

# GOMOS Level 2 Daily Report

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

Item	Value
Time of report generation	17APR2013 20:29:40
Data source version	GOMOS/6.01
Start time of products	26-11-2002 (26NOV2002 00:00:00)
Stop time of products	27-11-2002 (27NOV2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	405
Nb of prods with errors	231

## 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__2PRFIN20021126_000335_000001362011_00302_03863_1806.N1	26-NOV-2002 00:03:35	Twilight	136.00	51	41Gam1Leo	2.0100	4500.0	272	3863	No
2	GOM_NL__2PRFIN20021126_000900_000000472011_00302_03863_1807.N1	26-NOV-2002 00:09:00	Twilight	47.000	163	7Del Crv	2.9450	11000.	94	3863	No
3	GOM_NL__2PRFIN20021126_001117_000002552011_00302_03863_1808.N1	26-NOV-2002 00:11:17	Dark	255.00	22	32Alp Leo	1.3600	15200.	510	3863	No
4	GOM_NL__2PRFIN20021126_001659_000000402011_00302_03863_1809.N1	26-NOV-2002 00:16:59	Dark	39.500	64	Gam Cen	2.2000	10600.	79	3863	No
5	GOM_NL__2PRFIN20021126_001934_000000382011_00302_03863_1810.N1	26-NOV-2002 00:19:34	Dark	38.000	20	Bet Cru	1.2530	30000.	76	3863	No
6	GOM_NL__2PRFIN20021126_002043_000000392011_00303_03864_1780.N1	26-NOV-2002 00:20:43	Dark	39.000	12	Alp1Cru	0.77500	30000.	78	3864	No
7	GOM_NL__2PRFIN20021126_002313_000000402011_00303_03864_1781.N1	26-NOV-2002 00:23:13	Dark	39.500	124	The Car	2.7640	30000.	79	3864	No
8	GOM_NL__2PRFIN20021126_002740_000000452011_00303_03864_1782.N1	26-NOV-2002 00:27:40	Dark	45.000	41	Eps Car	1.8600	4100.0	90	3864	No
9	GOM_NL__2PRFIN20021126_002919_000000502011_00303_03864_1783.N1	26-NOV-2002 00:29:19	Dark	49.500	34	Gam2Vel	1.7930	23000.	99	3864	No
10	GOM_NL__2PRFIN20021126_003051_000000592011_00303_03864_1784.N1	26-NOV-2002 00:30:51	Dark	59.000	70	Zet Pup	2.2460	39000.	118	3864	No
11	GOM_NL__2PRFIN20021126_003308_000000592011_00303_03864_1785.N1	26-NOV-2002 00:33:08	Dark	59.000	2	Alp Car	-0.73600	7000.0	118	3864	No
12	GOM_NL__2PRFIN20021126_003654_000000772011_00303_03864_1786.N1	26-NOV-2002 00:36:54	Dark	76.500	88	31Eta CMa	2.4480	20000.	153	3864	No
13	GOM_NL__2PRFIN20021126_003911_000000812011_00303_03864_1787.N1	26-NOV-2002 00:39:11	Dark	80.500	37	25Del CMa	1.8300	5900.0	161	3864	No
14	GOM_NL__2PRFIN20021126_004513_000000812011_00303_03864_1788.N1	26-NOV-2002 00:45:13	Straylight	81.000	47	2Bet CMa	1.9760	28000.	162	3864	No
15	GOM_NL__2PRFIN20021126_004753_000000482011_00303_03864_1789.N1	26-NOV-2002 00:47:53	Straylight	47.500	165	34Gam Eri	2.9500	3200.0	95	3864	No
16	GOM_NL__2PRFIN20021126_004943_000000762011_00303_03864_1790.N1	26-NOV-2002 00:49:43	Straylight	76.000	7	19Bet Ori	0.10000	14000.	152	3864	No
17	GOM_NL__2PRFIN20021126_005312_000000792011_00303_03864_1791.N1	26-NOV-2002 00:53:12	Twilight	78.500	30	46Eps Ori	1.6940	30000.	157	3864	No
18	GOM_NL__2PRFIN20021126_005607_000000762011_00303_03864_1792.N1	26-NOV-2002 00:56:07	Bright	75.500	27	24Gam Ori	1.6360	26000.	151	3864	No
19	GOM_NL__2PRFIN20021126_010211_000000362011_00303_03864_1793.N1	26-NOV-2002 01:02:11	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	3864	No
20	GOM_NL__2PRFIN20021126_010351_000000412011_00303_03864_1794.N1	26-NOV-2002 01:03:51	Bright	40.500	79	26Bet Per	2.3100	13100.	81	3864	No
21	GOM_NL__2PRFIN20021126_010615_000000422011_00303_03864_1795.N1	26-NOV-2002 01:06:15	Bright	42.000	175	39Del Per	3.0100	19400.	84	3864	No
22	GOM_NL__2PRFIN20021126_010907_000000382011_00303_03864_1796.N1	26-NOV-2002 01:09:07	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	3864	No
23	GOM_NL__2PRFIN20021126_011021_000000372011_00303_03864_1797.N1	26-NOV-2002 01:10:21	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	3864	No
24	GOM_NL__2PRFIN20021126_011723_000000392011_00303_03864_1798.N1	26-NOV-2002 01:17:23	Bright	39.000	49	1Alp UMi	1.9900	6300.0	78	3864	No
25	GOM_NL__2PRFIN20021126_012158_000000402011_00303_03864_1799.N1	26-NOV-2002 01:21:58	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	3864	No
26	GOM_NL__2PRFIN20021126_012423_000000372011_00303_03864_1800.N1	26-NOV-2002 01:24:23	Bright	37.000	119	14Eta Dra	2.7270	4700.0	74	3864	No
27	GOM_NL__2PRFIN20021126_012604_000000622011_00303_03864_1801.N1	26-NOV-2002 01:26:04	Bright	61.500	82	48Bet UMa	2.3650	10600.	123	3864	No
28	GOM_NL__2PRFIN20021126_012742_000000392011_00303_03864_1802.N1	26-NOV-2002 01:27:42	Bright	39.000	55	79Zet UMa	2.0600	10200.	78	3864	No
29	GOM_NL__2PRFIN20021126_012915_000000382011_00303_03864_1803.N1	26-NOV-2002 01:29:15	Bright	38.000	39	85Eta UMa	1.8540	24000.	76	3864	No
30	GOM_NL__2PRFIN20021126_013204_000000412011_00303_03864_1804.N1	26-NOV-2002 01:32:04	Bright	40.500	180	27Gam Boo	3.0400	8000.0	81	3864	No
31	GOM_NL__2PRFIN20021126_013503_000000362011_00303_03864_1805.N1	26-NOV-2002 01:35:03	Bright	36.000	83		2.3780	11000.	72	3864	No
32	GOM_NL__2PRFIN20021126_013733_000000362011_00303_03864_1806.N1	26-NOV-2002 01:37:33	Bright	35.500	3	16Alp Boo	-0.050000	4250.0	71	3864	No
33	GOM_NL__2PRFIN20021126_014032_000000632011_00303_03864_1807.N1	26-NOV-2002 01:40:32	Bright	62.500	96	68Del Leo	2.5600	9300.0	125	3864	No
34	GOM_NL__2PRFIN20021126_014413_000001362011_00303_03864_1808.N1	26-NOV-2002 01:44:13	Twilight	135.50	51	41Gam1Leo	2.0100	4500.0	271	3864	No
35	GOM_NL__2PRFIN20021126_014937_000000482011_00303_03864_1809.N1	26-NOV-2002 01:49:37	Twilight	47.500	163	7Del Crv	2.9450	11000.	95	3864	No
36	GOM_NL__2PRFIN20021126_015157_000002552011_00303_03864_1810.N1	26-NOV-2002 01:51:57	Dark	255.00	22	32Alp Leo	1.3600	15200.	510	3864	No
37	GOM_NL__2PRFIN20021126_015736_000000422011_00303_03864_1811.N1	26-NOV-2002 01:57:36	Dark	42.000	64	Gam Cen	2.2000	10600.	84	3864	No
38	GOM_NL__2PRFIN20021126_015851_000000392011_00303_03864_1812.N1	26-NOV-2002 01:58:51	Dark	39.000	99	Del Cen	2.5750	26000.	78	3864	No
39	GOM_NL__2PRFIN20021126_020010_000000372011_00303_03864_1813.N1	26-NOV-2002 02:00:10	Dark	37.000	20	Bet Cru	1.2530	30000.	74	3864	No
40	GOM_NL__2PRFIN20021126_020119_000000402011_00304_03865_1777.N1	26-NOV-2002 02:01:19	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	3865	No
41	GOM_NL__2PRFIN20021126_020413_000000152011_00304_03865_1778.N1	26-NOV-2002 02:04:13	Dark	15.000	124	The Car	2.7640	30000.	30	3865	Yes
42	GOM_NL__2PRFIN20021126_020552_000000182011_00304_03865_1779.N1	26-NOV-2002 02:05:52	Dark	17.500	159	Ups Car	2.9200	7200.0	35	3865	Yes













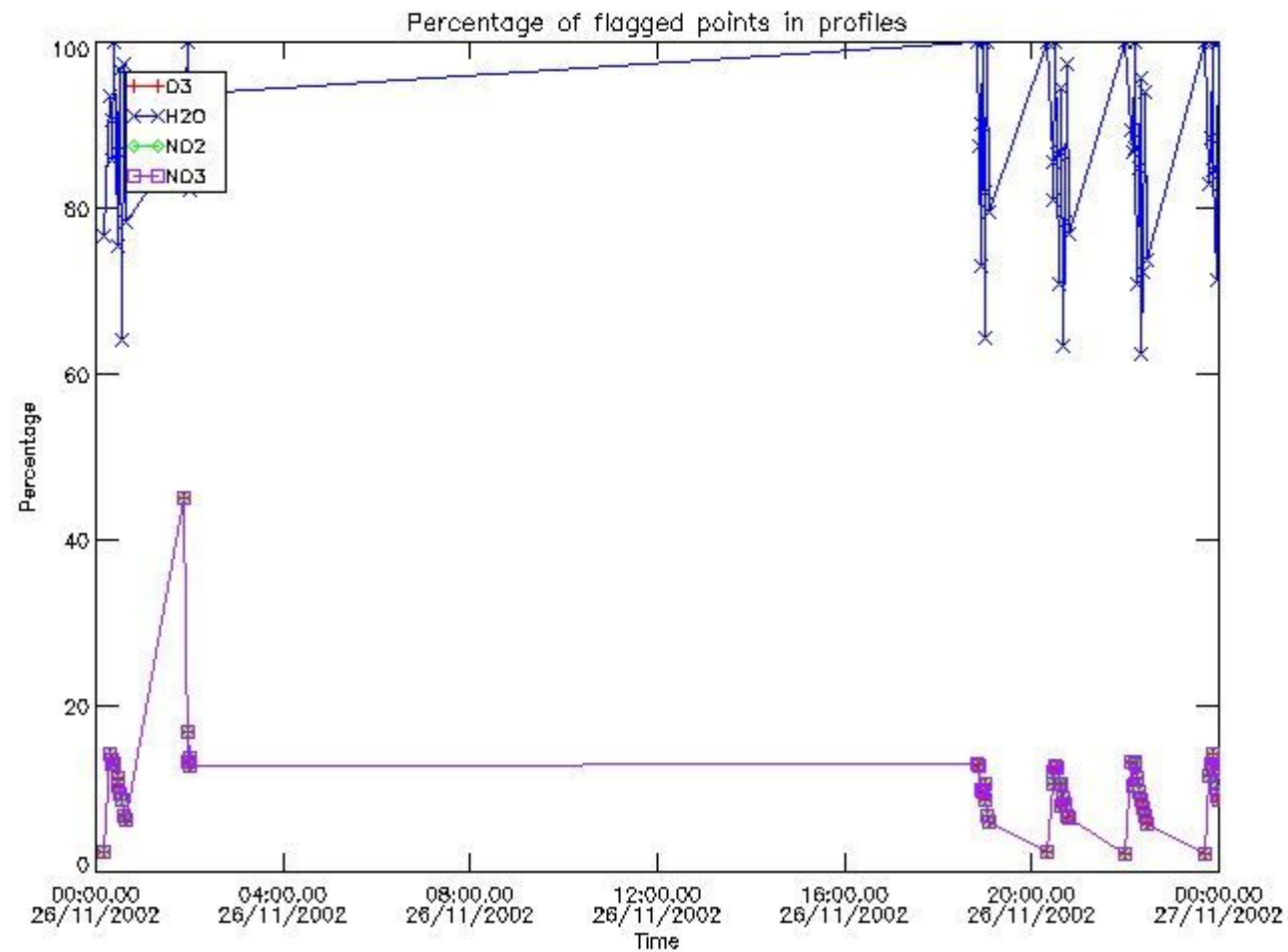


397	GOM_NL__2PRFIN20021126_233820_000000512011_00316_03877_9529.N1	26-NOV-2002 23:38:20	Twl_and_stray	50.500	100	4Gam Crv	2.5800	13100.	101	3877	No
398	GOM_NL__2PRFIN20021126_234057_000002552011_00316_03877_9530.N1	26-NOV-2002 23:40:57	Dark	255.00	22	32Alp Leo	1.3600	15200.	510	3877	No
399	GOM_NL__2PRFIN20021126_234726_000000452011_00316_03877_9531.N1	26-NOV-2002 23:47:26	Dark	44.500	10	Bet Cen	0.61000	28000.	89	3877	No
400	GOM_NL__2PRFIN20021126_234910_000000402011_00317_03878_9497.N1	26-NOV-2002 23:49:10	Dark	39.500	12	Alp1Cru	0.77500	30000.	79	3878	No
401	GOM_NL__2PRFIN20021126_235142_000000412011_00317_03878_9498.N1	26-NOV-2002 23:51:42	Dark	40.500	124	The Car	2.7640	30000.	81	3878	No
402	GOM_NL__2PRFIN20021126_235322_000000402011_00317_03878_9499.N1	26-NOV-2002 23:53:22	Dark	39.500	159	Ups Car	2.9200	7200.0	79	3878	No
403	GOM_NL__2PRFIN20021126_235612_000000482011_00317_03878_9500.N1	26-NOV-2002 23:56:12	Dark	47.500	41	Eps Car	1.8600	4100.0	95	3878	No
404	GOM_NL__2PRFIN20021126_235754_000000562011_00317_03878_9501.N1	26-NOV-2002 23:57:54	Dark	56.000	34	Gam2Vel	1.7930	23000.	112	3878	No
405	GOM_NL__2PRFIN20021126_235929_000000592011_00317_03878_9502.N1	26-NOV-2002 23:59:29	Dark	58.500	70	Zet Pup	2.2460	39000.	117	3878	No

### 3. Quality information per product

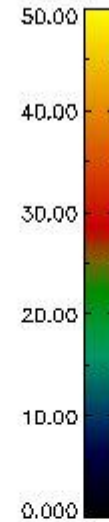
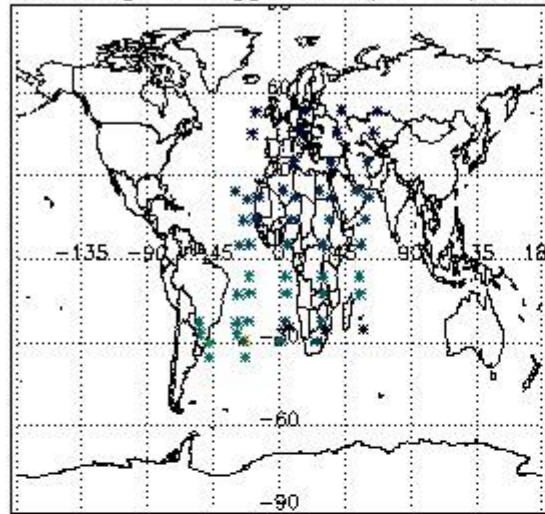
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

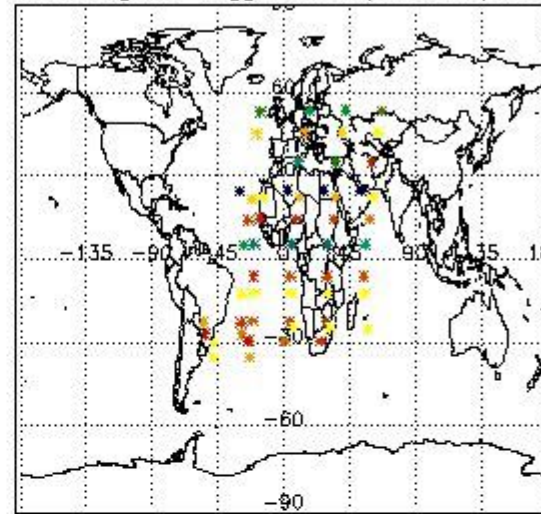


#### 3.2 Plot quality information per product (world map)

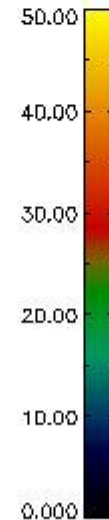
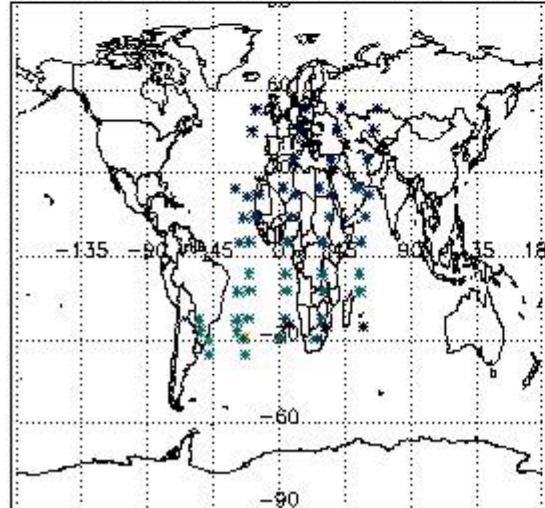
Percentage of flagged data per O3 profile



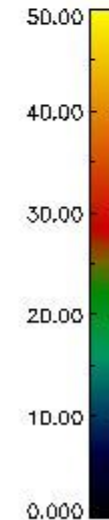
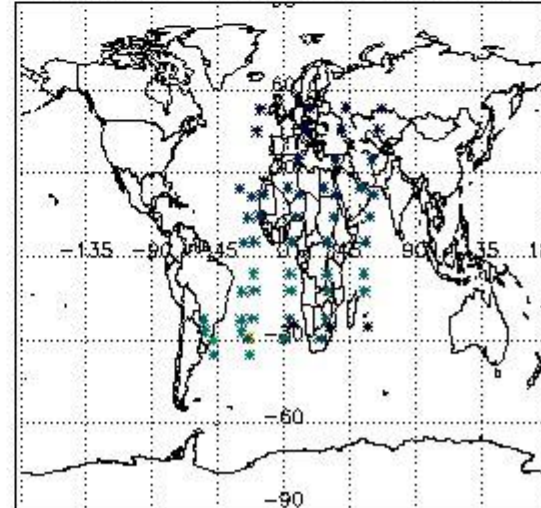
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

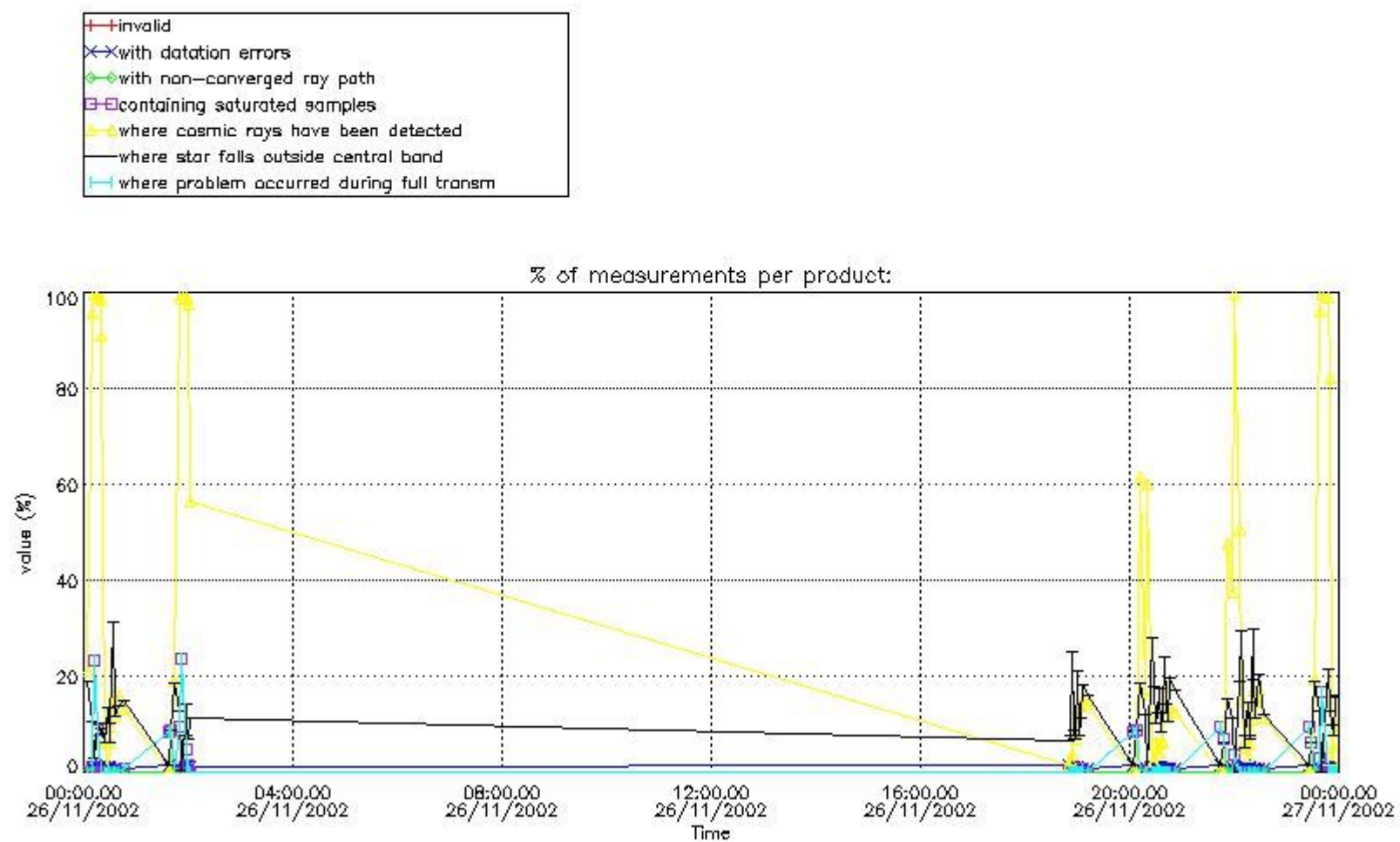


#### 4. Level 1 quality information per product

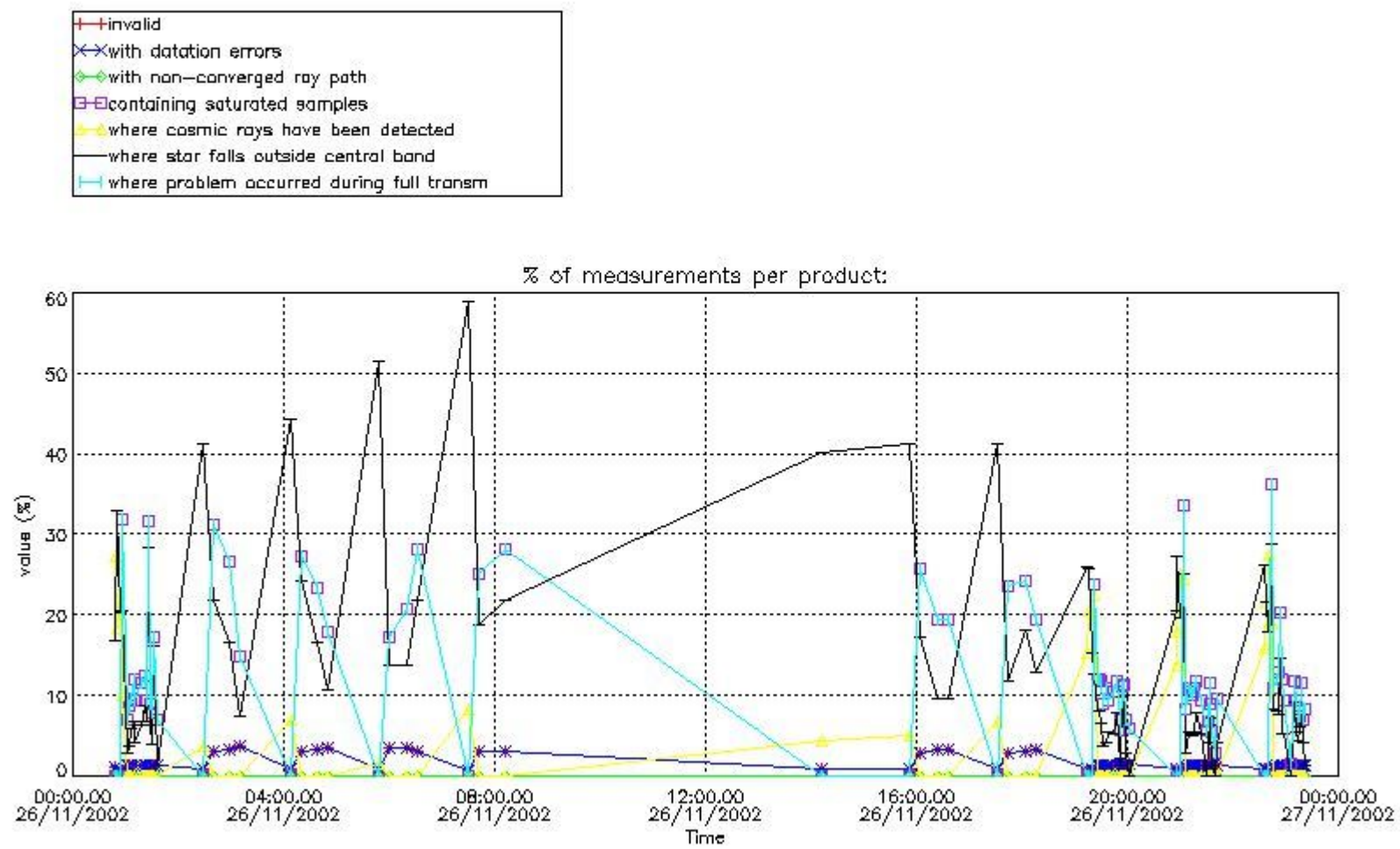
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 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



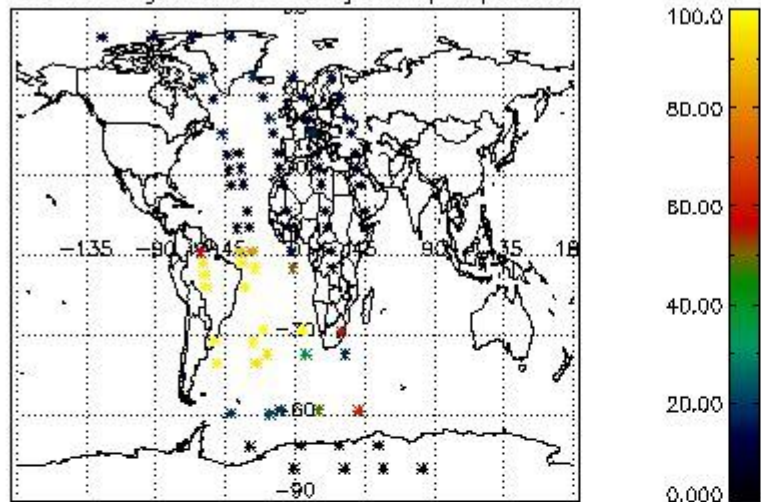
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



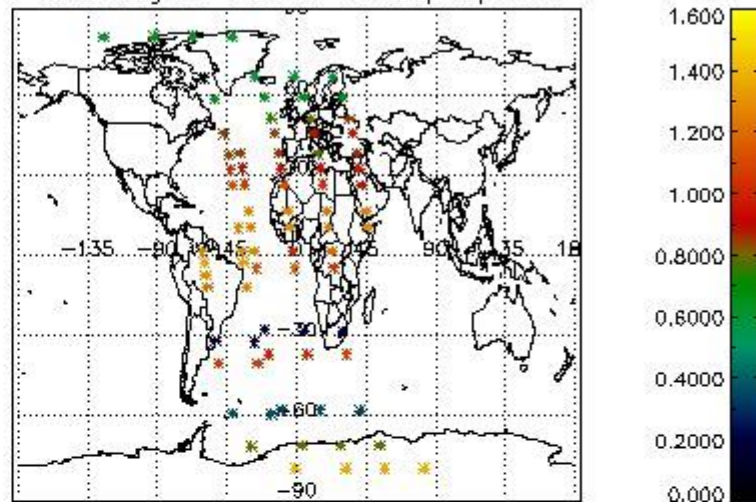
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

