_NL__2PRFIN20100525_230801_000000482089_00416_43055_1626.N1	25-MAY-2010 23:08:01	Dark	48.000	140	88Gam Peg	2.8340	26000.	96	43055	No
227	GOM_NL__2PRFIN20100525_231653_000000482089_00416_43055_1627.N1	25-MAY-2010 23:16:53	Dark	47.500	52	16Bet Cet	2.0370	4500.0	95	43055	No
228	GOM_NL__2PRFIN20100525_232829_000000462089_00416_43055_1615.N1	25-MAY-2010 23:28:29	Dark	45.500	63	Bet Gru	2.1500	2800.0	91	43055	No
229	GOM_NL__2PRFIN20100525_233014_000000442089_00417_43056_1616.N1	25-MAY-2010 23:30:14	Dark	43.500	31	Alp Gru	1.7340	15200.	87	43056	No
230	GOM_NL__2PRFIN20100525_233531_000000422089_00417_43056_1617.N1	25-MAY-2010 23:35:31	Dark	42.000	45	Alp Pav	1.9400	26000.	84	43056	No
231	GOM_NL__2PRFIN20100525_234209_000000422089_00417_43056_1618.N1	25-MAY-2010 23:42:09	Straylight	41.500	141	Bet Ara	2.8400	4600.0	83	43056	No
232	GOM_NL__2PRFIN20100525_234459_000000492089_00417_43056_1619.N1	25-MAY-2010 23:44:59	Straylight	48.500	40	The Sco	1.8590	7100.0	97	43056	No
233	GOM_NL__2PRFIN20100525_234649_000000482089_00417_43056_1620.N1	25-MAY-2010 23:46:49	Straylight	48.000	25	35Lam Sco	1.6200	28000.	96	43056	No
234	GOM_NL__2PRFIN20100525_234847_000000472089_00417_43056_1621.N1	25-MAY-2010 23:48:47	Twilight	47.000	75	26Eps Sco	2.2910	4250.0	94	43056	No
235	GOM_NL__2PRFIN20100525_235055_000000452089_00417_43056_1622.N1	25-MAY-2010 23:50:55	Twilight	45.000	136	23Tau Sco	2.8220	30000.	90	43056	No
236	GOM_NL__2PRFIN20100525_235355_000000412089_00417_43056_1623.N1	25-MAY-2010 23:53:55	Bright	40.500	97	8Bet1Sco	2.5610	30000.	81	43056	No
237	GOM_NL__2PRFIN20100525_235722_000000382089_00417_43056_1624.N1	25-MAY-2010 23:57:22	Bright	37.500	104	27Bet Lib	2.6140	13100.	75	43056	No
238	GOM_NL__2PRFIN20100525_235903_000000432089_00417_43056_1625.N1	25-MAY-2010 23:59:03	Bright	42.500	120	1Del Oph	2.7340	3200.0	85	43056	No

### 3. Quality information per product

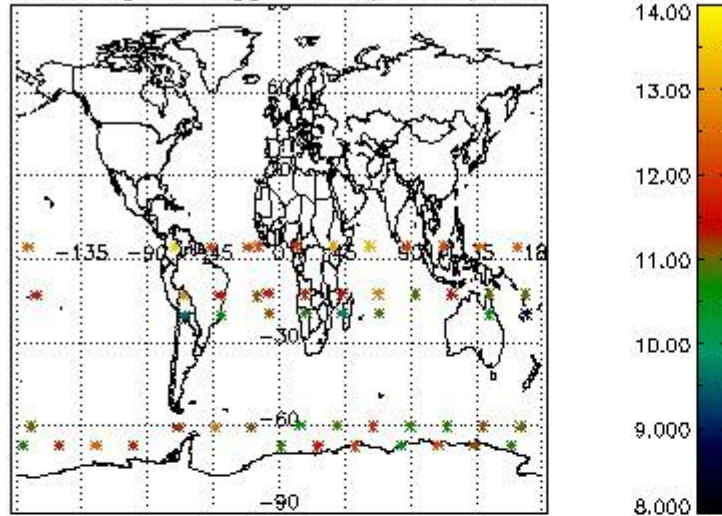
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

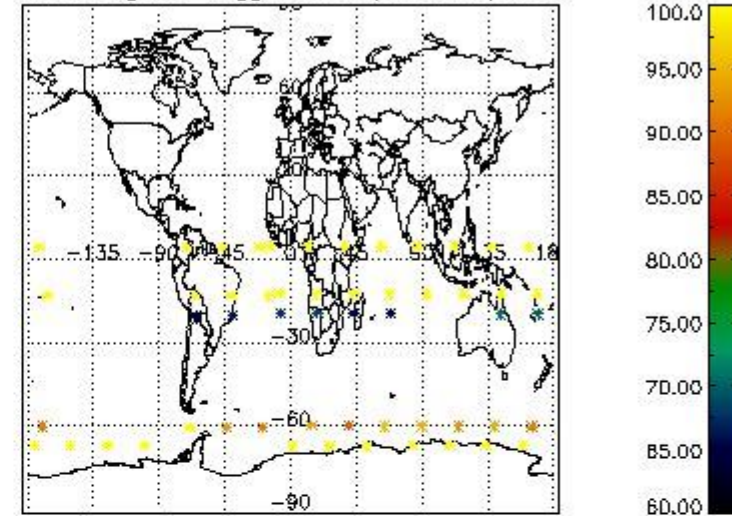


3.2 Plot quality information per product (world map)

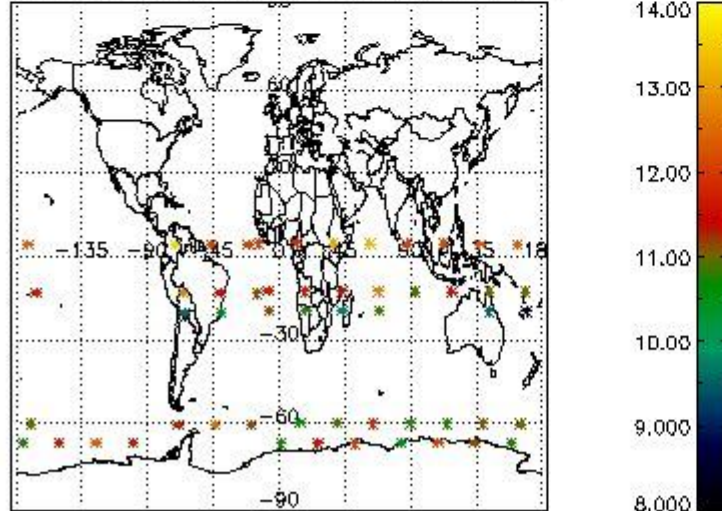
Percentage of flagged data per O3 profile



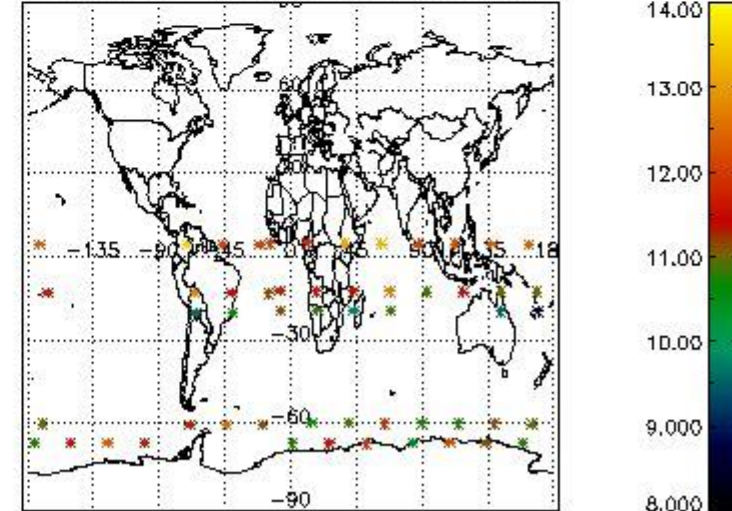
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

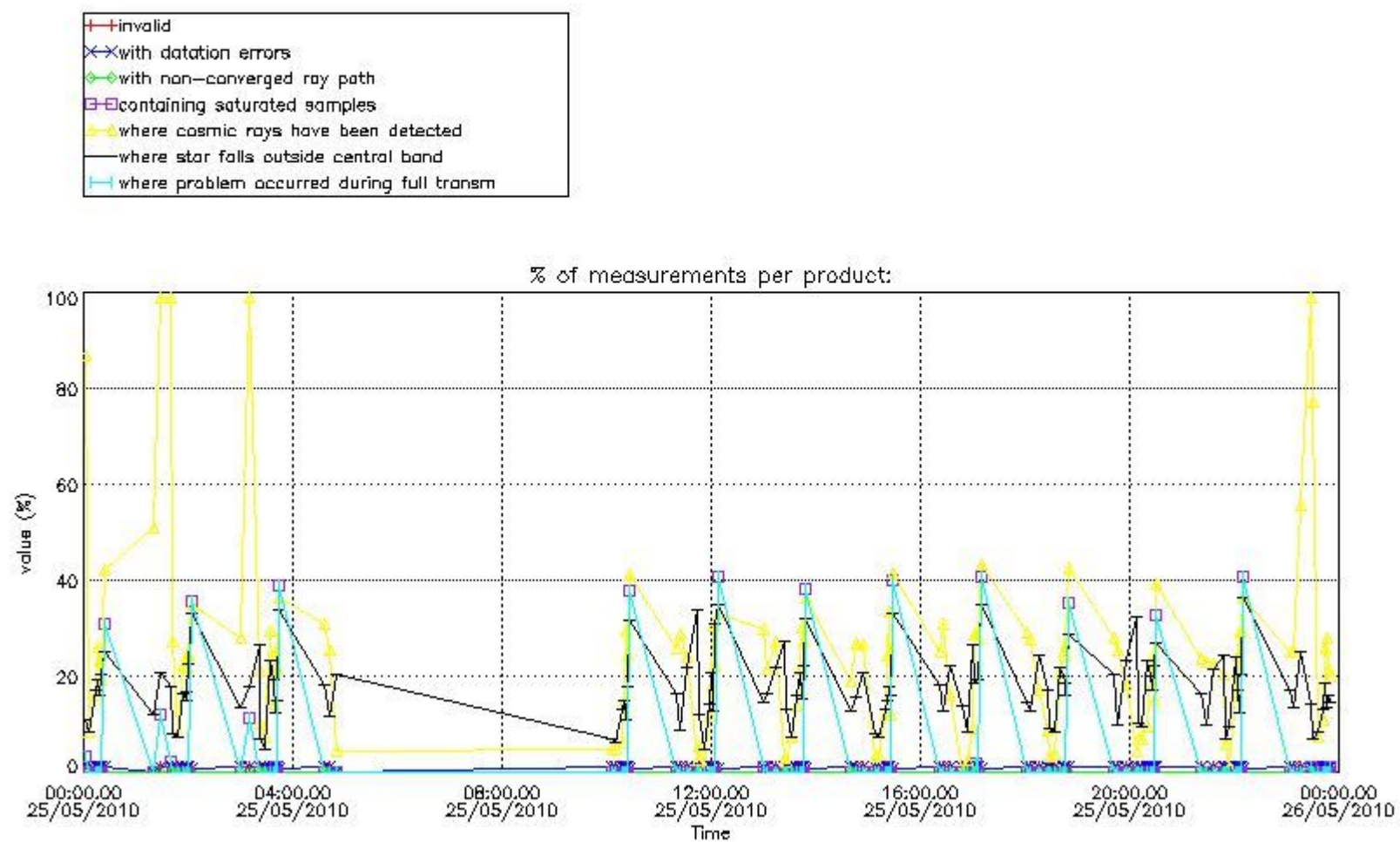


#### 4. Level 1 quality information per product

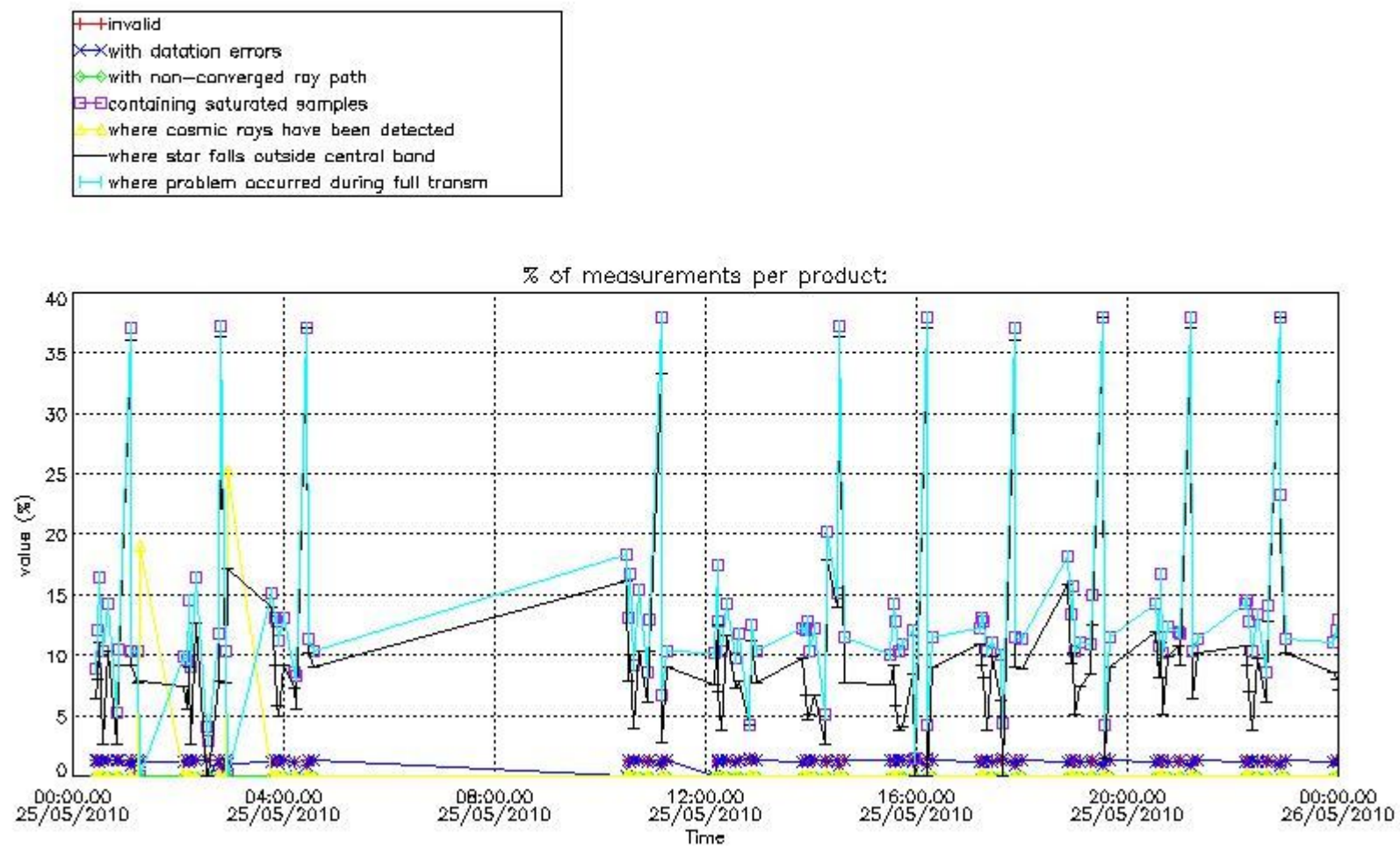
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

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

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

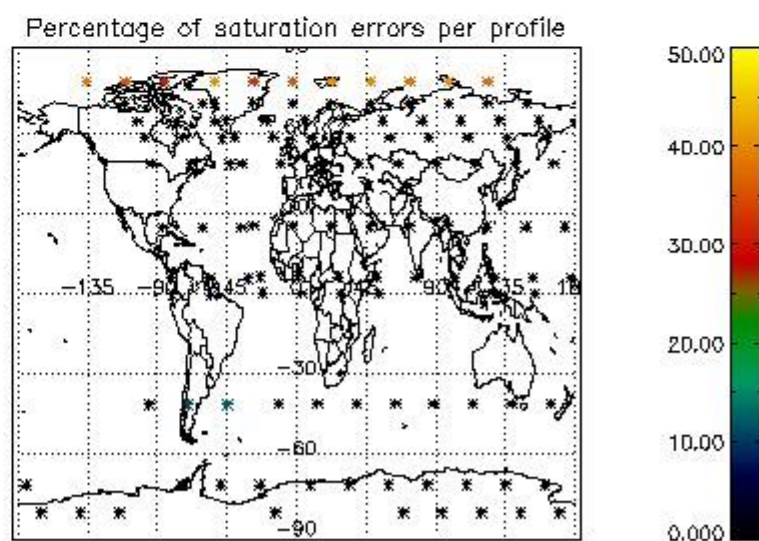
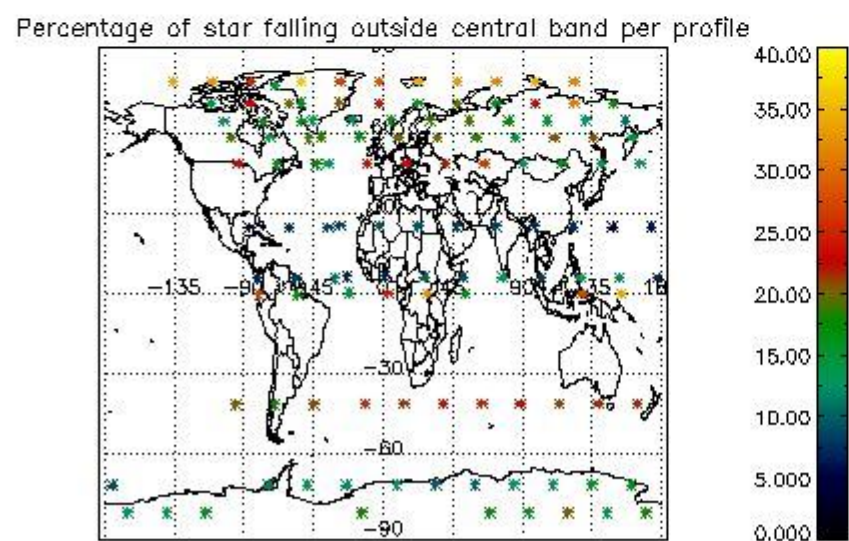
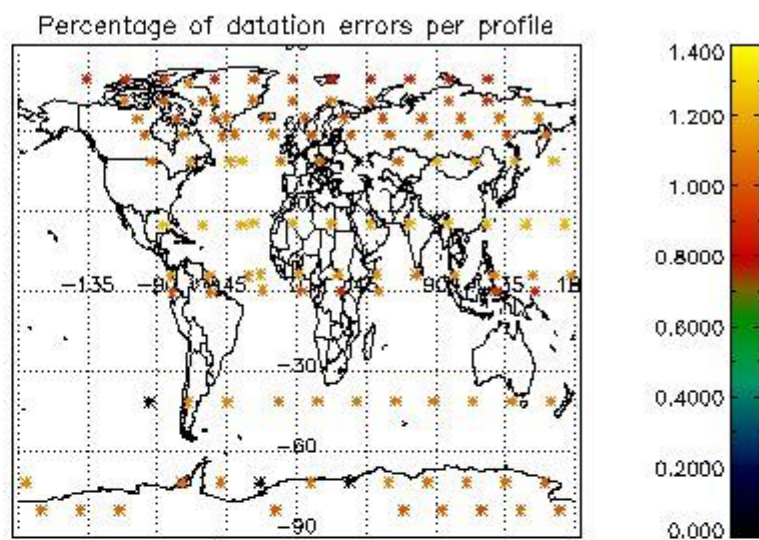
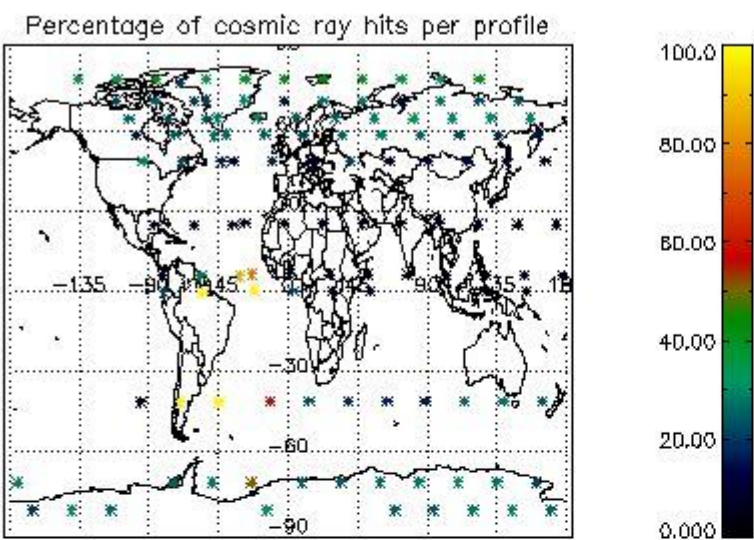


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes

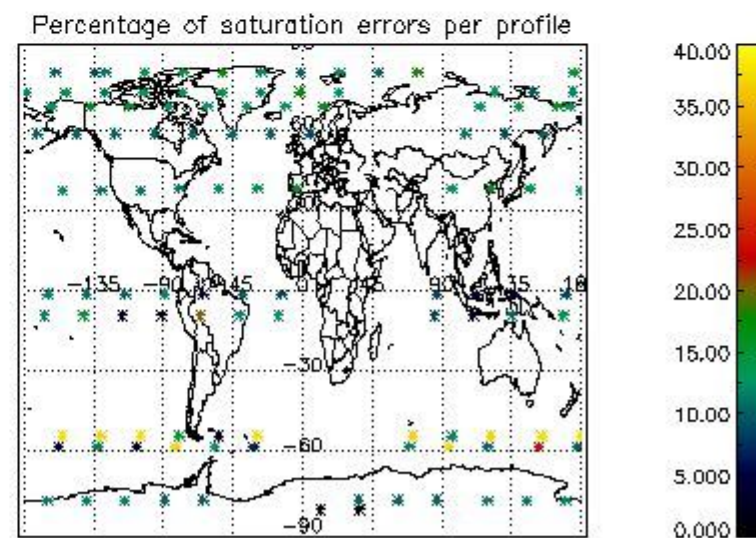
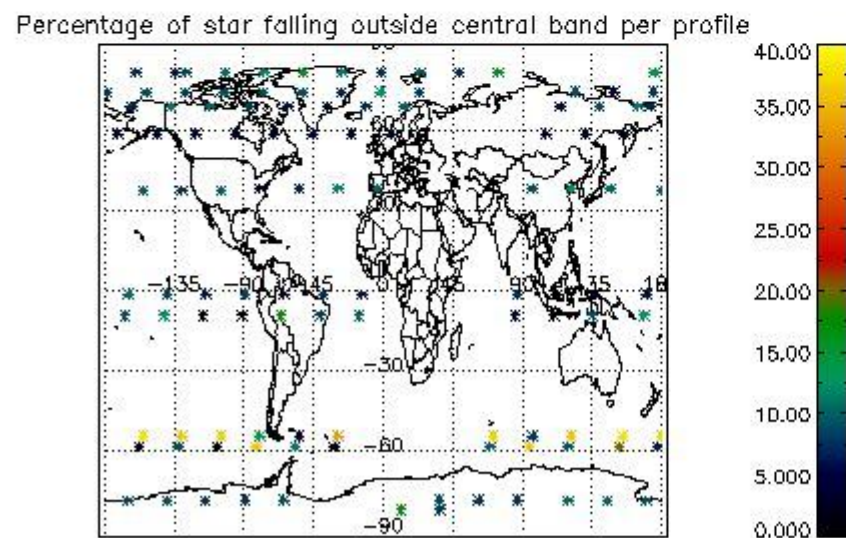
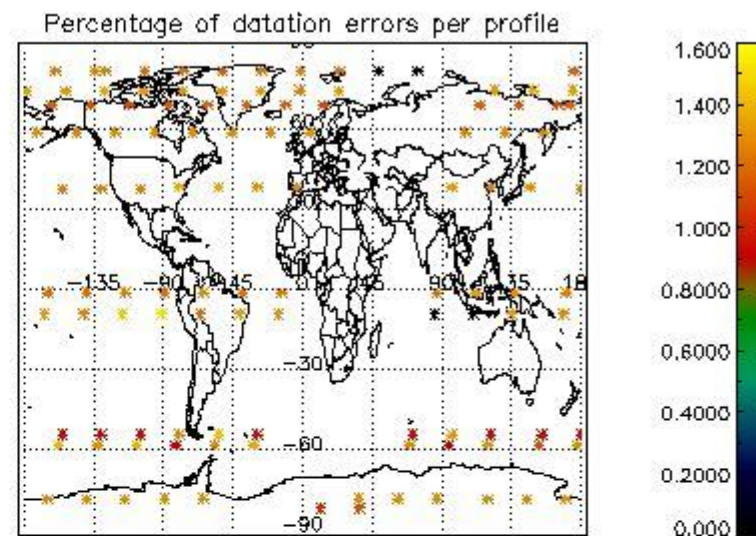
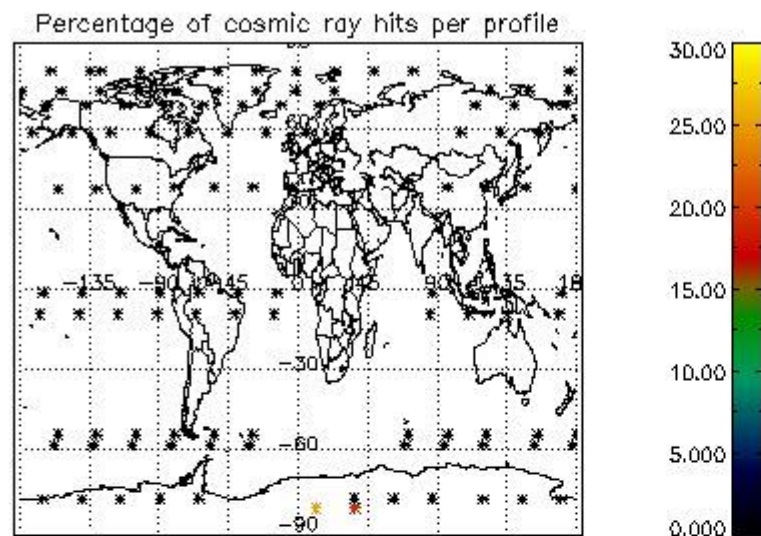


#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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



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



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

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

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

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

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

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

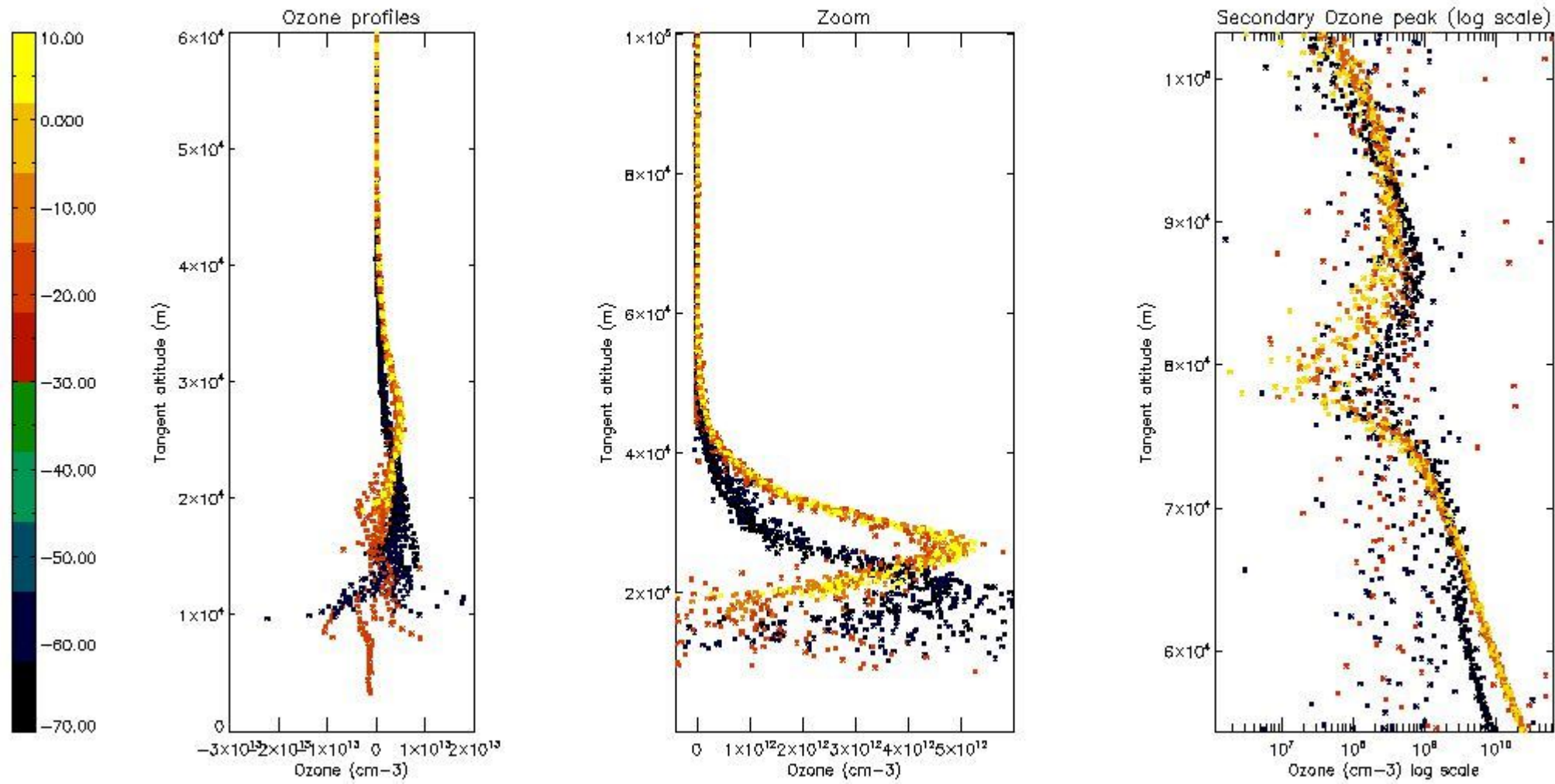
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	24
STD < 20	13

STD < 10	9
STD < 5	7

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

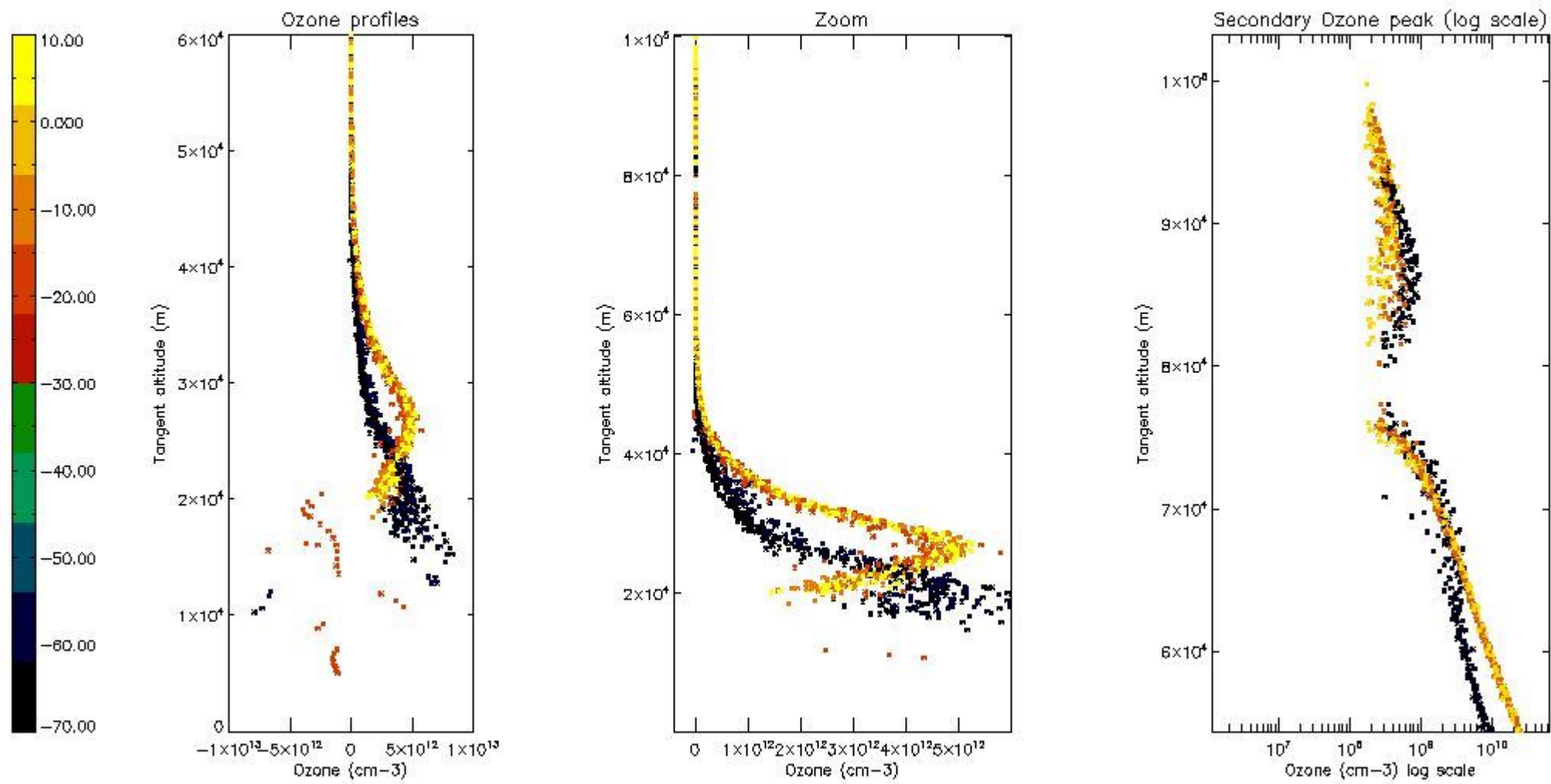
The colorbar represents the latitude.



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

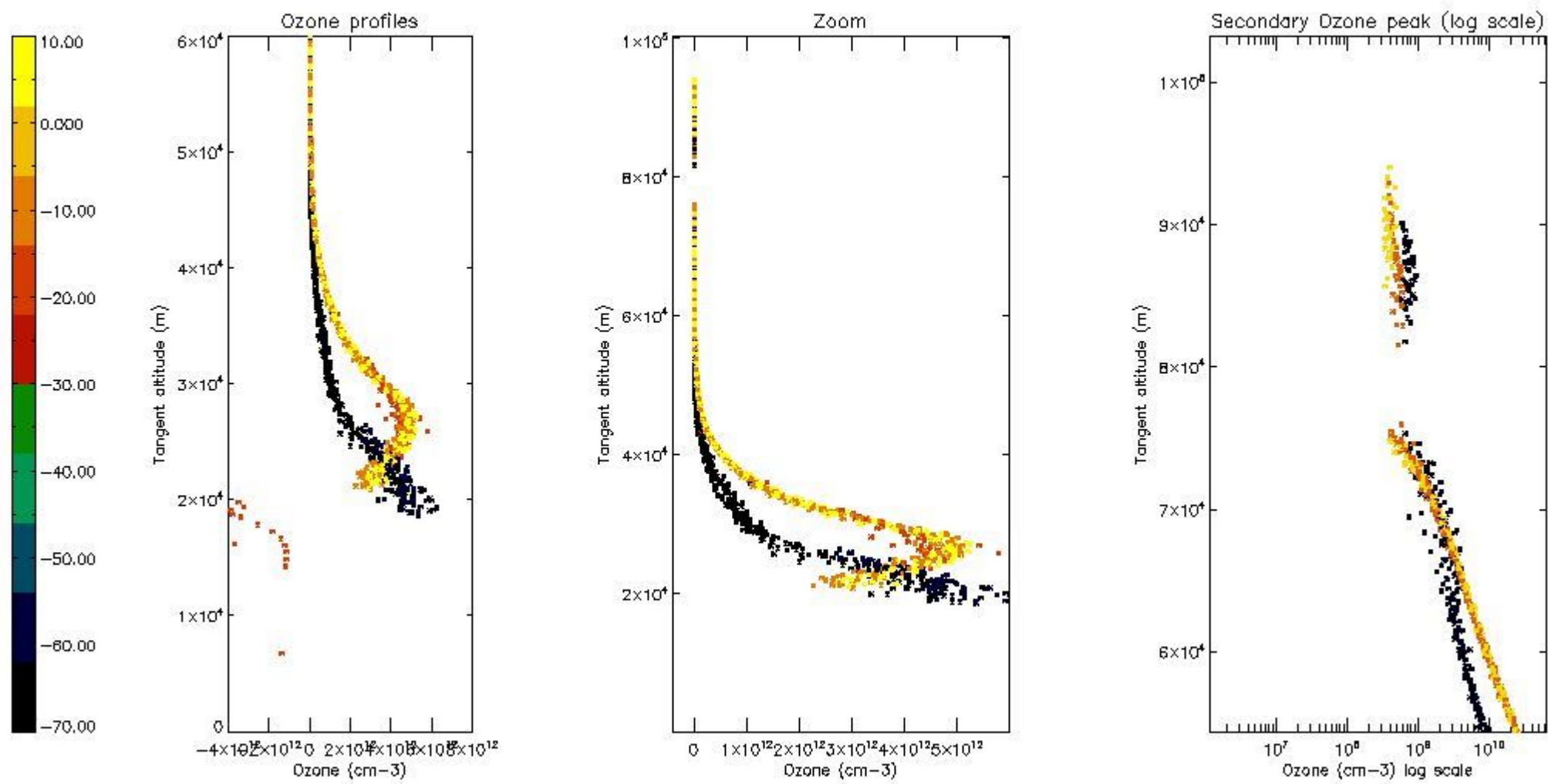
The colorbar represents the latitude.