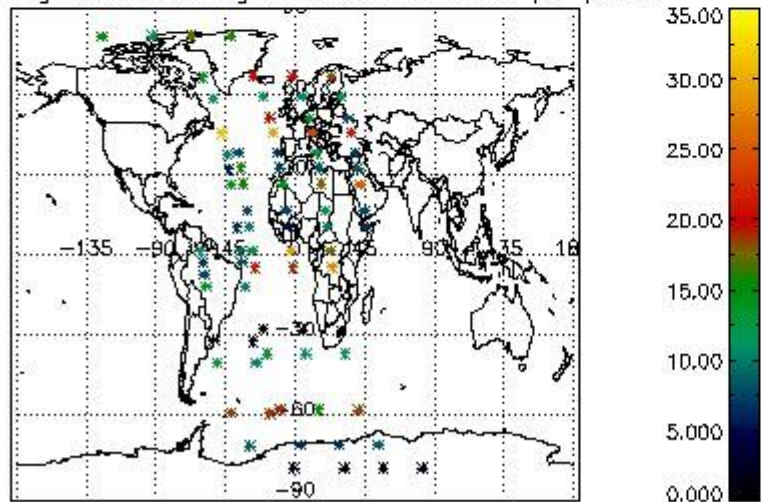
Percentage of cosmic ray hits per profile



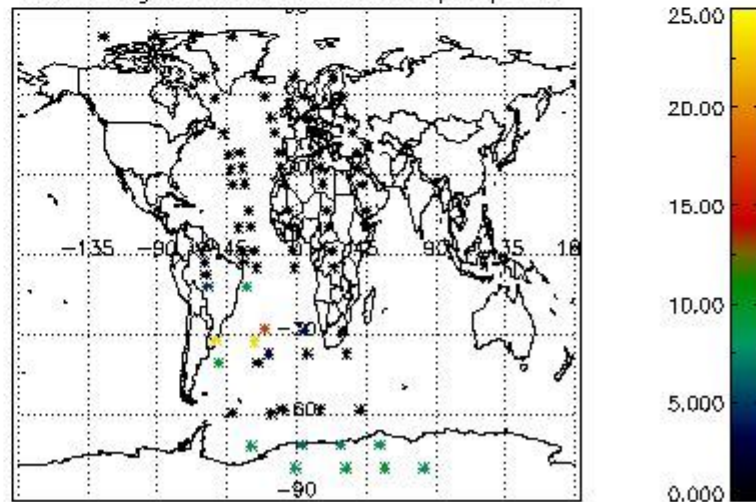
Percentage of datation errors per profile



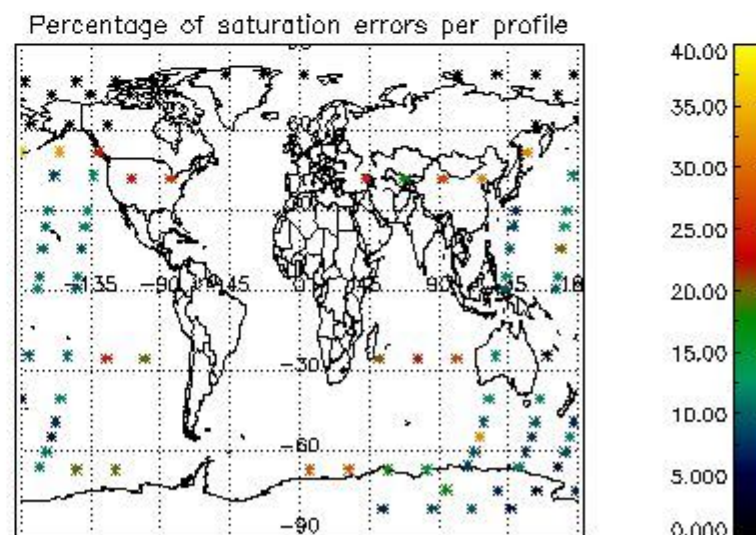
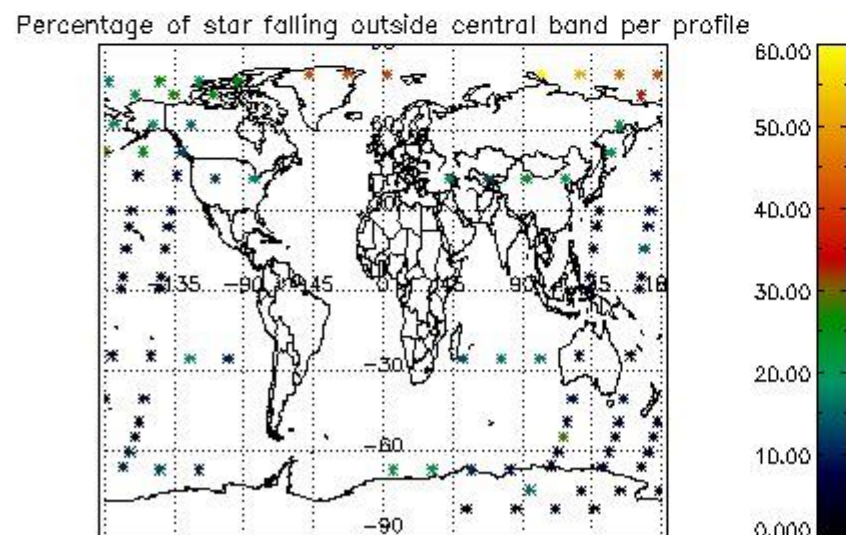
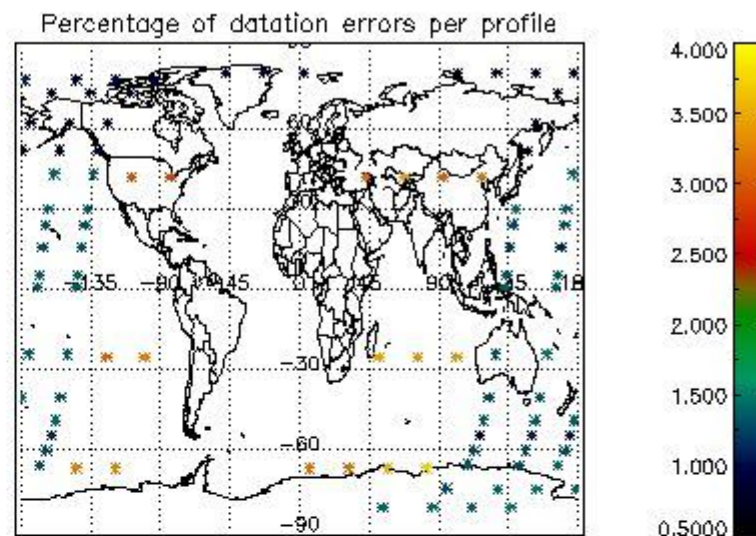
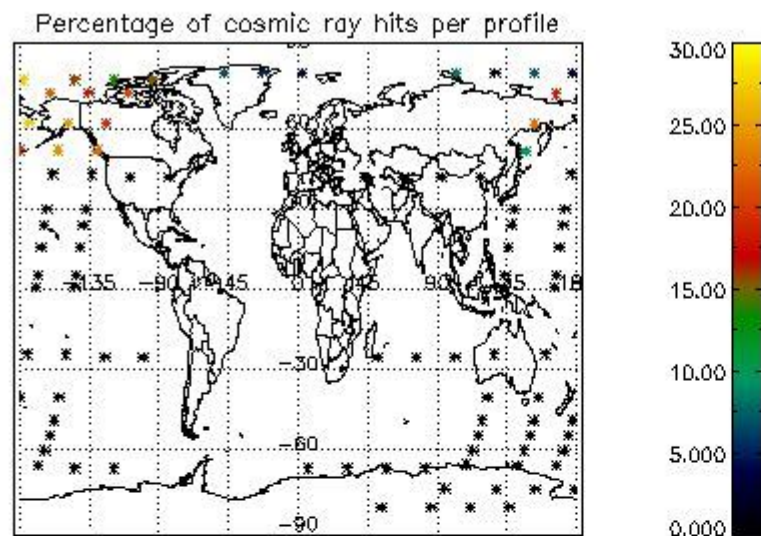
Percentage of star falling outside central band per profile



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

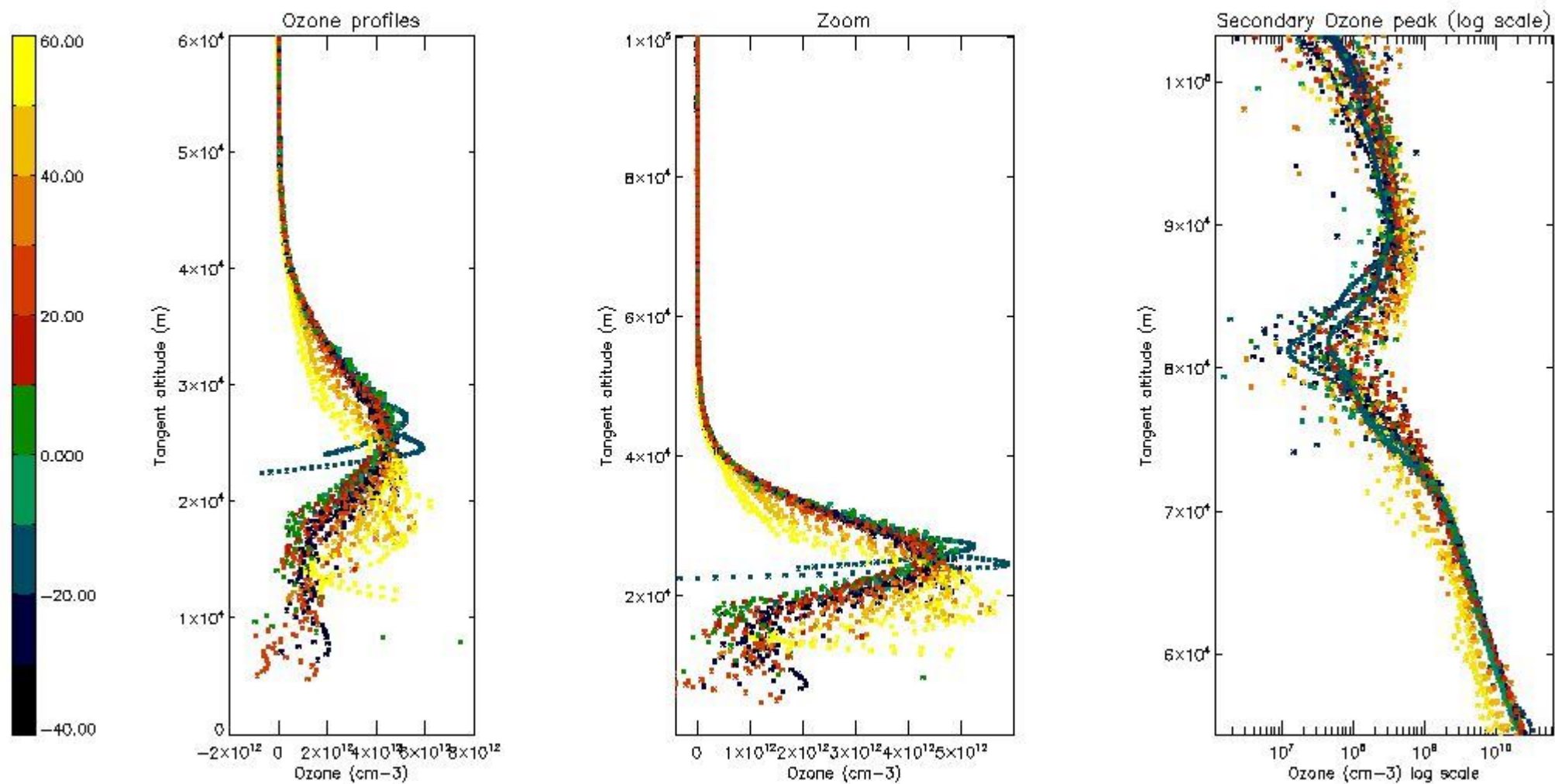
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	43
STD < 20	29

STD < 10	26
STD < 5	21

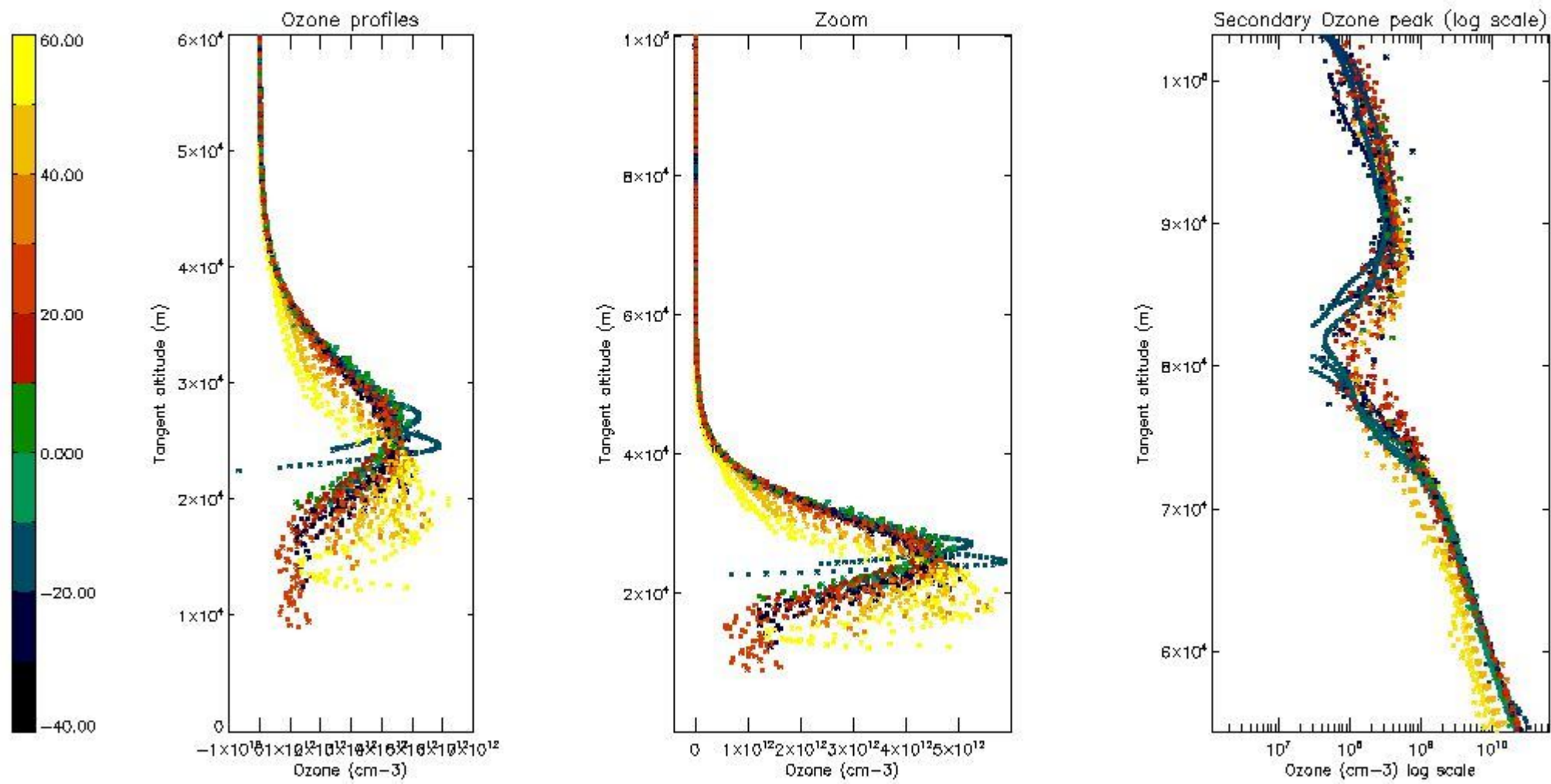
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



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

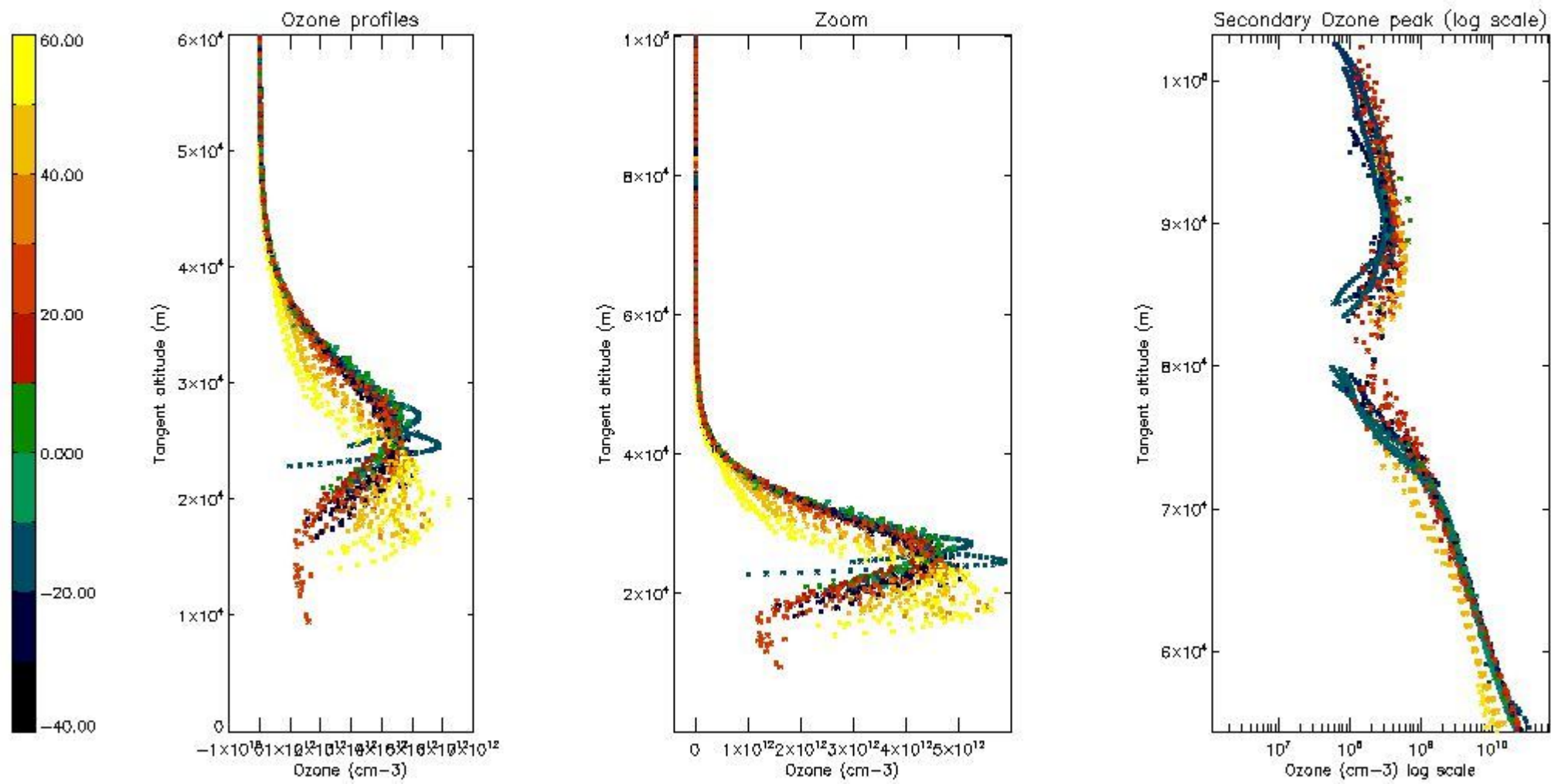
The colorbar represents the latitude.



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

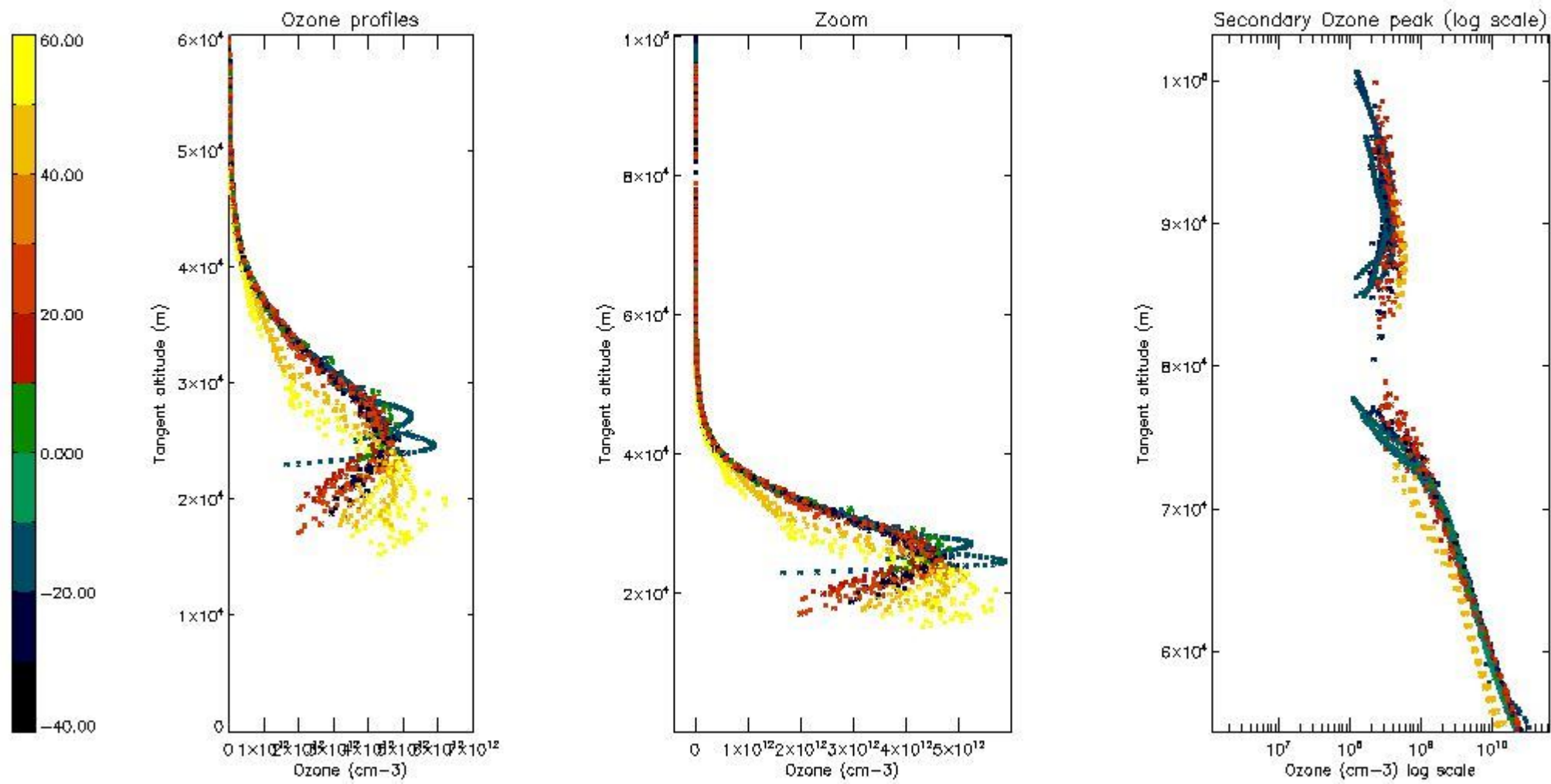
The colorbar represents the latitude.





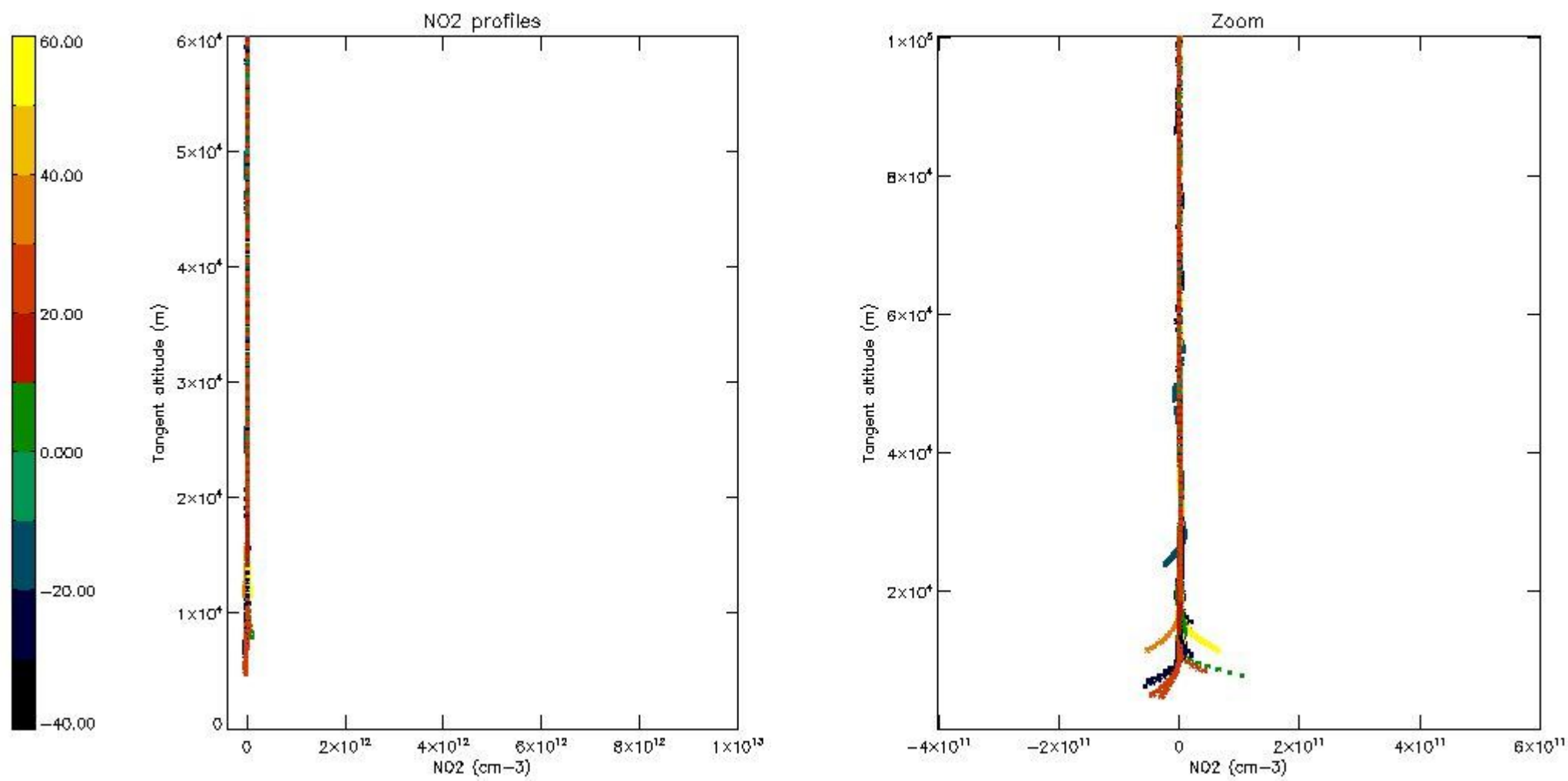
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



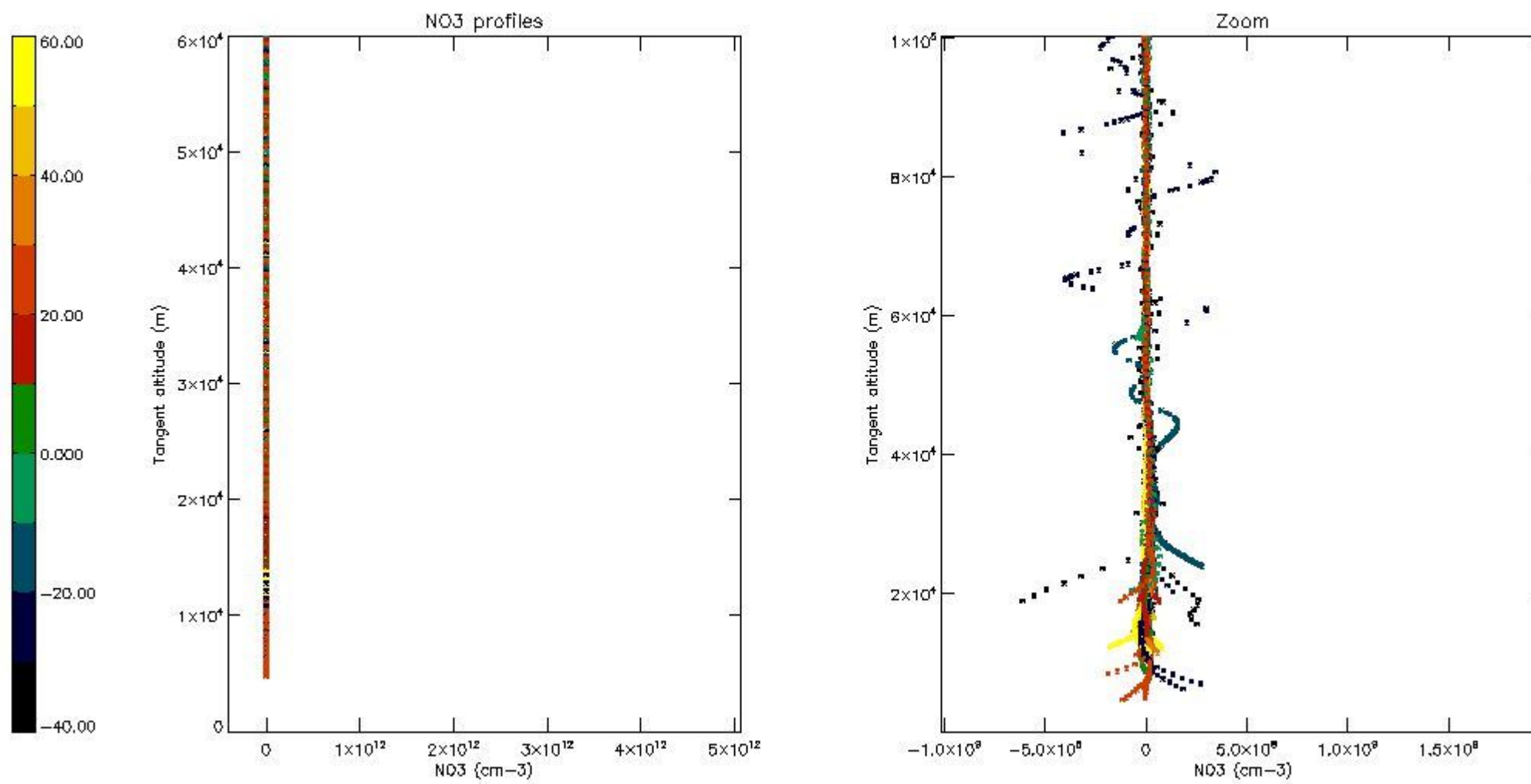
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