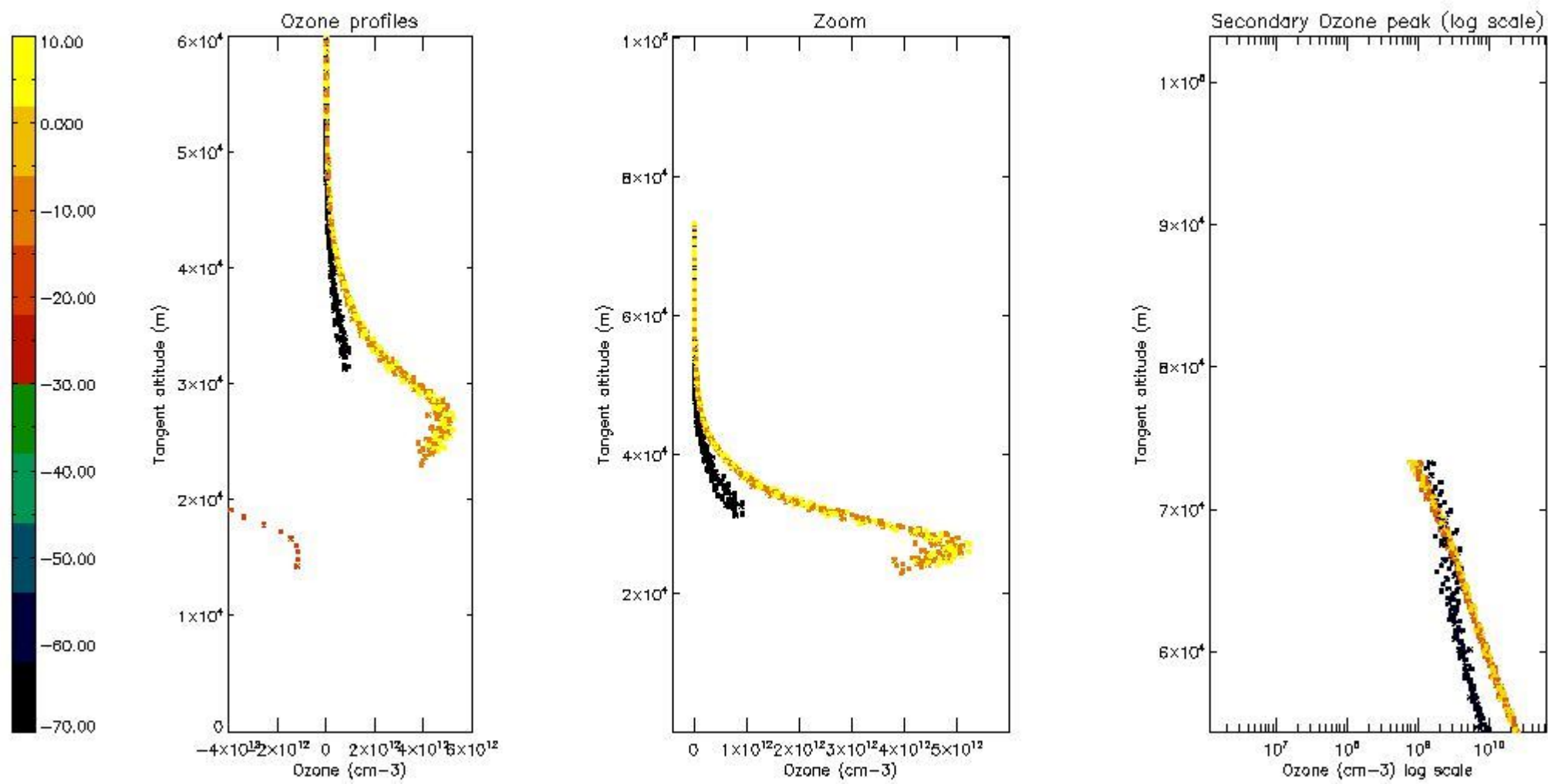
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



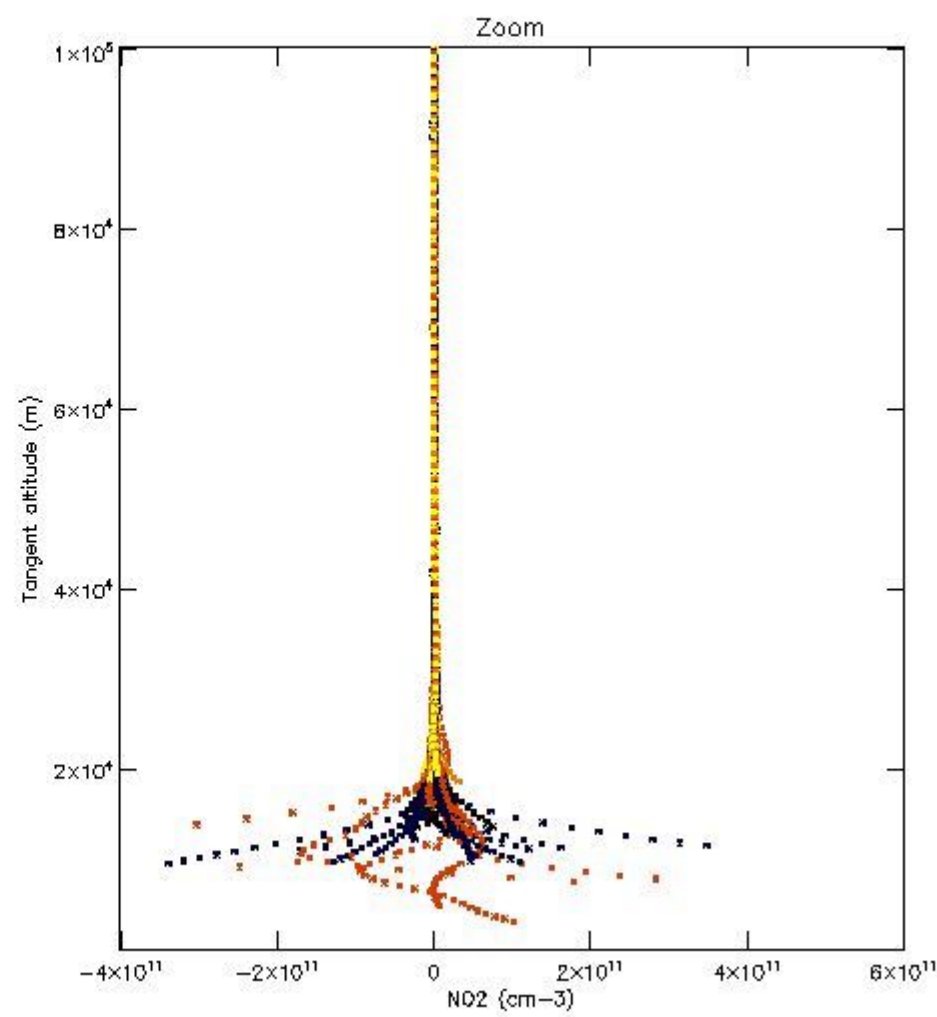
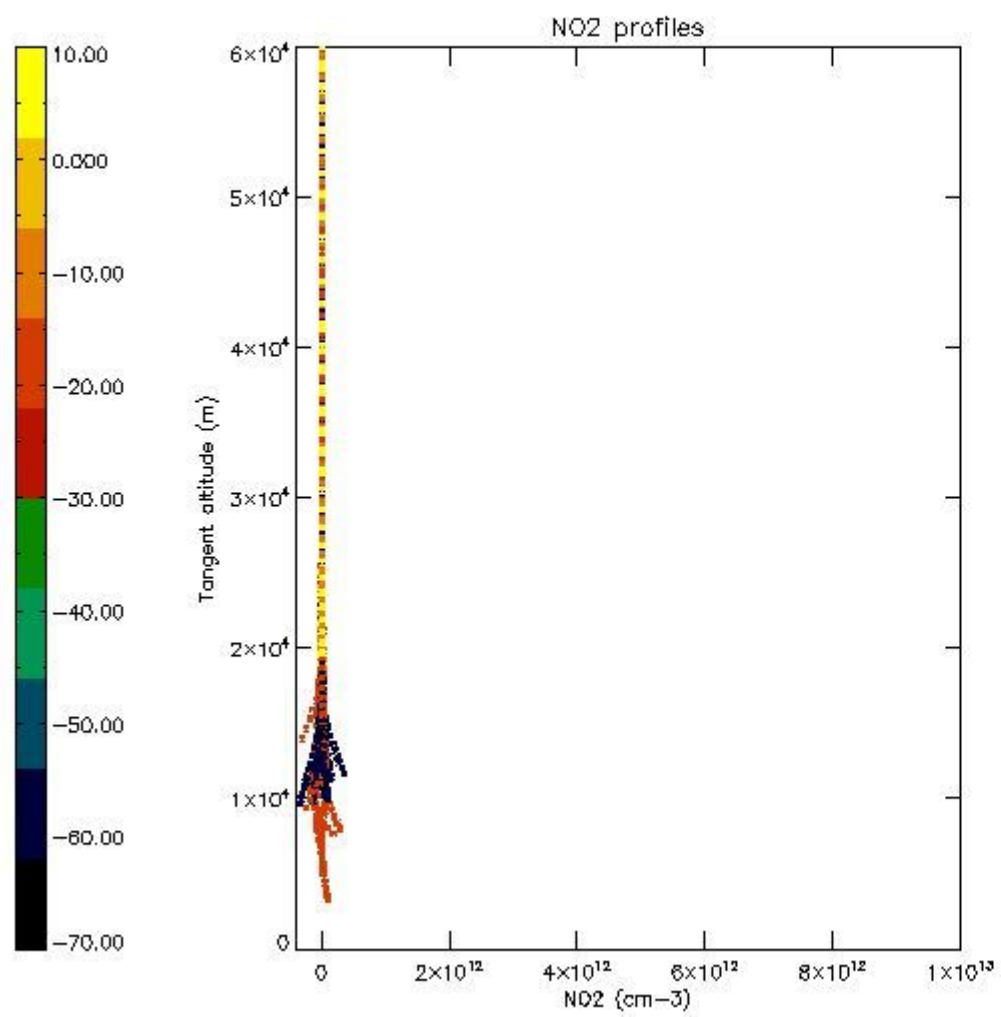
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



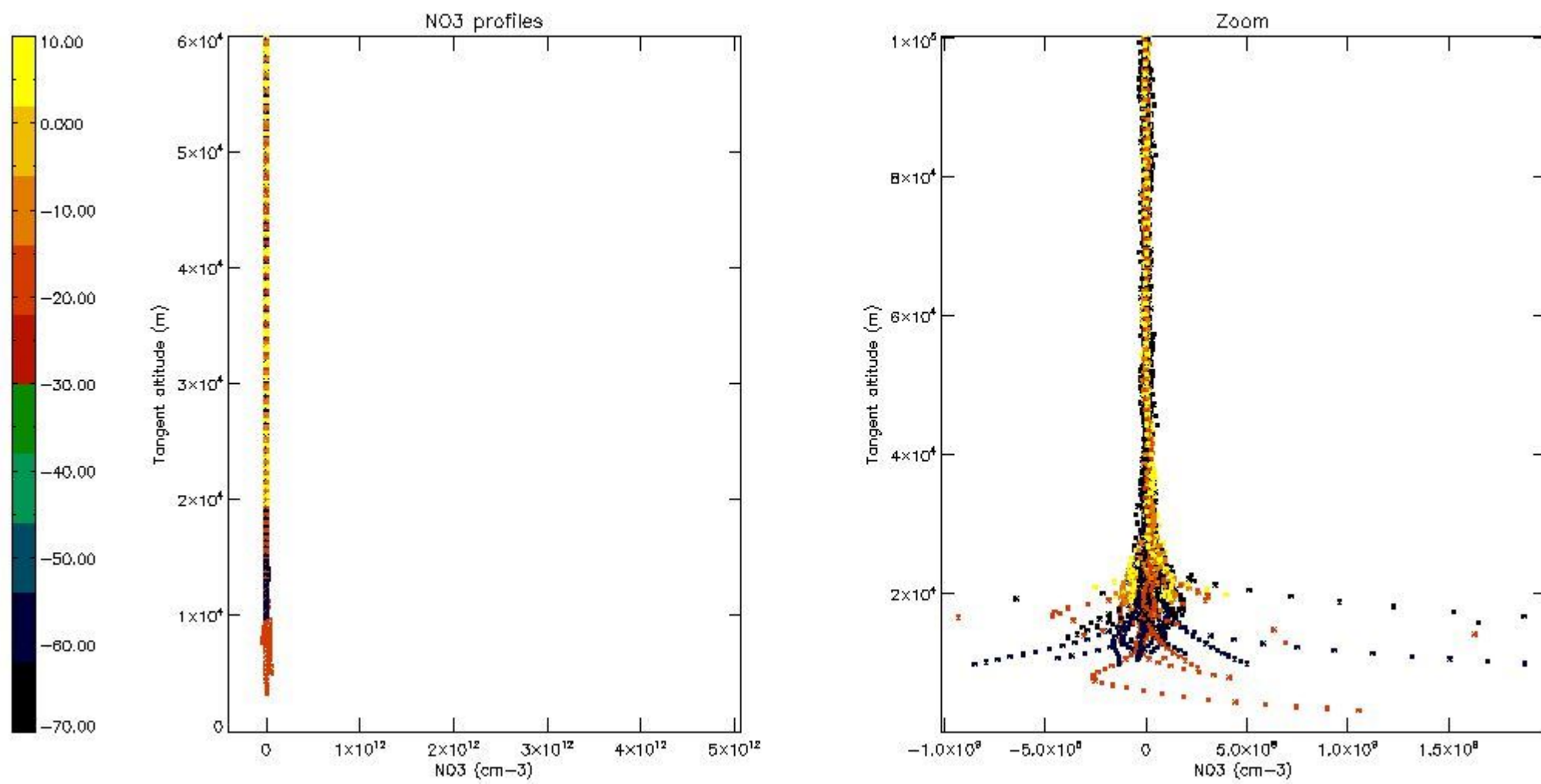
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



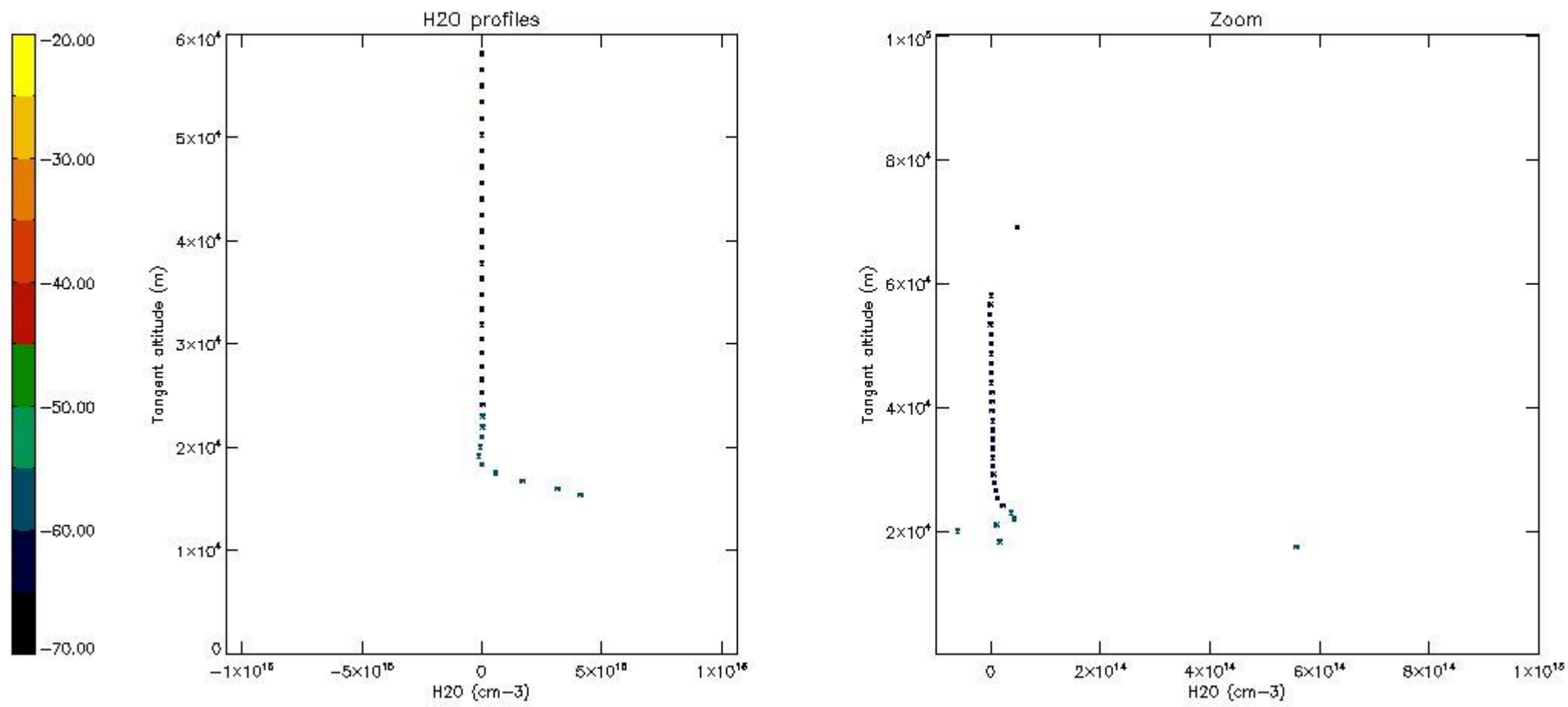
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



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

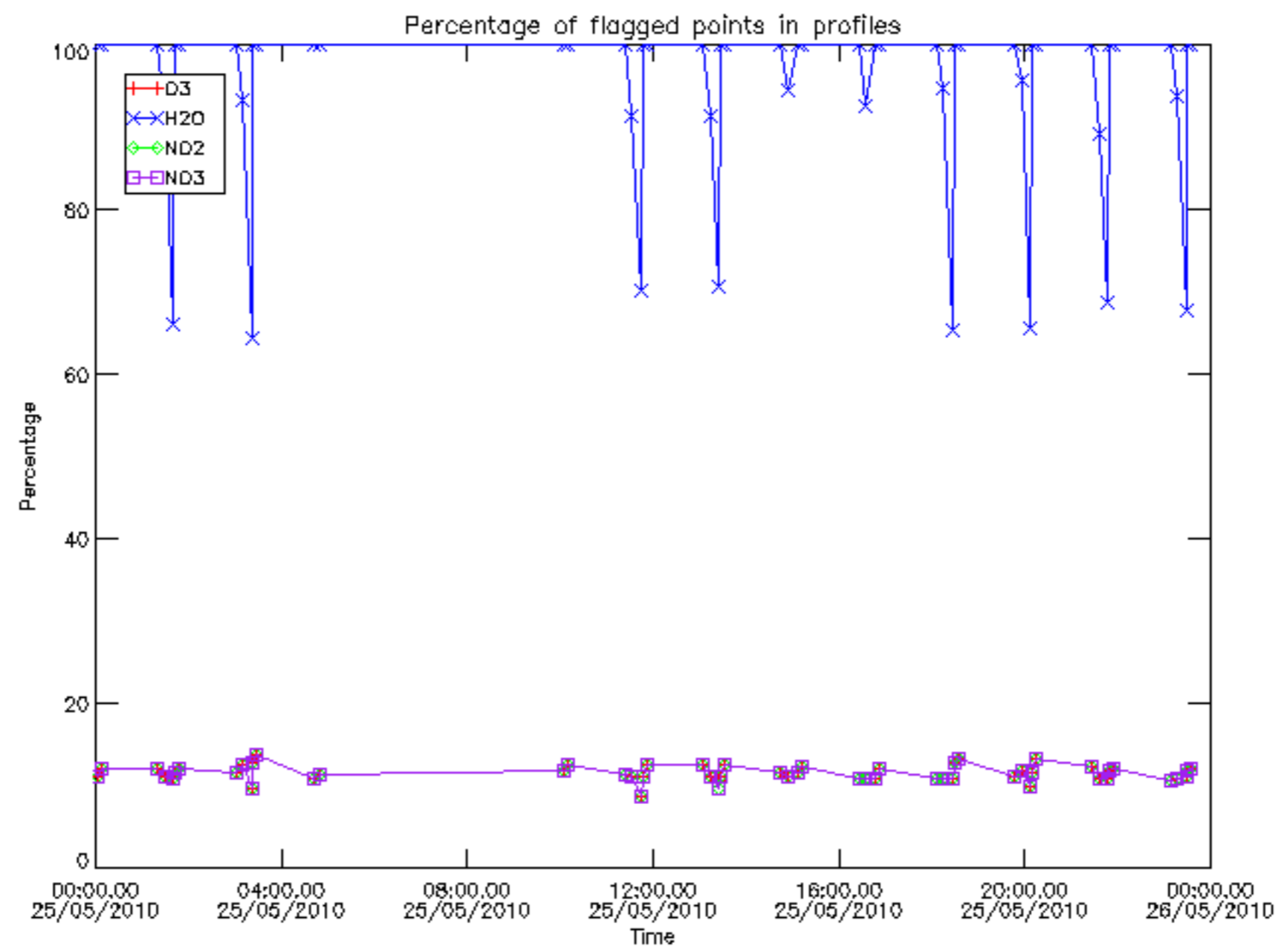
The colorbar represents the latitude.



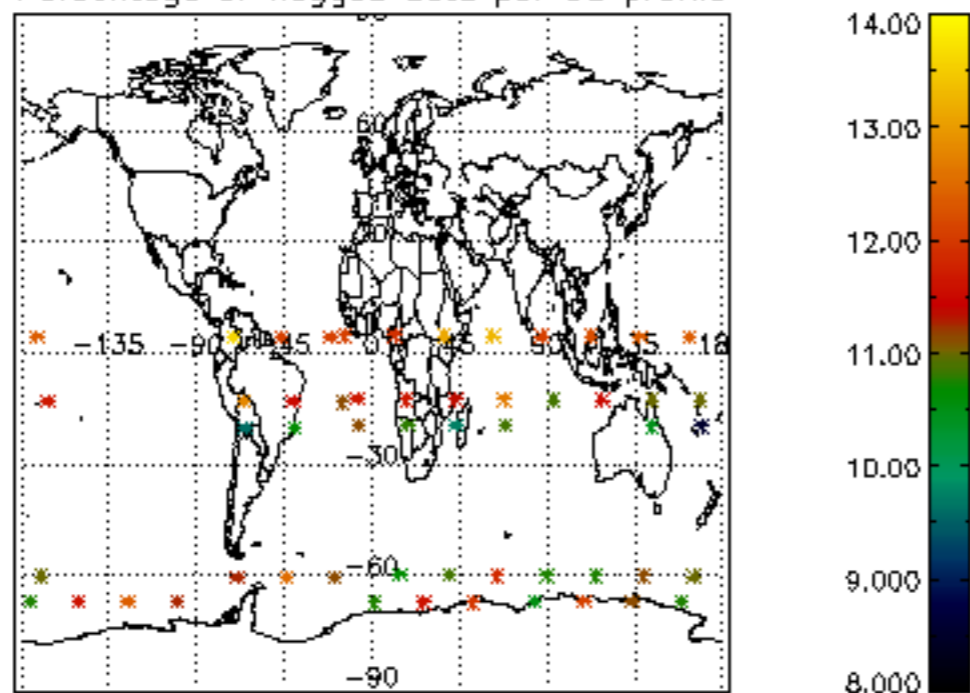
## 6. Auxiliary Data Files used for the production reported in section 2

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

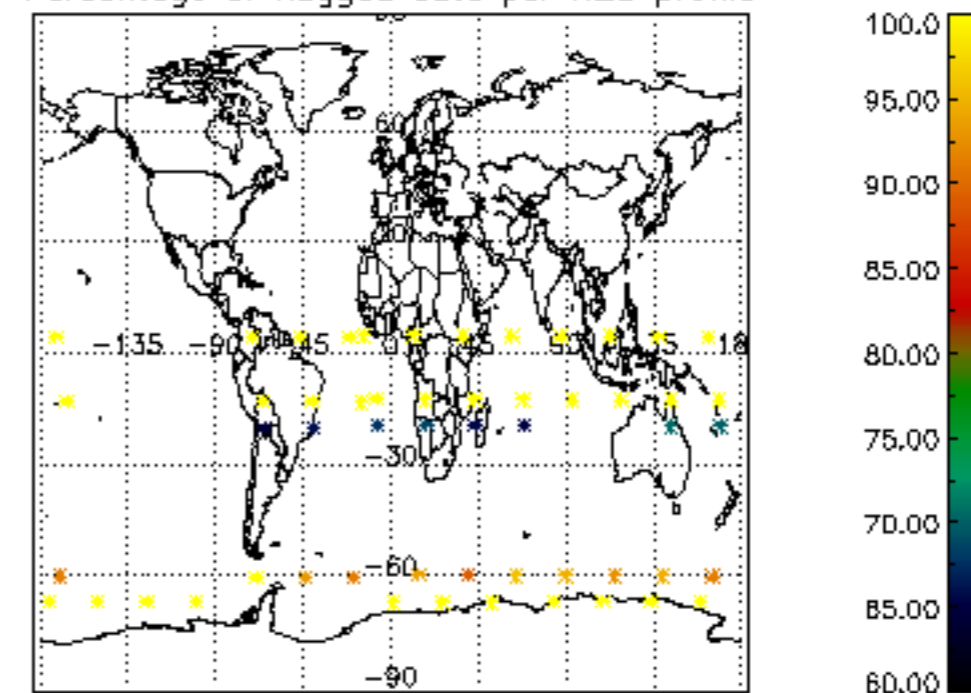
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	25-MAY-2010 00:01:39
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-MAY-2010 00:01:39
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-MAY-2010 00:01:39



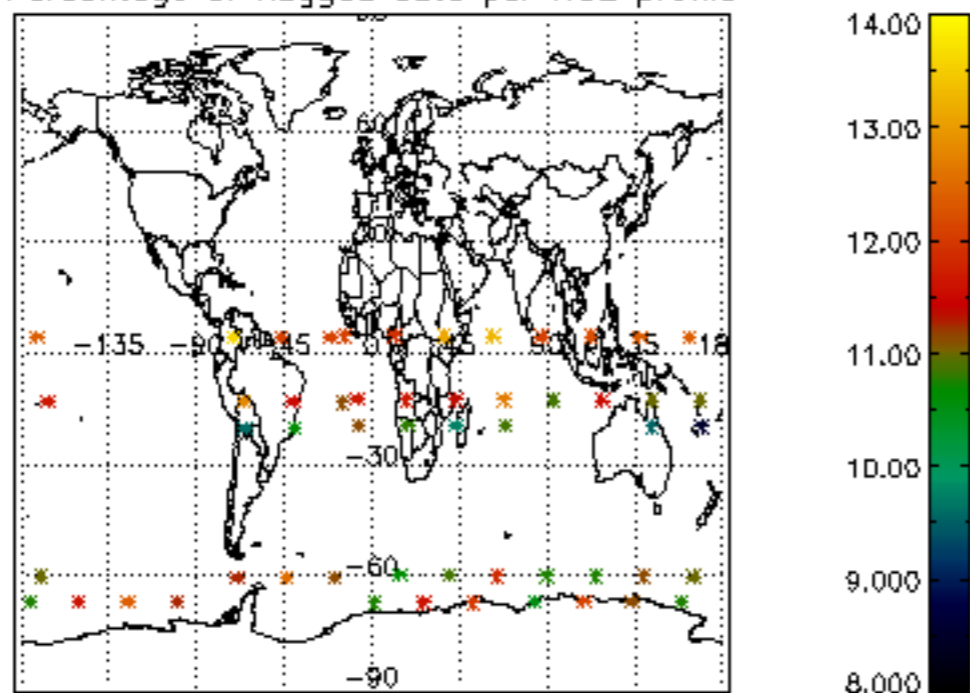
Percentage of flagged data per D3 profile



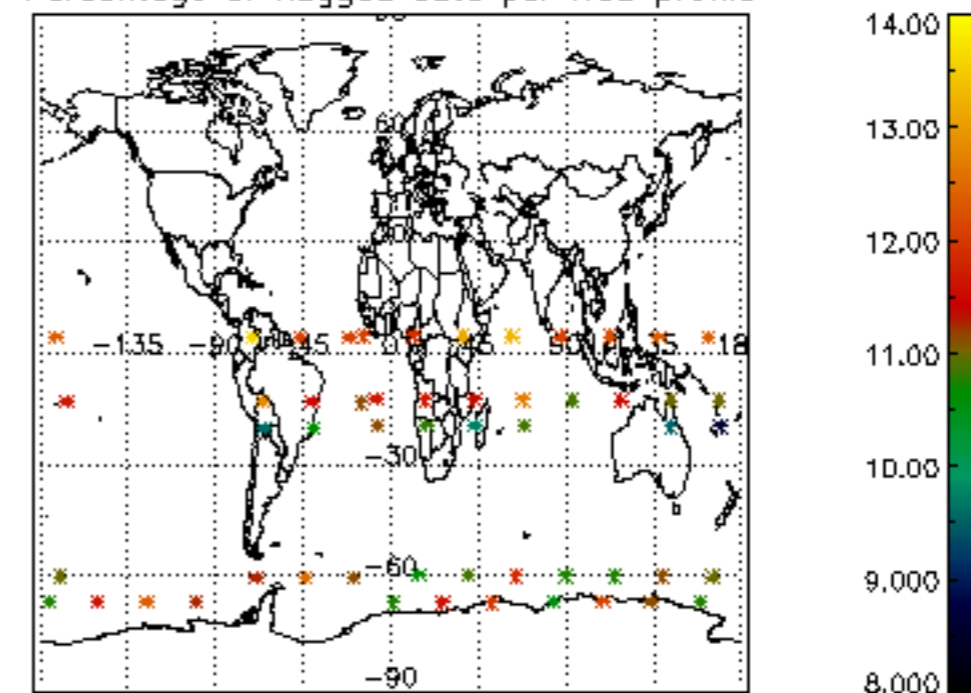
Percentage of flagged data per H2O profile



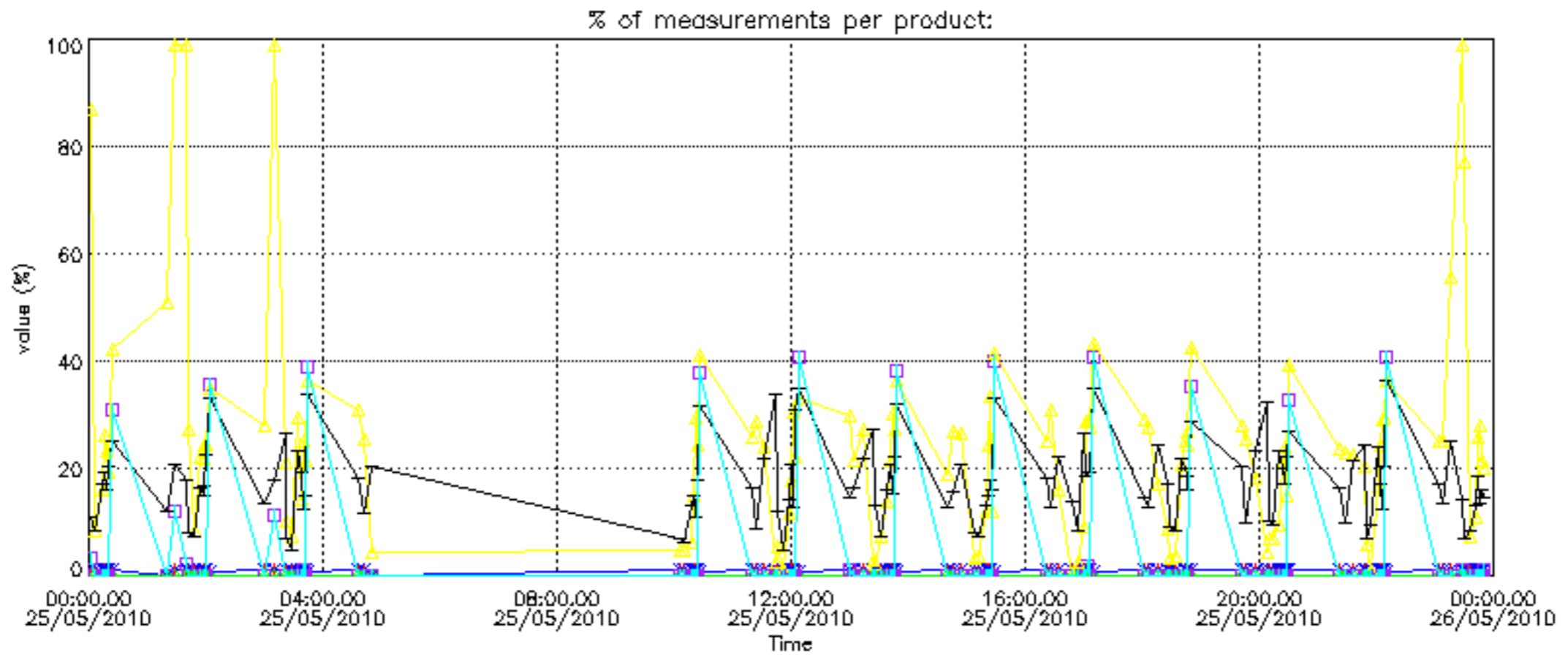
Percentage of flagged data per NO2 profile

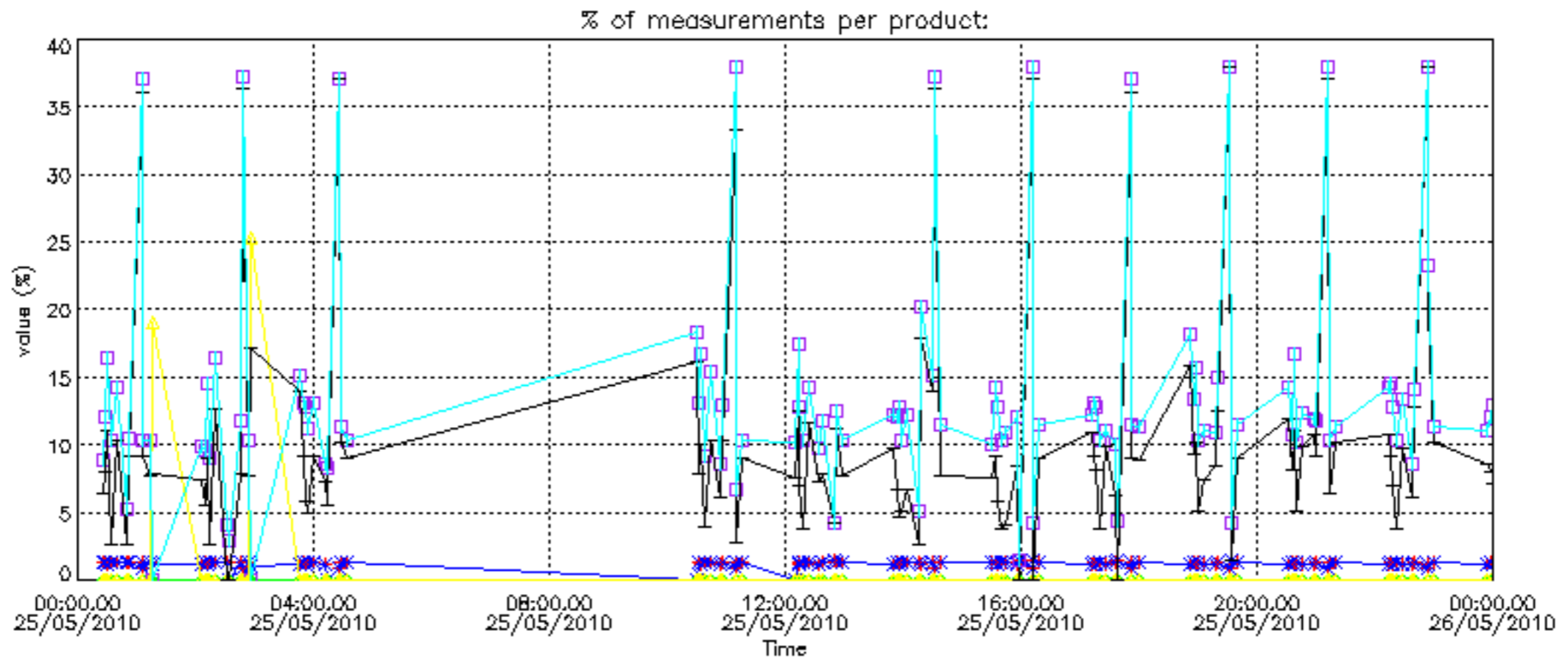


Percentage of flagged data per NO3 profile

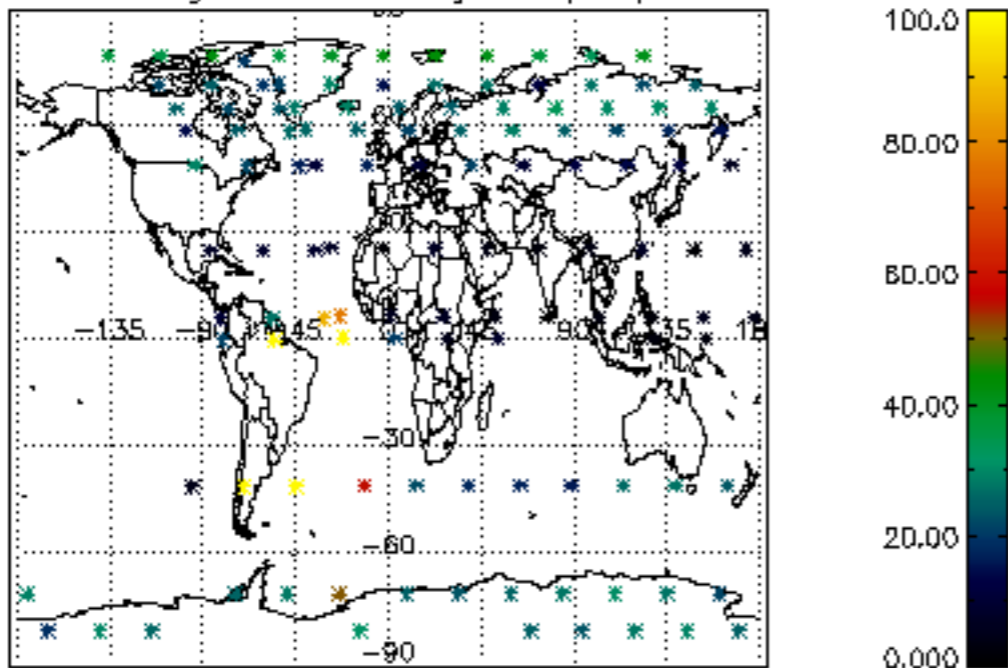




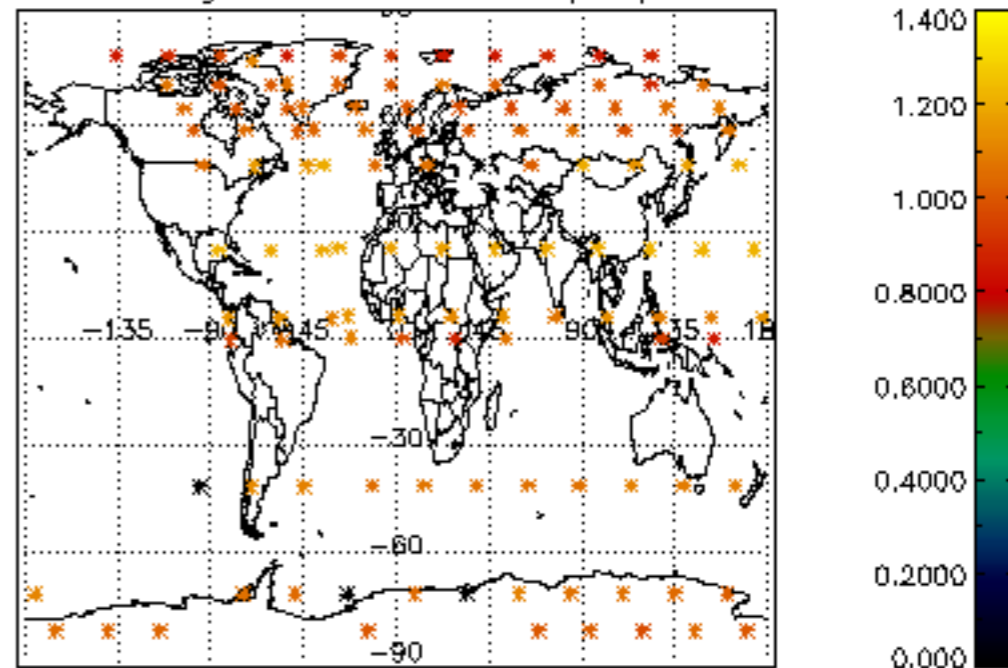




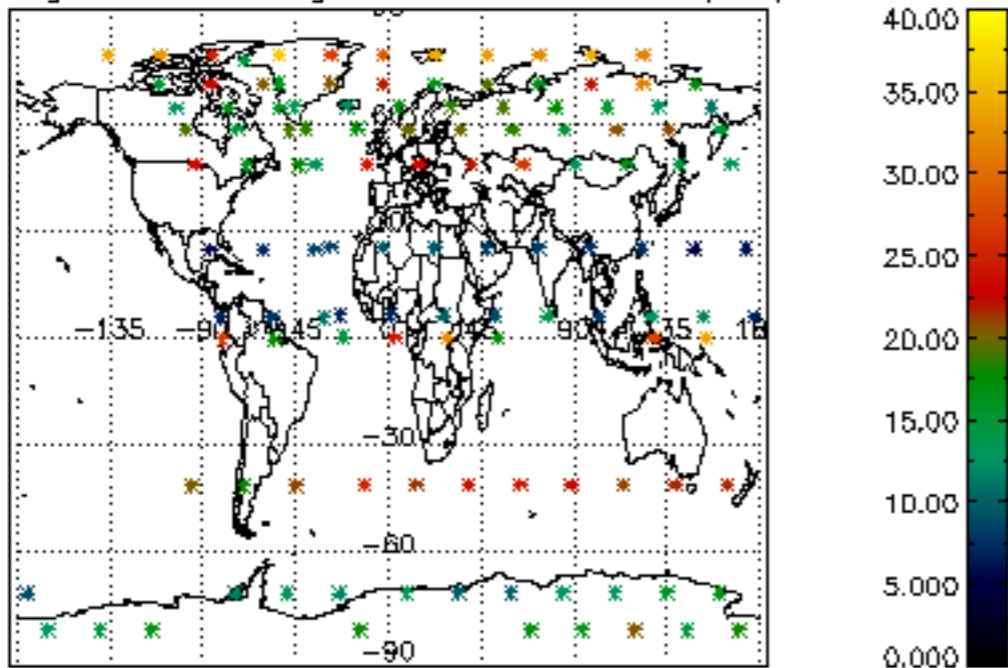
Percentage of cosmic ray hits per profile