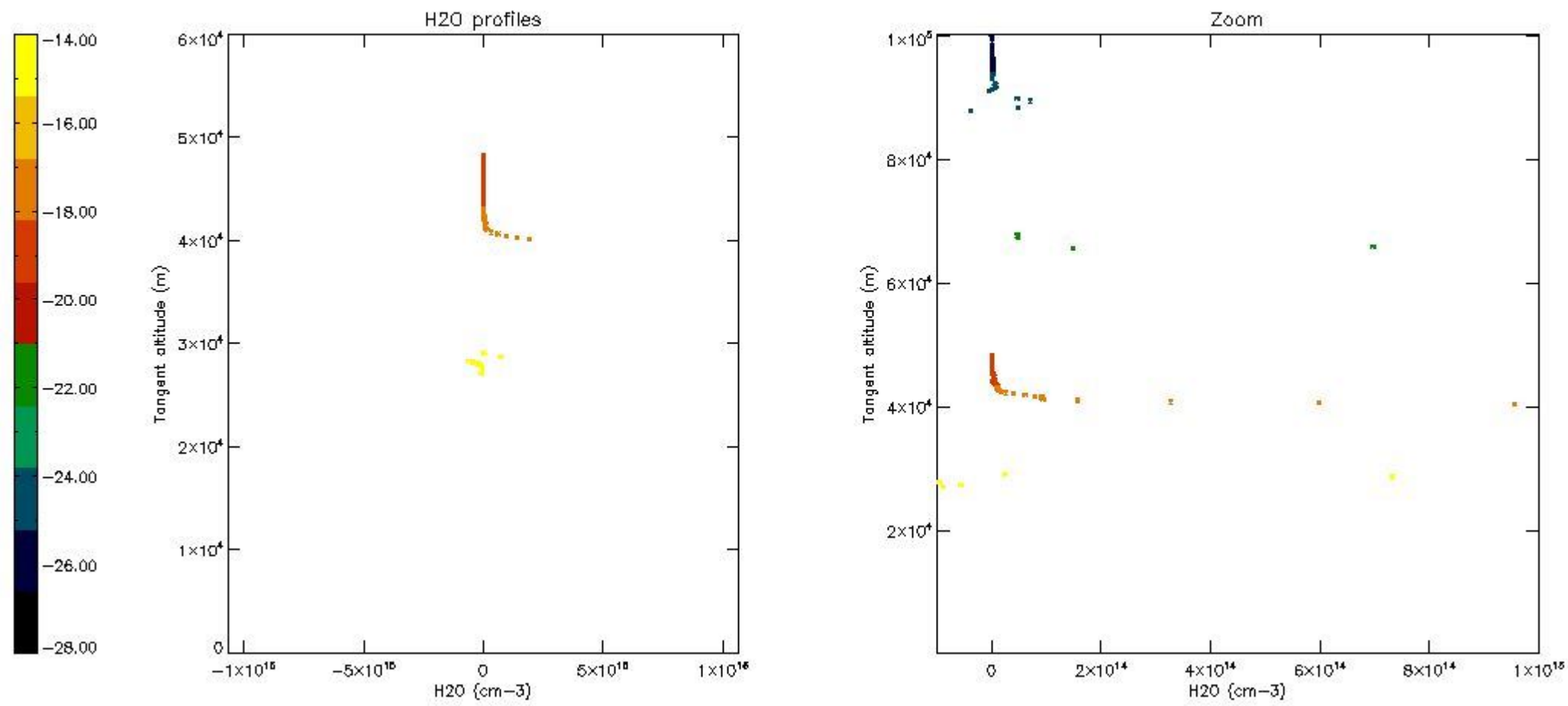
*5.7 Plot NO3 profiles for all STD (dark without errors)*

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	26-NOV-2002 00:03:35
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-NOV-2002 00:03:35
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-NOV-2002 00:03:35

# GOMOS Level 2 Daily Report

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### [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 20:29:40
Data source version	GOMOS/6.01
Start time of products	26-11-2002 (26NOV2002 00:00:00)
Stop time of products	27-11-2002 (27NOV2002 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	405
Nb of prods with errors	231

## 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__2PRFIN20021126_000335_000001362011_00302_03863_1806.N1	26-NOV-2002 00:03:35	Twilight	136.00	51	41Gam1Leo	2.0100	4500.0	272	3863	No
2	GOM_NL__2PRFIN20021126_000900_000000472011_00302_03863_1807.N1	26-NOV-2002 00:09:00	Twilight	47.000	163	7Del Crv	2.9450	11000.	94	3863	No
3	GOM_NL__2PRFIN20021126_001117_000002552011_00302_03863_1808.N1	26-NOV-2002 00:11:17	Dark	255.00	22	32Alp Leo	1.3600	15200.	510	3863	No
4	GOM_NL__2PRFIN20021126_001659_000000402011_00302_03863_1809.N1	26-NOV-2002 00:16:59	Dark	39.500	64	Gam Cen	2.2000	10600.	79	3863	No
5	GOM_NL__2PRFIN20021126_001934_000000382011_00302_03863_1810.N1	26-NOV-2002 00:19:34	Dark	38.000	20	Bet Cru	1.2530	30000.	76	3863	No
6	GOM_NL__2PRFIN20021126_002043_000000392011_00303_03864_1780.N1	26-NOV-2002 00:20:43	Dark	39.000	12	Alp1Cru	0.77500	30000.	78	3864	No
7	GOM_NL__2PRFIN20021126_002313_000000402011_00303_03864_1781.N1	26-NOV-2002 00:23:13	Dark	39.500	124	The Car	2.7640	30000.	79	3864	No
8	GOM_NL__2PRFIN20021126_002740_000000452011_00303_03864_1782.N1	26-NOV-2002 00:27:40	Dark	45.000	41	Eps Car	1.8600	4100.0	90	3864	No
9	GOM_NL__2PRFIN20021126_002919_000000502011_00303_03864_1783.N1	26-NOV-2002 00:29:19	Dark	49.500	34	Gam2Vel	1.7930	23000.	99	3864	No
10	GOM_NL__2PRFIN20021126_003051_000000592011_00303_03864_1784.N1	26-NOV-2002 00:30:51	Dark	59.000	70	Zet Pup	2.2460	39000.	118	3864	No
11	GOM_NL__2PRFIN20021126_003308_000000592011_00303_03864_1785.N1	26-NOV-2002 00:33:08	Dark	59.000	2	Alp Car	-0.73600	7000.0	118	3864	No
12	GOM_NL__2PRFIN20021126_003654_000000772011_00303_03864_1786.N1	26-NOV-2002 00:36:54	Dark	76.500	88	31Eta CMa	2.4480	20000.	153	3864	No
13	GOM_NL__2PRFIN20021126_003911_000000812011_00303_03864_1787.N1	26-NOV-2002 00:39:11	Dark	80.500	37	25Del CMa	1.8300	5900.0	161	3864	No
14	GOM_NL__2PRFIN20021126_004513_000000812011_00303_03864_1788.N1	26-NOV-2002 00:45:13	Straylight	81.000	47	2Bet CMa	1.9760	28000.	162	3864	No
15	GOM_NL__2PRFIN20021126_004753_000000482011_00303_03864_1789.N1	26-NOV-2002 00:47:53	Straylight	47.500	165	34Gam Eri	2.9500	3200.0	95	3864	No
16	GOM_NL__2PRFIN20021126_004943_000000762011_00303_03864_1790.N1	26-NOV-2002 00:49:43	Straylight	76.000	7	19Bet Ori	0.10000	14000.	152	3864	No
17	GOM_NL__2PRFIN20021126_005312_000000792011_00303_03864_1791.N1	26-NOV-2002 00:53:12	Twilight	78.500	30	46Eps Ori	1.6940	30000.	157	3864	No
18	GOM_NL__2PRFIN20021126_005607_000000762011_00303_03864_1792.N1	26-NOV-2002 00:56:07	Bright	75.500	27	24Gam Ori	1.6360	26000.	151	3864	No
19	GOM_NL__2PRFIN20021126_010211_000000362011_00303_03864_1793.N1	26-NOV-2002 01:02:11	Bright	36.000	173	4Bet Tri	3.0040	8900.0	72	3864	No
20	GOM_NL__2PRFIN20021126_010351_000000412011_00303_03864_1794.N1	26-NOV-2002 01:03:51	Bright	40.500	79	26Bet Per	2.3100	13100.	81	3864	No
21	GOM_NL__2PRFIN20021126_010615_000000422011_00303_03864_1795.N1	26-NOV-2002 01:06:15	Bright	42.000	175	39Del Per	3.0100	19400.	84	3864	No
22	GOM_NL__2PRFIN20021126_010907_000000382011_00303_03864_1796.N1	26-NOV-2002 01:09:07	Bright	37.500	68	18Alp Cas	2.2250	4500.0	75	3864	No
23	GOM_NL__2PRFIN20021126_011021_000000372011_00303_03864_1797.N1	26-NOV-2002 01:10:21	Bright	37.000	74	11Bet Cas	2.2680	6600.0	74	3864	No
24	GOM_NL__2PRFIN20021126_011723_000000392011_00303_03864_1798.N1	26-NOV-2002 01:17:23	Bright	39.000	49	1Alp UMi	1.9900	6300.0	78	3864	No
25	GOM_NL__2PRFIN20021126_012158_000000402011_00303_03864_1799.N1	26-NOV-2002 01:21:58	Bright	40.000	60	7Bet UMi	2.0810	3950.0	80	3864	No
26	GOM_NL__2PRFIN20021126_012423_000000372011_00303_03864_1800.N1	26-NOV-2002 01:24:23	Bright	37.000	119	14Eta Dra	2.7270	4700.0	74	3864	No
27	GOM_NL__2PRFIN20021126_012604_000000622011_00303_03864_1801.N1	26-NOV-2002 01:26:04	Bright	61.500	82	48Bet UMa	2.3650	10600.	123	3864	No
28	GOM_NL__2PRFIN20021126_012742_000000392011_00303_03864_1802.N1	26-NOV-2002 01:27:42	Bright	39.000	55	79Zet UMa	2.0600	10200.	78	3864	No
29	GOM_NL__2PRFIN20021126_012915_000000382011_00303_03864_1803.N1	26-NOV-2002 01:29:15	Bright	38.000	39	85Eta UMa	1.8540	24000.	76	3864	No
30	GOM_NL__2PRFIN20021126_013204_000000412011_00303_03864_1804.N1	26-NOV-2002 01:32:04	Bright	40.500	180	27Gam Boo	3.0400	8000.0	81	3864	No
31	GOM_NL__2PRFIN20021126_013503_000000362011_00303_03864_1805.N1	26-NOV-2002 01:35:03	Bright	36.000	83		2.3780	11000.	72	3864	No
32	GOM_NL__2PRFIN20021126_013733_000000362011_00303_03864_1806.N1	26-NOV-2002 01:37:33	Bright	35.500	3	16Alp Boo	-0.050000	4250.0	71	3864	No
33	GOM_NL__2PRFIN20021126_014032_000000632011_00303_03864_1807.N1	26-NOV-2002 01:40:32	Bright	62.500	96	68Del Leo	2.5600	9300.0	125	3864	No
34	GOM_NL__2PRFIN20021126_014413_000001362011_00303_03864_1808.N1	26-NOV-2002 01:44:13	Twilight	135.50	51	41Gam1Leo	2.0100	4500.0	271	3864	No
35	GOM_NL__2PRFIN20021126_014937_000000482011_00303_03864_1809.N1	26-NOV-2002 01:49:37	Twilight	47.500	163	7Del Crv	2.9450	11000.	95	3864	No
36	GOM_NL__2PRFIN20021126_015157_000002552011_00303_03864_1810.N1	26-NOV-2002 01:51:57	Dark	255.00	22	32Alp Leo	1.3600	15200.	510	3864	No
37	GOM_NL__2PRFIN20021126_015736_000000422011_00303_03864_1811.N1	26-NOV-2002 01:57:36	Dark	42.000	64	Gam Cen	2.2000	10600.	84	3864	No
38	GOM_NL__2PRFIN20021126_015851_000000392011_00303_03864_1812.N1	26-NOV-2002 01:58:51	Dark	39.000	99	Del Cen	2.5750	26000.	78	3864	No
39	GOM_NL__2PRFIN20021126_020010_000000372011_00303_03864_1813.N1	26-NOV-2002 02:00:10	Dark	37.000	20	Bet Cru	1.2530	30000.	74	3864	No
40	GOM_NL__2PRFIN20021126_020119_000000402011_00304_03865_1777.N1	26-NOV-2002 02:01:19	Dark	40.000	12	Alp1Cru	0.77500	30000.	80	3865	No
41	GOM_NL__2PRFIN20021126_020413_000000152011_00304_03865_1778.N1	26-NOV-2002 02:04:13	Dark	15.000	124	The Car	2.7640	30000.	30	3865	Yes
42	GOM_NL__2PRFIN20021126_020552_000000182011_00304_03865_1779.N1	26-NOV-2002 02:05:52	Dark	17.500	159	Ups Car	2.9200	7200.0	35	3865	Yes













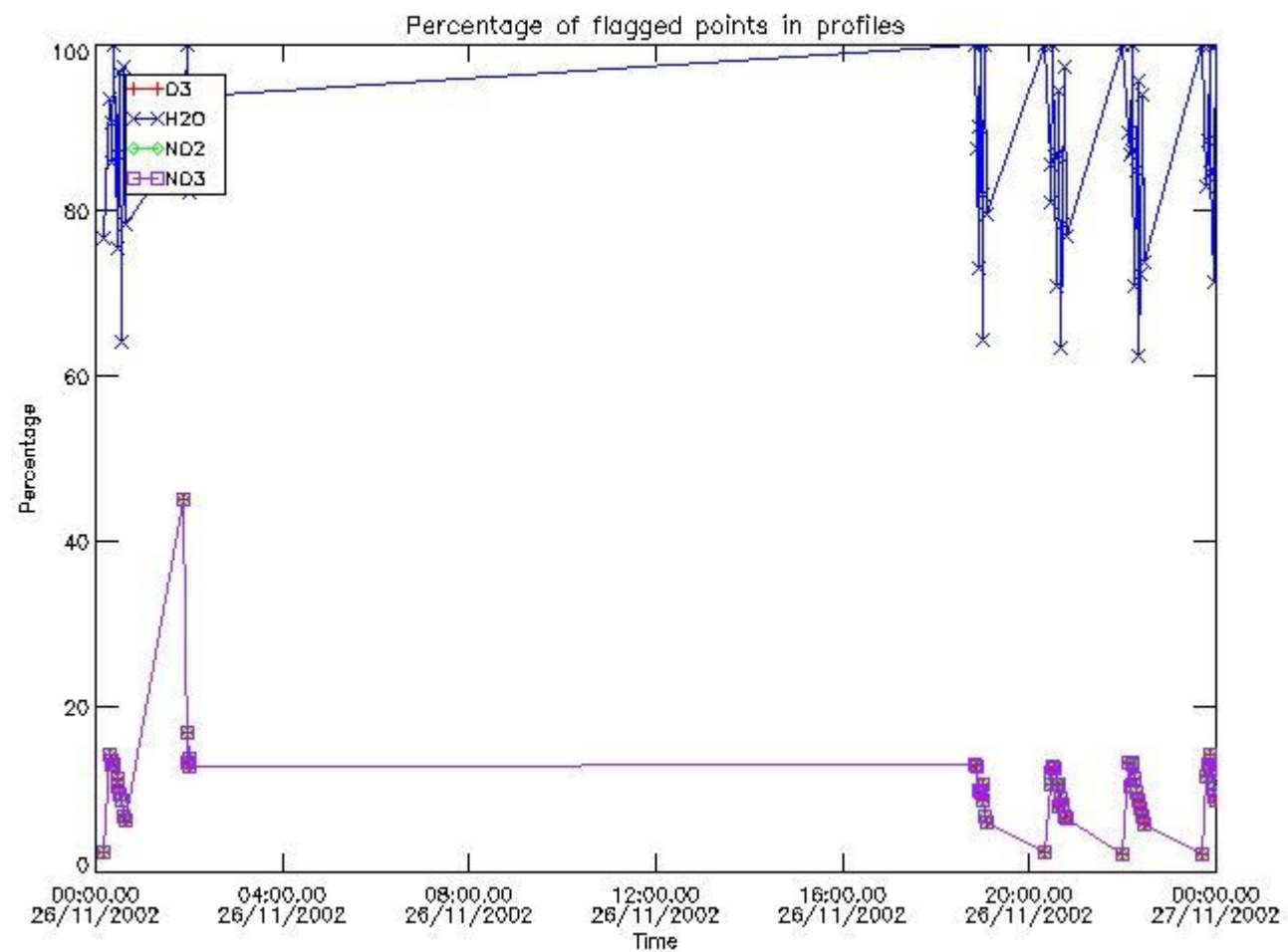


397	GOM_NL__2PRFIN20021126_233820_000000512011_00316_03877_9529.N1	26-NOV-2002 23:38:20	Twl_and_stray	50.500	100	4Gam Crv	2.5800	13100.	101	3877	No
398	GOM_NL__2PRFIN20021126_234057_000002552011_00316_03877_9530.N1	26-NOV-2002 23:40:57	Dark	255.00	22	32Alp Leo	1.3600	15200.	510	3877	No
399	GOM_NL__2PRFIN20021126_234726_000000452011_00316_03877_9531.N1	26-NOV-2002 23:47:26	Dark	44.500	10	Bet Cen	0.61000	28000.	89	3877	No
400	GOM_NL__2PRFIN20021126_234910_000000402011_00317_03878_9497.N1	26-NOV-2002 23:49:10	Dark	39.500	12	Alp1Cru	0.77500	30000.	79	3878	No
401	GOM_NL__2PRFIN20021126_235142_000000412011_00317_03878_9498.N1	26-NOV-2002 23:51:42	Dark	40.500	124	The Car	2.7640	30000.	81	3878	No
402	GOM_NL__2PRFIN20021126_235322_000000402011_00317_03878_9499.N1	26-NOV-2002 23:53:22	Dark	39.500	159	Ups Car	2.9200	7200.0	79	3878	No
403	GOM_NL__2PRFIN20021126_235612_000000482011_00317_03878_9500.N1	26-NOV-2002 23:56:12	Dark	47.500	41	Eps Car	1.8600	4100.0	95	3878	No
404	GOM_NL__2PRFIN20021126_235754_000000562011_00317_03878_9501.N1	26-NOV-2002 23:57:54	Dark	56.000	34	Gam2Vel	1.7930	23000.	112	3878	No
405	GOM_NL__2PRFIN20021126_235929_000000592011_00317_03878_9502.N1	26-NOV-2002 23:59:29	Dark	58.500	70	Zet Pup	2.2460	39000.	117	3878	No

### 3. Quality information per product

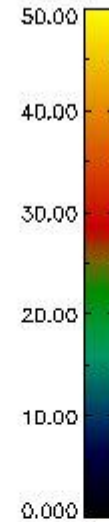
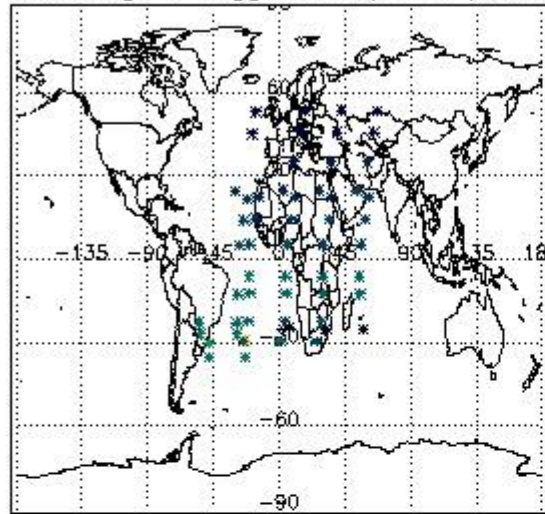
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

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

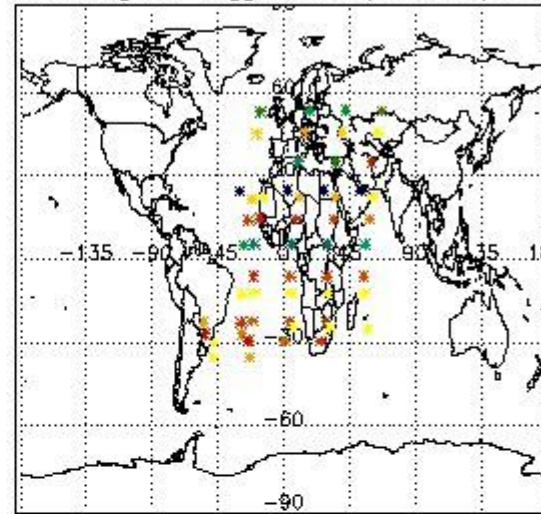


#### 3.2 Plot quality information per product (world map)

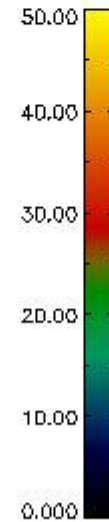
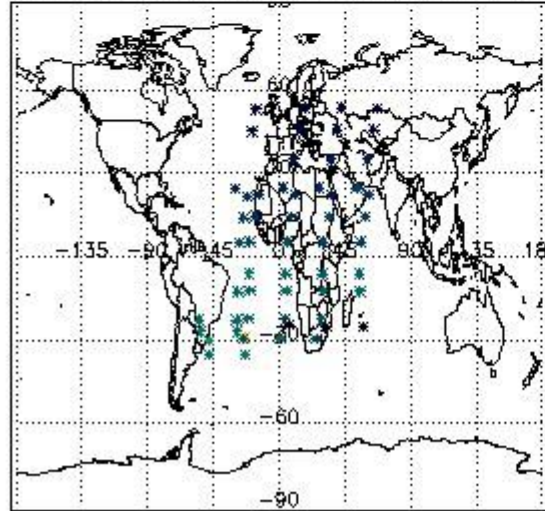
Percentage of flagged data per O3 profile



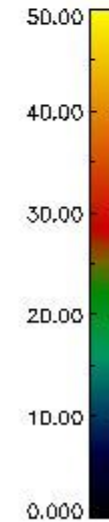
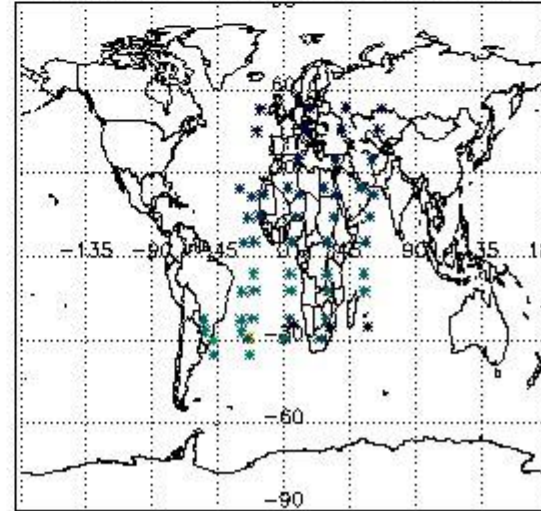
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

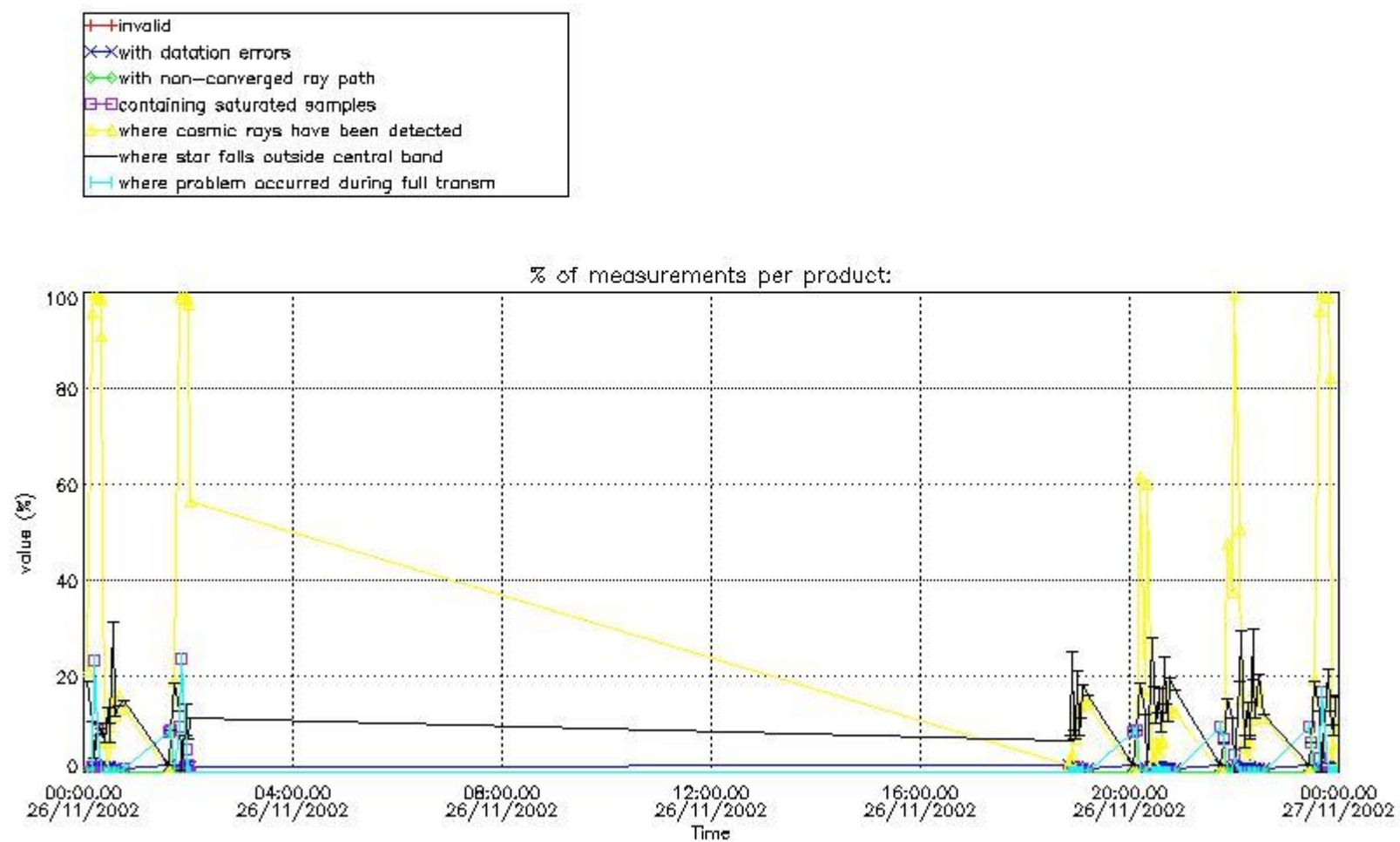


#### 4. Level 1 quality information per product

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.