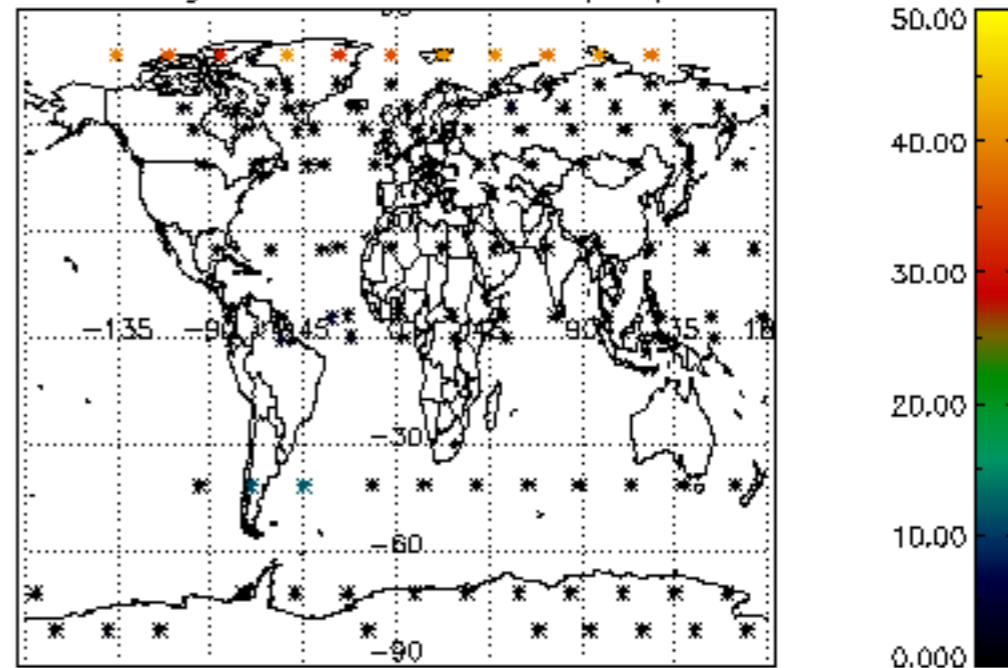
Percentage of datation errors per profile



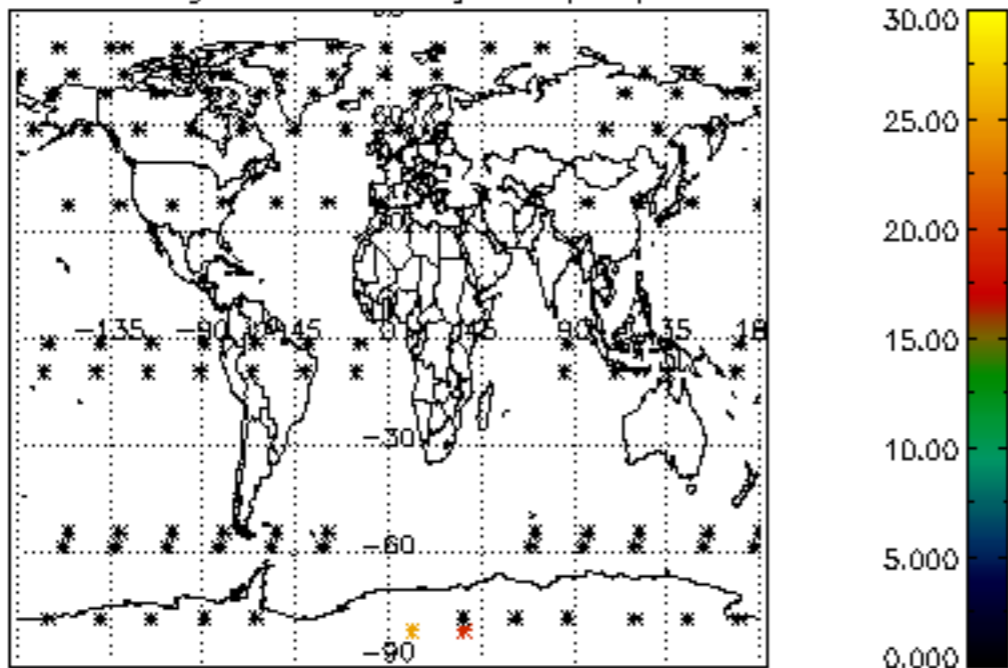
Percentage of star falling outside central band per profile



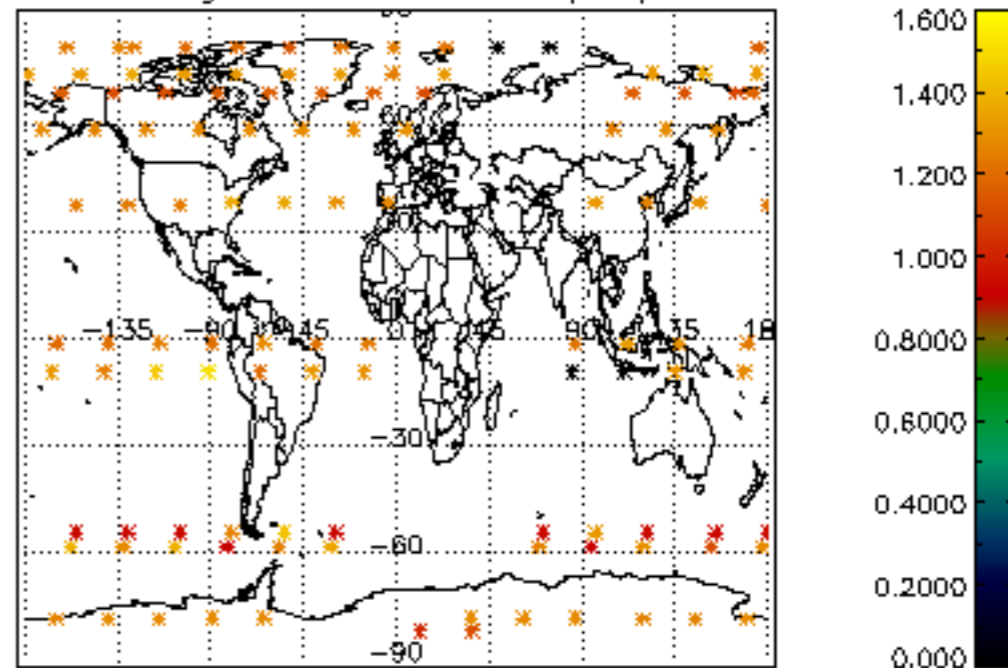
Percentage of saturation errors per profile



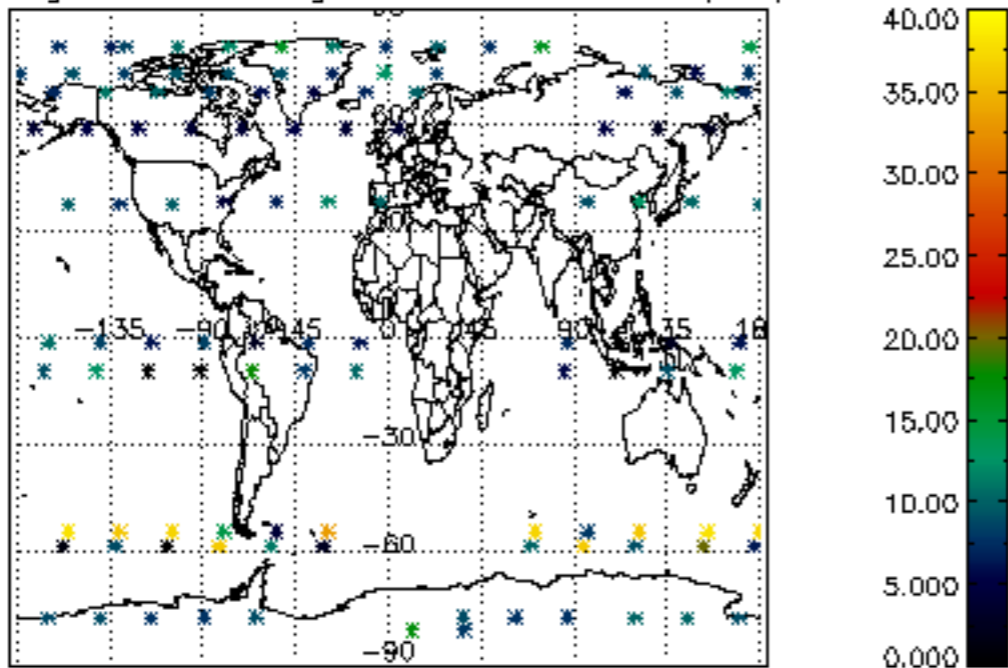
Percentage of cosmic ray hits per profile



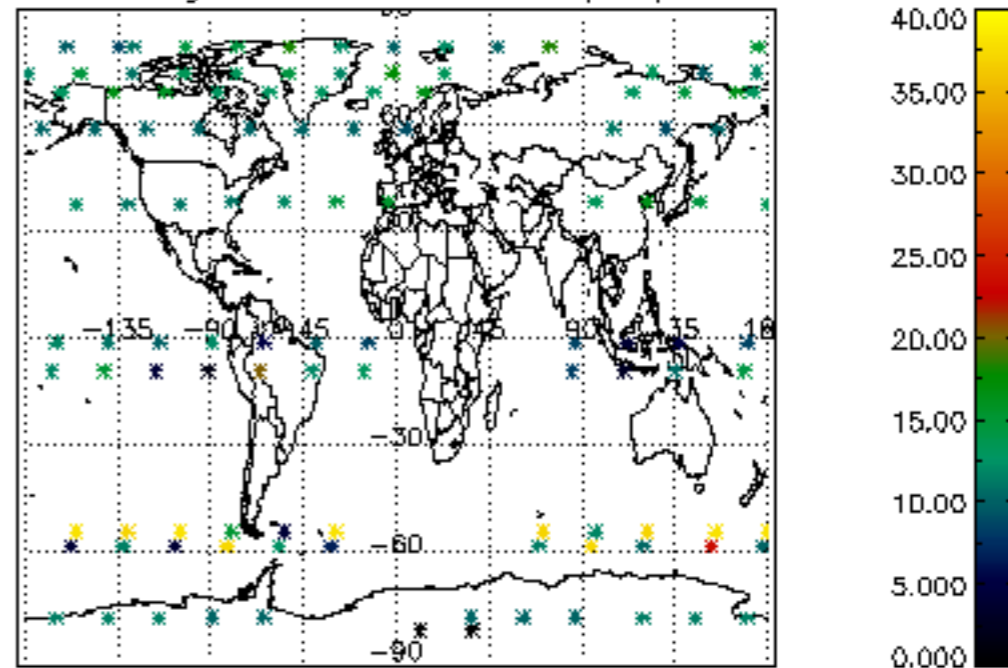
Percentage of datation errors per profile

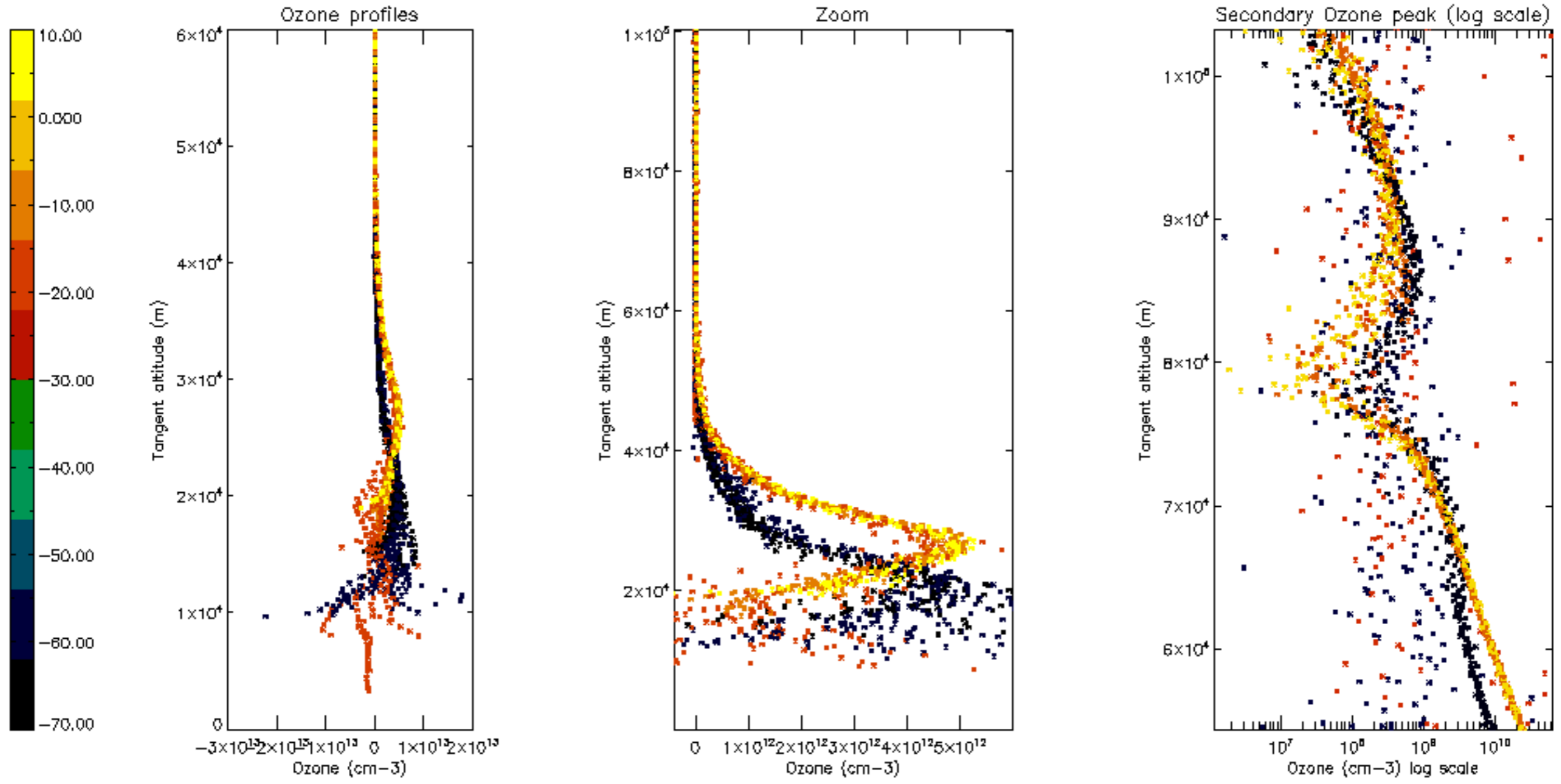


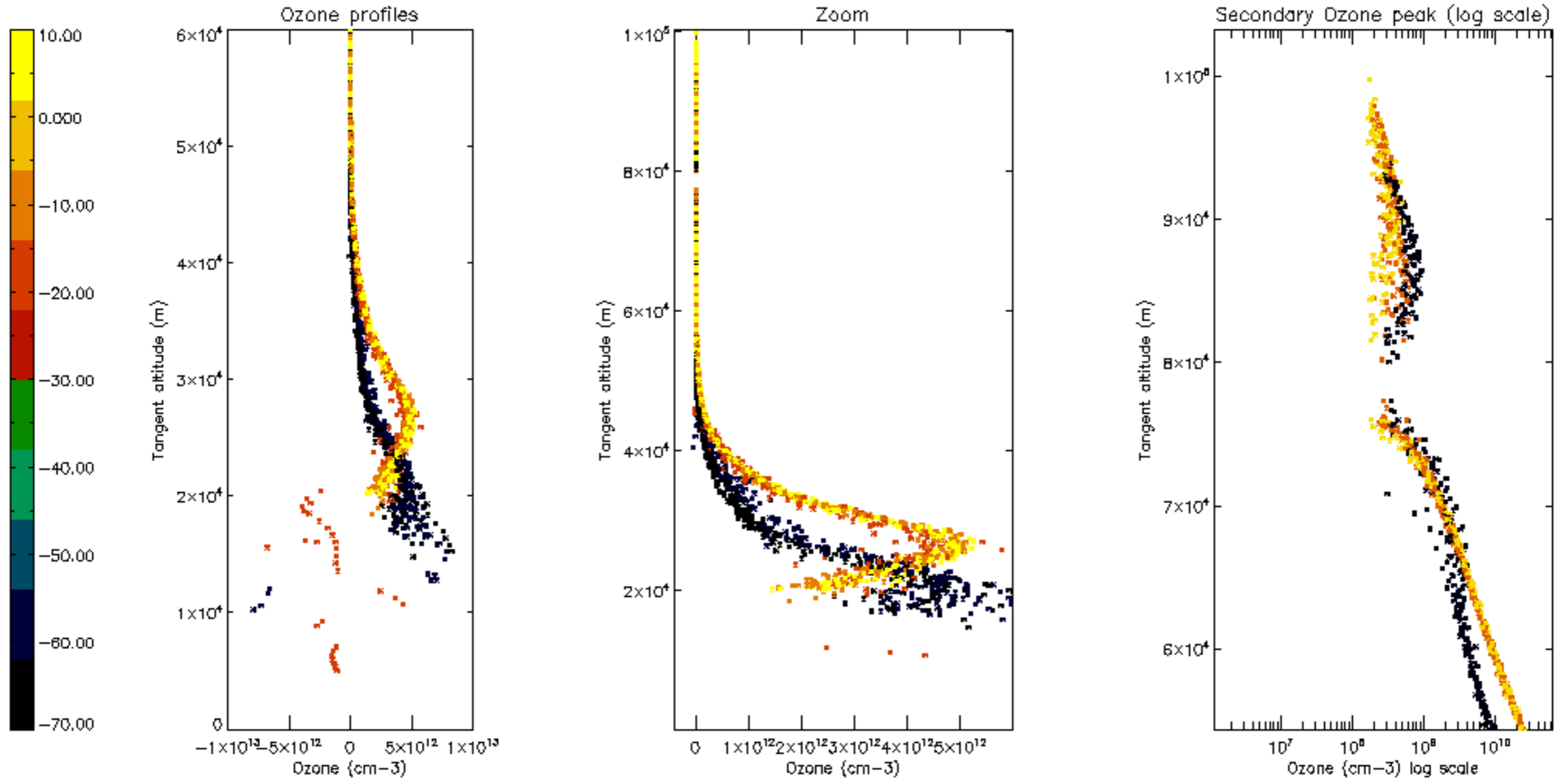
Percentage of star falling outside central band per profile

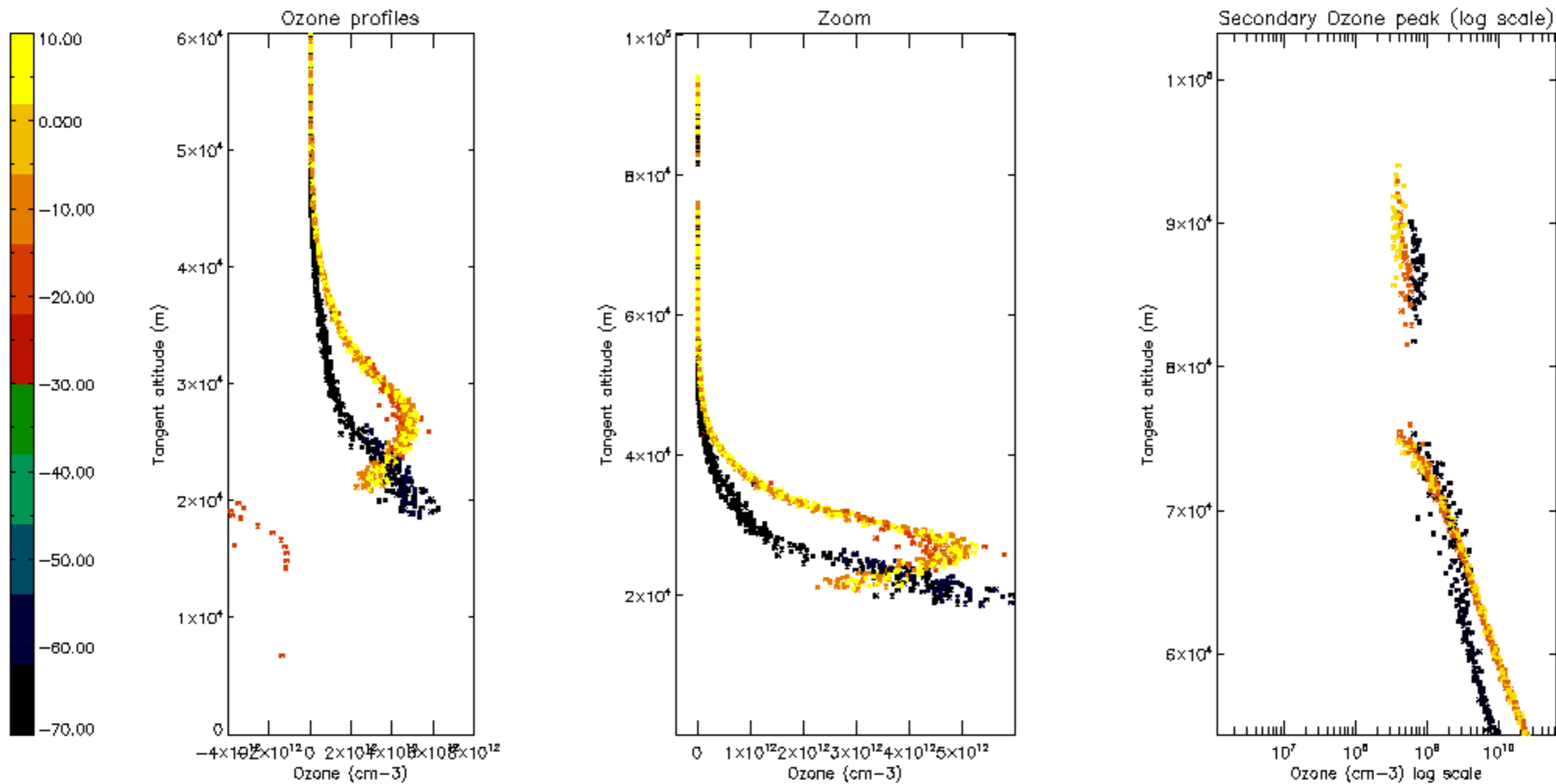


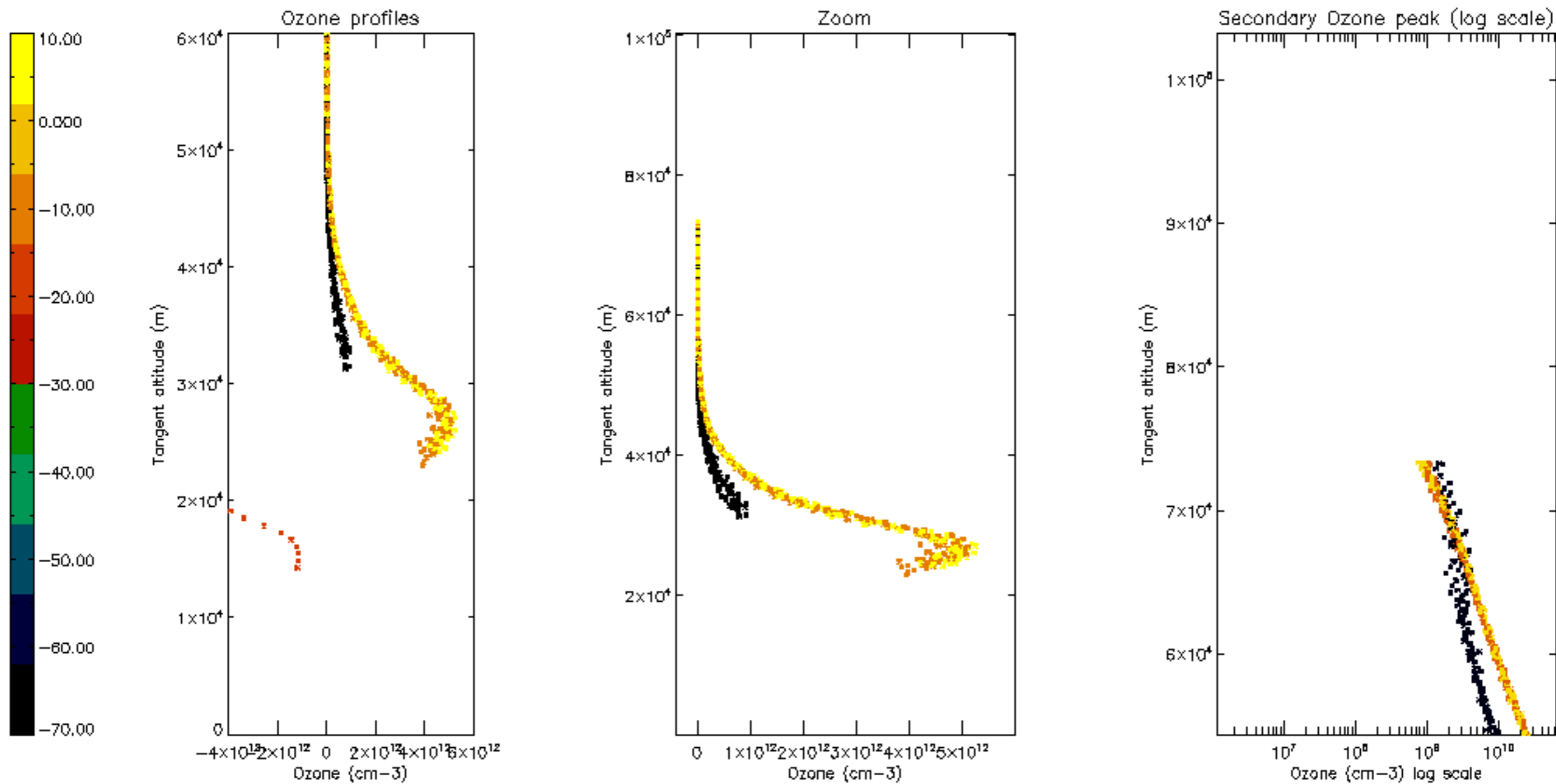
Percentage of saturation errors per profile



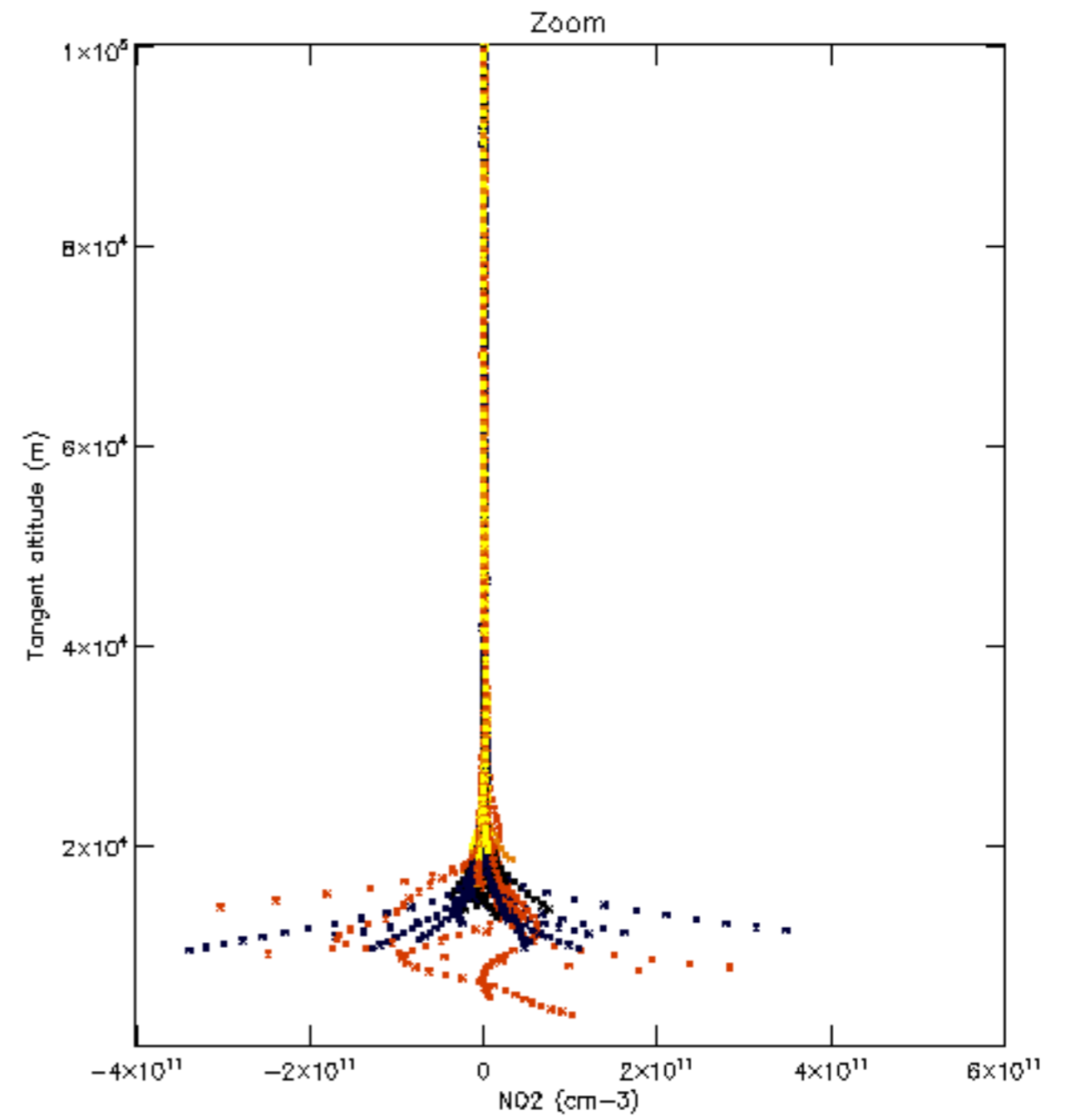
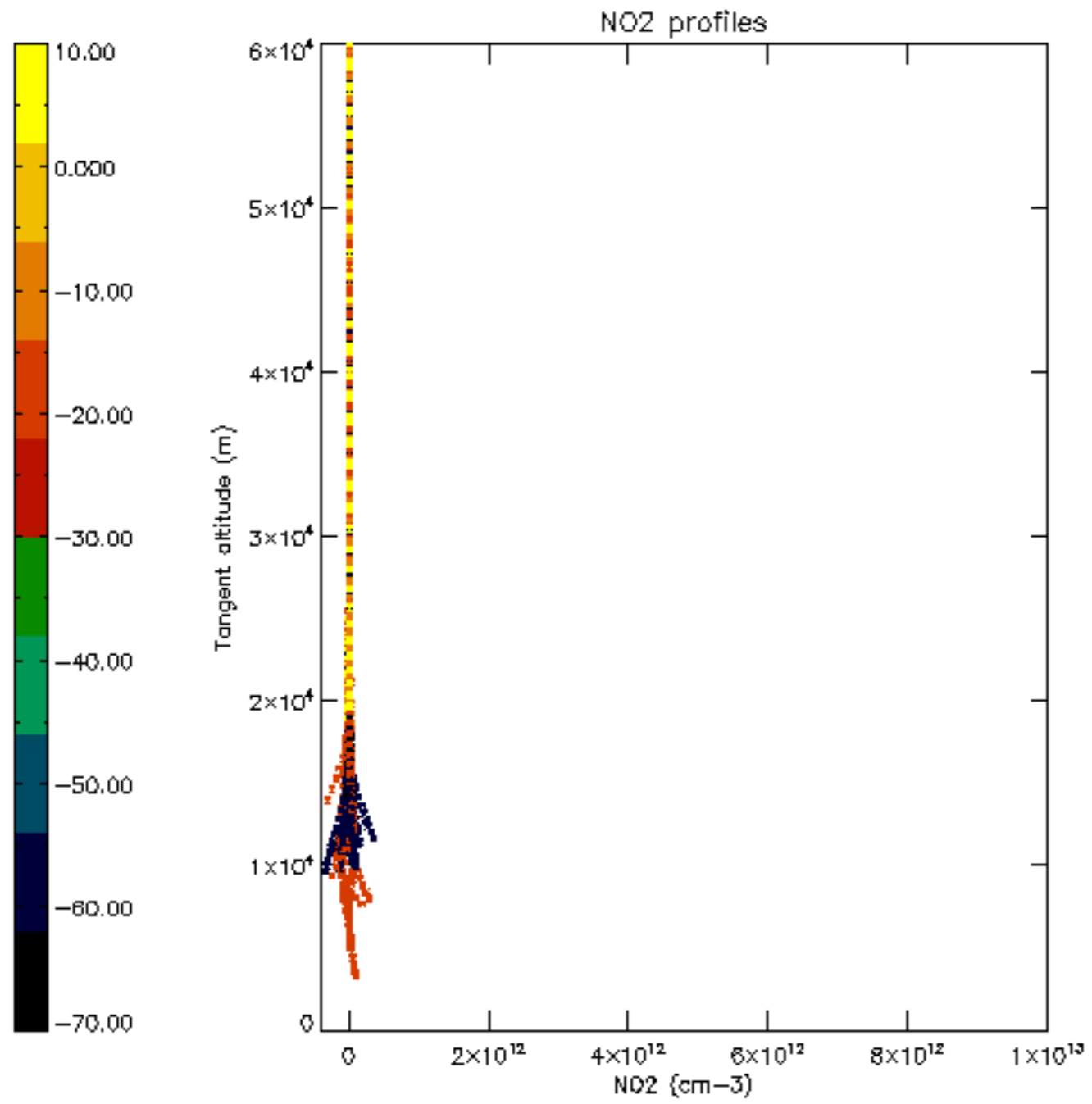


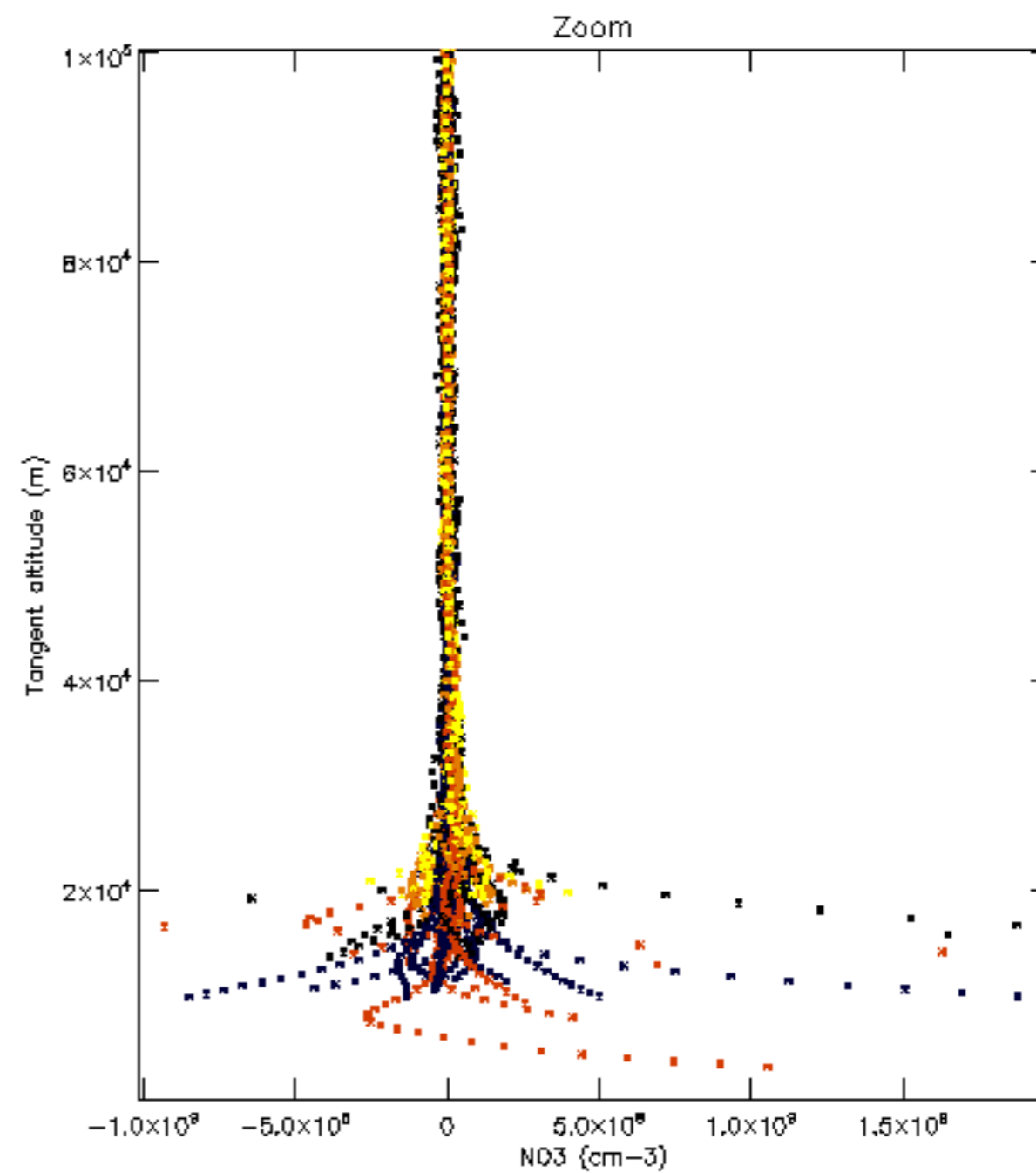
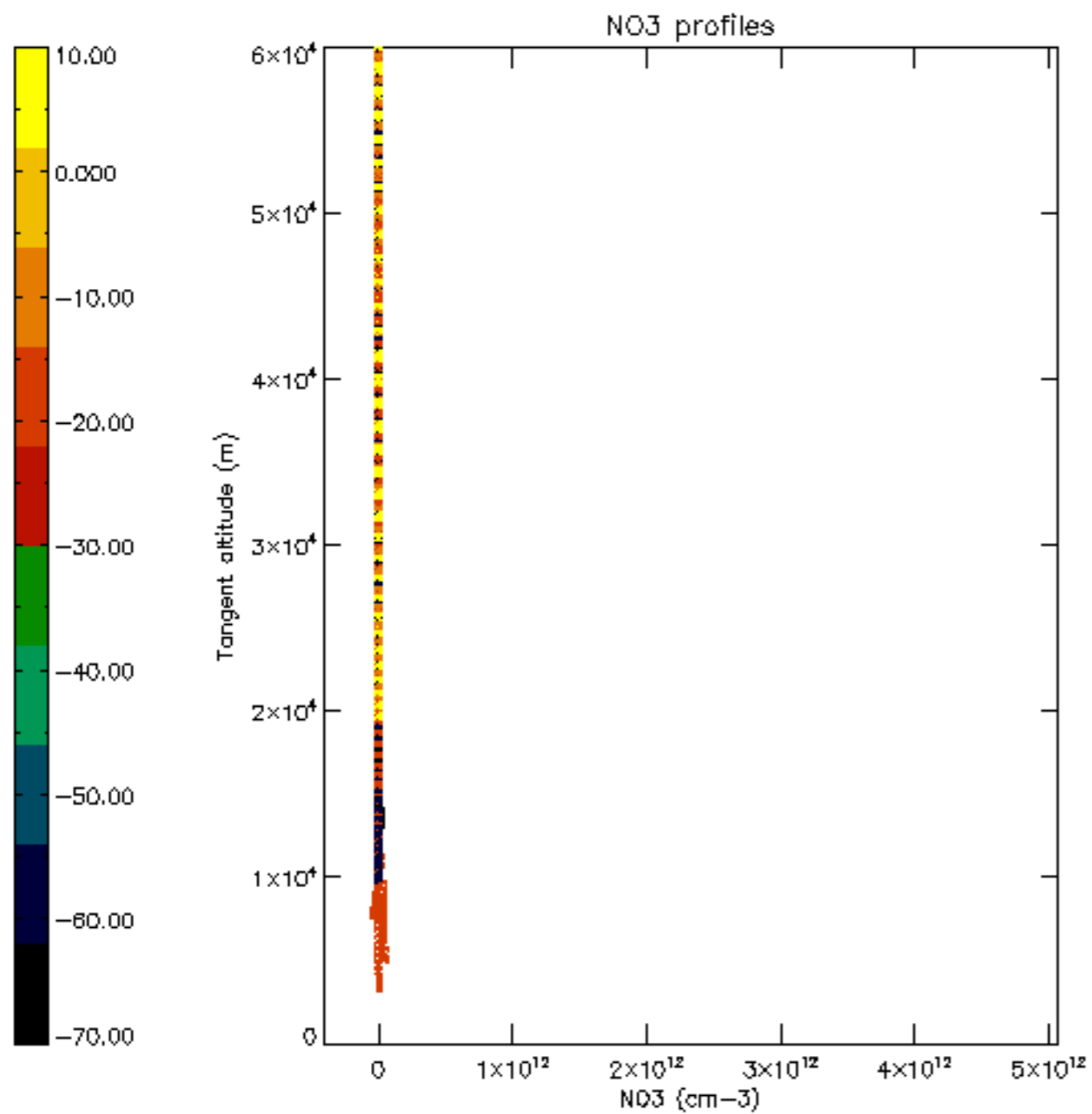