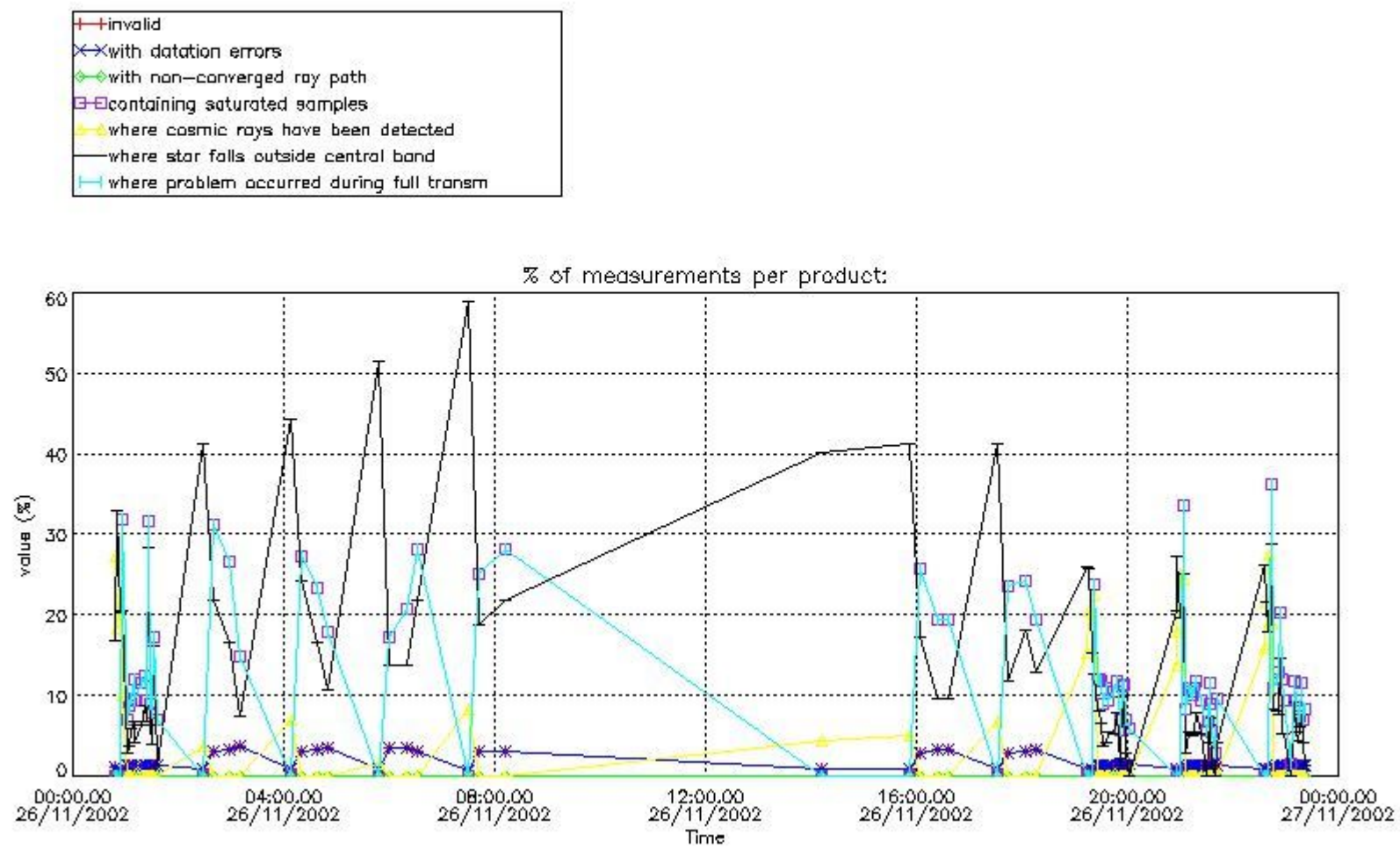
##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 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

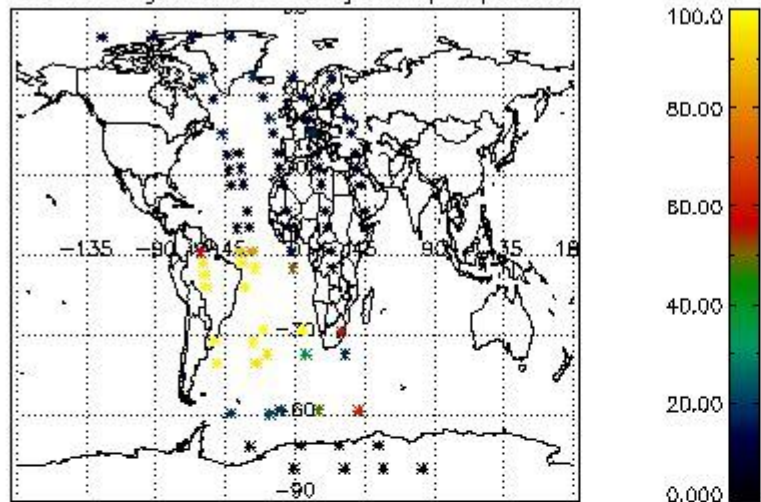




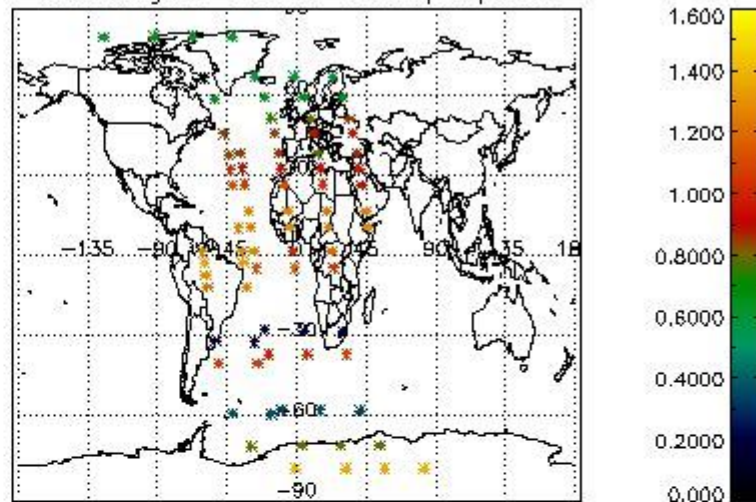
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

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

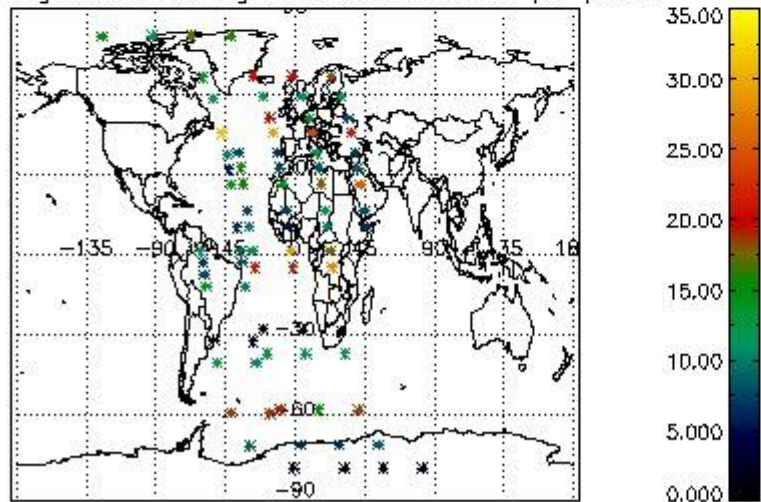
Percentage of cosmic ray hits per profile



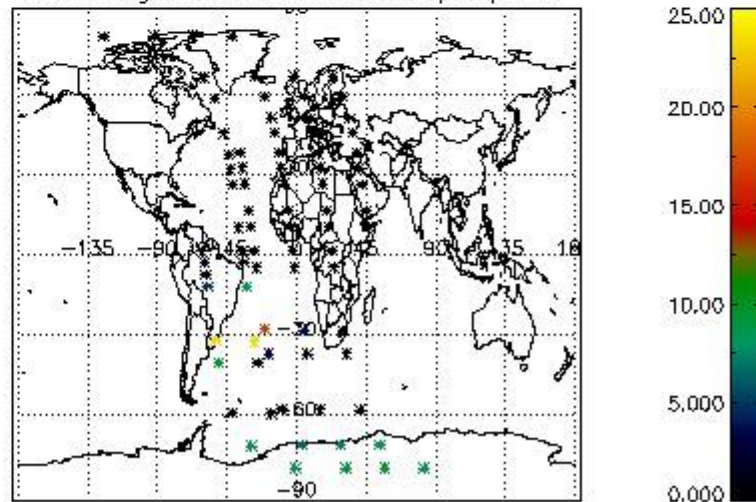
Percentage of datation errors per profile



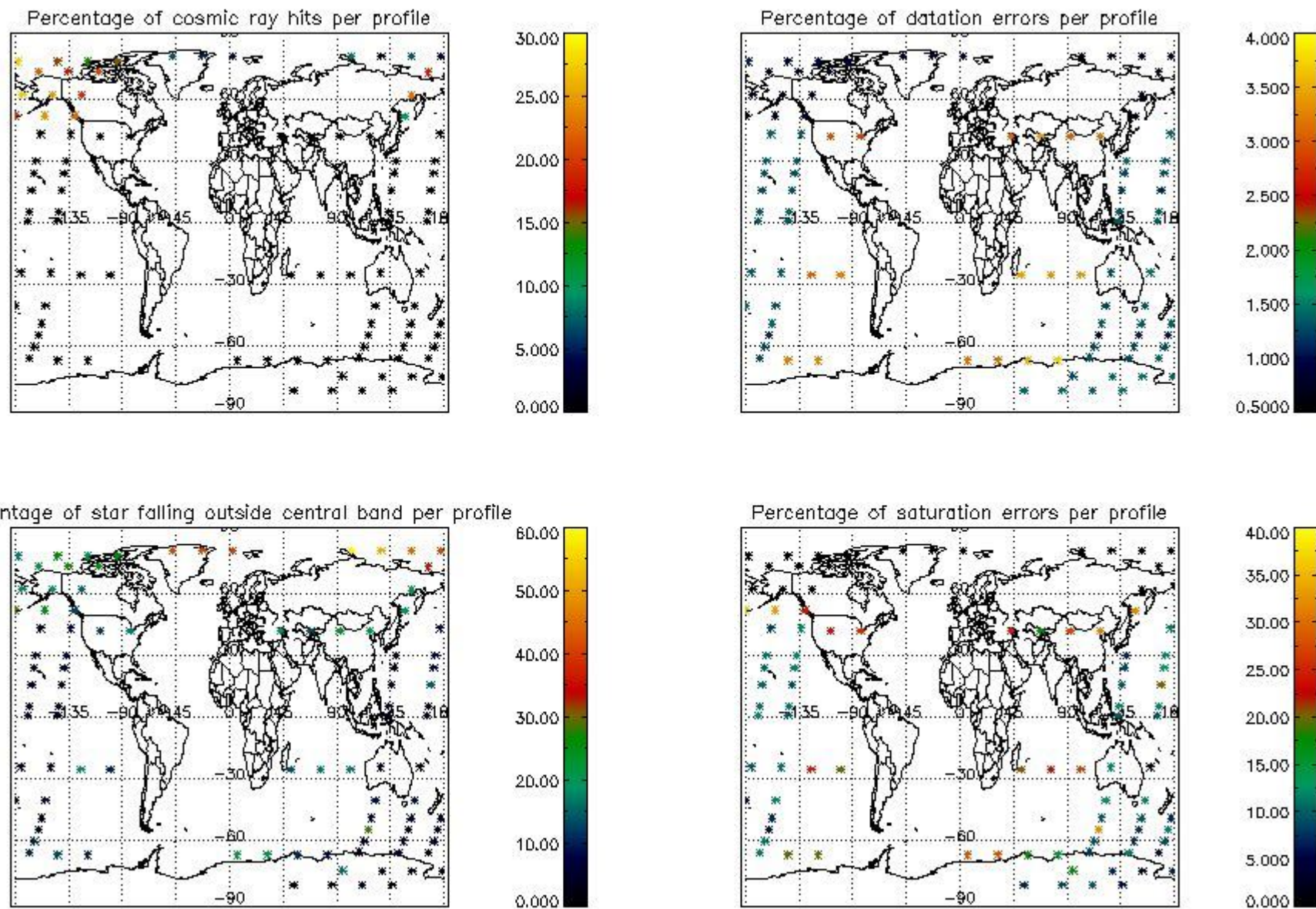
Percentage of star falling outside central band per profile



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

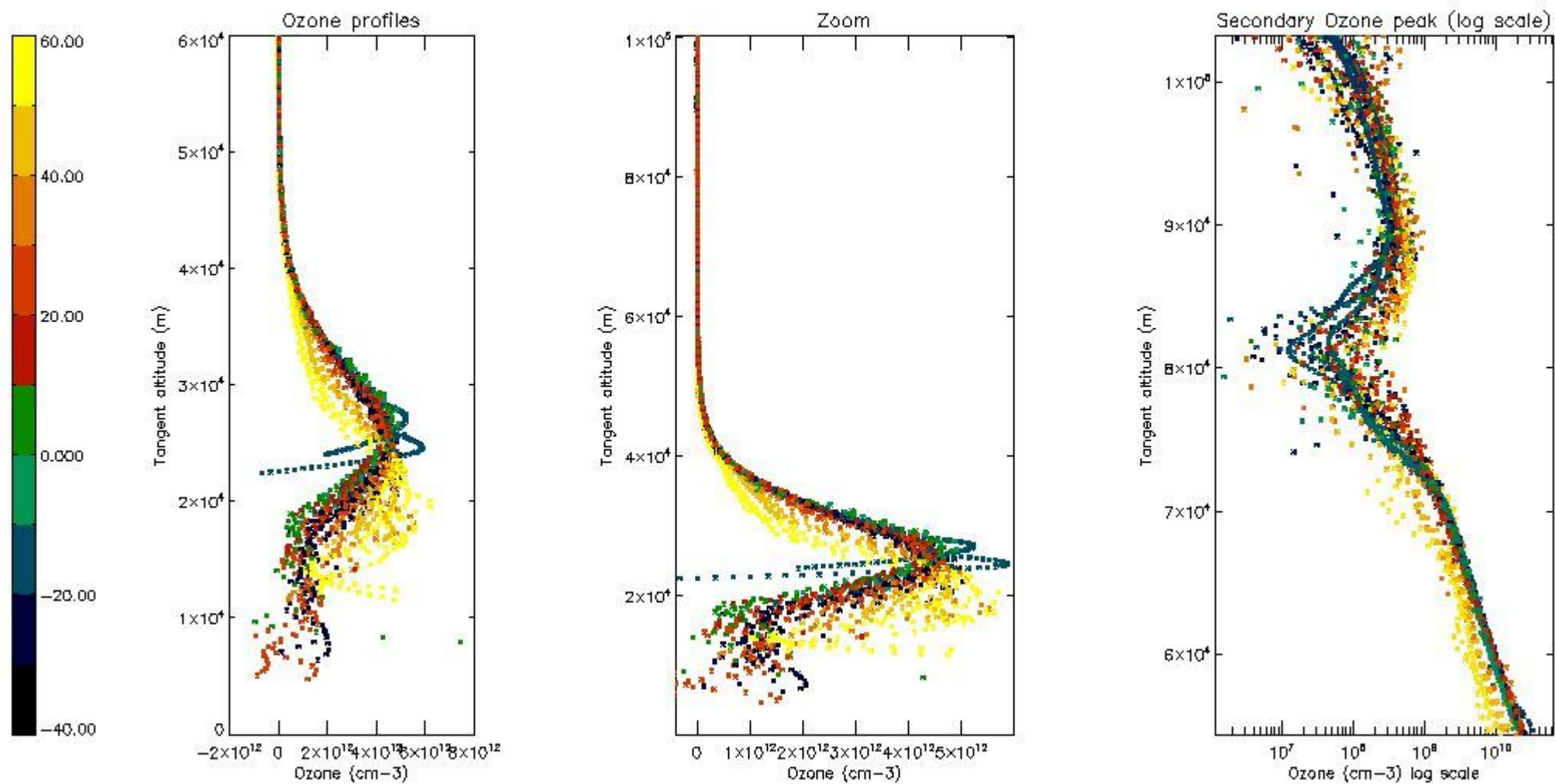
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	43
STD < 20	29

STD < 10	26
STD < 5	21

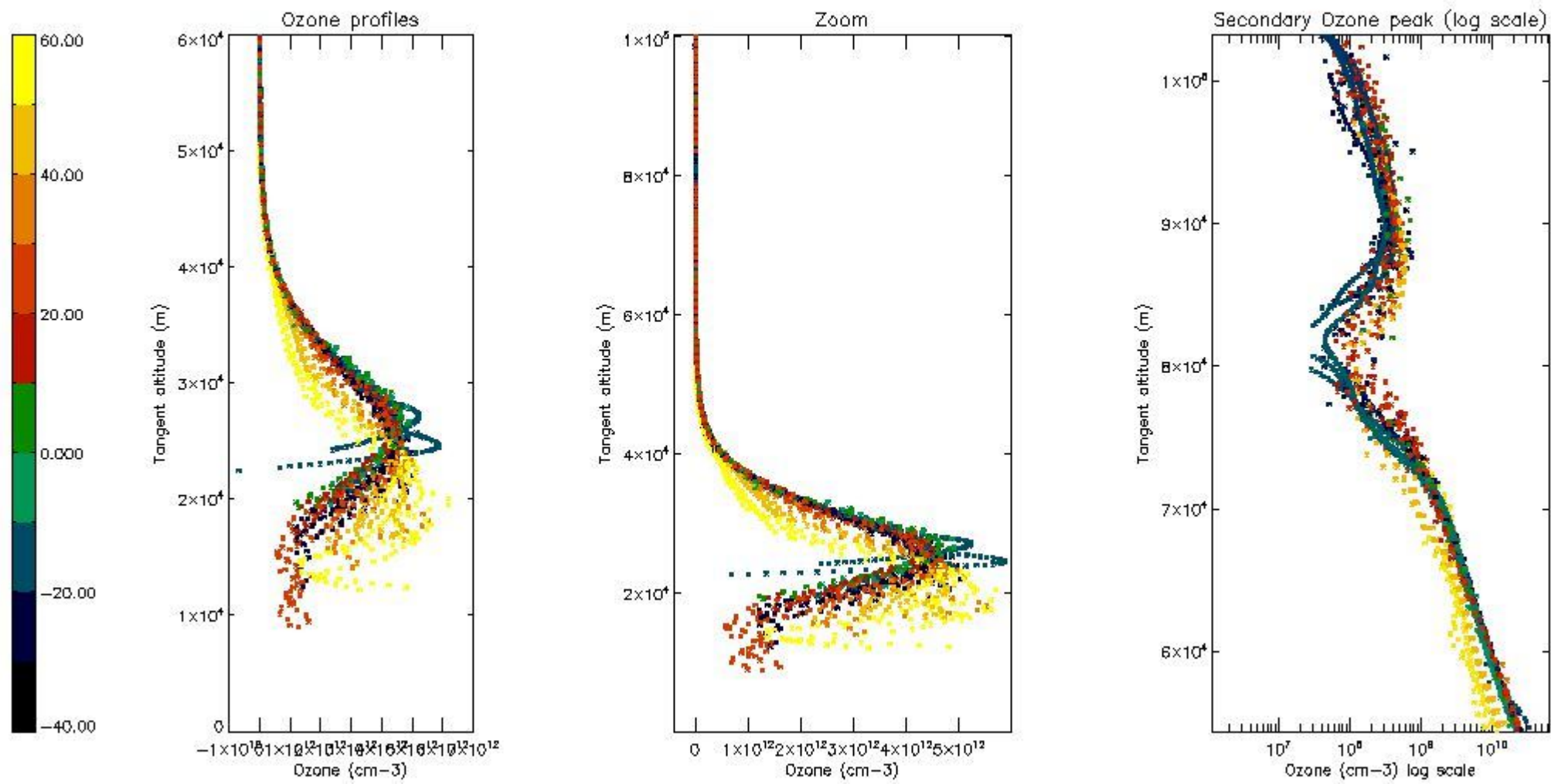
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



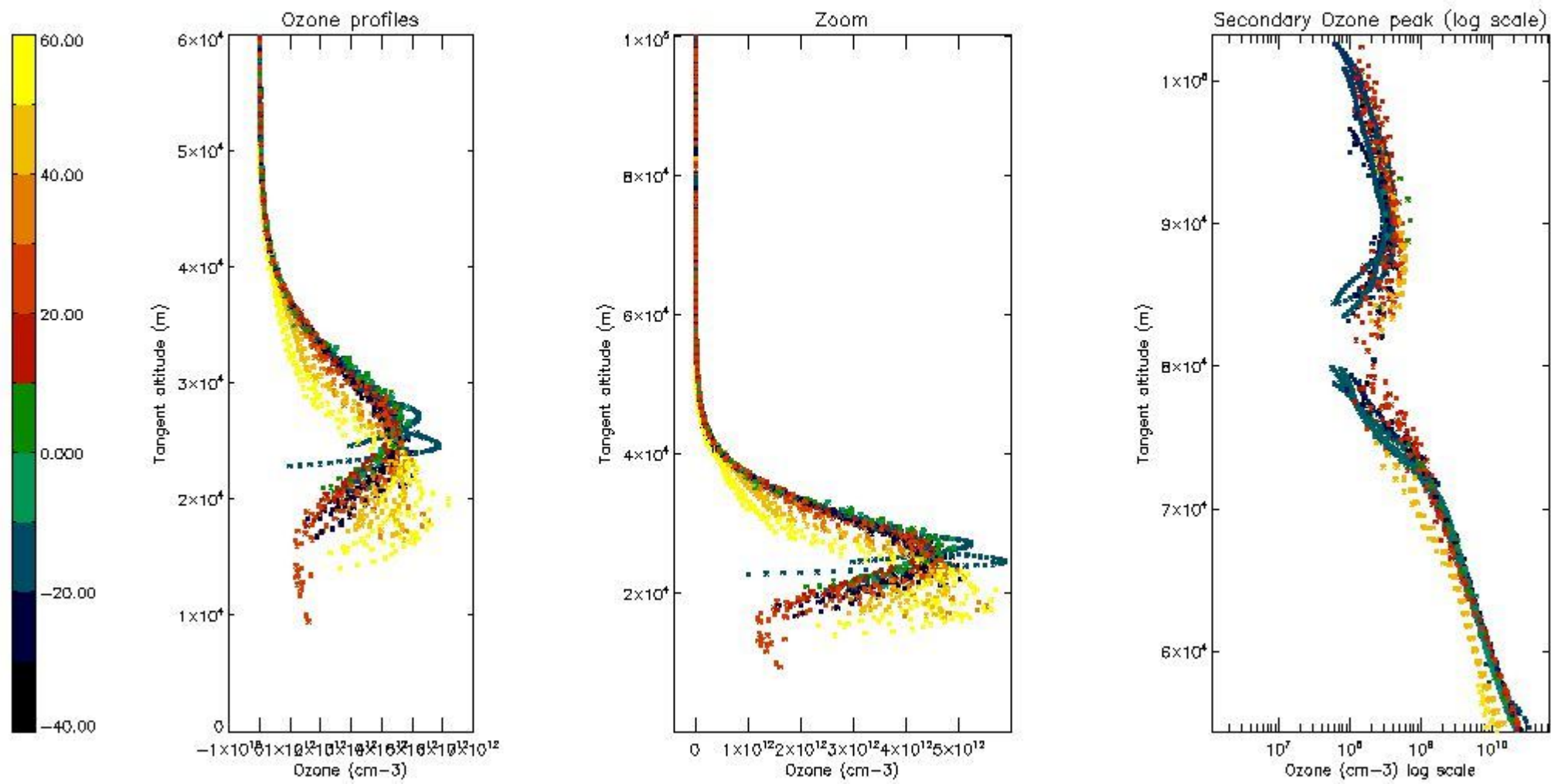
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



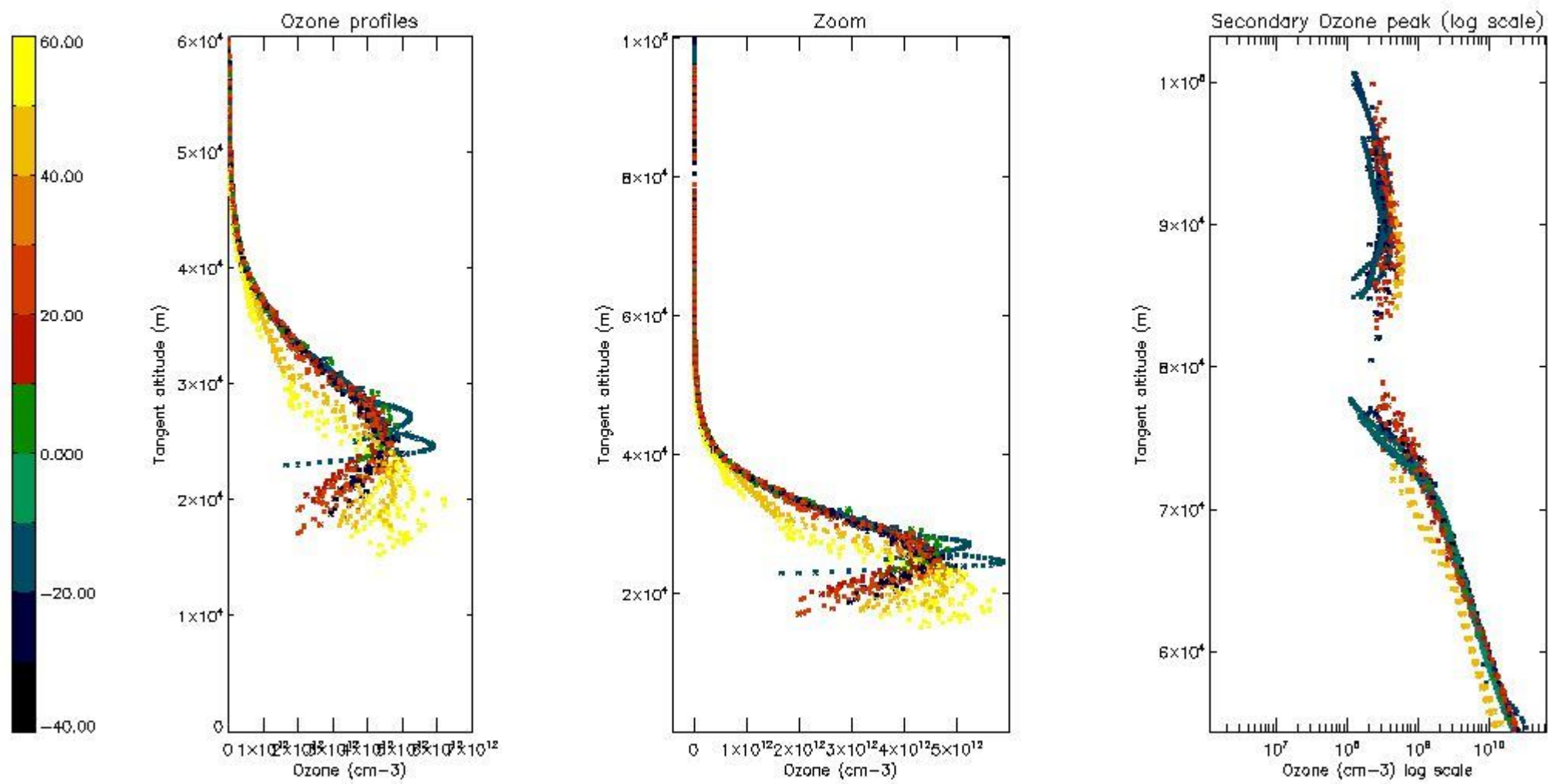
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



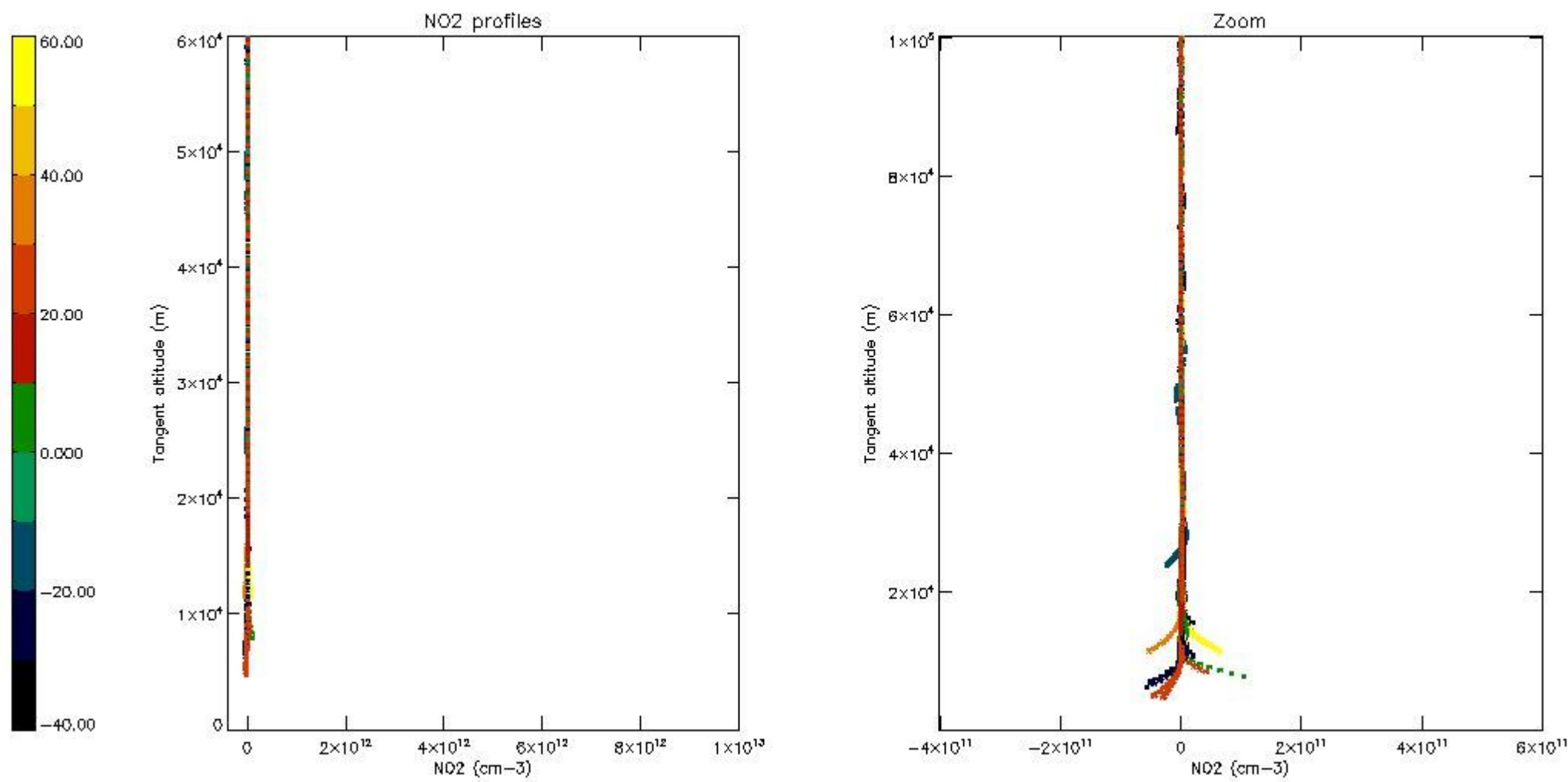
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