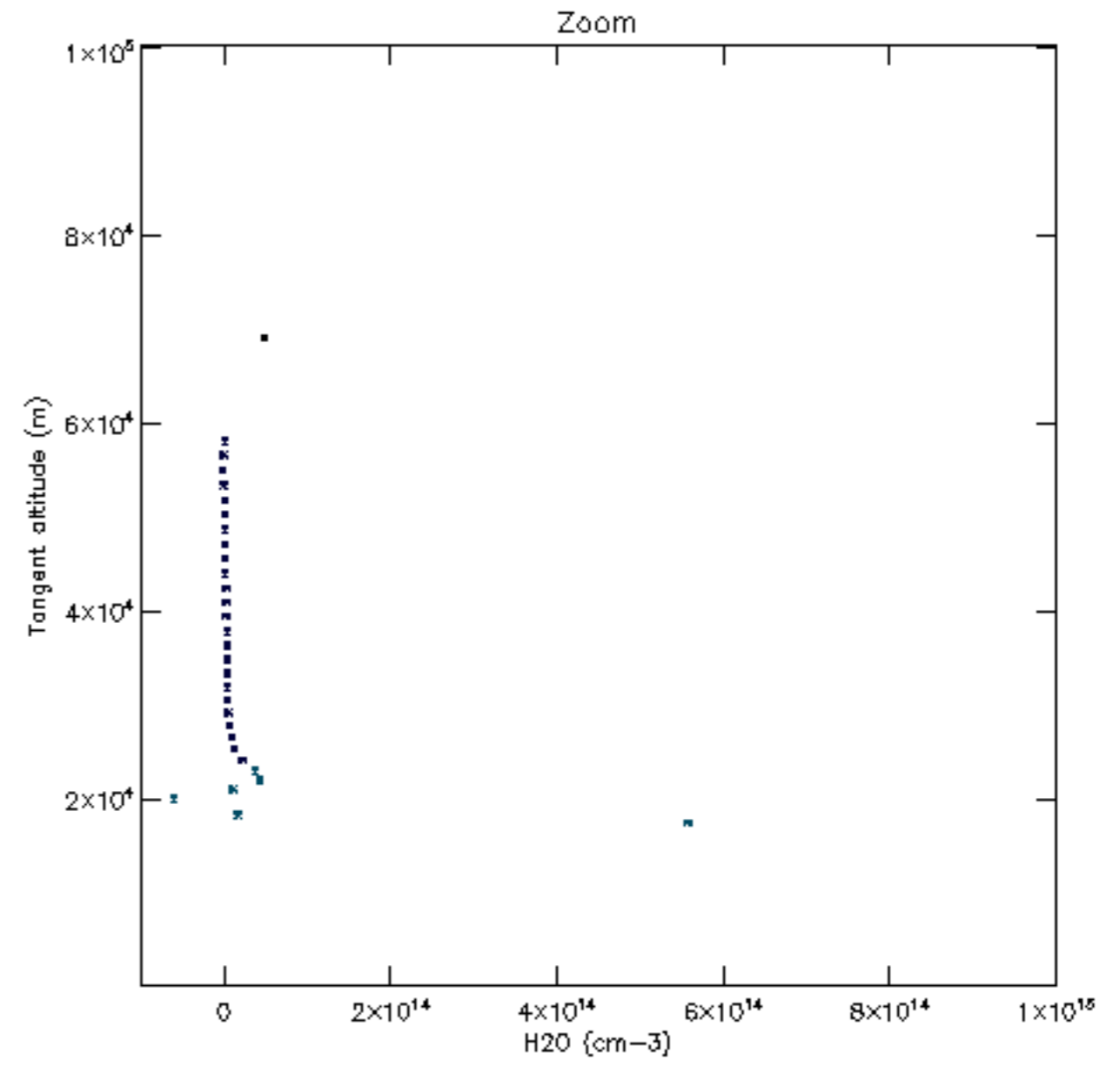
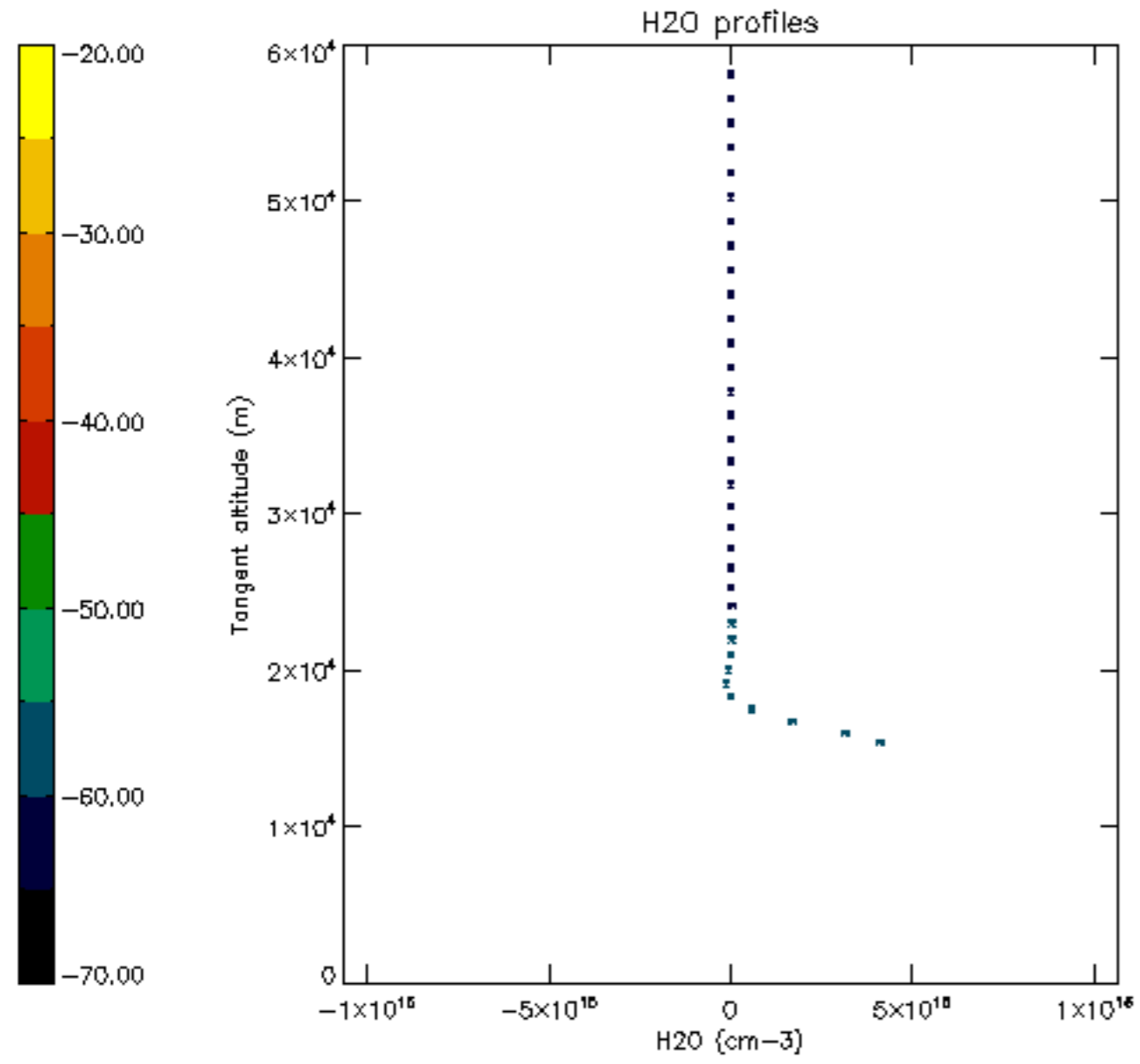


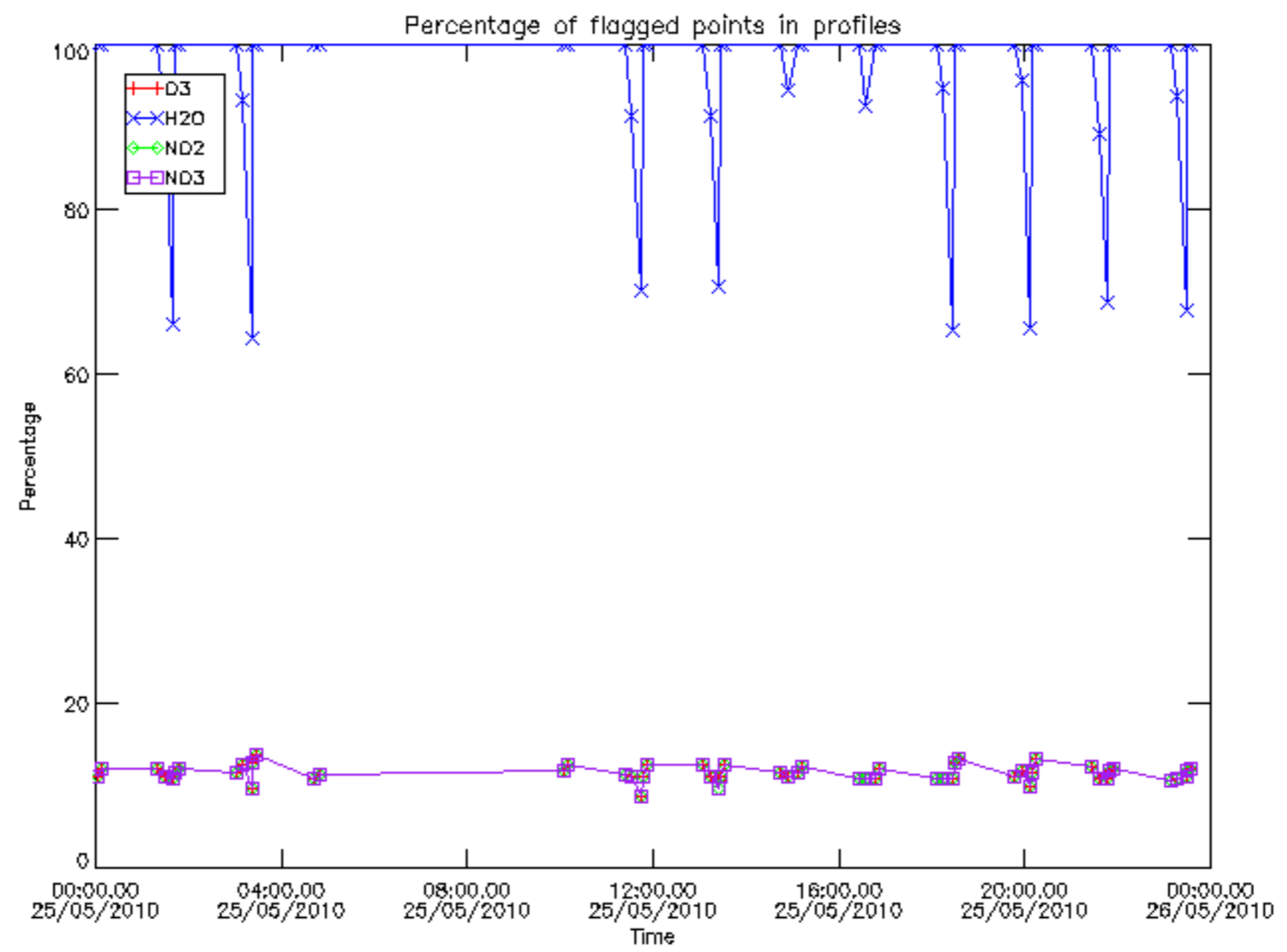




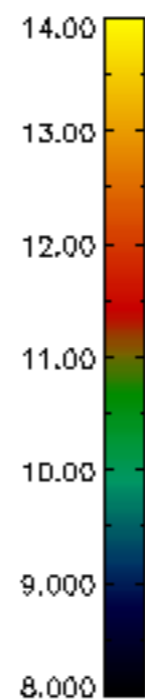
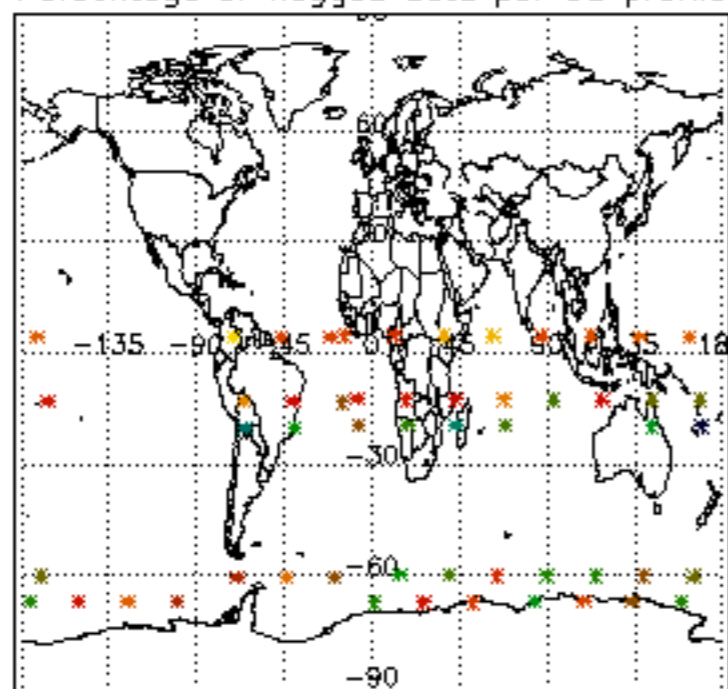




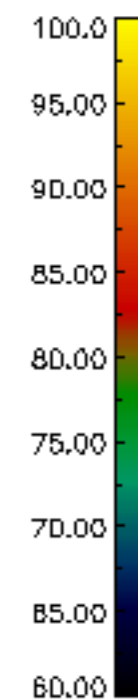
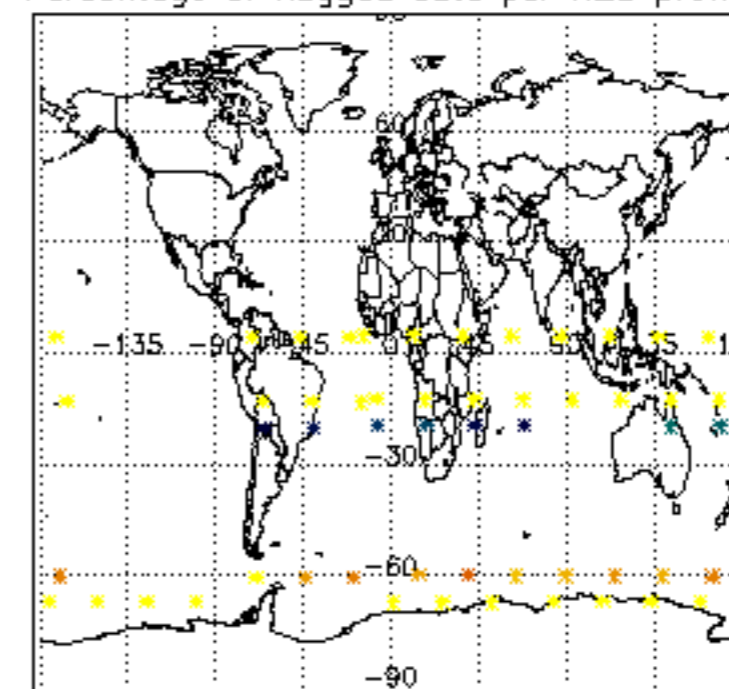




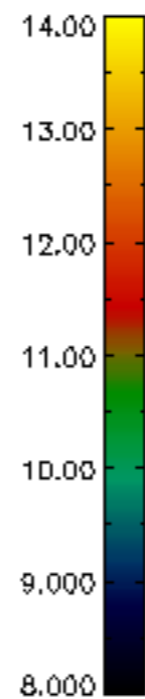
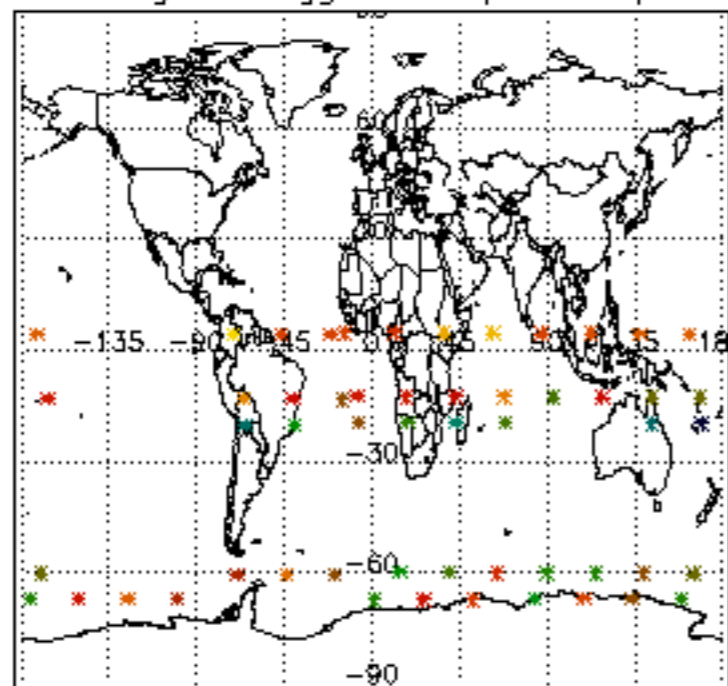
Percentage of flagged data per D3 profile



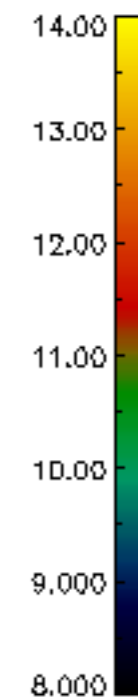
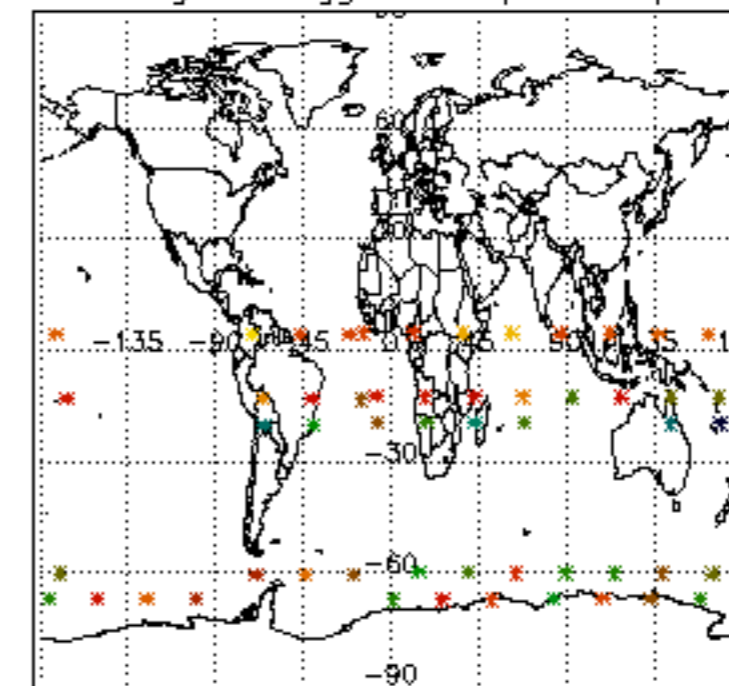
Percentage of flagged data per H2O profile