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

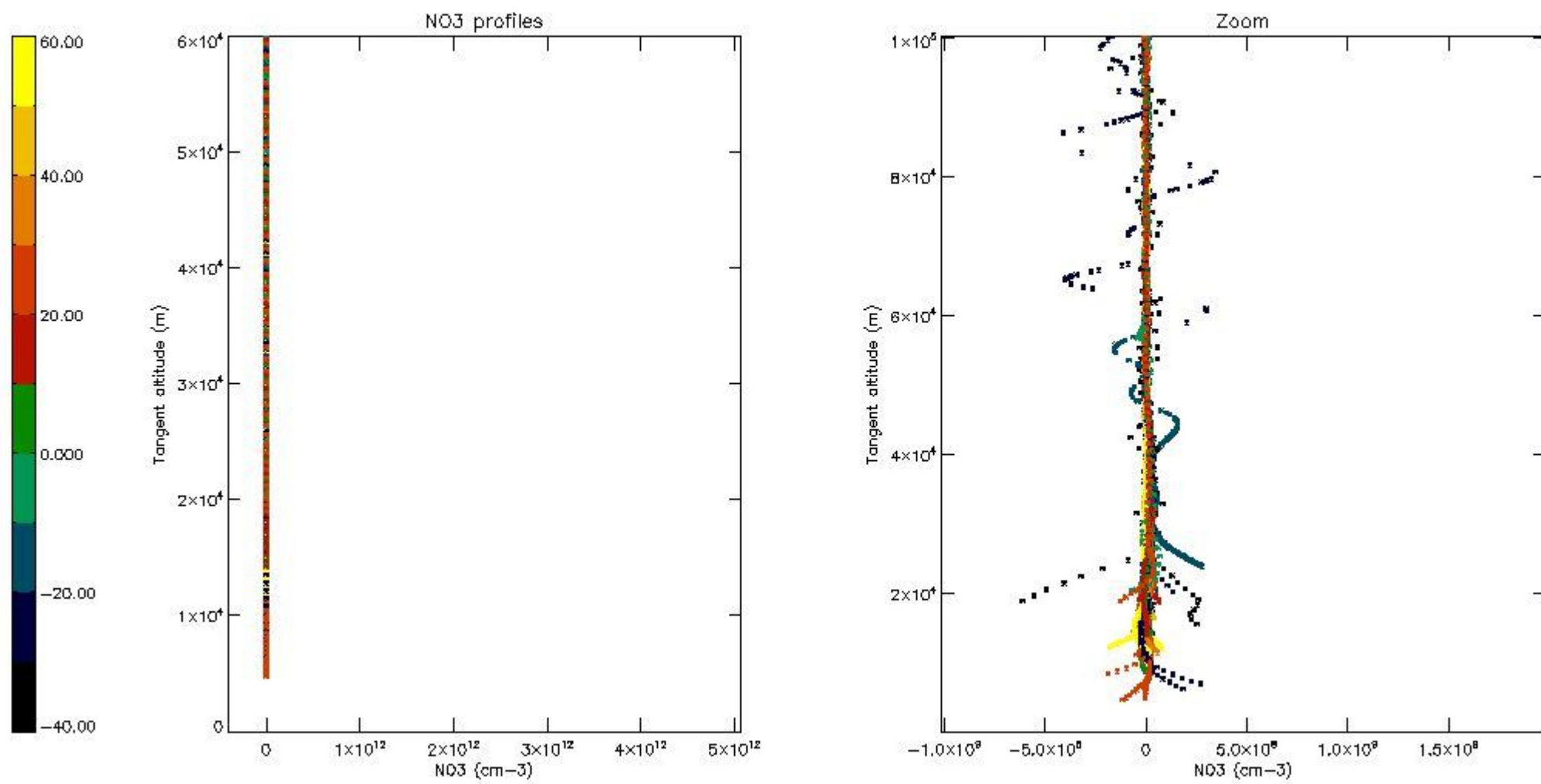
The colorbar represents the latitude.



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

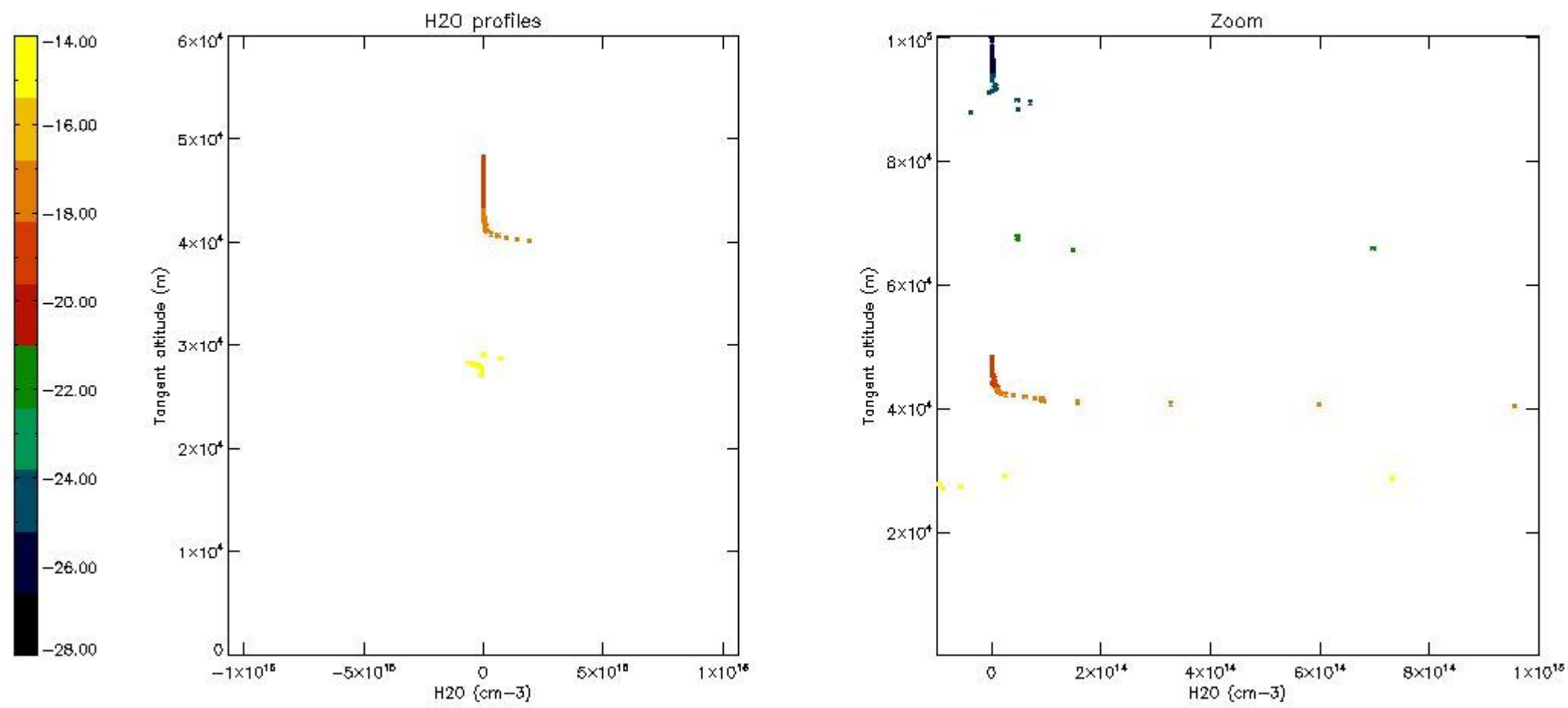
The colorbar represents the latitude.





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)

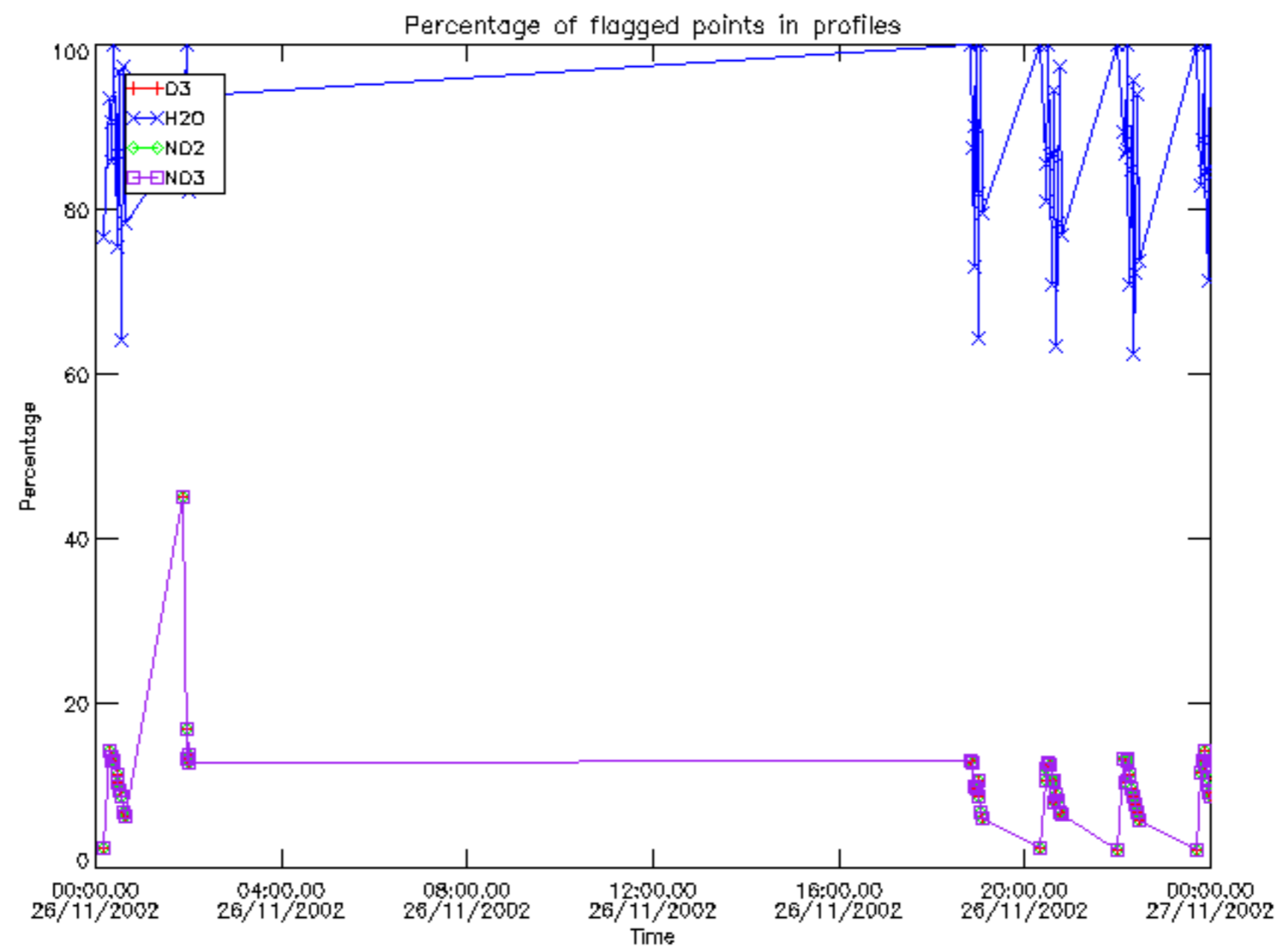
The colorbar represents the latitude.



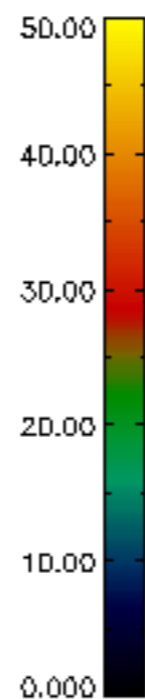
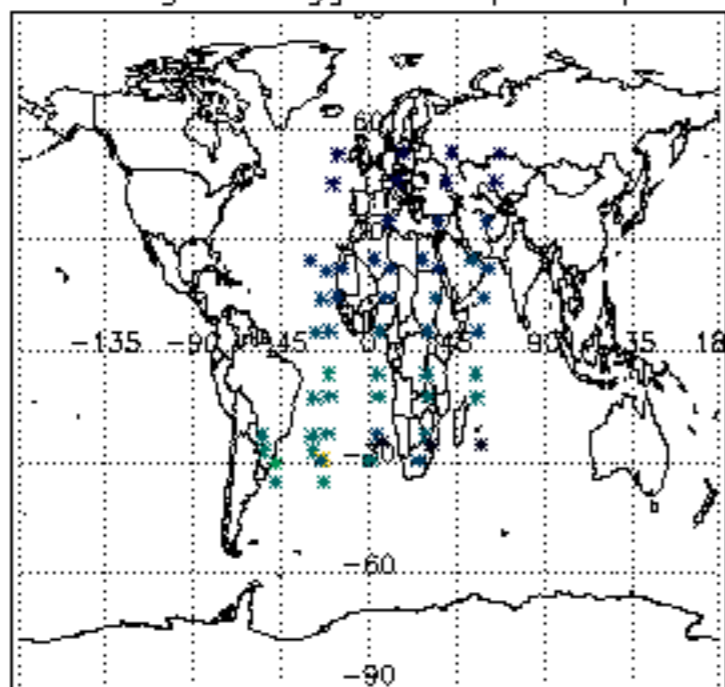
## 6. Auxiliary Data Files used for the production reported in section 2

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.

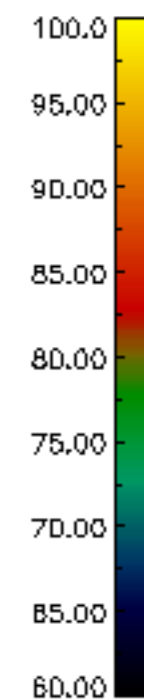
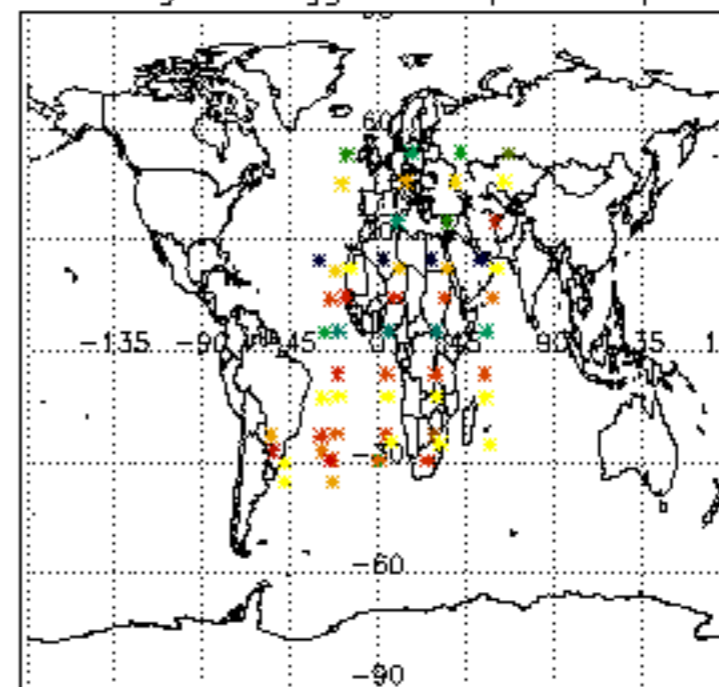
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	26-NOV-2002 00:03:35
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	26-NOV-2002 00:03:35
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	26-NOV-2002 00:03:35



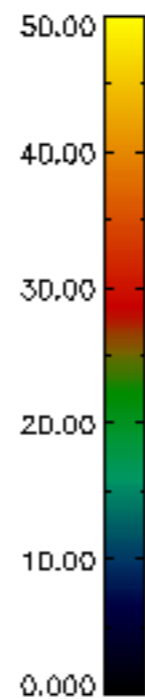
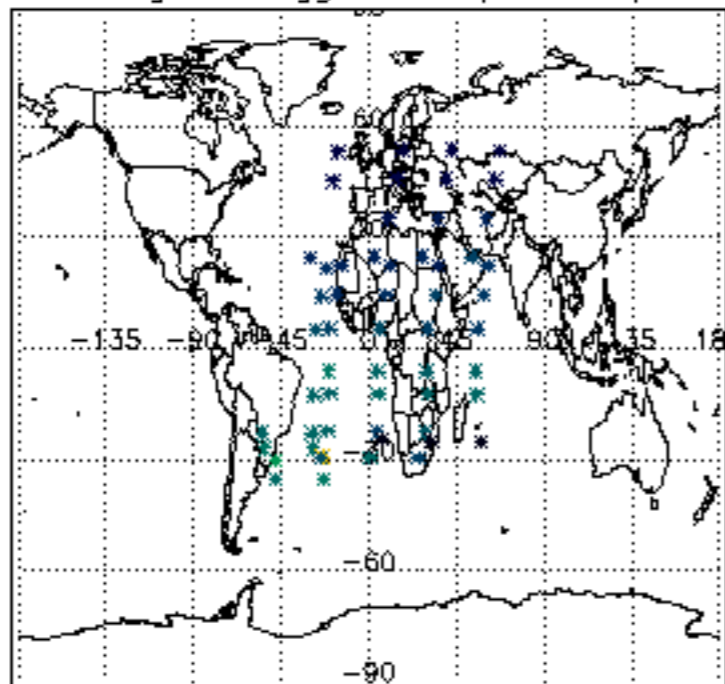
Percentage of flagged data per D3 profile



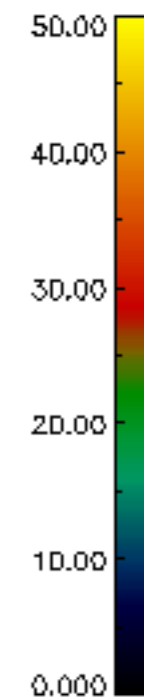
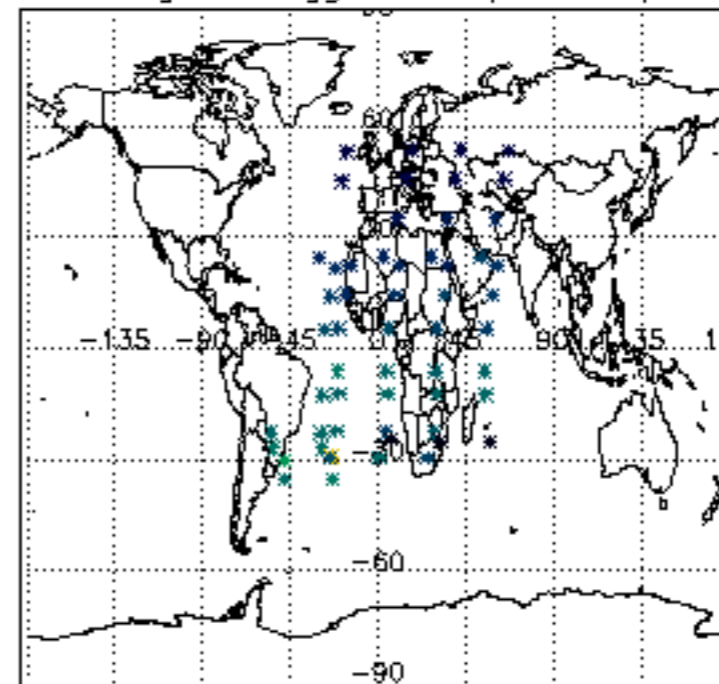
Percentage of flagged data per H2O profile

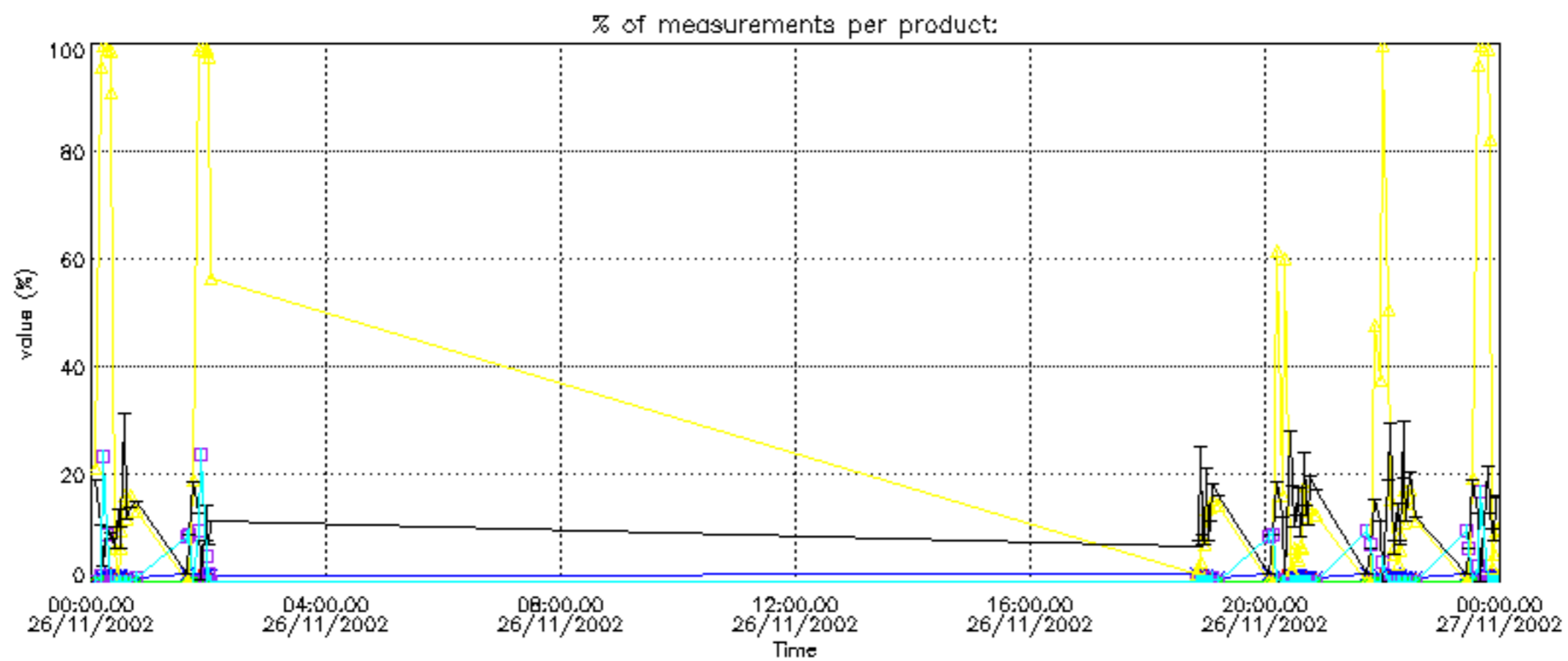
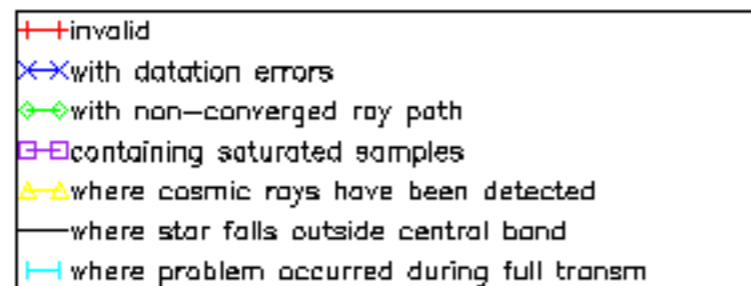


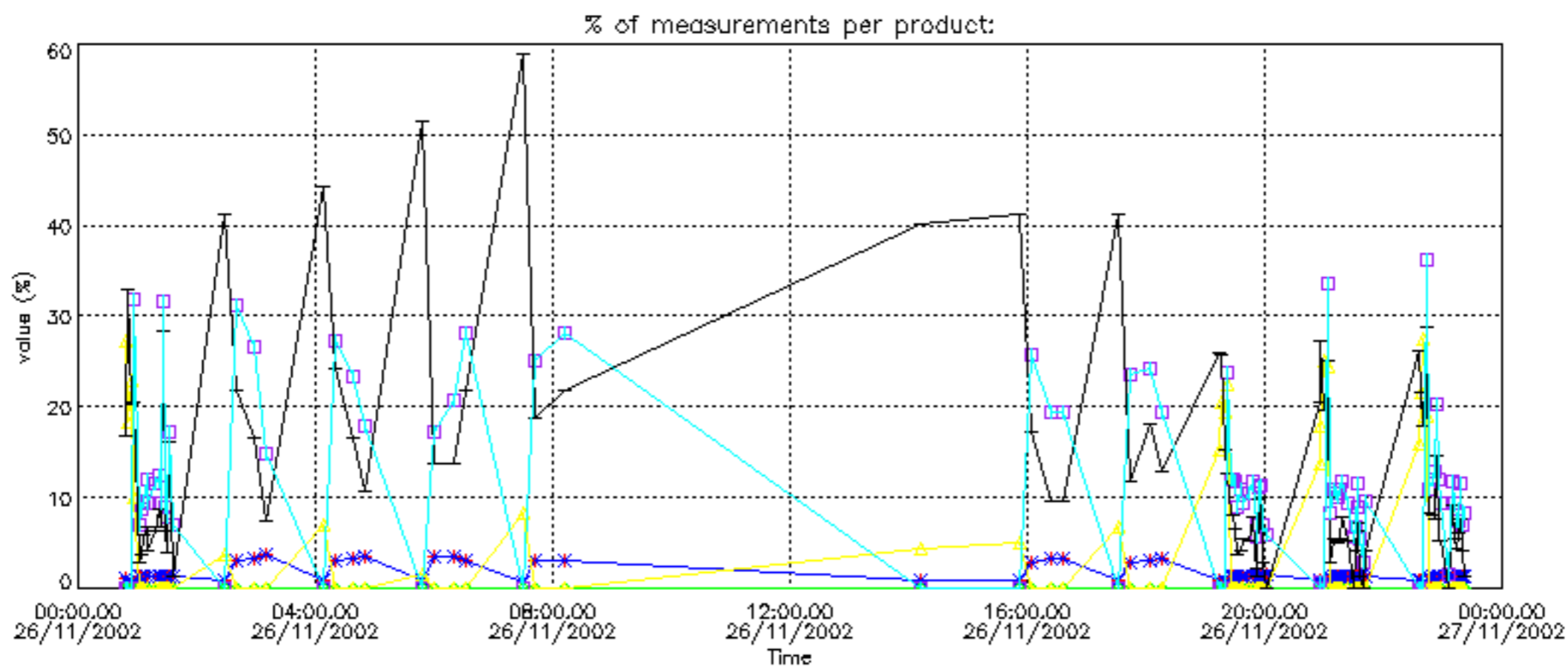
Percentage of flagged data per NO2 profile



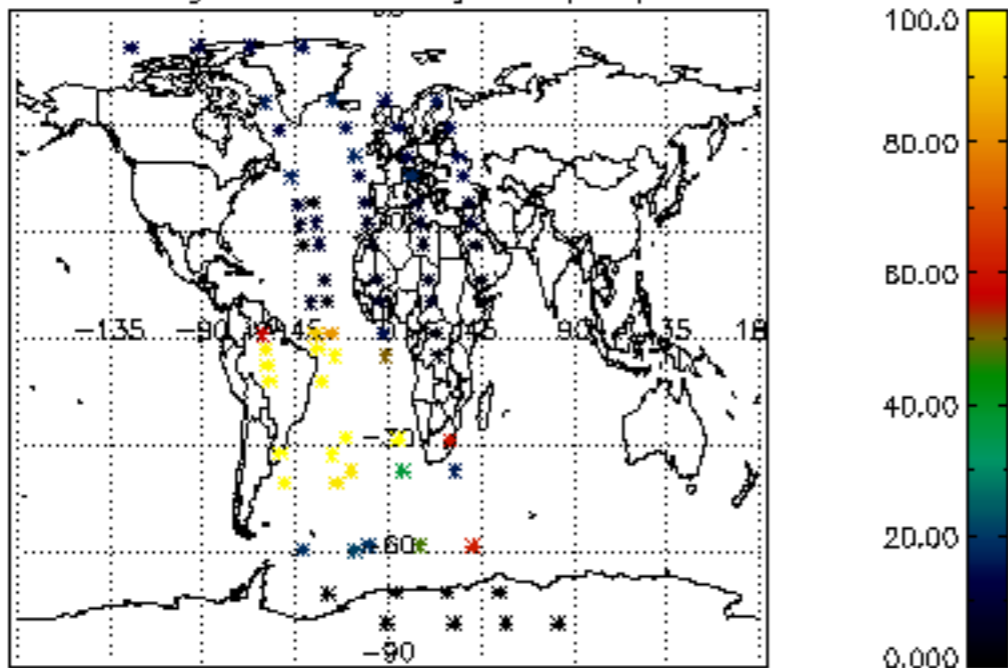
Percentage of flagged data per NO3 profile