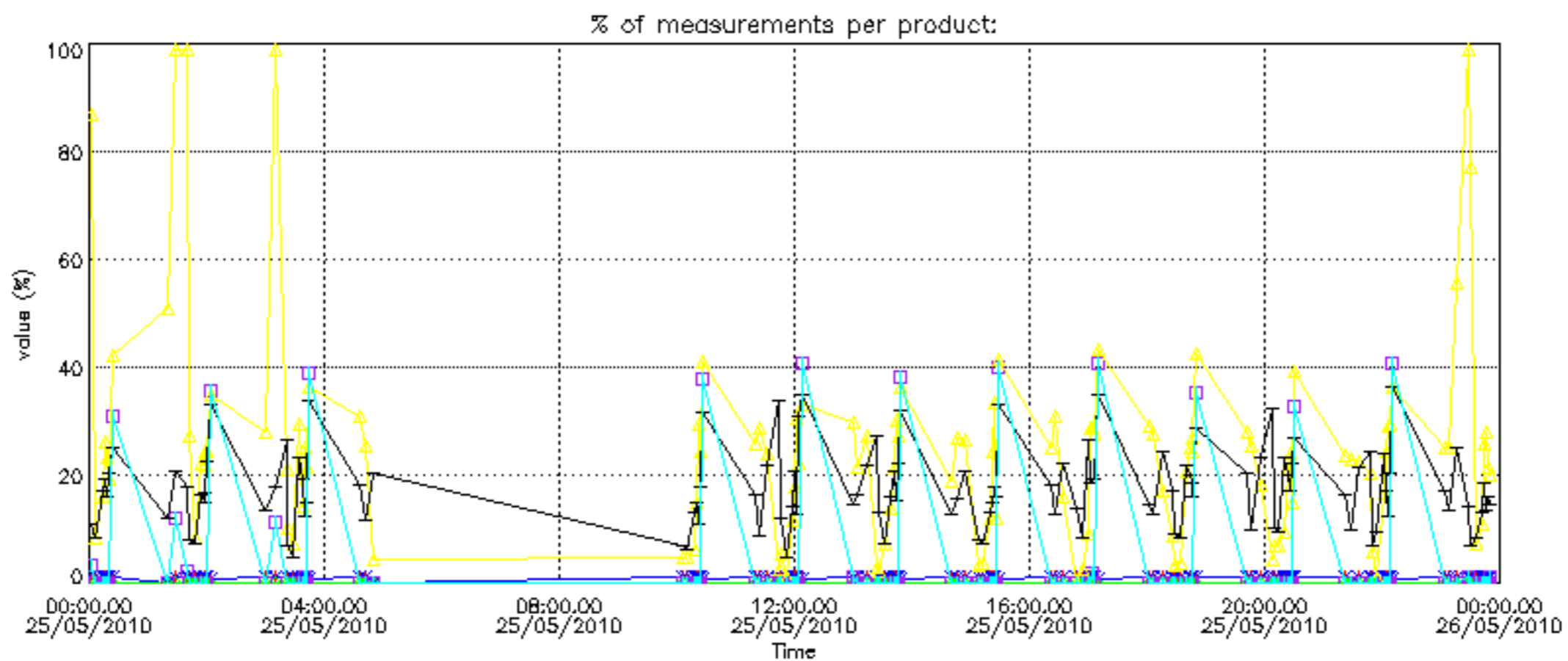


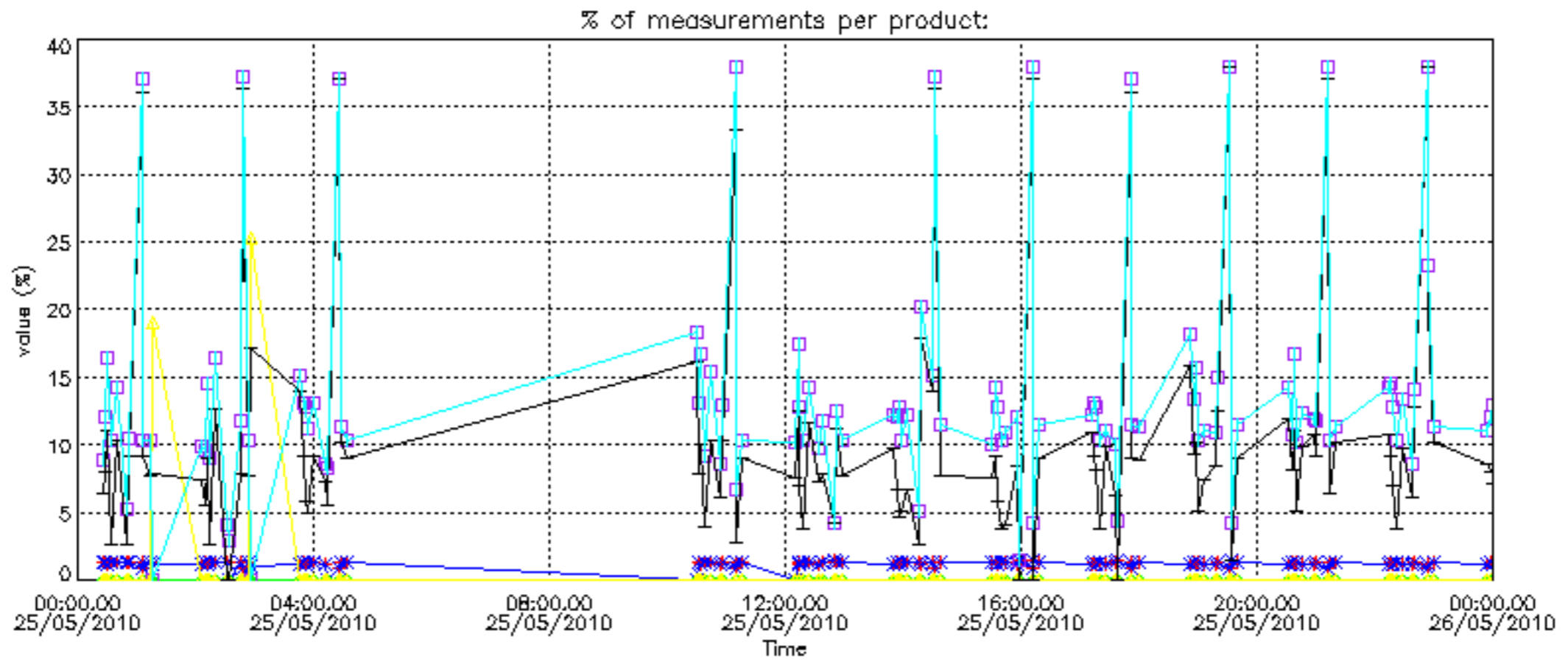
Percentage of flagged data per NO2 profile



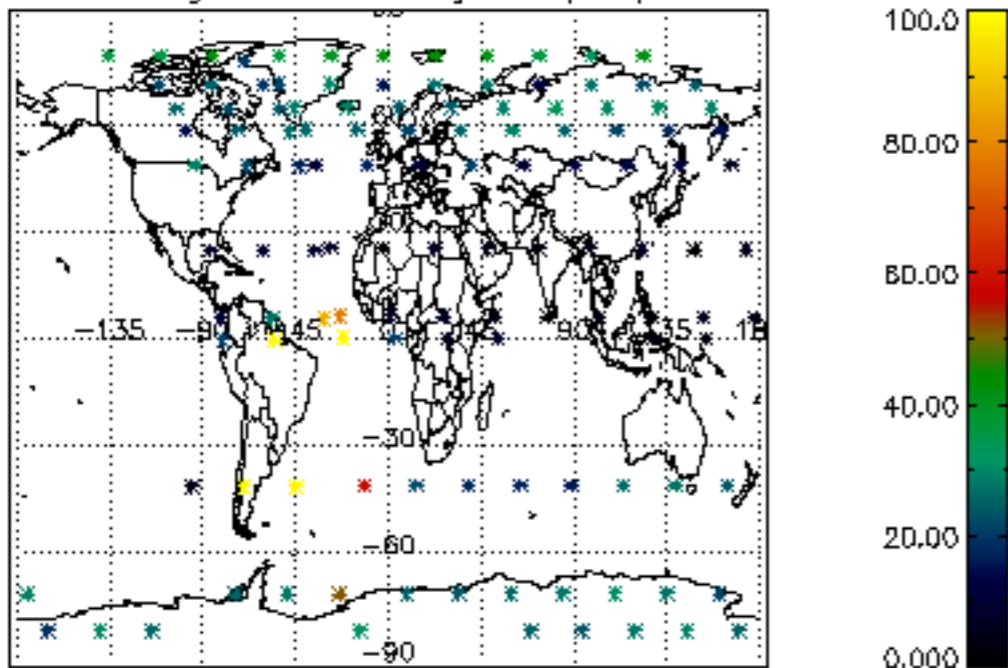
Percentage of flagged data per NO3 profile



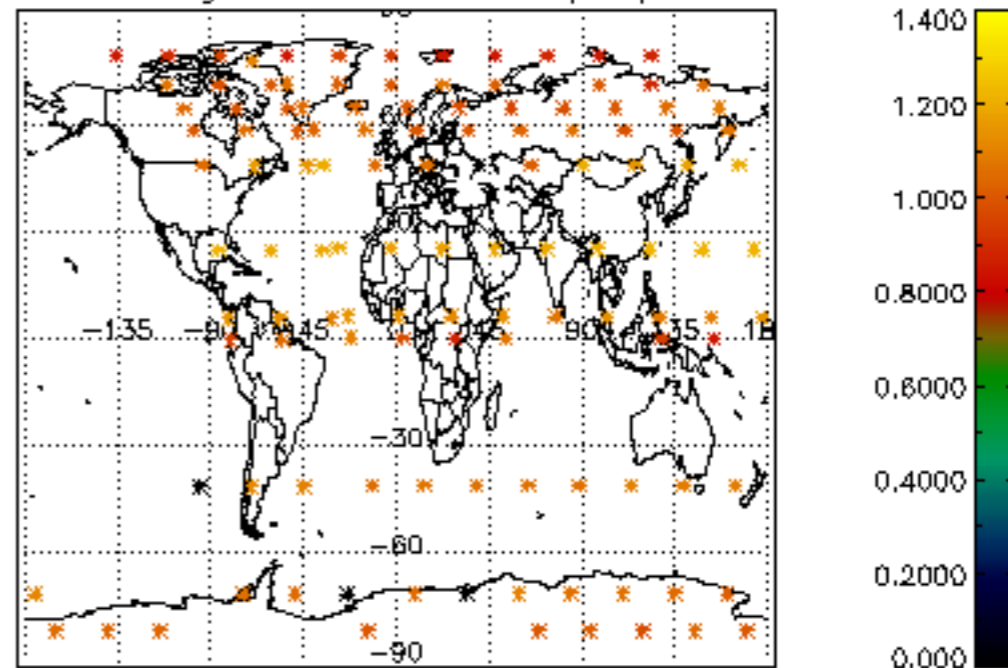




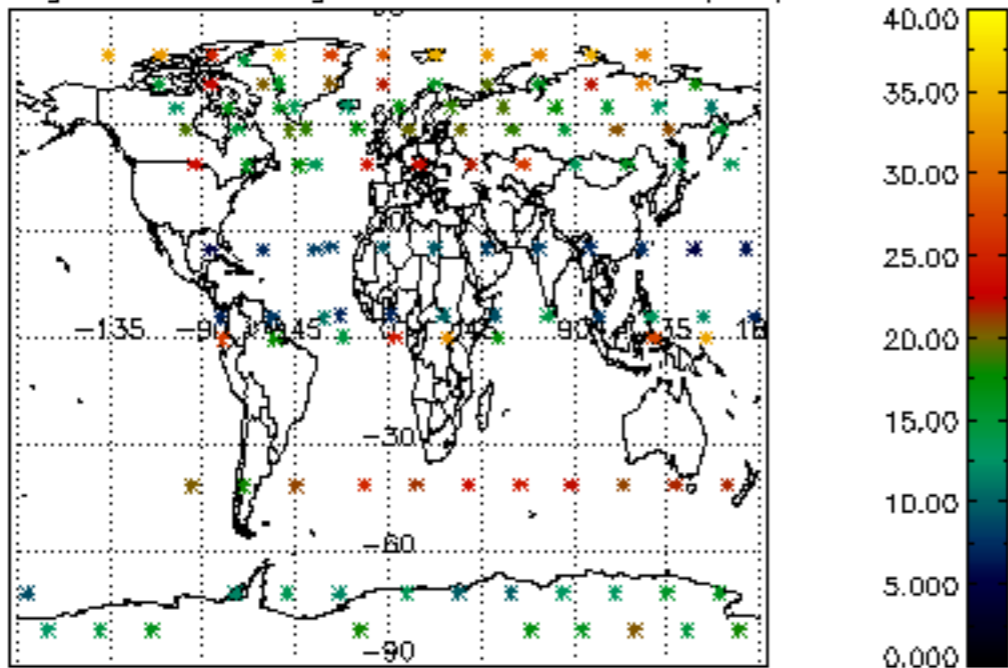
Percentage of cosmic ray hits per profile



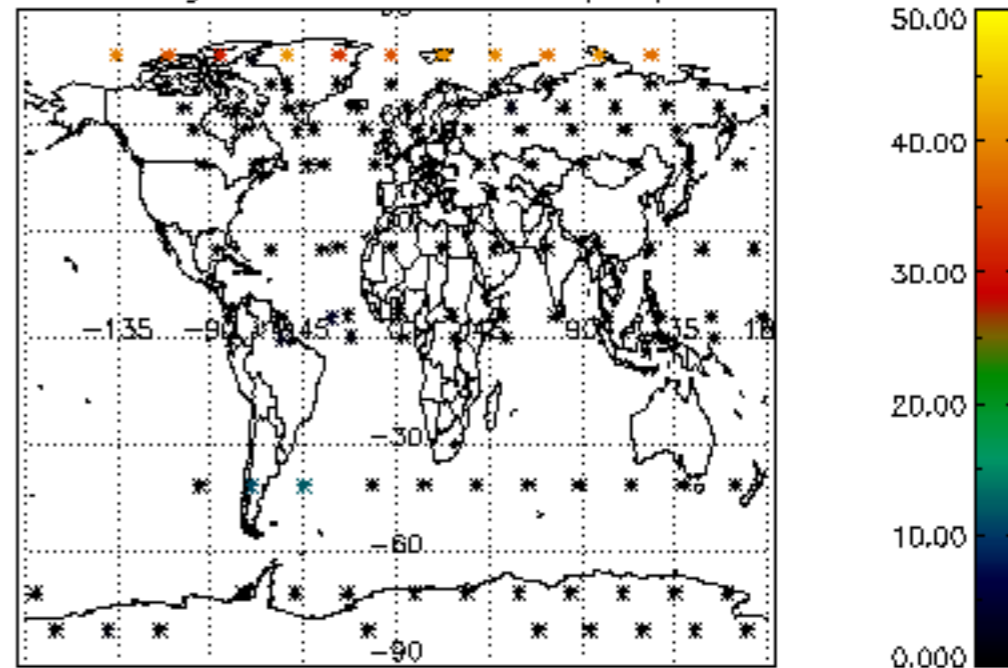
Percentage of datation errors per profile



Percentage of star falling outside central band per profile

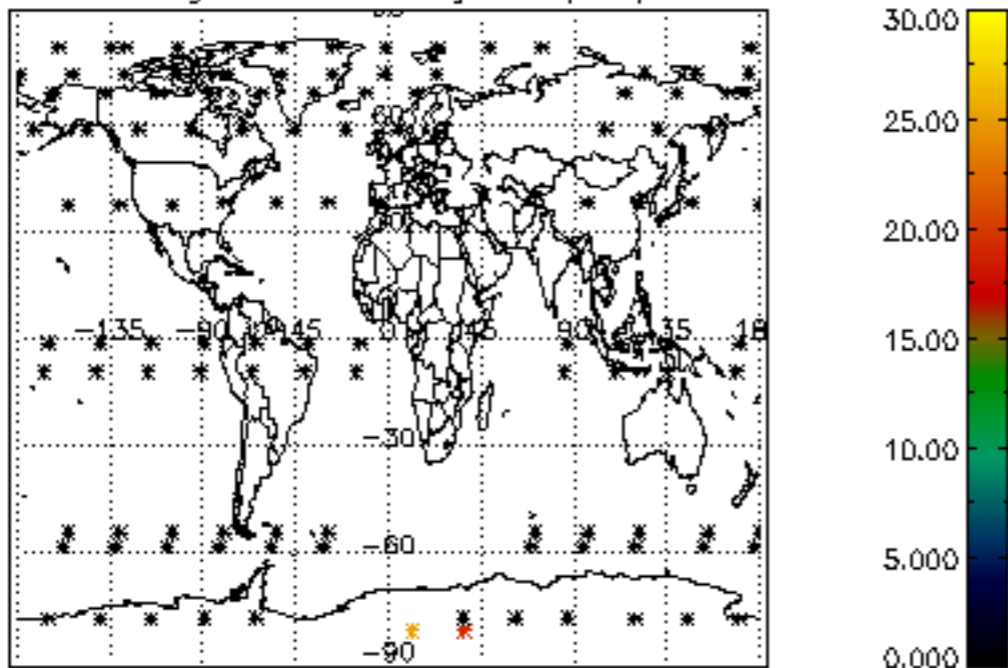


Percentage of saturation errors per profile

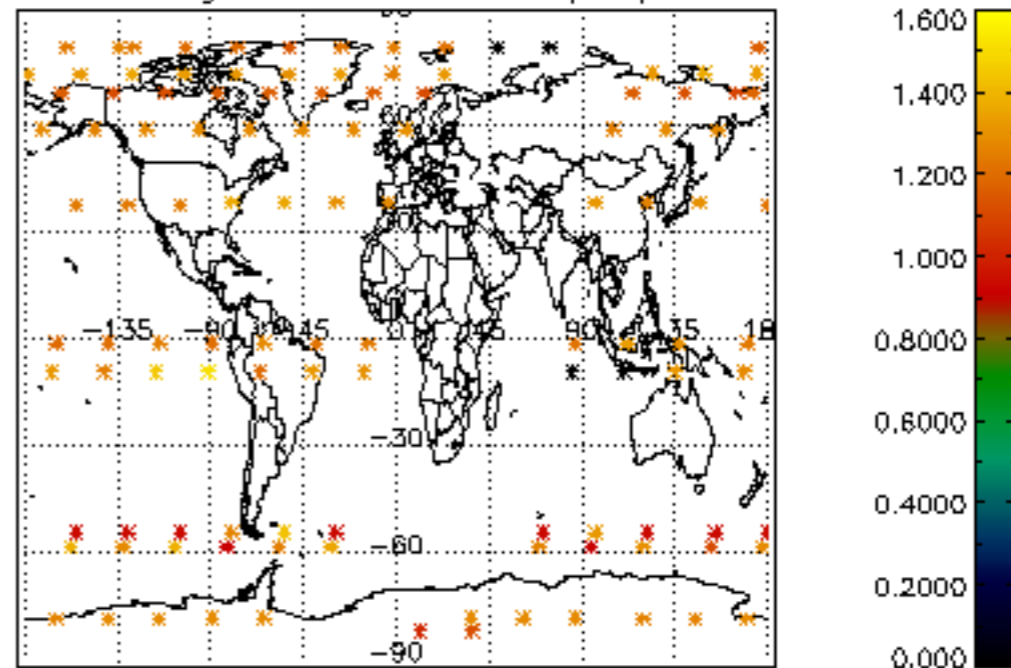




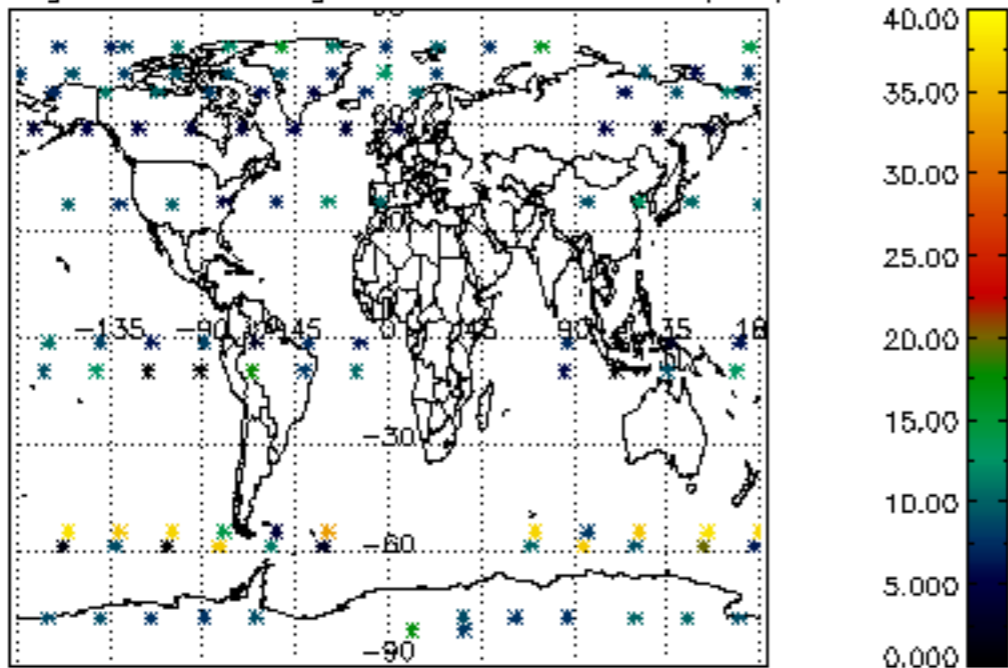
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