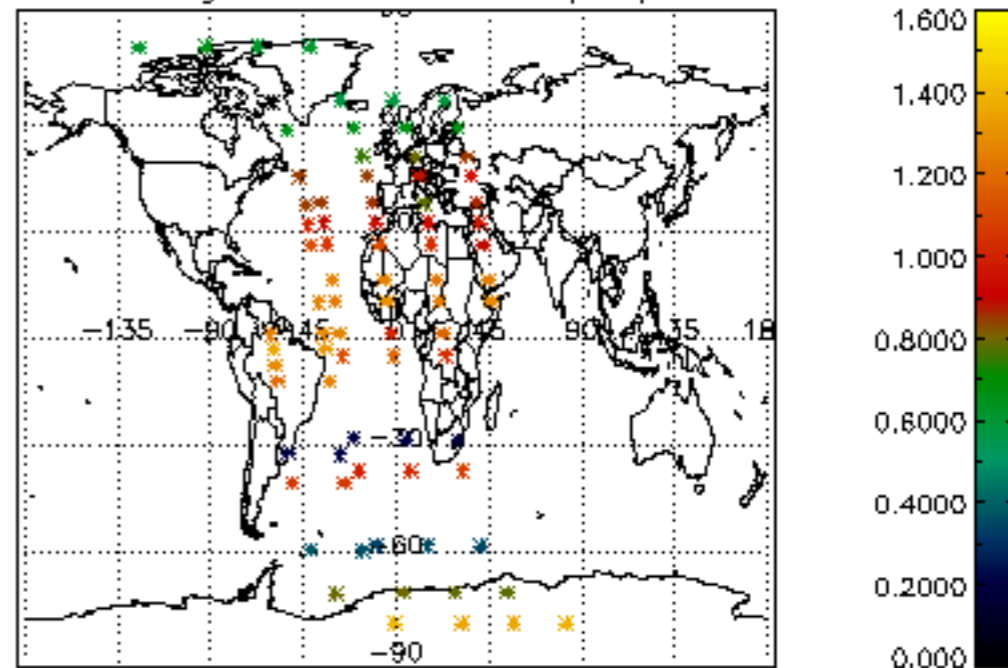




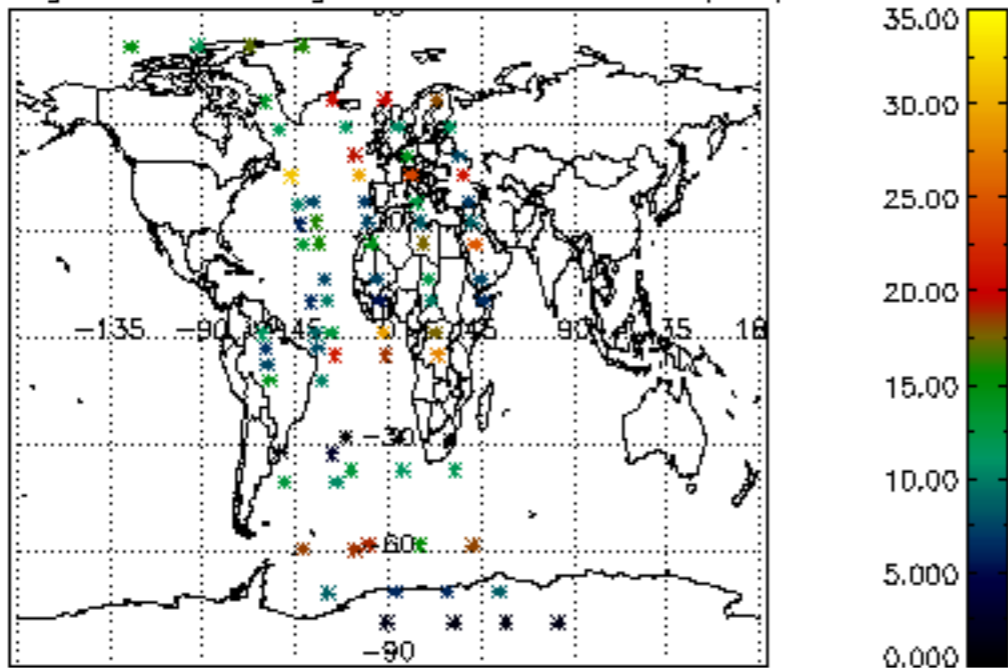
Percentage of cosmic ray hits per profile



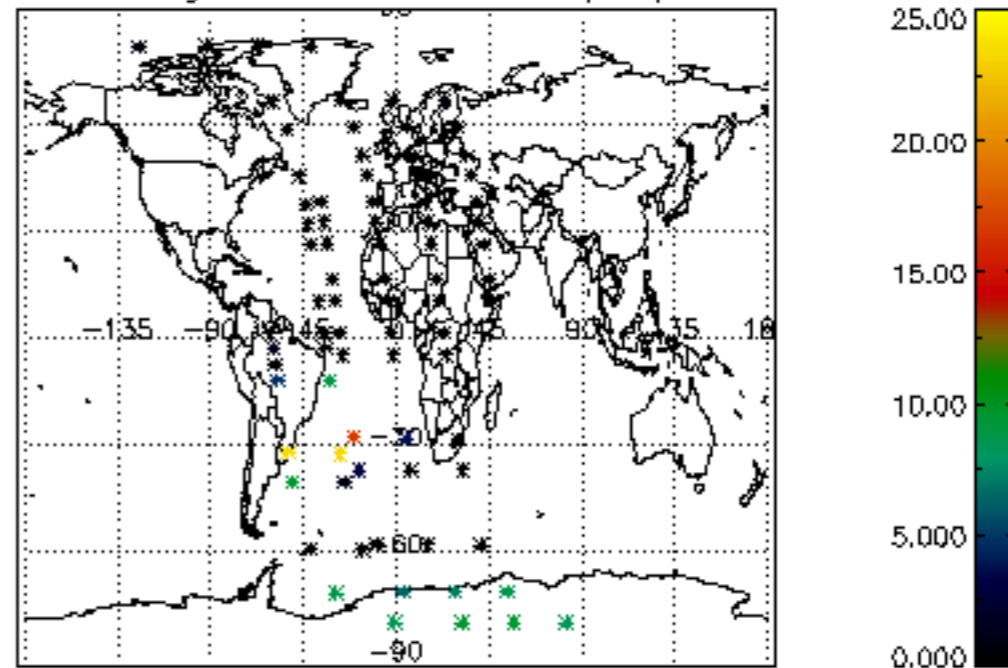
Percentage of datation errors per profile



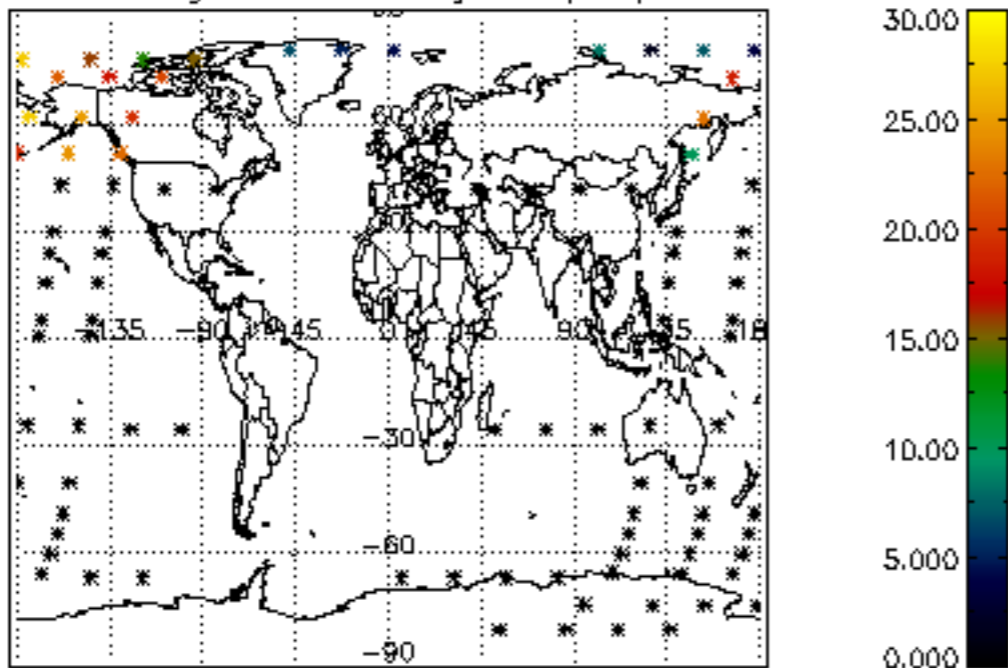
Percentage of star falling outside central band per profile



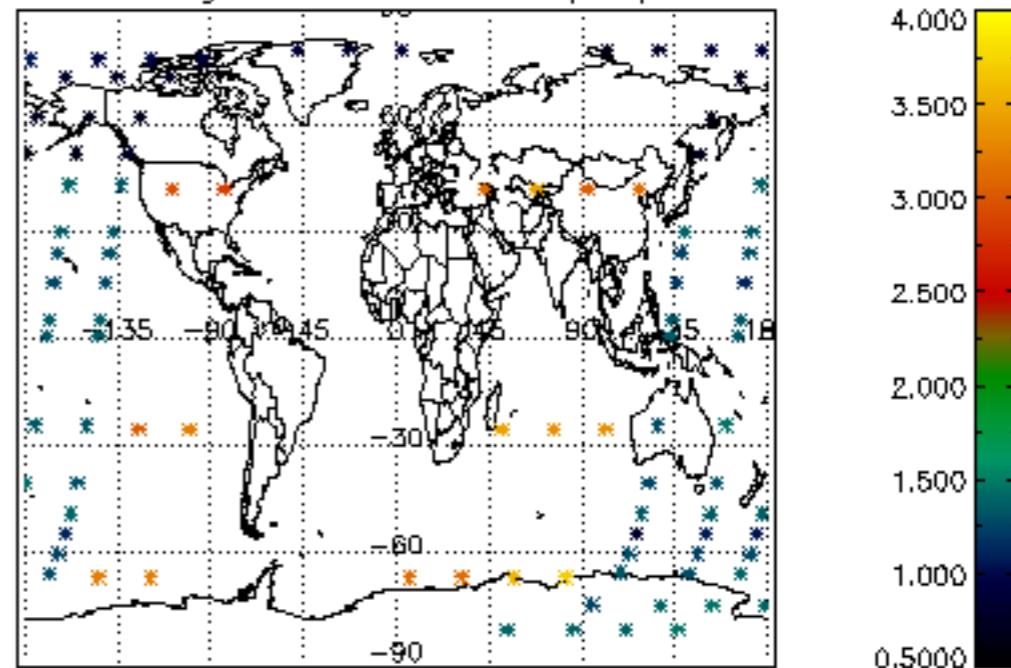
Percentage of saturation errors per profile



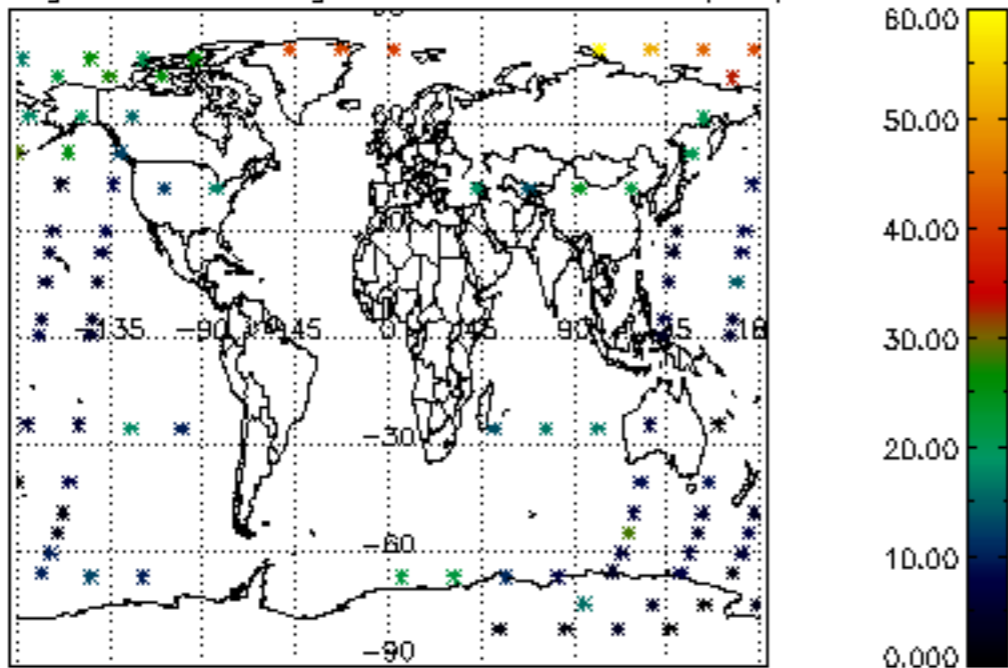
Percentage of cosmic ray hits per profile



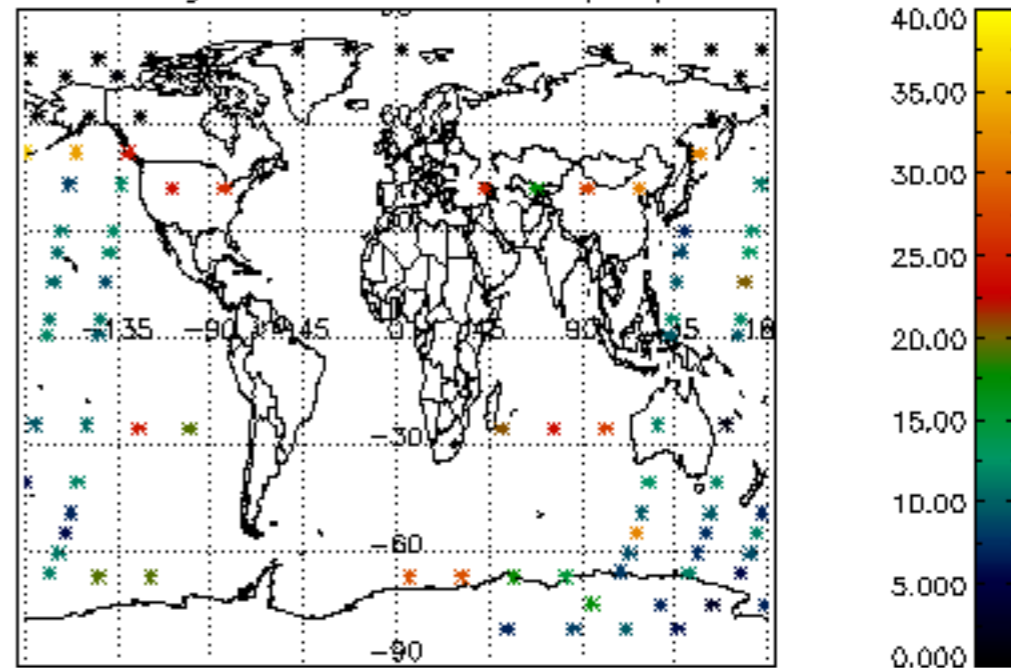
Percentage of datation errors per profile



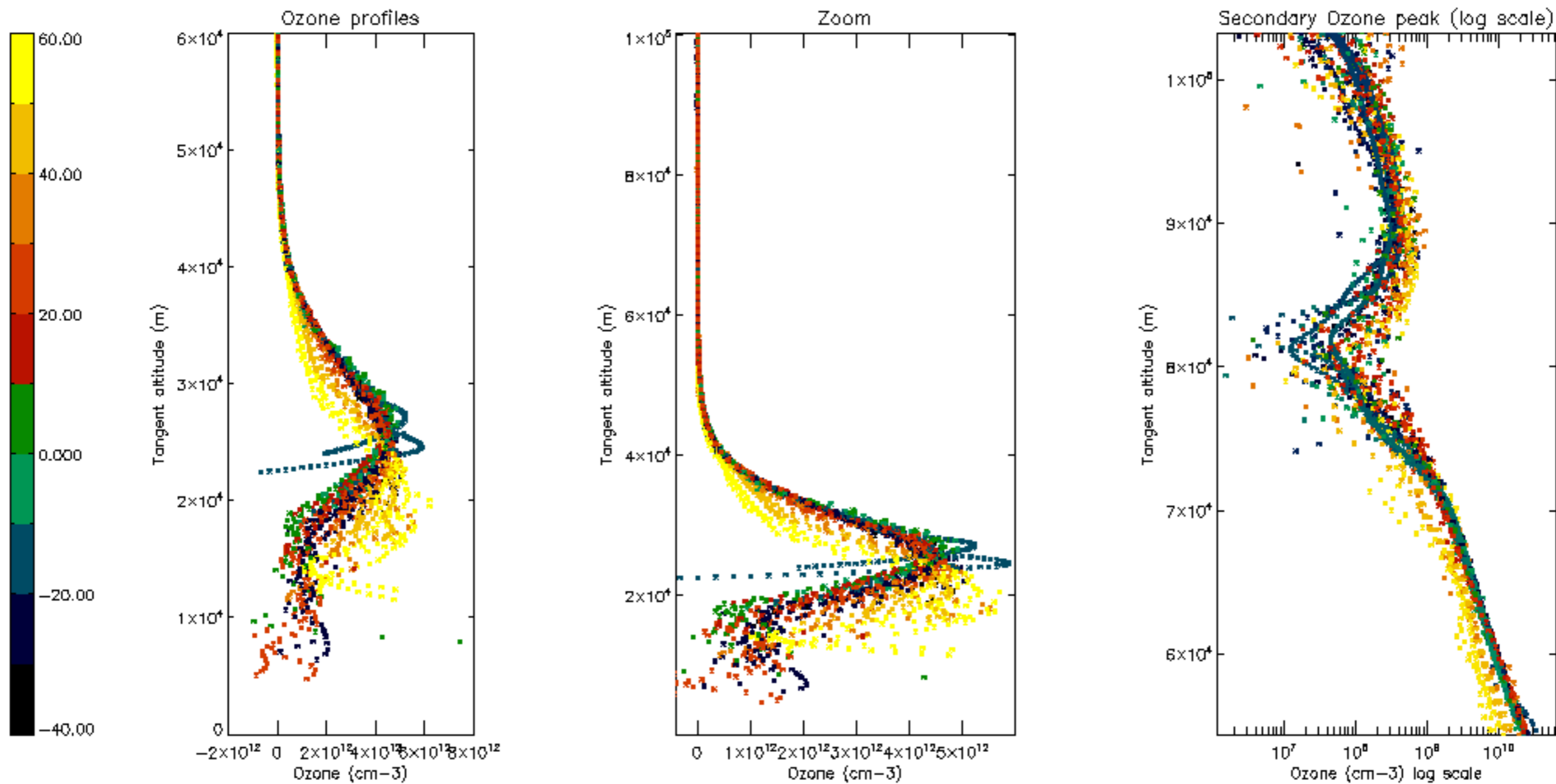
Percentage of star falling outside central band per profile

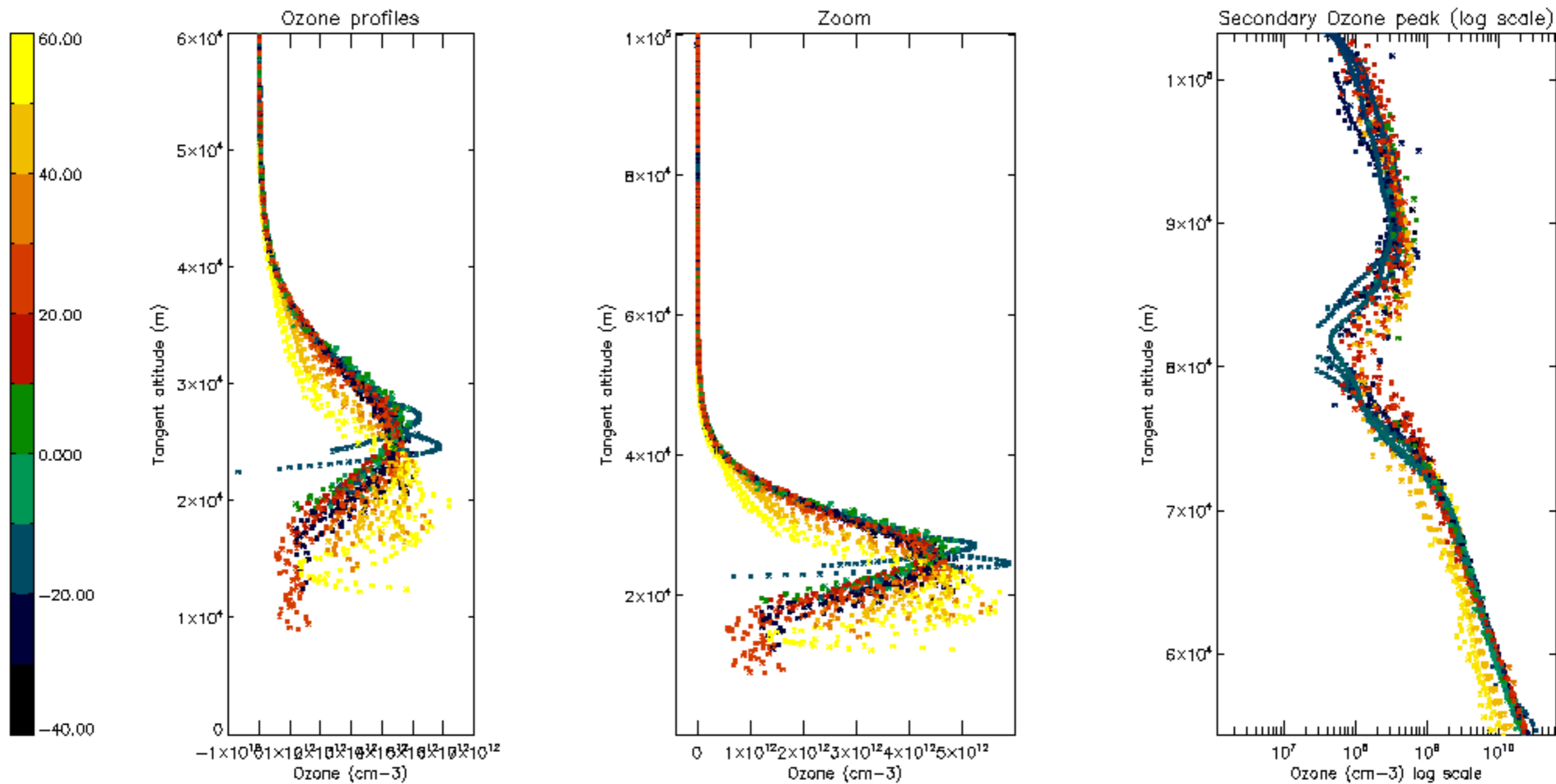


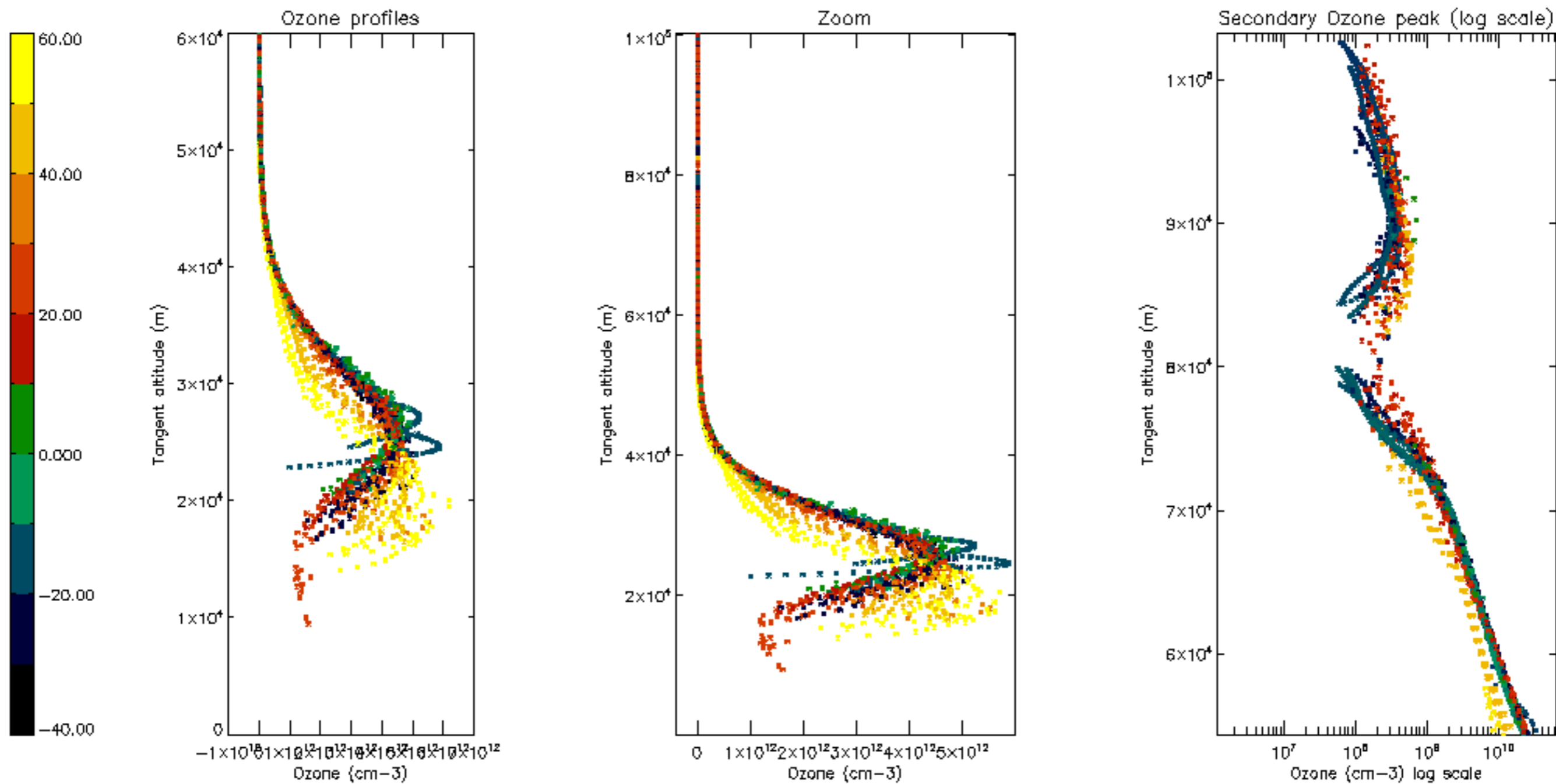
Percentage of saturation errors per profile

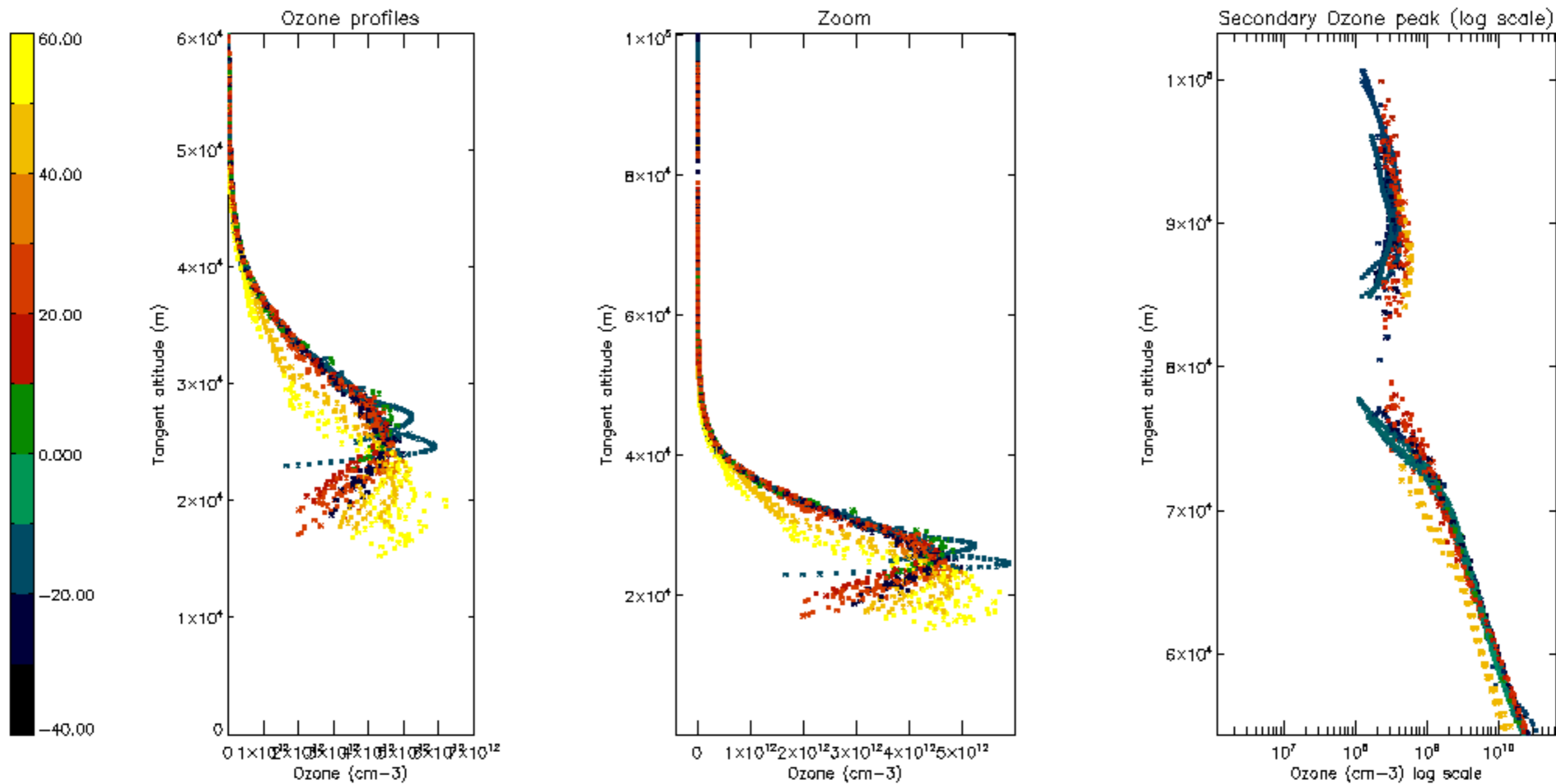


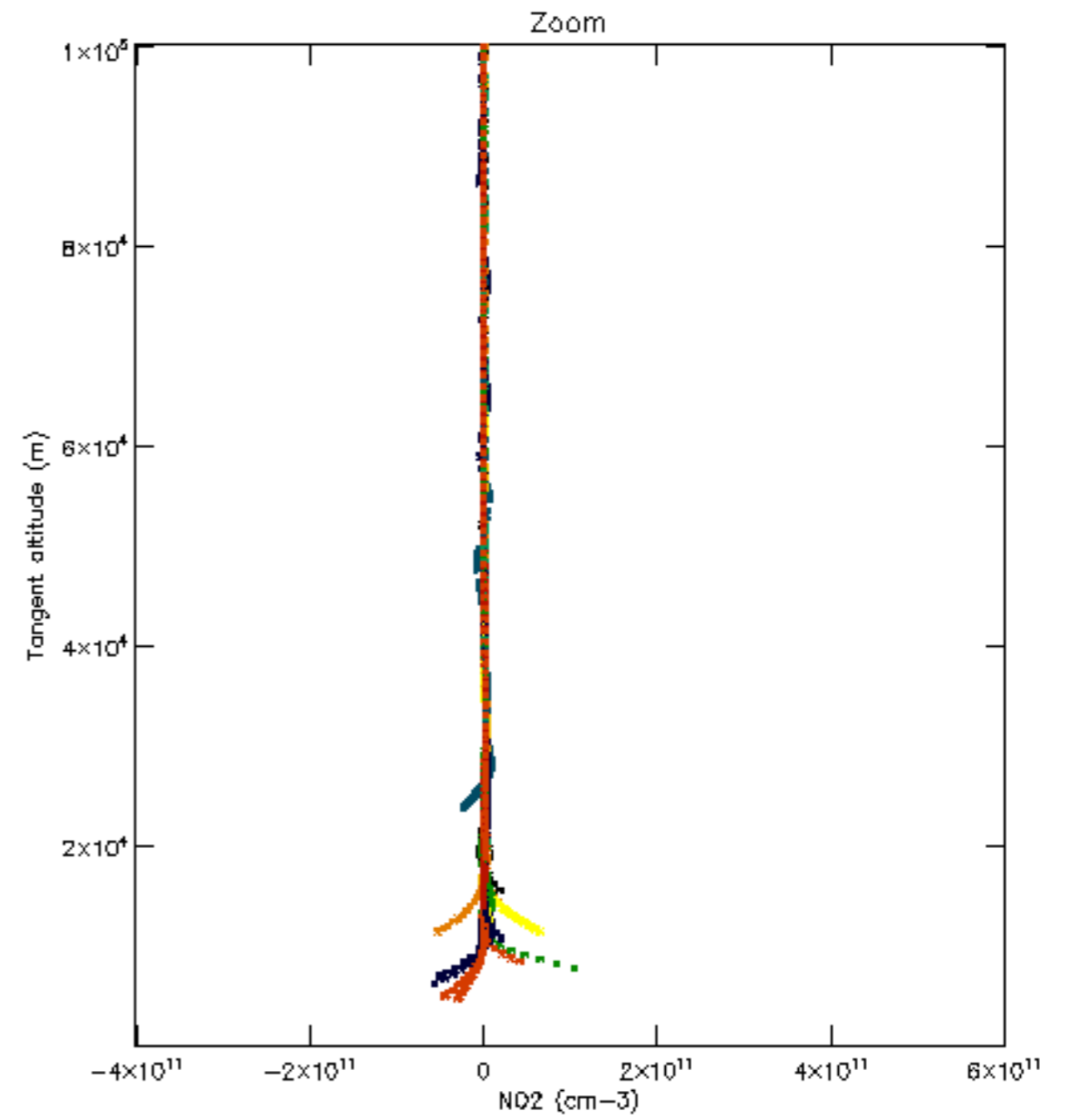
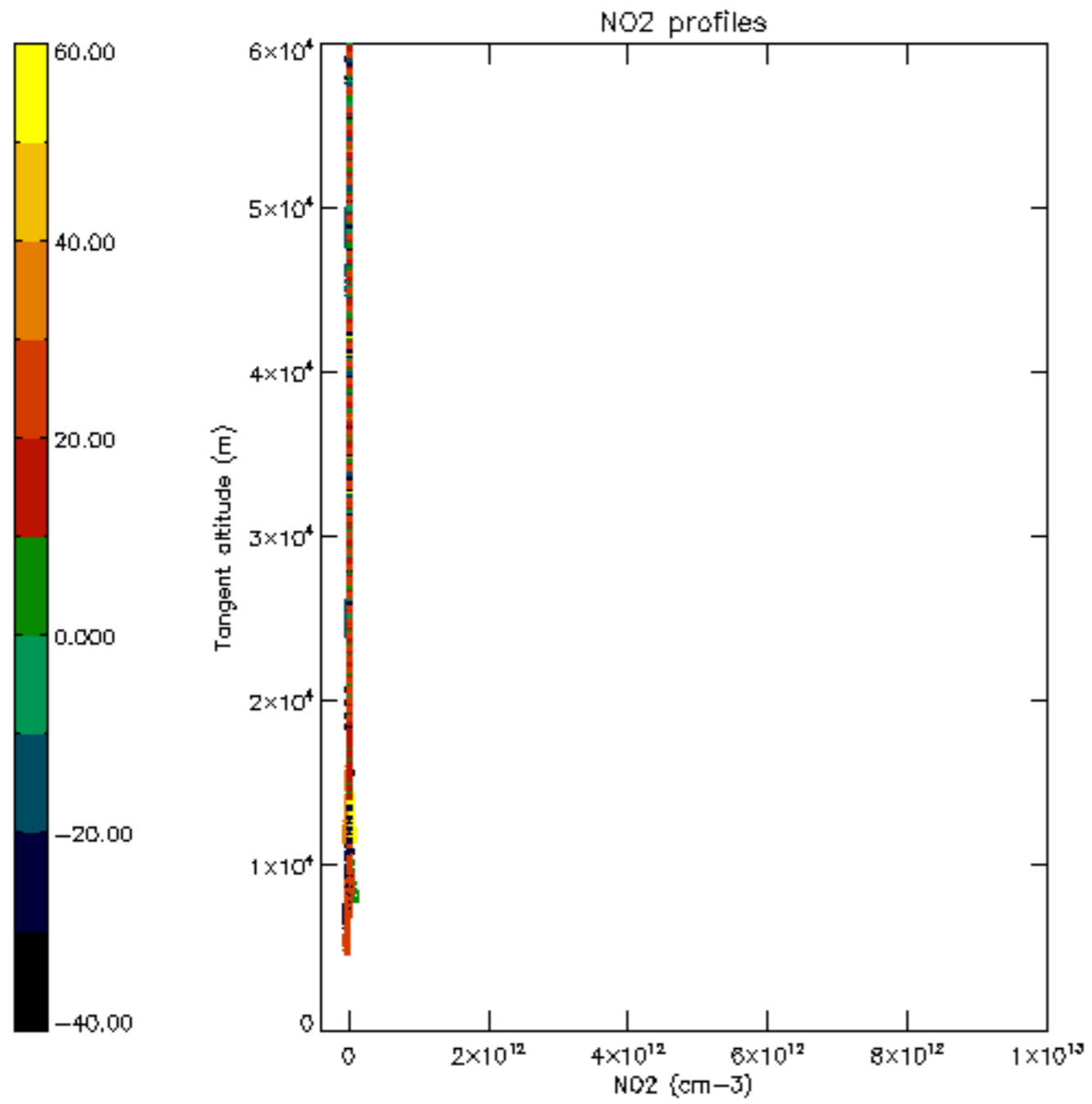


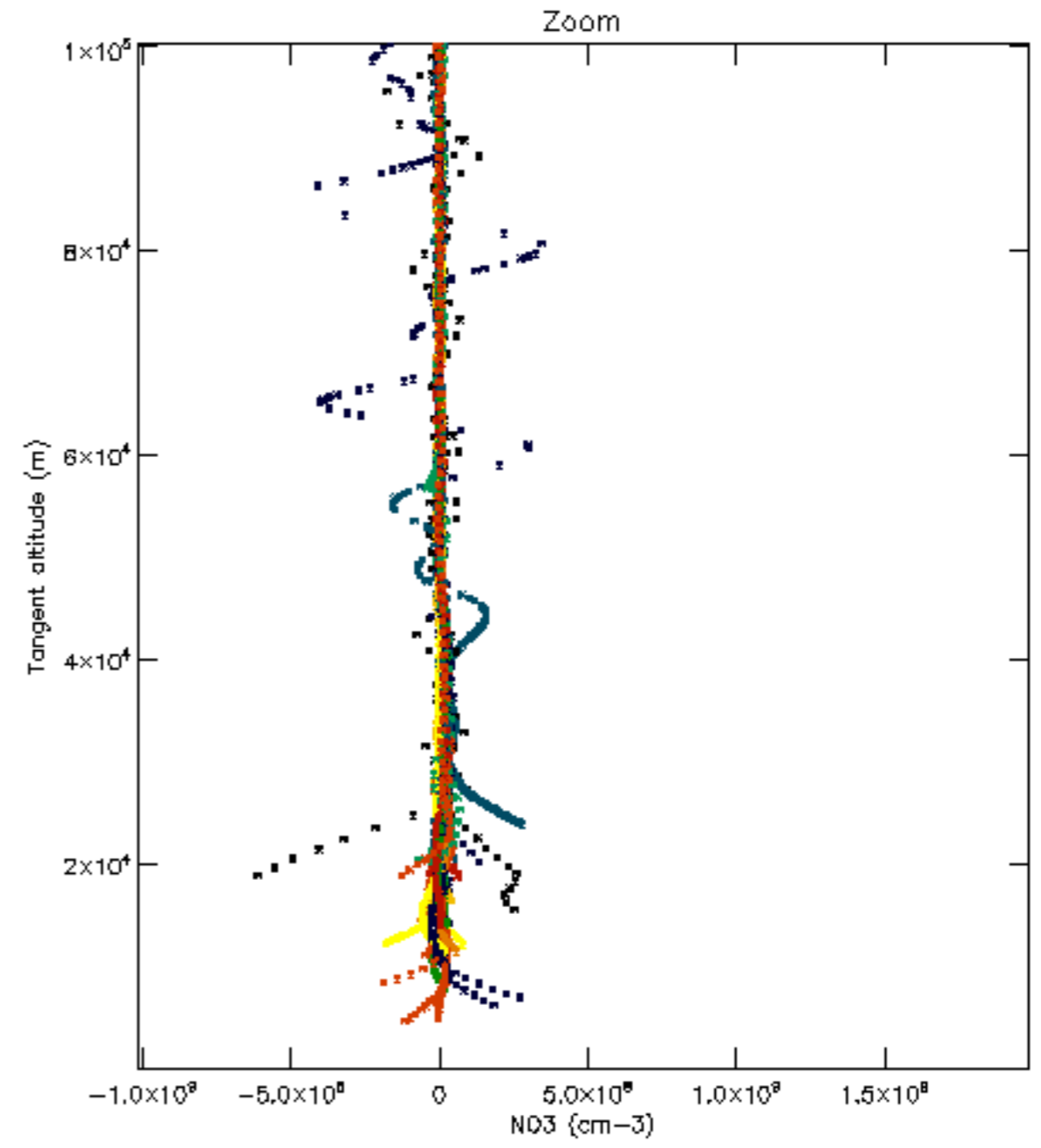
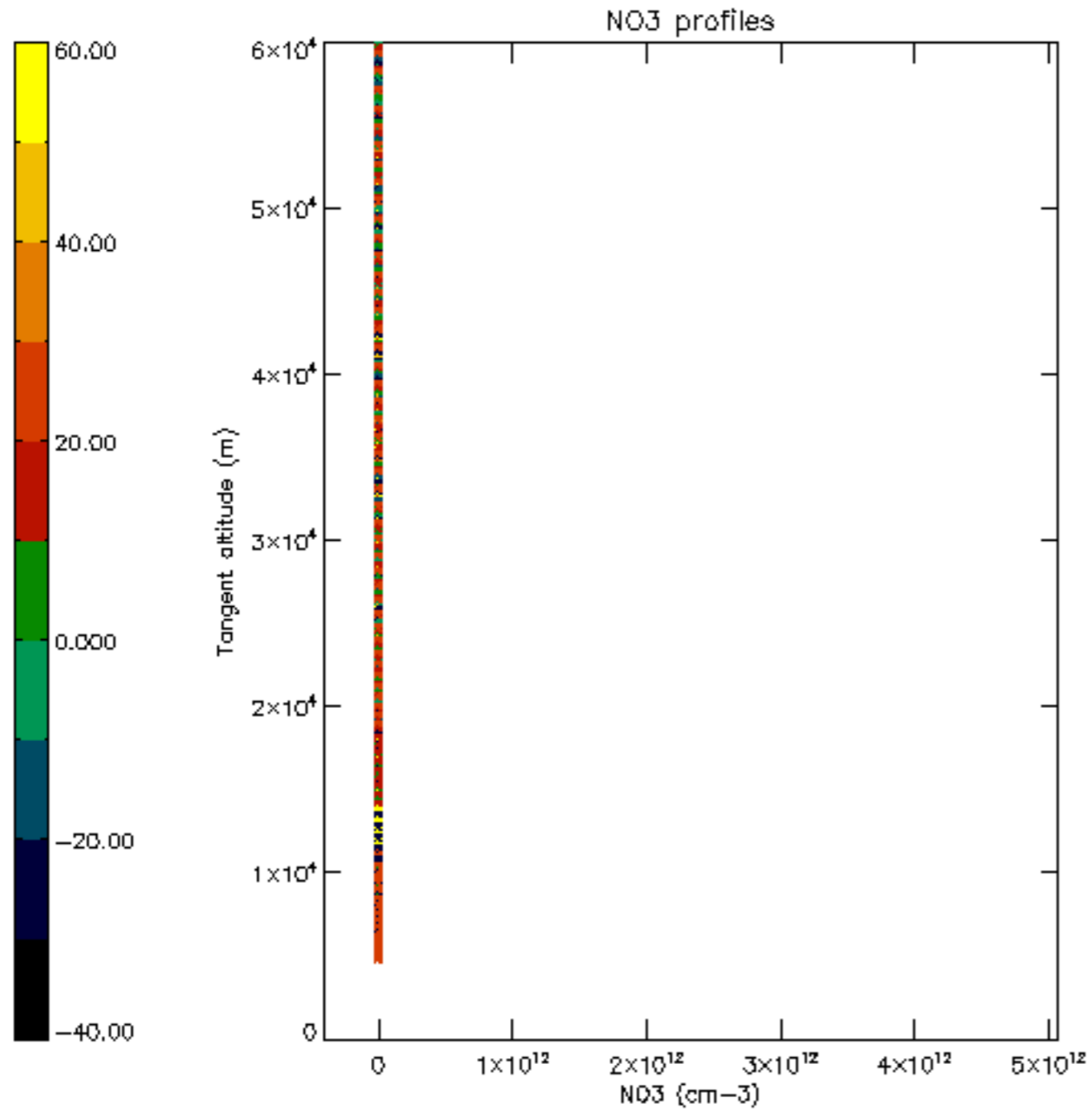


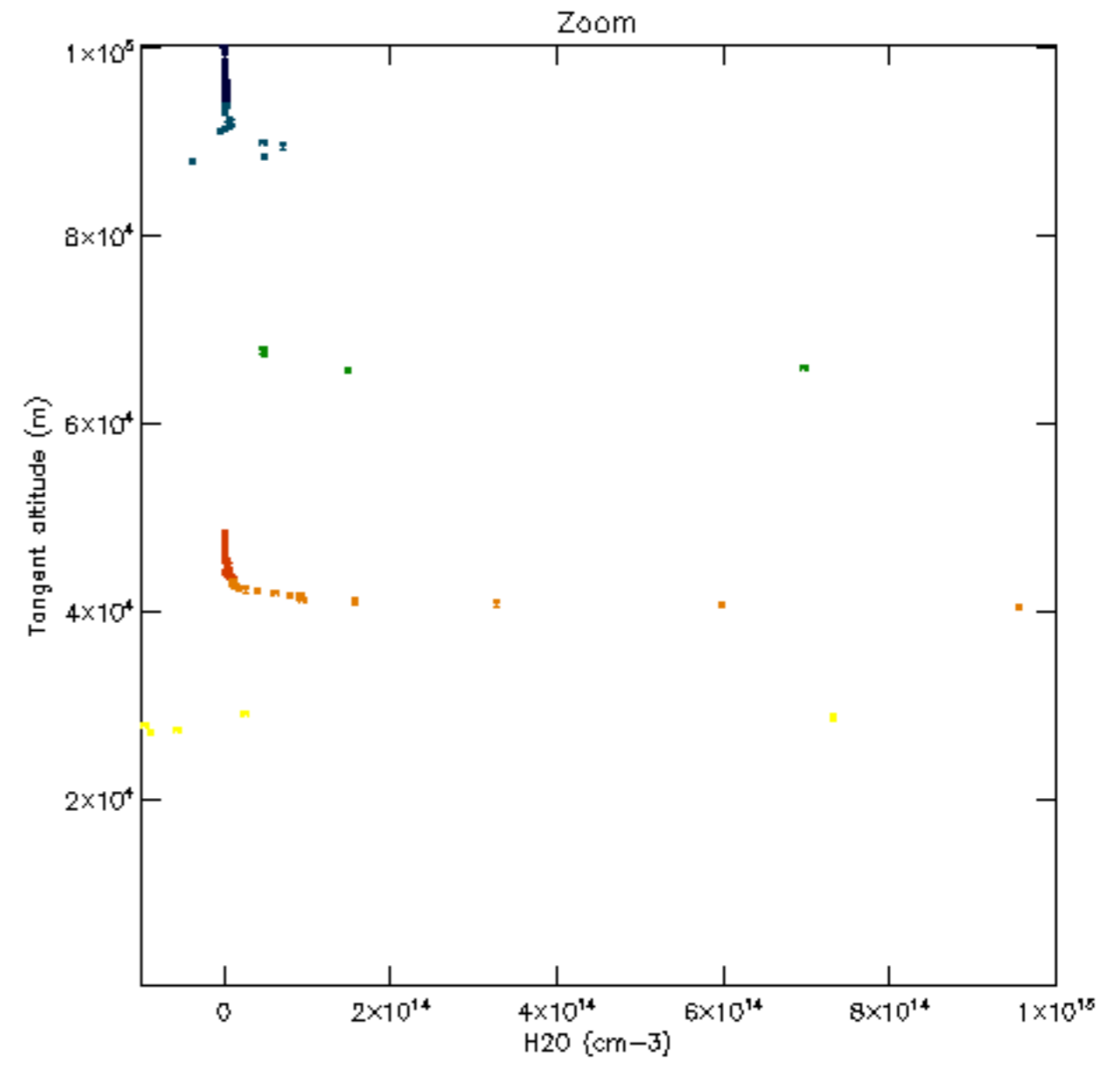
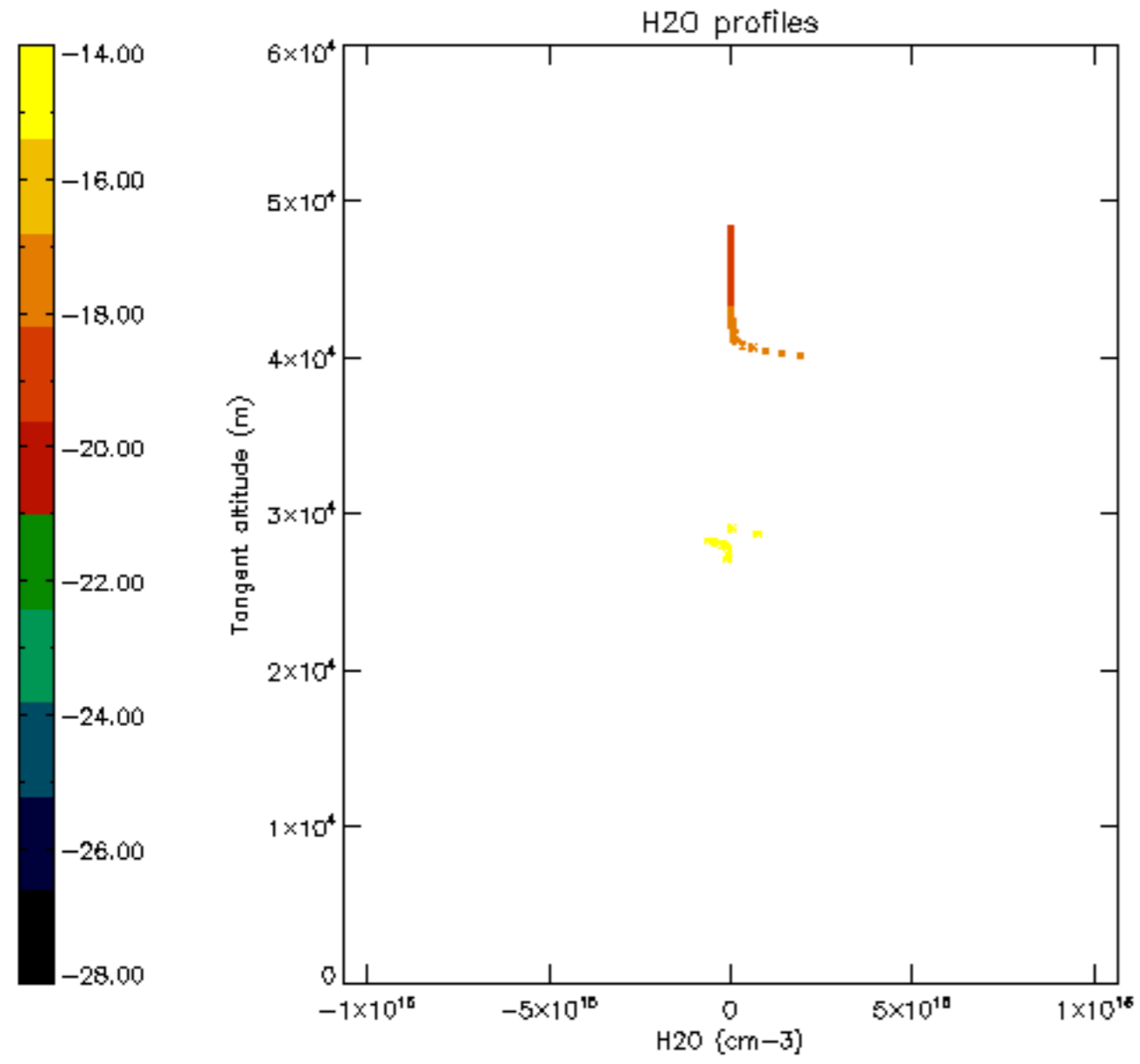


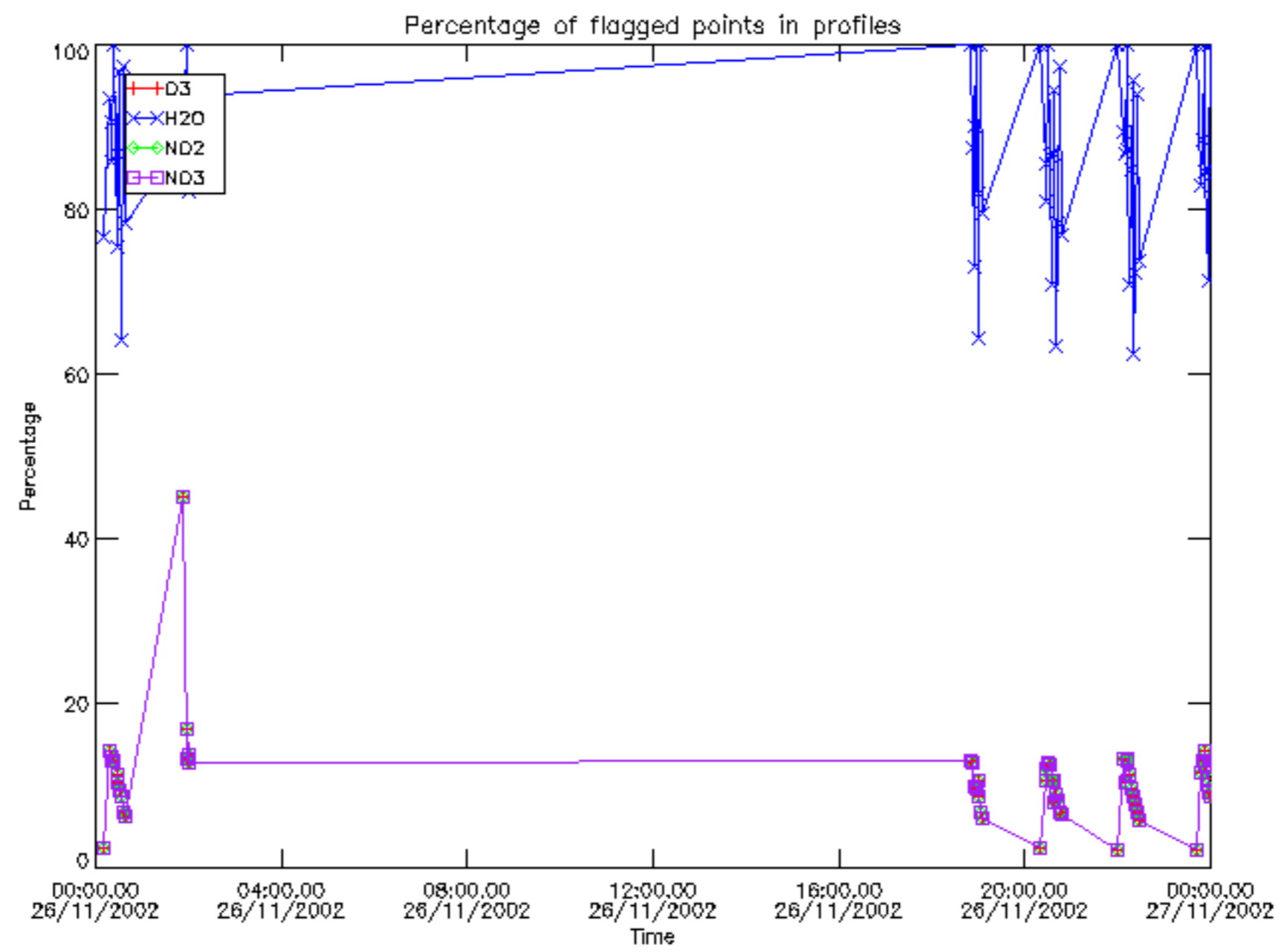






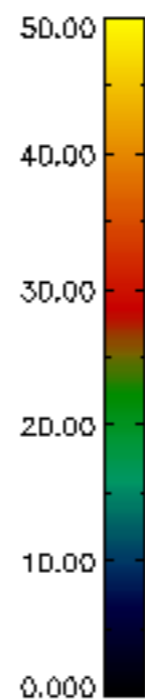
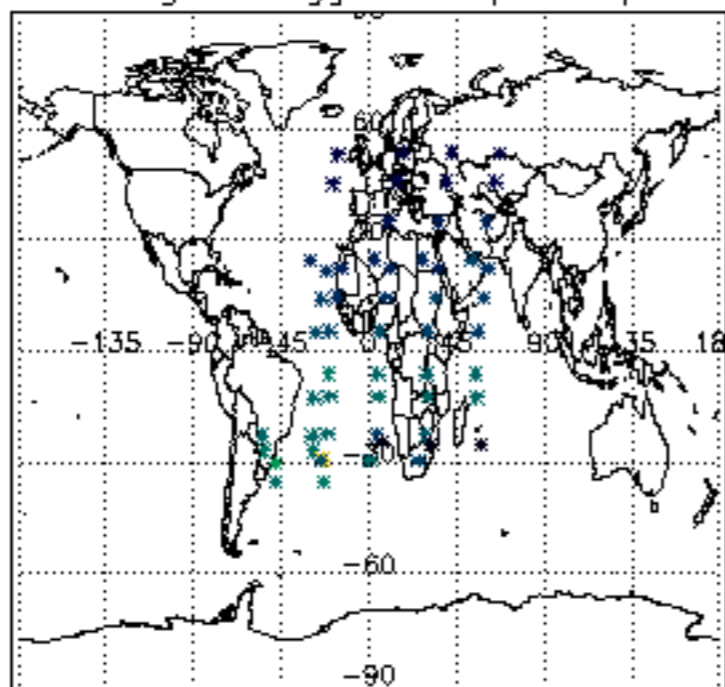




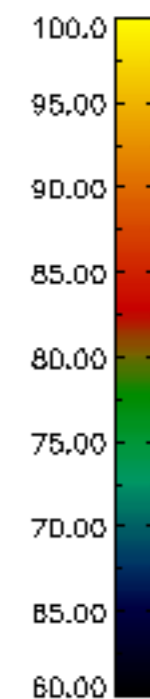
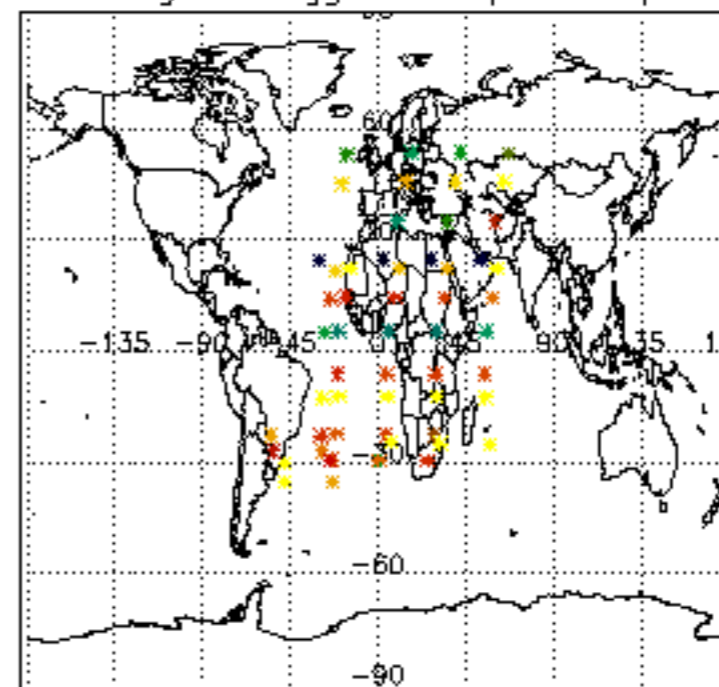




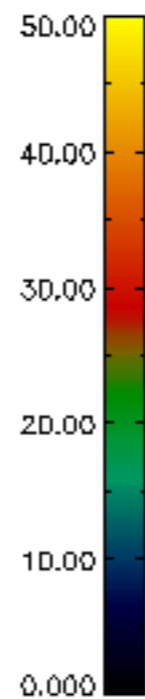
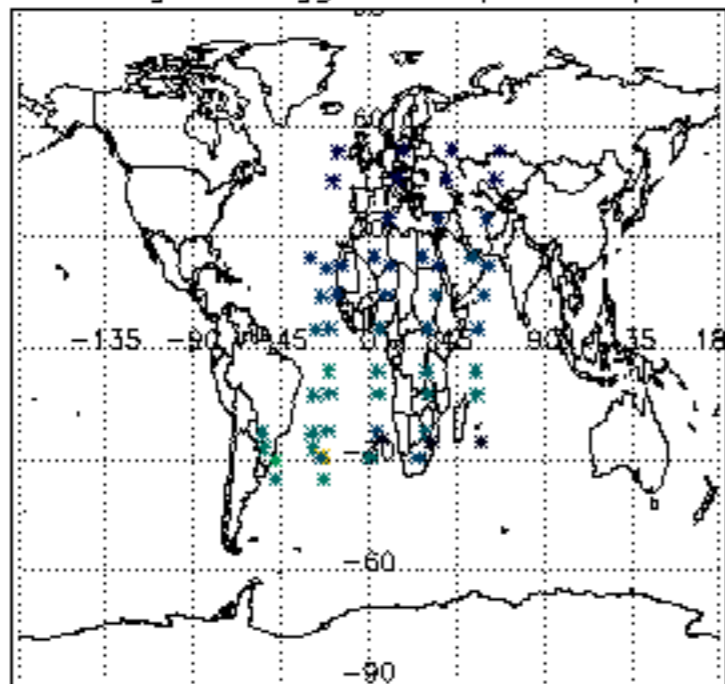
Percentage of flagged data per D3 profile



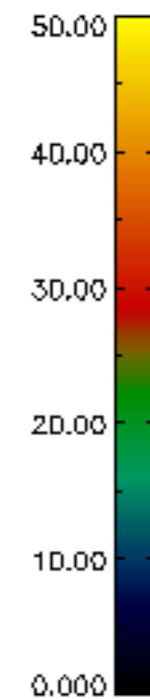
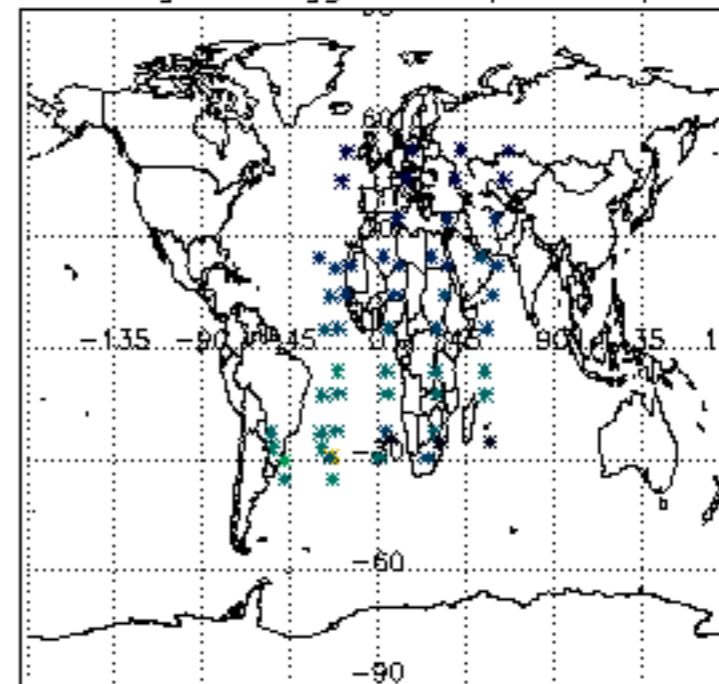
Percentage of flagged data per H2O profile

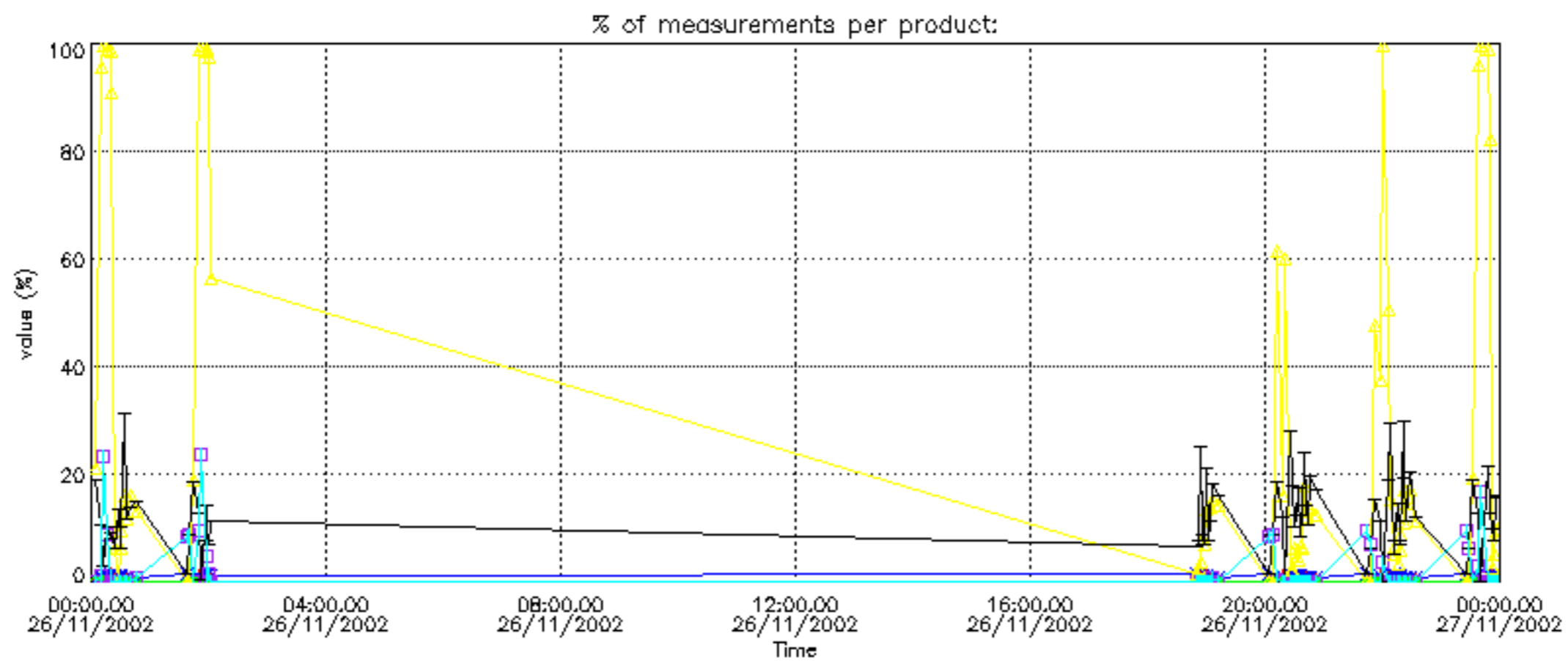
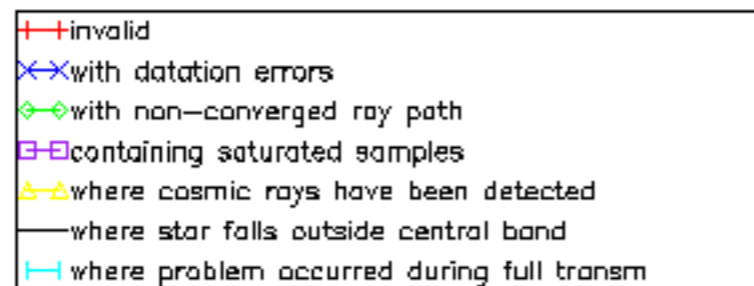


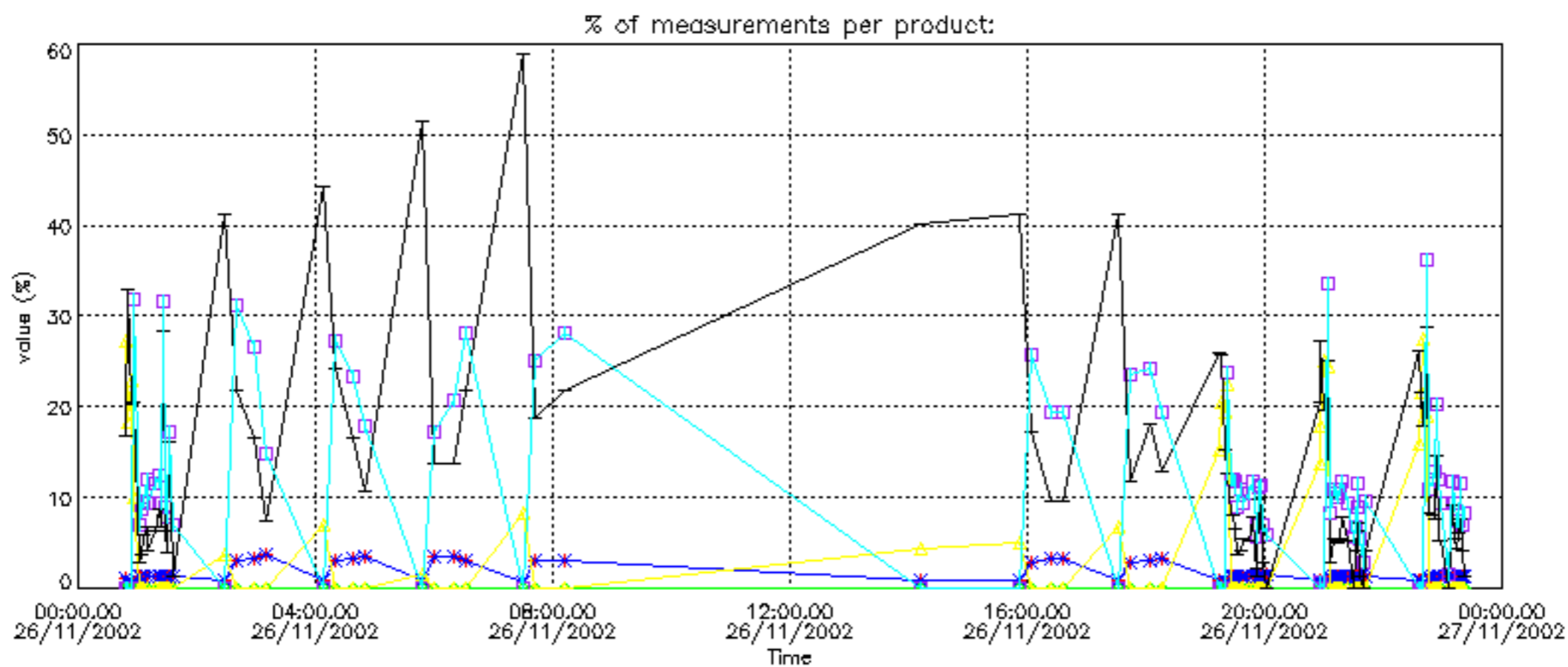
Percentage of flagged data per NO2 profile



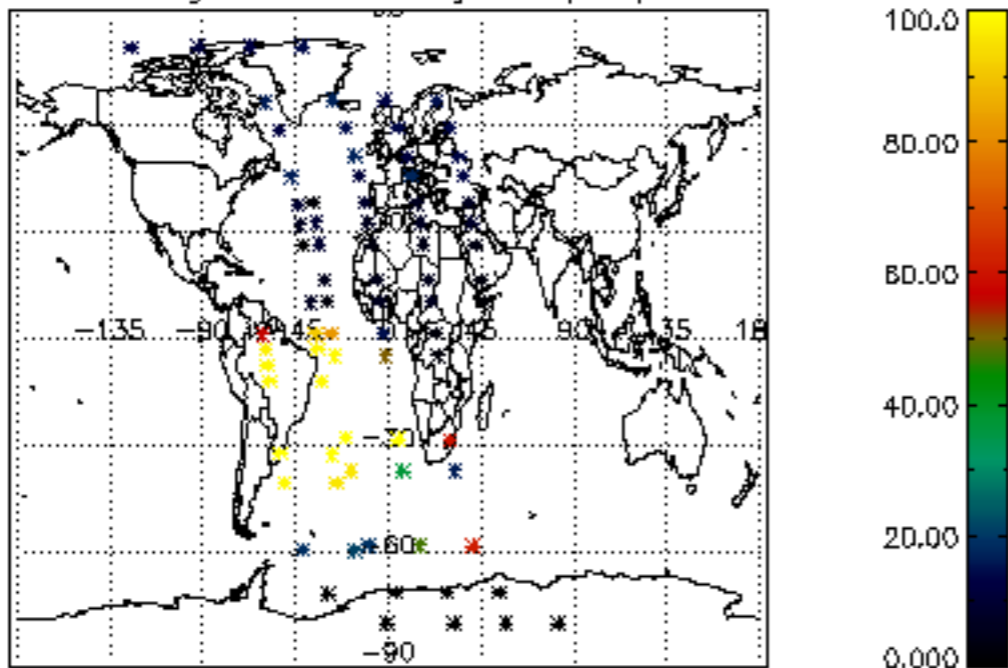
Percentage of flagged data per NO3 profile



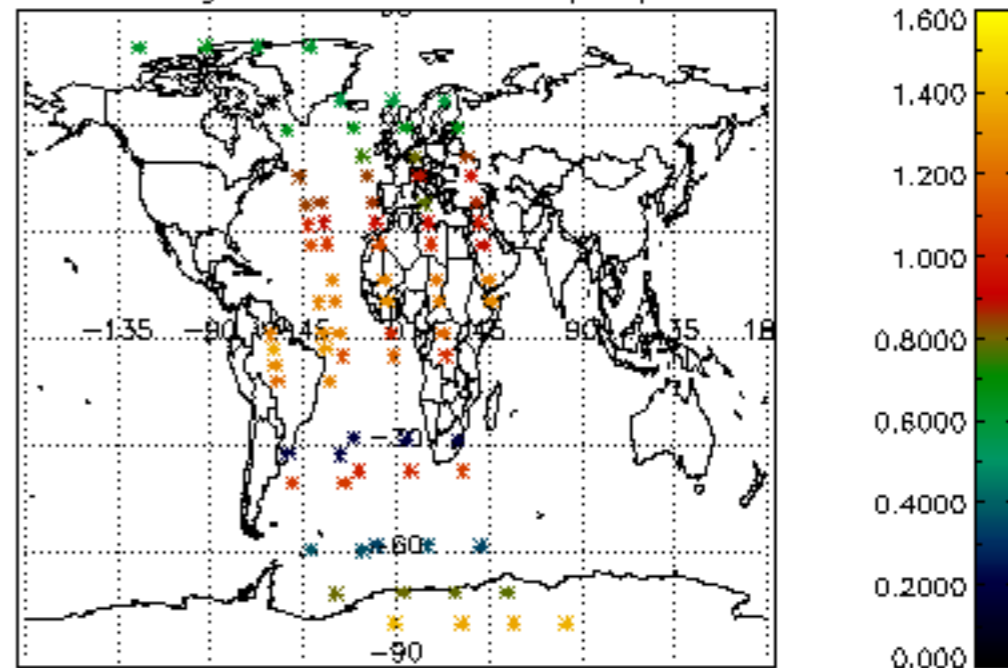




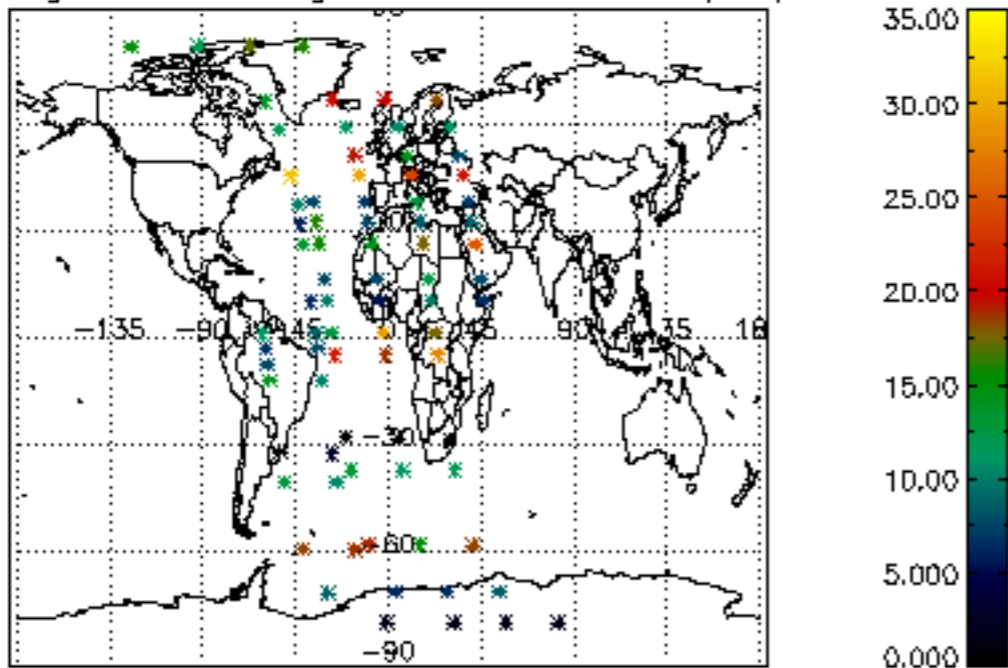
Percentage of cosmic ray hits per profile



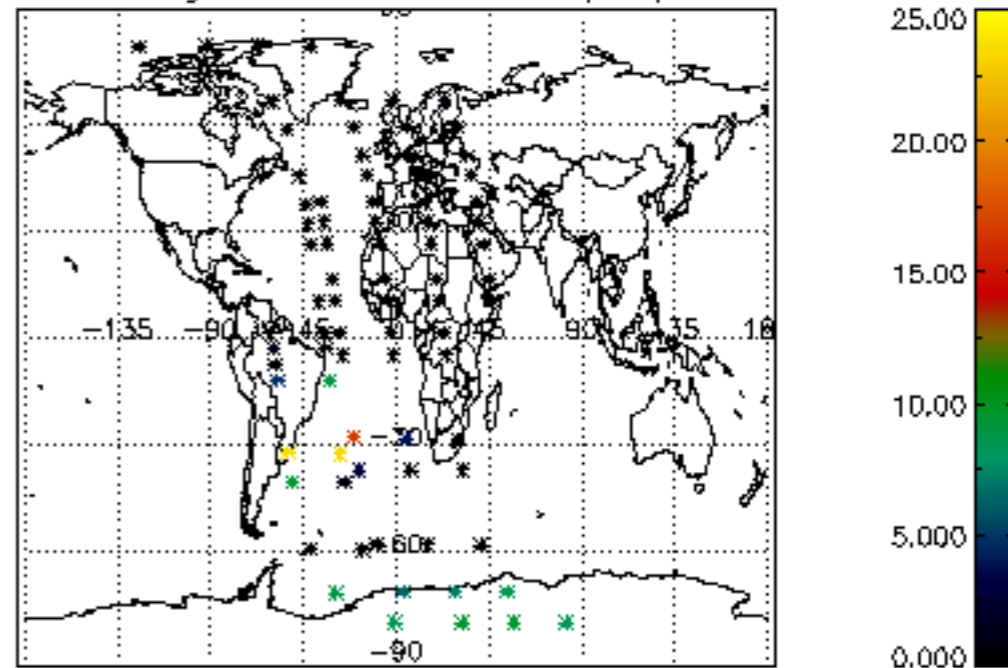
Percentage of datation errors per profile



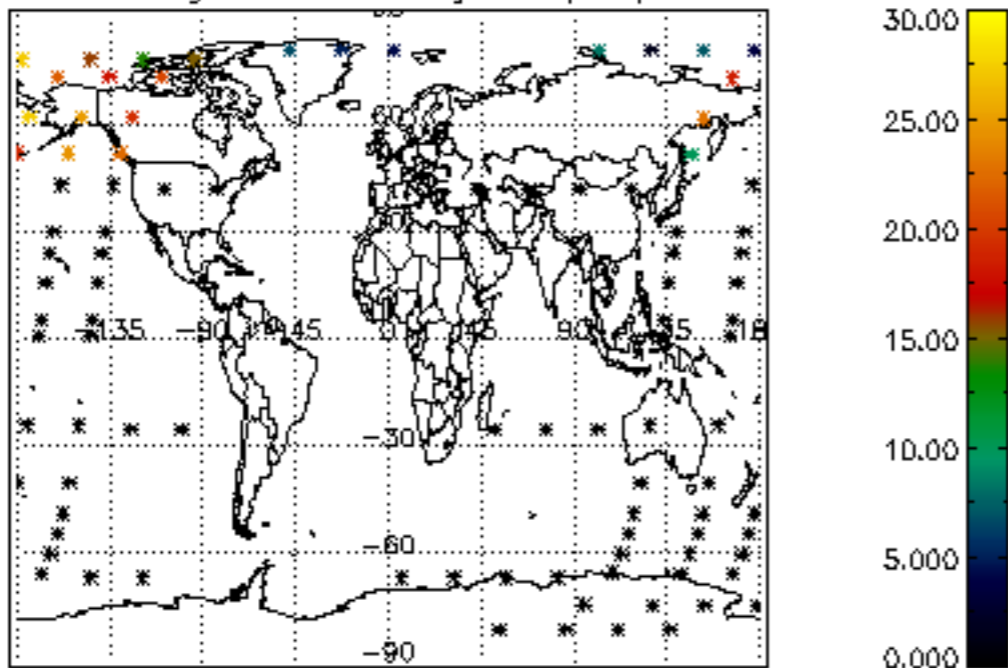
Percentage of star falling outside central band per profile



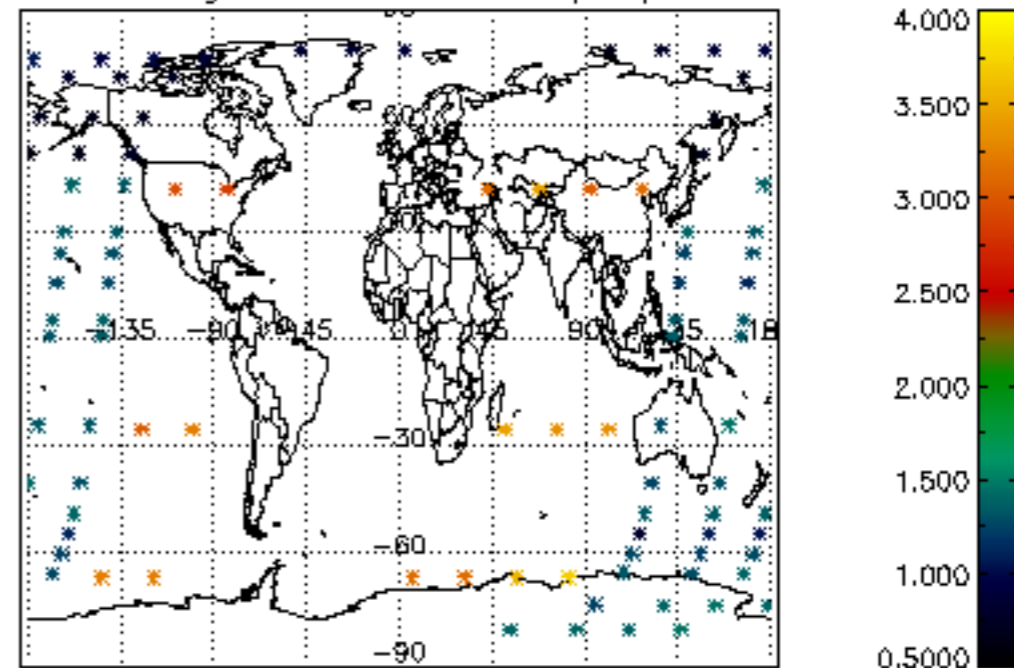
Percentage of saturation errors per profile



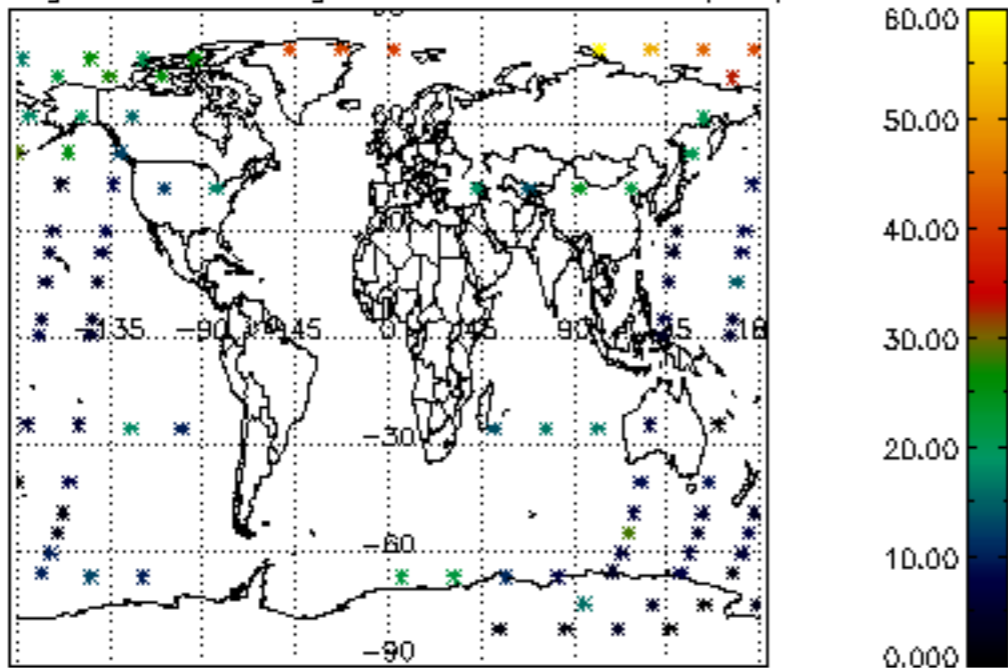
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

